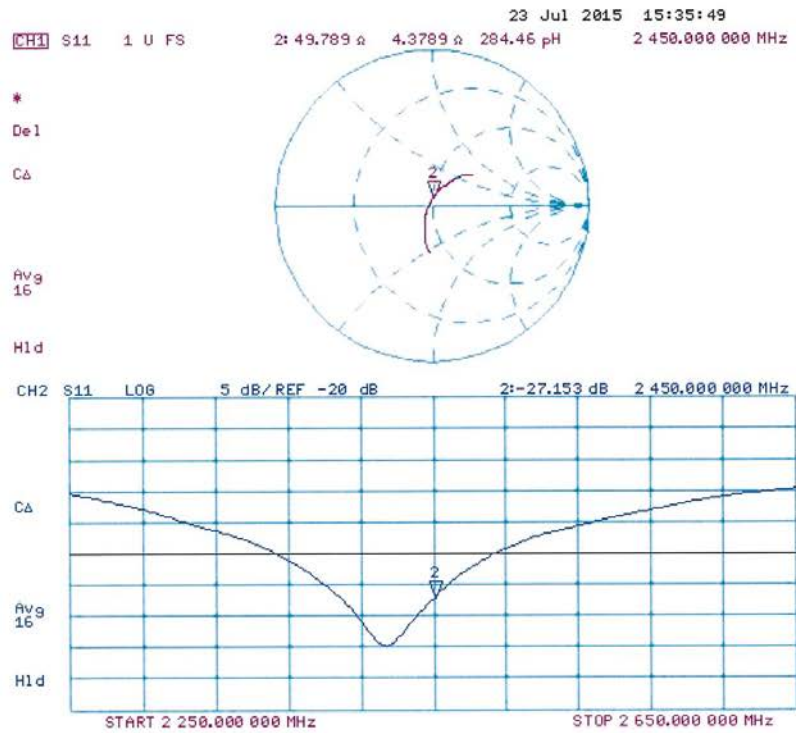


Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date: 24.07.2015

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:853

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

Medium parameters used: $f = 2450$ MHz; $\sigma = 2.03$ S/m; $\epsilon_r = 52.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(4.32, 4.32, 4.32); Calibrated: 30.12.2014;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 18.08.2014
- Phantom: Flat Phantom 5.0 (back); Type: QD000P50AA; Serial: 1002
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

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

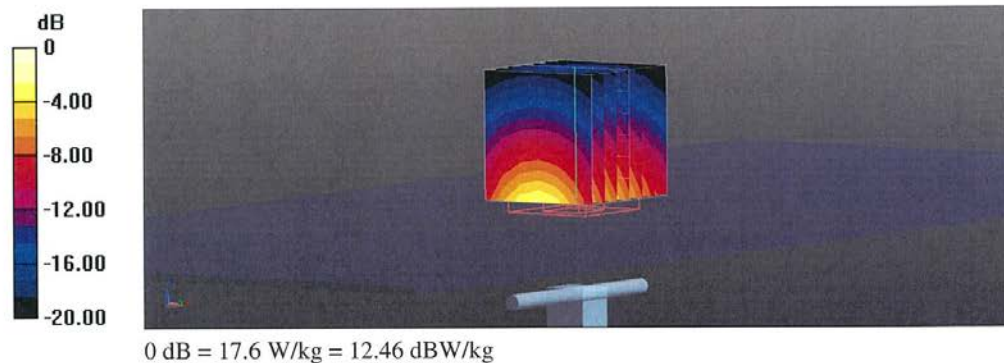
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 95.79 V/m; Power Drift = 0.03 dB

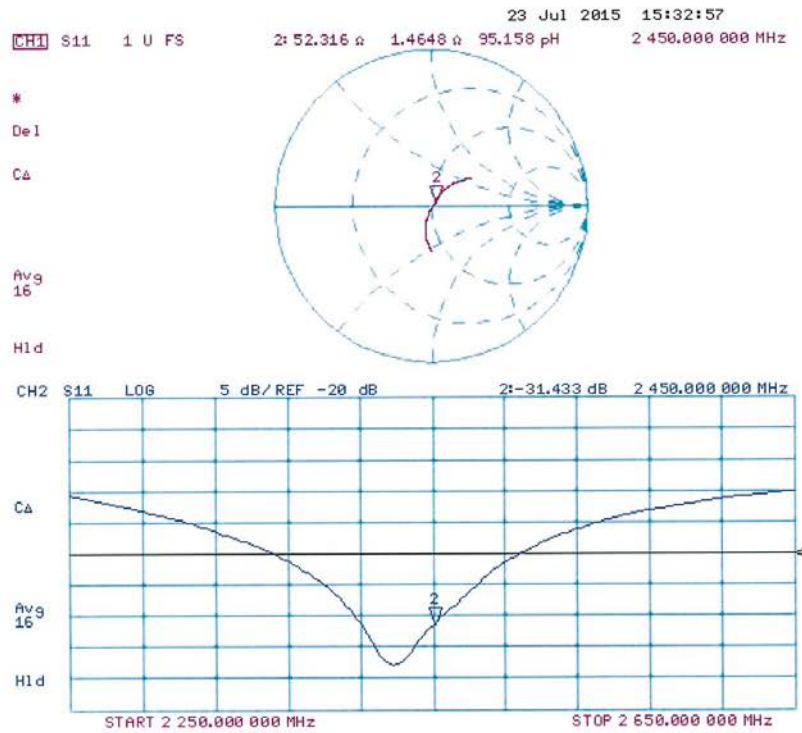
Peak SAR (extrapolated) = 27.5 W/kg

SAR(1 g) = 13.3 W/kg; SAR(10 g) = 6.16 W/kg

Maximum value of SAR (measured) = 17.6 W/kg



Impedance Measurement Plot for Body TSL



ANNEX I SPOT CHECK TEST

As the test lab for 4060W from TCL Communication Ltd, we, CTTL (Shouxiang), declare on our sole responsibility that, according to “Declaration of changes” provided by applicant, only the Spot check test should be performed. The test results are as below.

I.1 Conducted power of selected case

Table I.1-1: The conducted power results for GSM850/1900

GSM 850MHz	Conducted Power (dBm)		
	Channel 251(848.8MHz)	Channel 190(836.6MHz)	Channel 128(824.2MHz)
	\	32.07	\
GSM 1900MHz	Conducted Power (dBm)		
	Channel 810(1909.8MHz)	Channel 661(1880MHz)	Channel 512(1850.2MHz)
	29.61	\	\

Table I.1-2: The conducted power results for GPRS

GSM 850 GPRS (GMSK)	Measured Power (dBm)		
	251	190	128
2 Txslots	30.47	\	\
PCS1900 GPRS (GMSK)	Measured Power (dBm)		
	810	661	512
3 Txslots	26.06	\	\

Table I.1-3: The conducted Power for WCDMA

Item	band	FDDV result		
	ARFCN	4233 (846.6MHz)	4182 (836.4MHz)	4132 (826.4MHz)
WCDMA	\	\	22.79	22.92
Item	band	FDDII result AP OFF		
	ARFCN	9538 (1907.6MHz)	9400 (1880MHz)	9262 (1852.4MHz)
WCDMA	\	23.54	\	23.70
Item	band	FDDII result AP ON		
	ARFCN	9538 (1907.6MHz)	9400 (1880MHz)	9262 (1852.4MHz)
WCDMA	\	22.50	\	\
Item	band	FDDIV result		
	ARFCN	1513 (1752.6MHz)	1412 (1732.4MHz)	1312 (1712.4MHz)
WCDMA	\	23.41	\	23.51

Table I.1-4: The conducted Power for LTE

LTE Band2 20MHz 1RB-Middle (50) AP OFF	1900 (19100)	23.93
LTE Band2 20MHz 1RB-Low (50) AP ON	1900 (19100)	22.61
LTE Band4 20MHz 1RB-Middle (50)	1745 (20300)	24.30
	1720 (20050)	23.83
LTE Band12 10MHz 1RB-Middle (24)	707.5(23095)	23.31
	704(23060)	23.28

Table I.1-5: The conducted Power for WLAN

Mode	Channel\data rate	1Mbps
802.11b	11	18
	6	17.65

I.2 Measurement results

Table I.2-1: SAR Values (GSM 850 MHz Band - Head)

Ambient Temperature: 23.0 °C						Liquid Temperature: 22.5 °C					
Frequency		Side	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
836.6	190	Left	Touch	Fig.1	32.07	33.5	0.207	0.29	0.270	0.38	0.06

Table I.2-2: SAR Values (GSM 850 MHz Band - Body)

Ambient Temperature: 23.0 °C						Liquid Temperature: 22.5 °C					
Frequency		Mode (number of timeslots)	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
848.8	251	GPRS (2)	Rear	Fig.2	30.47	30.5	0.446	0.45	0.588	0.59	-0.11

Note1: The distance between the EUT and the phantom bottom is 10mm.

Table I.2-3: SAR Values (GSM 1900 MHz Band - Head)

Ambient Temperature: 23.0 °C						Liquid Temperature: 22.5 °C					
Frequency		Side	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
1909.8	810	Left	Touch	Fig.3	29.61	30.5	0.194	0.24	0.319	0.39	0.18

Table I.2-4: SAR Values (GSM 1900 MHz Band - Body)

Ambient Temperature: 23.0 °C						Liquid Temperature: 22.5 °C					
Frequency		Mode (number of timeslots)	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
1909.8	810	GPRS (3)	Bottom	Fig.4	26.06	27	0.488	0.61	0.899	1.12	-0.15

Note1: The distance between the EUT and the phantom bottom is 10mm.

Table I.2-5: SAR Values (WCDMA 850 MHz Band - Head)

Ambient Temperature: 23.0 °C						Liquid Temperature: 22.5 °C					
Frequency		Side	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
826.4	4132	Left	Touch	Fig.5	22.92	24	0.221	0.28	0.289	0.37	0.06

Table I.2-6: SAR Values (WCDMA 850 MHz Band - Body)

Ambient Temperature: 23.0 °C					Liquid Temperature: 22.5 °C					
Frequency		Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.									
836.4	4182	Rear	Fig.6	22.79	24	0.371	0.49	0.491	0.65	-0.01

Note1: The distance between the EUT and the phantom bottom is 10mm.

Table I.2-7: SAR Values (WCDMA 1700 MHz Band - Head)

Ambient Temperature: 23.0 °C						Liquid Temperature: 22.5 °C					
Frequency		Side	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
1752.6	1513	Left	Touch	Fig.7	23.41	24	0.369	0.42	0.576	0.66	-0.11

Table I.2-8: SAR Values (WCDMA 1700 MHz Band - Body)

Ambient Temperature: 23.0 °C											Liquid Temperature: 22.5 °C				
Frequency		Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)					
MHz	Ch.														
1712.4	1312	Rear	Fig.8	23.51	24	0.524	0.59	0.811	0.91	0.01					

Note1: The distance between the EUT and the phantom bottom is 10mm.

