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FCC SAR TEST REPORT

Report No.: STS2109215H02

Issued for

Shanghai Unihertz E-Commerce Co., Ltd

Room 308, Building C, 508 Chundong Rd, Minhang district
Shanghai, China 201108

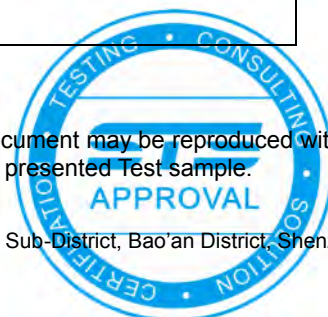
Product Name:	Smart phone
Brand Name:	Unihertz
Model Name:	TickTock
Series Model:	N/A
FCC ID:	2AK6CTICKTOCK
Test Standard:	ANSI/IEEE Std. C95.1
	FCC 47 CFR Part 2 (2.1093)
	IEEE 1528: 2013
Max. Report	Head: 0.812 W/kg
SAR (1g):	Body: 1.244 W/kg

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ShenZhen STS Test Services Co.,Ltd.

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Test Report Certification

Applicant's name : Unihertz Group Limited
Address : Level 5, Development Bank of Samoa Building. Beach Road, Apia, Samoa
Manufacturer's Name : OBLUE Communication Technology Co.,Ltd.
Address : 7th floor, building B, dayou industrial and trade industrial park, heping yonghe road, fuyong street, baoan district, shenzhen, China.

Product description

Product name : Smart phone
Brand name : Unihertz
Model name : TickTock
Series Model..... : N/A

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

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

Date of Test..... :

Date (s) of performance of tests : 22 Oct 2021 ~ 24 Nov. 2021

Date of Issue..... : 02 Dec. 2021

Test Result..... : **Pass**

Testing Engineer :

(Shifan. Long)

Technical Manager :

(Sean she)

Authorized Signatory :

(Vita Li)





Table of Contents

1. General Information	5
1.1 EUT Description	5
1.2 Test Environment	8
1.3 Test Factory	8
2. Test Standards and Limits	9
3. SAR Measurement System	10
3.1 Definition of Specific Absorption Rate (SAR)	10
3.2 SAR System	10
4. Tissue Simulating Liquids	13
4.1 Simulating Liquids Parameter Check	13
5. SAR System Validation	17
5.1 Validation System	17
5.2 Validation Result	17
6. SAR Evaluation Procedures	18
7. EUT Antenna Location Sketch	19
7.1 SAR test exclusion consider table	20
8. EUT Test Position	27
8.1 Define Two Imaginary Lines on the Handset	27
8.2 Hotspot mode exposure position condition	28
9. Measurement Uncertainty	29
10. Conducted Power Measurement	30
10.1 Test Result	30
11. EUT and Test Setup Photo	105
11.1 EUT Photo	105
11.2 Setup Photo	108
12. SAR Result Summary	114
12.1 Head SAR	114
12.2 Body-worn and Hotspot SAR	123
12.3 repeated SAR measurement	134
13. Equipment List	139
Appendix A. System Validation Plots	140
Appendix B. SAR Test Plots	163
Appendix C. Probe Calibration and Dipole Calibration Report	225

**Revision History**

Rev.	Issue Date	Report No.	Effect Page	Contents
00	02 Dec. 2021	STS2109215H02	ALL	Initial Issue





1. General Information

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

1.1 EUT Description

Product Name	Smart phone
Brand Name	Unihertz
Model Name	TickTock
Series Model	N/A
Model Difference	M/A
Battery	Rated Voltage: 3.85V Charge Limit Voltage: 4.4V Capacity: 6000mAh
Device Category	Portable
Product stage	Production unit
RF Exposure Environment	General Population / Uncontrolled
IMEI	MEID:0000000000000000 IMEI:1111111111111111 INEI:2222222222222222
Hardware Version	G85_V1.1
Software Version	Unihertz_TickTock_EEA_2021015
Frequency Range	GSM 850: 824 MHz ~ 849 MHz PCS1900: 1850 MHz ~ 1910 MHz WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band IV: 1710 MHz ~ 1755 MHz WCDMA Band V: 824 MHz ~ 849 MHz CDMA BC0: 820 MHz ~ 860 MHz CDMA BC1: 1850MHz ~ 1910 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz~2570 MHz LTE Band 12: 690 MHz ~ 720 MHz LTE Band 13: 770 MHz ~ 790 MHz LTE Band 17: 700 MHz ~ 720 MHz LTE Band 25:1850MHz~1930 MHz LTE Band 26:810MHz~850 MHz LTE Band 40: 2305 MHz~2315MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 66: 1710 MHz ~ 1780 MHz 5G n2: 1850-1910 MHz 5G n5: 824-849 MHz 5G n7: 2500-2570 MHz 5G n41: 2496-2690 MHz 5G n77: 3450-3550 MHz, 3700-3980 MHz WLAN 802.11b/g/n20: 2412 MHz ~ 2462 MHz WLAN 802.11n40: 2422 MHz ~ 2452 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5150 ~ 5250 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5250 ~ 5350 MHz



WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5470 ~ 5725 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5725 ~ 5850 MHz Bluetooth: 2402 MHz to 2480 MHz NFC: 13.56MHz				
Max. Reported SAR(1g): (Limit:1.6W/kg)	Band	Mode	Head (W/kg)	Body Worn and Hotspot(W/kg)
	PCE	GSM 850	0.423	0.993
	PCE	GSM 1900	0.257	0.485
	PCE	WCDMA Band II	0.395	0.422
	PCE	WCDMA Band IV	0.328	1.208
	PCE	WCDMA Band V	0.311	0.500
	PCE	CDMA BC0	0.156	0.692
	PCE	CDMA BC1	0.083	0.588
	PCE	LTE Band 2	0.062	0.363
	PCE	LTE Band 4	0.164	0.838
	PCE	LTE Band 5	0.181	0.528
	PCE	LTE Band 7	0.096	1.244
	PCE	LTE Band 12	0.078	0.271
	PCE	LTE Band 13	0.117	0.247
	PCE	LTE Band 17	0.056	0.315
	PCE	LTE Band 25	0.064	0.370
	PCE	LTE Band 26	0.399	0.459
	PCE	LTE Band 40	0.082	0.584
	PCE	LTE Band 41	0.056	0.407
	PCE	LTE Band 66	0.118	0.596
	PCE	SA N2	0.084	0.253
	PCE	SA N5	0.301	0.475
	PCE	SA N7	0.118	1.112
	PCE	SA N41	0.222	1.210
	PCE	SA N77	0.812	0.282
	PCE	NSA N7+B2	0.126	1.038
	PCE	NSA N7+B5	0.245	1.204
	PCE	NSA N41+B12	0.125	0.638
	PCE	NSA N41+B26	0.446	0.814
	PCE	NSA N41+B66	0.165	0.951
	DTS	2.4G WLAN	0.406	0.106
	NII	5.2G WLAN	0.112	0.084
	NII	5.3G WLAN	0.099	0.081
	NII	5.6G WLAN	0.113	0.130
	NII	5.8G WLAN	0.114	0.167
	DSS	Bluetooth ^{Note}	0.328	0.328
1-g Sum SAR			1.218	1.572
FCC Equipment Class	Licensed Portable Transmitter Held to Ear (PCE) Part 15 Spread Spectrum Transmitter (DSS) Digital Transmission System (DTS) Unlicensed National Information Infrastructure TX (NII)			



Operating Mode:	GSM: GSM Voice; GPRS/EGPRS Class 12 WCDMA: RMC, HSDPA, HSUPA Release 6 CDMA: QPSK/8PSK LTE: QPSK, 16QAM 5G NR: DFT-s-OFDM, CP-OFDM ($\pi/2$ shift BPSK, QPSK, 16QAM, 64QAM, 256QAM) WLAN: 802.11b(DSSS):CCK,DQPSK,DBPSK 802.11g/a/n(OFDM):BPSK,QPSK,16-QAM,64-QAM 802.11ac(OFDM):BPSK,QPSK,16-QAM,64-QAM,256-QAM Bluetooth: 5.1(GFSK + $\pi/4$ DQPSK+8DPSK) BLE: GFSK NFC: FSK
Antenna Specification:	GSM/WCDMA/CDMA/LTE/NR: PIFA Antenna Bluetooth: PIFA Antenna WLAN: PIFA Antenna NFC: Coil Antenna
SIM Card	Support dual-SIM, dual standby, the multiple SIM card with two lines cannot transmitting at the same time
Hotspot Mode	Support
DTM Mode	Not Support
Note: 1. Bluetooth SAR was estimated 2. The dual SIM card mobile has 2 SIM slots and supports dual SIM dual standby. The WWAN radio transmission will be enabled by either one SIM at a time (Single active) 3. After pre-scan two SIM cards power, we found test result of the SIM1 was the worse, so we chose SIM1 card to perform all tests. 4. The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power	

EN-DC SAR test summary:

Band	Mode	Head Max SAR	Head Test sum	Body Max SAR	Body Test sum
		(W/Kg)		(W/Kg)	
NSA N7+B2	SA N7	0.064	0.126	0.676	1.038
	LTE B2	0.062		0.363	
NSA N7+B5	SA N7	0.064	0.245	0.676	1.204
	LTE B5	0.181		0.528	
NSA N41+B12	SA N41	0.047	0.125	0.355	0.638
	LTE B12	0.078		0.283	
NSA N41+B26	SA N41	0.047	0.446	0.355	0.814
	LTE B26	0.399		0.459	
NSA N41+B66	SA N41	0.047	0.165	0.355	0.951
	LTE B66	0.118		0.596	



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

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

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

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

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

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

Population/Uncontrolled Environments:

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

Occupational/Controlled Environments:

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

NOTE

GENERAL POPULATION/UNCONTROLLED EXPOSURE

PARTIAL BODY LIMIT

1.6 W/kg

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:

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

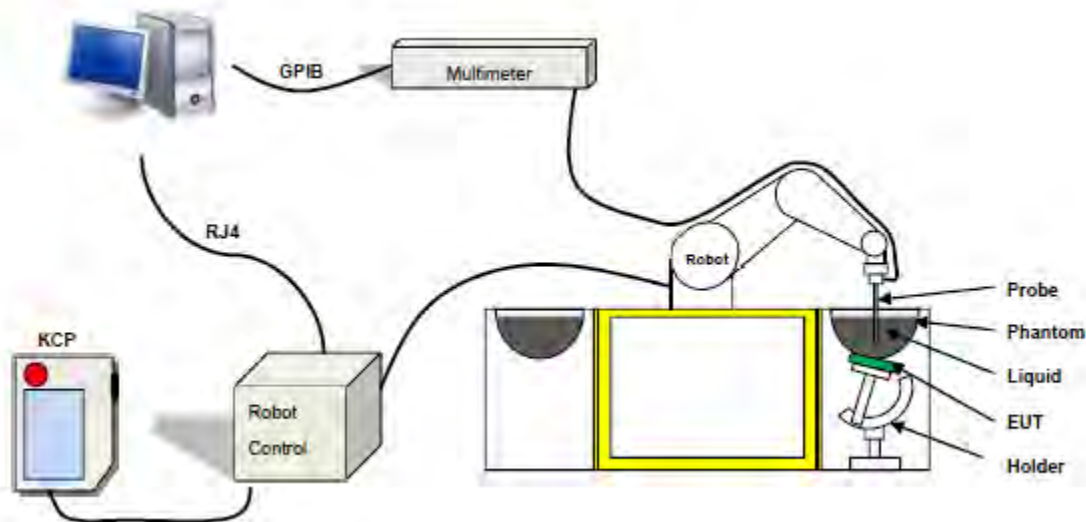
SAR is expressed in units of Watts per kilogram (W/kg) SAR measurement can be related to the electrical field in the tissue by

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

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 07/21 EPG0352 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: 150 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.

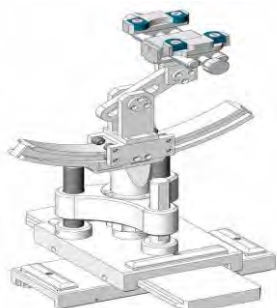
SN 32/14 SAM115



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 ± 0.5 mm would produce a SAR uncertainty of ± 20 %. Accurate device positioning is therefore crucial for accurate and repeatable measurements. The positions in which the devices must be measured are defined by the standards.

4. Tissue Simulating Liquids



4. 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
	%	%	%	%	%	%	%	%	σ	ϵ_r
750	0.2	/	/	1.4	0.2	57.0	/	41.1	0.89	41.9
835	0.2	/	/	1.4	0.2	57.9	/	40.3	0.90	41.5
900	0.2	/	/	1.4	0.2	57.9	/	40.3	0.97	41.5
1800	/	44.5	/	0.3	/	/	30.45	55.2	1.4	40.0
1900	/	44.5	/	0.3	/	/	30.45	55.2	1.4	40.0
2000	/	44.5	/	0.3	/	/	/	55.2	1.4	40.0
2450	/	44.9	/	0.1	/	/	/	55.0	1.80	39.2
2600	/	45.0	/	0.1	/	/	/	54.9	1.96	39.0

Body Tissue

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

Tissue dielectric parameters for head and body phantoms				
Frequency	ϵ_r		σ	
	S/m			
	Head	Body	Head	Body
300	45.3	58.2	0.87	0.92
450	43.5	56.7	0.87	0.94
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		Simulating Liquid		Parameters	Target	Measured	Deviation %	Limit ed %
	Temp. [°C]	Humidity %	Frequency	Temp. [°C]					
2021-10-22	23.5	49	707.5 MHz	23.3	Permittivity	42.12	43.33	2.88	±5
					Conductivity	0.89	0.86	-3.07	±5
2021-10-22	23.5	49	709 MHz	23.3	Permittivity	42.12	41.22	-2.13	±5
					Conductivity	0.89	0.88	-0.82	±5
2021-10-22	23.5	49	711 MHz	23.3	Permittivity	42.11	42.85	1.76	±5
					Conductivity	0.89	0.90	1.42	±5
2021-10-22	23.5	49	750 MHz	23.3	Permittivity	41.90	42.39	1.17	±5
					Conductivity	0.89	0.87	-2.25	±5
2021-10-22	23.5	49	782 MHz	23.3	Permittivity	41.75	41.20	-1.32	±5
					Conductivity	0.89	0.90	0.70	±5
2021-10-27	24.3	55	824.2MHz	24.0	Permittivity	41.55	42.29	1.78	±5
					Conductivity	0.90	0.90	0.14	±5
2021-10-27	24.3	55	824.7MHz	24.0	Permittivity	41.55	40.44	-2.67	±5
					Conductivity	0.90	0.88	-2.08	±5
2021-10-27	24.3	55	826.4MHz	24.0	Permittivity	41.50	41.20	-0.72	±5
					Conductivity	0.89	0.88	-1.21	±5
2021-10-27	24.3	55	835 MHz	24.0	Permittivity	41.50	40.46	-2.51	±5
					Conductivity	0.90	0.92	2.22	±5
2021-10-27	24.3	55	836.6 MHz	24.0	Permittivity	41.50	41.87	0.89	±5
					Conductivity	0.90	0.93	3.14	±5
2021-10-27	24.3	55	839 MHz	24.0	Permittivity	41.50	41.50	0.00	±5
					Conductivity	0.90	0.89	-1.58	±5
2021-10-27	24.3	55	841.5 MHz	24.0	Permittivity	41.50	42.64	2.75	±5
					Conductivity	0.91	0.91	0.39	±5
2021-10-27	24.3	55	844 MHz	24.0	Permittivity	41.50	40.39	-2.67	±5
					Conductivity	0.91	0.87	-4.36	±5
2021-10-27	24.3	55	848.8 MHz	24.0	Permittivity	41.50	41.85	0.84	±5
					Conductivity	0.91	0.92	0.56	±5
2021-11-06	22.5	51	1712.6 MHz	22.2	Permittivity	40.11	40.00	-0.28	±5
					Conductivity	1.35	1.40	3.38	±5
2021-11-06	22.5	51	1740 MHz	22.2	Permittivity	40.09	40.67	1.46	±5
					Conductivity	1.37	1.35	-1.15	±5



2021-11-06	22.5	51	1745 MHz	22.2	Permittivity	40.08	41.73	4.12	±5
					Conductivity	1.37	1.34	-2.09	±5
2021-11-06	22.5	51	1752.4 MHz	22.2	Permittivity	40.07	39.77	-0.74	±5
					Conductivity	1.37	1.38	0.51	±5
2021-11-06	22.5	51	1770 MHz	22.2	Permittivity	40.04	40.95	2.27	±5
					Conductivity	1.38	1.42	2.69	±5
2021-11-06	22.5	51	1800 MHz	22.2	Permittivity	40.00	40.86	2.15	±5
					Conductivity	1.40	1.37	-2.14	±5
2021-11-06	22.5	51	1850.2 MHz	22.2	Permittivity	40.00	41.05	2.62	±5
					Conductivity	1.40	1.34	-4.29	±5
2021-11-06	22.5	51	1851.3 MHz	22.2	Permittivity	40.00	39.08	-2.30	±5
					Conductivity	1.40	1.38	-1.43	±5
2021-11-06	22.5	51	1860 MHz	22.2	Permittivity	40.00	39.10	-2.25	±5
					Conductivity	1.40	1.45	3.57	±5
2021-11-06	22.5	51	1880 MHz	22.2	Permittivity	40.00	39.17	-2.08	±5
					Conductivity	1.40	1.36	-2.86	±5
2021-11-06	22.5	51	1882.5 MHz	22.2	Permittivity	40.00	38.43	-3.93	±5
					Conductivity	1.40	1.44	2.86	±5
2021-11-06	22.5	51	1900 MHz	22.2	Permittivity	40.00	41.02	2.55	±5
					Conductivity	1.40	1.37	-2.14	±5
2021-11-06	22.5	51	1905 MHz	22.2	Permittivity	40.00	38.26	-4.35	±5
					Conductivity	1.40	1.38	-1.43	±5
2021-11-07	23.9	49	2395 MHz	23.6	Permittivity	39.28	40.48	3.05	±5
					Conductivity	1.76	1.76	0.00	±5
2021-11-07	23.9	49	2450 MHz	23.6	Permittivity	39.20	39.91	1.81	±5
					Conductivity	1.80	1.85	2.78	±5
2021-11-07	23.9	49	2437 MHz	23.6	Permittivity	39.22	38.30	-2.34	±5
					Conductivity	1.79	1.73	-3.38	±5
2021-11-07	23.9	49	2560MHz	23.6	Permittivity	39.06	38.71	-0.90	±5
					Conductivity	1.92	1.98	3.13	±5
2021-11-07	23.9	49	2593 MHz	23.6	Permittivity	39.02	38.51	-1.30	±5
					Conductivity	1.96	2.01	2.76	±5
2021-11-07	23.9	49	2600 MHz	23.6	Permittivity	39.00	39.73	1.87	±5
					Conductivity	1.96	1.93	-1.53	±5
2021-11-07	23.9	49	2680 MHz	23.6	Permittivity	38.91	39.25	0.88	±5
					Conductivity	2.05	2.13	3.86	±5
2021-11-08	23.5	51	3750 MHz	23.2	Permittivity	37.99	36.39	-4.21	±5
					Conductivity	2.86	2.91	1.67	±5



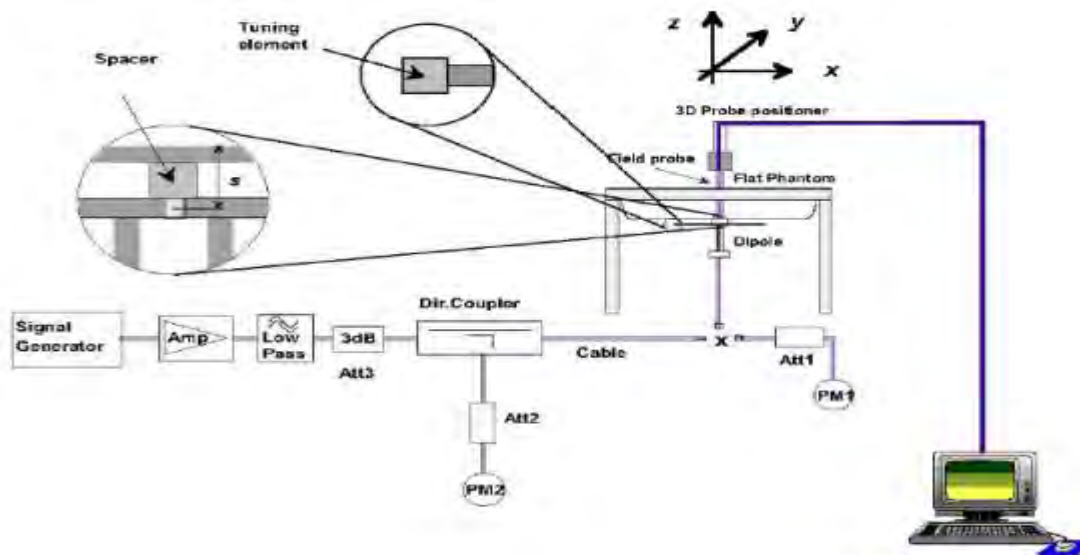
2021-11-08	23.5	51	3500 MHz	23.2	Permittivity	37.90	37.88	-0.05	±5
					Conductivity	2.91	2.99	2.75	±5
2021-11-08	23.5	51	3840 MHz	23.2	Permittivity	37.82	37.59	-0.60	±5
					Conductivity	3.02	2.99	-0.87	±5
2021-11-23	23.5	51	3900 MHz	23.2	Permittivity	37.50	38.85	3.60	±5
					Conductivity	3.32	3.21	-3.31	±5
2021-11-23	23.5	51	3930 MHz	23.2	Permittivity	37.82	38.85	2.73	±5
					Conductivity	3.02	3.01	-0.21	±5
2021-11-24	23.7	44	5200 MHz	23.5	Permittivity	36.00	35.70	-0.83	±5
					Conductivity	4.66	4.77	2.36	±5
2021-11-24	23.7	44	5240 MHz	23.5	Permittivity	36.00	35.60	-1.11	±5
					Conductivity	4.66	4.70	0.86	±5
2021-11-24	23.7	44	5300 MHz	23.5	Permittivity	35.90	36.18	0.78	±5
					Conductivity	4.76	4.81	1.05	±5
2021-11-24	23.7	44	5500 MHz	23.5	Permittivity	35.55	35.55	0.00	±5
					Conductivity	5.07	5.21	2.86	±5
2021-11-24	23.7	44	5600 MHz	23.5	Permittivity	35.55	36.57	2.87	±5
					Conductivity	5.07	5.03	-0.69	±5
2021-11-24	23.7	44	5800 MHz	23.5	Permittivity	35.30	36.62	3.74	±5
					Conductivity	5.27	5.43	3.04	±5
2021-11-24	23.7	44	5825 MHz	23.5	Permittivity	35.28	35.53	0.72	±5
					Conductivity	5.30	5.12	-3.33	±5

5. SAR System Validation

5.1 Validation System

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

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



5.2 Validation Result

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

Date	Freq. (MHz)	Power (mW)	Tested (W/Kg)	Normalized (W/kg)	Target SAR 1g(W/kg)	Tolerance (%)	Limit (%)
2021/10/22	750	100	0.881	8.81	8.49	3.77	10
2021/10/27	835	100	0.940	9.40	9.56	-1.67	10
2021/11/06	1800	100	3.905	39.05	38.40	1.69	10
2021/11/06	1900	100	3.979	39.79	39.70	0.23	10
2021/11/07	2450	100	5.214	52.14	52.40	-0.50	10
2021/11/07	2600	100	5.531	55.31	55.30	0.02	10
2021/11/08	3500	100	6.408	64.08	67.10	-4.50	10
2021/11/23	3900	100	6.521	65.21	67.60	-3.54	10
2021/11/24	5200	100	15.869	158.69	159.00	-0.19	10
2021/11/24	5300	100	16.622	166.22	166.40	-0.11	10
2021/11/24	5600	100	17.385	173.85	173.80	0.03	10
2021/11/24	5800	100	18.387	183.87	181.20	1.47	10

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

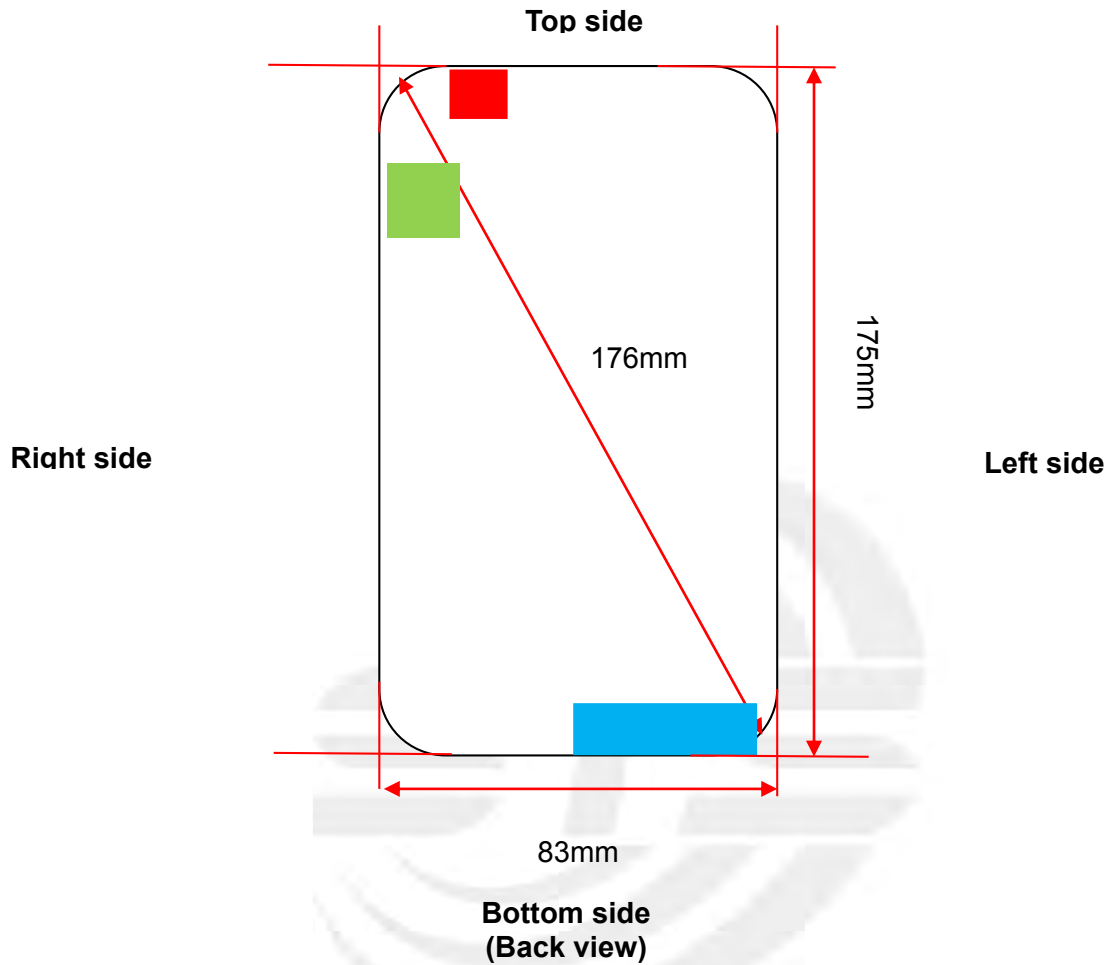
- Establish a call with the maximum output power with a base station simulator. The connection between the mobile and the base station simulator is established via air interface
- Measurement of the local E-field value at a fixed location. This value serves as a reference value for calculating a possible 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 Smart phone, support GSM/WCDMA/CDMA/LTE/NR/WLAN/BT mode.



- GSM/WCDMA/CDMA/LTE/5G N2/5/7/41/66 Antenna
- 5G N77/N78 Antenna
- BT/WLAN Antenna

ANT	Transmitting antenna located(mm)			
	Top	Left	Bottom	Right
GSM/WCDMA/CDMA/LTE/5G N2/5/7/41/66 Antenna	162	≤5	≤5	32
5G N77/N78 Antenna	≤5	72	140	≤5
BT/WLAN Antenna	≤5	58	157	≤5
NSA Antenna	150	62	≤5	≤5

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

The WWAN/WLAN/BT SAR evaluation of Maximum power (dBm) summing tolerance.

Exposure Position	Wireless Interface	GSM850	PCS1900	WCDMA II	WCDMA IV	WCDMA V
	Calculated Frequency	836.6	1850.2	1880	1712.6	826.4
	Maximum Turn-up power	30.5	28	22.5	23.2	23.5
	Maximum rated	1122.02	630.96	177.83	208.93	223.87
Back Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	16.40	11.03	10.94	11.46	16.50
	Testing required?	YES	YES	YES	YES	YES
Front Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	16.40	11.03	10.94	11.46	16.50
	Testing required?	YES	YES	YES	YES	YES
Left Edge	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	16.40	11.03	10.94	11.46	16.50
	Testing required?	YES	YES	YES	YES	YES
Right Edge	Separation distance (mm)	32	32	32	32	32
	exclusion threshold(mW)	104.96	70.58	70.02	73.36	105.60
	Testing required?	YES	YES	YES	YES	YES
Top Edge	Separation distance (mm)	162	162	162	162	162
	exclusion threshold(mW)	788.66	1230.28	1229.40	1234.62	782.05
	Testing required?	YES	NO	NO	NO	NO
Bottom Edge	Separation distance (mm)	6.5	6.5	6.5	6.5	6.5
	exclusion threshold(mW)	21.32	14.34	14.22	14.90	21.45
	Testing required?	YES	YES	YES	YES	YES



Exposure Position	Wireless Interface	LTE Band 2	LTE Band 4	LTE Band 5	LTE Band 7	LTE Band 12
	Calculated Frequency	1900	1745	844	2560	711
	Maximum Turn-up power (dBm)	25	25	24.5	24.6	25
	Maximum rated power(mW)	316.23	316.23	281.84	288.40	316.23
Back Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	10.88	11.36	16.33	9.38	17.79
	Testing required?	YES	YES	YES	YES	YES
Front Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	10.88	11.36	16.33	9.38	17.79
	Testing required?	YES	YES	YES	YES	YES
Left Edge	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	10.88	11.36	16.33	9.38	17.79
	Testing required?	YES	YES	YES	YES	YES
Right Edge	Separation distance (mm)	32	32	32	32	32
	exclusion threshold(mW)	69.65	72.67	104.50	60.00	113.85
	Testing required?	YES	YES	YES	YES	YES
Top Edge	Separation distance (mm)	162	162	162	162	162
	exclusion threshold(mW)	1228.82	1233.55	793.46	1213.75	708.77
	Testing required?	NO	NO	NO	NO	NO
Bottom Edge	Separation distance (mm)	6.5	6.5	6.5	6.5	6.5
	exclusion threshold(mW)	14.15	14.76	21.23	12.19	23.13
	Testing required?	YES	YES	YES	YES	YES



Exposure Position	Wireless Interface	LTE Band 13	LTE Band 17	LTE Band 25	LTE Band 26	LTE Band 40
	Calculated Frequency	782	711	1905	841.5	2390
	Maximum Turn-up power (dBm)	24.5	24.5	24.5	24.5	24
	Maximum rated power(mW)	281.84	281.84	281.84	281.84	251.19
Back Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	16.96	17.79	10.87	16.35	9.70
	Testing required?	YES	YES	YES	YES	YES
Front Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	16.96	17.79	10.87	16.35	9.70
	Testing required?	YES	YES	YES	YES	YES
Left Edge	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	16.96	17.79	10.87	16.35	9.70
	Testing required?	YES	YES	YES	YES	YES
Right Edge	Separation distance (mm)	32	32	32	32	32
	exclusion threshold(mW)	108.56	113.85	69.55	104.65	62.10
	Testing required?	YES	YES	YES	YES	YES
Top Edge	Separation distance (mm)	162	162	162	162	162
	exclusion threshold(mW)	753.52	708.77	1228.68	791.84	1217.03
	Testing required?	NO	NO	NO	NO	NO
Bottom Edge	Separation distance (mm)	6.5	6.5	6.5	6.5	6.5
	exclusion threshold(mW)	22.05	23.13	14.13	21.26	12.61
	Testing required?	YES	YES	YES	YES	YES



Exposure Position	Wireless Interface	LTE Band 41	LTE Band 66	SAN2	SAN5	SAN7
	Calculated Frequency	2680	1770	1860	844	2560
	Maximum Turn-up power	24.5	24.5	23	22.5	23
	Maximum rated power(mW)	281.84	281.84	199.53	177.83	199.53
Back Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	9.16	11.27	11.00	16.33	9.38
	Testing required?	YES	YES	YES	YES	YES
Front Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	9.16	11.27	11.00	16.33	9.38
	Testing required?	YES	YES	YES	YES	YES
Left Edge	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	9.16	11.27	11.00	16.33	9.38
	Testing required?	YES	YES	YES	YES	YES
Right Edge	Separation distance (mm)	32	32	32	32	32
	exclusion threshold(mW)	58.64	72.16	70.39	104.50	60.00
	Testing required?	YES	YES	YES	YES	YES
Top Edge	Separation distance (mm)	162	162	162	162	162
	exclusion threshold(mW)	1211.63	1232.75	1229.99	793.46	1213.75
	Testing required?	NO	NO	NO	NO	NO
Bottom Edge	Separation distance (mm)	6.5	6.5	6.5	6.5	6.5
	exclusion threshold(mW)	11.91	14.66	14.30	21.23	12.19
	Testing required?	YES	YES	YES	YES	YES



Exposure Position	Wireless Interface	SAN41	SAN77	CDMA BC0	CDMA BC1	BT
Exposure Position	Calculated Frequency	2593	3930	824.7	1851.25	2402
	Maximum Turn-up power	26	24	25	24.5	9
	Maximum rated power(mW)	398.11	251.19	316.23	281.84	7.94
Back Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	9.32	7.66	16.52	11.02	9.68
	Testing required?	YES	YES	YES	YES	NO
Front Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	9.32	7.66	16.52	11.02	9.68
	Testing required?	YES	YES	YES	YES	NO
Left Edge	Separation distance (mm)	5	72	5	5	58
	exclusion threshold(mW)	9.32	296.65	16.52	11.02	176.78
	Testing required?	YES	YES	YES	YES	NO
Right Edge	Separation distance (mm)	32	5	32	32	5
	exclusion threshold(mW)	59.62	7.66	105.71	70.56	9.68
	Testing required?	YES	YES	YES	YES	NO
Top Edge	Separation distance (mm)	162	5	162	162	5
	exclusion threshold(mW)	1213.15	7.66	780.95	1230.24	9.68
	Testing required?	NO	YES	NO	NO	NO
Bottom Edge	Separation distance (mm)	25	25	6.5	6.5	147
	exclusion threshold(mW)	46.58	38.32	21.47	14.33	1066.78
	Testing required?	YES	YES	YES	YES	NO



Exposure Position	Wireless Interface	2.4G WLAN ANT1	5.2G WLAN ANT1	5.3G WLAN ANT1	5.6G WLAN ANT1	5.8G WLAN ANT1
	Calculated Frequency	2437	5240	5300	5500	5825
	Maximum Turn-up power (dBm)	15	13	13	13	13
	Maximum rated power(mW)	31.62	19.95	19.95	19.95	19.95
Back Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	9.61	6.55	6.52	6.40	6.22
	Testing required?	YES	YES	YES	YES	YES
Front Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	9.61	6.55	6.52	6.40	6.22
	Testing required?	YES	YES	YES	YES	YES
Left Edge	Separation distance (mm)	58	58	58	58	58
	exclusion threshold(mW)	176.09	145.53	145.16	143.96	142.15
	Testing required?	NO	NO	NO	NO	NO
Right Edge	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	9.61	6.55	6.52	6.40	6.22
	Testing required?	YES	YES	YES	YES	YES
Top Edge	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	9.61	6.55	6.52	6.40	6.22
	Testing required?	YES	YES	YES	YES	YES
Bottom Edge	Separation distance (mm)	147	147	147	147	147
	exclusion threshold(mW)	1066.09	1035.53	1035.16	1033.96	1032.15
	Testing required?	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 <25mm, 25mm 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:

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

$$f(\text{GHz}) \text{ is the RF channel transmit frequency in GHz. Power and distance are rounded to the nearest mW and mm before calculation.}$$

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 ≤ 6GHz
6. Per KDB 248227 D01, choose the highest output power channel to test SAR and determine further 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.
7. Per KDB 616217 D04, SAR evaluation for the front surface of tablet display screens are generally not necessary.



8. EUT Test Position

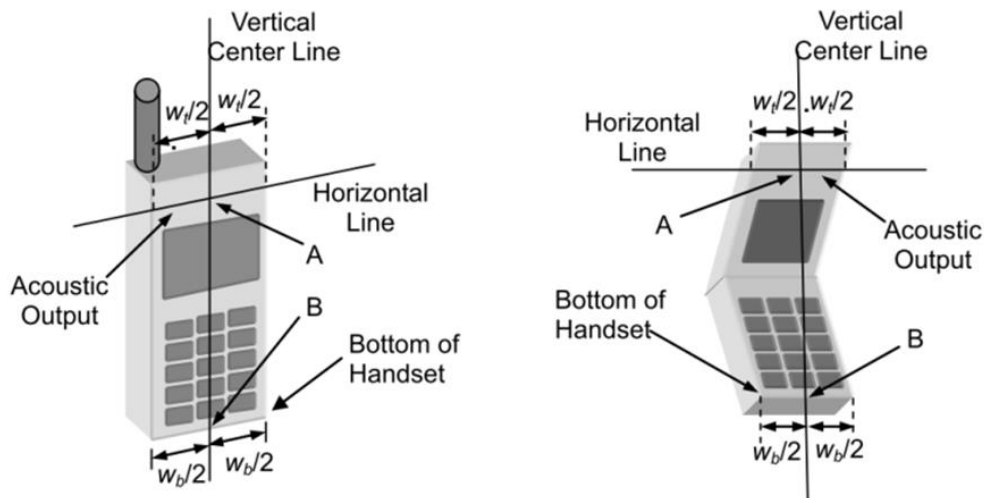
This EUT was tested in Right Cheek, Right Titled, Left Cheek, Left Titled, Front Face and Rear Face.

8.1 Define Two Imaginary Lines on the Handset

(1) The vertical centerline passes through two points on the front side of the handset the midpoint of the width w_t of the handset at the level of the acoustic output, and the midpoint of the width w_b of the handset.

(2) The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output. The horizontal line is also tangential to the face of the handset at point A.

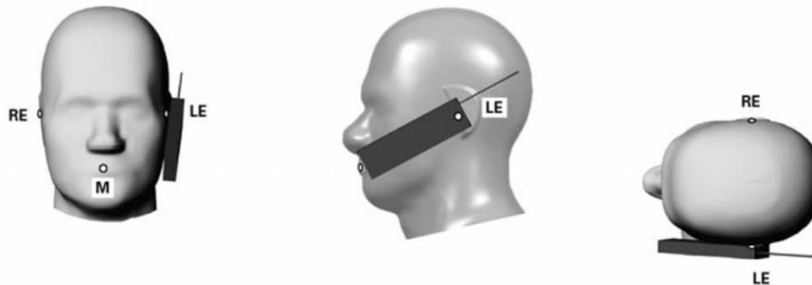
(3) The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical centerline is not necessarily to the front face of the handset, especially for clamshell handsets, handsets with flip covers, and other irregularly shaped handsets.



Cheek Position

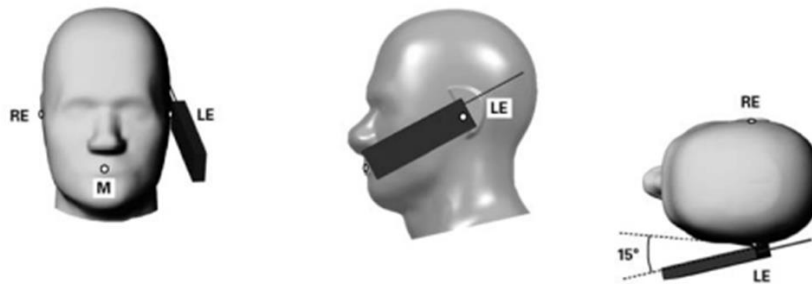
1) To position the device with the vertical center line of the body of the device and the horizontal line crossing the center piece in a plane parallel to the sagittal plane of the phantom. While maintaining the device in this plane, align the vertical center line with the reference plane containing the ear and mouth reference point (M: Mouth, RE: Right Ear, and LE: Left Ear) and align the center of the ear piece with the line RE-LE.

2) To move the device towards the phantom with the ear piece aligned with the line LE-RE until the phone touched the ear. While maintaining the device in the reference plane and maintaining the phone contact with ear, move the bottom of the phone until any point on the front side is in contact with the cheek of the phantom or until contact with the ear is lost



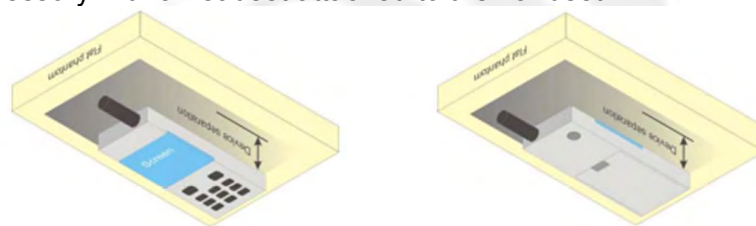
Title Position

- (1) To position the device in the “cheek” position described above.
- (2) While maintaining the device in the reference plane described above and pivoting against the ear, moves it outward away from the mouth by an angle of 15 degrees or until with the ear is lost.



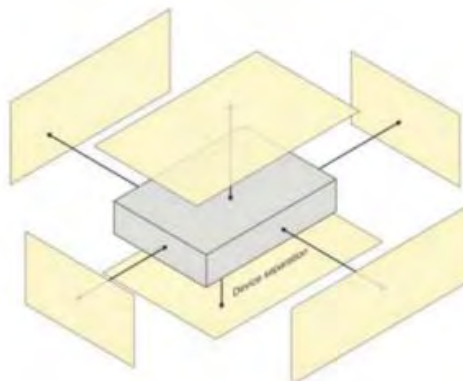
Body-worn Position Conditions:

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.



8.2 Hotspot mode exposure position condition

For handsets that support hotspot mode operations, with wireless router capabilities and various web browsing function, the relevant hand and body exposure condition are tested according to the hotspot SAR procedures in KDB 941225. A test separation distance of 10 mm is required between the phantom and all surface and edges with a transmitting antenna located within 25 mm from that surface or edge. When form factor of a handset is smaller than 9cm x 5cm, a test separation distance of 5mm (instead of 10mm) is required for testing hotspot mode. When the separate distance required for body-worn accessory testing is larger than or equal to that tested for hotspot mode, in the same wireless mode and for the same surface of the phone, the hotspot mode SAR data may be used to support body-worn accessory SAR compliance for that particular configuration (surface).





9. Measurement Uncertainty

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

Uncertainty Component	Tol. (+/- %)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+/-%)	10g Ui (+- %)	vi
Measurement System								
Probe calibration	5.86	N	1	1	1	5.86	5.86	∞
Axial Isotropy	0.16	R	$\sqrt{3}$	$\sqrt{0.5}$	$\sqrt{0.5}$	0.07	0.07	∞
Hemispherical Isotropy	1.06	R	$\sqrt{3}$	$\sqrt{0.5}$	$\sqrt{0.5}$	0.43	0.43	∞
Boundary effect	1	R	$\sqrt{3}$	1	1	0.58	0.58	∞
Linearity	1.27	R	$\sqrt{3}$	1	1	0.73	0.73	∞
System detection limits	1.23	R	$\sqrt{3}$	1	1	0.71	0.71	∞
Modulation response	3.6	R	$\sqrt{3}$	1	1	3.60	3.60	∞
Readout Electronics	0.28	N	1	1	1	0.28	0.28	∞
Response Time	0.19	R	$\sqrt{3}$	1	1	0.11	0.11	∞
Integration Time	1.47	R	$\sqrt{3}$	1	1	0.85	0.85	∞
RF ambient conditions- Noise	3.5	R	$\sqrt{3}$	1	1	2.02	2.02	∞
RF ambient conditions- reflections	3.2	R	$\sqrt{3}$	1	1	1.85	1.85	∞
Probe positioner mechanical tolerance	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
Probe positioning with respect to phantom shell	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
Post-processing	2.3	R	$\sqrt{3}$	1	1	1.33	1.33	∞
Test sample Related								
Test sample positioning	3.1	N	1	1	1	3.10	3.10	∞
Device holder uncertainty	3.8	N	1	1	1	3.80	3.80	∞
SAR drift measurement	4.8	R	$\sqrt{3}$	1	1	2.77	2.77	∞
SAR scaling	2	R	$\sqrt{3}$	1	1	1.15	1.15	∞
Phantom and tissue parameters								
Phantom uncertainty (shape and thickness uncertainty)	4	R	$\sqrt{3}$	1	1	2.31	2.31	∞
Uncertainty in SAR correction for deviations in permittivity and conductivity	2	N	1	1	0.84	2.00	1.68	∞
Liquid conductivity (temperature uncertainty)	2.5	R	$\sqrt{3}$	0.78	0.71	1.95	1.78	∞
Liquid conductivity (measured)	4	N	1	0.78	0.71	0.92	1.04	M
Liquid permittivity (temperature uncertainty)	2.5	R	$\sqrt{3}$	0.23	0.26	1.95	1.78	∞
Liquid permittivity (measured)	5	N	1	0.23	0.26	1.15	1.30	M
Combined Standard Uncertainty		RSS				10.60	10.51	
Expanded Uncertainty (95% Confidence interval)		K=2				21.21	21.03	



10. Conducted Power Measurement

10.1 Test Result

Burst Average Power (dBm)						
Band	GSM 850			PCS 1900		
Channel	128	190	251	512	661	810
Frequency (MHz)	824.2	836.6	848.8	1850.2	1880	1909.8
GSM(GMSK, 1-Slot)	31.26	31.58	31.48	29.27	29.02	28.90
GPRS (GMSK,1-Slot)	31.08	31.37	31.38	29.21	28.98	28.90
GPRS (GMSK, 2-Slot)	30.60	30.95	30.89	28.74	28.49	28.47
GPRS (GMSK, 3-Slot)	30.11	30.48	30.43	28.24	28.01	27.98
GPRS (GMSK, 4-Slot)	29.62	30.02	29.98	27.77	27.60	27.55
EGPRS(8PSK, 1-Slot)	27.47	27.71	27.68	27.47	27.36	27.60
EGPRS(8PSK, 2-Slot)	26.72	26.93	26.90	26.75	26.66	26.85
EGPRS(8PSK, 3-Slot)	25.95	26.18	26.17	25.97	25.95	26.12
EGPRS(8PSK, 4-Slot)	25.15	25.43	25.41	25.25	25.18	25.35
Remark: GPRS, CS4 coding scheme. EGPRS, MCS5 coding scheme. Multi-Slot Class 8, Support Max 4 downlink, 1 uplink, 5 working link Multi-Slot Class 10, Support Max 4 downlink, 2 uplink, 5 working link Multi-Slot Class 12, Support Max 4 downlink, 4 uplink, 5 working link						

Frame- Average Power(dBm)						
Band	GSM 850			PCS 1900		
Channel	128	190	251	512	661	810
Frequency (MHz)	824.2	836.6	848.8	1850.2	1880	1909.8
GSM(GMSK, 1-Slot)	22.23	22.55	22.45	20.24	19.99	19.87
GPRS (GMSK,1-Slot)	22.05	22.34	22.35	20.18	19.95	19.87
GPRS (GMSK, 2-Slot)	24.58	24.93	24.87	22.72	22.47	22.45
GPRS (GMSK, 3-Slot)	25.85	26.22	26.17	23.98	23.75	23.72
GPRS (GMSK, 4-Slot)	26.61	27.01	26.97	24.76	24.59	24.54
EGPRS(8PSK, 1-Slot)	18.44	18.68	18.65	18.44	18.33	18.57
EGPRS(8PSK, 2-Slot)	20.70	20.91	20.88	20.73	20.64	20.83
EGPRS(8PSK, 3-Slot)	21.69	21.92	21.91	21.71	21.69	21.86
EGPRS(8PSK, 4-Slot)	22.14	22.42	22.40	22.24	22.17	22.34
Remark : 1. SAR testing was performed on the maximum frame-averaged power mode. 2. The frame-averaged power is linearly proportion to the slot number configured and it is linearly scaled the maximum Burst - averaged power based on time slots. The calculated method is shown as below: Frame-averaged power = Burst averaged power (1 TX Slot) – 9.03 dB Frame-averaged power = Burst averaged power (2 TX Slots) – 6.02 dB Frame-averaged power = Burst averaged power (3 TX Slots) - 4.26 dB Frame-averaged power = Burst averaged power (4 TX Slots) – 3.01 dB						

**WCDMA**

Band	WCDMA Band II(dBm)			WCDMA Band IV(dBm)			WCDMA Band V(dBm)		
Channel	9262	9400	9538	1312	1413	1513	4132	4183	4233
Frequency (MHz)	1852.4	1880	1907.6	1712.4	1732.4	1752.6	826.4	836.4	846.6
RMC 12.2Kbps	21.75	22.23	21.93	23.05	22.12	22.2	23.23	23.15	22.86
HSDPA Subtest-1	21.72	21.80	21.91	22.45	22.08	22.03	20.9	20.85	21.18
HSDPA Subtest-2	21.23	21.30	21.43	22	21.67	21.53	20.47	20.37	20.7
HSDPA Subtest-3	20.83	20.86	21.01	21.51	21.19	21.16	20.05	19.97	20.32
HSDPA Subtest-4	20.48	20.37	20.52	21.17	20.87	20.85	19.6	19.48	19.92
HSUPA Subtest-1	21.72	21.67	21.85	21.88	22.05	21.99	20.75	20.66	20.45
HSUPA Subtest-2	20.88	20.70	20.93	21.08	21.11	21.03	19.94	19.72	19.51
HSUPA Subtest-3	20.73	20.30	20.45	20.97	20.71	20.63	19.74	19.32	19.16
HSUPA Subtest-4	20.41	19.99	20.03	20.58	20.26	20.26	19.25	19.02	18.79
HSUPA Subtest-5	19.00	18.55	18.61	19.15	18.83	18.81	17.8	17.55	17.35

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.

**CDMA**

CDMA BC0			
Mode	Frequency (MHz)	Conduction AVG Power(dBm)	Conclusion
CDMA BC0	824.70	24.62	PASS
	836.52	24.31	PASS
	848.31	24.62	PASS
EVDO BC0	824.70	24.59	PASS
	836.52	24.18	PASS
	848.31	24.50	PASS

CDMA BC1			
Mode	Frequency (MHz)	Conduction AVG Power(dBm)	Conclusion
CDMA BC1	1851.25	24.16	PASS
	1880.00	24.01	PASS
	1908.75	23.40	PASS
EVDO BC1	1851.25	24.09	PASS
	1880.00	24.03	PASS
	1908.75	23.33	PASS

2.4G WLAN

2.4GWIFI				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11b	1	2412	14.49	28.12
	6	2437	14.67	29.31
	11	2462	14.61	28.91
802.11g	1	2412	9.32	8.55
	6	2437	9.45	8.81
	11	2462	9.44	8.79
802.11 n-HT20	1	2412	9.25	8.41
	6	2437	9.34	8.59
	11	2462	9.30	8.51
802.11 n-HT40	3	2422	9.32	8.55
	6	2437	9.24	8.39
	9	2452	9.28	8.47

**WLAN (5.2Gband)**

5.2G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a	36	5180	12.26	16.83
	40	5200	12.24	16.75
	48	5240	12.29	16.94
802.11n20	36	5180	12.20	16.60
	40	5200	12.15	16.41
	48	5240	12.21	16.63
802.11n40	38	5190	12.03	15.96
	46	5230	11.93	15.60
802.11ac20	36	5180	12.18	16.52
	40	5200	12.15	16.41
	48	5240	12.19	16.56
802.11ac40	38	5190	11.98	15.78
	46	5230	11.96	15.70
802.11ac80	42	5210	11.32	13.55

WLAN (5.3Gband)

5.3G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a	52	5260	12.39	17.34
	60	5300	12.43	17.50
	64	5320	12.34	17.14
802.11n20	52	5260	12.19	16.56
	60	5300	12.28	16.90
	64	5320	12.21	16.63
802.11n40	54	5270	11.95	15.67
	62	5310	11.99	15.81
802.11ac20	52	5260	12.17	16.48
	60	5300	12.28	16.90
	64	5320	12.20	16.60
802.11ac40	54	5270	12.06	16.07
	62	5310	12.05	16.03
802.11ac80	58	5290	11.60	14.45

**WLAN (5.6Gband)**

5.6G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a	100	5500	12.48	17.70
	116	5580	12.40	17.38
	140	5700	12.32	17.06
802.11n20	100	5500	12.35	17.18
	116	5580	12.25	16.79
	140	5700	12.18	16.52
802.11n40	102	5510	12.13	16.33
	110	5550	12.17	16.48
	134	5670	11.99	15.81
802.11ac20	100	5500	12.31	17.02
	116	5580	12.29	16.94
	140	5700	12.20	16.60
802.11ac40	102	5510	12.15	16.41
	110	5550	12.14	16.37
	134	5670	12.04	16.00
802.11ac80	106	5530	12.32	17.06
	122	5610	12.00	15.85

WLAN (5.8Gband)

5.8G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a	149	5745	12.32	17.06
	157	5785	12.40	17.38
	165	5825	12.53	17.91
802.11n20	149	5745	12.27	16.87
	157	5785	12.33	17.10
	165	5825	12.42	17.46
802.11n40	151	5755	12.06	16.07
	159	5795	12.16	16.44
802.11ac20	149	5745	12.29	16.94
	157	5785	12.29	16.94
	165	5825	12.35	17.18
802.11ac40	151	5755	12.11	16.26
	159	5795	12.15	16.41
802.11ac80	155	5775	10.71	11.78

**Bluetooth**

BT				
Mode	Channel Number	Frequency (MHz)	Average Power (dBm)	Output Power (mW)
GFSK(1Mbps)	0	2402	8.88	7.73
	39	2441	8.03	6.35
	78	2480	6.54	4.51
$\pi/4$ -QPSK(2Mbps)	0	2402	6.60	4.57
	39	2441	4.86	3.06
	78	2480	3.28	2.13
8DPSK(3Mbps)	0	2402	6.31	4.28
	39	2441	4.57	2.86
	78	2480	2.99	1.99

BLE

BLE				
Mode	Channel Number	Frequency (MHz)	Average Power (dBm)	Output Power (mW)
GFSK(1Mbps)	0	2402	-6.00	0.25
	19	2440	-5.53	0.28
	39	2480	-5.30	0.30
GFSK(2Mbps)	0	2402	-8.85	0.13
	19	2440	-8.37	0.15
	39	2480	-8.02	0.16



LTE Conducted Power

General Note:

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



LTE Band 2

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.81	23.82	23.85
1.4	1	2		23.64	23.66	23.76
1.4	1	5		23.44	23.46	23.58
1.4	3	0		23.43	23.29	23.5
1.4	3	1		23.25	23.13	23.41
1.4	3	2		23.16	22.94	23.39
1.4	6	0		23.15	22.91	23.27
1.4	1	0	16-QAM	23.74	23.79	23.81
1.4	1	2		23.63	23.46	23.63
1.4	1	5		23.33	23.28	23.57
1.4	3	0		23.35	23.14	23.38
1.4	3	1		23.24	23.07	23.28
1.4	3	2		23.15	22.76	23.38
1.4	6	0		23.05	22.9	23.2
3	1	0	QPSK	23.88	23.92	23.96
3	1	7		23.78	23.82	23.78
3	1	14		23.65	23.8	23.69
3	8	0		23.49	23.66	23.57
3	8	4		23.33	23.51	23.5
3	8	7		23.27	23.35	23.46
3	15	0		23.18	23.15	23.39
3	1	0	16-QAM	23.74	23.86	23.86
3	1	7		23.64	23.75	23.63
3	1	14		23.58	23.7	23.55
3	8	0		23.35	23.52	23.53
3	8	4		23.32	23.39	23.36
3	8	7		23.12	23.34	23.42
3	15	0		23.06	22.98	23.26



LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	24.02	24.06	24.09
5	1	12		23.87	23.88	24.02
5	1	24		23.76	23.76	23.97
5	12	0		23.7	23.74	23.77
5	12	6		23.53	23.65	23.59
5	12	11		23.45	23.47	23.51
5	25	0		23.4	23.44	23.35
5	1	0	16-QAM	23.94	24.05	23.94
5	1	12		23.71	23.68	23.96
5	1	24		23.74	23.65	23.91
5	12	0		23.63	23.56	23.65
5	12	6		23.37	23.6	23.53
5	12	11		23.33	23.36	23.47
5	25	0		23.26	23.24	23.24
10	1	0	QPSK	24.13	24.23	24.29
10	1	24		24.12	24.19	24.15
10	1	49		24.01	24.13	24.1
10	25	0		23.91	23.98	24.03
10	25	12		23.85	23.97	24.01
10	25	24		23.7	23.79	23.91
10	50	0		23.69	23.73	23.84
10	1	0	16-QAM	24.06	24.21	24.19
10	1	24		24.03	24.06	24.1
10	1	49		24	23.98	23.99
10	25	0		23.78	23.95	23.95
10	25	12		23.83	23.87	23.88
10	25	24		23.56	23.67	23.83
10	50	0		23.53	23.59	23.82



LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	24.26	24.29	24.32
15	1	37		24.24	24.22	24.22
15	1	74		24.07	24.15	24.19
15	36	0		23.95	24.14	24.18
15	36	18		23.86	24.11	24.1
15	36	39		23.76	24.05	23.93
15	75	0		23.69	23.98	23.8
15	1	0	16-QAM	24.23	24.16	24.16
15	1	38		24.13	24.11	24.16
15	1	75		23.99	24.01	24.15
15	36	0		23.78	24.13	24.06
15	36	18		23.73	24	23.92
15	36	39		23.64	23.91	23.84
15	75	0		23.64	23.97	23.6
20	1	0	QPSK	24.33	24.42	24.59
20	1	49		24.17	24.4	24.4
20	1	99		24	24.23	24.39
20	50	0		23.99	24.07	24.34
20	50	24		23.8	24	24.22
20	50	49		23.63	23.85	24.2
20	100	0		23.45	23.84	24.17
20	1	0	16-QAM	24.2	24.27	24.57
20	1	49		24.09	24.26	24.37
20	1	99		23.85	24.23	24.32
20	50	0		23.97	24.07	24.18
20	50	24		23.73	23.94	24.2
20	50	49		23.57	23.69	24.1
20	100	0		23.39	23.79	24.1



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	23.68	23.79	23.84
1.4	1	2		23.54	23.64	23.84
1.4	1	5		23.46	23.58	23.78
1.4	3	0		23.36	23.38	23.61
1.4	3	1		23.35	23.34	23.54
1.4	3	2		23.26	23.19	23.36
1.4	6	0		23.21	23.16	23.24
1.4	1	0	16-QAM	23.57	23.76	23.7
1.4	1	2		23.5	23.5	23.78
1.4	1	5		23.45	23.56	23.71
1.4	3	0		23.28	23.26	23.44
1.4	3	1		23.31	23.27	23.51
1.4	3	2		23.08	23.15	23.19
1.4	6	0		23.19	23.03	23.23
3	1	0	QPSK	23.78	23.82	23.89
3	1	7		23.62	23.68	23.7
3	1	14		23.57	23.65	23.6
3	8	0		23.44	23.58	23.46
3	8	4		23.31	23.48	23.34
3	8	7		23.14	23.42	23.18
3	15	0		23.1	23.36	23.05
3	1	0	16-QAM	23.71	23.8	23.86
3	1	7		23.52	23.64	23.67
3	1	14		23.5	23.63	23.56
3	8	0		23.34	23.43	23.44
3	8	4		23.15	23.31	23.22
3	8	7		23.07	23.29	23
3	15	0		22.96	23.35	22.94



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.81	23.89	23.92
5	1	12		23.76	23.79	23.73
5	1	24		23.68	23.67	23.7
5	12	0		23.68	23.64	23.61
5	12	6		23.56	23.59	23.55
5	12	11		23.37	23.56	23.39
5	25	0		23.34	23.44	23.38
5	1	0	16-QAM	23.77	23.82	23.79
5	1	12		23.66	23.77	23.55
5	1	24		23.5	23.5	23.6
5	12	0		23.59	23.55	23.47
5	12	6		23.37	23.41	23.54
5	12	11		23.32	23.47	23.37
5	25	0		23.17	23.4	23.32
10	1	0	QPSK	23.92	23.95	23.98
10	1	24		23.88	23.9	23.86
10	1	49		23.7	23.74	23.86
10	25	0		23.7	23.68	23.8
10	25	12		23.67	23.66	23.79
10	25	24		23.66	23.55	23.74
10	50	0		23.57	23.35	23.73
10	1	0	16-QAM	23.74	23.83	23.83
10	1	24		23.69	23.72	23.79
10	1	49		23.58	23.65	23.71
10	25	0		23.67	23.54	23.78
10	25	12		23.56	23.56	23.67
10	25	24		23.51	23.37	23.74
10	50	0		23.46	23.32	23.57



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	24.03	24.12	24.15
15	1	37		23.98	23.92	24.04
15	1	74		23.78	23.86	23.94
15	36	0		23.61	23.84	23.75
15	36	18		23.45	23.78	23.74
15	36	39		23.37	23.77	23.58
15	75	0		23.2	23.73	23.38
15	1	0	16-QAM	23.92	24.1	24.05
15	1	38		23.85	23.85	23.89
15	1	75		23.75	23.72	23.74
15	36	0		23.54	23.72	23.58
15	36	18		23.34	23.62	23.7
15	36	39		23.21	23.67	23.5
15	75	0		23.2	23.54	23.33
20	1	0	QPSK	24.29	24.35	24.56
20	1	49		24.17	24.16	24.45
20	1	99		24.11	24	24.28
20	50	0		24.01	23.86	24.11
20	50	24		24	23.68	23.98
20	50	49		23.82	23.61	23.82
20	100	0		23.67	23.52	23.64
20	1	0	16-QAM	24.18	24.18	24.53
20	1	49		24.04	24.06	24.31
20	1	99		24.02	23.94	24.16
20	50	0		23.92	23.7	23.93
20	50	24		23.88	23.5	23.93
20	50	49		23.78	23.57	23.72
20	100	0		23.62	23.45	23.57



LTE BAND 5

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.51	23.55	23.58
1.4	1	2		23.38	23.51	23.56
1.4	1	5		23.29	23.45	23.42
1.4	3	0		23.15	23.43	23.26
1.4	3	1		22.98	23.35	23.19
1.4	3	2		22.79	23.19	23.15
1.4	6	0		22.72	23.09	23.08
1.4	1	0	16-QAM	23.33	23.42	23.46
1.4	1	2		23.36	23.37	23.36
1.4	1	5		23.16	23.39	23.23
1.4	3	0		22.99	23.42	23.23
1.4	3	1		22.91	23.28	23.18
1.4	3	2		22.7	23.12	23
1.4	6	0		22.62	22.89	22.95
3	1	0	QPSK	23.52	23.56	23.61
3	1	7		23.34	23.46	23.43
3	1	14		23.17	23.45	23.35
3	8	0		23.03	23.42	23.3
3	8	4		23.02	23.39	23.2
3	8	7		22.95	23.35	23.03
3	15	0		22.82	23.16	22.95
3	1	0	16-QAM	23.42	23.52	23.42
3	1	7		23.28	23.32	23.27
3	1	14		23.07	23.27	23.16
3	8	0		22.93	23.4	23.23
3	8	4		22.86	23.32	23.07
3	8	7		22.84	23.29	22.83
3	15	0		22.8	23.01	22.92



LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.62	23.75	23.78
5	1	12		23.45	23.58	23.7
5	1	24		23.29	23.53	23.67
5	12	0		23.23	23.39	23.53
5	12	6		23.09	23.26	23.39
5	12	11		22.98	23.22	23.31
5	25	0		22.89	23.21	23.12
5	1	0	16-QAM	23.58	23.6	23.7
5	1	12		23.39	23.47	23.56
5	1	24		23.26	23.46	23.49
5	12	0		23.22	23.21	23.5
5	12	6		22.92	23.11	23.36
5	12	11		22.82	23.06	23.18
5	25	0		22.74	23.05	23.02
10	1	0	QPSK	23.95	23.99	24.03
10	1	24		23.9	23.83	23.99
10	1	49		23.78	23.69	23.92
10	25	0		23.6	23.6	23.81
10	25	12		23.43	23.5	23.68
10	25	24		23.25	23.37	23.54
10	50	0		23.08	23.32	23.45
10	1	0	16-QAM	23.79	23.8	23.87
10	1	24		23.71	23.81	23.93
10	1	49		23.74	23.59	23.82
10	25	0		23.47	23.53	23.67
10	25	12		23.24	23.37	23.57
10	25	24		23.06	23.2	23.4
10	50	0		23	23.15	23.44



LTE BAND 7

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.12	23.26	23.55
5	1	12		23.03	23.07	23.44
5	1	24		22.89	22.94	23.27
5	12	0		22.75	22.89	23.23
5	12	6		22.59	22.78	23.06
5	12	11		22.47	22.7	22.96
5	25	0		22.33	22.57	22.93
5	1	0	16-QAM	22.97	23.25	23.43
5	1	12		22.99	23.07	23.36
5	1	24		22.87	22.9	23.09
5	12	0		22.55	22.81	23.17
5	12	6		22.43	22.75	22.9
5	12	11		22.35	22.51	22.92
5	25	0		22.24	22.55	22.81
10	1	0	QPSK	23.51	23.62	23.78
10	1	24		23.37	23.56	23.74
10	1	49		23.24	23.47	23.64
10	25	0		23.14	23.35	23.61
10	25	12		23.08	23.34	23.41
10	25	24		23.08	23.18	23.26
10	50	0		22.99	23.16	23.15
10	1	0	16-QAM	23.49	23.47	23.73
10	1	24		23.37	23.48	23.71
10	1	49		23.13	23.47	23.53
10	25	0		23.03	23.21	23.5
10	25	12		22.97	23.31	23.28
10	25	24		22.99	23.1	23.06
10	50	0		22.81	23.11	23.13



LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	23.88	23.89	23.92
15	1	37		23.7	23.81	23.81
15	1	74		23.59	23.8	23.65
15	36	0		23.55	23.8	23.47
15	36	18		23.36	23.68	23.37
15	36	39		23.23	23.53	23.18
15	75	0		23.04	23.4	23.05
15	1	0	16-QAM	23.76	23.71	23.75
15	1	38		23.57	23.68	23.63
15	1	75		23.57	23.75	23.46
15	36	0		23.47	23.69	23.31
15	36	18		23.34	23.52	23.29
15	36	39		23.15	23.47	23
15	75	0		22.99	23.24	22.88
20	1	0	QPSK	24.22	24.32	24.55
20	1	49		24.15	24.26	24.55
20	1	99		24.15	24.22	24.5
20	50	0		24.12	24.08	24.4
20	50	24		24.06	24.07	24.29
20	50	49		23.98	23.95	24.11
20	100	0		23.98	23.85	24.03
20	1	0	16-QAM	24.15	24.23	24.48
20	1	49		23.96	24.26	24.45
20	1	99		24.13	24.18	24.46
20	50	0		23.92	24.03	24.38
20	50	24		23.9	23.92	24.2
20	50	49		23.95	23.86	24.04
20	100	0		23.79	23.76	24.02



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	24.13	24.26	24.42
1.4	1	2		24.01	24.17	24.36
1.4	1	5		23.88	24.13	24.25
1.4	3	0		23.84	23.94	24.25
1.4	3	1		23.81	23.78	24.17
1.4	3	2		23.64	23.76	24.16
1.4	6	0		23.55	23.66	24.12
1.4	1	0	16-QAM	23.93	24.22	24.26
1.4	1	2		23.97	24	24.31
1.4	1	5		23.69	24.13	24.16
1.4	3	0		23.76	23.74	24.1
1.4	3	1		23.63	23.66	24
1.4	3	2		23.61	23.67	24.04
1.4	6	0		23.42	23.48	23.98
3	1	0	QPSK	24.41	24.48	24.53
3	1	7		24.21	24.42	24.35
3	1	14		24.12	24.3	24.34
3	8	0		23.98	24.24	24.24
3	8	4		23.86	24.18	24.12
3	8	7		23.75	24.17	23.99
3	15	0		23.74	24.09	23.94
3	1	0	16-QAM	24.26	24.39	24.41
3	1	7		24.17	24.36	24.27
3	1	14		24.04	24.22	24.32
3	8	0		23.91	24.17	24.15
3	8	4		23.68	24.01	24.05
3	8	7		23.72	24.09	23.88
3	15	0		23.56	23.97	23.86



LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	24.51	24.56	24.62
5	1	12		24.36	24.49	24.46
5	1	24		24.18	24.47	24.46
5	12	0		24.1	24.38	24.3
5	12	6		24.01	24.23	24.28
5	12	11		23.95	24.13	24.22
5	25	0		23.89	24.06	24.14
5	1	0	16-QAM	24.47	24.46	24.62
5	1	12		24.17	24.35	24.41
5	1	24		24.12	24.39	24.31
5	12	0		23.92	24.22	24.22
5	12	6		23.83	24.19	24.27
5	12	11		23.92	24.07	24.2
5	25	0		23.88	23.88	24.03
10	1	0	QPSK	24.59	24.65	24.69
10	1	24		24.47	24.48	24.6
10	1	49		24.37	24.41	24.47
10	25	0		24.18	24.33	24.3
10	25	12		24.14	24.33	24.15
10	25	24		24.02	24.3	23.98
10	50	0		23.92	24.3	23.78
10	1	0	16-QAM	24.4	24.63	24.67
10	1	24		24.36	24.35	24.44
10	1	49		24.18	24.41	24.45
10	25	0		24.09	24.31	24.23
10	25	12		23.99	24.17	24.11
10	25	24		23.85	24.14	23.95
10	50	0		23.78	24.23	23.76



LTE BAND 13

LTE Band 13 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.59	23.62	23.68
5	1	12		23.50	23.47	23.61
5	1	24		23.33	23.31	23.47
5	12	0		23.24	23.31	23.30
5	12	6		23.16	23.14	23.19
5	12	11		23.00	23.11	23.08
5	25	0		22.96	23.09	22.91
5	1	0	16-QAM	23.59	23.45	23.61
5	1	12		23.36	23.43	23.61
5	1	24		23.23	23.22	23.42
5	12	0		23.24	23.25	23.14
5	12	6		23.15	23.10	22.99
5	12	11		22.81	22.97	22.94
5	25	0		22.76	23.07	22.74
10	1	0	QPSK	N/A	24.23	N/A
10	1	24		N/A	24.17	N/A
10	1	49		N/A	24.07	N/A
10	25	0		N/A	23.87	N/A
10	25	12		N/A	23.87	N/A
10	25	24		N/A	23.83	N/A
10	50	0		N/A	23.80	N/A
10	1	0	16-QAM	N/A	24.06	N/A
10	1	24		N/A	23.98	N/A
10	1	49		N/A	23.96	N/A
10	25	0		N/A	23.73	N/A
10	25	12		N/A	23.69	N/A
10	25	24		N/A	23.77	N/A
10	50	0		N/A	23.69	N/A



LTE BAND 17

LTE Band 17 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.23	23.35	23.55
5	1	12		23.2	23.21	23.36
5	1	24		23.02	23.02	23.28
5	12	0		22.93	22.85	23.09
5	12	6		22.75	22.67	22.99
5	12	11		22.58	22.48	22.98
5	25	0		22.41	22.38	22.92
5	1	0	16-QAM	23.14	23.2	23.46
5	1	12		23.01	23.04	23.25
5	1	24		22.95	22.85	23.28
5	12	0		22.79	22.68	23.09
5	12	6		22.56	22.49	22.94
5	12	11		22.39	22.29	22.85
5	25	0		22.34	22.31	22.86
10	1	0	QPSK	23.99	24.03	24.23
10	1	24		23.92	23.85	24.07
10	1	49		23.86	23.72	23.96
10	25	0		23.86	23.6	23.81
10	25	12		23.8	23.54	23.65
10	25	24		23.7	23.5	23.59
10	50	0		23.62	23.41	23.47
10	1	0	16-QAM	23.85	23.84	24.05
10	1	24		23.72	23.68	23.87
10	1	49		23.71	23.56	23.82
10	25	0		23.74	23.57	23.74
10	25	12		23.71	23.5	23.53
10	25	24		23.51	23.35	23.51
10	50	0		23.47	23.33	23.41



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	23.23	23.35	23.42
1.4	1	2		23.14	23.30	23.28
1.4	1	5		23.12	23.22	23.14
1.4	3	0		22.96	23.05	23.00
1.4	3	1		22.82	22.97	22.87
1.4	3	2		22.82	22.93	22.76
1.4	6	0		22.75	22.75	22.63
1.4	1	0	16-QAM	23.19	23.26	23.32
1.4	1	2		22.95	23.28	23.17
1.4	1	5		23.06	23.03	23.13
1.4	3	0		22.84	22.88	22.89
1.4	3	1		22.63	22.83	22.84
1.4	3	2		22.63	22.83	22.74
1.4	6	0		22.58	22.56	22.59
3	1	0	QPSK	23.39	23.45	23.55
3	1	7		23.19	23.30	23.35
3	1	14		23.14	23.27	23.23
3	8	0		23.05	23.26	23.16
3	8	4		22.89	23.17	22.99
3	8	7		22.73	23.13	22.87
3	15	0		22.71	23.04	22.83
3	1	0	16-QAM	23.22	23.34	23.44
3	1	7		23.18	23.21	23.16
3	1	14		23.09	23.16	23.15
3	8	0		22.88	23.07	23.03
3	8	4		22.75	23.08	22.81
3	8	7		22.67	23.10	22.83
3	15	0		22.66	22.99	22.72



LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.52	23.63	23.68
5	1	12		23.37	23.51	23.62
5	1	24		23.36	23.46	23.48
5	12	0		23.29	23.36	23.35
5	12	6		23.27	23.26	23.22
5	12	11		23.19	23.24	23.10
5	25	0		23.15	23.14	22.95
5	1	0	16-QAM	23.45	23.55	23.61
5	1	12		23.31	23.35	23.44
5	1	24		23.17	23.37	23.39
5	12	0		23.19	23.32	23.16
5	12	6		23.10	23.13	23.15
5	12	11		23.14	23.21	22.97
5	25	0		22.96	23.08	22.94
10	1	0	QPSK	23.62	23.75	23.85
10	1	24		23.47	23.71	23.79
10	1	49		23.36	23.57	23.59
10	25	0		23.19	23.49	23.49
10	25	12		23.12	23.45	23.45
10	25	24		22.98	23.26	23.40
10	50	0		22.86	23.17	23.39
10	1	0	16-QAM	23.53	23.68	23.81
10	1	24		23.43	23.63	23.62
10	1	49		23.24	23.51	23.57
10	25	0		23.13	23.33	23.48
10	25	12		23.10	23.41	23.39
10	25	24		22.85	23.15	23.36
10	50	0		22.71	22.98	23.32



LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	23.82	23.88	23.92
15	1	37		23.63	23.81	23.83
15	1	74		23.48	23.75	23.71
15	36	0		23.33	23.56	23.66
15	36	18		23.27	23.51	23.63
15	36	39		23.12	23.41	23.62
15	75	0		23.06	23.37	23.56
15	1	0	16-QAM	23.72	23.86	23.78
15	1	38		23.61	23.76	23.66
15	1	75		23.38	23.71	23.67
15	36	0		23.15	23.37	23.60
15	36	18		23.23	23.39	23.58
15	36	39		23.03	23.23	23.54
15	75	0		22.88	23.33	23.40
20	1	0	QPSK	23.93	24.03	24.13
20	1	49		23.90	24.00	24.03
20	1	99		23.89	23.86	23.87
20	50	0		23.72	23.85	23.78
20	50	24		23.70	23.83	23.74
20	50	49		23.56	23.82	23.57
20	100	0		23.46	23.76	23.39
20	1	0	16-QAM	23.83	24.00	24.06
20	1	49		23.76	23.81	23.91
20	1	99		23.77	23.76	23.82
20	50	0		23.68	23.68	23.72
20	50	24		23.58	23.66	23.60
20	50	49		23.37	23.73	23.54
20	100	0		23.29	23.67	23.33



LTE BAND 26

LTE Band 26Part22 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.35	23.42	23.52
1.4	1	2		23.21	23.39	23.38
1.4	1	5		23.09	23.34	23.30
1.4	3	0		23.04	23.17	23.11
1.4	3	1		22.86	23.07	23.02
1.4	3	2		22.81	22.97	23.01
1.4	6	0		22.67	22.94	22.85
1.4	1	0	16-QAM	23.17	23.36	23.52
1.4	1	2		23.10	23.35	23.26
1.4	1	5		23.08	23.24	23.22
1.4	3	0		23.02	22.99	22.95
1.4	3	1		22.70	23.03	22.95
1.4	3	2		22.80	22.86	22.88
1.4	6	0		22.49	22.86	22.81
3	1	0	QPSK	23.53	23.62	23.68
3	1	7		23.35	23.47	23.53
3	1	14		23.16	23.33	23.47
3	8	0		23.15	23.29	23.32
3	8	4		22.98	23.22	23.26
3	8	7		22.97	23.16	23.20
3	15	0		22.88	22.97	23.07
3	1	0	16-QAM	23.34	23.60	23.48
3	1	7		23.22	23.30	23.50
3	1	14		22.99	23.13	23.29
3	8	0		23.13	23.26	23.26
3	8	4		22.81	23.04	23.23
3	8	7		22.82	23.12	23.06
3	15	0		22.87	22.82	23.00



LTE Band 26Part22 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.69	23.75	23.78
5	1	12		23.65	23.68	23.59
5	1	24		23.47	23.55	23.48
5	12	0		23.34	23.42	23.29
5	12	6		23.25	23.35	23.19
5	12	11		23.20	23.19	23.09
5	25	0		23.19	23.15	23.02
5	1	0	16-QAM	23.54	23.69	23.58
5	1	12		23.61	23.50	23.55
5	1	24		23.39	23.55	23.45
5	12	0		23.27	23.38	23.14
5	12	6		23.17	23.22	23.09
5	12	11		23.01	23.04	22.92
5	25	0		23.19	23.08	22.88
10	1	0	QPSK	23.76	23.85	23.89
10	1	24		23.68	23.67	23.85
10	1	49		23.58	23.60	23.84
10	25	0		23.39	23.57	23.82
10	25	12		23.27	23.37	23.64
10	25	24		23.15	23.36	23.46
10	50	0		23.09	23.28	23.37
10	1	0	16-QAM	23.72	23.72	23.87
10	1	24		23.63	23.56	23.73
10	1	49		23.49	23.41	23.67
10	25	0		23.28	23.37	23.71
10	25	12		23.19	23.26	23.48
10	25	24		23.07	23.27	23.34
10	50	0		22.95	23.27	23.31



LTE Band 26Part22 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	24.06	24.13	24.22
15	1	24		24.00	23.98	24.15
15	1	49		23.93	23.95	24.07
15	25	0		23.81	23.85	23.93
15	25	12		23.78	23.83	23.88
15	25	24		23.78	23.79	23.72
15	50	0		23.76	23.73	23.69
15	1	0	16-QAM	24.05	23.96	24.18
15	1	24		23.90	23.90	24.03
15	1	49		23.83	23.88	23.94
15	25	0		23.67	23.74	23.79
15	25	12		23.61	23.73	23.69
15	25	24		23.62	23.73	23.63
15	50	0		23.68	23.68	23.52



LTE Band 26Part90 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.36	23.42	23.55
1.4	1	2		23.32	23.27	23.54
1.4	1	5		23.29	23.23	23.41
1.4	3	0		23.19	23.15	23.27
1.4	3	1		23.04	23.10	23.14
1.4	3	2		22.93	23.07	23.14
1.4	6	0		22.84	23.02	23.13
1.4	1	0	16-QAM	23.26	23.23	23.44
1.4	1	2		23.13	23.09	23.47
1.4	1	5		23.22	23.06	23.34
1.4	3	0		23.05	23.05	23.23
1.4	3	1		23.03	22.99	22.95
1.4	3	2		22.82	22.95	23.05
1.4	6	0		22.69	22.96	23.11
3	1	0	QPSK	23.53	23.66	23.68
3	1	7		23.33	23.59	23.53
3	1	14		23.15	23.48	23.34
3	8	0		23.02	23.34	23.31
3	8	4		22.86	23.25	23.13
3	8	7		22.67	23.19	22.99
3	15	0		22.56	23.19	22.95
3	1	0	16-QAM	23.46	23.50	23.50
3	1	7		23.15	23.40	23.48
3	1	14		23.02	23.36	23.26
3	8	0		23.01	23.24	23.16
3	8	4		22.81	23.23	23.03
3	8	7		22.60	23.11	22.90
3	15	0		22.46	23.15	22.94



LTE Band 26Part90 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.69	23.76	23.79
5	1	12		23.56	23.70	23.74
5	1	24		23.54	23.55	23.69
5	12	0		23.42	23.49	23.63
5	12	6		23.32	23.42	23.55
5	12	11		23.15	23.26	23.46
5	25	0		23.04	23.12	23.37
5	1	0	16-QAM	23.50	23.57	23.71
5	1	12		23.36	23.58	23.73
5	1	24		23.43	23.46	23.59
5	12	0		23.32	23.47	23.47
5	12	6		23.30	23.25	23.52
5	12	11		23.00	23.10	23.31
5	25	0		22.86	23.06	23.36
10	1	0	QPSK	N/A	24.21	N/A
10	1	24		N/A	24.02	N/A
10	1	49		N/A	23.82	N/A
10	25	0		N/A	23.62	N/A
10	25	12		N/A	23.49	N/A
10	25	24		N/A	23.40	N/A
10	50	0		N/A	23.27	N/A
10	1	0	16-QAM	N/A	24.12	N/A
10	1	24		N/A	24.00	N/A
10	1	49		N/A	23.68	N/A
10	25	0		N/A	23.57	N/A
10	25	12		N/A	23.30	N/A
10	25	24		N/A	23.25	N/A
10	50	0		N/A	23.23	N/A



LTE BAND 40

LTE Band 40 2305-2315 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.13	22.32	22.35
5	1	12		22.08	22.31	22.28
5	1	24		22.03	22.23	22.15
5	12	0		21.96	22.11	22.04
5	12	6		21.94	21.93	21.91
5	12	11		21.81	21.75	21.85
5	25	0		21.75	21.55	21.81
5	1	0	16-QAM	21.99	22.27	22.29
5	1	12		22.05	22.25	22.25
5	1	24		21.98	22.13	22.15
5	12	0		21.89	22.07	21.90
5	12	6		21.82	21.77	21.74
5	12	11		21.75	21.55	21.83
5	25	0		21.58	21.53	21.75
10	1	0	QPSK	N/A	N/A	23.35
10	1	24		N/A	N/A	23.26
10	1	49		N/A	N/A	23.16
10	25	0		N/A	N/A	23.07
10	25	12		N/A	N/A	23.07
10	25	24		N/A	N/A	23.05
10	50	0		N/A	N/A	22.86
10	1	0	16-QAM	N/A	N/A	23.16
10	1	24		N/A	N/A	23.21
10	1	49		N/A	N/A	23.08
10	25	0		N/A	N/A	22.96
10	25	12		N/A	N/A	22.91
10	25	24		N/A	N/A	23.01
10	50	0		N/A	N/A	22.68



LTE Band 40 2350-2360 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.66	22.86	22.95
5	1	12		22.49	22.82	22.89
5	1	24		22.3	22.69	22.71
5	12	0		22.19	22.5	22.62
5	12	6		22.1	22.36	22.61
5	12	11		22.08	22.33	22.58
5	25	0		21.94	22.18	22.44
5	1	0	16-QAM	22.64	22.8	22.84
5	1	12		22.32	22.71	22.88
5	1	24		22.28	22.63	22.55
5	12	0		22.19	22.48	22.49
5	12	6		22.04	22.18	22.61
5	12	11		21.99	22.19	22.39
5	25	0		21.85	22.16	22.37
10	1	0	QPSK	N/A	N/A	23.89
10	1	24		N/A	N/A	23.73
10	1	49		N/A	N/A	23.64
10	25	0		N/A	N/A	23.52
10	25	12		N/A	N/A	23.43
10	25	24		N/A	N/A	23.4
10	50	0		N/A	N/A	23.21
10	1	0	16-QAM	N/A	N/A	23.78
10	1	24		N/A	N/A	23.62
10	1	49		N/A	N/A	23.57
10	25	0		N/A	N/A	23.33
10	25	12		N/A	N/A	23.38
10	25	24		N/A	N/A	23.3
10	50	0		N/A	N/A	23.02



LTE BAND 41

LTE Band 41Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle 1	Middle 2	Middle 3	Highest
5	1	0	QPSK	23.12	23.22	23.23	23.23	23.32
5	1	12		22.96	23.20	23.21	23.21	23.19
5	1	24		22.77	23.01	23.02	23.02	23.16
5	12	0		22.68	23.01	23.01	23.01	23.14
5	12	6		22.51	22.99	23.00	22.99	23.10
5	12	11		22.35	22.89	22.90	22.89	22.94
5	25	0		22.33	22.80	22.81	22.80	22.83
5	1	0	16-QAM	23.00	23.06	23.07	23.07	23.24
5	1	12		22.95	23.14	23.14	23.14	23.05
5	1	24		22.65	22.99	22.99	22.99	23.06
5	12	0		22.58	22.87	22.88	22.88	23.06
5	12	6		22.32	22.99	22.99	22.99	22.96
5	12	11		22.28	22.72	22.73	22.73	22.76
5	25	0		22.14	22.73	22.73	22.73	22.76
10	1	0	QPSK	23.35	23.37	23.38	23.37	23.45
10	1	24		23.22	23.36	23.36	23.36	23.32
10	1	49		23.10	23.34	23.34	23.33	23.31
10	25	0		23.05	23.17	23.18	23.17	23.14
10	25	12		22.97	22.98	22.99	22.98	22.94
10	25	24		22.87	22.96	22.97	22.96	22.88
10	50	0		22.82	22.84	22.84	22.84	22.74
10	1	0	16-QAM	23.17	23.35	23.36	23.36	23.35
10	1	24		23.13	23.30	23.31	23.31	23.26
10	1	49		22.94	23.14	23.15	23.14	23.29
10	25	0		22.86	23.10	23.11	23.10	23.04
10	25	12		22.79	22.94	22.95	22.94	22.85
10	25	24		22.87	22.93	22.94	22.93	22.75
10	50	0		22.69	22.84	22.84	22.83	22.64



LTE Band 41 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle 1	Middle 2	Middle 3	Highest
15	1	0	QPSK	23.46	23.52	23.52	23.51	23.56
15	1	37		23.37	23.46	23.47	23.47	23.50
15	1	74		23.21	23.27	23.28	23.27	23.31
15	36	0		23.04	23.12	23.12	23.11	23.11
15	36	18		22.84	22.97	22.97	22.96	22.95
15	36	39		22.65	22.93	22.94	22.93	22.81
15	75	0		22.50	22.76	22.76	22.76	22.66
15	1	0	16-QAM	23.30	23.46	23.47	23.48	23.50
15	1	38		23.18	23.29	23.30	23.29	23.36
15	1	75		23.07	23.15	23.15	23.16	23.19
15	36	0		23.03	23.00	23.01	23.02	22.96
15	36	18		22.83	22.81	22.82	22.81	22.87
15	36	39		22.51	22.92	22.93	22.93	22.73
15	75	0		22.38	22.55	22.56	22.55	22.55
20	1	0	QPSK	23.86	23.96	23.96	23.95	24.06
20	1	49		23.76	23.82	23.83	23.82	23.97
20	1	99		23.73	23.81	23.81	23.82	23.86
20	50	0		23.57	23.64	23.64	23.64	23.82
20	50	24		23.52	23.60	23.61	23.62	23.70
20	50	49		23.43	23.45	23.46	23.46	23.66
20	100	0		23.37	23.40	23.41	23.42	23.50
20	1	0	16-QAM	23.80	23.85	23.86	23.86	23.98
20	1	49		23.64	23.77	23.77	23.77	23.95
20	1	99		23.55	23.70	23.71	23.71	23.81
20	50	0		23.46	23.44	23.45	23.46	23.70
20	50	24		23.44	23.46	23.46	23.45	23.63
20	50	49		23.27	23.30	23.30	23.30	23.46
20	100	0		23.24	23.31	23.32	23.32	23.33



LTE BAND 66

LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.72	23.78	23.79
1.4	1	2		23.60	23.65	23.79
1.4	1	5		23.59	23.45	23.62
1.4	3	0		23.40	23.31	23.44
1.4	3	1		23.27	23.23	23.42
1.4	3	2		23.20	23.13	23.27
1.4	6	0		23.10	23.05	23.22
1.4	1	0	16-QAM	23.59	23.77	23.75
1.4	1	2		23.42	23.61	23.68
1.4	1	5		23.51	23.26	23.60
1.4	3	0		23.20	23.16	23.24
1.4	3	1		23.08	23.22	23.23
1.4	3	2		23.14	23.01	23.25
1.4	6	0		22.92	22.90	23.17
3	1	0	QPSK	23.81	23.79	23.81
3	1	7		23.64	23.70	23.75
3	1	14		23.48	23.60	23.60
3	8	0		23.44	23.59	23.58
3	8	4		23.40	23.40	23.41
3	8	7		23.35	23.39	23.36
3	15	0		23.24	23.37	23.25
3	1	0	16-QAM	23.79	23.78	23.75
3	1	7		23.63	23.66	23.74
3	1	14		23.47	23.42	23.44
3	8	0		23.43	23.54	23.55
3	8	4		23.33	23.20	23.34
3	8	7		23.19	23.28	23.25
3	15	0		23.19	23.31	23.20



LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.86	23.88	23.92
5	1	12		23.71	23.77	23.76
5	1	24		23.64	23.76	23.72
5	12	0		23.57	23.68	23.60
5	12	6		23.55	23.65	23.46
5	12	11		23.40	23.49	23.32
5	25	0		23.22	23.48	23.16
5	1	0	16-QAM	23.77	23.73	23.87
5	1	12		23.60	23.73	23.67
5	1	24		23.57	23.72	23.55
5	12	0		23.47	23.56	23.43
5	12	6		23.46	23.58	23.44
5	12	11		23.31	23.49	23.23
5	25	0		23.06	23.36	23.11
10	1	0	QPSK	23.95	23.96	23.99
10	1	24		23.80	23.85	23.95
10	1	49		23.73	23.74	23.95
10	25	0		23.58	23.57	23.80
10	25	12		23.41	23.39	23.66
10	25	24		23.30	23.20	23.58
10	50	0		23.27	23.15	23.55
10	1	0	16-QAM	23.78	23.95	23.97
10	1	24		23.68	23.82	23.83
10	1	49		23.60	23.58	23.77
10	25	0		23.41	23.55	23.65
10	25	12		23.33	23.21	23.63
10	25	24		23.19	23.20	23.50
10	50	0		23.23	23.09	23.52



LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	24.06	24.13	24.16
15	1	37		23.95	24.11	24.08
15	1	74		23.90	24.08	23.91
15	36	0		23.71	24.00	23.83
15	36	18		23.61	23.89	23.68
15	36	39		23.56	23.77	23.62
15	75	0		23.41	23.59	23.61
15	1	0	16-QAM	24.03	23.98	23.98
15	1	38		23.83	24.03	23.98
15	1	75		23.87	24.07	23.73
15	36	0		23.53	23.84	23.67
15	36	18		23.47	23.88	23.57
15	36	39		23.38	23.58	23.60
15	75	0		23.22	23.48	23.60
20	1	0	QPSK	24.22	24.38	24.42
20	1	49		24.12	24.38	24.38
20	1	99		24.01	24.19	24.20
20	50	0		23.87	24.02	24.05
20	50	24		23.83	23.97	23.98
20	50	49		23.72	23.87	23.81
20	100	0		23.70	23.77	23.62
20	1	0	16-QAM	24.06	24.35	24.28
20	1	49		24.12	24.21	24.31
20	1	99		23.83	24.06	24.17
20	50	0		23.80	24.01	24.01
20	50	24		23.71	23.93	23.83
20	50	49		23.67	23.87	23.65
20	100	0		23.69	23.71	23.54



SA Power

NR n2 / SCS 15KHz						
BW (MHz)	UL Channel	RB Size	RB offset	Modulation	Conduction AVG Power(dBm)	Verdict
5	Lowest	1	1	DFT_BPSK	22.74	PASS
		25	0	DFT_QPSK	21.81	PASS
		12	6		22.83	PASS
		1	1		22.75	PASS
		1	23		22.75	PASS
		1	1	DFT_QAM16	21.90	PASS
		1	1	DFT_QAM64	20.57	PASS
		1	1	DFT_QAM256	18.31	PASS
		1	1	CP_QPSK	21.05	PASS
	Middle	1	1	DFT_BPSK	22.69	PASS
		25	0	DFT_QPSK	21.73	PASS
		12	6		22.74	PASS
		1	1		22.68	PASS
		1	23		22.63	PASS
		1	1	DFT_QAM16	21.85	PASS
		1	1	DFT_QAM64	20.45	PASS
		1	1	DFT_QAM256	18.76	PASS
		1	1	CP_QPSK	21.02	PASS
	Highest	1	1	DFT_BPSK	22.49	PASS
		25	0	DFT_QPSK	21.54	PASS
		12	6		22.51	PASS
		1	1		22.39	PASS
		1	23		22.37	PASS
		1	1	DFT_QAM16	21.62	PASS
		1	1	DFT_QAM64	20.15	PASS
		1	1	DFT_QAM256	18.01	PASS
		1	1	CP_QPSK	20.74	PASS
10	Lowest	1	1	DFT_BPSK	22.59	PASS
		50	0	DFT_QPSK	21.66	PASS
		25	12		22.69	PASS
		1	1		22.59	PASS
		1	50		22.64	PASS
		1	1	DFT_QAM16	21.44	PASS
		1	1	DFT_QAM64	20.33	PASS
		1	1	DFT_QAM256	18.71	PASS
		1	1	CP_QPSK	21.05	PASS



	Middle	1	1	DFT_BPSK	22.52	PASS
		50	0	DFT_QPSK	21.47	PASS
		25	12		22.55	PASS
		1	1		22.45	PASS
		1	50		22.36	PASS
		1	1	DFT_QAM16	21.64	PASS
		1	1	DFT_QAM64	20.03	PASS
		1	1	DFT_QAM256	18.00	PASS
		1	1	CP_QPSK	20.92	PASS
	Highest	1	1	DFT_BPSK	22.30	PASS
		50	0	DFT_QPSK	21.33	PASS
		25	12		22.35	PASS
		1	1		22.26	PASS
		1	50		22.19	PASS
		1	1	DFT_QAM16	21.47	PASS
		1	1	DFT_QAM64	20.04	PASS
		1	1	DFT_QAM256	17.81	PASS
		1	1	CP_QPSK	20.76	PASS
15	Lowest	1	1	DFT_BPSK	22.63	PASS
		75	0	DFT_QPSK	21.90	PASS
		36	18		22.87	PASS
		1	1		22.66	PASS
		1	77		22.65	PASS
		1	1	DFT_QAM16	21.51	PASS
		1	1	DFT_QAM64	20.40	PASS
		1	1	DFT_QAM256	18.16	PASS
		1	1	CP_QPSK	21.09	PASS
	Middle	1	1	DFT_BPSK	22.52	PASS
		75	0	DFT_QPSK	21.67	PASS
		36	18		22.65	PASS
		1	1		22.57	PASS
		1	77		22.47	PASS
		1	1	DFT_QAM16	21.77	PASS
		1	1	DFT_QAM64	20.05	PASS
		1	1	DFT_QAM256	18.05	PASS
		1	1	CP_QPSK	21.07	PASS
	Highest	1	1	DFT_BPSK	22.32	PASS
		75	0	DFT_QPSK	21.60	PASS
		36	18		22.49	PASS
		1	1		22.45	PASS
		1	77		22.27	PASS



		1	1	DFT_QAM16	21.52	PASS
		1	1	DFT_QAM64	20.16	PASS
		1	1	DFT_QAM256	18.45	PASS
		1	1	CP_QPSK	20.85	PASS
20	Lowest	1	1	DFT_BPSK	22.66	PASS
		100	0	DFT_QPSK	21.80	PASS
		50	25		22.84	PASS
		1	1		22.61	PASS
		1	104		22.61	PASS
		1	1	DFT_QAM16	21.66	PASS
		1	1	DFT_QAM64	20.27	PASS
		1	1	DFT_QAM256	18.71	PASS
		1	1	CP_QPSK	21.08	PASS
	Middle	1	1	DFT_BPSK	22.51	PASS
		100	0	DFT_QPSK	21.66	PASS
		50	25		22.76	PASS
		1	1		22.54	PASS
		1	104		22.38	PASS
		1	1	DFT_QAM16	21.74	PASS
		1	1	DFT_QAM64	20.29	PASS
		1	1	DFT_QAM256	18.04	PASS
		1	1	CP_QPSK	21.00	PASS
	Highest	1	1	DFT_BPSK	22.49	PASS
		100	0	DFT_QPSK	21.54	PASS
		50	25		22.55	PASS
		1	1		22.45	PASS
		1	104		22.27	PASS
		1	1	DFT_QAM16	21.59	PASS
		1	1	DFT_QAM64	20.11	PASS
		1	1	DFT_QAM256	18.53	PASS
		1	1	CP_QPSK	20.89	PASS



NR n5 / SCS 15KHz						
BW (MHz)	UL Channel	RB Size	RB offset	Modulation	Conduction AVG Power(dBm)	Verdict
5	Lowest	1	1	DFT_BPSK	21.94	PASS
		25	0	DFT_QPSK	21.10	PASS
		12	6		22.01	PASS
		1	1		21.97	PASS
		1	23		22.05	PASS
		1	1	DFT_QAM16	21.13	PASS
		1	1	DFT_QAM64	19.71	PASS
		1	1	DFT_QAM256	17.29	PASS
		1	1	CP_QPSK	20.50	PASS
	Middle	1	1	DFT_BPSK	22.12	PASS
		25	0	DFT_QPSK	21.16	PASS
		12	6		22.11	PASS
		1	1		22.02	PASS
		1	23		22.05	PASS
		1	1	DFT_QAM16	20.85	PASS
		1	1	DFT_QAM64	19.59	PASS
		1	1	DFT_QAM256	17.44	PASS
		1	1	CP_QPSK	20.53	PASS
	Highest	1	1	DFT_BPSK	22.09	PASS
		25	0	DFT_QPSK	21.15	PASS
		12	6		22.15	PASS
		1	1		22.12	PASS
		1	23		22.00	PASS
		1	1	DFT_QAM16	21.47	PASS
		1	1	DFT_QAM64	19.77	PASS
		1	1	DFT_QAM256	17.90	PASS
		1	1	CP_QPSK	20.42	PASS
10	Lowest	1	1	DFT_BPSK	21.87	PASS
		50	0	DFT_QPSK	20.91	PASS
		25	12		21.82	PASS
		1	1		21.73	PASS
		1	50		21.75	PASS
		1	1	DFT_QAM16	21.14	PASS
		1	1	DFT_QAM64	19.56	PASS
		1	1	DFT_QAM256	17.13	PASS
		1	1	CP_QPSK	20.31	PASS
	Middle	1	1	DFT_BPSK	21.97	PASS



		50	0	DFT_QPSK	20.85	PASS
		25	12		21.92	PASS
		1	1		21.87	PASS
		1	50		21.92	PASS
		1	1	DFT_QAM16	20.94	PASS
		1	1	DFT_QAM64	19.64	PASS
		1	1	DFT_QAM256	17.15	PASS
		1	1	CP_QPSK	20.34	PASS
	Highest	1	1	DFT_BPSK	21.90	PASS
		50	0	DFT_QPSK	21.02	PASS
		25	12		21.99	PASS
		1	1		21.81	PASS
		1	50		21.86	PASS
		1	1	DFT_QAM16	20.93	PASS
		1	1	DFT_QAM64	19.57	PASS
		1	1	DFT_QAM256	17.64	PASS
		1	1	CP_QPSK	20.17	PASS
15	Lowest	1	1	DFT_BPSK	21.91	PASS
		75	0	DFT_QPSK	21.01	PASS
		36	18		22.06	PASS
		1	1		21.83	PASS
		1	77		21.92	PASS
		1	1	DFT_QAM16	21.08	PASS
		1	1	DFT_QAM64	19.66	PASS
		1	1	DFT_QAM256	17.55	PASS
		1	1	CP_QPSK	20.39	PASS
	Middle	1	1	DFT_BPSK	21.88	PASS
		75	0	DFT_QPSK	21.08	PASS
		36	18		22.09	PASS
		1	1		21.89	PASS
		1	77		22.00	PASS
		1	1	DFT_QAM16	20.73	PASS
		1	1	DFT_QAM64	19.31	PASS
		1	1	DFT_QAM256	17.13	PASS
		1	1	CP_QPSK	20.36	PASS
	Highest	1	1	DFT_BPSK	21.90	PASS
		75	0	DFT_QPSK	21.25	PASS
		36	18		22.15	PASS
		1	1		21.92	PASS
		1	77		21.91	PASS
		1	1	DFT_QAM16	21.03	PASS



		1	1	DFT_QAM64	19.63	PASS
		1	1	DFT_QAM256	17.28	PASS
		1	1	CP_QPSK	20.36	PASS
20	Lowest	1	1	DFT_BPSK	21.82	PASS
		100	0	DFT_QPSK	20.86	PASS
		50	25		22.03	PASS
		1	1		21.76	PASS
		1	104		21.94	PASS
		1	1	DFT_QAM16	21.03	PASS
		1	1	DFT_QAM64	19.53	PASS
		1	1	DFT_QAM256	17.17	PASS
		1	1	CP_QPSK	20.20	PASS
	Middle	1	1	DFT_BPSK	21.86	PASS
		100	0	DFT_QPSK	20.95	PASS
		50	25		22.09	PASS
		1	1		21.83	PASS
		1	104		21.96	PASS
		1	1	DFT_QAM16	21.00	PASS
		1	1	DFT_QAM64	19.49	PASS
		1	1	DFT_QAM256	17.22	PASS
		1	1	CP_QPSK	20.25	PASS
	Highest	1	1	DFT_BPSK	21.89	PASS
		100	0	DFT_QPSK	21.08	PASS
		50	25		22.18	PASS
		1	1		21.83	PASS
		1	104		21.87	PASS
		1	1	DFT_QAM16	21.22	PASS
		1	1	DFT_QAM64	19.61	PASS
		1	1	DFT_QAM256	17.19	PASS
		1	1	CP_QPSK	20.32	PASS



NR n7 / SCS 15KHz						
BW (MHz)	UL Channel	RB Size	RB offset	Modulation	Conduction AVG Power(dBm)	Verdict
5	Lowest	1	1	DFT_BPSK	22.60	PASS
		25	0	DFT_QPSK	21.50	PASS
		12	6		22.47	PASS
		1	1		22.50	PASS
		1	23		22.39	PASS
		1	1	DFT_QAM16	21.68	PASS
		1	1	DFT_QAM64	20.29	PASS
		1	1	DFT_QAM256	17.84	PASS
		1	1	CP_QPSK	20.90	PASS
	Middle	1	1	DFT_BPSK	22.49	PASS
		25	0	DFT_QPSK	21.61	PASS
		12	6		22.53	PASS
		1	1		22.55	PASS
		1	23		22.47	PASS
		1	1	DFT_QAM16	21.40	PASS
		1	1	DFT_QAM64	20.18	PASS
		1	1	DFT_QAM256	17.81	PASS
		1	1	CP_QPSK	20.98	PASS
	Highest	1	1	DFT_BPSK	22.59	PASS
		25	0	DFT_QPSK	21.73	PASS
		12	6		22.71	PASS
		1	1		22.58	PASS
		1	23		22.56	PASS
		1	1	DFT_QAM16	21.99	PASS
		1	1	DFT_QAM64	20.32	PASS
		1	1	DFT_QAM256	18.51	PASS
		1	1	CP_QPSK	21.05	PASS
10	Lowest	1	1	DFT_BPSK	22.42	PASS
		50	0	DFT_QPSK	21.31	PASS
		25	12		22.40	PASS
		1	1		22.34	PASS
		1	50		22.29	PASS
		1	1	DFT_QAM16	21.67	PASS
		1	1	DFT_QAM64	19.93	PASS
		1	1	DFT_QAM256	17.71	PASS
		1	1	CP_QPSK	20.84	PASS
	Middle	1	1	DFT_BPSK	22.36	PASS



		50	0	DFT_QPSK	21.41	PASS
		25	12		22.31	PASS
		1	1		22.21	PASS
		1	50		22.42	PASS
		1	1	DFT_QAM16	21.60	PASS
		1	1	DFT_QAM64	19.98	PASS
		1	1	DFT_QAM256	17.59	PASS
		1	1	CP_QPSK	20.73	PASS
	Highest	1	1	DFT_BPSK	22.39	PASS
		50	0	DFT_QPSK	21.46	PASS
		25	12		22.55	PASS
		1	1		22.31	PASS
		1	50		22.43	PASS
		1	1	DFT_QAM16	21.76	PASS
		1	1	DFT_QAM64	20.02	PASS
		1	1	DFT_QAM256	18.06	PASS
1	1	CP_QPSK	20.80	PASS		
15	Lowest	1	1	DFT_BPSK	22.31	PASS
		75	0	DFT_QPSK	21.58	PASS
		36	18		22.46	PASS
		1	1		22.41	PASS
		1	77		22.41	PASS
		1	1	DFT_QAM16	21.23	PASS
		1	1	DFT_QAM64	20.08	PASS
		1	1	DFT_QAM256	18.21	PASS
		1	1	CP_QPSK	20.81	PASS
	Middle	1	1	DFT_BPSK	22.37	PASS
		75	0	DFT_QPSK	21.58	PASS
		36	18		22.52	PASS
		1	1		22.40	PASS
		1	77		22.33	PASS
		1	1	DFT_QAM16	21.60	PASS
		1	1	DFT_QAM64	19.81	PASS
		1	1	DFT_QAM256	18.24	PASS
		1	1	CP_QPSK	20.93	PASS
	Highest	1	1	DFT_BPSK	22.48	PASS
		75	0	DFT_QPSK	21.74	PASS
		36	18		22.70	PASS
		1	1		22.41	PASS
		1	77		22.51	PASS
		1	1	DFT_QAM16	21.62	PASS



		1	1	DFT_QAM64	20.21	PASS
		1	1	DFT_QAM256	17.82	PASS
		1	1	CP_QPSK	20.92	PASS
20	Lowest	1	1	DFT_BPSK	22.45	PASS
		100	0	DFT_QPSK	21.60	PASS
		50	25		22.53	PASS
		1	1		22.40	PASS
		1	104		22.30	PASS
		1	1	DFT_QAM16	21.50	PASS
		1	1	DFT_QAM64	20.08	PASS
		1	1	DFT_QAM256	17.76	PASS
		1	1	CP_QPSK	20.87	PASS
	Middle	1	1	DFT_BPSK	22.37	PASS
		100	0	DFT_QPSK	21.57	PASS
		50	25		22.51	PASS
		1	1		22.20	PASS
		1	104		22.43	PASS
		1	1	DFT_QAM16	21.29	PASS
		1	1	DFT_QAM64	20.08	PASS
		1	1	DFT_QAM256	17.69	PASS
		1	1	CP_QPSK	20.74	PASS
	Highest	1	1	DFT_BPSK	22.39	PASS
		100	0	DFT_QPSK	21.60	PASS
		50	25		22.62	PASS
		1	1		22.31	PASS
		1	104		22.47	PASS
		1	1	DFT_QAM16	21.32	PASS
		1	1	DFT_QAM64	19.90	PASS
		1	1	DFT_QAM256	17.75	PASS
		1	1	CP_QPSK	20.85	PASS



NR n41 / SCS 30KHz						
BW (MHz)	UL Channel	RB Size	RB offset	Modulation	Conduction AVG Power(dBm)	Verdict
20	Lowest	1	1	DFT_BPSK	25.29	PASS
		50	0	DFT_QPSK	24.41	PASS
		25	12		25.41	PASS
		1	1		25.17	PASS
		1	49		25.15	PASS
		1	1	DFT_QAM16	24.25	PASS
		1	1	DFT_QAM64	22.81	PASS
		1	1	DFT_QAM256	20.73	PASS
		1	1	CP_QPSK	23.59	PASS
	Middle	1	1	DFT_BPSK	25.53	PASS
		50	0	DFT_QPSK	24.65	PASS
		25	12		25.72	PASS
		1	1		25.63	PASS
		1	49		25.66	PASS
		1	1	DFT_QAM16	24.20	PASS
		1	1	DFT_QAM64	23.15	PASS
		1	1	DFT_QAM256	20.86	PASS
		1	1	CP_QPSK	23.71	PASS
	Highest	1	1	DFT_BPSK	25.06	PASS
		50	0	DFT_QPSK	24.19	PASS
		25	12		25.24	PASS
		1	1		24.88	PASS
		1	49		24.87	PASS
		1	1	DFT_QAM16	24.11	PASS
		1	1	DFT_QAM64	22.57	PASS
		1	1	DFT_QAM256	20.39	PASS
		1	1	CP_QPSK	23.08	PASS
40	Lowest	1	1	DFT_BPSK	24.80	PASS
		128	0	DFT_QPSK	24.18	PASS
		64	32		25.37	PASS
		1	1		24.85	PASS
		1	131		25.01	PASS
		1	1	DFT_QAM16	23.79	PASS
		1	1	DFT_QAM64	22.61	PASS



		1	1	DFT_QAM256	20.89	PASS
		1	1	CP_QPSK	23.20	PASS
	Middle	1	1	DFT_BPSK	25.04	PASS
		100	0	DFT_QPSK	24.51	PASS
		50	25		25.59	PASS
		1	1		24.93	PASS
		1	104		24.90	PASS
		1	1	DFT_QAM16	24.05	PASS
		1	1	DFT_QAM64	22.72	PASS
		1	1	DFT_QAM256	20.45	PASS
		1	1	CP_QPSK	23.26	PASS
	Highest	1	1	DFT_BPSK	24.83	PASS
		100	0	DFT_QPSK	24.31	PASS
		50	25		25.19	PASS
		1	1		24.65	PASS
		1	104		24.55	PASS
		1	1	DFT_QAM16	23.62	PASS
		1	1	DFT_QAM64	22.29	PASS
		1	1	DFT_QAM256	20.10	PASS
		1	1	CP_QPSK	22.80	PASS
50	Lowest	1	1	DFT_BPSK	25.16	PASS
		100	0	DFT_QPSK	24.26	PASS
		50	25		25.46	PASS
		1	1		25.08	PASS
		1	104		25.22	PASS
		1	1	DFT_QAM16	24.23	PASS
		1	1	DFT_QAM64	22.67	PASS
		1	1	DFT_QAM256	20.44	PASS
		1	1	CP_QPSK	23.73	PASS
	Middle	1	1	DFT_BPSK	25.40	PASS
		128	0	DFT_QPSK	24.59	PASS
		64	32		25.64	PASS
		1	1		25.34	PASS
		1	131		25.35	PASS
		1	1	DFT_QAM16	24.25	PASS
		1	1	DFT_QAM64	22.93	PASS
		1	1	DFT_QAM256	21.15	PASS
		1	1	CP_QPSK	23.42	PASS



	Highest	1	1	DFT_BPSK	25.17	PASS
		128	0	DFT_QPSK	24.28	PASS
		64	32		25.30	PASS
		1	1		25.06	PASS
		1	131		24.73	PASS
		1	1	DFT_QAM16	24.05	PASS
		1	1	DFT_QAM64	22.37	PASS
		1	1	DFT_QAM256	21.05	PASS
		1	1	CP_QPSK	23.20	PASS
60	Lowest	1	1	DFT_BPSK	24.95	PASS
		162	0	DFT_QPSK	24.13	PASS
		81	40		25.34	PASS
		1	1		24.81	PASS
		1	160		24.96	PASS
		1	1	DFT_QAM16	23.99	PASS
		1	1	DFT_QAM64	22.56	PASS
		1	1	DFT_QAM256	21.02	PASS
		1	1	CP_QPSK	23.29	PASS
	Middle	1	1	DFT_BPSK	25.30	PASS
		162	0	DFT_QPSK	24.53	PASS
		81	40		25.60	PASS
		1	1		25.11	PASS
		1	160		25.04	PASS
		1	1	DFT_QAM16	24.27	PASS
		1	1	DFT_QAM64	22.66	PASS
		1	1	DFT_QAM256	21.15	PASS
		1	1	CP_QPSK	23.57	PASS
	Highest	1	1	DFT_BPSK	25.09	PASS
		162	0	DFT_QPSK	24.29	PASS
		81	40		25.23	PASS
		1	1		24.90	PASS
		1	160		24.61	PASS
		1	1	DFT_QAM16	24.07	PASS
		1	1	DFT_QAM64	22.69	PASS
		1	1	DFT_QAM256	20.40	PASS
		1	1	CP_QPSK	23.32	PASS
80	Lowest	1	1	DFT_BPSK	25.03	PASS
		216	0	DFT_QPSK	24.30	PASS



		108	54		25.51	PASS
		1	1		24.86	PASS
		1	215		25.20	PASS
		1	1	DFT_QAM16	23.72	PASS
		1	1	DFT_QAM64	22.77	PASS
		1	1	DFT_QAM256	20.87	PASS
		1	1	CP_QPSK	23.02	PASS
	Middle	1	1	DFT_BPSK	25.24	PASS
		216	0	DFT_QPSK	24.59	PASS
		108	54		25.76	PASS
		1	1		25.04	PASS
		1	215		24.93	PASS
		1	1	DFT_QAM16	23.68	PASS
		1	1	DFT_QAM64	22.62	PASS
		1	1	DFT_QAM256	20.84	PASS
		1	1	CP_QPSK	23.01	PASS
	Highest	1	1	DFT_BPSK	25.09	PASS
		216	0	DFT_QPSK	24.20	PASS
		108	54		25.41	PASS
		1	1		24.96	PASS
		1	215		24.61	PASS
		1	1	DFT_QAM16	24.22	PASS
		1	1	DFT_QAM64	22.88	PASS
		1	1	DFT_QAM256	20.49	PASS
		1	1	CP_QPSK	23.42	PASS
90	Lowest	1	1	DFT_BPSK	24.67	PASS
		240	0	DFT_QPSK	24.35	PASS
		120	60		25.45	PASS
		1	1		24.89	PASS
		1	243		25.42	PASS
		1	1	DFT_QAM16	23.56	PASS
		1	1	DFT_QAM64	22.21	PASS
		1	1	DFT_QAM256	20.63	PASS
		1	1	CP_QPSK	22.87	PASS
	Middle	1	1	DFT_BPSK	24.84	PASS
		240	0	DFT_QPSK	24.48	PASS
		120	60		25.61	PASS
		1	1		25.07	PASS



		1	243		25.10	PASS
		1	1	DFT_QAM16	23.59	PASS
		1	1	DFT_QAM64	22.30	PASS
		1	1	DFT_QAM256	20.59	PASS
		1	1	CP_QPSK	22.94	PASS
	Highest	1	1	DFT_BPSK	25.06	PASS
		240	0	DFT_QPSK	24.19	PASS
		120	60		25.34	PASS
		1	1		25.07	PASS
		1	243		24.56	PASS
		1	1	DFT_QAM16	24.19	PASS
		1	1	DFT_QAM64	22.67	PASS
		1	1	DFT_QAM256	20.39	PASS
		1	1	CP_QPSK	23.35	PASS
	Lowest	1	1	DFT_BPSK	24.53	PASS
		270	0	DFT_QPSK	24.26	PASS
		135	67		25.44	PASS
		1	1		24.39	PASS
		1	271		24.89	PASS
		1	1	DFT_QAM16	23.57	PASS
		1	1	DFT_QAM64	22.22	PASS
		1	1	DFT_QAM256	20.61	PASS
		1	1	CP_QPSK	22.91	PASS
	Middle	1	1	DFT_BPSK	24.63	PASS
		270	0	DFT_QPSK	24.38	PASS
		135	67		25.61	PASS
		1	1		24.43	PASS
		1	271		24.41	PASS
		1	1	DFT_QAM16	23.67	PASS
		1	1	DFT_QAM64	22.14	PASS
		1	1	DFT_QAM256	20.60	PASS
		1	1	CP_QPSK	22.94	PASS
	Highest	1	1	DFT_BPSK	24.89	PASS
		270	0	DFT_QPSK	24.18	PASS
		135	67		25.31	PASS
		1	1		24.93	PASS
		1	271		24.35	PASS
		1	1	DFT_QAM16	24.03	PASS



		1	1	DFT_QAM64	22.52	PASS
		1	1	DFT_QAM256	20.78	PASS
		1	1	CP_QPSK	23.21	PASS





NR n77 / SCS 30KHz(3450-3550)						
BW (MHz)	UL Channel	RB Size	RB offset	Modulation	Conduction AVG Power(dBm)	Verdict
10	Lowest	1	1	DFT_BPSK	22.92	PASS
		24	0	DFT_QPSK	22.11	PASS
		12	6		22.98	PASS
		1	1		22.89	PASS
		1	22		22.88	PASS
		1	1	DFT_QAM16	22.13	PASS
		1	1	DFT_QAM64	20.81	PASS
		1	1	DFT_QAM256	18.55	PASS
		1	1	CP_QPSK	21.60	PASS
	Middle	1	1	DFT_BPSK	22.57	PASS
		24	0	DFT_QPSK	21.69	PASS
		12	6		22.57	PASS
		1	1		22.55	PASS
		1	22		22.37	PASS
		1	1	DFT_QAM16	21.73	PASS
		1	1	DFT_QAM64	20.62	PASS
		1	1	DFT_QAM256	18.22	PASS
		1	1	CP_QPSK	21.20	PASS
	Highest	1	1	DFT_BPSK	22.71	PASS
		24	0	DFT_QPSK	21.72	PASS
		12	6		22.64	PASS
		1	1		22.61	PASS
		1	22		22.69	PASS
		1	1	DFT_QAM16	21.63	PASS
		1	1	DFT_QAM64	20.55	PASS
		1	1	DFT_QAM256	18.17	PASS
		1	1	CP_QPSK	21.39	PASS
15	Lowest	1	1	DFT_BPSK	22.86	PASS
		36	0	DFT_QPSK	22.13	PASS
		18	9		22.87	PASS
		1	1		22.90	PASS
		1	36		22.74	PASS
		1	1	DFT_QAM16	22.04	PASS
		1	1	DFT_QAM64	20.71	PASS
		1	1	DFT_QAM256	18.46	PASS
		1	1	CP_QPSK	21.57	PASS
		1	1	DFT_BPSK	22.51	PASS



	Middle	36	0	DFT_QPSK	21.71	PASS
		18	9		22.52	PASS
		1	1		22.50	PASS
		1	36		22.23	PASS
		1	1	DFT_QAM16	21.73	PASS
		1	1	DFT_QAM64	20.35	PASS
		1	1	DFT_QAM256	18.03	PASS
		1	1	CP_QPSK	21.11	PASS
	Highest	1	1	DFT_BPSK	22.48	PASS
		36	0	DFT_QPSK	21.63	PASS
		18	9		22.69	PASS
		1	1		22.44	PASS
		1	36		22.66	PASS
		1	1	DFT_QAM16	21.75	PASS
		1	1	DFT_QAM64	20.34	PASS
		1	1	DFT_QAM256	18.21	PASS
		1	1	CP_QPSK	21.00	PASS
20	Lowest	1	1	DFT_BPSK	22.84	PASS
		50	0	DFT_QPSK	22.09	PASS
		25	12		22.96	PASS
		1	1		22.84	PASS
		1	49		22.66	PASS
		1	1	DFT_QAM16	22.17	PASS
		1	1	DFT_QAM64	20.67	PASS
		1	1	DFT_QAM256	18.57	PASS
		1	1	CP_QPSK	21.40	PASS
	Middle	1	1	DFT_BPSK	22.51	PASS
		50	0	DFT_QPSK	21.63	PASS
		25	12		22.48	PASS
		1	1		22.50	PASS
		1	49		22.19	PASS
		1	1	DFT_QAM16	21.67	PASS
		1	1	DFT_QAM64	20.34	PASS
		1	1	DFT_QAM256	18.08	PASS
		1	1	CP_QPSK	21.21	PASS
	Highest	1	1	DFT_BPSK	22.37	PASS
		50	0	DFT_QPSK	21.60	PASS
		25	12		22.65	PASS
		1	1		22.26	PASS
		1	49		22.57	PASS
		1	1	DFT_QAM16	21.60	PASS



		1	1	DFT_QAM64	20.26	PASS
		1	1	DFT_QAM256	17.91	PASS
		1	1	CP_QPSK	21.02	PASS
30	Lowest	1	1	DFT_BPSK	22.74	PASS
		75	0	DFT_QPSK	21.97	PASS
		36	18		22.93	PASS
		1	1		22.70	PASS
		1	76		22.47	PASS
		1	1	DFT_QAM16	21.90	PASS
		1	1	DFT_QAM64	20.52	PASS
		1	1	DFT_QAM256	18.26	PASS
		1	1	CP_QPSK	21.39	PASS
	Middle	1	1	DFT_BPSK	22.38	PASS
		75	0	DFT_QPSK	21.62	PASS
		36	18		22.62	PASS
		1	1		22.34	PASS
		1	76		22.13	PASS
		1	1	DFT_QAM16	21.58	PASS
		1	1	DFT_QAM64	20.37	PASS
		1	1	DFT_QAM256	18.06	PASS
		1	1	CP_QPSK	21.08	PASS
	Highest	1	1	DFT_BPSK	22.12	PASS
		75	0	DFT_QPSK	21.55	PASS
		36	18		22.61	PASS
		1	1		22.12	PASS
		1	76		22.42	PASS
		1	1	DFT_QAM16	21.24	PASS
		1	1	DFT_QAM64	20.15	PASS
		1	1	DFT_QAM256	17.86	PASS
		1	1	CP_QPSK	20.70	PASS
40	Lowest	1	1	DFT_BPSK	22.45	PASS
		100	0	DFT_QPSK	21.82	PASS
		50	25		22.89	PASS
		1	1		22.39	PASS
		1	104		22.10	PASS
		1	1	DFT_QAM16	21.60	PASS
		1	1	DFT_QAM64	20.26	PASS
		1	1	DFT_QAM256	18.10	PASS
		1	1	CP_QPSK	21.16	PASS
	Middle	1	1	DFT_BPSK	22.15	PASS
		100	0	DFT_QPSK	21.49	PASS



		50	25		22.55	PASS
		1	1		22.29	PASS
		1	104		21.92	PASS
		1	1	DFT_QAM16	21.37	PASS
		1	1	DFT_QAM64	20.12	PASS
		1	1	DFT_QAM256	17.72	PASS
		1	1	CP_QPSK	20.98	PASS
	Highest	1	1	DFT_BPSK	21.80	PASS
		100	0	DFT_QPSK	21.40	PASS
		50	25		22.51	PASS
		1	1		21.78	PASS
		1	104		22.31	PASS
		1	1	DFT_QAM16	21.16	PASS
		1	1	DFT_QAM64	19.65	PASS
		1	1	DFT_QAM256	17.39	PASS
		1	1	CP_QPSK	20.58	PASS
50	Lowest	1	1	DFT_BPSK	22.67	PASS
		128	0	DFT_QPSK	21.84	PASS
		64	32		22.85	PASS
		1	1		22.60	PASS
		1	131		22.25	PASS
		1	1	DFT_QAM16	21.92	PASS
		1	1	DFT_QAM64	20.54	PASS
		1	1	DFT_QAM256	18.27	PASS
		1	1	CP_QPSK	21.51	PASS
	Middle	1	1	DFT_BPSK	22.41	PASS
		128	0	DFT_QPSK	21.67	PASS
		64	32		22.56	PASS
		1	1		22.42	PASS
		1	131		22.19	PASS
		1	1	DFT_QAM16	21.77	PASS
		1	1	DFT_QAM64	20.35	PASS
		1	1	DFT_QAM256	18.11	PASS
		1	1	CP_QPSK	21.29	PASS
	Highest	1	1	DFT_BPSK	22.06	PASS
		128	0	DFT_QPSK	21.43	PASS
		64	32		22.57	PASS
		1	1		22.03	PASS
		1	131		22.56	PASS
		1	1	DFT_QAM16	21.72	PASS
		1	1	DFT_QAM64	20.00	PASS



60		1	1	DFT_QAM256	17.79	PASS
		1	1	CP_QPSK	20.83	PASS
		1	1	DFT_BPSK	22.56	PASS
	Lowest	162	0	DFT_QPSK	21.74	PASS
		81	40		22.77	PASS
		1	1		22.49	PASS
		1	160		21.93	PASS
		1	1	DFT_QAM16	21.75	PASS
		1	1	DFT_QAM64	20.39	PASS
		1	1	DFT_QAM256	18.33	PASS
		1	1	CP_QPSK	21.27	PASS
	Middle	1	1	DFT_BPSK	22.40	PASS
		162	0	DFT_QPSK	21.61	PASS
		81	40		22.54	PASS
		1	1		22.41	PASS
		1	160		22.04	PASS
		1	1	DFT_QAM16	21.57	PASS
		1	1	DFT_QAM64	20.24	PASS
		1	1	DFT_QAM256	18.21	PASS
		1	1	CP_QPSK	21.07	PASS
	Highest	1	1	DFT_BPSK	22.16	PASS
		162	0	DFT_QPSK	21.41	PASS
		81	40		22.43	PASS
		1	1		22.14	PASS
		1	160		22.28	PASS
		1	1	DFT_QAM16	21.38	PASS
		1	1	DFT_QAM64	20.02	PASS
		1	1	DFT_QAM256	17.96	PASS
		1	1	CP_QPSK	20.78	PASS
80	Lowest	1	1	DFT_BPSK	22.17	PASS
		216	0	DFT_QPSK	21.58	PASS
		108	54		22.46	PASS
		1	1		22.27	PASS
		1	215		21.93	PASS
		1	1	DFT_QAM16	21.54	PASS
		1	1	DFT_QAM64	20.47	PASS
		1	1	DFT_QAM256	17.91	PASS
		1	1	CP_QPSK	21.09	PASS
	Middle	1	1	DFT_BPSK	22.09	PASS
		216	0	DFT_QPSK	21.59	PASS
		108	54		22.37	PASS
		1	1		22.08	PASS
		1	1		22.08	PASS



		1	215		22.02	PASS
		1	1	DFT_QAM16	21.54	PASS
		1	1	DFT_QAM64	20.15	PASS
		1	1	DFT_QAM256	17.81	PASS
		1	1	CP_QPSK	21.06	PASS
	Highest	1	1	DFT_BPSK	21.98	PASS
		216	0	DFT_QPSK	21.48	PASS
		108	54		22.36	PASS
		1	1		22.00	PASS
		1	215		22.12	PASS
		1	1	DFT_QAM16	21.39	PASS
		1	1	DFT_QAM64	19.97	PASS
		1	1	DFT_QAM256	17.69	PASS
		1	1	CP_QPSK	20.96	PASS
90	Lowest	1	1	DFT_BPSK	22.02	PASS
		240	0	DFT_QPSK	21.58	PASS
		120	60		22.40	PASS
		1	1		22.12	PASS
		1	243		21.82	PASS
		1	1	DFT_QAM16	21.74	PASS
		1	1	DFT_QAM64	20.13	PASS
		1	1	DFT_QAM256	17.79	PASS
		1	1	CP_QPSK	20.83	PASS
	Middle	1	1	DFT_BPSK	21.97	PASS
		240	0	DFT_QPSK	21.54	PASS
		120	60		22.42	PASS
		1	1		22.04	PASS
		1	243		21.89	PASS
		1	1	DFT_QAM16	21.43	PASS
		1	1	DFT_QAM64	20.29	PASS
		1	1	DFT_QAM256	17.70	PASS
		1	1	CP_QPSK	20.86	PASS
	Highest	1	1	DFT_BPSK	22.01	PASS
		240	0	DFT_QPSK	21.47	PASS
		120	60		22.42	PASS
		1	1		22.00	PASS
		1	243		22.04	PASS
		1	1	DFT_QAM16	21.37	PASS
		1	1	DFT_QAM64	20.29	PASS
		1	1	DFT_QAM256	17.81	PASS
		1	1	CP_QPSK	20.80	PASS



100	Lowest	1	1	DFT_BPSK	21.87	PASS
		270	0	DFT_QPSK	21.42	PASS
		135	67		22.41	PASS
		1	1		21.77	PASS
		1	271		21.82	PASS
		1	1	DFT_QAM16	21.27	PASS
		1	1	DFT_QAM64	19.91	PASS
		1	1	DFT_QAM256	17.68	PASS
		1	1	CP_QPSK	20.75	PASS
	Highest	1	1	DFT_BPSK	21.84	PASS
		270	0	DFT_QPSK	21.43	PASS
		135	67		22.39	PASS
		1	1		21.89	PASS
		1	271		21.87	PASS
		1	1	DFT_QAM16	21.31	PASS
		1	1	DFT_QAM64	20.15	PASS
		1	1	DFT_QAM256	17.82	PASS
		1	1	CP_QPSK	20.61	PASS



NR n77 / SCS 30KHz(3700-3980)						
BW (MHz)	UL Channel	RB Size	RB offset	Modulation	Conduction AVG Power(dBm)	Verdict
10	Lowest	1	1	DFT_BPSK	23.13	PASS
		24	0	DFT_QPSK	22.20	PASS
		12	6		23.23	PASS
		1	1		23.06	PASS
		1	22		23.10	PASS
		1	1	DFT_QAM16	22.09	PASS
		1	1	DFT_QAM64	21.01	PASS
		1	1	DFT_QAM256	18.73	PASS
		1	1	CP_QPSK	21.58	PASS
	Middle	1	1	DFT_BPSK	23.55	PASS
		24	0	DFT_QPSK	22.60	PASS
		12	6		23.62	PASS
		1	1		23.52	PASS
		1	22		23.46	PASS
		1	1	DFT_QAM16	22.61	PASS
		1	1	DFT_QAM64	21.39	PASS
		1	1	DFT_QAM256	19.21	PASS
		1	1	CP_QPSK	22.07	PASS
	Highest	1	1	DFT_BPSK	24.17	PASS
		24	0	DFT_QPSK	23.22	PASS
		12	6		24.27	PASS
		1	1		24.10	PASS
		1	22		24.17	PASS
		1	1	DFT_QAM16	23.20	PASS
		1	1	DFT_QAM64	21.98	PASS
		1	1	DFT_QAM256	19.79	PASS
		1	1	CP_QPSK	22.76	PASS
15	Lowest	1	1	DFT_BPSK	23.08	PASS
		36	0	DFT_QPSK	22.26	PASS
		18	9		23.22	PASS
		1	1		23.10	PASS
		1	36		23.16	PASS
		1	1	DFT_QAM16	22.10	PASS
		1	1	DFT_QAM64	20.88	PASS
		1	1	DFT_QAM256	18.74	PASS
		1	1	CP_QPSK	21.67	PASS
	Middle	1	1	DFT_BPSK	23.57	PASS



		36	0	DFT_QPSK	22.65	PASS
		18	9		23.64	PASS
		1	1		23.41	PASS
		1	36		23.40	PASS
		1	1	DFT_QAM16	22.60	PASS
		1	1	DFT_QAM64	21.62	PASS
		1	1	DFT_QAM256	19.14	PASS
		1	1	CP_QPSK	21.94	PASS
	Highest	1	1	DFT_BPSK	24.10	PASS
		36	0	DFT_QPSK	23.27	PASS
		18	9		24.28	PASS
		1	1		24.09	PASS
		1	36		24.09	PASS
		1	1	DFT_QAM16	23.16	PASS
		1	1	DFT_QAM64	22.30	PASS
		1	1	DFT_QAM256	19.93	PASS
		1	1	CP_QPSK	22.51	PASS
	Lowest	1	1	DFT_BPSK	22.98	PASS
		50	0	DFT_QPSK	22.30	PASS
		25	12		23.30	PASS
		1	1		22.94	PASS
		1	49		23.24	PASS
		1	1	DFT_QAM16	22.24	PASS
		1	1	DFT_QAM64	20.90	PASS
		1	1	DFT_QAM256	18.80	PASS
		1	1	CP_QPSK	21.48	PASS
	Middle	1	1	DFT_BPSK	23.48	PASS
		50	0	DFT_QPSK	22.60	PASS
		25	12		23.65	PASS
		1	1		23.51	PASS
		1	49		23.39	PASS
		1	1	DFT_QAM16	22.48	PASS
		1	1	DFT_QAM64	21.33	PASS
		1	1	DFT_QAM256	19.01	PASS
		1	1	CP_QPSK	22.04	PASS
	Highest	1	1	DFT_BPSK	23.94	PASS
		50	0	DFT_QPSK	23.24	PASS
		25	12		24.24	PASS
		1	1		23.92	PASS
		1	49		24.08	PASS
		1	1	DFT_QAM16	23.19	PASS

20



		1	1	DFT_QAM64	21.82	PASS
		1	1	DFT_QAM256	19.57	PASS
		1	1	CP_QPSK	22.35	PASS
30	Lowest	1	1	DFT_BPSK	22.89	PASS
		75	0	DFT_QPSK	22.34	PASS
		36	18		23.38	PASS
		1	1		22.91	PASS
		1	76		23.19	PASS
		1	1	DFT_QAM16	21.96	PASS
		1	1	DFT_QAM64	20.86	PASS
		1	1	DFT_QAM256	18.44	PASS
		1	1	CP_QPSK	21.52	PASS
	Middle	1	1	DFT_BPSK	23.30	PASS
		75	0	DFT_QPSK	22.61	PASS
		36	18		23.64	PASS
		1	1		23.23	PASS
		1	76		23.22	PASS
		1	1	DFT_QAM16	22.44	PASS
		1	1	DFT_QAM64	21.21	PASS
		1	1	DFT_QAM256	18.90	PASS
		1	1	CP_QPSK	21.89	PASS
	Highest	1	1	DFT_BPSK	23.77	PASS
		75	0	DFT_QPSK	23.17	PASS
		36	18		24.25	PASS
		1	1		23.69	PASS
		1	76		23.96	PASS
		1	1	DFT_QAM16	23.15	PASS
		1	1	DFT_QAM64	21.67	PASS
		1	1	DFT_QAM256	19.43	PASS
		1	1	CP_QPSK	22.26	PASS
40	Lowest	1	1	DFT_BPSK	22.76	PASS
		100	0	DFT_QPSK	22.38	PASS
		50	25		23.37	PASS
		1	1		22.69	PASS
		1	104		23.00	PASS
		1	1	DFT_QAM16	21.75	PASS
		1	1	DFT_QAM64	20.55	PASS
		1	1	DFT_QAM256	18.40	PASS
		1	1	CP_QPSK	21.18	PASS
	Middle	1	1	DFT_BPSK	23.08	PASS
		100	0	DFT_QPSK	22.57	PASS



		50	25		23.67	PASS
		1	1		23.14	PASS
		1	104		23.04	PASS
		1	1	DFT_QAM16	22.29	PASS
		1	1	DFT_QAM64	21.16	PASS
		1	1	DFT_QAM256	18.90	PASS
		1	1	CP_QPSK	21.63	PASS
	Highest	1	1	DFT_BPSK	23.42	PASS
		100	0	DFT_QPSK	23.10	PASS
		50	25		24.20	PASS
		1	1		23.44	PASS
		1	104		23.72	PASS
		1	1	DFT_QAM16	22.51	PASS
		1	1	DFT_QAM64	21.56	PASS
		1	1	DFT_QAM256	19.16	PASS
		1	1	CP_QPSK	21.84	PASS
	Lowest	1	1	DFT_BPSK	22.89	PASS
		128	0	DFT_QPSK	22.39	PASS
		64	32		23.52	PASS
		1	1		22.95	PASS
		1	131		23.34	PASS
		1	1	DFT_QAM16	22.22	PASS
		1	1	DFT_QAM64	20.82	PASS
		1	1	DFT_QAM256	18.60	PASS
		1	1	CP_QPSK	21.46	PASS
	Middle	1	1	DFT_BPSK	23.27	PASS
		128	0	DFT_QPSK	22.62	PASS
		64	32		23.66	PASS
		1	1		23.28	PASS
		1	131		23.26	PASS
		1	1	DFT_QAM16	22.71	PASS
		1	1	DFT_QAM64	21.29	PASS
		1	1	DFT_QAM256	19.02	PASS
		1	1	CP_QPSK	21.78	PASS
50	Highest	1	1	DFT_BPSK	23.55	PASS
		128	0	DFT_QPSK	23.05	PASS
		64	32		24.12	PASS
		1	1		23.46	PASS
		1	131		23.98	PASS
		1	1	DFT_QAM16	22.57	PASS
		1	1	DFT_QAM64	21.25	PASS



		1	1	DFT_QAM256	19.14	PASS
		1	1	CP_QPSK	22.12	PASS
60	Lowest	1	1	DFT_BPSK	22.78	PASS
		162	0	DFT_QPSK	22.46	PASS
		81	40		23.53	PASS
		1	1		22.66	PASS
		1	160		23.24	PASS
		1	1	DFT_QAM16	21.84	PASS
		1	1	DFT_QAM64	20.62	PASS
		1	1	DFT_QAM256	18.45	PASS
		1	1	CP_QPSK	21.28	PASS
		1	1	DFT_BPSK	23.13	PASS
	Middle	162	0	DFT_QPSK	22.49	PASS
		81	40		23.59	PASS
		1	1		23.12	PASS
		1	160		23.07	PASS
		1	1	DFT_QAM16	22.19	PASS
		1	1	DFT_QAM64	21.27	PASS
		1	1	DFT_QAM256	19.01	PASS
		1	1	CP_QPSK	21.65	PASS
		1	1	DFT_BPSK	23.27	PASS
		162	0	DFT_QPSK	22.96	PASS
	Highest	81	40		24.09	PASS
		1	1		23.22	PASS
		1	160		23.87	PASS
		1	1	DFT_QAM16	22.30	PASS
		1	1	DFT_QAM64	21.32	PASS
		1	1	DFT_QAM256	19.06	PASS
		1	1	CP_QPSK	21.70	PASS
80	Lowest	1	1	DFT_BPSK	22.49	PASS
		216	0	DFT_QPSK	22.26	PASS
		108	54		23.48	PASS
		1	1		22.48	PASS
		1	215		22.96	PASS
		1	1	DFT_QAM16	21.58	PASS
		1	1	DFT_QAM64	20.79	PASS
		1	1	DFT_QAM256	18.38	PASS
		1	1	CP_QPSK	20.96	PASS
		1	1	DFT_BPSK	22.84	PASS
	Middle	216	0	DFT_QPSK	22.47	PASS
		108	54		23.48	PASS



