DASY5 Validation Report for Head TSL

Date: 24.07.2015

Test Laboratory: SPEAG, Zurich, Switzerland

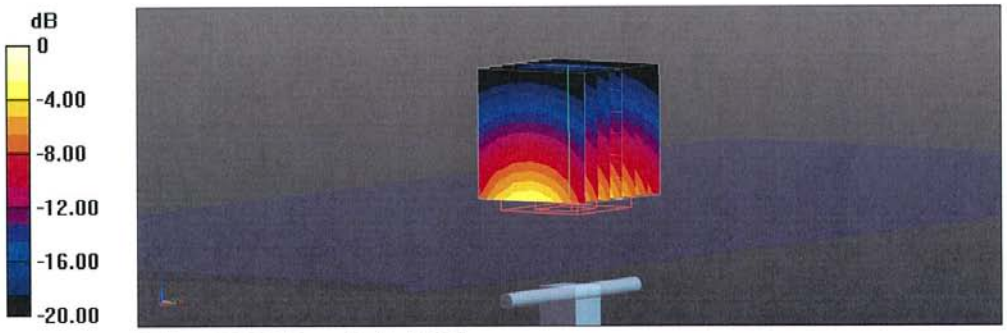
DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:853

Communication System: UID 0 - CW; Frequency: 2450 MHz
Medium parameters used: f = 2450 MHz; σ = 1.88 S/m; ε_r = 37.9; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

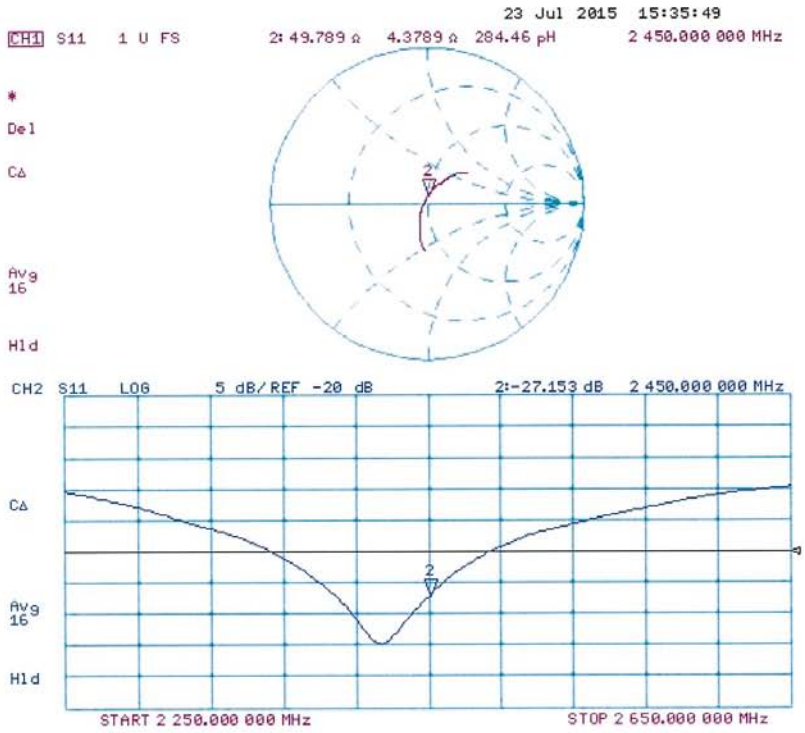
- Probe: ES3DV3 - SN3205; ConvF(4.54, 4.54, 4.54); Calibrated: 30.12.2014;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 18.08.2014
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; Serial: 1001
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 100.4 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 27.9 W/kg
SAR(1 g) = 13.5 W/kg; SAR(10 g) = 6.24 W/kg
Maximum value of SAR (measured) = 17.7 W/kg



0 dB = 17.7 W/kg = 12.48 dBW/kg

Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date: 24.07.2015

Test Laboratory: SPEAG, Zurich, Switzerland

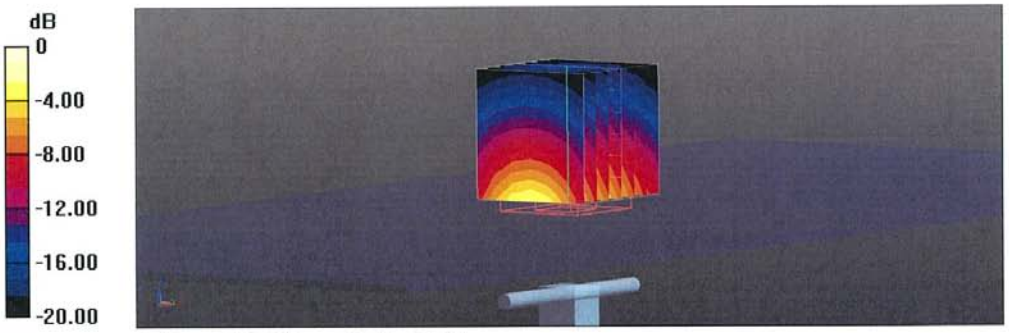
DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:853

Communication System: UID 0 - CW; Frequency: 2450 MHz
Medium parameters used: f = 2450 MHz; σ = 2.03 S/m; ε_r = 52.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

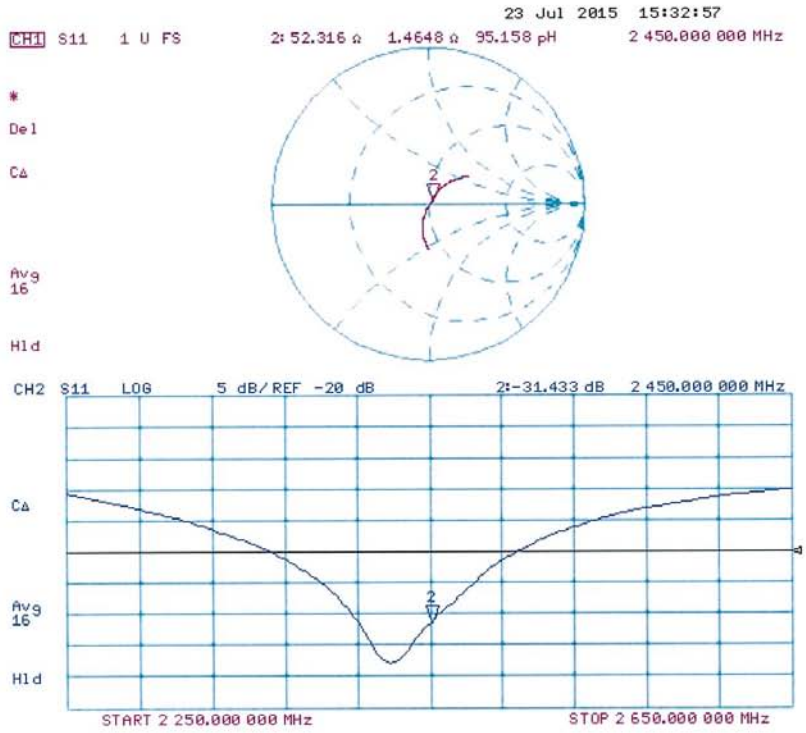
- Probe: ES3DV3 - SN3205; ConvF(4.32, 4.32, 4.32); Calibrated: 30.12.2014;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 18.08.2014
- Phantom: Flat Phantom 5.0 (back); Type: QD000P50AA; Serial: 1002
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

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



0 dB = 17.6 W/kg = 12.46 dBW/kg

Impedance Measurement Plot for Body TSL



ANNEX I SPOT CHECK TEST

As the test lab for 5065N 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)
	\	\	32.55
GSM 1900MHz	Conducted Power (dBm)		
	Channel 810(1909.8MHz)	Channel 661(1880MHz)	Channel 512(1850.2MHz)
	29.44	\	\

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

GSM 850 GPRS (GMSK)	Measured Power (dBm)		
	251	190	128
2 Txslots	\	\	30.46
PCS1900 GPRS (GMSK)	Measured Power (dBm)		
	810	661	512
2 Txslots	27.38	\	\

