

#### **Measurement Conditions**

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

DASY Version	DASY5	V52.10.1	
Extrapolation	Advanced Extrapolation		
Phantom	Modular Flat Phantom		
Distance Dipole Center - TSL	10 mm	with Spacer	
Zoom Scan Resolution	dx, dy, dz = 5 mm	•	
Frequency	2550 MHz ± 1 MHz		

#### **Head TSL parameters**

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	39.1	1.91 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	37.3 ± 6 %	1.97 mho/m ± 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	14.8 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	57.8 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
SAR measured	250 mW input power	6.73 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	26.5 W/kg ± 16.5 % (k=2)

Body TSL parameters
The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	52.6	2.09 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	51.5 ± 6 %	2.14 mho/m ± 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	13.7 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	54.0 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Body TSL	condition	
SAR measured	250 mW input power	6.22 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	24.7 W/kg ± 16.5 % (k=2)

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# Appendix (Additional assessments outside the scope of SCS 0108)

# Antenna Parameters with Head TSL

Impedance, transformed to feed point	54.9 Ω - 2.3 jΩ	
Return Loss	- 25.7 dB	

#### Antenna Parameters with Body TSL

Impedance, transformed to feed point	49.6 Ω - 2.0 jΩ	
Return Loss	- 33.8 dB	

### General Antenna Parameters and Design

Electrical Delay (one direction)	1.151 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	August 03, 2012		

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### **DASY5 Validation Report for Head TSL**

Date: 24.08.2018

Test Laboratory: SPEAG, Zurich, Switzerland

# DUT: Dipole 2550 MHz; Type: D2550V2; Serial: D2550V2 - SN:1010

Communication System: UID 0 - CW; Frequency: 2550 MHz

Medium parameters used: f = 2550 MHz;  $\sigma$  = 1.97 S/m;  $\epsilon_r$  = 37.3;  $\rho$  = 1000 kg/m³

Phantom section: Flat Section

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

#### DASY52 Configuration:

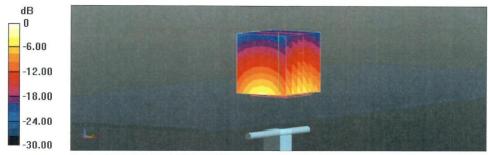
- Probe: EX3DV4 SN7349; ConvF(7.43, 7.43, 7.43) @ 2550 MHz; Calibrated: 30.12.2017
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 26.10.2017
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

#### 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 = 119.6 V/m; Power Drift = -0.07 dB Peak SAR (extrapolated) = 30.5 W/kg

#### SAR(1 g) = 14.8 W/kg; SAR(10 g) = 6.73 W/kg

Maximum value of SAR (measured) = 24.9 W/kg



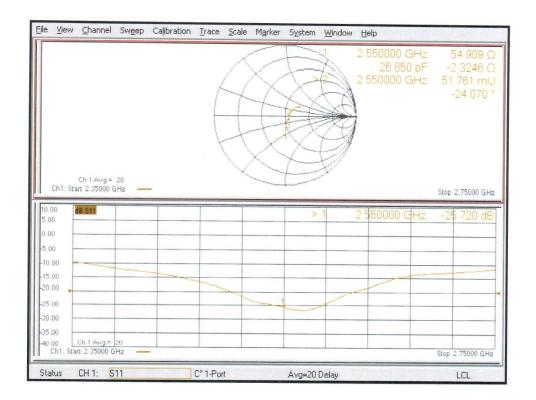
0 dB = 24.9 W/kg = 13.96 dBW/kg

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# Impedance Measurement Plot for Head TSL



Certificate No: D2550V2-1010\_Aug18



# DASY5 Validation Report for Body TSL

Date: 24.08.2018

Test Laboratory: SPEAG, Zurich, Switzerland

# DUT: Dipole 2550 MHz; Type: D2550V2; Serial: D2550V2 - SN:1010

Communication System: UID 0 - CW; Frequency: 2550 MHz

Medium parameters used: f = 2550 MHz;  $\sigma$  = 2.14 S/m;  $\epsilon_r$  = 51.5;  $\rho$  = 1000 kg/m³

Phantom section: Flat Section

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

#### DASY52 Configuration:

Probe: EX3DV4 - SN7349; ConvF(7.68, 7.68, 7.68) @ 2550 MHz; Calibrated: 30.12.2017

• Sensor-Surface: 1.4mm (Mechanical Surface Detection)

• Electronics: DAE4 Sn601; Calibrated: 26.10.2017

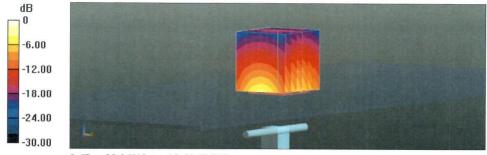
• Phantom: Flat Phantom 5.0 (back); Type: QD 000 P50 AA; Serial: 1002

• DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

# 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 = 109.2 V/m; Power Drift = -0.03 dB Peak SAR (extrapolated) = 27.9 W/kg

SAR(1 g) = 13.7 W/kg; SAR(10 g) = 6.22 W/kgMaximum value of SAR (measured) = 22.9 W/kg

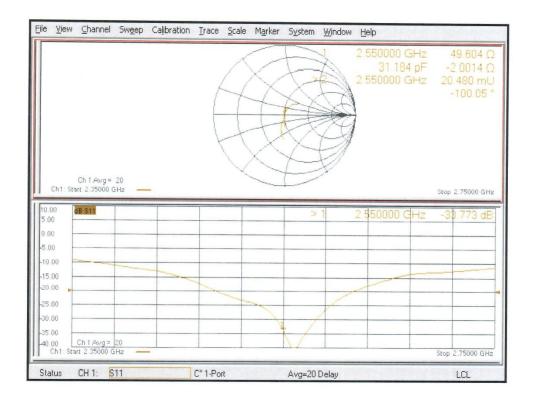


0 dB = 22.9 W/kg = 13.60 dBW/kg

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# Impedance Measurement Plot for Body TSL





# **ANNEX J: Extended Calibration SAR Dipole**

Referring to KDB865664 D01, if dipoles are verified in return loss (<-20dBm, within 20% of prior calibration), and in impedance (within 5 ohm of prior calibration), the annual calibration is not necessary and the calibration interval can be extended.

