



TEST REPORT

FOR SAR TESTING

Report No.: SRTC2017-9004(F)-0046

Product Name: Mobile Phone

Product Model: Hisense F10

Applicant: Hisense International Co., Ltd.

Manufacturer: Hisense Communications Co., Ltd.

Specification: FCC Part 2.1093

IEEE Std 1528-2013

FCC RF Exposure KDB Procedures

FCC ID: 2AD0BF10

The State Radio_monitoring_center Testing Center (SRTC)

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1. GENERAL INFORMATION

1.1 Notes of the test report

The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written permission of The State Radio_monitoring_center Testing Center (SRTC).

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

1.2 Information about the testing laboratory

Company:	The State Radio_monitoring_center Testing Center (SRTC)
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1.3 Applicant's details

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1.4 Manufacturer's details

Company:	Hisense Communications Co., Ltd.
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Fax:	---
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1.5 Test Environment

Date of Receipt of test sample at SRTC:	2017.05.02
Testing Start Date:	2017.05.02
Testing End Date:	2017.05.04

Environmental Data:	Temperature (°C)	Humidity (%)
Ambient	24.0	30.0

Normal Supply Voltage (V d.c.):	3.80
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2. DESCRIPTION OF THE DEVICE UNDER TEST

2.1 Final Equipment Build Status

Wireless Technology and Frequency Bands	GSM Band : GSM850/PCS1900 WCDMA Band: FDD2/4/5 LTE Band: FDD2/4/5/7 Wi-Fi Band: 2400MHz~2483.5MHz Bluetooth Band: 2400MHz~2483.5MHz
Mode	GSM <input checked="" type="checkbox"/> Voice (GMSK) <input checked="" type="checkbox"/> GPRS (GMSK) <input checked="" type="checkbox"/> EGPRS (GMSK/8PSK) WCDMA <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"/> HSPA+ (Rel.) <input type="checkbox"/> DC-HSDPA (Rel.) LTE <input checked="" type="checkbox"/> QPSK <input checked="" type="checkbox"/> 16QAM Wi-Fi 2.4GHz <input checked="" type="checkbox"/> 802.11b <input checked="" type="checkbox"/> 802.11g <input checked="" type="checkbox"/> 802.11n (20MHz) <input type="checkbox"/> 802.11n (40MHz) Bluetooth <input checked="" type="checkbox"/> BR(GFSK) <input checked="" type="checkbox"/> EDR($\pi/4$ DQPSK , 8-DPSK) <input checked="" type="checkbox"/> BLE(GFSK)
Duty Cycle	GSM Voice: 12.5%; GPRS: 12.5% (1 Slot), 25% (2 Slots), 37.5% (3 Slots), 50% (4 Slots) WCDMA: 100% Wi-Fi 802.11b/g/n: 100% Bluetooth: 32.25% (DH1), 66.68% (DH3), 77.52% (DH5)
GPRS Multi-Slot Class	<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	<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 Support Equipment

The following support equipment was used to exercise the DUT during testing:

State of sample	Production unit
Headset	PY-1309102-05KD45/ DONGGUAN HETONG INDUSTRIAL CO.,LTD
Batteries	Battery1 :LIW38238/TMB Battery2 :LIW38238/VEKEN
H/W Version S/W Version	V1.00 L1402.6.01.01.MX06
IMEI	863721030069527
Notes	As the information described above, there is only one model of the batteries manufactured by two different companies. The relevant tests have been performed in order to verify in which combination case 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 TMB.

3. REFERENCE SPECIFICATION

Specification	Version	Title
Part 2.1093	Nov. 14, 2016	Radiofrequency radiation exposure evaluation: portable devices.
IEEE Std 1528	2013	IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
IEEE Std 1528a	2005	IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques Amendment 1: CAD File for Human Head Model (SAM Phantom)
KDB 447498 D01	v06	General RF Exposure Guidance
KDB 648474 D04	v01r03	Handset SAR
KDB 941225 D01	v03r01	3G SAR Procedures
KDB 941225 D06	v02r01	Hotspot Mode
KDB 248227 D01	v02r02	SAR meas for 802.11 a b g
KDB 865664 D01	v01r04	SAR Measurement 100 MHz to 6 GHz
KDB 865664 D02	v01r02	RF Exposure Reporting
KDB 941225 D05	v02r05	SAR for LTE Devices

4. TEST CONDITIONS

4.1 Picture to demonstrate the required liquid depth

The liquid depth in the used SAM phantoms



Liquid depth for SAR Measurement

4.2 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.

4.3 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 Win7 system and SAR Measurement Software DASY5 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.

4.4 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 - 2013.

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.

4.5 Tissue Simulants

Recommended values for the dielectric parameters of the tissue simulants are given in IEEE 1528 - 2013 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.

4.5.1 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	1.00	1.00
Preventol	0.10	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

5GHz band

Ingredient	Head (% by weight)	Body (% by weight)
Water	65.52	---
Triton X-100	17.24	---
Diethylenglycol monohexylether	17.24	---

4.6 DESCRIPTION OF THE TEST PROCEDURE

4.6.1 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

4.6.2 Test positions

4.6.2.1 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 - 2013 "IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques".

4.6.2.2 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.

4.6.3 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 × 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.

4.6.4 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 DASY5 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.

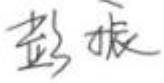
5 RESULT SUMMARY

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.

Exposure Position	Frequency Band	1g-SAR Reported Result (W/kg)	Highest 1g-SAR Reported Result (W/kg)	Limit (W/kg)/1g	Result
Head	GSM 850	0.322	0.509		
	GSM 1900	0.269			
	WCDMA BAND 2	0.508			
	WCDMA BAND 4	0.509			
	WCDMA BAND 5	0.196			
	LTE Band 2	0.464			
	LTE Band 4	0.432			
	LTE Band 5	0.155			
	LTE Band 7	0.073			
Body	GSM 850	0.953	1.012	1.012	PASS
	GSM 1900	0.981			
	WCDMA BAND 2	0.781			
	WCDMA BAND 4	1.012			
	WCDMA BAND 5	0.468			
	LTE Band 2	0.934			
	LTE Band 4	0.527			
	LTE Band 5	0.310			
	LTE Band 7	0.850			
Hotspot	GSM 850	0.858	0.858		
	GSM 1900	0.569			
	WCDMA BAND 2	0.738			
	WCDMA BAND 4	0.538			
	WCDMA BAND 5	0.159			
	LTE Band 2	0.396			
	LTE Band 4	0.392			
	LTE Band 5	0.352			
	LTE Band 7	0.600			

Simultaneous Transmission Summary

Exposure Position	Frequency Band	1g-SAR Result(W/kg)	Highest 1g-SAR Result(W/kg)	Limit (W/kg)/1g	Result
Head	GSM & Wi-Fi	0.739	0.926	1.6	PASS
	WCDMA & Wi-Fi	0.926			
	LTE& Wi-Fi	0.881			
	GSM & Bluetooth	0.355			
	WCDMA & Bluetooth	0.542			
	LTE& Bluetooth	0.497			
Body	GSM & Wi-Fi	1.398	1.429	1.6	PASS
	WCDMA & Wi-Fi	1.429			
	LTE& Wi-Fi	1.351			
	GSM & Bluetooth	1.014			
	WCDMA & Bluetooth	1.045			
	LTE& Bluetooth	0.967			
Hotspot	GSM & Wi-Fi	1.275	1.275	1.6	PASS
	WCDMA & Wi-Fi	1.155			
	LTE& Wi-Fi	1.017			
	GSM & Bluetooth	0.891			
	WCDMA & Bluetooth	0.771			
	LTE& Bluetooth	0.633			

This Test Report Is Issued by: Mr. Peng Zhen 	Checked by: Ms. Liu Jia 
Tested by: Mr. Li Bin 	Issued date: 20170512

6 TEST RESULT

6.1 Manufacturing Tolerance

GSM

GSM 850			
Channel	Channel 128	Channel 189	Channel 251
Tolerance (dBm)	30.0~34.0	30.0~34.0	30.0~34.0
GSM 1900			
Channel	Channel 512	Channel 661	Channel 810
Tolerance (dBm)	27.0~31.0	27.0~31.0	27.0~31.0

GSM 850 GPRS

Channel		128	189	251
1 Txslot	Tolerance (dBm)	30.0~34.0	30.0~34.0	30.0~34.0
2 Txslot	Tolerance (dBm)	28.0~32.0	28.0~32.0	28.0~32.0
3 Txslot	Tolerance (dBm)	27.0~31.0	27.0~31.0	27.0~31.0
4 Txslot	Tolerance (dBm)	25.0~29.0	25.0~29.0	25.0~29.0

GSM 850 EGPRS (GMSK)

Channel		128	189	251
1 Txslot	Tolerance (dBm)	30.0~34.0	30.0~34.0	30.0~34.0
2 Txslot	Tolerance (dBm)	28.0~32.0	28.0~32.0	28.0~32.0
3 Txslot	Tolerance (dBm)	27.0~31.0	27.0~31.0	27.0~31.0
4 Txslot	Tolerance (dBm)	25.0~29.0	25.0~29.0	25.0~29.0

GSM 1900 GPRS

Channel		512	661	810
1 Txslot	Tolerance (dBm)	27.0~31.0	27.0~31.0	27.0~31.0
2 Txslot	Tolerance (dBm)	26.0~30.0	26.0~30.0	26.0~30.0
3 Txslot	Tolerance (dBm)	24.0~28.0	24.0~28.0	24.0~28.0
4 Txslot	Tolerance (dBm)	22.0~26.0	22.0~26.0	22.0~26.0

GSM 1900 EGPRS (GMSK)

Channel		512	661	810
1 Txslot	Tolerance (dBm)	27.0~31.0	27.0~31.0	27.0~31.0
2 Txslot	Tolerance (dBm)	26.0~30.0	26.0~30.0	26.0~30.0
3 Txslot	Tolerance (dBm)	24.0~28.0	24.0~28.0	24.0~28.0
4 Txslot	Tolerance (dBm)	22.0~26.0	22.0~26.0	22.0~26.0

WCDMA

WCDMA Band2			
Channel	9262	9400	9538
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
WCDMA Band4			
Channel	1312	1412	1513
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
WCDMA Bands5			
Channel	4132	4183	4233
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0

HSDPA Band2

Channel		9262	9400	9538
Sub test 1	Tolerance (dBm)	18.0~22.0	18.0~22.0	18.0~22.0
Sub test 2	Tolerance (dBm)	18.0~22.0	18.0~22.0	18.0~22.0
Sub test 3	Tolerance (dBm)	18.0~22.0	18.0~22.0	18.0~22.0
Sub test 4	Tolerance (dBm)	18.0~22.0	18.0~22.0	18.0~22.0
HSDPA Band4				
Channel		1312	1412	1513
Sub test 1	Tolerance (dBm)	18.0~22.0	18.0~22.0	18.0~22.0
Sub test 2	Tolerance (dBm)	18.0~22.0	18.0~22.0	18.0~22.0
Sub test 3	Tolerance (dBm)	18.0~22.0	18.0~22.0	18.0~22.0
Sub test 4	Tolerance (dBm)	18.0~22.0	18.0~22.0	18.0~22.0
HSDPA Band5				
Channel		4132	4183	4233
Sub test 1	Tolerance (dBm)	18.0~22.0	18.0~22.0	18.0~22.0
Sub test 2	Tolerance (dBm)	18.0~22.0	18.0~22.0	18.0~22.0
Sub test 3	Tolerance (dBm)	18.0~22.0	18.0~22.0	18.0~22.0
Sub test 4	Tolerance (dBm)	18.0~22.0	18.0~22.0	18.0~22.0

HSUPA Band2

Channel		9262	9400	9538
Sub test 1	Tolerance (dBm)	18.0~22.0	18.0~22.0	18.0~22.0
Sub test 2	Tolerance (dBm)	18.0~22.0	18.0~22.0	18.0~22.0
Sub test 3	Tolerance (dBm)	18.0~22.0	18.0~22.0	18.0~22.0
Sub test 4	Tolerance (dBm)	17.0~21.0	17.0~21.0	17.0~21.0
Sub test 5	Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0

HSUPA Band4				
Channel		1312	1412	1513
Sub test 1	Tolerance (dBm)	18.0~22.0	18.0~22.0	18.0~22.0
Sub test 2	Tolerance (dBm)	18.0~22.0	18.0~22.0	18.0~22.0
Sub test 3	Tolerance (dBm)	18.0~22.0	18.0~22.0	18.0~22.0
Sub test 4	Tolerance (dBm)	17.0~21.0	17.0~21.0	17.0~21.0
Sub test 5	Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
HSUPA Band5				
Channel		4132	4183	4233
Sub test 1	Tolerance (dBm)	18.0~22.0	18.0~22.0	18.0~22.0
Sub test 2	Tolerance (dBm)	18.0~22.0	18.0~22.0	18.0~22.0
Sub test 3	Tolerance (dBm)	18.0~22.0	18.0~22.0	18.0~22.0
Sub test 4	Tolerance (dBm)	17.0~21.0	17.0~21.0	17.0~21.0
Sub test 5	Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
Bluetooth				
GFSK				
Channel	0	39	78	
Tolerance (dBm)	-6.0~-2.0	-6.0~-2.0	-6.0~-2.0	
$\pi/4$ DQPSK				
Channel	0	39	78	
Tolerance (dBm)	-6.0~-2.0	-6.0~-2.0	-6.0~-2.0	
8DPSK				
Channel	0	39	78	
Tolerance (dBm)	-6.0~-2.0	-6.0~-2.0	-6.0~-2.0	
Bluetooth (BLE)				
GFSK				
Channel	0	39	78	
Tolerance (dBm)	-2.0~2.0	-2.0~2.0	-2.0~2.0	
Wi-Fi(2.4GHz)				
802.11b				
Channel	1	6	11	
Tolerance (dBm)	9.0~13.0	9.0~13.0	9.0~13.0	
802.11g				
Channel	1	6	11	
Tolerance (dBm)	8.0~12.0	8.0~12.0	8.0~12.0	
802.11n HT20				
Channel	1	6	11	
Tolerance (dBm)	8.0~12.0	8.0~12.0	8.0~12.0	

LTE

Band 2

20BW 100%RB			
Channel	Channel 18700	Channel 18900	Channel 19100
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
20BW 50%RB			
Channel	Channel 18700	Channel 18900	Channel 19100
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
20BW 1RB			
Channel	Channel 18700	Channel 18900	Channel 19100
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
15BW 100%RB			
Channel	Channel 18675	Channel 18900	Channel 19125
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
15BW 50%RB			
Channel	Channel 18675	Channel 18900	Channel 19125
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
15BW 1RB			
Channel	Channel 18675	Channel 18900	Channel 19125
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
10BW 100%RB			
Channel	Channel 18650	Channel 18900	Channel 19150
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
10BW 50%RB			
Channel	Channel 18650	Channel 18900	Channel 19150
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
10BW 1RB			
Channel	Channel 18650	Channel 18900	Channel 19150
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
5BW 100%RB			
Channel	Channel 18625	Channel 18900	Channel 19175
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
5BW 50%RB			
Channel	Channel 18625	Channel 18900	Channel 19175
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
5BW 1RB			
Channel	Channel 18625	Channel 18900	Channel 19175
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
3BW 100%RB			
Channel	Channel 18615	Channel 18900	Channel 19185
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
3BW 50%RB			
Channel	Channel 18615	Channel 18900	Channel 19185
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
3BW 1RB			
Channel	Channel 18615	Channel 18900	Channel 19185
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
1.4BW 100%RB			
Channel	Channel 18607	Channel 18900	Channel 19193
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
1.4BW 50%RB			
Channel	Channel 18607	Channel 18900	Channel 19193
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
1.4BW 1RB			
Channel	Channel 18607	Channel 18900	Channel 19193
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0

Band 4

20BW 100%RB			
Channel	Channel 20050	Channel 20175	Channel 20300
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
20BW 50%RB			
Channel	Channel 20050	Channel 20175	Channel 20300
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
20BW 1RB			
Channel	Channel 20050	Channel 20175	Channel 20300
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
15BW 100%RB			
Channel	Channel 20250	Channel 20175	Channel 20325
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
15BW 50%RB			
Channel	Channel 20250	Channel 20175	Channel 20325
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
15BW 1RB			
Channel	Channel 20250	Channel 20175	Channel 20325
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
10BW 100%RB			
Channel	Channel 20000	Channel 20175	Channel 20350
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
10BW 50%RB			
Channel	Channel 20000	Channel 20175	Channel 20350
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
10BW 1RB			
Channel	Channel 20000	Channel 20175	Channel 20350
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
5BW 100%RB			
Channel	Channel 19975	Channel 20175	Channel 20375
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
5BW 50%RB			
Channel	Channel 19975	Channel 20175	Channel 20375
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
5BW 1RB			
Channel	Channel 19975	Channel 20175	Channel 20375
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
3BW 100%RB			
Channel	Channel 19965	Channel 20175	Channel 20385
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
3BW 50%RB			
Channel	Channel 19965	Channel 20175	Channel 20385
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
3BW 1RB			
Channel	Channel 19965	Channel 20175	Channel 20385
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
1.4BW 100%RB			
Channel	Channel 19957	Channel 20175	Channel 20393
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
1.4BW 50%RB			
Channel	Channel 19957	Channel 20175	Channel 20393
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
1.4BW 1RB			
Channel	Channel 19957	Channel 20175	Channel 20393
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0

Band 5

10BW 100%RB			
Channel	Channel 20000	Channel 20175	Channel 20350
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
10BW 50%RB			
Channel	Channel 20000	Channel 20175	Channel 20350
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
10BW 1RB			
Channel	Channel 20000	Channel 20175	Channel 20350
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
5BW 100%RB			
Channel	Channel 19975	Channel 20175	Channel 20375
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
5BW 50%RB			
Channel	Channel 19975	Channel 20175	Channel 20375
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
5BW 1RB			
Channel	Channel 19975	Channel 20175	Channel 20375
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
3BW 100%RB			
Channel	Channel 19965	Channel 20175	Channel 20385
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
3BW 50%RB			
Channel	Channel 19965	Channel 20175	Channel 20385
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
3BW 1RB			
Channel	Channel 19965	Channel 20175	Channel 20385
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
1.4BW 100%RB			
Channel	Channel 19957	Channel 20175	Channel 20393
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
1.4BW 50%RB			
Channel	Channel 19957	Channel 20175	Channel 20393
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
1.4BW 1RB			
Channel	Channel 19957	Channel 20175	Channel 20393
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0

Band7

20BW 100%RB			
Channel	Channel 20850	Channel 21100	Channel 21350
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
20BW 50%RB			
Channel	Channel 20850	Channel 21100	Channel 21350
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
20BW 1RB			
Channel	Channel 20850	Channel 21100	Channel 21350
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
15BW 100%RB			
Channel	Channel 20825	Channel 21100	Channel 21375
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
15BW 50%RB			
Channel	Channel 20825	Channel 21100	Channel 21375
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
15BW 1RB			
Channel	Channel 20825	Channel 21100	Channel 21375
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
10BW 100%RB			
Channel	Channel 20800	Channel 21100	Channel 21400
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
10BW 50%RB			
Channel	Channel 20800	Channel 21100	Channel 21400
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
10BW 1RB			
Channel	Channel 20800	Channel 21100	Channel 21400
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
5BW 100%RB			
Channel	Channel 20775	Channel 21100	Channel 21425
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
5BW 50%RB			
Channel	Channel 20775	Channel 21100	Channel 21425
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0
5BW 1RB			
Channel	Channel 20775	Channel 21100	Channel 21425
Tolerance (dBm)	19.0~23.0	19.0~23.0	19.0~23.0

6.2 GSM Measurement result

GSM Measured Power

Mode	GSM850			GSM1900		
Channel	128	189	251	512	661	810
Frequency(MHz)	824.2	836.4	848.8	1850.2	1880.0	1909.8
Measured Power(dBm)	32.91	32.94	32.92	29.97	29.98	29.91

GPRS Measured Power

Mode	GPRS850			GPRS1900		
Channel	128	189	251	512	661	810
Frequency(MHz)	824.2	836.4	848.8	1850.2	1880.0	1909.8
4Downlink1uplinkPower(dBm)	32.91	32.94	32.92	29.97	29.98	29.91
3Downlink2uplinkPower(dBm)	31.11	30.97	30.92	27.44	27.46	27.53
2Downlink3uplinkPower(dBm)	29.28	29.15	29.10	26.12	26.09	26.12
1Downlink4uplinkPower(dBm)	28.30	28.17	28.11	25.00	25.01	24.99

GPRS Averaged Power

Mode	GPRS850			GPRS1900		
Channel	128	189	251	512	661	810
Frequency(MHz)	824.2	836.4	848.8	1850.2	1880.0	1909.8
4Downlink1uplinkPower(dBm)	23.88	23.91	23.89	20.94	20.95	20.88
3Downlink2uplinkPower(dBm)	25.09	24.95	24.90	21.42	21.44	21.51
2Downlink3uplinkPower(dBm)	25.02	24.89	24.84	21.86	21.83	21.86
1Downlink4uplinkPower(dBm)	25.29	25.16	25.10	21.99	22.00	21.98

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 4Txslots (1Downlink4uplink) for GPRS.

EGPRS Measured Power

Mode	EGPRS850 (GMSK)			EGPRS1900 (GMSK)		
	EGPRS850 (8PSK)			EGPRS1900 (8PSK)		
Channel	128	189	251	512	661	810
Frequency(MHz)	824.2	836.4	848.8	1850.2	1880.0	1909.8
4Downlink1uplinkPower(dBm)	32.91	32.94	32.92	29.97	29.98	29.91
	26.00	25.92	25.83	25.78	25.53	25.37
3Downlink2uplinkPower(dBm)	31.11	30.97	30.92	27.44	27.46	27.53
	25.31	25.82	25.56	25.41	25.12	25.19
2Downlink3uplinkPower(dBm)	29.28	29.15	29.10	26.12	26.09	26.12
	23.87	24.05	24.10	23.60	23.23	22.97
1Downlink4uplinkPower(dBm)	28.30	28.17	28.11	25.00	25.01	24.99
	21.68	21.63	21.66	20.65	20.48	20.80

EGPRS Averaged Power

Mode	EGPRS850 (GMSK)			EGPRS1900 (GMSK)		
	EGPRS850 (8PSK)			EGPRS1900 (8PSK)		
Channel	128	189	251	512	661	810
Frequency(MHz)	824.2	836.4	848.8	1850.2	1880.0	1909.8
4Downlink1uplinkPower(dBm)	23.88	23.91	23.89	20.94	20.95	20.88
	16.97	16.89	16.80	16.75	16.50	16.34
3Downlink2uplinkPower(dBm)	25.09	24.95	24.90	21.42	21.44	21.51
	19.29	19.80	19.54	19.39	19.10	19.17
2Downlink3uplinkPower(dBm)	25.02	24.89	24.84	21.86	21.83	21.86
	19.61	19.79	19.84	19.34	18.97	18.71
1Downlink4uplinkPower(dBm)	25.29	25.16	25.10	21.99	22.00	21.98
	18.67	18.62	18.65	17.64	17.47	17.79

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 4Txslots (1Downlink4uplink) for EGPRS (GMSK).

6.3 WCDMA Measurement result

The following procedures are according to FCC KDB Publication 941225 D01.

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	Band2			Band4		
Channel	9262	9400	9538	1312	1412	1513
Frequency(MHz)	1852.4	1880	1907.6	1712.4	1732.4	1752.6
RB test mode1+64kRMC(dBm)	22.55	22.52	22.55	22.31	22.28	22.31
RB test mode1+12.2kRMC(dBm)	22.62	22.65	22.61	22.38	22.41	22.37
RB test mode1+144kRMC(dBm)	22.57	22.56	22.58	22.33	22.32	22.34
RB test mode1+384kRMC(dBm)	22.50	22.54	22.58	22.26	22.30	22.34
AMR Voice test mode+12.2kRMC(dBm)	22.52	22.56	22.56	22.28	22.32	22.32
Mode	Band5					
Channel	4132	4183	4233			
Frequency(MHz)	826.4	836.6	846.6			
RB test mode1+64kRMC(dBm)	22.39	22.45	22.52			
RB test mode1+12.2kRMC(dBm)	22.48	22.56	22.55			
RB test mode1+144kRMC(dBm)	22.41	22.36	22.37			
RB test mode1+384kRMC(dBm)	22.38	22.38	22.38			
AMR Voice test mode+12.2kRMC(dBm)	22.37	22.34	22.33			

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	$\beta_{hs}^{(1)}$	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

Note1: Δ_{ACK} , Δ_{NACK} and $\Delta_{CQI}=8 \Leftrightarrow A_{hs}=\beta_{hs}/\beta_c=30/15 \Leftrightarrow \beta_{hs}=30/15 * \beta_c$.

Note2:CM=1 for $\beta_c/\beta_d=12/15$, $\beta_{hs}/\beta_c=24/15$.

Note3: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 4		
Channel	9262	9400	9538	1312	1412	1513
Frequency(MHz)	1852.4	1880	1907.6	1712.4	1732.4	1752.6
sub-test1(dBm)	21.10	21.10	21.20	20.80	20.80	20.90
sub-test2(dBm)	21.10	21.10	21.20	20.80	20.80	20.90
sub-test3(dBm)	20.60	20.60	20.80	20.30	20.30	20.50
sub-test4(dBm)	20.60	20.60	20.70	20.30	20.30	20.40
Mode	HSDPA Band 5					
Channel	4132	4183	4233			
Frequency(MHz)	826.4	836.6	846.6			
sub-test1(dBm)	20.70	20.80	20.90			
sub-test2(dBm)	20.80	20.80	20.90			
sub-test3(dBm)	20.20	20.40	20.40			
sub-test4(dBm)	20.30	20.40	20.40			

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_d (SF)	β_c/β_d	$\beta_{hs}^{(1)}$	β_{ec}	β_{ed}	β_{ed} (SF)	β_{ed} (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	2.0	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	$\beta_{ed1}:47/15$ $\beta_{ed2}:47/15$	4	2	2.0	2.0	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	2.0	21	81

Note1: $\Delta ACK, \Delta NACK$ and $\Delta CQI = 8 \Leftrightarrow A_{hs} = \beta_{hs}/\beta_c = 30/15 \Leftrightarrow \beta_{hs} = 30/15 * \beta_c$.

Note2: CM=1 for $\beta_c/\beta_d = 12/15, \beta_{hs}/\beta_c = 24/15$. For all other combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

Note3: 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 $\beta_d=15/15$.

Note4: 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 $\beta_d=15/15$.

NOTE5: Testing UE using E-DPDCH Physical layer category 1 Sub-test 3 is not required according to TS 25.306 Table 5.1g.

NOTE6: β_{ed} can not be set directly; it is set by Absolute Grant Value.

Measured Results

Mode		HSUPA Band 2			HSUPA Band 4		
Channel		9262	9400	9538	1312	1412	1513
Frequency(MHz)		1852.4	1880	1907.6	1712.4	1732.4	1752.6
sub-test1(dBm)		19.40	19.40	19.40	19.10	19.10	19.10
sub-test2(dBm)		19.30	19.30	19.40	19.00	19.00	19.10
sub-test3(dBm)		19.40	19.40	19.40	19.10	19.10	19.10
sub-test4(dBm)		18.80	18.80	18.90	18.50	18.50	18.60
sub-test5(dBm)		21.30	21.40	21.30	21.00	21.10	21.00
Mode		HSUPA Band 5					
Channel		4132	4183	4233			
Frequency(MHz)		826.4	836.6	846.6			
sub-test1(dBm)		19.00	19.10	18.50			
sub-test2(dBm)		19.00	19.10	18.50			
sub-test3(dBm)		19.00	19.10	18.60			
sub-test4(dBm)		18.50	18.50	18.10			
sub-test5(dBm)		20.90	20.50	21.00			

UMTS SAR was tested under RMC 12.2 kbps with HSPA Inactive per KDB Publication 941225 D01.

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.

6.4 LTE Measurement result

Band 2

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)
Low Range	1.4	18607	1850.7	QPSK	1	Low	21.37
						Mid	21.49
						High	21.32
				50%	Low	21.31	
						Mid	21.02
						High	21.22
				100%	---	21.31	
						21.21	
	3	18615	1851.5	16QAM	1	Mid	21.64
						High	21.19
				50%	Low	21.17	
						Mid	21.90
						High	21.07
				100%	---	21.31	
						21.09	
				QPSK	1	Mid	21.74
						High	21.10
						Low	21.03
	1	18615	1851.5	16QAM	50%	Mid	21.10
						High	21.08
						100%	---
				QPSK	1	Low	21.04
						Mid	21.95
						High	21.73
				16QAM	50%	Low	21.92
						Mid	21.06
						High	21.12
						100%	---
						21.08	
						---	21.11

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)		
Low Range	5	18625	1852.5	QPSK	1	Low	21.14		
						Mid	21.75		
						High	21.04		
					50%	Low	21.07		
						Mid	21.03		
						High	21.09		
					100%	---	21.99		
				16QAM	1	Low	21.99		
						Mid	21.75		
						High	21.84		
					50%	Low	21.05		
	10	18650	1855			Mid	21.00		
						High	21.03		
						100%	---		
			QPSK	1	Low	21.24			
					Mid	21.25			
					High	21.16			
				50%	Low	21.06			
					Mid	21.97			
					High	21.03			
			16QAM	100%	---	21.99			
				1	Low	21.06			
					Mid	21.31			
					High	21.93			
				50%	Low	21.09			
					Mid	21.00			
					High	21.03			
				100%	---	20.96			

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)		
Low Range	15	18675	1857.5	QPSK	1	Low	21.30		
						Mid	21.95		
						High	21.18		
					50%	Low	21.02		
						Mid	21.98		
						High	21.96		
					100%	---	21.04		
				16QAM	1	Low	21.10		
						Mid	21.05		
						High	21.98		
					50%	Low	21.01		
	20	18700	1860			Mid	20.97		
						High	20.96		
						100%	---		
			QPSK	1	Low	22.50			
					Mid	22.21			
					High	22.17			
				50%	Low	22.20			
					Mid	21.96			
					High	21.98			
			16QAM	100%	---	21.99			
				1	Low	21.12			
					Mid	21.32			
					High	21.94			
				50%	Low	20.97			
					Mid	20.95			
					High	20.93			
				100%	---	21.01			

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)	
Mid Range	1.4	18900	1880	QPSK	1	Low	21.02	
						Mid	21.11	
						High	21.03	
				50%	Low	21.80		
						Mid	21.70	
						High	21.88	
				100%	---	21.92		
						Low	21.89	
	3	18900	1880	16QAM	1	Mid	21.28	
						High	21.91	
					50%	Low	21.89	
						Mid	21.54	
					100%	High	21.78	
						---	20.97	
				QPSK	1	Low	21.06	
						Mid	21.50	
						High	21.97	
					50%	Low	21.93	
				16QAM		Mid	21.87	
						High	21.88	
						---	21.88	
				1	Low	21.90		
						Mid	21.76	
						High	21.87	
					50%	Low	20.98	
						Mid	21.02	
						High	21.03	
					100%	---	20.96	

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)
Mid Range	5	18900	1880	QPSK	1	Low	21.06
						Mid	21.60
						High	21.97
					50%	Low	21.93
						Mid	21.87
						High	21.88
					100%	---	21.80
				16QAM	1	Low	21.94
						Mid	21.73
						High	21.85
					50%	Low	20.91
						Mid	20.87
						High	20.89
					100%	---	20.92
	10	18900	1880	QPSK	1	Low	21.15
						Mid	21.18
						High	21.07
					50%	Low	21.88
						Mid	21.86
						High	21.89
					100%	---	21.92
				16QAM	1	Low	21.97
						Mid	21.34
						High	21.91
					50%	Low	21.00
						Mid	20.95
						High	20.97
					100%	---	20.95

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)		
Mid Range	15	18900	1880	QPSK	1	Low	21.17		
						Mid	21.85		
						High	21.06		
				50%	100%	Low	21.97		
						Mid	21.93		
						High	21.92		
						---	21.92		
				16QAM	1	Low	21.99		
						Mid	21.01		
						High	21.89		
					50%	Low	20.97		
	20	18900	1880			Mid	20.95		
						High	20.96		
						---	20.96		
			QPSK	1	Low	22.80			
					Mid	22.07			
					High	22.04			
			50%	100%	Low	22.50			
					Mid	21.87			
					High	21.88			
			16QAM	1	---	21.88			
					Low	21.99			
					Mid	21.28			
				50%	High	21.84			
					Low	20.92			
					Mid	20.91			
					High	20.88			
				100%	---	20.95			

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)
High Range	5	19175	1907.5	QPSK	1	Low	21.87
						Mid	21.49
						High	21.79
					50%	Low	21.81
						Mid	21.73
						High	21.79
				16QAM	100%	---	21.70
					1	Low	21.64
						Mid	21.50
						High	21.63

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)
High Range	1.4	19193	1909.3	QPSK	1	Low	21.83
						Mid	21.93
						High	21.83
					50%	Low	21.76
						Mid	21.50
						High	21.69
				16QAM	100%	---	21.81
					1	Low	21.67
						Mid	21.09
	3	19185	1908.5			High	21.69
			50%	Low	21.63	21.63	
				Mid	21.37	21.37	
				High	21.53	21.53	
			100%	---	---	20.82	
				QPSK	Low	21.72	
					Mid	21.47	
					High	21.78	
			16QAM	1	Low	21.72	
					Mid	21.79	
					High	21.68	
			100%	---	---	21.71	
				1	Low	21.59	
					Mid	21.48	
					High	21.62	
			50%	Low	20.71	20.71	
				Mid	20.83	20.83	
				High	20.75	20.75	
			100%	---	---	20.78	

					50%	Low	20.77
						Mid	20.70
						High	20.76
						100%	---
10	19150	1905		QPSK	1	Low	21.93
						Mid	21.97
						High	21.86
				16QAM	50%	Low	21.85
						Mid	21.78
						High	21.79
					100%	---	21.71
					1	Low	21.65
						Mid	21.03
						High	21.68
					50%	Low	20.82
						Mid	20.76
						High	20.77
					100%	---	20.68

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)		
High Range	15	19125	1902.5	QPSK	1	Low	21.99		
						Mid	21.78		
						High	21.90		
					50%	Low	21.73		
						Mid	21.66		
						High	21.71		
					100%	---	21.80		
				16QAM	1	Low	21.78		
						Mid	21.79		
						High	21.73		
					50%	Low	20.70		
	20	19100	1900			Mid	20.63		
						High	20.71		
						100%	---		
			QPSK	1	Low	22.20			
					Mid	21.99			
					High	21.90			
				50%	Low	22.00			
					Mid	21.74			
					High	21.70			
			16QAM	100%	---	21.71			
				1	Low	21.88			
					Mid	21.02			
					High	21.66			
				50%	Low	20.74			
					Mid	20.68			
					High	20.69			
				100%	---	20.73			

Band 4

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)
Low Range	1.4	19957	1710.7	QPSK	1	Low	21.47
						Mid	21.58
						High	21.45
				50%	Low	21.41	
					Mid	21.10	
					High	21.25	
				16QAM	100%	---	21.47
					1	Low	21.31
						Mid	21.73
						High	21.31
				50%	Low	21.27	
					Mid	20.99	
					High	21.19	
	3	19965	1711.5	QPSK	100%	---	20.43
					1	Low	21.36
						Mid	21.03
						High	21.41
				16QAM	50%	Low	21.36
						Mid	21.43
						High	21.37
					100%	---	21.38
					1	Low	21.26
						Mid	21.13
						High	21.26
					50%	Low	20.31
						Mid	20.39
						High	20.40
					100%	---	20.42

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)		
Low Range	5	19975	1712.5	QPSK	1	Low	21.47		
						Mid	21.10		
						High	21.39		
					50%	Low	21.39		
						Mid	21.33		
						High	21.38		
					100%	---	21.27		
				16QAM	1	Low	21.32		
						Mid	21.18		
						High	21.31		
					50%	Low	20.32		
	10	20000	1715			Mid	20.26		
						High	20.30		
						100%	---		
			QPSK	1	Low	21.45			
					Mid	21.51			
					High	21.45			
				50%	Low	21.32			
					Mid	21.26			
					High	21.31			
			16QAM	100%	---	21.29			
				1	Low	21.30			
					Mid	21.68			
					High	21.33			
				50%	Low	20.32			
					Mid	20.28			
					High	20.26			
				100%	---	20.25			

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)
Low Range	15	20025	1717.5	QPSK	1	Low	21.43
						Mid	21.23
						High	21.49
					50%	Low	21.35
						Mid	21.31
						High	21.29
					100%	---	21.32
				16QAM	1	Low	21.33
						Mid	21.41
						High	21.36
					50%	Low	20.35
						Mid	20.36
						High	20.31
					100%	---	20.30
	20	20050	1720	QPSK	1	Low	21.80
						Mid	21.45
						High	21.46
					50%	Low	21.80
						Mid	21.31
						High	21.29
					100%	---	21.26
				16QAM	1	Low	21.35
						Mid	21.70
						High	21.31
					50%	Low	20.27
						Mid	20.26
						High	20.28
					100%	---	20.28

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)
Mid Range	1.4	20175	1732.5	QPSK	1	Low	21.27
						Mid	21.39
						High	21.20
					50%	Low	21.21
						Mid	21.94
						High	21.10
					100%	---	21.23
				16QAM	1	Low	21.13
						Mid	21.54
						High	21.12
					50%	Low	21.08
						Mid	20.80
						High	20.99
					100%	---	20.21
	3	20175	1732.5	QPSK	1	Low	21.25
						Mid	21.85
						High	21.24
					50%	Low	21.20
						Mid	21.27
						High	21.25
					100%	---	21.20
				16QAM	1	Low	21.14
						Mid	21.96
						High	21.10
					50%	Low	20.21
						Mid	20.31
						High	20.25
					100%	---	20.26

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)
Mid Range	5	20175	1732.5	QPSK	1	Low	21.31
						Mid	21.82
						High	21.23
					50%	Low	21.25
						Mid	21.14
						High	21.23
					100%	---	21.14
				16QAM	1	Low	21.19
						Mid	21.95
						High	21.07
					50%	Low	20.17
						Mid	20.10
						High	20.14
					100%	---	20.16
	10	20175	1732.5	QPSK	1	Low	21.40
						Mid	21.37
						High	21.31
					50%	Low	21.18
						Mid	21.11
						High	21.19
					100%	---	21.16
				16QAM	1	Low	21.26
						Mid	21.54
						High	21.12
					50%	Low	20.21
						Mid	20.14
						High	20.18
					100%	---	20.12

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)
Mid Range	15	20175	1732.5	QPSK	1	Low	21.86
						Mid	21.06
						High	21.32
					50%	Low	21.18
						Mid	21.13
						High	21.14
					100%	---	21.16
				16QAM	1	Low	21.23
						Mid	21.22
						High	21.11
					50%	Low	20.14
						Mid	20.12
						High	20.09
					100%	---	20.14
	20	20175	1732.5	QPSK	1	Low	22.00
						Mid	21.36
						High	21.39
					50%	Low	22.00
						Mid	21.57
						High	21.58
					100%	---	21.54
				16QAM	1	Low	21.30
						Mid	21.52
						High	21.13
					50%	Low	20.18
						Mid	20.13
						High	20.09
					100%	---	20.19

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)
High Range	1.4	20393	1754.3	QPSK	1	Low	21.38
						Mid	21.45
						High	21.37
					50%	Low	21.30
						Mid	21.02
						High	21.21
					100%	---	21.33
				16QAM	1	Low	21.25
						Mid	21.63
						High	21.23
					50%	Low	21.20
						Mid	20.88
						High	21.08
					100%	---	20.34
	3	20385	1753.5	QPSK	1	Low	21.37
						Mid	21.00
						High	21.40
					50%	Low	21.30
						Mid	21.34
						High	21.30
					100%	---	21.34
				16QAM	1	Low	21.27
						Mid	21.09
						High	21.26
					50%	Low	20.32
						Mid	20.39
						High	20.36
					100%	---	20.38

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)
High Range	5	20375	1752.5	QPSK	1	Low	21.40
						Mid	21.99
						High	21.36
					50%	Low	21.38
						Mid	21.30
						High	21.29
					100%	---	21.20
				16QAM	1	Low	21.22
						Mid	21.09
						High	21.20
					50%	Low	20.27
						Mid	20.23
						High	20.25
					100%	---	20.26
	10	20350	1750	QPSK	1	Low	21.38
						Mid	21.46
						High	21.51
					50%	Low	21.23
						Mid	21.24
						High	21.23
					100%	---	21.25
				16QAM	1	Low	21.27
						Mid	21.62
						High	21.30
					50%	Low	20.29
						Mid	20.27
						High	20.33
					100%	---	20.26

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)		
High Range	15	20325	1747.5	QPSK	1	Low	21.73		
						Mid	21.21		
						High	21.53		
					50%	Low	21.27		
						Mid	21.25		
						High	21.31		
					100%	---	21.30		
				16QAM	1	Low	21.21		
						Mid	21.36		
						High	21.37		
					50%	Low	20.21		
	20	20300	1745			Mid	20.23		
						High	20.32		
						100%	---		
			QPSK	1	Low	21.50			
					Mid	21.47			
					High	21.50			
				50%	Low	21.50			
					Mid	21.29			
					High	21.34			
			16QAM	100%	---	21.29			
				1	Low	21.25			
					Mid	21.63			
					High	21.34			
				50%	Low	20.21			
					Mid	20.23			
					High	20.27			
				100%	---	20.25			

Band 5

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)
Low Range	1.4	20407	821.7	QPSK	1	Low	21.20
						Mid	21.20
						High	21.20
					50%	Low	21.20
						Mid	21.20
						High	21.20
					100%	---	21.20
				16QAM	1	Low	21.20
						Mid	21.20
						High	21.20
					50%	Low	21.20
						Mid	21.20
						High	21.10
					100%	---	21.10
	3	20415	825.5	QPSK	1	Low	21.30
						Mid	21.00
						High	21.00
					50%	Low	21.00
						Mid	21.00
						High	21.00
					100%	---	21.00
				16QAM	1	Low	21.00
						Mid	21.00
						High	21.00
					50%	Low	21.00
						Mid	21.00
						High	21.00
					100%	---	21.00

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)
Low Range	5	29425	826.5	QPSK	1	Low	21.10
						Mid	21.10
						High	21.10
					50%	Low	21.10
						Mid	21.10
						High	21.10
					100%	---	21.10
				16QAM	1	Low	21.30
						Mid	21.30
						High	21.30
					50%	Low	21.30
						Mid	21.30
						High	21.20
					100%	---	21.20
	10	20450	829	QPSK	1	Low	22.00
						Mid	21.20
						High	21.10
					50%	Low	22.00
						Mid	21.10
						High	21.10
					100%	---	21.10
				16QAM	1	Low	21.10
						Mid	21.10
						High	21.10
					50%	Low	21.10
						Mid	21.10
						High	21.10
					100%	---	21.10

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)
Mid Range	1.4	20525	836.5	QPSK	1	Low	21.20
						Mid	21.10
						High	21.10
					50%	Low	21.20
						Mid	21.10
						High	21.10
					100%	---	21.10
				16QAM	1	Low	21.20
						Mid	21.20
						High	21.20
					50%	Low	21.20
						Mid	21.20
						High	21.20
	3	20525	836.5	QPSK	1	100%	---
						Low	21.10
						Mid	21.10
						High	21.10
					50%	Low	21.10
						Mid	21.10
						High	21.10
					100%	---	21.10
	16QAM			1	1	Low	21.10
						Mid	21.10
						High	21.10
					50%	Low	21.10
						Mid	21.10
						High	21.10
					100%	---	21.10

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)
Mid Range	5	20525	836.5	QPSK	1	Low	21.30
						Mid	21.30
						High	21.30
				50%	Low	21.30	
						Mid	21.30
						High	21.30
				100%	---	---	21.30
						Low	21.50
10	10	20525	836.5	16QAM	1	Mid	21.50
						High	21.50
				50%	Low	21.40	
						Mid	21.40
						High	21.40
				100%	---	---	21.40
						Low	22.20
						Mid	21.20
10	10	20525	836.5	QPSK	1	High	21.10
						Low	22.30
						Mid	21.10
						High	21.10
				100%	---	---	21.10
						Low	21.00
						Mid	21.10
						High	21.10
10	10	20525	836.5	16QAM	1	Low	21.10
						Mid	21.00
						High	21.10
						100%	---
						Low	21.10
						Mid	21.00
						High	21.10
						100%	---

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)
High Range	1.4	20643	848.3	QPSK	1	Low	21.50
						Mid	21.00
						High	21.60
					50%	Low	21.00
						Mid	21.10
						High	21.00
					100%	---	21.00
				16QAM	1	Low	21.10
						Mid	21.10
						High	21.10
					50%	Low	21.10
						Mid	21.10
						High	21.10
					100%	---	21.10
	3	20635	847.5	QPSK	1	Low	21.00
						Mid	21.50
						High	21.60
					50%	Low	21.00
						Mid	21.70
						High	21.70
					100%	---	21.10
				16QAM	1	Low	21.00
						Mid	21.00
						High	21.00
					50%	Low	21.00
						Mid	21.00
						High	21.00
					100%	---	21.00

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)
High Range	5	20625	846.5	QPSK	1	Low	21.20
						Mid	21.10
						High	21.10
					50%	Low	21.10
						Mid	21.10
						High	21.10
					100%	---	21.10
				16QAM	1	Low	21.20
						Mid	21.20
						High	21.20
					50%	Low	21.20
						Mid	21.20
						High	21.20
					100%	---	21.20
	10	20600	844	QPSK	1	Low	21.80
						Mid	21.10
						High	21.10
					50%	Low	22.00
						Mid	21.10
						High	21.10
					100%	---	21.10
				16QAM	1	Low	21.10
						Mid	21.10
						High	21.10
					50%	Low	21.10
						Mid	21.00
						High	21.10
					100%	---	21.10

Band 7

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)		
Low Range	5	20775	2502.5	QPSK	1	Low	21.40		
						Mid	21.30		
						High	21.40		
					50%	Low	21.40		
						Mid	21.30		
						High	21.30		
					100%	---	21.30		
				16QAM	1	Low	20.60		
						Mid	20.60		
						High	21.10		
					50%	Low	20.60		
	10	20800	2505			Mid	20.50		
						High	20.90		
						100%	---		
			QPSK	1	Low	21.20			
					Mid	21.20			
					High	21.20			
				50%	Low	21.20			
					Mid	21.20			
					High	21.20			
			16QAM	100%	---	21.10			
				1	Low	21.20			
					Mid	21.20			
					High	21.20			
				50%	Low	21.20			
					Mid	21.20			
					High	21.20			
				100%	---	21.10			

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)
Low Range	15	20825	2507.5	QPSK	1	Low	21.70
						Mid	21.70
						High	21.70
				50%	50%	Low	21.70
						Mid	21.70
						High	21.70
				100%	100%	---	21.70
						Low	20.60
						Mid	20.80
				16QAM	1	High	20.60
						Low	21.40
						Mid	21.30
High Range	20	20850	2510	QPSK	50%	High	21.30
						100%	---
						Low	21.60
				50%	50%	Mid	21.60
						High	21.60
						Low	21.40
				100%	100%	Mid	21.00
						High	21.00
						---	21.80
				16QAM	1	Low	21.30
						Mid	21.30
						High	21.20
				16QAM	50%	Low	21.30
						Mid	21.30
						High	21.30
						100%	---
						---	21.30

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)
Mid Range	5	21100	2535	QPSK	1	Low	21.50
						Mid	21.50
						High	21.50
				16QAM	50%	Low	21.50
						Mid	21.50
						High	21.50
				QPSK	100%	---	21.50
						Low	20.80
						Mid	20.80
	10	21100	2535			High	20.60
			16QAM	50%	Low	20.60	
					Mid	20.80	
					High	20.60	
			QPSK	100%	---	20.50	
					Low	21.70	
					Mid	21.70	
					High	21.70	
			16QAM	50%	Low	21.90	
					Mid	21.00	
					High	21.00	
			QPSK	100%	---	21.90	
					Low	21.00	
					Mid	21.00	
					High	21.00	
			16QAM	50%	Low	21.00	
					Mid	21.10	
					High	21.10	
					---	21.10	

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)
Mid Range	15	21100	2535	QPSK	1	Low	21.30
						Mid	21.20
						High	21.20
				16QAM	50%	Low	21.30
						Mid	21.40
						High	21.20
				16QAM	100%	---	21.10
						Low	21.00
						Mid	21.00
						High	21.00
	20	21100	2535	QPSK	1	Low	21.00
						Mid	21.00
						High	21.00
				16QAM	50%	Low	21.10
						Mid	21.10
						High	21.10
				16QAM	100%	---	21.10
						Low	21.10
						Mid	21.10
						High	21.10

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)
High Range	5	21425	2567.5	QPSK	1	Low	21.10
						Mid	21.10
						High	21.10
					50%	Low	21.10
						Mid	21.10
						High	21.10
					100%	---	21.10
				16QAM	1	Low	21.30
						Mid	21.30
						High	21.30
					50%	Low	21.30
						Mid	21.20
						High	21.20
	10	21400	2565	QPSK	1	100%	---
						Low	21.80
						Mid	21.80
						High	21.80
					50%	Low	21.70
						Mid	21.70
						High	21.70
					100%	---	21.70
				16QAM	1	Low	21.70
						Mid	21.70
						High	21.70
					50%	Low	21.70
						Mid	21.80
						High	21.70
					100%	---	21.60

Test Frequency ID	Bandwidth (MHz)	NUL	Frequency of Uplink(MHz)	Modulation	RB Size	RB Offset	Test results (dBm)	
High Range	15	21375	2562.5	QPSK	1	Low	21.30	
						Mid	21.40	
						High	21.40	
				50%	Low	21.40		
					Mid	21.40		
					High	21.40		
				100%	---	21.30		
					1	Low	21.40	
	20	21350	2560	16QAM		Mid	21.40	
						High	21.40	
				50%	Low	21.40		
					Mid	21.40		
				100%	High	21.40		
					---	21.30		
				QPSK	1	Low	21.00	
						Mid	21.00	
						High	21.00	
				16QAM	Low	21.00		
					Mid	21.00		
					High	21.00		
					---	21.90		
				1	Low	21.30		
					Mid	21.30		
					High	21.30		
					Low	21.30		
				50%	Mid	21.30		
					High	21.30		
					---	21.30		

6.5 Bluetooth Measurement result

Modulation type	Test Result (dBm)		
	2402MHz(Ch0)	2441MHz(Ch39)	2480MHz(Ch78)
GFSK	-3.45	-4.58	-5.19
$\pi/4$ DQPSK	-3.27	-4.39	-5.36
8DPSK	-3.11	-4.59	-5.89
GFSK(BLE)	2402MHz(Ch0) 1.31	2440MHz(Ch19) 1.14	2480MHz(Ch39) 1.18

Modulation type	Test Result (mW)		
	2402MHz(Ch0)	2441MHz(Ch39)	2480MHz(Ch78)
GFSK	0.45	0.35	0.30
$\pi/4$ DQPSK	0.47	0.36	0.29
8DPSK	0.49	0.35	0.26
GFSK(BLE)	2402MHz(Ch0) 1.35	2440MHz(Ch19) 1.30	2480MHz(Ch39) 1.31

6.6 Wi-Fi Measurement result

Modulation type		Average power output (dBm)		
		2412MHz (Ch1)	2437MHz (Ch6)	2462MHz (Ch11)
11b	1 Mbps	12.03	12.16	12.12
	2 Mbps	11.98	11.85	11.89
	5.5 Mbps	11.83	11.72	11.67
	11 Mbps	11.76	11.69	11.52
11g	6 Mbps	10.98	11.12	11.03
	9 Mbps	10.83	11.02	10.93
	12 Mbps	10.72	10.93	10.88
	18 Mbps	10.66	10.82	10.75
	24 Mbps	10.53	10.71	10.69
	36 Mbps	10.47	10.49	10.48
	48 Mbps	10.38	10.35	10.36
	54 Mbps	10.32	10.26	10.18
11n HT20	6.5 Mbps	10.81	10.92	10.85
	13 Mbps	10.72	10.73	10.72
	19.5 Mbps	10.64	10.48	10.53
	26 Mbps	10.52	10.27	10.39
	39 Mbps	10.44	10.04	10.27
	52 Mbps	10.12	9.89	10.17
	58.5 Mbps	9.63	9.72	9.92
	65 Mbps	9.22	9.42	9.71

Modulation type		Average power output (mW)		
		2412MHz (Ch1)	2437MHz (Ch6)	2462MHz (Ch11)
11b	1 Mbps	15.96	16.44	16.29
	2 Mbps	15.78	15.31	15.45
	5.5 Mbps	15.24	14.86	14.69
	11 Mbps	15.00	14.76	14.19
11g	6 Mbps	12.53	12.94	12.68
	9 Mbps	12.11	12.65	12.39
	12 Mbps	11.80	12.39	12.25
	18 Mbps	11.64	12.08	11.89
	24 Mbps	11.30	11.78	11.72
	36 Mbps	11.14	11.19	11.17
	48 Mbps	10.91	10.84	10.86
	54 Mbps	10.76	10.62	10.42
11n HT20	6.5 Mbps	12.05	12.36	12.16
	13 Mbps	11.80	11.83	11.80
	19.5 Mbps	11.59	11.17	11.30
	26 Mbps	11.27	10.64	10.94
	39 Mbps	11.07	10.09	10.64
	52 Mbps	10.28	9.75	10.40
	58.5 Mbps	9.18	9.38	9.82
	65 Mbps	8.36	8.75	9.35

6.7 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.

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

According to the KDB447498 4.3.1 (1)

For 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f} (\text{GHz})] \leq 3.0$ 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

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm, and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

This is equivalent to $[(\text{max. power of channel, including tune-up tolerance, mW}) / (60 / \sqrt{f(\text{GHz})} \text{ mW})] \cdot [20 \text{ mm} / (\text{min. test separation distance, mm})] \leq 1.0$ for 1-g SAR; also see Appendix A for approximate exclusion threshold values at selected frequencies and distances.

According to the KDB447498 appendix A

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

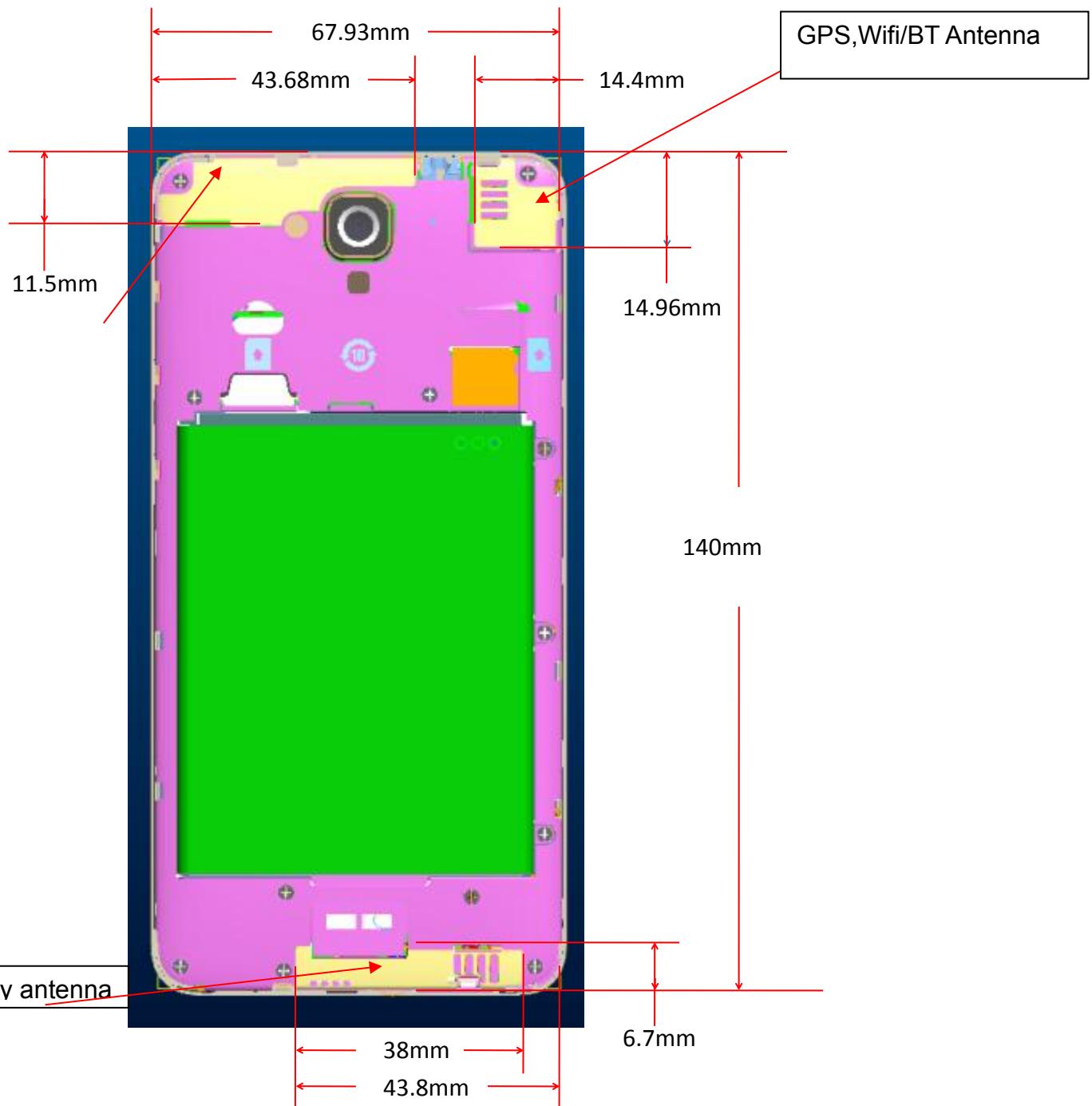
MHz	5	10	15	20	25	mm
150	39	77	116	155	194	<i>SAR Test Exclusion Threshold (mW)</i>
300	27	55	82	110	137	
450	22	45	67	89	112	
835	16	33	49	66	82	
900	16	32	47	63	79	
1500	12	24	37	49	61	
1900	11	22	33	44	54	
2450	10	19	29	38	48	
3600	8	16	24	32	40	
5200	7	13	20	26	33	
5400	6	13	19	26	32	
5800	6	12	19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

Summary of Transmitters

Band/Mode	Max.RF output power (mW)	SAR test exclusion Threshold (mW)	SAR Required
(2.4~2.4835)GHz Bluetooth	1.35	19	No
(2.4~2.4835)GHz WLAN	16.44	19	No

6.8 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.



6.8.1 Head Exposure Conditions

For WWAN,

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

6.8.2 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	/

6.8.3 Hotspot Exposure Conditions

For WWAN

Test Configurations	Antenna-to-edge/surface	SAR Required
Rear	<25 mm	Yes
Front	<25 mm	Yes
Edge 1	135 mm	No
Edge 2	0 mm	Yes
Edge 3	25 mm	Yes
Edge 4	7 mm	Yes

For Wi-Fi

Test Configurations	Antenna-to-edge/surface	SAR Required
Rear	<25 mm	Yes
Front	<25 mm	Yes
Edge 1	0 mm	Yes
Edge 2	124 mm	No
Edge 3	53 mm	No
Edge 4	0 mm	Yes

6.9 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 (%)
2017.05.02	D835V2	Head	1g	9.36	9.24	1.30	±10
2017.05.02	D835V2	Body	1g	9.32	9.38	0.64	±10
2017.05.03	D1900V2	Head	1g	39.28	39.40	0.30	±10
2017.05.03	D1900V2	Body	1g	39.36	39.50	0.35	±10
2017.05.04	D2450V2	Head	1g	52.48	52.70	0.42	±10
2017.05.04	D2450V2	Body	1g	51.72	51.90	0.35	±10

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

Tissue Simulants used in the Measurements

For the measurement of the following parameters the SPEAG DAKS-3.5 dielectric parameter probe is used, representing the open-ended coaxial probe measurement procedure.

Date Tested	Freq.(MHz)	Liquid parameters	measured	Target	Delta(%)	Tolerance(%)
2017.05.02	Head 835	ϵ_r	42.11	41.50	1.47	±5
		$\sigma[S/m]$	0.91	0.90	1.11	±5
2017.05.02	Body 835	ϵ_r	53.85	55.20	2.45	±5
		$\sigma[S/m]$	0.98	0.97	1.03	±5
2017.05.03	Head 1900	ϵ_r	40.84	40.00	2.10	±5
		$\sigma[S/m]$	1.41	1.40	0.71	±5
2017.05.03	Body 1900	ϵ_r	52.18	53.30	2.10	±5
		$\sigma[S/m]$	1.53	1.52	0.66	±5
2017.05.04	Head 2450	ϵ_r	39.21	39.20	0.03	±5
		$\sigma[S/m]$	1.79	1.80	0.56	±5
2017.05.04	Body 2450	ϵ_r	52.04	52.70	1.25	±5
		$\sigma[S/m]$	1.97	1.95	1.03	±5

6.10 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.

Note:

1. Per KDB 447498 D01v05, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.

Scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.

Reported SAR (W/kg) = Measured SAR (W/kg) * Scaling Factor

2. Per KDB 447498 D01v05, for each exposure position, if the highest output channel reported SAR ≤ 0.8 W/kg, other channels SAR testing are not necessary.

3. In the report the test position "Mobile phone screen Towards Ground" abbreviated as "TG", and "Mobile phone screen Towards Phantom" abbreviated as "TP".