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

Item	**band**	**FDDV result**		
	ARFCN	**4233 (846.6MHz)**	**4182 (836.4MHz)**	**4132 (826.4MHz)**
WCDMA	****	****	****	24.09
Item	**band**	**FDDII result**		
	ARFCN	**9538 (1907.6MHz)**	**9400 (1880MHz)**	**9262 (1852.4MHz)**
WCDMA	****	24.49	****	****
Item	**band**	**FDDIV result**		
	ARFCN	**1513 (1752.6MHz)**	**1412 (1732.4MHz)**	**1312 (1712.4MHz)**
WCDMA	****	24.61	****	****

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

LTE Band2 20MHz 1RB-Low (50)	1900 (19100)	22.82
	1880 (18900)	\
	1860 (18700)	\
LTE Band4 20MHz 1RB-Low (0)	1745 (20300)	\
	1732.5 (20175)	23.08
	1720 (20050)	23.09
LTE Band12 10MHz 1RB-Middle (0)	711(23130)	23.22
	707.5(23095)	\
	704(23060)	\

I.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	Right	Touch	Fig.1	32.55	33.8	0.189	**0.25**	0.245	**0.33**	0.04

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	GPRS (2)	Rear	Fig.2	30.46	32	0.33	**0.47**	0.569	**0.81**	-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: 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.										
1909.8	810	Left	Touch	Fig.3	29.44	30.8	0.11	**0.15**	0.177	**0.24**	0.07

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.										
1909.8	810	GPRS (2)	Bottom	Fig.4	27.38	29	0.305	**0.44**	0.522	**0.76**	0.12

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.										
826.4	4132	Right	Touch	Fig.5	24.09	25	0.122	**0.15**	0.159	**0.20**	-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.									
826.4	4132	Rear	Fig.6	24.09	25	0.284	**0.35**	0.371	**0.46**	0.17

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: 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.										
1752.6	1513	Right	Touch	Fig.7	24.61	25	0.102	**0.11**	0.163	**0.18**	0.01

Table I.2-8: SAR Values (WCDMA 1700 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.									
1752.6	1513	Rear	Fig.8	24.61	25	0.517	**0.57**	0.866	**0.95**	-0.12

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: 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	Left	Touch	Fig.9	24.49	24.5	0.211	**0.21**	0.348	**0.35**	0.11

Table I.2-10: 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.10	24.49	24.5	0.471	**0.47**	0.825	**0.83**	0.11

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

Table I.2-11: 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_Low	Left	Touch	Fig.11	22.82	23.8	0.216	**0.27**	0.357	**0.45**	-0.13

Note1: The LTE mode is QPSK_20MHz.

Table I.2-12: SAR Values (LTE Band2 - 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.											
1900	19100	1RB_Low	Bottom	Fig.12	22.82	23.8	0.442	**0.55**	0.763	**0.96**	0.18	

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 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.											
1720	20050	1RB_Low	Right	Touch	Fig.13	23.09	23.8	0.0835	**0.10**	0.134	**0.16**	0.06

Note1: The LTE mode is QPSK_20MHz.

Table I.2-14: 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.											
1732.5	20175	1RB_Low	Rear	Fig.14	23.08	23.8	0.38	**0.45**	0.782	**0.92**	-0.01	

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 Band12 - 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.											
711	23130	1RB_Mid	Right	Touch	Fig.15	23.22	23.8	0.0932	**0.11**	0.117	**0.13**	0.03

Note1: The LTE mode is QPSK_10MHz.

Table I.2-16: SAR Values (LTE Band12 - 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.											
711	23130	1RB_Mid	Rear	Fig.16	23.22	23.8	0.176	**0.20**	0.293	**0.33**	0.11	

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	0.42
	PCS 1900	0.24	0.30
	WCDMA 1900	0.20	0.56
	WCDMA 1700	0.18	0.45
	WCDMA 850	0.35	0.63
	LTE Band2	0.45	0.48
	LTE Band4	0.16	0.24
	LTE Band12	0.13	0.13
Body-worn (Data) (Separation Distance 10mm)	GSM 850	0.81	0.85
	PCS 1900	0.76	0.93
	WCDMA 1900	0.46	0.92
	WCDMA 1700	0.95	1.46
	WCDMA 850	0.83	1.47
	LTE Band2	0.96	1.10
	LTE Band4	0.92	0.95
	LTE Band12	0.33	0.40

I.4 Graph Results

850 Right Cheek Low

Date: 2016-5-12
Electronics: DAE4 Sn777
Medium: Head 850 MHz
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.912 mho/m; εr = 42.96; ρ = 1000 kg/m^3
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 = 6.276 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.307 W/kg
SAR(1 g) = 0.245 W/kg; SAR(10 g) = 0.189 W/kg
Maximum value of SAR (measured) = 0.276 W/kg

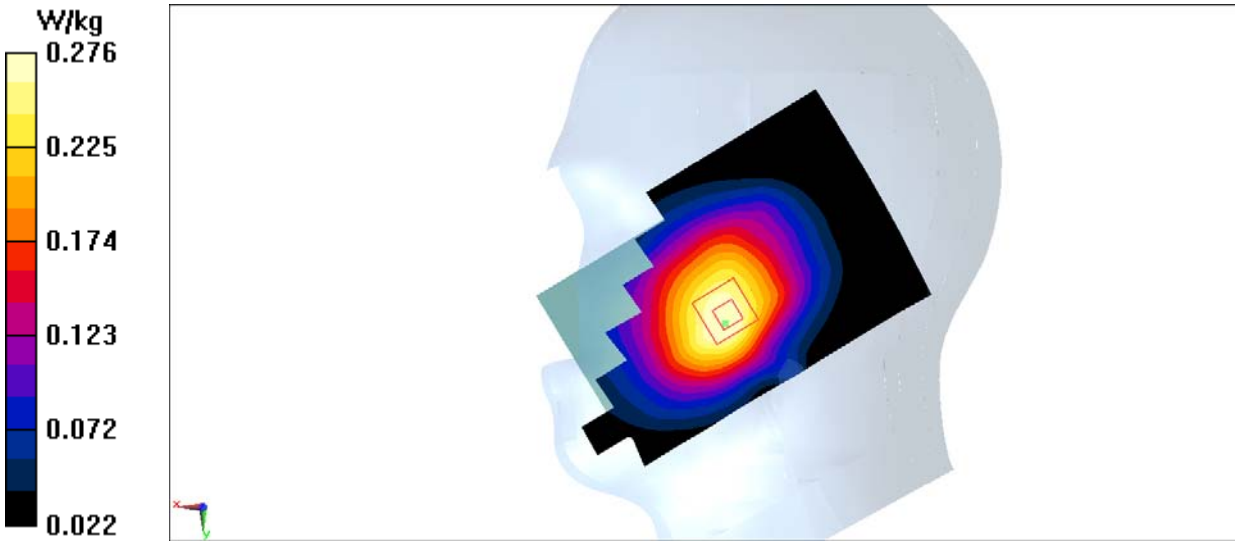


Fig.1 850MHz

850 Body Rear Low

Date: 2016-5-12

Electronics: DAE4 Sn777

Medium: Body 850 MHz

Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.938 mho/m; εr = 56.88; ρ = 1000 kg/m^3

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

Communication System: GSM 850 GPRS Frequency: 824.2 MHz Duty Cycle: 1:4

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) = 0.669 W/kg

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

Reference Value = 23.10 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 0.975 W/kg

