

Body TSL parameters at 5500 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	48.6	5.65 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	47.0 ± 6 %	5.86 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	----	----

SAR result with Body TSL at 5500 MHz

SAR averaged over 1 cm ³ (1 g) of Body TSL	Condition	
SAR measured	100 mW input power	8.03 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	79.9 W/kg ± 19.9 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Body TSL	condition	
SAR measured	100 mW input power	2.23 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	22.1 W/kg ± 19.5 % (k=2)

Body TSL parameters at 5600 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	48.5	5.77 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	46.8 ± 6 %	6.00 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	----	----

SAR result with Body TSL at 5600 MHz

SAR averaged over 1 cm ³ (1 g) of Body TSL	Condition	
SAR measured	100 mW input power	7.95 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	79.1 W/kg ± 19.9 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Body TSL	condition	
SAR measured	100 mW input power	2.23 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	22.1 W/kg ± 19.5 % (k=2)

Body TSL parameters at 5800 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	48.2	6.00 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	46.4 ± 6 %	6.29 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	----	----

SAR result with Body TSL at 5800 MHz

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	100 mW input power	7.66 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	76.2 W/kg ± 19.9 % (k=2)

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	100 mW input power	2.13 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	21.1 W/kg ± 19.5 % (k=2)

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL at 5200 MHz

Impedance, transformed to feed point	47.1 Ω - 5.8 j Ω
Return Loss	- 23.6 dB

Antenna Parameters with Head TSL at 5300 MHz

Impedance, transformed to feed point	50.5 Ω - 3.2 j Ω
Return Loss	- 29.8 dB

Antenna Parameters with Head TSL at 5500 MHz

Impedance, transformed to feed point	49.0 Ω + 2.5 j Ω
Return Loss	- 31.2 dB

Antenna Parameters with Head TSL at 5600 MHz

Impedance, transformed to feed point	50.0 Ω + 0.6 j Ω
Return Loss	- 44.1 dB

Antenna Parameters with Head TSL at 5800 MHz

Impedance, transformed to feed point	55.6 Ω + 1.9 j Ω
Return Loss	- 25.1 dB

Antenna Parameters with Body TSL at 5200 MHz

Impedance, transformed to feed point	48.6 Ω - 3.4 j Ω
Return Loss	- 28.6 dB

Antenna Parameters with Body TSL at 5300 MHz

Impedance, transformed to feed point	49.6 Ω - 2.4 j Ω
Return Loss	- 32.3 dB

Antenna Parameters with Body TSL at 5500 MHz

Impedance, transformed to feed point	49.5 Ω + 2.5 j Ω
Return Loss	- 31.7 dB

Antenna Parameters with Body TSL at 5600 MHz

Impedance, transformed to feed point	50.8 Ω + 2.5 j Ω
Return Loss	- 31.7 dB

Antenna Parameters with Body TSL at 5800 MHz

Impedance, transformed to feed point	56.0 Ω + 3.0 j Ω
Return Loss	- 24.0 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.191 ns
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After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

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

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

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	May 04, 2015

DASY5 Validation Report for Head TSL

Date: 21.09.2016

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1238

Communication System: UID 0 - CW; Frequency: 5200 MHz, Frequency: 5300 MHz, Frequency: 5500 MHz, Frequency: 5600 MHz, Frequency: 5800 MHz

Medium parameters used: f = 5200 MHz; $\sigma = 4.54$ S/m; $\epsilon_r = 34.6$; $\rho = 1000$ kg/m³

Medium parameters used: f = 5300 MHz; $\sigma = 4.63$ S/m; $\epsilon_r = 34.4$; $\rho = 1000$ kg/m³

Medium parameters used: f = 5500 MHz; $\sigma = 4.83$ S/m; $\epsilon_r = 34.2$; $\rho = 1000$ kg/m³

Medium parameters used: f = 5600 MHz; $\sigma = 4.93$ S/m; $\epsilon_r = 34.0$; $\rho = 1000$ kg/m³

Medium parameters used: f = 5800 MHz; $\sigma = 5.14$ S/m; $\epsilon_r = 33.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN3503; ConvF(5.59, 5.59, 5.59); Calibrated: 30.06.2016, ConvF(5.14, 5.14, 5.14); Calibrated: 30.06.2016, ConvF(5.02, 5.02, 5.02); Calibrated: 30.06.2016, ConvF(4.89, 4.89, 4.89); Calibrated: 30.06.2016, ConvF(4.85, 4.85, 4.85); Calibrated: 30.06.2016;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.12.2015
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; Serial: 1001
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7372)

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5200 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 70.35 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 27.9 W/kg

SAR(1 g) = 7.76 W/kg; SAR(10 g) = 2.22 W/kg

Maximum value of SAR (measured) = 17.9 W/kg

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5300 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 72.80 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 31.1 W/kg

SAR(1 g) = 8.38 W/kg; SAR(10 g) = 2.4 W/kg

Maximum value of SAR (measured) = 19.5 W/kg

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5500 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 70.90 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 31.9 W/kg

SAR(1 g) = 8.21 W/kg; SAR(10 g) = 2.34 W/kg

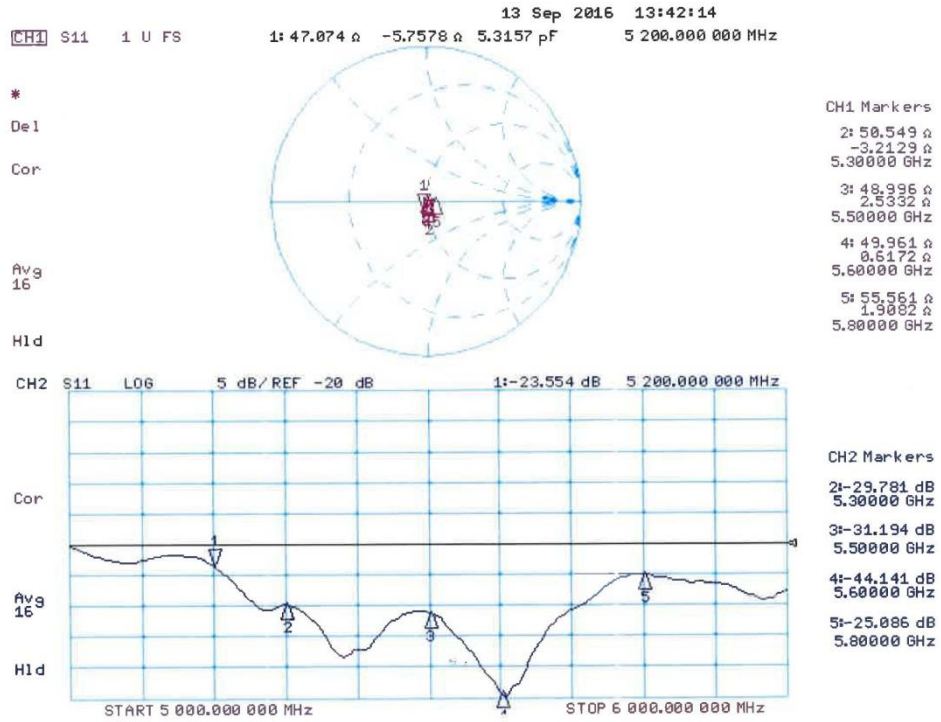
Maximum value of SAR (measured) = 19.5 W/kg

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5600 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 71.51 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 32.8 W/kg
SAR(1 g) = 8.38 W/kg; SAR(10 g) = 2.39 W/kg
Maximum value of SAR (measured) = 20.0 W/kg

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5800 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 69.07 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 32.5 W/kg
SAR(1 g) = 7.96 W/kg; SAR(10 g) = 2.26 W/kg
Maximum value of SAR (measured) = 19.4 W/kg



Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date: 20.09.2016

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1238

Communication System: UID 0 - CW; Frequency: 5200 MHz, Frequency: 5300 MHz, Frequency: 5500 MHz, Frequency: 5600 MHz, Frequency: 5800 MHz

Medium parameters used: $f = 5200$ MHz; $\sigma = 5.45$ S/m; $\epsilon_r = 47.5$; $\rho = 1000$ kg/m³

Medium parameters used: $f = 5300$ MHz; $\sigma = 5.59$ S/m; $\epsilon_r = 47.3$; $\rho = 1000$ kg/m³

Medium parameters used: $f = 5500$ MHz; $\sigma = 5.86$ S/m; $\epsilon_r = 47.0$; $\rho = 1000$ kg/m³

Medium parameters used: $f = 5600$ MHz; $\sigma = 6.00$ S/m; $\epsilon_r = 46.8$; $\rho = 1000$ kg/m³

Medium parameters used: $f = 5800$ MHz; $\sigma = 6.29$ S/m; $\epsilon_r = 46.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN3503; ConvF(4.99, 4.99, 4.99); Calibrated: 30.06.2016, ConvF(4.75, 4.75, 4.75); Calibrated: 30.06.2016, ConvF(4.4, 4.4, 4.4); Calibrated: 30.06.2016, ConvF(4.35, 4.35, 4.35); Calibrated: 30.06.2016, ConvF(4.27, 4.27, 4.27); Calibrated: 30.06.2016;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.12.2015
- Phantom: Flat Phantom 5.0 (back); Type: QD000P50AA; Serial: 1002
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7372)

Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5200MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 66.67 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 27.8 W/kg

SAR(1 g) = 7.48 W/kg; SAR(10 g) = 2.1 W/kg

Maximum value of SAR (measured) = 17.3 W/kg

Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5300 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 67.01 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 29.4 W/kg

SAR(1 g) = 7.69 W/kg; SAR(10 g) = 2.17 W/kg

Maximum value of SAR (measured) = 18.0 W/kg

Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5500 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 67.20 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 32.4 W/kg

SAR(1 g) = 8.03 W/kg; SAR(10 g) = 2.23 W/kg

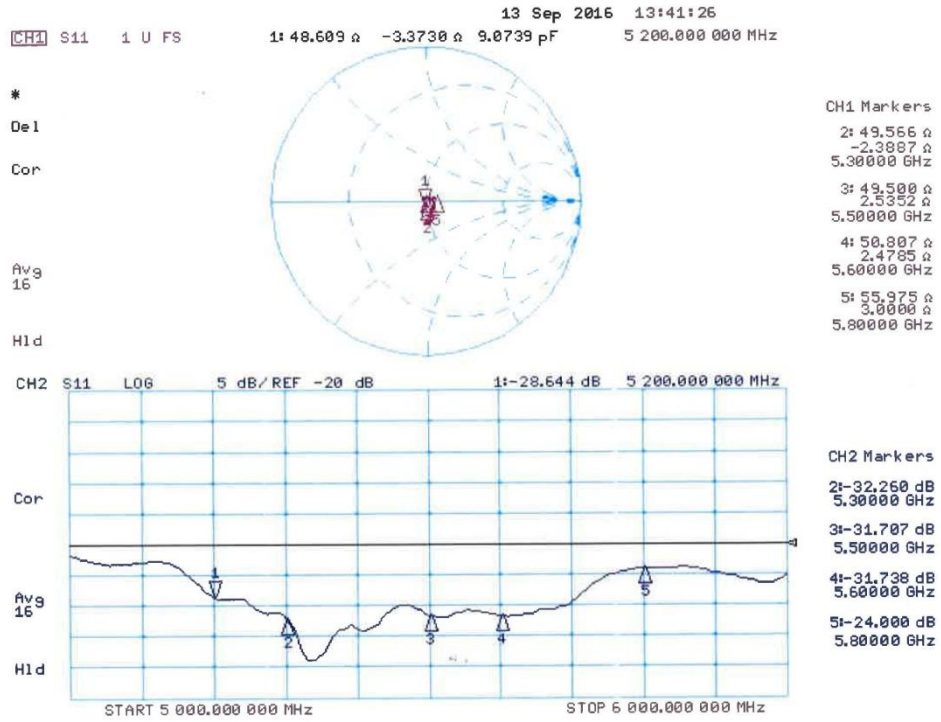
Maximum value of SAR (measured) = 19.2 W/kg

Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5600 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 66.47 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 32.7 W/kg
SAR(1 g) = 7.95 W/kg; SAR(10 g) = 2.23 W/kg
Maximum value of SAR (measured) = 19.1 W/kg

Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5800 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 64.40 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 33.2 W/kg
SAR(1 g) = 7.66 W/kg; SAR(10 g) = 2.13 W/kg
Maximum value of SAR (measured) = 18.8 W/kg



Impedance Measurement Plot for Body TSL



ANNEX J Extended Calibration SAR Dipole

Referring to KDB865664 D01, if dipoles are verified in return loss (<-20dBm, within 20% of prior calibration), and in impedance (within 5 ohm of prior calibration), the annual calibration is not necessary and the calibration interval can be extended.