Table I.2-9: SAR Values (WCDMA 1900 MHz Band - Head)

Ambient Temperature: 23.0 °C						Liquid Temperature: 22.5 °C					
Frequency		Side	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
1852.4	9262	Left	Touch	Fig.9	23.7	24	0.378	0.41	0.621	0.67	0.09

Table I.2-10: SAR Values (WCDMA 1900 MHz Band - Body) – AP ON

Ambient Temperature: 23.0 °C											Liquid Temperature: 22.5°C				
Frequency		Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)					
MHz	Ch.														
1907.6	9538	Bottom	Fig.10	22.5	22.5	0.532	0.53	0.973	0.97	-0.04					

Note1: The distance between the EUT and the phantom bottom is 10mm.

Table I.2-11: SAR Values (WCDMA 1900 MHz Band - Body) – AP OFF

Ambient Temperature: 23.0 °C											Liquid Temperature: 22.5°C				
Frequency		Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)					
MHz	Ch.														
1907.6	9538	Rear	Fig.11	23.54	24	0.363	0.40	0.601	0.67	-0.04					

Note1: The distance between the EUT and the phantom bottom is 15mm.

Table I.2-12: SAR Values (LTE Band2 - Head)

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°C												
Frequency		Mode	Side	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.											
1900	19100	1RB_Mid	Left	Touch	Fig.12	23.93	24.8	0.363	0.44	0.592	0.72	0.14

Note1: The LTE mode is QPSK_20MHz.

Table I.2-13: SAR Values (LTE Band2 - Body) – AP ON

Ambient Temperature: 23.0 °C						Liquid Temperature: 22.5 °C					
Frequency		Mode	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
1900	19100	1RB_Low	Bottom	Fig.13	22.61	23	0.543	0.59	1.02	1.12	0.13

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK_20MHz.

Table I.2-14: SAR Values (LTE Band2 - Body) – AP OFF

Ambient Temperature: 23.0 °C						Liquid Temperature: 22.5 °C					
Frequency		Mode	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
1900	19100	1RB_Mid	Rear	Fig.14	23.93	24.8	0.400	0.49	0.658	0.80	0.09

Note1: The distance between the EUT and the phantom bottom is 15mm.

Note2: The LTE mode is QPSK_20MHz.

Table I.2-15: SAR Values (LTE Band4 - Head)

Ambient Temperature: 23.0 °C													Liquid Temperature: 22.5°C			
Frequency		Mode	Side	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)				
MHz	Ch.															
1745	20300	1RB_Mid	Left	Touch	Fig.15	24.3	24.5	0.302	0.32	0.469	0.49	-0.05				

Note1: The LTE mode is QPSK_20MHz.

Table I.2-16: SAR Values (LTE Band4 - Body)

Ambient Temperature: 23.0 °C						Liquid Temperature: 22.5 °C					
Frequency		Mode	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
1720	20050	1RB_Mid	Rear	Fig.16	23.83	24.5	0.645	0.75	0.996	1.16	-0.01

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK_20MHz.

Table I.2-17: SAR Values (LTE Band12 - Head)

Ambient Temperature: 23.0 °C													Liquid Temperature: 22.5 °C			
Frequency		Mode	Side	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)				
MHz	Ch.															
707.5	23095	1RB_Mid	Left	Touch	Fig.17	23.31	24	0.229	0.27	0.297	0.35	-0.05				

Note1: The LTE mode is QPSK_10MHz.

Table I.2-18: SAR Values (LTE Band12 - Body)

Ambient Temperature: 23.0 °C						Liquid Temperature: 22.5 °C					
Frequency		Mode	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
704	23060	1RB_Mid	Rear	Fig.18	23.28	24	0.305	0.36	0.400	0.47	0.05

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK_10MHz.

I.3 WLAN Evaluation

Head Evaluation

Table I.3-1: SAR Values (WLAN - Head) – 802.11b 1Mbps (Full SAR)

Ambient Temperature: 23.0 °C						Liquid Temperature: 22.5 °C					
Frequency		Side	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
2437	6	Right	Touch	Fig.19	17.65	18	0.410	0.44	0.885	0.96	0.07

Table I.3-2: SAR Values (WLAN - Head) – 802.11b 1Mbps (Scaled Reported SAR)

Ambient Temperature: 23.0 °C						Liquid Temperature: 22.5 °C		
Frequency		Side	Test Position	Actual duty factor	maximum duty factor	Reported SAR (1g) (W/kg)	Scaled reported SAR (1g) (W/kg)	
MHz	Ch.							
2437	6	Right	Touch	97.83%	100%	0.96	0.98	

Body Evaluation

Table I.3-3: SAR Values (WLAN - Head) – 802.11b 1Mbps (Full SAR)

Ambient Temperature: 23.0 °C						Liquid Temperature: 22.5 °C				
Frequency		Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.									
2462	11	Rear	Fig.20	18	18	0.131	0.13	0.269	0.27	-0.10

Table I.3-4: SAR Values (WLAN - Head) – 802.11b 1Mbps (Scaled Reported SAR)

Ambient Temperature: 23.0 °C				Liquid Temperature: 22.5 °C		
Frequency		Test Position	Actual duty factor	maximum duty factor	Reported SAR (1g) (W/kg)	Scaled reported SAR (1g) (W/kg)
MHz	Ch.					
2462	11	Rear	97.83%	100%	0.27	0.28

I.4 Reported SAR Comparison

Exposure Configuration	Technology Band	Reported SAR 1g (W/Kg): spot check	Reported SAR 1g (W/Kg): original
Head (Separation Distance 0mm)	GSM 850	0.38	0.39
	PCS 1900	0.39	0.39
	UMTS FDD 2	0.67	0.76
	UMTS FDD 4	0.66	0.59
	UMTS FDD 5	0.37	0.44
	LTE Band 2	0.72	0.79
	LTE Band 4	0.49	0.74
	LTE Band 12	0.35	0.33
	WLAN 2.4 GHz	0.98	1.25
Body-worn (Separation Distance 10mm)	GSM 850	0.59	0.79
	PCS 1900	1.12	1.18
	UMTS FDD 2	0.97	1.04
	UMTS FDD 4	0.91	1.14
	UMTS FDD 5	0.65	0.48
	LTE Band 2	1.12	1.27
	LTE Band 4	1.16	1.30
	LTE Band 12	0.47	0.52
	WLAN 2.4 GHz	0.28	0.29
Body-worn (Data) (Separation Distance 15mm)	UMTS FDD 2	0.67	0.63
	LTE Band2	0.80	0.82

Note: The spot check results of Head for UMTS Band4 / LTE Band12 and body for UMTS Band5 / UMTS Band2 (15mm) are larger than the original results, so these values replace the original results and others are quoted.

850 Left Cheek Middle

Date: 2016-06-21

Electronics: DAE4 Sn777

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.932$ mho/m; $\epsilon_r = 42.77$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 Frequency: 836.6 MHz Duty Cycle: 1:8.3

Probe: EX3DV4 - SN3617 ConvF(9.56, 9.56, 9.56)

Area Scan (71x111x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.292 W/kg

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

Reference Value = 5.381 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.343 W/kg

SAR(1 g) = 0.270 W/kg; SAR(10 g) = 0.207 W/kg

Maximum value of SAR (measured) = 0.281 W/kg

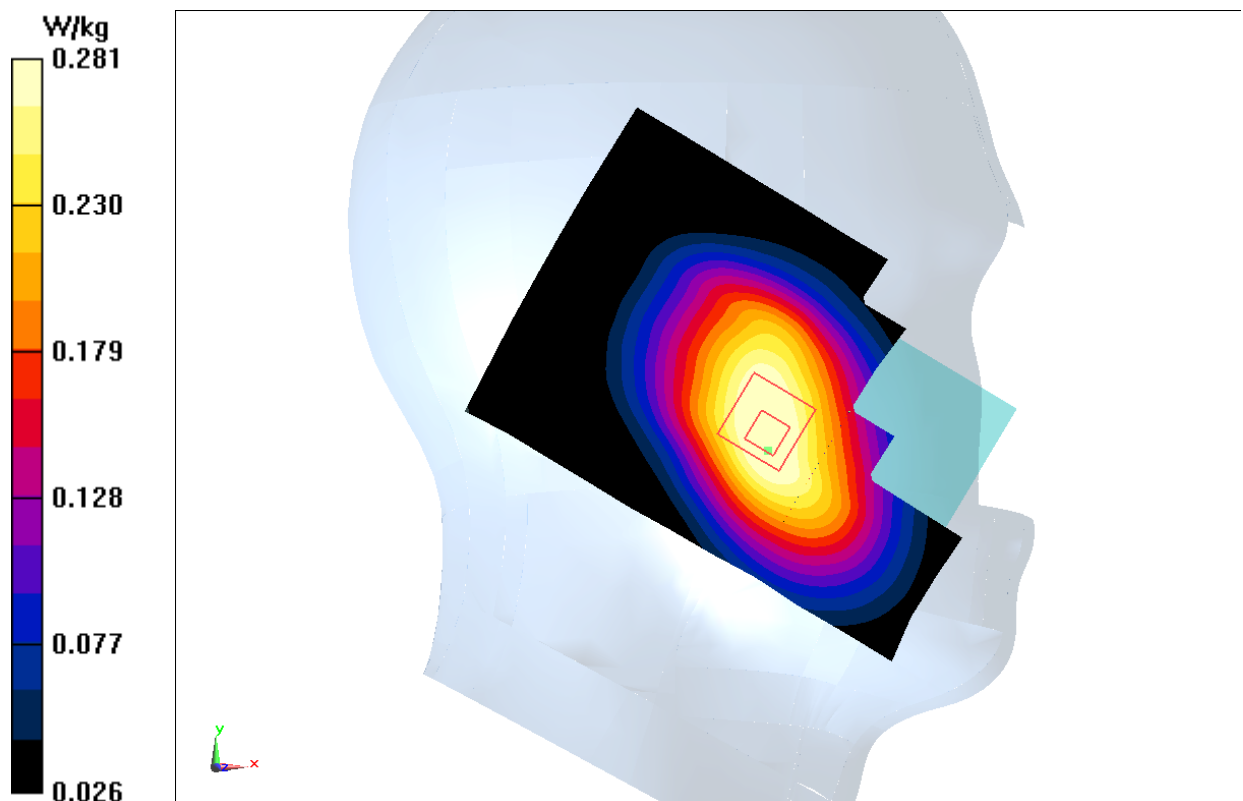


Fig.1 850MHz

850 Body Rear High

Date: 2016-06-21

Electronics: DAE4 Sn777

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.992$ mho/m; $\epsilon_r = 57.317$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 GPRS Frequency: 848.8 MHz Duty Cycle: 1:4