Justification of Extended Calibration SAR Dipole D750V3- serial no.1163

Head						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (johm)	Delta (johm)
2019-09-03	-26.9	/	50.5	/	-4.53	/
2020-09-01	-25.8	4.1	51.2	0.7	-4.29	0.24

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

	desirious of Extended Cambration Court Dipole Decevi2 Contained Table												
	Head												
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (johm)	Delta (johm)							
2018-10-09	-27.7	/	49.6	/	-4.08	/							
2019-10-06	-26.9	2.9	50.1	0.5	-3.95	0.13							
2020-10-05	-25.4	8.3	56.7	1.8	-2.15	0.15							

### Justification of Extended Calibration SAR Dipole D1750V2- serial no. 1152

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Head												
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (johm)	Delta (johm)						
2019-08-30	-38.1	/	49.1	/	-0.84	/						
2020-08-28	-36.5	4.2	50.2	1.1	-0.49	0.35						

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

	Head												
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (johm)	Delta (johm)							
2018-10-24	-23.2	/	52.7	/	6.63	/							
2019-10-22	-22.9	1.3	53.5	0.8	6.86	0.23							
2020-10-20	-20.7	10.8	54.4	1.7	6.95	0.32							



### Justification of Extended Calibration SAR Dipole D2450V2- serial no. 873

	Head											
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (johm)	Delta (johm)						
2018-10-26	-28.0	/	53.5	/	2.11	/						
2019-10-22	-27.3	2.5	54.4	0.9	2.29	0.18						
2020-10-20	-24.9	11.1	55.1	1.6	2.46	0.35						

### Justification of Extended Calibration SAR Dipole D2550V2- serial no.1010

			Head			
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (johm)	Delta (johm)
2018-08-24	-25.7	/	54.9	/	-2.30	/
2019-08-22	-24.8	3.5	55.8	0.9	-2.22	0.08
2020-08-20	-23.2	9.7	56.4	1.5	-2.13	0.17

The Return-Loss is <-20dB, and within 20% of prior calibration; the impedance is within 5 ohm of prior calibration. Therefore the value result should support extended cabration.



# **ANNEX K: Spot Check Test**

As the test lab for 4063F, 4163F from TCL Communication Ltd., we, Shenzhen Academy of Information and Communications Technology, declare on our sole responsibility that, according to "Justification Letter" provided by applicant, only the Spot check test should be performed. The test results are as below.

# K.1. Internal Identification of EUT used during the spot check test

EUT ID*	IMEI	HW Version	SW Version
UT01aa	359320340000016	V1.0	8K16

#### K.2. Measurement results

# SAR Values (GSM 850)

		/							
Frequ	uency			Conducte d Power	Max. tune-up	SAR(10g) (W/kg)			
MHz Ch.		Too	t Docition			Spot check data		Original	
	Test Position		(dBm)	Power	Measured	Reported	data		
				(ubiii)	(dBm)	SAR	SAR	uala	
836.6	190	Head	Left Cheek	32.48	34.0	0.270	0.38	0.37	
836.6	190	Body	Rear	28.58	29.5	0.535	0.66	0.67	

#### SAR Values (GSM 1900)

Frequ	Frequency			Conducte	Max.	SAR(10g) (W/kg)		
MHz Ch.		To	st Position	d Power	tune-up	Spot check data		Original
	Ch.		SUFUSITION	(dBm)	Power	Measured	Reported	data
				(dDiii)	(dBm)	SAR	SAR	uala
1880	661	Head	Right Cheek	29.16	30.5	0.082	0.11	0.12
1880	661	Body	Rear	25.33	26.5	0.489	0.64	0.54

### SAR Values (WCDMA Band 2)

Frequ	uency				May	SAR(10g) (W/kg)		
MHz Ch.	т.	et Desition	Conducte d Power	Max. tune-up	Spot check data		Original	
	Test Position		(dBm)	Power	Measured	Reported	Original data	
				(ubiii)	(dBm)	SAR	SAR	uala
1880	9400	Head	Right Cheek	22.60	24.0	0.132	0.18	0.19
1880	9400	Body	Rear	22.60	24.0	0.379	0.52	0.59

#### SAR Values (WCDMA Band 4)

Frequ	Frequency			Conducto	Max.	SAR(10g) (W/kg)		
MHz Ch.		To	st Position	Conducte d Power	tune-up	Spot check data		Original
		St F OSITION	(dBm)	Power	Measured	Reported	data	
				(ubiii)	(dBm)	SAR	SAR	uala
1732.6	1413	Head	Right Cheek	22.70	24.0	0.171	0.23	0.24
1732.6	1413	Body	Rear	22.70	24.0	0.336	0.45	0.49



# **SAR Values (WCDMA Band 5)**

Frequ	quency				Max.	SAR(10g) (W/kg)		
		Toe	Position	Conducte d Power	tune-up	Spot che	ck data	Original
MHz	MHz Ch.	Test Position		(dBm)	Power (dBm)	Measured	Reported	data
						SAR	SAR	uaia
836.4	4182	Head	Left Cheek	23.00	24.0	0.246	0.31	0.29
836.4	4182	Body	Rear	23.00	24.0	0.318	0.40	0.42

# **SAR Values (LTE Band 2)**

Frequ	Frequency			Conducte	Max.	SAR(10g) (W/kg)			
	Test Position		d Power	tune-up	Spot check data		Original		
MHz	MHz Ch.	16	St FOSITION	(dBm)	Power	Measured	Reported	data	
				(dDIII)	(dBm)	SAR	SAR	uala	
1880	18900	Head	Right Cheek	21.92	23.0	0.135	0.17	0.15	
1880	18900	Body	Rear	21.92	23.0	0.418	0.54	0.51	

### SAR Values (LTE Band 5)

Frequency				Conducte	Max.	SAR(10g) (W/kg)		
MHz	Ch.	Test Position	+ Position	d Power	tune-up	Spot check data		- Original data
			(dBm)	Power (dBm)	Measured	Reported		
					SAR	SAR		
829	20450	Head	Left Cheek	22.64	23.5	0.219	0.27	0.19
829	20450	Body	Rear	22.64	23.5	0.275	0.34	0.33

### **SAR Values (LTE Band 7)**

Frequency		-		Conducte	Max.	SAR(10g) (W/kg)		
MHz	Ch.	Test Position		d Power (dBm)	tune-up Power (dBm)	Spot check data		- Original
		103t i Osition	Measured			Reported	data	
						SAR		SAR
2510	20850	Head	Right Cheek	21.07	22.0	0.285	0.35	0.32
2510	20850	Body	Rear	21.07	22.0	0.795	0.98	1.11

### **SAR Values (LTE Band 12)**

Frequency				Conducte	Max.	SAR(10g) (W/kg)		
MHz	Ch.	Test Position	d Power (dBm)	tune-up Power (dBm)	Spot check data		- Original	
					Measured	Reported	data	
					SAR	SAR		
707.5	23095	Head	Left Cheek	22.72	23.5	0.102	0.12	0.11
707.5	23095	Body	Rear	22.72	23.5	0.165	0.20	0.23



# SAR Values (LTE Band 66)

Frequency				Conducte	Max.	SAR(10g) (W/kg)		
MHz	Ch.	Test Position		d Power (dBm)	tune-up Power (dBm)	Spot check data		Original
		Test Fosition	Measured			Reported	data	
						SAR		SAR
1770	132572	Head	Right Cheek	22.35	23.0	0.163	0.19	0.17
1770	132572	Body	Rear	22.35	23.0	0.353	0.41	0.41

# SAR Values (WLAN 2.4G)

Frequency				Conducte	Max.	SAR(10g) (W/kg)		
MHz	Ch.	Test Position	d Power (dBm)	tune-up Power (dBm)	Spot check data		Original	
					Measured	Reported	data	
					SAR	SAR		
2437	6	Head	Left Cheek	18.13	19.0	0.402	0.49	0.51
2437	6	Body	Rear	18.13	19.0	0.137	0.17	0.19



