SAR Test Report

Report No.: AGC10211210103FH01

FCC ID	:	2AJG4-FH-V1-4G
APPLICATION PURPOSE	:	Original Equipment
PRODUCT DESIGNATION	:	FH Emergency Device - V1-4G
BRAND NAME	:	FastHelp
MODEL NAME	:	FH-V1-4G
APPLICANT	:	Universal Physicians, LLC
DATE OF ISSUE	:	Feb. 03,2021
STANDARD(S)	:	IEEE Std. 1528:2013 FCC 47 CFR Part 2§2.1093:2013 IEEE Std C95.1 ™-2005 IEC 62209-1: 2016
REPORT VERSION	:	V1.0

Attestation of Global Compliance(Shenzhen) Co., Ltd.

Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Feb. 03,2021	Valid	Initial Release

Test Report

Applicant Name	Universal Physicians, LLC
Applicant Address	7747 Supreme Street NW, North Canton, Ohio United States 44720
Manufacturer Name	SHENZHEN SMARTI-TECH LIMITED
Manufacturer Address	1103/A, Dong Fang Xin Di Building, Nanshan District, Shenzhen, China
Factory Name	SHENZHEN SMARTI-TECH LIMITED
Factory Address	1103/A, Dong Fang Xin Di Building, Nanshan District, Shenzhen, China
Product Designation	FH Emergency Device - V1-4G
Brand Name	FastHelp
Model Name	FH-V1-4G
EUT Voltage	DC3.7V by battery
Applicable Standard	IEEE Std. 1528:2013 FCC 47 CFR Part 2§2.1093:2013 IEEE Std C95.1 ™-2005 IEC 62209-1: 2016
Test Date	Jan. 16,2021 to Jan. 30,2021
Report Template	AGCRT-US-4G/SAR (2018-01-01)

Note: The results of testing in this report apply to the product/system which was tested only.

Prepared By — Thea Huang (Project Engineer) Jan. 30,2021

Reviewed By — Angela Li (Reviewer) Feb. 03,2021

Approved By — Forrest Lei (Authorized Officer) Feb. 03,2021

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1. SUMMARY OF MAXIMUM SAR VALUE

The maximum results of Specific Absorption Rate (SAR) found during testing for EUT are as follows:

Frequency Band	Highest Reported 1g-SAR(W/Kg)	SAR Test Limit (W/Kg)
	Body-worn(with 0mm separation)	
GSM 850	0.655	1.6
PCS 1900	1.174	
LTE Band 2	1.442	
LTE Band 4	0.794	
LTE Band 7	0.731	
LTE Band 12	0.273	
LTE Band 17	0.220	
LTE Band 25	1.440	
SAR Test Result	PASS	

This device is compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6W/Kg) specified in IEEE Std. 1528:2013; FCC 47CFR § 2.1093; IEEE/ANSI C95.1:2005 and the following specific FCC Test Procedures:

- KDB 447498 D01 General RF Exposure Guidance v06
- KDB 648474 D04 Handset SAR v01r03
- KDB 865664 D01 SAR Measurement 100MHz to 6GHz v01r04
- KDB 941225 D01 3G SAR Procedures v03r01
- KDB 941225 D05 SAR for LTE Devices v02r05

2. GENERAL INFORMATION

2.1. EUT Description

General Information	
Product Designation	FH Emergency Device - V1-4G
Test Model	FH-V1-4G
Hardware Version	A01_MB_V1.0
Software Version	A01_V1.0
Sample ID	210114037
Device Category	Portable
RF Exposure Environment	Uncontrolled
Antenna Type	Internal
GSM	
Support Band	☒GSM 850 ☒PCS 1900 ☐GSM 900 ☐DCS 1800
TX Frequency Range	GSM 850 : 820-850MHz; PCS 1900: 1850-1910MHz;
RX Frequency Range	GSM 850 : 869~894MHz; PCS 1900: 1930~1990MHz
Release Version	R99
Type of modulation	GMSK for GSM
Antenna Gain	GSM850: -0.65dBi; PCS1900: 0.9dBi
Max. Average Power	GSM850: 32.07dBm; PCS1900: 30.02dBm
LTE	
Support Band	☒FDD Band 2 ☒FDD Band 4 ☐FDD Band 5 ☒FDD Band 7 ☒FDD Band 12 ☒FDD Band 17 ☒FDD Band 25 ☐FDD Band 26 ☐TDD Band 41 (U.S. Bands) ☐FDD Band 1 ☐FDD Band 3 ☒FDD Band 7 ☐FDD Band 8 ☐FDD Band 20 ☐TDD Band 28 ☐TDD Band 38 (Non-U.S. Bands)
TX Frequency Range	Band 2:1850-1910MHz; Band 4:1710-1755MHz; Band 7:2500-2570MHz; Band 12:699-716MHz; Band 17: 704-716MHz; Band 25: 1850-1915MHz;
RX Frequency Range	Band 2:1930-1990MHz; Band 4:2110-2155MHz; Band 7:2620-2690MHz; Band 12: 729-746 MHz; Band 17: 734-746 MHz; Band 25: 1930-1995MHz;
Bandwidth	Band 2(1.4MHz, 3.0MHz, 5.0MHz); Band 4(1.4MHz, 3.0MHz, 5.0MHz); Band 7(5MHz); Band 12(1.4MHz, 3.0MHz, 5.0MHz); Band 17(5MHz); Band 25(1.4MHz, 3.0MHz, 5.0MHz);
Release Version	Rel-8
Type of modulation	QPSK, 16QAM
Antenna Gain	Band 2: 0.9dBi; Band 4: 0.5dBi; Band 7: -1dBi; Band 12: -10dBi; Band 17: -10dBi; Band 25: 0.7dBi;
Max. Average Power	Band 2: 21.09dBm; Band 4: 20.54dBm; Band 7:20.23dBm; Band 22.72dBm; Band 17: 21.24dBm; Band 25: 21.26dBm;

EUT Description(Continue)

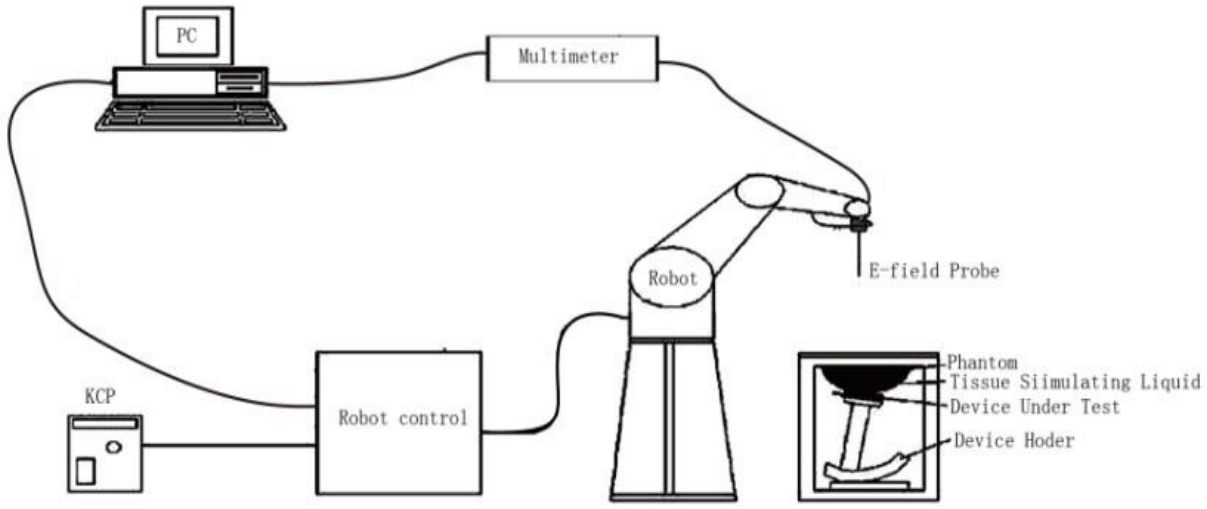
Accessories	
Battery	Brand name: SLONG Model No. : 503040 Voltage and Capacitance: 3.7 V & 55mAh

Note:1.CMU200 can measure the average power and Peak power at the same time
2.The sample used for testing is end product.
3. The test sample has no any deviation to the test method of standard mentioned in page 1.

Product	Type
	☒ Production unit ☐ Identical Prototype

3. SAR MEASUREMENT SYSTEM

3.1. The SATIMO system used for performing compliance tests consists of following items



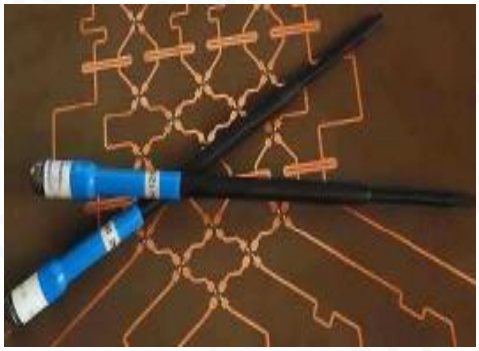
The COMOSAR system for performing compliance tests consists of the following items:

- The PC. It controls most of the bench devices and stores measurement data.A computer running WinXP and the Opensar software.
- The E-Field probe. The probe is a 3-axis system made of 3 distinct dipoles. Each dipole returns a voltage in function of the ambient electric field.
- The Keithley multimeter measures each probe dipole voltages.
- The SAM phantom simulates a human head. The measurement of the electric field is made inside the phantom.
- The liquids simulate the dielectric properties of the human head tissues.
- The network emulator controls the mobile phone under test.
- The validation dipoles are used to measure a reference SAR. They are used to periodically check the bench to make sure that there is no drift of the system characteristics over time.
- The phantom, the device holder and other accessories according to the targeted measurement.

3.2. COMOSAR E-Field Probe

The SAR measurement is conducted with the dosimetric probe manufactured by SATIMO. The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency. SATIMO conducts the probe calibration in compliance with international and national standards (e.g. IEEE 1528 and relevant KDB files.) The calibration data are in Appendix D.

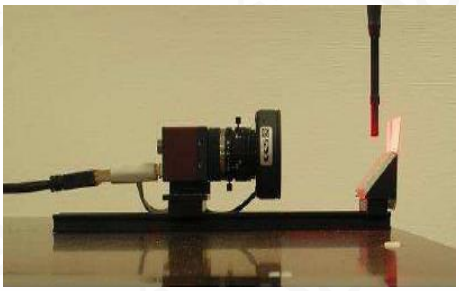
Isotropic E-Field Probe Specification

Model	SSE5	
Manufacture	MVG	
Identification No.	SN 24/20 EP336	
Frequency	0.7GHz-3GHz Linearity:±0.08dB(0.7GHz-3GHz)	
Dynamic Range	0.01W/Kg-100W/Kg Linearity:±0.08dB	
Dimensions	Overall length:330mm Length of individual dipoles:4.5mm Maximum external diameter:8mm Probe Tip external diameter:5mm Distance between dipoles/ probe extremity:2.7mm	
Application	High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 3 GHz with precisin of better 30%.	

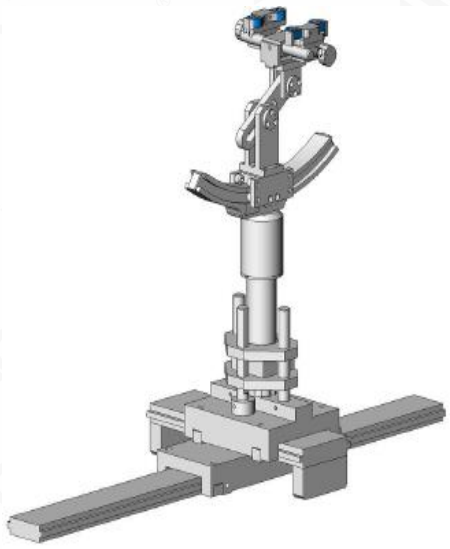
3.3. Robot

The COMOSAR system uses the KUKA robot from SATIMO SA (France).For the 6-axis controller COMOSAR system, the KUKA robot controller version from SATIMO is used. The XL robot series have many features that are important for our application: □ High precision (repeatability 0.02 mm) □ High reliability (industrial design) □ Jerk-free straight movements □ Low ELF interference (the closed metallic construction shields against motor control fields) □ 6-axis controller	

3.4. Video Positioning System

The video positioning system is used in OpenSAR to check the probe. Which is composed of a camera, LED, mirror and mechanical parts.The camera is piloted by the main computer with firewire link. During the process, the actual position of the probe tip with respect to the robot arm is measured, as well as the probe length and the horizontal probe offset. The software then corrects all movements, such that the robot coordinates are valid for the probe tip. The repeatability of this process is better than 0.1 mm. If a position has been taught with an aligned probe, the same position will be reached with another aligned probe within 0.1 mm, even if the other probe has different dimensions. During probe rotations, the probe tip will keep its actual position.	

3.5. Device Holder

The COMOSAR device holder is designed to cope with different positions given in the standard. It has two scales for the device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear reference points). The rotation center for both scales is the ear reference point (EPR). Thus the device needs no repositioning when changing the angles. The COMOSAR device holder has been made out of low-loss POM material having the following dielectric parameters: relative permittivity εr =3 and loss tangent δ = 0.02. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered.	

3.6. SAM Twin Phantom

The SAM twin phantom is a fiberglass shell phantom with 2mm shell thickness (except the ear region where shell thickness increases to 6mm). It has three measurement areas: □ Left head □ Right head □ Flat phantom	

The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. A white cover is provided to tap the phantom during off-periods to prevent water evaporation and changes in the liquid parameters. On the phantom top, three reference markers are provided to identify the phantom position with respect to the robot.

4. SAR MEASUREMENT PROCEDURE

4.1. Specific Absorption Rate (SAR)

SAR is related to the rate at which energy is absorbed per unit mass in object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and occupational/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element(dv) of given mass density (ρ). The equation description is as below:

$$SAR = \frac{d}{dt}\left(\frac{dW}{dm}\right) = \frac{d}{dt}\left(\frac{dW}{\rho dV}\right)$$

SAR is expressed in units of Watts per kilogram (W/Kg)
SAR can be obtained using either of the following equations:

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

$$SAR = c_h \frac{dT}{dt}\Big|_{t=0}$$

Where

SAR	is the specific absorption rate in watts per kilogram;
E	is the r.m.s. value of the electric field strength in the tissue in volts per meter;
σ	is the conductivity of the tissue in siemens per metre;
ρ	is the density of the tissue in kilograms per cubic metre;
c_h	is the heat capacity of the tissue in joules per kilogram and Kelvin;
$\frac{dT}{dt} \mid t = 0$	is the initial time derivative of temperature in the tissue in kelvins per second

4.2. SAR Measurement Procedure

Step 1: Power Reference Measurement

The Power Reference Measurement and Power Drift Measurement are for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface is 2.7mm This distance cannot be smaller than the distance os sensor calibration points to probe tip as `defined in the probe properties,

Step 2: Area Scan

The Area Scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in SATIMO software can find the maximum locations even in relatively coarse grids. When an Area Scan has measured all reachable points, it computes the field maximal found in the scanned area, within a range of the global maximum. The range (in db) is specified in the standards for compliance testing. For example, a 2db range is required in IEEE Standard 1528 and IEC62209 standards, whereby 3db is a requirement when compliance is assessed in accordance with the ARIB standard (Japan) If one Zoom Scan follows the Area Scan, then only the absolute maximum will be taken as reference. For cases where multiple maximum are detected, the number of Zoom Scan has to be increased accordingly.

Area Scan Parameters extracted from KDB 865664 D01 SAR Measurement 100MHz to 6GHz

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	½·δ·ln(2) ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

Step 3: Zoom Scan

Zoom Scan are used to assess the peak spatial SAR value within a cubic average volume containing 1g abd 10g of simulated tissue. The Zoom Scan measures points(refer to table below) within a cube whose base faces are centered on the maxima found in a preceding area scan job within the same procedure. When the measurement is done, the Zoom Scan evaluates the averaged SAR for 1g and 10g and displays these values next to the job's label.

Zoom Scan Parameters extracted from KDB865664 d01 SAR Measurement 100MHz to 6GHz

Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	≤ 1.5·$\Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details. * When zoom scan is required and the *reported* SAR from the *area scan based 1-g SAR estimation* procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.				

Step 4: Power Drift Measurement

The Power Drift Measurement measures the field at the same location as the most recent power reference measurement within the same procedure, and with the same settings. The Power Drift Measurement gives the field difference in dB from the reading conducted within the same settings. This allows a user to monitor the power drift of the device under test within a batch process. The measurement procedure is the same as Step 1.

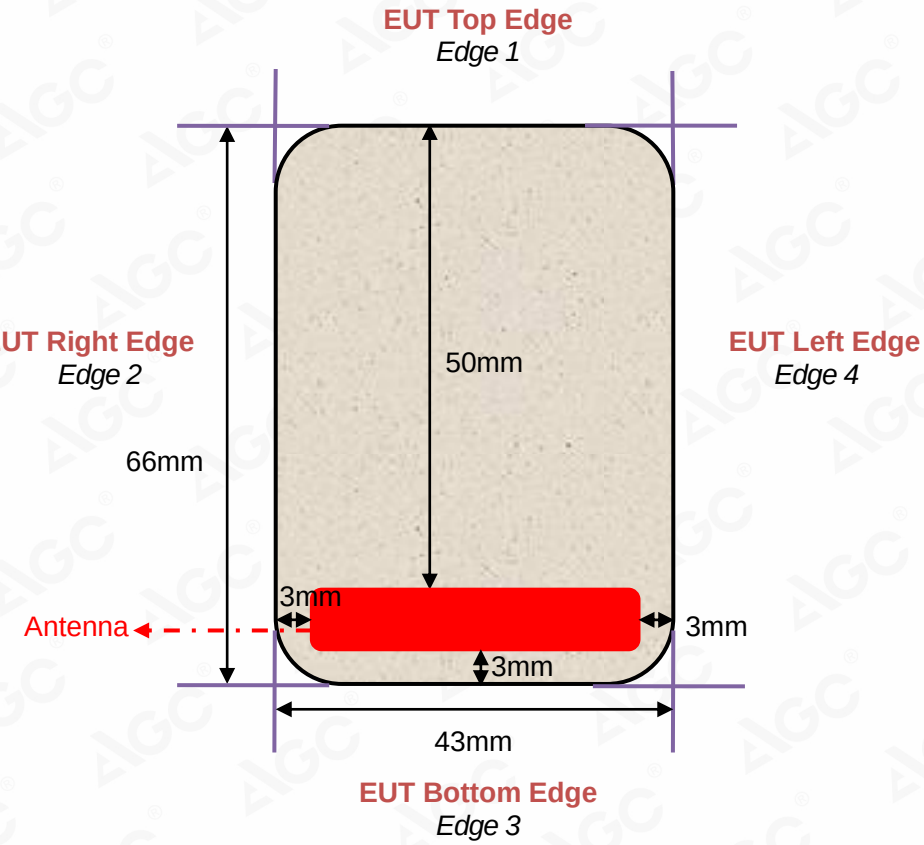
4.3. RF Exposure Conditions

Test Configuration and setting:

The EUT is a Emergency Medical Device. It supports GSM and LTE.

For WWAN SAR testing, the device was controlled by using a base station emulator. Communication between the device and the emulator were established by air link. The distance between the EUT and the antenna is larger than 50cm, and the output power radiated from the emulator antenna is at least 30db smaller than the output power of EUT.

Antenna Location: (the back view)



5. TISSUE SIMULATING LIQUID

For SAR measurement of the field distribution inside the phantom, the phantom must be filled with homogeneous tissue simulating liquid to a depth of at least 15cm. For head SAR testing the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15cm For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15cm.The nominal dielectric values of the tissue simulating liquids in the phantom and the tolerance of 10% are listed in 6.2

5.1. The composition of the tissue simulating liquid

Ingredient (% Weight) / Frequency (MHz)	Water	Nacl	Polysorbate 20	DGBE	1,2 Propanediol	Triton X-100
750 Head	35	2	0.0	0.0	63	0.0
835 Head	50.36	1.25	48.39	0.0	0.0	0.0
1750 Head	52.64	0.36	0.0	47	0.0	0.0
1900 Head	54.9	0.18	0.0	44.92	0.0	0.0
2600 Head	55.242	0.306	0	44.452	0	0

5.2. Tissue Dielectric Parameters for Head and Body Phantoms

The head tissue dielectric parameters recommended by the IEC 62209-1 have been incorporated in the following table. The body tissue dielectric parameters recommended by the IEC 62209-2 have been incorporated in the following table.

Target Frequency (MHz)	head		body	
	εr	σ (S/m)	εr	σ (S/m)
300	45.3	0.87	45.3	0.87
450	43.5	0.87	43.5	0.87
750	**41.9**	**0.89**	**41.9**	**0.89**
835	**41.5**	**0.90**	**41.5**	**0.90**
900	41.5	0.97	41.5	0.97
915	41.5	1.01	41.5	1.01
1450	40.5	1.20	40.5	1.20
1610	40.3	1.29	40.3	1.29
1750	**40.1**	**1.37**	**40.1**	**1.37**
1800 – 2000	**40.0**	**1.40**	**40.0**	**1.40**
2450	39.2	1.80	39.2	1.80
2600	**39.0**	**1.96**	**39.0**	**1.96**
3000	38.5	2.40	38.5	2.40

(εr = relative permittivity, σ = conductivity and ρ = 1000 kg/m3

5.3. Tissue Calibration Result

The dielectric parameters of the liquids were verified prior to the SAR evaluation using SATIMO Dielectric Probe Kit and R&S Network Analyzer ZVL6.

