Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	47.4 Ω - 7.4 jΩ
Return Loss	- 21.9 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	44.1 Ω - 4.9 jΩ
Return Loss	- 21.8 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.154 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	October 30, 2007

DASY5 Validation Report for Head TSL

Date: 26.07.2018

Test Laboratory: SPEAG, Zurich, Switzerland

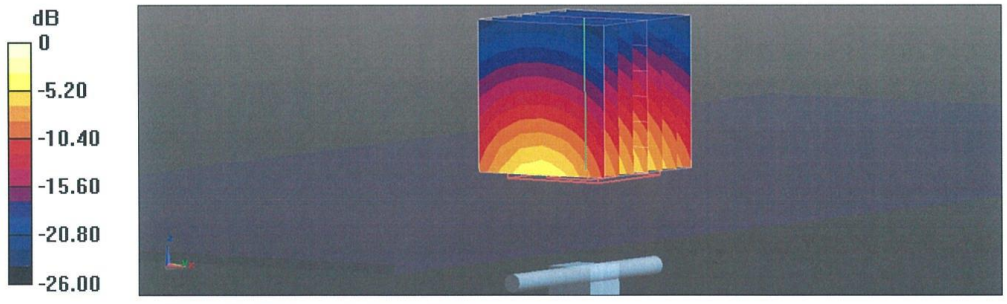
DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2 - SN:1012

Communication System: UID 0 - CW; Frequency: 2600 MHz
Medium parameters used: f = 2600 MHz; σ = 2.02 S/m; ε_r = 37.2; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

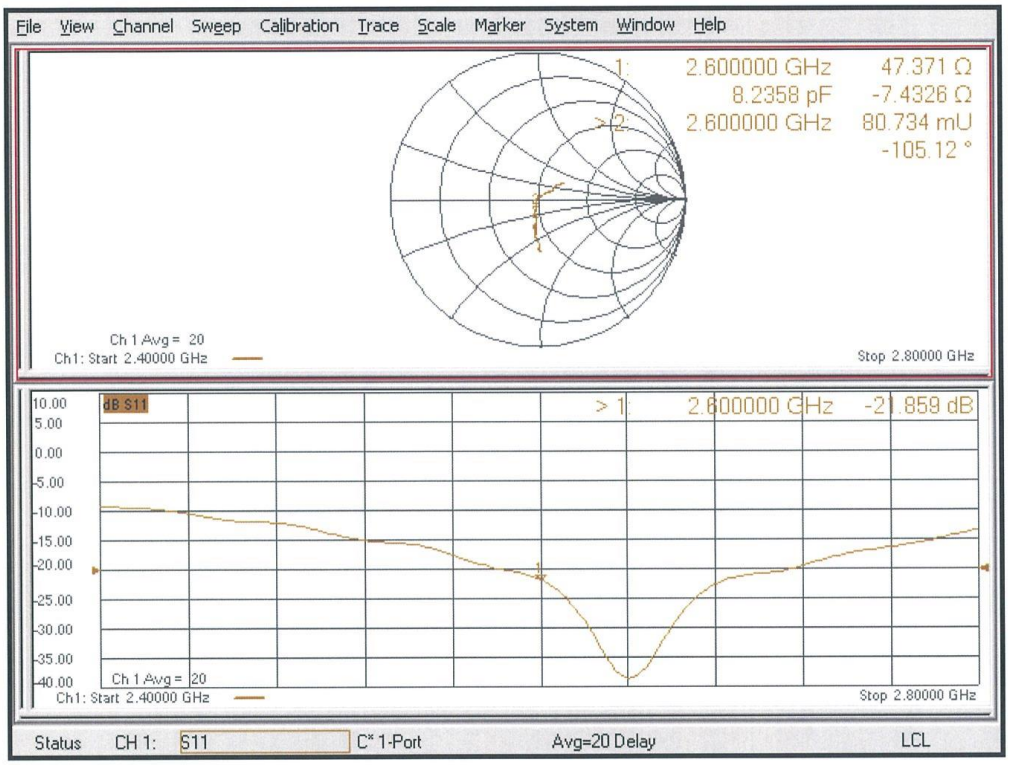
- Probe: EX3DV4 - SN7349; ConvF(7.7, 7.7, 7.7) @ 2600 MHz; Calibrated: 30.12.2017
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 26.10.2017
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

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 = 118.3 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 28.3 W/kg
SAR(1 g) = 14.2 W/kg; SAR(10 g) = 6.33 W/kg
Maximum value of SAR (measured) = 23.7 W/kg



0 dB = 23.7 W/kg = 13.75 dBW/kg

Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date: 26.07.2018

Test Laboratory: SPEAG, Zurich, Switzerland

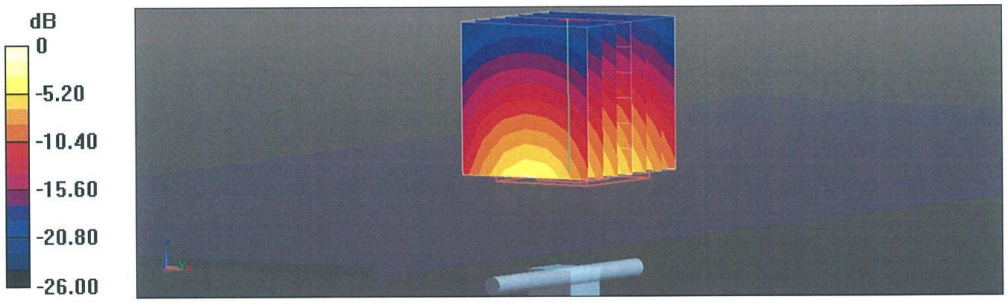
DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2 - SN:1012

Communication System: UID 0 - CW; Frequency: 2600 MHz
Medium parameters used: f = 2600 MHz; σ = 2.2 S/m; ε_r = 51.5; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

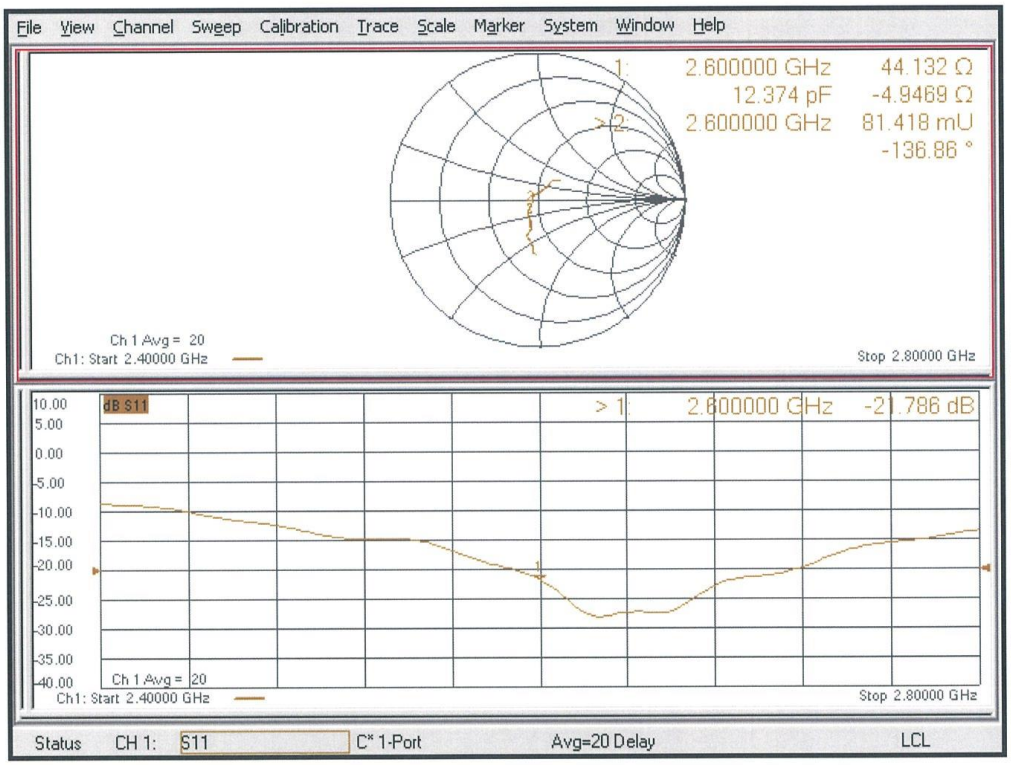
- Probe: EX3DV4 - SN7349; ConvF(7.81, 7.81, 7.81) @ 2600 MHz; Calibrated: 30.12.2017
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 26.10.2017
- Phantom: Flat Phantom 5.0 (back); Type: QD 000 P50 AA; Serial: 1002
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