SAR(1 g) = 0.569 W/kg; SAR(10 g) = 0.330 W/kg

Maximum value of SAR (measured) = 0.709 W/kg

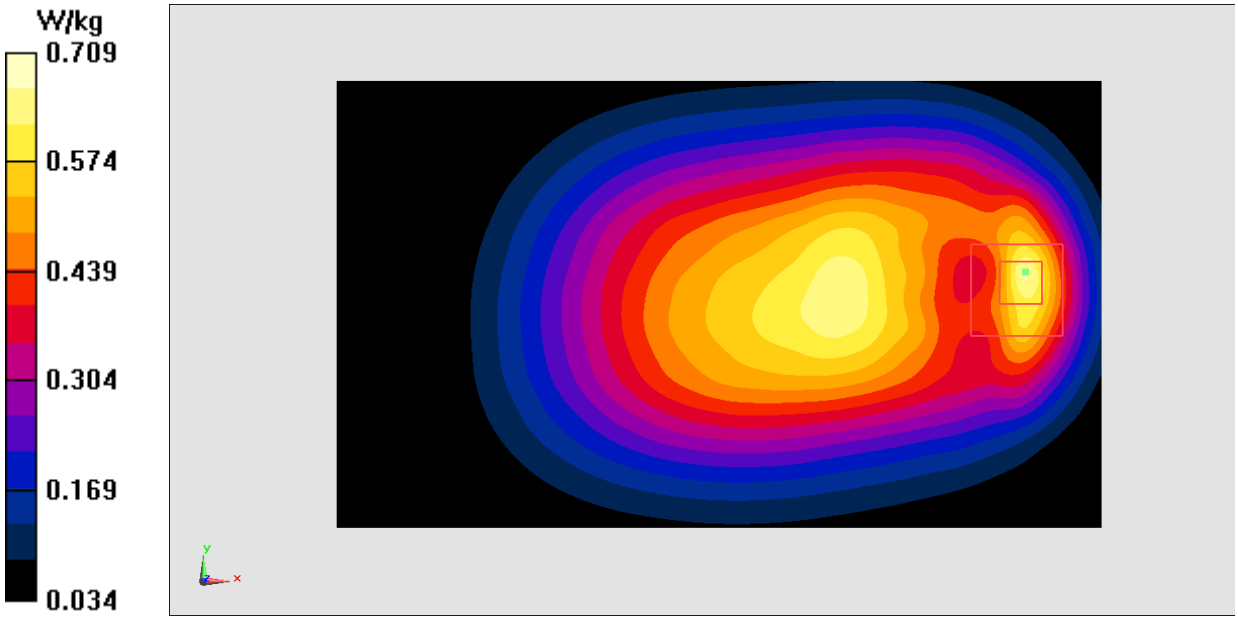


Fig.2 850 MHz

1900 Left Cheek High
Date: 2016-5-13
Electronics: DAE4 Sn777
Medium: Head 1900 MHz
Medium parameters used: f = 1909.8 MHz; σ = 1.445 mho/m; εr = 39.08; ρ = 1000 kg/m^3
Ambient Temperature: 22.9°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 (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.258 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.728 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.274 W/kg
SAR(1 g) = 0.177 W/kg; SAR(10 g) = 0.110 W/kg
Maximum value of SAR (measured) = 0.211 W/kg

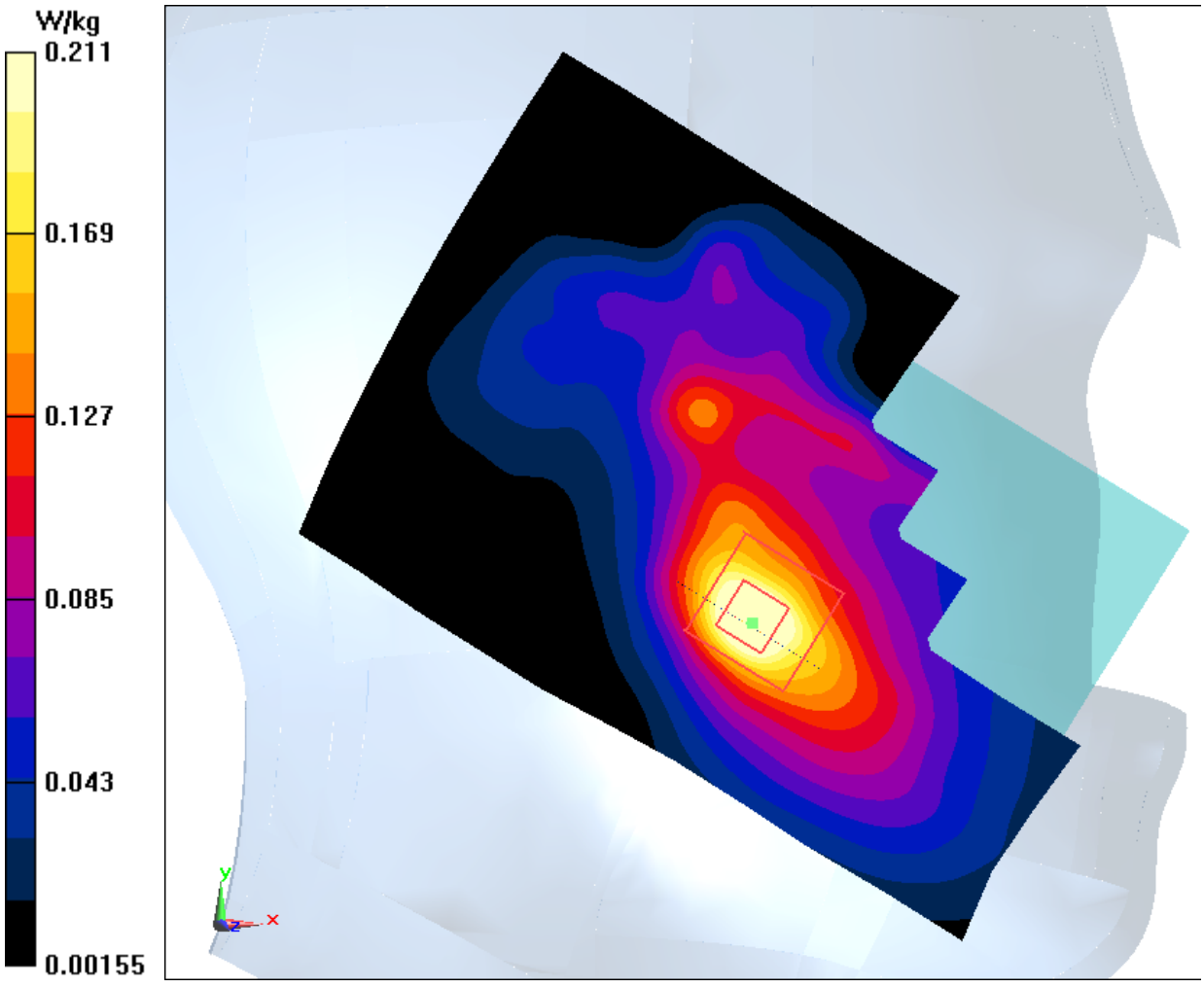


Fig.3 1900 MHz

1900 Body Bottom High

Date: 2016-5-13
Electronics: DAE4 Sn777
Medium: Body 1900 MHz
Medium parameters used: f = 1909.8 MHz; σ = 1.576 mho/m; εr = 53.82; ρ = 1000 kg/m^3
Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C
Communication System: GSM 1900MHz GPRS Frequency: 1909.8 MHz Duty Cycle: 1:4
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) = 0.655 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.84 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.833 W/kg
SAR(1 g) = 0.522 W/kg; SAR(10 g) = 0.305 W/kg
Maximum value of SAR (measured) = 0.629 W/kg