Tissue Stimulant Measurement for 750MHz					
	Fr. (MHz)	Dielectric Parameters (±10%)		Tissue Temp [°C]	Test time
		εr 41.9 (37.71-46.09)	δ[s/m] 0.89(0.801-0.979)		
Head	707.5	44.53	0.86	21.0	Jan. 28,2021
	710	43.28	0.89		
	750	42.52	0.91		

Tissue Stimulant Measurement for 835MHz					
	Fr. (MHz)	Dielectric Parameters (±10%)		Tissue Temp [°C]	Test time
		εr 41.5 (37.35-45.65)	δ[s/m] 0.90(0.81-0.99)		
Head	835	41.21	0.92	21.4	Jan. 23,2021
	836.6	40.35	0.95		

Tissue Stimulant Measurement for 1750MHz					
	Fr. (MHz)	Dielectric Parameters (±10%)		Tissue Temp [°C]	Test time
		εr 40.1 (36.09-44.11)	δ[s/m]1.37(1.233-1.507)		
Head	1732.5	40.36	1.32	21.4	Jan. 30,2021
	1750	39.61	1.35		

Tissue Stimulant Measurement for 1900MHz					
	Fr. (MHz)	Dielectric Parameters (±10%)		Tissue Temp [°C]	Test time
		εr40.00(36.00-44.00)	δ[s/m]1.40(1.26-1.54)		
Head	1850.2	41.28	1.29	19.1	Jan. 16,2021
	1852.5	40.39	1.32		
	1880	39.52	1.36		
	1882.5	39.19	1.37		
	1900	38.92	1.38		
	1907.5	37.52	1.39		
	1909.8	37.01	1.41		
	1912.5	36.56	1.43		

Tissue Stimulant Measurement for 2600MHz					
Head	Fr. (MHz)	Dielectric Parameters (±10%)		Tissue Temp [°C]	Test time
		εr39(35.1-42.9)	δ[s/m]1.96(1.764-2.156)		
	2535	40.33	1.86	21.4	Jan. 27,2021
	2600	39.54	1.89		

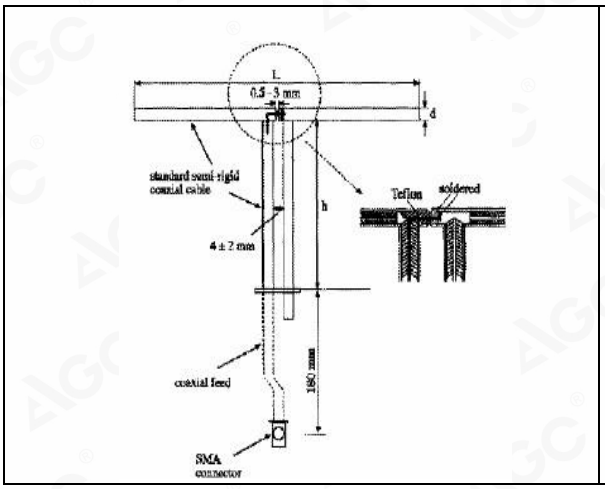
6. SAR SYSTEM CHECK PROCEDURE

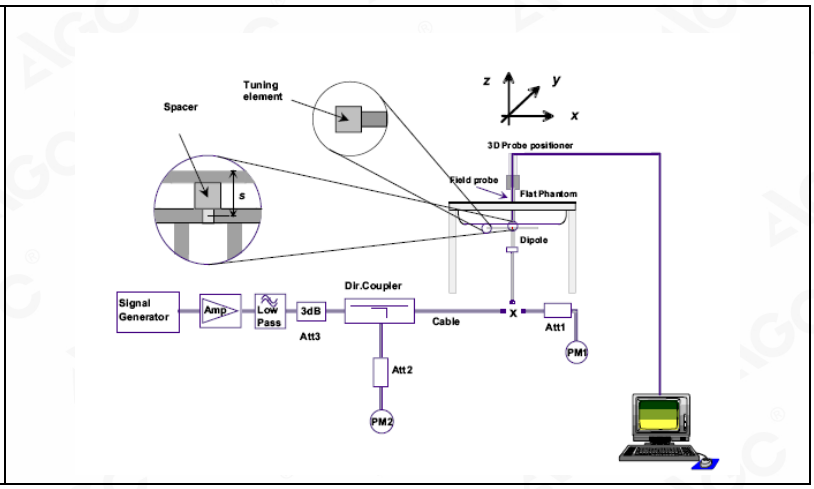
6.1. SAR System Check Procedures

SAR system check is required to confirm measurement accuracy, according to the tissue dielectric media, probe calibration points and other system operating parameters required for measuring the SAR of a test device. The system verification must be performed for each frequency band and within the valid range of each probe calibration point required for testing the device. The same SAR probe(s) and tissue-equivalent media combinations used with each specific SAR system for system verification must be used for device testing. When multiple probe calibration points are required to cover substantially large transmission bands, independent system verifications are required for each probe calibration point. A system verification must be performed before each series of SAR measurements using the same probe calibration point and tissue-equivalent medium. Additional system verification should be considered according to the conditions of the tissue-equivalent medium and measured tissue dielectric parameters, typically every three to four days when the liquid parameters are remeasured or sooner when marginal liquid parameters are used at the beginning of a series of measurements.

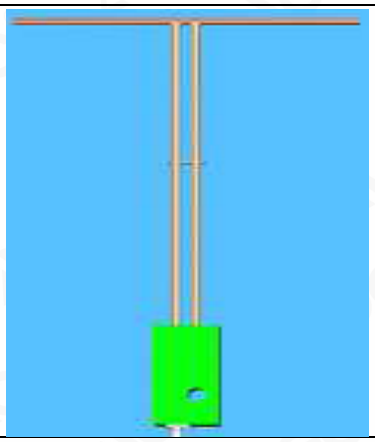
Each SATIMO system is equipped with one or more system check kits. These units, together with the predefined measurement procedures within the SATIMO software, enable the user to conduct the system check and system validation. System kit includes a dipole, and dipole device holder.

The system check verifies that the system operates within its specifications. It's performed daily or before every SAR measurement. The system check uses normal SAR measurement in the flat section of the phantom with a matched dipole at a specified distance. The system check setup is shown as below.





6.2. SAR System Check
6.2.1. Dipoles



The dipoles used is based on the IEEE-1528 standard, and is complied with mechanical and electrical specifications in line with the requirements of IEEE. the table below provides details for the mechanical and electrical
Specifications for the dipoles.

Frequency	L (mm)	h (mm)	d (mm)
750MHz	176	100	6.35
835MHz	161.0	89.8	3.6
1800MHz	71.6	41.7	3.6
1900MHz	68	39.5	3.6
2600MHz	48.5	28.8	3.6

6.2.2. System Check Result

System Performance Check at 750MHz&835MHz &1800MHz &1900MHz &2600MHz for Head								
Validation Kit: SN47/14 DIP 0G750-340& SN29/15 DIP 0G835-383& SN46/11 DIP 1G800-186& SN 46/11 DIP 1G900-187& SN 47/14 DIP 2G600-342								
Frequency [MHz]	Target Value(W/Kg)		Reference Result (± 10%)		Tested Value(W/Kg)		Tissue Temp. [°C]	Test time
	1g	10g	1g	10g	1g	10g		
750	8.31	5.45	7.479-9.141	4.905-5.995	9.01	5.66	21.0	Jan. 28,2021
835	9.85	6.27	8.865-10.835	5.643-6.897	10.03	6.37	21.4	Jan. 23,2021
1800	39.07	20.29	35.163-42.977	18.261-22.319	40.63	20.47	21.4	Jan. 30,2021
1900	40.25	20.50	36.225-44.275	18.45-22.55	39.74	20.01	19.1	Jan. 16,2021
2600	56.86	24.84	51.174-62.546	22.356-27.324	52.31	22.98	21.4	Jan. 27,2021

Note:
(1) We use a CW signal of 18dBm for system check, and then all SAR value are normalized to 1W forward power. The result must be within ±10% of target value.

7. EUT TEST POSITION

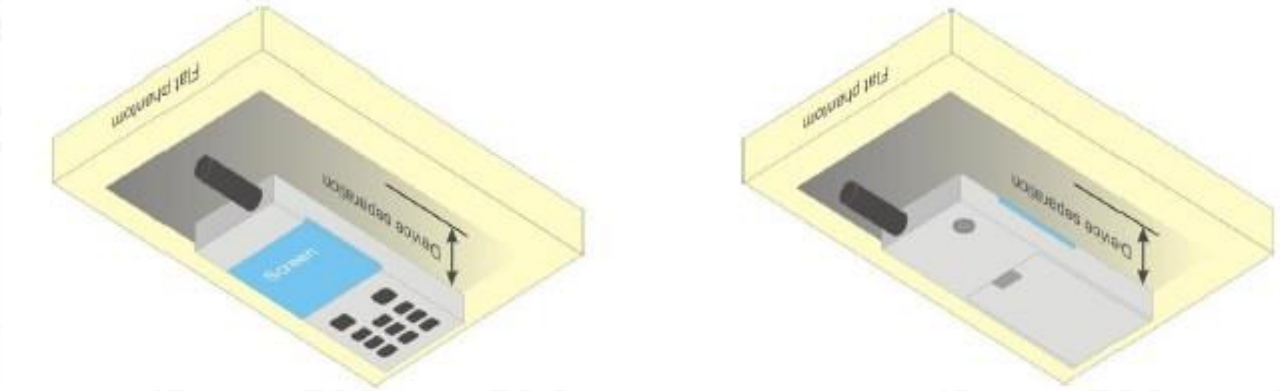
This EUT was tested in **Body back, Body front and 4 edges.**

7.1. Body Worn Position

(1) To position the EUT parallel to the phantom surface.

(2) To adjust the EUT parallel to the flat phantom.

(3) To adjust the distance between the EUT surface and the flat phantom to **0mm.**



8. SAR EXPOSURE LIMITS

Limits for General Population/Uncontrolled Exposure (W/kg)

Type Exposure	Uncontrolled Environment Limit (W/kg)
Spatial Peak SAR (1g cube tissue for brain or body)	1.60
Spatial Average SAR (Whole body)	0.08
Spatial Peak SAR (Limbs)	4.0

9. TEST FACILITY

Test Site	Attestation of Global Compliance (Shenzhen) Co., Ltd
Location	1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Designation Number	CN1259
FCC Test Firm Registration Number	975832
A2LA Cert. No.	5054.02
Description	Attestation of Global Compliance(Shenzhen) Co., Ltd is accredited by A2LA

10. TEST EQUIPMENT LIST

Equipment description	Manufacturer/ Model	Identification No.	Current calibration date	Next calibration date
SAR Probe	MVG	SN 24/20 EP336	Jun. 24,2020	Jun. 23,2021
Phantom	SATIMO	SN_4511_SAM90	Validated. No cal required.	Validated. No cal required.
Liquid	SATIMO	-	Validated. No cal required.	Validated. No cal required.
Comm Tester	Agilent-8960	GB46310822	Aug. 21,2020	Aug. 20,2021
Comm Tester	R&S- CMW500	121209	Aug. 21,2020	Aug. 20,2021
Multimeter	Keithley 2000	1350784	Sep. 07,2020	Sep. 06,2021
Dipole	SATIMO SID750	SN47/14 DIP 0G750-340	Apr. 26,2019	Apr. 25,2022
Dipole	SATIMO SID835	SN29/15 DIP 0G835-383	Apr. 26,2019	Apr. 25,2022
Dipole	SATIMO SID1800	SN46/11 DIP 1G800-186	Apr. 26,2019	Apr. 25,2022
Dipole	SATIMO SID1900	SN 46/11 DIP 1G900-187	Apr. 26,2019	Apr. 25,2022
Dipole	SATIMO SID2600	SN 47/14 DIP 2G600-342	Apr. 26,2019	Apr. 25,2022
Signal Generator	Agilent-E4438C	US41461365	Aug. 21,2020	Aug. 20,2021
Vector Analyzer	Agilent / E4440A	US41421290	Sep. 06,2020	Sep. 05,2021
Network Analyzer	Rhode & Schwarz ZVL6	SN101443	Oct. 16,2020	Oct. 15,2021
Attenuator	Warison /WATT-6SR1211	S/N:WRJ34AYM2F1	June 10,2020	June 09,2021
Attenuator	Mini-circuits / VAT-10+	31405	June 10,2020	June 09,2021
Amplifier	AS0104-55_55	1004793	June 11,2020	June 10,2021
Directional Couple	Werlatone/ C5571-10	SN99463	May 15,2020	May 14,2022
Directional Couple	Werlatone/ C6026-10	SN99482	May 15,2020	May 14,2022
Power Sensor	NRP-Z21	1137.6000.02	Sep. 08,2020	Sep. 07,2021
Power Sensor	NRP-Z23	100323	Feb. 18,2020	Feb. 17,2021
Power Viewer	R&S	V2.3.1.0	N/A	N/A

Note: Per KDB 865664 Dipole SAR Validation, AGC Lab has adopted 3 years calibration intervals. On annual basis, every measurement dipole has been evaluated and is in compliance with the following criteria:
1. There is no physical damage on the dipole;
2. System validation with specific dipole is within 10% of calibrated value;
3. Return-loss is within 20% of calibrated measurement;
4. Impedance is within 5Ω of calibrated measurement.

11. MEASUREMENT UNCERTAINTY

SATIMO Uncertainty- SN 24/20 EP336 Measurement uncertainty for DUT averaged over 1 gram / 10 gram.									
Uncertainty Component	Sec.	Tol (+- %)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+-%)	10g Ui (+-%)	vi
Measurement System									
Probe calibration	E.2.1	7.000	N	1	1	1	7.000	7.000	∞
Axial Isotropy	E.2.2	0.105	R	$\sqrt{3}$	√0.5	√0.5	0.043	0.043	∞
Hemispherical Isotropy	E.2.2	0.105	R	$\sqrt{3}$	√0.5	√0.5	0.043	0.043	∞
Boundary effect	E.2.3	1.000	R	$\sqrt{3}$	1	1	0.577	0.577	∞
Linearity	E.2.4	0.870	R	$\sqrt{3}$	1	1	0.502	0.502	∞
System detection limits	E.2.4	1.000	R	$\sqrt{3}$	1	1	0.577	0.577	∞
Modulation response	E2.5	3.000	R	$\sqrt{3}$	1	1	1.732	1.732	∞
Readout Electronics	E.2.6	0.021	N	1	1	1	0.021	0.021	∞
Response Time	E.2.7	0.000	R	$\sqrt{3}$	1	1	0.000	0.000	∞
Integration Time	E.2.8	1.400	R	$\sqrt{3}$	1	1	0.808	0.808	∞
RF ambient conditions-Noise	E.6.1	3.000	R	$\sqrt{3}$	1	1	1.732	1.732	∞
RF ambient conditions-reflections	E.6.1	3.000	R	$\sqrt{3}$	1	1	1.732	1.732	∞
Probe positioner mechanical tolerance	E.6.2	1.400	R	$\sqrt{3}$	1	1	0.808	0.808	∞
Probe positioning with respect to phantom shell	E.6.3	1.400	R	$\sqrt{3}$	1	1	0.808	0.808	∞
Extrapolation, interpolation, and integrations algorithms for max. SAR evaluation	E.5	2.300	R	$\sqrt{3}$	1	1	1.328	1.328	∞
Test sample Related									
Test sample positioning	E.4.2	2.6	N	1	1	1	2.600	2.600	∞
Device holder uncertainty	E.4.1	3	N	1	1	1	3.000	3.000	∞
Output power variation—SAR drift measurement	E.2.9	5	R	$\sqrt{3}$	1	1	2.887	2.887	∞
SAR scaling	E.6.5	5	R	$\sqrt{3}$	1	1	2.887	2.887	∞
Phantom and tissue parameters									
Phantom shell uncertainty—shape, thickness, and permittivity	E.3.1	4	R	$\sqrt{3}$	1	1	2.309	2.309	∞
Uncertainty in SAR correction for deviations in permittivity and conductivity	E.3.2	1.9	N	1	1	0.84	1.900	1.596	∞
Liquid conductivity measurement	E.3.3	2.5	R	$\sqrt{3}$	0.78	0.71	1.126	1.025	∞
Liquid permittivity measurement	E.3.3	4	N	1	0.78	0.71	3.120	2.840	M
Liquid conductivity—temperature uncertainty	E.3.4	2.5	R	$\sqrt{3}$	0.23	0.26	0.332	0.375	∞
Liquid permittivity—temperature uncertainty	E.3.4	5	N	1	0.23	0.26	1.150	1.300	M
Combined Standard Uncertainty			RSS				10.525	10.341	
Expanded Uncertainty (95% Confidence interval)			K=2				21.051	20.681	

SATIMO Uncertainty- SN 24/20 EP336 System Validation uncertainty for DUT averaged over 1 gram / 10 gram.									
Uncertainty Component	Sec.	Tol (+- %)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+-%)	10g Ui (+-%)	vi
Measurement System									
Probe calibration	E.2.1	7	N	1	1	1	7.000	7.000	∞
Axial Isotropy	E.2.2	0.105	R	$\sqrt{3}$	1	1	0.061	0.061	∞
Hemispherical Isotropy	E.2.2	0.105	R	$\sqrt{3}$	0	0	0.000	0.000	∞
Boundary effect	E.2.3	1	R	$\sqrt{3}$	1	1	0.577	0.577	∞
Linearity	E.2.4	0.870	R	$\sqrt{3}$	1	1	0.502	0.502	∞
System detection limits	E.2.4	1.0	R	$\sqrt{3}$	1	1	0.58	0.58	∞
Modulation response	E2.5	3.0	R	$\sqrt{3}$	0	0	0.00	0.00	∞
Readout Electronics	E.2.6	0.021	N	1	1	1	0.021	0.021	∞
Response Time	E.2.7	0.0	R	$\sqrt{3}$	0	0	0.00	0.00	∞
Integration Time	E.2.8	1.4	R	$\sqrt{3}$	0	0	0.00	0.00	∞
RF ambient conditions-Noise	E.6.1	3.0	R	$\sqrt{3}$	1	1	1.73	1.73	∞
RF ambient conditions-reflections	E.6.1	3.0	R	$\sqrt{3}$	1	1	1.73	1.73	∞
Probe positioner mechanical tolerance	E.6.2	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
Probe positioning with respect to phantom shell	E.6.3	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
Extrapolation, interpolation, and integrations algorithms for max. SAR evaluation	E.5	2.3	R	$\sqrt{3}$	1	1	1.33	1.33	∞
System validation source									
Deviation of experimental dipole from numerical dipole	E.6.4	5.0	N	1	1	1	5.00	5.00	∞
Input power and SAR drift measurement	8,6.6.4	5.0	R	$\sqrt{3}$	1	1	2.89	2.89	∞
Dipole axis to liquid distance	8,E.6.6	2.0	R	$\sqrt{3}$	1	1	1.15	1.15	∞
Phantom and set-up									
Phantom shell uncertainty—shape, thickness, and permittivity	E.3.1	4.0	R	$\sqrt{3}$	1	1	2.31	2.31	∞
Uncertainty in SAR correction for deviations in permittivity and conductivity	E.3.2	1.9	N	1	1	0.84	1.90	1.60	∞
Liquid conductivity（temperature uncertainty）	E.3.3	2.5	R	$\sqrt{3}$	0.78	0.71	1.13	1.02	∞
Liquid conductivity（measured）	E.3.3	4	N	1	0.78	0.71	3.12	2.84	M
Liquid permittivity（temperature uncertainty）	E.3.4	2.5	R	$\sqrt{3}$	0.23	0.26	0.33	0.38	∞
Liquid permittivity（measured）	E.3.4	5	N	1	0.23	0.26	1.15	1.30	M
Combined Standard Uncertainty			RSS				10.458	10.272	
Expanded Uncertainty (95% Confidence interval)			K=2				20.916	20.544	

SATIMO Uncertainty- SN 24/20 EP336 System Check uncertainty for DUT averaged over 1 gram / 10 gram.									
Uncertainty Component	Sec.	Tol (+- %)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+-%)	10g Ui (+-%)	vi
Measurement System									
Probe calibration drift	E.2.1.3	0.5	N	1	1	1	0.50	0.50	∞
Axial Isotropy	E.2.2	0.105	R	$\sqrt{3}$	0	0	0.00	0.00	∞
Hemispherical Isotropy	E.2.2	0.105	R	$\sqrt{3}$	0	0	0.00	0.00	∞
Boundary effect	E.2.3	1	R	$\sqrt{3}$	0	0	0.00	0.00	∞
Linearity	E.2.4	0.870	R	$\sqrt{3}$	0	0	0.00	0.00	∞
System detection limits	E.2.4	1.0	R	$\sqrt{3}$	0	0	0.00	0.00	∞
Modulation response	E2.5	3.0	R	$\sqrt{3}$	0	0	0.00	0.00	∞
Readout Electronics	E.2.6	0.021	N	1	0	0	0.00	0.00	∞
Response Time	E.2.7	0	R	$\sqrt{3}$	0	0	0.00	0.00	∞
Integration Time	E.2.8	1.4	R	$\sqrt{3}$	0	0	0.00	0.00	∞
RF ambient conditions-Noise	E.6.1	3.0	R	$\sqrt{3}$	0	0	0.00	0.00	∞
RF ambient conditions-reflections	E.6.1	3.0	R	$\sqrt{3}$	0	0	0.00	0.00	∞
Probe positioner mechanical tolerance	E.6.2	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
Probe positioning with respect to phantom shell	E.6.3	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
Extrapolation, interpolation, and integrations algorithms for max. SAR evaluation	E.5	2.3	R	$\sqrt{3}$	0	0	0.00	0.00	∞
System check source (dipole)									
Deviation of experimental dipoles	E.6.4	2.0	N	1	1	1	2.00	2.00	∞
Input power and SAR drift measurement	8,6.6.4	5.0	R	$\sqrt{3}$	1	1	2.89	2.89	∞
Dipole axis to liquid distance	8,E.6.6	2.0	R	$\sqrt{3}$	1	1	1.15	1.15	∞
Phantom and tissue parameters									
Phantom shell uncertainty—shape, thickness, and permittivity	E.3.1	4	R	$\sqrt{3}$	1	1	2.31	2.31	∞
Uncertainty in SAR correction for deviations in permittivity and conductivity	E.3.2	1.9	N	1	1	0.84	1.90	1.60	∞
Liquid conductivity measurement	E.3.3	2.5	R	$\sqrt{3}$	0.78	0.71	1.13	1.02	∞
Liquid permittivity measurement	E.3.3	4	N	1	0.78	0.71	3.12	2.84	M
Liquid conductivity—temperature uncertainty	E.3.4	2.5	R	$\sqrt{3}$	0.23	0.26	0.33	0.38	∞
Liquid permittivity—temperature uncertainty	E.3.4	5	N	1	0.23	0.26	1.15	1.30	M
Combined Standard Uncertainty			RSS				5.562	5.203	
Expanded Uncertainty (95% Confidence interval)			K=2				11.124	10.406	

12. CONDUCTED POWER MEASUREMENT

GSM BAND

Mode	Frequency(MHz)	Avg. Burst Power(dBm)	Duty cycle Factor(dBm)	Frame Power(dBm)
Maximum Power <1>				
GSM 850	824.2	32.00	-9	23.00
	836.6	31.80	-9	22.80
	848.8	**32.07**	-9	23.07

GSM BAND CONTINUE

Mode	Frequency(MHz)	Avg. Burst Power(dBm)	Duty cycle Factor(dBm)	Frame Power(dBm)
Maximum Power <1>				
PCS1900	1850.2	**30.02**	-9	21.02
	1880	29.91	-9	20.91
	1909.8	29.99	-9	20.99

Note 1:
The Frame Power (Source-based time-averaged Power) is scaled the maximum burst average power based on time slots. The calculated methods are show as following:
Frame Power = Max burst power (1 Up Slot) – 9 dB

