



SAR TEST REPORT

On Behalf of

SHENZHEN XINFENGWEIYE TECHNOLOGY CO., LTD.

Product Name:	4G LTE wireless routers
Trademark:	N/A
Model :	4G185 4G180, D523, D921.
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TABLE OF CONTENTS

Test Report Declaration	Page
1. GENERAL INFORMATION	3
1.1 EUT Description	4
1.2 Antenna List	4
1.3 Test Environment	4
2. SAR MEASUREMENT SYSTEM	4
2.1 DASY5 System Description.....	5
2.1.1 Applications.....	5
2.1.2 Area Scans.....	6
2.1.3 Zoom Scan (Cube Scan Averaging).....	6
2.1.4 Uncertainty of Inter-/Extrapolation and Averaging.....	6
2.2 DASY5 E-Field Probe.....	7
2.2.1 Isotropic E-Field Probe Specification	7
2.3 Boundary Detection Unit and Probe Mounting Device.....	8
2.4 DATAAcquisition Electronics (DAE) and Measurement Server.....	8
2.5 Robot.....	9
2.6 Light Beam Unit.....	9
2.7 Device Holder	10
2.8 SAM Twin Phantom.....	10
3. TISSUE SIMULATING LIQUID	11
3.1 The composition of the tissue simulating liquid.....	11
3.2 Tissue Calibration Result	11
3.3 Tissue Dielectric Parameters for Head and Body Phantoms	12
4. SAR MEASUREMENT PROCEDURE	13
4.1 SAR Measurement Procedure	13
5. SAR EXPOSURE LIMITS	14
6. TEST EQUIPMENT LIST	15
7. MEASUREMENT UNCERTAINTY	16
8. TEST RESULTS	17
APPENDIX A. SAR MEASUREMENT DATA	22
APPENDIX B. EUT PHOTOGRAPHS	65



1. General Information

1.1 EUT Description

Product Name	4G LTE wireless routers
Trademark	N/A
Model No.	4G185 4G180, D523, D921.
TX Frequency	2.4GHz GSM900: 880-915MHz DSC1800: 1710-1785MHz
Type of Modulation	WiFi: 802.11b/g/n(20MHz): 2412~2472MHz 802.11n(40MHz):2422~2462MHz
Antenna Type	Internal Antenna
Antenna Kit	Refer Antenna list
Device Category	Portable
RF Exposure Environment	Uncontrolled

1.2 Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	JOINSOON	1510-0105-0051	PIFA	0.94 dBi

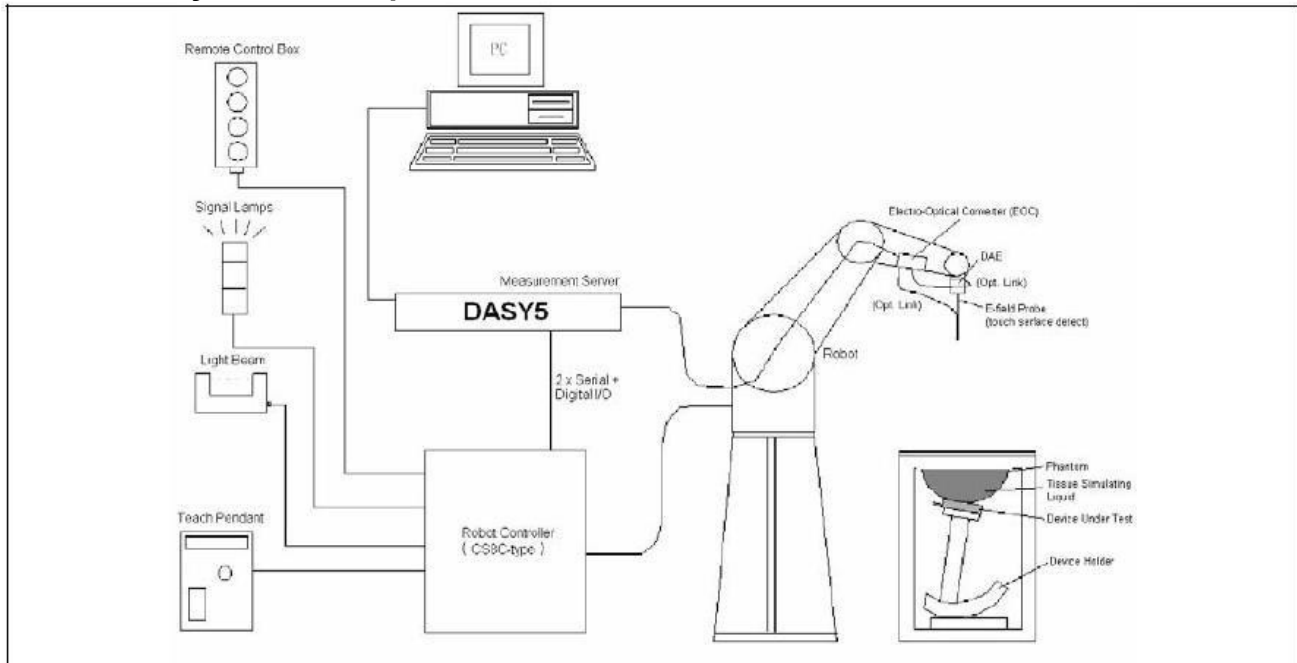
1.3 Test Environment

Ambient conditions in the laboratory:

Items	Required	Actual
Temperature(°C)	18-25	23.1± 2
Humidity(%RH)	30-70	51

2. SAR Measurement System

2.1 DASY5 System Description



The DASY5 system for performing compliance tests consists of the following items:

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

- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.

- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.

- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.

- A computer running WinXP and the DASY5 software.

- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.

- The phantom, the device holder and other accessories according to the targeted measurement.

2.1.1 Applications

Predefined procedures and evaluations for automated compliance testing with all worldwide standards, e.g., IEEE 1528, OET 65, EN 62209-1, EN 62209-2, EN 50556, EN50383 and others.

2.1.2 Area Scans

Area scans are defined prior to the measurement process being executed with a user defined variable spacing between each measurement point (integral) allowing low uncertainty measurements to be conducted. Scans defined for FCC applications utilize a 10mm² step integral, with 1mm interpolation used to locate the peak SAR area used for zoom scan assessments.

When an Area Scan has measured all reachable points, it computes the field maxima found in the scanned area, within a range of the global maximum. The range (in dB) is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE 1528-2003, EN 50556 and EN 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan).

2.1.3 Zoom Scan (Cube Scan Averaging)

Zoom Scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 g and 10 g of simulated tissue. A density of 1000 kg/m³ is used to represent the head and body tissue density and not the phantom liquid density, in order to be consistent with the definition of the liquid dielectric properties, i.e. the side length of the 1 g cube is 10mm, with the side length of the 10 g cube 21,5mm.

The zoom scan integer steps can be user defined so as to reduce uncertainty, but normal practice for typical test applications (including FCC) utilize a physical step of 5x5x7 (8mmx8mmx5mm) providing a volume of 32mm in the X & Y axis, and 30mm in the Z axis.

2.1.4 Uncertainty of Inter-/Extrapolation and Averaging

In order to evaluate the uncertainty of the interpolation, extrapolation and averaged SAR calculation algorithms of the Postprocessor, DASY5 allows the generation of measurement grids which are artificially predefined by analytically based test functions. Therefore, the grids of area scans and zoom scans can be filled with uncertainty test data, according to the SAR benchmark functions of IEEE 1528. The three analytical functions shown in equations as below are used to describe the possible range of the expected SAR distributions for the tested handsets. The field gradients are covered by the spatially flat distribution f1, the spatially steep distribution f3 and f2 accounts for H-field cancellation on the phantom/tissue surface.

$$f_1(x, y, z) = Ae^{-\frac{z}{2a}} \cos^2 \left(\frac{\pi}{2} \frac{\sqrt{x'^2 + y'^2}}{5a} \right)$$

$$f_2(x, y, z) = Ae^{-\frac{z}{a}} \frac{a^2}{a^2 + x'^2} \left(3 - e^{-\frac{2z}{a}} \right) \cos^2 \left(\frac{\pi}{2} \frac{y'}{3a} \right)$$


$$f_3(x, y, z) = A \frac{a^2}{\frac{a^2}{4} + x'^2 + y'^2} \left(e^{-\frac{2z}{a}} + \frac{a^2}{2(a + 2z)^2} \right)$$

2.2 DASY5 E-Field Probe

The SAR measurement is conducted with the dosimetric probe manufactured by SPEAG. The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency.

SPEAG conducts the probe calibration in compliance with international and national standards (e.g. IEEE 1528, EN 62209-1, EN 62209-2, etc.) under ISO 17025. The calibration data are in Appendix D.

2.2.1 Isotropic E-Field Probe Specification

Model	EX3DV4	
Construction	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	10 MHz to 6 GHz Linearity: ± 0.2 dB (30 MHz to 6 GHz)	
Directivity	± 0.3 dB in HSL (rotation around probe axis) ±0.5 dB in tissue material (rotation normal to probe axis)	
Dynamic Range	10 µW/g to 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 µW/g)	
Dimensions	Overall length: 330 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm	
Application	High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields). Only probe which enables complia	

2.3 Boundary Detection Unit and Probe Mounting Device

The DASY probes use a precise connector and an additional holder for the probe, consisting of a plastic tube and a flexible silicon ring to center the probe. The connector at the DAE is flexibly mounted and held in the default position with magnets and springs. Two switching systems in the connector mount detect frontal and lateral probe collisions and trigger the necessary software response.



2.4 DATA Acquisition Electronics (DAE) and Measurement Server

The data acquisition electronics (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 measurement server is accomplished through an optical downlink for data and status information as well as an optical uplink for commands and the clock. The input impedance of the DAE4 is 200M Ohm; the inputs are symmetrical and floating. Common mode rejection is above 80dB.



The DASY5 measurement server is based on a PC/104 CPU board with a 400MHz intel ULV Celeron, 128MB chipdisk and 128MB RAM. The necessary circuits for communication with the DAE electronics box, as well as the 16 bit AD converter system for optical detection and digital I/O interface are contained on the DASY5 I/O board, which is directly connected to the PC/104 bus of the CPU board.



2.5 Robot

The DASY5 system uses the high precision robots TX90 XL type out of the newer series from Stäubli SA (France). For the 6-axis controller DASY5 system, the CS8C robot controller version from Stäubli is used.

The XL robot series have many features that are important

for our application:

- High precision (repeatability 0.02 mm)
- High reliability (industrial design)
- Jerk-free straight movements
- Low ELF interference (the closed metallic

construction

shields against motor control fields)

- 6-axis controller



2.6 Light Beam Unit

The light beam switch allows automatic "tooling" of the probe. During the process, the actual position of the probe

tip with respect to the robot arm is measured, as well as the

probe length and the horizontal probe offset. The software

then corrects all movements, such that the robot coordinates are valid for the probe tip.

The repeatability of this process is better than 0.1 mm. If a

position has been taught with an aligned probe, the same position will be reached with another aligned probe within 0.1 mm, even if the other probe has different dimensions.

During probe rotations, the probe tip will keep its actual position.



2.7 Device Holder

The DASY5 device holder is designed to cope with different positions given in the standard. It has two scales for the device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear reference points). The rotation center for both scales is the ear reference point (EPR). Thus the device needs no repositioning when changing the angles.

The DASY5 device holder has been made out of low-loss POM material having the following dielectric parameters: relative permittivity $\epsilon_r = 3$ and loss tangent $\delta = 0.02$. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered.



2.8 SAM Twin Phantom

The SAM twin phantom is a fiberglass shell phantom with 2mm shell thickness (except the ear region where shell thickness increases to 6mm). It has three measurement areas:

- Left head
- Right head
- Flat phantom



The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. A white cover is provided to tap the phantom during off-periods to prevent water evaporation and changes in the liquid parameters. On the phantom top, three reference markers are provided to identify the phantom position with respect to the robot.

3. Tissue Simulating Liquid

3.1 The composition of the tissue simulating liquid

INGREDIENT (% Weight)	2450MHz Head	2450MHz Body	5200MHz Head	5200MHz Body	5800MHz Head	5800MHz Body
Water	46.6	-	-	-	-	-
Salt	0.00	-	-	-	-	-
Sugar	0.00	-	-	-	-	-
HEC	0.00	-	-	-	-	-
Preventol	0.00	-	-	-	-	-
DGBE	53.1	-	-	-	-	-
Triton X-100	46.7	-	-	-	-	-

3.2 Tissue Calibration Result

The dielectric parameters of the liquids were verified prior to the SAR evaluation using APREL Dielectric Probe Kit and Anritsu MS4623B Vector Network Analyzer.

Head/Body Tissue Simulate Measurement

Head/Body Tissue Simulate Measurement				
Frequency [MHz]	Description	Dielectric Parameters		Tissue Temp. [°C]
		ϵ_r	σ [s/m]	
900MHz	Reference result $\pm 5\%$ window	42	1	N/A
		39.9 to 44.1	0.95 to 1.805	
		43.3	1.01	21.6
1800MHz	Reference result $\pm 5\%$ window	39.9	1.42	N/A
		37.925 to 41.875	1.349 to 1.491	
		38.9	1.38	21.6
2450MHz	Reference result $\pm 5\%$ window	39.2	1.8	N/A
		37.24 to 41.16	1.71 to 1.89	
		40.36	1.06	21.6

3.3 Tissue Dielectric Parameters for Head and Body Phantoms

The head tissue dielectric parameters recommended by the IEEE SCC-34/SC-2 in P1528 have been incorporated in the following table. These head parameters are derived from planar layer models simulating the highest expected SAR for the dielectric properties and tissue thickness variations in a human head. Other head and body tissue parameters that have not been specified in P1528 are derived from the tissue dielectric parameters computed from the 4-Cole-Cole equations described in Reference [12] and extrapolated according to the head parameters specified in P1528.

Target Frequency (MHz)	Head		Body	
	ϵ_r	σ [s/m]	ϵ_r	σ [s/m]
150	52.3	0.76	61.9	0.80
300	45.3	0.87	58.2	0.92
450	43.5	0.87	56.7	0.94
835	41.5	0.90	55.2	0.97
900	41.5	0.97	55.0	1.05
915	41.5	0.98	55.0	1.06
1450	40.5	1.20	54.0	1.30
1610	40.3	1.29	53.8	1.40
1800-2000	40.0	1.40	53.3	1.52
2450	39.2	1.80	52.7	1.95
3000	38.5	2.40	52.0	2.73
5800	35.3	5.27	48.2	6.00

(ϵ_r = relative permittivity, σ = conductivity and $\rho = 1000 \text{ kg/m}^3$)

4. SAR Measurement Procedure

4.1 SAR Measurement Procedure

The DASY 5 calculates SAR using the following equation,

$$SAR = \frac{\sigma |E|^2}{\rho}$$

σ : represents the simulated tissue conductivity

ρ : represents the tissue density

The EUT is set to transmit at the required power in line with product specification, at each frequency relating to the LOW, MID, and HIGH channel settings.

Pre-scans are made on the device to establish the location for the transmitting antenna, using a large area scan in either air or tissue simulation fluid.

The EUT is placed against the Universal Phantom where the maximum area scan dimensions are larger than the physical size of the resonating antenna. When the scan size is not large enough to cover the peak SAR distribution, it is modified by either extending the area scan size in both the X and Y directions, or the device is shifted within the predefined area.

The area scan is then run to establish the peak SAR location (interpolated resolution set at 1mm²) which is then used to orient the center of the zoom scan. The zoom scan is then executed and the 1g and 10g averages are derived from the zoom scan volume (interpolated resolution set at 1mm³).



5. SAR Exposure Limits

SAR assessments have been made in line with the requirements of 1999/519/EC, EN50556.

Limits for General Population/Uncontrolled Exposure (W/kg)

Type Exposure (W/kg)	Uncontrolled Environment Limit
Spatial Peak SAR (10g cube tissue for head and trunk)	2.00 W/kg
Spatial Average SAR (whole body)	0.08 W/kg
Spatial Peak SAR (10g for limb)	4.00 W/kg



6. Test Equipment List

Instrument	Manufacturer	Model No.	Serial No.	Last Calibration	Next Calibration
Stäubli Robot TX60L	Stäubli	TX60L	F09/5BL1A1/A06	May. 2017	only once
Controller	Speag	CS8c	N/A	May. 2017	only once
Aprél Reference Dipole 2450MHz	Aprél	ALS-D-2450	QTK-319	May. 2017	only once
SAM Twin Phantom	Speag	QD000 P40 CA	Tp 1515	N/A	N/A
Device Holder	Speag	N/A	N/A	N/A	N/A
Data Acquisition Electronic	Speag	DAE4	1207	May. 2017	only once
E-Field Probe	Speag	EX3DV4	3698	May. 2017	only once
SAR Software	Speag	DASY52	V52.2 Build 0	N/A	N/A
Aprél Dipole Spaccer	Aprél	ALS-DS-U	QTK-295	N/A	N/A
Power Amplifier	Mini-Circuit	ZHL-42	D051404-20	N/A	N/A
Directional Coupler	Agilent	778D-012	50550	N/A	N/A
Universal Radio Communication Tester	R&S	CMU 200	104846	May. 2017	only once
Vector Network	Anritsu	MS4623B	992801	May. 2017	only once
Signal Generator	Anritsu	MG3692A	042319	May. 2017	only once
Power Meter	Anritsu	ML2487A	6K00001447	May. 2017	only once
Wide Bandwidth Sensor	Anritsu	MA2491	030677	May. 2017	only once



7. Measurement Uncertainty

Uncertainty								
Error Description	Uncertainty value	Prob. Dist.	Div.	(c _i)1g	(c _i)10g	Std. Unc.(1g)	Std. Unc. (10g)	(v _i)V _{eff}
Measurement System								
Probe Calibration	±5.9%	N	1	1	1	±5.9%	±5.9%	∞
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 Positioning	±2.9%	N	1	1	1	±2.9%	±2.9%	145
Device Holder	±3.6%	N	1	1	1	±3.6%	±3.6%	5
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(meas.)	±2.5%	N	1	0.64	0.43	±1.6%	±1.1%	∞
Liquid Permittivity(target)	±5.0%	R	$\sqrt{3}$	0.6	0.49	±1.7%	±1.4%	∞
Liquid Permittivity (meas.)	±2.5%	N	1	0.6	0.49	±1.5%	±1.2%	∞
Combined Std. Uncertainty						±10.9%	±10.7%	387
Expanded STD Uncertainty						±21.9%	±21.4%	



8. Test Results

SAR MEASUREMENT						
Ambient Temperature (°C) : 21.5 ±2				Relative Humidity (%): 55		
Liquid Temperature (°C) : 20.4 ±2				Depth of Liquid (cm):>15		
Test Mode: 802.11n -2450 MHz						
Test Position Head	Antenna Position	Frequency		Conducted Power (dBm)	SAR 10g (W/kg)	Limit (W/kg)
		Channel	MHz			
Top	Fixed	1	2412	15.65	0.033	2
Top	Fixed	7	2442	15.61	0.045	2
Top	Fixed	13	2472	15.72	0.041	2

SAR MEASUREMENT						
Ambient Temperature (°C) : 21.5 ±2				Relative Humidity (%): 55		
Liquid Temperature (°C) : 20.4 ±2				Depth of Liquid (cm):>15		
Test Mode: GSM 900						
Test Position Head	Antenna Position	Frequency		Conducted Power (dBm)	SAR 10g (W/kg)	Limit (W/kg)
		Channel	MHz			
Left-Check	Fixed	975	880.2	32.16	0.443	2
Left-Check	Fixed	37	897.4	32.07	0.301	2
Left-Check	Fixed	124	914.8	32.13	0.213	2
Left-Tilt	Fixed	37	897.4	32.07	0.194	2
Right-Check	Fixed	975	880.2	32.16	0.449	2
Right-Check	Fixed	37	897.4	32.07	0.309	2
Right-Check	Fixed	124	914.8	32.13	0.219	2
Right- Tilt	Fixed	37	897.4	32.07	0.202	2



