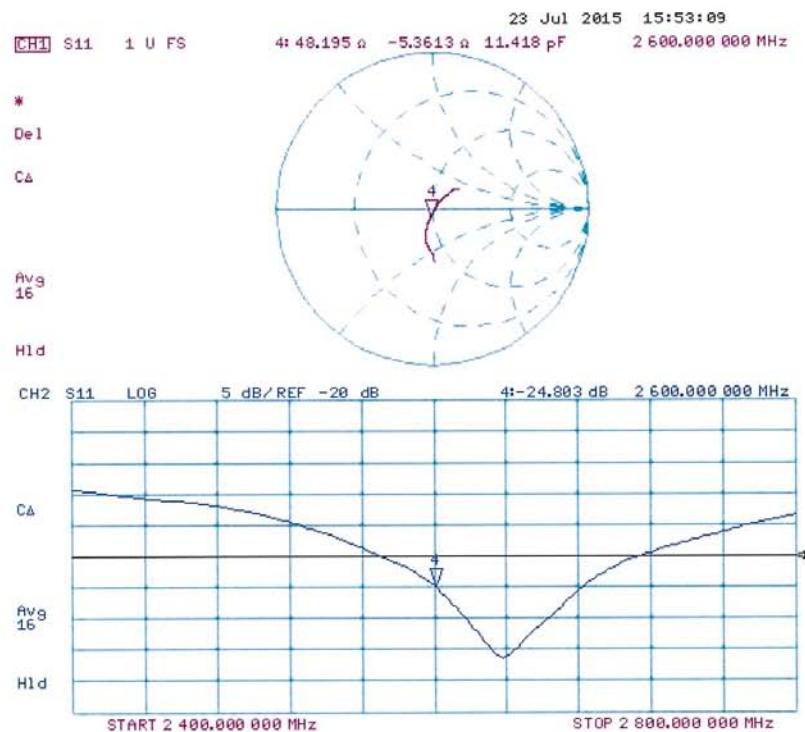


Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date: 24.07.2015

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2 - SN: 1012

Communication System: UID 0 - CW; Frequency: 2600 MHz

Medium parameters used: $f = 2600$ MHz; $\sigma = 2.22$ S/m; $\epsilon_r = 51.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(4.13, 4.13, 4.13); 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 = 97.86 V/m; Power Drift = -0.01 dB

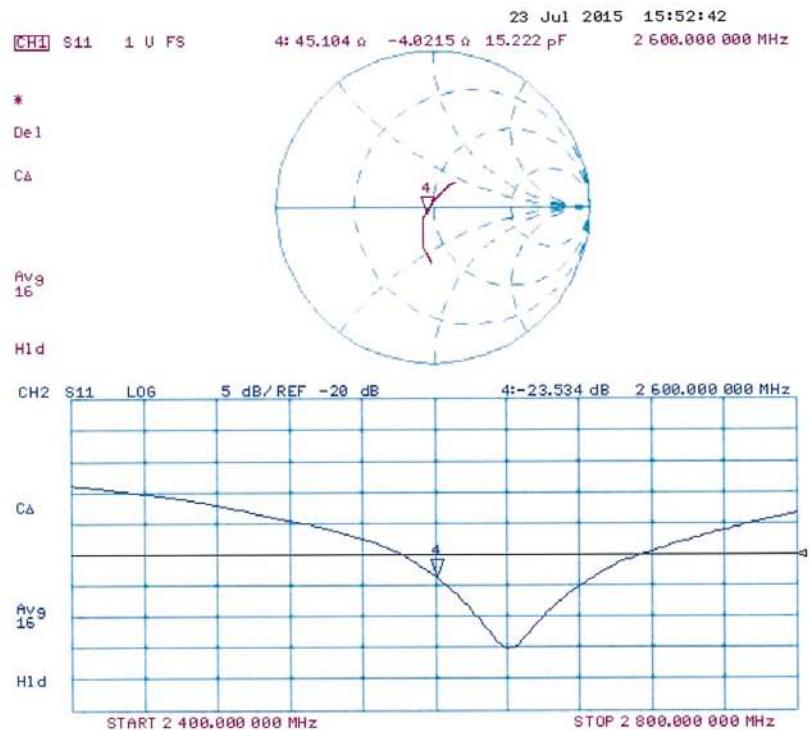
Peak SAR (extrapolated) = 29.5 W/kg

SAR(1 g) = 14.3 W/kg; SAR(10 g) = 6.4 W/kg

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



Impedance Measurement Plot for Body TSL



ANNEX I SPOT CHECK TEST

As the test lab for 5045J 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: The conducted power results for GSM850/1900

GSM 850MHz	Conducted Power (dBm)		
	Channel 251(848.8MHz)	Channel 190(836.6MHz)	Channel 128(824.2MHz)
	\	\	32.32
GSM 1900MHz	Conducted Power (dBm)		
	Channel 810(1909.8MHz)	Channel 661(1880MHz)	Channel 512(1850.2MHz)
	\	\	29.79

Table I.2: The conducted power results for GPRS

GSM 850 GPRS (GMSK)	Measured Power (dBm)		
	251	190	128
1 Txslots	\	\	32.42
PCS1900 GPRS (GMSK)	Measured Power (dBm)		
	810	661	512
4 Txslots	\	\	24.01

Table I.3: The conducted Power for WCDMA

Item	band	FDDV result		
	ARFCN	4233 (846.6MHz)	4182 (836.4MHz)	4132 (826.4MHz)
WCDMA	\	22.98	\	\
Item	band	FDDII result		
	ARFCN	9538 (1907.6MHz)	9400 (1880MHz)	9262 (1852.4MHz)
WCDMA	\	23.96	\	\

Table I.4: The conducted Power for LTE

LTE Band2 20MHz 1RB-High (50)	1900 (19100)	23.02
	1880 (18900)	\
	1860 (18700)	\
LTE Band4 20MHz 1RB-Low (0)	1745 (20300)	23.91
	1732.5 (20175)	\
	1720 (20050)	\
LTE Band7 20MHz 1RB-High (99)	2560 (21350)	22.14
	2535 (21100)	22.51
	2510 (20850)	\
LTE Band13 10MHz 1RB-Low (0)	782 (23230)	23.42
LTE Band17 10MHz 1RB-Low (0)	711 (23800)	\
	710 (23790)	23.44
	709 (23780)	\

1.2 Measurement results

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

		Ambient Temperature: 22.9 °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.										
824.2	128	Left	Touch	Fig.1	32.32	33.3	0.203	0.25	0.264	0.33	0.15

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

		Ambient Temperature: 22.9 °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.										
824.2	128	GPRES (1)	Rear	Fig.2	32.42	32.3	0.292	0.28	0.377	0.37	-0.07

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: 22.9 °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.										
1850.2	512	Right	Touch	Fig.3	29.79	30.3	0.0712	0.08	0.112	0.13	0.16

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

		Ambient Temperature: 22.9 °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.										
1850.2	512	GPRS (4)	Rear	Fig.4	24.01	25	0.417	0.52	0.766	0.96	0.09

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: 22.9 °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.										
846.6	4233	Left	Touch	Fig.5	22.98	24	0.177	0.22	0.229	0.29	0.02

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

Ambient Temperature: 22.9 °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.									
846.6	4233	Rear	Fig.6	22.98	24	0.294	0.37	0.375	0.47	0.00

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

Table I.2-7: SAR Values (WCDMA 1900 MHz Band - Head)

Ambient Temperature: 22.9 °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.										
1907.6	9538	Right	Touch	Fig.7	23.96	24	0.103	0.10	0.162	0.16	-0.04

Table I.2-8: SAR Values (WCDMA 1900 MHz Band - Body)

Ambient Temperature: 22.9 °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.8	23.96	24	0.508	0.51	0.98	0.99	0.16	

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

Table I.2-9: SAR Values (LTE Band2 - Head)

Ambient Temperature: 22.9 °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_High	Right	Touch	Fig.9	23.02	23.4	0.059	0.06	0.097	0.11	0.13	

Note1: The LTE mode is QPSK_20MHz.

Table I.2-10: SAR Values (LTE Band2 - Body)

Ambient Temperature: 22.9 °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_High	Rear	Fig.10		23.02	23.4	0.368	0.40	0.705	0.77	-0.07

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

Note2: The LTE mode is QPSK_20MHz.

Table I.2-11: SAR Values (LTE Band4 - Head)

		Ambient Temperature: 22.9 °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_Low	Right	Touch	Fig.11	23.91	24.5	0.0921	0.11	0.146	0.17	0.03

Note1: The LTE mode is QPSK_20MHz.

Table I.2-12: SAR Values (LTE Band4 - Body)

		Ambient Temperature: 22.9 °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.											
1745	20300	1RB_Low	Rear	Fig.12	23.91	24.5	0.407	0.47	0.773	0.89	-0.02	

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

Note2: The LTE mode is QPSK_20MHz.

