

CE SAR TEST REPORT

Report No. : DGATBL2503005S01
Product Name : Smart phone
Brand Name : Blackview
Test Model : COLOR 6
Series Model : N/A
Date of Sample Arrival : Mar. 04, 2025
Date of Test : Mar. 07, 2025 ~ Apr. 27, 2025
Issue Date : Apr. 29, 2025
Test Standards : Please refer to page 2.
Applicant's Name : DOKE COMMUNICATION (HK) LIMITED
Address : 19H MAXGRAND PLAZA NO 3 TAI YAU STREET SAN PO KONG KL
Manufacturer's Name : Shenzhen DOKE Electronic Co., Ltd
Address : 801, Building3, 7th Industrial Zone, Yulv Community, Yutang Road, Guangming District, Shenzhen, China.

The Product described above has been tested and found compliance with the requirement of the relative standards by ATBL Inc.

The test results in report apply exclusively to the tested sample. Without the written approval of ATBL Inc., the report shall not be reproduced except in full.

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The Specific Absorption Rate (SAR) testing specification, method, and procedure for this device is in accordance with the following standards.

Standard(s) : EN 50360:2017+A1:2023 Product standard to demonstrate the compliance of wireless communication devices, with the basic restrictions and exposure limit values related to human exposure to electromagnetic fields in the frequency range from 300 MHz to 6 GHz: devices used next to the ear.

EN 50566:2017+A1:2023 Product standard to demonstrate the compliance of wireless communication devices with the basic restrictions and exposure limit values related to human exposure to electromagnetic fields in the frequency range from 30 MHz to 6 GHz: hand – held and body mounted devices in close proximity to the human body.

EN 50663:2017 Assessment of low power electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (10MHz-300GHz).

EN IEC/IEEE 62209-1528:2021 Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Part 1528: Human models, instrumentation, and procedures (Frequency range of 4 MHz to 10 GHz).

EN 62479:2010 Assessment of the compliance of low power electronic and electrical equipment with the basic restrictions related to human exposure to electromagnetic fields (10 MHz to 300 GHz).

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Revision History

Rev.	Issue Date	Report No.	Effect Page	Contents
00	Apr. 29, 2025	DGATBL2503005S01	ALL	Initial Issue

1. GENERAL INFORMATION

1.1 THE MAXIMUM SAR_{10G} VALUES

Mode	Highest Head SAR-10g (W/kg)	Highest Body SAR-10g (W/kg)	Highest Limb SAR-10g (W/kg)
GSM900	0.365	0.607	1.110
GSM1800	0.690	1.025	1.898
UMTS B1	0.554	0.586	1.167
UMTS B8	0.303	0.581	1.521
LTE B1	0.529	0.491	1.044
LTE B3	1.292	1.006	1.854
LTE B7	0.683	0.696	1.409
LTE B8	0.302	0.761	1.443
LTE B20	0.230	0.734	1.061
LTE B28	0.206	0.335	0.946
LTE B40	0.796	0.492	1.542
LTE B41	0.939	0.692	1.732
2.4G WLAN	0.284	0.142	0.412
5.2G WLAN	1.197	0.736	1.826
5.8G WLAN	0.242	0.365	0.956
Bluetooth	/	/	/
SAR Limit	2.0	2.0	4.0

Note:

1) The SAR_{10g} limit (**2.0 W/kg for Head / Body & 4.0W/kg for Limb**) for general population/uncontrolled exposure is specified in Council Recommendation 1999/519/EC Annex II.

2) According to EN 62479, SAR testing for BT is not required because its maximum output power is less than 20 mW.

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

1.2 LABORATORY ENVIRONMENT

Temperature	Min. = 18°C, Max. = 25°C
Relative humidity	Min. = 30%, Max. = 70%
Ground system resistance	< 0.5Ω
Ambient noise is checked and found very low and in compliance with requirement of standards.	
Reflection of surrounding objects is minimized and in compliance with requirement of standards.	

1.3 LABORATORY INFORMATION

Company Name:	Dongguan ATBL Technology Co., Ltd.
Address:	Flat 102, Building 3, Sino-Israel International Industrial Park, No. 7 Huanhu Road, Songshan Lake Zone, Dongguan, Guangdong.
Telephone:	0769-27282887

1.4 GENERAL DESCRIPTION OF THE EUT

Product Name	Smart phone		
Brand Name	Blackview		
Model Name	COLOR 6		
Series Model	N/A		
Model Difference(s)	N/A		
Test Sample	20250206001004		
Hardware Version	M197T_V1		
Software Version	COLOR6_EEA_M8104A_V1.0		
Modulation	GSM(GMSK), UMTS(QPSK/16QAM), LTE(QPSK/16QAM), WiFi(DSSS/OFDM), BT(GFSK/ $\pi/4$ -DQPSK/8-DPSK)		
Operation Frequency for 2G/3G/4G Range(s)	Band	TX (MHz)	RX (MHz)
	GSM900	880~915	925~960
	GSM1800	1710~1785	1805~1880
	UMTS B1	1920~1980	2110~2170
	UMTS B8	880~915	925~960
	LTE B1	1920~1980	2110~2170
	LTE B3	1710~1785	1805~1880
	LTE B7	2500~2690	2620~2690
	LTE B8	880~915	925~960
	LTE B20	832~862	791~821
	LTE B28	703~748	758-803
	LTE B40	2300~2400	
	LTE B41	2535~2655	
Operation Frequency for BT/WiFi Range(s)	Bluetooth	2400~2483.5	
	WLAN 2.4G	2400~2483.5	
	WLAN 5G	5150~5250	
		5725~5850	
GPRS Multislot Class (12)	Max Number of Timeslots in Uplink:		4
	Max Number of Timeslots in Downlink:		4
	Max Total Timeslot:		5
HSDPA UE Category	14		
HSUPA UE Category	6		
DC-HSDPA UE Category	24		
Power Class	4, tested with power level 5(GSM900)		
	1, tested with power level 0(GSM1800)		
	3, tested with power control "all up bits" (UMTS B1/8)		
	3, tested with power control "all Max" (LTE B1/37/8/20/28/40/41)		

Test Channels (low-mid-high)	975-60-124 (GSM900)		
	512-698-885 (GSM1800)		
	9613-9750-9887 (UMTS B1)		
	2712-2788-2863 (UMTS B8)		
	18100-18300-18500 (LTE B1 BW=20MHz)		
	19300-19575-19850 (LTE B3 BW=20MHz)		
	20850-21100-21350 (LTE B7 BW=20MHz)		
	21500-21625-21750 (LTE B8 BW=10MHz)		
	24250-24300-24350 (LTE B20 BW=20MHz)		
	27310-27460-27560 (LTE B28 BW=20MHz)		
	38750-39150-39550 (LTE B40 BW=20MHz)		
	40140-40640-41140 (LTE B41 BW=20MHz)		
	0-39-78 (BT)		
	0-19-39 (BLE)		
	1-7-13 (2.4G WiFi 802.11b/g/n HT20)		
	3-7-11 (2.4G WiFi 802.11n HT40)		
Antenna Gain (dBi)	Band	WiFi 5.2G	WiFi 5.8G
	802.11a/n HT20 /ac VHT20	36-40-48	149-157-165
	802.11n HT40 /ac VHT40	38-46	151-159
	802.11ac VHT80	42	155
	Band	Main Antenna	WiFi Antenna
Antenna Gain (dBi)	GSM900	-1.14	/
	GSM1800	0.61	/
	UMTS B1	1.03	/
	UMTS B8	-1.14	/
	LTE B1	1.03	/
	LTE B3	0.61	/
	LTE B7	1.05	/
	LTE B8	-1.14	/
	LTE B20	-0.76	/
	LTE B28	-1.01	/
	LTE B40	0.78	/
	LTE B41	0.85	/
	Bluetooth	/	1.28
	WLAN 2.4G	/	1.28
	WLAN 5G	/	1.28
Other Information			
Battery	Model Name	Li466591PLGY	
	Brand Name	N/A	
	Rated Voltage	3.85V	
	Charge Limit Voltage	4.4V	
	Capacity	5000mAh	

Note: The antenna gain is provided by the manufacturer.

1.5 MAIN TEST INSTRUMENTS

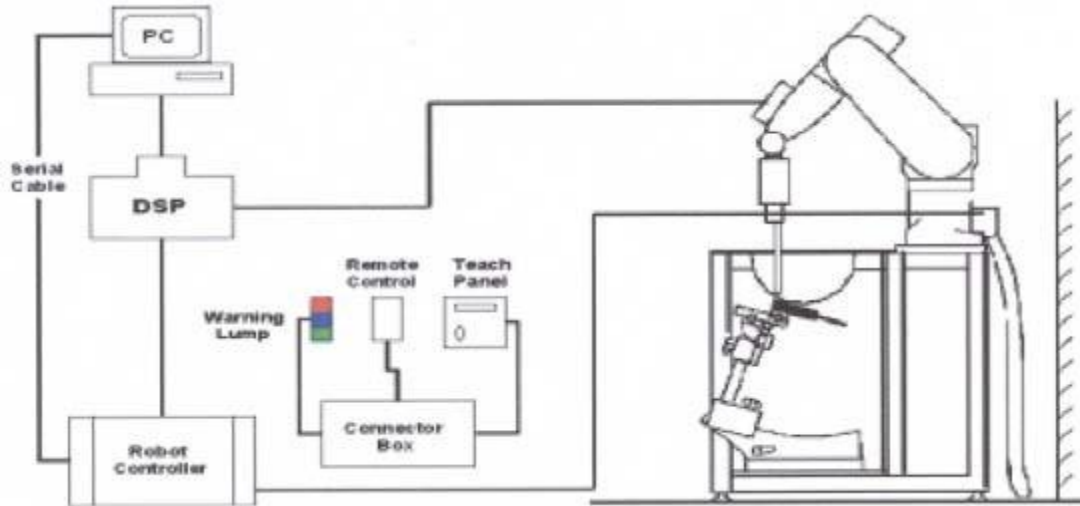
Name of Equipment	Manufacturer	Model	SN	Cal. Date	Due.Date
Data Acquisition Electronics	Speag	DAE4	787	Jan. 19, 2025	Jan. 18, 2026
E-field Probe	Speag	EX3DV4	7475	Feb. 09, 2025	Feb. 08, 2026
System Validation Dipole	Speag	D750V3	1055	Jan. 30, 2023	Jan. 30, 2026
System Validation Dipole	Speag	D835V2	4d061	Feb. 01, 2023	Jan. 31, 2026
System Validation Dipole	Speag	D900V2	1d055	Jan. 31, 2023	Jan. 30, 2026
System Validation Dipole	Speag	D1800V2	2d148	Feb. 01, 2023	Jan. 31, 2026
System Validation Dipole	Speag	D1900V2	5d092	Jan. 31, 2023	Jan. 30, 2026
System Validation Dipole	Speag	D2300V2	1040	Feb. 01, 2023	Jan. 31, 2026
System Validation Dipole	Speag	D2450V2	723	Jan. 31, 2023	Jan. 30, 2026
System Validation Dipole	Speag	D2600V2	1142	Feb. 01, 2023	Jan. 31, 2026
System Validation Dipole	Speag	D5GHzV2	1061	Jan. 30, 2023	Jan. 29, 2026
Twin Sam Phantom	Speag	Twin Sam Phantom V4.0	1461	N/A	N/A
Wideband Radio Communication Tester	R&S	CMW500	124019	Aug. 19, 2024	Aug. 18, 2025
Power Amplifier	Mini-Circuits	ZVA-183G-S+	522202306	Aug. 16, 2024	Aug. 15, 2025
DC Source meter	Itech	IT6302	N/A	Aug. 19, 2024	Aug. 18, 2025
Vector Network Analyzer	Agilent	E5071C	MY46102179	Aug. 16, 2024	Aug. 15, 2025
Signal Generator	Agilent	N5181A	SG49060033	Aug. 19, 2024	Aug. 18, 2025
Smart Power Sensor	Keysight	E9300A	MY55060031	Aug. 19, 2024	Aug. 18, 2025
Mechanical Calibration Kit	PNA	N/A	N/A	Aug. 19, 2024	Aug. 18, 2025
Dielectric Assessment Kit	Speag	DAK-3.5	1344	Jun. 05, 2023	Jun. 04, 2026
Directional Coupler	Talent Microwave	TC-05180-10S	230707040	Aug. 19, 2024	Aug. 18, 2025
Thermometer	TES	TES-1310	221104424	Aug. 19, 2024	Aug. 18, 2025

Note: "N/A" denotes no model name, serial No. or calibration specified.

2. SYSTEM DESCRIPTION AND SETUP

2.1 TEST SETUP LAYOUT

The DASY system for performing compliance tests consists of the following items:



- A standard high precision 6-axis robot with controller and software. An arm extension for accommodating the data acquisition electronics (DAE).
- A dosimetric probe, i.e. an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid. The probe is equipped with an optical surface detector system.
- A data acquisition electronic (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- A unit to operate the optical surface detector which is connected to the EOC.
- The Electro-Optical Coupler (EOC) performs the conversion from the optical into a digital electric signal of the DAE. The EOC is connected to the DASY measurement server.
- The DASY6 measurement server, which performs all real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operation.
- A computer operating Windows with the DASY software and SEMCAD data evaluation software.
- Remote control with teach panel and additional circuitry for robot safety such as warning lamps, etc.
- The twin phantom, the device holder and other accessories according to the targeted measurement
- Tissue simulating liquid mixed according to the given recipes.
- System validation dipoles allowing to validate the proper functioning of the system.

2.2 DASY6 E-FIELD PROBE SYSTEM

The SAR measurements were conducted with the dosimetric probe EX3DV4 (manufactured by SPEAG), designed in the classical triangular configuration and optimized for dosimetric evaluation.

2.2.1 PROBE SPECIFICATION

EX3DV4

Construction	Symmetrical design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	ISO/IEC 17025 calibration service available
Frequency	10 MHz to 6 GHz Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)
Dynamic Range	10 μ W/g to > 100 mW/g Linearity: ± 0.2 dB
Dimensions	Overall length: 330 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Distance from probe tip to dipole centers: 1.0 mm



E-field Probe

2.2.2 E-FIELD PROBE CALIBRATION

Each probe is calibrated according to a dosimetric assessment procedure with accuracy better than $\pm 10\%$. The spherical isotropy was evaluated and found to be better than $\pm 0.25\text{dB}$. The sensitivity parameters (NormX, NormY, NormZ), the diode compression parameter (DCP) and the conversion factor (ConvF) of the probe are tested.

The free space E-field from amplified probe outputs is determined in a test chamber. This is performed in a TEM cell for frequencies below 1 GHz, and in a wave guide above 1 GHz for free space. For the free space calibration, the probe is placed in the volumetric center of the cavity and at the proper orientation with the field. The probe is then rotated 360 degrees.

E-field temperature correlation calibration is performed in a flat phantom filled with the appropriate simulated brain tissue. The measured free space E-field in the medium correlates to temperature rise in a dielectric medium. For temperature correlation calibration a RF transparent thermistor-based temperature probe is used in conjunction with the E-field probe.

$$\text{SAR} = C \frac{\Delta T}{\Delta t}$$

Where: Δt = Exposure time (30 seconds),

C = Heat capacity of tissue (brain or muscle),

ΔT = Temperature increase due to RF exposure.

Or

$$\text{SAR} = \frac{|E|^2 \sigma}{\rho}$$

Where: σ = Simulated tissue conductivity,

ρ = Tissue density (kg/m^3).

2.2.3 OTHER TEST EQUIPMENT

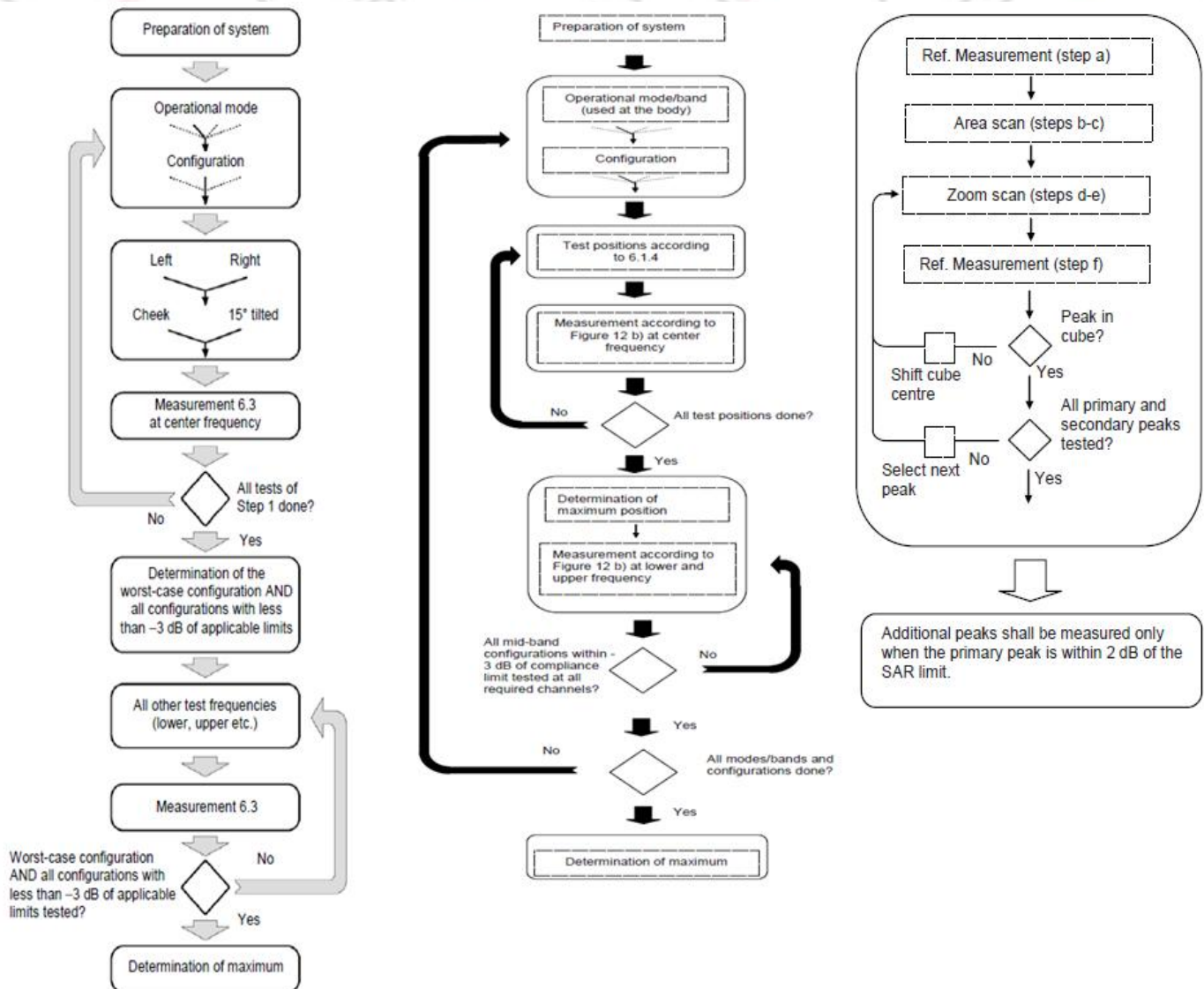
Device Holder for Transmitters	
Construction	The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEC/IEEE 62209-1528. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents evaporation of the liquid. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by teaching three points with the robot.
Material	POM, Acrylic glass, Foam

Phantom

Model	Twin SAM	
Construction	The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEC/IEEE 62209-1528. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents evaporation of the liquid. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by teaching three points with the robot.	
Shell Thickness	2 ± 0.2 mm	
Filling Volume	Approx. 25 liters	
Dimensions	Length: 1000mm; Width: 500mm Height: adjustable feet	
Available	Special	

2.2.4 SCANNING PROCEDURE

The SAR test against the body phantom was carried out as follow:



● Area Scan

Measure the two-dimensional SAR distribution within the phantom (area scan procedure). The boundary of the measurement area shall not be closer than 20 mm from the phantom side walls. The distance between the measurement points should enable the detection of the location of local maximum with an accuracy of better than half the linear dimension of the tissue cube after interpolation. A maximum grid spacing of 20 mm for frequencies below 3 GHz and $(60/f \text{ [GHz]})$ mm for frequencies of 3 GHz and greater is recommended.

● Zoom Scan

Measure the three-dimensional SAR distribution at each of the local maxima locations identified in step c) (zoom scan procedure).

For frequencies at or below 3 GHz, the following procedure shall be applied (see Table 8): The horizontal grid step shall be 8 mm or less. The grid step in the vertical direction shall be 5 mm or less if uniform spacing is used. The minimum size of the zoom scan volume shall be 30 mm by 30 mm by 30 mm.

For frequencies above 3 GHz, the minimum size of the zoom scan volume may be reduced to 22 mm by 22 mm by 22 mm. The horizontal grid step shall be $(24/f \text{ [GHz]})$ mm or less. If uniform spacing in the vertical direction is used, the grid step in the vertical direction shall be $(10/(f \text{ [GHz]} - 1))$ mm or less. If variable spacing is used in the vertical direction, the maximum spacing between the two measured points closest to the phantom shell shall be $(12/f \text{ [GHz]})$ mm or less and the spacing between further points shall increase by a factor of 1,5 or less.

Table 8 – Zoom scan parameters

Parameter	DUT transmit frequency being tested	
	$f \leq 3 \text{ GHz}$	$3 \text{ GHz} < f \leq 6 \text{ GHz}$
Maximum distance between the closest measured points and the phantom surface (z_{M1} in Figure 14 and Table 2, in mm)	5	$\delta \ln(2)/2^a$
Maximum angle between the probe axis and the flat phantom surface normal (α in Figure 14)	5°	5°
Maximum spacing between measured points in the x- and y-directions (Δx and Δy , in mm)	8	$24/f^{b,c}$
For uniform grids: Maximum spacing between measured points in the direction normal to the phantom shell (Δz_1 in Figure 14, in mm)	5	$10/(f - 1)$
For graded grids: Maximum spacing between the two closest measured points in the direction normal to the phantom shell (Δz_1 in Figure 14, in mm)	4	$12/f$
For graded grids: Maximum incremental increase in the spacing between measured points in the direction normal to the phantom shell ($R_z = \Delta z_2/\Delta z_1$ in Figure 14)	1,5	1,5
Minimum edge length of the zoom scan volume in the x- and y-directions (L_z in 7.2.5.3, in mm)	30	22
Minimum edge length of the zoom scan volume in the direction normal to the phantom shell (L_h in 7.2.5.3, in mm)	30	22
Tolerance in the probe angle	1°	1°
^a δ is the penetration depth for a plane-wave incident normally on a planar half-space. ^b This is the maximum spacing allowed, which may not work for all circumstances. ^c f is the frequency in GHz.		

After an area scan has been done at a fixed distance of 1.4mm from the surface of the phantom on the source side, a 3D scan is set up around the location of the maximum spot SAR. First, a point within the scan area is visited by the probe and a SAR reading taken at the start of testing. At the end of testing, the probe is returned to the same point and a second reading is taken. Comparison between these start and end readings enables the power drift during measurement to be assessed.

This is the procedure for which all compliant testing should be carried out to ensure that all variations of the device position and transmission behavior are tested.

2.2.5 DATA STORAGE AND EVALUATION

2.2.5.1 DATA STORAGE

The DASY software stores the acquired data from the data acquisition electronics as raw data (in microvolt readings from the probe sensors), together with all necessary software parameters for the data evaluation (probe calibration data, liquid parameters and device frequency and modulation data) in measurement files with the extension "DAE". The software evaluates the desired unit and format for output each time the data is visualized or exported. This allows verification of the complete software setup even after the measurement and allows correction of incorrect parameter settings. For example, if a measurement has been performed with a wrong crest factor parameter in the device setup, the parameter can be corrected afterwards and the data can be re-evaluated.

The measured data can be visualized or exported in different units or formats, depending on the selected probe type ($[V/m]$, $[A/m]$, $[^{\circ}C]$, $[mW/g]$, $[mW/cm^2]$, $[dBrel]$, etc.). Some of these units are not available in certain situations or show meaningless results, e.g., a SAR output in a lossless media will always be zero. Raw data can also be exported to perform the evaluation with other software packages.

2.2.5.2 DATA EVALUATION

The DASY software automatically executes the following procedures to calculate the field units from the microvolt readings at the probe connector. The parameters used in the evaluation are stored in the configuration modules of the software:

Probe parameters:	Sensitivity	Normi, ai0, ai1, ai2
	Conversion factor	ConvFi
	Diode compression point	Dcpi
Device parameters:	Frequency	f
	Crest factor	cf
Media parameters:	Conductivity	
	Density	

These parameters must be set correctly in the software. They can be found in the component documents or they can be imported into the software from the configuration files issued for the DASY components. In the direct measuring mode of the multimeter option, the parameters of the actual system setup are used. In the scan visualization and export modes, the parameters stored in the corresponding document files are used.

The first step of the evaluation is a linearization of the filtered input signal to account for the compression characteristics of the detector diode. The compensation depends on the input signal, the diode type and the DC-transmission factor from the diode to the evaluation electronics.

If the exciting field is pulsed, the crest factor of the signal must be known to correctly compensate for peak power. The formula for each channel can be given as:

$$V_i = U_i + U_i^2 \cdot cf / dcp_i$$

With	V_i = compensated signal of channel i	(i = x, y, z)
	U_i = input signal of channel i	(i = x, y, z)
	cf = crest factor of exciting field	(DASY parameter)
	dcp _i = diode compression point	(DASY parameter)

From the compensated input signals the primary field data for each channel can be evaluated:

$$\text{E-field probes: } E_i = (V_i / \text{Norm}_i \cdot \text{ConvF})^{1/2}$$

$$\text{H-field probes: } H_i = (V_i)^{1/2} \cdot (a_{i0} + a_{i1} f + a_{i2} f^2) / f$$

With V_i = compensated signal of channel i ($i = x, y, z$)

Norm_i = sensor sensitivity of channel i ($i = x, y, z$)
[mV/(V/m)²] for E-field Probes

ConvF = sensitivity enhancement in solution

a_{ij} = sensor sensitivity factors for H-field probes

f = carrier frequency [GHz]

E_i = electric field strength of channel i in V/m

H_i = magnetic field strength of channel i in A/m

The RSS value of the field components gives the total field strength (Hermitian magnitude):

$$E_{\text{tot}} = (E_x^2 + E_y^2 + E_z^2)^{1/2}$$

The primary field data are used to calculate the derived field units.

$$\text{SAR} = (E_{\text{tot}})^2 \cdot \sigma / (\rho \cdot 1000)$$

With SAR = local specific absorption rate in mW/g

E_{tot} = total field strength in V/m
= conductivity in [mho/m] or [Siemens/m]
= equivalent tissue density in g/cm³

Note that the density is normally set to 1 (or 1.06), to account for actual brain density rather than the density of the simulation liquid. The power flow density is calculated assuming the excitation field to be a free space field.

$$P_{\text{pwe}} = E_{\text{tot}}^2 / 3770 \text{ or } P_{\text{pwe}} = H_{\text{tot}}^2 \cdot 37.7$$

With P_{pwe} = equivalent power density of a plane wave in mW/cm²

E_{tot} = total field strength in V/m

H_{tot} = total magnetic field strength in A/m

3. SAR SYSTEM VERIFICATION

3.1 TISSUE-EQUIVALENT LIQUID INGREDIENTS

The liquid is consisted of water, salt and Glycol, Sugar, Preventol and Cellulose. The liquid has previously been proven to be suited for worst-case. The measured conductivity and relative permittivity should be within $\pm 5\%$ of the target values. The below table shows the detail solution.

It's satisfying the latest tissue dielectric parameters requirements proposed by the IEC/IEEE 62209-1528.

Composition of the Tissue Equivalent Matter

Tissue Type	Bactericide	DGBE	HEC	NaCl	Sucrose	Triton X-100	Water	Diethylene Glycol Mono-hexylether
Head 835	0.2	-	0.2	1.5	57.0	-	41.1	-
Head 900	0.2	-	0.2	1.4	58.0	-	40.2	-
Head 1800	-	47.0	-	0.4	-	-	52.6	-
Head 1900	-	44.5	-	0.2	-	-	55.3	-
Head 2300	-	44.9	-	0.1	-	-	55.0	-
Head 2450	-	45.0	-	0.1	-	-	54.9	-
Head 2600	-	45.1	-	0.1	-	-	54.8	-

3.2 TISSUE-EQUIVALENT LIQUID PROPERTIES

Dielectric Performance of Tissue Simulating Liquid

Tissue Verification									
Tissue Type	Frequency (MHz)	Liquid Temp. (°C)	Conductivity (σ)	Permittivity (ϵ_r)	Targeted Conductivity (σ)	Targeted Permittivity (ϵ_r)	Deviation Conductivity (σ) (%)	Deviation Permittivity (ϵ_r) (%)	Date
Head	750	21.8	0.875	42.416	0.90	42.0	-2.78	0.99	Mar. 13, 2025
Head	835	21.8	0.903	41.863	0.90	41.5	0.33	0.87	Mar. 14, 2025
Head	900	21.8	0.965	42.862	0.97	41.5	-0.52	3.28	Mar. 07, 2025
Head	900	21.8	0.936	41.896	0.97	41.5	-3.51	0.95	Mar. 10, 2025
Head	900	21.8	0.987	42.058	0.97	41.5	1.75	1.34	Mar. 17, 2025
Head	1800	21.9	1.438	41.265	1.40	40.0	2.71	3.16	Mar. 11, 2025
Head	1800	22.3	1.468	41.425	1.40	40.0	4.86	3.56	Mar. 18, 2025
Head	1900	21.9	1.414	41.264	1.40	40.0	1.00	3.16	Apr. 14, 2025
Head	1900	22.3	1.438	40.956	1.40	40.0	2.71	2.39	Apr. 15, 2025
Head	2300	22.3	1.647	41.439	1.67	39.5	-1.38	4.91	Mar. 20, 2025
Head	2450	21.9	1.846	40.473	1.80	39.2	2.56	3.25	Mar. 25, 2025
Head	2600	21.8	1.934	40.176	1.96	39.0	-1.33	3.02	Apr. 16, 2025
Head	2600	21.9	1.937	39.421	1.96	39.0	-1.17	1.08	Mar. 24, 2025
Head	5250	21.9	4.743	36.054	4.71	35.9	0.70	0.43	Apr. 27, 2025
Head	5800	21.8	5.298	35.496	5.27	35.3	0.53	0.56	Mar. 27, 2025

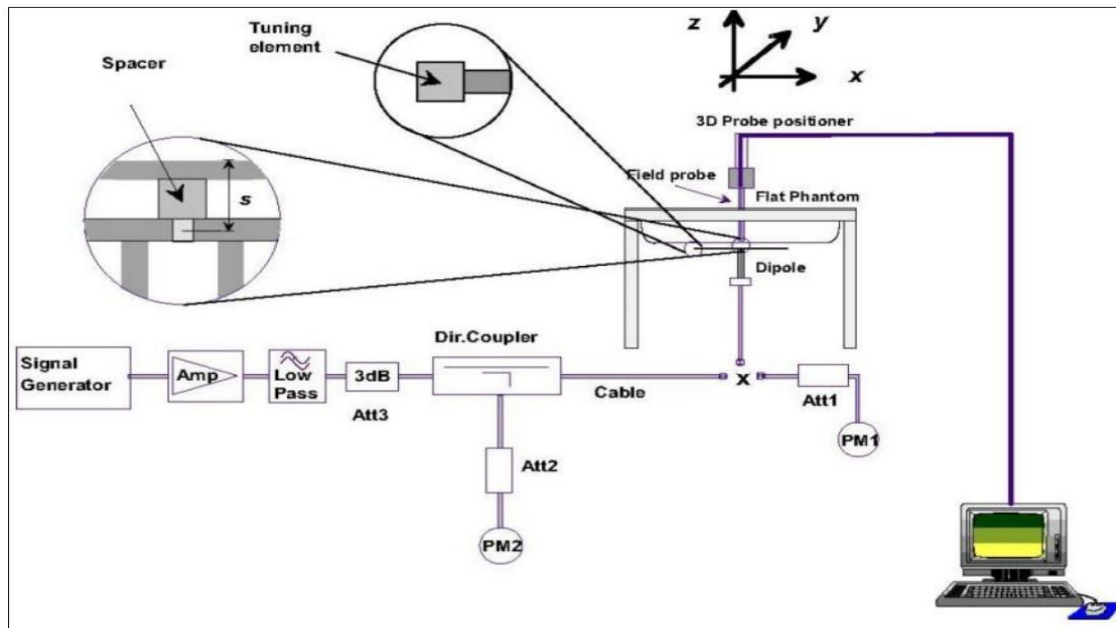
3.3 DESCRIPTION OF SYSTEM CHECK

The manufacturer calibrates the probes annually. Dielectric parameters of the tissue simulants were measured every day using the dielectric probe kit and the network analyzer. A system check measurement was made following the determination of the dielectric parameters of the simulant, using the dipole validation kit. A power level of 250 mW (below 3GHz) or 100mW (3-6GHz), which was placed under the flat section of the twin SAM phantom. The system check results (dielectric parameters and SAR values) are given in the 5.2.

System check results have to be equal or near the values determined during dipole calibration with the relevant liquids and test system ($\pm 10\%$).

System check is performed regularly on all frequency bands where tests are performed with the DASY6 system.

System Check Set-up



3.4 SYSTEM CHECK RESULT

System Check in Tissue Simulating Liquid

System Check	Date	Frequency (MHz)	Targeted SAR 10g (W/kg)	Measured SAR 10g (W/kg)	Normalized SAR 10g (W/kg)	Deviation 10g (%)	Dipole S/N
Head	Mar. 13, 2025	750	5.67	1.37	5.48	-3.35	1055
Head	Mar. 14, 2025	835	6.27	1.53	6.12	-2.39	4d061
Head	Mar. 07, 2025	900	7.15	1.78	7.12	-0.42	1d055
Head	Mar. 10, 2025	900	7.15	1.74	6.96	-2.66	1d055
Head	Mar. 17, 2025	900	7.15	1.80	7.20	0.70	1d055
Head	Mar. 11, 2025	1800	20.60	5.18	20.72	0.58	2d148
Head	Mar. 18, 2025	1800	20.60	5.18	20.72	0.58	2d148
Head	Apr. 14, 2025	1900	21.00	5.14	20.56	-2.10	5d092
Head	Apr. 15, 2025	1900	21.00	5.24	20.96	-0.19	5d092
Head	Mar. 20, 2025	2300	23.10	5.81	23.24	0.61	1040
Head	Mar. 25, 2025	2450	24.50	6.31	25.24	3.02	723
Head	Apr. 16, 2025	2600	25.20	6.35	25.40	0.79	1142
Head	Mar. 24, 2025	2600	25.20	6.18	24.72	-1.90	1142
Head	Apr. 27, 2025	5250	21.60	2.17	21.70	0.46	1061
Head	Mar. 27, 2025	5800	21.30	2.11	21.10	-0.94	1061

4. OPERATIONAL CONDITIONS DURING TEST

4.1 GENERAL DESCRIPTION OF TEST PROCEDURES

Connection to the EUT is established via air interface with R&S CMW500, and the EUT is set to maximum output power by R&S CMW500. The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power output. The antenna connected to the output of the base station simulator shall be placed at least 50cm away from the EUT. The signal transmitted by the simulator to the antenna feeding point shall be lower than the output power level of the EUT by at least 30dB.

GSM SAR Test Configuration

SAR tests for GSM850/900 and GSM1800/1900, a communication link is set up with a base station by air link. Using CMW500 Series the power lever is set to "5" and "0" in SAR of GSM900 and GSM1800. The tests in the band of GSM900 and GSM1800 are performed in the mode of GPRS function. Since the GPRS class is 12 for this EUT, it has at most 4 timeslots in uplink and at most 4 timeslots in downlink, the maximum total timeslot is 5.

UMTS SAR Test Configuration

1. Output Power Verification

Maximum output power is verified on the High, Middle and Low channels according to the procedures description in section 5.2 of 3GPP TS 34.121, using the appropriate RMC or AMR with TPC (transmit power control) set to all "1s" for WCDMA/HSDPA or applying the required inner loop power control procedure to maintain maximum output power while HSUPA is active. Result for all applicable physical channel configurations (DPCCH, DPDCHn and spreading codes, HSDPA, HSPA) should be tabulated in the SAR report. All configuration that are not supported by the DUT or cannot be measured due to technical or equipment limitation should be clearly identified.

2. WCDMA

Body SAR Measurements

SAR for body exposure configurations is measured using the 12.2 kbps RMC with the TPC bits configured to all "1s". SAR for other spreading codes and multiple DPDCHn, when supported by the EUT, are not required when the maximum average outputs of each RF channel, for each spreading code and DPDCHn configuration, are less than ¼ dB higher than those measured in 12.2 kbps RMC.

3. HSDPA

SAR for body exposure configurations is measured according to the "Body SAR Measurements" procedures of 3G device. In addition, body SAR is also measured for HSDPA when the maximum average outputs of each RF channel with HSDPA active is at ¼ dB higher than that measured without HSDPA using 12.2kbps RMC or the maximum SAR 12.2kbps RMC is above 75% of the SAR limit. Body SAR for HSDPA is measured using an FRC with H-Set 1 in Sub-test 1 and a 12.2kbps RMC configured in Test Loop Mode 1, using the highest body SAR configuration in 12.2 kbps RMC without HSDPA.

HSDPA should be configured according to UE category of a test device. The number of HS-DSCH/HS-PDSCHs, HAPRQ processes, minimum inter-TTI interval, transport block sizes and RV coding sequence are defined by the H-set. To maintain a consistent test configuration and stable transmission condition, QPSK is used in the H-set for SAR testing. HS-DPCCH should be configured with a CQI feedback cycle of 4ms with a CQI repetition factor of 2 to maintain a constant rate of active CQI slots. The β_c and β_d gain factors for DPCCH and DPDCH were set according to the values in the below table, β_{hs} for HS-DPCCH is set automatically to the correct value when ΔACK , $\Delta NACK$, $\Delta CQI = 8$. The variation of the β_c / β_d ratio causes a power reduction at sub-tests 2 - 4.

Sub-test ^o	β_c ^o	β_d ^o	β_d (SF) ^o	β_c / β_d ^o	β_{hs} (1) ^o	CM(dB)(2) ^o	MPR (dB) ^o
1 ^o	2/15 ^o	15/15 ^o	64 ^o	2/15 ^o	4/15 ^o	0.0 ^o	0 ^o
2 ^o	12/15(3) ^o	15/15(3) ^o	64 ^o	12/15(3) ^o	24/15 ^o	1.0 ^o	0 ^o
3 ^o	15/15 ^o	8/15 ^o	64 ^o	15/8 ^o	30/15 ^o	1.5 ^o	0.5 ^o
4 ^o	15/15 ^o	4/15 ^o	64 ^o	15/4 ^o	30/15 ^o	1.5 ^o	0.5 ^o

Note 1: ΔACK , $\Delta NACK$ and $\Delta CQI = 8$ $A_{hs} = \beta_{hs} / \beta_c = 30/15$ $\beta_{hs} = 30/15 * \beta_c$

Note 2: CM=1 for $\beta_c / \beta_{hs} = 12/15$, $\beta_{hs} / \beta_c = 24/15$. For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.^o

Note 3: For subtest 2 the β_c / β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 11/15$ and $\beta_d = 15/15$ ^o

The measurements were performed with a Fixed Reference Channel (FRC) and H-Set 1 QPSK.

Settings of required H-Set 1 QPSK acc. to 3GPP 34.121

Parameter	Value
Nominal average inf. bit rate	534 kbit/s
Inter-TTI Distance	3 TTI"s
Number of HARQ Processes	2 Processes
Information Bits Payload	3202 Bits
MAC-d PDU size	336 Bits
Number Code Blocks	1 Block
Binary Channel Bits Per TTI	4800 Bits
Total Available SMLs in UE	19200 SMLs
Number of SMLs per HARQ Process	9600 SMLs
Coding Rate	0.67
Number of Physical Channel Codes	5

HSDPA UE category

HS-DSCH Category	Maximum HS-DSCH Codes Received	Minimum Inter-TTI Interval	Maximum HS-DSCH Transport Block Bits/HS-DSCH TTI	Total Soft Channel Bits
1	5	3	7298	19200
2	5	3	7298	28800
3	5	2	7298	28800
4	5	2	7298	38400
5	5	1	7298	57600
6	5	1	7298	67200
7	10	1	14411	115200
8	10	1	14411	134400
9	15	1	25251	172800
10	15	1	27952	172800
11	5	2	3630	14400
12	5	1	3630	28800
13	15	1	34800	259200
14	15	1	42196	259200
15	15	1	23370	345600
16	15	1	27952	345600

4. HSUPA

SAR for Body exposure configurations is measured according to the “Body SAR Measurements” procedures of 3G device. When the maximum output power is $\leq 1/4$ dB higher than the primary mode or when the SAR of the primary mode is scaled by the ratio of specified maximum output power and SAR is $\leq 75\%$ SAR Limit, SAR measurement is not required for the secondary mode.

The 3G SAR test reduction procedures is applied to HSPA (HSUPA/HSDPA with RMC) body configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSPA using the HSPA body SAR procedures for the highest reported body exposure SAR configuration in 12.2 kbps RMC.

Due to inner loop power control requirements in HSUPA, a commercial communication test set should be used for the output power and SAR tests. The 12.2 kbps RMC, FRC H-set 1 and E-DCH configurations for HSDPA should be configured according to the values indicated below as well as other applicable procedures described in the “WCDMA Handset” and “Release 5 HSDPA Data Device” sections of 3G device.