Justification of Extended Calibration SAR Dipole D750V3– serial no.1163

Head						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (johm)	Delta (johm)
2016-09-19	-26.8	/	54.5	/	-1.8	/
2017-09-17	-25.4	5.2	53.2	1.3	-2.5	-0.7
2018-09-15	-24.9	7.6	52.7	1.8	-2.8	-1.0

Body						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (johm)	Delta (johm)
2016-09-19	-29.0	/	49.8	/	-3.5	/
2017-09-17	-25.2	13.1	46.9	2.9	-2.8	0.7
2018-09-15	-24.4	15.9	45.5	4.3	-3.0	0.5

Justification of Extended Calibration SAR Dipole D1750V2– serial no.1152

Head						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (johm)	Delta (johm)
2016-09-09	-42.9	/	50.5	/	-0.5	/
2017-09-08	-40.6	5.4	48.8	1.7	-0.4	0.1
2018-09-06	-38.7	9.8	46.5	4.0	-0.3	0.2

Body						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (johm)	Delta (johm)
2016-09-09	-27.6	/	46.3	/	-1.6	/
2017-09-08	-25.8	6.5	45.4	0.9	-1.4	0.2
2018-09-06	-24.6	10.9	44.7	1.6	-1.2	0.4

Justification of Extended Calibration SAR Dipole D5GHzV2– serial no.1238

Head							
Date of Measurement	Frequency	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (johm)	Delta (johm)
2016-09-21	5200MHz	-23.6	/	47.1	/	5.80	/
2017-09-20		-21.7	8.1	48.3	1.2	3.38	2.42
2018-09-18		-21.2	10.2	48.7	1.6	3.25	2.55
2016-09-21	5300MHz	-29.8	/	50.5	/	3.20	/
2017-09-20		-27.8	6.7	51.9	1.4	4.51	1.31
2018-09-18		-26.2	12.1	53.3	2.8	4.82	1.62
2016-09-21	5500MHz	-31.2	/	49.0	/	2.50	/
2017-09-20		-29.5	5.4	50.3	1.3	1.24	1.26
2018-09-18		-28.1	9.9	51.4	2.4	1.55	0.95
2016-09-21	5600MHz	-44.1	/	50.0	/	0.60	/
2017-09-20		-42.6	3.4	51.5	1.5	2.55	1.95
2018-09-18		-40.5	8.2	53.3	3.3	3.01	2.41
2016-09-21	5800MHz	-25.1	/	55.6	/	1.90	/
2017-09-20		-23.8	5.2	56.9	1.3	3.04	1.14
2018-09-18		-22.7	9.6	57.3	1.7	2.88	0.98

Body							
Date of Measurement	Frequency	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (johm)	Delta (johm)
2016-09-21	5200MHz	-28.6	/	48.6	/	3.40	/
2017-09-20		-26.4	7.7	50.0	1.4	3.72	0.32
2018-09-18		-24.6	14.0	51.2	2.6	3.85	0.45
2016-09-21	5300MHz	-32.3	/	49.6	/	2.40	/
2017-09-20		-30.5	5.6	51.3	1.7	3.64	1.24
2018-09-18		-28.9	10.5	52.6	3.0	3.77	1.37
2016-09-21	5500MHz	-31.7	/	49.5	/	2.50	/
2017-09-20		-29.8	6.0	51.4	1.9	4.25	1.75
2018-09-18		-27.5	13.2	52.8	3.3	4.44	1.94
2016-09-21	5600MHz	-31.7	/	50.8	/	2.50	/
2017-09-20		-29.5	6.9	52.3	1.5	2.91	0.41
2018-09-18		-28.6	9.8	52.9	2.1	3.03	0.53
2016-09-21	5800MHz	-24.0	/	56.0	/	3.00	/
2017-09-20		-22.8	5.0	57.3	1.3	4.23	1.23
2018-09-18		-21.5	10.4	57.8	1.6	4.46	1.46

The Return-Loss is <-20dB, and within 20% of prior calibration; the impedance is within 5 ohm of prior calibration. Therefore the value result should support extended c.

ANNEX K Spot Check Test

As the test lab for 9653 from Spectralink Corp, we, Shenzhen Academy of Information and Communications Technology, declare on our sole responsibility that, according to “Justification Letter” provided by applicant, only the Spot check test should be performed. The test results are as below.

K.1 Internal Identification of EUT used during the spot check test

EUT ID*	IMEI	HW Version	SW Version
EUT3	359940090001094	PIO	vF03

Note: Battery - NINGBO VEKEN BATTERY CO., LTD

K.2 Measurement results

SAR Values (GSM 850)

Frequency		Test Position		SAR(1g) (W/kg)		
MHz	Ch.			Spot check data		Original data
				Measured SAR	Reported SAR	
836.6	190	Head	Left Touch	0.202	0.25	0.20
836.6	190	Body	Bottom	0.236	0.28	0.28

SAR Values (GSM 1900)

Frequency		Test Position		SAR(1g) (W/kg)		
MHz	Ch.			Spot check data		Original data
				Measured SAR	Reported SAR	
1880	661	Head	Right Touch	0.191	0.21	0.10
1880	661	Body	Front	0.330	0.37	0.34

SAR Values (WCDMA 850)

Frequency		Test Position		SAR(1g) (W/kg)		
MHz	Ch.			Spot check data		Original data
				Measured SAR	Reported SAR	
836.4	4182	Head	Left Touch	0.224	0.42	0.13
836.4	4182	Body	Bottom	0.211	0.23	0.22

SAR Values (WCDMA 1900)

Frequency		Test Position		SAR(1g) (W/kg)		
MHz	Ch.			Spot check data		Original data
				Measured SAR	Reported SAR	
1880	9400	Head	Left Touch	0.677	0.71	0.55
1880	9400	Body	Front	0.526	0.55	0.47

SAR Values (WCDMA 1700)

Frequency		Test Position		SAR(1g) (W/kg)		
MHz	Ch.			Spot check data		Original data
				Measured SAR	Reported SAR	
1732.6	1413	Head	Left Touch	0.392	0.42	0.39
1732.6	1413	Body	Front	0.429	0.46	0.41

SAR Values (LTE-Band 2)

Frequency		Test Position		SAR(1g) (W/kg)		
MHz	Ch.			Spot check data		Original data
				Measured SAR	Reported SAR	
1880	18900	Head	Left Touch	0.621	0.71	0.54
1880	18900	Body	Bottom	0.375	0.43	0.54

SAR Values (LTE-Band 4)

Frequency		Test Position		SAR(1g) (W/kg)		
MHz	Ch.			Spot check data		Original data
				Measured SAR	Reported SAR	
1732.5	20175	Head	Left Touch	0.403	0.49	0.41
1732.5	20175	Body	Bottom	0.251	0.30	0.53

SAR Values (LTE-Band 5)

Frequency		Test Position		SAR(1g) (W/kg)		
MHz	Ch.			Spot check data		Original data
				Measured SAR	Reported SAR	
836.5	20525	Head	Left Touch	0.176	0.19	0.13
836.5	20525	Body	Rear	0.169	0.18	0.04

SAR Values (LTE-Band 7)

Frequency		Test Position		SAR(1g) (W/kg)		
MHz	Ch.			Spot check data		Original data
				Measured SAR	Reported SAR	
2535	21100	Head	Left Touch	0.461	0.57	0.28
2535	21100	Body	Front	0.584	0.73	0.87

SAR Values (LTE-Band 12)

Frequency		Test Position		SAR(1g) (W/kg)		
MHz	Ch.			Spot check data		Original data
				Measured SAR	Reported SAR	
707.5	23095	Head	Left Touch	0.082	0.09	0.11
707.5	23095	Body	Rear	0.105	0.11	0.15

SAR Values (LTE-Band 13)

Frequency		Test Position		SAR(1g) (W/kg)		
MHz	Ch.			Spot check data		Original data
				Measured SAR	Reported SAR	
782	23230	Head	Left Touch	0.090	0.10	0.10
782	23230	Body	Rear	0.086	0.09	0.10

SAR Values (LTE-Band 25)

Frequency		Test Position		SAR(1g) (W/kg)		
MHz	Ch.			Spot check data		Original data
				Measured SAR	Reported SAR	
1882.5	26365	Head	Left Touch	0.614	0.66	0.49
1882.5	26365	Body	Bottom	0.384	0.41	0.49

SAR Values (LTE-Band 26)

Frequency		Test Position		SAR(1g) (W/kg)		
MHz	Ch.			Spot check data		Original data
				Measured SAR	Reported SAR	
831.5	26865	Head	Right Touch	0.174	0.20	0.14
831.5	26865	Body	Rear	0.166	0.19	0.05

SAR Values (LTE-Band 38)

Frequency		Test Position		SAR(1g) (W/kg)		
MHz	Ch.			Spot check data		Original data
				Measured SAR	Reported SAR	
2595	38000	Head	Left Touch	0.340	0.38	0.26
2595	38000	Body	Front	0.450	0.51	0.45

SAR Values (LTE-Band 66)

Frequency		Test Position		SAR(1g) (W/kg)		
MHz	Ch.			Spot check data		Original data
				Measured SAR	Reported SAR	
1745	132322	Head	Left Touch	0.377	0.44	0.41
1745	132322	Body	Front	0.315	0.36	0.51

SAR Values (Wi-Fi 2.4G)

Frequency		Test Position		SAR(10g) (W/kg)		
MHz	Ch.			Spot check data		Original data
				Measured SAR	Reported SAR	
Main antenna						
2437	6	Head	Left Touch	0.302	0.35	0.66
2437	6	Body	Rear	0.298	0.34	0.19
Second antenna						
2462	11	Head	Right Touch	0.385	0.43	0.60
2462	11	Body	Rear	0.278	0.31	0.17
MIMO						
2412	1	Head	Left Tilt	0.135	0.16	0.26
2412	1	Body	Rear	0.156	0.19	0.11

SAR Values (Wi-Fi 5G)

Frequency		Test Position		SAR(10g) (W/kg)		
MHz	Ch.			Spot check data		Original data
				Measured SAR	Reported SAR	
Main antenna						
5825	165	Head	Left Touch	0.107	0.16	0.35
5825	165	Body	Rear	0.300	0.44	0.31
Second antenna						
5785	157	Head	Right Tilt	0.696	0.99	0.99
5785	157	Body	Top	0.204	0.29	0.31
MIMO						
5825	165	Head	Right Tilt	0.748	0.91	1.08
5785	157	Body	Top	0.262	0.30	0.24

K.3 Graph Results for Spot Check

GSM850 Head

Date: 2019-1-23

Electronics: DAE4 Sn1527

Medium: Head 835 MHz

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.886$ S/m; $\epsilon_r = 41.352$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, GSM (0) Frequency: 836.6 MHz Duty Cycle: 1:8.3

Probe: EX3DV4 – SN3633 ConvF (9.33, 9.33, 9.33);

Left Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.217 W/kg

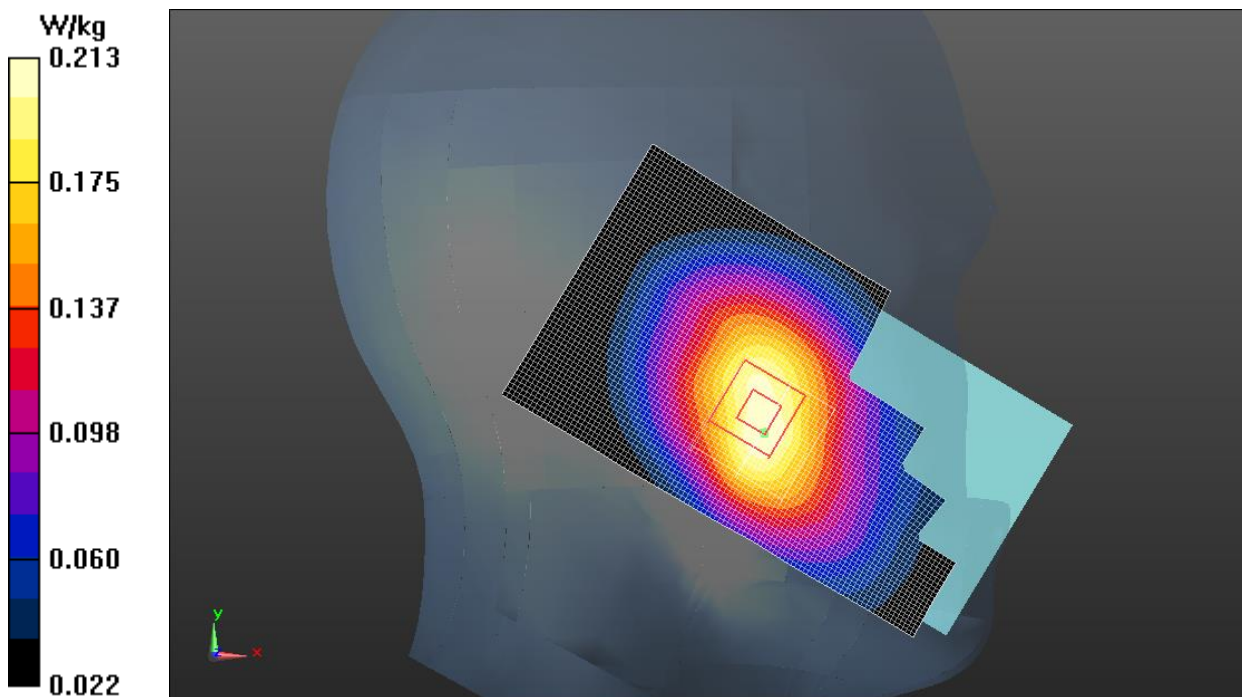
Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.232 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.258 W/kg

