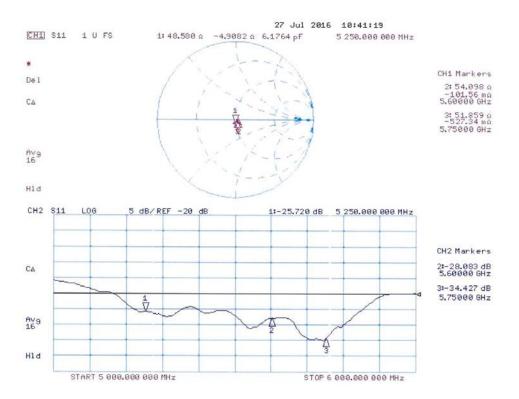


0 dB = 17.9 W/kg = 12.53 dBW/kg



#### Impedance Measurement Plot for Head TSL



Certificate No: D5GHzV2-1060\_Jul16

Page 10 of 13



#### DASY5 Validation Report for Body TSL

Date: 26.07.2016

Test Laboratory: SPEAG, Zurich, Switzerland

## DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1060

Communication System: UID 0 - CW; Frequency: 5250 MHz, Frequency: 5600 MHz, Frequency: 5750 MHz

Medium parameters used: f = 5250 MHz;  $\sigma = 5.42$  S/m;  $\epsilon_r = 47.1$ ;  $\rho = 1000$  kg/m<sup>3</sup> Medium parameters used: f = 5600 MHz;  $\sigma = 5.88$  S/m;  $\epsilon_r = 46.5$ ;  $\rho = 1000$  kg/m<sup>3</sup> Medium parameters used: f = 5750 MHz;  $\sigma = 6.11$  S/m;  $\epsilon_r = 46.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

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

#### DASY52 Configuration:

- Probe: EX3DV4 SN3503; ConvF(4.85, 4.85, 4.85); Calibrated: 30.06.2016, ConvF(4.35, 4.35, 4.35); Calibrated: 30.06.2016, ConvF(4.3, 4.3, 4.3); Calibrated: 30.06.2016;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.12.2015
- Phantom: Flat Phantom 5.0 (back); Type: QD000P50AA; Serial: 1002
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7372)

## Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5250MHz/Zoom Scan,

dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 67.69 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 28.9 W/kg

SAR(1 g) = 7.62 W/kg; SAR(10 g) = 2.14 W/kg

Maximum value of SAR (measured) = 18.0 W/kg

#### Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5600 MHz/Zoom Scan,

dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 67.99 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 33.0 W/kg

SAR(1 g) = 7.97 W/kg; SAR(10 g) = 2.23 W/kg

Maximum value of SAR (measured) = 19.2 W/kg

#### Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5750 MHz/Zoom Scan,

dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 65.44 V/m; Power Drift = 0.00 dB

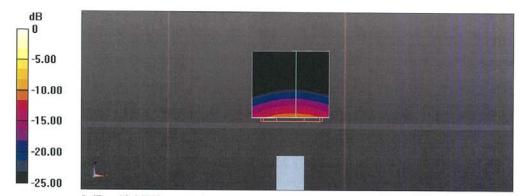
Peak SAR (extrapolated) = 32.4 W/kg

SAR(1 g) = 7.51 W/kg; SAR(10 g) = 2.1 W/kg

Maximum value of SAR (measured) = 18.2 W/kg

Certificate No: D5GHzV2-1060\_Jul16

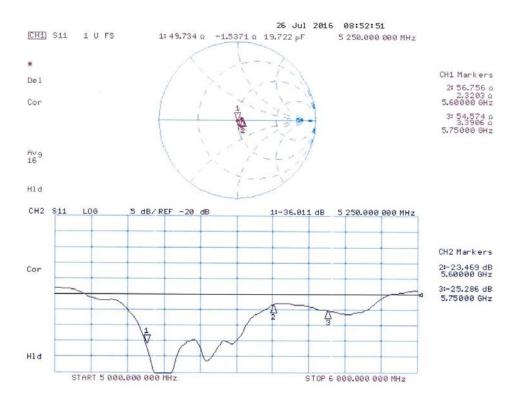




0 dB = 18.2 W/kg = 12.60 dBW/kg



### Impedance Measurement Plot for Body TSL





# ANNEX I SPOT CHECK

## I.1 Conducted power of selected case

Table I.1-1: The conducted power results for GSM850/1900

rabio iii ii iiio conductoa perior recalle for comeco, reco							
MOO	Conducted Power (dBm)						
GSM 850MHz	Channel 251(848.8MHz)	Channel 190(836.6MHz)	Channel 128(824.2MHz)				
	33.39	33.36	33.27				
0014	Conducted Power (dBm)						
GSM	Channel 810(1909.8MHz)	Channel 661(1880MHz)	Channel 512(1850.2MHz)				
1900MHz	30.48	30.21	30.26				

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

rable in 2: The conducted power recards for Critic							
GSM 850	M 850 Measured Power (dBm)						
GPRS (GMSK)	251	190	128				
4 Txslots	27.86	27.92	27.90				
PCS1900	Measured Power (dBm)						
GPRS (GMSK)	810	661	512				
4 Txslots	27.89	27.58	27.52				