# K.3. Graph Results for Spot Check

#### **GSM850 Head**

Date: 2020-12-24

Electronics: DAE4 Sn786 Medium: Head 835MHz

Medium parameters used (interpolated): f = 836.6 MHz;  $\sigma = 0.915 \text{ S/m}$ ;  $\varepsilon_r = 40.535$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

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

Probe: ES3DV3 - SN3151 ConvF (6.41, 6.41, 6.41);

**Left Cheek Middle/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.299 W/kg

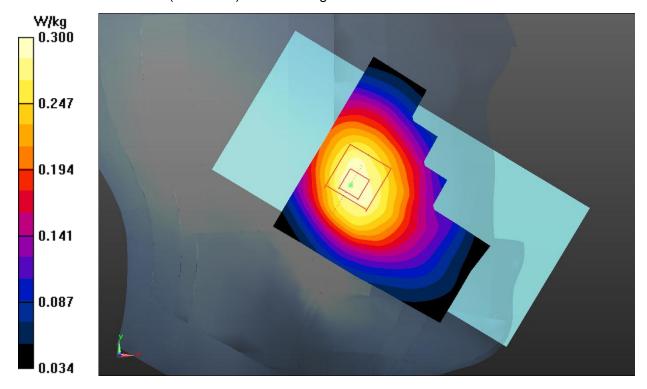
Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.672 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.359 W/kg

SAR(1 g) = 0.270 W/kg; SAR(10 g) = 0.202 W/kg

Maximum value of SAR (measured) = 0.300 W/kg





### GSM850 Body

Date: 2020-12-24

Electronics: DAE4 Sn786 Medium: Head 835MHz

Medium parameters used (interpolated): f = 836.6 MHz;  $\sigma = 0.915 \text{ S/m}$ ;  $\varepsilon_r = 40.535$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, GPRS 4Txslot (0) Frequency: 836.6 MHz Duty Cycle: 1:2

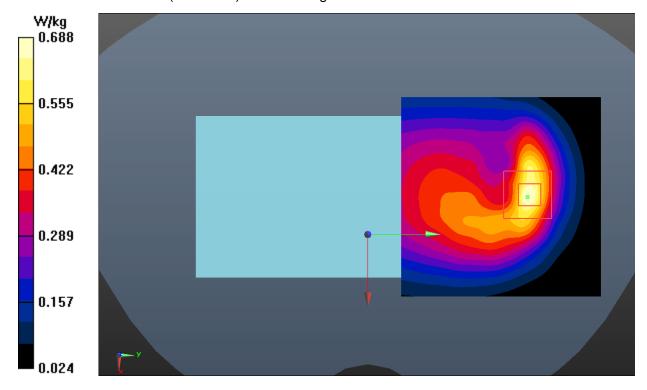
Probe: ES3DV3 - SN3151 ConvF (6.41, 6.41, 6.41);

**Rear Side Middle/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.698 W/kg

Rear Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 16.93 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 1.02 W/kg

SAR(1 g) = 0.535 W/kg; SAR(10 g) = 0.292 W/kg Maximum value of SAR (measured) = 0.688 W/kg





#### GSM1900 Head

Date: 2020-12-28

Electronics: DAE4 Sn786 Medium: Head 1900MHz

Medium parameters used: f = 1880 MHz;  $\sigma$  = 1.404 S/m;  $\epsilon_r$  = 39.171;  $\rho$  = 1000 kg/m<sup>3</sup>

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

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

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

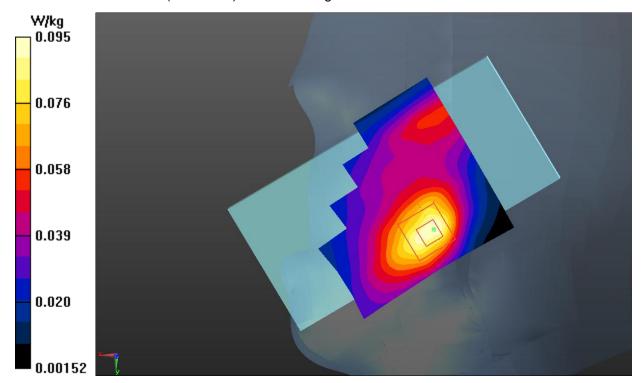
**Right Cheek Middle YZ/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.0958 W/kg

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

Reference Value = 2.286 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.126 W/kg

SAR(1 g) = 0.082 W/kg; SAR(10 g) = 0.052 W/kg Maximum value of SAR (measured) = 0.0951 W/kg





### GSM1900 Body

Date: 2020-12-28

Electronics: DAE4 Sn786 Medium: Head 1900MHz

Medium parameters used: f = 1880 MHz;  $\sigma$  = 1.404 S/m;  $\epsilon_r$  = 39.171;  $\rho$  = 1000 kg/m<sup>3</sup>

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, GPRS 4Txslot (0) Frequency: 1880 MHz Duty Cycle: 1:2

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

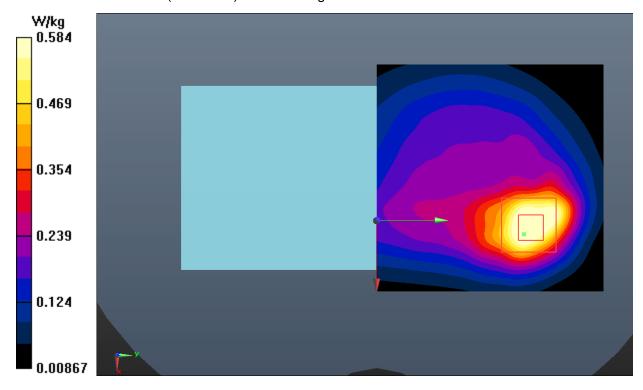
Rear Side Middle/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.611 W/kg

Rear Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 10.30 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.928 W/kg

SAR(1 g) = 0.489 W/kg; SAR(10 g) = 0.257 W/kg

Maximum value of SAR (measured) = 0.584 W/kg





#### WCDMA Band 2 Head

Date: 2020-12-28

Electronics: DAE4 Sn786 Medium: Head 1900MHz

Medium parameters used: f = 1880 MHz;  $\sigma$  = 1.404 S/m;  $\epsilon_r$  = 39.171;  $\rho$  = 1000 kg/m<sup>3</sup>

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

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

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

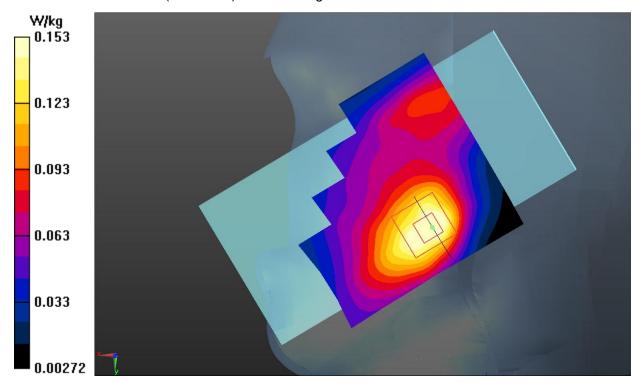
**Right Cheek Middle/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.167 W/kg

