



# FCC SAR TEST REPORT

Report No.: STS2002188H03

Issued for

Winmate Inc.

9F, No.111-6, Shing-De Rd., San-Chung Dist., New Taipei City, 24158, Taiwan, R.O.C

<b>Product Name:</b>	Rugged Tablet PC
<b>Brand Name:</b>	Winmate
<b>Model Name:</b>	M700DQ8
<b>Series Model:</b>	M700XXXXXXXXXXXX(Where X can be A-Z,a-z ,0-9,"-", Blank or Slash)
<b>FCC ID:</b>	PX9M700DQ8002
<b>Test Standard:</b>	ANSI/IEEE Std. C95.1
	FCC 47 CFR Part 2 ( 2.1093)
	IEEE 1528: 2013
<b>Max. Report SAR (1g):</b>	Body: 1.459 W/kg

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STSLAB



### Test Report Certification

**Applicant's name** ..... : Winmate Inc.  
**Address** ..... : 9F, No.111-6, Shing-De Rd., San-Chung Dist., New Taipei City, 24158, Taiwan, R.O.C  
**Manufacture's Name** ..... : Winmate Inc.  
**Address** ..... : 9F, No.111-6, Shing-De Rd., San-Chung Dist., New Taipei City, 24158, Taiwan, R.O.C

#### Product description


**Product name** ..... : Rugged Tablet PC  
**Brand name** ..... : Winmate  
**Model name** ..... : M700DQ8  
**Series Model**..... : M700XXXXXXXXXXXX  
 (Where X can be A-Z,a-z,0-9,"-", Blank or Slash)  
 ANSI/IEEE Std. C95.1-1992  
**Standards** ..... : 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**..... : 16 Apr. 2020~28 Apr. 2020  
**Date of Issue**..... : 07 May 2020  
**Test Result**..... : **Pass**

Testing Engineer :   
 \_\_\_\_\_  
 ( Aaron Bu)

Technical Manager :   
 \_\_\_\_\_  
 ( Jason Lu)

Authorized Signatory :   
 \_\_\_\_\_  
 (Vita Li)





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### Revision History

Rev.	Issue Date	Report No.	Effect Page	Contents
00	07 May 2020	STS2002188H03	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	Rugged Tablet PC
Brand Name	Winmate
Model Name	M700DQ8
Series Model	M700XXXXXXXXXX (Where X can be A-Z,a-z,0-9,"-", Blank or Slash)
Model Difference	Only for marketing purpose
Battery	Rated Voltage: 3.7V Charge Limit: 4.2V Capacity: 5300mAh
Device Category	Portable
Product stage	Production unit
RF Exposure Environment	General Population / Uncontrolled
Hardware Version	M700DQ8-300
Software Version	M700DQ8_MB200_STD_P_SIE_200131
Frequency Range	WCDMA Band II: 1852.4~1907.6 MHz WCDMA Band IV: 1712.4~1752.6 MHz WCDMA Band V: 826.4~846.6 MHz LTE Band 2: 1850.7~1909.3 MHz LTE Band 4: 1710.7~1754.3 MHz LTE Band 5: 824.7~848.3 MHz LTE Band 7: 2502.5~2567.5 MHz LTE Band 12: 699.7~715.3 MHz LTE Band 13: 779.5~784.5 MHz LTE Band 25: 1850.7~1914.3 MHz LTE Band 26: 814.7~848.3 MHz LTE Band 30: 2305~2315 MHz LTE Band 41: 2555~2655 MHz WLAN802.11b/g/n(HT20): 2412~2462 MHz WLAN 802.11n(HT40): 2422~2452 MHz 5GHz WLAN IEEE 802.11a/n/ac (20MHz): 5180~5825 MHz 5GHz WLAN IEEE 802.11n/ac (40MHz): 5190~5795 MHz 5GHz WLAN IEEE 802.11ac (80MHz): 5210 MHz, 5290 MHz, 5530~5610 MHz, 5775 MHz Bluetooth: 2402~2480 MHz



	Full Power			
	Band	Mode	Body SAR (W/kg)	
Max. Reported SAR(1g): (Limit: 1.6W/kg)	PCB	WCDMA Band II	1.459	
	PCB	WCDMA Band IV	1.420	
	PCB	WCDMA Band V	0.688	
	PCB	LTE Band 4	0.888	
	PCB	LTE Band 7	0.886	
	PCB	LTE Band 12	1.265	
	PCB	LTE Band 13	0.708	
	PCB	LTE Band 25	0.619	
	PCB	LTE Band 26	0.406	
	PCB	LTE Band 30	0.157	
	PCB	LTE Band 41	0.222	
	DTS	2.4G WLAN ANT A	0.641	
	DTS	2.4G WLAN ANT B	0.082	
	DTS	2.4G WLAN ANT A+B	0.470	
	NII	5.2G WLAN ANT A	0.395	
	NII	5.2G WLAN ANT B	0.015	
	NII	5.2G WLAN ANT A+B	0.262	
	NII	5.3G WLAN ANT A	0.220	
	NII	5.3G WLAN ANT B	0.015	
	NII	5.3G WLAN ANT A+B	0.128	
	NII	5.6G WLAN ANT A	0.374	
	NII	5.6G WLAN ANT B	0.062	
	NII	5.6G WLAN ANT A+B	0.417	
	NII	5.8G WLAN ANT A	0.204	
	NII	5.8G WLAN ANT B	0.030	
	NII	5.8G WLAN ANT A+B	0.117	
	DTS	Bluetooth	0.019	
	Reduced Power level for WWAN+WLAN			
	PCB	WCDMA Band II	0.790	
	PCB	WCDMA Band IV	0.847	
	PCB	LTE Band 12	0.591	
	1-g Sum SAR			1.529
	FCC Equipment Class	PCS Licensed Transmitter(PCB) Digital Transmission System (DTS) Unlicensed National Information Infrastructure TX (NII)		
Operating Mode:	WCDMA: RMC, HSDPA, HSUPA Release 6 LTE: QPSK, 16QAM 802.11a(OFDM): BPSK, QPSK, 16-QAM, 64-QAM 802.11n(OFDM): BPSK, QPSK, 16-QAM, 64-QAM 802.11ac(OFDM): BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM Bluetooth: 5.0+EDR (GFSK + $\pi/4$ DQPSK + 8DPSK) BLE			
Antenna Specification:	WCDMA, LTE: PIFA Antenna BT, WLAN: PIFA Antenna			
SIM Card	Only support single card			
Hotspot Mode:	Not Support			
DTM Mode:	Not Support			
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 D01 v06	Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies
5	FCC KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
6	FCC KDB 865664 D02 v01r02	RF Exposure Reporting
7	FCC KDB 941225 D01 v03r01	SAR Measurement Procedures for 3G Devices
8	FCC KDB 941225 D05 v02r05	SAR for LTE Devices
9	FCC KDB 941225 D06 v02r01	Hotspot Mode SAR
10	FCC KDB 648474 D04 v01r03	SAR Evaluation Considerations for Wireless Handsets
11	FCC KDB 248227 D01 Wi-Fi SAR v02r02	SAR Considerations for 802.11 Devices
12	FCC KDB 616217 D04 v01r02	SAR Evaluation Considerations for Laptop, Notebook, Netbook and Tablet Computers

In addition to the above, the following information was used:

TCB workshop October, 2014; Page 36, RF Exposure Procedures Update (Overlapping LTE Bands)

TCB workshop October, 2014; Page 37, LTE Considerations (LTE Band 41 Test Channels)

(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).

<p><b>NOTE</b></p> <p><b>GENERAL POPULATION/UNCONTROLLED EXPOSURE</b></p> <p><b>PARTIAL BODY LIMIT</b></p> <p><b>1.6 W/kg</b></p>
---



### 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:

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

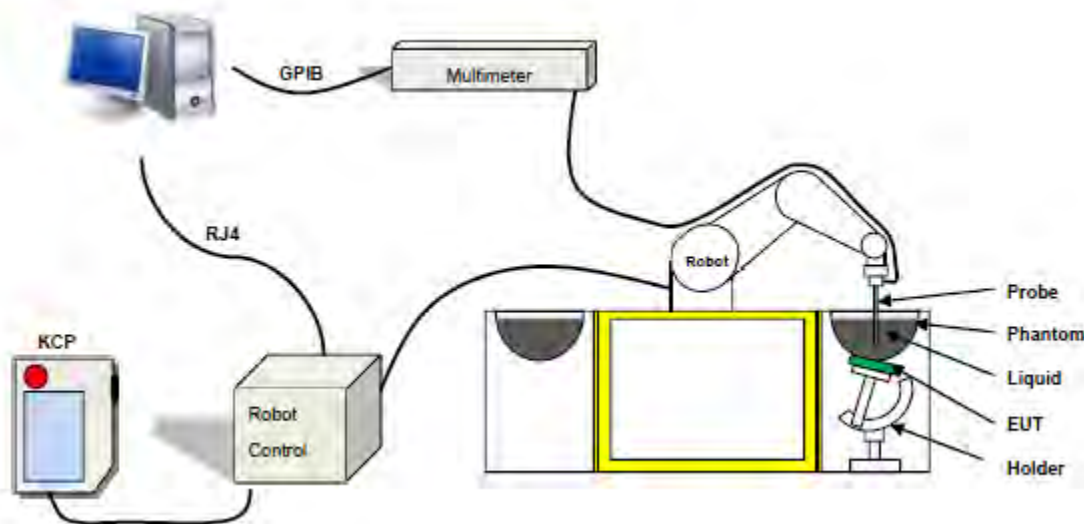
SAR is expressed in units of Watts per kilogram (W/kg) SAR measurement can be related to the electrical field in the tissue by

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

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 Open SAR 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 EPG0334 with following specifications is used

- Probe Length: 330 mm
- Length of Individual Dipoles: 2 mm
- 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.

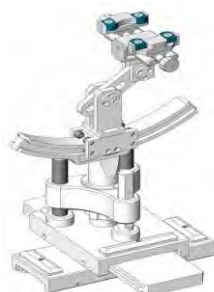
SN 32/14 SAM115



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  $\pm 0.5$  mm would produce a SAR uncertainty of  $\pm 20$  %. 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	Permittivity
	%	%	%	%	%	%	%	%	$\sigma$	$\epsilon_r$
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	Permittivity
	%	%	%	%	%	%	%	%	$\sigma$	$\epsilon_r$
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	$\epsilon_r$		$\sigma$ S/m	
	Head	Body	Head	Body
	300	45.3	58.2	0.87
450	43.5	56.7	0.87	0.94
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
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**

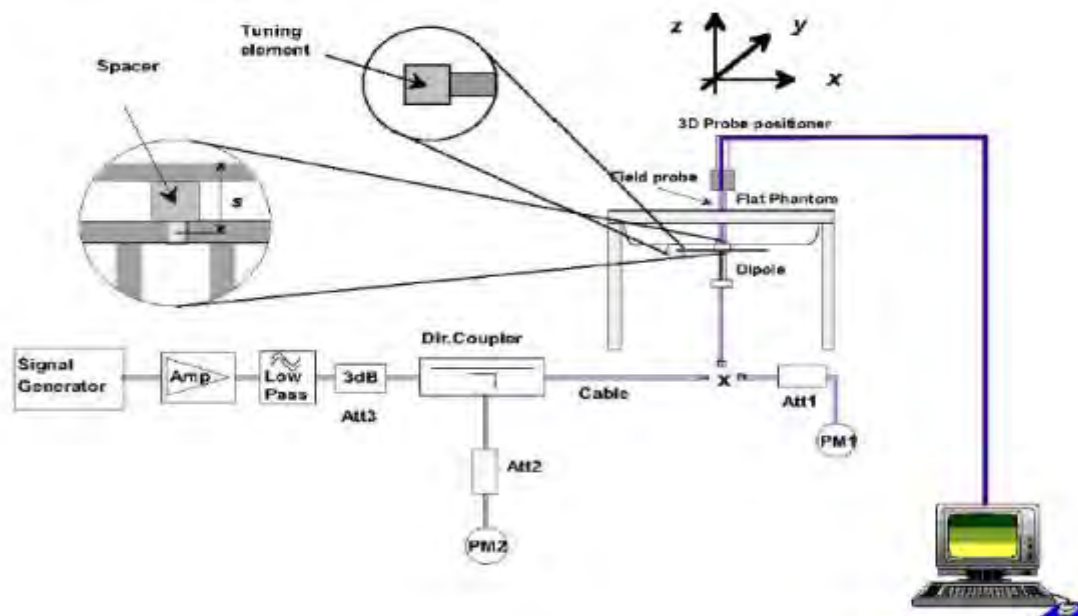
Date	Ambient condition		Body Simulating Liquid		Parameters	Target	Measured	Deviation [%]	Limited [%]
	Temp. [°C]	Humidity [%]	Frequency	Temp. [°C]					
2020-04-16	23.1	50	750 MHz	22.8	Permittivity:	55.5	54.86	-1.15	±5
					Conductivity:	0.96	0.98	2.08	±5
2020-04-17	22.7	48	835 MHz	22.4	Permittivity:	55.2	54.13	-1.94	±5
					Conductivity:	0.97	0.95	-2.06	±5
2020-04-20	22.9	51	1800 MHz	22.7	Permittivity:	53.3	53.82	0.98	±5
					Conductivity:	1.52	1.55	1.97	±5
2020-04-22	23.0	50	1900 MHz	22.8	Permittivity:	53.3	52.69	-1.14	±5
					Conductivity:	1.52	1.53	0.66	±5
2020-04-24	23.2	52	2300 MHz	22.9	Permittivity:	52.9	53.24	0.64	±5
					Conductivity:	1.81	1.85	2.21	±5
2020-04-24	23.2	52	2450 MHz	22.9	Permittivity:	52.7	53.11	0.78	±5
					Conductivity:	1.95	1.92	-1.54	±5
2020-04-23	23.1	53	2600 MHz	22.8	Permittivity:	52.5	51.87	-1.20	±5
					Conductivity:	2.16	2.19	1.39	±5
2020-04-26	23.5	50	5200 MH	23.2	Permittivity:	49.0	49.73	1.49	±5
					Conductivity:	5.30	5.27	-0.57	±5
2020-04-26	23.5	50	5400 MHz	23.2	Permittivity:	48.70	48.95	0.51	±5
					Conductivity:	5.53	5.62	1.63	±5
2020-04-27	23.2	48	5600 MHz	22.8	Permittivity:	48.5	48.14	-0.74	±5
					Conductivity:	5.77	5.72	-0.87	±5
2020-04-28	23.5	52	5800 MHz	23.2	Permittivity:	48.2	47.76	-0.91	±5
					Conductivity:	6.00	6.15	2.50	±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 %.

Freq.(MHz)	Power(mW)	Tested Value (W/Kg)	Normalized SAR (W/kg/W)	Target (W/Kg/W)	Tolerance(%)	Date
750 Body	100	0.856	8.56	8.49	0.82	2020-04-16
835 Body	100	0.935	9.35	9.56	-2.20	2020-04-17
1800 Body	100	3.866	38.66	38.4	0.68	2020-04-20
1900 Body	100	4.093	40.93	39.7	3.10	2020-04-22
2300 Body	100	4.913	49.13	48.7	0.88	2020-04-24
2450 Body	100	5.254	52.54	52.4	0.27	2020-04-24
2600 Body	100	5.434	54.34	55.3	-1.74	2020-04-23
5200 Body	100	15.146	151.46	159	-4.74	2020-04-26
5400 Body	100	17.277	172.77	166.4	3.83	2020-04-26
5600 Body	100	17.639	176.39	173.8	1.49	2020-04-27
5800 Body	100	17.726	177.26	181.2	-2.17	2020-04-28

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:

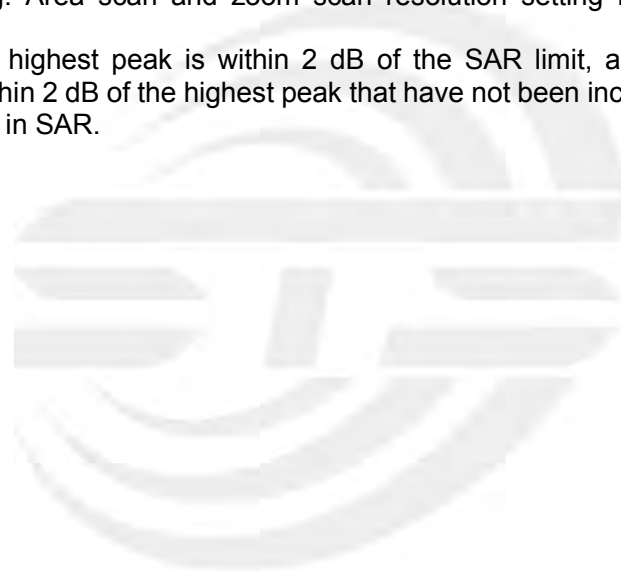
The following steps are used for each test position

- 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

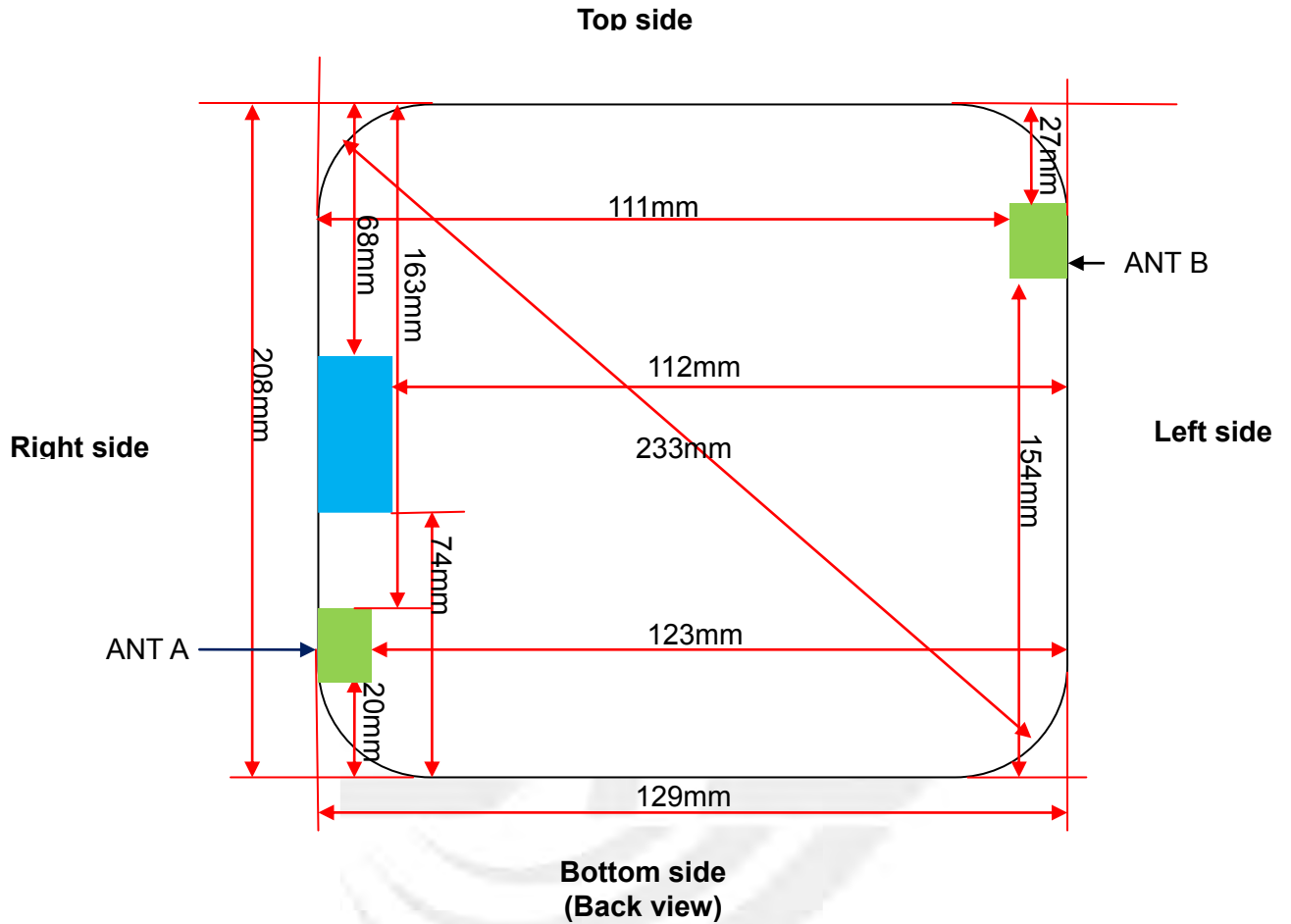
First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan 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 D01 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 Antenna Location Sketch

It is a Rugged Tablet PC, support WCDMA/LTE/WIFI/BT mode.



- WWAN Antenna
- WLAN/BT Antenna

Note 1: The antenna information refer the manufacturer provide report, applicable only to the tested sample identified in the report.





### 7.1 SAR test exclusion consider table

According with FCC KDB 447498 D01, appendix A, <SAR test exclusion thresholds for 100MHz ~6GHz and ≤50mm> table, this device SAR test configurations consider as following:

Band	Mode	Maxim um power		Test Position Configurations				
		dBm	mW	Back Side	Left Edge	Right Edge	Top Edge	Bottom Edge
WCDMA Band II	Distance to User		<5mm	112mm	<5mm	68mm	74mm	
	exclusion threshold		11	729	11	289	349	
	QPSK	23.5	223.872	Yes	No	Yes	No	No
WCDMA Band IV	Distance to User		<5mm	112mm	<5mm	68mm	74mm	
	exclusion threshold		11	729	11	289	349	
	QPSK	23.5	223.872	Yes	No	Yes	No	No
WCDMA Band V	Distance to User		<5mm	112mm	<5mm	68mm	74mm	
	exclusion threshold		16	514	16	266	299	
	QPSK	23	199.526	Yes	No	Yes	No	No
LTE Band 4	Distance to User		<5mm	112mm	<5mm	68mm	74mm	
	exclusion threshold		16	514	16	266	299	
	QPSK	22.2	165.959	Yes	No	Yes	No	No
LTE Band 7	Distance to User		<5mm	112mm	<5mm	68mm	74mm	
	exclusion threshold		10	716	10	276	336	
	QPSK	20.5	112.202	Yes	No	Yes	No	No
LTE Band 12	Distance to User		<5mm	112mm	<5mm	68mm	74mm	
	exclusion threshold		16	456	16	249	277	
	QPSK	23	199.526	Yes	No	Yes	No	No
LTE Band 13	Distance to User		<5mm	112mm	<5mm	68mm	74mm	
	exclusion threshold		16	487	16	258	289	
	QPSK	23	199.526	Yes	No	Yes	No	No
LTE Band 25	Distance to User		<5mm	112mm	<5mm	68mm	74mm	
	exclusion threshold		11	729	11	289	349	
	QPSK	22	158.489	Yes	No	Yes	No	No
LTE Band 26 (Part 22)	Distance to User		<5mm	112mm	<5mm	68mm	74mm	
	exclusion threshold		16	508	16	264	297	
	QPSK	22.5	177.828	Yes	No	Yes	No	No
LTE Band 26 (Part 90)	Distance to User		<5mm	112mm	<5mm	68mm	74mm	
	exclusion threshold		16	508	16	264	297	
	QPSK	22	158.489	Yes	No	Yes	No	No
LTE Band 30	Distance to User		<5mm	112mm	<5mm	68mm	74mm	
	exclusion threshold		10	716	10	276	336	
	QPSK	22	158.489	Yes	No	Yes	No	No



LTE Band 41	Distance to User			<5mm	112mm	<5mm	68mm	74mm
	exclusion threshold			10	716	10	276	336
	QPSK	21	125.893	Yes	No	Yes	No	No
WLAN 2.4 G ANT A	Distance to User			<5mm	123mm	<5mm	163	20mm
	exclusion threshold			10	826	10	1226	38
	802.11b	17.5	56.234	Yes	No	Yes	No	Yes
WLAN 2.4 G ANT B	Distance to User			<5mm	<5mm	111mm	27mm	154mm
	exclusion threshold			10	10	696	57	1136
	802.11b	18	63.096	Yes	Yes	No	Yes	No
WLAN 2.4 G ANT A	Distance to User			<5mm	123mm	<5mm	163	20mm
	exclusion threshold			10	826	10	1226	38
	802.11n	16	39.811	Yes	No	Yes	No	Yes
WLAN 2.4 G ANT B	Distance to User			<5mm	<5mm	111mm	27mm	154mm
	exclusion threshold			10	10	696	57	1136
	802.11n	16	39.811	Yes	Yes	No	No	No
WLAN 5.2 G ANT A	Distance to User			<5mm	123mm	<5mm	163	20mm
	exclusion threshold			7	896	7	1196	26
	802.11a	15	31.623	Yes	No	Yes	No	Yes
WLAN 5.2 G ANT B	Distance to User			<5mm	<5mm	111mm	27mm	154mm
	exclusion threshold			7	7	676	33	1106
	802.11a	13	19.953	Yes	Yes	No	No	No
WLAN 5.2 G ANT A	Distance to User			<5mm	123mm	<5mm	163	20mm
	exclusion threshold			7	896	7	1196	26
	802.11ac	15	31.623	Yes	No	Yes	No	Yes
WLAN 5.2 G ANT B	Distance to User			<5mm	<5mm	111mm	27mm	154mm
	exclusion threshold			7	7	676	33	1106
	802.11ac	15	31.623	Yes	Yes	No	No	No
WLAN 5.3 G ANT A	Distance to User			<5mm	123mm	<5mm	163	20mm
	exclusion threshold			7	895	7	1195	26
	802.11a	14	25.119	Yes	No	Yes	No	No
WLAN 5.3 G ANT B	Distance to User			<5mm	<5mm	111mm	27mm	154mm
	exclusion threshold			7	7	675	32	1105
	802.11a	13	19.953	Yes	Yes	No	No	No



WLAN 5.3 G ANT A	Distance to User			<5mm	123mm	<5mm	163	20mm
	exclusion threshold			7	895	7	1195	26
	802.11ac	14	25.119	Yes	No	Yes	No	No
WLAN 5.3 G ANT B	Distance to User			<5mm	<5mm	111mm	27mm	154mm
	exclusion threshold			7	7	675	32	1105
	802.11ac	14	25.119	Yes	Yes	No	No	No
WLAN 5.6 G ANT A	Distance to User			<5mm	123mm	<5mm	163	20mm
	exclusion threshold			7	892	7	1192	25
	802.11a	14	25.119	Yes	No	Yes	No	Yes
WLAN 5.6 G ANT B	Distance to User			<5mm	<5mm	111mm	27mm	154mm
	exclusion threshold			7	7	672	31	1102
	802.11a	14	25.119	Yes	Yes	No	No	No
WLAN 5.6 G ANT A	Distance to User			<5mm	123mm	<5mm	163	20mm
	exclusion threshold			7	892	7	1192	25
	802.11n	14	25.119	Yes	No	Yes	No	Yes
WLAN 5.6 G ANT B	Distance to User			<5mm	<5mm	111mm	27mm	154mm
	exclusion threshold			7	7	672	31	1102
	802.11n	14	25.119	Yes	Yes	No	No	No
WLAN 5.8 G ANT A	Distance to User			<5mm	123mm	<5mm	163	20mm
	exclusion threshold			7	892	7	1192	25
	802.11a	16	39.811	Yes	No	Yes	No	Yes
WLAN 5.8 G ANT B	Distance to User			<5mm	<5mm	111mm	27mm	154mm
	exclusion threshold			7	7	672	31	1102
	802.11a	16	39.811	Yes	Yes	No	Yes	No
WLAN 5.8 G ANT A	Distance to User			<5mm	123mm	<5mm	163	20mm
	exclusion threshold			7	892	7	1192	25
	802.11n	15	31.623	Yes	No	Yes	No	Yes
WLAN 5.8 G ANT B	Distance to User			<5mm	<5mm	111mm	27mm	154mm
	exclusion threshold			7	7	672	31	1102
	802.11n	15	31.623	Yes	Yes	No	Yes	No
Bluetooth	Distance to User			<5mm	123mm	<5mm	163	20mm
	exclusion threshold			10	826	10	1226	38
	GFSK	5	3.162	No	No	No	No	No

**Note:**

1. Maximum power is the source-based time-average power and represents the maximum RF output power among production units.
2. Per KDB 447498 D01, for larger devices, the test separation distance of adjacent edge configuration is determined by the closest separation between the antenna and the user.
3. per KDB 447498 D01, standalone SAR test exclusion threshold is applied; if the distance of the antenna to the user is <5mm, 5mm is user to determine SAR exclusion threshold
4. per KDB 447498 D01, the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distance  $\leq 50\text{mm}$  are determined by:  
[(max. power of channel, including tune-up tolerance, Mw)/( min. test separation distance, mm)]\* $\sqrt{f(\text{GHZ})} \leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR ,f(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  
For <50mm distance, we just calculate mW of the exclusion threshold value(3.0)to do compare
5. per KDB 447498 D01, at 100 MHz to 6GHz and for test separation distances >50mm, the SAR test exclusion threshold is determined according to the following
  - a)[threshold at 50mm in step 1]+(test separation distance -50mm)\*(f (MHz)/150)]mW, at 100 MHz to 1500 MHz
  - b) [threshold at 50mm in step1]+( test separation distance -50mm) \*10]mW at > 1500MHz and  $\leq 6\text{GHz}$
6. Per KDB 447498 D02, RMC 12.2kbps setting is used to evaluate SAR. If HSDPA/ HSUPA/DC-HSDPA output power is<0.25db higher than RMC 12.2Kbps,or reported SAR with RMC 12.2kbps setting is  $\leq 1.2\text{W/Kg}$ , HSDPA/HSUPA/DC-HSDPA SAR evaluation can be excluded.
7. Per KDB 248227 D01, choose the highest output power channel to test SAR and determine futher SAR exclusion 8.for each frequency band, testing at higher data rates and higher order modulations is not required when the maximum average output power for each of each of these configurations is less than 1/4db higher than those measured at the lower data rate than 11b mode, thus the SAR can be excluded.
8. Per KDB 616217 D04 Exposures from antennas through the front (top) surface of the display section of a full-size tablet, away from the edges, are generally limited to the user's hands. Exposures to hands for typical consumer transmitters used in tablets are not expected to exceed the extremity SAR limit; therefore, SAR evaluation for the front surface of tablet display screens are generally not necessary.

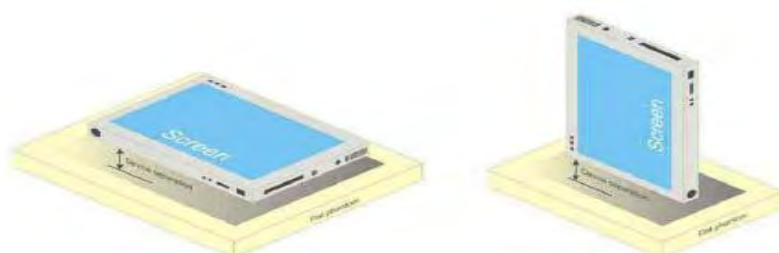
## 8. EUT Test Position

This EUT was tested in Front Face and Rear Face.

### 8.1 Define Two Imaginary Lines on the Handset

Body-worn Position Conditions:

Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in KDB Publication 447498 D01 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. When the same wireless transmission configuration is used for testing body-worn accessory and hotspot mode SAR, respectively, in voice and data mode, SAR results for the most conservative *test separation distance* configuration may be used to support both SAR conditions. When the *reported SAR* for a body-worn accessory, measured without a headset connected to the handset, is  $> 1.2 \text{ W/kg}$ , the highest *reported SAR* configuration for that wireless mode and frequency band should be repeated for the body-worn accessory with a headset attached to the handset.





## 9. Uncertainty

### 9.1 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
<b>Measurement System</b>								
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	∞
<b>Test sample Related</b>								
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	∞
<b>Phantom and tissue parameters</b>								
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	



### 9.2 System validation Uncertainty

Uncertainty Component	Tol (+-%)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+-%)	10g Ui (+-%)	vi
<b>Measurement System</b>								
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	∞
<b>System validation source</b>								
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	∞
<b>Phantom and set-up</b>								
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	



## 10. Conducted Power Measurement

### 10.1 Test Result

#### WCDMA Average Power (dBm)

##### <Full Power>

Band	WCDMA Band V			WCDMA Band IV			WCDMA Band II		
Channel	4132	4183	4233	1312	1413	1513	9262	9400	9538
Frequency (MHz)	826.4	836.6	846.6	1712.6	1740	1752.4	1852.4	1880.0	1907.6
AMR 12.2Kbps	22.35	22.41	22.80	23.20	22.64	23.45	23.21	22.84	22.89
RMC 12.2Kbps	22.39	22.45	22.83	23.22	22.71	23.47	23.24	22.87	22.90
HSDPA Subtest-1	22.47	22.52	22.38	22.49	22.65	22.68	22.41	22.63	22.35
HSDPA Subtest-2	21.97	22.09	21.94	22.07	22.22	22.27	21.97	22.13	21.93
HSDPA Subtest-3	21.58	21.61	21.53	21.64	21.75	21.80	21.65	21.67	21.60
HSDPA Subtest-4	21.11	21.23	21.03	21.18	21.30	21.44	21.27	21.18	21.20
HSUPA Subtest-1	21.43	21.68	21.79	22.21	22.30	22.47	22.21	21.97	22.43
HSUPA Subtest-2	20.60	20.71	20.84	21.29	21.37	21.55	21.40	21.01	21.44
HSUPA Subtest-3	20.57	20.21	20.47	21.12	20.97	21.15	21.39	20.59	21.03
HSUPA Subtest-4	20.19	19.71	20.09	20.63	20.50	20.77	20.96	20.24	20.72
HSUPA Subtest-5	18.76	18.26	18.67	19.21	19.02	19.36	19.52	18.75	19.25

##### <Reduced Power level for WWAN+WLAN>

Band	WCDMA Band IV			WCDMA Band II		
Channel	1312	1413	1513	9262	9400	9538
Frequency (MHz)	1712.6	1740	1752.4	1852.4	1880.0	1907.6
AMR 12.2Kbps	22.43	22.49	22.51	22.31	22.23	22.35
RMC 12.2Kbps	22.48	22.54	22.58	22.35	22.28	22.38
HSDPA Subtest-1	22.37	22.29	22.25	22.05	22.01	21.97
HSDPA Subtest-2	21.92	21.82	21.77	21.61	21.61	21.48
HSDPA Subtest-3	21.45	21.37	21.34	21.18	21.11	20.98
HSDPA Subtest-4	21.12	20.87	20.91	20.75	20.80	20.62
HSUPA Subtest-1	21.38	21.42	21.48	21.27	21.20	21.21
HSUPA Subtest-2	20.57	20.50	20.53	20.40	20.27	20.25
HSUPA Subtest-3	20.50	20.06	20.20	20.30	19.80	19.85
HSUPA Subtest-4	20.12	19.61	19.71	20.00	19.31	19.45
HSUPA Subtest-5	18.63	18.15	18.22	18.58	17.89	18.04





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 combinations 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.