Table I.2-13: SAR Values (LTE Band7 - Head)

		Ambient Temperature: 22.9 °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.											
2560	21350	1RB_High	Right	Touch	Fig.13	22.14	23	0.069	0.08	0.133	0.16	0.03

Note1: The LTE mode is QPSK_20MHz.

Table I.2-14: SAR Values (LTE Band7 - Body)

		Ambient Temperature: 22.9 °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.											
2535	21100	1RB_High	Bottom	Fig.14	22.51	23	0.383	0.43	0.853	0.95	0.04	

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

Note2: The LTE mode is QPSK_20MHz.

Table I.2-15: SAR Values (LTE Band13 - Head)

Ambient Temperature: 22.9 °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.											
782	23230	1RB_Low	Left	Touch	Fig.15	23.42	24	0.145	0.17	0.185	0.21	-0.07

Note1: The LTE mode is QPSK_10MHz.

Table I.2-16: SAR Values (LTE Band13 - Body)

Ambient Temperature: 22.9 °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.										
782	23230	1RB_Low	Rear	Fig.16	23.42	24	0.332	0.38	0.423	0.48	0.00

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

Note2: The LTE mode is QPSK_10MHz.

Table I.2-17: SAR Values (LTE Band17 - Head)

Ambient Temperature: 22.9 °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.											
710	23790	1RB_Low	Right	Touch	Fig.17	23.44	24	0.081	0.09	0.101	0.11	-0.05

Note1: The LTE mode is QPSK_10MHz.

Table I.2-18: SAR Values (LTE Band17 - Body)

Ambient Temperature: 22.9 °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.										
710	23790	1RB_Low	Rear	Fig.18	23.44	24	0.159	0.18	0.207	0.24	-0.01

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

Note2: The LTE mode is QPSK_10MHz.

I.3 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	0.33	0.36
	PCS 1900	0.13	0.14
	WCDMA 850	0.29	0.34
	WCDMA 1900	0.16	0.21
	LTE Band2	0.11	0.19
	LTE Band4	0.17	0.19
	LTE Band7	0.16	0.52
	LTE Band13	0.21	0.31
	LTE Band17	0.11	0.14
Body-worn (Data) (Separation Distance 10mm)	GSM 850	0.37	0.39
	PCS 1900	0.96	1.16
	WCDMA 850	0.47	0.47
	WCDMA 1900	0.99	1.33
	LTE Band2	0.77	1.28
	LTE Band4	0.89	1.27
	LTE Band7	0.95	1.35
	LTE Band13	0.48	0.60
	LTE Band17	0.24	0.29

850 Left Cheek Low

Date: 2016-1-21

Electronics: DAE4 Sn777

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 824.2$ MHz; $\sigma = 0.911$ mho/m; $\epsilon_r = 41.384$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: GSM 850 Frequency: 824.2 MHz Duty Cycle: 1:8.3

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

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

Maximum value of SAR (interpolated) = 0.286 W/kg

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

Reference Value = 8.585 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 0.341 W/kg

SAR(1 g) = 0.264 W/kg; SAR(10 g) = 0.203 W/kg

Maximum value of SAR (measured) = 0.290 W/kg

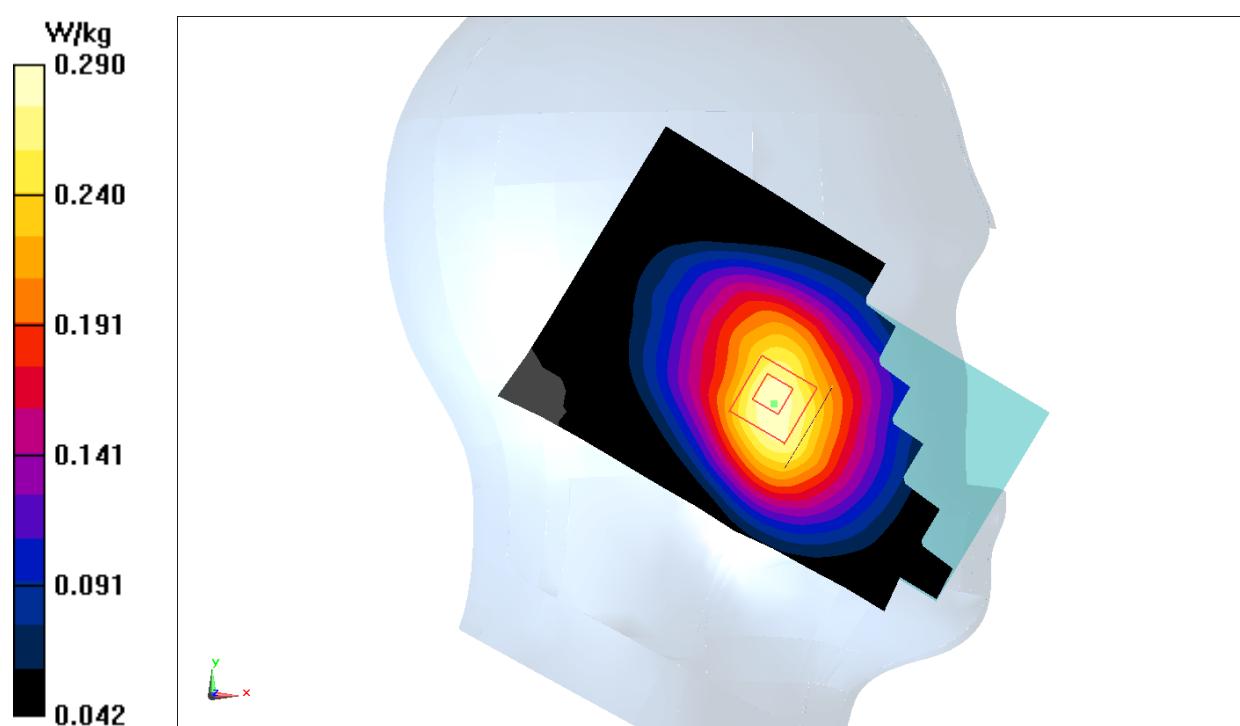


Fig.1 850MHz

850 Body Rear Low

Date: 2016-1-21

Electronics: DAE4 Sn777

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 824.2$ MHz; $\sigma = 0.973$ mho/m; $\epsilon_r = 56.485$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: GSM 850 GPRS Frequency: 824.2 MHz Duty Cycle: 1:8.3

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

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

Maximum value of SAR (interpolated) = 0.436 W/kg

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

Reference Value = 20.08 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.480 W/kg

SAR(1 g) = 0.377 W/kg; SAR(10 g) = 0.292 W/kg

Maximum value of SAR (measured) = 0.432 W/kg

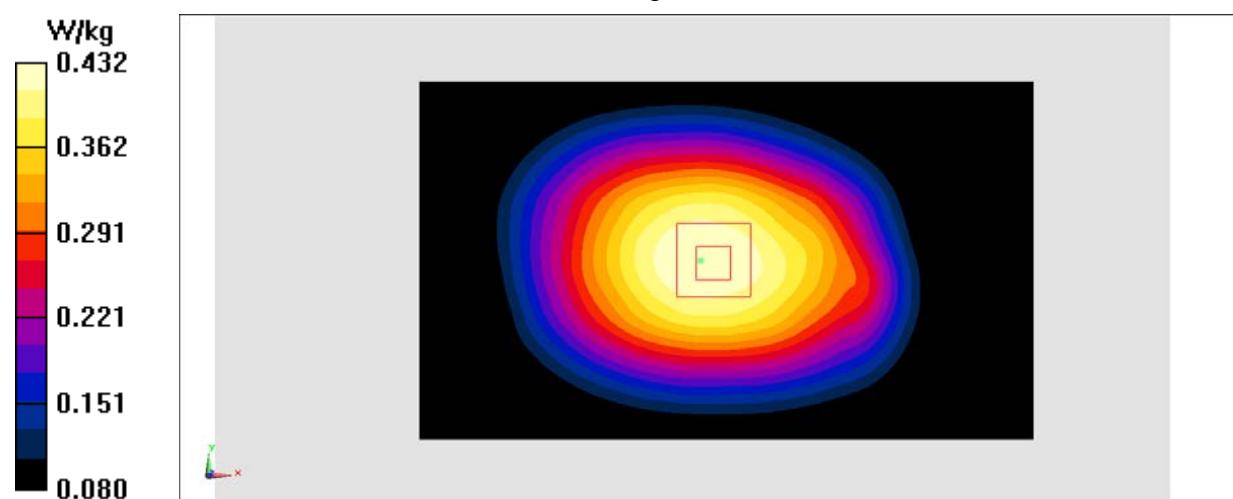


Fig.2 850 MHz

1900 Right Cheek Low

Date: 2016-1-23

Electronics: DAE4 Sn777

Medium: Head 1900 MHz

Medium parameters used: $f = 1850.2$ MHz; $\sigma = 1.289$ mho/m; $\epsilon_r = 40.332$; $\rho = 1000$ kg/m 3