Probe: EX3DV4 - SN3617 ConvF(9.71, 9.71, 9.71)

Area Scan (111x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.654 W/kg

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

Reference Value = 24.65 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 0.756 W/kg

SAR(1 g) = 0.588 W/kg; SAR(10 g) = 0.446 W/kg

Maximum value of SAR (measured) = 0.618 W/kg

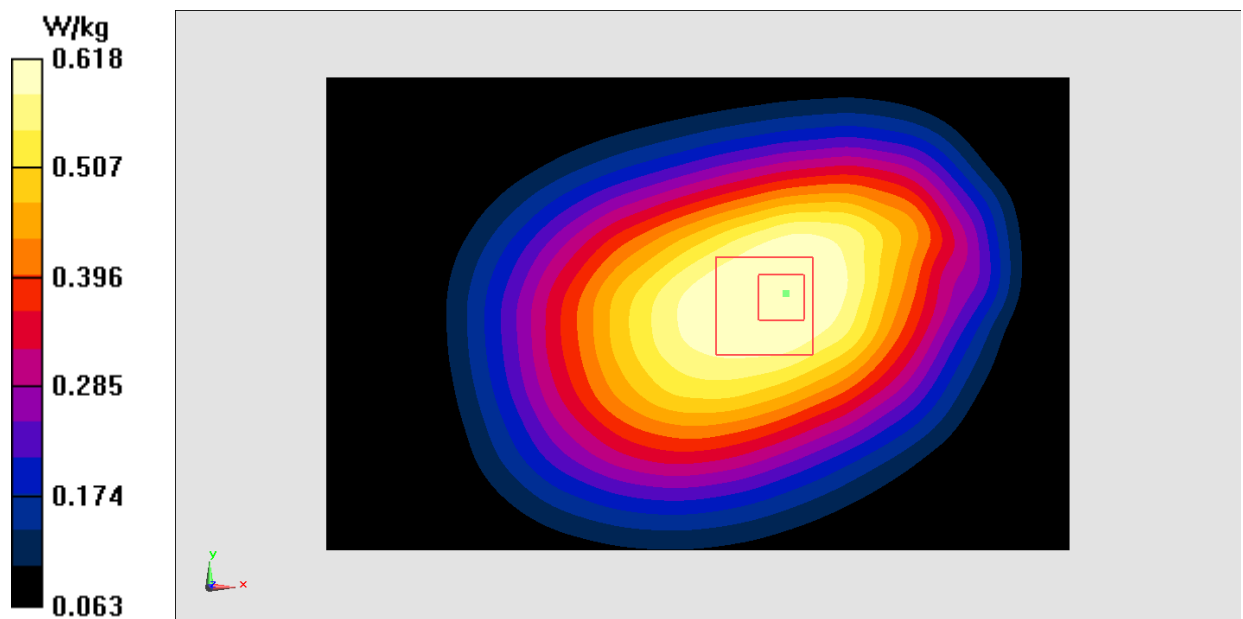


Fig.2 850 MHz

1900 Left Cheek High

Date: 2016-06-23

Electronics: DAE4 Sn777

Medium: Head 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.42$ mho/m; $\epsilon_r = 40.636$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz Frequency: 1909.8 MHz Duty Cycle: 1:8.3

Probe: EX3DV4 - SN3617 ConvF(8.07, 8.07, 8.07)

Area Scan (71x111x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 0.410 W/kg

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

Reference Value = 4.253 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 0.496 W/kg

SAR(1 g) = 0.319 W/kg; SAR(10 g) = 0.194 W/kg

Maximum value of SAR (measured) = 0.380 W/kg

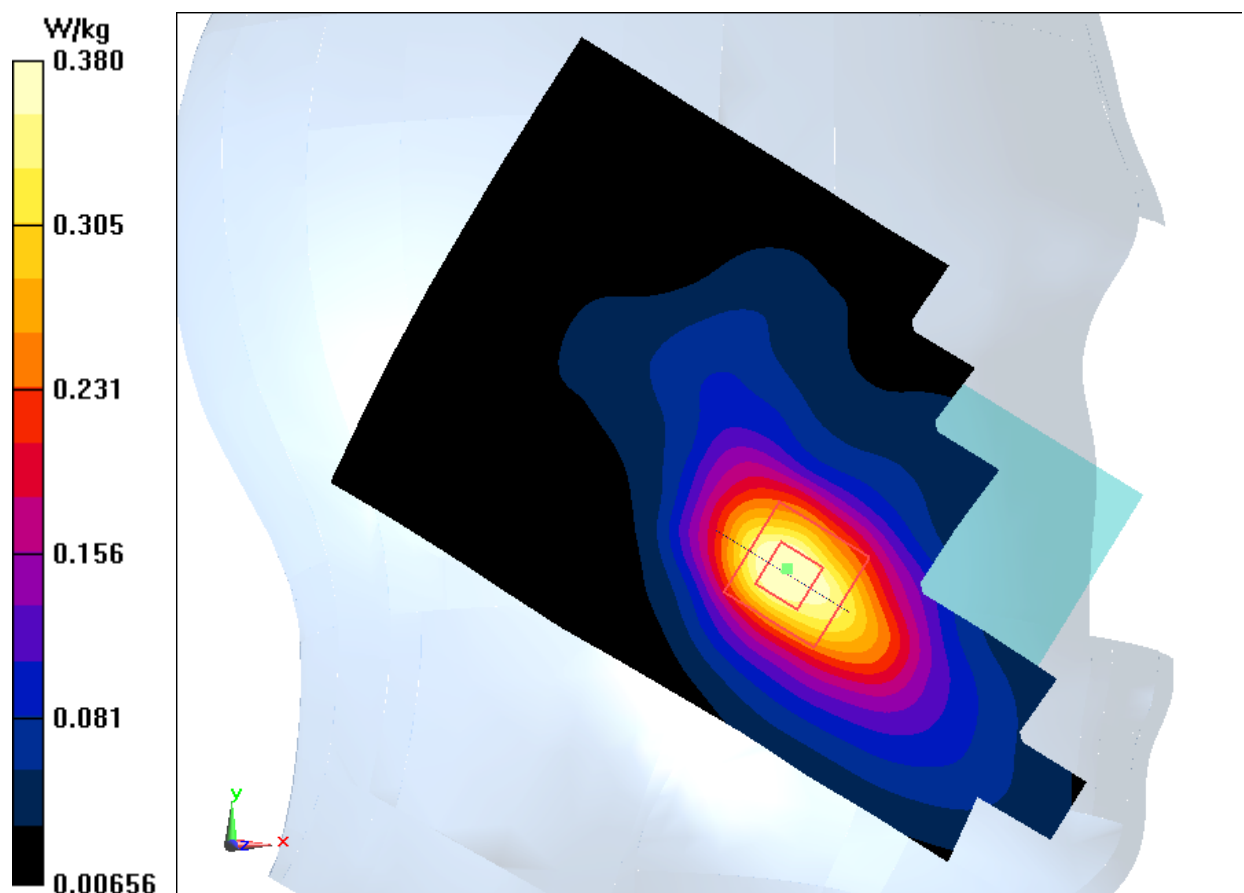


Fig.3 1900 MHz

1900 Body Bottom High

Date: 2016-06-23

Electronics: DAE4 Sn777

Medium: Body 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.584$ mho/m; $\epsilon_r = 52.591$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz GPRS Frequency: 1910 MHz Duty Cycle: 1:2.67

Probe: EX3DV4 - SN3617 ConvF(7.74, 7.74, 7.74)

Area Scan (111x71x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 1.08 W/kg

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

Reference Value = 23.18 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 1.49 W/kg

SAR(1 g) = 0.899 W/kg; SAR(10 g) = 0.488 W/kg

Maximum value of SAR (measured) = 1.11 W/kg

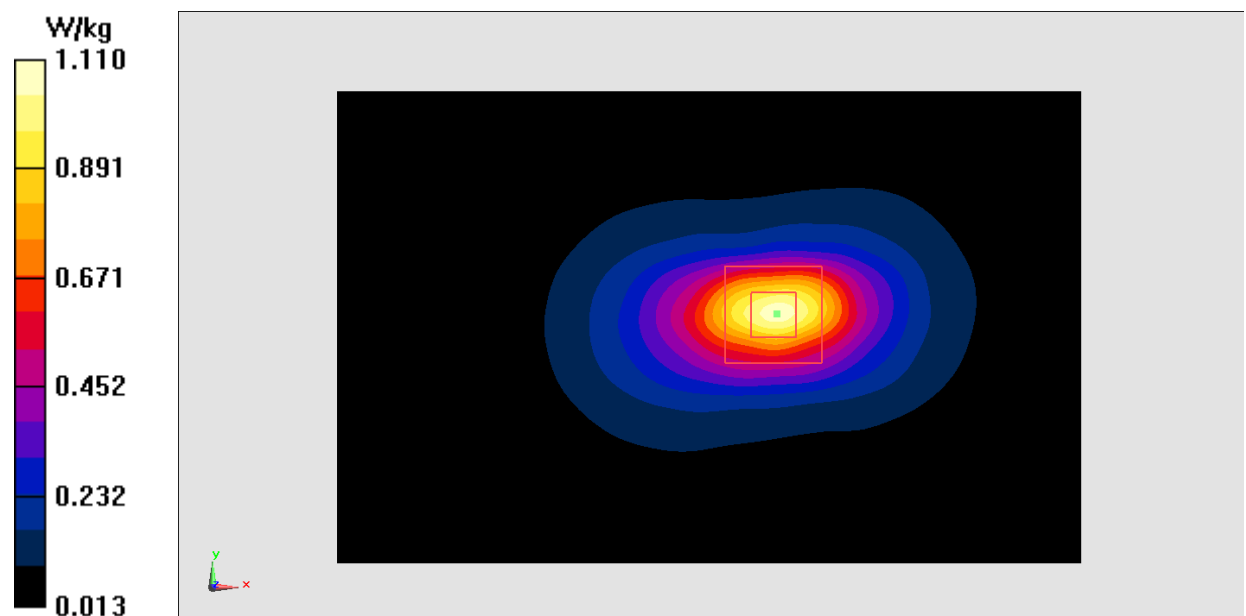


Fig.4 1900 MHz

WCDMA 850 Left Cheek Low

Date: 2016-06-21

Electronics: DAE4 Sn777

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.922$ mho/m; $\epsilon_r = 42.958$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: WCDMA; Frequency: 826.4 MHz; Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(9.56, 9.56, 9.56)

Area Scan (71x111x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 0.318 W/kg