Subtests for WCDMA Release 6 HSUPA

Sub-test ¹	$\beta_{c^{(2)}}$	$\beta_{d^{(2)}}$	β_d (SF) ³	$\beta_c/\beta_d^{(2)}$	$\beta_{hs}^{(1)}$	$\beta_{ec}^{(2)}$	$\beta_{ed}^{(2)}$	$\beta_{e^{(2)}}$ (SF) ³	$\beta_{ed}^{(2)}$ (code) ³	CM ⁽²⁾ (dB) ³	MP R ⁽²⁾ (dB) ³	AG ⁽⁴⁾ Index ³	E-TFC I ³
1 ²	11/15 ⁽³⁾	15/15 ⁽³⁾	64 ³	11/15 ⁽³⁾	22/15 ³	209/225 ³	1039/225 ³	4 ³	1 ³	1.0 ³	0.0 ³	20 ³	75 ³
2 ²	6/15 ³	15/15 ³	64 ³	6/15 ³	12/15 ³	12/15 ³	94/75 ³	4 ³	1 ³	3.0 ³	2.0 ³	12 ³	67 ³
3 ²	15/15 ³	9/15 ³	64 ³	15/9 ³	30/15 ³	30/15 ³	$\beta_{ed1}:47/15^{(3)}$ $\beta_{ed2}:47/15^{(3)}$	4 ³	2 ³	2.0 ³	1.0 ³	15 ³	92 ³
4 ²	2/15 ³	15/15 ³	64 ³	2/15 ³	4/15 ³	2/15 ³	56/75 ³	4 ³	1 ³	3.0 ³	2.0 ³	17 ³	71 ³
5 ²	15/15 ⁽⁴⁾	15/15 ⁽⁴⁾	64 ³	15/15 ⁽⁴⁾	30/15 ³	24/15 ³	134/15 ³	4 ³	1 ³	1.0 ³	0.0 ³	21 ³	81 ³
Note 1: ΔACK , $\Delta NACK$ and $\Delta CQI = 8$ $A_{hs} = \beta_{hs}/\beta_c = 30/15$ $\beta_{hs} = 30/15 * \beta_{c^{(2)}}$ Note 2: CM = 1 for $\beta_c/\beta_d = 12/15$, $\beta_{hs}/\beta_c = 24/15$. For all other combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference ³ Note 3 : For subtest 1 the β_c/β_d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 10/15$ and $\beta_d = 15/15$ ³ Note 4 : For subtest 5 the β_c/β_d ratio of 15/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 14/15$ and $\beta_d = 15/15$ ³ Note 5 : Testing UE using E-DPDCH Physical Layer category 1 Sub-test 3 is not required according to TS 25.306 Table 5.1g ³ Note 6: β_{ed} can not be set directly; it is set by Absolute Grant Value. ³													

HSUPA UE category

UE E-DCH Category	Maximum E-DCH Codes Transmitted	Number of HARQ Processes	E-DCH TTI(ms)	Minimum Spreading Factor	Maximum E-DCH Transport Block Bits	Max Rate (Mbps)
1	1	4	10	4	7110	0.7296
2	2	8	2	4	2798	1.4592
	2	4	10	4	14484	
3	2	4	10	4	14484	1.4592
4	2	8	2	2	5772	2.9185
	2	4	10	2	20000	2.00
5	2	4	10	2	20000	2.00
6 (No DPDCH)	4	8	10	2SF2&2SF4	11484	5.76
	4	4	2		20000	2.00
7 (No DPDCH)	4	8	2	2SF2&2SF4	22996	/
	4	4	10		20000	/

NOTE: When 4 codes are transmitted in parallel, two codes shall be transmitted with SF2 and two with SF4. UE categories 1 to 6 support QPSK only. UE category 7 supports QPSK and 16QAM.(TS25.306-7.3.0).

5. DC-HSDPA

In DC-HSDPA implementation of this device, the uplink parameters are the same as HSDPA. No additional channels and modulations (16 QAM, and 64 QAM) are supported in uplink. The difference is only in the downlink parameters, where two carriers are supported. HSDPA settings were used on uplink.

For Rel. 8 DC-HSDPA apply the four subtests from HSDPA Release 5 except use fixed reference channel H-Set 12 for DC-HSDPA. And we can apply the same SAR test exclusion criteria used for Rel. 6 HSPA for Rel. 7 HSPA+ and Rel. 8 DC-HSDPA. That is, if the HSPA, HSPA+, or the DC-HSDPA maximum output is not more than 0.25 dB higher than WCDMA, SAR measurement for those modes is not required.

The following tests were completed according to procedures in section 7.3.13 of 3GPP TS 34.108 v9.5.0. A summary of these settings are illustrated below:

Downlink Physical Channels are set as per 3GPP TS34.121-1 v9.0.0 E.5.0
Levels for HSDPA connection setup

Parameter During Connection setup	Unit	Value
P-CPICH_Ec/lor	dB	-10
P-CCPCH and SCH_Ec/lor	dB	-12
PICH_Ec/lor	dB	-15
HS-PDSCH	dB	off
HS-SCCH_1	dB	off
DPCH_Ec/lor	dB	-5
OCNS_Ec/lor	dB	-3.1

Call is set up as per 3GPP TS34.108 v9.5.0 sub clause 7.3.13

The configurations of the fixed reference channels for HSDPA RF tests are described in 3GPP TS 34.121, annex C for FDD and 3GPP TS 34.122.

The measurements were performed with a Fixed Reference Channel (FRC) H-Set 12 with QPSK

Parameter	Value
Nominal average inf. bit rate	60 kbit/s
Inter-TTI Distance	1 TTI"s
Number of HARQ Processes	6 Processes
Information Bit Payload	120 Bits
Number Code Blocks	1 Block
Binary Channel Bits Per TTI	960 Bits
Total Available SMLs in UE	19200 SMLs
Number of SMLs per HARQ Process	3200 SMLs
Coding Rate	0.15
Number of Physical Channel Codes	1

Note:

1. The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table above.

2. Maximum number of transmission is limited to 1,i.e.,retransmission is not allowed. The redundancy and constellation version 0 shall be used.

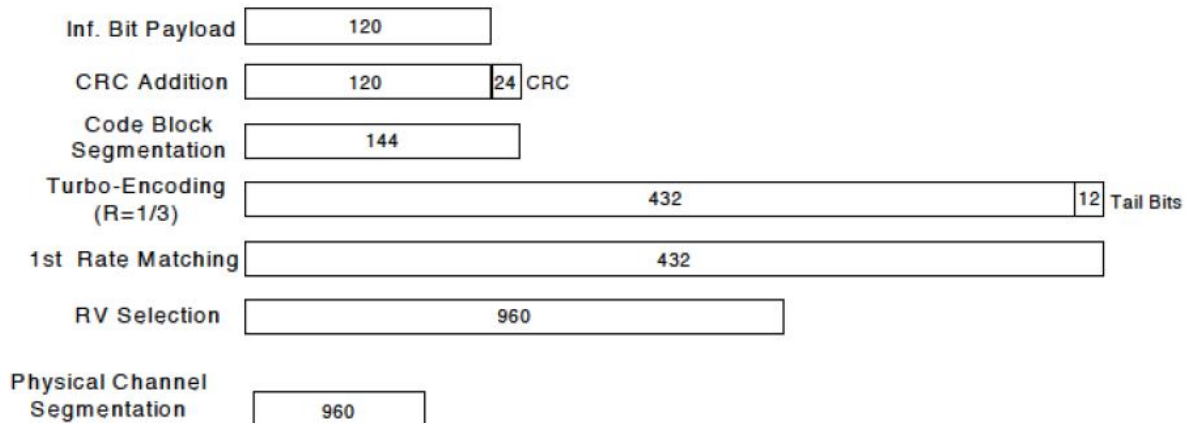


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

The following 4 Sub-tests for HSDPA were completed according to Release 5 procedures. A summary of subtest settings are illustrated below:

Sub-test ^o	β_c ^o	β_d ^o	β_d (SF) ^o	β_c/β_d ^o	$\beta_{hs}(1)$ ^o	CM(dB)(2) ^o	MPR (dB) ^o
1 ^o	2/15 ^o	15/15 ^o	64 ^o	2/15 ^o	4/15 ^o	0.0 ^o	0 ^o
2 ^o	12/15(3) ^o	15/15(3) ^o	64 ^o	12/15(3) ^o	24/15 ^o	1.0 ^o	0 ^o
3 ^o	15/15 ^o	8/15 ^o	64 ^o	15/8 ^o	30/15 ^o	1.5 ^o	0.5 ^o
4 ^o	15/15 ^o	4/15 ^o	64 ^o	15/4 ^o	30/15 ^o	1.5 ^o	0.5 ^o

Note 1: Δ ACK, Δ NACK and Δ CQI = 8 $A_{hs} = \beta_{hs}/\beta_c = 30/15$ $\beta_{hs} = 30/15 * \beta_c$
Note 2: CM=1 for $\beta_c/\beta_d = 12/15$, $\beta_{hs}/\beta_c = 24/15$. For all other combinations of DPDCH, DPCCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.
Note 3: For subtest2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 11/15$ and $\beta_d = 15/15$

Up commands are set continuously to set the UE to Max power.

6. HSPA+

An E-DCH call is set up according to TS 34.108 [3] 7.3.9 with the following exceptions in the RADIO BEARER SETUP messages. These exceptions allow the beta values to be set according to table C.11.1.4 and each UL physical channel to be at constant power at the start of the measurement. RF parameters are set up according to table E.5.A.1. Settings for the serving cell are defined in table 5.2E.4. Uplink SRB for DCCH mapped on E-DCH and downlink SRB for DCCH on DCH. E-DCH is configured with 2ms TTI.

Table C.11.1.4: β values for transmitter characteristics tests with HS-DPCCH and E-DCH with 16QAM

Sub-test	β_c (Note 3)	β_d	β_{HS} (Note 1)	β_{ec}	β_{ed} (2xSF2) (Note 4)	β_{ed} (2xSF4) (Note 4)	CM (dB) (Note 2)	MPR (dB) (Note 2)	AG Index (Note 4)	E-TFCI (Note 5)	E-TFCI (boost)
1	1	0	30/15	30/15	β_{ed1} : 30/15 β_{ed2} : 30/15	β_{ed3} : 24/15 β_{ed4} : 24/15	3.5	2.5	14	105	105

Note 1: Δ_{ACK} , Δ_{NACK} and $\Delta_{CQI} = 30/15$ with $\beta_{fs} = 30/15 * \beta_c$.

Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0).

Note 3: DPDCH is not configured, therefore the β_c is set to 1 and $\beta_d = 0$ by default.

Note 4: β_{ed} can not be set directly; it is set by Absolute Grant Value.

Note 5: All the sub-tests require the UE to transmit 2SF2+2SF4 16QAM EDCH and they apply for UE using E-DPDCH category 7. E-DCH TTI is set to 2ms TTI and E-DCH table index = 2. To support these E-DCH configurations DPDCH is not allocated. The UE is signaled to use the extrapolation algorithm.

Note:

- 1.The Dual Carriers transmission only applies to HSDPA physical channels.
- 2.The Dual Carriers belong to the same Node and are on adjacent carriers.
- 3.The Dual Carriers do not support MIMO to serve UEs configured for dual cell operation.
- 4.The Dual Carriers operate in the same frequency band.
- 5.The device doesn't support the modulation of 16QAM in uplink but 64QAM in downlink for DC-HSDPA mode.
- 6.The device doesn't support carrier aggregation for it just can operate in Release 8.

LTE Test Configuration

Establishing connections with base station simulators ensure a consistent means for testing SAR and are recommended for evaluating SAR. The RS CMW500 was used for LTE output power measurements and SAR testing. Max power control was used so the UE transmits with maximum output power during SAR testing. SAR must be measured with the maximum TTI (transmit time interval) supported by the device in each LTE configuration.

If the power and MPR match the maximum bandwidth required by 3GPP and all modulations, the other bandwidths will only measure the maximum power.

If power reduction is supported, the power measures the maximum bandwidth of all modulations, and other bandwidths will only measure the maximum power.

1) Spectrum Plots for RB configurations

A properly configured base station simulator was used for LTE output power measurements and SAR testing. Therefore, spectrum plots for RB configurations were not required to be included in this report.

2) MPR

MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36.101 Section 6.2.3-6.2.5 under Table 6.2.3-1.

3) A-MPR

A-MPR (Additional MPR) has been disabled for all SAR tests by using Network Signaling Value of "NS=01" on the base station simulator.

4) SAR test requirements

The LTE SAR test is choice the max power mode and start with the max power channel.

A) Largest channel bandwidth standalone SAR test requirements

i) QPSK with 1 RB allocation

When the SAR is ≤ 1 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. When the 10-g SAR of a required test channel is > 1.8 W/kg, SAR is required for all three RB offset configurations for that required test channel.

ii) QPSK with 50% RB allocation

For QPSK with 50% RB allocation, SAR is measured for the largest channel bandwidth and the maximum output power channel.

iii) QPSK with 100% RB allocation

For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest 10-g SAR for 1 RB and 50% RB allocation in i) and ii) are ≤ 1.5 W/kg. Otherwise, SAR is measured for the highest output power channel and if the 10-g SAR is > 1.8 W/kg, the remaining required test channels must also be tested

iv) Higher order modulations

For each modulation besides QPSK; e.g., 16-QAM, 64-QAM, apply the QPSK procedures in above sections to determine the QAM configurations that may need SAR measurement. For each configuration identified as required for testing, SAR is required only when the highest maximum output power for the configuration in the higher order modulation is $> \frac{1}{2}$ dB higher than the same configuration in QPSK or when the 10-g SAR for the QPSK configuration is > 1.8 W/kg

B) Other channel bandwidth standalone SAR test requirements

For the other channel bandwidths used by the device in a frequency band, apply all the procedures required for the largest channel bandwidth in section A) to determine the channels and RB configurations that need SAR testing and only measure SAR when the highest maximum output power of a configuration requiring testing in the smaller channel bandwidth is $> \frac{1}{2}$ dB higher than the equivalent channel configurations in the largest channel bandwidth configuration or the SAR of a configuration for the largest channel bandwidth is > 1.80 W/kg.

LTE (TDD) Test Configuration

TDD LTE Band supports 3GPP TS 36 for Time-Division Duplex (TDD) systems, SAR must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP LTE TDD configurations.

TDD LTE Band supports 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations and Table 4.2-1 for Special subframe configurations.

Figure 4.2-1: Frame structure type 2

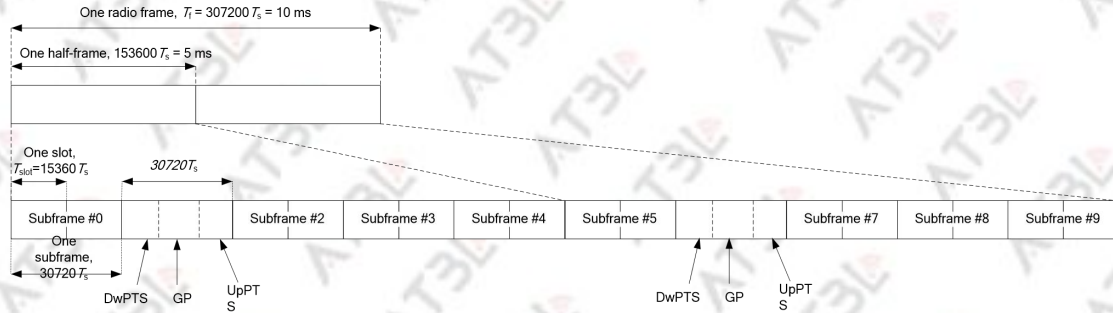


Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS)

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$			$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-

Table 4.2-2: Uplink-downlink configurations

Uplink-downlink configuration	Downlink-to-Uplink Switch-point periodicity	Subframe number									
		0	1	2	3	4	5	6	7	8	9
0	5 ms	D	S	U	U	U	D	S	U	U	U
1	5 ms	D	S	U	U	D	D	S	U	U	D
2	5 ms	D	S	U	D	D	D	S	U	D	D
3	10 ms	D	S	U	U	U	D	D	D	D	D
4	10 ms	D	S	U	U	D	D	D	D	D	D
5	10 ms	D	S	U	D	D	D	D	D	D	D
6	5 ms	D	S	U	U	U	D	S	U	U	D

According to Figure 4.2-1, one radio frame is configured by 10 subframes, which consist of Uplink-subframe, Downlink-subframe and Special subframe. For TDD-LTE, the Duty Cycle should be calculated on Uplink-subframes and Special subframes, due to Special subframe containing both Uplink transmissions. So for one radio frame, Duty Cycle can be calculated with formula as below. The count of Uplink subframes are according to Table 4.2-2:

$$\text{Duty cycle} = (30720\text{Ts} \times \text{Ups} + \text{Uplink Component} \times \text{Specials}) / (307200\text{Ts})$$

About the uplink component of Special subframes, we can figure out by Table 4.2-1:

$$\text{Uplink Component} = \text{UpPTS}$$

In conclusion, for the TDD LTE Band, Duty Cycle can be calculated with formula as below. All these sets are ok when we test, or we can set as below.

$$\text{Duty cycle} = [(30720\text{Ts} \times \text{Ups}) + \text{UpPTS} \times \text{Specials}] / (307200\text{Ts})$$

And we can get different Duty cycles under different configurations:

Uplink-downlink configuration	Subframe number			Configuration of special subframe							
				Normal cyclic prefix in downlink				Extended cyclic prefix in downlink			
				Normal cyclic prefix in uplink		Extended cyclic prefix in uplink		Normal cyclic prefix in uplink		Extended cyclic prefix in uplink	
	D	S	U	configuration 0-4	configuration 5-9	configuration 0-4	configuration 5-9	configuration 0-3	configuration 4-7	configuration 0-3	configuration 4-7
0	2	2	6	61.43%	62.85%	61.67%	63.33%	61.43%	62.85%	61.67%	63.33%
1	4	2	4	41.43%	42.85%	41.67%	43.33%	41.43%	42.85%	41.67%	43.33%
2	6	2	2	21.43%	22.85%	21.67%	23.33%	21.43%	22.85%	21.67%	23.33%
3	6	1	3	30.71%	31.43%	30.83%	31.67%	30.71%	31.43%	30.83%	31.67%
4	7	1	2	20.71%	21.43%	20.83%	21.67%	20.71%	21.43%	20.83%	21.67%
5	8	1	1	10.71%	11.43%	10.83%	11.67%	10.71%	11.43%	10.83%	11.67%
6	3	2	5	51.43%	52.85%	51.67%	53.33%	51.43%	52.85%	51.67%	53.33%

For TDD LTE, SAR should be tested with the highest transmission duty factor (63.33%) using Uplink-downlink configuration 0 and Special subframe configuration 7 for Frame structure type 2.

WIFI Test Configuration

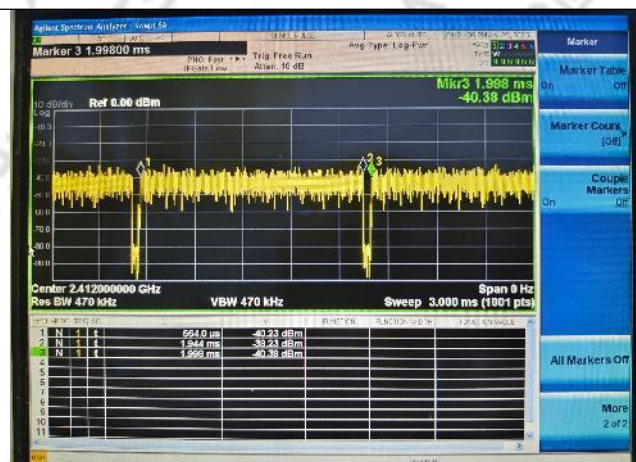
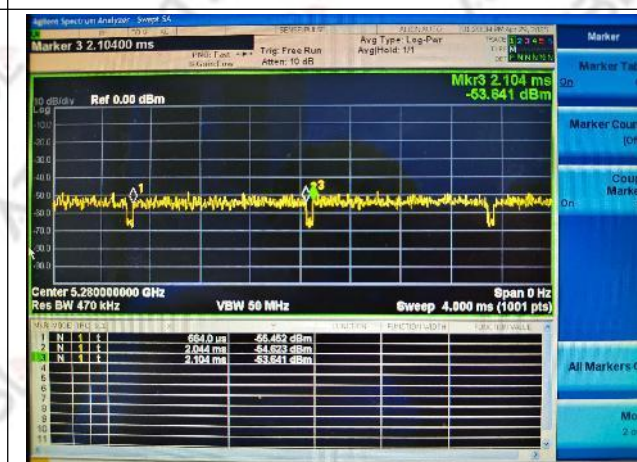
For WLAN / BT SAR testing, WLAN / BT engineering testing software installed on the DUT can provide continuous transmitting RF signal.

2.4G SAR Test Requirements

2.4G WLAN operating modes are tested independently according to the service requirements in each frequency band. 802.11b/g/n HT20/n HT40 modes are tested on the maximum average output power mode.

5G SAR Test Requirements

5G WLAN operating modes are tested independently according to the service requirements in each frequency band. 802.11a/n HT20/n HT40/ac VHT20/ac VHT40/ac VHT80 modes are tested on the maximum average output power mode.

Duty Cycle	Duty Cycle
WiFi 2.4G	WiFi 5G
96.23%	95.83%
	

4.2 TEST POSITION

4.2.1 HEAD TEST CONFIGURATION

Measurements were made in “cheek” and “tilt” positions on both the left hand and right hand sides of the phantom.



Figure 1: Cheek position of the wireless device on the left side of SAM

Note1: Cheek position of the wireless device on Right side of SAM also is similar to the left side represented above.



Figure 2: Tilt position of the wireless device on the left side of SAM

Note2: Tilt position of the wireless device on Right side of SAM also is similar to the left side represented above.

4.2.2 BODY TEST CONFIGURATION

Body-worn operating configurations should be tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in normal use configurations. Devices with a headset output should be tested with a headset connected to the device. The distance between the device and the phantom was kept 5mm.

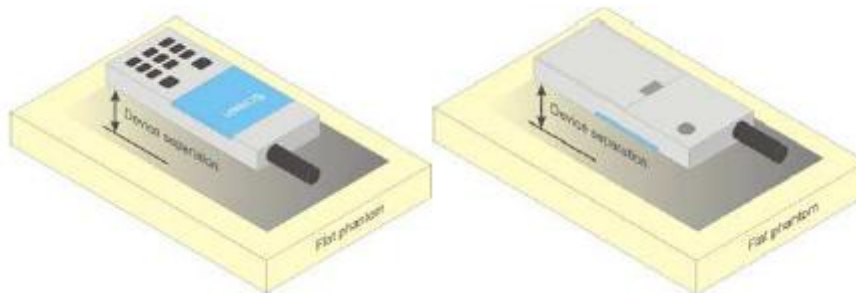


Figure 3: Test positions for body-worn device

4.2.3 LIMB-WORN TEST CONFIGURATION

A limb-worn device is a unit whose intended use includes being strapped to the arm or leg of the user while transmitting (except in idle mode). It is similar to a body-worn device. Therefore, the test positions of body-worn device also apply. The strap shall be opened so that it is divided into two parts as shown in Figure 10. The device shall be positioned directly against the phantom surface with the strap straightened as much as possible and the back of the device towards the phantom.

If the strap cannot normally be opened to allow placing in direct contact with the phantom surface, it may be necessary to break the strap of the device but ensuring to not damage the antenna.

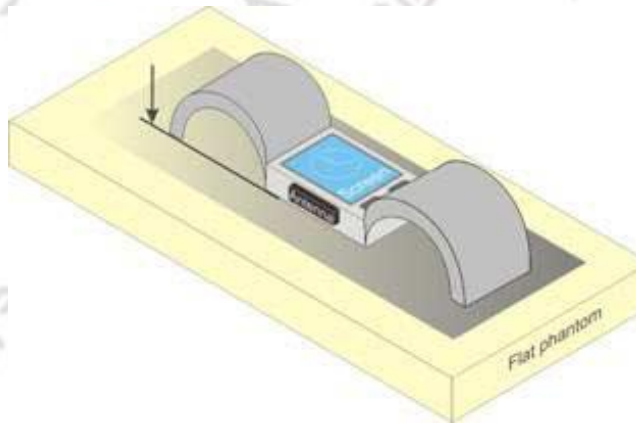


Figure 4: Test position for limb-worn devices

5. CONDUCTED POWER RESULTS

5.1 CONDUCTED POWER MEASUREMENTS RESULTS OF GSM/UMTS/LTE

1. Conducted power measurement results of GSM

GSM900		Max Burst Average Power (dBm)				Max Frame Average Power (dBm)			
		Max. Tune-up	Channel/Frequency(MHz)			Max. Tune-up	Channel/Frequency(MHz)		
			975/ 880.2	60/ 902	124/ 914.8		975/ 880.2	60/ 902	124/ 914.8
GSM (GMSK)		34.50	33.96	34.11	34.07	25.31	24.77	24.92	24.88
GPRS (GMSK)	1 Tx Slot	34.50	33.96	34.11	34.07	25.31	24.77	24.92	24.88
	2 Tx Slot	33.50	32.90	33.14	33.01	27.37	26.77	27.01	26.88
	3 Tx Slot	31.50	30.54	30.85	30.86	27.08	26.12	26.43	26.44
	4 Tx Slot	30.50	29.34	29.68	29.65	27.32	26.16	26.50	26.47

Note: The tested channel results are marks in bold.

GSM1800		Max Burst Average Power (dBm)				Max Frame Average Power (dBm)			
		Max. Tune-up	Channel/Frequency(MHz)			Max. Tune-up	Channel/Frequency(MHz)		
			512/ 1710.2	698/ 1747.4	885/ 1784.8		512/ 1710.2	698/ 1747.4	885/ 1784.8
GSM (GMSK)		31.00	30.26	30.42	30.39	21.81	21.07	21.23	21.20
GPRS (GMSK)	1 Tx Slot	31.00	30.26	30.42	30.39	21.81	21.07	21.23	21.20
	2 Tx Slot	30.00	29.54	29.47	29.53	23.87	23.41	23.34	23.40
	3 Tx Slot	28.00	27.71	27.66	27.80	23.58	23.29	23.24	23.38
	4 Tx Slot	27.00	26.86	26.82	26.95	23.82	23.68	23.64	23.77

Note: The tested channel results are marks in bold.

2. Conducted power measurement results of UMTS

Band	UMTS B1 Average Conducted Power(dBm)			
Tx Channel	Max. Tune-up	9612	9750	9888
Rx Channel		10562	10700	10838
Frequency(MHz)		1922.4	1950	1977.6
RMC 12.2K	24.00	23.00	22.93	23.53
HSDPA Subtest-1	24.00	23.00	22.93	23.53
HSDPA Subtest-2	23.00	22.21	22.36	22.45
HSDPA Subtest-3	23.00	22.18	22.34	22.46
HSDPA Subtest-4	23.00	22.20	22.32	22.46
HSUPA Subtest-1	23.00	22.19	22.34	22.46
HSUPA Subtest-2	21.00	19.98	20.39	20.16
HSUPA Subtest-3	23.00	22.21	22.35	22.45
HSUPA Subtest-4	23.00	22.20	22.34	22.48
HSUPA Subtest-5	23.00	22.19	22.31	22.46

Note: The tested channel results are marks in bold.

Band	UMTS B8 Average Conducted Power(dBm)			
Tx Channel	Max. Tune-up	2712	2788	2863
Rx Channel		2937	3013	3088
Frequency(MHz)		882.4	897.6	912.6
RMC 12.2K	25.00	24.91	24.59	24.95
HSDPA Subtest-1	24.50	24.10	24.11	24.14
HSDPA Subtest-2	24.50	24.09	24.10	24.14
HSDPA Subtest-3	24.50	24.08	24.10	24.14
HSDPA Subtest-4	24.50	24.11	24.09	24.10
HSUPA Subtest-1	22.50	22.09	21.56	21.44
HSUPA Subtest-2	24.50	24.11	24.10	24.13
HSUPA Subtest-3	24.50	24.12	24.10	24.11
HSUPA Subtest-4	24.50	24.10	24.11	24.12
HSUPA Subtest-5	24.50	24.10	24.06	24.11

Note: The tested channel results are marks in bold.

3. Conducted power measurement results of LTE

LTE B1/BW=5M		Average Conducted Power(dBm)				LTE B1/BW=10M		Average Conducted Power(dBm)			
Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)			Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)		
			18025/1922.5	18300/1950	18575/1977.5				18050/1925	18300/1950	18550/1975
QPSK	1/0	24.00	23.16	23.33	23.44	QPSK	1/0	24.00	23.23	23.39	23.42
	1/12	24.00	23.29	23.43	23.51		1/24	24.00	23.40	23.49	23.32
	1/24	24.00	23.23	23.30	23.48		1/49	24.00	23.25	23.40	23.57
	12/0	23.00	22.19	22.41	22.53		25/0	23.00	22.26	22.46	22.58
	12/6	23.00	22.21	22.37	22.53		25/12	23.00	22.33	22.43	22.56
	12/13	23.00	22.23	22.39	22.51		25/25	23.00	22.22	22.48	22.56
	25/0	23.00	22.28	22.40	22.53		50/0	23.00	22.34	22.46	22.53
16QAM	1/0	23.00	22.02	22.08	22.59	16QAM	1/0	23.00	22.03	22.87	22.45
	1/12	23.00	22.15	22.16	22.64		1/24	23.00	22.25	22.71	22.69
	1/24	23.00	22.13	22.10	22.64		1/49	23.00	22.12	22.91	22.56
	12/0	22.00	21.11	21.35	21.45		25/0	22.00	21.29	21.51	21.54
	12/6	22.00	21.12	21.35	21.45		25/12	22.00	21.41	21.47	21.54
	12/13	22.00	21.04	21.35	21.47		25/25	22.00	21.30	21.52	21.53
	25/0	22.00	21.24	21.40	21.46		50/0	22.00	21.34	21.50	21.49
LTE B1/BW=15M		Average Conducted Power(dBm)				LTE B1/BW=20M		Average Conducted Power(dBm)			
Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)			Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)		
			18075/1927.5	18300/1950	18525/1972.5				18100/1930	18300/1950	18500/1970
QPSK	1/0	24.00	23.11	23.24	23.39	QPSK	1/0	24.00	23.58	23.46	23.41
	1/37	24.00	23.31	23.43	23.50		1/50	24.00	23.46	23.33	23.27
	1/74	24.00	23.17	23.32	23.43		1/99	24.00	23.06	23.19	23.30
	36/0	23.00	22.30	22.49	22.57		50/0	23.00	22.19	22.44	22.36
	36/19	23.00	22.29	22.51	22.57		50/25	23.00	22.35	22.43	22.52
	36/39	23.00	22.28	22.50	22.52		50/50	23.00	22.20	22.43	22.37
	75/0	23.00	22.36	22.53	22.58		100/0	23.00	22.30	22.46	22.44
16QAM	1/0	23.00	22.31	22.73	22.43	16QAM	1/0	23.00	22.41	22.28	22.23
	1/37	23.00	22.50	22.94	22.52		1/50	23.00	22.93	22.71	22.75
	1/74	23.00	22.37	22.86	22.47		1/99	23.00	22.56	22.38	22.37
	36/0	22.00	21.22	21.46	21.50		50/0	22.00	21.16	21.43	21.31
	36/19	22.00	21.22	21.49	21.48		50/25	22.00	21.31	21.47	21.53
	36/39	22.00	21.22	21.51	21.50		50/50	22.00	21.18	21.40	21.32
	75/0	22.00	21.29	21.50	21.54		100/0	22.00	21.27	21.46	21.37

Note: The tested channel results are marks in bold.

LTE B3/BW=1.4M		Average Conducted Power(dBm)				LTE B3/BW=3M		Average Conducted Power(dBm)			
Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)			Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)		
			19207/1710.7	19575/1747.5	19943/1784.3				19215/1711.5	19575/1747.5	19935/1783.5
QPSK	1/0	24.00	23.57	23.54	23.49	QPSK	1/0	24.00	23.55	23.53	23.52
	1/2	24.00	23.72	23.69	23.71		1/7	24.00	23.60	23.56	23.58
	1/5	24.00	23.51	23.49	23.55		1/14	24.00	23.54	23.50	23.61
	3/0	24.00	23.66	23.56	23.53		8/0	23.00	22.58	22.57	22.59
	3/1	24.00	23.67	23.65	23.59		8/3	23.00	22.60	22.60	22.58
	3/3	24.00	23.61	23.59	23.56		8/7	23.00	22.53	22.56	22.58
	6/0	23.00	22.65	22.62	22.62		15/0	23.00	22.51	22.52	22.54
16QAM	1/0	23.00	22.27	22.49	22.29	16QAM	1/0	23.00	22.38	22.56	22.52
	1/2	23.00	22.45	22.63	22.54		1/7	23.00	22.41	22.74	22.59
	1/5	23.00	22.28	22.53	22.32		1/14	23.00	22.39	22.99	22.52
	3/0	23.00	22.66	22.46	22.55		8/0	22.00	21.57	21.66	21.48
	3/1	23.00	22.63	22.79	22.72		8/3	22.00	21.58	21.66	21.67
	3/3	23.00	22.71	22.46	22.57		8/7	22.00	21.58	21.66	21.48
	6/0	22.00	21.53	21.54	21.46		15/0	22.00	21.54	21.55	21.45
LTE B3/BW=5M		Average Conducted Power(dBm)				LTE B3/BW=10M		Average Conducted Power(dBm)			
Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)			Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)		
			19225/1712.5	19575/1747.5	19925/1782.5				19250/1715	19575/1747.5	19900/1780
QPSK	1/0	24.00	23.44	23.45	23.45	QPSK	1/0	24.00	23.55	23.52	23.44
	1/12	24.00	23.65	23.59	23.60		1/24	24.00	23.74	23.70	23.63
	1/24	24.00	23.46	23.51	23.48		1/49	24.00	23.58	23.55	23.54
	12/0	23.00	22.45	22.50	22.53		25/0	23.00	22.50	22.57	22.56
	12/6	23.00	22.53	22.55	22.50		25/12	23.00	22.58	22.59	22.56
	12/13	23.00	22.47	22.51	22.47		25/25	23.00	22.51	22.58	22.58
	25/0	23.00	22.50	22.51	22.50		50/0	23.00	22.57	22.59	22.57
16QAM	1/0	23.00	22.29	22.22	22.57	16QAM	1/0	23.00	22.33	22.99	22.46
	1/12	23.00	22.47	22.32	22.66		1/24	23.00	22.54	22.83	22.69
	1/24	23.00	22.33	22.21	22.54		1/49	23.00	22.39	22.79	22.50
	12/0	22.00	21.40	21.40	21.50		25/0	22.00	21.57	21.59	21.55
	12/6	22.00	21.39	21.44	21.53		25/12	22.00	21.67	21.56	21.55
	12/13	22.00	21.41	21.41	21.49		25/25	22.00	21.58	21.61	21.60
	25/0	22.00	21.50	21.54	21.50		50/0	22.00	21.58	21.55	21.58

LTE B3/BW=15M		Average Conducted Power(dBm)				LTE B3/BW=20M		Average Conducted Power(dBm)			
Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)			Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)		
			19275/1717.5	19575/1747.5	19875/1777.5				19300/1720	19575/1747.5	19850/1775
QPSK	1/0	24.00	23.37	23.42	23.41	QPSK	1/0	24.00	23.75	23.68	23.71
	1/37	24.00	23.49	23.54	23.50		1/50	24.00	23.65	23.60	23.65
	1/74	24.00	23.42	23.46	23.43		1/99	24.00	23.29	23.28	23.30
	36/0	23.00	22.54	22.59	22.56		50/0	23.00	22.40	22.48	22.50
	36/19	23.00	22.52	22.62	22.56		50/25	23.00	22.50	22.53	22.52
	36/39	23.00	22.54	22.57	22.54		50/50	23.00	22.39	22.47	22.48
	75/0	23.00	22.61	22.55	22.56		100/0	23.00	22.42	22.53	22.43
16QAM	1/0	23.00	22.53	22.94	22.39	16QAM	1/0	23.00	22.25	22.67	22.39
	1/37	23.00	22.64	22.86	22.54		1/50	23.00	22.71	22.78	22.80
	1/74	23.00	22.52	22.99	22.43		1/99	23.00	22.31	22.76	22.35
	36/0	22.00	21.46	21.51	21.54		50/0	22.00	21.37	21.51	21.48
	36/19	22.00	21.44	21.50	21.55		50/25	22.00	21.51	21.52	21.53
	36/39	22.00	21.46	21.54	21.55		50/50	22.00	21.38	21.51	21.46
	75/0	22.00	21.51	21.49	21.56		100/0	22.00	21.46	21.50	21.42

Note: The tested channel results are marks in bold.

LTE B7/BW=5M		Average Conducted Power(dBm)				LTE B7/BW=10M		Average Conducted Power(dBm)			
Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)			Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)		
			20775/2502.5	21100/2535	21425/2567.5				20800/2505	21100/2535	21400/2565
QPSK	1/0	23.00	22.62	22.58	22.80	QPSK	1/0	23.00	22.74	22.66	22.85
	1/12	23.00	22.75	22.71	22.73		1/24	23.00	22.80	22.82	22.65
	1/24	23.00	22.63	22.58	22.85		1/49	23.00	22.70	22.69	22.68
	12/0	22.00	21.57	21.52	21.67		25/0	22.00	21.57	21.60	21.70
	12/6	22.00	21.57	21.54	21.74		25/12	22.00	21.60	21.55	21.69
	12/13	22.00	21.58	21.55	21.71		25/25	22.00	21.59	21.55	21.69
	25/0	22.00	21.54	21.51	21.66		50/0	22.00	21.61	21.56	21.67
16QAM	1/0	22.00	21.36	21.20	21.68	16QAM	1/0	22.00	21.58	21.31	21.78
	1/12	22.00	21.50	21.38	21.88		1/24	22.00	21.74	21.48	21.85
	1/24	22.00	21.35	21.19	21.72		1/49	22.00	21.54	21.37	21.78
	12/0	21.00	20.51	20.47	20.61		25/0	21.00	20.56	20.65	20.73
	12/6	21.00	20.45	20.45	20.66		25/12	21.00	20.66	20.66	20.67
	12/13	21.00	20.51	20.48	20.66		25/25	21.00	20.57	20.61	20.70
	25/0	21.00	20.55	20.53	20.63		50/0	21.00	20.62	20.59	20.66
LTE B7/BW=15M		Average Conducted Power(dBm)				LTE B7/BW=20M		Average Conducted Power(dBm)			
Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)			Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)		
			20825/2507.5	21100/2535	21375/2562.5				20850/2510	21100/2535	21350/2560
QPSK	1/0	23.00	22.63	22.53	22.75	QPSK	1/0	23.00	22.86	22.75	22.84
	1/37	23.00	22.75	22.74	22.61		1/50	23.00	22.75	22.67	22.57
	1/74	23.00	22.54	22.61	22.78		1/99	23.00	22.35	22.55	22.57
	36/0	22.00	21.63	21.58	21.78		50/0	22.00	21.46	21.49	21.64
	36/19	22.00	21.64	21.58	21.82		50/25	22.00	21.50	21.54	21.69
	36/39	22.00	21.64	21.60	21.77		50/50	22.00	21.46	21.49	21.63
	75/0	22.00	21.68	21.61	21.78		100/0	22.00	21.49	21.56	21.61
16QAM	1/0	22.00	21.57	21.83	21.56	16QAM	1/0	22.00	21.64	21.31	21.41
	1/37	22.00	21.68	21.74	21.73		1/50	22.00	21.81	21.86	21.88
	1/74	22.00	21.54	21.90	21.57		1/99	22.00	21.64	21.49	21.48
	36/0	21.00	20.60	20.56	20.74		50/0	21.00	20.45	20.52	20.60
	36/19	21.00	20.57	20.56	20.71		50/25	21.00	20.53	20.60	20.67
	36/39	21.00	20.52	20.57	20.73		50/50	21.00	20.47	20.51	20.58
	75/0	21.00	20.60	20.61	20.73		100/0	21.00	20.48	20.50	20.62

Note: The tested channel results are marks in bold.

