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)
2016-9-19	-26.8		54.5		-1.8	
2017-9-17	-25.4	5.2	53.2	1.3	-2.5	-0.7
/	/	/	/	/	/	/

Body						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (johm)	Delta (johm)
2016-9-19	-29.0		49.8		-3.5	
2017-9-17	-25.2	13.1	46.9	2.9	-2.8	0.7
/	/	/	/	/	/	/

Justification of Extended Calibration SAR Dipole D835V2– serial no.4d057

Head						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (johm)	Delta (johm)
2015-10-22	-29.8		49.2		-3.12	
2016-10-20	-26.7	10.4	47.5	-1.7	-5.74	-2.62
2017-10-18	-26.2	12.1	47.9	-1.3	-5.32	-2.20

Body						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (johm)	Delta (johm)
2015-10-22	-24.7		48.1		-5.38	
2016-10-20	-22.4	9.3	46.7	1.4	-4.86	0.52
2017-10-18	-22.9	7.3	46.4	1.7	-4.79	0.59

Justification of Extended Calibration SAR Dipole D1800V2– serial no.2d147

Head						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (johm)	Delta (johm)
2015-10-3	-26.9		47.6		-3.68	
2016-9-28	-25.7	4.4	45.8	-1.8	-2.81	0.87
2017-9-25	-25.1	6.7	48.2	0.6	-5.20	-1.52

Body						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (johm)	Delta (johm)
2015-10-3	-21.1		44.4		-6.17	
2016-9-28	-22.8	-8.1	46.2	1.8	-5.56	0.61
2017-9-25	-22.9	-8.5	46.8	2.4	-5.32	0.85

Justification of Extended Calibration SAR Dipole D1900V2– serial no.5d088

Head						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (johm)	Delta (johm)
2015-10-4	-22.4		52.7		7.33	
2016-9-28	-25.3	-12.9	50.8	-1.9	5.82	1.51
2017-9-25	-24.9	-11.2	51.2	-1.5	6.22	1.11

Body						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (johm)	Delta (johm)
2015-10-4	-25.4		50.9		5.36	
2016-9-28	-23.7	6.7	48.9	-2.0	2.74	-2.62
2017-9-25	-23.2	8.7	48.3	-2.6	3.84	-1.52

Justification of Extended Calibration SAR Dipole D2450V2– serial no.873

Head						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (johm)	Delta (johm)
2015-10-30	-26.6		53.4		3.42	
2016-10-20	-25.1	5.6	55.1	1.7	2.91	0.51
2017-10-18	-25.7	3.4	54.6	0.8	3.04	0.38

Body						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (johm)	Delta (johm)
2015-10-30	-23.7		50.5		6.53	
2016-10-20	-24.9	5.1	49.2	1.3	7.28	0.75
2017-10-18	-25.5	7.6	49.6	0.9	7.11	0.58

Justification of Extended Calibration SAR Dipole D2550V2– serial no.1010

Head						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (johm)	Delta (johm)
2015-7-24	-29.5		52.8		-2.0	
2016-7-22	-26.4	10.5	51.1	1.7	-2.62	-0.62
2017-7.21	-27.3	7.5	53.9	1.1	-3.84	-1.84

Body						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (johm)	Delta (johm)
2015-7-24	-36.6		50.0		-1.5	
2016-7-22	-34.2	6.6	52.8	2.8	-2.67	-1.17
2017-7-21	-37.5	-2.5	52.4	2.4	-3.11	-1.61

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 M809L from Meizu Technology Co., Ltd., 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. If the spot check value is larger than the original value and does not exceed half of the SAR limit, the same configuration is tested to replace the original values and others are quoted. Otherwise, all the original values are quoted directly. 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
EUT8	IMEI: 867877030004868	V1.0	Meizu 8.1.1.0G
EUT9	IMEI: 867877030004801	V1.0	Meizu 8.1.1.0G
EUT10	IMEI: 867873030006326	V1.0	Meizu 8.1.1.0G

K.2 Measurement results

SAR Values (GSM850)

Frequency		Test Position		SAR(1g) (W/kg)		
MHz	Ch.			Spot check data		Original data
				Measured SAR	Reported SAR	
836.6	190	Head	Left Touch	0.159	0.22	**0.26**
836.6	190	Body	Rear	0.523	**0.53**	0.35

SAR Values (GSM1900)

Frequency		Test Position		SAR(1g) (W/kg)		
MHz	Ch.			Spot check data		Original data
				Measured SAR	Reported SAR	
1880	661	Head	Right Touch	0.080	0.10	**0.18**
1880	661	Body	Bottom	0.319	0.41	**0.63**

SAR Values (CDMA BC0)

Frequency		Test Position		SAR(1g) (W/kg)		
MHz	Ch.			Spot check data		Original data
				Measured SAR	Reported SAR	
836.5	384	Head	Left Touch	0.349	0.40	**0.52**
836.5	384	Body	Rear	0.401	0.46	**0.64**

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	0.219	0.27	**0.46**
836.4	4182	Body	Rear	0.384	0.47	**0.64**

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	Right Touch	0.112	0.13	**0.34**
1880	9400	Body	Bottom	0.337	0.38	**0.58**

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	Right Touch	0.032	0.04	**0.08**
1712.4	1312	Body	Bottom	0.595	0.68	**1.32**

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	Right Touch	0.123	0.16	**0.26**
1880	18900	Body	Rear	0.486	0.61	**0.64**

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	Right Touch	0.019	0.02	**0.08**
1720	20050	Body	Rear	0.796	0.99	**1.36**

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	0.173	0.20	**0.43**
836.5	20525	Body	Rear	0.357	0.41	**0.52**

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	Right Touch	0.121	0.15	**0.17**
2535	21100	Body	Rear	0.647	**0.78**	0.74

SAR Values (WLAN 2.4G)

Frequency		Test Position		SAR(1g) (W/kg)		
MHz	Ch.			Spot check data		Original data
				Measured SAR	Reported SAR	
2437	6	Head	Left Touch	0.290	0.33	**0.46**
2437	6	Body	Rear	0.103	0.12	**0.14**

GSM 850 Head

Date: 2018-4-4

Electronics: DAE4 Sn786

Medium: Head 835 MHz

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.919 S/m; ε_r = 40.532; ρ = 1000 kg/m^3

Ambient Temperature: 22.5^{o}C Liquid Temperature: 22.0^{o}C

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

Probe: ES3DV3 – SN3151 ConvF (6.47, 6.47, 6.47);

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

Maximum value of SAR (interpolated) = 0.165 W/kg

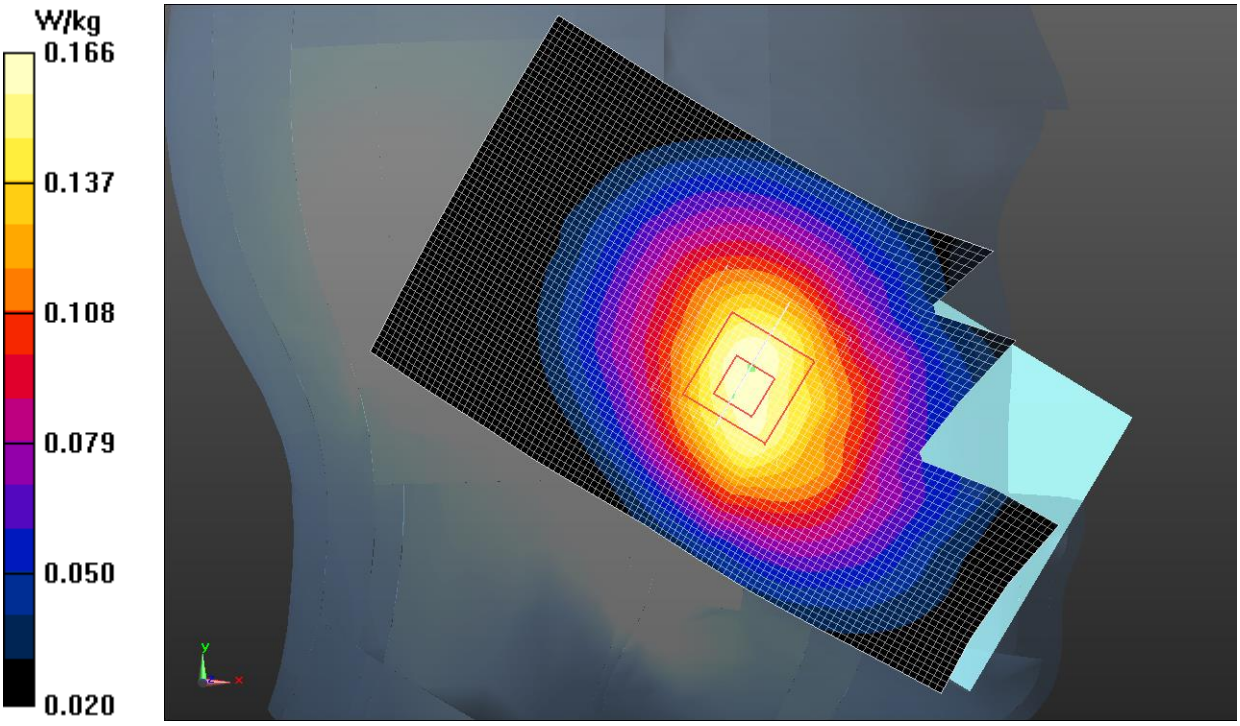
Left Cheek Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.165 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.205 W/kg

SAR(1 g) = 0.159 W/kg; SAR(10 g) = 0.118 W/kg

Maximum value of SAR (measured) = 0.166 W/kg



GSM 850 Body

Date: 2018-4-4

Electronics: DAE4 Sn786

Medium: Body 835 MHz

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.965 S/m; ε_r = 54.033; ρ = 1000 kg/m^3

Ambient Temperature: 22.5^{o}C Liquid Temperature: 22.0^{o}C

Communication System: UID 0, GPRS 3Txslot (0) Frequency: 836.6 MHz Duty Cycle: 1:2.67

Probe: ES3DV3 – SN3151 ConvF (6.38, 6.38, 6.38);

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

Maximum value of SAR (interpolated) = 0.605 W/kg

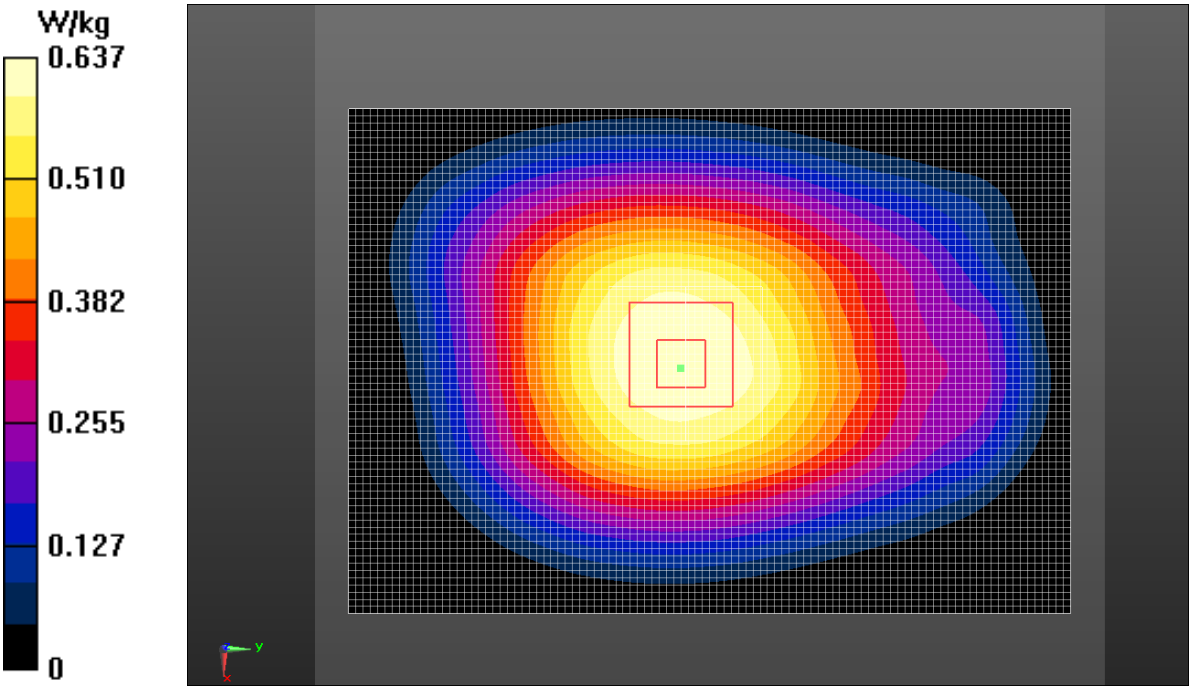
Rear side Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.61 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.371 W/kg

SAR(1 g) = 0.523 W/kg; SAR(10 g) = 0.334 W/kg

Maximum value of SAR (measured) = 0.637 W/kg



GSM 1900 Head

Date: 2018-4-3

Electronics: DAE4 Sn786

Medium: Head 1900 MHz

Medium parameters used: f = 1880 MHz; σ = 1.403 S/m; ε_r = 39.155; ρ = 1000 kg/m^3

Ambient Temperature: 22.5^{o}C Liquid Temperature: 22.0^{o}C

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

Probe: ES3DV3 – SN3151 ConvF (5.09, 5.09, 5.09);

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

Maximum value of SAR (interpolated) = 0.087 W/kg

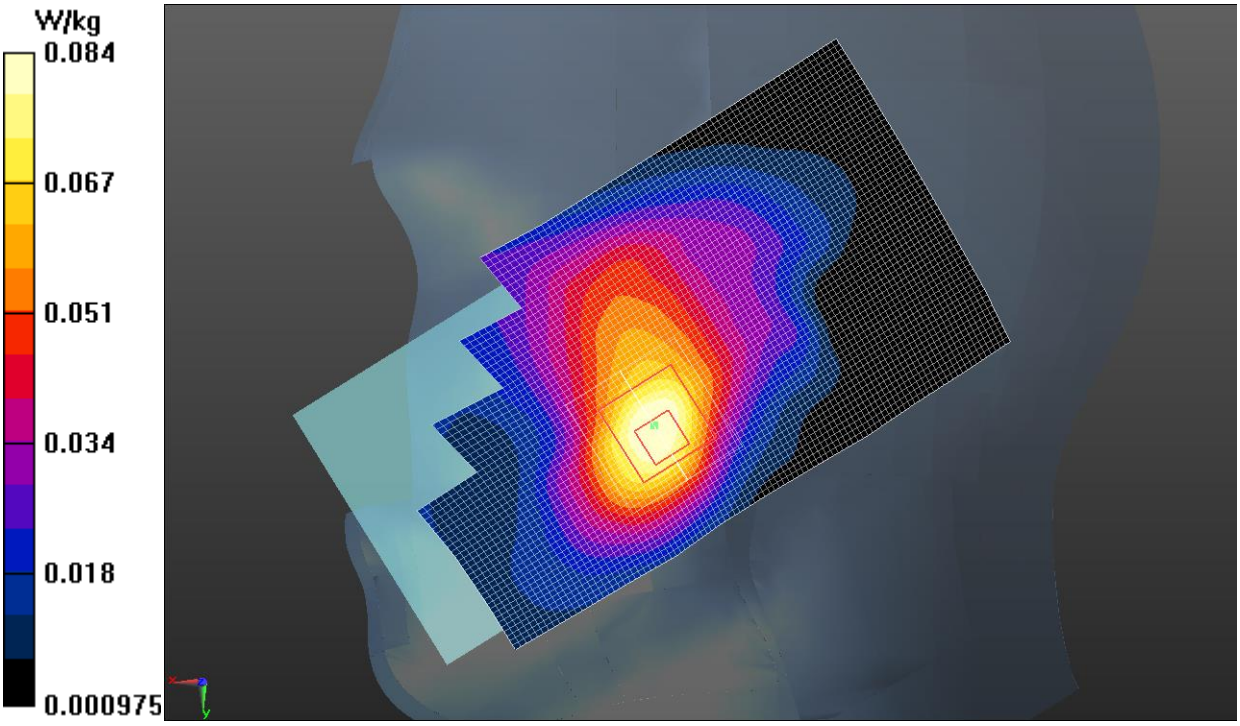
Right Cheek Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.922 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.127 W/kg