SAR MEASUREMENT						
Ambient Temperature (°C) : 21.5 ±2				Relative Humidity (%): 55		
Liquid Temperature (°C) : 20.4 ±2				Depth of Liquid (cm):>15		
Test Mode: GSM 900						
Test Position Body	Antenna Position	Frequency		Conducted Power (dBm)	SAR 10g (W/kg)	Limit (W/kg)
		Channel	MHz			
Body-Back	Fixed	975	880.2	32.16	0.300	2
Body-Back	Fixed	37	897.4	32.07	0.201	2
Body-Back	Fixed	124	914.8	32.13	0.142	2
Body-Front	Fixed	37	897.4	32.07	0.145	2
Test Mode: GPRS900 2slot						
Body-Back	Fixed	37	897.4	31.11	0.290	2
Test Mode: GPRS900 3slot						
Body-Back	Fixed	37	897.4	29.64	0.304	2
Test Mode: GPRS900 4slot						
Body-Back	Fixed	975	880.2	28.84	0.202	2
Body-Back	Fixed	37	897.4	28.78	0.306	2
Body-Back	Fixed	124	914.8	28.85	0.485	2
Body-Front	Fixed	37	897.4	28.78	0.222	2



SAR MEASUREMENT						
Ambient Temperature (°C) : 21.5 ±2				Relative Humidity (%): 55		
Liquid Temperature (°C) : 20.4 ±2				Depth of Liquid (cm):>15		
Test Mode: DCS 1800						
Test Position Head	Antenna Position	Frequency		Conducted Power (dBm)	SAR 10g (W/kg)	Limit (W/kg)
		Channel	MHz			
Left-Check	Fixed	512	1710.2	29.77	0.648	2
Left-Check	Fixed	698	1747.4	29.65	0.595	2
Left-Check	Fixed	885	1784.8	29.64	0.541	2
Left-Tilt	Fixed	698	1747.4	29.65	0.116	2
Right-Check	Fixed	512	1710.2	29.77	0.773	2
Right-Check	Fixed	698	1747.4	29.65	0.712	2
Right-Check	Fixed	885	1784.8	29.64	0.653	2
Right- Tilt	Fixed	698	1747.4	29.65	0.114	2



SAR MEASUREMENT						
Ambient Temperature (°C) : 21.5 ±2				Relative Humidity (%): 55		
Liquid Temperature (°C) : 20.4 ±2				Depth of Liquid (cm):>15		
Test Mode: DCS 1800						
Test Position Body	Antenna Position	Frequency		Conducted Power (dBm)	SAR 10g (W/kg)	Limit (W/kg)
		Channel	MHz			
Body-Back	Fixed	512	1710.2	29.77	0.211	2
Body-Back	Fixed	698	1747.4	29.65	0.168	2
Body-Back	Fixed	885	1784.8	29.64	0.145	2
Body-Front	Fixed	698	1747.4	29.65	0.159	2
Test Mode: GPRS1800 2slot						
Body-Back	Fixed	698	1747.4	28.78	0.264	2
Test Mode: GPRS1800 3slot						
Body-Back	Fixed	698	1747.4	26.83	0.246	2
Test Mode: GPRS1800 4slot						
Body-Back	Fixed	512	1710.2	25.71	0.242	2
Body-Back	Fixed	698	1747.4	25.75	0.256	2
Body-Back	Fixed	885	1784.8	25.92	0.300	2
Body-Back	Fixed	698	1747.4	25.75	0.225	2



Appendix

Appendix A. SAR measurement Data

Appendix B. EUT Photographs

Appendix A. SAR measurement Data

Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

802.11n_1

DUT: 4G LTE wireless routers; Type: 4G185 Communication System: 802.11n;
Frequency: 2412 MHz; Communication System PAR: 0 dB Medium parameters used: f = 2412 MHz; $\sigma = 1.74$ mho/m; $\epsilon_r = 41$; $\rho = 1000$ kg/m³ Phantom section: Flat Section
Ambient Temperature (°C) : 21.5, Liquid Temperature (°C) : 20.4
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 - SN3698; ConvF(6.77, 6.77, 6.77); Calibrated: 7/19/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1207; Calibrated: 4/26/2012
- Phantom: SAM with right table; Type: SAM;
- Measurement SW: DASY52, V52.2 Build 0; Postprocessing SW: SEMCAD X, V14.2 Build 2Version 14.2.2 (1674) (Deployment Build)

Configuration/Head/Area Scan (5x11x1): Measurement grid: dx=13mm, dy=13mm
Maximum value of SAR (measured) = 0.117 mW/g

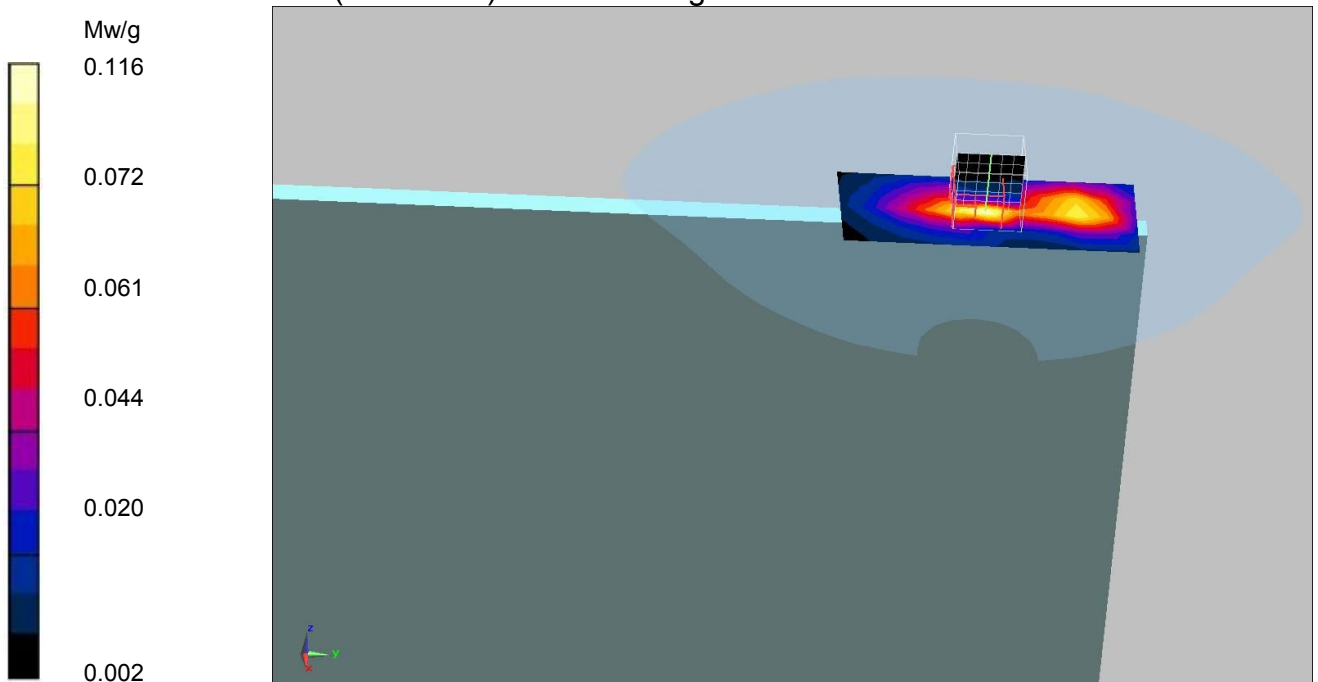
Configuration/Head/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.33V/m; Power Drift = -0.025dB

Peak SAR (extrapolated) = 0.507 W/kg

SAR(1 g) = 0.123mW/g; SAR(10 g) = 0.045mW/g

Maximum value of SAR (measured) = 0.116 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

802.11n_7

DUT: 4G LTE wireless routers; Type: 4G185 Communication System: 802.11n;
Frequency: 2442 MHz; Communication System PAR: 0 dB Medium parameters used: $f = 2442$ MHz; $\sigma = 1.77$ mho/m; $\epsilon_r = 40.6$; $\rho = 1000$ kg/m³ Phantom section: Flat Section
Ambient Temperature (°C) : 21.5, Liquid Temperature (°C) : 20.4
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

Probe: EX3DV4 - SN3698; ConvF(6.77, 6.77, 6.77); Calibrated: 7/19/2012

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1207; Calibrated: 4/26/2012

Phantom: SAM with right table; Type: SAM;

Measurement SW: DASY52, V52.2 Build 0; Postprocessing SW: SEMCAD X, V14.2
Build 2Version 14.2.2 (1674) (Deployment Build)

Configuration/Head/Area Scan (5x11x1): Measurement grid: dx=13mm, dy=13mm
Maximum value of SAR (measured) = 0.111 mW/g

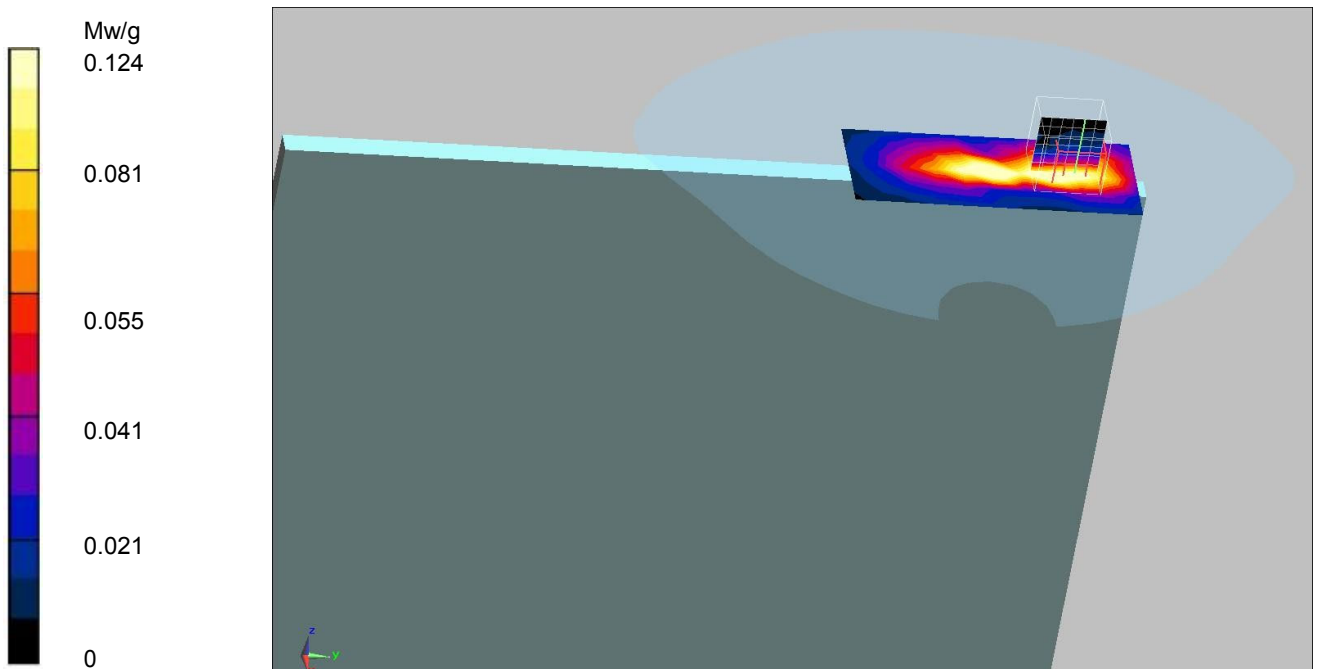
Configuration/Head/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.61V/m; Power Drift = -0.155 dB

Peak SAR (extrapolated) = 0.194 W/kg

SAR(1 g) = 0.110 mW/g; SAR(10 g) = 0.044 mW/g

Maximum value of SAR (measured) = 0.0124 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

802.11n_13

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: 802.11n; Frequency: 2472 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 2472$ MHz; $\sigma = 1.79$ mho/m; $\epsilon_r = 39.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature (°C) : 21.5, Liquid Temperature (°C) : 20.4

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

DASY5 Configuration:

Probe: EX3DV4 - SN3698; ConvF(6.77, 6.77, 6.77); Calibrated: 7/19/2012

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1207; Calibrated: 4/26/2012

Phantom: SAM with right table; Type: SAM;

Measurement SW: DASYS2, V52.2 Build 0; Postprocessing SW: SEMCAD X, V14.2

Build 2Version 14.2.2 (1674) (Deployment Build)

Configuration/Head/Area Scan (5x11x1): Measurement grid: dx=13mm, dy=13mm

Maximum value of SAR (measured) = 0.124 mW/g

Configuration/Head/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

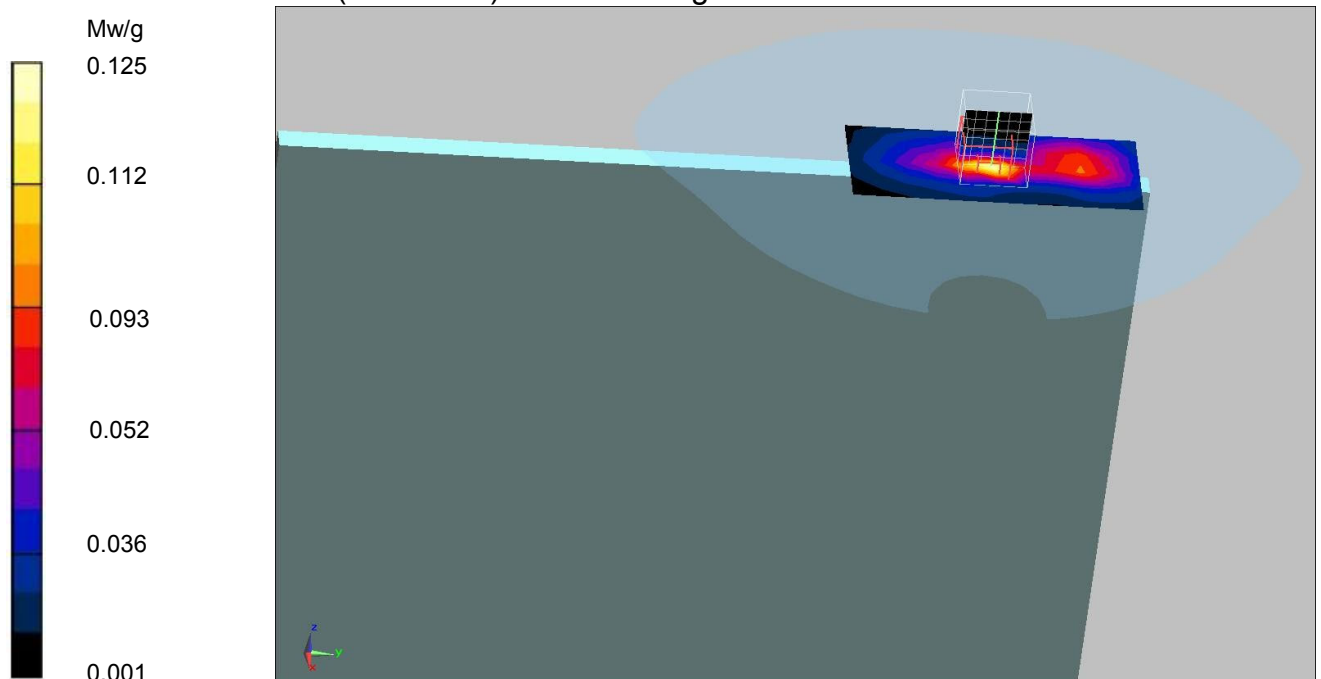
dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.76 V/m; Power Drift = 0.055dB

Peak SAR (extrapolated) = 0.312 W/kg

SAR(1 g) = 0.128 mW/g; SAR(10 g) = 0.053 mW/g

Maximum value of SAR (measured) = 0.125 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

System Check Head 900MHz

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: CW; Communication System Band: D900 (900.0 MHz); Duty Cycle: 1:8.3;
Frequency: 900 MHz; Medium parameters used: $f = 900$ MHz; $\sigma = 1.01$ mho/m; $\epsilon_r = 43.3$; $\rho = 1000$ kg/m³;
Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0;

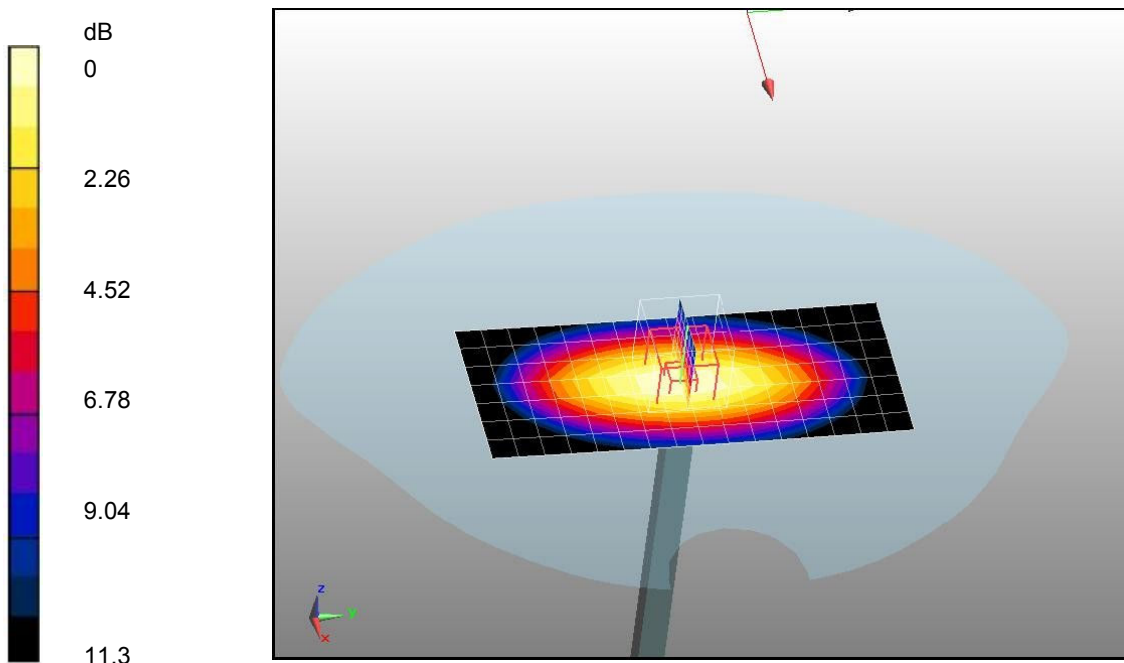
DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(8.73, 8.73, 8.73); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Configuration/System Check GSM900 Head/Area Scan (8x17x1): Measurement grid: dx=10mm, dy=10mm. Maximum value of SAR (measured) = 3.13 mW/g

Configuration/System Check GSM900 Head/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 57.1 V/m; Power Drift = -0.011 dB
Peak SAR (extrapolated) = 4.71 W/kg

SAR(1 g) = 3.04 mW/g; SAR(10 g) = 1.94 mW/g Maximum value of SAR (measured) = 3.29 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

System Check Head 1800MHz

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: CW; Communication System Band: D1800 (1800.0 MHz); Duty Cycle: 1:8.3; Frequency: 1800 MHz; Medium parameters used: $f = 1800$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 38.9$; $\rho = 1000$ kg/m³; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