LTE B8/BW=1.4M		Average Conducted Power(dBm)				LTE B8/BW=3M		Average Conducted Power(dBm)			
Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)			Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)		
			21457/880.7	21625/897.5	21793/914.3				21465/881.5	21625/897.5	21785/913.5
QPSK	1/0	25.00	24.64	24.64	24.67	QPSK	1/0	25.00	24.68	24.63	24.64
	1/2	25.00	24.62	24.56	24.70		1/7	25.00	24.67	24.68	24.68
	1/5	25.00	24.67	24.61	24.64		1/14	25.00	24.70	24.67	24.68
	3/0	25.00	24.63	24.68	24.68		8/0	24.00	23.70	23.76	23.70
	3/1	25.00	24.69	24.64	24.70		8/3	24.00	23.78	23.76	23.68
	3/3	25.00	24.67	24.69	24.64		8/7	24.00	23.71	23.68	23.67
	6/0	24.00	23.75	23.75	23.72		15/0	24.00	23.69	23.69	23.64
16QAM	1/0	24.00	23.59	23.46	23.35	16QAM	1/0	24.00	23.79	23.73	23.41
	1/2	24.00	23.78	23.70	23.48		1/7	24.00	23.81	23.69	23.50
	1/5	24.00	23.63	23.50	23.32		1/14	24.00	23.66	23.62	23.46
	3/0	24.00	23.53	23.81	23.71		8/0	23.00	22.84	22.70	22.74
	3/1	24.00	23.85	23.92	23.65		8/3	23.00	22.83	22.81	22.69
	3/3	24.00	23.58	23.71	23.70		8/7	23.00	22.81	22.64	22.78
	6/0	23.00	22.71	22.71	22.71		15/0	23.00	22.71	22.61	22.68
LTE B8/BW=5M		Average Conducted Power(dBm)				LTE B8/BW=10M		Average Conducted Power(dBm)			
Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)			Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)		
			21475/882.5	21625/897.5	21775/912.5				21500/885	21625/897.5	21750/910
QPSK	1/0	25.00	24.56	24.53	24.56	QPSK	1/0	25.00	24.68	24.71	24.66
	1/12	25.00	24.70	24.67	24.70		1/24	25.00	24.54	24.52	24.59
	1/24	25.00	24.60	24.53	24.57		1/49	25.00	24.62	24.60	24.65
	12/0	24.00	23.68	23.66	23.75		25/0	24.00	23.75	23.75	23.72
	12/6	24.00	23.70	23.66	23.71		25/12	24.00	23.70	23.71	23.63
	12/13	24.00	23.73	23.67	23.73		25/25	24.00	23.69	23.78	23.72
	25/0	24.00	23.73	23.64	23.66		50/0	24.00	23.75	23.71	23.62
16QAM	1/0	24.00	23.66	23.48	23.29	16QAM	1/0	24.00	23.43	23.59	23.53
	1/12	24.00	23.90	23.60	23.43		1/24	24.00	23.71	23.71	23.80
	1/24	24.00	23.78	23.44	23.29		1/49	24.00	23.46	23.69	23.61
	12/0	23.00	22.71	22.64	22.66		25/0	23.00	22.76	22.77	22.73
	12/6	23.00	22.71	22.60	22.66		25/12	23.00	22.81	22.67	22.70
	12/13	23.00	22.67	22.57	22.69		25/25	23.00	22.77	22.73	22.71
	25/0	23.00	22.68	22.70	22.70		50/0	23.00	22.78	22.71	22.69

Note: The tested channel results are marks in bold.

LTE B20/BW=5M		Average Conducted Power(dBm)				LTE B20/BW=10M		Average Conducted Power(dBm)			
Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)			Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)		
			24175/834.5	24300/847	24425/859.5				24200/837	24300/847	24400/857
QPSK	1/0	25.00	24.59	24.61	24.50	QPSK	1/0	25.00	24.66	24.70	24.69
	1/12	25.00	24.75	24.72	24.68		1/24	25.00	24.76	24.82	24.79
	1/24	25.00	24.63	24.57	24.49		1/49	25.00	24.69	24.69	24.57
	12/0	24.00	23.71	23.70	23.64		25/0	24.00	23.79	23.69	23.71
	12/6	24.00	23.71	23.65	23.64		25/12	24.00	23.75	23.77	23.67
	12/13	24.00	23.69	23.66	23.64		25/25	24.00	23.82	23.66	23.69
	25/0	24.00	23.68	23.70	23.56		50/0	24.00	23.75	23.72	23.67
16QAM	1/0	24.00	23.70	23.51	23.30	16QAM	1/0	24.00	23.61	23.49	23.77
	1/12	24.00	23.91	23.60	23.41		1/24	24.00	23.80	23.72	23.85
	1/24	24.00	23.76	23.44	23.23		1/49	24.00	23.71	23.52	23.64
	12/0	23.00	22.62	22.59	22.54		25/0	23.00	22.76	22.73	22.74
	12/6	23.00	22.62	22.68	22.54		25/12	23.00	22.76	22.81	22.66
	12/13	23.00	22.64	22.69	22.58		25/25	23.00	22.76	22.75	22.74
	25/0	23.00	22.62	22.69	22.65		50/0	23.00	22.73	22.73	22.72
LTE B20/BW=15M		Average Conducted Power(dBm)				LTE B20/BW=20M		Average Conducted Power(dBm)			
Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)			Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)		
			24225/839.5	24300/847	24375/854.5				24250/842	24300/847	24350/852
QPSK	1/0	25.00	24.53	24.62	24.63	QPSK	1/0	25.00	24.78	24.87	24.81
	1/37	25.00	24.70	24.68	24.65		1/50	25.00	24.72	24.85	24.76
	1/74	25.00	24.64	24.61	24.47		1/99	25.00	24.47	24.37	24.41
	36/0	24.00	23.86	23.75	23.79		50/0	24.00	23.77	23.57	23.60
	36/19	24.00	23.78	23.76	23.81		50/25	24.00	23.71	23.72	23.67
	36/39	24.00	23.79	23.74	23.80		50/50	24.00	23.73	23.58	23.62
	75/0	24.00	23.79	23.78	23.75		100/0	24.00	23.79	23.56	23.63
16QAM	1/0	24.00	23.71	23.72	23.64	16QAM	1/0	24.00	23.50	23.88	23.64
	1/37	24.00	23.92	23.88	23.65		1/50	24.00	23.95	23.86	23.62
	1/74	24.00	23.81	23.71	23.47		1/99	24.00	23.61	23.88	23.52
	36/0	23.00	22.72	22.69	22.73		50/0	23.00	22.68	22.57	22.62
	36/19	23.00	22.74	22.69	22.73		50/25	23.00	22.75	22.72	22.72
	36/39	23.00	22.72	22.70	22.78		50/50	23.00	22.72	22.59	22.60
	75/0	23.00	22.77	22.74	22.72		100/0	23.00	22.74	22.68	22.61

Note: The tested channel results are marks in bold.

LTE B28/BW=3M		Average Conducted Power(dBm)				LTE B28/BW=5M		Average Conducted Power(dBm)			
Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)			Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)		
			27225/704.5	27375/719.5	27645/746.5				27235/705.5	27385/720.5	27635/745.5
QPSK	1/0	25.00	24.57	24.60	24.61	QPSK	1/0	25.00	24.42	24.50	24.45
	1/7	25.00	24.57	24.59	24.64		1/12	25.00	24.61	24.64	24.61
	1/14	25.00	24.61	24.60	24.68		1/24	25.00	24.47	24.57	24.56
	8/0	24.00	23.58	23.56	23.57		12/0	24.00	23.46	23.47	23.67
	8/3	24.00	23.55	23.59	23.64		12/6	24.00	23.49	23.44	23.65
	8/7	24.00	23.59	23.57	23.63		12/13	24.00	23.43	23.50	23.64
	15/0	24.00	23.53	23.56	23.55		25/0	24.00	23.52	23.48	23.59
16QAM	1/0	24.00	23.45	23.34	23.97	16QAM	1/0	24.00	23.07	23.62	23.28
	1/7	24.00	23.51	23.36	23.98		1/12	24.00	23.33	23.70	23.46
	1/14	24.00	23.55	23.36	23.92		1/24	24.00	23.28	23.62	23.27
	8/0	23.00	22.49	22.63	22.72		12/0	23.00	22.46	22.52	22.54
	8/3	23.00	22.68	22.67	22.72		12/6	23.00	22.43	22.55	22.57
	8/7	23.00	22.54	22.63	22.71		12/13	23.00	22.43	22.54	22.54
	15/0	23.00	22.47	22.64	22.59		25/0	23.00	22.57	22.56	22.59
LTE B28/BW=10M		Average Conducted Power(dBm)				LTE B28/BW=15M		Average Conducted Power(dBm)			
Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)			Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)		
			27260/708	27410/723	27610/743				27285/710.5	27435/725.5	27585/740.5
QPSK	1/0	25.00	24.46	24.53	24.54	QPSK	1/0	25.00	24.46	24.46	24.48
	1/24	25.00	24.69	24.69	24.66		1/37	25.00	24.63	24.65	24.63
	1/49	25.00	24.60	24.60	24.68		1/74	25.00	24.54	24.50	24.56
	25/0	24.00	23.58	23.52	23.66		36/0	24.00	23.67	23.66	23.62
	25/12	24.00	23.58	23.59	23.59		36/19	24.00	23.72	23.73	23.63
	25/25	24.00	23.62	23.56	23.68		36/39	24.00	23.70	23.73	23.59
	50/0	24.00	23.57	23.59	23.57		75/0	24.00	23.75	23.62	23.54
16QAM	1/0	24.00	23.22	23.93	23.49	16QAM	1/0	24.00	23.86	23.41	23.67
	1/24	24.00	23.51	24.18	23.67		1/37	24.00	23.93	23.59	23.75
	1/49	24.00	23.38	24.09	23.54		1/74	24.00	23.91	23.53	23.64
	25/0	23.00	22.73	22.65	22.63		36/0	23.00	22.67	22.65	22.55
	25/12	23.00	22.71	22.71	22.63		36/19	23.00	22.68	22.68	22.54
	25/25	23.00	22.68	22.61	22.65		36/39	23.00	22.71	22.68	22.54
	50/0	23.00	22.70	22.65	22.56		75/0	23.00	22.79	22.65	22.48

LTE B28/BW=20M		Average Conducted Power(dBm)			
Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)		
			27310/713	27460/728	27560/738
QPSK	1/0	25.00	24.66	24.71	24.69
	1/50	25.00	24.62	24.70	24.67
	1/99	25.00	24.35	24.40	24.35
	50/0	24.00	23.58	23.67	23.54
	50/25	24.00	23.59	23.66	23.55
	50/50	24.00	23.60	23.65	23.52
	100/0	24.00	23.63	23.65	23.36
16QAM	1/0	24.00	23.62	23.35	23.39
	1/50	24.00	23.96	23.85	23.76
	1/99	24.00	23.74	23.47	23.39
	50/0	23.00	22.64	22.66	22.55
	50/25	23.00	22.61	22.68	22.54
	50/50	23.00	22.66	22.69	22.56
	100/0	23.00	22.71	22.63	22.43

Note: The tested channel results are marks in bold.

LTE B40/BW=5M		Average Conducted Power(dBm)				LTE B40/BW=10M		Average Conducted Power(dBm)			
Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)			Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)		
			38675/2302.5	39150/2350	39625/2397.5				38700/2305	39150/2350	39600/2395
QPSK	1/0	24.00	22.92	23.14	23.31	QPSK	1/0	24.00	22.92	23.19	23.39
	1/12	24.00	23.05	23.27	23.47		1/24	24.00	23.26	23.47	23.58
	1/24	24.00	22.98	23.16	23.35		1/49	24.00	22.99	23.22	23.49
	12/0	23.00	21.99	22.09	22.34		25/0	23.00	21.95	22.13	22.34
	12/6	23.00	21.90	22.07	22.34		25/12	23.00	21.97	22.20	22.38
	12/13	23.00	21.90	22.18	22.37		25/25	23.00	22.00	22.14	22.32
	25/0	23.00	21.89	22.17	22.34		50/0	23.00	21.99	22.24	22.35
16QAM	1/0	23.00	21.82	21.97	22.26	16QAM	1/0	23.00	21.87	21.87	22.11
	1/12	23.00	21.94	22.12	22.43		1/24	23.00	22.25	22.20	22.40
	1/24	23.00	21.86	21.99	22.32		1/49	23.00	21.96	21.93	22.14
	12/0	22.00	20.87	21.18	21.31		25/0	22.00	21.00	21.20	21.35
	12/6	22.00	20.88	21.09	21.28		25/12	22.00	21.03	21.26	21.42
	12/13	22.00	20.96	21.12	21.27		25/25	22.00	21.01	21.23	21.37
	25/0	22.00	20.94	21.21	21.32		50/0	22.00	21.00	21.28	21.39
LTE B40/BW=15M		Average Conducted Power(dBm)				LTE B40/BW=20M		Average Conducted Power(dBm)			
Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)			Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)		
			38725/2307.5	39150/2350	39575/2392.5				38750/2310	39150/2350	39550/2390
QPSK	1/0	24.00	22.86	23.11	23.21	QPSK	1/0	24.00	22.73	22.90	23.10
	1/37	24.00	22.98	23.18	23.39		1/50	24.00	23.26	23.44	23.54
	1/74	24.00	22.89	23.14	23.33		1/99	24.00	23.61	23.55	23.60
	36/0	23.00	21.99	22.24	22.40		50/0	23.00	21.97	22.01	22.27
	36/19	23.00	22.00	22.24	22.37		50/25	23.00	21.97	22.20	22.34
	36/39	23.00	22.03	22.26	22.38		50/50	23.00	21.94	22.04	22.27
	75/0	23.00	22.04	22.32	22.44		100/0	23.00	21.95	22.20	22.31
16QAM	1/0	23.00	21.84	21.78	22.32	16QAM	1/0	23.00	21.82	21.79	21.86
	1/37	23.00	21.98	21.94	22.38		1/50	23.00	22.34	22.29	22.34
	1/74	23.00	21.89	21.88	22.37		1/99	23.00	21.95	21.88	21.94
	36/0	22.00	20.98	21.14	21.42		50/0	22.00	21.04	21.05	21.28
	36/19	22.00	20.97	21.14	21.40		50/25	22.00	21.07	21.20	21.38
	36/39	22.00	20.98	21.14	21.38		50/50	22.00	21.03	21.10	21.29
	75/0	22.00	20.98	21.30	21.40		100/0	22.00	20.98	21.21	21.35

Note: The tested channel results are marks in bold.

LTE B41/BW=5M		Average Conducted Power(dBm)				LTE B41/BW=10M		Average Conducted Power(dBm)			
Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)			Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)		
			39675/2498.5	40620/2593	41565/2687.5				39700/2501	40620/2593	41540/2685
QPSK	1/0	23.50	22.83	22.80	23.36	QPSK	1/0	23.50	22.87	22.87	23.37
	1/12	23.50	22.94	22.94	23.38		1/24	23.50	23.09	23.18	23.36
	1/24	23.50	22.86	22.82	23.27		1/49	23.50	22.77	22.85	23.26
	12/0	22.50	21.80	21.76	22.43		25/0	22.50	21.74	21.83	22.42
	12/6	22.50	21.86	21.81	22.41		25/12	22.50	21.83	21.83	22.44
	12/13	22.50	21.78	21.78	22.43		25/25	22.50	21.76	21.88	22.43
	25/0	22.50	21.78	21.74	22.44		50/0	22.50	21.77	21.83	22.42
16QAM	1/0	22.50	21.72	21.61	22.35	16QAM	1/0	22.50	21.58	21.64	22.33
	1/12	22.50	21.91	21.79	21.55		1/24	22.50	21.83	21.93	21.66
	1/24	22.50	21.77	21.64	22.39		1/49	22.50	21.52	21.66	22.41
	12/0	21.50	20.76	20.70	21.40		25/0	21.50	20.78	20.79	21.38
	12/6	21.50	20.75	20.73	21.38		25/12	21.50	20.86	20.86	21.40
	12/13	21.50	20.73	20.74	21.40		25/25	21.50	20.78	20.82	21.36
	25/0	21.50	20.79	20.78	21.36		50/0	21.50	20.81	20.77	21.40
LTE B41/BW=15M		Average Conducted Power(dBm)				LTE B41/BW=20M		Average Conducted Power(dBm)			
Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)			Modulation	RB Size/Offset	Max. Tune-up	Channel/Frequency(MHz)		
			39725/2503.5	40620/2593	41515/2682.5				39750/2506	40620/2593	41490/2680
QPSK	1/0	23.50	22.78	22.75	23.16	QPSK	1/0	23.50	22.67	22.61	23.02
	1/37	23.50	22.71	22.87	23.37		1/50	23.50	23.05	23.13	23.18
	1/74	23.50	22.74	22.76	23.30		1/99	23.50	23.37	23.40	23.29
	36/0	22.50	21.83	21.91	22.42		50/0	22.50	21.77	21.83	22.29
	36/19	22.50	21.83	21.94	22.44		50/25	22.50	21.79	21.85	22.34
	36/39	22.50	21.78	21.88	22.44		50/50	22.50	21.73	21.86	22.25
	75/0	22.50	21.78	21.92	22.47		100/0	22.50	21.71	21.85	22.28
16QAM	1/0	22.50	21.74	21.48	22.21	16QAM	1/0	22.50	21.74	21.47	21.79
	1/37	22.50	21.78	21.61	22.41		1/50	22.50	22.13	21.98	22.39
	1/74	22.50	21.71	21.46	22.37		1/99	22.50	21.59	21.52	22.00
	36/0	21.50	20.78	20.77	21.37		50/0	21.50	20.81	20.81	21.25
	36/19	21.50	20.82	20.77	21.35		50/25	21.50	20.85	20.80	21.34
	36/39	21.50	20.81	20.73	21.36		50/50	21.50	20.77	20.77	21.27
	75/0	21.50	20.78	20.79	21.38		100/0	21.50	20.76	20.81	21.25

Note: The tested channel results are marks in bold.

5.2 CONDUCTED POWER MEASUREMENTS OF WIFI/BT

1. Conducted power measurements of BT

BT	Max EIRP (dBm)			
	Max. Tune up	CH0	CH39	CH78
		2402MHz	2441MHz	2480MHz
DH5	5.00	4.22	4.00	4.05
2DH5	9.00	8.39	8.17	8.54
3DH5	9.00	8.54	8.69	8.21
BT	Max EIRP (dBm)			
	Max. Tune up	CH0	CH19	CH39
		2402MHz	2440MHz	2480MHz
BLE(1M)	0.00	-2.62	-1.62	-1.92
BLE(2M)	0.00	-1.29	-1.01	-0.62

Note:

1) The tested channel results are marks in bold.

2) Stand-alone SAR

According to the output power measurement result we can draw the conclusion that:

Based upon description of Low-power exclusion level (P_{max}) in EN 62479:2010:

Stand-alone SAR are not required for BT, because the output power of BT transmitter is $< (P_{max}=13\text{dBm})$.

2. Conducted power measurements of WiFi 2.4G

Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Max. Tune up	Average Power(dBm)
2.4G WIFI_1TX_ Ant WIFI	802.11b	1	2412	1	17.00	16.38
		7	2442		17.00	16.14
		13	2472		17.00	16.43
	802.11g	1	2412	6	17.00	16.81
		7	2442		17.00	16.53
		13	2472		17.00	16.68
	802.11n HT20	1	2412	HT0	16.00	14.22
		7	2442		16.00	14.40
		13	2472		16.00	14.63
	802.11n HT40	1	2412	HT0	16.00	14.97
		7	2442		16.00	15.13
		13	2472		16.00	15.03

Note:

1) The tested channel results are marks in bold.

3. Conducted power measurements of WiFi 5.2G

Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Max. Tune up	Average Power(dBm)
5.2G WIFI_1TX_ Ant WIFI	802.11a	36	5180	6	13.00	11.86
		40	5200		13.00	11.93
		48	5240		13.00	12.05
	802.11n HT20	36	5180	HT0	13.00	10.82
		40	5200		13.00	11.26
		48	5240		13.00	12.37
	802.11n HT40	38	5190	HT0	13.00	11.84
		46	5230		13.00	12.57
	802.11ac VHT20	36	5180	MCS0	13.00	11.61
		40	5200		13.00	11.58
		48	5240		13.00	11.44
	802.11ac VHT40	38	5190	MCS0	13.00	11.94
		46	5230		13.00	12.02
	802.11ac VHT80	42	5210	MCS0	13.00	12.11

Note:

1) The tested channel results are marks in bold.

4. Conducted power measurements of WiFi 5.8G

Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Max. Tune up	Average Power(dBm)
5.8G WIFI_1TX_ Ant WIFI	802.11a	149	5745	6	11.50	10.92
		157	5785		11.50	9.96
		165	5825		11.50	9.75
	802.11n HT20	149	5745	HT0	11.50	10.76
		157	5785		11.50	9.59
		165	5825		11.50	9.06
	802.11n HT40	151	5755	HT0	11.50	10.09
		159	5795		11.50	10.68
	802.11ac VHT20	149	5745	MCS0	11.50	10.01
		157	5785		11.50	9.73
		165	5825		11.50	9.03
	802.11ac VHT40	151	5755	MCS0	11.50	10.37
		159	5795		11.50	10.71
	802.11ac VHT80	155	5775	MCS0	11.50	11.05

Note:

1) The tested channel results are marks in bold.

5.3 TUNE-UP POWER

Mode	GSM900(AVG)	GSM1800(AVG)
GSM	33.5±1dBm	30±1dBm
GPRS (1 Slot)	33.5±1dBm	30±1dBm
GPRS (2 Slot)	32.5±1dBm	29±1dBm
GPRS (3 Slot)	30.5±1dBm	27±1dBm
GPRS (4 Slot)	29.5±1dBm	26±1dBm

Mode	UMTS Band1(AVG)	UMTS Band8(AVG)
RMC12.2K	23±1dBm	24±1dBm
HSDPA Subtest-1	23±1dBm	23.5±1dBm
HSDPA Subtest-2	22±1dBm	23.5±1dBm
HSDPA Subtest-3	22±1dBm	23.5±1dBm
HSDPA Subtest-4	22±1dBm	23.5±1dBm
HSUPA Subtest-1	22±1dBm	21.5±1dBm
HSUPA Subtest-2	20±1dBm	23.5±1dBm
HSUPA Subtest-3	22±1dBm	23.5±1dBm
HSUPA Subtest-4	22±1dBm	23.5±1dBm
HSUPA Subtest-5	22±1dBm	23.5±1dBm

BW [MHz]	Modulation	LTE Band 1 (dBm)	LTE Band 3 (dBm)	LTE Band 7 (dBm)	LTE Band 8 (dBm)	LTE Band 20 (dBm)	LTE Band 28 (dBm)	LTE Band 40 (dBm)	LTE Band 41 (dBm)
1.4	QPSK	N/A	23±1	N/A	24±1	N/A	N/A	N/A	N/A
3	QPSK	N/A	23±1	N/A	24±1	N/A	24±1	N/A	N/A
5	QPSK	23±1	23±1	22±1	24±1	24±1	24±1	23±1	22.5±1
10	QPSK	23±1	23±1	22±1	24±1	24±1	24±1	23±1	22.5±1
15	QPSK	23±1	23±1	22±1	N/A	24±1	24±1	23±1	22.5±1
20	QPSK	23±1	23±1	22±1	N/A	24±1	24±1	23±1	22.5±1

BW [MHz]	Modulation	LTE Band 1 (dBm)	LTE Band 3 (dBm)	LTE Band 7 (dBm)	LTE Band 8 (dBm)	LTE Band 20 (dBm)	LTE Band 28 (dBm)	LTE Band 40 (dBm)	LTE Band 41 (dBm)
1.4	16QAM	N/A	22±1	N/A	23±1	N/A	N/A	N/A	N/A
3	16QAM	N/A	22±1	N/A	23±1	N/A	23±1	N/A	N/A
5	16QAM	22±1	22±1	21±1	23±1	23±1	23±1	22±1	21.5±1
10	16QAM	22±1	22±1	21±1	23±1	23±1	23±1	22±1	21.5±1
15	16QAM	22±1	22±1	21±1	N/A	23±1	23±1	22±1	21.5±1
20	16QAM	22±1	22±1	21±1	N/A	23±1	23±1	22±1	21.5±1

Mode	BT(Max EIRP)
GFSK	4±1 dBm
π/4-DQPSK	8±1 dBm
8-DPSK	8±1 dBm

6. SAR TEST RESULTS

6.1 HEAD TEST RESULTS

1. SAR test results of GSM

Test No.	Band	Mode	Channel	Test Position	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 10g SAR (W/kg)
G01	GSM 900	GSM	60	Right Cheek	1	34.50	34.110	0.09	0.364	0.276	0.302
G02			60	Right Tilted	1	34.50	34.110	0.05	0.204	0.159	0.174
G03			60	Left Cheek	1	34.50	34.110	0.03	0.365	0.273	0.299
G04			60	Left Tilted	1	34.50	34.110	-0.07	0.147	0.090	0.099
G05			975	Right Cheek	1	34.50	33.960	-0.02	0.351	0.265	0.300
G06			124	Right Cheek	1	34.50	34.070	-0.03	0.446	0.331	0.365
G07			124	Right Cheek	2	34.50	34.070	0.02	0.438	0.321	0.354
G08	GSM 1800	GSM	698	Right Cheek	1	31.00	30.42	0.05	0.994	0.543	0.621
G09			698	Right Tilted	1	31.00	30.42	0.04	0.883	0.465	0.531
G10			698	Left Cheek	1	31.00	30.42	0.02	0.459	0.289	0.330
G11			698	Left Tilted	1	31.00	30.42	0.02	0.465	0.296	0.338
G12			512	Right Cheek	1	31.00	30.26	0.03	0.908	0.528	0.626
G13			885	Right Cheek	1	31.00	30.39	0.07	1.060	0.600	0.690
G14			885	Right Cheek	2	31.00	30.39	0.05	1.026	0.579	0.666

Note: The value with boldface is the maximum SAR Value of each test band.

2. SAR test results of UMTS

Test No.	Band	Mode	Channel	Test Position	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 10g SAR (W/kg)
U01	UMTS B1	RMC12.2K	9750	Right Cheek	1	24.00	22.93	-0.03	0.767	0.433	0.554
U02			9750	Right Tilted	1	24.00	22.93	-0.07	0.633	0.343	0.439
U03			9750	Left Cheek	1	24.00	22.93	-0.05	0.266	0.175	0.224
U04			9750	Left Tilted	1	24.00	22.93	-0.03	0.294	0.181	0.232
U05			9612	Right Cheek	1	24.00	23.00	-0.02	0.567	0.343	0.432
U06			9888	Right Cheek	1	24.00	23.53	-0.04	0.584	0.352	0.392
U07			9750	Right Cheek	2	24.00	22.93	0.04	0.745	0.427	0.546
U15	UMTS B8	RMC12.2K	2788	Right Cheek	1	25.00	24.59	-0.06	0.353	0.268	0.295
U16			2788	Right Tilted	1	25.00	24.59	-0.05	0.123	0.077	0.085
U17			2788	Left Cheek	1	25.00	24.59	-0.05	0.359	0.266	0.292
U18			2788	Left Tilted	1	25.00	24.59	-0.02	0.242	0.183	0.201
U19			2712	Right Cheek	1	25.00	24.91	-0.05	0.357	0.265	0.271
U20			2863	Right Cheek	1	25.00	24.95	-0.07	0.394	0.300	0.303
U21			2863	Right Cheek	2	25.00	24.95	0.03	0.387	0.296	0.299

Note: The value with boldface is the maximum SAR Value of each test band.

3. SAR test results of LTE

Test No.	Band	Mode	Channel	RB	offset	Test Position	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 10g SAR (W/kg)
L01	LTE B1	QPSK20M	18100	1	0	Right Cheek	1	24.00	23.58	0.01	0.533	0.320	0.352
L02			18100	1	0	Right Tilted	1	24.00	23.58	-0.05	0.401	0.239	0.263
L03			18100	1	0	Left Cheek	1	24.00	23.58	-0.02	0.343	0.228	0.251
L04			18100	1	0	Left Tilted	1	24.00	23.58	-0.02	0.395	0.193	0.213
L05			18300	1	0	Right Cheek	1	24.00	23.46	-0.06	0.669	0.409	0.463
L06			18500	1	0	Right Cheek	1	24.00	23.41	-0.06	0.768	0.449	0.514
L07			18500	1	0	Right Cheek	2	24.00	23.41	-0.01	0.785	0.462	0.529
L08	LTE B3	QPSK20M	19300	1	0	Right Cheek	1	24.00	23.75	-0.01	2.100	1.220	1.292
L09			19300	1	0	Right Tilted	1	24.00	23.75	-0.08	1.720	0.920	0.975
L10			19300	1	0	Left Cheek	1	24.00	23.75	-0.03	0.858	0.564	0.597
L11			19300	1	0	Left Tilted	1	24.00	23.75	-0.03	1.060	0.662	0.701
L12			19575	1	0	Right Cheek	1	24.00	23.68	-0.05	2.050	1.198	1.290
L13			19850	1	0	Right Cheek	1	24.00	23.71	-0.05	2.060	1.208	1.291
L14			19300	1	0	Right Cheek	2	24.00	23.75	0.05	2.054	1.196	1.267
L15	LTE B7	QPSK20M	20850	1	0	Right Cheek	1	23.00	22.86	-0.07	1.040	0.585	0.604
L16			20850	1	0	Right Tilted	1	23.00	22.86	-0.06	1.040	0.423	0.437
L17			20850	1	0	Left Cheek	1	23.00	22.86	-0.01	0.416	0.260	0.269
L18			20850	1	0	Left Tilted	1	23.00	22.86	0.03	0.504	0.280	0.289
L19			21100	1	0	Right Cheek	1	23.00	22.75	0.04	1.100	0.638	0.676
L20			21350	1	0	Right Cheek	1	23.00	22.84	0.03	1.220	0.646	0.670
L21			21100	1	0	Right Cheek	2	23.00	22.75	0.01	1.162	0.645	0.683
L22	LTE B8	QPSK10M	21625	1	0	Right Cheek	1	25.00	24.71	0.03	0.349	0.259	0.277
L23			21625	1	0	Right Tilted	1	25.00	24.71	0.02	0.148	0.101	0.108
L24			21625	1	0	Left Cheek	1	25.00	24.71	0.03	0.322	0.240	0.257
L25			21625	1	0	Left Tilted	1	25.00	24.71	0.09	0.158	0.121	0.129
L26			21500	1	0	Right Cheek	1	25.00	24.68	0.02	0.302	0.226	0.243
L27			21750	1	0	Right Cheek	1	25.00	24.66	0.03	0.415	0.272	0.294
L28			21750	1	0	Right Cheek	2	25.00	24.66	0.03	0.425	0.279	0.302
L29	LTE B20	QPSK20M	24300	1	0	Right Cheek	1	25.00	24.87	0.04	0.291	0.223	0.230
L30			24300	1	0	Right Tilted	1	25.00	24.87	0.03	0.163	0.129	0.133
L31			24300	1	0	Left Cheek	1	25.00	24.87	0.03	0.261	0.197	0.203
L32			24300	1	0	Left Tilted	1	25.00	24.87	0.03	0.105	0.071	0.073
L33			24250	1	0	Right Cheek	1	25.00	24.78	0.05	0.237	0.182	0.191
L34			24350	1	0	Right Cheek	1	25.00	24.81	0.02	0.287	0.219	0.229
L35			24300	1	0	Right Cheek	2	25.00	24.87	0.04	0.285	0.214	0.221
L36	LTE B28	QPSK20M	27460	1	0	Right Cheek	1	25.00	24.71	0.01	0.249	0.193	0.206
L37			27460	1	0	Right Tilted	1	25.00	24.71	-0.04	0.219	0.174	0.186
L38			27460	1	0	Left Cheek	1	25.00	24.71	0.01	0.206	0.158	0.169
L39			27460	1	0	Left Tilted	1	25.00	24.71	0.01	0.084	0.059	0.063
L40			27310	1	0	Right Cheek	1	25.00	24.66	0.07	0.189	0.149	0.161
L41			27560	1	0	Right Cheek	1	25.00	24.69	0.04	0.248	0.190	0.204
L42			27460	1	0	Right Cheek	2	25.00	24.71	-0.04	0.241	0.185	0.198
L43	LTE B40	QPSK20M	38750	1	99	Right Cheek	1	24.00	23.61	-0.08	0.938	0.531	0.581
L44			38750	1	99	Right Tilted	1	24.00	23.61	-0.06	0.943	0.480	0.525
L45			38750	1	99	Left Cheek	1	24.00	23.61	-0.06	0.319	0.204	0.223
L46			38750	1	99	Left Tilted	1	24.00	23.61	0.04	0.355	0.200	0.219

L47			39150	1	99	Right Cheek	1	24.00	23.55	-0.06	1.030	0.579	0.642
L48			39550	1	99	Right Cheek	1	24.00	23.60	-0.06	1.290	0.726	0.796
L49			39550	1	99	Right Cheek	2	24.00	23.60	0.05	1.280	0.719	0.788
L50	LTE B41	QPSK20M	40620	1	99	Right Cheek	1	23.50	23.40	-0.06	1.270	0.686	0.702
L51			40620	1	99	Right Tilted	1	23.50	23.40	0.01	1.240	0.646	0.661
L52			40620	1	99	Left Cheek	1	23.50	23.40	0.02	0.498	0.289	0.296
L53			40620	1	99	Left Tilted	1	23.50	23.40	0.01	0.572	0.305	0.312
L54			39750	1	99	Right Cheek	1	23.50	23.37	-0.08	1.280	0.689	0.710
L55			41490	1	99	Right Cheek	1	23.50	23.29	-0.06	1.650	0.895	0.939
L56			41490	1	99	Right Cheek	2	23.50	23.29	0.08	1.643	0.885	0.929

Note: The value with boldface is the maximum SAR Value of each test band.

4. SAR test results of WIFI

Test No.	Band	Channel	Test Position	Ant	Data Rate	Duty Cycle %	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 10g SAR (W/kg)
W01	802.11g	7	Right Cheek	WIFI	6	96.23	17	16.53	0.03	0.131	0.076	0.088
W02	802.11g	7	Right Tilted	WIFI	6	96.23	17	16.53	0.02	0.133	0.070	0.081
W03	802.11g	7	Left Cheek	WIFI	6	96.23	17	16.53	0.01	0.471	0.240	0.278
W04	802.11g	7	Left Tilted	WIFI	6	96.23	17	16.53	0.03	0.429	0.204	0.236
W05	802.11g	1	Left Cheek	WIFI	6	96.23	17	16.81	0.03	0.510	0.262	0.284
W06	802.11g	13	Left Cheek	WIFI	6	96.23	17	16.68	0.04	0.431	0.222	0.248
W08	802.11n HT40	46	Right Cheek	WIFI	HT0	95.83	13	12.57	0.07	1.910	0.602	0.694
W09	802.11n HT40	46	Right Tilted	WIFI	HT0	95.83	13	12.57	0.04	1.640	0.523	0.603
W10	802.11n HT40	46	Left Cheek	WIFI	HT0	95.83	13	12.57	0.03	2.551	0.854	0.984
W11	802.11n HT40	46	Left Tilted	WIFI	HT0	95.83	13	12.57	0.02	2.260	0.684	0.788
W12	802.11n HT40	38	Left Cheek	WIFI	HT0	95.83	13	11.84	0.03	2.600	0.878	1.197
W14	802.11ac VHT80	155	Right Cheek	WIFI	MCS0	95.83	11.5	11.05	-0.04	0.408	0.136	0.157
W15	802.11ac VHT80	155	Right Tilted	WIFI	MCS0	95.83	11.5	11.05	0.04	0.608	0.206	0.238
W16	802.11ac VHT80	155	Left Cheek	WIFI	MCS0	95.83	11.5	11.05	0.03	0.794	0.209	0.242
W17	802.11ac VHT80	155	Left Tilted	WIFI	MCS0	95.83	11.5	11.05	0.03	0.257	0.078	0.090

Note: The value with boldface is the maximum SAR Value of each test band.

6.2 BODY TEST RESULTS

1. SAR test results of GSM

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 10g SAR (W/kg)
G30	GSM 900	GPRS 2Tx	60	Front Face	0.5	1	33.50	33.14	-0.03	0.467	0.296	0.322
G31			60	Rear Face	0.5	1	33.50	33.14	-0.04	0.996	0.559	0.607
G32			60	Left Side	0.5	1	33.50	33.14	-0.03	0.311	0.198	0.215
G33			60	Right Side	0.5	1	33.50	33.14	-0.06	0.597	0.377	0.410
G35			60	Bottom Side	0.5	1	33.50	33.14	-0.04	0.851	0.371	0.403
G36			975	Rear Face	0.5	1	33.50	32.90	-0.04	0.574	0.337	0.387
G37			124	Rear Face	0.5	1	33.50	33.01	-0.08	0.743	0.439	0.491
G38			60	Rear Face	0.5	2	33.50	33.14	0.04	0.734	0.431	0.468
G39	GSM 1800	GPRS 2Tx	698	Front Face	0.5	1	30.00	29.47	-0.05	0.802	0.491	0.555
G40			698	Rear Face	0.5	1	30.00	29.47	0.03	0.629	0.359	0.406
G41			698	Left Side	0.5	1	30.00	29.47	-0.07	0.714	0.416	0.470
G42			698	Right Side	0.5	1	30.00	29.47	-0.09	0.211	0.115	0.130
G43			698	Top Side	0.5	1	30.00	29.47	-0.03	1.650	0.907	1.025
G45			512	Top Side	0.5	1	30.00	29.54	-0.06	0.928	0.524	0.583
G46			885	Top Side	0.5	1	30.00	29.53	-0.04	0.923	0.515	0.574
G47			698	Top Side	0.5	2	30.00	29.47	0.03	1.638	0.895	1.011

Note: The value with boldface is the maximum SAR Value of each test band.

2. SAR test results of UMTS

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 10g SAR (W/kg)
U30	UMTS B1	RMC12.2 K	9750	Front Face	0.5	1	24.00	22.93	-0.05	0.570	0.333	0.426
U31			9750	Rear Face	0.5	1	24.00	22.93	-0.06	0.577	0.324	0.415
U32			9750	Left Side	0.5	1	24.00	22.93	0.04	0.874	0.458	0.586
U33			9750	Right Side	0.5	1	24.00	22.93	-0.03	0.034	0.018	0.024
U34			9750	Top Side	0.5	1	24.00	22.93	-0.07	0.540	0.306	0.391
U36			9612	Left Side	0.5	1	24.00	23.00	-0.08	0.522	0.304	0.383
U37			9888	Left Side	0.5	1	24.00	23.53	-0.05	0.617	0.363	0.404
U38			9750	Left Side	0.5	2	24.00	22.93	0.02	0.861	0.449	0.574
U48	UMTS B8	RMC12.2 K	2788	Front Face	0.5	1	25.00	24.59	0.03	0.434	0.272	0.299
U49			2788	Rear Face	0.5	1	25.00	24.59	0.03	0.976	0.529	0.581
U50			2788	Left Side	0.5	1	25.00	24.59	-0.04	0.276	0.182	0.200
U51			2788	Right Side	0.5	1	25.00	24.59	0.02	0.627	0.303	0.333
U53			2788	Bottom Side	0.5	1	25.00	24.59	0.02	0.966	0.391	0.430
U54			2712	Rear Face	0.5	1	25.00	24.91	0.03	0.702	0.405	0.413
U55			2863	Rear Face	0.5	1	25.00	24.95	0.06	0.883	0.505	0.511
U56			2788	Rear Face	0.5	2	25.00	24.59	0.01	0.965	0.518	0.569

Note: The value with boldface is the maximum SAR Value of each test band.

