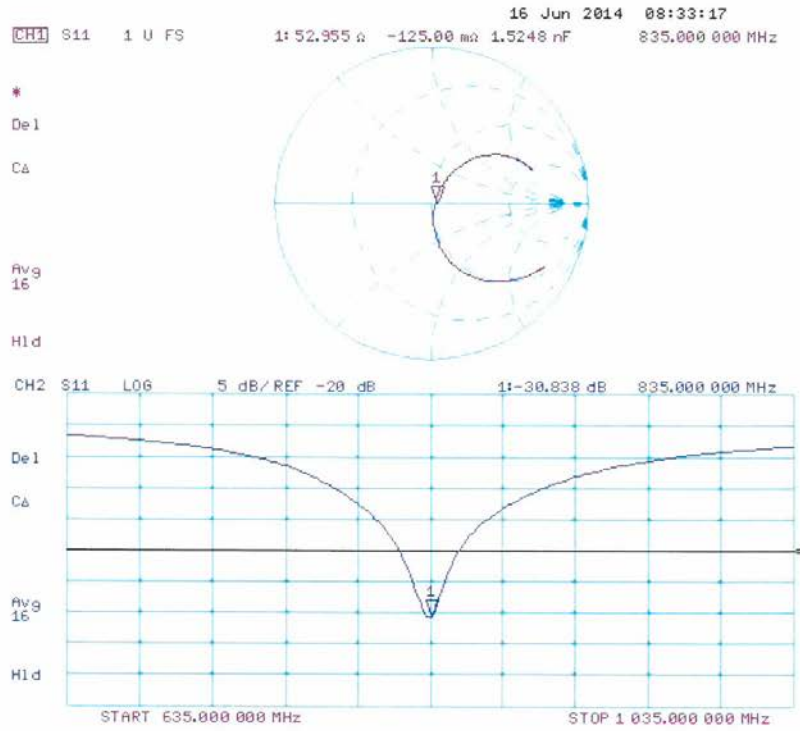


Impedance Measurement Plot for Head TSL



**DASY5 Validation Report for Body TSL**

Date: 12.06.2014

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN: 4d120**

Communication System: UID 0 - CW; Frequency: 835 MHz

Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 1.005 \text{ S/m}$ ;  $\epsilon_r = 55.2$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

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

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(6.09, 6.09, 6.09); Calibrated: 30.12.2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.04.2014
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

**Dipole Calibration for Body Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:**

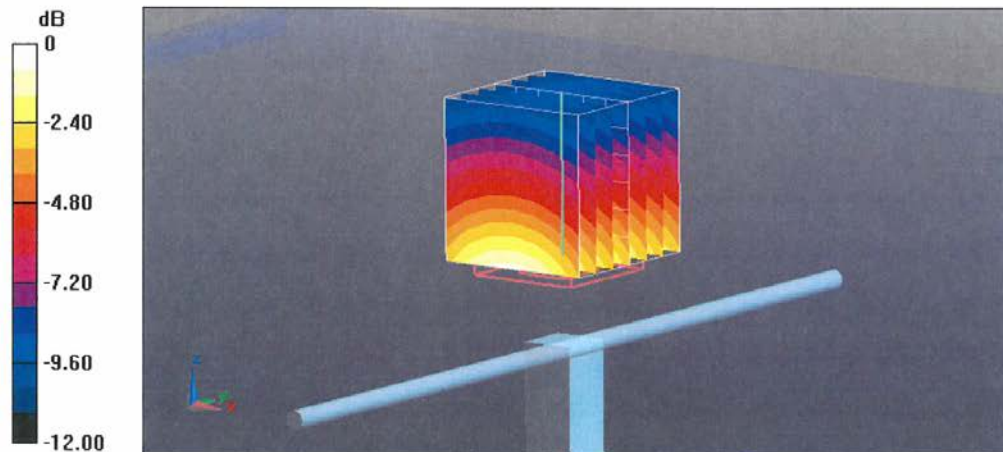
Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 55.04 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 3.61 W/kg

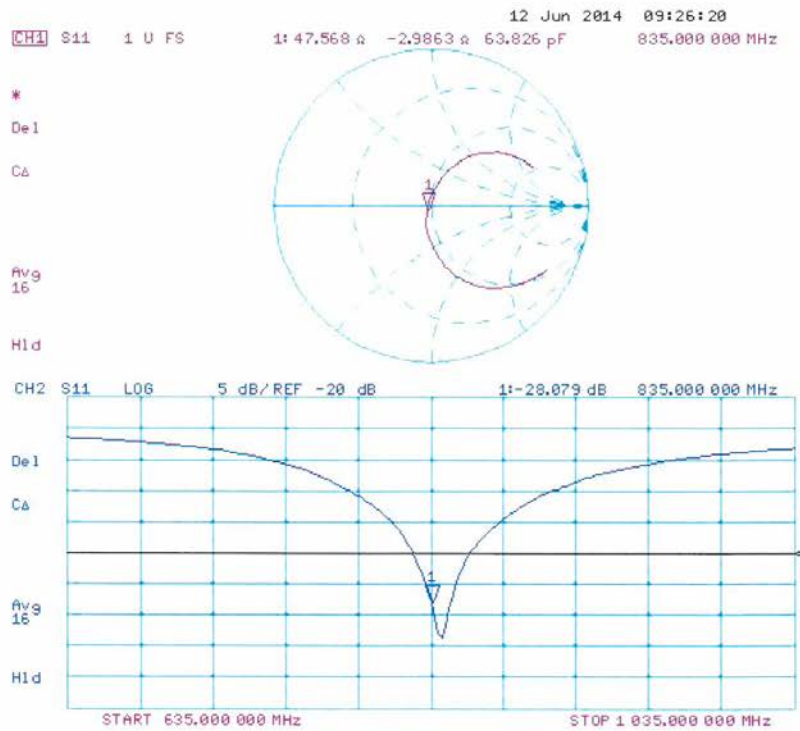
**SAR(1 g) = 2.43 W/kg; SAR(10 g) = 1.59 W/kg**

