

17	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and set-up										
18	Phantom uncertainty	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
19	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
20	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
21	Liquid permittivity (target)	B	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞
22	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521
Combined standard uncertainty		$u_c' = \sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$						13.5	13.4	257
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$						27.0	26.8	

17 MAIN TEST INSTRUMENTS

Table 17.1: List of Main Instruments

No.	Name	Type	Serial Number	Calibration Date	Valid Period
01	Network analyzer	E5071C	MY46110673	January 14, 2021	One year
02	Power meter	NRP2	101919	May 12, 2020	One year
03	Power sensor	NRP-Z91	101547		
04	Signal Generator	E4438C	MY49071430	February 1, 2021	One Year
05	Amplifier	60S1G4	0331848	No Calibration Requested	
06	BTS	CMW500	159889	January 13, 2021	One year
07	E-field Probe	SPEAG EX3DV4	7307	May 29, 2020	One year
08	DAE	SPEAG DAE4	536	November 6, 2020	One year
09	Dipole Validation Kit	SPEAG D750V3	1017	July 24,2020	One year
10	Dipole Validation Kit	SPEAG D835V2	4d069	July 24,,2020	One year
11	Dipole Validation Kit	SPEAG D1750V2	1003	July 24, 2020	One year
12	Dipole Validation Kit	SPEAG D1900V2	5d101	July 28,2020	One year
13	Dipole Validation Kit	SPEAG D2450V2	853	July 21,2020	One year
14	Dipole Validation Kit	SPEAG D2600V2	1012	July 21,2020	One year
15	Dipole Validation Kit	SPEAG D5GHzV2	1060	July 27,2020	One year

END OF REPORT BODY

ANNEX A Graph Results

GSM850_CH190 Right Cheek

Date: 3/6/2021

Electronics: DAE4 Sn536

Medium: head 835 MHz

Medium parameters used: $f = 836.6\text{MHz}$; $\sigma = 0.89\text{ mho/m}$; $\epsilon_r = 40.69$; $\rho = 1000\text{ kg/m}^3$

Ambient Temperature: 22.5°C , Liquid Temperature: 22.3°C

Communication System: GSM850 836.6 Duty Cycle: 1: 2.67

Probe: EX3DV4 – SN7307 ConvF(10.2,10.2,10.2)

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

Maximum value of SAR (interpolated) = 0.29 W/kg

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

Reference Value = 4.312 V/m ; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 0.325 W/kg

SAR(1 g) = 0.252 W/kg ; SAR(10 g) = 0.197 W/kg

Maximum value of SAR (measured) = 0.299 W/kg

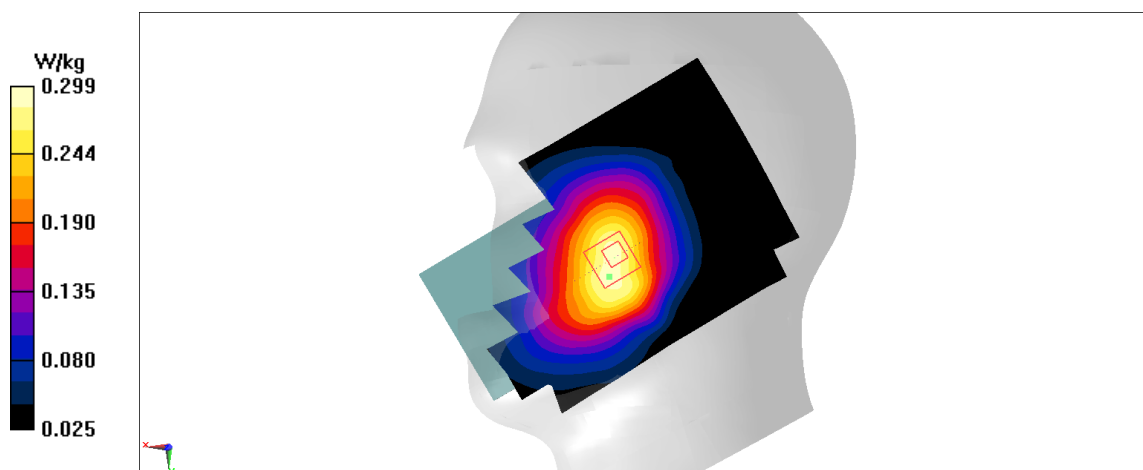


Fig A.1

GSM850_CH251 Rear GPRS 10mm

Date: 3/6/2021

Electronics: DAE4 Sn536

Medium: body 835 MHz

Medium parameters used: $f = 848.8\text{MHz}$; $\sigma = 0.899\text{ mho/m}$; $\epsilon_r = 40.9$; $\rho = 1000\text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: GSM850 848.8 Duty Cycle: 1: 2.67

Probe: EX3DV4 – SN7307 ConvF(10.2,10.2,10.2)

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

Maximum value of SAR (interpolated) = 0.488 W/kg

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

Reference Value = 16.59 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.591 W/kg

SAR(1 g) = 0.313 W/kg; SAR(10 g) = 0.178 W/kg

Maximum value of SAR (measured) = 0.471 W/kg

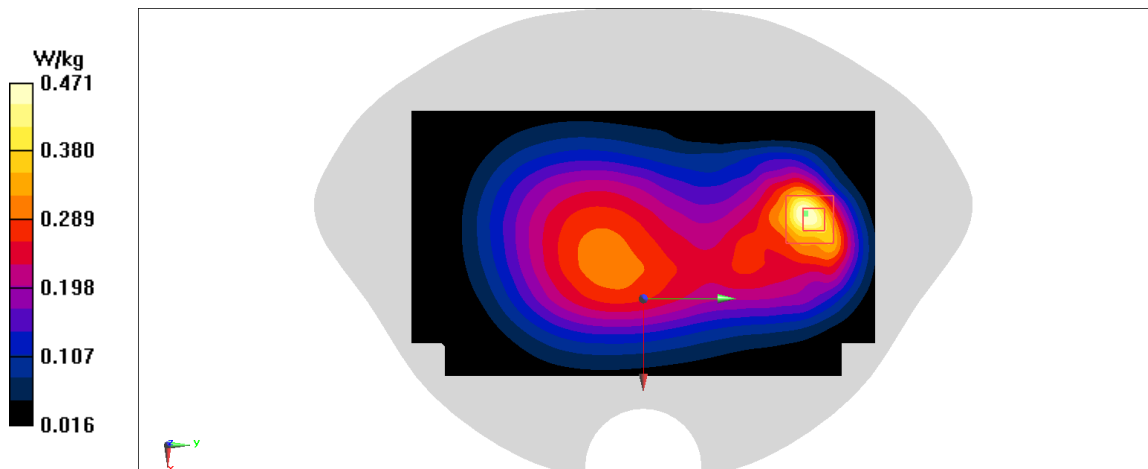


Fig A.2

PCS1900_CH810 Left Cheek VOIP 2TX

Date: 3/8/2021

Electronics: DAE4 Sn536

Medium: head 1900 MHz

Medium parameters used: $f = 1909.8\text{MHz}$; $\sigma = 1.42\text{ mho/m}$; $\epsilon_r = 39.37$; $\rho = 1000\text{ kg/m}^3$

Ambient Temperature: 22.5°C , Liquid Temperature: 22.3°C

Communication System: PCS1900 1909.8 Duty Cycle: 1: 4

Probe: EX3DV4 – SN7307 ConvF(8.33,8.33,8.33)

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

Maximum value of SAR (interpolated) = 0.115 W/kg

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

Reference Value = 1.169 V/m ; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.136 W/kg

SAR(1 g) = 0.086 W/kg ; SAR(10 g) = 0.056 W/kg

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

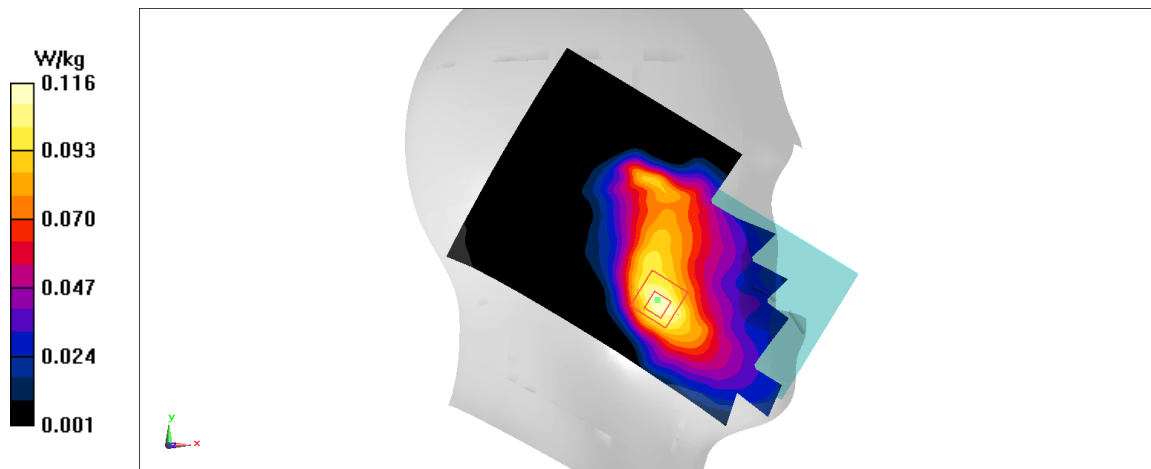


Fig A.3

PCS1900_CH810 Bottom Edge GPRS 10mm

Date: 3/8/2021

Electronics: DAE4 Sn536

Medium: body 1900 MHz

Medium parameters used: $f = 1909.8\text{MHz}$; $\sigma = 1.388\text{ mho/m}$; $\epsilon_r = 39.65$; $\rho = 1000\text{ kg/m}^3$