SAR(1 g) = 0.080 W/kg; SAR(10 g) = 0.049 W/kg

Maximum value of SAR (measured) = 0.084 W/kg



GSM 1900 Body

Date: 2018-4-3

Electronics: DAE4 Sn786

Medium: Body 1900 MHz

Medium parameters used: f = 1880 MHz; σ = 1.533 S/m; ε_r = 51.806; ρ = 1000 kg/m^3

Ambient Temperature: 22.5^{o}C Liquid Temperature: 22.0^{o}C

Communication System: UID 0, 3 slot GPRS (0) Frequency: 1880 MHz Duty Cycle: 1:2.67

Probe: ES3DV3 – SN3151 ConvF (4.89, 4.89, 4.89);

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

Maximum value of SAR (interpolated) = 0.377 W/kg

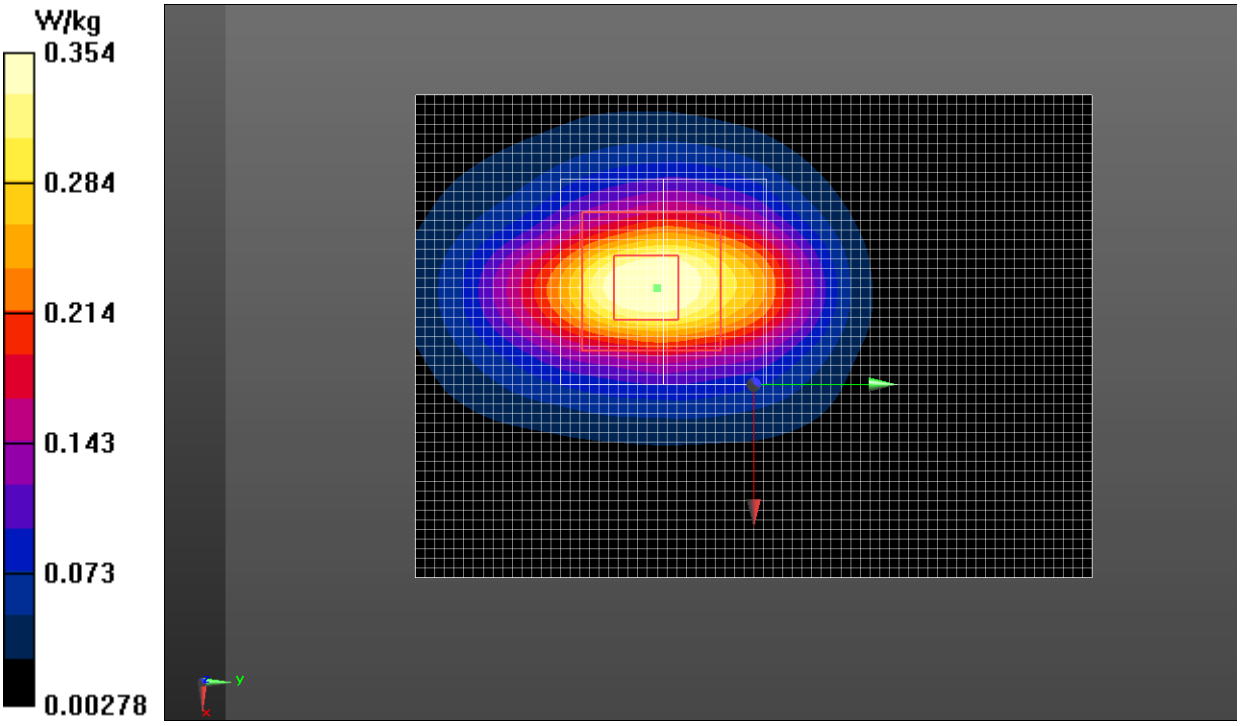
Bottom side Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.399 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.535 W/kg

SAR(1 g) = 0.319 W/kg; SAR(10 g) = 0.173 W/kg

Maximum value of SAR (measured) = 0.354 W/kg



CDMA BC0 Head

Date: 2018-4-4

Electronics: DAE4 Sn786

Medium: Head 835 MHz

Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.919 S/m; ε_r = 40.554; ρ = 1000 kg/m^3

Ambient Temperature: 22.5^{o}C Liquid Temperature: 22.0^{o}C

Communication System: UID 0, CDMA850 Frequency: 836.5 MHz Duty Cycle: 1:1

Probe: ES3DV3 – SN3151 ConvF (6.47, 6.47, 6.47);

Left cheek Mid/Area Scan (61x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

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

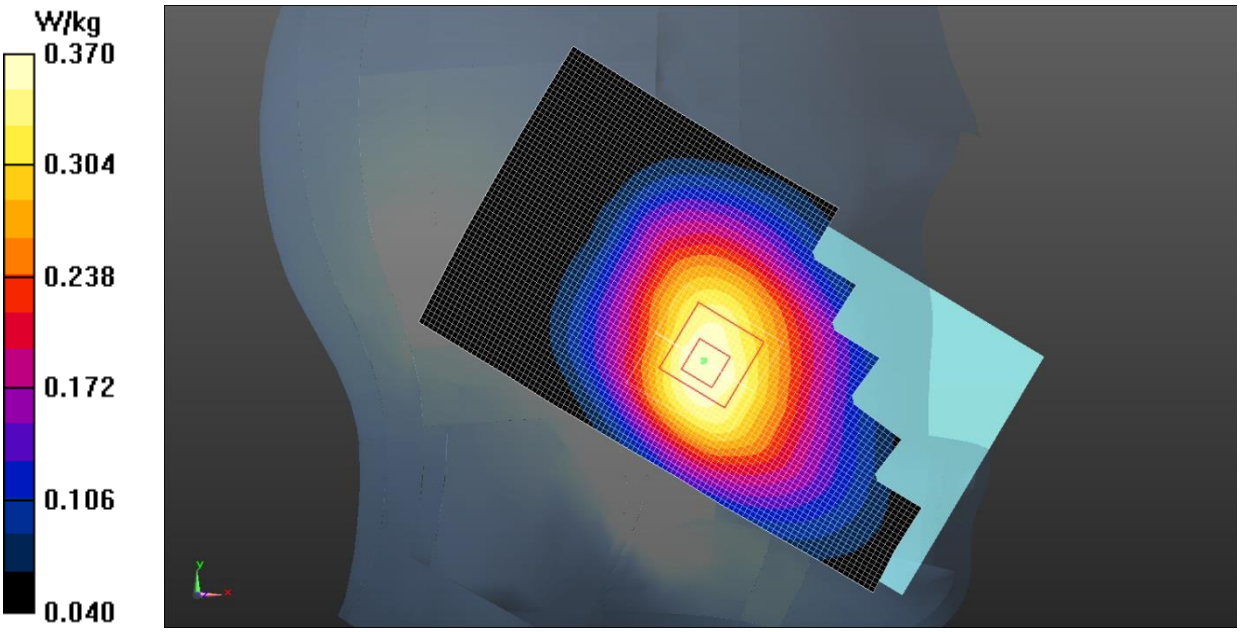
Left cheek Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.799 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.440 W/kg

SAR(1 g) = 0.349 W/kg; SAR(10 g) = 0.263 W/kg

Maximum value of SAR (measured) = 0.370 W/kg



CDMA BC0 Body

Date: 2018-4-4

Electronics: DAE4 Sn786

Medium: Body 835 MHz

Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.965 S/m; ε_r = 54.037; ρ = 1000 kg/m^3

Ambient Temperature: 22.5^{o}C Liquid Temperature: 22.0^{o}C

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

Probe: ES3DV3 – SN3151 ConvF (6.38, 6.38, 6.38);

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

Maximum value of SAR (interpolated) = 0.467 W/kg

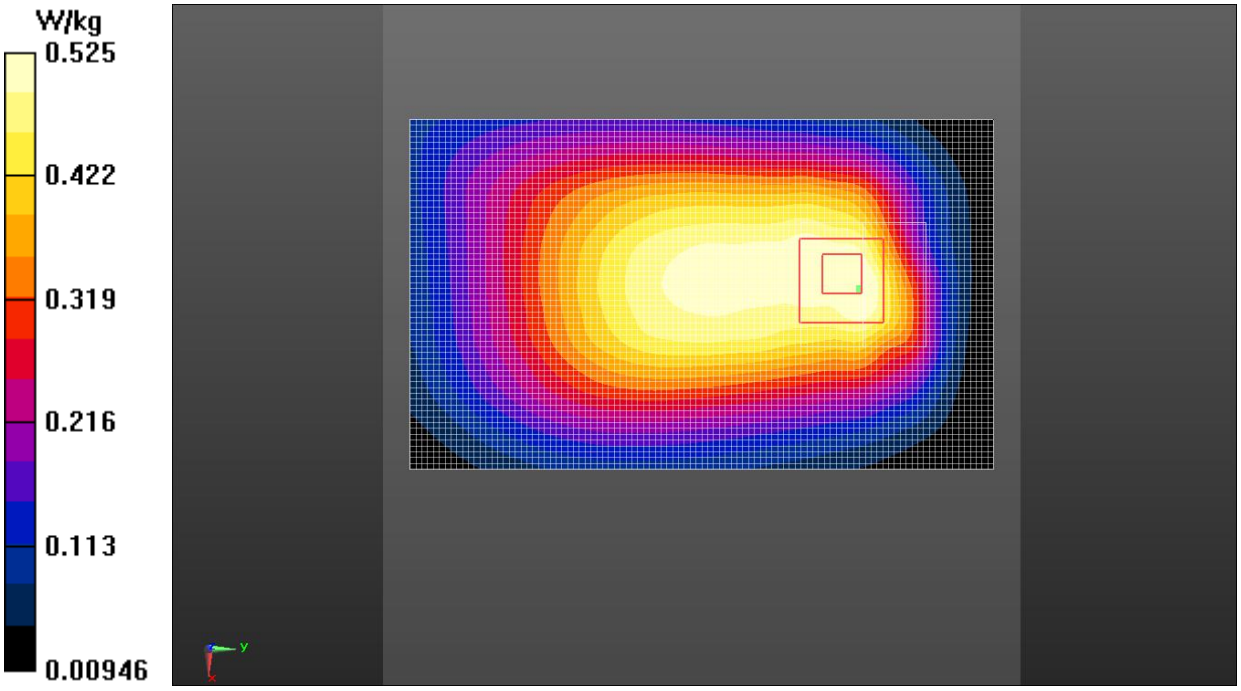
Rear side Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.25 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.779 W/kg

SAR(1 g) = 0.401 W/kg; SAR(10 g) = 0.273 W/kg

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



WCDMA 850 Head

Date: 2018-4-4

Electronics: DAE4 Sn786

Medium: Head 835 MHz

Medium parameters used (interpolated): f = 836.4 MHz; σ = 0.919 S/m; ε_r = 40.544; ρ = 1000 kg/m^3

Ambient Temperature: 22.5^{o}C Liquid Temperature: 22.0^{o}C

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

Probe: ES3DV3 – SN3151 ConvF (6.47, 6.47, 6.47);

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

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

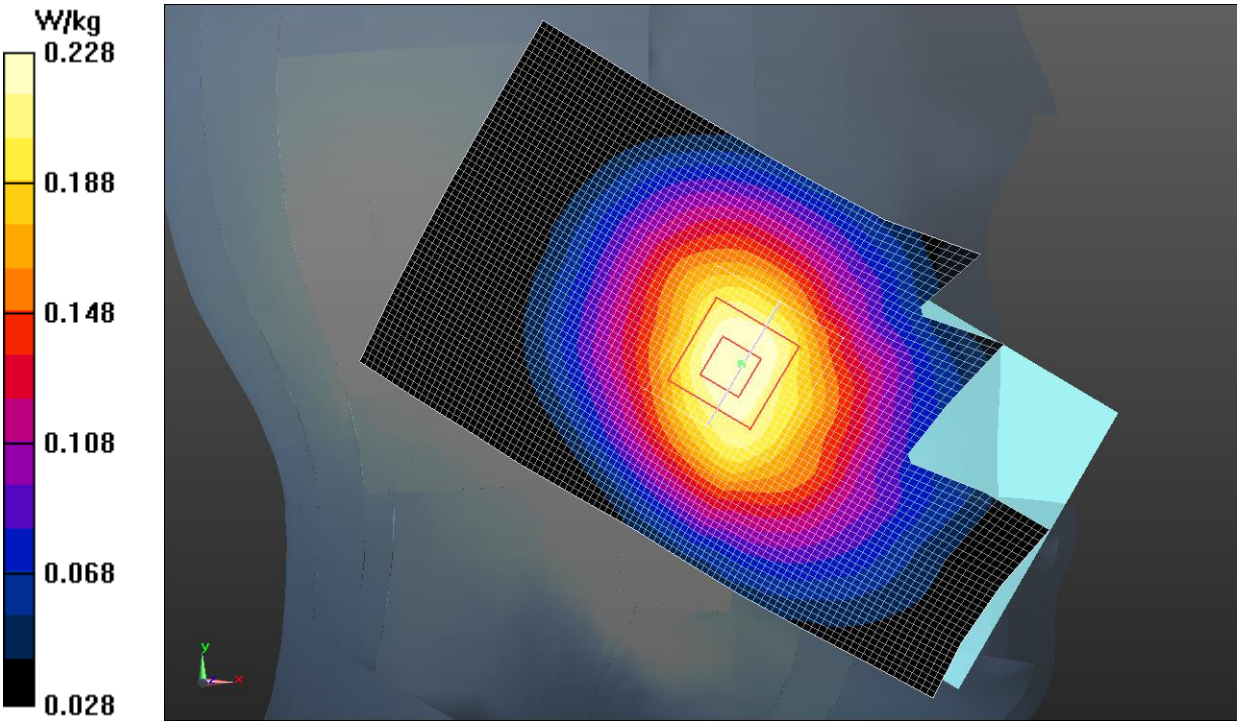
Left Cheek Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.671 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.275 W/kg