Maximum value of SAR (measured) = 2.84 W/kg



0 dB = 2.84 W/kg = 4.53 dBW/kg

### Impedance Measurement Plot for Body TSL



1900 MHz Dipole Calibration Certificate for 2014

**Calibration Laboratory of**  
Schmid & Partner  
Engineering AG  
Zeughausstrasse 43, 8004 Zurich, Switzerland



**S** Schweizerischer Kalibrierdienst  
**C** Service suisse d'étalonnage  
**S** Servizio svizzero di taratura  
**S** Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)  
The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Client **Auden**

Certificate No: **D1900V2-5d018\_Jun14**

**CALIBRATION CERTIFICATE**

Object **D1900V2 - SN: 5d018**

Calibration procedure(s) **QA CAL-05.v9  
Calibration procedure for dipole validation kits above 700 MHz**

Calibration date: **June 18, 2014**

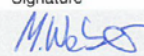

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).  
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature  $(22 \pm 3)^\circ\text{C}$  and humidity  $< 70\%$ .

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	09-Oct-13 (No. 217-01827)	Oct-14
Power sensor HP 8481A	US37292783	09-Oct-13 (No. 217-01827)	Oct-14
Power sensor HP 8481A	MY41092317	09-Oct-13 (No. 217-01828)	Oct-14
Reference 20 dB Attenuator	SN: 5058 (20k)	03-Apr-14 (No. 217-01918)	Apr-15
Type-N mismatch combination	SN: 5047.2 / 06327	03-Apr-14 (No. 217-01921)	Apr-15
Reference Probe ES3DV3	SN: 3205	30-Dec-13 (No. ES3-3205_Dec13)	Dec-14
DAE4	SN: 601	30-Apr-14 (No. DAE4-601_Apr14)	Apr-15

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator R&S SMT-06	100005	04-Aug-99 (in house check Oct-13)	In house check: Oct-16
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-13)	In house check: Oct-14

	Name	Function	Signature
Calibrated by:	Michael Weber	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: June 18, 2014

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

**Calibration Laboratory of**  
Schmid & Partner  
Engineering AG  
Zeughausstrasse 43, 8004 Zurich, Switzerland



**S** Schweizerischer Kalibrierdienst  
**S** Service suisse d'étalonnage  
**C** Servizio svizzero di taratura  
**S** Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)  
The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

**Glossary:**

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

**Calibration is Performed According to the Following Standards:**

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
- c) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

**Additional Documentation:**

- d) DASY4/5 System Handbook

**Methods Applied and Interpretation of Parameters:**

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor  $k=2$ , which for a normal distribution corresponds to a coverage probability of approximately 95%.

### Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.8.8
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	1900 MHz $\pm$ 1 MHz	

### Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	40.0	1.40 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	39.5 $\pm$ 6 %	1.39 mho/m $\pm$ 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

### SAR result with Head TSL

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	10.0 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	<b>40.1 W/kg <math>\pm</math> 17.0 % (k=2)</b>

SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
SAR measured	250 mW input power	5.26 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	<b>21.1 W/kg <math>\pm</math> 16.5 % (k=2)</b>

### Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	53.3	1.52 mho/m
Measured Body TSL parameters	(22.0 $\pm$ 0.2) °C	52.5 $\pm$ 6 %	1.51 mho/m $\pm$ 6 %
Body TSL temperature change during test	< 0.5 °C	----	----

### SAR result with Body TSL

SAR averaged over 1 cm <sup>3</sup> (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	9.94 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	<b>39.8 W/kg <math>\pm</math> 17.0 % (k=2)</b>

SAR averaged over 10 cm <sup>3</sup> (10 g) of Body TSL	condition	
SAR measured	250 mW input power	5.26 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	<b>21.0 W/kg <math>\pm</math> 16.5 % (k=2)</b>

**Appendix (Additional assessments outside the scope of SCS108)**

**Antenna Parameters with Head TSL**

Impedance, transformed to feed point	51.3 $\Omega$ + 2.5 j $\Omega$
Return Loss	- 31.1 dB

**Antenna Parameters with Body TSL**

Impedance, transformed to feed point	47.2 $\Omega$ + 2.9 j $\Omega$
Return Loss	- 27.6 dB

**General Antenna Parameters and Design**

Electrical Delay (one direction)	1.194 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

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

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

**Additional EUT Data**

Manufactured by	SPEAG
Manufactured on	June 04, 2002

**DASY5 Validation Report for Head TSL**

Date: 18.06.2014

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN: 5d018**

Communication System: UID 0 - CW; Frequency: 1900 MHz

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.39$  S/m;  $\epsilon_r = 39.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

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

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(5.06, 5.06, 5.06); Calibrated: 30.12.2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.04.2014
- 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:**

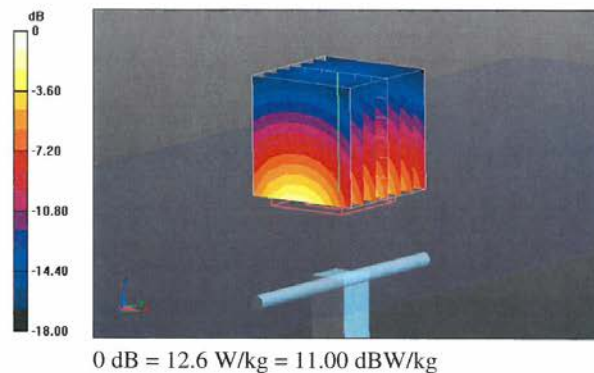
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 98.07 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 18.3 W/kg