Ambient Temperature: 22.5°C , Liquid Temperature: 22.3°C

Communication System: PCS1900 1909.8 Duty Cycle: 1: 4

Probe: EX3DV4 – SN7307 ConvF(8.33,8.33,8.33)

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

Maximum value of SAR (interpolated) = 1.63 W/kg

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

Reference Value = 24.75 V/m ; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.93 W/kg

SAR(1 g) = 1.08 W/kg ; SAR(10 g) = 0.558 W/kg

Maximum value of SAR (measured) = 1.63 W/kg

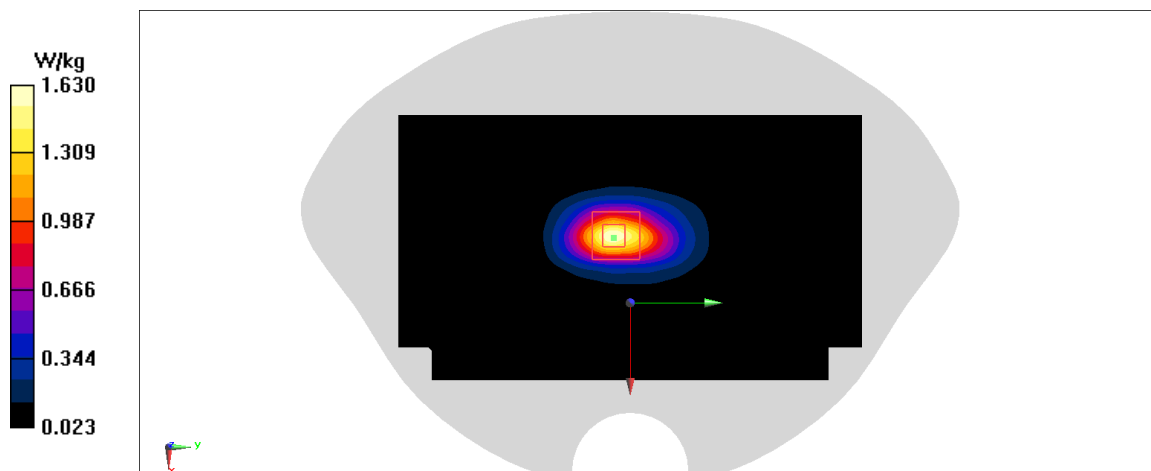


Fig A.4

WCDMA1900-BII_CH9538 Right Cheek

Date: 3/8/2021

Electronics: DAE4 Sn536

Medium: head 1900 MHz

Medium parameters used: $f = 1907.6\text{MHz}$; $\sigma = 1.419\text{ mho/m}$; $\epsilon_r = 39.37$; $\rho = 1000\text{ kg/m}^3$

Ambient Temperature: 22.5°C , Liquid Temperature: 22.3°C

Communication System: WCDMA1900-BII 1907.6 Duty Cycle: 1: 1

Probe: EX3DV4 – SN7307 ConvF(8.33,8.33,8.33)

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

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

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

Reference Value = 4.832 V/m ; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.328 W/kg

SAR(1 g) = 0.217 W/kg ; SAR(10 g) = 0.138 W/kg

Maximum value of SAR (measured) = 0.288 W/kg

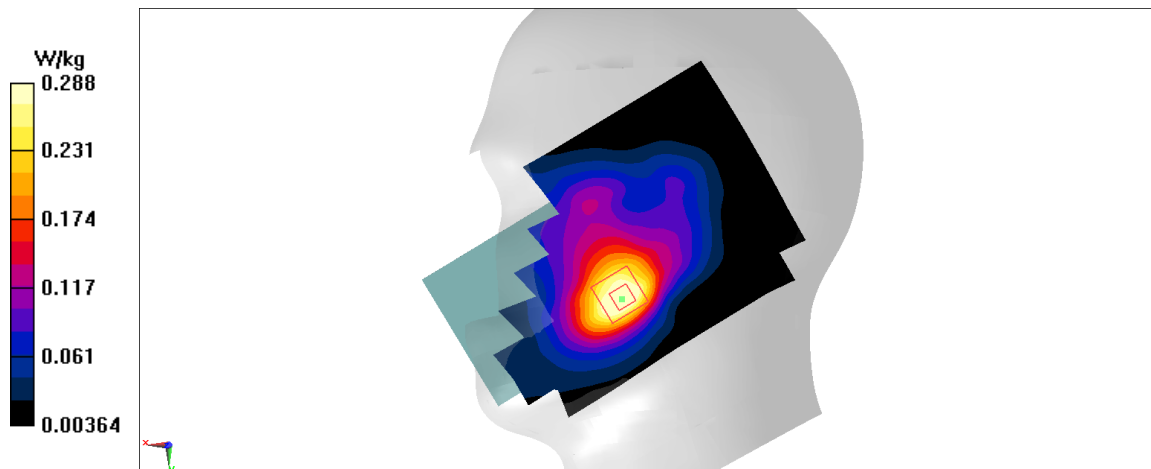


Fig A.5

WCDMA1900-BII_CH9400 Bottom Edge 10mm

Date: 3/8/2021

Electronics: DAE4 Sn536

Medium: body 1900 MHz

Medium parameters used: $f = 1880\text{MHz}$; $\sigma = 1.359\text{ mho/m}$; $\epsilon_r = 39.68$; $\rho = 1000\text{ kg/m}^3$

Ambient Temperature: 22.5°C , Liquid Temperature: 22.3°C

Communication System: WCDMA1900-BII 1880 Duty Cycle: 1: 1

Probe: EX3DV4 – SN7307 ConvF(8.33,8.33,8.33)

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

Maximum value of SAR (interpolated) = 1.99 W/kg

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

Reference Value = 26.47 V/m ; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 2.27 W/kg

SAR(1 g) = 1.26 W/kg ; SAR(10 g) = 0.652 W/kg

Maximum value of SAR (measured) = 1.9 W/kg

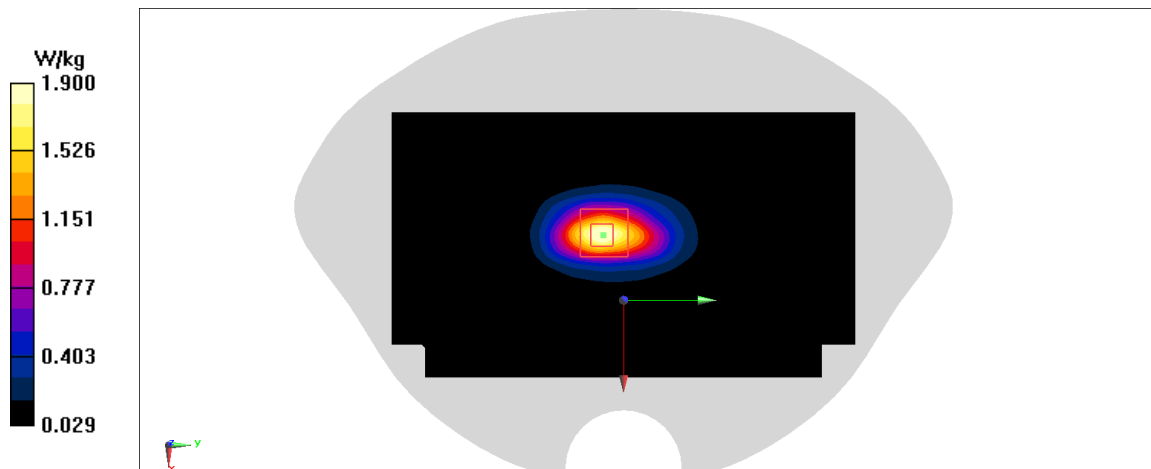


Fig A.6

WCDMA1700-BIV_CH1412 Right Cheek

Date: 3/7/2021

Electronics: DAE4 Sn536

Medium: head 1750 MHz

Medium parameters used: $f = 1732.4\text{MHz}$; $\sigma = 1.337\text{ mho/m}$; $\epsilon_r = 40.22$; $\rho = 1000\text{ kg/m}^3$

Ambient Temperature: 22.5°C , Liquid Temperature: 22.3°C

Communication System: WCDMA1700-BIV 1732.4 Duty Cycle: 1: 1

Probe: EX3DV4 – SN7307 ConvF(8.64,8.64,8.64)

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

Maximum value of SAR (interpolated) = 0.275 W/kg

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

Reference Value = 1.822 V/m ; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.292 W/kg