**WLAN (2.4Gband)**

Mode	Channel Number	Frequency (MHz)	Average Power (dBm)		
			Antenna A	Antenna B	Antenna A+B
802.11b	1	2412	17.07	17.73	N/A
	6	2437	17.22	17.37	N/A
	11	2462	17.27	17.41	N/A
802.11g	1	2412	14.53	15.09	N/A
	6	2437	14.56	14.84	N/A
	11	2462	14.57	14.87	N/A
802.11n-HT20	1	2412	12.40	12.96	15.70
	6	2437	12.43	12.78	15.62
	11	2462	12.47	12.78	15.64
802.11n-HT40	3	2422	11.51	12.27	14.92
	6	2437	11.59	12.15	14.89
	9	2452	11.70	11.77	14.75



**WLAN (5.2Gband)**

Mode	Channel Number	Frequency (MHz)	Average Power (dBm)		
			ANT A	ANT B	ANT A+B
802.11a	36	5180	13.90	12.57	N/A
	40	5200	14.02	12.46	N/A
	48	5240	13.91	12.26	N/A
802.11 n-HT20	36	5180	11.85	10.38	14.18
	40	5200	11.87	10.14	14.10
	48	5240	11.86	10.25	14.14
802.11 n-HT40	38	5190	10.87	9.49	13.24
	46	5230	10.94	9.43	13.26
802.11 ac-VHT20	36	5180	10.96	9.31	13.22
	40	5200	10.99	9.31	13.24
	48	5240	10.93	8.96	13.06
802.11 ac-VHT40	38	5190	10.92	9.43	13.25
	46	5230	10.90	9.45	13.25
802.11 ac-VHT80	42	5210	8.57	7.32	11.00

**WLAN (5.3Gband)**

Mode	Channel Number	Frequency (MHz)	Average Power (dBm)		
			ANT A	ANT B	ANT A+B
802.11a	52	5260	13.76	12.15	N/A
	60	5300	13.58	11.93	N/A
	64	5320	13.52	11.98	N/A
802.11 n-HT20	52	5260	10.77	8.81	12.91
	60	5300	10.66	8.60	12.76
	64	5320	10.57	8.82	12.79
802.11 n-HT40	54	5270	10.86	8.96	13.03
	62	5310	10.80	8.87	12.96
802.11 ac-VHT20	52	5260	11.63	9.82	13.82
	60	5300	11.45	9.56	13.61
	64	5320	11.39	9.81	13.68
802.11 ac-VHT40	54	5270	10.84	9.05	13.05
	62	5310	10.71	8.92	12.92
802.11 ac-VHT80	58	5290	8.46	7.49	11.01



**WLAN (5.6Gband)**

Mode	Channel Number	Frequency (MHz)	Average Power (dBm)		
			ANT A	ANT B	ANT A+B
802.11a	100	5500	13.42	12.22	N/A
	116	5580	13.80	12.76	N/A
	140	5700	13.97	13.25	N/A
802.11 n-HT20	100	5500	10.40	9.14	12.82
	116	5580	10.82	9.70	13.30
	140	5700	10.86	9.94	13.43
802.11 n-HT40	102	5510	10.73	9.46	13.15
	110	5550	10.92	9.67	13.35
	134	5670	11.18	10.26	13.76
802.11 ac-VHT20	100	5500	10.41	8.97	12.76
	116	5580	10.69	9.51	13.15
	140	5700	10.87	10.15	13.53
802.11 ac-VHT40	102	5510	10.64	9.44	13.09
	110	5550	10.86	9.62	13.30
	134	5670	11.17	10.26	13.75
802.11 ac-VHT80	106	5530	8.37	6.74	10.64
	122	5610	8.22	6.45	10.43

**WLAN (5.8Gband)**

Mode	Channel Number	Frequency (MHz)	Average Power (dBm)		
			ANT A	ANT B	ANT A+B
802.11a	149	5745	15.17	14.43	N/A
	157	5785	15.33	14.50	N/A
	165	5825	14.73	14.07	N/A
802.11 n-HT20	149	5745	11.99	11.33	14.68
	157	5785	12.23	11.56	14.92
	165	5825	11.54	10.94	14.26
802.11 n-HT40	151	5755	11.43	10.58	14.03
	159	5795	11.51	10.81	14.18
802.11 ac-VHT20	149	5745	12.02	11.27	14.67
	157	5785	12.20	11.58	14.91
	165	5825	11.49	10.93	14.23
802.11 ac-VHT40	151	5755	11.17	10.53	13.88
	159	5795	11.31	10.77	14.06
802.11 ac-VHT80	155	5775	11.25	10.59	13.94

**Bluetooth**

Mode	Channel Number	Frequency (MHz)	Average Power (dBm)
GFSK(1Mbps)	0	2402	4.45
	39	2441	3.54
	78	2480	4.87
$\pi/4$ -DQPSK(2Mbps)	0	2402	1.14
	39	2441	0.08
	78	2480	1.53
8DPSK(3Mbps)	0	2402	1.07
	39	2441	-0.01
	78	2480	1.44

**BLE**

Mode	Channel Number	Frequency (MHz)	Average Power (dBm)
GFSK(1Mbps)	0	2402	-0.72
	19	2440	-1.90
	39	2480	-0.98
GFSK(2Mbps)	0	2402	-3.46
	19	2440	-4.48
	39	2480	-3.57



## 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  $\leq 0.8$  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  $\leq 1.45$  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  $\leq 1.45$  W/kg; Per KDB 941225 D05, smaller bandwidth SAR testing is not required.





<Full Power>  
LTE BAND 4

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	21.64	21.65	21.37
1.4	1	2		21.42	21.38	21.14
1.4	1	5		21.20	21.14	20.92
1.4	3	0		20.93	20.89	20.69
1.4	3	1		20.65	20.63	20.42
1.4	3	2		20.39	20.41	20.13
1.4	6	0		20.14	20.19	19.87
1.4	1	0	16-QAM	21.38	21.43	21.17
1.4	1	2		21.15	21.15	20.94
1.4	1	5		20.87	20.86	20.65
1.4	3	0		20.60	20.65	20.44
1.4	3	1		20.34	20.40	20.24
1.4	3	2		20.11	20.15	20.01
1.4	6	0		19.83	19.87	19.80
3	1	0	QPSK	21.80	22.04	21.76
3	1	7		21.58	21.75	21.49
3	1	14		21.35	21.47	21.28
3	8	0		21.11	21.22	21.02
3	8	4		20.81	20.93	20.75
3	8	7		20.57	20.65	20.51
3	15	0		20.34	20.40	20.27
3	1	0	16-QAM	21.52	21.77	21.50
3	1	7		21.29	21.48	21.21
3	1	14		21.07	21.25	20.97
3	8	0		20.80	20.99	20.70
3	8	4		20.58	20.71	20.44
3	8	7		20.31	20.46	20.17
3	15	0		20.08	20.19	19.92



LTE BAND 4

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	21.40	21.57	21.16
5	1	12		21.19	21.34	20.88
5	1	24		20.97	21.07	20.58
5	12	0		20.73	20.81	20.37
5	12	6		20.49	20.56	20.10
5	12	11		20.24	20.33	19.83
5	25	0		19.98	20.06	19.53
5	1	0	16-QAM	21.15	21.29	20.87
5	1	12		20.88	21.01	20.62
5	1	24		20.61	20.77	20.41
5	12	0		20.33	20.51	20.21
5	12	6		20.04	20.22	19.99
5	12	11		19.76	19.96	19.78
5	25	0		19.52	19.70	19.57
10	1	0	QPSK	21.36	21.48	21.18
10	1	24		21.13	21.23	20.92
10	1	49		20.90	20.98	20.72
10	25	0		20.67	20.77	20.43
10	25	12		20.37	20.54	20.14
10	25	24		20.10	20.29	19.90
10	50	0		19.84	20.05	19.61
10	1	0	16-QAM	21.12	21.24	20.94
10	1	24		20.89	20.94	20.69
10	1	49		20.63	20.72	20.42
10	25	0		20.33	20.48	20.13
10	25	12		20.07	20.21	19.89
10	25	24		19.83	19.95	19.63
10	50	0		19.63	19.71	19.38





LTE BAND 4

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	20.90	21.38	21.15
15	1	37		20.67	21.11	20.92
15	1	74		20.45	20.84	20.69
15	36	0		20.20	20.54	20.46
15	36	18		19.97	20.25	20.19
15	36	39		19.73	19.96	19.97
15	75	0		19.49	19.72	19.75
15	1	0	16-QAM	20.64	21.14	20.89
15	1	38		20.35	20.87	20.62
15	1	75		20.06	20.65	20.38
15	36	0		19.82	20.35	20.11
15	36	18		19.53	20.13	19.87
15	36	39		19.32	19.91	19.67
15	75	0		19.03	19.71	19.37
20	1	0	QPSK	21.26	22.08	21.27
20	1	49		20.97	21.15	20.98
20	1	99		20.74	20.92	20.76
20	50	0		20.45	20.71	20.50
20	50	24		20.23	20.50	20.27
20	50	49		19.97	20.29	20.00
20	100	0		19.73	20.03	19.73
20	1	0	16-QAM	21.03	21.15	20.98
20	1	49		20.77	20.92	20.76
20	1	99		20.57	20.69	20.54
20	50	0		20.29	20.44	20.27
20	50	24		20.07	20.24	20.00
20	50	49		19.86	20.02	19.74
20	100	0		19.61	19.77	19.53



LTE BAND 7

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	19.63	20.11	20.13
5	1	12		19.35	19.87	19.90
5	1	24		19.10	19.67	19.65
5	12	0		18.81	19.41	19.38
5	12	6		18.52	19.11	19.09
5	12	11		18.27	18.86	18.81
5	25	0		18.07	18.65	18.56
5	1	0	16-QAM	19.42	19.84	19.88
5	1	12		19.15	19.62	19.60
5	1	24		18.89	19.34	19.34
5	12	0		18.62	19.09	19.12
5	12	6		18.34	18.80	18.92
5	12	11		18.09	18.57	18.67
5	25	0		17.81	18.31	18.45
10	1	0	QPSK	19.76	19.54	19.84
10	1	24		19.46	19.30	19.57
10	1	49		19.16	19.03	19.32
10	25	0		18.89	18.81	19.05
10	25	12		18.63	18.53	18.83
10	25	24		18.36	18.29	18.59
10	50	0		18.12	18.01	18.35
10	1	0	16-QAM	19.55	19.29	19.58
10	1	24		19.26	19.03	19.37
10	1	49		19.02	18.78	19.10
10	25	0		18.82	18.53	18.88
10	25	12		18.56	18.32	18.63
10	25	24		18.28	18.05	18.41
10	50	0		18.04	17.82	18.19



LTE BAND 7

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	19.27	19.31	19.70
15	1	37		19.00	19.04	19.44
15	1	74		18.77	18.82	19.23
15	36	0		18.50	18.56	19.01
15	36	18		18.26	18.30	18.71
15	36	39		18.03	18.01	18.45
15	75	0		17.74	17.76	18.20
15	1	0	16-QAM	19.05	19.06	19.44
15	1	38		18.84	18.84	19.21
15	1	75		18.55	18.61	18.99
15	36	0		18.29	18.37	18.76
15	36	18		18.00	18.13	18.51
15	36	39		17.75	17.92	18.25
15	75	0		17.46	17.69	17.95
20	1	0	QPSK	19.31	20.16	19.58
20	1	49		19.11	19.24	19.36
20	1	99		18.90	19.00	19.12
20	50	0		18.69	18.74	18.83
20	50	24		18.46	18.47	18.59
20	50	49		18.23	18.19	18.29
20	100	0		18.01	17.98	18.05
20	1	0	16-QAM	19.11	19.20	19.28
20	1	49		18.90	18.95	19.03
20	1	99		18.68	18.66	18.74
20	50	0		18.43	18.41	18.51
20	50	24		18.19	18.12	18.27
20	50	49		17.92	17.92	18.07
20	100	0		17.71	17.66	17.78



LTE BAND 12

LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	21.64	22.05	21.98
1.4	1	2		21.38	21.81	21.75
1.4	1	5		21.17	21.60	21.50
1.4	3	0		20.91	21.31	21.21
1.4	3	1		20.70	21.08	20.94
1.4	3	2		20.46	20.79	20.65
1.4	6	0		20.24	20.56	20.36
1.4	1	0	16-QAM	21.43	21.82	21.70
1.4	1	2		21.15	21.60	21.41
1.4	1	5		20.95	21.34	21.20
1.4	3	0		20.65	21.10	20.90
1.4	3	1		20.35	20.89	20.62
1.4	3	2		20.15	20.66	20.35
1.4	6	0		19.95	20.45	20.11
3	1	0	QPSK	21.61	22.08	21.64
3	1	7		21.39	21.82	21.41
3	1	14		21.11	21.61	21.20
3	8	0		20.82	21.35	20.95
3	8	4		20.62	21.12	20.70
3	8	7		20.40	20.87	20.49
3	15	0		20.19	20.65	20.23
3	1	0	16-QAM	21.36	21.81	21.43
3	1	7		21.13	21.59	21.18
3	1	14		20.88	21.33	20.97
3	8	0		20.61	21.06	20.69
3	8	4		20.37	20.79	20.46
3	8	7		20.10	20.53	20.23
3	15	0		19.86	20.32	19.98



LTE BAND 12

LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	21.53	21.87	21.70
5	1	12		21.33	21.57	21.45
5	1	24		21.06	21.31	21.16
5	12	0		20.79	21.03	20.88
5	12	6		20.56	20.76	20.64
5	12	11		20.28	20.51	20.35
5	25	0		20.01	20.25	20.07
5	1	0	16-QAM	21.29	21.66	21.48
5	1	12		21.00	21.38	21.26
5	1	24		20.76	21.08	21.03
5	12	0		20.51	20.80	20.81
5	12	6		20.23	20.52	20.58
5	12	11		20.02	20.28	20.34
5	25	0		19.73	20.01	20.12
10	1	0	QPSK	21.73	22.15	22.09
10	1	24		21.48	21.92	21.88
10	1	49		21.28	21.66	21.66
10	25	0		20.99	21.38	21.38
10	25	12		20.79	21.17	21.13
10	25	24		20.54	20.94	20.87
10	50	0		20.30	20.71	20.63
10	1	0	16-QAM	21.49	21.94	21.88
10	1	24		21.24	21.65	21.61
10	1	49		21.02	21.42	21.38
10	25	0		20.75	21.13	21.14
10	25	12		20.53	20.87	20.91
10	25	24		20.29	20.64	20.68
10	50	0		20.05	20.35	20.39



LTE BAND 13

LTE Band 13 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.04	22.03	22.11
5	1	12		21.82	21.78	21.82
5	1	24		21.56	21.53	21.55
5	12	0		21.31	21.3	21.32
5	12	6		21.06	21.07	21.10
5	12	11		20.82	20.86	20.88
5	25	0		20.61	20.64	20.64
5	1	0	16-QAM	21.84	21.78	21.82
5	1	12		21.62	21.58	21.61
5	1	24		21.37	21.32	21.34
5	12	0		21.08	21.1	21.09
5	12	6		20.81	20.81	20.84
5	12	11		20.53	20.57	20.61
5	25	0		20.26	20.35	20.35
10	1	0	QPSK	N/A	22.15	N/A
10	1	24		N/A	21.92	N/A
10	1	49		N/A	21.68	N/A
10	25	0		N/A	21.43	N/A
10	25	12		N/A	21.16	N/A
10	25	24		N/A	20.93	N/A
10	50	0		N/A	20.67	N/A
10	1	0	16-QAM	N/A	21.93	N/A
10	1	24		N/A	21.68	N/A
10	1	49		N/A	21.39	N/A
10	25	0		N/A	21.13	N/A
10	25	12		N/A	20.87	N/A
10	25	24		N/A	20.63	N/A
10	50	0		N/A	20.36	N/A



LTE BAND 25

LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	21.35	21.45	21.22
1.4	1	2		21.07	21.19	21.02
1.4	1	5		20.78	20.95	20.79
1.4	3	0		20.49	20.68	20.58
1.4	3	1		20.28	20.42	20.34
1.4	3	2		20.00	20.18	20.09
1.4	6	0		19.72	19.98	19.81
1.4	1	0	16-QAM	21.09	21.23	21.02
1.4	1	2		20.88	20.99	20.80
1.4	1	5		20.58	20.71	20.60
1.4	3	0		20.35	20.49	20.33
1.4	3	1		20.07	20.27	20.08
1.4	3	2		19.84	20.05	19.83
1.4	6	0		19.56	19.77	19.62
3	1	0	QPSK	21.53	21.64	21.42
3	1	7		21.31	21.39	21.16
3	1	14		21.09	21.18	20.92
3	8	0		20.82	20.94	20.68
3	8	4		20.59	20.68	20.39
3	8	7		20.32	20.48	20.16
3	15	0		20.09	20.18	19.88
3	1	0	16-QAM	21.27	21.42	21.16
3	1	7		21.04	21.18	20.89
3	1	14		20.78	20.97	20.60
3	8	0		20.56	20.69	20.31
3	8	4		20.28	20.48	20.06
3	8	7		19.98	20.18	19.81
3	15	0		19.74	19.95	19.57



LTE BAND 25

LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	21.31	21.46	21.32
5	1	12		21.10	21.18	21.11
5	1	24		20.87	20.90	20.82
5	12	0		20.61	20.66	20.52
5	12	6		20.40	20.38	20.28
5	12	11		20.11	20.17	20.01
5	25	0		19.86	19.94	19.81
5	1	0	16-QAM	21.09	21.25	21.06
5	1	12		20.85	21.00	20.85
5	1	24		20.60	20.71	20.63
5	12	0		20.33	20.47	20.41
5	12	6		20.03	20.24	20.16
5	12	11		19.76	19.99	19.87
5	25	0		19.48	19.73	19.62
10	1	0	QPSK	21.15	21.27	21.11
10	1	24		20.87	21.05	20.86
10	1	49		20.57	20.80	20.57
10	25	0		20.30	20.53	20.34
10	25	12		20.09	20.28	20.12
10	25	24		19.80	19.98	19.87
10	50	0		19.57	19.75	19.64
10	1	0	16-QAM	20.87	21.03	20.90
10	1	24		20.57	20.80	20.64
10	1	49		20.34	20.50	20.40
10	25	0		20.06	20.22	20.18
10	25	12		19.79	19.96	19.96
10	25	24		19.51	19.66	19.74
10	50	0		19.22	19.38	19.51





LTE BAND 25

LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	21.10	21.13	20.97
15	1	37		20.88	20.91	20.68
15	1	74		20.67	20.67	20.47
15	36	0		20.45	20.46	20.23
15	36	18		20.23	20.22	19.94
15	36	39		19.93	19.98	19.71
15	75	0		19.65	19.69	19.50
15	1	0	16-QAM	20.82	20.91	20.68
15	1	38		20.52	20.62	20.44
15	1	75		20.30	20.34	20.24
15	36	0		20.03	20.14	19.98
15	36	18		19.79	19.88	19.69
15	36	39		19.58	19.58	19.42
15	75	0		19.30	19.31	19.16
20	1	0	QPSK	21.68	21.75	21.57
20	1	49		21.47	21.52	21.28
20	1	99		21.27	21.22	21.04
20	50	0		21.02	20.98	20.74
20	50	24		20.75	20.76	20.50
20	50	49		20.54	20.49	20.26
20	100	0		20.28	20.29	19.99
20	1	0	16-QAM	21.43	21.48	21.27
20	1	49		21.22	21.19	21.02
20	1	99		20.94	20.93	20.76
20	50	0		20.69	20.66	20.51
20	50	24		20.48	20.40	20.23
20	50	49		20.27	20.15	19.96
20	100	0		19.98	19.91	19.66



LTE BAND 26(Part 22)

LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	21.85	21.79	21.68
1.4	1	2		21.60	21.57	21.45
1.4	1	5		21.33	21.28	21.17
1.4	3	0		21.11	21.02	20.95
1.4	3	1		20.89	20.78	20.66
1.4	3	2		20.59	20.54	20.39
1.4	6	0		20.34	20.25	20.12
1.4	1	0	16-QAM	21.58	21.50	21.47
1.4	1	2		21.37	21.24	21.27
1.4	1	5		21.13	21.00	21.04
1.4	3	0		20.89	20.74	20.79
1.4	3	1		20.67	20.48	20.56
1.4	3	2		20.45	20.27	20.33
1.4	6	0		20.20	20.02	20.04
3	1	0	QPSK	21.59	21.83	21.54
3	1	7		21.32	21.58	21.26
3	1	14		21.09	21.31	21.01
3	8	0		20.88	21.03	20.72
3	8	4		20.61	20.78	20.44
3	8	7		20.34	20.52	20.17
3	15	0		20.13	20.24	19.92
3	1	0	16-QAM	21.37	21.57	21.28
3	1	7		21.11	21.28	21.07
3	1	14		20.87	21.00	20.82
3	8	0		20.60	20.78	20.62
3	8	4		20.37	20.52	20.39
3	8	7		20.11	20.31	20.14
3	15	0		19.81	20.07	19.87



LTE BAND 26(Part 22)

LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	21.73	21.54	21.61
5	1	12		21.44	21.27	21.35
5	1	24		21.24	21.00	21.05
5	12	0		20.95	20.73	20.82
5	12	6		20.74	20.47	20.61
5	12	11		20.53	20.20	20.34
5	25	0		20.30	19.97	20.04
5	1	0	16-QAM	21.43	21.33	21.39
5	1	12		21.17	21.04	21.19
5	1	24		20.92	20.82	20.91
5	12	0		20.71	20.54	20.62
5	12	6		20.47	20.28	20.33
5	12	11		20.18	19.99	20.12
5	25	0		19.94	19.72	19.92
10	1	0	QPSK	21.85	21.86	21.80
10	1	24		21.58	21.66	21.59
10	1	49		21.31	21.36	21.36
10	25	0		21.04	21.07	21.15
10	25	12		20.76	20.83	20.91
10	25	24		20.52	20.61	20.68
10	50	0		20.22	20.36	20.45
10	1	0	16-QAM	21.58	21.61	21.55
10	1	24		21.29	21.40	21.33
10	1	49		21.03	21.14	21.06
10	25	0		20.82	20.84	20.77
10	25	12		20.57	20.60	20.47
10	25	24		20.35	20.36	20.19
10	50	0		20.11	20.16	19.94



LTE BAND 26(Part 22)

LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	21.95	22.00	21.93
15	1	37		21.65	21.75	21.67
15	1	74		21.42	21.53	21.47
15	36	0		21.18	21.23	21.24
15	36	18		20.95	20.96	20.98
15	36	39		20.74	20.70	20.72
15	75	0		20.53	20.47	20.46
15	1	0	16-QAM	21.67	21.79	21.69
15	1	38		21.40	21.55	21.45
15	1	75		21.19	21.34	21.23
15	36	0		20.89	21.10	21.01
15	36	18		20.67	20.86	20.74
15	36	39		20.45	20.66	20.46
15	75	0		20.16	20.44	20.25



LTE BAND 26(Part 90)

LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	21.78	21.64	21.69
1.4	1	2		21.52	21.43	21.47
1.4	1	5		21.31	21.15	21.21
1.4	3	0		21.07	20.86	20.91
1.4	3	1		20.86	20.63	20.65
1.4	3	2		20.66	20.34	20.36
1.4	6	0		20.38	20.07	20.08
1.4	1	0	16-QAM	21.54	21.43	21.41
1.4	1	2		21.34	21.22	21.15
1.4	1	5		21.11	21.00	20.88
1.4	3	0		20.90	20.75	20.66
1.4	3	1		20.66	20.47	20.46
1.4	3	2		20.41	20.21	20.23
1.4	6	0		20.14	19.93	19.98
3	1	0	QPSK	21.74	21.69	21.90
3	1	7		21.47	21.46	21.61
3	1	14		21.26	21.23	21.39
3	8	0		21.03	20.99	21.10
3	8	4		20.78	20.72	20.84
3	8	7		20.57	20.51	20.57
3	15	0		20.34	20.30	20.35
3	1	0	16-QAM	21.46	21.48	21.67
3	1	7		21.20	21.25	21.41
3	1	14		20.97	20.96	21.17
3	8	0		20.69	20.68	20.88
3	8	4		20.47	20.46	20.58
3	8	7		20.19	20.21	20.32
3	15	0		19.95	19.98	20.11



LTE BAND 26(Part 90)

LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	21.86	21.88	21.94
5	1	12		21.61	21.66	21.73
5	1	24		21.32	21.38	21.51
5	12	0		21.04	21.09	21.22
5	12	6		20.81	20.84	20.96
5	12	11		20.57	20.63	20.71
5	25	0		20.37	20.39	20.42
5	1	0	16-QAM	21.62	21.60	21.72
5	1	12		21.35	21.31	21.49
5	1	24		21.10	21.01	21.27
5	12	0		20.82	20.78	20.99
5	12	6		20.56	20.56	20.70
5	12	11		20.34	20.27	20.44
5	25	0		20.08	20.02	20.14
10	1	0	QPSK	N/A	21.98	N/A
10	1	24		N/A	21.77	N/A
10	1	49		N/A	21.55	N/A
10	25	0		N/A	21.31	N/A
10	25	12		N/A	21.10	N/A
10	25	24		N/A	20.85	N/A
10	50	0		N/A	20.63	N/A
10	1	0	16-QAM	N/A	21.76	N/A
10	1	24		N/A	21.55	N/A
10	1	49		N/A	21.30	N/A
10	25	0		N/A	21.09	N/A
10	25	12		N/A	20.86	N/A
10	25	24		N/A	20.63	N/A
10	50	0		N/A	20.43	N/A



LTE BAND 30

LTE Band 30 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	20.34	20.47	20.32
5	1	12		20.07	20.24	20.08
5	1	24		19.78	19.97	19.83
5	12	0		19.48	19.68	19.63
5	12	6		19.24	19.39	19.38
5	12	11		19.02	19.17	19.14
5	25	0		18.76	18.88	18.89
5	1	0	16-QAM	20.07	20.19	20.07
5	1	12		19.82	19.97	19.77
5	1	24		19.55	19.69	19.49
5	12	0		19.31	19.43	19.27
5	12	6		19.03	19.19	18.99
5	12	11		18.81	18.93	18.76
5	25	0		18.58	18.69	18.54
10	1	0	QPSK	N/A	20.56	N/A
10	1	24		N/A	20.26	N/A
10	1	49		N/A	20.06	N/A
10	25	0		N/A	19.82	N/A
10	25	12		N/A	19.58	N/A
10	25	24		N/A	19.32	N/A
10	50	0		N/A	19.06	N/A
10	1	0	16-QAM	N/A	20.30	N/A
10	1	24		N/A	20.02	N/A
10	1	49		N/A	19.76	N/A
10	25	0		N/A	19.53	N/A
10	25	12		N/A	19.30	N/A
10	25	24		N/A	19.07	N/A
10	50	0		N/A	18.82	N/A



LTE BAND 41

LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	20.03	19.89	19.95
5	1	12		19.82	19.69	19.74
5	1	24		19.57	19.44	19.45
5	12	0		19.32	19.14	19.22
5	12	6		19.08	18.90	18.96
5	12	11		18.86	18.62	18.67
5	25	0		18.59	18.36	18.37
5	1	0	16-QAM	19.76	19.66	19.67
5	1	12		19.50	19.38	19.41
5	1	24		19.29	19.16	19.14
5	12	0		19.08	18.91	18.94
5	12	6		18.86	18.68	18.67
5	12	11		18.59	18.46	18.43
5	25	0		18.32	18.25	18.21
10	1	0	QPSK	20.20	19.93	20.09
10	1	24		19.97	19.68	19.87
10	1	49		19.70	19.41	19.64
10	25	0		19.42	19.15	19.40
10	25	12		19.14	18.87	19.18
10	25	24		18.89	18.64	18.94
10	50	0		18.67	18.40	18.73
10	1	0	16-QAM	19.92	19.71	19.88
10	1	24		19.66	19.49	19.62
10	1	49		19.38	19.23	19.41
10	25	0		19.10	19.02	19.12
10	25	12		18.89	18.81	18.88
10	25	24		18.68	18.58	18.66
10	50	0		18.47	18.32	18.41





LTE BAND 41

LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	20.01	20.23	19.95
15	1	37		19.79	19.99	19.74
15	1	74		19.55	19.77	19.49
15	36	0		19.30	19.53	19.24
15	36	18		19.09	19.27	18.97
15	36	39		18.80	18.97	18.76
15	75	0		18.58	18.77	18.49
15	1	0	16-QAM	19.75	19.96	19.71
15	1	38		19.49	19.73	19.51
15	1	75		19.22	19.46	19.27
15	36	0		18.92	19.24	19.04
15	36	18		18.64	18.95	18.77
15	36	39		18.39	18.65	18.52
15	75	0		18.15	18.38	18.23
20	1	0	QPSK	19.96	20.33	20.31
20	1	49		19.74	20.10	20.03
20	1	99		19.47	19.81	19.74
20	50	0		19.18	19.59	19.50
20	50	24		18.92	19.30	19.25
20	50	49		18.70	19.05	18.99
20	100	0		18.47	18.78	18.74
20	1	0	16-QAM	19.69	20.04	20.08
20	1	49		19.49	19.81	19.79
20	1	99		19.21	19.51	19.57
20	50	0		18.97	19.28	19.32
20	50	24		18.76	19.02	19.06
20	50	49		18.55	18.80	18.84
20	100	0		18.27	18.57	18.63



<Reduced Power level for WWAN+WLAN>

LTE BAND 12

LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.17	22.12	22.27
1.4	1	2		21.88	21.85	22.03
1.4	1	5		21.63	21.56	21.81
1.4	3	0		21.39	21.34	21.54
1.4	3	1		21.11	21.08	21.29
1.4	3	2		20.87	20.78	20.99
1.4	6	0		20.66	20.49	20.74
1.4	1	0	16-QAM	21.94	21.89	22.01
1.4	1	2		21.68	21.61	21.72
1.4	1	5		21.39	21.40	21.45
1.4	3	0		21.15	21.18	21.23
1.4	3	1		20.94	20.95	21.02
1.4	3	2		20.67	20.71	20.73
1.4	6	0		20.41	20.41	20.47
3	1	0	QPSK	22.31	22.29	22.18
3	1	7		22.07	22.07	21.90
3	1	14		21.82	21.83	21.61
3	8	0		21.54	21.56	21.41
3	8	4		21.28	21.34	21.14
3	8	7		21.04	21.07	20.93
3	15	0		20.83	20.77	20.66
3	1	0	16-QAM	22.07	22.03	21.89
3	1	7		21.84	21.83	21.69
3	1	14		21.57	21.58	21.45
3	8	0		21.31	21.30	21.23
3	8	4		21.09	21.08	20.99
3	8	7		20.86	20.86	20.78
3	15	0		20.56	20.63	20.56



LTE BAND 12

LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.41	22.39	22.28
5	1	12		22.18	22.18	22.03
5	1	24		21.95	21.89	21.79
5	12	0		21.66	21.63	21.52
5	12	6		21.41	21.39	21.30
5	12	11		21.12	21.11	21.07
5	25	0		20.84	20.84	20.81
5	1	0	16-QAM	22.12	22.11	21.99
5	1	12		21.89	21.86	21.78
5	1	24		21.64	21.66	21.55
5	12	0		21.40	21.37	21.29
5	12	6		21.12	21.08	21.02
5	12	11		20.89	20.87	20.76
5	25	0		20.65	20.63	20.54
10	1	0	QPSK	22.56	22.59	22.53
10	1	24		22.31	22.31	22.29
10	1	49		22.05	22.02	22.02
10	25	0		21.79	21.76	21.81
10	25	12		21.54	21.48	21.60
10	25	24		21.29	21.25	21.34
10	50	0		21.06	21.01	21.10
10	1	0	16-QAM	22.36	22.37	22.32
10	1	24		22.15	22.09	22.05
10	1	49		21.88	21.86	21.80
10	25	0		21.64	21.58	21.59
10	25	12		21.41	21.29	21.33
10	25	24		21.17	21.05	21.11
10	50	0		20.97	20.77	20.87

# 11. EUT and Test Setup Photo

## 11.1 EUT Photo

Front side



Back side



Top Edge



Bottom Edge



Left Edge

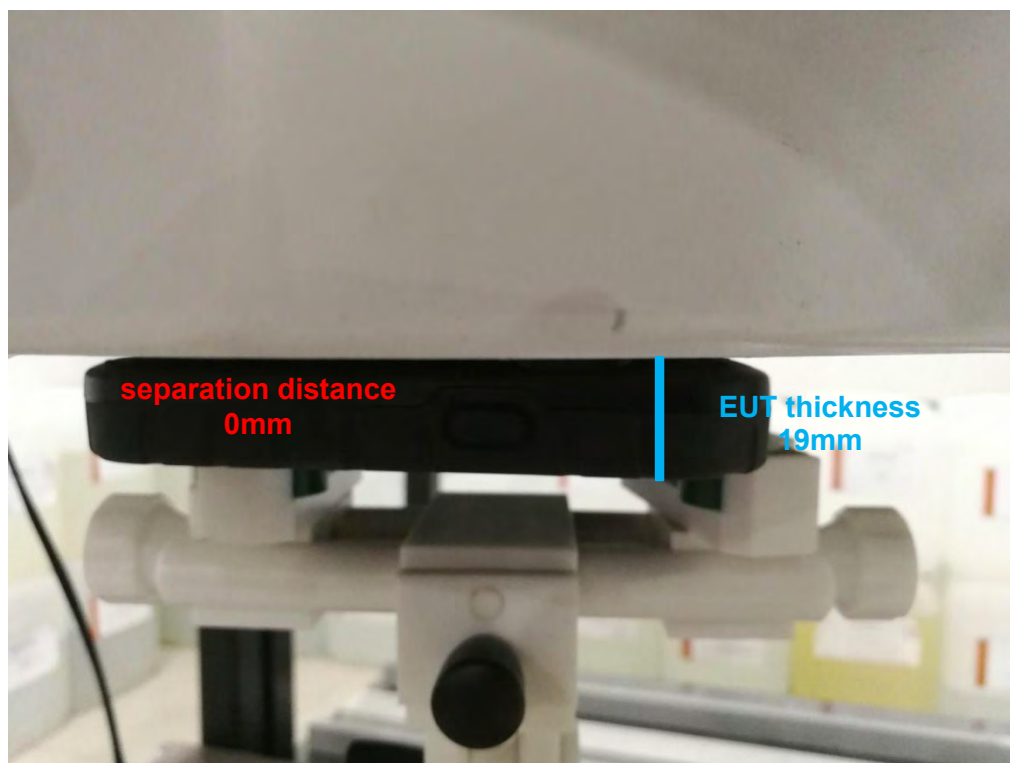


Right Edge



### 11.2 Setup Photo

Body Back side(separation distance is 0mm)



Left Edge(separation distance is 0mm)



Right Edge(separation distance is 0mm)



Top Edge(separation distance is 0mm)

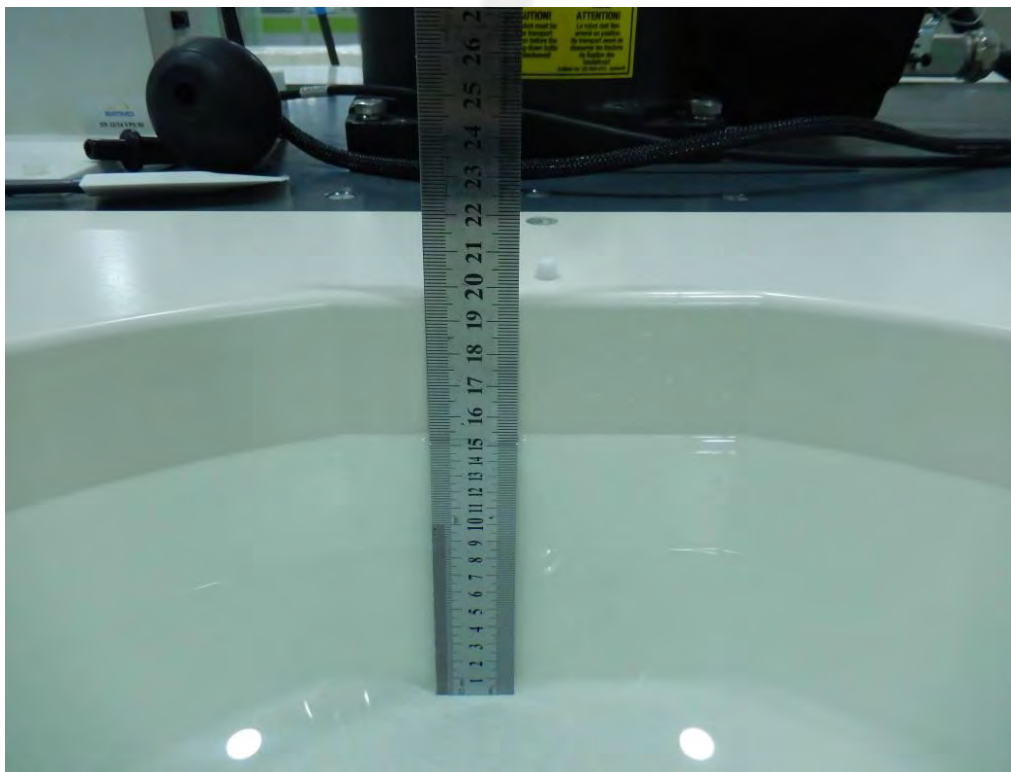




Bottom Edge(separation distance is 0mm)



Liquid depth (15 cm)





## 12. SAR Result Summary

### 12.1 Body SAR

<Full Power>

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.
WCDMA II	RMC	Back side	9262	1.374	-3.01	23.5	23.24	<b>1.459</b>	1
		Back side	9400	1.127	-3.28	23.5	22.87	1.303	/
		Back side	9538	1.135	1.44	23.5	22.90	1.303	/
		Right Edge	9262	0.658	-2.92	23.5	23.24	0.699	/
WCDMA IV	RMC	Back side	1312	1.286	-1.94	23.5	23.22	1.372	/
		Back side	1413	1.122	-1.40	23.5	22.71	1.346	/
		Back side	1513	1.410	-3.48	23.5	23.47	<b>1.420</b>	2
		Right Edge	1513	0.737	1.75	23.5	23.47	0.742	/
WCDMA V	RMC	Back side	4233	0.662	2.00	23	22.83	<b>0.688</b>	3
		Right Edge	4233	0.379	-1.07	23	22.83	0.394	/

Band	Mode	Antenna	Test Position	Ch.	Result 1g (W/Kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Duty cycle(%)	Scaled SAR (W/Kg)	Meas. No.
2.4G WLAN	802.11b	A	Back side	11	0.608	3.09	17.5	17.27	100	<b>0.641</b>	4
			Right Edge	11	0.412	-0.76	17.5	17.27	100	0.434	/
			Bottom Edge	11	0.154	-0.57	17.5	17.27	100	0.162	/
		B	Back side	1	0.077	2.93	18	17.73	100	<b>0.082</b>	5
			Left Edge	1	0.026	-0.79	18	17.73	100	0.028	/
			Top Edge	1	0.013	-3.21	18	17.73	100	0.014	/
	802.11n -HT20	A	Back side	1	0.411	-0.71	16	15.70	100	<b>0.440</b>	6
			Right Edge	1	0.286	3.39	16	15.70	100	0.306	/
			Bottom Edge	1	0.114	0.41	16	15.70	100	0.122	/
		B	Back side	1	0.028	1.00	16	15.70	100	<b>0.030</b>	7
			Left Edge	1	0.010	1.96	16	15.70	100	0.011	/