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

Reference Value = 3.884 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.201 W/kg

SAR(1 g) = 0.132 W/kg; SAR(10 g) = 0.084 W/kg Maximum value of SAR (measured) = 0.153 W/kg





### **WCDMA Band 2 Body**

Date: 2020-12-28

Electronics: DAE4 Sn786 Medium: Head 1900MHz

Medium parameters used: f = 1880 MHz;  $\sigma$  = 1.404 S/m;  $\epsilon_r$  = 39.171;  $\rho$  = 1000 kg/m<sup>3</sup>

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

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

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

**Rear Side Middle/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.496 W/kg

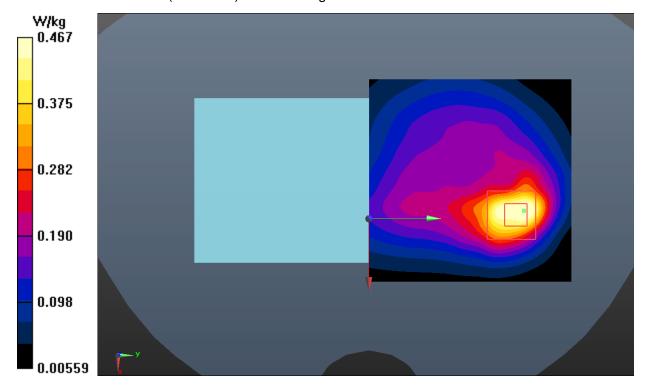
Rear Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.603 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.717 W/kg

SAR(1 g) = 0.379 W/kg; SAR(10 g) = 0.198 W/kg

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





#### WCDMA Band 4 Head

Date: 2020-12-27

Electronics: DAE4 Sn786 Medium: Head 1750MHz

Medium parameters used: f = 1733 MHz;  $\sigma$  = 1.379 S/m;  $\epsilon_r$  = 39.424;  $\rho$  = 1000 kg/m<sup>3</sup>

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

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

Probe: ES3DV3 - SN3151 ConvF (5.23, 5.23, 5.23);

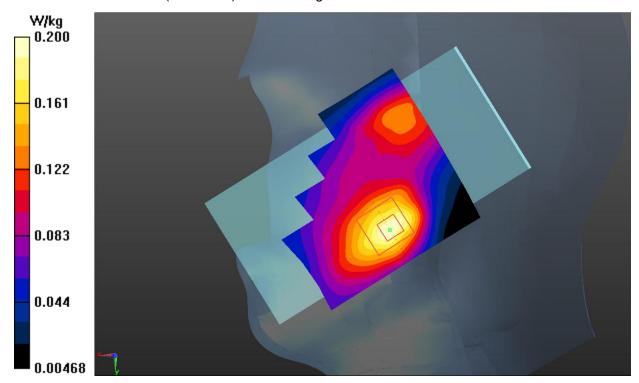
**Right Cheek Middle/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.201 W/kg

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

Reference Value = 3.858 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.254 W/kg

SAR(1 g) = 0.171 W/kg; SAR(10 g) = 0.112 W/kg Maximum value of SAR (measured) = 0.200 W/kg





### **WCDMA Band 4 Body**

Date: 2020-12-27

Electronics: DAE4 Sn786 Medium: Head 1750MHz

Medium parameters used: f = 1733 MHz;  $\sigma$  = 1.379 S/m;  $\epsilon_r$  = 39.424;  $\rho$  = 1000 kg/m<sup>3</sup>

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

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

Probe: ES3DV3 - SN3151 ConvF (5.23, 5.23, 5.23);

**Rear Side Middle/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.437 W/kg

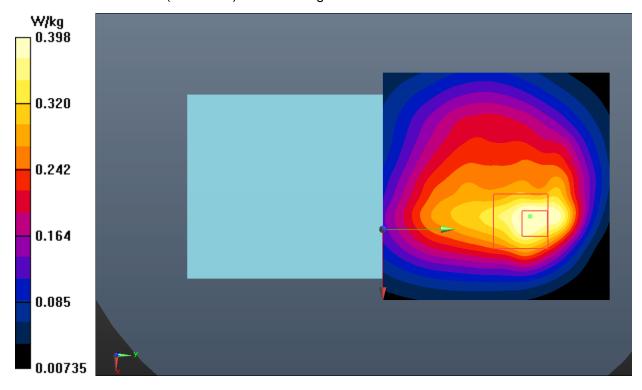
Rear Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.495 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.606 W/kg

SAR(1 g) = 0.336 W/kg; SAR(10 g) = 0.194 W/kg

Maximum value of SAR (measured) = 0.398 W/kg





#### **WCDMA Band 5 Head**

Date: 2020-12-24

Electronics: DAE4 Sn786 Medium: Head 835MHz

Medium parameters used (interpolated): f = 836.4 MHz;  $\sigma = 0.915 \text{ S/m}$ ;  $\epsilon_r = 40.537$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

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

Probe: ES3DV3 - SN3151 ConvF (6.41, 6.41, 6.41);

**Left Cheek Middle/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.268 W/kg

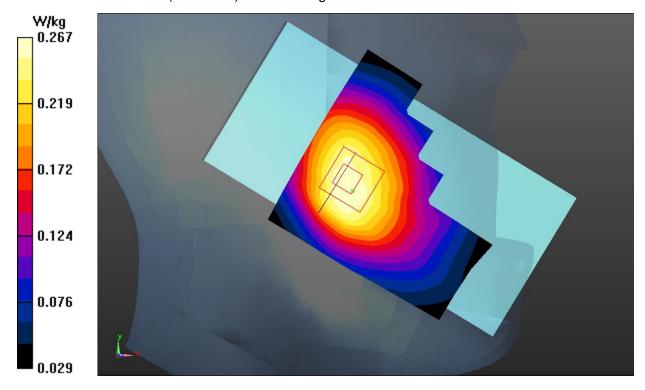
Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.749 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.324 W/kg

SAR(1 g) = 0.246 W/kg; SAR(10 g) = 0.185 W/kg

Maximum value of SAR (measured) = 0.267 W/kg





### **WCDMA Band 5 Body**

Date: 2020-12-24

Electronics: DAE4 Sn786 Medium: Head 835MHz

Medium parameters used (interpolated): f = 836.4 MHz;  $\sigma = 0.915 \text{ S/m}$ ;  $\epsilon_r = 40.537$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

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

Probe: ES3DV3 - SN3151 ConvF (6.41, 6.41, 6.41);

**Rear Side Middle/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.436 W/kg

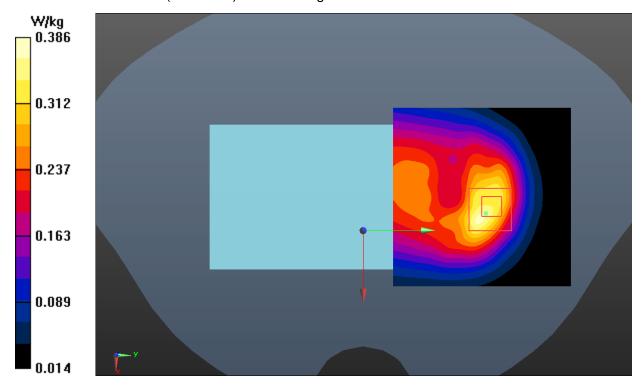
Rear Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.19 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.602 W/kg