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 = 107.5 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 27.7 W/kg
SAR(1 g) = 13.7 W/kg; SAR(10 g) = 6.17 W/kg
Maximum value of SAR (measured) = 22.6 W/kg



0 dB = 22.6 W/kg = 13.54 dBW/kg

Impedance Measurement Plot for Body TSL



ANNEX I Sensor Triggering Data Summary

1, Maximum transmit power reduce process follow below strategy when mobile connect network.

Headset	P-sensor	SAR sensor	TX Power reduce
Insert	Near	Near	Yes
Insert	Near	Far	No
Insert	Far	Near	Yes
Insert	Far	Far	No
Pull out	Near	Near	No
Pull out	Near	Far	No
Pull out	Far	Near	Yes
Pull out	Far	Far	No

2, Distance definition

P-sensor Detect	Near	Far
Distance Detected	<3cm	>=5cm

SAR Sensor Detect	Near	Far
black	<=23mm	>23mm
front	<=12mm	>12mm
bottom	<=23mm	>23mm
top	Not Detect	Not Detect
right	Not Detect	Not Detect
left	Not Detect	Not Detect

3, Reduction and Bands

Band	Requirement	Maximum conduct power reduction
DCS	1、2、3、4 Slots	3dB
PCS	1、2、3、4 Slots	3dB
WB1		2dB
LTE B1		2dB
LTE B3		2dB
LTE B7		2dB

According to the above description, this device was tested by the manufacturer to determine the SAR sensor triggering distances for the rear and bottom edge of the device. The measured power state within ±5mm of the triggering points (or until touching the phantom) is included for rear and each applicable edge.

To ensure all production units are compliant it is necessary to test SAR at a distance 1mm less than the smallest distance from the device and SAR phantom with the device at maximum output power without power reduction.

We tested the power and got the different proximity sensor triggering distances for rear and bottom edge. But the manufacturer has declared 23mm is the most conservative triggering distance for main antenna. So base on the most conservative triggering distance of 23mm, additional SAR measurements were required at 22mm from the highest SAR position between rear and bottom edge of main antenna.

Rear

Moving device toward the phantom:

The power state											
Distance [mm]	**28**	**27**	**26**	**25**	**24**	**23**	**22**	**21**	**20**	**19**	**18**
Main antenna	Normal	Normal	Normal	Normal	Low	Low	Low	Low	Low	Low	Low

Moving device away from the phantom:

The power state											
Distance [mm]	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**
Main antenna	Low	Low	Low	Low	Low	Low	Low	Normal	Normal	Normal	Normal

Bottom Edge

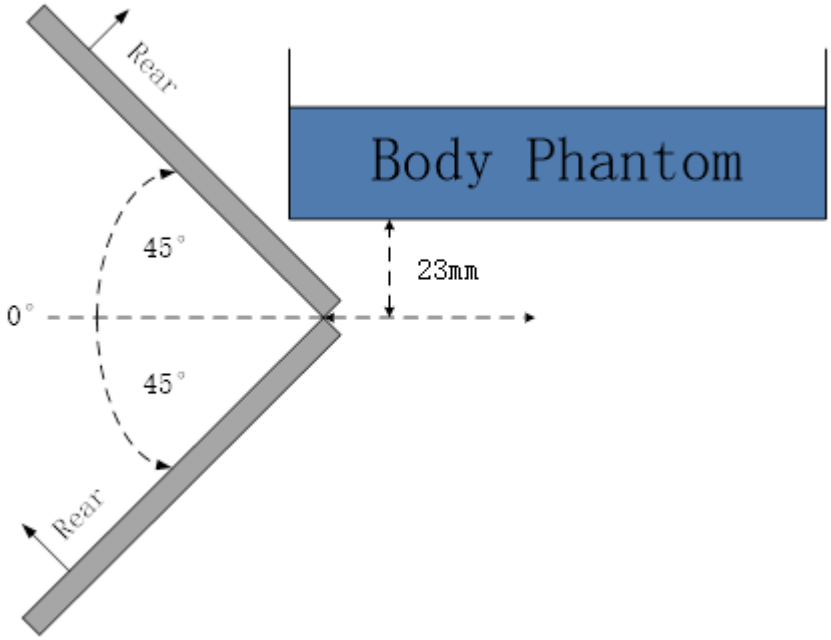
Moving device toward the phantom:

The power state											
Distance [mm]	**28**	**27**	**26**	**25**	**24**	**23**	**22**	**21**	**20**	**19**	**18**
Main antenna	Normal	Normal	Normal	Normal	Normal	Low	Low	Low	Low	Low	Low

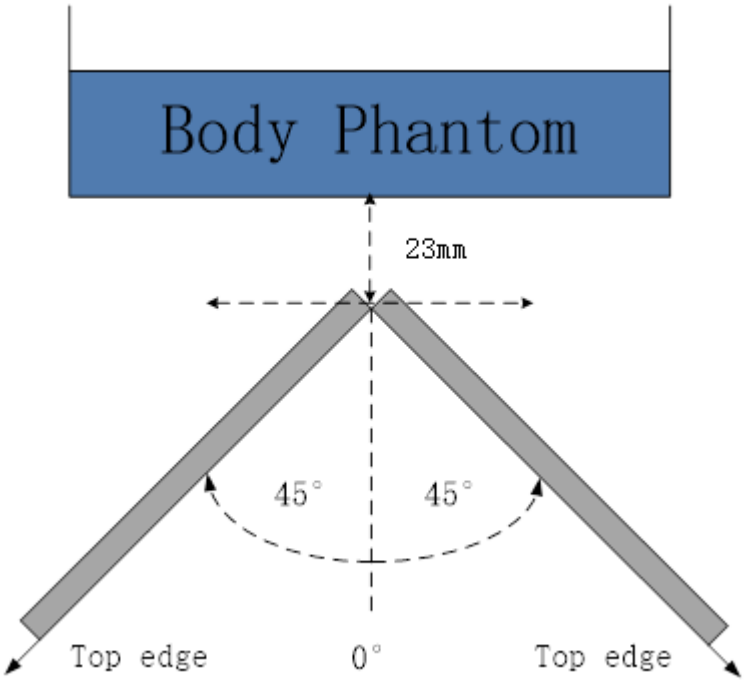
Moving device away from the phantom:

The power state											
Distance [mm]	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**
Main antenna	Low	Low	Low	Low	Low	Low	Normal	Normal	Normal	Normal	Normal

The influence of table tilt angles to proximity sensor triggering is determined by positioning each edge that contains a transmitting antenna, perpendicular to the flat phantom, at the smallest sensor triggering test distance by rotating the device around the edge next to the phantom in ≤ 10° increments until the tablet is ±45° or more from the vertical position at 0°.