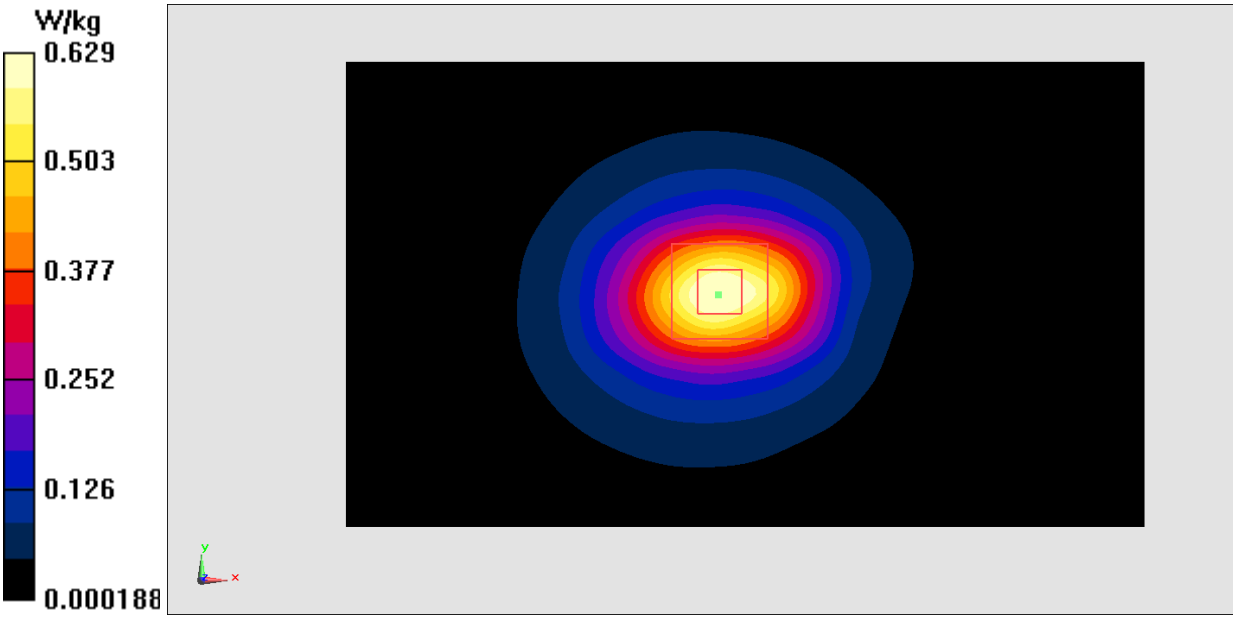


Fig.4 1900 MHz

WCDMA 850 Right Cheek Low

Date: 2016-5-11
Electronics: DAE4 Sn777
Medium: Head 850 MHz
Medium parameters used (interpolated): f = 826.4 MHz; σ = 0.916 mho/m; εr = 42.81; ρ = 1000 kg/m^3
Ambient Temperature: 22.9°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 (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.177 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.621 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.197 W/kg
SAR(1 g) = 0.159 W/kg; SAR(10 g) = 0.122 W/kg
Maximum value of SAR (measured) = 0.171 W/kg

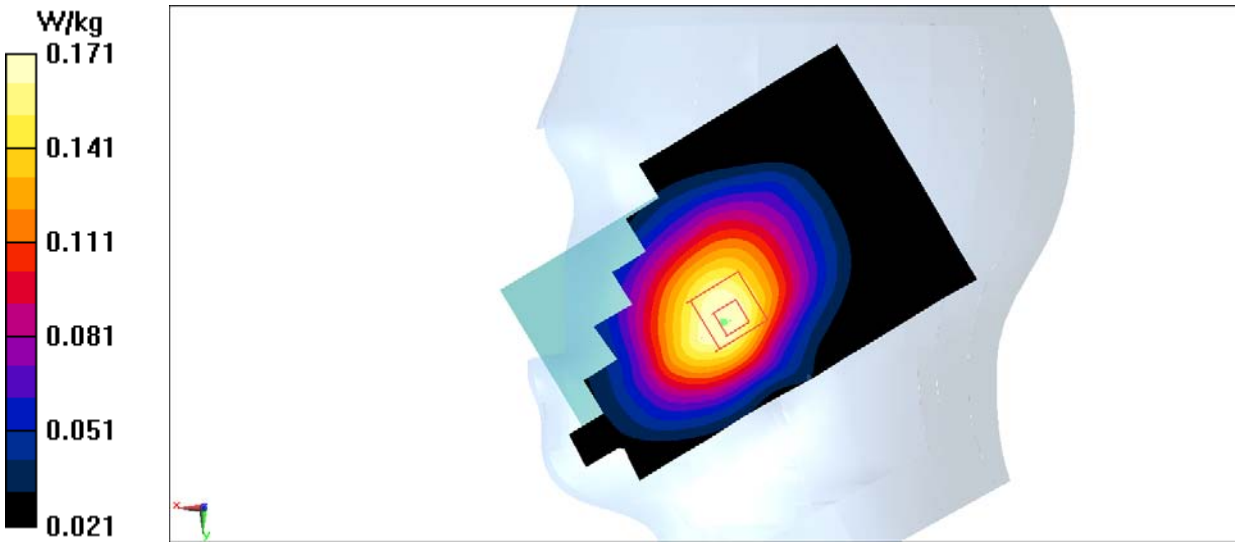


Fig.5 WCDMA 850

WCDMA 850 Body Rear Low

Date: 2016-5-11
Electronics: DAE4 Sn777
Medium: Body 850 MHz
Medium parameters used (interpolated): f = 826.4 MHz; σ = 0.945 mho/m; εr = 55.39; ρ = 1000 kg/m^3
Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C
Communication System: WCDMA; Frequency: 826.4 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) = 0.408 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.36 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 0.459 W/kg
SAR(1 g) = 0.371 W/kg; SAR(10 g) = 0.284 W/kg
Maximum value of SAR (measured) = 0.398 W/kg

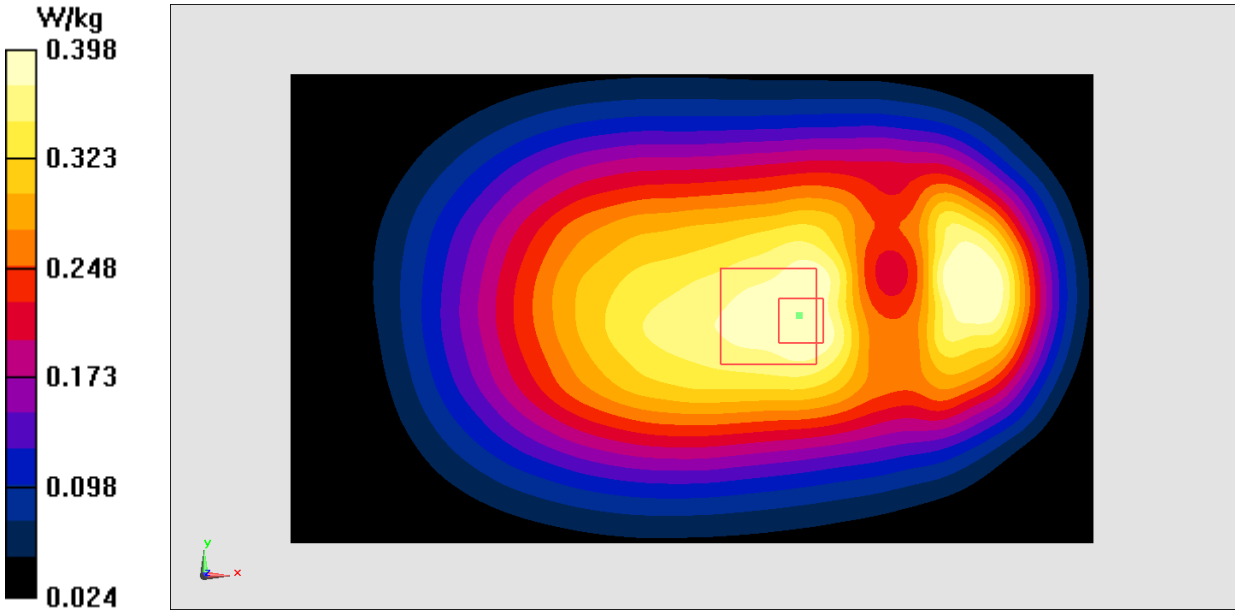


Fig.6 WCDMA 850

WCDMA 1700 Right Cheek High

Date: 2016-5-12
Electronics: DAE4 Sn777
Medium: Head 1750 MHz
Medium parameters used (interpolated): f = 1752.6 MHz; σ = 1.361 mho/m; εr = 39.12; ρ = 1000 kg/m^3
Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C
Communication System: WCDMA 1750 Frequency: 1752.6 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) = 0.215 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.038 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.248 W/kg
SAR(1 g) = 0.163 W/kg; SAR(10 g) = 0.102 W/kg
Maximum value of SAR (measured) = 0.208 W/kg

