



FCC SAR TEST REPORT

Report No.: STS2012165H01

Issued for

Shenzhen YQT Electronic Technology Co.,Ltd
F5, Bldg4, Hua Feng No.1 Science & Technology Zone,
Xixiang, Bao'an, Shenzhen, China

Product Name:	Smart Watch
Brand Name:	YQT
Model Name:	T5
Series Model:	Please refer to page 5
FCC ID:	2AKM6-T5
Test Standard:	ANSI/IEEE Std. C95.1
	FCC 47 CFR Part 2 (2.1093)
	IEEE 1528: 2013
Max. Report SAR:	Front of face: 1.383 W/kg (1g)
	Wrist: 2.035 W/kg(10g)

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Test Report Certification

Applicant's name : Shenzhen YQT Electronic Technology Co.,Ltd
Address : F5, Bldg4, Hua Feng No.1 Science & Technology Zone, Xixiang,
Bao'an, Shenzhen, China
Manufacture's Name : Shenzhen YQT Electronic Technology Co.,Ltd
Address : F5, Bldg4, Hua Feng No.1 Science & Technology Zone, Xixiang,
Bao'an, Shenzhen, China

Product description

Product name : Smart Watch
Brand name : YQT
Model name : T5
Series Model : Please refer to page 5

Standards : ANSI/IEEE Std. C95.1-1992
FCC 47 CFR Part 2 (2.1093)
IEEE 1528: 2013

The device was tested by Shenzhen STS Test Services Co., Ltd. in accordance with the measurement methods and procedures specified in KDB 865664 The test results in this report apply only to the tested sample of the stated device/equipment. Other similar device/equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Date of Test :
Date (s) of performance of tests : 28 Dec. 2020~ 31 Dec. 2020
Date of Issue : 05 Jan. 2021
Test Result : **Pass**

Testing Engineer :

Lemon Li

(Lemon Li)

Technical Manager :

Sean She

(Sean she)

Authorized Signatory :

Vita Li

(Vita Li)





Table of Contents

1.General Information	5
1.1 EUT Description	5
1.2 Test Environment	6
1.3 Test Factory	6
2.Test StandardsAnd Limits	7
3. SAR Measurement System	8
3.1 Definition Of Specific Absorption Rate (SAR)	8
3.2 SAR System	8
4. Tissue Simulating Liquids	11
4.1 Simulating Liquids Parameter Check	11
5. SAR System Validation	13
5.1 Validation System	13
5.2 Validation Result	13
6. SAR Evaluation Procedures	14
7. EUT Test Position	15
8.Uncertainty	16
8.1 Measurement Uncertainty	16
8.2 System validation Uncertainty	17
9. Conducted Power Measurement	18
9.1 Test Result	18
9.2 SAR Test Exclusions Applied	34
10. EUT And Test Setup Photo	35
10.1 EUT Photo	35
10.2 Setup Photo	38
11. SAR Result Summary	40
11.1 Front of face SAR	40
11.2 Wrist SAR	41
12. Equipment List	44
Appendix A. System Validation Plots	45
Appendix B. SAR Test Plots	57
Appendix C. Probe Calibration And Dipole Calibration Report	76

**Revision History**

Rev.	Issue Date	Report No.	Effect Page	Contents
00	05 Jan. 2021	STS2012165H01	ALL	Initial Issue
Note: Format version of the report-V01				





1. General Information

Environmental evaluation measurements of specific absorption rate (SAR) distributions in emulated human head and body tissues exposed to radio frequency (RF) radiation from wireless portable devices for compliance with the rules and regulations of the U.S. Federal Communications Commission (FCC).

1.1 EUT Description

Product Name	Smart Watch			
Brand Name	YQT			
Model Name	T5			
Series Model	Q1, Q2, Q5, Q6, Q6S, Q7S, Q9, Q11, Q11S, Q11CW, Q12, Q12G, Q12B, Q12CW, Q12W, Q12T, Q13, Q13W, Q15, Q15F, Q16, Q17, Q18, Q18F, Q19, Q19F, Q19CW, Q19-XZ6, Q19-360, Q20, Q21, Q22, Q23, Q25, Q26, Q27, Q28, Q29, Q30, Q31, Q50, Q523, Q523-1.22, Q528, Q529, Q750, Q610S, Q60, Q60S, Q49, Q68, Q72, Q86, T3, T5S, T6, T8, T8W, T8L, T10, T10S, T10-360, T11, T12, T13, T15, T16, T17, T18, T19, T20, T27, T28, T29, T30, T31, T32, T33, T35, T36, W02S, A1, A2, A3, A4, A5, A6, A7, A8, A9, A10, Q13Z, Z1, S20			
Model Difference	Only difference in model names and appearance			
Battery	Capacity: 680mA Rated Voltage: 3.7V Charge Limit: 4.2V			
Device Category	Portable			
Product stage	Production unit			
Exposure Environment	General Population / Uncontrolled			
IMEI	867400020316612			
Hardware Version	G4H-MB-V1.0			
Software Version	G4P_EMMC_240_5M_COMMON_OVERSEA_20190919_17.19.00			
Frequency Range	GSM 850: 824 MHz~849 MHz PCS1900: 1850 MHz~1910 MHz WCDMA Band II: 1850 MHz~1910 MHz WCDMA Band V: 824 MHz~849 MHz LTE Band 2: 1850MHz to 1910 MHz LTE Band 4: 1710 MHz to 1755 MHz LTE Band 5: 824 MHz~849 MHz LTE Band 7: 2500 MHz to 2570 MHz LTE Band 12: 699MHz to 716 MHz WLAN 802.11b/g/n20: 2412 MHz to 2462 MHz GPS: 1575.42 MHz			
Max. Reported SAR	Band	Mode	Front of face-1g (W/kg)	Wrist-10g (W/kg)
	PCT	GSM850	0.186	0.880
	PCT	PCS1900	0.510	0.906
	PCT	WCDMA Band II	1.089	1.935
	PCT	WCDMA Band V	0.271	0.956
	PCT	LTE Band 2	0.826	1.839
	PCT	LTE Band 4	0.041	0.770
	PCT	LTE Band 5	0.138	0.858
	PCT	LTE Band 7	0.367	1.777
	PCT	LTE Band 12	0.051	0.076
			DTS	2.4G WLAN
Sum SAR			1.383	2.035
Limit(W/kg)			1.6	4



FCC Equipment Class	PCS Licensed Transmitter Held to face (PCF) Digital Transmission System (DTS)
Operating Mode	GSM: GSM Voice; GPRS; EGPRS Class 12 WCDMA:RMC,HSDPA,HSUPA Release 6 LTE:QPSK,16QAM WLAN: 802.11 b/g/n(HT20) GPS: BPSK
Antenna Specification	LTE: PIFA Antenna WLAN: PIFA Antenna GPS: PIFA Antenna
SIM Card	Support single card
Note: 1、 The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power	

1.2 Test Environment

Ambient conditions in the SAR laboratory:

Items	Required
Temperature (°C)	18-25
Humidity (%RH)	30-70

1.3 Test Factory

SHENZHEN STS TEST SERVICES CO.,LTD.

A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration No.: 625569

IC Registration No.: 12108A

A2LA Certificate No.: 4338.01



2. Test Standards And Limits

No.	Identity	Document Title
1	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	ANSI/IEEE Std. C95.1-1992	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
3	IEEE Std. 1528-2013	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
4	FCC KDB 447498 D01v06	Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies
5	FCC KDB 865664 D01v01r04	SAR Measurement 100 MHz to 6 GHz
6	FCC KDB 865664 D02 v01r02	RF Exposure Reporting

(A). Limits for Occupational/Controlled Exposure (W/kg)

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.4	8.0	20.0

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

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.08	1.6	4.0

Note: Whole-Body SAR is averaged over the entire body, partial-body SAR is averaged over any 1 gram of tissue defined as a tissue volume in the shape of a cube. SAR for hands, wrists, feet and ankles is averaged over any 10 grams of tissue defined as a tissue volume in the shape of a cube.

Population/Uncontrolled Environments:

are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure.

Occupational/Controlled Environments:

are defined as locations where there is exposure that may be incurred by people who are aware of the potential for exposure, (i.e. as a result of employment or occupation).

NOTE
GENERAL POPULATION/UNCONTROLLED EXPOSURE
PARTIAL BODY LIMIT
1.6 W/kg(1g)
PARTIAL WRIST LIMIT
4.0 W/kg(10g)

3. SAR Measurement System

3.1 Definition Of Specific Absorption Rate (SAR)

SAR is related to the rate at which energy is absorbed per unit mass in an 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 general population/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 a given 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 measurement can be related to the electrical field in the tissue by

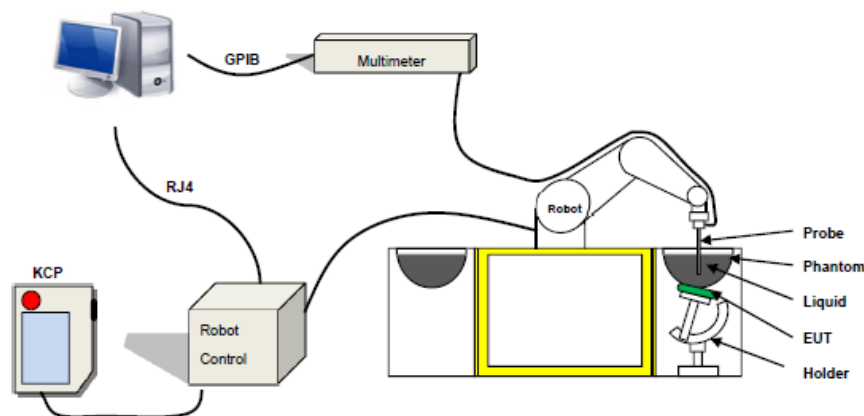
$$SAR = \frac{\sigma E^2}{\rho}$$

Where: σ is the conductivity of the tissue;

ρ is the mass density of the tissue and E is the RMS electrical field strength.

3.2 SAR System

MVG SAR System Diagram:



COMOSAR is a system that is able to determine the SAR distribution inside a phantom of human being according to different standards. The COMOSAR system consists of the following items:

- Main computer to control all the system
- 6 axis robot
- Data acquisition system
- Miniature E-field probe
- Phone holder
- Head simulating tissue

The following figure shows the system.



The EUT under test operating at the maximum power level is placed in the phone holder, under the phantom, which is filled with head simulating liquid. The E-Field probe measures the electric field inside the phantom. The OpenSAR software computes the results to give a SAR value in a 1g or 10g mass.

3.2.1 Probe

For the measurements the Specific Dosimetric E-Field Probe SN 41/18 EPGO334 with following specifications is used

- Probe Length: 330 mm
- Length of Individual Dipoles: 2mm
- Maximum external diameter: 8 mm
- Probe Tip External Diameter: 2.5 mm
- Distance between dipole/probe extremity: 1 mm
- Dynamic range: 0.01-100 W/kg
- Probe linearity: 3%
- Axial Isotropy: < 0.10 dB
- Spherical Isotropy: < 0.10 dB
- Calibration range: 450 MHz to 6 GHz for head & body simulating liquid.
- Angle between probe axis (evaluation axis) and surface normal line: less than 30°



Figure 1-MVG COMOSAR Dosimetric E field Dipole

3.2.2 Phantom

For the measurements the Specific Anthropomorphic Mannequin (SAM) defined by the IEEE SCC-34/SC2 group is used. The phantom is a polyurethane shell integrated in a wooden table. The thickness of the phantom amounts to 2mm +/- 0.2mm. It enables the dosimetric evaluation of left and right phone usage and includes an additional flat phantom part for the simplified performance check. The phantom set-up includes a cover, which prevents the evaporation of the liquid.

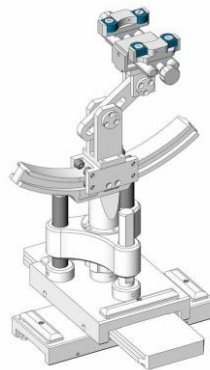


Figure-SN 32/14 SAM115



Figure-SN 32/14 SAM116

3.2.3 Device Holder



The SAR in the phantom is approximately inversely proportional to the square of the distance between the source and the liquid surface. For a source at 5 mm distance, a positioning uncertainty of ± 0.5 mm would produce a SAR uncertainty of ± 20 %. Accurate device positioning is therefore crucial for accurate and repeatable measurements. The positions in which the devices must be measured are defined by the standards.



4. Tissue Simulating Liquids

4.1 Simulating Liquids Parameter Check

The head tissue dielectric parameters recommended by the IEEE SCC-34/SC-2 in P1528 have been incorporated in the following table. These head parameters are derived from planar layer models simulating the highest expected SAR for the dielectric properties and tissue thickness variations in a human head. Other head and body tissue parameters that have not been specified in P1528 are derived from the tissue dielectric parameters computed from the 4-Cole-Cole equations described in Reference [12] and extrapolated according to the head parameters specified in P1528.

Head Tissue

Frequency (MHz)	cellulose %	DGBE %	HEC %	NaCl %	Preventol %	Sugar %	X100 %	Water %	Conductivity σ	Permittivity ϵ_r
750	0.2	/	/	1.4	0.2	57.0	/	41.1	0.89	41.9
835	0.2	/	/	1.4	0.2	57.9	/	40.3	0.90	41.5
900	0.2	/	/	1.4	0.2	57.9	/	40.3	0.97	41.5
1800	/	44.5	/	0.3	/	/	30.45	55.2	1.4	40.0
1900	/	44.5	/	0.3	/	/	30.45	55.2	1.4	40.0
2000	/	44.5	/	0.3	/	/	/	55.2	1.4	40.0
2450	/	44.9	/	0.1	/	/	/	55.0	1.80	39.2
2600	/	45.0	/	0.1	/	/	/	54.9	1.96	39.0

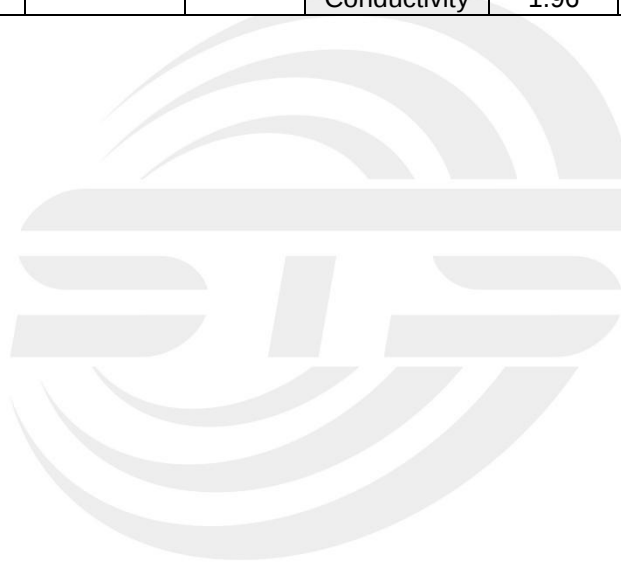
Body Tissue

Frequency (MHz)	cellulose %	DGBE %	HEC %	NaCl %	Preventol %	Sugar %	X100 %	Water %	Conductivity σ	Permittivity ϵ_r
750	0.2	/	/	0.9	0.1	47.2	/	51.7	0.96	55.5
835	0.2	/	/	0.9	0.1	48.2	/	50.8	0.97	55.2
900	0.2	/	/	0.9	0.1	48.2	/	50.8	1.05	55.0
1800	/	29.4	/	0.4	/	/	30.45	70.2	1.52	53.3
1900	/	29.4	/	0.4	/	/	30.45	70.2	1.52	53.3
2000	/	29.4	/	0.4	/	/	/	70.2	1.52	53.3
2450	/	31.3	/	0.1	/	/	/	68.6	1.95	52.7
2600	/	31.7	/	0.1	/	/	/	68.2	2.16	52.3

Tissue dielectric parameters for head and body phantoms				
Frequency	ϵ_r		σ S/m	
	Head	Body	Head	Body
300	45.3	58.2	0.87	0.92
450	43.5	56.7	0.87	0.94
835	41.5	55.2	0.90	0.97
900	41.5	55.0	0.97	1.05
1450	40.5	54.0	1.20	1.30
1800	40.0	53.3	1.40	1.52
1900	40.0	53.3	1.40	1.52
2450	39.2	52.7	1.80	1.95
3000	38.5	52.0	2.40	2.73
5800	35.3	48.2	5.27	6.00

**LIQUID MEASUREMENT RESULTS**

Date	Ambient		Simulating Liquid		Parameters	Target	Measured	Deviation %	Limited %
	Temp. [°C]	Humidity %	Frequency	Temp. [°C]					
2020-12-28	23.2	47	750 MHz	23.0	Permittivity	41.9	41.72	-0.44	±5
					Conductivity	0.89	0.89	-0.01	±5
2020-12-28	23.2	47	835 MHz	23.0	Permittivity	41.5	41.90	0.96	±5
					Conductivity	0.9	0.93	3.33	±5
2020-12-29	22.6	50	1800 MHz	22.4	Permittivity	40	39.52	-1.20	±5
					Conductivity	1.4	1.39	-0.71	±5
2020-12-30	22.4	51	1900 MHz	22.2	Permittivity	40	40.13	0.33	±5
					Conductivity	1.4	1.46	4.29	±5
2020-12-31	22.9	55	2450 MHz	22.7	Permittivity	39.2	39.17	-0.08	±5
					Conductivity	1.8	1.80	0.00	±5
2020-12-31	22.9	55	2600 MHz	22.7	Permittivity	39	37.98	-2.62	±5
					Conductivity	1.96	1.90	-3.06	±5

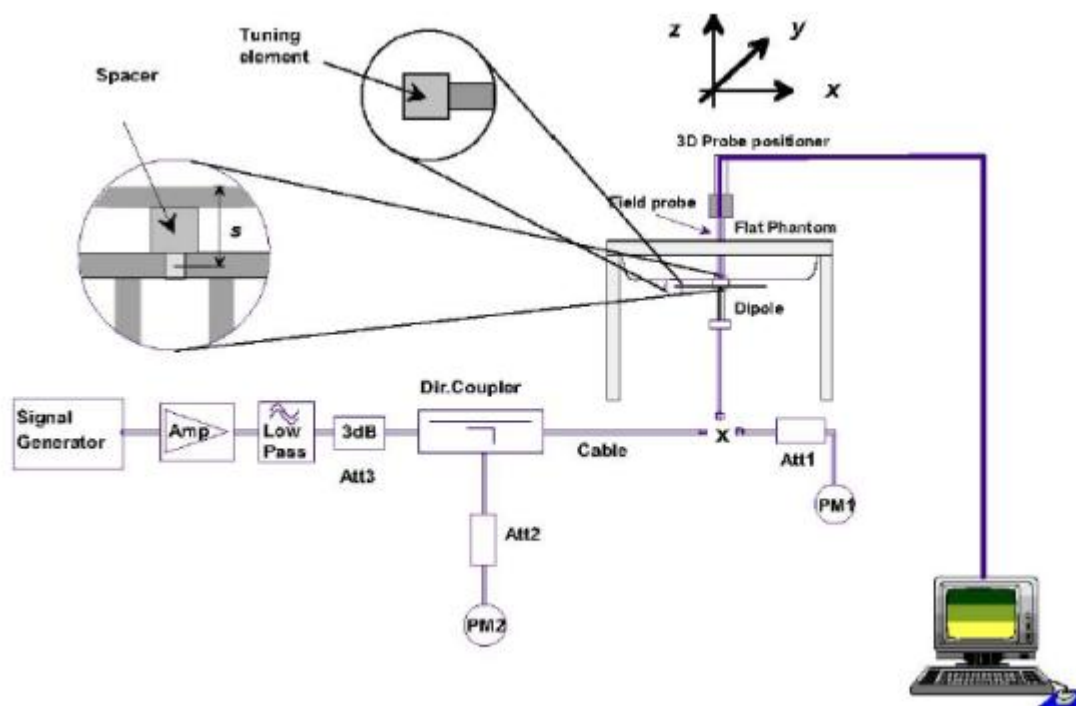


5. SAR System Validation

5.1 Validation System

Each MVG system is equipped with one or more system validation kits. These units, together with the predefined measurement procedures within the MVG software, enable the user to conduct the system performance 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 validation setup is shown as below.



5.2 Validation Result

Comparing to the original SAR value provided by MVG, the validation data should be within its specification of 10 %.

Date	Freq.	Power	Power drift	Tested Value	Normalized SAR	Target SAR	Tolerance
	(MHz)	(mW)	(%)	(W/Kg)	(W/kg)	10g(W/kg)	(%)
2020-12-28	750	100	1.22	0.854	8.54	8.49	0.51
2020-12-28	835	100	1.14	0.953	9.53	9.56	-0.33
2020-12-29	1800	100	-2.55	3.839	38.39	38.40	-0.02
2020-12-30	1900	100	-1.40	3.982	39.82	39.70	0.29
2020-12-31	2450	100	-3.53	5.187	51.87	52.40	-1.01
2020-12-31	2600	100	3.53	5.407	54.07	55.30	-2.22

Note:

1. The tolerance limit of System validation $\pm 10\%$.
2. The dipole input power (forward power) was 100 mW.
3. The results are normalized to 1 W input power.



6. SAR Evaluation Procedures

The procedure for assessing the average SAR value consists of the following steps:

- Establish a call with the maximum output power with a base station simulator. The connection between the mobile and the base station simulator is established via air interface.
- Measurement of the local E-field value at a fixed location. This value serves as a reference value for calculating a possible power drift.
- Measurement of the SAR distribution with a grid of 8 to 16mm * 8 to 16 mm and a constant distance to the inner surface of the phantom. Since the sensors cannot directly measure at the inner phantom surface, the values between the sensors and the inner phantom surface are extrapolated. With these values the area of the maximum SAR is calculated by an interpolation scheme.
- Around this point, a cube of 30 * 30 * 30 mm or 32 * 32 * 32 mm is assessed by measuring 5 or 8 * 5 or 8*4 or 5 mm. With these data, the peak spatial-average SAR value can be calculated.