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

ltom	band		FDDV result	
Item	ARFCN	4233 (846.6MHz)	4182 (836.4MHz)	4132 (826.4MHz)
WCDMA	\	24.32	24.35	24.34
ltom.	band		FDDII result	
Item	ARFCN	9538 (1907.6MHz)	9400 (1880MHz)	9262 (1852.4MHz)
WCDMA	\	24.15	24.09	23.96

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

	1RB-Middle (50)	2560 (21350)	24.41
LTE Band7 20MHz	1RB-Middle (50)	2535 (21100)	24.23
	1RB-Middle (50)	2510 (20850)	24.16
	1RB-Middle (50)	2610 (38150)	24.23
LTE Band38 20MHz	1RB-High (99)	2595 (38000)	23.86
	1RB-High (99)	2580 (37850)	23.93
	1RB-Middle (24)	844 (20600)	24.20
LTE Band5 10MHz	1RB-Middle (24)	836.5 (20525)	24.39
	1RB-Middle (24)	829 (20450)	24.31

#### Table I.1-5: The conducted Power for WLAN

Mode / data rate	Channel	Measured Power (dBm)	
802.11b - 1Mbps	6	15.95	
802.11a - 6Mbps	157	11.59	



### I.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	128	824.2	Right	Fig I.1	33.27	33.6	0.122	0.13	0.158	0.17	-0.07
GSM850	128	824.2	Right	Fig I.2	27.90	29	0.172	0.22	0.258	0.33	0.05
GSM1900	661	1880	Left	Fig I.3	30.21	31	0.114	0.14	0.180	0.22	0.09
GSM1900	512	1850.2	Left	Fig I.4	27.52	28	0.215	0.24	0.376	0.42	0.12
WCDMA 850	4182	836.4	Right	Fig I.5	24.35	24.5	0.116	0.12	0.153	0.16	-0.04
WCDMA 850	4182	836.4	Right	Fig I.6	24.35	24.5	0.256	0.26	0.368	0.38	-0.02
WCDMA1900	9938	1907.6	Left	Fig I.7	24.15	24.5	0.199	0.22	0.318	0.34	0.01
WCDMA1900	9800	1880	Left	Fig I.8	24.09	24.5	0.300	0.33	0.504	0.55	0.00
LTE Band7	21350	2560	Left	Fig I.9	24.41	24.5	0.242	0.25	0.447	0.46	0.05
LTE Band7	21350	2560	Left	Fig I.10	24.41	24.5	0.249	0.25	0.476	0.49	0.07
LTE Band38	38150	2610	Left	Fig I.11	24.23	24.5	0.122	0.13	0.233	0.25	0.07
LTE Band38	38150	2610	Front	Fig I.12	24.23	24.5	0.066	0.07	0.127	0.14	-0.09
LTE Band5	20525	836.5	Right	Fig I.13	24.39	24.9	0.171	0.19	0.222	0.25	-0.07
LTE Band5	20525	836.5	Right	Fig I.14	24.39	24.9	0.182	0.20	0.264	0.30	-0.15
Wi-Fi 2.4G	6	2437	Right	Fig I.15	15.95	16	0.372	0.38	0.908	0.92	-0.07
Wi-Fi 2.4G	1	2412	Front	Fig I.16	15.28	16	0.030	0.04	0.054	0.06	-0.03
Wi-Fi 5G	157	5785	Right	Fig I.17	11.59	11.8	0.129	0.14	0.402	0.42	0.13
Wi-Fi 5G	157	5785	Тор	Fig I.18	11.59	11.8	0.015	0.02	0.042	0.04	0.00

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

	Ambient Temperature: 22.5 °C Liquid Temperature: 23.3 °C							
Freque	ency	Side	Test	Actual duty	maximum	Reported SAR	Scaled reported SAR	
MHz	Ch.	0.0.0	Position	factor	duty factor	(1g) (W/kg)	(1g) (W/kg)	
2437	6	Right	Touch	97.73%	100%	0.92	0.94	

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

Ambient Temperature: 22.5 °C Liquid Temperature: 23.3 °C							
Freque	ency	Test	Actual duty	maximum duty	Reported SAR	Scaled reported SAR	
MHz	Ch.	Position	factor	factor	(1g) (W/kg)	(1g) (W/kg)	
2412	1	Front	97.73%	100%	0.06	0.06	

## Table I.2-3: SAR Values (WLAN - Head) – 802.11a (Scaled Reported SAR)

Ambient Temperature: 22.9 °C					Liquid Temperature: 22.5°C		
Freque	ency	Side	Test	Actual duty	maximum	Reported SAR	Scaled reported SAR
MHz	Ch.		Position	factor	duty factor	(1g) (W/kg)	(1g) (W/kg)
5785	157	Right	Touch	87.24%	100%	0.42	0.48



Table I.2-4: SAR Values (WLAN - Body) – 802.11a (Scaled Reported SAR)