Note:

- The test separation of all above table is 0mm.
- Per KDB 447498 D01, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
  - Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
  - For WWAN: Scaled SAR(W/kg)= Measured SAR(W/kg)\*Tune-up Scaling Factor
- Per KDB 248227- When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is  $\leq 1.2$  W/kg. (The highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power was 0.344 W/Kg for Body)



Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Ch.	Result 1g (W/Kg)	Power Drift(%)	Max. Turn-up Power(dBm)	Meas. Output Power(dBm)	Scaled SAR (W/Kg)	Meas. No.
LTE Band 4	20M	QPSK	1	0	Back Side	20050	0.687	0.60	22.2	21.26	0.853	/
			1	0	Back Side	20175	0.864	-3.75	22.2	22.08	<b>0.888</b>	8
			1	0	Back Side	20300	0.705	-0.46	22.2	21.27	0.873	/
			50	0	Back Side	20175	0.573	-3.39	21	20.71	0.613	/
			1	0	Right Edge	20175	0.514	3.56	22.5	22.08	0.566	/
			50	0	Right Edge	20175	0.286	2.02	21	20.71	0.306	/
LTE Band 7	20M	QPSK	1	0	Back Side	20850	0.584	2.21	20.5	19.31	0.768	/
			1	0	Back Side	21100	0.819	-1.98	20.5	20.16	<b>0.886</b>	9
			1	0	Back Side	21350	0.712	-3.64	20.5	19.58	0.880	/
			50	0	Back Side	21350	0.475	0.77	19	18.83	0.494	/
			1	0	Right Edge	21100	0.428	-3.05	20.5	20.16	0.463	/
			50	0	Right Edge	21350	0.272	-1.68	19	18.83	0.283	/
LTE Band 12	10M	QPSK	1	0	Back Side	23060	0.785	0.26	23	21.73	1.052	/
			1	0	Back Side	23095	1.040	1.98	23	22.15	<b>1.265</b>	10
			1	0	Back Side	23130	0.957	1.67	23	22.09	1.180	/
			25	0	Back Side	23095	0.733	1.62	22	21.38	0.845	/
			1	0	Right Edge	23095	0.528	2.49	23	22.15	0.642	/
			25	0	Right Edge	23095	0.311	-3.73	22	21.38	0.359	/
LTE Band 13	10M	QPSK	1	0	Back Side	23230	0.582	0.33	23	22.15	<b>0.708</b>	11
			25	0	Back Side	23230	0.347	0.74	22	21.43	0.396	/
			1	0	Right Edge	23230	0.389	3.87	23	22.15	0.473	/
			25	0	Right Edge	23230	0.155	1.13	22	21.43	0.177	/
LTE Band 25	20M	QPSK	1	0	Back Side	26365	0.584	-1.09	22	21.75	<b>0.619</b>	12
			50	0	Back Side	26140	0.427	1.01	22	21.02	0.535	/
			1	0	Right Edge	26365	0.255	-3.25	22	21.75	0.270	/
			50	0	Right Edge	26140	0.183	0.68	22	21.02	0.229	/
LTE Band 26	15M (Part22)	QPSK	1	0	Back Side	26865	0.362	-1.41	22.5	22.00	<b>0.406</b>	13
			36	0	Back Side	26965	0.238	0.42	22	21.24	0.284	/
			1	0	Right Edge	26965	0.214	-1.08	22.5	22.00	0.240	/
			36	0	Right Edge	26965	0.147	2.04	22	21.24	0.175	/
	10M (Part90)	QPSK	1	0	Back Side	26865	0.335	1.98	22	21.98	0.337	/
			25	0	Back Side	26865	0.218	-0.30	22	21.31	0.256	/
			1	0	Right Edge	26865	0.193	0.42	22	21.98	0.194	/
			25	0	Right Edge	26865	0.127	2.98	22	21.31	0.149	/



LTE Band 30	10M	QPSK	1	0	Back Side	27710	0.142	-1.53	21	20.56	<b>0.157</b>	14
			25	0	Back Side	27710	0.087	-2.29	20	19.82	0.091	/
			1	0	Right Edge	27710	0.065	-3.61	21	20.56	0.072	/
			25	0	Right Edge	27710	0.039	0.82	20	19.82	0.041	/
LTE Band 41	20M	QPSK	1	0	Back Side	40620	0.190	-0.22	21	20.33	<b>0.222</b>	15
			50	0	Back Side	40620	0.117	2.08	20	19.59	0.129	/
			1	0	Right Edge	40620	0.091	-1.16	21	20.33	0.106	/
			50	0	Right Edge	40620	0.056	1.35	20	19.59	0.062	/

#### LTE BAND 2

SAR for LTE Band 2 (Frequency range: 1850-1910 MHz) is covered by LTE Band 25 (Frequency range: 1850-1915 MHz) due to overlapping frequency range, same maximum tune-up limit and same channel bandwidth

#### LTE BAND 5

SAR for LTE Band 5 (Frequency range: 824-849 MHz) is covered by LTE Band 26 (Frequency range: 814-849 MHz) due to overlapping frequency range, same maximum tune-up limit and same channel bandwidth



Band	Mode	Antenna	Test Position	Ch.	Result 1g (W/Kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Duty cycle (%)	Scaled SAR (W/Kg)	Meas. No.
5.2G WLAN	802.11a	A	Back side	40	0.315	-0.16	15	14.02	100	<b>0.395</b>	16
			Right Edge	40	0.183	0.90	15	14.02	100	0.229	/
			Bottom Edge	40	0.071	-3.62	15	14.02	100	0.089	/
		B	Back side	36	0.014	3.99	13	12.57	100	<b>0.015</b>	17
			Left Edge	36	0.007	1.46	13	12.57	100	0.008	/
			Bottom Edge	36	0.047	-3.57	15	14.18	100	0.057	/
	802.11 ac40	A	Back side	36	0.208	1.44	15	14.18	100	<b>0.251</b>	18
			Right Edge	36	0.123	-2.47	15	14.18	100	0.149	/
			Bottom Edge	36	0.047	-3.57	15	14.18	100	0.057	/
		B	Back side	36	0.009	3.26	15	14.18	100	<b>0.011</b>	19
			Left Edge	36	0.006	1.15	15	14.18	100	0.007	/
			Bottom Edge	36	0.047	-3.57	15	14.18	100	0.057	/

Band	Mode	Antenna	Test Position	Ch.	Result 1g (W/Kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Duty cycle (%)	Scaled SAR (W/Kg)	Meas. No.
5.3G WLAN	802.11a	A	Back side	52	0.208	0.99	14	13.76	100	<b>0.220</b>	20
			Right Edge	52	0.095	-3.43	14	13.76	100	0.100	/
		B	Back side	52	0.012	-0.66	13	12.15	100	<b>0.015</b>	21
			Left Edge	52	0.007	0.75	13	12.15	100	0.009	/
	802.11 ac-VHT20	A	Back side	52	0.112	-2.29	14	13.82	100	<b>0.117</b>	22
			Right Edge	52	0.075	-1.54	14	13.82	100	0.078	/
		B	Back side	52	0.011	-0.67	14	13.82	100	<b>0.011</b>	23
			Left Edge	52	0.006	-1.56	14	13.82	100	0.006	/
			Bottom Edge	52	0.047	-3.57	15	14.18	100	0.057	/
			Right Edge	52	0.123	-2.47	15	14.18	100	0.149	/



Band	Mode	Antenna	Test Position	Ch.	Result 1g (W/Kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Duty cycle (%)	Scaled SAR (W/Kg)	Meas. No.
5.6G WLAN	802.11a	A	Back side	140	0.371	2.09	14	13.97	100	<b>0.374</b>	24
			Right Edge	140	0.214	-1.54	14	13.97	100	0.215	/
			Bottom Edge	140	0.087	1.81	14	13.97	100	0.088	/
		B	Back side	140	0.052	-2.43	14	13.25	100	<b>0.062</b>	25
			Left Edge	140	0.030	0.65	14	13.25	100	0.036	/
	802.11 n-HT40	A	Back side	134	0.369	3.08	14	13.76	100	<b>0.390</b>	26
			Right Edge	134	0.195	0.08	14	13.76	100	0.206	/
			Bottom Edge	134	0.072	3.73	14	13.76	100	0.076	/
		B	Back side	134	0.026	2.23	14	13.76	100	<b>0.027</b>	27
			Left Edge	134	0.015	2.53	14	13.76	100	0.016	/

Band	Mode	Antenna	Test Position	Ch.	Result 1g (W/Kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Duty cycle (%)	Scaled SAR (W/Kg)	Meas. No.	
5.8G WLAN	802.11a	A	Back side	157	0.175	-0.14	16	15.33	100	<b>0.204</b>	28	
			Right Edge	157	0.091	-2.47	16	15.33	100	0.106	/	
			Bottom Edge	157	0.054	-1.61	16	15.33	100	0.063	/	
		B	Back side	157	0.027	3.62	15	14.50	100	<b>0.030</b>	29	
			Left Edge	157	0.013	-1.22	15	14.50	100	0.015	/	
			Top Edge	157	0.008	3.71	15	14.50	100	0.009	/	
		802.11 n-HT20	A	Back side	157	0.105	-1.36	15	14.92	100	<b>0.107</b>	30
				Right Edge	157	0.063	-3.12	15	14.92	100	0.064	/
				Bottom Edge	157	0.037	2.44	15	14.92	100	0.038	/
	B		Back side	157	0.010	1.05	15	14.92	100	<b>0.010</b>	31	
			Left Edge	157	0.005	-3.59	15	14.92	100	0.005	/	
			Top Edge	157	0.003	1.99	15	14.92	100	0.003	/	

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.
Bluetooth	GFSK	Back side	78	0.018	-0.53	5	4.87	<b>0.019</b>	32
		Right Edge	78	0.005	0.76	5	4.87	0.005	/



**Body SAR<Reduced Power level for WWAN+WLAN>**

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.
WCDMA II	RMC	Back side	9538	0.685	1.68	23	22.38	<b>0.790</b>	33
		Right Edge	9538	0.462	1.50	23	22.38	0.533	/
WCDMA IV	RMC	Back side	1312	0.785	1.76	22.7	22.48	0.826	/
		Back side	1413	0.801	-3.05	22.7	22.54	0.831	/
		Back side	1513	0.824	-2.12	22.7	22.58	<b>0.847</b>	34
		Right Edge	1513	0.553	-1.13	22.7	22.58	0.568	/

Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Ch.	Result 1g (W/Kg)	Power Drift(%)	Max. Turn-up Power(dBm)	Meas. Output Power(dBm)	Scaled SAR (W/Kg)	Meas. No.
LTE Band 12	10M	QPSK	1	0	Back Side	23095	0.538	-0.49	23	22.59	<b>0.591</b>	35
			25	0	Back Side	23130	0.352	1.68	22	21.81	0.368	/
			1	0	Right Edge	23095	0.310	-0.32	23	22.59	0.341	/
			25	0	Right Edge	23130	0.187	3.97	22	21.81	0.195	/





Band	Mode	Scaled SAR (W/Kg)		A+B
		Antenna A	Antenna B	
WLAN 2.4G	802.11n	Antenna A	0.440	0.470
	802.11n	Antenna B	0.030	
WLAN 5.2G	802.11ac	Antenna A	0.251	0.262
	802.11ac	Antenna B	0.011	
WLAN 5.3G	802.11n	Antenna A	0.117	0.128
	802.11n	Antenna B	0.011	
WLAN 5.6G	802.11ac	Antenna A	0.390	0.417
	802.11ac	Antenna B	0.027	
WLAN 5.8G	802.11n	Antenna A	0.107	0.117
	802.11n	Antenna B	0.010	

**Note:**

1. The test separation of all above table is 0mm.
2. Per KDB 447498 D01v05r01, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
  - a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
  - b. For WWAN: Scaled SAR(W/kg)= Measured SAR(W/kg)\*Tune-up Scaling Factor
3. When the user enables the personal Wireless router functions for the handsets, actual operations include simultaneous transmission of both the Wi-Fi transmitting frequency and thus cannot be evaluated for SAR under actual use conditions. The "Portable Hotspot" feature on the handset was NOT activated, to ensure the SAR measurements were evaluated for a single transmission frequency RF signal.





### 12.2 repeated SAR measurement

#### <Full Power>

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.
WCDMA II	RMC	Back side	9262	1.323	2.44	23.5	23.24	1.405	/
WCDMA IV	RMC	Back side	1513	1.385	-2.84	23.5	23.47	1.395	/
LTE Band 4	QPSK	Back side	20175	0.899	-3.38	22.5	22.08	0.990	/
LTE Band 7	QPSK	Back side	21100	0.784	3.92	20.5	20.16	0.848	/
LTE Band 12	QPSK	Back side	23095	1.017	-2.11	23	22.15	1.237	/

#### <Reduced Power level for WWAN+WLAN>

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.
WCDMA IV	RMC	Back side	1513	0.847	2.36	23	22.58	0.933	/

#### <Full Power>

Band	Mode	Test Position	Ch.	Original Measured SAR 1g(mW/g)	1 st Repeated SAR 1g	Ratio	Original Measured SAR 1g(mW/g)	2nd Repeated SAR 1g	Ratio
WCDMA II	RMC	Back side	9262	1.374	1.323	1.04	-	-	-
WCDMA IV	RMC	Back side	1513	1.410	1.385	1.02	-	-	-
LTE Band 4	QPSK	Back side	20175	0.864	0.899	1.04	-	-	-
LTE Band 7	QPSK	Back side	21100	0.819	0.784	1.04	-	-	-
LTE Band 12	QPSK	Back side	23095	1.040	1.017	1.02	-	-	-

#### <Reduced Power level for WWAN+WLAN>

Band	Mode	Test Position	Ch.	Original Measured SAR 1g(mW/g)	1 st Repeated SAR 1g	Ratio	Original Measured SAR 1g(mW/g)	2nd Repeated SAR 1g	Ratio
WCDMA IV	RMC	Back side	1513	0.824	0.847	1.03	-	-	-

Note:

1. Per KDB 865664 D01,for each frequency band ,repeated SAR measurement is required only when the measured SAR is  $\geq 0.8W/Kg$ .
2. Per KDB 865664 D01,if the ratio of largest to smallest SAR for the original and first repeated measurement is  $\leq 1.2$ and the measured SAR  $< 1.45W/Kg$ , only one repeated measurement is required.
3. 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  $\geq 1.45W/Kg$
4. The ratio is the difference in percentage between original and repeated measured SAR.

**Simultaneous Multi-band Transmission Evaluation:**

Application Simultaneous Transmission information:

Position	Simultaneous state
Body	1. WCDMA + Antenna A 2.4G/5GHz WLAN
	2. WCDMA + Antenna B 2.4G/5GHz WLAN
	3. WCDMA + Antenna A+B 2.4G/5GHz WLAN
	4. LTE + Antenna A 2.4G/5GHz WLAN
	5. LTE + Antenna B 2.4G/5GHz WLAN
	6. LTE + Antenna A+B 2.4G/5GHz WLAN
	7. WCDMA + BT
	8. LTE + BT

## NOTE:

- 2.4GHz WLAN and 5GHz WLAN can't simultaneous transmission at the same time
- Bluetooth and WLAN can't simultaneous transmission at the same time.
- For simultaneous transmission at head and body exposure position, 2 transmitters simultaneous transmission was the worst state.
- Based upon KDB 447498 D01, BT SAR is excluded as below table.
- If the test separation distance is <5mm, 5mm is used for excluded SAR calculation.
- 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  $\leq 7.5$  for 10-g extremity SAR
- The reported SAR summation is calculated based on the same configuration and test position.
- 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:
  - $(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm}) \cdot [\sqrt{f} (\text{GHz}) / x] \text{ W/kg}$  for test separation distances  $\leq 50 \text{ mm}$ ;  
Where  $x = 7.5$  for 1-g SAR, and  $x = 18.75$  for 10-g SAR.
  - $0.4\text{W/Kg}$  for 1-g SAR and  $1.0\text{W/Kg}$  for 10-g SAR, when the separation distance is  $>50\text{mm}$ .



Simultaneous Mode	Position	Mode	Max. 1-g SAR (W/kg)	1-g Sum SAR (W/kg)
WCDMA + Antenna A 2.4GHz WLAN	Body	WCDMA	0.847	1.488
		2.4GHz WLAN	0.641	
WCDMA + Antenna B 2.4GHz WLAN	Body	WCDMA	0.847	0.929
		2.4GHz WLAN	0.082	
WCDMA + Antenna A+B 2.4GHz WLAN	Body	WCDMA	0.847	1.317
		2.4GHz WLAN	0.470	
LTE + Antenna A 2.4GHz WLAN	Body	LTE	0.888	1.529
		2.4GHz WLAN	0.641	
LTE + Antenna B 2.4GHz WLAN	Body	LTE	0.888	0.970
		2.4GHz WLAN	0.082	
LTE + Antenna A+B 2.4GHz WLAN	Body	LTE	0.888	1.358
		2.4GHz WLAN	0.470	
WCDMA + Antenna A 5.2GHz WLAN	Body	WCDMA	0.847	1.242
		5.2GHz WLAN	0.395	
WCDMA + Antenna B 5.2GHz WLAN	Body	WCDMA	0.847	0.862
		5.2GHz WLAN	0.015	
WCDMA + Antenna A+B 5.2GHz WLAN	Body	WCDMA	0.847	1.109
		5.2GHz WLAN	0.262	
LTE + Antenna A 5.2GHz WLAN	Body	LTE	0.888	1.283
		5.2GHz WLAN	0.395	
LTE + Antenna B 5.2GHz WLAN	Body	LTE	0.888	0.903
		5.2GHz WLAN	0.015	
LTE + Antenna A+B 5.2GHz WLAN	Body	LTE	0.888	1.150
		5.2GHz WLAN	0.262	
WCDMA + Antenna A 5.3GHz WLAN	Body	WCDMA	0.847	1.067
		5.3GHz WLAN	0.220	
WCDMA + Antenna B 5.3GHz WLAN	Body	WCDMA	0.847	0.862
		5.3GHz WLAN	0.015	
WCDMA + Antenna A+B 5.3GHz WLAN	Body	WCDMA	0.847	0.975
		5.3GHz WLAN	0.128	
LTE + Antenna A 5.3GHz WLAN	Body	LTE	0.888	1.108
		5.3GHz WLAN	0.220	
LTE + Antenna B 5.3GHz WLAN	Body	LTE	0.888	0.903
		5.3GHz WLAN	0.015	
LTE + Antenna A+B 5.3GHz WLAN	Body	LTE	0.888	1.016
		5.3GHz WLAN	0.128	
WCDMA + Antenna A 5.6GHz WLAN	Body	WCDMA	0.847	1.221
		5.6GHz WLAN	0.374	
WCDMA + Antenna B 5.6GHz WLAN	Body	WCDMA	0.847	0.909
		5.6GHz WLAN	0.062	
WCDMA + Antenna A+B 5.6GHz WLAN	Body	WCDMA	0.847	1.264
		5.6GHz WLAN	0.417	
LTE + Antenna A 5.6GHz WLAN	Body	LTE	0.888	1.262
		5.6GHz WLAN	0.374	



LTE + Antenna B 5.6GHz WLAN	Body	LTE	0.888	0.950
		5.6GHz WLAN	0.062	
LTE + Antenna A+B 5.6GHz WLAN	Body	LTE	0.888	1.305
		5.6GHz WLAN	0.417	
WCDMA + Antenna A 5.8GHz WLAN	Body	WCDMA	0.847	1.051
		5.8GHz WLAN	0.204	
WCDMA + Antenna B 5.8GHz WLAN	Body	WCDMA	0.847	0.877
		5.8GHz WLAN	0.030	
WCDMA + Antenna A+B 5.8GHz WLAN	Body	WCDMA	0.847	0.964
		5.8GHz WLAN	0.117	
LTE + Antenna A 5.8GHz WLAN	Body	LTE	0.888	1.092
		5.8GHz WLAN	0.204	
LTE + Antenna B 5.8GHz WLAN	Body	LTE	0.888	0.918
		5.8GHz WLAN	0.030	
LTE + Antenna A+B 5.8GHz WLAN	Body	LTE	0.888	1.005
		5.8GHz WLAN	0.117	
WCDMA +BT	Body	WCDMA	0.847	0.866
		BT	0.019	
LTE +BT	Body	LTE	0.888	0.907
		BT	0.019	

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.

When the sum of SAR 1g of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit (SAR-1g 1.6 W/kg), the simultaneous transmission SAR is not required. When the sum of SAR 1g is greater than the SAR limit (SAR-1g 1.6 W/kg), SAR test exclusion is determined by the SPLSR.



### 13. Equipment List

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
750MHz Dipole	MVG	SID750	SN 30/14 DIP0G750-331	2017.08.15	2020.08.14
835MHz Dipole	MVG	SID835	SN 30/14 DIP0G835-332	2017.08.15	2020.08.14
1800MHz Dipole	MVG	SID1800	SN 30/14 DIP1G800-329	2017.08.15	2020.08.14
1900MHz Dipole	MVG	SID1900	SN 30/14 DIP1G900-333	2017.08.15	2020.08.14
2300MHz Dipole	MVG	SID2300	SN 30/14 DIP2G300-341	2019.09.20	2022.09.19
2450MHz Dipole	MVG	SID2450	SN 30/14 DIP2G450-335	2017.08.15	2020.08.14
2600MHz Dipole	MVG	SID2600	SN 30/14 DIP2G600-336	2017.08.15	2020.08.14
Waveguide	SATIMO	SWG5500	SN 13/14 WGA32	2017.08.15	2020.08.14
E-Field Probe	MVG	SSE2	SN 41/18 EPGO334	2019.06.04	2020.06.03
Dielectric Probe Kit	MVG	SCLMP	SN 32/14 OCPG67	2019.11.25	2020.11.24
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	2019.10.11	2020.10.10
Multi Meter	Keithley	Multi Meter 2000	4050073	2019.10.11	2020.10.10
Signal Generator	Agilent	N5182A	MY50140530	2019.10.09	2020.10.08
Wireless Communication Test Set	Agilent	8960-E5515C	MY48360751	2019.10.09	2020.10.08
Wireless Communication Test Set	R&S	CMW500	117239	2019.10.09	2020.10.08
Power Amplifier	DESAY	ZHL-42W	9638	2019.10.09	2020.10.08
Power Meter	R&S	NRP	100510	2019.10.16	2020.10.15
Power Meter	Agilent	E4419B	QB43312265	2019.10.12	2020.10.11
Power Sensor	R&S	NRP-Z11	101919	2019.10.12	2020.10.11
Power Sensor	HP	E9300A	US39210170	2019.10.09	2020.10.08
Temperature hygrometer	SuWei	SW-108	N/A	2019.10.13	2020.10.12
Thermograph	Elitech	RC-4	S/N EF7176501537	2019.10.11	2020.10.10

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 Body)

Type: Phone measurement (Complete)

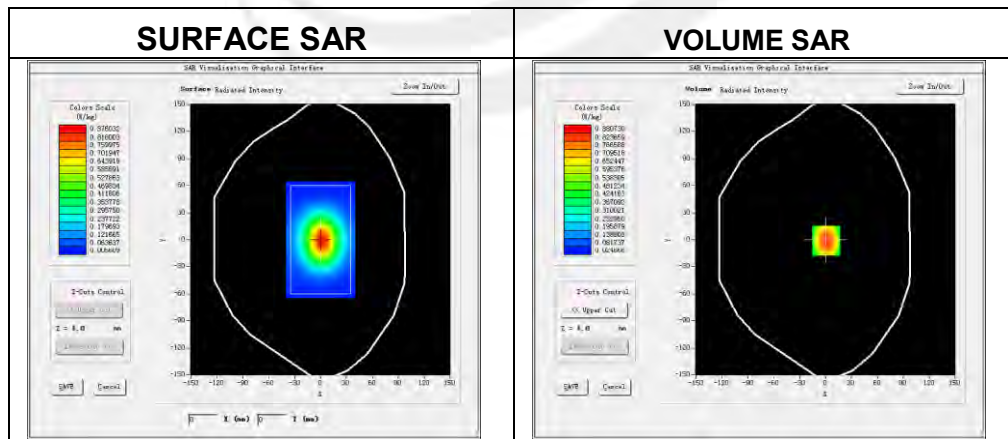
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2020-04-16

#### Experimental conditions.

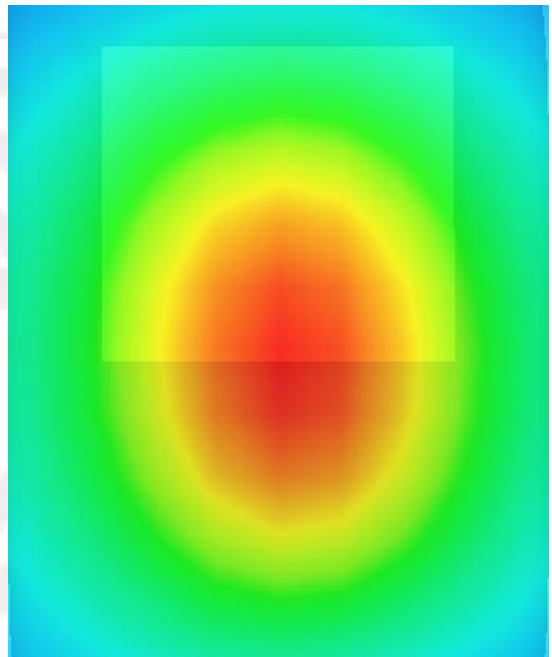
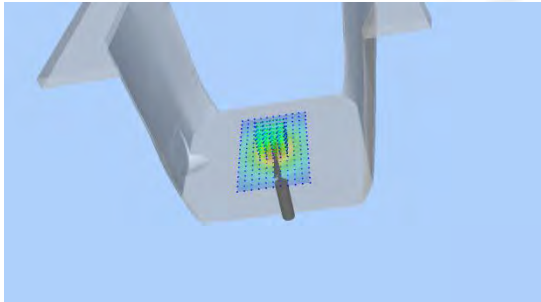
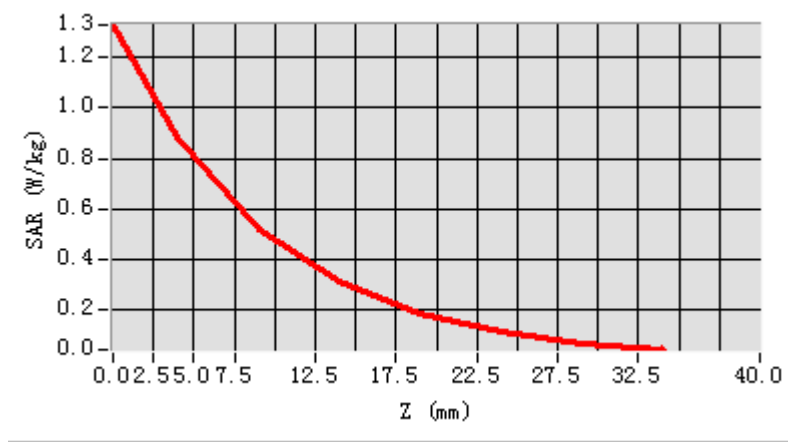
Probe	
Phantom	Validation plane
Device Position	-
Band	750MHz
Channels	-
Signal	CW
Frequency (MHz)	750MHz
Relative permittivity	54.86
Conductivity (S/m)	0.98
Power drift (%)	0.12
Probe	SN 41/18 EPGO334
ConvF:	1.49
Crest factor:	1:1



Maximum location: X=1.00, Y=-1.00

SAR 10g (W/Kg)	0.544125
SAR 1g (W/Kg)	0.855829

### Z Axis Scan



### System Performance Check Data (835MHz Body)

Type: Phone measurement (Complete)

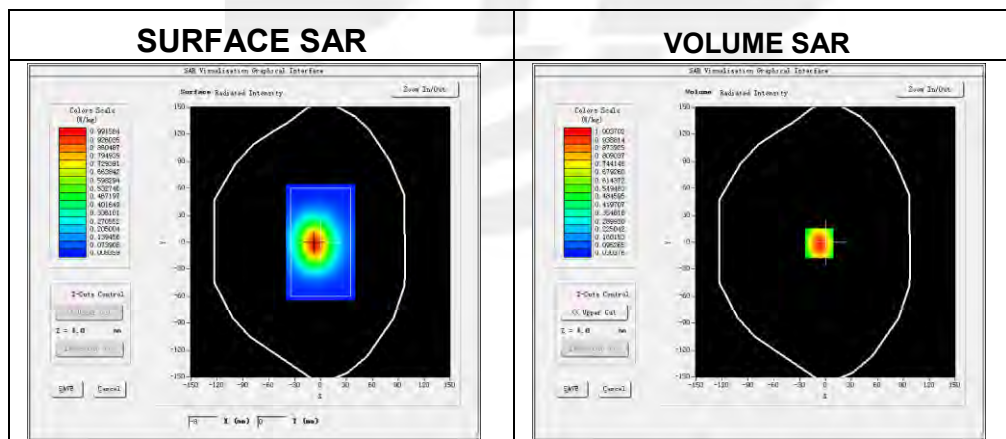
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2020-04-17

#### Experimental conditions.

Probe	
Phantom	Validation plane
Device Position	-
Band	835MHz
Channels	-
Signal	CW
Frequency (MHz)	835MHz
Relative permittivity	54.13
Conductivity (S/m)	0.95
Power drift (%)	1.37
Probe	SN 41/18 EPGO334
ConvF:	1.53
Crest factor:	1:1

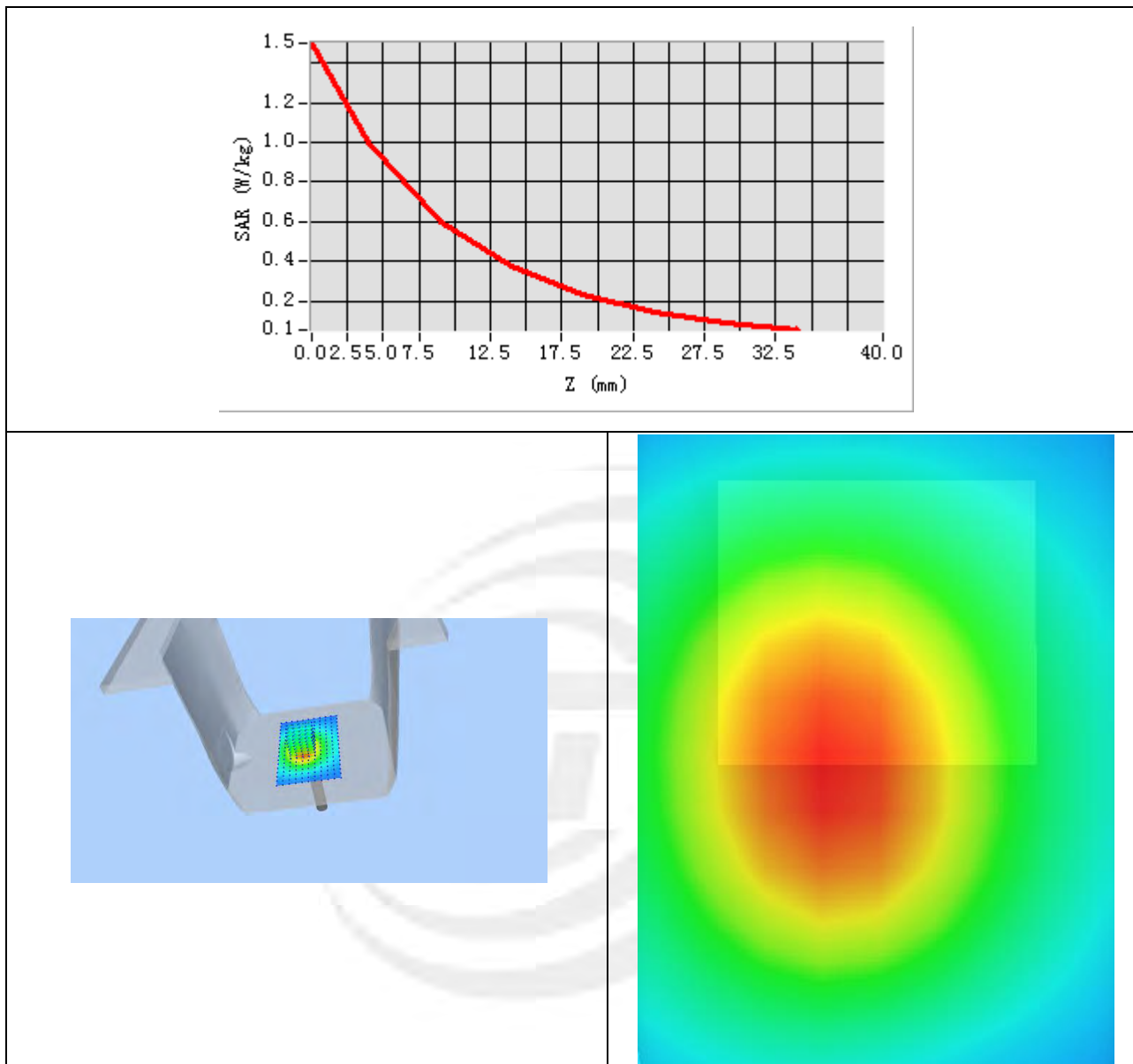


Maximum location: X=-7.00, Y=-1.00

SAR 10g (W/Kg)	0.662525
SAR 1g (W/Kg)	0.934707



### Z Axis Scan



### System Performance Check Data(1800MHz Body)

Type: Phone measurement (Complete)

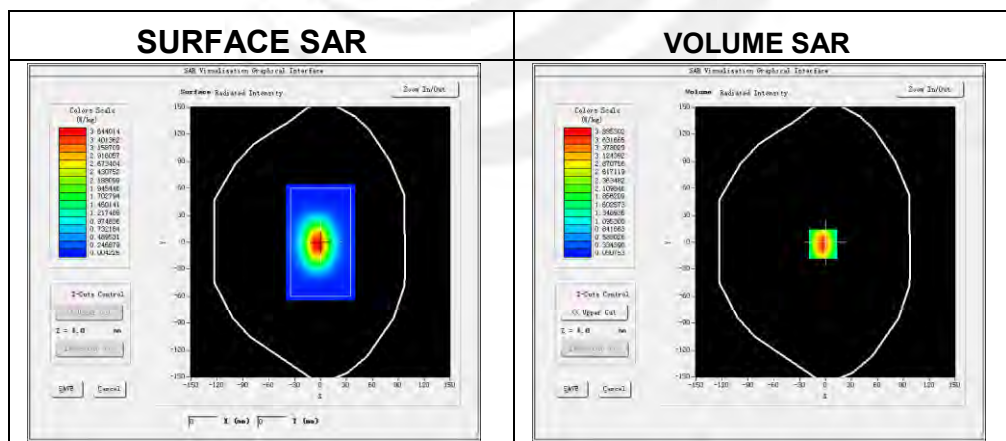
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2020-04-20

### Experimental conditions.

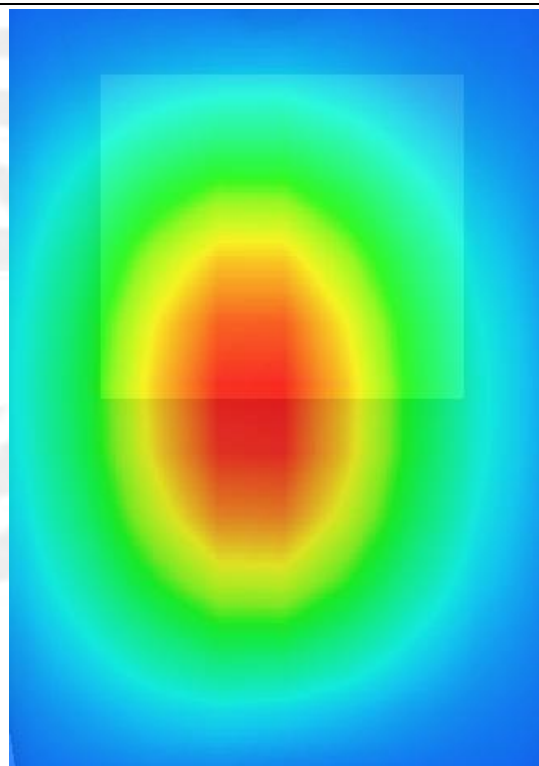
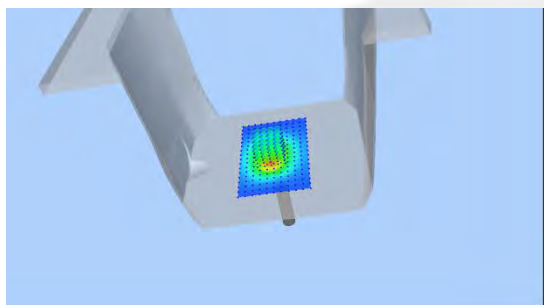
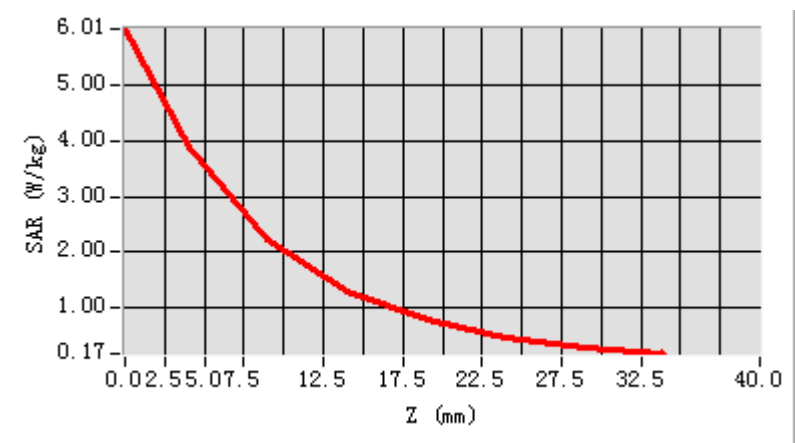
Phantom	Validation plane
Device Position	-
Band	1800MHz
Channels	-
Signal	CW
Frequency (MHz)	1800MHz
Relative permittivity	53.82
Conductivity (S/m)	1.55
Power drift (%)	-2.37
Probe	SN 41/18 EPGO334
ConvF	1.66
Crest factor:	1:1