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz Frequency: 1850.2 MHz Duty Cycle: 1:8.3

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

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

Maximum value of SAR (interpolated) = 0.132 W/kg

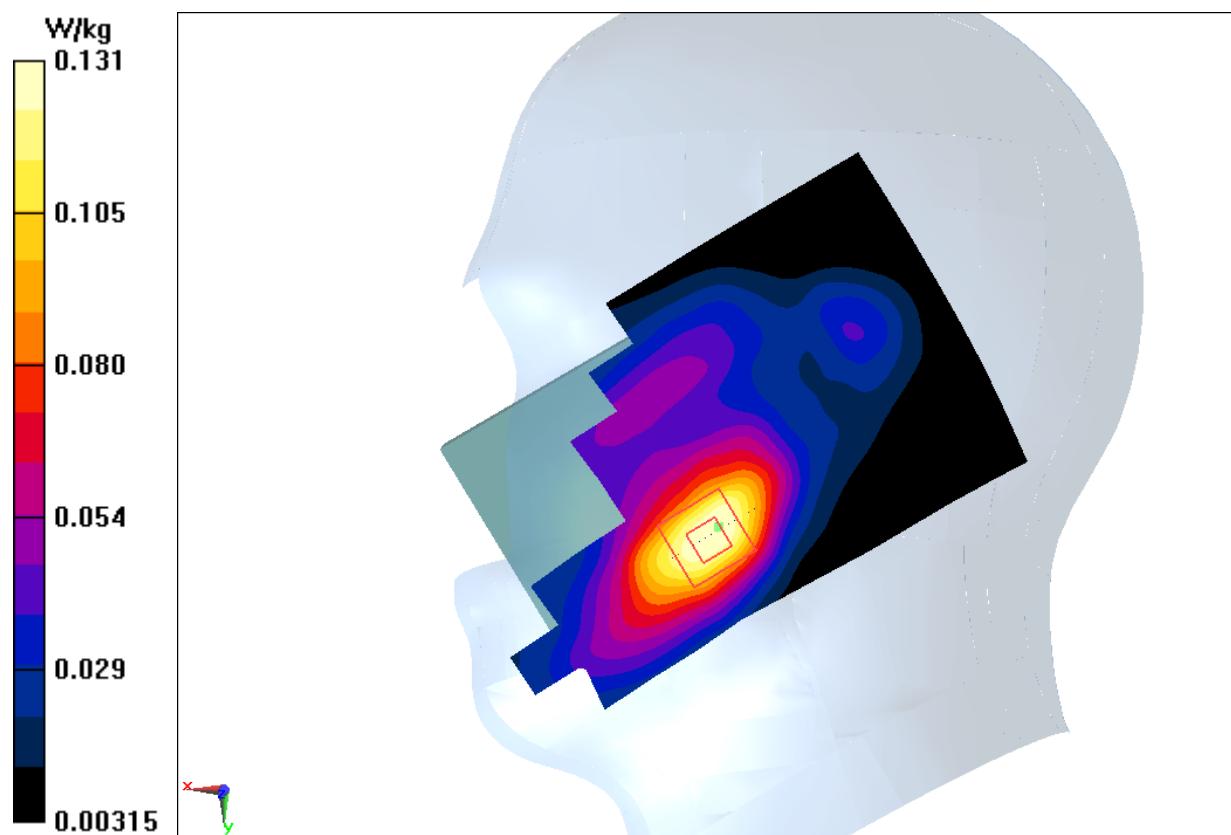
Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 4.964 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 0.165 W/kg

SAR(1 g) = 0.112 W/kg; SAR(10 g) = 0.071 W/kg

Maximum value of SAR (measured) = 0.131 W/kg



1900 Body Rear Low

Date: 2016-1-23

Electronics: DAE4 Sn777

Medium: Body 1900 MHz

Medium parameters used: $f = 1850.2$ MHz; $\sigma = 1.463$ mho/m; $\epsilon_r = 53.033$; $\rho = 1000$ kg/m 3

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz GPRS Frequency: 1850.2 MHz Duty Cycle: 1:2

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

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

Maximum value of SAR (interpolated) = 1.00 W/kg

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

Reference Value = 6.724 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 1.27 W/kg

SAR(1 g) = 0.766 W/kg; SAR(10 g) = 0.417 W/kg

Maximum value of SAR (measured) = 1.05 W/kg

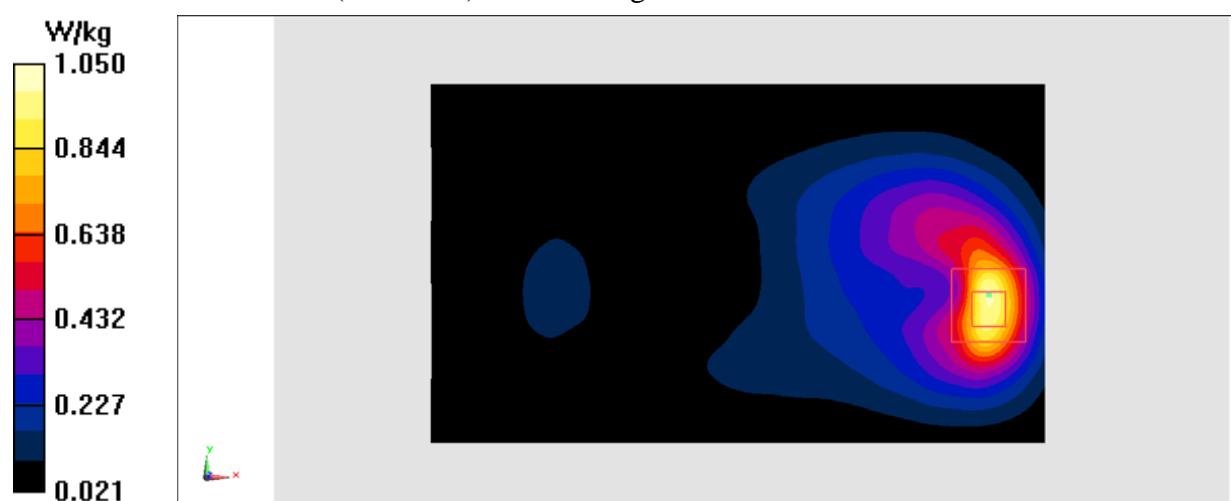


Fig.4 1900 MHz

WCDMA 850 Left Cheek High

Date: 2016-1-21

Electronics: DAE4 Sn777

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 846.6$ MHz; $\sigma = 0.911$ mho/m; $\epsilon_r = 40.995$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: WCDMA; Frequency: 846.6 MHz; Duty Cycle: 1:1

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

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

Maximum value of SAR (interpolated) = 0.251 W/kg

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

Reference Value = 8.043 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.294 W/kg

SAR(1 g) = 0.229 W/kg; SAR(10 g) = 0.177 W/kg

Maximum value of SAR (measured) = 0.252 W/kg

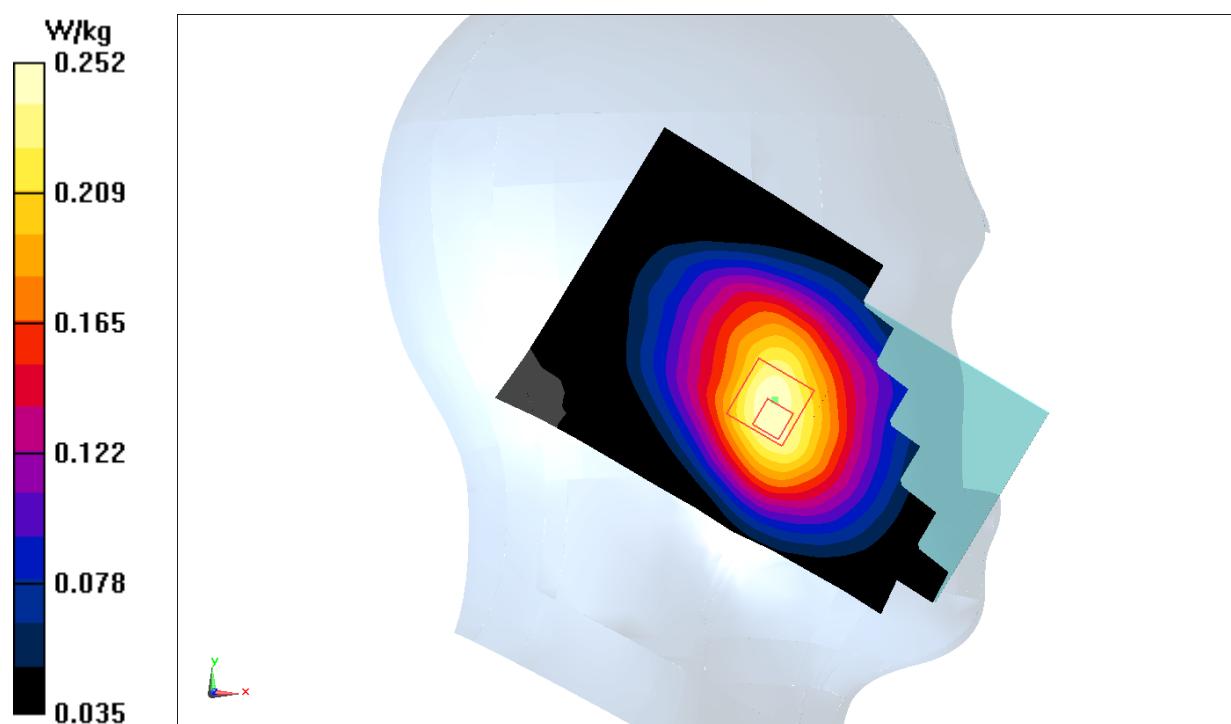


Fig.5 WCDMA 850

WCDMA 850 Body Rear High

Date: 2016-1-21

Electronics: DAE4 Sn777

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 846.6$ MHz; $\sigma = 0.984$ mho/m; $\epsilon_r = 56.252$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: WCDMA; Frequency: 846.6 MHz; Duty Cycle: 1:1