The rear evaluation for main antenna



The bottom edge evaluation for main antenna

Based on the above evaluation, we come to the conclusion that the sensor triggering is not released and normal maximum output power is not restored within the ±45° range at the smallest sensor triggering test distance declared by manufacturer.

ANNEX J SPOT CHECK

J.1 Conducted power of selected case

Table J.1-1: The conducted power results for 2G

GSM 850	Measured Power (dBm)		
	251	190	128
Speech	32.69	/	/
GPRS 3Txslots	27.98	/	/
GSM1900	Measured Power (dBm)		
	810	661	512
Speech	29.73	/	/
GPRS 3Txslots	/	/	26.09

Table J.1-2: The conducted Power for 3G

WCDMA	band	FDDV result		
	ARFCN	4233 (846.6MHz)	4182 (836.4MHz)	4132 (826.4MHz)
RMC	\	/	23.82	/

Table J.1-3: The conducted Power for LTE

Band	Bandwidth	RB allocation - RB offset (Start RB)	Frequency (Channel)	Measured Power (dBm)
LTE Band5	10MHz	1RB-Middle (24)	829 (20450)	24.49
LTE Band7 - Normal power	20MHz	1RB-High (99)	2510 (20850)	22.73
LTE Band7 - Low power	20MHz	1RB-Middle (50)	2510 (20850)	21.96
LTE Band38	20MHz	1RB-Middle (50)	2610 (38150)	24.05
			2580 (37850)	24.02

Table J.1-4: The conducted Power for WLAN

Mode / data rate	Frequency (Channel)	Measured Power (dBm)
802.11b / 1Mbps	2412 (1)	17.45

J.2 Measurement results

Test Band	Channel	Frequency	Test Position	Figure No./Note	Conducted Power (dBm)	Tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
GSM850	251	848.8	Left	Fig J.1	32.69	33.5	0.157	**0.19**	0.206	**0.25**	0.07
GSM850	251	848.8	Rear	Fig J.2	27.98	29	0.129	**0.16**	0.206	**0.26**	-0.03
GSM1900	810	1909.8	Left	Fig J.3	29.73	30.5	0.077	**0.09**	0.115	**0.14**	-0.07
GSM1900	512	1850.2	Bottom	Fig J.4	26.09	26.5	0.298	**0.33**	0.565	**0.62**	0.01
WCDMA 850	4182	836.4	Right	Fig J.5	23.82	24.5	0.204	**0.24**	0.262	**0.31**	-0.08
WCDMA 850	4182	836.4	Rear	Fig J.6	23.82	24.5	0.249	**0.29**	0.327	**0.38**	-0.07
LTE Band5	20450	829	Left	Fig J.7	24.49	24.5	0.214	**0.21**	0.280	**0.28**	-0.08
LTE Band5	20450	829	Rear	Fig J.8	24.49	24.5	0.278	**0.28**	0.362	**0.36**	0.12
LTE Band7	20850	2510	Right	Fig J.9	22.73	24.5	0.072	**0.11**	0.131	**0.20**	0.02
LTE Band7	20850	2510	Rear	Fig J.10	21.96	23.5	0.215	**0.31**	0.472	**0.67**	-0.03
LTE Band38	38150	2610	Right	Fig J.11	24.05	24.5	0.040	**0.04**	0.074	**0.08**	0.04
LTE Band38	37850	2580	Rear	Fig J.12	24.02	24.5	0.220	**0.25**	0.461	**0.51**	0.03
WLAN	1	2412	Left	Fig J.13	17.45	18	0.184	**0.21**	0.371	**0.42**	0.09
WLAN	1	2412	Rear	Fig J.14	17.45	18	0.078	**0.09**	0.159	**0.18**	-0.09

Table J.2-1: SAR Values (WLAN - Head) – 802.11b (Scaled Reported SAR)

Frequency		Side	Test Position	Actual duty factor	maximum duty factor	Reported SAR (1g) (W/kg)	Scaled reported SAR (1g) (W/kg)
MHz	Ch.						
2412	1	Left	Touch	100%	100%	**0.42**	**0.42**

Table J.2-2: SAR Values (WLAN - Body) – 802.11b (Scaled Reported SAR)

Frequency		Test Position	Actual duty factor	maximum duty factor	Reported SAR (1g) (W/kg)	Scaled reported SAR (1g) (W/kg)
MHz	Ch.					
2412	1	Rear 10mm	100%	100%	**0.18**	**0.18**

J.3 Reported SAR Comparison

Exposure Configuration	Technology Band	Reported SAR 1g (W/Kg): spot check	Reported SAR 1g (W/Kg): original
Head (Separation Distance 0mm)	GSM 850	0.25	0.21
	PCS 1900	0.14	0.17
	UMTS FDD 5	0.31	0.23
	LTE Band 5	0.28	0.23
	LTE Band 7	0.20	0.14
	LTE Band 38	0.08	0.08
	WLAN 2.4 GHz	0.42	0.27
Hotspot (Separation Distance 10mm)	GSM 850	0.26	0.23
	PCS 1900	0.62	0.62
	UMTS FDD 5	0.38	0.30
	LTE Band 5	0.36	0.28
	LTE Band 7	0.67	0.79
	LTE Band 38	0.51	1.20
	WLAN 2.4 GHz	0.18	0.11

Note: All the spot check results marked blue are larger than the original result. So it replace the original results and others are shared.

J.4 Graph Results of spot check

850 Left Cheek High

Date: 2019-2-11
Electronics: DAE4 Sn1525
Medium: Head 850 MHz
Medium parameters used: f = 848.8 MHz; σ = 0.893 mho/m; εr = 40.71; ρ = 1000 kg/m^3
Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C
Communication System: GSM 850 Frequency: 848.8 MHz Duty Cycle: 1:8.3
Probe: EX3DV4 – SN7514 ConvF(9.09, 9.09, 9.09)

Area Scan (81x131x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

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

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

Reference Value = 3.803 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.275 W/kg
SAR(1 g) = 0.206 W/kg; SAR(10 g) = 0.157 W/kg
Maximum value of SAR (measured) = 0.248 W/kg