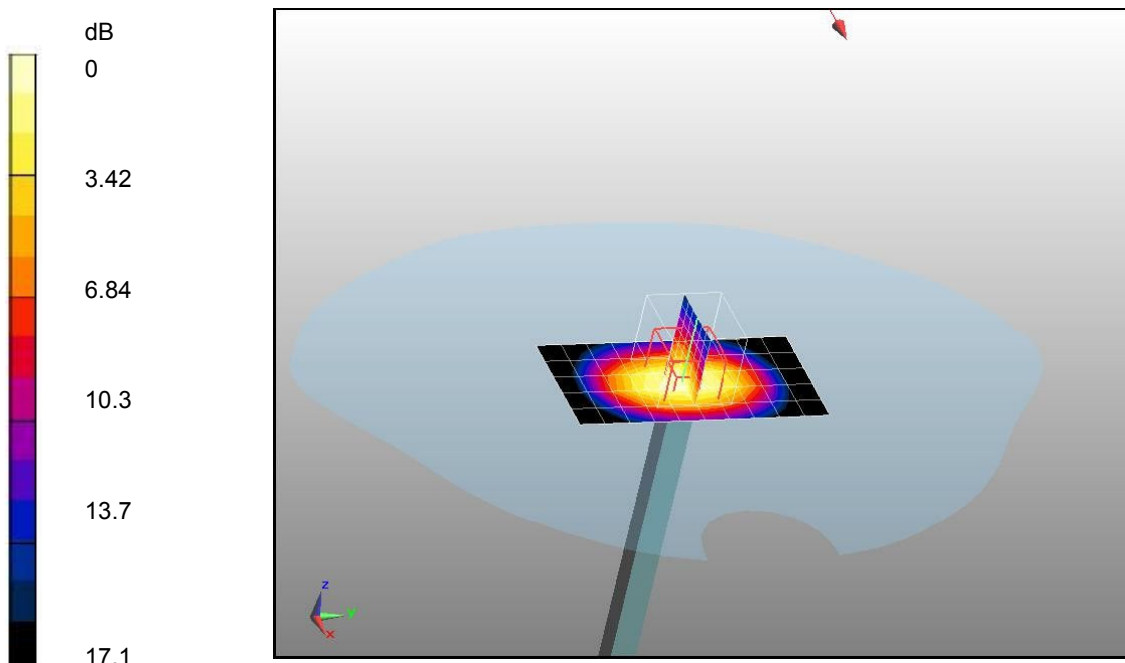
DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.69, 7.69, 7.69); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Configuration/System Check DCS1800 Head/Area Scan (6x11x1): Measurement grid: dx=10mm, dy=10mm. Maximum value of SAR (measured) = 9.44 mW/g

Configuration/System Check DCS1800 Head/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 86.6 V/m; Power Drift = -0.004 dB
Peak SAR (extrapolated) = 17 W/kg

SAR(1 g) = 9.03 mW/g; SAR(10 g) = 4.69 mW/g Maximum value of SAR (measured) = 10.2 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

GSM900 High Touch-Left

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: E-GSM 900 (880.0 - 915.0 MHz); Duty Cycle: 1:8.3; Frequency: 914.8 MHz; Medium parameters used: $f = 914.8$ MHz; $\sigma = 1.03$ mho/m; $\epsilon_r = 43.2$; $\rho = 1000$ kg/m³; Phantom section: Left Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

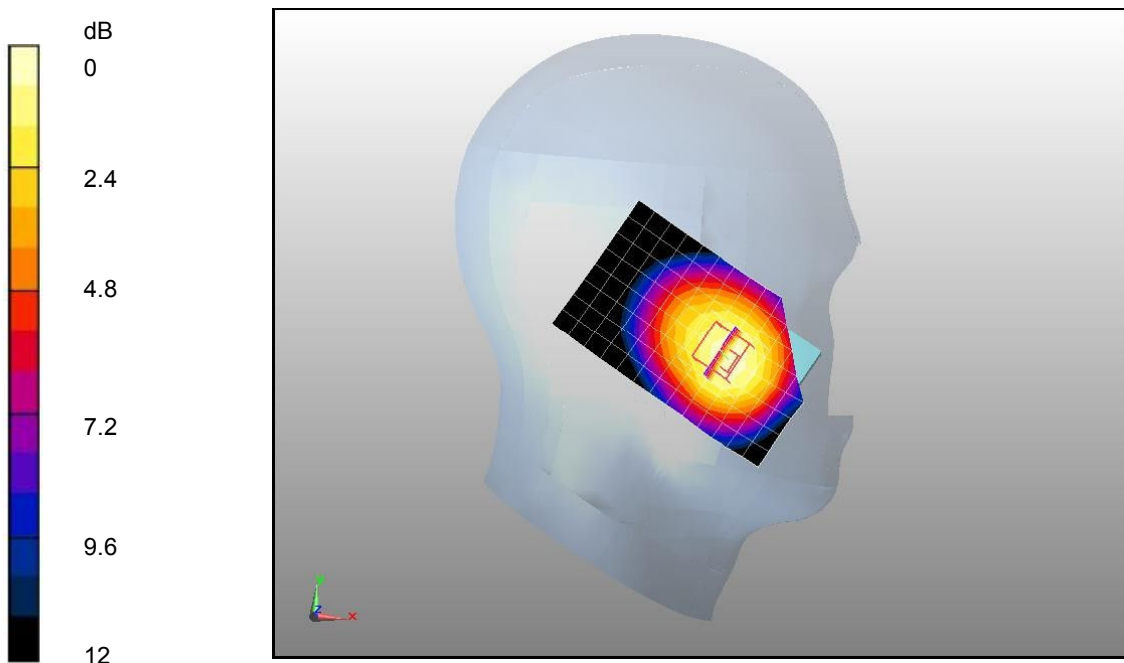
DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(8.73, 8.73, 8.73); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Configuration/GSM900 High Touch-Left/Area Scan (9x14x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.309 mW/g

Configuration/GSM900 High Touch-Left/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 4.75 V/m; Power Drift = 0.028 dB
Peak SAR (extrapolated) = 0.389 W/kg

SAR(1 g) = 0.298 mW/g; SAR(10 g) = 0.213 mW/g Maximum value of SAR (measured) = 0.317 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

GSM900 Mid Touch-Left

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: E-GSM 900 (880.0 - 915.0 MHz); Duty Cycle: 1:8.3; Frequency: 897.4 MHz; Medium parameters used: $f = 897.4$ MHz; $\sigma = 1.01$ mho/m; $\epsilon_r = 43.3$; $\rho = 1000$ kg/m³; Phantom section: Left Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

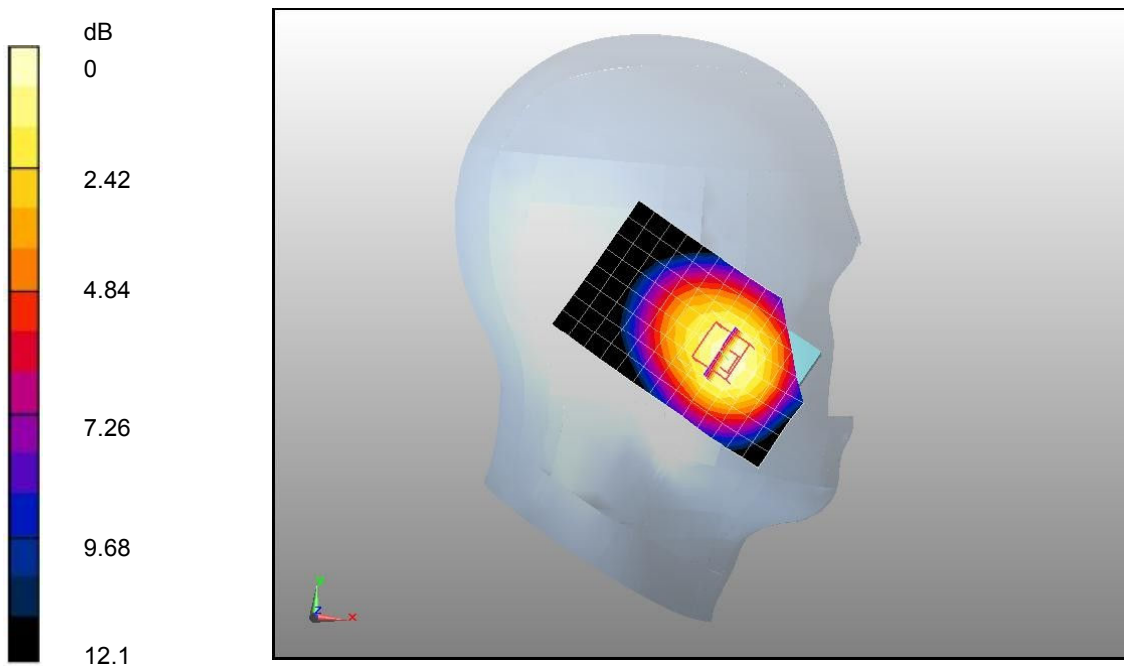
DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(8.73, 8.73, 8.73); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Configuration/GSM900 Mid Touch-Left/Area Scan (9x14x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.443 mW/g

Configuration/GSM900 Mid Touch-Left/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 5.75 V/m; Power Drift = 0.076 dB
Peak SAR (extrapolated) = 0.548 W/kg

SAR(1 g) = 0.420 mW/g; SAR(10 g) = 0.301 mW/g Maximum value of SAR (measured) = 0.446 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

GSM900 Low Touch-Left

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: E-GSM 900 (880.0 - 915.0 MHz); Duty Cycle: 1:8.3; Frequency: 880.2 MHz; Medium parameters used: $f = 880.2$ MHz; $\sigma = 1$ mho/m; $\epsilon_r = 43.5$; $\rho = 1000$ kg/m³; Phantom section: Left Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

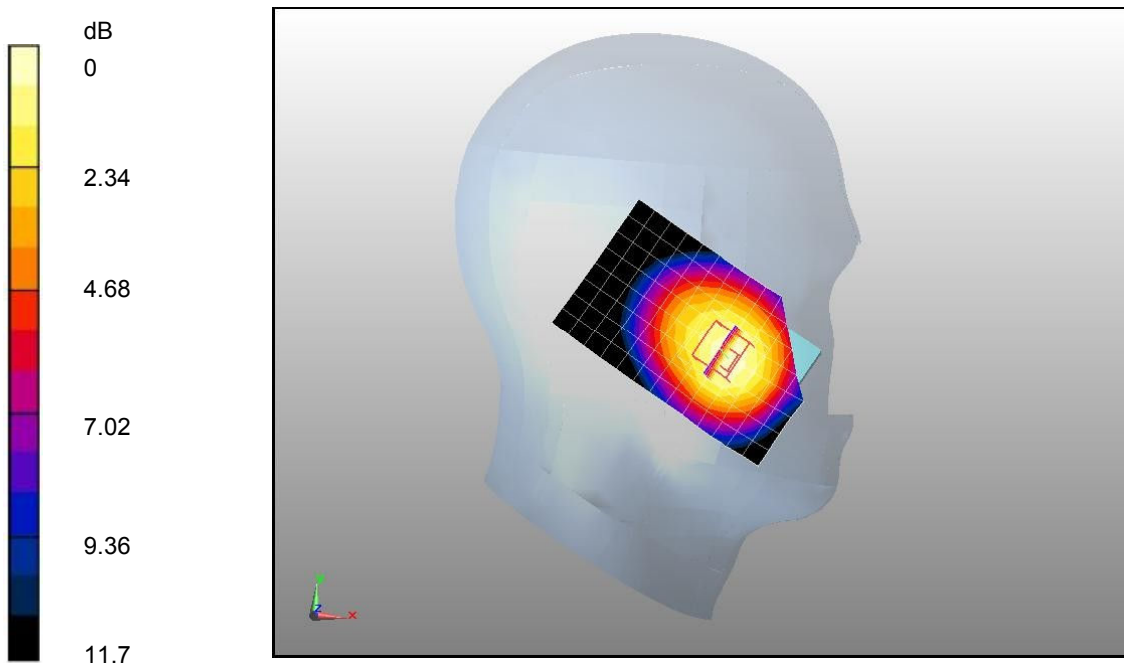
DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(8.73, 8.73, 8.73); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Configuration/GSM900 Low Touch-Left/Area Scan (9x14x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.655 mW/g

Configuration/GSM900 Low Touch-Left/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 7.15 V/m; Power Drift = 0.013 dB
Peak SAR (extrapolated) = 0.798 W/kg

SAR(1 g) = 0.615 mW/g; SAR(10 g) = 0.443 mW/g Maximum value of SAR (measured) = 0.650 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

GSM900 Mid Tilt-Left

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: E-GSM 900 (880.0 - 915.0 MHz); Duty Cycle: 1:8.3; Frequency: 897.4 MHz; Medium parameters used: $f = 897.4$ MHz; $\sigma = 1.01$ mho/m; $\epsilon_r = 43.3$; $\rho = 1000$ kg/m³; Phantom section: Left Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

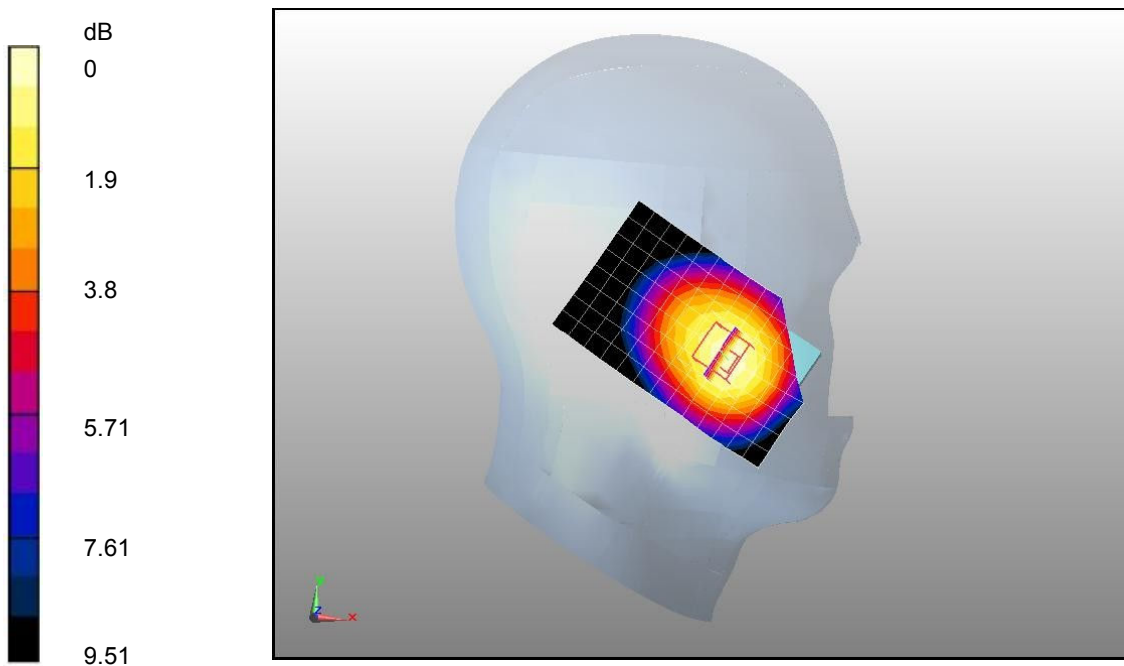
DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(8.73, 8.73, 8.73); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Configuration/GSM900 Mid Tilt-Left/Area Scan (9x14x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.280 mW/g

Configuration/GSM900 Mid Tilt-Left/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 10.5 V/m; Power Drift = -0.008 dB
Peak SAR (extrapolated) = 0.351 W/kg

SAR(1 g) = 0.266 mW/g; SAR(10 g) = 0.194 mW/g Maximum value of SAR (measured) = 0.280 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

GSM900 High Touch-Right

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: E-GSM 900 (880.0 - 915.0 MHz); Duty Cycle: 1:8.3; Frequency: 914.8 MHz; Medium parameters used: $f = 914.8$ MHz; $\sigma = 1.03$ mho/m; $\epsilon_r = 43.2$; $\rho = 1000$ kg/m³; Phantom section: Right Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

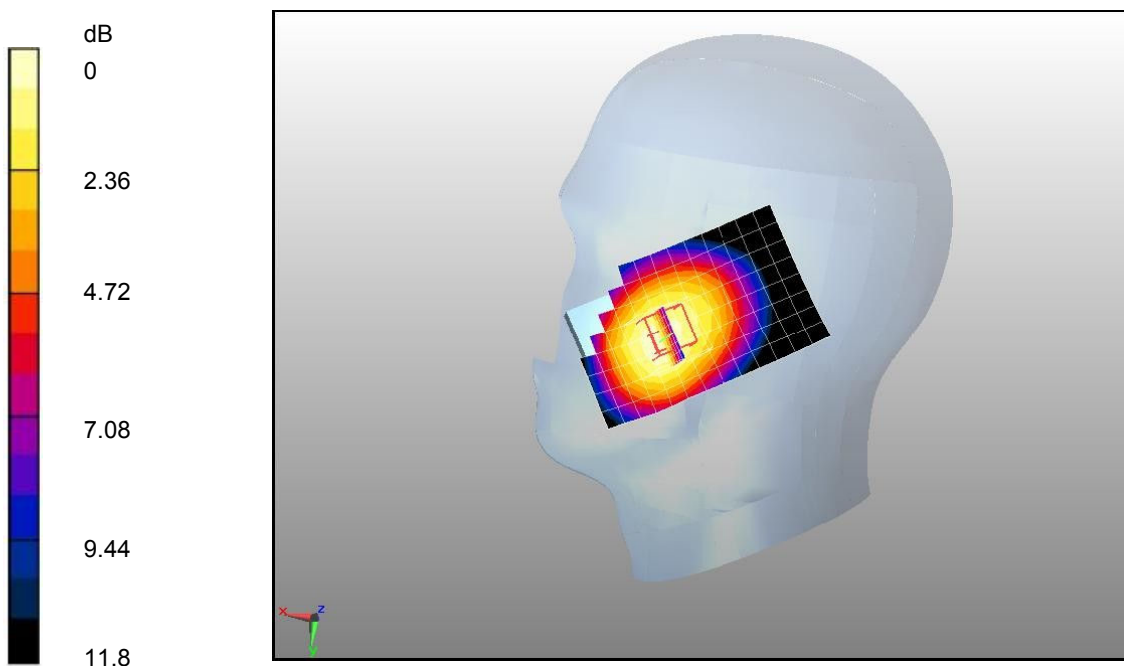
DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(8.73, 8.73, 8.73); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Configuration/GSM900 High Touch-Right/Area Scan (9x14x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.319 mW/g

Configuration/GSM900 High Touch-Right/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 5.73 V/m; Power Drift = 0.026 dB
Peak SAR (extrapolated) = 0.427 W/kg

SAR(1 g) = 0.307 mW/g; SAR(10 g) = 0.219 mW/g Maximum value of SAR (measured) = 0.328 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

GSM900 Mid Touch-Right

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: E-GSM 900 (880.0 - 915.0 MHz); Duty Cycle: 1:8.3; Frequency: 897.4 MHz; Medium parameters used: $f = 897.4$ MHz; $\sigma = 1.01$ mho/m; $\epsilon_r = 43.3$; $\rho = 1000$ kg/m³; Phantom section: Right Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(8.73, 8.73, 8.73); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Configuration/GSM900 Mid Touch-Right/Area Scan (9x14x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.447 mW/g

Configuration/GSM900 Mid Touch-Right/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 6.7 V/m; Power Drift = -0.005 dB
Peak SAR (extrapolated) = 0.584 W/kg

SAR(1 g) = 0.430 mW/g; SAR(10 g) = 0.309 mW/g Maximum value of SAR (measured) = 0.459 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

GSM900 Low Touch-Right

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: E-GSM 900 (880.0 - 915.0 MHz); Duty Cycle: 1:8.3; Frequency: 880.2 MHz; Medium parameters used: $f = 880.2$ MHz; $\sigma = 1$ mho/m; $\epsilon_r = 43.5$; $\rho = 1000$ kg/m³; Phantom section: Right Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