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5 °C							
Freque	ency	Test	Actual duty	maximum duty	Reported SAR	Scaled reported SAR	
MHz	Ch.	Position	factor	factor	(1g) (W/kg)	(1g) (W/kg)	
5785	157	Тор	87.24%	100%	0.04	0.05	

## I.3 Reported SAR Comparison

Exposure Configuration	Technology Band	Reported SAR 1g (W/Kg): spot check	Reported SAR 1g (W/Kg): original
	GSM 850	0.17	0.18
	PCS 1900	0.22	0.19
	UMTS FDD 2	0.34	0.53
Head	UMTS FDD 5	0.16	0.23
(Separation Distance	LTE Band 7	0.46	0.42
0mm)	LTE Band 38	0.25	0.24
	LTE Band 5	0.25	0.23
	WLAN 2.4 GHz	0.94	1.22
	WLAN 5 GHz	0.48	1.24
	GSM 850	0.33	0.32
	PCS 1900	0.42	0.58
	UMTS FDD 2	0.55	0.62
Hotspot	UMTS FDD 5	0.38	0.38
(Separation Distance	LTE Band 7	0.49	0.53
10mm)	LTE Band 38	0.14	0.17
	LTE Band 5	0.30	0.30
	WLAN 2.4 GHz	0.06	0.09
	WLAN 5 GHz	0.05	0.06

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



## I.4 Graph Results of spot check

### GSM850\_CH128 Right Cheek

Date: 5/21/2017

Electronics: DAE4 Sn1331 Medium: Head 835 MHz

Medium parameters used: f = 824.2 MHz;  $\sigma = 0.921 \text{ mho/m}$ ;  $\epsilon r = 41.96$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Ambient Temperature: 22.5°C, Liquid Temperature: 23.3°C Communication System: GSM850 824.2 MHz Duty Cycle: 1:8.3

Probe: EX3DV4 – SN3846 ConvF(9.33,9.33,9.33)

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

Maximum value of SAR (interpolated) = 0.172 W/kg

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

Reference Value = 4.360 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.204 W/kg

SAR(1 g) = 0.158 W/kg; SAR(10 g) = 0.122 W/kg

Maximum value of SAR (measured) = 0.174 W/kg

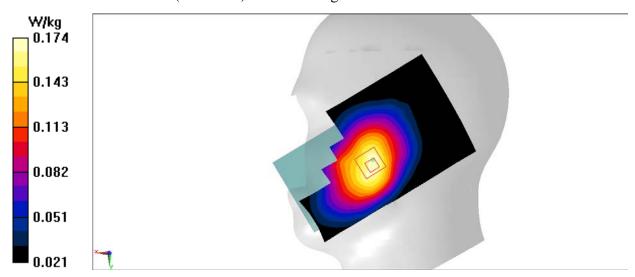


Figure I.1



## GSM850\_CH128 Right edge

Date: 5/21/2017

Electronics: DAE4 Sn1331 Medium: Body835 MHz

Medium parameters used: f = 824.2 MHz;  $\sigma = 0.958 \text{ mho/m}$ ;  $\epsilon r = 56.36$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Ambient Temperature: 22.5°C, Liquid Temperature: 23.3°C Communication System: GSM850 824.2 MHz Duty Cycle: 1:2

Probe: EX3DV4 – SN3846 ConvF(9.52,9.52,9.52)

**Area Scan (111x61x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.512 W/kg

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

Reference Value = 16.41 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.419 W/kg

SAR(1 g) = 0.258 W/kg; SAR(10 g) = 0.172 W/kg

Maximum value of SAR (measured) = 0.279 W/kg

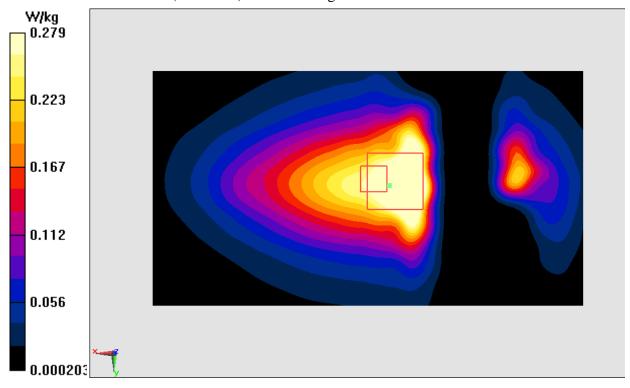


Figure I.2



#### PCS1900\_CH661 Left Cheek

Date: 5/21/2017

Electronics: DAE4 Sn1331 Medium: Head 1900 MHz

Medium parameters used: f = 1880 MHz;  $\sigma = 1.39 \text{ mho/m}$ ;  $\epsilon r = 40.67$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Ambient Temperature: 22.5°C, Liquid Temperature: 23.3°C Communication System: PCS1900 1880 MHz Duty Cycle: 1:8.3

Probe: EX3DV4 – SN3846 ConvF(7.89,7.89,7.89)