LTE Band

Conducted Power of LTE Band 2(dBm)							
Bandwidth	**Modulation**	**RB size**	**RB offset**	**Target MPR**	**Channel**	**Channel**	**Channel**
					18607	**18900**	**19193**
1.4MHz	QPSK	1	0	0	21.04	21.04	20.89
			3	0	21.04	21.08	20.94
			5	0	20.91	21.07	20.91
		3	0	0	**21.09**	21.03	21.02
			2	0	21.07	21.02	20.99
			3	0	20.99	21.05	21.03
		6	0	1	20.12	20	20.16
	16QAM	1	0	1	20.08	20.14	20.22
			3	1	20.17	20.22	20.31
			5	1	20.1	20.2	20.29
		3	0	1	20.25	20.04	20.11
			2	1	20.23	20.04	20.11
			3	1	20.23	20.08	20.15
		6	0	2	19	19.11	19.05
Bandwidth	**Modulation**	**RB size**	**RB offset**	**Target MPR**	**Channel**	**Channel**	**Channel**
					18615	**18900**	**19185**
3MHz	QPSK	1	0	0	20.7	20.84	20.67
			7	0	20.66	21.01	20.86
			14	0	20.38	20.85	20.78
		8	0	1	19.78	19.86	19.8
			4	1	19.78	19.87	19.8
			7	1	19.66	19.93	19.91
		15	0	1	19.8	19.84	20.02
	16QAM	1	0	1	20.37	19.95	20
			7	1	20.44	20.16	20.23
			14	1	20.17	20	20.16
		8	0	2	18.91	18.89	19.05
			4	2	18.92	18.9	19.06
			7	2	18.81	18.98	19.18
		15	0	2	18.75	18.93	18.98

Conducted Power of LTE Band 2(dBm)							
Bandwidth	Modulation	RB size	RB offset	Target MPR	Channel 18625	Channel 18900	Channel 19175
5MHz	QPSK	1	0	0	20.57	20.68	20.33
			13	0	20.68	20.65	20.62
			24	0	20.04	20.6	20.62
		12	0	1	19.72	19.76	19.59
			6	1	19.72	19.76	19.59
			13	1	19.5	19.8	19.83
		25	0	1	19.69	19.81	19.91
	16QAM	1	0	1	19.65	19.98	19.53
			13	1	19.82	20.39	20.05
			24	1	19.23	19.96	19.85
		12	0	2	18.71	18.92	18.74
			6	2	18.71	18.93	18.74
			13	2	18.49	19	18.99
		25	0	2	18.61	18.91	18.8

Conducted Power of LTE Band 4(dBm)							
Bandwidth	Modulation	RB size	RB offset	Target MPR	Channel	Channel	Channel
					19957	20175	20393
1.4MHz	QPSK	1	0	0	20.02	20.43	20.31
			3	0	20.01	20.44	20.11
			5	0	19.97	20.4	20.07
		3	0	0	20.26	20.4	20.19
			2	0	20.06	20.39	20.43
			3	0	20.07	20.39	**20.54**
		6	0	1	19.39	19.46	19.02
	16QAM	1	0	1	19.25	19.65	19.38
			3	1	19.33	19.7	19.41
			5	1	19.3	19.66	19.38
		3	0	1	19.4	19.55	19.23
			2	1	19.4	19.55	19.22
			3	1	19.44	19.56	19.23
		6	0	2	18.06	18.44	18.2
Bandwidth	Modulation	RB size	RB offset	Target MPR	Channel	Channel	Channel
					19965	20175	20385
3MHz	QPSK	1	0	0	19.87	20.41	20.01
			7	0	19.97	20.43	20.18
			14	0	19.91	20.19	20.01
		8	0	1	19	19.37	19.14
			4	1	19	19.37	19.13
			7	1	19.06	19.27	19.16
		15	0	1	19.31	19.42	19.07
	16QAM	1	0	1	19.68	19.67	19.31
			7	1	19.83	19.72	19.46
			14	1	19.79	19.47	19.28
		8	0	2	18.34	18.52	18.23
			4	2	18.35	18.51	18.24
			7	2	18.43	18.44	18.27
		15	0	2	18.11	18.41	18.27

Conducted Power of LTE Band 4(dBm)							
Bandwidth	Modulation	RB size	RB offset	Target MPR	Channel 19975	Channel 20175	Channel 20375
5MHz	QPSK	1	0	0	19.74	20.28	19.75
			13	0	20.13	20.47	20.11
			24	0	19.92	20	19.83
		12	0	1	18.95	19.36	19.03
			6	1	18.95	19.36	19.03
			13	1	19.12	19.2	19.12
		25	0	1	19.35	19.38	18.96
	16QAM	1	0	1	18.95	19.71	18.91
			13	1	19.38	19.94	19.28
			24	1	19.2	19.46	18.94
		12	0	2	18.14	18.61	17.99
			6	2	18.13	18.62	18.01
			13	2	18.32	18.47	18.09
		25	0	2	18.11	18.33	18.05

Conducted Power of LTE Band 7 (dBm)							
Bandwidth	Modulation	RB size	RB offset	Target MPR	Channel 20775	Channel 21100	Channel 21425
5MHz	QPSK	1	0	0	20.06	19.96	20.2
			12	0	**20.23**	20.01	20.21
			24	0	19.88	19.63	19.58
		12	0	1	19.45	19.1	19.27
			6	1	19.43	19.11	19.27
			13	1	19.46	18.99	19.06
		25	0	1	19.99	18.91	19.36
	16QAM	1	0	1	19.02	19.21	19.72
			12	1	19.34	19.34	19.78
			24	1	18.99	18.95	19.17
		12	0	2	18.11	18.22	18.53
			6	2	18.11	18.24	18.55
			13	2	18.18	18.11	18.35
		25	0	2	18.18	18.01	18.17

Conducted Power of LTE Band 12(dBm)							
Bandwidth	Modulation	RB size	RB offset	Target MPR	Channel	Channel	Channel
					23017	23095	23173
1.4MHz	QPSK	1	0	0	21.93	21.19	21.36
			3	0	22.16	21.27	21.12
			5	0	22.31	21.26	21.08
		3	0	0	22.19	21.22	21.36
			2	0	22.13	21.18	21.31
			3	0	22.4	21.22	21.03
		6	0	1	21.43	20.2	20.22
	16QAM	1	0	1	21.05	20.41	20.64
			3	1	21.39	20.45	20.47
			5	1	21.54	20.46	20.33
		3	0	1	21.03	20.54	20.53
			2	1	20.99	20.53	20.51
			3	1	21.27	20.59	20.28
		6	0	2	20.27	19.39	19.35
Bandwidth	Modulation	RB size	RB offset	Target MPR	Channel	Channel	Channel
					23025	23095	23165
3MHz	QPSK	1	0	0	21.79	21.62	21.52
			7	0	22.57	21.36	21.48
			14	0	22.55	21.24	20.94
		8	0	1	21.25	20.41	20.58
			4	1	21.24	20.43	20.57
			7	1	21.74	20.38	20.32
		15	0	1	21.52	20.28	20.4
	16QAM	1	0	1	21.45	20.73	20.83
			7	1	22.22	20.51	20.82
			14	1	22.13	20.42	20.29
		8	0	2	20.42	19.41	19.78
			4	2	20.42	19.44	19.79
			7	2	20.94	19.4	19.54
		15	0	2	20.63	19.42	19.57

Conducted Power of LTE Band 12(dBm)							
Bandwidth	Modulation	RB size	RB offset	Target MPR	Channel	Channel	Channel
					23035	23095	23155
5MHz	QPSK	1	0	0	20.74	21.7	21.23
			13	0	21.72	21.4	21.53
			24	0	21.1	21.28	20.79
		12	0	1	20.39	20.57	20.48
			6	1	20.39	20.58	20.48
			13	1	20.54	20.36	20.36
		25	0	1	20.57	20.38	20.4
	16QAM	1	0	1	21.75	20.93	20.38
			13	1	**22.72**	20.7	20.73
			24	1	22.04	20.62	20.02
		12	0	2	21.42	19.62	19.59
			6	2	21.41	19.65	19.6
			13	2	21.55	19.47	19.52
		25	0	2	21.45	19.47	19.57

Conducted Power of LTE Band 17(dBm)							
Bandwidth	Modulation	RB size	RB offset	Target MPR	Channel 23755	Channel 23790	Channel 23825
5MHz	QPSK	1	0	0	20.78	20.68	21
			13	0	20.82	21.23	**21.24**
			24	0	20.8	21.02	20.5
		12	0	1	19.87	20.05	20.24
			6	1	19.82	20.04	20.23
			13	1	19.86	20.19	20.07
		25	0	1	19.77	20.15	20.13
	16QAM	1	0	1	19.76	19.93	20.08
			13	1	19.92	20.6	20.4
			24	1	19.91	20.43	19.73
		12	0	2	18.87	19.15	19.31
			6	2	18.89	19.15	19.32
			13	2	18.9	19.37	19.15
		25	0	2	18.93	19.18	19.17

Conducted Power of LTE Band 25(dBm)							
Bandwidth	Modulation	RB size	RB offset	Target MPR	Channel 26047	Channel 26365	Channel 26683
1.4MHz	QPSK	1	0	0	20.99	20.93	20.39
			2	0	20.93	20.91	20.08
			5	0	20.8	20.88	20.2
		3	0	0	21.15	20.91	20.37
			1	0	21	20.9	20.32
			3	0	20.97	20.86	20.56
		6	0	1	21.22	19.79	20.48
	16QAM	1	0	1	20.11	20.06	19.77
			2	1	20.09	20.07	19.57
			5	1	20.03	20.05	20.33
		3	0	1	20.17	19.96	20.35
			1	1	20.16	19.96	20.34
			3	1	20.2	19.94	20.6
		6	0	2	18.88	18.94	20.34
Bandwidth	Modulation	RB size	RB offset	Target MPR	Channel 26055	Channel 26365	Channel 26675
3MHz	QPSK	1	0	0	20.93	20.84	20.71
			8	0	20.81	20.8	20.36
			14	0	20.53	20.54	19.84
		8	0	1	20.03	19.82	19.65
			4	1	20.02	19.82	19.64
			7	1	19.91	19.75	19.29
		15	0	1	20.31	19.77	19.68
	16QAM	1	0	1	20.02	20.56	19.93
			8	1	20.09	20.56	19.67
			14	1	19.82	20.31	19.16
		8	0	2	18.93	19.06	18.75
			4	2	18.93	19.07	18.77
			7	2	18.84	19	18.45
		15	0	2	18.87	18.88	18.54

Conducted Power of LTE Band 25(dBm)							
Bandwidth	Modulation	RB size	RB offset	Target MPR	Channel 26065	Channel 26365	Channel 26665
5MHz	QPSK	1	0	0	20.37	20.67	**21.26**
			12	0	20.58	20.83	20.96
			24	0	19.93	20.36	20.01
		12	0	1	19.68	19.73	20.56
			6	1	19.68	19.73	20.5
			13	1	19.48	19.58	20.15
		25	0	1	19.6	19.58	21.13
	16QAM	1	0	1	19.57	19.99	20.05
			12	1	19.74	20.19	20.1
			24	1	19.15	19.73	19.15
		12	0	2	18.62	18.9	19.14
			6	2	18.63	18.91	19.17
			13	2	18.42	18.77	18.82
		25	0	2	18.5	18.71	18.89

The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP TS36.101 specification.
UE Power Class: 3 (23 +/- 2dBm). The allowed Maximum Power Reduction (MPR) for the maximum output power due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3.3-1 of the 3GPP TS36.101.

Table 6.2.3.3-1 Maximum Power Reduction (MPR) for Power class3

Modulation	Maximum Power Reduction (MPR) for Power[RB]						MPR(dB)
	1.4MHz	3MHz	5MHz	10MHz	15MHz	20MHz	
QPSK	＞5	＞4	＞8	＞12	＞16	＞18	≤1
16QAM	≤5	≤4	≤8	≤12	≤16	≤18	≤1
16QAM	＞5	＞4	＞8	＞12	＞16	＞18	≤2

The allowed A-MPR values specified below in Table 6.2.4.3-1 of 3GPP TS36.101 are in addition to the allowed MPR requirements. All the measurements below were performed with A-MPR disabled, by using Network Signaling Value of “NS_01”.3

Table 6.2.4.3-1: Additional Maximum Power Reduction (A-MPR) / Spectrum Emission requirements

Network Signaling value	Requirements (sub-clause)	E-UTRA Band	Channel bandwidth (MHz)	Resources Blocks (N_{RB})	A-MPR (dB)
NS_01	6.6.2.1.1	Table 5.2-1	1.4,3,5,10,15,20	Table 5.4.2-1	N/A
NS_03	6.6.2.2.3.1	2,4,10, 23, 25,35,36	3	>5	≤ 1
			5	>6	≤ 1
			10	>6	≤ 1
			15	>8	≤ 1
			20	>10	≤ 1
NS_04	6.6.2.2.3.2	41	5	>6	≤1
			10, 15, 20	Table 6.2.4.3-4	
NS_05	6.6.3.3.3.1	1	10,15,20	≥ 50	≤ 1
NS_06	6.6.2.2.3.3	12, 13, 14, 17	1.4, 3, 5, 10	Table 5.4.2-1	N/A
NS_07	6.6.2.2.3.3 6.6.3.3.3.2	13	10	Table 6.2.4.3-2	Table 6.2.4.3-2
NS_08	6.6.3.3.3.3	19	10, 15	> 44	≤ 3
NS_09	6.6.3.3.3.4	21	10, 15	> 40	≤ 1
				> 55	≤ 2
NS_10		20	15, 20	Table 6.2.4.3-3	Table 6.2.4.3-3
NS_11	6.6.2.2.1 6.6.3.3.13	231	1.4, 3, 5, 10,15,20	Table 6.2.4.3-5	Table 6.2.4.3-5
NS_12	6.6.3.3.5	26	1.4, 3, 5	Table 6.2.4.3-6	Table 6.2.4.3-6
NS_13	6.6.3.3.6	26	5	Table 6.2.4.3-7	Table 6.2.4.3-7
NS_14	6.6.3.3.7	26	10, 15	Table 6.2.4.3-8	Table 6.2.4.3-8
NS_15	6.6.3.3.8	26	1.4, 3, 5, 10, 15	Table 6.2.4.3-9 Table 6.2.4.3-10	Table 6.2.4.3-9, Table 6.2.4.3-10
NS_16	6.6.3.3.9	27	3, 5, 10	Table 6.2.4.3-11, Table 6.2.4.3-12, Table 6.2.4.3-13	
NS_17	6.6.3.3.10 6.6.3.3.11	28 28	5, 10	Table 5.4.2-1	N/A
			5	≥ 2	≤ 1
NS_18			10, 15, 20	≥ 1	≤ 4
NS_19			10, 15, 20	Table 6.2.4.3-15	Table 6.2.4.3-15
NS_20			5, 10, 15, 20	Table 6.2.4.3-14	Table 6.2.4.3-14
…					
NS_20	-	-	-	-	-

13. TEST RESULTS

13.1. SAR Test Results Summary

13.1.1. Test position and configuration

Body-worn and 4 Edges SAR was performed with the device 0mm from the phantom.

13.1.2. Operation Mode

1. Per KDB 447498 D01 v06 ,for each exposure position, if the highest 1-g SAR is ≤ 0.8 W/kg, testing for low and high channel is optional.
2. Per KDB 865664 D01 v01r04,for each frequency band, if the measured SAR is ≥0.8W/Kg, testing for repeated SAR measurement is required , that the highest measured SAR is only to be tested. When the SAR results are near the limit, the following procedures are required for each device to verify these types of SAR measurement related variation concerns by repeating the highest measured SAR configuration in each frequency band.
   (1) When the original highest measured SAR is ≥0.8W/Kg, repeat that measurement once.
   (2) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is >1.20 or when the original or repeated measurement is ≥1.45 W/Kg.
   (3) Perform a third repeated measurement only if the original, first and second repeated measurement is ≥1.5 W/Kg and ratio of largest to smallest SAR for the original, first and second measurement is ≥ 1.20.
3. Body-worn exposure conditions are intended to voice call operations, therefore GSM voice call mode is selected to be test.
4. Maximum Scaling SAR in order to calculate the Maximum SAR values to test under the standard Peak Power, Calculation method is as follows:
   Maximum Scaling SAR =tested SAR (Max.) ×[maximum turn-up power (mw)/ maximum measurement output power(mw)]
5. Per KDB 941225 D05v02r03, start with the largest channel bandwidth and measure SAR for QPSK with 1RB allocation using the RB offset and required test channel combination with highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
6. Per KDB 941125 D05v02r03, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
7. Per KDB 941125 D05v02r03. 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 1RB allocation and the highest reported SAR is >1.45 W/Kg, the remaining required test channels must also be tested.
8. Per KDB 941125 D05v02r03. 16QAM output power for each RB allocation configuration is not 1/2 dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤1.45W/Kg, Per KDB 941225 D05v02r02, 16QAM SAR testing is not required.
9. Per KDB 941125 D05v02r03. Smaller bandwidth output power for each RB allocation configuration is >not 1/2 dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤1.45W/Kg. Per KDB 941125 D05v02r03, smaller bandwidth SAR testing is not required.

13.1.3. Test Result

SAR MEASUREMENT									
Depth of Liquid (cm):>15			Relative Humidity (%): 46.5						
Product: FH Emergency Device - V1-4G									
Test Mode: GSM850 with GMSK modulation									
Position	**Mode**	**Ch.**	**Fr. (MHz)**	**Power Drift (<±5%)**	**SAR (1g) (W/kg)**	**Max. Tune-up Power (dBm)**	**Meas. output Power (dBm)**	**Scaled SAR (W/Kg)**	**Limit (W/kg)**
SIM 1 Card									
Body back	voice	190	836.6	-0.17	0.465	32.10	31.80	0.498	1.6
Body front	voice	190	836.6	0.06	**0.611**	32.10	31.80	**0.655**	1.6
Edge 1 (Top)	voice	190	836.6	-0.35	0.055	32.10	31.80	0.059	1.6
Edge 2(Right)	voice	190	836.6	-0.24	0.461	32.10	31.80	0.494	1.6
Edge 3(Bottom)	voice	190	836.6	-0.10	0.236	32.10	31.80	0.253	1.6
Edge 4(Left)	voice	190	836.6	0.18	0.344	32.10	31.80	0.369	1.6

Note:
· When the 1-g Reported SAR is ≤ 0.8 W/kg, testing for low and high channel is optional. Refer to KDB 447498.
·The test separation for body back, body front and 4 Edges is 0mm of all above table.

SAR MEASUREMENT									
Depth of Liquid (cm):>15				Relative Humidity (%): 41.3					
Product: FH Emergency Device - V1-4G									
Test Mode: PCS1900 with GMSK modulation									
Position	**Mode**	**Ch.**	**Fr. (MHz)**	**Power Drift (<±5%)**	**SAR (1g) (W/kg)**	**Max. Tune-up Power (dBm)**	**Meas. output Power (dBm)**	**Scaled SAR (W/Kg)**	**Limit (W/kg)**
SIM 1 Card									
Body back	voice	661	1880	-0.18	0.757	30.10	29.91	0.791	1.6
Body front	voice	512	1850.2	-0.05	1.070	30.10	30.02	1.090	1.6
Body front	voice	661	1880	0.24	**1.124**	30.10	29.91	**1.174**	1.6
Body front	voice	810	1909.8	-0.13	1.102	30.10	29.99	1.130	1.6
Edge 1 (Top)	voice	661	1880.0	-0.07	0.231	30.10	29.91	0.241	1.6
Edge 2(Right)	voice	661	1880.0	-0.51	0.217	30.10	29.91	0.227	1.6
Edge 3(Bottom)	voice	512	1850.2	0.06	1.028	30.10	30.02	1.047	1.6
Edge 3(Bottom)	voice	661	1880	-0.28	0.989	30.10	29.91	1.033	1.6
Edge 3(Bottom)	voice	810	1909.8	0.53	1.062	30.10	29.99	1.089	1.6
Edge 4(Left)	voice	661	1880.0	0.12	0.685	30.10	29.91	0.716	1.6

Note:
· When the 1-g Reported SAR is ≤ 0.8 W/kg, testing for low and high channel is optional. Refer to KDB 447498.
·The test separation for body back, body front and 4 Edges is 0mm of all above table.

SAR MEASUREMENT												
Depth of Liquid (cm):>15					Relative Humidity (%): 41.3							
Product: FH Emergency Device - V1-4G												
Test Mode: LTE Band 2												
BM MHz	MOD	Position	Test Mode		Ch.	Freq. (MHz)	Power Drift (<±5%)	SAR (1g) (W/kg)	Max. Tune up Power (dBm)	Meas. output Power (dBm)	Scaled SAR (W/Kg)	Limit (W/kg)
			UL RB Allocation	UL RB START								
5	QPSK	Body back	1	0	18625	1852.5	0.19	1.056	20.68	20.57	1.083	1.6
		Body back	1	0	18900	1880	-0.25	0.942	20.68	20.68	0.942	1.6
		Body back	1	0	19175	1907.5	0.24	1.055	20.68	20.33	1.144	1.6
		Body front	1	0	18625	1852.5	-0.13	1.332	20.68	20.57	1.366	1.6
		Body front	1	0	18900	1880	-0.07	**1.340**	20.68	20.68	1.340	1.6
		Body front	1	0	19175	1907.5	-0.24	1.330	20.68	20.33	**1.442**	1.6
		Edge 1 (Top)	1	0	18900	1880	0.17	0.178	20.68	20.68	0.178	1.6
		Edge 2(Right)	1	0	18900	1880	-0.42	0.286	20.68	20.68	0.286	1.6
		Edge 3(Bottom)	1	0	18625	1852.5	-0.20	1.159	20.68	20.57	1.189	1.6
		Edge 3(Bottom)	1	0	18900	1880	-0.03	1.121	20.68	20.68	1.121	1.6
		Edge 3(Bottom)	1	0	19175	1907.5	-0.11	1.158	20.68	20.33	1.255	1.6
		Edge 4(Left)	1	0	18625	1852.5	0.15	0.951	20.68	20.57	0.975	1.6
		Edge 4(Left)	1	0	18900	1880	-0.26	0.952	20.68	20.68	0.952	1.6
		Edge 4(Left)	1	0	19175	1907.5	0.10	0.950	20.68	20.33	1.030	1.6

Note:
· When the 1-g Reported SAR is ≤ 0.8 W/kg, testing for low and high channel is optional. Refer to KDB 447498.
·The test separation for body back, body front and 4 Edges is 0mm of all above table.