SAR(1 g) = 0.196 W/kg ; SAR(10 g) = 0.127 W/kg

Maximum value of SAR (measured) = 0.253 W/kg

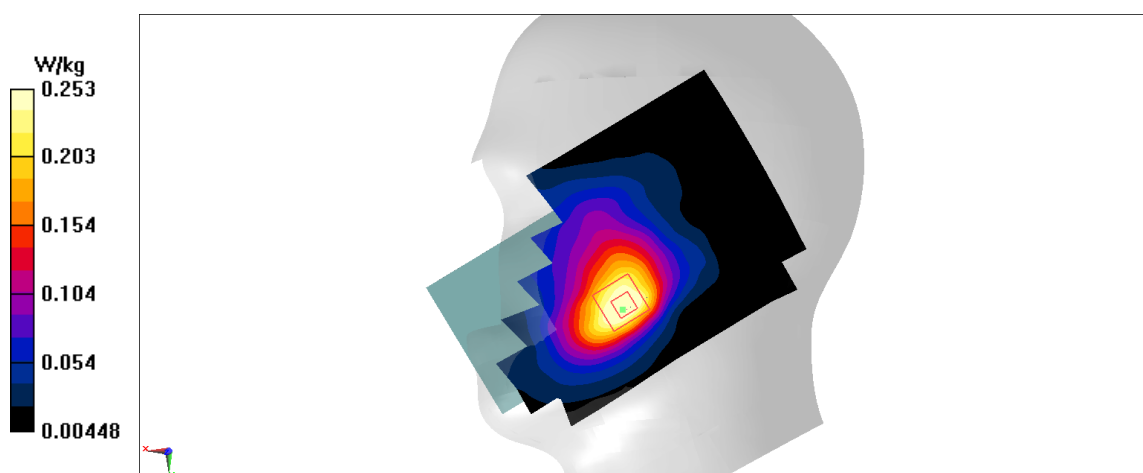


Fig A.7

WCDMA1700-BIV_CH1312 Bottom 10mm

Date: 3/7/2021

Electronics: DAE4 Sn536

Medium: body 1750 MHz

Medium parameters used: $f = 1712.4\text{MHz}$; $\sigma = 1.327\text{ mho/m}$; $\epsilon_r = 39.88$; $\rho = 1000\text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: WCDMA1700-BIV 1712.4 Duty Cycle: 1: 1

Probe: EX3DV4 – SN7307 ConvF(8.64,8.64,8.64)

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

Maximum value of SAR (interpolated) = 1.62 W/kg

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

Reference Value = 25.69 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 1.88 W/kg

SAR(1 g) = 1.05 W/kg; SAR(10 g) = 0.56 W/kg

Maximum value of SAR (measured) = 1.59 W/kg

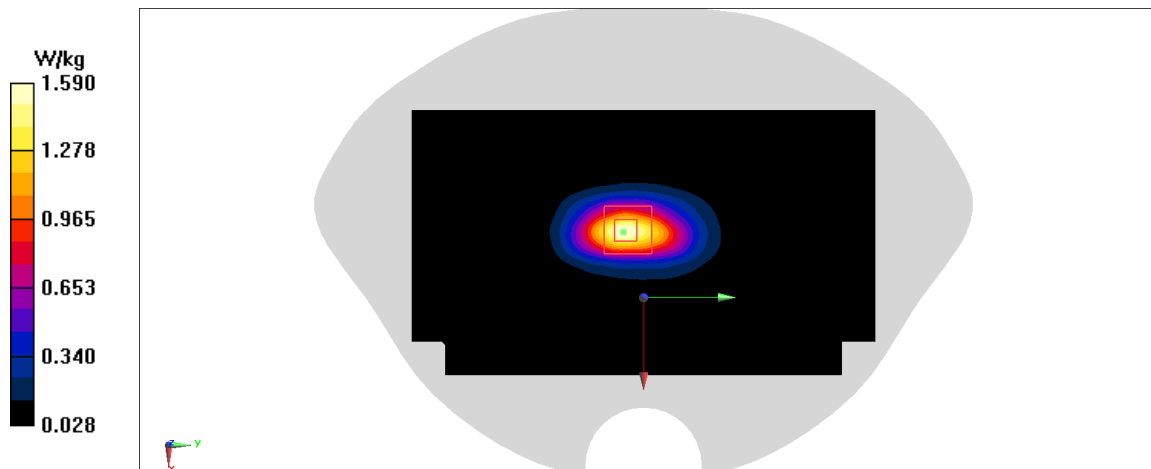


Fig A.8

WCDMA850-BV_CH4183 Right Cheek

Date: 3/6/2021

Electronics: DAE4 Sn536

Medium: head 835 MHz

Medium parameters used: $f = 836.6\text{MHz}$; $\sigma = 0.89\text{ mho/m}$; $\epsilon_r = 40.69$; $\rho = 1000\text{ kg/m}^3$

Ambient Temperature: 22.5°C , Liquid Temperature: 22.3°C

Communication System: WCDMA850-BV 836.6 Duty Cycle: 1: 1

Probe: EX3DV4 – SN7307 ConvF(10.2,10.2,10.2)

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

Maximum value of SAR (interpolated) = 0.288 W/kg

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

Reference Value = 4.284 V/m ; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.315 W/kg

SAR(1 g) = 0.243 W/kg ; SAR(10 g) = 0.189 W/kg

Maximum value of SAR (measured) = 0.289 W/kg

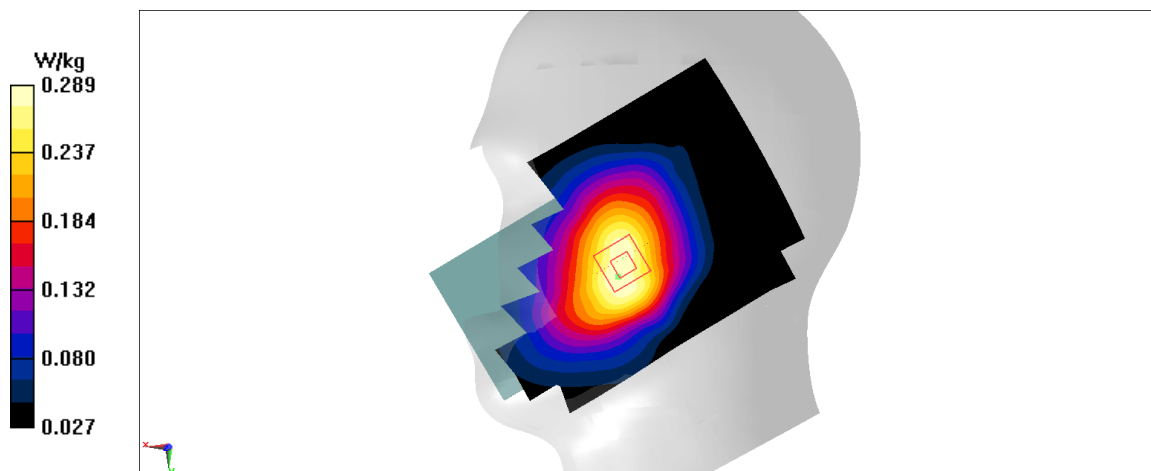


Fig A.9

WCDMA850-BV_CH4233 Rear 10mm

Date: 3/6/2021

Electronics: DAE4 Sn536

Medium: body 835 MHz

Medium parameters used: $f = 846.6\text{MHz}$; $\sigma = 0.897\text{ mho/m}$; $\epsilon_r = 40.91$; $\rho = 1000\text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: WCDMA850-BV 846.6 Duty Cycle: 1: 1

Probe: EX3DV4 – SN7307 ConvF(10.2,10.2,10.2)

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

Maximum value of SAR (interpolated) = 0.588 W/kg

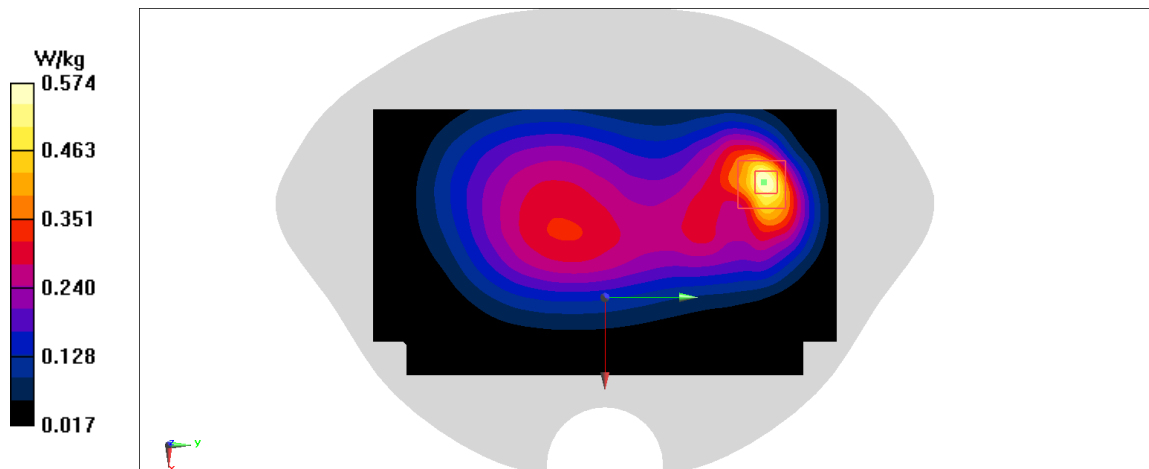
Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 16.67 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.708 W/kg

SAR(1 g) = 0.362 W/kg; SAR(10 g) = 0.202 W/kg

Maximum value of SAR (measured) = 0.574 W/kg


Fig A.10

LTE2500-FDD7_CH20850 50RB-Low

Date: 3/10/2021

Electronics: DAE4 Sn536

Medium: body 2600 MHz

Medium parameters used: $f = 2510$ MHz; $\sigma = 1.89$ mho/m; $\epsilon_r = 38.97$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE2500-FDD7 2510 MHz Duty Cycle: 1: 1

Probe: EX3DV4 – SN7307 ConvF(7.61,7.61,7.61)

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

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

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

Reference Value = 3.396 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.45 W/kg