SAR(1 g) = 0.202 W/kg; SAR(10 g) = 0.150 W/kg

Maximum value of SAR (measured) = 0.213 W/kg



GSM850 Body

Date: 2019-1-23

Electronics: DAE4 Sn1527

Medium: Body 835 MHz

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.99$ S/m; $\epsilon_r = 54.071$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, GPRS 2Txslot (0) Frequency: 836.6 MHz Duty Cycle: 1:4

Probe: EX3DV4 – SN3633 ConvF (9.69, 9.69, 9.69);

Bottom Side Middle/Area Scan (51x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.328 W/kg

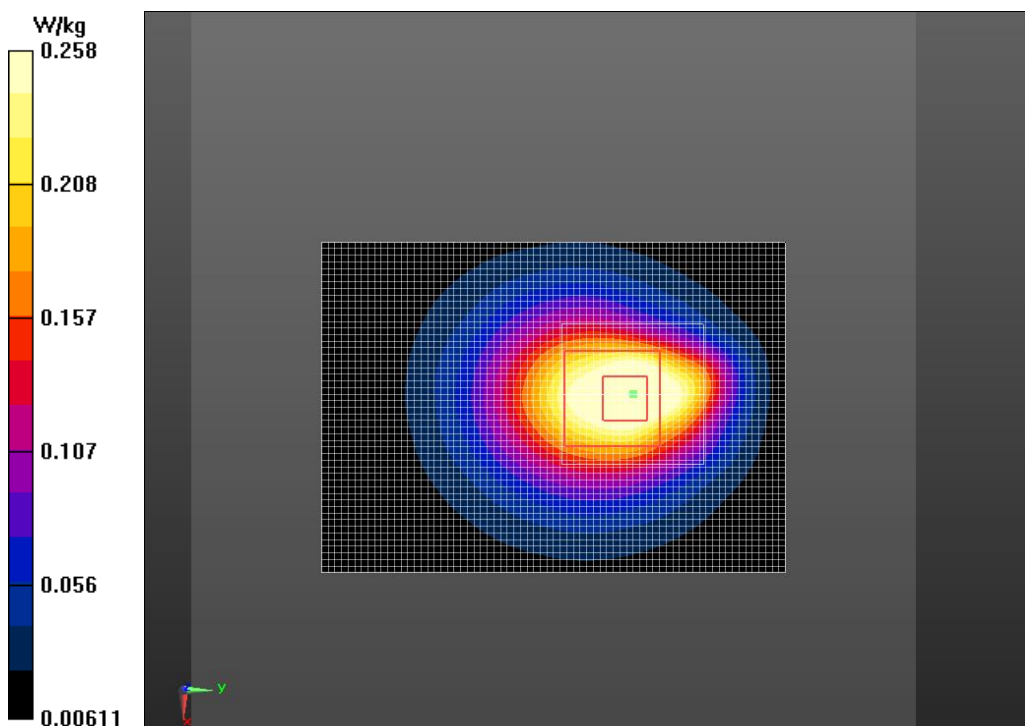
Bottom Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.70 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.408 W/kg

SAR(1 g) = 0.236 W/kg; SAR(10 g) = 0.141 W/kg

Maximum value of SAR (measured) = 0.258 W/kg



GSM1900 Head

Date: 2019-1-24

Electronics: DAE4 Sn1527

Medium: Head 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.364$ S/m; $\epsilon_r = 40.702$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, GSM (0) Frequency: 1880 MHz Duty Cycle: 1:8.3

Probe: EX3DV4 – SN3633 ConvF (7.81, 7.81, 7.81);

Right Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.197 W/kg

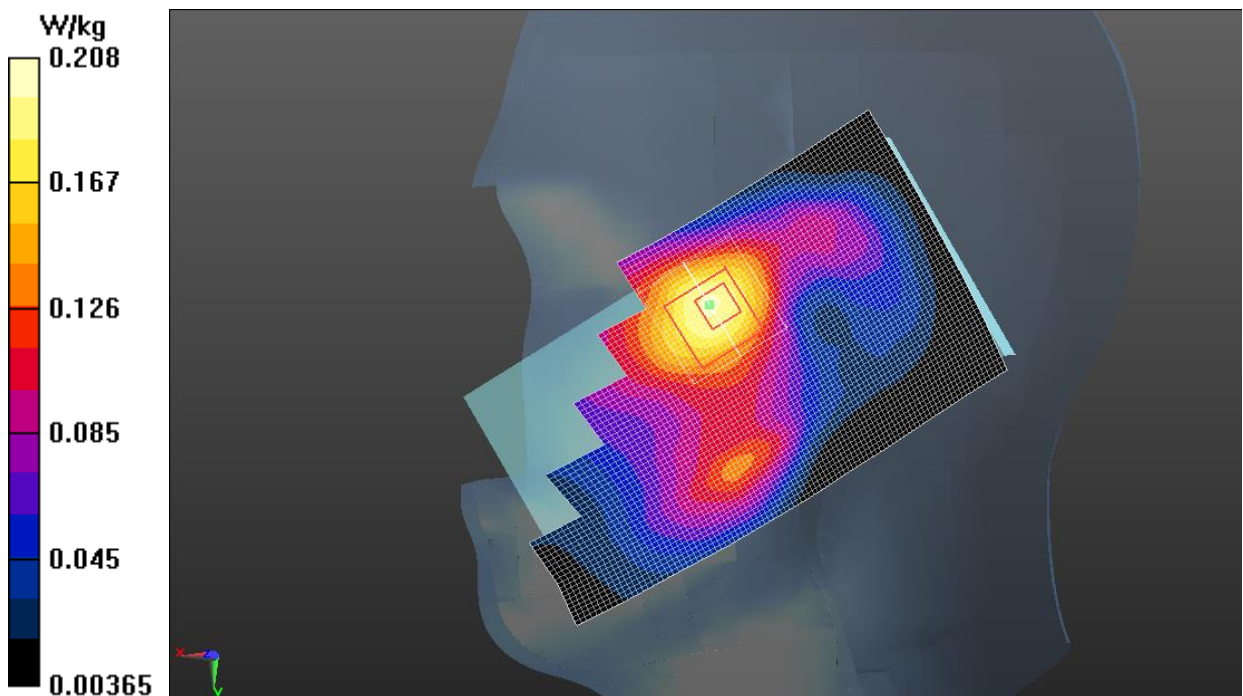
Right/Right Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.791 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.291 W/kg

SAR(1 g) = 0.191 W/kg; SAR(10 g) = 0.121 W/kg

Maximum value of SAR (measured) = 0.208 W/kg



GSM1900 Body

Date: 2019-1-24

Electronics: DAE4 Sn1527

Medium: Body 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.527$ S/m; $\epsilon_r = 52.992$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, GPRS 2Txslot (0) Frequency: 1880 MHz Duty Cycle: 1:4

Probe: EX3DV4 – SN3633 ConvF (7.75, 7.75, 7.75);

Front Side Middle/Area Scan (111x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.428 W/kg

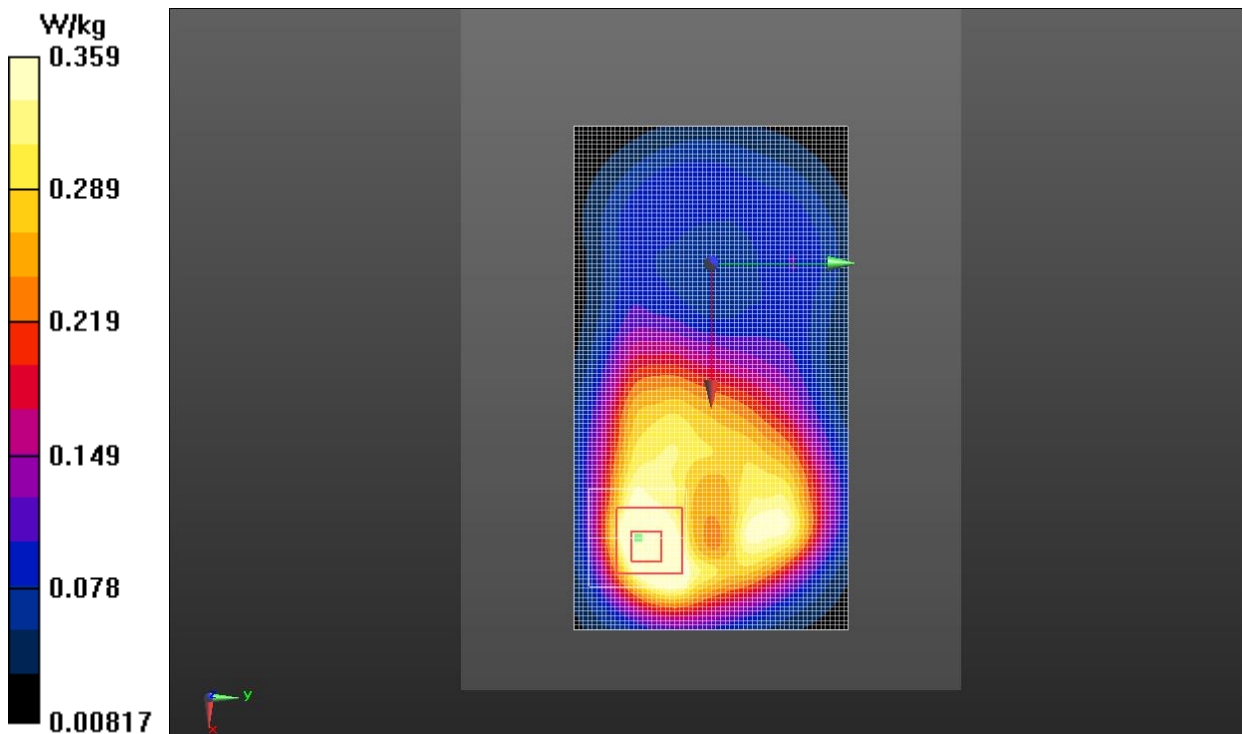
Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.182 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.575 W/kg

SAR(1 g) = 0.330 W/kg; SAR(10 g) = 0.189 W/kg

Maximum value of SAR (measured) = 0.359 W/kg



WCDMA 850 Head

Date: 2019-1-23

Electronics: DAE4 Sn1527

Medium: Head 835 MHz

Medium parameters used (interpolated): $f = 836.4$ MHz; $\sigma = 0.886$ S/m; $\epsilon_r = 41.354$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, WCDMA (0) Frequency: 836.4 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (9.33, 9.33, 9.33);

Left Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.234 W/kg

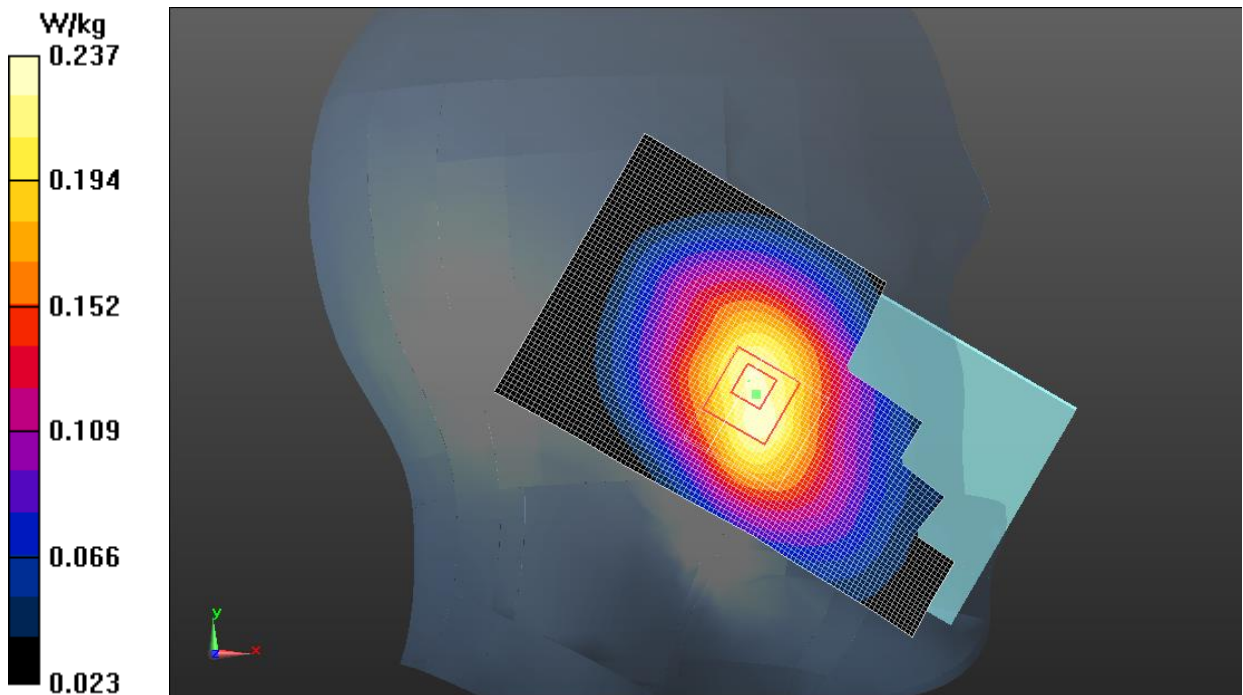
Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.057 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.286 W/kg