Area Scan& Zoom Scan:

First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g. Area scan and zoom scan resolution setting follows KDB 865664 D01v01r01 quoted below.

When the 1-g SAR of the highest peak is within 2 dB of the SAR limit, additional zoom scans are required for other peaks within 2 dB of the highest peak that have not been included in any zoom scan to ensure there is no increase in SAR.

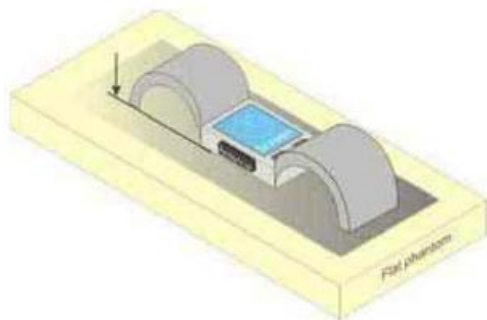
7. EUT Test Position

This EUT was tested in Front Face and Rear Face.

Limb-worn Position Conditions

Transmitters that are built-in within a wrist watch or similar wrist-worn devices typically operate in speaker mode for voice communication, with the device worn on the wrist and positioned next to the mouth. Next to the mouth exposure requires 1-g SAR and the wrist-worn condition requires 10-g extremity SAR

(1) Next to the mouth use is evaluated with the front of the device positioned at 10 mm from a flat phantom filled with head tissue-equivalent medium



Test position for limb-worn devices



8. Uncertainty

8.1 Measurement Uncertainty

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in IEEE 1528: 2013. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

Uncertainty Component	Tol (+/- %)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+/-%)	10g Ui (+/-%)	vi
Measurement System								
Probe calibration	5.831	N	1	1	1	5.83	5.83	∞
Axial Isotropy	0.695	R	$\sqrt{3}$	$\sqrt{0.5}$	$\sqrt{0.5}$	0.28	0.28	∞
Hemispherical Isotropy	1.045	R	$\sqrt{3}$	$\sqrt{0.5}$	$\sqrt{0.5}$	0.43	0.43	∞
Boundary effect	1.0	R	$\sqrt{3}$	1	1	0.58	0.58	∞
Linearity	0.685	R	$\sqrt{3}$	1	1	0.40	0.40	∞
System detection limits	1.0	R	$\sqrt{3}$	1	1	0.58	0.58	∞
Modulation response	3.0	R	$\sqrt{3}$	1	1	1.73	1.73	∞
Readout Electronics	0.021	N	1	1	1	0.021	0.021	∞
Response Time	0	R	$\sqrt{3}$	1	1	0	0	∞
Integration Time	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
RF ambient conditions-Noise	3.0	R	$\sqrt{3}$	1	1	1.73	1.73	∞
RF ambient conditions-reflections	3.0	R	$\sqrt{3}$	1	1	1.73	1.73	∞
Probe positioner mechanical tolerance	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
Probe positioning with respect to phantom shell	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
Post-processing	2.3	R	$\sqrt{3}$	1	1	1.33	1.33	∞
Test sample Related								
Test sample positioning	2.6	N	1	1	1	2.6	2.6	∞
Device holder uncertainty	3	N	1	1	1	3	3	∞
SAR drift measurement	5	R	$\sqrt{3}$	1	1	2.89	2.89	∞
SAR scaling	5	R	$\sqrt{3}$	1	1	2.89	2.89	∞
Phantom and tissue parameters								
Phantom uncertainty (shape and thickness uncertainty)	4	R	$\sqrt{3}$	1	1	2.31	2.31	∞
Uncertainty in SAR correction for deviations in permittivity and conductivity	1.9	N	1	1	0.84	1.90	1.60	∞
Liquid conductivity (temperature uncertainty)	2.5	R	$\sqrt{3}$	0.78	0.71	1.13	1.02	∞
Liquid conductivity (measured)	4	N	1	0.78	0.71	3.12	2.84	M
Liquid permittivity (temperature uncertainty)	2.5	R	$\sqrt{3}$	0.23	0.26	0.33	0.38	∞
Liquid permittivity (measured)	5	N	1	0.23	0.26	1.15	1.30	M
Combined Standard Uncertainty		RSS				9.79	9.59	
Expanded Uncertainty (95% Confidence Interval)		K=2				19.58	19.18	



8.2 System validation Uncertainty

Uncertainty Component	Tol (+-%)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+-%)	10g Ui (+-%)	vi
Measurement System								
Probe calibration	5.831	N	1	1	1	5.83	5.83	∞
Axial Isotropy	0.695	R	$\sqrt{3}$	1	1	0.40	0.40	∞
Hemispherical Isotropy	1.045	R	$\sqrt{3}$	0	0	0.00	0.00	∞
Boundary effect	1.0	R	$\sqrt{3}$	1	1	0.58	0.58	∞
Linearity	0.685	R	$\sqrt{3}$	1	1	0.40	0.40	∞
System detection limits	1.0	R	$\sqrt{3}$	1	1	0.58	0.58	∞
Modulation response	3.0	R	$\sqrt{3}$	0	0	0.00	0.00	∞
Readout Electronics	0.021	N	1	1	1	0.021	0.021	∞
Response Time	0.0	R	$\sqrt{3}$	0	0	0.00	0.00	∞
Integration Time	1.4	R	$\sqrt{3}$	0	0	0.00	0.00	∞
RF ambient conditions-Noise	3.0	R	$\sqrt{3}$	1	1	1.73	1.73	∞
RF ambient conditions-reflections	3.0	R	$\sqrt{3}$	1	1	1.73	1.73	∞
Probe positioner mechanical tolerance	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
Probe positioning with respect to phantom shell	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
Post-Processing	2.3	R	$\sqrt{3}$	1	1	1.33	1.33	∞
System validation source								
Deviation of experimental dipole from numerical dipole	5.0	N	1	1	1	5.00	5.00	∞
Input power and SAR drift measurement	5.0	R	$\sqrt{3}$	1	1	2.89	2.89	∞
Other source contribution Uncertainty	2.0	R	$\sqrt{3}$	1	1	1.15	1.15	∞
Phantom and set-up								
Phantom uncertainty (shape and thickness uncertainty)	4.0	R	$\sqrt{3}$	1	1	2.31	2.31	∞
Uncertainty in SAR correction for deviations in permittivity and conductivity	1.9	N	1	1	0.84	1.90	1.60	∞
Liquid conductivity (temperature uncertainty)	2.5	R	$\sqrt{3}$	0.78	0.71	1.13	1.02	∞
Liquid conductivity (measured)	4	N	1	0.78	0.71	3.12	2.84	M
Liquid permittivity (temperature uncertainty)	2.5	R	$\sqrt{3}$	0.23	0.26	0.33	0.38	∞
Liquid permittivity (measured)	5	N	1	0.23	0.26	1.15	1.30	M
Combined Standard Uncertainty		RSS				9.718	9.517	
Expanded Uncertainty (95% Confidence interval)		K=2				19.44	19.04	



9. Conducted Power Measurement

9.1 Test Result

Burst Average Power (dBm)						
Band	GSM 850			PCS 1900		
Channel	128	190	251	512	661	810
Frequency (MHz)	824.2	836.6	848.8	1850.2	1880.0	1909.8
GSM(GMSK, 1-Slot)	30.39	30.64	30.72	27.85	27.61	27.63
GPRS (GMSK, 1-Slot)	30.26	30.08	30.33	27.43	27.29	27.55
GPRS (GMSK, 2-Slot)	29.77	29.65	29.85	26.96	26.81	27.11
GPRS (GMSK, 3-Slot)	29.33	29.16	29.36	26.47	26.37	26.68
GPRS (GMSK, 4-Slot)	28.92	28.72	28.87	26.04	25.88	26.19
EGPRS(8PSK, 1-Slot)	30.15	29.94	30.10	27.05	27.22	27.16
EGPRS(8PSK, 2-Slot)	29.36	29.19	29.39	26.28	26.43	26.45
EGPRS(8PSK, 3-Slot)	28.63	28.40	28.67	25.55	25.71	25.67
EGPRS(8PSK, 4-Slot)	27.93	27.68	27.88	24.77	24.92	24.94
Remark: GPRS, CS4 coding scheme. EGPRS, MCS5 coding scheme. Multi-Slot Class 8, Support Max 4 downlink, 1 uplink, 5 working link Multi-Slot Class 10, Support Max 4 downlink, 2 uplink, 5 working link Multi-Slot Class 12, Support Max 4 downlink, 4 uplink, 5 working link						

Fram- Average Power(dBm)						
Band	GSM 850			PCS 1900		
Channel	128	190	251	512	661	810
Frequency (MHz)	824.2	836.6	848.8	1850.2	1880.0	1909.8
GSM(GMSK, 1-Slot)	21.36	21.61	21.69	18.82	18.58	18.60
GPRS (GMSK, 1-Slot)	21.23	21.05	21.30	18.40	18.26	18.52
GPRS (GMSK, 2-Slot)	23.75	23.63	23.83	20.94	20.79	21.09
GPRS (GMSK, 3-Slot)	25.07	24.90	25.10	22.21	22.11	22.42
GPRS (GMSK, 4-Slot)	25.91	25.71	25.86	23.03	22.87	23.18
EGPRS(8PSK, 1-Slot)	21.12	20.91	21.07	18.02	18.19	18.13
EGPRS(8PSK, 2-Slot)	23.34	23.17	23.37	20.26	20.41	20.43
EGPRS(8PSK, 3-Slot)	24.37	24.14	24.41	21.29	21.45	21.41
EGPRS(8PSK, 4-Slot)	24.92	24.67	24.87	21.76	21.91	21.93
Remark : 1. SAR testing was performed on the maximum frame-averaged power mode. 2. The frame-averaged power is linearly proportion to the slot number configured and it is linearly scaled the maximum Burst-averaged power based on time slots. The calculated method is shown as below: Frame-averaged power = Burst averaged power (1 TX Slot) – 9.03 dB Frame-averaged power = Burst averaged power (2 TX Slots) – 6.02 dB Frame-averaged power = Burst averaged power (3 TX Slots) - 4.26 dB Frame-averaged power = Burst averaged power (4 TX Slots) – 3.01 dB						

**WCDMA**

Band	WCDMA Band V			WCDMA Band II		
Channel	4132	4183	4233	9262	9400	9538
Frequency (MHz)	826.4	836.6	846.6	1852.4	1880.0	1907.6
RMC 12.2Kbps	20.82	21.14	21.17	21.65	21.40	21.48
HSDPA Subtest-1	20.32	20.50	20.52	21.06	21.25	21.17
HSDPA Subtest-2	19.82	20.10	20.04	20.61	20.79	20.69
HSDPA Subtest-3	19.49	19.66	19.72	20.24	20.31	20.23
HSDPA Subtest-4	19.01	19.25	19.26	19.94	20.00	19.73
HSUPA Subtest-1	20.30	20.49	20.46	20.95	21.03	20.88
HSUPA Subtest-2	19.41	19.53	19.52	19.98	20.12	19.96
HSUPA Subtest-3	19.34	19.07	19.19	19.91	19.65	19.54
HSUPA Subtest-4	19.01	18.75	18.88	19.48	19.33	19.05
HSUPA Subtest-5	17.52	17.34	17.43	18.03	17.88	17.57

According to 3GPP 25.101 sub-clause 6.2.2, the maximum output power is allowed to be reduced by following the table.

Table 6.1A: UE maximum output power with HS-DPCCH and E-DCH

UE Transmit Channel Configuration	CM(db)	MPR(db)
For all combinations of ,DPDCH,DPCCH HS-DPDCH,E-DPDCH and E-DPCCH	$0 \leq CM \leq 3.5$	$MAX(CM-1,0)$
Note: CM=1 for $\beta_c/\beta_d=12/15$, $\beta_{hs}/\beta_c=24/15$. For all other combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.		

The device supports MPR to solve linearity issues (ACLR or SEM) due to the higher peak-to average ratios(PAR) of the HSUPA signal. This prevents saturating the full range of the TX DAC inside of device and provides a reduced power output to the RF transceiver chip according to the Cubic Metric (a function of the combination of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH).

When E-DPDCH channels are present the beta gains on those channels are reduced firsts to try to get the power under the allowed limit. If the beta gains are lowered as far as possible, then a hard limiting is applied at the maximum allowed level.

The SW currently recalculates the cubic metric every time the beta gains on the E-DPDCH are reduced. The cubic metric will likely get lower each time this is done. However, there is no reported reduction of maximum output power in the HSUPA mode since the device also provides a compensation for the power back-off by increasing the gain of TX_AGC in the transceiver (PA) device.

The end effect is that the DUT output power is identical to the case where there is no MPR in the device.

**2.4G WLAN**

Mode	Channel Number	Frequency (MHz)	Average Power (dBm)
802.11b	1	2412	10.46
	6	2437	11.33
	11	2462	8.98
802.11g	1	2412	10.45
	6	2437	11.29
	11	2462	8.96
802.11n(HT 20)	1	2412	10.42
	6	2437	11.26
	11	2462	8.99

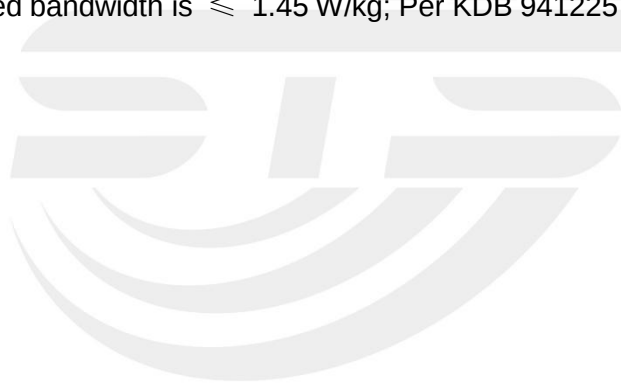




LTE Conducted Power

General Note:

1. Anritsu CMW500 base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
4. Per KDB 941225 D05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05, For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
6. Per KDB 941225 D05, 16QAM output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05, 16QAM SAR testing is not required.
7. Per KDB 941225 D05, Smaller bandwidth output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05, smaller bandwidth SAR testing is not required.





LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.47	22.64	22.61
1.4	1	2		22.26	22.35	22.34
1.4	1	5		21.98	22.10	22.07
1.4	3	0		21.73	21.80	21.82
1.4	3	1		21.50	21.56	21.59
1.4	3	2		21.22	21.27	21.34
1.4	6	0		21.00	21.03	21.04
1.4	1	0	16-QAM	22.18	22.36	22.34
1.4	1	2		21.90	22.14	22.04
1.4	1	5		21.63	21.93	21.81
1.4	3	0		21.34	21.65	21.55
1.4	3	1		21.08	21.39	21.34
1.4	3	2		20.86	21.14	21.07
1.4	6	0		20.62	20.89	20.82
3	1	0	QPSK	22.61	22.64	22.56
3	1	7		22.32	22.39	22.32
3	1	14		22.07	22.11	22.06
3	8	0		21.79	21.84	21.85
3	8	4		21.58	21.56	21.61
3	8	7		21.36	21.34	21.37
3	15	0		21.13	21.10	21.08
3	1	0	16-QAM	22.40	22.42	22.32
3	1	7		22.15	22.14	22.03
3	1	14		21.91	21.86	21.78
3	8	0		21.61	21.60	21.58
3	8	4		21.36	21.31	21.30
3	8	7		21.14	21.08	21.02
3	15	0		20.87	20.87	20.75



LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.63	22.57	22.60
5	1	12		22.41	22.29	22.30
5	1	24		22.20	22.06	22.08
5	12	0		21.95	21.78	21.86
5	12	6		21.73	21.51	21.65
5	12	11		21.46	21.30	21.45
5	25	0		21.19	21.02	21.24
5	1	0	16-QAM	22.39	22.36	22.38
5	1	12		22.14	22.12	22.17
5	1	24		21.93	21.89	21.93
5	12	0		21.71	21.66	21.66
5	12	6		21.46	21.42	21.44
5	12	11		21.25	21.14	21.23
5	25	0		21.01	20.84	20.94
10	1	0	QPSK	22.55	22.72	22.53
10	1	24		22.33	22.45	22.28
10	1	49		22.09	22.19	21.99
10	25	0		21.85	21.91	21.78
10	25	12		21.60	21.62	21.55
10	25	24		21.40	21.39	21.27
10	50	0		21.12	21.10	20.99
10	1	0	16-QAM	22.30	22.42	22.27
10	1	24		22.07	22.16	21.99
10	1	49		21.78	21.88	21.71
10	25	0		21.53	21.61	21.48
10	25	12		21.25	21.32	21.27
10	25	24		21.00	21.05	20.98
10	50	0		20.77	20.80	20.71



LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.51	22.49	22.51
15	1	37		22.24	22.22	22.22
15	1	74		21.96	22.01	21.97
15	36	0		21.75	21.74	21.72
15	36	18		21.47	21.49	21.46
15	36	39		21.23	21.25	21.23
15	75	0		20.95	21.03	20.94
15	1	0	16-QAM	22.25	22.24	22.23
15	1	38		22.01	21.98	22.01
15	1	75		21.75	21.75	21.80
15	36	0		21.47	21.55	21.52
15	36	18		21.23	21.31	21.26
15	36	39		20.99	21.05	21.01
15	75	0		20.72	20.80	20.80
20	1	0	QPSK	22.77	22.74	22.62
20	1	49		22.50	22.52	22.35
20	1	99		22.26	22.23	22.06
20	50	0		21.99	21.93	21.85
20	50	24		21.79	21.69	21.58
20	50	49		21.56	21.48	21.36
20	100	0		21.34	21.26	21.14
20	1	0	16-QAM	22.56	22.49	22.40
20	1	49		22.27	22.29	22.19
20	1	99		22.03	22.07	21.92
20	50	0		21.80	21.80	21.66
20	50	24		21.59	21.56	21.44
20	50	49		21.31	21.33	21.18
20	100	0		21.06	21.04	20.89



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.92	24.16	24.05
1.4	1	2		23.68	23.90	23.84
1.4	1	5		23.41	23.65	23.59
1.4	3	0		23.17	23.40	23.36
1.4	3	1		22.90	23.13	23.15
1.4	3	2		22.70	22.90	22.92
1.4	6	0		22.49	22.63	22.66
1.4	1	0	16-QAM	23.68	23.96	23.77
1.4	1	2		23.48	23.74	23.48
1.4	1	5		23.24	23.49	23.25
1.4	3	0		23.01	23.28	23.05
1.4	3	1		22.72	23.05	22.77
1.4	3	2		22.46	22.82	22.51
1.4	6	0		22.23	22.57	22.31
3	1	0	QPSK	24.36	24.25	24.19
3	1	7		24.11	24.02	23.90
3	1	14		23.88	23.79	23.70
3	8	0		23.67	23.59	23.45
3	8	4		23.46	23.29	23.23
3	8	7		23.24	23.03	22.93
3	15	0		22.98	22.78	22.64
3	1	0	16-QAM	24.15	23.97	23.94
3	1	7		23.92	23.71	23.72
3	1	14		23.70	23.44	23.49
3	8	0		23.41	23.18	23.22
3	8	4		23.18	22.95	22.99
3	8	7		22.94	22.66	22.71
3	15	0		22.65	22.44	22.49



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	24.05	24.12	24.04
5	1	12		23.76	23.91	23.77
5	1	24		23.47	23.67	23.57
5	12	0		23.25	23.46	23.34
5	12	6		23.03	23.24	23.05
5	12	11		22.75	23.01	22.79
5	25	0		22.46	22.74	22.54
5	1	0	16-QAM	23.80	23.86	23.83
5	1	12		23.58	23.64	23.56
5	1	24		23.34	23.42	23.28
5	12	0		23.07	23.17	23.00
5	12	6		22.83	22.88	22.72
5	12	11		22.59	22.63	22.46
5	25	0		22.34	22.38	22.18
10	1	0	QPSK	24.19	24.19	24.16
10	1	24		23.93	23.92	23.87
10	1	49		23.72	23.64	23.59
10	25	0		23.52	23.35	23.34
10	25	12		23.24	23.05	23.10
10	25	24		23.00	22.81	22.88
10	50	0		22.76	22.56	22.58
10	1	0	16-QAM	23.98	23.93	23.96
10	1	24		23.71	23.73	23.71
10	1	49		23.42	23.47	23.50
10	25	0		23.18	23.20	23.23
10	25	12		22.88	22.99	22.99
10	25	24		22.68	22.69	22.75
10	50	0		22.46	22.40	22.54



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	24.19	24.18	24.00
15	1	37		23.95	23.93	23.79
15	1	74		23.69	23.68	23.52
15	36	0		23.47	23.48	23.24
15	36	18		23.22	23.19	22.95
15	36	39		22.95	22.94	22.71
15	75	0		22.72	22.73	22.47
15	1	0	16-QAM	23.99	23.92	23.78
15	1	38		23.76	23.64	23.54
15	1	75		23.49	23.39	23.25
15	36	0		23.23	23.11	22.96
15	36	18		22.99	22.81	22.67
15	36	39		22.76	22.60	22.46
15	75	0		22.48	22.38	22.23
20	1	0	QPSK	24.20	24.32	24.29
20	1	49		23.99	24.07	24.01
20	1	99		23.73	23.84	23.76
20	50	0		23.45	23.59	23.46
20	50	24		23.15	23.34	23.17
20	50	49		22.93	23.14	22.94
20	100	0		22.69	22.92	22.70
20	1	0	16-QAM	23.92	24.07	23.99
20	1	49		23.67	23.81	23.73
20	1	99		23.47	23.58	23.45
20	50	0		23.19	23.31	23.23
20	50	24		22.97	23.08	22.99
20	50	49		22.74	22.79	22.77
20	100	0		22.53	22.52	22.52



LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	26.02	26.21	26.01
1.4	1	2		25.79	25.98	25.73
1.4	1	5		25.50	25.68	25.46
1.4	3	0		25.26	25.40	25.19
1.4	3	1		25.04	25.19	24.96
1.4	3	2		24.80	24.93	24.66
1.4	6	0		24.54	24.67	24.38
1.4	1	0	16-QAM	25.79	25.93	25.77
1.4	1	2		25.52	25.72	25.52
1.4	1	5		25.28	25.50	25.31
1.4	3	0		25.03	25.27	25.06
1.4	3	1		24.76	24.98	24.77
1.4	3	2		24.49	24.77	24.53
1.4	6	0		24.26	24.48	24.29
3	1	0	QPSK	25.90	26.02	26.02
3	1	7		25.61	25.73	25.81
3	1	14		25.34	25.52	25.58
3	8	0		25.14	25.32	25.37
3	8	4		24.87	25.09	25.17
3	8	7		24.65	24.87	24.94
3	15	0		24.37	24.67	24.72
3	1	0	16-QAM	25.70	25.76	25.81
3	1	7		25.42	25.55	25.52
3	1	14		25.13	25.32	25.24
3	8	0		24.88	25.02	25.03
3	8	4		24.61	24.81	24.76
3	8	7		24.40	24.61	24.49
3	15	0		24.17	24.32	24.27



LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	25.97	26.07	25.87
5	1	12		25.73	25.83	25.66
5	1	24		25.50	25.60	25.41
5	12	0		25.23	25.39	25.12
5	12	6		24.94	25.11	24.83
5	12	11		24.72	24.90	24.61
5	25	0		24.51	24.67	24.37
5	1	0	16-QAM	25.75	25.81	25.66
5	1	12		25.49	25.59	25.39
5	1	24		25.20	25.37	25.15
5	12	0		24.91	25.08	24.93
5	12	6		24.70	24.84	24.66
5	12	11		24.41	24.59	24.40
5	25	0		24.21	24.37	24.19
10	1	0	QPSK	26.01	26.11	26.16
10	1	24		25.74	25.83	25.87
10	1	49		25.46	25.56	25.59
10	25	0		25.16	25.30	25.36
10	25	12		24.92	25.01	25.13
10	25	24		24.67	24.76	24.90
10	50	0		24.43	24.51	24.69
10	1	0	16-QAM	25.73	25.86	25.91
10	1	24		25.44	25.62	25.64
10	1	49		25.20	25.38	25.38
10	25	0		24.95	25.12	25.14
10	25	12		24.66	24.88	24.90
10	25	24		24.44	24.59	24.62
10	50	0		24.15	24.36	24.37



LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.85	22.83	22.66
5	1	12		22.57	22.60	22.37
5	1	24		22.34	22.34	22.13
5	12	0		22.12	22.08	21.90
5	12	6		21.90	21.81	21.68
5	12	11		21.62	21.55	21.44
5	25	0		21.39	21.33	21.21
5	1	0	16-QAM	22.57	22.57	22.44
5	1	12		22.29	22.37	22.15
5	1	24		22.09	22.10	21.93
5	12	0		21.82	21.83	21.73
5	12	6		21.56	21.62	21.45
5	12	11		21.32	21.40	21.24
5	25	0		21.12	21.20	20.99
10	1	0	QPSK	22.72	22.55	22.65
10	1	24		22.47	22.35	22.37
10	1	49		22.17	22.07	22.09
10	25	0		21.91	21.80	21.83
10	25	12		21.65	21.54	21.61
10	25	24		21.42	21.25	21.38
10	50	0		21.17	21.05	21.14
10	1	0	16-QAM	22.49	22.34	22.35
10	1	24		22.28	22.13	22.14
10	1	49		22.00	21.93	21.90
10	25	0		21.73	21.67	21.62
10	25	12		21.51	21.40	21.35
10	25	24		21.24	21.14	21.07
10	50	0		20.99	20.94	20.81



LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.83	22.87	22.77
15	1	37		22.63	22.67	22.55
15	1	74		22.40	22.42	22.32
15	36	0		22.19	22.17	22.06
15	36	18		21.98	21.97	21.84
15	36	39		21.69	21.67	21.56
15	75	0		21.41	21.44	21.33
15	1	0	16-QAM	22.57	22.61	22.48
15	1	38		22.36	22.40	22.20
15	1	75		22.06	22.15	21.93
15	36	0		21.77	21.90	21.67
15	36	18		21.55	21.67	21.42
15	36	39		21.26	21.43	21.20
15	75	0		21.05	21.15	20.95
20	1	0	QPSK	22.88	22.93	22.93
20	1	49		22.67	22.64	22.64
20	1	99		22.37	22.34	22.36
20	50	0		22.08	22.14	22.14
20	50	24		21.81	21.90	21.86
20	50	49		21.52	21.63	21.64
20	100	0		21.27	21.35	21.35
20	1	0	16-QAM	22.58	22.66	22.67
20	1	49		22.34	22.42	22.38
20	1	99		22.12	22.18	22.15
20	50	0		21.90	21.95	21.88
20	50	24		21.60	21.73	21.59
20	50	49		21.40	21.45	21.30
20	100	0		21.12	21.20	21.03



LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	24.69	25.02	24.84
1.4	1	2		24.47	24.81	24.58
1.4	1	5		24.26	24.55	24.31
1.4	3	0		23.98	24.29	24.03
1.4	3	1		23.74	24.02	23.76
1.4	3	2		23.53	23.80	23.50
1.4	6	0		23.27	23.58	23.23
1.4	1	0	16-QAM	24.44	24.73	24.60
1.4	1	2		24.15	24.49	24.35
1.4	1	5		23.88	24.22	24.12
1.4	3	0		23.63	23.94	23.91
1.4	3	1		23.36	23.67	23.64
1.4	3	2		23.06	23.38	23.41
1.4	6	0		22.85	23.09	23.21
3	1	0	QPSK	24.69	25.01	25.32
3	1	7		24.46	24.78	25.06
3	1	14		24.17	24.55	24.82
3	8	0		23.95	24.28	24.60
3	8	4		23.75	24.07	24.34
3	8	7		23.51	23.82	24.13
3	15	0		23.30	23.55	23.90
3	1	0	16-QAM	24.41	24.71	25.06
3	1	7		24.21	24.50	24.80
3	1	14		23.91	24.27	24.55
3	8	0		23.68	23.98	24.34
3	8	4		23.46	23.73	24.13
3	8	7		23.23	23.51	23.89
3	15	0		23.00	23.26	23.68



LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	24.98	25.10	24.76
5	1	12		24.73	24.89	24.52
5	1	24		24.52	24.62	24.27
5	12	0		24.25	24.37	23.98
5	12	6		24.00	24.12	23.68
5	12	11		23.80	23.90	23.41
5	25	0		23.50	23.65	23.15
5	1	0	16-QAM	24.77	24.83	24.47
5	1	12		24.48	24.59	24.23
5	1	24		24.20	24.36	23.99
5	12	0		23.93	24.13	23.77
5	12	6		23.72	23.91	23.56
5	12	11		23.46	23.68	23.34
5	25	0		23.24	23.40	23.05
10	1	0	QPSK	25.02	25.18	24.87
10	1	24		24.78	24.89	24.67
10	1	49		24.51	24.68	24.44
10	25	0		24.27	24.39	24.17
10	25	12		24.01	24.11	23.89
10	25	24		23.81	23.84	23.60
10	50	0		23.52	23.62	23.37
10	1	0	16-QAM	24.73	24.88	24.59
10	1	24		24.49	24.66	24.39
10	1	49		24.26	24.42	24.14
10	25	0		24.06	24.16	23.88
10	25	12		23.81	23.87	23.64
10	25	24		23.57	23.63	23.41
10	50	0		23.33	23.38	23.15



9.2 SAR Test Exclusions Applied

Per FCC KDB 447498D01, the 1-g SAR and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot \sqrt{f(\text{GHz})} \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where:

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

$$\frac{\text{Max Power of Channel (mW)}}{\text{Test Separation Dist (mm)}} * \sqrt{\text{Frequency (GHz)}} \leq 3.0$$

Based on the maximum conducted power of **2.4 GHz WLAN Wrist** (rounded to the nearest mW) and the antenna to user separation distance,

2.4 GHz WLAN SAR was required; $[(13.583/5) * \sqrt{2.437}] = 4.24 > 3.0$.

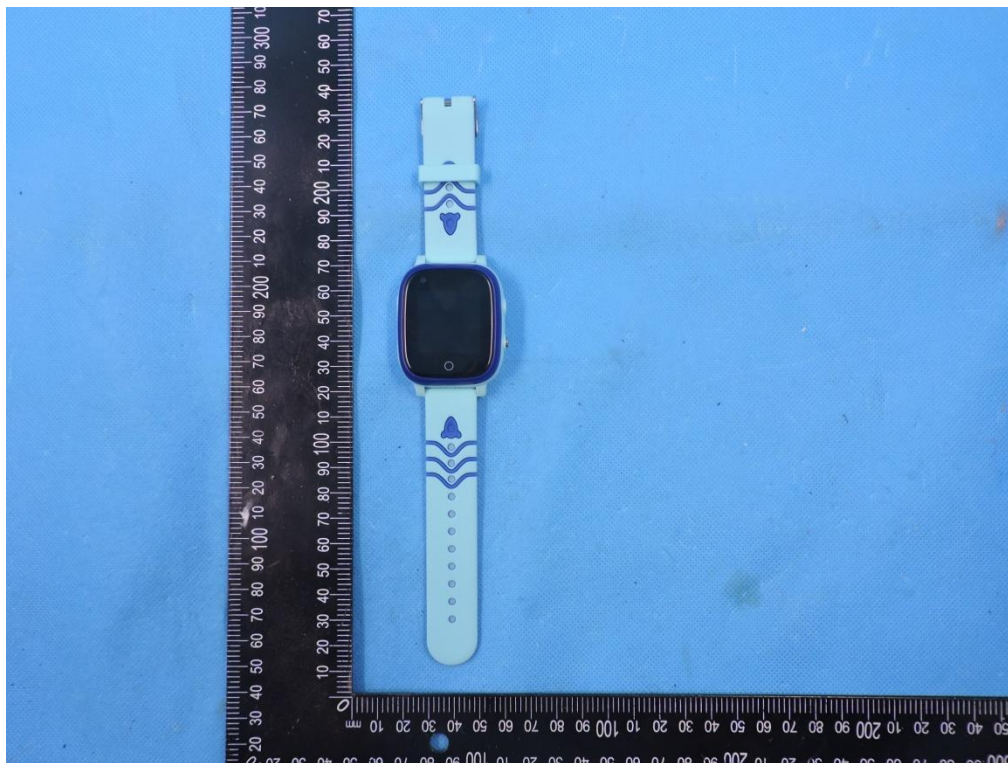
Based on the maximum conducted power of **2.4 GHz WLAN Body** (rounded to the nearest mW) and the antenna to user separation distance,

2.4 GHz WLAN SAR was not required; $[(13.583/10) * \sqrt{2.437}] = 2.12 < 3.0$.

10. EUT And Test Setup Photo

10.1 EUT Photo

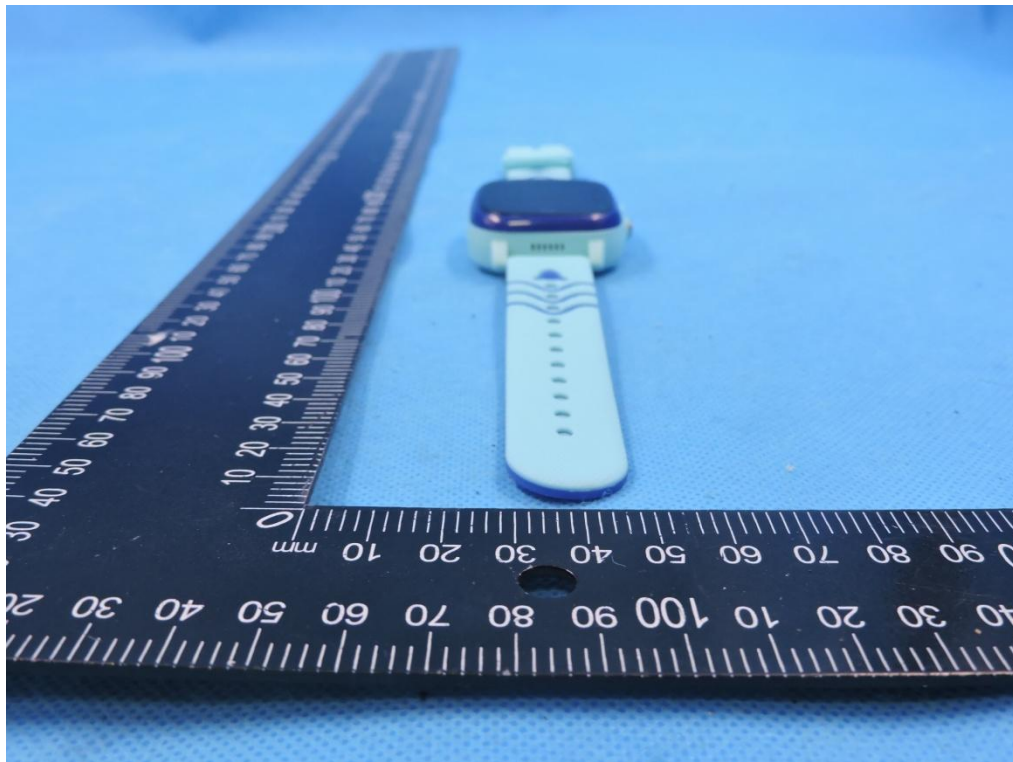
Front side



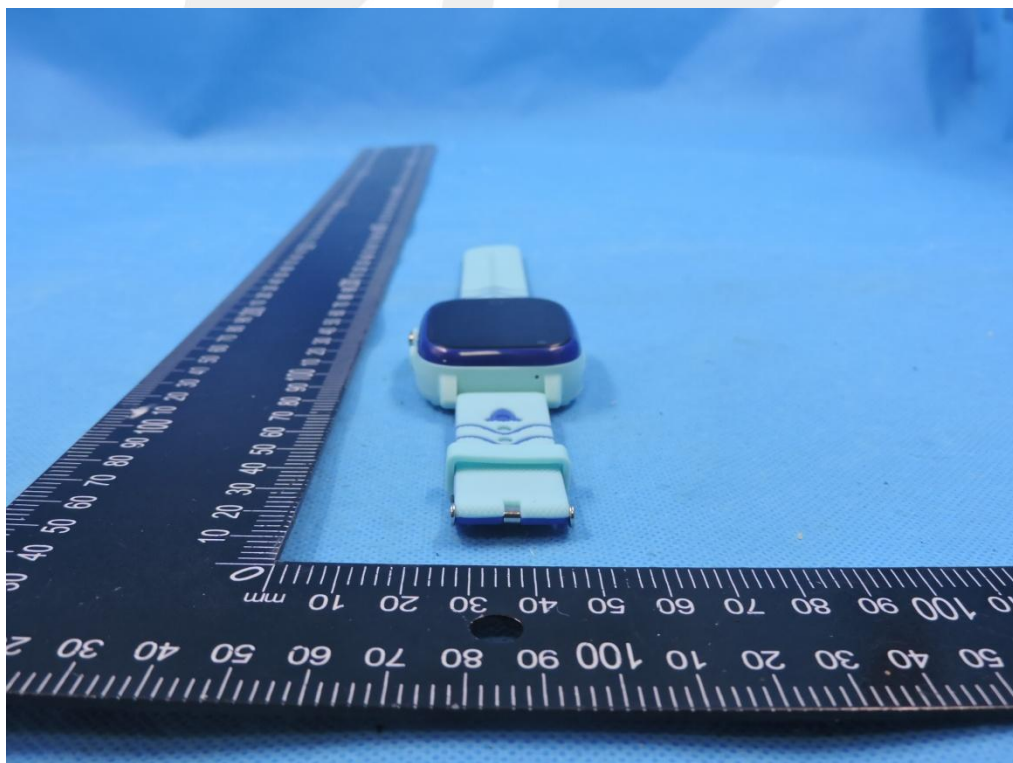
Back side



Top Edge



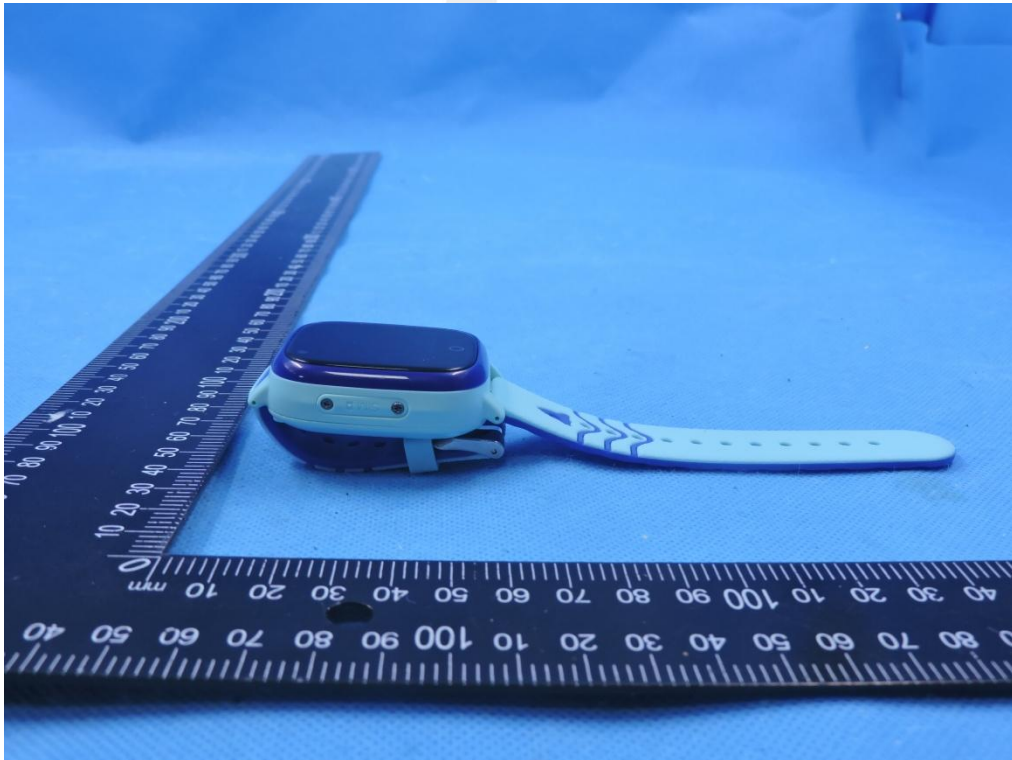
Bottom Edge



Left Edge



Right Edge



10.2 Setup Photo

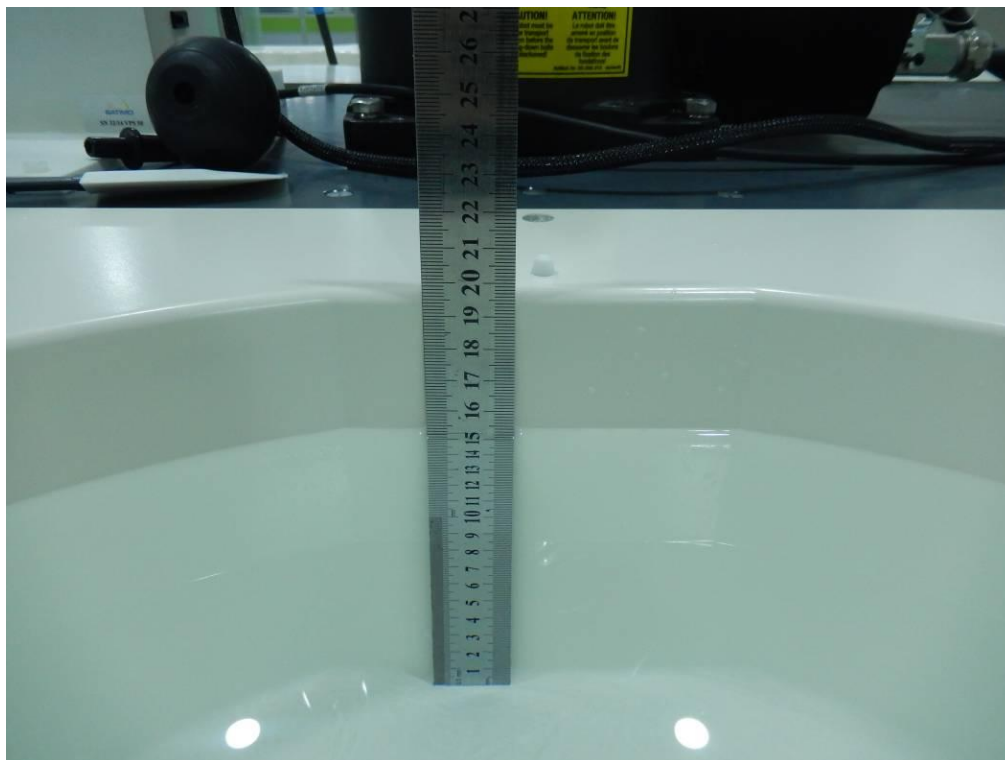
Front of face(separation distance is 10mm)



Wrist(separation distance is 0mm)



Liquid depth (15 cm)