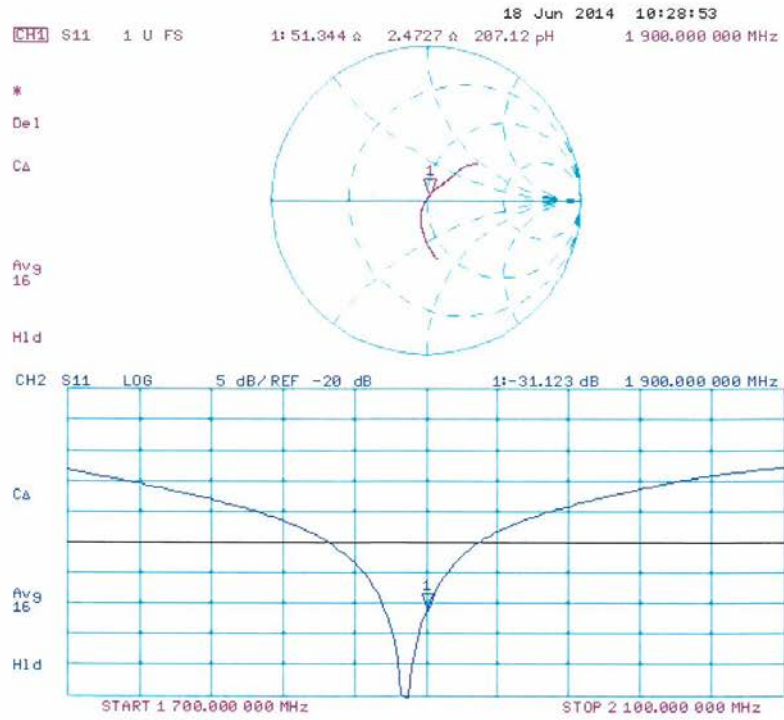
**SAR(1 g) = 10 W/kg; SAR(10 g) = 5.26 W/kg**

Maximum value of SAR (measured) = 12.6 W/kg





Impedance Measurement Plot for Head TSL



**DASY5 Validation Report for Body TSL**

Date: 18.06.2014

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN: 5d018**

Communication System: UID 0 - CW; Frequency: 1900 MHz

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.51$  S/m;  $\epsilon_r = 52.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

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

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(4.76, 4.76, 4.76); Calibrated: 30.12.2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.04.2014
- 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:**

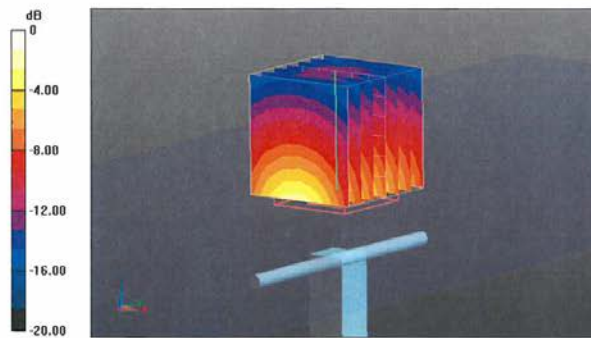
Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 94.36 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 17.3 W/kg

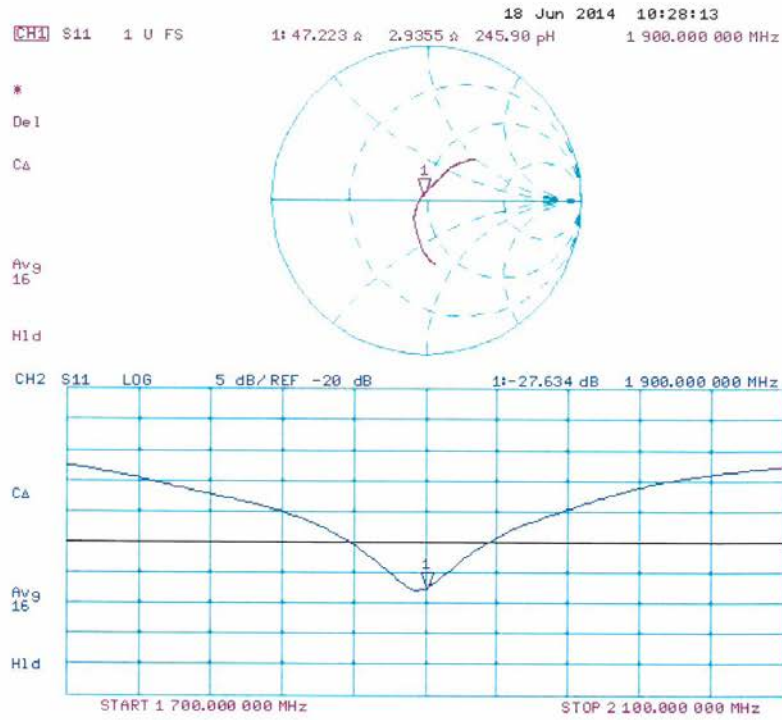
**SAR(1 g) = 9.94 W/kg; SAR(10 g) = 5.26 W/kg**

Maximum value of SAR (measured) = 12.5 W/kg



0 dB = 12.5 W/kg = 10.97 dBW/kg

Impedance Measurement Plot for Body TSL



## ANNEX I SPOT CHECK TEST

As the test lab for 4037A from TCT Mobile Limited, we, TMC Beijing, 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 Internal Identification of EUT used during the spot check test

EUT ID*	IMEI	HW Version	SW Version
EUT1	014104000200075	PIO	v9H26

\*EUT ID: is used to identify the test sample in the lab internally.

### I.2 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)
	32.47	\	\
GSM 1900MHz	Conducted Power (dBm)		
	Channel 810(1909.8MHz)	Channel 661(1880MHz)	Channel 512(1850.2MHz)
	28.79	\	\

**Table I.2: The conducted power results for GPRS**

GSM 850 GPRS (GMSK)	Measured Power (dBm)		
	251	190	128
<b>2 Txslots</b>	29.63	\	\
PCS1900 GPRS (GMSK)	Measured Power (dBm)		
	810	661	512
<b>4 Txslots</b>	\	\	23.05

**Table I.3: The conducted power results for WCDMA**

Item	band	FDD V result		
	ARFCN	4233 (846.6MHz)	4182 (836.4MHz)	4132 (826.4MHz)
WCDMA	\	23.00	\	\
Item	band	FDD II result		
	ARFCN	9538 (1907.6MHz)	9400 (1880MHz)	9262 (1852.4MHz)
WCDMA	\	22.44	\	22.35

### I.3 Measurement results

#### SAR Values (GSM 850 MHz Band - Head)

Frequency		Side	Test Position	Battery Type	SAR(1g) (W/kg)	
MHz	Ch.				Original data	Spot check data
848.8	251	Left	Touch	CAB60B0004C1	0.697	0.629