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

Maximum value of SAR (interpolated) = 0.211 W/kg

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

Reference Value = 3.069 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.267 W/kg

SAR(1 g) = 0.180 W/kg; SAR(10 g) = 0.114 W/kg

Maximum value of SAR (measured) = 0.207 W/kg

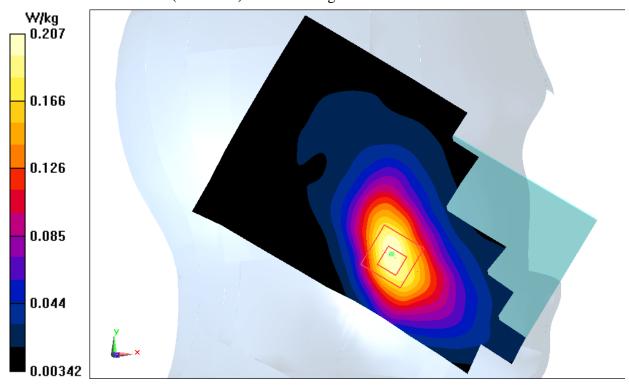


Figure I.3



## PCS1900\_CH512 Left edge

Date: 5/21/2017

Electronics: DAE4 Sn1331 Medium: Body1900 MHz

Medium parameters used: f = 1850.2 MHz;  $\sigma = 1.499 \text{ mho/m}$ ;  $\epsilon r = 52.75$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Ambient Temperature: 22.5°C, Liquid Temperature: 23.3°C Communication System: PCS1900 1850.2 MHz Duty Cycle: 1:2

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

**Area Scan (121x51x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.365 W/kg

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

Reference Value = 12.76 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.669 W/kg

SAR(1 g) = 0.376 W/kg; SAR(10 g) = 0.215 W/kgMaximum value of SAR (measured) = 0.404 W/kg

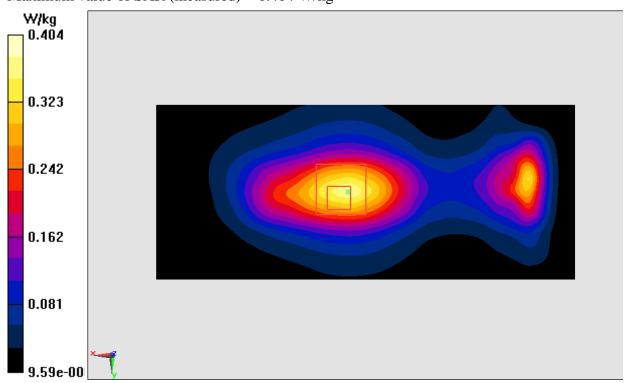


Figure I.4



## WCDMA1900-BII\_CH9538 Left Cheek

Date: 5/21/2017

Electronics: DAE4 Sn1331 Medium: Head 1900 MHz

Medium parameters used: f = 1907.6 MHz;  $\sigma = 1.417 \text{ mho/m}$ ;  $\epsilon r = 40.64$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Ambient Temperature: 22.5°C, Liquid Temperature: 23.3°C

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

Probe: EX3DV4 – SN3846 ConvF(7.89,7.89,7.89)

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

Maximum value of SAR (interpolated) = 0.368 W/kg

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

Reference Value = 5.129 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.466 W/kg

SAR(1 g) = 0.318 W/kg; SAR(10 g) = 0.199 W/kg

Maximum value of SAR (measured) = 0.373 W/kg

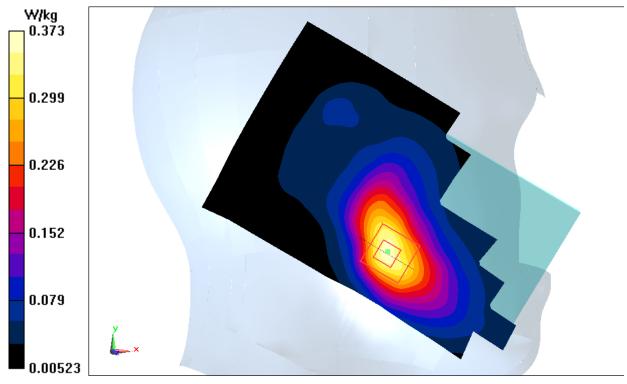


Figure I.5



## WCDMA1900-BII\_CH9400 Left edge

Date: 5/21/2017

Electronics: DAE4 Sn1331 Medium: Body1900 MHz

Medium parameters used: f = 1880 MHz;  $\sigma = 1.528 \text{ mho/m}$ ;  $\epsilon r = 52.71$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Ambient Temperature: 22.5°C, Liquid Temperature: 23.3°C

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

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

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

Maximum value of SAR (interpolated) = 0.600 W/kg

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

Reference Value = 17.70 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.805 W/kg