SAR(1 g) = 0.224 W/kg; SAR(10 g) = 0.165 W/kg

Maximum value of SAR (measured) = 0.237 W/kg



WCDMA 850 Body

Date: 2019-1-23

Electronics: DAE4 Sn1527

Medium: Body 835 MHz

Medium parameters used (interpolated): $f = 836.4$ MHz; $\sigma = 0.99$ S/m; $\epsilon_r = 54.073$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, WCDMA (0) Frequency: 836.4 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (9.69, 9.69, 9.69);

Bottom Side Middle/Area Scan (51x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.325 W/kg

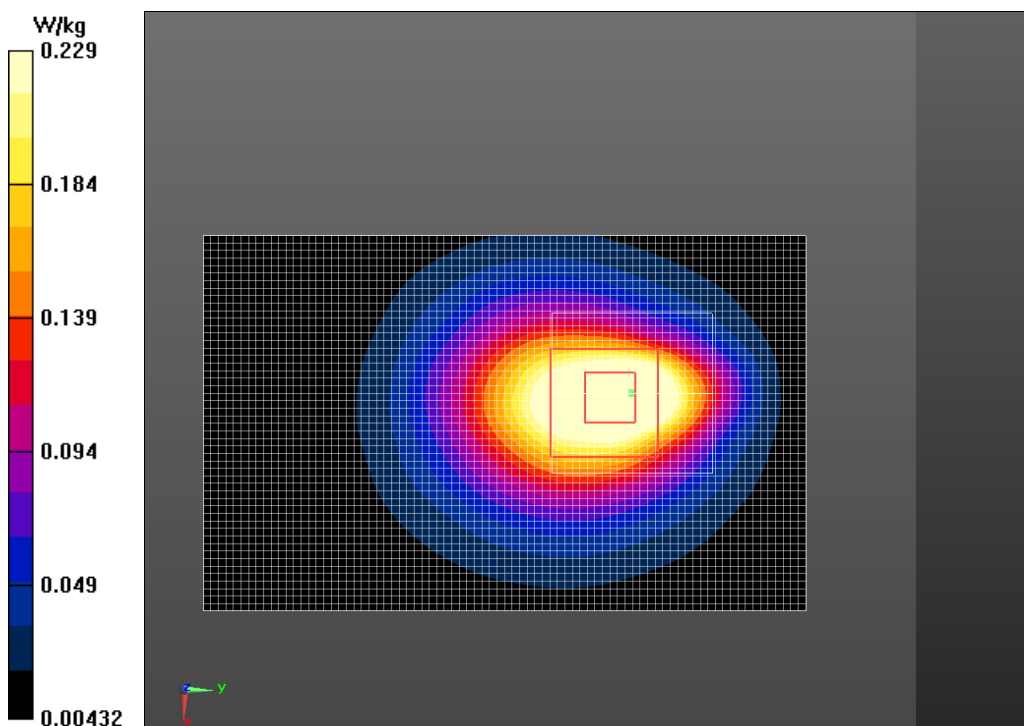
Bottom Side Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.05 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.369 W/kg

SAR(1 g) = 0.211 W/kg; SAR(10 g) = 0.124 W/kg

Maximum value of SAR (measured) = 0.229 W/kg



WCDMA 1900 Head

Date: 2019-1-24

Electronics: DAE4 Sn1527

Medium: Head 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.364$ S/m; $\epsilon_r = 40.702$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, WCDMA (0) Frequency: 1880 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (7.81, 7.81, 7.81);

Left Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.776 W/kg

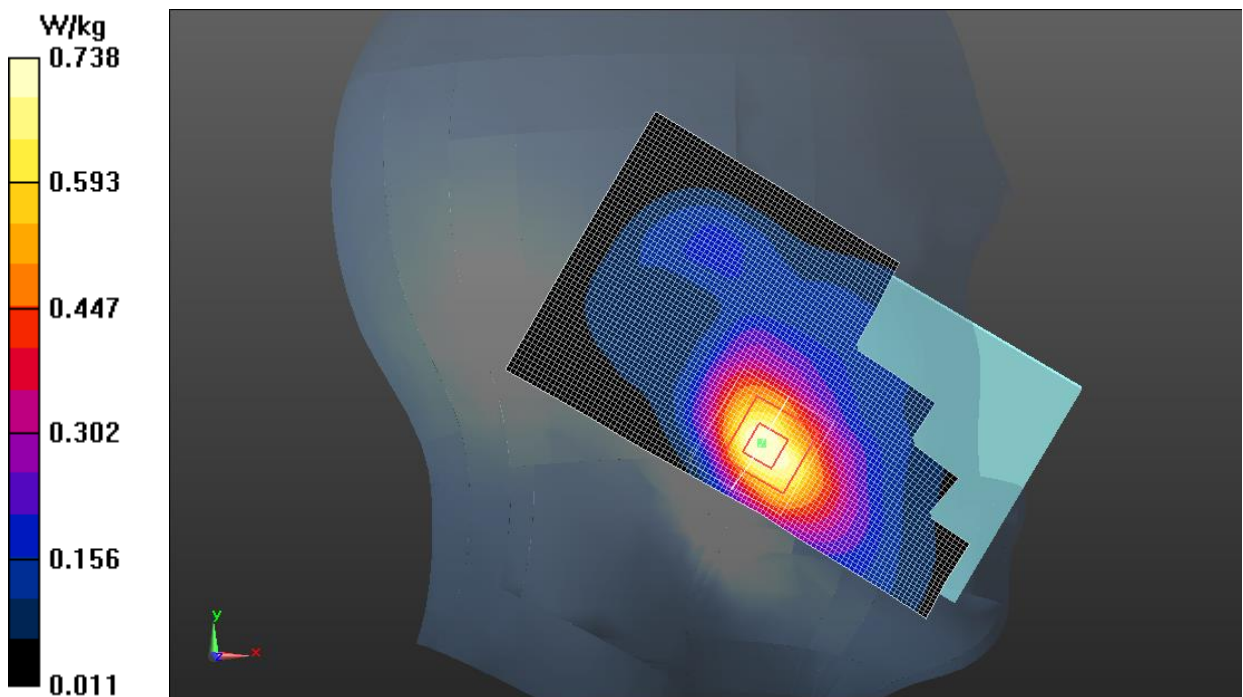
Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.472 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 1.07 W/kg

SAR(1 g) = 0.677 W/kg; SAR(10 g) = 0.405 W/kg

Maximum value of SAR (measured) = 0.738 W/kg



WCDMA 1900 Body

Date: 2019-1-24

Electronics: DAE4 Sn1527

Medium: Body 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.527$ S/m; $\epsilon_r = 52.992$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, WCDMA (0) Frequency: 1880 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (7.75, 7.75, 7.75);

Front Side Middle/Area Scan (111x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.702 W/kg

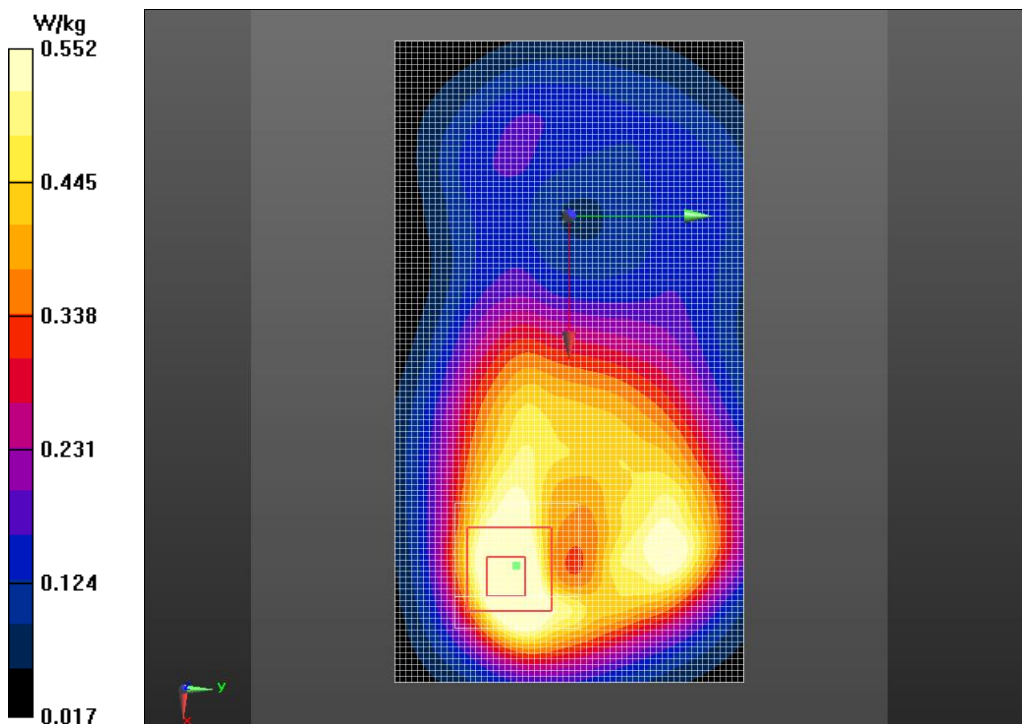
Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.938 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.920 W/kg

SAR(1 g) = 0.526 W/kg; SAR(10 g) = 0.294 W/kg

Maximum value of SAR (measured) = 0.552 W/kg



WCDMA 1700 Head

Date: 2019-1-24

Electronics: DAE4 Sn1527

Medium: Head 1750 MHz

Medium parameters used (interpolated): $f = 1732.6$ MHz; $\sigma = 1.342$ S/m; $\epsilon_r = 39.731$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, WCDMA (0) Frequency: 1732.6 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (8.12, 8.12, 8.12);

Left Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.439 W/kg

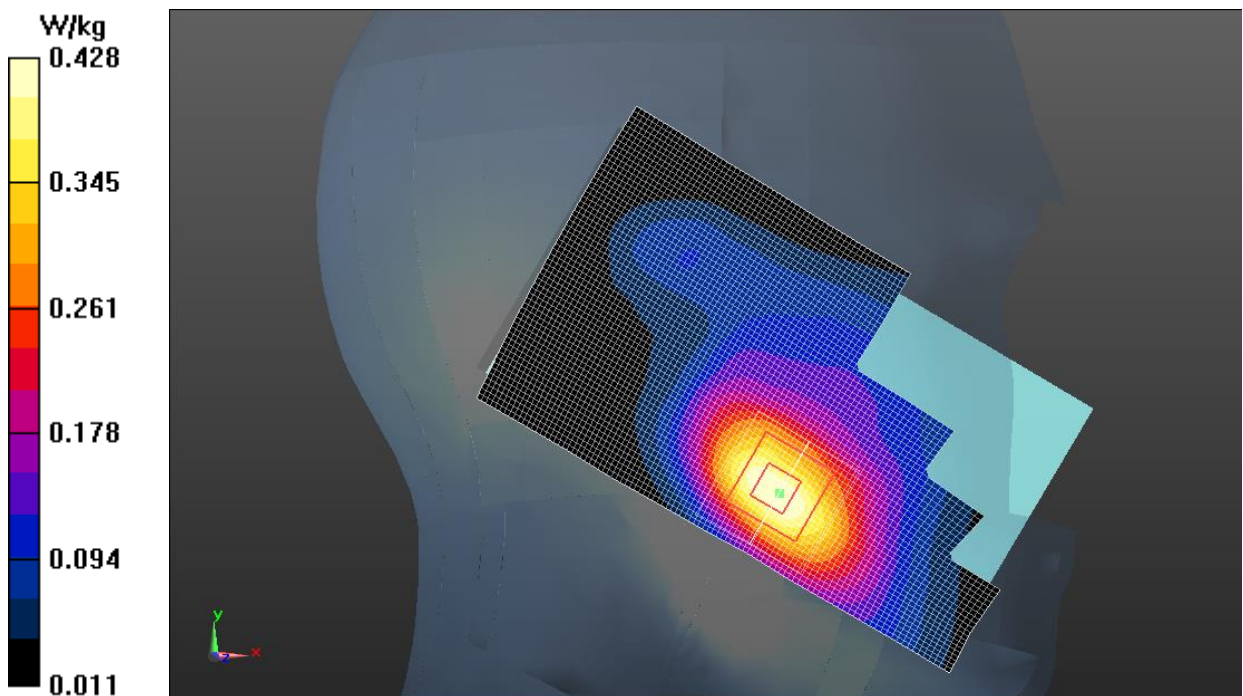
Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.930 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.621 W/kg