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

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

Maximum value of SAR (interpolated) = 0.443 W/kg

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

Reference Value = 19.83 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.487 W/kg

SAR(1 g) = 0.375 W/kg; SAR(10 g) = 0.294 W/kg

Maximum value of SAR (measured) = 0.440 W/kg

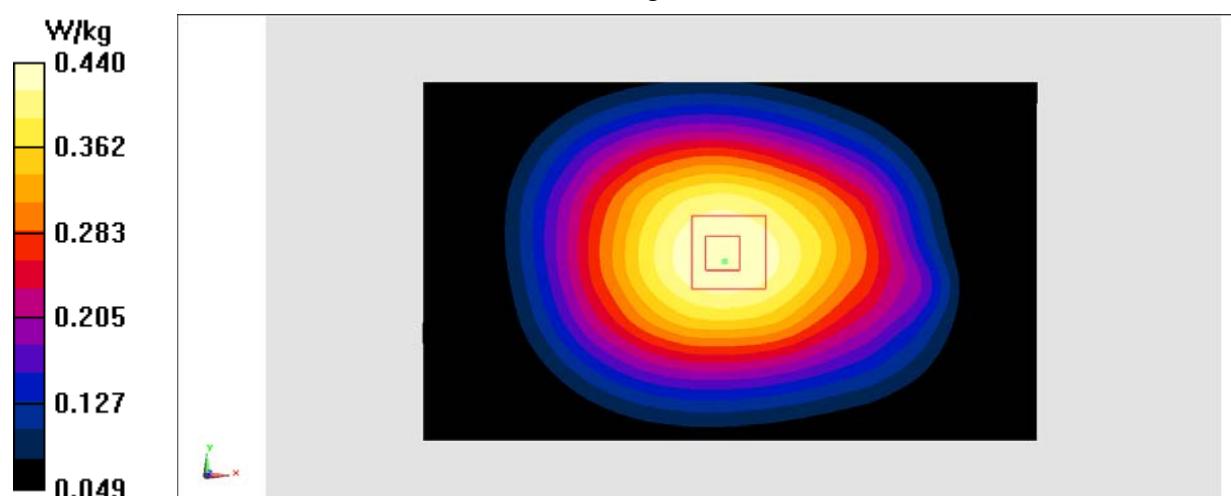


Fig.6 WCDMA 850

WCDMA 1900 Right Cheek High

Date: 2016-1-23

Electronics: DAE4 Sn777

Medium: Head 1900 MHz

Medium parameters used (interpolated): $f = 1907.6$ MHz; $\sigma = 1.435$ mho/m; $\epsilon_r = 39.976$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

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

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

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

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

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

Reference Value = 6.198 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.241 W/kg

SAR(1 g) = 0.162 W/kg; SAR(10 g) = 0.103 W/kg

Maximum value of SAR (measured) = 0.190 W/kg

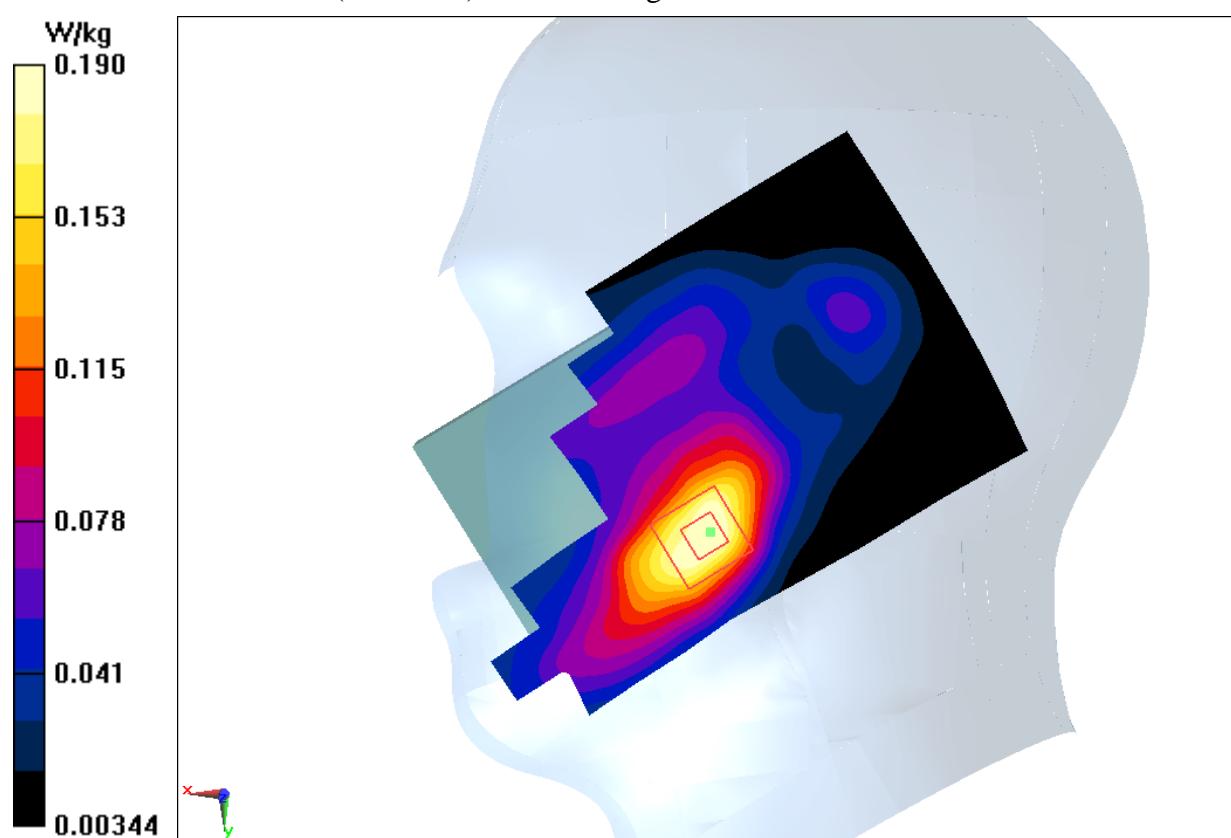


Fig.7 WCDMA1900

WCDMA 1900 Body Bottom High

Date: 2016-1-23

Electronics: DAE4 Sn777

Medium: Body 1900 MHz

Medium parameters used: $f = 1907.6$ MHz; $\sigma = 1.567$ mho/m; $\epsilon_r = 52.732$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°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 (121x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

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

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

Reference Value = 15.74 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 1.69 W/kg