SAR(1 g) = 0.318 W/kg; SAR(10 g) = 0.174 W/kg

Maximum value of SAR (measured) = 0.386 W/kg





#### LTE Band 2 Head

Date: 2020-12-28

Electronics: DAE4 Sn786 Medium: Head 1900MHz

Medium parameters used: f = 1880 MHz;  $\sigma$  = 1.404 S/m;  $\epsilon_r$  = 39.171;  $\rho$  = 1000 kg/m<sup>3</sup>

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE\_FDD (0) Frequency: 1880 MHz Duty Cycle: 1:1

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

Right Cheek Middle 1RB\_50/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500

mm

Maximum value of SAR (interpolated) = 0.168 W/kg

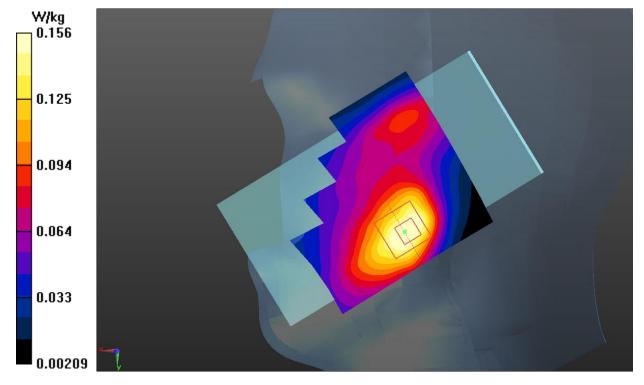
**Right Cheek Middle 1RB\_50/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.636 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.205 W/kg

SAR(1 g) = 0.135 W/kg; SAR(10 g) = 0.086 W/kg

Maximum value of SAR (measured) = 0.156 W/kg





### LTE Band 2 Body

Date: 2020-12-28

Electronics: DAE4 Sn786 Medium: Head 1900MHz

Medium parameters used: f = 1880 MHz;  $\sigma$  = 1.404 S/m;  $\epsilon_r$  = 39.171;  $\rho$  = 1000 kg/m<sup>3</sup>

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE\_FDD (0) Frequency: 1880 MHz Duty Cycle: 1:1

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

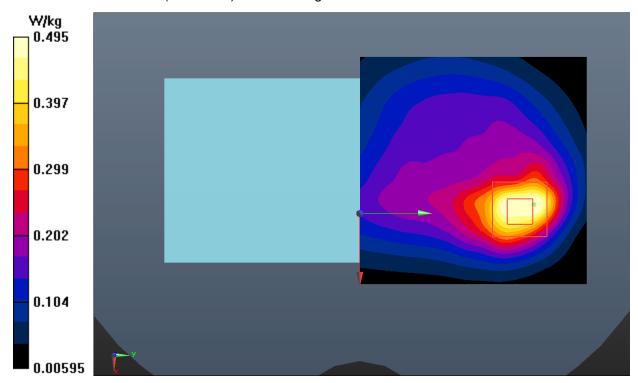
**Rear Side Middle 1RB\_50/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.510 W/kg

Rear Side Middle 1RB\_50/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.072 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.774 W/kg

SAR(1 g) = 0.418 W/kg; SAR(10 g) = 0.220 W/kg Maximum value of SAR (measured) = 0.495 W/kg





#### LTE Band 5 Head

Date: 2020-12-24

Electronics: DAE4 Sn786 Medium: Head 835MHz

Medium parameters used (interpolated): f = 829 MHz;  $\sigma = 0.909 \text{ S/m}$ ;  $\varepsilon_r = 40.626$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE\_FDD (0) Frequency: 829 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3151 ConvF (6.41, 6.41, 6.41);

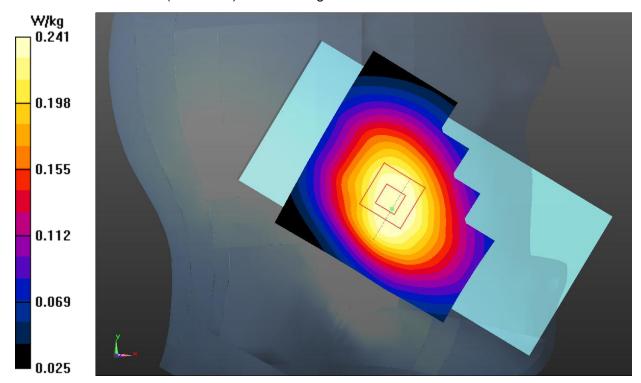
**Left Cheek Low 1RB\_24/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.257 W/kg

**Left Cheek Low 1RB\_24/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.678 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.286 W/kg

SAR(1 g) = 0.219 W/kg; SAR(10 g) = 0.165 W/kg Maximum value of SAR (measured) = 0.241 W/kg





### LTE Band 5 Body

Date: 2020-12-24

Electronics: DAE4 Sn786 Medium: Head 835MHz

Medium parameters used (interpolated): f = 829 MHz;  $\sigma = 0.909 \text{ S/m}$ ;  $\varepsilon_r = 40.626$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE\_FDD (0) Frequency: 829 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3151 ConvF (6.41, 6.41, 6.41);

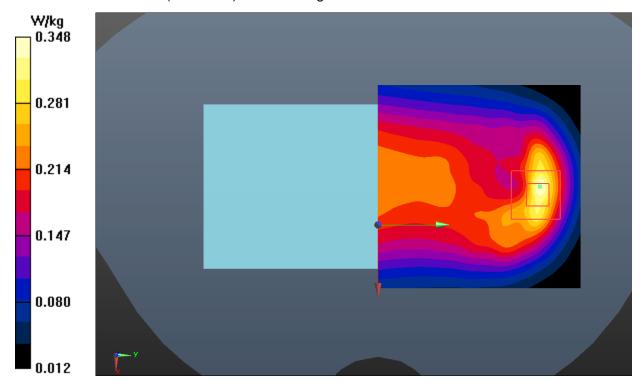
**Rear Side Low 1RB\_24/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.347 W/kg

Rear Side Low 1RB\_24/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.21 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.528 W/kg

SAR(1 g) = 0.275 W/kg; SAR(10 g) = 0.150 W/kg Maximum value of SAR (measured) = 0.348 W/kg





#### LTE Band 7 Head

Date: 2020-12-18

Electronics: DAE4 Sn786 Medium: Head 2550MHz

Medium parameters used: f = 2510 MHz;  $\sigma$  = 1.896 S/m;  $\epsilon_r$  = 38.276;  $\rho$  = 1000 kg/m<sup>3</sup>

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE\_FDD (0) Frequency: 2510 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3151 ConvF (4.68, 4.68, 4.68)