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

Mode: GSM 850

fL(MHz)=824.2MHz fM(MHz)=836.5MHz fH(MHz)= 848.8MHz

SAR Values (Head , 850MHz Band)

Limit of SAR (W/kg) : <1.6W/kg (1g Average)

Test Case		Ch	Measure Conducted Power (dBm)	Tune-up limit (dBm)	Scaling Factor	Measure Results (W/kg)	Reported Results (W/kg)
position	mode					1g Average	1g Average
Left cheek	GSM	L	32.91	34	1.29	---	---
		M	32.94	34	1.28	0.076	0.098
		H	32.92	34	1.28	---	---
	Left Tilted	L	32.91	34	1.29	---	---
		M	32.94	34	1.28	0.028	0.036
		H	32.92	34	1.28	---	---
Right cheek	GSM	L	32.91	34	1.29	---	---
		M	32.94	34	1.28	0.252	0.322
		H	32.92	34	1.28	---	---
	Right Tilted	L	32.91	34	1.29	---	---
		M	32.94	34	1.28	0.128	0.163
		H	32.92	34	1.28	---	---

Mode: GSM850 (GSM/GPRS)

fL(MHz)=824.2MHz fM(MHz)=836.5MHz fH(MHz)= 848.8MHz

SAR Values (body , 850MHz Band

Limit of SAR (W/kg) : <1.6W/kg (1g Average)

Test Case		Ch	Measure Conducted Power (dBm)	Tune-up limit (dBm)	Scaling Factor	Measure Results (W/kg)	Reported Results (W/kg)
position	mode					1 g Average	1g Average
TG	GSM With headset	L	32.91	34	1.29	---	---
		M	32.94	34	1.28	0.420	0.536
		H	32.92	34	1.28	---	---
	GPRS	L	28.30	29	1.17	---	---
		M	28.17	29	1.21	0.783	0.948
		H	28.11	29	1.23	---	---
	EGPRS	L	28.30	29	1.17	---	---
		M	28.17	29	1.21	0.787	0.953
		H	28.11	29	1.23	---	---
TP	GSM With headset	L	32.91	34	1.29	---	---
		M	32.94	34	1.28	0.367	0.468
		H	32.92	34	1.28	---	---
	GPRS	L	28.30	29	1.17	---	---
		M	28.17	29	1.21	0.702	0.850
		H	28.11	29	1.23	---	---
	EGPRS	L	28.30	29	1.17	---	---
		M	28.17	29	1.21	0.705	0.853
		H	28.11	29	1.23	---	---
Hotspot EDGE 2	EGPRS	L	28.30	29	1.17	---	---
		M	28.17	29	1.21	0.382	0.462
		H	28.11	29	1.23	---	---
Hotspot EDGE 3	EGPRS	L	28.30	29	1.17	---	---
		M	28.17	29	1.21	0.709	0.858
		H	28.11	29	1.23	---	---
Hotspot EDGE 4	EGPRS	L	28.30	29	1.17	---	---
		M	28.17	29	1.21	0.343	0.415
		H	28.11	29	1.23	---	---

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

Mode: GSM1900

fL(MHz)=1850.2MHz fM(MHz)=1880.0MHz fH(MHz)=1909.8MHz

SAR Values (Head , 1900MHz Band)

Limit of SAR (W/kg) : <1.6W/kg(1g Average)

Test Case		CH	Measure Conducted Power (dBm)	Tune-up limit (dBm)	Scaling Factor	Measure Results (W/kg)	Reported Results (W/kg)	
position	mode					1g Average	1g Average	
Left cheek	GSM	L	29.97	31	1.27	---	---	
		M	29.98	31	1.26	0.213	0.269	
		H	29.91	31	1.29	---	---	
Left Tilted		L	29.97	31	1.27	---	---	
		M	29.98	31	1.26	0.069	0.087	
		H	29.91	31	1.29	---	---	
Right cheek		L	29.97	31	1.27	---	---	
		M	29.98	31	1.26	0.155	0.196	
		H	29.91	31	1.29	---	---	
Right Tilted		L	29.97	31	1.27	---	---	
		M	29.98	31	1.26	0.056	0.071	
		H	29.91	31	1.29	---	---	

Mode: GSM1900 (GSM/GPRS)

fL(MHz)=1850.2MHz fM(MHz)=1880.0MHz fH(MHz)=1909.8MHz

SAR Values (body , 1900MHz Band)

Limit of SAR (W/kg) :<1.6W/kg(1g Average)

Test Case		CH	Measure Conducted Power (dBm)	Tune-up limit (dBm)	Scaling Factor	Measure Results (W/kg)	Reported Results (W/kg)
position	mode					1 g Average	1g Average
TG	GSM With headset	L	29.97	31	1.27	---	---
		M	29.98	31	1.26	0.523	0.661
		H	29.91	31	1.29	---	---
	GPRS	L	25.00	26	1.26	---	---
		M	25.01	26	1.26	0.757	0.951
		H	24.99	26	1.26	---	---
	EGPRS	L	25.00	26	1.26	---	---
		M	25.01	26	1.26	0.781	0.981
		H	24.99	26	1.26	---	---
TP	GSM With headset	L	29.97	31	1.27	---	---
		M	29.98	31	1.26	0.213	0.269
		H	29.91	31	1.29	---	---
	GPRS	L	25.00	26	1.26	---	---
		M	25.01	26	1.26	0.418	0.525
		H	24.99	26	1.26	---	---
	EGPRS	L	25.00	26	1.26	---	---
		M	25.01	26	1.26	0.488	0.613
		H	24.99	26	1.26	---	---
Hotspot EDGE 2	EGPRS	L	25.00	26	1.26	---	---
		M	25.01	26	1.26	0.453	0.569
		H	24.99	26	1.26	---	---
Hotspot EDGE 3	EGPRS	L	25.00	26	1.26	---	---
		M	25.01	26	1.26	0.116	0.146
		H	24.99	26	1.26	---	---
Hotspot EDGE 4	EGPRS	L	25.00	26	1.26	---	---
		M	25.01	26	1.26	0.168	0.211
		H	24.99	26	1.26	---	---

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

Mode: WCDMA BAND2

fL(MHz)=1852.4MHz fM(MHz)=1880MHz fH(MHz)= 1907.6MHz

SAR Values (Head, WCDMA BAND2)

Limit of SAR (W/kg):<1.6W/kg(1g Average)

Test Case		CH	Measure Conducted Power (dBm)	Tune-up limit (dBm)	Scaling Factor	Measure Results (W/kg)	Reported Results (W/kg)
position	mode					1 g Average	1g Average
Left cheek	VOICE	L	22.62	24	1.37	---	---
		M	22.65	24	1.36	0.372	0.508
		H	22.61	24	1.38	---	---
		L	22.62	24	1.37	---	---
		M	22.65	24	1.36	0.126	0.172
		H	22.61	24	1.38	---	---
Right cheek	VOICE	L	22.62	24	1.37	---	---
		M	22.65	24	1.36	0.250	0.341
		H	22.61	24	1.38	---	---
		L	22.62	24	1.37	---	---
		M	22.65	24	1.36	0.087	0.118
		H	22.61	24	1.38	---	---

Mode: WCDMA BAND2

fL(MHz)=1852.4MHz fM(MHz)=1880MHz fH(MHz)= 1907.6MHz

SAR Values (body, WCDMA BAND2)

Limit of SAR (W/kg): <1.6W/kg(1g Average)

Test Case		CH	Measure Conducted Power (dBm)	Tune-up limit (dBm)	Scaling Factor	Measure Results (W/kg)	Reported Results (W/kg)
Position	mode					1 g Average	1g Average
TG	VOICE	L	22.62	24	1.37	---	---
		M	22.65	24	1.36	0.572	0.781
		H	22.61	24	1.38	---	---
	DATA	L	22.62	24	1.37	---	---
		M	22.65	24	1.36	0.568	0.775
		H	22.61	24	1.38	---	---
TP	VOICE	L	22.62	24	1.37	---	---
		M	22.65	24	1.36	0.454	0.620
		H	22.61	24	1.38	---	---
	DATA	L	22.62	24	1.37	---	---
		M	22.65	24	1.36	0.418	0.570
		H	22.61	24	1.38	---	---
Hotspot EDGE2	DATA	L	22.62	24	1.37	---	---
		M	22.65	24	1.36	0.541	0.738
		H	22.61	24	1.38	---	---
Hotspot EDGE3	DATA	L	22.62	24	1.37	---	---
		M	22.65	24	1.36	0.080	0.109
		H	22.61	24	1.38	---	---
Hotspot EDGE4	DATA	L	22.62	24	1.37	---	---
		M	22.65	24	1.36	0.382	0.521
		H	22.61	24	1.38	---	---

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

Mode: WCDMA BAND4

fL(MHz)=1712.4MHz fM(MHz)=1732.4MHz fH(MHz)= 1752.6MHz

SAR Values (Head, WCDMA BAND4)

Limit of SAR (W/kg): <1.6W/kg(1g Average)

Test Case		CH	Measure Conducted Power (dBm)	Tune-uplimit (dBm)	Scaling Factor	Measure Results (W/kg)	Reported Results (W/kg)
Position	mode					1 g Average	1g Average
Left cheek		L	22.38	24	1.45	---	---
		M	22.41	24	1.44	0.353	0.509
		H	22.37	24	1.46	---	---
Left Tilted		L	22.38	24	1.45	---	---
		M	22.41	24	1.44	0.200	0.288
		H	22.37	24	1.46	---	---
Right cheek		L	22.38	24	1.45	---	---
		M	22.41	24	1.44	0.246	0.355
		H	22.37	24	1.46	---	---
Right Tilted		L	22.38	24	1.45	---	---
		M	22.41	24	1.44	0.170	0.245
		H	22.37	24	1.46	---	---

Mode: WCDMA BAND4

fL(MHz)=1712.4MHz fM(MHz)=1732.4MHz fH(MHz)= 1752.6MHz

SAR Values (body, WCDMA BAND4)

Limit of SAR (W/kg): <1.6W/kg(1g Average)

Test Case		CH	Measure Conducted Power (dBm)	Tune-up limit (dBm)	Scaling Factor	Measure Results (W/kg)	Reported Results (W/kg)
Position	mode					1 g Average	1g Average
TG	VOICE	L	22.38	24	1.45	---	---
		M	22.41	24	1.44	0.662	0.955
		H	22.37	24	1.46	---	---
	DATA	L	22.38	24	1.45	---	---
		M	22.41	24	1.44	0.702	1.012
		H	22.37	24	1.46	---	---
TP	VOICE	L	22.38	24	1.45	---	---
		M	22.41	24	1.44	0.380	0.548
		H	22.37	24	1.46	---	---
	DATA	L	22.38	24	1.45	---	---
		M	22.41	24	1.44	0.402	0.580
		H	22.37	24	1.46	---	---
Hotspot EDGE2	DATA	L	22.38	24	1.45	---	---
		M	22.41	24	1.44	0.373	0.538
		H	22.37	24	1.46	---	0.000
Hotspot EDGE3	DATA	L	22.38	24	1.45	---	0.000
		M	22.41	24	1.44	0.130	0.187
		H	22.37	24	1.46	---	0.000
Hotspot EDGE4	DATA	L	22.38	24	1.45	---	0.000
		M	22.41	24	1.44	0.186	0.268
		H	22.37	24	1.46	---	0.000

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

Mode: WCDMA BAND5

fL(MHz)=826.4MHz fM(MHz)=836.6MHz

fH(MHz)= 846.6MHz

SAR Values (Head, WCDMA BAND5)

Limit of SAR (W/kg): <1.6W/kg(1g Average)

Test Case		CH	Measure Conducted Power (dBm)	Tune-uplimit (dBm)	Scaling Factor	Measure Results (W/kg)	Reported Results (W/kg)
Position	mode					1 g Average	1g Average
Left cheek		L	22.48	24	1.42	---	---
		M	22.56	24	1.39	0.135	0.188
		H	22.55	24	1.40	---	---
Left Tilted		L	22.48	24	1.42	---	---
		M	22.56	24	1.39	0.065	0.091
		H	22.55	24	1.40	---	---
Right cheek		L	22.48	24	1.42	---	---
		M	22.56	24	1.39	0.141	0.196
		H	22.55	24	1.40	---	---
Right Tilted		L	22.48	24	1.42	---	---
		M	22.56	24	1.39	0.098	0.137
		H	22.55	24	1.40	---	---

Mode: WCDMA BAND5

fL(MHz)=826.4MHz fM(MHz)=836.6MHz fH(MHz)= 846.6MHz

SAR Values (body, WCDMA BAND5)

Limit of SAR (W/kg): <1.6W/kg(1g Average)

Test Case		CH	Measure Conducted Power (dBm)	Tune-up limit (dBm)	Scaling Factor	Measure Results (W/kg)	Reported Results (W/kg)
Position	mode					1 g Average	1g Average
TG	VOICE	L	22.48	24	1.42	---	---
		M	22.56	24	1.39	0.336	0.468
		H	22.55	24	1.40	---	---
	DATA	L	22.48	24	1.42	---	---
		M	22.56	24	1.39	0.335	0.467
		H	22.55	24	1.40	---	---
TP	VOICE	L	22.48	24	1.42	---	---
		M	22.56	24	1.39	0.280	0.390
		H	22.55	24	1.40	---	---
	DATA	L	22.48	24	1.42	---	---
		M	22.56	24	1.39	0.330	0.460
		H	22.55	24	1.40	---	---
Hotspot EDGE2	DATA	L	22.48	24	1.42	---	---
		M	22.56	24	1.39	0.011	0.016
		H	22.55	24	1.40	---	---
Hotspot EDGE3	DATA	L	22.48	24	1.42	---	---
		M	22.56	24	1.39	0.114	0.159
		H	22.55	24	1.40	---	---
Hotspot EDGE4	DATA	L	22.48	24	1.42	---	---
		M	22.56	24	1.39	0.107	0.149
		H	22.55	24	1.40	---	---

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

Mode: LTE BAND2- 20BW-1RB

fL(MHz)=1860MHz fM(MHz)=1880MHz fH(MHz)= 1900MHz

SAR Values (Head, LTE BAND2)

Limit of SAR (W/kg): <1.6W/kg(1g Average)

Test Case		CH	Measure Conducted Power (dBm)	Tune-uplimit (dBm)	Scaling Factor	Measure Results (W/kg)	Reported Results (W/kg)	
Position	mode					1 g Average	1g Average	
Left cheek	20 BW 1RB	L	22.50	23	1.12	0.327	0.367	
		M	22.80	23	1.05	0.443	0.464	
		H	22.20	23	1.20	0.333	0.400	
Left Tilted		L	22.50	23	1.12	---	---	
		M	22.80	23	1.05	0.107	0.112	
		H	22.20	23	1.20	---	---	
Right cheek		L	22.50	23	1.12	---	---	
		M	22.80	23	1.05	0.189	0.198	
		H	22.20	23	1.20	---	---	
Right Tilted		L	22.50	23	1.12	---	---	
		M	22.80	23	1.05	0.075	0.079	
		H	22.20	23	1.20	---	---	

Mode: LTE BAND2- 20BW-1RB

fL(MHz)=1860MHz fM(MHz)=1880MHz fH(MHz)= 1900MHz

SAR Values (body, LTE BAND2)

Limit of SAR (W/kg): <1.6W/kg(1g Average)

Test Case		CH	Measure Conducted Power (dBm)	Tune-up limit (dBm)	Scaling Factor	Measure Results (W/kg)	Reported Results (W/kg)	
Position	mode					1 g Average	1g Average	
TG	20 BW 1RB	L	22.50	23	1.12	0.708	0.794	
		M	22.80	23	1.05	0.795	0.832	
		H	22.20	23	1.20	0.777	0.934	
TP	20 BW 1RB	L	22.50	23	1.12	---	---	
		M	22.80	23	1.05	0.472	0.494	
		H	22.20	23	1.20	---	---	
Hotspot EDGE 2	20 BW 1RB	L	22.50	23	1.12	---	---	
		M	22.80	23	1.05	0.378	0.396	
		H	22.20	23	1.20	---	---	
Hotspot EDGE 3		L	22.50	23	1.12	---	---	
		M	22.80	23	1.05	0.043	0.045	
		H	22.20	23	1.20	---	---	
Hotspot EDGE 4		L	22.50	23	1.12	---	---	
		M	22.80	23	1.05	0.301	0.315	
		H	22.20	23	1.20	---	---	

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

Mode: LTE BAND2- 20BW-50%RB

fL(MHz)=1860MHz fM(MHz)=1880MHz fH(MHz)= 1900MHz

SAR Values (Head, LTE BAND2)

Limit of SAR (W/kg): <1.6W/kg(1g Average)

Test Case		CH	Measure Conducted Power (dBm)	Tune-uplimit (dBm)	Scaling Factor	Measure Results (W/kg)	Reported Results (W/kg)
Position	mode					1 g Average	1g Average
Left cheek	20 BW 50%RB	L	22.20	23	1.20	---	---
		M	22.50	23	1.12	0.397	0.445
		H	22.00	23	1.26	---	---
		L	22.20	23	1.20	---	---
		M	22.50	23	1.12	0.096	0.108
		H	22.00	23	1.26	---	---
Right cheek	20 BW 50%RB	L	22.20	23	1.20	---	---
		M	22.50	23	1.12	0.147	0.165
		H	22.00	23	1.26	---	---
		L	22.20	23	1.20	---	---
		M	22.50	23	1.12	0.067	0.075
		H	22.00	23	1.26	---	---

Mode: LTE BAND2- 20BW-50%RB

fL(MHz)=1860MHz fM(MHz)=1880MHz fH(MHz)= 1900MHz

SAR Values (body, LTE BAND2)

Limit of SAR (W/kg): <1.6W/kg(1g Average)

Test Case		CH	Measure Conducted Power (dBm)	Tune-up limit (dBm)	Scaling Factor	Measure Results (W/kg)	Reported Results (W/kg)	
Position	mode					1 g Average	1g Average	
TG	20 BW 50%RB	L	22.20	23	1.20	---	---	
		M	22.50	23	1.12	0.646	0.725	
		H	22.00	23	1.26	---	---	
TP	20 BW 50%RB	L	22.20	23	1.20	---	---	
		M	22.50	23	1.12	0.382	0.429	
		H	22.00	23	1.26	---	---	
Hotspot EDGE 2	20 BW 50%RB	L	22.20	23	1.20	---	---	
		M	22.50	23	1.12	---	---	
		H	22.00	23	1.26	---	---	
Hotspot EDGE 3		L	22.20	23	1.20	---	---	
		M	22.50	23	1.12	---	---	
		H	22.00	23	1.26	---	---	
Hotspot EDGE 4		L	22.20	23	1.20	---	---	
		M	22.50	23	1.12	---	---	
		H	22.00	23	1.26	---	---	

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

Mode: LTE BAND4- 20BW-1RB

fL(MHz)=1720.0MHz fM(MHz)=1732.5MHz fH(MHz)= 1745.0Mhz

SAR Values (Head, LTE BAND4)

Limit of SAR (W/kg): <1.6W/kg(1g Average)

Test Case		CH	Measure Conducted Power (dBm)	Tune-uplimit (dBm)	Scaling Factor	Measure Results (W/kg)	Reported Results (W/kg)
Position	mode					1 g Average	1g Average
Left cheek		L	21.80	1.20	1.32	---	---
		M	22.00	1.00	1.26	0.343	0.432
		H	21.50	1.50	1.41	---	---
Left Tilted	20BW 1RB	L	21.80	1.20	1.32	---	---
		M	22.00	1.00	1.26	0.169	0.213
		H	21.50	1.50	1.41	---	---
Right cheek		L	21.80	1.20	1.32	---	---
		M	22.00	1.00	1.26	0.170	0.214
		H	21.50	1.50	1.41	---	---
Right Tilted		L	21.80	1.20	1.32	---	---
		M	22.00	1.00	1.26	0.138	0.174
		H	21.50	1.50	1.41	---	---

Mode: LTE BAND4- 20BW-1RB

fL(MHz)=1720.0MHz fM(MHz)=1732.5MHz

fH(MHz)= 1745.0MHz

SAR Values (body, LTE BAND4)

Limit of SAR (W/kg): <1.6W/kg(1g Average)

Test Case		CH	Measure Conducted Power (dBm)	Tune-up limit (dBm)	Scaling Factor	Measure Results (W/kg)	Reported Results (W/kg)	
Position	mode					1 g Average	1g Average	
TG	20 BW 1RB	L	21.80	1.20	1.32	---	---	
		M	22.00	1.00	1.26	0.200	0.252	
		H	21.50	1.50	1.41	---	---	
TP	20 BW 1RB	L	21.80	1.20	1.32	---	---	
		M	22.00	1.00	1.26	0.340	0.428	
		H	21.50	1.50	1.41	---	---	
Hotspot EDGE 2	20 BW 1RB	L	21.80	1.20	1.32	---	---	
		M	22.00	1.00	1.26	---	---	
		H	21.50	1.50	1.41	---	---	
Hotspot EDGE 3		L	21.80	1.20	1.32	---	---	
		M	22.00	1.00	1.26	---	---	
		H	21.50	1.50	1.41	---	---	
Hotspot EDGE 4		L	21.80	1.20	1.32	---	---	
		M	22.00	1.00	1.26	---	---	
		H	21.50	1.50	1.41	---	---	

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

Mode: LTE BAND4- 20BW-50%RB

fL(MHz)=1720 MHz fM(MHz)=1732.5MHz fH(MHz)= 1745MHz

SAR Values (Head, LTE BAND4)

Limit of SAR (W/kg): <1.6W/kg(1g Average)

Test Case		CH	Measure Conducted Power (dBm)	Tune-uplimit (dBm)	Scaling Factor	Measure Results (W/kg)	Reported Results (W/kg)	
Position	mode					1 g Average	1g Average	
Left cheek	20 BW 50%RB	L	21.80	1.20	1.32	---	---	
		M	22.00	1.00	1.26	0.280	0.352	
		H	21.50	1.50	1.41	---	---	
Left Tilted		L	21.80	1.20	1.32	---	---	
		M	22.00	1.00	1.26	0.136	0.171	
		H	21.50	1.50	1.41	---	---	
Right cheek		L	21.80	1.20	1.32	---	---	
		M	22.00	1.00	1.26	0.148	0.186	
		H	21.50	1.50	1.41	---	---	
Right Tilted		L	21.80	1.20	1.32	---	---	
		M	22.00	1.00	1.26	0.118	0.149	
		H	21.50	1.50	1.41	---	---	

Mode: LTE BAND4- 20BW-50%RB

fL(MHz)=1720 MHz fM(MHz)=1732.5MHz fH(MHz)= 1745MHz

SAR Values (body, LTE BAND4)

Limit of SAR (W/kg): <1.6W/kg(1g Average)

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

Test Case		CH	Measure Conducted Power (dBm)	Tune-up limit (dBm)	Scaling Factor	Measure Results (W/kg)	Reported Results (W/kg)	
Position	mode					1 g Average	1g Average	
TG	20 BW 50%RB	L	21.80	1.20	1.32	---	---	
		M	22.00	1.00	1.26	0.419	0.527	
		H	21.50	1.50	1.41	---	---	
TP	20 BW 50%RB	L	21.80	1.20	1.32	---	---	
		M	22.00	1.00	1.26	0.272	0.342	
		H	21.50	1.50	1.41	---	---	
Hotspot EDGE 2	20 BW 50%RB	L	21.80	1.20	1.32	---	---	
		M	22.00	1.00	1.26	0.311	0.392	
		H	21.50	1.50	1.41	---	---	
Hotspot EDGE 3		L	21.80	1.20	1.32	---	---	
		M	22.00	1.00	1.26	0.116	0.146	
		H	21.50	1.50	1.41	---	---	
Hotspot EDGE 4		L	21.80	1.20	1.32	---	---	
		M	22.00	1.00	1.26	0.153	0.193	
		H	21.50	1.50	1.41	---	---	

Mode: LTE BAND5- 10BW-1RB

fL(MHz)=829 MHz fM(MHz)=836.5MHz fH(MHz)= 844MHz

SAR Values (Head, LTE BAND5)

Limit of SAR (W/kg): <1.6W/kg(1g Average)

Test Case		CH	Measure Conducted Power (dBm)	Tune-uplimit (dBm)	Scaling Factor	Measure Results (W/kg)	Reported Results (W/kg)	
Position	mode					1 g Average	1g Average	
Left cheek	10 BW 1RB	L	22.00	23	1.26	---	---	
		M	22.20	23	1.20	0.102	0.123	
		H	21.80	23	1.32	---	---	
Left Tilted		L	22.00	23	1.26	---	---	
		M	22.20	23	1.20	0.069	0.083	
		H	21.80	23	1.32	---	---	
Right cheek		L	22.00	23	1.26	---	---	
		M	22.20	23	1.20	0.129	0.155	
		H	21.80	23	1.32	---	---	
Right Tilted		L	22.00	23	1.26	---	---	
		M	22.20	23	1.20	0.074	0.088	
		H	21.80	23	1.32	---	---	

Mode: LTE BAND5- 10BW-1RB

fL(MHz)=829 MHz fM(MHz)=836.5MHz fH(MHz)= 844MHz

SAR Values (Head, LTE BAND5)

Limit of SAR (W/kg): <1.6W/kg(1g Average)

Test Case		CH	Measure Conducted Power (dBm)	Tune-up limit (dBm)	Scaling Factor	Measure Results (W/kg)	Reported Results (W/kg)	
Position	mode					1 g Average	1g Average	
TG	10 BW 1RB	L	22.00	23	1.26	---	---	
		M	22.20	23	1.20	0.258	0.310	
		H	21.80	23	1.32	---	---	
TP	10 BW 1RB	L	22.00	23	1.26	---	---	
		M	22.20	23	1.20	0.167	0.201	
		H	21.80	23	1.32	---	---	
Hotspot EDGE 2	10 BW 1RB	L	22.00	23	1.26	---	---	
		M	22.20	23	1.20	0.125	0.150	
		H	21.80	23	1.32	---	---	
Hotspot EDGE 3		L	22.00	23	1.26	---	---	
		M	22.20	23	1.20	0.293	0.352	
		H	21.80	23	1.32	---	---	
Hotspot EDGE 4		L	22.00	23	1.26	---	0.000	
		M	22.20	23	1.20	0.062	0.075	
		H	21.80	23	1.32	---	---	

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

Mode: LTE BAND5- 10BW-50%RB

fL(MHz)=829 MHz fM(MHz)=836.5MHz fH(MHz)= 844MHz

SAR Values (Head, LTE BAND5)

Limit of SAR (W/kg): <1.6W/kg(1g Average)

Test Case		CH	Measure Conducted Power (dBm)	Tune-uplimit (dBm)	Scaling Factor	Measure Results (W/kg)	Reported Results (W/kg)	
Position	mode					1 g Average	1g Average	
Left cheek	10 BW 50%RB	L	22.00	23	1.26	---	---	
		M	22.30	23	1.17	0.102	0.120	
		H	22.00	23	1.26	---	---	
Left Tilted		L	22.00	23	1.26	---	---	
		M	22.30	23	1.17	0.059	0.069	
		H	22.00	23	1.26	---	---	
Right cheek		L	22.00	23	1.26	---	---	
		M	22.30	23	1.17	0.099	0.116	
		H	22.00	23	1.26	---	---	
Right Tilted		L	22.00	23	1.26	---	---	
		M	22.30	23	1.17	0.054	0.064	
		H	22.00	23	1.26	---	---	

Mode: LTE BAND5- 10BW-50%RB

fL(MHz)=829 MHz fM(MHz)=836.5MHz fH(MHz)= 844MHz

SAR Values (Head, LTE BAND5)

Limit of SAR (W/kg): <1.6W/kg(1g Average)

Test Case		CH	Measure Conducted Power (dBm)	Tune-up limit (dBm)	Scaling Factor	Measure Results (W/kg)	Reported Results (W/kg)	
Position	mode					1 g Average	1g Average	
TG	10 BW 50%RB	L	22.00	23	1.26	---	---	
		M	22.30	23	1.17	0.174	0.204	
		H	22.00	23	1.26	---	---	
TP	10 BW 50%RB	L	22.00	23	1.26	---	---	
		M	22.30	23	1.17	0.145	0.170	
		H	22.00	23	1.26	---	---	
Hotspot EDGE 2	10 BW 50%RB	L	22.00	23	1.26	---	---	
		M	22.30	23	1.17	---	---	
		H	22.00	23	1.26	---	---	
Hotspot EDGE 3		L	22.00	23	1.26	---	---	
		M	22.30	23	1.17	---	---	
		H	22.00	23	1.26	---	---	
Hotspot EDGE 4		L	22.00	23	1.26	---	---	
		M	22.30	23	1.17	---	---	
		H	22.00	23	1.26	---	---	

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

Mode: LTE BAND7- 20BW-1RB

fL(MHz)=2510 MHz fM(MHz)=2535MHz fH(MHz)= 2560MHz

SAR Values (Head, LTE BAND7)

Limit of SAR (W/kg): <1.6W/kg(1g Average)

Test Case		CH	Measure Conducted Power (dBm)	Tune-uplimit (dBm)	Scaling Factor	Measure Results (W/kg)	Reported Results (W/kg)
Position	mode					1 g Average	1g Average
Left cheek		L	21.60	23	1.38	---	---
		M	22.40	23	1.15	0.064	0.073
		H	22.00	23	1.26	---	---
Left Tilted	20 BW 1RB	L	21.60	23	1.38	---	---
		M	22.40	23	1.15	0.027	0.031
		H	22.00	23	1.26	---	---
Right cheek		L	21.60	23	1.38	---	---
		M	22.40	23	1.15	0.034	0.039
		H	22.00	23	1.26	---	---
Right Tilted		L	21.60	23	1.38	---	---
		M	22.40	23	1.15	0.030	0.034
		H	22.00	23	1.26	---	---

Mode: LTE BAND7- 20BW-1RB

fL(MHz)=2510 MHz fM(MHz)=2535MHz fH(MHz)= 2560MHz

SAR Values (body, LTE BAND7)

Limit of SAR (W/kg): <1.6W/kg(1g Average)

Test Case		CH	Measure Conducted Power (dBm)	Tune-up limit (dBm)	Scaling Factor	Measure Results (W/kg)	Reported Results (W/kg)	
Position	mode					1 g Average	1g Average	
TG	20 BW 1RB	L	21.60	23	1.38	---	---	
		M	22.40	23	1.15	0.740	0.850	
		H	22.00	23	1.26	---	---	
TP	20 BW 1 RB	L	21.60	23	1.38	---	---	
		M	22.40	23	1.15	0.322	0.370	
		H	22.00	23	1.26	---	---	
Hotspot EDGE 2	20 BW 1RB	L	21.60	23	1.38	---	---	
		M	22.40	23	1.15	0.523	0.600	
		H	22.00	23	1.26	---	---	
Hotspot EDGE 3		L	21.60	23	1.38	---	---	
		M	22.40	23	1.15	0.050	0.057	
		H	22.00	23	1.26	---	0.000	
Hotspot EDGE 4		L	21.60	23	1.38	---	---	
		M	22.40	23	1.15	0.019	0.021	
		H	22.00	23	1.26	---	---	

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

Mode: LTE BAND7- 20BW-50%RB

fL(MHz)=2510 MHz fM(MHz)=2535MHz fH(MHz)= 2560MHz

SAR Values (Head, LTE BAND7)

Limit of SAR (W/kg): <1.6W/kg(1g Average)

Test Case		CH	Measure Conducted Power (dBm)	Tune-uplimit (dBm)	Scaling Factor	Measure Results (W/kg)	Reported Results (W/kg)	
Position	mode					1 g Average	1g Average	
Left cheek	20 BW 50%RB	L	21.40	23	1.45	---	---	
		M	22.50	23	1.12	0.057	0.064	
		H	22.00	23	1.26	---	---	
Left Tilted		L	21.40	23	1.45	---	---	
		M	22.50	23	1.12	0.020	0.022	
		H	22.00	23	1.26	---	---	
Right cheek		L	21.40	23	1.45	---	---	
		M	22.50	23	1.12	0.029	0.033	
		H	22.00	23	1.26	---	---	
Right Tilted		L	21.40	23	1.45	---	---	
		M	22.50	23	1.12	0.035	0.039	
		H	22.00	23	1.26	---	---	

Mode: LTE BAND7- 20BW-50%RB

fL(MHz)=2510 MHz fM(MHz)=2535MHz fH(MHz)= 2560MHz

SAR Values (body, LTE BAND7)

Limit of SAR (W/kg): <1.6W/kg(1g Average)

Test Case		CH	Measure Conducted Power (dBm)	Tune-up limit (dBm)	Scaling Factor	Measure Results (W/kg)	Reported Results (W/kg)	
Position	mode					1 g Average	1g Average	
TG	20 BW 50%RB	L	21.40	23	1.45	---	---	
		M	22.50	23	1.12	0.613	0.688	
		H	22.00	23	1.26	---	---	
TP	20 BW 50%RB	L	21.40	23	1.45	---	---	
		M	22.50	23	1.12	0.270	0.303	
		H	22.00	23	1.26	---	---	
Hotspot EDGE 2	20 BW 50%RB	L	21.40	23	1.45	---	---	
		M	22.50	23	1.12	---	---	
		H	22.00	23	1.26	---	---	
Hotspot EDGE 3		L	21.40	23	1.45	---	---	
		M	22.50	23	1.12	---	---	
		H	22.00	23	1.26	---	---	
Hotspot EDGE 4		L	21.40	23	1.45	---	---	
		M	22.50	23	1.12	---	---	
		H	22.00	23	1.26	---	---	

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

6.11 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 \geq 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 \geq 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 \geq 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is $>$ 1.20.

6.11.1 The Highest Measured SAR configuration in Each Frequency Band

Frequency band(MHz)	Air interface	Head(w/kg)	Body(w/kg)
850	GSM850 WCDMA BAND5 LTE BAND5	<0.8	<0.8
1700	WCDMA BAND4 LTE BAND4	<0.8	<0.8
1900	GSM1900 WCDMA BAND2 LTE BAND2	<0.8	<0.8
2450	WiFi 802.11b/g/n LTE BAND7	<0.8	<0.8

6.12 Simultaneous Transmission SAR Analysis

The sum of SAR values for GSM & WiFi

	MAXIMUM SAR VALUE FOR HEAD	MAXIMUM SAR VALUE FOR BODY
GSM	0.322	0.981
WiFi	0.417	0.417
Sum	0.739	1.398
Note	GSM850+WIFI RIGHT cheek	EGPRS1900+WIFI TG

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

	MAXIMUM SAR VALUE FOR HEAD	MAXIMUM SAR VALUE FOR BODY
WCDMA	0.509	1.012
WiFi	0.417	0.417
Sum	0.926	1.429
Note	WCDMA BAND4+WIFI Left cheek	WCDMA BAND4+WIFI TG

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 LTE & WiFi

	MAXIMUM SAR VALUE FOR HEAD	MAXIMUM SAR VALUE FOR BODY
LTE	0.464	0.934
WiFi	0.417	0.417
Sum	0.881	1.351
Note	LTE BAND2+WIFI Left cheek	LTE BAND2+WIFI TG

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

According to the formula (KDB447498 4.3.2) the Bluetooth SAR as follow:

$[(\text{max.power of channel, including tune-up tolerance,mw}) / (\text{min.test separation distance,mm})]$

$[\sqrt{f(\text{GHz})} / x]$ W/kg for test separation distances $\leq 50\text{mm}$.

Head:

min. test separation distance = 5mm

Body:

min. test separation distance = 10mm

Where x=7.5 for 1-g SAR, and x=18.75 for 10-g SAR.

The sum of SAR values for GSM & Bluetooth

	MAXIMUM SAR VALUE FOR HEAD	MAXIMUM SAR VALUE FOR BODY
GSM	0.322	0.981
Bluetooth	0.033	0.033
Sum	0.355	1.014
Note	GSM850+BT Right cheek	GSM1900+BT TG

According to the above tables, the sum of SAR values for GSM and Bluetooth $< 1.6\text{W/kg}$. So simultaneous transmission SAR are not required for Bluetooth transmitter.

The sum of SAR values for WCDMA & Bluetooth

	MAXIMUM SAR VALUE FOR HEAD	MAXIMUM SAR VALUE FOR BODY
WCDMA	0.509	1.012
Bluetooth	0.033	0.033
Sum	0.542	1.045
Note	WCDMA BAND4+WIFI Left cheek	WCDMA BAND4+WIFI TG

According to the above tables, the sum of SAR values for GSM and Bluetooth $< 1.6\text{W/kg}$. So simultaneous transmission SAR are not required for Bluetooth transmitter.

The sum of SAR values for LTE & Bluetooth

	MAXIMUM SAR VALUE FOR HEAD	MAXIMUM SAR VALUE FOR BODY
LTE	0.464	0.934
Bluetooth	0.033	0.033
Sum	0.497	0.967
Note	LTE BAND2+WIFI Left cheek	LTE BAND2+WIFI TG

According to the above tables, the sum of SAR values for LTE and Bluetooth $< 1.6\text{W/kg}$. So simultaneous transmission SAR are not required for Bluetooth transmitter.

7 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) Veff
Measurement system								
Probe calibration	±6.0%	N	1	1	1	±6.0%	±6.0%	∞
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%	∞
Boundary Effects	±1.0%	R	$\sqrt{3}$	1	1	±0.6%	±0.6%	∞
Linearity	±4.7%	R	$\sqrt{3}$	1	1	±2.7%	±2.7%	∞
System detection limits	±1.0%	R	$\sqrt{3}$	1	1	±0.6%	±0.6%	∞
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	±0.4%	R	$\sqrt{3}$	1	1	±0.2%	±0.2%	∞
Probe positioning	±2.9%	R	$\sqrt{3}$	1	1	±1.7%	±1.7%	∞
Max.SAR Eval.	±1.0%	R	$\sqrt{3}$	1	1	±0.6%	±0.6%	∞
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 drift	±5.0%	R	$\sqrt{3}$	1	1	±2.9%	±2.9%	∞
Phantom and Setup								
Phantom uncertainty	±4.0%	R	$\sqrt{3}$	1	1	±2.3%	±2.3%	∞
Liquid conductivity (target.)	±5.0%	R	$\sqrt{3}$	0.64	0.43	±1.8%	±1.2%	∞
Liquid conductivity (mea.)	±2.5%	R	$\sqrt{3}$	0.64	0.43	±0.9%	±0.6%	∞
Liquid Permittivity (target.)	±5.0%	R	$\sqrt{3}$	0.60	0.49	±1.7%	±1.4%	∞
Liquid Permittivity (mea.)	±2.5%	R	$\sqrt{3}$	0.60	0.49	±0.9%	±0.7%	∞
Combined std. Uncertainty						±10.9%	±10.7%	387
Expanded STD Uncertainty								
						±21.7%	±21.4%	

8 TEST EQUIPMENTS

The measurements were performed using an automated near-field scanning system, DASY5, 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	Model	Serial Number	Calibration date	Calibration Due data
DAE	DAE4	720	2016.10.31	2017.10.30
DAE	DAE4	546	2016.08.22	2017.08.21
Dosimetric E-field Probe	EX3DV4	3708	2016.11.10	2017.11.09
Dosimetric E-field Probe	ES3DV3	3127	2016.08.29	2017.08.28
Dipole Validation Kit	D835V2	4d023	2016.10.24	2017.10.23
Dipole Validation Kit	D1800V2	2d084	2016.08.19	2017.08.18
Dipole Validation Kit	D1900V2	5d113	2016.10.31	2017.10.30
Dipole Validation Kit	D2450V2	738	2016.10.25	2017.10.24

Additional test equipment used in testing:

Test Equipment	Model	Serial Number	Calibration date	Calibration Due data
Signal Generator	E4428C	MY45280865	2016.08.20	2017.08.19
Signal Generator	SML 03	103514	2016.08.20	2017.08.19
Power meter	E4417A	MY45101182	2016.08.20	2017.08.19
Power Sensor	E4412A	MY41502214	2016.08.20	2017.08.19
Power Sensor	E4412A	MY41502130	2016.08.20	2017.08.19
Power meter	E4417A	MY45101004	2016.08.20	2017.08.19
Power Sensor	E9300B	MY41496001	2016.08.20	2017.08.19
Power Sensor	E9300B	MY41496003	2016.08.20	2017.08.19
Communication Tester	8960	GB43194054	2016.08.20	2017.08.19
Communication Tester	CMU200	114666	2016.08.20	2017.08.19
Vector Network Analyzer	VNA R140	0011213	2016.08.20	2017.08.19
Dielectric Parameter Probe	DAKS-3.5	1042	2016.08.20	2017.08.19

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: 337 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 W/kg; Linearity: ± 0.2 dB
Application	General dosimetry up to 4 GHz Dosimetry in strong gradient fields Compliance tests of mobile phones

Detailed information of Isotropic E-field Probe Type EX3DV4

Construction	Symmetrical design with triangular core 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 > 6 GHz Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Optical Surface Detection	± 0.3 mm repeatability in air and clear liquids over diffuse reflecting surfaces
Dimensions	Overall length: 337 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm
Dynamic Range	10 μ W/g to > 100 W/kg Linearity: ± 0.2 dB (noise: typically < 1 μ W/g)
Application	High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields); the only probe that enables compliance testing for frequencies up to 6 GHz with precision of better 30%.

ANNEX A – TEST PLOTS

Please refer to the attachment.

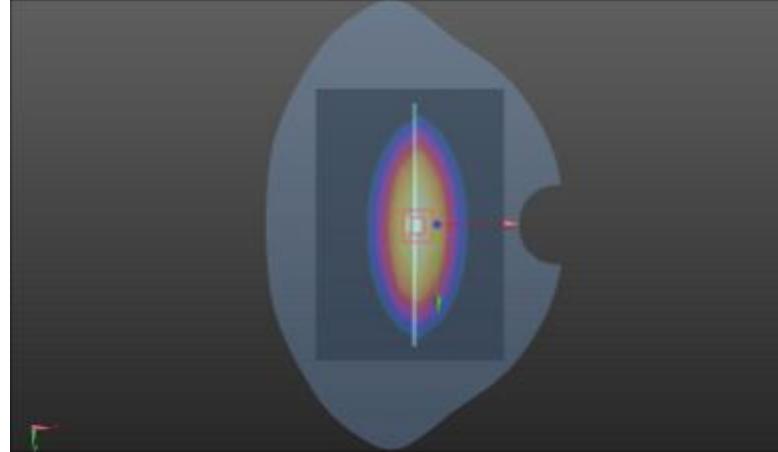
ANNEX B – RELEVANT PAGES FROM CALIBRATION REPORTS

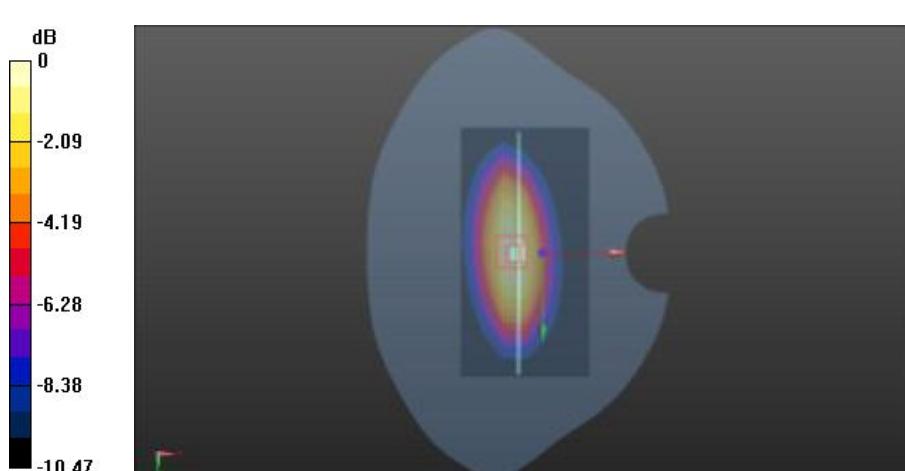
Please refer to the attachment.

ANNEX C – PHOTOGRAPH

Please refer to the attachment.

ANNEX A – TEST PLOTS

SYSTEM CHECKING SCANS	835MHz Head
<p>Communication System: UID 0, CW (0); Frequency: 835 MHz Medium parameters used (extrapolated): $f = 835$ MHz; $\sigma = 0.909$ S/m; $\epsilon_r = 42.108$; $\rho = 1000$ kg/m³ Phantom section: Flat Section Measurement Standard:DASY5 (IEEE 1528-2013)</p> <p>DASY Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.97, 5.97, 5.97); Calibrated: 8/21/2015; • Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 2.0, 32.0$ • Electronics: DAE4 Sn546; Calibrated: 8/19/2015 • Phantom: SAM 1559; Type: SAM; Serial: 1559 • DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164) <p>System Performance Check at Frequencies 835MHz Head/d=15mm, Pin=250 mW, dist=2.0mm (EX-Probe)/Area Scan (10x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 2.98 W/kg</p> <p>System Performance Check at Frequencies 835MHz Head/d=15mm, Pin=250 mW, dist=2.0mm (EX-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 54.113 V/m; Power Drift = -0.05 dB Peak SAR (extrapolated) = 3.55 W/kg SAR(1 g) = 2.34 W/kg; SAR(10 g) = 1.53 W/kg Maximum value of SAR (measured) = 2.98 W/kg</p> 	

SYSTEM CHECKING SCANS	835MHz Flat
Communication System: UID 0, CW (0); Frequency: 835 MHz	
Medium parameters used (extrapolated): $f = 835 \text{ MHz}$; $\sigma = 0.978 \text{ S/m}$; $\epsilon_r = 53.846$; $\rho = 1000 \text{ kg/m}^3$	
Phantom section: Flat Section	
Measurement Standard: DASY5 (IEEE 1528-2013)	
DASY Configuration:	
<ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.88, 5.88, 5.88); Calibrated: 8/21/2015; • Sensor-Surface: 4mm (Mechanical Surface Detection), $z = -18.0, 32.0$ • Electronics: DAE4 Sn546; Calibrated: 8/19/2015 • Phantom: SAM 1559; Type: SAM; Serial: 1559 • DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164) 	
System Performance Check at Frequencies 835MHz Flat/d=15mm, Pin=250 mW, dist=3.0mm (ES-Probe)/Area Scan (7x12x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ System Performance Check at Frequencies 835MHz Flat/d=15mm, Pin=250 mW, dist=3.0mm (ES-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 53.044 V/m; Power Drift = -0.01 dB Peak SAR (extrapolated) = 3.54 W/kg SAR(1 g) = 2.33 W/kg; SAR(10 g) = 1.53 W/kg Maximum value of SAR (measured) = 2.87 W/kg	
	

SYSTEM CHECKING SCANS

1900MHz Head

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

Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.41 \text{ S/m}$; $\epsilon_r = 40.84$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard:DASY5 (IEEE 1528-2013)

DASY Configuration:

- Probe: ES3DV3 - SN3127; ConvF(4.94, 4.94, 4.94); Calibrated: 8/21/2015;
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 2.0, 32.0$
- Electronics: DAE4 Sn546; Calibrated: 8/19/2015
- Phantom: SAM 1560; Type: SAM; Serial: 1560
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

System Performance Check at Frequencies 1900MHz Head/d=10mm, Pin=250mW, dist=2.0mm (EX-Probe)/Area Scan (9x12x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 14.0 W/kg

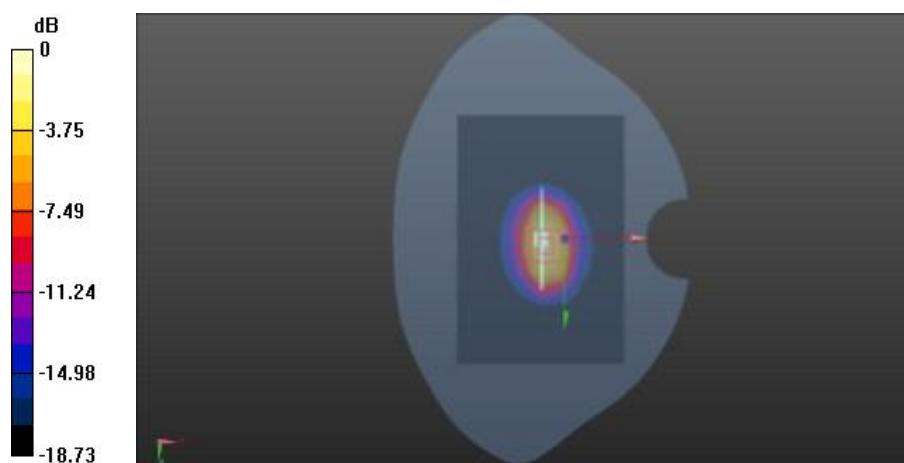
System Performance Check at Frequencies 1900MHz Head/d=10mm, Pin=250mW, dist=2.0mm (EX-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 95.996 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 20.8 W/kg

SAR(1 g) = 9.82 W/kg; SAR(10 g) = 5.47 W/kg

Maximum value of SAR (measured) = 15.9 W/kg



SYSTEM CHECKING SCANS

1900MHz Flat

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

Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.53 \text{ S/m}$; $\epsilon_r = 52.184$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard:DASY5 (IEEE 1528-2013)

DASY Configuration:

- Probe: ES3DV3 - SN3127; ConvF(4.67, 4.67, 4.67); Calibrated: 8/21/2015;
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 2.0, 32.0$
- Electronics: DAE4 Sn546; Calibrated: 8/19/2015
- Phantom: SAM 1560; Type: SAM; Serial: 1560
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

System Performance Check at Frequencies 1900MHz Flat/d=10mm, Pin=250 mW, dist=2.0mm (EX-Probe)/Area Scan (9x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

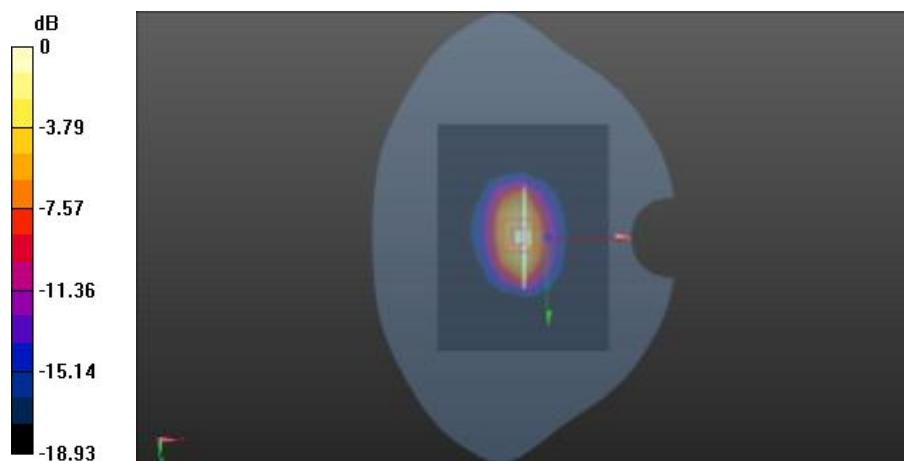
System Performance Check at Frequencies 1900MHz Flat/d=10mm, Pin=250 mW, dist=2.0mm (EX-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 91.541 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 19.2 W/kg

SAR(1 g) = 9.84 W/kg; SAR(10 g) = 5.64 W/kg

Maximum value of SAR (measured) = 14.5 W/kg



SYSTEM CHECKING SCANS

2450 MHz Head

Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 2450$ MHz; $\sigma = 1.79$ S/m; $\epsilon_r = 39.208$; $\rho = 1000$ kg/m 3
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: ES3DV3 - SN3127; ConvF(4.35, 4.35, 4.35); Calibrated: 2015/8/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn546; Calibrated: 2015/8/19
- 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 2450MHz Head/d=10mm, Pin=250 mW, dist=3.0mm (ES-Probe)/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 17.1 W/kg

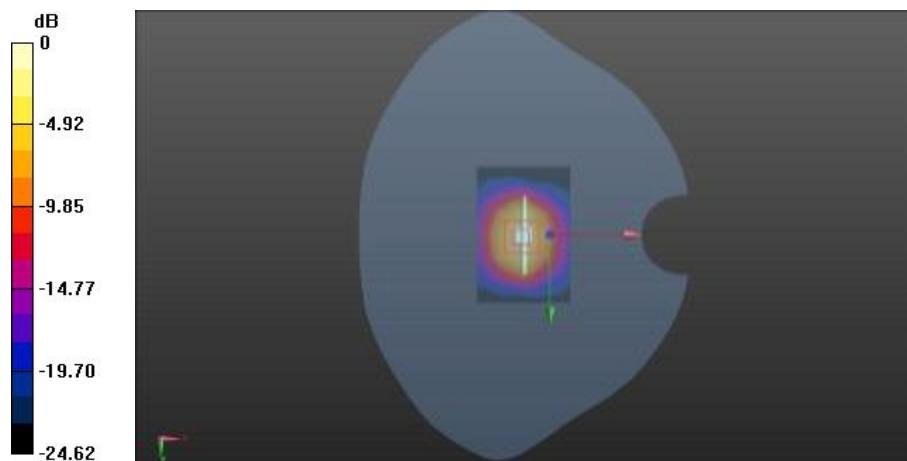
System Performance Check at Frequencies 2450MHz Head/d=10mm, Pin=250 mW, dist=3.0mm (ES-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

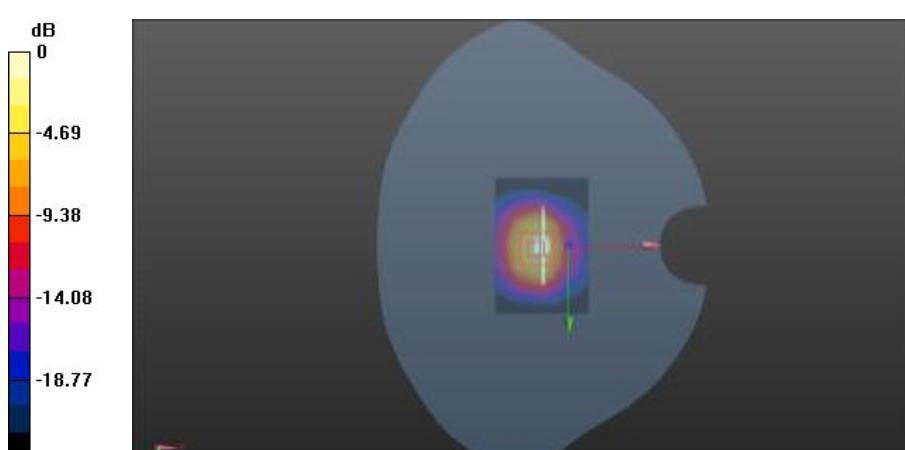
Reference Value = 102.2 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 28.8 W/kg

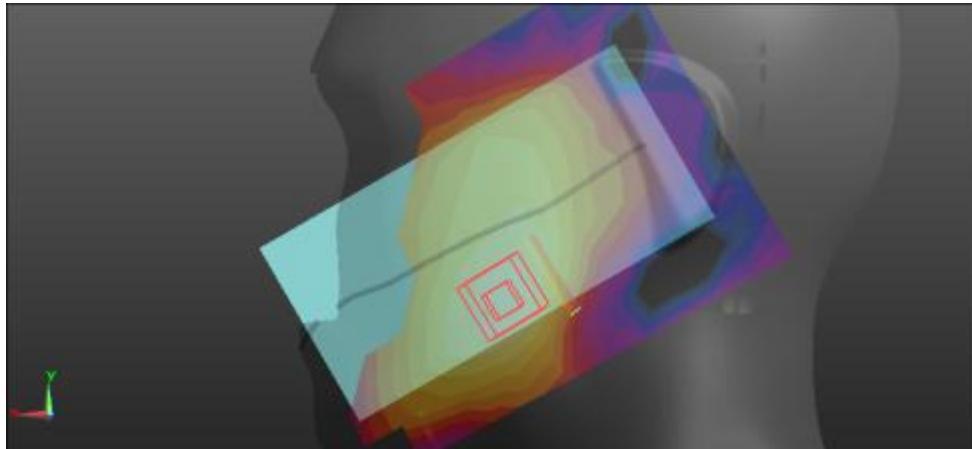
SAR(1 g) = 13.12 W/kg; SAR(10 g) = 5.92 W/kg

Maximum value of SAR (measured) = 17.0 W/kg

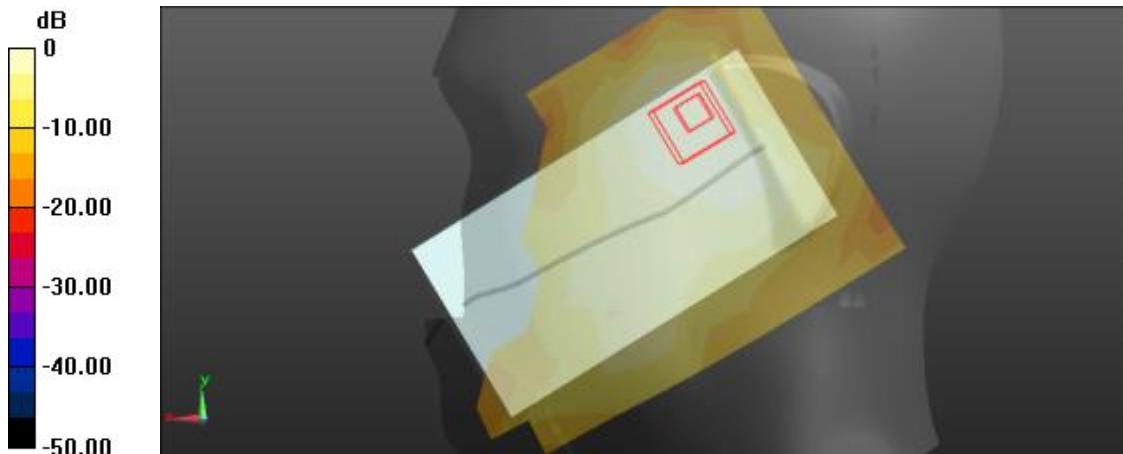


SYSTEM CHECKING SCANS	2450MHz Flat
Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1	
Medium parameters used: $f = 2450$ MHz; $\sigma = 1.965$ S/m; $\epsilon_r = 52.042$; $\rho = 1000$ kg/m ³	
Phantom section: Flat Section	
DASY5 Configuration:	
<ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.19, 4.19, 4.19); Calibrated: 2015/8/21; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2015/8/19 • 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 2450MHz Flat/d=10mm, Pin=250 mW, dist=3.0mm (ES-Probe)/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 17.1 W/kg	
System Performance Check at Frequencies 2450MHz Flat/d=10mm, Pin=250 mW, dist=3.0mm (ES-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 104.3 V/m; Power Drift = -0.01 dB Peak SAR (extrapolated) = 28.0 W/kg SAR(1 g) = 12.93 W/kg; SAR(10 g) = 5.78 W/kg Maximum value of SAR (measured) = 17.4 W/kg	
 <p>A heatmap visualization of SAR values across a circular area. The color scale on the left indicates power density in dB, ranging from -23.46 (dark blue) to 0 (yellow). The central region shows a bright yellow/orange pattern, indicating higher SAR values near the center of the phantom. A small red arrow points towards the center of the heatmap.</p>	

GSM (850MHz/Head)

Left Side	Cheek
<p>Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 836.6 MHz; Duty Cycle: 1:8.6896</p> <p>Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.89$ S/m; $\epsilon_r = 41.478$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(9.05, 9.05, 9.05); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section Left HSL 850/850GSM HSL touch M/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0699 W/kg</p> <p>Head-Section Left HSL 850/850GSM HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 2.323 V/m; Power Drift = 0.05 dB Peak SAR (extrapolated) = 0.144 W/kg SAR(1 g) = 0.076 W/kg; SAR(10 g) = 0.042 W/kg Maximum value of SAR (measured) = 0.0834 W/kg</p>  <p>0 dB = 0.0834 W/kg = -10.79 dBW/kg</p>	

Left Side	Tilt
<p>Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 836.6 MHz; Duty Cycle: 1:8.6896</p> <p>Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.89$ S/m; $\epsilon_r = 41.478$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(9.05, 9.05, 9.05); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section Left HSL 850/850GSM HSL tilt M/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0265 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 = 4.598 V/m; Power Drift = -0.18 dB Peak SAR (extrapolated) = 0.0510 W/kg SAR(1 g) = 0.028 W/kg; SAR(10 g) = 0.016 W/kg Maximum value of SAR (measured) = 0.0303 W/kg</p>	



0 dB = 0.0303 W/kg = -15.19 dBW/kg

Right Side

Cheek

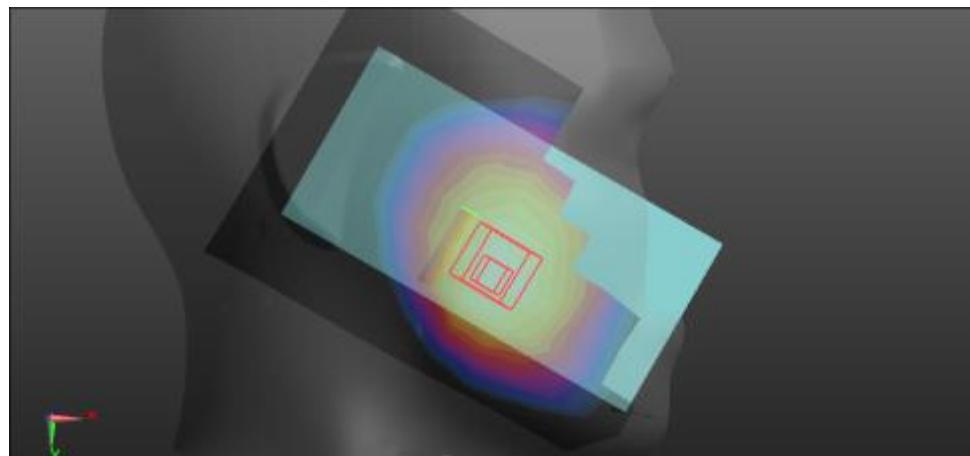
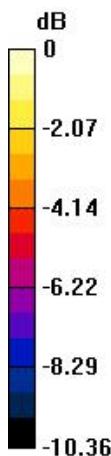
Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 836.6 MHz; Duty Cycle: 1:8.6896

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.89$ S/m; $\epsilon_r = 41.478$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3708; ConvF(9.05, 9.05, 9.05); Calibrated: 2016/11/10;
 - Sensor-Surface: 4mm (Mechanical Surface Detection)
 - Electronics: DAE4 Sn720; Calibrated: 2016/10/31
 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx
 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)
- Head-Section Right HSL 850/850GSM HSL touch M/Area Scan (9x13x1):**
 Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.258 W/kg
Head-Section Right HSL 850/850GSM HSL touch M/Zoom Scan (7x7x7)/Cube 0:
 Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Reference Value = 3.684 V/m; Power Drift = -0.12 dB
 Peak SAR (extrapolated) = 0.334 W/kg
SAR(1 g) = 0.252 W/kg; SAR(10 g) = 0.191 W/kg
 Maximum value of SAR (measured) = 0.265 W/kg