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

Reference Value = 8.637 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.368 W/kg

SAR(1 g) = 0.289 W/kg; SAR(10 g) = 0.221 W/kg

Maximum value of SAR (measured) = 0.301 W/kg

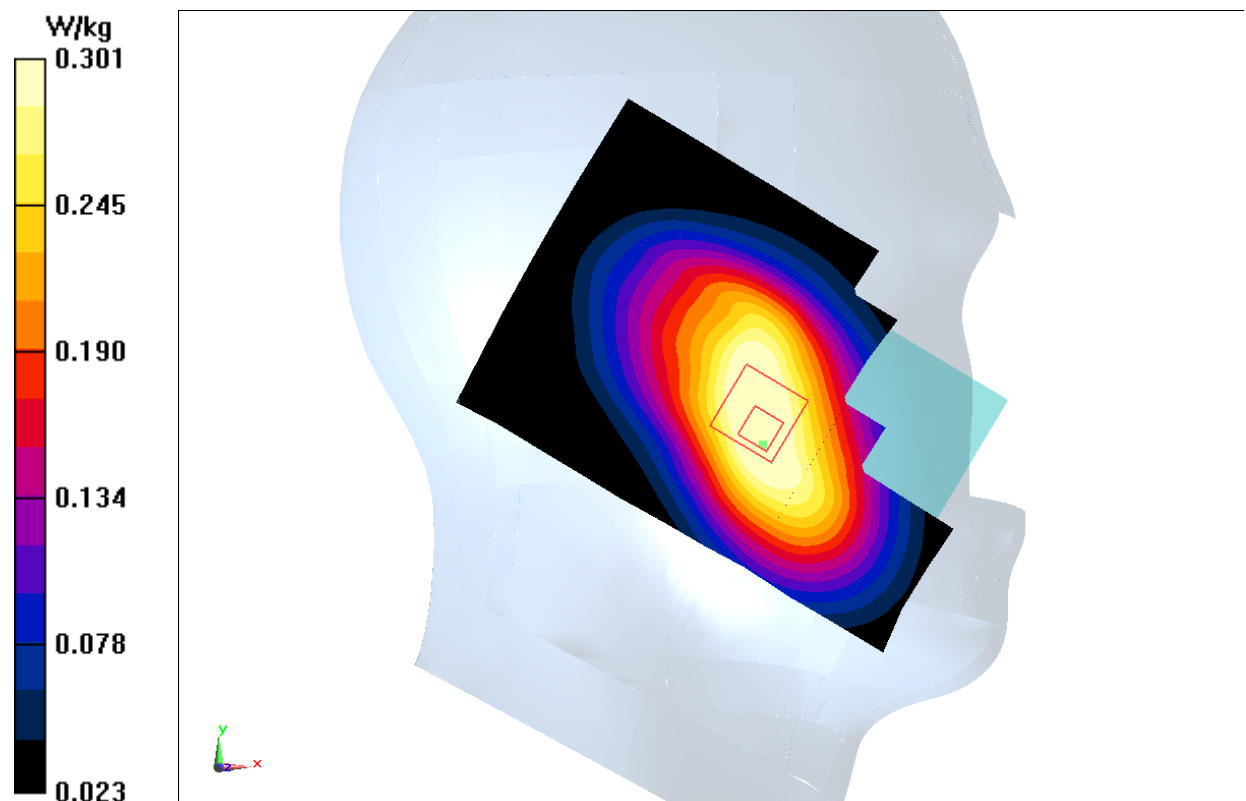


Fig.5 WCDMA 850

WCDMA 850 Body Rear Middle

Date: 2016-06-21

Electronics: DAE4 Sn777

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 836.4$ MHz; $\sigma = 0.981$ mho/m; $\epsilon_r = 57.466$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: WCDMA; Frequency: 836.4 MHz; Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(9.71, 9.71, 9.71)

Area Scan (111x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.546 W/kg

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

Reference Value = 22.17 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.632 W/kg

SAR(1 g) = 0.491 W/kg; SAR(10 g) = 0.371 W/kg.

Maximum value of SAR (measured) = 0.515 W/kg

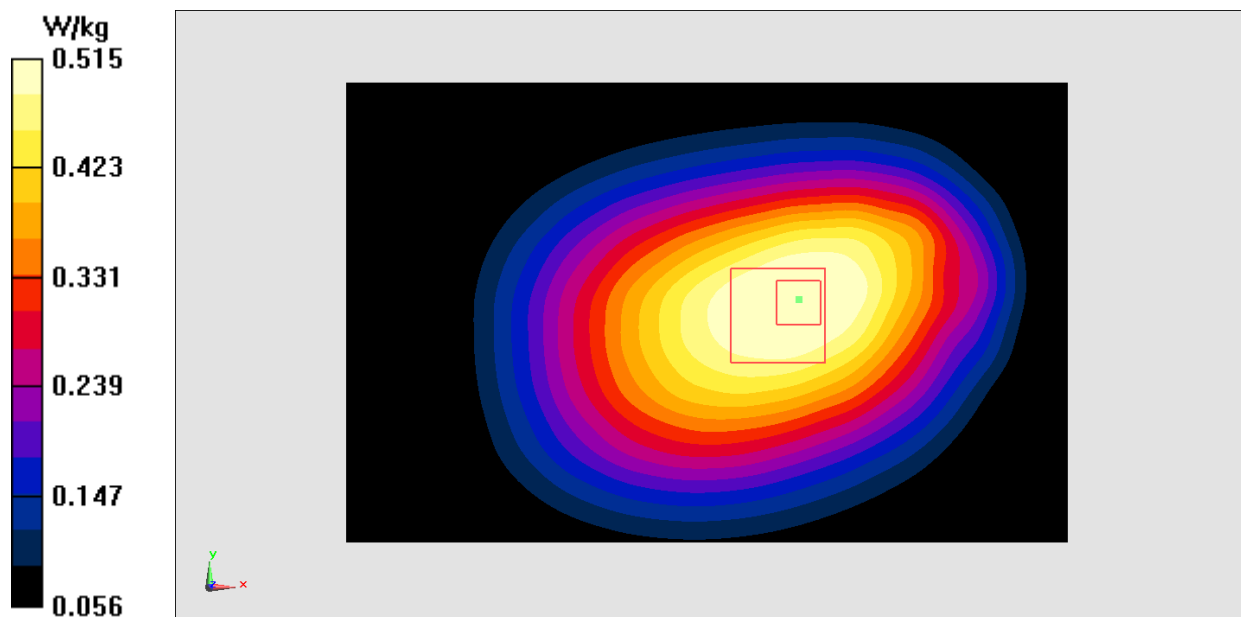


Fig.6 WCDMA 850

WCDMA 1700 Left Cheek High

Date: 2016-06-22

Electronics: DAE4 Sn777

Medium: Head 1750 MHz

Medium parameters used (interpolated): $f = 1752.6$ MHz; $\sigma = 1.386$ mho/m; $\epsilon_r = 42.289$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: WCDMA 1700 Frequency: 1752.6 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(8.34, 8.34, 8.34)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.685 W/kg

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

Reference Value = 4.028 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 0.834 W/kg

SAR(1 g) = 0.576 W/kg; SAR(10 g) = 0.369 W/kg

Maximum value of SAR (measured) = 0.665 W/kg

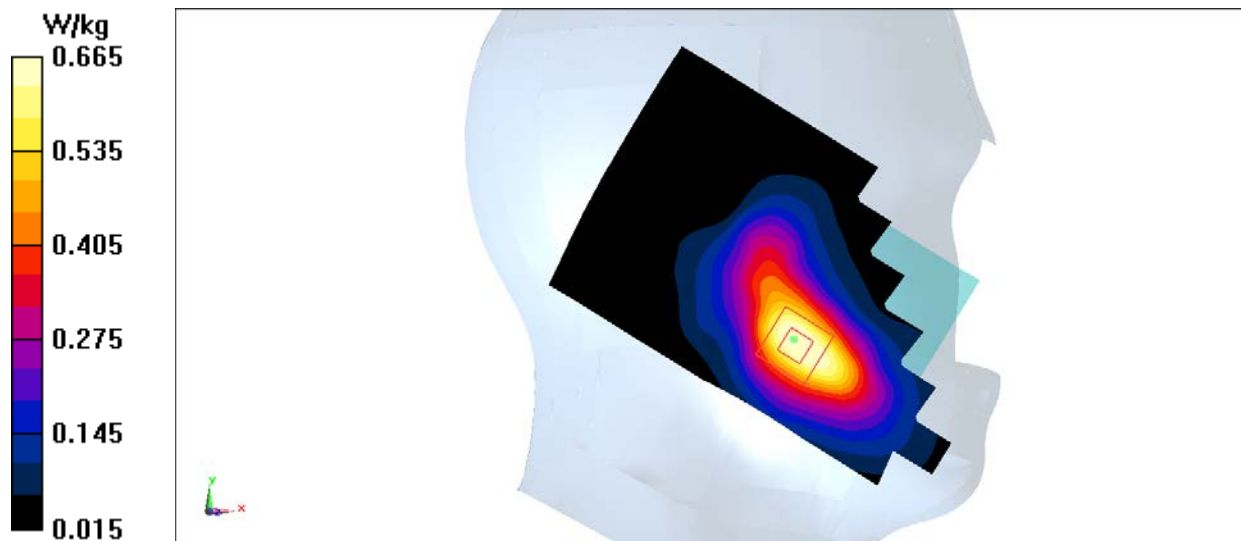


Fig.7 1700MHz

WCDMA 1700 Body Rear Low

Date: 2016-06-22

Electronics: DAE4 Sn777

Medium: Body 1750 MHz

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.5$ mho/m; $\epsilon_r = 55.734$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: WCDMA 1700 Frequency: 1712.4 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(7.96, 7.96, 7.96)

Area Scan (121x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.984 W/kg

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

Reference Value = 16.04 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.19 W/kg