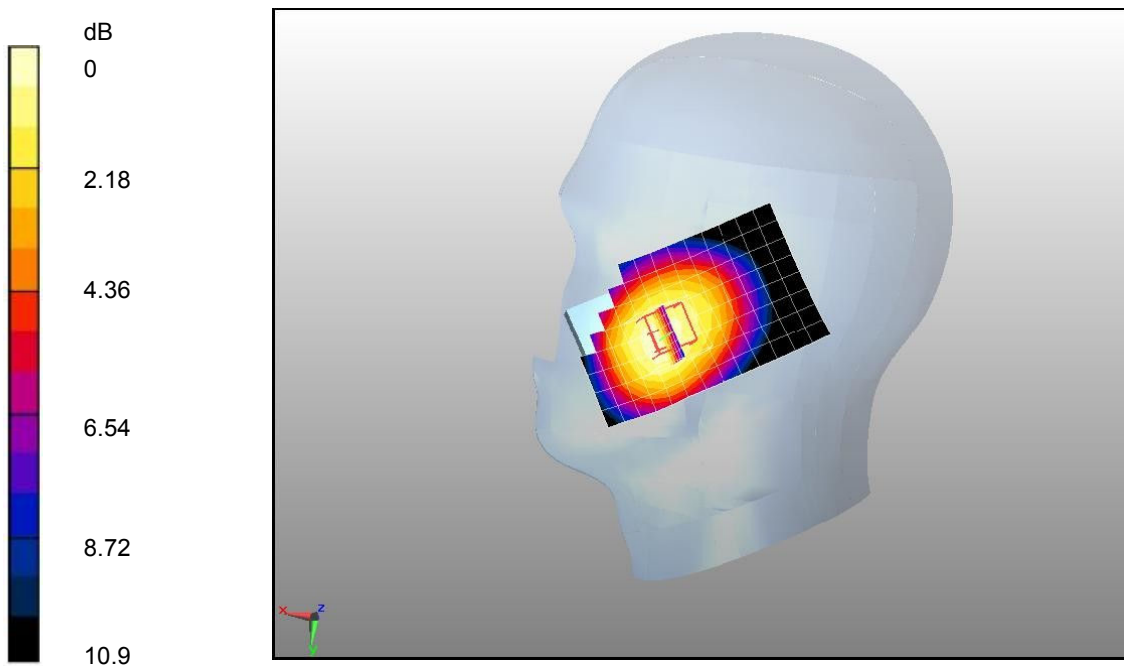
DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(8.73, 8.73, 8.73); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Configuration/GSM900 Low Touch-Right/Area Scan (9x14x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.663 mW/g

Configuration/GSM900 Low Touch-Right/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 7.52 V/m; Power Drift = -0.181 dB
Peak SAR (extrapolated) = 0.872 W/kg

SAR(1 g) = 0.624 mW/g; SAR(10 g) = 0.449 mW/g Maximum value of SAR (measured) = 0.666 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

GSM900 Mid Tilt-Right

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: E-GSM 900 (880.0 - 915.0 MHz); Duty Cycle: 1:8.3; Frequency: 897.4 MHz; Medium parameters used: $f = 897.4$ MHz; $\sigma = 1.01$ mho/m; $\epsilon_r = 43.3$; $\rho = 1000$ kg/m³; Phantom section: Right Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

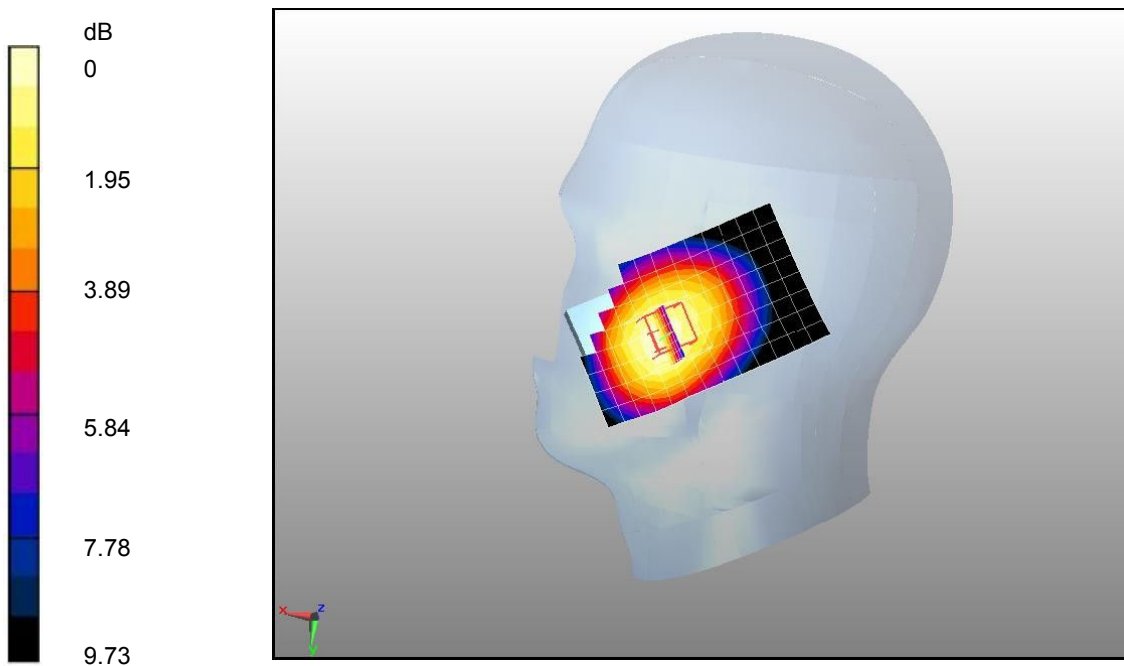
DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(8.73, 8.73, 8.73); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Configuration/GSM900 Mid Tilt-Right/Area Scan (9x14x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.290 mW/g

Configuration/GSM900 Mid Tilt-Right/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 10.7 V/m; Power Drift = 0.016 dB
Peak SAR (extrapolated) = 0.365 W/kg

SAR(1 g) = 0.278 mW/g; SAR(10 g) = 0.202 mW/g Maximum value of SAR (measured) = 0.295 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

GSM900 High Body-Back

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: E-GSM 900 (880.0 - 915.0 MHz); Duty Cycle: 1:8.3; Frequency: 914.8 MHz; Medium parameters used: $f = 914.8$ MHz; $\sigma = 1.03$ mho/m; $\epsilon_r = 43.2$; $\rho = 1000$ kg/m³; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

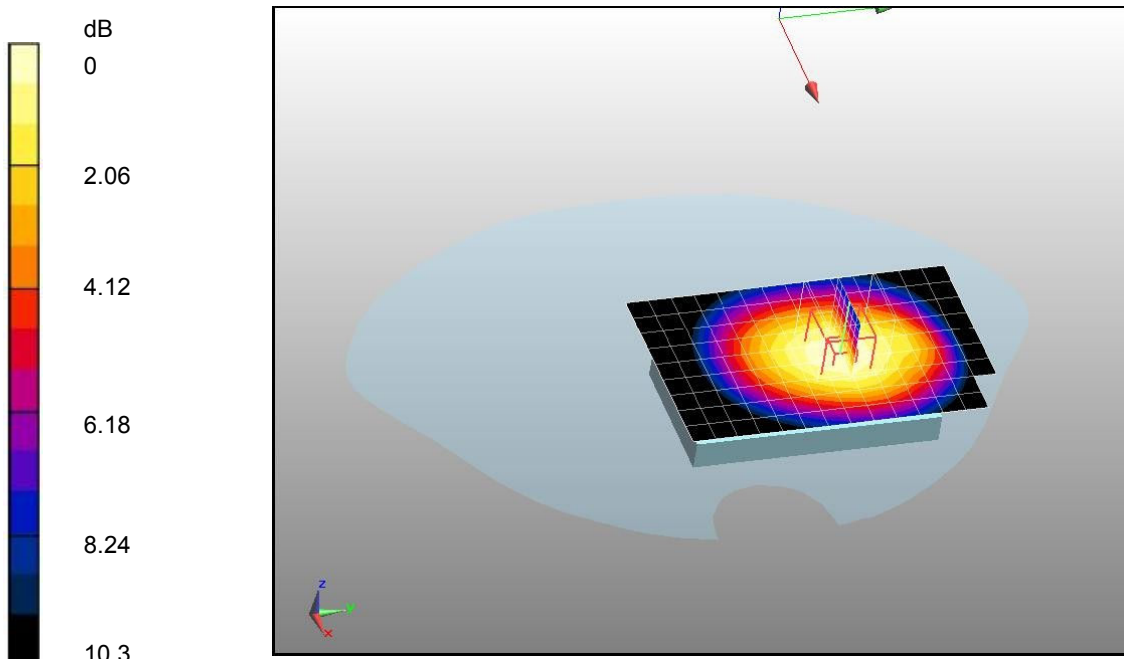
DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(8.73, 8.73, 8.73); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Configuration/GSM900 High Body-Back/Area Scan (10x15x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.211 mW/g

Configuration/GSM900 High Body-Back/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 5.31 V/m; Power Drift = 0.041 dB
Peak SAR (extrapolated) = 0.276 W/kg

SAR(1 g) = 0.201 mW/g; SAR(10 g) = 0.142 mW/g Maximum value of SAR (measured) = 0.213 mW/g
0 dB = 0.213mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

GSM900 Mid Body-Back

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: E-GSM 900 (880.0 - 915.0 MHz); Duty Cycle: 1:8.3; Frequency: 897.4 MHz; Medium parameters used: $f = 897.4$ MHz; $\sigma = 1.01$ mho/m; $\epsilon_r = 43.3$; $\rho = 1000$ kg/m³; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

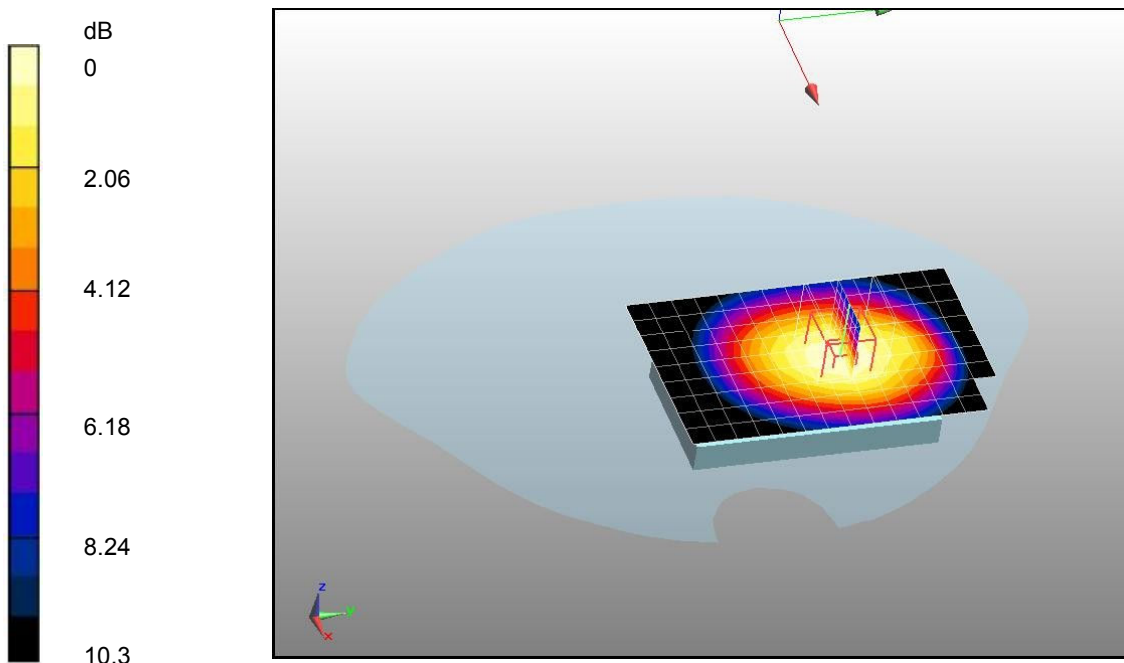
DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(8.73, 8.73, 8.73); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Configuration/GSM900 Mid Body-Back/Area Scan (10x15x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.298 mW/g

Configuration/GSM900 Mid Body-Back/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 6.41 V/m; Power Drift = 0.115 dB
Peak SAR (extrapolated) = 0.394 W/kg

SAR(1 g) = 0.285 mW/g; SAR(10 g) = 0.201 mW/g Maximum value of SAR (measured) = 0.302 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

GSM900 Low Body-Back

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: E-GSM 900 (880.0 - 915.0 MHz); Duty Cycle: 1:8.3; Frequency: 880.2 MHz; Medium parameters used: $f = 880.2$ MHz; $\sigma = 1$ mho/m; $\epsilon_r = 43.5$; $\rho = 1000$ kg/m³; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

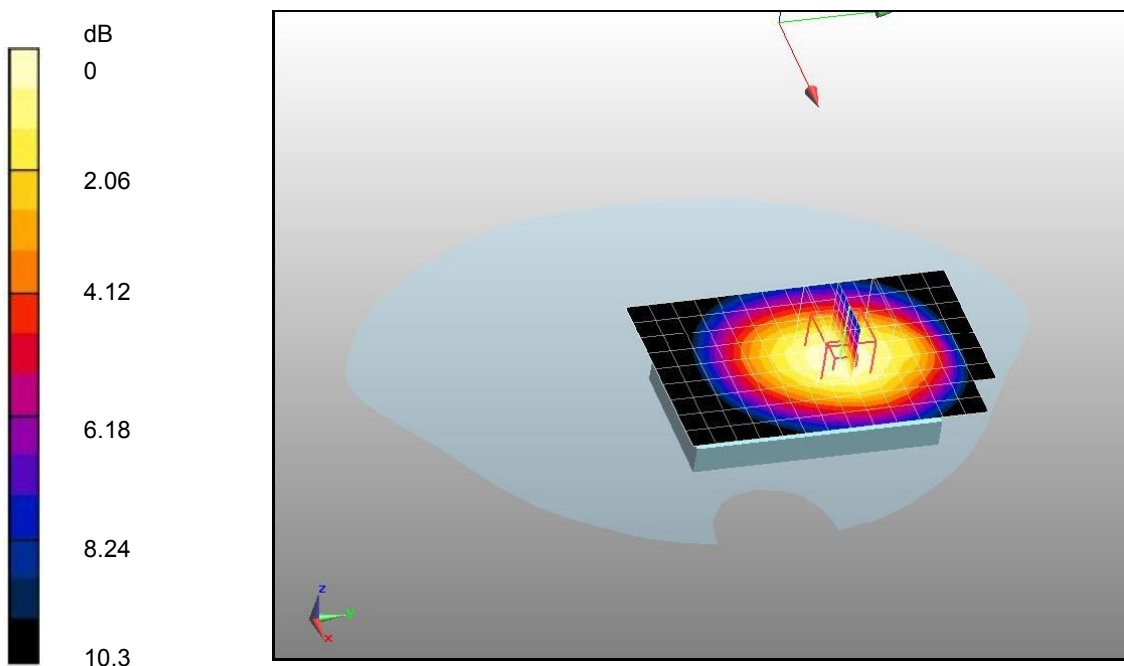
DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(8.73, 8.73, 8.73); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Configuration/GSM900 Low Body-Back/Area Scan (10x15x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.446 mW/g

Configuration/GSM900 Low Body-Back/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 7.85 V/m; Power Drift = -0.018 dB
Peak SAR (extrapolated) = 0.580 W/kg

SAR(1 g) = 0.424 mW/g; SAR(10 g) = 0.300 mW/g Maximum value of SAR (measured) = 0.451 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

GSM900 Mid Body-Front

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: E-GSM 900 (880.0 - 915.0 MHz); Duty Cycle: 1:8.3; Frequency: 897.4 MHz; Medium parameters used: $f = 897.4$ MHz; $\sigma = 1.01$ mho/m; $\epsilon_r = 43.3$; $\rho = 1000$ kg/m³; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

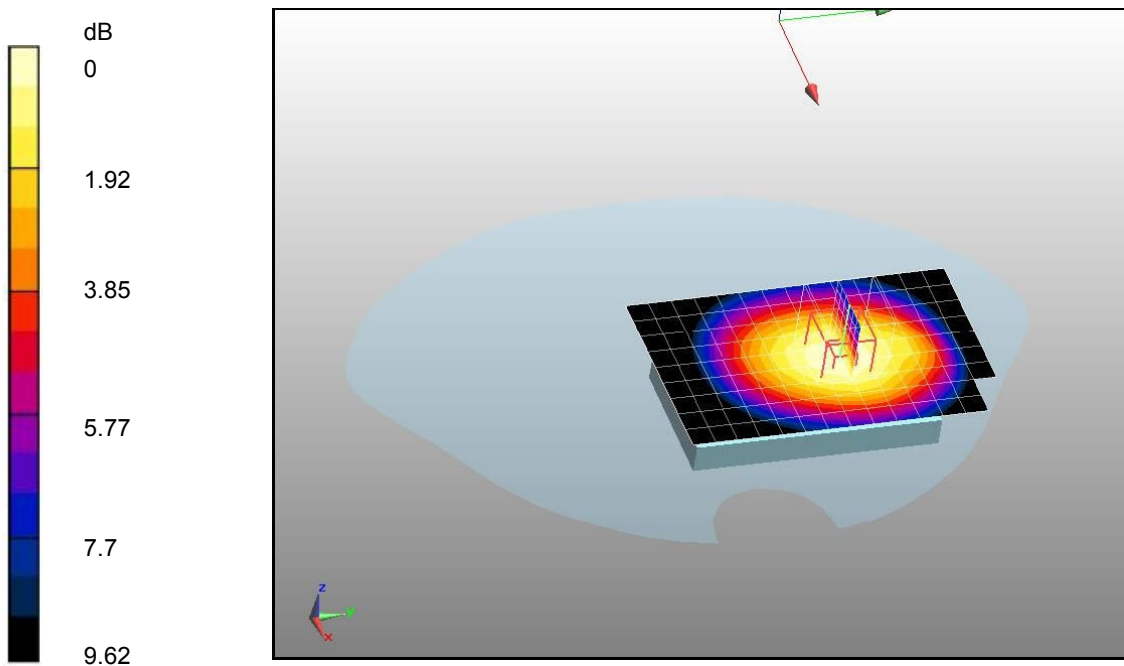
DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(8.73, 8.73, 8.73); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Configuration/GSM900 Mid Body-Front/Area Scan (10x15x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.210 mW/g

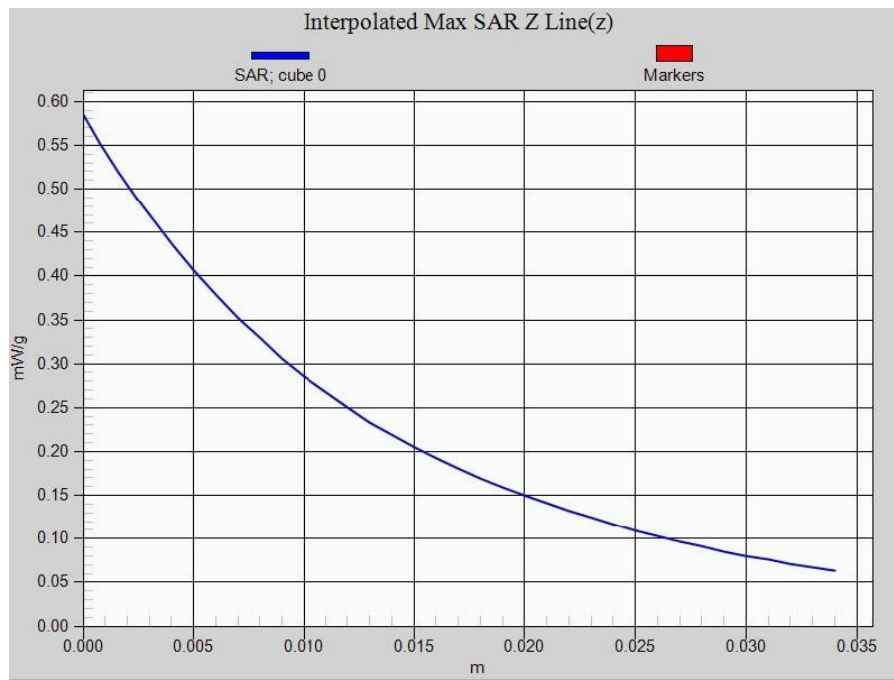
Configuration/GSM900 Mid Body-Front/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 6.13 V/m; Power Drift = 0.022 dB
Peak SAR (extrapolated) = 0.269 W/kg

SAR(1 g) = 0.201 mW/g; SAR(10 g) = 0.145 mW/g Maximum value of SAR (measured) = 0.213 mW/g