3.SAR test results of LTE

Test No.	Band	Mode	Channel	R B	offset	Test Position	Separation Distance (cm)	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 10g SAR (W/kg)
L60	LTE B1	QPSK20M	18100	1	0	Front Face	0.5	1	24.00	23.58	-0.07	0.416	0.250	0.275
L61			18100	1	0	Rear Face	0.5	1	24.00	23.58	0.00	0.549	0.199	0.219
L62			18100	1	0	Left Side	0.5	1	24.00	23.58	0.02	0.705	0.371	0.409
L63			18100	1	0	Right Side	0.5	1	24.00	23.58	-0.06	0.038	0.022	0.024
L64			18100	1	0	Top Side	0.5	1	24.00	23.58	-0.03	0.367	0.209	0.230
L66			18300	1	0	Left Side	0.5	1	24.00	23.46	-0.03	0.755	0.398	0.451
L67			18500	1	0	Left Side	0.5	1	24.00	23.41	-0.04	0.814	0.429	0.491
L68			18500	1	0	Left Side	0.5	2	24.00	23.41	0.02	0.809	0.422	0.483
L69	LTE B3	QPSK20M	19300	1	0	Front Face	0.5	1	24.00	23.75	0.06	1.030	0.609	0.645
L70			19300	1	0	Rear Face	0.5	1	24.00	23.75	0.02	1.790	0.950	1.006
L71			19300	1	0	Left Side	0.5	1	24.00	23.75	-0.01	0.841	0.477	0.505
L72			19300	1	0	Right Side	0.5	1	24.00	23.75	-0.05	0.206	0.120	0.127
L73			19300	1	0	Top Side	0.5	1	24.00	23.75	-0.04	1.560	0.893	0.946
L75			19575	1	0	Rear Face	0.5	1	24.00	23.68	-0.02	1.200	0.667	0.718
L76			19850	1	0	Rear Face	0.5	1	24.00	23.71	-0.01	1.210	0.670	0.716
L77			19300	1	0	Rear Face	0.5	2	24.00	23.75	0.03	1.689	0.941	0.997
L78	LTE B7	QPSK20M	20850	1	0	Front Face	0.5	1	23.00	22.86	-0.04	0.876	0.481	0.497
L79			20850	1	0	Rear Face	0.5	1	23.00	22.86	-0.05	0.789	0.430	0.444
L80			20850	1	0	Left Side	0.5	1	23.00	22.86	0.06	1.080	0.603	0.623
L81			20850	1	0	Right Side	0.5	1	23.00	22.86	-0.09	0.044	0.022	0.022
L82			20850	1	0	Top Side	0.5	1	23.00	22.86	-0.08	0.871	0.369	0.381
L84			21100	1	0	Left Side	0.5	1	23.00	22.75	-0.02	1.180	0.657	0.696
L85			21350	1	0	Left Side	0.5	1	23.00	22.84	0.03	1.160	0.645	0.669
L86			21100	1	0	Left Side	0.5	2	23.00	22.75	0.04	1.175	0.643	0.681
L87	LTE B8	QPSK10M	21625	1	0	Front Face	0.5	1	25.00	24.71	0.03	0.462	0.290	0.310
L88			21625	1	0	Rear Face	0.5	1	25.00	24.71	0.09	1.350	0.712	0.761
L89			21625	1	0	Left Side	0.5	1	25.00	24.71	0.02	0.277	0.164	0.175
L90			21625	1	0	Right Side	0.5	1	25.00	24.71	0.02	0.598	0.339	0.362
L92			21625	1	0	Bottom Side	0.5	1	25.00	24.71	0.02	0.939	0.377	0.403
L93			21500	1	0	Rear Face	0.5	1	25.00	24.68	0.03	0.636	0.367	0.395
L94			21750	1	0	Rear Face	0.5	1	25.00	24.66	0.04	0.951	0.533	0.576
L95			21625	1	0	Rear Face	0.5	2	25.00	24.71	-0.05	1.296	0.689	0.737
L96	LTE B20	QPSK20M	24300	1	0	Front Face	0.5	1	25.00	24.87	-0.08	0.402	0.275	0.283
L97			24300	1	0	Rear Face	0.5	1	25.00	24.87	-0.09	1.420	0.712	0.734
L98			24300	1	0	Left Side	0.5	1	25.00	24.87	-0.04	0.336	0.218	0.225
L99			24300	1	0	Right Side	0.5	1	25.00	24.87	-0.07	0.534	0.251	0.259
L101			24300	1	0	Bottom Side	0.5	1	25.00	24.87	-0.03	0.501	0.219	0.226
L102			24250	1	0	Rear Face	0.5	1	25.00	24.78	-0.07	0.535	0.315	0.331
L103			24350	1	0	Rear Face	0.5	1	25.00	24.81	-0.02	0.575	0.342	0.357
L104			24300	1	0	Rear Face	0.5	2	25.00	24.87	0.05	1.418	0.692	0.713
L105	LTE B28	QPSK20M	27460	1	0	Front Face	0.5	1	25.00	24.71	0.05	0.219	0.140	0.150
L106			27460	1	0	Rear Face	0.5	1	25.00	24.71	0.06	0.308	0.181	0.193
L107			27460	1	0	Left Side	0.5	1	25.00	24.71	0.06	0.481	0.301	0.322
L108			27460	1	0	Right Side	0.5	1	25.00	24.71	0.05	0.515	0.313	0.335
L110			27460	1	0	Bottom Side	0.5	1	25.00	24.71	0.05	0.197	0.087	0.093
L111			27310	1	0	Right Side	0.5	1	25.00	24.66	0.03	0.485	0.282	0.305

L112			27560	1	0	Right Side	0.5	1	25.00	24.69	0.07	0.497	0.291	0.313
L113			27460	1	0	Right Side	0.5	2	25.00	24.71	0.08	0.509	0.307	0.328
L114	LTE B40	QPSK20M	38750	1	99	Front Face	0.5	1	24.00	23.61	-0.01	0.369	0.227	0.248
L115			38750	1	99	Rear Face	0.5	1	24.00	23.61	-0.06	0.467	0.257	0.281
L116			38750	1	99	Left Side	0.5	1	24.00	23.61	-0.08	0.637	0.346	0.379
L117			38750	1	99	Right Side	0.5	1	24.00	23.61	-0.08	0.051	0.029	0.032
L118			38750	1	99	Top Side	0.5	1	24.00	23.61	-0.09	0.551	0.292	0.319
L120			39150	1	99	Left Side	0.5	1	24.00	23.55	-0.03	0.731	0.391	0.434
L121			39550	1	99	Left Side	0.5	1	24.00	23.60	-0.08	0.856	0.449	0.492
L122			39550	1	99	Left Side	0.5	2	24.00	23.60	0.09	0.849	0.442	0.485
L123	LTE B41	QPSK20M	40620	1	99	Front Face	0.5	1	23.50	23.40	0.04	0.908	0.485	0.496
L124			40620	1	99	Rear Face	0.5	1	23.50	23.40	-0.02	0.871	0.468	0.479
L125			40620	1	99	Left Side	0.5	1	23.50	23.40	-0.03	1.300	0.662	0.677
L126			40620	1	99	Right Side	0.5	1	23.50	23.40	-0.01	0.091	0.051	0.052
L127			40620	1	99	Top Side	0.5	1	23.50	23.40	-0.02	0.798	0.415	0.425
L129			39750	1	99	Left Side	0.5	1	23.50	23.37	-0.03	1.040	0.513	0.529
L130			41490	1	99	Left Side	0.5	1	23.50	23.29	-0.06	1.250	0.612	0.642
L131			40620	1	99	Left Side	0.5	2	23.50	23.40	0.04	1.320	0.676	0.692

Note: The value with boldface is the maximum SAR Value of each test band.

4.SAR test results of WIFI

Test No.	Band	Channel	Test Position	Separation Distance (cm)	Ant	Data Rate	Duty Cycle %	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 10g SAR (W/kg)
W20	802.11g	7	Front Face	0.5	WIFI	6	96.23	17	16.53	0.04	0.153	0.084	0.097
W21	802.11g	7	Rear Face	0.5	WIFI	6	96.23	17	16.53	0.03	0.092	0.052	0.060
W22	802.11g	7	Left Side	0.5	WIFI	6	96.23	17	16.53	0.00	<0.01	<0.01	<0.01
W23	802.11g	7	Right Side	0.5	WIFI	6	96.23	17	16.53	0.03	0.139	0.073	0.085
W24	802.11g	7	Top Side	0.5	WIFI	6	96.23	17	16.53	0.03	0.020	0.008	0.010
W26	802.11g	1	Front Face	0.5	WIFI	6	96.23	17	16.81	-0.01	0.156	0.082	0.089
W27	802.11g	13	Front Face	0.5	WIFI	6	96.23	17	16.68	-0.07	0.236	0.127	0.142
W29	802.11n HT40	46	Front Face	0.5	WIFI	HT0	95.83	13	12.57	-0.01	1.082	0.335	0.386
W30	802.11n HT40	46	Rear Face	0.5	WIFI	HT0	95.83	13	12.57	0.00	0.840	0.293	0.338
W31	802.11n HT40	46	Left Side	0.5	WIFI	HT0	95.83	13	12.57	0.06	0.135	0.036	0.041
W32	802.11n HT40	46	Right Side	0.5	WIFI	HT0	95.83	13	12.57	0.04	0.984	0.418	0.482
W33	802.11n HT40	46	Top Side	0.5	WIFI	HT0	95.83	13	12.57	-0.06	1.428	0.517	0.596
W35	802.11n HT40	38	Top Side	0.5	WIFI	HT0	95.83	13	11.84	-0.07	1.520	0.540	0.736
W37	802.11ac VHT80	155	Front Face	0.5	WIFI	MCS0	95.83	11.5	11.05	0.03	0.384	0.113	0.131
W38	802.11ac VHT80	155	Rear Face	0.5	WIFI	MCS0	95.83	11.5	11.05	0.00	0.379	0.130	0.150
W39	802.11ac VHT80	155	Left Side	0.5	WIFI	MCS0	95.83	11.5	11.05	0.00	0.015	0.003	0.003
W40	802.11ac VHT80	155	Right Side	0.5	WIFI	MCS0	95.83	11.5	11.05	-0.09	0.393	0.123	0.142
W41	802.11ac VHT80	155	Top Side	0.5	WIFI	MCS0	95.83	11.5	11.05	-0.04	1.040	0.315	0.365

Note: The value with boldface is the maximum SAR Value of each test band.

6.3 LIMB-WORN TEST RESULTS

1. SAR test results of GSM

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 10g SAR (W/kg)
G50	GSM 900	GPRS 2Tx	60	Front Face	0	1	33.50	33.14	-0.06	1.950	0.953	1.035
G51			60	Rear Face	0	1	33.50	33.14	-0.04	1.630	0.888	0.965
G52			60	Left Side	0	1	33.50	33.14	-0.06	0.609	0.303	0.329
G53			60	Right Side	0	1	33.50	33.14	-0.01	2.660	0.896	0.973
G55			60	Bottom Side	0	1	33.50	33.14	-0.01	2.420	0.943	1.024
G56			975	Front Face	0	1	33.50	32.90	-0.02	1.970	0.967	1.110
G57			124	Front Face	0	1	33.50	33.01	-0.04	1.750	0.865	0.968
G58			975	Front Face	0	2	33.50	32.90	-0.02	1.964	0.954	1.095
G59	GSM 1800	GPRS 2Tx	698	Front Face	0	1	30.00	29.47	0.06	1.900	1.030	1.164
G60			698	Rear Face	0	1	30.00	29.47	0.03	1.500	0.774	0.874
G61			698	Left Side	0	1	30.00	29.47	-0.08	2.400	1.160	1.311
G62			698	Right Side	0	1	30.00	29.47	-0.01	0.227	0.130	0.147
G63			698	Top Side	0	1	30.00	29.47	-0.01	3.140	1.680	1.898
G65			512	Top Side	0	1	30.00	29.54	0.06	1.610	0.914	1.016
G66			885	Top Side	0	1	30.00	29.53	0.04	1.580	0.897	1.000
G67			698	Top Side	0	2	30.00	29.47	0.07	3.134	1.675	1.892

Note: The value with boldface is the maximum SAR Value of each test band.

2. SAR test results of UMTS

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 10g SAR (W/kg)
U60	UMTS B1	RMC12.2 K	9750	Front Face	0	1	24.00	22.93	0.06	1.700	0.794	1.016
U61			9750	Rear Face	0	1	24.00	22.93	-0.03	1.450	0.751	0.961
U62			9750	Left Side	0	1	24.00	22.93	0.08	2.100	0.912	1.167
U63			9750	Right Side	0	1	24.00	22.93	-0.05	0.094	0.048	0.062
U64			9750	Top Side	0	1	24.00	22.93	-0.08	0.880	0.473	0.605
U65			9612	Left Side	0	1	24.00	23.00	-0.07	1.990	0.881	1.109
U66			9888	Left Side	0	1	24.00	23.53	-0.09	2.290	1.020	1.137
U67			9750	Left Side	0	2	24.00	22.93	0.09	2.065	0.896	1.146
U69	UMTS B8	RMC12.2 K	2788	Front Face	0	1	25.00	24.59	0.08	2.460	1.170	1.286
U70			2788	Rear Face	0	1	25.00	24.59	0.03	1.900	0.985	1.083
U71			2788	Left Side	0	1	25.00	24.59	0.02	0.578	0.305	0.335
U72			2788	Right Side	0	1	25.00	24.59	0.01	4.890	1.376	1.512
U73			2788	Bottom Side	0	1	25.00	24.59	0.03	3.280	1.200	1.319
U74			2712	Right Side	0	1	25.00	24.91	0.09	4.870	1.490	1.521
U75			2863	Right Side	0	1	25.00	24.95	0.05	3.810	1.190	1.204
U76			2712	Right Side	0	2	25.00	24.91	0.08	4.854	1.375	1.404

Note: The value with boldface is the maximum SAR Value of each test band.

3. SAR test results of LTE

Test No.	Band	Mode	Channel	R B	offset	Test Position	Separation Distance (cm)	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 10g SAR (W/kg)
L140	LTE B1	QPSK20M	18100	1	0	Front Face	0	1	24.00	23.58	0.07	1.32	0.614	0.676
L141			18100	1	0	Rear Face	0	1	24.00	23.58	-0.03	1.320	0.672	0.740
L142			18100	1	0	Left Side	0	1	24.00	23.58	-0.07	1.830	0.813	0.896
L143			18100	1	0	Right Side	0	1	24.00	23.58	-0.06	0.086	0.045	0.050
L144			18100	1	0	Top Side	0	1	24.00	23.58	-0.02	0.830	0.541	0.596
L145			18300	1	0	Left Side	0	1	24.00	23.46	0.02	1.960	0.875	0.991
L146			18500	1	0	Left Side	0	1	24.00	23.41	0.03	2.090	0.911	1.044
L147			18500	1	0	Left Side	0	2	24.00	23.41	-0.04	2.056	0.889	1.018
L149	LTE B3	QPSK20M	19300	1	0	Front Face	0	1	24.00	23.75	0.03	2.360	1.240	1.313
L150			19300	1	0	Rear Face	0	1	24.00	23.75	0.06	3.440	1.730	1.833
L151			19300	1	0	Left Side	0	1	24.00	23.75	0.03	3.800	1.750	1.854
L152			19300	1	0	Right Side	0	1	24.00	23.75	0.01	0.235	0.125	0.132
L153			19300	1	0	Top Side	0	1	24.00	23.75	-0.08	3.000	1.610	1.705
L154			19575	1	0	Left Side	0	1	24.00	23.68	0.01	3.750	1.710	1.841
L155			19850	1	0	Left Side	0	1	24.00	23.71	-0.09	3.170	1.460	1.561
L156			19300	1	0	Left Side	0	2	24.00	23.75	0.03	3.754	1.732	1.835
L158	LTE B7	QPSK20M	20850	1	0	Front Face	0	1	23.00	22.86	0.06	2.820	1.240	1.281
L159			20850	1	0	Rear Face	0	1	23.00	22.86	-0.01	2.300	1.160	1.198
L160			20850	1	0	Left Side	0	1	23.00	22.86	0.03	3.100	1.290	1.332
L161			20850	1	0	Right Side	0	1	23.00	22.86	-0.06	0.099	0.041	0.043
L162			20850	1	0	Top Side	0	1	23.00	22.86	-0.03	2.580	0.883	0.912
L163			21100	1	0	Left Side	0	1	23.00	22.75	0.01	3.120	1.330	1.409
L164			21350	1	0	Left Side	0	1	23.00	22.84	0.06	3.050	1.280	1.328
L165			21100	1	0	Left Side	0	2	23.00	22.75	0.01	3.089	1.296	1.373
L167	LTE B8	QPSK10M	21625	1	0	Front Face	0	1	25.00	24.71	0.01	2.130	1.010	1.080
L168			21625	1	0	Rear Face	0	1	25.00	24.71	0.04	1.800	1.010	1.080
L169			21625	1	0	Left Side	0	1	25.00	24.71	0.06	0.546	0.278	0.297
L170			21625	1	0	Right Side	0	1	25.00	24.71	0.04	4.040	1.250	1.336
L171			21625	1	0	Bottom Side	0	1	25.00	24.71	0.02	3.280	1.170	1.251
L172			21500	1	0	Right Side	0	1	25.00	24.68	0.02	2.770	0.944	1.016
L173			21750	1	0	Right Side	0	1	25.00	24.66	0.05	3.730	1.150	1.244
L174			21625	1	0	Right Side	0	2	25.00	24.71	0.05	4.13	1.35	1.443
L176	LTE B20	QPSK20M	24300	1	0	Front Face	0	1	25.00	24.87	-0.08	1.150	0.613	0.632
L177			24300	1	0	Rear Face	0	1	25.00	24.87	0.07	1.910	0.904	0.931
L178			24300	1	0	Left Side	0	1	25.00	24.87	-0.01	0.481	0.248	0.256
L179			24300	1	0	Right Side	0	1	25.00	24.87	-0.02	3.790	1.030	1.061
L180			24300	1	0	Bottom Side	0	1	25.00	24.87	-0.03	2.080	0.742	0.765
L181			24250	1	0	Right Side	0	1	25.00	24.78	-0.02	3.250	0.982	1.033
L182			24350	1	0	Right Side	0	1	25.00	24.81	-0.08	3.160	0.964	1.007
L183			24300	1	0	Right Side	0	2	25.00	24.87	0.08	3.689	1.012	1.043
L185	LTE B28	QPSK20M	27460	1	0	Front Face	0	1	25.00	24.71	0.06	0.803	0.410	0.438
L186			27460	1	0	Rear Face	0	1	25.00	24.71	0.03	2.450	0.885	0.946
L187			27460	1	0	Left Side	0	1	25.00	24.71	0.01	0.582	0.250	0.267
L188			27460	1	0	Right Side	0	1	25.00	24.71	-0.09	1.570	0.511	0.546
L189			27460	1	0	Bottom Side	0	1	25.00	24.71	0.03	0.706	0.220	0.235
L190			27310	1	0	Rear Face	0	1	25.00	24.66	0.03	1.100	0.519	0.561

L191			27560	1	0	Rear Face	0	1	25.00	24.69	0.05	1.210	0.527	0.566
L192			27460	1	0	Rear Face	0	2	25.00	24.71	0.09	2.395	0.874	0.934
L194	LTE B40	QPSK20M	38750	1	99	Front Face	0	1	24.00	23.61	0.06	1.580	0.780	0.853
L195			38750	1	99	Rear Face	0	1	24.00	23.61	-0.05	1.500	0.774	0.847
L196			38750	1	99	Left Side	0	1	24.00	23.61	-0.05	3.130	1.310	1.433
L197			38750	1	99	Right Side	0	1	24.00	23.61	-0.01	0.106	0.054	0.060
L198			38750	1	99	Top Side	0	1	24.00	23.61	-0.07	1.950	0.721	0.789
L199			39150	1	99	Left Side	0	1	24.00	23.55	-0.07	3.300	1.390	1.542
L200			39550	1	99	Left Side	0	1	24.00	23.60	-0.02	3.260	1.380	1.513
L201			39150	1	99	Left Side	0	2	24.00	23.55	0.04	3.245	1.348	1.495
L203	LTE B41	QPSK20M	40620	1	99	Front Face	0	1	23.50	23.40	0.05	2.960	1.280	1.310
L204			40620	1	99	Rear Face	0	1	23.50	23.40	0.03	2.130	1.090	1.115
L205			40620	1	99	Left Side	0	1	23.50	23.40	-0.05	3.380	1.400	1.433
L206			40620	1	99	Right Side	0	1	23.50	23.40	-0.06	0.186	0.091	0.093
L207			40620	1	99	Top Side	0	1	23.50	23.40	-0.03	2.810	1.000	1.023
L208			39750	1	99	Left Side	0	1	23.50	23.37	-0.04	3.570	1.450	1.494
L209			41490	1	99	Left Side	0	1	23.50	23.29	-0.02	3.780	1.550	1.627
L210			41490	1	99	Left Side	0	2	23.50	23.29	-0.01	3.840	1.650	1.732

Note: The value with boldface is the maximum SAR Value of each test band.

4.SAR test results of WIFI

Test No.	Band	Channel	Test Position	Separation Distance (cm)	Ant	Data Rate	Duty Cycle %	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 10g SAR (W/kg)
W45	802.11g	7	Front Face	0	WIFI	6	96.23	17.0	16.53	0.03	0.379	0.170	0.197
W46	802.11g	7	Rear Face	0	WIFI	6	96.23	17.0	16.53	0.06	0.275	0.130	0.151
W47	802.11g	7	Left Side	0	WIFI	6	96.23	17.0	16.53	0.03	0.009	0.003	0.003
W48	802.11g	7	Right Side	0	WIFI	6	96.23	17.0	16.53	0.03	0.400	0.188	0.218
W49	802.11g	7	Top Side	0	WIFI	6	96.23	17.0	16.53	0.03	0.025	0.012	0.014
W51	802.11g	1	Right Side	0	WIFI	6	96.23	17.0	16.81	0.01	0.440	0.179	0.194
W52	802.11g	13	Right Side	0	WIFI	6	96.23	17.0	16.68	0.03	0.870	0.368	0.412
W54	802.11n HT40	46	Front Face	0	WIFI	HT0	95.83	13.0	12.57	0.00	4.515	1.114	1.283
W55	802.11n HT40	46	Rear Face	0	WIFI	HT0	95.83	13.0	12.57	0.02	4.150	1.043	1.202
W56	802.11n HT40	46	Left Side	0	WIFI	HT0	95.83	13.0	12.57	0.08	0.623	0.115	0.132
W57	802.11n HT40	46	Right Side	0	WIFI	HT0	95.83	13.0	12.57	-0.09	4.625	1.264	1.456
W58	802.11n HT40	46	Top Side	0	WIFI	HT0	95.83	13.0	12.57	-0.01	5.630	1.550	1.786
W60	802.11n HT40	38	Top Side	0	WIFI	HT0	95.83	13.0	11.84	-0.02	5.440	1.340	1.826
W62	802.11ac VHT80	155	Front Face	0	WIFI	MCS0	95.83	11.5	11.05	0.00	1.700	0.429	0.497
W63	802.11ac VHT80	155	Rear Face	0	WIFI	MCS0	95.83	11.5	11.05	0.00	1.340	0.406	0.470
W64	802.11ac VHT80	155	Left Side	0	WIFI	MCS0	95.83	11.5	11.05	0.00	0.040	0.010	0.012
W65	802.11ac VHT80	155	Right Side	0	WIFI	MCS0	95.83	11.5	11.05	0.00	1.870	0.396	0.458
W66	802.11ac VHT80	155	Top Side	0	WIFI	MCS0	95.83	11.5	11.05	-0.06	3.410	0.826	0.956

Note: The value with boldface is the maximum SAR Value of each test band.

7. SIMULTANEOUS TRANSMISSION CONDITIONS

The location of the antennas inside EUT is shown as below picture:



Figure 5: The location of the antennas

7.1 STAND-ALONE SAR TEST EXCLUSION

SAR compliance for simultaneous transmission must be considered when the maximum duration of overlapping transmissions, including network hand-offs, is greater than 30 seconds. This device contains multiple transmitters that may operate simultaneously, and therefore requires a simultaneous transmission analysis.

The Simultaneous Transmission Possibilities of this device are as below:

No.	Configuration	Head	Body	Limb
1	GSM + WiFi 2.4G	Yes	Yes	Yes
2	UMTS + WiFi 2.4G	Yes	Yes	Yes
3	LTE + WiFi 2.4G	Yes	Yes	Yes
4	GSM + WiFi 5G	Yes	Yes	Yes
5	UMTS + WiFi 5G	Yes	Yes	Yes
6	LTE + WiFi 5G	Yes	Yes	Yes
7	GSM + BT	Yes	Yes	Yes
8	UMTS + BT	Yes	Yes	Yes
9	LTE + BT	Yes	Yes	Yes

7.2 SIMULTANEOUS TRANSMISSION CONDITIONS

About BT and GSM/UMTS/LTE transmit simultaneously

1. For Main Ant and WIFI Ant(Body_0.5cm)

Position SAR _{10g} (W/Kg)	Right Cheek	Right Tilted	Left Cheek	Left Tilted	Front Face	Rear Face	Left Side	Right Side	Top Side	Bottom Side
GSM 900	0.365	0.174	0.299	0.099	0.322	0.607	0.215	0.410	/	0.403
GSM 1800	0.690	0.531	0.330	0.338	0.555	0.406	0.470	0.130	1.025	/
UMTS B1	0.554	0.439	0.224	0.232	0.426	0.415	0.586	0.024	0.391	/
UMTS B8	0.303	0.085	0.292	0.201	0.299	0.581	0.200	0.333	/	0.430
LTE B1	0.529	0.263	0.251	0.213	0.275	0.219	0.491	0.024	0.230	/
LTE B3	1.292	0.975	0.597	0.701	0.645	1.006	0.505	0.127	0.946	/
LTE B7	0.683	0.437	0.269	0.289	0.497	0.444	0.696	0.022	0.381	/
LTE B8	0.302	0.108	0.257	0.129	0.310	0.761	0.175	0.362	/	0.403
LTE B20	0.230	0.133	0.203	0.073	0.283	0.734	0.225	0.259	/	0.226
LTE B28	0.206	0.186	0.169	0.063	0.150	0.193	0.322	0.335	/	0.093
LTE B40	0.796	0.525	0.223	0.219	0.248	0.281	0.492	0.032	0.319	/
LTE B41	0.939	0.661	0.296	0.312	0.496	0.479	0.677	0.052	0.425	/
WIFI 2.4G	0.088	0.081	0.284	0.236	0.142	0.060	<0.001	0.085	0.010	/
WIFI 5.2G	0.694	0.603	1.197	0.788	0.386	0.338	0.041	0.482	0.736	/
WIFI 5.8G	0.157	0.238	0.242	0.090	0.131	0.150	0.003	0.142	0.365	/
BT	/	/	/	/	/	/	/	/	/	/
MAX $\sum$ SAR _{10g}	1.986	1.577	1.794	1.489	1.031	1.344	0.737	0.891	1.761	0.430

Note:

Thus SAR_{MAX.total}= **1.986** W/Kg <2.0 W/Kg, it is compliant with 1999/519/EC.

2. For Main Ant and WIFI Ant(Limb_0cm)

Position SAR _{10g} (W/Kg)	Right Cheek	Right Tilted	Left Cheek	Left Tilted	Front Face	Rear Face	Left Side	Right Side	Top Side	Bottom Side
GSM 900	0.365	0.174	0.299	0.099	1.110	0.965	0.329	0.973	/	1.024
GSM 1800	0.690	0.531	0.330	0.338	1.164	0.874	1.311	0.147	1.898	/
UMTS B1	0.554	0.439	0.224	0.232	1.016	0.961	1.167	0.062	0.605	/
UMTS B8	0.303	0.085	0.292	0.201	1.286	1.083	0.335	1.521	/	1.319
LTE B1	0.529	0.263	0.251	0.213	0.676	0.740	1.044	0.050	0.596	/
LTE B3	1.292	0.975	0.597	0.701	1.313	1.833	1.854	0.132	1.705	/
LTE B7	0.683	0.437	0.269	0.289	1.281	1.198	1.409	0.043	0.912	/
LTE B8	0.294	0.108	0.257	0.129	1.080	1.080	0.297	1.443	/	1.251
LTE B20	0.230	0.133	0.203	0.073	0.632	0.931	0.256	1.061	/	0.765
LTE B28	0.206	0.186	0.169	0.063	0.438	0.946	0.267	0.546	/	0.235
LTE B40	0.796	0.525	0.223	0.219	0.853	0.847	1.542	0.060	0.789	/
LTE B41	0.939	0.661	0.296	0.312	1.310	1.115	1.732	0.093	1.023	/
WIFI 2.4G	0.088	0.081	0.284	0.236	0.197	0.151	0.003	0.412	0.014	/
WIFI 5.2G	0.694	0.603	1.197	0.788	1.283	1.202	0.132	1.456	1.826	/
WIFI 5.8G	0.157	0.238	0.242	0.090	0.497	0.470	0.012	0.458	0.956	/
BT	/	/	/	/	/	/	/	/	/	/
MAX $\sum$ SAR _{10g}	1.986	1.577	1.794	1.489	2.597	3.034	1.986	2.977	3.724	1.319

Note:

Thus SAR_{MAX.total}= **3.724** W/Kg <4.0 W/Kg, it is compliant with 1999/519/EC.

8. MEASUREMENT UNCERTAINTY

Uncertainty Budget for Frequency range of 300 MHz to 3 GHz(IEC/IEEE 62209-1528)

Symbol	Error Description	Unc.Value (±%)	Prob.Dist	Div.	ci (1g)	ci (10g)	Std.Unc. (1g)(±%)	Std.Unc. (10g)(±%)
Measurement system errors								
CF	Probe Calibration	12.7	Normal	2	1	1	6.4	6.4
CF drift	Probe Calibration Drift	1.7	Rectangular	$\sqrt{3}$	1	1	1.0	1.0
LIN	Probe Linearity	4.7	Rectangular	$\sqrt{3}$	1	1	2.7	2.7
BBS	Broadband Signal	3	Rectangular	$\sqrt{3}$	1	1	1.7	1.7
ISO	Probe Isotropy (axial)	7.6	Rectangular	$\sqrt{3}$	1	1	4.4	4.4
DAE	Other Probe +Electronic	0.7	Normal	1	1	1	0.7	0.7
AMB	RF Ambient	1.8	Normal	1	1	1	1.8	1.8
Δ_{sys}	Probe Positioning (mm)	0.006	Normal	1	0.14	0.14	0.1	0.1
DAT	Data Processing	1.2	Normal	1	1	1	1.2	1.2
Phantom and Device Errors								
LIQ(σ)	Conductivity (meas.)	2.5	Normal	1	0.78	0.71	2.0	1.8
LIQ($T\sigma$)	Conductivity (temp.)	3.3	Rectangular	$\sqrt{3}$	0.78	0.71	1.5	1.4
EPS	Phantom Permittivity	14	Rectangular	$\sqrt{3}$	0	0	0.0	0.0
DIS	Distance DUT - TSL	2	Normal	1	2	2	4.0	4.0
D _{xyz}	Device Positionin	0.9	Normal	1	1	1	0.9	0.9
H	Device Holder	1.3	Normal	1	1	1	1.3	1.3
MOD	DUT Modulationm	2.4	Rectangular	$\sqrt{3}$	1	1	1.4	1.4
TAS	Time-average SAR	1.7	Rectangular	$\sqrt{3}$	1	1	1.0	1.0
RF drift	DUT drift	2.5	Normal	1	1	1	2.5	2.5
VAL	Validation Antenna Unc.	0	Normal	1	1	1	0.0	0.0
Pin	Accepted Power	0	Normal	1	1	1	0.0	0.0
Corrections to the SAR results								
C(ϵ' , σ)	Deviation to Target	1.9	Normal	1	1	0.84	1.9	1.6
C(R)	SAR scaling	0	Rectangular	$\sqrt{3}$	1	1	0.0	0.0
$\mu(\Delta SAR)$	Combined uncertainty						10.6	10.5
	Coverage Factor for 95%						K=2	K=2
U	Expanded uncertainty						21.3	21.1

Uncertainty Budget for Frequency range of 3 GHz to 6 GHz (IEC/IEEE 62209-1528)

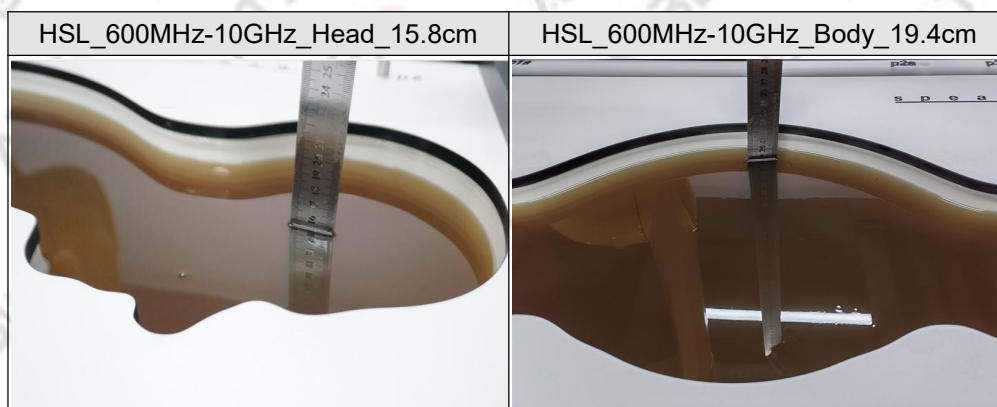
Symbol	Error Description	Unc.Value (±%)	Prob.Dist	Div.	ci (1g)	ci (10g)	Std.Unc. (1g)(±%)	Std.Unc. (10g)(±%)
Measurement system errors								
CF	Probe Calibration	13.9	Normal	2	1	1	6.95	7.0
CF drift	Probe Calibration Drift	1.7	Rectangular	$\sqrt{3}$	1	1	1.0	1.0
LIN	Probe Linearity	4.7	Rectangular	$\sqrt{3}$	1	1	2.7	2.7
BBS	Broadband Signal	2.6	Rectangular	$\sqrt{3}$	1	1	1.5	1.5
ISO	Probe Isotropy (axial)	7.6	Rectangular	$\sqrt{3}$	1	1	4.4	4.4
DAE	Other Probe +Electronic	1.2	Normal	1	1	1	1.2	1.2
AMB	RF Ambient	1.8	Normal	1	1	1	1.8	1.8
Δ_{sys}	Probe Positioning (mm)	0.005	Normal	1	0.29	0.29	0.1	0.1
DAT	Data Processing	2.3	Normal	1	1	1	2.3	2.3
Phantom and Device Errors								
LIQ(σ)	Conductivity (meas.)	2.5	Normal	1	0.78	0.71	2.0	1.8
LIQ($T\sigma$)	Conductivity (temp.)	3.4	Rectangular	$\sqrt{3}$	0.78	0.71	1.5	1.4
EPS	Phantom Permittivity	14	Rectangular	$\sqrt{3}$	0.25	0.25	2.0	2.0
DIS	Distance DUT - TSL	2	Normal	1	2	2	4.0	4.0
D _{xyz}	Device Positionin	0.6	Normal	1	1	1	0.6	0.6
H	Device Holder	1.9	Normal	1	1	1	1.9	1.9
MOD	DUT Modulationm	2.4	Rectangular	$\sqrt{3}$	1	1	1.4	1.4
TAS	Time-average SAR	1.7	Rectangular	$\sqrt{3}$	1	1	1.0	1.0
RF drift	DUT drift	2.5	Normal	1	1	1	2.5	2.5
VAL	Validation Antenna Unc.	0	Normal	1	1	1	0.0	0.0
Pin	Accepted Power	0	Normal	1	1	1	0.0	0.0
Corrections to the SAR results								
C(ϵ' , σ)	Deviation to Target	1.9	Normal	1	1	0.84	1.9	1.6
C(R)	SAR scaling	0	Rectangular	$\sqrt{3}$	1	1	0.0	0.0
$\mu(\Delta SAR)$	Combined uncertainty						11.4	11.4
	Coverage Factor for 95%						K=2	K=2
U	Expanded uncertainty						22.9	22.7

9. PHOTOGRAPHS OF TEST

Specific Absorption Rate Test Layout



Liquid depth in the flat Phantom ($\geq 15\text{cm}$ depth)



Photographs of the Test Set-Up

Photo 1: Right Cheek

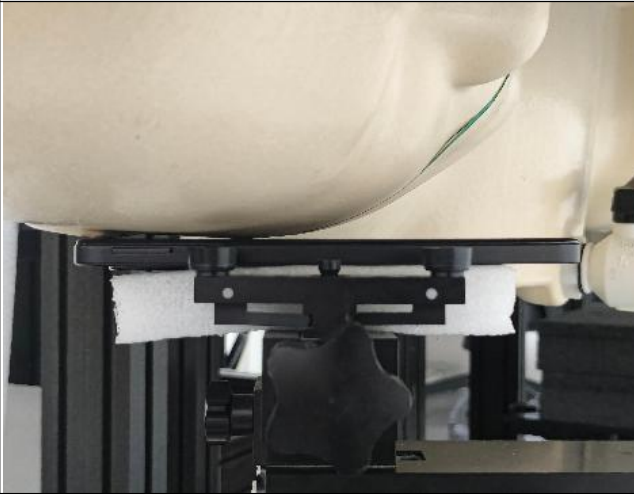


Photo 2: Right Tilted

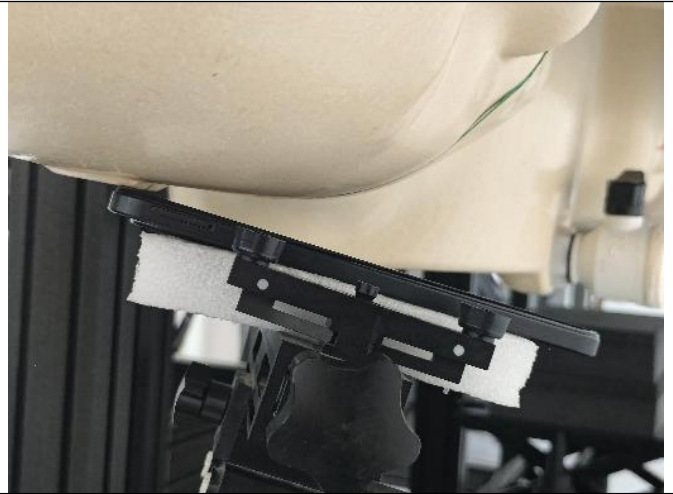


Photo 3: Left Cheek



Photo 4: Left Tilted



Photo 5: Front Face_0.5cm

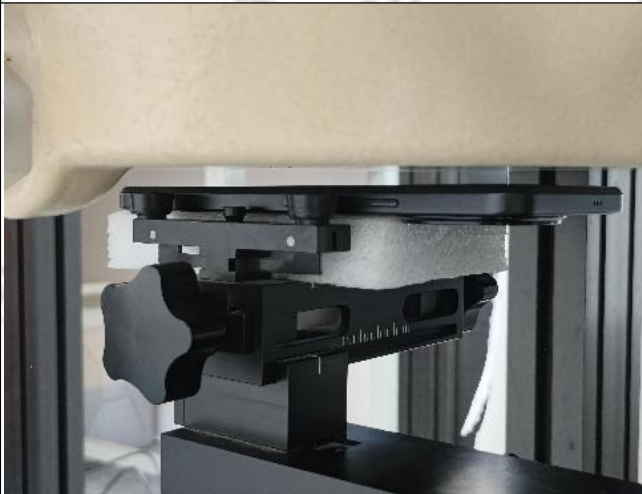


Photo 6: Rear Face_0.5cm



Photo 7: Left Side_0.5cm



Photo 8: Right Side_0.5cm



Photo 9: Top Side_0.5cm



Photo 10: Bottom Side_0.5cm



Photo 11: Front Face_0cm

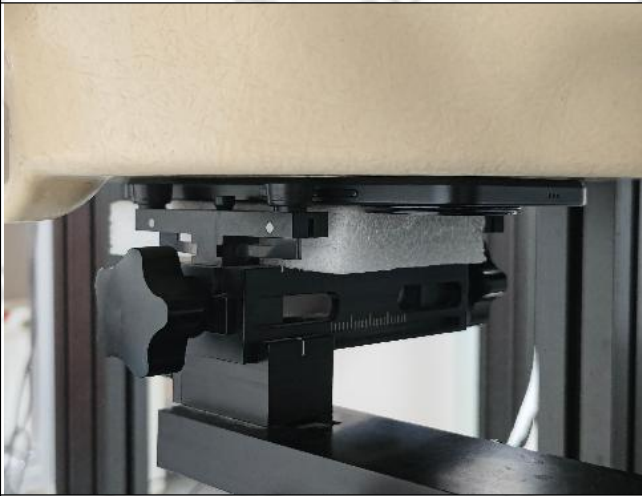


Photo 12: Rear Face_0cm



Photo 13: Left Side_0cm



Photo 14: Right Side_0cm



Photo 15: Top Side_0cm



Photo 16: Bottom Side_0cm



Appendix A. Plots of System Performance Check

The plots are shown as follows.

Test Laboratory: ATBL Inc.