SAR(1 g) = 0.980 W/kg; SAR(10 g) = 0.508 W/kg

Maximum value of SAR (measured) = 1.12 W/kg

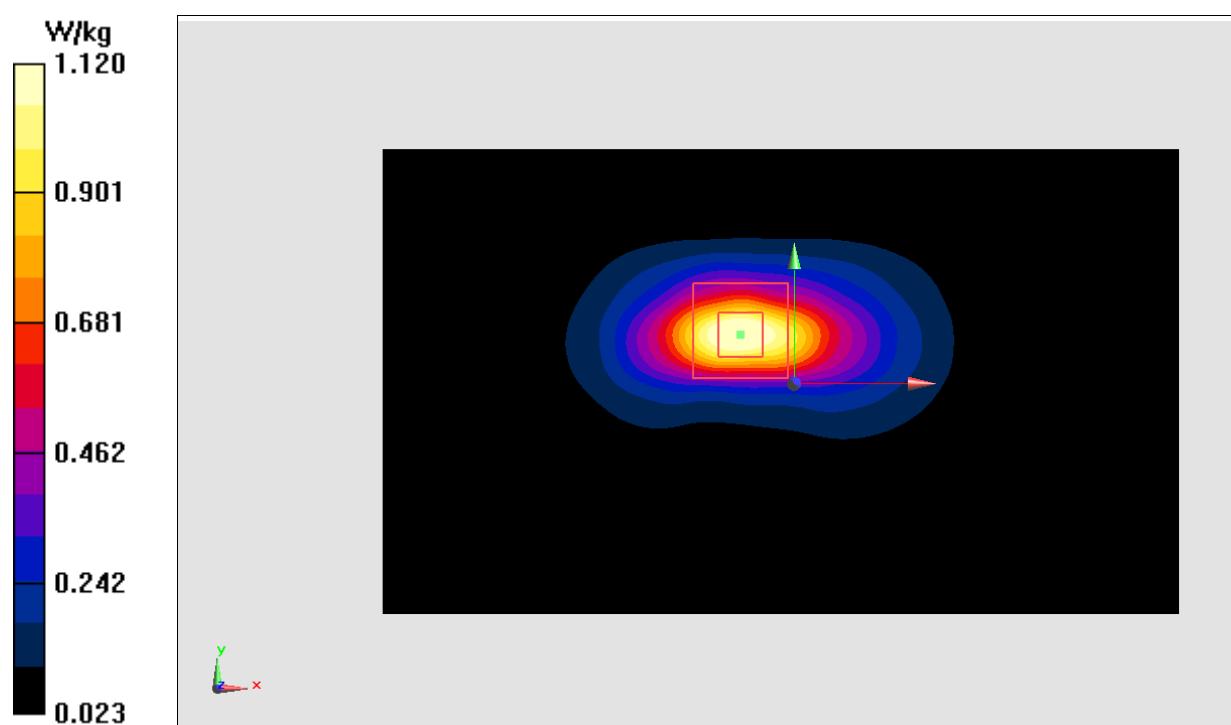


Fig.8 WCDMA1900

LTE Band2 Right Cheek High with QPSK_20M_1RB_High

Date: 2016-1-23

Electronics: DAE4 Sn777

Medium: Head 1900 MHz

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.436$ mho/m; $\epsilon_r = 40.663$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°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 (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.113 W/kg

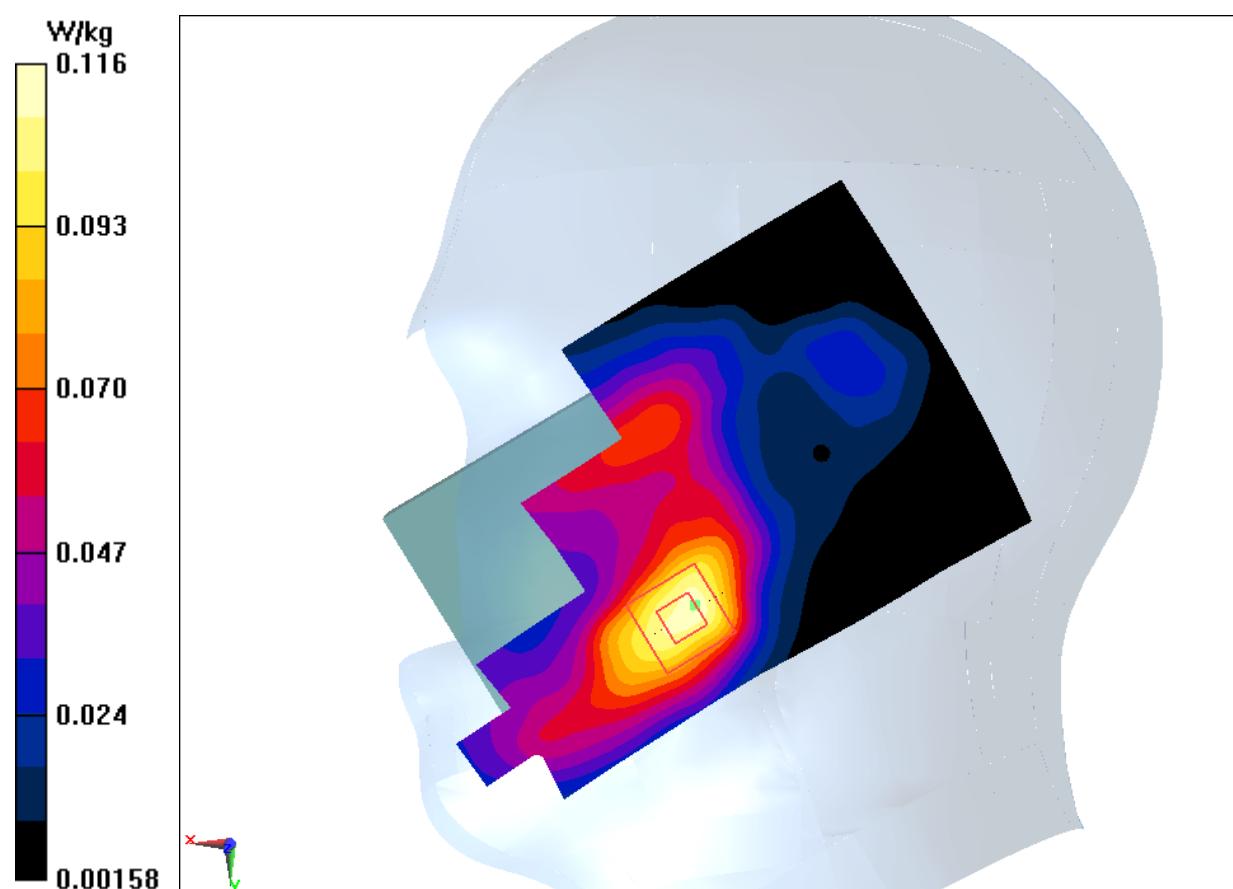
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.224 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 0.152 W/kg

SAR(1 g) = 0.097 W/kg; SAR(10 g) = 0.059 W/kg

Maximum value of SAR (measured) = 0.116 W/kg

**Fig.9 LTE Band2**

LTE Band2 Body Rear High with QPSK_20M_1RB_High

Date: 2016-1-23

Electronics: DAE4 Sn777

Medium: Body 1900 MHz

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.557$ mho/m; $\epsilon_r = 52.93$; $\rho = 1000$ kg/m 3

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: LTE Band4 Frequency: 1900 MHz Duty Cycle: 1:1

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

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

Maximum value of SAR (interpolated) = 0.861 W/kg

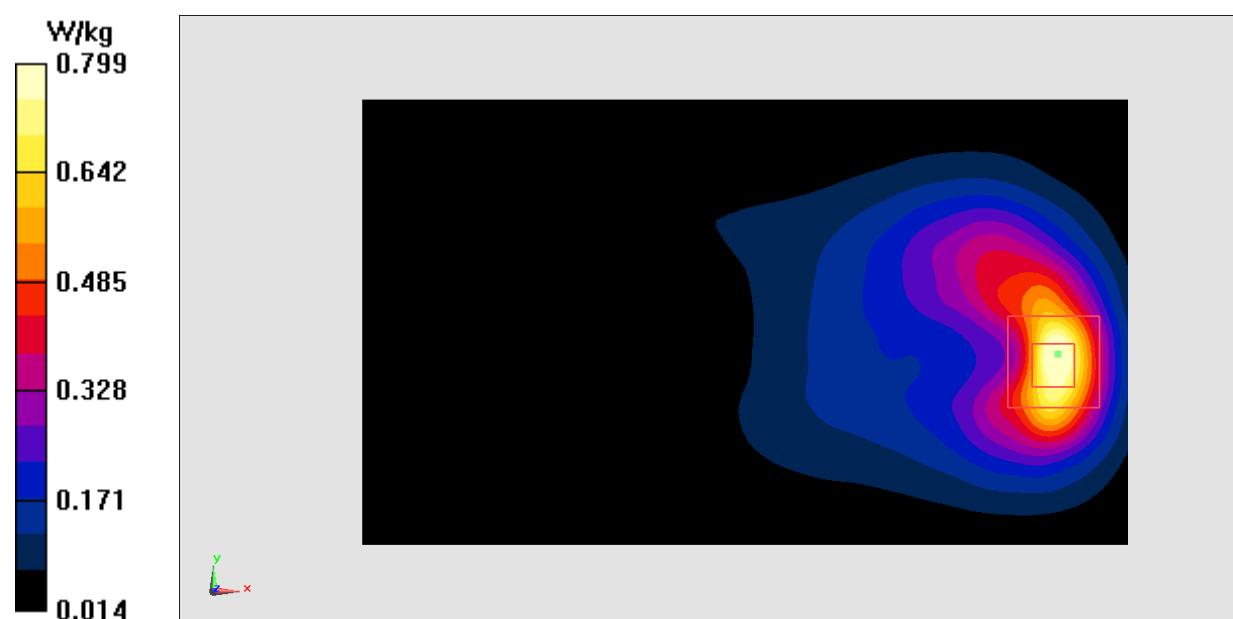
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.522 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 1.19 W/kg