SAR MEASUREMENT												
Depth of Liquid (cm):>15				Relative Humidity (%): 47.9								
Product: FH Emergency Device - V1-4G												
Test Mode: LTE Band 4												
BM MHz	**MOD**	**Position**	**Test Mode**		**Ch.**	**Freq. (MHz)**	**Power Drift (<±5%)**	**SAR (1g) (W/kg)**	**Max. Tuneup Power (dBm)**	**Meas. output Power (dBm)**	**Scaled SAR (W/Kg)**	**Limit (W/kg)**
			UL RB Allocation	**UL RB START**								
5	**QPSK**	Body back	1	0	20175	1732.5	0.19	0.668	20.50	20.28	0.703	1.6
		Body front	1	0	20175	1732.5	0.08	0.571	20.50	20.28	0.601	1.6
		Edge 1 (Top)	1	0	20175	1732.5	0.26	0.091	20.50	20.28	0.096	1.6
		Edge 2(Right)	1	0	20175	1732.5	-0.34	0.222	20.50	20.28	0.234	1.6
		Edge 3(Bottom)	1	0	20175	1732.5	-0.12	**0.755**	20.50	20.28	**0.794**	1.6
		Edge 4(Left)	1	0	20175	1732.5	-0.03	0.740	20.50	20.28	0.778	1.6

Note:
· When the 1-g Reported SAR is ≤ 0.8 W/kg, testing for low and high channel is optional. Refer to KDB 447498.
·The test separation for body back, body front and 4 Edges is 0mm of all above table.

SAR MEASUREMENT												
Depth of Liquid (cm):>15				Relative Humidity (%): 49.2								
Product: FH Emergency Device - V1-4G												
Test Mode: LTE Band 7												
BM MHz	MOD	Position	Test Mode		Ch.	Freq. (MHz)	Power Drift (<±5%)	SAR (1g) (W/kg)	Max. Tuneup Power (dBm)	Meas. output Power (dBm)	Scaled SAR (W/Kg)	Limit (W/kg)
			UL RB Allocation	UL RB START								
5	QPSK	Body back	1	0	21350	2560	0.17	0.512	20.30	19.96	0.554	1.6
		Body front	1	0	21100	2535	0.18	**0.676**	20.30	19.96	**0.731**	1.6
		Edge 1 (Top)	1	0	21100	2535	-0.15	0.135	20.30	19.96	0.146	1.6
		Edge 2(Right)	1	0	21100	2535	-0.20	0.511	20.30	19.96	0.553	1.6
		Edge 3(Bottom)	1	0	21100	2535	-0.22	0.328	20.30	19.96	0.355	1.6
		Edge 4(Left)	1	0	21100	2535	0.13	0.237	20.30	19.96	0.256	1.6

Note:
· When the 1-g Reported SAR is ≤ 0.8 W/kg, testing for low and high channel is optional. Refer to KDB 447498.
·The test separation for body back, body front and 4 Edges is 0mm of all above table.

SAR MEASUREMENT												
Depth of Liquid (cm):>15				Relative Humidity (%): 44.8								
Product: FH Emergency Device - V1-4G												
Test Mode: LTE Band 12												
BM MHz	MOD	Position	Test Mode		Ch.	Freq. (MHz)	Power Drift (<±5%)	SAR (1g) (W/kg)	Max. Tuneup Power (dBm)	Meas. output Power (dBm)	Scaled SAR (W/Kg)	Limit (W/kg)
			UL RB Allocation	UL RB START								
5	QPSK	Body back	1	0	23095	707.5	0.11	0.095	22.80	21.70	0.122	1.6
		Body front	1	0	23095	707.5	0.06	**0.212**	22.80	21.70	**0.273**	1.6
		Edge 1 (Top)	1	0	23095	707.5	0.38	0.034	22.80	21.70	0.044	1.6
		Edge 2(Right)	1	0	23095	707.5	-0.28	0.164	22.80	21.70	0.211	1.6
		Edge 3(Bottom)	1	0	23095	707.5	0.42	0.152	22.80	21.70	0.196	1.6
		Edge 4(Left)	1	0	23095	707.5	-0.12	0.073	22.80	21.70	0.094	1.6

Note:
· When the 1-g Reported SAR is ≤ 0.8 W/kg, testing for low and high channel is optional. Refer to KDB 447498.
·The test separation for body back, body front and 4 Edges is 0mm of all above table.

SAR MEASUREMENT												
Depth of Liquid (cm):>15				Relative Humidity (%): 44.8								
Product: FH Emergency Device - V1-4G												
Test Mode: LTE Band 17												
BM MHz	MOD	Position	Test Mode		Ch.	Freq. (MHz)	Power Drift (<±5%)	SAR (1g) (W/kg)	Max. Tuneup Power (dBm)	Meas. output Power (dBm)	Scaled SAR (W/Kg)	Limit (W/kg)
			UL RB Allocation	UL RB START								
5	QPSK	Body back	1	0	23790	710	0.36	0.113	21.30	20.68	0.130	1.6
		Body front	1	0	23790	710	0.25	**0.191**	21.30	20.68	**0.220**	1.6
		Edge 1 (Top)	1	0	23790	710	-0.15	0.028	21.30	20.68	0.032	1.6
		Edge 2(Right)	1	0	23790	710	-0.27	0.128	21.30	20.68	0.148	1.6
		Edge 3(Bottom)	1	0	23790	710	0.08	0.149	21.30	20.68	0.172	1.6
		Edge 4(Left)	1	0	23790	710	-0.13	0.056	21.30	20.68	0.065	1.6

Note:
· When the 1-g Reported SAR is ≤ 0.8 W/kg, testing for low and high channel is optional. Refer to KDB 447498.
·The test separation for body back, body front and 4 Edges is 0mm of all above table.

SAR MEASUREMENT												
Depth of Liquid (cm):>15				Relative Humidity (%): 41.3								
Product: LTE smartphone												
Test Mode: LTE Band 25												
BM MHz	MOD	Position	Test Mode		Ch.	Freq. (MHz)	Power Drift (<±5%)	SAR (1g) (W/kg)	Max. Tuneup Power (dBm)	Meas. output Power (dBm)	Scaled SAR (W/Kg)	Limit (W/kg)
			UL RB Allocation	UL RB START								
5	QPSK	Body back	1	0	26065	1852.5	0.27	0.917	20.60	20.37	0.967	1.6
		Body back	1	0	26365	1882.5	-0.15	0.916	20.90	20.67	0.966	1.6
		Body back	1	0	26665	1912.5	0.06	0.933	21.30	21.26	0.942	1.6
		Body front	1	0	26065	1852.5	0.32	1.320	20.60	20.37	1.392	1.6
		Body front	1	0	26365	1882.5	-0.04	1.318	20.90	20.67	1.390	1.6
		Body front	1	0	26665	1912.5	-0.25	1.373	21.30	21.26	1.386	1.6
		Edge 1 (Top)	1	0	26365	1882.5	0.27	0.294	20.90	20.67	0.310	1.6
		Edge 2(Right)	1	0	26365	1882.5	-0.16	0.434	20.90	20.67	0.458	1.6
		Edge 3(Bottom)	1	0	26065	1852.5	-0.08	1.366	20.60	20.37	**1.440**	1.6
		Edge 3(Bottom)	1	0	26365	1882.5	0.27	1.365	20.90	20.67	1.439	1.6
		Edge 3(Bottom)	1	0	26665	1912.5	-0.42	**1.400**	21.30	21.26	1.413	1.6
		Edge 4(Left)	1	0	26065	1852.5	-0.13	1.104	20.60	20.37	1.164	1.6
		Edge 4(Left)	1	0	26365	1882.5	0.05	1.035	20.90	20.67	1.091	1.6
		Edge 4(Left)	1	0	26665	1912.5	0.10	1.103	21.30	21.26	1.113	1.6

Note:
· When the 1-g Reported SAR is ≤ 0.8 W/kg, testing for low and high channel is optional. Refer to KDB 447498.
·The test separation for body back, body front and 4 Edges is 0mm of all above table.

Repeated SAR										
Product: FH Emergency Device - V1-4G										
Test Mode: PCS1900 with QPSK modulation										
Position	**Mode**	**Ch.**	**Fr. (MHz)**	**Power Drift (<±5%)**	**Once SAR (1g) (W/kg)**	**Power Drift (<±5%)**	**Twice SAR (1g) (W/kg)**	**Power Drift (<±5%)**	**Third SAR (1g) (W/kg)**	**Limit W/kg**
Body front	voice	661	1880	0.12	1.032	--	--	--	--	--

Repeated SAR											
Product: FH Emergency Device - V1-4G											
Test Mode: LTE Band 2& LTE Band 25											
BM MHz	**MOD**	**Position**	**Test Mode**		**Ch.**	**Freq. (MHz)**	**Power Drift (<±5%)**	**Once SAR (1g) (W/kg)**	**Power Drift (<±5%)**	**Twice SAR (1g) (W/kg)**	**Limit (W/kg)**
			UL RB Allocation	**UL RB START**							
5	**QPSK**	Body front	1	0	18900	1880	0.05	1.321	--	--	1.6
		Edge 3(Bottom)	1	0	26665	1912.5	-0.16	1.292	--	--	1.6

The second repeated SAR judge reference							
Product: FH Emergency Device - V1-4G							
Test Mode: PCS1900 with QPSK modulation							
Position	**Mode**	**Ch.**	**Fr. (MHz)**	**Orignal SAR (1g) (W/kg)**	**First SAR (1g) (W/kg)**	**Ratio**	**Limit**
Body front	voice	661	1880	1.124	1.032	1.089	＜1.2

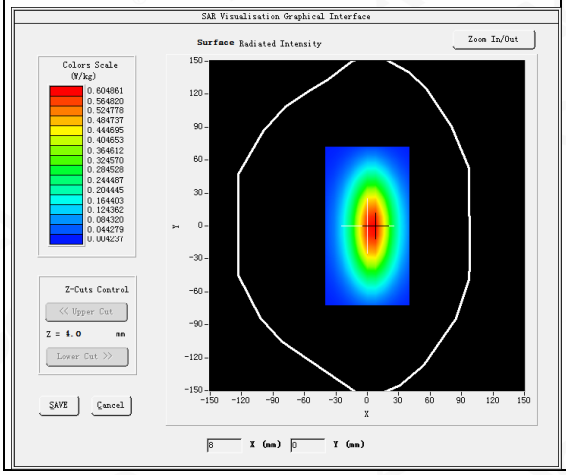
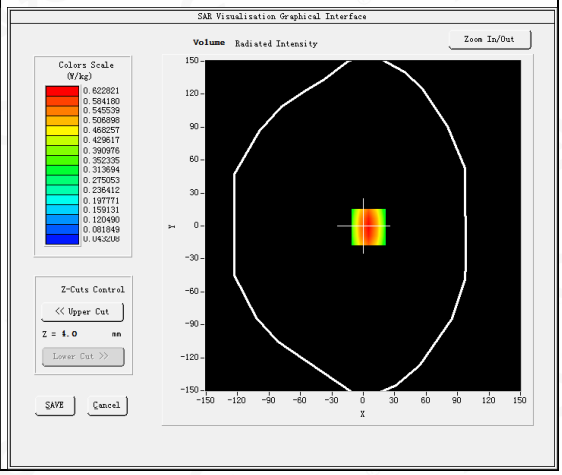
The second repeated SAR judge reference										
Product: FH Emergency Device - V1-4G										
Test Mode: LTE Band 2& LTE Band 25										
BM MHz	**MOD**	**Position**	**Test Mode**		**Ch.**	**Freq. (MHz)**	**Orignal SAR (1g) (W/kg)**	**First SAR (1g) (W/kg)**	**Ratio**	**Limit**
			UL RB Allocation	**UL RB START**						
5	**QPSK**	Body front	1	0	18900	1880	1.340	1.321	1.014	＜1.2
		Edge 3(Bottom)	1	0	26665	1912.5	1.400	1.292	1.084	＜1.2

APPENDIX A. SAR SYSTEM CHECK DATA

Test Laboratory: AGC Lab **Date: Jan. 28,2021**
System Check Head 750 MHz
DUT: Dipole 750 MHz Type: SID 750
Communication System CW; Communication System Band: D750 (750.0 MHz); Duty Cycle: 1:1; Conv.F=5.06
Frequency: 750 MHz; Medium parameters used: f = 750 MHz; σ=0.91 mho/m; εr =42.52; ρ= 1000 kg/m³ ;
Phantom section: Flat Section; Input Power=18dBm
Ambient temperature (℃):21.2, Liquid temperature (℃): 21.0

SATIMO Configuration:
Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
Sensor-Surface: 4mm (Mechanical Surface Detection)
Phantom: SAM twin phantom
Measurement SW: OpenSAR V4_02_35

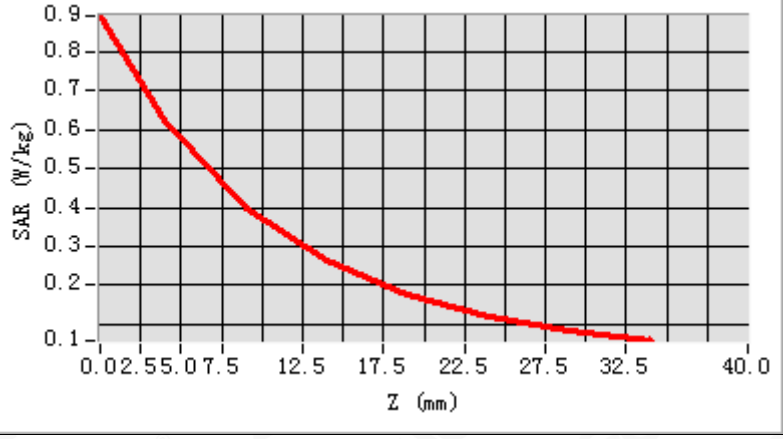
Configuration/System Check 750MHz Head/Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/System Check 750MHz Head/Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5mm

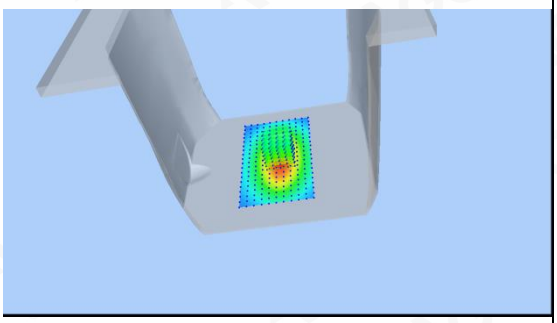
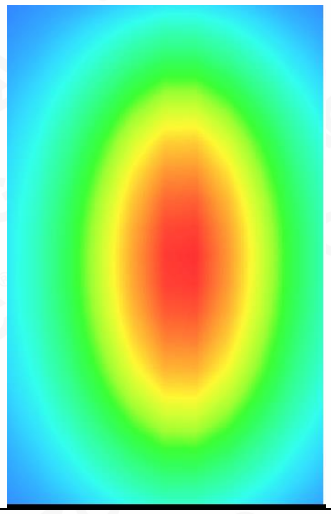
SURFACE SAR	VOLUME SAR
	

Maximum location: X=5.00, Y=-1.00
SAR Peak: 0.89 W/kg

SAR 10g (W/Kg)	0.357254
SAR 1g (W/Kg)	0.568721

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.8927	0.6248	0.3967	0.2636	0.1757	0.1241	0.0869

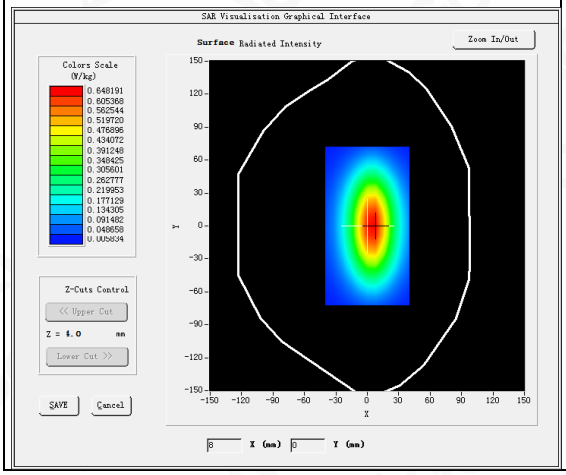
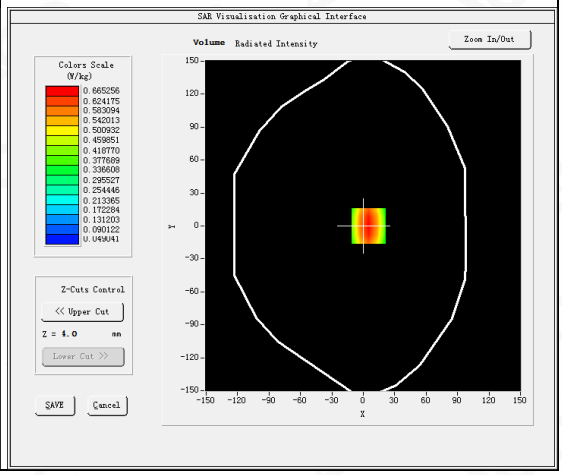


3D screen shot	Hot spot position
	

Test Laboratory: AGC Lab **Date: Jan. 23,2021**
System Check Head 835 MHz
DUT: Dipole 835 MHz Type: SID 835
Communication System CW; Communication System Band: D835 (835.0 MHz); Duty Cycle: 1:1; Conv.F=5.26
Frequency: 835 MHz; Medium parameters used: f = 835 MHz; σ=0.92 mho/m; εr =41.21; ρ= 1000 kg/m³ ;
Phantom section: Flat Section; Input Power=18dBm
Ambient temperature (℃):21.7, Liquid temperature (℃): 21.4

SATIMO Configuration:
Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
Sensor-Surface: 4mm (Mechanical Surface Detection)
Phantom: SAM twin phantom
Measurement SW: OpenSAR V4_02_35

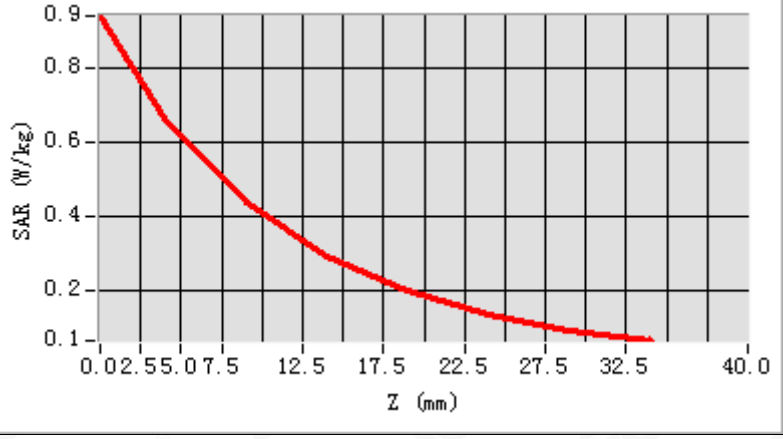
Configuration/System Check 835MHz Head/Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/System Check 835MHz Head/Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5mm

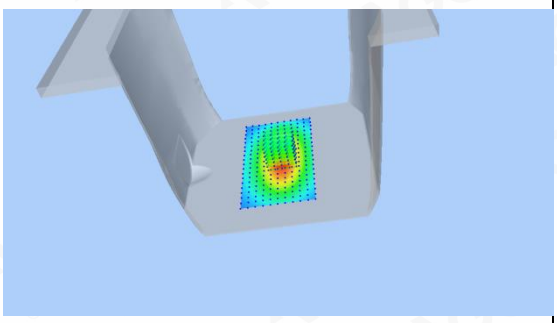
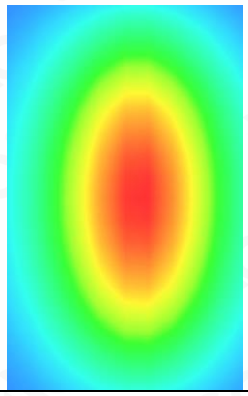
SURFACE SAR	VOLUME SAR
	

Maximum location: X=5.00, Y=0.00
SAR Peak: 0.93 W/kg

SAR 10g (W/Kg)	0.402006
SAR 1g (W/Kg)	0.632873

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.9325	0.6664	0.4338	0.2947	0.1918	0.1335	0.0985

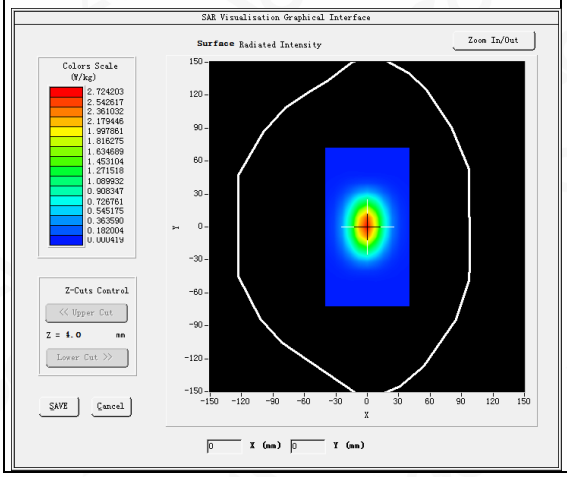
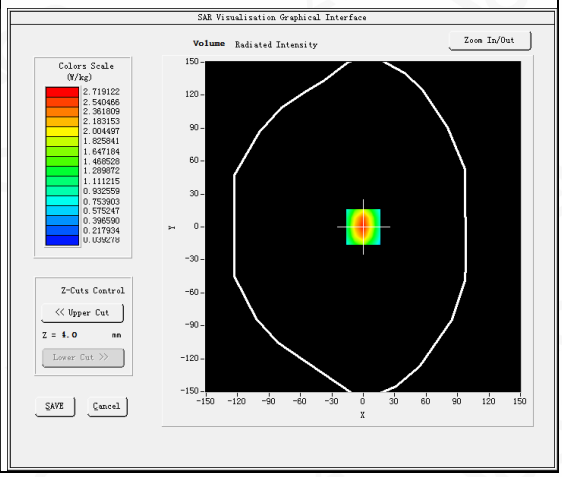


3D screen shot	Hot spot position
	

Test Laboratory: AGC Lab **Date: Jan. 30,2021**
System Check Head 1750MHz
DUT: Dipole 1800 MHz; Type: SID 1800
Communication System: CW; Communication System Band: D1700 (1750.0 MHz); Duty Cycle:1:1; Conv.F=4.48
Frequency: 1750 MHz; Medium parameters used: f = 1800MHz; σ=1.35 mho/m; εr =39.61; ρ= 1000 kg/m³ ;
Phantom section: Flat Section; Input Power=18dBm
Ambient temperature (℃): 21.7, Liquid temperature (℃): 21.4

SATIMO Configuration:
Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
Sensor-Surface: 4mm (Mechanical Surface Detection)
Phantom: SAM twin phantom
Measurement SW: OpenSAR V4_02_35