Maximum location: X=-3.00, Y=-2.00

SAR 10g (W/Kg)	2.095782
SAR 1g (W/Kg)	3.865688

### Z Axis Scan



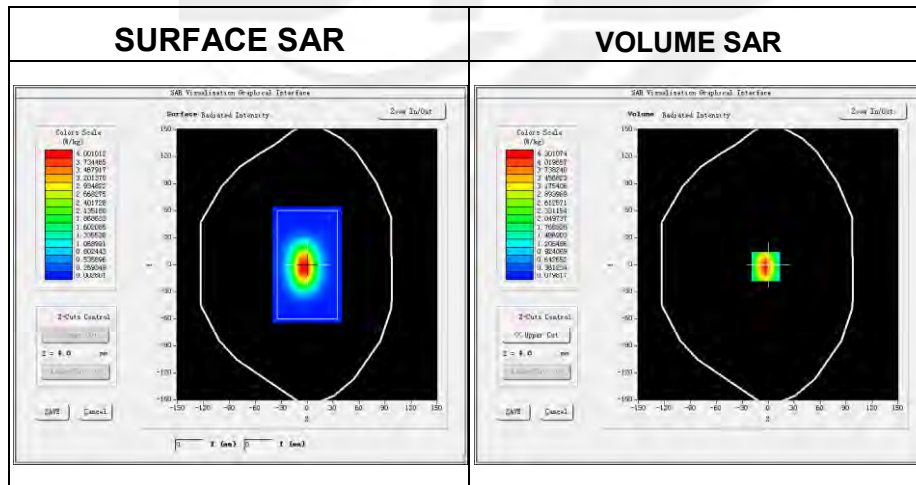


**System Performance Check Data (1900MHz Body)**

Type: Phone measurement (Complete)  
 Area scan resolution: dx=8mm,dy=8mm  
 Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm  
 Date of measurement: 2020-04-22

**Experimental conditions.**

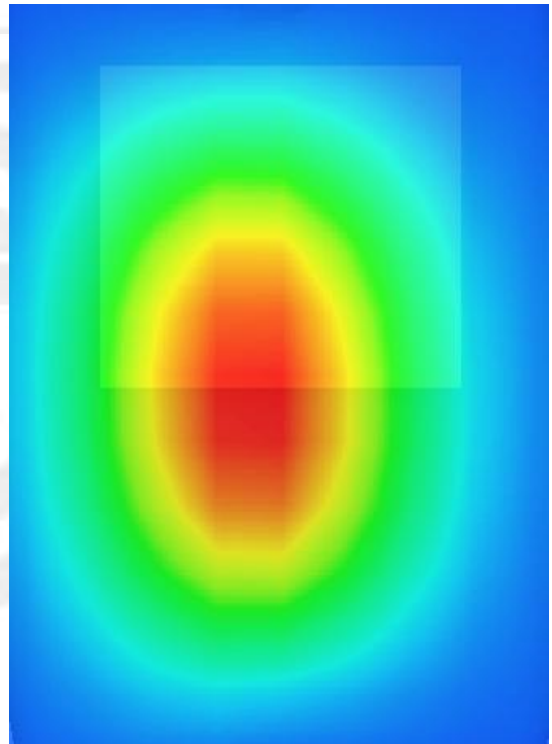
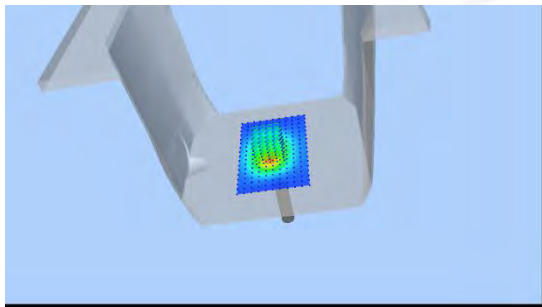
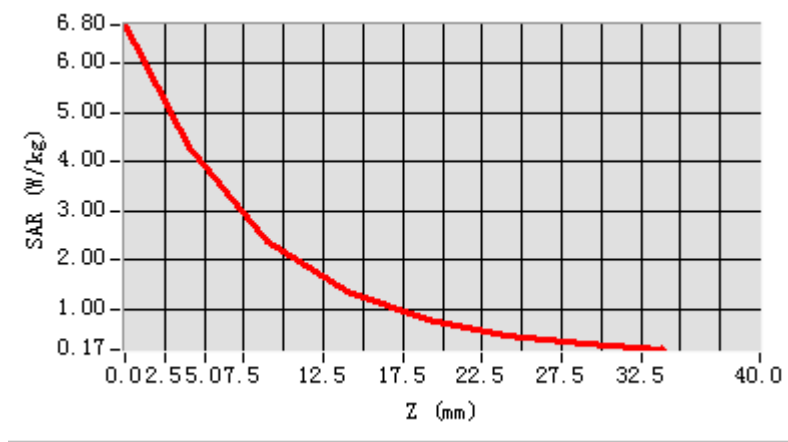
Device Position	-
Band	1900MHz
Channels	-
Signal	CW
Frequency (MHz)	1900
Relative permittivity	52.69
Conductivity (S/m)	1.53
Power drift (%)	1.78
Probe	SN 41/18 EPGO334
ConvF:	1.88
Crest factor:	1:1



**Maximum location: X=-3.00, Y=-2.00**

SAR 10g (W/Kg)	2.073274
SAR 1g (W/Kg)	4.092581

### Z Axis Scan



**System Performance Check Data (2300MHz Body)**

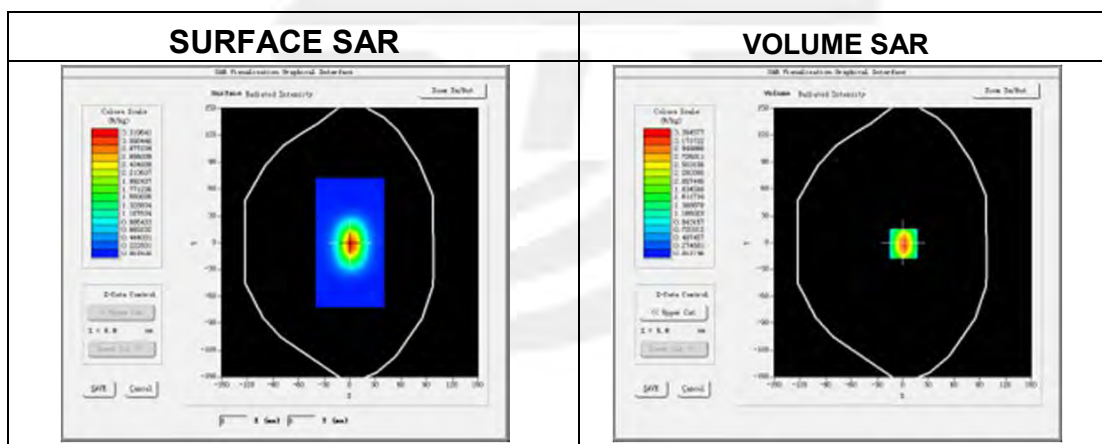
Area scan resolution: dx=8mm, dy=8mm

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

Date of measurement: 2020-04-24

**Experimental conditions.**

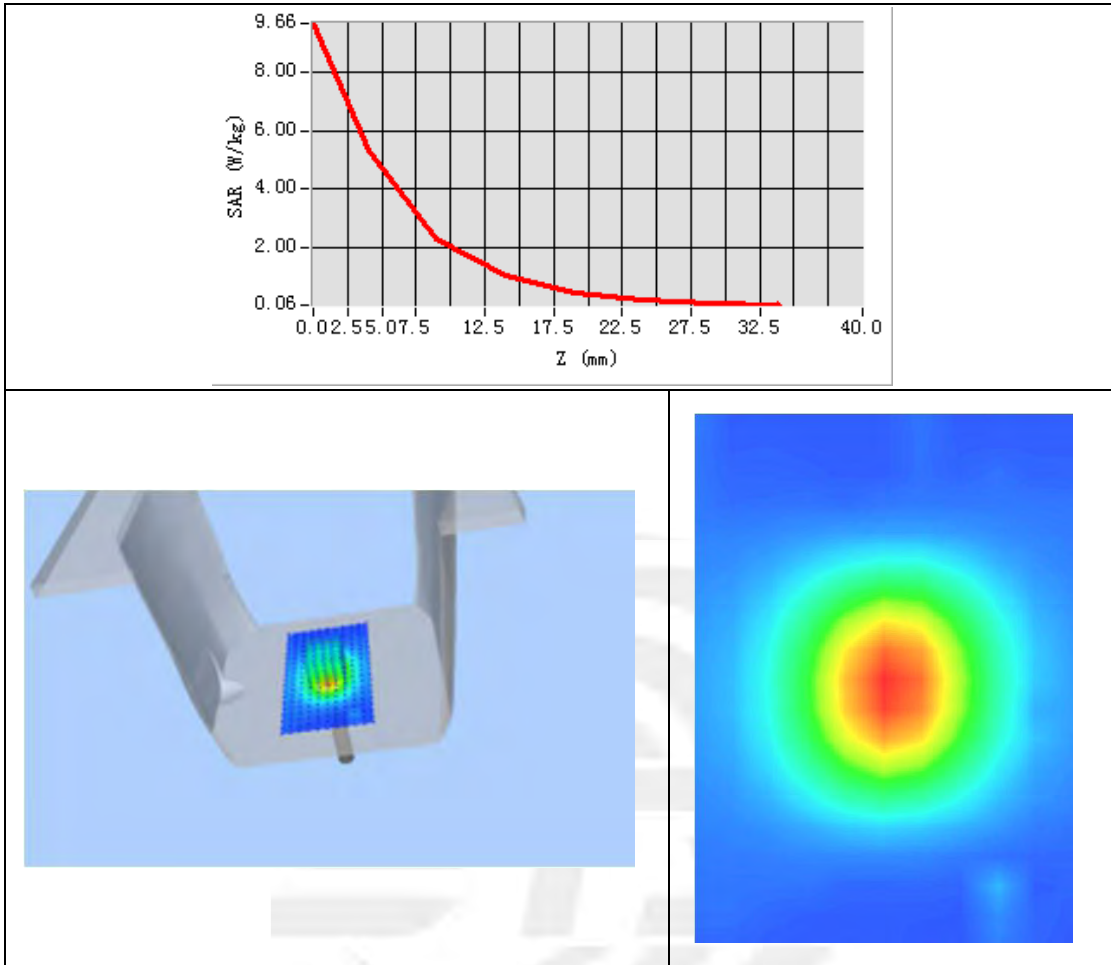
Device Position	Validation plane
Band	2300 MHz
Channels	-
Signal	CW
Frequency (MHz)	2300
Relative permittivity	53.24
Conductivity (S/m)	1.85
Probe	SN 41/18 EPGO334
ConvF	2.20
Crest factor:	1:1



**Maximum location: X=3.00, Y=1.00**

SAR 10g (W/Kg)	2.851473
SAR 1g (W/Kg)	4.913208

### Z Axis Scan



### System Performance Check Data (2450MHz Body)

Type: Phone measurement (Complete)

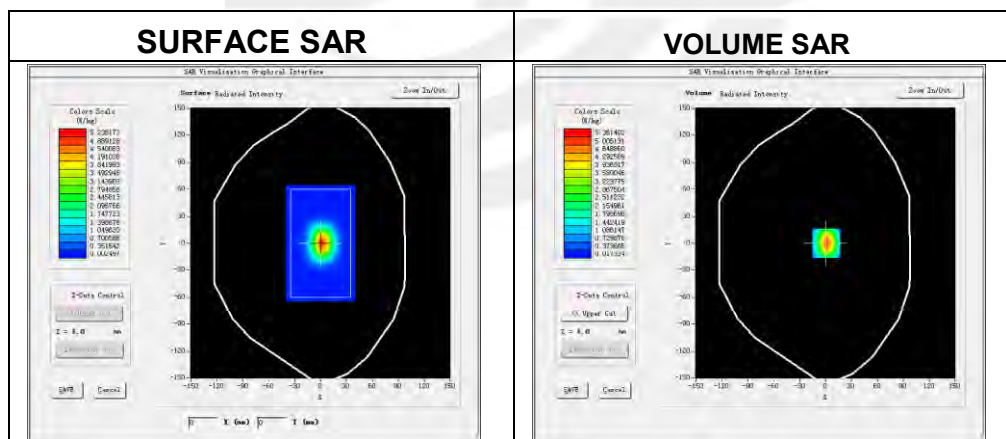
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2020-04-24

#### Experimental conditions.

Device Position	Validation plane
Band	2450 MHz
Channels	-
Signal	CW
Frequency (MHz)	2450
Relative permittivity	53.11
Conductivity (S/m)	1.92
Power drift (%)	2.05
Probe	SN 41/18 EPGO334
ConvF	2.02
Crest factor:	1:1

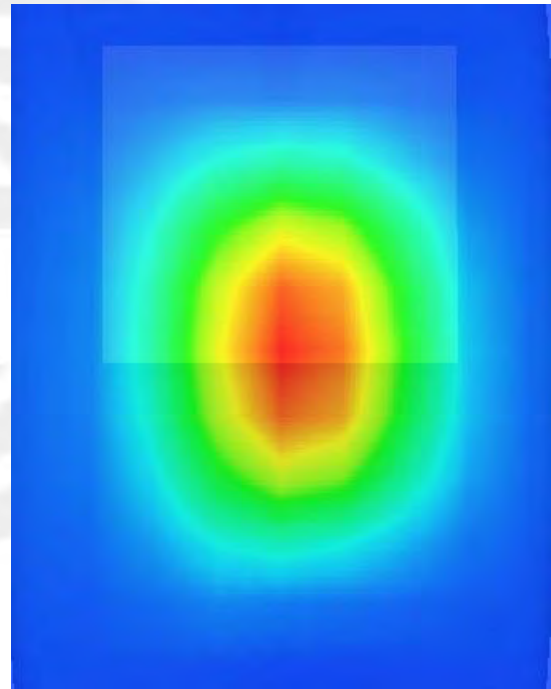
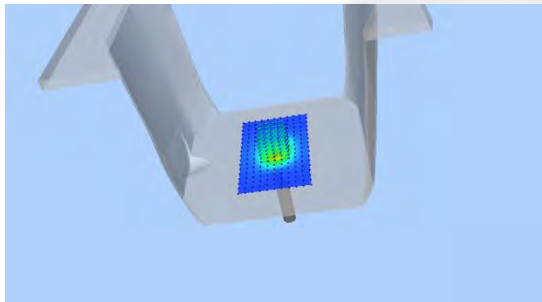
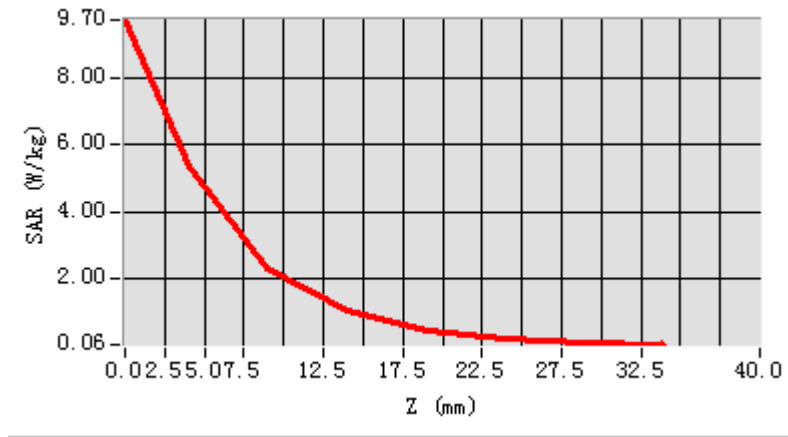


Maximum location: X=1.00, Y=0.00

SAR 10g (W/Kg)	2.545848
SAR 1g (W/Kg)	5.253835



### Z Axis Scan



### System Performance Check Data(2600MHz Body)

Type: Phone measurement (Complete)

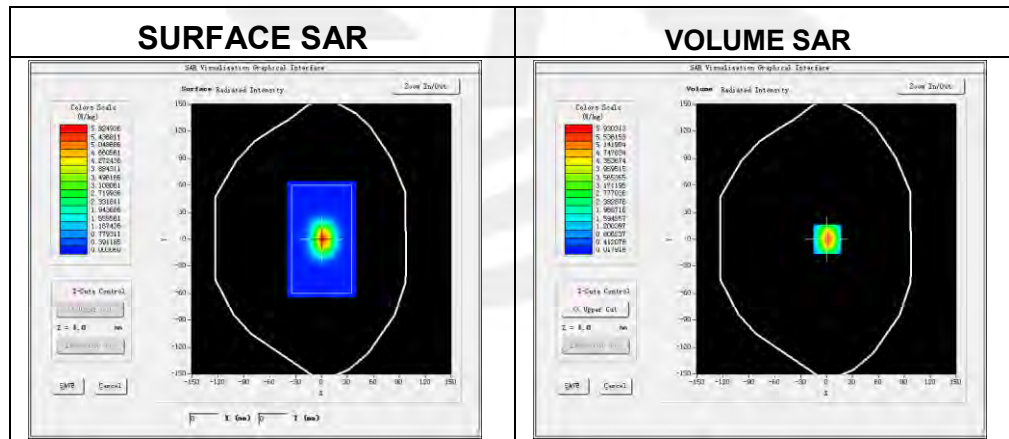
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2020-04-23

#### Experimental conditions.

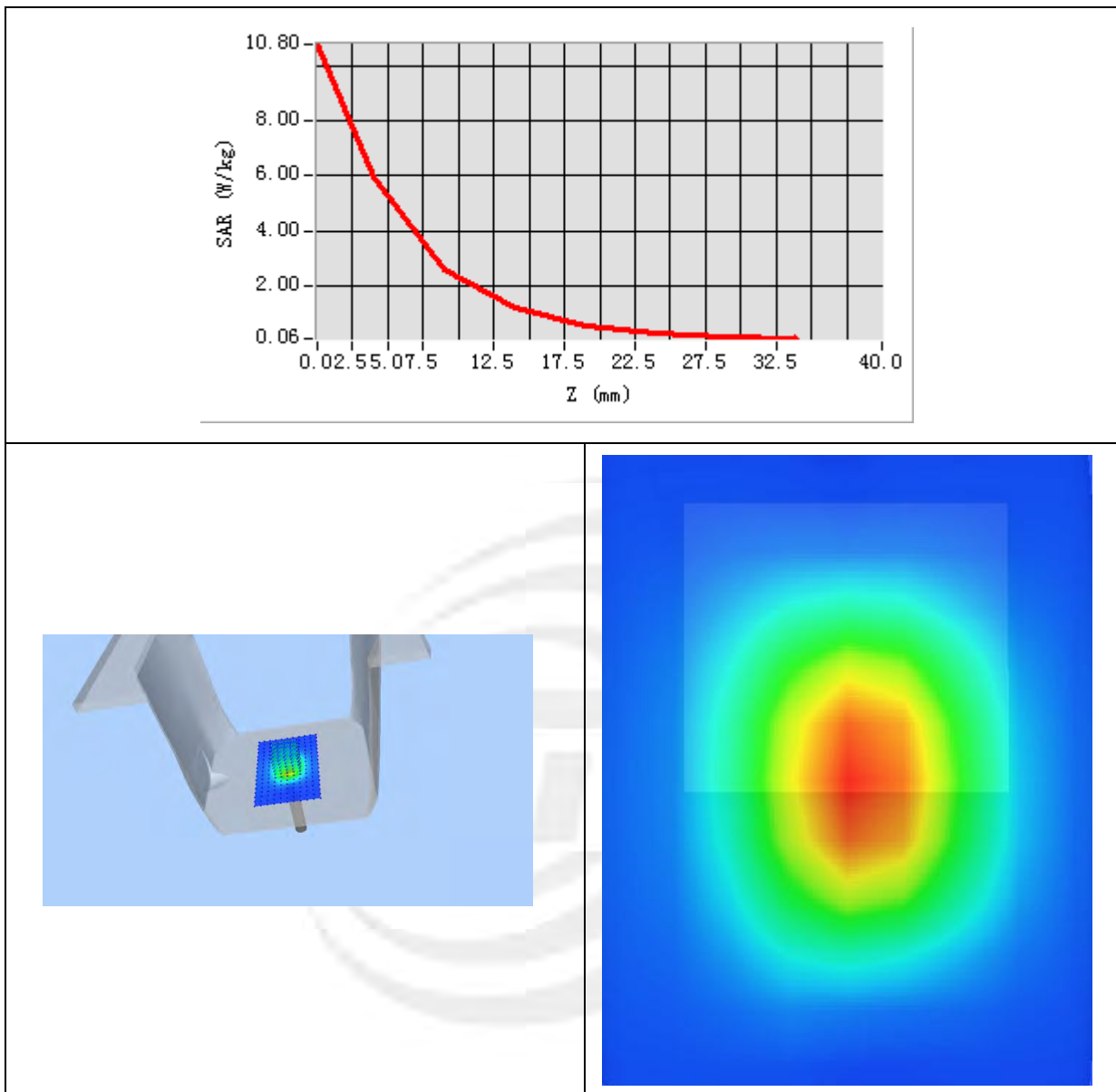
Device Position	Validation plane
Band	2600 MHz
Channels	-
Signal	CW
Frequency (MHz)	2600
Relative permittivity	51.87
Conductivity (S/m)	2.19
Power drift (%)	0.82
Probe	SN 41/18 EPGO334
ConvF	1.92
Crest factor:	1:1



Maximum location: X=3.00, Y=1.00

SAR 10g (W/Kg)	2.686392
SAR 1g (W/Kg)	5.434097

### Z Axis Scan

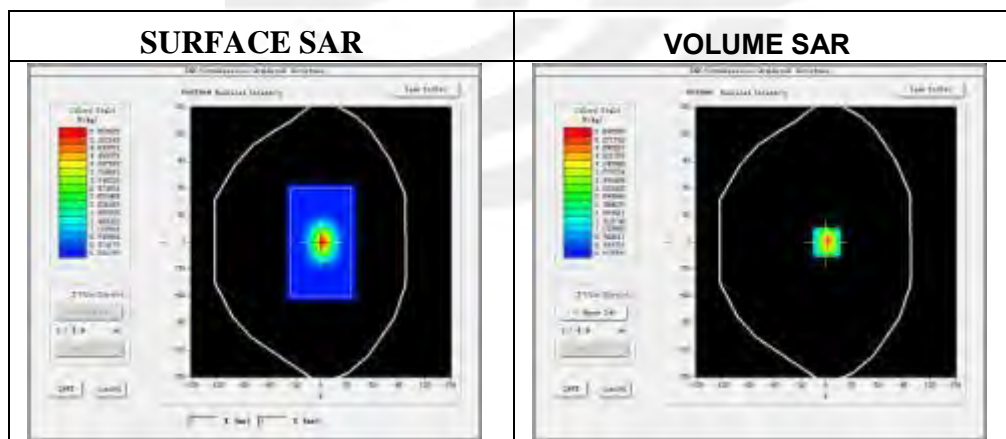


### System Performance Check Data(5200MHz Body)

Type: Phone measurement (Complete)  
 Area scan resolution: dx=8mm,dy=8mm  
 Zoom scan resolution: dx=4mm, dy=4mm, dz=2mm  
 Date of measurement: 2020-04-26

#### Experimental conditions.

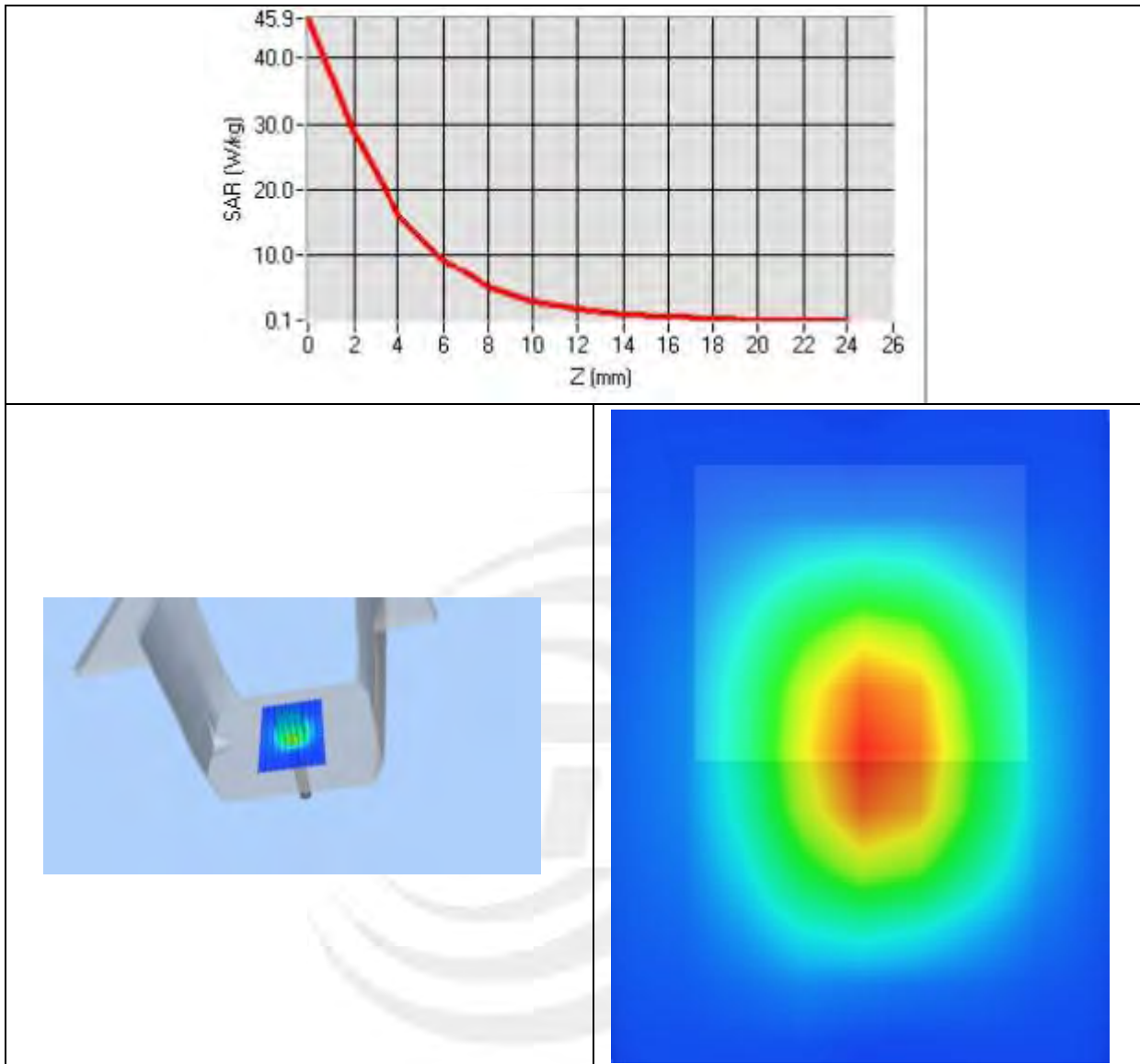
Device Position	Validation plane
Band	5200 MHz
Channels	-
Signal	CW
Frequency (MHz)	5200
Relative permittivity	49.73
Conductivity (S/m)	5.27
Power drift (%)	2.10
Probe	SN 41/18 EPGO334
ConvF	1.92
Crest factor:	1:1



Maximum location: X=7.00, Y=2.00

SAR 10g (W/Kg)	5.825213
SAR 1g (W/Kg)	15.145852

### Z Axis Scan



**System Performance Check Data(5400MHz Body)**

Type: Dipole measurement (Complete)

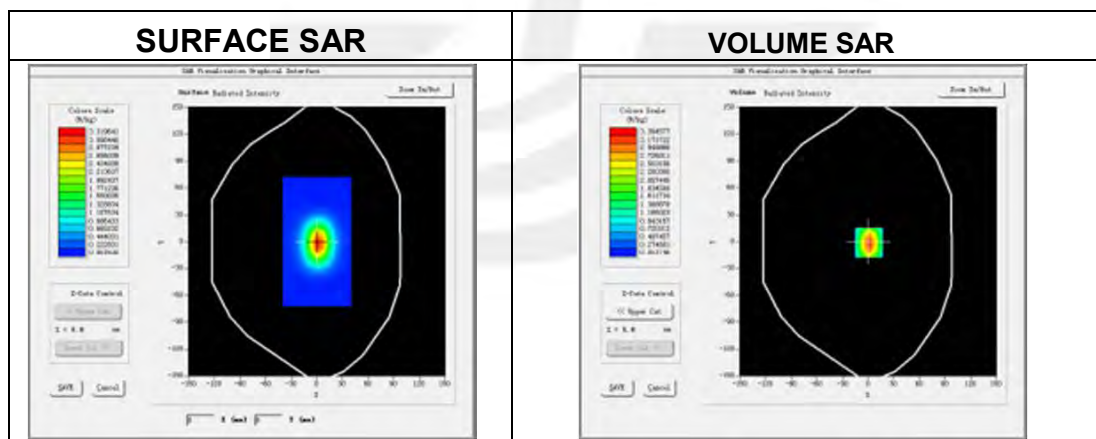
Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=4mm, dy=4mm, dz=2mm

Date of measurement: 2020-04-26

**Experimental conditions.**

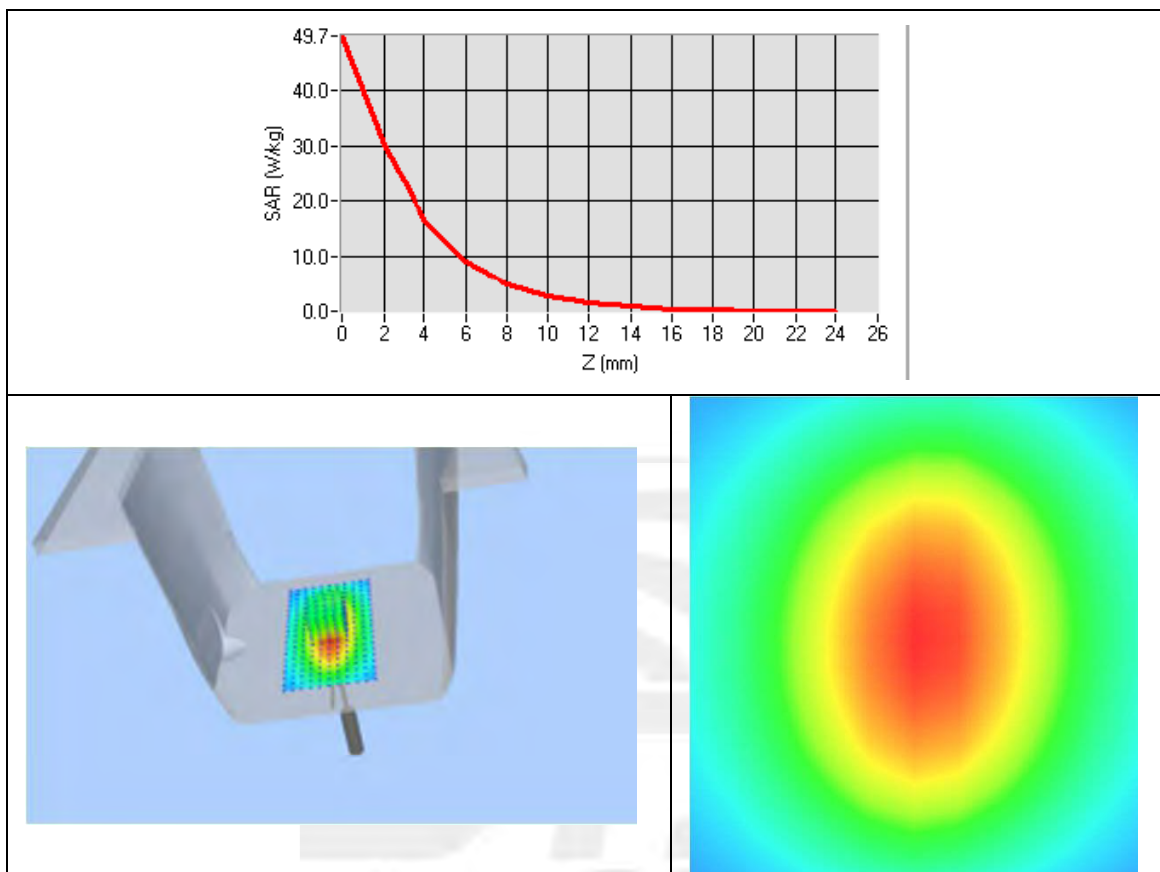
Device Position	Validation plane
Band	5400 MHz
Channels	-
Signal	CW
Frequency (MHz)	5400
Relative permittivity	48.95
Conductivity (S/m)	5.62
Power drift (%)	-1.57
Probe	SN 41/18 EPGO334
ConvF	2.12
Crest factor:	1:1



**Maximum location: X=7.00, Y=2.00**

SAR 10g (W/Kg)	6.022315
SAR 1g (W/Kg)	17.276898

### Z Axis Scan



**System Performance Check Data(5600MHz Body)**

Type: Dipole measurement (Complete)

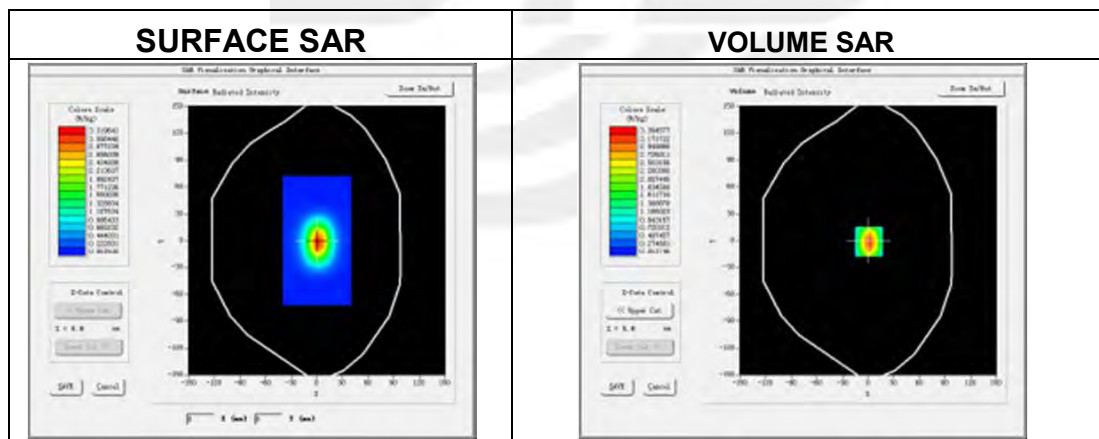
Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=4mm, dy=4mm, dz=2mm

Date of measurement: 2020-04-27

**Experimental conditions.**

Device Position	Validation plane
Band	5600 MHz
Channels	-
Signal	CW
Frequency (MHz)	5600
Relative permittivity	48.14
Conductivity (S/m)	5.72
Power drift (%)	0.90
Probe	SN 41/18 EPGO334
ConvF	2.21
Crest factor:	1:1