Date: 2025/3/13

System Check_750Mhz_0313

DUT: Dipole 750 MHz D750V3;SN:1055;

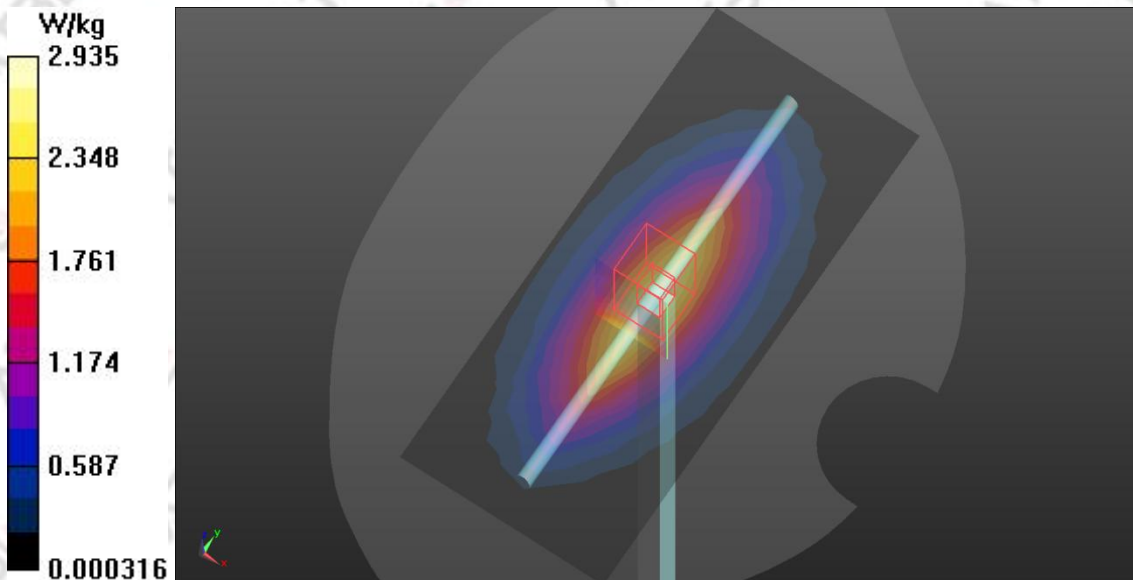
Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 750 \text{ MHz}$; $\sigma = 0.875 \text{ S/m}$; $\epsilon_r = 42.416$; $\rho = 1000 \text{ kg/m}^3$
Ambient Temperature: $22.1 \text{ }^\circ\text{C}$; Liquid Temperature: $21.8 \text{ }^\circ\text{C}$

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(10.25, 10.25, 10.25) @ 750 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (7x15x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (measured) = 2.93 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 59.32 V/m ; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 3.54 W/kg
SAR(1 g) = 2.12 W/kg ; SAR(10 g) = 1.37 W/kg
Maximum value of SAR (measured) = 2.97 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/14

System Check_835Mhz_0314

DUT: Dipole 835 MHz D835V2;SN:4d061;

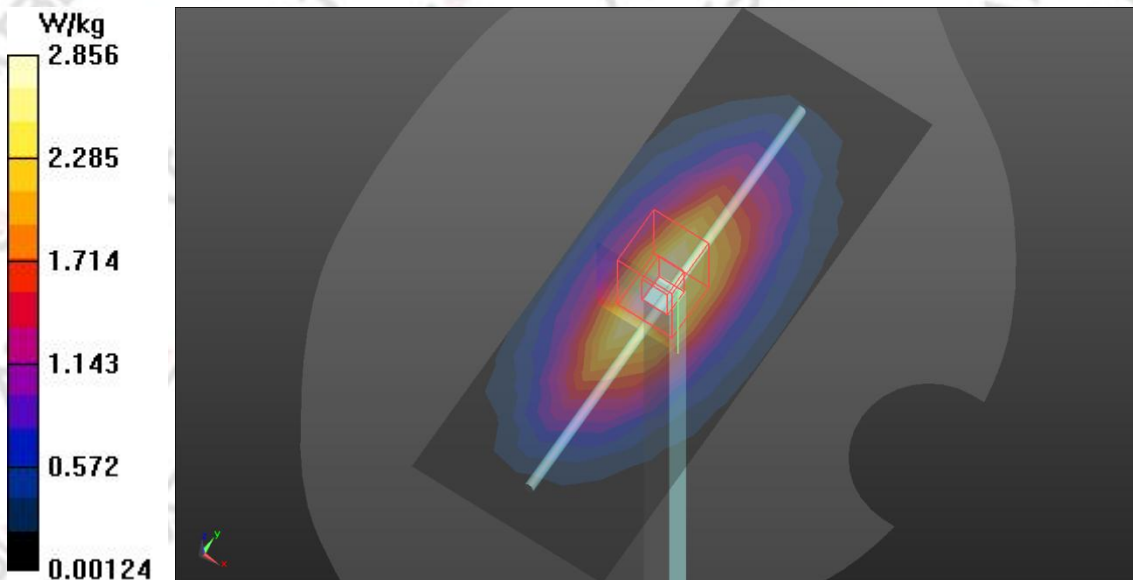
Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 835 \text{ MHz}$; $\sigma = 0.903 \text{ S/m}$; $\epsilon_r = 41.863$; $\rho = 1000 \text{ kg/m}^3$
Ambient Temperature: 22.1°C ; Liquid Temperature: 21.8°C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(9.84, 9.84, 9.84) @ 835 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (6x14x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (measured) = 2.86 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 60.62 V/m ; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 3.66 W/kg
SAR(1 g) = 2.36 W/kg ; SAR(10 g) = 1.53 W/kg
Maximum value of SAR (measured) = 3.10 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/7

System Check_900Mhz_0307

DUT: Dipole 900 MHz D900V2;SN:1d055;

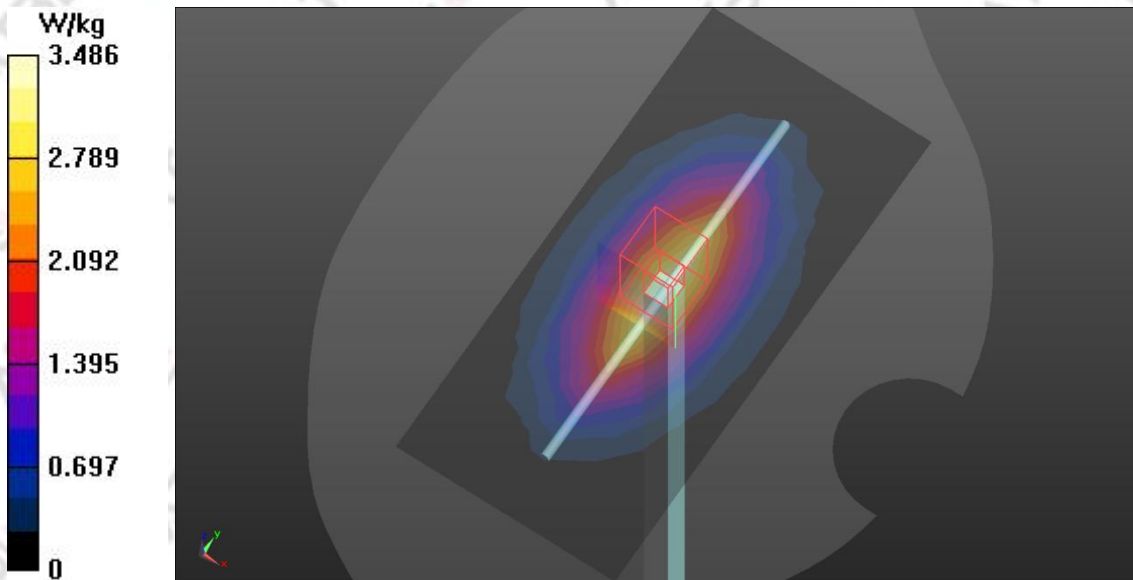
Communication System: UID 0, CW (0); Frequency: 900 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 900 \text{ MHz}$; $\sigma = 0.965 \text{ S/m}$; $\epsilon_r = 42.862$; $\rho = 1000 \text{ kg/m}^3$
Ambient Temperature: $22.1 \text{ }^\circ\text{C}$; Liquid Temperature: $21.8 \text{ }^\circ\text{C}$

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(9.78, 9.78, 9.78) @ 900 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (7x14x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (measured) = 3.49 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 65.53 V/m ; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 4.17 W/kg
SAR(1 g) = 2.76 W/kg ; SAR(10 g) = 1.78 W/kg
Maximum value of SAR (measured) = 3.55 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/10

System Check_900Mhz_0310

DUT: Dipole 900 MHz D900V2;SN:1d055;

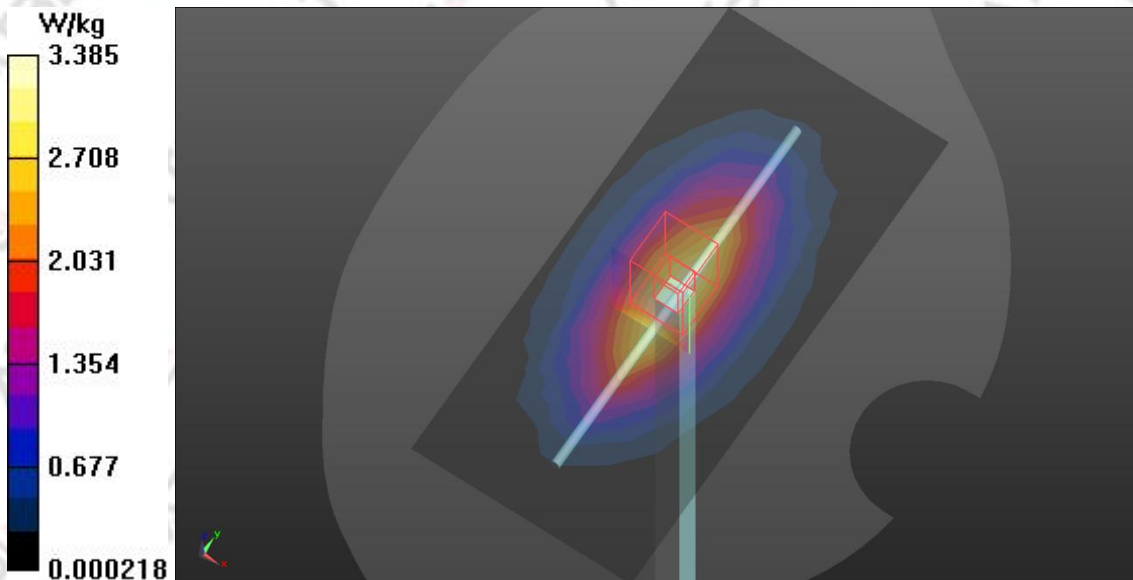
Communication System: UID 0, CW (0); Frequency: 900 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 900 \text{ MHz}$; $\sigma = 0.936 \text{ S/m}$; $\epsilon_r = 41.896$; $\rho = 1000 \text{ kg/m}^3$
Ambient Temperature: $22.1 \text{ }^\circ\text{C}$; Liquid Temperature: $21.8 \text{ }^\circ\text{C}$

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(9.78, 9.78, 9.78) @ 900 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (7x14x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (measured) = 3.38 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 64.06 V/m ; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 4.11 W/kg
SAR(1 g) = 2.75 W/kg ; SAR(10 g) = 1.74 W/kg
Maximum value of SAR (measured) = 3.52 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/17

System Check_900Mhz_0317

DUT: Dipole 900 MHz D900V2;SN:1d055;

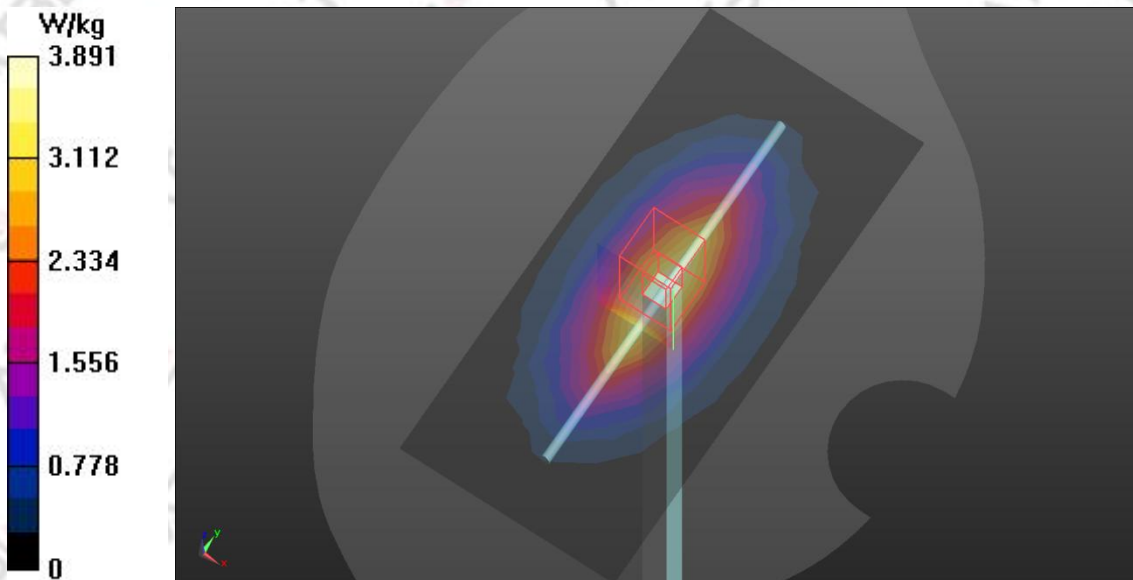
Communication System: UID 0, CW (0); Frequency: 900 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 900 \text{ MHz}$; $\sigma = 0.987 \text{ S/m}$; $\epsilon_r = 42.058$; $\rho = 1000 \text{ kg/m}^3$
Ambient Temperature: $22.1 \text{ }^\circ\text{C}$; Liquid Temperature: $21.8 \text{ }^\circ\text{C}$

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(9.78, 9.78, 9.78) @ 900 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (7x14x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (measured) = 3.89 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 65.53 V/m ; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 4.66 W/kg
SAR(1 g) = 2.82 W/kg ; SAR(10 g) = 1.8 W/kg
Maximum value of SAR (measured) = 3.96 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/11

System Check_1800Mh_0311

DUT: Dipole 1800 MHz D1800V2;SN:2d148;

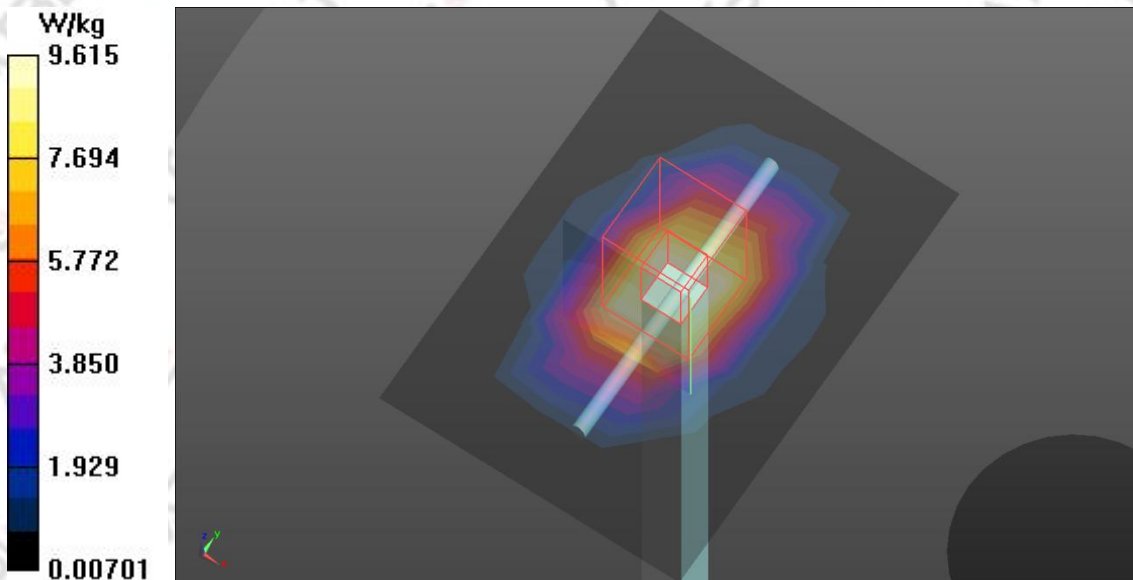
Communication System: UID 0, CW (0); Frequency: 1800 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 1800 \text{ MHz}$; $\sigma = 1.438 \text{ S/m}$; $\epsilon_r = 41.265$; $\rho = 1000 \text{ kg/m}^3$
Ambient Temperature: $22.2 \text{ }^\circ\text{C}$; Liquid Temperature: $21.9 \text{ }^\circ\text{C}$

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(8.49, 8.49, 8.49) @ 1800 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (6x8x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (measured) = 9.62 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 109.7 V/m ; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 18.2 W/kg
SAR(1 g) = 9.99 W/kg ; SAR(10 g) = 5.18 W/kg
Maximum value of SAR (measured) = 15.0 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/18

System Check_1800Mhz_0318

DUT: Dipole 1800 MHz D1800V2;SN:2d148;

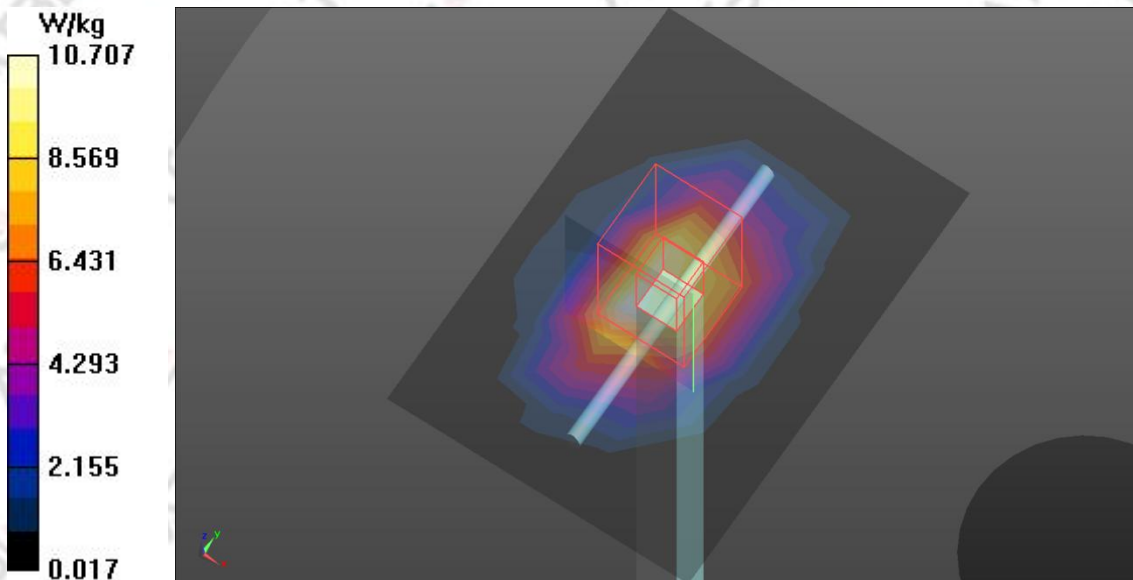
Communication System: UID 0, CW (0); Frequency: 1800 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 1800 \text{ MHz}$; $\sigma = 1.468 \text{ S/m}$; $\epsilon_r = 41.425$; $\rho = 1000 \text{ kg/m}^3$
Ambient Temperature: $22.6 \text{ }^\circ\text{C}$; Liquid Temperature: $22.3 \text{ }^\circ\text{C}$

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(8.49, 8.49, 8.49) @ 1800 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (6x8x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (measured) = 10.7 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 107.1 V/m ; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 17.9 W/kg
SAR(1 g) = 9.82 W/kg ; SAR(10 g) = 5.18 W/kg
Maximum value of SAR (measured) = 14.7 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/4/14

System Check_1900Mhz_0414

DUT: Dipole 1900 MHz D1900V2;SN:5d092;

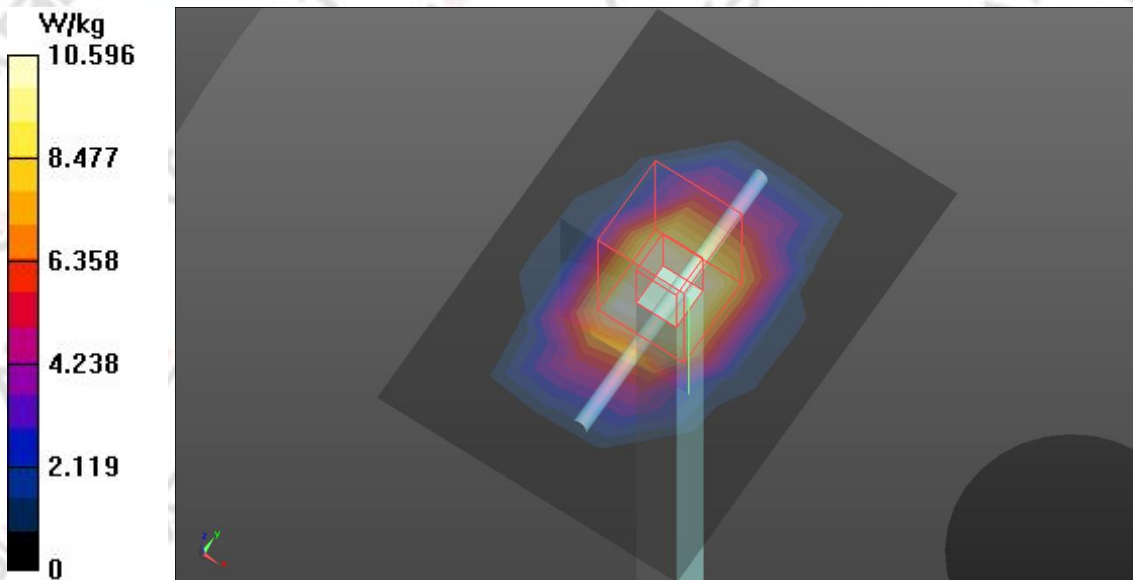
Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.414 \text{ S/m}$; $\epsilon_r = 41.264$; $\rho = 1000 \text{ kg/m}^3$
Ambient Temperature: $22.2 \text{ }^\circ\text{C}$; Liquid Temperature: $21.9 \text{ }^\circ\text{C}$

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(8.11, 8.11, 8.11) @ 1900 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (6x8x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (measured) = 10.6 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 118.7 V/m ; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 20.0 W/kg
SAR(1 g) = 10.1 W/kg ; SAR(10 g) = 5.14 W/kg
Maximum value of SAR (measured) = 16.4 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/4/15

System Check_1900Mhz_0415

DUT: Dipole 1900 MHz D1900V2;SN:5d092;

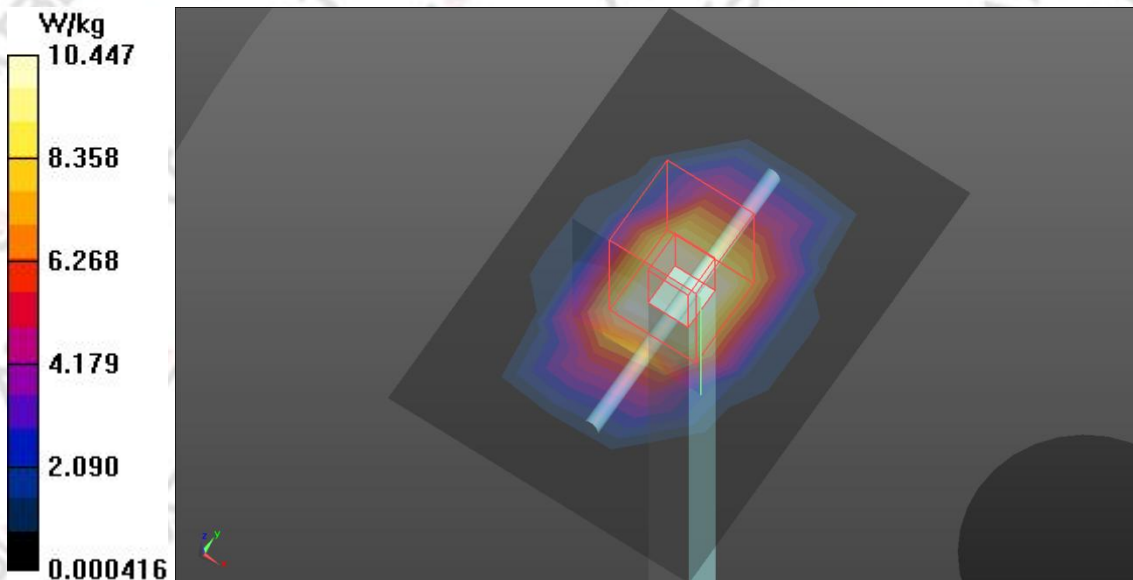
Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.438 \text{ S/m}$; $\epsilon_r = 40.956$; $\rho = 1000 \text{ kg/m}^3$
Ambient Temperature: $22.6 \text{ }^\circ\text{C}$; Liquid Temperature: $22.3 \text{ }^\circ\text{C}$

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(8.11, 8.11, 8.11) @ 1900 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (6x8x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (measured) = 10.4 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 116.7 V/m ; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 19.6 W/kg
SAR(1 g) = 10.4 W/kg ; SAR(10 g) = 5.24 W/kg
Maximum value of SAR (measured) = 16.0 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/20

System Check_2300Mhz_0320

DUT: Dipole 2300 MHz D2300V2;SN:1040;

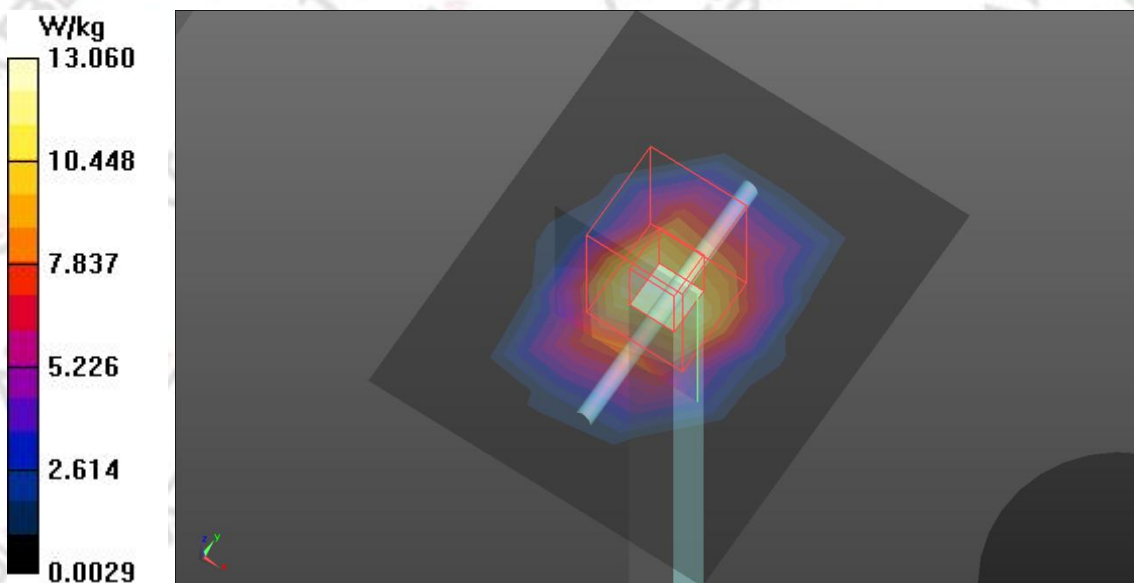
Communication System: UID 0, CW (0); Frequency: 2300 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 2300 \text{ MHz}$; $\sigma = 1.647 \text{ S/m}$; $\epsilon_r = 41.439$; $\rho = 1000 \text{ kg/m}^3$
Ambient Temperature: $22.6 \text{ }^\circ\text{C}$; Liquid Temperature: $22.3 \text{ }^\circ\text{C}$

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(7.9, 7.9, 7.9) @ 2300 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (6x7x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (measured) = 13.1 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 113.5 V/m ; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 24.3 W/kg
SAR(1 g) = 12.3 W/kg ; SAR(10 g) = 5.81 W/kg
Maximum value of SAR (measured) = 19.8 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/25

System Check_2450Mhz_0325

DUT: Dipole 2450 MHz D2450V2;SN:723;

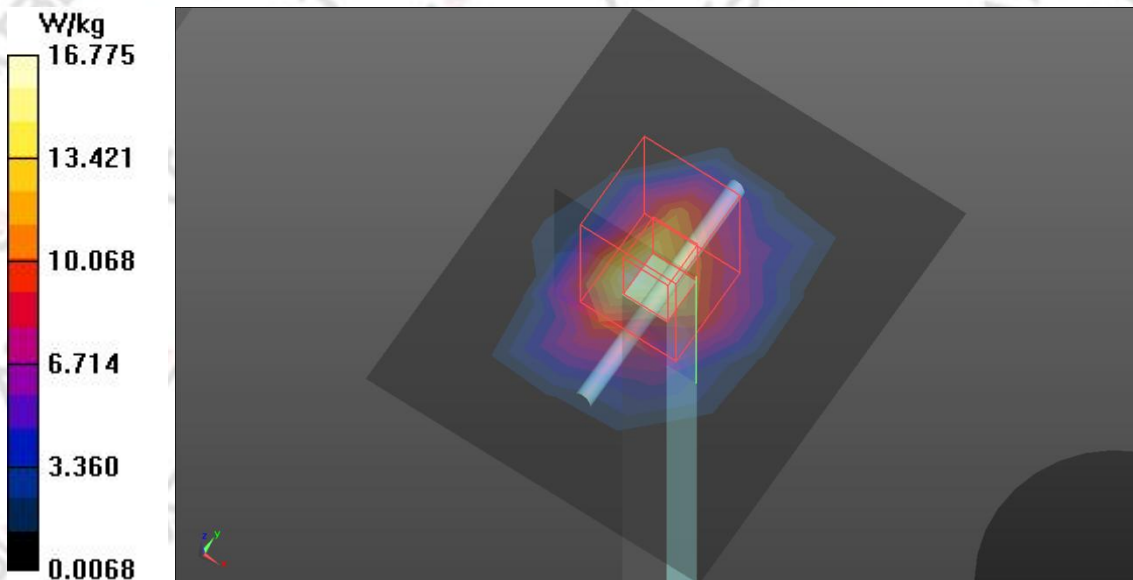
Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 2450$ MHz; $\sigma = 1.846$ S/m; $\epsilon_r = 40.473$; $\rho = 1000$ kg/m³
Ambient Temperature: 22.2 °C; Liquid Temperature: 21.9 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(7.64, 7.64, 7.64) @ 2450 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (6x7x1): Measurement grid: $dx=15$ mm, $dy=15$ mm
Maximum value of SAR (measured) = 16.8 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm
Reference Value = 111.8 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 27.1 W/kg
SAR(1 g) = 13.5 W/kg; SAR(10 g) = 6.31 W/kg
Maximum value of SAR (measured) = 21.7 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/4/16

System Check_2600Mhz_0416

DUT: Dipole 2600 MHz D2600V2;SN:1142;

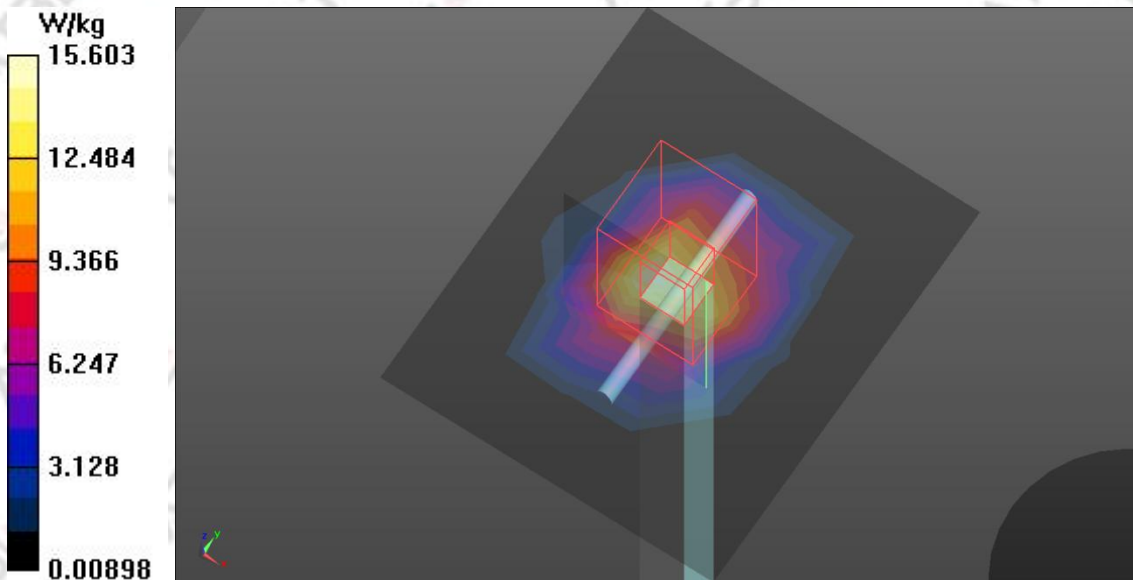
Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 2600 \text{ MHz}$; $\sigma = 1.934 \text{ S/m}$; $\epsilon_r = 40.176$; $\rho = 1000 \text{ kg/m}^3$
Ambient Temperature: $22.1 \text{ }^\circ\text{C}$; Liquid Temperature: $21.8 \text{ }^\circ\text{C}$

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(7.4, 7.4, 7.4) @ 2600 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (6x7x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (measured) = 15.6 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 113.2 V/m ; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 28.2 W/kg
SAR(1 g) = 13.9 W/kg ; SAR(10 g) = 6.35 W/kg
Maximum value of SAR (measured) = 22.7 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/24

System Check_2600Mhz_0324

DUT: Dipole 2600 MHz D2600V2;SN:1142;

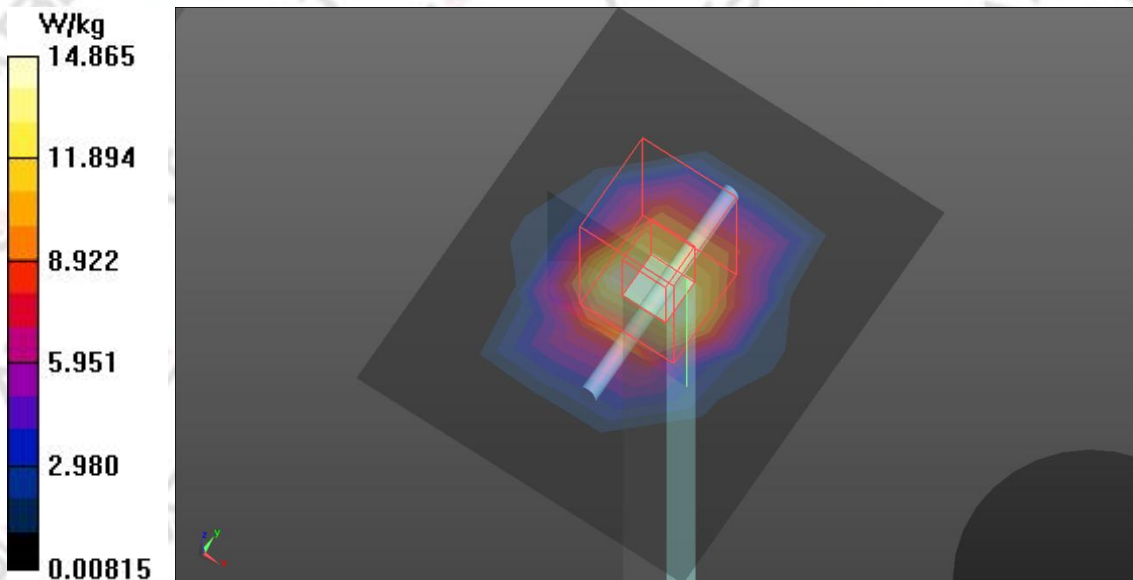
Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 2600$ MHz; $\sigma = 1.937$ S/m; $\epsilon_r = 39.421$; $\rho = 1000$ kg/m³
Ambient Temperature: 22.2 °C; Liquid Temperature: 21.9 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(7.4, 7.4, 7.4) @ 2600 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (6x7x1): Measurement grid: $dx=15$ mm, $dy=15$ mm
Maximum value of SAR (measured) = 14.9 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm
Reference Value = 115.1 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 31.0 W/kg
SAR(1 g) = 13.9 W/kg; SAR(10 g) = 6.18 W/kg
Maximum value of SAR (measured) = 24.1 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/4/27

System Check_5250Mhz_0427

DUT: Dipole D5GHzV2;SN:1061;

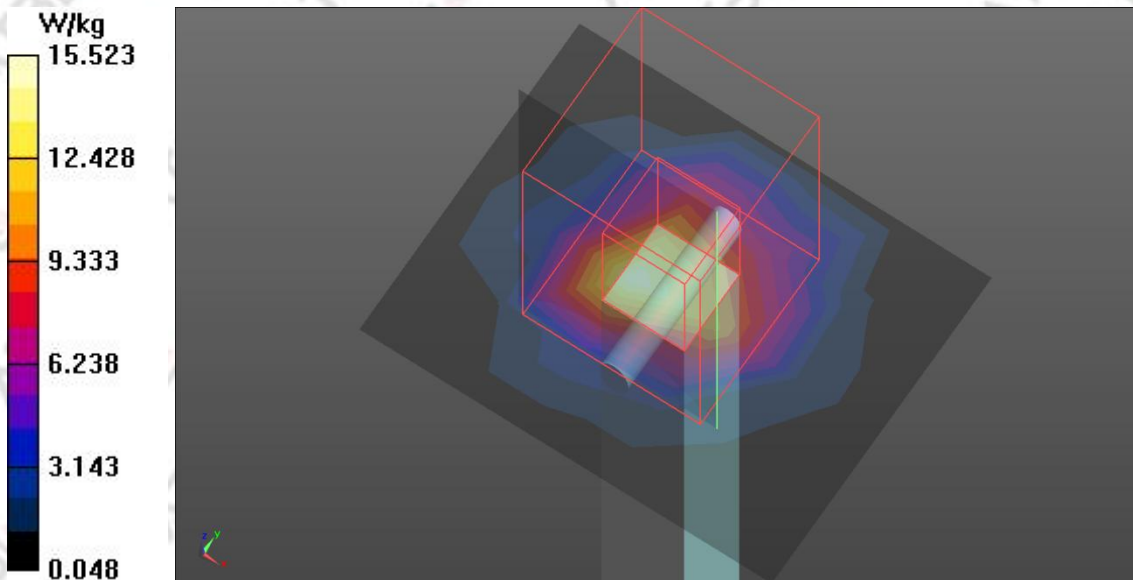
Communication System: UID 0, CW (0); Frequency: 5250 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 5250 \text{ MHz}$; $\sigma = 4.743 \text{ S/m}$; $\epsilon_r = 36.054$; $\rho = 1000 \text{ kg/m}^3$
Ambient Temperature: $22.2 \text{ }^\circ\text{C}$; Liquid Temperature: $21.9 \text{ }^\circ\text{C}$

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(5.4, 5.4, 5.4) @ 5250 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (6x5x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
Maximum value of SAR (measured) = 15.5 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2\text{mm}$
Reference Value = 68.87 V/m ; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 30.8 W/kg
SAR(1 g) = 7.77 W/kg ; SAR(10 g) = 2.17 W/kg
Maximum value of SAR (measured) = 19.8 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/27

System Check_5800Mhz_0327

DUT: Dipole D5GHzV2;SN:1061;

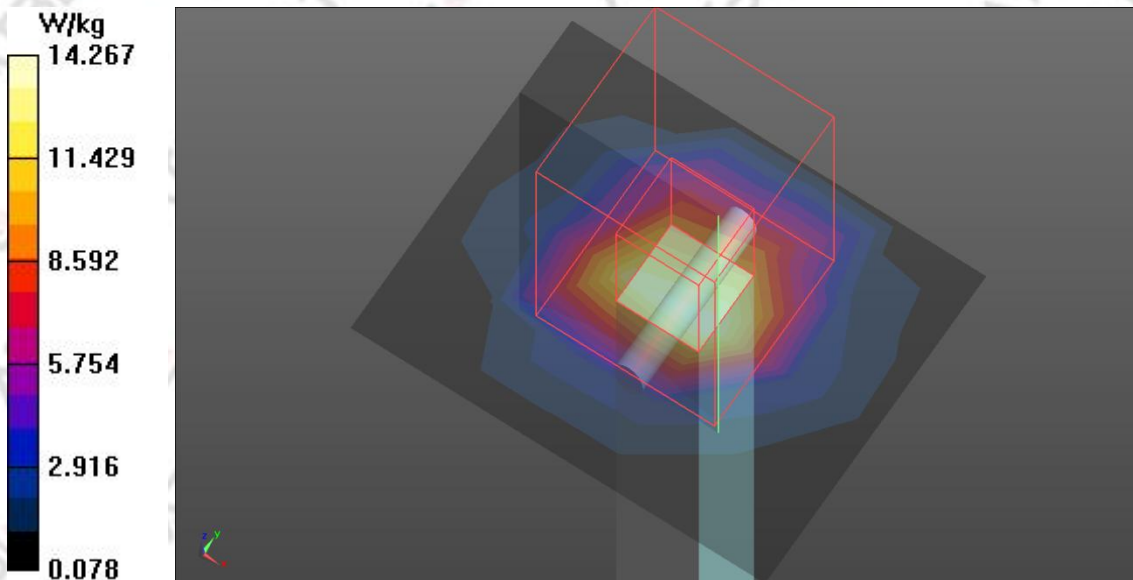
Communication System: UID 0, CW (0); Frequency: 5800 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 5800 \text{ MHz}$; $\sigma = 5.298 \text{ S/m}$; $\epsilon_r = 35.496$; $\rho = 1000 \text{ kg/m}^3$
Ambient Temperature: $22.1 \text{ }^\circ\text{C}$; Liquid Temperature: $21.8 \text{ }^\circ\text{C}$

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(4.81, 4.81, 4.81) @ 5800 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (6x5x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
Maximum value of SAR (measured) = 14.3 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2\text{mm}$
Reference Value = 66.73 V/m ; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 34.2 W/kg
SAR(1 g) = 7.64 W/kg ; SAR(10 g) = 2.11 W/kg
Maximum value of SAR (measured) = 20.2 W/kg



Appendix B. Plots of SAR Measurement

The plots are shown as follows.

Test Laboratory: ATBL Inc.

