



FCC SAR TEST REPORT

Report No.: STS2204200H02

Issued for

Trackimo INC.

450 Seventh Avenue, Suite 1408, New York, United States

Product Name:	NickWatch V1
Brand Name:	Trackimo
Model Name:	TRKNICK001
Series Model:	N/A
FCC ID:	2AAI6-TRKNICK001
Test Standard:	ANSI/IEEE Std. C95.1
	FCC 47 CFR Part 2 (2.1093)
	IEEE 1528: 2013
Max. Report SAR:	Front of face: 1.485 W/kg (1g)
	Wrist: 2.971 W/kg(10g)

Any reproduction of this document must be done in full. No single part of this document may be reproduced without permission from STS, All Test Data Presented in this report is only applicable to presented Test sample.

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

TEL: +86-755 3688 6288 FAX: +86-755 3688 6277 E-mail: sts@stsapp.com





Test Report Certification

Applicant's name : Trackimo INC.

Address : 450 Seventh Avenue, Suite 1408, New York, United States

Manufacture's Name..... : Trackimo INC.

Address : 450 Seventh Avenue, Suite 1408, New York, United States

Product description

Product name : NickWatch V1

Brand name : Trackimo

Model name..... : TRKNICK001

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 : 05 May 2022~ 24 May 2022

Date of Issue..... : 09 June 2022

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

Testing Engineer :

((Shifan. Long))

Technical Manager :

(Sean she)

Authorized Signatory :

(Bovey Yang)





Table of Contents

1. General Information	5
1.1 EUT Description	5
1.2 Test Environment	7
1.3 Test Factory	7
2. Test Standards And Limits	8
3. SAR Measurement System	9
3.1 Definition Of Specific Absorption Rate (SAR)	9
3.2 SAR System	9
4. Tissue Simulating Liquids	12
4.1 Simulating Liquids Parameter Check	12
5. SAR System Validation	15
5.1 Validation System	15
5.2 Validation Result	15
6. SAR Evaluation Procedures	16
7. EUT Test Position	17
8 Measurement Uncertainty	18
9. Conducted Power Measurement	19
9.1 Test Result	19
10. EUT And Test Setup Photo	48
10.1 EUT Photo	48
10.2 Setup Photo	51
11. SAR Result Summary	53
11.1 Front of face SAR	53
11.2 Wrist SAR	55
11.3 Repeated SAR	57
11.4 Repeated SAR measurement	58
12. Equipment List	62
Appendix A. System Validation Plots	63
Appendix B. SAR Test Plots	75
Appendix C. Probe Calibration And Dipole Calibration Report	107

**Revision History**

Rev.	Issue Date	Report No.	Effect Page	Contents
00	09 June 2022	STS2204200H02	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	NickWatch V1
Brand Name	Trackimo
Model Name	TRKNICK001
Series Model	N/A
Model Difference	N/A
Battery	Rated Voltage:3.85V Charge Limit Voltage:4.4V Capacity: 460mAh
Device Category	Portable
Product stage	Production unit
Exposure Environment	General Population / Uncontrolled
Hardware Version	UW02 AUO V0.3
Software Version	0.2
Frequency Range	GSM 850: 824 MHz ~ 849 MHz PCS1900: 1850 MHz ~ 1910 MHz WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2: 1850MHz ~ 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: 699MHz ~ 716 MHz LTE Band 17: 704MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814MHz ~ 849 MHz LTE Band 38: 2570MHz ~ 2620 MHz LTE Band 41: 2496MHz ~ 2690 MHz WLAN 802.11b/g/n20: 2412 MHz ~ 2462 MHz Ble: 2402 MHz to 2480 MHz



Max. Reported SAR	Band	Mode	Front of face-1g (W/kg)	Wrist-10g (W/kg)
	PCT	GSM 850	0.118	0.383
	PCT	GSM 1900	0.416	1.363
	PCT	WCDMA Band II	0.875	2.411
	PCT	WCDMA Band IV	0.122	0.514
	PCT	LTE Band 2	0.753	2.150
	PCT	LTE Band 4	0.390	2.335
	PCT	LTE Band 5	0.170	0.575
	PCT	LTE Band 7	0.521	0.986
	PCT	LTE Band 12	0.042	0.157
	PCT	LTE Band 17	0.042	0.150
	PCT	LTE Band 25	1.485	2.971
	PCT	LTE Band 26	0.229	0.386
	PCT	LTE Band 38	0.135	0.484
	PCB	LTE Band 41	0.132	0.516
	DTS	2.4G WLAN	0.096	0.333
	DTS	BLE	0.047	0.187
Sum SAR			1.581	3.304
Limit(W/kg)			1.6	4
FCC Equipment Class	PCS Licensed Transmitter worn on body (PCT) Digital Transmission System (DTS)			
Operating Mode	GSM:GMSK for GSM/GPRS; GMSK and 8PSK for EDGE WCDMA:QPSK; HSDPA:QPSK/16QAM; HSUPA:BPSK LTE:QPSK,16QAM WLAN: 802.11b(DSSS):CCK,DQPSK,DBPSK 802.11g/n(OFDM):BPSK,QPSK,16-QAM,64-QAM BLE: GFSK			
Antenna Specification	GSM/WCDMA/LTE: PIFA Antenna WLAN/BLE: PIFA Antenna			
SIM Card	Support single card			
Note: 1、The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power				



1.2 Test Environment

Ambient conditions in the SAR laboratory:

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

1.3 Test Factory

SHENZHEN STS TEST SERVICES CO.,LTD.

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

FCC test Firm Registration No.: 625569

IC Registration No.: 12108A

A2LA Certificate No.: 4338.01





2. Test Standards And Limits

No.	Identity	Document Title
1	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	ANSI/IEEE Std. C95.1-1992	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
3	IEEE Std. 1528-2013	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
4	FCC KDB 447498 D04 v01	RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices
5	FCC KDB 865664 D01v01r04	SAR Measurement 100 MHz to 6 GHz
6	FCC KDB 865664 D02 v01r02	RF Exposure Reporting
7	FCC KDB 941225 D05 v02r05	SAR for LTE Devices
8	FCC KDB 648474 D04 v01r03	SAR Evaluation Considerations for Wireless Handsets
9	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 1gram of tissue defined as a tissue volume in the shape of a cube. SAR for hands, wrists, feet and ankles is averaged over any 10 grams of tissue defined as a tissue volume in the shape of a cube.

Population/Uncontrolled Environments:

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

Occupational/Controlled Environments:

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

NOTE

GENERAL POPULATION/UNCONTROLLED EXPOSURE

PARTIAL BODY LIMIT

1.6 W/kg(1g)

PARTIAL WRIST LIMIT

4.0 W/kg(10g)



3. SAR Measurement System

3.1 Definition Of Specific Absorption Rate (SAR)

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

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

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

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

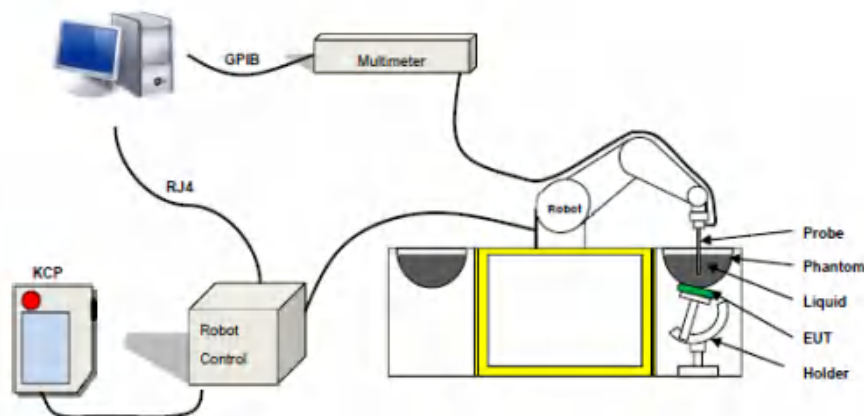
$$SAR = \frac{\sigma E^2}{\rho}$$

Where: σ is the conductivity of the tissue;

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

3.2 SAR System

MVG SAR System Diagram:



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

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



The following figure shows the system.