11. SAR Result Summary

11.1 Front of face SAR

Band	Mode	Test Position	Ch.	Result 1g (W/Kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Scaled SAR (W/Kg)	Meas. No.
GSM850	GPRS Data-4 Slot	Front of face	128	0.183	2.17	29	28.92	0.186	1
PCS1900	GPRS Data-4 Slot	Front of face	810	0.475	3.29	26.5	26.19	0.510	3
WCDMA BAND II	RMC	Front of face	9262	1.005	0.30	22	21.65	1.089	5
			9400	0.945	0.87	22	21.40	1.085	-
			9637	0.951	1.71	22	21.48	1.072	-
WCDMA BAND V	RMC	Front of face	4233	0.251	-0.53	21.5	21.17	0.271	7
LTE BAND 2	QPSK	Front of face	18700	0.783	-2.66	23	22.77	0.826	9
			18900	0.764	1.47	23	22.74	0.811	-
			19100	0.748	0.65	23	22.62	0.816	-
LTE BAND 4	QPSK	Front of face	20175	0.039	2.74	24.5	24.32	0.041	11
LTE BAND5	QPSK	Front of face	20600	0.128	2.88	26.5	26.16	0.138	13
LTE BAND 7	QPSK	Front of face	21350	0.361	2.87	23	22.93	0.367	15
LTE BAND 12	QPSK	Front of face	23095	0.047	0.30	25.5	25.18	0.051	17

Note:

1. The test separation of all above table is 10mm.
2. Per KDB865664 D01, Repeated measurement is not required when the original highest measured SAR is <0.80 W/kg



11.2 Wrist SAR

Band	Mode	Test Position	Ch.	Result 10g (W/Kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Scaled SAR (W/Kg)	Meas. No.
GSM850	GPRS Data-4 Slot	Wrist	128	0.864	-0.34	29	28.92	0.880	2
PCS1900	GPRS Data-4 Slot	Wrist	810	0.844	-1.53	26.5	26.19	0.906	4
WCDMA BAND II	RMC	Wrist	9262	1.785	3.93	22	21.65	1.935	6
WCDMA BAND V	RMC	Wrist	4233	0.886	-4.00	21.5	21.17	0.956	8
LTE BAND 2	QPSK	Wrist	18700	1.744	-3.99	23	22.77	1.839	10
LTE BAND 4	QPSK	Wrist	20175	0.739	1.77	24.5	24.32	0.770	12
LTE BAND5	QPSK	Wrist	20600	0.793	3.81	26.5	26.16	0.858	14
LTE BAND 7	QPSK	Wrist	21350	1.749	3.21	23	22.93	1.777	16
LTE BAND 12	QPSK	Wrist	23095	0.071	3.96	25.5	25.18	0.076	18
2.4G WLAN	802.11b	Wrist	6	0.096	0.93	11.5	11.33	0.100	19

Note:

- The test separation of all above table is 0mm.
- Per KDB865664 D01, Repeated measurement is not required when the original highest measured SAR is <2.00 W/kg

**Simultaneous Multi-band Transmission Evaluation:**

Application Simultaneous Transmission information:

Position	Simultaneous state
Front to face	1.GSM + 2.4G WLAN
	2.WCDMA +2.4G WLAN
	3.LTE +2.4G WLAN
Wrist	1.GSM + 2.4G WLAN
	2.WCDMA +2.4G WLAN
	3.LTE +2.4G WLAN

NOTE:

1. For simultaneous transmission at head and body exposure position, 2transmitters simultaneous transmission was the worst state.
2. Based upon KDB 447498 D01 v05, BT SAR is excluded as below table.
3. If the test separation distance is <5mm, 5mm is used for excluded SAR calculation.
4. For minimum test separation distance $\leq 50\text{mm}$, Bluetooth standalone SAR is excluded according to $[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f} (\text{GHz}) / x] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR
5. The reported SAR summation is calculated based on the same configuration and test position.
6. KDB 447498 / 4.3.2 (2) when standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:
 - a) $(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm}) \cdot [\sqrt{f} (\text{GHz}) / x] \text{ W/kg}$ for test separation distances $\leq 50 \text{ mm}$; Where $x = 7.5$ for 1-g SAR, and $x = 18.75$ for 10-g SAR.
 - b) 0.4W/Kg for 1-g SAR and 1.0W/Kg for 10-g SAR, when the separation distance is $>50\text{mm}$.

Estimated SAR		Maximum Power		Antenna to user(mm)	Frequency(GHz)	Stand alone SAR [W/kg]
		dBm	mW			
2.4G WLAN	Front of face(1g)	11.5	17.783	10	2437	0.294



Simultaneous Mode	Position	Mode	Max. SAR (W/kg)	Sum SAR (W/kg)
GSM +2.4G WLAN	Frontof face(1g)	GSM	0.510	0.804
		2.4G WLAN	0.294	
GSM +2.4G WLAN	Wrist(10g)	GSM	0.906	1.006
		2.4G WLAN	0.100	
WCDMA +2.4G WLAN	Frontof face(1g)	WCDMA	1.089	1.383
		2.4G WLAN	0.294	
WCDMA +2.4G WLAN	Wrist(10g)	WCDMA	1.935	2.035
		2.4G WLAN	0.100	
LTE +2.4G WLAN	Frontof face(1g)	LTE	0.826	1.120
		2.4G WLAN	0.294	
LTE +2.4G WLAN	Wrist(10g)	LTE	1.839	1.939
		2.4G WLAN	0.100	

Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneous transmitting antenna.



12. Equipment List

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
750MHz Dipole	MVG	SID750	SN 30/14 DIP0G750-331	2020.07.14	2023.07.13
835MHz Dipole	MVG	SID835	SN 30/14 DIP0G835-332	2020.07.14	2023.07.13
1800MHz Dipole	MVG	SID1800	SN 30/14 DIP1G800-329	2020.07.14	2023.07.13
1900MHz Dipole	MVG	SID1900	SN 30/14 DIP1G900-333	2020.07.14	2023.07.13
2450MHz Dipole	MVG	SID2450	SN 30/14 DIP2G450-335	2020.07.14	2023.07.13
2600MHz Dipole	MVG	SID2600	SN 30/14 DIP2G600-336	2020.07.14	2023.07.13
E-Field Probe	MVG	SSE2	SN 41/18 EPGO334	2020.07.14	2021.07.13
Dielectric Probe Kit	MVG	SCLMP	SN 32/14 OCPG67	2020.11.24	2021.11.23
Antenna	MVG	ANTA3	SN 07/13 ZNTA52	N/A	N/A
Phantom1	MVG	SAM	SN 32/14 SAM115	N/A	N/A
Phantom2	MVG	SAM	SN 32/14 SAM116	N/A	N/A
Phone holder	MVG	N/A	SN 32/14 MSH97	N/A	N/A
Laptop holder	MVG	N/A	SN 32/14 LSH29	N/A	N/A
Attenuator	Agilent	99899	DC-18GHz	N/A	N/A
Directional coupler	Narda	4226-20	3305	N/A	N/A
Network Analyzer	Agilent	8753ES	US38432810	2020.10.12	2021.10.11
Multi Meter	Keithley	Multi Meter 2000	4050073	2020.10.10	2021.10.09
Signal Generator	Agilent	N5182A	MY50140530	2020.10.10	2021.10.09
Wireless Communication Test Set	Agilent	8960-E5515C	MY48360751	2020.10.10	2021.10.09
Wireless Communication Test Set	R&S	CMW500	117239	2020.10.10	2021.10.09
Power Amplifier	DESAY	ZHL-42W	9638	2020.10.12	2021.10.11
Power Meter	R&S	NRP	100510	2020.10.10	2021.10.09
Power Meter	Agilent	E4419B	QB43312265	2020.10.10	2021.10.09
Power Sensor	R&S	NRP-Z11	101919	2020.10.10	2021.10.09
Power Sensor	HP	E9300A	US39210170	2020.10.10	2021.10.09
Temperature hygrometer	SuWei	SW-108	N/A	2020.10.12	2021.10.11
Thermograph	Elitech	RC-4	S/N EF7176501537	2020.10.12	2021.10.11

Note:

Per KDB 865664 D01, Dipole SAR Validation Verification, STS 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
- Return-loss in within 20% of calibrated measurement



Appendix A. System Validation Plots

System Performance Check Data(750MHz)

Type: Phone measurement (Complete)

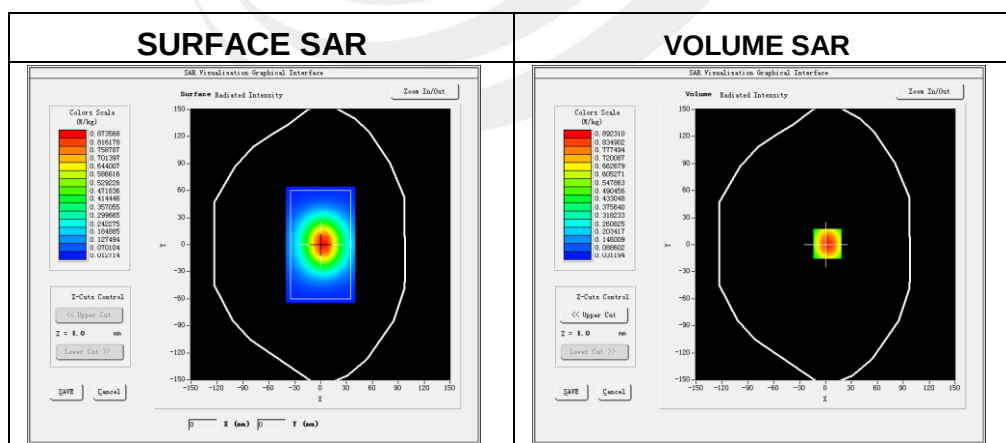
Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2020-12-28

Experimental conditions

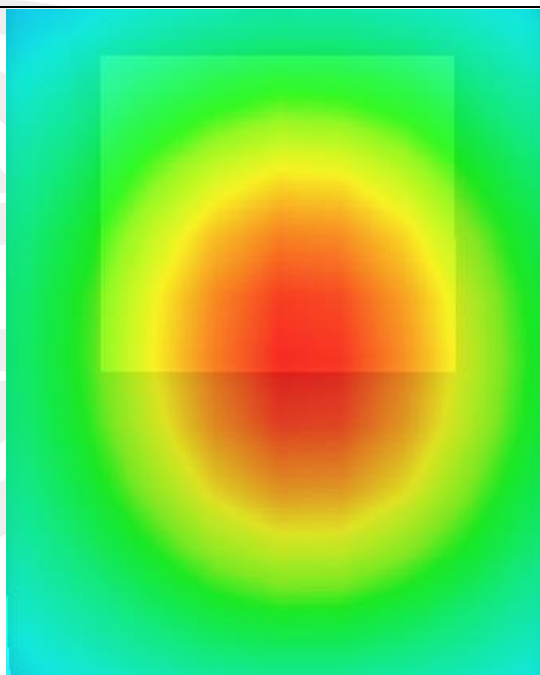
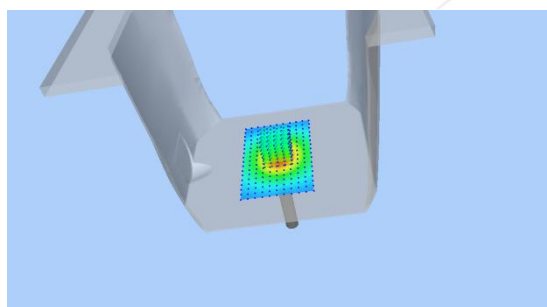
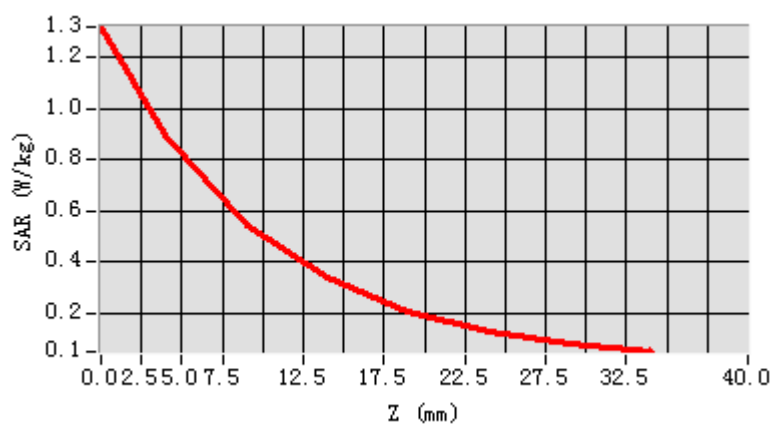
Phantom	Validation plane
Device Position	-
Band	750MHz
Channels	-
Signal	CW
Frequency (MHz)	750MHz
Relative permittivity	41.72
Conductivity (S/m)	0.89
Probe	SN 41/18 EPG0334
ConvF	1.43
Crest factor	1:1



Maximum location: X=2.00, Y=1.00

SAR 10g (W/Kg)	0.576480
SAR 1g (W/Kg)	0.854164

Z Axis Scan





System Performance Check Data(835MHz)

Type: Phone measurement (Complete)

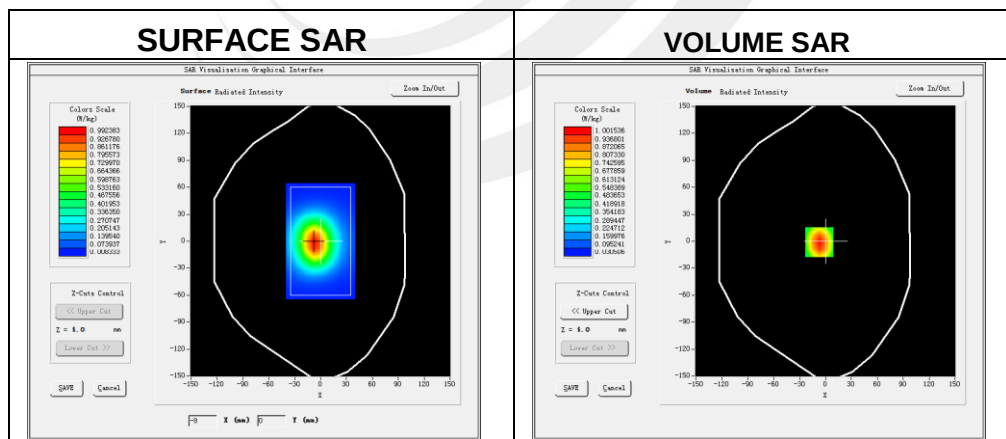
Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2020-12-28

Experimental conditions

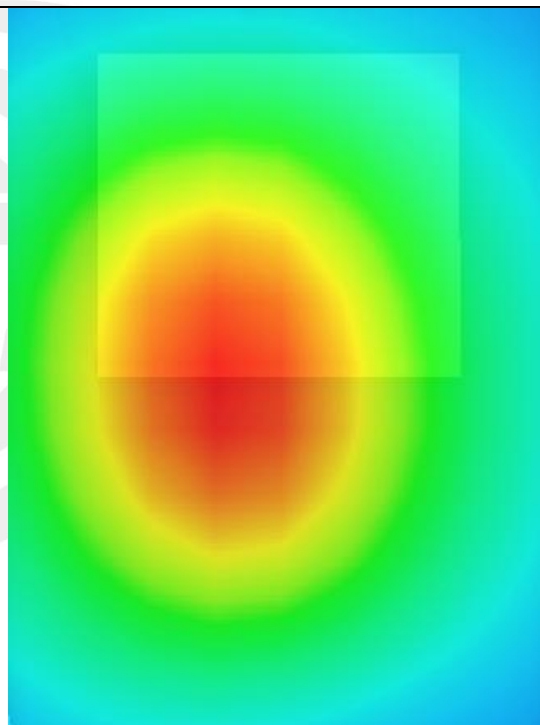
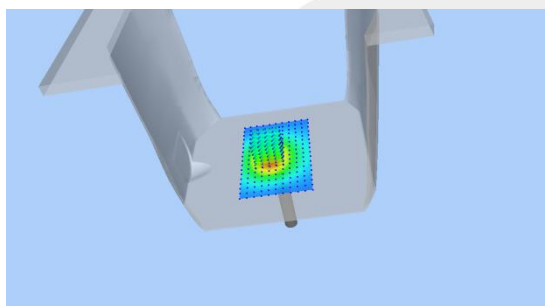
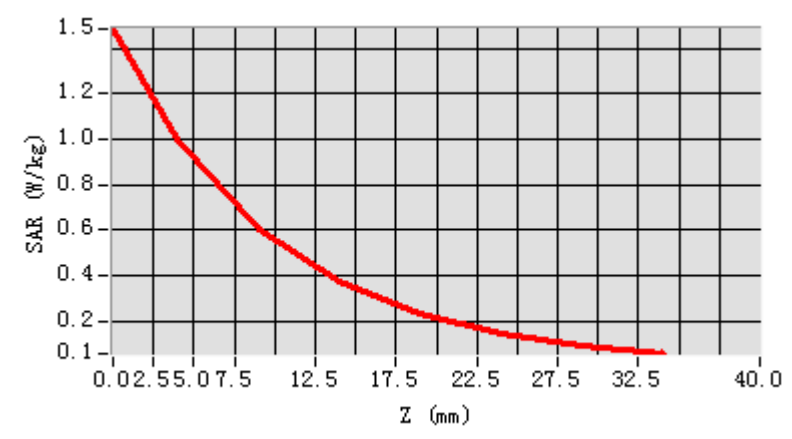
Phantom	Validation plane
Device Position	-
Band	835MHz
Channels	-
Signal	CW
Frequency (MHz)	835MHz
Relative permittivity	41.90
Conductivity (S/m)	0.93
Probe	SN 41/18 EPG0334
ConvF:	1.48
Crest factor:	1:1



Maximum location: X=-7.00, Y=-1.00

SAR 10g (W/Kg)	0.634206
SAR 1g (W/Kg)	0.953286

Z Axis Scan





System Performance Check Data(1800MHz)

Type: Phone measurement (Complete)

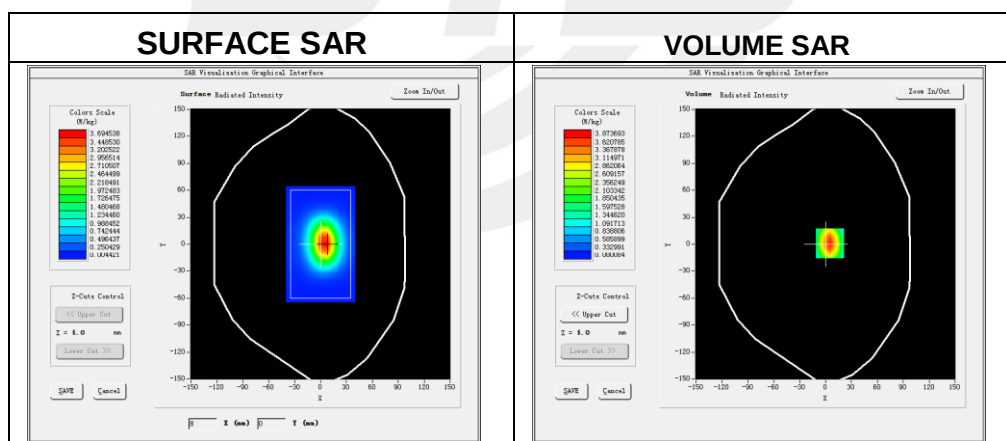
Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement:2020-12-29

Experimental conditions.

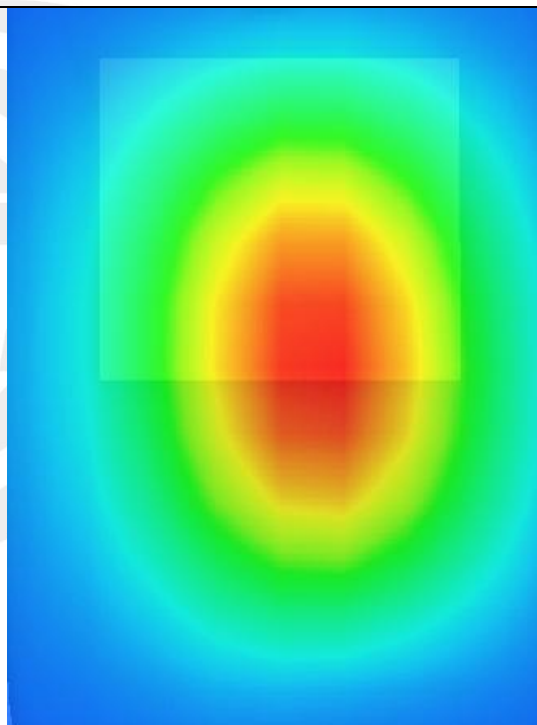
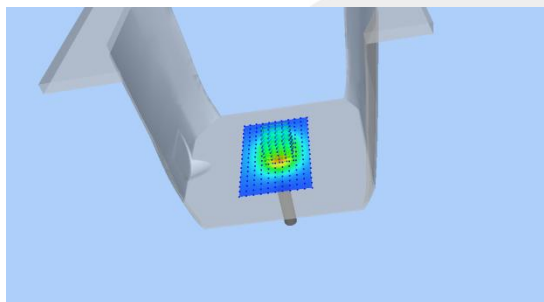
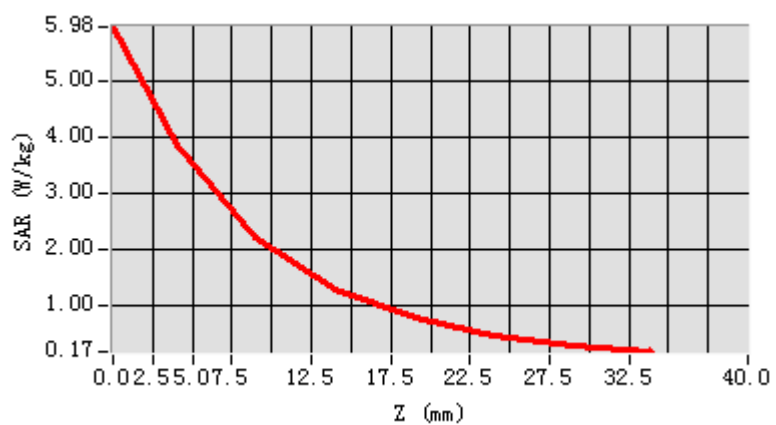
Phantom	Validation plane
Device Position	-
Band	1800MHz
Channels	-
Signal	CW
Frequency (MHz)	1800MHz
Relative permittivity	39.52
Conductivity (S/m)	1.39
Probe	SN 41/18 EPGO334
ConvF	1.60
Crest factor:	1:1



Maximum location: X=5.00, Y=1.00

SAR 10g (W/Kg)	1.977519
SAR 1g (W/Kg)	3.838814

Z Axis Scan





System Performance Check Data(1900MHz)

Type: Phone measurement (Complete)

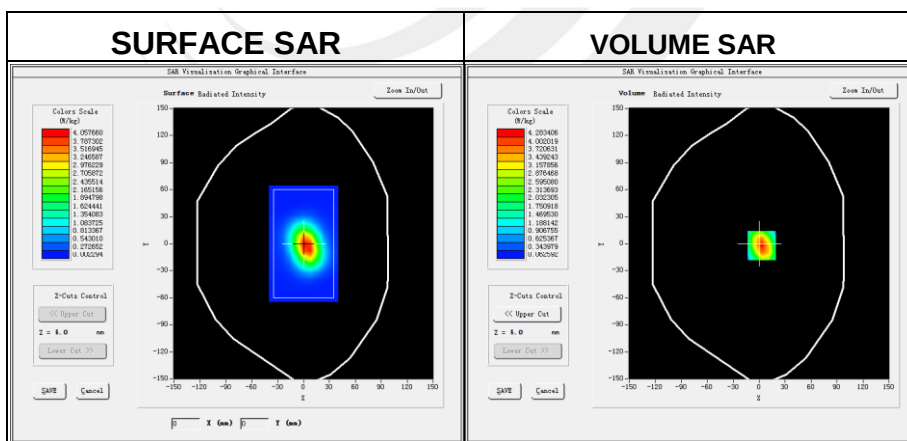
Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2020-12-30

Experimental conditions.