SAR(1 g) = 0.705 W/kg; SAR(10 g) = 0.368 W/kg

Maximum value of SAR (measured) = 0.799 W/kg

**Fig.10 LTE Band2**

LTE Band4 Right Cheek High with QPSK_20M_1RB_Low

Date: 2016-1-22

Electronics: DAE4 Sn777

Medium: Head 1750 MHz

Medium parameters used: $f = 1745$ MHz; $\sigma = 1.475$ mho/m; $\epsilon_r = 39.643$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°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) = 0.182 W/kg

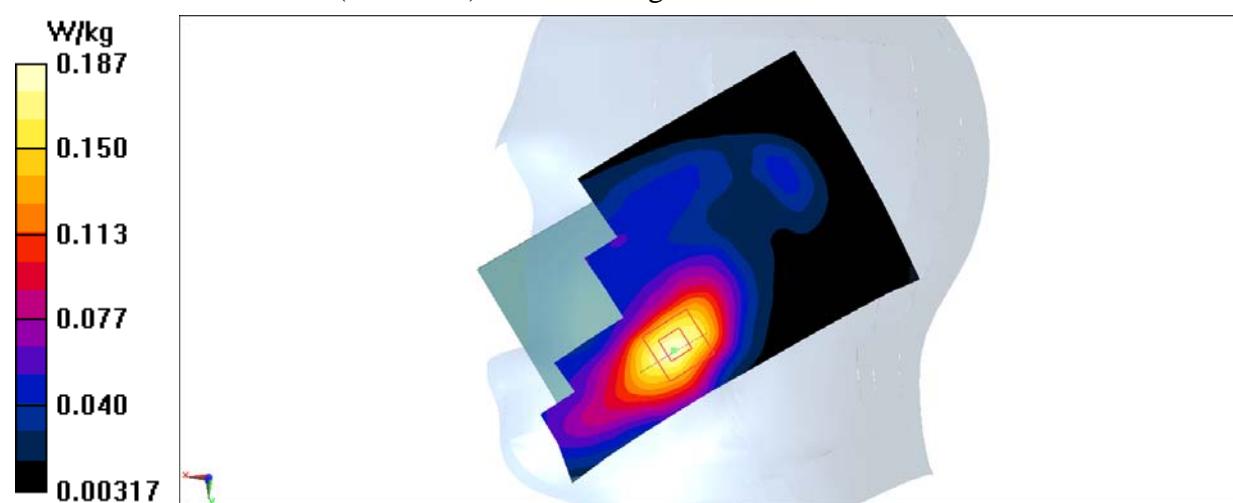
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.683 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.225 W/kg

SAR(1 g) = 0.146 W/kg; SAR(10 g) = 0.092 W/kg

Maximum value of SAR (measured) = 0.187 W/kg

**Fig.11 LTE Band4**

LTE Band4 Body Rear High with QPSK_20M_1RB_Low

Date: 2016-1-22

Electronics: DAE4 Sn777

Medium: Body 1750 MHz

Medium parameters used: $f = 1745$ MHz; $\sigma = 1.493$ mho/m; $\epsilon_r = 52.885$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: LTE Band4 Frequency: 1745 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) = 0.837 W/kg

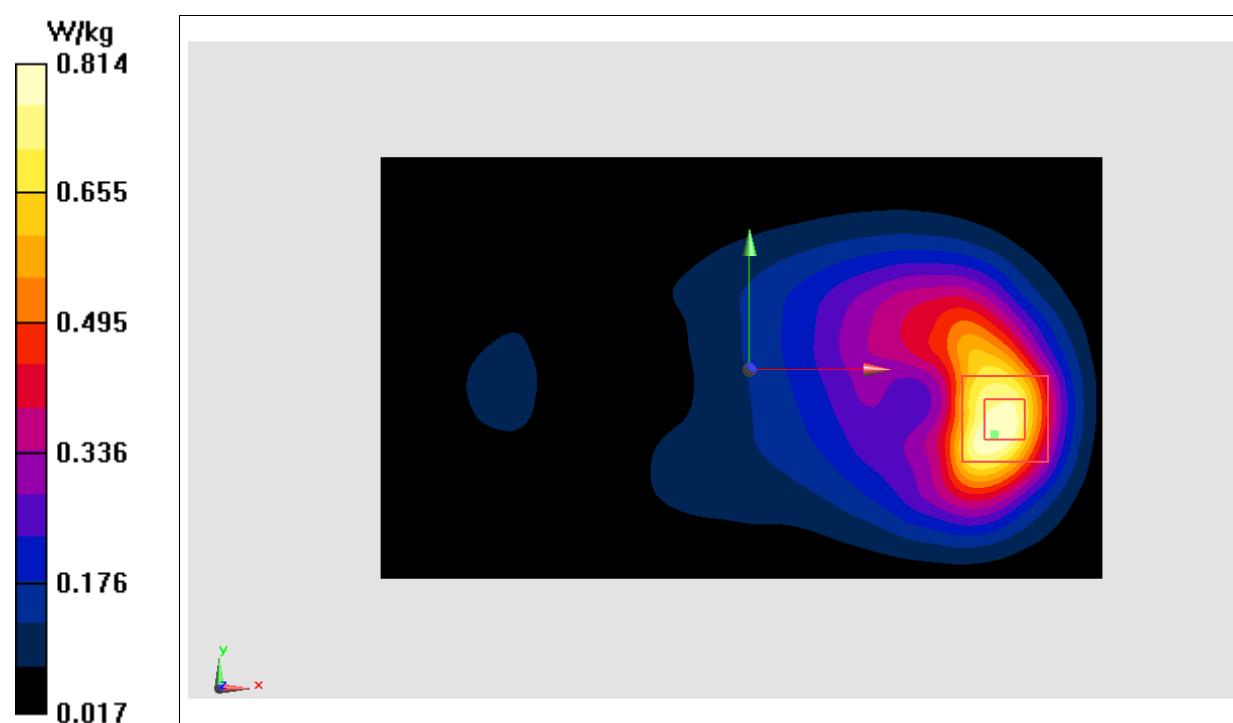
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.059 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 1.33 W/kg

SAR(1 g) = 0.773 W/kg; SAR(10 g) = 0.407 W/kg

Maximum value of SAR (measured) = 0.814 W/kg

**Fig.12 LTE Band4**

LTE Band7 Right Cheek High with QPSK_20M_1RB_High

Date: 2016-1-25

Electronics: DAE4 Sn777

Medium: Head 2600 MHz

Medium parameters used: $f = 2560$ MHz; $\sigma = 1.904$ mho/m; $\epsilon_r = 38.442$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: LTE Band7 Frequency: 2560 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(7.21, 7.21, 7.21)

Area Scan (91x151x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.160 W/kg

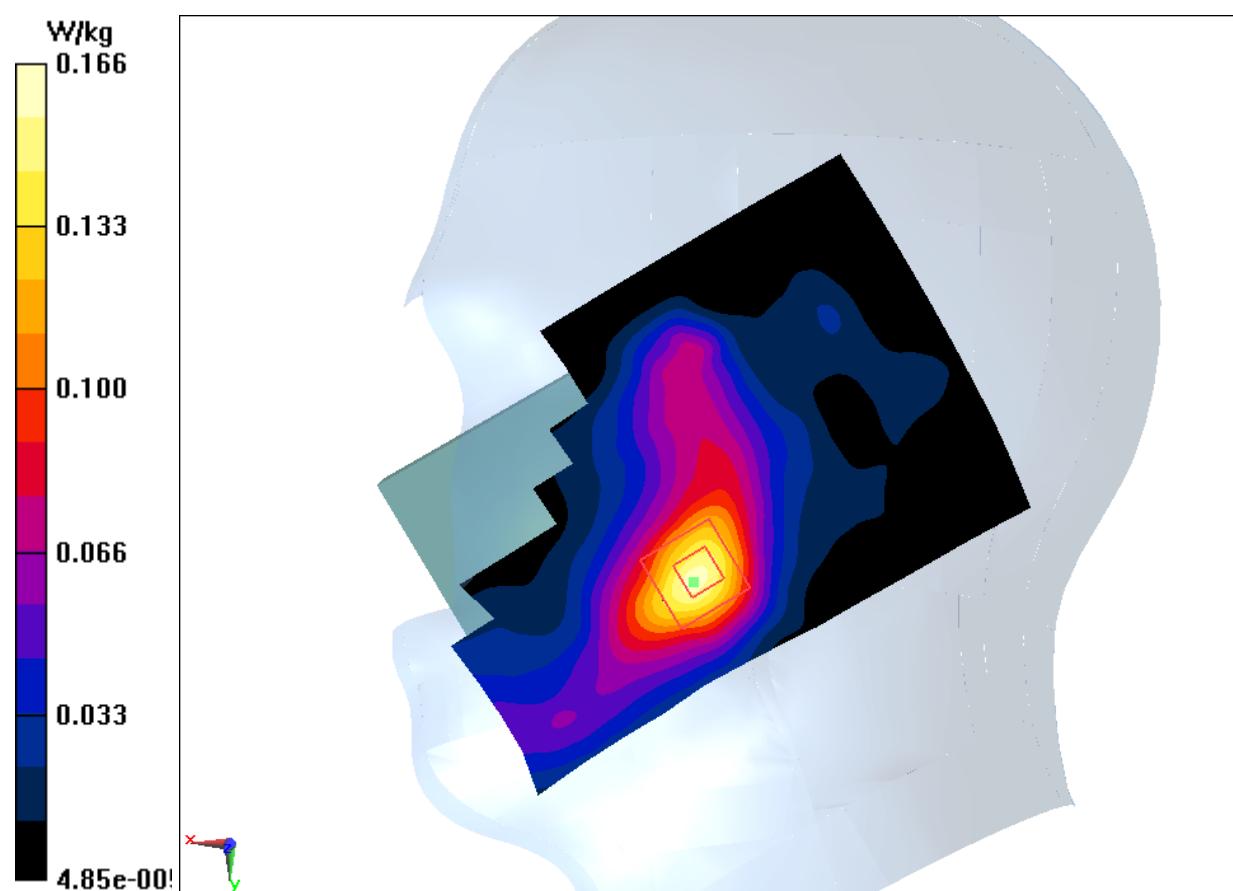
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.252 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.252 W/kg