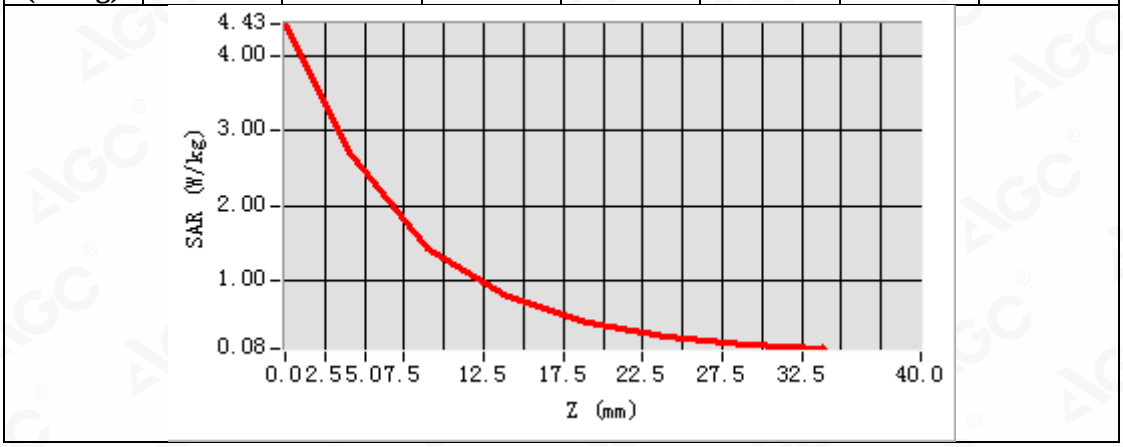
Configuration/System Check 1750MHz Head/Area Scan: Measurement grid: dx=8mm,dy=8mm
Configuration/System Check 1750MHz Head/Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5mm

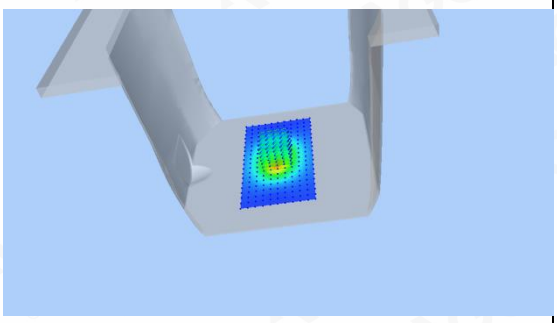
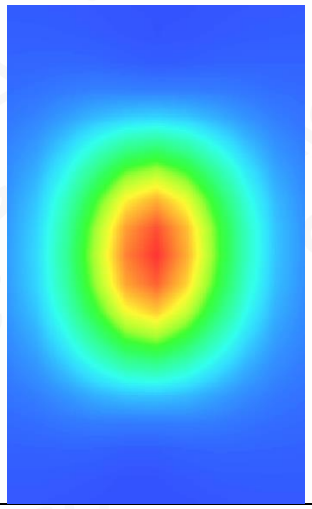
SURFACE SAR	VOLUME SAR
	

Maximum location: X=0.00, Y=0.00
SAR Peak: 4.41 W/kg

SAR 10g (W/Kg)	1.291432
SAR 1g (W/Kg)	2.563877

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	4.4324	2.7137	1.4316	0.7845	0.4463	0.2574	0.1452

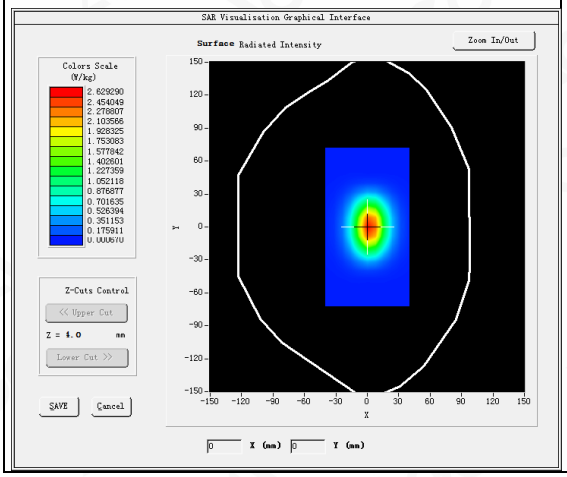
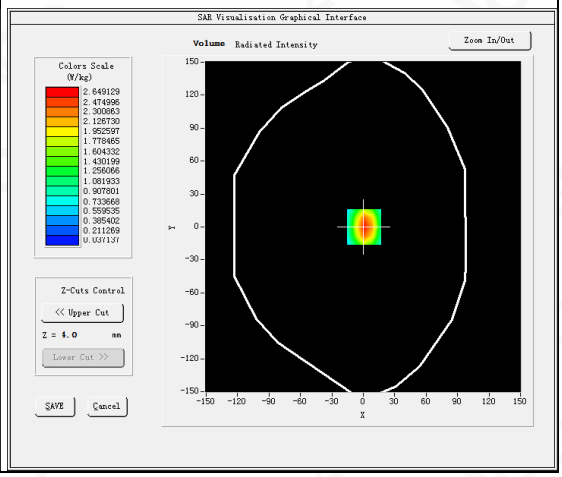


3D screen shot	Hot spot position
	

Test Laboratory: AGC Lab **Date: Jan. 16,2021**
System Check Head 1900MHz
DUT: Dipole 1900 MHz; Type: SID 1900
Communication System: CW; Communication System Band: D1900 (1900.0 MHz); Duty Cycle:1:1; Conv.F=4.72
Frequency: 1900 MHz; Medium parameters used: f = 1900 MHz; σ=1.38 mho/m; εr =38.92; ρ= 1000 kg/m³ ;
Phantom section: Flat Section; Input Power=18dBm
Ambient temperature (℃):19.3, Liquid temperature (℃): 19.1

SATIMO Configuration:
Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
Sensor-Surface: 4mm (Mechanical Surface Detection)
Phantom: SAM twin phantom
Measurement SW: OpenSAR V4_02_35

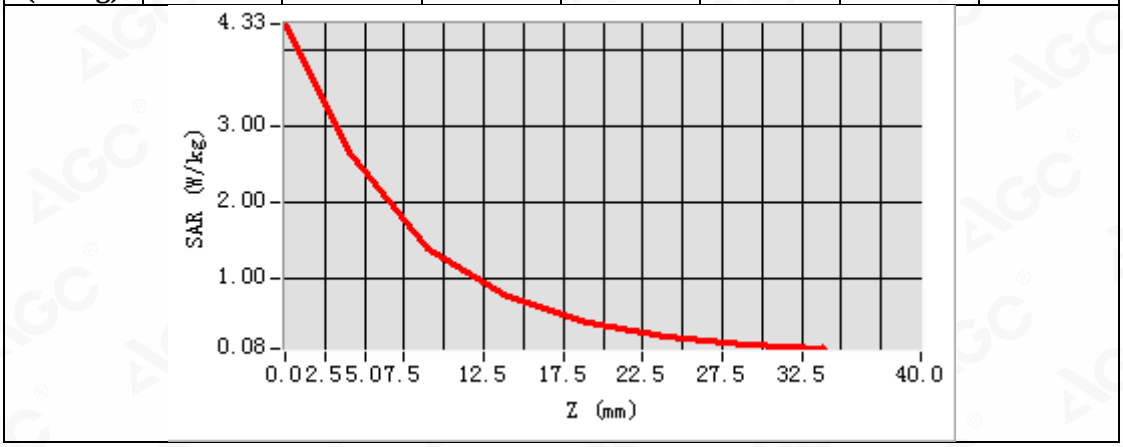
Configuration/System Check 1900MHz Head/Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/System Check 1900MHz Head/Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5mm

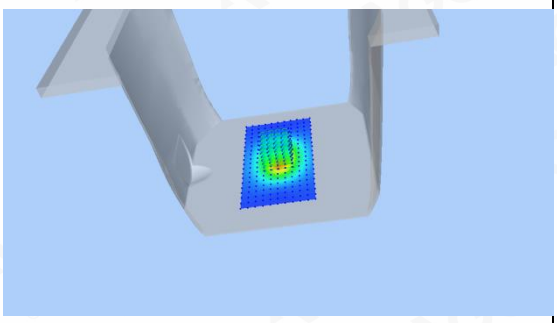
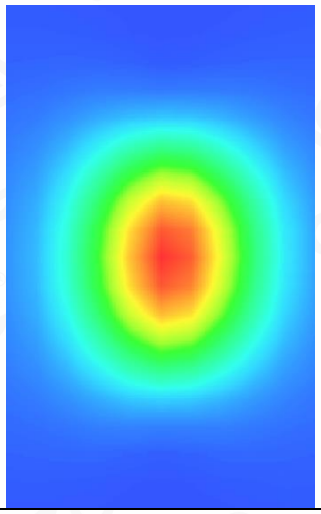
SURFACE SAR	VOLUME SAR
	

Maximum location: X=1.00, Y=0.00
SAR Peak: 4.33 W/kg

SAR 10g (W/Kg)	1.262684
SAR 1g (W/Kg)	2.507158

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	4.3323	2.6447	1.3816	0.7582	0.4205	0.2343	0.1365

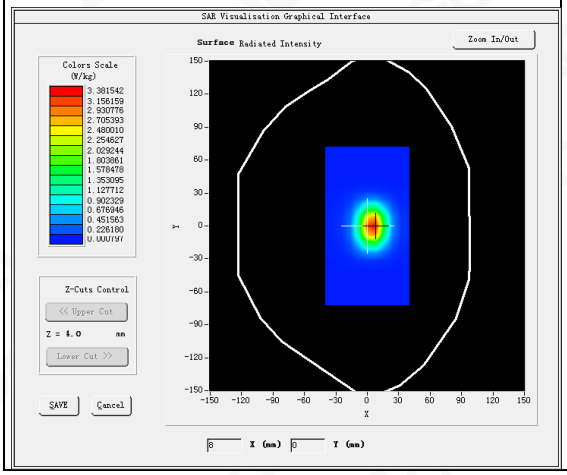
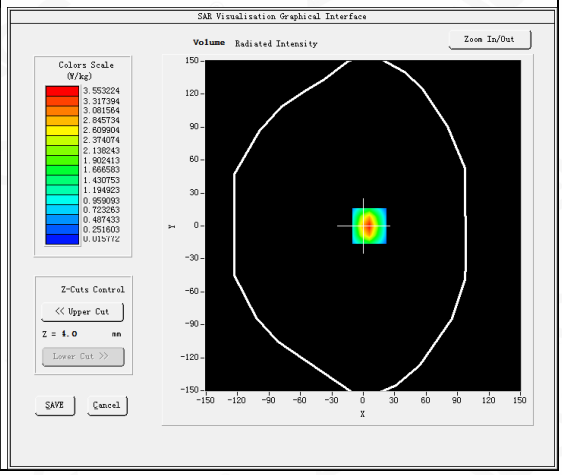


3D screen shot	Hot spot position
	

Test Laboratory: AGC Lab **Date: Jan. 27,2021**
System Check Head 2600MHz
DUT: Dipole 2600 MHz; Type: SID 2600
Communication System: CW; Communication System Band: D2600 (2600.0 MHz); Duty Cycle: 1:1; Conv.F=3.81
Frequency:2600 MHz; Medium parameters used: f = 2600 MHz; σ=1.89 mho/m; εr =39.54; ρ= 1000 kg/m³ ;
Phantom section: Flat Section; Input Power=18dBm
Ambient temperature (℃): 21.7, Liquid temperature (℃): 21.4

SATIMO Configuration:
Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
Sensor-Surface: 4mm (Mechanical Surface Detection)
Phantom: SAM twin phantom
Measurement SW: OpenSAR V4_02_35

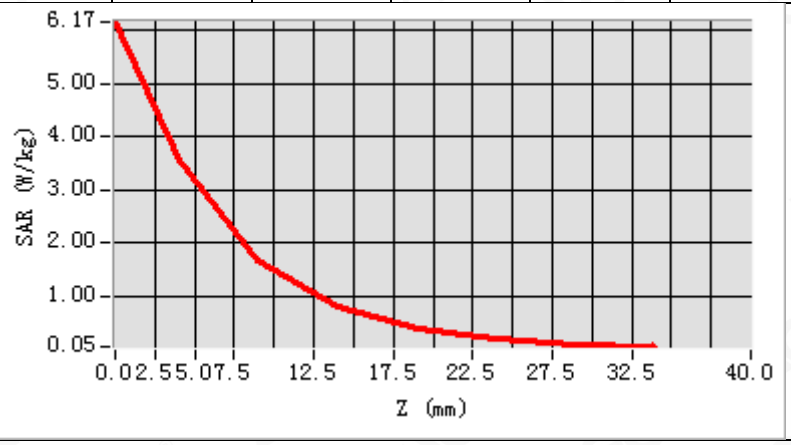
Configuration/System Check 2600 Head/Area Scan: Measurement grid: dx=8mm,dy=8mm
Configuration/System Check 2600 Head/Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5mm

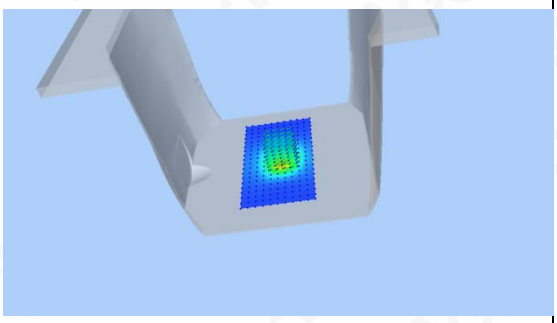
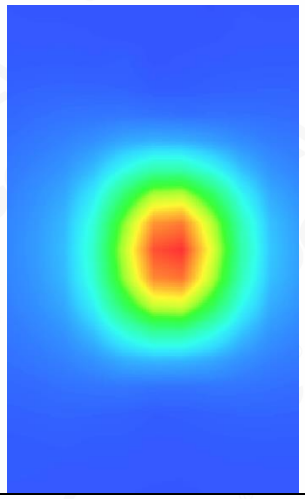
SURFACE SAR	VOLUME SAR
	

Maximum location: X=6.00, Y=0.00
SAR Peak: 6.14 W/kg

SAR 10g (W/Kg)	1.450228
SAR 1g (W/Kg)	3.300527

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	6.1628	3.5516	1.6638	0.8118	0.3976	0.1965	0.0982



3D screen shot	Hot spot position
	

APPENDIX B. SAR MEASUREMENT DATA

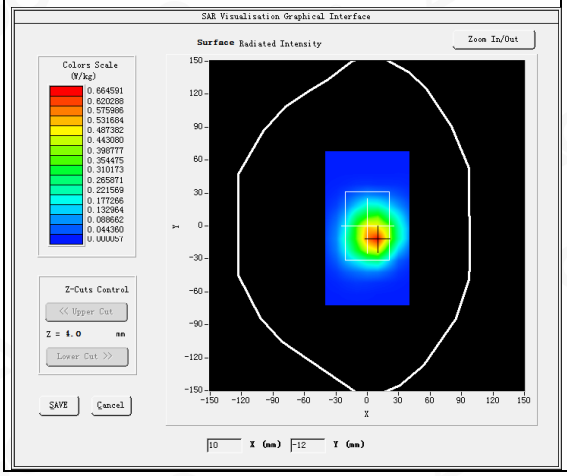
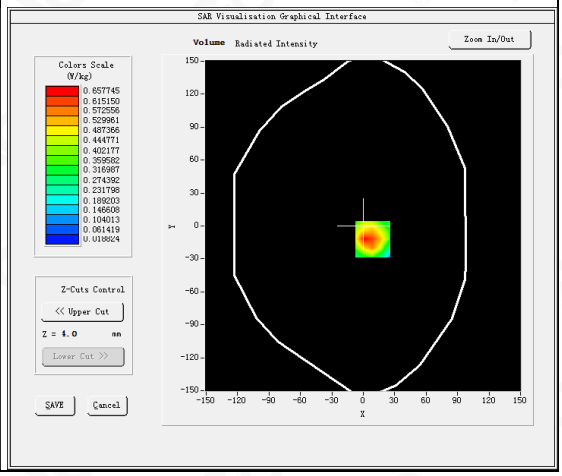
Test Laboratory: AGC Lab **Date: Jan. 23,2021**
GSM 850 Mid- Body- Front (MS) <SIM 1>
DUT: FH Emergency Device - V1-4G; Type: FH-V1-4G

Communication System: Generic GSM; Communication System Band: GSM 850; Duty Cycle: 1:8.3; Conv.F=5.26;
Frequency: 836.6 MHz; Medium parameters used: f = 835 MHz; σ= 0.95 mho/m; εr = 40.35; ρ= 1000 kg/m³ ;
Phantom section: Flat Section
Ambient temperature (℃): 21.7, Liquid temperature (℃): 21.4

SATIMO Configuration:
Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
Sensor-Surface: 4mm (Mechanical Surface Detection)
Phantom: SAM twin phantom
Measurement SW: OpenSAR V4_02_35

Configuration/GSM 850 Mid-Body- Front /Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/GSM 850 Mid-Body- Front Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5mm;

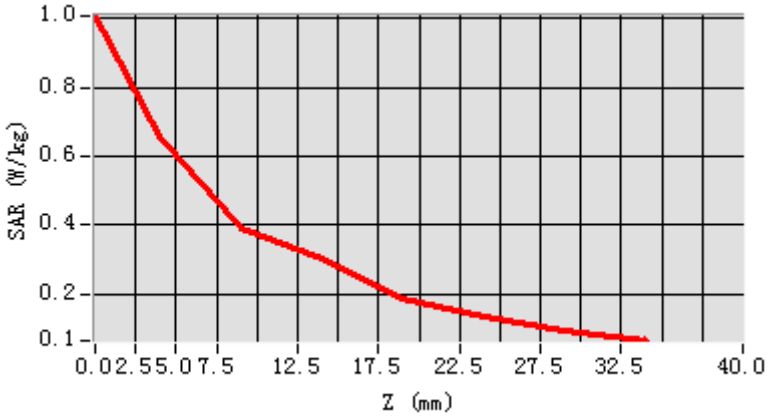
Area Scan	surf_sam_plan.txt, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	Validation plane
Device Position	Body Front
Band	GSM 850
Channels	Middle
Signal	TDMA (Crest factor: 8.0)

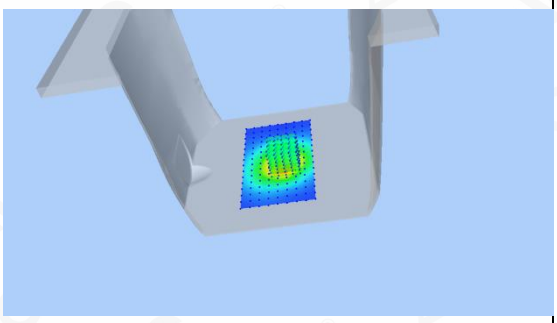
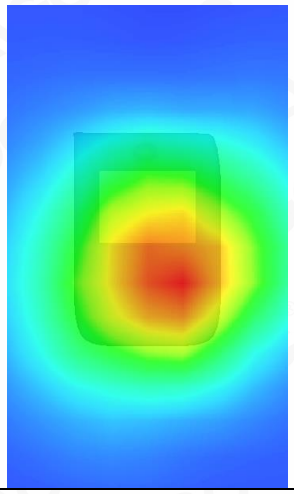
SURFACE SAR	VOLUME SAR
	

Maximum location: X=9.00, Y=-12.00
SAR Peak: 0.91 W/kg

SAR 10g (W/Kg)	0.378642
SAR 1g (W/Kg)	0.611069

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.0079	0.6577	0.3896	0.3027	0.1868	0.1336	0.0911



3D screen shot	Hot spot position
	

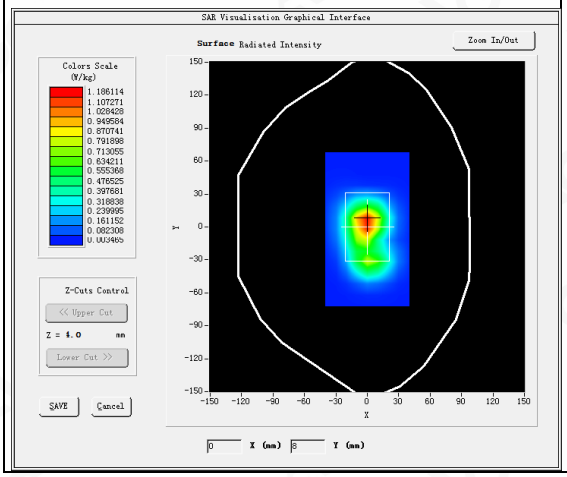
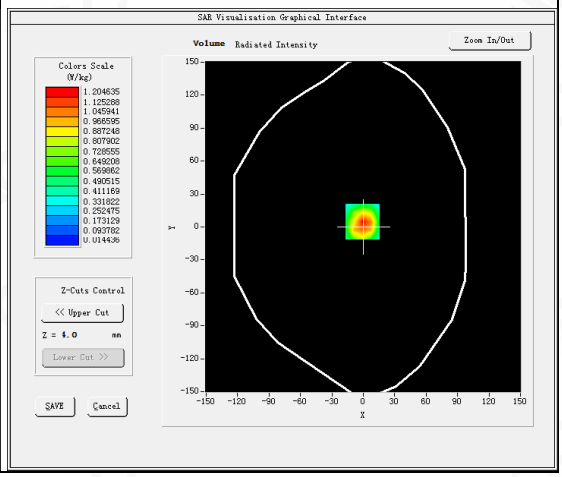
Test Laboratory: AGC Lab **Date: Jan. 16,2021**
PCS 1900 Mid-Body -Front (MS) <SIM 1>
DUT: FH Emergency Device - V1-4G; Type: FH-V1-4G

Communication System: Generic GSM; Communication System Band: PCS 1900; Duty Cycle: 1:8.3; Conv.F=4.72; Frequency: 1880 MHz; Medium parameters used: f = 1900 MHz; σ= 1.36 mho/m; εr =39.52; ρ= 1000 kg/m^3 ;
Phantom section: Flat Section
Ambient temperature (℃): 19.3, Liquid temperature (℃): 19.1

SATIMO Configuration:
Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
Sensor-Surface: 4mm (Mechanical Surface Detection)
Phantom: SAM twin phantom
Measurement SW: OpenSAR V4_02_35

Configuration/PCS1900 Mid-Body- Front /Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/PCS1900 Mid-Body- Front /Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5mm;

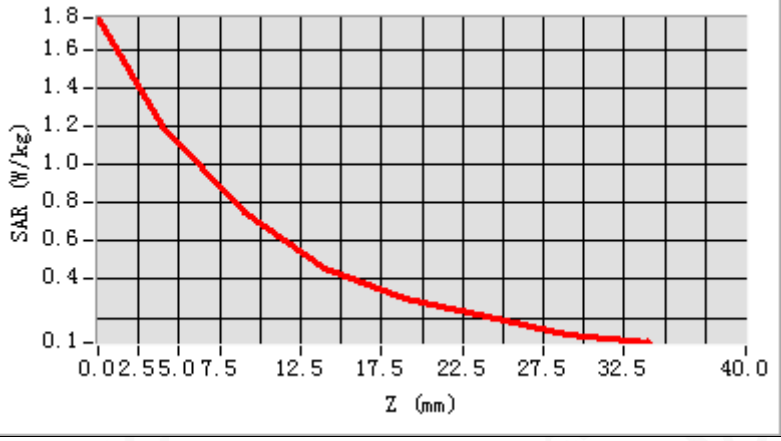
Area Scan	surf_sam_plan.txt, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	Validation plane
Device Position	Body Front
Band	PCS 1900
Channels	Middle
Signal	TDMA (Crest factor: 8.0)