GSM 900 EUT Right-Check, Z-Axis Plot

Channel: 37



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

GPRS900 Mid Body-Back (2up)

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: E-GSM 900 (880.0 - 915.0 MHz); Duty Cycle: 1:8.3; Frequency: 897.4 MHz; Medium parameters used: $f = 897.4$ MHz; $\sigma = 1.01$ mho/m; $\epsilon_r = 43.3$; $\rho = 1000$ kg/m³; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

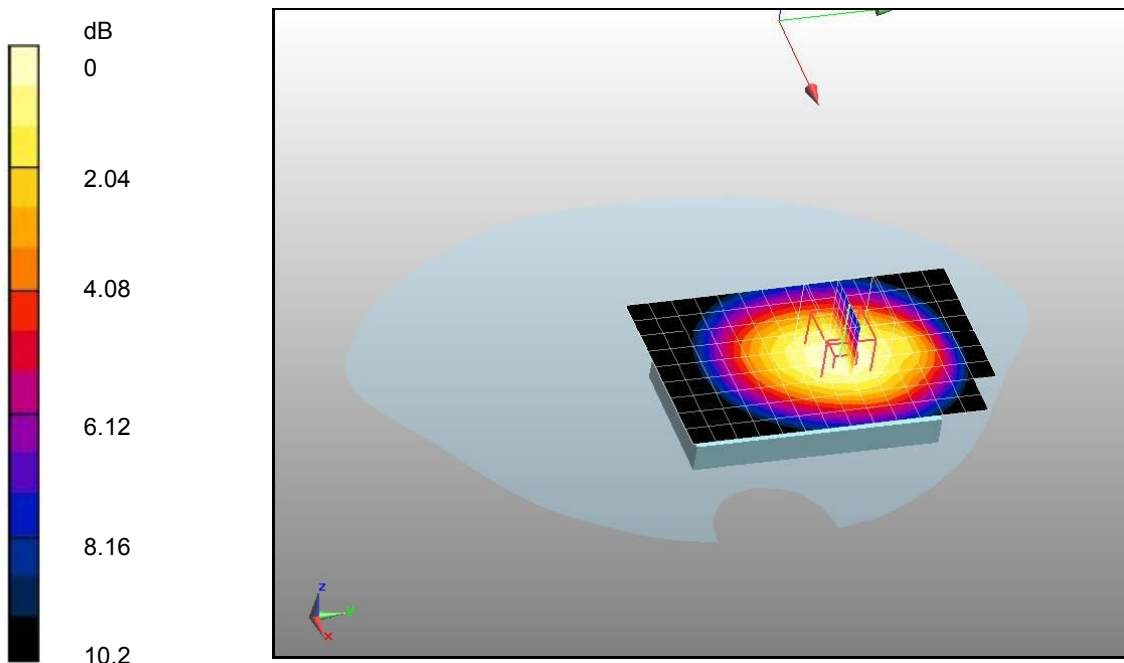
DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(8.73, 8.73, 8.73); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Configuration/GPRS900 Mid Body-Back/Area Scan (10x15x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.424 mW/g

Configuration/GPRS900 Mid Body-Back/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 5.09 V/m; Power Drift = -0.001 dB
Peak SAR (extrapolated) = 0.567 W/kg

SAR(1 g) = 0.413 mW/g; SAR(10 g) = 0.290 mW/g Maximum value of SAR (measured) = 0.436 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

GPRS900 Mid Body-Back (3up)

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: E-GSM 900 (880.0 - 915.0 MHz); Duty Cycle: 1:8.3; Frequency: 897.4 MHz; Medium parameters used: $f = 897.4$ MHz; $\sigma = 1.01$ mho/m; $\epsilon_r = 43.3$; $\rho = 1000$ kg/m³; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(8.73, 8.73, 8.73); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

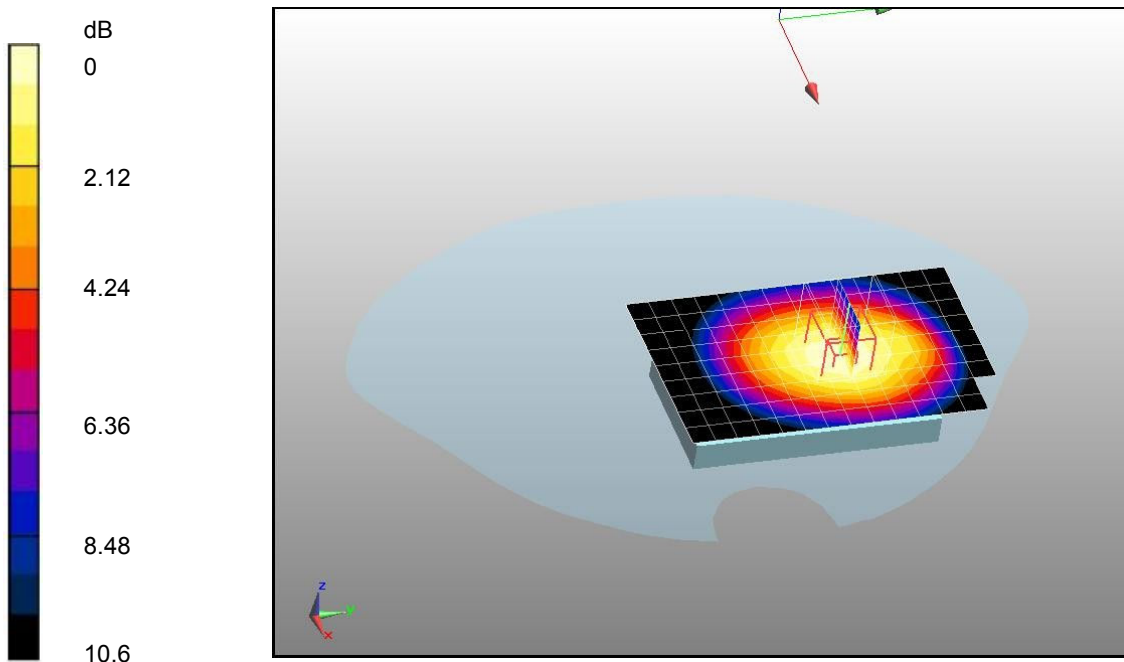
Configuration/GPRS900 Mid Body-Back/Area Scan (10x15x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.453 mW/g

Configuration/GPRS900 Mid Body-Back/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 7.48 V/m; Power Drift = -0.132 dB

Peak SAR (extrapolated) = 0.604 W/kg

SAR(1 g) = 0.434 mW/g; SAR(10 g) = 0.304 mW/g Maximum value of SAR (measured) = 0.457 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

GPRS900 High Body-Back (4up)

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: E-GSM 900 (880.0 - 915.0 MHz); Duty Cycle: 1:8.3; Frequency: 914.8 MHz; Medium parameters used: $f = 914.8$ MHz; $\sigma = 1.03$ mho/m; $\epsilon_r = 43.2$; $\rho = 1000$ kg/m³; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(8.73, 8.73, 8.73); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

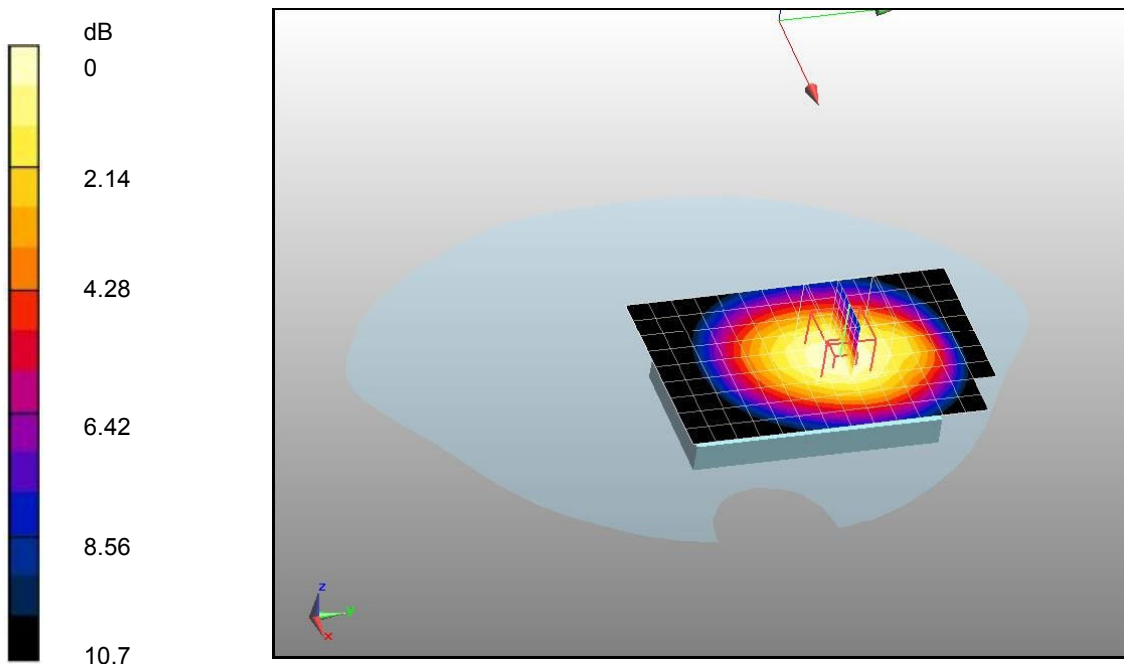
Configuration/GPRS900 High Body-Back/Area Scan (10x15x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.301 mW/g

Configuration/GPRS900 High Body-Back/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 6.5 V/m; Power Drift = -0.040 dB

Peak SAR (extrapolated) = 0.407 W/kg

SAR(1 g) = 0.290 mW/g; SAR(10 g) = 0.202 mW/g Maximum value of SAR (measured) = 0.309 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

GPRS900 Mid Body-Back (4up)

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: E-GSM 900 (880.0 - 915.0 MHz); Duty Cycle: 1:8.3; Frequency: 897.4 MHz; Medium parameters used: $f = 897.4$ MHz; $\sigma = 1.01$ mho/m; $\epsilon_r = 43.3$; $\rho = 1000$ kg/m³; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(8.73, 8.73, 8.73); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

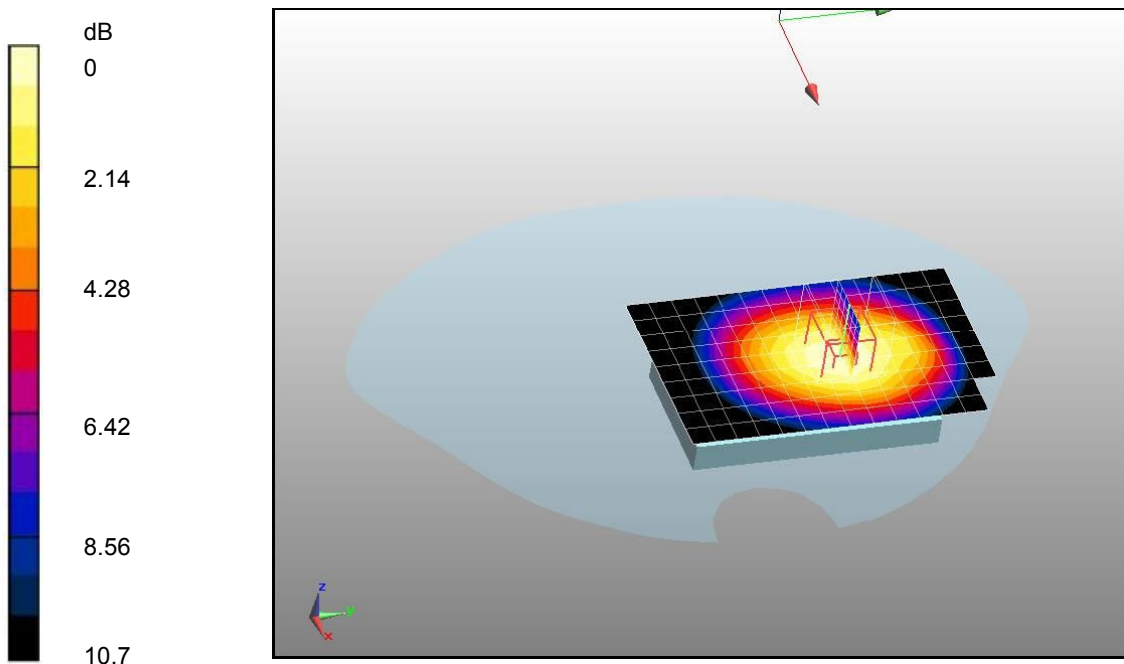
Configuration/GPRS900 Mid Body-Back/Area Scan (10x15x1): Measurement grid: dx=10mm, dy=10mm

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

Configuration/GPRS900 Mid Body-Back/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 8.69 V/m; Power Drift = -0.063 dB

Peak SAR (extrapolated) = 0.613 W/kg

SAR(1 g) = 0.437 mW/g; SAR(10 g) = 0.306 mW/g Maximum value of SAR (measured) = 0.466 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

GPRS900 Low Body-Back (4up)

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: E-GSM 900 (880.0 - 915.0 MHz); Duty Cycle: 1:8.3; Frequency: 880.2 MHz; Medium parameters used: $f = 880.2$ MHz; $\sigma = 1$ mho/m; $\epsilon_r = 43.5$; $\rho = 1000$ kg/m³; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(8.73, 8.73, 8.73); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

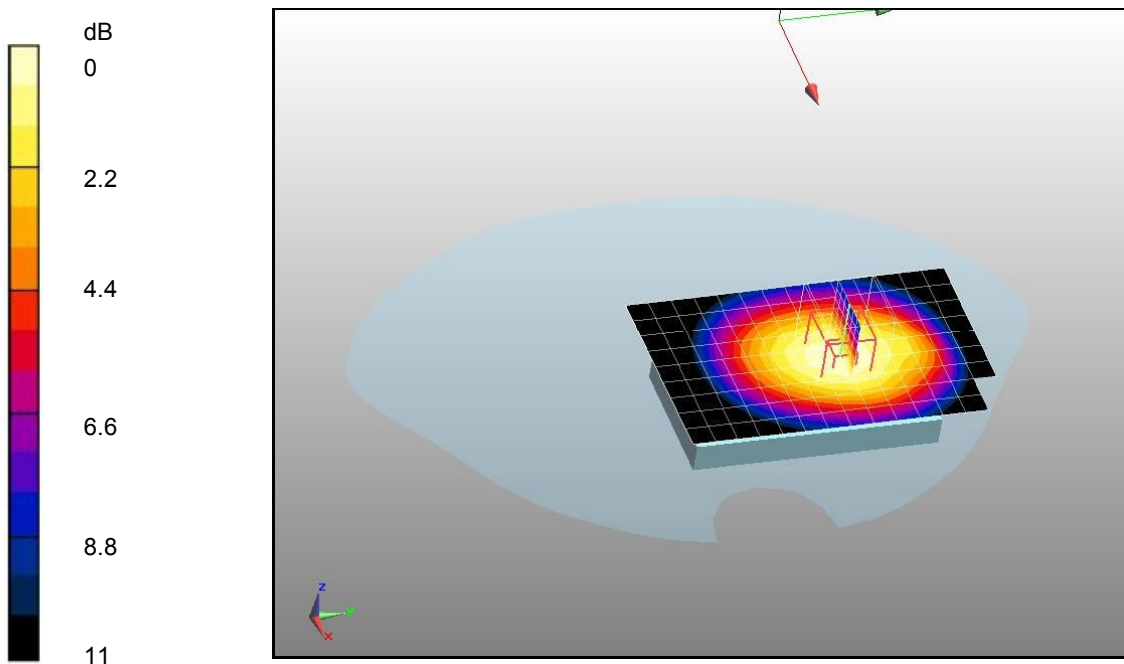
Configuration/GPRS900 Low Body-Back/Area Scan (10x15x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.711 mW/g

Configuration/GPRS900 Low Body-Back/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 6.49 V/m; Power Drift = -0.080 dB

Peak SAR (extrapolated) = 0.983 W/kg

SAR(1 g) = 0.698 mW/g; SAR(10 g) = 0.485 mW/g Maximum value of SAR (measured) = 0.740 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

GPRS900 Mid Body-Front (4up)

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: E-GSM 900 (880.0 - 915.0 MHz); Duty Cycle: 1:8.3; Frequency: 897.4 MHz; Medium parameters used: $f = 897.4$ MHz; $\sigma = 1.01$ mho/m; $\epsilon_r = 43.3$; $\rho = 1000$ kg/m³; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(8.73, 8.73, 8.73); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

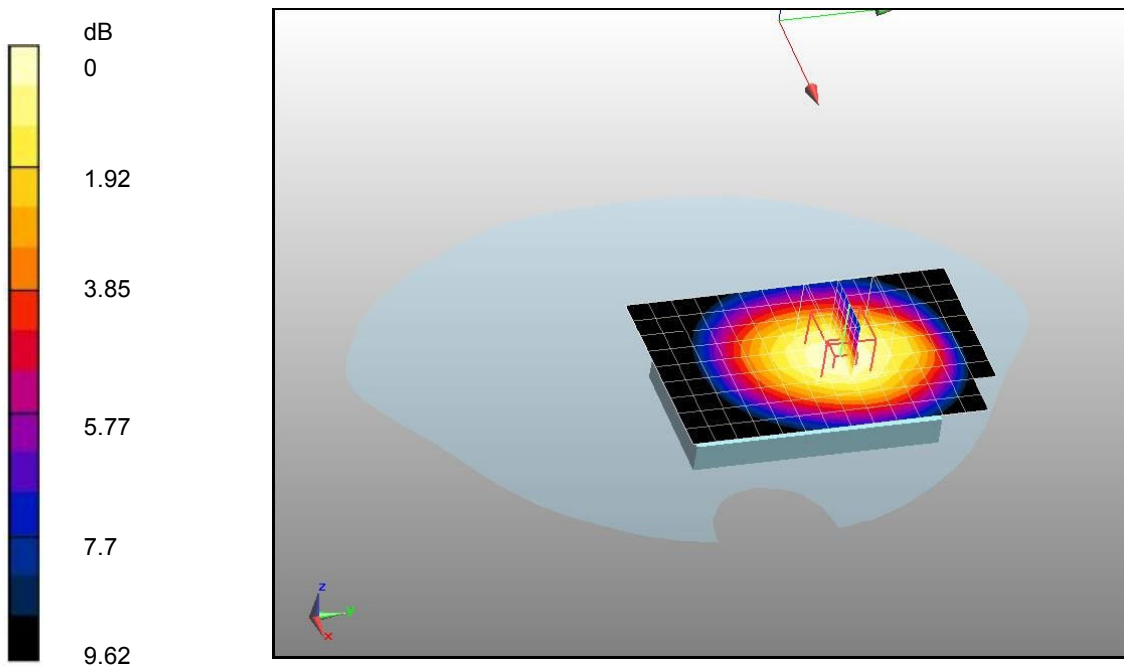
Configuration/GPRS900 Mid Body-Front/Area Scan (10x15x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.334 mW/g

Configuration/GPRS900 Mid Body-Front/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 7.53 V/m; Power Drift = -0.145 dB

Peak SAR (extrapolated) = 0.426 W/kg

SAR(1 g) = 0.311 mW/g; SAR(10 g) = 0.222 mW/g Maximum value of SAR (measured) = 0.330 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

DCS1800 High Touch-Left

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: DCS 1800 (1710.0 - 1785.0 MHz);
Duty Cycle: 1:8.3; Frequency: 1784.8 MHz; Medium parameters used: $f = 1784.8$ MHz; $\sigma = 1.37$ mho/m; $\epsilon_r = 38.9$; $\rho = 1000$ kg/m³; Phantom section: Left Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