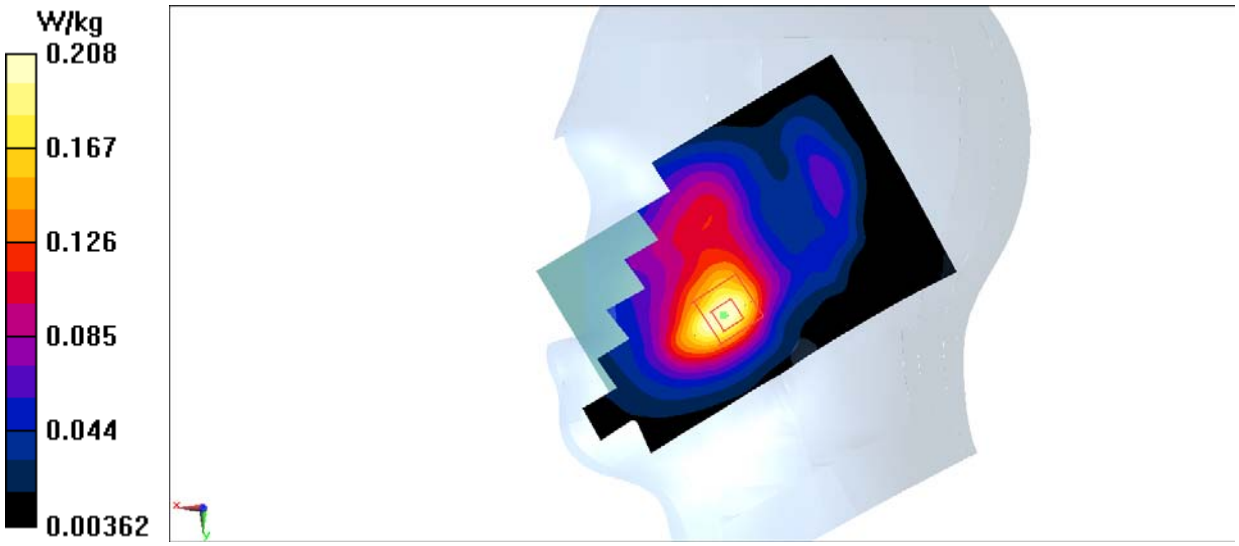


Fig.7 WCDMA1700

WCDMA 1700 Body Rear High

Date: 2016-5-12
Electronics: DAE4 Sn777
Medium: Body 1750 MHz
Medium parameters used: f = 1752.6 MHz; σ = 1.561 mho/m; εr = 52.11; ρ = 1000 kg/m^3
Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C
Communication System: WCDMA 1750 Frequency: 1752.6 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) = 1.04 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.12 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 1.34 W/kg
SAR(1 g) = 0.866 W/kg; SAR(10 g) = 0.517 W/kg
Maximum value of SAR (measured) = 1.00 W/kg

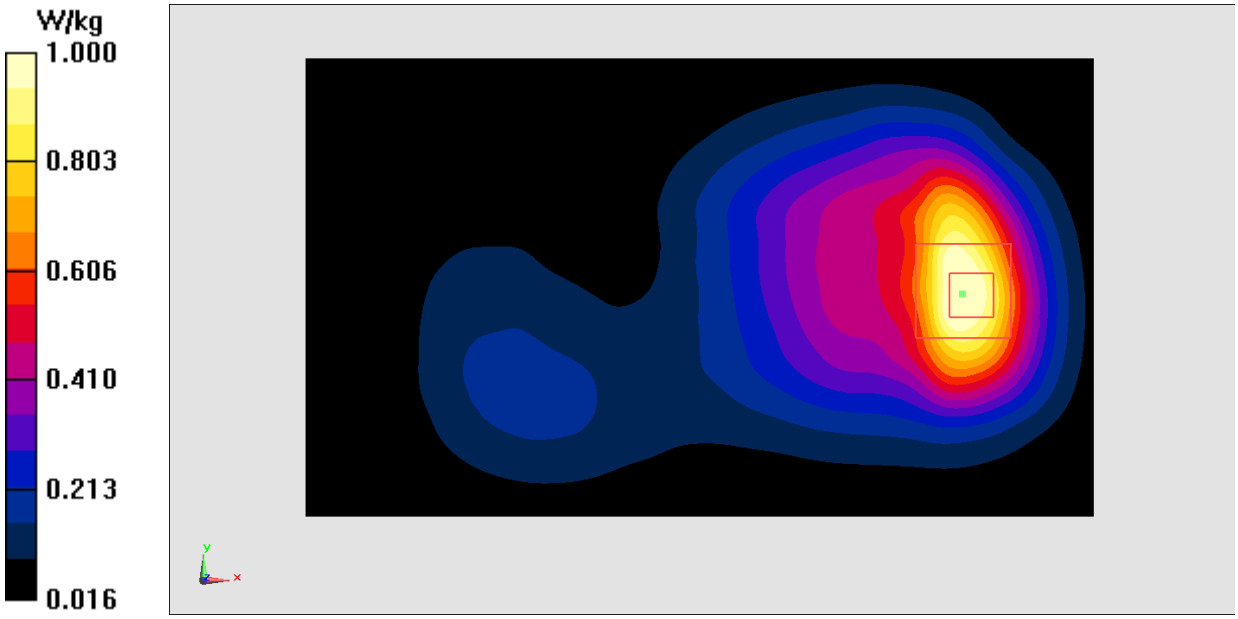


Fig.8 WCDMA1700

WCDMA 1900 Left Cheek High

Date: 2016-5-13
Electronics: DAE4 Sn777
Medium: Head 1900 MHz
Medium parameters used (interpolated): f = 1907.6 MHz; σ = 1.434 mho/m; εr = 39.85; ρ = 1000 kg/m^3
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) = 0.258 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.728 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.274 W/kg
SAR(1 g) = 0.177 W/kg; SAR(10 g) = 0.110 W/kg
Maximum value of SAR (measured) = 0.211 W/kg

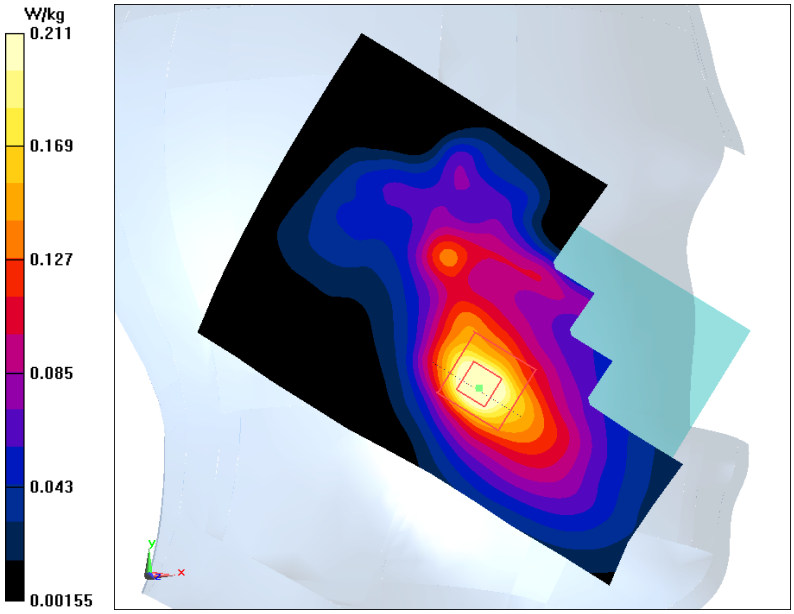


Fig.9 WCDMA1900

WCDMA 1900 Body Bottom High

Date: 2016-5-13
Electronics: DAE4 Sn777
Medium: Body 1900 MHz
Medium parameters used: f = 1907.6 MHz; σ = 1.511 mho/m; εr = 53.91; ρ = 1000 kg/m^3
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) = 1.05 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.51 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 1.29 W/kg
SAR(1 g) = 0.825 W/kg; SAR(10 g) = 0.471 W/kg
Maximum value of SAR (measured) = 0.987 W/kg