Date: 2025/3/10

G06_GSM 900_GSM_CH124_Right Cheek_Ant Main SIM1

DUT: Smart phone;

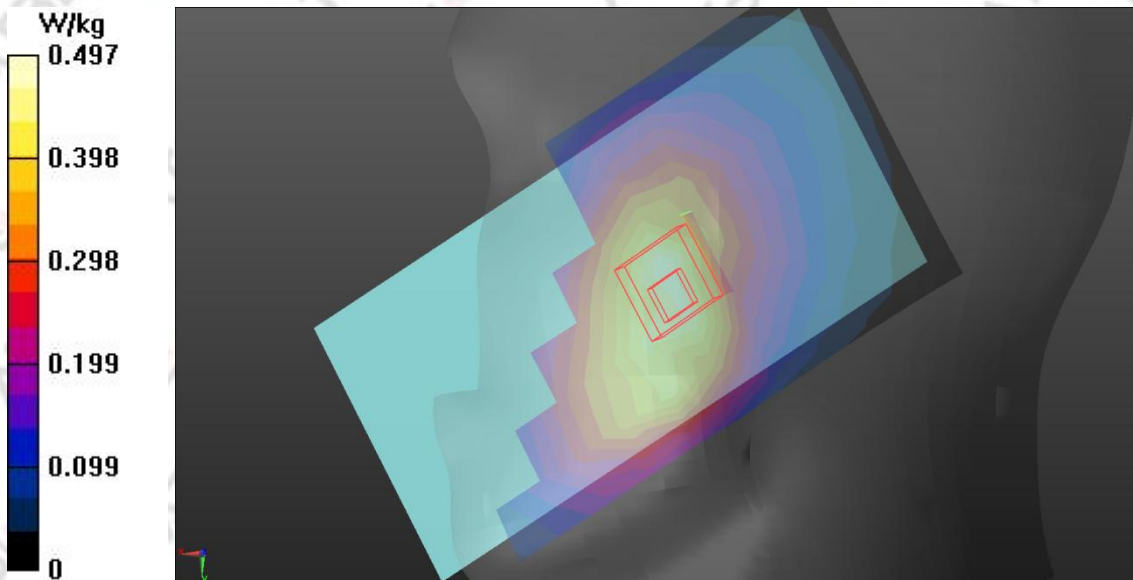
Communication System: UID 0, GSM (0); Frequency: 914.8 MHz; Duty Cycle: 1:8.3
Medium parameters used (interpolated): $f = 914.8 \text{ MHz}$; $\sigma = 0.893 \text{ S/m}$; $\epsilon_r = 43.87$; $\rho = 1000 \text{ kg/m}^3$
Ambient Temperature: $22.1 \text{ }^\circ\text{C}$; Liquid Temperature: $21.8 \text{ }^\circ\text{C}$

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(9.78, 9.78, 9.78) @ 914.8 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (7x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (measured) = 0.497 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 9.512 V/m ; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.571 W/kg
SAR(1 g) = 0.446 W/kg ; SAR(10 g) = 0.331 W/kg
Maximum value of SAR (measured) = 0.500 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/11

G13_GSM 1800_GSM_CH885_Right Cheek_Ant Main SIM1

DUT: Smart phone;

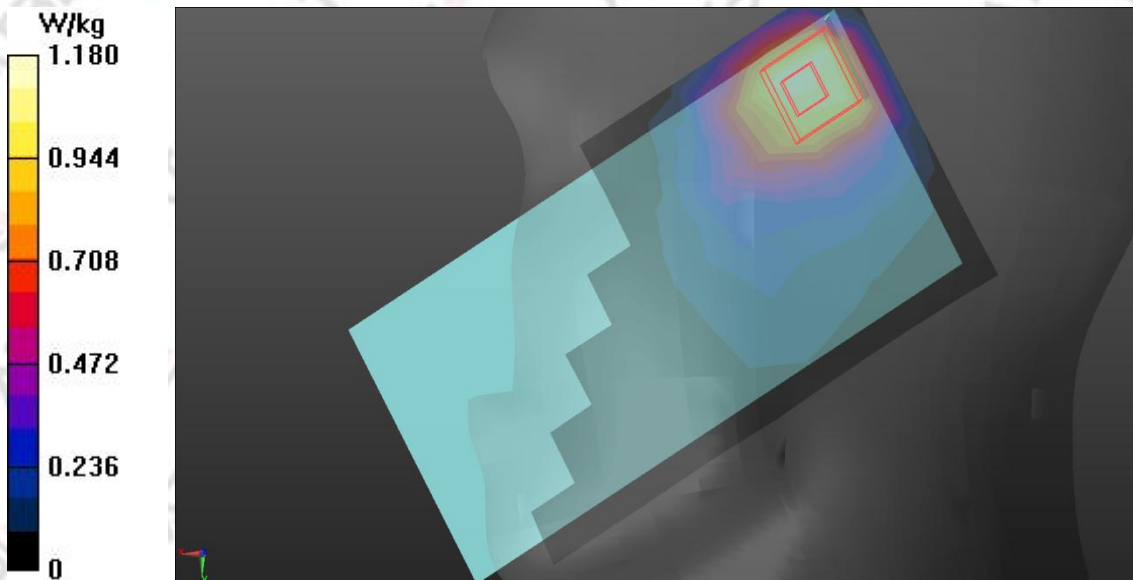
Communication System: UID 0, GSM (0); Frequency: 1784.8 MHz; Duty Cycle: 1:8.3
Medium parameters used (interpolated): $f = 1784.8$ MHz; $\sigma = 1.322$ S/m; $\epsilon_r = 42.359$; $\rho = 1000$ kg/m³
Ambient Temperature: 22.2 °C; Liquid Temperature: 21.9 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(8.49, 8.49, 8.49) @ 1784.8 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (7x13x1): Measurement grid: $dx=15$ mm, $dy=15$ mm
Maximum value of SAR (measured) = 1.18 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm
Reference Value = 18.24 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 1.70 W/kg
SAR(1 g) = 1.06 W/kg; SAR(10 g) = 0.600 W/kg
Maximum value of SAR (measured) = 1.36 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/4/14

U01_UMTS B1_RMC12.2K_CH9750_Right Cheek_Ant Main SIM1

DUT: Smart phone;

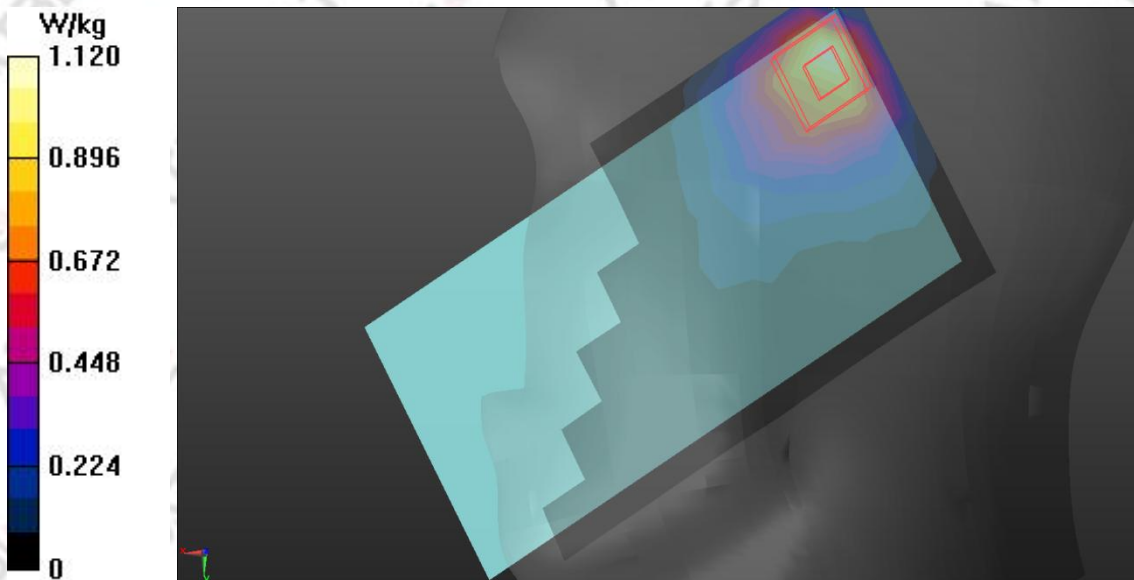
Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1950 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 1950 \text{ MHz}$; $\sigma = 1.425 \text{ S/m}$; $\epsilon_r = 42.134$; $\rho = 1000 \text{ kg/m}^3$
Ambient Temperature: $22.2 \text{ }^\circ\text{C}$; Liquid Temperature: $21.9 \text{ }^\circ\text{C}$

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(8.11, 8.11, 8.11) @ 1950 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (7x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (measured) = 1.12 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 15.95 V/m ; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.41 W/kg
SAR(1 g) = 0.767 W/kg ; SAR(10 g) = 0.433 W/kg
Maximum value of SAR (measured) = 1.09 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/7

U20_UMTS B8_RMC12.2K_CH2863_Right Cheek_Ant Main SIM1

DUT: Smart phone;

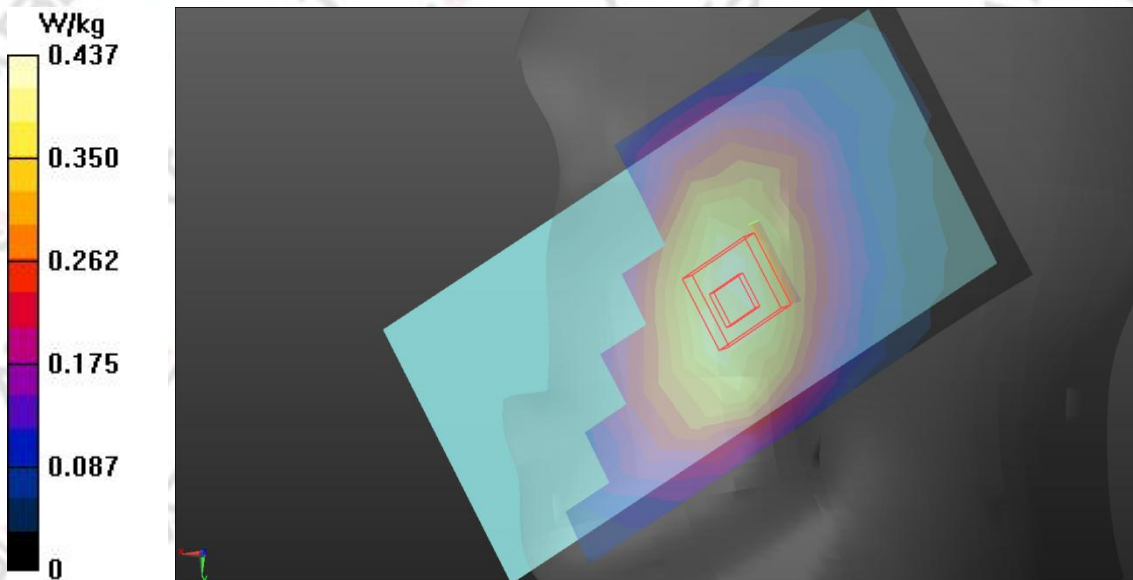
Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 882.4 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 882.4$ MHz; $\sigma = 0.882$ S/m; $\epsilon_r = 43.98$; $\rho = 1000$ kg/m³
Ambient Temperature: 22.1 °C; Liquid Temperature: 21.8 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(9.78, 9.78, 9.78) @ 882.4 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (7x13x1): Measurement grid: $dx=15$ mm, $dy=15$ mm
Maximum value of SAR (measured) = 0.437 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm
Reference Value = 7.227 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.480 W/kg
SAR(1 g) = 0.394 W/kg; SAR(10 g) = 0.300 W/kg
Maximum value of SAR (measured) = 0.440 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/4/15

L07_LTE B1_QPSK20M_CH18500_1 RB offset 0_Right Cheek_Ant Main SIM2

DUT: Smart phone;

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 1970 MHz;
Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1970$ MHz; $\sigma = 1.438$ S/m; $\epsilon_r = 42.109$; $\rho = 1000$ kg/m³

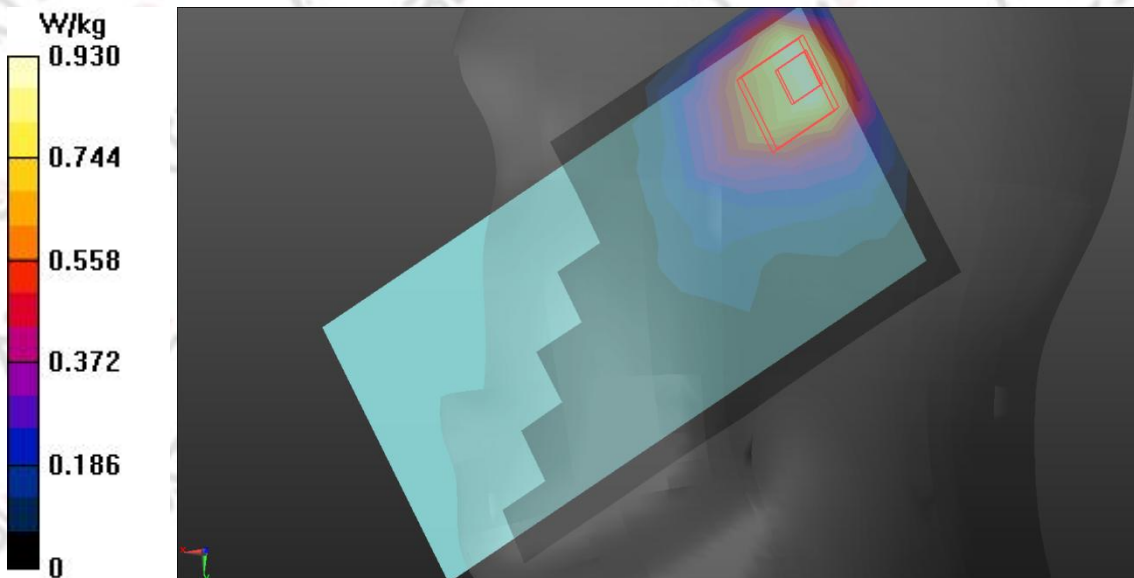
Ambient Temperature: 22.1 °C; Liquid Temperature: 21.8 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(8.11, 8.11, 8.11) @ 1970 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (7x13x1): Measurement grid: $dx=15$ mm, $dy=15$ mm
Maximum value of SAR (measured) = 0.930 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm
Reference Value = 17.25 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 1.41 W/kg
SAR(1 g) = 0.785 W/kg; SAR(10 g) = 0.462 W/kg
Maximum value of SAR (measured) = 1.09 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/18

L08_LTE B3_QPSK20M_CH19300_1 RB offset 0_Right Cheek_Ant Main SIM1

DUT: Smart phone;

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 1720 MHz;
Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1720$ MHz; $\sigma = 1.284$ S/m; $\epsilon_r = 42.446$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.6 °C; Liquid Temperature: 22.3 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(8.49, 8.49, 8.49) @ 1720 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (7x13x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 3.00 W/kg

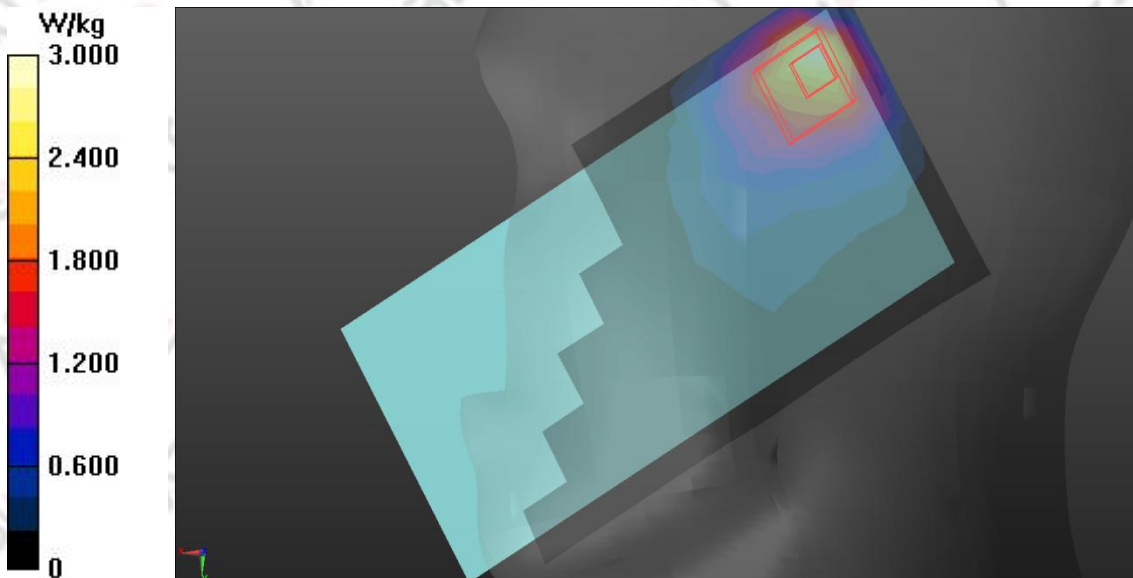
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 26.12 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 3.74 W/kg

SAR(1 g) = 2.1 W/kg; SAR(10 g) = 1.22 W/kg

Maximum value of SAR (measured) = 2.74 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/4/16

L21_LTE B7_QPSK20M_CH21100_1 RB offset 0_Right Cheek_Ant Main SIM2

DUT: Smart phone;

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 2535 MHz;
Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 2535$ MHz; $\sigma = 1.882$ S/m; $\epsilon_r = 41.224$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.1 °C; Liquid Temperature: 21.8 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(7.4, 7.4, 7.4) @ 2535 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (7x13x1): Measurement grid: $dx=15$ mm, $dy=15$ mm.

Maximum value of SAR (measured) = 1.76 W/kg

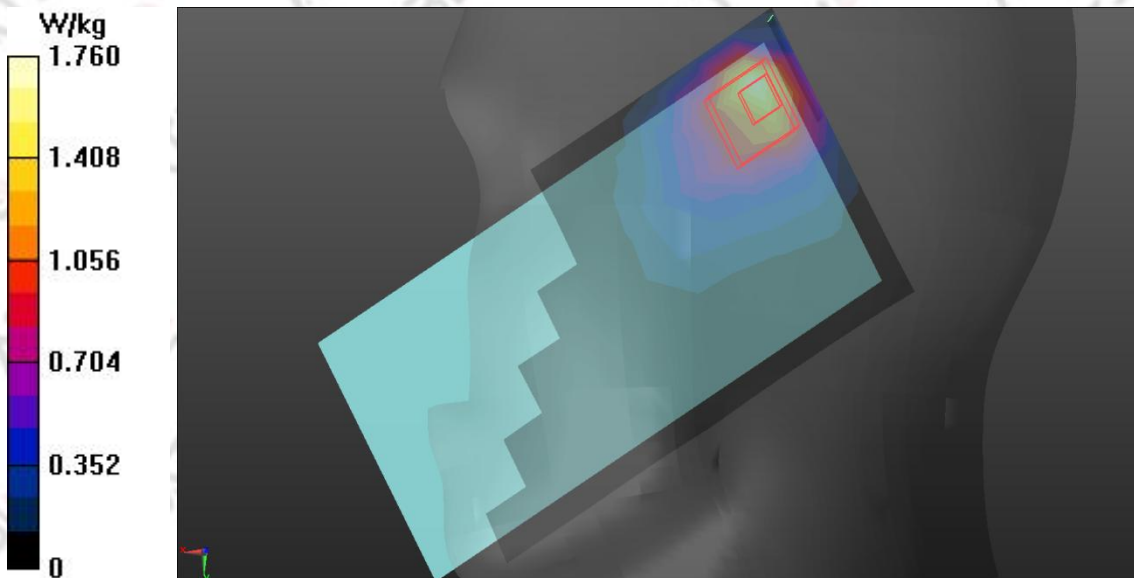
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 16.44 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 2.23 W/kg

SAR(1 g) = 1.22 W/kg; SAR(10 g) = 0.646 W/kg

Maximum value of SAR (measured) = 1.72 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/17

L28_LTE B8_QPSK10M_CH21750_1 RB offset 0_Right Cheek_Ant Main SIM2

DUT: Smart phone;

Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Frequency: 910 MHz;
Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 910$ MHz; $\sigma = 0.891$ S/m; $\epsilon_r = 43.884$; $\rho = 1000$ kg/m³

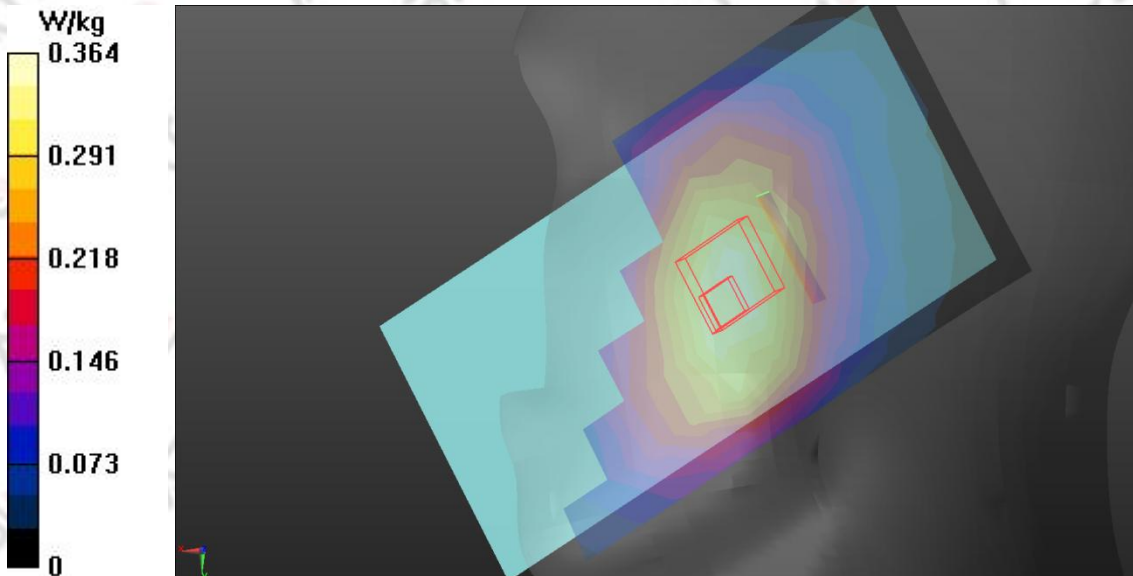
Ambient Temperature: 22.1 °C; Liquid Temperature: 21.8 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(9.78, 9.78, 9.78) @ 910 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (7x13x1): Measurement grid: $dx=15$ mm, $dy=15$ mm
Maximum value of SAR (measured) = 0.364 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm
Reference Value = 6.847 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.713 W/kg
SAR(1 g) = 0.425 W/kg; SAR(10 g) = 0.279 W/kg
Maximum value of SAR (measured) = 0.370 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/14

L29_LTE B20_QPSK20M_CH24300_1 RB offset 0_Right Cheek_Ant Main SIM1

DUT: Smart phone;

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 847 MHz;
Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 847$ MHz; $\sigma = 0.869$ S/m; $\epsilon_r = 44.114$; $\rho = 1000$ kg/m³

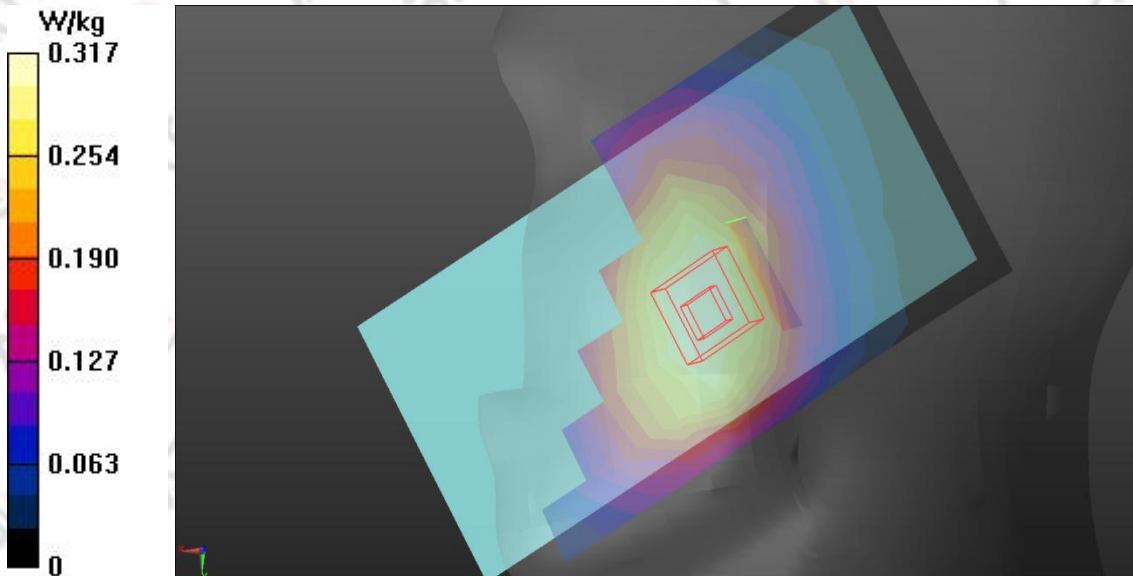
Ambient Temperature: 22.1 °C; Liquid Temperature: 21.8 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(9.84, 9.84, 9.84) @ 847 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (7x13x1): Measurement grid: $dx=15$ mm, $dy=15$ mm
Maximum value of SAR (measured) = 0.317 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm
Reference Value = 3.335 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.361 W/kg
SAR(1 g) = 0.291 W/kg; SAR(10 g) = 0.223 W/kg
Maximum value of SAR (measured) = 0.330 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/13

L36_LTE B28_QPSK20M_CH27460_1 RB offset 0_Right Cheek_Ant Main SIM1

DUT: Smart phone;

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 732 MHz;
Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 732$ MHz; $\sigma = 0.831$ S/m; $\epsilon_r = 44.595$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.1 °C; Liquid Temperature: 21.8 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(10.25, 10.25, 10.25) @ 732 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (7x13x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

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

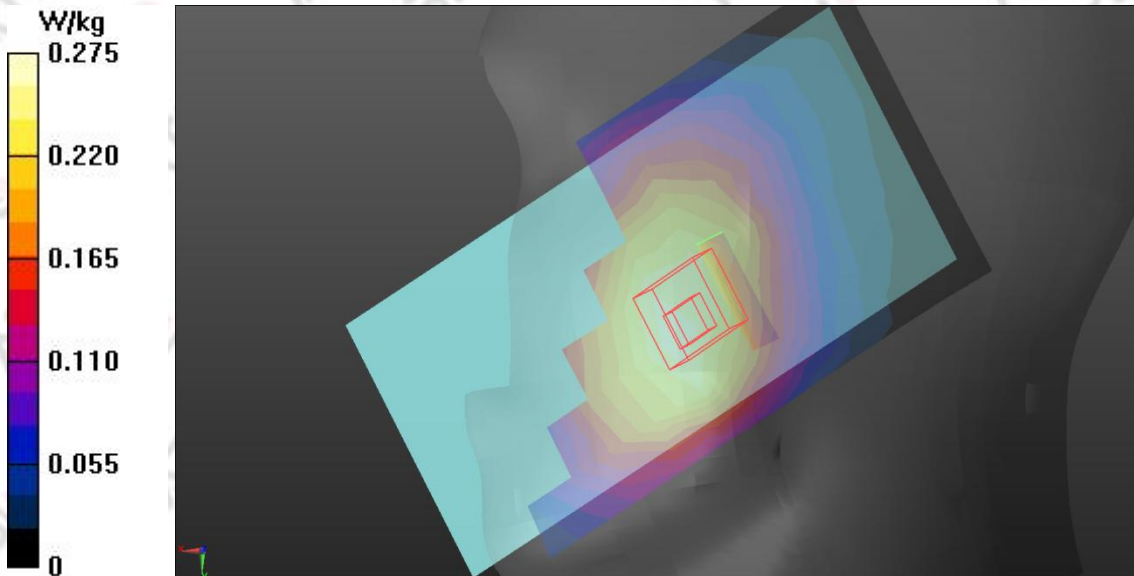
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 4.816 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.305 W/kg

SAR(1 g) = 0.249 W/kg; SAR(10 g) = 0.193 W/kg

Maximum value of SAR (measured) = 0.273 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/20

L48_LTE B40_QPSK20M_CH39550_1 RB offset 99_Right Cheek_Ant Main SIM1

DUT: Smart phone;

Communication System: UID 10172 - CAG, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 2390 MHz; Duty Cycle: 1:1.58

Medium parameters used (interpolated): $f = 2390$ MHz; $\sigma = 1.744$ S/m; $\epsilon_r = 41.485$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.6 °C; Liquid Temperature: 22.3 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(7.9, 7.9, 7.9) @ 2390 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (7x13x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 1.85 W/kg

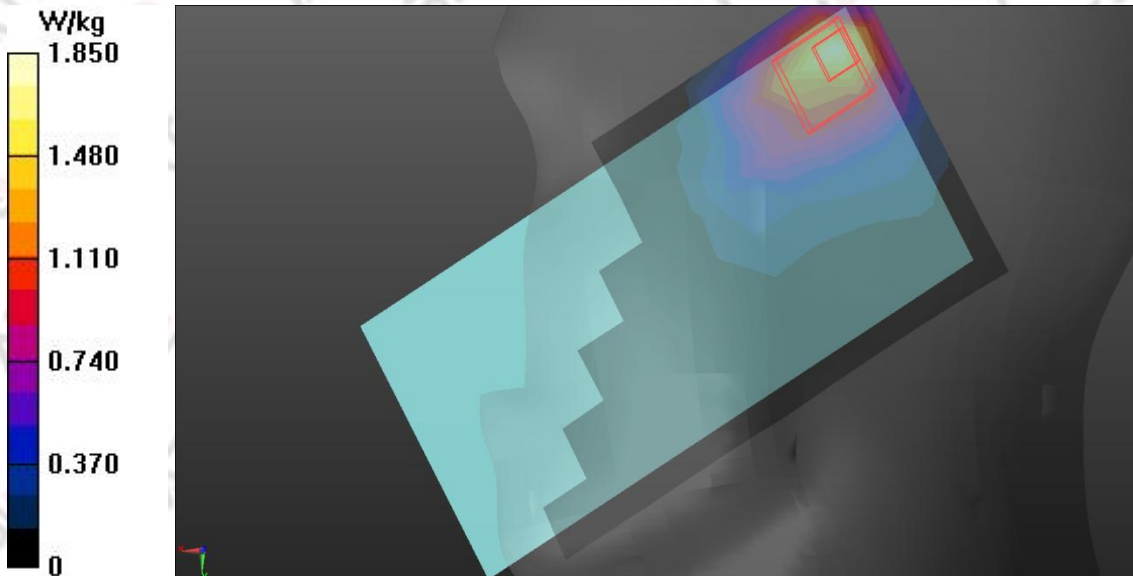
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 15.95 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 2.35 W/kg

SAR(1 g) = 1.29 W/kg; SAR(10 g) = 0.726 W/kg

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



Test Laboratory: ATBL Inc.

Date: 2025/3/24

L55_LTE B41_QPSK20M_CH41490_1 RB offset 99_Right Cheek_Ant Main SIM1

DUT: Smart phone;

Communication System: UID 10172 - CAG, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 2680 MHz;
Duty Cycle: 1:1.58

Medium parameters used (interpolated): $f = 2680$ MHz; $\sigma = 1.984$ S/m; $\epsilon_r = 41.034$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.2 °C; Liquid Temperature: 21.9 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(7.4, 7.4, 7.4) @ 2680 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (7x13x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 2.50 W/kg

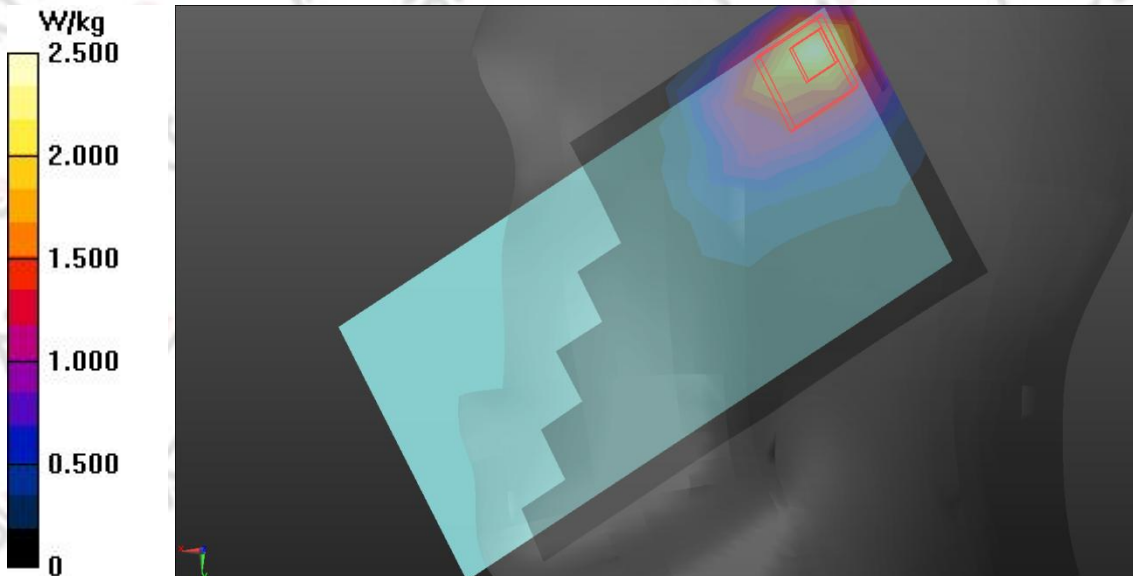
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 16.12 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 2.93 W/kg

SAR(1 g) = 1.65 W/kg; SAR(10 g) = 0.895 W/kg

Maximum value of SAR (measured) = 2.28 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/25

W05_802.11g_CH1_Left Cheek_Ant WIFI

DUT: Smart phone;

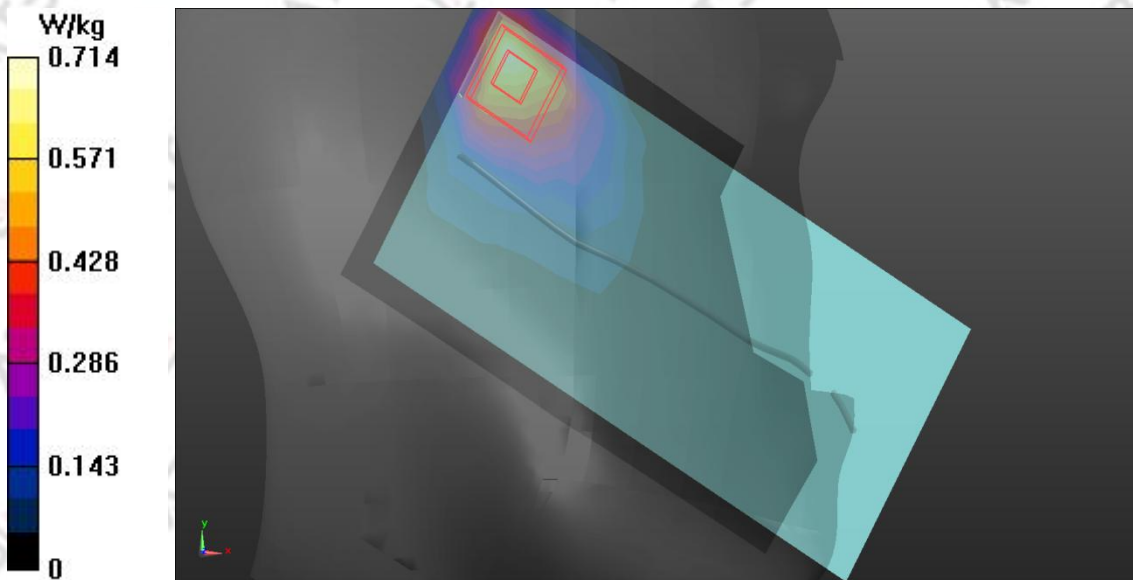
Communication System: UID 10565 - AAA, IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle); Frequency: 2412 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 2412$ MHz; $\sigma = 1.761$ S/m; $\epsilon_r = 41.452$; $\rho = 1000$ kg/m³
Ambient Temperature: 22.2 °C; Liquid Temperature: 21.9 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(7.64, 7.64, 7.64) @ 2412 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (7x13x1): Measurement grid: $dx=15$ mm, $dy=15$ mm
Maximum value of SAR (measured) = 0.714 W/kg

Zoom Scan (5x5x6)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm
Reference Value = 8.592 V/m; Power Drift = 0.50 dB
Peak SAR (extrapolated) = 0.975 W/kg
SAR(1 g) = 0.510 W/kg; SAR(10 g) = 0.262 W/kg
Maximum value of SAR (measured) = 0.759 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/4/27

W12_802.11n HT40_CH38_Left Cheek_Ant WIFI

DUT: Smart phone;

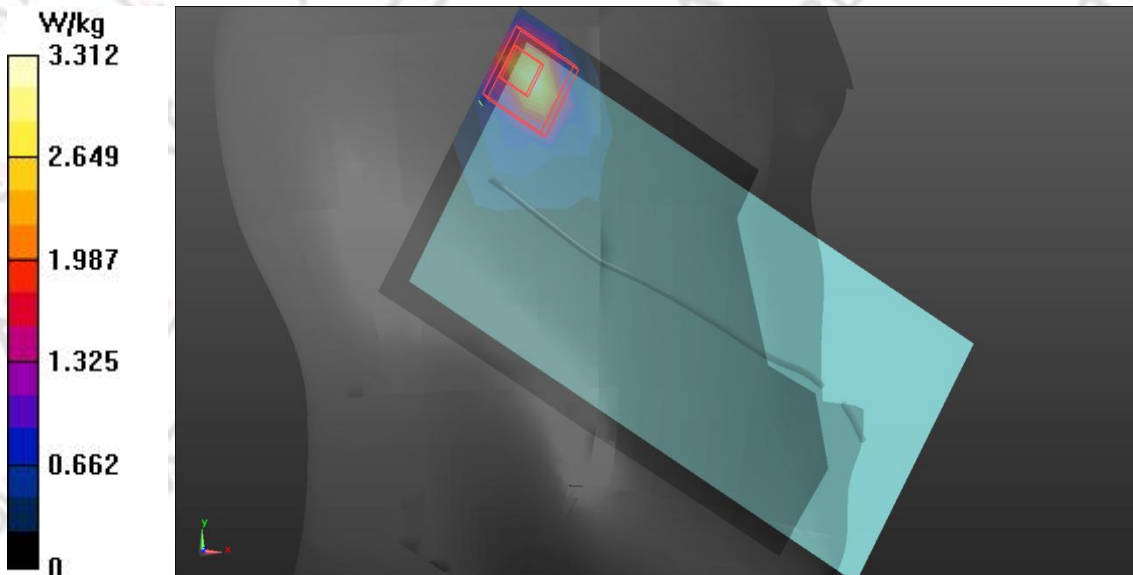
Communication System: UID 10599 - AAC, IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle);
Frequency: 5182 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 5182 \text{ MHz}$; $\sigma = 4.512 \text{ S/m}$; $\epsilon_r = 36.459$; $\rho = 1000 \text{ kg/m}^3$
Ambient Temperature: $22.2 \text{ }^\circ\text{C}$; Liquid Temperature: $21.9 \text{ }^\circ\text{C}$

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(5.4, 5.4, 5.4) @ 5182 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (10x19x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
Maximum value of SAR (measured) = 3.31 W/kg

Zoom Scan (7x7x12)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2\text{mm}$
Reference Value = 15.12 V/m ; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 7.60 W/kg
SAR(1 g) = 2.6 W/kg ; SAR(10 g) = 0.878 W/kg
Maximum value of SAR (measured) = 5.68 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/27

W16_802.11ac VHT80_CH155_Left Cheek_Ant WIFI

DUT: Smart phone;

Communication System: UID 10599 - AAC, IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle);

Frequency: 5775 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5775 \text{ MHz}$; $\sigma = 5.132 \text{ S/m}$; $\epsilon_r = 35.342$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.1°C ; Liquid Temperature: 21.8°C

DASY Configuration:

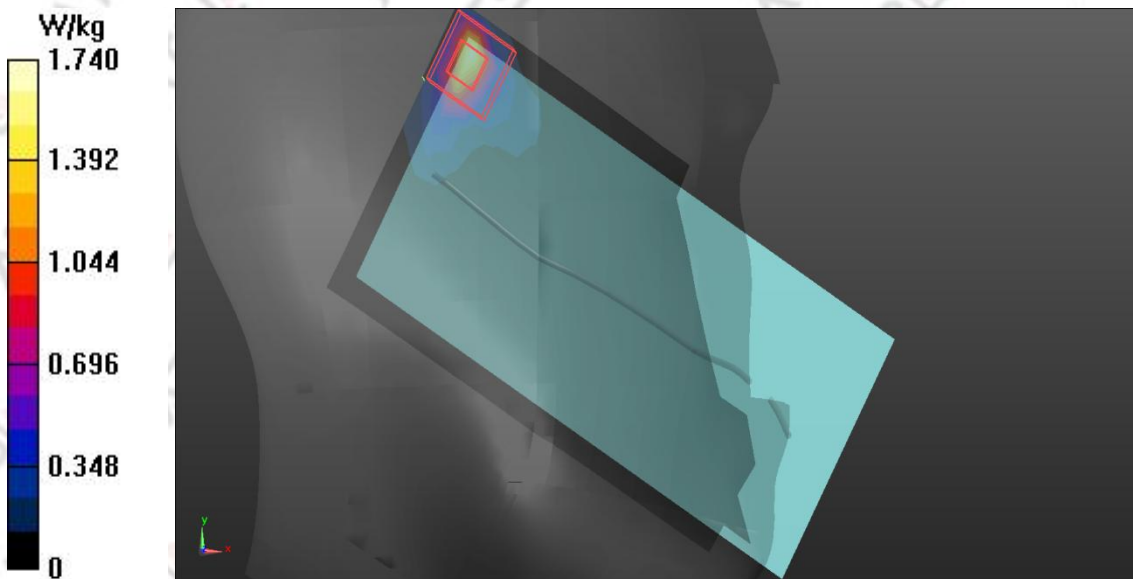
- Probe: EX3DV4 - SN7475; ConvF(4.81, 4.81, 4.81) @ 5775 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (10x19x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 1.74 W/kg
Zoom Scan (7x7x12)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2\text{mm}$

Reference Value = 5.918 V/m ; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 3.15 W/kg
SAR(1 g) = 0.794 W/kg ; SAR(10 g) = 0.209 W/kg

Maximum value of SAR (measured) = 1.95 W/kg


Test Laboratory: ATBL Inc.