SAR(1 g) = 0.219 W/kg; SAR(10 g) = 0.165 W/kg

Maximum value of SAR (measured) = 0.228 W/kg



WCDMA 850 Body

Date: 2018-4-4

Electronics: DAE4 Sn786

Medium: Body 835 MHz

Medium parameters used (interpolated): f = 836.4 MHz; σ = 0.965 S/m; ε_r = 54.034; ρ = 1000 kg/m^3

Ambient Temperature: 22.5^{o}C Liquid Temperature: 22.0^{o}C

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

Probe: ES3DV3 – SN3151 ConvF (6.38, 6.38, 6.38);

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

Maximum value of SAR (interpolated) = 0.408 W/kg

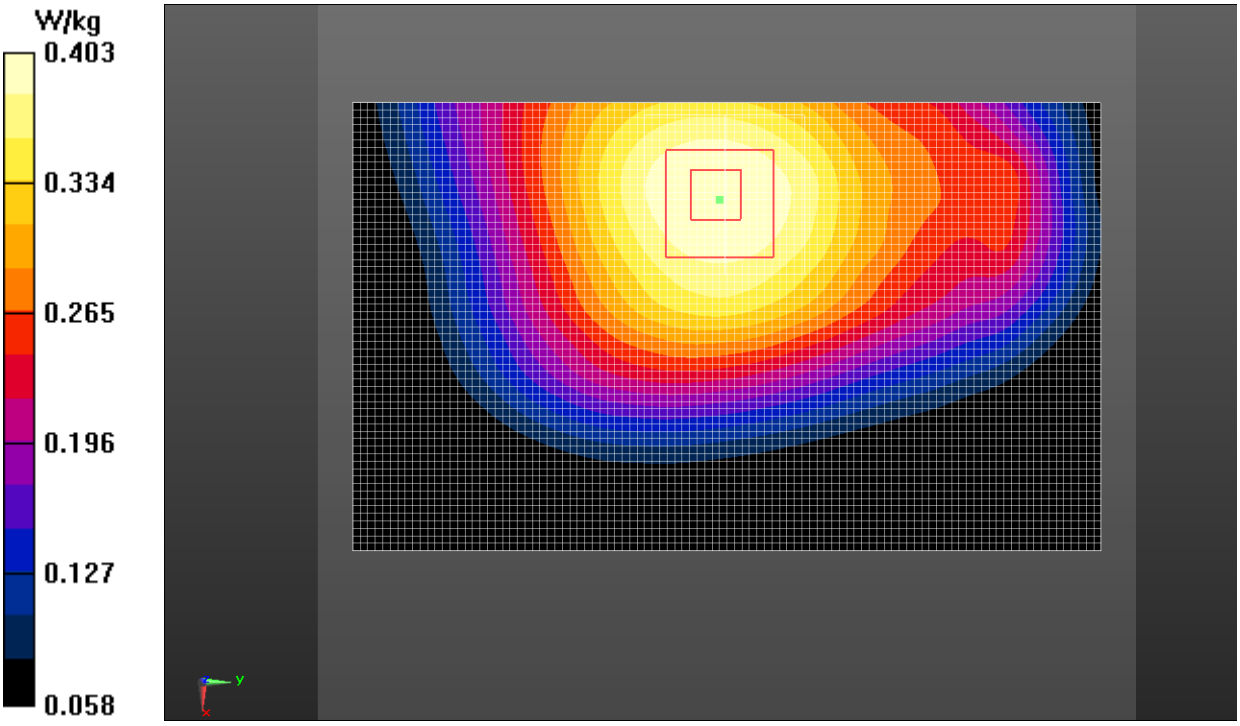
Rear side Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.22 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.486 W/kg

SAR(1 g) = 0.384 W/kg; SAR(10 g) = 0.293 W/kg

Maximum value of SAR (measured) = 0.403 W/kg



WCDMA 1900 Head

Date: 2018-4-3

Electronics: DAE4 Sn786

Medium: Head 1900 MHz

Medium parameters used: f = 1880 MHz; σ = 1.403 S/m; ε_r = 39.155; ρ = 1000 kg/m^3

Ambient Temperature: 22.5^{o}C Liquid Temperature: 22.0^{o}C

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

Probe: ES3DV3 – SN3151 ConvF (5.09, 5.09, 5.09);

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

Maximum value of SAR (interpolated) = 0.126 W/kg

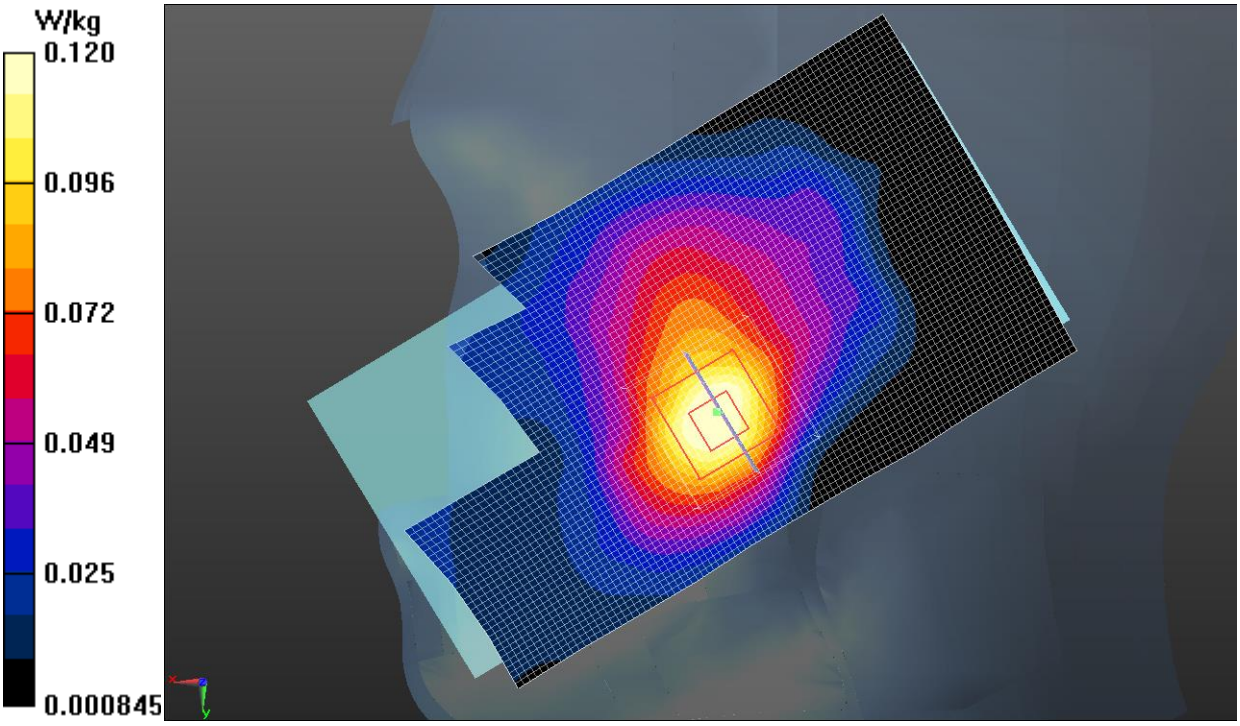
Right Cheek Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.969 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.171 W/kg

SAR(1 g) = 0.112 W/kg; SAR(10 g) = 0.069 W/kg

Maximum value of SAR (measured) = 0.120 W/kg



WCDMA 1900 Body

Date: 2018-4-3

Electronics: DAE4 Sn786

Medium: Body 1900 MHz

Medium parameters used: f = 1880 MHz; σ = 1.533 S/m; ε_r = 51.806; ρ = 1000 kg/m^3

Ambient Temperature: 22.5^{o}C Liquid Temperature: 22.0^{o}C

Communication System: UID 0, 3 slot GPRS (0) Frequency: 1880 MHz Duty Cycle: 1:2.80027

Probe: ES3DV3 – SN3151 ConvF (4.89, 4.89, 4.89);

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

Maximum value of SAR (interpolated) = 0.377 W/kg

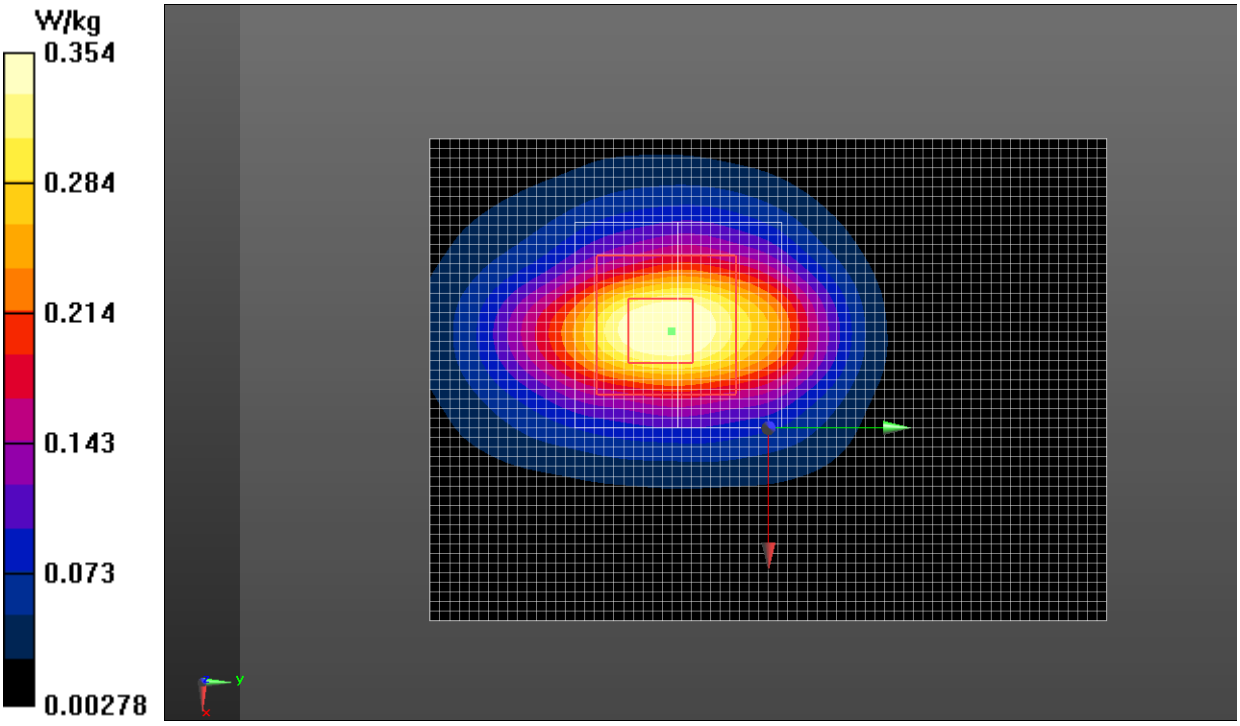
Bottom side Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.399 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.535 W/kg

SAR(1 g) = 0.337 W/kg; SAR(10 g) = 0.187 W/kg

Maximum value of SAR (measured) = 0.354 W/kg



WCDMA 1700 Head

Date: 2018-4-3

Electronics: DAE4 Sn786

Medium: Head 1800 MHz

Medium parameters used (interpolated): f = 1732.6 MHz; σ = 1.341 S/m; ε_r = 39.706; ρ = 1000 kg/m^3

Ambient Temperature: 22.5^{o}C Liquid Temperature: 22.0^{o}C

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

Probe: ES3DV3 – SN3151 ConvF (4.89, 4.89, 4.89);

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

Maximum value of SAR (interpolated) = 0.077 W/kg

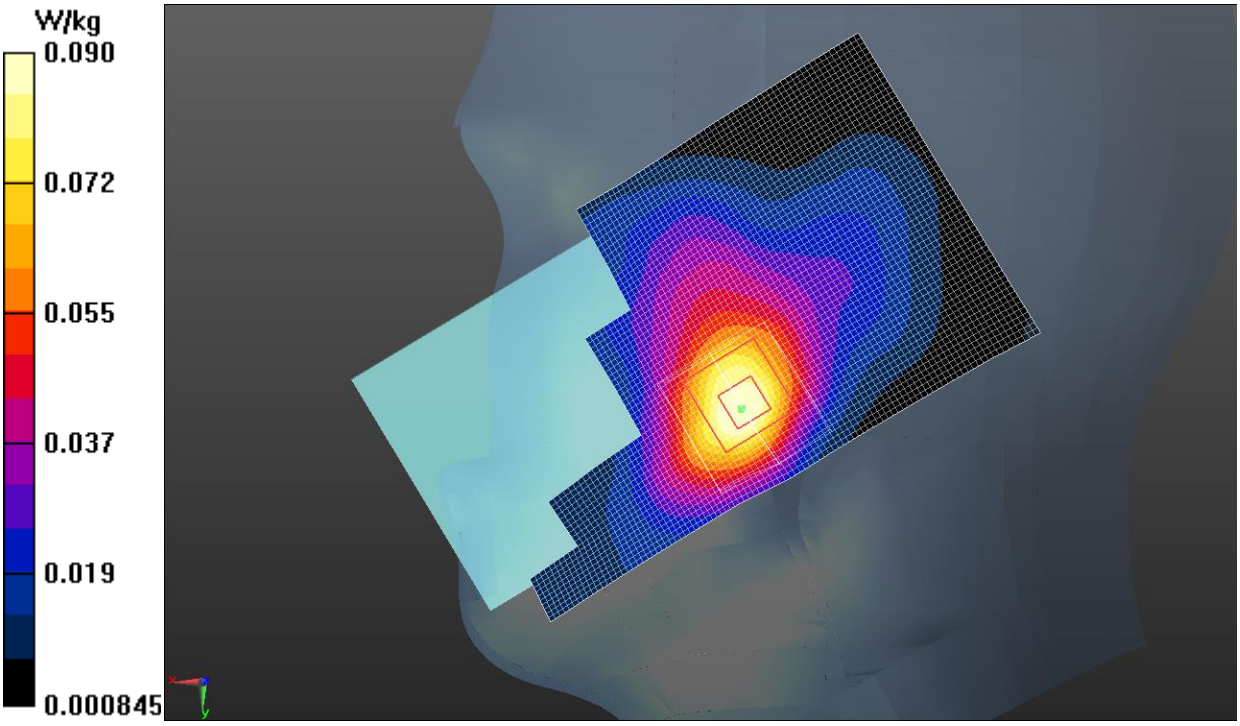
Right Cheek Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.225 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.110 W/kg

SAR(1 g) = 0.032 W/kg; SAR(10 g) = 0.010 W/kg

Maximum value of SAR (measured) = 0.090 W/kg



WCDMA 1700 Body

Date: 2018-4-3

Electronics: DAE4 Sn786

Medium: Body 1800 MHz

Medium parameters used (interpolated): f = 1712.4 MHz; σ = 1.433 S/m; ε_r = 52.543; ρ = 1000 kg/m^3