SAR(1 g) = 0.133 W/kg; SAR(10 g) = 0.069 W/kg

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

**Fig.13 LTE Band7**

LTE Band7 Body Bottom Middle with QPSK_20M_1RB_High

Date: 2016-1-25

Electronics: DAE4 Sn777

Medium: Body 2600 MHz

Medium parameters used: $f = 2535$ MHz; $\sigma = 1.995$ mho/m; $\epsilon_r = 50.945$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: LTE Band7 Frequency: 2535 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(7.20, 7.20, 7.20)

Area Scan (141x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.39 W/kg

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

Reference Value = 9.249 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.68 W/kg

SAR(1 g) = 0.853 W/kg; SAR(10 g) = 0.383 W/kg

Maximum value of SAR (measured) = 1.28 W/kg

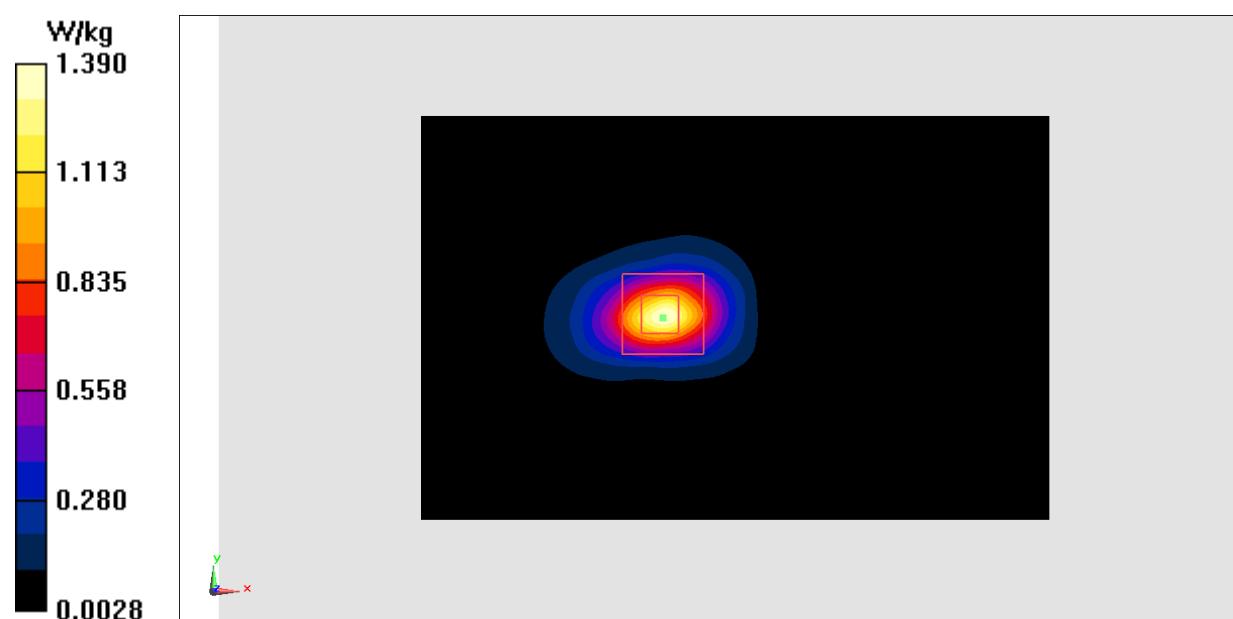


Fig.14 LTE Band7

LTE Band 13 Left Cheek Middle with QPSK_10M_1RB_Low

Date: 2016-1-20

Electronics: DAE4 Sn777

Medium: Head 750 MHz

Medium parameters used (interpolated): $f = 782$ MHz; $\sigma = 0.915$ mho/m; $\epsilon_r = 42.985$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.2°C Liquid Temperature: 21.7°C

Communication System: LTE Band13 Frequency: 782 MHz Duty Cycle: 1:1

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

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

Maximum value of SAR (interpolated) = 0.202 W/kg

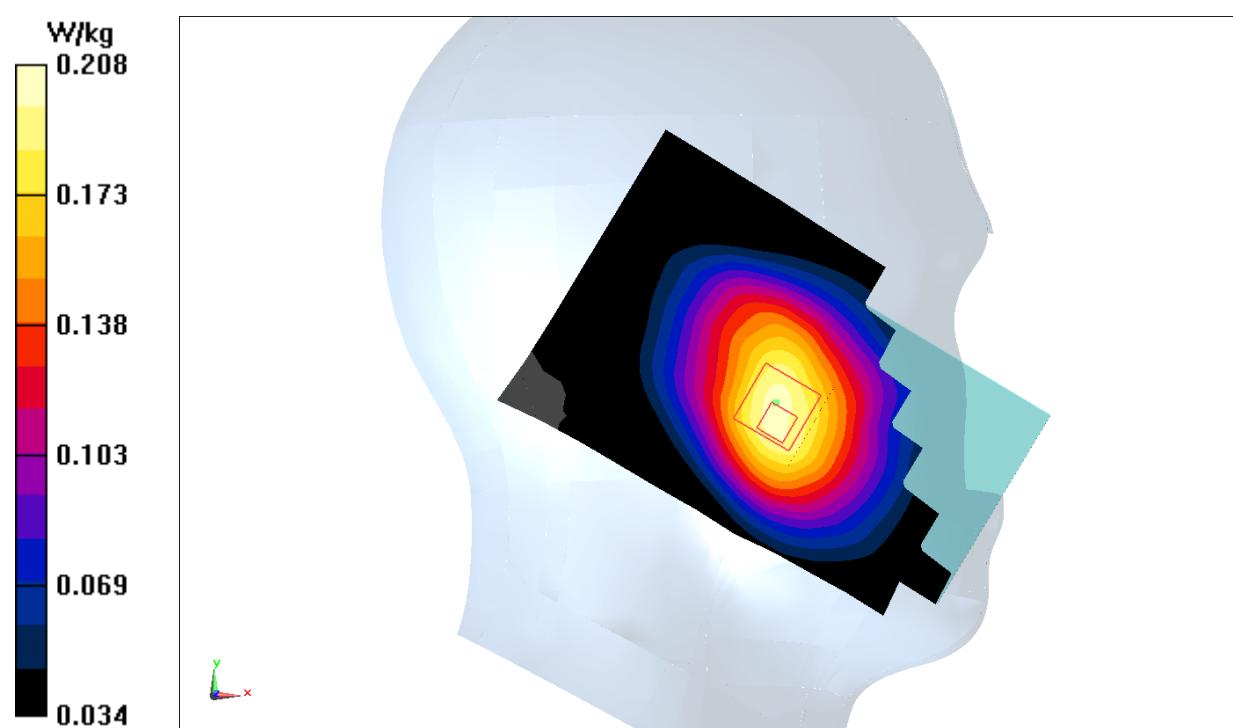
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.263 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.239 W/kg

SAR(1 g) = 0.185 W/kg; SAR(10 g) = 0.145 W/kg

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

**Fig.15 LTE Band 13**

LTE Band 13 Body Rear Middle with QPSK_10M_1RB_Low

Date: 2016-1-20

Electronics: DAE4 Sn777

Medium: Body 750 MHz

Medium parameters used (interpolated): $f = 782$ MHz; $\sigma = 0.945$ mho/m; $\epsilon_r = 56.885$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.2°C Liquid Temperature: 21.7°C