Date: 2025/3/10

G31_GSM 900_GPRS 2Tx_CH60_Rear Face_0.5cm_Main SIM1

DUT: Smart phone;

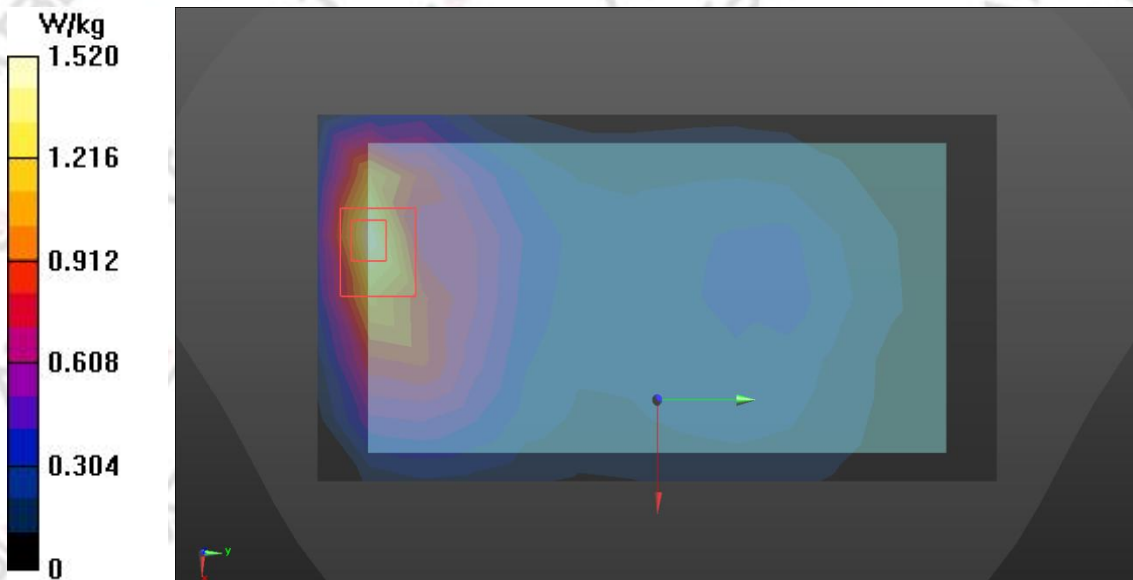
Communication System: UID 0, GPRS 2TX (0); Frequency: 902 MHz; Duty Cycle: 1:4
Medium parameters used (interpolated): $f = 902$ MHz; $\sigma = 0.888$ S/m; $\epsilon_r = 43.907$; $\rho = 1000$ kg/m³
Ambient Temperature: 22.1 °C; Liquid Temperature: 21.8 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(9.78, 9.78, 9.78) @ 902 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (7x14x1): Measurement grid: $dx=15$ mm, $dy=15$ mm
Maximum value of SAR (measured) = 1.52 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm
Reference Value = 19.54 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.82 W/kg
SAR(1 g) = 0.996 W/kg; SAR(10 g) = 0.559 W/kg
Maximum value of SAR (measured) = 1.49 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/11

G43_GSM 1800_GPRS 2Tx_CH698_Top Side_0.5cm_Main SIM1

DUT: Smart phone;

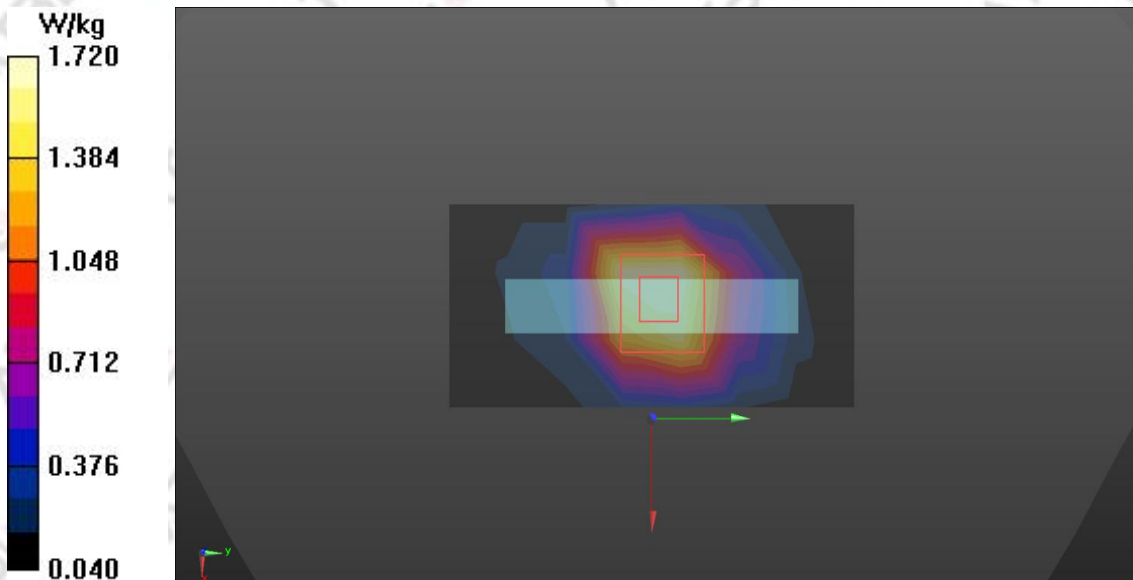
Communication System: UID 0, GPRS 2TX (0); Frequency: 1747.4 MHz; Duty Cycle: 1:4
Medium parameters used (interpolated): $f = 1747.4$ MHz; $\sigma = 1.301$ S/m; $\epsilon_r = 42.402$; $\rho = 1000$ kg/m³
Ambient Temperature: 22.2 °C; Liquid Temperature: 21.9 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(8.49, 8.49, 8.49) @ 1747.4 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (4x8x1): Measurement grid: $dx=15$ mm, $dy=15$ mm
Maximum value of SAR (measured) = 1.72 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm
Reference Value = 43.78 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 2.69 W/kg
SAR(1 g) = 1.65 W/kg; SAR(10 g) = 0.907 W/kg
Maximum value of SAR (measured) = 2.27 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/4/14

U32_UMTS B1_RMC12.2K_CH9750_Left Side_ 0.5cm_Main SIM1

DUT: Smart phone;

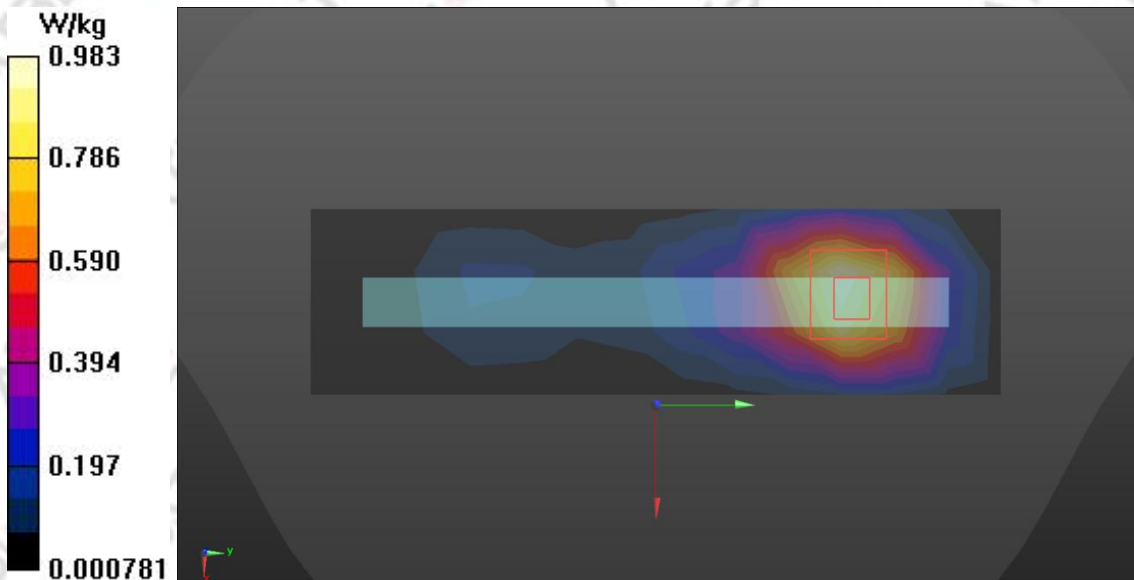
Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1950 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 1950$ MHz; $\sigma = 1.425$ S/m; $\epsilon_r = 42.134$; $\rho = 1000$ kg/m³
Ambient Temperature: 22.2 °C; Liquid Temperature: 21.9 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(8.11, 8.11, 8.11) @ 1950 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (4x14x1): Measurement grid: $dx=15$ mm, $dy=15$ mm
Maximum value of SAR (measured) = 0.983 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm
Reference Value = 11.93 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 1.85 W/kg
SAR(1 g) = 0.874 W/kg; SAR(10 g) = 0.458 W/kg
Maximum value of SAR (measured) = 1.51 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/7

U49_UMTS B8_RMC12.2K_CH2788_Rear Face_0.5cm_Main SIM1

DUT: Smart phone;

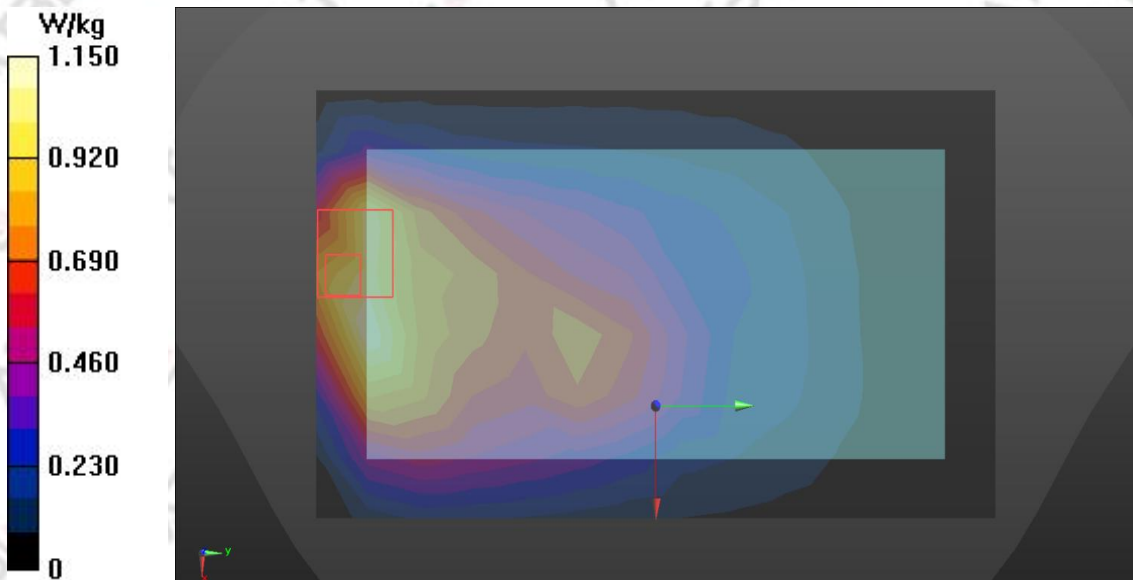
Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 897.6 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 897.6$ MHz; $\sigma = 0.887$ S/m; $\epsilon_r = 43.922$; $\rho = 1000$ kg/m³
Ambient Temperature: 22.1 °C; Liquid Temperature: 21.8 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(9.78, 9.78, 9.78) @ 897.6 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (8x14x1): Measurement grid: $dx=15$ mm, $dy=15$ mm
Maximum value of SAR (measured) = 1.15 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm
Reference Value = 24.69 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 1.90 W/kg
SAR(1 g) = 0.976 W/kg; SAR(10 g) = 0.529 W/kg
Maximum value of SAR (measured) = 1.49 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/4/15

L67_LTE B1_QPSK20M_CH18500_Left Side_1RB offset 0_0.5cm_Main SIM1

DUT: Smart phone;

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 1970 MHz;
Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1970$ MHz; $\sigma = 1.438$ S/m; $\epsilon_r = 42.109$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.1 °C; Liquid Temperature: 21.9 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(8.11, 8.11, 8.11) @ 1970 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (4x14x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 0.993 W/kg

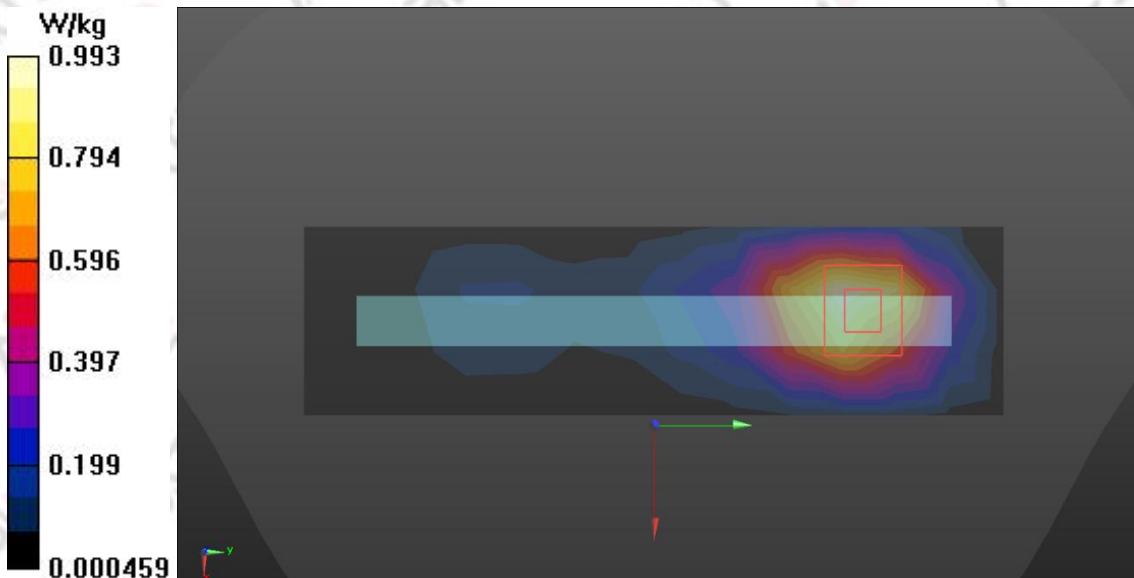
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 11.17 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.67 W/kg

SAR(1 g) = 0.814 W/kg; SAR(10 g) = 0.429 W/kg

Maximum value of SAR (measured) = 1.33 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/18

L70_LTE B3_QPSK20M_CH19300_Rear Face_1RB offset 0_0.5cm_Main SIM1

DUT: Smart phone;

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 1720 MHz;
Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1720$ MHz; $\sigma = 1.284$ S/m; $\epsilon_r = 42.446$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.6 °C; Liquid Temperature: 22.3 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(8.49, 8.49, 8.49) @ 1720 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (8x14x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 2.54 W/kg

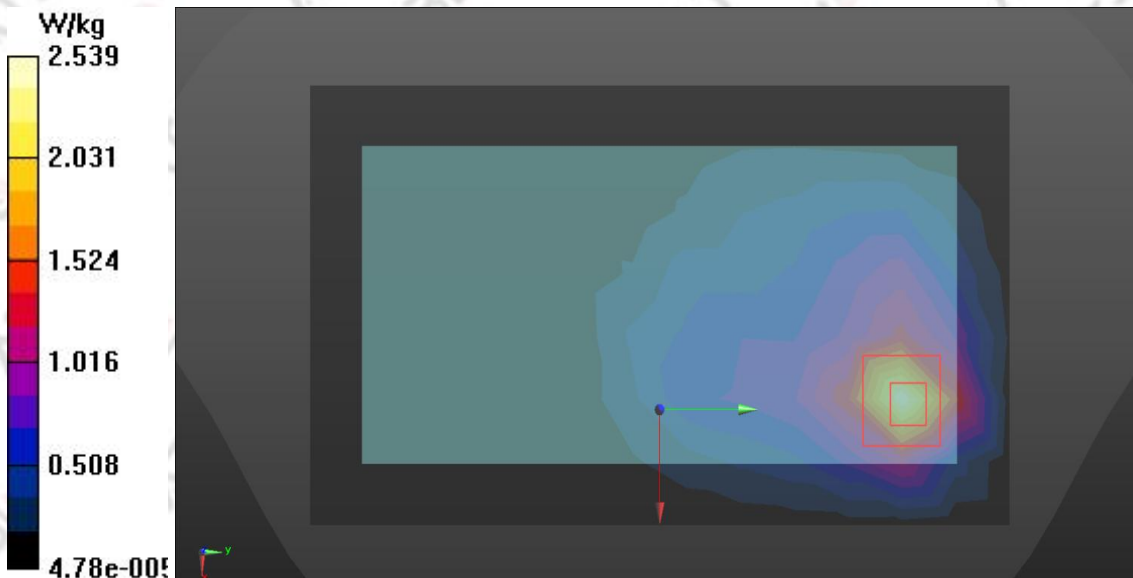
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 19.47 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 3.28 W/kg

SAR(1 g) = 1.79 W/kg; SAR(10 g) = 0.950 W/kg

Maximum value of SAR (measured) = 2.50 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/4/16

L84_LTE B7_QPSK20M_CH21100_Left Side_1RB offset 0_0.5cm_Main SIM1

DUT: Smart phone;

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 2535 MHz;
Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 2535$ MHz; $\sigma = 1.861$ S/m; $\epsilon_r = 41.262$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.1 °C; Liquid Temperature: 21.8 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(7.64, 7.64, 7.64) @ 2535 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (4x14x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 1.34 W/kg

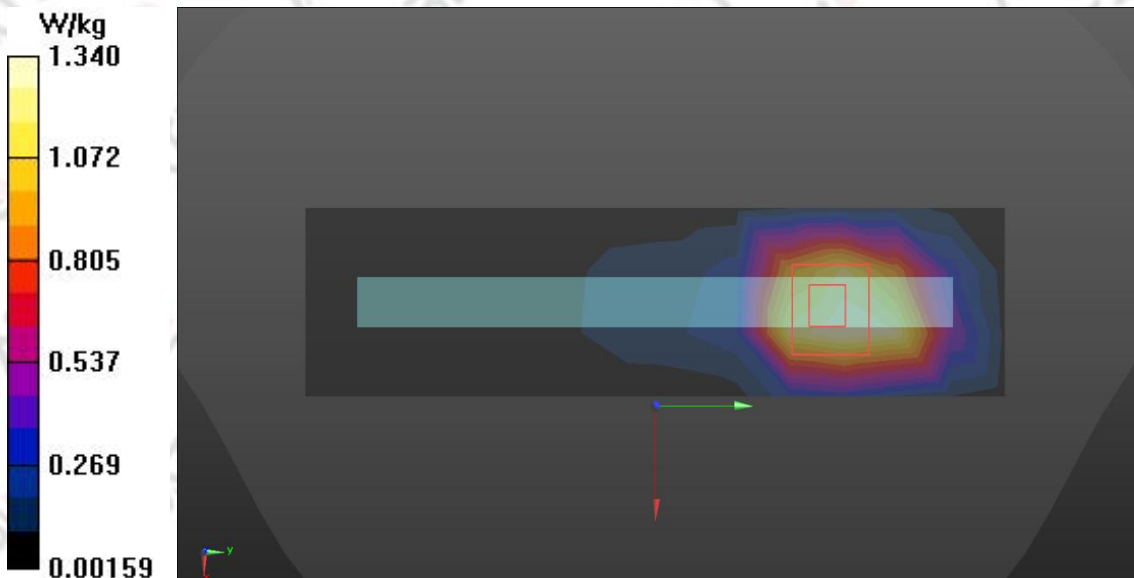
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 11.25 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 2.48 W/kg

SAR(1 g) = 1.18 W/kg; SAR(10 g) = 0.657 W/kg

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



Test Laboratory: ATBL Inc.

Date: 2025/3/17

L88_LTE B8_QPSK10M_CH21625_Rear Face_1RB offset 0_0.5cm_Main SIM1

DUT: Smart phone;

Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Frequency: 897.5 MHz;
Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 897.5$ MHz; $\sigma = 0.887$ S/m; $\epsilon_r = 43.922$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.1 °C; Liquid Temperature: 21.8 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(9.78, 9.78, 9.78) @ 897.5 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (7x14x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 2.19 W/kg

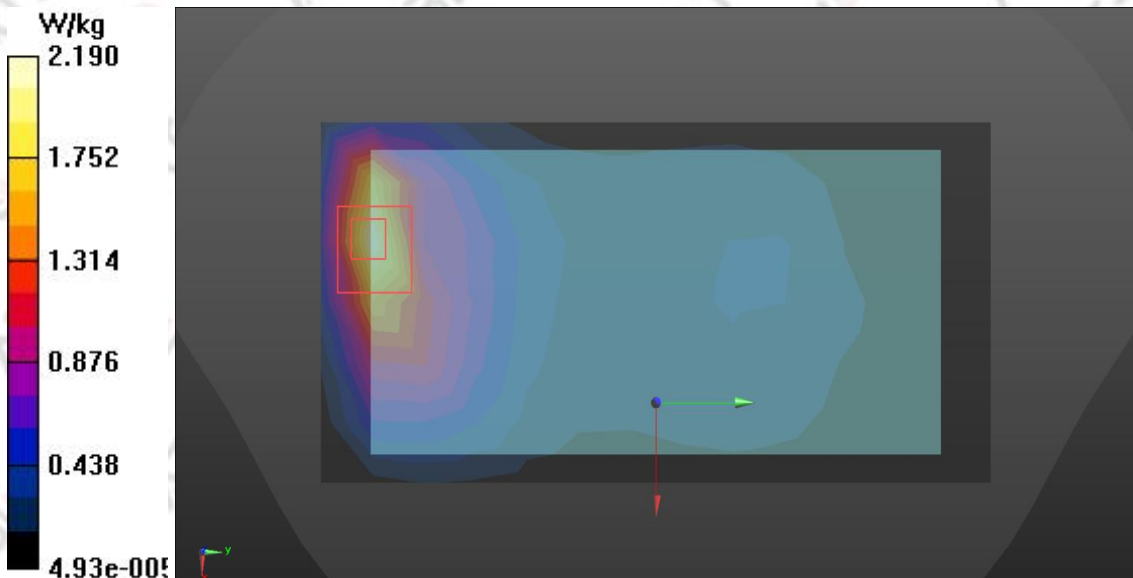
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 17.82 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 2.72 W/kg

SAR(1 g) = 1.35 W/kg; SAR(10 g) = 0.712 W/kg

Maximum value of SAR (measured) = 2.08 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/14

L97_LTE B20_QPSK10M_CH24300_Rear Face_1RB offset 0_0.5cm_Main SIM1

DUT: Smart phone;

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 847 MHz;
Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 847$ MHz; $\sigma = 0.869$ S/m; $\epsilon_r = 44.114$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.1 °C; Liquid Temperature: 21.8 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(9.84, 9.84, 9.84) @ 847 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (7x14x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 2.60 W/kg

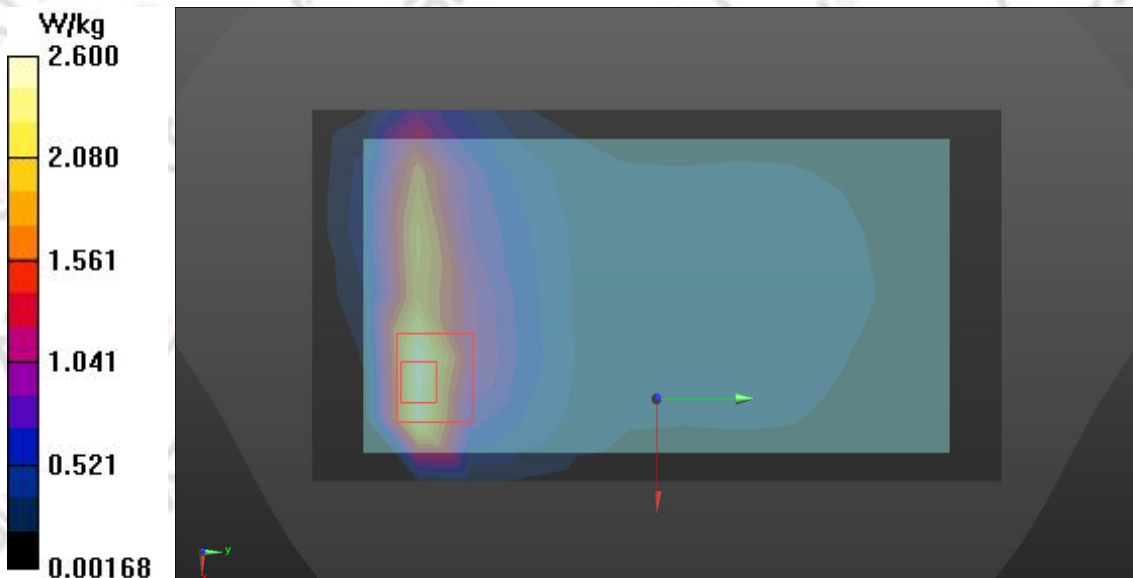
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 17.88 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 5.14 W/kg

SAR(1 g) = 1.42 W/kg; SAR(10 g) = 0.712 W/kg

Maximum value of SAR (measured) = 2.59 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/13

L108_LTE B28_QPSK10M_CH27460_Right Side_1RB offset 0_0.5cm_Main SIM1

DUT: Smart phone;

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 728 MHz;
Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 728 \text{ MHz}$; $\sigma = 0.83 \text{ S/m}$; $\epsilon_r = 44.613$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.1°C ; Liquid Temperature: 21.8°C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(10.25, 10.25, 10.25) @ 728 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (4x14x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.747 W/kg

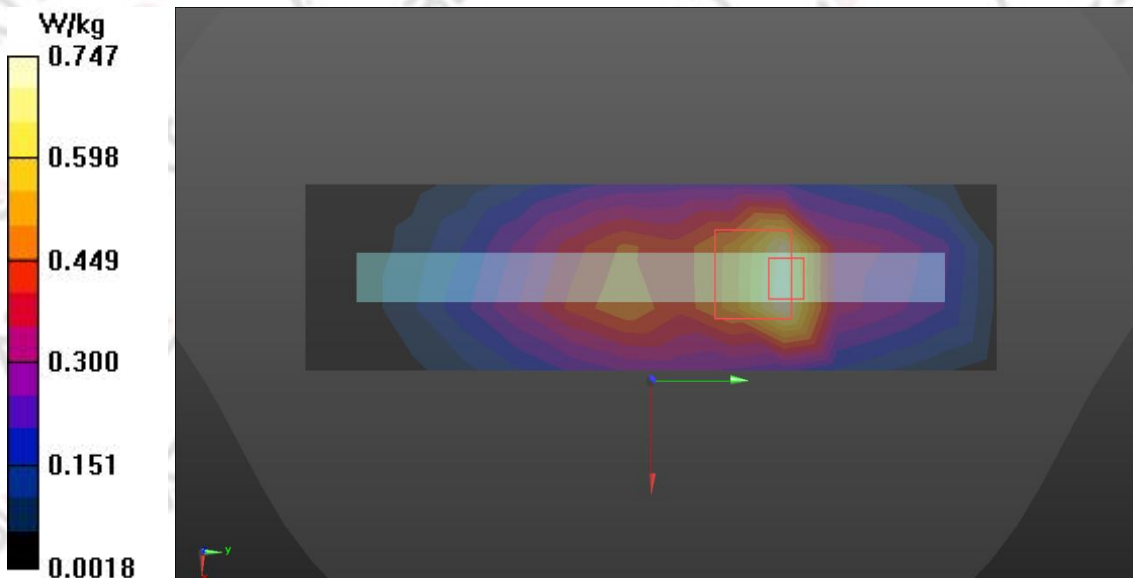
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 26.76 V/m ; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.968 W/kg

SAR(1 g) = 0.515 W/kg ; SAR(10 g) = 0.313 W/kg

Maximum value of SAR (measured) = 0.723 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/20

L121_LTE B40_QPSK20M_CH39550_Left Side_1RB offset 99_0.5cm_Main SIM1

DUT: Smart phone;

Communication System: UID 10172 - CAG, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 2390 MHz; Duty Cycle: 1:1.58

Medium parameters used (interpolated): $f = 2390$ MHz; $\sigma = 1.744$ S/m; $\epsilon_r = 41.485$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.6 °C; Liquid Temperature: 22.3 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(7.9, 7.9, 7.9) @ 2390 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (4x14x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 0.996 W/kg

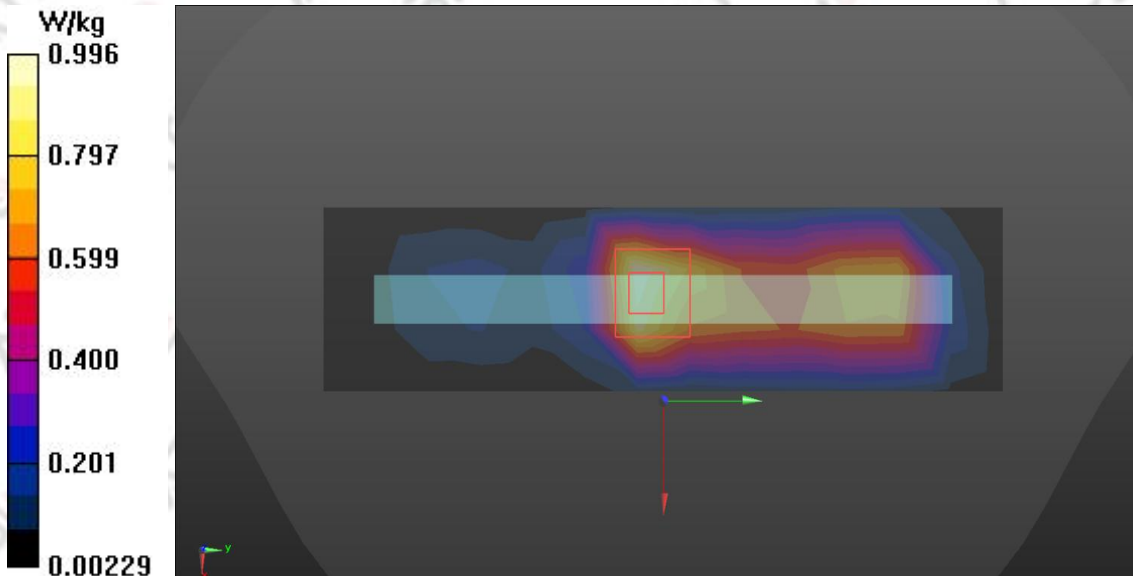
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 28.51 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.48 W/kg

SAR(1 g) = 0.856 W/kg; SAR(10 g) = 0.449 W/kg

Maximum value of SAR (measured) = 1.19 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/24

L131_LTE B41_QPSK20M_CH40620_1RB offset 99_Left Side_0.5cm_Main SIM2

DUT: Smart phone;

Communication System: UID 10172 - CAG, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 2593 MHz;
Duty Cycle: 1:1.58

Medium parameters used (interpolated): $f = 2593$ MHz; $\sigma = 1.91$ S/m; $\epsilon_r = 41.17$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.2 °C; Liquid Temperature: 21.9 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(7.4, 7.4, 7.4) @ 2593 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (4x14x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

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

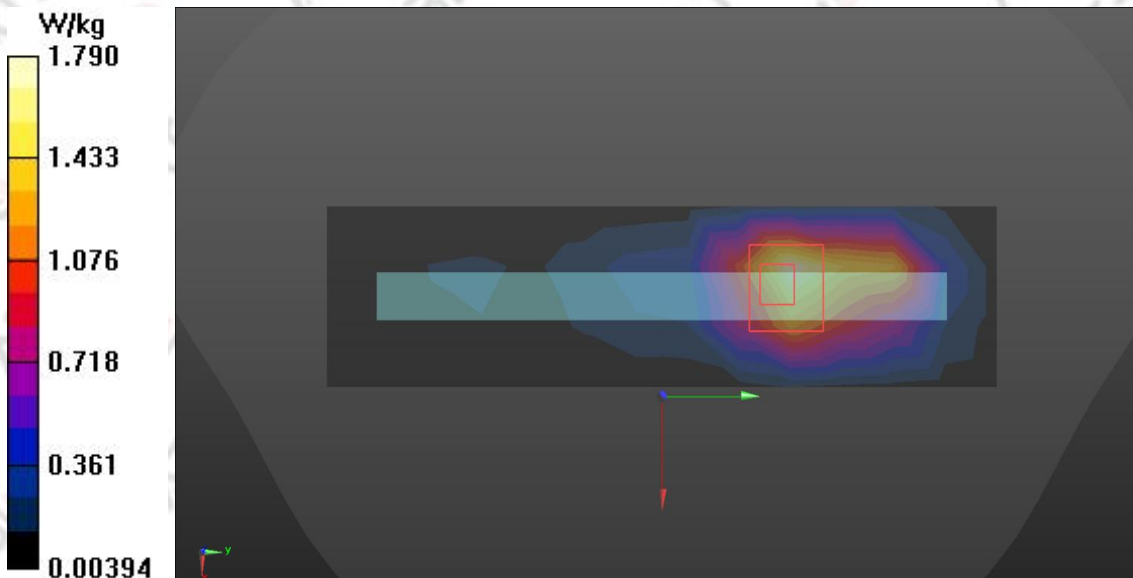
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 14.74 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 2.51 W/kg

SAR(1 g) = 1.32 W/kg; SAR(10 g) = 0.676 W/kg

Maximum value of SAR (measured) = 1.97 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/25

W27_802.11g_CH13_Front Face_0.5cm_Ant WIFI

DUT: Smart phone;

Communication System: UID 10577 - AAA, IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle); Frequency: 2412 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 2412$ MHz; $\sigma = 1.761$ S/m; $\epsilon_r = 41.452$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.2 °C; Liquid Temperature: 21.9 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(7.64, 7.64, 7.64) @ 2412 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (7x14x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 0.346 W/kg

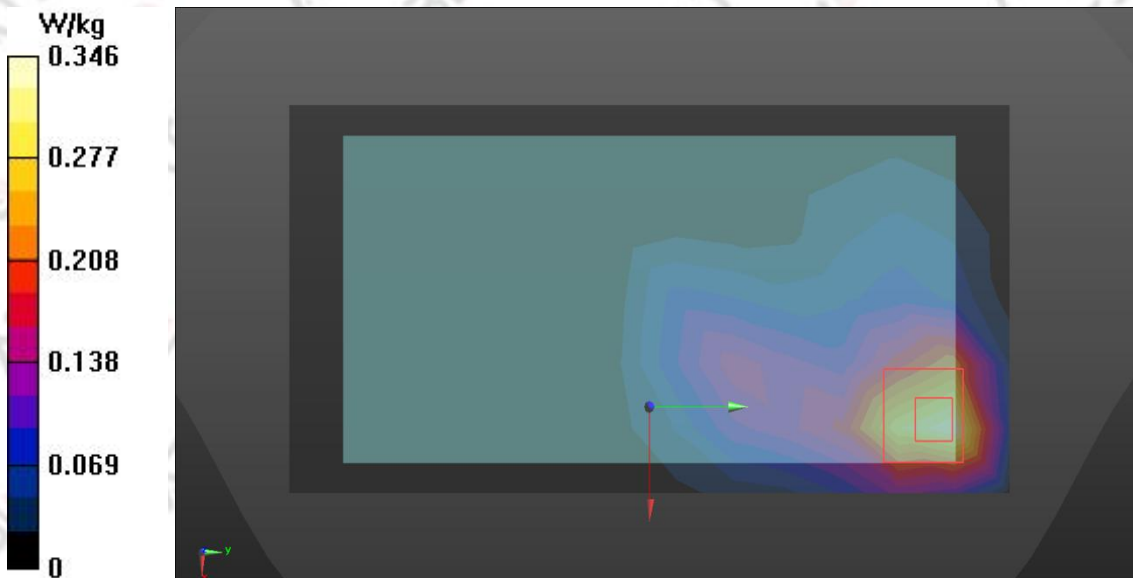
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 5.774 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.456 W/kg

SAR(1 g) = 0.236 W/kg; SAR(10 g) = 0.127 W/kg

Maximum value of SAR (measured) = 0.357 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/4/27

W35_802.11n HT40_CH38_Top Side_0.5cm_Ant WIFI

DUT: Smart phone;

Communication System: UID 10591 - AAC, IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle);

Frequency: 5190 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5190$ MHz; $\sigma = 4.52$ S/m; $\epsilon_r = 36.447$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.2 °C; Liquid Temperature: 21.9 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(5.4, 5.4, 5.4) @ 5190 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (6x12x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 4.43 W/kg

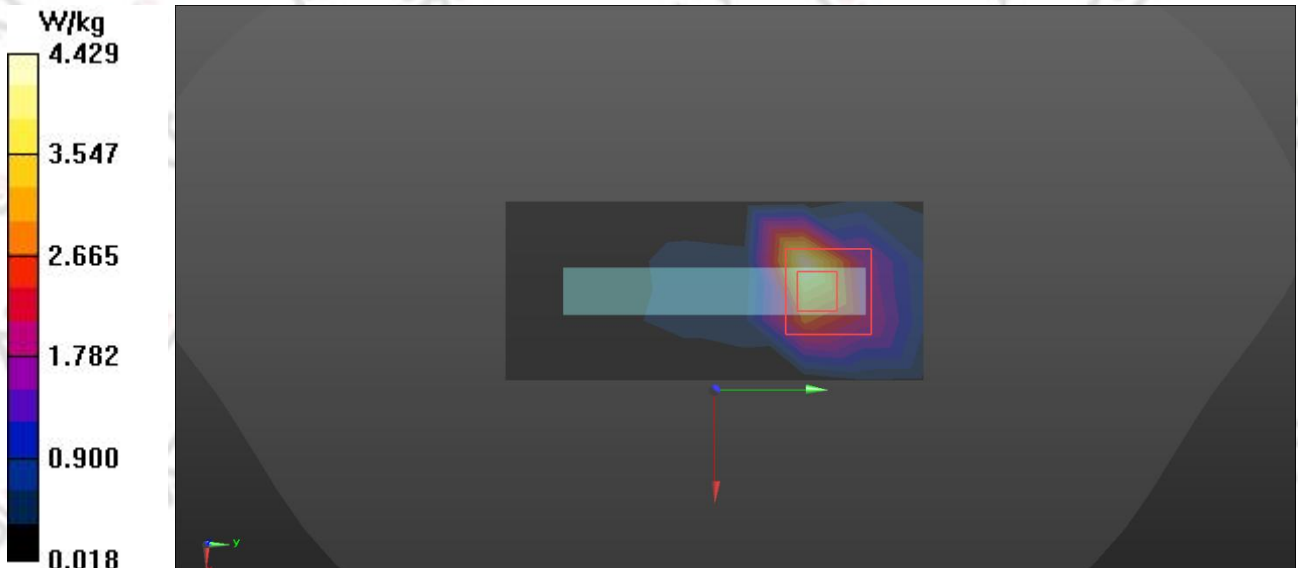
Zoom Scan (7x7x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 14.20 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 5.93 W/kg

SAR(1 g) = 1.52 W/kg; SAR(10 g) = 0.540 W/kg

Maximum value of SAR (measured) = 3.24 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/27

W41_802.11ac VHT80_CH155_Top Side_0.5cm_Ant WIFI

DUT: Smart phone;

Communication System: UID 10599 - AAC, IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle);

Frequency: 5775 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5775$ MHz; $\sigma = 5.132$ S/m; $\epsilon_r = 35.342$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.1 °C; Liquid Temperature: 21.8 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(4.81, 4.81, 4.81) @ 5775 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (6x12x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 2.38 W/kg

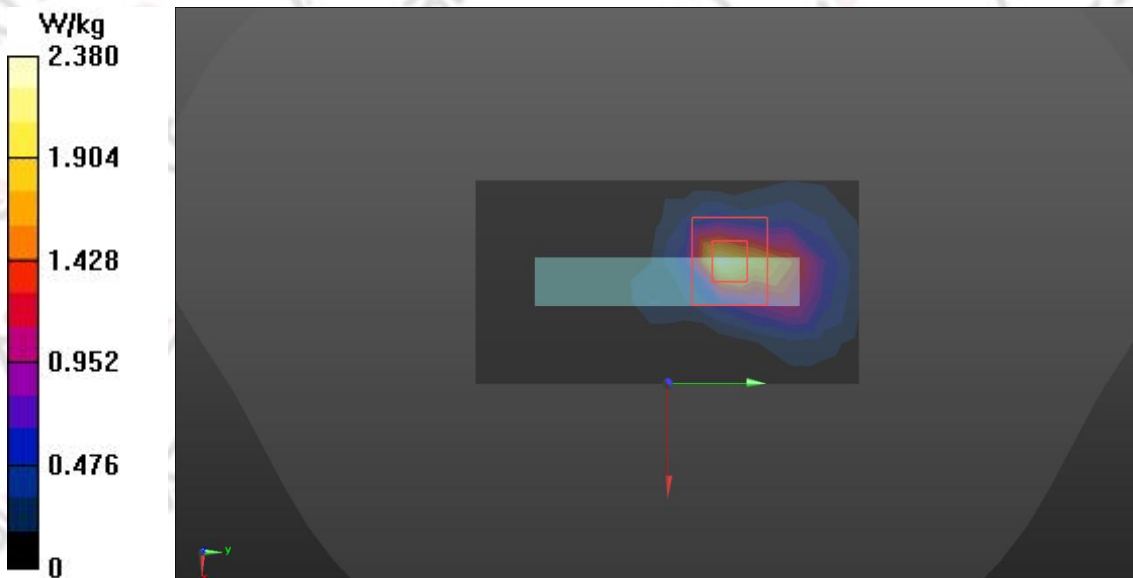
Zoom Scan (7x7x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 9.841 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 3.98 W/kg

SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.315 W/kg

Maximum value of SAR (measured) = 2.48 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/10

G56_GSM 900_GPRS 2Tx_CH975_Front Face_0cm_Main SIM1

DUT: Smart phone;