SAR(1 g) = 0.657 W/kg; SAR(10 g) = 0.289 W/kg

Maximum value of SAR (measured) = 1.09 W/kg

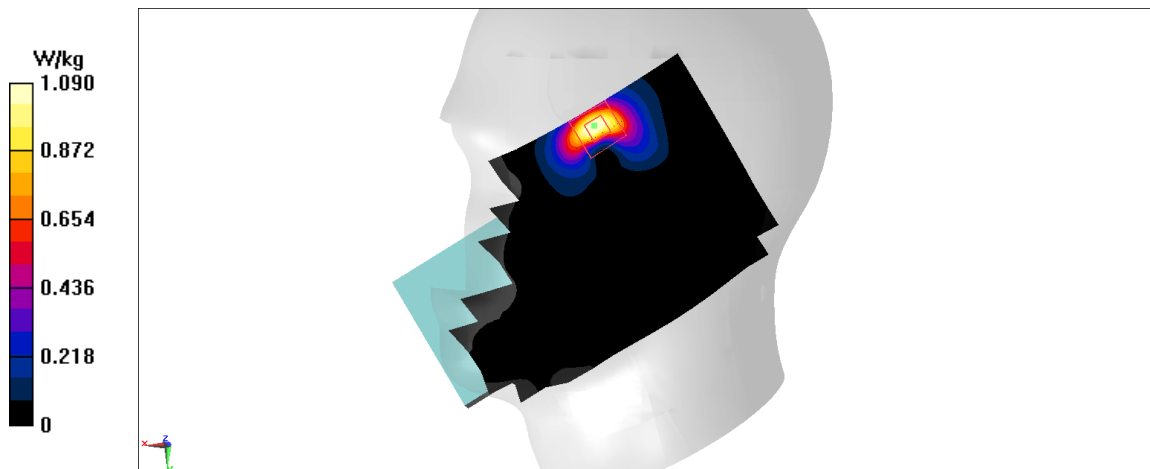


Fig A.11

LTE2500-FDD7_CH20850 50RB-Low Rear 10mm

Date: 3/10/2021

Electronics: DAE4 Sn536

Medium: body 2600 MHz

Medium parameters used: $f = 2510$ MHz; $\sigma = 1.89$ mho/m; $\epsilon_r = 38.97$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE2500-FDD7 2510 MHz Duty Cycle: 1: 1

Probe: EX3DV4 – SN7307 ConvF(7.61,7.61,7.61)

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

Maximum value of SAR (interpolated) = 0.629 W/kg

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

Reference Value = 1.259 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.747 W/kg

SAR(1 g) = 0.329 W/kg; SAR(10 g) = 0.128 W/kg

Maximum value of SAR (measured) = 0.593 W/kg

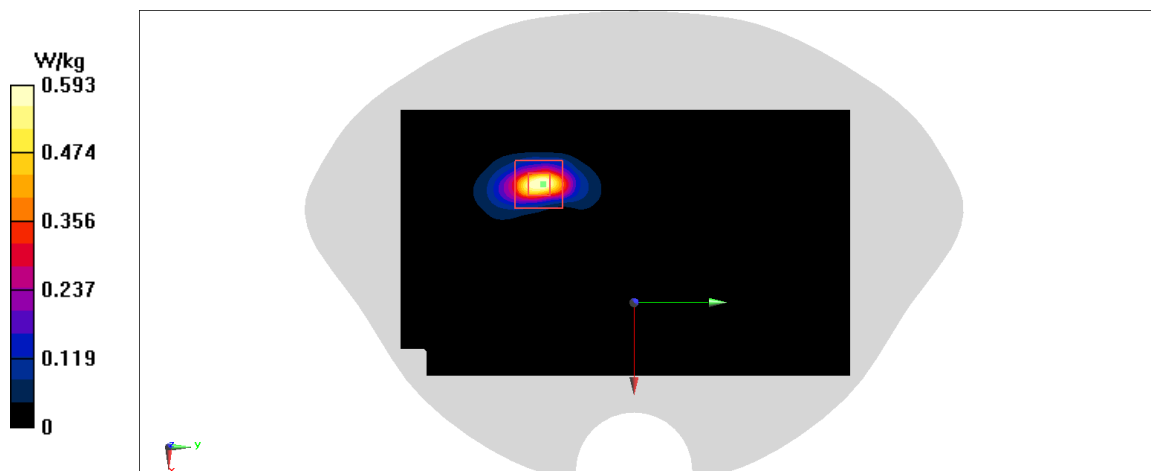


Fig A.12

LTEB7 Rear 15mm

Date: 3/9/2021

Electronics: DAE4 Sn536

Medium: body 2450 MHz

Medium parameters used: $f = 2560\text{MHz}$; $\sigma = 1.916 \text{ mho/m}$; $\epsilon_r = 39.08$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Probe: EX3DV4 – SN7307 ConvF(7.61,7.61,7.61)

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

Maximum value of SAR (interpolated) = 1.65 W/kg

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

Reference Value = 3.042 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.92 W/kg

SAR(1 g) = 0.938 W/kg; SAR(10 g) = 0.428 W/kg

Maximum value of SAR (measured) = 1.55 W/kg

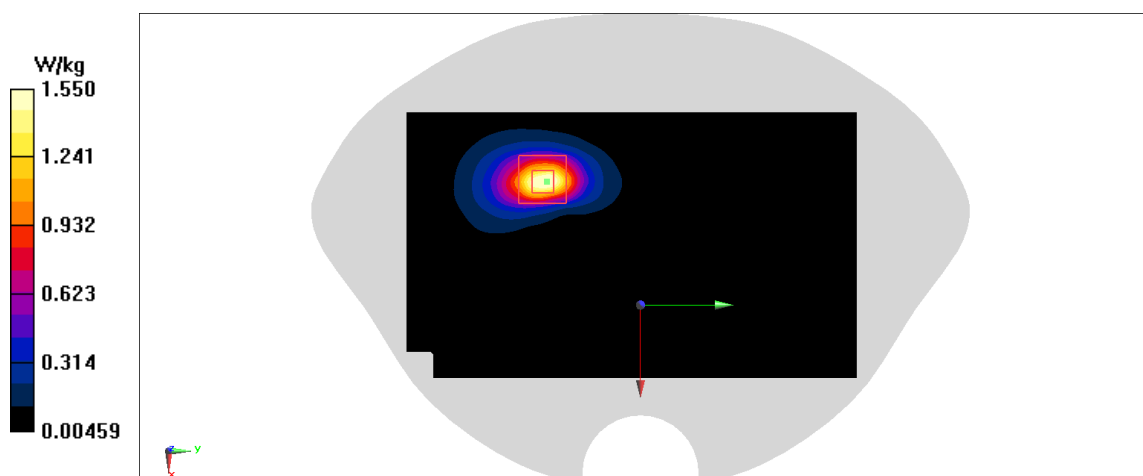


Fig A.13

LTE700-FDD12_CH23060 Right Cheek1RB-Low

Date: 3/5/2021

Electronics: DAE4 Sn536

Medium: head 750 MHz

Medium parameters used: $f = 704 \text{ MHz}$; $\sigma = 0.846 \text{ mho/m}$; $\epsilon_r = 42.56$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE700-FDD12 704 MHz Duty Cycle: 1: 1

Probe: EX3DV4 – SN7307 ConvF(10.41,10.41,10.41)

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

Maximum value of SAR (interpolated) = 0.148 W/kg

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

Reference Value = 5.074 V/m; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 0.162 W/kg

SAR(1 g) = 0.126 W/kg; SAR(10 g) = 0.099 W/kg

Maximum value of SAR (measured) = 0.148 W/kg

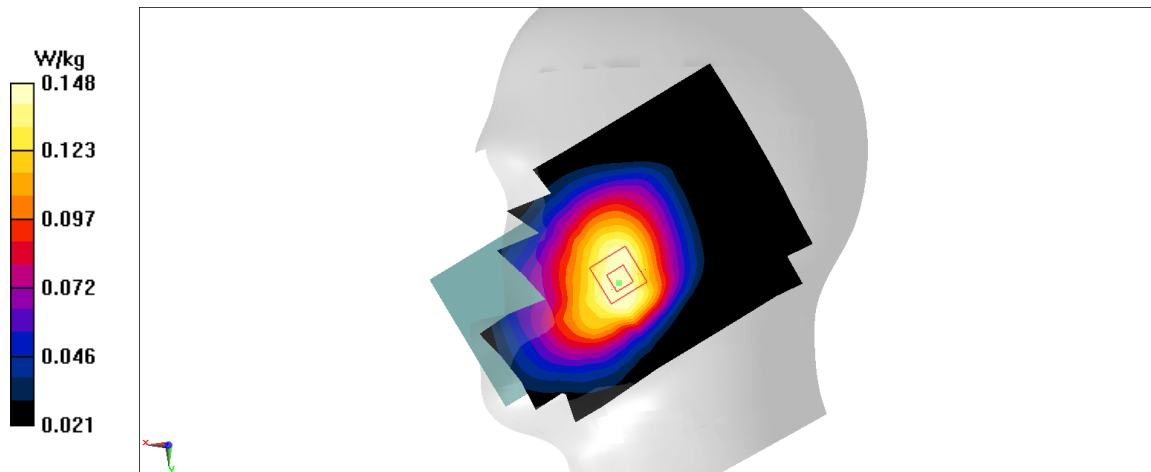


Fig A.14

LTE700-FDD12_CH23060 1RB-Low Rear 10mm

Date: 3/5/2021

Electronics: DAE4 Sn536

Medium: body 750 MHz

Medium parameters used: $f = 704 \text{ MHz}$; $\sigma = 0.856 \text{ mho/m}$; $\epsilon_r = 41.8$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.5°C , Liquid Temperature: 22.3°C