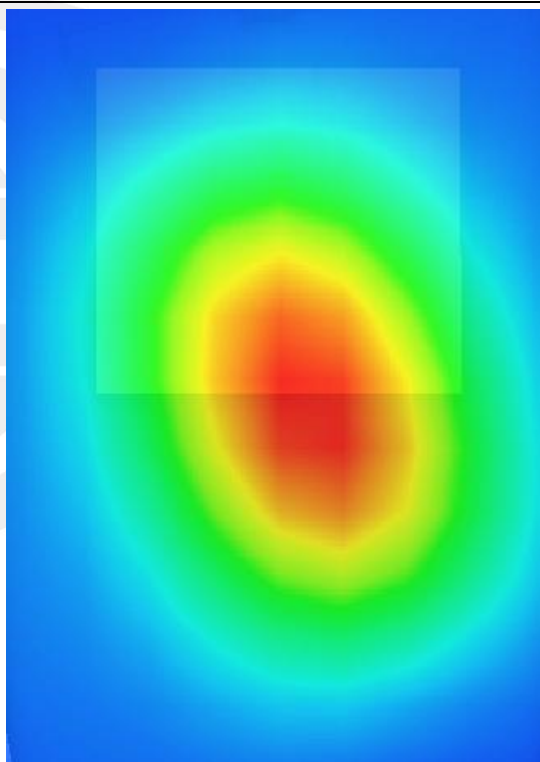
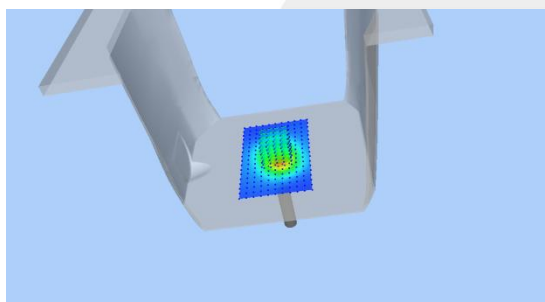
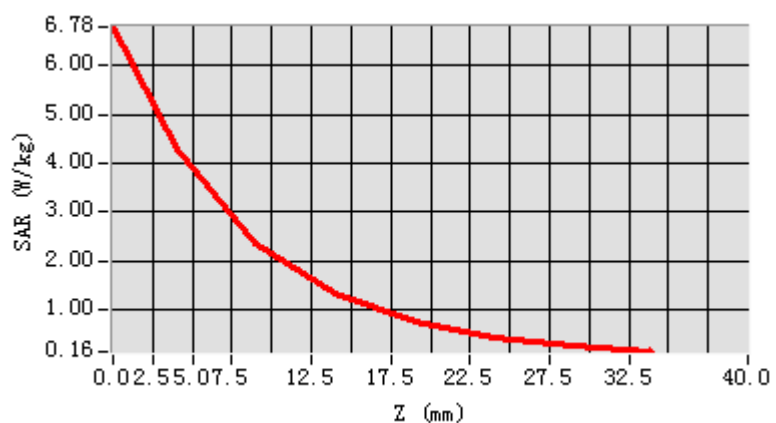
Phantom	Validation plane
Device Position	-
Band	1900MHz
Channels	-
Signal	CW
Frequency (MHz)	1900MHz
Relative permittivity	40.13
Conductivity (S/m)	1.46
Probe	SN 41/18 EPGO334
ConvF:	1.84
Crest factor:	1:1



Maximum location: X=3.00, Y=-2.00

SAR 10g (W/Kg)	1.988947
SAR 1g (W/Kg)	3.982274

Z Axis Scan





System Performance Check Data (2450MHz)

Type: Phone measurement (Complete)

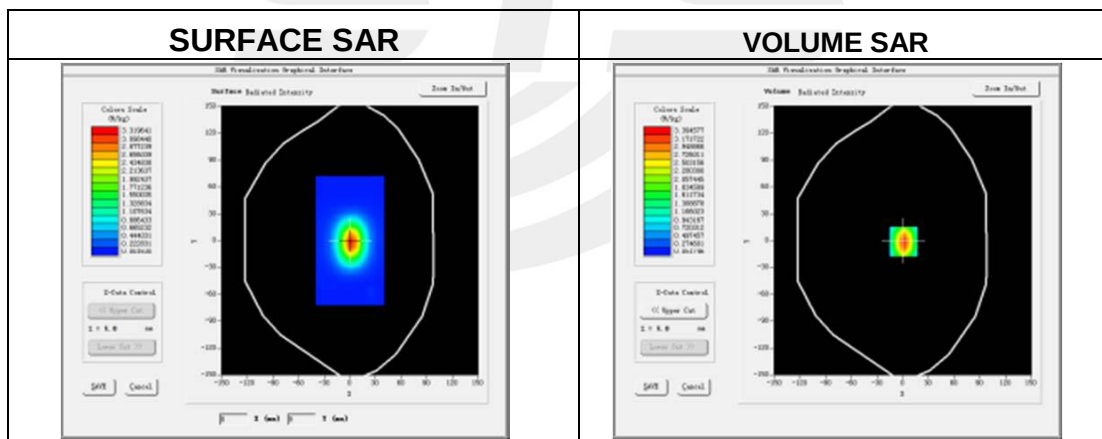
Area scan resolution: dx=8mm, dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2020-12-31

Experimental conditions.

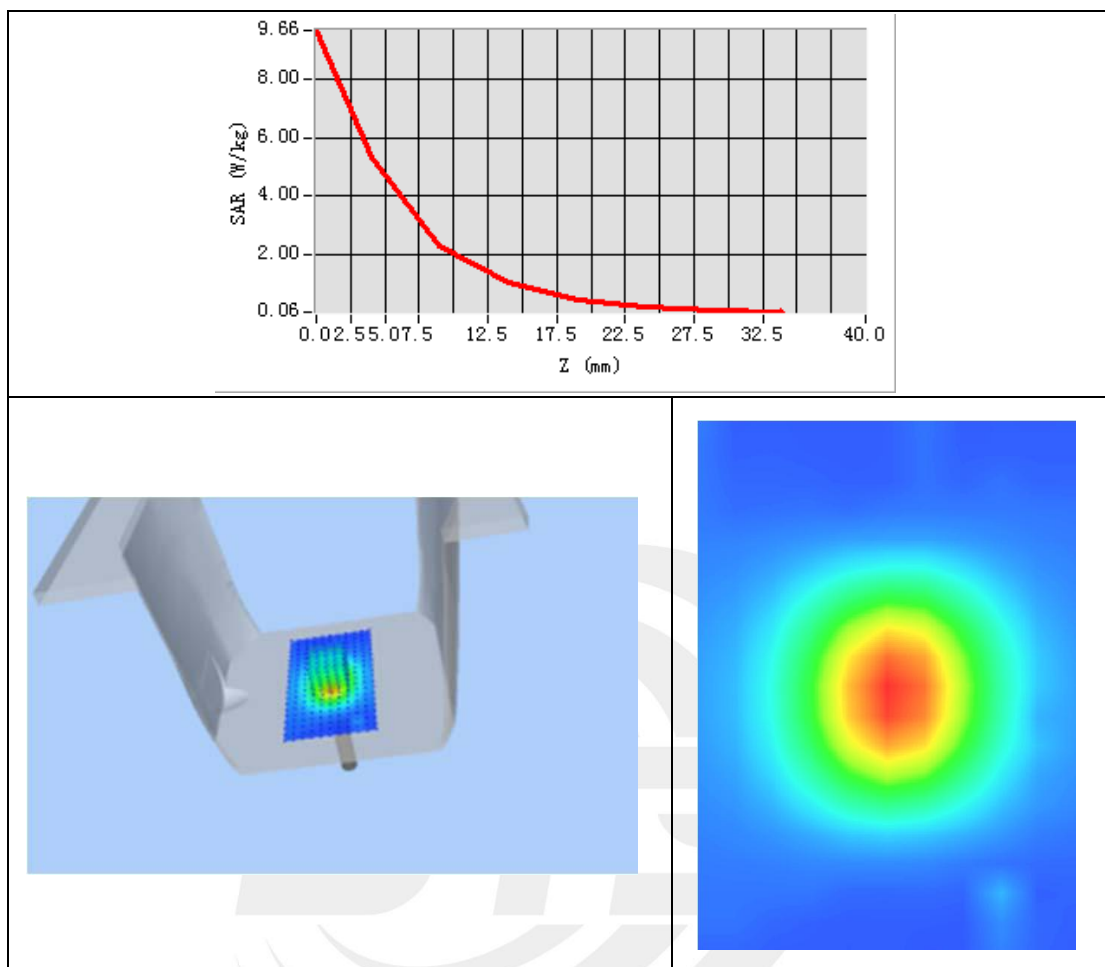
Device Position	Validation plane
Band	2450 MHz
Channels	-
Signal	CW
Frequency (MHz)	2450
Relative permittivity	39.17
Conductivity (S/m)	1.80
Probe	SN 41/18 EPG0334
ConvF	1.97
Crest factor:	1:1



Maximum location: X=3.00, Y=1.00

SAR 10g (W/Kg)	2.343287
SAR 1g (W/Kg)	5.187064

Z Axis Scan





System Performance Check Data (2600MHz)

Type: Phone measurement (Complete)

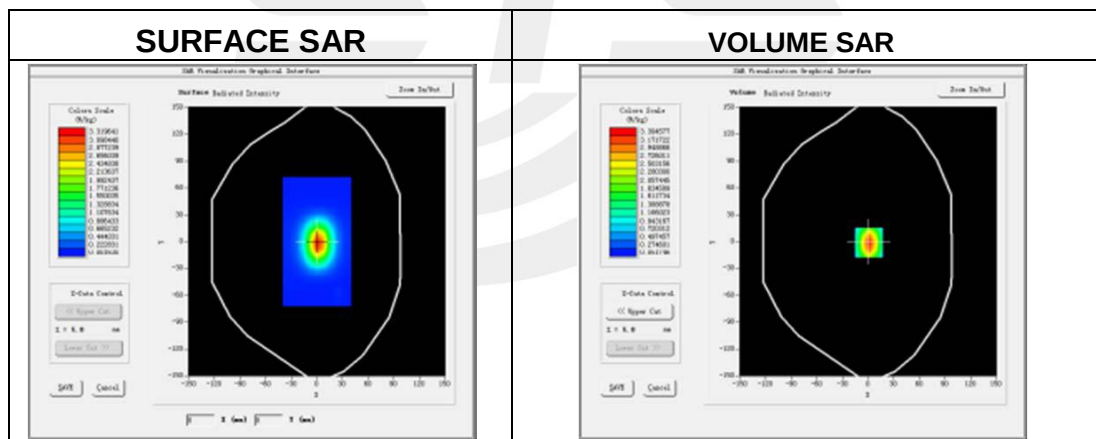
Area scan resolution: dx=8mm, dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2020-12-31

Experimental conditions.

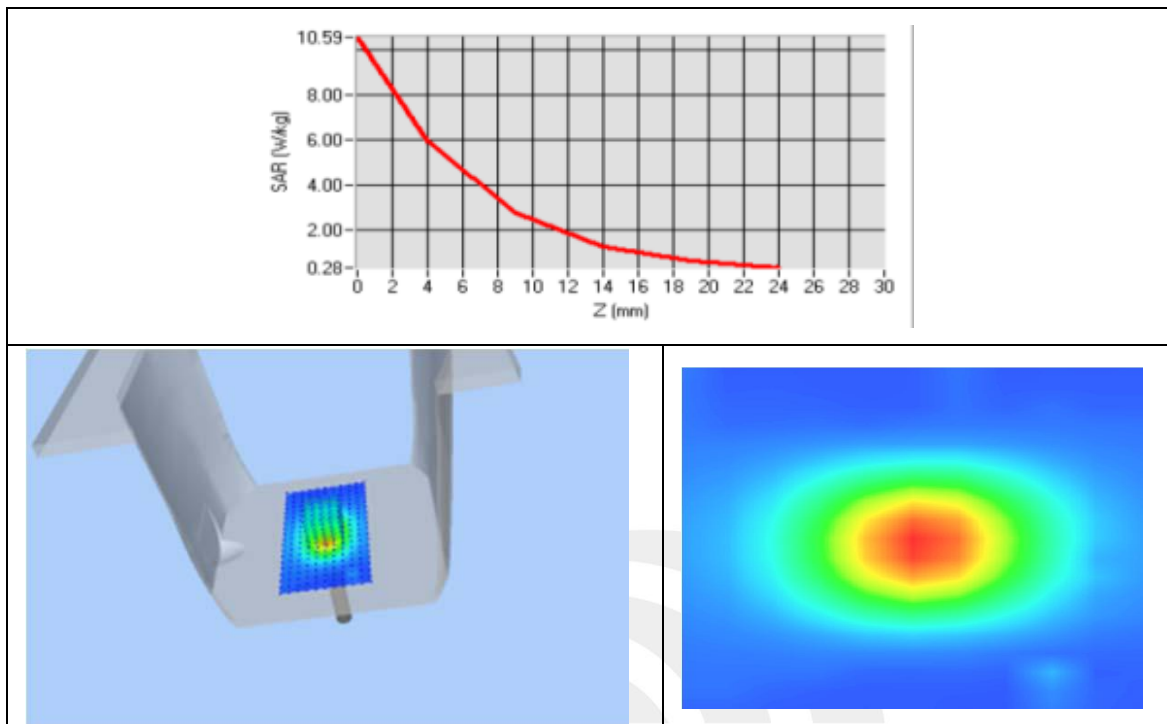
Device Position	Validation plane
Band	2600 MHz
Channels	-
Signal	CW
Frequency (MHz)	2600
Relative permittivity	37.98
Conductivity (S/m)	1.90
Probe	SN 41/18 EPGO334
ConvF	1.85
Crest factor:	1:1



Maximum location: X=3.00, Y=1.00

SAR 10g (W/Kg)	2.469072
SAR 1g (W/Kg)	5.407233

Z Axis Scan



Appendix B. SAR Test Plots

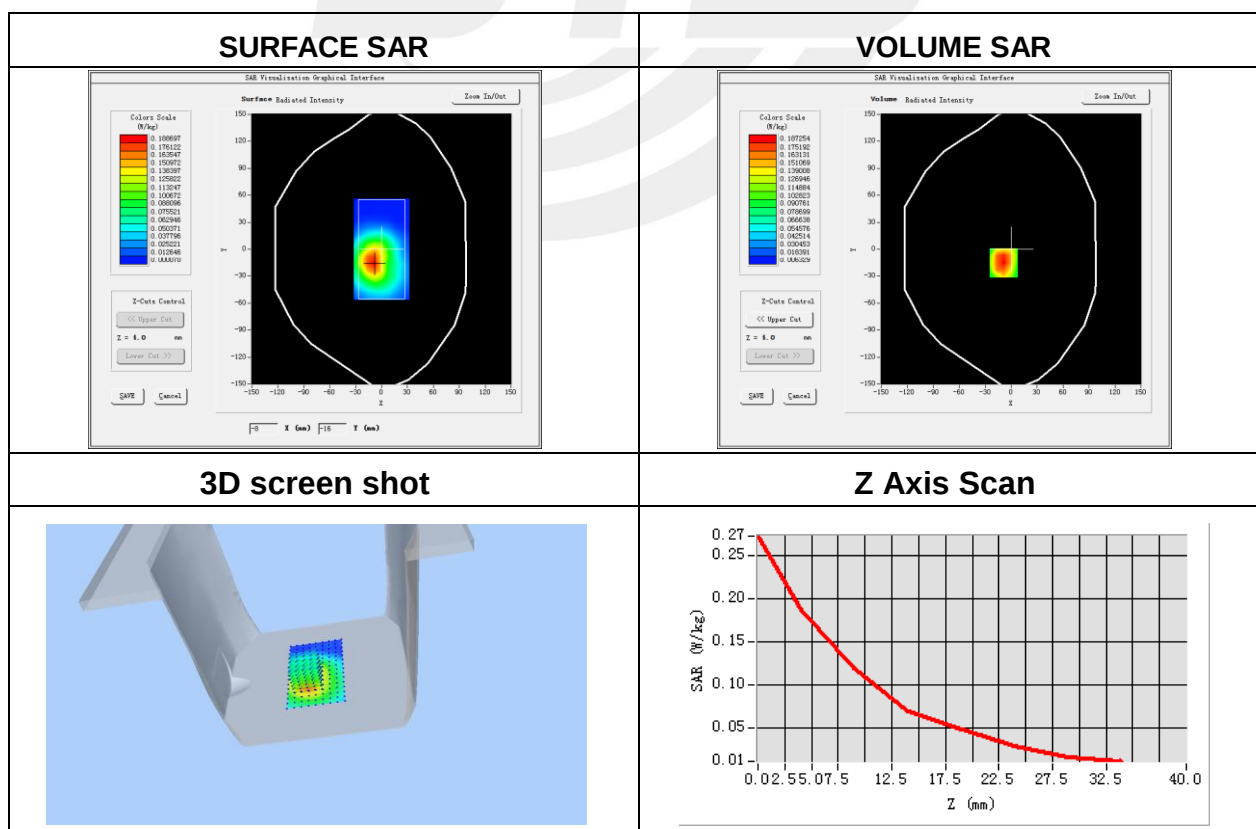
Plot 1: DUT: Smart Watch; EUT Model: T5

Test Date	2020-12-28
Probe	SN 41/18 EPGO334
ConvF	1.48
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Front of face
Band	GPRS850
Channels	Low
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	824.2
Relative permittivity (real part)	41.90
Conductivity (S/m)	0.93

Maximum location: X=-9.00, Y=-15.00

SAR Peak: 0.29W/kg

SAR 10g (W/Kg)	0.105425
SAR 1g (W/Kg)	0.182514



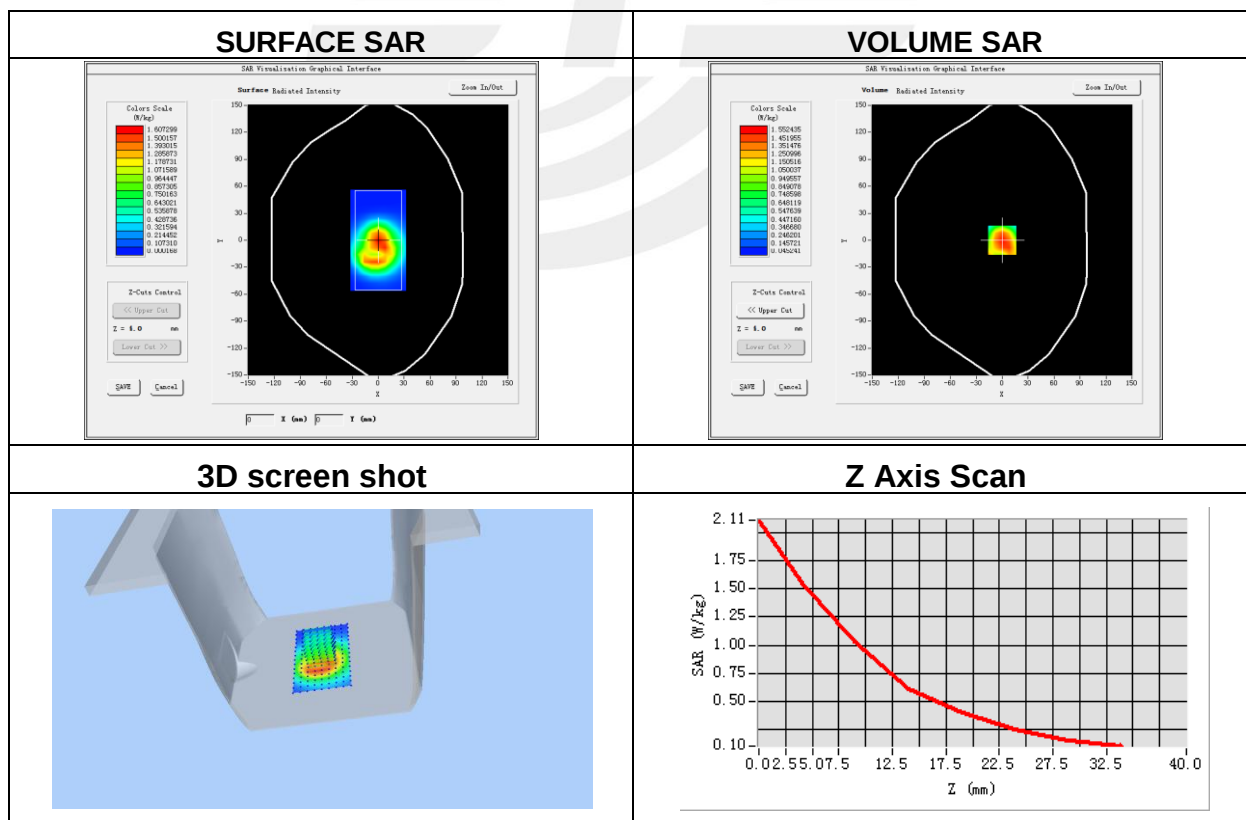
Plot 2:DUT: Smart Watch; EUT Model: T5

Test Date	2020-12-28
Probe	SN 41/18 EPGO334
ConvF	1.48
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Wrist
Band	GPRS850
Channels	Low
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	824.2
Relative permittivity (real part)	41.90
Conductivity (S/m)	0.93