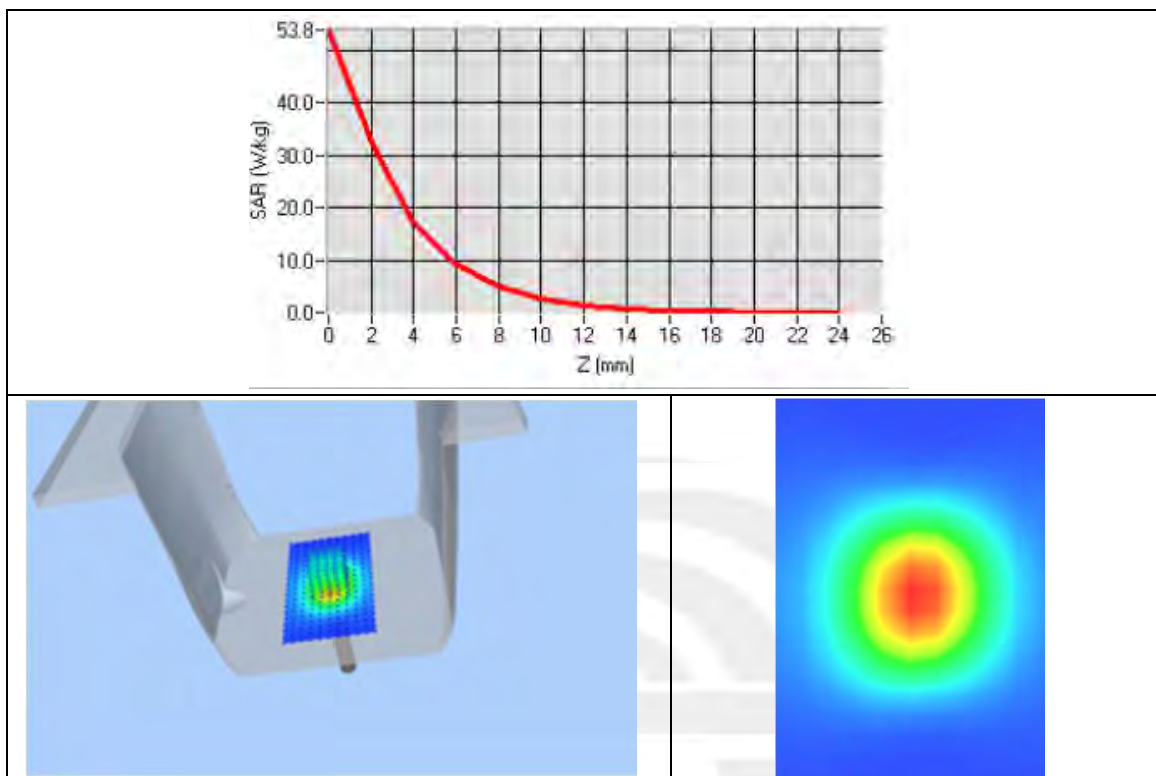


**Maximum location: X=7.00, Y=2.00**

SAR 10g (W/Kg)	6.105778
SAR 1g (W/Kg)	17.639076



### Z Axis Scan



**System Performance Check Data(5800MHz Body)**

Type: Dipole measurement (Complete)

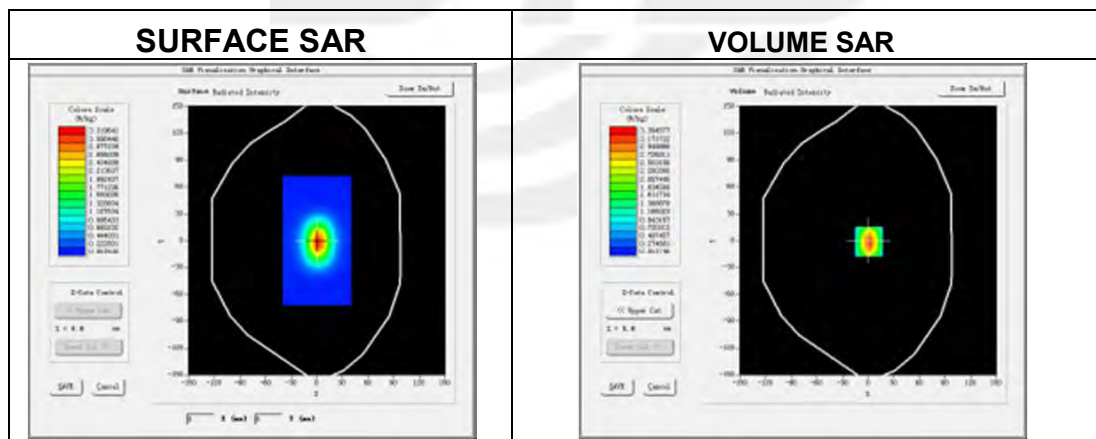
Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=4mm, dy=4mm, dz=2mm

Date of measurement: 2020-04-28

**Experimental conditions.**

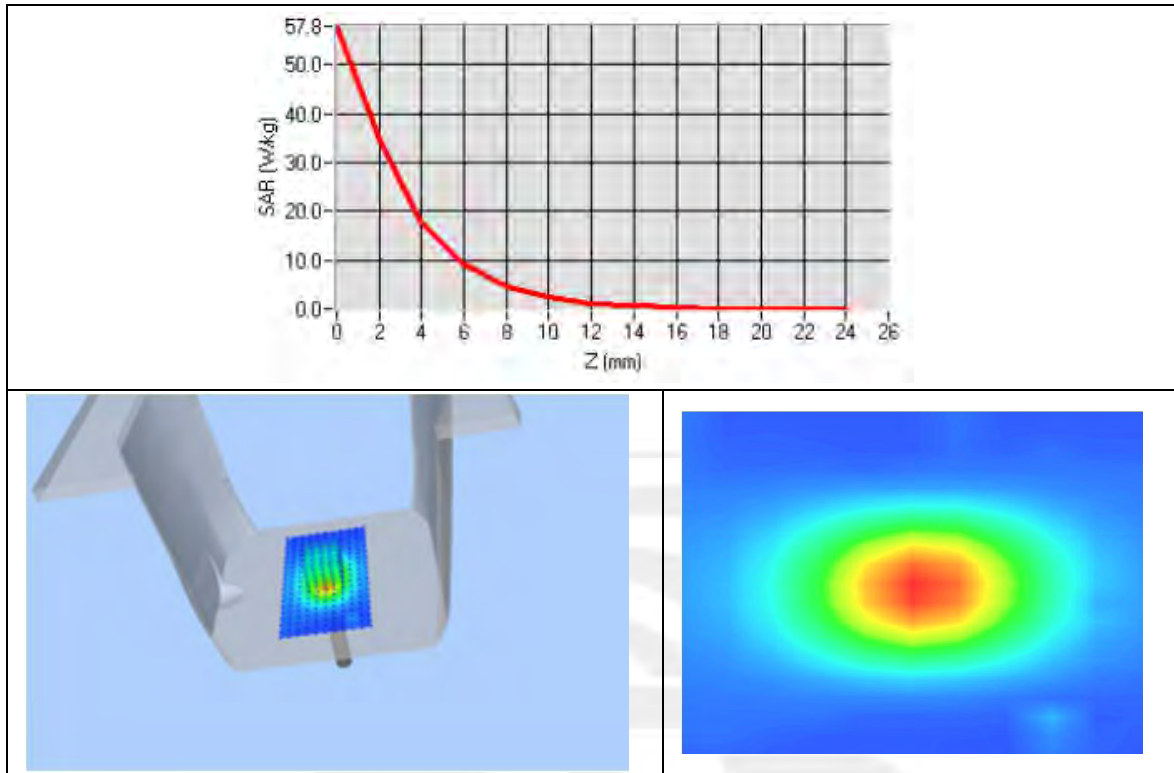
Device Position	Validation plane
Band	5800 MHz
Channels	-
Signal	CW
Frequency (MHz)	5800
Relative permittivity	47.76
Conductivity (S/m)	6.15
Power drift (%)	-2.43
Probe	SN 41/18 EPGO334
ConvF	2.16
Crest factor:	1:1



**Maximum location: X=7.00, Y=2.00**

SAR 10g (W/Kg)	6.192358
SAR 1g (W/Kg)	17.725821

### Z Axis Scan



## Appendix B. SAR Test Plots

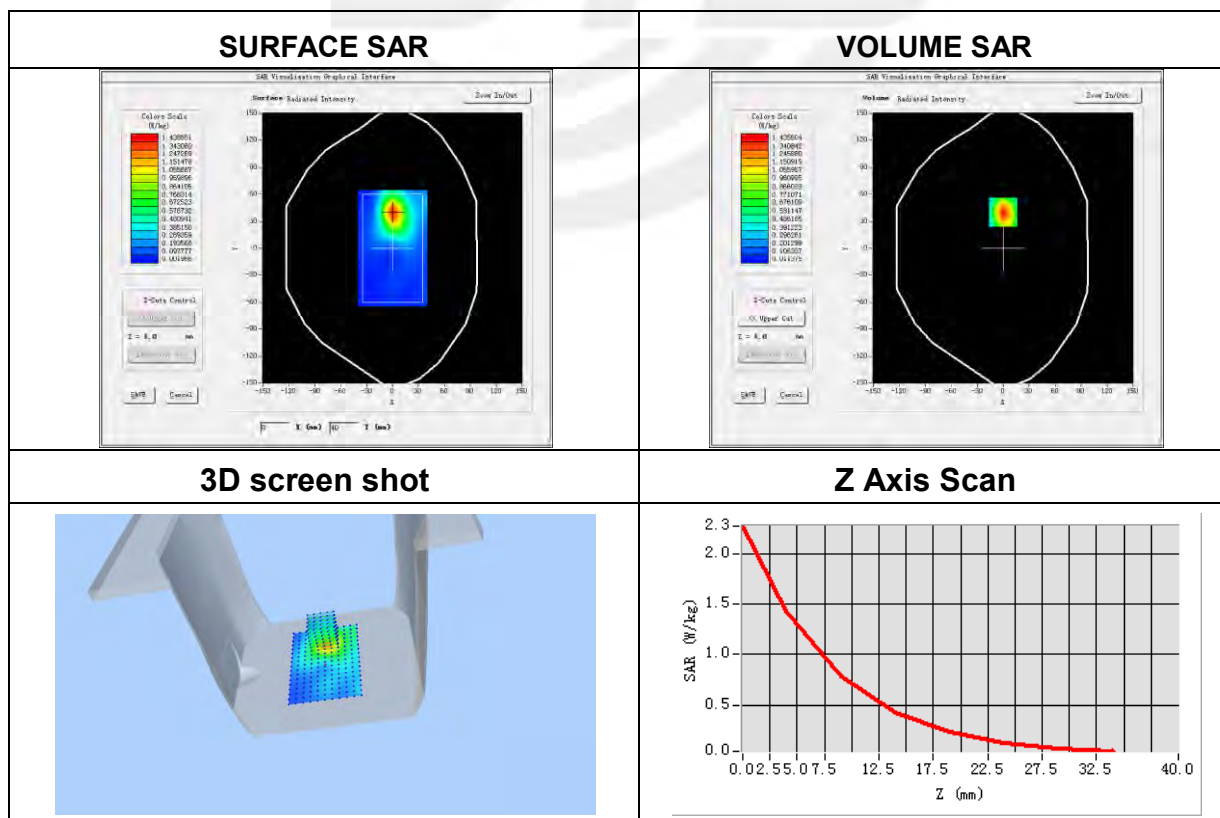
Plot 1: DUT: Rugged Tablet PC; EUT Model: M700DQ8

Test Date	2020-04-22
Probe	SN 41/18 EPGO334
ConvF	1.88
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	Back Side
Band	WCDMA II
Channels	Low
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1852.4
Relative permittivity (real part)	52.69
Conductivity (S/m)	1.53
Variation (%)	-3.01

Maximum location: X=0.00, Y=40.00

SAR Peak: 2.27 W/kg

SAR 10g (W/Kg)	0.694984
SAR 1g (W/Kg)	1.373775



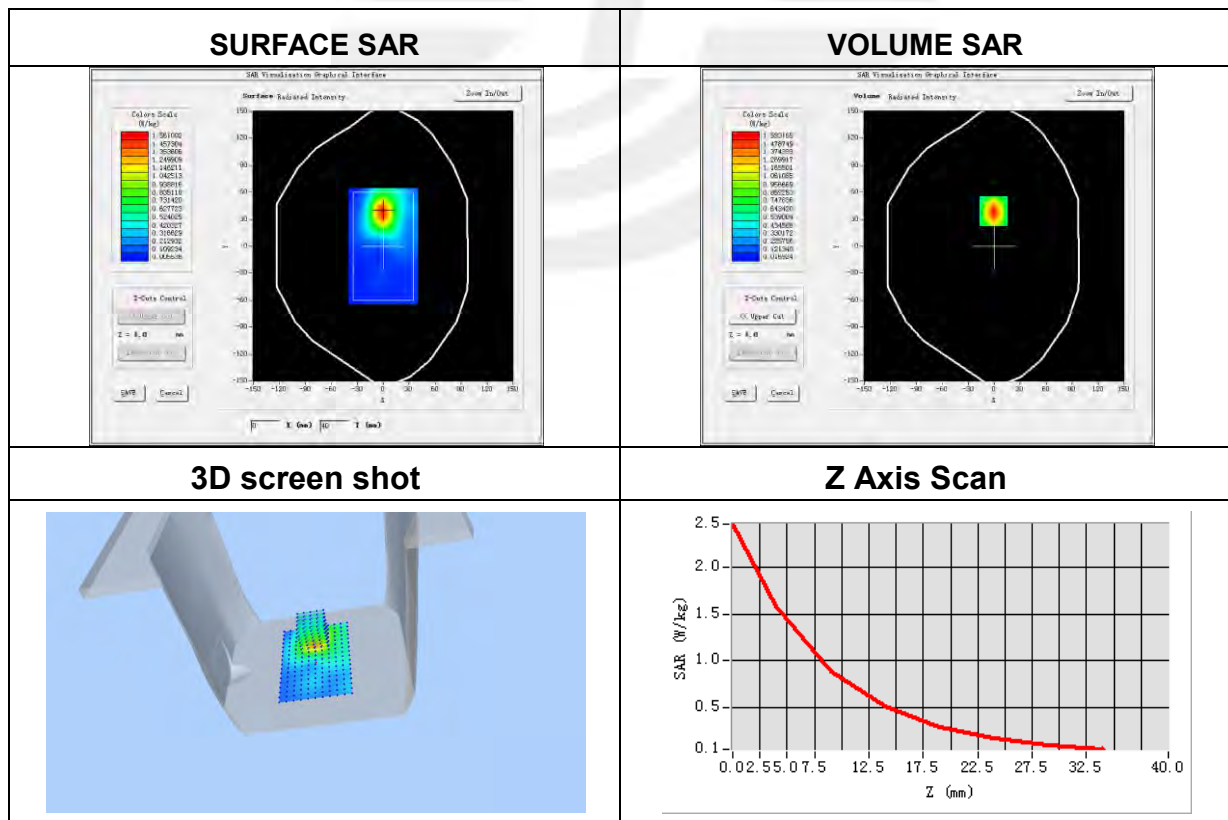
**Plot 2: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-20
Probe	SN 41/18 EPGO334
ConvF	1.66
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	Back Side
Band	WCDMA IV
Channels	High
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1752.4
Relative permittivity (real part)	53.82
Conductivity (S/m)	1.55
Variation (%)	-3.48

Maximum location: X=-1.00, Y=39.00

SAR Peak: 2.44 W/kg

SAR 10g (W/Kg)	0.781529
SAR 1g (W/Kg)	1.410215



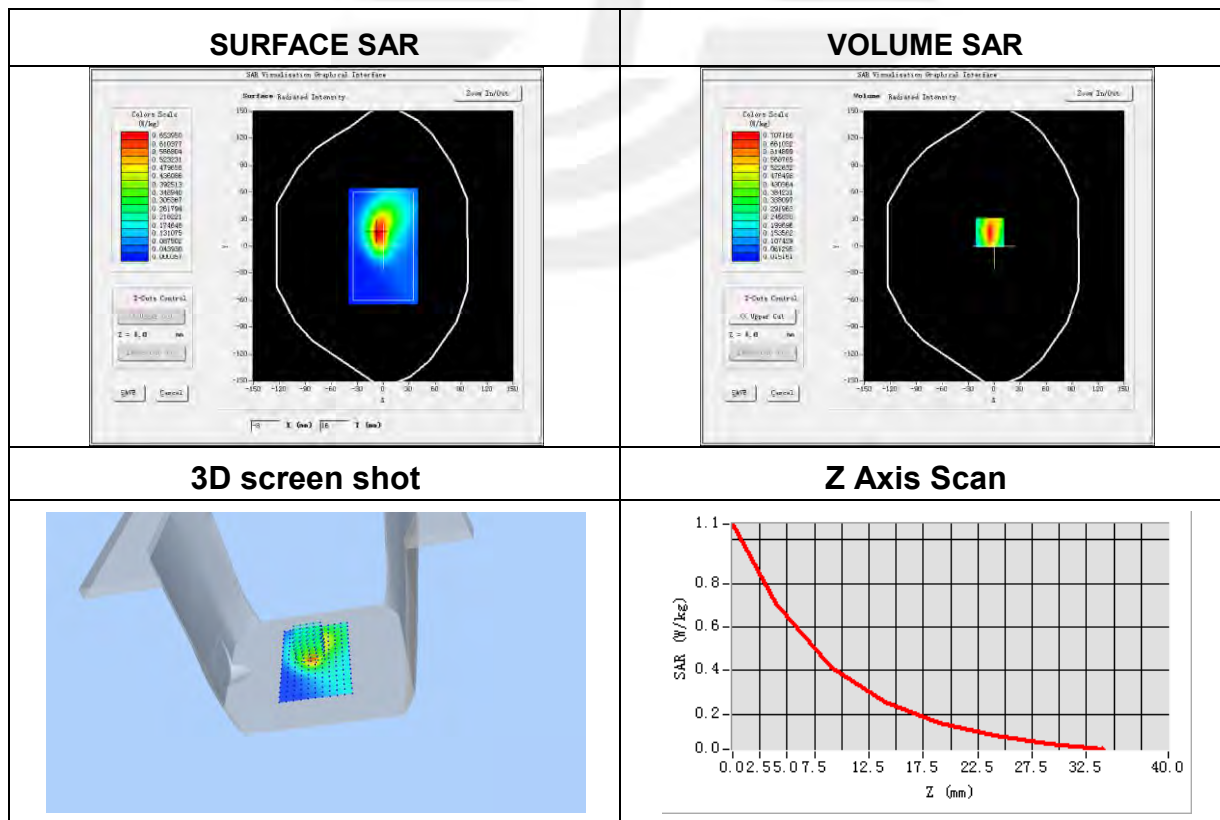
**Plot 3: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-17
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	Back Side
Band	WCDMA V
Channels	High
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	846.6
Relative permittivity (real part)	54.13
Conductivity (S/m)	0.95
Variation (%)	2.00

Maximum location: X=-5.00, Y=15.00

SAR Peak: 1.09 W/kg

SAR 10g (W/Kg)	0.358944
SAR 1g (W/Kg)	0.662096

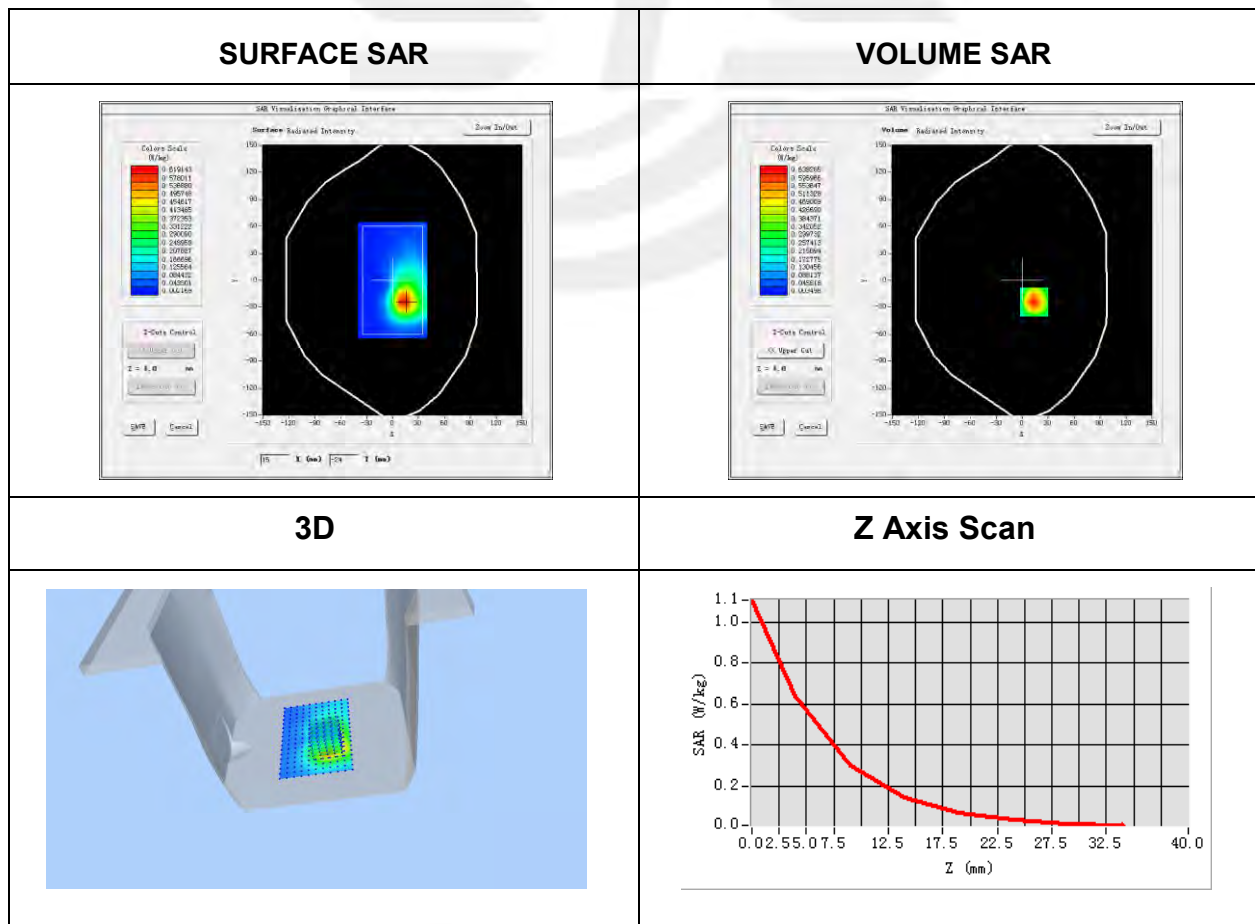


**Plot 4: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-24
Probe	SN 41/18 EPGO334
ConvF	2.02
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	Back Side
Band	IEEE 802.11b ISM
Channels	High
Antenna	A
Signal	IEEE802.b (Crest factor: 1.0)
Frequency (MHz)	2462
Relative permittivity (real part)	53.11
Conductivity (S/m)	1.92
Variation (%)	3.09

Maximum location: X=14.00, Y=-24.00  
SAR Peak: 1.11 W/kg

SAR 10g (W/Kg)	0.285583
SAR 1g (W/Kg)	0.607976

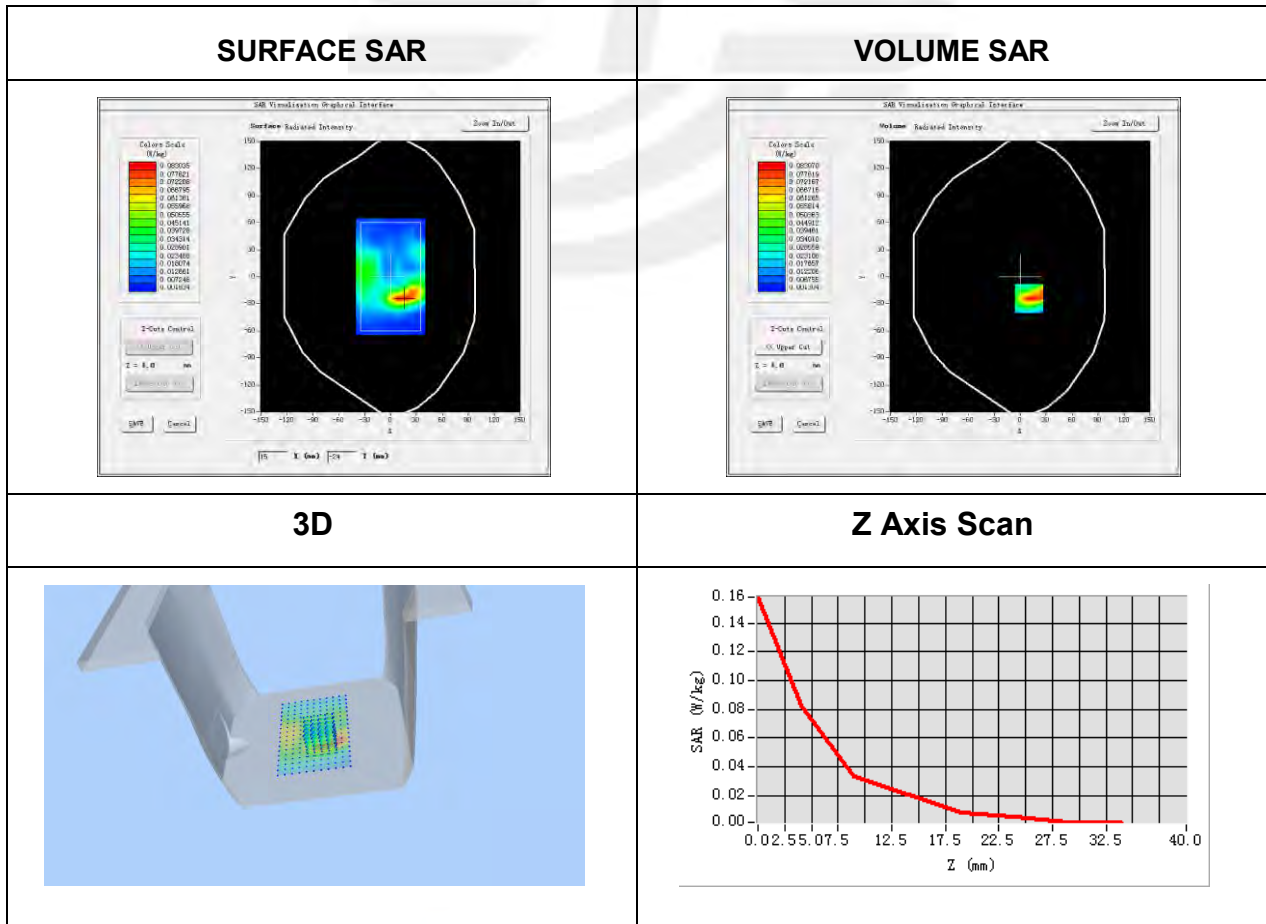


**Plot 5: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-24
Probe	SN 41/18 EPGO334
ConvF	2.02
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	Back Side
Band	IEEE 802.11b ISM
Channels	Low
Antenna	B
Signal	IEEE802.b (Crest factor: 1.0)
Frequency (MHz)	2412
Relative permittivity (real part)	53.11
Conductivity (S/m)	1.92
Variation (%)	2.93

Maximum location: X=10.00, Y=-24.00  
 SAR Peak: 0.15 W/kg

SAR 10g (W/Kg)	0.035237
SAR 1g (W/Kg)	0.077245



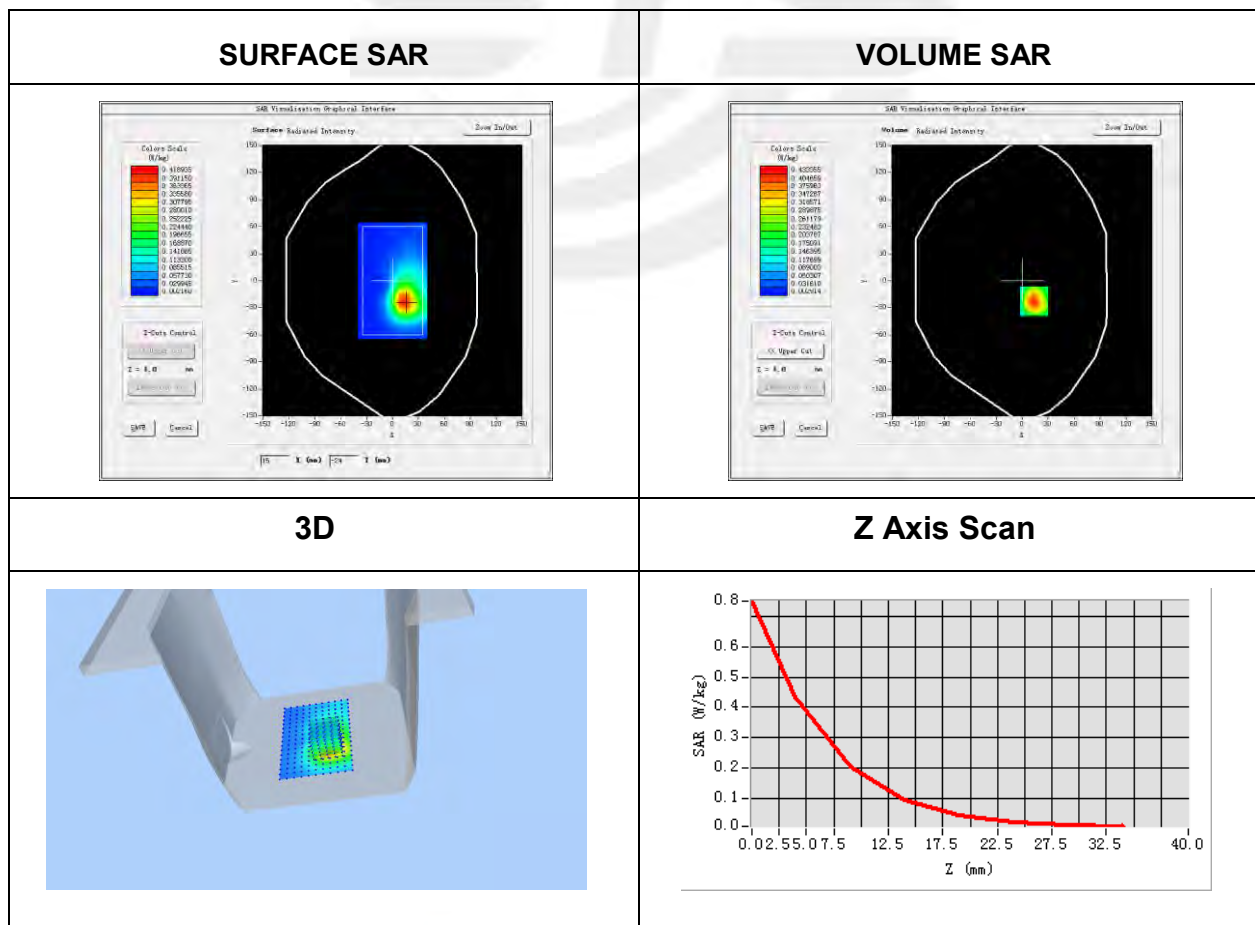


**Plot 6: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-24
Probe	SN 41/18 EPGO334
ConvF	2.02
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	Back Side
Band	IEEE 802.11n ISM
Channels	Low
Antenna	A
Signal	IEEE802.n (Crest factor: 1.0)
Frequency (MHz)	2412
Relative permittivity (real part)	53.11
Conductivity (S/m)	1.92
Variation (%)	-0.71

Maximum location: X=14.00, Y=-23.00  
 SAR Peak: 0.75 W/kg

SAR 10g (W/Kg)	0.192261
SAR 1g (W/Kg)	0.411039

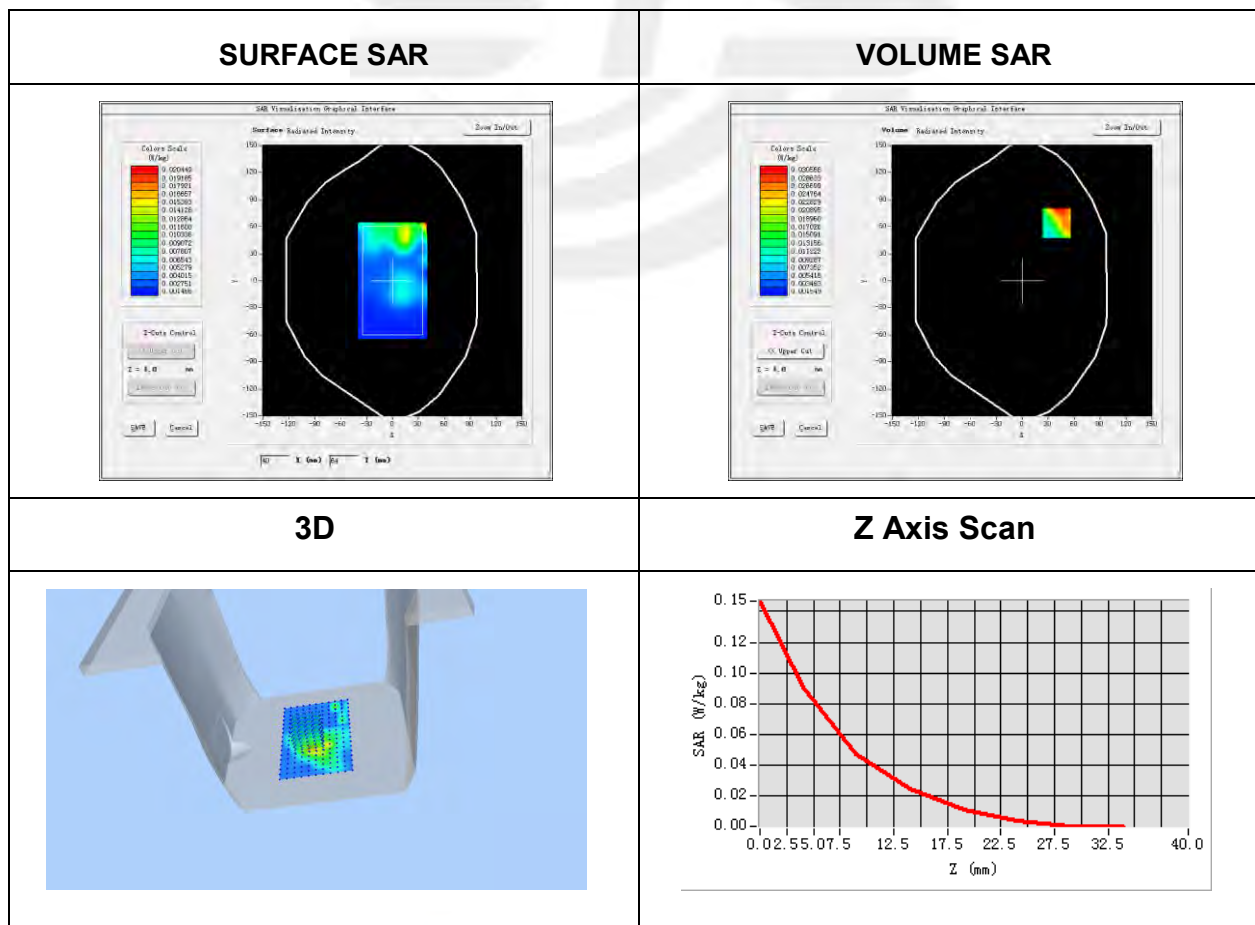


**Plot 7: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-24
Probe	SN 41/18 EPGO334
ConvF	2.02
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	Back Side
Band	IEEE 802.11n ISM
Channels	Low
Antenna	B
Signal	IEEE802.n (Crest factor: 1.0)
Frequency (MHz)	2412
Relative permittivity (real part)	53.11
Conductivity (S/m)	1.92
Variation (%)	1.00