SAR(1 g) = 0.392 W/kg; SAR(10 g) = 0.241 W/kg

Maximum value of SAR (measured) = 0.428 W/kg



WCDMA 1700 Body

Date: 2019-1-24

Electronics: DAE4 Sn1527

Medium: Body 1750 MHz

Medium parameters used (interpolated): $f = 1732.6$ MHz; $\sigma = 1.438$ S/m; $\epsilon_r = 53.427$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, WCDMA (0) Frequency: 1732.6 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (8.05, 8.05, 8.05);

Front Side Middle/Area Scan (111x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.606 W/kg

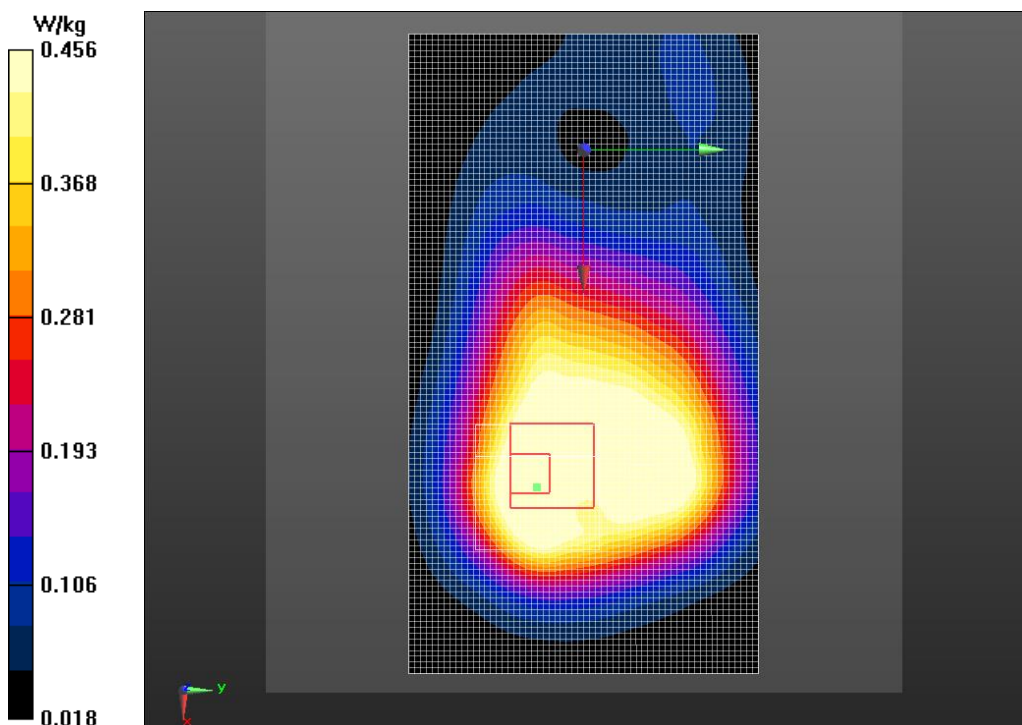
Front Side Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.449 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.693 W/kg

SAR(1 g) = 0.429 W/kg; SAR(10 g) = 0.274 W/kg

Maximum value of SAR (measured) = 0.456 W/kg



LTE Band 2 Head

Date: 2019-1-24

Electronics: DAE4 Sn1527

Medium: Head 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.364$ S/m; $\epsilon_r = 40.702$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE_FDD (0) Frequency: 1880 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (7.81, 7.81, 7.81);

Left Cheek Mid 1RB_Low/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.694 W/kg

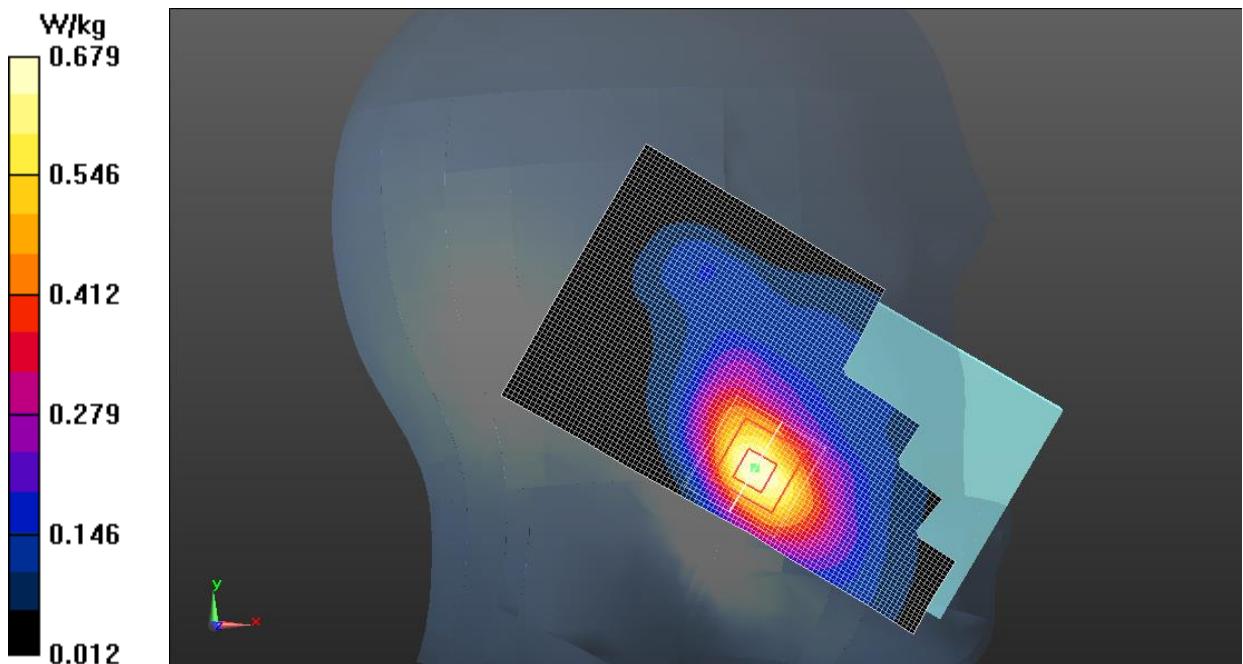
Left Cheek Mid 1RB_Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.785 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 1.00 W/kg

SAR(1 g) = 0.621 W/kg; SAR(10 g) = 0.370 W/kg

Maximum value of SAR (measured) = 0.679 W/kg



LTE Band 2 Body

Date: 2019-1-24

Electronics: DAE4 Sn1527

Medium: Body 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.527$ S/m; $\epsilon_r = 52.992$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE_FDD (0) Frequency: 1880 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (7.75, 7.75, 7.75);

Bottom Side Mid 1RB_Low/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.519 W/kg

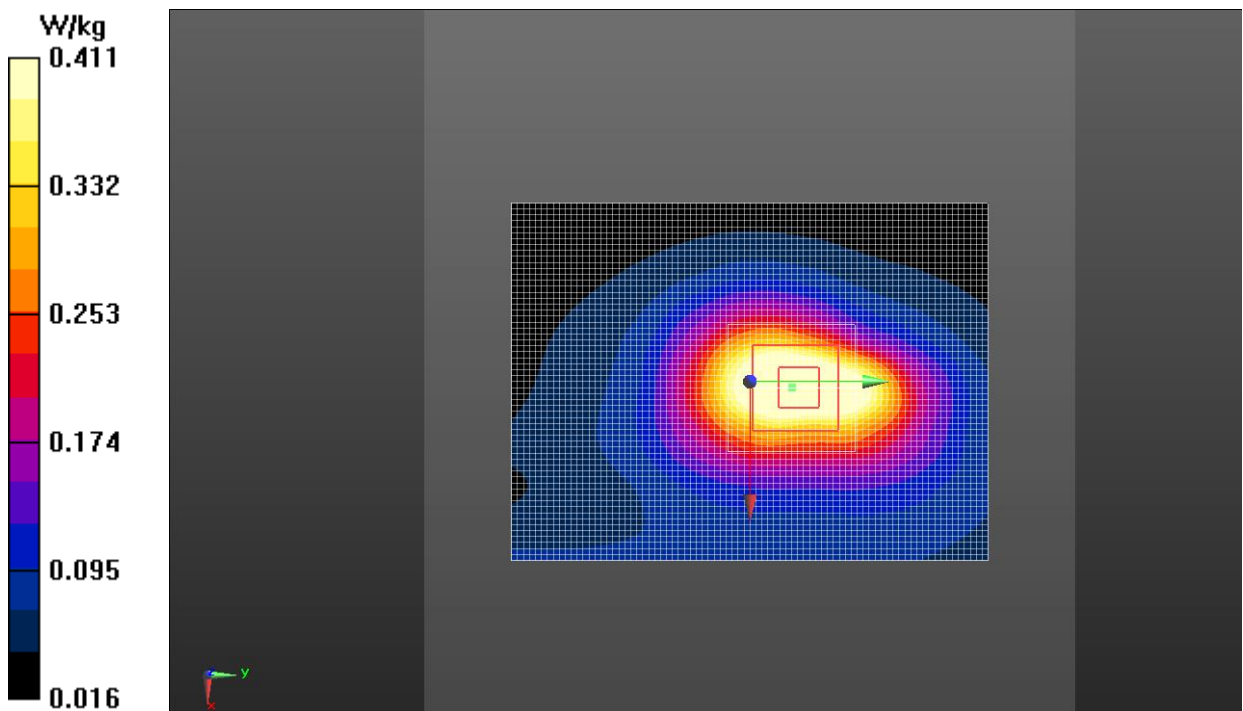
Bottom Side Mid 1RB_Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.32 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.614 W/kg

SAR(1 g) = 0.375 W/kg; SAR(10 g) = 0.221 W/kg

Maximum value of SAR (measured) = 0.411 W/kg



LTE Band 4 Head

Date: 2019-1-24

Electronics: DAE4 Sn1527

Medium: Head 1750 MHz

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.342$ S/m; $\epsilon_r = 39.732$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE_FDD (0) Frequency: 1732.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (8.12, 8.12, 8.12);

Left Cheek Mid 1RB_Low/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.444 W/kg

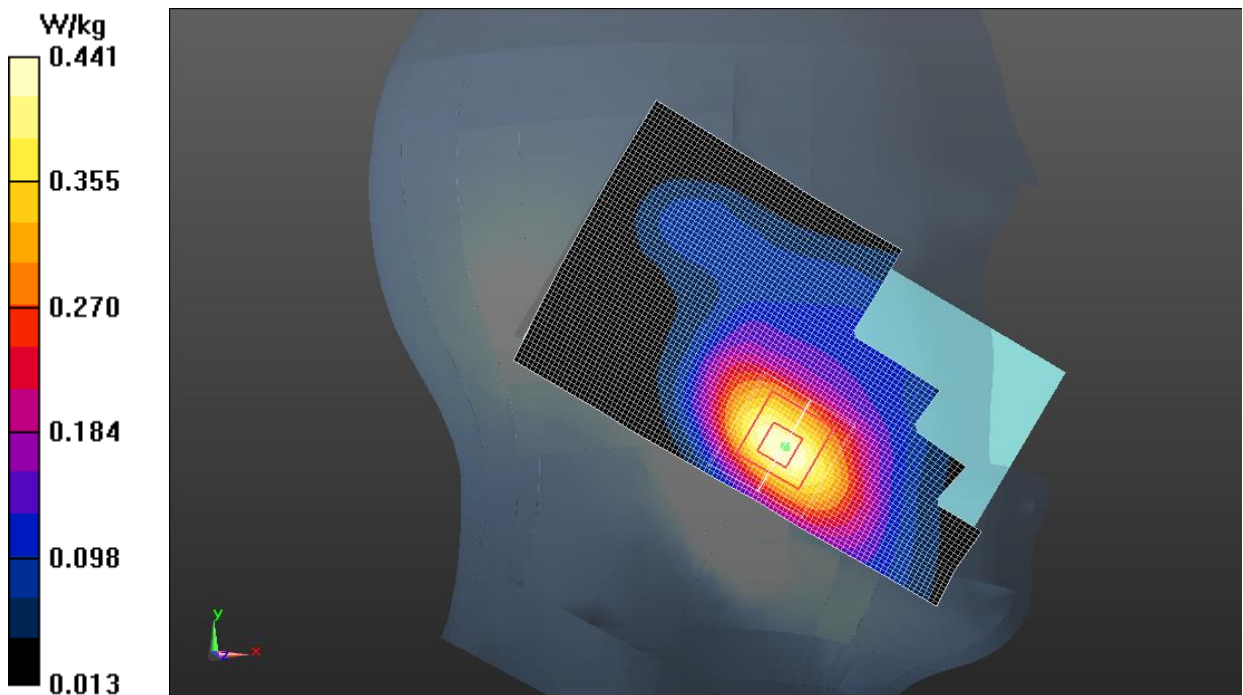
Left Cheek Mid 1RB_Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.790 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.638 W/kg