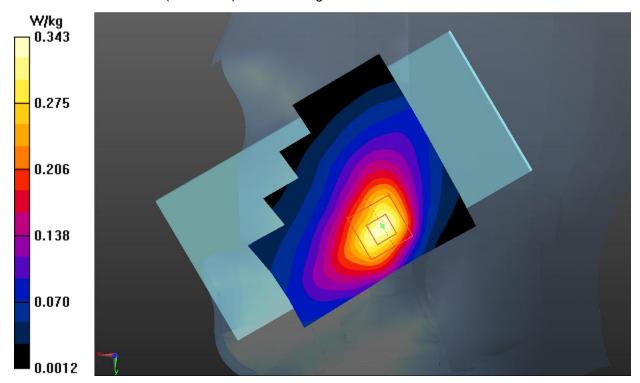
**Right Cheek Low 1RB\_50/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 0.337 W/kg

**Right Cheek Low 1RB\_50/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.121 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.490 W/kg

SAR(1 g) = 0.285 W/kg; SAR(10 g) = 0.162 W/kg Maximum value of SAR (measured) = 0.343 W/kg





### LTE Band 7 Body

Date: 2020-12-18

Electronics: DAE4 Sn786 Medium: Head 2550MHz

Medium parameters used: f = 2510 MHz;  $\sigma$  = 1.896 S/m;  $\epsilon_r$  = 38.276;  $\rho$  = 1000 kg/m<sup>3</sup>

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE\_FDD (0) Frequency: 2510 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3151 ConvF (4.68, 4.68, 4.68)

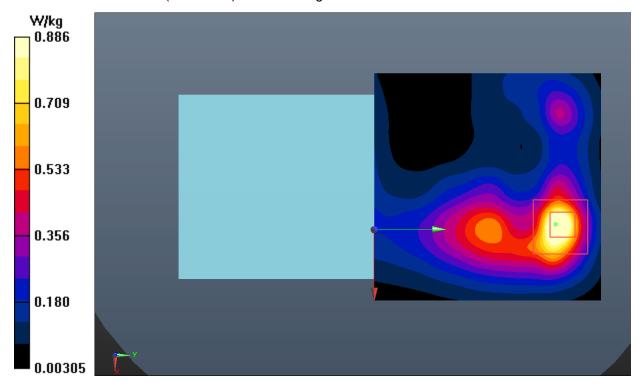
Rear Side Low 1RB\_50/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 1.19 W/kg

**Rear Side Low 1RB\_50/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.445 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.85 W/kg

SAR(1 g) = 0.795 W/kg; SAR(10 g) = 0.337 W/kg Maximum value of SAR (measured) = 0.886 W/kg





#### LTE Band 12 Head

Date: 2020-12-20

Electronics: DAE4 Sn786 Medium: Head 750MHz

Medium parameters used: f = 708 MHz;  $\sigma$  = 0.855 S/m;  $\varepsilon_r$  = 42.988;  $\rho$  = 1000 kg/m<sup>3</sup>

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE\_FDD (0) Frequency: 707.5 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3151 ConvF (6.41, 6.41, 6.41);

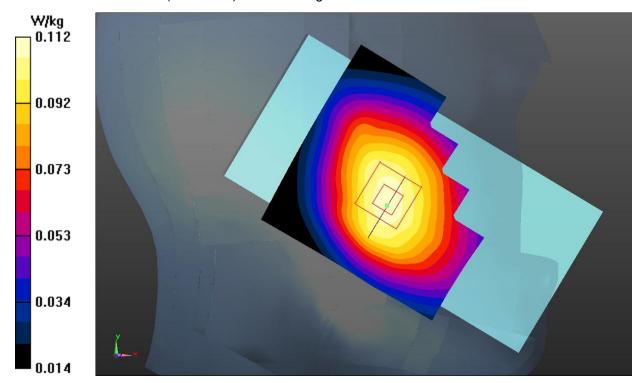
**Left Cheek Middle 1RB\_24/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.111 W/kg

**Left Cheek Middle 1RB\_24/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.153 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.129 W/kg

SAR(1 g) = 0.102 W/kg; SAR(10 g) = 0.079 W/kg Maximum value of SAR (measured) = 0.112 W/kg





### LTE Band 12 Body

Date: 2020-12-20

Electronics: DAE4 Sn786 Medium: Head 750MHz

Medium parameters used: f = 708 MHz;  $\sigma$  = 0.855 S/m;  $\varepsilon_r$  = 42.988;  $\rho$  = 1000 kg/m<sup>3</sup>

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE\_FDD (0) Frequency: 707.5 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3151 ConvF (6.41, 6.41, 6.41);

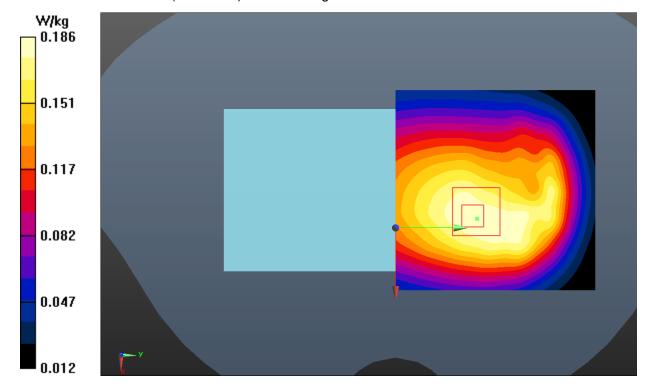
**Rear Side Middle 1RB\_24/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.186 W/kg

Rear Side Middle 1RB\_24/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.81 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.238 W/kg

SAR(1 g) = 0.165 W/kg; SAR(10 g) = 0.117 W/kg Maximum value of SAR (measured) = 0.186 W/kg





#### LTE Band 66 Head

Date: 2020-12-27

Electronics: DAE4 Sn786 Medium: Head 1750MHz

Medium parameters used: f = 1770 MHz;  $\sigma$  = 1.412 S/m;  $\epsilon_r$  = 39.28;  $\rho$  = 1000 kg/m<sup>3</sup>

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE\_FDD (0) Frequency: 1770 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3151 ConvF (5.23, 5.23, 5.23);

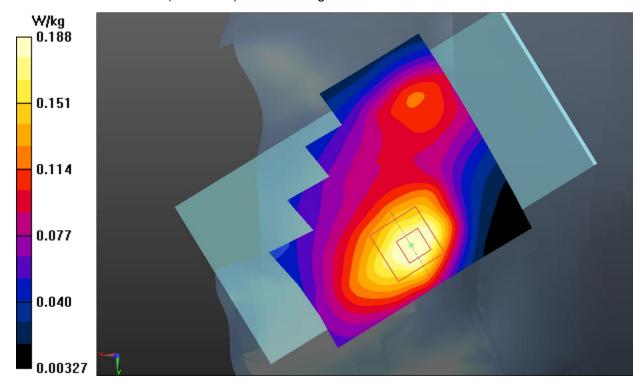
**Right Cheek High 1RB50/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.206 W/kg

**Right Cheek High 1RB50/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.269 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.243 W/kg

SAR(1 g) = 0.163 W/kg; SAR(10 g) = 0.106 W/kg Maximum value of SAR (measured) = 0.188 W/kg