Maximum location: X=40.00, Y=64.00  
 SAR Peak: 0.05 W/kg

SAR 10g (W/Kg)	0.015135
SAR 1g (W/Kg)	0.028077



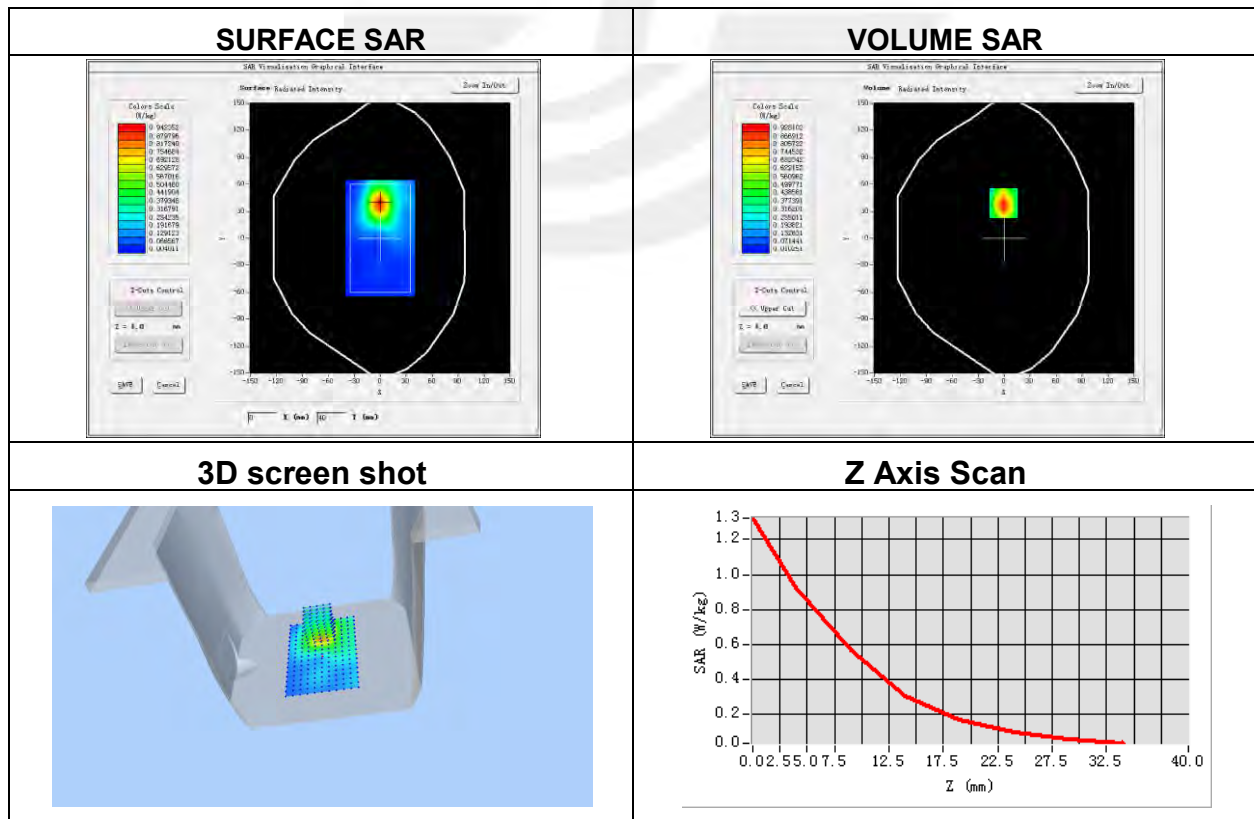
**Plot 8: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-20
Probe	SN 41/18 EPGO334
ConvF	1.66
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	Back Side
Band	LTE Band 4 (RB 1)
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1732.5
Relative permittivity (real part)	53.82
Conductivity (S/m)	1.55
Variation (%)	-3.75

Maximum location: X=-1.00, Y=39.00

SAR Peak: 1.37 W/kg

SAR 10g (W/Kg)	0.453893
SAR 1g (W/Kg)	0.863892



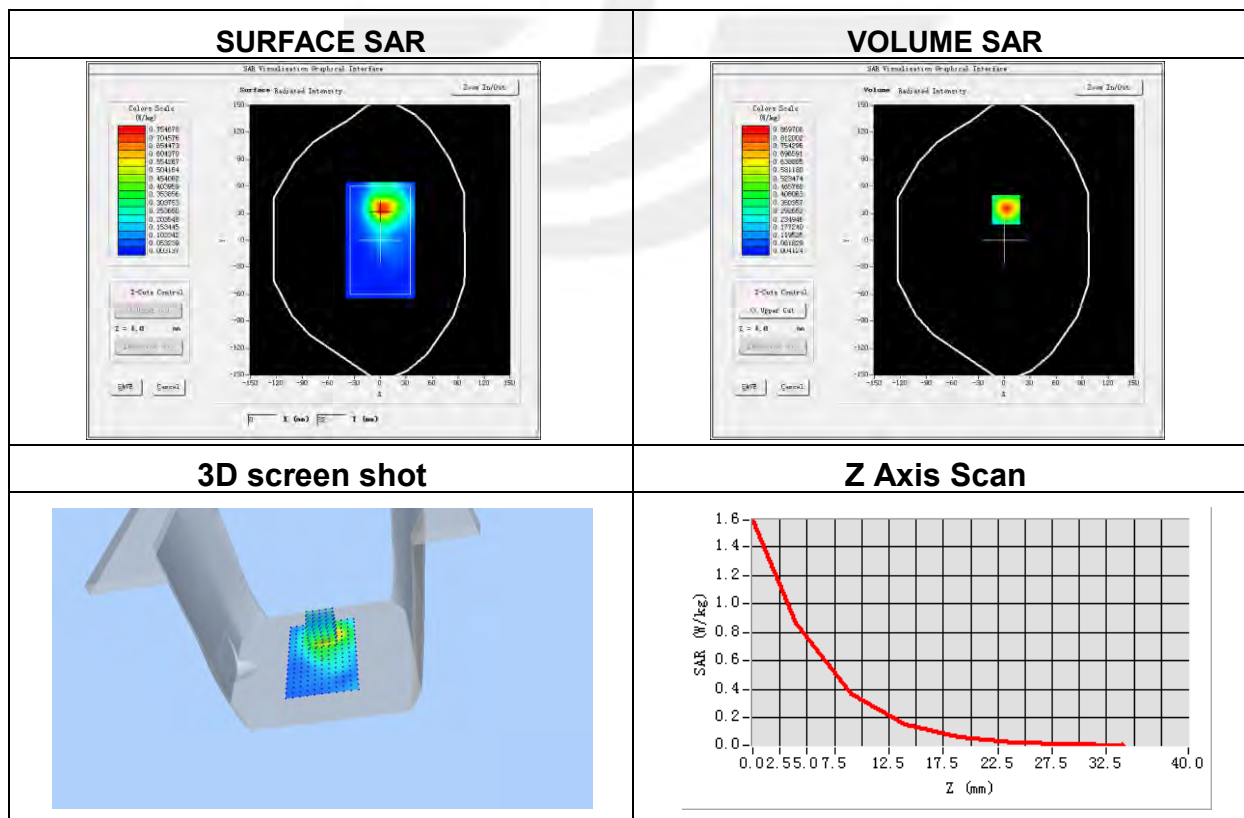
**Plot 9: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-23
Probe	SN 41/18 EPGO334
ConvF	1.92
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	Back Side
Band	LTE Band 7 (RB 1)
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	2535
Relative permittivity (real part)	51.87
Conductivity (S/m)	2.19
Variation (%)	-1.98

Maximum location: X=2.00, Y=34.00

SAR Peak: 1.57W/kg

SAR 10g (W/Kg)	0.365028
SAR 1g (W/Kg)	0.819026



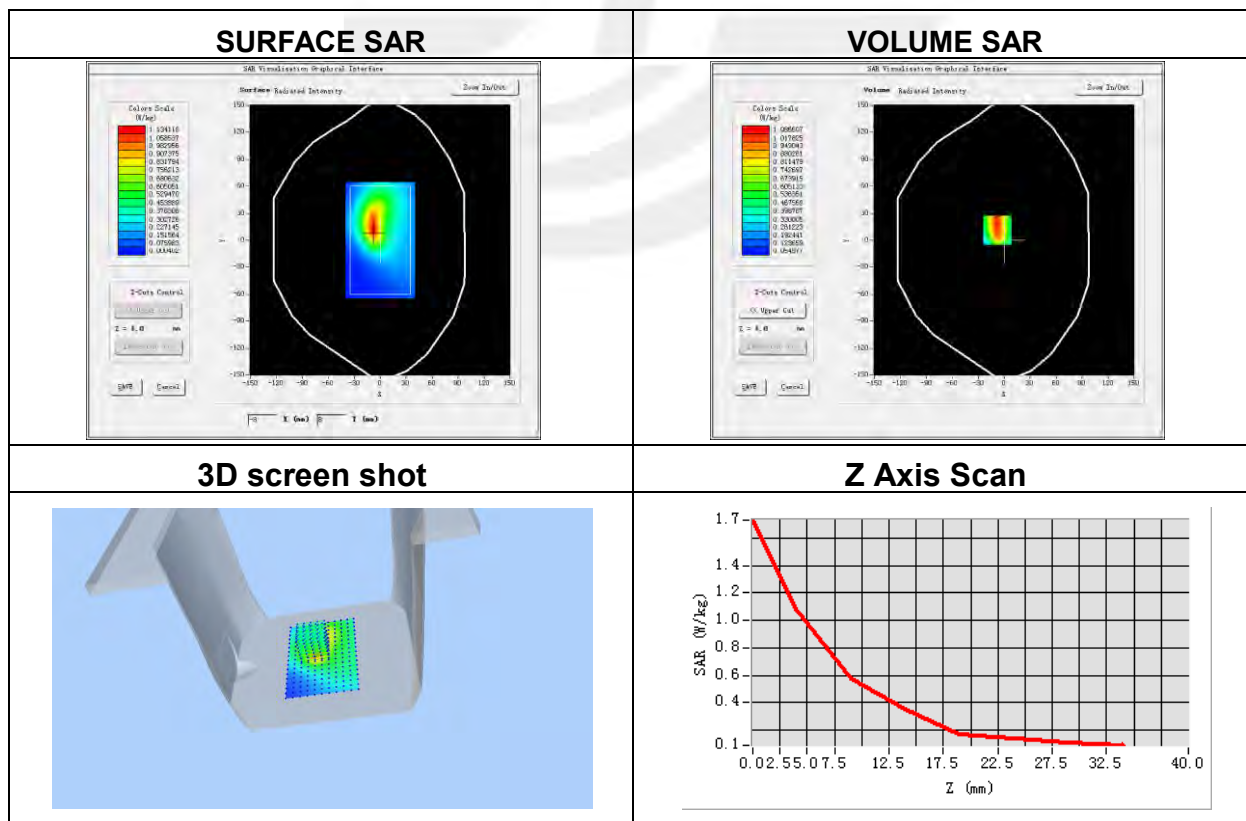
**Plot 10: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-16
Probe	SN 41/18 EPGO334
ConvF	1.49
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	Back Side
Band	LTE Band 12 (RB 1)
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	707.5
Relative permittivity (real part)	54.86
Conductivity (S/m)	0.98
Variation (%)	1.98

Maximum location: X=-8.00, Y=11.00

SAR Peak: 1.84 W/kg

SAR 10g (W/Kg)	0.567205
SAR 1g (W/Kg)	1.040469



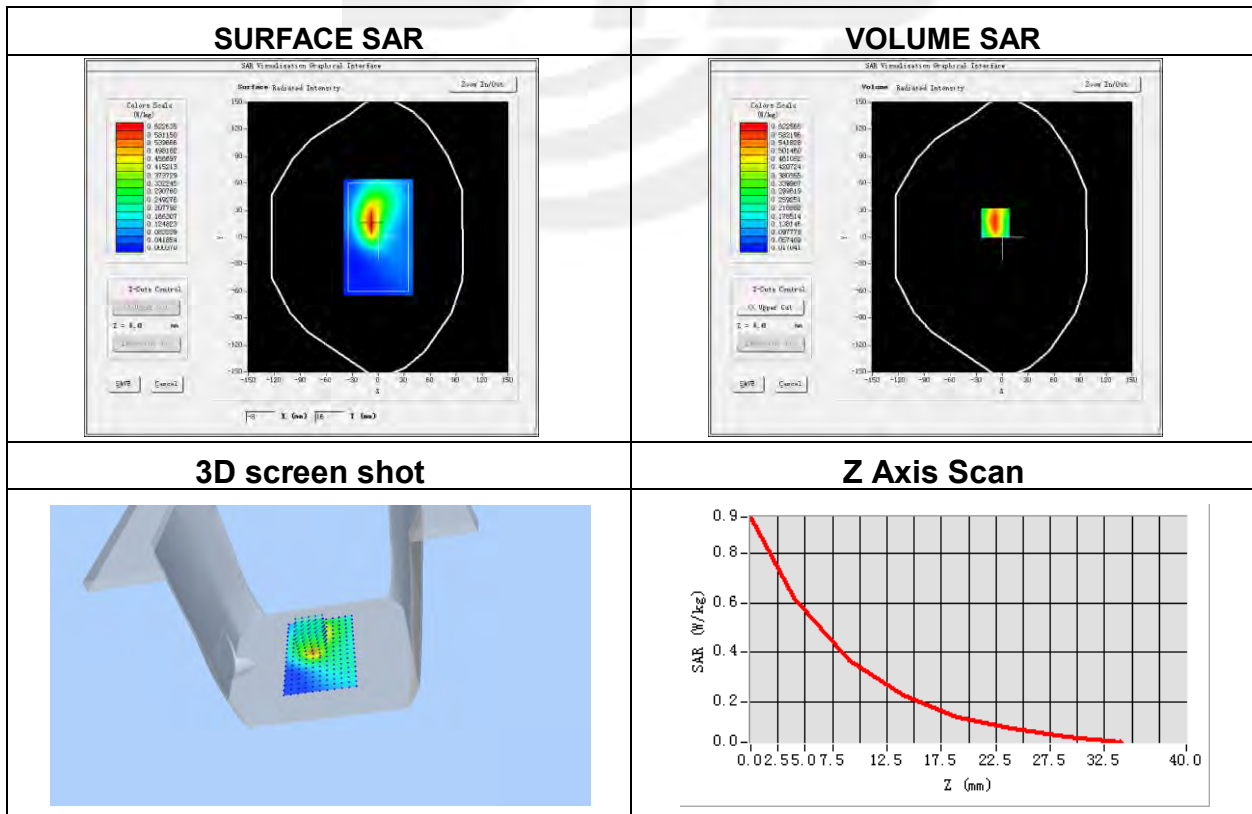
**Plot 11: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-16
Probe	SN 41/18 EPGO334
ConvF	1.49
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	Back Side
Band	LTE Band 13 (RB 1)
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	782
Relative permittivity (real part)	54.86
Conductivity (S/m)	0.98
Variation (%)	0.33

Maximum location: X=-8.00, Y=16.00

SAR Peak: 0.96 W/kg

SAR 10g (W/Kg)	0.317785
SAR 1g (W/Kg)	0.581949



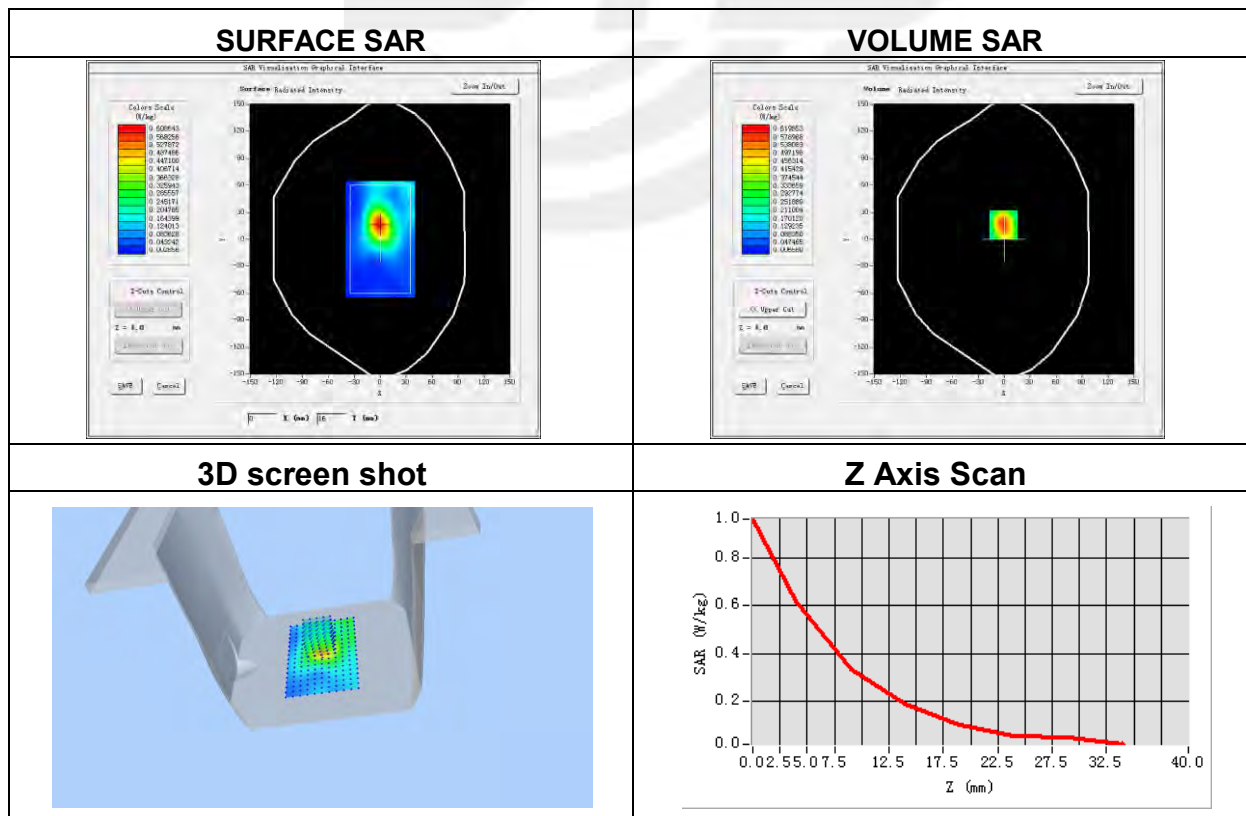
**Plot 12: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-22
Probe	SN 41/18 EPGO334
ConvF	1.88
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	Back Side
Band	LTE Band 25 (RB 1)
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1882.5
Relative permittivity (real part)	52.69
Conductivity (S/m)	1.53
Variation (%)	-1.09

Maximum location: X=-1.00, Y=16.00

SAR Peak: 1.00 W/kg

SAR 10g (W/Kg)	0.296939
SAR 1g (W/Kg)	0.583920



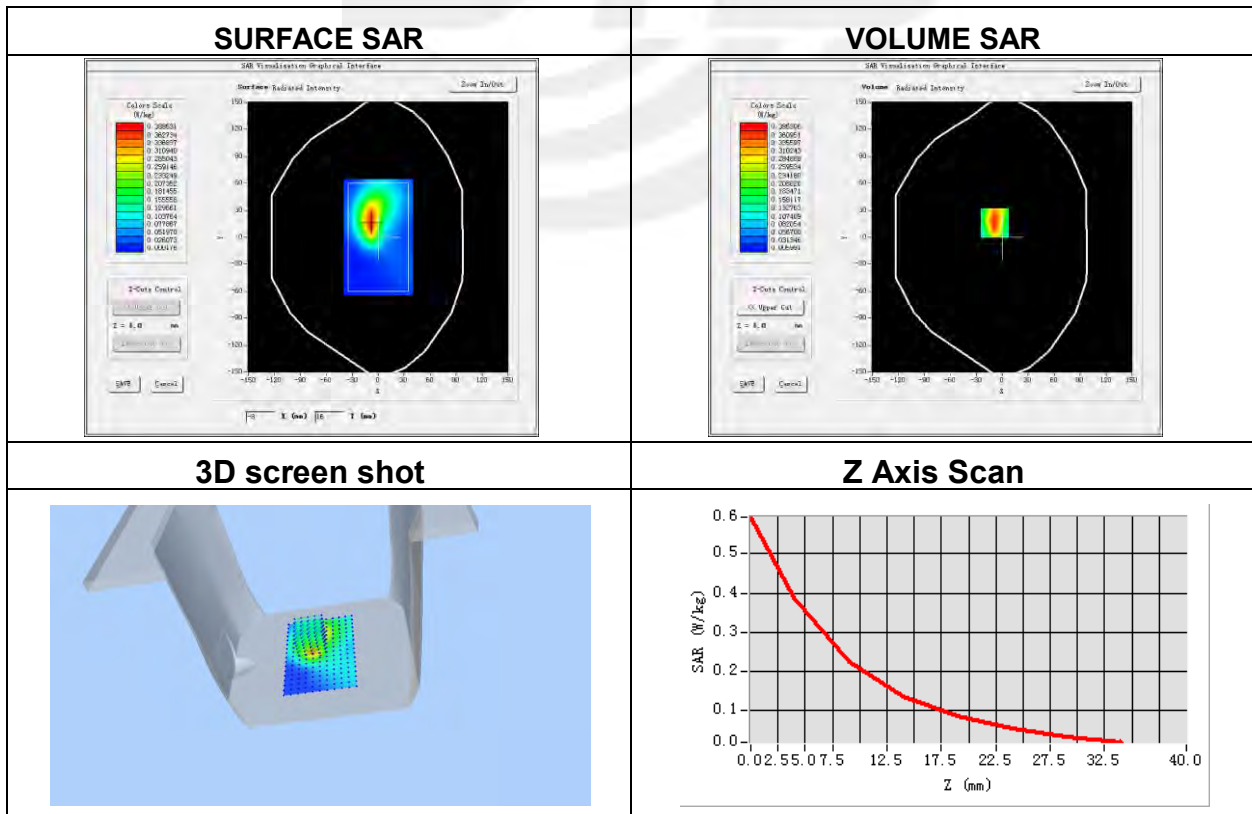
**Plot 13: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-17
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	Back Side
Band	LTE Band 26 (RB 1)
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	831.5
Relative permittivity (real part)	54.13
Conductivity (S/m)	0.95
Variation (%)	-1.41

Maximum location: X=-9.00, Y=16.00

SAR Peak: 0.61 W/kg

SAR 10g (W/Kg)	0.194704
SAR 1g (W/Kg)	0.361584





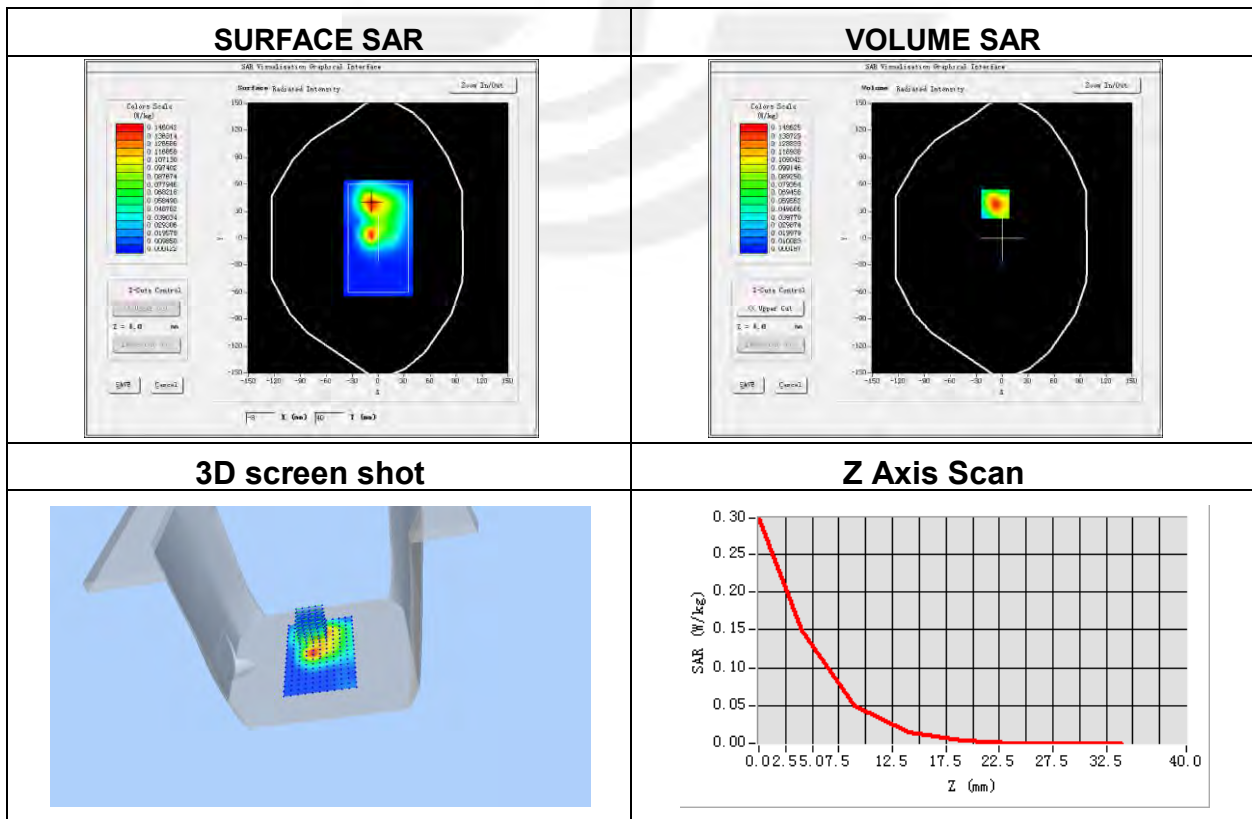
**Plot 14: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-24
Probe	SN 41/18 EPGO334
ConvF	2.20
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	Back Side
Band	LTE Band 30 (RB 1)
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	2310
Relative permittivity (real part)	53.24
Conductivity (S/m)	1.85
Variation (%)	-1.53

Maximum location: X=-8.00, Y=38.00

SAR Peak: 0.29 W/kg

SAR 10g (W/Kg)	0.057741
SAR 1g (W/Kg)	0.142463



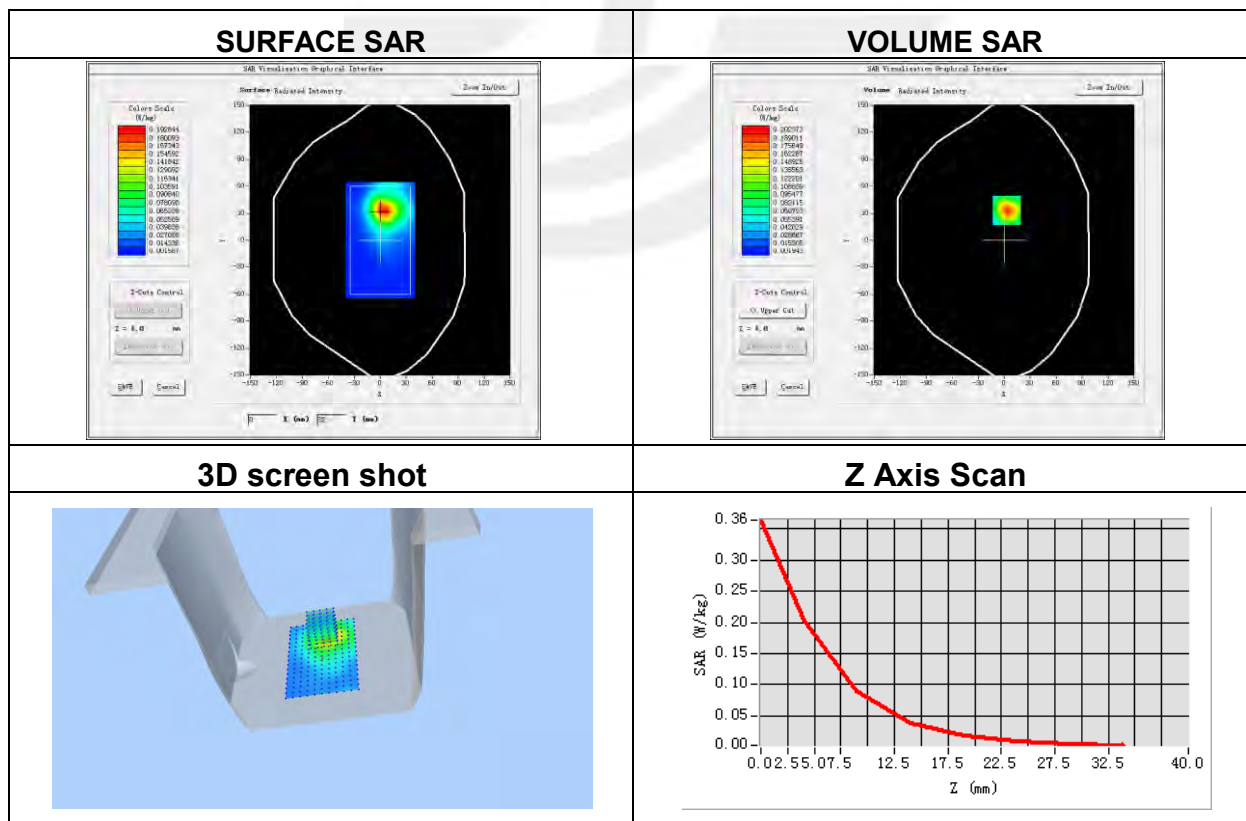
**Plot 15: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-23
Probe	SN 41/18 EPGO334
ConvF	1.92
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	Back Side
Band	LTE Band 41 (RB 1)
Channels	Middle
Signal	LTE (Crest factor: 1.6)
Frequency (MHz)	2593
Relative permittivity (real part)	51.87
Conductivity (S/m)	2.19
Variation (%)	-0.22

Maximum location: X=3.00, Y=33.00

SAR Peak: 0.36 W/kg

SAR 10g (W/Kg)	0.085414
SAR 1g (W/Kg)	0.189550

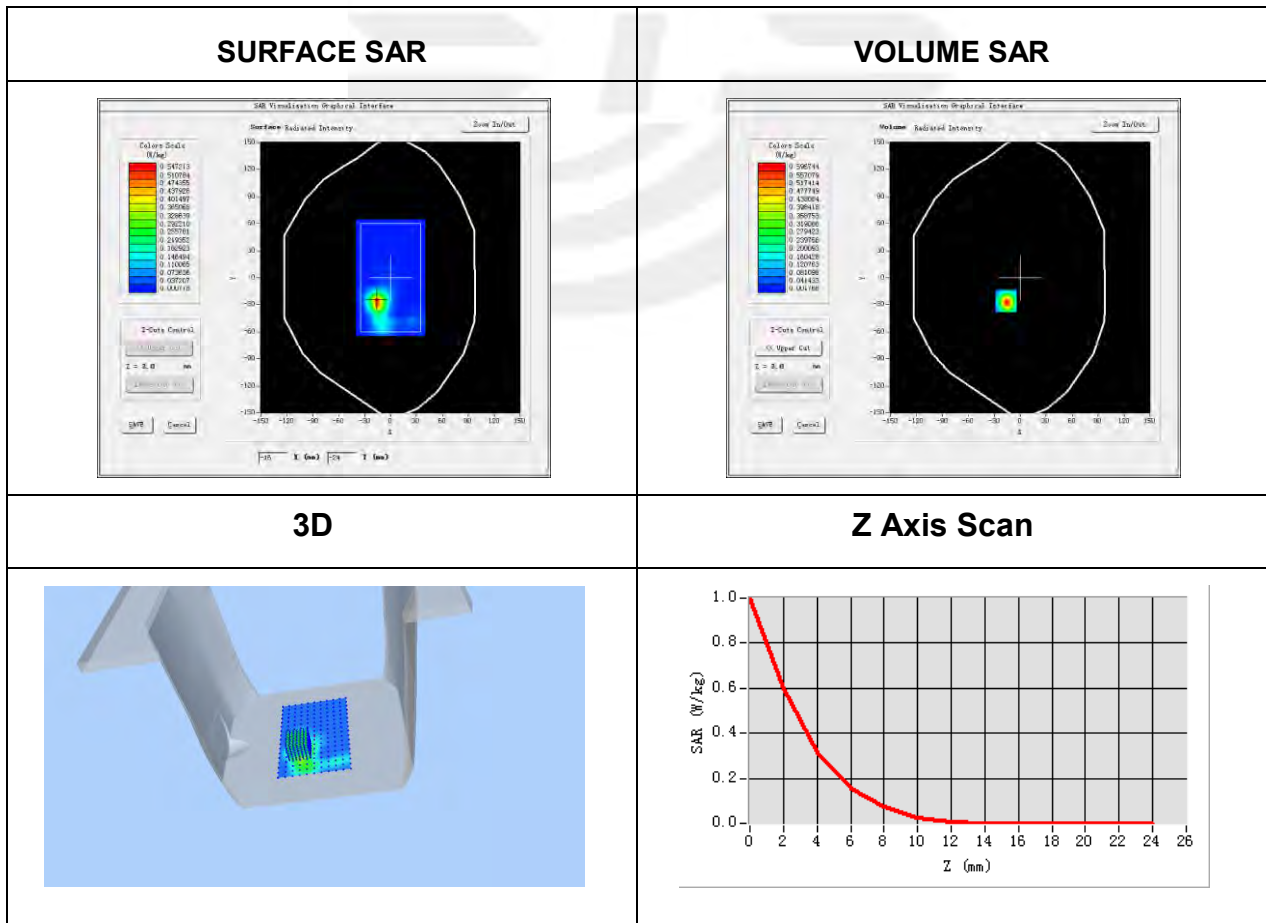


**Plot 16: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-26
Probe	SN 41/18 EPGO334
ConvF	1.92
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Back Side
Band	IEEE 802.11a ISM
Antenna	A
Signal	IEEE802.a (Crest factor: 1.0)
Frequency (MHz)	5200
Relative permittivity (real part)	49.73
Conductivity (S/m)	5.27
Variation (%)	-0.16

Maximum location: X=-16.00, Y=-26.00  
SAR Peak: 1.06 W/kg

SAR 10g (W/Kg)	0.093667
SAR 1g (W/Kg)	0.315485

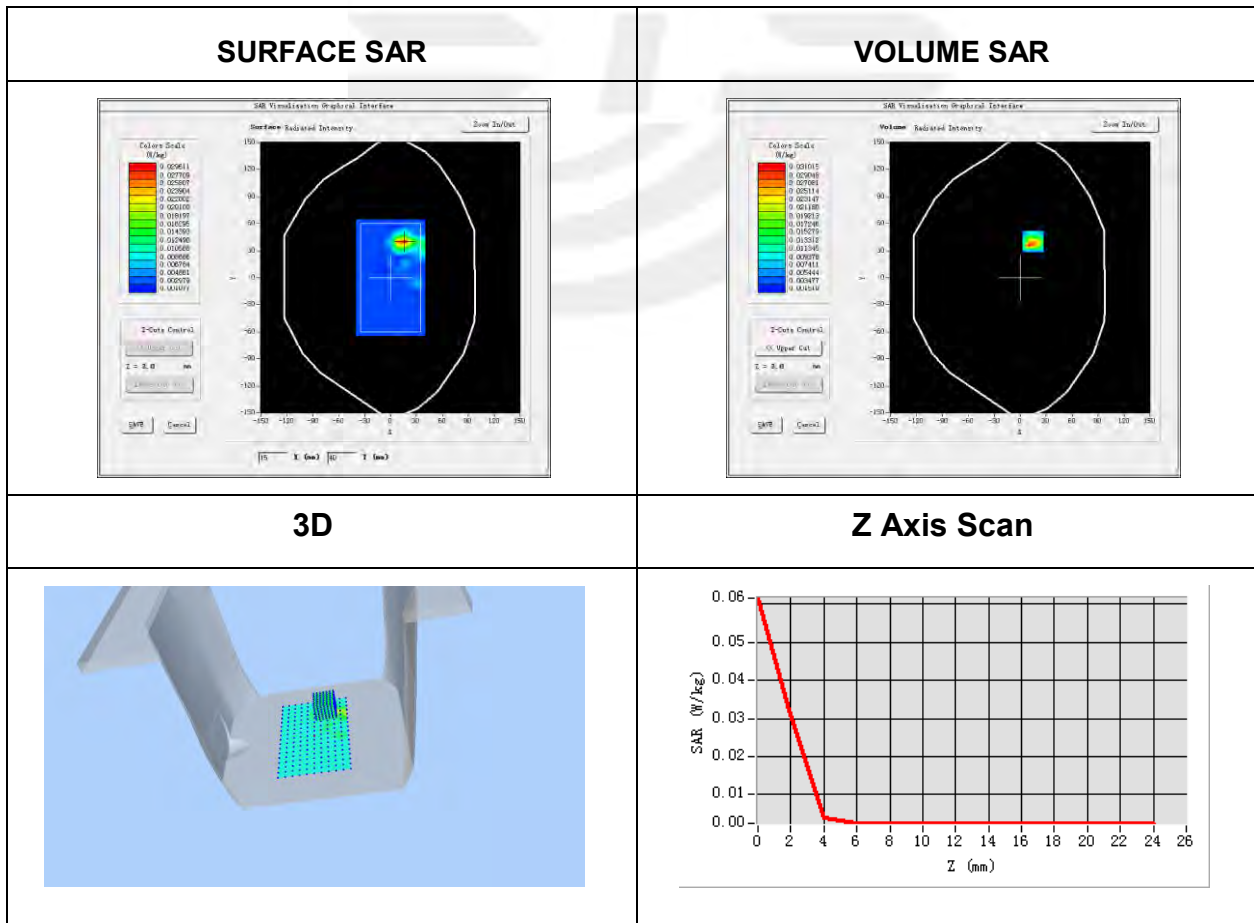


**Plot 17: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-26
Probe	SN 41/18 EPGO334
ConvF	1.92
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Back
Band	IEEE 802.11a ISM
Antenna	B
Signal	IEEE802.a (Crest factor: 1.0)
Frequency (MHz)	5180
Relative permittivity (real part)	49.73
Conductivity (S/m)	5.27
Variation (%)	3.99