Ambient Temperature: 22.5^{o}C Liquid Temperature: 22.0^{o}C

Communication System: UID 0, WCDMA (0) Frequency: 1712.4 MHz Duty Cycle: 1:1

Probe: ES3DV3 – SN3151 ConvF (5.11, 5.11, 5.11);

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

Maximum value of SAR (interpolated) = 0.701 W/kg

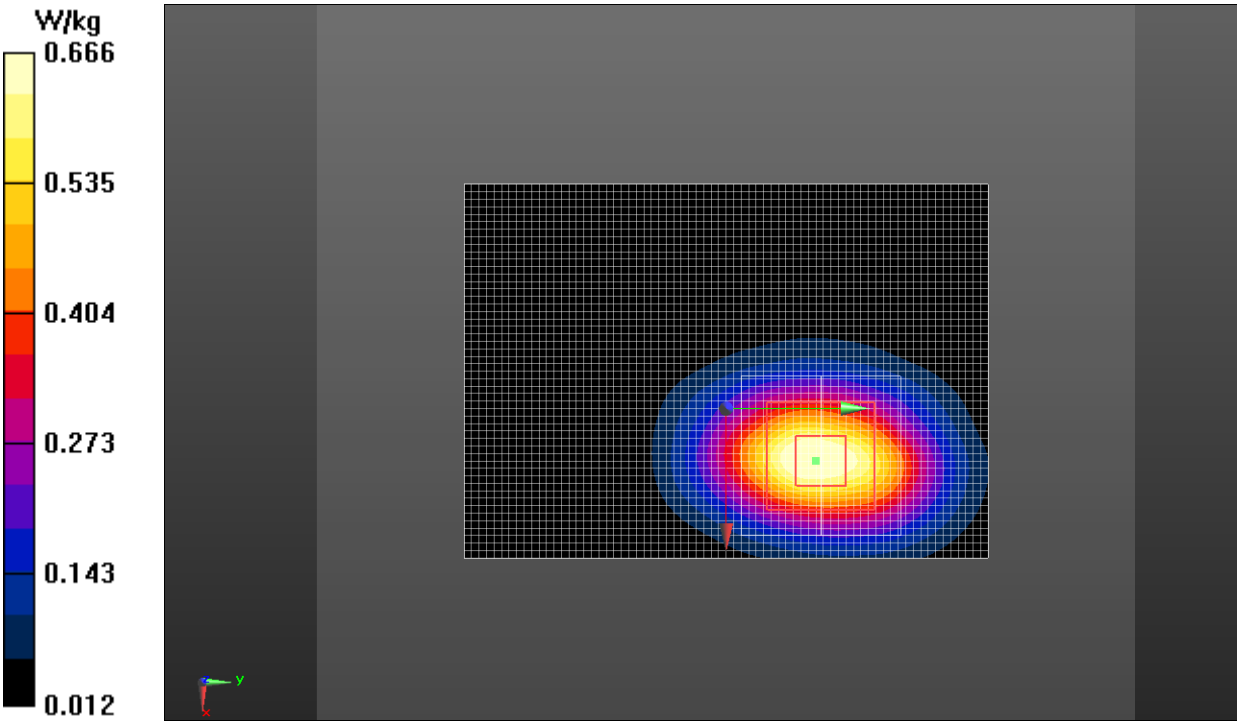
Bottom side Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.26 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.978 W/kg

SAR(1 g) = 0.595 W/kg; SAR(10 g) = 0.328 W/kg

Maximum value of SAR (measured) = 0.666 W/kg



LTE Band 2 Head

Date: 2018-4-3

Electronics: DAE4 Sn786

Medium: Head 1900 MHz

Medium parameters used: f = 1880 MHz; σ = 1.403 S/m; ε_r = 39.155; ρ = 1000 kg/m^3

Ambient Temperature: 22.5^{o}C Liquid Temperature: 22.0^{o}C

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

Probe: ES3DV3 – SN3151 ConvF (5.09, 5.09, 5.09);

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

Maximum value of SAR (interpolated) = 0.145 W/kg

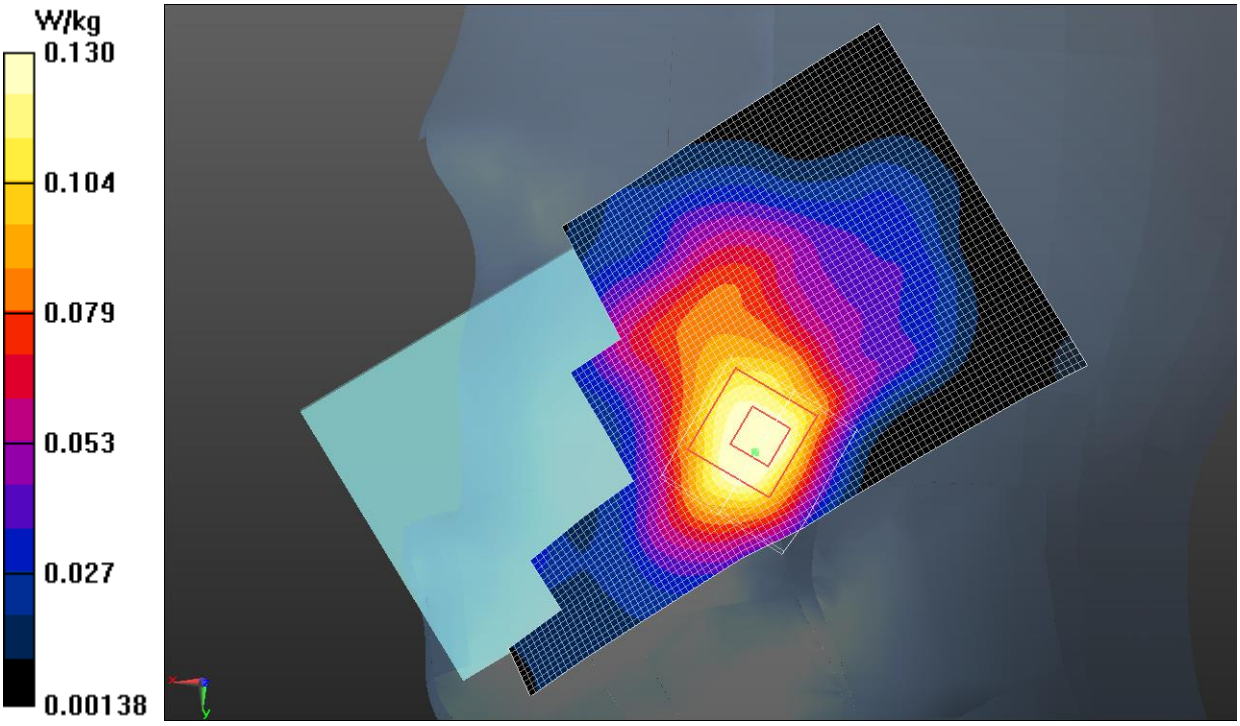
Right Cheek Mid 1RB_Low /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.231 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.189 W/kg

SAR(1 g) = 0.123 W/kg; SAR(10 g) = 0.076 W/kg

Maximum value of SAR (measured) = 0.130 W/kg



LTE Band 2 Body

Date: 2018-4-3

Electronics: DAE4 Sn786

Medium: Body 1900 MHz

Medium parameters used: f = 1880 MHz; σ = 1.533 S/m; ε_r = 51.806; ρ = 1000 kg/m^3

Ambient Temperature: 22.5^{o}C Liquid Temperature: 22.0^{o}C

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

Probe: ES3DV3 – SN3151 ConvF (4.89, 4.89, 4.89);

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

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

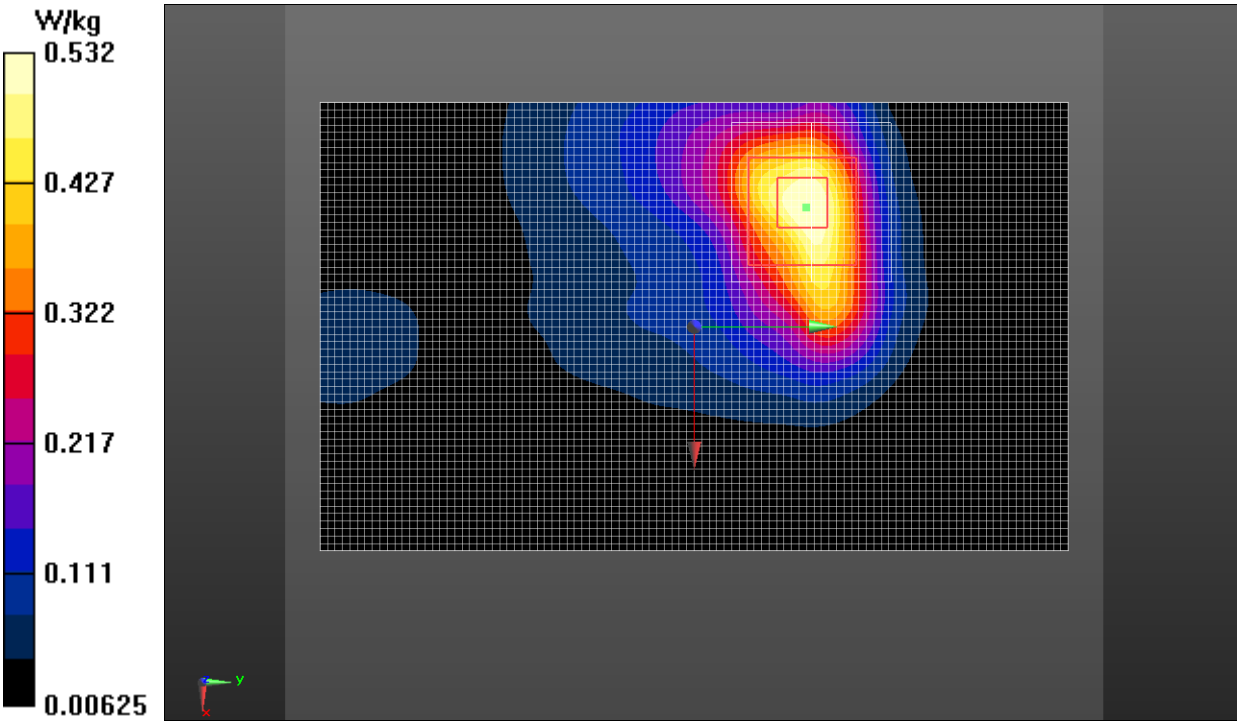
Rear side Mid 1RB_Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.715 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.834 W/kg

SAR(1 g) = 0.486 W/kg; SAR(10 g) = 0.270 W/kg

Maximum value of SAR (measured) = 0.532 W/kg



LTE Band 4 Head

Date: 2018-4-3

Electronics: DAE4 Sn786

Medium: Head 1800 MHz

Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.341 S/m; ε_r = 39.708; ρ = 1000 kg/m^3

Ambient Temperature: 22.5^{o}C Liquid Temperature: 22.0^{o}C

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

Probe: ES3DV3 – SN3151 ConvF (4.89, 4.89, 4.89);

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

Maximum value of SAR (interpolated) = 0.035 W/kg

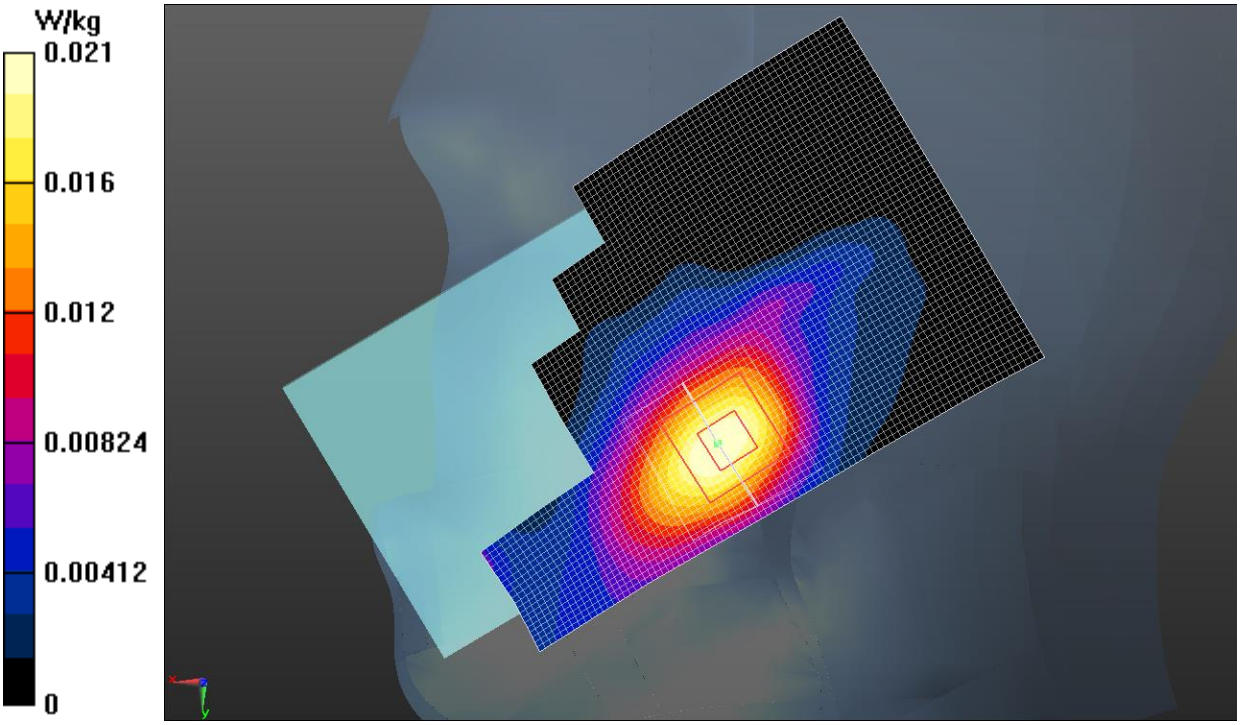
Right Cheek Mid 1RB_Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.460 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.0290 W/kg

SAR(1 g) = 0.019 W/kg; SAR(10 g) = 0.012 W/kg

Maximum value of SAR (measured) = 0.021 W/kg



LTE Band 4 Body

Date: 2018-4-3

Electronics: DAE4 Sn786

Medium: Body 1800 MHz

Medium parameters used: f = 1720 MHz; σ = 1.441 S/m; ε_r = 52.62; ρ = 1000 kg/m^3

Ambient Temperature: 22.5^{o}C Liquid Temperature: 22.0^{o}C

Communication System: UID 0, LTE_FDD (0) Frequency: 1720 MHz Duty Cycle: 1:1

Probe: ES3DV3 – SN3151 ConvF (5.11, 5.11, 5.11);