0 dB = 0.265 W/kg = -5.77 dBW/kg

Right Side

Tilt

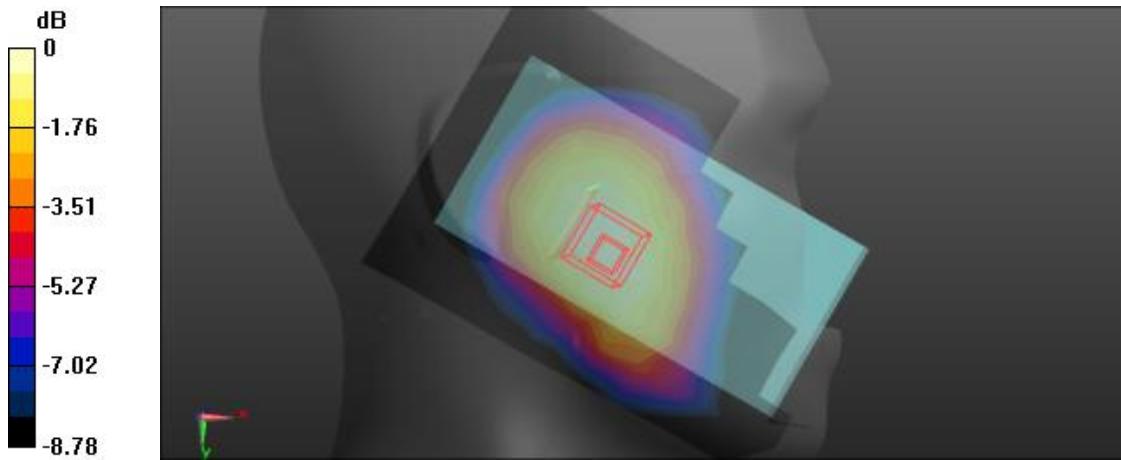
Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 836.6 MHz; Duty Cycle: 1:8.6896

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.89$ S/m; $\epsilon_r = 41.478$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3708; ConvF(9.05, 9.05, 9.05); Calibrated: 2016/11/10;
 - Sensor-Surface: 4mm (Mechanical Surface Detection)
 - Electronics: DAE4 Sn720; Calibrated: 2016/10/31
 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx
 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)
- Head-Section Right HSL 850/850GSM HSL tilt M/Area Scan (9x13x1):**
 Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.134 W/kg
Head-Section Right HSL 850/850GSM HSL tilt M/Zoom Scan (7x7x7)/Cube 0:
 Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Reference Value = 7.250 V/m; Power Drift = -0.17 dB
 Peak SAR (extrapolated) = 0.156 W/kg
SAR(1 g) = 0.128 W/kg; SAR(10 g) = 0.101 W/kg



GSM with headset (850MHz/Flat)

FLAT

Towards phantom

Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 836.6 MHz; Duty Cycle: 1:8.6896

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.858$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3708; ConvF(9.1, 9.1, 9.1); Calibrated: 2016/11/10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn720; Calibrated: 2016/10/31
- Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Flat-Section MSL 850 TP/850GSM TP M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.378 W/kg

Flat-Section MSL 850 TP/850GSM TP M 10mm/Zoom Scan (7x7x7)/Cube 0:

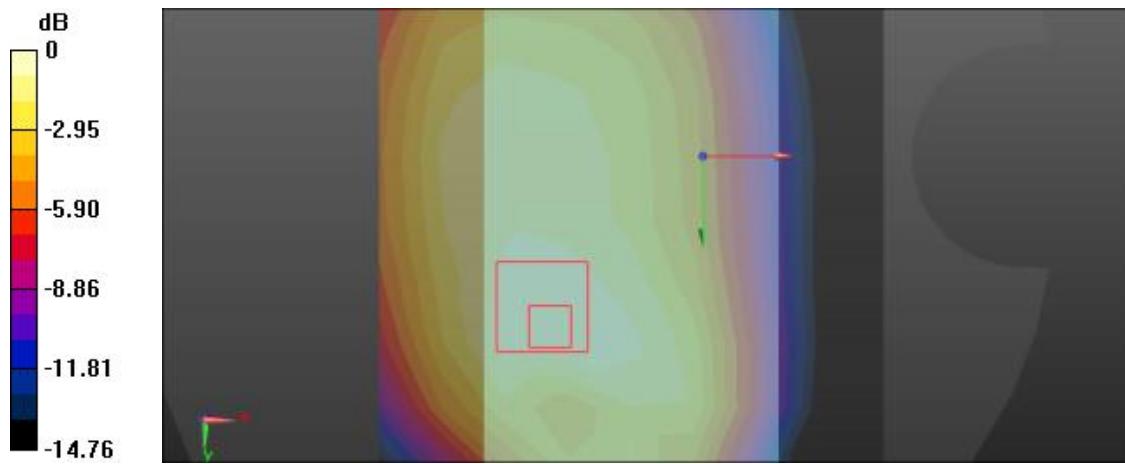
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.66 V/m; Power Drift = -0.00 dB

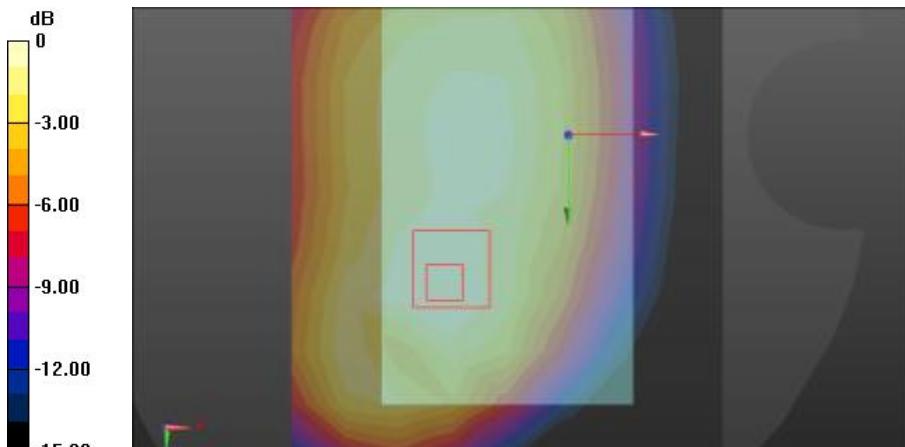
Peak SAR (extrapolated) = 0.536 W/kg

SAR(1 g) = 0.367 W/kg; SAR(10 g) = 0.259 W/kg

Maximum value of SAR (measured) = 0.392 W/kg

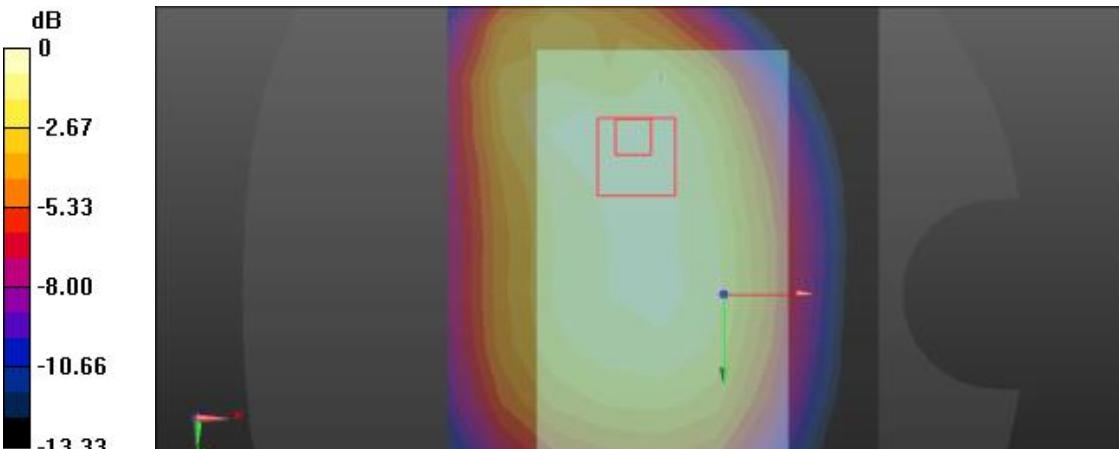


FLAT	Towards ground
<p>Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 836.6 MHz; Duty Cycle: 1:8.6896</p> <p>Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.858$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(9.1, 9.1, 9.1); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL 850 TG/850GSM TG M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.447 W/kg</p> <p>Flat-Section MSL 850 TG/850GSM TG M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 19.99 V/m; Power Drift = -0.06 dB Peak SAR (extrapolated) = 0.591 W/kg SAR(1 g) = 0.420 W/kg; SAR(10 g) = 0.298 W/kg Maximum value of SAR (measured) = 0.448 W/kg</p>	

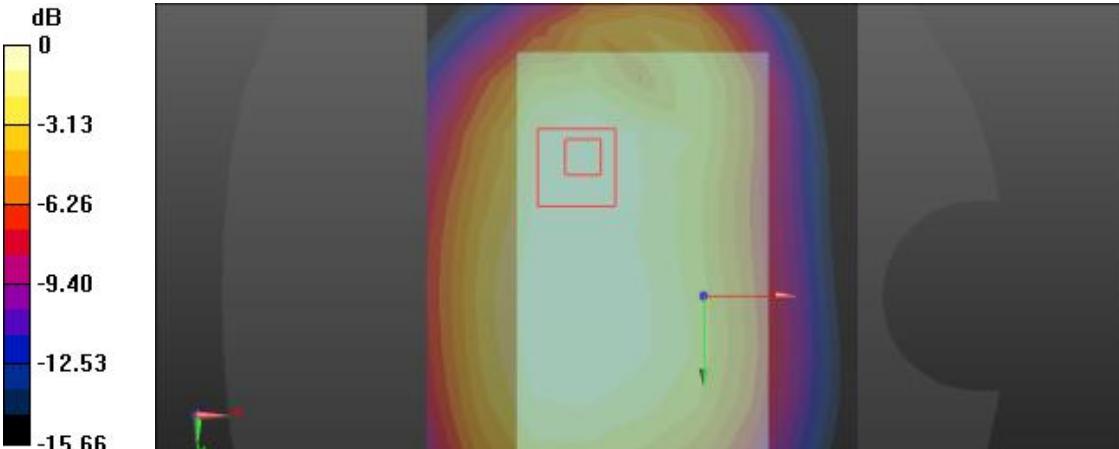


GSM (850MHz with GPRS/Flat)

FLAT	Towards phantom
<p>Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 836.6 MHz; Duty Cycle: 1:8.6896</p> <p>Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.858$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(9.1, 9.1, 9.1); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL 850 TP/850GPRS TP M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.723 W/kg</p> <p>Flat-Section MSL 850 TP/850GPRS TP M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 26.20 V/m; Power Drift = -0.02 dB Peak SAR (extrapolated) = 0.983 W/kg SAR(1 g) = 0.702 W/kg; SAR(10 g) = 0.503 W/kg Maximum value of SAR (measured) = 0.743 W/kg</p>	



0 dB = 0.743 W/kg = -1.29 dBW/kg

FLAT	Towards ground
<p>Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 836.6 MHz; Duty Cycle: 1:8.6896</p> <p>Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.858$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(9.1, 9.1, 9.1); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL 850 TG/850GPRS TG M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.821 W/kg</p> <p>Flat-Section MSL 850 TG/850GPRS TG M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 27.07 V/m; Power Drift = -0.00 dB Peak SAR (extrapolated) = 1.06 W/kg SAR(1 g) = 0.783 W/kg; SAR(10 g) = 0.563 W/kg Maximum value of SAR (measured) = 0.833 W/kg</p>  <p>0 dB = 0.833 W/kg = -0.79 dBW/kg</p>	

GSM (850MHz with EGPRS/Flat)

FLAT

Towards phantom

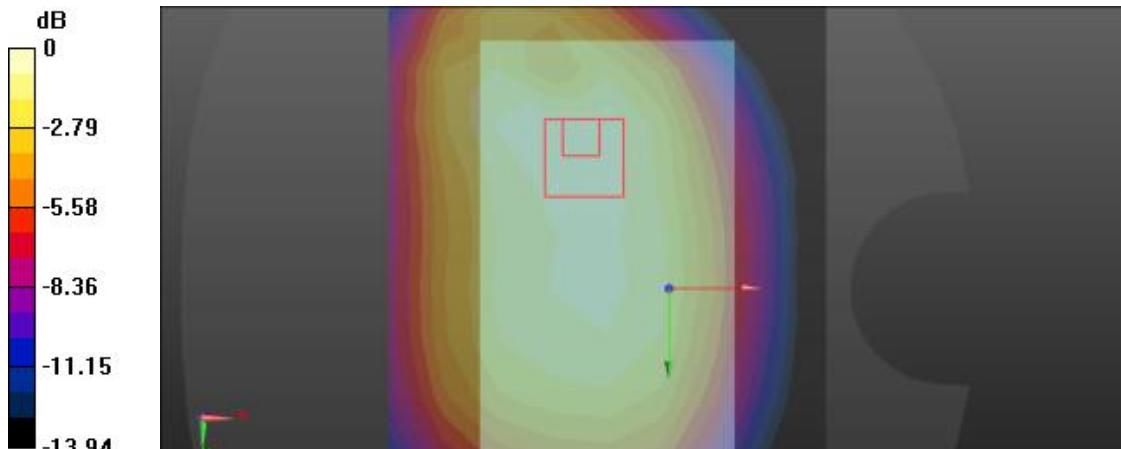
Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 836.6 MHz; Duty Cycle: 1:8.6896

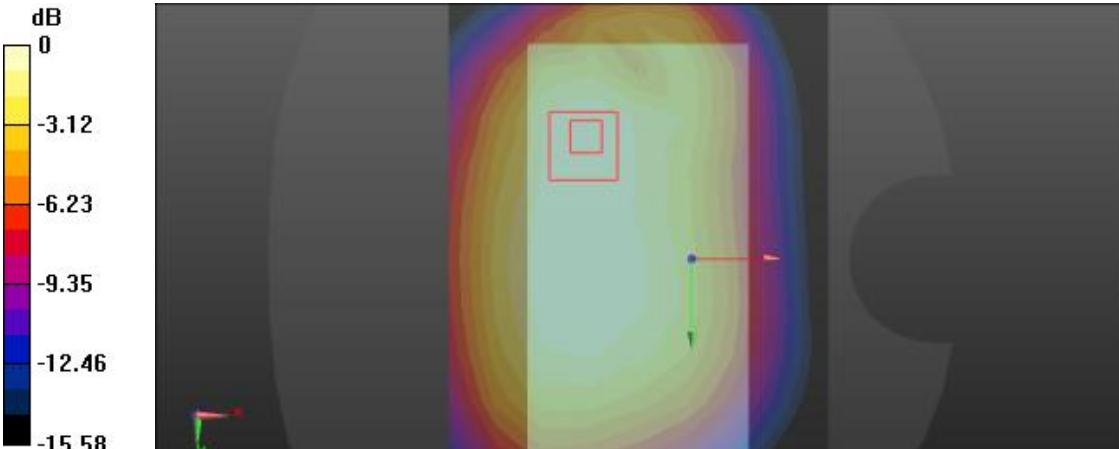
Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.858$; $\rho = 1000$ kg/m³

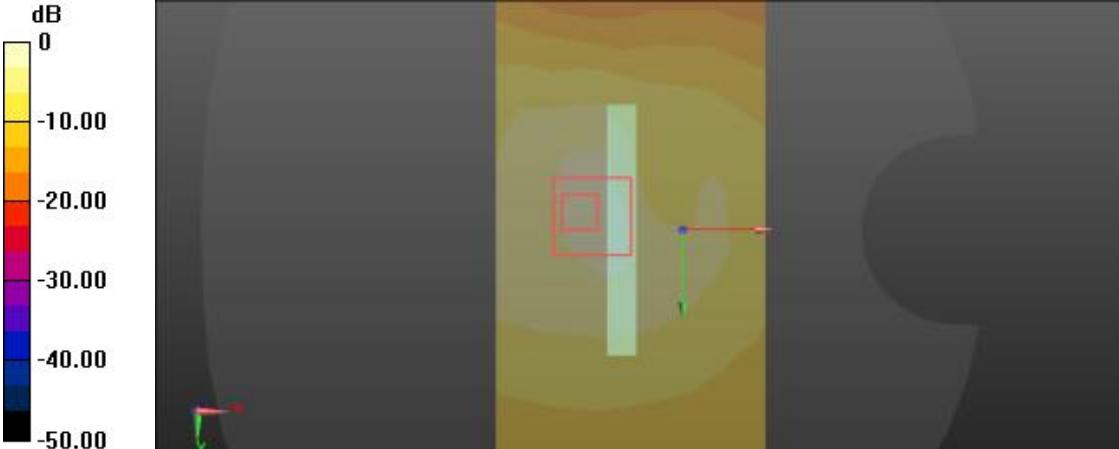
Phantom section: Flat Section

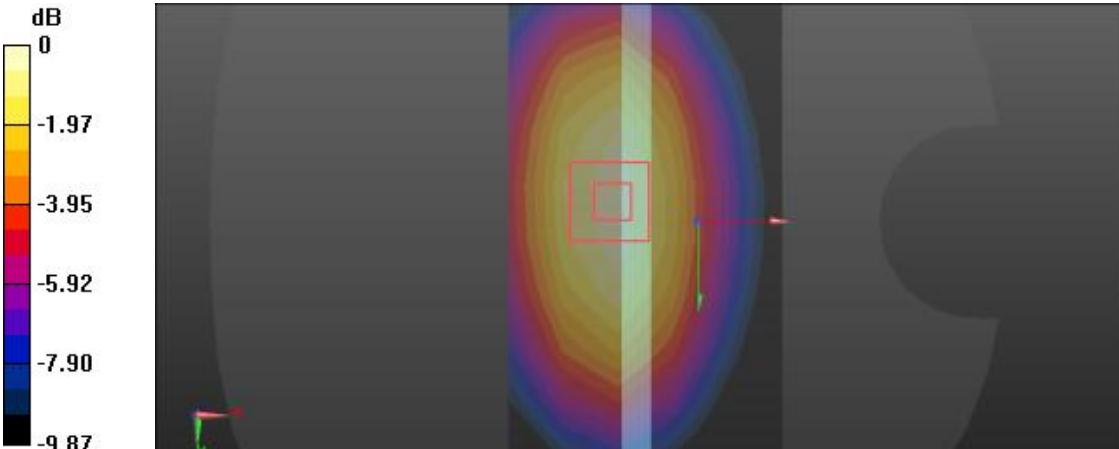
DASY5 Configuration:

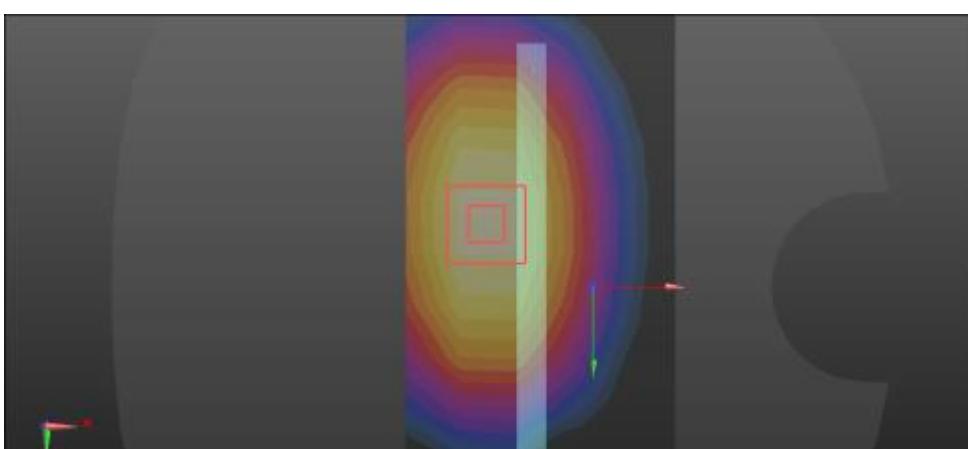
- Probe: EX3DV4 - SN3708; ConvF(9.1, 9.1, 9.1); Calibrated: 2016/11/10;
 - Sensor-Surface: 4mm (Mechanical Surface Detection)
 - Electronics: DAE4 Sn720; Calibrated: 2016/10/31
 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx
 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)
- Flat-Section MSL 850 TP/850EDGE TP M 10mm/Area Scan (9x13x1):**
 Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.709 W/kg
- Flat-Section MSL 850 TP/850EDGE TP M 10mm/Zoom Scan (7x7x7)/Cube 0:**
 Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Reference Value = 26.06 V/m; Power Drift = -0.02 dB
 Peak SAR (extrapolated) = 0.975 W/kg
SAR(1 g) = 0.705 W/kg; SAR(10 g) = 0.504 W/kg
 Maximum value of SAR (measured) = 0.747 W/kg



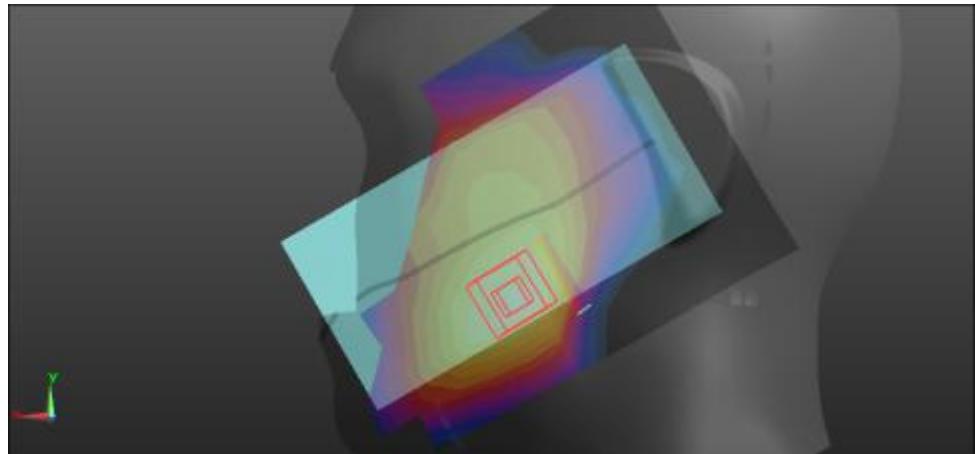
FLAT	Towards ground
<p>Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 836.6 MHz; Duty Cycle: 1:8.6896</p> <p>Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.858$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(9.1, 9.1, 9.1); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL 850 TG/850EGPRS TG M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.829 W/kg</p> <p>Flat-Section MSL 850 TG/850EGPRS TG M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 27.01 V/m; Power Drift = 0.06 dB Peak SAR (extrapolated) = 1.08 W/kg SAR(1 g) = 0.787 W/kg; SAR(10 g) = 0.565 W/kg Maximum value of SAR (measured) = 0.837 W/kg</p>  <p>0 dB = 0.837 W/kg = -0.77 dBW/kg</p>	

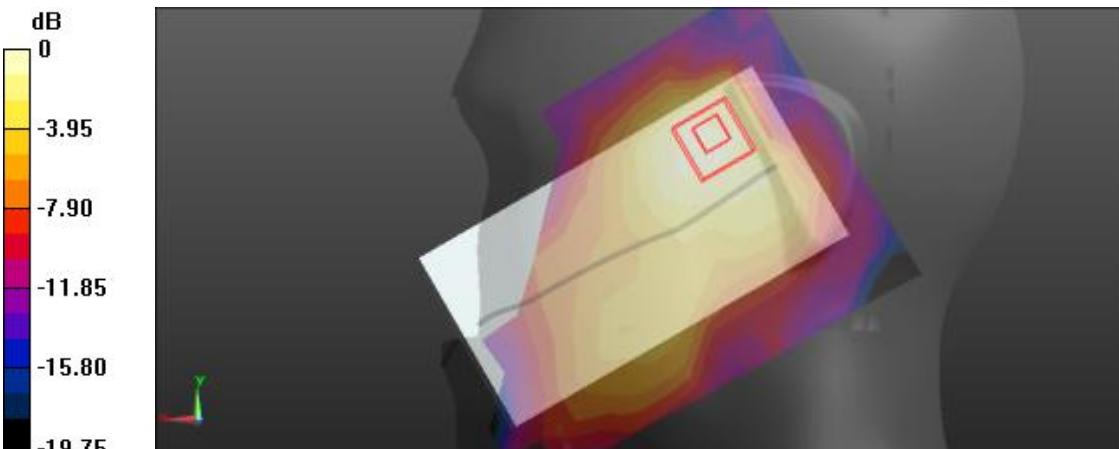
FLAT	EDGE2
<p>Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 836.6 MHz; Duty Cycle: 1:8.6896</p> <p>Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.858$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(9.1, 9.1, 9.1); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL GSM850 HOT/850EGPRS TP H edge 2/Area Scan (6x15x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.320 W/kg</p> <p>Flat-Section MSL GSM850 HOT/850EGPRS TP H edge 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 14.86 V/m; Power Drift = -0.04 dB Peak SAR (extrapolated) = 0.750 W/kg SAR(1 g) = 0.382 W/kg; SAR(10 g) = 0.189 W/kg Maximum value of SAR (measured) = 0.435 W/kg</p>  <p>0 dB = 0.435 W/kg = -3.62 dBW/kg</p>	

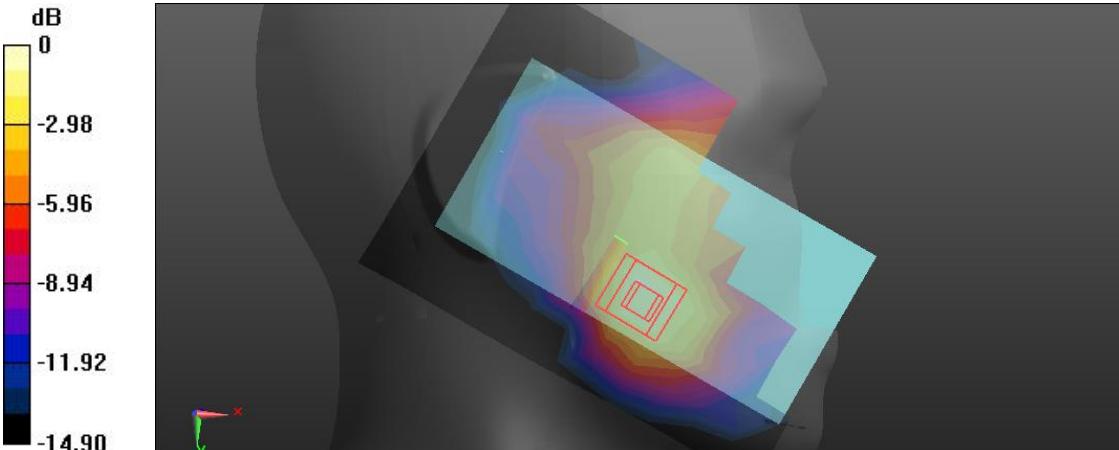
FLAT	EDGE3
<p>Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 836.6 MHz; Duty Cycle: 1:8.6896</p> <p>Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.858$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(9.1, 9.1, 9.1); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL GSM850 HOT/850EGPRS TP H edge 3/Area Scan (6x15x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.750 W/kg</p> <p>Flat-Section MSL GSM850 HOT/850EGPRS TP H edge 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 26.89 V/m; Power Drift = -0.02 dB Peak SAR (extrapolated) = 1.05 W/kg SAR(1 g) = 0.709 W/kg; SAR(10 g) = 0.480 W/kg Maximum value of SAR (measured) = 0.757 W/kg</p>  <p>0 dB = 0.757 W/kg = -1.21 dBW/kg</p>	

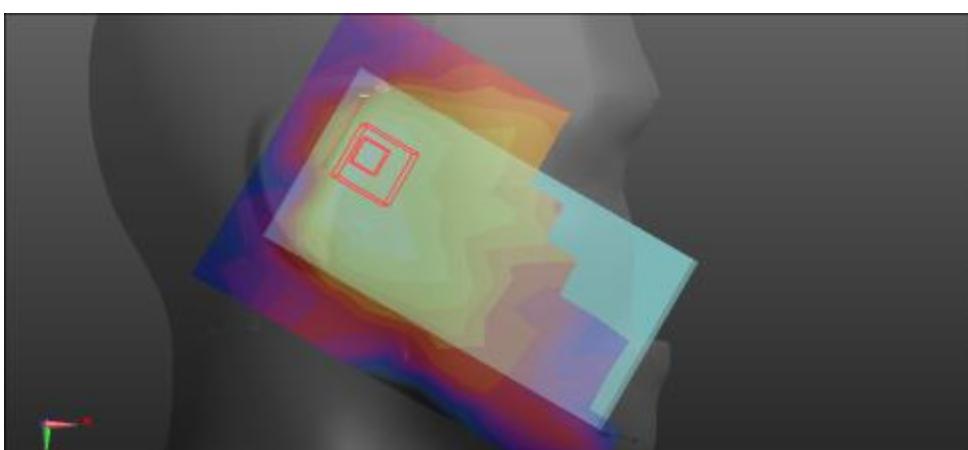
FLAT	EDGE4
<p>Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 836.6 MHz; Duty Cycle: 1:8.6896</p> <p>Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.858$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(9.1, 9.1, 9.1); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL GSM850 HOT/850EGPRS TP H edge 4/Area Scan (6x15x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.325 W/kg</p> <p>Flat-Section MSL GSM850 HOT/850EGPRS TP H edge 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 16.00 V/m; Power Drift = 0.07 dB Peak SAR (extrapolated) = 0.504 W/kg SAR(1 g) = 0.343 W/kg; SAR(10 g) = 0.233 W/kg Maximum value of SAR (measured) = 0.366 W/kg</p>  <p>0 dB = 0.366 W/kg = -4.37 dBW/kg</p>	

GSM (1900MHz/Head)

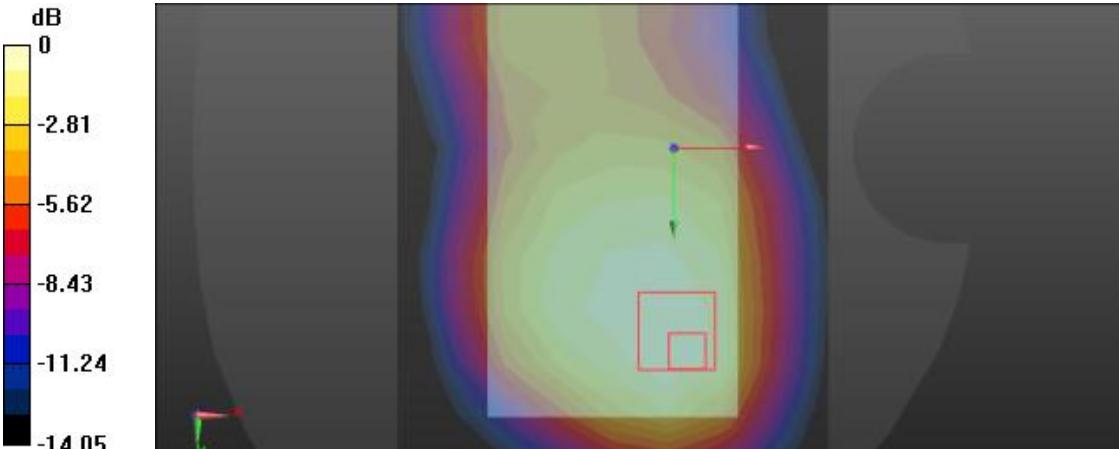
Left Side	Cheek
<p>Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 1880 MHz; Duty Cycle: 1:8.6896</p> <p>Medium parameters used: $f = 1880$ MHz; $\sigma = 1.45$ S/m; $\epsilon_r = 39.74$; $\rho = 1000$ kg/m3</p> <p>Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.84, 7.84, 7.84); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL 1900 LEFT/1900GSM HSL touch M/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.202 W/kg</p> <p>Head-Section HSL 1900 LEFT/1900GSM HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 2.793 V/m; Power Drift = 0.12 dB Peak SAR (extrapolated) = 0.318 W/kg SAR(1 g) = 0.213 W/kg; SAR(10 g) = 0.136 W/kg Maximum value of SAR (measured) = 0.232 W/kg</p>  <p>0 dB = 0.232 W/kg = -6.35 dBW/kg</p>	

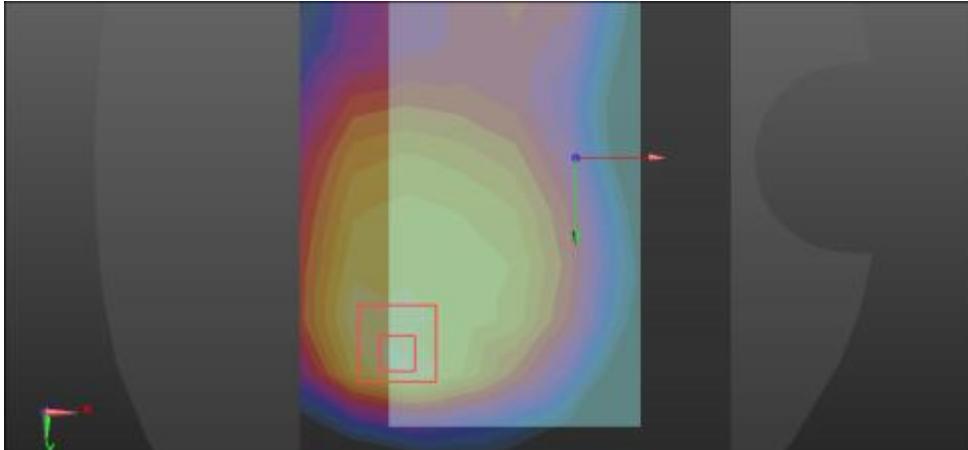
Left Side	Tilt
<p>Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 1880 MHz; Duty Cycle: 1:8.6896 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.45$ S/m; $\epsilon_r = 39.74$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.84, 7.84, 7.84); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL 1900 LEFT/1900GSM HSL tilt M/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0635 W/kg</p> <p>Head-Section HSL 1900 LEFT/1900GSM HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 4.909 V/m; Power Drift = -0.20 dB Peak SAR (extrapolated) = 0.0950 W/kg SAR(1 g) = 0.069 W/kg; SAR(10 g) = 0.045 W/kg Maximum value of SAR (measured) = 0.0740 W/kg</p>  <p>0 dB = 0.0740 W/kg = -11.31 dBW/kg</p>	

Right Side	Cheek
<p>Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 1880 MHz; Duty Cycle: 1:8.6896</p> <p>Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.45 \text{ S/m}$; $\epsilon_r = 39.74$; $\rho = 1000 \text{ kg/m}^3$</p> <p>Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.84, 7.84, 7.84); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL 1900 RIGHT/1900GSM HSL touch M/Area Scan (9x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.146 W/kg Head-Section HSL 1900 RIGHT/1900GSM HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 3.643 V/m; Power Drift = 0.12 dB Peak SAR (extrapolated) = 0.226 W/kg SAR(1 g) = 0.155 W/kg; SAR(10 g) = 0.099 W/kg Maximum value of SAR (measured) = 0.172 W/kg</p>  <p>0 dB = 0.172 W/kg = -7.64 dBW/kg</p>	

Right Side	Tilt
<p>Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 1880 MHz; Duty Cycle: 1:8.6896 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: EX3DV4 - SN3708; ConvF(7.84, 7.84, 7.84); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL 1900 RIGHT/1900GSM HSL tilt M/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0536 W/kg</p> <p>Head-Section HSL 1900 RIGHT/1900GSM HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 5.462 V/m; Power Drift = -0.15 dB Peak SAR (extrapolated) = 0.0890 W/kg SAR(1 g) = 0.056 W/kg; SAR(10 g) = 0.036 W/kg Maximum value of SAR (measured) = 0.0604 W/kg</p>  <p>0 dB = 0.0604 W/kg = -12.19 dBW/kg</p>	

GSM with headset (1900MHz/Flat)

FLAT	Towards phantom
<p>Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 1880 MHz; Duty Cycle: 1:8.6896</p> <p>Medium parameters used: $f = 1880$ MHz; $\sigma = 1.45$ S/m; $\epsilon_r = 39.74$; $\rho = 1000$ kg/m3</p> <p>Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: EX3DV4 - SN3708; ConvF(7.84, 7.84, 7.84); Calibrated: 2016/11/10; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn720; Calibrated: 2016/10/31 Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL 1900 TP/1900GSM TP M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.218 W/kg</p> <p>Flat-Section MSL 1900 TP/1900GSM TP M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 8.398 V/m; Power Drift = 0.04 dB Peak SAR (extrapolated) = 0.338 W/kg SAR(1 g) = 0.213 W/kg; SAR(10 g) = 0.138 W/kg Maximum value of SAR (measured) = 0.227 W/kg</p>  <p>0 dB = 0.227 W/kg = -6.44 dBW/kg</p>	

FLAT	Towards ground
<p>Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 1880 MHz; Duty Cycle: 1:8.6896 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.57$ S/m; $\epsilon_r = 51.14$; $\rho = 1000$ kg/m3 Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL 1900 TG/1900GSM TG M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.505 W/kg</p> <p>Flat-Section MSL 1900 TG/1900GSM TG M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 9.683 V/m; Power Drift = 0.12 dB Peak SAR (extrapolated) = 0.878 W/kg SAR(1 g) = 0.523 W/kg; SAR(10 g) = 0.302 W/kg Maximum value of SAR (measured) = 0.582 W/kg</p>  <p>0 dB = 0.582 W/kg = -2.35 dBW/kg</p>	

GSM (1900MHz with GPRS/Flat)

FLAT

Towards phantom

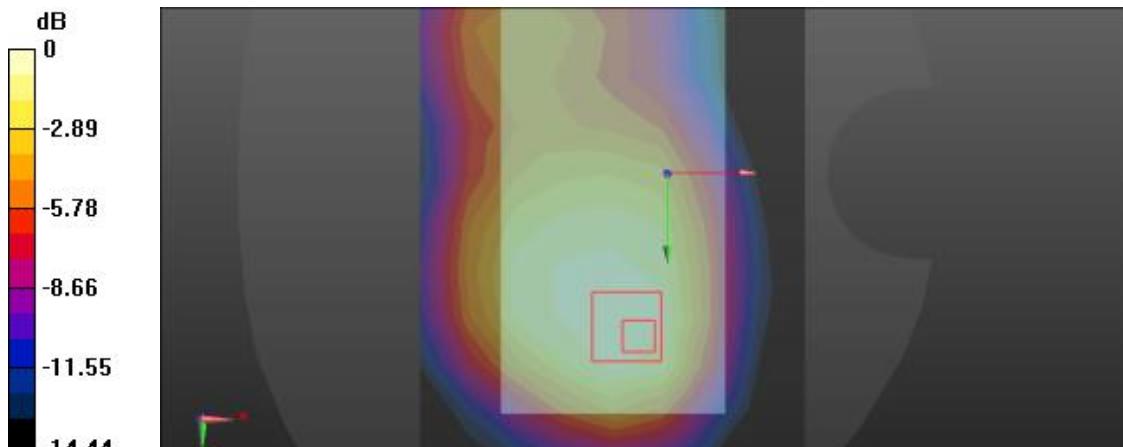
Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 1880 MHz; Duty Cycle: 1:8.6896

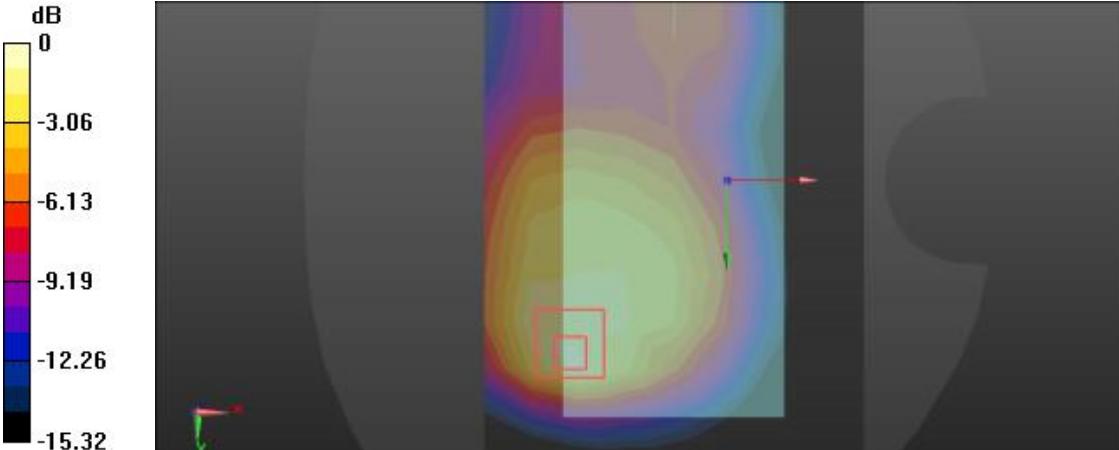
Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.45 \text{ S/m}$; $\epsilon_r = 39.74$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

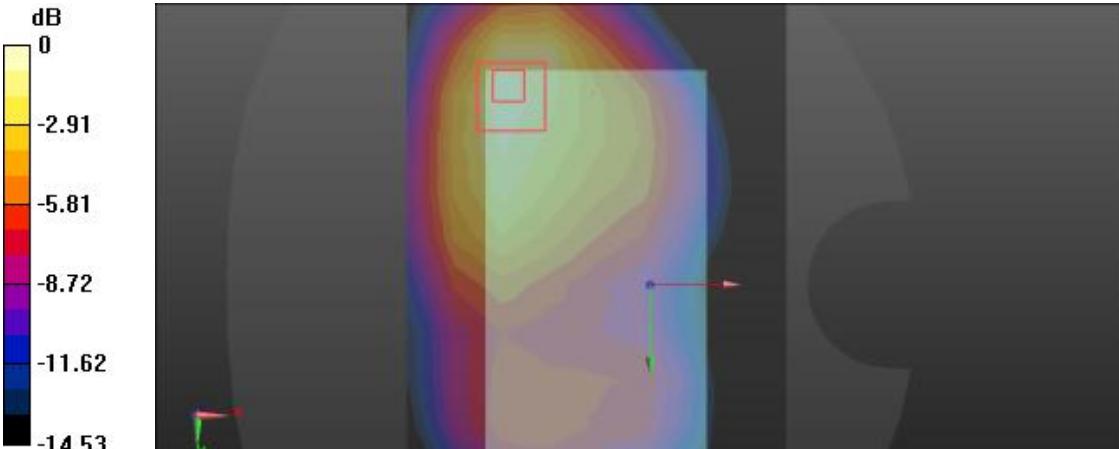
DASY5 Configuration:

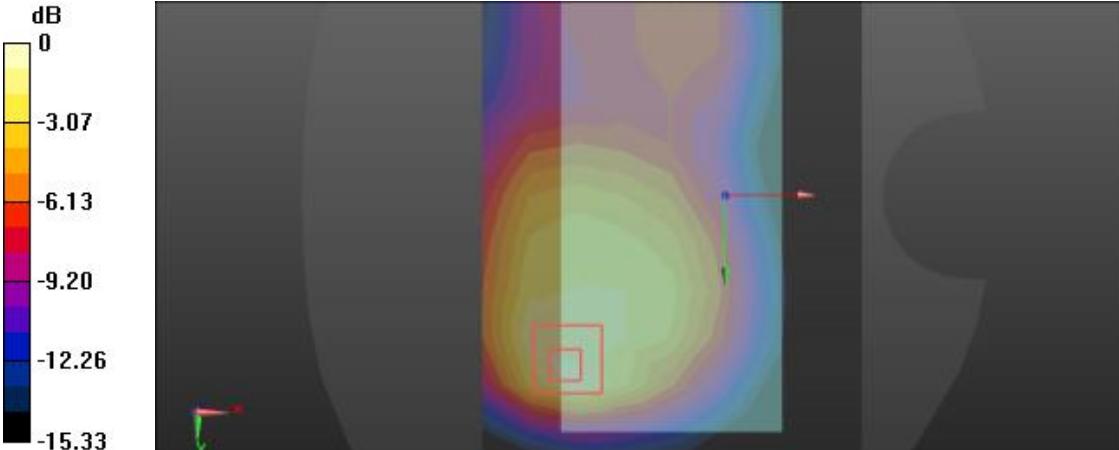
- Probe: EX3DV4 - SN3708; ConvF(7.84, 7.84, 7.84); Calibrated: 2016/11/10;
 - Sensor-Surface: 4mm (Mechanical Surface Detection)
 - Electronics: DAE4 Sn720; Calibrated: 2016/10/31
 - Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx
 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)
- Flat-Section MSL 1900 TP/1900GPRS TP M 10mm/Area Scan (9x13x1):**
 Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (measured) = 0.396 W/kg
Flat-Section MSL 1900 TP/1900GPRS TP M 10mm/Zoom Scan (7x7x7)/Cube 0:
 Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
 Reference Value = 12.61 V/m; Power Drift = 0.04 dB
 Peak SAR (extrapolated) = 0.668 W/kg
SAR(1 g) = 0.418 W/kg; SAR(10 g) = 0.269 W/kg
 Maximum value of SAR (measured) = 0.451 W/kg

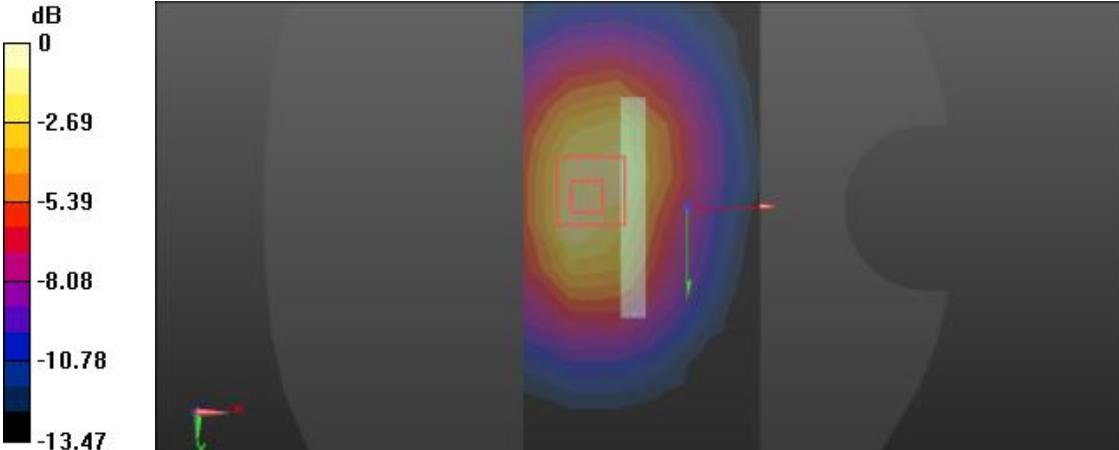


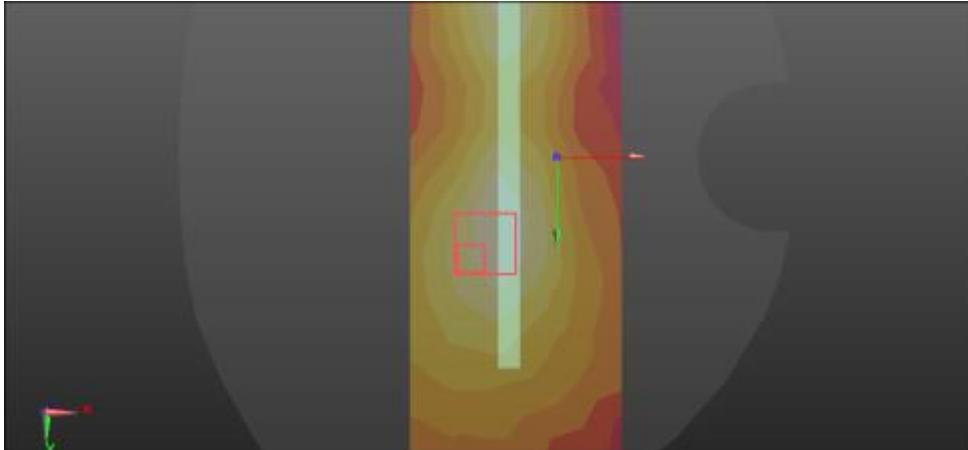
FLAT	Towards ground
<p>Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 1880 MHz; Duty Cycle: 1:8.6896 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.57$ S/m; $\epsilon_r = 51.14$; $\rho = 1000$ kg/m3 Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL 1900 TG/1900GPRS TG M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.730 W/kg</p> <p>Flat-Section MSL 1900 TG/1900GPRS TG M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 12.59 V/m; Power Drift = 0.06 dB Peak SAR (extrapolated) = 1.25 W/kg SAR(1 g) = 0.757 W/kg; SAR(10 g) = 0.450 W/kg Maximum value of SAR (measured) = 0.833 W/kg</p>  <p>0 dB = 0.833 W/kg = -0.79 dBW/kg</p>	

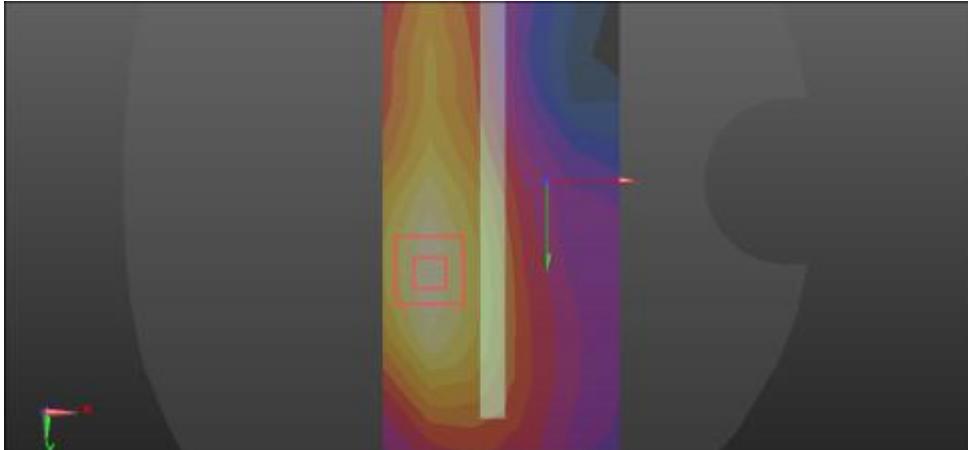
GSM (1900MHz with EGPRS/Flat)

FLAT	Towards phantom
<p>Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 1880 MHz; Duty Cycle: 1:8.6896</p> <p>Medium parameters used: $f = 1880$ MHz; $\sigma = 1.45$ S/m; $\epsilon_r = 39.74$; $\rho = 1000$ kg/m3</p> <p>Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: EX3DV4 - SN3708; ConvF(7.84, 7.84, 7.84); Calibrated: 2016/11/10; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn720; Calibrated: 2016/10/31 Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL 1900 TP/1900EDGE TP M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.522 W/kg</p> <p>Flat-Section MSL 1900 TP/1900EDGE TP M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 8.130 V/m; Power Drift = 0.09 dB Peak SAR (extrapolated) = 0.820 W/kg SAR(1 g) = 0.488 W/kg; SAR(10 g) = 0.294 W/kg Maximum value of SAR (measured) = 0.532 W/kg</p>  <p>0 dB = 0.532 W/kg = -2.74 dBW/kg</p>	

FLAT	Towards ground
<p>Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 1880 MHz; Duty Cycle: 1:8.6896 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.57$ S/m; $\epsilon_r = 51.14$; $\rho = 1000$ kg/m3 Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL 1900 TG/1900EGPRS TG M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.748 W/kg</p> <p>Flat-Section MSL 1900 TG/1900EGPRS TG M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 12.69 V/m; Power Drift = 0.12 dB Peak SAR (extrapolated) = 1.30 W/kg SAR(1 g) = 0.781 W/kg; SAR(10 g) = 0.462 W/kg Maximum value of SAR (measured) = 0.860 W/kg</p>  <p>0 dB = 0.860 W/kg = -0.66 dBW/kg</p>	

FLAT	EDGE2
<p>Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 1880 MHz; Duty Cycle: 1:8.6896 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.57$ S/m; $\epsilon_r = 51.14$; $\rho = 1000$ kg/m3 Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL 1900 HOTSPOT/1900EGPRS TP H edge 2/Area Scan (6x15x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.419 W/kg</p> <p>Flat-Section MSL 1900 HOTSPOT/1900EGPRS TP H edge 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 12.32 V/m; Power Drift = 0.12 dB Peak SAR (extrapolated) = 0.716 W/kg SAR(1 g) = 0.453 W/kg; SAR(10 g) = 0.273 W/kg Maximum value of SAR (measured) = 0.497 W/kg</p>  <p>0 dB = 0.497 W/kg = -3.04 dBW/kg</p>	

FLAT	EDGE3
<p>Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 1880 MHz; Duty Cycle: 1:8.6896 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.57$ S/m; $\epsilon_r = 51.14$; $\rho = 1000$ kg/m3 Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL 1900 HOTSPOT/1900EGPRS TP H edge 3/Area Scan (6x15x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.135 W/kg</p> <p>Flat-Section MSL 1900 HOTSPOT/1900EGPRS TP H edge 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 7.485 V/m; Power Drift = -0.01 dB Peak SAR (extrapolated) = 0.182 W/kg SAR(1 g) = 0.116 W/kg; SAR(10 g) = 0.064 W/kg Maximum value of SAR (measured) = 0.131 W/kg</p>  <p>0 dB = 0.131 W/kg = -8.83 dBW/kg</p>	

FLAT	EDGE4
<p>Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 1880 MHz; Duty Cycle: 1:8.6896 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.57$ S/m; $\epsilon_r = 51.14$; $\rho = 1000$ kg/m3 Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL 1900 HOTSPOT/1900EGPRS TP H edge 4/Area Scan (6x15x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.178 W/kg</p> <p>Flat-Section MSL 1900 HOTSPOT/1900EGPRS TP H edge 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 6.377 V/m; Power Drift = 0.17 dB Peak SAR (extrapolated) = 0.252 W/kg SAR(1 g) = 0.168 W/kg; SAR(10 g) = 0.107 W/kg Maximum value of SAR (measured) = 0.182 W/kg</p>  <p>0 dB = 0.182 W/kg = -7.40 dBW/kg</p>	

WCDMA Band 2

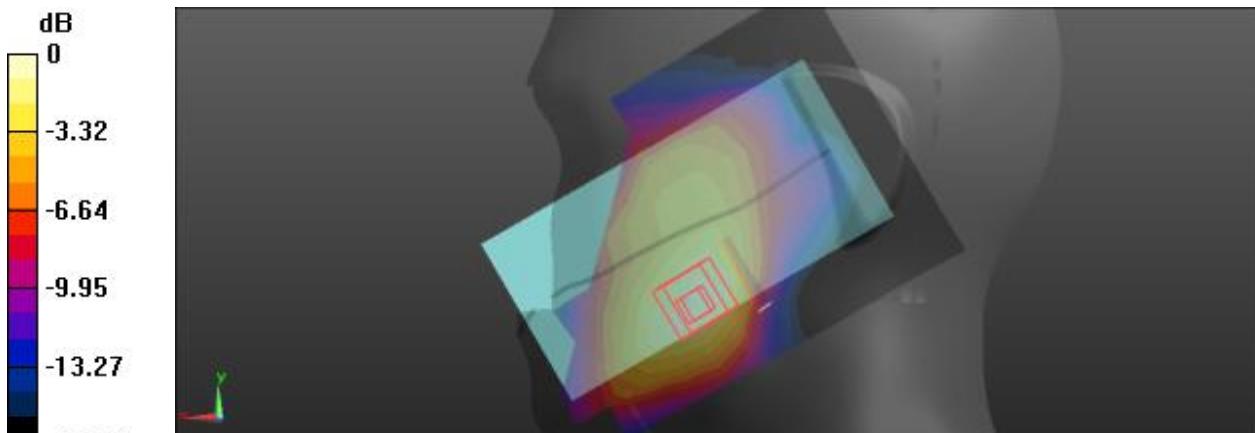
Left Side

Cheek

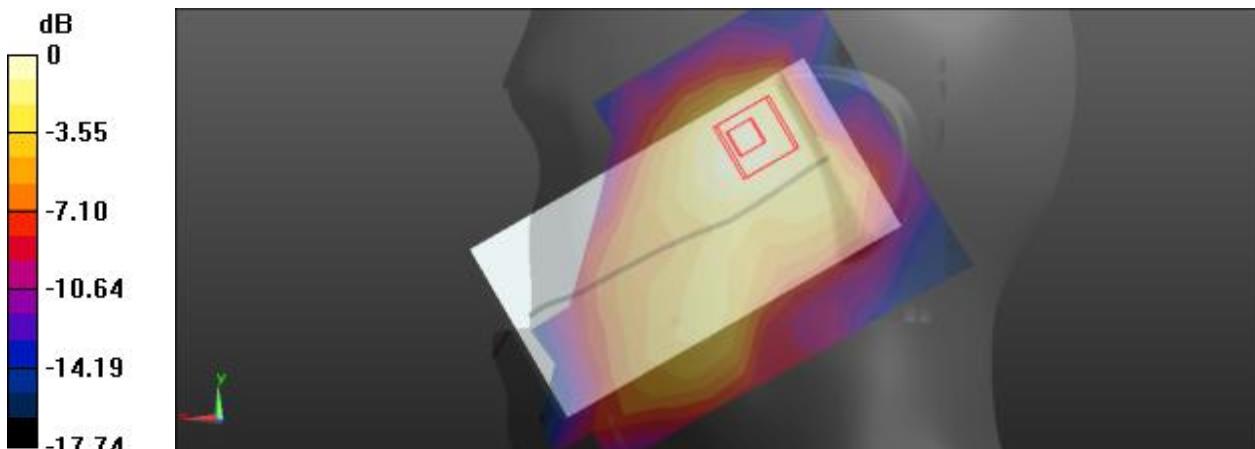
Communication System: UID 0, band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.45$ S/m; $\epsilon_r = 39.74$; $\rho = 1000$ kg/m³
 Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3708; ConvF(7.84, 7.84, 7.84); Calibrated: 2016/11/10;
 - Sensor-Surface: 4mm (Mechanical Surface Detection)
 - Electronics: DAE4 Sn720; Calibrated: 2016/10/31
 - Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx
 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)
- Head-Section HSL wcdma band2 Left/wcdma band2 HSL touch M/Area Scan (9x13x1):** Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.392 W/kg
- Head-Section HSL wcdma band2 Left/wcdma band2 HSL touch M/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Reference Value = 4.210 V/m; Power Drift = 0.22 dB
 Peak SAR (extrapolated) = 0.599 W/kg
SAR(1 g) = 0.372 W/kg; SAR(10 g) = 0.225 W/kg
 Maximum value of SAR (measured) = 0.404 W/kg

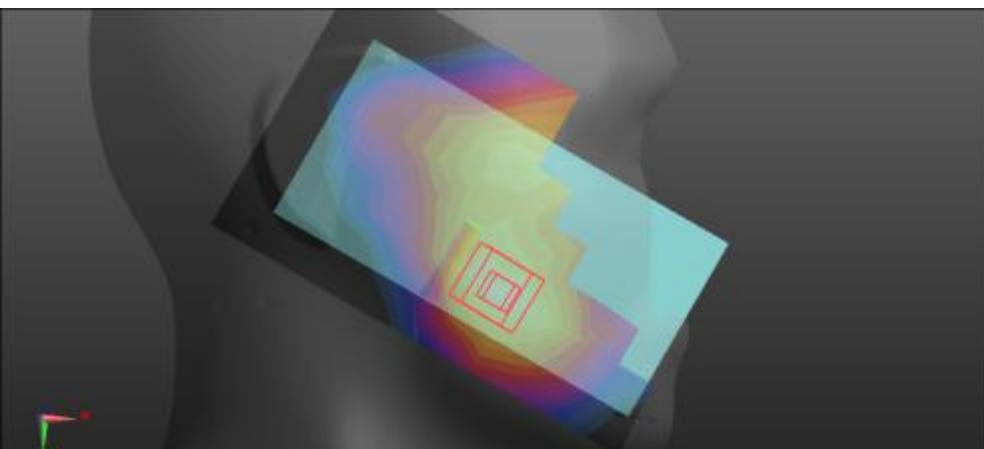


Left Side	Tilt
<p>Communication System: UID 0, band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.45$ S/m; $\epsilon_r = 39.74$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.84, 7.84, 7.84); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL wcdma band2 Left/wcdma band2 HSL tilt M/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.124 W/kg</p> <p>Head-Section HSL wcdma band2 Left/wcdma band2 HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 7.227 V/m; Power Drift = 0.13 dB Peak SAR (extrapolated) = 0.192 W/kg SAR(1 g) = 0.126 W/kg; SAR(10 g) = 0.080 W/kg Maximum value of SAR (measured) = 0.136 W/kg</p>	