Maximum location: X=15.00, Y=40.00  
 SAR Peak: 0.07 W/kg

SAR 10g (W/Kg)	0.005934
SAR 1g (W/Kg)	0.013813

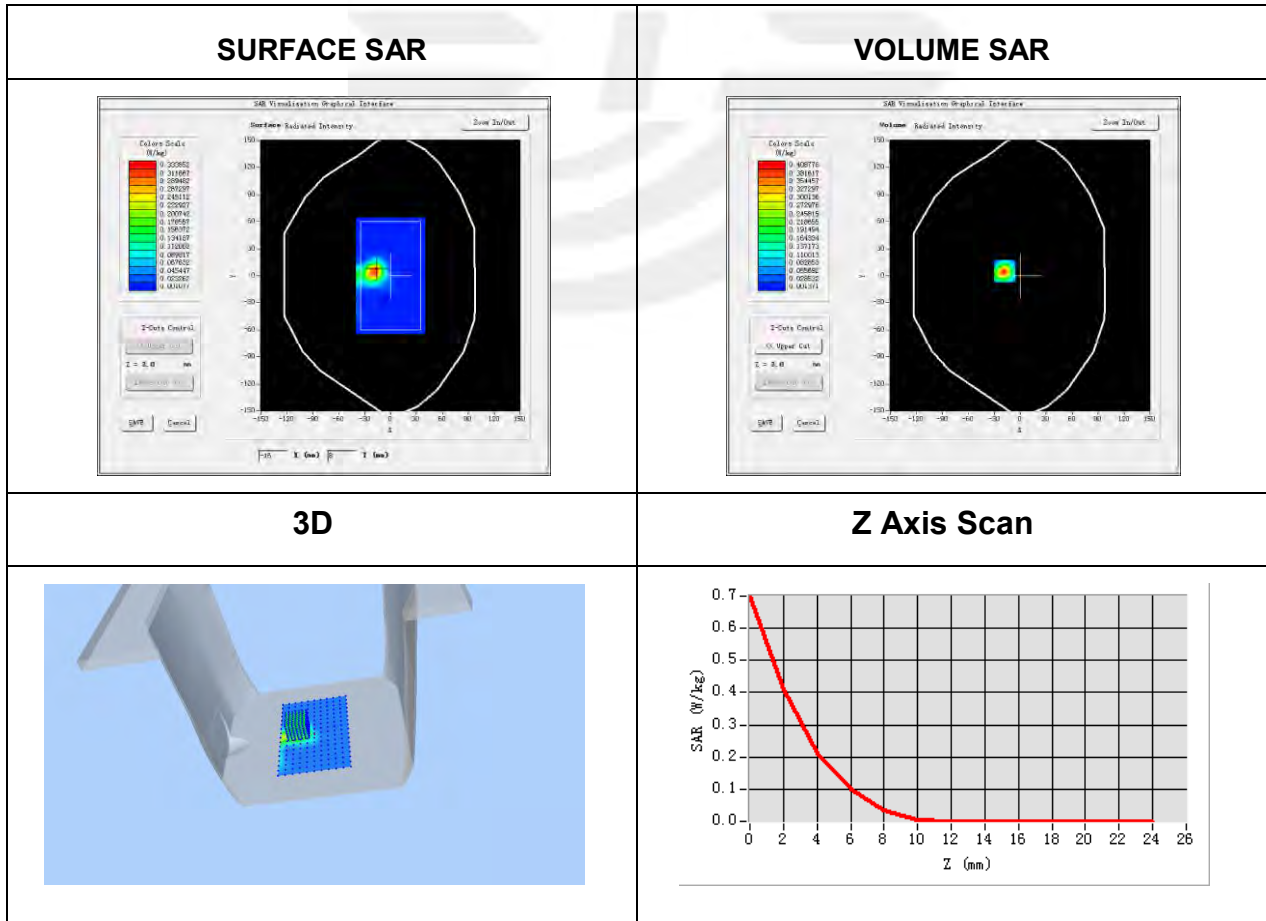


**Plot 18: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-26
Probe	SN 41/18 EPGO334
ConvF	1.92
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Back Side
Band	IEEE 802.11ac ISM
Antenna	A
Signal	IEEE802.ac (Crest factor: 1.0)
Frequency (MHz)	5180
Relative permittivity (real part)	49.73
Conductivity (S/m)	5.27
Variation (%)	1.44

Maximum location: X=-18.00, Y=5.00  
SAR Peak: 0.73 W/kg

SAR 10g (W/Kg)	0.062085
SAR 1g (W/Kg)	0.208294

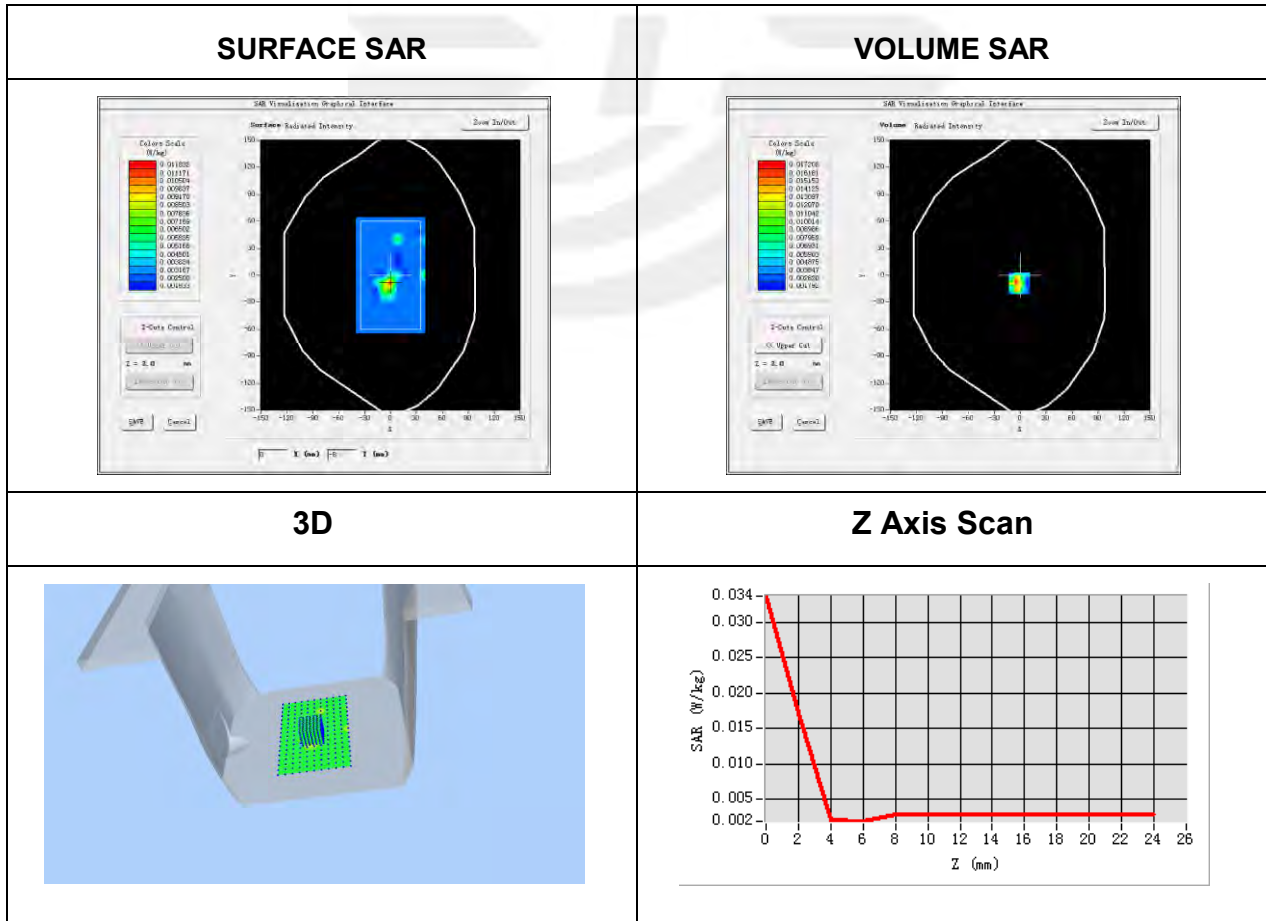


**Plot 19: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-26
Probe	SN 41/18 EPGO334
ConvF	1.92
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Back Side
Band	IEEE 802.11ac ISM
Antenna	B
Signal	IEEE802.ac (Crest factor: 1.0)
Frequency (MHz)	5180
Relative permittivity (real part)	49.73
Conductivity (S/m)	5.27
Variation (%)	3.26

Maximum location: X=-1.00, Y=-9.00  
SAR Peak: 0.04 W/kg

SAR 10g (W/Kg)	0.004500
SAR 1g (W/Kg)	0.009070

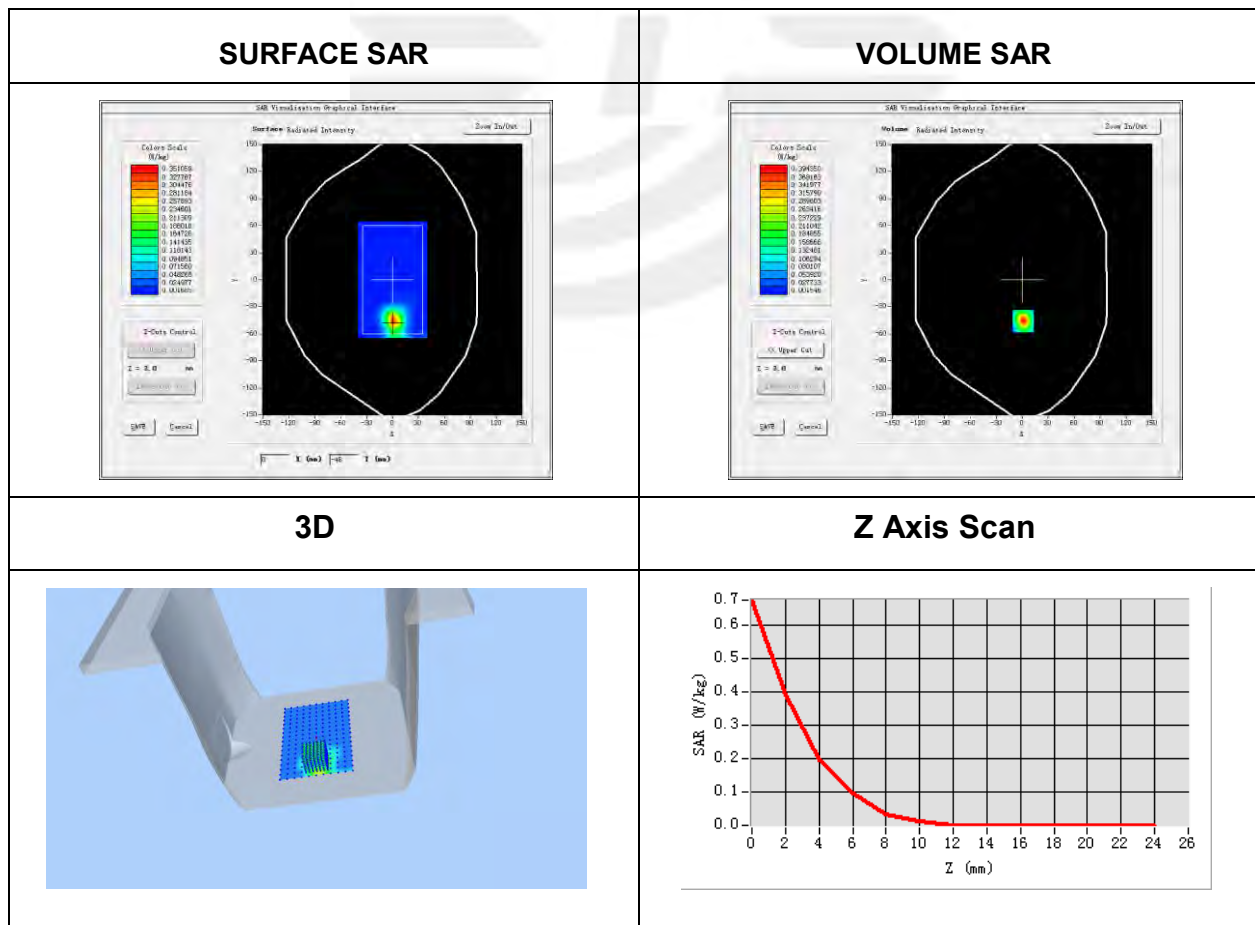


**Plot 20: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-26
Probe	SN 41/18 EPGO334
ConvF	2.12
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Back Side
Band	IEEE 802.11a ISM
Antenna	A
Signal	IEEE802.a (Crest factor: 1.0)
Frequency (MHz)	5260
Relative permittivity (real part)	48.95
Conductivity (S/m)	5.62
Variation (%)	0.99

Maximum location: X=1.00, Y=-46.00  
SAR Peak: 0.71 W/kg

SAR 10g (W/Kg)	0.064183
SAR 1g (W/Kg)	0.207544

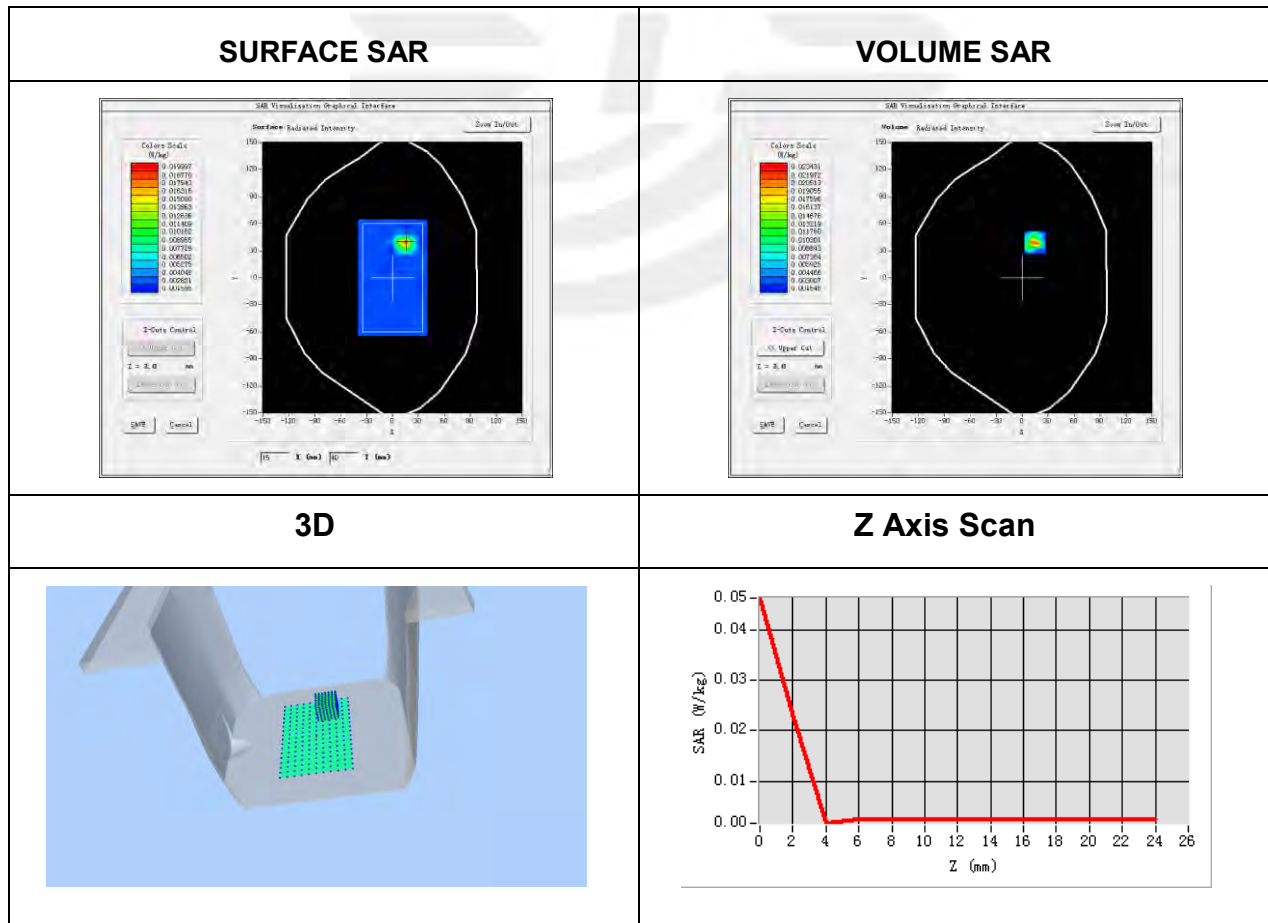


**Plot 21: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-26
Probe	SN 41/18 EPGO334
ConvF	2.12
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Back
Band	IEEE 802.11a ISM
Antenna	B
Signal	IEEE802.a (Crest factor: 1.0)
Frequency (MHz)	5260
Relative permittivity (real part)	48.95
Conductivity (S/m)	5.62
Variation (%)	-0.66

Maximum location: X=15.00, Y=39.00  
SAR Peak: 0.05 W/kg

SAR 10g (W/Kg)	0.004651
SAR 1g (W/Kg)	0.011697



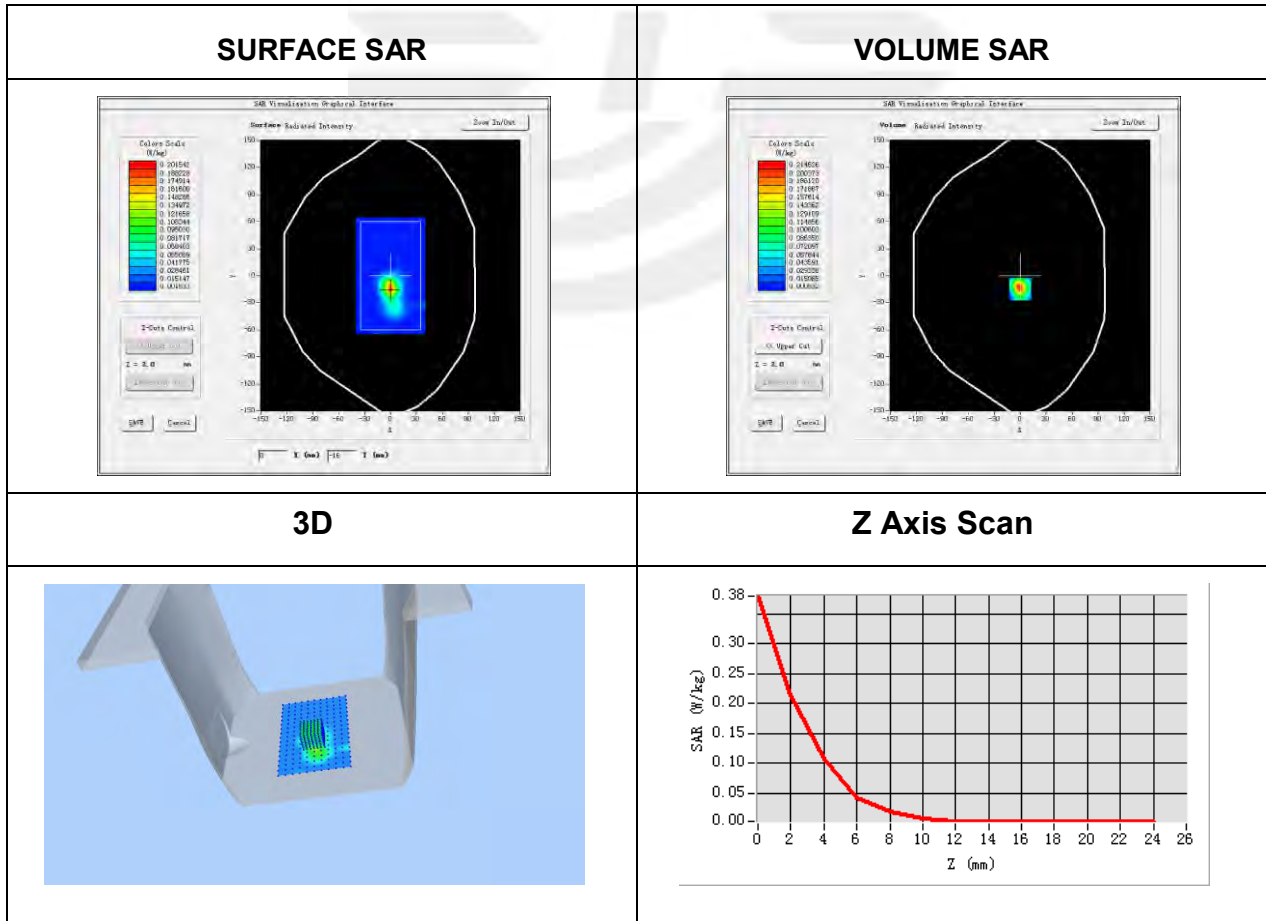


**Plot 22: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-26
Probe	SN 41/18 EPGO334
ConvF	2.12
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Back Side
Band	IEEE 802.11ac ISM
Antenna	A
Signal	IEEE802.ac (Crest factor: 1.0)
Frequency (MHz)	5260
Relative permittivity (real part)	48.95
Conductivity (S/m)	5.62
Variation (%)	-2.29

Maximum location: X=0.00, Y=-15.00  
 SAR Peak: 0.41 W/kg

SAR 10g (W/Kg)	0.033716
SAR 1g (W/Kg)	0.112415

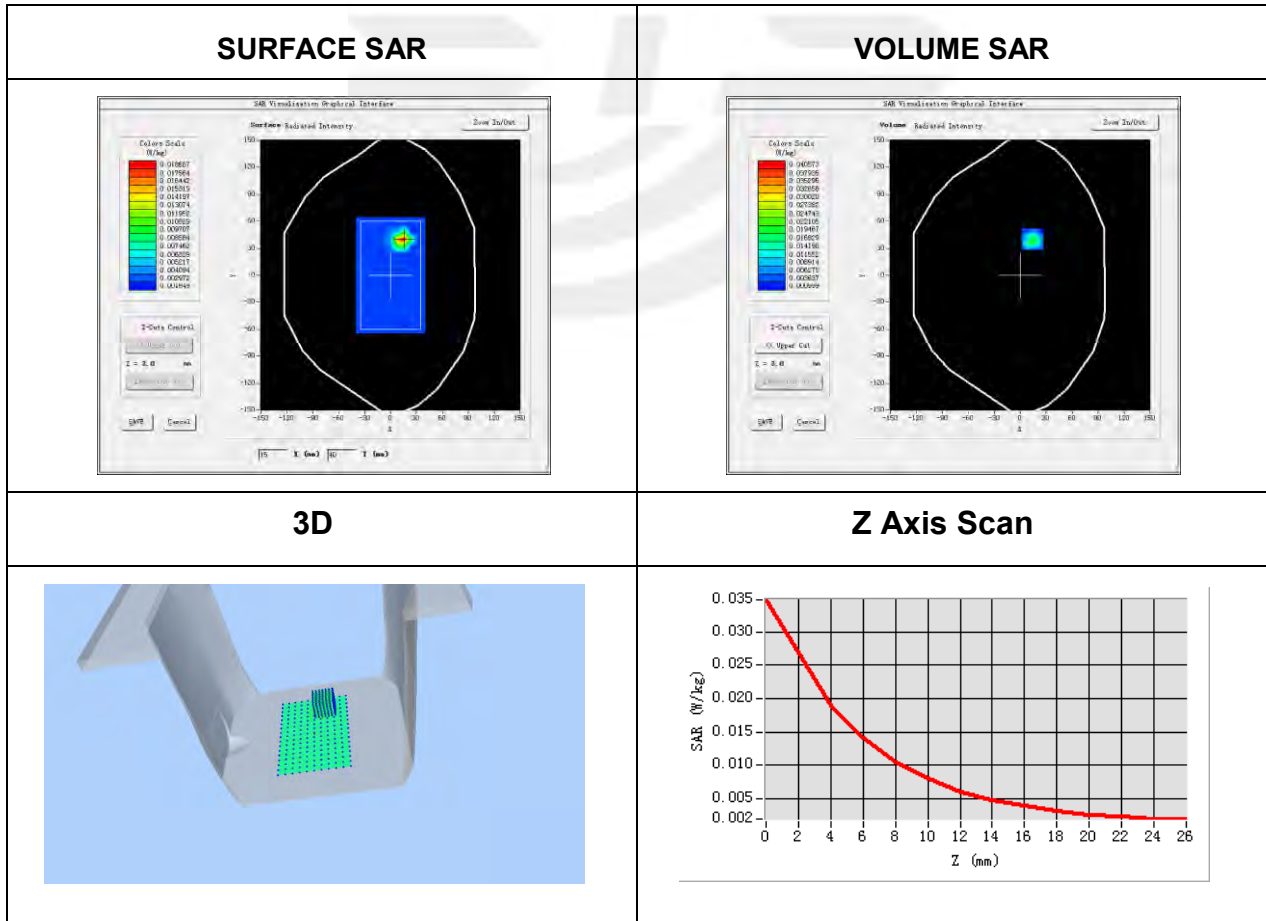


**Plot 23: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-26
Probe	SN 41/18 EPGO334
ConvF	2.12
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Back Side
Band	IEEE 802.11ac ISM
Antenna	B
Signal	IEEE802.ac (Crest factor: 1.0)
Frequency (MHz)	5260
Relative permittivity (real part)	48.95
Conductivity (S/m)	5.62
Variation (%)	-0.67

Maximum location: X=14.00, Y=40.00  
 SAR Peak: 0.04 W/kg

SAR 10g (W/Kg)	0.004569
SAR 1g (W/Kg)	0.010942

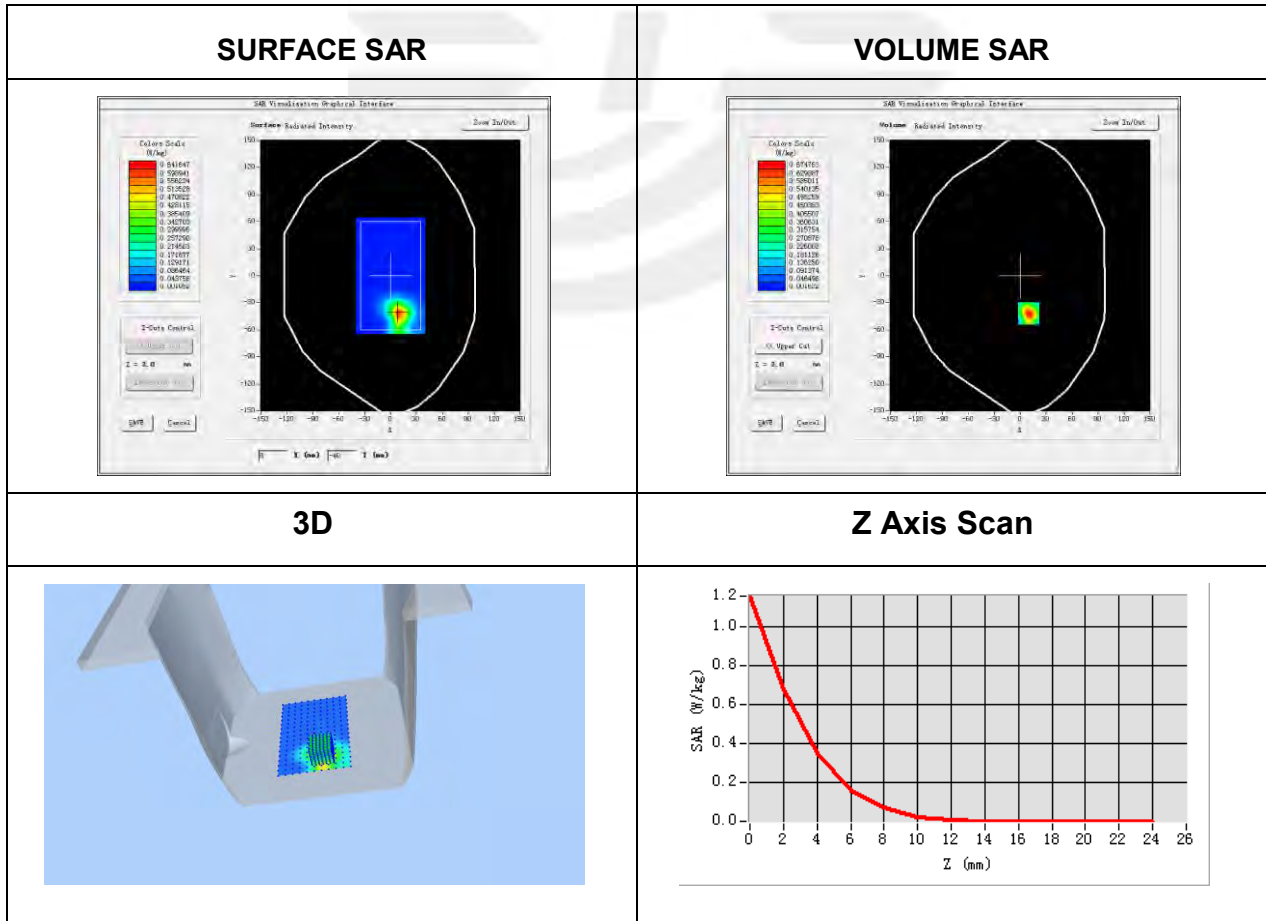


**Plot 24: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-27
Probe	SN 41/18 EPGO334
ConvF	2.21
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Back Side
Band	IEEE 802.11a ISM
Antenna	A
Signal	IEEE802.a (Crest factor: 1.0)
Frequency (MHz)	5700
Relative permittivity (real part)	48.14
Conductivity (S/m)	5.72
Variation (%)	2.09

Maximum location: X=10.00, Y=-42.00  
 SAR Peak: 1.21 W/kg

SAR 10g (W/Kg)	0.126508
SAR 1g (W/Kg)	0.371367

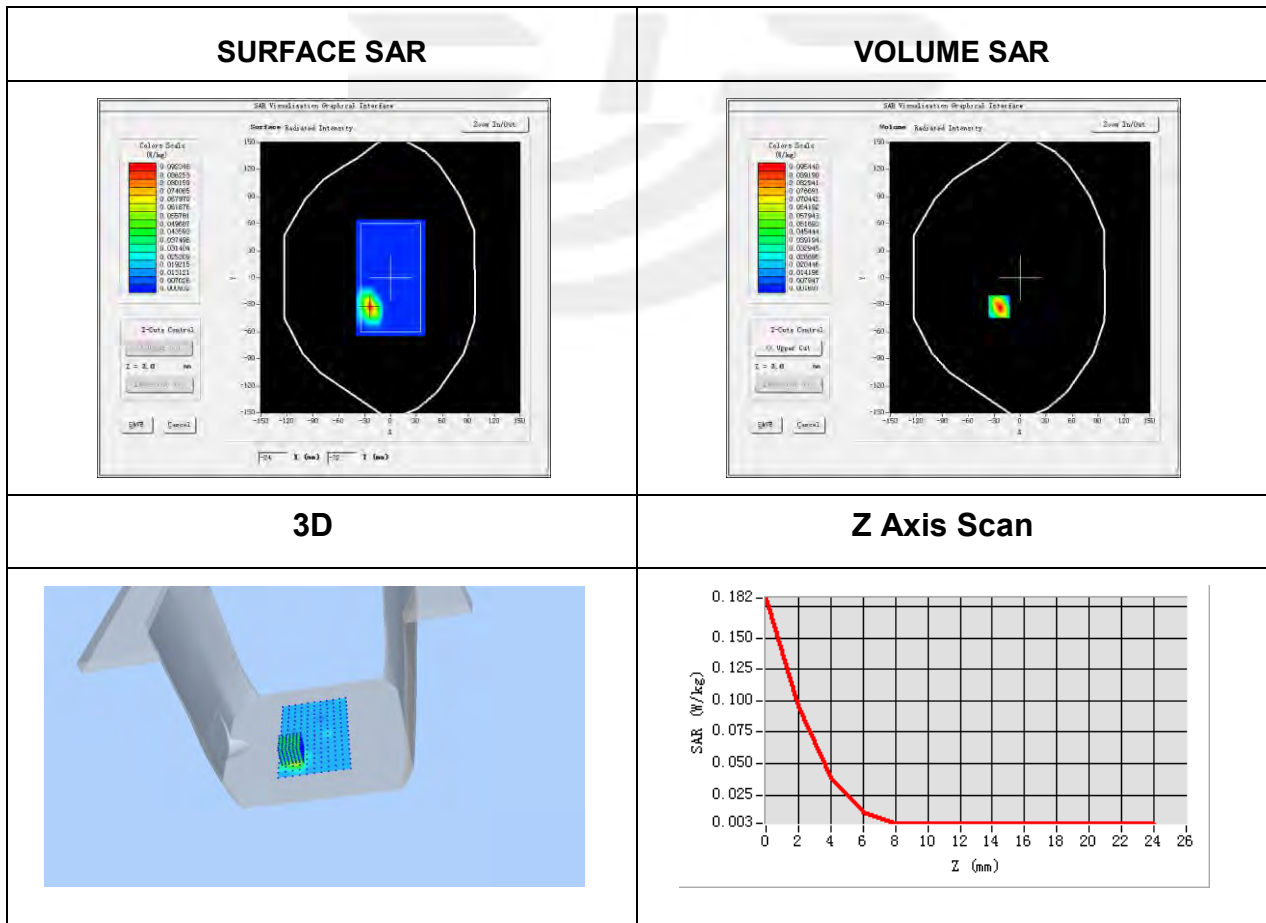


**Plot 25: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-27
Probe	SN 41/18 EPGO334
ConvF	2.21
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Back
Band	IEEE 802.11a ISM
Antenna	B
Signal	IEEE802.a (Crest factor: 1.0)
Frequency (MHz)	5700
Relative permittivity (real part)	48.14
Conductivity (S/m)	5.72
Variation (%)	-2.43

Maximum location: X=-24.00, Y=-32.00  
 SAR Peak: 0.20 W/kg

SAR 10g (W/Kg)	0.018486
SAR 1g (W/Kg)	0.052003

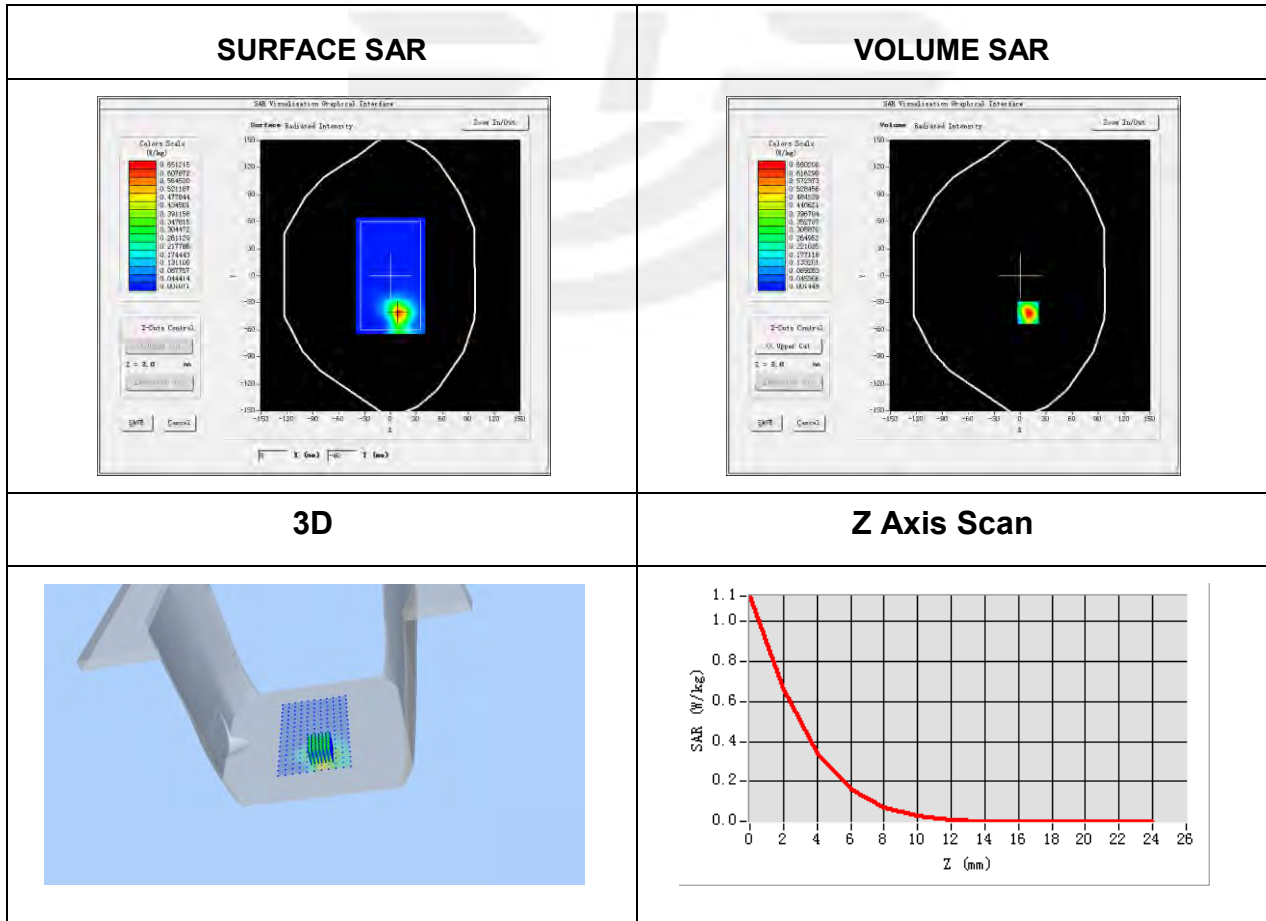


**Plot 26: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-27
Probe	SN 41/18 EPGO334
ConvF	2.21
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Back Side
Band	IEEE 802.11n ISM
Antenna	A
Signal	IEEE802.n (Crest factor: 1.0)
Frequency (MHz)	5670
Relative permittivity (real part)	48.14
Conductivity (S/m)	5.72
Variation (%)	3.08