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

Maximum value of SAR (interpolated) = 0.963 W/kg

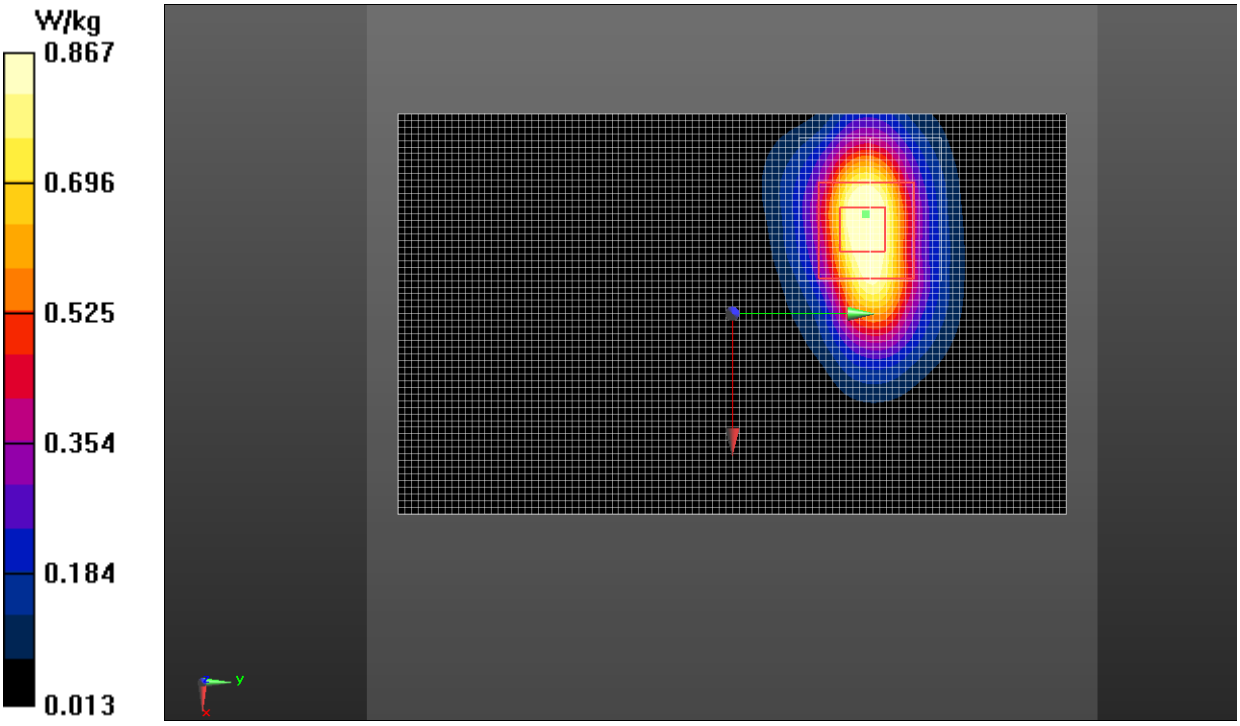
Rear side Low 1RB_Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.573 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 1.37 W/kg

SAR(1 g) = 0.796 W/kg; SAR(10 g) = 0.429 W/kg

Maximum value of SAR (measured) = 0.867 W/kg



LTE Band 5 Head

Date: 2018-4-4

Electronics: DAE4 Sn786

Medium: Head 835 MHz

Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.919 S/m; ε_r = 40.554; ρ = 1000 kg/m^3

Ambient Temperature: 22.5^{o}C Liquid Temperature: 22.0^{o}C

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

Probe: ES3DV3 – SN3151 ConvF (6.47, 6.47, 6.47);

Left Cheek Mid 25RB_High/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.193 W/kg

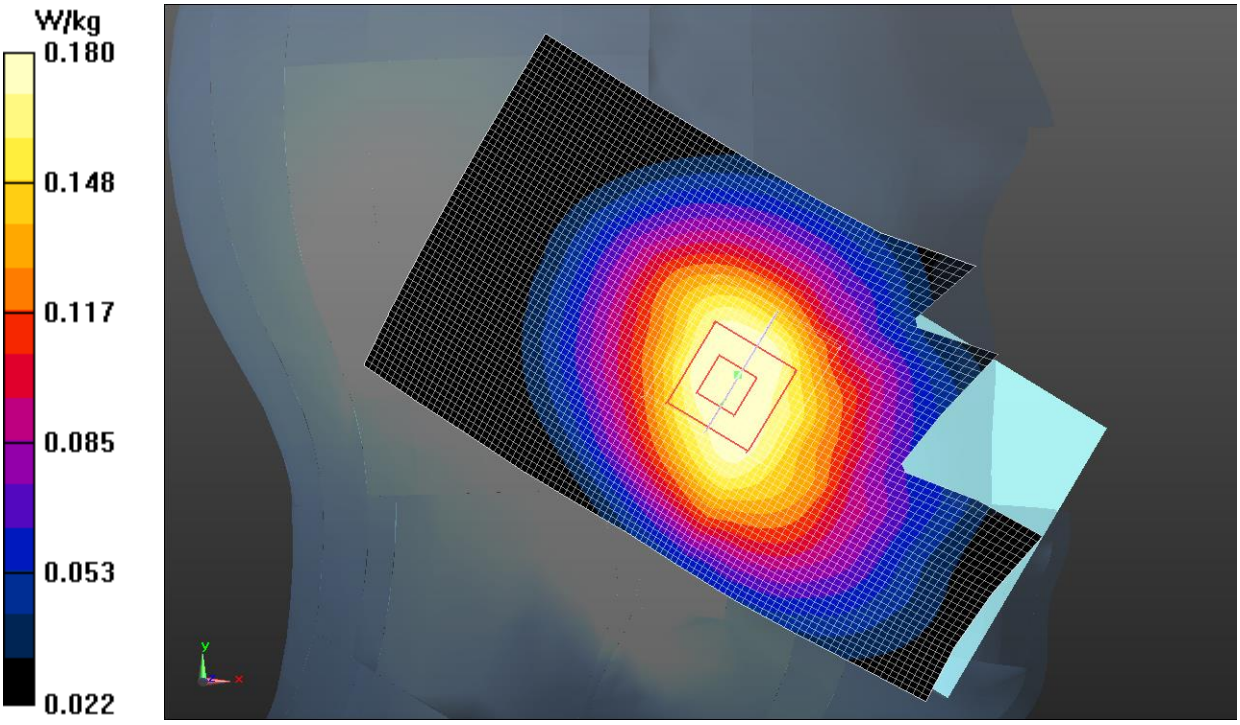
Left Cheek Mid 25RB_High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.464 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.217 W/kg

SAR(1 g) = 0.173 W/kg; SAR(10 g) = 0.131 W/kg

Maximum value of SAR (measured) = 0.180 W/kg



LTE Band 5 Body

Date: 2018-4-4

Electronics: DAE4 Sn786

Medium: Body 835 MHz

Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.965 S/m; ε_r = 54.037; ρ = 1000 kg/m^3

Ambient Temperature: 22.5^{o}C Liquid Temperature: 22.0^{o}C

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

Probe: ES3DV3 – SN3151 ConvF (6.38, 6.38, 6.38);

Rear side Mid 25RB_High/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.377 W/kg

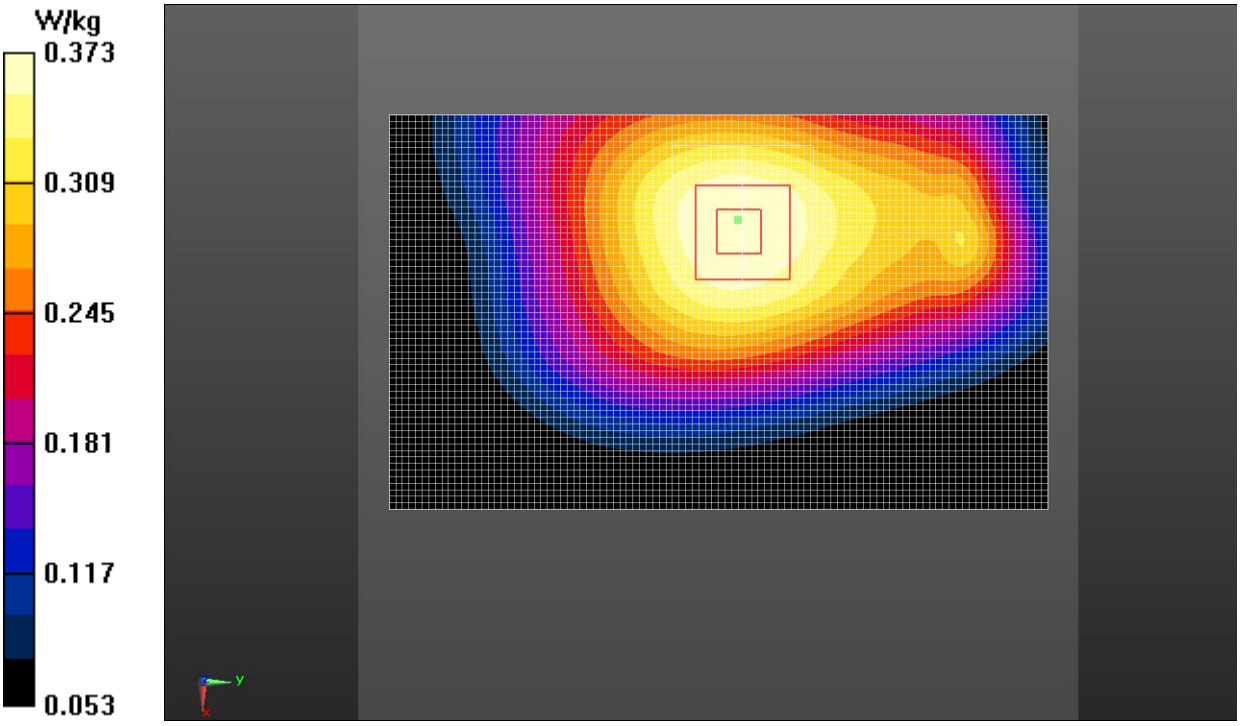
Rear side Mid 25RB_High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.91 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.448 W/kg

SAR(1 g) = 0.357 W/kg; SAR(10 g) = 0.273 W/kg

Maximum value of SAR (measured) = 0.373 W/kg



LTE Band 7 Head

Date: 2018-4-9

Electronics: DAE4 Sn786

Medium: Head 2550 MHz

Medium parameters used (interpolated): f = 2535 MHz; σ = 1.946 S/m; ε_r = 38.218; ρ = 1000 kg/m^3

Ambient Temperature: 22.5^{o}C Liquid Temperature: 22.0^{o}C

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

Probe: ES3DV3 – SN3151 ConvF (4.53, 4.53, 4.53);

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

Maximum value of SAR (interpolated) = 0.147 W/kg

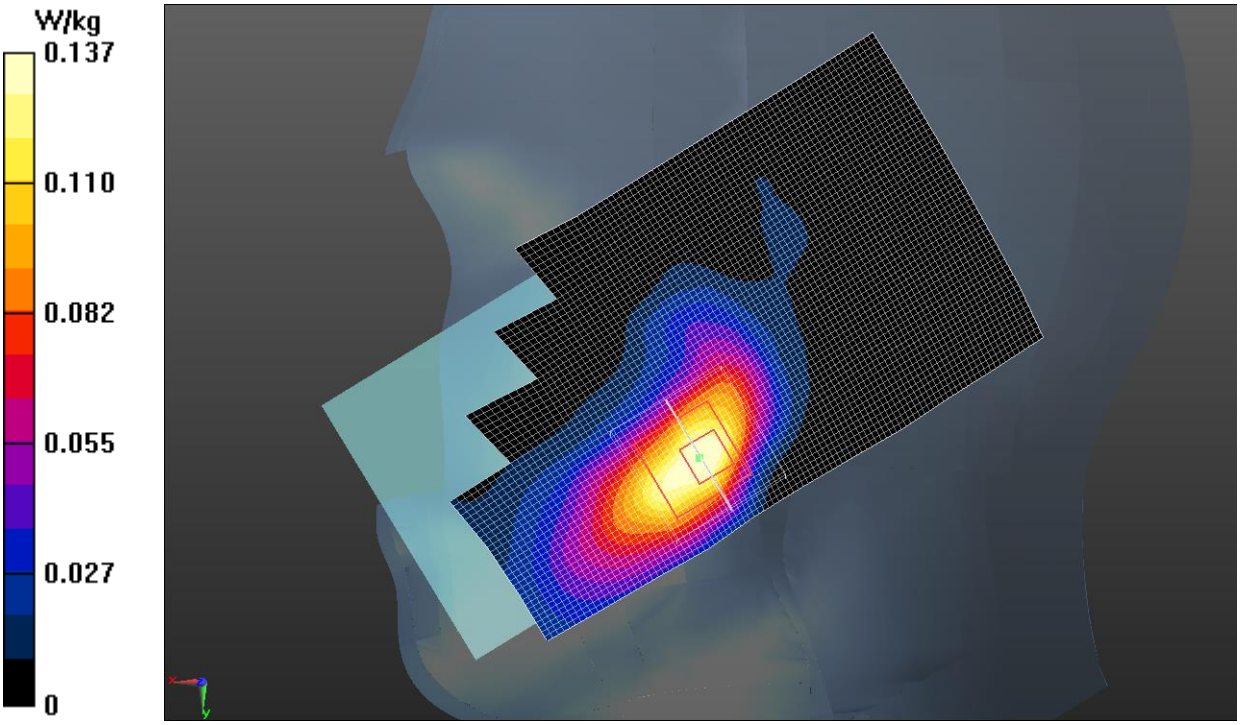
Right Cheek Mid 1RB_Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.258 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.229 W/kg

SAR(1 g) = 0.121 W/kg; SAR(10 g) = 0.063 W/kg

Maximum value of SAR (measured) = 0.137 W/kg



LTE Band 7 Body

Date: 2018-4-9

Electronics: DAE4 Sn786

Medium: Body 2550 MHz

Medium parameters used (interpolated): f = 2535 MHz; σ = 2.093 S/m; εr = 52.121; ρ = 1000 kg/m^3

Ambient Temperature: 22.5^{o}C Liquid Temperature: 22.0^{o}C

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

Probe: ES3DV3 – SN3151 ConvF (4.24, 4.24, 4.24);

Rear Side Mid 1RB_Mid /Area Scan (71x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.728 W/kg