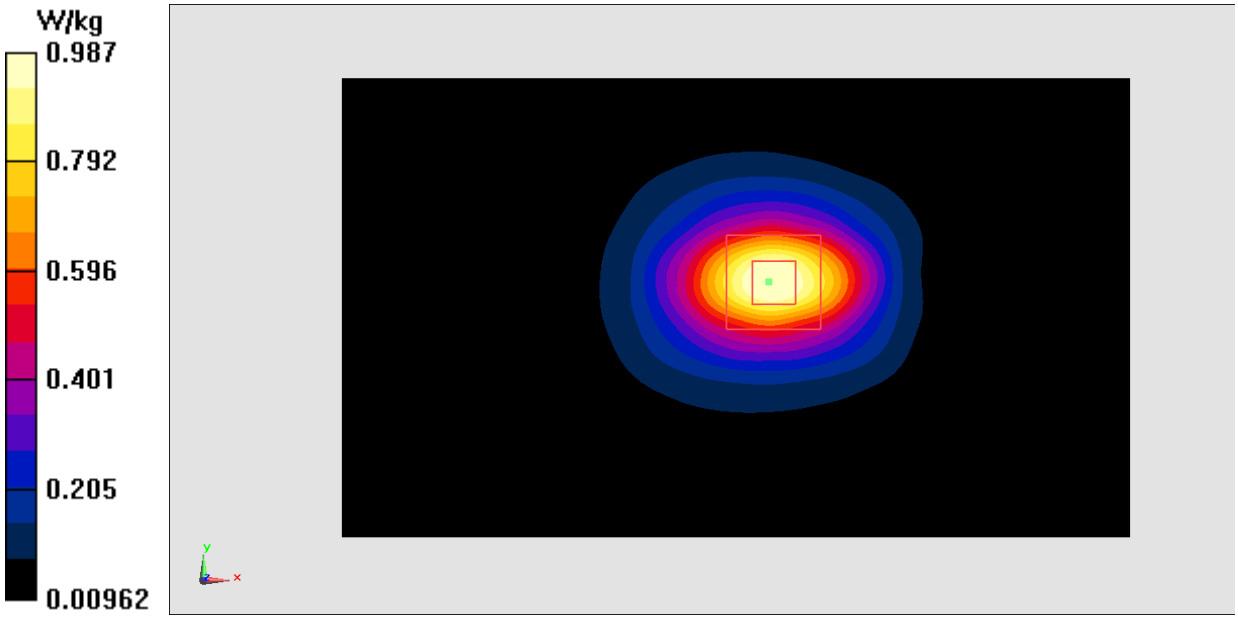


Fig.10 WCDMA1900

LTE Band2 Left Cheek High with QPSK_20M_1RB_Low
Date: 2016-5-13
Electronics: DAE4 Sn777
Medium: Head 1900 MHz
Medium parameters used: f = 1900 MHz; σ = 1.436 mho/m; εr = 39.88; ρ = 1000 kg/m^3
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 (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.404 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.907 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 0.552 W/kg
SAR(1 g) = 0.357 W/kg; SAR(10 g) = 0.216 W/kg
Maximum value of SAR (measured) = 0.421 W/kg

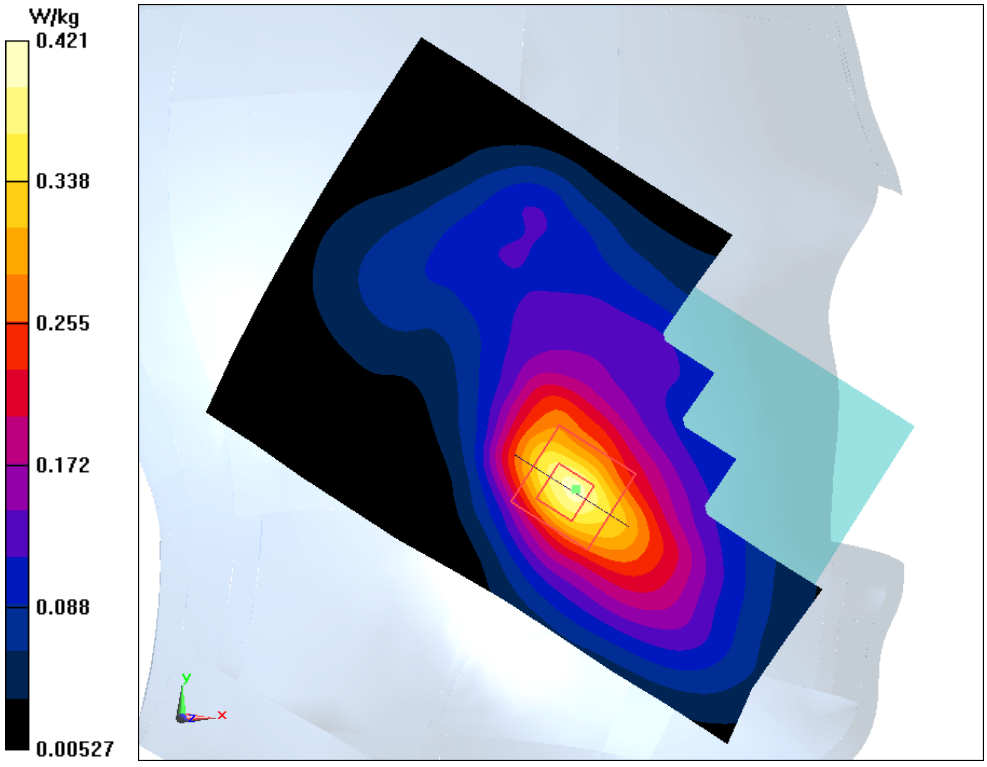


Fig.11 LTE Band2

LTE Band2 Body Bottom High with QPSK_20M_1RB_Low
Date: 2016-5-13
Electronics: DAE4 Sn777
Medium: Body 1900 MHz
Medium parameters used: f = 1900 MHz; σ = 1.561 mho/m; εr = 54.23; ρ = 1000 kg/m^3
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 (121x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.922 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 22.70 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 1.18 W/kg
SAR(1 g) = 0.763 W/kg; SAR(10 g) = 0.442 W/kg
Maximum value of SAR (measured) = 0.919 W/kg

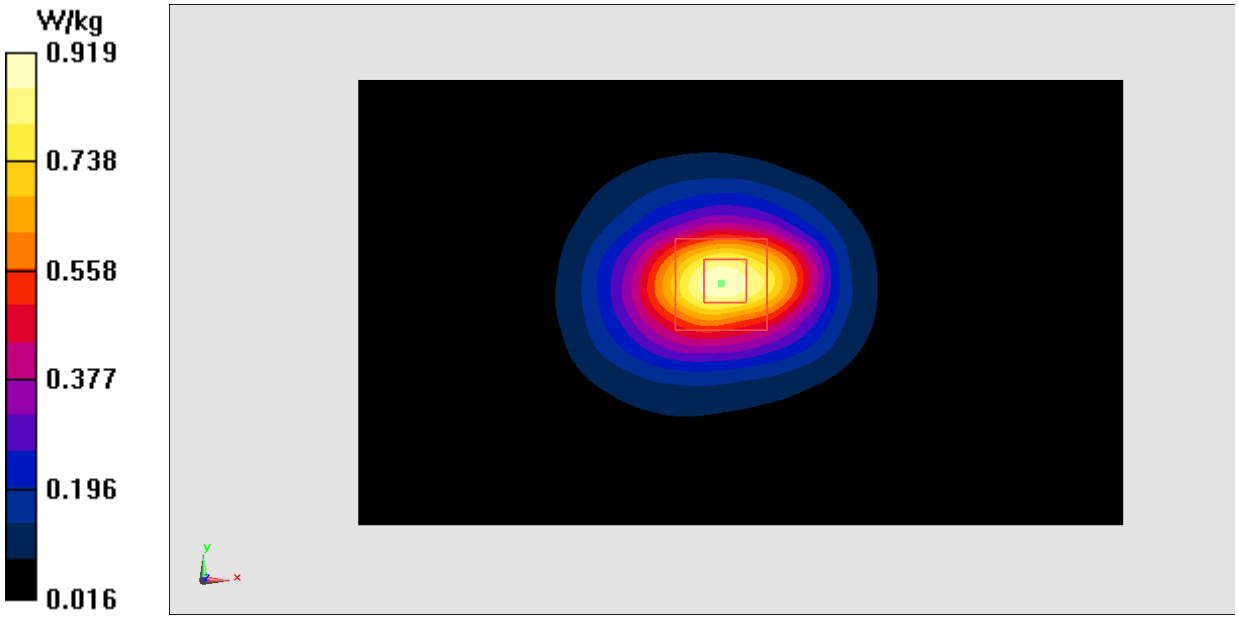


Fig.12 LTE Band2

LTE Band4 Right Cheek Low with QPSK_20M_1RB_Low
Date: 2016-5-12
Electronics: DAE4 Sn777
Medium: Head 1750 MHz
Medium parameters used: f = 1720 MHz; σ = 1.329 mho/m; εr = 41.36; ρ = 1000 kg/m^3
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(8.34, 8.34, 8.34)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.172 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.296 V/m; Power Drift = 0.06dB
Peak SAR (extrapolated) = 0.200 W/kg
SAR(1 g) = 0.134 W/kg; SAR(10 g) = 0.084 W/kg
Maximum value of SAR (measured) = 0.169 W/kg