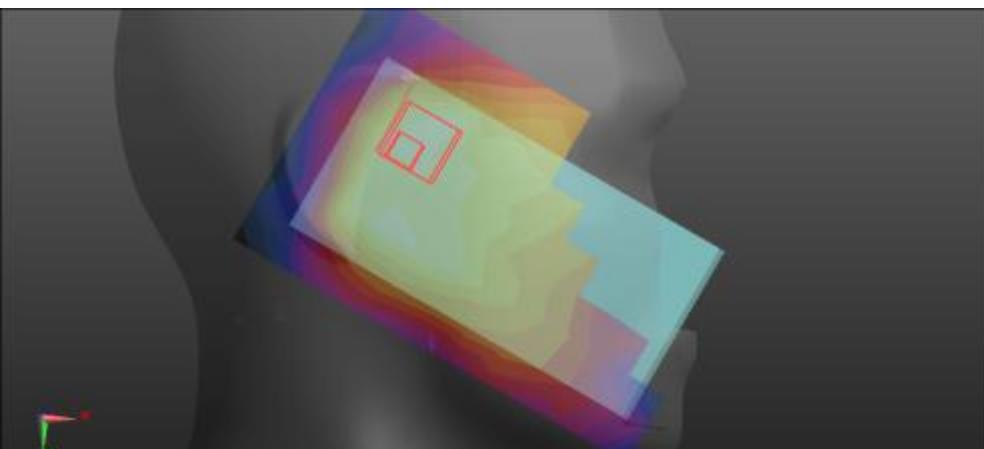


dB
 0
 -3.55
 -7.10
 -10.64
 -14.19
 -17.74

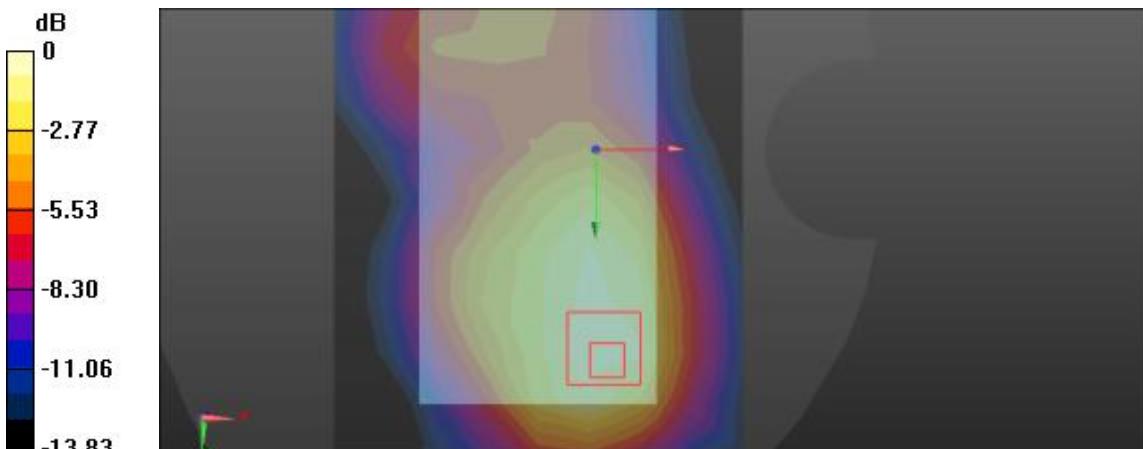
0 dB = 0.136 W/kg = -8.66 dBW/kg

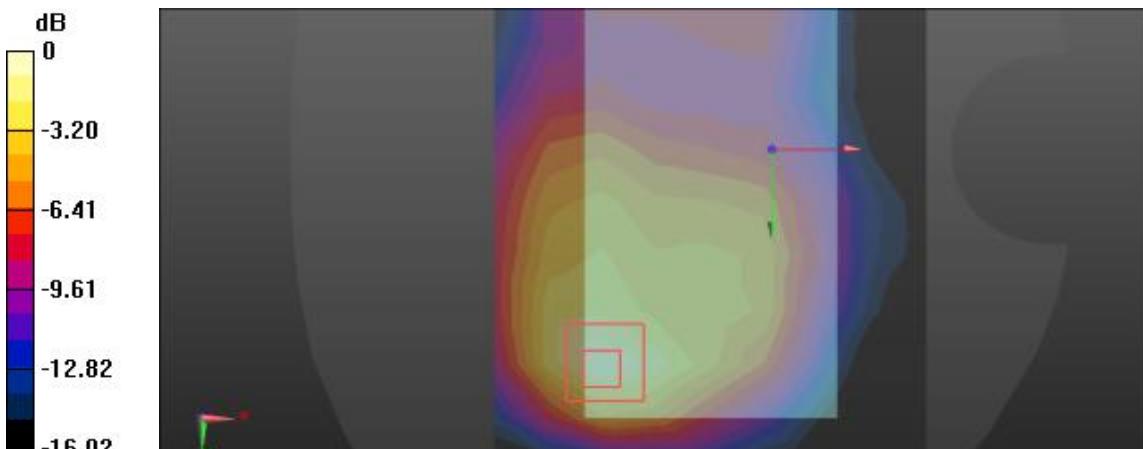
Right Side	Cheek
<p>Communication System: UID 0, band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.45 \text{ S/m}$; $\epsilon_r = 39.74$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.84, 7.84, 7.84); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL wcdma band2 Right/wcdma band2 HSL touch M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.264 W/kg</p> <p>Head-Section HSL wcdma band2 Right/wcdma band2 HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 3.458 V/m; Power Drift = 0.00 dB Peak SAR (extrapolated) = 0.380 W/kg SAR(1 g) = 0.250 W/kg; SAR(10 g) = 0.152 W/kg Maximum value of SAR (measured) = 0.272 W/kg</p>  <p>0 dB = 0.272 W/kg = -5.65 dBW/kg</p>	

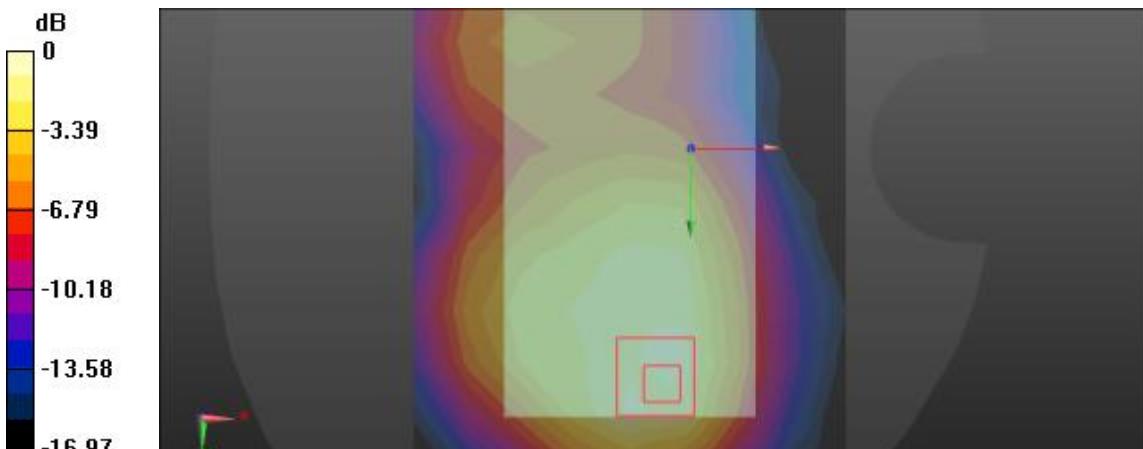
Right Side	Tilt
<p>Communication System: UID 0, LTE band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.45 \text{ S/m}$; $\epsilon_r = 39.74$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.84, 7.84, 7.84); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL wcdma band2 Right/wcdma band2 HSL tilt/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0881 W/kg</p> <p>Head-Section HSL wcdma band2 Right/wcdma band2 HSL tilt/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 6.343 V/m; Power Drift = 0.21 dB Peak SAR (extrapolated) = 0.129 W/kg SAR(1 g) = 0.087 W/kg; SAR(10 g) = 0.052 W/kg Maximum value of SAR (measured) = 0.0953 W/kg</p>	

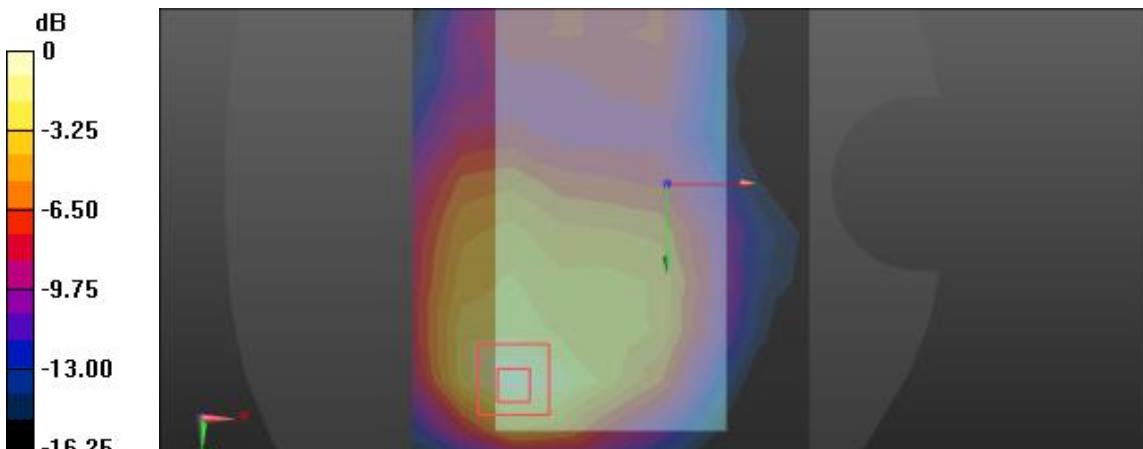


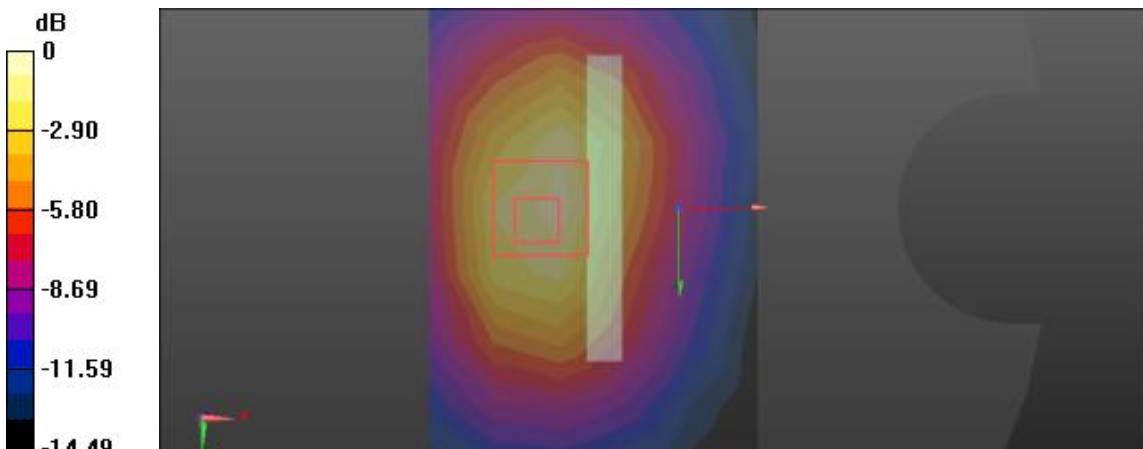
$0 \text{ dB} = 0.0953 \text{ W/kg} = -10.21 \text{ dBW/kg}$

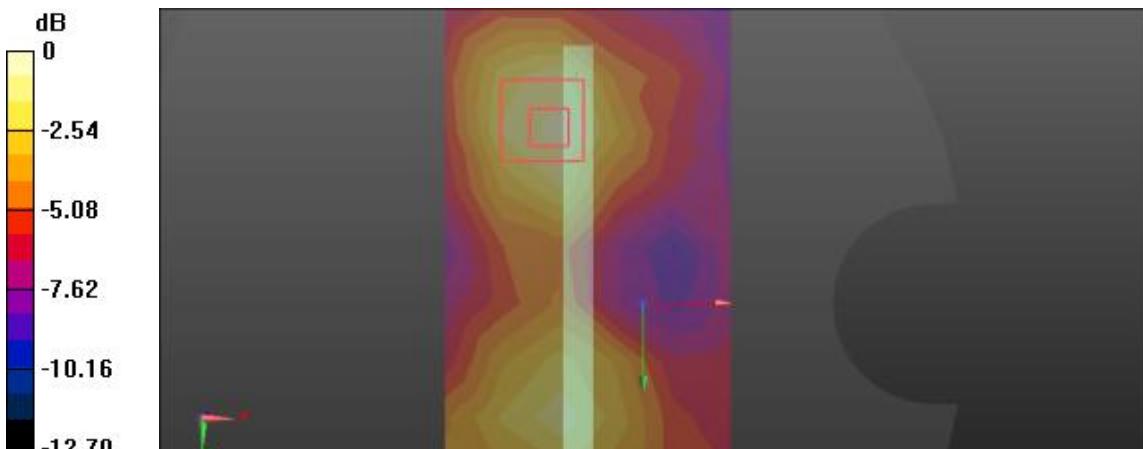
FLAT(VIOCE)	Towards phantom
<p>Communication System: UID 0, band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.57$ S/m; $\epsilon_r = 51.14$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL wcdma band2 TG&TP/wcdma band2 TP voice M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.461 W/kg</p> <p>Flat-Section MSL wcdma band2 TG&TP/wcdma band2 TP voice M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 9.598 V/m; Power Drift = -0.07 dB Peak SAR (extrapolated) = 0.794 W/kg SAR(1 g) = 0.454 W/kg; SAR(10 g) = 0.276 W/kg Maximum value of SAR (measured) = 0.488 W/kg</p>  <p>0 dB = 0.488 W/kg = -3.12 dBW/kg</p>	

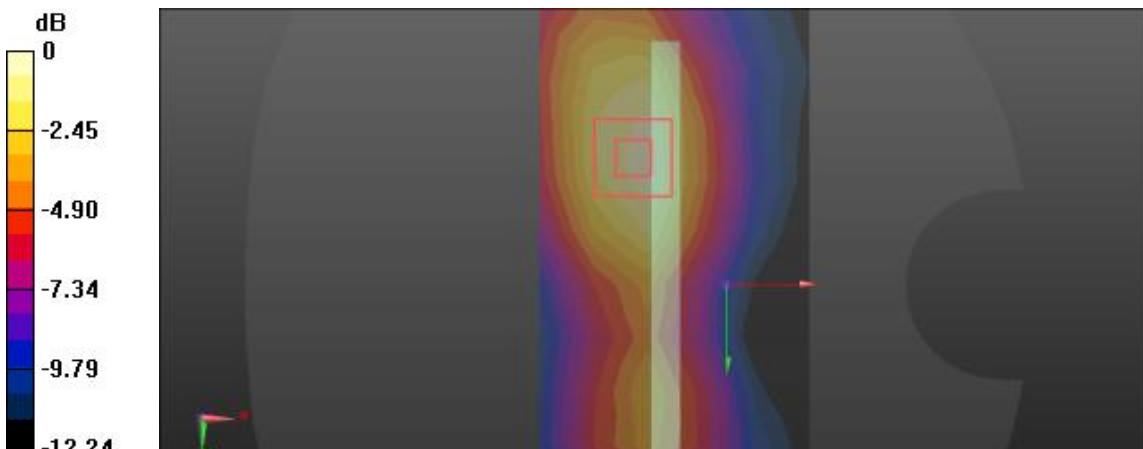
FLAT(VIOCE)	Towards ground
<p>Communication System: UID 0, band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.57$ S/m; $\epsilon_r = 51.14$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL wcdma band2 TG&TP/wcdma band2 TG voice M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.637 W/kg</p> <p>Flat-Section MSL wcdma band2 TG&TP/wcdma band2 TG voice M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 9.305 V/m; Power Drift = -0.02 dB Peak SAR (extrapolated) = 1.01 W/kg SAR(1 g) = 0.572 W/kg; SAR(10 g) = 0.315 W/kg Maximum value of SAR (measured) = 0.632 W/kg</p>  <p>0 dB = 0.632 W/kg = -1.99 dBW/kg</p>	

FLAT(DATA)	Towards phantom
<p>Communication System: UID 0, band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.57$ S/m; $\epsilon_r = 51.14$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL wcdma band2 TG&TP/wcdma band2 TP DATA M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.403 W/kg</p> <p>Flat-Section MSL wcdma band2 TG&TP/wcdma band2 TP DATA M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 8.642 V/m; Power Drift = 0.08 dB Peak SAR (extrapolated) = 0.736 W/kg SAR(1 g) = 0.418 W/kg; SAR(10 g) = 0.241 W/kg Maximum value of SAR (measured) = 0.457 W/kg</p>  <p>0 dB = 0.457 W/kg = -3.40 dBW/kg</p>	

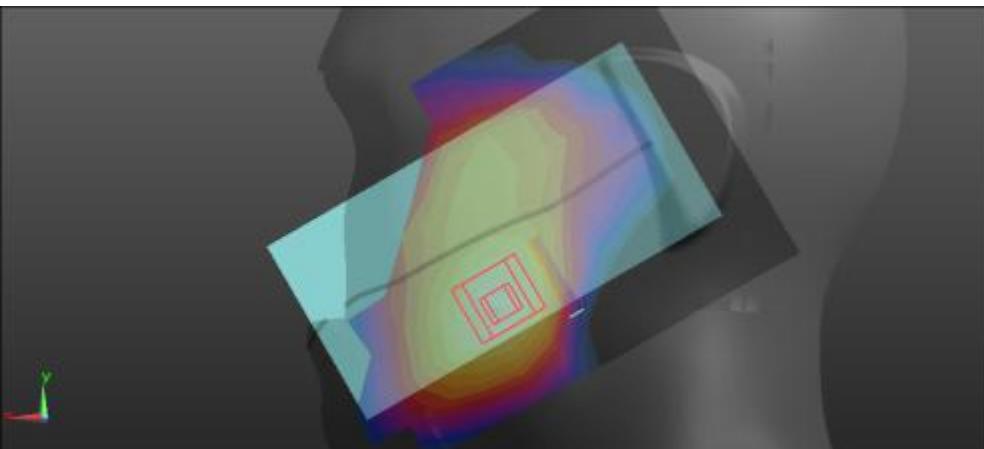
FLAT(DATA)	Towards ground
<p>Communication System: UID 0, band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.57$ S/m; $\epsilon_r = 51.14$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL wcdma band2 TG&TP/wcdma band2 TG DATA M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.628 W/kg</p> <p>Flat-Section MSL wcdma band2 TG&TP/wcdma band2 TG DATA M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 8.611 V/m; Power Drift = 0.14 dB Peak SAR (extrapolated) = 0.999 W/kg SAR(1 g) = 0.568 W/kg; SAR(10 g) = 0.314 W/kg Maximum value of SAR (measured) = 0.633 W/kg</p>  <p>0 dB = 0.633 W/kg = -1.99 dBW/kg</p>	

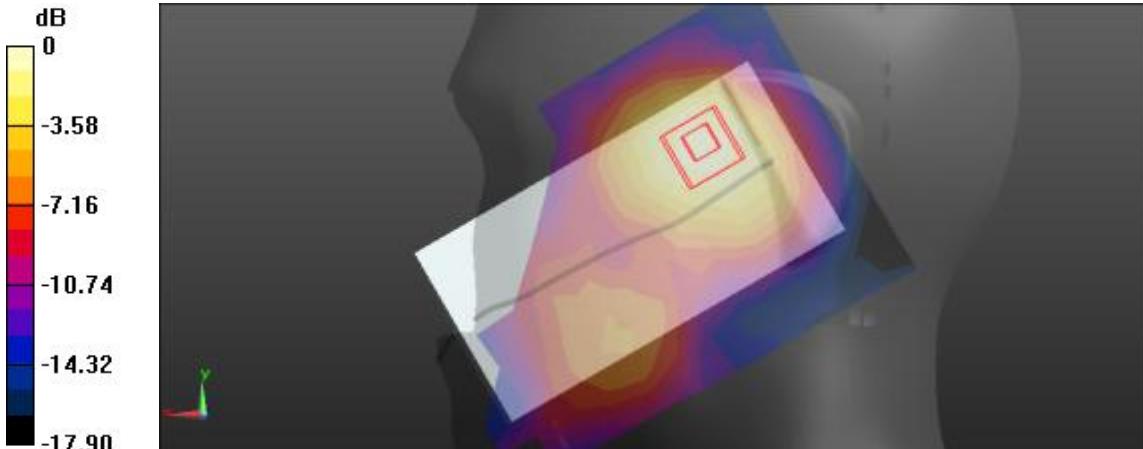
FLAT	EDGE2
<p>Communication System: UID 0, band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.57$ S/m; $\epsilon_r = 51.14$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL wcdma band2 HOT/wcdma band2 10mm M edge 2/Area Scan (6x11x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.542 W/kg</p> <p>Flat-Section MSL wcdma band2 HOT/wcdma band2 10mm M edge 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 13.82 V/m; Power Drift = 0.03 dB Peak SAR (extrapolated) = 0.893 W/kg SAR(1 g) = 0.541 W/kg; SAR(10 g) = 0.313 W/kg Maximum value of SAR (measured) = 0.593 W/kg</p>  <p>0 dB = 0.593 W/kg = -2.27 dBW/kg</p>	

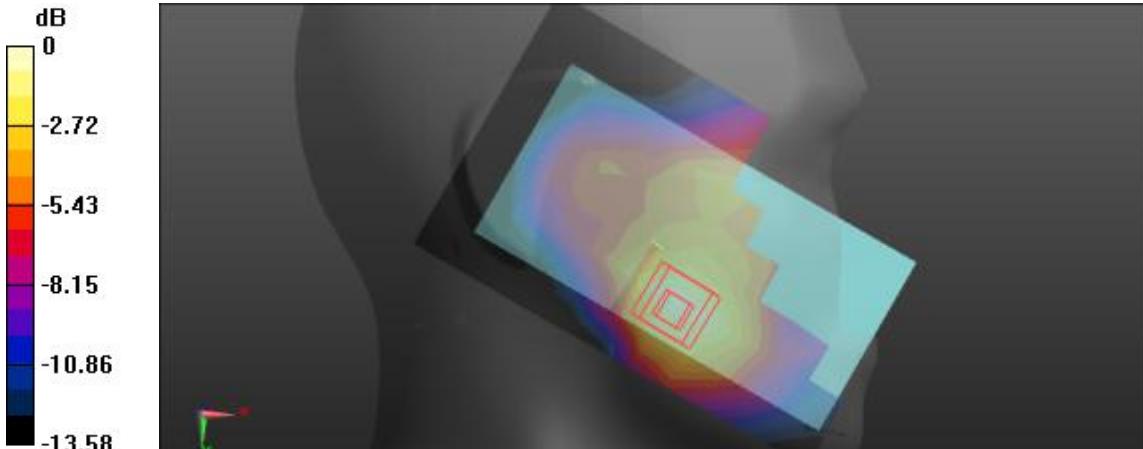
FLAT	EDGE3
<p>Communication System: UID 0, band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.57$ S/m; $\epsilon_r = 51.14$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL wcdma band2 HOT/wcdma band2 10mm M edge 3/Area Scan (6x15x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0766 W/kg</p> <p>Flat-Section MSL wcdma band2 HOT/wcdma band2 10mm M edge 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 4.139 V/m; Power Drift = 0.07 dB Peak SAR (extrapolated) = 0.131 W/kg SAR(1 g) = 0.080 W/kg; SAR(10 g) = 0.051 W/kg Maximum value of SAR (measured) = 0.0853 W/kg</p>  <p>0 dB = 0.0853 W/kg = -10.69 dBW/kg</p>	

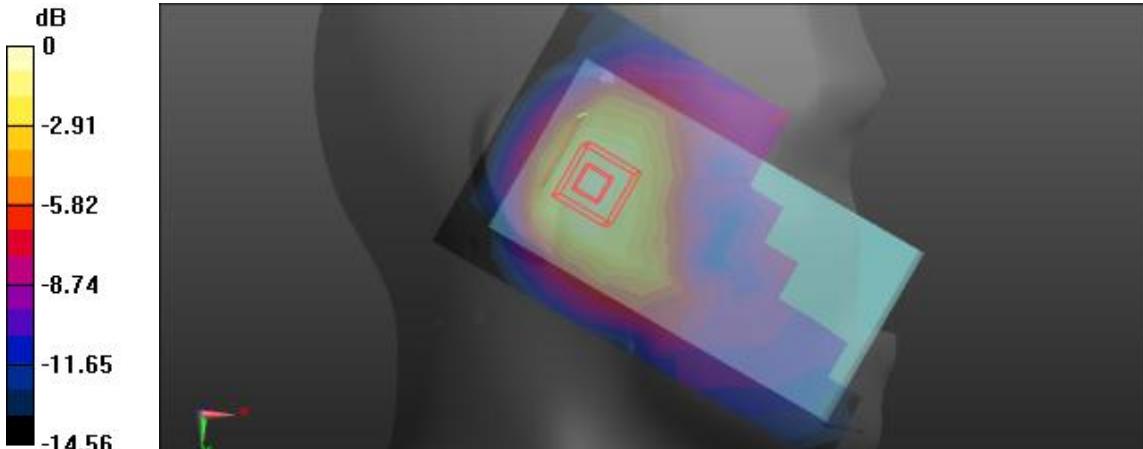
FLAT	EDGE4
<p>Communication System: UID 0, band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.57$ S/m; $\epsilon_r = 51.14$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL wcdma band2 HOT/wcdma band2 10mm M edge 4/Area Scan (6x15x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.392 W/kg</p> <p>Flat-Section MSL wcdma band2 HOT/wcdma band2 10mm M edge 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 9.672 V/m; Power Drift = 0.18 dB Peak SAR (extrapolated) = 0.604 W/kg SAR(1 g) = 0.382 W/kg; SAR(10 g) = 0.234 W/kg Maximum value of SAR (measured) = 0.415 W/kg</p>  <p>0 dB = 0.415 W/kg = -3.82 dBW/kg</p>	

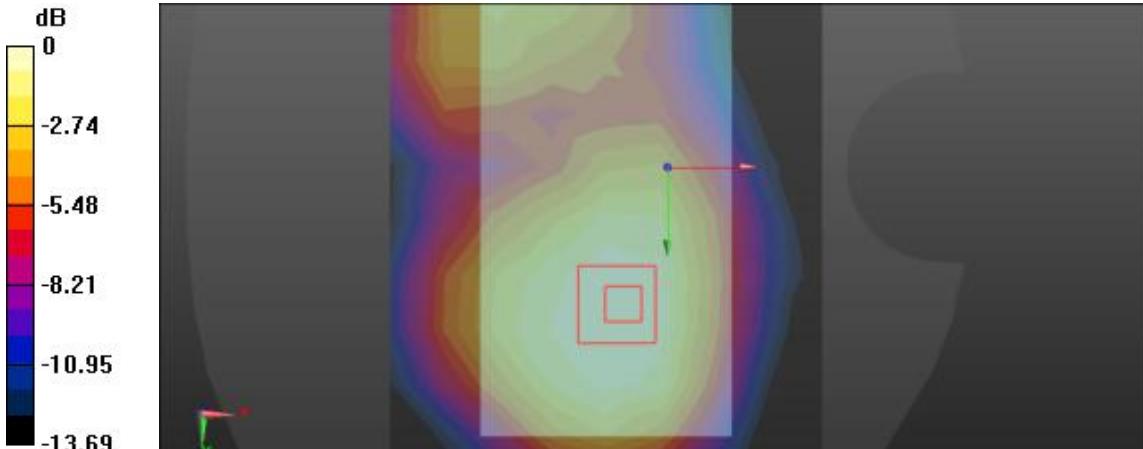
WCDMA Band 4

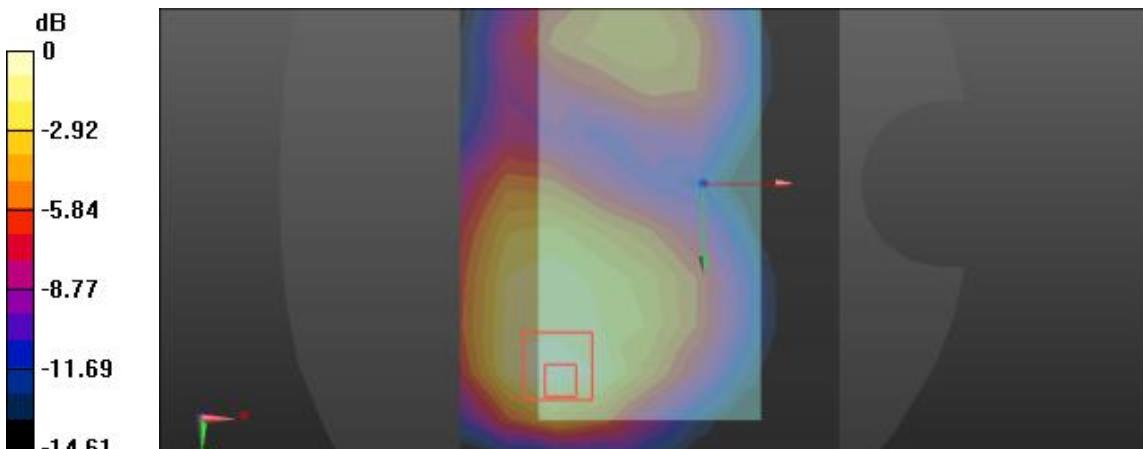
Left Side	Cheek
<p>Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1732.6 MHz; Duty Cycle: 1:1.95434 Medium parameters used (interpolated): $f = 1732.6$ MHz; $\sigma = 1.304$ S/m; $\epsilon_r = 40.408$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: EX3DV4 - SN3708; ConvF(7.84, 7.84, 7.84); Calibrated: 2016/11/10; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn720; Calibrated: 2016/10/31 Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL wcdma band4 Left/wcdma band4 HSL touch M/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.345 W/kg</p> <p>Head-Section HSL wcdma band4 Left/wcdma band4 HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 5.368 V/m; Power Drift = 0.17 dB Peak SAR (extrapolated) = 0.529 W/kg</p> <p>SAR(1 g) = 0.353 W/kg; SAR(10 g) = 0.230 W/kg Maximum value of SAR (measured) = 0.379 W/kg</p>  <p>0 dB = 0.379 W/kg = -4.21 dBW/kg</p>	

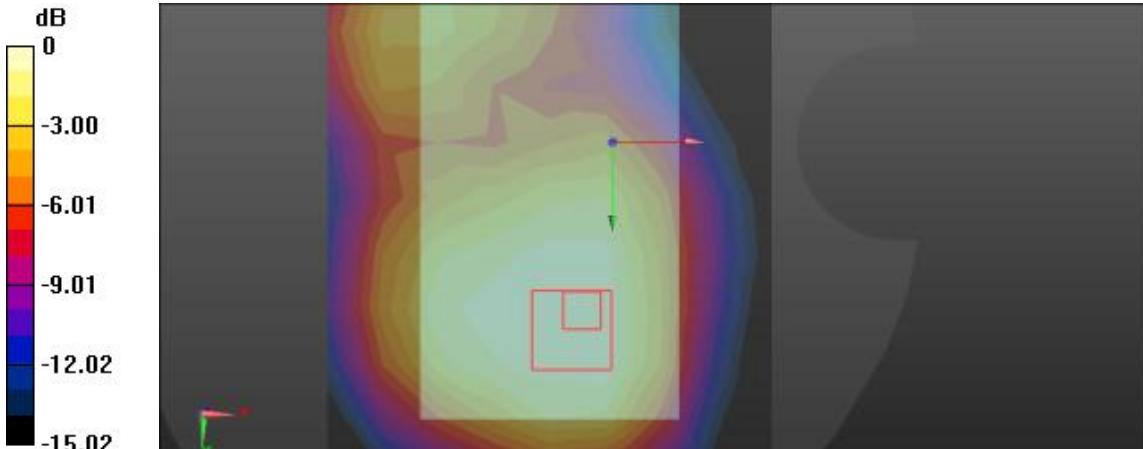
Left Side	Tilt
<p>Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1732.6 MHz; Duty Cycle: 1:1.95434</p> <p>Medium parameters used (interpolated): $f = 1732.6$ MHz; $\sigma = 1.304$ S/m; $\epsilon_r = 40.408$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.84, 7.84, 7.84); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL wcdma band4 Left/wcdma band4 HSL tilt M/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.209 W/kg</p> <p>Head-Section HSL wcdma band4 Left/wcdma band4 HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 10.23 V/m; Power Drift = 0.02 dB Peak SAR (extrapolated) = 0.275 W/kg SAR(1 g) = 0.200 W/kg; SAR(10 g) = 0.133 W/kg Maximum value of SAR (measured) = 0.213 W/kg</p>  <p>0 dB = 0.213 W/kg = -6.72 dBW/kg</p>	

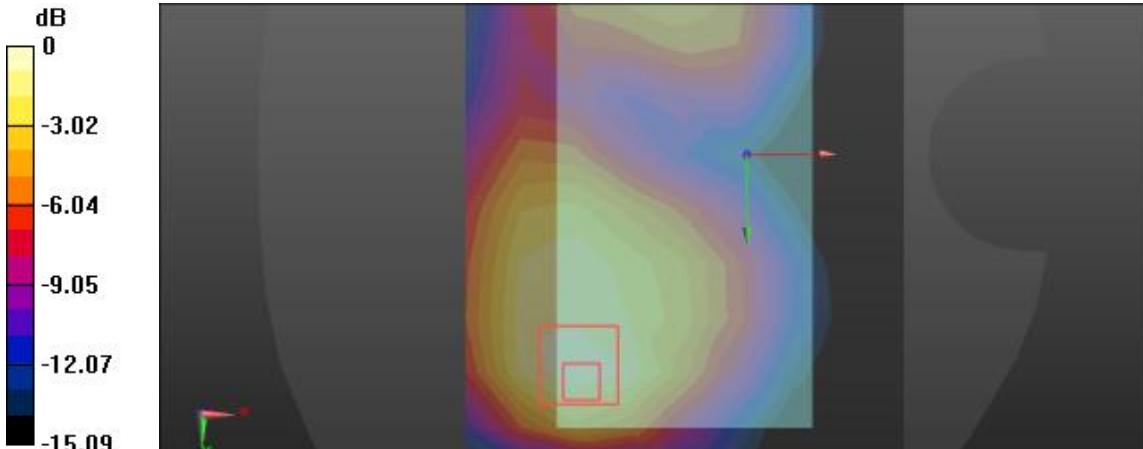
Right Side	Cheek
<p>Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1732.6 MHz; Duty Cycle: 1:1.95434</p> <p>Medium parameters used (interpolated): $f = 1732.6$ MHz; $\sigma = 1.304$ S/m; $\epsilon_r = 40.408$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.84, 7.84, 7.84); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL wcdma band4 Right/wcdma band4 HSL touch M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.260 W/kg</p> <p>Head-Section HSL wcdma band4 Right/wcdma band4 HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 5.602 V/m; Power Drift = 0.07 dB Peak SAR (extrapolated) = 0.361 W/kg SAR(1 g) = 0.246 W/kg; SAR(10 g) = 0.157 W/kg Maximum value of SAR (measured) = 0.265 W/kg</p>  <p>0 dB = 0.265 W/kg = -5.77 dBW/kg</p>	

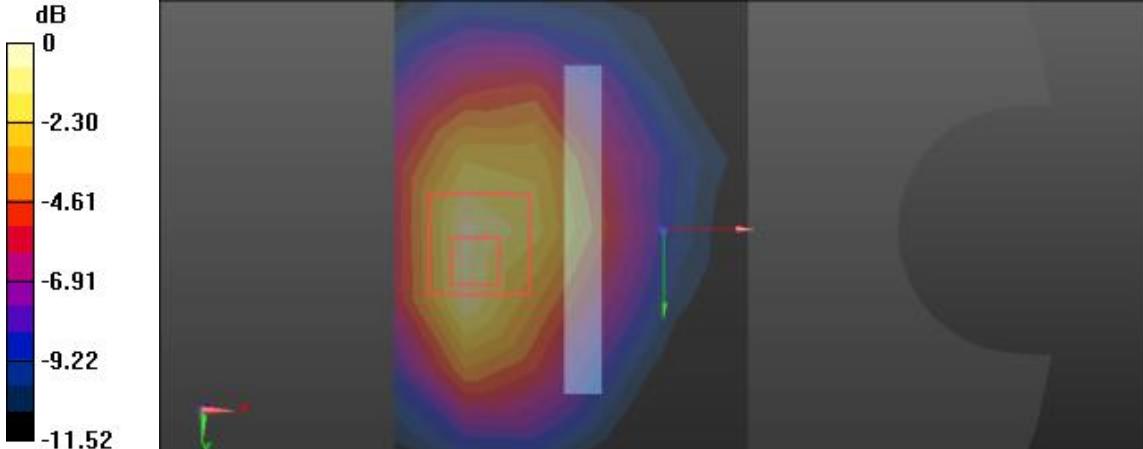
Right Side	Tilt
<p>Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1732.6 MHz; Duty Cycle: 1:1.95434</p> <p>Medium parameters used (interpolated): $f = 1732.6$ MHz; $\sigma = 1.304$ S/m; $\epsilon_r = 40.408$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.84, 7.84, 7.84); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL wcdma band4 Right/wcdma band4 HSL tilt/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.168 W/kg</p> <p>Head-Section HSL wcdma band4 Right/wcdma band4 HSL tilt/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 9.780 V/m; Power Drift = -0.02 dB Peak SAR (extrapolated) = 0.250 W/kg SAR(1 g) = 0.170 W/kg; SAR(10 g) = 0.110 W/kg Maximum value of SAR (measured) = 0.184 W/kg</p>  <p>0 dB = 0.184 W/kg = -7.35 dBW/kg</p>	

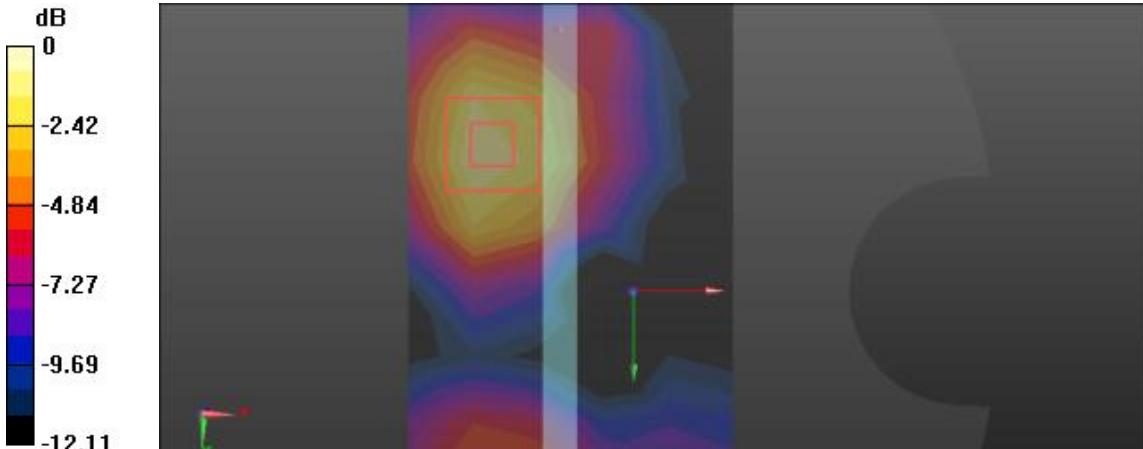
FLAT(VIOCE)	Towards phantom
<p>Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1732.6 MHz; Duty Cycle: 1:1.95434</p> <p>Medium parameters used (interpolated): $f = 1732.6$ MHz; $\sigma = 1.404$ S/m; $\epsilon_r = 51.622$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL wcdma band4 TG&TP/wcdma band4 TP voice M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.399 W/kg</p> <p>Flat-Section MSL wcdma band4 TG&TP/wcdma band4 TP voice M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 10.97 V/m; Power Drift = -0.19 dB Peak SAR (extrapolated) = 0.573 W/kg SAR(1 g) = 0.380 W/kg; SAR(10 g) = 0.251 W/kg Maximum value of SAR (measured) = 0.404 W/kg</p>  <p>0 dB = 0.404 W/kg = -3.94 dBW/kg</p>	

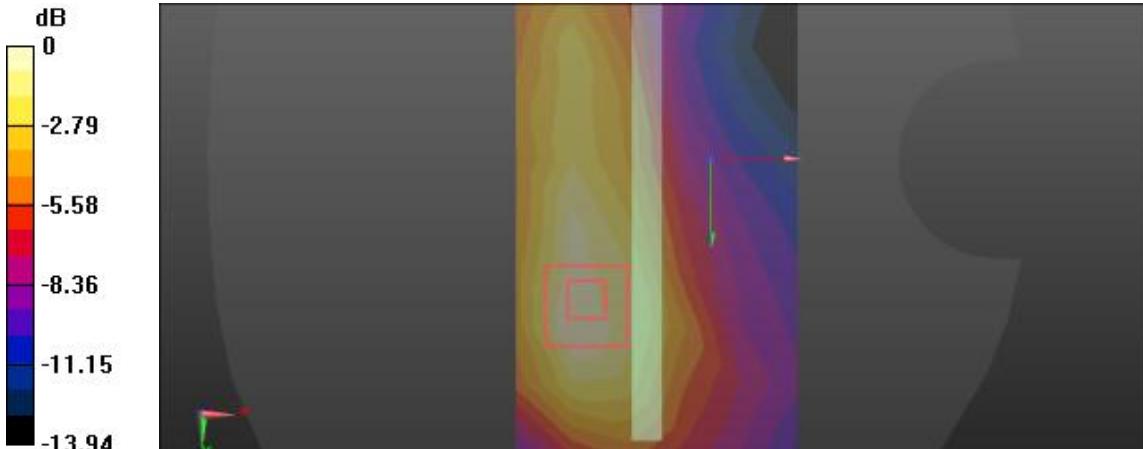
FLAT(VIOCE)	Towards ground
<p>Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1732.6 MHz; Duty Cycle: 1:1.95434</p> <p>Medium parameters used (interpolated): $f = 1732.6$ MHz; $\sigma = 1.404$ S/m; $\epsilon_r = 51.622$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL wcdma band4 TG&TP/wcdma band4 TG voice M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.725 W/kg</p> <p>Flat-Section MSL wcdma band4 TG&TP/wcdma band4 TG voice M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 6.566 V/m; Power Drift = 0.09 dB Peak SAR (extrapolated) = 1.14 W/kg SAR(1 g) = 0.662 W/kg; SAR(10 g) = 0.389 W/kg Maximum value of SAR (measured) = 0.730 W/kg</p>  <p>0 dB = 0.730 W/kg = -1.37 dBW/kg</p>	

FLAT(DATA)	Towards phantom
<p>Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1732.6 MHz; Duty Cycle: 1:1.95434</p> <p>Medium parameters used (interpolated): $f = 1732.6$ MHz; $\sigma = 1.404$ S/m; $\epsilon_r = 51.622$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL wcdma band4 TG&TP/wcdma band4 TP DATA M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.413 W/kg</p> <p>Flat-Section MSL wcdma band4 TG&TP/wcdma band4 TP DATA M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 9.740 V/m; Power Drift = -0.05 dB Peak SAR (extrapolated) = 0.655 W/kg SAR(1 g) = 0.402 W/kg; SAR(10 g) = 0.264 W/kg Maximum value of SAR (measured) = 0.428 W/kg</p>  <p>0 dB = 0.428 W/kg = -3.69 dBW/kg</p>	

FLAT(DATA)	Towards ground
<p>Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1732.6 MHz; Duty Cycle: 1:1.95434</p> <p>Medium parameters used (interpolated): $f = 1732.6$ MHz; $\sigma = 1.404$ S/m; $\epsilon_r = 51.622$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL wcdma band4 TG&TP/wcdma band4 TG DATA M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.760 W/kg</p> <p>Flat-Section MSL wcdma band4 TG&TP/wcdma band4 TG DATA M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 6.521 V/m; Power Drift = 0.09 dB Peak SAR (extrapolated) = 1.19 W/kg SAR(1 g) = 0.702 W/kg; SAR(10 g) = 0.420 W/kg Maximum value of SAR (measured) = 0.768 W/kg</p>  <p>0 dB = 0.768 W/kg = -1.15 dBW/kg</p>	

FLAT	EDGE2
<p>Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1732.6 MHz; Duty Cycle: 1:1.95434 Medium parameters used (interpolated): $f = 1732.6$ MHz; $\sigma = 1.404$ S/m; $\epsilon_r = 51.622$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL wcdma band4 HOT/wcdma band4 10mm M edge 2/Area Scan (6x11x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.372 W/kg</p> <p>Flat-Section MSL wcdma band4 HOT/wcdma band4 10mm M edge 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 11.17 V/m; Power Drift = 0.18 dB Peak SAR (extrapolated) = 0.558 W/kg SAR(1 g) = 0.373 W/kg; SAR(10 g) = 0.232 W/kg Maximum value of SAR (measured) = 0.413 W/kg</p>  <p>0 dB = 0.413 W/kg = -3.84 dBW/kg</p>	

FLAT	EDGE3
<p>Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1732.6 MHz; Duty Cycle: 1:1.95434</p> <p>Medium parameters used (interpolated): $f = 1732.6$ MHz; $\sigma = 1.404$ S/m; $\epsilon_r = 51.622$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL wcdma band4 HOT/wcdma band4 10mm M edge 3/Area Scan (6x15x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.124 W/kg</p> <p>Flat-Section MSL wcdma band4 HOT/wcdma band4 10mm M edge 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.861 V/m; Power Drift = -0.06 dB Peak SAR (extrapolated) = 0.206 W/kg SAR(1 g) = 0.130 W/kg; SAR(10 g) = 0.082 W/kg Maximum value of SAR (measured) = 0.147 W/kg</p>  <p>0 dB = 0.147 W/kg = -8.33 dBW/kg</p>	

FLAT	EDGE4
<p>Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1732.6 MHz; Duty Cycle: 1:1.95434</p> <p>Medium parameters used (interpolated): $f = 1732.6$ MHz; $\sigma = 1.404$ S/m; $\epsilon_r = 51.622$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL wcdma band4 HOT/wcdma band4 10mm M edge 4/Area Scan (6x15x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.226 W/kg</p> <p>Flat-Section MSL wcdma band4 HOT/wcdma band4 10mm M edge 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 6.757 V/m; Power Drift = 0.09 dB Peak SAR (extrapolated) = 0.323 W/kg SAR(1 g) = 0.186 W/kg; SAR(10 g) = 0.115 W/kg Maximum value of SAR (measured) = 0.207 W/kg</p>  <p>0 dB = 0.207 W/kg = -6.84 dBW/kg</p>	

WCDMA Band 5

Left Side

Cheek

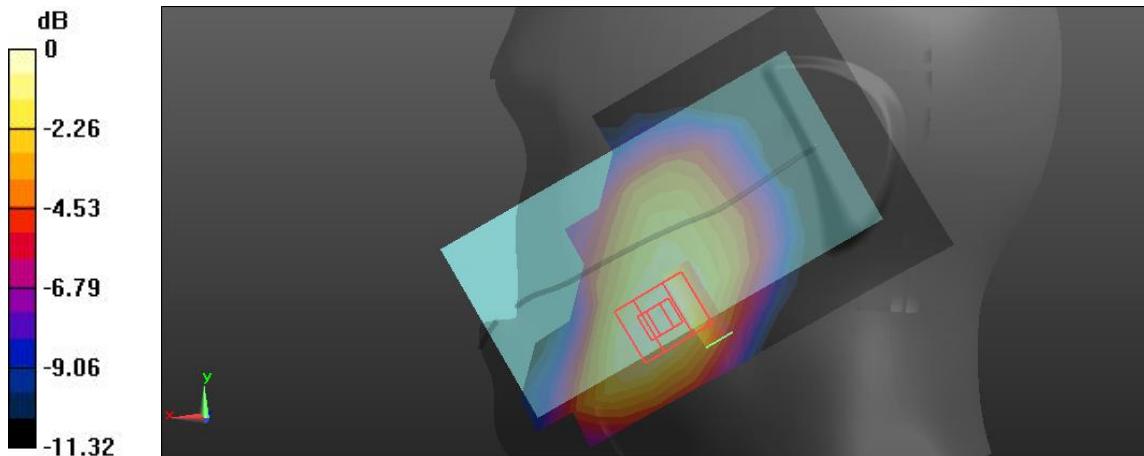
Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 836.6 MHz; Duty Cycle: 1:1.95434

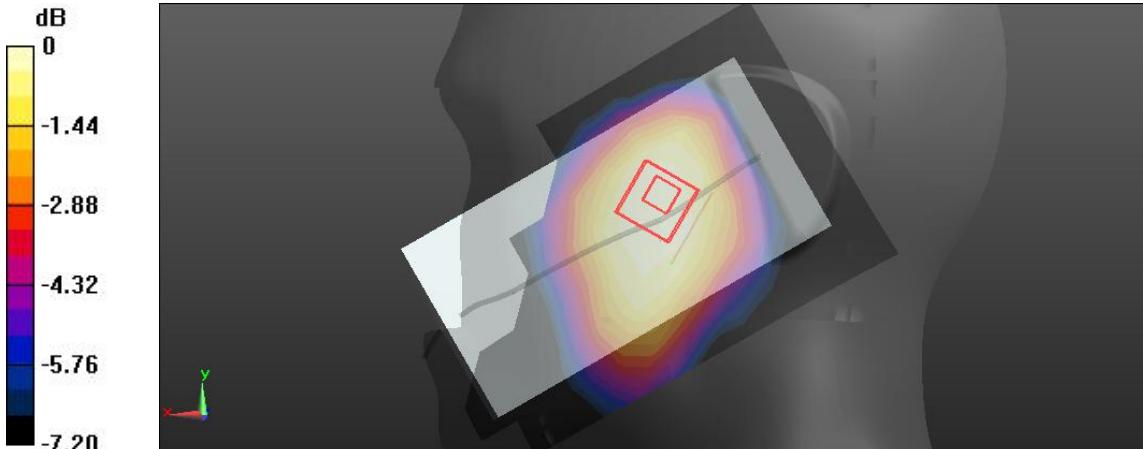
Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.89$ S/m; $\epsilon_r = 41.478$; $\rho = 1000$ kg/m³

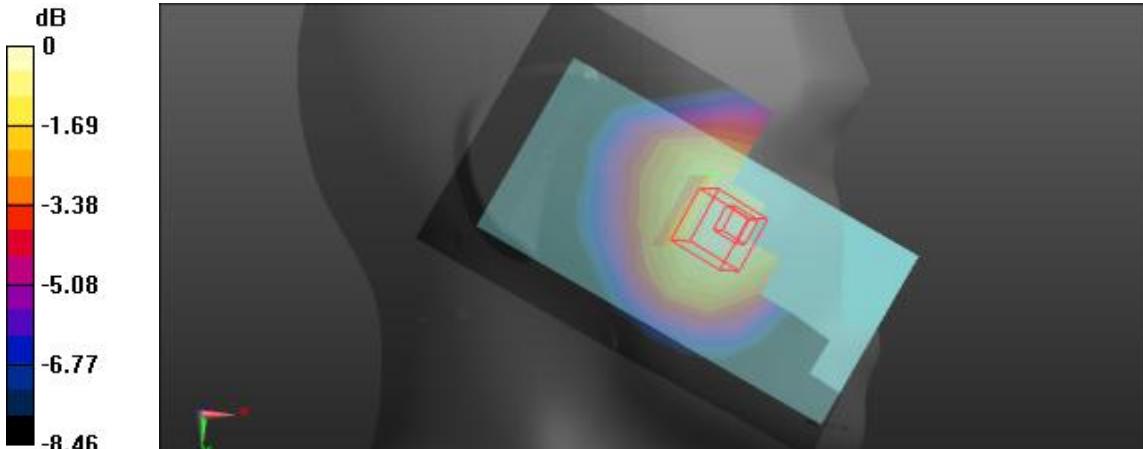
Phantom section: Left Section

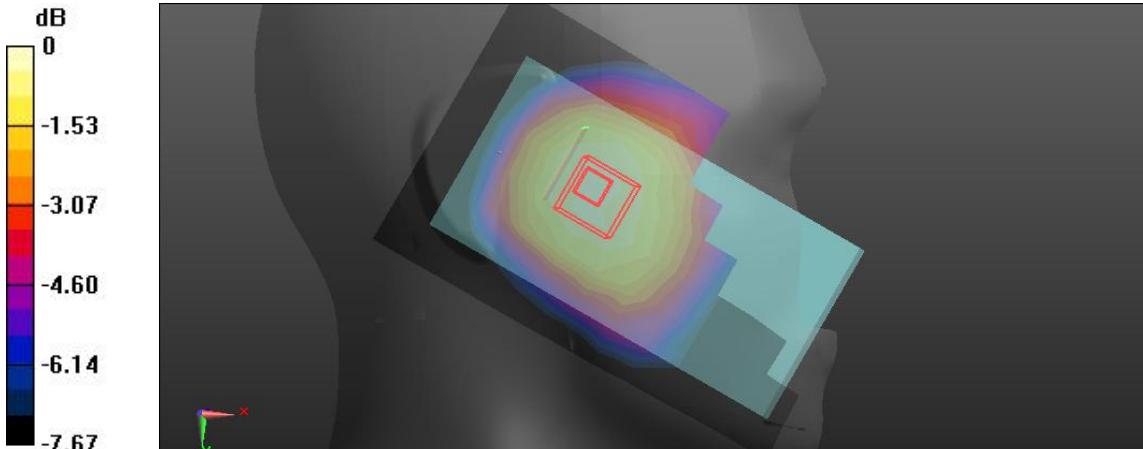
DASY5 Configuration:

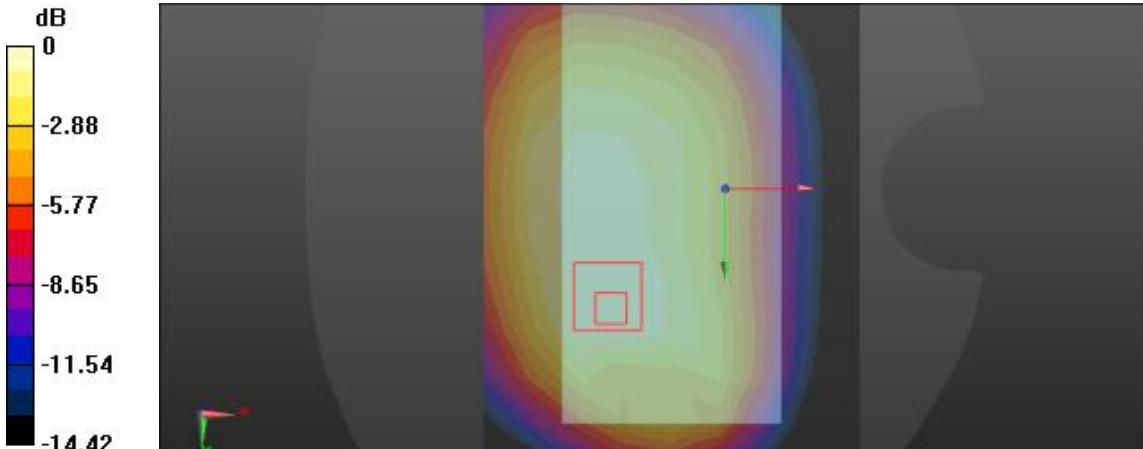
- Probe: EX3DV4 - SN3708; ConvF(9.05, 9.05, 9.05); Calibrated: 2016/11/10;
 - Sensor-Surface: 3mm (Mechanical Surface Detection)
 - Electronics: DAE4 Sn720; Calibrated: 2016/10/31
 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx
 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)
- Head-Section HSL wcdma band5 Left/wcdma band5 HSL touch M/Area Scan (8x13x1):** Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.150 W/kg
Head-Section HSL wcdma band5 Left/wcdma band5 HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Reference Value = 2.322 V/m; Power Drift = -0.05 dB
 Peak SAR (extrapolated) = 0.180 W/kg
SAR(1 g) = 0.135 W/kg; SAR(10 g) = 0.096 W/kg
 Maximum value of SAR (measured) = 0.152 W/kg

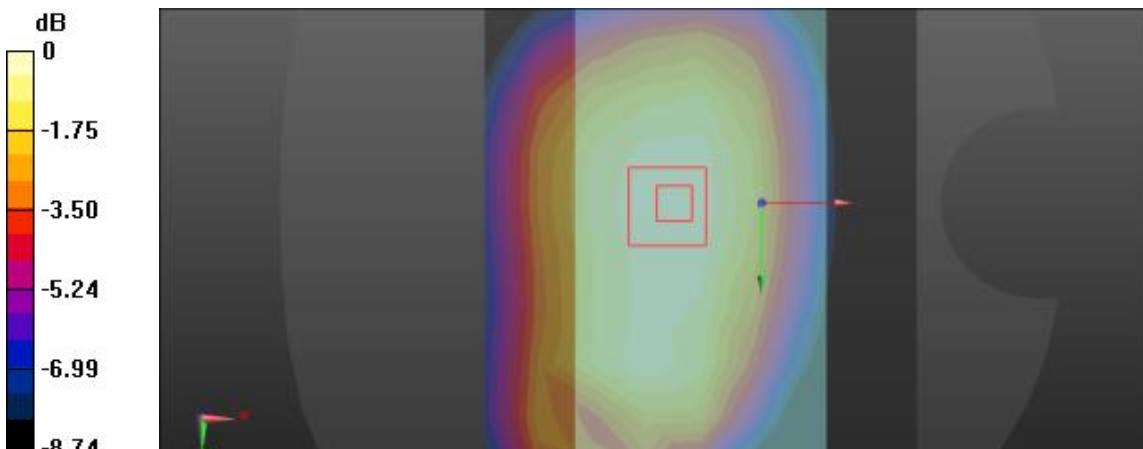


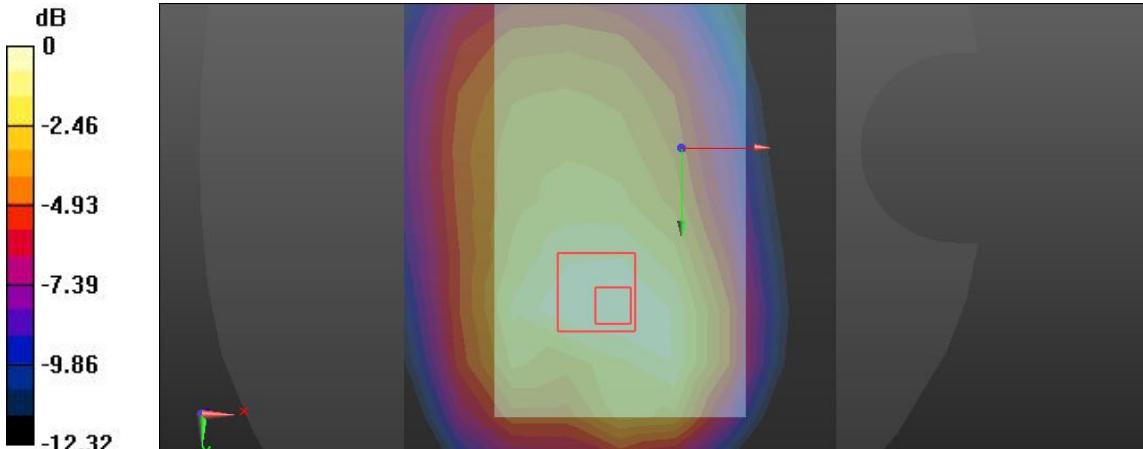
Left Side	Tilt
<p>Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 836.6 MHz; Duty Cycle: 1:1.95434</p> <p>Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.89$ S/m; $\epsilon_r = 41.478$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(9.05, 9.05, 9.05); Calibrated: 2016/11/10; • Sensor-Surface: 3mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL wcdma band5 Left/wcdma band5 HSL tilt/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0711 W/kg</p> <p>Head-Section HSL wcdma band5 Left/wcdma band5 HSL tilt/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 4.678 V/m; Power Drift = 0.06 dB Peak SAR (extrapolated) = 0.0790 W/kg SAR(1 g) = 0.065 W/kg; SAR(10 g) = 0.052 W/kg Maximum value of SAR (measured) = 0.0696 W/kg</p>  <p>0 dB = 0.0696 W/kg = -11.57 dBW/kg</p>	

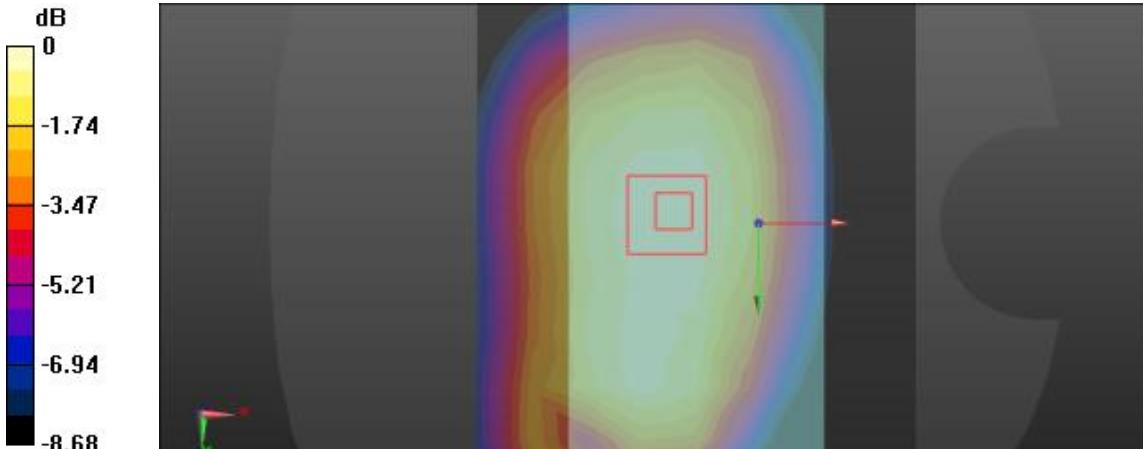
Right Side	Cheek
<p>Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 836.6 MHz; Duty Cycle: 1:1.95434</p> <p>Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.89$ S/m; $\epsilon_r = 41.478$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(9.05, 9.05, 9.05); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL wcdma band5 Right/wcdma band5 HSL touch M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.142 W/kg</p> <p>Head-Section HSL wcdma band5 Right/wcdma band5 HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.727 V/m; Power Drift = -0.07 dB Peak SAR (extrapolated) = 0.176 W/kg SAR(1 g) = 0.141 W/kg; SAR(10 g) = 0.111 W/kg Maximum value of SAR (measured) = 0.148 W/kg</p>  <p>0 dB = 0.148 W/kg = -8.30 dBW/kg</p>	