Maximum location: X=0.00, Y=8.00

SAR Peak: 1.07 W/kg

SAR 10g (W/Kg)	0.863758
SAR 1g (W/Kg)	1.476997



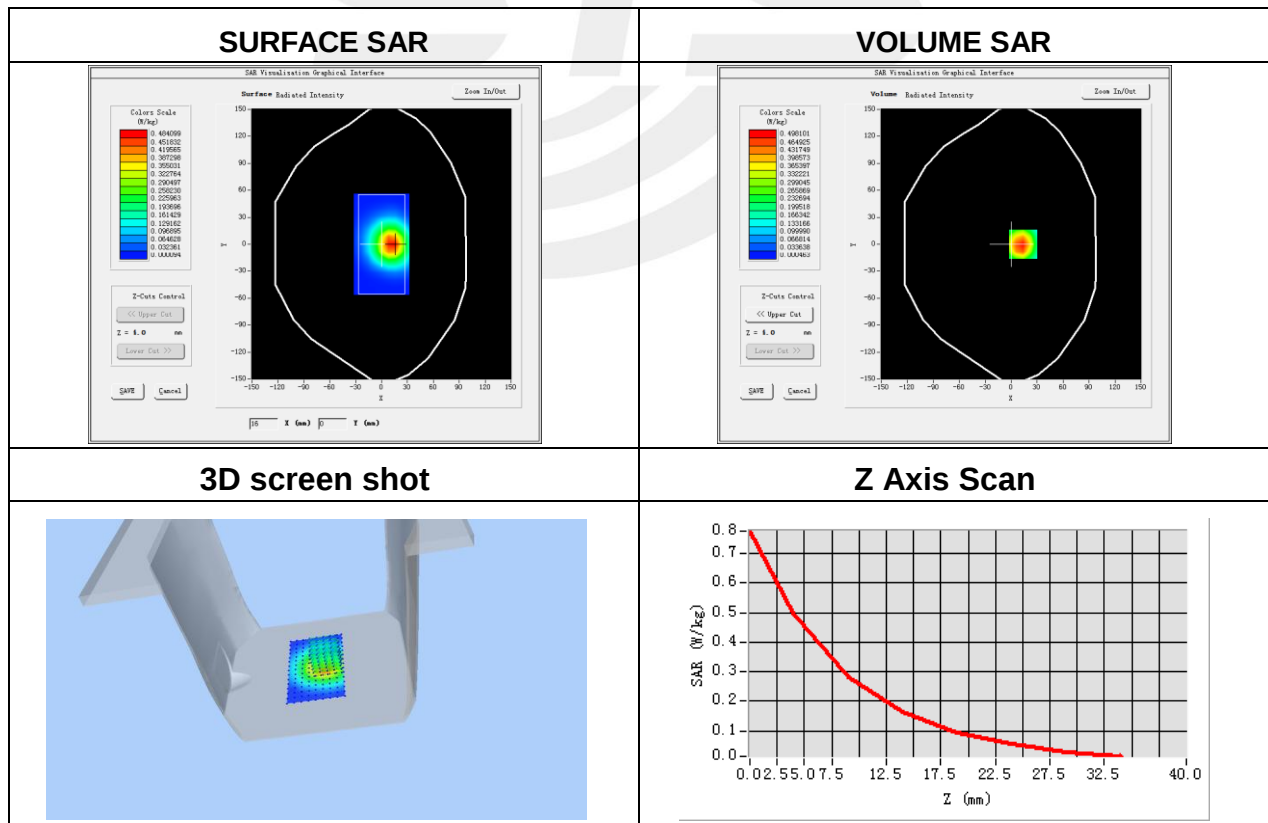

Plot 3: DUT: Smart Watch; EUT Model: T5

Test Date	2020-12-30
Probe	SN 41/18 EPGO334
ConvF	1.84
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Front of face
Band	GPRS 1900
Channels	High
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	1909.8
Relative permittivity (real part)	40.13
Conductivity (S/m)	1.46

Maximum location: X=14.00, Y=0.00

SAR Peak: 0.78W/kg

SAR 10g (W/Kg)	0.250785
SAR 1g (W/Kg)	0.474842



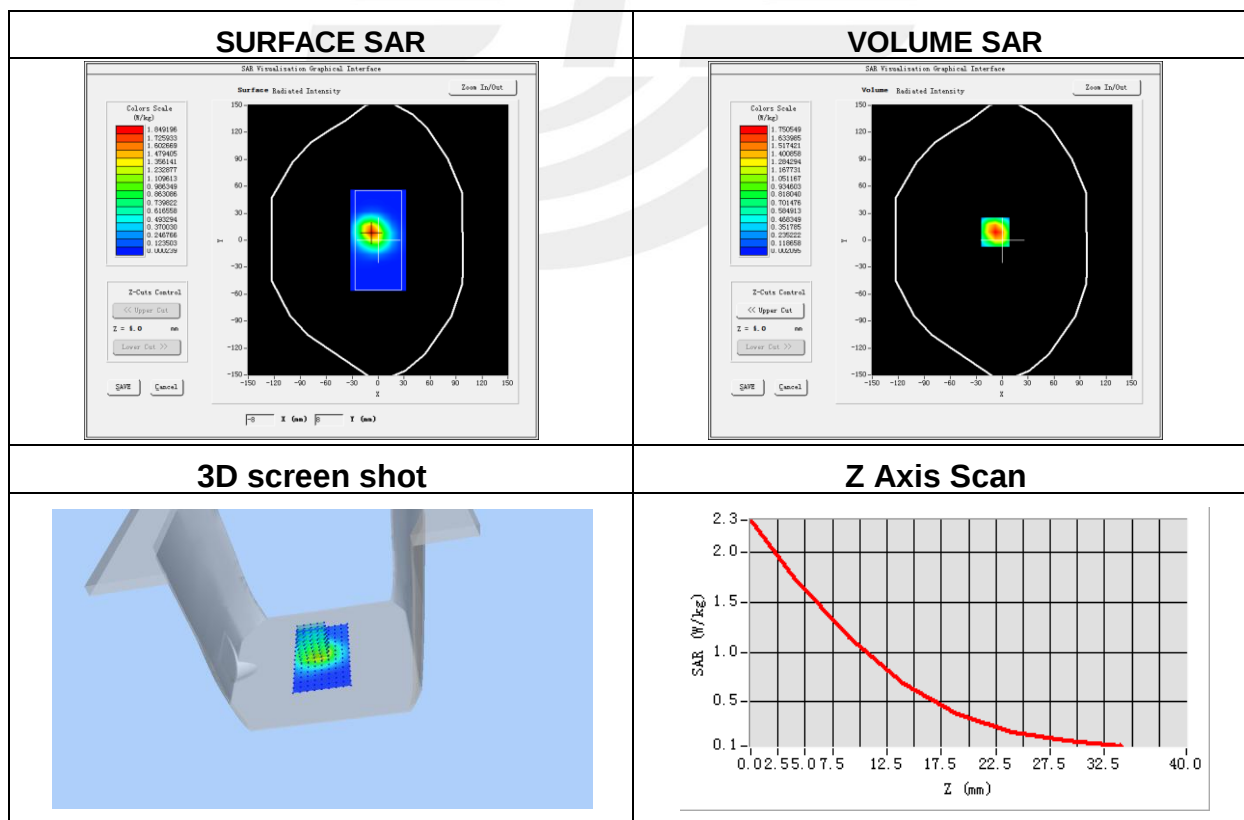
Plot 4:DUT: Smart Watch; EUT Model: T5

Test Date	2020-12-30
Probe	SN 41/18 EPGO334
ConvF	1.84
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Validation lane
Device Position	Wrist
Band	GPRS 1900
Channels	High
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	1909.8
Relative permittivity (real part)	40.13
Conductivity (S/m)	1.46

Maximum location: X=-8.00, Y=9.00

SAR Peak: 2.57 W/kg

SAR 10g (W/Kg)	0.843928
SAR 1g (W/Kg)	1.611813



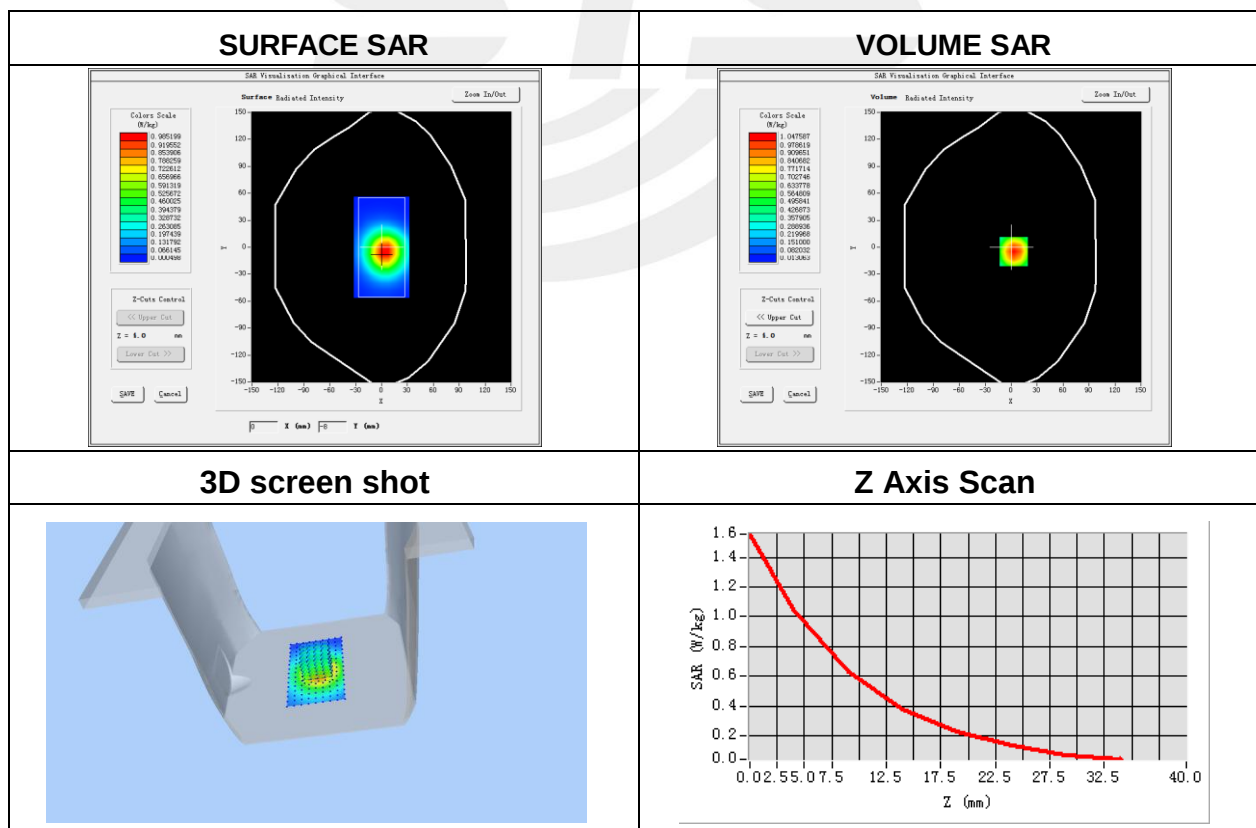
Plot 5: DUT: Smart Watch; EUT Model: T5

Test Date	2020-12-30
Probe	SN 41/18 EPGO334
ConvF	1.84
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Front of face
Band	WCDMA BAND II
Channels	Low
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1852.4
Relative permittivity (real part)	40.13
Conductivity (S/m)	1.46

Maximum location: X=3.00, Y=-5.00

SAR Peak: 1.55W/kg

SAR 10g (W/Kg)	0.557727
SAR 1g (W/Kg)	1.005381



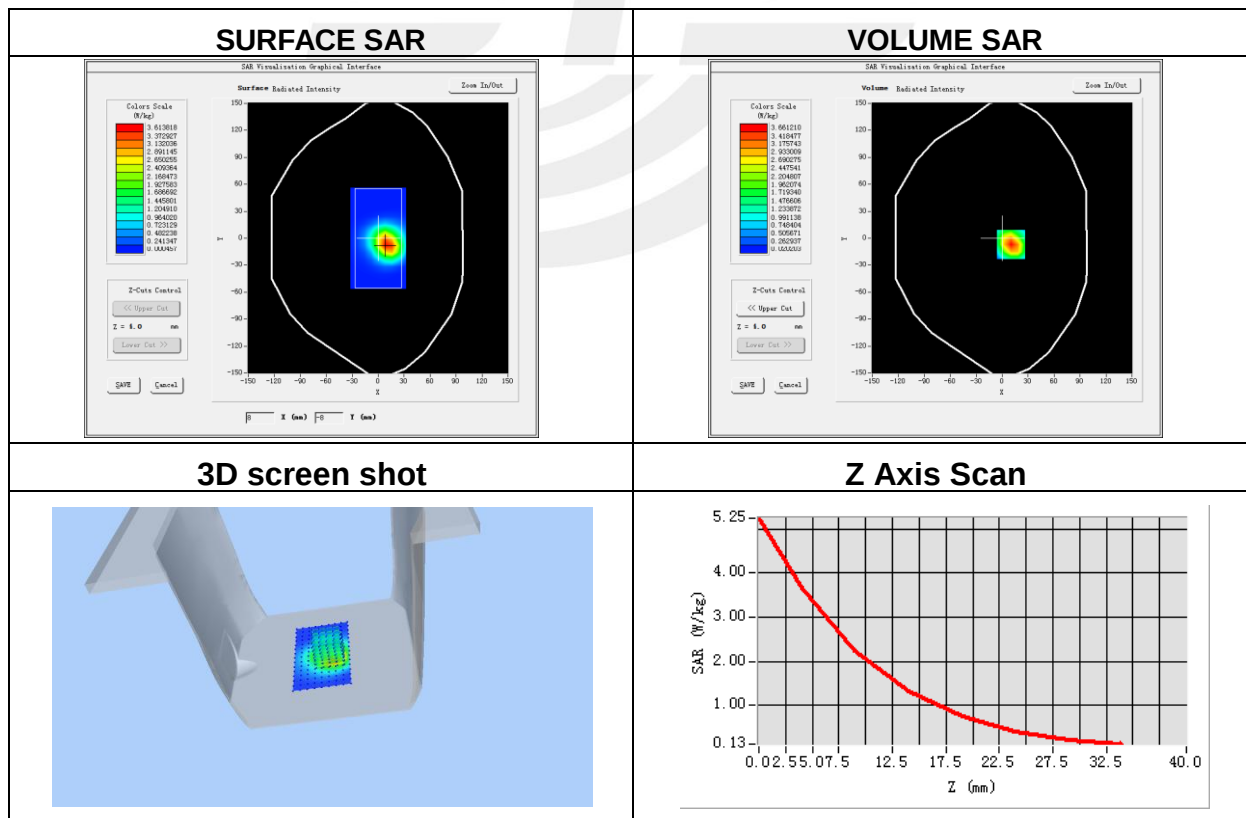
Plot 6:DUT: Smart Watch; EUT Model: T5

Test Date	2020-12-30
Probe	SN 41/18 EPGO334
ConvF	1.84
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Wrist
Band	WCDMA BAND II
Channels	Low
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1852.4
Relative permittivity (real part)	40.13
Conductivity (S/m)	1.46

Maximum location: X=10.00, Y=-7.00

SAR Peak: 5.48 W/kg

SAR 10g (W/Kg)	1.785461
SAR 1g (W/Kg)	3.439056



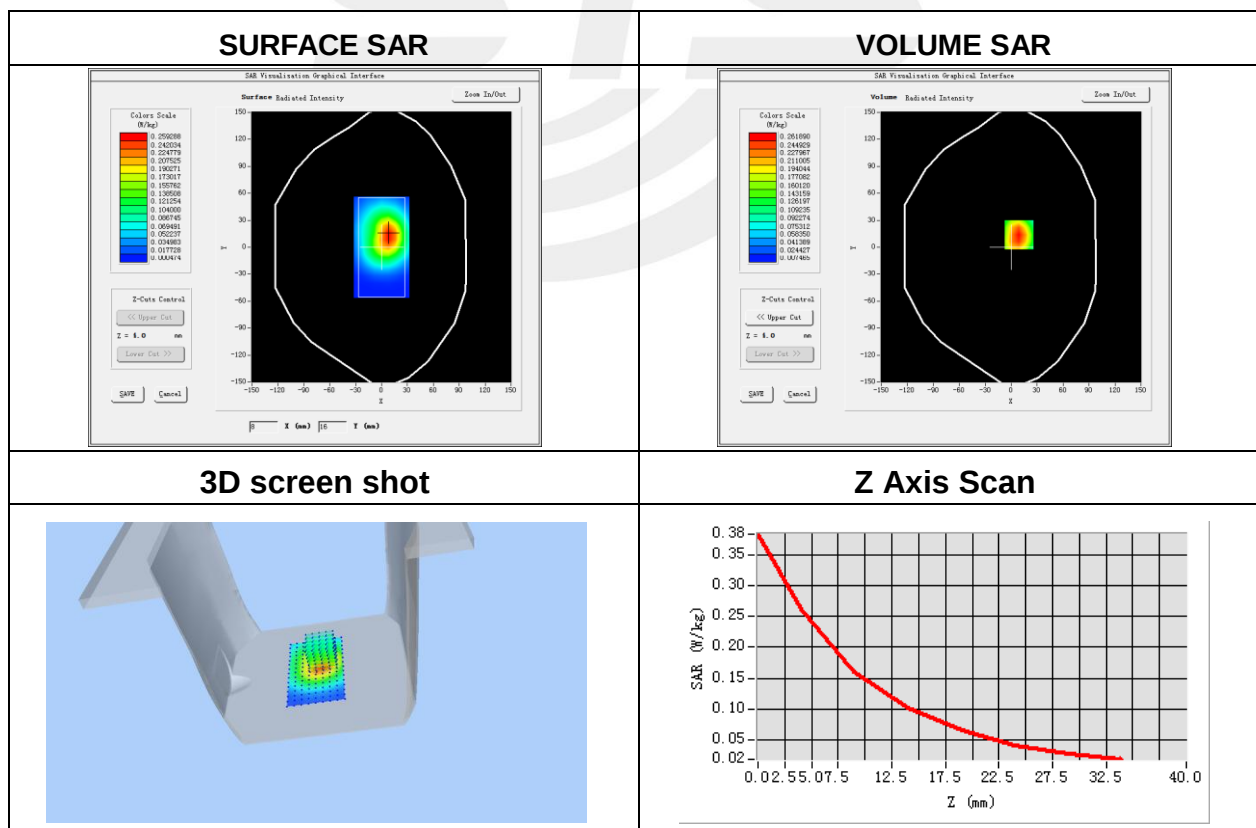
Plot 7: DUT: Smart Watch; EUT Model: T5

Test Date	2020-12-28
Probe	SN 41/18 EPGO334
ConvF	1.48
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Front of face
Band	WCDMA BAND V
Channels	High
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	846.6
Relative permittivity (real part)	41.90
Conductivity (S/m)	0.93