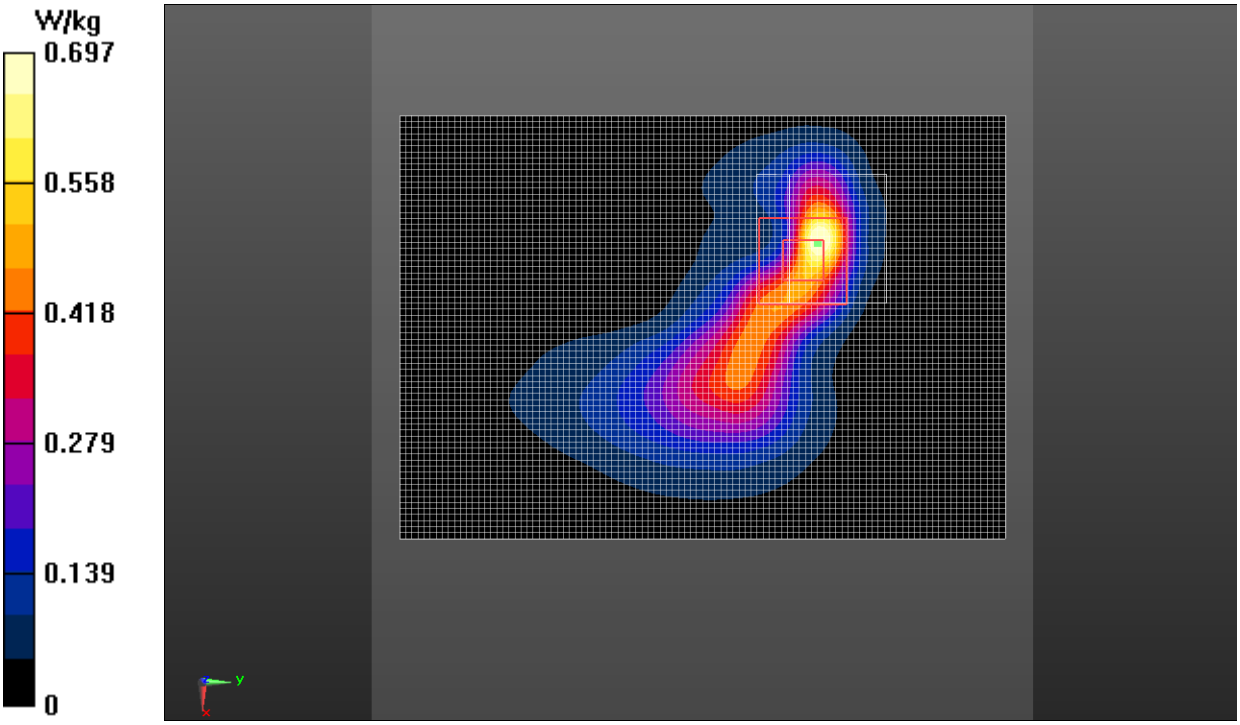
Rear Side Mid 1RB_Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.394 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 1.41 W/kg

SAR(1 g) = 0.647 W/kg; SAR(10 g) = 0.256 W/kg

Maximum value of SAR (measured) = 0.697 W/kg



WIFI 2.4G Head

Date: 2018-4-8

Electronics: DAE4 Sn786

Medium: Head 2450 MHz

Medium parameters used (interpolated): f = 2437 MHz; σ = 1.827 S/m; ε_r = 38.441; ρ = 1000 kg/m^3

Ambient Temperature: 22.5^{o}C Liquid Temperature: 22.0^{o}C

Communication System: UID 0, WiFi (0) Frequency: 2437 MHz Duty Cycle: 1:1

Probe: ES3DV3 – SN3151 ConvF (4.57, 4.57, 4.57);

Left Cheek Mid/Area Scan (71x111x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.331 W/kg

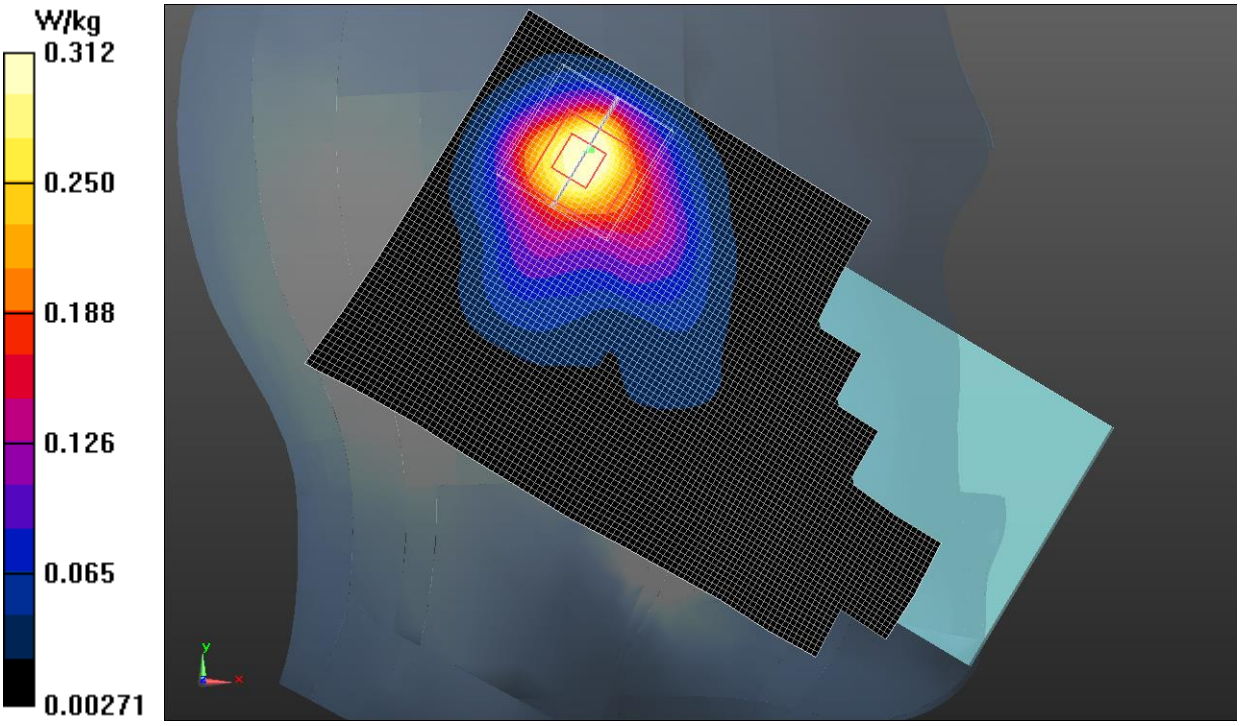
Left Cheek Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.784 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.602 W/kg

SAR(1 g) = 0.290 W/kg; SAR(10 g) = 0.149 W/kg

Maximum value of SAR (measured) = 0.312 W/kg



WIFI 2.4G Body

Date: 2018-4-8

Electronics: DAE4 Sn786

Medium: Body 2450 MHz

Medium parameters used (interpolated): f = 2437 MHz; σ = 1.969 S/m; ε_r = 52.426; ρ = 1000 kg/m^3

Ambient Temperature: 22.5^{o}C Liquid Temperature: 22.0^{o}C

Communication System: UID 0, WiFi (0) Frequency: 2437 MHz Duty Cycle: 1:1

Probe: ES3DV3 – SN3151 ConvF (4.46, 4.46, 4.46);

Rear Side Mid/Area Scan (71x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.126 W/kg

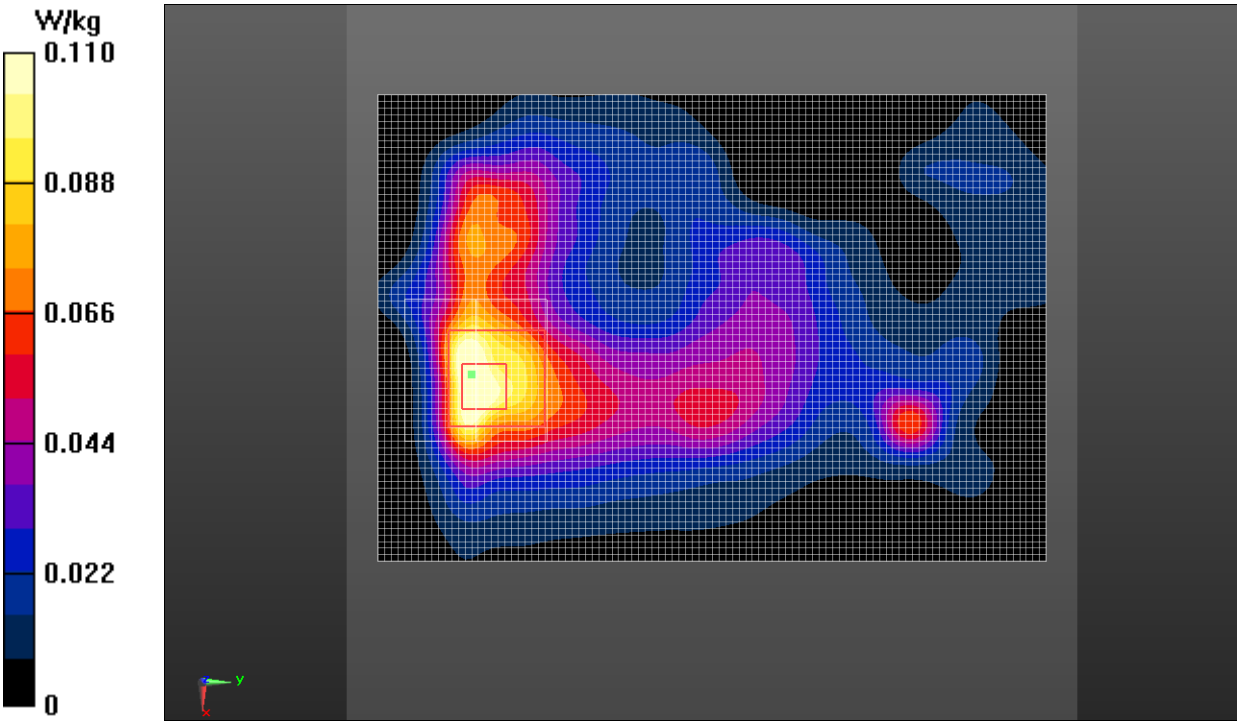
Rear Side Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.699 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.214 W/kg

SAR(1 g) = 0.103 W/kg; SAR(10 g) = 0.050 W/kg

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



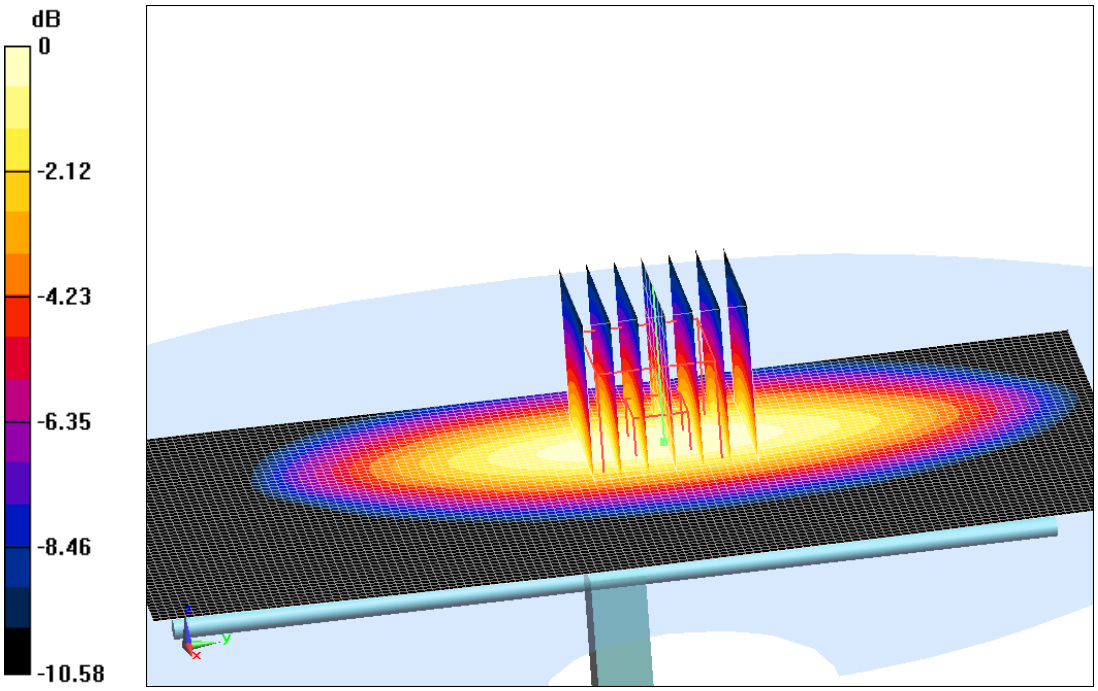
ANNEX L SystemVerification Results for Spot Check Test

835MHz

Date: 2018-4-4
Electronics: DAE4 Sn786
Medium: Head 835 MHz
Medium parameters used: f = 835 MHz; σ = 0.917 S/m; εr = 40.544; ρ = 1000 kg/m^3
Ambient Temperature: 22.9^{o}C Liquid Temperature: 22.5^{o}C
Communication System: CW Frequency: 835 MHz Duty Cycle: 1:1
Probe: ES3DV3 – SN3151 ConvF (6.47, 6.47, 6.47);

System Validation /Area Scan (81x161x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 55.214 V/m; Power Drift = 0.03 dB
Fast SAR: SAR(1 g) = 2.37 W/kg; SAR(10 g) = 1.52 W/kg
Maximum value of SAR (interpolated) = 2.53 W/kg

System Validation /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 55.214 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 3.40 W/kg
SAR(1 g) = 2.38 W/kg; SAR(10 g) = 1.55 W/kg
Maximum value of SAR (measured) = 2.60 W/kg



0 dB = 2.60 W/kg = 4.15 dB W/kg

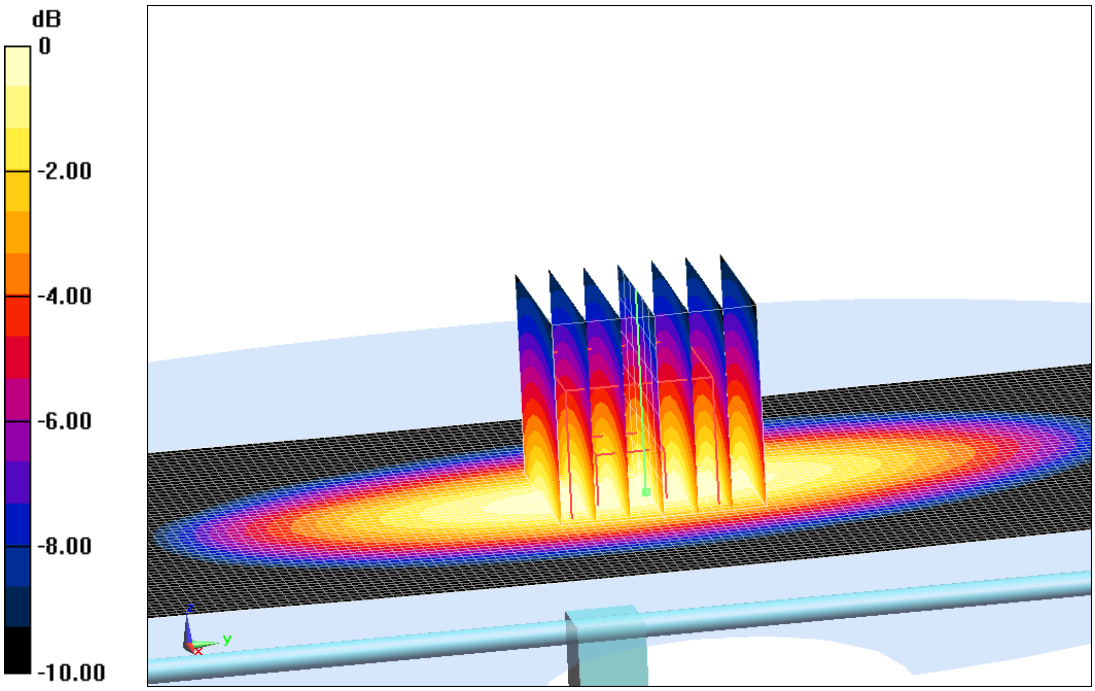
Fig.L.1. Validation 835MHz 250mW

835MHz

Date: 2018-4-4
Electronics: DAE4 Sn786
Medium: Body 835 MHz
Medium parameters used: f = 835 MHz; σ = 0.963 S/m; ε_r = 54.058; ρ = 1000 kg/m^3
Ambient Temperature: 22.9^{o}C Liquid Temperature: 22.5^{o}C
Communication System: CW Frequency: 835 MHz Duty Cycle: 1:1
Probe: ES3DV3 – SN3151 ConvF (6.38, 6.38, 6.38);