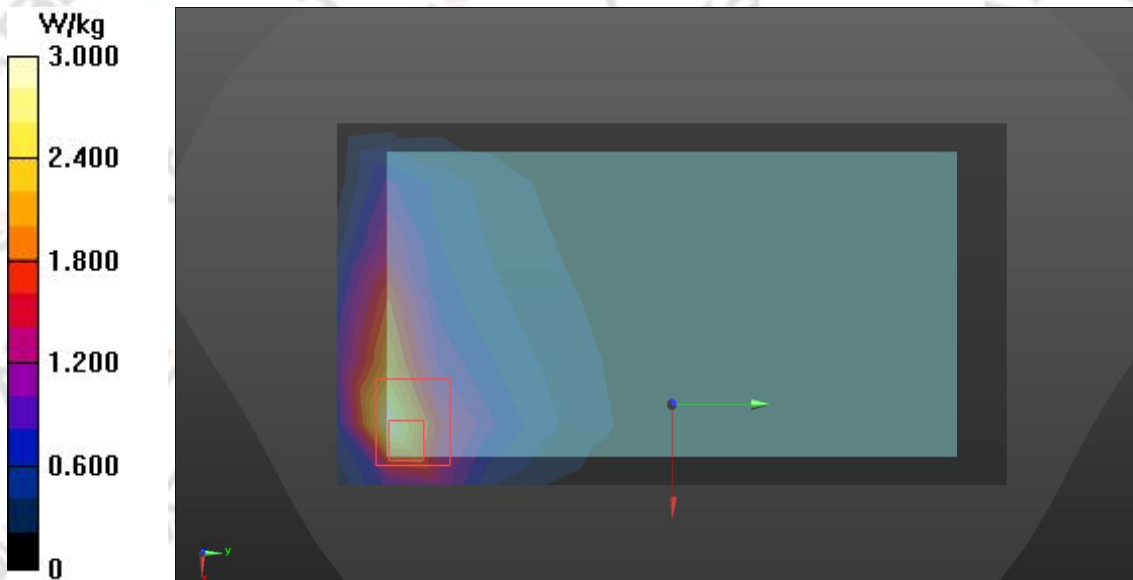
Communication System: UID 0, GPRS 2TX (0); Frequency: 880.2 MHz; Duty Cycle: 1:4
Medium parameters used (interpolated): $f = 880.2$ MHz; $\sigma = 0.881$ S/m; $\epsilon_r = 43.988$; $\rho = 1000$ kg/m³
Ambient Temperature: 22.1 °C; Liquid Temperature: 21.8 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(9.78, 9.78, 9.78) @ 880.2 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (7x14x1): Measurement grid: $dx=15$ mm, $dy=15$ mm
Maximum value of SAR (measured) = 3.00 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm
Reference Value = 9.762 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 5.64 W/kg
SAR(1 g) = 1.97 W/kg; SAR(10 g) = 0.967 W/kg
Maximum value of SAR (measured) = 3.42 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/11

G63_GSM 1800_GPRS 2Tx_CH698_Top Side_0cm_Main SIM1

DUT: Smart phone;

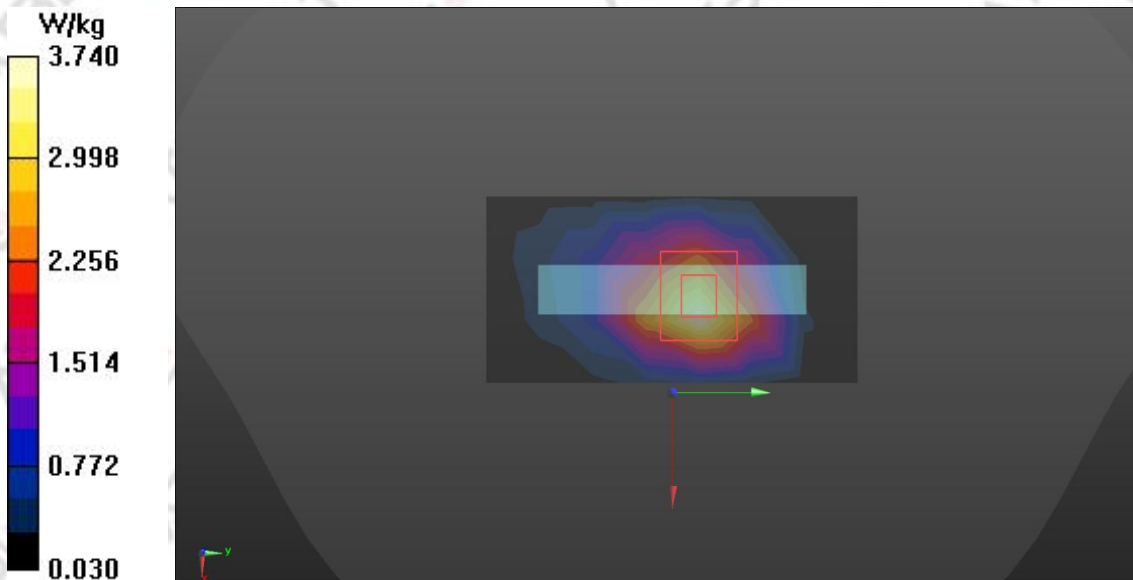
Communication System: UID 0, GPRS 2TX (0); Frequency: 1747.4 MHz; Duty Cycle: 1:4
Medium parameters used (interpolated): $f = 1747.4$ MHz; $\sigma = 1.301$ S/m; $\epsilon_r = 42.402$; $\rho = 1000$ kg/m³
Ambient Temperature: 22.2 °C; Liquid Temperature: 21.9 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(8.49, 8.49, 8.49) @ 1747.4 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (4x8x1): Measurement grid: $dx=15$ mm, $dy=15$ mm
Maximum value of SAR (measured) = 3.74 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm
Reference Value = 61.58 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 6.05 W/kg
SAR(1 g) = 3.14 W/kg; SAR(10 g) = 1.68 W/kg
Maximum value of SAR (measured) = 4.79 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/4/14

U62_UMTS B1_RMC12.2K_CH9750_Left Side_0cm_Main SIM1

DUT: Smart phone;

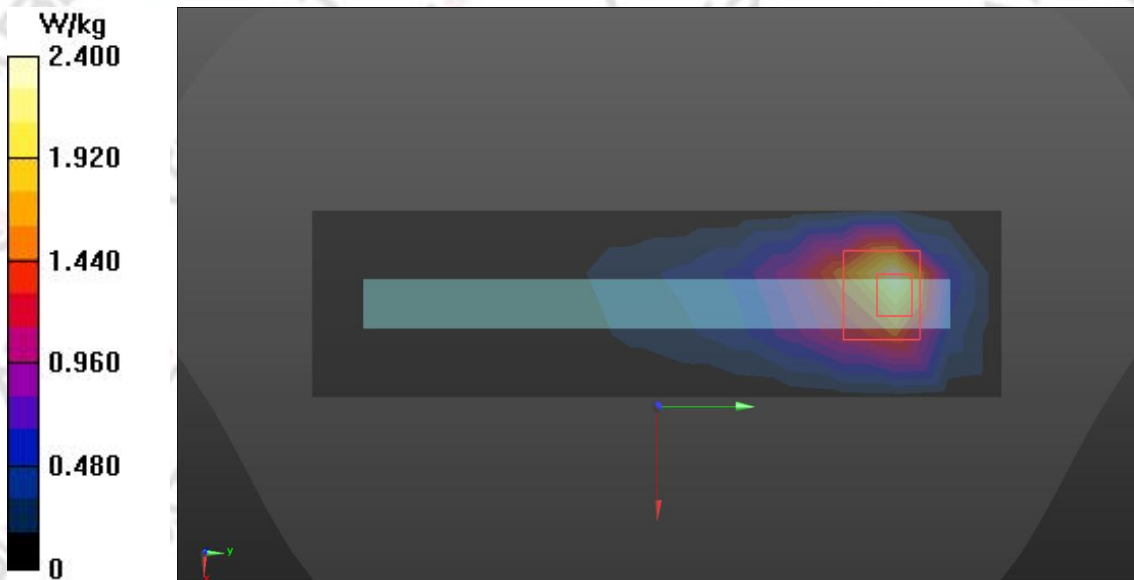
Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1950 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1950$ MHz; $\sigma = 1.443$ S/m; $\epsilon_r = 42.1$; $\rho = 1000$ kg/m³
Ambient Temperature: 22.2 °C; Liquid Temperature: 21.9 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(8.11, 8.11, 8.11) @ 1950 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (4x14x1): Measurement grid: $dx=15$ mm, $dy=15$ mm
Maximum value of SAR (measured) = 2.40 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm
Reference Value = 19.88 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 5.65 W/kg
SAR(1 g) = 2.1 W/kg; SAR(10 g) = 0.912 W/kg
Maximum value of SAR (measured) = 4.13 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/7

U74_UMTS B8_RMC12.2K_CH2712_Right Side_0cm_Main SIM1

DUT: Smart phone;

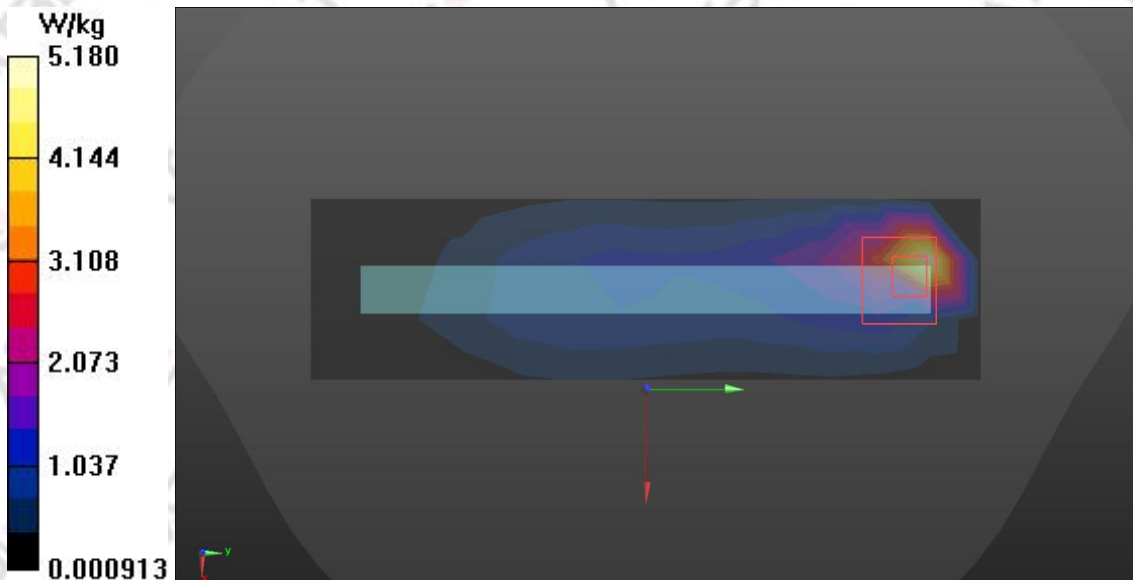
Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 897.6 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 897.6$ MHz; $\sigma = 0.887$ S/m; $\epsilon_r = 43.922$; $\rho = 1000$ kg/m³
Ambient Temperature: 22.1 °C; Liquid Temperature: 21.8 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(9.78, 9.78, 9.78) @ 897.6 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (4x14x1): Measurement grid: $dx=15$ mm, $dy=15$ mm
Maximum value of SAR (measured) = 5.18 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm
Reference Value = 58.64 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 26.2 W/kg
SAR(1 g) = 4.87 W/kg; SAR(10 g) = 1.49 W/kg
Maximum value of SAR (measured) = 13.4 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/4/15

L146_LTE B1_QPSK20M_CH18500_Left Side_1RB offset 0_0cm_Main SIM1

DUT: Smart phone;

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 1970 MHz;

Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1970$ MHz; $\sigma = 1.438$ S/m; $\epsilon_r = 42.109$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.1 °C; Liquid Temperature: 21.8 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(8.11, 8.11, 8.11) @ 1970 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (4x14x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 2.02 W/kg

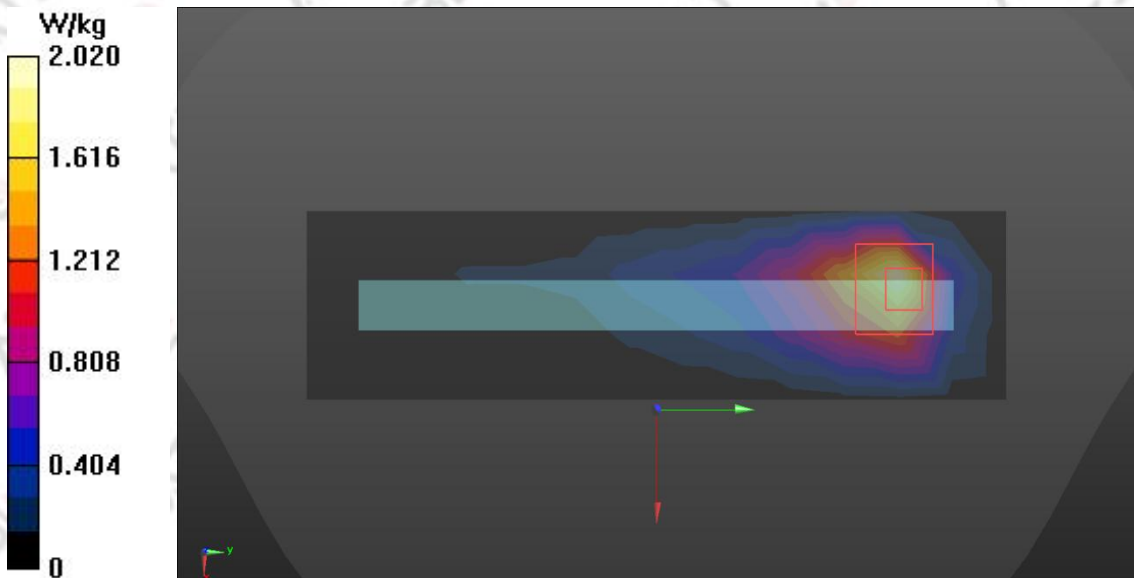
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 19.02 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 5.39 W/kg

SAR(1 g) = 2.09 W/kg; SAR(10 g) = 0.911 W/kg

Maximum value of SAR (measured) = 4.07 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/18

L151_LTE B3_QPSK20M_CH19300_Left Side_1RB offset 0_0cm_Main SIM1

DUT: Smart phone;

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 1720 MHz;
Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1720$ MHz; $\sigma = 1.284$ S/m; $\epsilon_r = 42.446$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.6 °C; Liquid Temperature: 22.3 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(8.49, 8.49, 8.49) @ 1720 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (4x14x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 5.38 W/kg

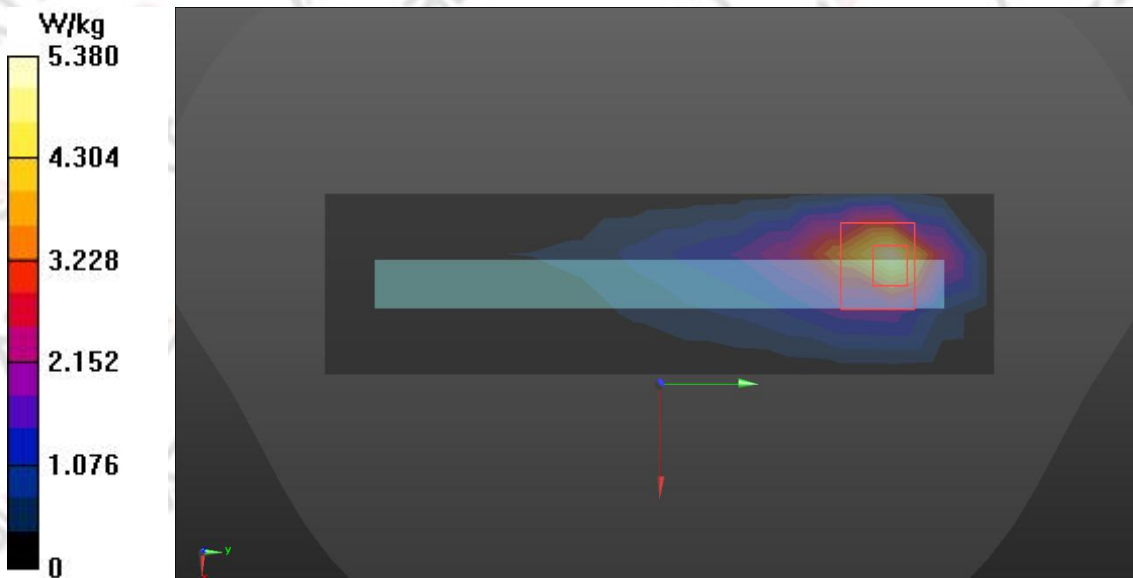
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 31.68 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 8.60 W/kg

SAR(1 g) = 3.8 W/kg; SAR(10 g) = 1.75 W/kg

Maximum value of SAR (measured) = 6.49 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/4/16

L163_LTE B7_QPSK20M_CH21100_Left Side_1RB offset 0_0cm_Main SIM1

DUT: Smart phone;

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 2535 MHz;

Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 2535$ MHz; $\sigma = 1.861$ S/m; $\epsilon_r = 41.262$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.1 °C; Liquid Temperature: 21.8 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(7.64, 7.64, 7.64) @ 2535 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (4x14x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 2.96 W/kg

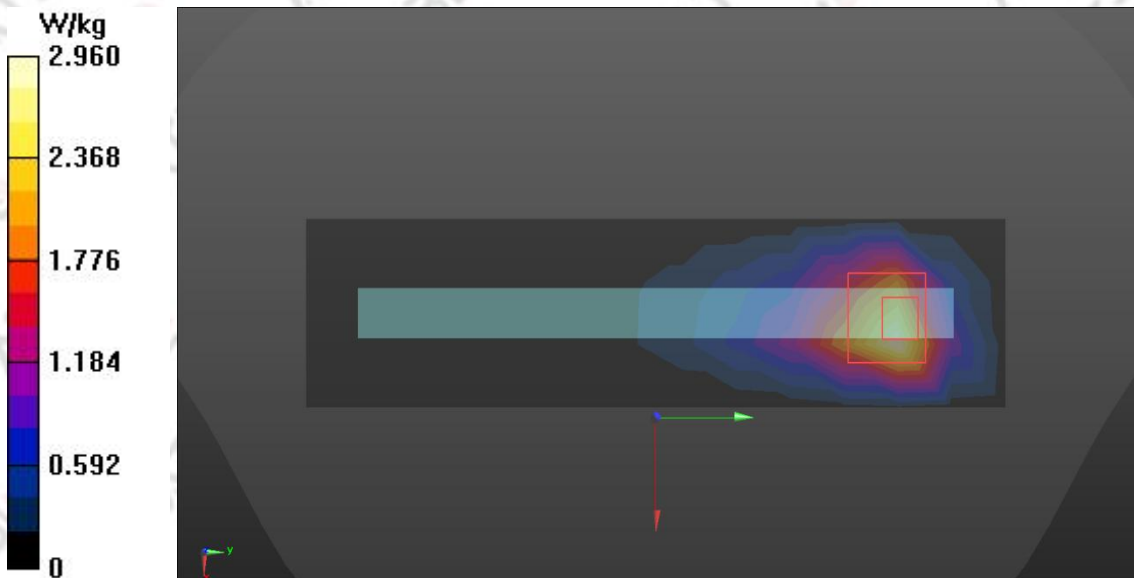
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 17.09 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 7.79 W/kg

SAR(1 g) = 3.12 W/kg; SAR(10 g) = 1.33 W/kg

Maximum value of SAR (measured) = 5.70 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/17

L174_LTE B8_QPSK10M_CH21625_Right Side_1RB offset 0_0cm_Main SIM2

DUT: Smart phone;

Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Frequency: 897.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 897.5$ MHz; $\sigma = 0.887$ S/m; $\epsilon_r = 43.922$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.1 °C; Liquid Temperature: 21.8 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(9.78, 9.78, 9.78) @ 897.5 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (4x14x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

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

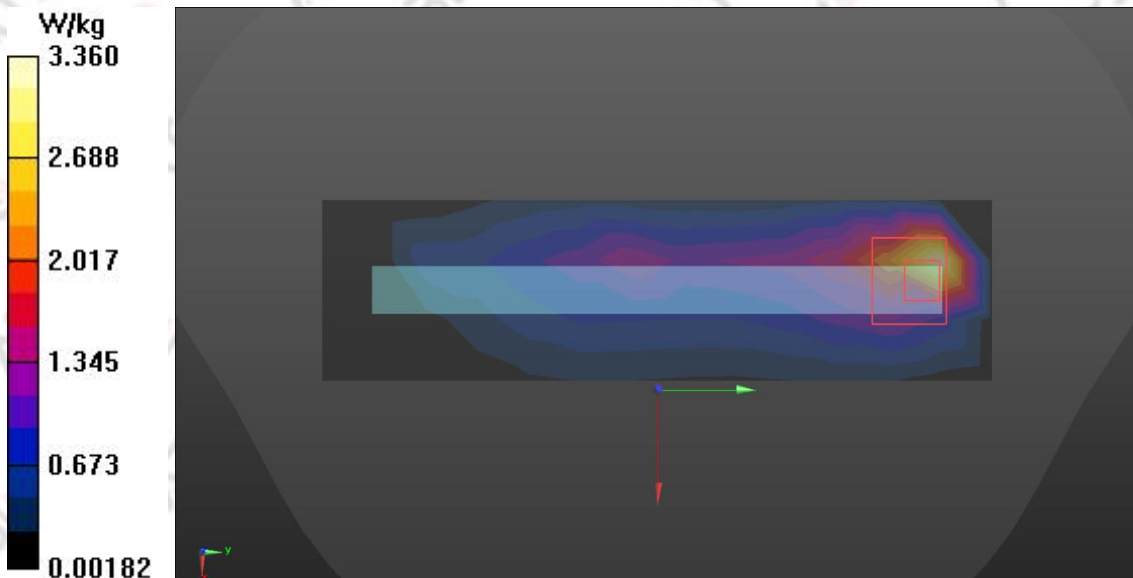
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 43.09 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 20.0 W/kg

SAR(1 g) = 4.13 W/kg; SAR(10 g) = 1.35 W/kg

Maximum value of SAR (measured) = 8.84 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/14

L179_LTE B20_QPSK10M_CH24300_Right Side_1RB offset 0_0cm_Main SIM1

DUT: Smart phone;

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 847 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 847$ MHz; $\sigma = 0.869$ S/m; $\epsilon_r = 44.114$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.1 °C; Liquid Temperature: 21.8 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(9.84, 9.84, 9.84) @ 847 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (4x14x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 1.38 W/kg

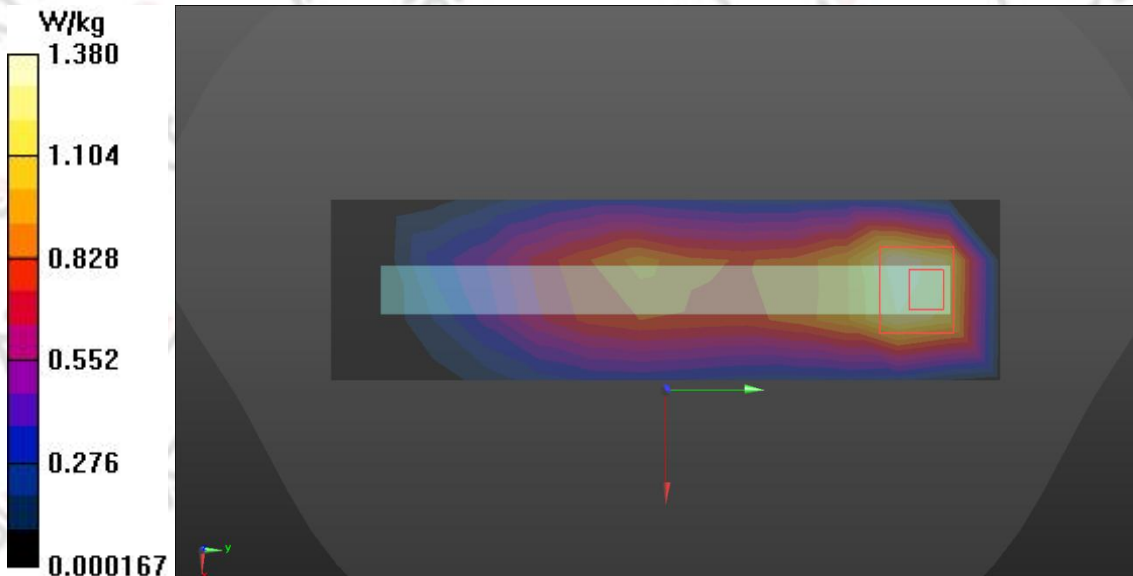
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 49.73 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 27.6 W/kg

SAR(1 g) = 3.79 W/kg; SAR(10 g) = 1.03 W/kg

Maximum value of SAR (measured) = 16.1 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/13

L186_LTE B28_QPSK20M_CH27460_Rear Face_1RB offset 0_0cm_Main SIM1

DUT: Smart phone;

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 732 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 732$ MHz; $\sigma = 0.831$ S/m; $\epsilon_r = 44.595$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.1 °C; Liquid Temperature: 21.8 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(10.25, 10.25, 10.25) @ 732 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (7x14x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 4.47 W/kg

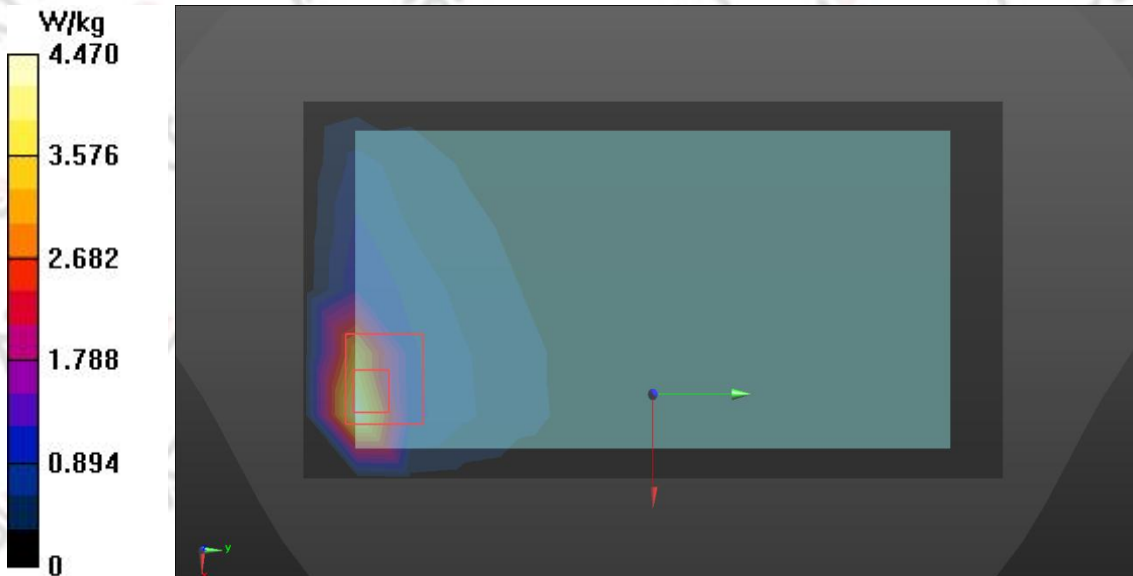
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 13.19 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 12.6 W/kg

SAR(1 g) = 2.45 W/kg; SAR(10 g) = 0.885 W/kg

Maximum value of SAR (measured) = 7.26 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/20

L199_LTE B40_QPSK20M_CH39150_Left Side_1RB offset 99_0cm_Main SIM1

DUT: Smart phone;

Communication System: UID 10172 - CAG, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 2350 MHz;
Duty Cycle: 1:1.58

Medium parameters used: $f = 2350$ MHz; $\sigma = 1.712$ S/m; $\epsilon_r = 41.549$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.6 °C; Liquid Temperature: 22.3 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(7.9, 7.9, 7.9) @ 2350 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (4x14x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 2.92 W/kg

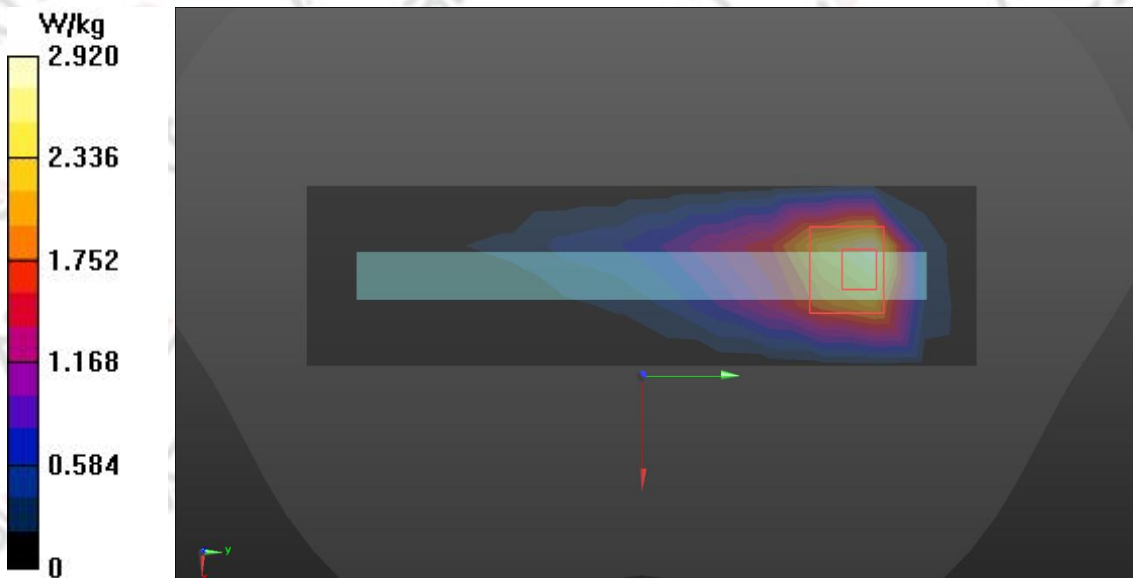
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 24.50 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 7.96 W/kg

SAR(1 g) = 3.3 W/kg; SAR(10 g) = 1.39 W/kg

Maximum value of SAR (measured) = 6.11 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/24

L210_LTE B41_QPSK20M_CH41490_1RB offset 99_Left Side_0cm_Main SIM1

DUT: Smart phone;

Communication System: UID 10172 - CAG, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 2680 MHz;
Duty Cycle: 1:1.58

Medium parameters used (interpolated): $f = 2680$ MHz; $\sigma = 1.984$ S/m; $\epsilon_r = 41.034$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.2 °C; Liquid Temperature: 21.9 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(7.4, 7.4, 7.4) @ 2680 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (4x14x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 3.13 W/kg

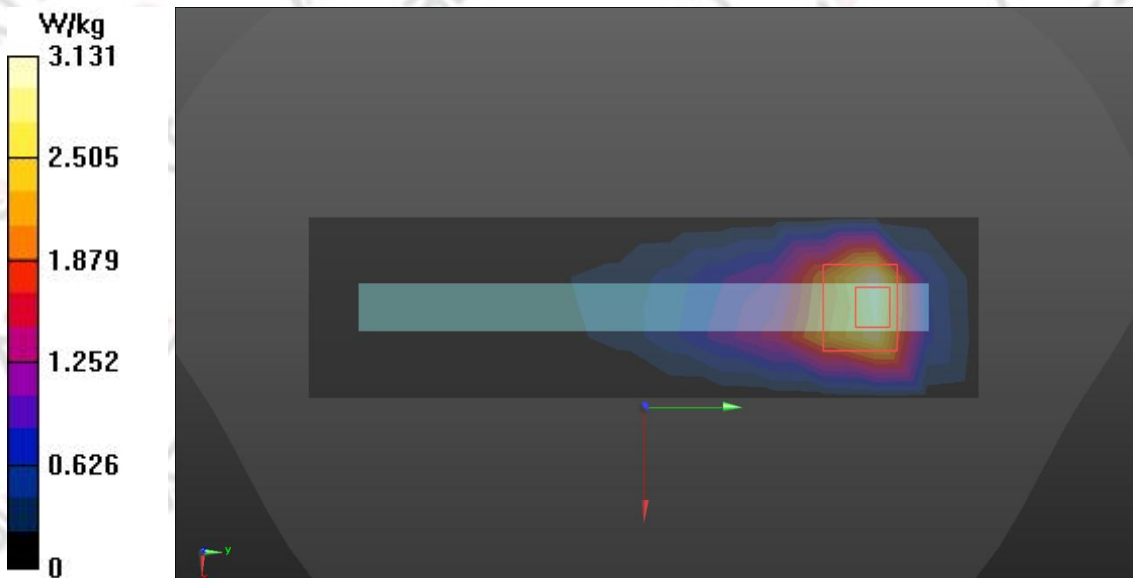
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 22.09 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 9.93 W/kg

SAR(1 g) = 3.84 W/kg; SAR(10 g) = 1.65 W/kg

Maximum value of SAR (measured) = 7.59 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/25

W52_802.11g_CH13_Right Side_0cm_Ant WIFI

DUT: Smart phone;

Communication System: UID 10577 - AAA, IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle); Frequency: 2472 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 2472$ MHz; $\sigma = 1.81$ S/m; $\epsilon_r = 41.36$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.2 °C; Liquid Temperature: 21.9 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(7.64, 7.64, 7.64) @ 2472 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (4x14x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 2.04 W/kg

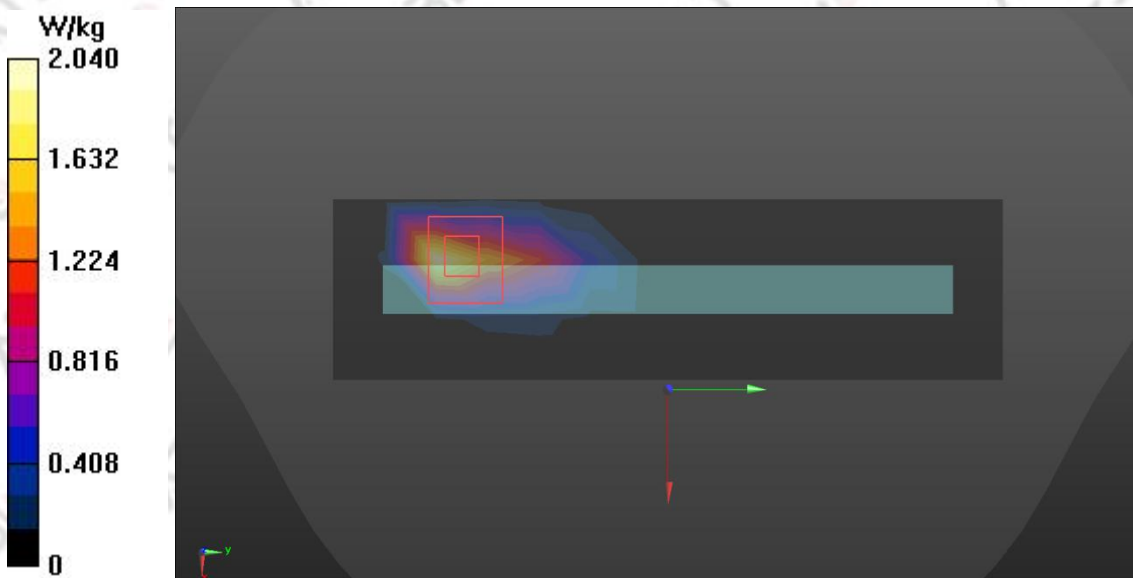
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 10.57 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 2.32 W/kg

SAR(1 g) = 0.87 W/kg; SAR(10 g) = 0.368 W/kg

Maximum value of SAR (measured) = 1.72 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/4/27

W60_802.11n HT40_CH38_Top Side_0cm_Ant WIFI

DUT: Smart phone;

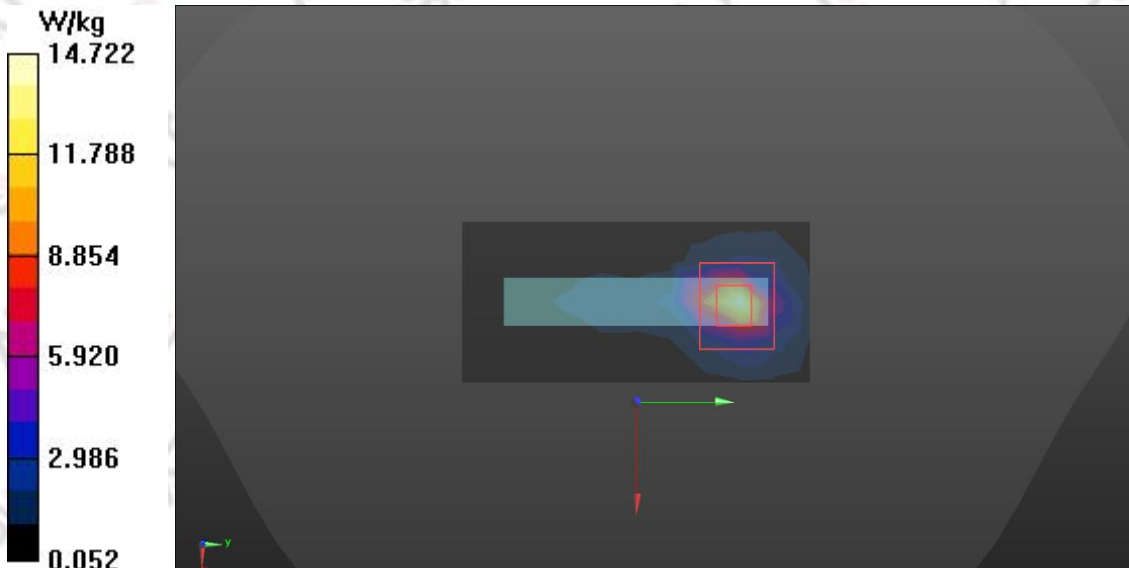
Communication System: UID 10599 - AAC, IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle);
Frequency: 5190 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 5190$ MHz; $\sigma = 4.564$ S/m; $\epsilon_r = 36.38$; $\rho = 1000$ kg/m³
Ambient Temperature: 22.2 °C; Liquid Temperature: 21.9 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(5.4, 5.4, 5.4) @ 5230 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (6x12x1): Measurement grid: $dx=10$ mm, $dy=10$ mm
Maximum value of SAR (measured) = 14.7 W/kg

Zoom Scan (7x7x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm
Reference Value = 22.51 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 31.8 W/kg
SAR(1 g) = 5.44 W/kg; SAR(10 g) = 1.34 W/kg
Maximum value of SAR (measured) = 14.7 W/kg



Test Laboratory: ATBL Inc.

Date: 2025/3/27

W66_802.11ac VHT80_CH155_Top Side_0cm_Ant WIFI

DUT: Smart phone;

Communication System: UID 10599 - AAC, IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle);

Frequency: 5775 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5775$ MHz; $\sigma = 5.132$ S/m; $\epsilon_r = 35.342$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.1 °C; Liquid Temperature: 21.8 °C

DASY Configuration:

- Probe: EX3DV4 - SN7475; ConvF(4.81, 4.81, 4.81) @ 5775 MHz; Calibrated: 2025/02/09
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn787; Calibrated: 2025/01/19
- Phantom: SAM1; Type: QD 000 P40 CC; Serial: 1461
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (6x12x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 6.37 W/kg

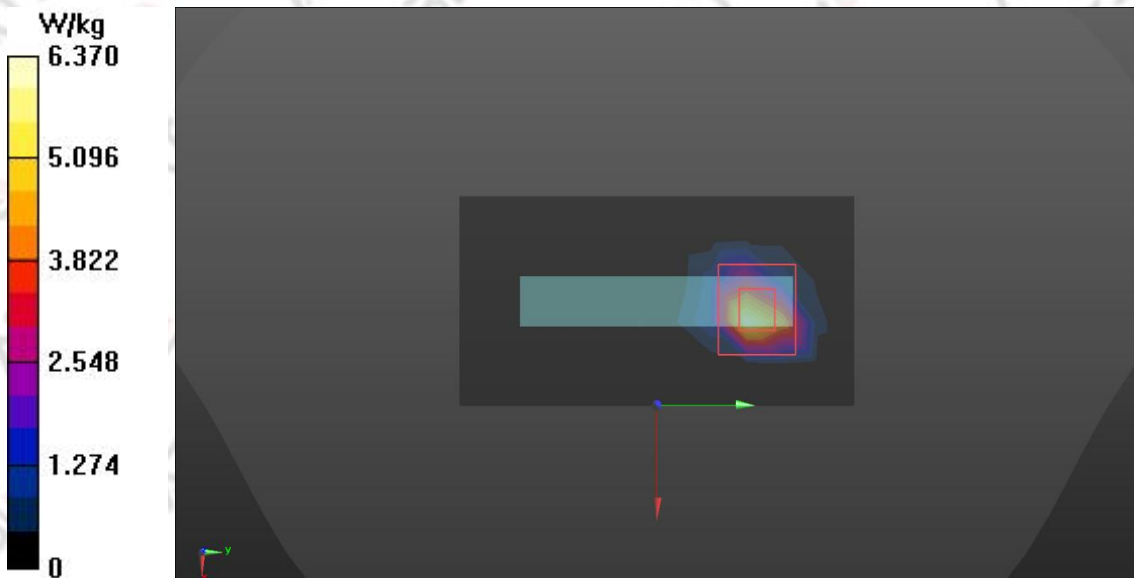
Zoom Scan (7x7x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 11.82 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 22.9 W/kg

SAR(1 g) = 3.41 W/kg; SAR(10 g) = 0.826 W/kg

Maximum value of SAR (measured) = 10.1 W/kg



Appendix C. Calibration Certificate

(Pls Refer DGATBL2503005S01_Appendix C.)

*****END OF THE REPORT*****