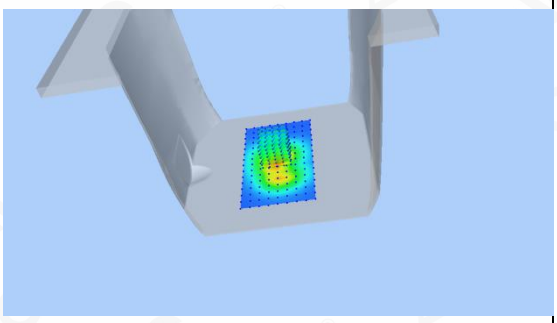
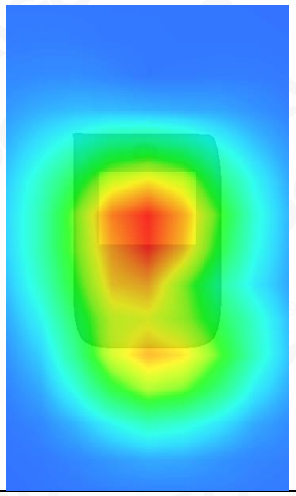
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-1.00, Y=5.00
SAR Peak: 1.79 W/kg

SAR 10g (W/Kg)	0.617425
SAR 1g (W/Kg)	1.124113

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.7686	1.2046	0.7543	0.4587	0.3044	0.2035	0.1131



3D screen shot	Hot spot position
	

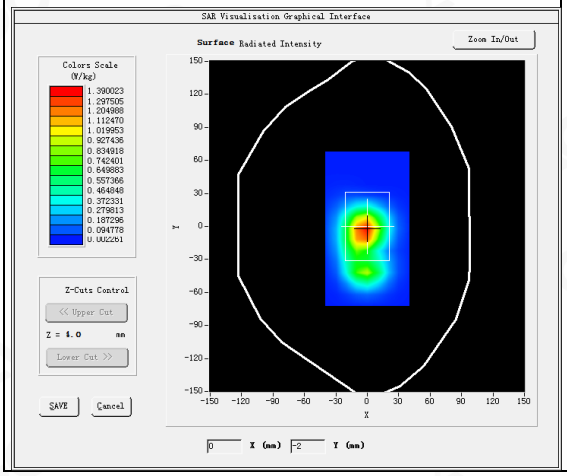
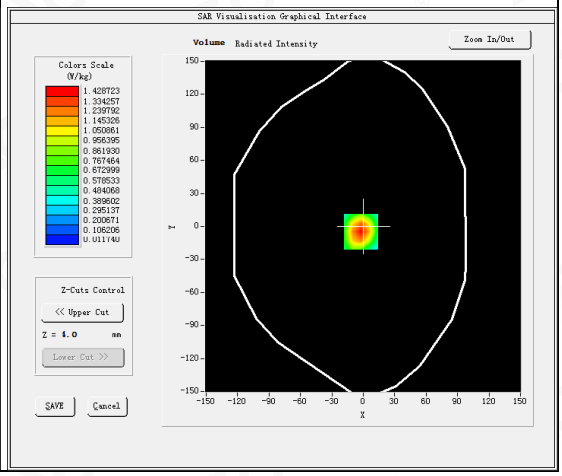
Test Laboratory: AGC Lab **Date: Jan. 16,2021**
LTE Band 2 Mid-Body-Front (1 RB#0)
DUT: FH Emergency Device - V1-4G; Type: FH-V1-4G

Communication System: LTE; Communication System Band: LTE Band 2; Duty Cycle:1:1; Conv.F=4.72;
Frequency:1880MHz; Medium parameters used: f = 1900 MHz; σ= 1.36 mho/m; εr =39.52; ρ= 1000 kg/m^3 ;
Phantom section: Flat Section
Ambient temperature (℃): 19.3, Liquid temperature (℃): 19.1

SATIMO Configuration:
Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
Sensor-Surface: 4mm (Mechanical Surface Detection)
Phantom: SAM twin phantom
Measurement SW: OpenSAR V4_02_35

Configuration/ LTE Band 2 Mid-Body- Front /Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/ LTE Band 2 Mid-Body- Front /Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5m;

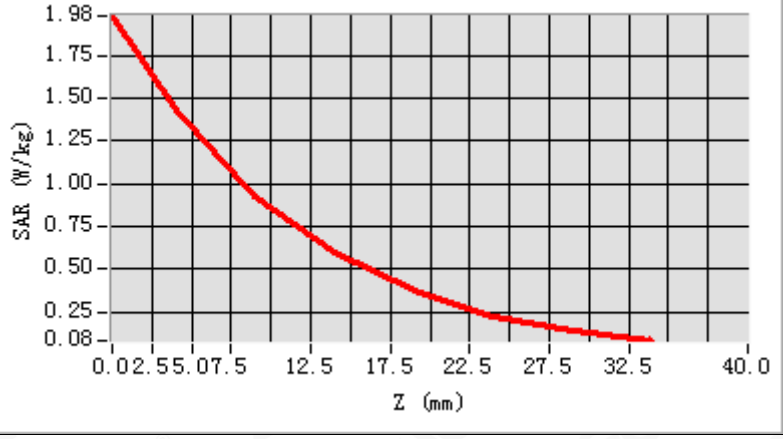
Area Scan	surf_sam_plan.txt, h= 5.00 mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Body Front
Band	LTE Band 2
Channels	Middle
Signal	OFDM (Crest factor: 1.0)

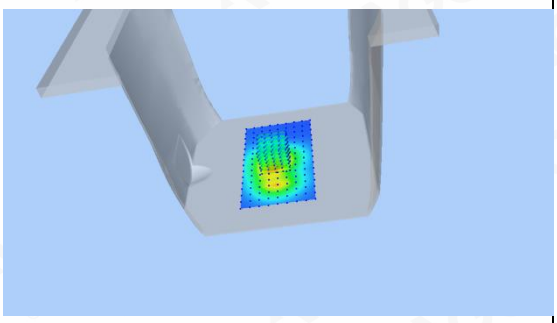
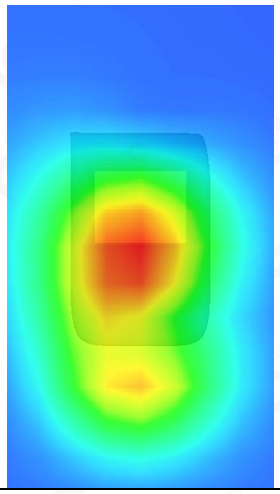
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-2.00, Y=-5.00
SAR Peak: 1.98 W/kg

SAR 10g (W/Kg)	0.761913
SAR 1g (W/Kg)	1.340054

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.9810	1.4287	0.9290	0.5969	0.3697	0.2258	0.1348



3D screen shot	Hot spot position
	

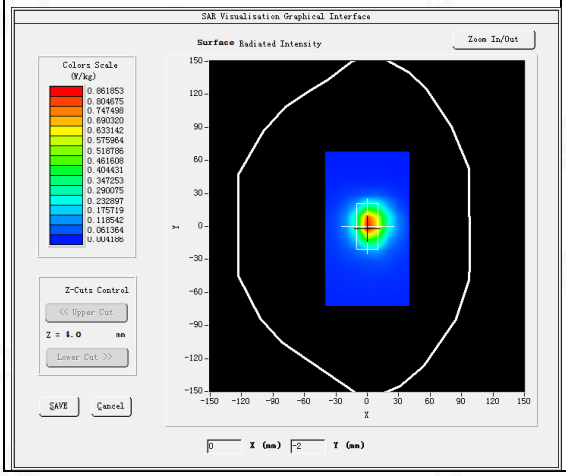
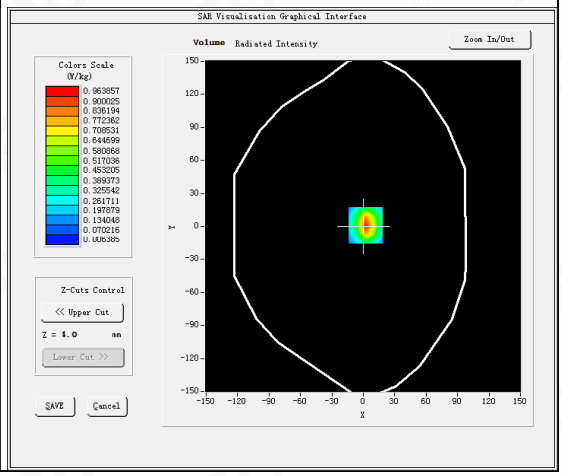
Test Laboratory: AGC Lab **Date: Jan. 30,2021**
LTE Band 4 Mid-Edge 3(Bottom) (1 RB#0)
DUT: FH Emergency Device - V1-4G; Type: FH-V1-4G

Communication System: LTE; Communication System Band: LTE Band 4; Duty Cycle:1:1; Conv.F=4.48;
Frequency:1732.5 MHz; Medium parameters used: f = 1800 MHz; σ= 1.32 mho/m; εr =40.36; ρ= 1000 kg/m^3 ;
Phantom section: Flat Section
Ambient temperature (℃): 21.7, Liquid temperature (℃): 21.4

SATIMO Configuration:
Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
Sensor-Surface: 4mm (Mechanical Surface Detection)
Phantom: SAM twin phantom
Measurement SW: OpenSAR V4_02_35

Configuration/ LTE Band 4 Mid- Edge 3(Bottom)/Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/ LTE Band 4 Mid- Edge 3(Bottom)/Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5m;

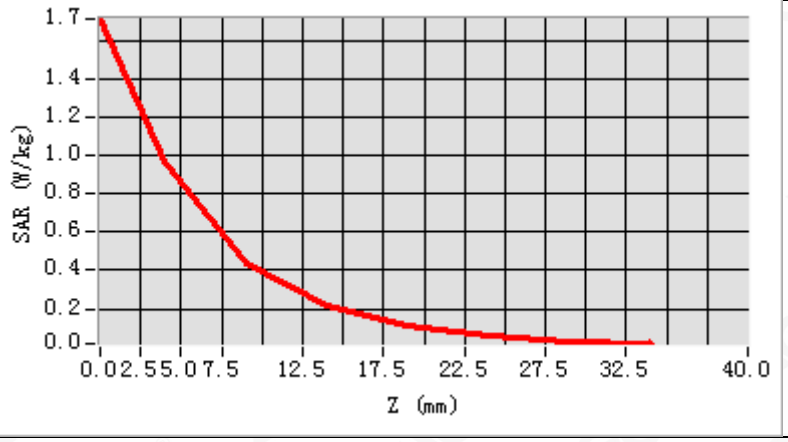
Area Scan	surf_sam_plan.txt, h= 5.00 mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Edge 3(Bottom)
Band	LTE Band 4
Channels	Middle
Signal	OFDM (Crest factor: 1.0)

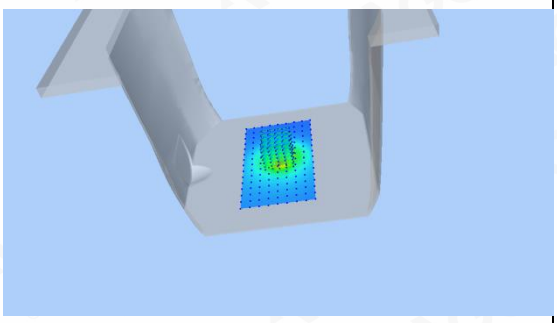
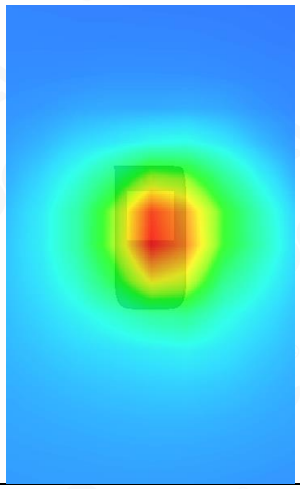
SURFACE SAR	VOLUME SAR
	

Maximum location: X=2.00, Y=1.00
SAR Peak: 1.69 W/kg

SAR 10g (W/Kg)	0.382890
SAR 1g (W/Kg)	0.754918

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.7099	0.9639	0.4399	0.2197	0.1126	0.0589	0.0319



3D screen shot	Hot spot position
	

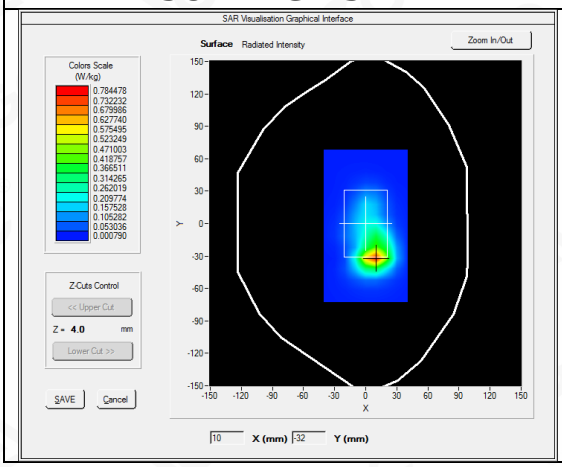
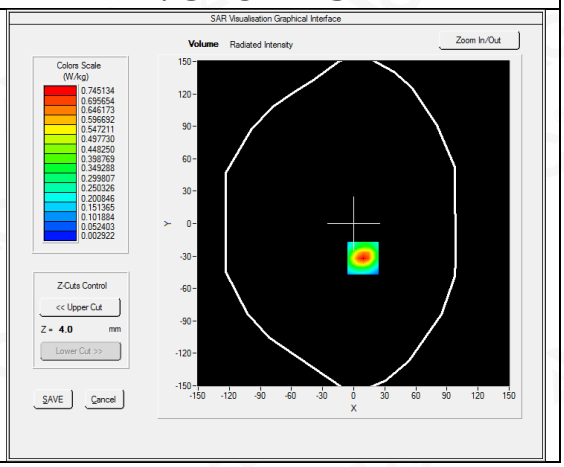
Test Laboratory: AGC Lab **Date: Jan. 27,2021**
LTE Band 7 Mid-Body-Front (1RB#0)
DUT: FH Emergency Device - V1-4G; Type: FH-V1-4G

Communication System: LTE; Communication System Band: LTE Band 7; Duty Cycle:1:1; Conv.F=3.81
Frequency: 2535MHz; Medium parameters used: f =2600 MHz; σ=1.86 mho/m; εr =40.33; ρ= 1000 kg/m³ ;
Phantom section: Flat Section
Ambient temperature (℃): 21.7, Liquid temperature (℃): 21.4

SATIMO Configuration:
Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
Sensor-Surface: 4mm (Mechanical Surface Detection)
Phantom: SAM twin phantom
Measurement SW: OpenSAR V4_02_35

Configuration/ LTE BAND 7 Mid-Body- Front /Area Scan: Measurement grid: dx=10mm, y=10mm
Configuration/ LTE BAND 7 Mid-Body- Front /Zoom Scan: Measurement grid: dx=5mm, dy=5mm, dz=5mm

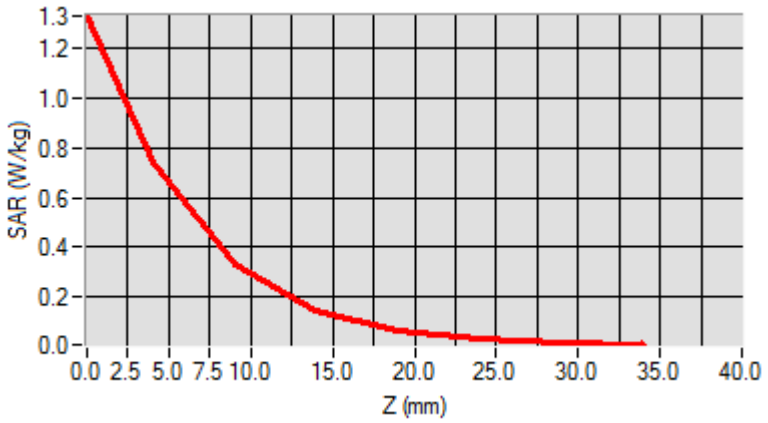
Area Scan	surf_sam_plan.txt, h= 5.00 mm
ZoomScan	7x7x7,dx=5mm dy=5mm dz=5mm
Phantom	Validation plane
Device Position	Body Front
Band	LTE BAND 7
Channels	Middle
Signal	OFDM (Crest factor: 1.0)

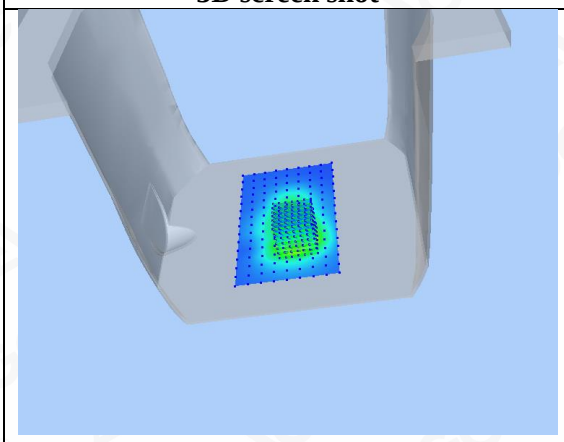
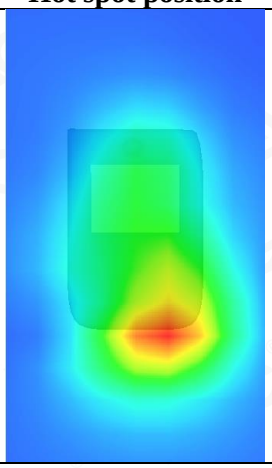
SURFACE SAR	VOLUME SAR
	

Maximum location: X=9.00, Y=-32.00
SAR Peak: 1.33 W/kg

SAR 10g (W/Kg)	0.285048
SAR 1g (W/Kg)	0.675743

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.3313	0.7451	0.3291	0.1447	0.0648	0.0298	0.0144



3D screen shot	Hot spot position
	

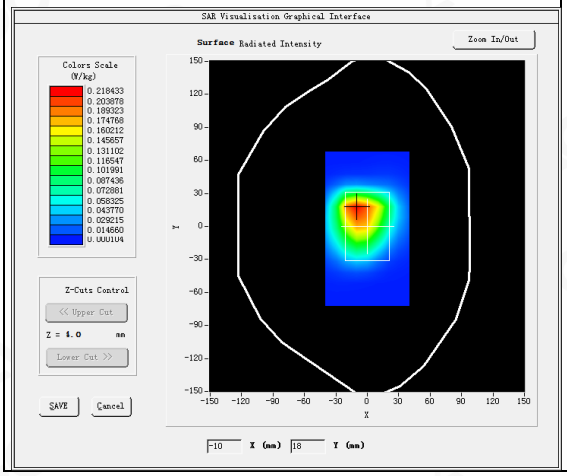
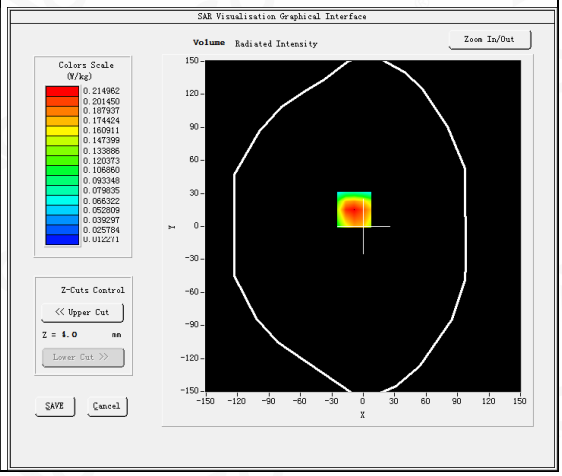
Test Laboratory: AGC Lab **Date: Jan. 28,2021**
LTE Band 12 Mid-Body- Front (1 RB#0)
DUT: FH Emergency Device - V1-4G; Type: FH-V1-4G

Communication System: LTE; Communication System Band: LTE Band 12; Duty Cycle:1:1; Conv.F=5.06;
Frequency: 707.5 MHz; Medium parameters used: f = 750 MHz; σ=0.86 mho/m; εr =44.53; ρ= 1000 kg/m³ ;
Phantom section: Flat Section
Ambient temperature (℃): 21.2, Liquid temperature (℃): 21.0

SATIMO Configuration:
Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
Sensor-Surface: 4mm (Mechanical Surface Detection)
Phantom: SAM twin phantom
Measurement SW: OpenSAR V4_02_35

Configuration/ LTE Band 12 Mid-Body- Front /Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/ LTE Band 12 Mid-Body- Front /Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5m;

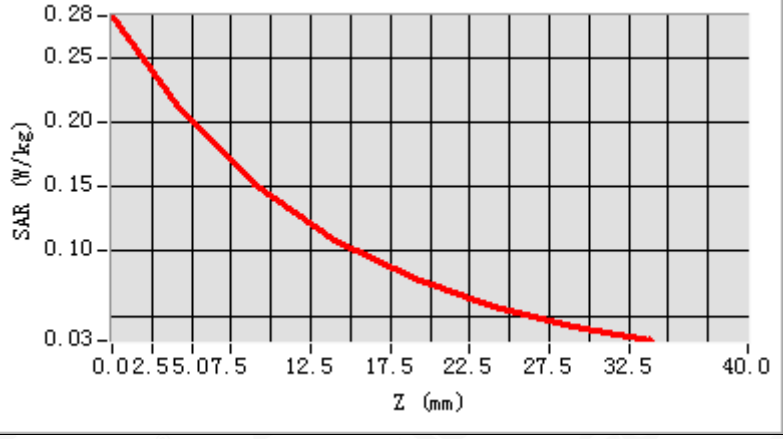
Area Scan	surf_sam_plan.txt, h= 5.00 mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Body Front
Band	LTE Band 12
Channels	Middle
Signal	OFDM (Crest factor: 1.0)