Maximum location: X=9.00, Y=14.00

SAR Peak: 0.38W/kg

SAR 10g (W/Kg)	0.148383
SAR 1g (W/Kg)	0.250764



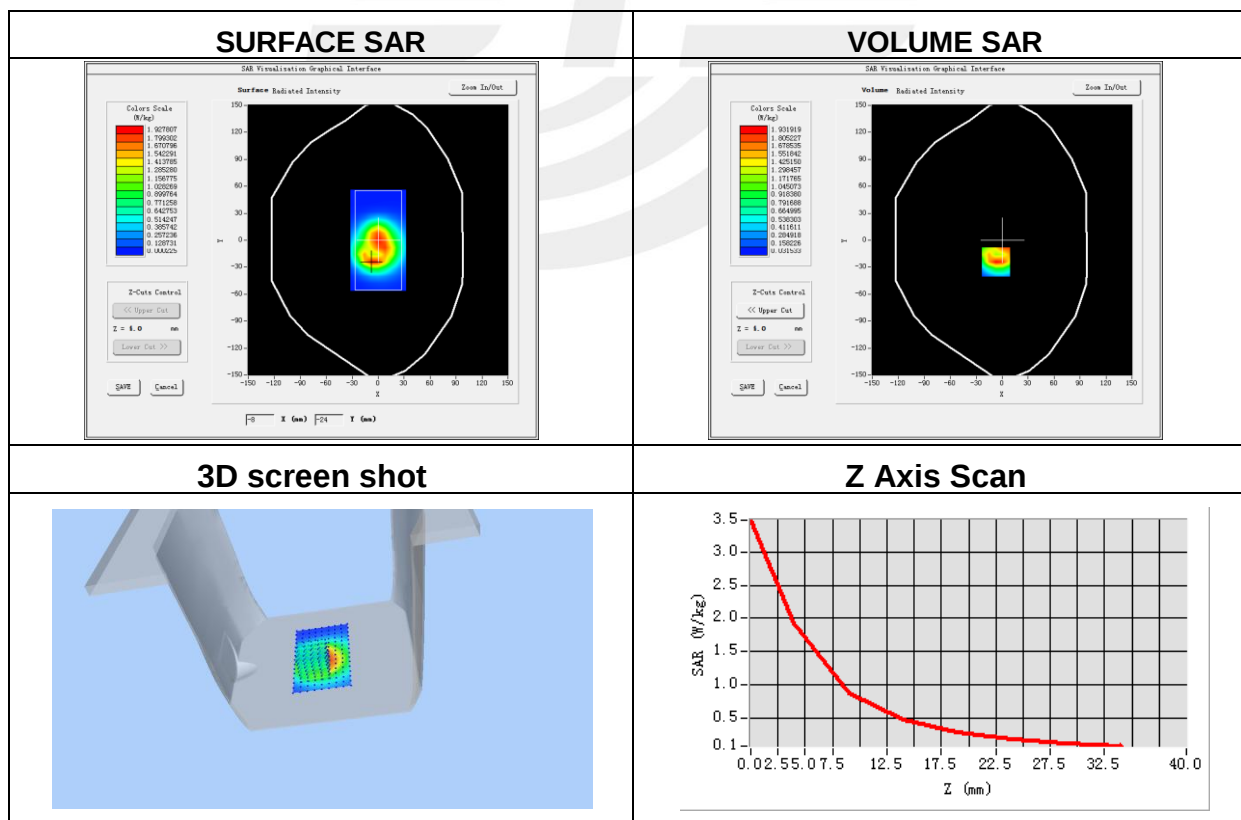
Plot 8:DUT: Smart Watch; EUT Model: T5

Test Date	2020-12-28
Probe	SN 41/18 EPGO334
ConvF	1.48
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Wrist
Band	WCDMA BAND V
Channels	High
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	846.6
Relative permittivity (real part)	41.90
Conductivity (S/m)	0.93

Maximum location: X=-7.00, Y=-24.00

SAR Peak: 3.46 W/kg

SAR 10g (W/Kg)	0.886339
SAR 1g (W/Kg)	1.769701



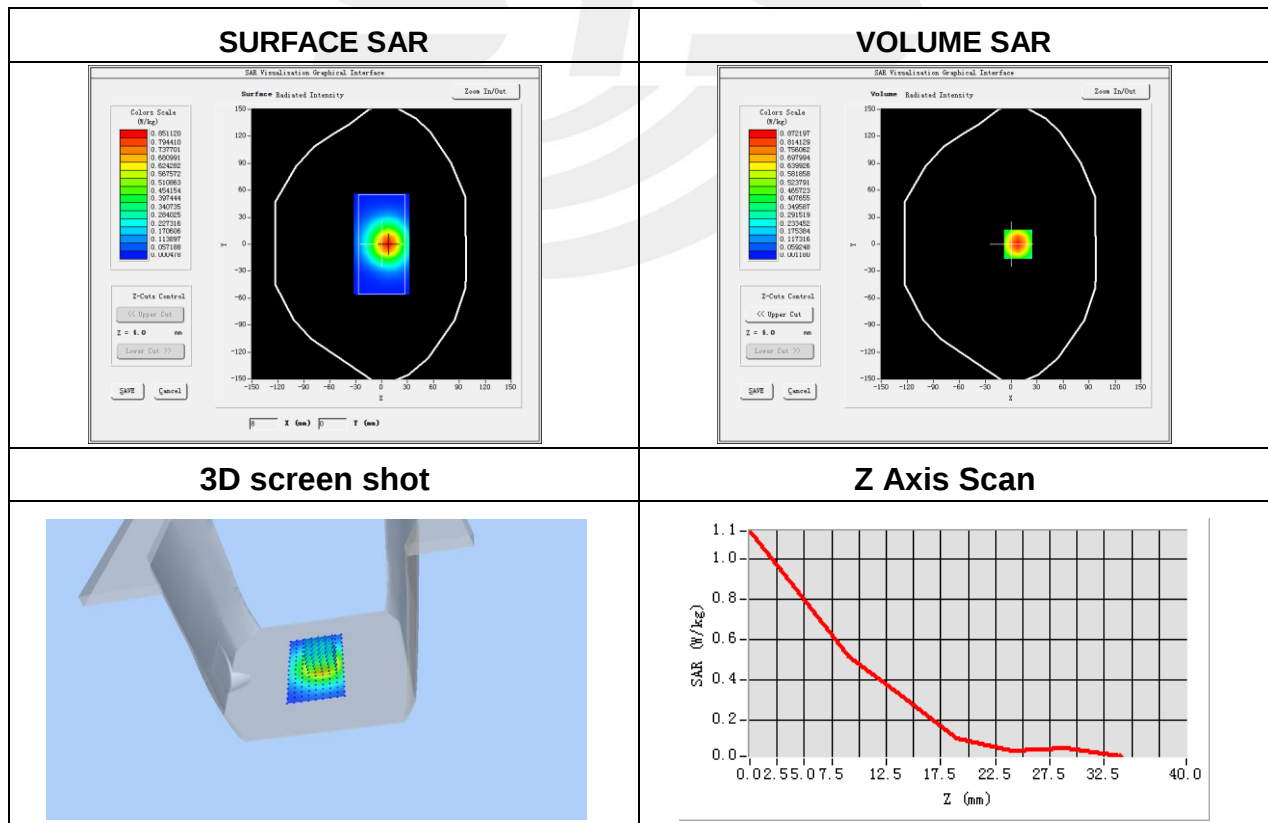
Plot 9: DUT: Smart Watch; EUT Model: T5

Test Date	2020-12-30
Probe	SN 41/18 EPGO334
ConvF	1.84
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Front of face
Band	LTE Band 2
Channels	Low
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1860
Relative permittivity (real part)	40.13
Conductivity (S/m)	1.46

Maximum location: X=8.00, Y=0.00

SAR Peak: 1.17W/kg

SAR 10g (W/Kg)	0.431856
SAR 1g (W/Kg)	0.783444



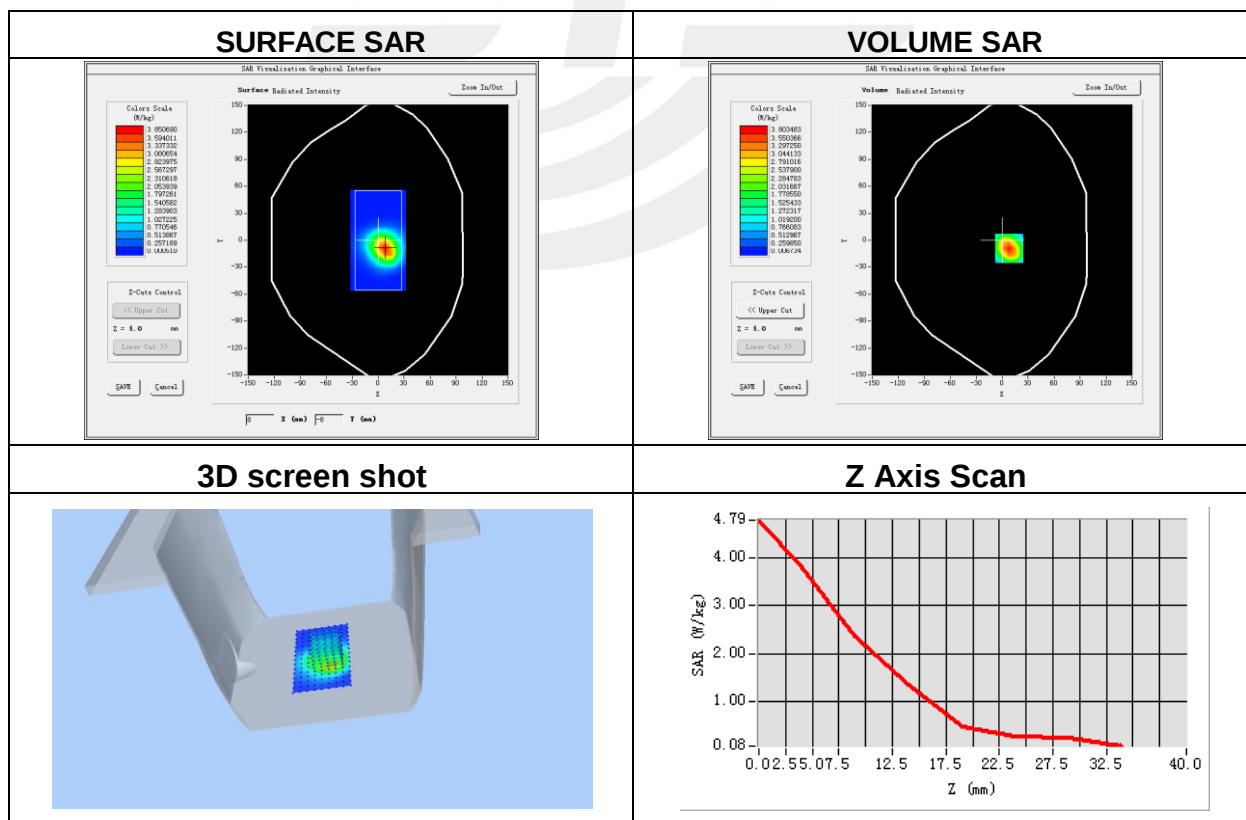
Plot 10:DUT: Smart Watch; EUT Model: T5

Test Date	2020-12-30
Probe	SN 41/18 EPGO334
ConvF	1.84
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Wrist
Band	LTE Band 2
Channels	Low
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1860
Relative permittivity (real part)	40.13
Conductivity (S/m)	1.46

Maximum location: X=8.00, Y=-9.00

SAR Peak: 5.69 W/kg

SAR 10g (W/Kg)	1.743617
SAR 1g (W/Kg)	3.432710



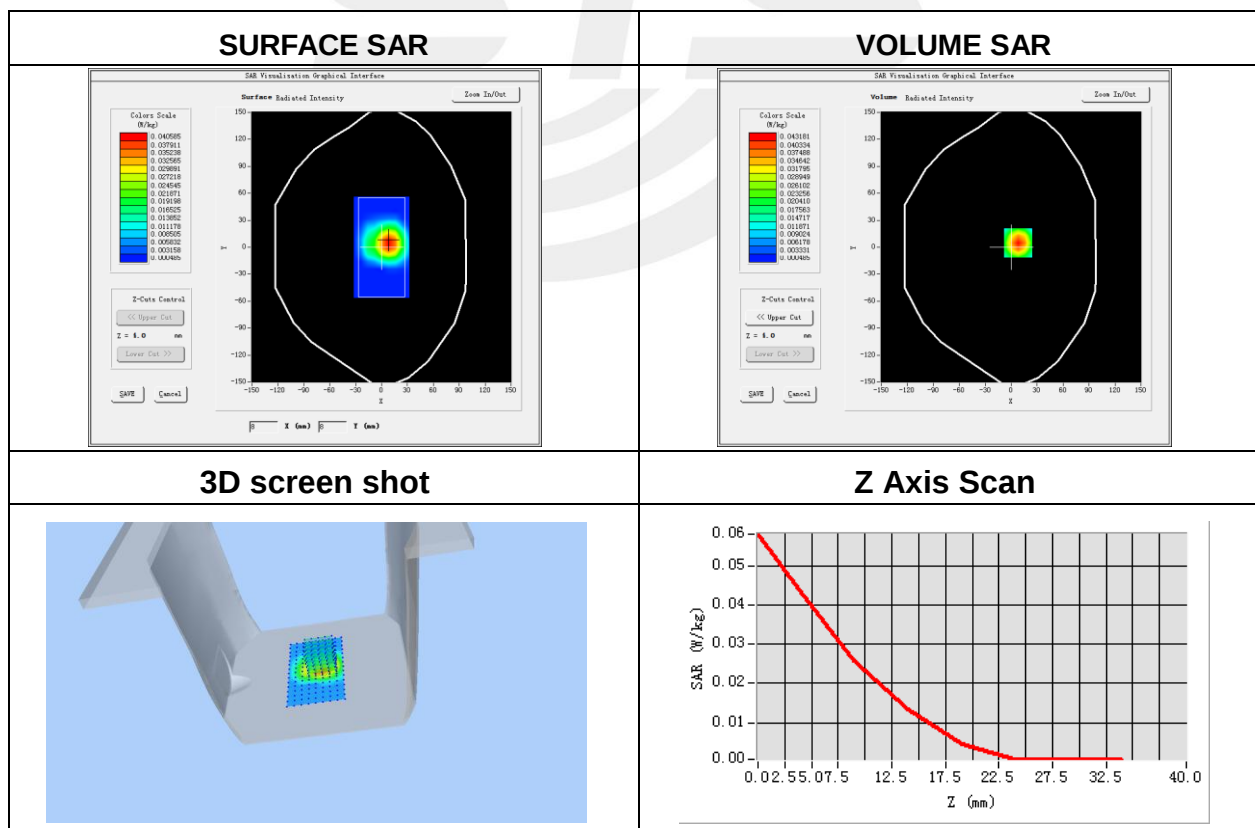
Plot 11: DUT: Smart Watch; EUT Model: T5

Test Date	2020-12-29
Probe	SN 41/18 EPGO334
ConvF	1.60
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Front of face
Band	LTE Band 4
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1732.5
Relative permittivity (real part)	39.52
Conductivity (S/m)	1.39

Maximum location: X=8.00, Y=5.00

SAR Peak: 0.06W/kg

SAR 10g (W/Kg)	0.019988
SAR 1g (W/Kg)	0.039105



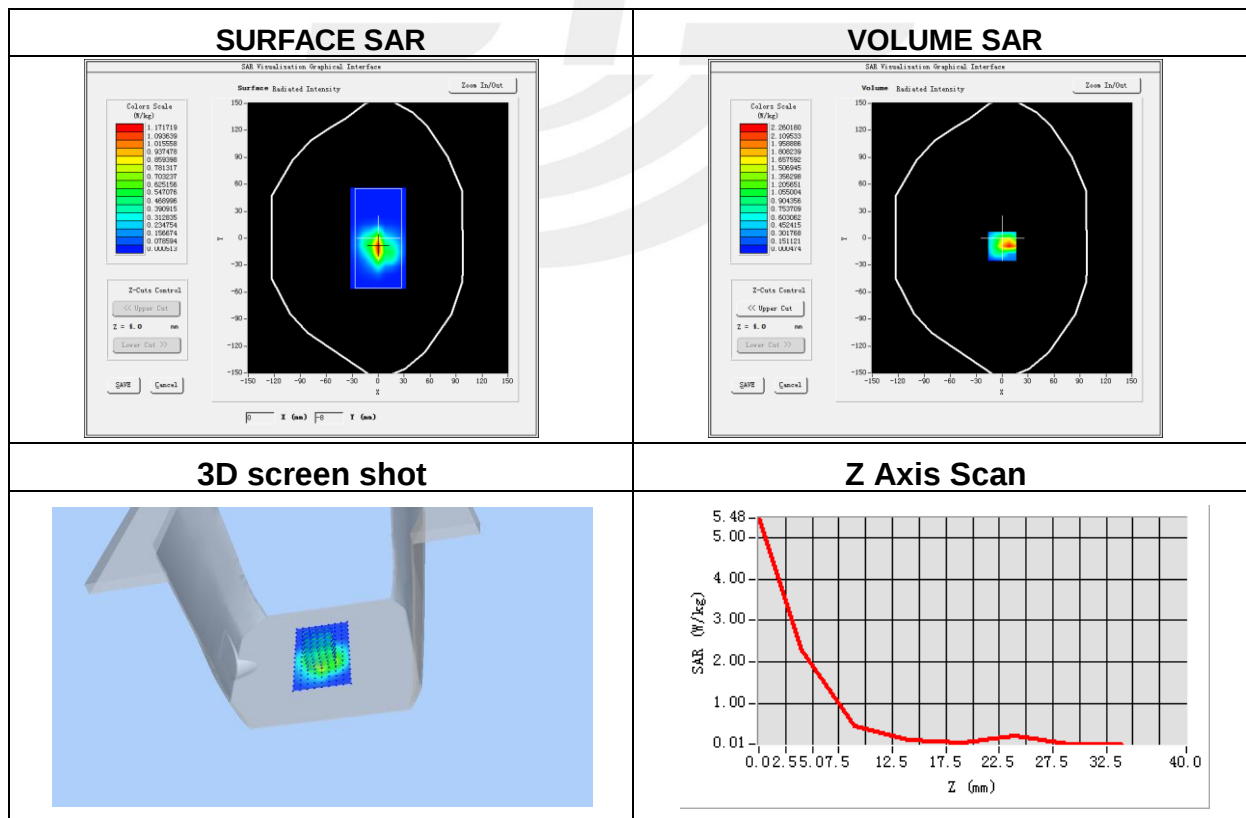
Plot 12:DUT: Smart Watch; EUT Model: T5

Test Date	2020-12-29
Probe	SN 41/18 EPGO334
ConvF	1.60
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Wrist
Band	LTE Band 4
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1732.5
Relative permittivity (real part)	39.52
Conductivity (S/m)	1.39

Maximum location: X=0.00, Y=-9.00

SAR Peak: 4.50 W/kg

SAR 10g (W/Kg)	0.738665
SAR 1g (W/Kg)	2.040669



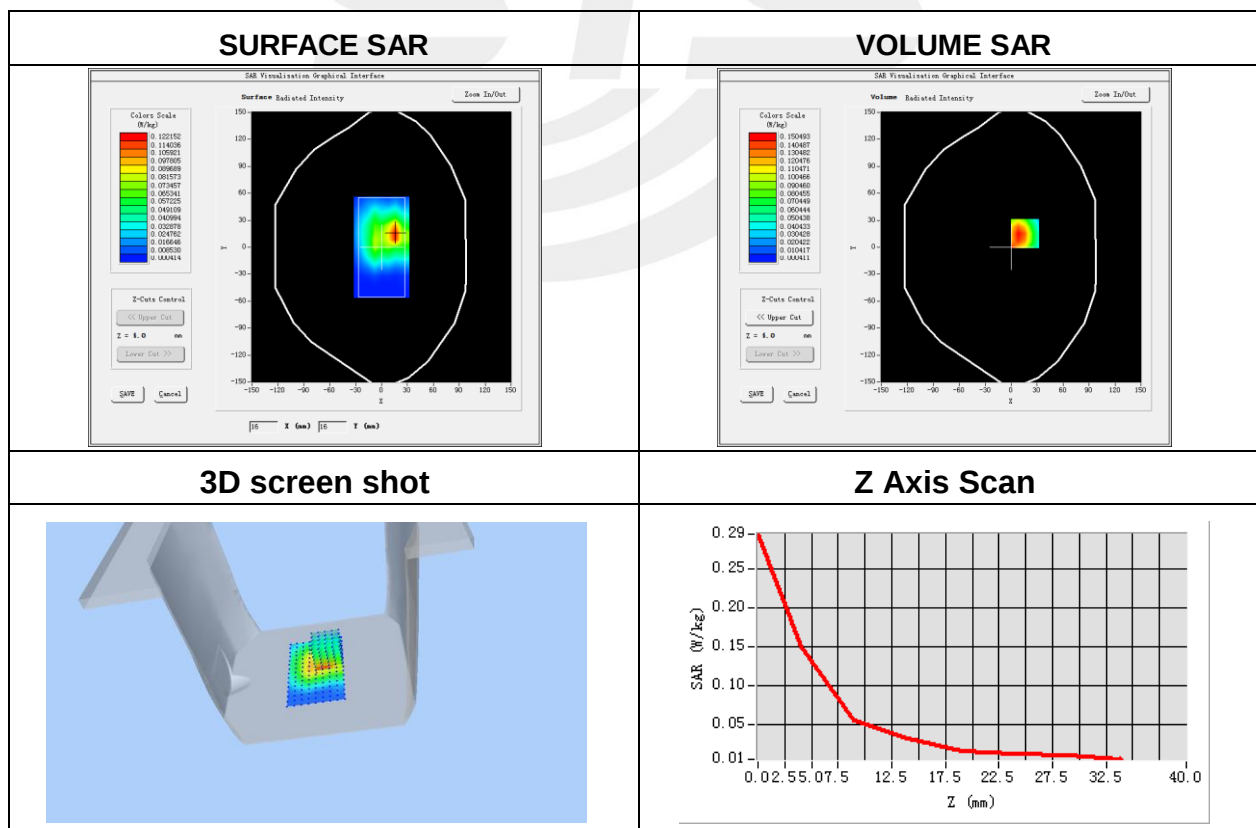
Plot 13: DUT: Smart Watch; EUT Model: T5

Test Date	2020-12-28
Probe	SN 41/18 EPGO334
ConvF	1.53
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Front of face
Band	LTE Band 5
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	844
Relative permittivity (real part)	41.90
Conductivity (S/m)	0.93