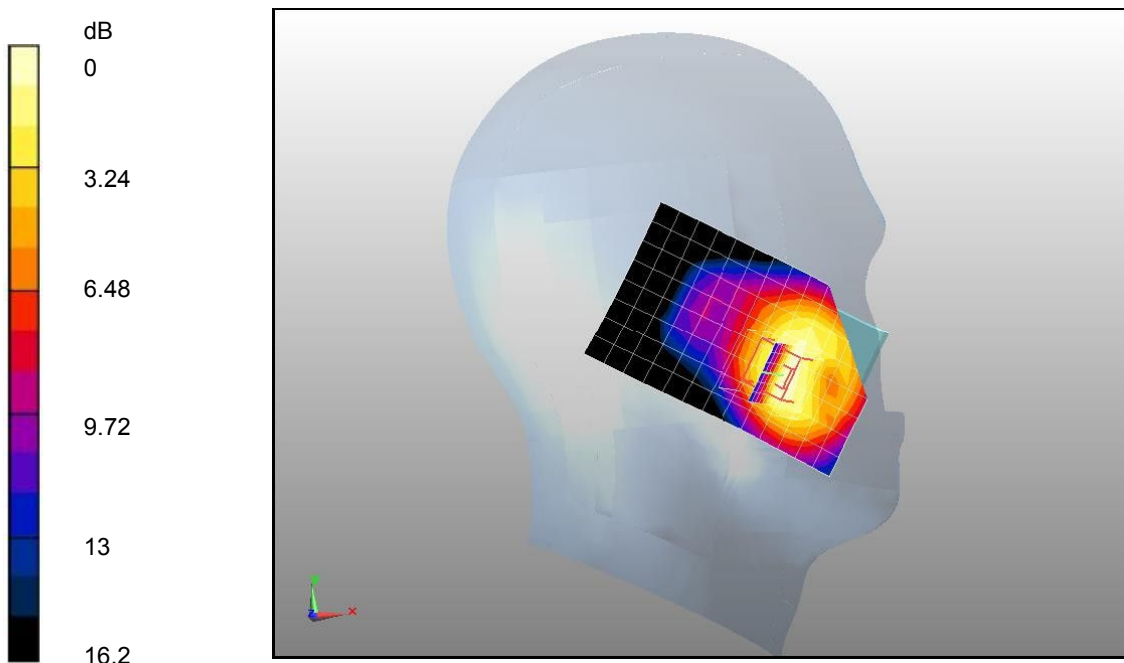
DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.69, 7.69, 7.69); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Configuration/DCS1800 High Touch-Left/Area Scan (9x14x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 1.000 mW/g

Configuration/DCS1800 High Touch-Left/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 3.77 V/m; Power Drift = 0.042 dB
Peak SAR (extrapolated) = 1.38 W/kg

SAR(1 g) = 0.918 mW/g; SAR(10 g) = 0.541 mW/g Maximum value of SAR (measured) = 1.02 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

DCS1800 Mid Touch-Left

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: DCS 1800 (1710.0 - 1785.0 MHz);
Duty Cycle: 1:8.3; Frequency: 1747.4 MHz; Medium parameters used: $f = 1747.4$ MHz; $\sigma = 1.33$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³; Phantom section: Left Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.69, 7.69, 7.69); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

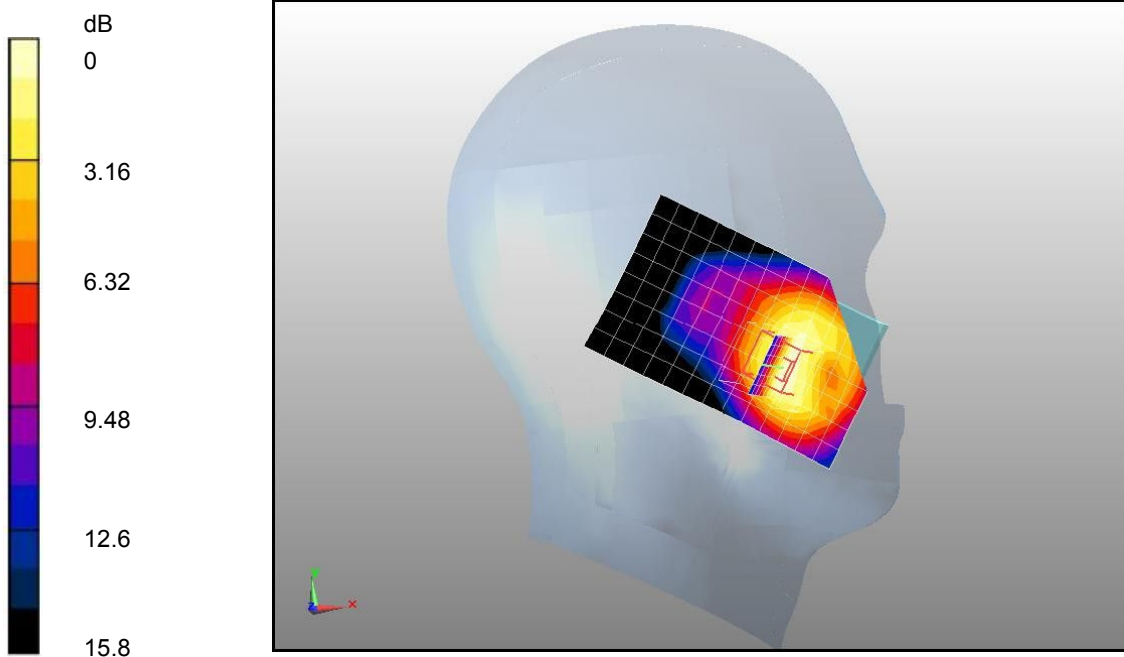
Configuration/DCS1800 Mid Touch-Left/Area Scan (9x14x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 1.11 mW/g

Configuration/DCS1800 Mid Touch-Left/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 4.31 V/m; Power Drift = 0.100 dB

Peak SAR (extrapolated) = 1.45 W/kg

SAR(1 g) = 0.998 mW/g; SAR(10 g) = 0.595 mW/g Maximum value of SAR (measured) = 1.1 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

DCS1800 Low Touch-Left

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: DCS 1800 (1710.0 - 1785.0 MHz);
Duty Cycle: 1:8.3; Frequency: 1710.2 MHz; Medium parameters used: $f = 1710.2$ MHz; $\sigma = 1.29$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³; Phantom section: Left Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.69, 7.69, 7.69); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

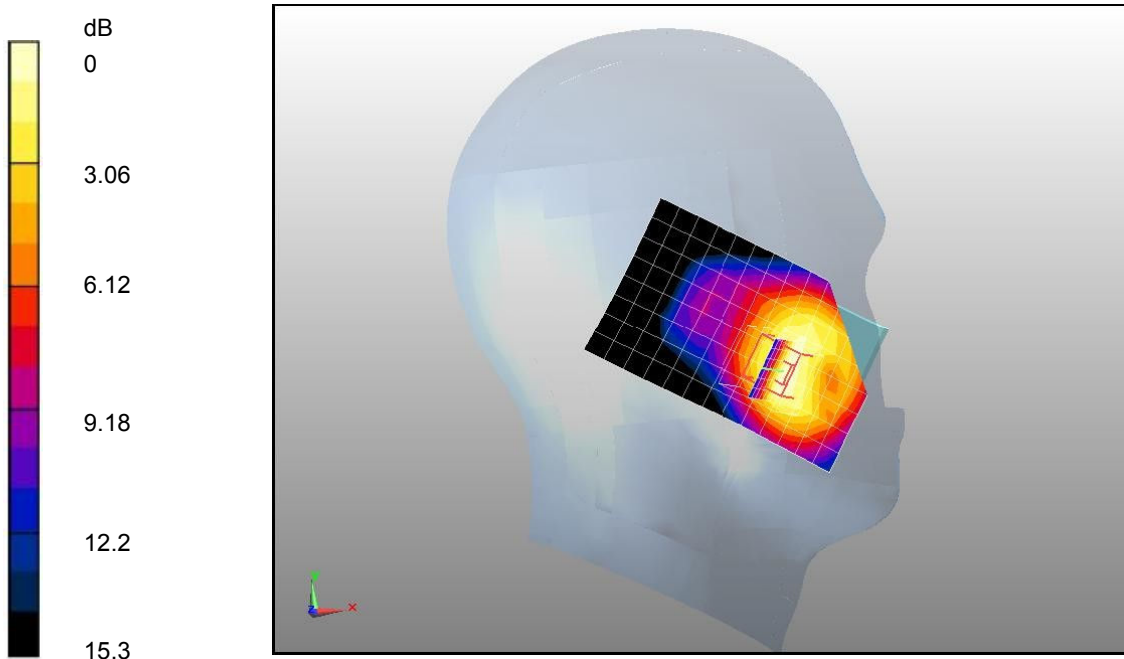
Configuration/DCS1800 Low Touch-Left/Area Scan (9x14x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 1.2 mW/g

Configuration/DCS1800 Low Touch-Left/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 4.8 V/m; Power Drift = 0.050 dB

Peak SAR (extrapolated) = 1.56 W/kg

SAR(1 g) = 1.08 mW/g; SAR(10 g) = 0.648 mW/g Maximum value of SAR (measured) = 1.19 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

DCS1800 Mid Tilt-Left

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: DCS 1800 (1710.0 - 1785.0 MHz);
Duty Cycle: 1:8.3; Frequency: 1747.4 MHz; Medium parameters used: $f = 1747.4$ MHz; $\sigma = 1.33$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³; Phantom section: Left Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.69, 7.69, 7.69); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

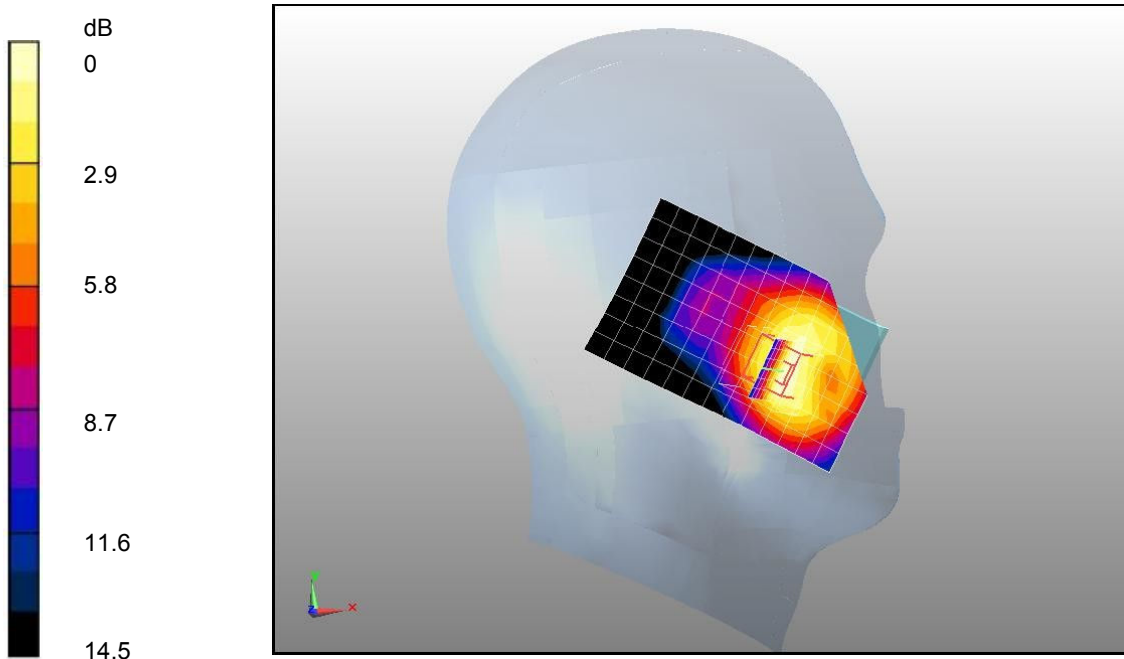
Configuration/DCS1800 Mid Tilt-Left/Area Scan (9x14x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.193 mW/g

Configuration/DCS1800 Mid Tilt-Left/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 8.11 V/m; Power Drift = 0.014 dB

Peak SAR (extrapolated) = 0.277 W/kg

SAR(1 g) = 0.184 mW/g; SAR(10 g) = 0.116 mW/g Maximum value of SAR (measured) = 0.197 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

DCS1800 High Touch-Right

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: DCS 1800 (1710.0 - 1785.0 MHz);
Duty Cycle: 1:8.3; Frequency: 1784.8 MHz; Medium parameters used: $f = 1784.8$ MHz; $\sigma = 1.37$ mho/m; $\epsilon_r = 38.9$; $\rho = 1000$ kg/m³; Phantom section: Right Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

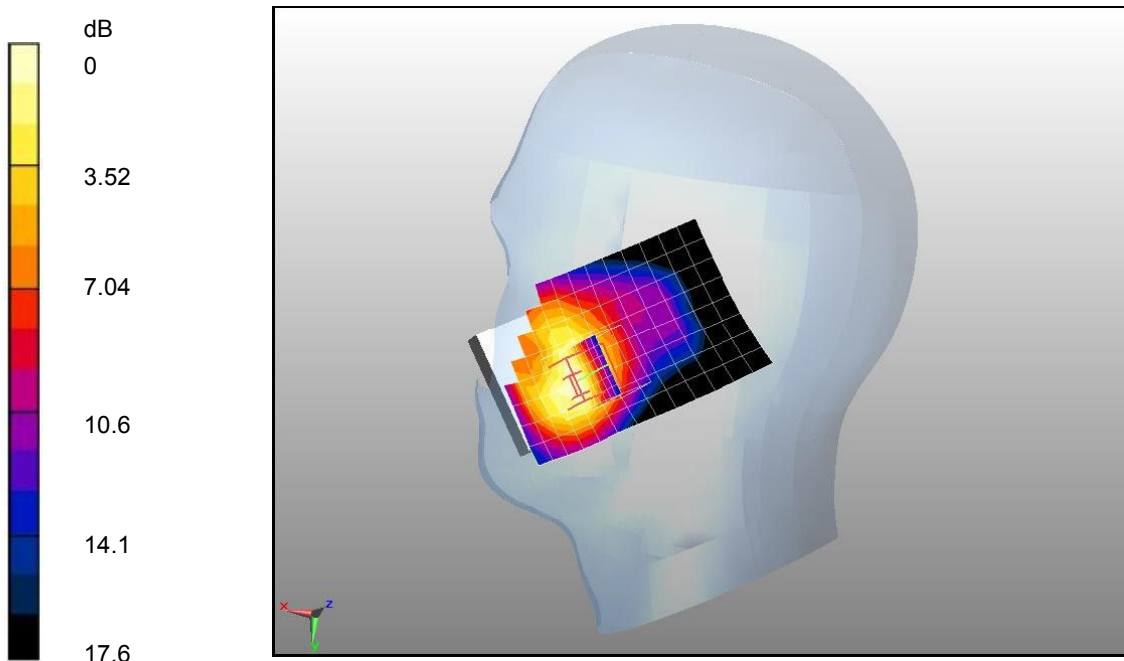
DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.69, 7.69, 7.69); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Configuration/DCS1800 High Touch-Right/Area Scan (9x14x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 1.24 mW/g

Configuration/DCS1800 High Touch-Right/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 4.62 V/m; Power Drift = 0.195 dB
Peak SAR (extrapolated) = 1.75 W/kg

SAR(1 g) = 1.13 mW/g; SAR(10 g) = 0.653 mW/g Maximum value of SAR (measured) = 1.25 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

DCS1800 Mid Touch-Right

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: DCS 1800 (1710.0 - 1785.0 MHz);
Duty Cycle: 1:8.3; Frequency: 1747.4 MHz; Medium parameters used: $f = 1747.4$ MHz; $\sigma = 1.33$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³; Phantom section: Right Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.69, 7.69, 7.69); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

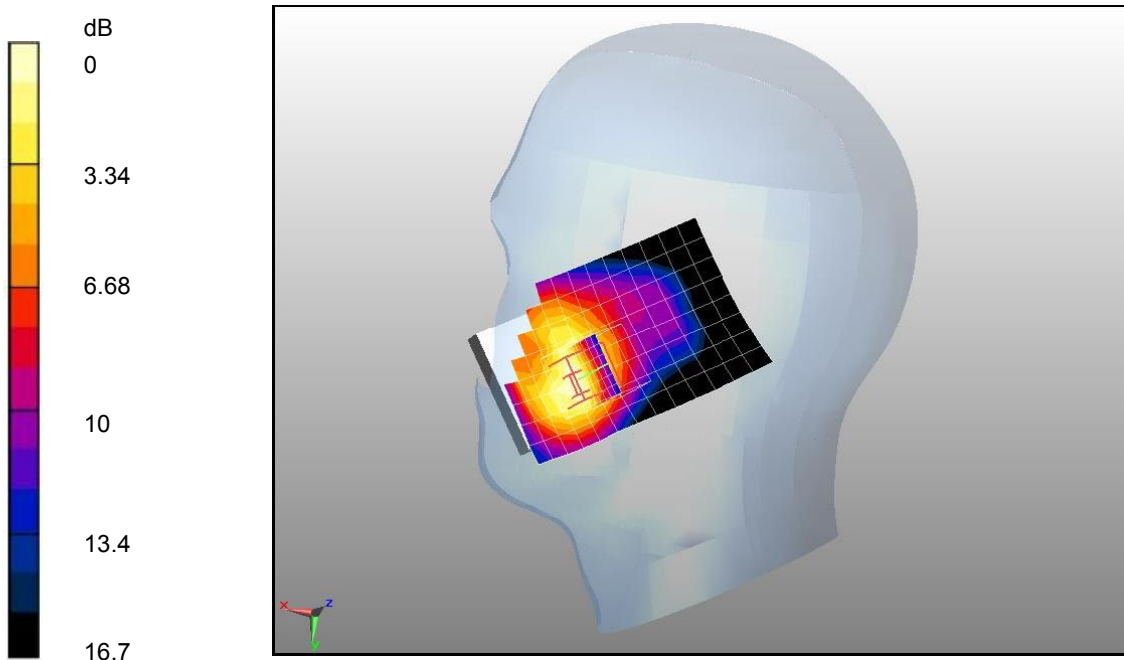
Configuration/DCS1800 Mid Touch-Right/Area Scan (9x14x1): Measurement grid: dx=10mm, dy=10mm

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

Configuration/DCS1800 Mid Touch-Right/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 5.12 V/m; Power Drift = 0.147 dB

Peak SAR (extrapolated) = 1.86 W/kg

SAR(1 g) = 1.23 mW/g; SAR(10 g) = 0.712 mW/g Maximum value of SAR (measured) = 1.36 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

DCS1800 Low Touch-Right

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: DCS 1800 (1710.0 - 1785.0 MHz);
Duty Cycle: 1:8.3; Frequency: 1710.2 MHz; Medium parameters used: $f = 1710.2$ MHz; $\sigma = 1.29$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³; Phantom section: Right Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.69, 7.69, 7.69); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

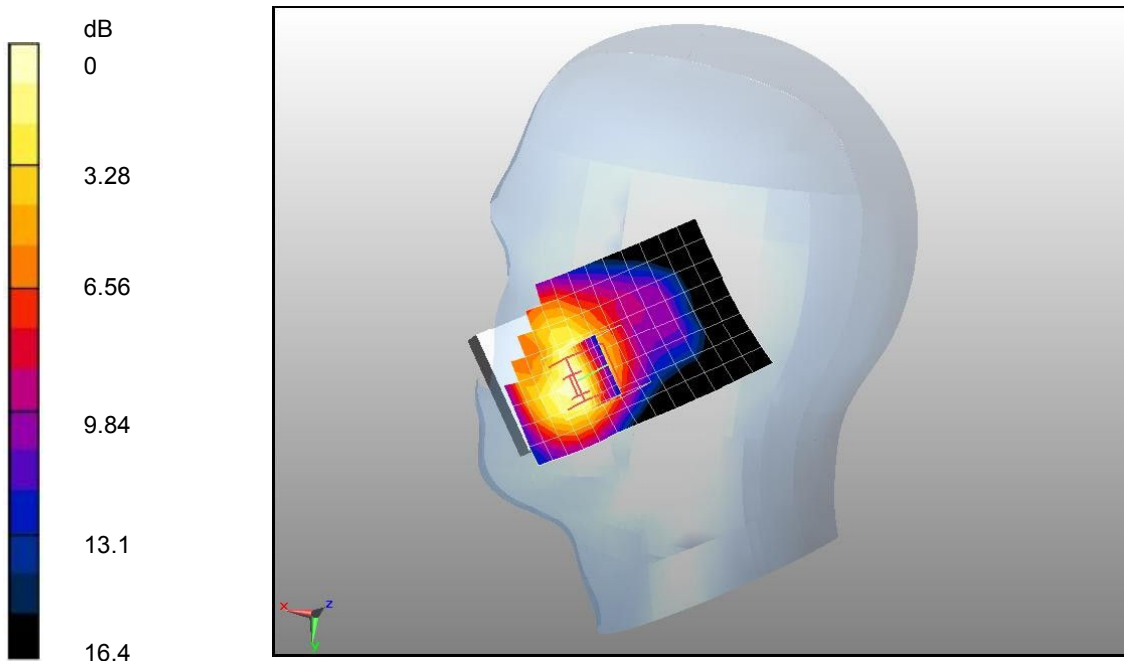
Configuration/DCS1800 Low Touch-Right/Area Scan (9x14x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 1.49 mW/g