		1	1		22.87	PASS
		1	215		22.73	PASS
		1	1	DFT_QAM16	22.09	PASS
		1	1	DFT_QAM64	20.97	PASS
		1	1	DFT_QAM256	18.57	PASS
		1	1	CP_QPSK	21.25	PASS
	Highest	1	1	DFT_BPSK	22.88	PASS
		216	0	DFT_QPSK	22.82	PASS
		108	54		23.87	PASS
		1	1		22.83	PASS
		1	215		23.67	PASS
		1	1	DFT_QAM16	22.16	PASS
		1	1	DFT_QAM64	20.89	PASS
		1	1	DFT_QAM256	18.76	PASS
		1	1	CP_QPSK	21.36	PASS
	Lowest	1	1	DFT_BPSK	22.41	PASS
		240	0	DFT_QPSK	22.31	PASS
		120	60		23.47	PASS
		1	1		22.38	PASS
		1	243		22.91	PASS
		1	1	DFT_QAM16	21.60	PASS
		1	1	DFT_QAM64	20.36	PASS
		1	1	DFT_QAM256	18.27	PASS
		1	1	CP_QPSK	20.80	PASS
	Middle	1	1	DFT_BPSK	22.82	PASS
		240	0	DFT_QPSK	22.41	PASS
		120	60		23.50	PASS
		1	1		22.63	PASS
		1	243		22.72	PASS
		1	1	DFT_QAM16	22.23	PASS
		1	1	DFT_QAM64	20.91	PASS
		1	1	DFT_QAM256	18.52	PASS
		1	1	CP_QPSK	21.16	PASS
	Highest	1	1	DFT_BPSK	22.66	PASS
		240	0	DFT_QPSK	22.63	PASS
		120	60		23.83	PASS
		1	1		22.68	PASS
		1	243		23.55	PASS
		1	1	DFT_QAM16	22.08	PASS
		1	1	DFT_QAM64	20.76	PASS
		1	1	DFT_QAM256	18.42	PASS

90



100	Lowest	1	1	CP_QPSK	21.29	PASS
		1	1	DFT_BPSK	22.13	PASS
		270	0	DFT_QPSK	22.23	PASS
		135	67		23.45	PASS
		1	1		22.08	PASS
		1	271		22.61	PASS
		1	1	DFT_QAM16	21.51	PASS
		1	1	DFT_QAM64	20.21	PASS
		1	1	DFT_QAM256	17.94	PASS
		1	1	CP_QPSK	20.62	PASS
	Middle	1	1	DFT_BPSK	22.60	PASS
		270	0	DFT_QPSK	22.30	PASS
		135	67		23.50	PASS
		1	1		22.45	PASS
		1	271		22.58	PASS
		1	1	DFT_QAM16	21.66	PASS
		1	1	DFT_QAM64	20.81	PASS
		1	1	DFT_QAM256	18.35	PASS
		1	1	CP_QPSK	21.02	PASS
		1	1	DFT_BPSK	22.54	PASS
	Highest	270	0	DFT_QPSK	22.58	PASS
		135	67		23.79	PASS
		1	1		22.47	PASS
		1	271		23.43	PASS
		1	1	DFT_QAM16	21.55	PASS
		1	1	DFT_QAM64	20.77	PASS
		1	1	DFT_QAM256	18.36	PASS
		1	1	CP_QPSK	21.02	PASS



NSA Power

DC_2A_n7A / SCS 15KHz							
Bnad	BW (MHz)	UL Channel	RB Size	RB offset	Modulation	Conduction AVG Power(dBm)	Verdict
Bnad2	5	Lowest	1	Low	QPSK	16.98	PASS
n7	5	Lowest	1	0	DFT_BPSK	20.57	PASS
sum	/	/	/	/	/	22.14	PASS
Bnad2	5	Middle	8	Low	QPSK	16.62	PASS
n7	5	Middle	12	6	DFT_BPSK	20.59	PASS
sum	/	/	/	/	/	22.05	PASS
Bnad2	5	Middle	8	Low	QPSK	16.64	PASS
n7	5	Middle	12	6	DFT_QPSK	20.6	PASS
sum	/	/	/	/	/	22.06	PASS
Bnad2	5	Highest	1	High	QPSK	16.64	PASS
n7	5	Highest	1	24	DFT_BPSK	20.74	PASS
sum	/	/	/	/	/	22.16	PASS
Bnad2	5	Highest	8	High	QPSK	16.67	PASS
n7	5	Highest	12	6	DFT_BPSK	20.79	PASS
sum	/	/	/	/	/	22.21	PASS
Bnad2	5	Highest	1	High	QPSK	16.67	PASS
n7	5	Highest	1	24	DFT_QPSK	20.63	PASS
sum	/	/	/	/	/	22.09	PASS
Bnad2	5	Highest	8	High	QPSK	16.66	PASS
n7	5	Highest	12	6	DFT_QPSK	20.82	PASS
sum	/	/	/	/	/	22.23	PASS
Bnad2	20	Lowest	1	Low	QPSK	17.01	PASS
n7	20	Lowest	1	0	DFT_BPSK	20.44	PASS
sum	/	/	/	/	/	22.06	PASS
Bnad2	20	Middle	18	Low	QPSK	16.46	PASS
n7	20	Middle	50	25	DFT_BPSK	20.6	PASS
sum	/	/	/	/	/	22.01	PASS
Bnad2	20	Middle	18	Low	QPSK	16.48	PASS
n7	20	Middle	50	25	DFT_QPSK	20.63	PASS
sum	/	/	/	/	/	22.04	PASS
Bnad2	20	Highest	1	High	QPSK	16.6	PASS
n7	20	Highest	1	105	DFT_BPSK	20.53	PASS
sum	/	/	/	/	/	22	PASS



Bnad2	20	Highest	18	High	QPSK	16.74	PASS
n7	20	Highest	50	25	DFT_BPSK	20.73	PASS
sum	/	/	/	/	/	22.18	PASS
Bnad2	20	Highest	1	High	QPSK	16.58	PASS
n7	20	Highest	1	105	DFT_QPSK	20.45	PASS
sum	/	/	/	/	/	21.94	PASS
Bnad2	20	Highest	18	High	QPSK	16.74	PASS
n7	20	Highest	50	25	DFT_QPSK	20.74	PASS
sum	/	/	/	/	/	22.19	PASS





DC_2A_n7A / SCS 15KHz							
Bnad	BW (MHz)	UL Channel	RB Size	RB offset	Modulation	Conduction AVG Power(dBm)	Verdict
Band5	5	Lowest	1	Low	QPSK	17.35	PASS
n7	5	Lowest	1	0	DFT_BPSK	20.15	PASS
Sum	/	/	/	/	/	21.98	PASS
Band5	5	Middle	8	Low	QPSK	17.52	PASS
n7	5	Middle	12	6	DFT_BPSK	20.05	PASS
Sum	/	/	/	/	/	21.97	PASS
Band5	5	Middle	8	Low	QPSK	17.47	PASS
n7	5	Middle	12	6	DFT_QPSK	20.07	PASS
Sum	/	/	/	/	/	21.97	PASS
Band5	5	Highest	1	High	QPSK	17.42	PASS
n7	5	Highest	1	24	DFT_BPSK	20.21	PASS
Sum	/	/	/	/	/	22.04	PASS
Band5	5	Highest	8	High	QPSK	17.50	PASS
n7	5	Highest	12	6	DFT_BPSK	20.28	PASS
Sum	/	/	/	/	/	22.11	PASS
Band5	5	Highest	1	High	QPSK	17.57	PASS
n7	5	Highest	1	24	DFT_QPSK	20.33	PASS
Sum	/	/	/	/	/	22.17	PASS
Band5	5	Highest	8	High	QPSK	17.43	PASS
n7	5	Highest	12	6	DFT_QPSK	20.23	PASS
Sum	/	/	/	/	/	22.06	PASS
Band5	10	Lowest	1	Low	QPSK	17.11	PASS
n7	20	Lowest	1	0	DFT_BPSK	20.01	PASS
Sum	/	/	/	/	/	21.80	PASS
Band5	10	Middle	12	Low	QPSK	17.46	PASS
n7	20	Middle	50	25	DFT_BPSK	20.15	PASS
Sum	/	/	/	/	/	22.02	PASS
Band5	10	Middle	12	Low	QPSK	17.46	PASS
n7	20	Middle	50	25	DFT_QPSK	20.13	PASS
Sum	/	/	/	/	/	22.00	PASS
Band5	10	Highest	1	High	QPSK	17.41	PASS
n7	20	Highest	1	105	DFT_BPSK	20.05	PASS
Sum	/	/	/	/	/	21.93	PASS
Band5	10	Highest	12	High	QPSK	17.48	PASS



n7	20	Highest	50	25	DFT_BPSK	20.14	PASS
Sum	/	/	/	/	/	22.02	PASS
Band5	10	Highest	1	High	QPSK	17.45	PASS
n7	20	Highest	1	105	DFT_QPSK	20.16	PASS
Sum	/	/	/	/	/	22.02	PASS
Band5	10	Highest	12	High	QPSK	17.49	PASS
n7	20	Highest	50	25	DFT_QPSK	20.13	PASS
Sum	/	/	/	/	/	22.01	PASS





DC_12A_n41A / SCS 30KHz							
Bnad	BW (MHz)	UL Channel	RB Size	RB offset	Modulation	Conduction AVG Power(dBm)	Verdict
Bnad12	5	Lowest	1	Low	QPSK	17.46	PASS
n41	20	Lowest	1	0	DFT_BPSK	19.87	PASS
sum	/	/	/	/	/	21.84	PASS
Bnad12	5	Middle	8	Low	QPSK	17.76	PASS
n41	20	Middle	25	12	DFT_BPSK	20.05	PASS
sum	/	/	/	/	/	22.06	PASS
Bnad12	5	Middle	8	Low	QPSK	17.75	PASS
n41	20	Middle	25	12	DFT_QPSK	20.05	PASS
sum	/	/	/	/	/	22.06	PASS
Bnad12	5	Highest	1	High	QPSK	17.60	PASS
n41	20	Highest	1	50	DFT_BPSK	19.71	PASS
sum	/	/	/	/	/	21.79	PASS
Bnad12	5	Highest	8	High	QPSK	17.65	PASS
n41	20	Highest	25	12	DFT_BPSK	19.76	PASS
sum	/	/	/	/	/	21.84	PASS
Bnad12	5	Highest	1	High	QPSK	17.67	PASS
n41	20	Highest	1	50	DFT_QPSK	19.63	PASS
sum	/	/	/	/	/	21.76	PASS
Bnad12	5	Highest	8	High	QPSK	17.71	PASS
n41	20	Highest	25	12	DFT_QPSK	19.67	PASS
sum	/	/	/	/	/	21.80	PASS
Bnad12	10	Lowest	1	Low	QPSK	17.68	PASS
n41	100	Lowest	1	0	DFT_BPSK	18.85	PASS
sum	/	/	/	/	/	21.31	PASS
Bnad12	10	Middle	12	Low	QPSK	17.69	PASS
n41	100	Middle	135	67	DFT_BPSK	19.98	PASS
sum	/	/	/	/	/	21.99	PASS
Bnad12	10	Middle	12	Low	QPSK	17.76	PASS
n41	100	Middle	135	67	DFT_QPSK	19.90	PASS
sum	/	/	/	/	/	21.97	PASS
Bnad12	10	Highest	1	High	QPSK	17.61	PASS
n41	100	Highest	1	272	DFT_BPSK	18.65	PASS
sum	/	/	/	/	/	21.17	PASS
Bnad12	10	Highest	12	High	QPSK	17.53	PASS



n41	100	Highest	135	67	DFT_BPSK	19.71	PASS
sum	/	/	/	/	/	21.76	PASS
Bnad12	10	Highest	1	High	QPSK	17.83	PASS
n41	100	Highest	1	272	DFT_QPSK	18.57	PASS
sum	/	/	/	/	/	21.22	PASS
Bnad12	10	Highest	12	High	QPSK	17.58	PASS
n41	100	Highest	135	67	DFT_QPSK	19.72	PASS
sum	/	/	/	/	/	21.79	PASS





DC_26A_n41A / SCS 30KHz							
Bnad	BW (MHz)	UL Channel	RB Size	RB offset	Modulation	Conduction AVG Power(dBm)	Verdict
Bnad26	5	Lowest	1	Low	QPSK	16.82	PASS
n41	20	Lowest	1	0	DFT_BPSK	19.90	PASS
sum	/	/	/	/	/	21.63	PASS
Bnad26	5	Middle	8	Low	QPSK	17.36	PASS
n41	20	Middle	25	12	DFT_BPSK	20.04	PASS
sum	/	/	/	/	/	21.91	PASS
Bnad26	5	Middle	8	Low	QPSK	17.47	PASS
n41	20	Middle	25	12	DFT_QPSK	20.04	PASS
sum	/	/	/	/	/	21.95	PASS
Bnad26	5	Highest	1	High	QPSK	17.30	PASS
n41	20	Highest	1	50	DFT_BPSK	19.72	PASS
sum	/	/	/	/	/	21.68	PASS
Bnad26	5	Highest	8	High	QPSK	17.42	PASS
n41	20	Highest	25	12	DFT_BPSK	19.68	PASS
sum	/	/	/	/	/	21.70	PASS
Bnad26	5	Highest	1	High	QPSK	17.29	PASS
n41	20	Highest	1	50	DFT_QPSK	19.63	PASS
sum	/	/	/	/	/	21.62	PASS
Bnad26	5	Highest	8	High	QPSK	17.43	PASS
n41	20	Highest	25	12	DFT_QPSK	19.69	PASS
sum	/	/	/	/	/	21.71	PASS
Bnad26	15	Lowest	1	Low	QPSK	16.82	PASS
n41	100	Lowest	1	0	DFT_BPSK	18.88	PASS
sum	/	/	/	/	/	20.98	PASS
Bnad26	15	Middle	16	Low	QPSK	17.27	PASS
n41	100	Middle	135	67	DFT_BPSK	19.97	PASS
sum	/	/	/	/	/	21.83	PASS
Bnad26	15	Middle	16	Low	QPSK	17.23	PASS
n41	100	Middle	135	67	DFT_QPSK	19.92	PASS
sum	/	/	/	/	/	21.79	PASS
Bnad26	15	Highest	1	High	QPSK	17.19	PASS
n41	100	Highest	1	272	DFT_BPSK	18.66	PASS
sum	/	/	/	/	/	20.99	PASS
Bnad26	15	Highest	16	High	QPSK	17.48	PASS



n41	100	Highest	135	67	DFT_BPSK	19.63	PASS
sum	/	/	/	/	/	21.69	PASS
Bnad26	15	Highest	1	High	QPSK	17.27	PASS
n41	100	Highest	1	272	DFT_QPSK	18.53	PASS
sum	/	/	/	/	/	20.95	PASS
Bnad26	15	Highest	16	High	QPSK	17.52	PASS
n41	100	Highest	135	67	DFT_QPSK	19.71	PASS
sum	/	/	/	/	/	21.76	PASS





DC_66A_n41A / SCS 30KHz							
Bnad	BW (MHz)	UL Channel	RB Size	RB offset	Modulation	Conduction AVG Power(dBm)	Verdict
Bnad66	5	Lowest	1	Low	QPSK	20.08	PASS
n41	20	Lowest	1	0	DFT_BPSK	19.94	PASS
sum	/	/	/	/	/	23.02	PASS
Bnad66	5	Middle	8	Low	QPSK	20.44	PASS
n41	20	Middle	25	12	DFT_BPSK	20.42	PASS
sum	/	/	/	/	/	23.44	PASS
Bnad66	5	Middle	8	Low	QPSK	20.43	PASS
n41	20	Middle	25	12	DFT_QPSK	20.43	PASS
sum	/	/	/	/	/	23.44	PASS
Bnad66	5	Highest	1	High	QPSK	20.34	PASS
n41	20	Highest	1	50	DFT_BPSK	20.33	PASS
sum	/	/	/	/	/	23.34	PASS
Bnad66	5	Highest	8	High	QPSK	20.24	PASS
n41	20	Highest	25	12	DFT_BPSK	20.21	PASS
sum	/	/	/	/	/	23.23	PASS
Bnad66	5	Highest	1	High	QPSK	20.34	PASS
n41	20	Highest	1	50	DFT_QPSK	20.33	PASS
sum	/	/	/	/	/	23.34	PASS
Bnad66	5	Highest	8	High	QPSK	20.21	PASS
n41	20	Highest	25	12	DFT_QPSK	20.21	PASS
sum	/	/	/	/	/	23.22	PASS
Bnad66	20	Lowest	1	Low	QPSK	19.82	PASS
n41	100	Lowest	1	0	DFT_BPSK	19.83	PASS
sum	/	/	/	/	/	22.83	PASS
Bnad66	20	Middle	18	Low	QPSK	20.20	PASS
n41	100	Middle	135	67	DFT_BPSK	20.21	PASS
sum	/	/	/	/	/	23.21	PASS
Bnad66	20	Middle	18	Low	QPSK	20.20	PASS
n41	100	Middle	135	67	DFT_QPSK	20.22	PASS
sum	/	/	/	/	/	23.22	PASS
Bnad66	20	Highest	1	High	QPSK	20.20	PASS
n41	100	Highest	1	272	DFT_BPSK	20.15	PASS
sum	/	/	/	/	/	23.18	PASS
Bnad66	20	Highest	18	High	QPSK	20.14	PASS



n41	100	Highest	135	67	DFT_BPSK	20.15	PASS
sum	/	/	/	/	/	23.15	PASS
Bnad66	20	Highest	1	High	QPSK	20.15	PASS
n41	100	Highest	1	272	DFT_QPSK	20.17	PASS
sum	/	/	/	/	/	23.17	PASS
Bnad66	20	Highest	18	High	QPSK	20.12	PASS
n41	100	Highest	135	67	DFT_QPSK	20.12	PASS
sum	/	/	/	/	/	23.13	PASS



11. EUT and Test Setup Photo

11.1 EUT Photo

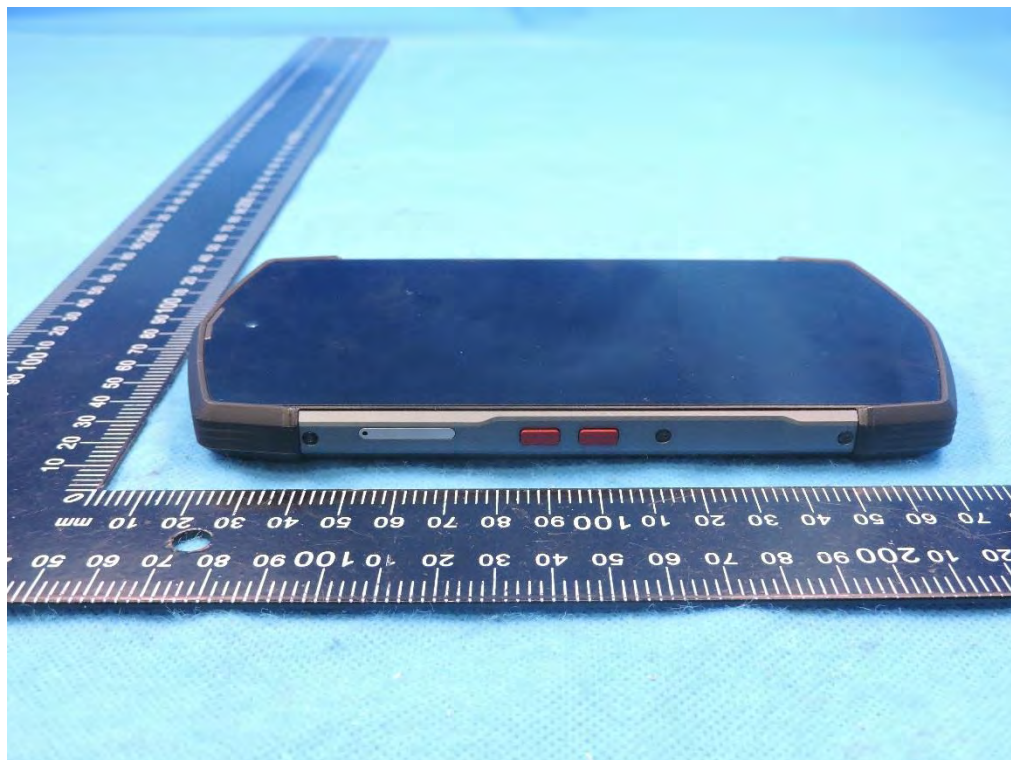
Front side



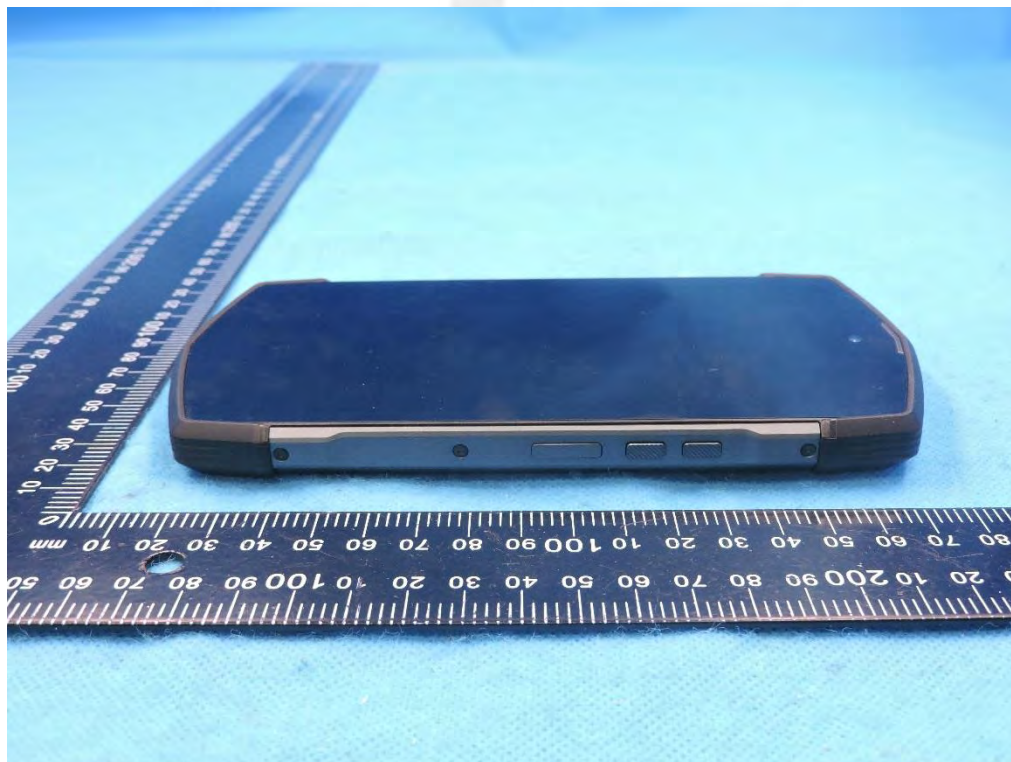
Back side



Left Edge

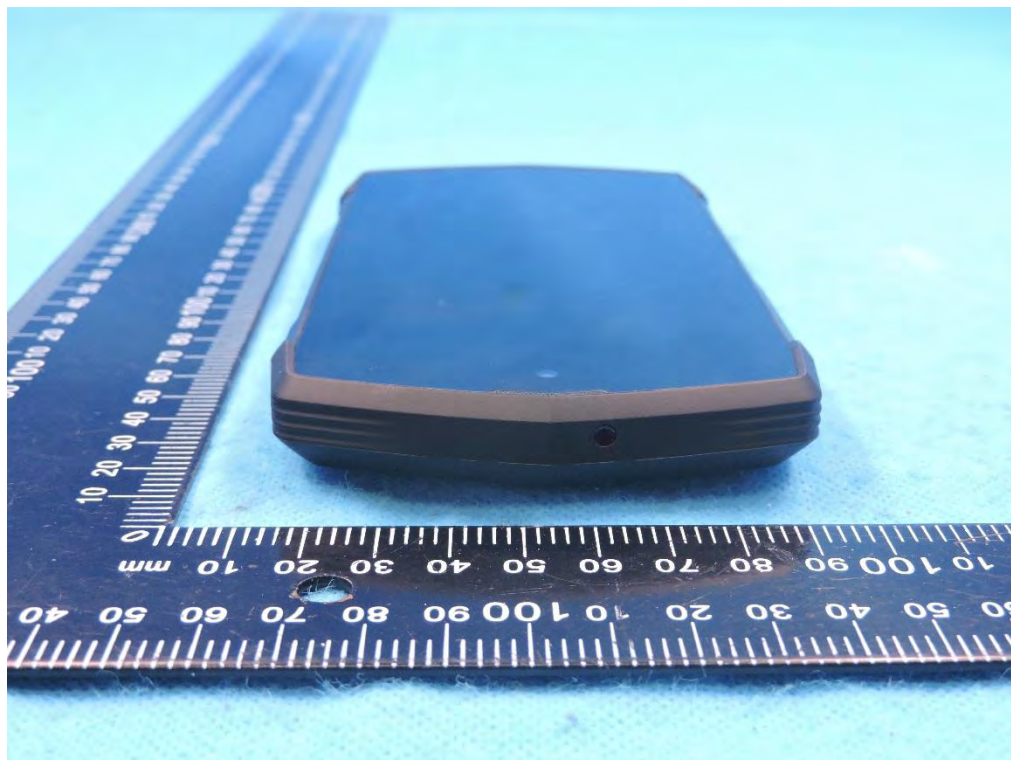


Right Edge

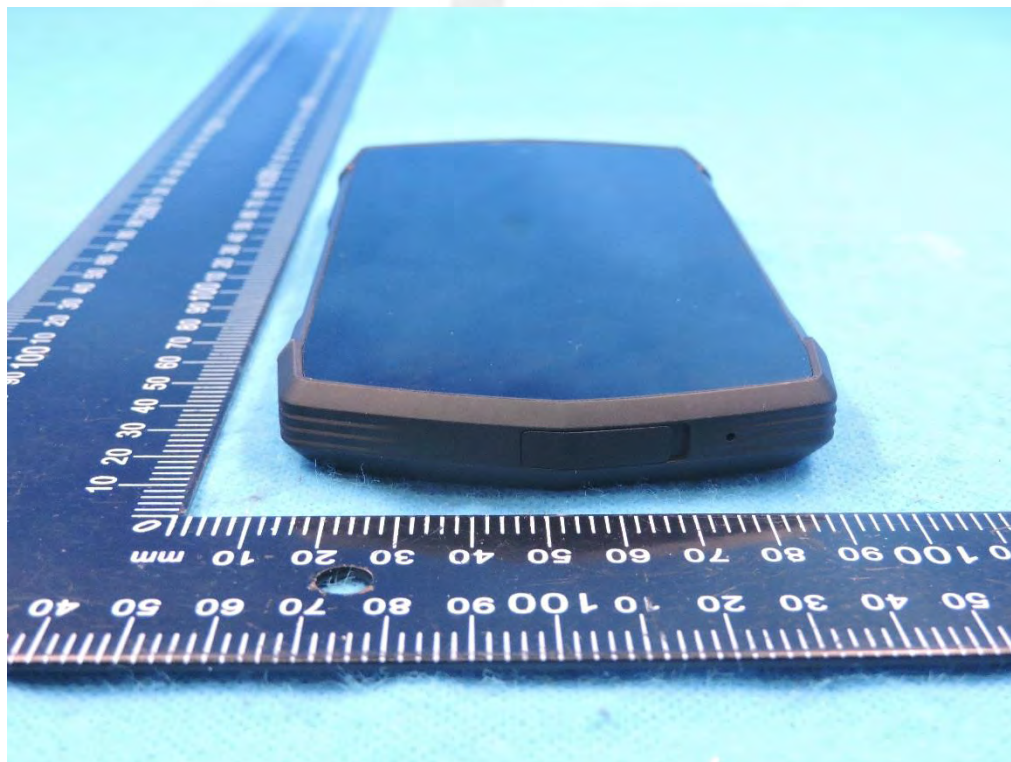




Top Edge

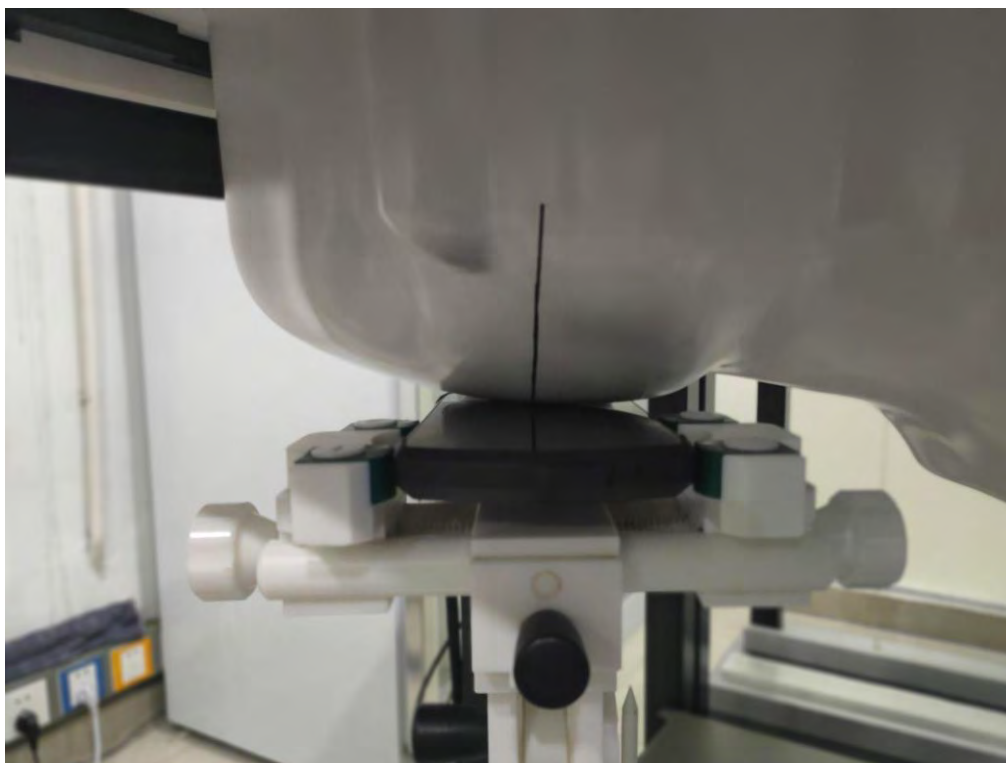


Bottom Edge

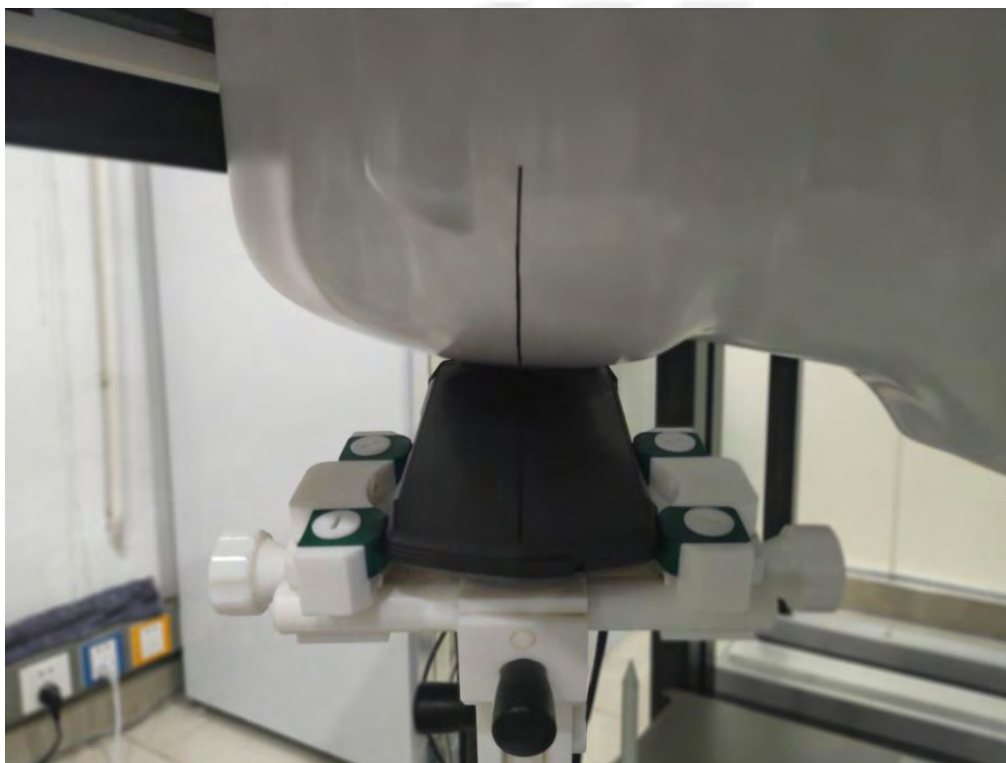


11.2 Setup Photo

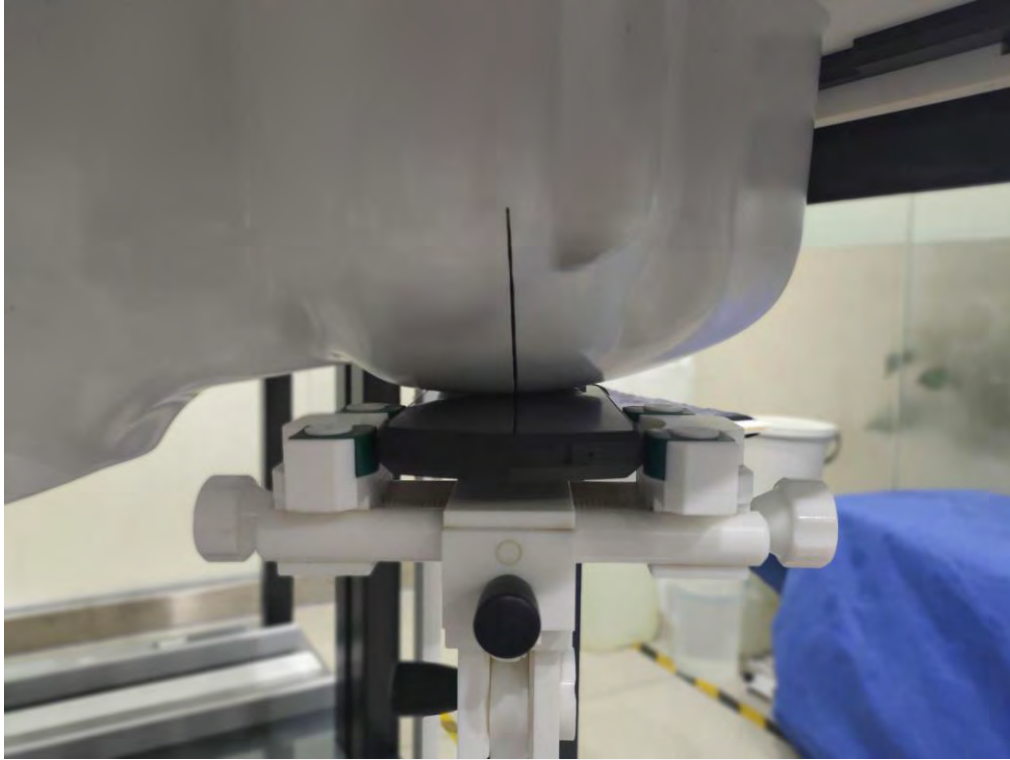
Right Cheek



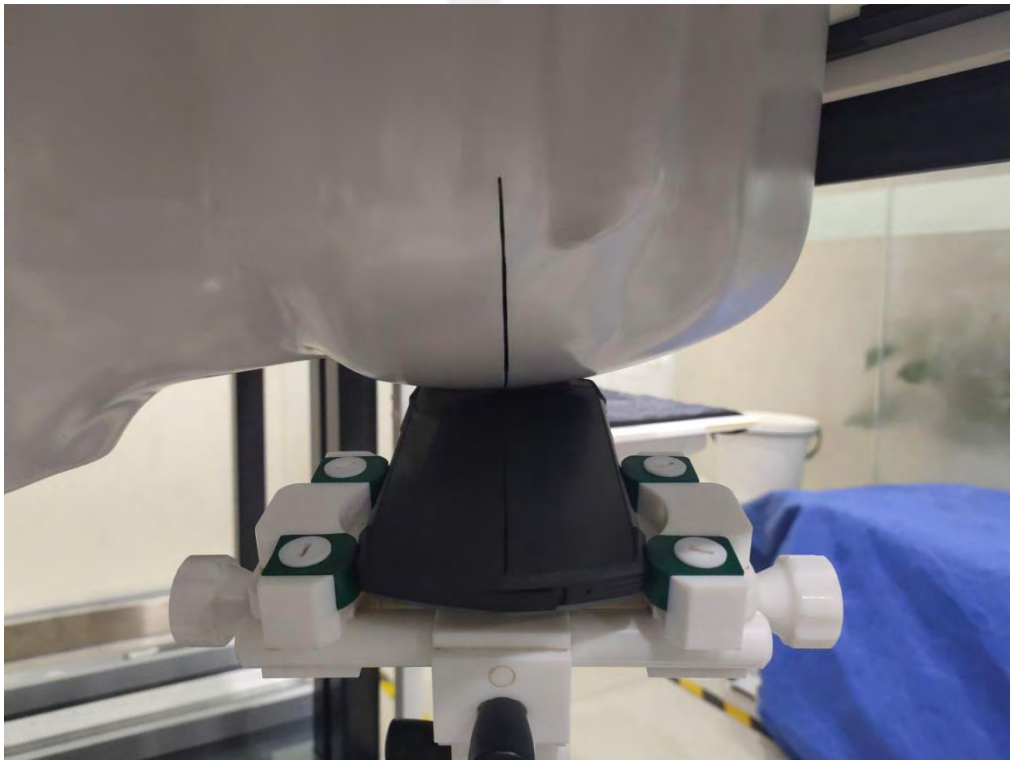
Right Tilt



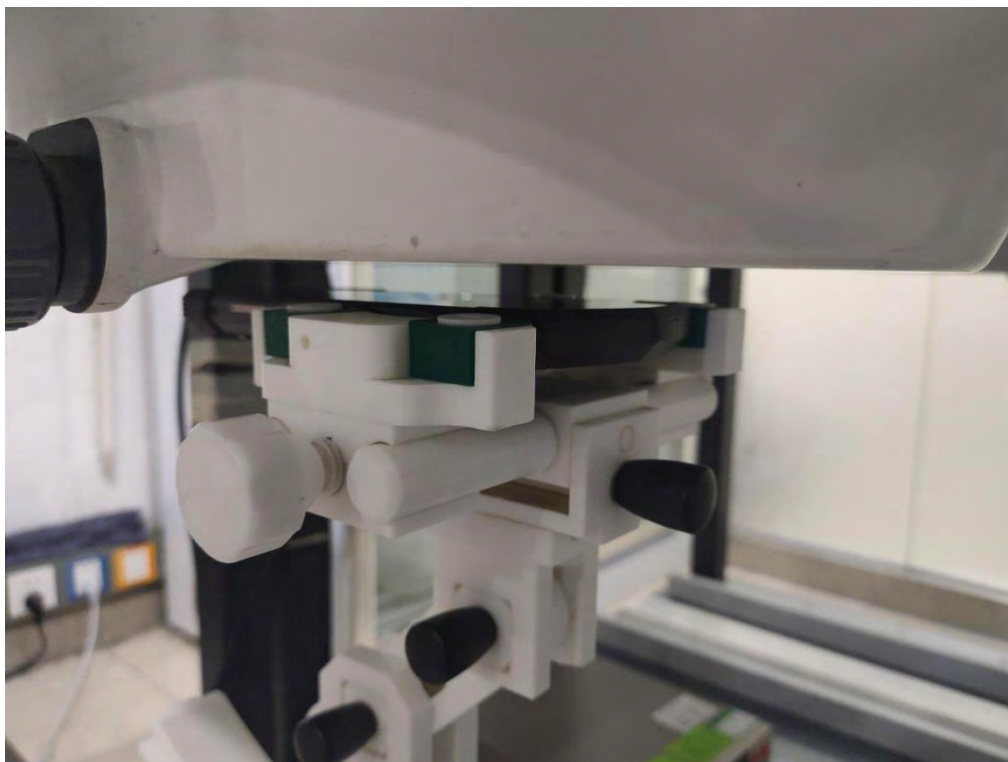
Left Cheek



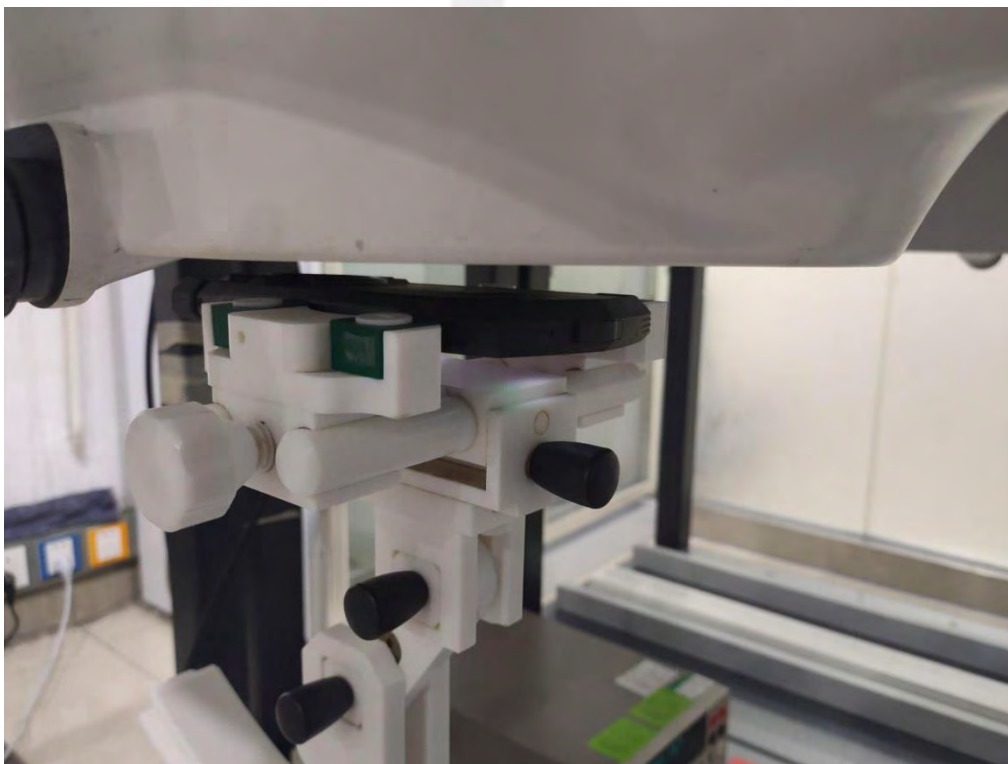
Left Tilt



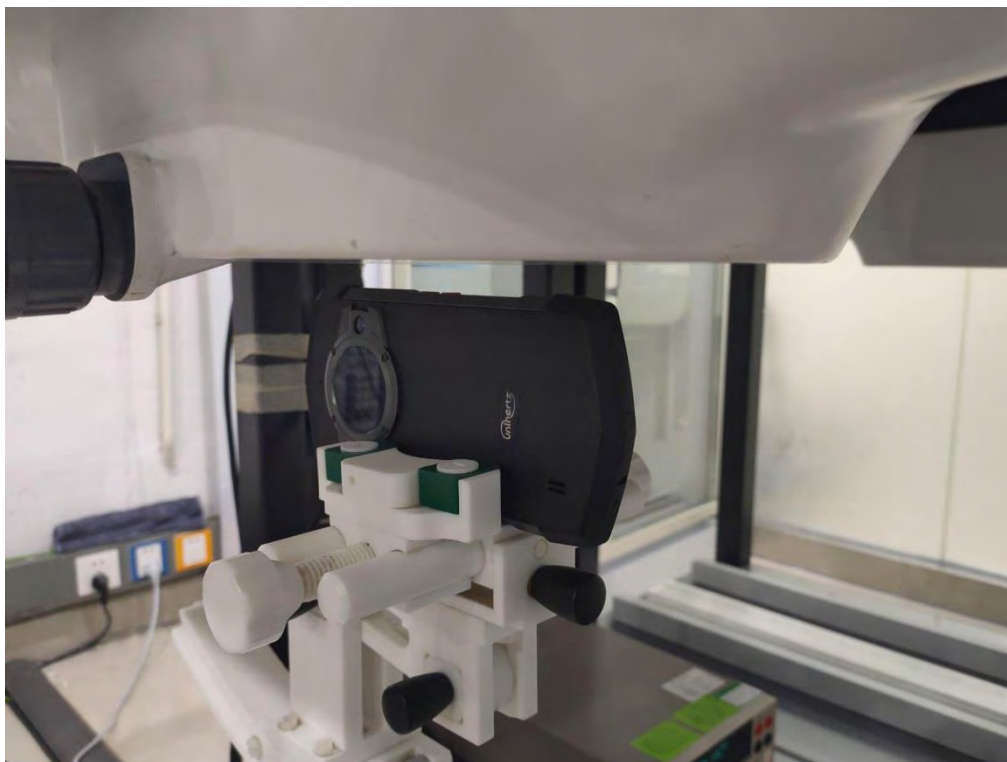
Body Front side(separation distance is 10mm)



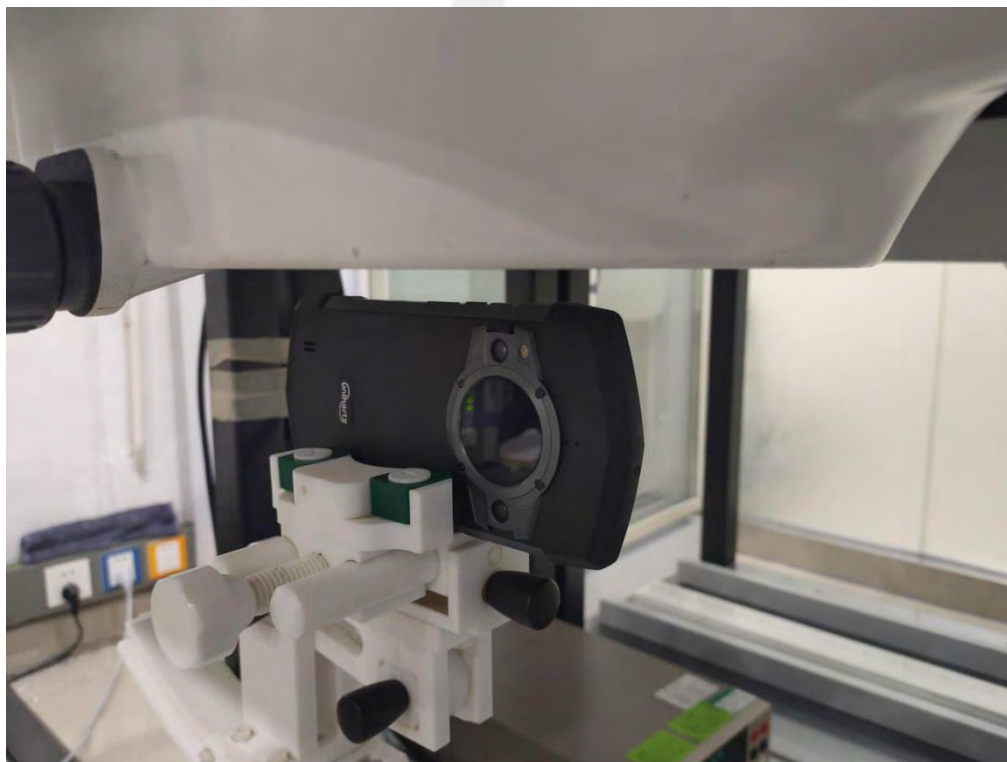
Body Back side(separation distance is 10mm)



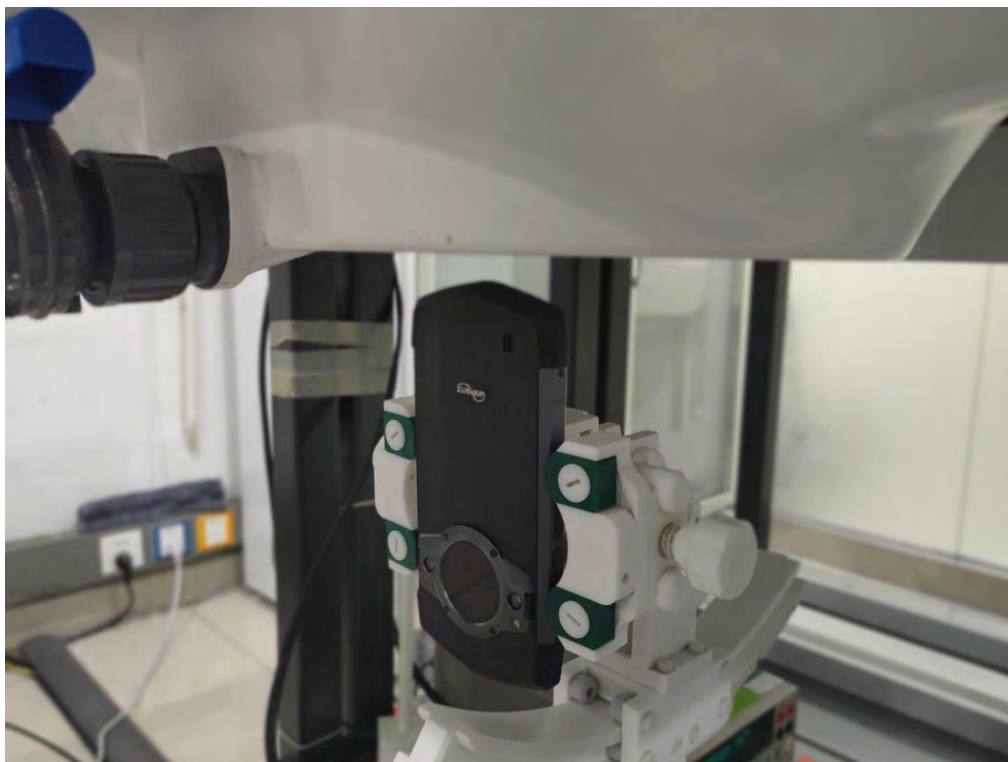
Body Left side(separation distance is 10mm)



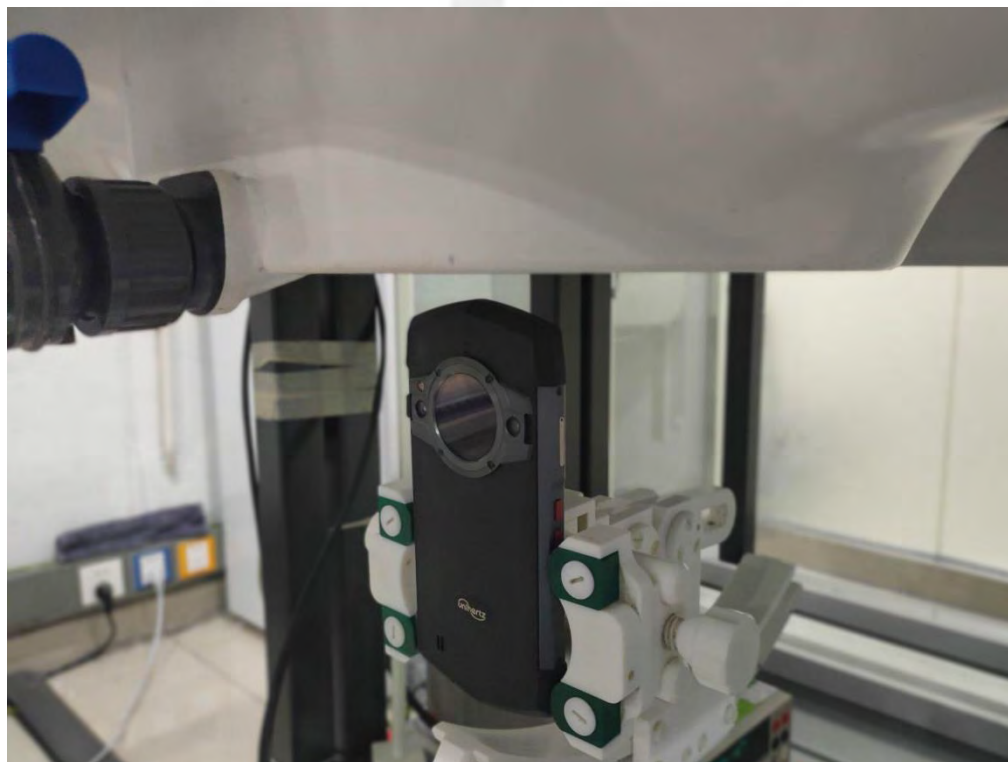
Body Right side(separation distance is 10mm)



Body Bottom side(separation distance is 10mm)

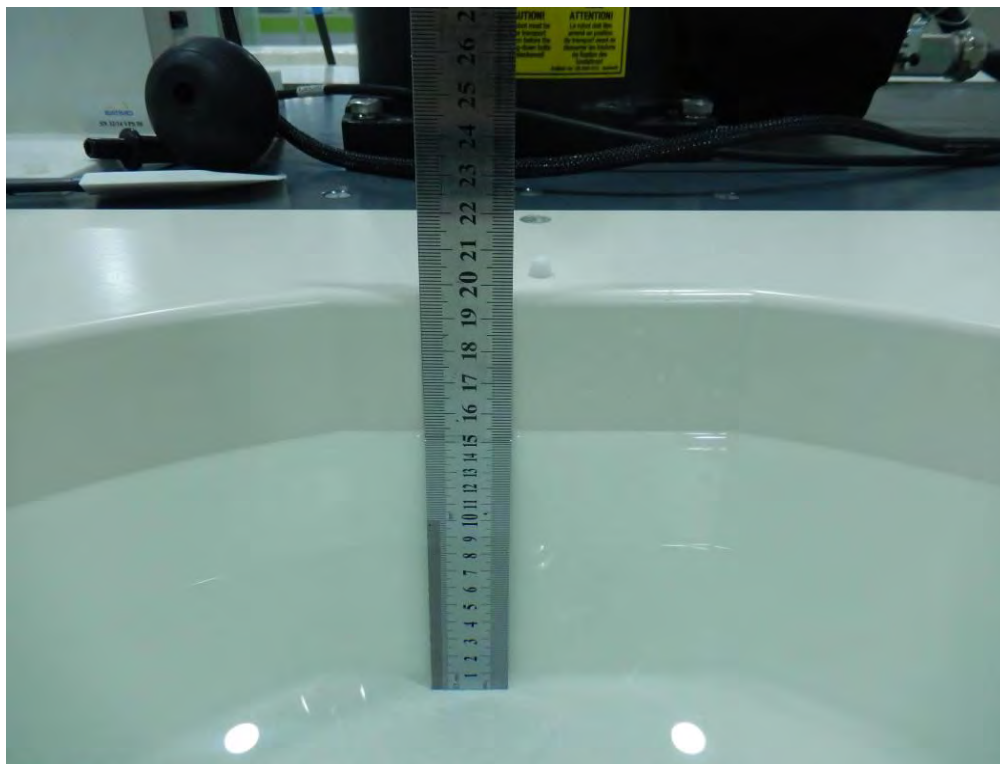


Body Top side(separation distance is 10mm)





Liquid depth (15 cm)





12. SAR Result Summary

12.1 Head SAR

Band	Model	Test Position	Frequency (MHz)	SAR (1g)	Power Drift(%)	Max.Turn-up	Meas.Output Power(dBm)	Scaled SAR	Meas.No.
GSM850	GPRS (GMSK, 4-Slot)	Right Cheek	836.6	0.379	-1.30	30.50	30.02	0.423	1
		Right Tilt	836.6	0.147	-0.76	30.50	30.02	0.164	/
		Left Cheek	836.6	0.322	0.00	30.50	30.02	0.360	/
		Left Tilt	836.6	0.154	3.75	30.50	30.02	0.172	/
GSM1900	GPRS (GMSK, 4-Slot)	Right Cheek	1850.2	0.069	1.79	28.00	27.77	0.073	/
		Right Tilt	1850.2	0.025	1.95	28.00	27.77	0.026	/
		Left Cheek	1850.2	0.244	-0.53	28.00	27.77	0.257	3
		Left Tilt	1850.2	0.154	1.54	28.00	27.77	0.162	/
WCDMA Band II	RMC	Right Cheek	1880	0.298	-0.66	22.50	22.23	0.317	/
		Right Tilt	1880	0.165	2.98	22.50	22.23	0.176	/
		Left Cheek	1880	0.371	0.64	22.50	22.23	0.395	5
		Left Tilt	1880	0.147	3.11	22.50	22.23	0.156	/
WCDMA Band IV	RMC	Right Cheek	1712.6	0.317	-2.32	23.20	23.05	0.328	7
		Right Tilt	1712.6	0.125	-2.13	23.20	23.05	0.129	/
		Left Cheek	1712.6	0.301	-2.94	23.20	23.05	0.312	/
		Left Tilt	1712.6	0.132	3.68	23.20	23.05	0.137	/
WCDMA Band V	RMC	Right Cheek	826.4	0.292	2.86	23.50	23.23	0.311	9
		Right Tilt	826.4	0.147	2.88	23.50	23.23	0.156	/
		Left Cheek	826.4	0.237	-0.26	23.50	23.23	0.252	/
		Left Tilt	826.4	0.154	-2.28	23.50	23.23	0.164	/
CDMA BC0	CDMA	Right Cheek	824.7	0.038	-3.33	25.00	24.62	0.041	/
		Right Tilt	824.7	0.014	-1.76	25.00	24.62	0.015	/
		Left Cheek	824.7	0.143	-0.62	25.00	24.62	0.156	11
		Left Tilt	824.7	0.054	3.27	25.00	24.62	0.059	/
CDMA BC1	CDMA	Right Cheek	1851.3	0.077	0.58	24.50	24.16	0.083	13
		Right Tilt	1851.3	0.024	-0.60	24.50	24.16	0.026	/
		Left Cheek	1851.3	0.054	-0.42	24.50	24.16	0.058	/
		Left Tilt	1851.3	0.025	-0.64	24.50	24.16	0.027	/
2.4GHz WLAN	802.11b	Right Cheek	2437	0.245	3.93	15.00	14.67	0.264	/
		Right Tilt	2437	0.136	1.61	15.00	14.67	0.147	/
		Left Cheek	2437	0.376	-3.92	15.00	14.67	0.406	15
		Left Tilt	2437	0.147	-2.19	15.00	14.67	0.159	/
5.2GHz WLAN	802.11a	Right Cheek	5240	0.046	-2.96	13.00	12.29	0.054	/
		Right Tilt	5240	0.025	1.71	13.00	12.29	0.029	/
		Left Cheek	5240	0.095	1.19	13.00	12.29	0.112	17
		Left Tilt	5240	0.054	2.40	13.00	12.29	0.064	/



5.3GHz WLAN	802.11a	Right Cheek	5300	0.074	0.01	13.00	12.43	0.084	/
		Right Tilt	5300	0.035	-1.03	13.00	12.43	0.040	/
		Left Cheek	5300	0.087	-3.72	13.00	12.43	0.099	19
		Left Tilt	5300	0.042	1.99	13.00	12.43	0.048	/
5.6GHz WLAN	802.11a	Right Cheek	5500	0.087	1.77	13.00	12.48	0.098	/
		Right Tilt	5500	0.042	3.60	13.00	12.48	0.047	/
		Left Cheek	5500	0.100	-2.50	13.00	12.48	0.113	21
		Left Tilt	5500	0.035	1.42	13.00	12.48	0.039	/
5.8GHz WLAN	802.11a	Right Cheek	5825	0.098	-0.18	13.00	12.53	0.109	/
		Right Tilt	5825	0.054	-1.57	13.00	12.53	0.060	/
		Left Cheek	5825	0.102	3.68	13.00	12.53	0.114	23
		Left Tilt	5825	0.048	-0.51	13.00	12.53	0.053	/





Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Fre. (MHz)	Result 1g (W/Kg)	Power Drift(%)	Max. Turn-up Power(dBm)	Meas. Output Power(dBm)	Scaled SAR (W/Kg)	Meas.No.
LTE Band 2	20M	QPSK	1	0	Right Cheek	1900	0.041	-2.90	25	24.59	0.045	/
			50	0	Right Cheek	1900	0.038	3.89	25	24.34	0.044	/
			1	0	Right Tilt	1900	0.012	-1.03	25	24.59	0.013	/
			50	0	Right Tilt	1900	0.01	0.07	25	24.34	0.012	/
			1	0	Left Cheek	1900	0.056	-0.24	25	24.59	0.062	25
			50	0	Left Cheek	1900	0.049	-1.49	25	24.34	0.057	/
			1	0	Left Tilt	1900	0.022	1.84	25	24.59	0.024	/
			50	0	Left Tilt	1900	0.019	-1.57	25	24.34	0.022	/
LTE Band 4	20M	QPSK	1	0	Right Cheek	1745	0.135	-0.50	25	24.56	0.149	/
			50	0	Right Cheek	1745	0.12	3.67	24.5	24.11	0.131	/
			1	0	Right Tilt	1745	0.048	1.49	25	24.56	0.053	/
			50	0	Right Tilt	1745	0.042	-0.43	24.5	24.11	0.046	/
			1	0	Left Cheek	1745	0.148	-2.47	25	24.56	0.164	27
			50	0	Left Cheek	1745	0.132	-0.12	24.5	24.11	0.144	/
			1	0	Left Tilt	1745	0.067	-0.93	25	24.56	0.074	/
			50	0	Left Tilt	1745	0.059	1.70	24.5	24.11	0.065	/
LTE Band 5	10M	QPSK	1	0	Right Cheek	844	0.162	-2.86	24.5	24.03	0.181	29
			25	0	Right Cheek	844	0.151	-3.92	24.5	23.81	0.177	/
			1	0	Right Tilt	844	0.057	3.94	24.5	24.03	0.064	/
			25	0	Right Tilt	844	0.052	3.17	24.5	23.81	0.061	/
			1	0	Left Cheek	844	0.114	0.83	24.5	24.03	0.127	/
			25	0	Left Cheek	844	0.105	-0.51	24.5	23.81	0.123	/
			1	0	Left Tilt	844	0.045	1.19	24.5	24.03	0.050	/
			25	0	Left Tilt	844	0.041	0.47	24.5	23.81	0.048	/
LTE Band 7	20M	QPSK	1	0	Right Cheek	2560	0.071	1.37	24.6	24.55	0.072	/
			50	0	Right Cheek	2560	0.067	1.04	24.5	24.4	0.069	/
			1	0	Right Tilt	2560	0.025	1.35	24.6	24.55	0.025	/
			50	0	Right Tilt	2560	0.016	2.12	24.5	24.4	0.016	/
			1	0	Left Cheek	2560	0.095	-0.04	24.6	24.55	0.096	31
			50	0	Left Cheek	2560	0.087	2.55	24.5	24.4	0.089	/
			1	0	Left Tilt	2560	0.041	-1.19	24.6	24.55	0.041	/
			50	0	Left Tilt	2560	0.039	2.04	24.5	24.4	0.040	/



LTE Band 12	10M	QPSK	1	0	Right Cheek	711	0.073	1.44	25	24.69	0.078	33
			25	0	Right Cheek	707.5	0.063	3.84	25	24.33	0.074	/
			1	0	Right Tilt	711	0.032	-3.39	25	24.69	0.034	/
			25	0	Right Tilt	707.5	0.027	2.47	25	24.33	0.032	/
			1	0	Left Cheek	711	0.069	2.72	25	24.69	0.074	/
			25	0	Left Cheek	707.5	0.062	-0.30	25	24.33	0.072	/
			1	0	Left Tilt	711	0.025	0.11	25	24.69	0.027	/
			25	0	Left Tilt	707.5	0.02	0.23	25	24.33	0.023	/
LTE Band 13	10M	QPSK	1	0	Right Cheek	782	0.11	-2.20	24.5	24.23	0.117	35
			25	0	Right Cheek	782	0.098	-1.79	24.5	23.87	0.113	/
			1	0	Right Tilt	782	0.048	-0.18	24.5	24.23	0.051	/
			25	0	Right Tilt	782	0.042	-3.15	24.5	23.87	0.049	/
			1	0	Left Cheek	782	0.099	-0.40	24.5	24.23	0.105	/
			25	0	Left Cheek	782	0.09	1.88	24.5	23.87	0.104	/
			1	0	Left Tilt	782	0.047	0.90	24.5	24.23	0.050	/
			25	0	Left Tilt	782	0.041	0.54	24.5	23.87	0.047	/
LTE Band 17	10M	QPSK	1	0	Right Cheek	711	0.053	0.60	24.5	24.23	0.056	37
			25	0	Right Cheek	709	0.045	1.85	24.5	23.86	0.052	/
			1	0	Right Tilt	711	0.025	3.03	24.5	24.23	0.027	/
			25	0	Right Tilt	709	0.021	3.26	24.5	23.86	0.024	/
			1	0	Left Cheek	711	0.048	3.21	24.5	24.23	0.051	/
			25	0	Left Cheek	709	0.042	-3.84	24.5	23.86	0.049	/
			1	0	Left Tilt	711	0.025	3.99	24.5	24.23	0.027	/
			25	0	Left Tilt	709	0.02	-2.04	24.5	23.86	0.023	/
LTE Band 25	20M	QPSK	1	0	Right Cheek	1905	0.034	-3.96	24.5	24.13	0.037	/
			50	0	Right Cheek	1882.	0.03	-0.63	24.5	23.85	0.035	/
			1	0	Right Tilt	1905	0.012	-0.02	24.5	24.13	0.013	/
			50	0	Right Tilt	1882.	0.01	2.57	24.5	23.85	0.012	/
			1	0	Left Cheek	1905	0.059	0.26	24.5	24.13	0.064	39
			50	0	Left Cheek	1882.	0.051	2.99	24.5	23.85	0.059	/
			1	0	Left Tilt	1905	0.025	-3.00	24.5	24.13	0.027	/
			50	0	Left Tilt	1882.	0.022	2.57	24.5	23.85	0.026	/
LTE Band 26	15M	QPSK	1	0	Right Cheek	841.5	0.374	-2.66	24.5	24.22	0.399	41
			25	0	Right Cheek	841.5	0.348	3.20	24.5	23.93	0.397	/
			1	0	Right Tilt	841.5	0.123	0.24	24.5	24.22	0.131	/
			25	0	Right Tilt	841.5	0.112	-1.26	24.5	23.93	0.128	/
			1	0	Left Cheek	841.5	0.324	-3.97	24.5	24.22	0.346	/
			25	0	Left Cheek	841.5	0.301	-2.28	24.5	23.93	0.343	/
			1	0	Left Tilt	841.5	0.123	-0.31	24.5	24.22	0.131	/
			25	0	Left Tilt	841.5	0.112	3.23	24.5	23.93	0.128	/



LTE Band40	20M	QPSK	1	0	Right Cheek	2395	0.072	-1.91	24	23.89	0.074	/
			25	0	Right Cheek	2395	0.065	3.46	24	23.52	0.073	/
			1	0	Right Tilt	2395	0.014	-0.28	24	23.89	0.014	/
			25	0	Right Tilt	2395	0.011	0.85	24	23.52	0.012	/
			1	0	Left Cheek	2395	0.08	2.27	24	23.89	0.082	43
			25	0	Left Cheek	2395	0.072	-2.20	24	23.52	0.080	/
			1	0	Left Tilt	2395	0.013	-1.70	24	23.89	0.013	/
			25	0	Left Tilt	2395	0.01	-3.93	24	23.52	0.011	/
LTE Band 41	20M	QPSK	1	0	Right Cheek	2680	0.043	-2.53	24.5	24.06	0.048	/
			50	0	Right Cheek	2680	0.039	-1.59	24.5	23.82	0.046	/
			1	0	Right Tilt	2680	0.021	-1.65	24.5	24.06	0.023	/
			50	0	Right Tilt	2680	0.013	-2.99	24.5	23.82	0.015	/
			1	0	Left Cheek	2680	0.051	-1.67	24.5	24.06	0.056	45
			50	0	Left Cheek	2680	0.047	0.69	24.5	23.82	0.055	/
			1	0	Left Tilt	2680	0.022	-1.86	24.5	24.06	0.024	/
			50	0	Left Tilt	2680	0.014	-1.57	24.5	23.82	0.016	/
LTE Band 66	20M	QPSK	1	0	Right Cheek	1770	0.116	1.23	24.5	24.42	0.118	47
			50	0	Right Cheek	1770	0.102	-0.93	24.5	24.05	0.113	/
			1	0	Right Tilt	1770	0.047	2.87	24.5	24.42	0.048	/
			50	0	Right Tilt	1770	0.042	3.83	24.5	24.05	0.047	/
			1	0	Left Cheek	1770	0.101	1.45	24.5	24.42	0.103	/
			50	0	Left Cheek	1770	0.091	-1.09	24.5	24.05	0.101	/
			1	0	Left Tilt	1770	0.047	-0.69	24.5	24.42	0.048	/
			50	0	Left Tilt	1770	0.042	0.76	24.5	24.05	0.047	/
SA N2	20M	DFT_QPSK	50	0	Right Cheek	1860	0.081	-1.42	23.00	22.84	0.084	49
			50	0	Right Tilt	1860	0.041	-3.71	23.00	22.84	0.043	/
			50	0	Left Cheek	1860	0.034	3.09	23.00	22.84	0.035	/
			50	0	Left Tilt	1860	0.015	-1.69	23.00	22.84	0.016	/
SA N5	20M	DFT_QPSK	50	0	Right Cheek	839	0.280	1.04	22.50	22.18	0.301	51
			50	0	Right Tilt	839	0.147	1.88	22.50	22.18	0.158	/
			50	0	Left Cheek	839	0.161	-0.45	22.50	22.18	0.173	/
			50	0	Left Tilt	839	0.120	2.65	22.50	22.18	0.129	/
SA N7	20M	DFT_QPSK	50	0	Right Cheek	2560	0.068	2.82	23.00	22.62	0.074	/
			50	0	Right Tilt	2560	0.041	-0.98	23.00	22.62	0.045	/
			50	0	Left Cheek	2560	0.108	-2.59	23.00	22.62	0.118	53
			50	0	Left Tilt	2560	0.052	-1.03	23.00	22.62	0.057	/