Communication System: LTE700-FDD12 704 MHz Duty Cycle: 1: 1

Probe: EX3DV4 – SN7307 ConvF(10.41,10.41,10.41)

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

Maximum value of SAR (interpolated) = 0.198 W/kg

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

Reference Value = 13.66 V/m ; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.247 W/kg

SAR(1 g) = 0.152 W/kg ; SAR(10 g) = 0.118 W/kg

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

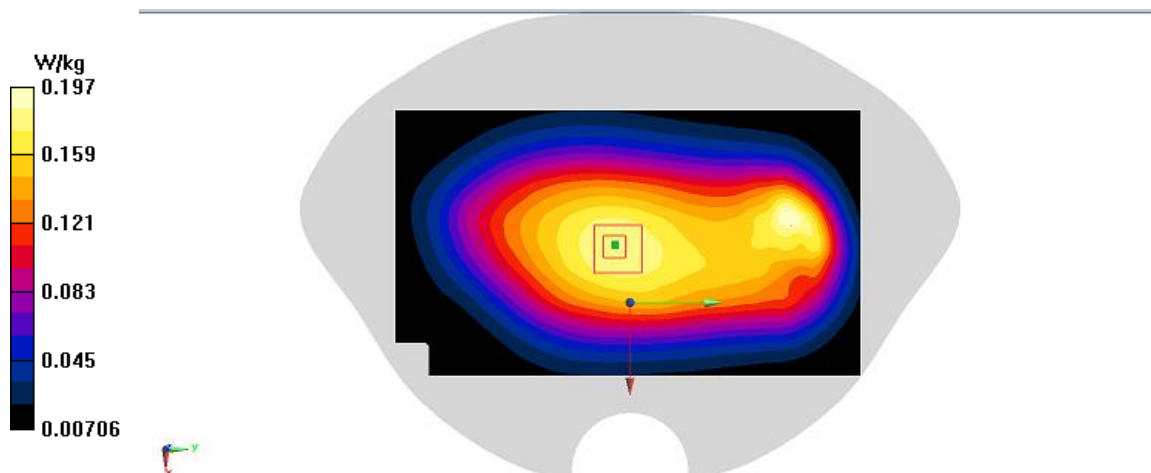


Fig A.15

LTE750-FDD13_CH23230 Right Cheek1RB-High

Date: 3/5/2021

Electronics: DAE4 Sn536

Medium: head 750 MHz

Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.92 \text{ mho/m}$; $\epsilon_r = 42.46$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.5°C , Liquid Temperature: 22.3°C

Communication System: LTE750-FDD13 782 MHz Duty Cycle: 1: 1

Probe: EX3DV4 – SN7307 ConvF(10.41,10.41,10.41)

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

Maximum value of SAR (interpolated) = 0.19 W/kg

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

Reference Value = 2.757 V/m ; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.203 W/kg

SAR(1 g) = 0.16 W/kg ; SAR(10 g) = 0.125 W/kg

Maximum value of SAR (measured) = 0.188 W/kg

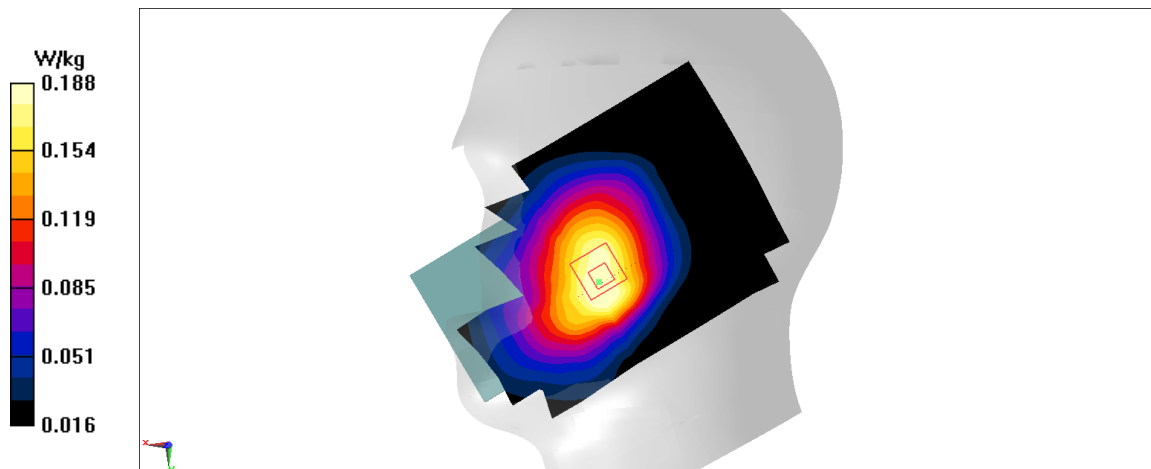


Fig A.16

LTE750-FDD13_CH23230 1RB-High Rear 10mm

Date: 3/5/2021

Electronics: DAE4 Sn536

Medium: body 750 MHz

Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.93 \text{ mho/m}$; $\epsilon_r = 41.7$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE750-FDD13 782 MHz Duty Cycle: 1: 1

Probe: EX3DV4 – SN7307 ConvF(10.41,10.41,10.41)

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

Maximum value of SAR (interpolated) = 0.244 W/kg

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

Reference Value = 14.56 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.291 W/kg

SAR(1 g) = 0.179 W/kg; SAR(10 g) = 0.139 W/kg

Maximum value of SAR (measured) = 0.226 W/kg

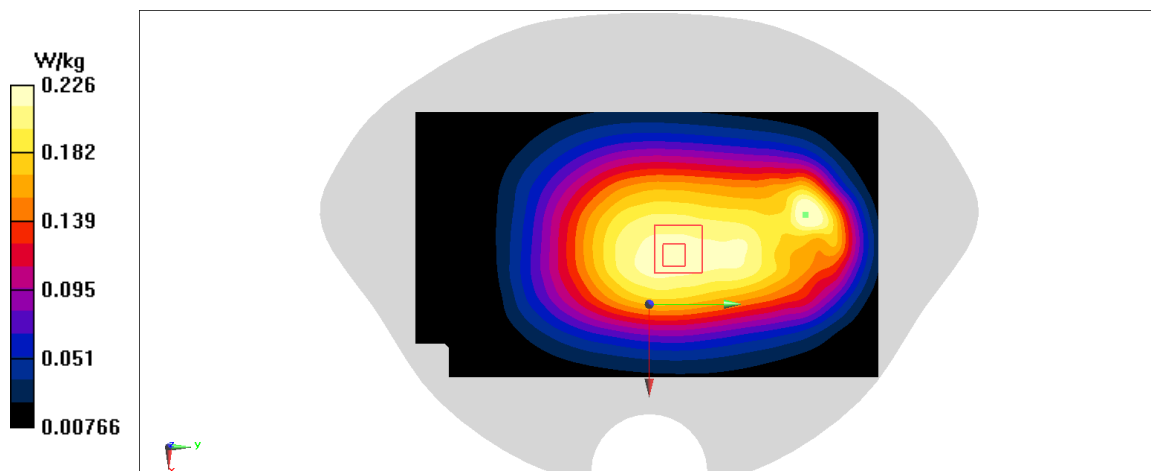


Fig A.17

LTE1900-FDD25_CH26365 Left Tilt 1RB-Low

Date: 3/8/2021

Electronics: DAE4 Sn536

Medium: head 1900 MHz

Medium parameters used: $f = 1882.5$ MHz; $\sigma = 1.394$ mho/m; $\epsilon_r = 39.4$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE1900-FDD25 1882.5 MHz Duty Cycle: 1: 1

Probe: EX3DV4 – SN7307 ConvF(8.33,8.33,8.33)

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

Maximum value of SAR (interpolated) = 0.2 W/kg

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

Reference Value = 2.357 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.225 W/kg

SAR(1 g) = 0.141 W/kg; SAR(10 g) = 0.091 W/kg

Maximum value of SAR (measured) = 0.192 W/kg

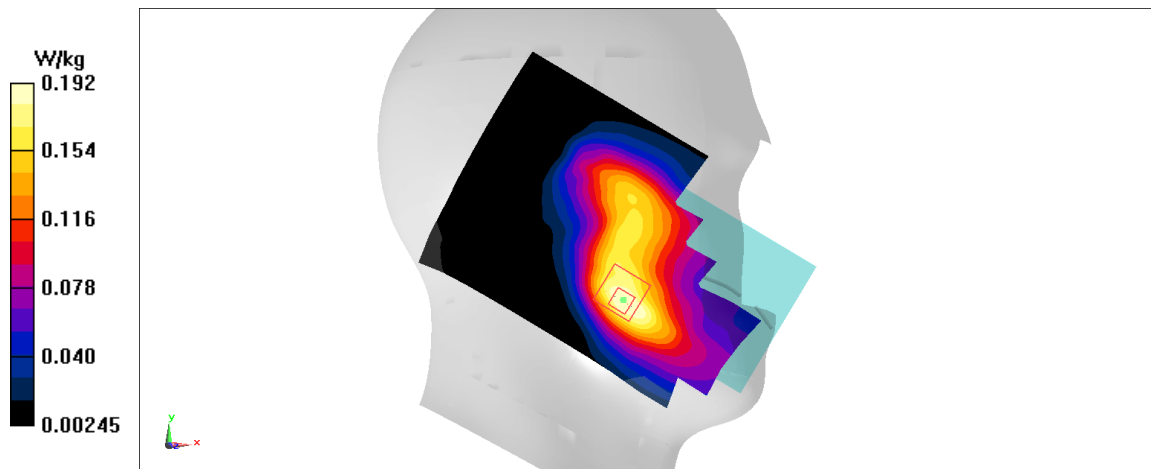


Fig A.18

LTE1900-FDD25_CH26365 1RB-Low Bottom Edge 10mm

Date: 3/8/2021

Electronics: DAE4 Sn536

Medium: body 1900 MHz

Medium parameters used: $f = 1882.5$ MHz; $\sigma = 1.361$ mho/m; $\epsilon_r = 39.68$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE1900-FDD25 1882.5 MHz Duty Cycle: 1: 1