Configuration/DCS1800 Low Touch-Right/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 5.85 V/m; Power Drift = -0.011 dB

Peak SAR (extrapolated) = 2.04 W/kg

SAR(1 g) = 1.34 mW/g; SAR(10 g) = 0.773 mW/g Maximum value of SAR (measured) = 1.48 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

DCS1800 Mid Tilt-Right

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: DCS 1800 (1710.0 - 1785.0 MHz);
Duty Cycle: 1:8.3; Frequency: 1747.4 MHz; Medium parameters used: $f = 1747.4$ MHz; $\sigma = 1.33$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³; Phantom section: Right Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.69, 7.69, 7.69); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

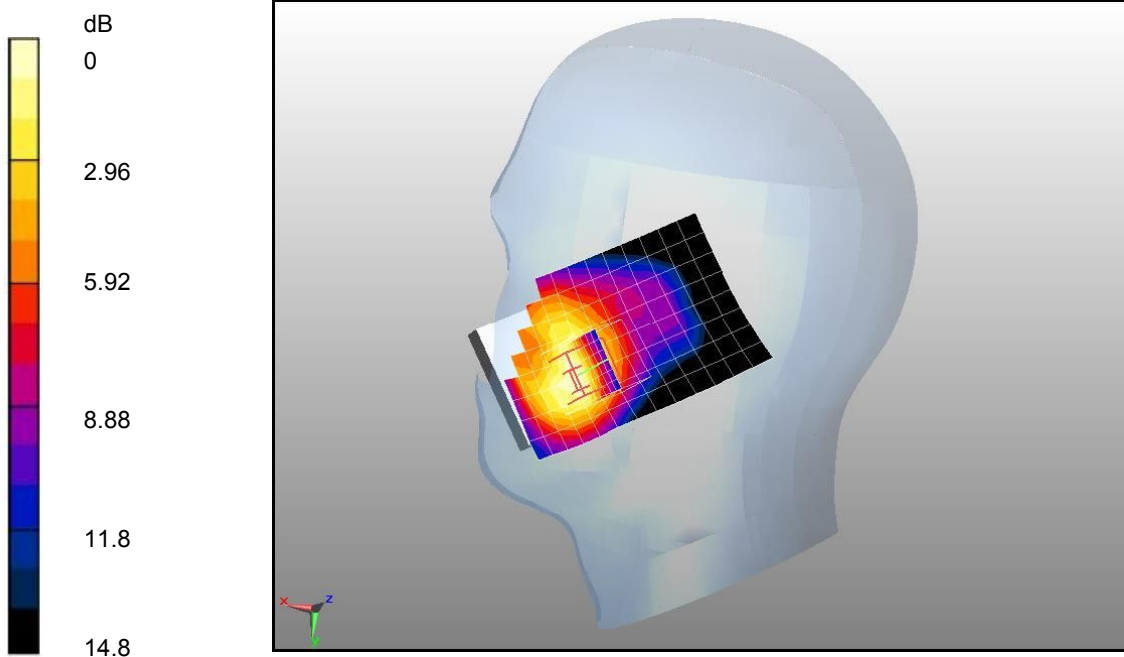
Configuration/DCS1800 Mid Tilt-Right/Area Scan (9x14x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.195 mW/g

Configuration/DCS1800 Mid Tilt-Right/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 8.16 V/m; Power Drift = -0.024 dB

Peak SAR (extrapolated) = 0.271 W/kg

SAR(1 g) = 0.182 mW/g; SAR(10 g) = 0.114 mW/g Maximum value of SAR (measured) = 0.196 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

DCS1800 High Body-Back

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: DCS 1800 (1710.0 - 1785.0 MHz);
Duty Cycle: 1:8.3; Frequency: 1784.8 MHz; Medium parameters used: $f = 1784.8$ MHz; $\sigma = 1.37$ mho/m; $\epsilon_r = 38.9$; $\rho = 1000$ kg/m³; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

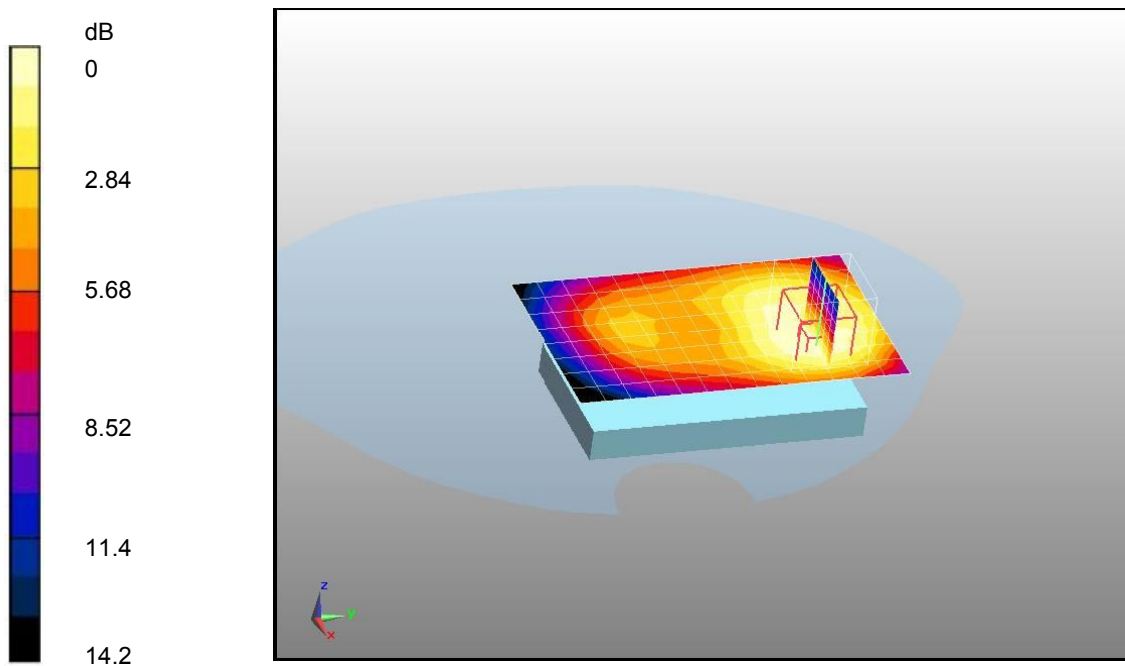
DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.69, 7.69, 7.69); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Configuration/DCS1800 High Body-Back/Area Scan (9x14x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.246 mW/g

Configuration/DCS1800 High Body-Back/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 7.28 V/m; Power Drift = 0.018 dB
Peak SAR (extrapolated) = 0.375 W/kg

SAR(1 g) = 0.235 mW/g; SAR(10 g) = 0.145 mW/g Maximum value of SAR (measured) = 0.253 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

DCS1800 Mid Body-Back

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: DCS 1800 (1710.0 - 1785.0 MHz);
Duty Cycle: 1:8.3; Frequency: 1747.4 MHz; Medium parameters used: $f = 1747.4$ MHz; $\sigma = 1.33$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.69, 7.69, 7.69); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

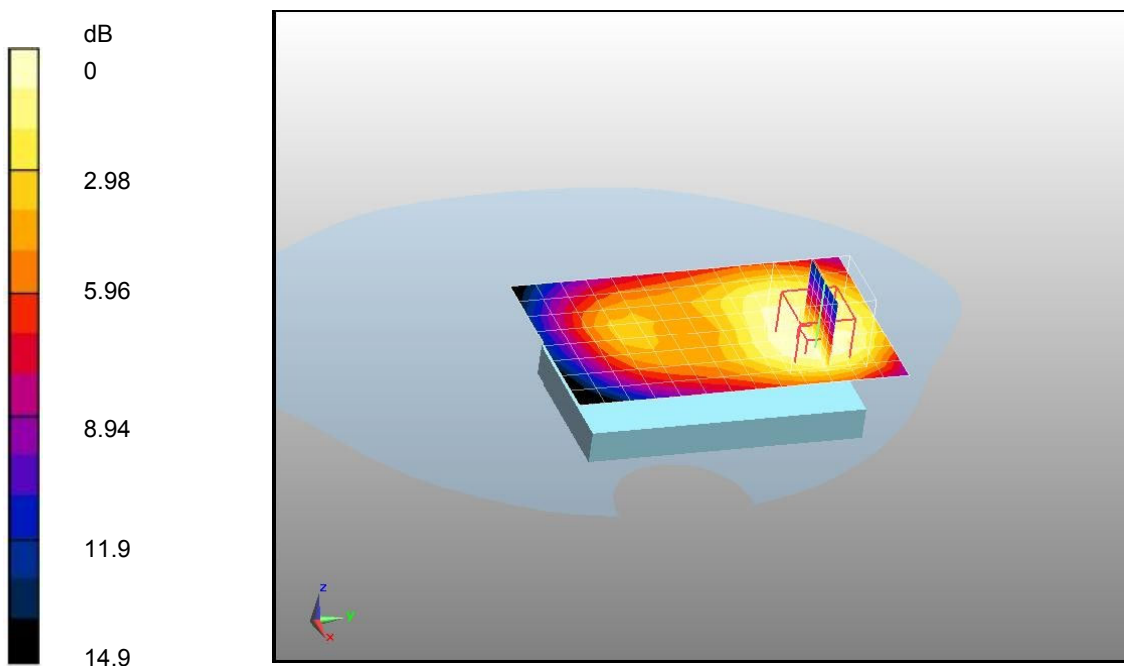
Configuration/DCS1800 Mid Body-Back/Area Scan (9x14x1): Measurement grid: dx=10mm, dy=10mm

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

Configuration/DCS1800 Mid Body-Back/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 7.68 V/m; Power Drift = 0.120 dB

Peak SAR (extrapolated) = 0.431 W/kg

SAR(1 g) = 0.271 mW/g; SAR(10 g) = 0.168 mW/g Maximum value of SAR (measured) = 0.291 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

DCS1800 Low Body-Back

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: DCS 1800 (1710.0 - 1785.0 MHz);
Duty Cycle: 1:8.3; Frequency: 1710.2 MHz; Medium parameters used: $f = 1710.2$ MHz; $\sigma = 1.29$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.69, 7.69, 7.69); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

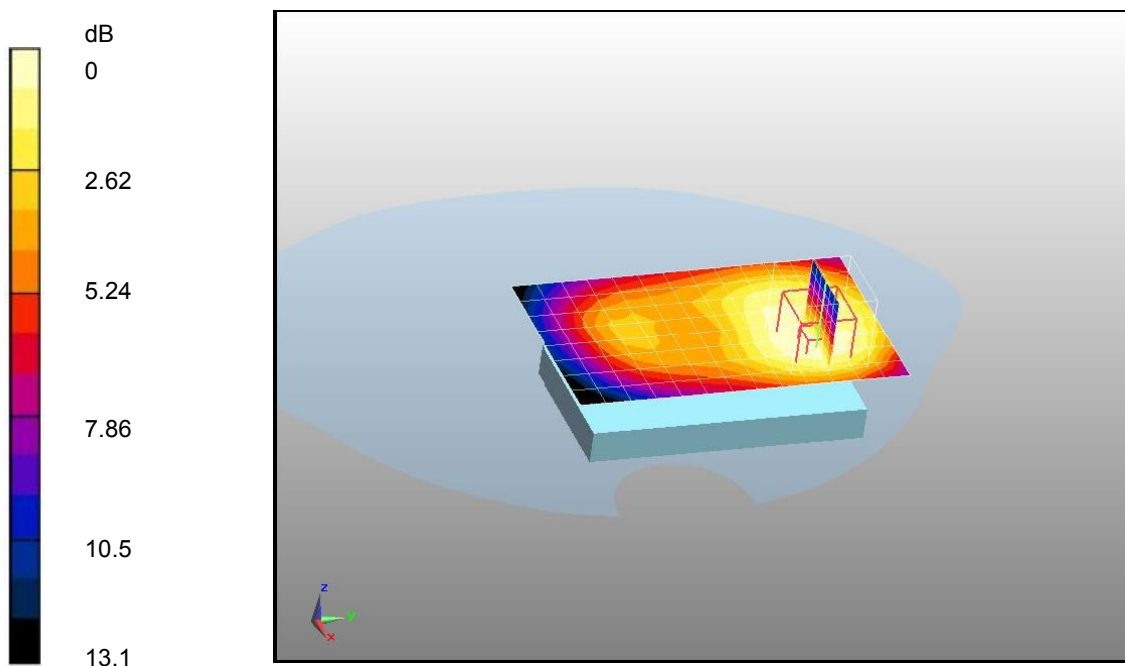
Configuration/DCS1800 Low Body-Back/Area Scan (9x14x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.358 mW/g

Configuration/DCS1800 Low Body-Back/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 7.78 V/m; Power Drift = -0.007 dB

Peak SAR (extrapolated) = 0.533 W/kg

SAR(1 g) = 0.337 mW/g; SAR(10 g) = 0.211 mW/g Maximum value of SAR (measured) = 0.360 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

DCS1800 Mid Body-Front

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: DCS 1800 (1710.0 - 1785.0 MHz);
Duty Cycle: 1:8.3; Frequency: 1747.4 MHz; Medium parameters used: $f = 1747.4$ MHz; $\sigma = 1.33$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.69, 7.69, 7.69); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

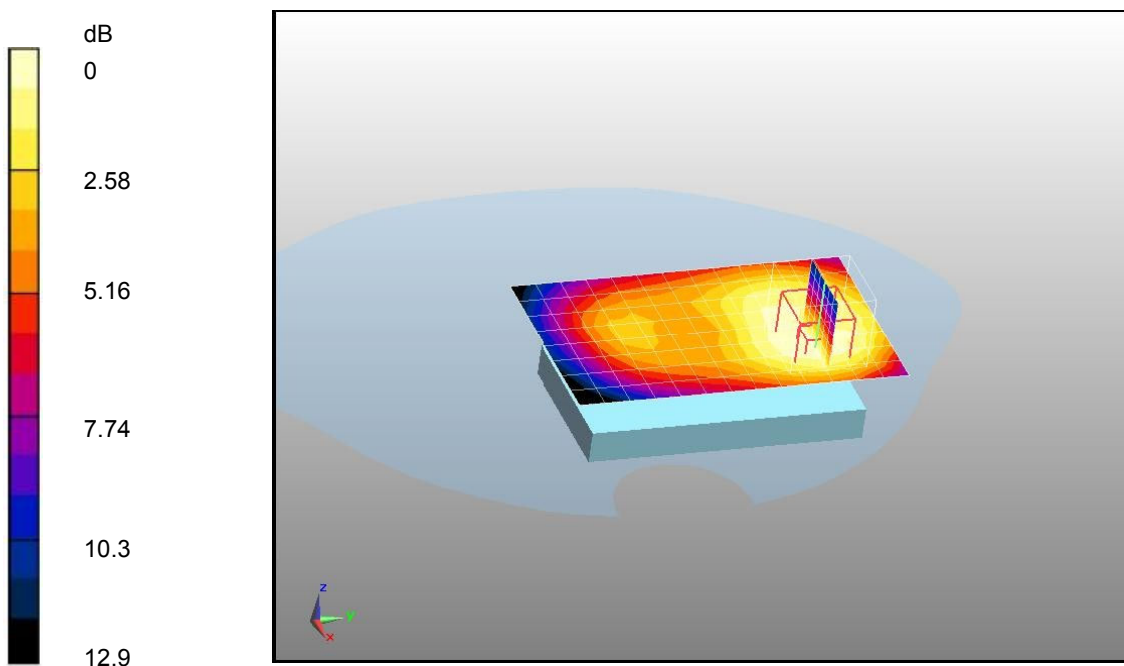
Configuration/DCS1800 Mid Body-Back/Area Scan (9x14x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.260 mW/g

Configuration/DCS1800 Mid Body-Back/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 7.51 V/m; Power Drift = 0.015 dB

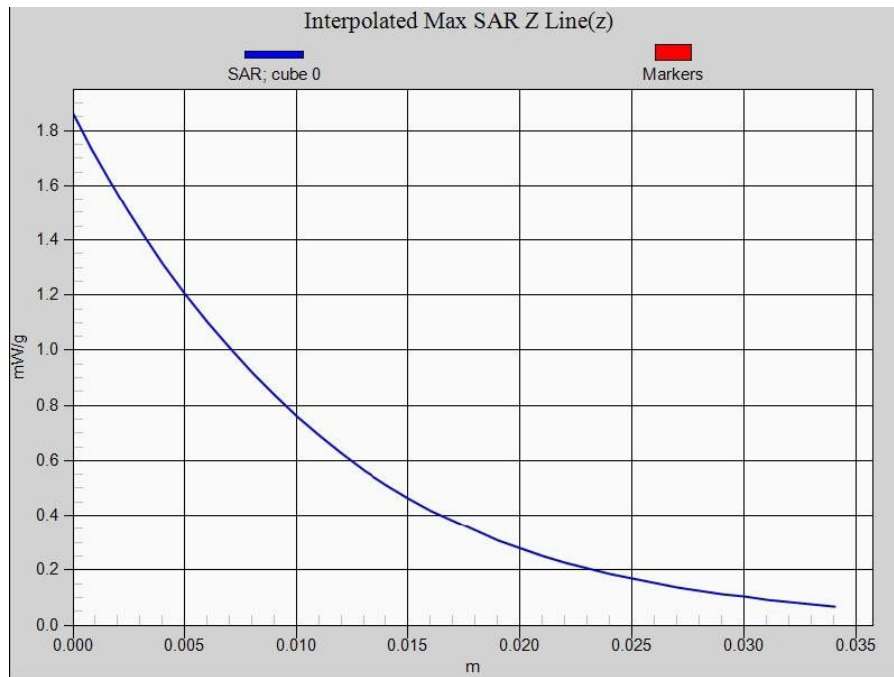
Peak SAR (extrapolated) = 0.391 W/kg

SAR(1 g) = 0.251 mW/g; SAR(10 g) = 0.159 mW/g Maximum value of SAR (measured) = 0.269 mW/g



DCS1800 EUT Right-Check, Z-Axis Plot

Channel: 698



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

DCS1800 Mid Body-Back (2up)

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: DCS 1800 (1710.0 - 1785.0 MHz);
Duty Cycle: 1:8.3; Frequency: 1747.4 MHz; Medium parameters used: $f = 1747.4$ MHz; $\sigma = 1.33$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.69, 7.69, 7.69); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