SAR(1 g) = 0.811 W/kg; SAR(10 g) = 0.524 W/kg

Maximum value of SAR (measured) = 0.933 W/kg

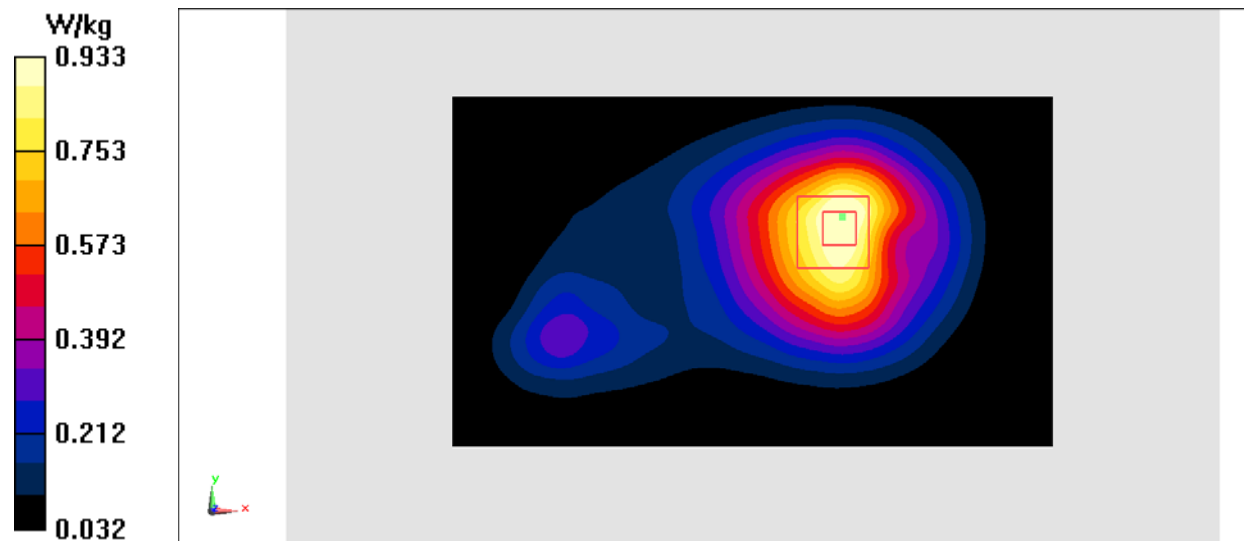


Fig.8 1700 MHz

WCDMA 1900 Left Cheek Low

Date: 2016-06-23

Electronics: DAE4 Sn777

Medium: Head 1900 MHz

Medium parameters used (interpolated): $f = 1852.4$ MHz; $\sigma = 1.377$ mho/m; $\epsilon_r = 40.777$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: WCDMA 1900 Frequency: 1852.4 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(8.07, 8.07, 8.07)

Area Scan (71x111x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.784 W/kg

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

Reference Value = 5.784 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.942 W/kg

SAR(1 g) = 0.621 W/kg; SAR(10 g) = 0.378 W/kg

Maximum value of SAR (measured) = 0.737 W/kg

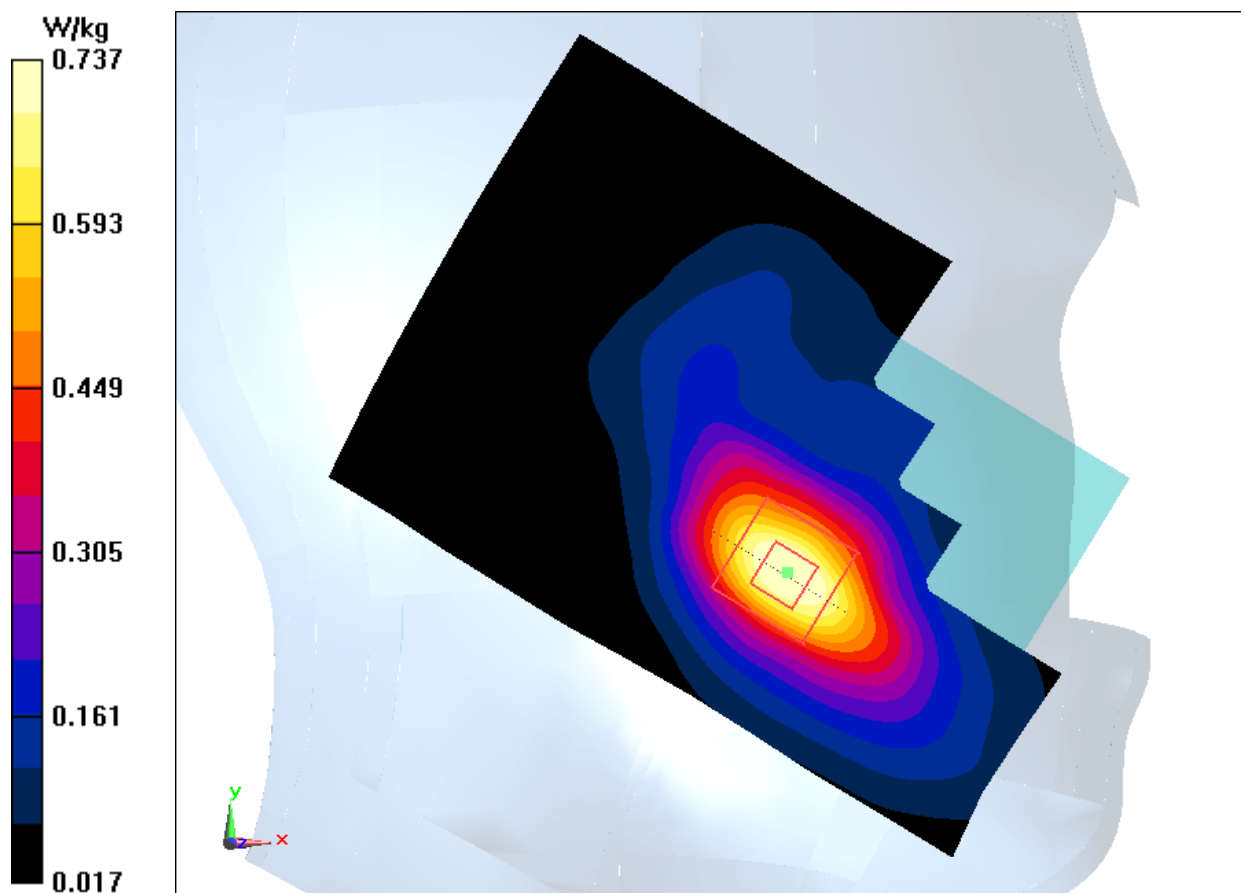


Fig.9 WCDMA1900

WCDMA 1900 Body Bottom High – AP ON

Date: 2016-06-23

Electronics: DAE4 Sn777

Medium: Body 1900 MHz

Medium parameters used: $f = 1907.6$ MHz; $\sigma = 1.58$ mho/m; $\epsilon_r = 52.577$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: WCDMA 1900 Frequency: 1907.6 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(7.74, 7.74, 7.74)

Area Scan (111x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.23 W/kg

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

Reference Value = 25.61 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 1.61 W/kg

SAR(1 g) = 0.973 W/kg; SAR(10 g) = 0.532 W/kg

Maximum value of SAR (measured) = 1.21 W/kg

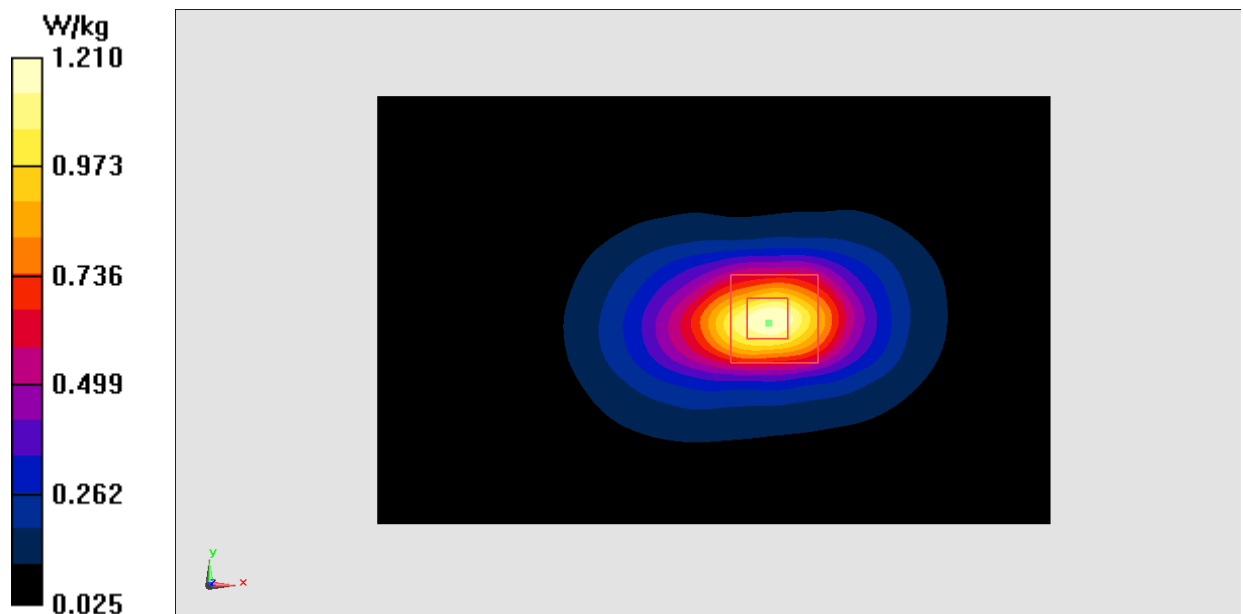


Fig.10 WCDMA1900

WCDMA 1900 Body Rear High – AP OFF

Date: 2016-06-23

Electronics: DAE4 Sn777

Medium: Body 1900 MHz

Medium parameters used: $f = 1907.6$ MHz; $\sigma = 1.58$ mho/m; $\epsilon_r = 52.577$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: WCDMA 1900 Frequency: 1907.6 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(7.74, 7.74, 7.74)

Area Scan (111x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.708 W/kg

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

Reference Value = 13.49 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.945 W/kg