SAR(1 g) = 0.403 W/kg; SAR(10 g) = 0.248 W/kg

Maximum value of SAR (measured) = 0.441 W/kg



LTE Band 4 Body

Date: 2019-1-24

Electronics: DAE4 Sn1527

Medium: Body 1750 MHz

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.438$ S/m; $\epsilon_r = 53.428$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE_FDD (0) Frequency: 1732.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (8.05, 8.05, 8.05);

Bottom Side Mid 1RB_Low /Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.344 W/kg

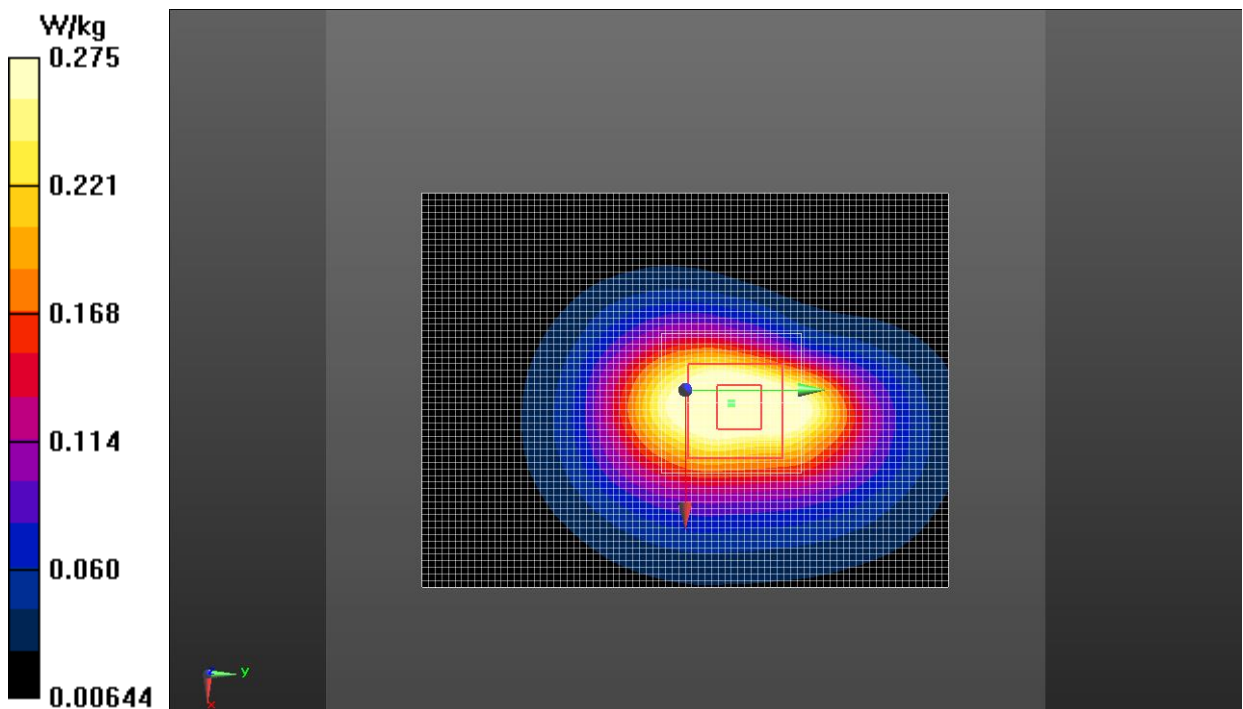
Bottom Side Mid 1RB_Low /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.84 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.397 W/kg

SAR(1 g) = 0.251 W/kg; SAR(10 g) = 0.150 W/kg

Maximum value of SAR (measured) = 0.275 W/kg



LTE Band 5 Head

Date: 2019-1-23

Electronics: DAE4 Sn1527

Medium: Head 835 MHz

Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.886$ S/m; $\epsilon_r = 41.353$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE_FDD (0) Frequency: 836.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (9.33, 9.33, 9.33);

Right Cheek Mid 1RB_Mid/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.185 W/kg

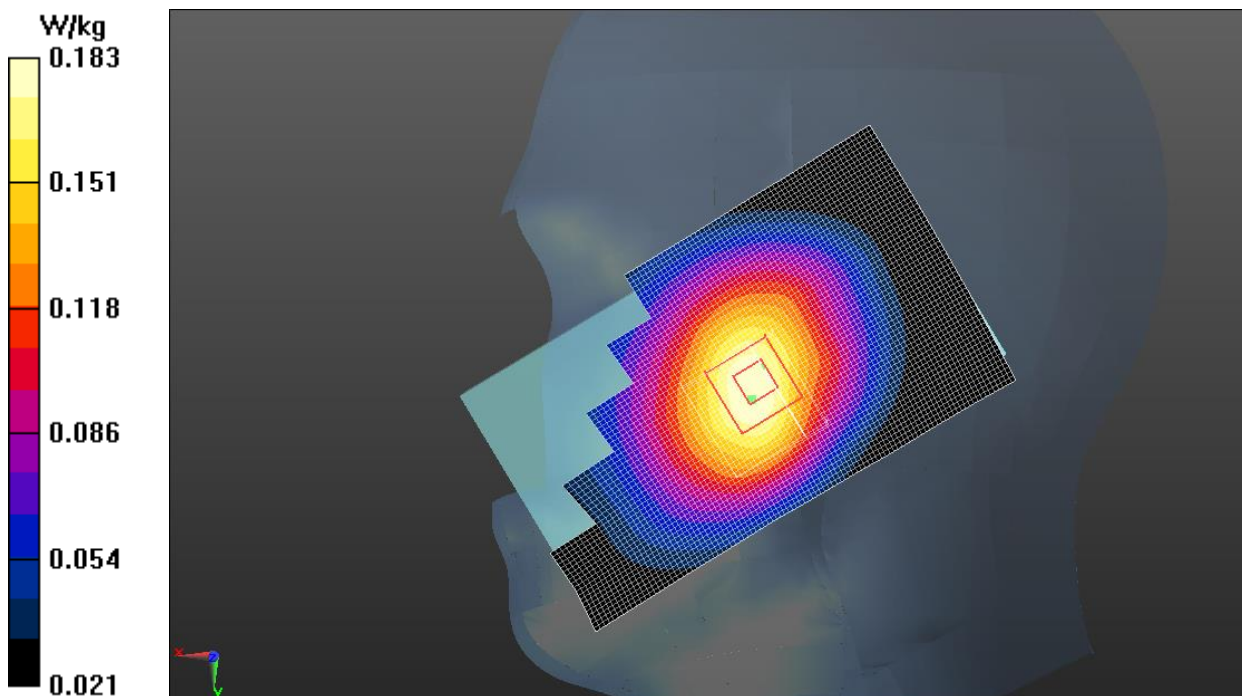
Right Cheek Mid 1RB_Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.261 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.222 W/kg

SAR(1 g) = 0.176 W/kg; SAR(10 g) = 0.131 W/kg

Maximum value of SAR (measured) = 0.183 W/kg



LTE Band 5 Body

Date: 2019-1-23

Electronics: DAE4 Sn1527

Medium: Body 835 MHz

Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.99$ S/m; $\epsilon_r = 54.072$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE_FDD (0) Frequency: 836.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (9.69, 9.69, 9.69);

Rear Side Mid 1RB_Mid/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.195 W/kg

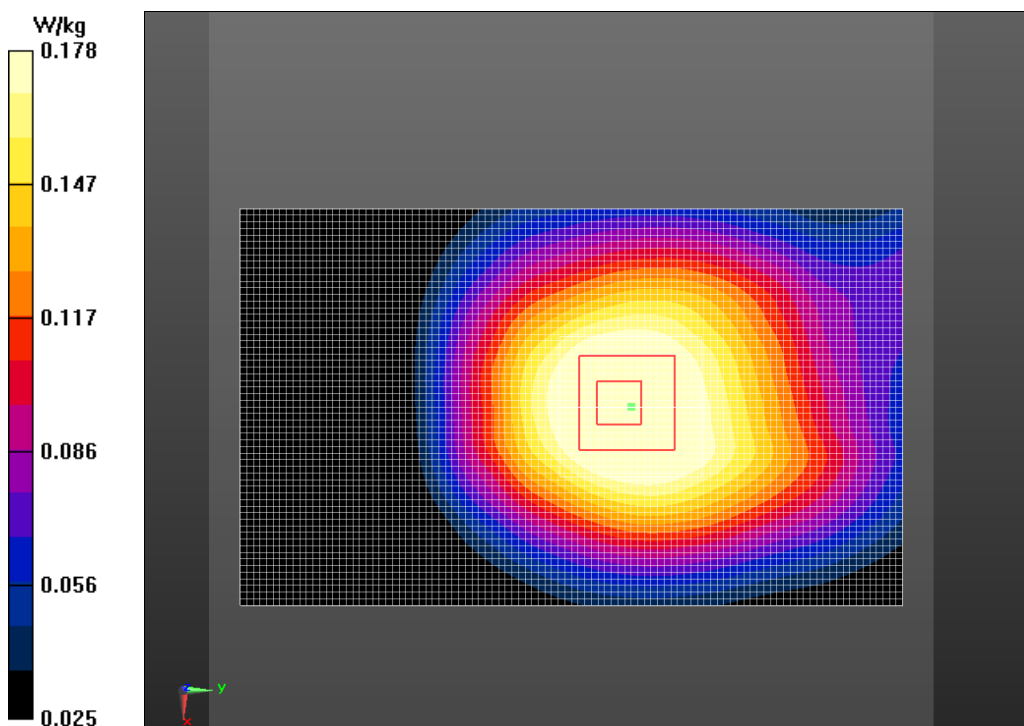
Rear Side Mid 1RB_Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.10 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.214 W/kg

SAR(1 g) = 0.169 W/kg; SAR(10 g) = 0.127 W/kg

Maximum value of SAR (measured) = 0.178 W/kg



LTE Band 7 Head

Date: 2019-1-24

Electronics: DAE4 Sn1527

Medium: Head 2550 MHz

Medium parameters used (interpolated): $f = 2535$ MHz; $\sigma = 1.954$ S/m; $\epsilon_r = 38.417$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE_FDD (0) Frequency: 2535 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (7.28, 7.28, 7.28);

Left Cheek Mid 1RB_High/Area Scan (61x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.525 W/kg