Probe: EX3DV4 – SN7307 ConvF(8.33,8.33,8.33)

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

Maximum value of SAR (interpolated) = 1.83 W/kg

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

Reference Value = 24.63 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 2.14 W/kg

SAR(1 g) = 1.18 W/kg; SAR(10 g) = 0.615 W/kg

Maximum value of SAR (measured) = 1.79 W/kg

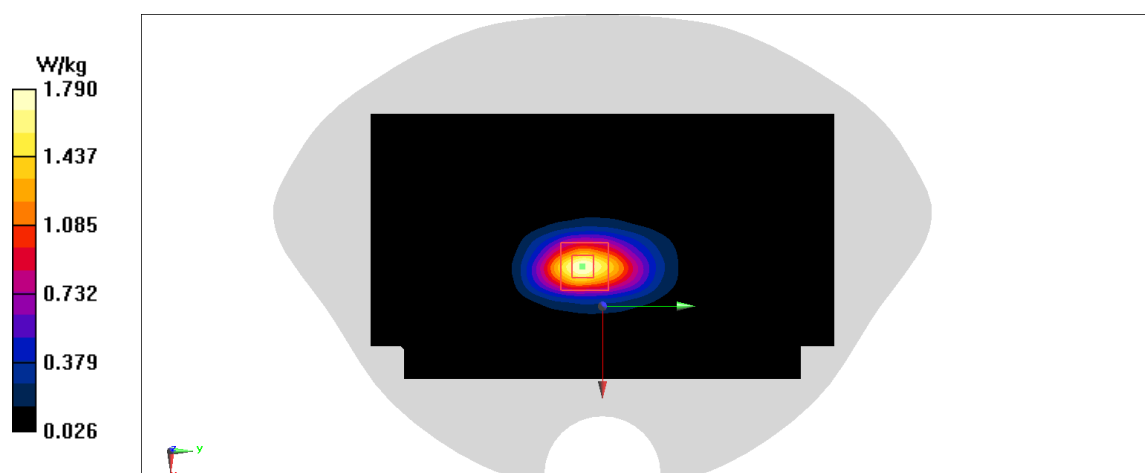


Fig A.19

LTE850-FDD26_CH26865 Right Cheek1RB-High

Date: 3/6/2021

Electronics: DAE4 Sn536

Medium: head 835 MHz

Medium parameters used: $f = 831.5$ MHz; $\sigma = 0.885$ mho/m; $\epsilon_r = 40.69$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE850-FDD26 831.5 MHz Duty Cycle: 1: 1

Probe: EX3DV4 – SN7307 ConvF(10.2,10.2,10.2)

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

Maximum value of SAR (interpolated) = 0.256 W/kg

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

Reference Value = 3.176 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.281 W/kg

SAR(1 g) = 0.214 W/kg; SAR(10 g) = 0.165 W/kg

Maximum value of SAR (measured) = 0.253 W/kg

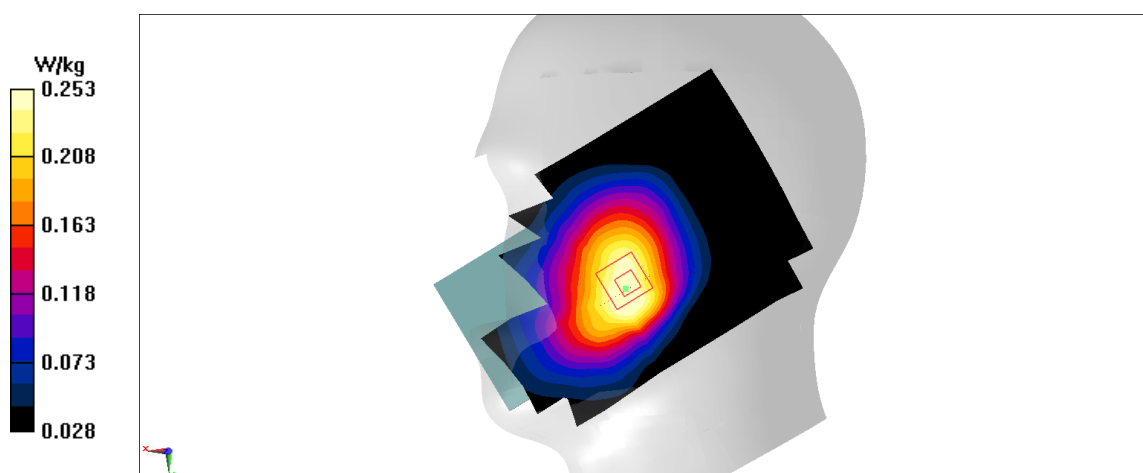


Fig A.20

LTE850-FDD26_CH26865 1RB-High Rear 10mm

Date: 3/6/2021

Electronics: DAE4 Sn536

Medium: body 835 MHz

Medium parameters used: $f = 831.5$ MHz; $\sigma = 0.885$ mho/m; $\epsilon_r = 40.69$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE850-FDD26 831.5 MHz Duty Cycle: 1: 1

Probe: EX3DV4 – SN7307 ConvF(10.2,10.2,10.2)

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

Maximum value of SAR (interpolated) = 0.375 W/kg

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

Reference Value = 16.45 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.457 W/kg

SAR(1 g) = 0.239 W/kg; SAR(10 g) = 0.138 W/kg

Maximum value of SAR (measured) = 0.362 W/kg

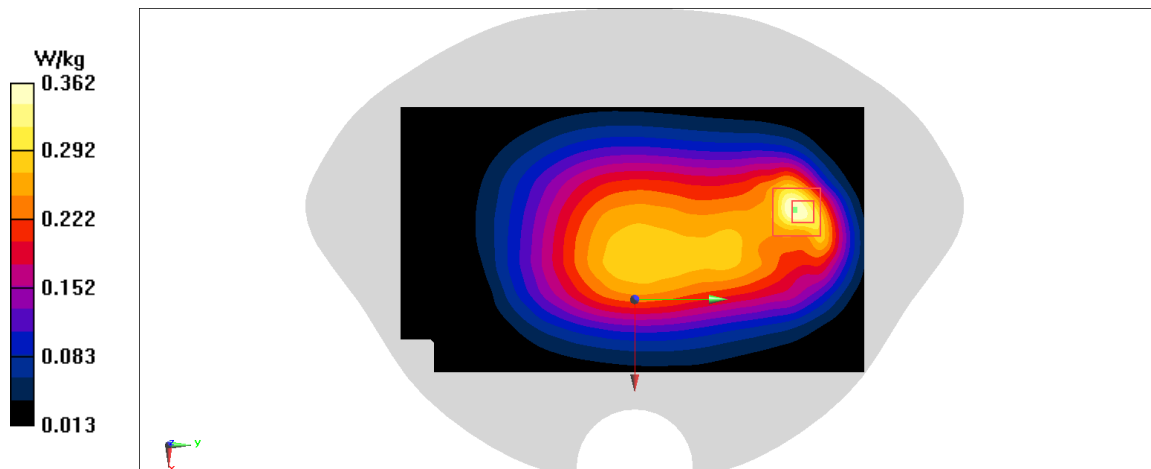


Fig A.21

LTEB41_CH40470 Right Cheek1RB-Middle

Date: 3/6/2021

Electronics: DAE4 Sn536

Medium: head 2600 MHz

Medium parameters used: $f = 2578\text{MHz}$; $\sigma = 1.934\text{ mho/m}$; $\epsilon_r = 39.03$; $\rho = 1000\text{ kg/m}^3$

Ambient Temperature: 22.5°C , Liquid Temperature: 22.3°C

Communication System: Max 2578 Duty Cycle: 1:1.58

Probe: EX3DV4 – SN7307 ConvF(7.61,7.61,7.61)

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

Maximum value of SAR (interpolated) = 0.788 W/kg

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

Reference Value = 1.871 V/m ; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.19 W/kg