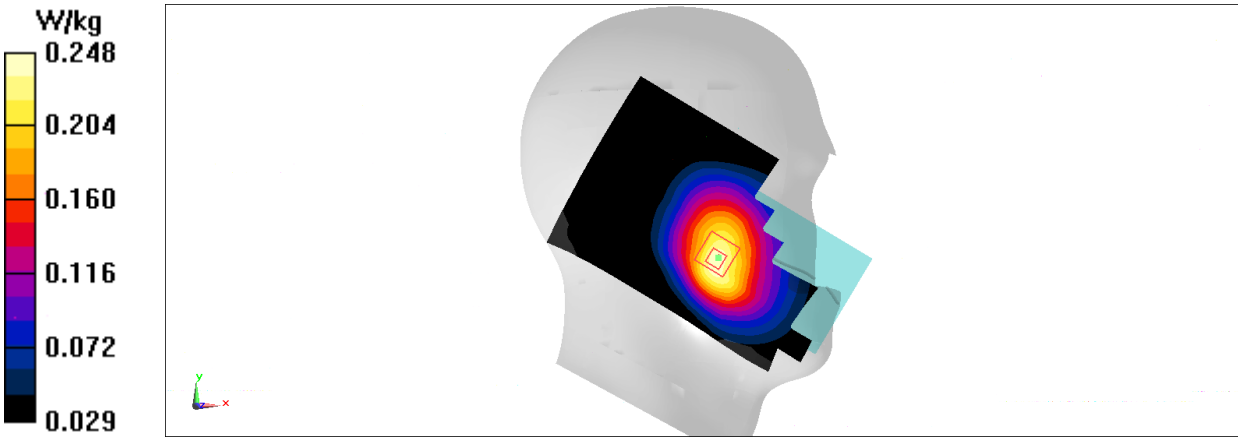


Fig J.1 850MHz

850 Body Rear High

Date: 2019-2-11
Electronics: DAE4 Sn1525
Medium: Body 850 MHz
Medium parameters used: f = 848.8 MHz; σ = 0.992 mho/m; εr = 55.57; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC Liquid Temperature: 22.5ºC
Communication System: GSM 850 GPRS Frequency: 848.8 MHz Duty Cycle: 1:2.67
Probe: EX3DV4 – SN7514 ConvF(9.47, 9.47, 9.47)

Area Scan (131x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.296 W/kg

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

Reference Value = 12.33 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.361 W/kg
SAR(1 g) = 0.206 W/kg; SAR(10 g) = 0.129 W/kg
Maximum value of SAR (measured) = 0.292 W/kg

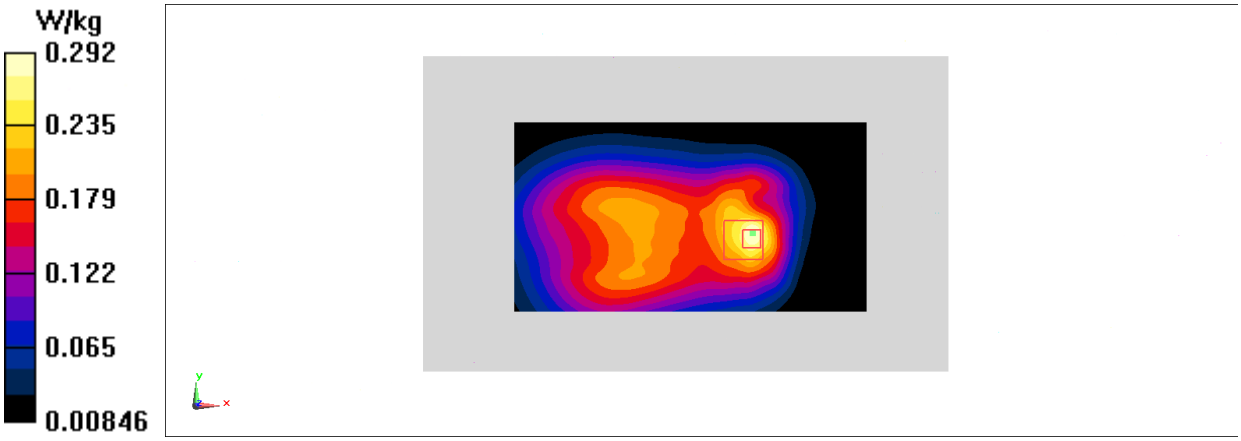


Fig J.2 850 MHz

1900 Left Cheek High

Date: 2019-2-12

Electronics: DAE4 Sn1525

Medium: Head 1900 MHz

Medium parameters used (interpolated): f = 1909.8 MHz; σ = 1.462 mho/m; εr = 40.13; ρ = 1000 kg/m^3

Ambient Temperature: 22.9ºC Liquid Temperature: 22.5ºC

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

Probe: EX3DV4– SN7514 ConvF(7.73, 7.73, 7.73)

Area Scan (71x131x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.161 W/kg

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

Reference Value = 3.049 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.179 W/kg

SAR(1 g) = 0.115 W/kg; SAR(10 g) = 0.077 W/kg

Maximum value of SAR (measured) = 0.155 W/kg

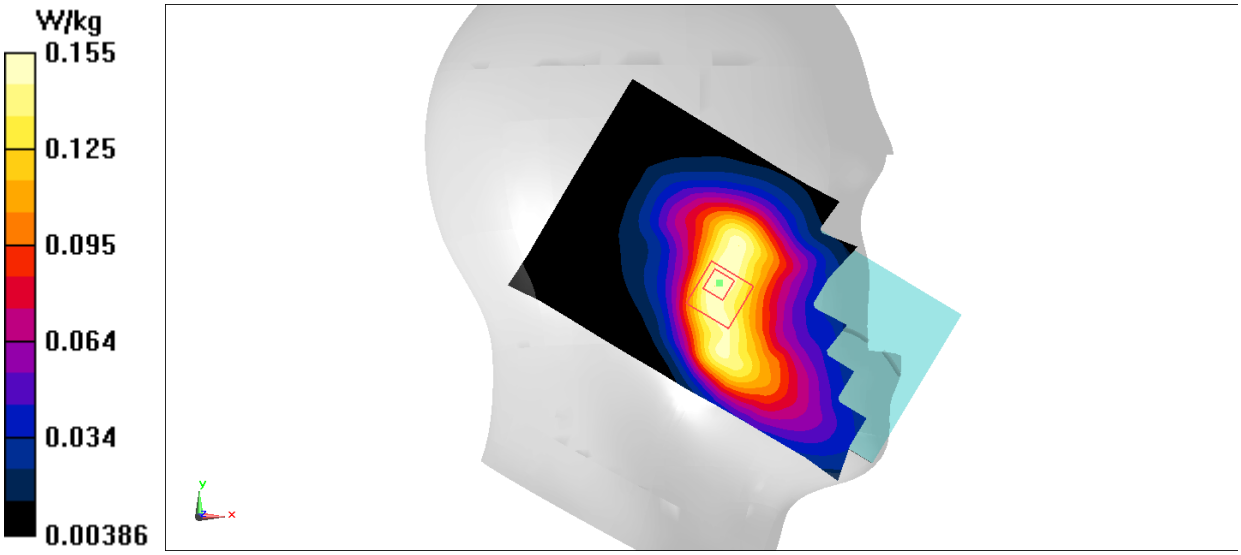


Fig J.3 1900 MHz

1900 Body Bottom Low

Date: 2019-2-12

Electronics: DAE4 Sn1525

Medium: Body 1900 MHz

Medium parameters used (interpolated): f = 1850.2 MHz; σ =1.527 mho/m; εr = 52.64; ρ = 1000 kg/m^3

Ambient Temperature: 22.9ºC Liquid Temperature: 22.5ºC

Communication System: GSM 1900MHz GPRS Frequency: 1909.8 MHz Duty Cycle: 1:2.67

Probe: EX3DV4– SN7514 ConvF(7.53, 7.53, 7.53)

Area Scan (131x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.684 W/kg

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

Reference Value = 16.86 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.02 W/kg