SAR(1 g) = 0.601 W/kg; SAR(10 g) = 0.363 W/kg

Maximum value of SAR (measured) = 0.725 W/kg

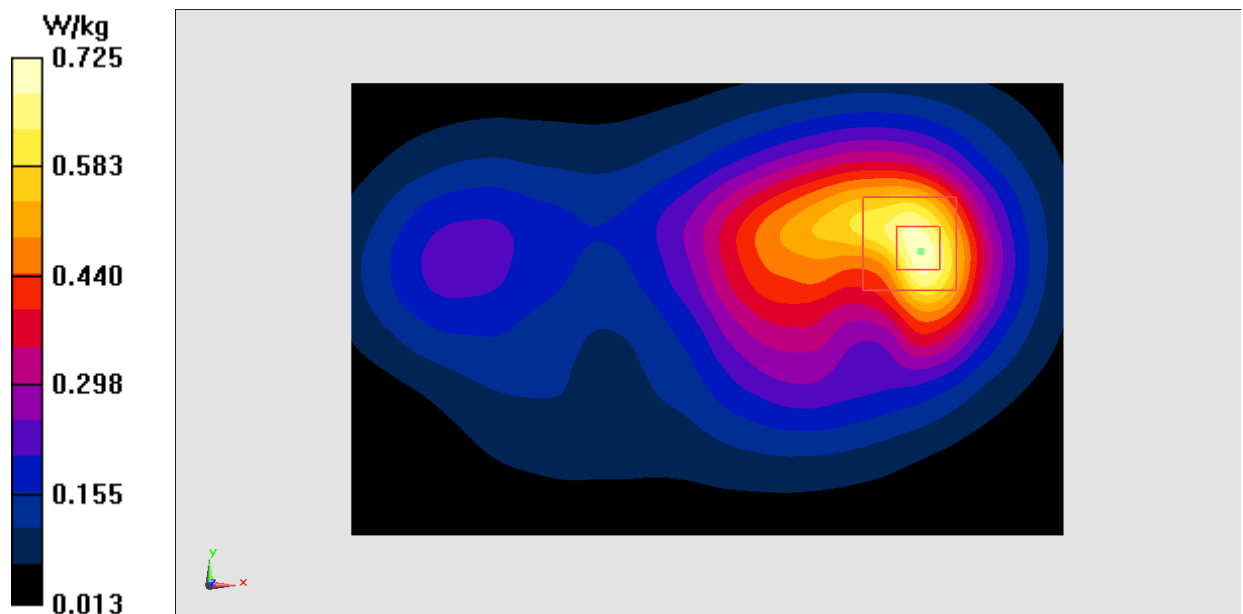


Fig.11 WCDMA1900

LTE Band2 Left Cheek High with QPSK_20M_1RB_Middle

Date: 2016-06-23

Electronics: DAE4 Sn777

Medium: Head 1900 MHz

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.409$ mho/m; $\epsilon_r = 40.685$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: LTE Band2 Frequency: 1900 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(8.07, 8.07, 8.07)

Area Scan (71x111x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 0.765 W/kg

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

Reference Value = 6.513 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 0.912 W/kg

SAR(1 g) = 0.592 W/kg; SAR(10 g) = 0.363 W/kg

Maximum value of SAR (measured) = 0.700 W/kg

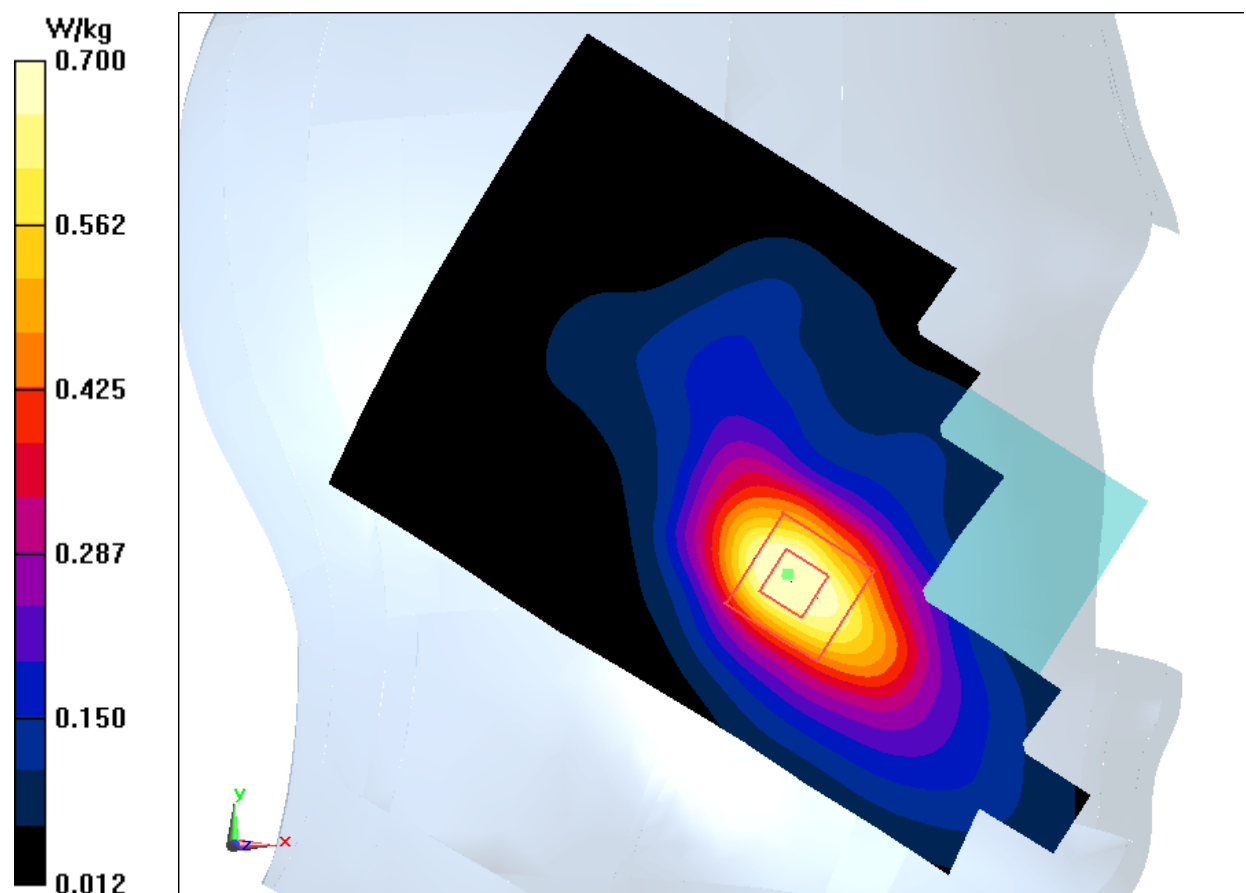


Fig.12 LTE Band2

LTE Band2 Body Bottom High with QPSK_20M_1RB_Low – AP ON

Date: 2016-06-23

Electronics: DAE4 Sn777

Medium: Body 1900 MHz

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.575$ mho/m; $\epsilon_r = 52.618$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: LTE Band2 Frequency: 1900 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(7.74, 7.74, 7.74)

Area Scan (111x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.22 W/kg

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

Reference Value = 11.07 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 1.71 W/kg

SAR(1 g) = 1.02 W/kg; SAR(10 g) = 0.543 W/kg

Maximum value of SAR (measured) = 1.25 W/kg

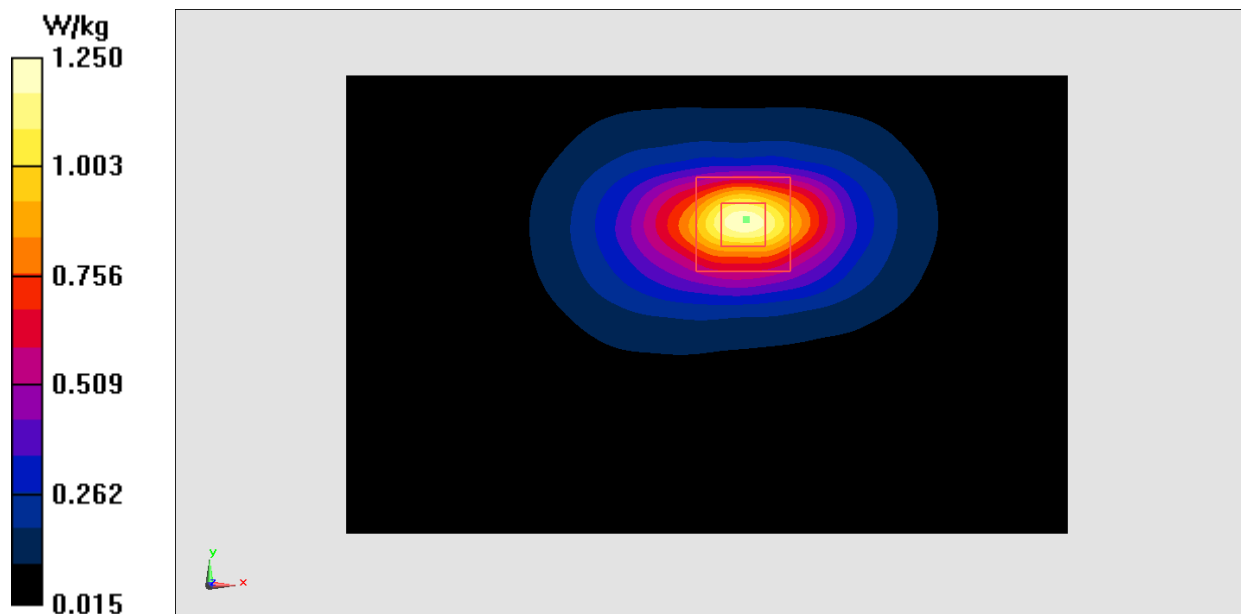


Fig.13 LTE Band2

LTE Band2 Body Rear High with QPSK_20M_1RB_Middle – AP OFF

Date: 2016-06-23

Electronics: DAE4 Sn777

Medium: Body 1900 MHz

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.575$ mho/m; $\epsilon_r = 52.618$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: LTE Band2 Frequency: 1900 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(7.74, 7.74, 7.74)

Area Scan (111x71x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 0.739 W/kg

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

Reference Value = 11.57 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 1.02 W/kg

SAR(1 g) = 0.658 W/kg; SAR(10 g) = 0.400 W/kg

Maximum value of SAR (measured) = 0.769 W/kg

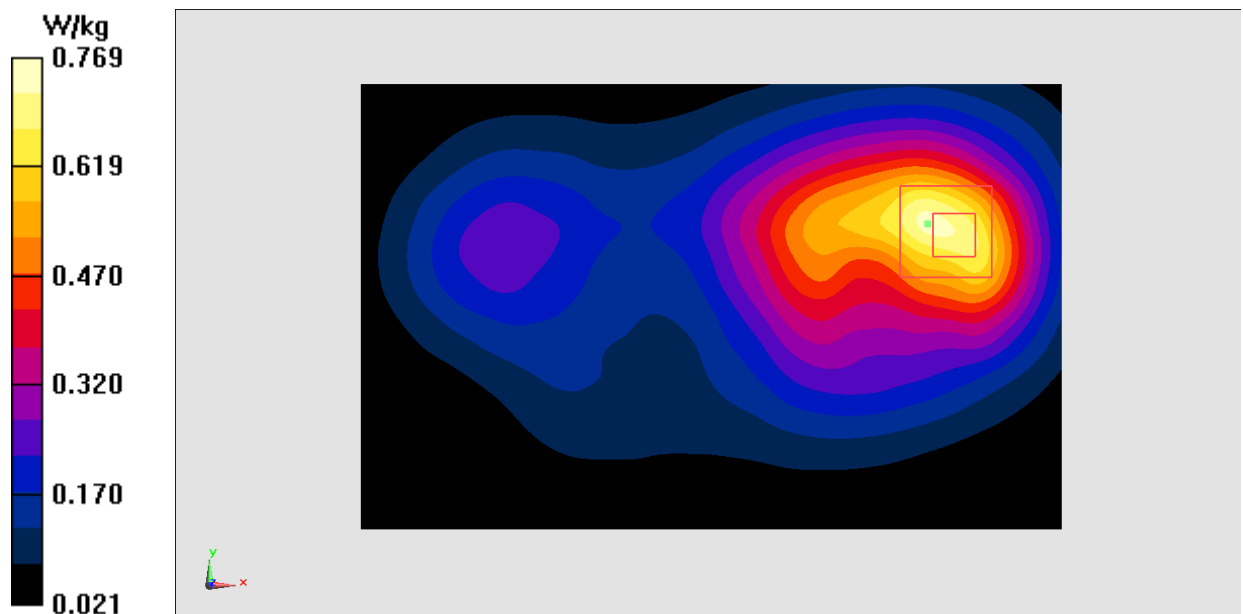


Fig.14 LTE Band2

LTE Band4 Left Cheek High with QPSK_20M_1RB_Middle

Date: 2016-06-22

Electronics: DAE4 Sn777

Medium: Head 1750 MHz

Medium parameters used: $f = 1745$ MHz; $\sigma = 1.354$ mho/m; $\epsilon_r = 41.566$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: LTE Band4 Frequency: 1745 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(8.34, 8.34, 8.34)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.560 W/kg