#### SAR Values (GSM 850 MHz Band - Body)

Frequency		Mode/Band	Test Position	Spacing (mm)	Battery Type	SAR(1g) (W/kg)	
MHz	Ch.					Original data	Spot check data
848.8	251	GPRS	Rear	10	CAB60B0004C1	0.852	0.820

#### SAR Values (PCS 1900 MHz Band - Head)

Frequency		Side	Test Position	Battery Type	SAR(1g) (W/kg)	
MHz	Ch.				Original data	Spot check data
1909.8	810	Left	Touch	CAB60B0004C1	0.362	0.213

#### SAR Values (PCS 1900 MHz Band - Body)

Frequency		Mode/Band	Test Position	Spacing (mm)	Battery Type	SAR(1g) (W/kg)	
MHz	Ch.					Original data	Spot check data
1850.2	512	GPRS	Front	10	CAB60B0004C1	0.660	0.352

#### SAR Values (WCDMA 850 MHz Band - Head)

Frequency		Side	Test Position	Battery Type	SAR(1g) (W/kg)	
MHz	Ch.				Original data	Spot check data
846.6	4233	Left	Touch	CAB60B0004C1	0.713	0.638

#### SAR Values (WCDMA 850 MHz Band - Body)

Frequency		Test Position	Spacing (mm)	Battery Type	SAR(1g) (W/kg)	
MHz	Ch.				Original data	Spot check data
846.6	4233	Rear	10	CAB60B0004C1	0.867	0.812

#### SAR Values (WCDMA 1900 MHz Band - Head)

Frequency		Side	Test Position	Battery Type	SAR(1g) (W/kg)	
MHz	Ch.				Original data	Spot check data
1907.6	9538	Right	Touch	CAB60B0004C1	0.654	0.626

#### SAR Values (WCDMA 1900 MHz Band - Body)

Frequency		Test Position	Spacing (mm)	Battery Type	SAR(1g) (W/kg)	
MHz	Ch.				Original data	Spot check data
1852.4	9262	Rear	10	CAB60B0004C1	1.02	0.960

**I.4 Reported SAR Comparison**

Exposure Configuration	Technology Band	Reported SAR 1g (W/Kg): original	Reported SAR 1g (W/Kg): spot check
Head (Separation Distance 0mm)	GSM 850	0.82	0.76
	PCS 1900	0.51	0.30
	UMTS FDD 2	0.70	0.63
	UMTS FDD 5	0.79	0.64
Body-worn (Separation Distance 10mm)	GSM 850	0.92	0.89
	PCS 1900	0.73	0.44
	UMTS FDD 2	1.14	0.99
	UMTS FDD 5	0.96	0.81

## I.5 Graphic results

### 850 Left Cheek High

Date: 2014-7-14

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated):  $f = 848.8$  MHz;  $\sigma = 0.907$  S/m;  $\epsilon_r = 42.362$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.3°C      Liquid Temperature: 21.8°C

Communication System: GSM 850 Frequency: 848.8 MHz Duty Cycle: 1:8.3

Probe: EX3DV4 - SN3846 ConvF(8.92, 8.92, 8.92)

**Cheek High/Area Scan (61x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

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

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

Reference Value = 12.451 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 0.759 W/kg

**SAR(1 g) = 0.629 W/kg; SAR(10 g) = 0.483 W/kg**

Maximum value of SAR (measured) = 0.660 W/kg

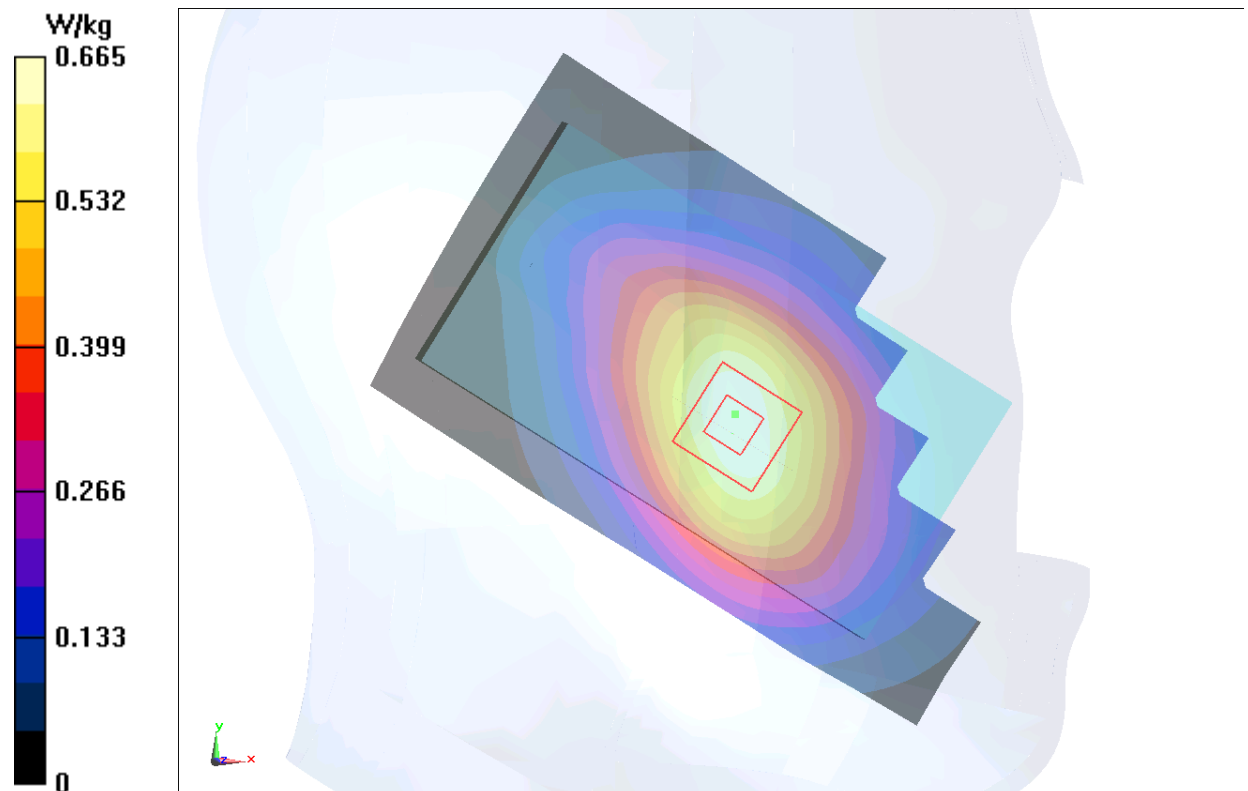


Fig.I.1 850MHz CH251

### 850 Body Rear High

Date: 2014-7-14

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used (interpolated):  $f = 848.8$  MHz;  $\sigma = 0.974$  S/m;  $\epsilon_r = 54.429$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.3°C      Liquid Temperature: 21.8°C