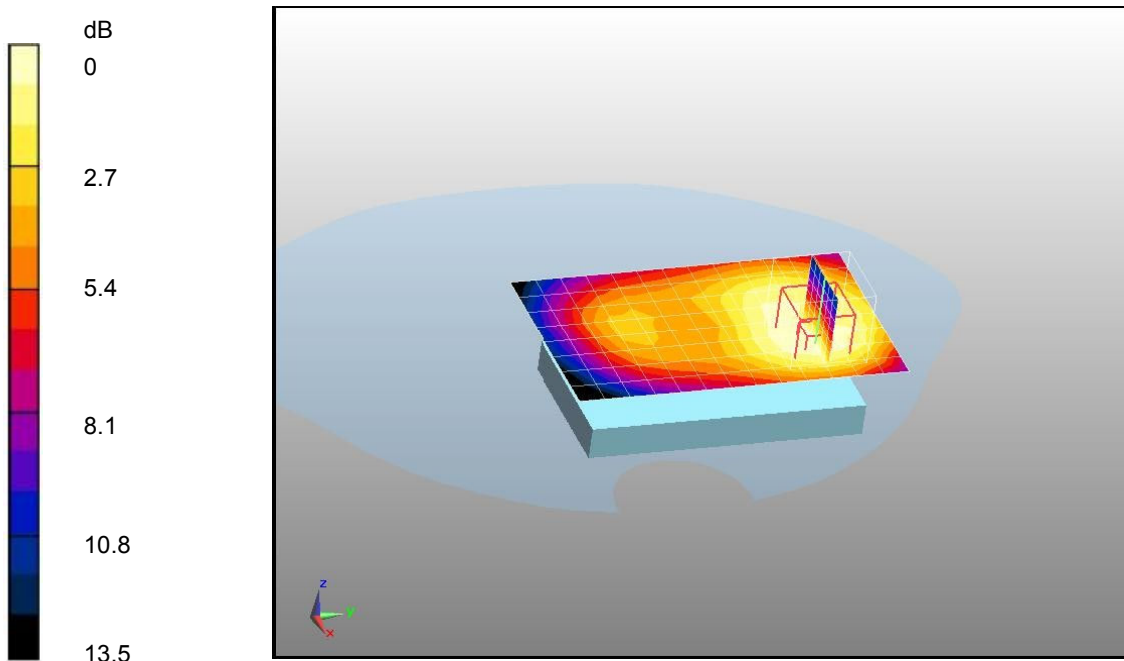
Configuration/DCS1800 Mid Body-Back/Area Scan (9x14x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.452 mW/g

Configuration/DCS1800 Mid Body-Back/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 9.12 V/m; Power Drift = 0.028 dB

Peak SAR (extrapolated) = 0.669 W/kg

SAR(1 g) = 0.419 mW/g; SAR(10 g) = 0.264 mW/g Maximum value of SAR (measured) = 0.448 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

DCS1800 Mid Body-Back (3up)

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: DCS 1800 (1710.0 - 1785.0 MHz);
Duty Cycle: 1:8.3; Frequency: 1747.4 MHz; Medium parameters used: $f = 1747.4$ MHz; $\sigma = 1.33$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

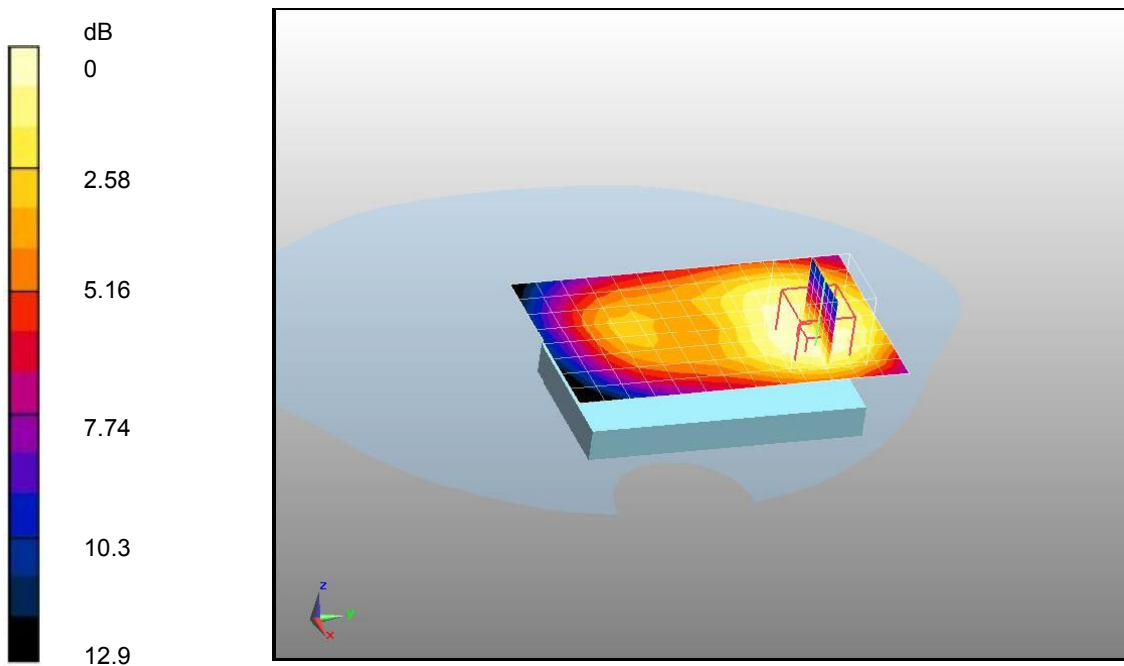
DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.69, 7.69, 7.69); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Configuration/DCS1800 Mid Body-Back/Area Scan (9x14x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.419 mW/g

Configuration/DCS1800 Mid Body-Back/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 9.05 V/m; Power Drift = 0.016 dB
Peak SAR (extrapolated) = 0.619 W/kg

SAR(1 g) = 0.390 mW/g; SAR(10 g) = 0.246 mW/g Maximum value of SAR (measured) = 0.423 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

DCS1800 High Body-Back (4up)

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: DCS 1800 (1710.0 - 1785.0 MHz);
Duty Cycle: 1:8.3; Frequency: 1784.8 MHz; Medium parameters used: $f = 1784.8$ MHz; $\sigma = 1.37$ mho/m; $\epsilon_r = 38.9$; $\rho = 1000$ kg/m³; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.69, 7.69, 7.69); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

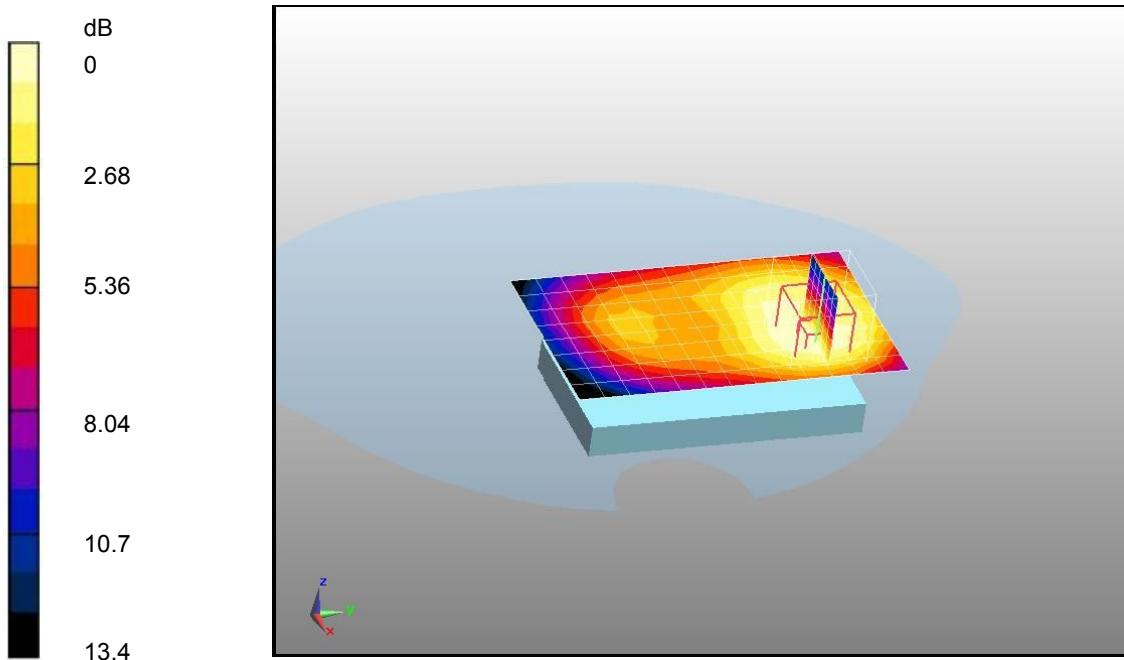
Configuration/DCS1800 High Body-Back/Area Scan (9x14x1): Measurement grid: dx=10mm, dy=10mm

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

Configuration/DCS1800 High Body-Back/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 8.21 V/m; Power Drift = 0.105 dB

Peak SAR (extrapolated) = 0.627 W/kg

SAR(1 g) = 0.388 mW/g; SAR(10 g) = 0.242 mW/g Maximum value of SAR (measured) = 0.419 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

DCS1800 Mid Body-Back (4up)

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: DCS 1800 (1710.0 - 1785.0 MHz);
Duty Cycle: 1:8.3; Frequency: 1747.4 MHz; Medium parameters used: $f = 1747.4$ MHz; $\sigma = 1.33$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.69, 7.69, 7.69); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

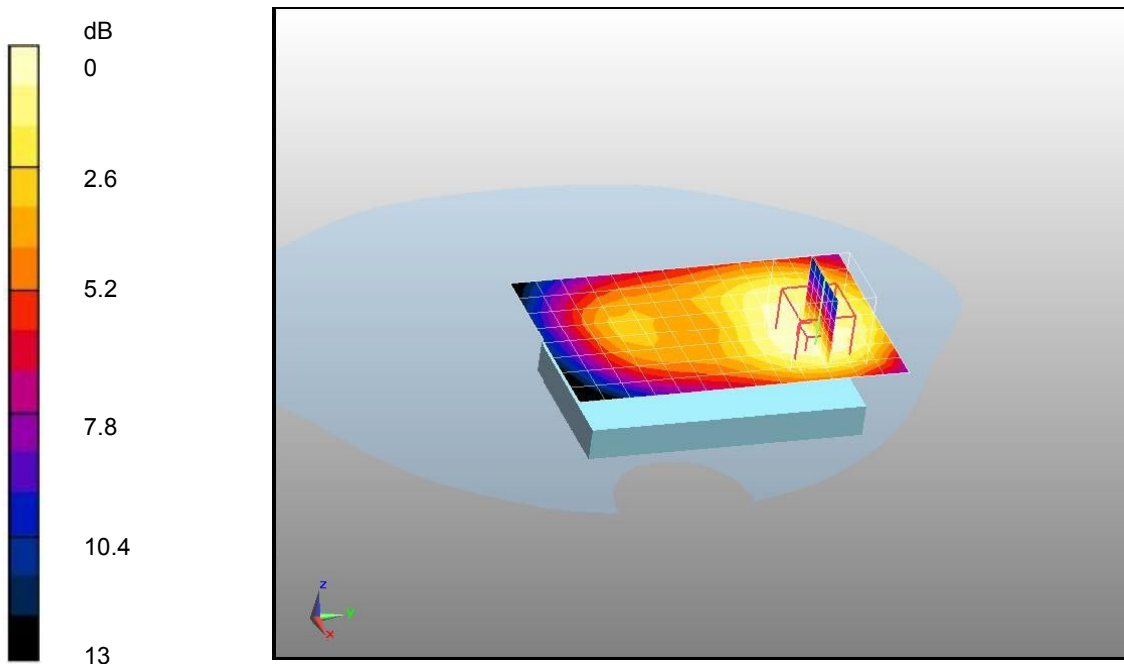
Configuration/DCS1800 Mid Body-Back/Area Scan (9x14x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.435 mW/g

Configuration/DCS1800 Mid Body-Back/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 9.15 V/m; Power Drift = 0.157 dB

Peak SAR (extrapolated) = 0.654 W/kg

SAR(1 g) = 0.407 mW/g; SAR(10 g) = 0.256 mW/g Maximum value of SAR (measured) = 0.438 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

DCS1800 Low Body-Back (4up)

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: DCS 1800 (1710.0 - 1785.0 MHz);
Duty Cycle: 1:8.3; Frequency: 1710.2 MHz; Medium parameters used: $f = 1710.2$ MHz; $\sigma = 1.29$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.69, 7.69, 7.69); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

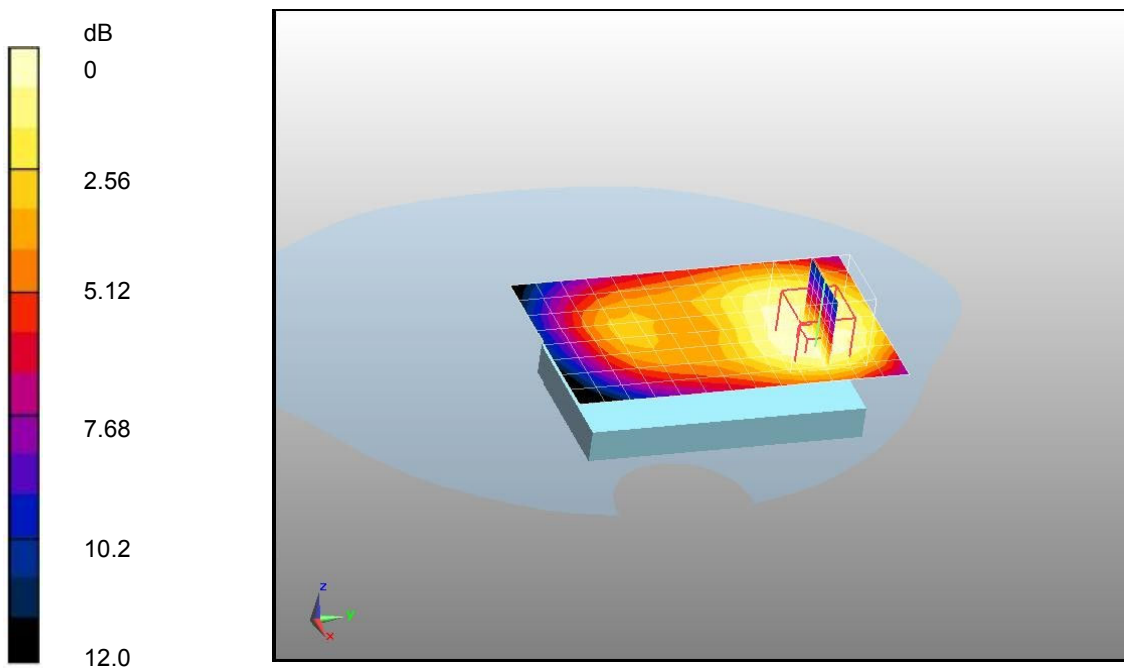
Configuration/DCS1800 Low Body-Back/Area Scan (9x14x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.506 mW/g

Configuration/DCS1800 Low Body-Back/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 9.8 V/m; Power Drift = -0.001 dB

Peak SAR (extrapolated) = 0.763 W/kg

SAR(1 g) = 0.477 mW/g; SAR(10 g) = 0.300 mW/g Maximum value of SAR (measured) = 0.510 mW/g



Date/Time: Jul. 05, 2017

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited.

DCS1800 Mid Body-Front (4up)

DUT: 4G LTE wireless routers; Type: 4G185

Communication System: Generic GSM; Communication System Band: DCS 1800 (1710.0 - 1785.0 MHz);
Duty Cycle: 1:8.3; Frequency: 1747.4 MHz; Medium parameters used: $f = 1747.4$ MHz; $\sigma = 1.33$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.69, 7.69, 7.69); Calibrated: 05/03/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 09/03/2010
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

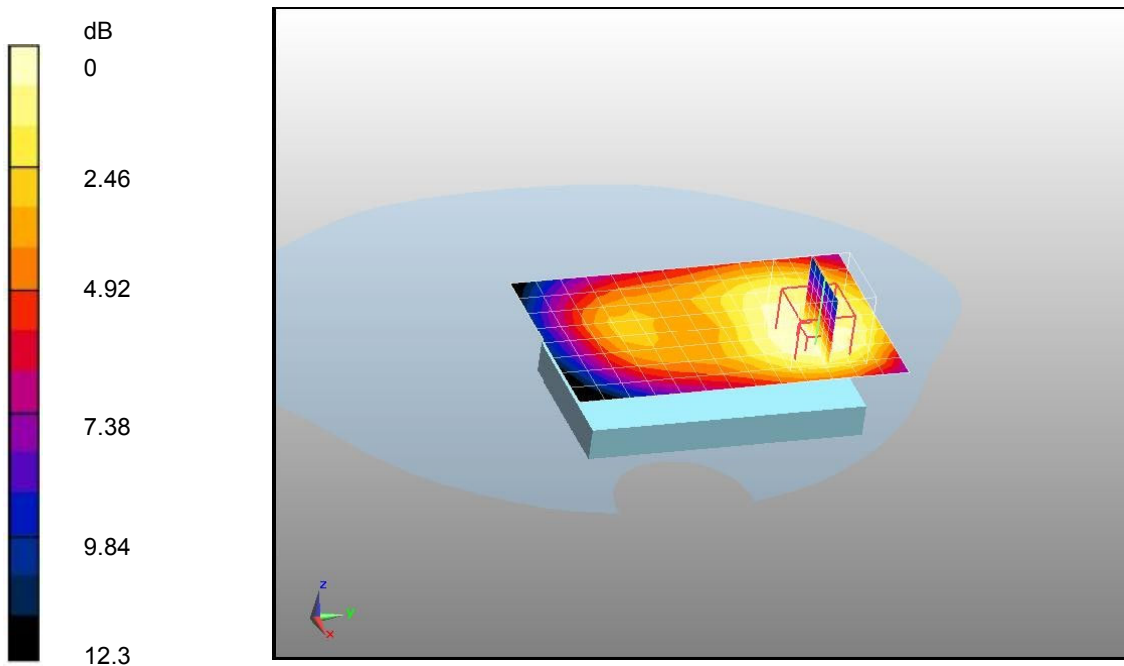
Configuration/DCS1800 Mid Body-Front/Area Scan (9x14x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.381 mW/g

Configuration/DCS1800 Mid Body-Front/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm. Reference Value = 8.51 V/m; Power Drift = -0.190 dB

Peak SAR (extrapolated) = 0.549 W/kg

SAR(1 g) = 0.353 mW/g; SAR(10 g) = 0.225 mW/g Maximum value of SAR (measured) = 0.379 mW/g



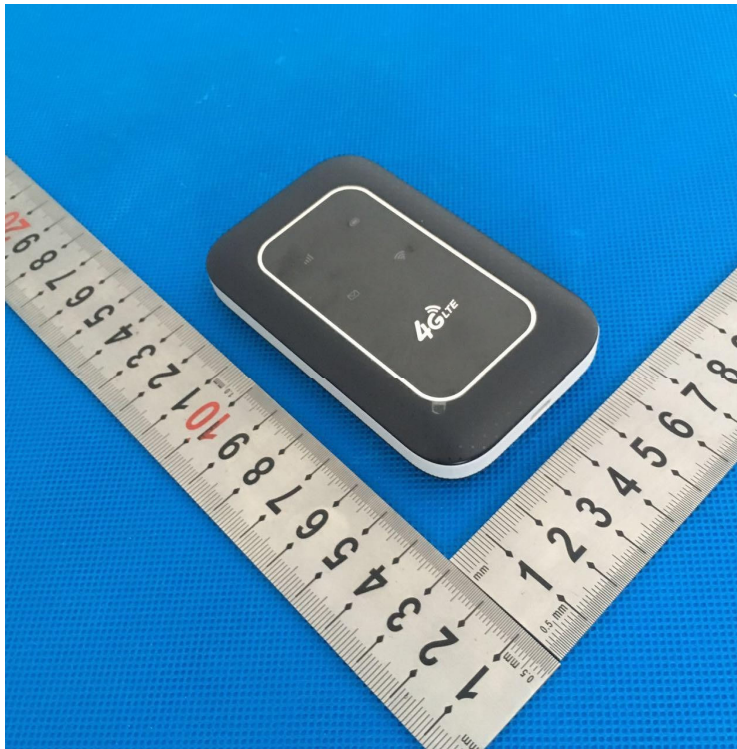


Appendix B. EUT Photographs

Test EUT Photographs
EUT Photo 1



EUT Photo 2



***** END OF REPORT *****