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

Reference Value = 4.490 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.690 W/kg

SAR(1 g) = 0.469 W/kg; SAR(10 g) = 0.302 W/kg

Maximum value of SAR (measured) = 0.535 W/kg

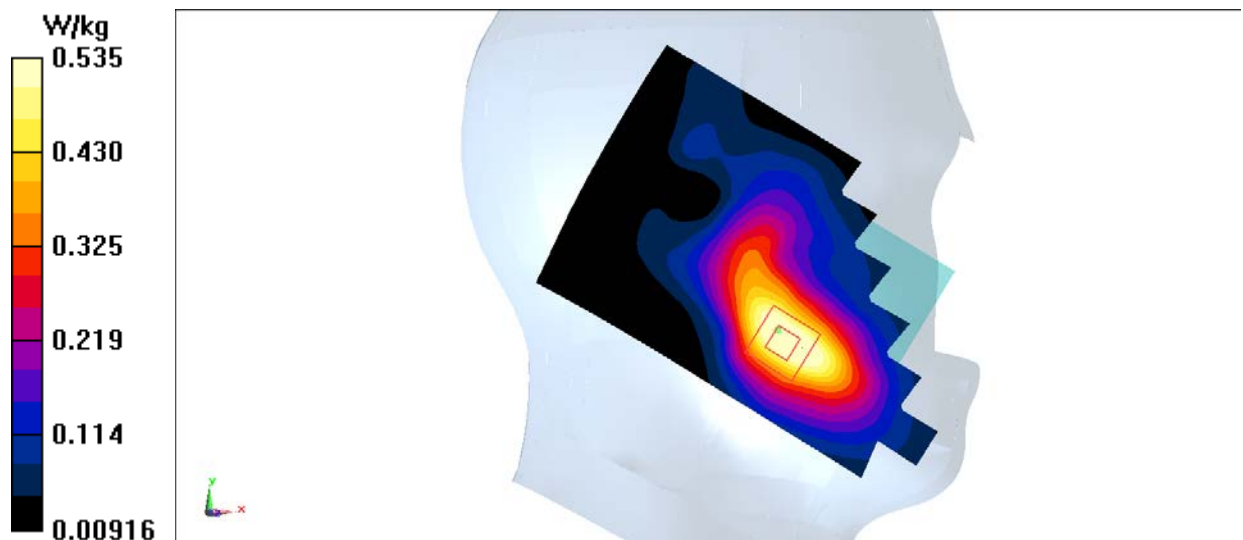


Fig.15 LTE Band4

LTE Band4 Body Rear Low with QPSK_20M_1RB_Middle

Date: 2016-06-22

Electronics: DAE4 Sn777

Medium: Body 1750 MHz

Medium parameters used: $f = 1720$ MHz; $\sigma = 1.509$ mho/m; $\epsilon_r = 55.652$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: LTE Band4 Frequency: 1720 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(7.96, 7.96, 7.96)

Area Scan (111x71x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 1.18 W/kg

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

Reference Value = 16.68 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.48 W/kg

SAR(1 g) = 0.996 W/kg; SAR(10 g) = 0.645 W/kg

Maximum value of SAR (measured) = 1.15 W/kg

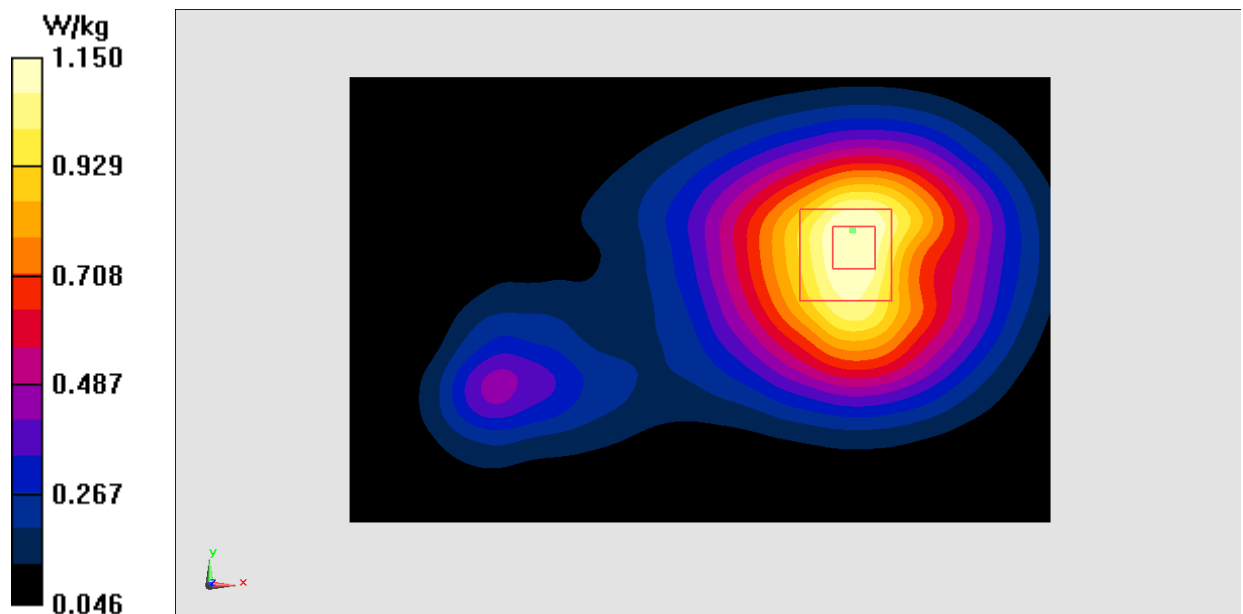


Fig.16 LTE Band4

LTE Band12 Left Cheek Middle with QPSK_10M_1RB_Middle

Date: 2016-06-20

Electronics: DAE4 Sn777

Medium: Head 750 MHz

Medium parameters used (interpolated): $f = 707.5$ MHz; $\sigma = 0.823$ mho/m; $\epsilon_r = 44.191$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: LTE Band12 Frequency: 707.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(9.98, 9.98, 9.98)

Area Scan (71x111x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.306 W/kg

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

Reference Value = 9.630 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.374 W/kg

SAR(1 g) = 0.297 W/kg; SAR(10 g) = 0.229 W/kg

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

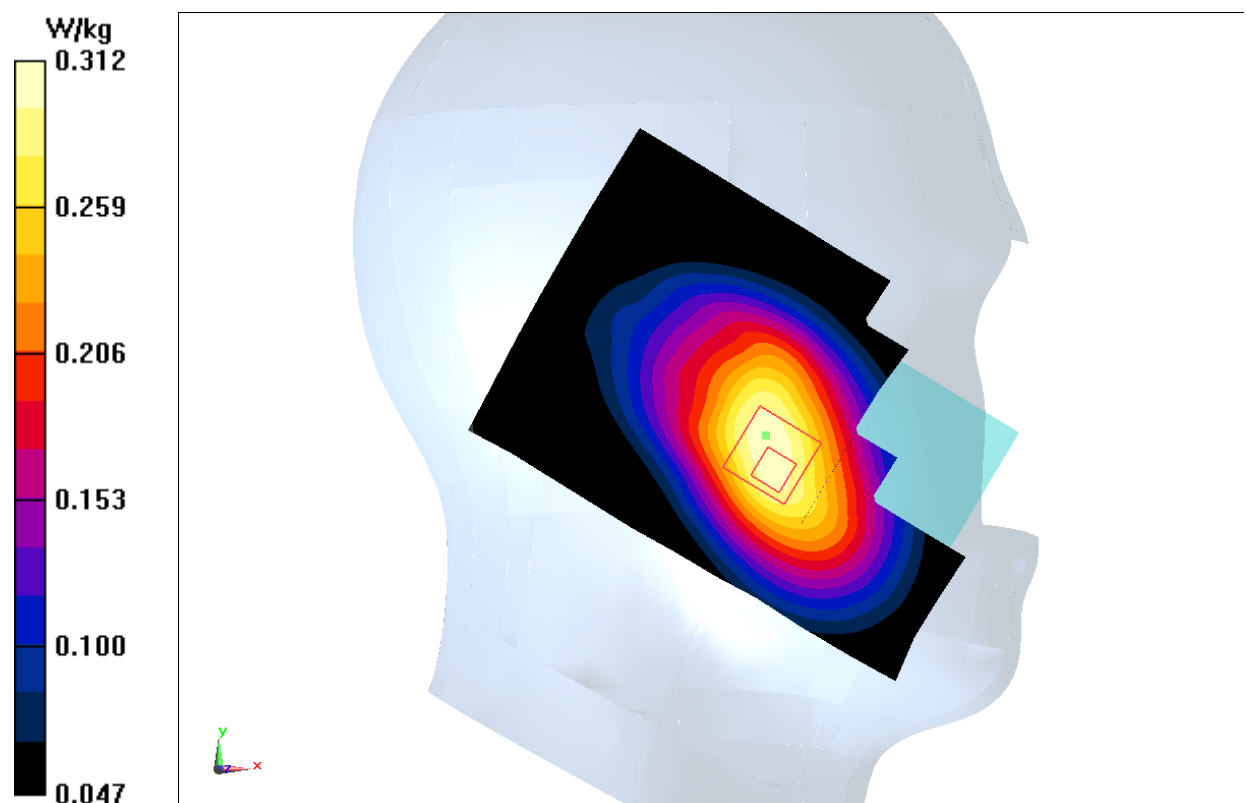


Fig.17 LTE Band12

LTE Band12 Body Rear Low with QPSK_10M_1RB_Middle

Date: 2016-06-20

Electronics: DAE4 Sn777

Medium: Body 750 MHz

Medium parameters used (interpolated): $f = 704$ MHz; $\sigma = 0.911$ mho/m; $\epsilon_r = 57.736$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: LTE Band12 Frequency: 704 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(9.76, 9.76, 9.76)