SAR(1 g) = 0.504 W/kg; SAR(10 g) = 0.300 W/kg

Maximum value of SAR (measured) = 0.603 W/kg

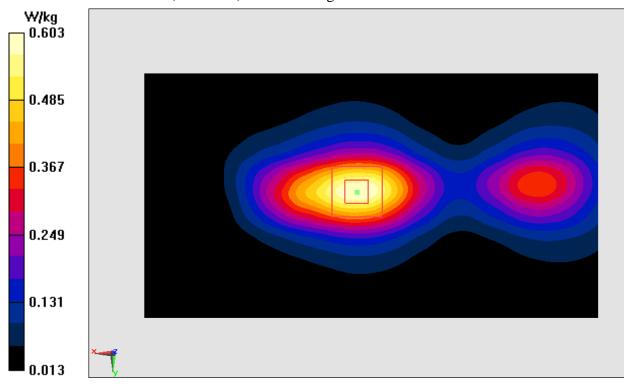


Figure I.6



## WCDMA850-BV\_CH4715 Right Cheek

Date: 5/21/2017

Electronics: DAE4 Sn1331 Medium: Head 835 MHz

Medium parameters used: f = 835.4 MHz;  $\sigma = 0.932 \text{ mho/m}$ ;  $\epsilon r = 41.94$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Ambient Temperature: 22.5°C, Liquid Temperature: 23.3°C

Communication System: WCDMA850-BV 835.4 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3846 ConvF(9.33,9.33,9.33)

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

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

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

Reference Value = 5.447 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.198 W/kg

SAR(1 g) = 0.153 W/kg; SAR(10 g) = 0.116 W/kg

Maximum value of SAR (measured) = 0.166 W/kg

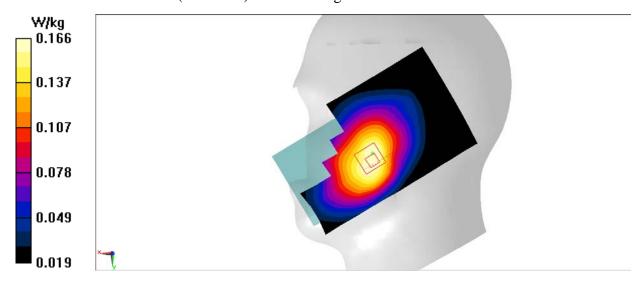


Figure I.7



## WCDMA850-BV\_CH4715 Right edge

Date: 5/21/2017

Electronics: DAE4 Sn1331 Medium: Body835 MHz

Medium parameters used: f = 835.4 MHz;  $\sigma = 0.969 \text{ mho/m}$ ;  $\epsilon r = 56.34$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Ambient Temperature: 22.5°C, Liquid Temperature: 23.3°C

Communication System: WCDMA850-BV 835.4 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3846 ConvF(9.52,9.52,9.52)

**Area Scan (111x61x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.421 W/kg

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

Reference Value = 19.95 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.511 W/kg

SAR(1 g) = 0.368 W/kg; SAR(10 g) = 0.256 W/kgMaximum value of SAR (managed) = 0.420 W/kg

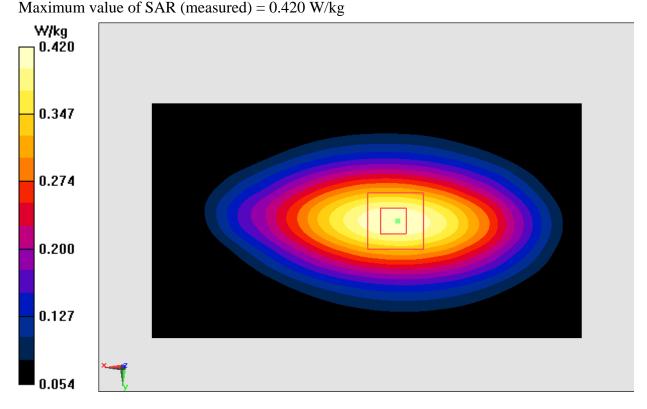


Figure I.8



## LTE2500-FDD7\_CH21350 Left Cheek

Date: 5/20/2017

Electronics: DAE4 Sn1331 Medium: Head 2600 MHz

Medium parameters used: f = 2560 MHz;  $\sigma = 1.948 \text{ mho/m}$ ;  $\epsilon r = 39.51$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Ambient Temperature: 22.5°C, Liquid Temperature: 23.3°C

Communication System: LTE2500-FDD7 2560 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3846 ConvF(7.12,7.12,7.12)

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

Maximum value of SAR (interpolated) = 0.536 W/kg

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

Reference Value = 2.804 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.772 W/kg

SAR(1 g) = 0.447 W/kg; SAR(10 g) = 0.242 W/kg

Maximum value of SAR (measured) = 0.547 W/kg

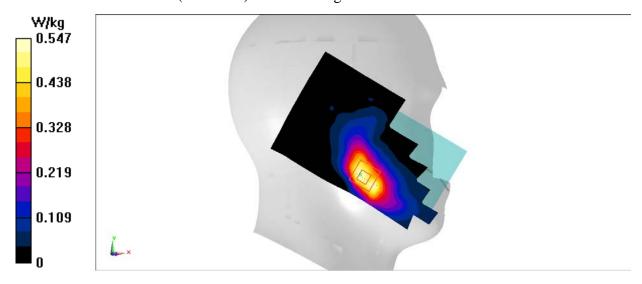


Figure I.9



## LTE2500-FDD7\_CH21350 Left edge

Date: 5/20/2017

Electronics: DAE4 Sn1331 Medium: Body2600 MHz

Medium parameters used: f = 2560 MHz;  $\sigma = 2.14 \text{ mho/m}$ ;  $\epsilon r = 51.87$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Ambient Temperature: 22.5°C, Liquid Temperature: 23.3°C