Maximum location: X=9.00, Y=-41.00  
 SAR Peak: 1.18 W/kg

SAR 10g (W/Kg)	0.124079
SAR 1g (W/Kg)	0.368906

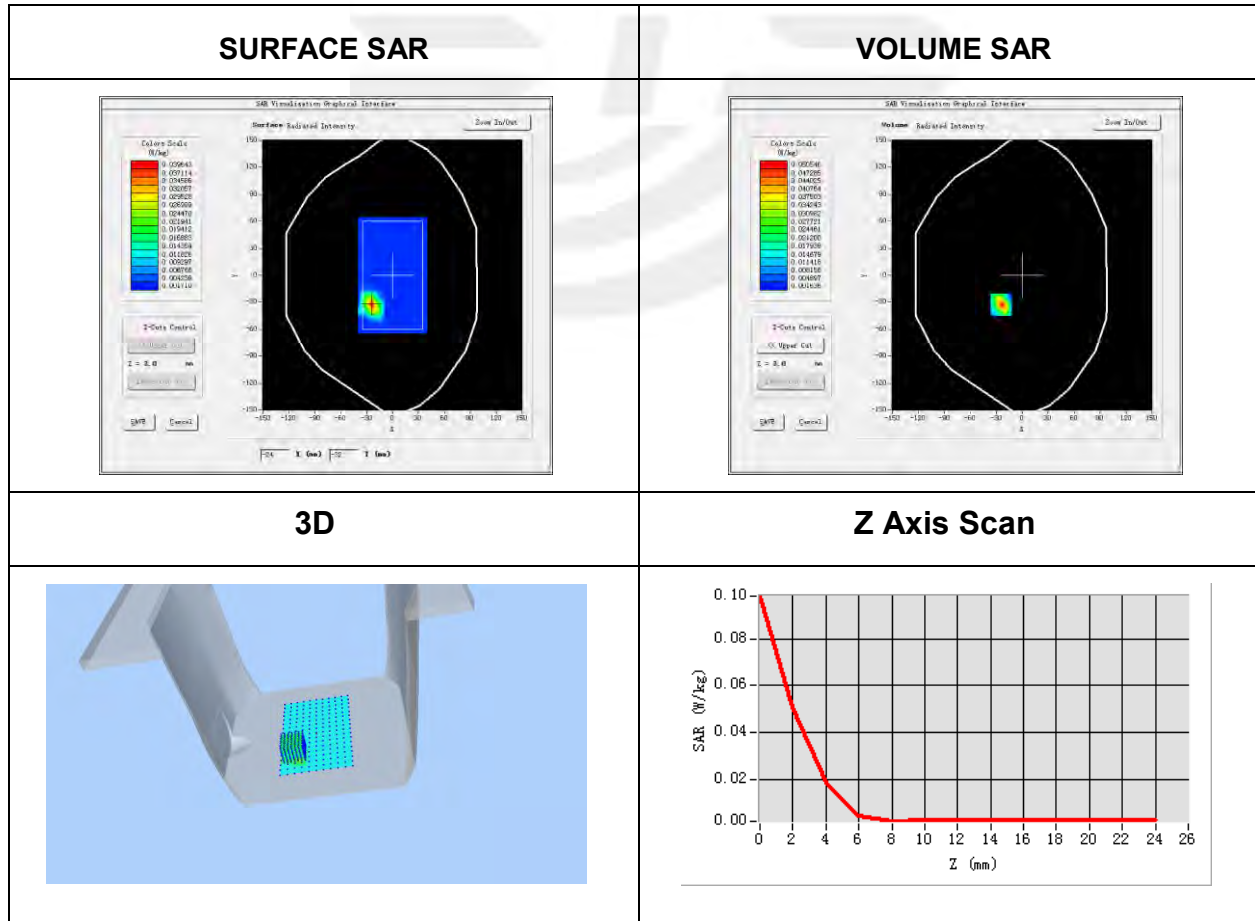


**Plot 27: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-27
Probe	SN 41/18 EPGO334
ConvF	2.21
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Back Side
Band	IEEE 802.11n ISM
Antenna	B
Signal	IEEE802.n (Crest factor: 1.0)
Frequency (MHz)	5670
Relative permittivity (real part)	48.14
Conductivity (S/m)	5.72
Variation (%)	2.23

Maximum location: X=-24.00, Y=-33.00  
 SAR Peak: 0.11 W/kg

SAR 10g (W/Kg)	0.009298
SAR 1g (W/Kg)	0.026231

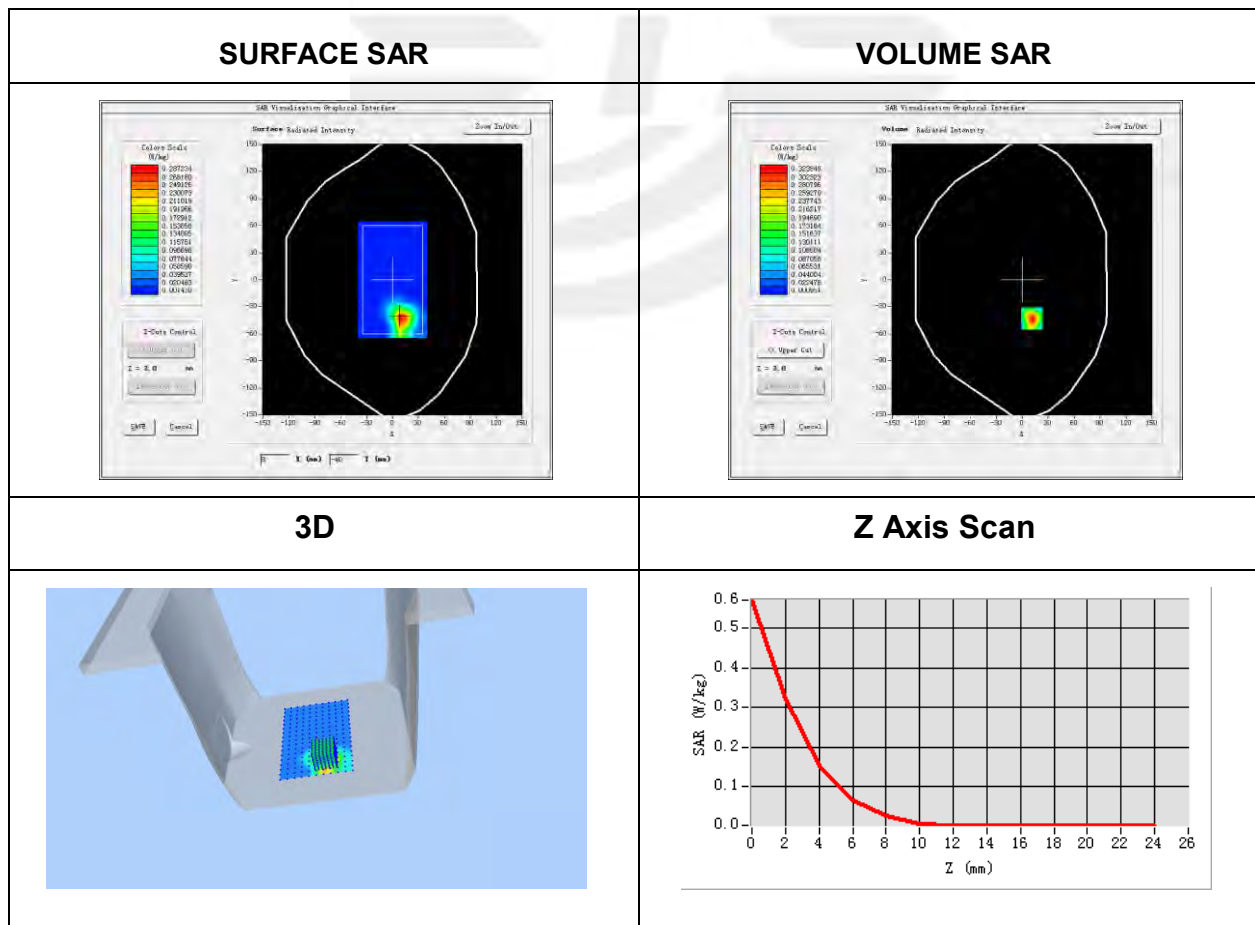


**Plot 28: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-28
Probe	SN 41/18 EPGO334
ConvF	2.16
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Back Side
Band	IEEE 802.11a ISM
Antenna	A
Signal	IEEE802.a (Crest factor: 1.0)
Frequency (MHz)	5785
Relative permittivity (real part)	47.76
Conductivity (S/m)	6.15
Variation (%)	-0.14

Maximum location: X=11.00, Y=-43.00  
SAR Peak: 0.61 W/kg

SAR 10g (W/Kg)	0.059915
SAR 1g (W/Kg)	0.175071

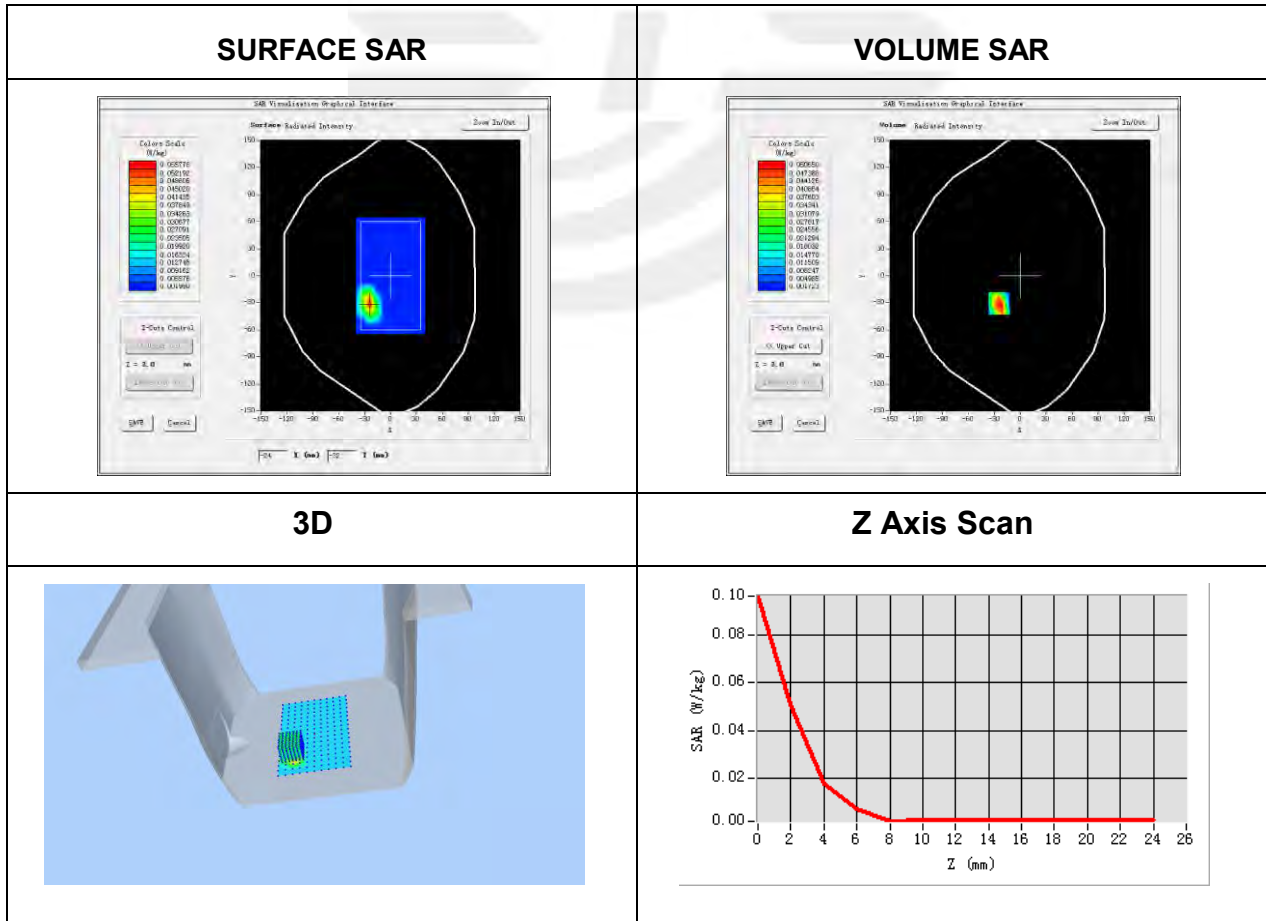


**Plot 29: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-28
Probe	SN 41/18 EPGO334
ConvF	2.16
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Back
Band	IEEE 802.11a ISM
Antenna	B
Signal	IEEE802.a (Crest factor: 1.0)
Frequency (MHz)	5785
Relative permittivity (real part)	47.76
Conductivity (S/m)	6.15
Variation (%)	3.62

Maximum location: X=-24.00, Y=-31.00  
 SAR Peak: 0.11 W/kg

SAR 10g (W/Kg)	0.010784
SAR 1g (W/Kg)	0.026515



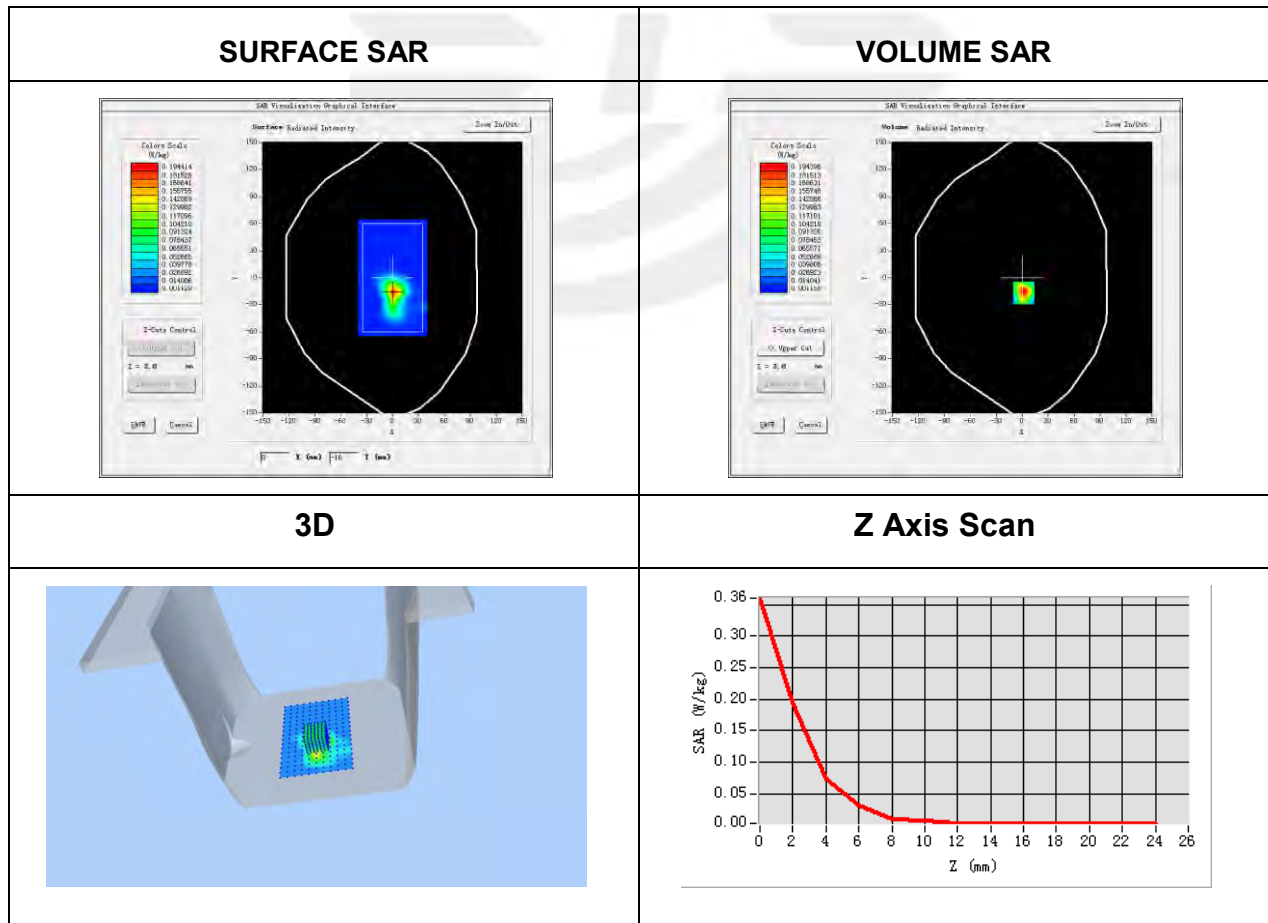


**Plot 30: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-28
Probe	SN 41/18 EPGO334
ConvF	2.16
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Back Side
Band	IEEE 802.11n ISM
Antenna	A
Signal	IEEE802.n (Crest factor: 1.0)
Frequency (MHz)	5785
Relative permittivity (real part)	47.76
Conductivity (S/m)	6.15
Variation (%)	-1.36

Maximum location: X=2.00, Y=-17.00  
 SAR Peak: 0.39 W/kg

SAR 10g (W/Kg)	0.035930
SAR 1g (W/Kg)	0.104985

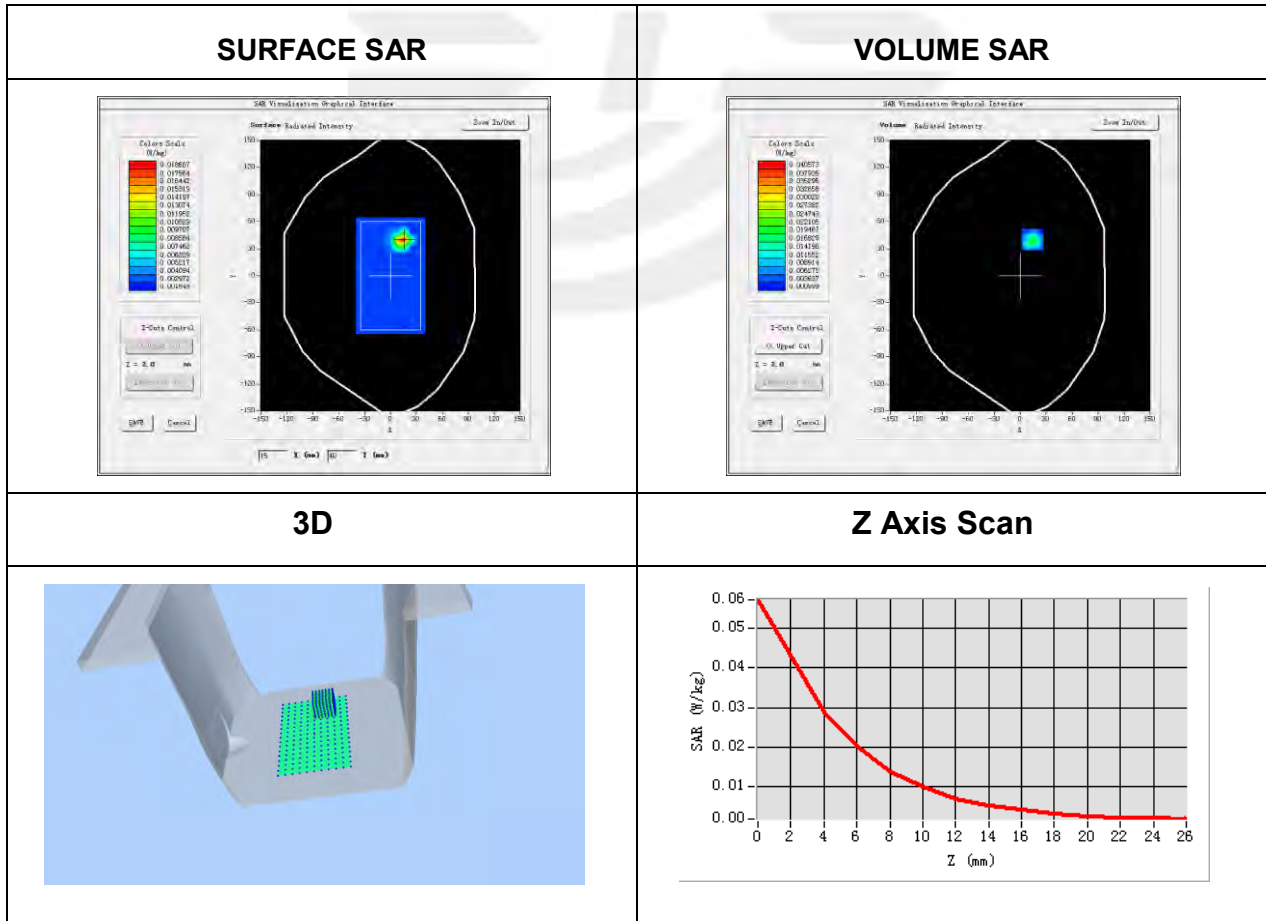


**Plot 31: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-28
Probe	SN 41/18 EPGO334
ConvF	2.16
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Back Side
Band	IEEE 802.11n ISM
Antenna	B
Signal	IEEE802.n (Crest factor: 1.0)
Frequency (MHz)	5785
Relative permittivity (real part)	47.76
Conductivity (S/m)	6.15
Variation (%)	1.05

Maximum location: X=14.00, Y=40.00  
 SAR Peak: 0.04 W/kg

SAR 10g (W/Kg)	0.004319
SAR 1g (W/Kg)	0.010242

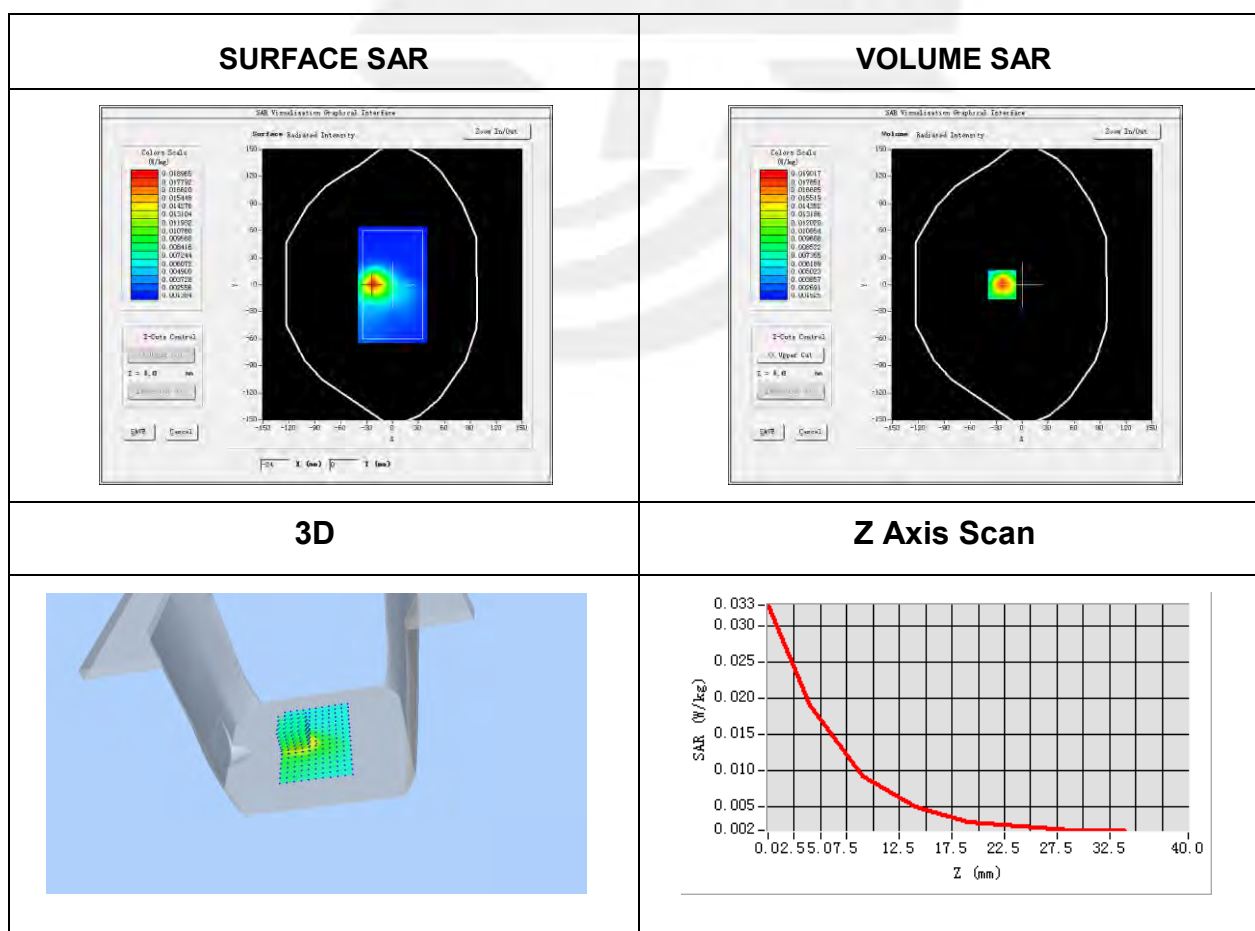


**Plot 32: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-24
Probe	SN 41/18 EPGO334
ConvF	2.02
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Back Side
Band	Bluetooth
Signal	GSFK
Frequency (MHz)	2480
Relative permittivity (real part)	53.11
Conductivity (S/m)	1.92
Variation (%)	-0.53

Maximum location: X=-23.00, Y=0.00  
SAR Peak: 0.03 W/kg

SAR 10g (W/Kg)	0.008835
SAR 1g (W/Kg)	0.018048



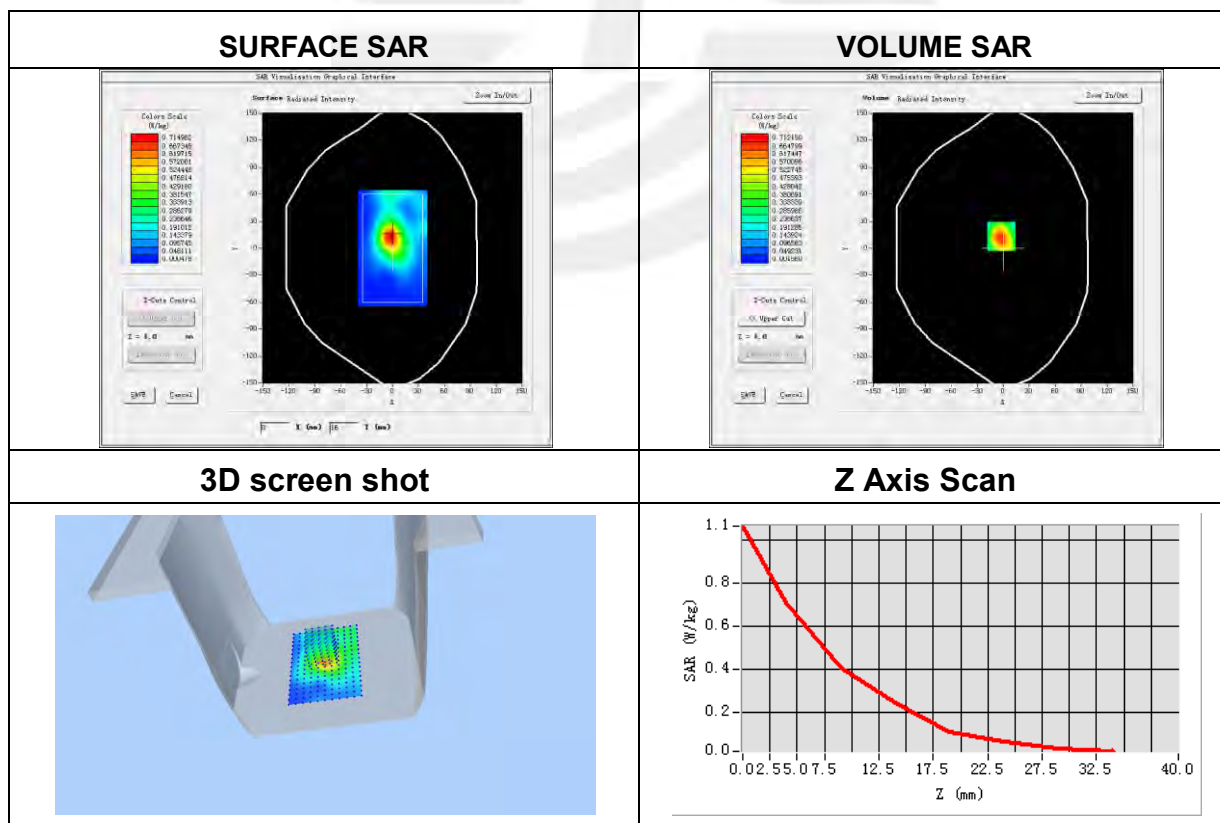
**Plot 33: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-22
Probe	SN 41/18 EPGO334
ConvF	1.88
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	Back Side
Band	WCDMA II
Channels	High
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1907.6
Relative permittivity (real part)	52.69
Conductivity (S/m)	1.53
Variation (%)	1.68

Maximum location: X=-2.00, Y=13.00

SAR Peak: 1.10 W/kg

SAR 10g (W/Kg)	0.357960
SAR 1g (W/Kg)	0.684927



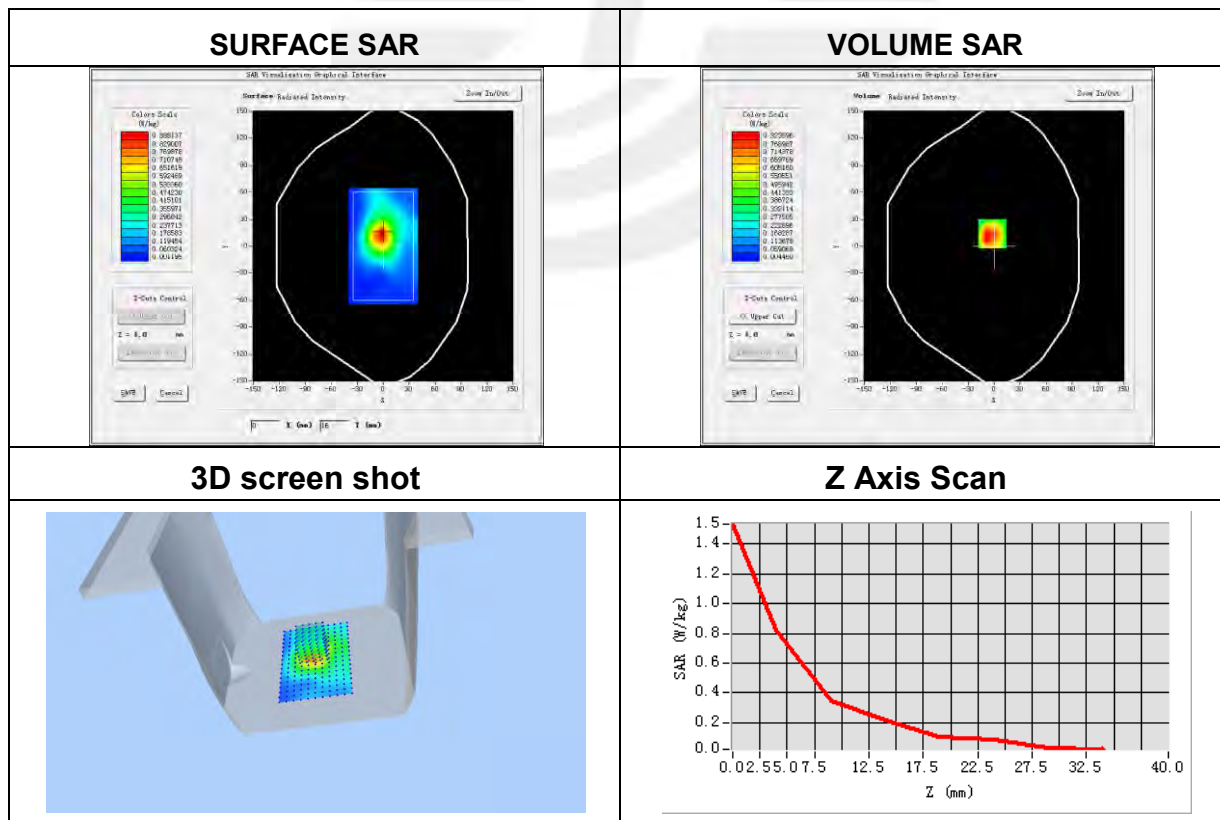
**Plot 34: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-20
Probe	SN 41/18 EPGO334
ConvF	1.66
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	Back Side
Band	WCDMA IV
Channels	High
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1752.4
Relative permittivity (real part)	53.82
Conductivity (S/m)	1.54
Variation (%)	-2.12

Maximum location: X=-2.00, Y=14.00

SAR Peak: 1.53 W/kg

SAR 10g (W/Kg)	0.418711
SAR 1g (W/Kg)	0.824380



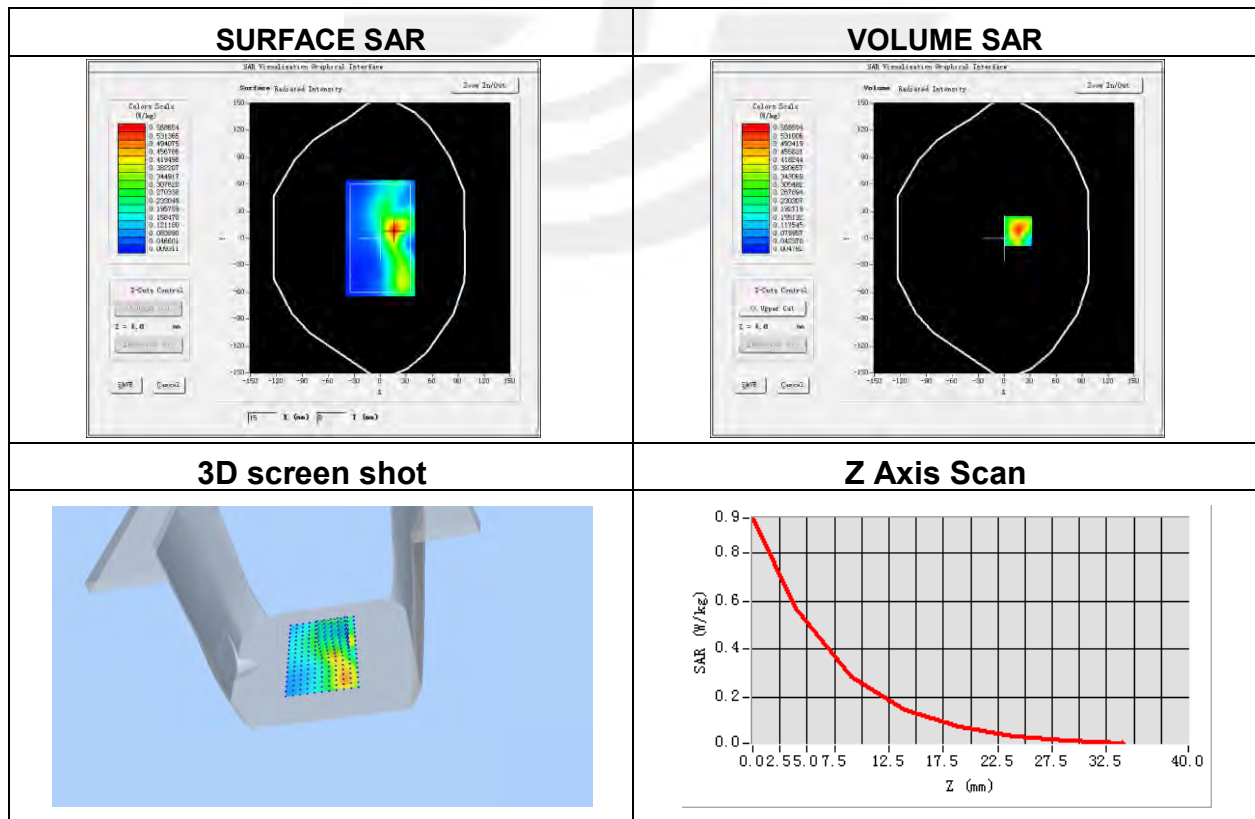
**Plot 35: DUT: Rugged Tablet PC; EUT Model: M700DQ8**

Test Date	2020-04-16
Probe	SN 41/18 EPGO334
ConvF	1.49
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	Back Side
Band	LTE Band 12 (RB 1)
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	707.5
Relative permittivity (real part)	54.86
Conductivity (S/m)	0.98
Variation (%)	-0.49

Maximum location: X=16.00, Y=8.00

SAR Peak: 0.94 W/kg

SAR 10g (W/Kg)	0.262441
SAR 1g (W/Kg)	0.538218





## Appendix C. Probe Calibration And Dipole Calibration Report

Refer the appendix Calibration Report.

※※※※END OF THE REPORT※※※※