Area Scan (111x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.462 W/kg

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

Reference Value = 20.47 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.511 W/kg

SAR(1 g) = 0.400 W/kg; SAR(10 g) = 0.305 W/kg

Maximum value of SAR (measured) = 0.417 W/kg

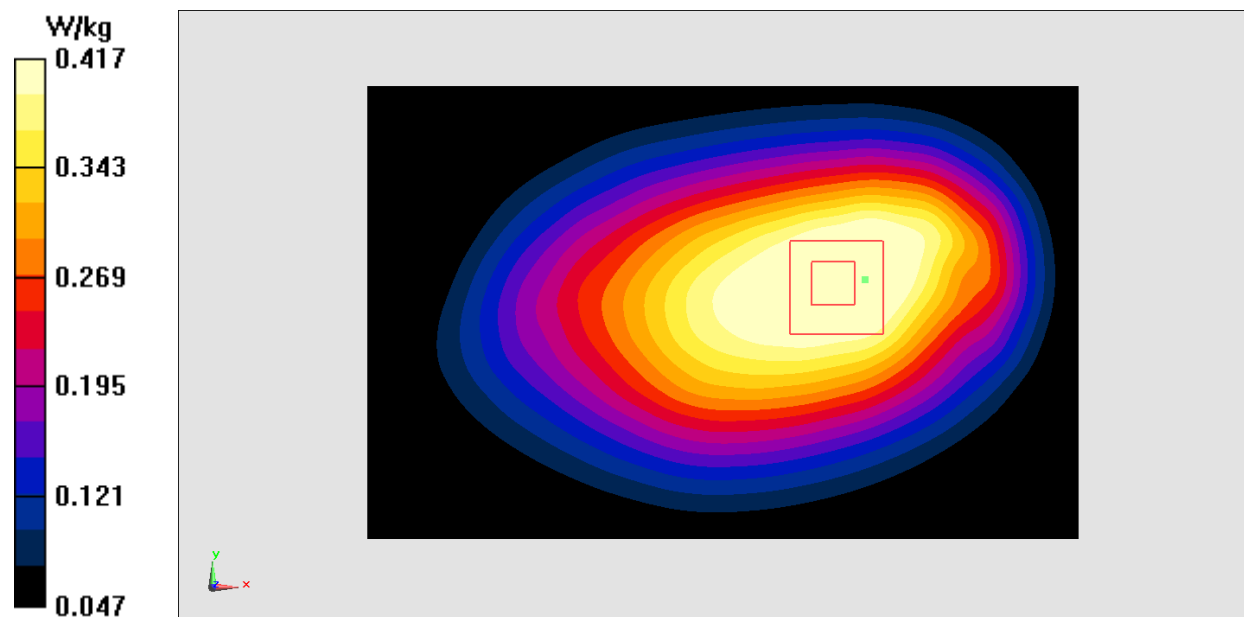


Fig.18 LTE Band12

Wifi 802.11b Right Cheek Channel 6

Date: 2016-06-19

Electronics: DAE4 Sn777

Medium: Head 2450 MHz

Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.82$ mho/m; $\epsilon_r = 40.295$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: WLan 2450 Frequency: 2437 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(7.24, 7.24, 7.24)

Area Scan (81x141x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.22 W/kg

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

Reference Value = 13.95 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 1.97 W/kg

SAR(1 g) = 0.885 W/kg; SAR(10 g) = 0.410 W/kg

Maximum value of SAR (measured) = 1.16 W/kg

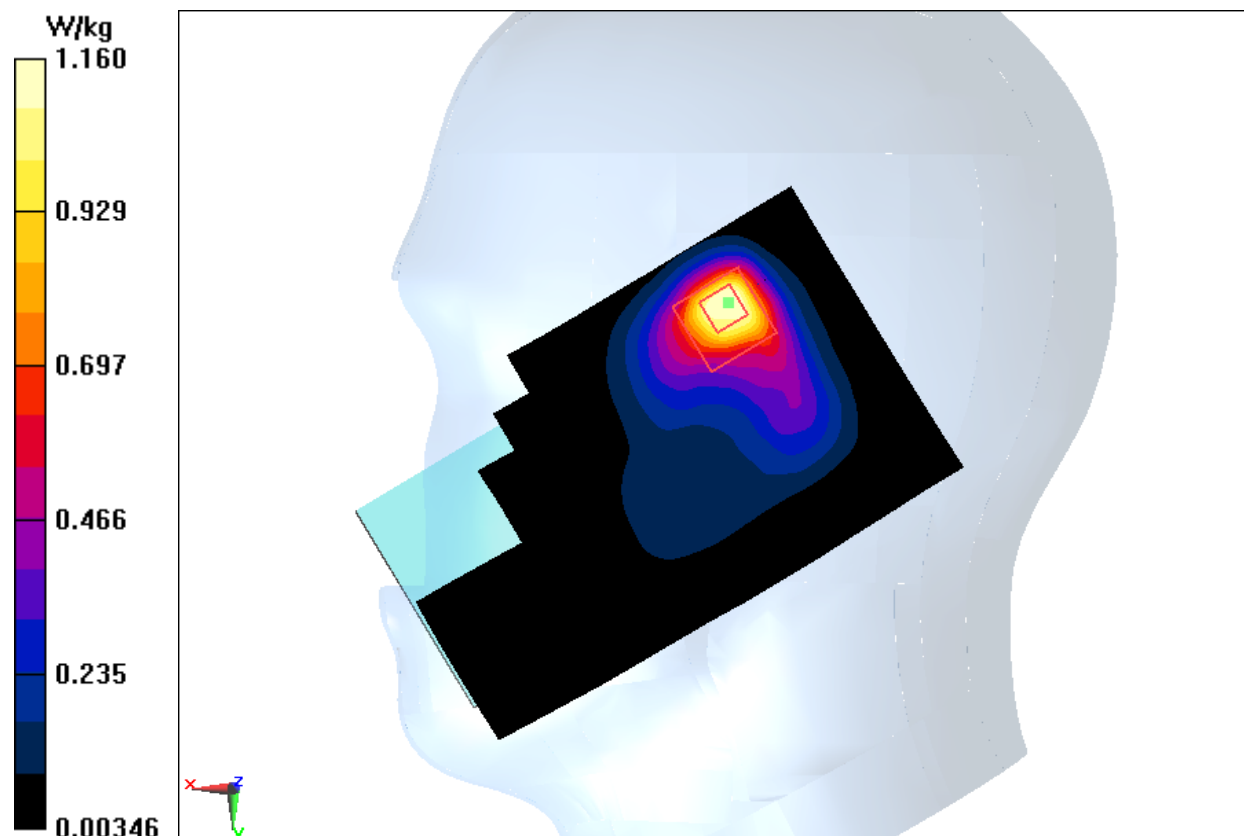


Fig.19 2450 MHz

Wifi 802.11b Body Rear Channel 11

Date: 2016-06-19

Electronics: DAE4 Sn777

Medium: Body 2450 MHz

Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.945$ mho/m; $\epsilon_r = 54.513$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: Wlan 2450 Frequency: 2462 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(7.35, 7.35, 7.35)

Area Scan (141x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.347 W/kg

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

Reference Value = 6.278 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.509 W/kg

SAR(1 g) = 0.269 W/kg; SAR(10 g) = 0.131 W/kg

Maximum value of SAR (measured) = 0.302 W/kg

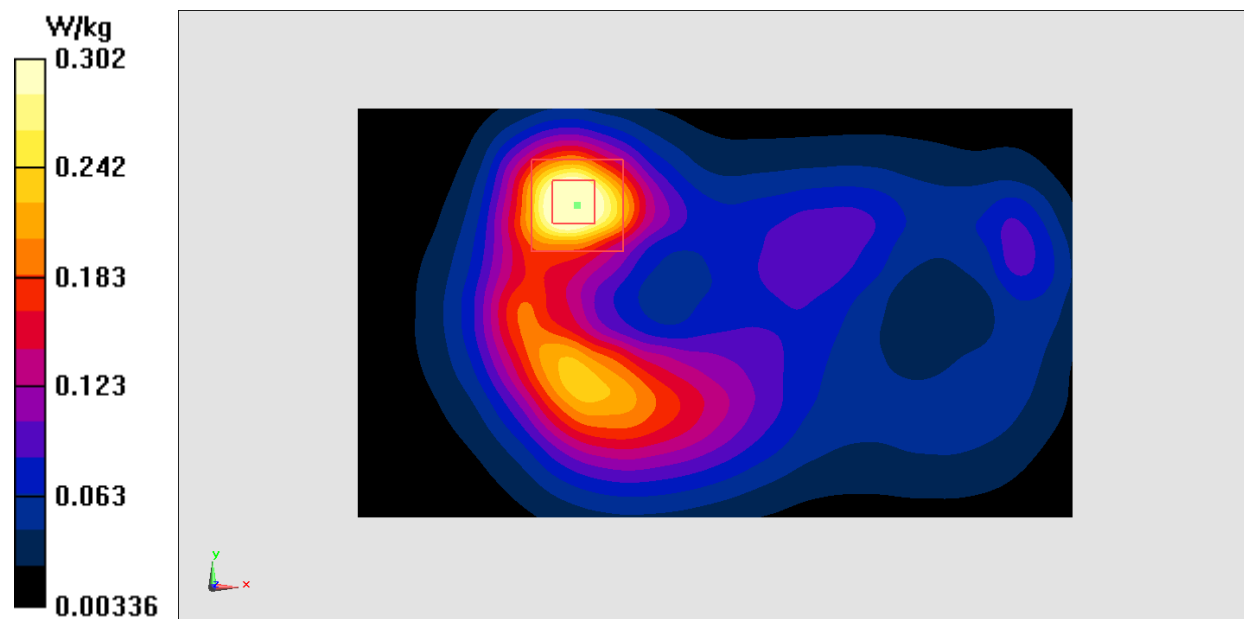


Fig.20 2450 MHz

ANNEX J Accreditation Certificate

 
China National Accreditation Service for Conformity Assessment
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<i>In ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories(CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing and calibration.</i> <i>The scope of accreditation is detailed in the attached schedule bearing the same accreditation number as above. The schedule forms an integral part of this certificate.</i>
Date of Issue: 2014-10-29 Date of Expiry: 2017-06-19 Date of Initial Accreditation: 1998-07-03
 Signed on behalf of China National Accreditation Service for Conformity Assessment
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