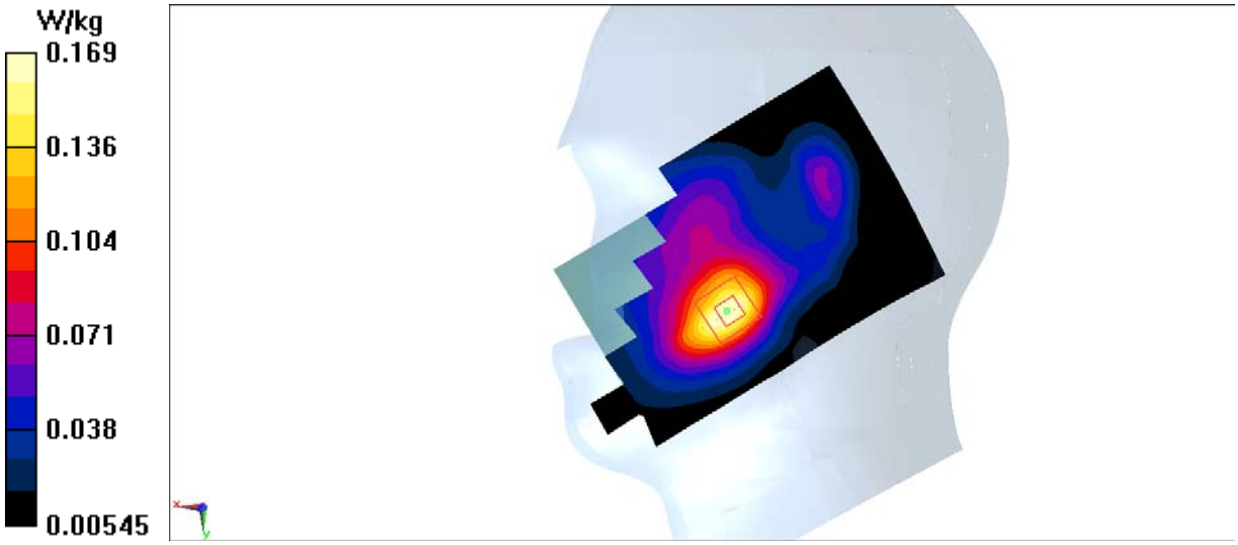


Fig.13 LTE Band4

LTE Band4 Body Rear Middle with QPSK_20M_1RB_Low
Date: 2016-5-12
Electronics: DAE4 Sn777
Medium: Body 1750 MHz
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.511 mho/m; εr = 52.94; ρ = 1000 kg/m^3
Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C
Communication System: LTE Band4 Frequency: 1732.5 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) = 0.856 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.687 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.82 W/kg
SAR(1 g) = 0.782 W/kg; SAR(10 g) = 0.380 W/kg
Maximum value of SAR (measured) = 0.945 W/kg

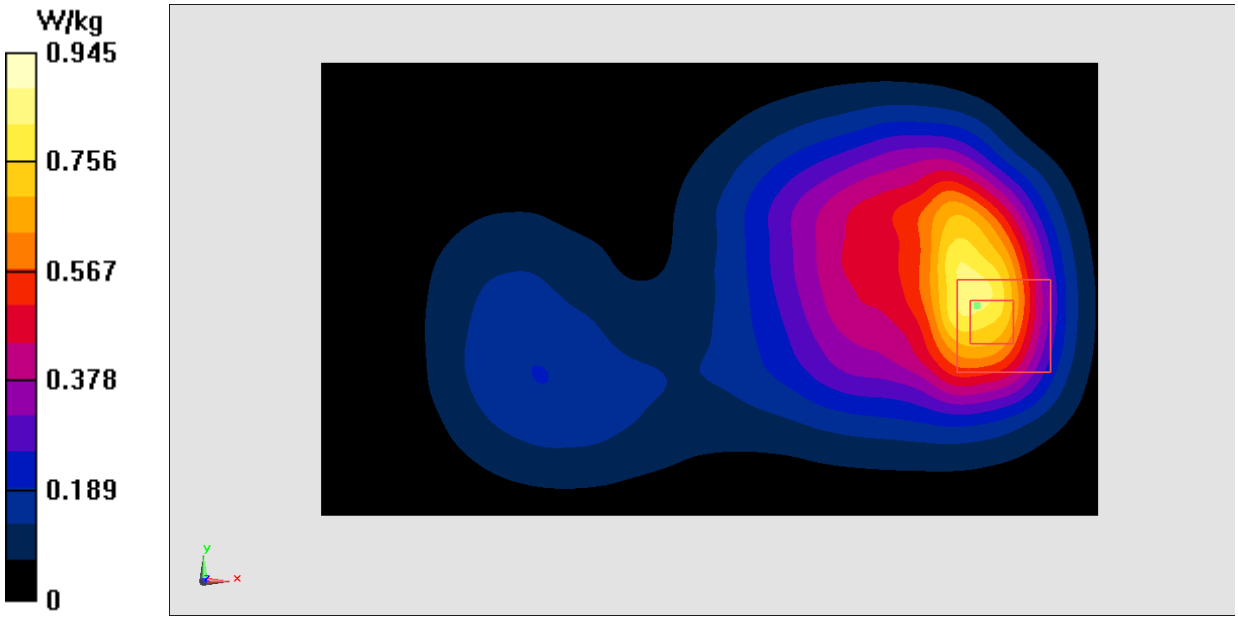


Fig.14 LTE Band4

LTE Band12 Right Cheek High with QPSK_10M_1RB_Middle

Date: 2016-5-10
Electronics: DAE4 Sn777
Medium: Head 750 MHz
Medium parameters used (interpolated): f = 711 MHz; σ = 0.875 mho/m; εr = 42.91; ρ = 1000 kg/m^3
Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C
Communication System: LTE Band12 Frequency: 711 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(7.21, 7.21, 7.21)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.130 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.637 V/m; Power Drift = 0.03dB
Peak SAR (extrapolated) = 0.139 W/kg
SAR(1 g) = 0.117 W/kg; SAR(10 g) = 0.093 W/kg
Maximum value of SAR (measured) = 0.130 W/kg

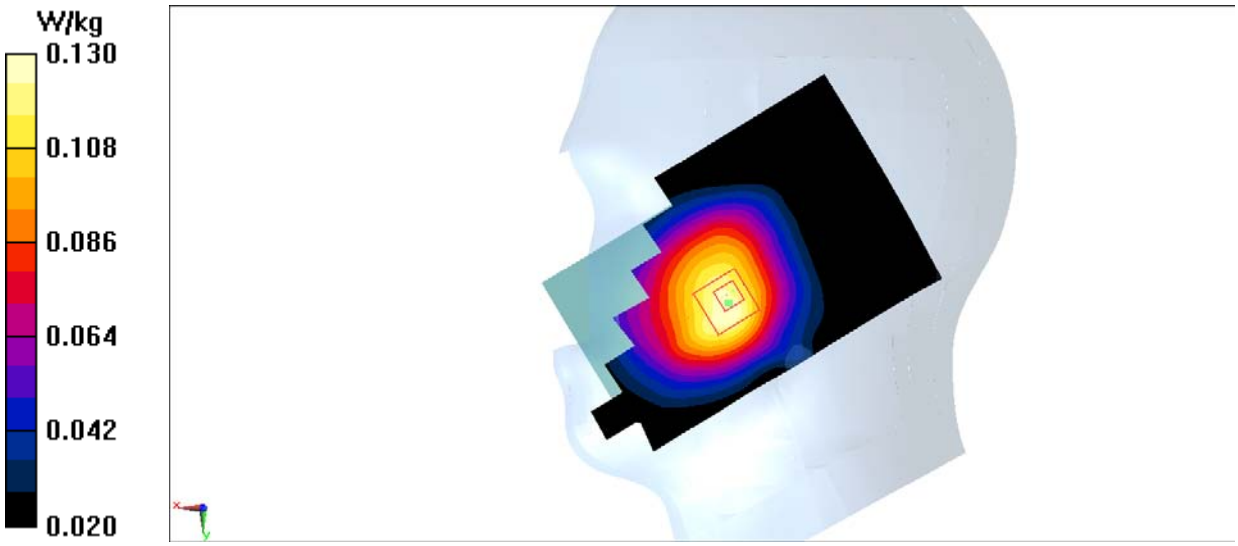


Fig.15 LTE Band12

LTE Band12 Body Rear High with QPSK_10M_1RB_Middle
Date: 2016-5-10
Electronics: DAE4 Sn777
Medium: Body 750 MHz
Medium parameters used (interpolated): f = 711 MHz; σ = 0.911 mho/m; εr = 57.21; ρ = 1000 kg/m^3
Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C
Communication System: LTE Band12 Frequency: 711 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(7.20, 7.20, 7.20)