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

Probe: EX3DV4 - SN3846 ConvF(8.73, 8.73, 8.73)

**Rear High/Area Scan (61x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.868 W/kg

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

Reference Value = 28.696 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 1.13 W/kg

**SAR(1 g) = 0.820 W/kg; SAR(10 g) = 0.632 W/kg**

Maximum value of SAR (measured) = 0.880 W/kg

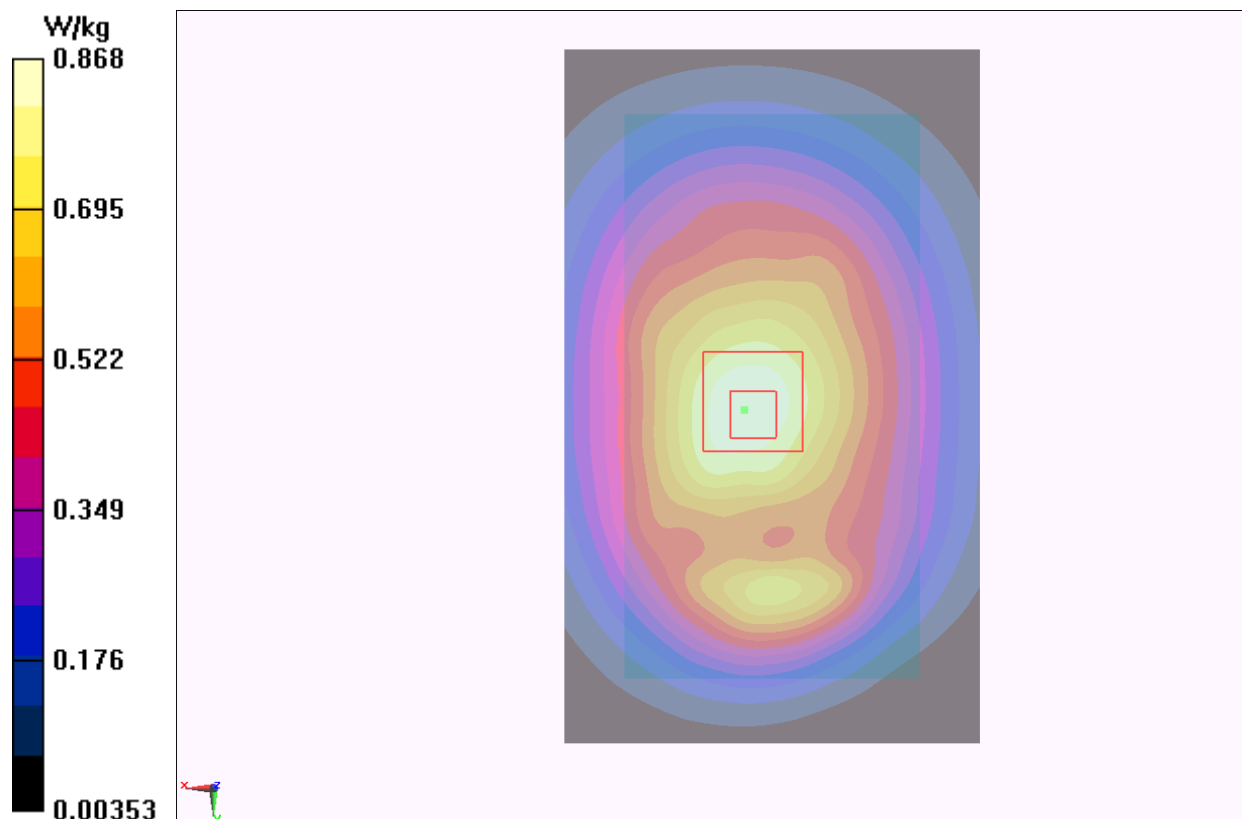


Fig.I.2 850 MHz CH251



### GSM1900 Left Cheek High

Date: 2014-7-15

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used:  $f = 1910$  MHz;  $\sigma = 1.43$  S/m;  $\epsilon_r = 41.024$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.3°C      Liquid Temperature: 21.8°C

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

Probe: EX3DV4 - SN3846 ConvF(7.57, 7.57, 7.57)

**Cheek High/Area Scan (61x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.241 W/kg

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

Reference Value = 6.752 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.312 W/kg