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

3.2.1 Probe

For the measurements the Specific Dosimetric E-Field Probe SN 07/21 EPGO352 with following specifications is used

- Probe Length: 330 mm
- Length of Individual Dipoles: 2mm
- Maximum external diameter: 8 mm
- Probe Tip External Diameter: 2.5 mm
- Distance between dipole/probe extremity: 1 mm
- Dynamic range: 0.01-100 W/kg
- Probe linearity: 3%
- Axial Isotropy: < 0.10 dB
- Spherical Isotropy: < 0.10 dB
- Calibration range: 150 MHz to 6 GHz for head & body simulating liquid.
- Angle between probe axis (evaluation axis) and surface normal line: less than 30°

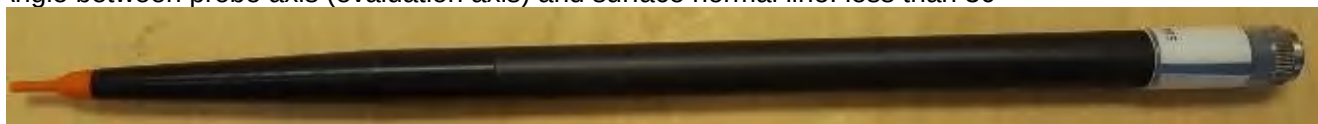


Figure 1-MVG COMOSAR Dosimetric E field Dipole



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.



Figure-SN 32/14 SAM115



Figure-SN 32/14 SAM116

3.2.3 Device Holder



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



4. Tissue Simulating Liquids

4.1 Simulating Liquids Parameter Check

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

Head Tissue

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

Body Tissue

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

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

**LIQUID MEASUREMENT RESULTS**

Date	Ambient		Simulating Liquid		Parameters	Target	Measured	Deviation %	Limited %
	Temp. [°C]	Humidity %	Frequency	Temp. [°C]					
2022-05-05	22.4	47	704	22.1	Permittivity	42.15	42.60	1.07	±10
					Conductivity	0.89	0.92	3.37	±10
2022-05-05	22.2	60	709	21.9	Permittivity	42.12	42.29	0.40	±10
					Conductivity	0.89	0.92	3.37	±10
2022-05-05	22.4	43	711	22.1	Permittivity	42.11	42.83	1.71	±10
					Conductivity	0.89	0.92	3.37	±10
2022-05-05	23.1	52	750	22.8	Permittivity	41.90	42.12	0.53	±10
					Conductivity	0.89	0.84	-5.62	±10
2022-05-09	20.4	51	821.5	20.1	Permittivity	41.56	41.00	-1.35	±10
					Conductivity	0.90	0.88	-2.22	±10
2022-05-09	22.4	41	824.2	22.1	Permittivity	41.55	41.42	-0.31	±10
					Conductivity	0.90	0.92	2.22	±10
2022-05-09	23.6	57	831.5	23.3	Permittivity	41.52	41.66	0.34	±10
					Conductivity	0.90	0.88	-2.22	±10
2022-05-09	21.8	40	835	21.5	Permittivity	41.50	41.07	-1.04	±10
					Conductivity	0.90	0.97	7.78	±10
2022-05-09	21.3	56	836.5	21.0	Permittivity	41.49	41.63	0.34	±10
					Conductivity	0.90	0.91	1.11	±10
2022-05-09	22.6	58	836.6	22.4	Permittivity	41.49	41.19	-0.72	±10
					Conductivity	0.90	0.90	0.00	±10
2022-05-10	21.7	59	1720	21.3	Permittivity	40.11	40.54	1.07	±10
					Conductivity	1.35	1.39	2.96	±10
2022-05-10	22.0	43	1732.5	21.7	Permittivity	40.10	40.94	2.09	±10
					Conductivity	1.36	1.38	1.47	±10
2022-05-10	22.3	46	1745	21.9	Permittivity	40.08	40.77	1.72	±10
					Conductivity	1.37	1.41	2.92	±10
2022-05-10	21.7	45	1800	21.4	Permittivity	40.00	40.36	0.90	±10
					Conductivity	1.40	1.39	-0.71	±10
2022-05-20	23.7	59	1852.4	23.4	Permittivity	40.00	40.61	1.53	±10
					Conductivity	1.40	1.45	3.57	±10
2022-05-20	20.6	43	1860	20.3	Permittivity	40.00	40.96	2.40	±10
					Conductivity	1.40	1.45	3.57	±10



2022-05-20	22.9	42	1880	22.6	Permittivity	40.00	40.21	0.53	±10
					Conductivity	1.40	1.37	-2.14	±10
2022-05-20	22.6	54	1882.5	22.2	Permittivity	40.00	40.70	1.75	±10
					Conductivity	1.40	1.44	2.86	±10
2022-05-20	21.3	41	1900	21.0	Permittivity	40.00	40.34	0.85	±10
					Conductivity	1.40	1.39	-0.71	±10
2022-05-20	21.4	42	1905	21.1	Permittivity	40.00	41.01	2.53	±10
					Conductivity	1.40	1.42	1.43	±10
2022-05-20	23.1	54	1907.6	22.8	Permittivity	40.00	41.07	2.68	±10
					Conductivity	1.40	1.41	0.71	±10
2022-05-20	23.7	52	1909.8	23.4	Permittivity	40.00	40.65	1.63	±10
					Conductivity	1.40	1.38	-1.43	±10
2022-05-20	24.0	53	1912.5	23.7	Permittivity	40.00	40.64	1.60	±10
					Conductivity	1.40	1.44	2.86	±10
2022-05-20	20.6	53	1912.5	20.3	Permittivity	40.00	40.63	1.58	±10
					Conductivity	1.40	1.41	0.71	±10
2022-05-23	20.8	41	2442	20.5	Permittivity	39.21	38.76	-1.15	±10
					Conductivity	1.79	1.78	-0.56	±10
2022-05-23	22.4	59	2450	22.1	Permittivity	39.20	39.69	1.25	±10
					Conductivity	1.80	1.78	-1.11	±10
2022-05-23	20.9	53	2462	20.6	Permittivity	39.18	40.14	2.45	±10
					Conductivity	1.81	1.8	-0.55	±10
2022-05-24	23.3	53	2506	23.0	Permittivity	39.13	40.36	3.14	±10
					Conductivity	1.86	1.86	0.00	±10
2022-05-24	21.5	55	2510	21.2	Permittivity	39.12	40.13	2.58	±10
					Conductivity	1.86	1.83	-1.61	±10
2022-05-24	21.7	40	2595	21.4	Permittivity	39.01	39.47	1.18	±10
					Conductivity	1.95	2.00	2.56	±10
2022-05-24	23.2	59	2600	22.9	Permittivity	39.00	39.24	0.62	±10
					Conductivity	1.96	1.96	0.00	±10
2022-05-24	22.8	57	2680	22.5	Permittivity	38.89	39.23	0.87	±10
					Conductivity	2.05	2.03	-0.98	±10