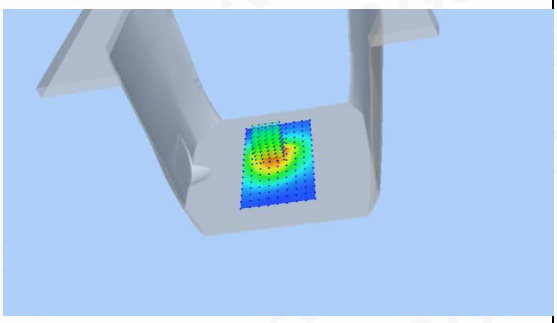
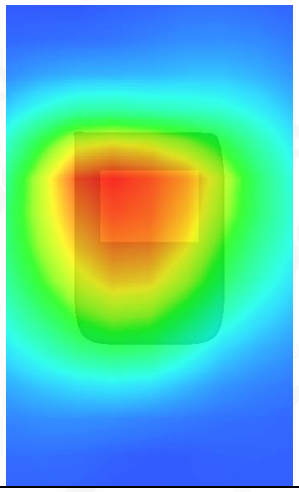
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-9.00, Y=15.00
SAR Peak: 0.31 W/kg

SAR 10g (W/Kg)	0.134823
SAR 1g (W/Kg)	0.212073

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.2827	0.2150	0.1526	0.1084	0.0783	0.0566	0.0416



3D screen shot	Hot spot position
	

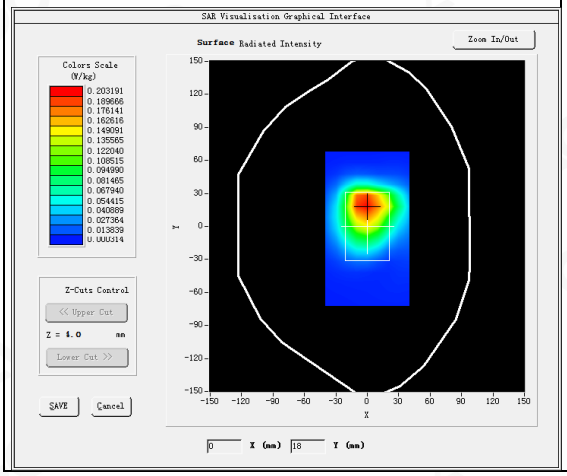
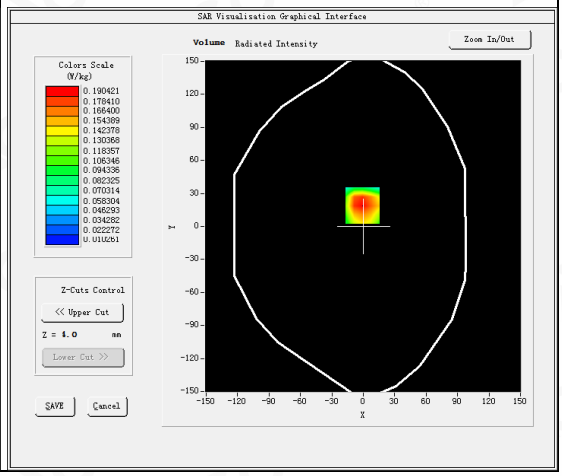
Test Laboratory: AGC Lab **Date: Jan. 28,2021**
LTE Band 17 Mid-Body- Front (1 RB#0)
DUT: FH Emergency Device - V1-4G; Type: FH-V1-4G

Communication System: LTE; Communication System Band: LTE Band 17; Duty Cycle:1:1; Conv.F=5.06;
Frequency: 710 MHz; Medium parameters used: f = 750 MHz; σ=0.89 mho/m; εr =43.28; ρ= 1000 kg/m³ ;
Phantom section: Flat Section
Ambient temperature (℃): 21.2, Liquid temperature (℃): 21.0

SATIMO Configuration:
Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
Sensor-Surface: 4mm (Mechanical Surface Detection)
Phantom: SAM twin phantom
Measurement SW: OpenSAR V4_02_35

Configuration/ LTE Band 17 Mid-Body- Front /Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/ LTE Band 17 Mid-Body- Front /Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5m;

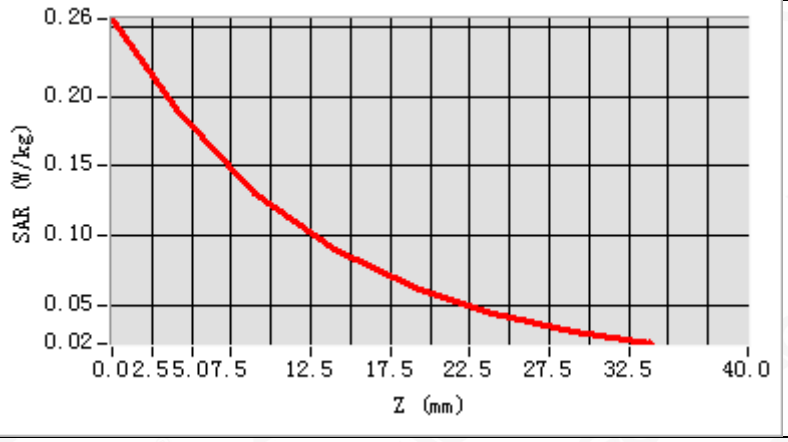
Area Scan	surf_sam_plan.txt, h= 5.00 mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Body Front
Band	LTE Band 17
Channels	Middle
Signal	OFDM (Crest factor: 1.0)

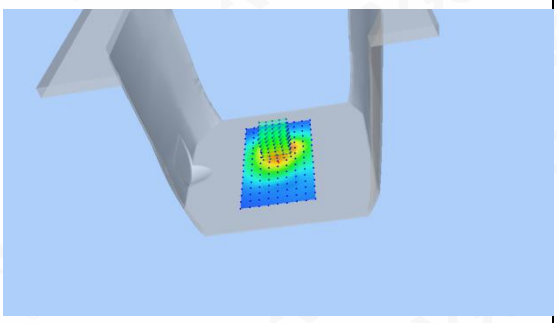
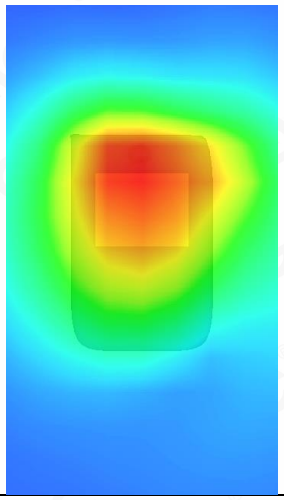
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-1.00, Y=19.00
SAR Peak: 0.30 W/kg

SAR 10g (W/Kg)	0.113372
SAR 1g (W/Kg)	0.191384

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.2560	0.1904	0.1310	0.0897	0.0625	0.0436	0.0308



3D screen shot	Hot spot position
	

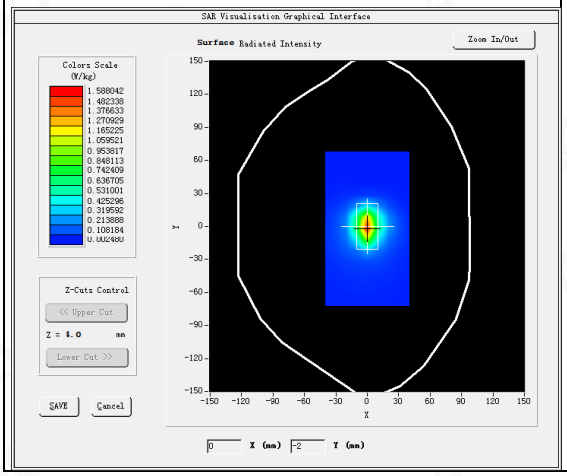
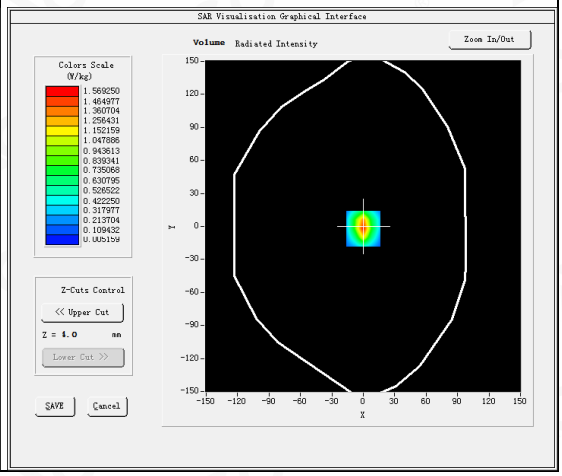
Test Laboratory: AGC Lab **Date: Jan. 16,2021**
LTE Band 25 High-Body- Edge 3(Bottom) (1 RB#0)
DUT: FH Emergency Device - V1-4G; Type: FH-V1-4G

Communication System: LTE; Communication System Band: LTE Band 25; Duty Cycle:1:1; Conv.F=4.72;
Frequency: 1912.5MHz; Medium parameters used: f = 1900 MHz; σ= 1.43 mho/m; εr =36.56; ρ= 1000 kg/m³ ;
Phantom section: Flat Section
Ambient temperature (℃): 19.3, Liquid temperature (℃): 19.1

SATIMO Configuration:
Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
Sensor-Surface: 4mm (Mechanical Surface Detection)
Phantom: SAM twin phantom
Measurement SW: OpenSAR V4_02_35

Configuration/ LTE Band 25 High- Edge 3(Bottom)/Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/ LTE Band 25 High- Edge 3(Bottom)/Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5m;

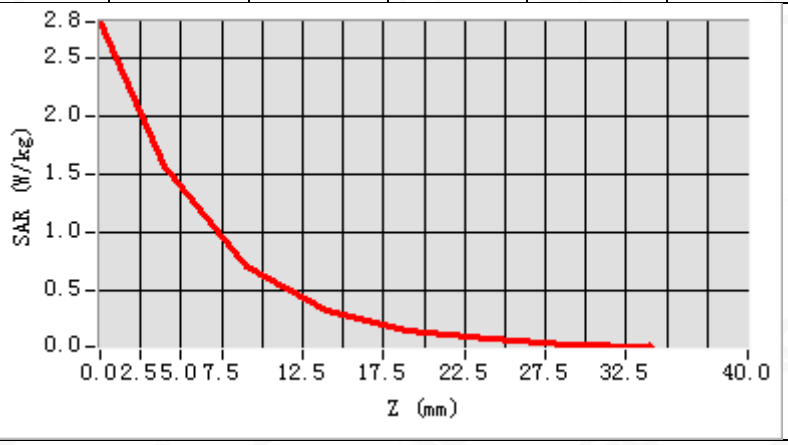
Area Scan	surf_sam_plan.txt, h= 5.00 mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Edge 3(Bottom)
Band	LTE Band 25
Channels	High
Signal	OFDM (Crest factor: 1.0)

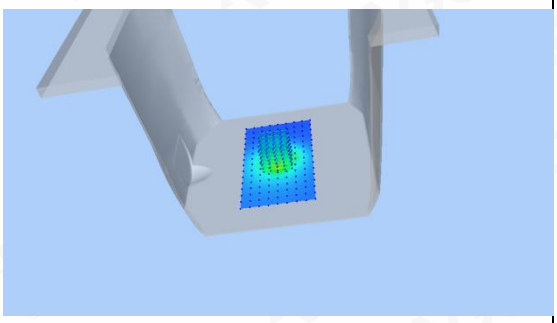
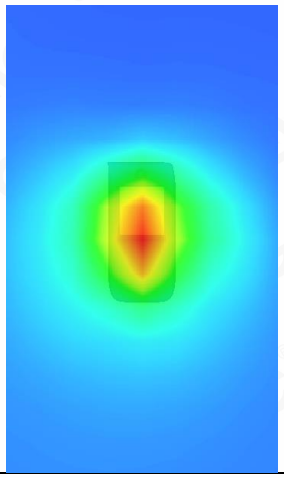
SURFACE SAR	VOLUME SAR
	

Maximum location: X=0.00, Y=-2.00
SAR Peak: 2.77 W/kg

SAR 10g (W/Kg)	0.572452
SAR 1g (W/Kg)	1.399874

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	2.8053	1.5693	0.7018	0.3372	0.1649	0.0830	0.0430



3D screen shot	Hot spot position
	

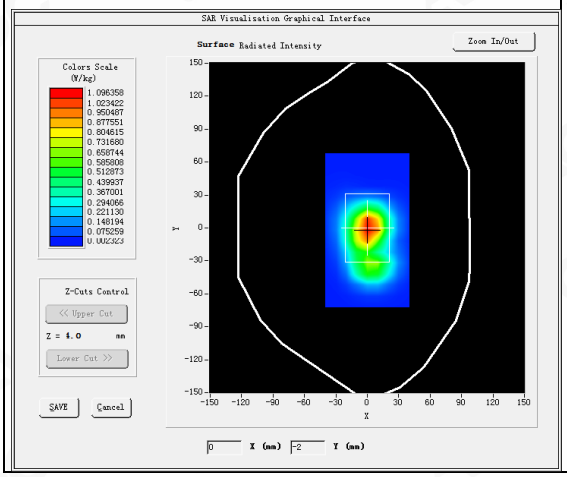
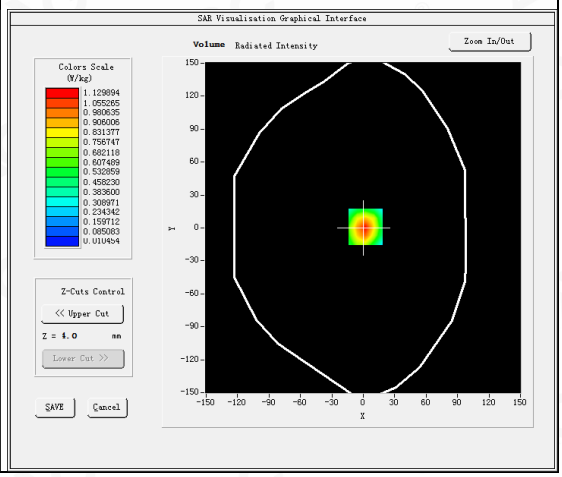
Repeated SAR
Test Laboratory: AGC Lab **Date: Jan. 16,2021**
PCS 1900 Mid-Body -Front (MS) <SIM 1>
DUT: FH Emergency Device - V1-4G; Type: FH-V1-4G

Communication System: Generic GSM; Communication System Band: PCS 1900; Duty Cycle: 1:8.3; Conv.F=4.72; Frequency: 1880 MHz; Medium parameters used: f = 1900 MHz; σ= 1.36 mho/m; εr =39.52; ρ= 1000 kg/m³ ;
Phantom section: Flat Section
Ambient temperature (℃): 19.3, Liquid temperature (℃): 19.1

SATIMO Configuration:
Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
Sensor-Surface: 4mm (Mechanical Surface Detection)
Phantom: SAM twin phantom
Measurement SW: OpenSAR V4_02_35

Configuration/PCS1900 Mid-Body- Front /Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/PCS1900 Mid-Body- Front /Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5mm;

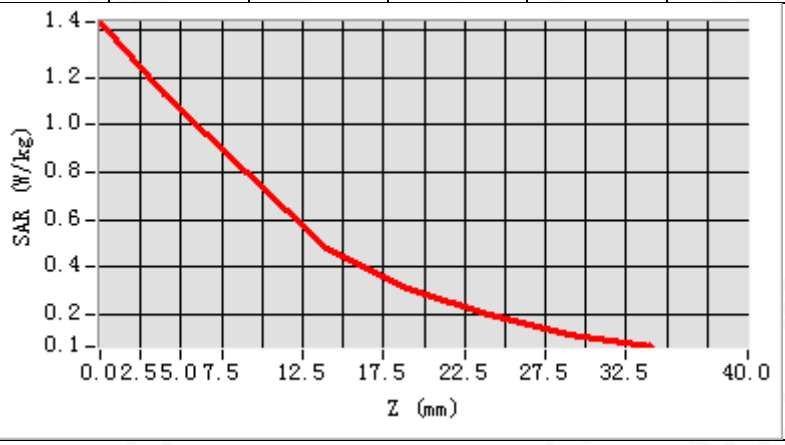
Area Scan	surf_sam_plan.txt, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	Validation plane
Device Position	Body Front
Band	PCS 1900
Channels	Middle
Signal	TDMA (Crest factor: 8.0)

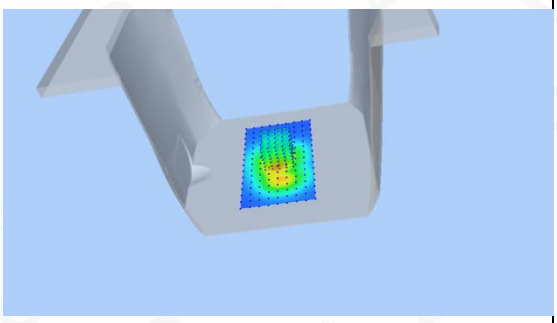
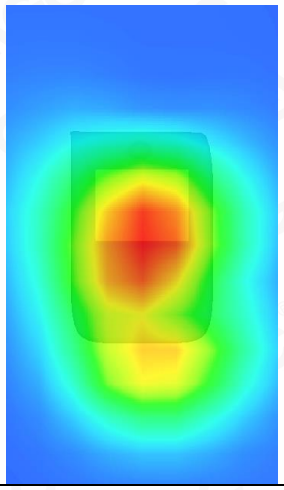
SURFACE SAR	VOLUME SAR
	

Maximum location: X=2.00, Y=1.00
SAR Peak: 1.55 W/kg

SAR 10g (W/Kg)	0.592324
SAR 1g (W/Kg)	1.032168

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.4324	1.1299	0.7975	0.4780	0.3067	0.1965	0.1118



3D screen shot	Hot spot position
	

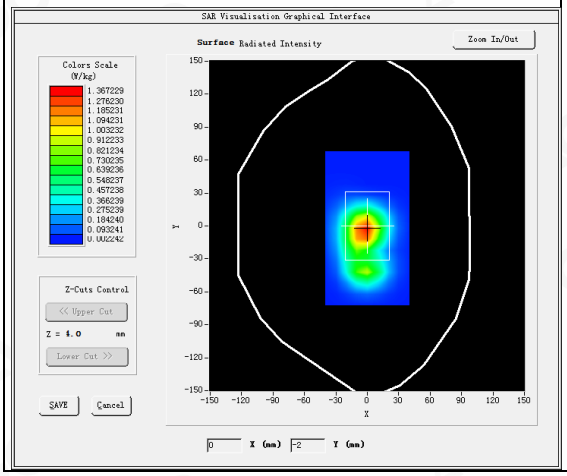
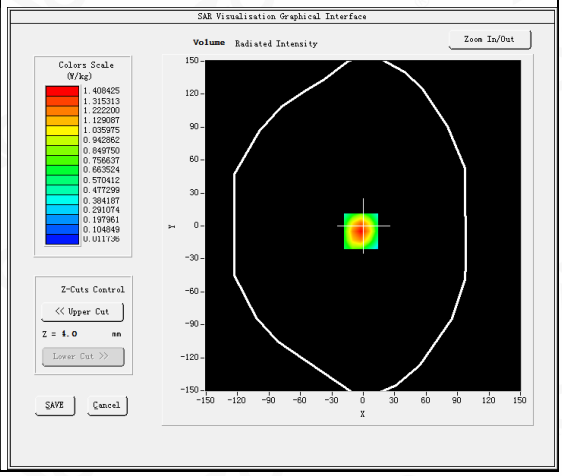
Test Laboratory: AGC Lab **Date: Jan. 16,2021**
LTE Band 2 Mid-Body-Front (1 RB#0)
DUT: FH Emergency Device - V1-4G; Type: FH-V1-4G

Communication System: LTE; Communication System Band: LTE Band 2; Duty Cycle:1:1; Conv.F=4.72;
Frequency:1880MHz; Medium parameters used: f = 1900 MHz; σ= 1.36 mho/m; εr =39.52; ρ= 1000 kg/m^3 ;
Phantom section: Flat Section
Ambient temperature (℃): 19.3, Liquid temperature (℃): 19.1

SATIMO Configuration:
Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
Sensor-Surface: 4mm (Mechanical Surface Detection)
Phantom: SAM twin phantom
Measurement SW: OpenSAR V4_02_35

Configuration/ LTE Band 2 Mid-Body- Front /Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/ LTE Band 2 Mid-Body- Front /Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5m;

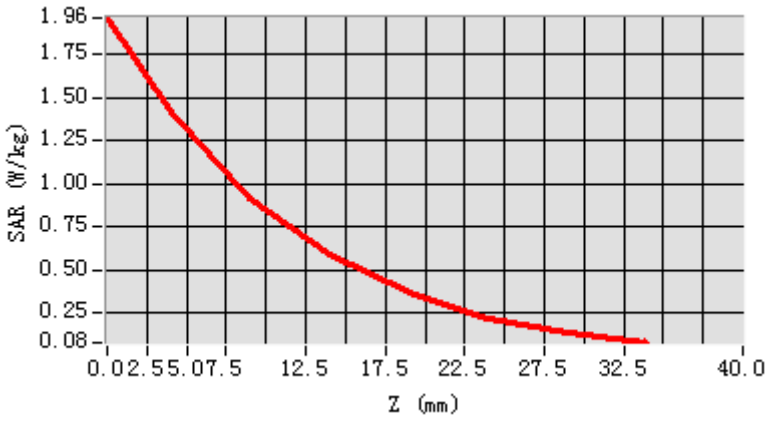
Area Scan	surf_sam_plan.txt, h= 5.00 mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Body Front
Band	LTE Band 2
Channels	Middle
Signal	OFDM (Crest factor: 1.0)

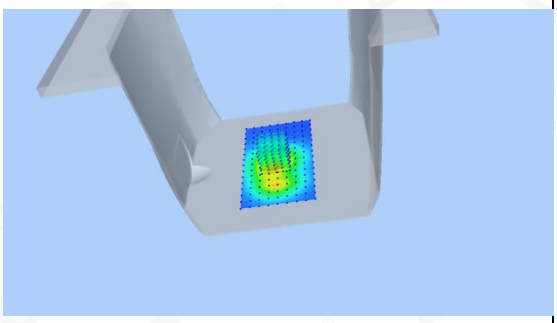
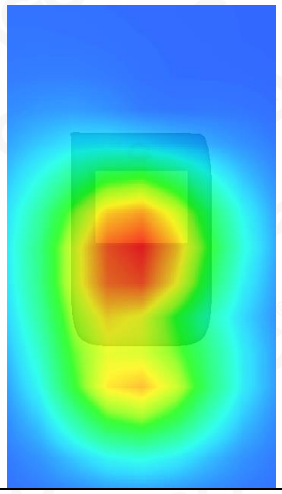
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-2.00, Y=-5.00
SAR Peak: 1.96 W/kg

SAR 10g (W/Kg)	0.750088
SAR 1g (W/Kg)	1.320737

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.9585	1.4084	0.9144	0.5853	0.3649	0.2221	0.1327