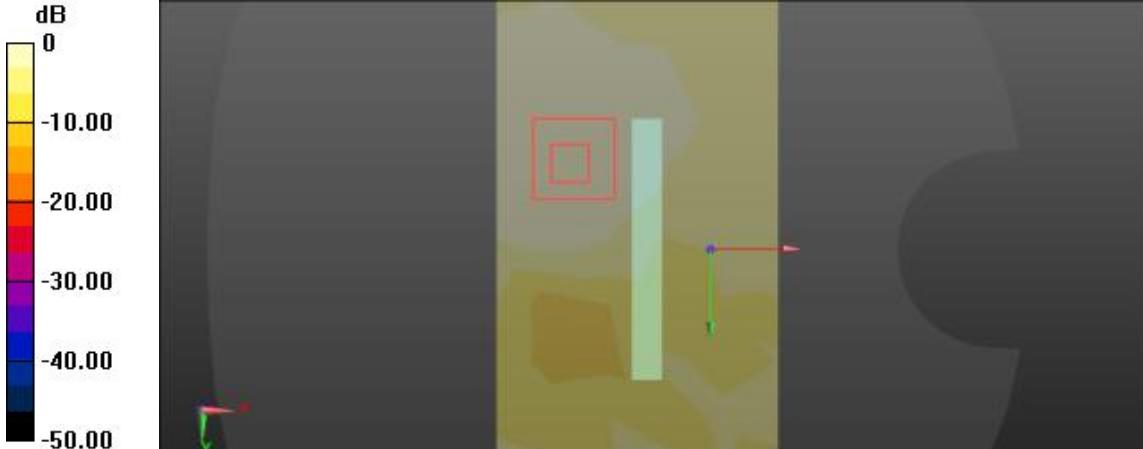
Right Side	Tilt
<p>Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 836.6 MHz; Duty Cycle: 1:1.95434</p> <p>Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.89$ S/m; $\epsilon_r = 41.478$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(9.05, 9.05, 9.05); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL wcdma band5 Right/wcdma band5 HSL tilt/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0989 W/kg</p> <p>Head-Section HSL wcdma band5 Right/wcdma band5 HSL tilt/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 6.516 V/m; Power Drift = 0.04 dB Peak SAR (extrapolated) = 0.120 W/kg SAR(1 g) = 0.098 W/kg; SAR(10 g) = 0.078 W/kg Maximum value of SAR (measured) = 0.102 W/kg</p>  <p>0 dB = 0.102 W/kg = -9.91 dBW/kg</p>	

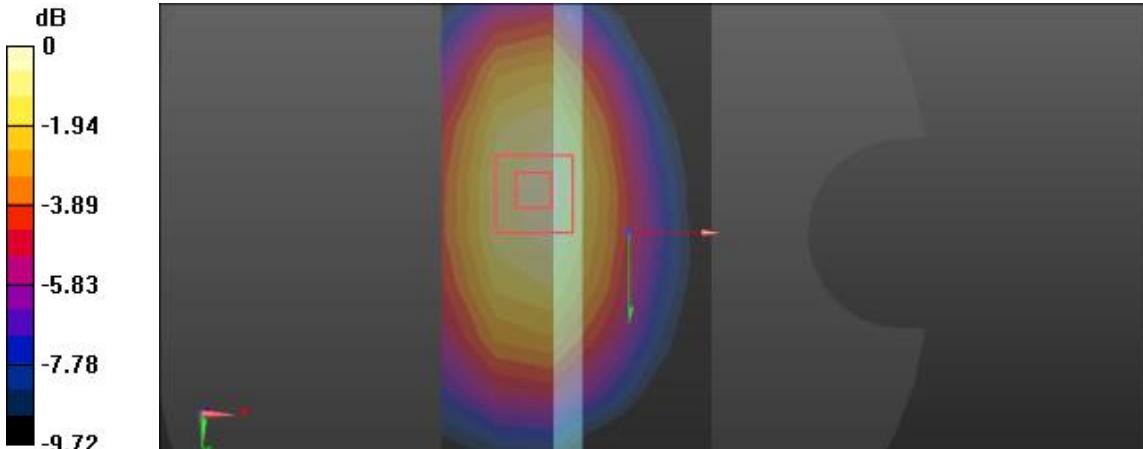
FLAT(VIOCE)	Towards phantom
<p>Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 836.6 MHz; Duty Cycle: 1:1.95434</p> <p>Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.858$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: EX3DV4 - SN3708; ConvF(9.1, 9.1, 9.1); Calibrated: 2016/11/10; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn720; Calibrated: 2016/10/31 Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL wcdma band5 TG&TP/wcdma band5 TP voice M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.280 W/kg</p> <p>Flat-Section MSL wcdma band5 TG&TP/wcdma band5 TP voice M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 15.18 V/m; Power Drift = 0.06 dB Peak SAR (extrapolated) = 0.377 W/kg SAR(1 g) = 0.280 W/kg; SAR(10 g) = 0.205 W/kg Maximum value of SAR (measured) = 0.298 W/kg</p>  <p>0 dB = 0.298 W/kg = -5.26 dBW/kg</p>	

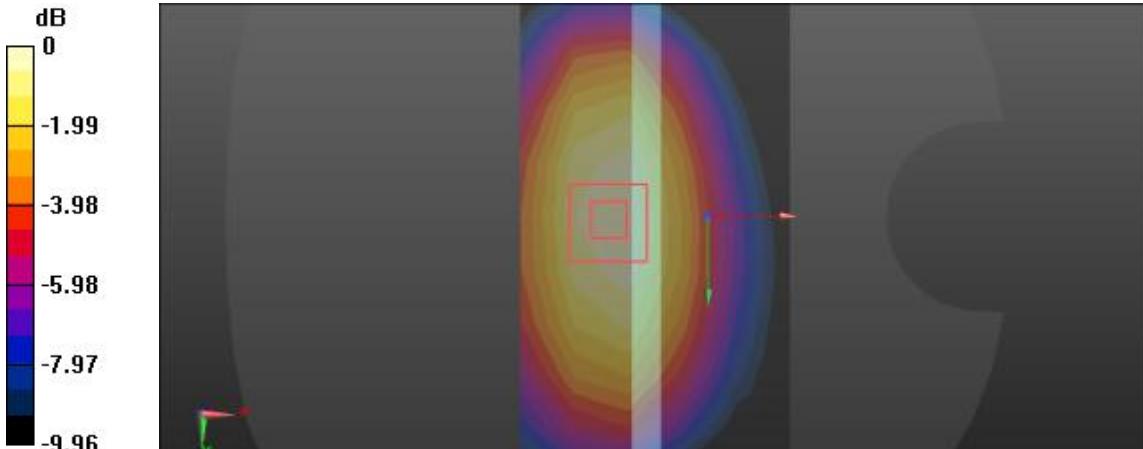
FLAT(VIOCE)	Towards ground
<p>Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 836.6 MHz; Duty Cycle: 1:1.95434</p> <p>Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.858$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(9.1, 9.1, 9.1); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL wcdma band5 TG&TP/wcdma band5 TG voice M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.346 W/kg</p> <p>Flat-Section MSL wcdma band5 TG&TP/wcdma band5 TG voice M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 19.03 V/m; Power Drift = -0.04 dB Peak SAR (extrapolated) = 0.437 W/kg SAR(1 g) = 0.336 W/kg; SAR(10 g) = 0.253 W/kg Maximum value of SAR (measured) = 0.352 W/kg</p>  <p>0 dB = 0.352 W/kg = -4.53 dBW/kg</p>	

FLAT(DATA)	Towards phantom
<p>Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 836.6 MHz; Duty Cycle: 1:1.95434</p> <p>Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.858$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(9.1, 9.1, 9.1); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL wcdma band5 TG&TP/wcdma band5 TP DATA M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.358 W/kg</p> <p>Flat-Section MSL wcdma band5 TG&TP/wcdma band5 TP DATA M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 13.87 V/m; Power Drift = -0.07 dB Peak SAR (extrapolated) = 0.498 W/kg SAR(1 g) = 0.330 W/kg; SAR(10 g) = 0.223 W/kg Maximum value of SAR (measured) = 0.351 W/kg</p>  <p>0 dB = 0.351 W/kg = -4.55 dBW/kg</p>	

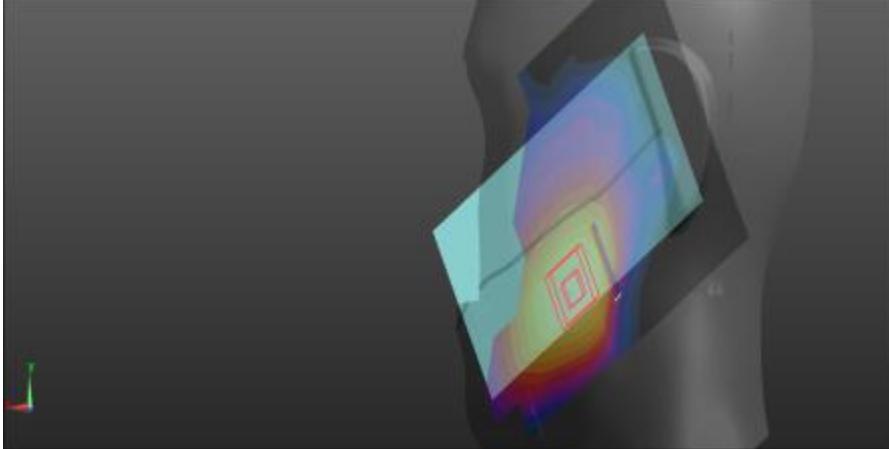
FLAT(DATA)	Towards ground
<p>Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 836.6 MHz; Duty Cycle: 1:1.95434</p> <p>Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.858$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(9.1, 9.1, 9.1); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL wcdma band5 TG&TP/wcdma band5 TG DATA M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.343 W/kg</p> <p>Flat-Section MSL wcdma band5 TG&TP/wcdma band5 TG DATA M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 18.96 V/m; Power Drift = 0.00 dB Peak SAR (extrapolated) = 0.435 W/kg SAR(1 g) = 0.335 W/kg; SAR(10 g) = 0.252 W/kg Maximum value of SAR (measured) = 0.351 W/kg</p>  <p>0 dB = 0.351 W/kg = -4.55 dBW/kg</p>	

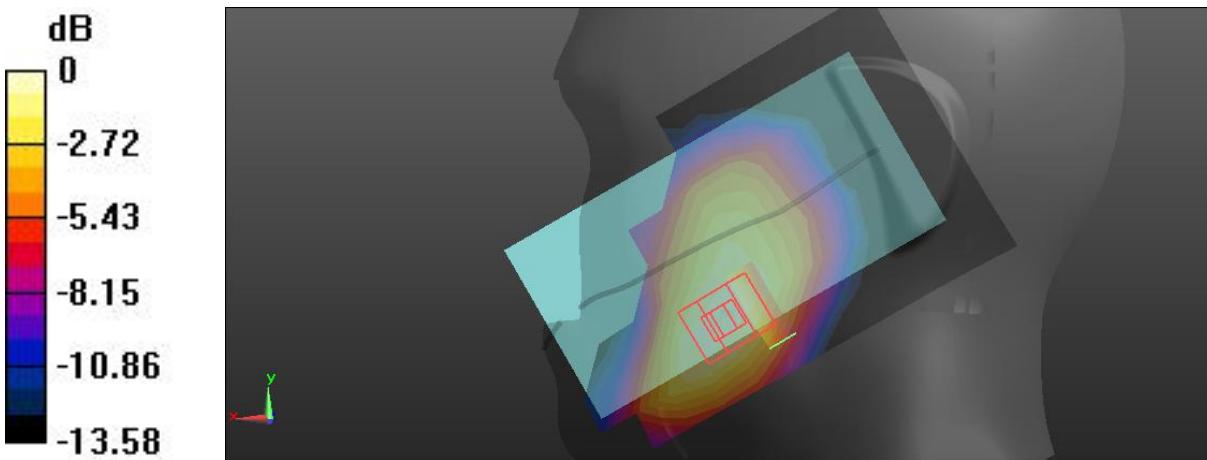
FLAT	EDGE2
<p>Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 836.6 MHz; Duty Cycle: 1:1.95434</p> <p>Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.858$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(9.1, 9.1, 9.1); Calibrated: 2016/11/10; • Sensor-Surface: 3mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL wcdma band5 HOT/wcdma band5 10mm M edge 2/Area Scan (6x11x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0137 W/kg</p> <p>Flat-Section MSL wcdma band5 HOT/wcdma band5 10mm M edge 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 2.266 V/m; Power Drift = 0.08 dB Peak SAR (extrapolated) = 0.0230 W/kg SAR(1 g) = 0.011 W/kg; SAR(10 g) = 0.00633 W/kg Maximum value of SAR (measured) = 0.0141 W/kg</p>  <p>0 dB = 0.0141 W/kg = -18.51 dBW/kg</p>	

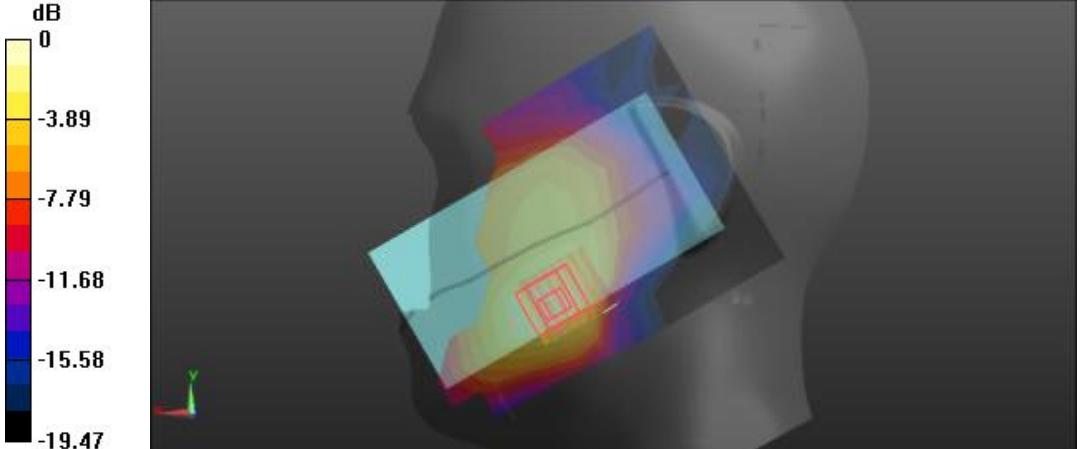
FLAT	EDGE3
<p>Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 836.6 MHz; Duty Cycle: 1:1.95434</p> <p>Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.858$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(9.1, 9.1, 9.1); Calibrated: 2016/11/10; • Sensor-Surface: 3mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL wcdma band5 HOT/wcdma band5 10mm M edge 3/Area Scan (6x15x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.125 W/kg</p> <p>Flat-Section MSL wcdma band5 HOT/wcdma band5 10mm M edge 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 10.61 V/m; Power Drift = -0.00 dB Peak SAR (extrapolated) = 0.163 W/kg SAR(1 g) = 0.114 W/kg; SAR(10 g) = 0.079 W/kg Maximum value of SAR (measured) = 0.131 W/kg</p>  <p>0 dB = 0.131 W/kg = -8.83 dBW/kg</p>	

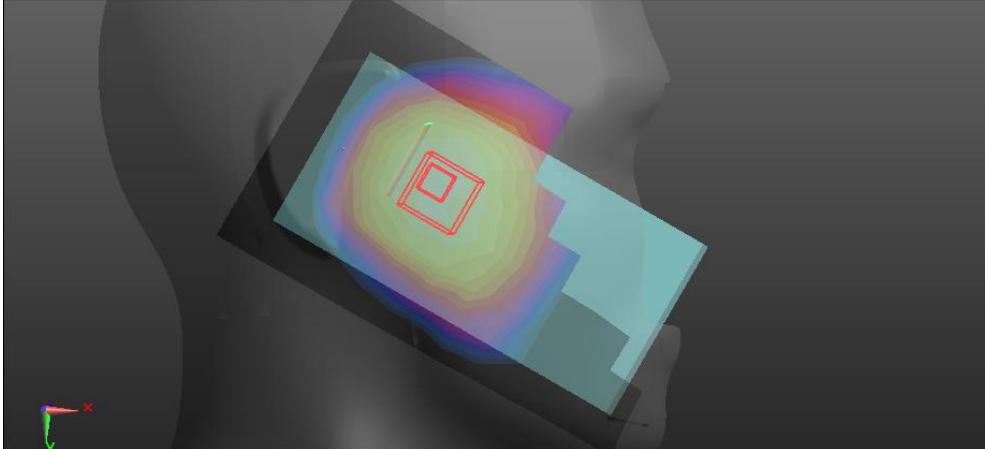
FLAT	EDGE4
<p>Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 836.6 MHz; Duty Cycle: 1:1.95434</p> <p>Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.858$; $\rho = 1000$ kg/m³</p> <p>Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(9.1, 9.1, 9.1); Calibrated: 2016/11/10; • Sensor-Surface: 3mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL wcdma band5 HOT/wcdma band5 10mm M edge 4/Area Scan (6x15x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.123 W/kg</p> <p>Flat-Section MSL wcdma band5 HOT/wcdma band5 10mm M edge 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 10.66 V/m; Power Drift = -0.17 dB Peak SAR (extrapolated) = 0.154 W/kg SAR(1 g) = 0.107 W/kg; SAR(10 g) = 0.074 W/kg</p>  <p>0 dB = 0.123 W/kg = -9.10 dBW/kg</p>	

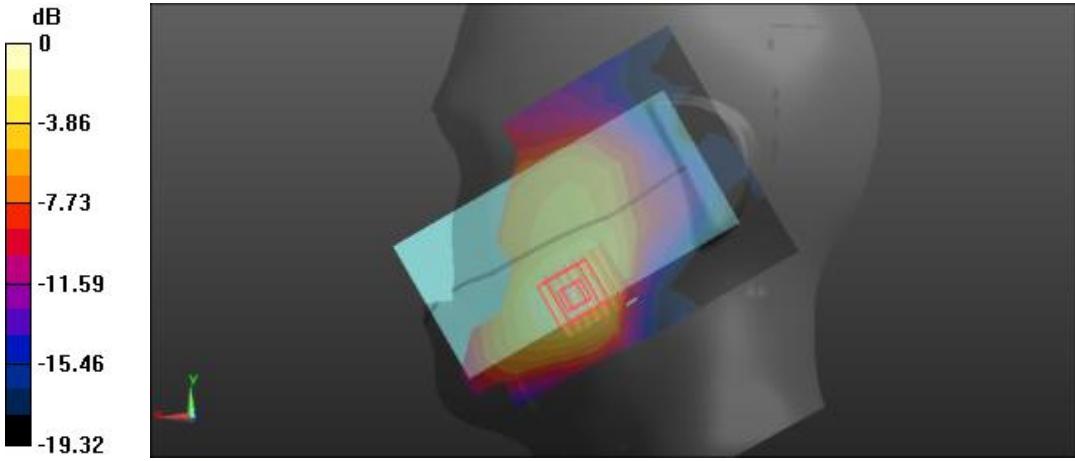
LTE (Band 2 20BW-1RB-Low/Head)

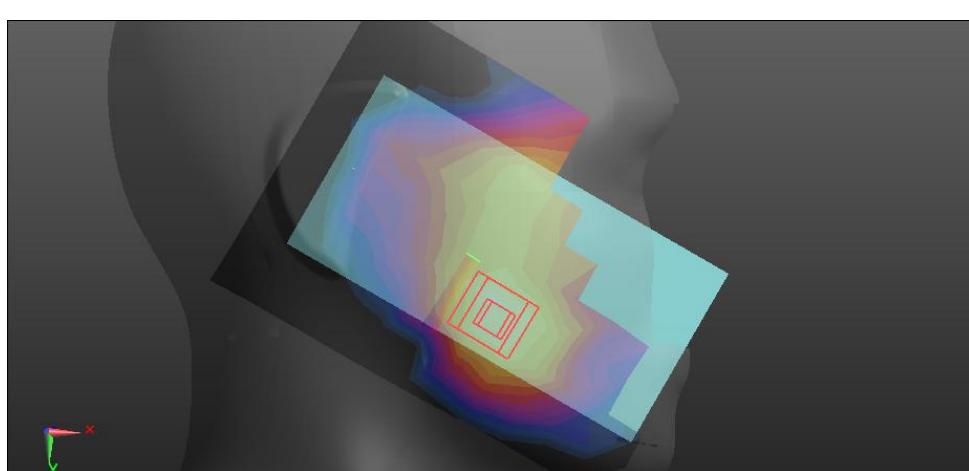
Left Side	Cheek
<p>Communication System: UID 0, LTE band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.45$ S/m; $\epsilon_r = 39.74$; $\rho = 1000$ kg/m3 Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: EX3DV4 - SN3708; ConvF(7.84, 7.84, 7.84); Calibrated: 2016/11/10; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn720; Calibrated: 2016/10/31 Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL LTE band2 Left/LTE band2 20MHz 1RB Low HSL touch M/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.441 W/kg</p> <p>Head-Section HSL LTE band2 Left/LTE band2 20MHz 1RB Low HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 4.549 V/m; Power Drift = -0.00 dB Peak SAR (extrapolated) = 0.745 W/kg SAR(1 g) = 0.443 W/kg; SAR(10 g) = 0.261 W/kg Maximum value of SAR (measured) = 0.484 W/kg</p>  <p>0 dB = 0.484 W/kg = -3.15 dBW/kg</p>	

Left Side	Tilt
<p>Communication System: UID 0, LTE band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.45$ S/m; $\epsilon_r = 39.74$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.84, 7.84, 7.84); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL LTE band2 Left/LTE band2 20MHz 1RB Low HSL tilt M/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.115 W/kg</p> <p>Head-Section HSL LTE band2 Left/LTE band2 20MHz 1RB Low HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 8.223 V/m; Power Drift = 0.02 dB Peak SAR (extrapolated) = 0.163 W/kg SAR(1 g) = 0.107 W/kg; SAR(10 g) = 0.067 W/kg Maximum value of SAR (measured) = 0.116 W/kg</p>  <p>0 dB = 0.116 W/kg = -9.36 dBW/kg</p>	

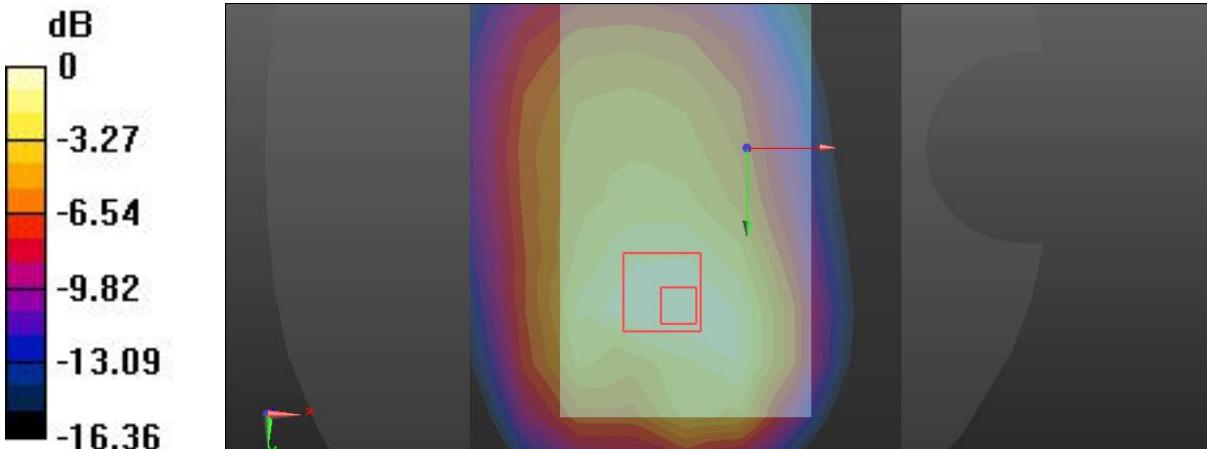
Right Side	Cheek
<p>Communication System: UID 0, LTE band 02 (0); Frequency: 1860 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 1860$ MHz; $\sigma = 1.43$ S/m; $\epsilon_r = 39.827$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.84, 7.84, 7.84); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL LTE band2 Left/LTE band2 20MHz 1RB Low HSL touch L/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.334 W/kg</p> <p>Head-Section HSL LTE band2 Left/LTE band2 20MHz 1RB Low HSL touch L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.051 V/m; Power Drift = 0.07 dB Peak SAR (extrapolated) = 0.549 W/kg SAR(1 g) = 0.327 W/kg; SAR(10 g) = 0.192 W/kg Maximum value of SAR (measured) = 0.355 W/kg</p>  <p>0 dB = 0.355 W/kg = -4.50 dBW/kg</p>	

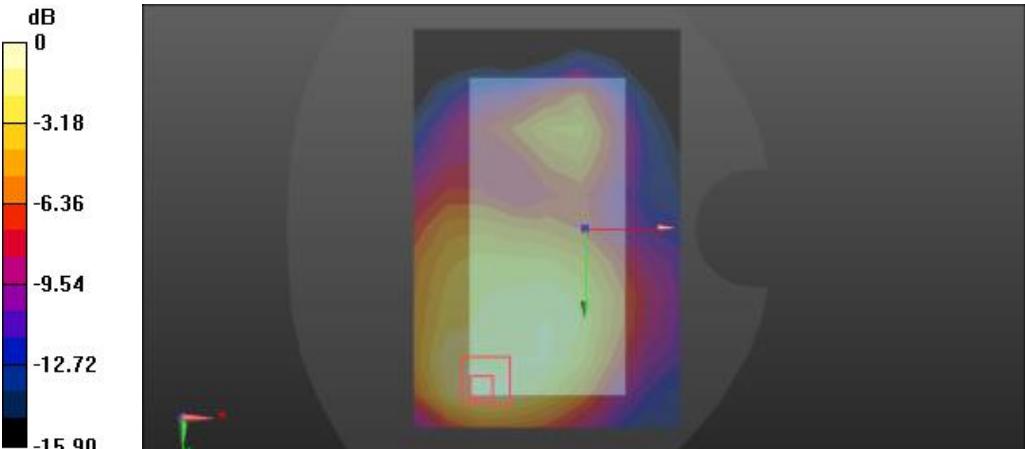
Right Side	Cheek
<p>Communication System: UID 0, LTE band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.45$ S/m; $\epsilon_r = 39.74$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.84, 7.84, 7.84); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL LTE band2 Right/LTE band2 20MHz 1RB Low HSL touch M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.183 W/kg</p> <p>Head-Section HSL LTE band2 Right/LTE band2 20MHz 1RB Low HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 4.262 V/m; Power Drift = -0.05 dB Peak SAR (extrapolated) = 0.298 W/kg SAR(1 g) = 0.189 W/kg; SAR(10 g) = 0.119 W/kg Maximum value of SAR (measured) = 0.202 W/kg</p>  <p>0 dB = 0.202 W/kg = -6.95 dBW/kg</p>	

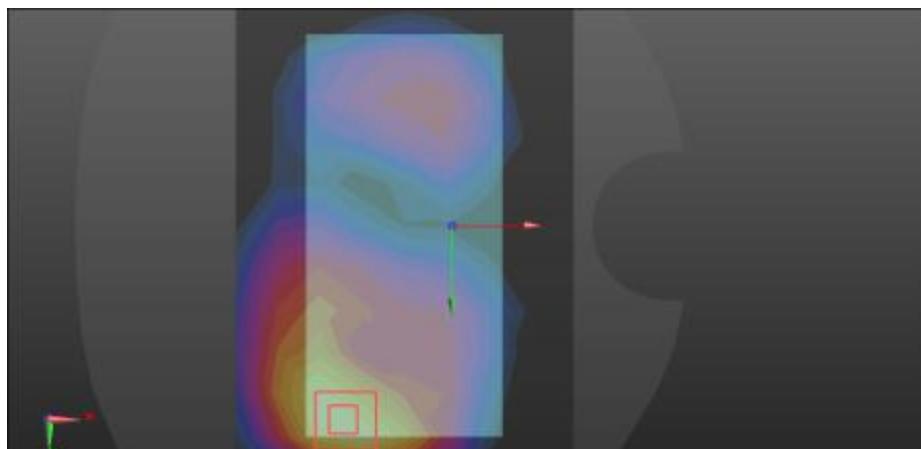
Right Side	Cheek
<p>Communication System: UID 0, LTE band 02 (0); Frequency: 1900 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.45 \text{ S/m}$; $\epsilon_r = 39.75$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.84, 7.84, 7.84); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL LTE band2 Left/LTE band2 20MHz 1RB Low HSL touch H/Area Scan (9x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.345 W/kg</p> <p>Head-Section HSL LTE band2 Left/LTE band2 20MHz 1RB Low HSL touch H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 3.754 V/m; Power Drift = 0.08 dB Peak SAR (extrapolated) = 0.556 W/kg SAR(1 g) = 0.333 W/kg; SAR(10 g) = 0.196 W/kg Maximum value of SAR (measured) = 0.363 W/kg</p>  <p>0 dB = 0.363 W/kg = -4.40 dBW/kg</p>	

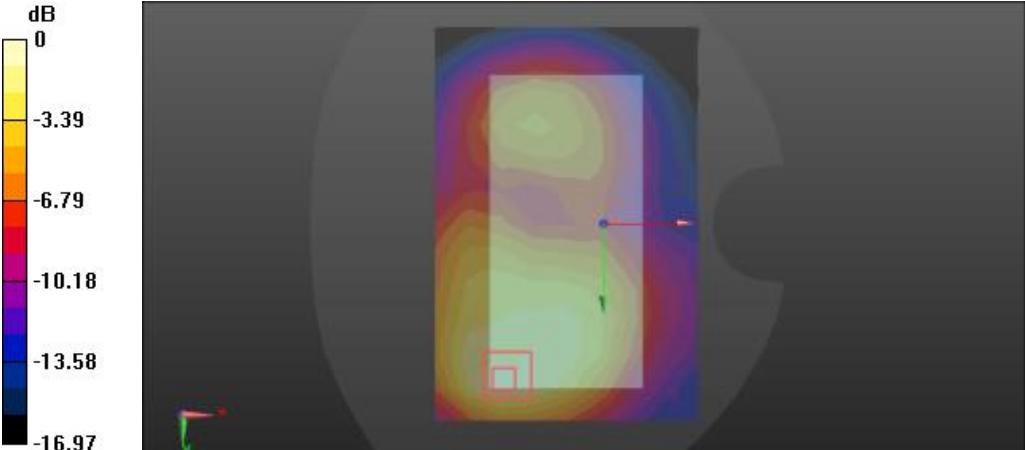
Right Side	Tilt
<p>Communication System: UID 0, LTE band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.45$ S/m; $\epsilon_r = 39.74$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: EX3DV4 - SN3708; ConvF(7.84, 7.84, 7.84); Calibrated: 2016/11/10; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn720; Calibrated: 2016/10/31 Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL LTE band2 Right/LTE band2 20MHz 1RB Low HSL tilt M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0827 W/kg</p> <p>Head-Section HSL LTE band2 Right/LTE band2 20MHz 1RB Low HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 6.792 V/m; Power Drift = -0.08 dB Peak SAR (extrapolated) = 0.117 W/kg SAR(1 g) = 0.075 W/kg; SAR(10 g) = 0.050 W/kg Maximum value of SAR (measured) = 0.0816 W/kg</p>  <p>0 dB = 0.0816 W/kg = -10.88 dBW/kg</p>	

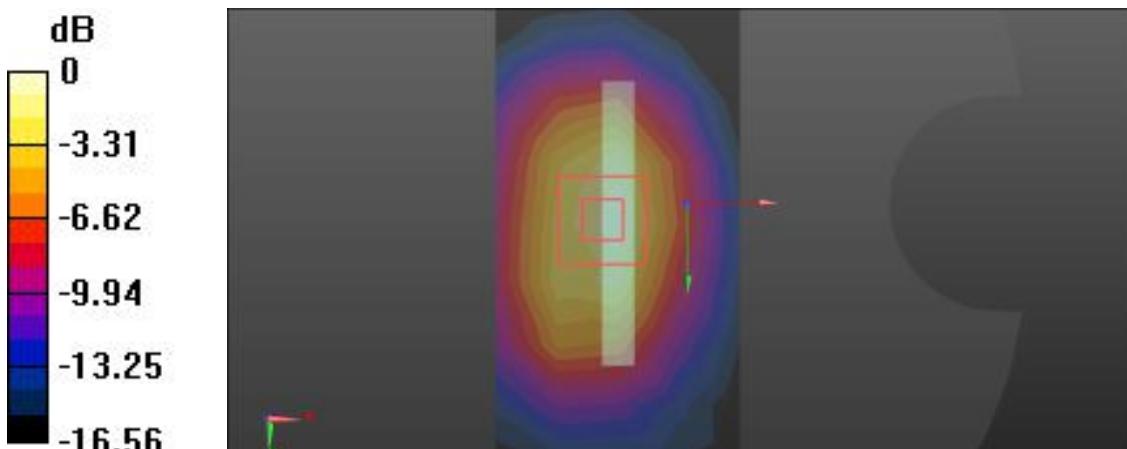
LTE (Band 2 20BW-1RB-Low/Flat)

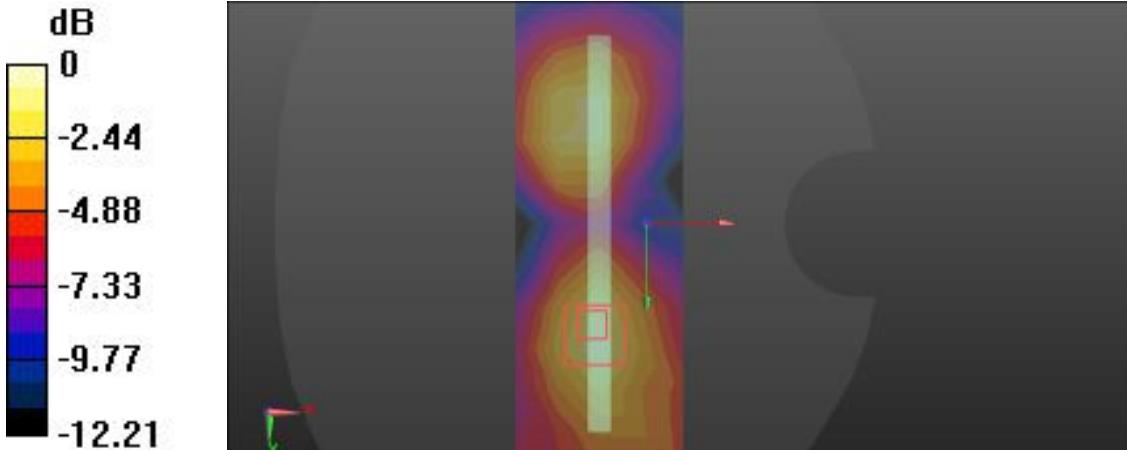
FLAT	Towards phantom
<p>Communication System: UID 0, LTE band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.57$ S/m; $\epsilon_r = 51.14$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn720; Calibrated: 2016/10/31 Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL LTE band2 TP/LTE band2 TP 20MHz 1RB M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.461 W/kg</p> <p>Flat-Section MSL LTE band2 TP/LTE band2 TP 20MHz 1RB M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 9.559 V/m; Power Drift = -0.03 dB Peak SAR (extrapolated) = 0.854 W/kg SAR(1 g) = 0.472 W/kg; SAR(10 g) = 0.275 W/kg Maximum value of SAR (measured) = 0.510 W/kg</p>  <p>0 dB = 0.510 W/kg = -2.92 dBW/kg</p>	

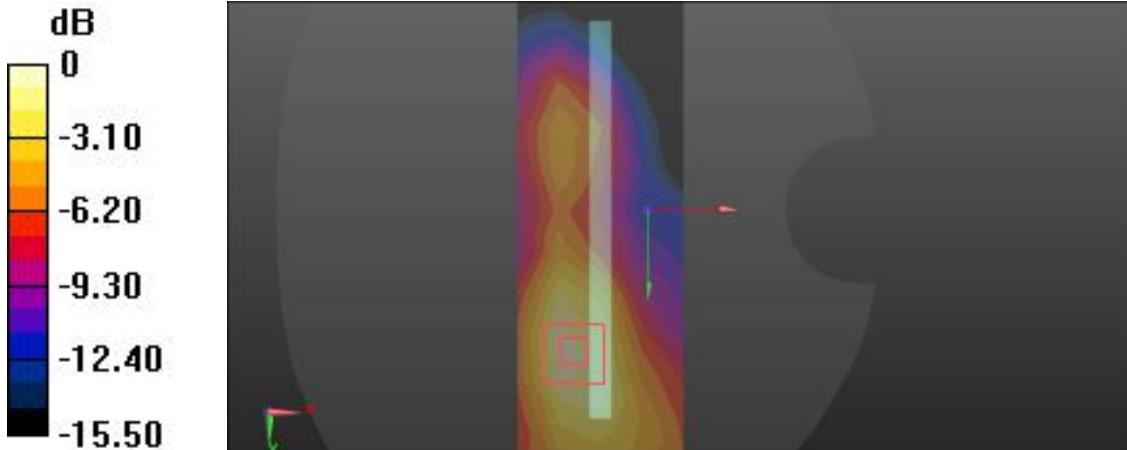
FLAT	Towards ground
<p>Communication System: UID 0, LTE band 02 (0); Frequency: 1860 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 1860$ MHz; $\sigma = 1.543$ S/m; $\epsilon_r = 51.207$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL LTE band2 TG/LTE band2 TG 20MHz 1RB L 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.746 W/kg</p> <p>Flat-Section MSL LTE band2 TG/LTE band2 TG 20MHz 1RB L 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 11.78 V/m; Power Drift = -0.02 dB Peak SAR (extrapolated) = 1.22 W/kg SAR(1 g) = 0.708 W/kg; SAR(10 g) = 0.412 W/kg Maximum value of SAR (measured) = 0.772 W/kg</p>  <p style="text-align: center;">$0 \text{ dB} = 0.772 \text{ W/kg} = -1.12 \text{ dBW/kg}$</p>	

FLAT	Towards ground
<p>Communication System: UID 0, LTE band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.57$ S/m; $\epsilon_r = 51.14$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL LTE band2 TG/LTE band2 TG 20MHz 1RB M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.869 W/kg</p> <p>Flat-Section MSL LTE band2 TG/LTE band2 TG 20MHz 1RB M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 6.879 V/m; Power Drift = 0.22 dB Peak SAR (extrapolated) = 1.50 W/kg SAR(1 g) = 0.795 W/kg; SAR(10 g) = 0.434 W/kg Maximum value of SAR (measured) = 0.881 W/kg</p>  <p>0 dB = 0.881 W/kg = -0.55 dBW/kg</p>	

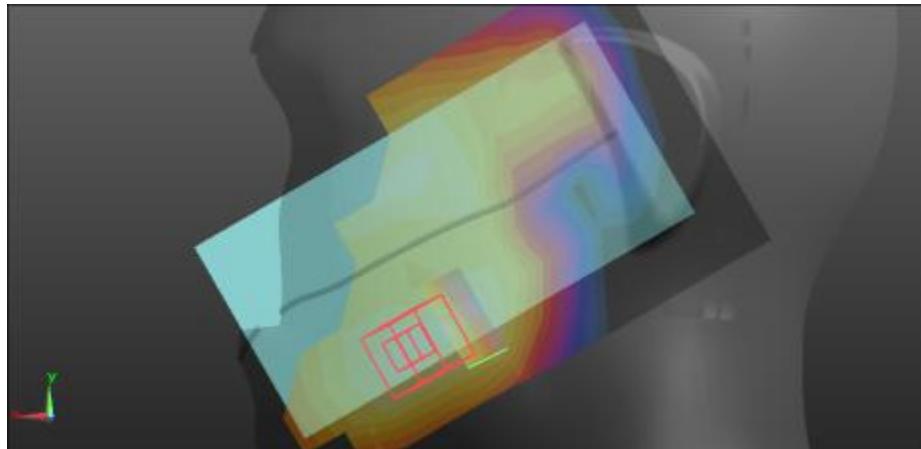
FLAT	Towards ground
<p>Communication System: UID 0, LTE band 02 (0); Frequency: 1900 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.57 \text{ S/m}$; $\epsilon_r = 51.05$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL LTE band2 TG/LTE band2 TG 20MHz 1RB H 10mm/Area Scan (9x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.807 W/kg</p> <p>Flat-Section MSL LTE band2 TG/LTE band2 TG 20MHz 1RB H 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 9.316 V/m; Power Drift = 0.05 dB Peak SAR (extrapolated) = 1.33 W/kg SAR(1 g) = 0.777 W/kg; SAR(10 g) = 0.450 W/kg Maximum value of SAR (measured) = 0.854 W/kg</p>  <p>0 dB = 0.854 W/kg = -0.69 dBW/kg</p>	

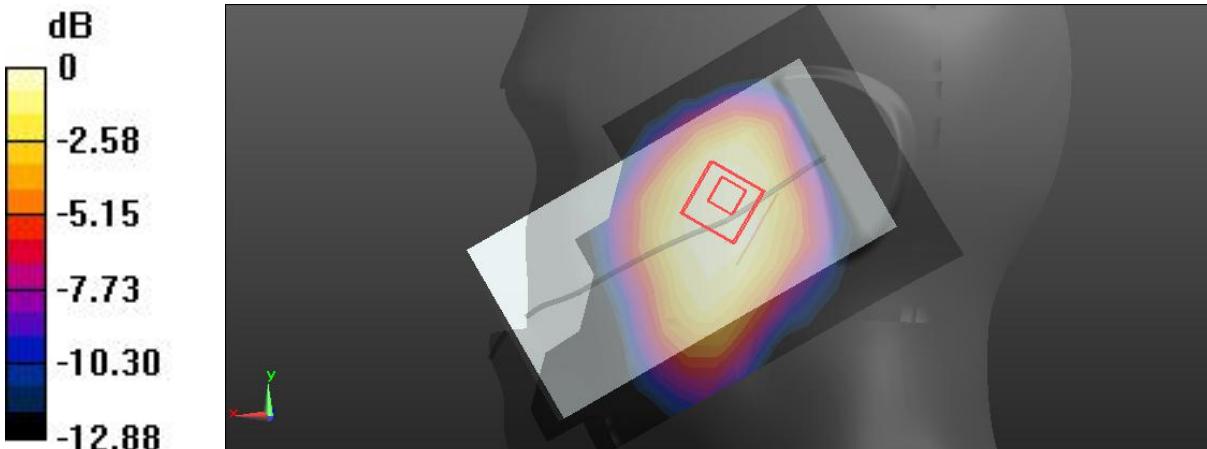
FLAT	EDGE2
<p>Communication System: UID 0, LTE band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.57$ S/m; $\epsilon_r = 51.14$; $\rho = 1000$ kg/m3 Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL LTE band2 HOT/LTE band2 20MHz 1RB 10mm M edge 2/Area Scan (6x11x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.365 W/kg</p> <p>Flat-Section MSL LTE band2 HOT/LTE band2 20MHz 1RB 10mm M edge 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 12.53 V/m; Power Drift = 0.13 dB Peak SAR (extrapolated) = 0.665 W/kg SAR(1 g) = 0.378 W/kg; SAR(10 g) = 0.213 W/kg Maximum value of SAR (measured) = 0.415 W/kg</p>  <p>0 dB = 0.415 W/kg = -3.82 dBW/kg</p>	

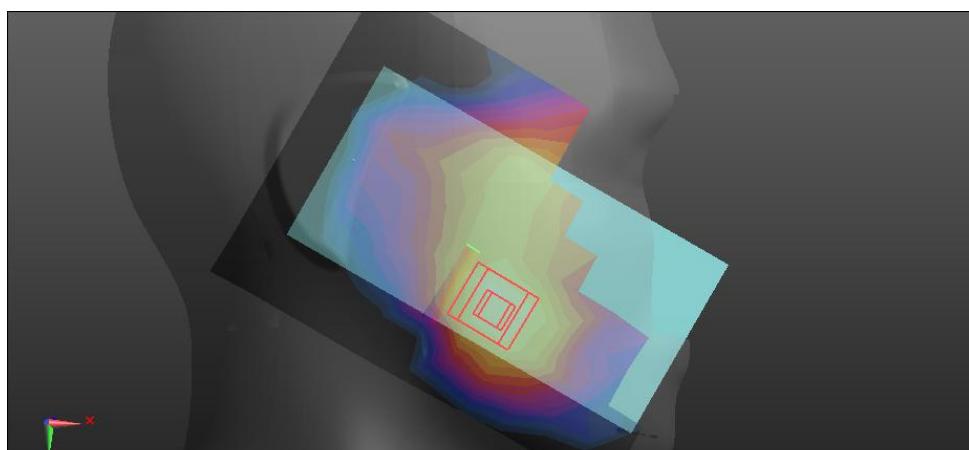
FLAT	EDGE3
<p>Communication System: UID 0, LTE band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.57$ S/m; $\epsilon_r = 51.14$; $\rho = 1000$ kg/m3 Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL LTE band2 HOT/LTE band2 20MHz 1RB 10mmM edge 3/Area Scan (6x15x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0436 W/kg</p> <p>Flat-Section MSL LTE band2 HOT/LTE band2 20MHz 1RB 10mmM edge 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 2.837 V/m; Power Drift = 0.05 dB Peak SAR (extrapolated) = 0.0710 W/kg SAR(1 g) = 0.043 W/kg; SAR(10 g) = 0.028 W/kg Maximum value of SAR (measured) = 0.0457 W/kg</p>  <p>0 dB = 0.0457 W/kg = -13.40 dBW/kg</p>	

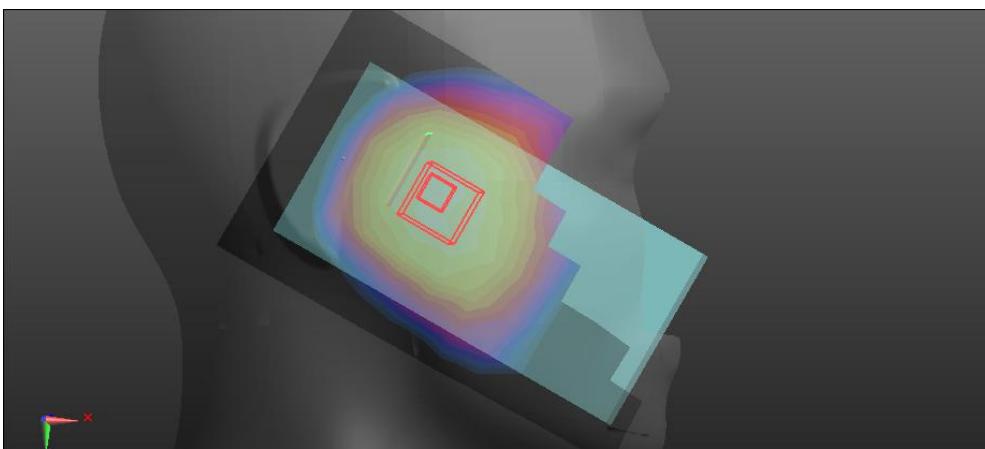
FLAT	EDGE4
<p>Communication System: UID 0, LTE band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.57$ S/m; $\epsilon_r = 51.14$; $\rho = 1000$ kg/m3 Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL LTE band2 HOT/LTE band2 20MHz 1RB 10mmM edge 4/Area Scan (6x15x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.322 W/kg</p> <p>Flat-Section MSL LTE band2 HOT/LTE band2 20MHz 1RB 10mmM edge 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 10.50 V/m; Power Drift = 0.06 dB Peak SAR (extrapolated) = 0.511 W/kg SAR(1 g) = 0.301 W/kg; SAR(10 g) = 0.177 W/kg Maximum value of SAR (measured) = 0.327 W/kg</p>  <p>0 dB = 0.327 W/kg = -4.85 dBW/kg</p>	

LTE (Band 2 20BW-50RB-Low/Head)

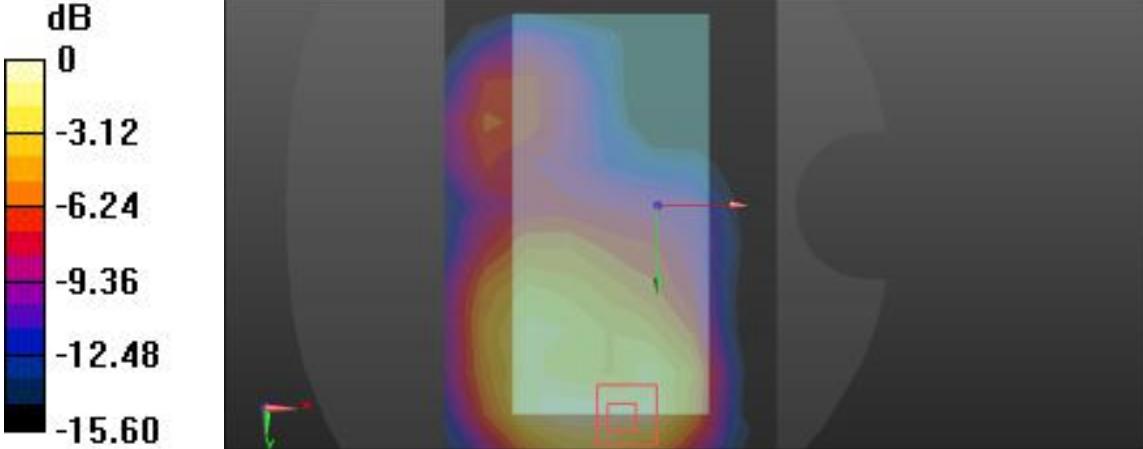
Left Side	Cheek
<p>Communication System: UID 0, LTE band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.45$ S/m; $\epsilon_r = 39.74$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.84, 7.84, 7.84); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL LTE band2 Left/LTE band2 20MHz 50RB Low HSL touch M/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.386 W/kg</p> <p>Head-Section HSL LTE band2 Left/LTE band2 20MHz 50RB Low HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.705 V/m; Power Drift = 0.09 dB Peak SAR (extrapolated) = 0.670 W/kg SAR(1 g) = 0.397 W/kg; SAR(10 g) = 0.233 W/kg Maximum value of SAR (measured) = 0.435 W/kg</p>  <p>0 dB = 0.435 W/kg = -3.62 dBW/kg</p>	

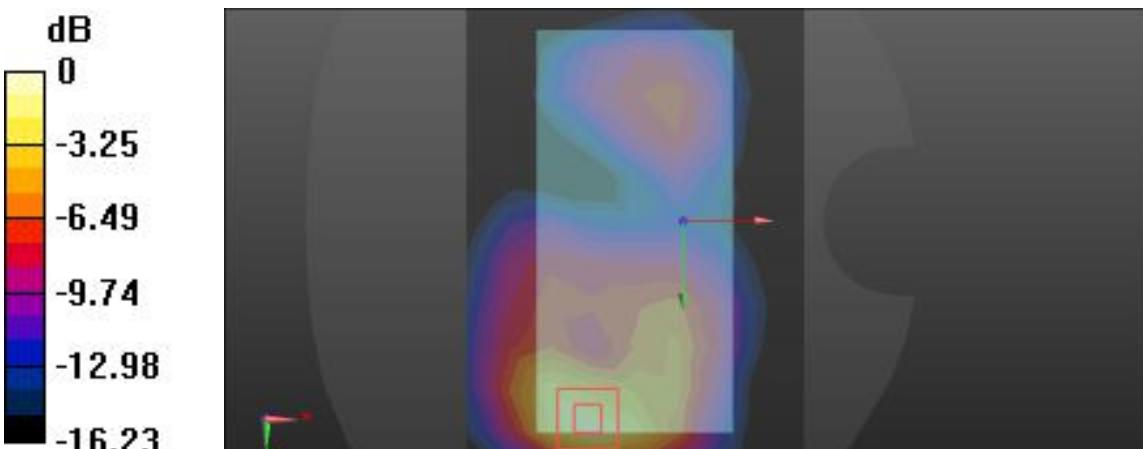
Left Side	Tilt
<p>Communication System: UID 0, LTE band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.45$ S/m; $\epsilon_r = 39.74$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.84, 7.84, 7.84); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL LTE band2 Left/LTE band2 20MHz 50RB Low HSL tilt M/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0977 W/kg</p> <p>Head-Section HSL LTE band2 Left/LTE band2 20MHz 50RB Low HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 7.476 V/m; Power Drift = 0.00 dB Peak SAR (extrapolated) = 0.176 W/kg SAR(1 g) = 0.096 W/kg; SAR(10 g) = 0.058 W/kg Maximum value of SAR (measured) = 0.114 W/kg</p>  <p>0 dB = 0.114 W/kg = -9.43 dBW/kg</p>	

Right Side	Cheek
<p>Communication System: UID 0, LTE band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1 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: EX3DV4 - SN3708; ConvF(7.84, 7.84, 7.84); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL LTE band2 Right/LTE band2 20MHz 50RB Low HSL touch M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.147 W/kg</p> <p>Head-Section HSL LTE band2 Right/LTE band2 20MHz 50RB Low HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.878 V/m; Power Drift = 0.02 dB Peak SAR (extrapolated) = 0.221 W/kg SAR(1 g) = 0.147 W/kg; SAR(10 g) = 0.094 W/kg Maximum value of SAR (measured) = 0.158 W/kg</p>  <p>0 dB = 0.158 W/kg = -8.01 dBW/kg</p>	

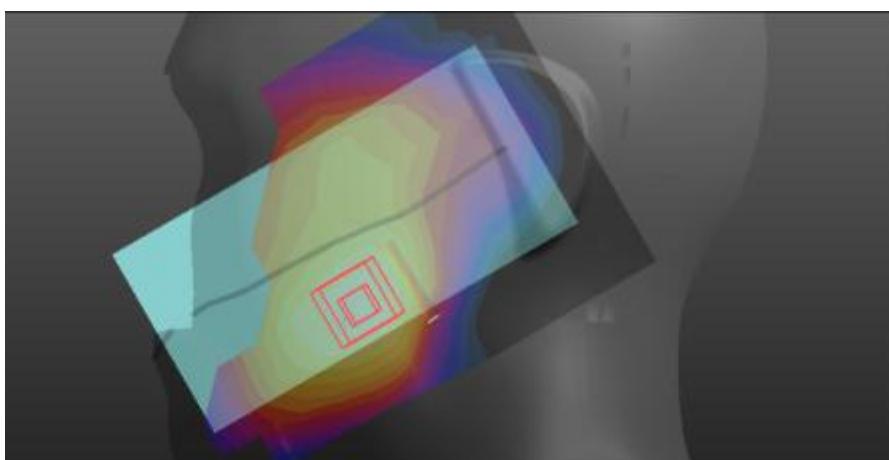
Right Side	Tilt
<p>Communication System: UID 0, LTE band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.45$ S/m; $\epsilon_r = 39.74$; $\rho = 1000$ kg/m3 Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: EX3DV4 - SN3708; ConvF(7.84, 7.84, 7.84); Calibrated: 2016/11/10; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn720; Calibrated: 2016/10/31 Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL LTE band2 Right/LTE band2 20MHz 50RB Low HSL tilt M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0714 W/kg</p> <p>Head-Section HSL LTE band2 Right/LTE band2 20MHz 50RB Low HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 6.151 V/m; Power Drift = -0.15 dB Peak SAR (extrapolated) = 0.109 W/kg SAR(1 g) = 0.067 W/kg; SAR(10 g) = 0.042 W/kg Maximum value of SAR (measured) = 0.0722 W/kg</p>  <p>0 dB = 0.0722 W/kg = -11.41 dBW/kg</p>	

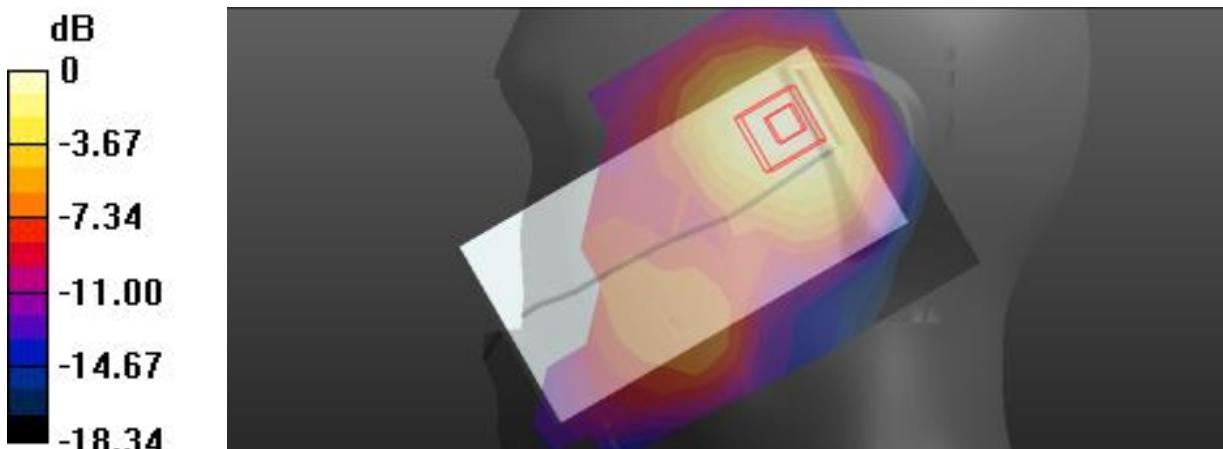
LTE (Band 2 20BW-50RB-Low/Flat)

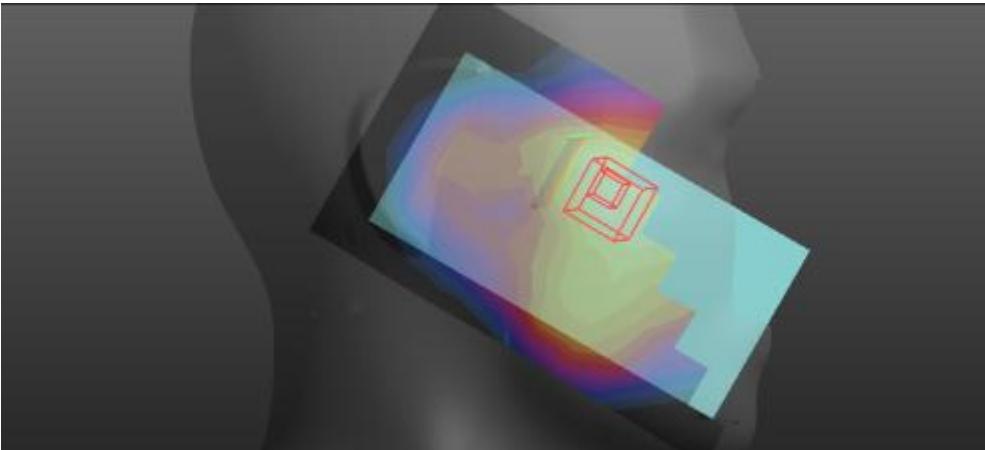
FLAT	Towards phantom
<p>Communication System: UID 0, LTE band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.57$ S/m; $\epsilon_r = 51.14$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn720; Calibrated: 2016/10/31 Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL LTE band2 TP/LTE band2 TP 20MHz 50RB M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.371 W/kg</p> <p>Flat-Section MSL LTE band2 TP/LTE band2 TP 20MHz 50RB M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 8.207 V/m; Power Drift = 0.07 dB Peak SAR (extrapolated) = 0.701 W/kg SAR(1 g) = 0.382 W/kg; SAR(10 g) = 0.224 W/kg Maximum value of SAR (measured) = 0.413 W/kg</p>  <p>0 dB = 0.413 W/kg = -3.84 dBW/kg</p>	

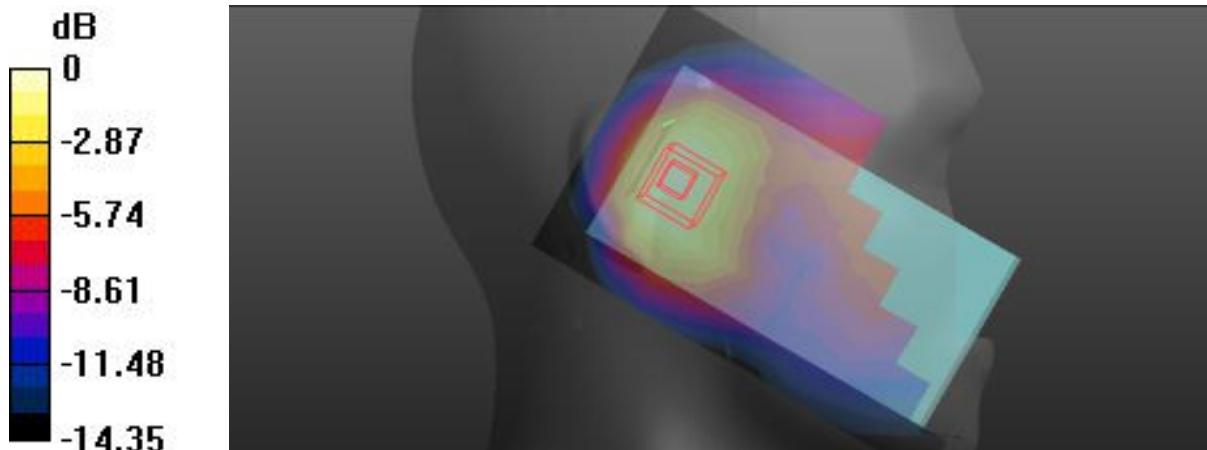
FLAT	Towards ground
<p>Communication System: UID 0, LTE band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.57$ S/m; $\epsilon_r = 51.14$; $\rho = 1000$ kg/m3 Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: EX3DV4 - SN3708; ConvF(7.79, 7.79, 7.79); Calibrated: 2016/11/10; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn720; Calibrated: 2016/10/31 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL LTE band2 TG/LTE band2 TG 20MHz 50RB M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.706 W/kg</p> <p>Flat-Section MSL LTE band2 TG/LTE band2 TG 20MHz 50RB M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 6.182 V/m; Power Drift = -0.13 dB Peak SAR (extrapolated) = 1.22 W/kg SAR(1 g) = 0.646 W/kg; SAR(10 g) = 0.352 W/kg Maximum value of SAR (measured) = 0.712 W/kg</p>  <p>0 dB = 0.712 W/kg = -1.48 dBW/kg</p>	

LTE (Band 4 20BW-1RB-Low/Head)

Left Side	Cheek
<p>Communication System: UID 0, LTE band 4 (0); Frequency: 1732.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.304$ S/m; $\epsilon_r = 40.408$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.15, 5.15, 5.15); Calibrated: 2016/8/29; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 2016/8/22 Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL LTE band4 Left/LTE band4 20MHz 1RB Low HSL touch M/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.320 W/kg</p> <p>Head-Section HSL LTE band4 Left/LTE band4 20MHz 1RB Low HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 5.913 V/m; Power Drift = -0.08 dB Peak SAR (extrapolated) = 0.546 W/kg SAR(1 g) = 0.343 W/kg; SAR(10 g) = 0.212 W/kg Maximum value of SAR (measured) = 0.375 W/kg</p>  <p>0 dB = 0.375 W/kg = -4.26 dBW/kg</p>	