Area Scan (121x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.371 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.25 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.513 W/kg
SAR(1 g) = 0.293 W/kg; SAR(10 g) = 0.176 W/kg
Maximum value of SAR (measured) = 0.367 W/kg

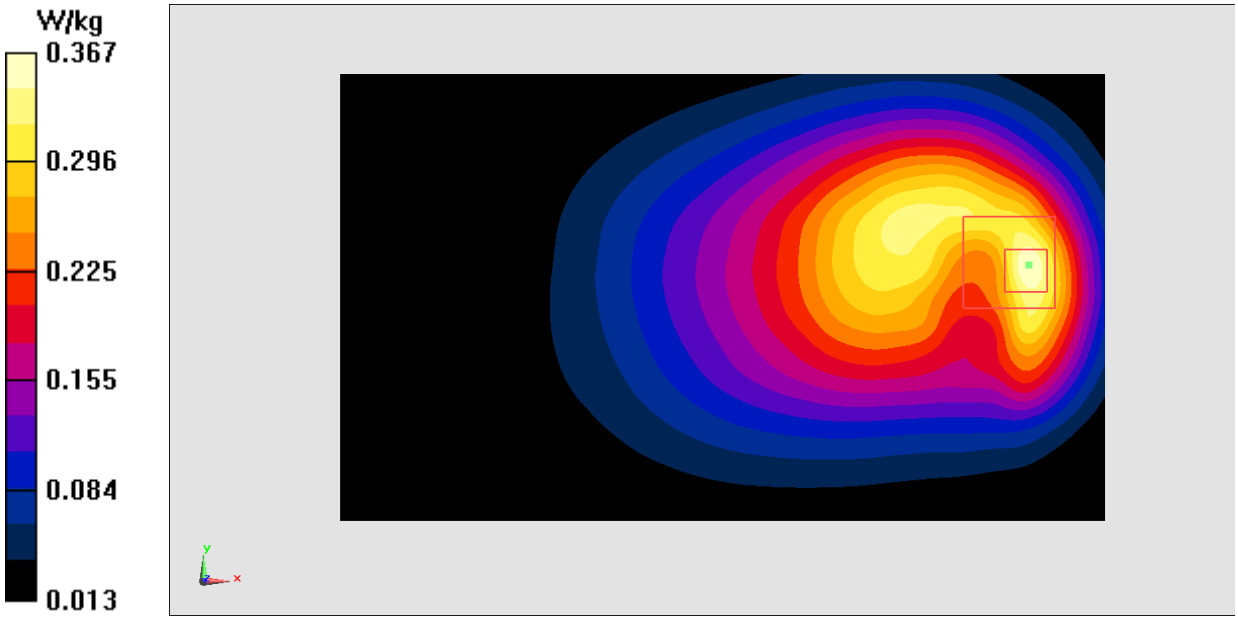


Fig.16 LTE Band12

ANNEX J New Battery Assessment

Battery: CAB2000060C1

Table J-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.										
824.2	128	Right	Touch	/	32.55	33.8	0.19	**0.25**	0.244	**0.33**	0.03

Table J-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.										
824.2	128	GPRS (2)	Rear	/	30.46	32	0.468	**0.67**	0.590	**0.84**	-0.04

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

Table J-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	/	29.44	30.8	0.170	**0.23**	0.107	**0.15**	-0.10

Table J-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 (2)	Bottom	/	27.38	29	0.341	**0.50**	0.586	**0.85**	-0.06

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

Table J-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	Right	Touch	/	24.09	25	0.214	**0.26**	0.272	**0.34**	0.04

Table J-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.									
826.4	4132	Rear	/	24.09	25	0.220	**0.27**	0.380	**0.47**	-0.03

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

Table J-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	Right	Touch	/	24.61	25	0.126	**0.14**	0.197	**0.22**	0.02

Table J-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.									
1752.6	1513	Rear	/	24.61	25	0.469	**0.51**	0.779	**0.85**	0.04

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

Table J-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.										
1907.6	9538	Left	Touch	/	24.49	24.5	0.346	**0.35**	0.213	**0.21**	0.10

Table J-10: SAR Values (WCDMA 1900 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.									
1907.6	9538	Bottom	/	24.49	24.5	0.411	**0.41**	0.716	**0.72**	0.02

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

Table J-11: 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_Low	Left	Touch	/	22.82	23.8	0.305	**0.38**	0.187	**0.23**	0.09

Note1: The LTE mode is QPSK_20MHz.

Table J-12: SAR Values (LTE Band2 - 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.											
1900	19100	1RB_Low	Bottom	/	22.82	23.8	0.414	**0.52**	0.745	**0.93**	0.05	

Note1: The distance between the EUT and the phantom bottom is 10mm.
Note2: The LTE mode is QPSK_20MHz.

Table J-13: 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.											
1720	20050	1RB_Low	Right	Touch	/	23.09	23.8	0.089	**0.10**	0.138	**0.16**	0.04

Note1: The LTE mode is QPSK_20MHz.

Table J-14: 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.										
1732.5	20175	1RB_Low	Rear	/	23.08	23.8	0.406	**0.48**	0.670	**0.79**	0.07

Note1: The distance between the EUT and the phantom bottom is 10mm.
Note2: The LTE mode is QPSK_20MHz.

Table J-15: 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.											
711	23130	1RB_Mid	Right	Touch	/	23.22	23.8	0.115	**0.13**	0.117	**0.13**	0.09

Note1: The LTE mode is QPSK_10MHz.

Table J-16: 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.											
711	23130	1RB_Mid	Rear	/	23.22	23.8	0.245	**0.28**	0.313	**0.36**	0.04	

Note1: The distance between the EUT and the phantom bottom is 10mm.
Note2: The LTE mode is QPSK_10MHz.

Table J-19: SAR Values (WLAN - Head) – 802.11b 1Mbps (Full SAR)

Ambient Temperature: 22.5 °C						Liquid Temperature: 22.0 °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	Left	Tilt	/	19.19	20	0.256	**0.31**	0.634	**0.76**	0.06

Table J-20: SAR Values (WLAN - Body) – 802.11b 1Mbps (Full SAR)

Ambient Temperature: 22.5 °C						Liquid Temperature: 22.0 °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.										
2437	6	Rear	/	19.19	20	0.189	**0.23**	0.438	**0.53**	0.08	

ANNEX K Accreditation Certificate

China National Accreditation Service for Conformity Assessment

LABORATORY ACCREDITATION CERTIFICATE

(No. CNAS L0570)

Telecommunication Technology Labs,

Academy of Telecommunication Research, MIIT

No.52, Huayuan North Road, Haidian District, Beijing, China

No.51, Xueyuan Road, Haidian District, Beijing, China

to 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.

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.

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

China National Accreditation Service for Conformity Assessment (CNAS) is authorized by Certification and Accreditation Administration of the People's Republic of China (CNCA) to operate the national accreditation schemes for conformity assessment. CNAS is the signatory to International Laboratory Accreditation Cooperation Mutual Recognition Arrangement (ILAC MRA) and Asia Pacific Laboratory Accreditation Cooperation Mutual Recognition Arrangement (APLAC MRA).

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