SA N41	100M	DFT_QPSK	135	0	Right Cheek	2593	0.100	1.41	26.00	25.61	0.109	/
			135	0	Right Tilt	2593	0.047	0.49	26.00	25.61	0.051	/
			135	0	Left Cheek	2593	0.203	-0.61	26.00	25.61	0.222	55
			135	0	Left Tilt	2593	0.125	0.94	26.00	25.61	0.137	/
SA N77	100M	DFT_QPSK	135	0	Right Cheek	3750	0.684	2.10	24.00	23.45	0.776	/
			135	0	Right Cheek	3840	0.654	-3.26	24.00	23.50	0.734	/
			135	0	Right Cheek	3930	0.774	1.49	24.00	23.79	0.812	57
			135	0	Right Tilt	3930	0.254	3.76	24.00	23.79	0.267	/
			135	0	Left Cheek	3930	0.541	0.39	24.00	23.79	0.568	/
			135	0	Left Tilt	3930	0.158	2.59	24.00	23.79	0.166	/





Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Fre. (MHz)	Result 1g (W/Kg)	Power Drift(%)	Max. Turn-up Power(dBm)	Meas. Output Power(dBm)	Scaled SAR (W/Kg)	Meas.No.
NSA N7	20M	DFT_QPSK	50	0	Right Cheek	2560	0.059	0.23	22.50	22.19	0.063	/
			50	0	Right Tilt	2560	0.041	0.14	22.50	22.19	0.044	/
			50	0	Left Cheek	2560	0.060	0.35	22.50	22.19	0.064	59
			50	0	Left Tilt	2560	0.045	0.41	22.50	22.19	0.048	/
LTE Band 2	20M	QPSK	1	0	Right Cheek	1900	0.041	-2.90	25	24.59	0.045	/
			50	0	Right Cheek	1900	0.038	3.89	25	24.34	0.044	/
			1	0	Right Tilt	1900	0.012	-1.03	25	24.59	0.013	/
			50	0	Right Tilt	1900	0.01	0.07	25	24.34	0.012	/
			1	0	Left Cheek	1900	0.056	-0.24	25	24.59	0.062	31
			50	0	Left Cheek	1900	0.049	-1.49	25	24.34	0.057	/
			1	0	Left Tilt	1900	0.022	1.84	25	24.59	0.024	/
			50	0	Left Tilt	1900	0.019	-1.57	25	24.34	0.022	/
LTE Band 5	10M	QPSK	1	0	Right Cheek	844	0.162	-2.86	24.5	24.03	0.181	29
			25	0	Right Cheek	844	0.151	-3.92	24.5	23.81	0.177	/
			1	0	Right Tilt	844	0.057	3.94	24.5	24.03	0.064	/
			25	0	Right Tilt	844	0.052	3.17	24.5	23.81	0.061	/
			1	0	Left Cheek	844	0.114	0.83	24.5	24.03	0.127	/
			25	0	Left Cheek	844	0.105	-0.51	24.5	23.81	0.123	/
			1	0	Left Tilt	844	0.045	1.19	24.5	24.03	0.050	/
			25	0	Left Tilt	844	0.041	0.47	24.5	23.81	0.048	/

Band	Mode	Max SAR (W/Kg)	NSA N7+B2
NSA N7+B2	SA N7	0.064	0.126
	LTE B2	0.062	
Band	Mode	Max SAR (W/Kg)	NSA N7+B5
NSA N7+B5	SA N7	0.064	0.245
	LTE B5	0.181	



Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Fre. (MHz)	Result 1g (W/Kg)	Power Drift(%)	Max. Turn-up Power(dBm)	Meas. Output Power(dBm)	Scaled SAR (W/Kg)	Meas.No.
NSA N41	100M	DFT_QPSK	135	0	Right Cheek	2593	0.041	0.12	23.50	23.22	0.044	/
			135	0	Right Tilt	2593	0.021	0.26	23.50	23.22	0.022	/
			135	0	Left Cheek	2593	0.044	0.32	23.50	23.22	0.047	61
			135	0	Left Tilt	2593	0.019	0.11	23.50	23.22	0.020	/
LTE Band 12	10M	QPSK	1	0	Right Cheek	711	0.073	1.44	25	24.69	0.078	33
			25	0	Right Cheek	707.5	0.063	3.84	25	24.33	0.074	/
			1	0	Right Tilt	711	0.032	-3.39	25	24.69	0.034	/
			25	0	Right Tilt	707.5	0.027	2.47	25	24.33	0.032	/
			1	0	Left Cheek	711	0.069	2.72	25	24.69	0.074	/
			25	0	Left Cheek	707.5	0.062	-0.30	25	24.33	0.072	/
			1	0	Left Tilt	711	0.025	0.11	25	24.69	0.027	/
			25	0	Left Tilt	707.5	0.02	0.23	25	24.33	0.023	/
LTE Band 26	15M	QPSK	1	0	Right Cheek	841.5	0.374	-2.66	24.5	24.22	0.399	41
			25	0	Right Cheek	841.5	0.348	3.20	24.5	23.93	0.397	/
			1	0	Right Tilt	841.5	0.123	0.24	24.5	24.22	0.131	/
			25	0	Right Tilt	841.5	0.112	-1.26	24.5	23.93	0.128	/
			1	0	Left Cheek	841.5	0.324	-3.97	24.5	24.22	0.346	/
			25	0	Left Cheek	841.5	0.301	-2.28	24.5	23.93	0.343	/
			1	0	Left Tilt	841.5	0.123	-0.31	24.5	24.22	0.131	/
			25	0	Left Tilt	841.5	0.112	3.23	24.5	23.93	0.128	/
LTE Band 66	20M	QPSK	1	0	Right Cheek	1770	0.116	1.23	24.5	24.42	0.118	47
			50	0	Right Cheek	1770	0.102	-0.93	24.5	24.05	0.113	/
			1	0	Right Tilt	1770	0.047	2.87	24.5	24.42	0.048	/
			50	0	Right Tilt	1770	0.042	3.83	24.5	24.05	0.047	/
			1	0	Left Cheek	1770	0.101	1.45	24.5	24.42	0.103	/
			50	0	Left Cheek	1770	0.091	-1.09	24.5	24.05	0.101	/
			1	0	Left Tilt	1770	0.047	-0.69	24.5	24.42	0.048	/
			50	0	Left Tilt	1770	0.042	0.76	24.5	24.05	0.047	/



Band	Mode	Max SAR (W/Kg)	NSA N41+B12
NSA N41+B12	SA N41	0.047	0.125
	LTE B12	0.078	
Band	Mode	Max SAR (W/Kg)	NSA N41+B26
NSA N41+B26	SA N41	0.047	0.446
	LTE B26	0.399	
Band	Mode	Max SAR (W/Kg)	NSA N41+B66
NSA N41+B66	SA N41	0.047	0.165
	LTE B66	0.118	

Note:

- 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 ≤ 1.2 W/kg. (The highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power was **0.122** W/Kg for Head)
- Per KDB865664 D01, Repeated measurement is not required when the original highest measured SAR is <0.80 W/kg

**12.2 Body-worn and Hotspot SAR**

Band	Model	Test Position	Frequency (MHz)	SAR (1g)	Power Drift(%)	Max.Turn-up	Meas.Output Power(dBm)	Scaled SAR	Meas.No.
GSM850	GPRS (GMSK, 4-Slot)	Front Side	836.6	0.708	3.29	30.50	30.02	0.791	/
		Back Side	824.2	0.798	0.06	30.50	29.62	0.977	/
		Back Side	836.6	0.889	-1.99	30.50	30.02	0.993	2
		Back Side	848.8	0.851	-3.63	30.50	29.98	0.959	/
		Left Edge	836.6	0.465	-0.09	30.50	30.02	0.519	/
		Right Edge	836.6	0.412	1.87	30.50	30.02	0.460	/
		Top Edge	836.6	0.358	-2.27	30.50	30.02	0.400	/
		Bottom Edge	836.6	0.665	0.05	30.50	30.02	0.743	/
GSM1900	GPRS (GMSK, 4-Slot)	Front Side	1850.2	0.190	2.38	28.00	27.77	0.200	/
		Back Side	1850.2	0.460	-3.40	28.00	27.77	0.485	4
		Left Edge	1850.2	0.258	3.32	28.00	27.77	0.272	/
		Right Edge	1850.2	0.210	2.05	28.00	27.77	0.221	/
		Bottom Edge	1850.2	0.352	-2.14	28.00	27.77	0.371	/
WCDMA Band II	RMC	Front Side	1880	0.236	1.03	22.50	22.23	0.251	/
		Back Side	1880	0.397	-1.69	22.50	22.23	0.422	6
		Left Edge	1880	0.258	-1.98	22.50	22.23	0.275	/
		Right Edge	1880	0.265	0.82	22.50	22.23	0.282	/
		Bottom Edge	1880	0.356	-0.66	22.50	22.23	0.379	/
WCDMA Band IV	RMC	Front Side	1712.6	1.167	0.34	23.20	23.05	1.208	8
		Front Side	1740	0.925	-3.08	23.20	22.12	1.186	/
		Front Side	1752.4	0.935	3.72	23.20	22.20	1.177	/
		Back Side	1712.6	0.674	-0.59	23.20	23.05	0.698	/
		Left Edge	1712.6	0.665	2.12	23.20	23.05	0.688	/
		Right Edge	1712.6	0.587	2.35	23.20	23.05	0.608	/
		Bottom Edge	1712.6	0.583	-3.71	23.20	23.05	0.603	/
WCDMA Band V	RMC	Front Side	826.4	0.470	1.42	23.50	23.23	0.500	10
		Back Side	826.4	0.407	-2.43	23.50	23.23	0.433	/
		Left Edge	826.4	0.258	1.88	23.50	23.23	0.275	/
		Right Edge	826.4	0.223	-3.35	23.50	23.23	0.237	/
		Bottom Edge	826.4	0.321	1.00	23.50	23.23	0.342	/
CDMA BC0	CDMA	Front Side	824.7	0.601	-3.67	25.00	24.62	0.656	/
		Back Side	824.7	0.634	-0.48	25.00	24.62	0.692	12
		Left Edge	824.7	0.321	-1.51	25.00	24.62	0.350	/
		Right Edge	824.7	0.298	2.61	25.00	24.62	0.325	/
		Bottom Edge	824.7	0.268	-2.35	25.00	24.62	0.293	/



CDMA BC1	CDMA	Front Side	1851.3	0.285	-1.09	24.50	24.16	0.308	/
		Back Side	1851.3	0.544	2.75	24.50	24.16	0.588	14
		Left Edge	1851.3	0.321	-1.45	24.50	24.16	0.347	/
		Right Edge	1851.3	0.289	-1.42	24.50	24.16	0.313	/
		Bottom Edge	1851.3	0.265	-1.80	24.50	24.16	0.287	/
2.4GHz WLAN	802.11b	Front Side	2437	0.098	-2.20	15.00	14.67	0.106	16
		Back Side	2437	0.068	3.23	15.00	14.67	0.073	/
		Right Edge	2437	0.054	-0.12	15.00	14.67	0.058	/
		Top Edge	2437	0.039	3.08	15.00	14.67	0.042	/
5.2GHz WLAN	802.11a	Front Side	5240	0.041	3.54	13.00	12.29	0.048	/
		Back Side	5240	0.071	3.98	13.00	12.29	0.084	18
		Right Edge	5240	0.035	-1.71	13.00	12.29	0.041	/
		Top Edge	5240	0.041	-3.29	13.00	12.29	0.048	/
5.3GHz WLAN	802.11a	Front Side	5300	0.048	2.01	13.00	12.43	0.055	/
		Back Side	5301	0.071	3.73	13.00	12.43	0.081	20
		Right Edge	5302	0.052	-2.00	13.00	12.43	0.059	/
		Top Edge	5303	0.036	-1.07	13.00	12.43	0.041	/
5.6GHz WLAN	802.11a	Front Side	5500	0.058	2.84	13.00	12.48	0.065	/
		Back Side	5501	0.115	2.68	13.00	12.48	0.130	22
		Right Edge	5502	0.045	1.53	13.00	12.48	0.051	/
		Top Edge	5503	0.036	0.13	13.00	12.48	0.041	/
5.8GHz WLAN	802.11a	Front Side	5825	0.098	-1.67	13.00	12.53	0.109	/
		Back Side	5826	0.150	-1.60	13.00	12.53	0.167	24
		Right Edge	5827	0.068	0.87	13.00	12.53	0.076	/
		Top Edge	5828	0.054	-0.31	13.00	12.53	0.060	/



Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Fre. (MHz)	Result 1g (W/Kg)	Power Drift(%)	Max. Turn-up Power(dBm)	Meas. Output Power(dBm)	Scaled SAR (W/Kg)	Meas.No.
LTE Band 2	20M	QPSK	1	0	Front side	1900	0.165	1.71	25	24.59	0.181	/
			50	0	Front side	1900	0.124	3.23	25	24.34	0.144	/
			1	0	Back Side	1900	0.33	-1.55	25	24.59	0.363	26
			50	0	Back Side	1900	0.302	2.25	25	24.34	0.352	/
			1	0	Left Side	1900	0.167	1.33	25	24.59	0.184	/
			50	0	Left Side	1900	0.157	1.15	25	24.34	0.183	/
			1	0	Right Side	1900	0.125	-0.63	25	24.59	0.137	/
			50	0	Right Side	1900	0.116	-1.62	25	24.34	0.135	/
			1	0	Bottom Side	1900	0.201	1.58	25	24.59	0.221	/
			50	0	Bottom Side	1900	0.171	-1.24	25	24.34	0.199	/
LTE Band 4	20M	QPSK	1	0	Front side	1720	0.705	0.31	25	24.29	0.830	/
			1	0	Front side	1732.5	0.72	-1.09	25	24.35	0.836	/
			1	0	Front side	1745	0.757	-1.84	25	24.56	0.838	28
			50	0	Front side	1745	0.671	-0.23	24.5	24.11	0.734	/
			100	0	Front side	1720	0.661	-0.23	24	23.67	0.713	/
			1	0	Back Side	1745	0.56	3.61	25	24.56	0.620	/
			50	0	Back Side	1745	0.501	-2.81	24.5	24.11	0.548	/
			1	0	Left Side	1745	0.421	3.78	25	24.56	0.466	/
			50	0	Left Side	1745	0.375	0.26	24.5	24.11	0.410	/
			1	0	Right Side	1745	0.341	-2.62	25	24.56	0.377	/
			50	0	Right Side	1745	0.298	1.04	24.5	24.11	0.326	/
			1	0	Bottom Side	1745	0.321	-3.83	25	24.56	0.355	/
			50	0	Bottom Side	1745	0.281	-3.89	24.5	24.11	0.307	/
LTE Band 5	10M	QPSK	1	0	Front side	844	0.414	3.97	24.5	24.03	0.461	/
			25	0	Front side	844	0.37	0.79	24.5	23.81	0.434	/
			1	0	Back Side	844	0.474	1.23	24.5	24.03	0.528	30
			25	0	Back Side	844	0.41	1.76	24.5	23.81	0.481	/
			1	0	Left Side	844	0.264	1.83	24.5	24.03	0.294	/
			25	0	Left Side	844	0.245	-0.91	24.5	23.81	0.287	/
			1	0	Right Side	844	0.232	3.33	24.5	24.03	0.259	/
			25	0	Right Side	844	0.214	-3.27	24.5	23.81	0.251	/
			1	0	Bottom Side	844	0.254	0.30	24.5	24.03	0.283	/
			25	0	Bottom Side	844	0.238	-3.29	24.5	23.81	0.279	/



LTE Band 7	20M	QPSK	1	0	Front side	2560	0.712	2.07	24.6	24.55	0.720	/
			50	0	Front side	2560	0.698	2.25	24.5	24.4	0.714	/
			1	0	Back Side	2510	0.972	-1.64	24.6	24.22	1.061	/
			1	0	Back Side	2535	0.997	3.23	24.6	24.32	1.063	/
			1	0	Back Side	2560	1.23	-2.31	24.6	24.55	1.244	32
			50	0	Back Side	2510	0.96	1.27	24.5	24.12	1.048	/
			50	0	Back Side	2535	0.951	0.85	24.5	24.08	1.048	/
			50	0	Back Side	2560	1.025	0.71	24.5	24.4	1.049	/
			100	0	Back Side	2510	0.883	1.85	24.5	23.98	0.995	/
			100	0	Back Side	2535	0.865	-1.75	24.5	23.85	1.005	/
			100	0	Back Side	2560	0.908	-2.96	24.5	24.03	1.012	/
			1	0	Left Side	2560	0.647	-0.39	24.6	24.55	0.654	/
			50	0	Left Side	2560	0.625	3.80	24.5	24.4	0.640	/
			1	0	Right Side	2560	0.437	3.26	24.6	24.55	0.442	/
			50	0	Right Side	2560	0.425	0.89	24.5	24.4	0.435	/
			1	0	Bottom Side	2560	0.347	3.26	24.6	24.55	0.351	/
			50	0	Bottom Side	2560	0.365	0.67	24.5	24.4	0.374	/
LTE Band 12	10M	QPSK	1	0	Front side	711	0.109	-3.42	25	24.69	0.117	/
			25	0	Front side	707.5	0.087	-2.42	25	24.33	0.102	/
			1	0	Back Side	711	0.252	2.08	25	24.69	0.271	34
			25	0	Back Side	707.5	0.225	0.38	25	24.33	0.263	/
			1	0	Left Side	711	0.197	3.63	25	24.69	0.212	/
			25	0	Left Side	707.5	0.176	-1.34	25	24.33	0.205	/
			1	0	Right Side	711	0.181	-3.37	25	24.69	0.194	/
			25	0	Right Side	707.5	0.158	3.00	25	24.33	0.184	/
			1	0	Bottom Side	711	0.125	-3.79	25	24.69	0.134	/
			25	0	Bottom Side	707.5	0.105	2.10	25	24.33	0.123	/
LTE Band 13	10M	QPSK	1	0	Front side	782	0.198	-2.16	24.5	24.23	0.211	/
			25	0	Front side	782	0.176	2.04	24.5	23.87	0.203	/
			1	0	Back Side	782	0.232	3.99	24.5	24.23	0.247	36
			25	0	Back Side	782	0.189	3.47	24.5	23.87	0.219	/
			1	0	Left Side	782	0.12	3.21	24.5	24.23	0.128	/
			25	0	Left Side	782	0.123	3.69	24.5	23.87	0.142	/
			1	0	Right Side	782	0.098	-2.66	24.5	24.23	0.104	/
			25	0	Right Side	782	0.098	2.73	24.5	23.87	0.113	/
			1	0	Bottom Side	782	0.078	-0.46	24.5	24.23	0.083	/
			25	0	Bottom Side	782	0.083	-2.71	24.5	23.87	0.096	/



LTE Band 17	10M	QPSK	1	0	Front side	711	0.112	3.46	24.5	24.23	0.119	/
			25	0	Front side	709	0.098	-1.44	24.5	23.86	0.114	/
			1	0	Back Side	711	0.296	-2.84	24.5	24.23	0.315	38
			25	0	Back Side	709	0.267	-0.92	24.5	23.86	0.309	/
			1	0	Left Side	711	0.168	1.90	24.5	24.23	0.179	/
			25	0	Left Side	709	0.15	2.70	24.5	23.86	0.174	/
			1	0	Right Side	711	0.145	0.73	24.5	24.23	0.154	/
			25	0	Right Side	709	0.131	3.72	24.5	23.86	0.152	/
			1	0	Bottom Side	711	0.165	2.98	24.5	24.23	0.176	/
			25	0	Bottom Side	709	0.15	1.62	24.5	23.86	0.174	/
LTE Band 25	20M	QPSK	1	0	Front side	1905	0.152	3.99	24.5	24.13	0.166	/
			50	0	Front side	1882.5	0.142	1.57	24.5	23.85	0.165	/
			1	0	Back Side	1905	0.34	3.16	24.5	24.13	0.370	40
			50	0	Back Side	1882.5	0.315	3.95	24.5	23.85	0.366	/
			1	0	Left Side	1905	0.254	-1.00	24.5	24.13	0.277	/
			50	0	Left Side	1882.5	0.221	3.19	24.5	23.85	0.257	/
			1	0	Right Side	1905	0.265	2.91	24.5	24.13	0.289	/
			50	0	Right Side	1882.5	0.238	3.01	24.5	23.85	0.276	/
			1	0	Bottom Side	1905	0.198	-0.03	24.5	24.13	0.216	/
			50	0	Bottom Side	1882.5	0.189	3.28	24.5	23.85	0.220	/
LTE Band 26	15M	QPSK	1	0	Front side	841.5	0.398	-1.15	24.5	24.22	0.425	/
			25	0	Front side	841.5	0.353	3.37	24.5	23.93	0.403	/
			1	0	Back Side	841.5	0.43	0.34	24.5	24.22	0.459	42
			25	0	Back Side	841.5	0.399	3.77	24.5	23.93	0.455	/
			1	0	Left Side	841.5	0.214	1.41	24.5	24.22	0.228	/
			25	0	Left Side	841.5	0.198	-0.56	24.5	23.93	0.226	/
			1	0	Right Side	841.5	0.221	2.42	24.5	24.22	0.236	/
			25	0	Right Side	841.5	0.205	2.31	24.5	23.93	0.234	/
			1	0	Bottom Side	841.5	0.198	-2.79	24.5	24.22	0.211	/
			25	0	Bottom Side	841.5	0.181	3.19	24.5	23.93	0.206	/
LTE Band 40	20M	QPSK	1	0	Front side	2395	0.089	0.22	24	23.89	0.091	/
			25	0	Front side	2395	0.08	-0.81	24	23.52	0.089	/
			1	0	Back Side	2395	0.569	-3.31	24	23.89	0.584	44
			25	0	Back Side	2395	0.524	-1.64	24	23.52	0.585	/
			1	0	Left Side	2395	0.368	0.67	24	23.89	0.377	/
			25	0	Left Side	2395	0.321	-0.86	24	23.52	0.359	/
			1	0	Right Side	2395	0.225	0.55	24	23.89	0.231	/
			25	0	Right Side	2395	0.205	1.12	24	23.52	0.229	/
			1	0	Bottom Side	2395	0.169	3.05	24	23.89	0.173	/
			25	0	Bottom Side	2395	0.135	-1.76	24	23.52	0.151	/



LTE Band 41	20M	QPSK	1	0	Front side	2680	0.083	-0.07	24.5	24.06	0.092	/
			50	0	Front side	2680	0.054	-0.53	24.5	23.82	0.063	/
			1	0	Back Side	2680	0.368	-0.03	24.5	24.06	0.407	46
			50	0	Back Side	2680	0.335	-2.80	24.5	23.82	0.392	/
			1	0	Left Side	2680	0.295	-2.01	24.5	24.06	0.326	/
			50	0	Left Side	2680	0.271	3.58	24.5	23.82	0.317	/
			1	0	Right Side	2680	0.269	-1.21	24.5	24.06	0.298	/
			50	0	Right Side	2680	0.265	-2.78	24.5	23.82	0.310	/
			1	0	Bottom Side	2680	0.225	0.26	24.5	24.06	0.249	/
			50	0	Bottom Side	2680	0.207	1.51	24.5	23.82	0.242	/
LTE Band 66	20M	QPSK	1	0	Front side	1770	0.578	-0.24	24.5	24.42	0.589	/
			50	0	Front side	1770	0.521	-0.49	24.5	24.05	0.578	/
			1	0	Back Side	1770	0.585	-2.44	24.5	24.42	0.596	48
			50	0	Back Side	1770	0.533	-1.27	24.5	24.05	0.591	/
			1	0	Left Side	1770	0.487	-3.87	24.5	24.42	0.496	/
			50	0	Left Side	1770	0.442	0.92	24.5	24.05	0.490	/
			1	0	Right Side	1770	0.425	-3.00	24.5	24.42	0.433	/
			50	0	Right Side	1770	0.38	1.21	24.5	24.05	0.421	/
			1	0	Bottom Side	1770	0.358	-3.42	24.5	24.42	0.365	/
			50	0	Bottom Side	1770	0.325	-1.15	24.5	24.05	0.360	/
SA N2	20M	DFT_Q PSK	50	0	Front Side	1860	0.148	1.05	23.00	22.84	0.154	/
			50	0	Back Side	1860	0.244	3.00	23.00	22.84	0.253	50
			50	0	Left Edge	1860	0.154	-0.06	23.00	22.84	0.160	/
			50	0	Right Edge	1860	0.135	-1.07	23.00	22.84	0.140	/
			50	0	Bottom Edge	1860	0.198	3.74	23.00	22.84	0.205	/
SA N5	20M	DFT_Q PSK	50	0	Front Side	839	0.441	3.32	22.50	22.18	0.475	52
			50	0	Back Side	839	0.382	-2.85	22.50	22.18	0.411	/
			50	0	Left Edge	839	0.154	-2.11	22.50	22.18	0.166	/
			50	0	Right Edge	839	0.136	-1.18	22.50	22.18	0.146	/
			50	0	Bottom Edge	839	0.336	0.67	22.50	22.18	0.362	/
SA N7	20M	DFT_Q PSK	50	0	Front Side	2560	0.206	2.25	23.00	22.62	0.225	/
			50	0	Back Side	2510	0.879	-2.69	23.00	22.53	0.979	/
			50	0	Back Side	2535	0.925	1.43	23.00	22.51	1.035	/
			50	0	Back Side	2560	1.019	2.56	23.00	22.62	1.112	54
			50	0	Left Edge	2560	0.547	-1.75	23.00	22.62	0.597	/
			50	0	Right Edge	2560	0.652	3.24	23.00	22.62	0.712	/
			50	0	Bottom Edge	2560	0.339	2.90	23.00	22.62	0.370	/



SA N41	100M	DFT_Q PSK	135	0	Front Side	2593	0.329	-2.45	26.00	25.61	0.360	/
			135	0	Back Side	2546.01	0.998	-3.79	26.00	25.44	1.135	/
			135	0	Back Side	2593	1.106	-3.19	26.00	25.61	1.210	56
			135	0	Back Side	2640	0.983	-3.26	26.00	25.31	1.152	/
			135	0	Left Edge	2593	0.687	-1.45	26.00	25.61	0.752	/
			135	0	Right Edge	2593	0.582	-1.85	26.00	25.61	0.637	/
			135	0	Bottom Edge	2593	0.659	3.54	26.00	25.61	0.721	/
SA N77	100M	DFT_Q PSK	135	0	Front Side	3930	0.269	1.82	24.00	23.79	0.282	58
			135	0	Back Side	3930	0.158	-1.70	24.00	23.79	0.166	/
			135	0	Left Edge	3930	0.154	3.56	24.00	23.79	0.162	/
			135	0	Right Edge	3930	0.165	1.26	24.00	23.79	0.173	/
			135	0	Top Edge	3930	0.121	0.07	24.00	23.79	0.127	/
			135	0	Bottom Edge	3930	0.025	2.20	24.00	23.79	0.026	/





Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Fre. (MHz)	Result 1g (W/Kg)	Power Drift(%)	Max. Turn-up Power(dBm)	Meas. Output Power(dBm)	Scaled SAR (W/Kg)	Meas.No.
NSA N7	20M	DFT_ QPS K	50	0	Front Side	2560	0.121	0.12	22.50	22.19	0.130	/
			50	0	Back Side	2560	0.629	0.24	22.50	22.19	0.676	60
			50	0	Left Edge	2560	0.458	0.23	22.50	22.19	0.492	/
			50	0	Right Edge	2560	0.354	0.74	22.50	22.19	0.380	/
			50	0	Bottom Edge	2560	0.123	1.24	22.50	22.19	0.132	/
LTE Band 2	20M	QPS K	1	0	Front side	1900	0.165	1.71	25	24.59	0.181	/
			50	0	Front side	1900	0.124	3.23	25	24.34	0.144	/
			1	0	Back Side	1900	0.33	-1.55	25	24.59	0.363	26
			50	0	Back Side	1900	0.302	2.25	25	24.34	0.352	/
			1	0	Left Side	1900	0.167	1.33	25	24.59	0.184	/
			50	0	Left Side	1900	0.157	1.15	25	24.34	0.183	/
			1	0	Right Side	1900	0.125	-0.63	25	24.59	0.137	/
			50	0	Right Side	1900	0.116	-1.62	25	24.34	0.135	/
			1	0	Bottom Side	1900	0.201	1.58	25	24.59	0.221	/
			50	0	Bottom Side	1900	0.171	-1.24	25	24.34	0.199	/
LTE Band 5	10M	QPS K	1	0	Front side	844	0.414	3.97	24.5	24.03	0.461	/
			25	0	Front side	844	0.37	0.79	24.5	23.81	0.434	/
			1	0	Back Side	844	0.474	1.23	24.5	24.03	0.528	30
			25	0	Back Side	844	0.41	1.76	24.5	23.81	0.481	/
			1	0	Left Side	844	0.264	1.83	24.5	24.03	0.294	/
			25	0	Left Side	844	0.245	-0.91	24.5	23.81	0.287	/
			1	0	Right Side	844	0.232	3.33	24.5	24.03	0.259	/
			25	0	Right Side	844	0.214	-3.27	24.5	23.81	0.251	/
			1	0	Bottom Side	844	0.254	0.30	24.5	24.03	0.283	/
			25	0	Bottom Side	844	0.238	-3.29	24.5	23.81	0.279	/

Band	Mode	Max SAR (W/Kg)	NSA N7+B2
NSA N7+B2	SA N7	0.676	1.038
	LTE B2	0.363	
Band	Mode	Max SAR (W/Kg)	NSA N7+B5
NSA N7+B5	SA N7	0.676	1.204
	LTE B5	0.528	



Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Fre. (MHz)	Result 1g (W/Kg)	Power Drift(%)	Max. Turn-up Power(dBm)	Meas. Output Power(dBm)	Scaled SAR (W/Kg)	Meas.No.
NSA N41	100M	DFT_ QPS K	135	0	Front Side	2593	0.088	1.64	23.50	23.22	0.094	/
			135	0	Back Side	2593	0.333	1.34	23.50	23.22	0.355	62
			135	0	Left Edge	2593	0.254	0.21	23.50	23.22	0.271	/
			135	0	Right Edge	2593	0.157	0.97	23.50	23.22	0.167	/
			135	0	Bottom Edge	2593	0.265	0.16	23.50	23.22	0.283	/
LTE Band 12	10M	QPS K	1	0	Front side	711	0.109	-3.42	25	24.69	0.117	/
			25	0	Front side	707.5	0.087	-2.42	25	24.33	0.102	/
			1	0	Back Side	711	0.252	2.08	25	24.69	0.271	34
			25	0	Back Side	707.5	0.225	0.38	25	24.33	0.263	/
			1	0	Left Side	711	0.197	3.63	25	24.69	0.212	/
			25	0	Left Side	707.5	0.176	-1.34	25	24.33	0.205	/
			1	0	Right Side	711	0.181	-3.37	25	24.69	0.194	/
			25	0	Right Side	707.5	0.158	3.00	25	24.33	0.184	/
			1	0	Bottom Side	711	0.125	-3.79	25	24.69	0.134	/
			25	0	Bottom Side	707.5	0.105	2.10	25	24.33	0.123	/
LTE Band 26	15M	QPS K	1	0	Front side	841.5	0.398	-1.15	24.5	24.22	0.425	/
			25	0	Front side	841.5	0.353	3.37	24.5	23.93	0.403	/
			1	0	Back Side	841.5	0.43	0.34	24.5	24.22	0.459	42
			25	0	Back Side	841.5	0.399	3.77	24.5	23.93	0.455	/
			1	0	Left Side	841.5	0.214	1.41	24.5	24.22	0.228	/
			25	0	Left Side	841.5	0.198	-0.56	24.5	23.93	0.226	/
			1	0	Right Side	841.5	0.221	2.42	24.5	24.22	0.236	/
			25	0	Right Side	841.5	0.205	2.31	24.5	23.93	0.234	/
			1	0	Bottom Side	841.5	0.198	-2.79	24.5	24.22	0.211	/
			25	0	Bottom Side	841.5	0.181	3.19	24.5	23.93	0.206	/
LTE Band 66	20M	QPS K	1	0	Front side	1770	0.578	-0.24	24.5	24.42	0.589	/
			50	0	Front side	1770	0.521	-0.49	24.5	24.05	0.578	/
			1	0	Back Side	1770	0.585	-2.44	24.5	24.42	0.596	48
			50	0	Back Side	1770	0.533	-1.27	24.5	24.05	0.591	/
			1	0	Left Side	1770	0.487	-3.87	24.5	24.42	0.496	/
			50	0	Left Side	1770	0.442	0.92	24.5	24.05	0.490	/
			1	0	Right Side	1770	0.425	-3.00	24.5	24.42	0.433	/
			50	0	Right Side	1770	0.38	1.21	24.5	24.05	0.421	/
			1	0	Bottom Side	1770	0.358	-3.42	24.5	24.42	0.365	/
			50	0	Bottom Side	1770	0.325	-1.15	24.5	24.05	0.360	/



Band	Mode	Max SAR (W/Kg)	NSA N41+B12
NSA N41+B12	SA N41	0.355	0.638
	LTE B12	0.283	
Band	Mode	Max SAR (W/Kg)	NSA N41+B26
NSA N41+B26	SA N41	0.355	0.814
	LTE B26	0.459	
Band	Mode	Max SAR (W/Kg)	NSA N41+B66
NSA N41+B66	SA N41	0.355	0.951
	LTE B66	0.596	

Note:

1. The test separation of all above table is 10mm.
2. Per KDB 447498 D01, 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. 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 ≤ 1.2 W/kg. (The highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power was **0.032** W/Kg for Body)
4. 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.



Repeated SAR

Band	Mode	Test	Ch.	Result	Power	Max.Turn-	Meas.Output	Scaled	Meas.
GSM850	GPRS (GMSK, 4-Slot)	Back	824.2	0.775	0.86	30.50	29.62	0.949	-
		Back	836.6	0.865	-2.31	30.50	30.02	0.966	-
		Back	848.8	0.842	-0.12	30.50	29.98	0.949	-
WCDMA Band IV	RMC	Front	1712.6	1.159	2.51	23.20	23.05	1.200	-
		Front	1740	0.893	0.12	23.20	22.12	1.145	-
		Front	1752.4	0.931	-2.11	23.20	22.20	1.172	-

Band	BW	Mod.	RB	RB	Test	Ch.	Result	Power	Max.Turn-	Meas.Output	Scaled	Meas.
LTE Band 4	20M	QPSK	1	0	Front	1720	0.683	-2.54	25	24.29	0.804	-
			1	0	Front	1732.5	0.702	2.52	25	24.35	0.815	-
			1	0	Front	1745	0.751	2.07	25	24.56	0.831	-
LTE Band 7	20M	QPSK	1	0	Back	2510	0.964	0.47	24.6	24.22	1.052	-
			1	0	Back	2535	0.968	-3.49	24.6	24.32	1.032	-
			1	0	Back	2560	1.175	-2.91	24.6	24.55	1.189	-
			50	0	Back	2560	0.956	-1.95	24.5	24.12	1.043	-
			100	0	Back	2560	0.937	0.33	24.5	24.08	1.032	-
			50	0	Back	2560	1.002	1.12	24.5	24.4	1.025	-
			100	0	Back	2560	0.859	-1.81	24.5	23.98	0.968	-
			50	0	Back	2560	0.840	-2.23	24.5	23.85	0.976	-
			100	0	Back	2560	0.868	1.75	24.5	24.03	0.967	-
SA N7	20M	DFT_QPSK	50	0	Back	2510	0.849	-0.28	23.00	22.53	0.946	-
			50	0	Back	2535	0.888	1.46	23.00	22.51	0.994	-
			50	0	Back	2560	0.972	-3.79	23.00	22.62	1.061	-
SA N41	20M	DFT_QPSK	135	0	Back	2546.01	0.975	-3.94	26.00	25.44	1.109	-
			135	0	Back	2593	1.074	-1.95	26.00	25.61	1.175	-
			135	0	Back	2640	0.947	-2.80	26.00	25.31	1.110	-



12.3 repeated SAR measurement

Band	Mode	Test	Ch.	Original	1 st	Ratio	Original	2nd	Ratio
GSM850	GPRS (GMSK, 4-Slot)	Back	824.2	0.798	0.775	1.030	-	-	-
		Back	836.6	0.889	0.865	1.028	-	-	-
		Back	848.8	0.851	0.842	1.011	-	-	-
WCDMA Band IV	RMC	Front	1712.6	1.167	1.159	1.007	-	-	-
		Front	1740	0.925	0.893	1.036	-	-	-
		Front	1752.4	0.935	0.931	1.004	-	-	-

Band	BW	Mod.	RB	RB	Test	Ch.	Original	1 st	Ratio	Original	2nd	Ratio
LTE Band 4	20M	QPSK	1	0	Front	1720	0.705	0.683	1.032	-	-	-
			1	0	Front	1732.5	0.72	0.702	1.026	-	-	-
			1	0	Front	1745	0.757	0.751	1.008	-	-	-
LTE Band 7	20M	QPSK	1	0	Back	2510	0.972	0.964	1.008	-	-	-
			1	0	Back	2535	0.997	0.968	1.030	-	-	-
			1	0	Back	2560	1.23	1.175	1.047	-	-	-
			50	0	Back	2510	0.96	0.956	1.004	-	-	-
			50	0	Back	2535	0.951	0.937	1.015	-	-	-
			50	0	Back	2560	1.025	1.002	1.023	-	-	-
			100	0	Back	2510	0.883	0.859	1.028	-	-	-
			100	0	Back	2535	0.865	0.840	1.030	-	-	-
SA N7	20M	DFT_QPSK	50	0	Back	2510	0.879	0.849	1.035	-	-	-
			50	0	Back	2535	0.925	0.888	1.042	-	-	-
			50	0	Back	2560	1.019	0.972	1.048	-	-	-
SA N41	20M	DFT_QPSK	135	0	Back	2546.01	0.998	0.975	1.024	-	-	-
			135	0	Back	2593	1.106	1.074	1.030	-	-	-
			135	0	Back	2640	0.983	0.947	1.038	-	-	-

Note:

1. Per KDB 865664 D01, for each frequency band, repeated SAR measurement is required only when the measured SAR is $\geq 0.8\text{W/Kg}$.
2. Per KDB 865664 D01, if the ratio of largest to smallest SAR for the original and first repeated measurement is ≤ 1.2 and the measured SAR $< 1.45\text{W/Kg}$, 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 $\geq 1.45\text{W/Kg}$.
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
Head	1. GSM + 2.4GHz WLAN/5G WLAN
	2. GSM + Bluetooth
	3. WCDMA + 2.4GHz WLAN/5G WLAN
	4. WCDMA + Bluetooth
	5. LTE + 2.4GHz WLAN/5G WLAN
	6. LTE + Bluetooth
	7. NR + 2.4GHz WLAN/5G WLAN
	8. NR + Bluetooth
Body	1. GSM + 2.4GHz WLAN/5G WLAN
	2. GSM + Bluetooth
	3. WCDMA + 2.4GHz WLAN/5G WLAN
	4. WCDMA + Bluetooth
	5. LTE + 2.4GHz WLAN/5G WLAN
	6. LTE + Bluetooth
	7. NR + 2.4GHz WLAN/5G WLAN
	8. NR + Bluetooth

NOTE:

1. Bluetooth and WLAN can't simultaneous transmission at the same time.
2. For simultaneous transmission at head and body exposure position, 2 transmitters simultaneous transmission was the worst state.
3. Based upon KDB 447498 D01, BT SAR is excluded as below table.
4. If the test separation distance is <5mm, 5mm is used for excluded SAR calculation.
5. For minimum test separation distance $\leq 50\text{mm}$, Bluetooth standalone SAR is excluded according to $[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm}) \cdot \sqrt{f} (\text{GHz}) / x] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR
6. The reported SAR summation is calculated based on the same configuration and test position.
7. KDB 447498 / 4.3.2 (2) when standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:
 - a) $(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm}) \cdot \sqrt{f} (\text{GHz}) / x$ W/kg for test separation distances $\leq 50\text{ mm}$;
Where $x = 7.5$ for 1-g SAR, and $x = 18.75$ for 10-g SAR.
 - b) 0.4W/Kg for 1-g SAR and 1.0W/Kg for 10-g SAR, when the separation distance is $>50\text{mm}$.

Estimated SAR		Maximum Turn-up		Antenna to user(mm)	Frequency(GHz)	Stand Alone
		dBm	mW			
BT	Head	9	7.943	≤ 5	2.402	0.328
	Body			≤ 5	2.402	0.328



Simultaneous Mode	Position	Mode	Max. 1-g SAR	1-g Sum SAR
			(W/kg)	(W/kg)
GSM + 2.4G WLAN	Head	GSM	0.423	0.829
		2.4G WLAN	0.406	
	Body	GSM	0.993	1.099
		2.4G WLAN	0.106	
GSM + 5G WLAN	Head	GSM	0.423	0.537
		5G WLAN	0.114	
	Body	GSM	0.993	1.160
		5G WLAN	0.167	
GSM + Bluetooth	Head	GSM	0.423	0.751
		Bluetooth	0.328	
	Body	GSM	0.993	1.321
		Bluetooth	0.328	
WCDMA + 2.4G WLAN	Head	WCDMA	0.395	0.801
		2.4G WLAN	0.406	
	Body	WCDMA	1.208	1.314
		2.4G WLAN	0.106	
WCDMA + 5G WLAN	Head	WCDMA	0.395	0.509
		5G WLAN	0.114	
	Body	WCDMA	1.208	1.375
		5G WLAN	0.167	
WCDMA + Bluetooth	Head	WCDMA	0.395	0.723
		Bluetooth	0.328	
	Body	WCDMA	1.208	1.536
		Bluetooth	0.328	
CDMA + 2.4G WLAN	Head	CDMA	0.156	0.562
		2.4G WLAN	0.406	
	Body	CDMA	0.692	0.798
		2.4G WLAN	0.106	
CDMA + 5G WLAN	Head	CDMA	0.156	0.270
		5G WLAN	0.114	
	Body	CDMA	0.692	0.859
		5G WLAN	0.167	
CDMA + Bluetooth	Head	CDMA	0.156	0.484
		Bluetooth	0.328	



	Body	CDMA	0.692	1.020
		Bluetooth	0.328	
LTE + 2.4G WLAN	Head	LTE	0.399	0.805
		2.4G WLAN	0.406	
	Body	LTE	1.244	1.350
		2.4G WLAN	0.106	
LTE + 5G WLAN	Head	LTE	0.399	0.513
		5G WLAN	0.114	
	Body	LTE	1.244	1.411
		5G WLAN	0.167	
LTE + Bluetooth	Head	LTE	0.399	0.727
		Bluetooth	0.328	
	Body	LTE	1.244	1.572
		Bluetooth	0.328	
SA + 2.4G WLAN	Head	NR SA	0.812	1.218
		2.4G WLAN	0.406	
	Body	NR SA	1.210	1.316
		2.4G WLAN	0.106	
SA + 5G WLAN	Head	NR SA	0.812	0.926
		5G WLAN	0.114	
	Body	NR SA	1.210	1.377
		5G WLAN	0.167	
SA + Bluetooth	Head	NR SA	0.812	1.140
		Bluetooth	0.328	
	Body	NR SA	1.210	1.538
		Bluetooth	0.328	
NSA + 2.4G WLAN	Head	NR NSA	0.446	0.852
		2.4G WLAN	0.406	
	Body	NR NSA	1.204	1.310
		2.4G WLAN	0.106	
NSA + 5G WLAN	Head	NR NSA	0.446	0.560
		5G WLAN	0.114	
	Body	NR NSA	1.204	1.371
		5G WLAN	0.167	
NSA + Bluetooth	Head	NR NSA	0.446	0.774
		Bluetooth	0.328	
	Body	NR NSA	1.204	1.532
		Bluetooth	0.328	



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	2020.07.14	2023.07.13
835MHz Dipole	MVG	SID835	SN 30/14 DIP0G835-332	2020.07.14	2023.07.13
1800MHz Dipole	MVG	SID1800	SN 30/14 DIP1G800-329	2020.07.14	2023.07.13
1900MHz Dipole	MVG	SID1900	SN 30/14 DIP1G900-333	2020.07.14	2023.07.13
2450MHz Dipole	MVG	SID2450	SN 30/14 DIP2G450-335	2020.07.14	2023.07.13
2600MHz Dipole	MVG	SID2600	SN 30/14 DIP2G600-336	2020.07.14	2023.07.13
3500MHz Dipole	MVG	SID3500	SN 08/21 DIP3G500-553	2021.03.01	2024.02.28
3900MHz Dipole	MVG	SID3900	SN 08/21 DIP3G900-555	2021.03.01	2024.02.28
Waveguide	MVG	SWG5500	SN 13/14 WGA32	2020.07.14	2023.07.13
E-Field Probe	MVG	SSE2	SN 07/21 EPGO352	2021.03.01	2022.02.28
Dielectric Probe Kit	MVG	SCLMP	SN 32/14 OCPG67	2021.11.24	2022.11.23
Antenna	MVG	ANTA3	SN 07/13 ZNTA52	N/A	N/A
Phantom1	MVG	SAM	SN 32/14 SAM115	N/A	N/A
Phantom2	MVG	SAM	SN 32/14 SAM116	N/A	N/A
Phone holder	MVG	N/A	SN 32/14 MSH97	N/A	N/A
Laptop holder	MVG	N/A	SN 32/14 LSH29	N/A	N/A
Attenuator	Agilent	99899	DC-18GHz	N/A	N/A
Directional coupler	Narda	4226-20	3305	N/A	N/A
Network Analyzer	Agilent	8753ES	US38432810	2021.09.29	2022.09.28
Multi Meter	Keithley	Multi Meter 2000	4050073	2021.10.08	2022.10.07
Signal Generator	Agilent	N5182A	MY50140530	2021.09.30	2022.09.29
Wireless Communication Test Set	Agilent	8960-E5515C	MY48360751	2021.09.30	2022.09.29
Wireless Communication Test Set	R&S	CMW500	117239	2021.09.30	2022.09.29
Power Amplifier	DESAY	ZHL-42W	9638	2021.10.09	2022.10.08
Power Meter	R&S	NRP	100510	2021.09.29	2022.09.28
Power Sensor	R&S	NRP-Z11	101919	2021.09.29	2022.09.28
Temperature hygrometer	SuWei	SW-108	N/A	2021.10.09	2022.10.08
Thermograph	Elitech	RC-4	S/N EF7176501537	2021.10.09	2022.10.08

Note:

Per KDB 865664 D01, Dipole SAR Validation Verification, STS LAB has adopted 3 years calibration intervals. On annual basis, every measurement dipole has been evaluated and is in compliance with the following criteria:

1. There is no physical damage on the dipole
2. System validation with specific dipole is within 10% of calibrated value Return-loss in within 20% of calibrated measurement



Appendix A. System Validation Plots

System Performance Check Data (750MHz)

Type: Phone measurement (Complete)

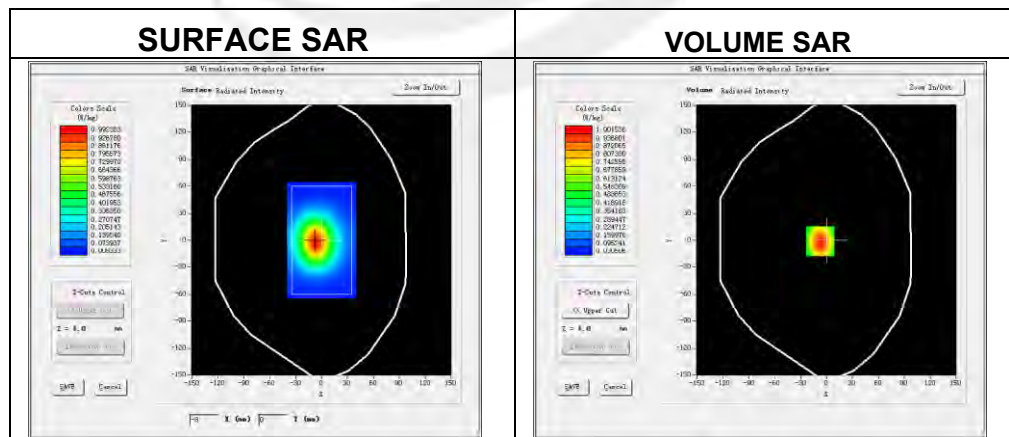
Area scan resolution: dx=8mm, dy=8mm

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

Date of measurement: 2021-10-22

Experimental conditions

Phantom	Validation plane
Device Position	-
Band	750MHz
Channels	-
Signal	CW
Frequency (MHz)	750MHz
Relative permittivity	42.39
Conductivity (S/m)	0.87
Probe	SN 07/21 EPGO352
ConvF:	1.58
Crest factor:	1:1



Maximum location: X=-4.00, Y=-1.00

SAR 10g (W/Kg)	0.631584
SAR 1g (W/Kg)	0.839675



System Performance Check Data (835MHz)

Type: Phone measurement (Complete)

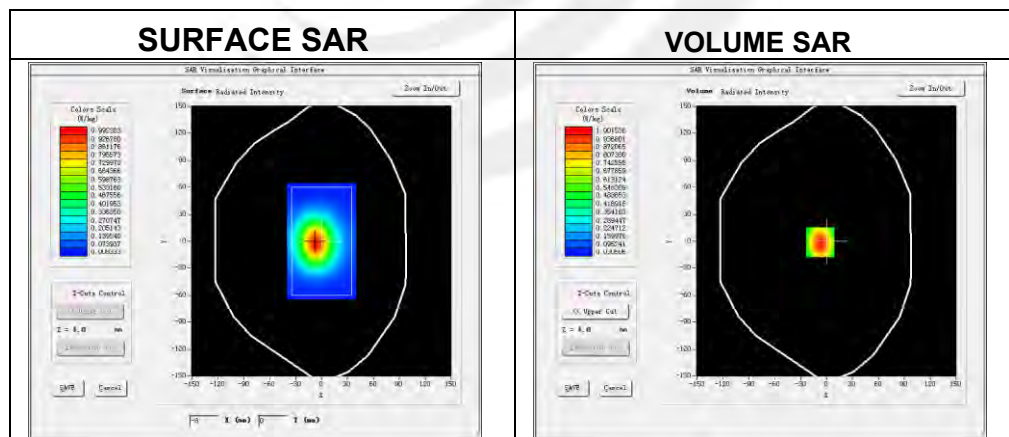
Area scan resolution: dx=8mm, dy=8mm

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

Date of measurement: 2021-10-27

Experimental conditions

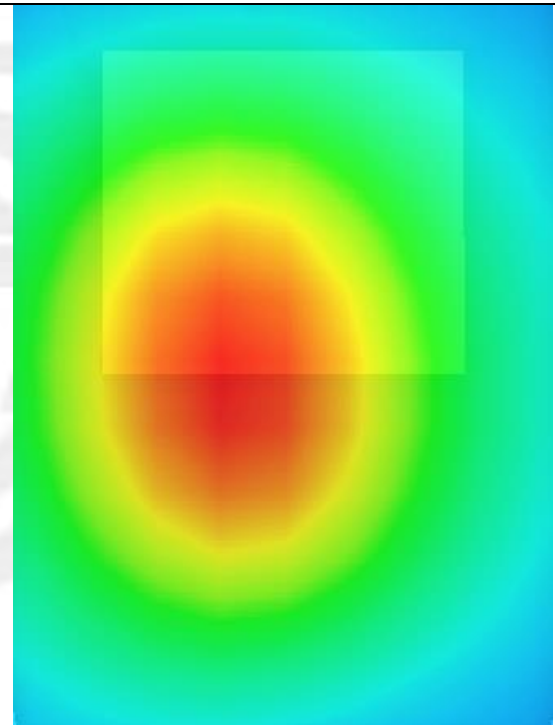
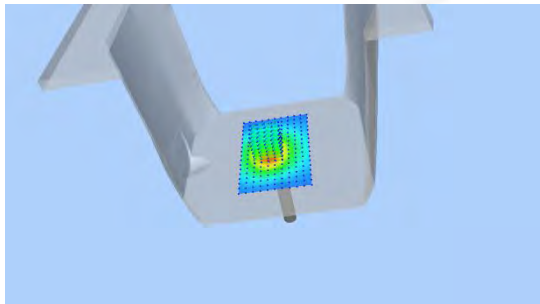
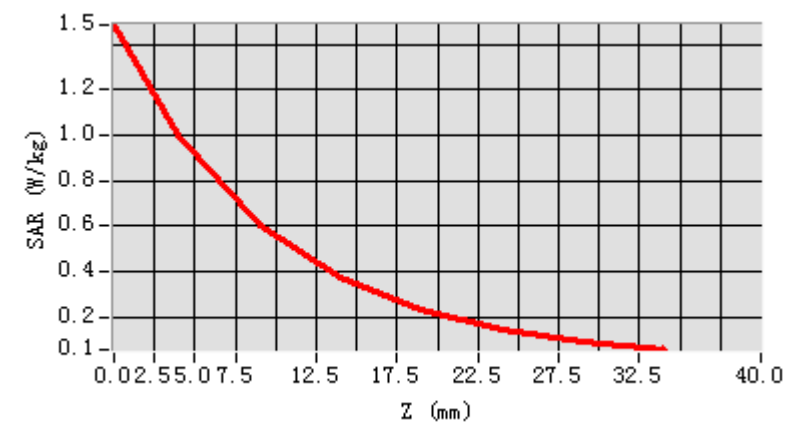
Phantom	Validation plane
Device Position	-
Band	835MHz
Channels	-
Signal	CW
Frequency (MHz)	835MHz
Relative permittivity	40.46
Conductivity (S/m)	0.92
Probe	SN 07/21 EPG0352
ConvF:	1.48
Crest factor:	1:1



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

SAR 10g (W/Kg)	0.635248
SAR 1g (W/Kg)	0.943880

Z Axis Scan



**System Performance Check Data(1800MHz)**

Type: Phone measurement (Complete)

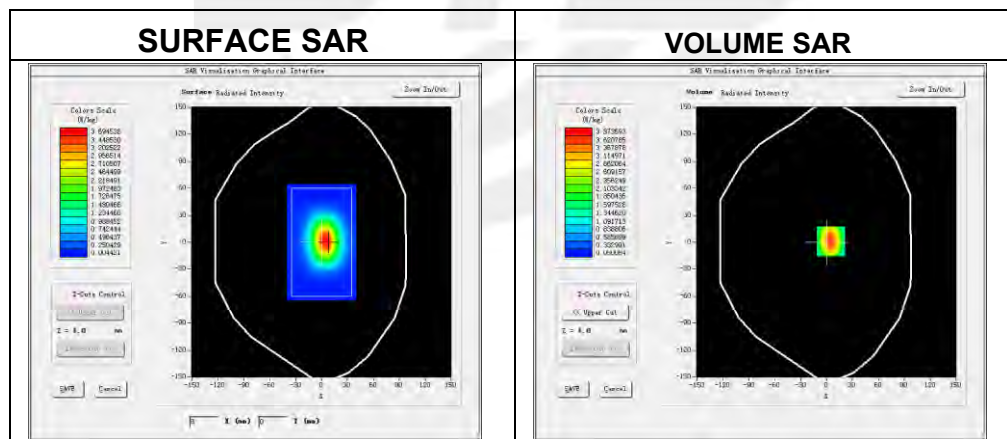
Area scan resolution: dx=8mm, dy=8mm

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

Date of measurement: 2021-11-06

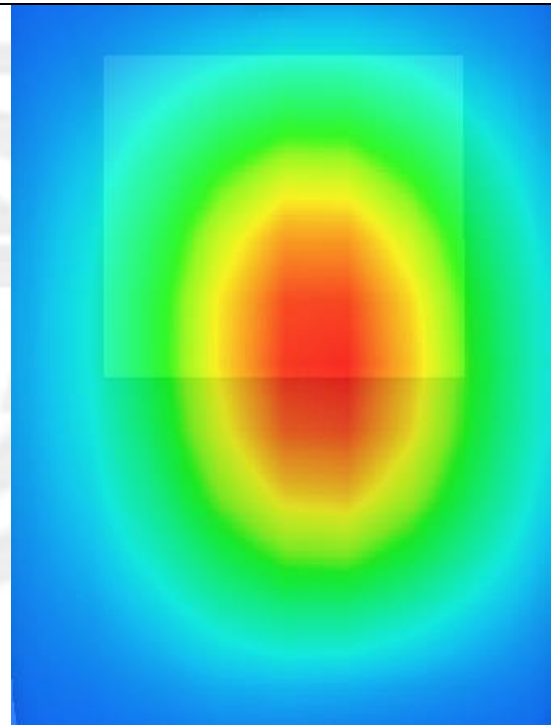
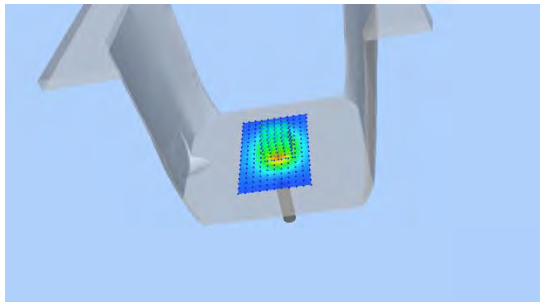
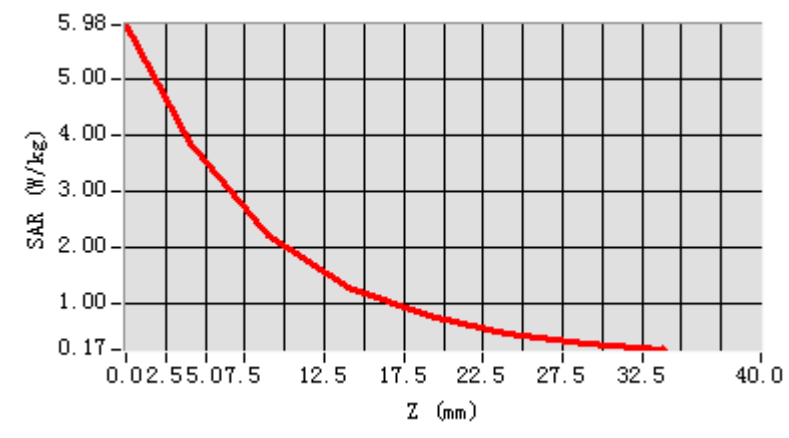
Experimental conditions.

Phantom	Validation plane
Device Position	-
Band	1800MHz
Channels	-
Signal	CW
Frequency (MHz)	1800MHz
Relative permittivity	40.86
Conductivity (S/m)	1.37
Probe	SN 07/21 EPGO352
ConvF	1.60
Crest factor:	1:1

**Maximum location: X=5.00, Y=1.00**

SAR 10g (W/Kg)	2.125648
SAR 1g (W/Kg)	3.941076

Z Axis Scan



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

Type: Phone measurement (Complete)

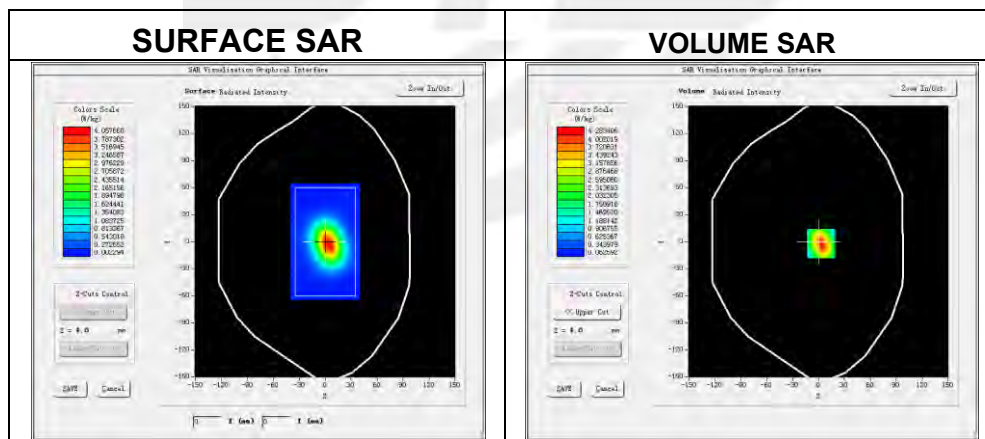
Area scan resolution: dx=8mm, dy=8mm

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

Date of measurement: 2021-11-06

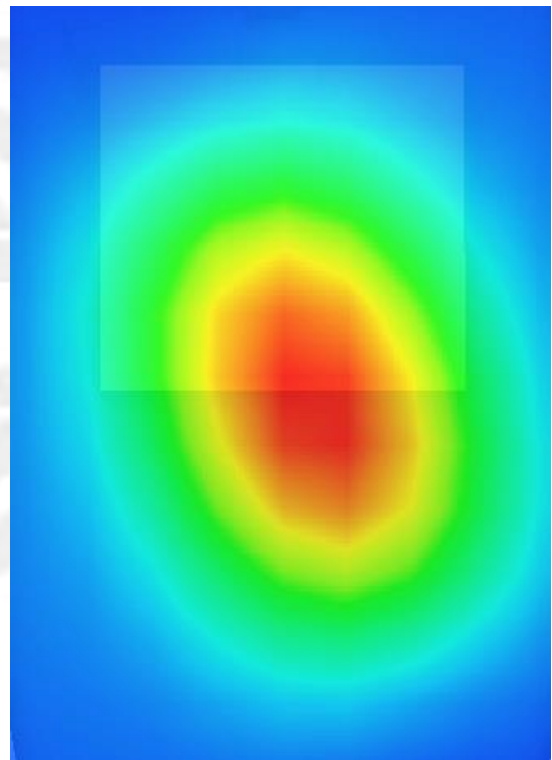
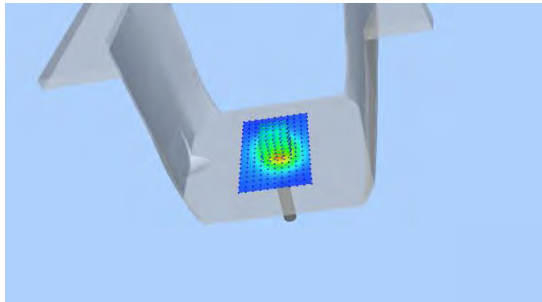
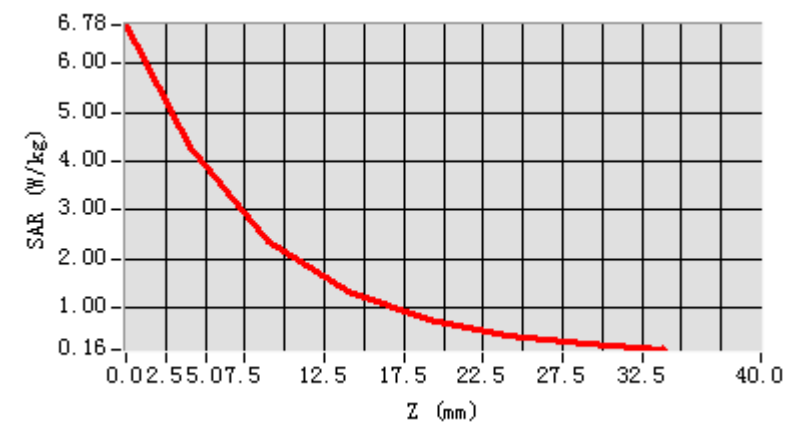
Experimental conditions.

Phantom	Validation plane
Device Position	-
Band	1900MHz
Channels	-
Signal	CW
Frequency (MHz)	1900MHz
Relative permittivity	41.02
Conductivity (S/m)	1.37
Probe	SN 07/21 EPGO352
ConvF:	1.84
Crest factor:	1:1

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

SAR 10g (W/Kg)	2.037652
SAR 1g (W/Kg)	3.935299

Z Axis Scan





System Performance Check Data (2450MHz)

Type: Phone measurement (Complete)

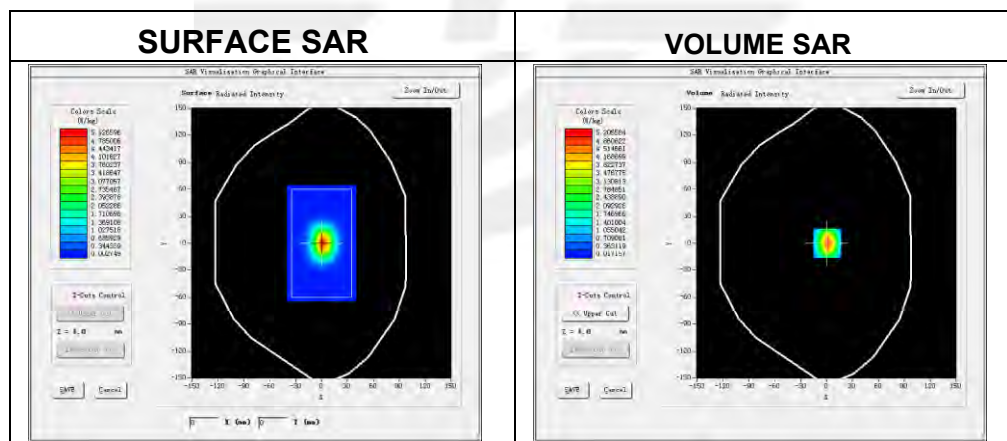
Area scan resolution: dx=8mm, dy=8mm

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

Date of measurement: 2021-11-07

Experimental conditions.

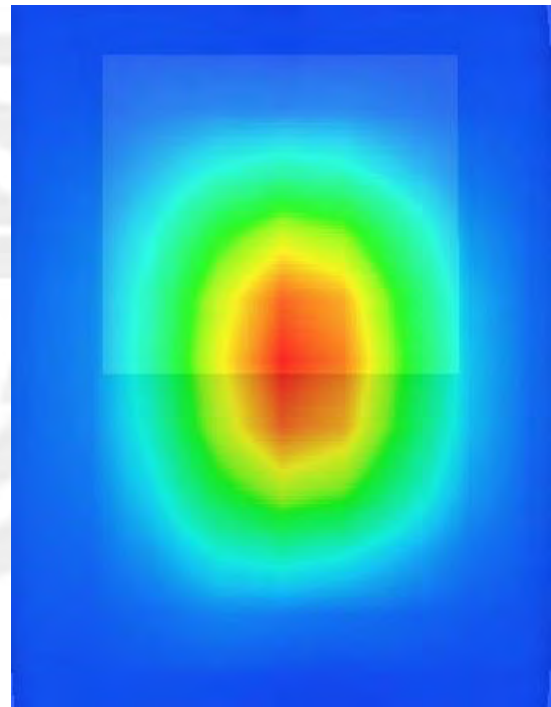
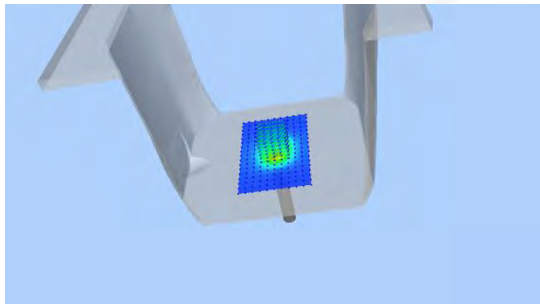
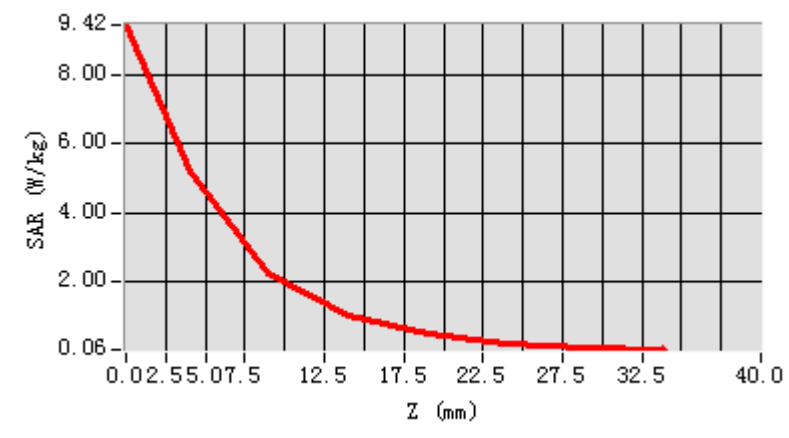
Device Position	Validation plane
Band	2450 MHz
Channels	-
Signal	CW
Frequency (MHz)	2450
Relative permittivity	39.91
Conductivity (S/m)	1.85
Probe	SN 07/21 EPG0352
ConvF	1.97
Crest factor:	1:1



Maximum location: X=1.00, Y=0.00

SAR 10g (W/Kg)	2.367685
SAR 1g (W/Kg)	5.198249

Z Axis Scan





System Performance Check Data(2600MHz)

Type: Phone measurement (Complete)

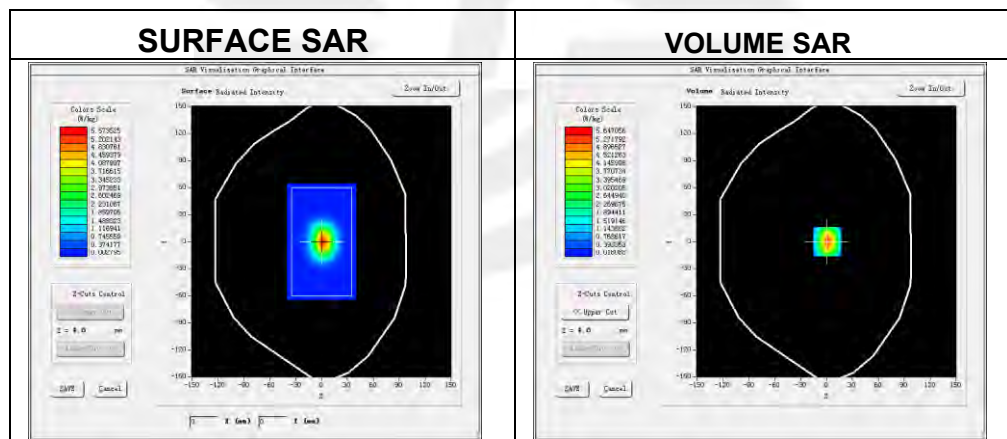
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2021-11-07

Experimental conditions.