3D screen shot	Hot spot position
	

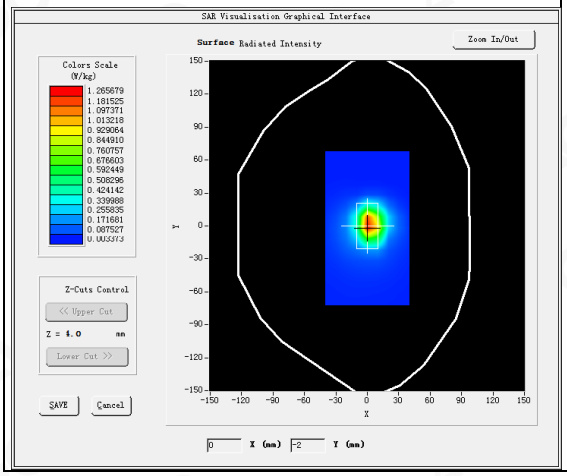
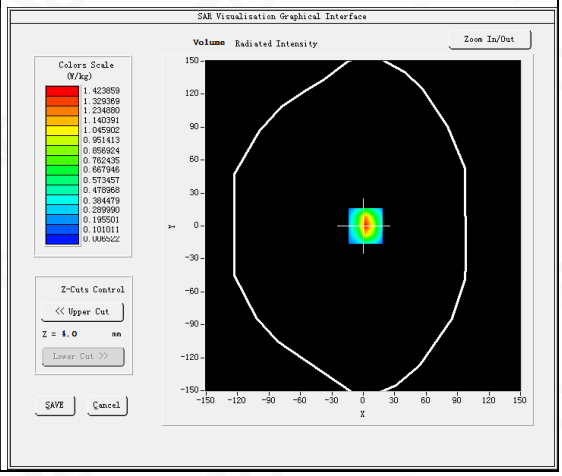
Test Laboratory: AGC Lab **Date: Jan. 16,2021**
LTE Band 25 High-Body- Edge 3(Bottom) (1 RB#0)
DUT: FH Emergency Device - V1-4G; Type: FH-V1-4G

Communication System: LTE; Communication System Band: LTE Band 25; Duty Cycle:1:1; Conv.F=4.72;
Frequency: 1912.5MHz; Medium parameters used: f = 1900 MHz; σ= 1.43 mho/m; εr =36.56; ρ= 1000 kg/m^3 ;
Phantom section: Flat Section
Ambient temperature (℃): 19.3, Liquid temperature (℃): 19.1

SATIMO Configuration:
Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
Sensor-Surface: 4mm (Mechanical Surface Detection)
Phantom: SAM twin phantom
Measurement SW: OpenSAR V4_02_35

Configuration/ LTE Band 25 High- Edge 3(Bottom)/Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/ LTE Band 25 High- Edge 3(Bottom)/Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5m;

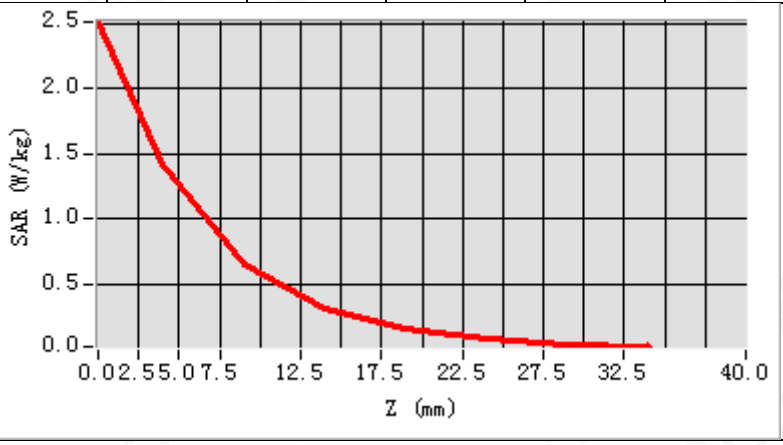
Area Scan	surf_sam_plan.txt, h= 5.00 mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Edge 3(Bottom)
Band	LTE Band 25
Channels	High
Signal	OFDM (Crest factor: 1.0)

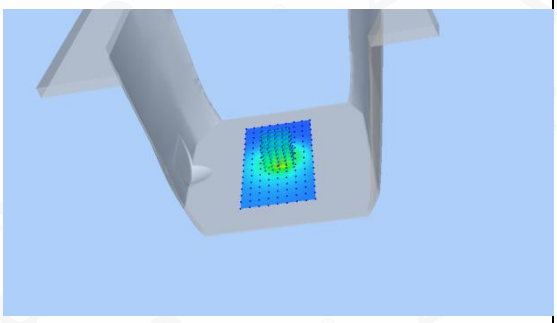
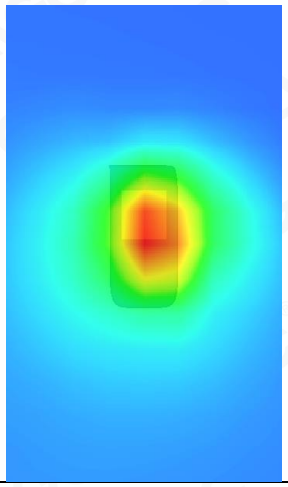
SURFACE SAR	VOLUME SAR
	

Maximum location: X=2.00, Y=0.00
SAR Peak: 2.49 W/kg

SAR 10g (W/Kg)	0.539107
SAR 1g (W/Kg)	1.292251

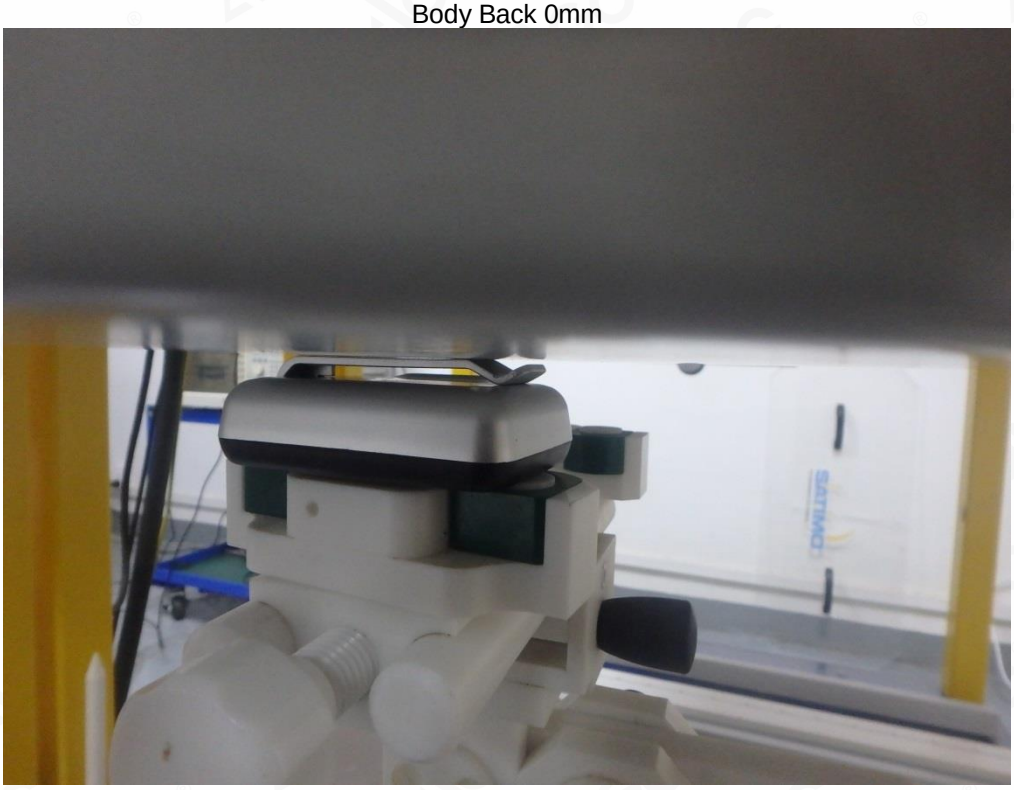
Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	2.5081	1.4239	0.6543	0.3207	0.1599	0.0820	0.0430



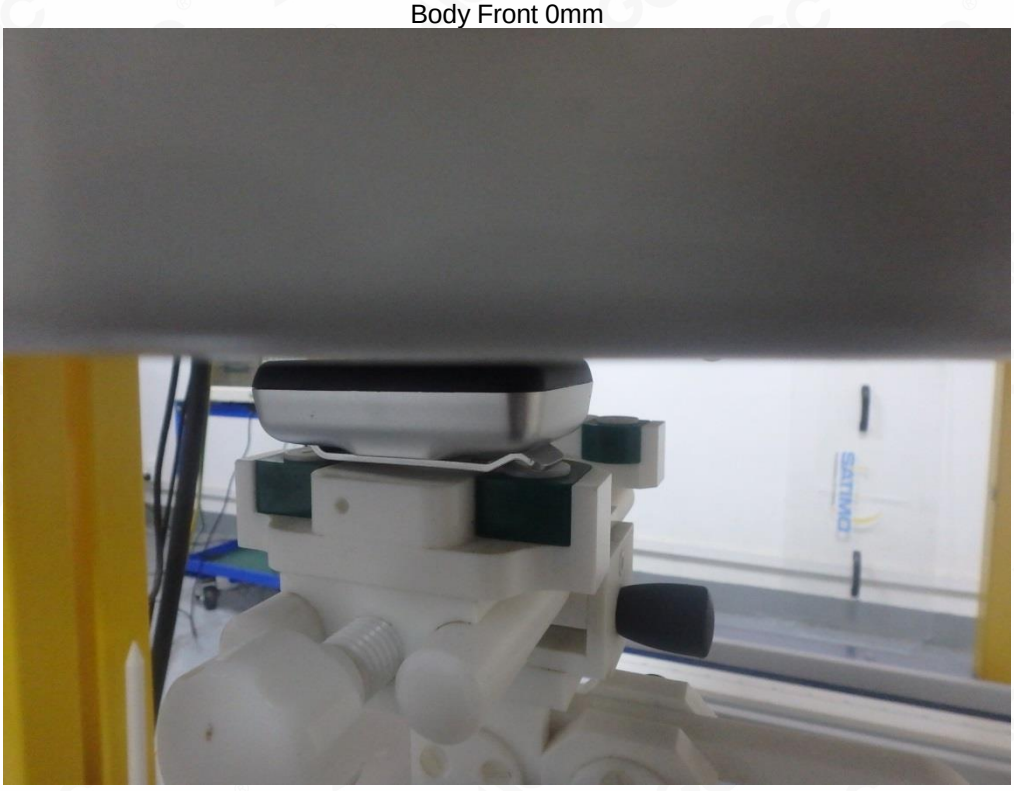
3D screen shot	Hot spot position
	

APPENDIX C. TEST SETUP PHOTOGRAPHS

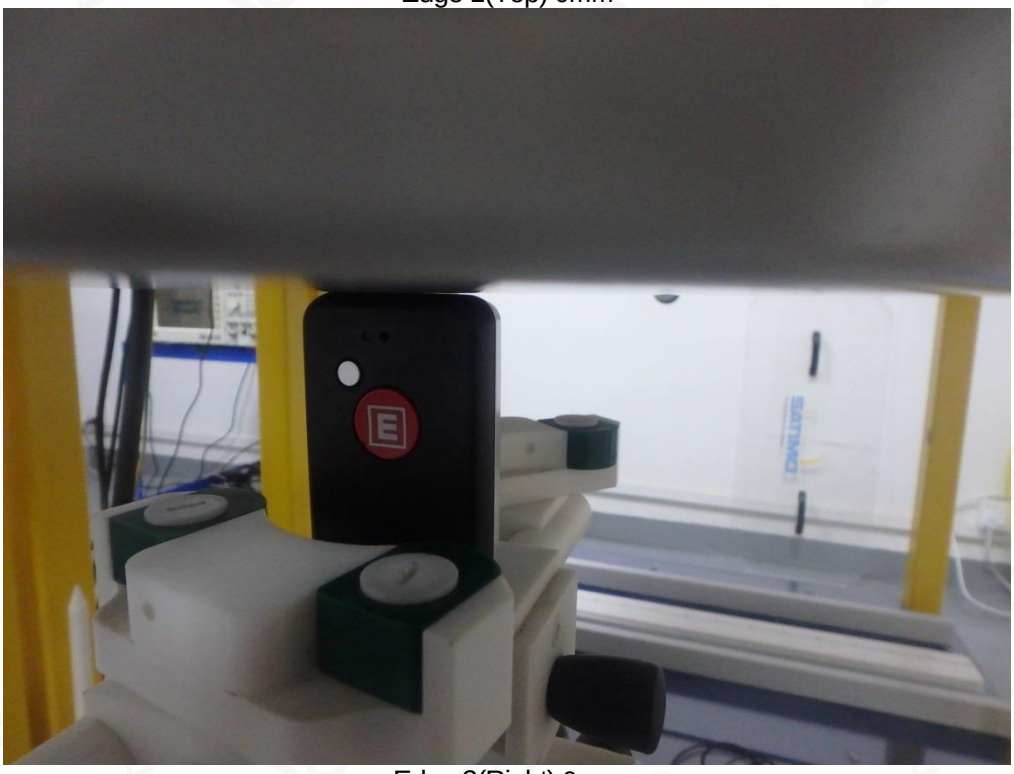
Body Back 0mm



Body Front 0mm

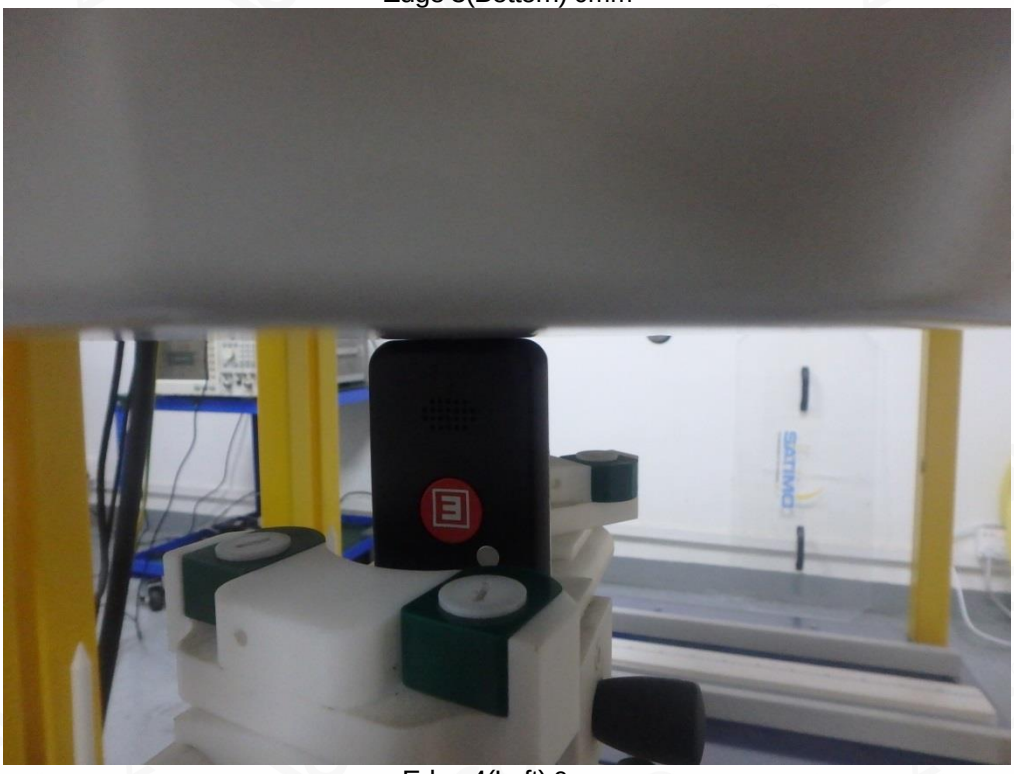


Edge 1(Top) 0mm

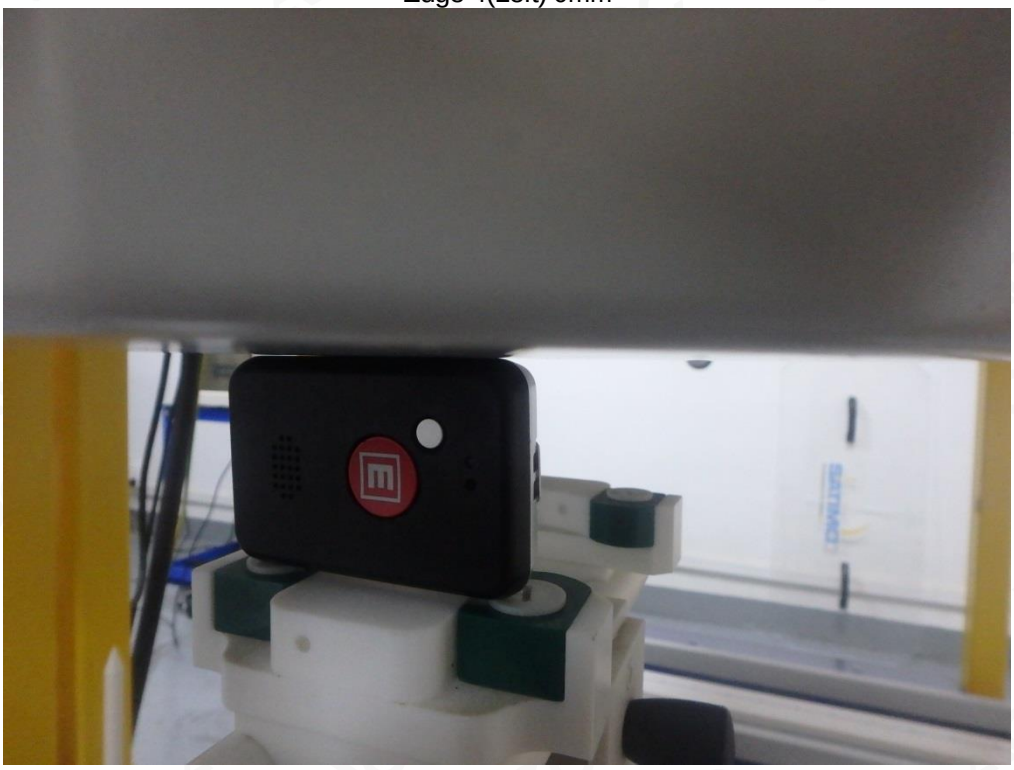


Edge 2(Right) 0mm

Edge 3(Bottom) 0mm



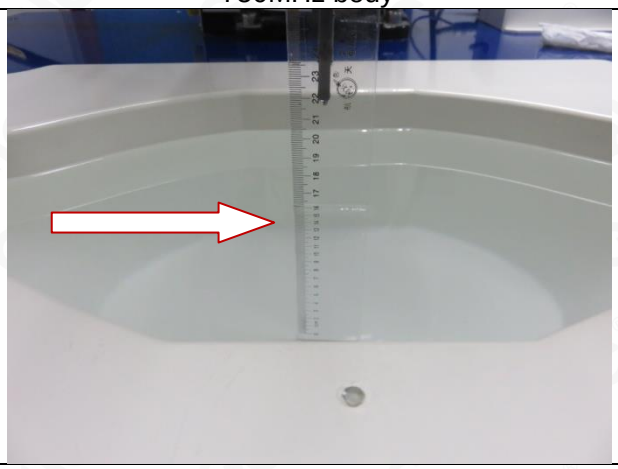
Edge 4(Left) 0mm



DEPTH OF THE LIQUID IN THE PHANTOM—ZOOM IN

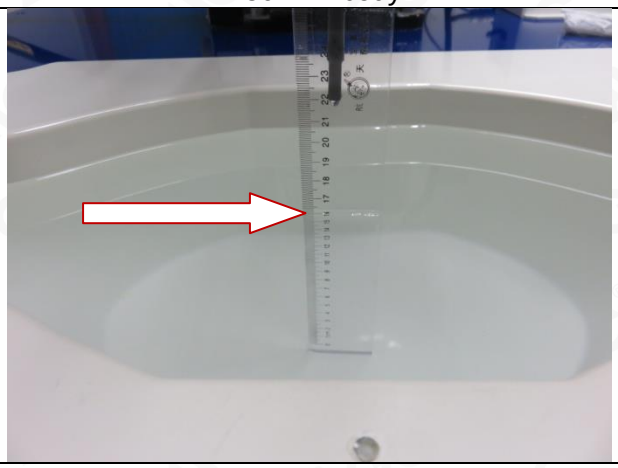
Note：The position used in the measurement were according to IEEE 1528-2013

750MHz body

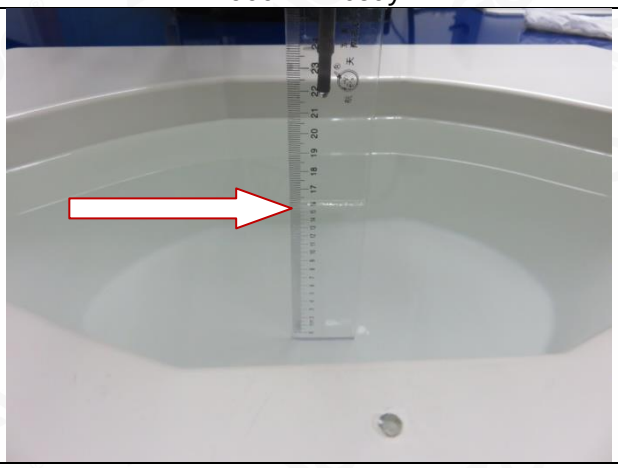


835MHz body

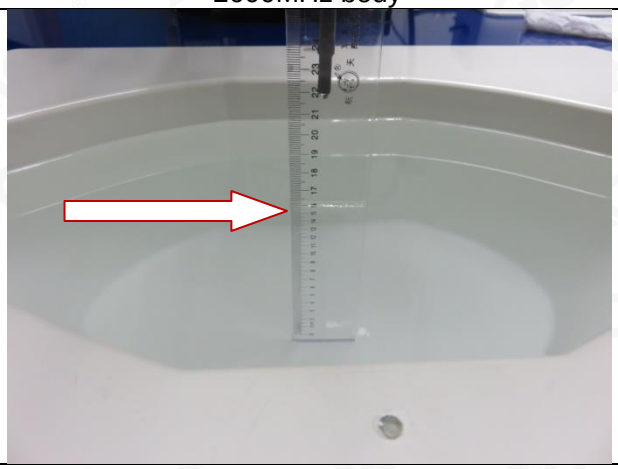
1750MHz body



1900MHz body



2600MHz body



APPENDIX D. CALIBRATION DATA

Refer to Attached files.

Conditions of Issuance of Test Reports

1. All samples and goods are accepted by the Attestation of Global Compliance (Shenzhen) Co., Ltd (the "Company") solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the company and any person, firm or company requesting its services (the "Clients").

2. Any report issued by Company as a result of this application for testing services (the "Report") shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to its customer, supplier or other persons directly concerned. The Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court orders.

3.The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.

4. The non-CMA report issued by AGC is only permitted to be used by the client as internal reference use and shall not be used for public demonstration purpose.

5. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.

6. Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.

7. The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.

8.Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.

9. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.

10. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.