**SAR(1 g) = 0.213 W/kg; SAR(10 g) = 0.137 W/kg**

Maximum value of SAR (measured) = 0.222 W/kg

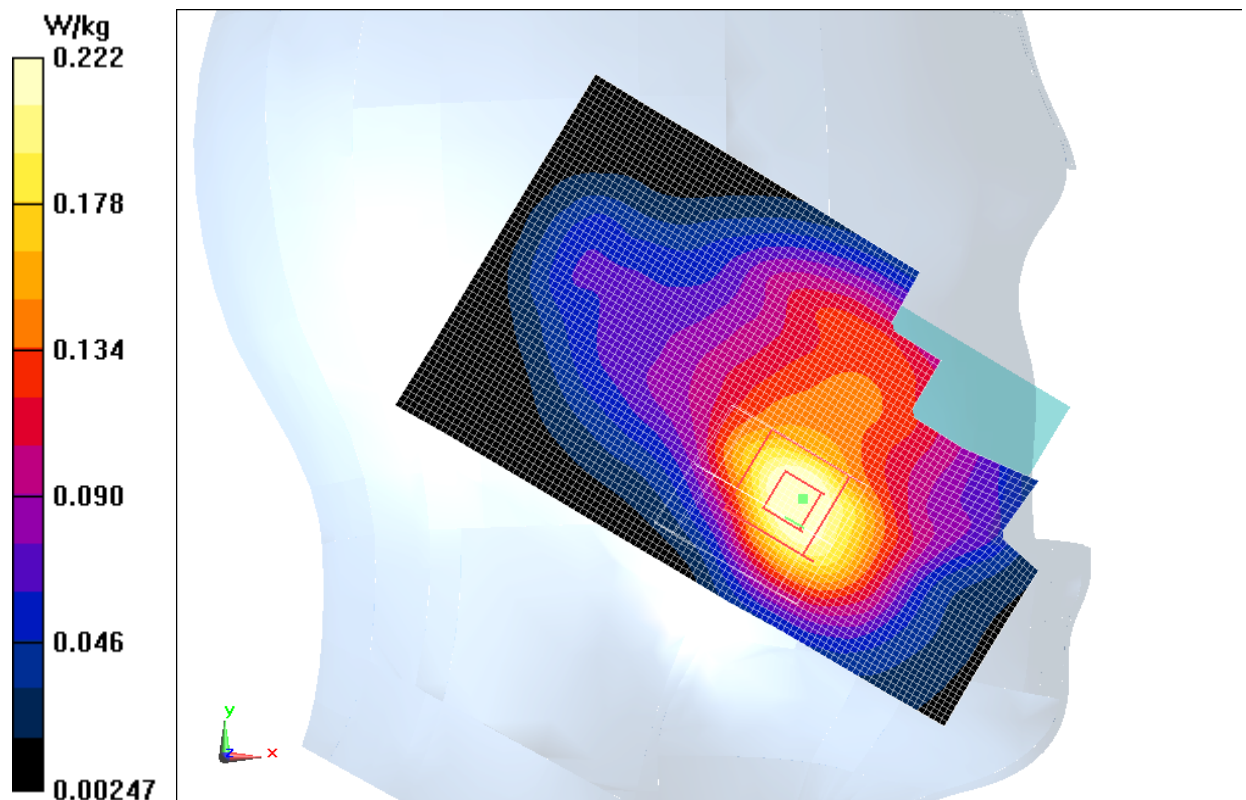


Fig.I.3 1900 MHz CH810

### GSM1900 Body Front Low

Date: 2014-7-15

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used (interpolated):  $f = 1850.2$  MHz;  $\sigma = 1.463$  S/m;  $\epsilon_r = 52.308$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.3°C      Liquid Temperature: 21.8°C

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

Probe: EX3DV4 - SN3846 ConvF(7.03, 7.03, 7.03)

**Front Low/Area Scan (61x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.395 W/kg

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

Reference Value = 6.667 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 0.518 W/kg

**SAR(1 g) = 0.352 W/kg; SAR(10 g) = 0.230 W/kg**

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

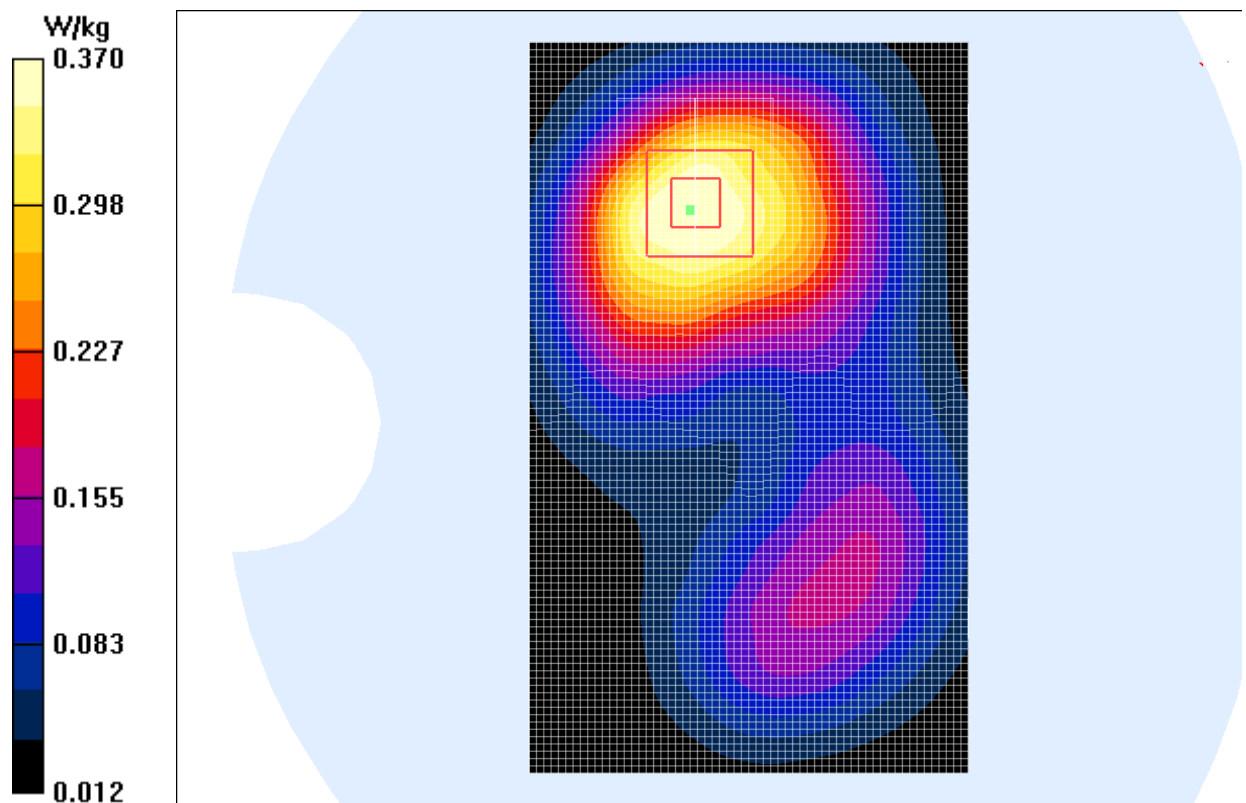


Fig.I.4 1900 MHz CH512

### WCDMA 850 Left Cheek High

Date: 2014-7-14

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated):  $f = 846.6$  MHz;  $\sigma = 0.904$  S/m;  $\epsilon_r = 42.39$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.3°C      Liquid Temperature: 21.8°C