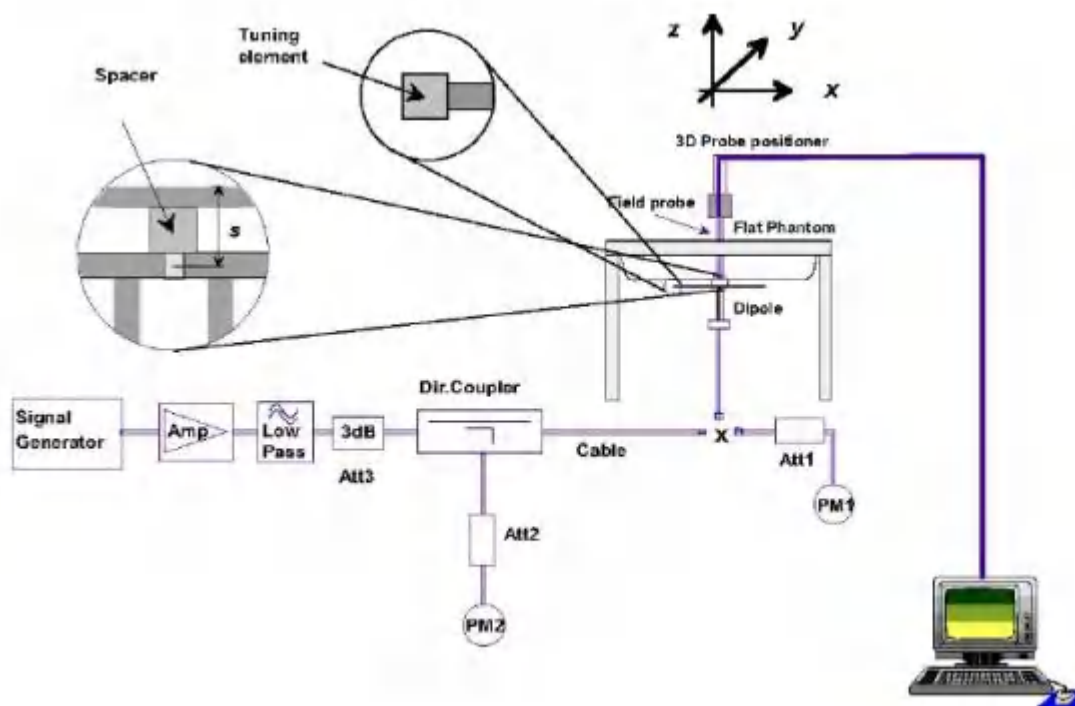


5. SAR System Validation

5.1 Validation System

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

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



5.2 Validation Result

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

Date	Freq.	Power	Tested Value	Normalized SAR	Target SAR	Tolerance	Limit
	(MHz)	(mW)	(W/Kg)	(W/kg)	1g(W/kg)	(%)	(%)
2022-05-05	750	100	0.827	8.27	8.49	-2.59	10
2022-05-09	835	100	0.962	9.62	9.56	0.63	10
2022-05-10	1800	100	3.820	38.20	38.40	-0.52	10
2022-05-20	1900	100	3.963	39.63	39.70	-0.18	10
2022-05-23	2450	100	5.248	52.48	52.40	0.15	10
2022-05-24	2600	100	5.531	55.31	55.30	0.02	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:

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

Area Scan& Zoom Scan:

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

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



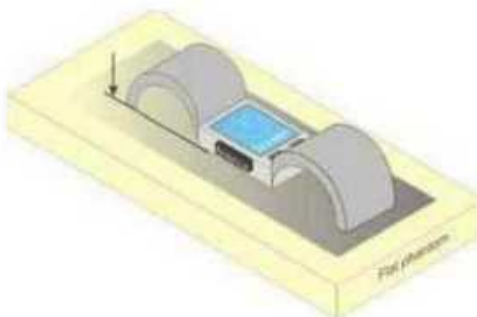
7. EUT Test Position

This EUT was tested in Front Face and Rear Face.

Limb-worn Position Conditions

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

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



Test position for limb-worn devices



8 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	



9. Conducted Power Measurement

9.1 Test Result

Burst Average Power (dBm)						
Band	GSM 850			PCS 1900		
Channel	128	190	251	512	661	810
Frequency (MHz)	824.2	836.6	848.8	1850.2	1880.0	1909.8
GSM(GMSK, 1-Slot)	31.05	30.93	30.90	31.01	31.16	31.20
GPRS (GMSK, 1-Slot)	31.07	30.92	30.90	31.01	31.13	31.15
GPRS (GMSK, 2-Slot)	30.01	29.87	29.83	29.89	30.06	30.11
GPRS (GMSK, 3-Slot)	28.09	27.97	27.90	27.73	27.93	27.98
GPRS (GMSK, 4-Slot)	27.29	27.17	27.13	26.94	27.14	27.19
EGPRS(8PSK, 1-Slot)	25.44	25.70	25.59	28.78	29.27	29.80
EGPRS(8PSK, 2-Slot)	24.70	24.48	24.54	27.92	28.66	28.66
EGPRS(8PSK, 3-Slot)	22.36	22.41	22.81	25.52	26.43	26.68
EGPRS(8PSK, 4-Slot)	21.19	21.30	21.34	24.58	25.26	25.83
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	1880.0	1909.8
GSM(GMSK, 1-Slot)	22.02	21.90	21.87	21.98	22.13	22.17
GPRS (GMSK, 1-Slot)	22.04	21.89	21.87	21.98	22.10	22.12
GPRS (GMSK, 2-Slot)	23.99	23.85	23.81	23.87	24.04	24.09
GPRS (GMSK, 3-Slot)	23.83	23.71	23.64	23.47	23.67	23.72
GPRS (GMSK, 4-Slot)	24.28	24.16	24.12	23.93	24.13	24.18
EGPRS(8PSK, 1-Slot)	16.41	16.67	16.56	19.75	20.24	20.77
EGPRS(8PSK, 2-Slot)	18.68	18.46	18.52	21.90	22.64	22.64
EGPRS(8PSK, 3-Slot)	18.10	18.15	18.55	21.26	22.17	22.42
EGPRS(8PSK, 4-Slot)	18.18	18.29	18.33	21.57	22.25	22.82
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 2			WCDMA Band 5		
Channel	9262	9400	9538	4132	4183	4233
Frequency (MHz)	1852.4	1880	1907.6	826.4	836.6	846.6
RMC 12.2Kbps	22.34	22.43	22.46	22.51	22.55	22.54
HSDPA Subtest-1	22.28	22.59	22.39	22.14	22.05	22.04
HSDPA Subtest-2	21.86	22.33	22.18	21.73	21.71	21.76
HSDPA Subtest-3	21.52	22.11	21.84	21.14	21.61	21.50
HSDPA Subtest-4	21.22	21.72	21.77	21.34	21.32	21.47
HSUPA Subtest-1	22.06	22.34	21.81	21.80	21.48	21.39
HSUPA Subtest-2	22.13	22.52	22.42	21.72	21.82	21.64
HSUPA Subtest-3	21.62	22.16	22.30	21.00	21.54	21.32
HSUPA Subtest-4	22.07	22.48	22.36	21.66	21.84	21.71
HSUPA Subtest-5	21.77	22.37	22.29	21.30	21.56	21.42

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.

**2.4G WLAN**

2.4GWIFI				
Mode	Channel Number	Frequency (MHz)	Average Power (dBm)	Output Power (mW)
802.11b	1	2412	14.92	31.05
	7	2437	16.40	43.65
	11	2462	17.20	52.48
802.11g	1	2412	14.36	27.29
	7	2437	15.92	39.08
	11	2462	16.01	39.90
802.11 n-HT20	1	2412	13.86	24.32
	7	2437	14.16	26.06
	11	2462	15.84	38.37

BLE

BLE				
Mode	Channel Number	Frequency (MHz)	Average Power (dBm)	Output Power (mW)
GFSK(1Mbps)	0	2402	0.63	1.16
	19	2440	0.72	1.18
	39	2480	-0.74	0.84



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 $> \text{not } \frac{1}{2}$ 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 $> \text{not } \frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05, smaller bandwidth SAR testing is not required.





LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.21	23.02	23.23
1.4	1	2		23.20	23.03	23.34
1.4	1	5		23.18	23.07	23.28
1.4	3	0		23.07	23.20	23.21
1.4	3	1		23.08	23.18	23.21
1.4	3	2		23.04	23.18	23.18
1.4	6	0		22.04	22.09	22.32
1.4	1	0	16-QAM	22.96	22.17	22.50
1.4	1	2		22.95	22.21	22.52
1.4	1	5		22.97	22.24	22.48
1.4	3	0		22.15	22.19	22.58
1.4	3	1		22.23	22.20	22.55
1.4	3	2		22.19	22.22	22.54
1.4	6	0		21.23	21.24	21.41
3	1	0	QPSK	22.88	22.95	23.09
3	1	7		22.97	22.95	23.13
3	1	14		23.05	23.00	23.09
3	8	0		21.83	21.92	22.13
3	8	4		21.87	22.06	22.17
3	8	7		22.01	22.01	22.11
3	15	0		21.87	21.97	22.13
3	1	0	16-QAM	22.31	22.42	22.92
3	1	7		22.25	22.43	22.74
3	1	14		22.37	22.41	22.62
3	8	0		21.07	20.98	21.47
3	8	4		21.06	20.95	21.37
3	8	7		21.00	20.97	21.37
3	15	0		21.10	21.26	21.23



LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.89	23.10	23.13
5	1	12		23.02	22.97	23.05
5	1	24		22.97	23.02	23.07
5	12	0		21.96	22.05	22.19
5	12	6		22.03	21.94	22.10
5	12	11		22.07	22.02	22.20
5	25	0		22.11	22.04	22.20
5	1	0	16-QAM	22.03	21.72	22.15
5	1	12		22.14	21.69	22.23
5	1	24		22.07	21.81	22.17
5	12	0		21.12	20.93	21.28
5	12	6		20.97	21.00	21.27
5	12	11		20.99	21.00	21.12
5	25	0		21.23	21.11	21.24
10	1	0	QPSK	22.98	23.19	23.45
10	1	24		23.00	23.13	23.22
10	1	49		23.11	23.25	23.23
10	25	0		22.05	22.06	22.28
10	25	12		22.03	22.06	22.19
10	25	24		22.13	22.17	22.30
10	50	0		22.16	22.06	22.23
10	1	0	16-QAM	23.07	22.16	22.26
10	1	24		23.16	22.11	22.21
10	1	49		23.19	22.16	22.15
10	25	0		21.07	21.31	21.29
10	25	12		21.00	21.18	21.32
10	25	24		21.14	21.19	21.36
10	50	0		21.07	21.17	21.26



LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.99	23.07	23.43
15	1	37		23.13	22.99	23.26
15	1	74		23.13	23.10	23.21
15	36	0		22.06	22.15	22.32
15	36	18		22.06	22.16	22.17
15	36	39		22.26	22.12	22.34
15	75	0		22.12	22.06	22.13
15	1	0	16-QAM	23.09	22.26	23.10
15	1	38		23.17	22.06	22.86
15	1	75		23.24	22.27	22.86
15	36	0		21.13	21.35	21.39
15	36	18		21.19	21.28	21.21
15	36	39		21.19	21.27	21.27
15	75	0		21.16	21.19	21.30
20	1	0	QPSK	23.04	23.33	23.47
20	1	49		23.31	23.25	23.50
20	1	99		23.29	23.32	23.36
20	50	0		22.13	22.11	22.47
20	50	24		22.21	22.07	22.35
20	50	49		22.30	22.24	22.14
20	100	0		22.15	22.19	22.45
20	1	0	16-QAM	21.65	21.99	22.33
20	1	49		21.88	21.72	22.23
20	1	99		21.91	22.05	22.44
20	50	0		21.23	21.17	21.37
20	50	24		21.31	21.20	21.45
20	50	49		21.29	21.27	21.26
20	100	0		21.20	21.28	21.48



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.99	22.63	22.97
1.4	1	2		23.02	22.66	23.03
1.4	1	5		23.02	22.64	23.03
1.4	3	0		22.88	22.73	22.86
1.4	3	1		22.88	22.79	22.90
1.4	3	2		22.95	22.72	22.80
1.4	6	0		21.88	21.75	21.98
1.4	1	0	16-QAM	22.78	22.26	22.29
1.4	1	2		22.78	22.32	22.34
1.4	1	5		22.82	22.34	22.43
1.4	3	0		22.05	21.89	22.11
1.4	3	1		21.99	21.87	22.16
1.4	3	2		21.99	21.89	22.07
1.4	6	0		20.84	20.86	21.05
3	1	0	QPSK	22.82	22.68	23.03
3	1	7		22.74	22.73	23.05
3	1	14		22.79	22.70	23.08
3	8	0		21.92	21.67	21.77
3	8	4		21.91	21.73	21.78
3	8	7		21.80	21.72	21.86
3	15	0		21.87	21.74	21.85
3	1	0	16-QAM	22.89	22.29	22.28
3	1	7		22.92	22.34	22.19
3	1	14		22.92	22.38	22.32
3	8	0		20.74	20.89	20.93
3	8	4		20.73	21.13	20.80
3	8	7		20.76	21.10	20.99
3	15	0		20.91	20.88	20.90



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.78	22.84	22.72
5	1	12		22.72	22.82	22.74
5	1	24		22.85	22.83	22.63
5	12	0		21.78	21.76	21.84
5	12	6		21.82	21.71	21.76
5	12	11		21.88	21.75	21.83
5	25	0		21.85	21.83	21.92
5	1	0	16-QAM	22.06	21.41	22.14
5	1	12		22.06	21.46	22.12
5	1	24		22.09	21.42	22.19
5	12	0		20.80	20.57	20.87
5	12	6		20.86	20.77	20.89
5	12	11		20.80	20.72	20.86
5	25	0		20.91	20.93	20.88
10	1	0	QPSK	22.87	22.81	23.03
10	1	24		22.86	22.78	23.12
10	1	49		22.84	22.80	23.13
10	25	0		21.81	21.71	21.82
10	25	12		21.91	21.78	21.87
10	25	24		22.00	21.74	21.90
10	50	0		21.84	21.84	21.86
10	1	0	16-QAM	22.85	21.87	22.07
10	1	24		22.96	21.86	22.01
10	1	49		22.98	21.78	22.01
10	25	0		20.82	20.79	20.76
10	25	12		20.80	20.91	20.89
10	25	24		20.80	20.74	20.97
10	50	0		20.92	21.00	20.88



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.86	22.84	22.98
15	1	37		22.88	22.79	23.10
15	1	74		22.79	22.84	23.14
15	36	0		21.82	21.84	21.96
15	36	18		21.96	21.81	21.70
15	36	39		21.95	21.78	21.75
15	75	0		21.96	21.78	21.75
15	1	0	16-QAM	22.84	21.93	22.35
15	1	38		22.92	21.89	22.37
15	1	75		22.85	21.82	22.51
15	36	0		20.90	20.97	20.75
15	36	18		20.91	21.06	20.83
15	36	39		20.94	20.82	20.80
15	75	0		20.89	20.94	20.86
20	1	0	QPSK	22.99	22.87	22.96
20	1	49		23.02	22.81	22.99
20	1	99		22.92	22.92	23.02
20	50	0		21.93	21.86	21.75
20	50	24		21.98	21.83	21.81
20	50	49		21.80	21.76	21.83
20	100	0		21.92	21.81	21.90
20	1	0	16-QAM	21.54	22.10	21.79
20	1	49		21.61	22.06	22.00
20	1	99		21.51	21.87	21.92
20	50	0		20.98	20.91	20.75
20	50	24		20.94	20.86	20.83
20	50	49		20.95	20.76	20.92
20	100	0		20.93	20.98	20.85



LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.23	23.03	23.24
1.4	1	2		23.25	23.09	23.22
1.4	1	5		23.30	23.03	23.23
1.4	3	0		23.06	23.18	23.26
1.4	3	1		23.05	23.28	23.22
1.4	3	2		23.15	23.21	23.14
1.4	6	0		22.21	22.33	22.24
1.4	1	0	16-QAM	23.07	22.70	23.30
1.4	1	2		23.07	22.76	23.25
1.4	1	5		23.10	22.75	23.31
1.4	3	0		22.24	22.23	22.70
1.4	3	1		22.38	22.25	22.58
1.4	3	2		22.33	22.23	22.62
1.4	6	0		21.38	21.00	21.47
3	1	0	QPSK	23.06	23.11	23.21
3	1	7		23.06	23.05	23.35
3	1	14		23.11	23.03	23.41
3	8	0		22.19	22.17	22.10
3	8	4		22.16	22.27	22.20
3	8	7		22.18	22.28	22.19
3	15	0		22.07	22.23	22.15
3	1	0	16-QAM	22.80	22.68	23.11
3	1	7		22.93	22.69	23.09
3	1	14		22.90	22.69	23.18
3	8	0		21.15	21.29	21.17
3	8	4		21.21	21.25	21.18
3	8	7		21.03	21.15	21.25
3	15	0		21.34	21.04	21.16



LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.02	23.28	23.14
5	1	12		23.12	23.21	23.06
5	1	24		23.08	23.08	23.15
5	12	0		22.20	22.15	22.17
5	12	6		22.12	22.33	22.11
5	12	11		22.26	22.26	22.13
5	25	0		22.07	22.28	22.19
5	1	0	16-QAM	22.31	21.93	22.19
5	1	12		22.30	21.93	22.09
5	1	24		22.41	21.90	22.22
5	12	0		21.20	21.04	21.09
5	12	6		21.09	20.99	21.02
5	12	11		21.08	20.91	21.03
5	25	0		21.23	21.09	21.08
10	1	0	QPSK	23.20	23.20	23.20
10	1	24		23.15	23.33	23.23
10	1	49		23.23	23.28	23.26
10	25	0		22.18	22.26	22.02
10	25	12		22.23	22.30	22.25
10	25	24		22.23	22.06	22.24
10	50	0		22.22	22.25	22.29
10	1	0	16-QAM	23.10	22.24	22.10
10	1	24		23.18	22.19	22.19
10	1	49		23.20	22.22	22.20
10	25	0		21.05	21.25	21.14
10	25	12		21.20	21.08	21.13
10	25	24		21.18	21.35	21.17
10	50	0		21.20	21.04	21.22



LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.17	21.79	21.96
5	1	12		22.51	21.93	22.19
5	1	24		22.42	21.55	21.59
5	12	0		21.94	21.65	21.64
5	12	6		21.88	21.66	21.68
5	12	11		21.89	21.57	21.78
5	25	0		21.86	21.62	21.74
5	1	0	16-QAM	22.04	21.62	21.53
5	1	12		22.21	21.62	21.52
5	1	24		22.22	21.57	21.54
5	12	0		20.99	20.65	20.66
5	12	6		20.95	20.58	20.70
5	12	11		20.94	20.56	20.64
5	25	0		21.14	20.90	20.88
10	1	0	QPSK	22.04	21.80	21.97
10	1	24		22.55	21.76	22.25
10	1	49		22.72	21.69	21.99
10	25	0		21.99	21.62	21.83
10	25	12		21.89	21.58	21.91
10	25	24		21.85	21.65	21.78
10	50	0		21.96	21.72	21.75
10	1	0	16-QAM	21.96	21.70	21.59
10	1	24		22.50	21.65	21.86
10	1	49		22.77	21.59	21.61
10	25	0		20.99	20.79	20.84
10	25	12		20.93	20.77	20.82
10	25	24		20.85	20.78	20.84
10	50	0		20.98	20.85	20.94



LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.02	21.94	21.91
15	1	37		22.73	21.62	22.14
15	1	74		22.75	21.34	21.64
15	36	0		21.92	21.57	21.79
15	36	18		21.96	21.68	21.83
15	36	39		21.83	21.56	21.68
15	75	0		21.93	21.68	21.78
15	1	0	16-QAM	21.95	21.65	21.74
15	1	38		22.70	21.52	21.98
15	1	75		22.82	21.25	21.54
15	36	0		21.04	20.81	20.88
15	36	18		20.96	20.83	20.91
15	36	39		20.95	20.73	20.85
15	75	0		20.98	20.84	20.97
20	1	0	QPSK	22.01	22.26	21.56
20	1	49		22.93	21.75	22.07
20	1	99		22.79	21.83	22.03
20	50	0		21.96	21.65	21.85
20	50	24		21.88	21.73	21.83
20	50	49		21.72	21.70	21.76
20	100	0		21.76	21.76	21.93
20	1	0	16-QAM	21.86	22.01	21.47
20	1	49		21.71	21.55	21.85
20	1	99		21.58	21.62	21.81
20	50	0		21.09	20.80	20.89
20	50	24		21.07	20.79	20.87
20	50	49		20.90	20.79	20.87
20	100	0		20.95	20.75	20.97



LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.56	23.38	23.12
1.4	1	2		23.54	23.22	23.26
1.4	1	5		23.59	23.17	23.20
1.4	3	0		23.26	23.40	23.13
1.4	3	1		23.31	23.28	23.18
1.4	3	2		23.34	23.34	23.11
1.4	6	0		22.39	22.34	22.13
1.4	1	0	16-QAM	23.33	22.82	23.15
1.4	1	2		23.37	22.77	23.13
1.4	1	5		23.37	22.79	23.04
1.4	3	0		22.45	22.32	22.53
1.4	3	1		22.46	22.28	22.54
1.4	3	2		22.43	22.33	22.42
1.4	6	0		21.35	21.27	21.43
3	1	0	QPSK	23.45	23.20	23.30
3	1	7		23.48	23.20	23.18
3	1	14		23.60	23.23	23.21
3	8	0		22.42	22.42	22.30
3	8	4		22.43	22.38	22.18
3	8	7		22.37	22.30	22.17
3	15	0		22.50	22.31	22.25
3	1	0	16-QAM	23.32	23.36	22.73
3	1	7		23.32	23.36	22.71
3	1	14		23.35	23.24	22.63
3	8	0		21.38	21.18	21.31
3	8	4		21.39	21.20	21.29
3	8	7		21.43	21.22	21.55
3	15	0		21.43	21.46	21.18



LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.38	23.44	23.27
5	1	12		23.36	23.39	23.18
5	1	24		23.42	23.33	23.13
5	12	0		22.32	22.31	22.24
5	12	6		22.50	22.31	22.26
5	12	11		22.43	22.34	22.23
5	25	0		22.52	22.36	22.31
5	1	0	16-QAM	22.38	22.57	21.88
5	1	12		22.42	22.36	21.96
5	1	24		22.40	22.36	21.79
5	12	0		21.36	21.21	21.06
5	12	6		21.42	21.24	21.01
5	12	11		21.42	21.19	20.86
5	25	0		21.39	21.51	21.14
10	1	0	QPSK	23.32	23.40	23.50
10	1	24		23.35	23.31	23.35
10	1	49		23.28	23.28	23.41
10	25	0		22.52	22.38	22.40
10	25	12		22.41	22.45	22.22
10	25	24		22.30	22.35	22.33
10	50	0		22.53	22.31	22.20
10	1	0	16-QAM	23.39	22.44	22.38
10	1	24		23.32	22.43	22.18
10	1	49		23.30	22.29	22.13
10	25	0		21.35	21.23	21.35
10	25	12		21.39	21.32	21.30
10	25	24		21.10	21.39	21.16
10	50	0		21.45	21.44	21.27



LTE Band 17 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.26	23.46	23.24
5	1	12		23.11	23.38	23.26
5	1	24		23.09	23.19	23.19
5	12	0		22.44	22.35	22.21
5	12	6		22.34	22.33	22.35
5	12	11		22.33	22.22	22.19
5	25	0		22.47	22.32	22.33
5	1	0	16-QAM	23.06	22.43	21.95
5	1	12		23.02	22.34	22.05
5	1	24		23.03	22.30	21.90
5	12	0		21.33	21.25	21.12
5	12	6		21.25	21.31	21.12
5	12	11		21.38	21.20	20.95
5	25	0		21.35	21.53	21.15
10	1	0	QPSK	23.38	23.37	23.54
10	1	24		23.27	23.21	23.43
10	1	49		23.23	23.16	23.34
10	25	0		22.34	22.36	22.34
10	25	12		22.29	22.35	22.23
10	25	24		22.37	22.27	22.30
10	50	0		22.35	22.22	22.18
10	1	0	16-QAM	23.34	22.49	23.07
10	1	24		23.25	22.28	22.83
10	1	49		23.24	22.25	22.97
10	25	0		21.16	21.42	21.35
10	25	12		21.25	21.48	21.41
10	25	24		21.16	21.25	21.18
10	50	0		21.26	21.45	21.25



LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.30	23.16	22.13
1.4	1	2		23.29	23.15	22.00
1.4	1	5		23.31	23.18	21.89
1.4	3	0		23.11	23.21	21.70
1.4	3	1		23.14	23.18	21.65
1.4	3	2		23.12	23.18	21.53
1.4	6	0		22.11	22.30	21.46
1.4	1	0	16-QAM	23.06	22.05	21.96
1.4	1	2		23.07	22.12	21.97
1.4	1	5		23.06	22.03	21.83
1.4	3	0		22.26	22.36	21.56
1.4	3	1		22.31	22.44	21.58
1.4	3	2		22.31	22.38	21.35
1.4	6	0		21.26	21.41	21.30
3	1	0	QPSK	22.26	23.22	24.54
3	1	7		22.21	23.20	22.08
3	1	14		22.08	23.16	23.91
3	8	0		21.97	22.13	24.38
3	8	4		21.90	22.30	24.28
3	8	7		21.82	22.20	24.12
3	15	0		21.63	22.25	24.26
3	1	0	16-QAM	21.53	22.07	21.89
3	1	7		21.58	22.10	24.05
3	1	14		23.17	22.04	23.89
3	8	0		21.09	21.34	24.03
3	8	4		21.09	21.29	23.93
3	8	7		21.01	21.31	23.79
3	15	0		21.33	21.45	23.92



LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.14	23.19	25.14
5	1	12		23.15	23.07	24.35
5	1	24		23.23	23.14	23.54
5	12	0		22.12	22.16	24.81
5	12	6		22.08	22.21	24.47
5	12	11		22.16	22.19	24.04
5	25	0		22.14	22.24	24.42
5	1	0	16-QAM	21.73	22.20	24.99
5	1	12		21.85	22.26	24.20
5	1	24		21.93	22.23	23.61
5	12	0		21.11	21.30	24.48
5	12	6		21.04	21.25	24.12
5	12	11		21.12	21.29	23.71
5	25	0		21.22	21.24	24.09
10	1	0	QPSK	23.08	23.16	23.37
10	1	24		23.13	23.19	23.69
10	1	49		23.19	23.22	21.12
10	25	0		22.22	22.23	23.38
10	25	12		22.25	22.18	23.50
10	25	24		22.34	22.25	22.65
10	50	0		22.29	22.19	23.08
10	1	0	16-QAM	23.21	22.22	22.33
10	1	24		23.31	22.24	23.25
10	1	49		23.30	22.39	20.83
10	25	0		21.18	21.28	23.29
10	25	12		21.20	21.29	23.34
10	25	24		21.26	21.41	22.50
10	50	0		21.26	21.39	22.92



LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	23.19	21.56	23.34
15	1	37		23.25	21.65	23.23
15	1	74		23.17	23.39	20.86
15	36	0		22.18	22.09	22.32
15	36	18		22.17	22.20	22.24
15	36	39		22.22	22.24	22.18
15	75	0		22.17	22.21	22.34
15	1	0	16-QAM	22.06	22.92	23.42
15	1	38		22.26	22.95	23.45
15	1	75		22.36	23.02	20.99
15	36	0		21.35	21.21	21.47
15	36	18		21.42	21.24	21.50
15	36	39		21.42	21.34	21.35
15	75	0		21.24	21.34	21.49
20	1	0	QPSK	23.15	23.40	23.58
20	1	49		23.41	23.36	23.42
20	1	99		23.37	23.44	22.62
20	50	0		22.25	22.22	22.47
20	50	24		22.25	22.31	22.21
20	50	49		22.37	22.47	22.33
20	100	0		22.30	22.35	22.37
20	1	0	16-QAM	21.81	22.00	22.30
20	1	49		22.02	21.87	22.19
20	1	99		21.97	22.24	21.29
20	50	0		21.29	21.34	21.51
20	50	24		21.36	21.35	21.35
20	50	49		21.38	21.37	21.31
20	100	0		21.34	21.33	21.49



LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.72	23.59	23.83
1.4	1	2		23.74	23.58	23.85
1.4	1	5		23.71	23.64	23.85
1.4	3	0		23.45	23.53	23.59
1.4	3	1		23.48	23.64	23.71
1.4	3	2		23.48	23.65	23.65
1.4	6	0		22.52	22.59	22.79
1.4	1	0	16-QAM	23.57	23.07	23.52
1.4	1	2		23.54	23.08	23.54
1.4	1	5		23.57	23.05	23.39
1.4	3	0		22.72	22.66	23.10
1.4	3	1		22.67	22.65	23.11
1.4	3	2		22.65	22.64	23.02
1.4	6	0		21.58	21.56	21.85
3	1	0	QPSK	23.57	23.60	23.75
3	1	7		23.58	23.55	23.92
3	1	14		23.51	23.68	23.89
3	8	0		22.52	22.48	22.72
3	8	4		22.51	22.51	22.71
3	8	7		22.47	22.59	22.72
3	15	0		22.47	22.60	22.74
3	1	0	16-QAM	23.48	23.02	23.48
3	1	7		23.44	23.08	23.44
3	1	14		23.47	23.06	23.51
3	8	0		21.37	21.85	21.71
3	8	4		21.39	21.80	21.70
3	8	7		21.35	21.86	21.71
3	15	0		21.57	21.65	21.72



LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.45	23.45	23.51
5	1	12		23.49	23.48	23.62
5	1	24		23.65	23.70	23.70
5	12	0		22.48	22.54	22.59
5	12	6		22.46	22.53	22.71
5	12	11		22.63	22.71	22.69
5	25	0		22.56	22.54	22.63
5	1	0	16-QAM	22.77	22.27	22.53
5	1	12		22.80	22.21	22.58
5	1	24		22.92	22.36	22.69
5	12	0		21.42	21.40	21.59
5	12	6		21.32	21.52	21.61
5	12	11		21.43	21.51	21.64
5	25	0		21.59	21.65	21.51
10	1	0	QPSK	/	23.39	/
10	1	24		/	23.40	/
10	1	49		/	23.69	/
10	25	0		/	22.58	/
10	25	12		/	22.64	/
10	25	24		/	22.68	/
10	50	0		/	22.64	/
10	1	0	16-QAM	/	23.40	/
10	1	24		/	23.54	/
10	1	49		/	23.71	/
10	25	0		/	21.48	/
10	25	12		/	21.49	/
10	25	24		/	21.56	/
10	50	0		/	21.57	/



LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.78	23.66	23.20
1.4	1	2		23.86	23.64	23.32
1.4	1	5		23.84	23.57	23.32
1.4	3	0		23.76	23.56	23.28
1.4	3	1		23.69	23.50	23.31
1.4	3	2		23.74	23.46	23.37
1.4	6	0		23.73	22.54	22.30
1.4	1	0	16-QAM	23.51	23.69	22.66
1.4	1	2		23.46	23.64	22.67
1.4	1	5		23.40	23.67	22.76
1.4	3	0		23.05	22.83	22.45
1.4	3	1		23.03	22.87	22.41
1.4	3	2		23.12	22.77	22.49
1.4	6	0		21.84	21.70	21.24
3	1	0	QPSK	23.60	23.48	23.34
3	1	7		23.67	23.43	23.38
3	1	14		23.56	23.38	23.52
3	8	0		22.69	22.65	22.18
3	8	4		22.67	22.56	22.19
3	8	7		22.71	22.57	22.22
3	15	0		22.78	22.53	22.33
3	1	0	16-QAM	23.57	23.18	23.24
3	1	7		23.49	23.14	23.27
3	1	14		23.60	23.13	23.36
3	8	0		21.53	21.78	21.26
3	8	4		21.54	21.82	21.24
3	8	7		21.59	21.68	21.31
3	15	0		21.81	21.60	21.20



LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.54	23.71	23.16
5	1	12		23.64	23.48	23.11
5	1	24		23.66	23.43	23.28
5	12	0		22.81	22.61	22.22
5	12	6		22.71	22.65	22.25
5	12	11		22.83	22.57	22.25
5	25	0		22.73	22.60	22.22
5	1	0	16-QAM	22.82	22.39	22.12
5	1	12		22.92	22.29	22.13
5	1	24		22.96	22.18	22.29
5	12	0		21.67	21.50	21.20
5	12	6		21.61	21.46	21.15
5	12	11		21.73	21.38	21.13
5	25	0		21.82	21.64	21.11
10	1	0	QPSK	23.67	23.85	23.42
10	1	24		23.72	23.67	23.33
10	1	49		23.69	23.49	23.32
10	25	0		22.78	22.69	22.24
10	25	12		22.75	22.50	22.29
10	25	24		22.72	22.40	22.17
10	50	0		22.89	22.66	22.23
10	1	0	16-QAM	23.70	22.75	22.42
10	1	24		23.82	22.58	22.25
10	1	49		23.73	22.29	22.34
10	25	0		21.65	21.75	21.32
10	25	12		21.79	21.59	21.25
10	25	24		21.75	21.53	21.23
10	50	0		21.70	21.58	21.24



LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	23.62	23.88	23.71
15	1	37		23.74	23.65	23.36
15	1	74		23.50	23.32	23.31
15	36	0		22.70	22.65	22.53
15	36	18		22.70	22.57	22.35
15	36	39		22.62	22.46	22.22
15	75	0		22.64	22.58	22.42
15	1	0	16-QAM	23.66	22.72	23.22
15	1	38		23.68	22.62	22.93
15	1	75		23.48	22.19	22.82
15	36	0		21.71	21.81	21.53
15	36	18		21.74	21.73	21.32
15	36	39		21.65	21.47	21.21
15	75	0		21.72	21.56	21.41



LTE Band 38 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.78	22.64	22.44
5	1	12		22.84	22.68	22.42
5	1	24		22.83	22.58	22.33
5	12	0		21.76	21.61	21.45
5	12	6		21.71	21.70	21.56
5	12	11		21.66	21.65	21.55
5	25	0		21.73	21.61	21.61
5	1	0	16-QAM	21.35	21.35	22.00
5	1	12		21.27	21.30	21.82
5	1	24		21.26	21.28	21.80
5	12	0		20.64	20.58	20.52
5	12	6		20.69	20.66	20.56
5	12	11		20.56	20.62	20.49
5	25	0		20.82	20.77	20.78
10	1	0	QPSK	22.84	22.61	22.53
10	1	24		22.76	22.73	22.45
10	1	49		22.76	22.69	22.43
10	25	0		21.55	21.65	21.66
10	25	12		21.56	21.68	21.53
10	25	24		21.56	21.69	21.55
10	50	0		21.55	21.68	21.52
10	1	0	16-QAM	22.52	21.01	21.90
10	1	24		22.37	21.02	21.73
10	1	49		22.40	21.02	21.86
10	25	0		20.67	20.57	20.69
10	25	12		20.55	20.60	20.73
10	25	24		20.55	20.61	20.77
10	50	0		20.72	20.79	20.52



LTE Band 38 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.77	22.66	22.76
15	1	37		22.80	22.68	22.69
15	1	74		22.75	22.71	22.73
15	36	0		21.60	21.60	21.54
15	36	18		21.59	21.51	21.54
15	36	39		21.56	21.49	21.45
15	75	0		21.61	21.61	21.51
15	1	0	16-QAM	22.41	21.05	21.87
15	1	38		22.41	21.00	21.71
15	1	75		22.27	20.95	21.59
15	36	0		20.59	20.79	20.56
15	36	18		20.59	20.81	20.51
15	36	39		20.56	20.78	20.61
15	75	0		20.74	20.77	20.58
20	1	0	QPSK	22.66	22.95	22.63
20	1	49		22.58	22.88	22.64
20	1	99		22.65	22.90	22.68
20	50	0		21.68	21.70	21.54
20	50	24		21.67	21.70	21.61
20	50	49		21.56	21.65	21.60
20	100	0		21.61	21.66	21.57
20	1	0	16-QAM	21.81	20.96	21.41
20	1	49		21.72	20.76	21.34
20	1	99		21.63	20.79	21.24
20	50	0		20.80	20.68	20.83
20	50	24		20.74	20.79	20.67
20	50	49		20.83	20.62	20.64
20	100	0		20.75	20.69	20.62



LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.69	22.64	22.39
5	1	12		22.69	22.60	22.33
5	1	24		22.76	22.72	22.38
5	12	0		21.69	21.60	21.57
5	12	6		21.61	21.62	21.51
5	12	11		21.61	21.52	21.56
5	25	0		21.66	21.59	21.51
5	1	0	16-QAM	21.27	21.22	21.85
5	1	12		21.33	21.30	21.74
5	1	24		21.32	21.23	21.91
5	12	0		20.68	20.51	20.50
5	12	6		20.60	20.60	20.56
5	12	11		20.67	20.56	20.54
5	25	0		20.92	20.78	20.78
10	1	0	QPSK	22.79	22.72	22.59
10	1	24		22.81	22.78	22.57
10	1	49		22.76	22.71	22.64
10	25	0		21.61	21.60	21.59
10	25	12		21.73	21.65	21.58
10	25	24		21.63	21.68	21.60
10	50	0		21.70	21.65	21.56
10	1	0	16-QAM	22.17	21.48	22.22
10	1	24		22.10	21.48	22.14
10	1	49		22.17	21.44	22.04
10	25	0		20.71	20.66	20.63
10	25	12		20.71	20.66	20.45
10	25	24		20.66	20.69	20.47
10	50	0		20.83	20.80	20.71



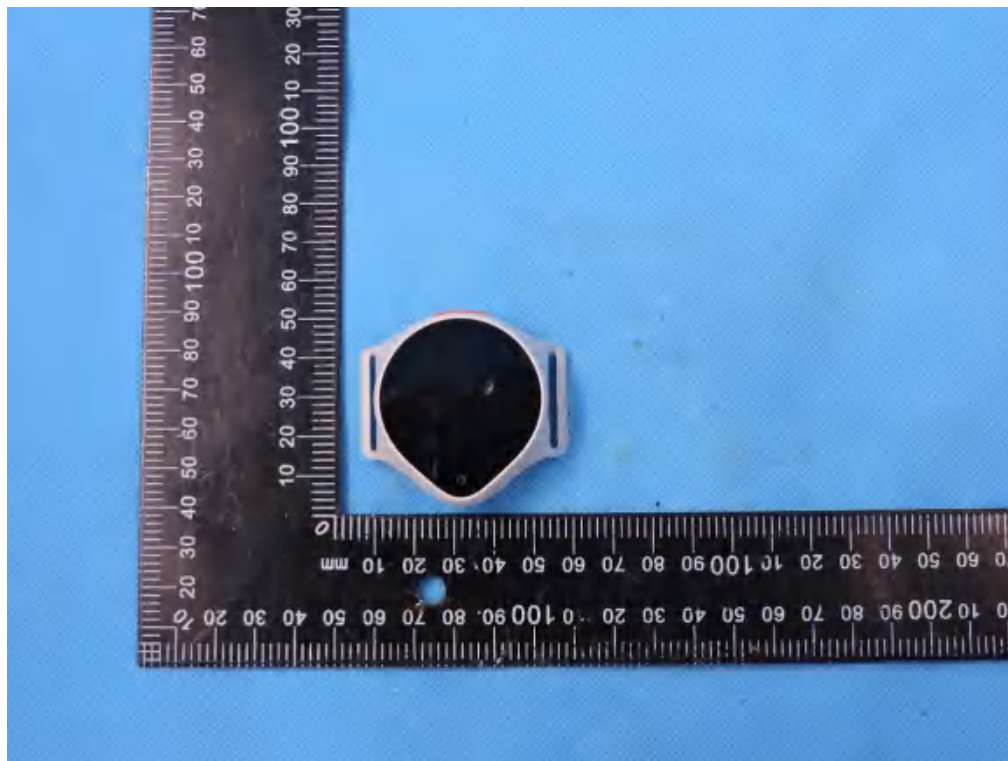
LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.82	22.66	22.52
15	1	37		22.90	22.77	22.57
15	1	74		22.79	22.76	22.48
15	36	0		21.70	21.59	21.53
15	36	18		21.64	21.54	21.44
15	36	39		21.69	21.49	21.45
15	75	0		21.62	21.59	21.56
15	1	0	16-QAM	22.10	21.00	21.66
15	1	38		22.31	20.95	21.57
15	1	75		22.23	20.84	21.68
15	36	0		20.77	20.83	20.49
15	36	18		20.71	20.76	20.45
15	36	39		20.73	20.74	20.52
15	75	0		20.80	20.82	20.74
20	1	0	QPSK	22.62	22.91	22.93
20	1	49		22.66	22.83	22.75
20	1	99		22.78	22.80	23.05
20	50	0		21.66	21.70	21.44
20	50	24		21.70	21.59	21.50
20	50	49		21.71	21.57	21.50
20	100	0		21.68	21.53	21.46
20	1	0	16-QAM	21.42	20.89	22.20
20	1	49		21.36	20.98	22.19
20	1	99		21.40	20.88	22.28
20	50	0		20.95	20.61	20.50
20	50	24		20.87	20.70	20.59
20	50	49		20.87	20.66	20.58
20	100	0		20.83	20.70	20.54