Left Side	Tilt
<p>Communication System: UID 0, LTE band 4 (0); Frequency: 1732.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.304$ S/m; $\epsilon_r = 40.408$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.15, 5.15, 5.15); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL LTE band4 Left/LTE band4 20MHz 1RB Low HSL tilt M/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.181 W/kg Head-Section HSL LTE band4 Left/LTE band4 20MHz 1RB Low HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 10.29 V/m; Power Drift = -0.11 dB Peak SAR (extrapolated) = 0.273 W/kg SAR(1 g) = 0.169 W/kg; SAR(10 g) = 0.105 W/kg Maximum value of SAR (measured) = 0.186 W/kg</p>  <p>0 dB = 0.186 W/kg = -7.30 dBW/kg</p>	

Right Side	Cheek
<p>Communication System: UID 0, LTE band 4 (0); Frequency: 1732.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.304$ S/m; $\epsilon_r = 40.408$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.15, 5.15, 5.15); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL LTE band4 Right/LTE band4 20MHz 1RB Low HSL touch M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.162 W/kg</p> <p>Head-Section HSL LTE band4 Right/LTE band4 20MHz 1RB Low HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 6.115 V/m; Power Drift = 0.05 dB Peak SAR (extrapolated) = 0.266 W/kg SAR(1 g) = 0.170 W/kg; SAR(10 g) = 0.108 W/kg Maximum value of SAR (measured) = 0.187 W/kg</p>  <p>0 dB = 0.187 W/kg = -7.28 dBW/kg</p>	

Right Side	Tilt
<p>Communication System: UID 0, LTE band 4 (0); Frequency: 1732.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.304$ S/m; $\epsilon_r = 40.408$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.15, 5.15, 5.15); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL LTE band4 Right/LTE band4 20MHz 1RB Low HSL tilt M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.146 W/kg</p> <p>Head-Section HSL LTE band4 Right/LTE band4 20MHz 1RB Low HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 9.733 V/m; Power Drift = 0.04 dB Peak SAR (extrapolated) = 0.217 W/kg SAR(1 g) = 0.138 W/kg; SAR(10 g) = 0.085 W/kg Maximum value of SAR (measured) = 0.149 W/kg</p>  <p>0 dB = 0.149 W/kg = -8.27 dBW/kg</p>	

LTE (Band 4 20BW-1RB-Low/Flat)

FLAT

Towards phantom

Communication System: UID 0, LTE band 4 (0); Frequency: 1732.5 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.404$ S/m; $\epsilon_r = 51.622$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: ES3DV3 - SN3127; ConvF(4.9, 4.9, 4.9); Calibrated: 2016/8/29;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn546; Calibrated: 2016/8/22
- Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Flat-Section MSL LTE band4 TP/LTE band4 TP 20MHz 1RB M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.341 W/kg

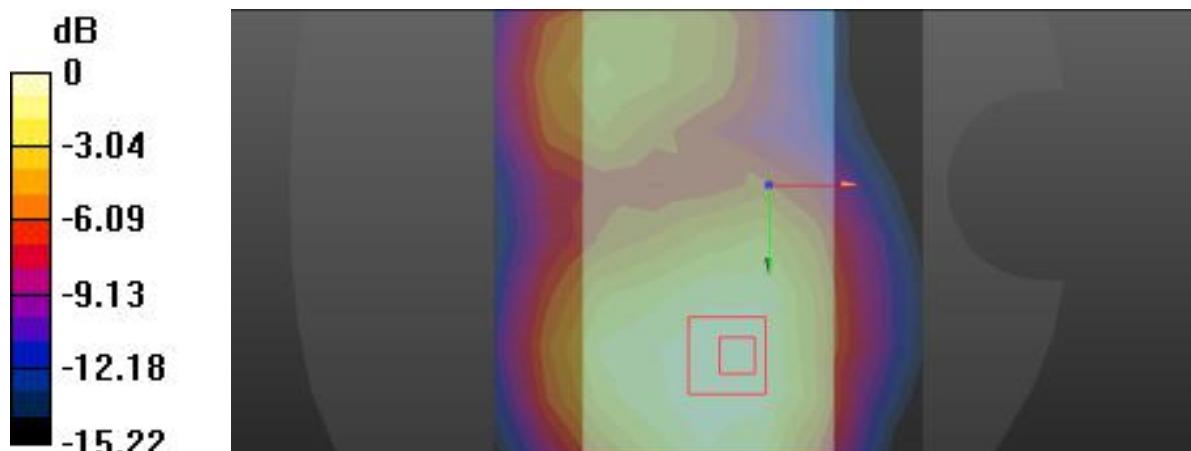
Flat-Section MSL LTE band4 TP/LTE band4 TP 20MHz 1RB M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.577 V/m; Power Drift = 0.06 dB

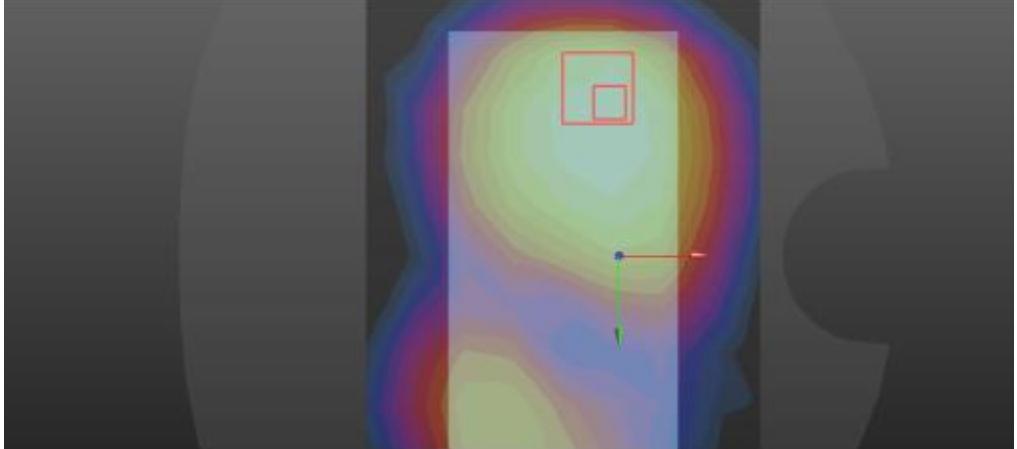
Peak SAR (extrapolated) = 0.537 W/kg

SAR(1 g) = 0.340 W/kg; SAR(10 g) = 0.221 W/kg

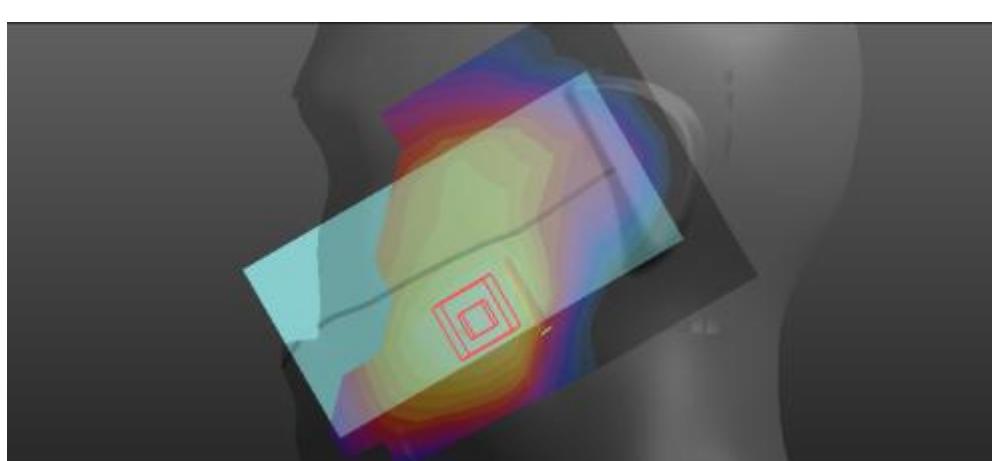
Maximum value of SAR (measured) = 0.367 W/kg

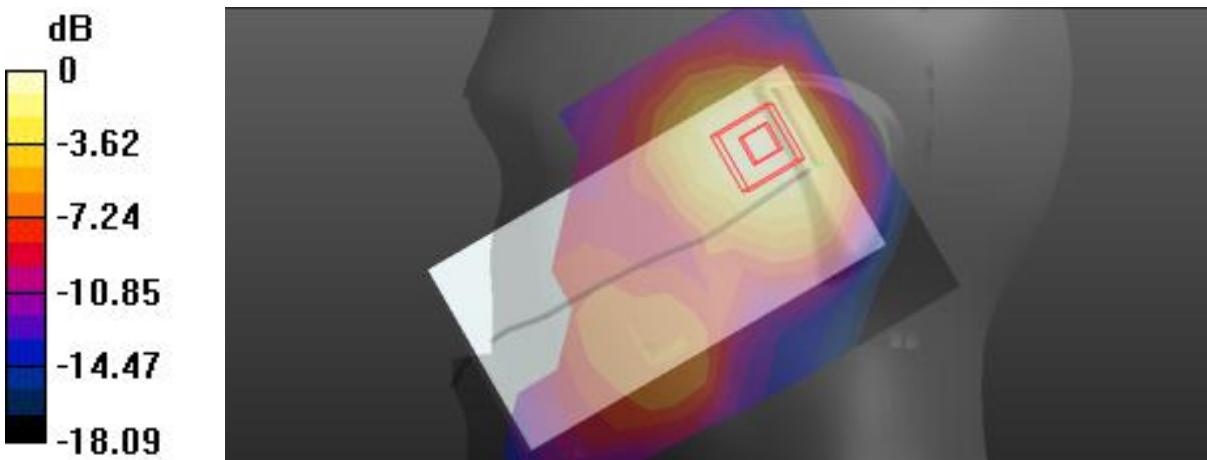


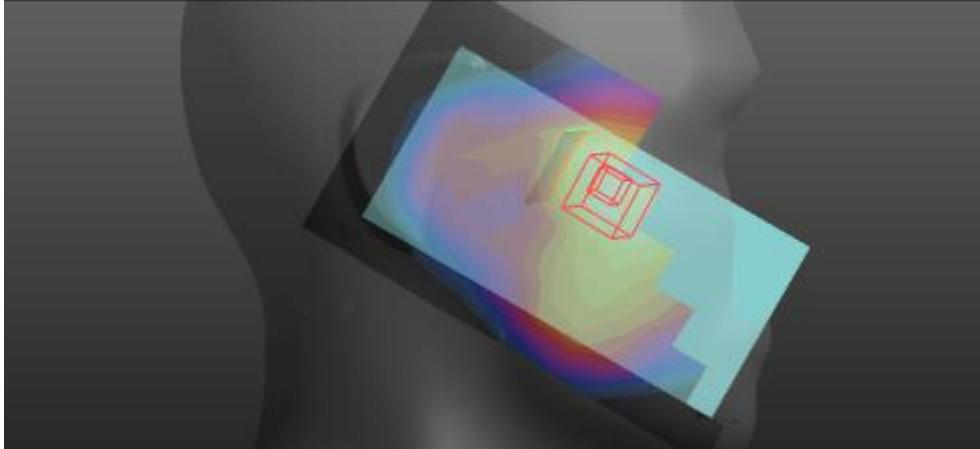
0 dB = 0.367 W/kg = -4.35 dBW/kg

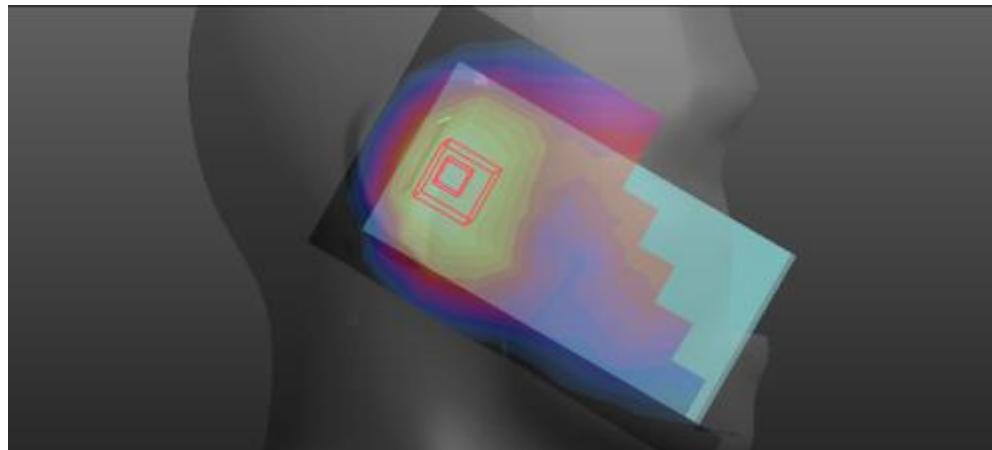
FLAT	Towards ground
<p>Communication System: UID 0, LTE band 4 (0); Frequency: 1732.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.404$ S/m; $\epsilon_r = 51.622$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.9, 4.9, 4.9); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL LTE band4 TG/LTE band4 TG 20MHz 1RB M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.211 W/kg</p> <p>Flat-Section MSL LTE band4 TG/LTE band4 TG 20MHz 1RB M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 7.712 V/m; Power Drift = -0.03 dB Peak SAR (extrapolated) = 0.317 W/kg SAR(1 g) = 0.200 W/kg; SAR(10 g) = 0.124 W/kg Maximum value of SAR (measured) = 0.219 W/kg</p>  <p>0 dB = 0.219 W/kg = -6.60 dBW/kg</p>	

LTE (Band 4 20BW-50RB-Low/Head)

Left Side	Cheek
<p>Communication System: UID 0, LTE band 4 (0); Frequency: 1732.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.304$ S/m; $\epsilon_r = 40.408$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.15, 5.15, 5.15); Calibrated: 2016/8/29; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 2016/8/22 Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL LTE band4 Left/LTE band4 20MHz 50RB Low HSL touch M/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.267 W/kg</p> <p>Head-Section HSL LTE band4 Left/LTE band4 20MHz 50RB Low HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 5.292 V/m; Power Drift = 0.03 dB Peak SAR (extrapolated) = 0.447 W/kg SAR(1 g) = 0.280 W/kg; SAR(10 g) = 0.172 W/kg Maximum value of SAR (measured) = 0.305 W/kg</p>  <p>0 dB = 0.305 W/kg = -5.16 dBW/kg</p>	

Left Side	Tilt
<p>Communication System: UID 0, LTE band 4 (0); Frequency: 1732.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.304$ S/m; $\epsilon_r = 40.408$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.15, 5.15, 5.15); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL LTE band4 Left/LTE band4 20MHz 50RB Low HSL tilt M/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.142 W/kg</p> <p>Head-Section HSL LTE band4 Left/LTE band4 20MHz 50RB Low HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 8.784 V/m; Power Drift = 0.09 dB Peak SAR (extrapolated) = 0.204 W/kg SAR(1 g) = 0.136 W/kg; SAR(10 g) = 0.085 W/kg Maximum value of SAR (measured) = 0.147 W/kg</p>  <p>0 dB = 0.147 W/kg = -8.33 dBW/kg</p>	

Right Side	Cheek
<p>Communication System: UID 0, LTE band 4 (0); Frequency: 1732.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.304$ S/m; $\epsilon_r = 40.408$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.15, 5.15, 5.15); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL LTE band4 Right/LTE band4 20MHz 50RB Low HSL touch M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.143 W/kg</p> <p>Head-Section HSL LTE band4 Right/LTE band4 20MHz 50RB Low HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 5.585 V/m; Power Drift = -0.06 dB Peak SAR (extrapolated) = 0.231 W/kg SAR(1 g) = 0.148 W/kg; SAR(10 g) = 0.095 W/kg Maximum value of SAR (measured) = 0.159 W/kg</p>  <p>0 dB = 0.159 W/kg = -7.99 dBW/kg</p>	

Right Side	Tilt
<p>Communication System: UID 0, LTE band 4 (0); Frequency: 1732.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.304$ S/m; $\epsilon_r = 40.408$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.15, 5.15, 5.15); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL LTE band4 Right/LTE band4 20MHz 50RB Low HSL tilt M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.124 W/kg</p> <p>Head-Section HSL LTE band4 Right/LTE band4 20MHz 50RB Low HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 8.944 V/m; Power Drift = 0.07 dB Peak SAR (extrapolated) = 0.186 W/kg SAR(1 g) = 0.118 W/kg; SAR(10 g) = 0.072 W/kg Maximum value of SAR (measured) = 0.128 W/kg</p>  <p>0 dB = 0.128 W/kg = -8.93 dBW/kg</p>	

LTE (Band 4 20BW-50RB-Low/Flat)

FLAT

Towards phantom

Communication System: UID 0, LTE band 4 (0); Frequency: 1732.5 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.404$ S/m; $\epsilon_r = 51.622$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: ES3DV3 - SN3127; ConvF(4.9, 4.9, 4.9); Calibrated: 2016/8/29;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn546; Calibrated: 2016/8/22
- Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Flat-Section MSL LTE band4 TP/LTE band4 TP 20MHz 50RB M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.267 W/kg

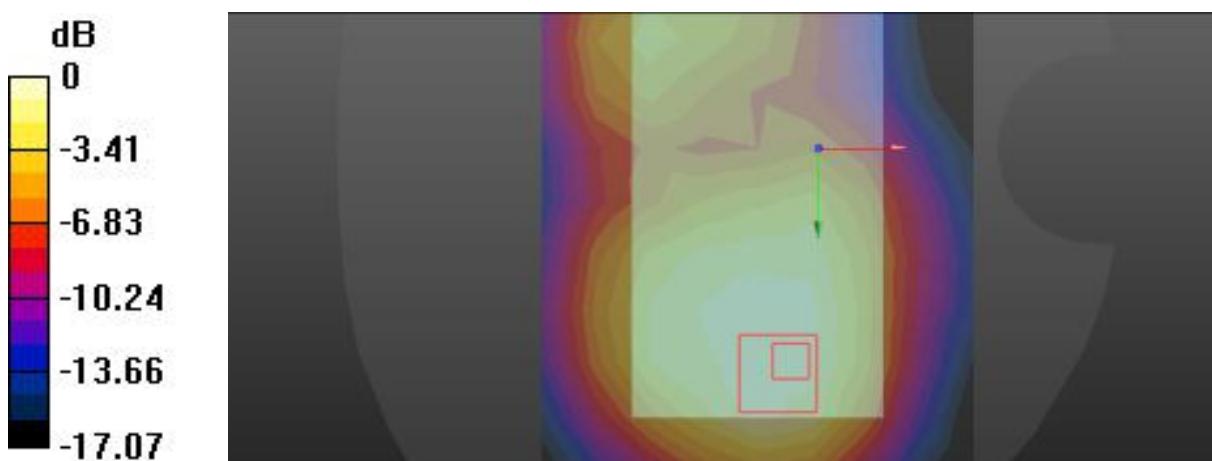
Flat-Section MSL LTE band4 TP/LTE band4 TP 20MHz 50RB M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

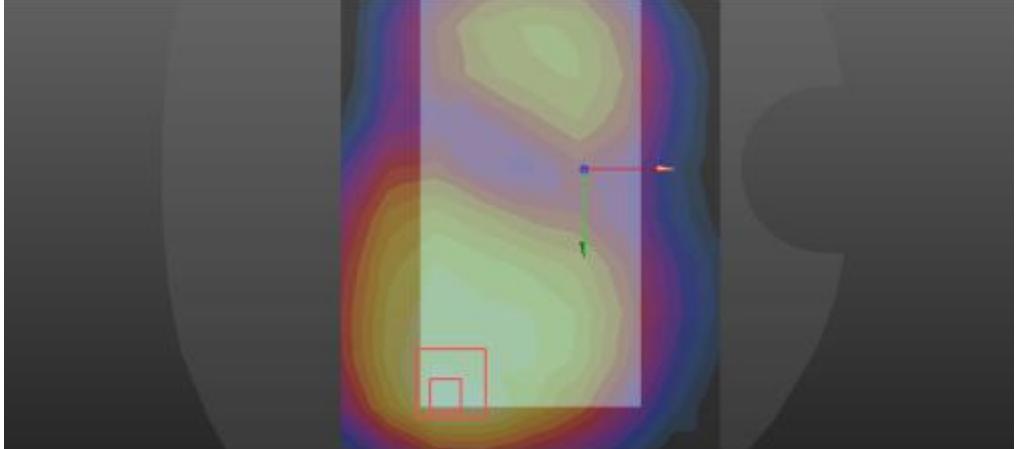
Reference Value = 6.807 V/m; Power Drift = 0.00 dB

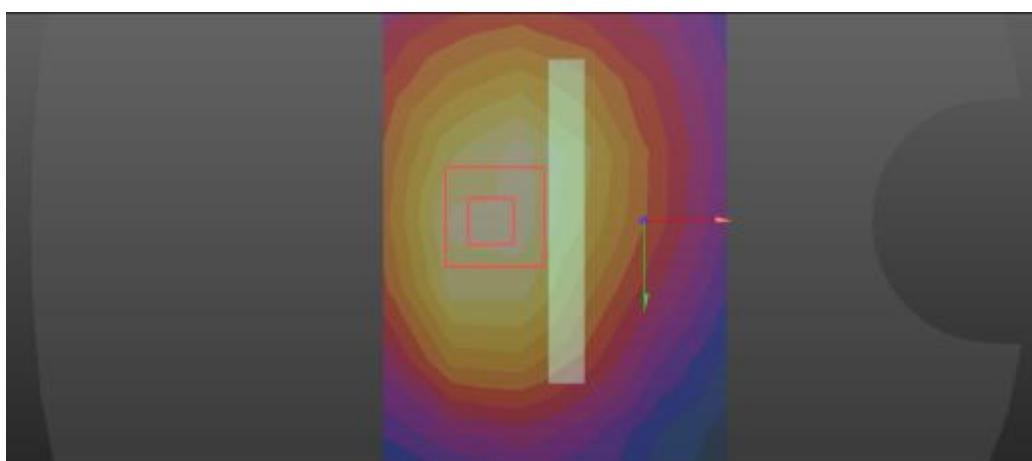
Peak SAR (extrapolated) = 0.446 W/kg

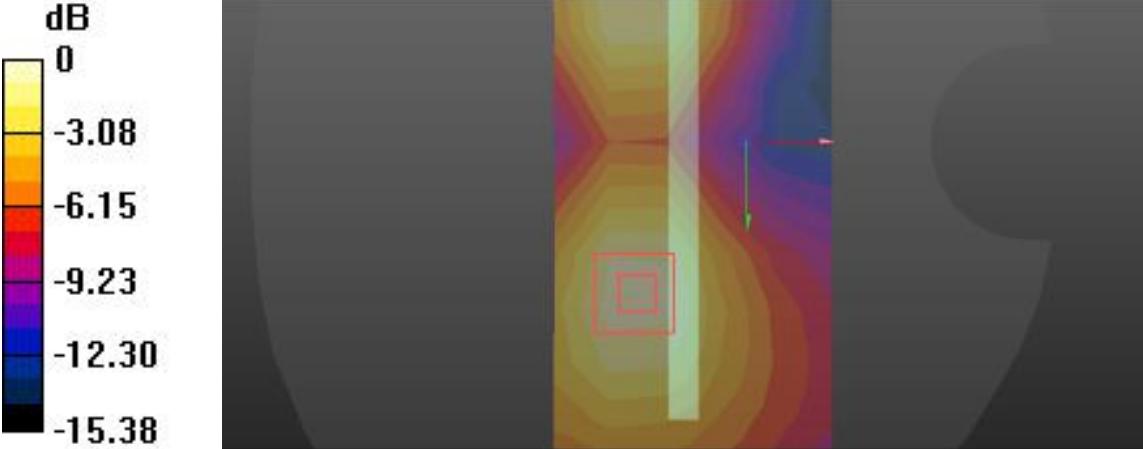
SAR(1 g) = 0.272 W/kg; SAR(10 g) = 0.169 W/kg

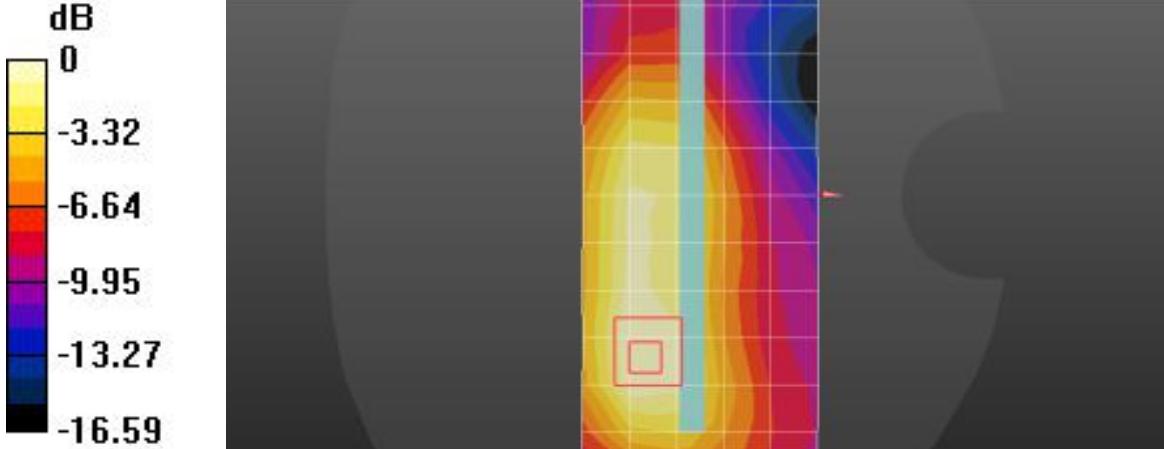
Maximum value of SAR (measured) = 0.296 W/kg



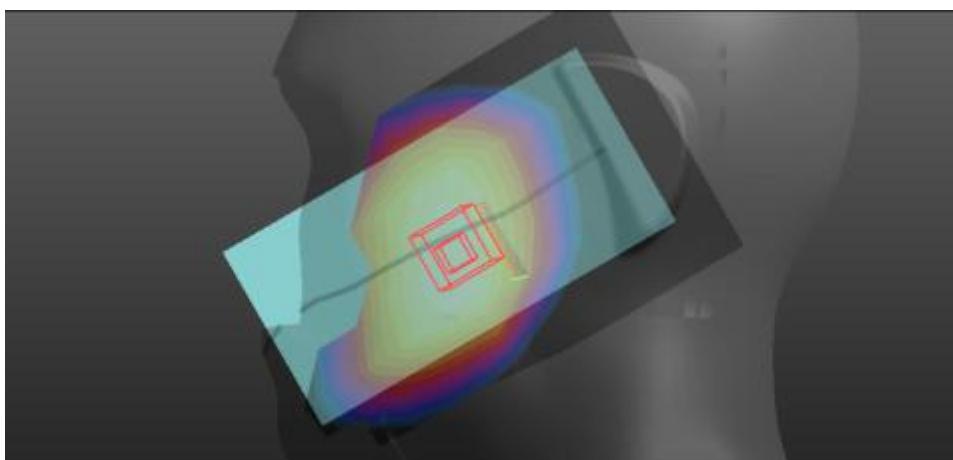
FLAT	Towards ground
<p>Communication System: UID 0, LTE band 4 (0); Frequency: 1732.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.404$ S/m; $\epsilon_r = 51.622$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.9, 4.9, 4.9); Calibrated: 2016/8/29; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 2016/8/22 Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL LTE band4 TG/LTE band4 TG 20MHz 50RB M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.410 W/kg</p> <p>Flat-Section MSL LTE band4 TG/LTE band4 TG 20MHz 50RB M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 5.211 V/m; Power Drift = 0.03 dB Peak SAR (extrapolated) = 0.731 W/kg SAR(1 g) = 0.419 W/kg; SAR(10 g) = 0.236 W/kg Maximum value of SAR (measured) = 0.467 W/kg</p>  <p>0 dB = 0.467 W/kg = -3.31 dBW/kg</p>	

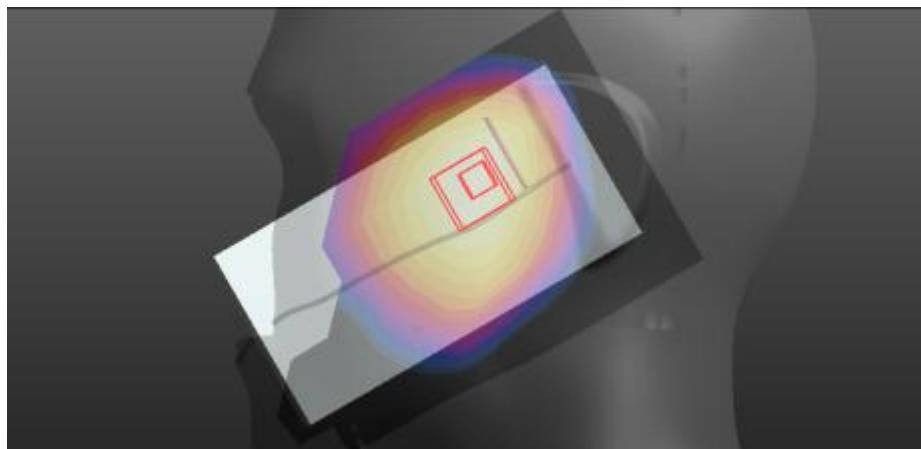
FLAT	EDGE2
<p>Communication System: UID 0, LTE band 4 (0); Frequency: 1732.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.404$ S/m; $\epsilon_r = 51.622$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.9, 4.9, 4.9); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL LTE band4 HOT/LTE band4 20MHz 50RB 10mm M edge 2/Area Scan (6x11x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.312 W/kg</p> <p>Flat-Section MSL LTE band4 HOT/LTE band4 20MHz 50RB 10mm M edge 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 12.16 V/m; Power Drift = 0.10 dB Peak SAR (extrapolated) = 0.522 W/kg SAR(1 g) = 0.311 W/kg; SAR(10 g) = 0.181 W/kg Maximum value of SAR (measured) = 0.342 W/kg</p>  <p>0 dB = 0.342 W/kg = -4.66 dBW/kg</p>	

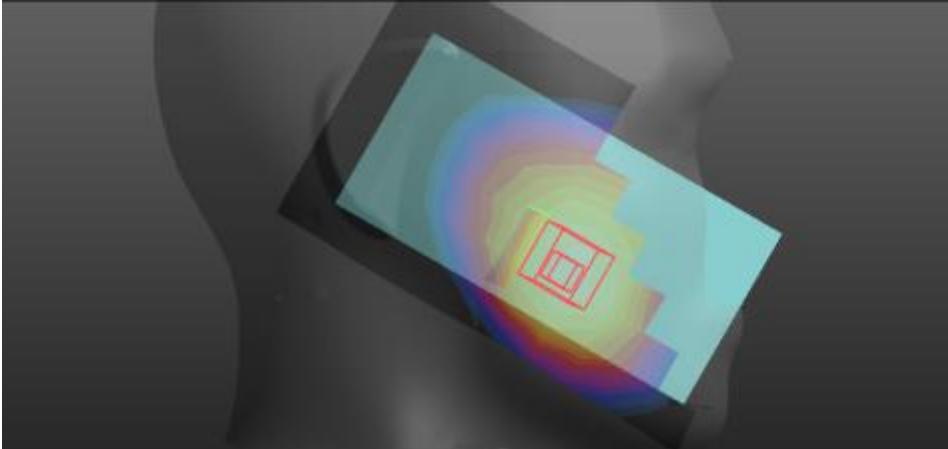
FLAT	EDGE3
<p>Communication System: UID 0, LTE band 4 (0); Frequency: 1732.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.404$ S/m; $\epsilon_r = 51.622$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.9, 4.9, 4.9); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL LTE band4 HOT/LTE band4 20MHz 50RB 10mmM edge 3/Area Scan (6x15x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.113 W/kg</p> <p>Flat-Section MSL LTE band4 HOT/LTE band4 20MHz 50RB 10mmM edge 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.986 V/m; Power Drift = 0.00 dB Peak SAR (extrapolated) = 0.186 W/kg SAR(1 g) = 0.116 W/kg; SAR(10 g) = 0.070 W/kg Maximum value of SAR (measured) = 0.127 W/kg</p>  <p>0 dB = 0.127 W/kg = -8.96 dBW/kg</p>	

FLAT	EDGE4
<p>Communication System: UID 0, LTE band 4 (0); Frequency: 1732.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.404$ S/m; $\epsilon_r = 51.622$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.9, 4.9, 4.9); Calibrated: 2016/8/29; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 2016/8/22 Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL LTE band4 HOT/LTE band4 20MHz 50RB 10mmM edge 4/Area Scan (6x15x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.147 W/kg</p> <p>Flat-Section MSL LTE band4 HOT/LTE band4 20MHz 50RB 10mmM edge 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 7.986 V/m; Power Drift = 0.09 dB Peak SAR (extrapolated) = 0.259 W/kg SAR(1 g) = 0.153 W/kg; SAR(10 g) = 0.088 W/kg Maximum value of SAR (measured) = 0.168 W/kg</p>  <p>0 dB = 0.147 W/kg = -8.33 dBW/kg</p>	

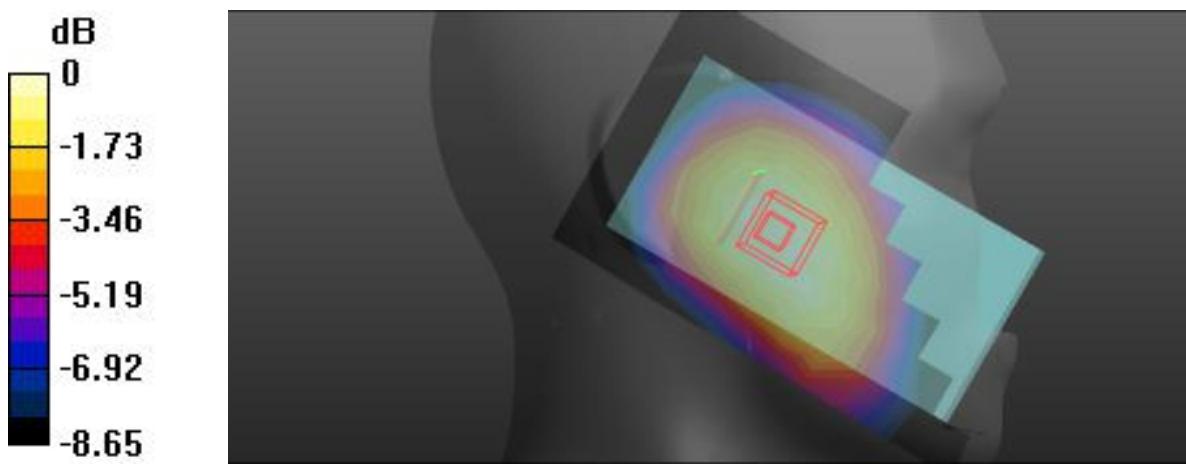
LTE (Band 5 20BW-1RB-Low/Head)

Left Side	Cheek
<p>Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 836.5 \text{ MHz}$; $\sigma = 0.89 \text{ S/m}$; $\epsilon_r = 41.479$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(6.2, 6.2, 6.2); Calibrated: 2016/8/29; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 2016/8/22 Phantom: Twin-SAM 1559; Type: QD 000 P40 CD; Serial: 1559 Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section Left HSL LTE band5/LTE band5 20BW 1RB LOW HSL touch M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.108 W/kg</p> <p>Head-Section Left HSL LTE band5/LTE band5 20BW 1RB LOW HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 3.005 V/m; Power Drift = 0.17 dB Peak SAR (extrapolated) = 0.132 W/kg SAR(1 g) = 0.102 W/kg; SAR(10 g) = 0.080 W/kg Maximum value of SAR (measured) = 0.107 W/kg</p>  <p>0 dB = 0.107 W/kg = -9.71 dBW/kg</p>	

Left Side	Tilt
<p>Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.89$ S/m; $\epsilon_r = 41.479$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(6.2, 6.2, 6.2); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1559; Type: QD 000 P40 CD; Serial: 1559 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section Left HSL LTE band5/LTE band5 20BW 1RB LOW HSL tilt M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0714 W/kg Head-Section Left HSL LTE band5/LTE band5 20BW 1RB LOW HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 5.588 V/m; Power Drift = -0.04 dB Peak SAR (extrapolated) = 0.0860 W/kg SAR(1 g) = 0.069 W/kg; SAR(10 g) = 0.054 W/kg Maximum value of SAR (measured) = 0.0726 W/kg</p>  <p>0 dB = 0.0726 W/kg = -11.39 dBW/kg</p>	

Right Side	Cheek
<p>Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.89$ S/m; $\epsilon_r = 41.479$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(6.2, 6.2, 6.2); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1559; Type: QD 000 P40 CD; Serial: 1559 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section Right HSL LTE band5/LTE band5 20BW 1RB LOW HSL touch M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.129 W/kg Head-Section Right HSL LTE band5/LTE band5 20BW 1RB LOW HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.210 V/m; Power Drift = -0.10 dB Peak SAR (extrapolated) = 0.160 W/kg SAR(1 g) = 0.129 W/kg; SAR(10 g) = 0.101 W/kg Maximum value of SAR (measured) = 0.136 W/kg</p>  <p>0 dB = 0.136 W/kg = -8.66 dBW/kg</p>	

Right Side	Tilt
<p>Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.89$ S/m; $\epsilon_r = 41.479$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(6.2, 6.2, 6.2); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1559; Type: QD 000 P40 CD; Serial: 1559 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section Right HSL LTE band5/LTE band5 20BW 1RB LOW HSL tilt M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0768 W/kg</p> <p>Head-Section Right HSL LTE band5/LTE band5 20BW 1RB LOW HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 5.520 V/m; Power Drift = 0.04 dB Peak SAR (extrapolated) = 0.0890 W/kg SAR(1 g) = 0.074 W/kg; SAR(10 g) = 0.057 W/kg Maximum value of SAR (measured) = 0.0775 W/kg</p>	



LTE (Band 5 20BW-1RB-Low/Flat)

FLAT

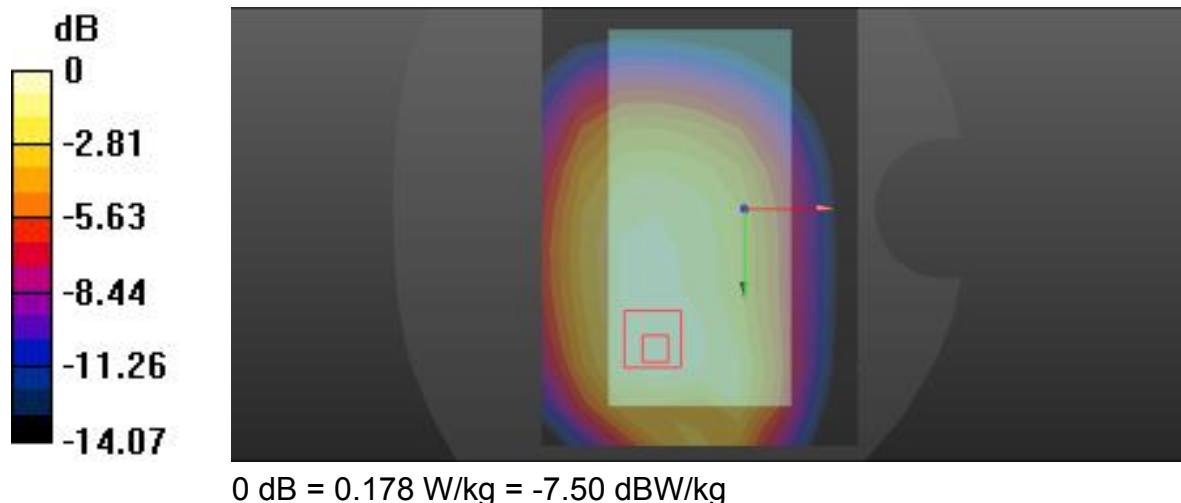
Towards phantom

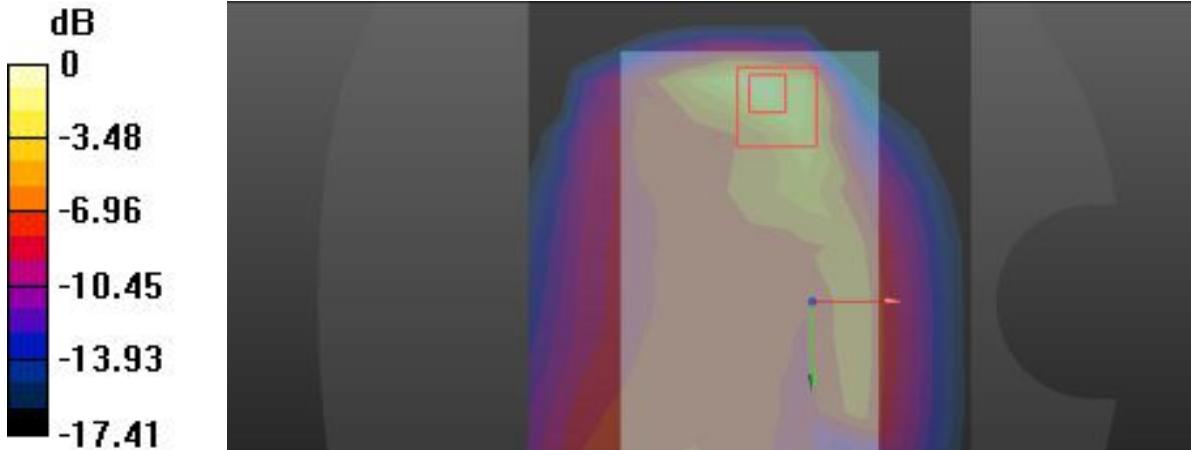
Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.859$; $\rho = 1000$ kg/m³

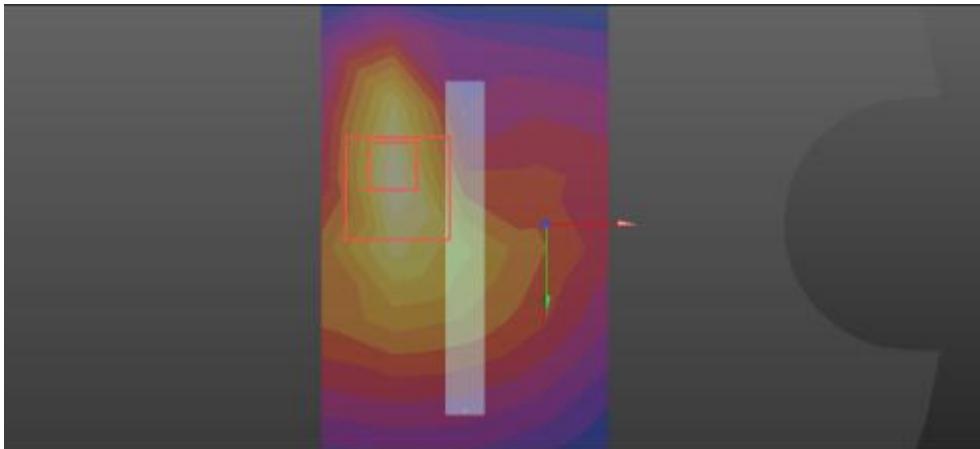
Phantom section: Flat Section

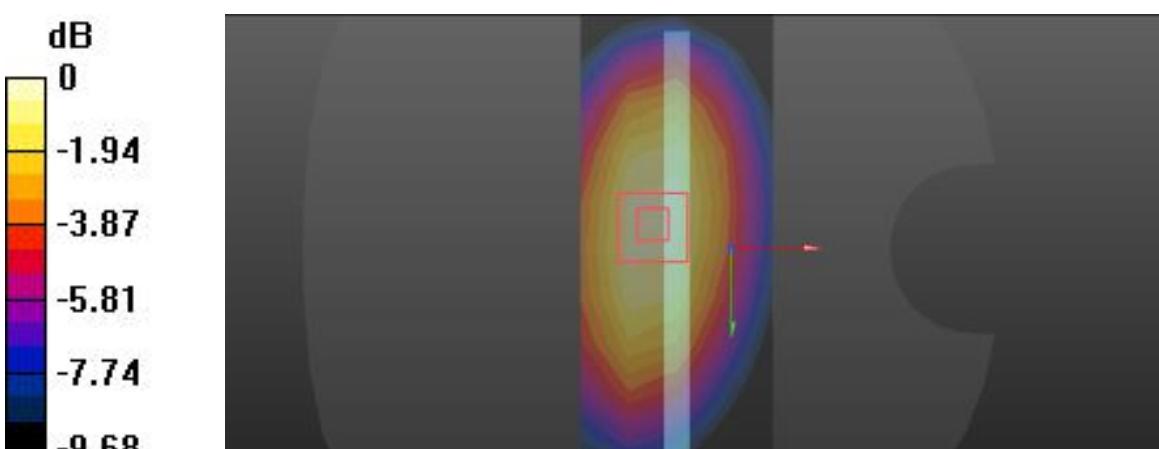
DASY5 Configuration:

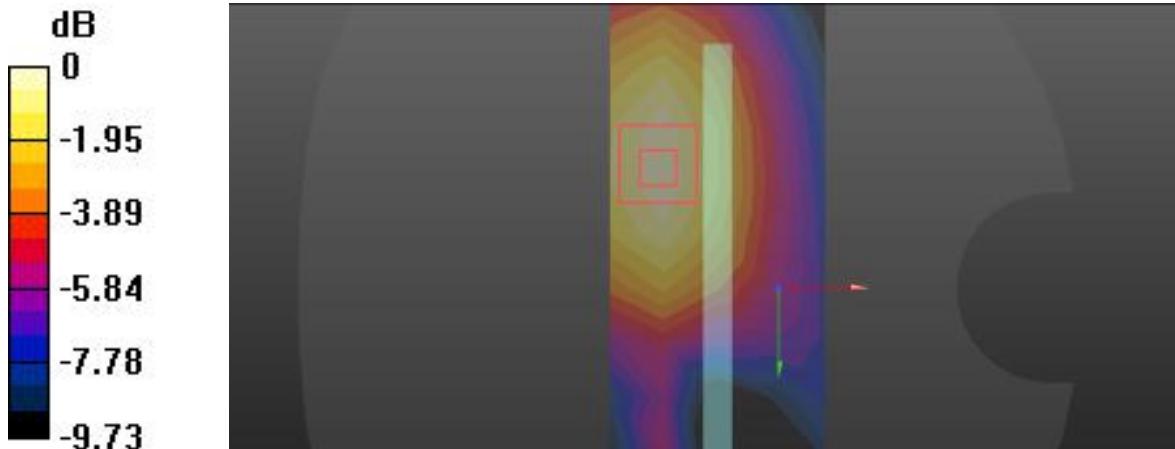
- Probe: ES3DV3 - SN3127; ConvF(6.16, 6.16, 6.16); Calibrated: 2016/8/29;
 - Sensor-Surface: 4mm (Mechanical Surface Detection)
 - Electronics: DAE4 Sn546; Calibrated: 2016/8/22
 - Phantom: Twin-SAM 1559; Type: QD 000 P40 CD; Serial: 1559
 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)
- Flat-Section MSL LTE band5 TP/LTE band5 TP 20BW 1RB LOW M 10mm/Area Scan (9x13x1):** Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.170 W/kg
Flat-Section MSL LTE band5 TP/LTE band5 TP 20BW 1RB LOW M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Reference Value = 11.70 V/m; Power Drift = -0.02 dB
 Peak SAR (extrapolated) = 0.222 W/kg
SAR(1 g) = 0.167 W/kg; SAR(10 g) = 0.122 W/kg
 Maximum value of SAR (measured) = 0.178 W/kg



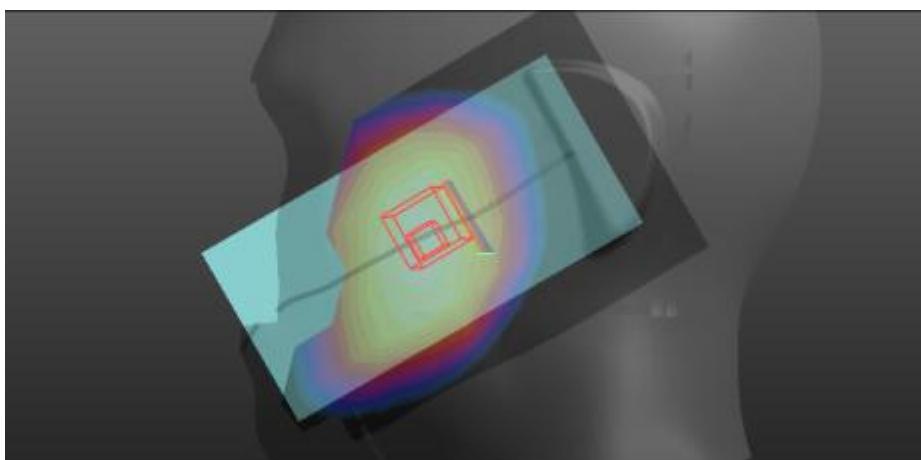
FLAT	Towards ground
<p>Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.859$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(6.16, 6.16, 6.16); Calibrated: 2016/8/29; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 2016/8/22 Phantom: Twin-SAM 1559; Type: QD 000 P40 CD; Serial: 1559 Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL LTE band5 TG/LTE band5 TG 20BW 1RB LOW M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.237 W/kg</p> <p>Flat-Section MSL LTE band5 TG/LTE band5 TG 20BW 1RB LOW M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 14.57 V/m; Power Drift = -0.00 dB Peak SAR (extrapolated) = 0.778 W/kg SAR(1 g) = 0.258 W/kg; SAR(10 g) = 0.111 W/kg Maximum value of SAR (measured) = 0.318 W/kg</p>  <p>0 dB = 0.318 W/kg = -4.98 dBW/kg</p>	

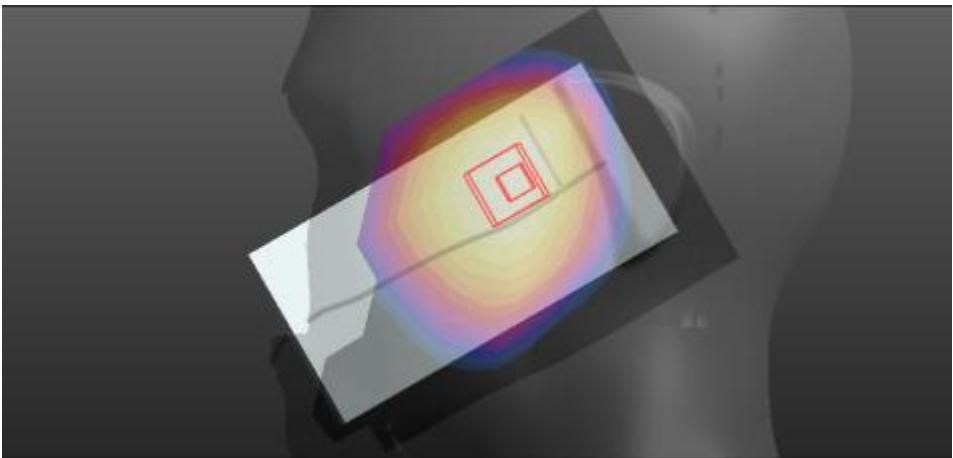
FLAT	EDGE2
<p>Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.859$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(6.16, 6.16, 6.16); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1559; Type: QD 000 P40 CD; Serial: 1559 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL LTE band5 HOT/LTE Band2 edge2/Area Scan (5x9x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.144 W/kg</p> <p>Flat-Section MSL LTE band5 HOT/LTE Band2 edge2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 7.638 V/m; Power Drift = 0.09 dB Peak SAR (extrapolated) = 0.244 W/kg SAR(1 g) = 0.125 W/kg; SAR(10 g) = 0.064 W/kg Maximum value of SAR (measured) = 0.146 W/kg</p>  <p>dB 0 -3.09 -6.18 -9.27 -12.36 -15.45</p> <p>0 dB = 0.146 W/kg = -8.36 dBW/kg</p>	

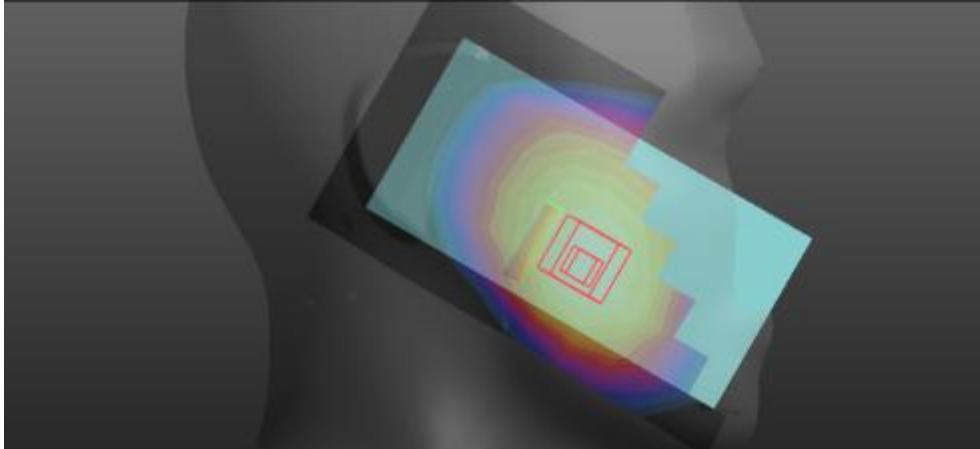
FLAT	EDGE3
<p>Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.859$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(6.16, 6.16, 6.16); Calibrated: 2016/8/29; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 2016/8/22 Phantom: Twin-SAM 1559; Type: QD 000 P40 CD; Serial: 1559 Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL LTE band5 HOT/LTE Band2 edge3/Area Scan (5x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.293 W/kg</p> <p>Flat-Section MSL LTE band5 HOT/LTE Band2 edge3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 17.21 V/m; Power Drift = 0.05 dB Peak SAR (extrapolated) = 0.409 W/kg SAR(1 g) = 0.293 W/kg; SAR(10 g) = 0.201 W/kg Maximum value of SAR (measured) = 0.314 W/kg</p>  <p>0 dB = 0.314 W/kg = -5.03 dBW/kg</p>	

FLAT	EDGE4
<p>Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.859$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(6.16, 6.16, 6.16); Calibrated: 2016/8/29; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 2016/8/22 Phantom: Twin-SAM 1559; Type: QD 000 P40 CD; Serial: 1559 Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL LTE band5 HOT/LTE Band2 edge4/Area Scan (5x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0655 W/kg</p> <p>Flat-Section MSL LTE band5 HOT/LTE Band2 edge4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 5.440 V/m; Power Drift = 0.04 dB Peak SAR (extrapolated) = 0.0860 W/kg SAR(1 g) = 0.062 W/kg; SAR(10 g) = 0.043 W/kg Maximum value of SAR (measured) = 0.0662 W/kg</p>  <p>0 dB = 0.0662 W/kg = -11.79 dBW/kg</p>	

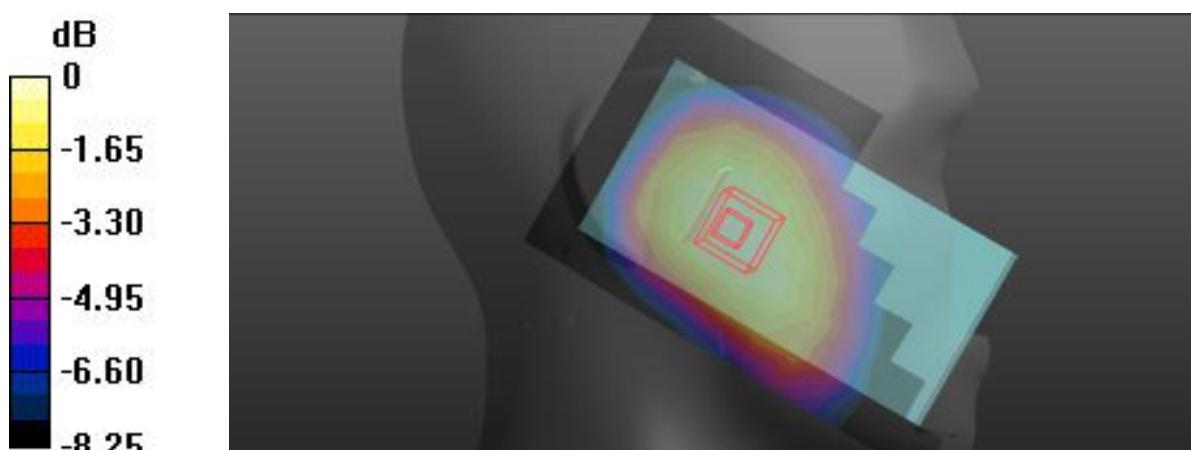
LTE (Band 5 20BW-50RB-Low/Head)

Left Side	Cheek
<p>Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.89$ S/m; $\epsilon_r = 41.479$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(6.2, 6.2, 6.2); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1559; Type: QD 000 P40 CD; Serial: 1559 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section Left HSL LTE band5/LTE band5 20BW 50RB LOW HSL touch M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.101 W/kg</p> <p>Head-Section Left HSL LTE band5/LTE band5 20BW 50RB LOW HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 2.730 V/m; Power Drift = 0.02 dB Peak SAR (extrapolated) = 0.127 W/kg SAR(1 g) = 0.102 W/kg; SAR(10 g) = 0.080 W/kg Maximum value of SAR (measured) = 0.107 W/kg</p>  <p>0 dB = 0.107 W/kg = -9.71 dBW/kg</p>	

Left Side	Tilt
<p>Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.89$ S/m; $\epsilon_r = 41.479$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(6.2, 6.2, 6.2); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1559; Type: QD 000 P40 CD; Serial: 1559 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section Left HSL LTE band5/LTE band5 20BW 50RB LOW HSL tilt M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0603 W/kg</p> <p>Head-Section Left HSL LTE band5/LTE band5 20BW 50RB LOW HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 5.173 V/m; Power Drift = 0.00 dB Peak SAR (extrapolated) = 0.0760 W/kg SAR(1 g) = 0.059 W/kg; SAR(10 g) = 0.045 W/kg Maximum value of SAR (measured) = 0.0613 W/kg</p>  <p>0 dB = 0.0613 W/kg = -12.13 dBW/kg</p>	

Right Side	Cheek
<p>Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.89$ S/m; $\epsilon_r = 41.479$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(6.2, 6.2, 6.2); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1559; Type: QD 000 P40 CD; Serial: 1559 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section Right HSL LTE band5/LTE band5 20BW 50RB LOW HSL touch M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0974 W/kg</p> <p>Head-Section Right HSL LTE band5/LTE band5 20BW 50RB LOW HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.890 V/m; Power Drift = -0.01 dB Peak SAR (extrapolated) = 0.123 W/kg SAR(1 g) = 0.099 W/kg; SAR(10 g) = 0.077 W/kg Maximum value of SAR (measured) = 0.103 W/kg</p>  <p>0 dB = 0.103 W/kg = -9.87 dBW/kg</p>	

Right Side	Tilt
<p>Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.89$ S/m; $\epsilon_r = 41.479$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(6.2, 6.2, 6.2); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1559; Type: QD 000 P40 CD; Serial: 1559 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section Right HSL LTE band5/LTE band5 20BW 50RB LOW HSL tilt M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0550 W/kg</p> <p>Head-Section Right HSL LTE band5/LTE band5 20BW 50RB LOW HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 5.426 V/m; Power Drift = 0.15 dB Peak SAR (extrapolated) = 0.0670 W/kg SAR(1 g) = 0.054 W/kg; SAR(10 g) = 0.042 W/kg Maximum value of SAR (measured) = 0.0567 W/kg</p>	



A 3D surface plot showing SAR distribution in a rectangular phantom. The color scale on the left indicates power density in dB, ranging from -8.25 (dark blue) to 0 (yellow). The highest SAR values are concentrated in the center of the phantom, forming a central peak.