Maximum location: X=16.00, Y=-15.00

SAR Peak: 0.25W/kg

SAR 10g (W/Kg)	0.075944
SAR 1g (W/Kg)	0.128387



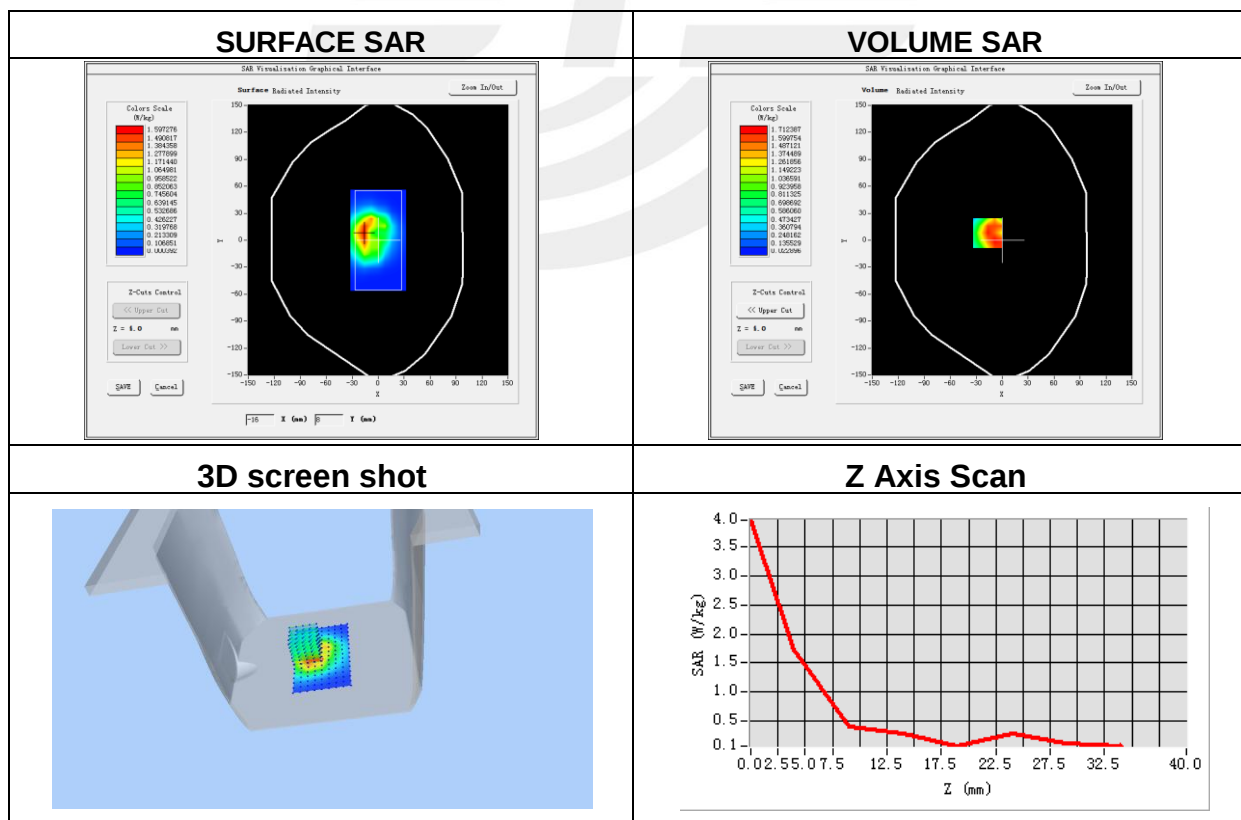
Plot 14:DUT: Smart Watch; EUT Model: T5

Test Date	2020-12-28
Probe	SN 41/18 EPGO334
ConvF	1.53
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Wrist
Band	LTE Band 5
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	844
Relative permittivity (real part)	41.90
Conductivity (S/m)	0.93

Maximum location: X=-17.00, Y=8.00

SAR Peak: 3.56 W/kg

SAR 10g (W/Kg)	0.793010
SAR 1g (W/Kg)	1.701399



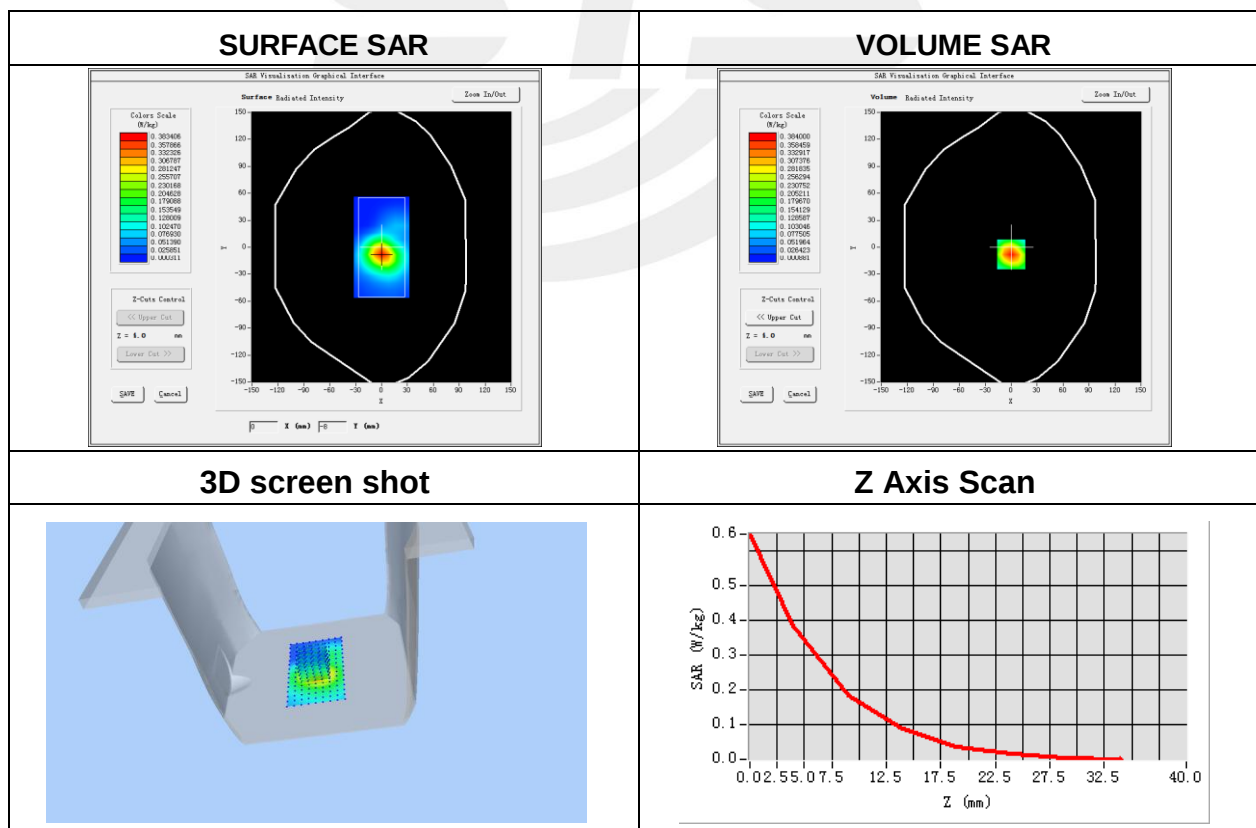
Plot 15: DUT: Smart Watch; EUT Model: T5

Test Date	2020-12-31
Probe	SN 41/18 EPGO334
ConvF	1.85
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Front of face
Band	LTE Band 7
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	2560
Relative permittivity (real part)	37.98
Conductivity (S/m)	1.90

Maximum location: X=0.00, Y=-8.00

SAR Peak: 0.64W/kg

SAR 10g (W/Kg)	0.170215
SAR 1g (W/Kg)	0.361480



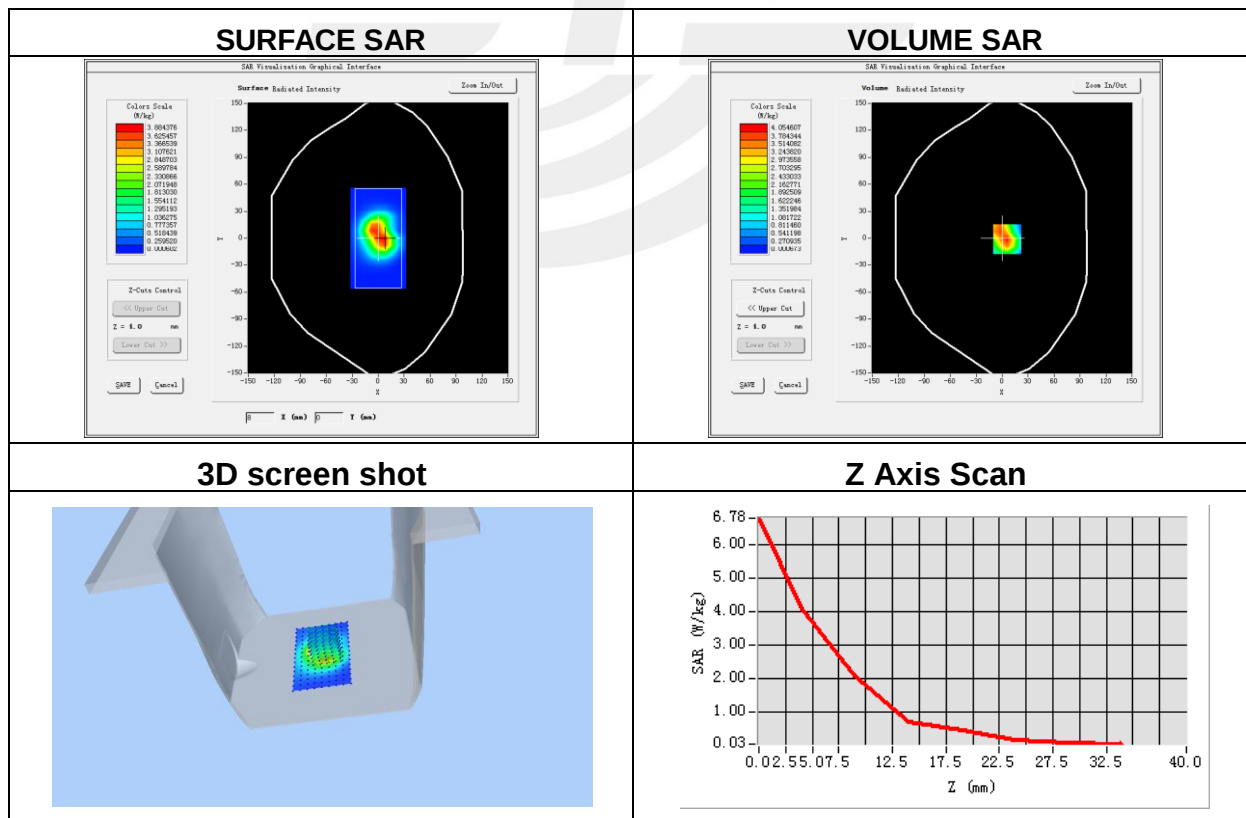
Plot 16:DUT: Smart Watch; EUT Model: T5

Test Date	2020-12-31
Probe	SN 41/18 EPGO334
ConvF	1.85
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Wrist
Band	LTE Band 7
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	2560
Relative permittivity (real part)	37.98
Conductivity (S/m)	1.90

Maximum location: X=6.00, Y=-1.00

SAR Peak: 6.85 W/kg

SAR 10g (W/Kg)	1.749356
SAR 1g (W/Kg)	3.794245



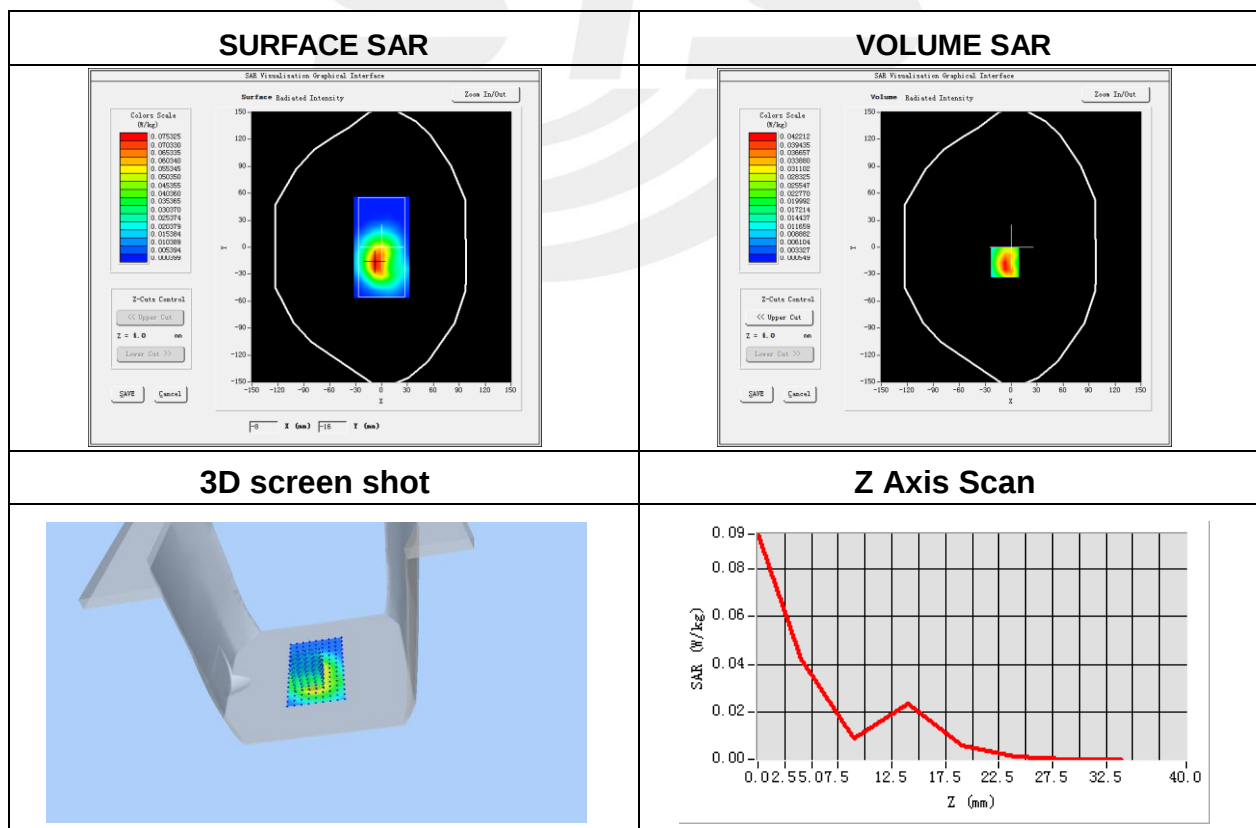
Plot 17: DUT: Smart Watch; EUT Model: T5

Test Date	2020-12-28
Probe	SN 41/18 EPGO334
ConvF	1.43
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Front of face
Band	LTE Band 12
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	707.5
Relative permittivity (real part)	41.72
Conductivity (S/m)	0.89

Maximum location: X=-7.00, Y=-17.00

SAR Peak: 0.09W/kg

SAR 10g (W/Kg)	0.021348
SAR 1g (W/Kg)	0.046922



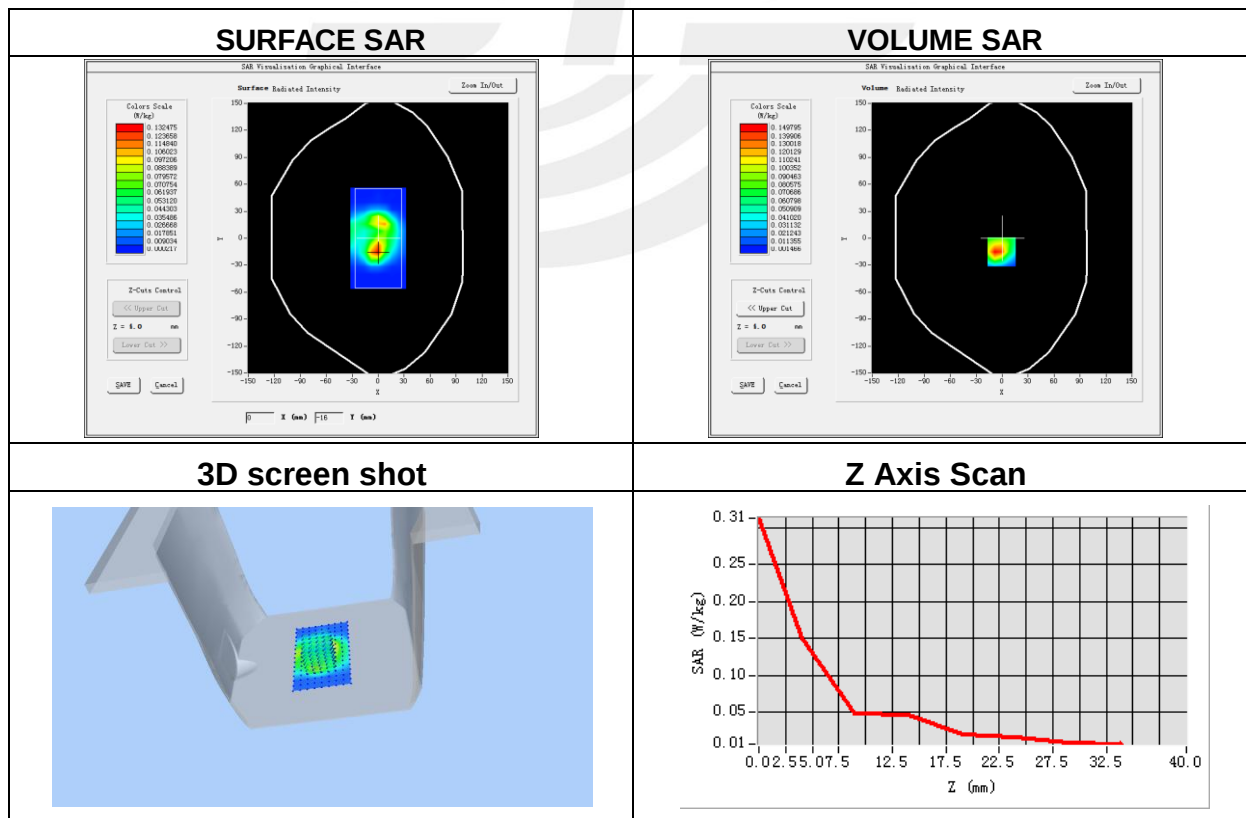
Plot 18:DUT: Smart Watch; EUT Model: T5

Test Date	2020-12-28
Probe	SN 41/18 EPGO334
ConvF	1.43
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Wrist
Band	LTE Band 12
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	707.5
Relative permittivity (real part)	41.72
Conductivity (S/m)	0.89

Maximum location: X=-1.00, Y=-15.00

SAR Peak: 0.25 W/kg

SAR 10g (W/Kg)	0.070778
SAR 1g (W/Kg)	0.144771



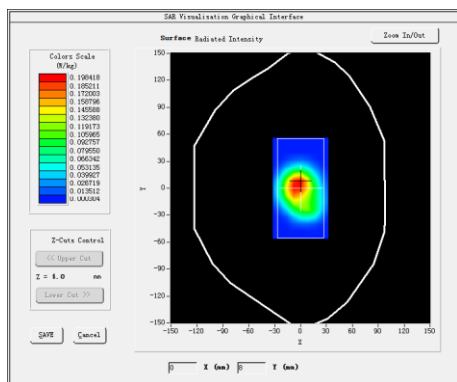
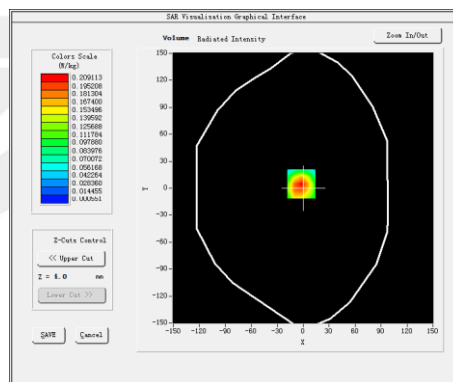
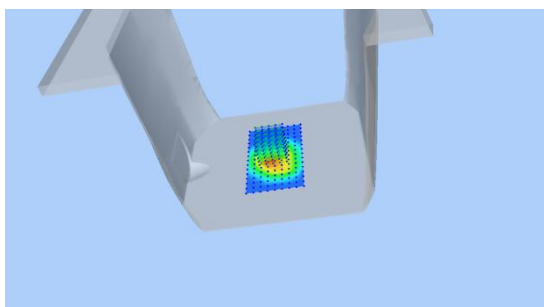
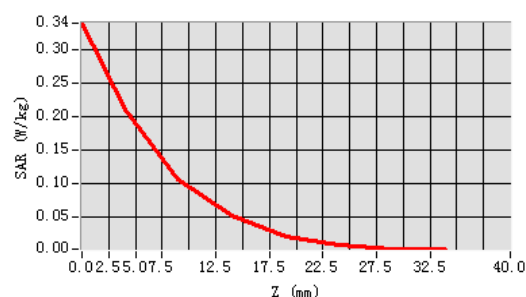
Plot 19:DUT: Smart Watch; EUT Model: T5

Test Date	2020-12-31
Probe	SN 41/18 EPGO334
ConvF	1.97
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Wrist
Band	IEEE 802.11b ISM
Channels	Middle
Signal	IEEE802.b (Crest factor: 1.0)
Frequency (MHz)	2437
Relative permittivity (real part)	39.17
Conductivity (S/m)	1.80

Maximum location: X=-2.00, Y=5.00

SAR Peak: 0.34W/kg

SAR 10g (W/Kg)	0.096165
SAR 1g (W/Kg)	0.198291

SURFACE SAR

VOLUME SAR

3D

Z Axis Scan




Appendix C. Probe Calibration And Dipole Calibration Report

Refer the appendix Calibration Report.

※※※※END OF THE REPORT※※※※※