SAR(1 g) = 0.565 W/kg; SAR(10 g) = 0.298 W/kg

Maximum value of SAR (measured) = 0.849 W/kg

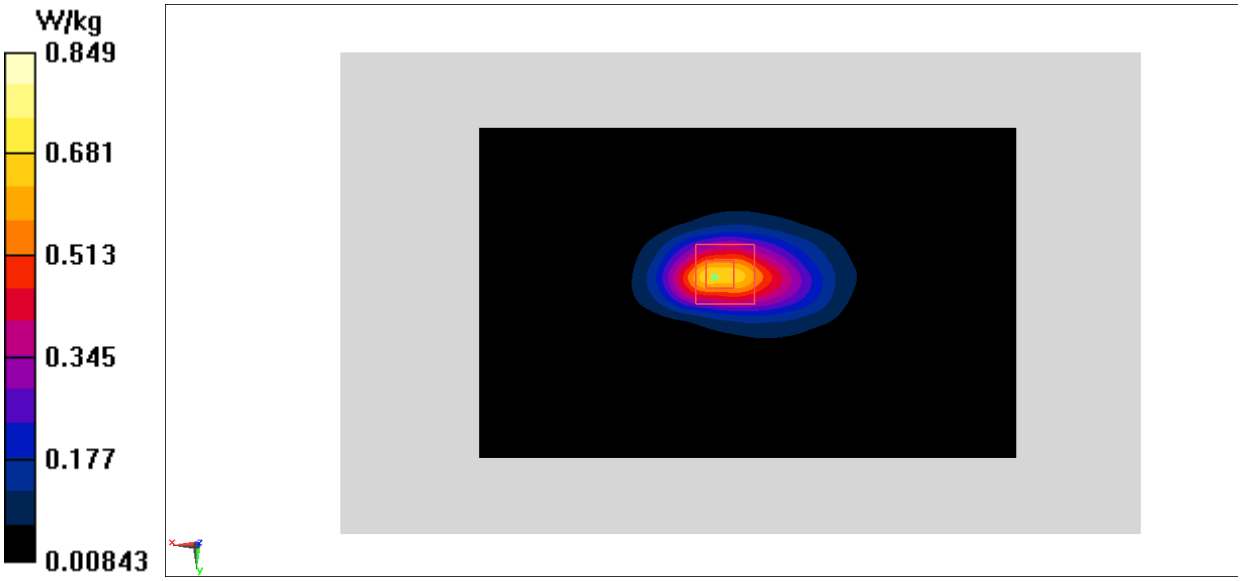


Fig J.4 1900 MHz

WCDMA 850 Right Cheek Middle

Date: 2019-2-11
Electronics: DAE4 Sn1525
Medium: Head 850 MHz
Medium parameters used (interpolated): f = 836.4 MHz; σ = 0.881 mho/m; εr = 40.845; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC Liquid Temperature: 22.5ºC
Communication System: WCDMA; Frequency: 836.4 MHz; Duty Cycle: 1:1
Probe: EX3DV4 – SN7514 ConvF(9.09, 9.09, 9.09)

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

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

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

Reference Value = 5.340 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.337 W/kg
SAR(1 g) = 0.262 W/kg; SAR(10 g) = 0.204 W/kg
Maximum value of SAR (measured) = 0.308 W/kg

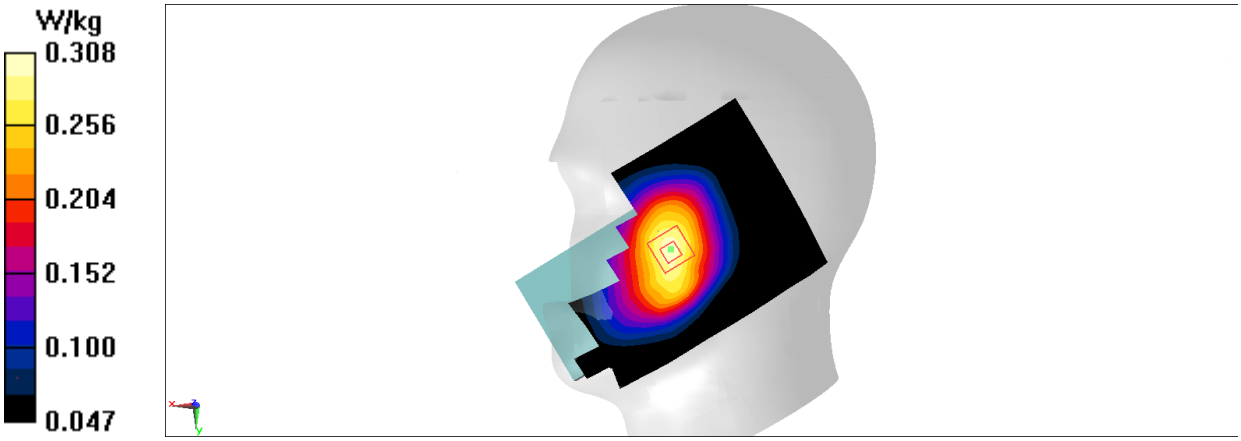


Fig J.5 WCDMA 850

WCDMA 850 Body Rear Middle

Date: 2019-2-11

Electronics: DAE4 Sn1525

Medium: Body 850 MHz

Medium parameters used (interpolated): f = 836.4 MHz; σ = 0.979 mho/m; εr = 55.676; ρ = 1000 kg/m^3

Ambient Temperature: 22.9ºC Liquid Temperature: 22.5ºC

Communication System: WCDMA; Frequency: 836.4 MHz; Duty Cycle: 1:1

Probe: EX3DV4 – SN7514 ConvF(9.47, 9.47, 9.47)

Area Scan (131x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.410 W/kg

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

Reference Value = 16.72 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.448 W/kg

SAR(1 g) = 0.327 W/kg; SAR(10 g) = 0.249 W/kg

Maximum value of SAR (measured) = 0.403 W/kg

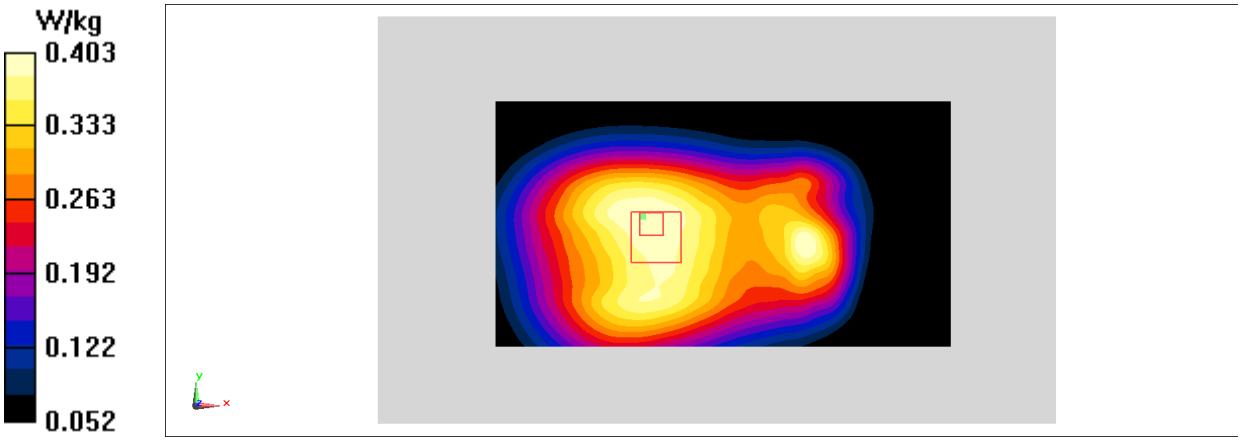


Fig J.6 WCDMA 850

LTE Band5 Left Cheek Low with QPSK_10M_1RB_Middle

Date: 2019-2-11

Electronics: DAE4 Sn1525

Medium: Head 850 MHz

Medium parameters used (interpolated): f = 829 MHz; σ = 0.885 mho/m; εr = 40.841; ρ = 1000 kg/m^3