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

Probe: EX3DV4 - SN3846 ConvF(8.92, 8.92, 8.92)

**Cheek High/Area Scan (61x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.660 W/kg

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

Reference Value = 9.679 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.801 W/kg

**SAR(1 g) = 0.638 W/kg; SAR(10 g) = 0.482 W/kg**

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

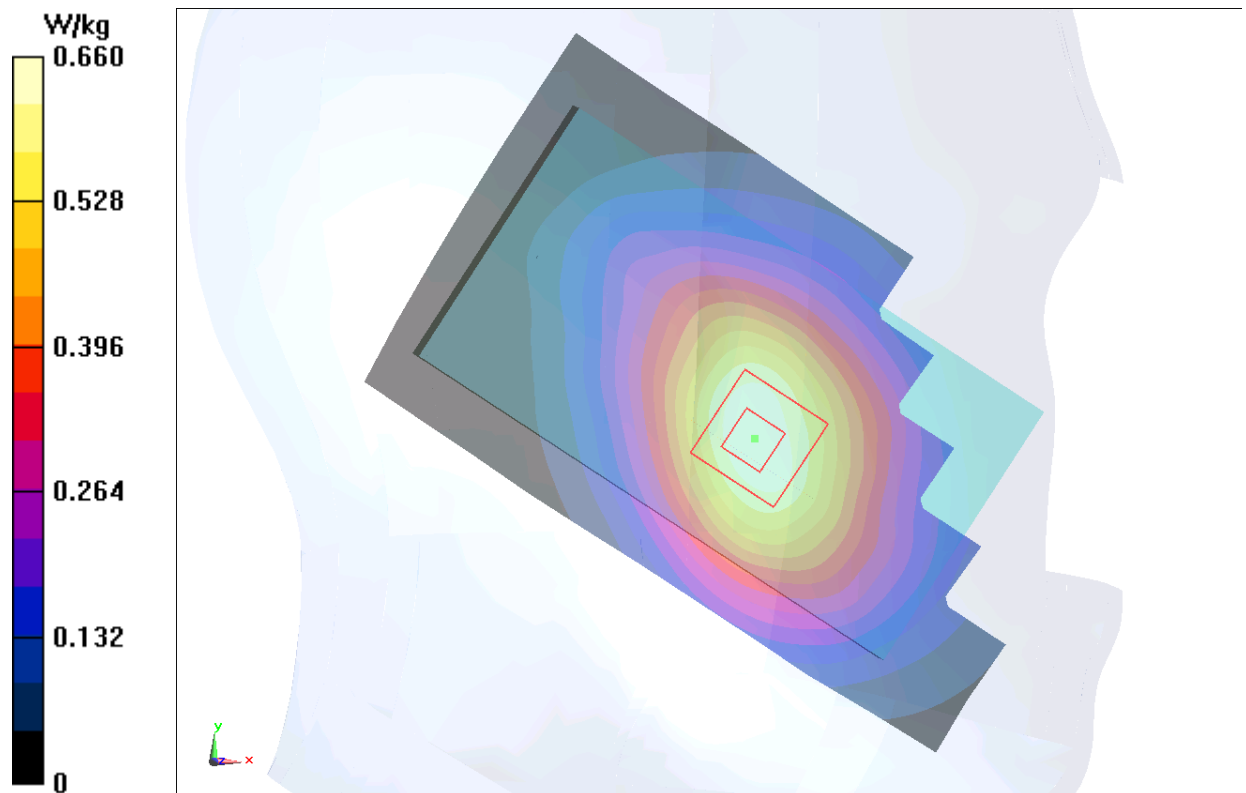


Fig.I.5 WCDMA 850 CH4233

### WCDMA 850 Body Rear High

Date: 2014-7-14

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used (interpolated):  $f = 846.6$  MHz;  $\sigma = 0.972$  S/m;  $\epsilon_r = 54.456$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.3°C      Liquid Temperature: 21.8°C

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

Probe: EX3DV4 - SN3846 ConvF(8.73, 8.73, 8.73)

**Rear High/Area Scan (61x111x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

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

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

Reference Value = 27.901 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.890 W/kg