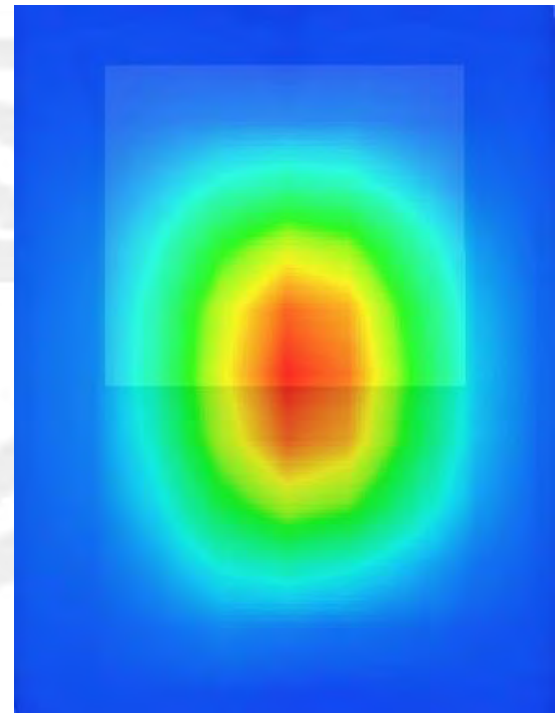
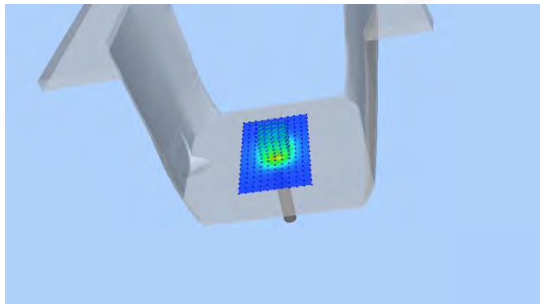
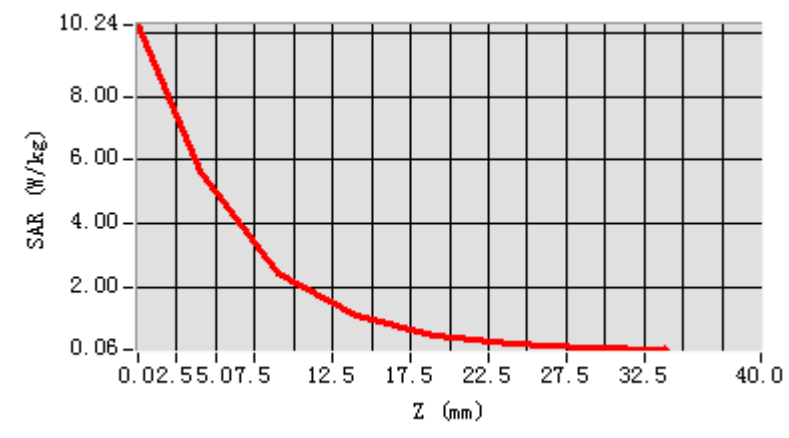
Device Position	Validation plane
Band	2600 MHz
Channels	-
Signal	CW
Frequency (MHz)	2600
Relative permittivity	39.73
Conductivity (S/m)	1.93
Probe	SN 07/21 EPGO352
ConvF	1.85
Crest factor:	1:1



Maximum location: X=1.00, Y=0.00

SAR 10g (W/Kg)	2.463710
SAR 1g (W/Kg)	5.689744

Z Axis Scan



**System Performance Check Data(3500MHz)**

Type: Phone measurement (Complete)

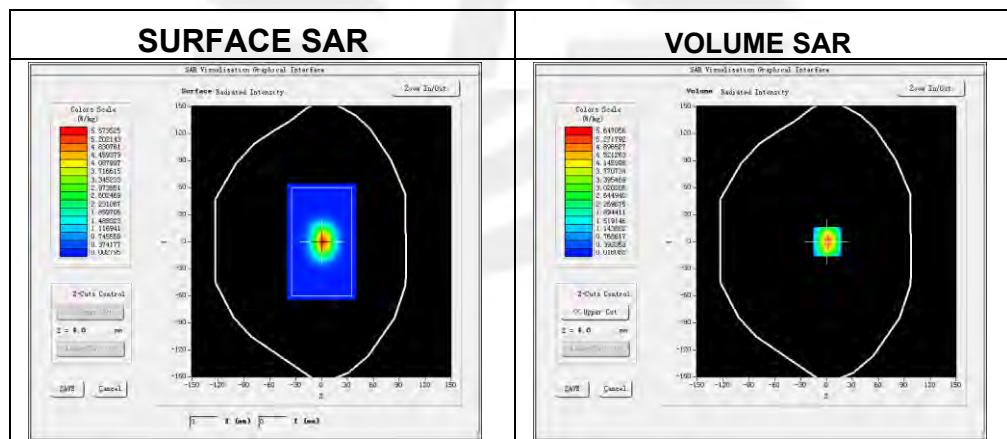
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2021-11-08

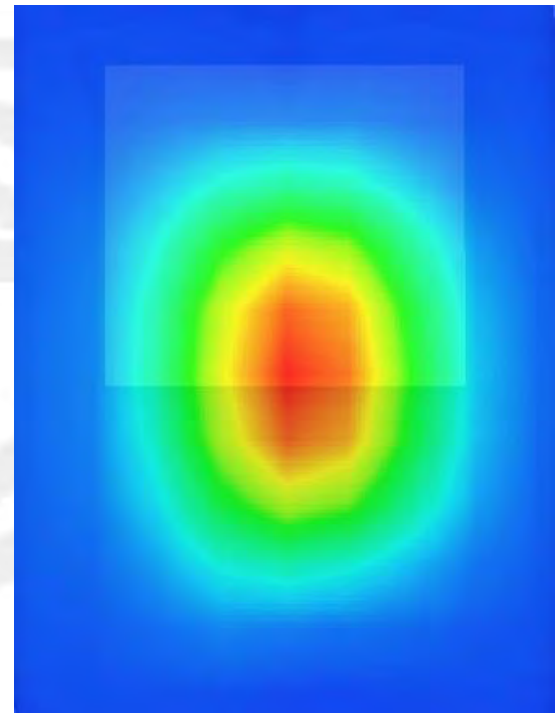
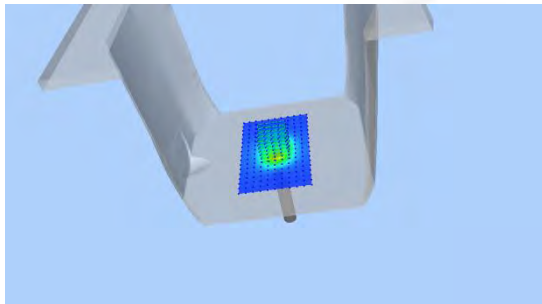
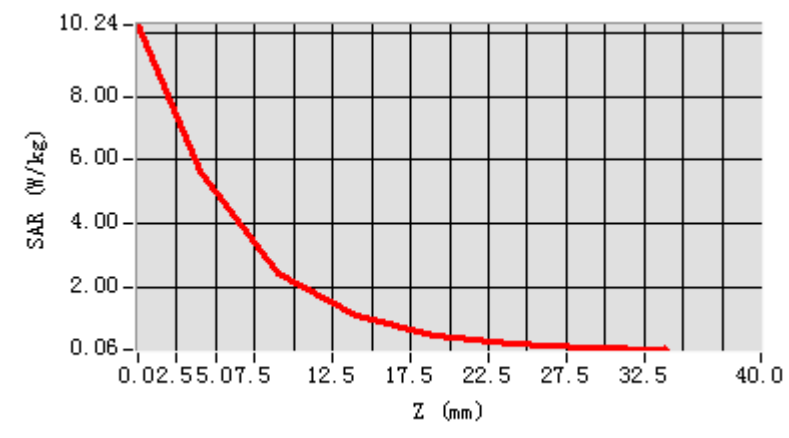
Experimental conditions.

Device Position	Validation plane
Band	3500 MHz
Channels	-
Signal	CW
Frequency (MHz)	2600
Relative permittivity	37.88
Conductivity (S/m)	2.99
Probe	SN 08/21 DIP3G500-553
ConvF	1.59
Crest factor:	1:1

**Maximum location: X=1.00, Y=0.00**

SAR 10g (W/Kg)	2.463710
SAR 1g (W/Kg)	6.642546

Z Axis Scan





System Performance Check Data(3900MHz)

Type: Phone measurement (Complete)

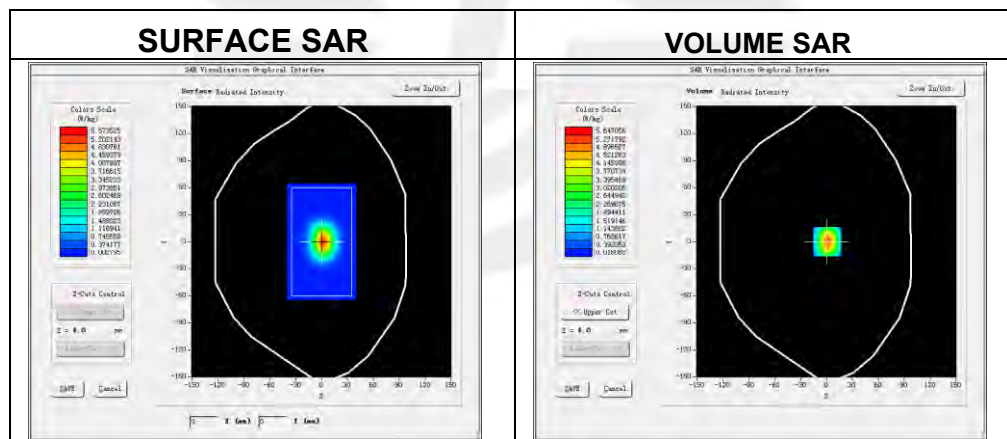
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2021-11-23

Experimental conditions.

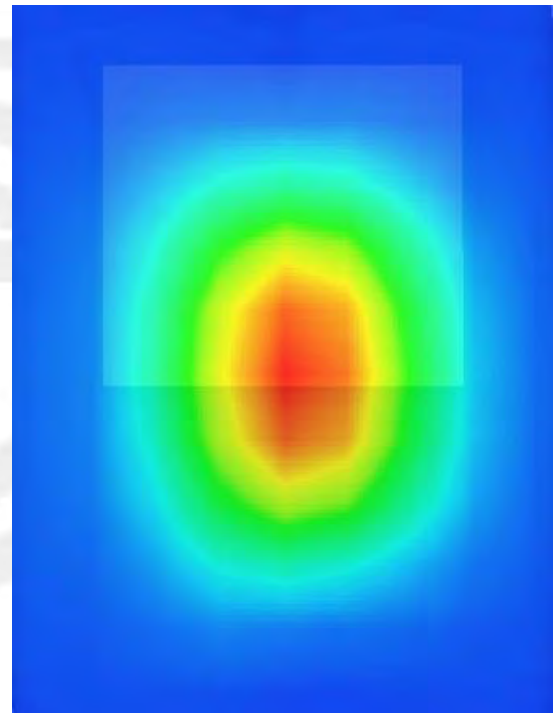
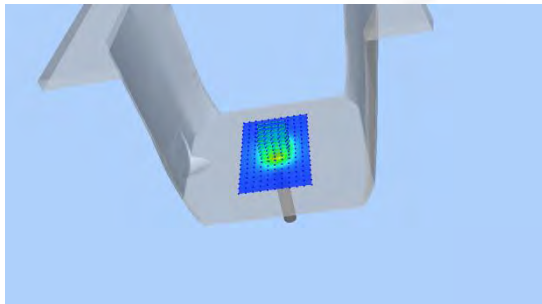
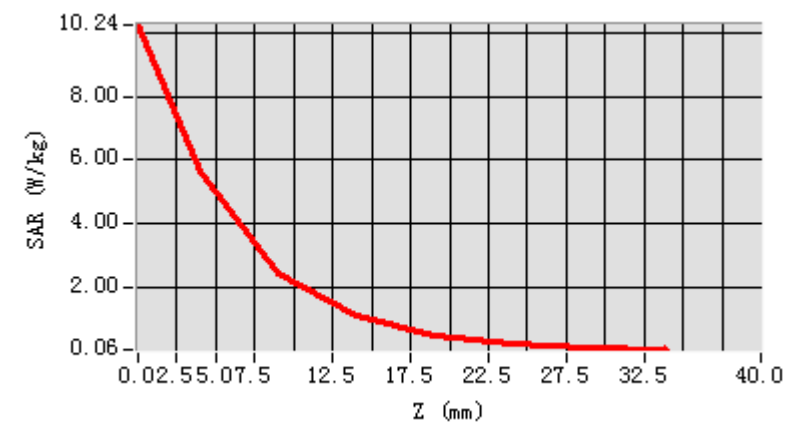
Device Position	Validation plane
Band	3900 MHz
Channels	-
Signal	CW
Frequency (MHz)	3900
Relative permittivity	38.85
Conductivity (S/m)	3.21
Probe	SN 08/21 DIP3G500-553
ConvF	1.71
Crest factor:	1:1



Maximum location: X=1.00, Y=0.00

SAR 10g (W/Kg)	2.463354
SAR 1g (W/Kg)	6.520752

Z Axis Scan





System Performance Check Data(5200MHz)

Type: Dipole measurement (Complete)

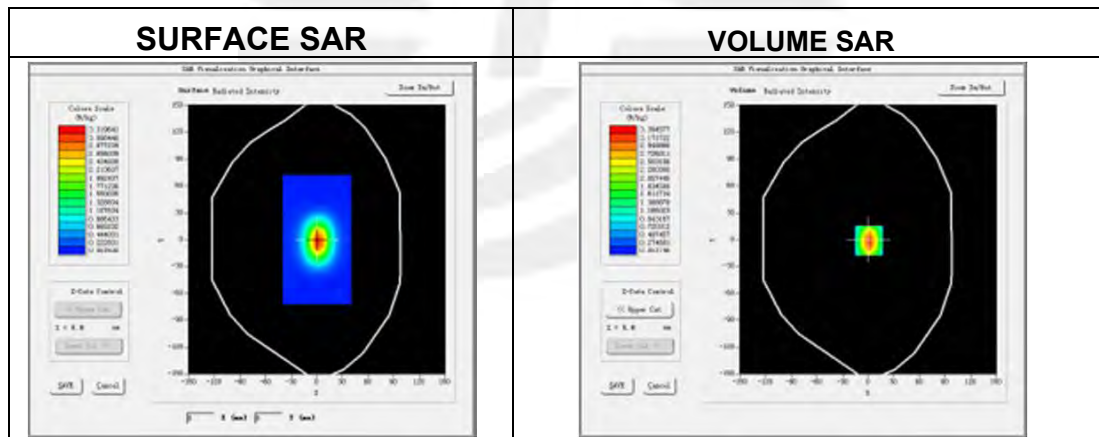
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2021-11-24

Experimental conditions.

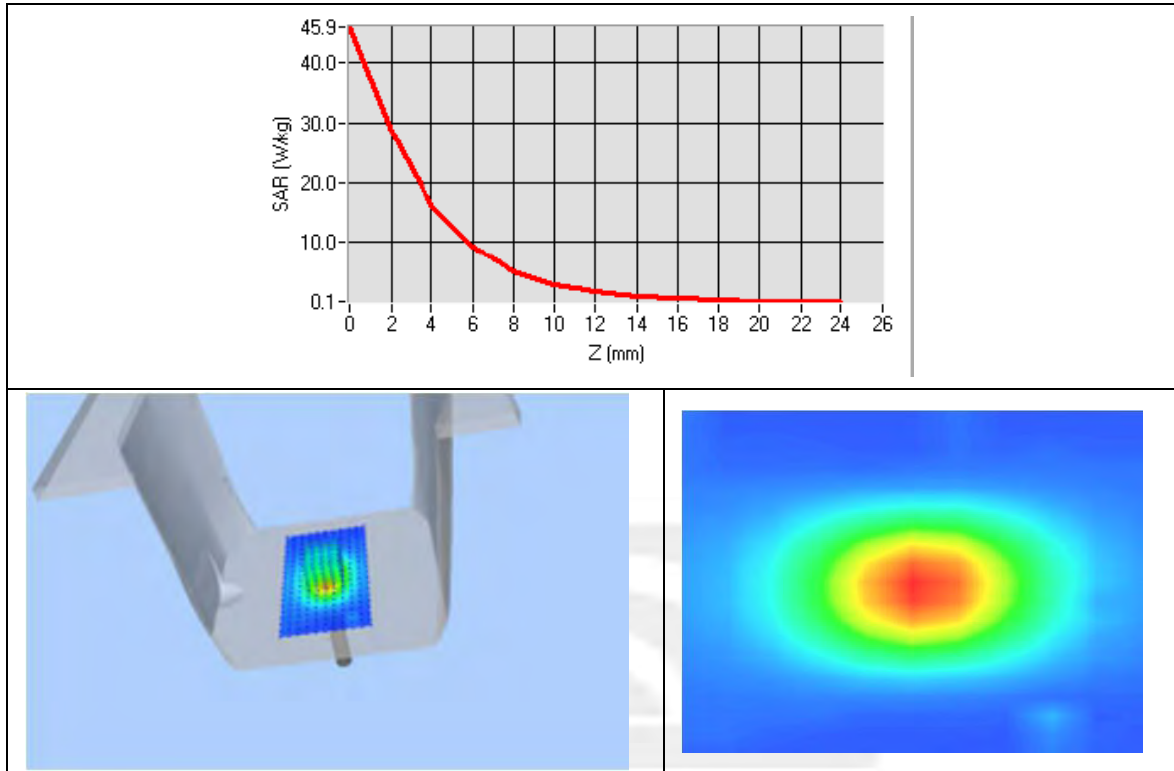
Device Position	Validation plane
Band	5200 MHz
Channels	-
Signal	CW
Frequency (MHz)	5200
Relative permittivity	35.70
Conductivity (S/m)	4.77
Probe	SN 07/21 EPGO352
ConvF	1.47
Crest factor:	1:1



Maximum location: X=7.00, Y=2.00

SAR 10g (W/Kg)	5.7115352
SAR 1g (W/Kg)	15.446373

Z Axis Scan





System Performance Check Data(5300MHz)

Type: Dipole measurement (Complete)

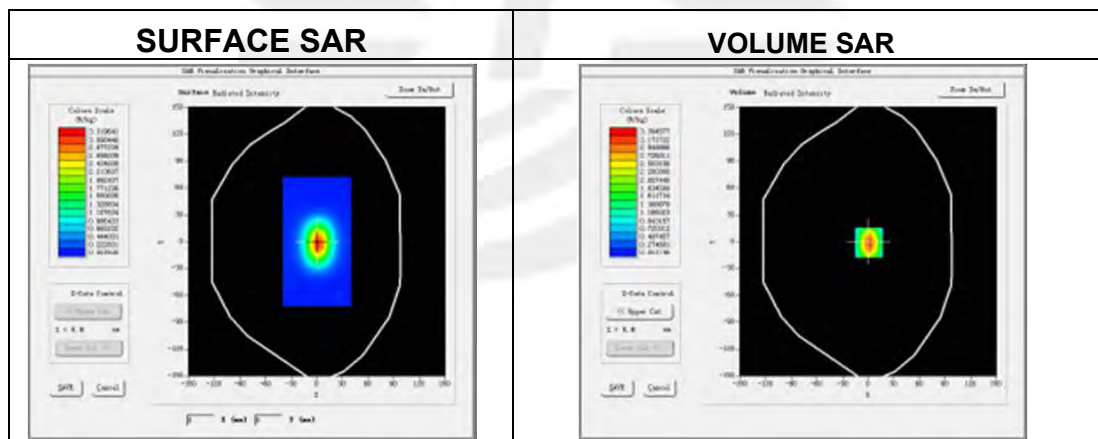
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2021-11-24

Experimental conditions.

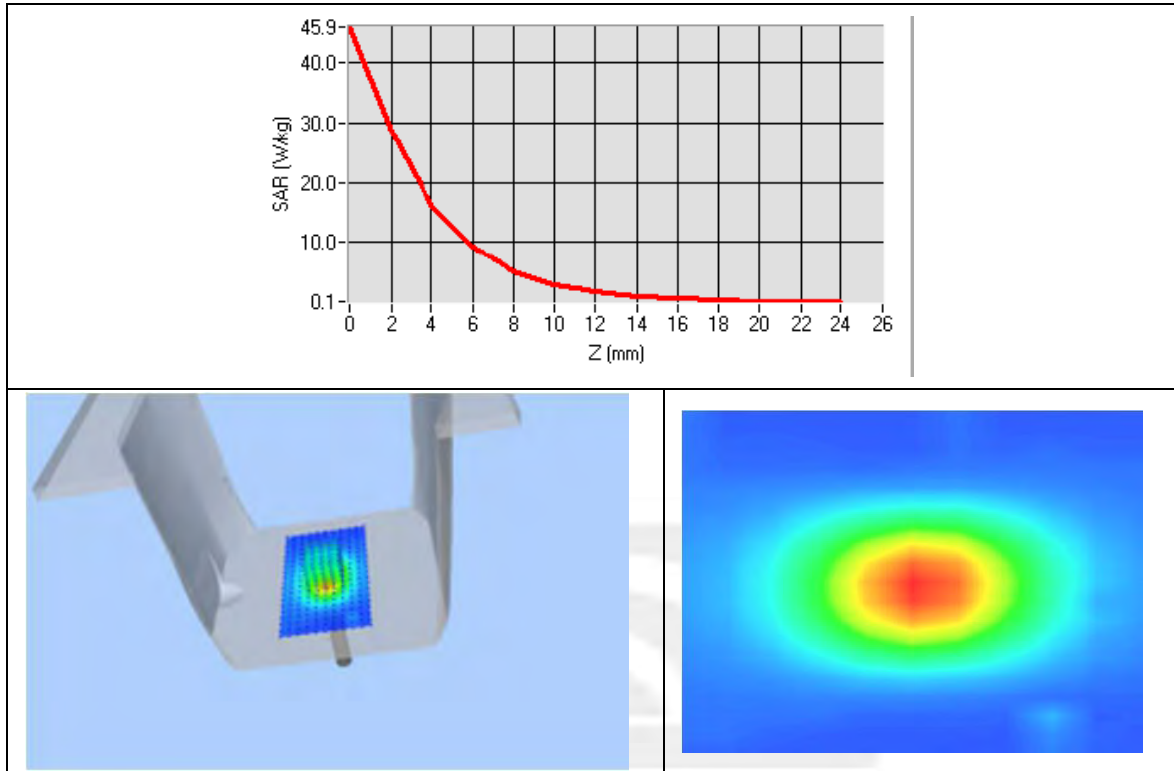
Device Position	Validation plane
Band	5300 MHz
Channels	-
Signal	CW
Frequency (MHz)	5300
Relative permittivity	36.18
Conductivity (S/m)	4.81
Probe	SN 07/21 EPGO352
ConvF	1.65
Crest factor:	1:1



Maximum location: X=7.00, Y=2.00

SAR 10g (W/Kg)	5.837254
SAR 1g (W/Kg)	16.545393

Z Axis Scan





System Performance Check Data(5600MHz)

Type: Dipole measurement (Complete)

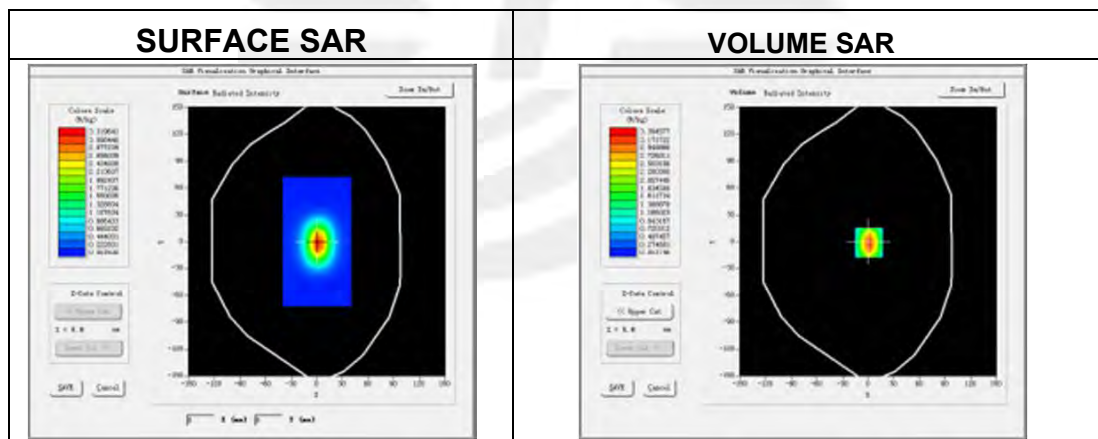
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2021-11-24

Experimental conditions.

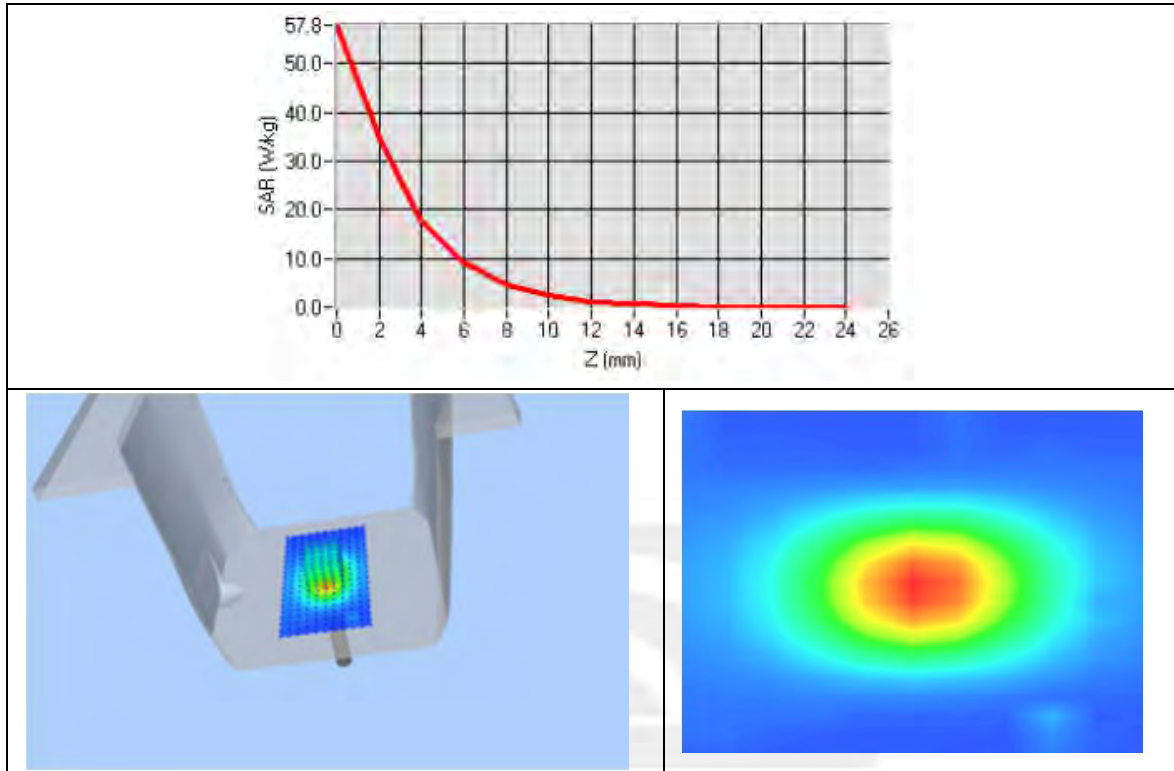
Device Position	Validation plane
Band	5600 MHz
Channels	-
Signal	CW
Frequency (MHz)	5600
Relative permittivity	36.57
Conductivity (S/m)	5.03
Probe	SN 07/21 EPGO352
ConvF	1.64
Crest factor:	1:1



Maximum location: X=7.00, Y=2.00

SAR 10g (W/Kg)	5.995284
SAR 1g (W/Kg)	16.754323

Z Axis Scan





System Performance Check Data(5800MHz)

Type: Dipole measurement (Complete)

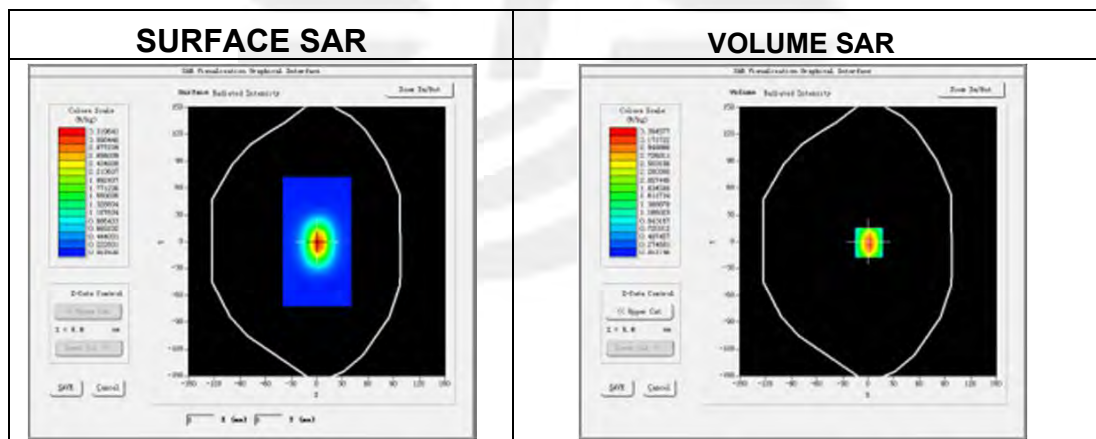
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2021-11-24

Experimental conditions.

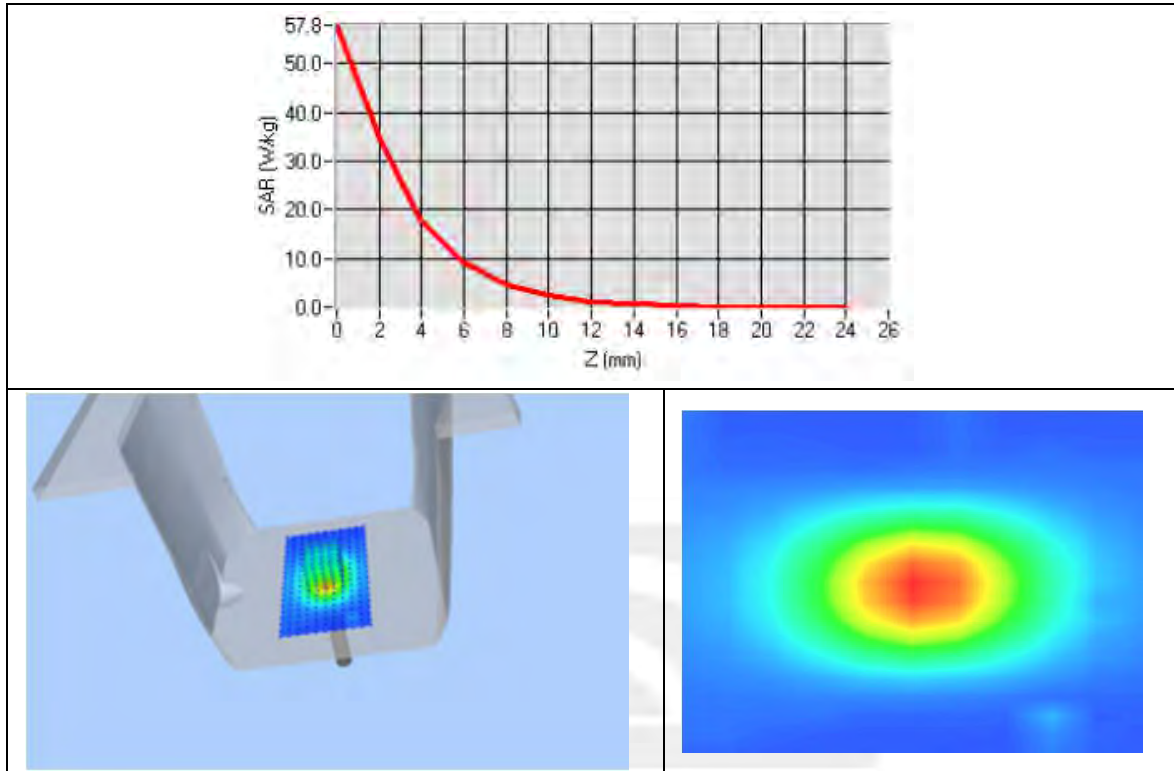
Device Position	Validation plane
Band	5800 MHz
Channels	-
Signal	CW
Frequency (MHz)	5800
Relative permittivity	36.62
Conductivity (S/m)	5.43
Probe	SN 07/21 EPGO352
ConvF	1.64
Crest factor:	1:1



Maximum location: X=7.00, Y=2.00

SAR 10g (W/Kg)	5.985532
SAR 1g (W/Kg)	17.917739

Z Axis Scan



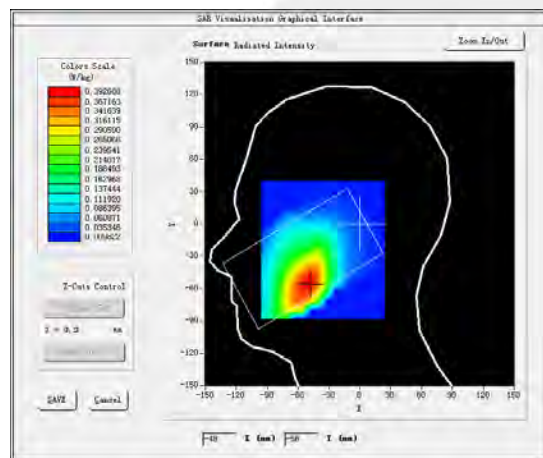
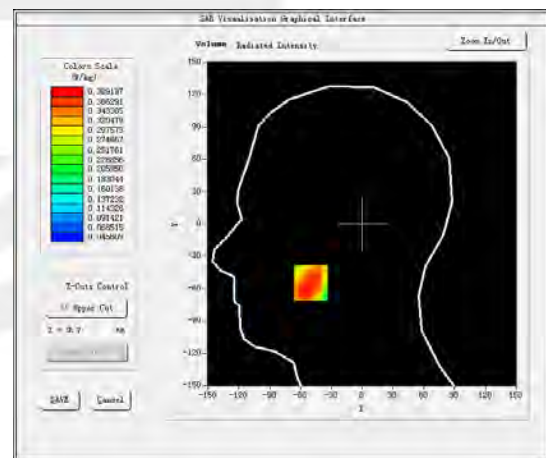
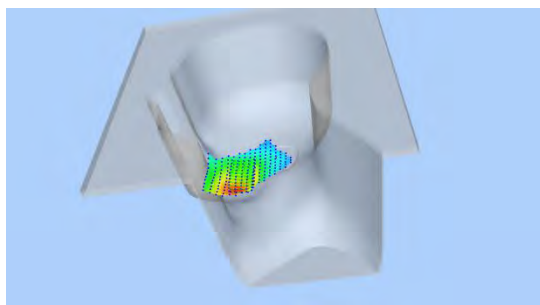
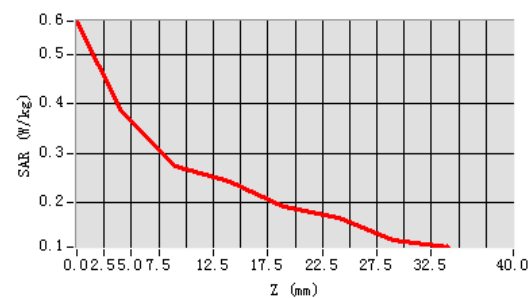
**Appendix B. SAR Test Plots****Plot 1: DUT: Smart phone; EUT Model: TickTock**

Test Date	2021-10-27
Probe	SN 07/21 EPG0352
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	Right head
Device Position	Cheek
Band	GPRS 850
Channels	Middle
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	836.6

Maximum location: X=-50.00, Y=-55.00

SAR Peak: 0.50 W/kg

SAR 10g (W/Kg)	0.286489
SAR 1g (W/Kg)	0.378617

SURFACE SAR**VOLUME SAR****3D screen shot****Z Axis Scan**



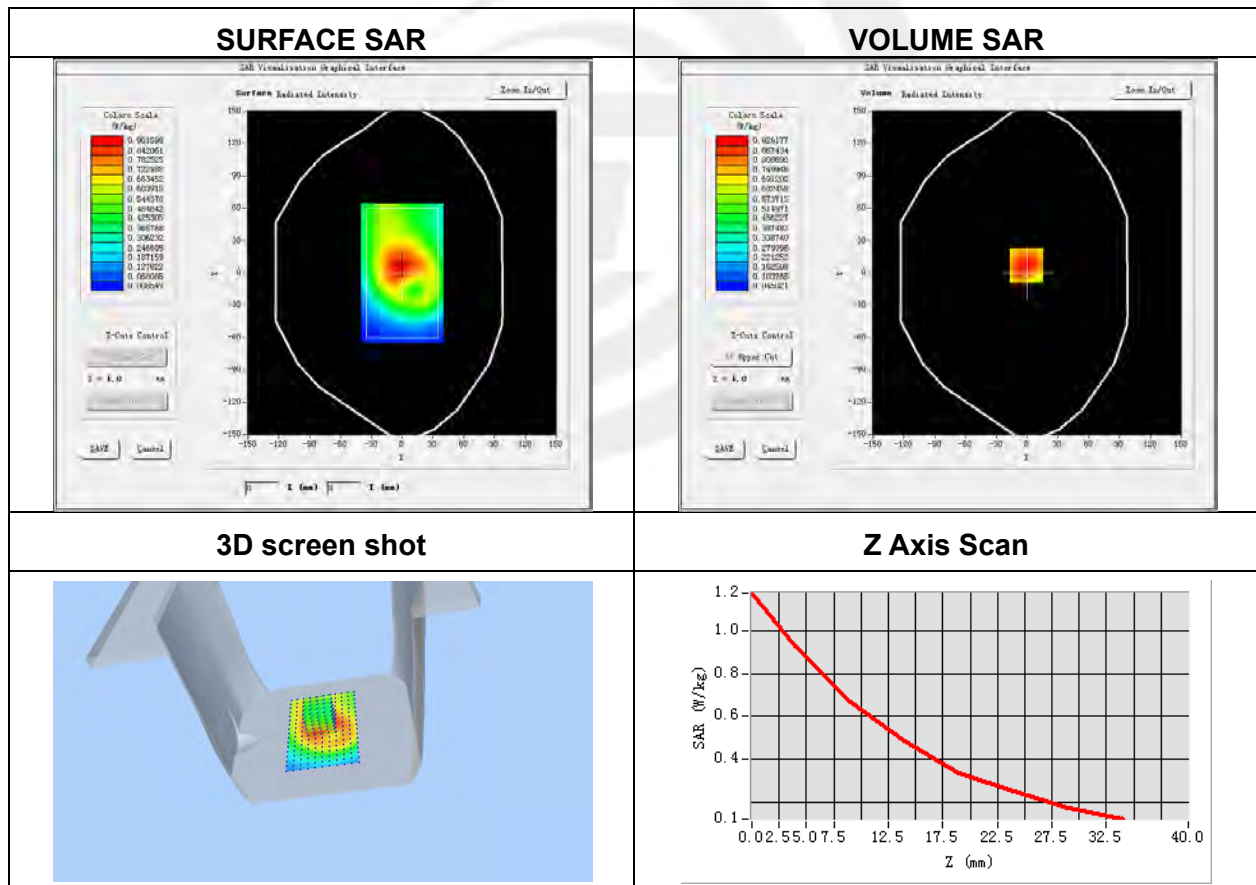
Plot 2: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-10-27
Probe	SN 07/21 EPGO352
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	GPRS 850
Channels	Middle
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	836.6

Maximum location: X=-1.00, Y=7.00

SAR Peak: 1.18 W/kg

SAR 10g (W/Kg)	0.625036
SAR 1g (W/Kg)	0.888782



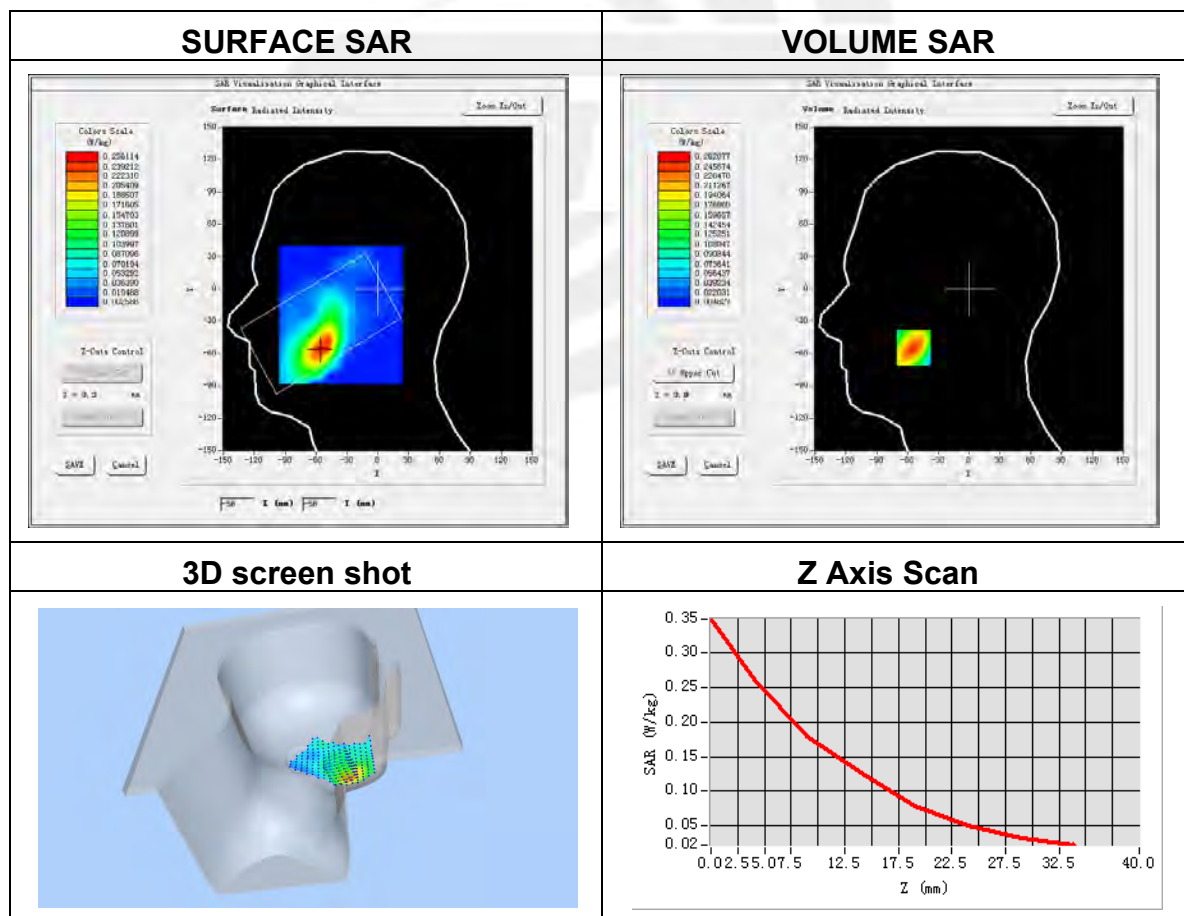
Plot 3: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-06
Probe	SN 07/21 EPGO352
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	Left head
Device Position	Cheek
Band	GPRS 1900
Channels	Low
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	1850.2

Maximum location: X=-54.00, Y=-55.00

SAR Peak: 0.35 W/kg

SAR 10g (W/Kg)	0.148365
SAR 1g (W/Kg)	0.244452



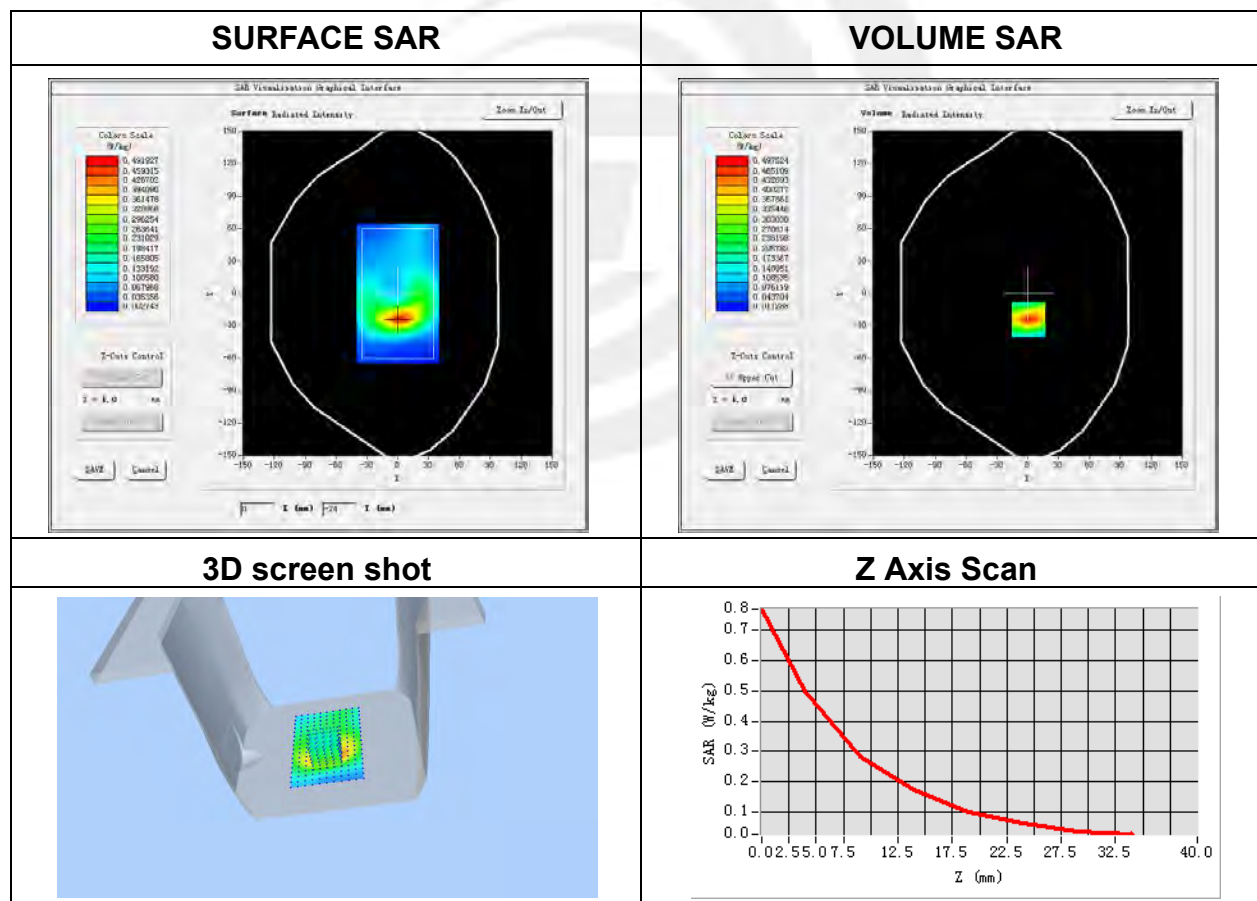
Plot 4: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-06
Probe	SN 07/21 EPG0352
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	GPRS 1900
Channels	Low
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	1850.2

Maximum location: X=1.00, Y=-24.00

SAR Peak: 0.76 W/kg

SAR 10g (W/Kg)	0.241794
SAR 1g (W/Kg)	0.459621



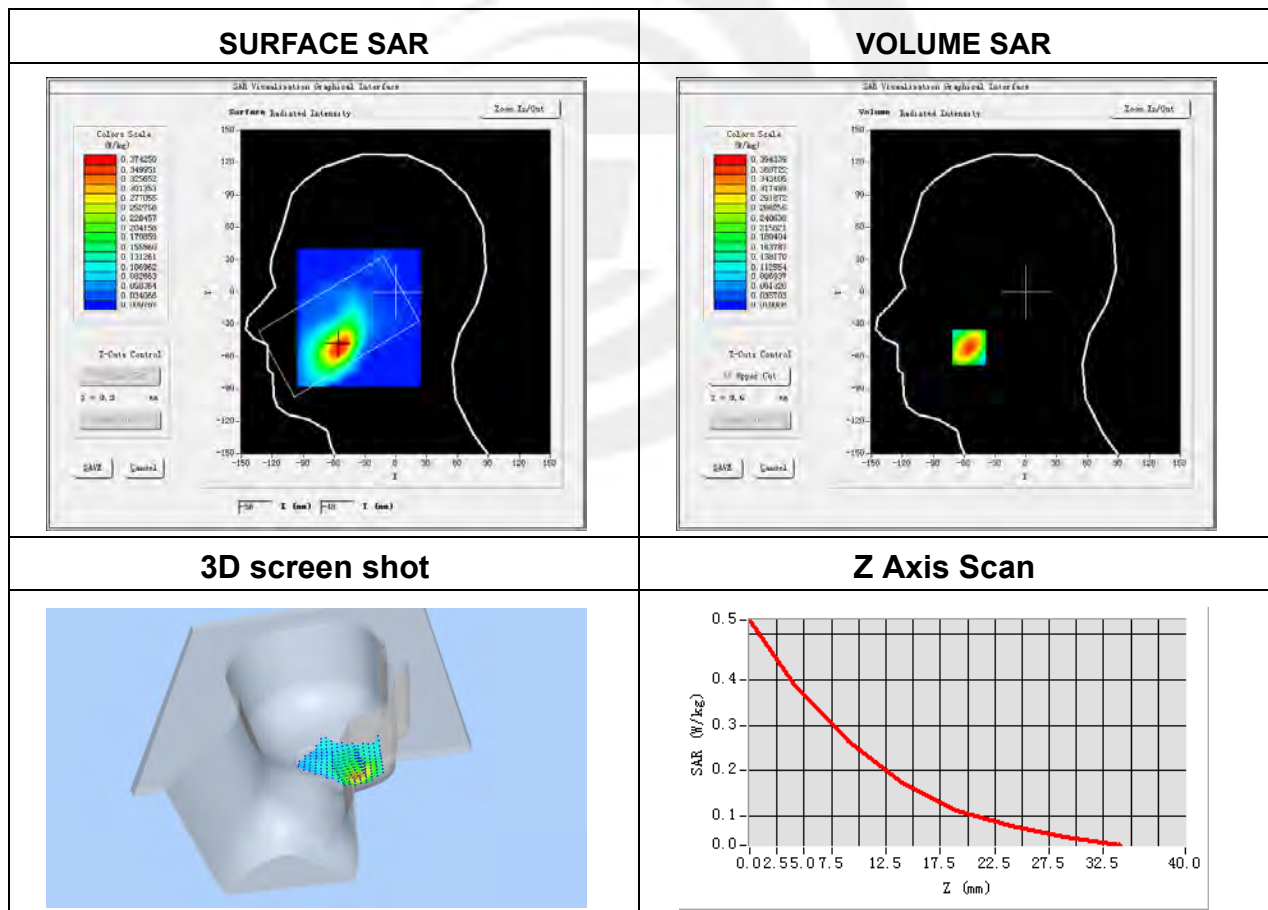
Plot 5: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-06
Probe	SN 07/21 EPG0352
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	Left head
Device Position	Cheek
Band	WCDMA II
Channels	Mid
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1880

Maximum location: X=-55.00, Y=-51.00

SAR Peak: 0.55 W/kg

SAR 10g (W/Kg)	0.214702
SAR 1g (W/Kg)	0.371285



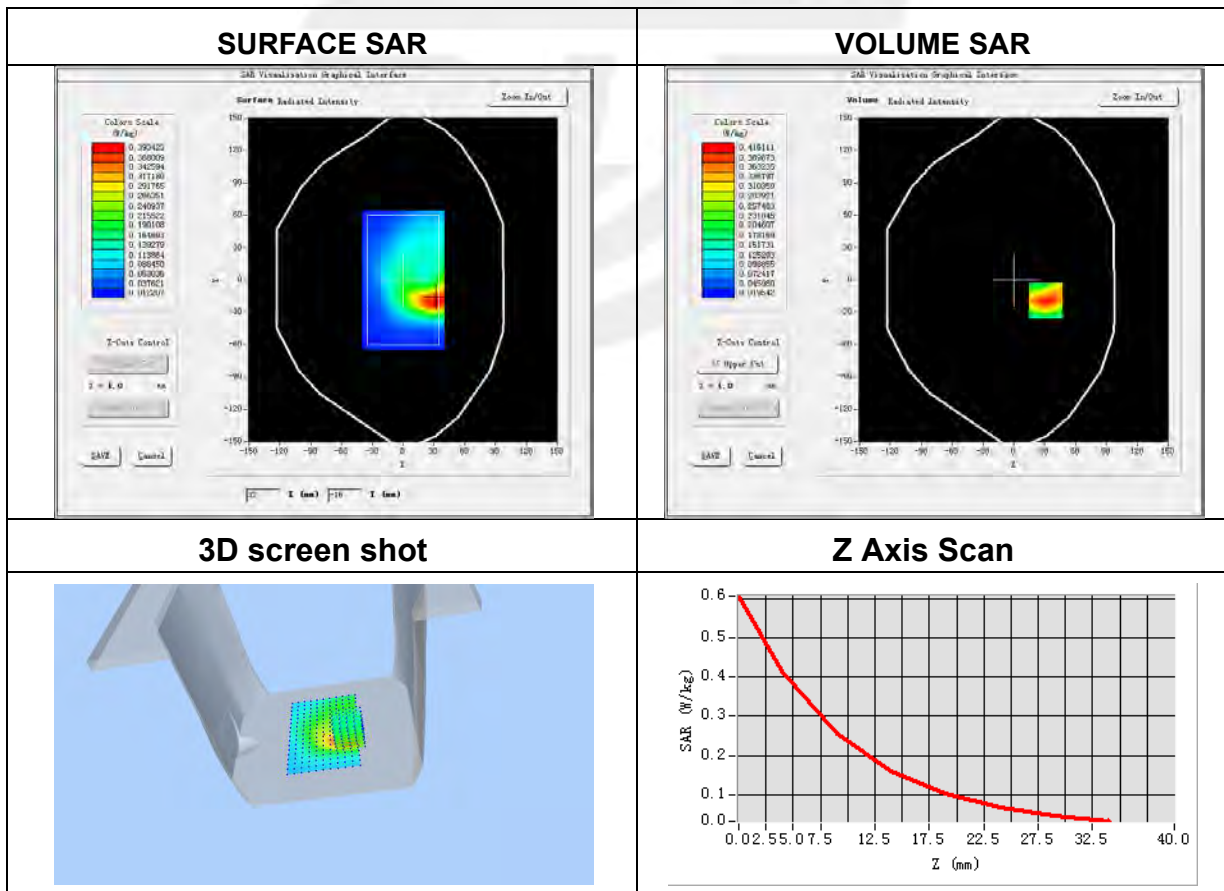
Plot 6: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-06
Probe	SN 07/21 EPGO352
ConvF	1.84
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Back Side
Band	WCDMA II
Channels	Mid
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1880

Maximum location: X=31.00, Y=-19.00

SAR Peak: 0.61 W/kg

SAR 10g (W/Kg)	0.226232
SAR 1g (W/Kg)	0.397453



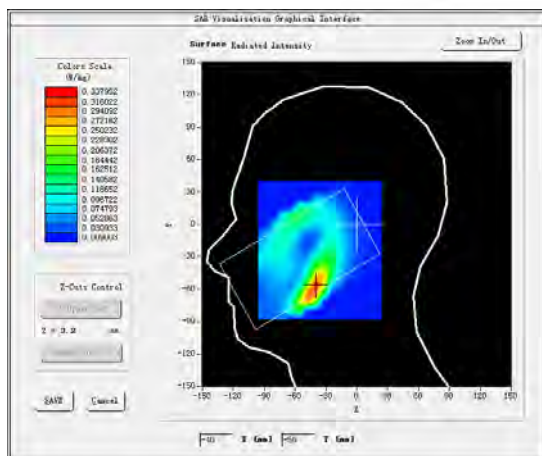
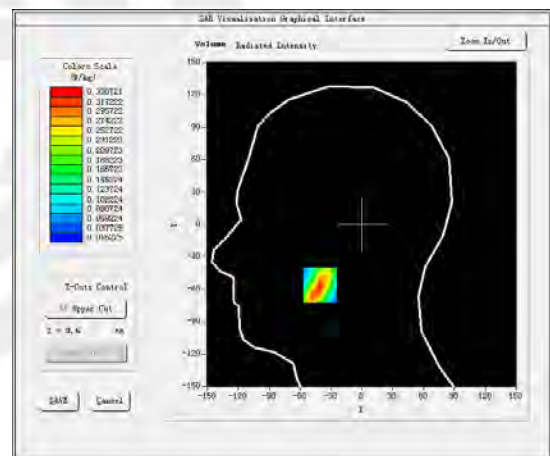
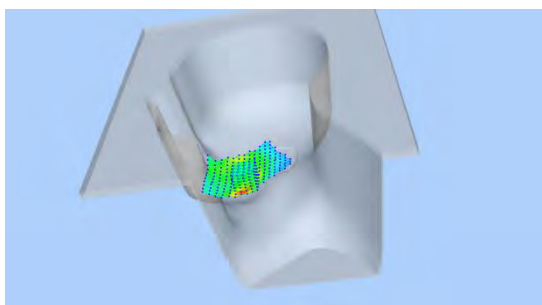
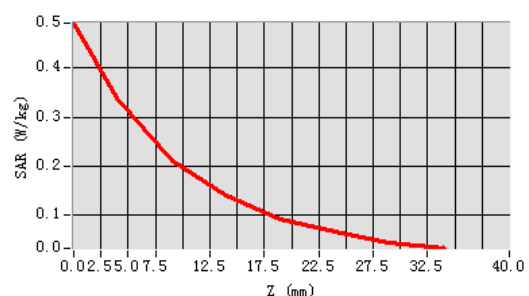
Plot 7: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-06
Probe	SN 07/21 EPGO352
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	Right head
Device Position	Cheek
Band	WCDMA IV
Channels	Low
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1712.6

Maximum location: X=-40.00, Y=-56.00

SAR Peak: 0.52 W/kg

SAR 10g (W/Kg)	0.169488
SAR 1g (W/Kg)	0.317148

SURFACE SAR

VOLUME SAR

3D screen shot

Z Axis Scan


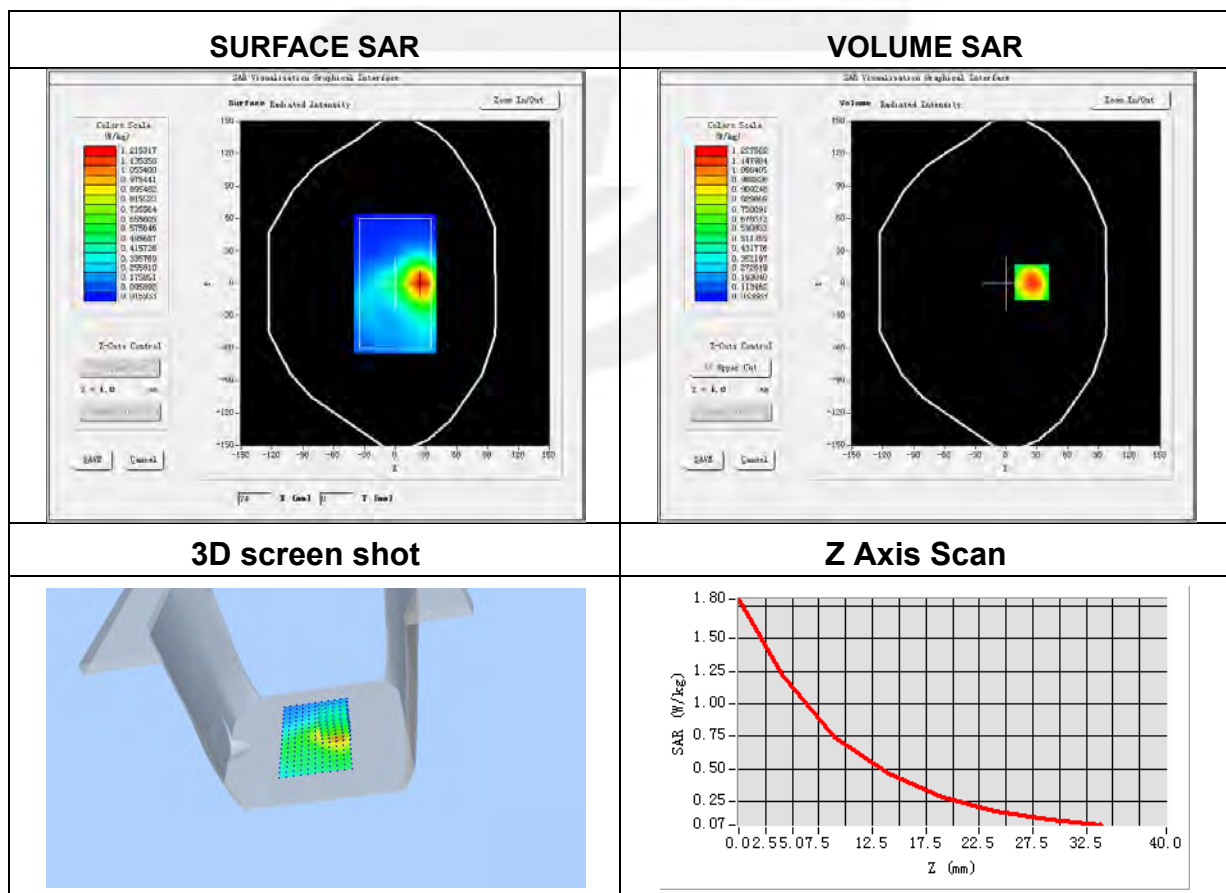
Plot 8: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-06
Probe	SN 07/21 EPGO352
ConvF	1.60
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Front Side
Band	WCDMA IV
Channels	Low
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1712.6

Maximum location: X=25.00, Y=1.00

SAR Peak: 1.81 W/kg

SAR 10g (W/Kg)	0.663764
SAR 1g (W/Kg)	1.166883



Plot 9: DUT: Smart phone; EUT Model: TickTock

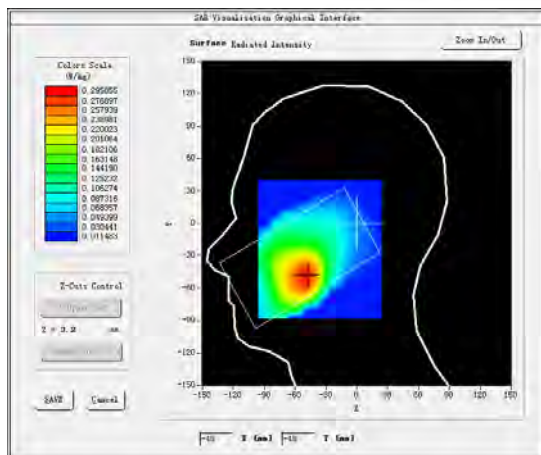
Test Date	2021-10-27
Probe	SN 07/21 EPG0352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Right head
Device Position	Cheek
Band	WCDMA V
Channels	Low
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	826.4

Maximum location: X=-49.00, Y=-49.00

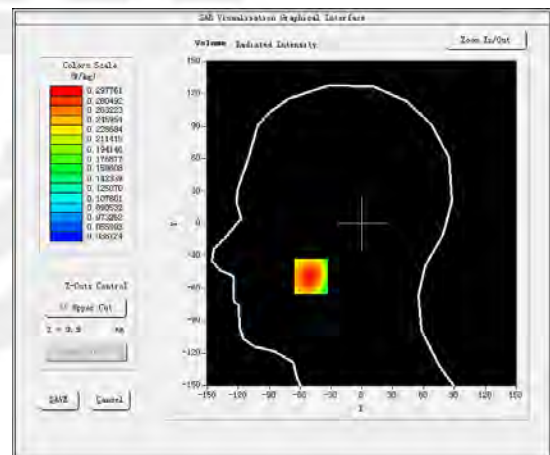
SAR Peak: 0.37 W/kg

SAR 10g (W/Kg)	0.221521
SAR 1g (W/Kg)	0.291780

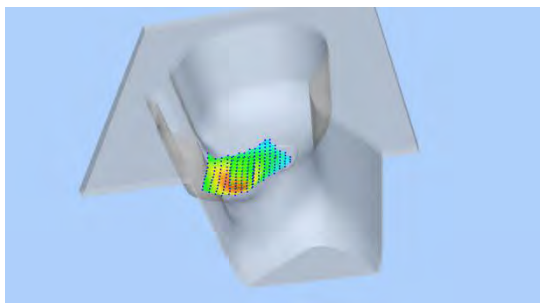
SURFACE SAR



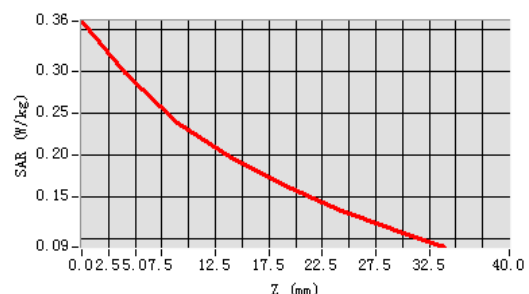
VOLUME SAR



3D screen shot



Z Axis Scan



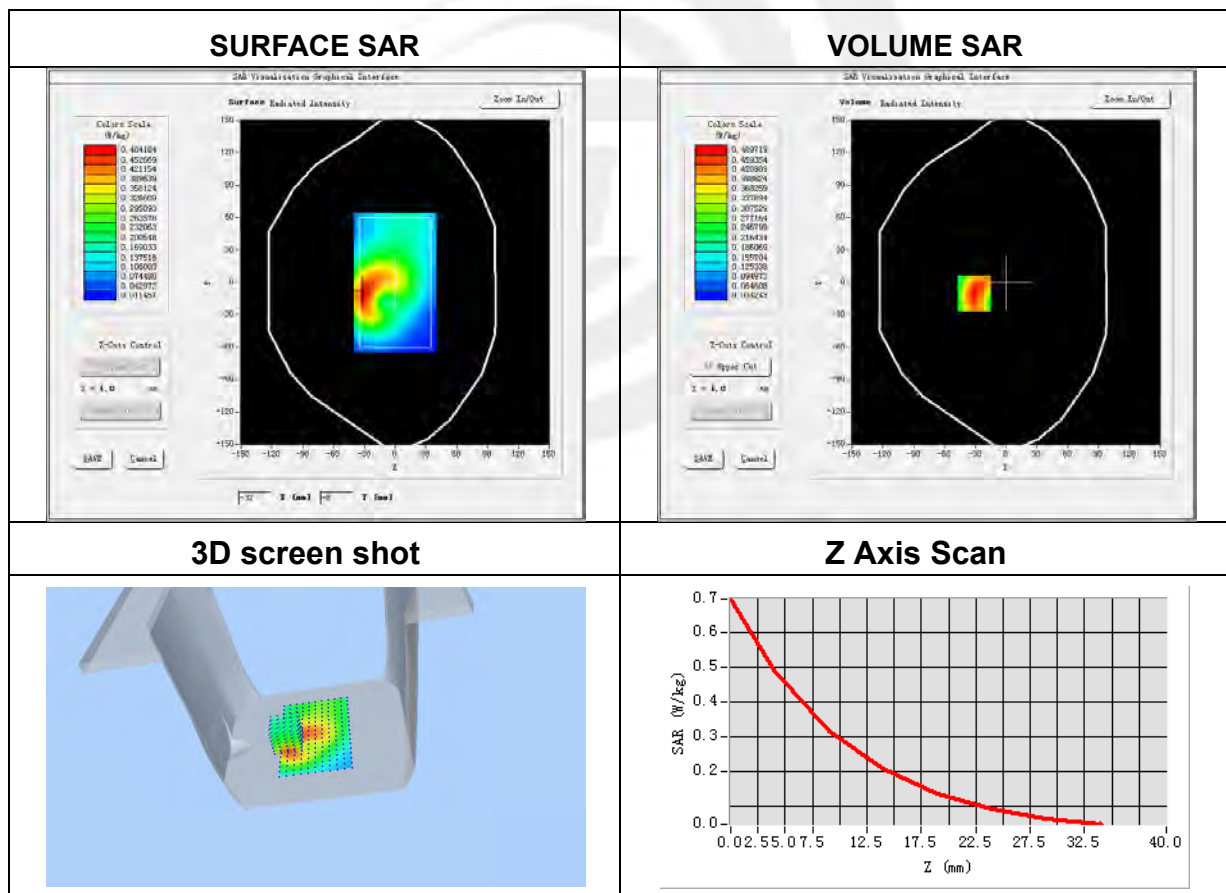
Plot 10: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-10-27
Probe	SN 07/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Front Side
Band	WCDMA V
Channels	Low
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	826.4