Ambient Temperature: 22.9ºC Liquid Temperature: 22.5ºC

Communication System: LTE Band5 Frequency: 829 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7514 ConvF(9.09, 9.09, 9.09)

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

Maximum value of SAR (interpolated) = 0.337 W/kg

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

Reference Value = 6.400 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.372 W/kg

SAR(1 g) = 0.280 W/kg; SAR(10 g) = 0.214 W/kg

Maximum value of SAR (measured) = 0.340 W/kg

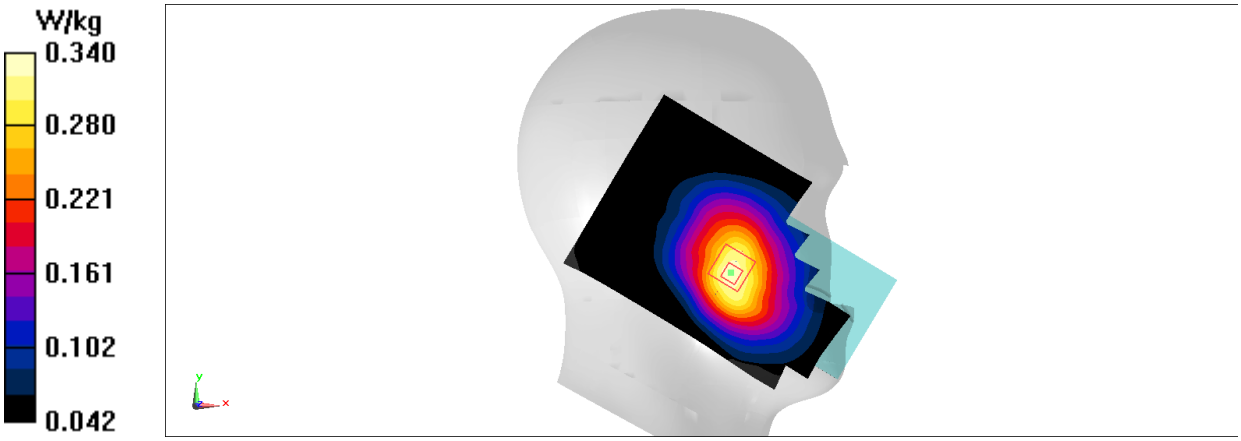


Fig J.7 LTE Band5

LTE Band5 Body Rear Low with QPSK_10M_1RB_Middle

Date: 2019-2-11

Electronics: DAE4 Sn1525

Medium: Body 850 MHz

Medium parameters used (interpolated): f = 829 MHz; σ = 1.011 mho/m; εr = 55.394; ρ = 1000 kg/m^3

Ambient Temperature: 22.9ºC Liquid Temperature: 22.5ºC

Communication System: LTE Band5 Frequency: 829 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7514 ConvF(9.47, 9.47, 9.47)

Area Scan (131x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.451 W/kg

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

Reference Value = 19.03 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.479 W/kg

SAR(1 g) = 0.362 W/kg; SAR(10 g) = 0.278 W/kg

Maximum value of SAR (measured) = 0.422 W/kg

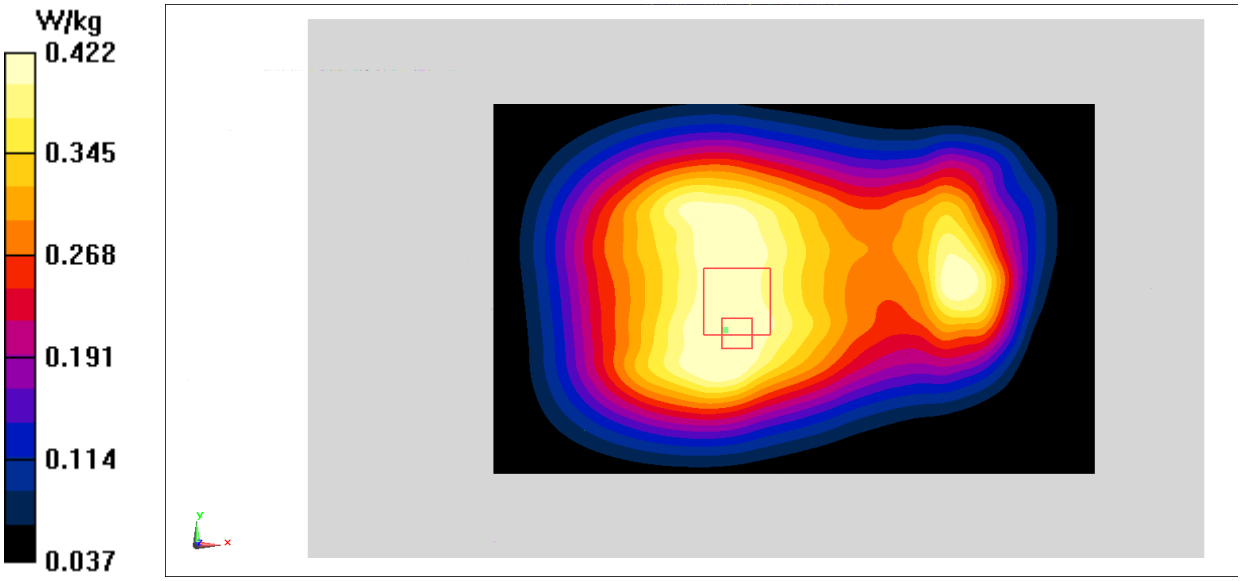


Fig J.8 LTE Band5

LTE Band7 Right Cheek Low with QPSK_20M_1RB_High
Date: 2019-2-13
Electronics: DAE4 Sn1525
Medium: Head 2600 MHz
Medium parameters used: f = 2510 MHz; σ = 1.899 mho/m; εr = 38.2; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band7Frequency: 2510 MHz Duty Cycle: 1:1
Probe: EX3DV4– SN7514 ConvF(6.92, 6.92, 6.92)

Area Scan (91x151x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.197 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.486 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.234 W/kg
SAR(1 g) = 0.131 W/kg; SAR(10 g) = 0.072 W/kg
Maximum value of SAR (measured) = 0.192 W/kg

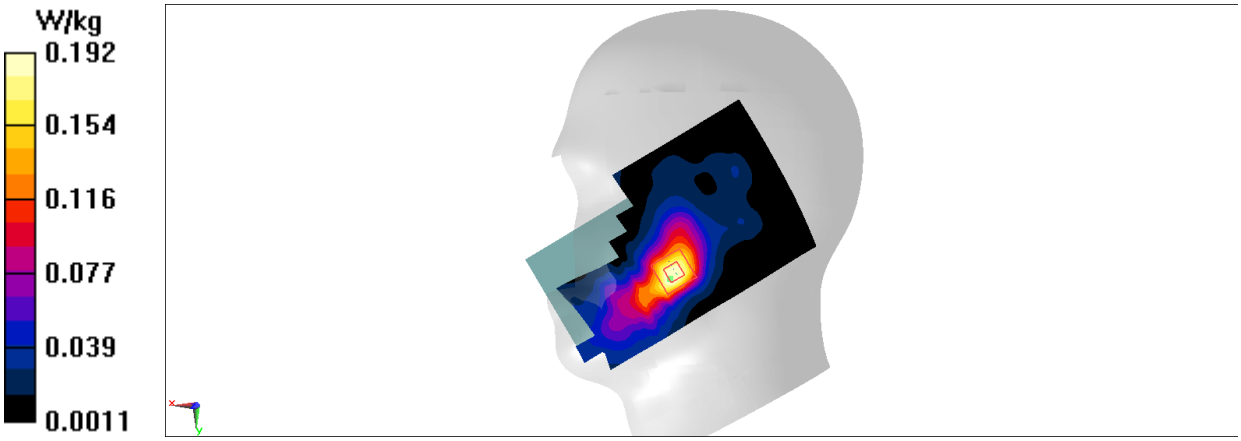


Fig J.9 LTE Band7

LTE Band7 Body Rear Low with QPSK_20M_1RB_Middle

Date: 2019-2-13
Electronics: DAE4 Sn1525
Medium: Body 2600 MHz
Medium parameters used: f = 2510 MHz; σ = 2.041 mho/m; εr = 51.77; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band7 Frequency: 2510 MHz Duty Cycle: 1:1
Probe: EX3DV4– SN7514 ConvF(7.06, 7.06, 7.06)