**SAR(1 g) = 0.812 W/kg; SAR(10 g) = 0.646 W/kg**

Maximum value of SAR (measured) = 0.856 W/kg

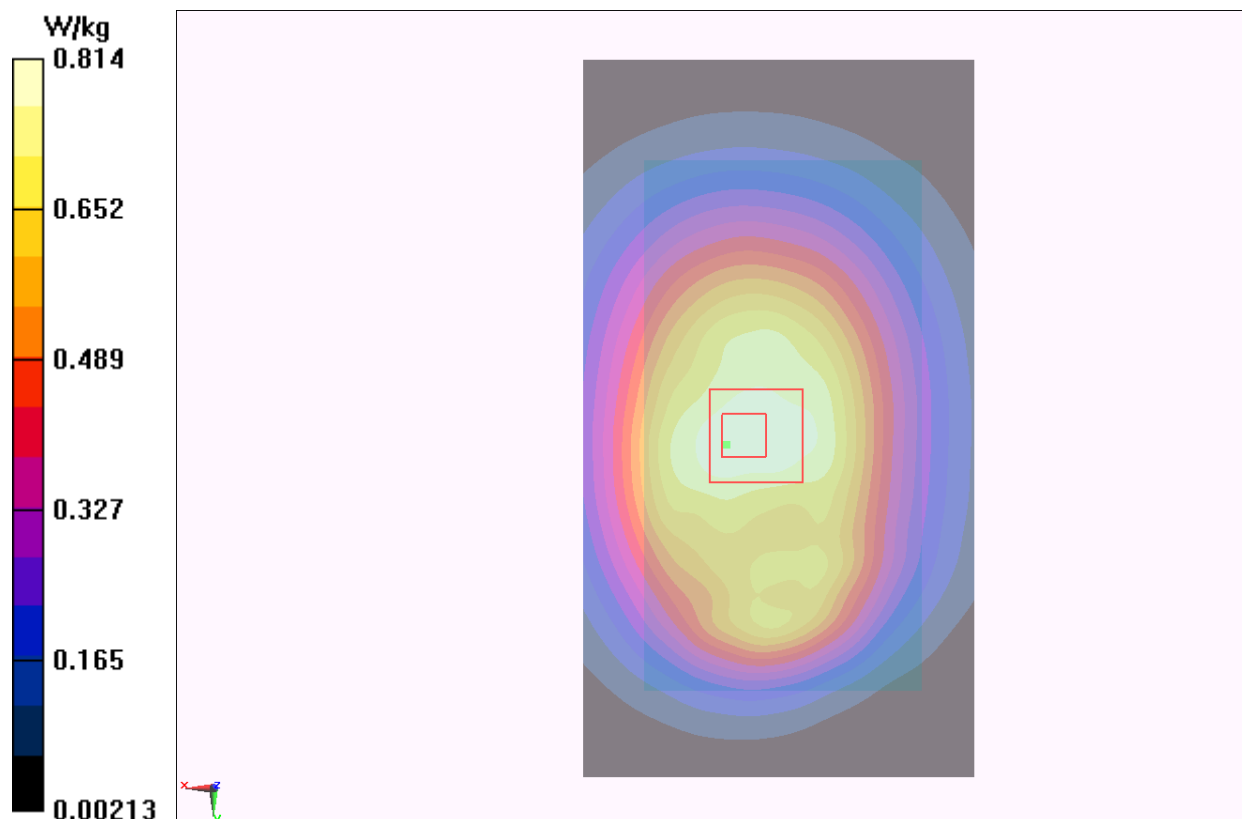


Fig.I.6 WCDMA 850 CH4233

### WCDMA 1900 Right Cheek High

Date: 2014-7-15

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used (interpolated):  $f = 1907.6$  MHz;  $\sigma = 1.427$  S/m;  $\epsilon_r = 41.037$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.3°C      Liquid Temperature: 21.8°C

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

Probe: EX3DV4 - SN3846 ConvF(7.57, 7.57, 7.57)

**Cheek High/Area Scan (61x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.716 W/kg

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

Reference Value = 10.376 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.919 W/kg

**SAR(1 g) = 0.626 W/kg; SAR(10 g) = 0.398 W/kg**

Maximum value of SAR (measured) = 0.672 W/kg

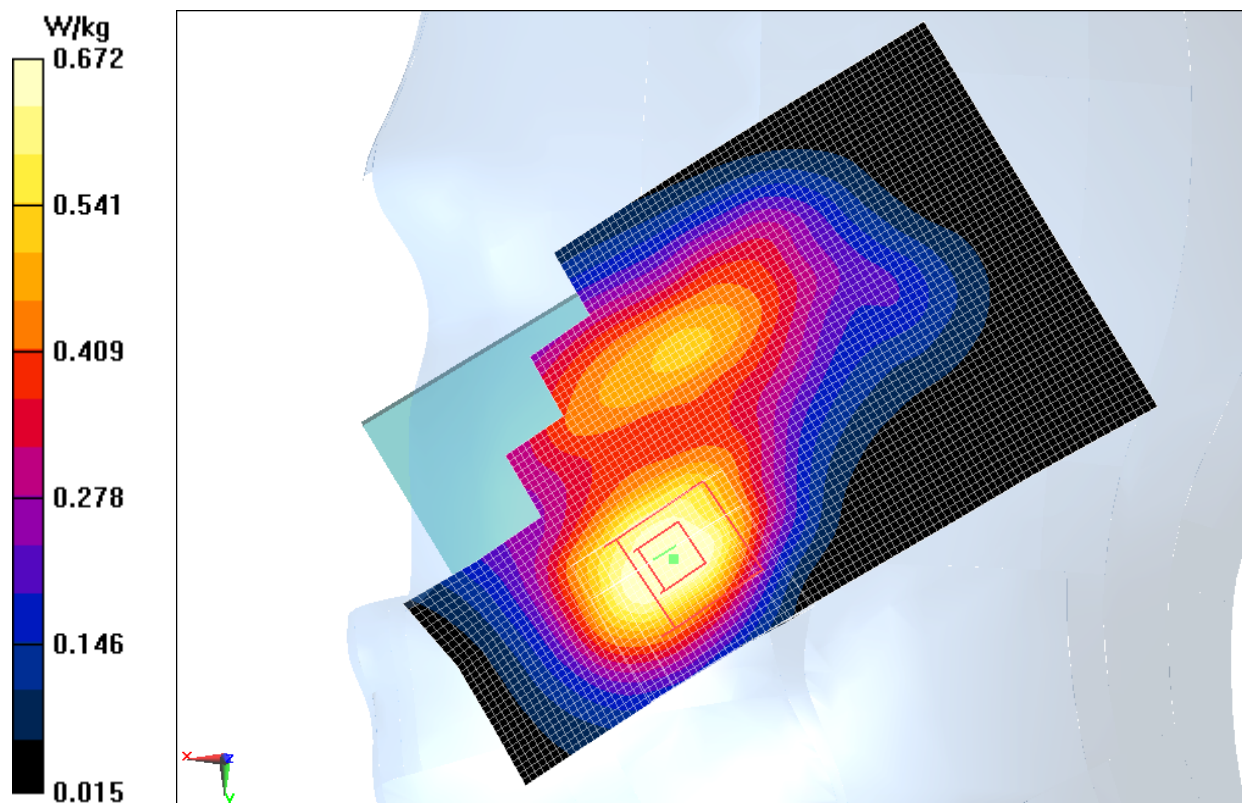


Fig.I.7 WCDMA1900 CH9538