### LTE Band 66 Body

Date: 2020-12-27

Electronics: DAE4 Sn786 Medium: Head 1750MHz

Medium parameters used: f = 1770 MHz;  $\sigma$  = 1.412 S/m;  $\epsilon_r$  = 39.28;  $\rho$  = 1000 kg/m<sup>3</sup>

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE\_FDD (0) Frequency: 1770 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3151 ConvF (5.23, 5.23, 5.23);

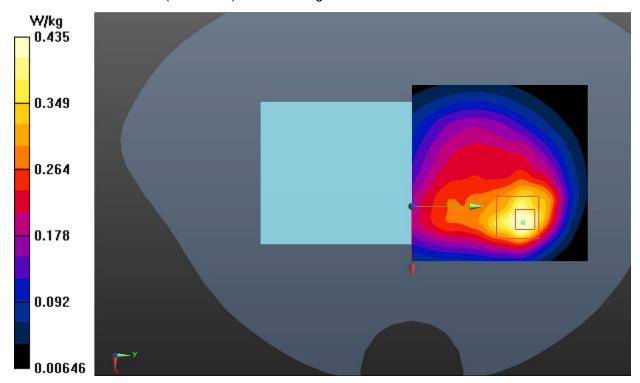
**Rear Side High 1RB\_50/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.475 W/kg

**Rear Side High 1RB\_50/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.469 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.645 W/kg

SAR(1 g) = 0.353 W/kg; SAR(10 g) = 0.197 W/kg Maximum value of SAR (measured) = 0.435 W/kg





#### WLAN 2.4G Head

Date: 2020-12-23

Electronics: DAE4 Sn786 Medium: Head 2450MHz

Medium parameters used (interpolated): f = 2437 MHz;  $\sigma = 1.823 \text{ S/m}$ ;  $\varepsilon_r = 38.412$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

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

Probe: ES3DV3 - SN3151 ConvF (4.68, 4.68, 4.68);

**Left Cheek Middle/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 0.563 W/kg

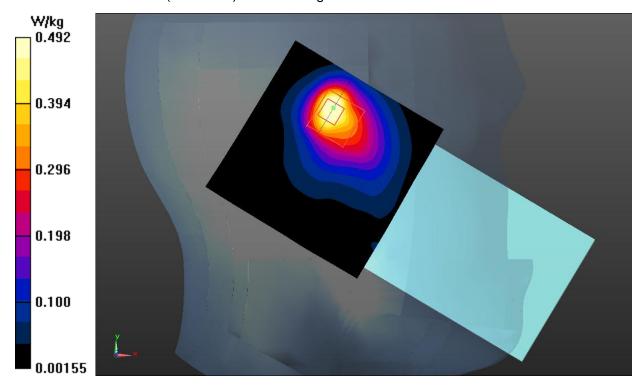
Left Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.921 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.831 W/kg

SAR(1 g) = 0.402 W/kg; SAR(10 g) = 0.204 W/kg

Maximum value of SAR (measured) = 0.492 W/kg





### WLAN 2.4G Body

Date: 2020-12-23

Electronics: DAE4 Sn786 Medium: Head 2450MHz

Medium parameters used (interpolated): f = 2437 MHz;  $\sigma = 1.823 \text{ S/m}$ ;  $\varepsilon_r = 38.412$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

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

Probe: ES3DV3 - SN3151 ConvF (4.68, 4.68, 4.68);

Rear Side Middle/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.197 W/kg

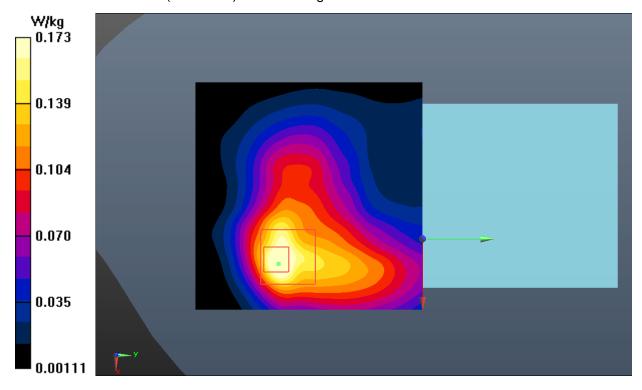
Rear Side Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.610 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.300 W/kg

SAR(1 g) = 0.137 W/kg; SAR(10 g) = 0.070 W/kg

Maximum value of SAR (measured) = 0.173 W/kg





# K.4. System Verification Results for Spot Check

#### 750MHz

Date: 2020-12-20

Electronics: DAE4 Sn786 Medium: Head 750MHz

Medium parameters used: f = 750 MHz;  $\sigma = 0.881 \text{ S/m}$ ;  $\varepsilon_r = 42.484$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Ambient Temperature: 22.5°C Liquid Temperature: 22.0°C

Communication System: CW\_TMC Frequency: 750 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3151 ConvF (6.41, 6.41, 6.41);

System Validation /Area Scan (81x161x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 59.783 V/m; Power Drift = -0.03 dB

SAR(1 g) = 2.12 W/kg; SAR(10 g) = 1.41 W/kg

Maximum value of SAR (interpolated) = 2.65 W/kg

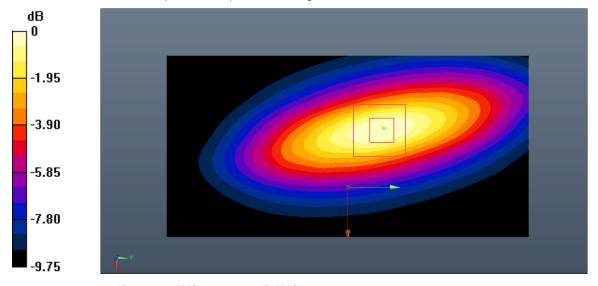
System Validation /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 59.783 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 2.95 W/kg

SAR(1 g) = 2.07 W/kg; SAR(10 g) = 1.41 W/kg

Maximum value of SAR (measured) = 2.61 W/kg



0 dB = 2.61 W/kg = 4.17 dB W/kg

Fig.K.1. Validation 750MHz 250mW



Date: 2020-12-24

Electronics: DAE4 Sn786 Medium: Head 835MHz

Medium parameters used: f = 835 MHz;  $\sigma = 0.914 \text{ S/m}$ ;  $\epsilon r = 40.554$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Ambient Temperature: 22.5°C Liquid Temperature: 22.0°C Communication System: CW Frequency: 835 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3151 ConvF (6.41, 6.41, 6.41);

System Validation /Area Scan (91x161x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 63.138 V/m; Power Drift = 0.11 dB

SAR(1 g) = 2.45 W/kg; SAR(10 g) = 1.59 W/kg

Maximum value of SAR (interpolated) = 3.32 W/kg

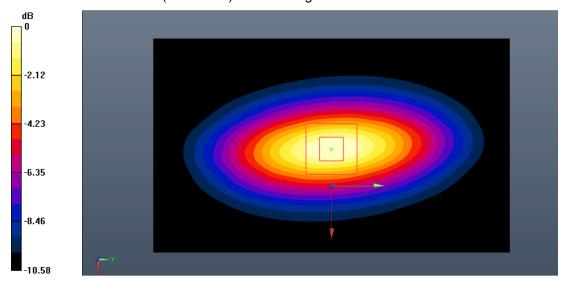
System Validation /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 63.138 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 4.05 W/kg