Communication System: LTE Band13 Frequency: 782 MHz Duty Cycle: 1:1

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

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

Maximum value of SAR (interpolated) = 0.485 W/kg

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

Reference Value = 21.63 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.529 W/kg

SAR(1 g) = 0.423 W/kg; SAR(10 g) = 0.332 W/kg

Maximum value of SAR (measured) = 0.481 W/kg

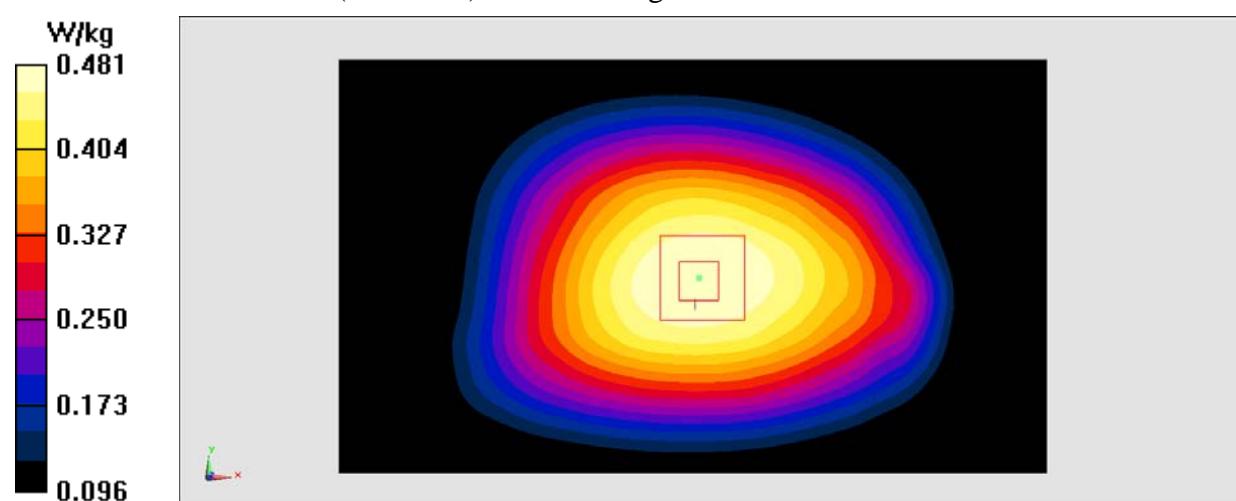


Fig.16 LTE Band 13

LTE Band17 Right Cheek Middle with QPSK_10M_1RB_Low

Date: 2016-1-20

Electronics: DAE4 Sn777

Medium: Head 750 MHz

Medium parameters used (interpolated): $f = 710$ MHz; $\sigma = 0.852$ mho/m; $\epsilon_r = 42.768$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: LTE Band17 Frequency: 710 MHz Duty Cycle: 1:1

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

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

Maximum value of SAR (interpolated) = 0.108 W/kg

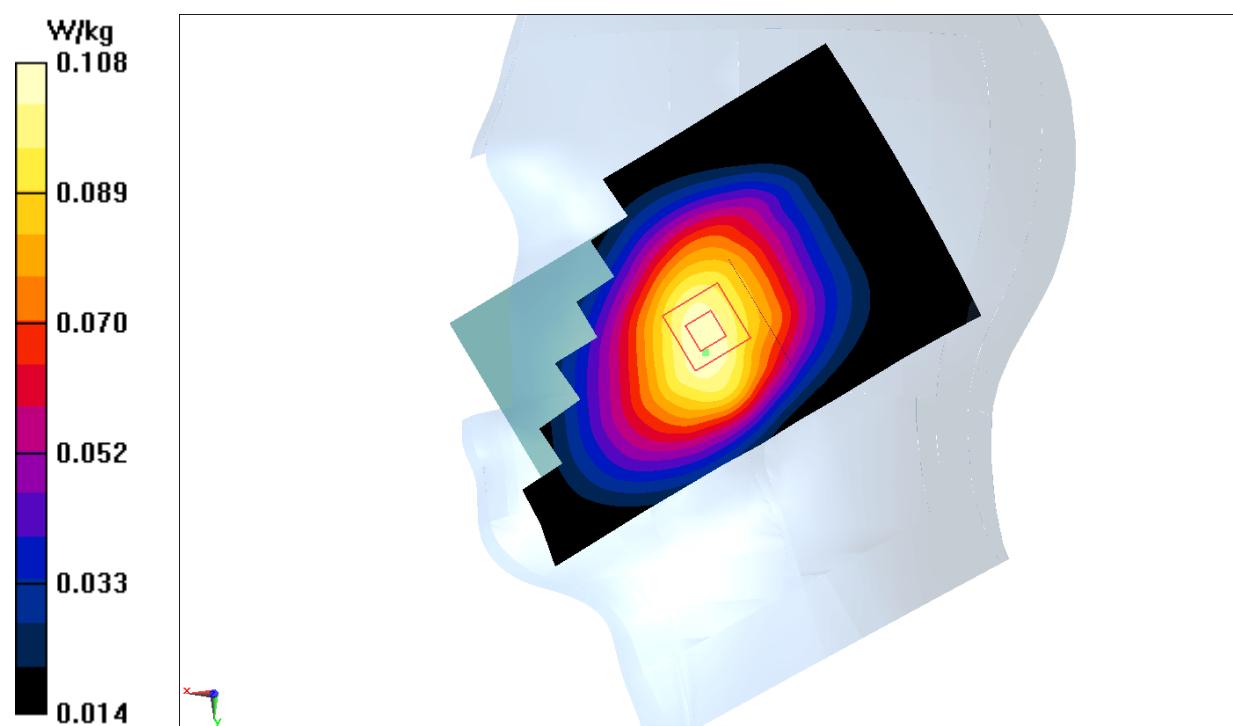
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.065 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.120 W/kg

SAR(1 g) = 0.101 W/kg; SAR(10 g) = 0.081 W/kg

Maximum value of SAR (measured) = 0.108 W/kg

**Fig.17 LTE Band17**

LTE Band17 Body Rear Middle with QPSK_10M_1RB_Low

Date: 2016-1-20

Electronics: DAE4 Sn777

Medium: Body 750 MHz

Medium parameters used (interpolated): $f = 710$ MHz; $\sigma = 0.905$ mho/m; $\epsilon_r = 56.529$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: LTE Band17 Frequency: 710 MHz Duty Cycle: 1:1

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

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

Maximum value of SAR (interpolated) = 0.238 W/kg

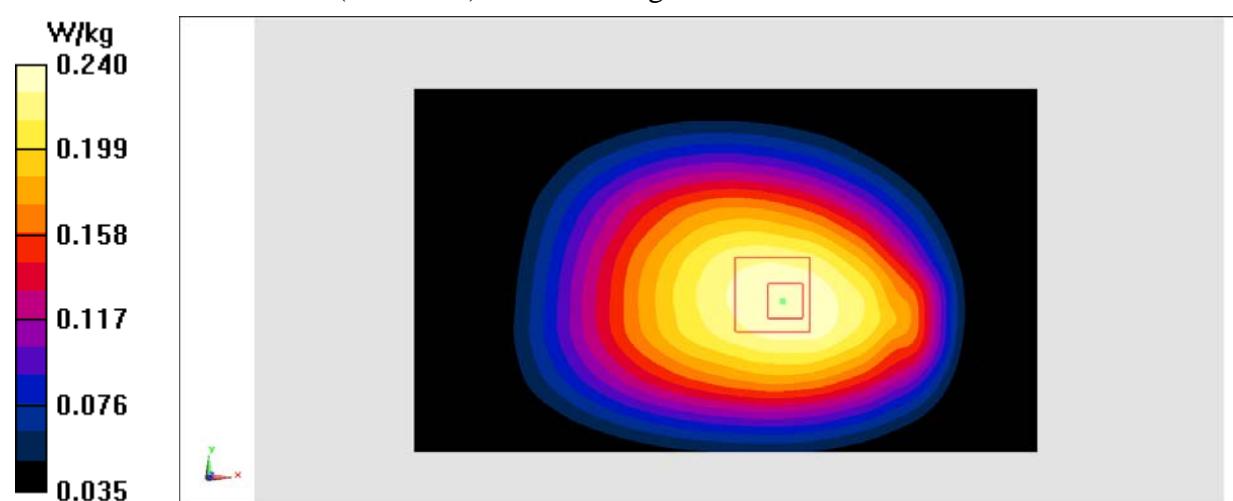
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.61 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.267 W/kg

SAR(1 g) = 0.207 W/kg; SAR(10 g) = 0.159 W/kg

Maximum value of SAR (measured) = 0.240 W/kg

**Fig.18 LTE Band17**