Communication System: LTE2500-FDD7 2560 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3846 ConvF(7.25,7.25,7.25)

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

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

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

Reference Value = 12.43 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.904 W/kg

SAR(1 g) = 0.476 W/kg; SAR(10 g) = 0.249 W/kgMaximum value of SAR (measured) = 0.592 W/kg

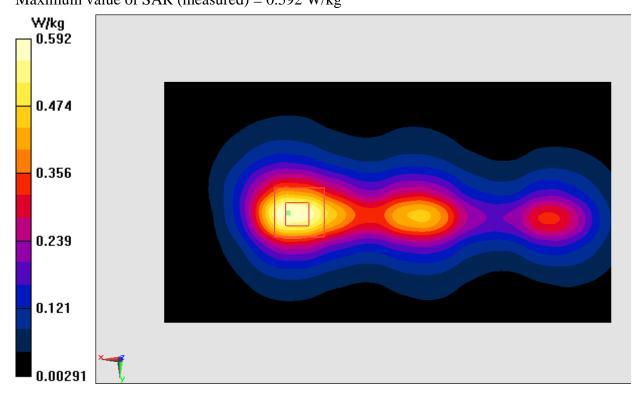


Figure I.10



#### LTE2600-TDD38\_CH38150 Left Cheek

Date: 5/20/2017

Electronics: DAE4 Sn1331 Medium: Head 2600 MHz

Medium parameters used: f = 2610 MHz;  $\sigma = 1.996 \text{ mho/m}$ ;  $\epsilon r = 39.45$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Ambient Temperature: 22.5°C, Liquid Temperature: 23.3°C

Communication System: LTE2600-TDD38 2610 MHz Duty Cycle: 1:1.58

Probe: EX3DV4 – SN3846 ConvF(7.12,7.12,7.12)

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

Maximum value of SAR (interpolated) = 0.274 W/kg

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

Reference Value = 2.003 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.409 W/kg

SAR(1 g) = 0.233 W/kg; SAR(10 g) = 0.122 W/kg

Maximum value of SAR (measured) = 0.280 W/kg

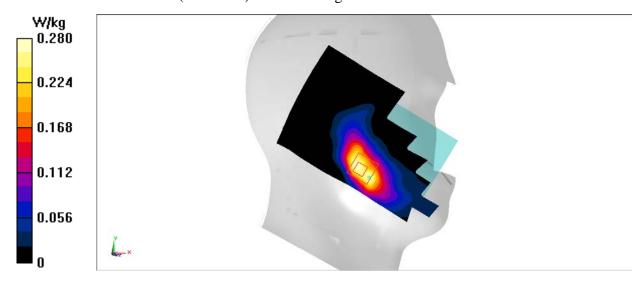


Figure I.11



## LTE2600-TDD38\_CH38150 Front

Date: 5/20/2017

Electronics: DAE4 Sn1331 Medium: Body2600 MHz

Medium parameters used: f = 2610 MHz;  $\sigma = 2.188 \text{ mho/m}$ ;  $\epsilon r = 51.81$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Ambient Temperature: 22.5°C, Liquid Temperature: 23.3°C

Communication System: LTE2600-TDD38 2610 MHz Duty Cycle: 1:1.58

Probe: EX3DV4 – SN3846 ConvF(7.25,7.25,7.25)

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

Maximum value of SAR (interpolated) = 0.178 W/kg

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

Reference Value = 4.797 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.256 W/kg

SAR(1 g) = 0.127 W/kg; SAR(10 g) = 0.066 W/kg

Maximum value of SAR (measured) = 0.154 W/kg

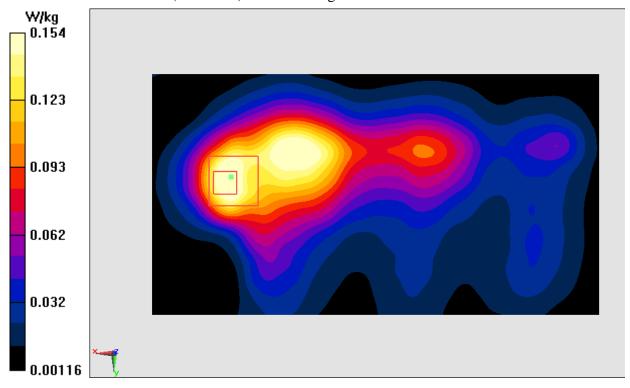


Figure I.12



## LTE850-FDD5 Right Cheek

Date: 5/21/2017

Electronics: DAE4 Sn1331 Medium: Head 835 MHz

Medium parameters used: f = 836.5 MHz;  $\sigma = 0.928 \text{ mho/m}$ ;  $\epsilon r = 41.91$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Ambient Temperature: 22.5°C, Liquid Temperature: 23.3°C Communication System: GSM850 836.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3846 ConvF(9.33,9.33,9.33)