Maximum location: X=-31.00, Y=-10.00

SAR Peak: 0.69 W/kg

SAR 10g (W/Kg)	0.289584
SAR 1g (W/Kg)	0.469932



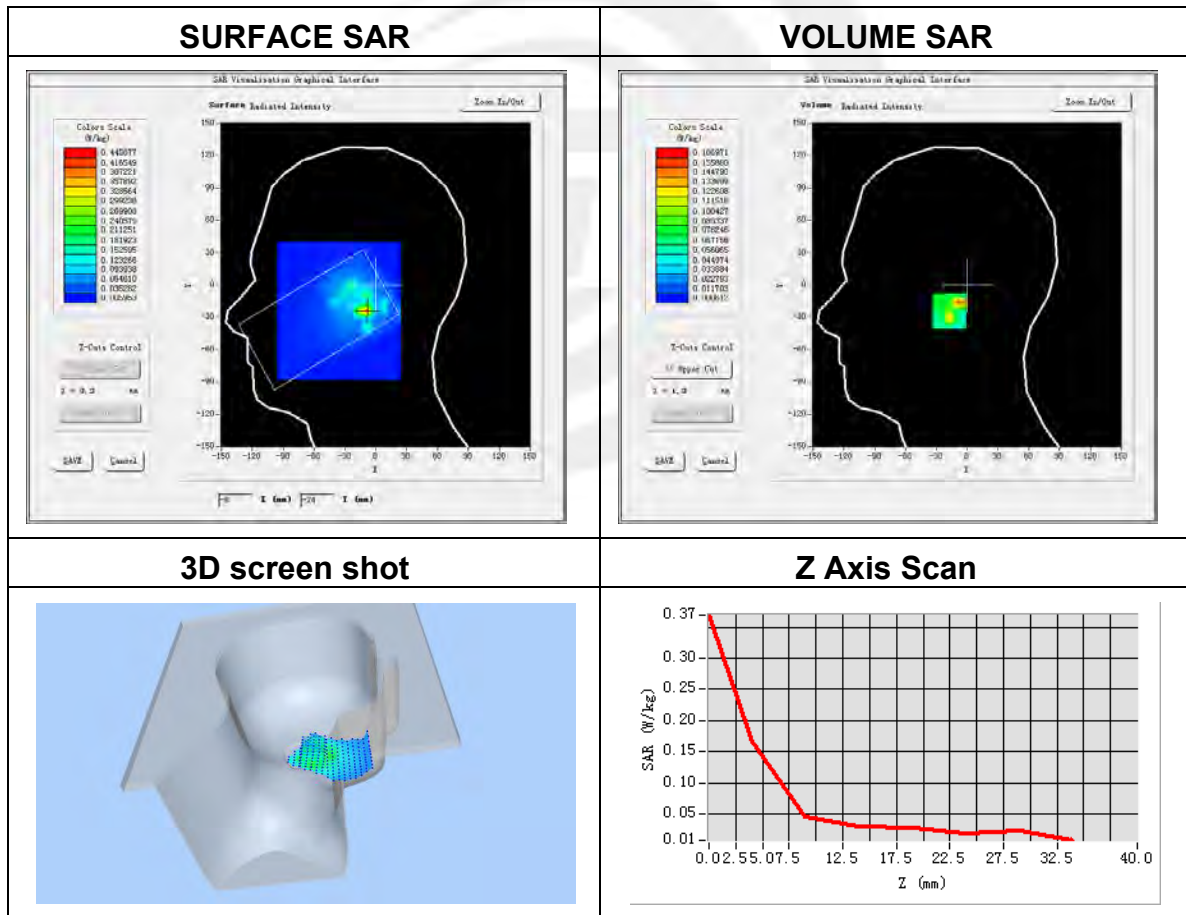
Plot 11: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-10-27
Probe	SN 07/21 EPGO352
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	Left head
Device Position	Cheek
Band	CDMA BC0
Channels	Middle
Signal	CDMA (Crest factor: 1.0)
Frequency (MHz)	824.7

Maximum location: X=-9.00, Y=-24.00

SAR Peak: 0.37 W/kg

SAR 10g (W/Kg)	0.067119
SAR 1g (W/Kg)	0.143081



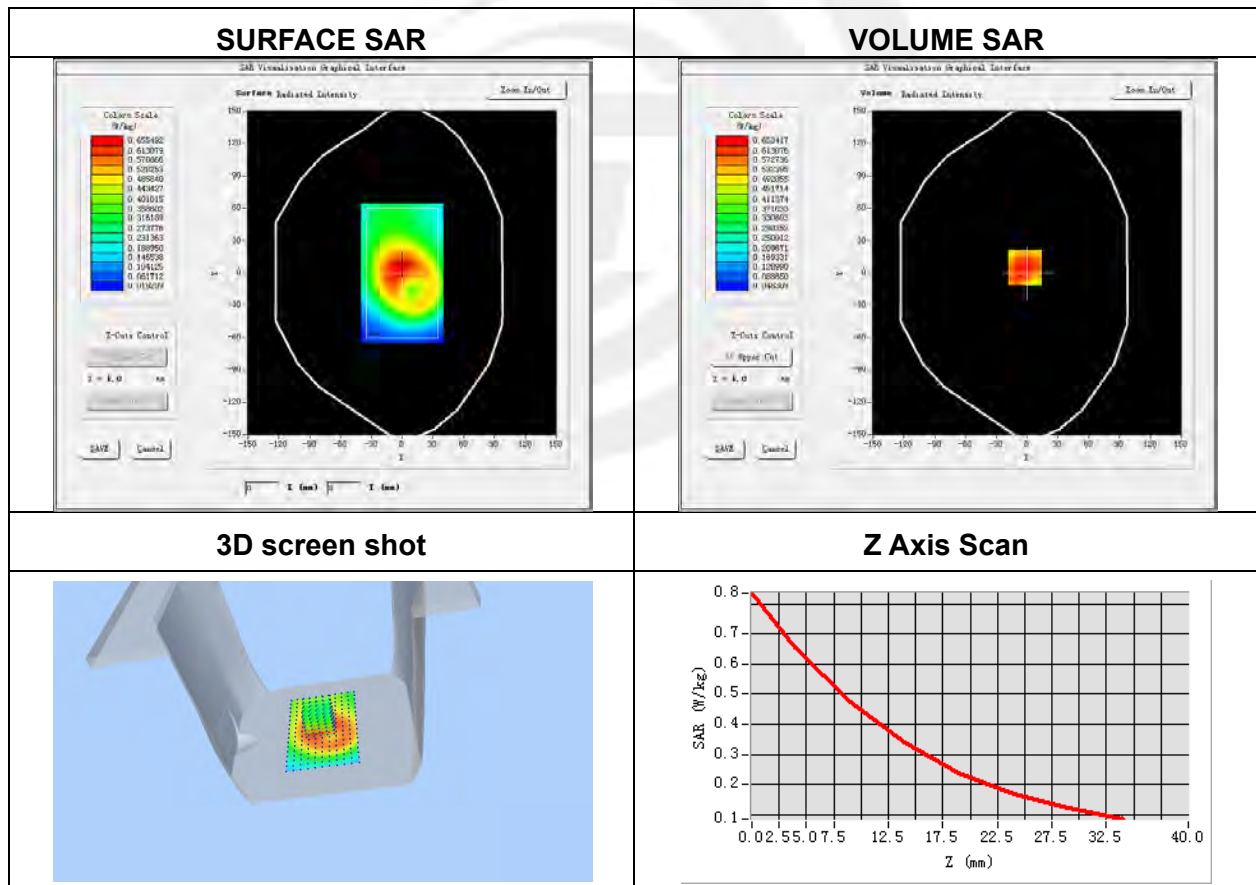
Plot 12: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-10-27
Probe	SN 07/21 EPGO352
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	CDMA BC0
Channels	Middle
Signal	CDMA (Crest factor: 1.0)
Frequency (MHz)	824.7

Maximum location: X=-2.00, Y=5.00

SAR Peak: 0.86 W/kg

SAR 10g (W/Kg)	0.444475
SAR 1g (W/Kg)	0.634225



Plot 13: DUT: Smart phone; EUT Model: TickTock

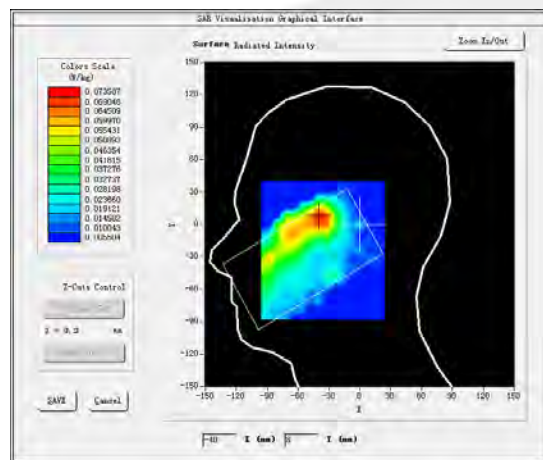
Test Date	2021-11-06
Probe	SN 07/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Right head
Device Position	Cheek
Band	CDMA BC1
Channels	Low
Signal	CDMA (Crest factor: 1.0)
Frequency (MHz)	1851.25

Maximum location: X=-39.00, Y=7.00

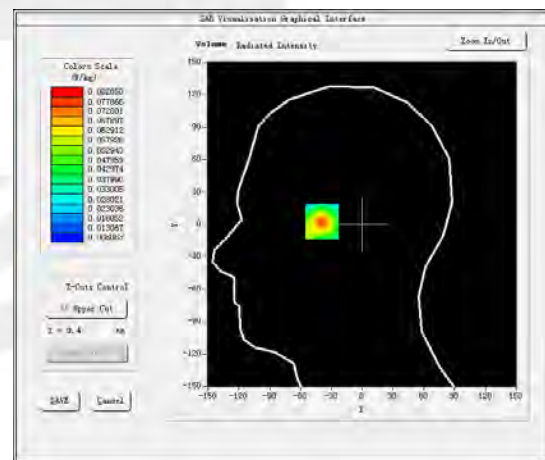
SAR Peak: 0.13 W/kg

SAR 10g (W/Kg)	0.045112
SAR 1g (W/Kg)	0.076657

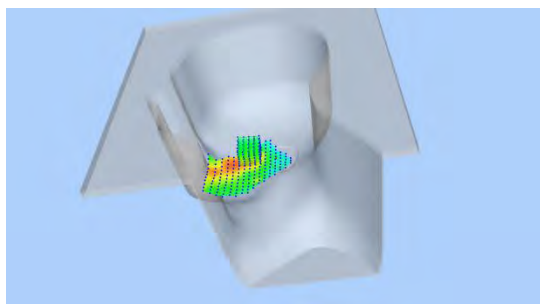
SURFACE SAR



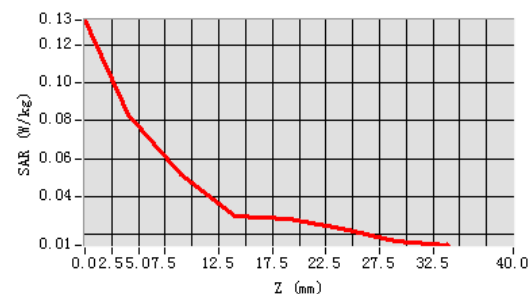
VOLUME SAR



3D screen shot



Z Axis Scan



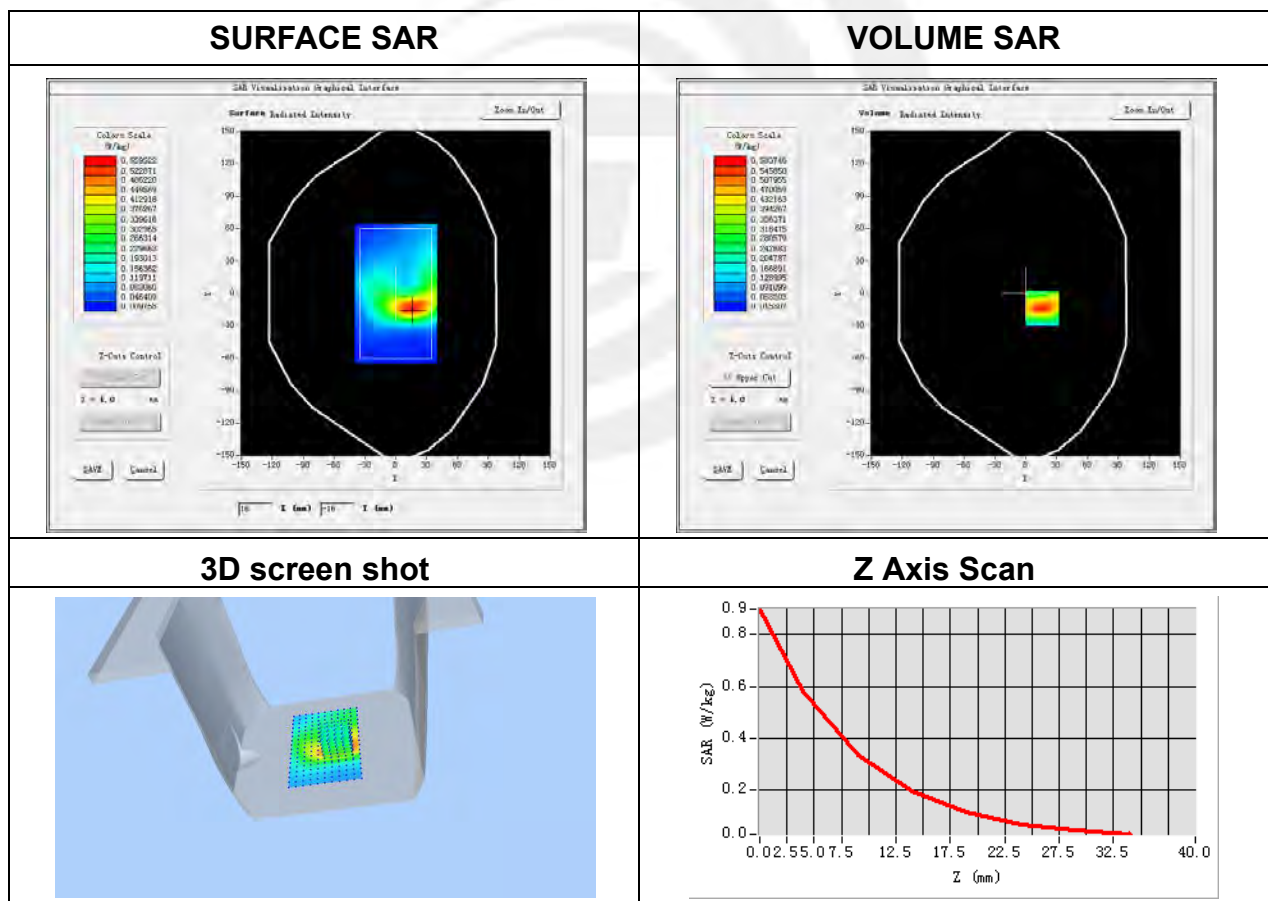
Plot 14: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-06
Probe	SN 07/21 EPG0352
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	CDMA BC1
Channels	Low
Signal	CDMA (Crest factor: 1.0)
Frequency (MHz)	1851.25

Maximum location: X=16.00, Y=-14.00

SAR Peak: 0.89 W/kg

SAR 10g (W/Kg)	0.289754
SAR 1g (W/Kg)	0.543968



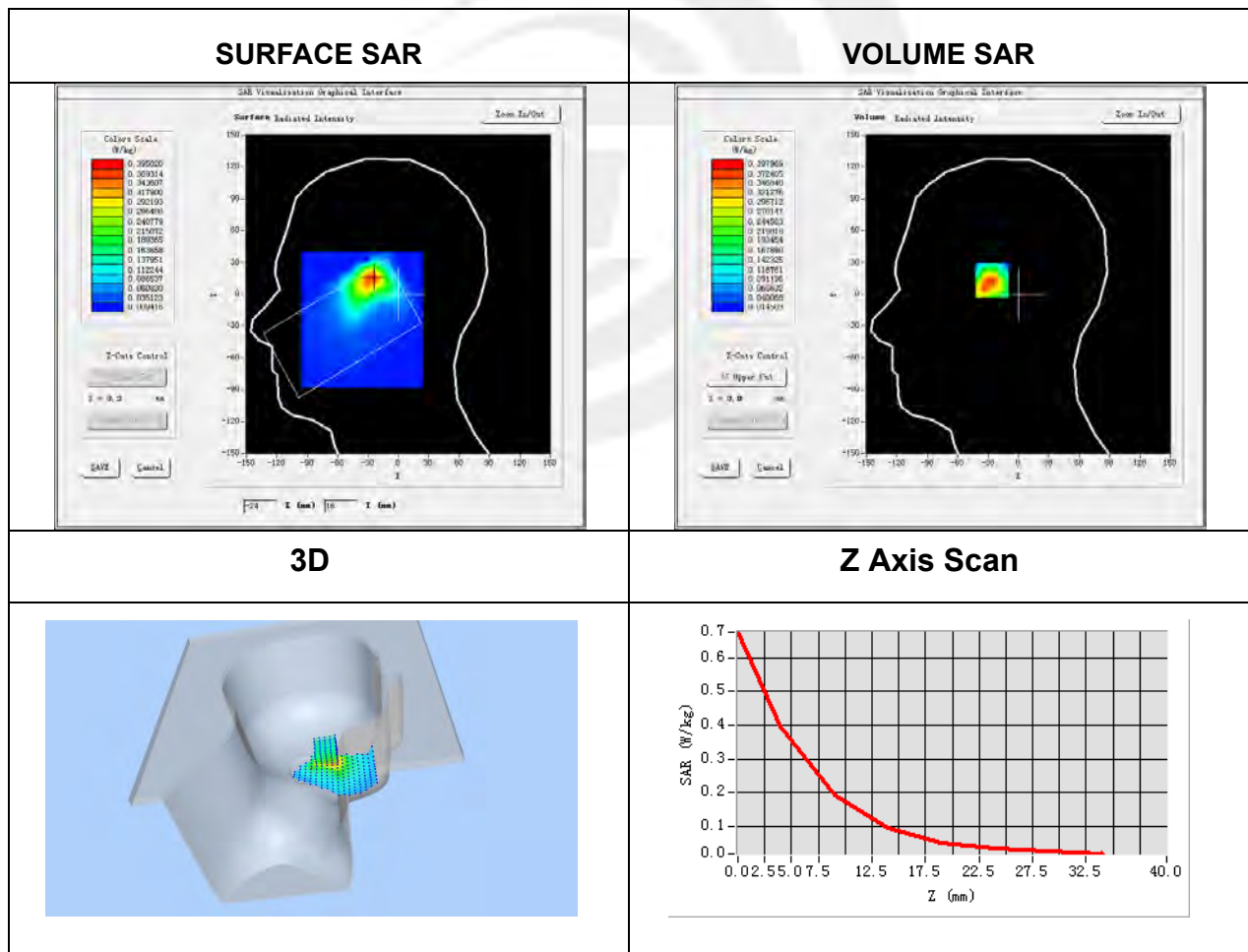
Plot 15: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-07
Probe	SN 07/21 EPGO352
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	Left head
Device Position	Cheek
Band	IEEE 802.11b
Channels	High
Signal	IEEE802.b (Crest factor: 1.0)
Frequency (MHz)	2437

Maximum location: X=-25.00, Y=16.00

SAR Peak: 0.67 W/kg

SAR 10g (W/Kg)	0.183890
SAR 1g (W/Kg)	0.375712



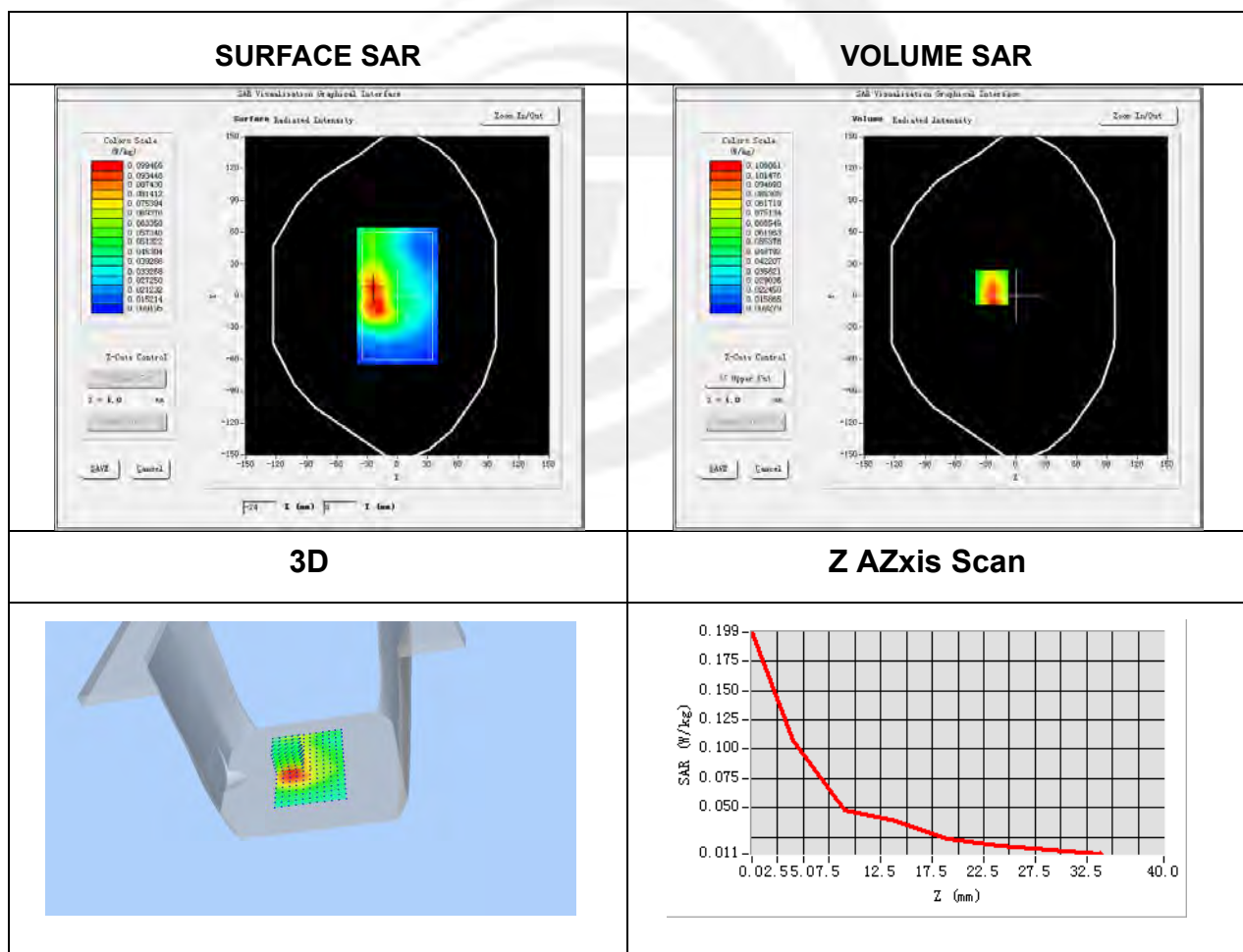
Plot16: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-07
Probe	SN 07/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Front Side
Band	IEEE 802.11b
Channels	High
Signal	IEEE802.b (Crest factor: 1.0)
Frequency (MHz)	2437

Maximum location: X=-24.00, Y=8.00

SAR Peak: 0.18 W/kg

SAR 10g (W/Kg)	0.059241
SAR 1g (W/Kg)	0.098452



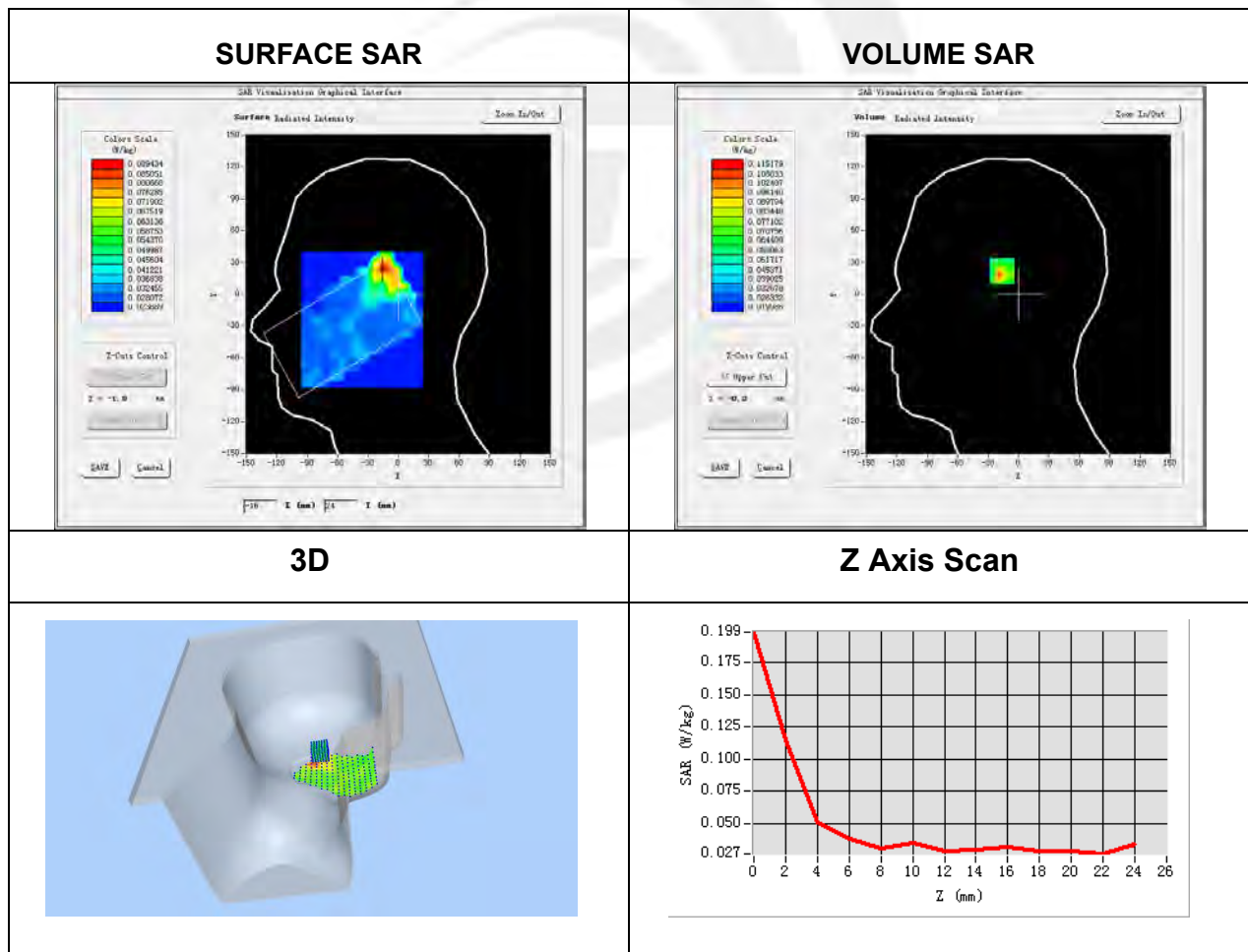
Plot 17: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-24
Probe	SN 07/21 EPGO352
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	Left head
Device Position	Cheek
Band	IEEE 802.11a
Channels	High
Signal	IEEE802.a (Crest factor: 1.0)
Frequency (MHz)	5240

Maximum location: X=-15.00, Y=25.00

SAR Peak: 0.30 W/kg

SAR 10g (W/Kg)	0.052407
SAR 1g (W/Kg)	0.094557



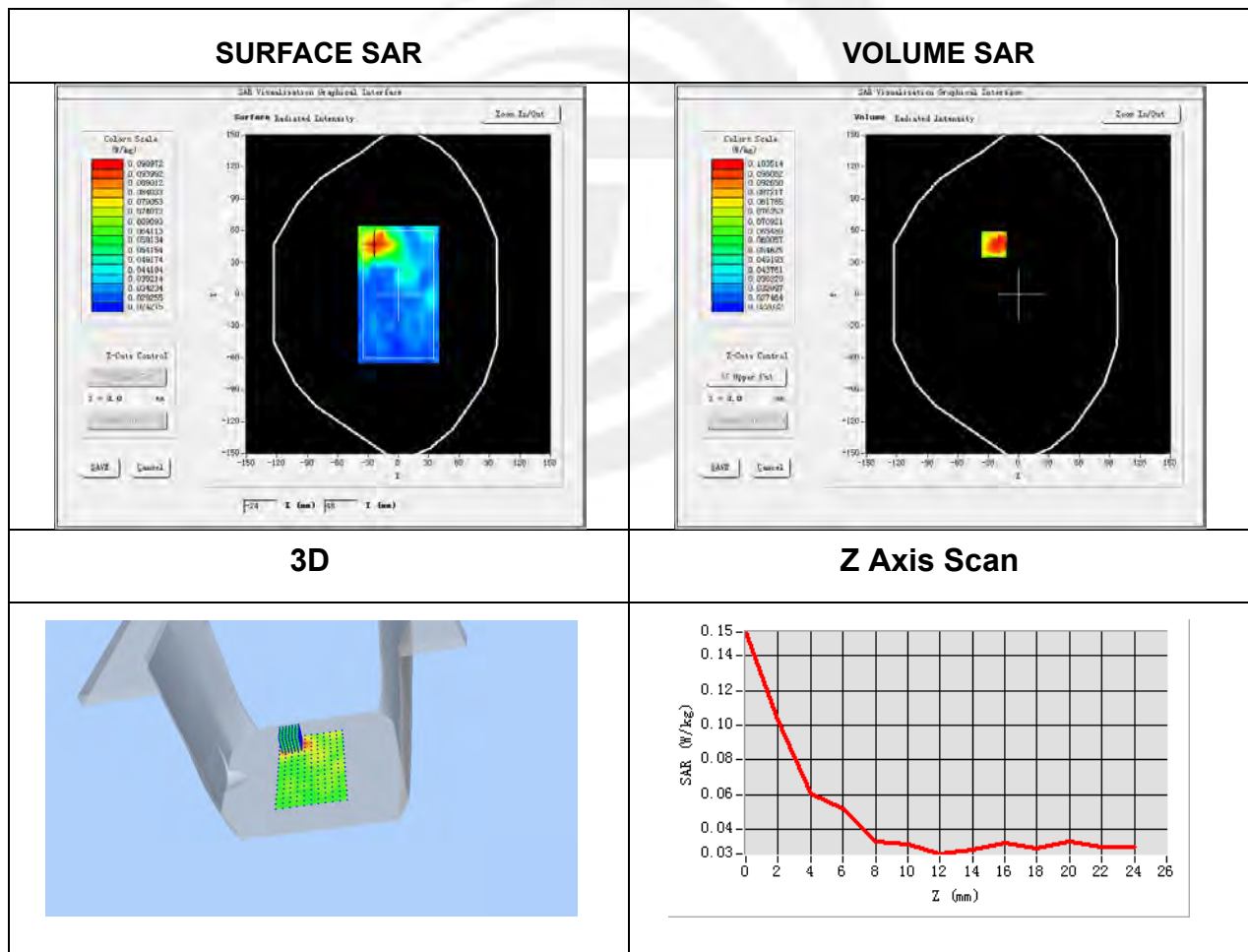

Plot 18: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-24
Probe	SN 07/21 EPGO352
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
Channels	High
Signal	IEEE802.a (Crest factor: 1.0)
Frequency (MHz)	5240

Maximum location: X=-24.00, Y=47.00

SAR Peak: 0.16 W/kg

SAR 10g (W/Kg)	0.046837
SAR 1g (W/Kg)	0.071377



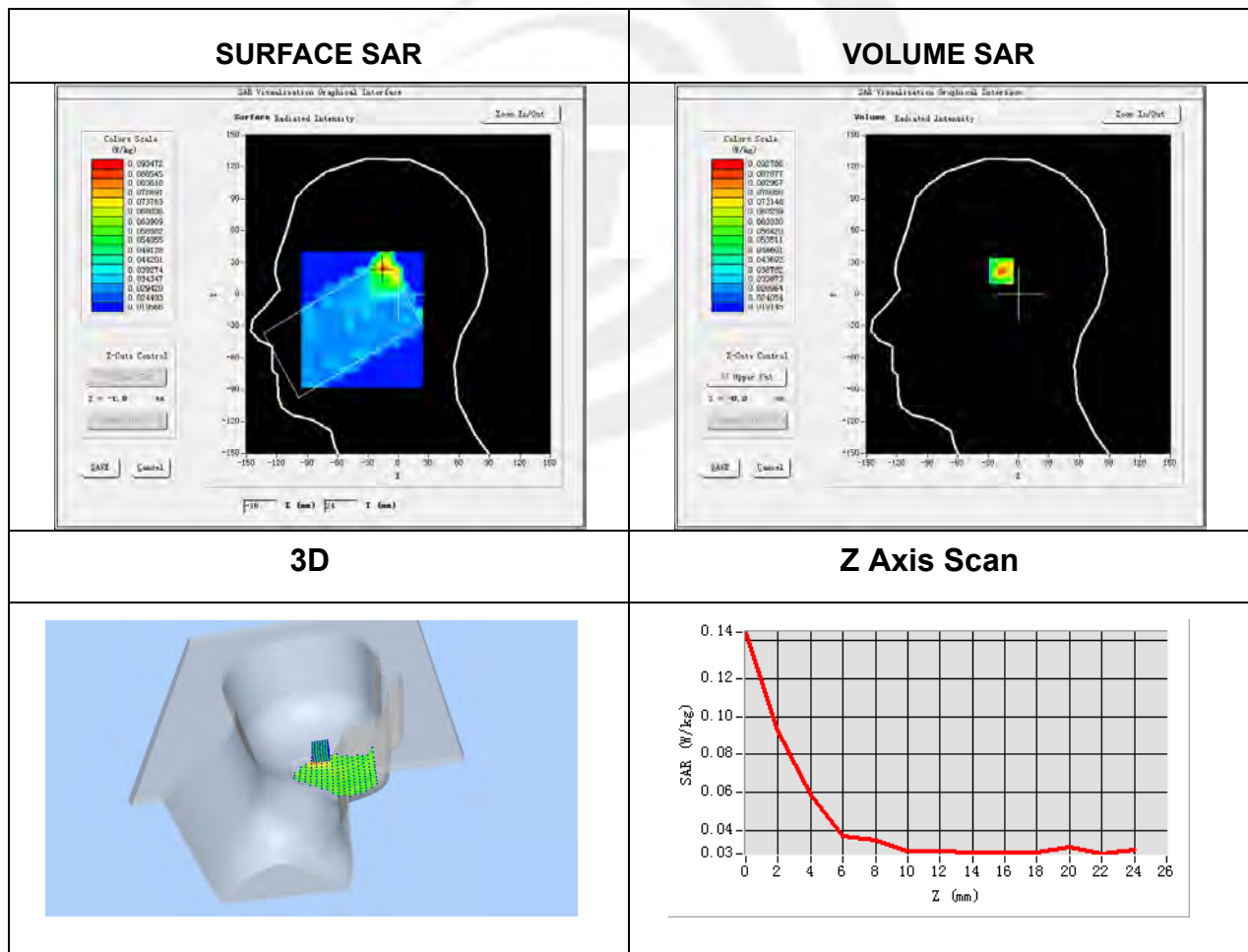
Plot 19: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-24
Probe	SN 07/21 EPGO352
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	Right head
Device Position	Cheek
Band	IEEE 802.11a
Channels	Middle
Signal	IEEE802.a (Crest factor: 1.0)
Frequency (MHz)	5300

Maximum location: X=-16.00, Y=25.00

SAR Peak: 0.23 W/kg

SAR 10g (W/Kg)	0.048168
SAR 1g (W/Kg)	0.086974



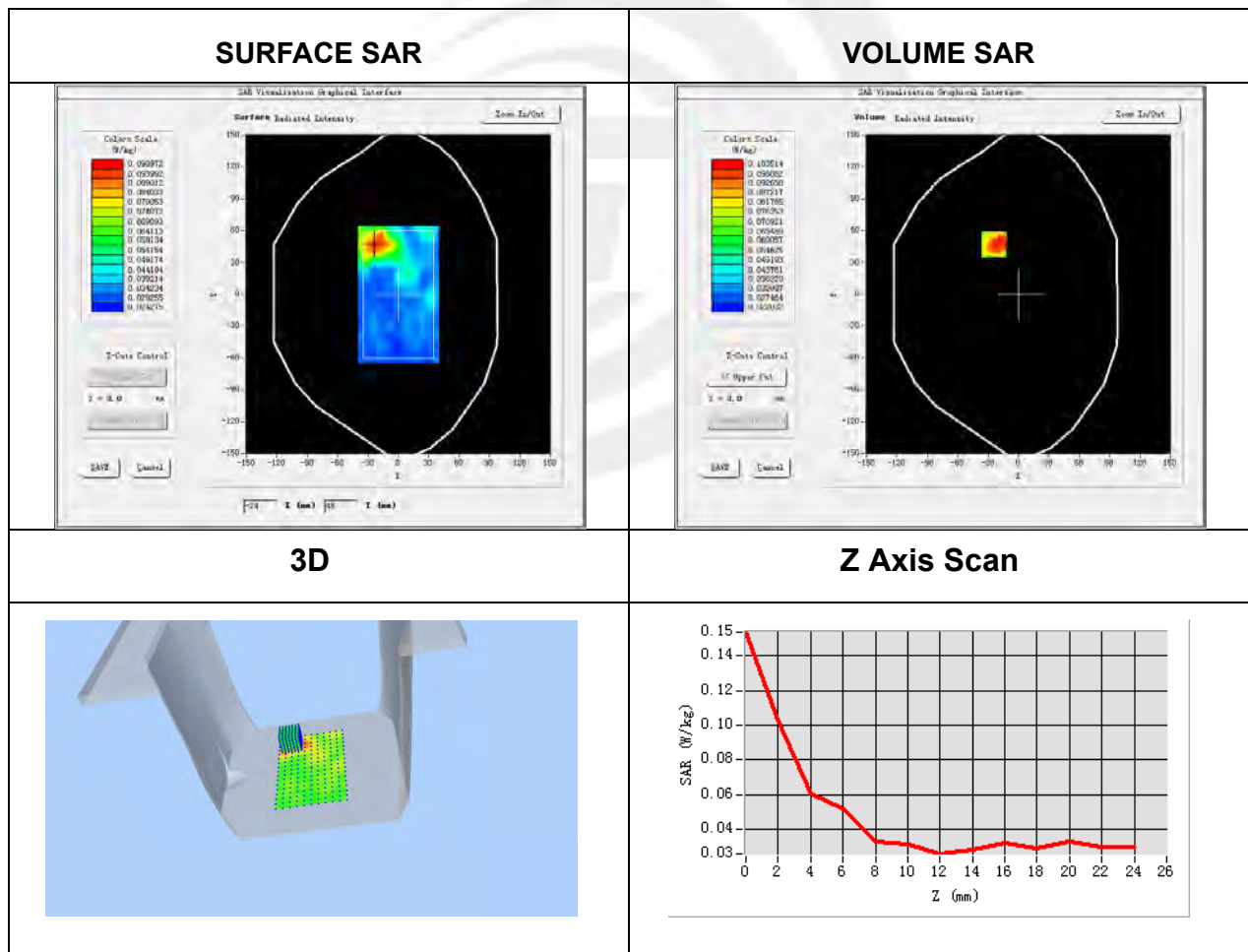

Plot 20: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-24
Probe	SN 07/21 EPGO352
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
Channels	Middle
Signal	IEEE802.a (Crest factor: 1.0)
Frequency (MHz)	5300

Maximum location: X=-24.00, Y=47.00

SAR Peak: 0.16 W/kg

SAR 10g (W/Kg)	0.046837
SAR 1g (W/Kg)	0.071377



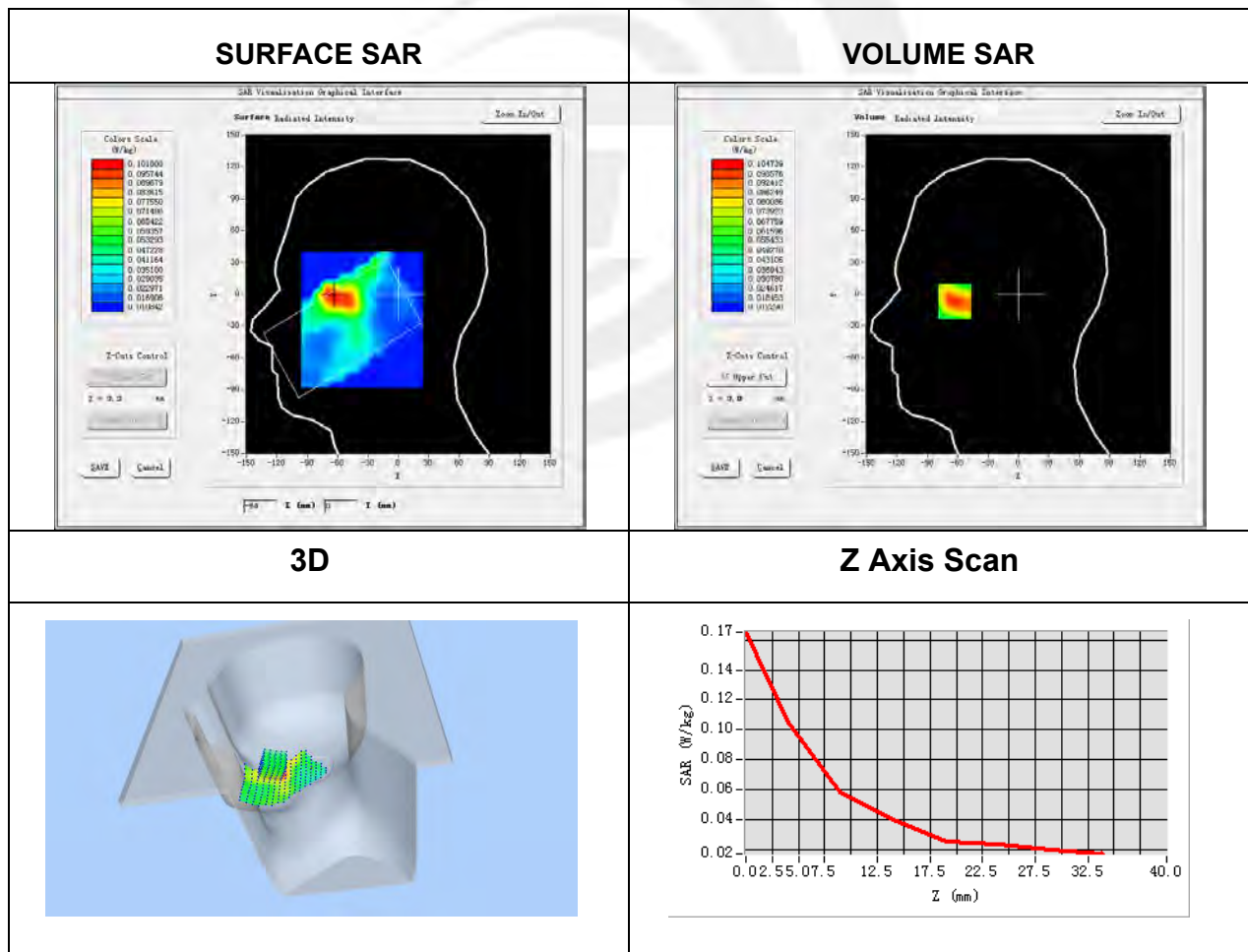
Plot 21: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-24
Probe	SN 07/21 EPGO352
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	Right head
Device Position	Cheek
Band	IEEE 802.11n20
Channels	Low
Signal	IEEE802.n (Crest factor: 1.0)
Frequency (MHz)	5500

Maximum location: X=-63.00, Y=-3.00

SAR Peak: 0.16 W/kg

SAR 10g (W/Kg)	0.058267
SAR 1g (W/Kg)	0.100227





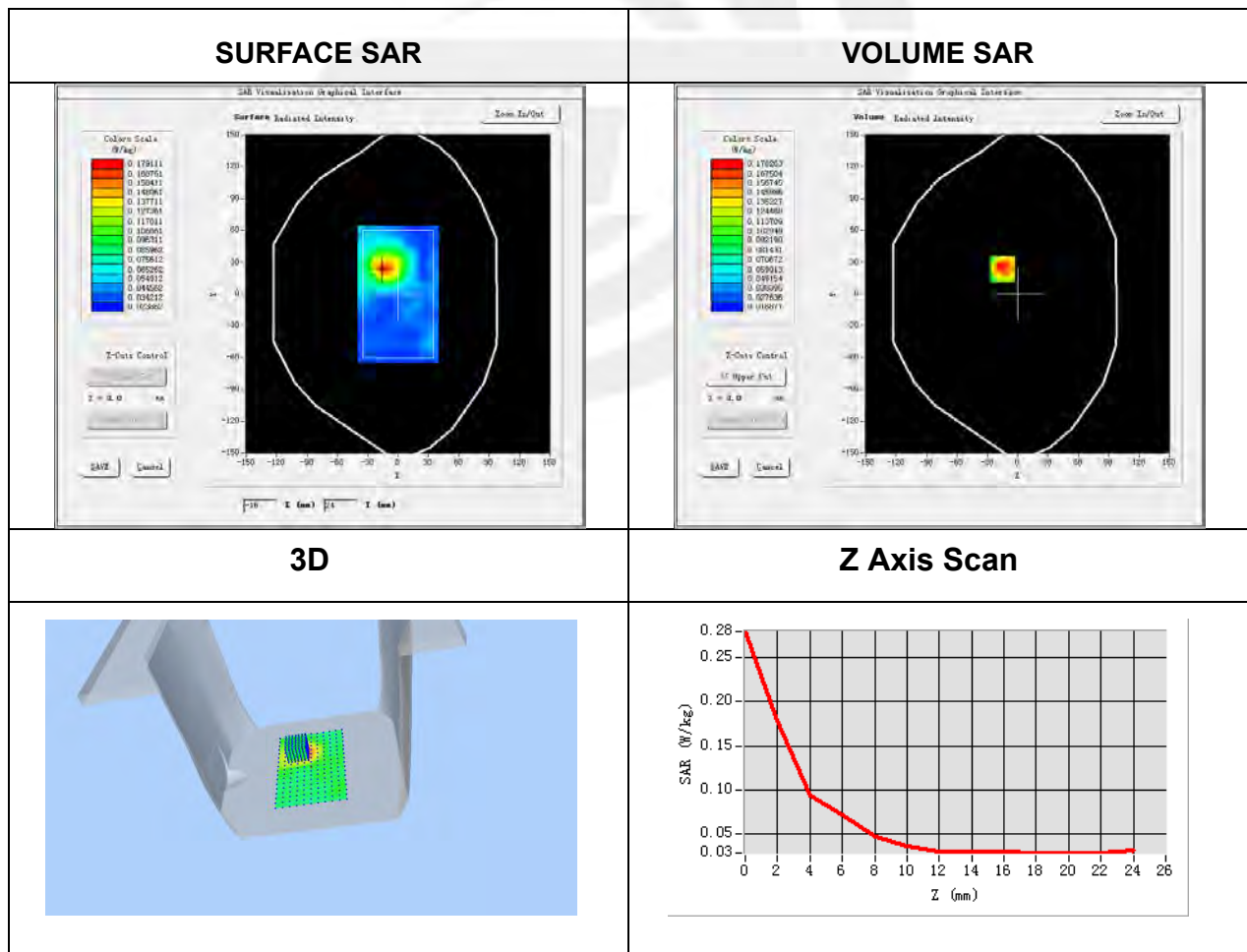
Plot 22: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-24
Probe	SN 07/21 EPGO352
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 802.11n20
Channels	Low
Signal	IEEE802.n (Crest factor: 1.0)
Frequency (MHz)	5500
Relative permittivity (real part)	35.55
Conductivity (S/m)	5.21

Maximum location: X=-15.00, Y=24.00

SAR Peak: 0.30 W/kg

SAR 10g (W/Kg)	0.061862
SAR 1g (W/Kg)	0.115408



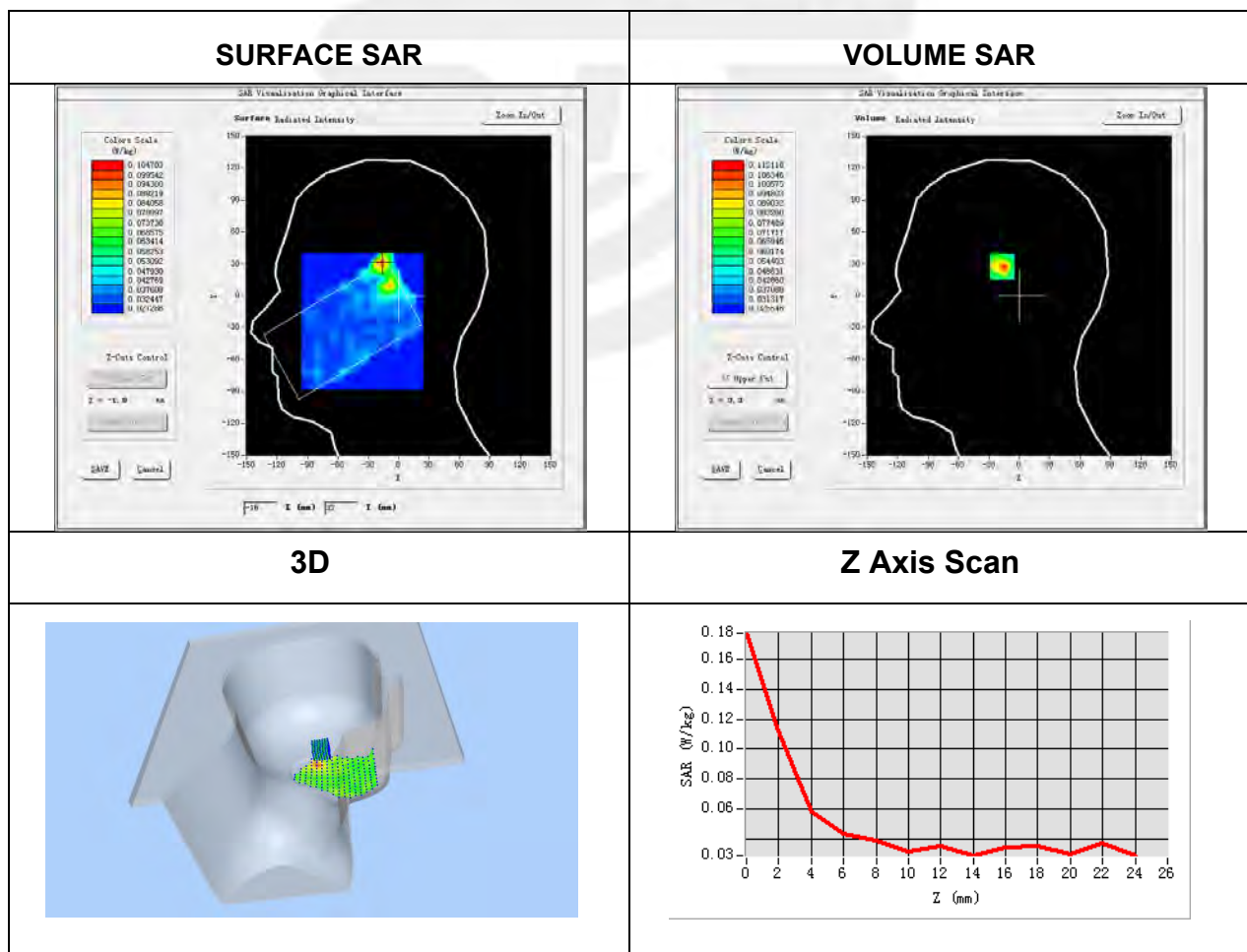
Plot 23: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-24
Probe	SN 07/21 EPGO352
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	Left head
Device Position	Cheek
Band	IEEE 802.11n20
Channels	High
Signal	IEEE802.n (Crest factor: 1.0)
Frequency (MHz)	5825
Relative permittivity (real part)	35.53
Conductivity (S/m)	5.12

Maximum location: X=-17.00, Y=32.00

SAR Peak: 0.28 W/kg

SAR 10g (W/Kg)	0.053503
SAR 1g (W/Kg)	0.101600



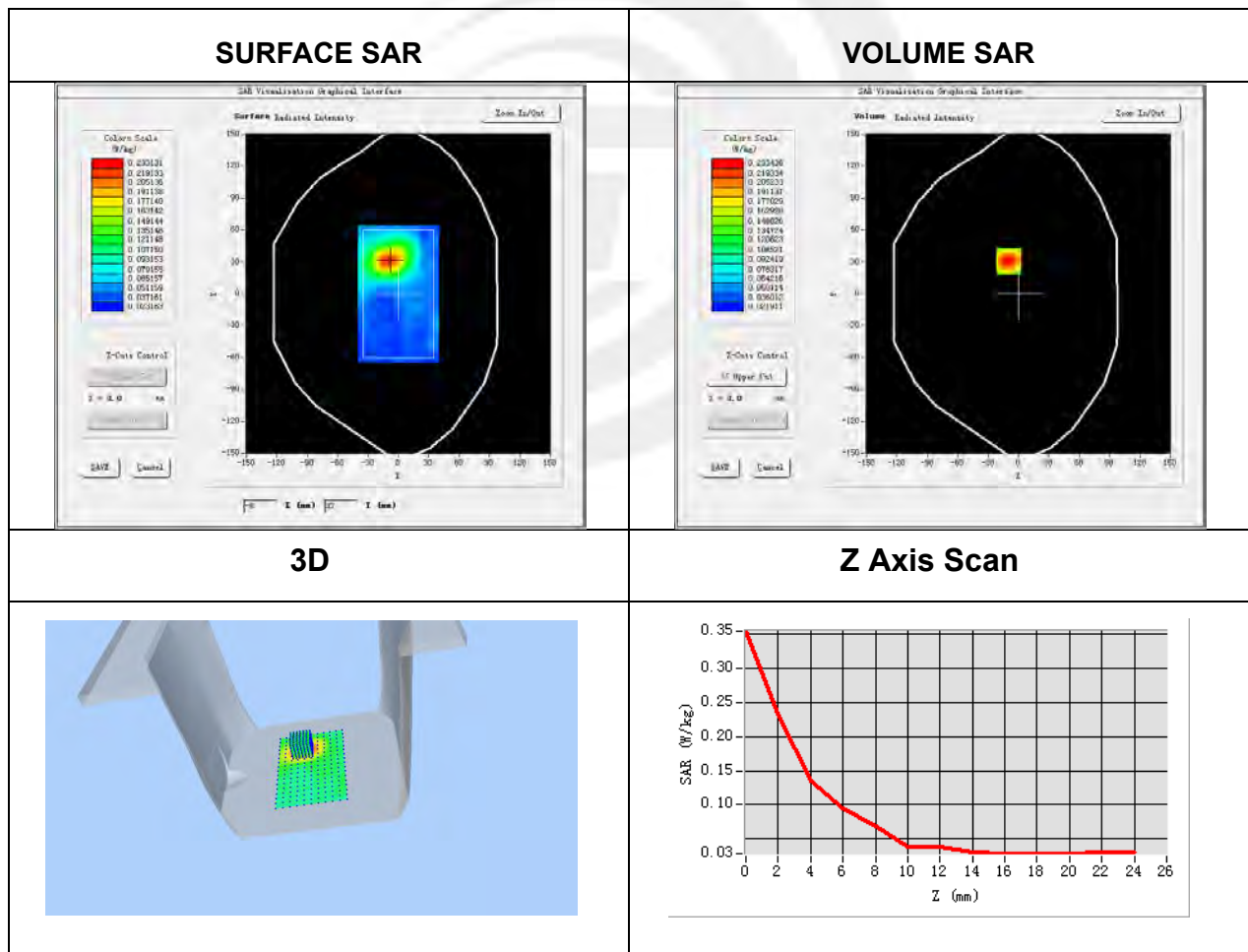
Plot 24: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-24
Probe	SN 07/21 EPGO352
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 802.11n20
Channels	High
Signal	IEEE802.n (Crest factor: 1.0)
Frequency (MHz)	5825

Maximum location: X=-10.00, Y=31.00

SAR Peak: 0.37 W/kg

SAR 10g (W/Kg)	0.078656
SAR 1g (W/Kg)	0.149684



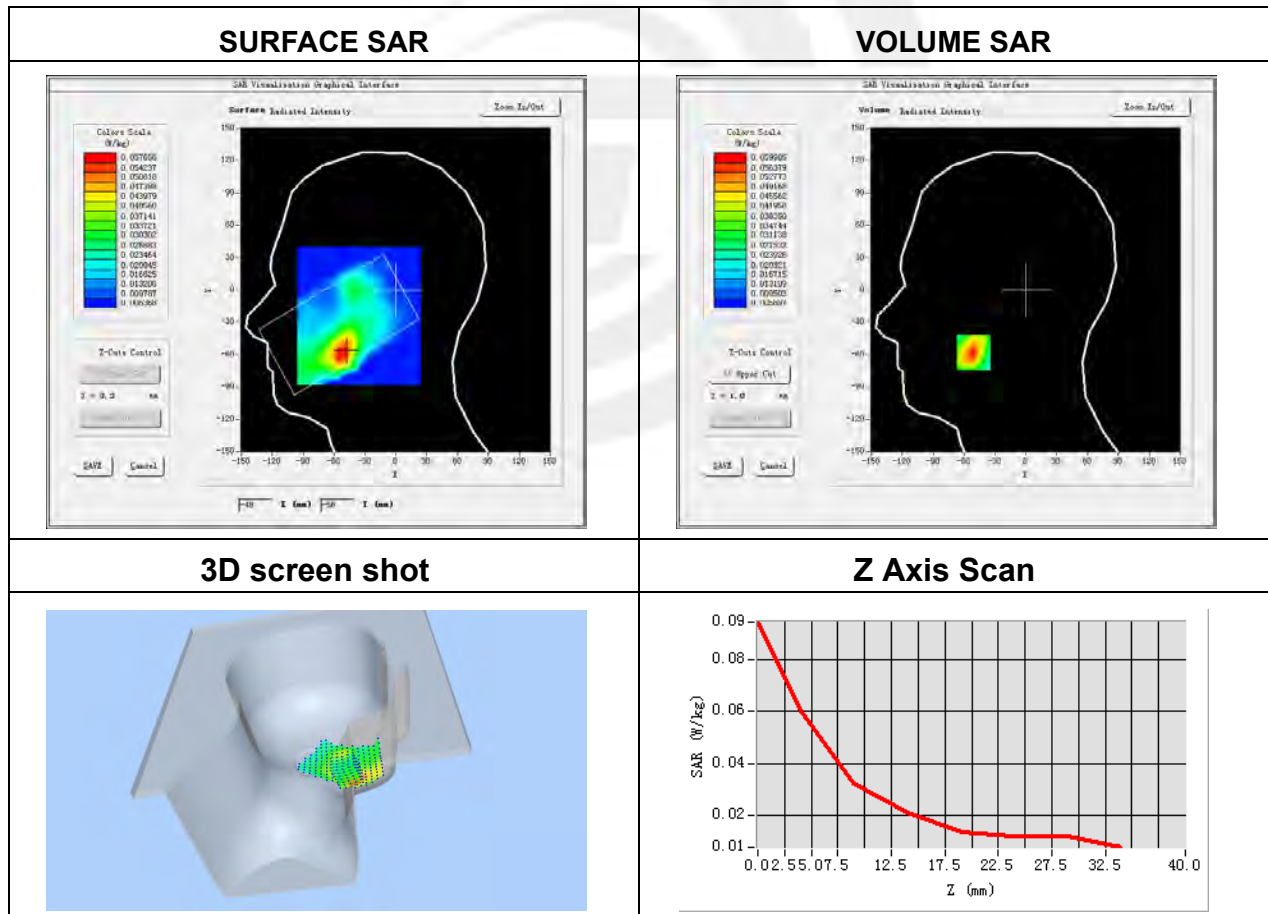
Plot 25: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-06
Probe	SN 07/21 EPG0352
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	Left head
Device Position	Cheek
Band	LTE Band 2 (RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1900

Maximum location: X=-51.00, Y=-58.00

SAR Peak: 0.10 W/kg

SAR 10g (W/Kg)	0.030400
SAR 1g (W/Kg)	0.055862



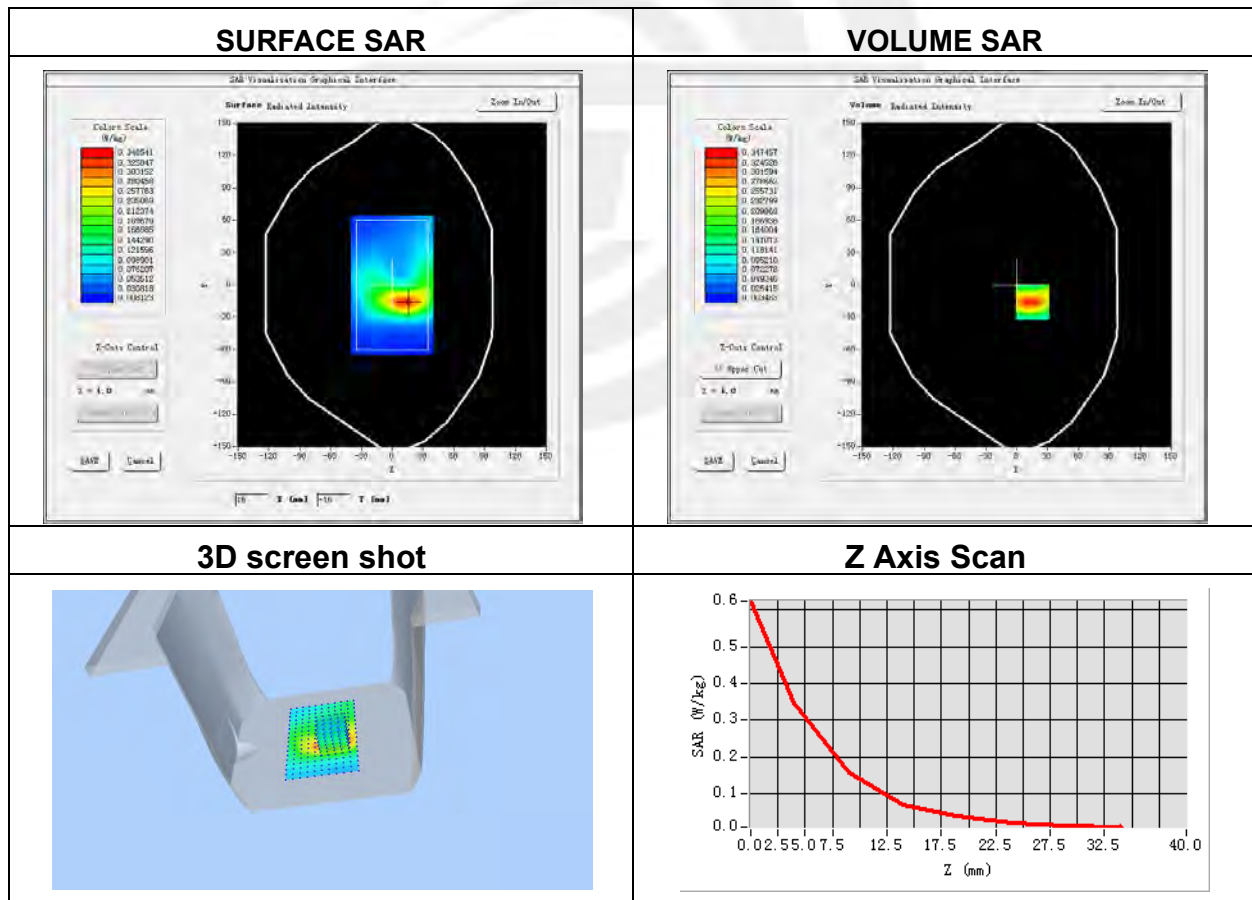

Plot 26: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-06
Probe	SN 07/21 EPGO352
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 2(RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1900

Maximum location: X=15.00, Y=-16.00

SAR Peak: 0.62 W/kg

SAR 10g (W/Kg)	0.155327
SAR 1g (W/Kg)	0.329746



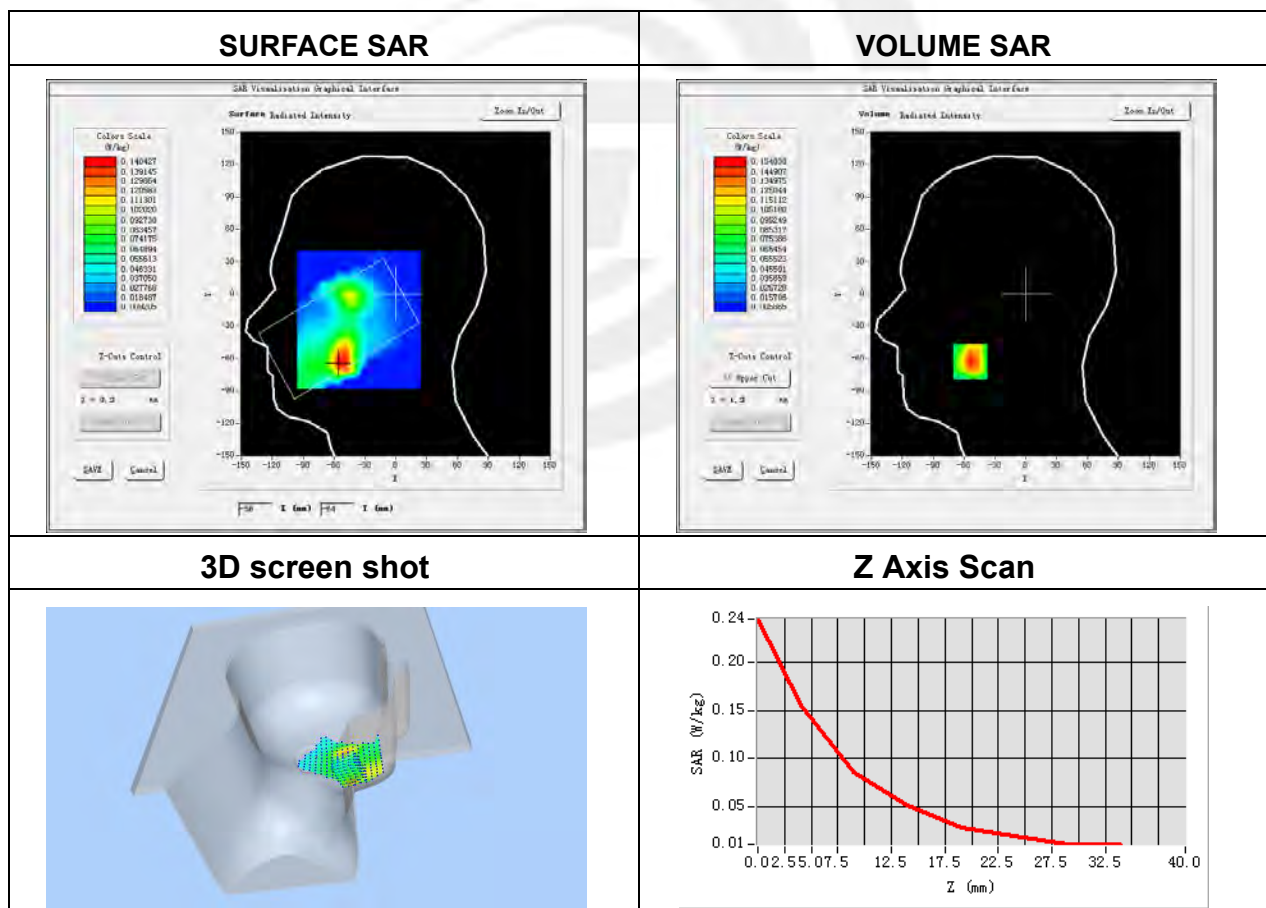
Plot 27: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-06
Probe	SN 07/21 EPG0352
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	Left head
Device Position	Cheek
Band	LTE Band 4 (RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1745