System Validation /Area Scan (81x171x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 56.004 V/m; Power Drift = -0.06 dB
Fast SAR: SAR(1 g) = 2.34 W/kg; SAR(10 g) = 1.55 W/kg
Maximum value of SAR (interpolated) = 2.50 W/kg

System Validation /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 56.004 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 3.22 W/kg
SAR(1 g) = 2.29 W/kg; SAR(10 g) = 1.52 W/kg
Maximum value of SAR (measured) = 2.47 W/kg



0 dB = 2.47 W/kg = 3.93 dB W/kg

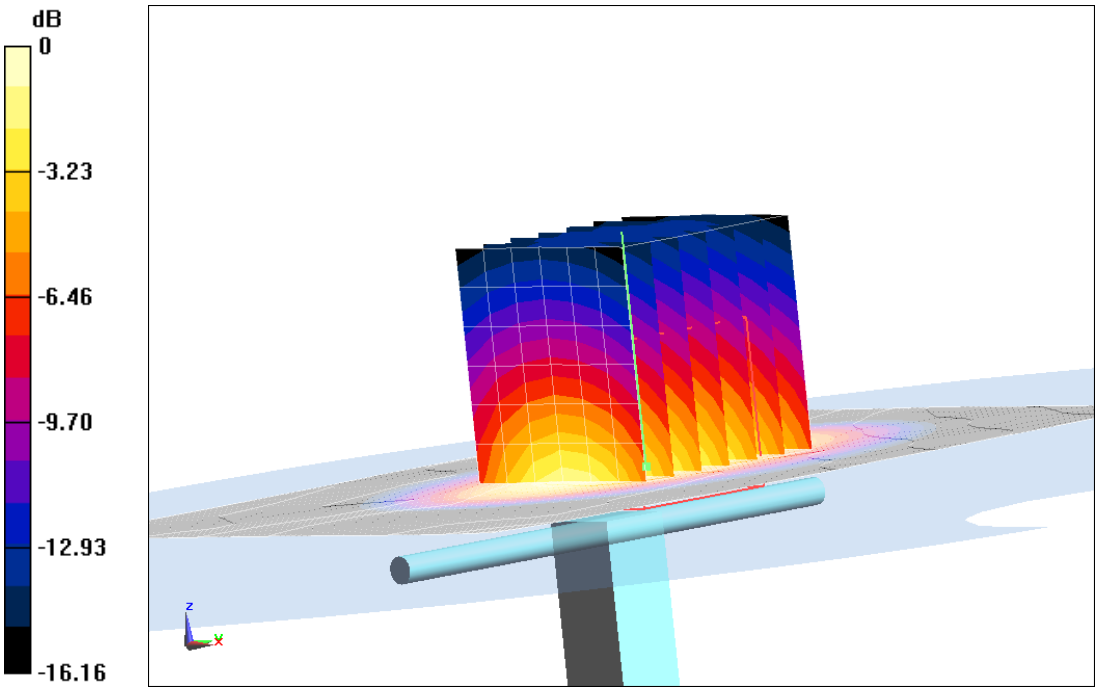
Fig.L.2. Validation 835MHz 250mW

1800MHz

Date: 2018-4-3
Electronics: DAE4 Sn786
Medium: Head 1800 MHz
Medium parameters used: f = 1800 MHz; σ = 1.414 S/m; ε_r = 39.522; ρ = 1000 kg/m^3
Ambient Temperature: 22.0^{o}C Liquid Temperature: 21.5^{o}C
Communication System: CW Frequency: 1800 MHz Duty Cycle: 1:1
Probe: ES3DV3 – SN3151 ConvF (5.27, 5.27, 5.27);

System Validation/Area Scan (61x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 80.854 V/m; Power Drift = 0.09 dB
Fast SAR: SAR(1 g) = 9.91 W/kg; SAR(10 g) = 5.20 W/kg
Maximum value of SAR (interpolated) = 12.2 W/kg

System Validation/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 80.854 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 20.2 W/kg
SAR(1 g) = 9.96 W/kg; SAR(10 g) = 5.25 W/kg
Maximum value of SAR (measured) = 12.9 W/kg



0 dB = 12.9 W/kg = 11.06 dB W/kg

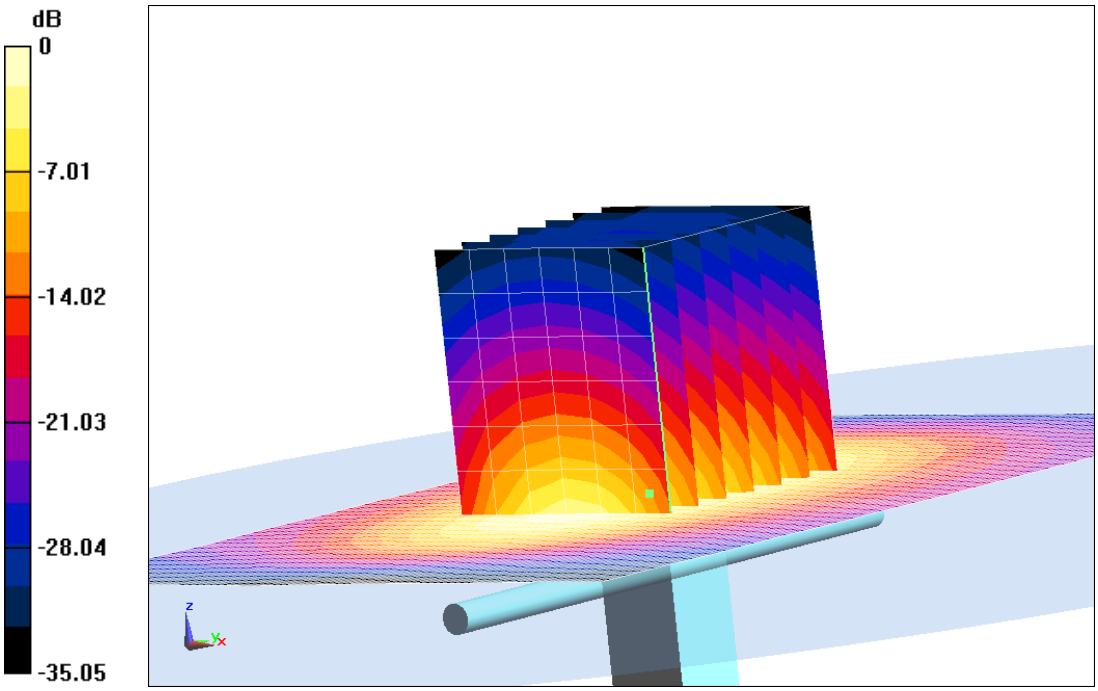
Fig.L.3. Validation 1800MHz 250mW

1800MHz

Date: 2018-4-3
Electronics: DAE4 Sn786
Medium: Body 1800 MHz
Medium parameters used: f = 1800 MHz; σ = 1.515 S/m; ε_r = 52.371; ρ = 1000 kg/m^3
Ambient Temperature: 22.0^{o}C Liquid Temperature: 21.5^{o}C
Communication System: CW Frequency: 1800 MHz Duty Cycle: 1:1
Probe: ES3DV3 – SN3151 ConvF (5.11, 5.11, 5.11);

System Validation/Area Scan (61x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 77.648 V/m; Power Drift = -0.02 dB
Fast SAR: SAR(1 g) = 9.62 W/kg; SAR(10 g) = 5.19 W/kg
Maximum value of SAR (interpolated) = 11.7 W/kg

System Validation/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 77.648 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 18.1 W/kg
SAR(1 g) = 9.56 W/kg; SAR(10 g) = 5.15 W/kg
Maximum value of SAR (measured) = 11.3 W/kg



0 dB = 11.3 W/kg = 10.53 dB W/kg

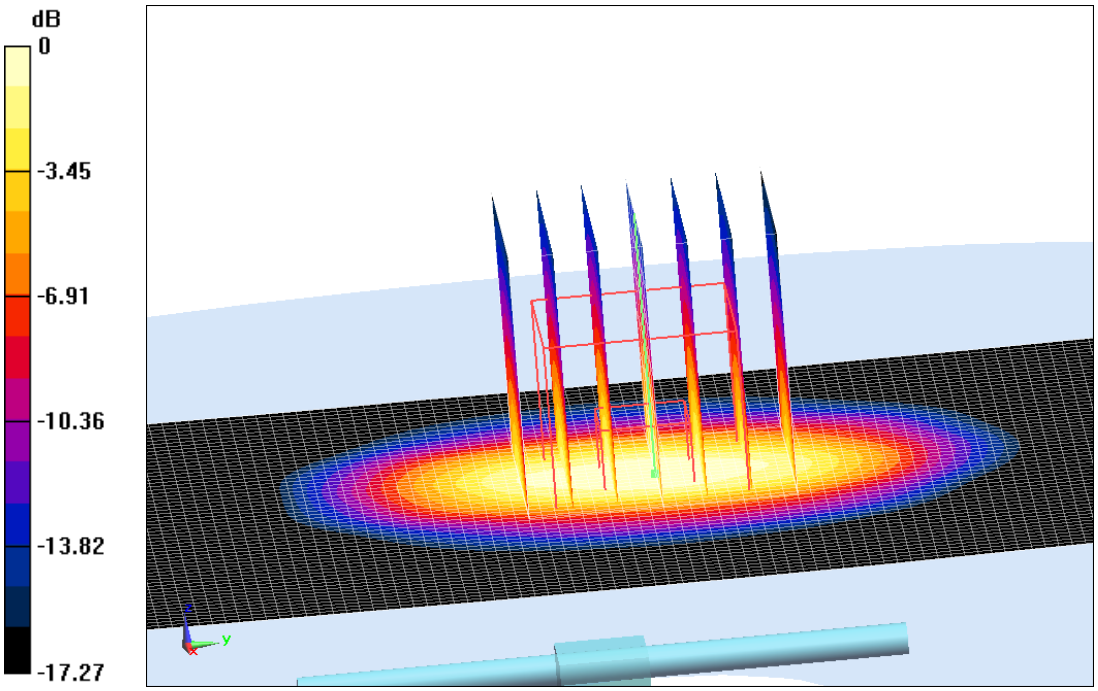
Fig.L.4. Validation 1800MHz 250mW

1900MHz

Date: 2018-4-3
Electronics: DAE4 Sn786
Medium: Head 1900 MHz
Medium parameters used: f = 1900 MHz; σ = 1.422 S/m; ε_r = 39.06; ρ = 1000 kg/m^3
Ambient Temperature: 22.9^{o}C Liquid Temperature: 22.5^{o}C
Communication System: CW Frequency: 1900 MHz Duty Cycle: 1:1
Probe: ES3DV3 – SN3151 ConvF (5.09, 5.09, 5.09);

System Validation /Area Scan (81x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 93.285 V/m; Power Drift = 0.12 dB
Fast SAR: SAR(1 g) = 10.5 W/kg; SAR(10 g) = 5.31 W/kg
Maximum value of SAR (interpolated) = 13.3 W/kg

System Validation /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 93.285 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 24.7 W/kg
SAR(1 g) = 10.6 W/kg; SAR(10 g) = 5.34 W/kg
Maximum value of SAR (measured) = 13.8 W/kg



0 dB = 13.8 W/kg = 11.40 dB W/kg

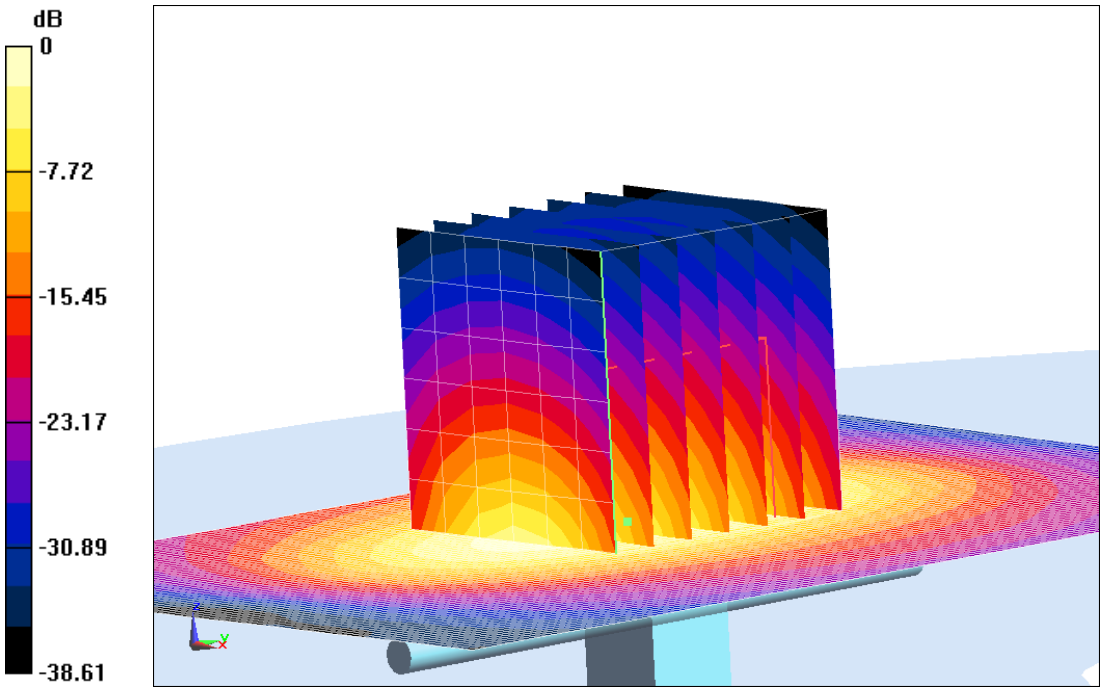
Fig.L.5. Validation 1900MHz 250mW

1900MHz

Date: 2018-4-3
Electronics: DAE4 Sn786
Medium: Body 1900 MHz
Medium parameters used: f = 1900 MHz; σ = 1.549 S/m; ε_r = 51.838; ρ = 1000 kg/m^3
Ambient Temperature: 22.9^{o}C Liquid Temperature: 22.5^{o}C
Communication System: CW Frequency: 1900 MHz Duty Cycle: 1:1
Probe: ES3DV3 – SN3151 ConvF (4.89, 4.89, 4.89);