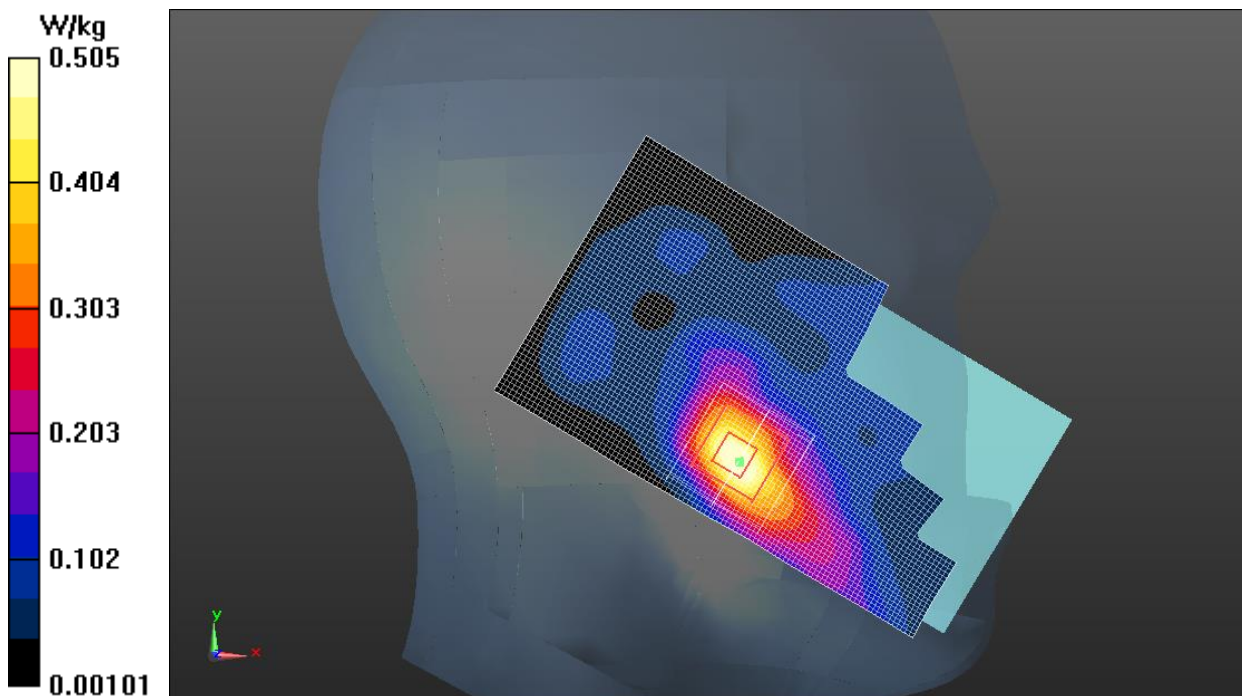
Left Cheek Mid 1RB_High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.368 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.839 W/kg

SAR(1 g) = 0.461 W/kg; SAR(10 g) = 0.241 W/kg

Maximum value of SAR (measured) = 0.505 W/kg



LTE Band 7 Body

Date: 2019-1-24

Electronics: DAE4 Sn1527

Medium: Body 2550 MHz

Medium parameters used (interpolated): $f = 2535$ MHz; $\sigma = 2.034$ S/m; $\epsilon_r = 53.265$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, 4G_LTE_FDD (0) Frequency: 2535 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (7.31, 7.31, 7.31);

Bottom Side Mid 11RB_High/Area Scan (61x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.822 W/kg

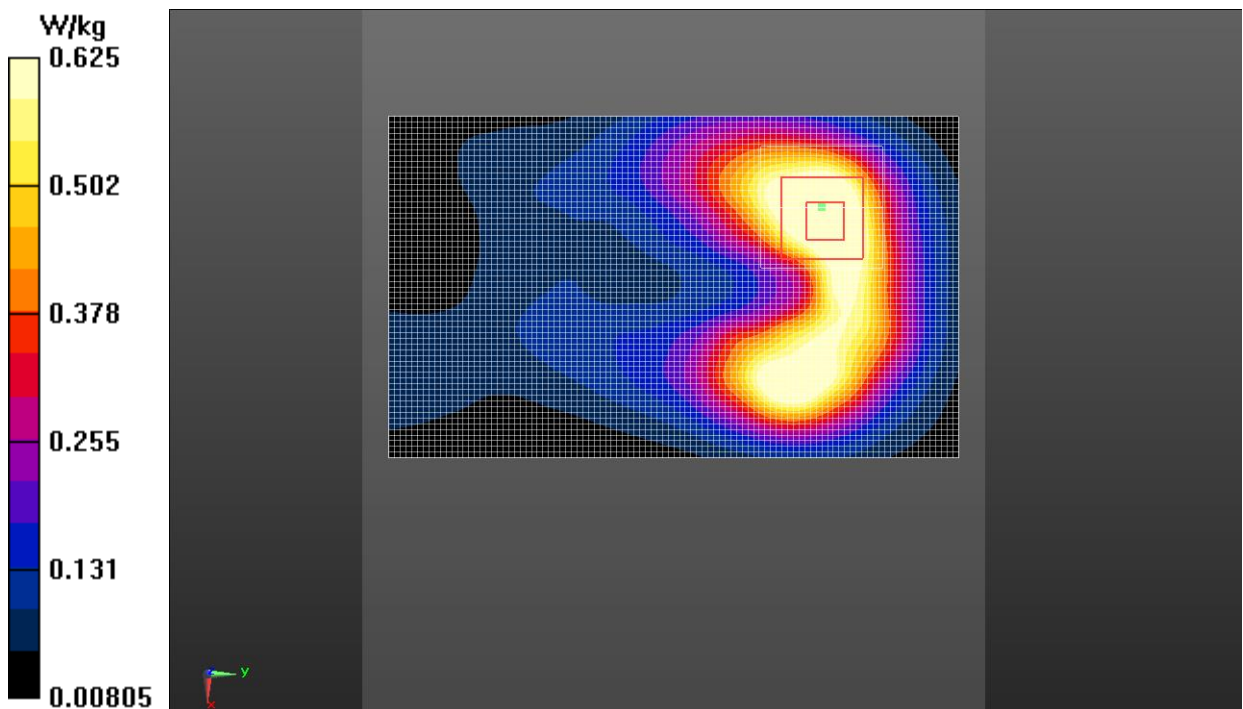
Bottom Side Mid 1RB_High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.168 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 1.02 W/kg

SAR(1 g) = 0.584 W/kg; SAR(10 g) = 0.324 W/kg

Maximum value of SAR (measured) = 0.625 W/kg



LTE Band 12 Head

Date: 2019-1-23

Electronics: DAE4 Sn1527

Medium: Head 750 MHz

Medium parameters used (interpolated): $f = 707.5$ MHz; $\sigma = 0.872$ S/m; $\epsilon_r = 42.446$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE_FDD (0) Frequency: 707.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (9.33, 9.33, 9.33);

Left Cheek Mid 1RB_Mid/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.0872 W/kg

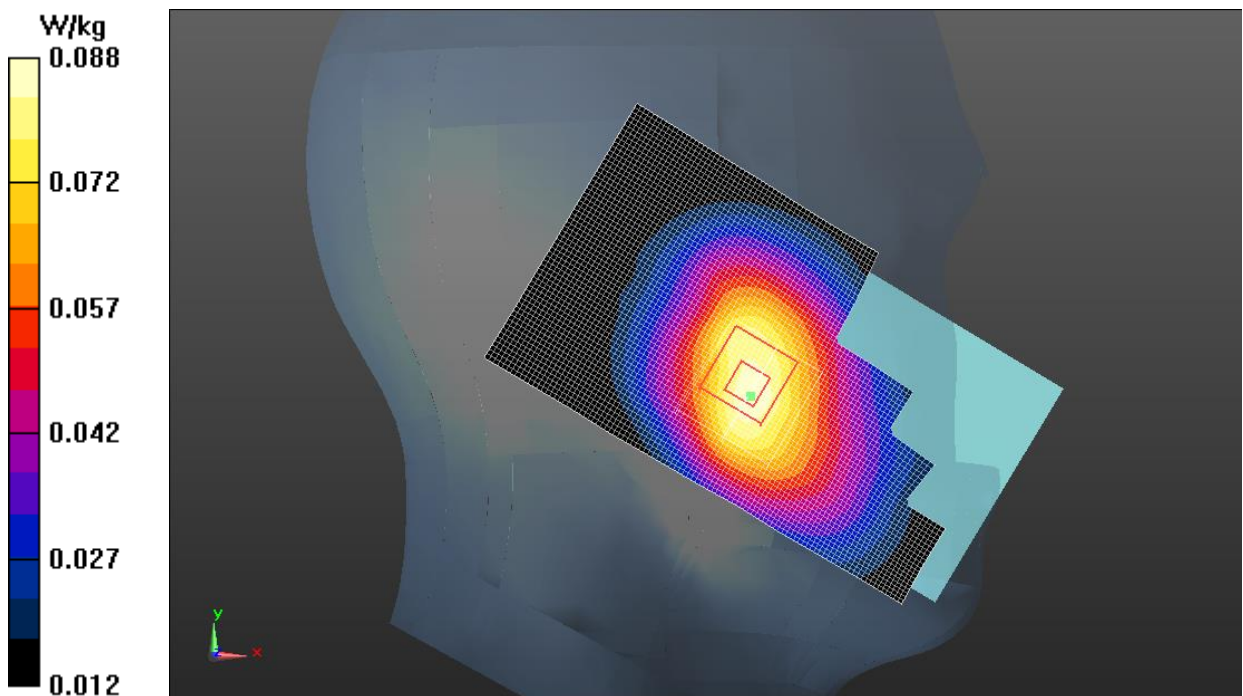
Left Cheek Mid 1RB_Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.258 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.106 W/kg

SAR(1 g) = 0.082 W/kg; SAR(10 g) = 0.061 W/kg

Maximum value of SAR (measured) = 0.0876 W/kg



LTE Band 12 Body

Date: 2019-1-23

Electronics: DAE4 Sn1527

Medium: Body 750 MHz

Medium parameters used (interpolated): $f = 707.5$ MHz; $\sigma = 0.921$ S/m; $\epsilon_r = 54.081$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE_FDD (0) Frequency: 707.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (9.69, 9.69, 9.69);

Rear Side Mid 1RB_Mid/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.121 W/kg

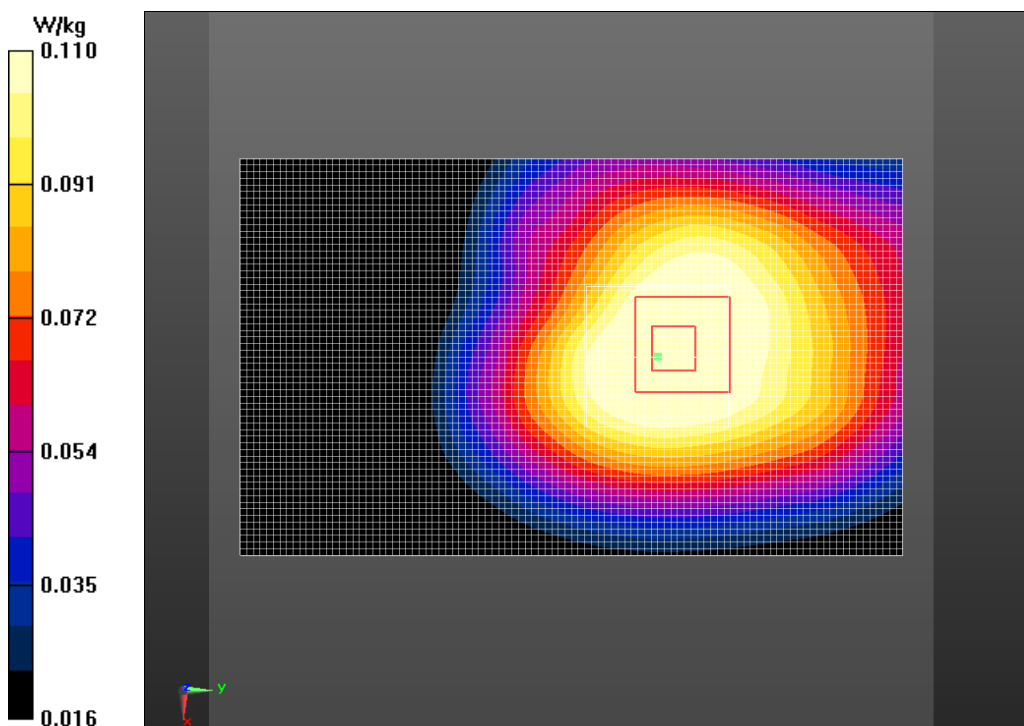
Rear Side Mid 1RB_Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.05 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.132 W/kg

SAR(1 g) = 0.105 W/kg; SAR(10 g) = 0.081 W/kg

Maximum value of SAR (measured) = 0.110 W/kg



LTE Band 13 Head

Date: 2019-1-23

Electronics: DAE4 Sn1527

Medium: Head 750 MHz

Medium parameters used: $f = 782$ MHz; $\sigma = 0.940$ S/m; $\epsilon_r = 41.412$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE_FDD (0) Frequency: 782 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (9.33, 9.33, 9.33);

Left Cheek Mid 1RB_Mid/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.0955 W/kg