Area Scan (161x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.679 W/kg

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

Reference Value = 1.365 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.954 W/kg
SAR(1 g) = 0.472 W/kg; SAR(10 g) = 0.215 W/kg
Maximum value of SAR (measured) = 0.748 W/kg

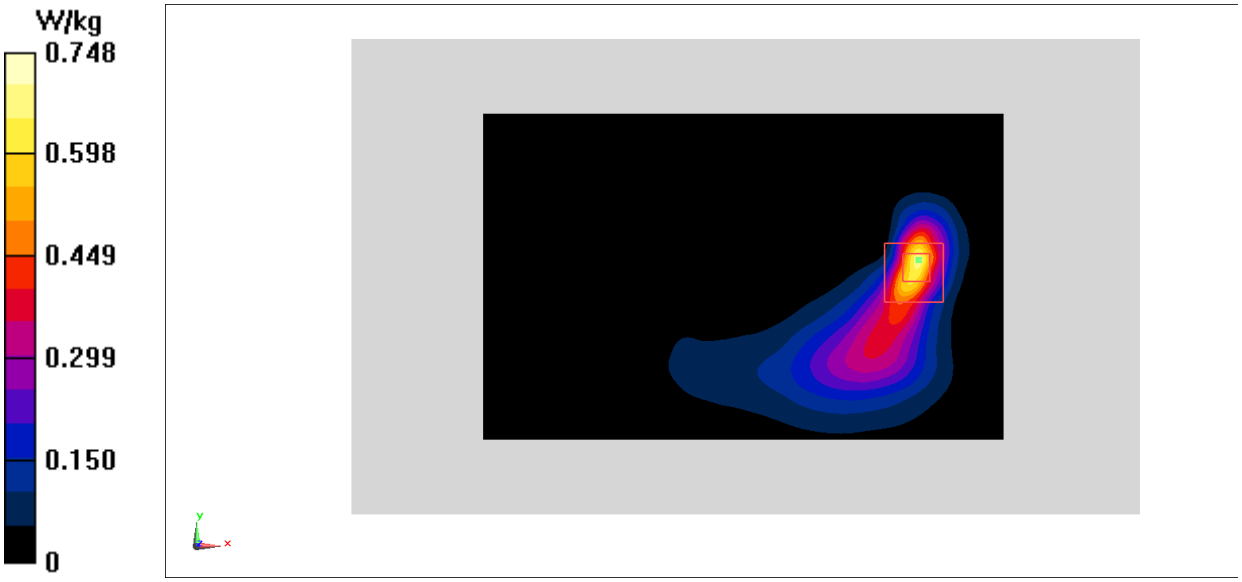


Fig J.10 LTE Band7

LTE Band 38 Right Cheek with QPSK_20M_1RB_Middle

Date: 2019-2-13
Electronics: DAE4 Sn1525
Medium: Head 2600 MHz
Medium parameters used: f = 2610 MHz; σ = 1.936 mho/m; εr = 38.09; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band38 Frequency: 2610 MHz Duty Cycle: 1:1.58
Probe: EX3DV4– SN7514 ConvF(6.92, 6.92, 6.92)

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

Maximum value of SAR (interpolated) = 0.111 W/kg

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

Reference Value = 1.208 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.133 W/kg
SAR(1 g) = 0.074 W/kg; SAR(10 g) = 0.040 W/kg
Maximum value of SAR (measured) = 0.111 W/kg

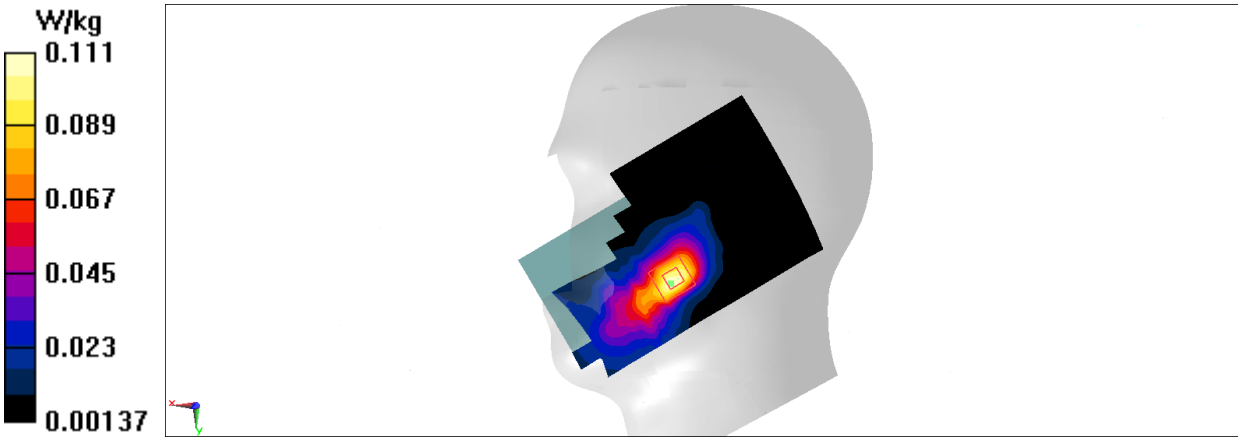


Fig J.11 LTE Band 38

LTE Band 38 Body Rear with QPSK_20M_1RB_Middle

Date: 2019-2-13
Electronics: DAE4 Sn1525
Medium: Body 2600 MHz
Medium parameters used: f = 2580 MHz; σ = 2.076 mho/m; εr = 51.724; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band38 Frequency: 2580 MHz Duty Cycle: 1:1.58
Probe: EX3DV4– SN7514 ConvF(7.06, 7.06, 7.06)

Area Scan (161x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.771 W/kg

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

Reference Value = 2.892 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.946 W/kg
SAR(1 g) = 0.461 W/kg; SAR(10 g) = 0.220 W/kg
Maximum value of SAR (measured) = 0.736 W/kg