System validation /Area Scan (81x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 80.284 V/m; Power Drift = 0.08 dB
Fast SAR: SAR(1 g) = 10.2 W/kg; SAR(10 g) = 5.37 W/kg
Maximum value of SAR (interpolated) = 12.9 W/kg

System validation /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 80.284 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 22.5 W/kg
SAR(1 g) = 10.5 W/kg; SAR(10 g) = 5.40 W/kg
Maximum value of SAR (measured) = 13.4 W/kg



0 dB = 13.4 W/kg = 11.27 dB W/kg

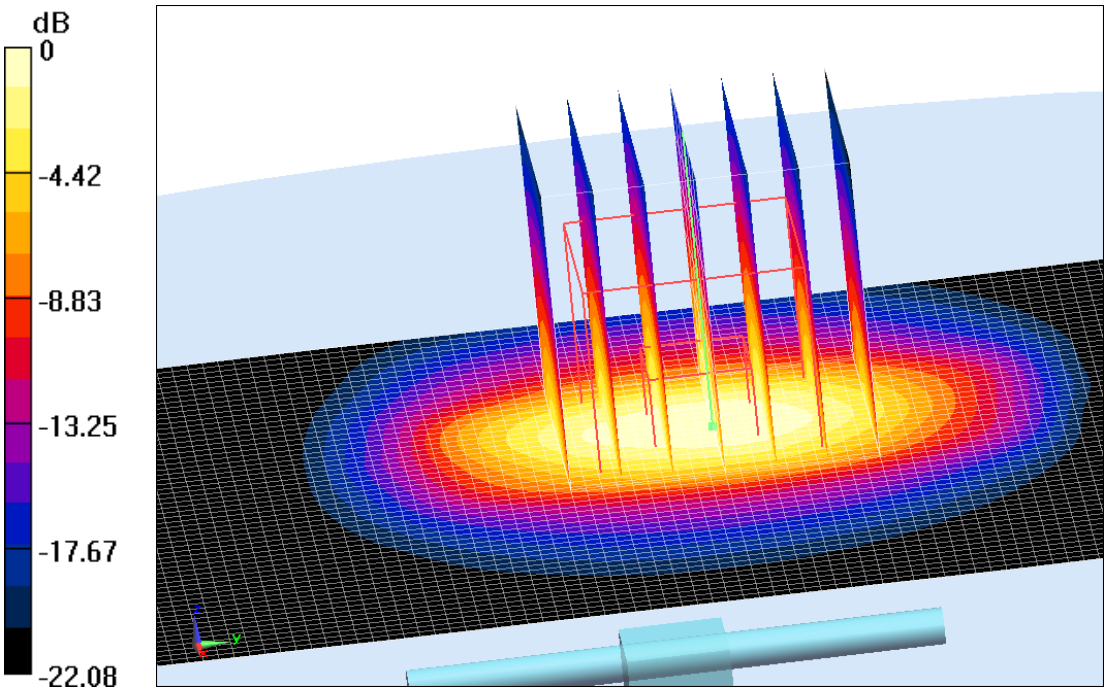
Fig.L.6. Validation 1900MHz 250mW

2450MHz

Date: 2018-4-8
Electronics: DAE4 Sn786
Medium: Head 2450 MHz
Medium parameters used: f = 2450 MHz; σ = 1.842 S/m; ε_r = 38.389; ρ = 1000 kg/m^3
Ambient Temperature: 22.0^{o}C Liquid Temperature: 21.6^{o}C
Communication System: CW Frequency: 2450 MHz Duty Cycle: 1:1
Probe: ES3DV3 – SN3151 ConvF (4.57, 4.57, 4.57);

System Validation /Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 86.436 V/m; Power Drift = -0.05 dB
Fast SAR: SAR(1 g) = 12.8 W/kg; SAR(10 g) = 6.01 W/kg
Maximum value of SAR (interpolated) = 15.2 W/kg

System Validation /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 86.436 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 25.3 W/kg
SAR(1 g) = 12.6 W/kg; SAR(10 g) = 5.92 W/kg
Maximum value of SAR (measured) = 14.9 W/kg



0 dB = 14.9 W/kg = 11.73 dB W/kg

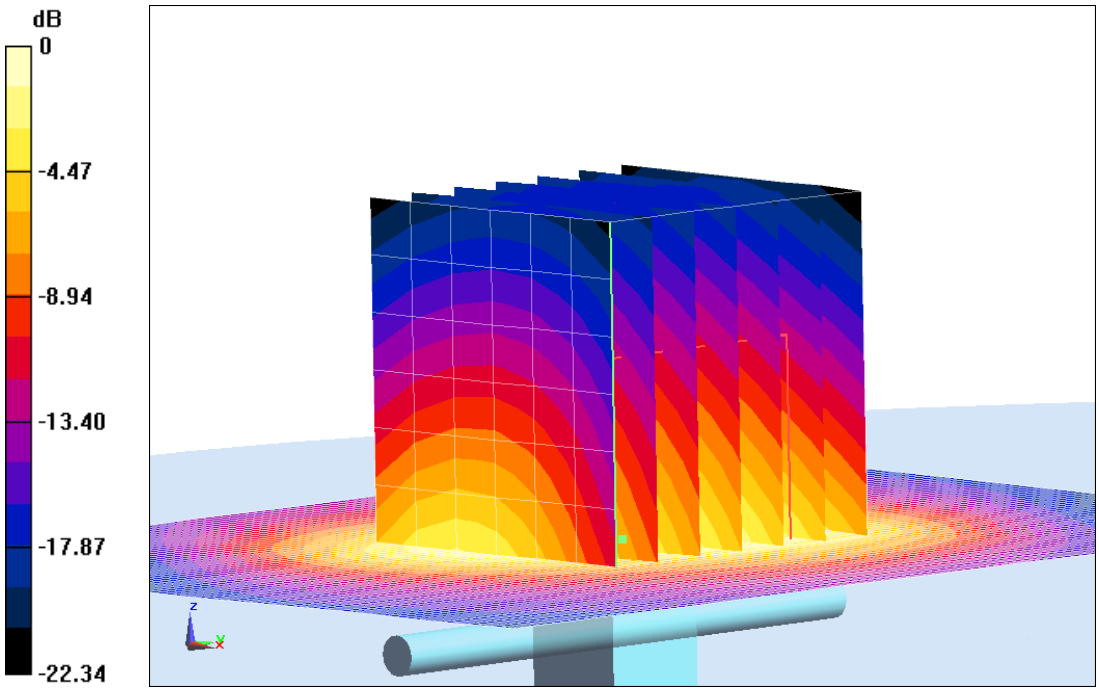
Fig.L.7. Validation 2450MHz 250mW

2450MHz

Date: 2018-4-8
Electronics: DAE4 Sn786
Medium: Body 2450 MHz
Medium parameters used: f = 2450 MHz; σ = 1.985 S/m; ε_r = 52.382; ρ = 1000 kg/m^3
Ambient Temperature: 22.0^{o}C Liquid Temperature: 21.6^{o}C
Communication System: CW Frequency: 2450 MHz Duty Cycle: 1:1
Probe: ES3DV3 – SN3151 ConvF (4.46, 4.46, 4.46);

System Validation/Area Scan (81x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 89.632 V/m; Power Drift = 0.07 dB
Fast SAR: SAR(1 g) = 13.5 W/kg; SAR(10 g) = 6.18 W/kg
Maximum value of SAR (interpolated) = 15.8 W/kg

System Validation/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 89.632 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 26.7 W/kg
SAR(1 g) = 13.6 W/kg; SAR(10 g) = 6.23 W/kg
Maximum value of SAR (measured) = 16.6 W/kg



0 dB = 16.6 W/kg = 12.20 dB W/kg

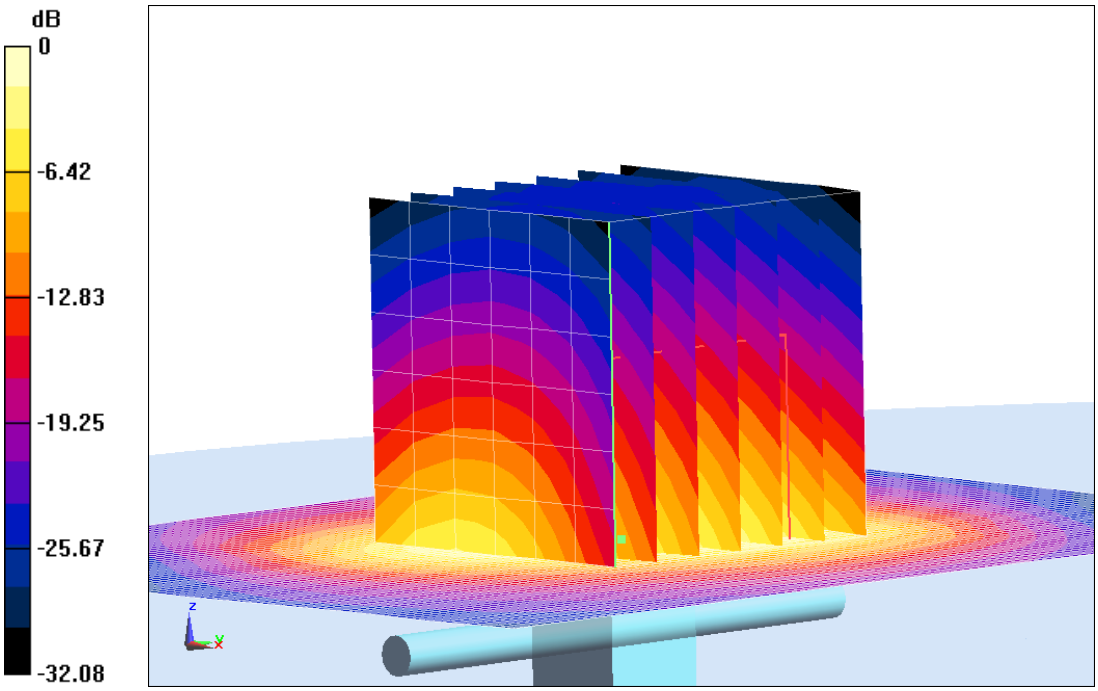
Fig.L.8. Validation 2450MHz 250mW

2550MHz

Date: 2018-4-9
Electronics: DAE4 Sn786
Medium: Head 2550 MHz
Medium parameters used: f = 2550 MHz; σ = 1.965 S/m; ε_r = 38.147; ρ = 1000 kg/m^3
Ambient Temperature: 22.0^{o}C Liquid Temperature: 21.6^{o}C
Communication System: CW Frequency: 2550 MHz Duty Cycle: 1:1
Probe: ES3DV3 – SN3151 ConvF (4.53, 4.53, 4.53);

System Validation/Area Scan (81x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 91.755 V/m; Power Drift = 0.01 dB
Fast SAR: SAR(1 g) = 14.3 W/kg; SAR(10 g) = 6.52 W/kg
Maximum value of SAR (interpolated) = 16.2 W/kg

System Validation/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 91.755 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 28.6 W/kg
SAR(1 g) = 14.5 W/kg; SAR(10 g) = 6.58 W/kg
Maximum value of SAR (measured) = 17.1 W/kg



0 dB = 17.1 W/kg = 12.33 dB W/kg

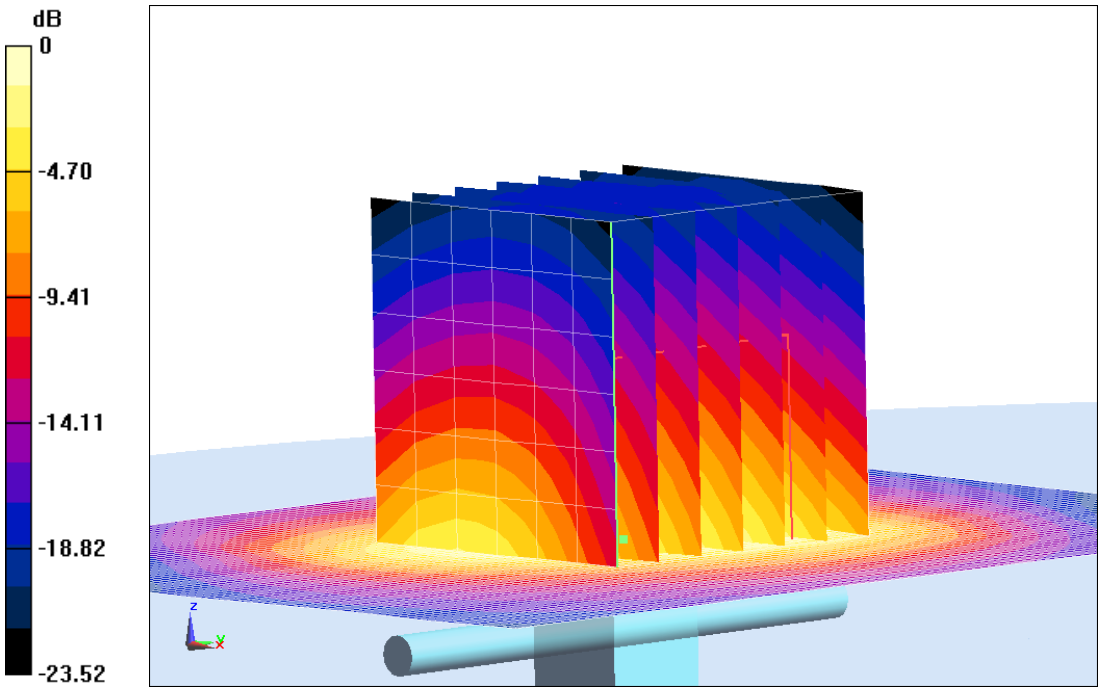
Fig.L.9. Validation 2550MHz 250mW

2550MHz

Date: 2018-4-9
Electronics: DAE4 Sn786
Medium: Body 2550 MHz
Medium parameters used: f = 2550 MHz; σ = 2.113 S/m; ε_r = 52.073; ρ = 1000 kg/m^3
Ambient Temperature: 22.0^{o}C Liquid Temperature: 21.6^{o}C
Communication System: CW Frequency: 2550 MHz Duty Cycle: 1:1
Probe: ES3DV3 – SN3151 ConvF (4.24, 4.24, 4.24);

System Validation/Area Scan (81x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 86.954 V/m; Power Drift = -0.05 dB
Fast SAR: SAR(1 g) = 13.6 W/kg; SAR(10 g) = 6.26 W/kg
Maximum value of SAR (interpolated) = 15.7 W/kg

System Validation/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 86.954 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 26.4 W/kg
SAR(1 g) = 13.5 W/kg; SAR(10 g) = 6.22 W/kg
Maximum value of SAR (measured) = 15.2 W/kg



0 dB = 15.2 W/kg = 11.82 dB W/kg

Fig.L.10. Validation 2550MHz 250mW