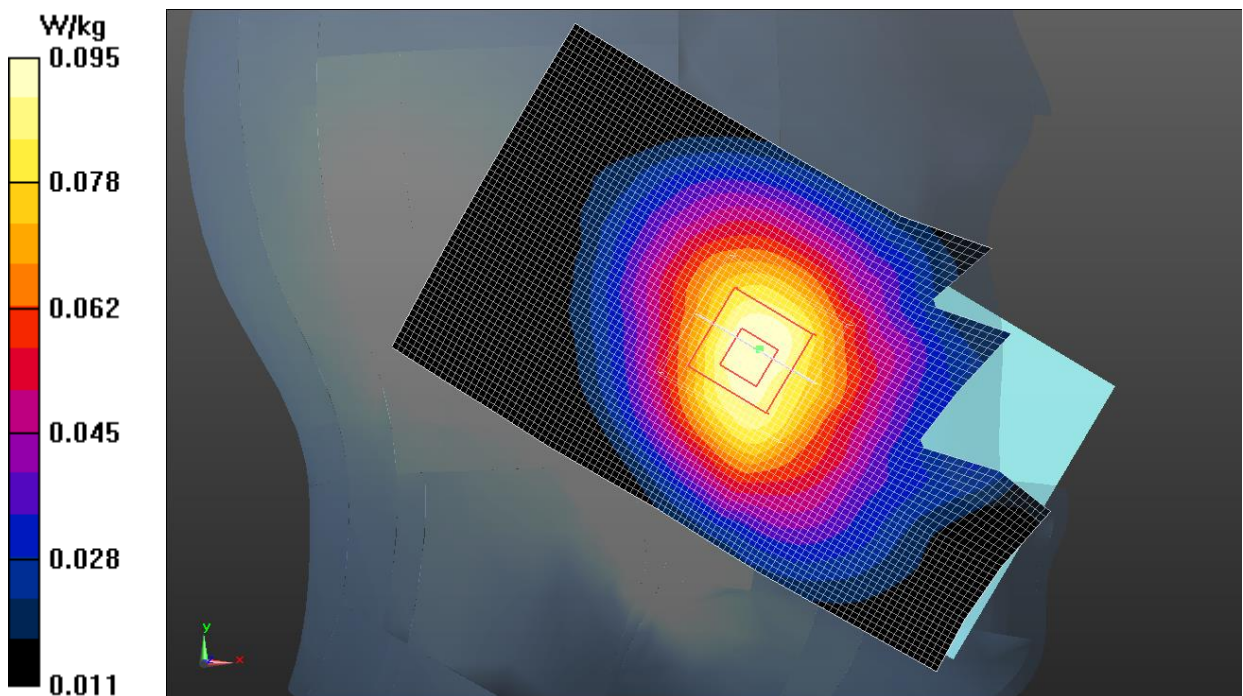
Left Cheek Mid 1RB_Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.823 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.116 W/kg

SAR(1 g) = 0.090 W/kg; SAR(10 g) = 0.067 W/kg

Maximum value of SAR (measured) = 0.0950 W/kg



LTE Band 13 Body

Date: 2019-1-23

Electronics: DAE4 Sn1527

Medium: Body 750 MHz

Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.993 \text{ S/m}$; $\epsilon_r = 53.25$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE_FDD (0) Frequency: 782 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (9.69, 9.69, 9.69);

Rear Side Mid 1RB_Mid/Area Scan (61x101x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.0993 W/kg

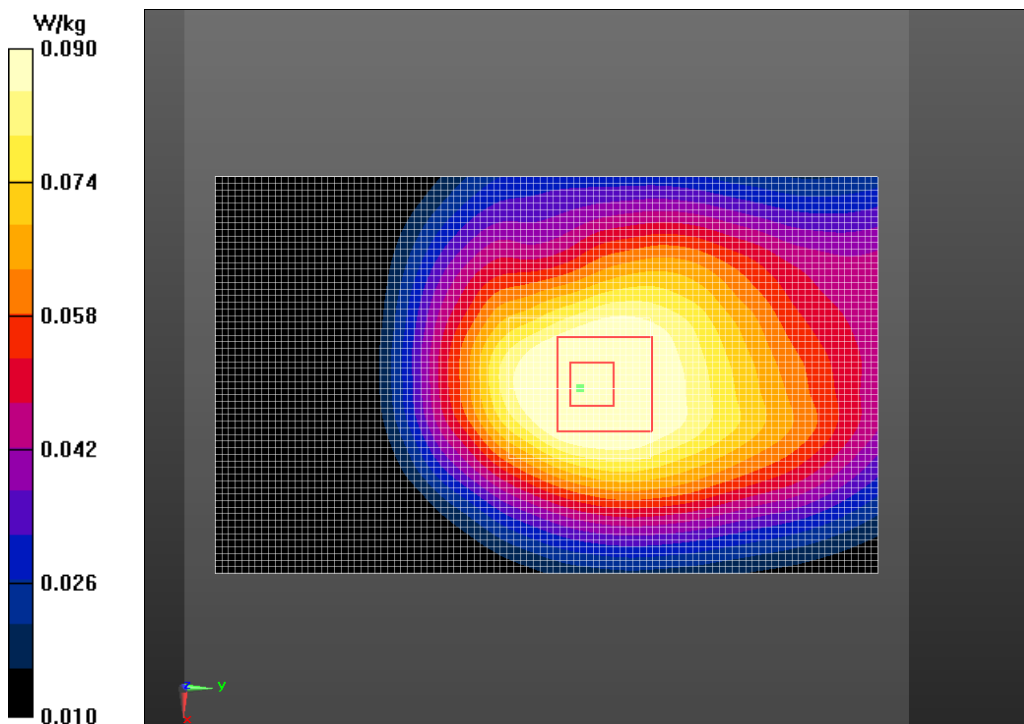
Rear Side Mid 1RB_Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 9.609 V/m ; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.110 W/kg

SAR(1 g) = 0.086 W/kg ; SAR(10 g) = 0.064 W/kg

Maximum value of SAR (measured) = 0.0903 W/kg



LTE Band 25 Head

Date: 2019-1-24

Electronics: DAE4 Sn1527

Medium: Head 1900 MHz

Medium parameters used (interpolated): $f = 1882.5$ MHz; $\sigma = 1.366$ S/m; $\epsilon_r = 40.686$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE_FDD (0) Frequency: 1882.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (7.81, 7.81, 7.81);

Left Cheek Mid 1RB_Low/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.686 W/kg

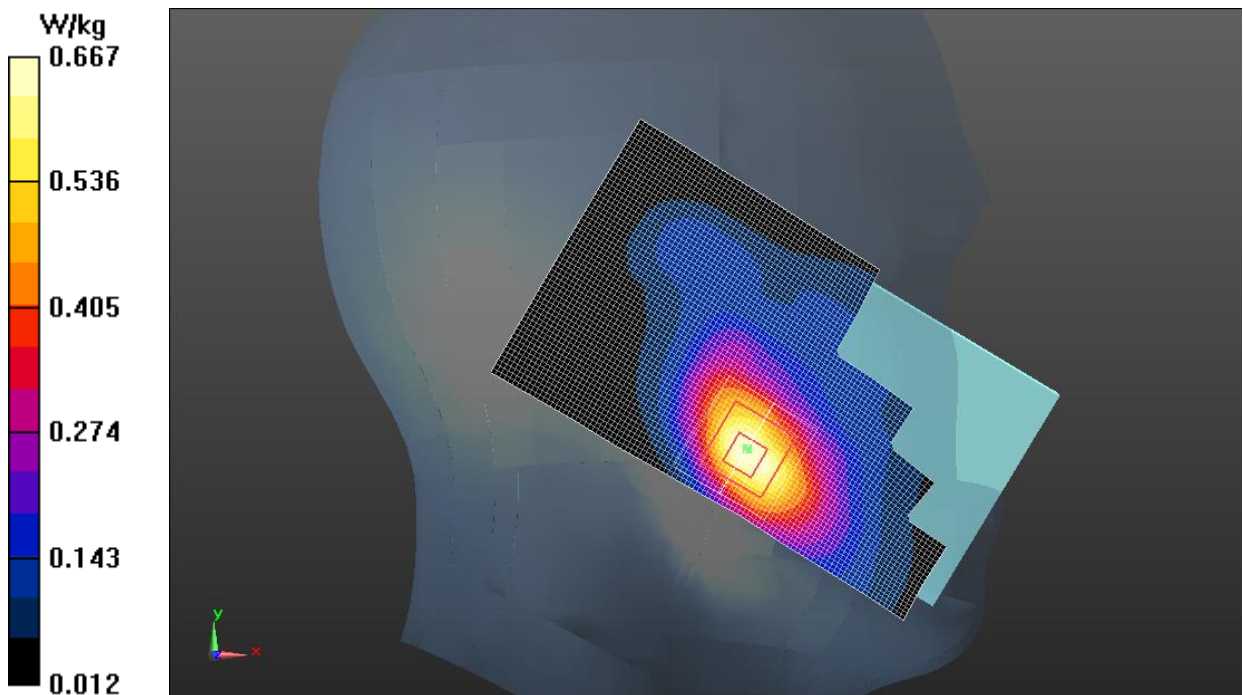
Left Cheek Mid 1RB_Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.432 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.996 W/kg

SAR(1 g) = 0.614 W/kg; SAR(10 g) = 0.363 W/kg

Maximum value of SAR (measured) = 0.667 W/kg



LTE Band 25 Body

Date: 2019-1-24

Electronics: DAE4 Sn1527

Medium: Body 1900 MHz

Medium parameters used (interpolated): $f = 1882.5$ MHz; $\sigma = 1.529$ S/m; $\epsilon_r = 52.987$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE_FDD (0) Frequency: 1882.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (7.75, 7.75, 7.75);

Bottom Side Mid 1RB_Low/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.529 W/kg

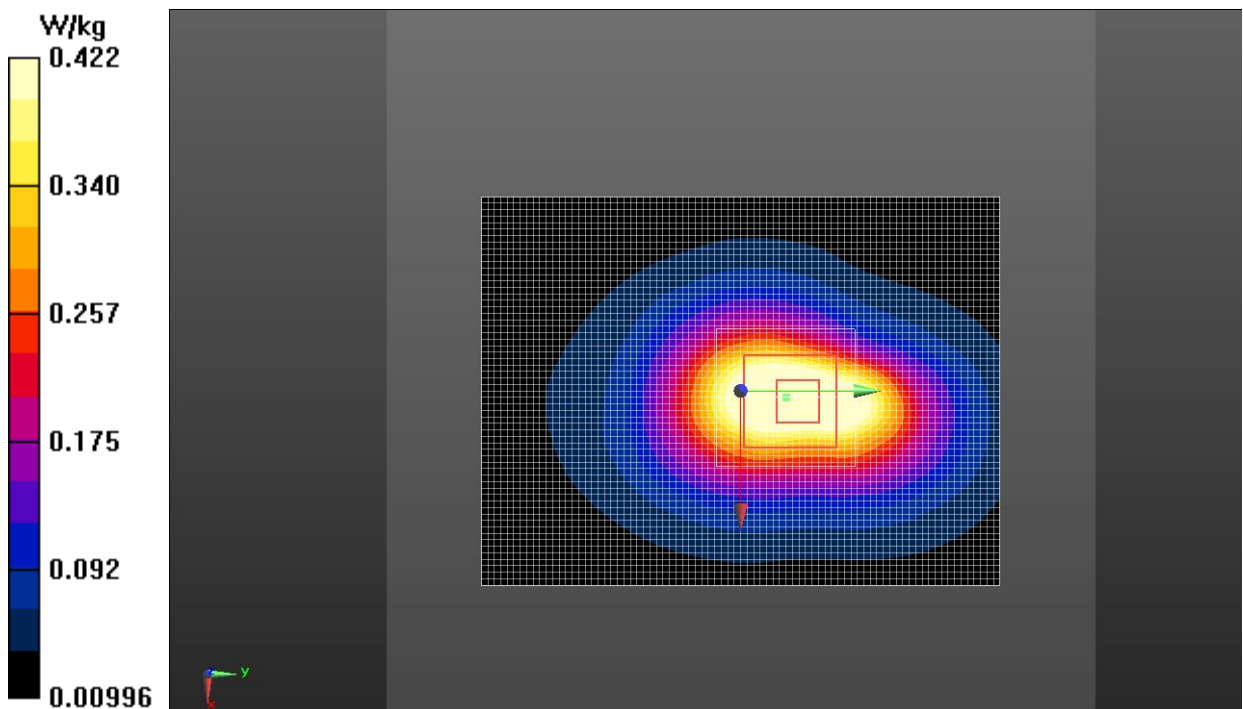
Bottom Side Mid 1RB_Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.34 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.629 W/kg

SAR(1 g) = 0.384 W/kg; SAR(10 g) = 0.223 W/kg

Maximum value of SAR (measured) = 0.422 W/kg



LTE Band 26 Head

Date: 2019-1-23

Electronics: DAE4 Sn1527

Medium: Head 835 MHz

Medium parameters used (interpolated): $f = 831.5$ MHz; $\sigma = 0.882$ S/m; $\epsilon_r = 41.403$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE_FDD (0) Frequency: 831.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (9.33, 9.33, 9.33);

Right Cheek Mid 1RB_High/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.183 W/kg

Right Cheek Mid 1RB_High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.251 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.219 W/kg

SAR(1 g) = 0.174 W/kg; SAR(10 g) = 0.129 W/kg

Maximum value of SAR (measured) = 0.181 W/kg