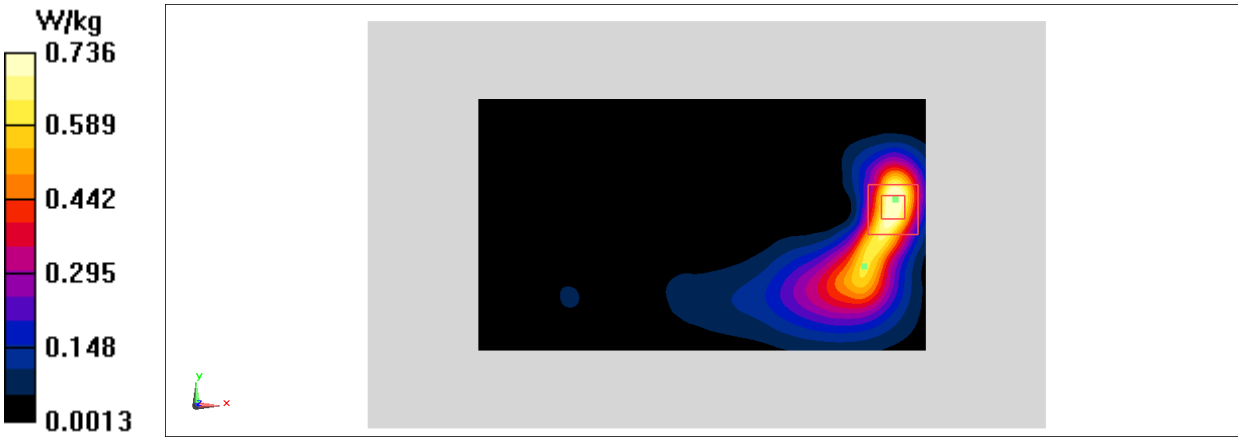


Fig J.12 LTE Band 38

Wifi 802.11b Left Cheek Channel 1

Date: 2019-2-12

Electronics: DAE4 Sn1525

Medium: Head 2450 MHz

Medium parameters used (interpolated): f = 2412 MHz; σ = 1.787 mho/m; ε_r = 39.75; ρ = 1000 kg/m^3

Ambient Temperature: 22.9ºC Liquid Temperature: 22.5ºC

Communication System: WLan 2450 Frequency: 2412 MHz Duty Cycle: 1:1

Probe: EX3DV4– SN7514 ConvF(6.95, 6.95, 6.95)

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

Maximum value of SAR (interpolated) = 0.634 W/kg

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

Reference Value = 8.118 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.787 W/kg

SAR(1 g) = 0.371 W/kg; SAR(10 g) = 0.184 W/kg

Maximum value of SAR (measured) = 0.595 W/kg

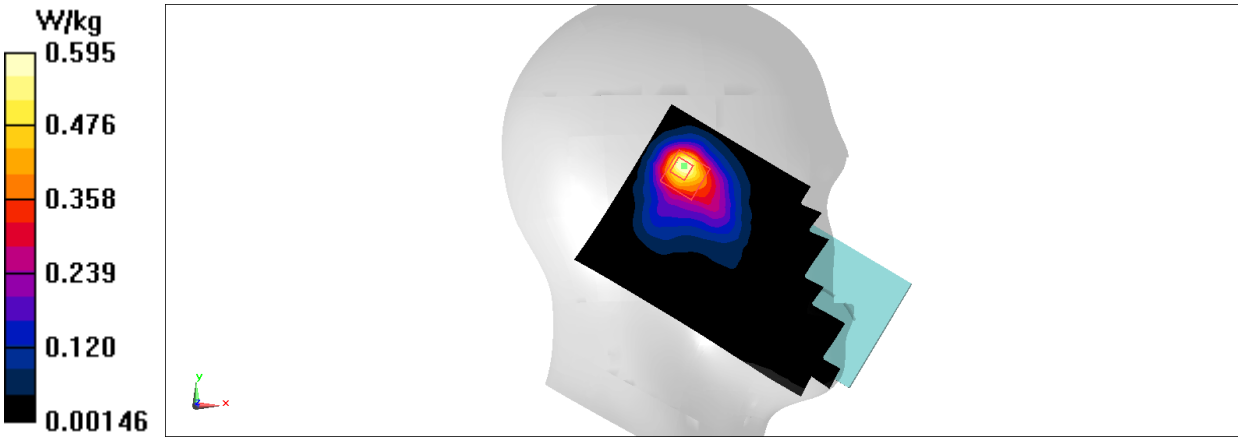


Fig J.13 2450 MHz

Wifi 802.11b Body Rear Channel 1

Date: 2019-2-12

Electronics: DAE4 Sn1525

Medium: Body 2450 MHz

Medium parameters used (interpolated): f = 2412 MHz; σ = 1.937 mho/m; ε_r = 51.87; ρ = 1000 kg/m^3

Ambient Temperature: 22.9ºC Liquid Temperature: 22.5ºC

Communication System: WLan 2450 Frequency: 2412 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7514 ConvF(7.13, 7.13, 7.13)

Area Scan (161x111x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.225 W/kg

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

Reference Value = 5.683 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.325 W/kg

SAR(1 g) = 0.159 W/kg; SAR(10 g) = 0.078 W/kg

Maximum value of SAR (measured) = 0.242 W/kg

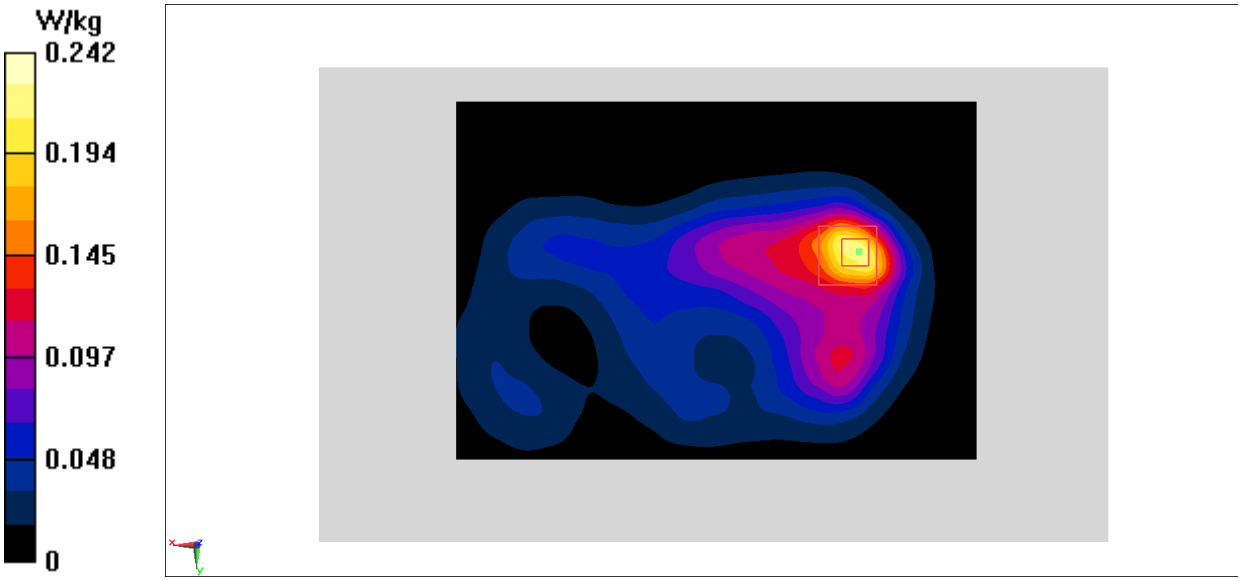


Fig J.14 2450 MHz

ANNEX K Accreditation Certificate

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 600118-0

Telecommunication Technology Labs, CAICT
Beijing
China

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Electromagnetic Compatibility & Telecommunications

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2018-09-28 through 2019-09-30
Effective Dates

DEPARTMENT OF COMMERCE · UNITED STATES OF AMERICA

For the National Voluntary Laboratory Accreditation Program