SAR(1 g) = 0.543 W/kg ; SAR(10 g) = 0.236 W/kg

Maximum value of SAR (measured) = 0.925 W/kg

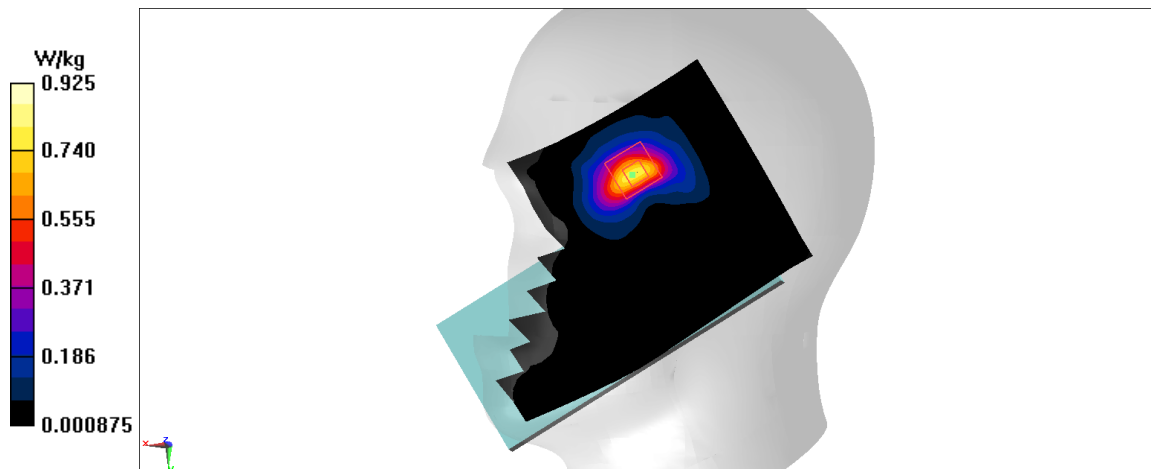


Fig A.22

LTEB41_CH40800 1RB-Low Rear 10mm

Date: 3/6/2021

Electronics: DAE4 Sn536

Medium: body 2600 MHz

Medium parameters used: $f = 2611\text{MHz}$; $\sigma = 1.967\text{ mho/m}$; $\epsilon_r = 38.99$; $\rho = 1000\text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: Max 2611 Duty Cycle: 1: 1.58

Probe: EX3DV4 – SN7307 ConvF(7.61,7.61,7.61)

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

Maximum value of SAR (interpolated) = 1.6 W/kg

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

Reference Value = 1.893 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.95 W/kg

SAR(1 g) = 0.869 W/kg; SAR(10 g) = 0.347 W/kg

Maximum value of SAR (measured) = 1.53 W/kg

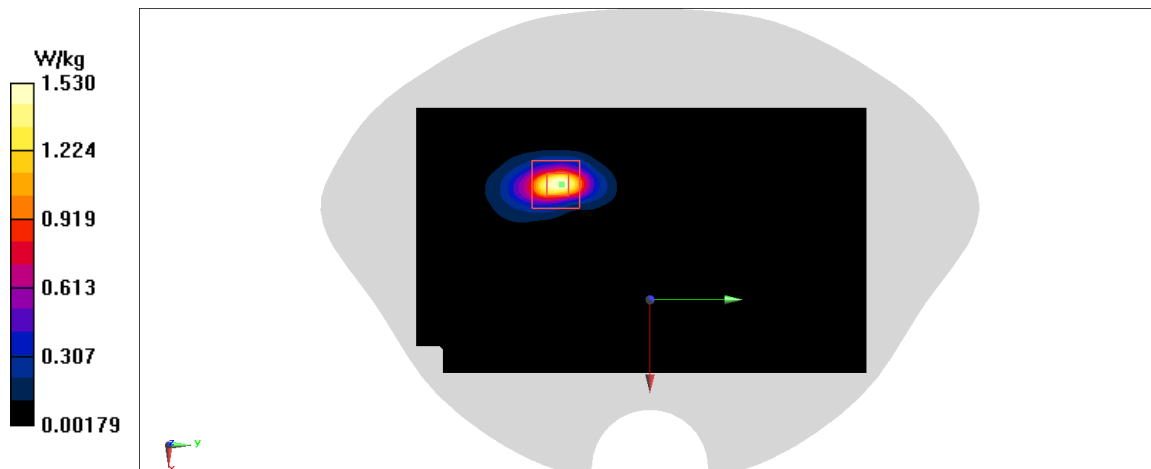


Fig A.23

LTEB41_CH40140 100RB Rear 15mm

Date: 3/9/2021

Electronics: DAE4 Sn536

Medium: body 2600 MHz

Medium parameters used: $f = 2545\text{MHz}$; $\sigma = 1.901 \text{ mho/m}$; $\epsilon_r = 39.07$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: WLAN 2600 Duty Cycle: 1: 1

Probe: EX3DV4 – SN7307 ConvF(7.61,7.61,7.61)

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

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

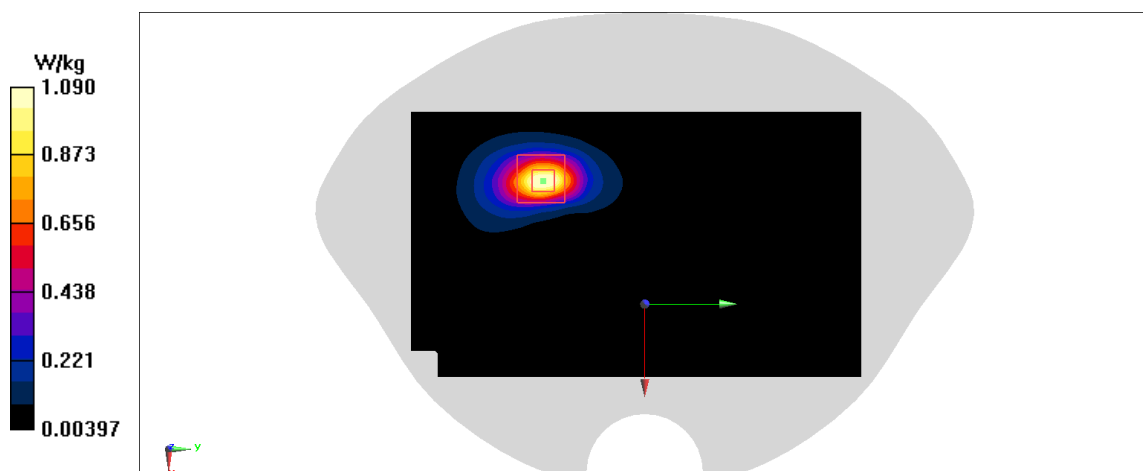
Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 2.305 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.34 W/kg

SAR(1 g) = 0.662 W/kg; SAR(10 g) = 0.3 W/kg

Maximum value of SAR (measured) = 1.09 W/kg


Fig A.24

LTE1700-FDD66_CH132572 Left Cheek 1RB-High

Date: 3/7/2021

Electronics: DAE4 Sn536

Medium: head 1750 MHz

Medium parameters used: $f = 1770\text{MHz}$; $\sigma = 1.374\text{ mho/m}$; $\epsilon_r = 40.18$; $\rho = 1000\text{ kg/m}^3$

Ambient Temperature: 22.5°C , Liquid Temperature: 22.3°C

Communication System: LTE1700-FDD66 2611 Duty Cycle: 1: 1

Probe: EX3DV4 – SN7307 ConvF(8.64,8.64,8.64)

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

Maximum value of SAR (interpolated) = 0.396 W/kg

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

Reference Value = 3.794 V/m ; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.437 W/kg

SAR(1 g) = 0.281 W/kg ; SAR(10 g) = 0.186 W/kg

Maximum value of SAR (measured) = 0.377 W/kg

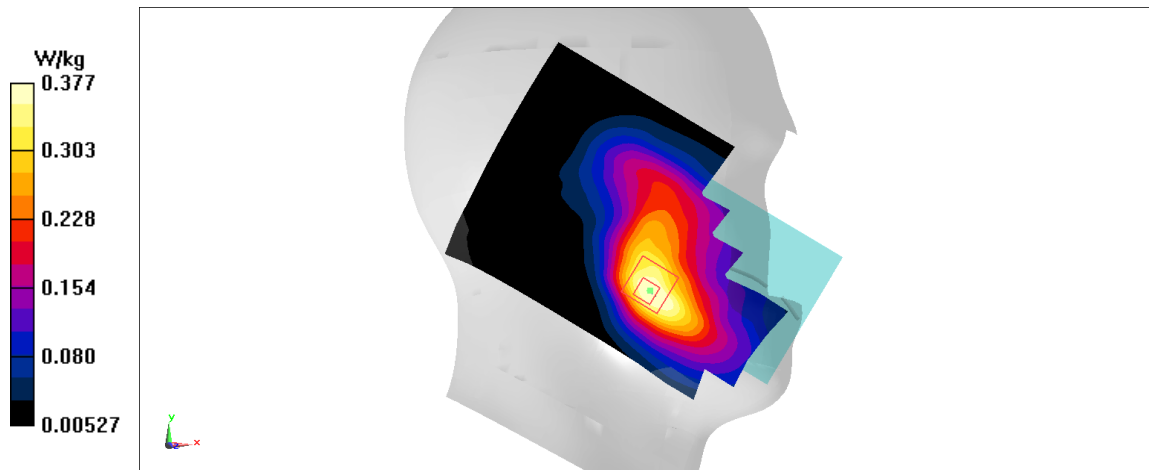


Fig A.25

LTE1700-FDD66_CH132072 1RB-High Bottom Edge 10mm

Date: 3/7/2021

Electronics: DAE4 Sn536

Medium: body 1750 MHz

Medium parameters used: $f = 1720\text{MHz}$; $\sigma = 1.324\text{ mho/m}$; $\epsilon_r = 40.23$; $\rho = 1000\text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE1700-FDD66 2611 Duty Cycle: 1: 1

Probe: EX3DV4 – SN7307 ConvF(8.64,8.64,8.64)

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

Maximum value of SAR (interpolated) = 1.6 W/kg

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

Reference Value = 27.09 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 1.88 W/kg