Maximum location: X=-54.00, Y=-63.00

SAR Peak: 0.26 W/kg

SAR 10g (W/Kg)	0.076817
SAR 1g (W/Kg)	0.148292



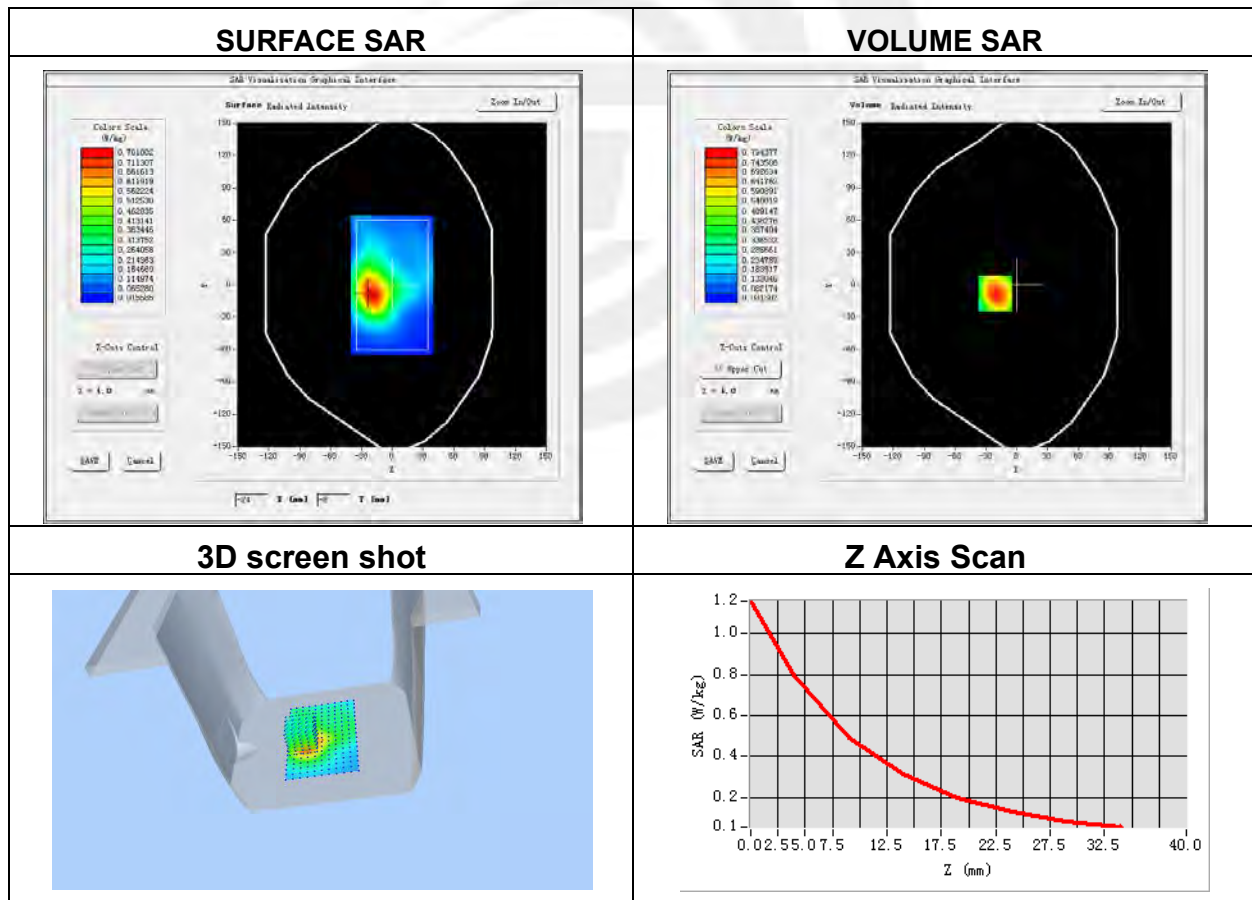
Plot 28: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-06
Probe	SN 07/21 EPGO352
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	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1745

Maximum location: X=-21.00, Y=-8.00

SAR Peak: 1.16 W/kg

SAR 10g (W/Kg)	0.445241
SAR 1g (W/Kg)	0.756787



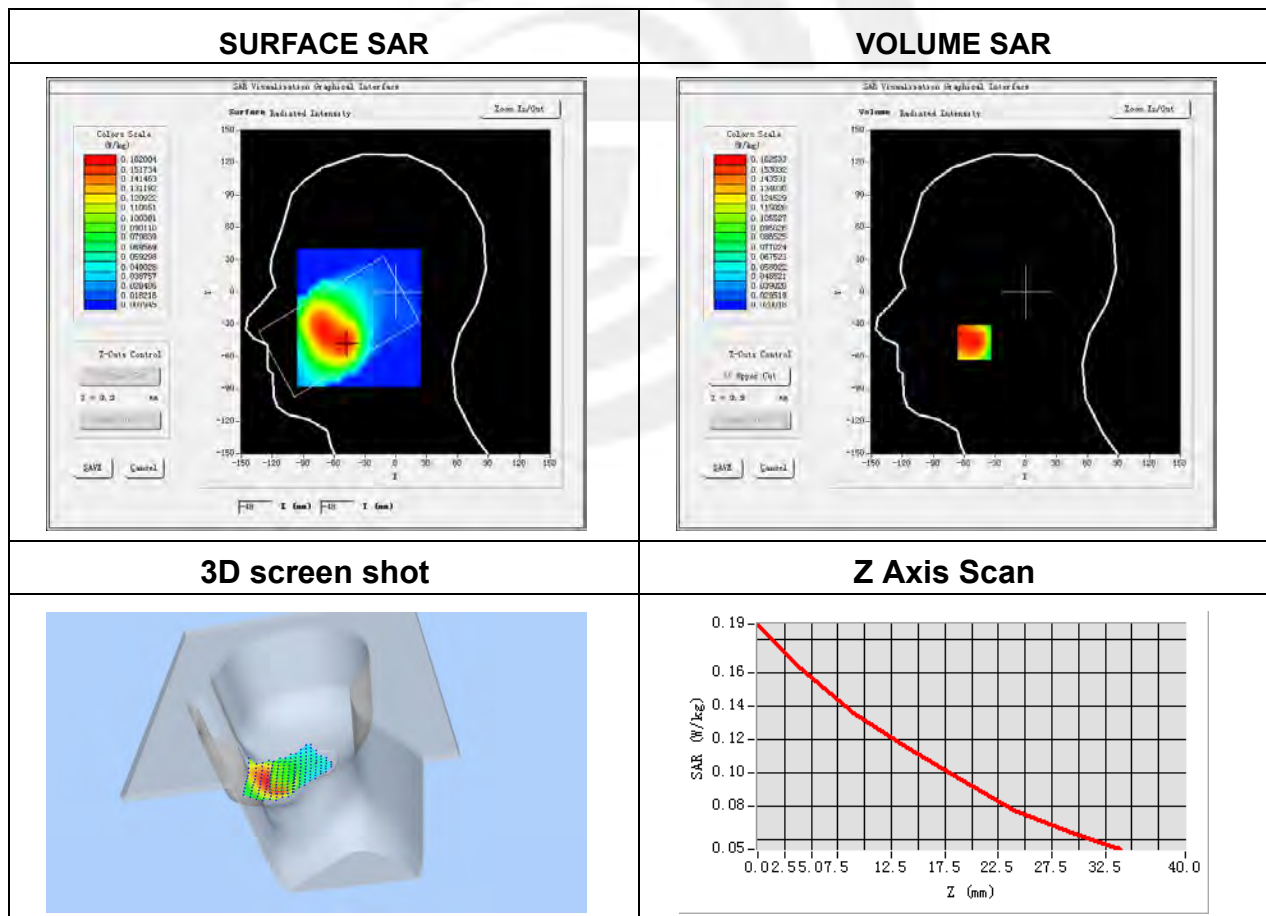
Plot 29: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-10-27
Probe	SN 07/21 EPG0352
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	Right head
Device Position	Cheek
Band	LTE Band 5 (RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	844

Maximum location: X=-50.00, Y=-47.00

SAR Peak: 0.21 W/kg

SAR 10g (W/Kg)	0.126592
SAR 1g (W/Kg)	0.161876



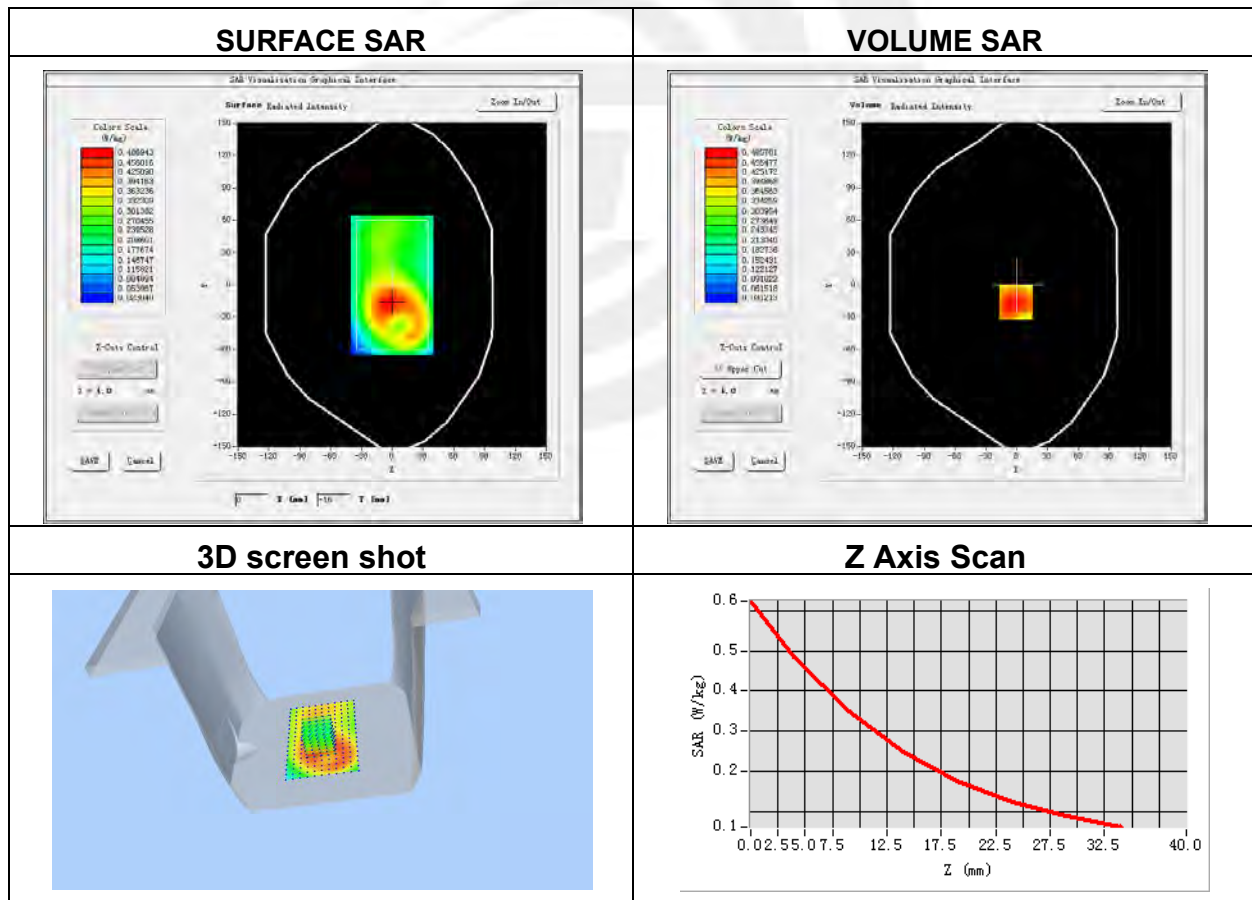

Plot 30: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-10-27
Probe	SN 07/21 EPGO352
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 5 (RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	844

Maximum location: X=-1.00, Y=-16.00

SAR Peak: 0.63 W/kg

SAR 10g (W/Kg)	0.332903
SAR 1g (W/Kg)	0.473572



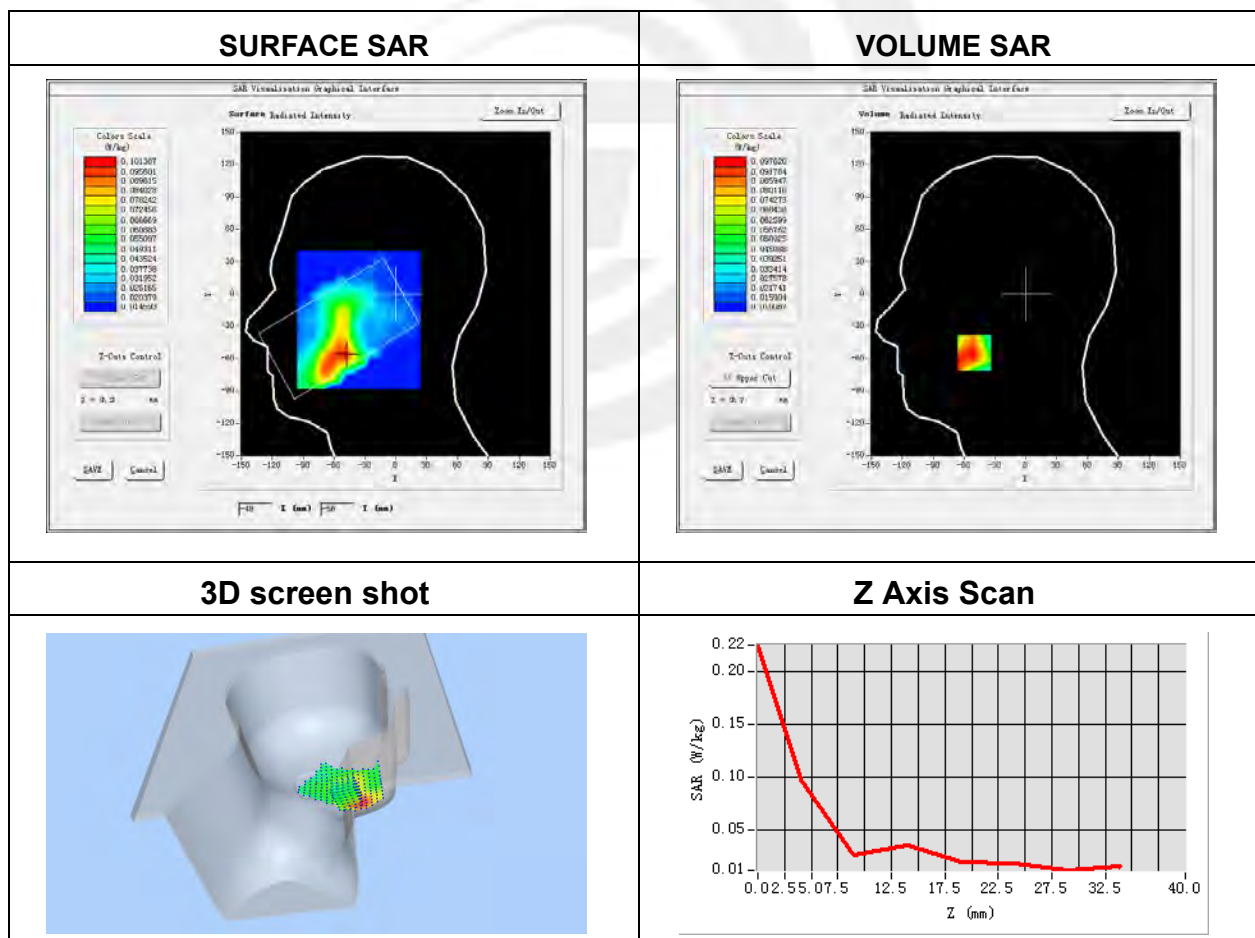
Plot 31: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-07
Probe	SN 07/21 EPG0352
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	Left head
Device Position	Cheek
Band	LTE Band 7 (RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	2560

Maximum location: X=-50.00, Y=-55.00

SAR Peak: 0.16 W/kg

SAR 10g (W/Kg)	0.056829
SAR 1g (W/Kg)	0.094764



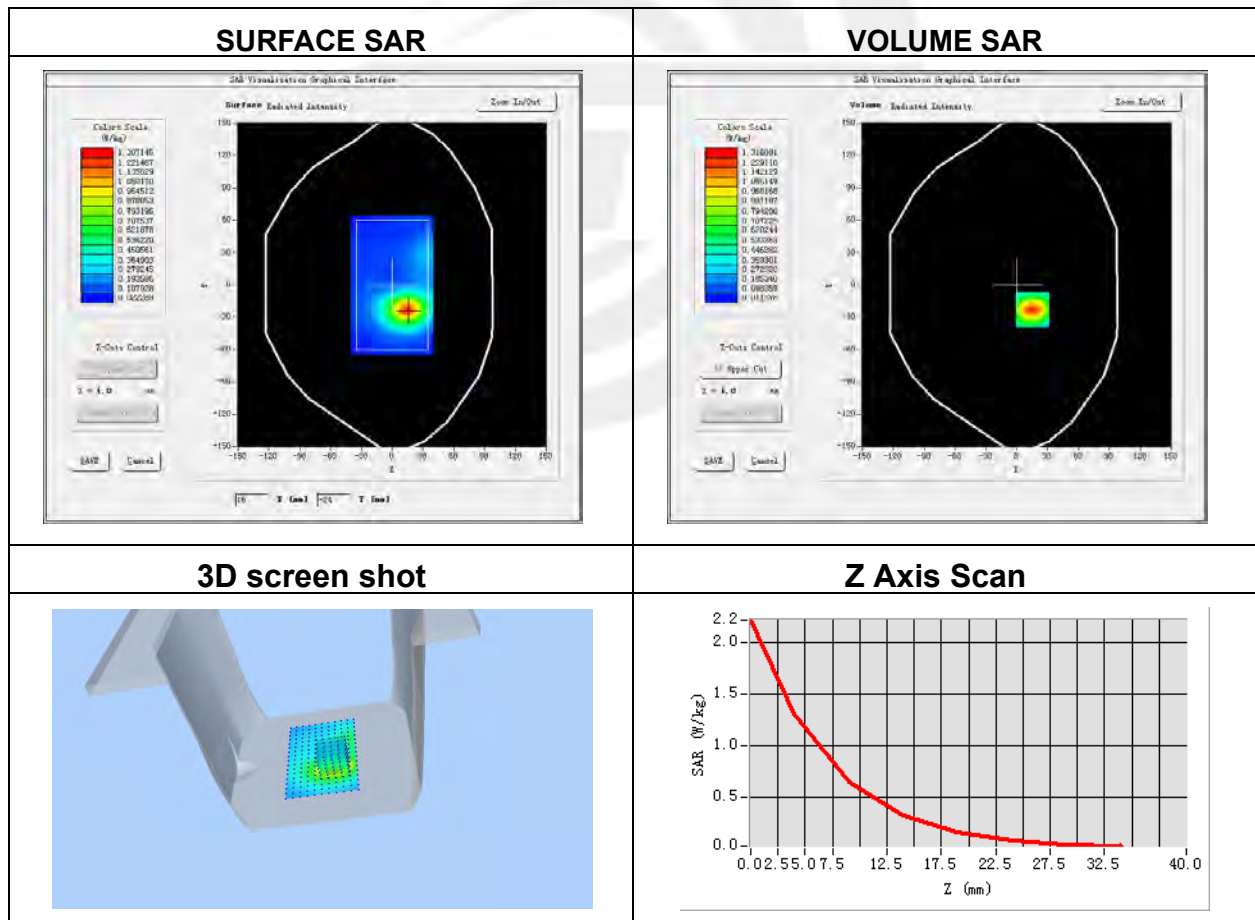
Plot 32: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-07
Probe	SN 07/21 EPGO352
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	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	2560

Maximum location: X=15.00, Y=-23.00

SAR Peak: 2.19 W/kg

SAR 10g (W/Kg)	0.580760
SAR 1g (W/Kg)	1.229587



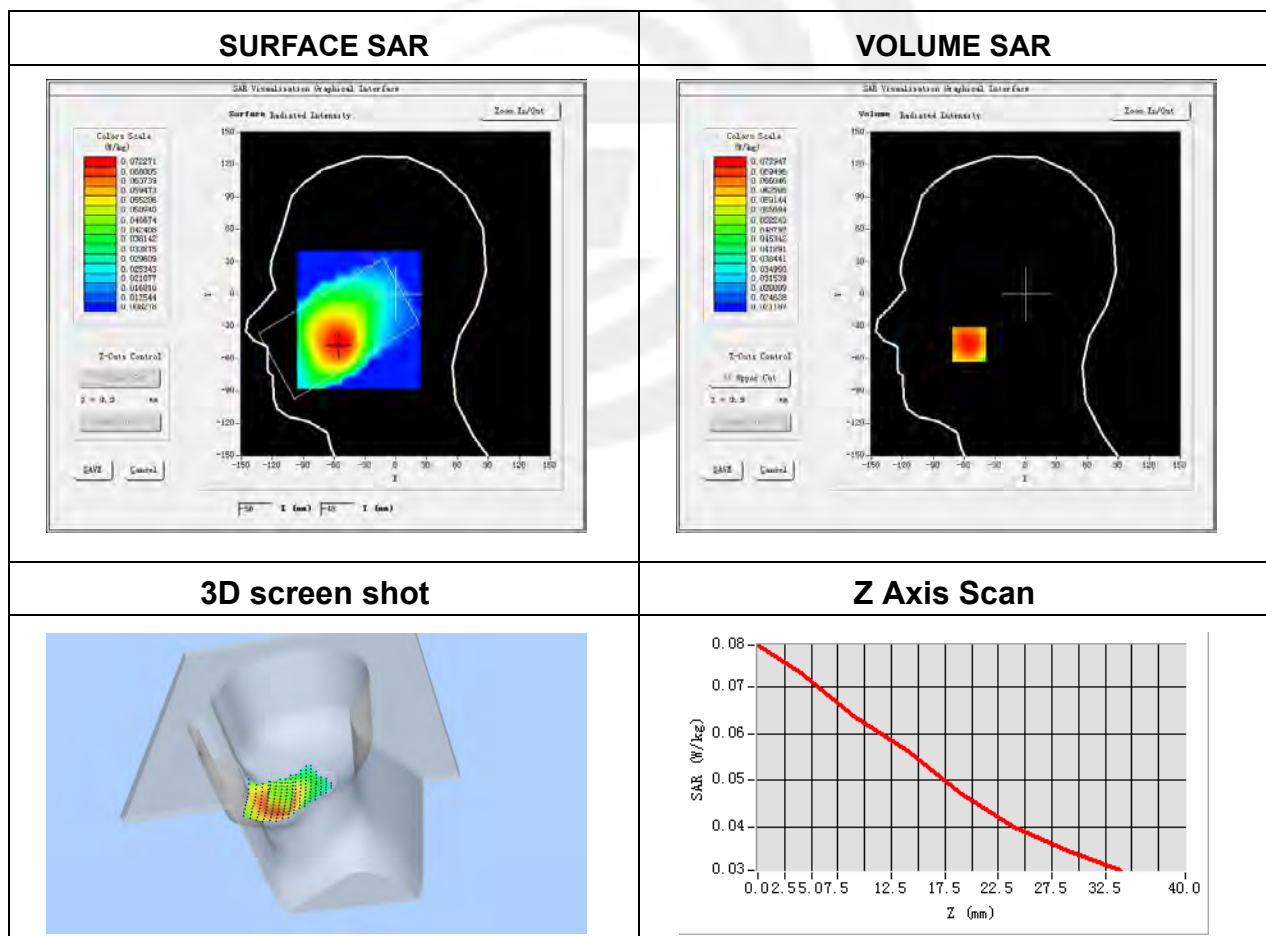
Plot 33: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-10-22
Probe	SN 30/14 DIP0G750-331
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	Right head
Device Position	Cheek
Band	LTE Band 12(RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	711

Maximum location: X=-55.00, Y=-47.00

SAR Peak: 0.08 W/kg

SAR 10g (W/Kg)	0.059640
SAR 1g (W/Kg)	0.072747



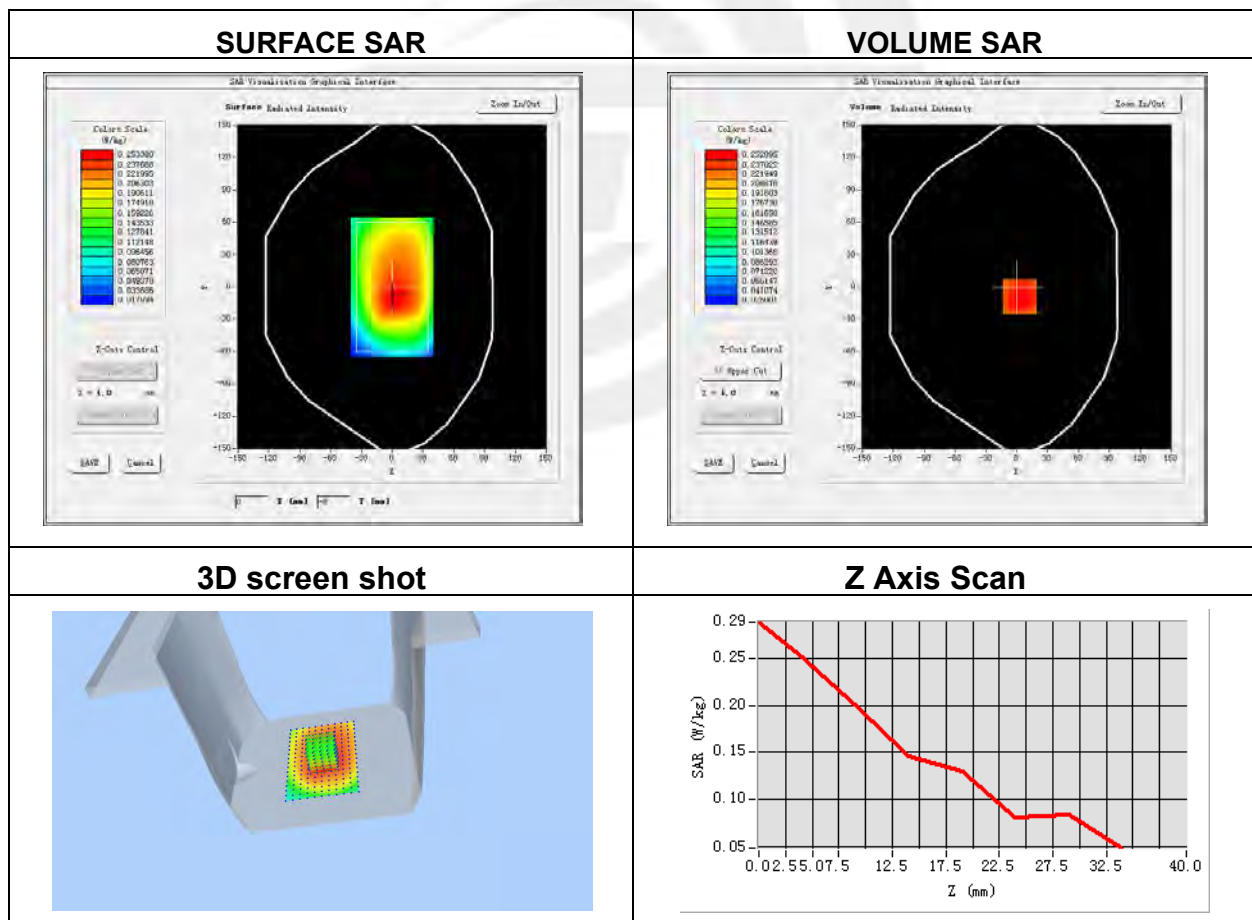

Plot 34: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-10-22
Probe	SN 30/14 DIP0G750-331
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	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	711

Maximum location: X=3.00, Y=-9.00

SAR Peak: 0.31 W/kg

SAR 10g (W/Kg)	0.193583
SAR 1g (W/Kg)	0.252475



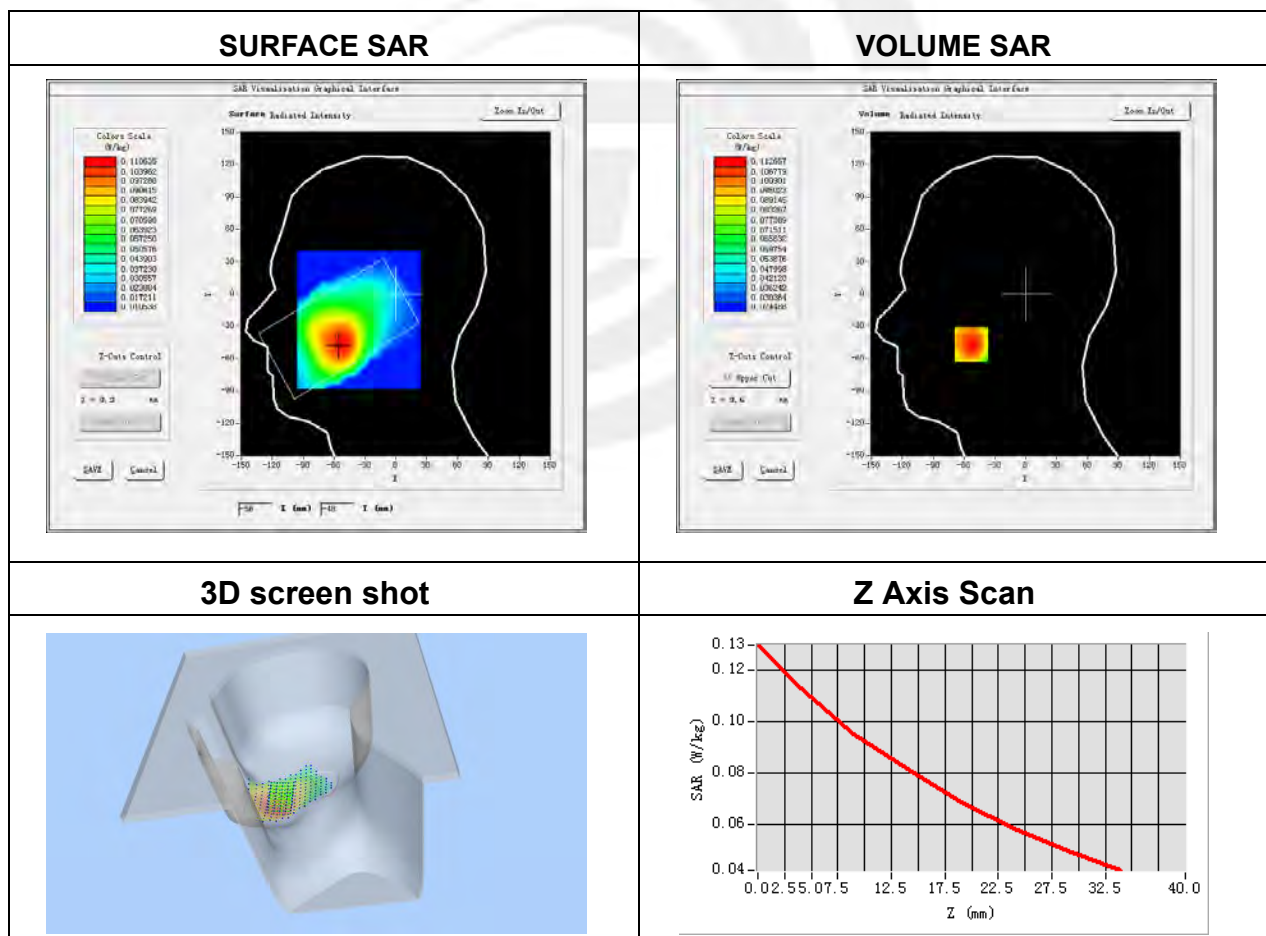
Plot 35: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-10-22
Probe	SN 30/14 DIP0G750-331
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	Right head
Device Position	Cheek
Band	LTE Band 13(RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	782

Maximum location: X=-53.00, Y=-47.00

SAR Peak: 0.14 W/kg

SAR 10g (W/Kg)	0.086989
SAR 1g (W/Kg)	0.110293



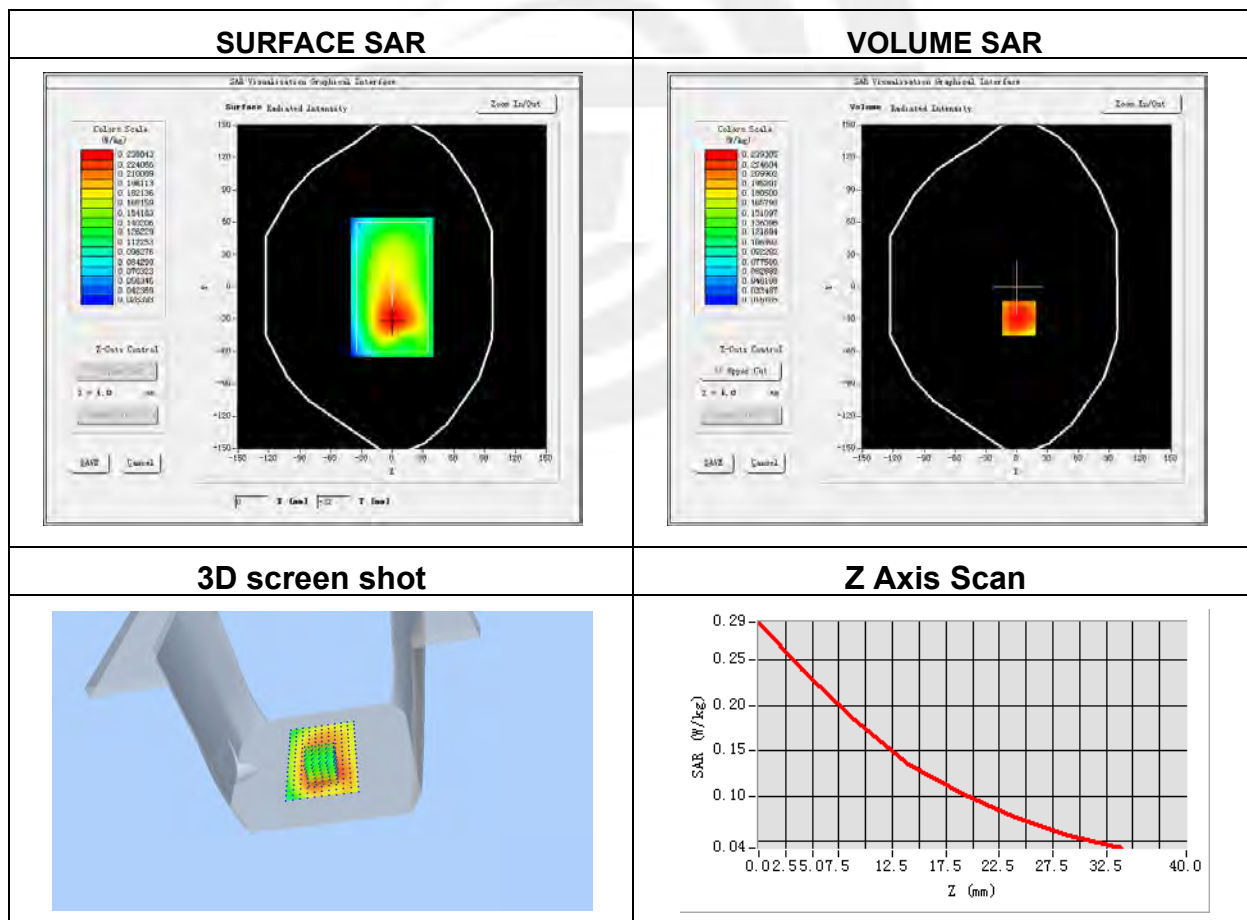

Plot 36: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-10-22
Probe	SN 30/14 DIP0G750-331
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	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	782

Maximum location: X=2.00, Y=-29.00

SAR Peak: 0.30 W/kg

SAR 10g (W/Kg)	0.171140
SAR 1g (W/Kg)	0.231909



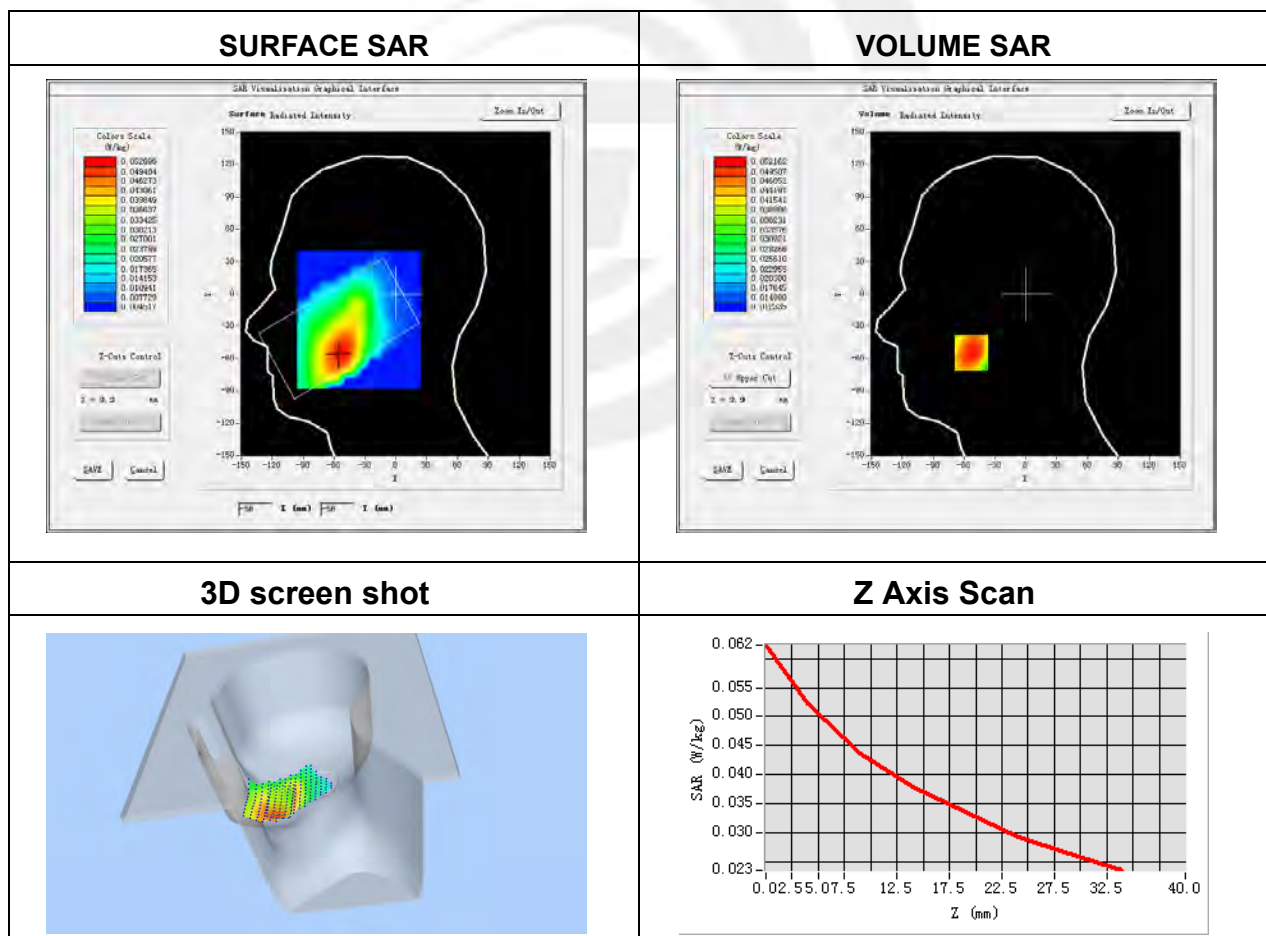
Plot 37: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-10-22
Probe	SN 30/14 DIP0G750-331
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	Right head
Device Position	Cheek
Band	LTE Band 17(RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	711

Maximum location: X=-53.00, Y=-55.00

SAR Peak: 0.07 W/kg

SAR 10g (W/Kg)	0.041905
SAR 1g (W/Kg)	0.052705



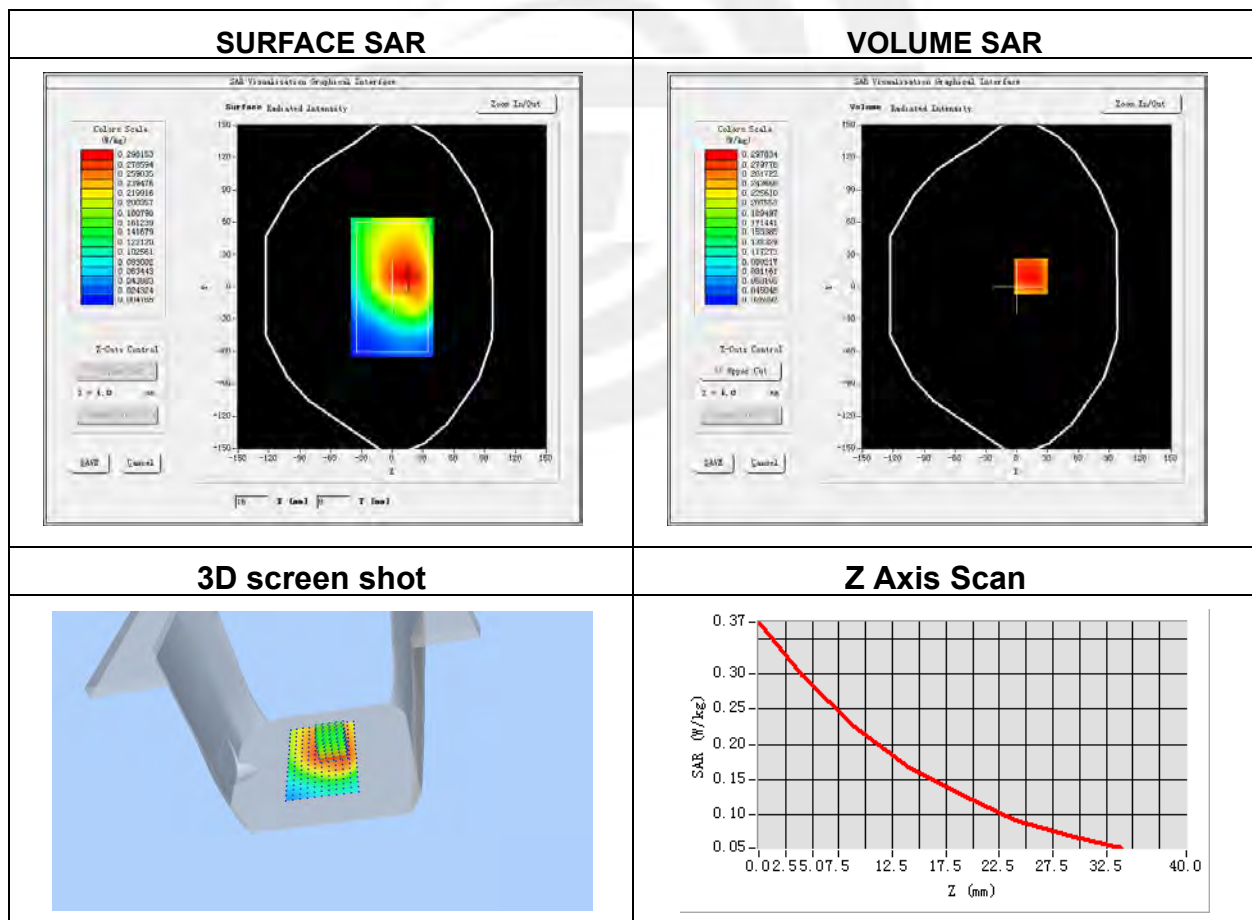

Plot 38: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-10-22
Probe	SN 30/14 DIP0G750-331
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 17 (RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	711

Maximum location: X=14.00, Y=10.00

SAR Peak: 0.38 W/kg

SAR 10g (W/Kg)	0.219388
SAR 1g (W/Kg)	0.295762



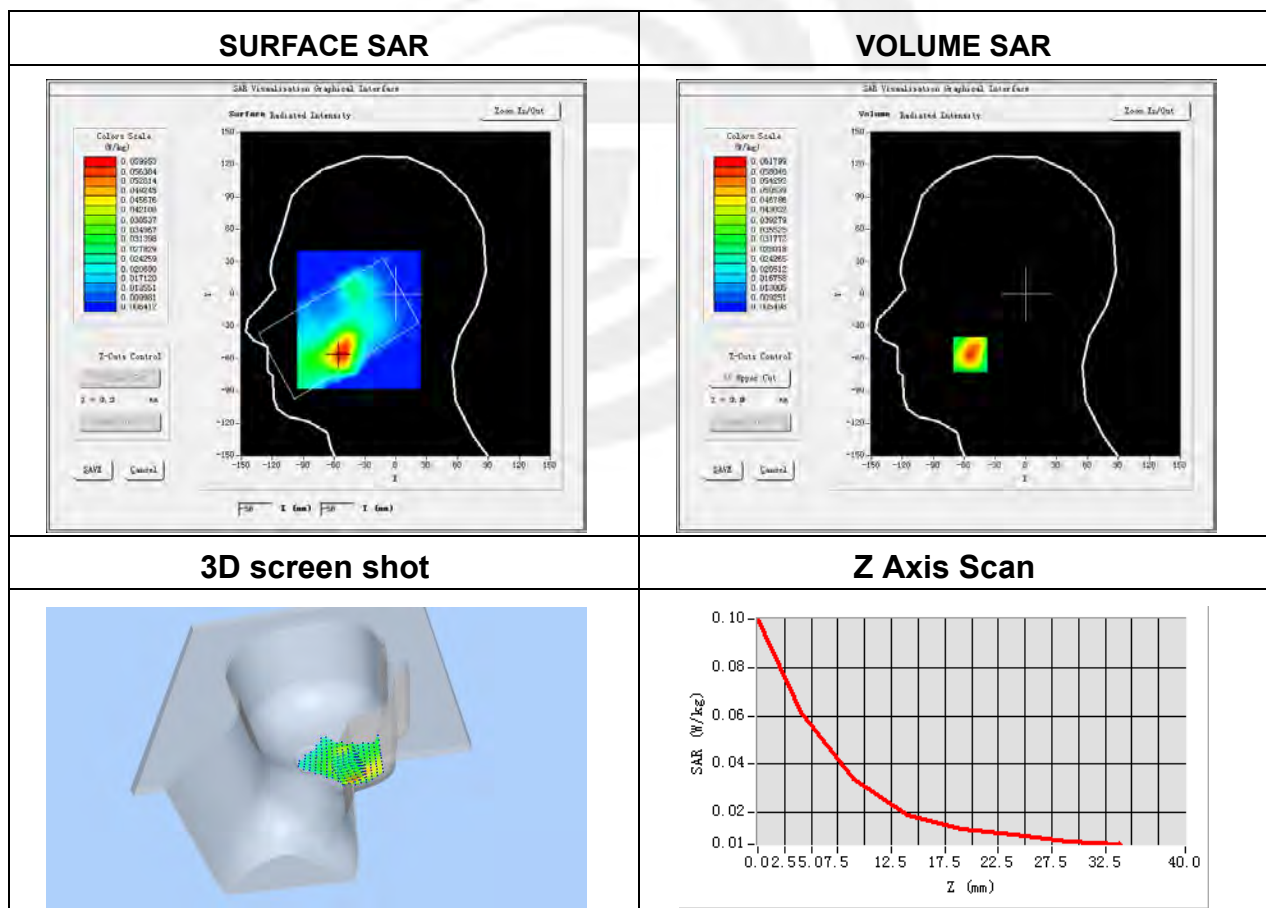
Plot 39: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-06
Probe	SN 07/21 EPG0352
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	Left Cheek
Device Position	Cheek
Band	LTE Band 25 (RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1905

Maximum location: X=-54.00, Y=-56.00

SAR Peak: 0.10 W/kg

SAR 10g (W/Kg)	0.031423
SAR 1g (W/Kg)	0.058602



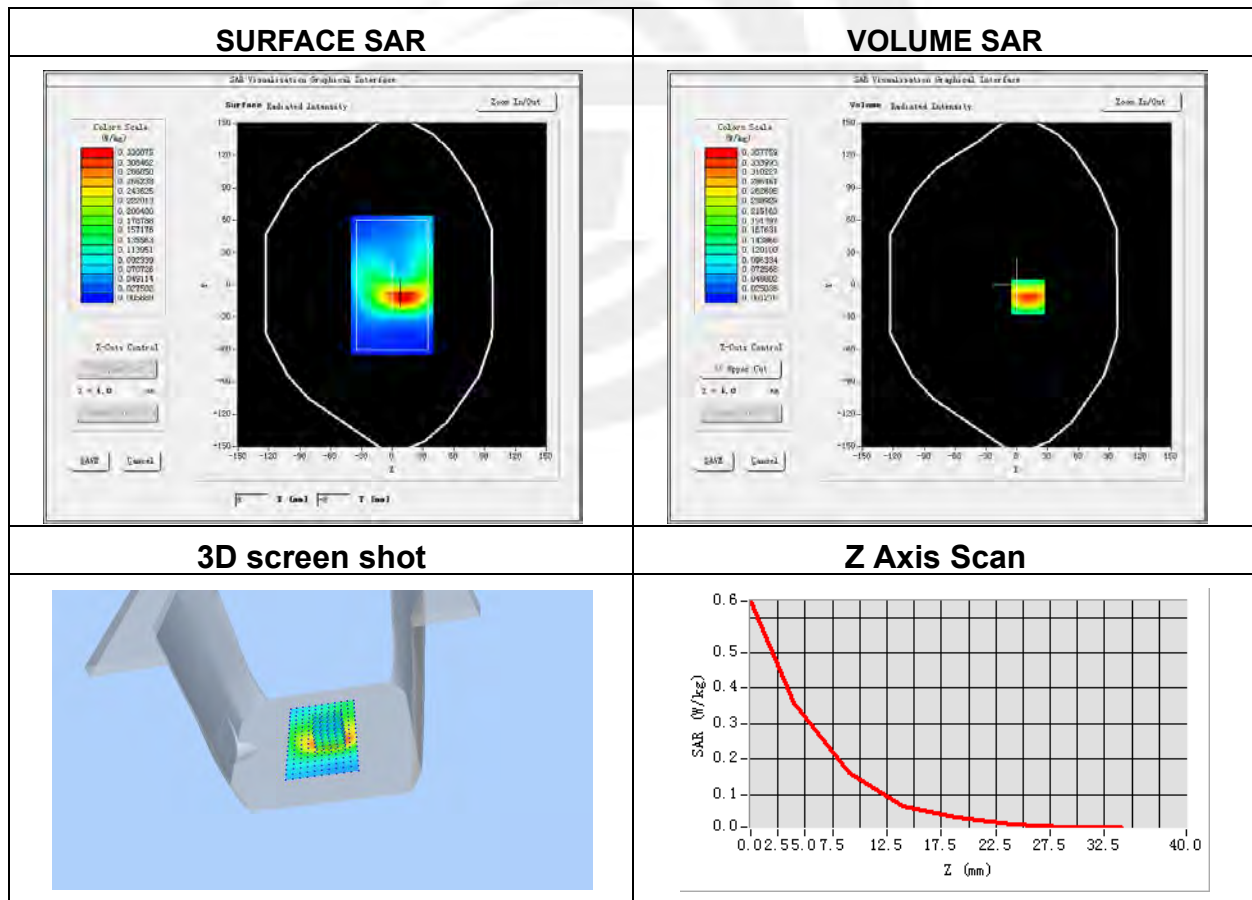
Plot 40: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-06
Probe	SN 07/21 EPGO352
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	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1905

Maximum location: X=11.00, Y=-11.00

SAR Peak: 0.64 W/kg

SAR 10g (W/Kg)	0.157384
SAR 1g (W/Kg)	0.340144



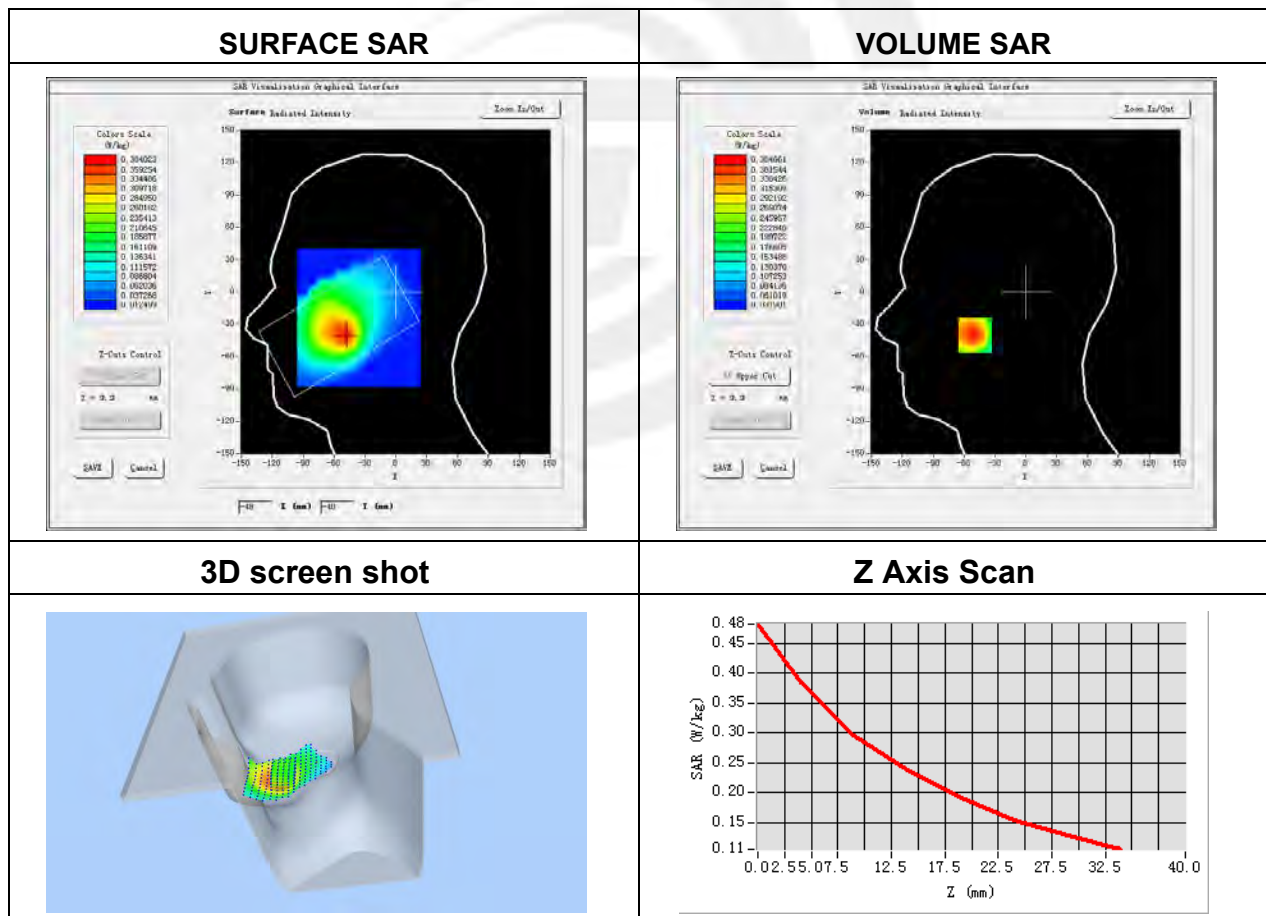
Plot 41: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-10-27
Probe	SN 07/21 EPG0352
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	Right head
Device Position	Cheek
Band	LTE Band 26(RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	841.5

Maximum location: X=-49.00, Y=-40.00

SAR Peak: 0.51 W/kg

SAR 10g (W/Kg)	0.274728
SAR 1g (W/Kg)	0.374301



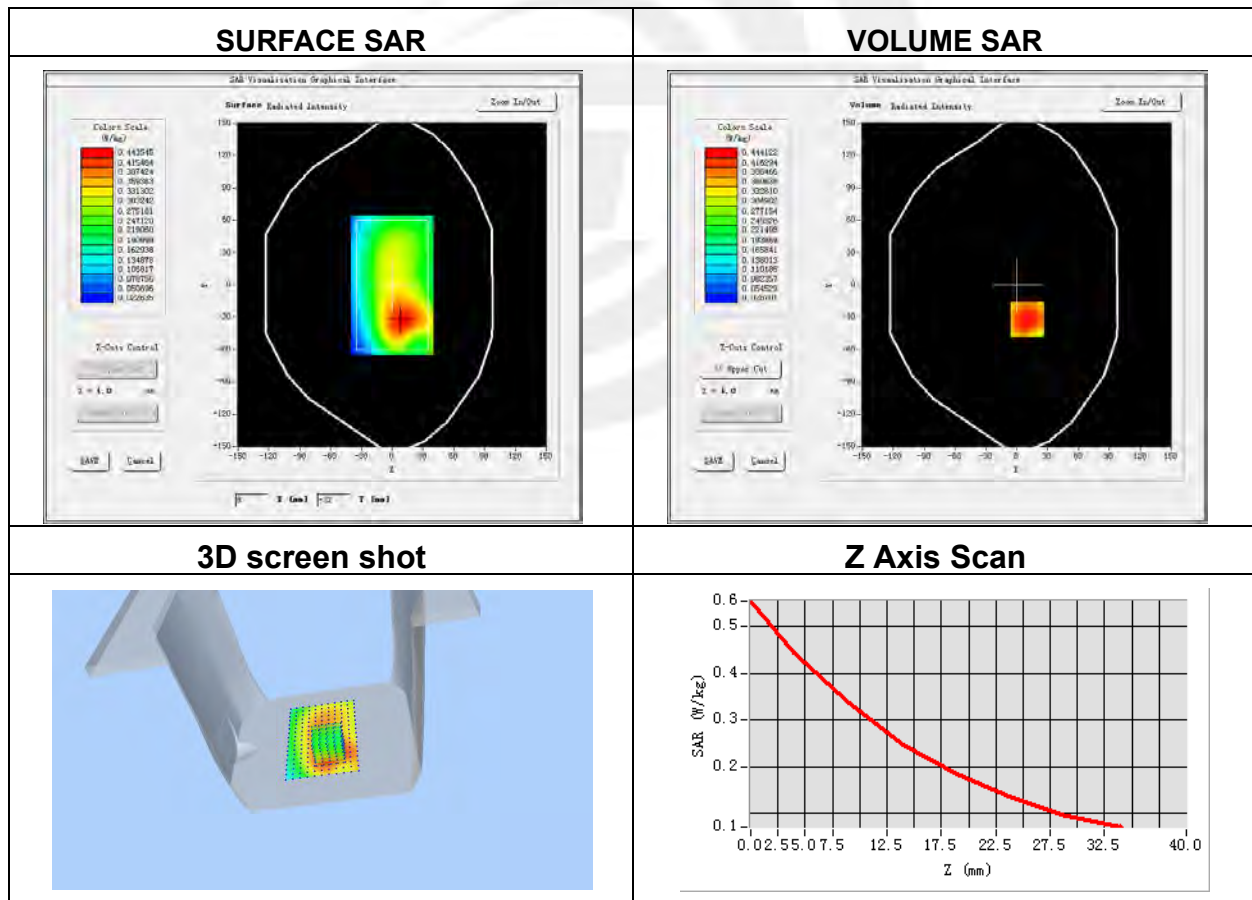
Plot 42: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-10-27
Probe	SN 07/21 EPGO352
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	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	841.5

Maximum location: X=10.00, Y=-32.00

SAR Peak: 0.56 W/kg

SAR 10g (W/Kg)	0.309905
SAR 1g (W/Kg)	0.429704



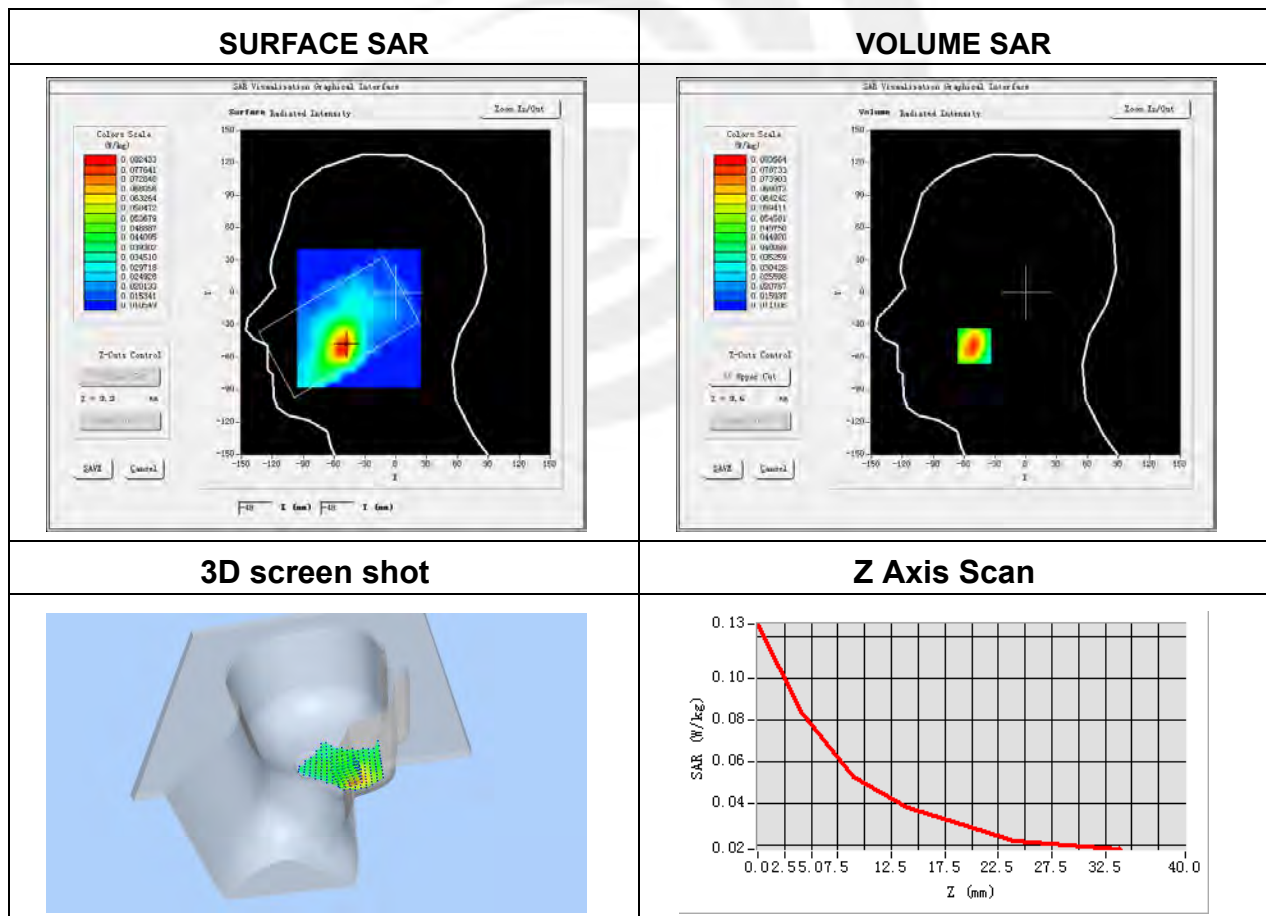
Plot 43: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-07
Probe	SN 07/21 EPG0352
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	Left head
Device Position	Cheek
Band	LTE Band 40 (RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	2395

Maximum location: X=-50.00, Y=-50.00

SAR Peak: 0.12 W/kg

SAR 10g (W/Kg)	0.048322
SAR 1g (W/Kg)	0.079958



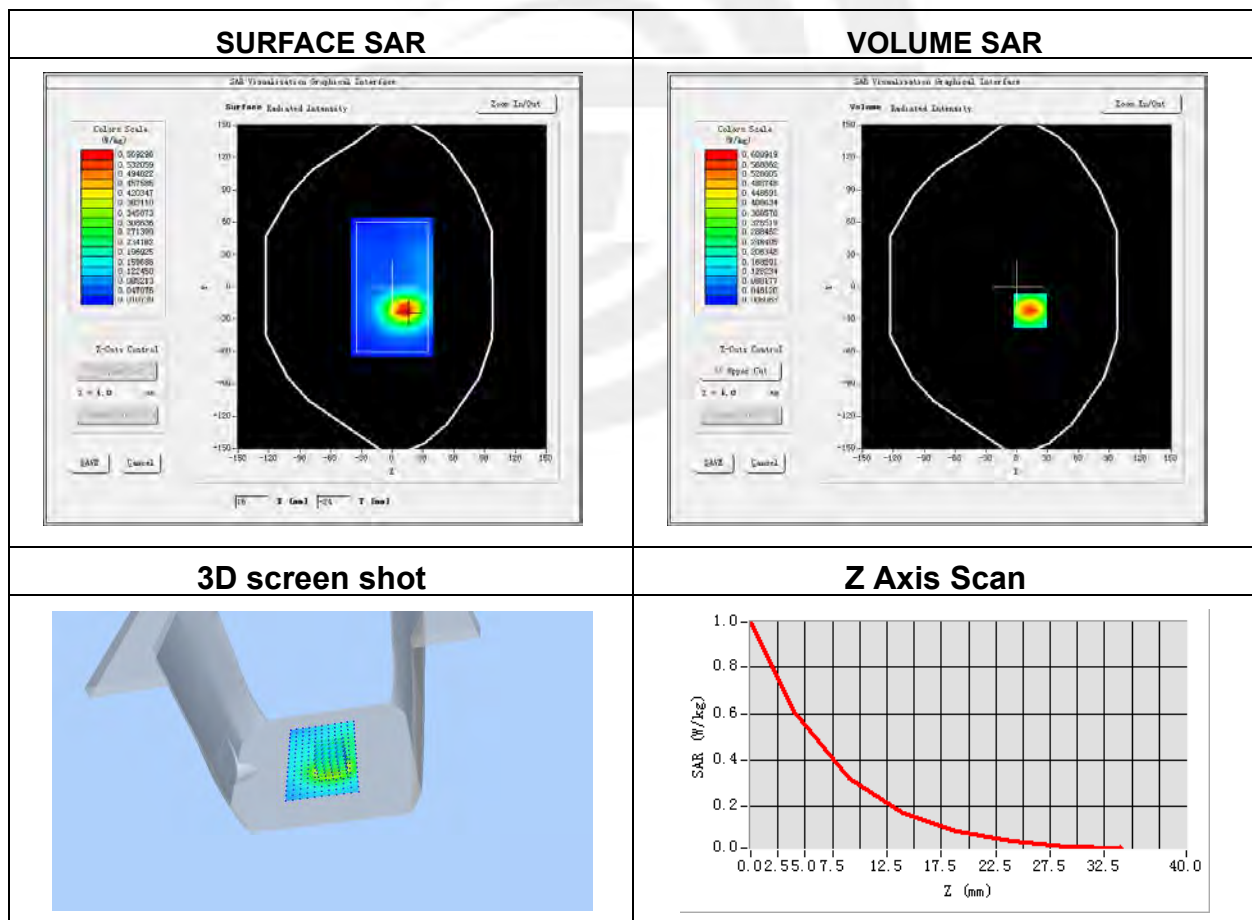
Plot 44: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-07
Probe	SN 07/21 EPGO352
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 40 (RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	2395

Maximum location: X=13.00, Y=-22.00

SAR Peak: 0.99 W/kg

SAR 10g (W/Kg)	0.276778
SAR 1g (W/Kg)	0.569400



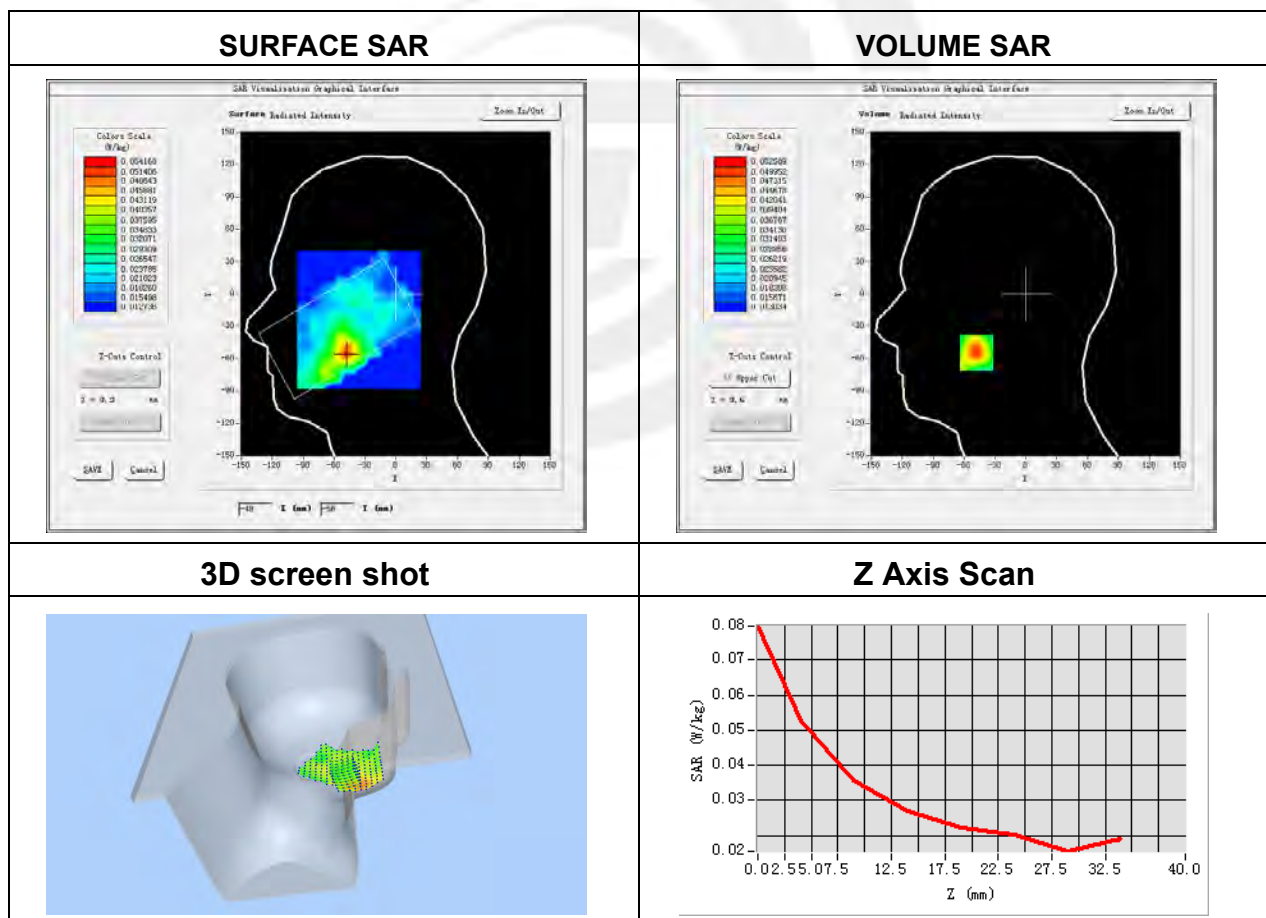
Plot 45: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-07
Probe	SN 07/21 EPG0352
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	Left head
Device Position	Cheek
Band	LTE Band 41 (RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	2680