SAR(1 g) = 2.52 W/kg; SAR(10 g) = 1.62 W/kg

Maximum value of SAR (measured) = 3.36 W/kg



0 dB = 3.36 W/kg = 5.26 dB W/kg

Fig.K.2. Validation 835MHz 250mW



Date: 2020-12-27

Electronics: DAE4 Sn786 Medium: Head 1750MHz

Medium parameters used: f = 1750 MHz;  $\sigma = 1.394 \text{ S/m}$ ;  $\varepsilon_r = 39.358$ ;  $\rho = 1000 \text{ kg/m}^3$ 

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

Communication System: CW\_TMC Frequency: 1750 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3151 ConvF (5.23, 5.23, 5.23);

System Validation/Area Scan (81x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 80.335 V/m; Power Drift = 0.05 dB

SAR(1 g) = 9.36 W/kg; SAR(10 g) = 4.82 W/kg

Maximum value of SAR (interpolated) = 10.5 W/kg

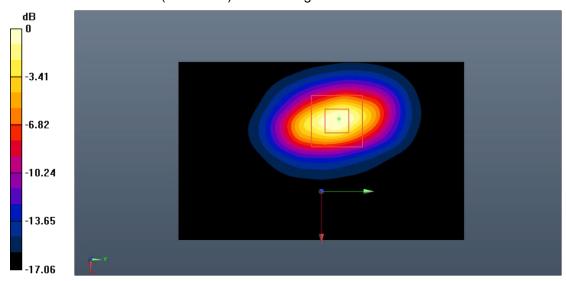
System Validation/Zoom Scan (7x7x7)/Cube0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 80.335 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 21.8 W/kg

SAR(1 g) = 9.49 W/kg; SAR(10 g) = 4.95 W/kg

Maximum value of SAR (measured) = 10.7 W/kg



0 dB = 10.7 W/kg = 10.29 dB W/kg

Fig.K.3. Validation 1750MHz 250mW



Date: 2020-12-28

Electronics: DAE4 Sn786 Medium: Head 1900MHz

Medium parameters used: f = 1900 MHz;  $\sigma$  = 1.422 S/m;  $\epsilon_r$  = 39.093;  $\rho$  = 1000 kg/m<sup>3</sup>

Ambient Temperature: 22.5°C Liquid Temperature: 22.0°C

Communication System: CW\_TMC Frequency: 1900 MHz Duty Cycle: 1:1

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

System Validation/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 83.192 V/m; Power Drift = 0.10 dB

SAR(1 g) = 10.2 W/kg; SAR(10 g) = 5.22 W/kg

Maximum value of SAR (interpolated) = 12.0 W/kg

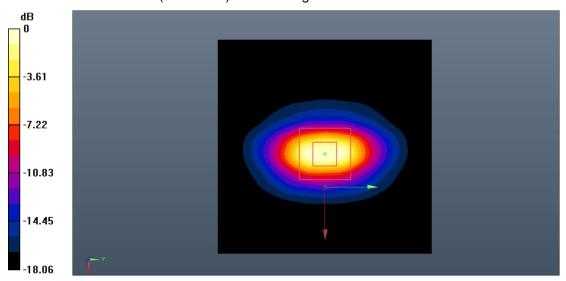
System Validation/Zoom Scan (7x7x7)/Cube0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 83.192 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 24.8 W/kg

SAR(1 g) = 10.5 W/kg; SAR(10 g) = 5.37 W/kg

Maximum value of SAR (measured) = 12.2 W/kg



0 dB = 12.2 W/kg = 10.86 dB W/kg

Fig.K.4. Validation 1900MHz 250mW



Date: 2020-12-23

Electronics: DAE4 Sn786 Medium: Head 2450MHz

Medium parameters used: f = 2450 MHz;  $\sigma = 1.838 \text{ S/m}$ ;  $\varepsilon_r = 38.369$ ;  $\rho = 1000 \text{ kg/m}^3$ 

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

Communication System: CW\_TMC Frequency: 2450 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3151 ConvF (4.68, 4.68, 4.68);

System Validation /Area Scan (81x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 88.724 V/m; Power Drift = 0.02 dB

SAR(1 g) = 13.2 W/kg; SAR(10 g) = 6.04 W/kg

Maximum value of SAR (interpolated) = 15.2 W/kg

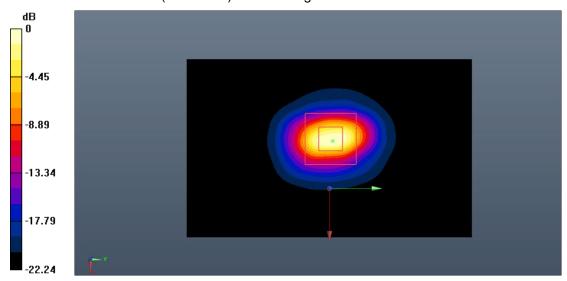
System Validation/Zoom Scan (7x7x7)/Cube0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 88.724 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 28.6 W/kg

SAR(1 g) = 13.3 W/kg; SAR(10 g) = 6.11 W/kg

Maximum value of SAR (measured) = 15.5 W/kg



0 dB = 15.5 W/kg = 11.90 dB W/kg

Fig.K.5. Validation 2450MHz 250mW



Date: 2020-12-18

Electronics: DAE4 Sn786 Medium: Head 2550MHz

Medium parameters used: f = 2550 MHz;  $\sigma = 1.943 \text{ S/m}$ ;  $\varepsilon_r = 38.144$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Ambient Temperature: 22.5°C Liquid Temperature: 22.0°C

Communication System: CW\_TMC Frequency: 2550 MHz Duty Cycle: 1:1

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

System Validation/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 93.313 V/m; Power Drift = 0.05 dB

SAR(1 g) = 14.8 W/kg; SAR(10 g) = 6.66 W/kg

Maximum value of SAR (interpolated) = 16.5 W/kg

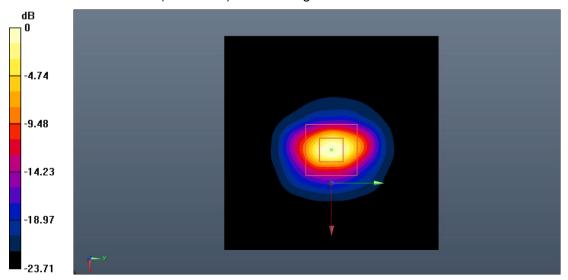
System Validation/Zoom Scan (7x7x7)/Cube0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 93.313 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 35.4 W/kg

SAR(1 g) = 15.0 W/kg; SAR(10 g) = 6.82 W/kg

Maximum value of SAR (measured) = 16.8 W/kg



0 dB = 16.8 W/kg = 12.25 dB W/kg

Fig.K.6. Validation 2550MHz 250mW

\*\*\*END OF REPORT\*\*\*