0 dB = 0.0567 W/kg = -12.46 dBW/kg

LTE (Band 5 20BW-50RB-Low/Flat)

FLAT

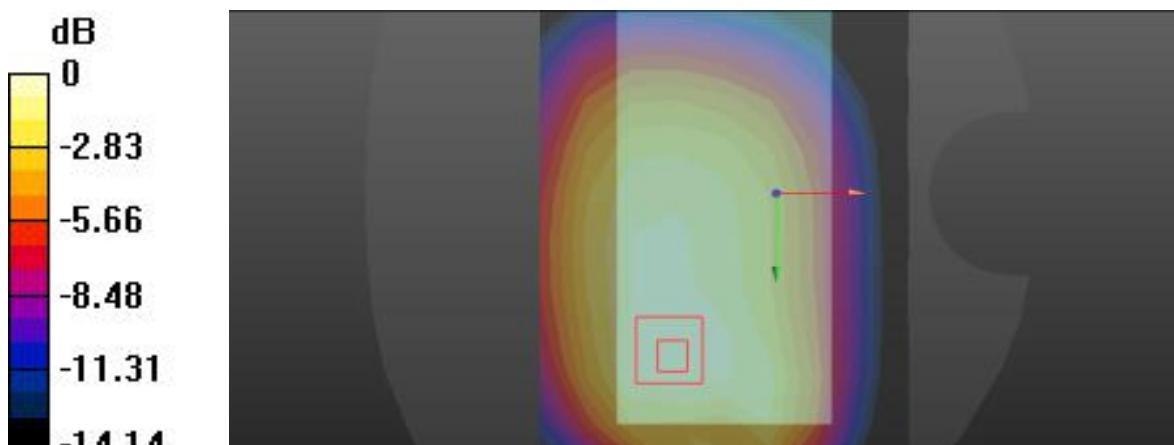
Towards phantom

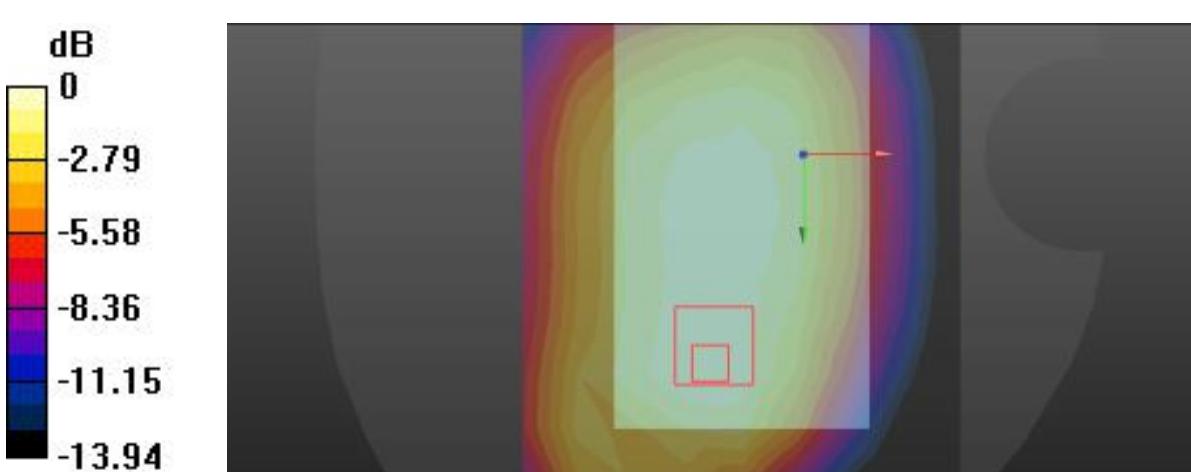
Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.859$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

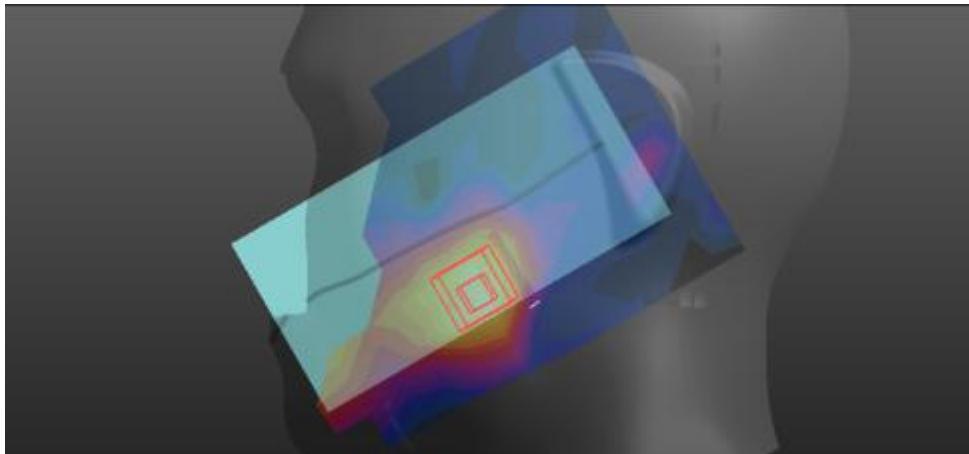
DASY5 Configuration:

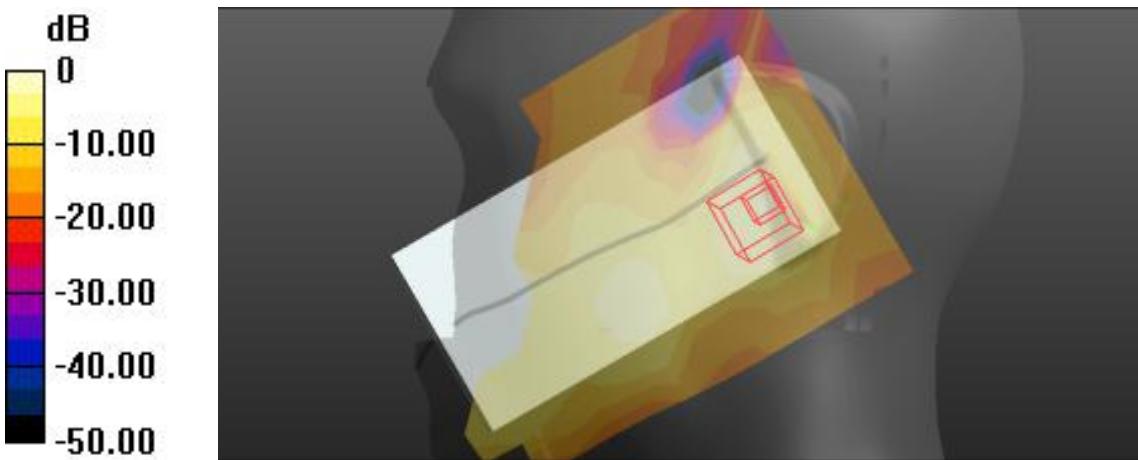
- Probe: ES3DV3 - SN3127; ConvF(6.16, 6.16, 6.16); Calibrated: 2016/8/29;
 - Sensor-Surface: 4mm (Mechanical Surface Detection)
 - Electronics: DAE4 Sn546; Calibrated: 2016/8/22
 - Phantom: Twin-SAM 1559; Type: QD 000 P40 CD; Serial: 1559
 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)
- Flat-Section MSL LTE band5 TP/LTE band5 TP 20BW 50RB LOW M 10mm/Area Scan (9x13x1):** Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.146 W/kg
- Flat-Section MSL LTE band5 TP/LTE band5 TP 20BW 50RB LOW M 10mm/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Reference Value = 10.69 V/m; Power Drift = 0.05 dB
 Peak SAR (extrapolated) = 0.193 W/kg
SAR(1 g) = 0.145 W/kg; SAR(10 g) = 0.104 W/kg
 Maximum value of SAR (measured) = 0.153 W/kg

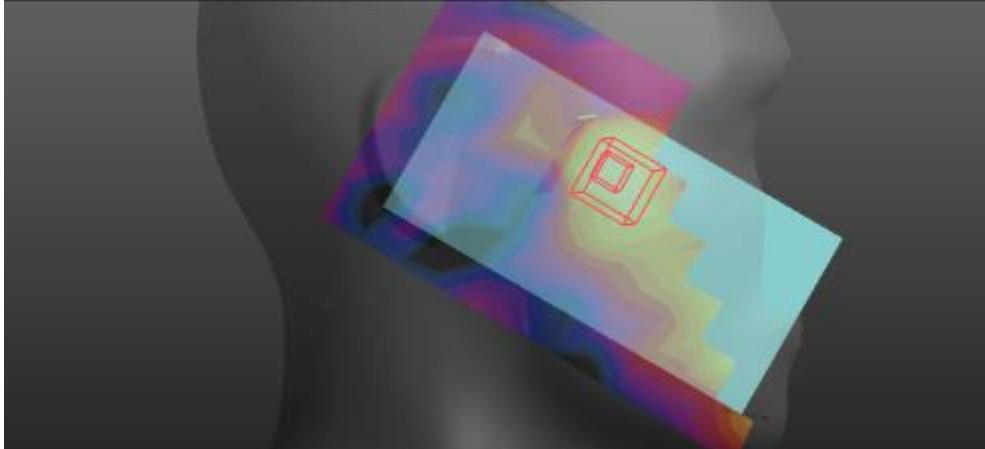


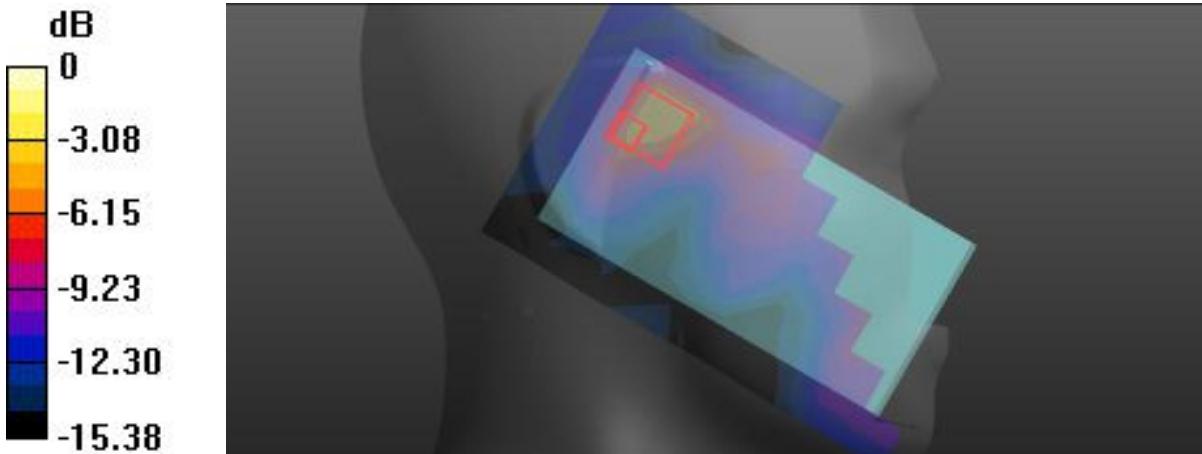
FLAT	Towards ground
<p>Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.859$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(6.16, 6.16, 6.16); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1559; Type: QD 000 P40 CD; Serial: 1559 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL LTE band5 TG/LTE band5 TG 20BW 50RB LOW M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.178 W/kg</p> <p>Flat-Section MSL LTE band5 TG/LTE band5 TG 20BW 50RB LOW M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 13.44 V/m; Power Drift = -0.03 dB Peak SAR (extrapolated) = 0.227 W/kg SAR(1 g) = 0.174 W/kg; SAR(10 g) = 0.127 W/kg Maximum value of SAR (measured) = 0.184 W/kg</p>  <p>0 dB = 0.184 W/kg = -7.35 dBW/kg</p>	

LTE (Band 7 20BW-1RB-Low/Head)

Left Side	Cheek
<p>Communication System: UID 10169 - CAB, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 2535 MHz; Duty Cycle: 1:3.74111 Medium parameters used: $f = 2535 \text{ MHz}$; $\sigma = 2.01 \text{ S/m}$; $\epsilon_r = 36.5$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.4, 4.4, 4.4); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL LTE band7 Left/LTE band7 20MHz 1RB Low HSL touch M/Area Scan (9x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0626 W/kg</p> <p>Head-Section HSL LTE band7 Left/LTE band7 20MHz 1RB Low HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 0.9200 V/m; Power Drift = 0.08 dB Peak SAR (extrapolated) = 0.125 W/kg</p> <p>SAR(1 g) = 0.064 W/kg; SAR(10 g) = 0.034 W/kg Maximum value of SAR (measured) = 0.0706 W/kg</p>  <p>0 dB = 0.0706 W/kg = -11.51 dBW/kg</p>	

Left Side	Tilt
<p>Communication System: UID 10297 - AAA, LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK); Frequency: 2535 MHz; Duty Cycle: 1:3.81066 Medium parameters used: $f = 2535 \text{ MHz}$; $\sigma = 2.01 \text{ S/m}$; $\epsilon_r = 36.5$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.4, 4.4, 4.4); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL LTE band7 Left/LTE band7 20MHz 1RB Low HSL tilt M/Area Scan (9x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0227 W/kg</p> <p>Head-Section HSL LTE band7 Left/LTE band7 20MHz 1RB Low HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 3.333 V/m; Power Drift = -0.04 dB Peak SAR (extrapolated) = 0.101 W/kg SAR(1 g) = 0.027 W/kg; SAR(10 g) = 0.012 W/kg Maximum value of SAR (measured) = 0.0448 W/kg</p>  <p>0 dB = 0.0448 W/kg = -13.49 dBW/kg</p>	

Right Side	Cheek
<p>Communication System: UID 0, LTE band 07 (0); Frequency: 2535 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 2535 \text{ MHz}$; $\sigma = 2.01 \text{ S/m}$; $\epsilon_r = 36.5$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.4, 4.4, 4.4); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL LTE band7 Right/LTE band7 20MHz 1RB Low HSL touch M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0324 W/kg</p> <p>Head-Section HSL LTE band7 Right/LTE band7 20MHz 1RB Low HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 1.823 V/m; Power Drift = 0.02 dB Peak SAR (extrapolated) = 0.0730 W/kg</p> <p>SAR(1 g) = 0.034 W/kg; SAR(10 g) = 0.021 W/kg Maximum value of SAR (measured) = 0.0370 W/kg</p>  <p>0 dB = 0.0370 W/kg = -14.32 dBW/kg</p>	

Right Side	Tilt
<p>Communication System: UID 0, LTE band 07 (0); Frequency: 2535 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 2535 \text{ MHz}$; $\sigma = 2.01 \text{ S/m}$; $\epsilon_r = 36.5$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.4, 4.4, 4.4); Calibrated: 2016/8/29; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 2016/8/22 Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL LTE band7 Right/LTE band7 20MHz 1RB Low HSL tilt M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0220 W/kg</p> <p>Head-Section HSL LTE band7 Right/LTE band7 20MHz 1RB Low HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 2.632 V/m; Power Drift = 0.03 dB Peak SAR (extrapolated) = 0.112 W/kg SAR(1 g) = 0.030 W/kg; SAR(10 g) = 0.013 W/kg Maximum value of SAR (measured) = 0.0699 W/kg</p>  <p>0 dB = 0.0699 W/kg = -11.56 dBW/kg</p>	

LTE (Band 7 20BW-1RB-Low/Flat)

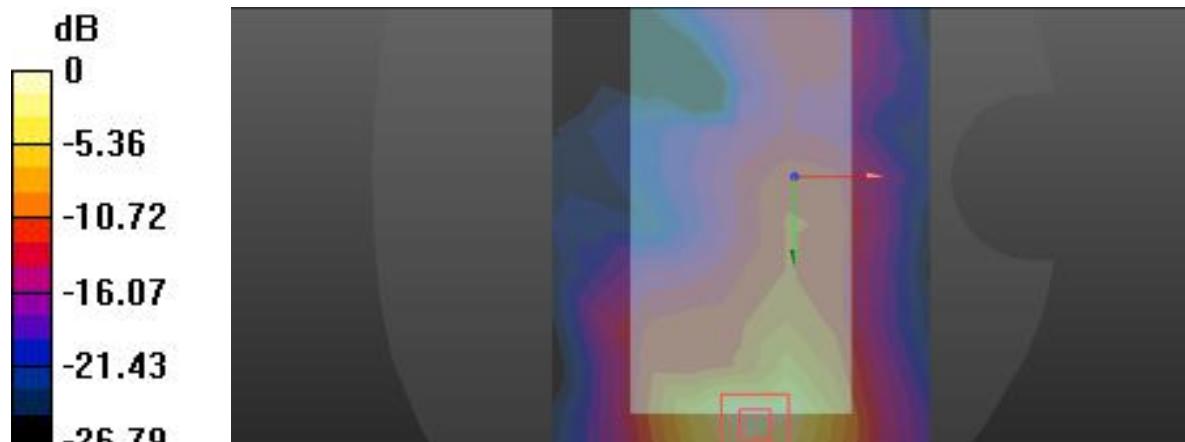
FLAT

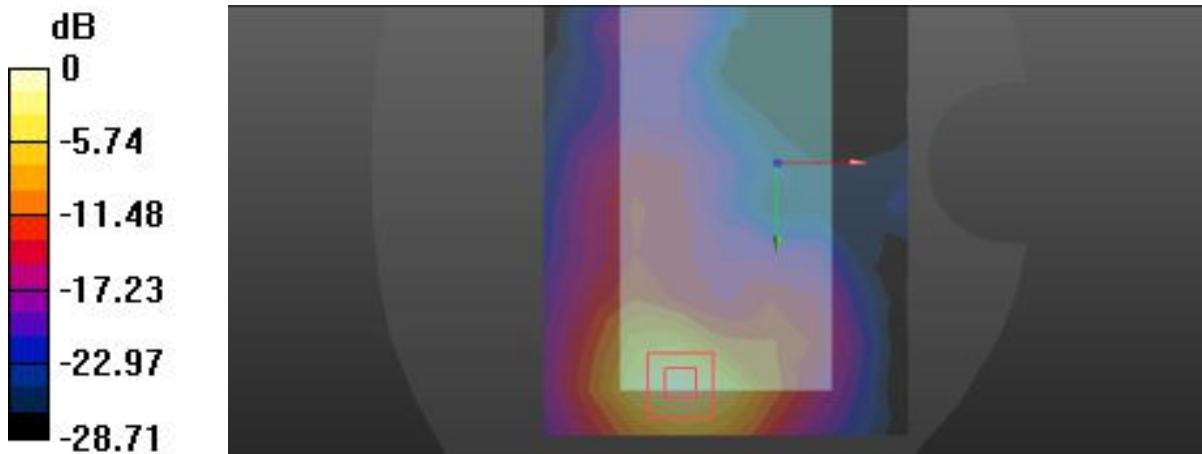
Towards phantom

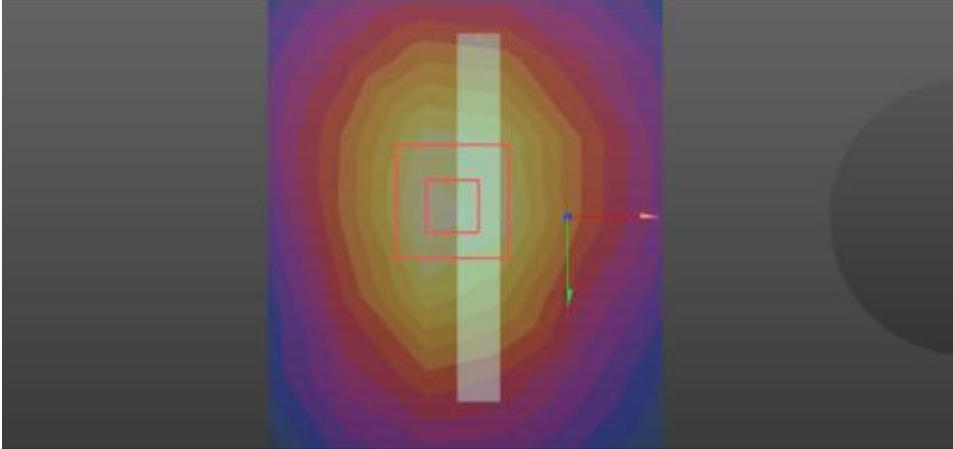
Communication System: UID 10169 - CAB, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK);
Frequency: 2535 MHz; Duty Cycle: 1:3.74111
Medium parameters used: $f = 2535 \text{ MHz}$; $\sigma = 2.15 \text{ S/m}$; $\epsilon_r = 50.36$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section

DASY5 Configuration:

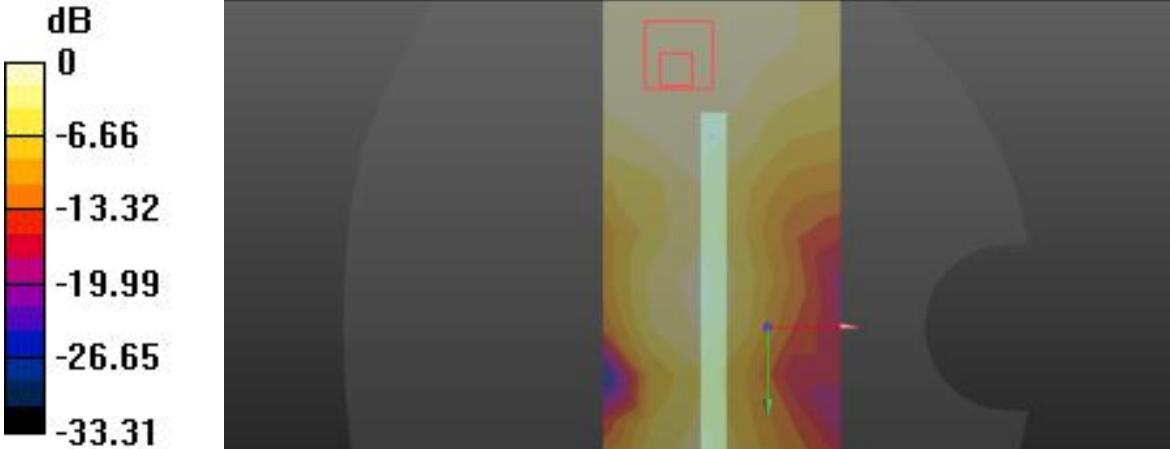
- Probe: ES3DV3 - SN3127; ConvF(4.17, 4.17, 4.17); Calibrated: 2016/8/29;
 - Sensor-Surface: 4mm (Mechanical Surface Detection)
 - Electronics: DAE4 Sn546; Calibrated: 2016/8/22
 - Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560
 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)
- Flat-Section MSL LTE band7 TP/LTE band7 TP 20MHz 1RB M 10mm/Area Scan (9x13x1):** Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (measured) = 0.318 W/kg
- Flat-Section MSL LTE band7 TP/LTE band7 TP 20MHz 1RB M 10mm/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
 Reference Value = 2.694 V/m; Power Drift = -0.01 dB
 Peak SAR (extrapolated) = 0.751 W/kg
SAR(1 g) = 0.322 W/kg; SAR(10 g) = 0.146 W/kg
 Maximum value of SAR (measured) = 0.358 W/kg

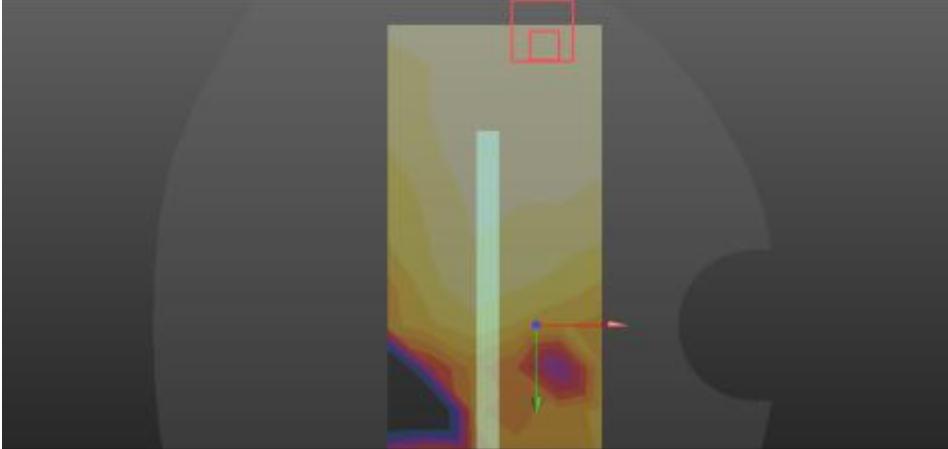


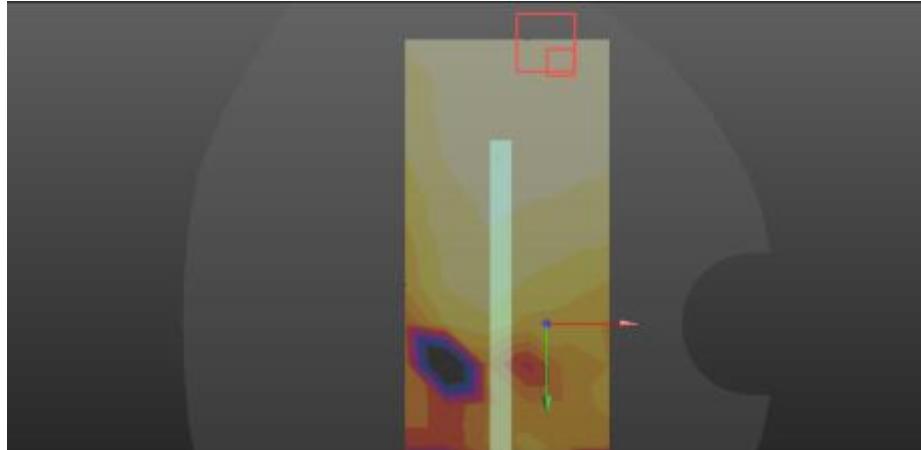
FLAT	Towards ground
<p>Communication System: UID 10169 - CAB, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 2535 MHz; Duty Cycle: 1:3.74111 Medium parameters used: $f = 2535 \text{ MHz}$; $\sigma = 2.15 \text{ S/m}$; $\epsilon_r = 50.36$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.17, 4.17, 4.17); Calibrated: 2016/8/29; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 2016/8/22 Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL LTE band7 TG/LTE band7 TG 20MHz 1RB M 10mm/Area Scan (9x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.819 W/kg</p> <p>Flat-Section MSL LTE band7 TG/LTE band7 TG 20MHz 1RB M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 2.102 V/m; Power Drift = 0.04 dB Peak SAR (extrapolated) = 1.82 W/kg SAR(1 g) = 0.740 W/kg; SAR(10 g) = 0.311 W/kg Maximum value of SAR (measured) = 0.840 W/kg</p>  <p>0 dB = 0.840 W/kg = -0.76 dBW/kg</p>	

FLAT	EDGE2
<p>Communication System: UID 0, LTE band 07 (0); Frequency: 2535 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 2535 \text{ MHz}$; $\sigma = 2.01 \text{ S/m}$; $\epsilon_r = 36.5$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.4, 4.4, 4.4); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL LTE band7 HOT/LTE band7 20MHz 1RB 10mm M edge 2/Area Scan (6x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.493 W/kg</p> <p>Flat-Section MSL LTE band7 HOT/LTE band7 20MHz 1RB 10mm M edge 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 15.74 V/m; Power Drift = 0.01 dB Peak SAR (extrapolated) = 1.16 W/kg SAR(1 g) = 0.523 W/kg; SAR(10 g) = 0.234 W/kg Maximum value of SAR (measured) = 0.577 W/kg</p>  <p>0 dB = 0.577 W/kg = -2.39 dBW/kg</p>	

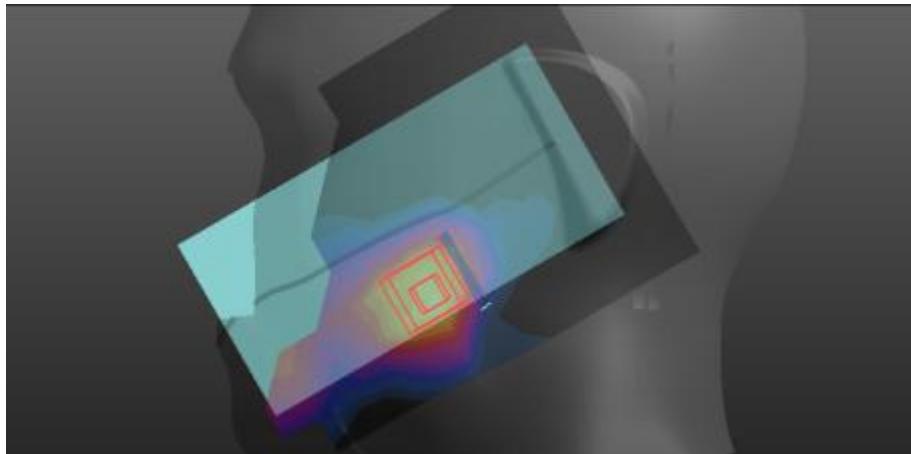
FLAT	EDGE3
<p>Communication System: UID 0, LTE band 07 (0); Frequency: 2535 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 2535 \text{ MHz}$; $\sigma = 2.01 \text{ S/m}$; $\epsilon_r = 36.5$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.4, 4.4, 4.4); Calibrated: 2016/8/29; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 2016/8/22 Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL LTE band7 HOT/LTE band7 20MHz 1RB 10mmM edge 3/Area Scan (6x15x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0498 W/kg</p> <p>Flat-Section MSL LTE band7 HOT/LTE band7 20MHz 1RB 10mmM edge 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 3.938 V/m; Power Drift = 0.16 dB Peak SAR (extrapolated) = 0.103 W/kg SAR(1 g) = 0.049 W/kg; SAR(10 g) = 0.027 W/kg Maximum value of SAR (measured) = 0.0525 W/kg</p>  <p>0 dB = 0.0525 W/kg = -12.80 dBW/kg</p>	

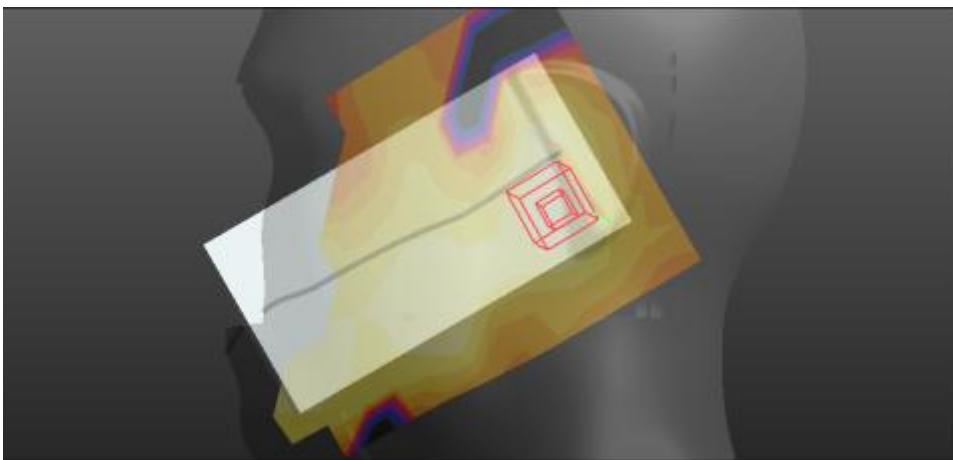
FLAT	EDGE3
<p>Communication System: UID 0, LTE band 07 (0); Frequency: 2535 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 2535 \text{ MHz}$; $\sigma = 2.01 \text{ S/m}$; $\epsilon_r = 36.5$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.4, 4.4, 4.4); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL LTE band7 HOT/LTE band7 20MHz 1RB 10mmM edge 3 2/Area Scan (6x15x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0506 W/kg</p> <p>Flat-Section MSL LTE band7 HOT/LTE band7 20MHz 1RB 10mmM edge 3 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 3.939 V/m; Power Drift = 0.17 dB Peak SAR (extrapolated) = 0.104 W/kg SAR(1 g) = 0.050 W/kg; SAR(10 g) = 0.027 W/kg Maximum value of SAR (measured) = 0.0531 W/kg</p>  <p>0 dB = 0.0531 W/kg = -12.75 dBW/kg</p>	

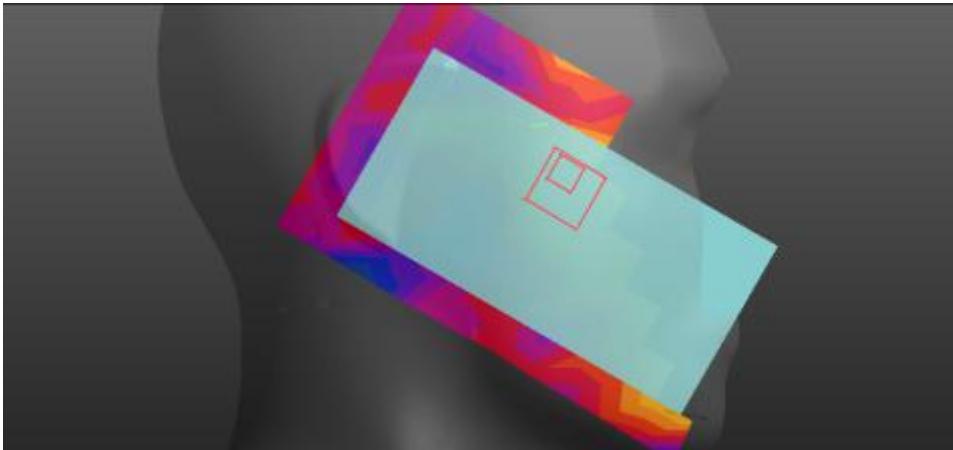
FLAT	EDGE4
<p>Communication System: UID 0, LTE band 07 (0); Frequency: 2535 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 2535 \text{ MHz}$; $\sigma = 2.01 \text{ S/m}$; $\epsilon_r = 36.5$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.4, 4.4, 4.4); Calibrated: 2016/8/29; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 2016/8/22 Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL LTE band7 HOT/LTE band7 20MHz 1RB 10mmM edge 4/Area Scan (6x15x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0193 W/kg</p> <p>Flat-Section MSL LTE band7 HOT/LTE band7 20MHz 1RB 10mmM edge 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 1.183 V/m; Power Drift = 0.02 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) = 0.0196 W/kg</p>  <p>0 dB = 0.0196 W/kg = -17.08 dBW/kg</p>	

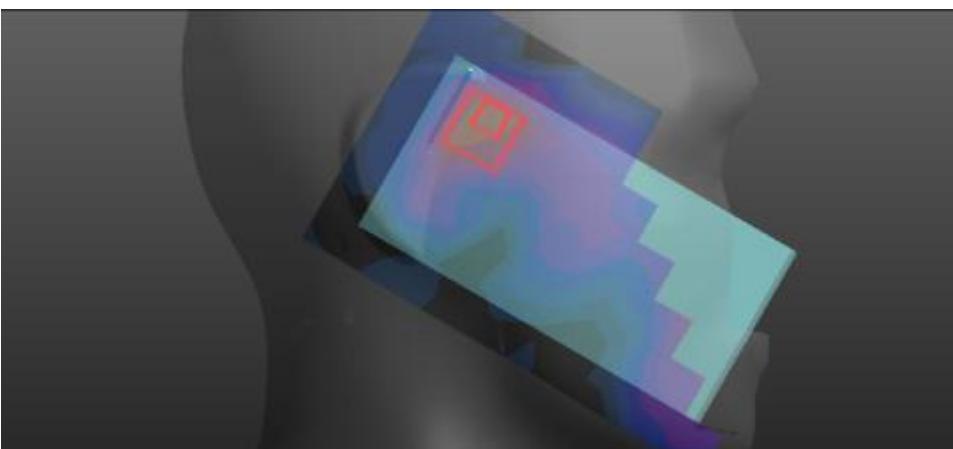
FLAT	EDGE4
<p>Communication System: UID 0, LTE band 07 (0); Frequency: 2535 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 2535$ MHz; $\sigma = 2.01$ S/m; $\epsilon_r = 36.5$; $\rho = 1000$ kg/m3 Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.4, 4.4, 4.4); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL LTE band7 HOT/LTE band7 20MHz 1RB 10mmM edge 4 2/Area Scan (6x15x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0178 W/kg</p> <p>Flat-Section MSL LTE band7 HOT/LTE band7 20MHz 1RB 10mmM edge 4 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 1.043 V/m; Power Drift = 0.09 dB Peak SAR (extrapolated) = 0.0360 W/kg SAR(1 g) = 0.017 W/kg; SAR(10 g) = 0.00988 W/kg Maximum value of SAR (measured) = 0.0190 W/kg</p>  <p>0 dB = 0.0190 W/kg = -17.21 dBW/kg</p>	

LTE (Band 7 20BW-50RB-Low/Head)

Left Side	Cheek
<p>Communication System: UID 10169 - CAB, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 2535 MHz; Duty Cycle: 1:3.74111 Medium parameters used: $f = 2535 \text{ MHz}$; $\sigma = 2.01 \text{ S/m}$; $\epsilon_r = 36.5$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.4, 4.4, 4.4); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL LTE band7 Left/LTE band7 20MHz 50RB Low HSL touch M/Area Scan (9x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0544 W/kg</p> <p>Head-Section HSL LTE band7 Left/LTE band7 20MHz 50RB Low HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 1.993 V/m; Power Drift = 0.07 dB Peak SAR (extrapolated) = 0.132 W/kg</p> <p>SAR(1 g) = 0.057 W/kg; SAR(10 g) = 0.030 W/kg Maximum value of SAR (measured) = 0.0688 W/kg</p>  <p>0 dB = 0.0688 W/kg = -11.62 dBW/kg</p>	

Left Side	Tilt
<p>Communication System: UID 10297 - AAA, LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK); Frequency: 2535 MHz; Duty Cycle: 1:3.81066 Medium parameters used: $f = 2535 \text{ MHz}$; $\sigma = 2.01 \text{ S/m}$; $\epsilon_r = 36.5$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.4, 4.4, 4.4); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL LTE band7 Left/LTE band7 20MHz 50RB Low HSL tilt M/Area Scan (9x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0186 W/kg</p> <p>Head-Section HSL LTE band7 Left/LTE band7 20MHz 50RB Low HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 2.718 V/m; Power Drift = 0.06 dB Peak SAR (extrapolated) = 0.0450 W/kg SAR(1 g) = 0.020 W/kg; SAR(10 g) = 0.00918 W/kg Maximum value of SAR (measured) = 0.0254 W/kg</p>  <p>0 dB = 0.0254 W/kg = -15.95 dBW/kg</p>	

Right Side	Cheek
<p>Communication System: UID 0, LTE band 07 (0); Frequency: 2535 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 2535 \text{ MHz}$; $\sigma = 2.01 \text{ S/m}$; $\epsilon_r = 36.5$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.4, 4.4, 4.4); Calibrated: 2016/8/29; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2016/8/22 • Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 • Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL LTE band7 Right/LTE band7 20MHz 50RB Low HSL touch M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0280 W/kg</p> <p>Head-Section HSL LTE band7 Right/LTE band7 20MHz 50RB Low HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 2.046 V/m; Power Drift = -0.02 dB Peak SAR (extrapolated) = 0.0730 W/kg SAR(1 g) = 0.029 W/kg; SAR(10 g) = 0.019 W/kg Maximum value of SAR (measured) = 0.0333 W/kg</p>  <p>0 dB = 0.0333 W/kg = -14.78 dBW/kg</p>	

Right Side	Tilt
<p>Communication System: UID 0, LTE band 07 (0); Frequency: 2535 MHz; Duty Cycle: 1:1 Medium parameters used: $f = 2535 \text{ MHz}$; $\sigma = 2.01 \text{ S/m}$; $\epsilon_r = 36.5$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.4, 4.4, 4.4); Calibrated: 2016/8/29; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 2016/8/22 Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Head-Section HSL LTE band7 Right/LTE band7 20MHz 50RB Low HSL tilt M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0188 W/kg</p> <p>Head-Section HSL LTE band7 Right/LTE band7 20MHz 50RB Low HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 2.520 V/m; Power Drift = 0.04 dB Peak SAR (extrapolated) = 0.424 W/kg SAR(1 g) = 0.035 W/kg; SAR(10 g) = 0.012 W/kg Maximum value of SAR (measured) = 0.0995 W/kg</p>  <p>0 dB = 0.0995 W/kg = -10.02 dBW/kg</p>	

LTE (Band 7 20BW-50RB-Low/Flat)

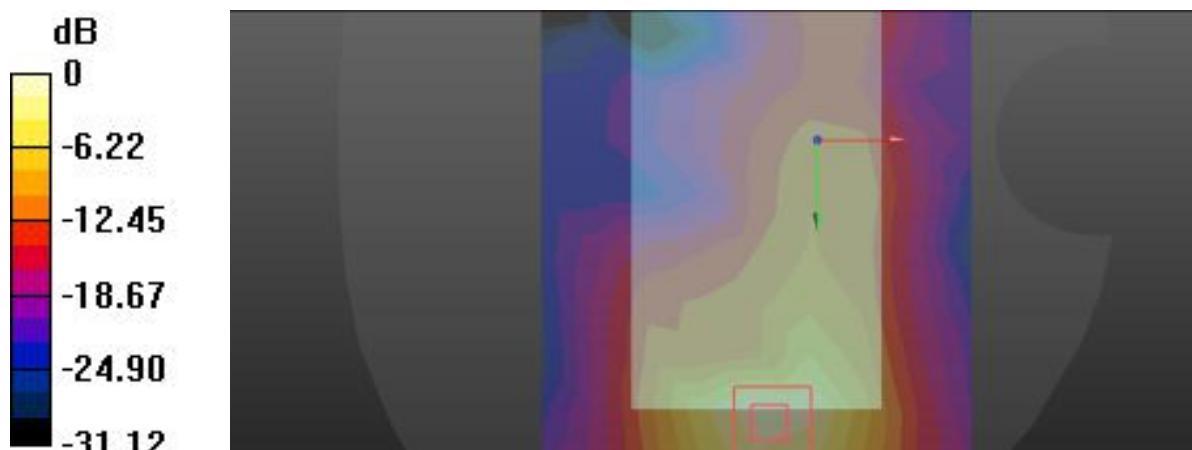
FLAT

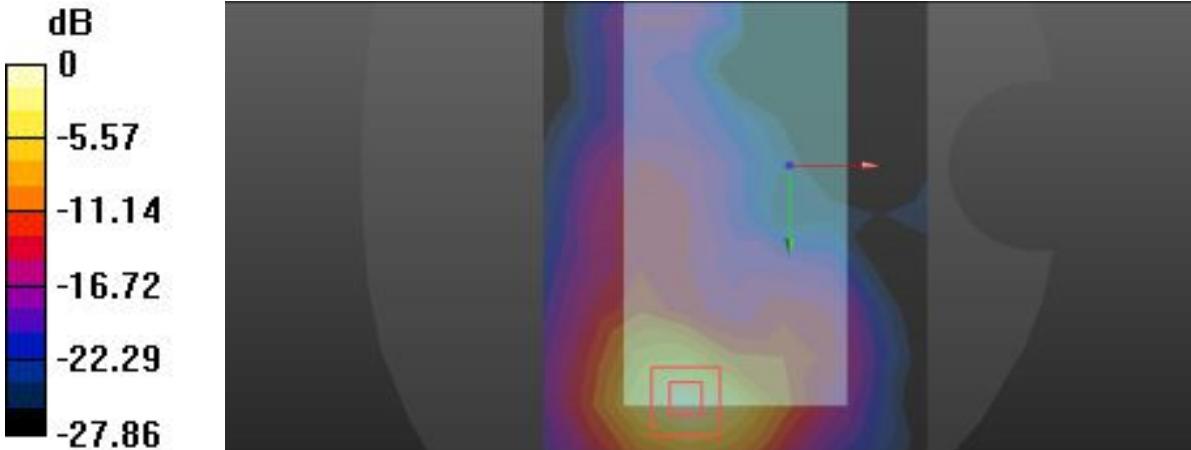
Towards phantom

Communication System: UID 10297 - AAA, LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK);
Frequency: 2535 MHz; Duty Cycle: 1:3.81066
Medium parameters used: $f = 2535 \text{ MHz}$; $\sigma = 2.15 \text{ S/m}$; $\epsilon_r = 50.36$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section

DASY5 Configuration:

- Probe: ES3DV3 - SN3127; ConvF(4.17, 4.17, 4.17); Calibrated: 2016/8/29;
 - Sensor-Surface: 4mm (Mechanical Surface Detection)
 - Electronics: DAE4 Sn546; Calibrated: 2016/8/22
 - Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560
 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)
- Flat-Section MSL LTE band7 TP/LTE band7 TP 20MHz 50RB M 10mm/Area Scan (9x13x1):** Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (measured) = 0.263 W/kg
- Flat-Section MSL LTE band7 TP/LTE band7 TP 20MHz 50RB M 10mm/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
 Reference Value = 2.398 V/m; Power Drift = 0.16 dB
 Peak SAR (extrapolated) = 0.624 W/kg
SAR(1 g) = 0.270 W/kg; SAR(10 g) = 0.123 W/kg
 Maximum value of SAR (measured) = 0.296 W/kg



FLAT	Towards ground
<p>Communication System: UID 10297 - AAA, LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK); Frequency: 2535 MHz; Duty Cycle: 1:3.81066 Medium parameters used: $f = 2535 \text{ MHz}$; $\sigma = 2.15 \text{ S/m}$; $\epsilon_r = 50.36$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.17, 4.17, 4.17); Calibrated: 2016/8/29; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 2016/8/22 Phantom: Twin-SAM 1560; Type: QD 000 P40 CD; Serial: 1560 Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) <p>Flat-Section MSL LTE band7 TG/LTE band7 TG 20MHz 50RB M 10mm/Area Scan (9x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.667 W/kg</p> <p>Flat-Section MSL LTE band7 TG/LTE band7 TG 20MHz 50RB M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 1.967 V/m; Power Drift = 0.08 dB Peak SAR (extrapolated) = 1.51 W/kg SAR(1 g) = 0.613 W/kg; SAR(10 g) = 0.258 W/kg Maximum value of SAR (measured) = 0.688 W/kg</p>  <p>0 dB = 0.688 W/kg = -1.62 dBW/kg</p>	

ANNEX B – RELEVANT PAGES FROM CALIBRATION REPORTS

<p align="center">DAE4 Sn:546</p> <div style="border: 1px solid black; padding: 10px;"> <p>Calibration Laboratory of Schmid & Partner Engineering AG <small>(Ingenieuratelier für die Elektrotechnik)</small></p> <p>Accredited by the Swiss Accreditation Service (SCS) <small>The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates.</small></p> <p>Client: SRTC (YMA) Certificate No.: DAE4-546_Aug16</p> <p>ACcreditation No.: SCS 0108</p> <p>CALIBRATION CERTIFICATE</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">Object</td> <td>DAS4 / DAS 000 DAE 894 / SN 546</td> </tr> <tr> <td>Calibration procedure</td> <td>Q4-CAL-06.v09 Calibration procedure for the data acquisition electronics (DAE)</td> </tr> <tr> <td>Calibration date</td> <td>August 20, 2016</td> </tr> <tr> <td colspan="2">This calibration certificate documents the traceability to national standards, which define the physical units of measurement [1]. The measurement and the uncertainty self-confidence provided are given on the following pages and are part of the certificate.</td> </tr> <tr> <td colspan="2">All calibrations have been performed in the visual laboratory facility, environment temperature (23 ± 2°C) and humidity < 10%.</td> </tr> <tr> <td colspan="2">Calibration equipment used (RTM1) refers to calibration:</td> </tr> <tr> <td>Primary Standards</td> <td>± 1%</td> <td>Cal Data (calibration No.)</td> <td>Reference Calibration</td> </tr> <tr> <td>Secondary Standard (Type C)</td> <td>± 0.001%</td> <td>00-000000</td> <td>Ref. 11-000000</td> </tr> <tr> <td>Measurement Results</td> <td>± 0.00%</td> <td>Calibration Date</td> <td>08-000000</td> </tr> <tr> <td>Actual DAE Calibration ref.</td> <td>SI UMLR 000 00-1000 - 00-000000</td> <td>Ref. Measurement Date</td> <td>2016-08-20 11:11</td> </tr> <tr> <td>Calibration ref. ref.</td> <td>SI UMLR 000 00-1000 - 00-000000</td> <td>Ref. Measurement Date</td> <td>2016-08-20 11:11</td> </tr> <tr> <td>Calibration:</td> <td>Name: Dominique Müller</td> <td>Function: Test engineer</td> <td>Signature</td> </tr> <tr> <td>Approved by:</td> <td>For Reference: Supply Technical Manager</td> <td colspan="2">L. V. Müller</td> </tr> <tr> <td colspan="4">Issued August 20, 2016</td> </tr> </table> <p>Certificate No. DAE4-546_Aug16 Page 1 of 5</p> </div>	Object	DAS4 / DAS 000 DAE 894 / SN 546	Calibration procedure	Q4-CAL-06.v09 Calibration procedure for the data acquisition electronics (DAE)	Calibration date	August 20, 2016	This calibration certificate documents the traceability to national standards, which define the physical units of measurement [1]. The measurement and the uncertainty self-confidence provided are given on the following pages and are part of the certificate.		All calibrations have been performed in the visual laboratory facility, environment temperature (23 ± 2°C) and humidity < 10%.		Calibration equipment used (RTM1) refers to calibration:		Primary Standards	± 1%	Cal Data (calibration No.)	Reference Calibration	Secondary Standard (Type C)	± 0.001%	00-000000	Ref. 11-000000	Measurement Results	± 0.00%	Calibration Date	08-000000	Actual DAE Calibration ref.	SI UMLR 000 00-1000 - 00-000000	Ref. Measurement Date	2016-08-20 11:11	Calibration ref. ref.	SI UMLR 000 00-1000 - 00-000000	Ref. Measurement Date	2016-08-20 11:11	Calibration:	Name: Dominique Müller	Function: Test engineer	Signature	Approved by:	For Reference: Supply Technical Manager	L. V. Müller		Issued August 20, 2016				<p align="center">DAE4 Sn:546</p> <div style="border: 1px solid black; padding: 10px;"> <p>Calibration Laboratory of Schmid & Partner Engineering AG <small>(Ingenieuratelier für die Elektrotechnik)</small></p> <p>Accredited by the Swiss Accreditation Service (SCS) <small>The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates.</small></p> <p>Glossary:</p> <ul style="list-style-type: none"> DAE: data acquisition electronics Connector angle: information used in DASY system to align probe sensor X to the robot coordinate system. <p>Methods Applied and Interpretation of Parameters:</p> <ul style="list-style-type: none"> • DC Voltage Measurement: Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure 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 are documented in the Appendix operate technical information as a result from the performance test and require no uncertainty: <ul style="list-style-type: none"> ▪ 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-tuning 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. <p>Certificate No. DAE4-546_Aug16 Page 2 of 5</p> </div>																																																																																																																																																			
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Deviation (µV)	Channel X	1.22	0.21	1.94	0.35	Channel Y	0.27	-1.07	1.43	0.50	Channel Z	-0.65	-1.46	0.11	0.35		Zeroing (kOhm)	Measuring (MOhm)	Channel X	200	200	Channel Y	200	200	Channel Z	200	200	Typical values	Alarm Level (VDC)	Supply (+ Vcc)	+7.9	Supply (- Vcc)	-7.6	Typical values	Switched off (mA)	Stand by (mA)	Transmitting (mA)	Supply (+ Vcc)	+0.01	+6	+14	Supply (- Vcc)	-0.01	-8	-9
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DAE4 Sn:546

4. AD-Converter Values with inputs shorted			
DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 s/sec.			
	High Range (LSB)		Low Range (LSB)
Channel X	15845		16442
Channel Y	16150		14493
Channel Z	15907		16531

5. Input Offset Measurement				
DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec				
Input 10mΩ	Average (µV)	min. Offset (µV)	max. Offset (µV)	Std. Deviation (µV)
Channel X	1.22	0.21	1.94	0.35
Channel Y	0.27	-1.07	1.43	0.50
Channel Z	-0.65	-1.46	0.11	0.35

6. Input Offset Current			
Nominal Input circuitry offset current on all channels: <25mA			

7. Input Resistance (Typical values for information)			
	Zeroing (kΩm)	Measuring (MΩm)	
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

Certificate No: DAE4-546_Aug16

DAE4 Sn:720

Calibration Laboratory of Schörl & Partner Engineering AG Burgweg 10, 8401 Winterthur, Switzerland		 	Referenzlaboratorium Schweizerische Akkreditierung Services d'essais d'homologation Services d'accréditation d'homologation Service Calibration Services																														
Submitted by the Testing Association - Service (TAS) - The Swiss Accreditation Services is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates		Accreditation No.: SGS 8198																															
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<p>This calibration certificate documents the traceability to national standards, which makes the physical units of measurement (UoM) the measurement unit. The uncertainties with confidence probability are given on the next page(s). Uncertainties can be determined by the following methods:</p> <ul style="list-style-type: none"> All calibrations have been conducted in the closed laboratory facility, environmental temperature (20 ± 0.5°C) and humidity < 70%. <p>Calibration Equipment used (MBT) ref ID for evaluation:</p> <table border="1"> <tr> <td>Primary Standard:</td> <td>SLP</td> <td>Cal Date (Certificate No.):</td> <td>2014-10-21 (0000)</td> <td>Entered Date:</td> <td>2014-10-21</td> </tr> <tr> <td>Testing Reference Type:</td> <td>SLP</td> <td>Ref Date (in house):</td> <td></td> <td>Entered Date:</td> <td></td> </tr> <tr> <td>Assessment & Remarks:</td> <td>SLP</td> <td>Test Date (in house):</td> <td></td> <td>Entered Date:</td> <td></td> </tr> <tr> <td>Calib Std. Calibration Lab.:</td> <td>SLI 2013/06/01-2014/05/31 (SLI)</td> <td>Test Date (in house):</td> <td></td> <td>Entered Date:</td> <td>2014-10-21</td> </tr> <tr> <td>Calib Std. Ref. ID:</td> <td>SLI 2013/06/01-2014/05/31 (SLI)</td> <td>Test Date (in house):</td> <td></td> <td>Entered Date:</td> <td>2014-10-21</td> </tr> </table>				Primary Standard:	SLP	Cal Date (Certificate No.):	2014-10-21 (0000)	Entered Date:	2014-10-21	Testing Reference Type:	SLP	Ref Date (in house):		Entered Date:		Assessment & Remarks:	SLP	Test Date (in house):		Entered Date:		Calib Std. Calibration Lab.:	SLI 2013/06/01-2014/05/31 (SLI)	Test Date (in house):		Entered Date:	2014-10-21	Calib Std. Ref. ID:	SLI 2013/06/01-2014/05/31 (SLI)	Test Date (in house):		Entered Date:	2014-10-21
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Calibrated by:	Name: Christian Boller	Position: Technician	Signature: 																														
Comments:	Handwritten: Highly Technical Manager 																																
This calibration certificate shall not be reproduced except in full without written approval of the laboratory.																																	

DAE4 Sn:720

<p>Calibration Laboratory of Schenk & Partner Engineering AG Hugenhofstrasse 10, 8004 Zürich, Switzerland</p> <p>Accredited by the Federal Accreditation Service (FAM) The Swiss Accreditation Service is one of the signatories to the ILAC Mutual Agreement for the recognition of calibration certificates.</p> <p>Glossary</p> <p>DAE: Data acquisition electronics Connector angle: Information used in DAEY system to align probe sensor X to the robot coordinate system.</p> <p>Methods Applied and Interpretation of Parameters</p> <ul style="list-style-type: none"> • DC Voltage Measurement: Calibration Factor assessed for use in DAEY 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 are documented in the Appendix: common 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. 	<p>DC Voltage Measurement DAEY measurement parameters: Auto-Zero Time: 3 sec; Measuring time: 3 sec</p> <table border="1"> <thead> <tr> <th>Calibration Factors</th> <th>X</th> <th>Y</th> <th>Z</th> </tr> </thead> <tbody> <tr> <td>High Range</td> <td>400.000 ± 0.000% (n=2)</td> <td>404.760 ± 0.000% (n=2)</td> <td>403.290 ± 0.000% (n=2)</td> </tr> <tr> <td>Low Range</td> <td>0.00000 ± 1.000% (n=2)</td> <td>0.00007 ± 0.000% (n=2)</td> <td>0.00000 ± 0.000% (n=2)</td> </tr> </tbody> </table> <p>Connector Angle Measured Angle to be used in DAEY system: $33.0^\circ \pm 1^\circ$</p>	Calibration Factors	X	Y	Z	High Range	400.000 ± 0.000% (n=2)	404.760 ± 0.000% (n=2)	403.290 ± 0.000% (n=2)	Low Range	0.00000 ± 1.000% (n=2)	0.00007 ± 0.000% (n=2)	0.00000 ± 0.000% (n=2)																																																																																																																																																																								
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The State Radio_monitoring_center Testing Center 国家无线电监测中心检测中心

No.:SRTC2017-9004(F)-0046
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ES3DV3 Sn:3127

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Tel: 86-10-5799 6181
Fax: 86-10-5799 6288

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ES3DV3 Sn:3127

ES3DV3-SN:3127

August 30, 2018

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

Calibration Parameter Determined in Head Tissue Simulating Media

F(MHz) ¹	Relative Permittivity ²	Conductivity ³ (S/m)	Coeff X ⁴	Coeff Y ⁴	Coeff Z ⁴	Alpha ⁵ (MHz)	Beta ⁵ (MHz)
430	41.5	0.40	8.74	8.74	0.71	2.30	$\pm 15.3\%$
700	41.3	0.48	8.50	8.58	0.62	1.31	$\pm 15.2\%$
800	41.5	0.57	8.20	8.20	0.54	1.41	$\pm 15.0\%$
1450	40.5	1.08	8.44	8.44	0.46	1.98	$\pm 12.0\%$
1870	43.0	1.40	5.15	5.15	0.80	1.16	$\pm 12.0\%$
2800	43.0	1.49	8.11	8.11	0.88	1.28	$\pm 12.0\%$
2900	39.8	1.47	4.80	4.83	0.80	1.19	$\pm 12.0\%$
3480	39.2	1.60	4.81	4.81	0.67	1.38	$\pm 12.0\%$
3600	39.8	1.86	4.40	4.48	2.73	1.38	$\pm 12.0\%$

¹ Frequency values above 300 MHz or < 100 MHz only applies for DASY v4.4 probe higher levels (Page 2) when it is measured in a probe. The uncertainty in the R22 of the Coefficients at resonance (Coef X, Coef Y, Coef Z) for the indicated frequency levels. Frequency values below 100 MHz only applies for DASY v4.4 probe lower levels (Page 2) when it is measured in a probe. The uncertainty in the R22 of the Coefficients at resonance (Coef X, Coef Y, Coef Z) for the indicated frequency levels. Frequency values above 300 MHz only applies for DASY v4.4 probe higher levels (Page 2) when it is measured in a probe. The uncertainty in the R22 of the Coefficients at resonance (Coef X, Coef Y, Coef Z) for the indicated frequency levels.

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ES3DV3-SN:3127

August 30, 2018

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

Calibration Parameter Determined in Body Tissue Simulating Media

F(MHz) ¹	Relative Permittivity ²	Conductivity ³ (S/m)	Coeff X ⁴	Coeff Y ⁴	Coeff Z ⁴	Alpha ⁵ (MHz)	Beta ⁵ (MHz)
450	36.7	0.34	6.36	6.39	0.99	1.18	$\pm 12.0\%$
780	38.5	0.38	6.12	6.12	0.85	1.14	$\pm 12.0\%$
880	38.0	1.05	6.10	6.16	0.46	1.33	$\pm 12.0\%$
1480	38.0	1.30	5.29	5.29	0.20	0.74	1.21
1930	53.3	1.32	4.30	4.30	0.68	1.09	$\pm 12.0\%$
3000	53.3	1.81	4.82	4.82	0.58	1.48	$\pm 12.0\%$
2100	52.8	1.81	4.83	4.83	0.65	1.24	$\pm 12.0\%$
2450	52.7	1.98	4.38	4.38	0.71	1.22	$\pm 12.0\%$
2800	52.6	2.16	4.17	4.17	0.80	1.11	$\pm 12.0\%$

¹ Frequency values above 300 MHz or < 100 MHz only applies for DASY v4.4 probe higher levels (Page 2) when it is measured in a probe. The uncertainty in the R22 of the Coefficients at resonance (Coef X, Coef Y, Coef Z) for the indicated frequency levels. Frequency values below 100 MHz only applies for DASY v4.4 probe lower levels (Page 2) when it is measured in a probe. The uncertainty in the R22 of the Coefficients at resonance (Coef X, Coef Y, Coef Z) for the indicated frequency levels.