**Area Scan (71x131x1):** 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 = 6.212 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.284 W/kg

SAR(1 g) = 0.222 W/kg; SAR(10 g) = 0.171 W/kg

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

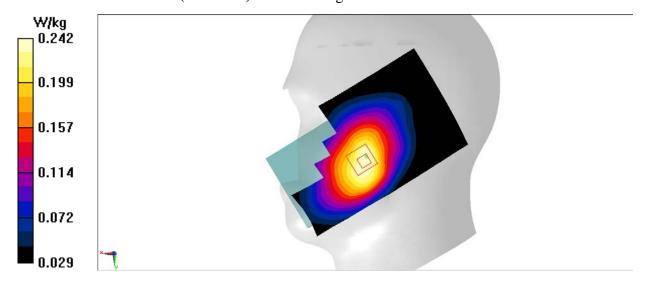


Figure I.13



## LTE850-FDD5 Right edge

Date: 5/21/2017

Electronics: DAE4 Sn1331 Medium: Body835 MHz

Medium parameters used: f = 836.5 MHz;  $\sigma = 0.964 \text{ mho/m}$ ;  $\epsilon r = 56.29$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Ambient Temperature: 22.5°C, Liquid Temperature: 23.3°C Communication System: GSM850 836.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3846 ConvF(9.52,9.52,9.52)

**Area Scan (111x61x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.308 W/kg

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

Reference Value = 17.02 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 0.362 W/kg

SAR(1 g) = 0.264 W/kg; SAR(10 g) = 0.182 W/kgMaximum value of SAR (massured) = 0.202 W/kg

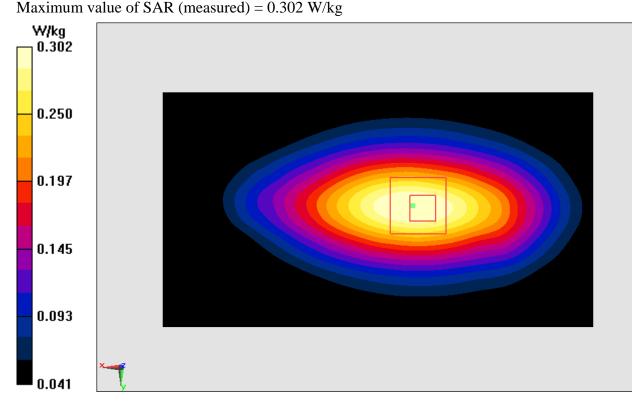


Figure I.14



## WLAN2450\_CH6 Right Cheek

Date: 5/22/2017

Electronics: DAE4 Sn1331 Medium: Head 2450 MHz

Medium parameters used: f = 2437 MHz;  $\sigma = 1.752$  mho/m;  $\epsilon r = 39.48$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.5°C, Liquid Temperature: 23.3°C Communication System: WLAN2450 2437 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3846 ConvF(7.22,7.22,7.22)

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

Maximum value of SAR (interpolated) = 1.27 W/kg

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

Reference Value = 14.08 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 2.55 W/kg

SAR(1 g) = 0.908 W/kg; SAR(10 g) = 0.372 W/kg

Maximum value of SAR (measured) = 1.26 W/kg

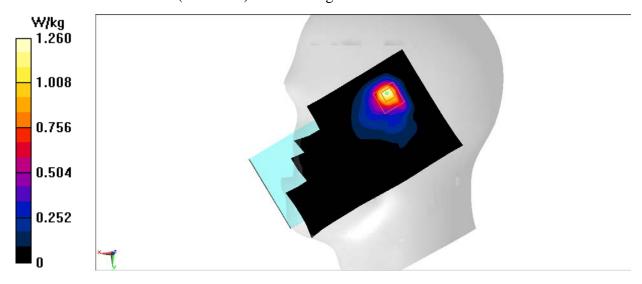


Figure I.15



## WLAN2450\_CH1 Front

Date: 5/22/2017

Electronics: DAE4 Sn1331 Medium: Body2450 MHz

Medium parameters used: f = 2412 MHz;  $\sigma = 1.941 \text{ mho/m}$ ;  $\epsilon r = 53.21$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Ambient Temperature: 22.5°C, Liquid Temperature: 23.3°C Communication System: WLAN2450 2412 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3846 ConvF(7.31,7.31,7.31)

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

Maximum value of SAR (interpolated) = 0.0700 W/kg

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

Reference Value = 4.099 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.132 W/kg

SAR(1 g) = 0.054 W/kg; SAR(10 g) = 0.030 W/kgMaximum value of SAR (measured) = 0.0669 W/kg