Maximum location: X=-48.00, Y=-55.00

SAR Peak: 0.08 W/kg

SAR 10g (W/Kg)	0.032986
SAR 1g (W/Kg)	0.051101





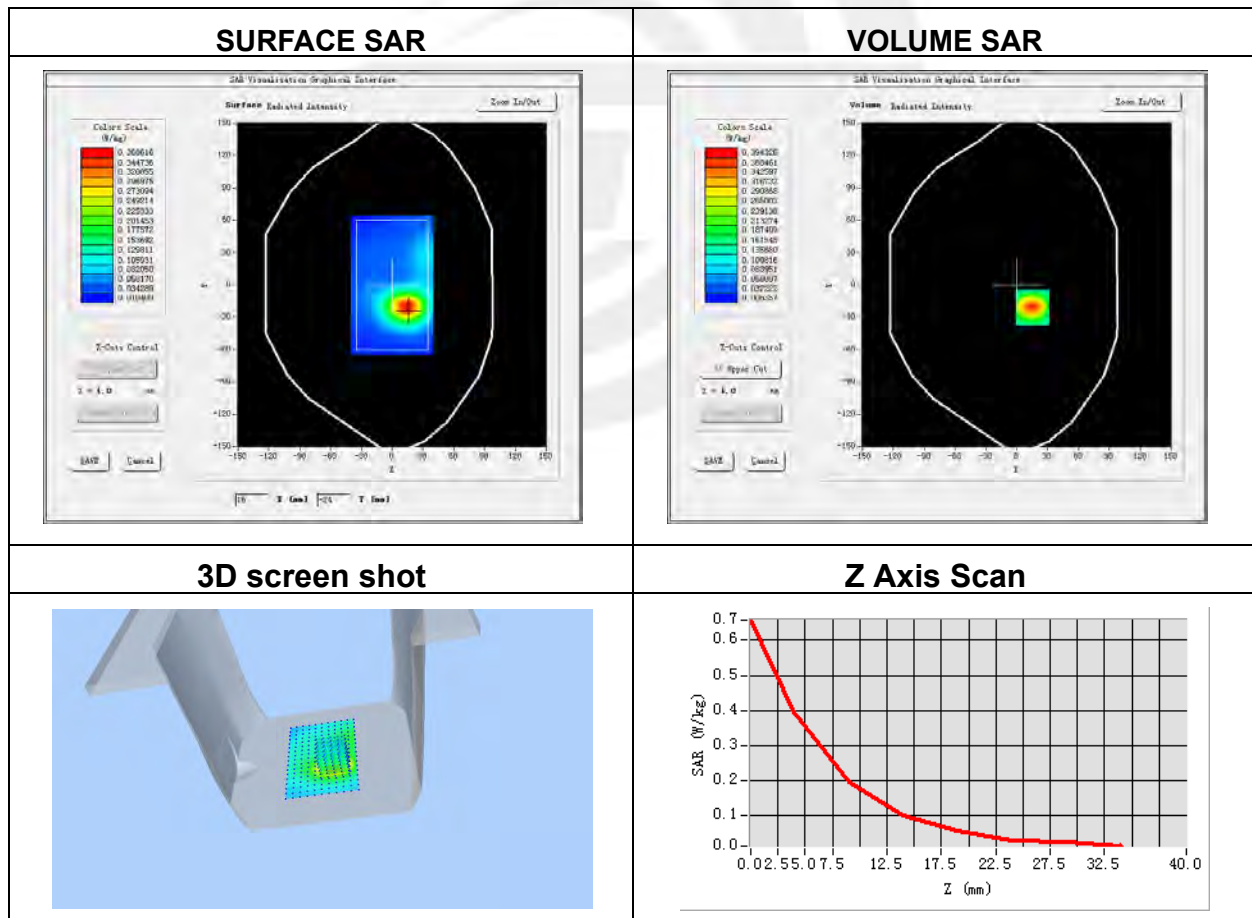
Plot 46: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-07
Probe	SN 07/21 EPGO352
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	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	2680

Maximum location: X=15.00, Y=-21.00

SAR Peak: 0.65 W/kg

SAR 10g (W/Kg)	0.176926
SAR 1g (W/Kg)	0.367577



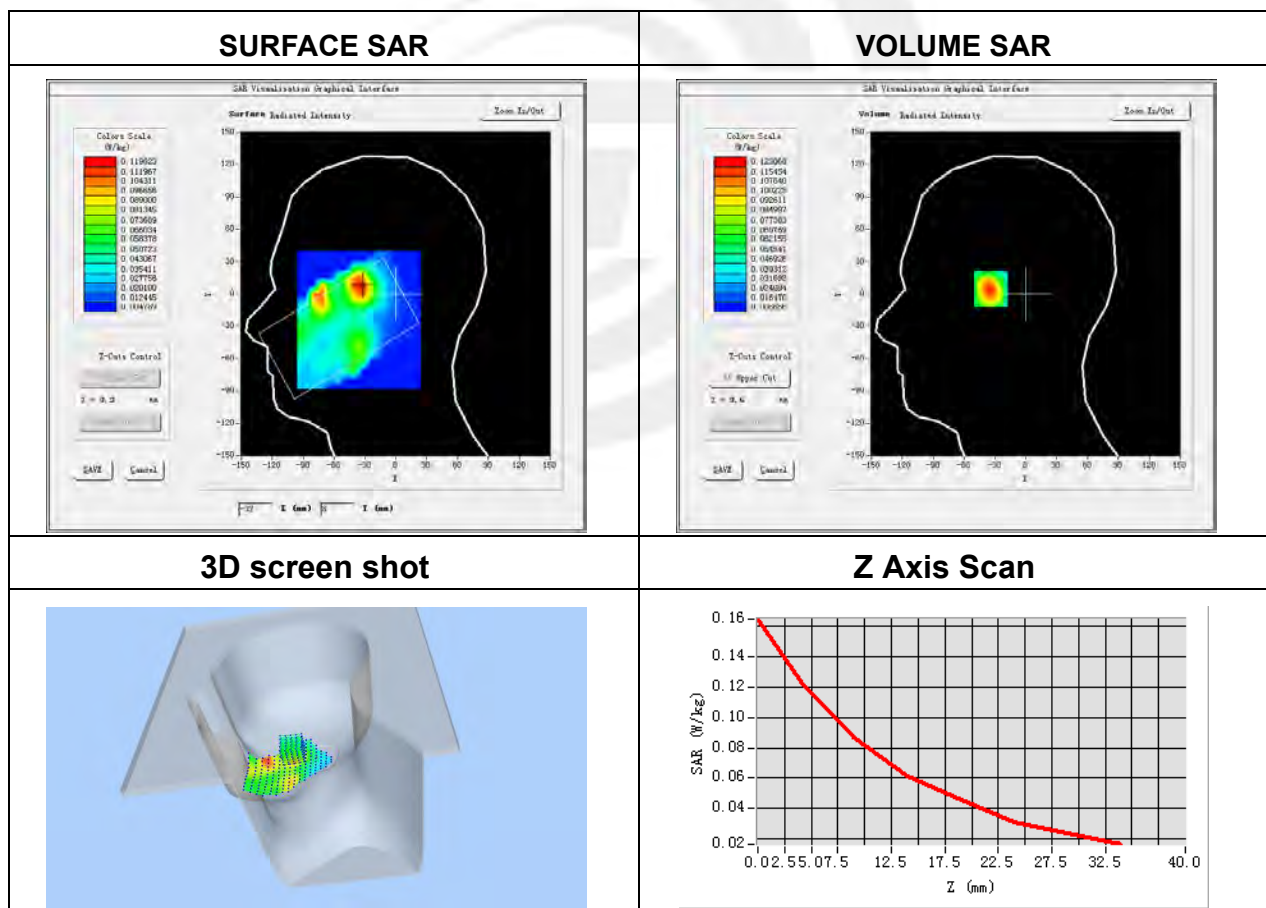

Plot 47: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-06
Probe	SN 07/21 EPG0352
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	Right Cheek
Device Position	Cheek
Band	LTE Band 66 (RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1770

Maximum location: X=-34.00, Y=8.00

SAR Peak: 0.17 W/kg

SAR 10g (W/Kg)	0.070885
SAR 1g (W/Kg)	0.115863



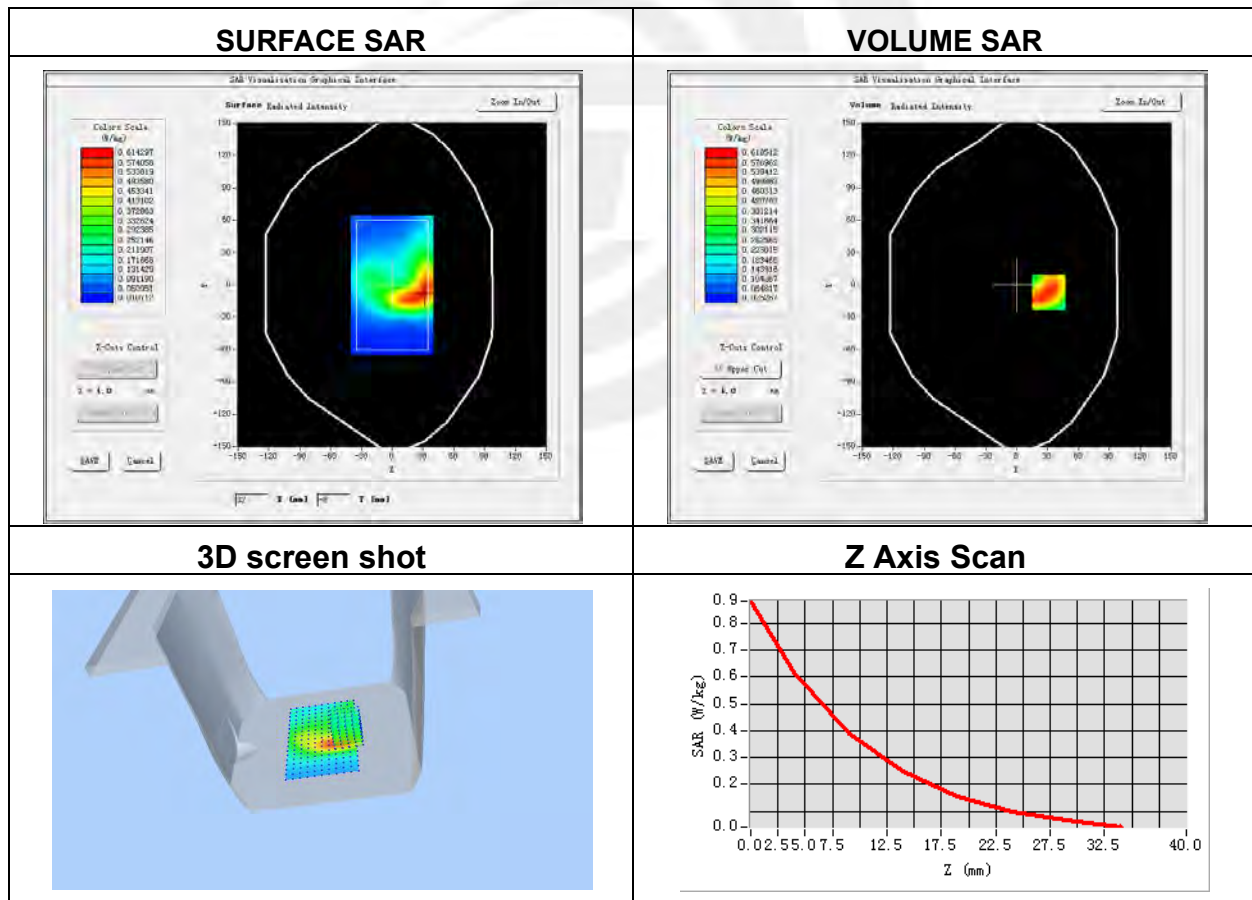

Plot 48: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-06
Probe	SN 07/21 EPGO352
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 66 (RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1770

Maximum location: X=31.00, Y=-7.00

SAR Peak: 0.88 W/kg

SAR 10g (W/Kg)	0.343351
SAR 1g (W/Kg)	0.584720



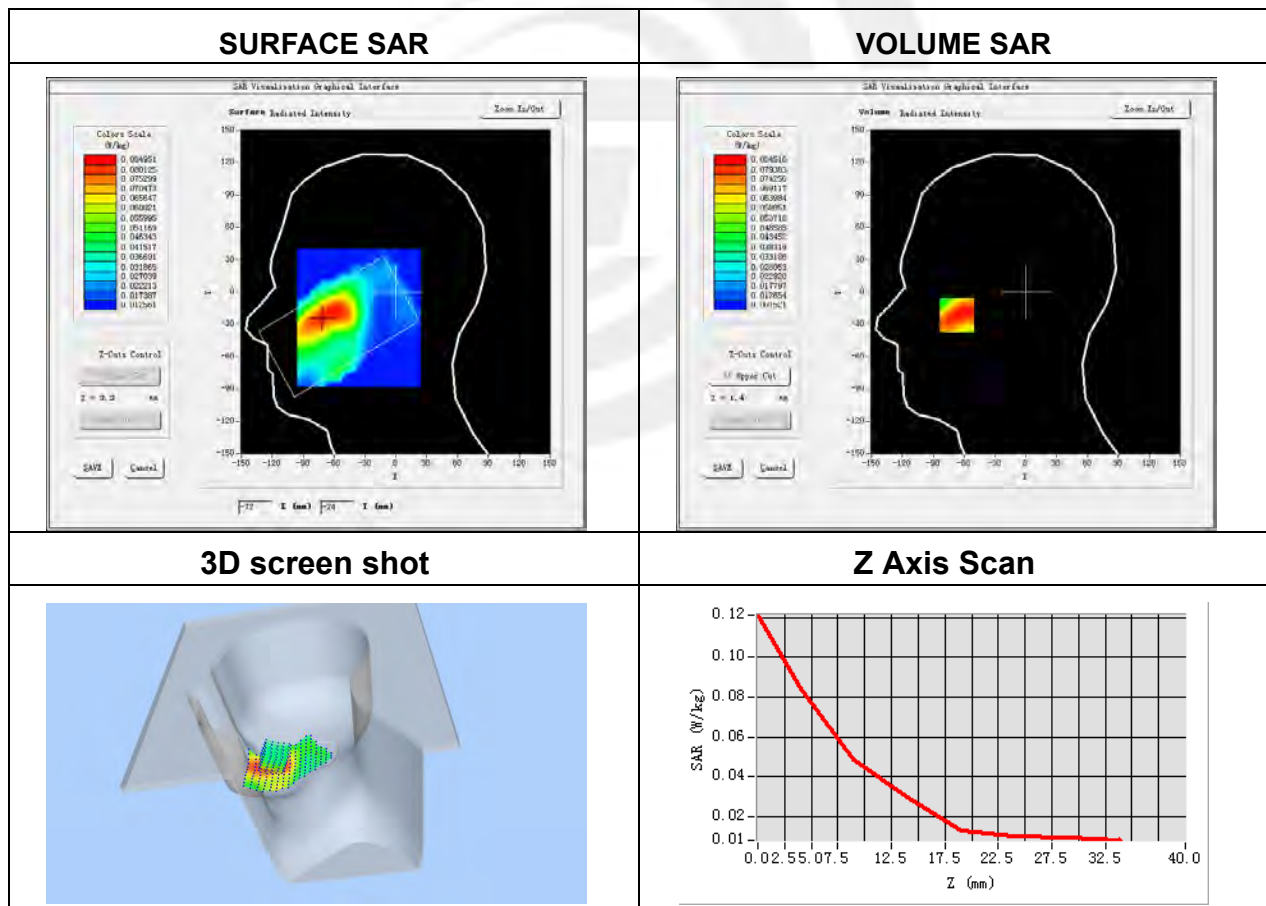

Plot 49: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-06
Probe	SN 07/21 EPG0352
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	Right head
Device Position	Cheek
Band	SA N2
Channels	Low
Signal	Duty Cycle: 1.00 (Crest factor: 1.0)
Frequency (MHz)	1860

Maximum location: X=-67.00, Y=-21.00

SAR Peak: 0.14 W/kg

SAR 10g (W/Kg)	0.045262
SAR 1g (W/Kg)	0.080582



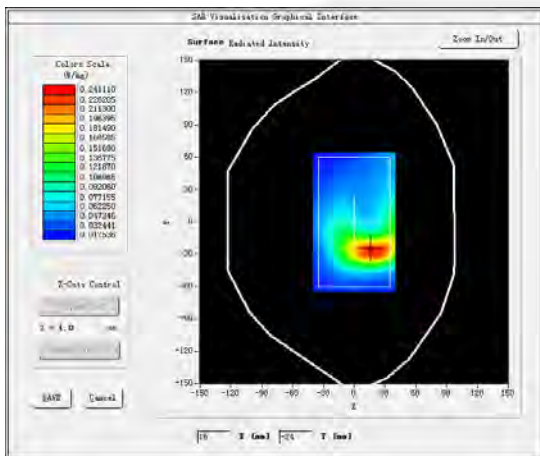
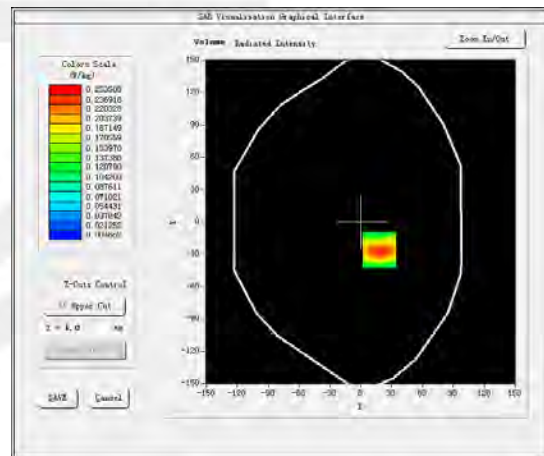
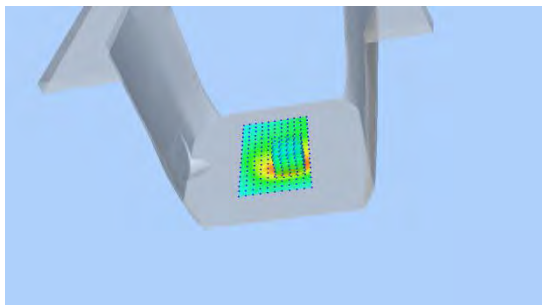
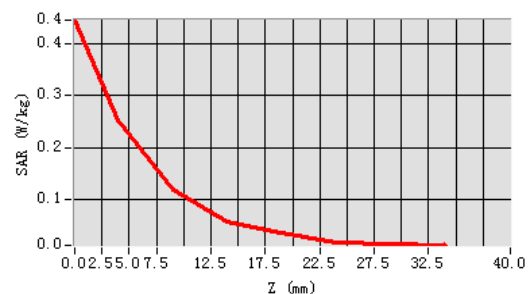
**Plot 50: DUT: Smart phone; EUT Model: TickTock**

Test Date	2021-11-06
Probe	SN 07/21 EPGO352
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	SA N2
Channels	Low
Signal	Duty Cycle: 1.00 (Crest factor: 1.0)
Frequency (MHz)	1860

Maximum location: X=18.00, Y=-26.00

SAR Peak: 0.44 W/kg

SAR 10g (W/Kg)	0.119472
SAR 1g (W/Kg)	0.244078

SURFACE SAR**VOLUME SAR****3D screen shot****Z Axis Scan**

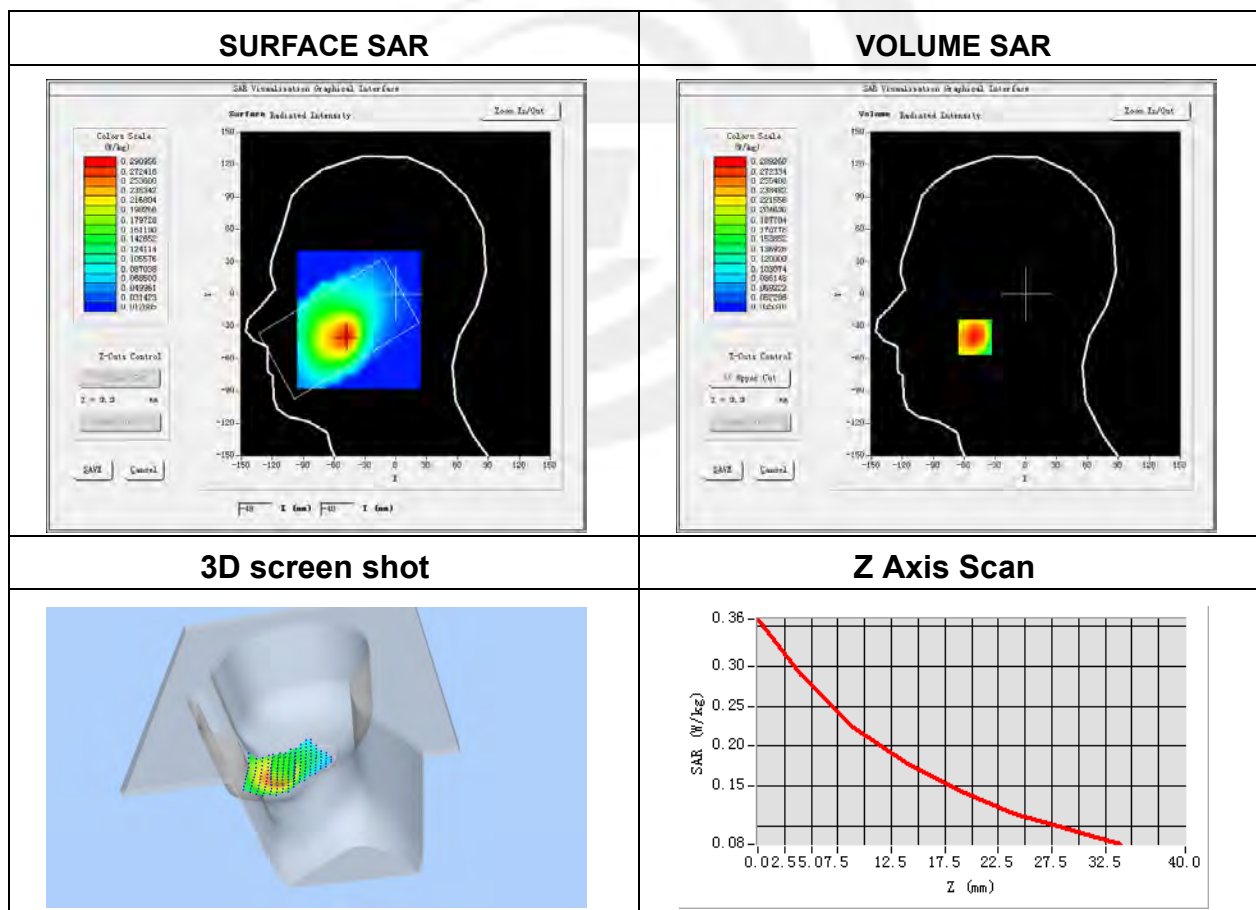
Plot 51: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-10-27
Probe	SN 07/21 EPG0352
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	Right head
Device Position	Cheek
Band	SA N5
Channels	High
Signal	Duty Cycle: 1.00 (Crest factor: 1.0)
Frequency (MHz)	839

Maximum location: X=-49.00, Y=-40.00

SAR Peak: 0.38 W/kg

SAR 10g (W/Kg)	0.204182
SAR 1g (W/Kg)	0.280300



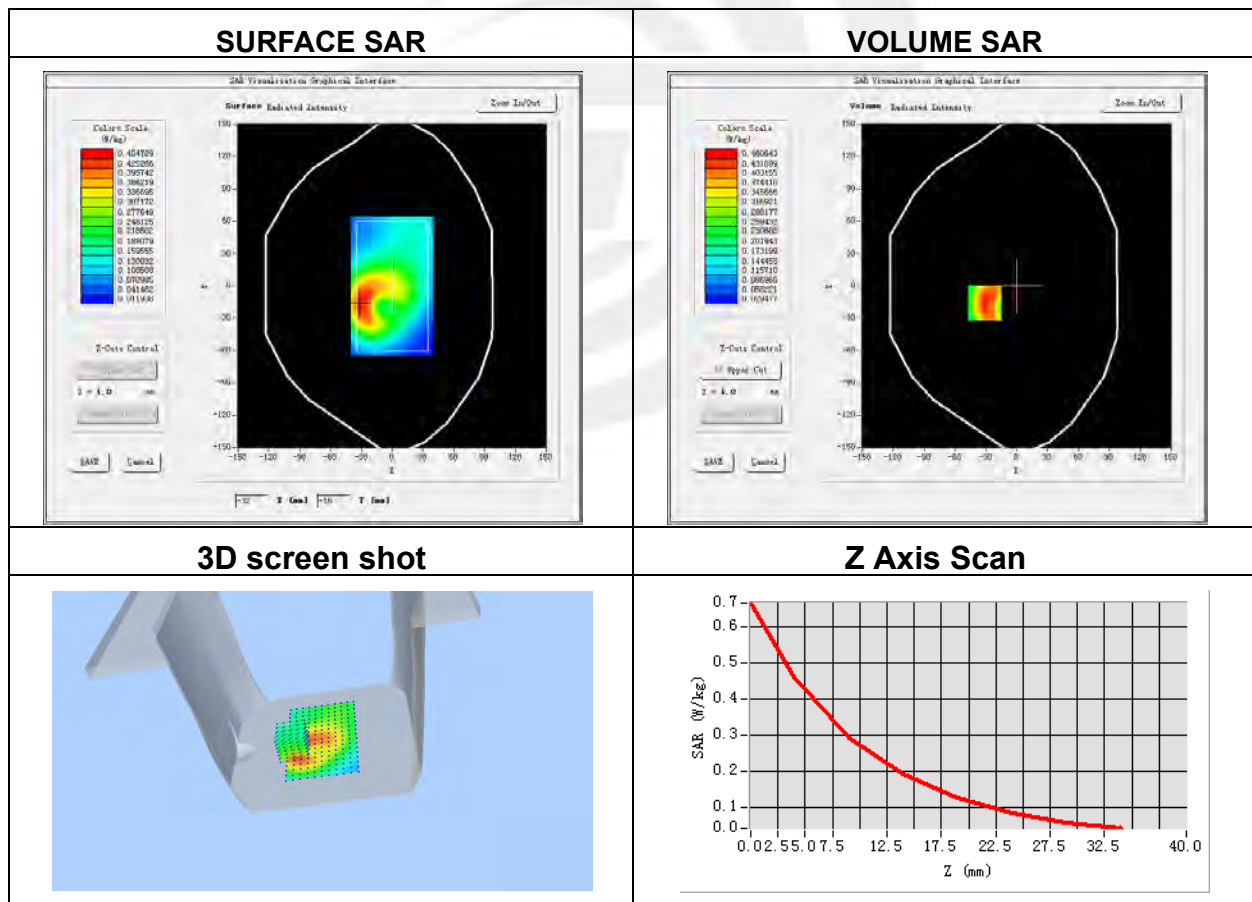
**Plot 52: DUT: Smart phone; EUT Model: TickTock**

Test Date	2021-10-27
Probe	SN 07/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Front Side
Band	SA N5
Channels	High
Signal	Duty Cycle: 1.00 (Crest factor: 1.0)
Frequency (MHz)	839

Maximum location: X=-31.00, Y=-16.00

SAR Peak: 0.67 W/kg

SAR 10g (W/Kg)	0.269278
SAR 1g (W/Kg)	0.440710



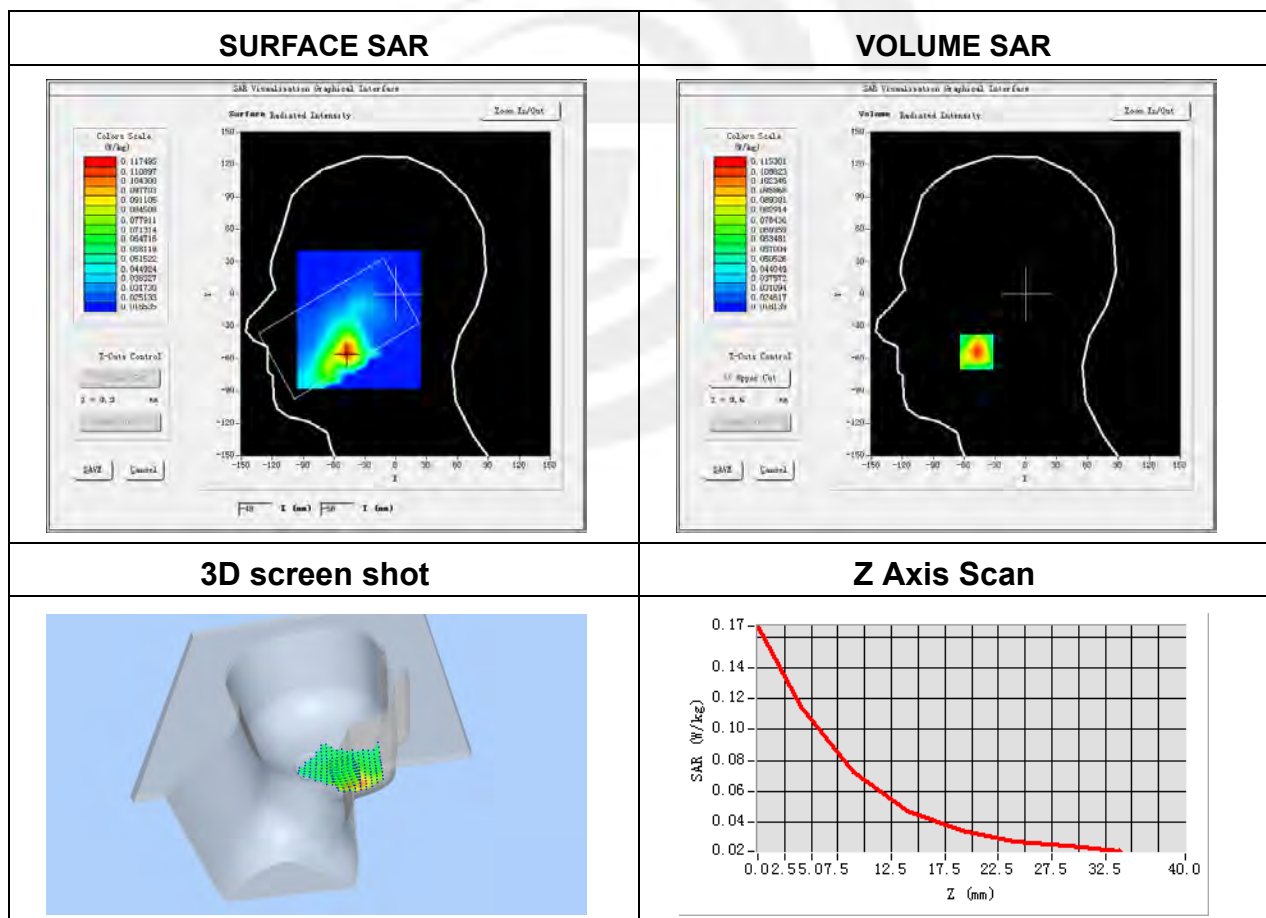
Plot 53: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-07
Probe	SN 07/21 EPG0352
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	Left head
Device Position	Cheek
Band	SA N7
Channels	High
Signal	Duty Cycle: 1.00 (Crest factor: 1.0)
Frequency (MHz)	2560

Maximum location: X=-48.00, Y=-54.00

SAR Peak: 0.17 W/kg

SAR 10g (W/Kg)	0.062958
SAR 1g (W/Kg)	0.108318





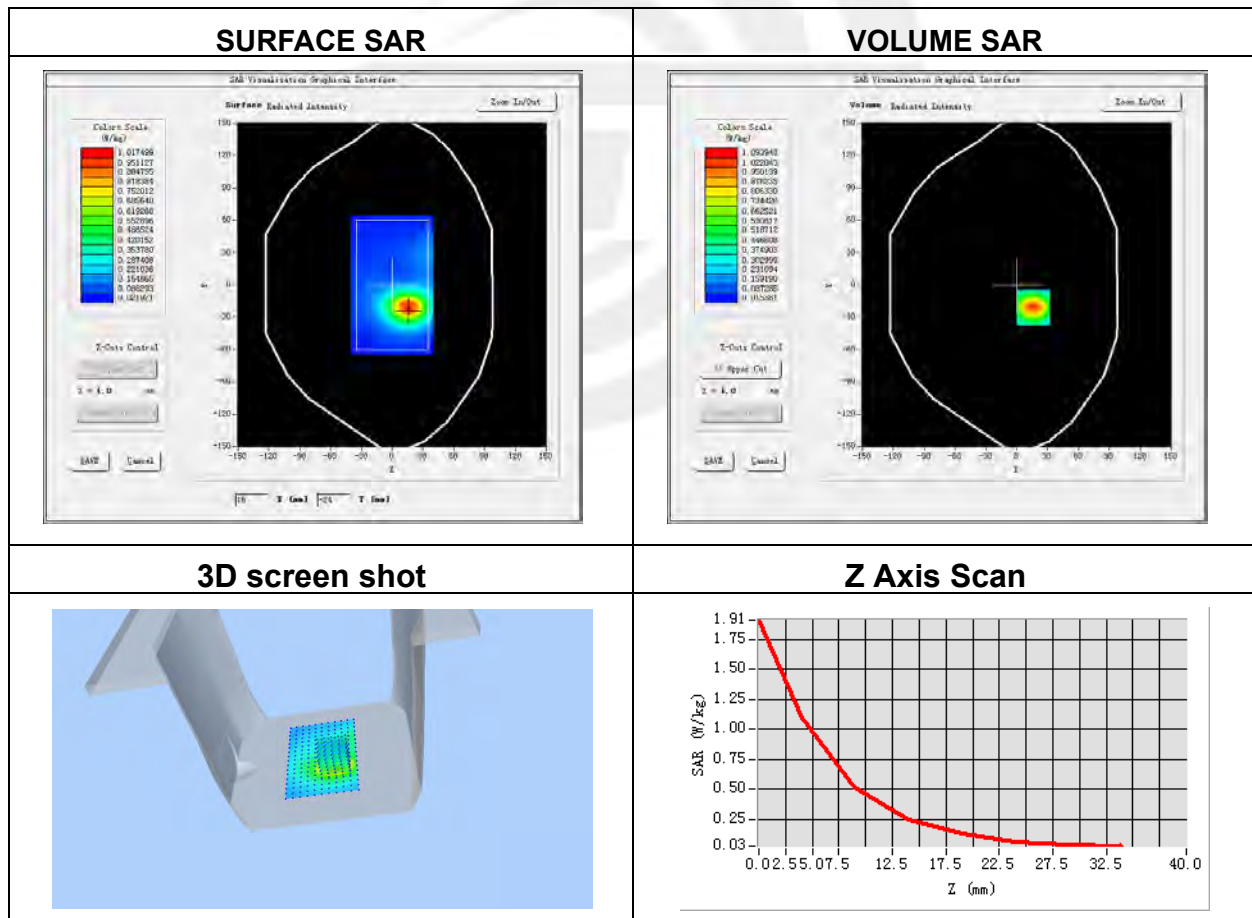
Plot 54: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-07
Probe	SN 07/21 EPGO352
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	SA N7
Channels	High
Signal	Duty Cycle: 1.00 (Crest factor: 1.0)
Frequency (MHz)	2560

Maximum location: X=16.00, Y=-21.00

SAR Peak: 1.89 W/kg

SAR 10g (W/Kg)	0.466250
SAR 1g (W/Kg)	1.019112



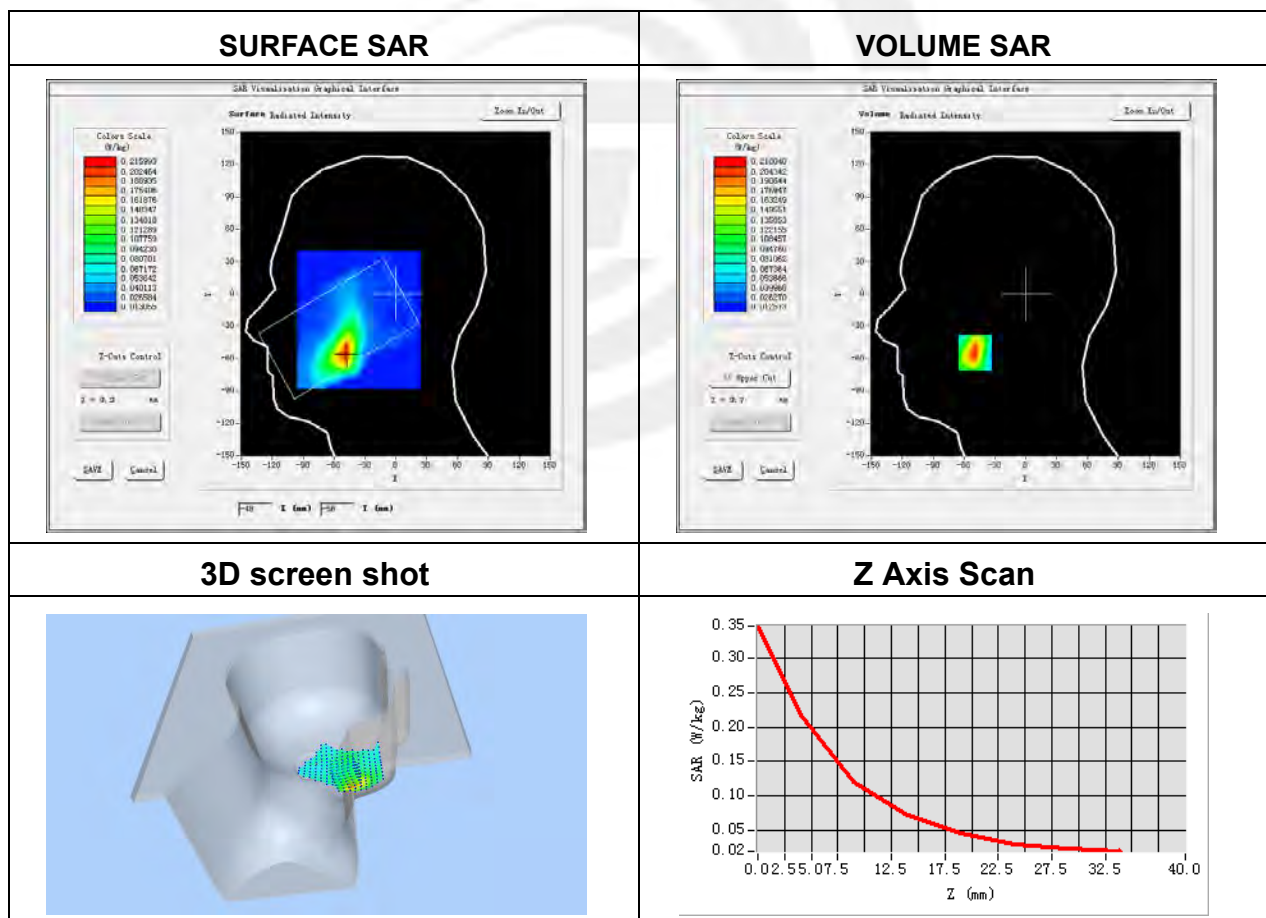
Plot 55: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-07
Probe	SN 07/21 EPG0352
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	Left head
Device Position	Cheek
Band	SA N41
Channels	Mid
Signal	Duty Cycle: 1.00 (Crest factor: 1.0)
Frequency (MHz)	2592.99

Maximum location: X=-49.00, Y=-55.00

SAR Peak: 0.35 W/kg

SAR 10g (W/Kg)	0.104996
SAR 1g (W/Kg)	0.203038



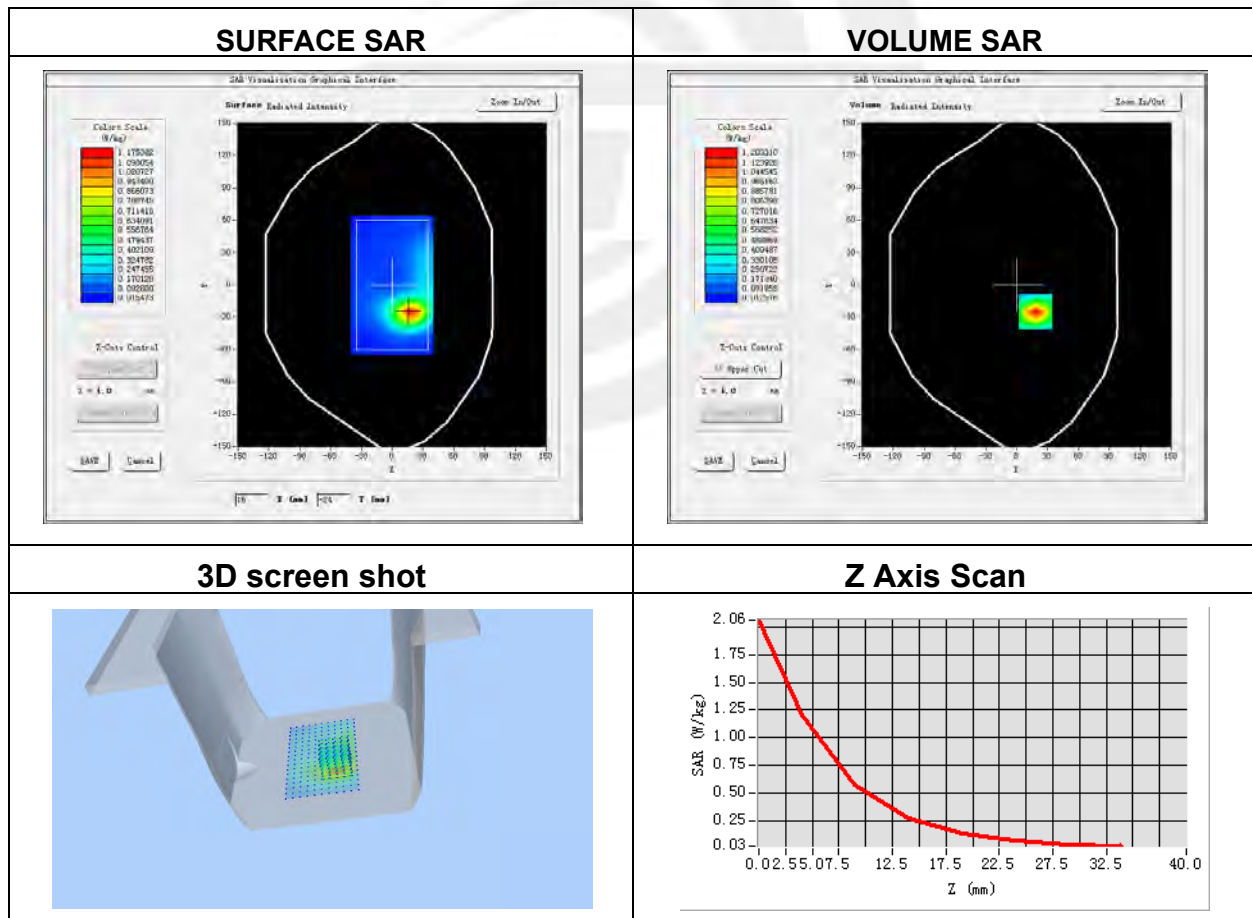

Plot 56: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-07
Probe	SN 07/21 EPGO352
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	SA N41
Channels	Mid
Signal	Duty Cycle: 1.00 (Crest factor: 1.0)
Frequency (MHz)	2592.99

Maximum location: X=18.00, Y=-25.00

SAR Peak: 2.05 W/kg

SAR 10g (W/Kg)	0.497726
SAR 1g (W/Kg)	1.105613



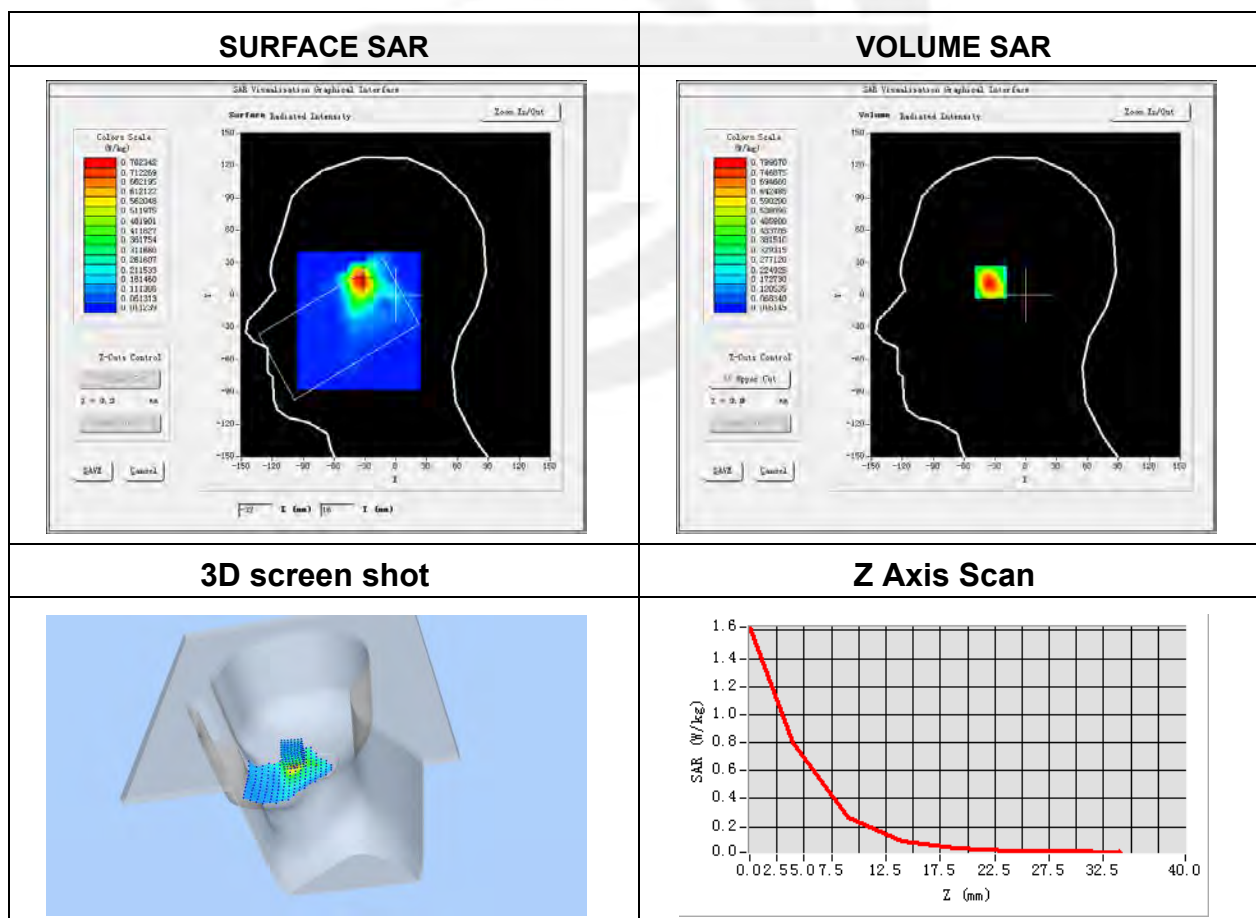
Plot 57: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-23
Probe	SN 08/21 DIP555
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	Right head
Device Position	Cheek
Band	SA N77
Channels	High
Signal	Duty Cycle: 1.00 (Crest factor: 1.0)
Frequency (MHz)	3930

Maximum location: X=-34.00, Y=15.00

SAR Peak: 1.59 W/kg

SAR 10g (W/Kg)	0.330183
SAR 1g (W/Kg)	0.774085





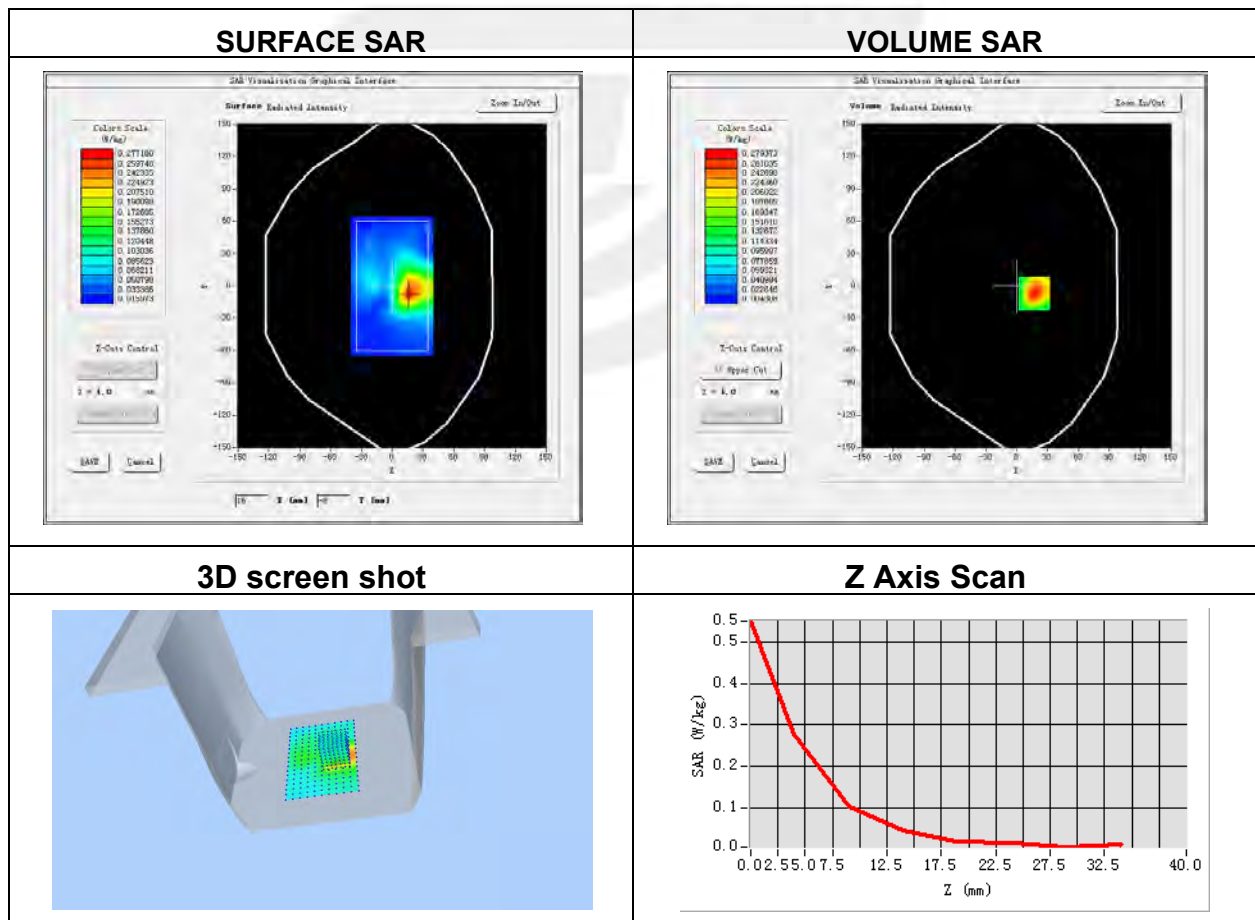
Plot 58: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-23
Probe	SN 08/21 DIP555
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	SA N77
Channels	High
Signal	Duty Cycle: 1.00 (Crest factor: 1.0)
Frequency (MHz)	3930

Maximum location: X=17.00, Y=-7.00

SAR Peak: 0.54 W/kg

SAR 10g (W/Kg)	0.122853
SAR 1g (W/Kg)	0.269285



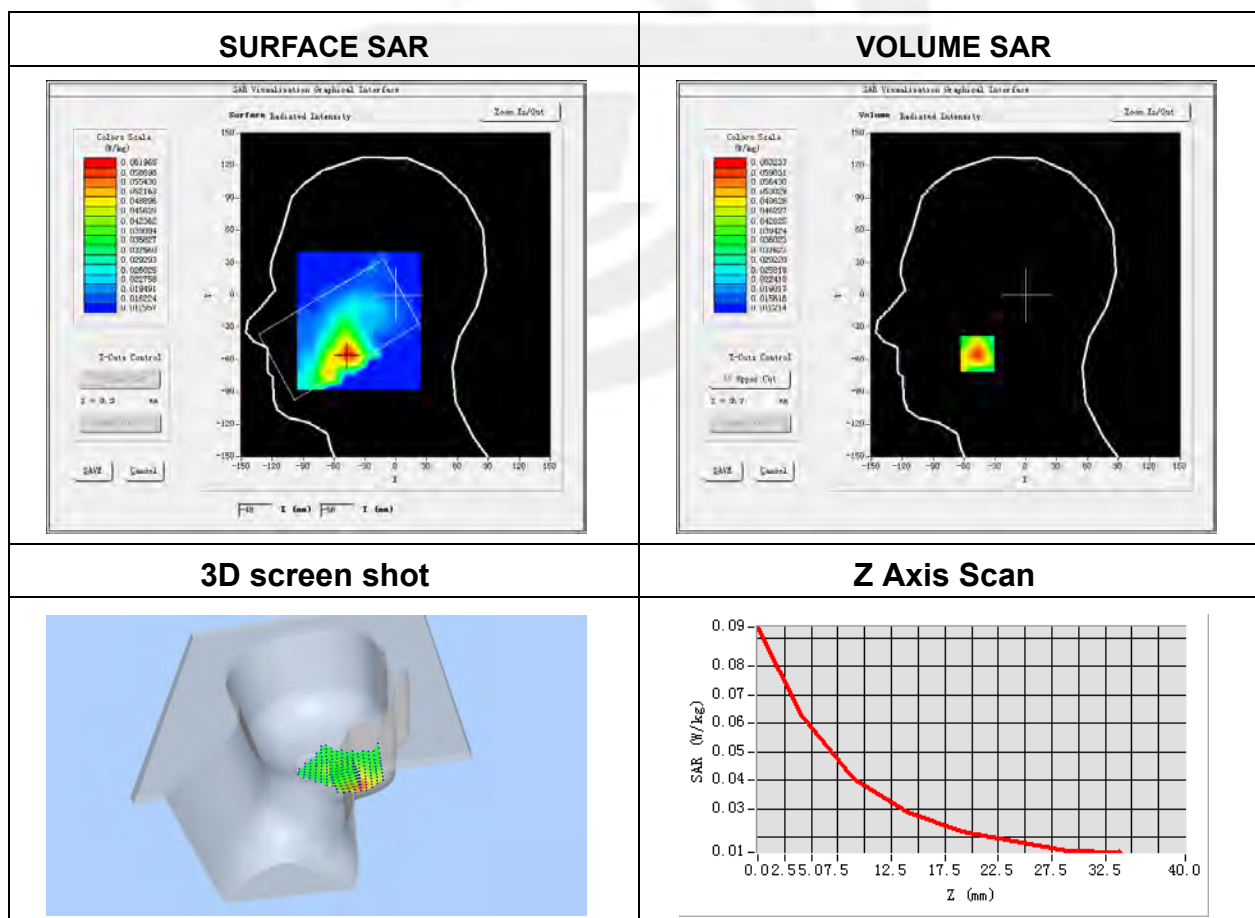
Plot 59: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-07
Probe	SN 07/21 EPG0352
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	Left head
Device Position	Cheek
Band	SA N7
Channels	High
Signal	Duty Cycle: 1.00 (Crest factor: 1.0)
Frequency (MHz)	2560

Maximum location: X=-47.00, Y=-55.00

SAR Peak: 0.09 W/kg

SAR 10g (W/Kg)	0.036860
SAR 1g (W/Kg)	0.060286



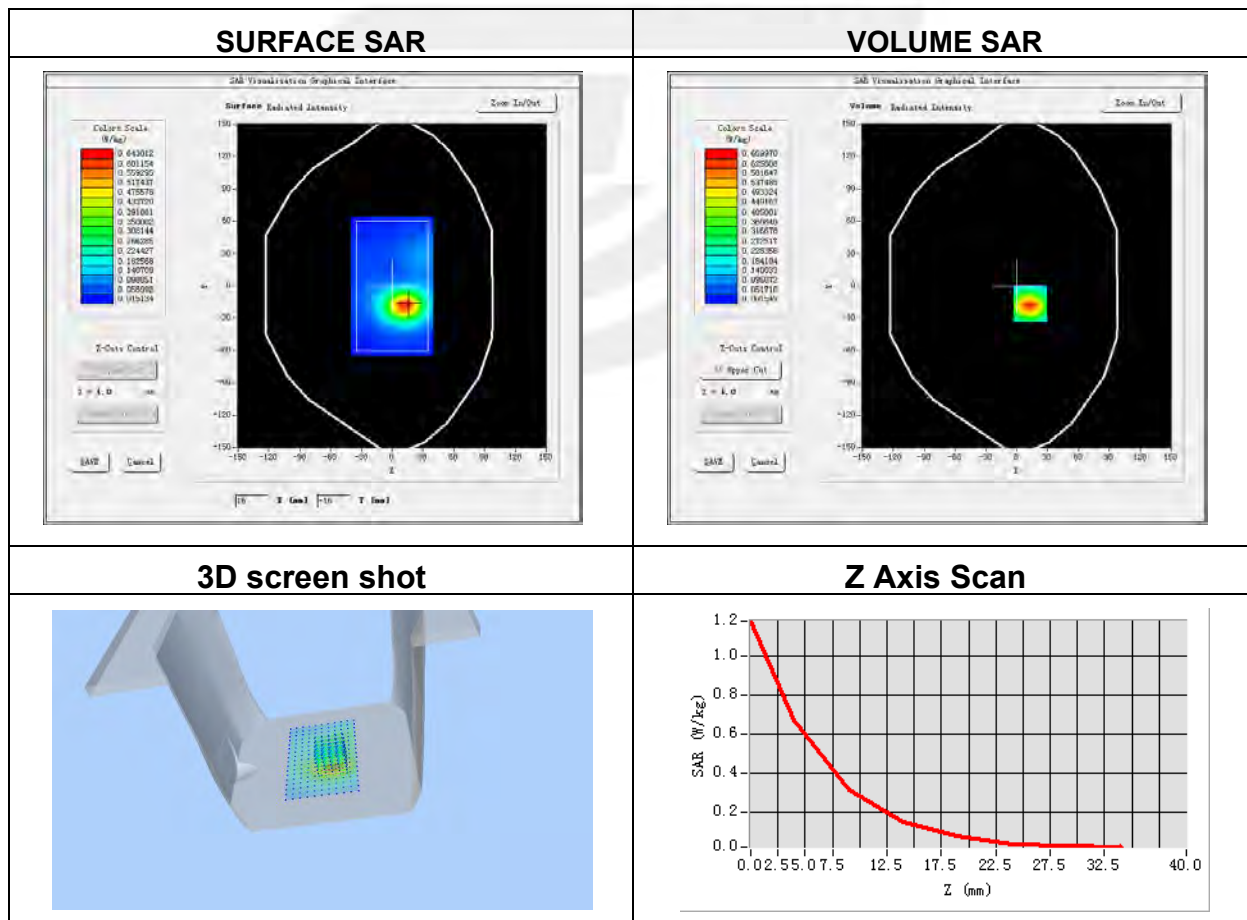
Plot 60: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-07
Probe	SN 07/21 EPGO352
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	NSA N7
Channels	High
Signal	Duty Cycle: 1.00 (Crest factor: 1.0)
Frequency (MHz)	2560

Maximum location: X=13.00, Y=-17.00

SAR Peak: 1.16 W/kg

SAR 10g (W/Kg)	0.285977
SAR 1g (W/Kg)	0.628672



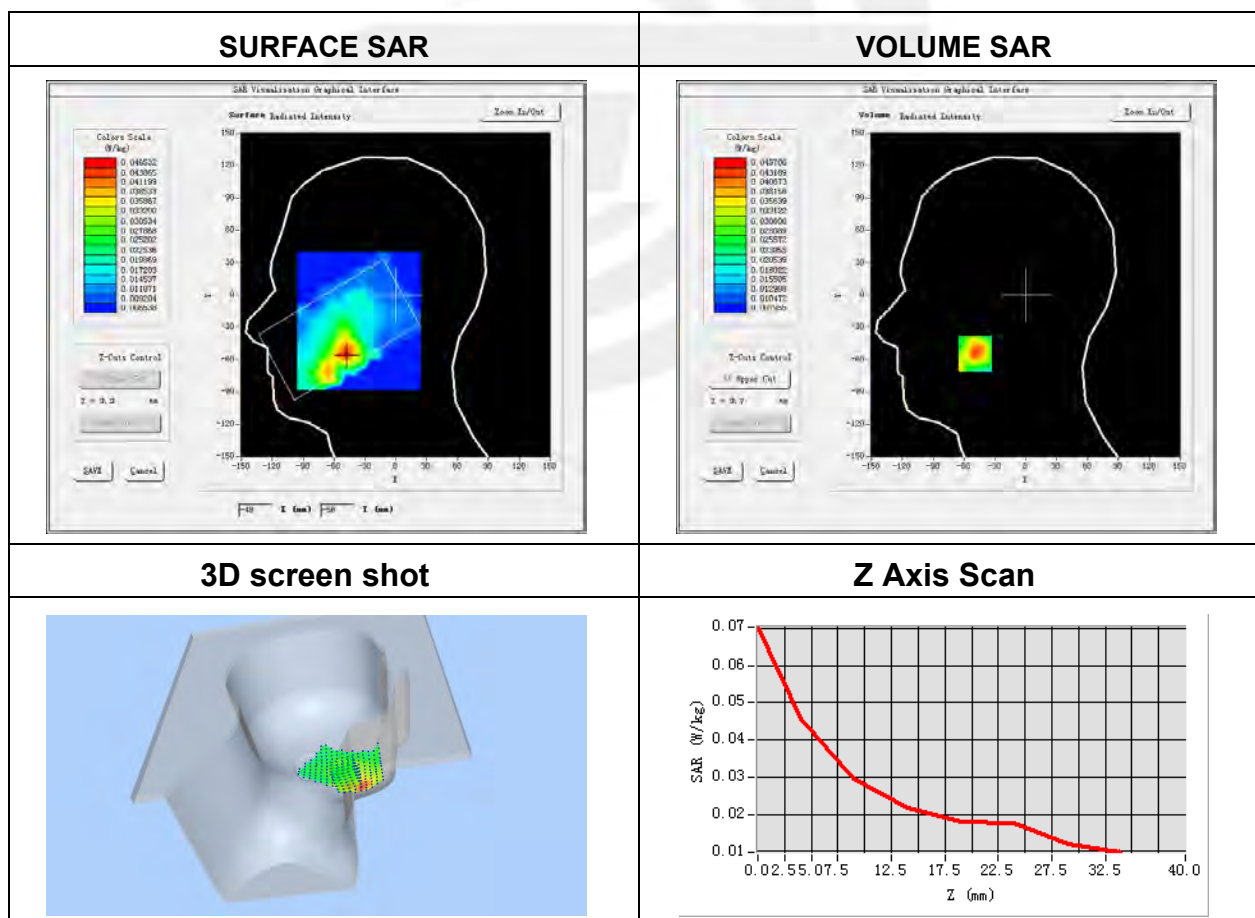

Plot 61: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-07
Probe	SN 07/21 EPG0352
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	Left head
Device Position	Cheek
Band	NSA N41
Channels	Mid
Signal	Duty Cycle: 1.00 (Crest factor: 1.0)
Frequency (MHz)	2592.99

Maximum location: X=-49.00, Y=-55.00

SAR Peak: 0.07 W/kg

SAR 10g (W/Kg)	0.026620
SAR 1g (W/Kg)	0.043590



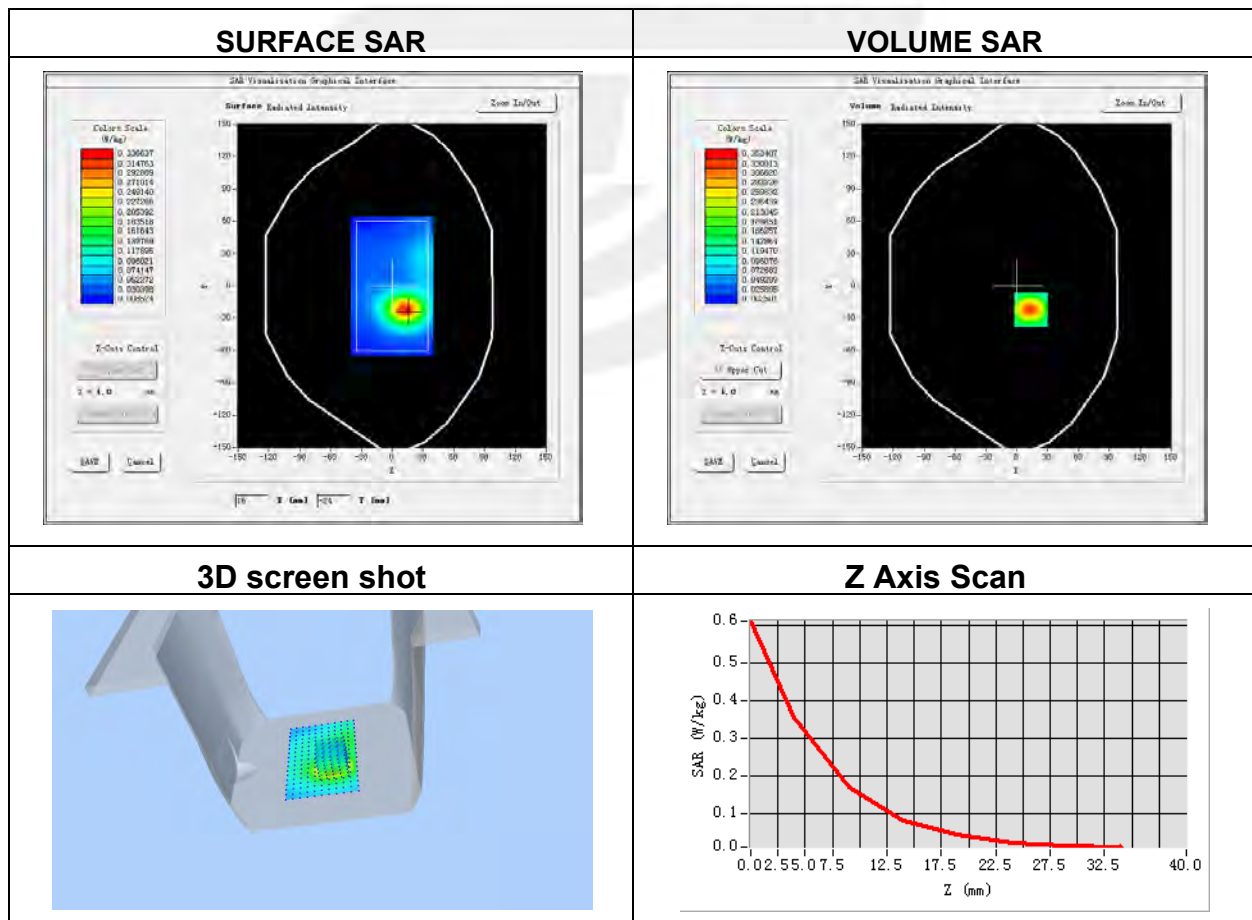
Plot 62: DUT: Smart phone; EUT Model: TickTock

Test Date	2021-11-07
Probe	SN 07/21 EPGO352
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	NSA N41
Channels	Mid
Signal	Duty Cycle: 1.00 (Crest factor: 1.0)
Frequency (MHz)	2592.99

Maximum location: X=14.00, Y=-22.00

SAR Peak: 0.60 W/Kg

SAR 10g (W/Kg)	0.155751
SAR 1g (W/Kg)	0.332900





Appendix C. Probe Calibration and Dipole Calibration Report

Refer the appendix Calibration Report.

※※※※END OF THE REPORT※※※※