SAR(1 g) = 1.06 W/kg; SAR(10 g) = 0.567 W/kg

Maximum value of SAR (measured) = 1.55 W/kg

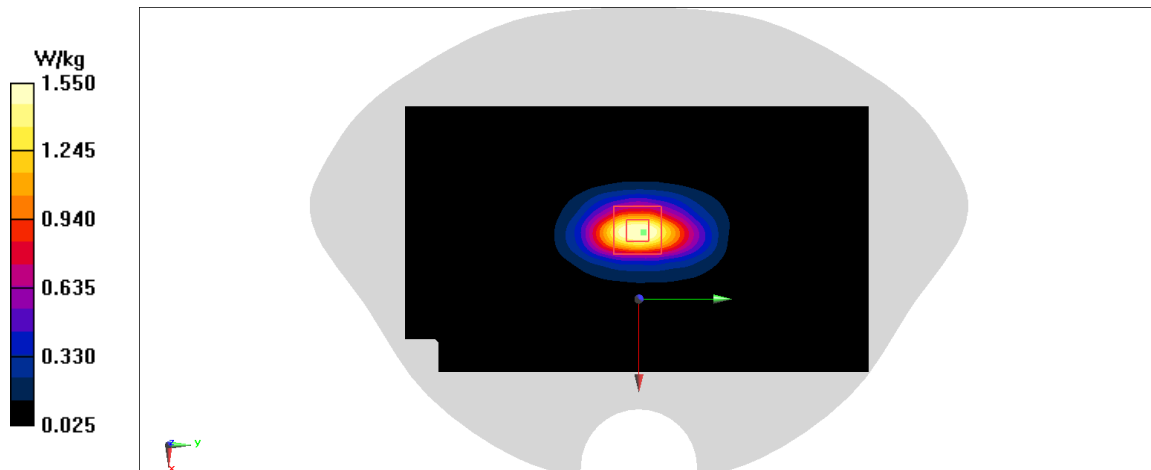


Fig A.26

LTE700-FDD71_CH133222 Right Cheek1RB-Middle

Date: 3/5/2021

Electronics: DAE4 Sn536

Medium: head 750 MHz

Medium parameters used: $f = 673\text{MHz}$; $\sigma = 0.813\text{ mho/m}$; $\epsilon_r = 42.58$; $\rho = 1000\text{ kg/m}^3$

Ambient Temperature: 22.5°C , Liquid Temperature: 22.3°C

Communication System: LTE700-FDD71 2611 Duty Cycle: 1: 1

Probe: EX3DV4 – SN7307 ConvF(10.41,10.41,10.41)

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

Maximum value of SAR (interpolated) = 0.141 W/kg

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

Reference Value = 4.194 V/m ; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.156 W/kg

SAR(1 g) = 0.123 W/kg ; SAR(10 g) = 0.098 W/kg

Maximum value of SAR (measured) = 0.144 W/kg

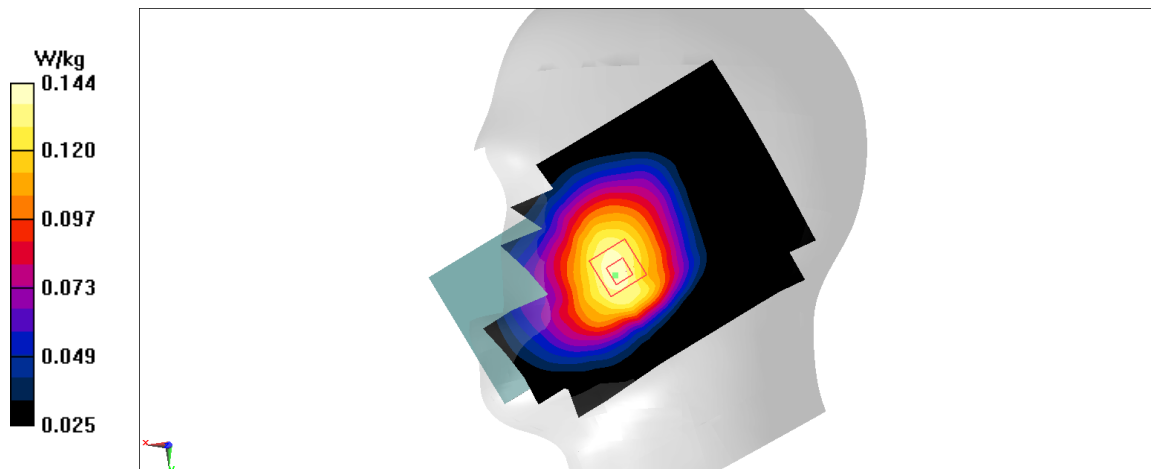


Fig A.27

LTE700-FDD71_CH133222 1RB-Middle Rear 10mm

Date: 3/5/2021

Electronics: DAE4 Sn536

Medium: body 750 MHz

Medium parameters used: $f = 673\text{MHz}$; $\sigma = 0.813\text{ mho/m}$; $\epsilon_r = 42.58$; $\rho = 1000\text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE700-FDD71 2611 Duty Cycle: 1: 1

Probe: EX3DV4 – SN7307 ConvF(10.41,10.41,10.41)

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

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

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

Reference Value = 15.75 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 0.258 W/kg

SAR(1 g) = 0.195 W/kg; SAR(10 g) = 0.152 W/kg

Maximum value of SAR (measured) = 0.234 W/kg

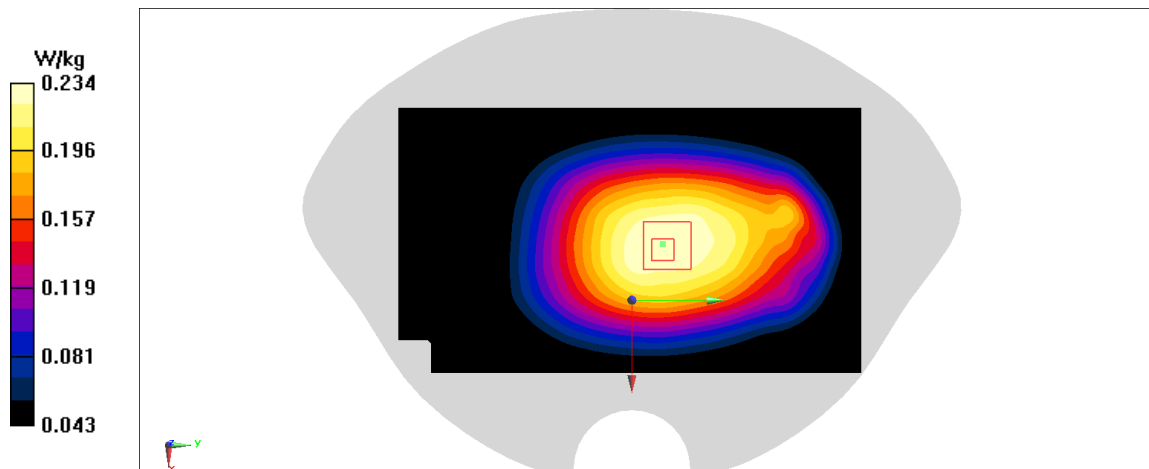


Fig A.28

WLAN2450_CH6 Right Cheek

Date: 3/9/2021

Electronics: DAE4 Sn536

Medium: head 2450 MHz

Medium parameters used: $f = 2437\text{MHz}$; $\sigma = 1.806\text{ mho/m}$; $\epsilon_r = 39.85$; $\rho = 1000\text{ kg/m}^3$

Ambient Temperature: 22.5°C , Liquid Temperature: 22.3°C

Communication System: WLAN2450 2437 Duty Cycle: 1: 1

Probe: EX3DV4 – SN7307 ConvF(7.77,7.77,7.77)

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

Maximum value of SAR (interpolated) = 1.88 W/kg

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

Reference Value = 11.91 V/m ; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 2.18 W/kg

SAR(1 g) = 1.11 W/kg ; SAR(10 g) = 0.553 W/kg

Maximum value of SAR (measured) = 1.71 W/kg

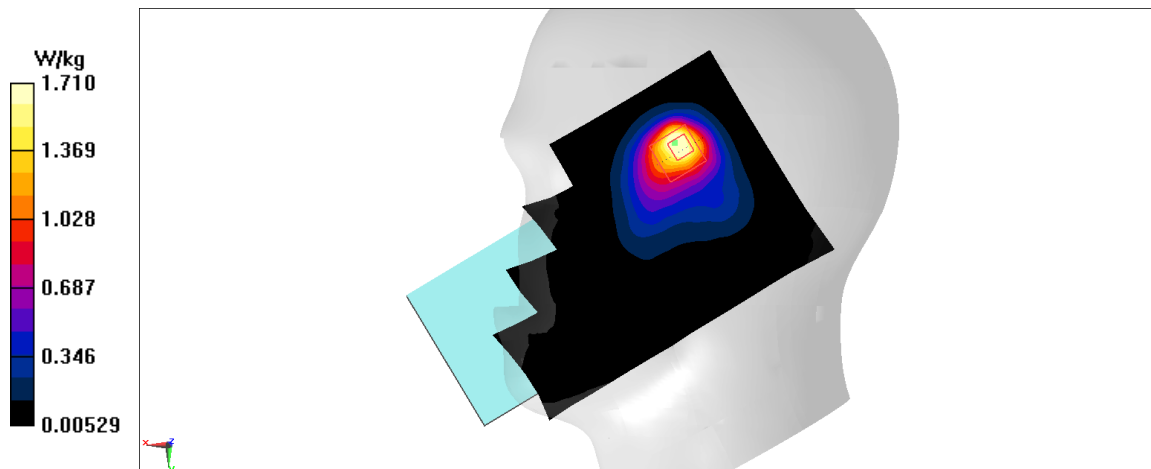


Fig A.29