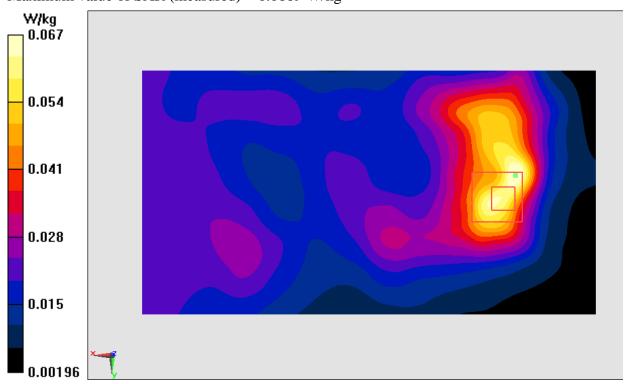


Figure I.16



## WLAN5G\_CH157 Right Cheek

Date: 5/22/2017

Electronics: DAE4 Sn1331 Medium: Head 5750 MHz

Medium parameters used: f = 5785 MHz;  $\sigma = 5.346$  mho/m;  $\epsilon r = 35.75$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.5°C, Liquid Temperature: 23.3°C Communication System: WLAN5G 5785 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3846 ConvF(4.95,4.95,4.95)

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

Maximum value of SAR (interpolated) = 0.858 W/kg

**Zoom Scan** (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 7.098 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 2.46 W/kg

SAR(1 g) = 0.402 W/kg; SAR(10 g) = 0.129 W/kg

Maximum value of SAR (measured) = 1.18 W/kg

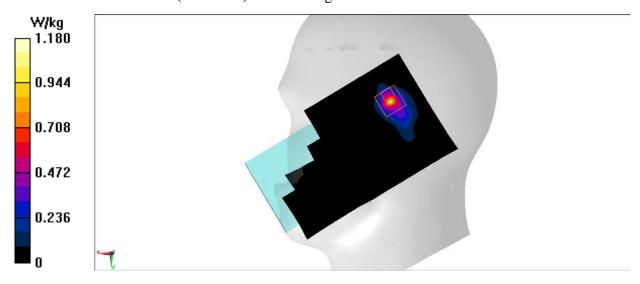


Figure I.17



## WLAN5G\_CH157 Top

Date: 5/22/2017

Electronics: DAE4 Sn1331 Medium: Body5750 MHz

Medium parameters used: f = 5785 MHz;  $\sigma = 5.925$  mho/m;  $\epsilon r = 47.04$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.5°C, Liquid Temperature: 23.3°C Communication System: WLAN5G 5785 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3846 ConvF(4.53,4.53,4.53)

**Area Scan (111x61x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.0662 W/kg

**Zoom Scan (9x9x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 0 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.194 W/kg

SAR(1 g) = 0.042 W/kg; SAR(10 g) = 0.015 W/kgMaximum value of SAR (measured) = 0.115 W/kg

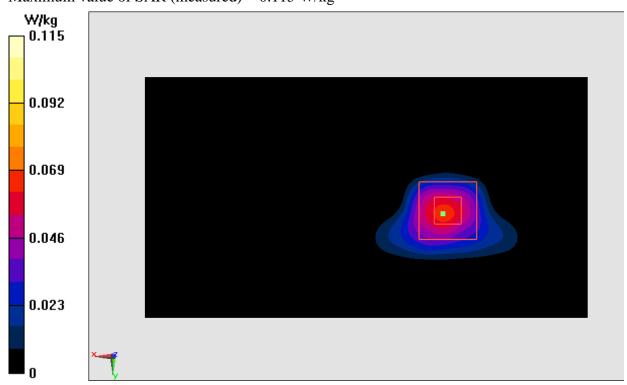


Figure I.18



## ANNEX J Accreditation Certificate





# China National Accreditation Service for Conformity Assessment

# LABORATORY ACCREDITATION CERTIFICATE (Registration No. CNAS L0570)

Telecommunication Technology Labs,
Academy of Telecommunication Research, MIIT

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

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

TCL International E City, No. 1001 Zhongshanyuan Road, Nanshan

District, Shenzhen, Guangdong Province

is accredited in accordance with ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories(CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence to undertake testing and calibration service as described in the schedule attached to this certificate.

The scope of accreditation is detailed in the attached schedule bearing the same registration number as above. The schedule form an integral part of this certificate.

Date of Issue: 2015-11-13 Date of Expiry: 2017-06-19

Date of Initial Accreditation: 1998-07-03

Signed on behalf of China National Accreditation Service for Conformity Assessment



China National Accreditation Service for Conformity Assessment(CNAS) is authorized by Certification and Accreditation Administration of the People's Republic of China (CNCA) to operate the national accreditation schemes for conformity assessment. CNAS is a signatory of the International Laboratory Accreditation Cooperation Mutual Recognition Arrangement (ILAC MRA) and the Asia Pacific Laboratory Accreditation Cooperation Mutual Recognition Arrangement (APLAC MRA). The validity of the certificate can be checked on CNAS website at http://www.cnas.org.cn/english/findanaccreditedbody/index.shtml