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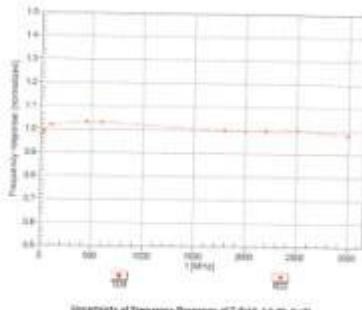
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August 30, 2018

Frequency Response of E-Field (TE110-Cell:R11 EXL, Waveguide: R22)



Uncertainty of Frequency Response of E-Field: 4.6, 0.5, (n=2)

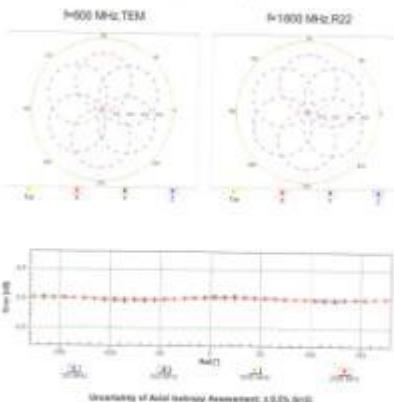
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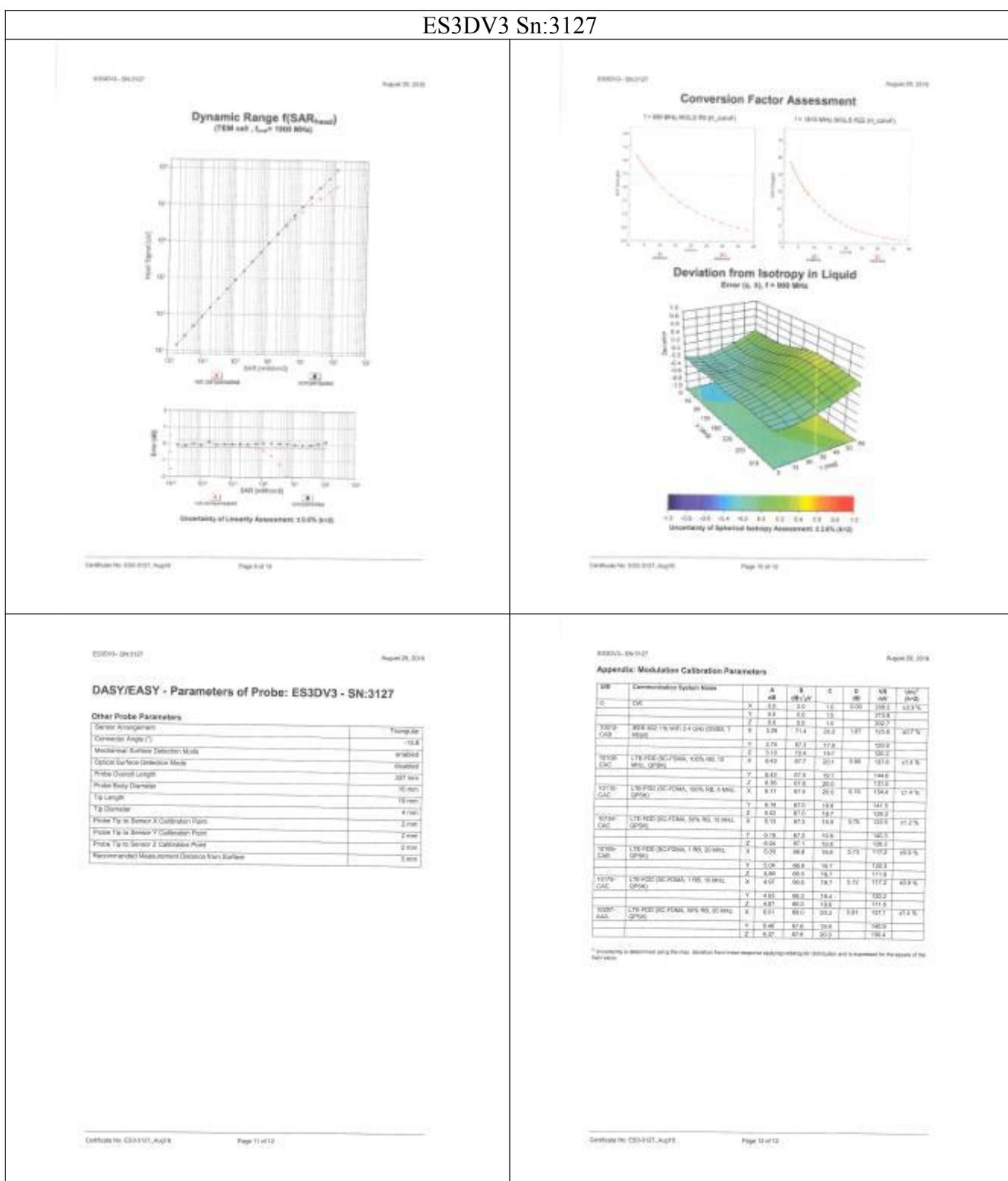
August 30, 2018

Receiving Pattern (phi), theta = 0°



Certificate No: ES3DV3-SN:3127

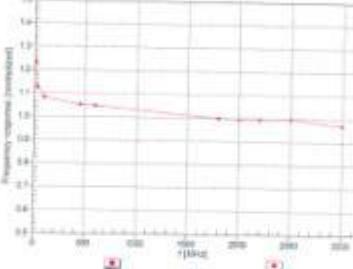
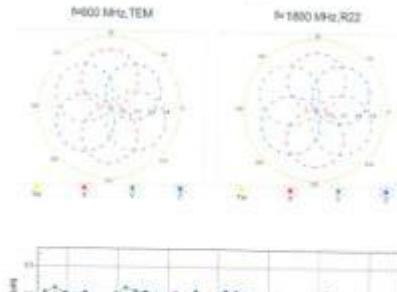
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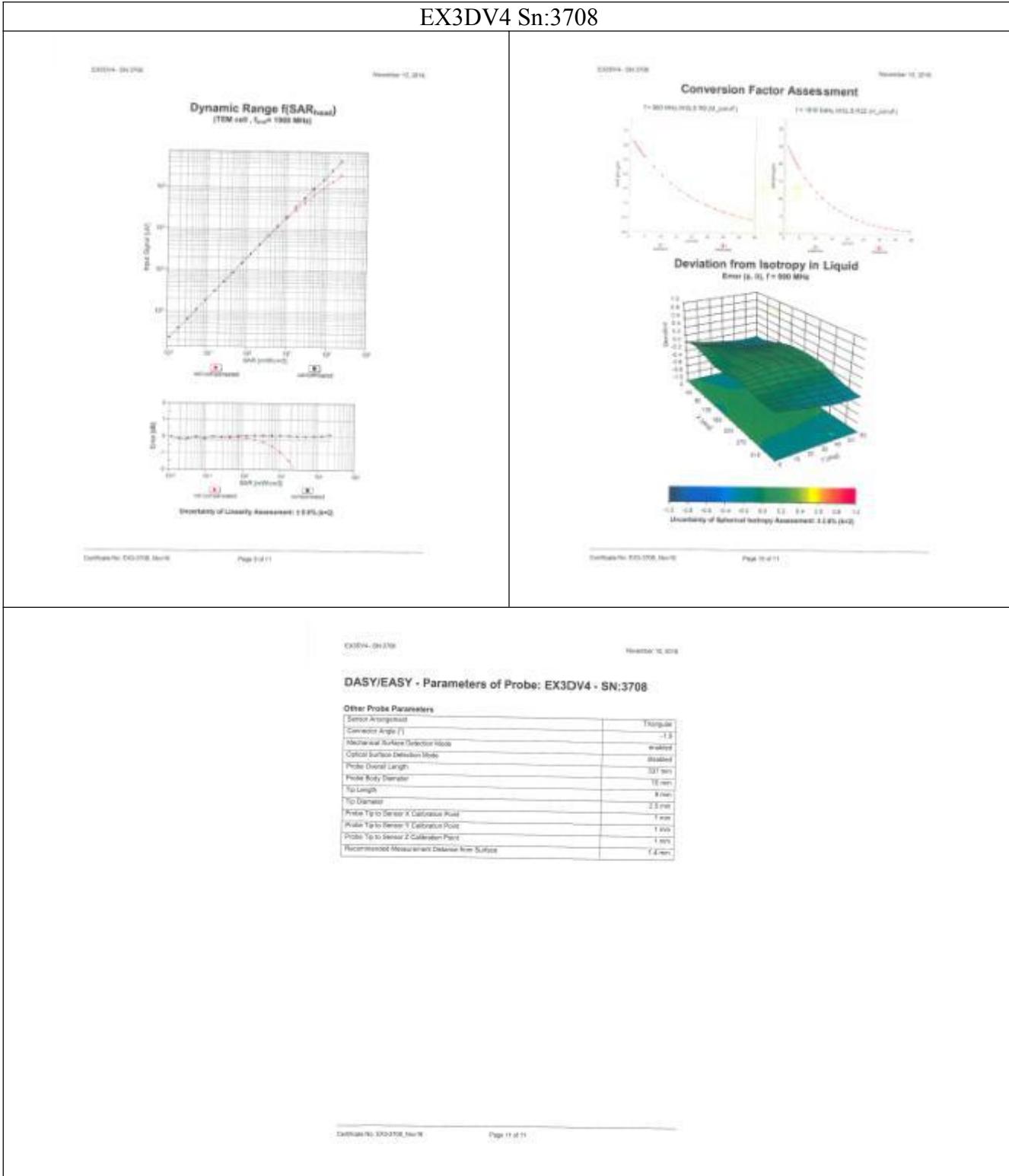


The State Radio_monitoring_center Testing Center 国家无线电监测中心检测中心

No.:SRTC2017-9004(F)-0046
FCC ID: 2AD0BF10

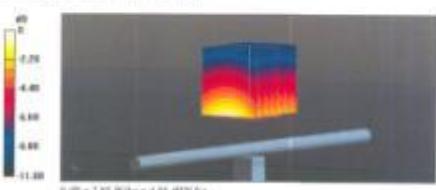
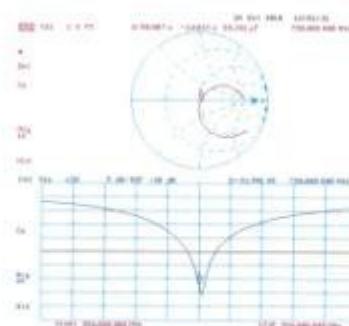
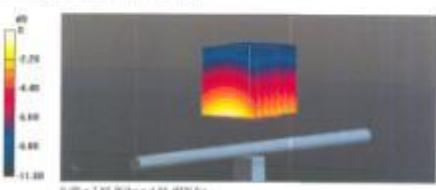
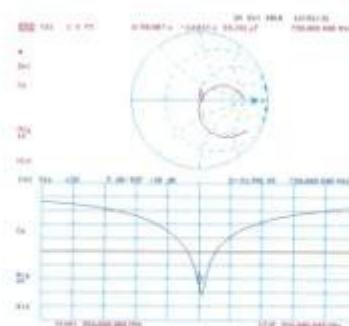
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EX3DV4 Sn:3708



<p align="center">D750V3 Sn:1101</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Calibration Laboratory of Schmid & Partner Engineering AG Bogensee 45, 8004 Zürich, Switzerland</p> <p> </p> <p>Accreditation No.: SCB 9108</p> <p>Accreditation No.: DTS 0108</p> <p>Calibration Certificate</p> <p>Item: D750V3 - SN:1101</p> <p>Date issued: 04.09.2018</p> <p>Calibration procedure for dipole validation sets above 700 MHz</p> <p>Expiry date: 04.09.2019</p> <p>This calibration certificate documents the capability to perform accurate, repeatable and traceable measurements (T). The measurement and the uncertainties with confidence probability are given in the following tables and annexes of the certificate.</p> <p>All calibrations have been conducted in the closed laboratory facility environment temperature (20 ± 0.5°C) humidity = 40%.</p> <p>Calibration equipment used (MITSUBISHI model for reference):</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Product Model</th> <th>Part No.</th> <th>Cal Date (Certificate No.)</th> <th>Reference Condition</th> </tr> <tr> <td>Power source MITSUBISHI</td> <td>MS-100070</td> <td>08-Apr-18 (No. 217-00000000)</td> <td>Appl 11</td> </tr> <tr> <td>Power source MITSUBISHI</td> <td>MS-100094</td> <td>08-Apr-18 (No. 217-00000000)</td> <td>Appl 11</td> </tr> <tr> <td>Antenna MITSUBISHI</td> <td>MS-100095</td> <td>08-Apr-18 (No. 217-00000000)</td> <td>Appl 11</td> </tr> <tr> <td>Reference 3G/4G Antennas</td> <td>MS-2020 (LNB)</td> <td>08-Apr-18 (No. 217-00000000)</td> <td>Appl 11</td> </tr> <tr> <td>Type A1 microwave voltmeter</td> <td>MS-4401 (J-1000)</td> <td>08-Apr-18 (No. 217-00000000)</td> <td>Appl 11</td> </tr> <tr> <td>Reference Power DUT/THD</td> <td>MS-7349</td> <td>08-Jun-08 (MS-7349-June08)</td> <td>Appl 11</td> </tr> <tr> <td>DSR</td> <td>MS-9017</td> <td>08-Jun-08 (MS-9017-June08)</td> <td>Appl 10</td> </tr> </table> <p>Boundary Conditions:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Part No.</th> <th>Check Date (or issued)</th> <th>Reference Check</th> </tr> <tr> <td>Power meter TPI-9000</td> <td>MS-2001440704</td> <td>In-house check: Oct-16</td> </tr> <tr> <td>Power source HP-8410A</td> <td>MS-100160001</td> <td>In-house check: Oct-16</td> </tr> <tr> <td>Antenna MITSUBISHI</td> <td>MS-100095</td> <td>In-house check: Oct-16</td> </tr> <tr> <td>HP generic PNA 2001 90</td> <td>MS-100071</td> <td>In-house check: Oct-16</td> </tr> <tr> <td>Network analyzer HP 8750B</td> <td>MS-100070</td> <td>In-house check: Oct-16</td> </tr> </table> <p>Calibration by: Name: <i>[Signature]</i> Function: <i>[Signature]</i></p> <p>Approver: Name: <i>[Signature]</i> Position: <i>[Signature]</i></p> <p>The calibration certificate shall not be reproduced except in full without written approval of the issuers.</p> <p>Calibrated No.: D750V3-1101_0018</p> <p>Page 1 of 6</p> </div> <div style="width: 55%;"> <p>Calibration Laboratory of Schmid & Partner Engineering AG Bogensee 45, 8004 Zürich, Switzerland</p> <p> </p> <p>Accreditation No.: SCB 9108</p> <p>Accreditation No.: DTS 0108</p> <p>Glossary:</p> <ul style="list-style-type: none"> TSL: Human simulating liquid ConfF: Interpolatively in TSL (NORM 4.9.2) N/A: Not applicable or not measured <p>Calibration is Performed According to the Following Standards:</p> <ul style="list-style-type: none"> a) IEEE Std. 1528-2003, "IEEE Standard for Determining the Peak Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013 b) IEC 62309-1, "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 2006 c) IEC 62309-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010 d) ICES-003, "SAR Measurement Requirements for 100 MHz to 6 GHz" <p>Additional Documentation:</p> <ul style="list-style-type: none"> e) DASY4/S System Handbook <p>Methods Applied and Interpretation of Parameters:</p> <ul style="list-style-type: none"> ▪ 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: The dipole is mounted with the spacers to position its feed-point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the horizontal 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. <p>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%.</p> <p>Calibrated No.: D750V3-1101_0018</p> <p>Page 2 of 6</p> </div> </div> <div data-bbox="225 1129 476 1154" data-label="Section-Header"> <p>Measurement Conditions</p> </div> <div data-bbox="225 1147 693 1257" data-label="Table"> <table border="1"> <tr> <td colspan="3">DASY system configuration, as far as not shown on page 1:</td></tr> <tr> <td>IMRT Vessel</td><td>DASY</td><td>VTE 0.8</td></tr> <tr> <td>Extrapolation</td><td>Advanced Extrapolation</td><td></td></tr> <tr> <td>Phantom</td><td>Module Flat Phantom</td><td></td></tr> <tr> <td>Distance: Head Center - 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Delay (via dipole)</td><td>7.04 ns</td></tr> </table> </div> <div data-bbox="889 1363 1365 1385" data-label="Text"> <p>After long-term use with 100W reflected power, just a slight warming of the dipole near the feedpoint can be measured.</p> </div> <div data-bbox="889 1381 1365 1468" data-label="Text"> <p>The dipole is made of standard rectangular copper tube. The center conductor of this feeding line is directly connected to the second arm of the dipole. The antenna is therefore also referred to as DC-dipole. On some of the dipoles, small air gaps are added to the dipole arms in order to improve matching when tested 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 300 mm. No insulation form material is applied to the dipole arms, because they might catch on the antenna connections near the feedpoint may be damaged.</p> </div> <div data-bbox="889 1480 1006 1502" data-label="Section-Header"> <p>Additional CUT Data:</p> </div> <div data-bbox="889 1500 1356 1543" data-label="Table"> <table border="1"> <tr> <td>Manufactured by</td><td>DASYAG</td></tr> <tr> <td>Manufactured at</td><td>July 01, 2018</td></tr> </table> </div> <div data-bbox="889 1781 1106 1801" data-label="Text"> <p>Calibrated No.: D750V3-1101_0018</p> </div> <div data-bbox="1105 1781 1156 1801" data-label="Text"> <p>Page 4 of 6</p> </div> <div data-bbox="138 2021 811 2086" data-label="Page-Footer"> <p>The State Radio Monitoring Center Testing Center (SRTC) Tel: 86-10-5799 6181 Fax: 86-10-5799 6288</p> </div> <div data-bbox="1149 2021 1438 2055" data-label="Page-Footer"> <p>Page number: 235 of 246</p> </div> <div data-bbox="1184 2079 1402 2113" data-label="Page-Footer"> <p>Copyright © SRTC</p> </div>	Product Model	Part No.	Cal Date (Certificate No.)	Reference Condition	Power source MITSUBISHI	MS-100070	08-Apr-18 (No. 217-00000000)	Appl 11	Power source MITSUBISHI	MS-100094	08-Apr-18 (No. 217-00000000)	Appl 11	Antenna MITSUBISHI	MS-100095	08-Apr-18 (No. 217-00000000)	Appl 11	Reference 3G/4G Antennas	MS-2020 (LNB)	08-Apr-18 (No. 217-00000000)	Appl 11	Type A1 microwave voltmeter	MS-4401 (J-1000)	08-Apr-18 (No. 217-00000000)	Appl 11	Reference Power DUT/THD	MS-7349	08-Jun-08 (MS-7349-June08)	Appl 11	DSR	MS-9017	08-Jun-08 (MS-9017-June08)	Appl 10	Part No.	Check Date (or issued)	Reference Check	Power meter TPI-9000	MS-2001440704	In-house check: Oct-16	Power source HP-8410A	MS-100160001	In-house check: Oct-16	Antenna MITSUBISHI	MS-100095	In-house check: Oct-16	HP generic PNA 2001 90	MS-100071	In-house check: Oct-16	Network analyzer HP 8750B	MS-100070	In-house check: Oct-16	DASY system configuration, as far as not shown on page 1:			IMRT Vessel	DASY	VTE 0.8	Extrapolation	Advanced Extrapolation		Phantom	Module Flat Phantom		Distance: Head Center - TSL	10 mm	with Spacers	Body Scan Resolution	10, 20, 30 mm		Frequency	100 MHz to 6 GHz			Temperature	Polarizability	Conductivity	Measured Head TSL parameters	40.0 °C	41.0	0.00 mho/m	Measured Head TSL parameters	(40.0 ± 0.0) °C	(41.0 ± 0.0)	(0.00 ± 0.0) mho/m	Head TSL temperature change during test	± 0.0 °C	—	—		Condition		SAR measured	200 mW input power	0.17 W/kg	SAR for nominal Head TSL parameters	normalized to 1W	0.19 W/kg ± 17.0 % (k=2)	SAR measured	200 mW input power	1.36 W/kg	SAR for nominal Head TSL parameters	normalized to 1W	0.39 W/kg ± 16.5 % (k=2)		Temperature	Polarizability	Conductivity	Measured Body TSL parameters	10.0 °C	10.0	0.00 mho/m	Measured Body TSL parameters	(10.0 ± 0.0) °C	(10.0 ± 0.0)	(0.00 ± 0.0) mho/m	Body TSL temperature change during test	± 0.0 °C	—	—		Condition		SAR measured	200 mW input power	0.17 W/kg	SAR for nominal Body TSL parameters	normalized to 1W	0.60 W/kg ± 17.0 % (k=2)	SAR measured	200 mW input power	1.46 W/kg	SAR for nominal Body TSL parameters	normalized to 1W	0.70 W/kg ± 16.9 % (k=2)	Impedance: Normalized to feed point	33.4 MΩ ± 0.2 MΩ	Return Loss	- 35.0 dB	Impedance: Normalized to feed point	30.0 MΩ ± 0.2 MΩ	Return Loss	- 36.0 dB	Electrom. 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D750V3 Sn:1101

<p>DASYS Validation Report for Head TSL.</p> <p>Date: 24.05.2016</p> <p>Test Laboratory: SPEAG, Zurich, Switzerland</p> <p>DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3 - SN:1101</p> <p>Communication System: U2D-0 - CW; Frequency: 750 MHz</p> <p>Medium powerwise model: f = 750 MHz; n = 0.92 / 360; $\epsilon_r = 41.2$; $\mu_r = 1000$ kg/m³</p> <p>Phantom section: Flat Section</p> <p>Measurement Standard: DASYS3 (IEEE/IEC/ANSI C63.19-2011)</p> <p>DASYS3 Configuration:</p> <ul style="list-style-type: none"> • Probe: EKHDW4 - IN7349; Calibrated: 10.07.10.07; Calibrated: 13.06.2016; • Sensor-Surface: 1-mm (Mechanical Surface Detection) • Echomax: DAIS4 30001; Calibrated: 30.12.2015 • Phantom: Flat Phantom 43-L; Type: Q000P99A; Serial: 1001 • DASYS2 52.3.8(259); SEMICAD X 14.6.00(372) <p>Dipole Calibration for Body Tissue/Phantom=20 mW, d=15mm/Zone Scan (7x7x7)Cube B:</p> <p>Measurement grid: 40x40x40 mm, 40x40x40 mm</p> <p>Reference Value = 51.01 V/m; Power DUTB = 0.00 dB</p> <p>Peak SAR (measured) = 2.14 W/kg</p> <p>SAR10 g = 2.37 W/kg; SAR100 g = 1.44 W/kg</p> <p>Maximum value of SAR (measured) = 2.85 W/kg</p>  <p>0 dB = 2.85 W/kg = 4.25 dBW/kg</p> <p>Certificate No: D750V3-1101_2016 Page 7 of 8</p>	<p>Impedance Measurement Plot for Body TSL.</p>  <p>Impedance Measurement Plot for Body TSL.</p> <p>Frequency range: 100 Hz to 1000 MHz</p> <p>Phase (deg): 0, 90, 180, 270</p> <p>Magnitude (dB): -10, 0, 10, 20, 30, 40</p> <p>Angle (deg): 0, 90, 180, 270</p> <p>Impedance (Ω): 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000</p> <p>Certificate No: D750V3-1101_2016 Page 8 of 8</p>
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<p style="text-align: center;">D835V2 Sn:4d023</p> <div style="border: 1px solid black; padding: 10px;"> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>Calibration Laboratory of Schmid & Partner Engineering AG Zugstrasse 15, 8004 Zurich, Switzerland</p> </div> <div style="text-align: center;"> <p>Accredited by the Swiss Accreditation Service (SCS) The Swiss Accreditation Service is one of the signatories to the EURECA Multilateral Agreement for the recognition of calibration certificates.</p> </div> <div style="text-align: center;"> <p>Calibration Laboratory of Schmid & Partner Engineering AG Zugstrasse 15, 8004 Zurich, Switzerland</p> </div> </div> <div style="margin-top: 10px;"> <p>Accreditation No.: SCS 9108</p> <p>Accreditation No.: SCS 9108</p> <p>Accredited by the Swiss Accreditation Service (SCS) The Swiss Accreditation Service is one of the signatories to the EURECA Multilateral Agreement for the recognition of calibration certificates.</p> </div> <div style="margin-top: 10px;"> <p>CALIBRATION CERTIFICATE</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">Date:</td> <td style="width: 90%;">D835V2 - 0004d023</td> </tr> <tr> <td>Calibration procedure:</td> <td>QA-CAL-BSL-01 Calibration procedure for dipoles validation kits above 700 MHz</td> </tr> <tr> <td>Calibration date:</td> <td>December 24, 2018</td> </tr> <tr> <td colspan="2">This calibration certificate documents the traceability to national standards, which satisfies the general validity requirements (b). 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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 with respect to the center marking of the test phantom section, with the arms oriented parallel to the front 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. <p>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%.</p> <p>Certification No.: D835V2-0004d023, Date: 00</p> <p>Page 2 of 8</p> </div>	Date:	D835V2 - 0004d023	Calibration procedure:	QA-CAL-BSL-01 Calibration procedure for dipoles validation kits above 700 MHz	Calibration date:	December 24, 2018	This calibration certificate documents the traceability to national standards, which satisfies the general validity requirements (b). 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Appendix (Additional assessments outside the scope of SCS E158)

Antenna Parameters with Head TSL

Impedance (normalized to feed point)	50.0 ± 1.0 ± 0.1
Return Loss	-28.4 dB

Antenna Parameters with Body TSL

Impedance (normalized to feed point)	49.3 ± 0.5 ± 0.0
Return Loss	-25.0 dB

General Antenna Parameters and Design

Electrical Delay (cm - wavelength)	1.389 fm
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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 semi rigid coaxial cable. The center conductor of the feeding line is in safety wire-wound to the exact axis of the dipole. The antenna is therefore not suitable for ESD-usage. Co-screens of the dipole, small end caps are added to the dipole arms in order to improve matching when tested according to its position as exhibited in the "Measurement Conditions" paragraph. The SAR area are not affected by this change. The overall dipole length is 50 cm. The dipole is not polarized. 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:

Manufacturer	EPICAG
Manufacturer code	December 17, 2018

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D835V2 Sn:4d023

DASYS Validation Report for Head TSL.

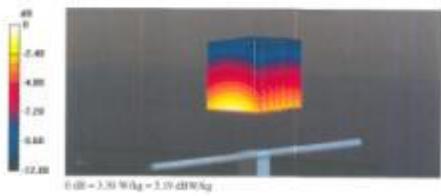
Date: 24.10.2016

Test Laboratory: SPSAG, Zurich, Switzerland
DUT: Dipole 100 MHz Type D835V2; Serial: D835V2 - SN:4d023
Communication System: U2D9 - CW; Frequency: 105 MHz
Medium parameter model: $\epsilon = 3.03 \text{ Mho}$, $\sigma = 0.95 \text{ S/m}$, $\alpha = 40.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom material: Phantom
Measurement Standard: DASYS3 (IEEE/IEC/ANSI/CISPR.19-2011)

DASYS3 Configuration:

- Probe: EKIDW4 - IN7349; CalibRef: 073; Calibmod: 12.06.2016
- Source-Surface: 1-Area (Mechanical Surface Detection)
- Electronics: DA24 Set01; Calibmod: 01.12.2015
- Phantom: Flat Phantom 43-L; Type: Q000P09A; Serial: 1001
- DASYS3 52.3.8(209); SEMCAD X (4.6.107792)

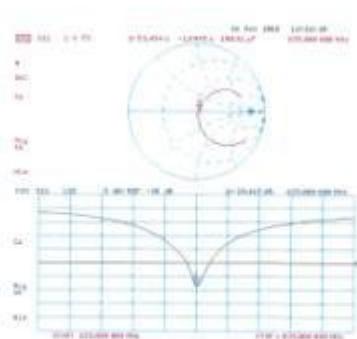
Dielectric Calibration for Head Tissue/Pho=258 mW, d=12mm/Zoom Scan (7x7x7) Cube 8:
Measurement grid: d=3mm, dy=3mm, dz=3mm
Reference Value = 41.71 W/kg, Power Def = 0.01 dB
Peak SAR (measured) = 3.72 W/kg
SAR1 g = 2.47 W/kg; SAR10 g = 1.09 W/kg
Maximum value of SAR (measured) = 3.72 W/kg



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Impedance Measurement Plot for Head TSL.



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DASYS Validation Report for Body TSL.

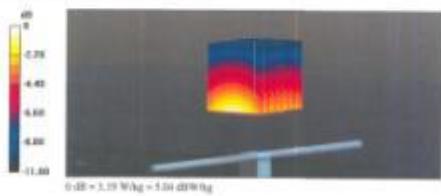
Date: 24.10.2016

Test Laboratory: SPSAG, Zurich, Switzerland
DUT: Dipole 100 MHz Type D835V2; Serial: D835V2 - SN:4d023
Communication System: U2D9 - CW; Frequency: 105 MHz
Medium parameter model: $\epsilon = 3.03 \text{ Mho}$, $\sigma = 0.95 \text{ S/m}$, $\alpha = 40.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom material: Phantom
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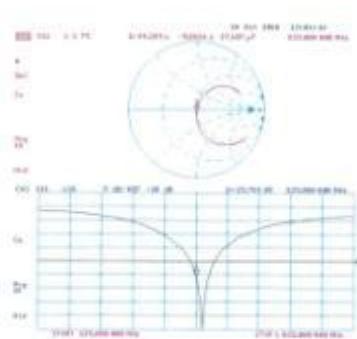
Dielectric Calibration for Body Tissue/Pho=258 mW, d=12mm/Zoom Scan (7x7x7) Cube 8:
Measurement grid: d=3mm, dy=3mm, dz=3mm
Reference Value = 39.37 W/kg, Power Def = 0.01 dB
Peak SAR (measured) = 3.78 W/kg
SAR1 g = 2.44 W/kg; SAR10 g = 1.6 W/kg
Maximum value of SAR (measured) = 3.78 W/kg



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Impedance Measurement Plot for Body TSL.

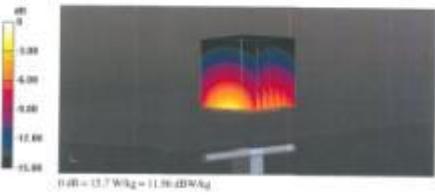
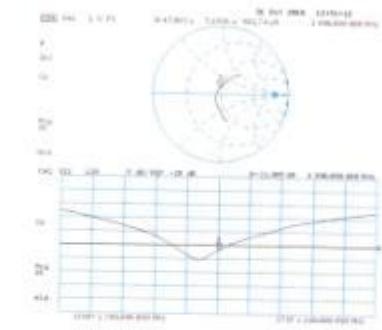
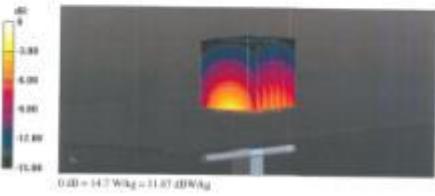
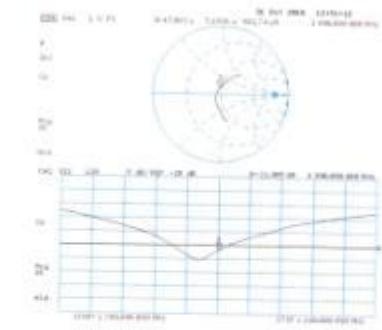


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D1900V2 Sn:5d113																																																																																																					
<p>Calibration Laboratory of Schmid & Partner Engineering AG Engelstrasse 16, 8004 Zurich, Switzerland</p> <p>Accredited by the Swiss Accreditation Service (SAS). The Swiss Accreditation Service is one of the signatories to the IAC Multilateral Agreement for the recognition of calibration certificates.</p> <p>Issue: SRTC-01862 Certificate No.: D1900V2-Sn:5d113_0018</p> <p>CALIBRATION CERTIFICATE</p> <p>Object: D1900V2_Sn:5d113</p> <p>Calibration procedure: SAR-CAL-05_v9 Calibration procedure for Specific Absorption Rate above 705 MHz</p> <p>Calibration date: October 31, 2018</p> <p>This calibration certificate documents the traceability to national standards, which issued the physical unit of measurement. The measurement and its uncertainty with confidence probability of 95% are given in the following pages and are part of the certificate.</p> <p>All calibrations have been conducted in the stated laboratory facility, environment temperature (20 ± 2°C) environmental humidity (≤ 40% relative humidity), and no significant changes in the environment have occurred during the calibration period.</p> <p>Validation Report used (MIL-STD-461C) criteria for calibration:</p> <table border="1"> <thead> <tr> <th>Process Parameter</th> <th>Value</th> <th>Test Data Condition No.</th> <th>Specification/Parameter</th> </tr> </thead> <tbody> <tr> <td>Power meter type</td> <td>DYE</td> <td>96-Arr-14 (See 217102000000000)</td> <td>Appl'd. 17</td> </tr> <tr> <td>Power meter ID#</td> <td>09-10001</td> <td>96-Arr-14 (See 217102000000000)</td> <td>Appl'd. 17</td> </tr> <tr> <td>Power source: SAR-001</td> <td>09-10001</td> <td>96-Arr-14 (See 217102000000000)</td> <td>Appl'd. 17</td> </tr> <tr> <td>Reference SAR-001</td> <td>09-10001</td> <td>96-Arr-14 (See 217102000000000)</td> <td>Appl'd. 17</td> </tr> <tr> <td>Type A parameter combination</td> <td>09-10001 (See 217102000000000)</td> <td>96-Arr-14 (See 217102000000000)</td> <td>Appl'd. 17</td> </tr> <tr> <td>Uncertainty Factor</td> <td>1.00</td> <td>96-Arr-14 (See 217102000000000)</td> <td>Appl'd. 17</td> </tr> <tr> <td>Log-in</td> <td>09-10001</td> <td>96-Arr-14 (See 217102000000000)</td> <td>Appl'd. 17</td> </tr> </tbody> </table> <p>Secondary Reference: DYE</p> <table border="1"> <thead> <tr> <th>Power meter type</th> <th>Condition</th> <th>Specification/Parameter</th> </tr> </thead> <tbody> <tr> <td>Power meter DYE</td> <td>96-Arr-14 (See 217102000000000)</td> <td>96-Arr-14 (See 217102000000000)</td> </tr> <tr> <td>Power meter HP 8441A</td> <td>96-Arr-14 (See 217102000000000)</td> <td>96-Arr-14 (See 217102000000000)</td> </tr> <tr> <td>Power meter HP 8441C</td> <td>96-Arr-14 (See 217102000000000)</td> <td>96-Arr-14 (See 217102000000000)</td> </tr> <tr> <td>RF generator P60-SAR-00</td> <td>96-Arr-14 (See 217102000000000)</td> <td>96-Arr-14 (See 217102000000000)</td> </tr> <tr> <td>Return Analyzer HP 4140B</td> <td>96-Arr-14 (See 217102000000000)</td> <td>96-Arr-14 (See 217102000000000)</td> </tr> </tbody> </table> <p>Calibrated to: Name: John Russell Function: Laboratory Technician Signature: </p> <p>Approved to: Name: Function: Test Room Manager Signature: </p> <p>The calibration certificate shall not be reproduced except in full without written approval of the laboratory.</p> <p>Issue Date: October 31, 2018</p> <p>Certificate No.: D1900V2-Sn:5d113_0018 Page 1 of 8</p>	Process Parameter	Value	Test Data Condition No.	Specification/Parameter	Power meter type	DYE	96-Arr-14 (See 217102000000000)	Appl'd. 17	Power meter ID#	09-10001	96-Arr-14 (See 217102000000000)	Appl'd. 17	Power source: SAR-001	09-10001	96-Arr-14 (See 217102000000000)	Appl'd. 17	Reference SAR-001	09-10001	96-Arr-14 (See 217102000000000)	Appl'd. 17	Type A parameter combination	09-10001 (See 217102000000000)	96-Arr-14 (See 217102000000000)	Appl'd. 17	Uncertainty Factor	1.00	96-Arr-14 (See 217102000000000)	Appl'd. 17	Log-in	09-10001	96-Arr-14 (See 217102000000000)	Appl'd. 17	Power meter type	Condition	Specification/Parameter	Power meter DYE	96-Arr-14 (See 217102000000000)	96-Arr-14 (See 217102000000000)	Power meter HP 8441A	96-Arr-14 (See 217102000000000)	96-Arr-14 (See 217102000000000)	Power meter HP 8441C	96-Arr-14 (See 217102000000000)	96-Arr-14 (See 217102000000000)	RF generator P60-SAR-00	96-Arr-14 (See 217102000000000)	96-Arr-14 (See 217102000000000)	Return Analyzer HP 4140B	96-Arr-14 (See 217102000000000)	96-Arr-14 (See 217102000000000)	<p>Calibration Laboratory of Schmid & Partner Engineering AG Engelstrasse 16, 8004 Zurich, Switzerland</p> <p>Accredited by the Swiss Accreditation Service (SAS). The Swiss Accreditation Service is one of the signatories to the IAC Multilateral Agreement for the recognition of calibration certificates.</p> <p>Issue: SRTC-01862 Certificate No.: D1900V2-Sn:5d113_0018</p> <p>Glossary:</p> <ul style="list-style-type: none"> TSL: Human simulating liquid Conf: Sensitivity in TSL / NORTEL X,Y,Z N/A: not applicable or not measured <p>Calibration is Performed According to the Following Standards:</p> <ol style="list-style-type: none"> IEEE Std 1526-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communication Devices: Measurement Techniques", June 2013 IEC 62608-1, "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 2009 ICNIRP 1996, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2013 KICB 655556, "SAR Measurement Requirements for 100 MHz to 6 GHz" <p>Additional Documentation:</p> <ul style="list-style-type: none"> DASY45 System Handbook <p>Methods Applied and Interpretation of Parameters:</p> <ul style="list-style-type: none"> Measurement Conditions: Further details are available from the Validation Report at the end of this document. All figures stated in the certificate are valid at the frequency indicated. Antenna Parameters with TSL: The dipole is mounted with the center in position at head height exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis. Feed Port Impedance and Return Loss: These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stand 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 connection. SAR for nominal TSL parameters: The measured TSL parameters are used to calculate the nominal SAR result. <p>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%.</p> <p>Certificate No.: D1900V2-Sn:5d113_0018 Page 1 of 8</p>																																																		
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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 attached to the dipole arms in order to improve matching when tested according to the procedure explained in the validation report (see page 1). The SAR data are not affected by this change. The central dipole length is 600 mm according to the standard.</p> <p>Non-resonant arms must be applied to the dipole arms, because they might bend or the soldered connections may be damaged.</p> <p>Additional EUT Data</p> <table border="1"> <thead> <tr> <th>Manufactured by</th> <th>SPIDAG</th> </tr> <tr> <th>Manufactured in</th> <th>July 24, 2009</th> </tr> </thead> </table> <p>Certificate No.: D1900V2-Sn:5d113_0018 Page 4 of 8</p>	Impedance, Attenuation to Head port	61.03 ± 0.03	Return Loss	-13.8 dB	Impedance, Attenuation to Head port	61.03 ± 0.03	Return Loss	-11.0 dB	Electrical Total (near) Antenna	1.200 mm	Manufactured by	SPIDAG	Manufactured in	July 24, 2009
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<p align="center">D2450V2 Sn:738</p> <div style="border: 1px solid black; padding: 10px;"> <div style="display: flex; justify-content: space-around; font-size: small;"> Calibration Laboratory of: Schmid & Partner Engineering AG Engenstrasse 18, 8001 Zürich, Switzerland B: Bremgartenstrasse 10, 8001 Zürich, Switzerland C: Bernoullistrasse 10, 8001 Zürich, Switzerland D: Swiss Calibration Service </div> <p>Accreditation No.: SCS 0108 The Swiss Accreditation Body is liable for the correctness of the data. Multilateral Agreement for the recognition of calibration certificates</p> <p>Issue: SRTC (Welt) Certificate No.: D2450V2-738, Oct/18</p> <p>CALIBRATION CERTIFICATE</p> <p>Date: 2018-10-25</p> <p>Customer identification: GR CAL-0549 Calibration procedure for dipole antenna loss above 700 MHz.</p> <p>Calibration date: October 25, 2018</p> <p>This calibration certificate documents the insensitivity to lateral position, which applies for the usual width of measurements (2%). The measurements and the uncertainties with confidence probability are given in the following pages and form part of the certificate.</p> <p>All calibrations have been conducted in the measurement facility: environmental temperature 23 ± 0.1°C and humidity ≤ 40%.</p> <p>Calibration equipment used: 200W/TSL, virtual test calibration.</p> <p>Primary溯源:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Instrument</th> <th>GR 01</th> <th>GR 02 (Certificate No.)</th> <th>Substitution Parameter</th> </tr> </thead> <tbody> <tr> <td>Power-meter TSP</td> <td>SM 100110</td> <td>SM 100110 (01/2009/000)</td> <td>Apr-17</td> </tr> <tr> <td>Power-meter NFT-ZR1</td> <td>SM 100110</td> <td>SM 100110 (01/2009/000)</td> <td>Apr-17</td> </tr> <tr> <td>Power meter NFT-ZR1</td> <td>SM 100110</td> <td>SM 100110 (01/2009/000)</td> <td>Apr-17</td> </tr> <tr> <td>Reference GR 05 Antennas</td> <td>SM 100110</td> <td>SM 100110 (01/2009/000)</td> <td>Apr-17</td> </tr> <tr> <td>Type-Test Measurement</td> <td>SM 100110 (01/2009/000)</td> <td>SM 100110 (01/2009/000)</td> <td>Apr-17</td> </tr> <tr> <td>Antenna Probe ETSI/CE</td> <td>SM 100110</td> <td>SM 100110 (01/2009/000)</td> <td>Apr-17</td> </tr> <tr> <td>SGA</td> <td>SGA-001</td> <td>SGA-001 (01/2009/000)</td> <td>Oct-17</td> </tr> </tbody> </table> <p>Secondary溯源:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Instrument</th> <th>GR 01</th> <th>GR 02 (Certificate No.)</th> <th>Substitution Parameter</th> </tr> </thead> <tbody> <tr> <td>Power-meter ETSI/CE</td> <td>SM 100110 (01/2009/000)</td> <td>SM 100110 (01/2009/000)</td> <td>SM 100110 (01/2009/000)</td> </tr> <tr> <td>Power-meter NFT-ZR1</td> <td>SM 100110 (01/2009/000)</td> <td>SM 100110 (01/2009/000)</td> <td>SM 100110 (01/2009/000)</td> </tr> <tr> <td>Power-meter NFT-ZR1</td> <td>SM 100110 (01/2009/000)</td> <td>SM 100110 (01/2009/000)</td> <td>SM 100110 (01/2009/000)</td> </tr> <tr> <td>HP genetron N63 941100</td> <td>SM 100110</td> <td>SM 100110 (01/2009/000)</td> <td>SM 100110 (01/2009/000)</td> </tr> <tr> <td>Network Analyzer HP 8752E</td> <td>SM 100110</td> <td>SM 100110 (01/2009/000)</td> <td>SM 100110 (01/2009/000)</td> </tr> </tbody> </table> <p>Calibrated by: Name: <input type="text"/> Function: <input type="text"/> Signature: <input type="text"/></p> <p>Approved by: Name: <input type="text"/> Function: <input type="text"/> Signature: <input type="text"/></p> <p>The customer certifies that the calibration was carried out without written approval of the customer.</p> <p>Certificate No.: D2450V2-738, Oct/18</p> <p>Page 1 of 10</p> </div>	Instrument	GR 01	GR 02 (Certificate No.)	Substitution Parameter	Power-meter TSP	SM 100110	SM 100110 (01/2009/000)	Apr-17	Power-meter NFT-ZR1	SM 100110	SM 100110 (01/2009/000)	Apr-17	Power meter NFT-ZR1	SM 100110	SM 100110 (01/2009/000)	Apr-17	Reference GR 05 Antennas	SM 100110	SM 100110 (01/2009/000)	Apr-17	Type-Test Measurement	SM 100110 (01/2009/000)	SM 100110 (01/2009/000)	Apr-17	Antenna Probe ETSI/CE	SM 100110	SM 100110 (01/2009/000)	Apr-17	SGA	SGA-001	SGA-001 (01/2009/000)	Oct-17	Instrument	GR 01	GR 02 (Certificate No.)	Substitution Parameter	Power-meter ETSI/CE	SM 100110 (01/2009/000)	SM 100110 (01/2009/000)	SM 100110 (01/2009/000)	Power-meter NFT-ZR1	SM 100110 (01/2009/000)	SM 100110 (01/2009/000)	SM 100110 (01/2009/000)	Power-meter NFT-ZR1	SM 100110 (01/2009/000)	SM 100110 (01/2009/000)	SM 100110 (01/2009/000)	HP genetron N63 941100	SM 100110	SM 100110 (01/2009/000)	SM 100110 (01/2009/000)	Network Analyzer HP 8752E	SM 100110	SM 100110 (01/2009/000)	SM 100110 (01/2009/000)	<p align="center">D2450V2 Sn:738</p> <div style="border: 1px solid black; padding: 10px;"> <div style="display: flex; justify-content: space-around; font-size: small;"> Calibration Laboratory of: Schmid & Partner Engineering AG Engenstrasse 18, 8001 Zürich, Switzerland B: Bremgartenstrasse 10, 8001 Zürich, Switzerland C: Bernoullistrasse 10, 8001 Zürich, Switzerland D: Swiss Calibration Service </div> <p>Accreditation No.: SCS 0108 The Swiss Accreditation Body is liable for the correctness of the data. Multilateral Agreement for the recognition of calibration certificates</p> <p>Glossary: TSL: tissue simulating liquid ComF: sensitivity in TSL / NORTEL x,y,z N/A: not applicable or not measured</p> <p>Calibration is Performed According to the Following Standards:</p> <ul style="list-style-type: none"> a) IEEE Std 1529-2010, "IEEE Recommended Practice for Determining the Peak 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 handheld devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005 c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communications devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010 d) ICNIRP 66656, "SAR Measurement Requirements for 100 MHz to 6 GHz" <p>Additional Documentation: a) DASY8 System Handbook</p> <p>Metrics Applied and Interpretation of Parameters:</p> <ul style="list-style-type: none"> ▪ Measurement Conditions: Further details are available from the Validation Report at the end of this document. All figures stated in the certificate are valid at the frequency indicated. ▪ Antenna Parameters with TSL: The dipole is immersed with the spacer to prevent its field from being blocked. A corner matching of the test phantom section, with the arms oriented parallel to the field 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. <p>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%.</p> <p>Certificate No.: D2450V2-738, Oct/18</p> <p>Page 2 of 10</p> </div>																																												
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The center connection of the feeding line is directly connected to the assembly of the dipole. The antenna is therefore characterized for DC voltage. On some of the dipole, small air gaps are added to the dipole arms in order to improve matching when tested according to the position as specified in the standard. The SAR data are not affected by this change. The overall dipole length is still according to the standard.</p> <p>No excessive force must be applied to the dipole arms, because they might bend or the solder connections near the feedpoint may be damaged.</p> <p>Additional EUT Data</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Manufactured by</th> <th>SPREAD</th> </tr> <tr> <th>Manufactured on</th> <th>August 10, 2018</th> </tr> </thead> </table>	Impedance, transformed to feed point	46.7 ± 0.1 MΩ	Return Loss	-27.3 dB	Impedance, transformed to feed point	46.7 ± 0.1 MΩ	Return Loss	-28.0 dB	Electrical Delay over distance	1.187 ms	Manufactured by	SPREAD	Manufactured on	August 10, 2018
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D2450V2 Sn:738

DASYS Validation Report for Head TSL.

Date: 25.10.2016

Test Laboratory: SPEAG, Zürich, Switzerland

DET: Dipole 2450 MHz; Type: D2450V2 - SN:738

Communication System: U2D 0 - CW; Frequency: 2450 MHz

Median passivities used: $\ell = 2850$ MHz, $\alpha = 1.47 \text{ dB}$, $\beta = 30.2$, $\rho = 1000 \text{ kg/m}^3$

Phantom series: Flat Series

Movement Standard: DASY3 (IEEE/IEC/ANSI/CIO 19-2011)

DASY32 Configuration:

- Probe: EK3D94 - RST740; Class/F(7.22, 7.72, 7.72); Calibrated: 15.08.2016;
- Sensor-Surface: 1-Axis (Mechanical Surface Detector)
- Electronics: DAES 1401; Calibrated: 30.12.2013
- Phantom: Flat Phantom 5.0 (Front); Type: QD000PSA/A; Serial: 1001
- DASY32 SU 8.8 (128); SEMCAD X 14.6.0(1312)

Dipole Calibration for Head Tissue/Phn=200 mW, d=10mm/Zoom Scan (7x7)/Cube 0:

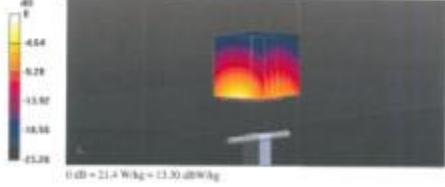
Measurement grid: $d_x=5\text{mm}$, $d_y=5\text{mm}$, $d_z=5\text{mm}$

Reference Value = 11.7 V/m Power Distr = 0.04 dB

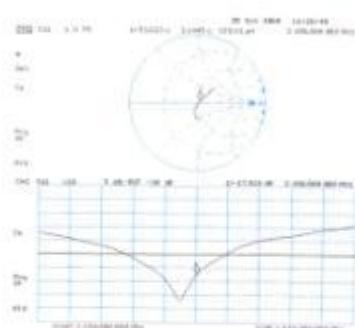
Peak SAR (extrapolated) = 21.4 W/kg

SAR(1 g) = 13.1 W/kg; SAR(10 g) = 6.87 W/kg

Minimum value of SAR (measured) = 21.4 W/kg



Impedance Measurement Plot for Head TSL.



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Certificate No: 104040-738_0010

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DASYS Validation Report for Body TSL.

Date: 25.10.2016

Test Laboratory: SPEAG, Zürich, Switzerland

DET: Dipole 2450 MHz; Type: D2450V2 - SN:738

Median passivities used: $\ell = 2850$ MHz, $\alpha = 2.02 \text{ dB}$, $\beta = 51.3$, $\rho = 1000 \text{ kg/m}^3$

Phantom series: Flat Series

Movement Standard: DASY3 (IEEE/IEC/ANSI/CIO 19-2011)

DASY32 Configuration:

- Probe: EK3D94 - RST740; Class/F(7.22, 7.72, 7.72); Calibrated: 15.08.2016;
- Sensor-Surface: 1-Axis (Mechanical Surface Detector)
- Electronics: DAES 1401; Calibrated: 30.12.2013
- Phantom: Flat Phantom 5.0 (Back); Type: QD000PSA/A; Serial: 1001
- DASY32 SU 8.8 (128); SEMCAD X 14.6.0(1312)

Dipole Calibration for Body Tissue/Phn=200 mW, d=10mm/Zoom Scan (7x7)/Cube 0:

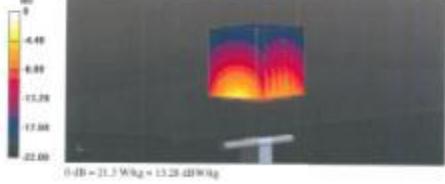
Measurement grid: $d_x=5\text{mm}$, $d_y=5\text{mm}$, $d_z=5\text{mm}$

Reference Value = 107.3 V/m Power Distr = 0.04 dB

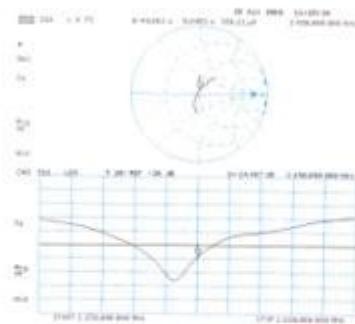
Peak SAR (extrapolated) = 26.0 W/kg

SAR(1 g) = 13 W/kg; SAR(10 g) = 6.88 W/kg

Minimum value of SAR (measured) = 21.3 W/kg



Impedance Measurement Plot for Body TSL.



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Certificate No: 104040-738_0010

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The State Radio Monitoring Center Testing Center
国家无线电监测中心检测中心

No.:SRTC2017-9004(F)-0046
FCC ID: 2ADOBF10

D2600V2 Sn:1089

Calibration Laboratory of
Schock & Partner
Engineering AG
Zugspitzstrasse 20, 8050 Zürich, Switzerland

S Sponsored by the International
Electrotechnical Commission
for the purpose of interlaboratory
comparisons of measurement
institute

Accredited No. SGS 0108

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

client: Sony Mobile CH (Fresc)

Contact no.: 02289912-1089, Jeff18

CALIBRATION CERTIFICATE

Date: D2600V2 - SN: 1089

Certification procedure: QA-CAL-Q5/V
Calibration procedure for dipole validation kits above 700 MHz

Test date: July 13, 2010

This Calibration Certificate concerns the feasibility of radio devices, which makes the procedure valid for measurements up to 3 GHz.
The measurements and the conclusions drawn therefrom pertain only to the testing equipment used part of the specified.

All calibrations have been carried out in accordance with the requirements of the following documents:

IEC 62209-1, IEC 62209-2, IEC 62209-3

IEC 62209-4, IEC 62209-5, IEC 62209-6

IEC 62209-7, IEC 62209-8, IEC 62209-9

IEC 62209-10, IEC 62209-11, IEC 62209-12

IEC 62209-13, IEC 62209-14, IEC 62209-15

IEC 62209-16, IEC 62209-17, IEC 62209-18

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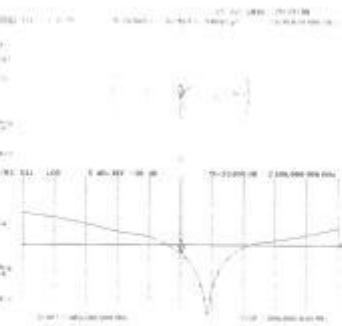
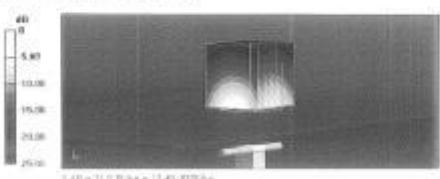
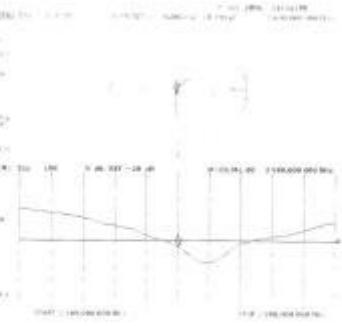
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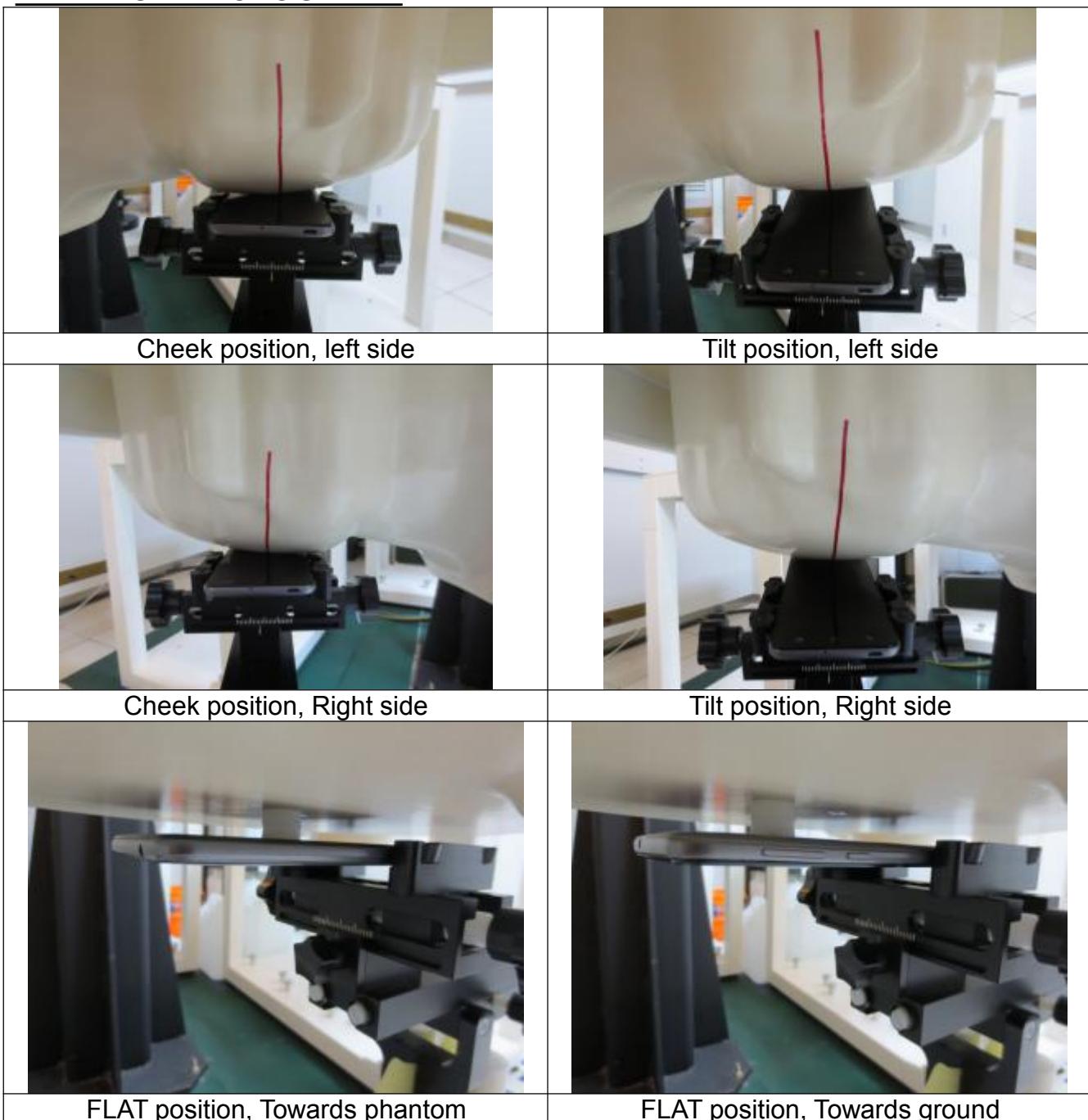
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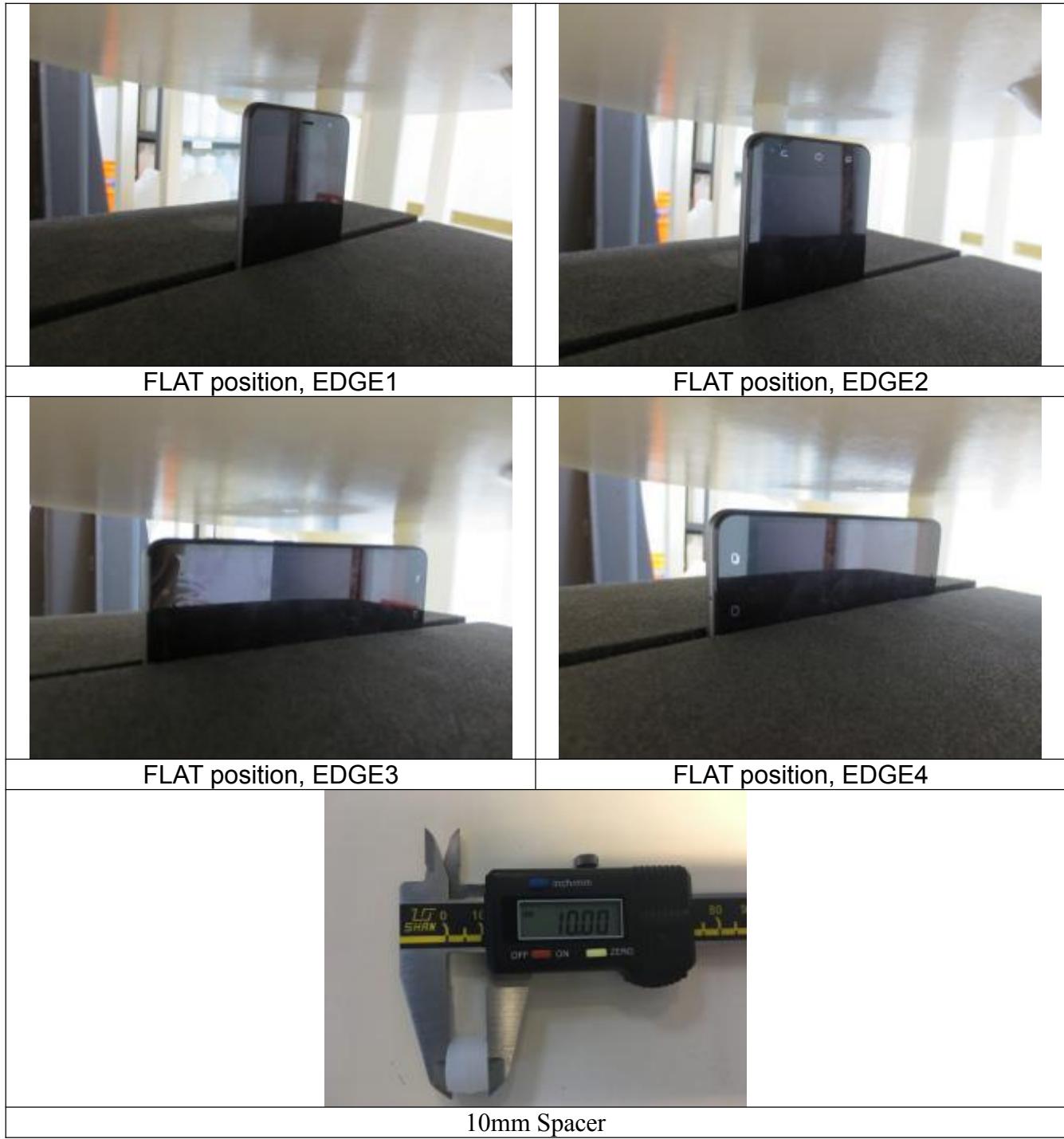
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D2600V2 Sn:1089

<p>DASYS Validation Report for Head TSL.</p> <p>Date: 13/07/2010</p> <p>Test Equipment: APD200 Patch, Network Link</p> <p>BUT: Dipole 2600 MHz, Type: D2600V2, Serial: D2600V2-SN:1089</p> <p>Communication System: TD-LTE-CW, Frequency: 2600 MHz</p> <p>Max power output = 1.2600 Wtts, n = 2.82 Ohm, c = 57.9, μ = 0.0001 kg/m</p> <p>Planar antenna: FPC-Antenna</p> <p>Measurement Standard: DASYS (IEEE/IEC/ANSI/CISPR 2010)</p> <p>DASYS2 Configuration:</p> <ul style="list-style-type: none"> • Power: ETSI/ETSI-305/EN 300-226 Class 15.95, 7.46, 7.49, Calibration: 15.95/2010 • Source: Source 1-Antennas (External Surface Detector) • Emission: DASYS-SN01, Calibrated: 30.12.2010 • Receiver: Flat Planar 5.0 Ohm, Type: QDR00PSAA, Serial: 1001 • DASYS2 SN:1089 (25% SRMCAD X 14.6, SN:772) <p>Dipole Calibration for Head Tissue/Planck250 mW, d=10mm/Zoom Scan (7x7x7) (dile):</p> <p>Measurement grid: distance, distance, distance</p> <p>Reference Value = 17.2 Wtts, Power DAB = 0.17 Wtts</p> <p>Peak SAR measurement = 17.2 W/kg</p> <p>SAR10 g = 14.6 W/kg, SAR10 g = 6.46 W/kg</p> <p>Maximum value of SAR component = 25.0 W/kg</p>  <p>Page 1 of 6</p>	<p>Impedance Measurement Plot for Head TSL.</p>  <p>Page 2 of 6</p>
<p>DASYS Validation Report for Body TSL.</p> <p>Date: 13/07/2010</p> <p>Test Equipment: APD200 Patch, Network Link</p> <p>BUT: Dipole 2600 MHz, Type: D2600V2, Serial: D2600V2-SN:1089</p> <p>Communication System: TD-LTE-CW, Frequency: 2600 MHz</p> <p>Max power output = 1.2600 Wtts, n = 2.2 Ohm, c = 51.4, μ = 0.0001 kg/m</p> <p>Planar antenna: FPC-Antenna</p> <p>Measurement Standard: DASYS (IEEE/IEC/ANSI/CISPR 2010)</p> <p>DASYS2 Configuration:</p> <ul style="list-style-type: none"> • Power: ETSI/ETSI-305/EN 300-226 Class 15.95, 7.46, 7.49, Calibration: 15.95/2010 • Source: Source 1-Antennas (External Surface Detector) • Emission: DASYS-SN01, Calibrated: 30.12.2010 • Receiver: Flat Planar 5.0 Ohm, Type: QDR00PSAA, Serial: 1002 • DASYS2 SN:1089 (25% SRMCAD X 14.6, SN:772) <p>Dipole Calibration for Body Tissue/Planck250 mW, d=10mm/Zoom Scan (7x7x7) (dile):</p> <p>Measurement grid: distance, distance, distance</p> <p>Reference Value = 10.3 Wtts, Power DAB = 0.103 Wtts</p> <p>Peak SAR component = 10.3 W/kg</p> <p>SAR10 g = 13.6 W/kg, SAR10 g = 6.00 W/kg</p> <p>Maximum value of SAR component = 22.9 W/kg</p>  <p>Page 1 of 6</p>	<p>Impedance Measurement Plot for Body TSL.</p>  <p>Page 2 of 6</p>

ANNEX C – PHOTOGRAPH





---End of Test Report---