10. EUT And Test Setup Photo

10.1 EUT Photo

Front side

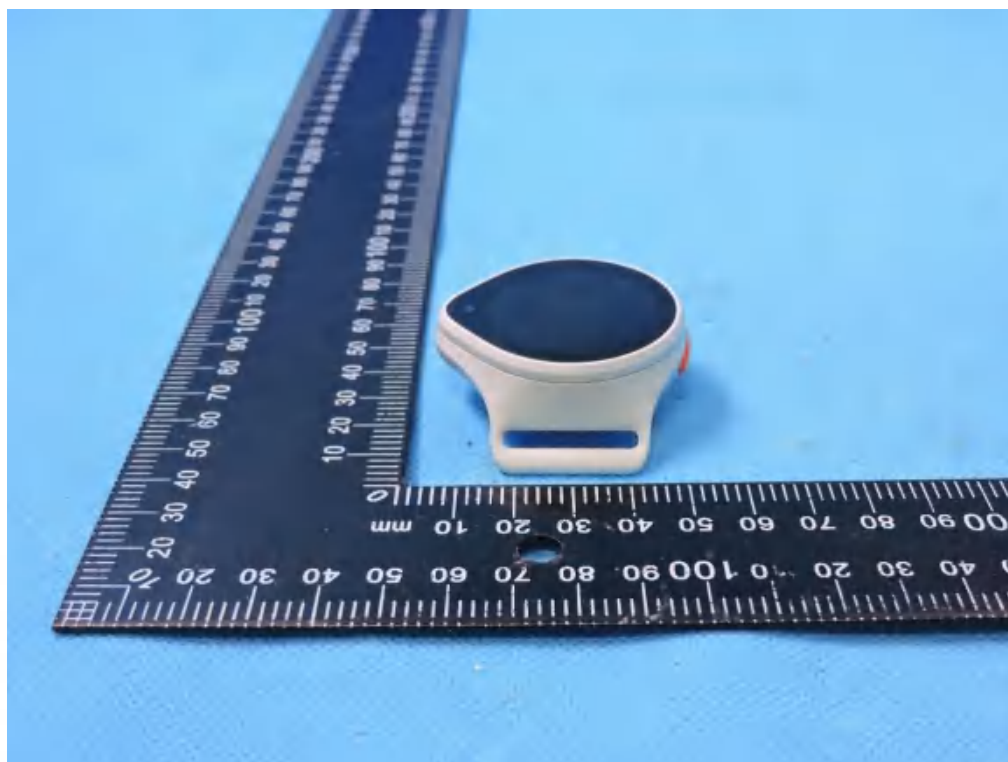


Back side

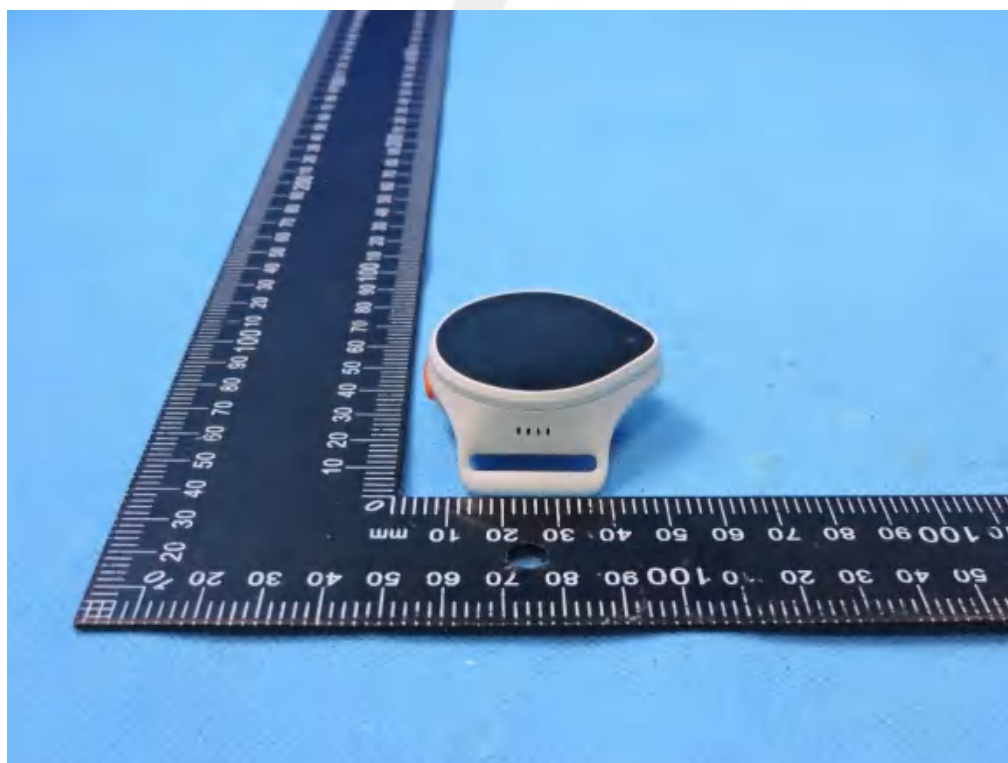




Top Edge

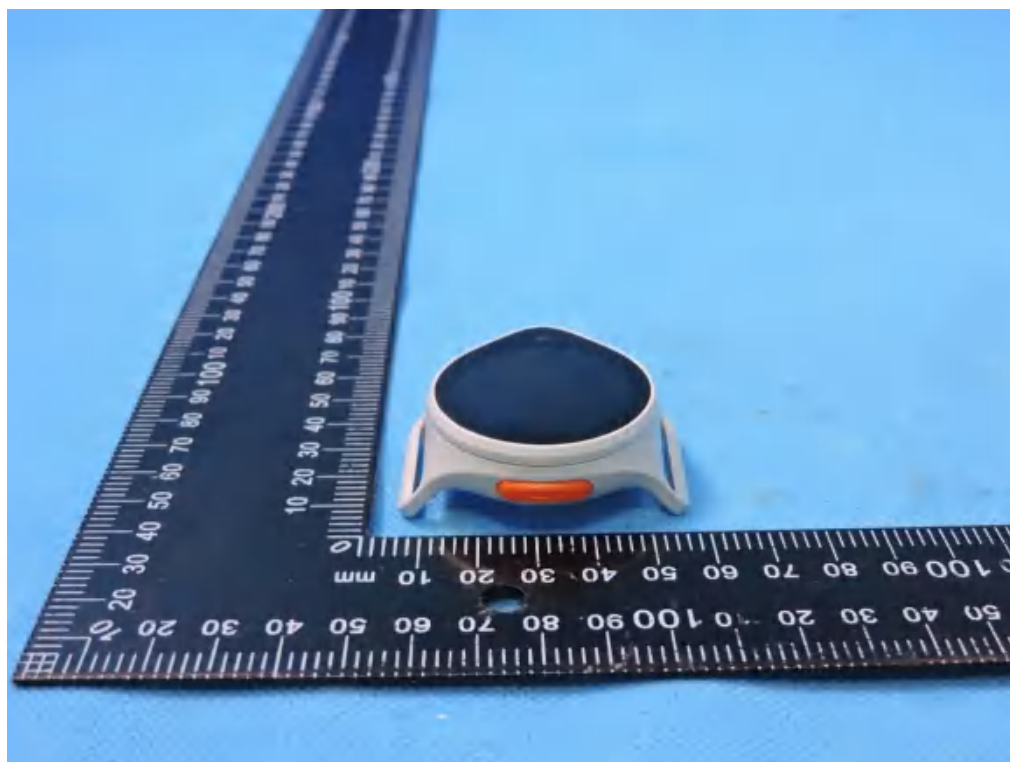


Bottom Edge

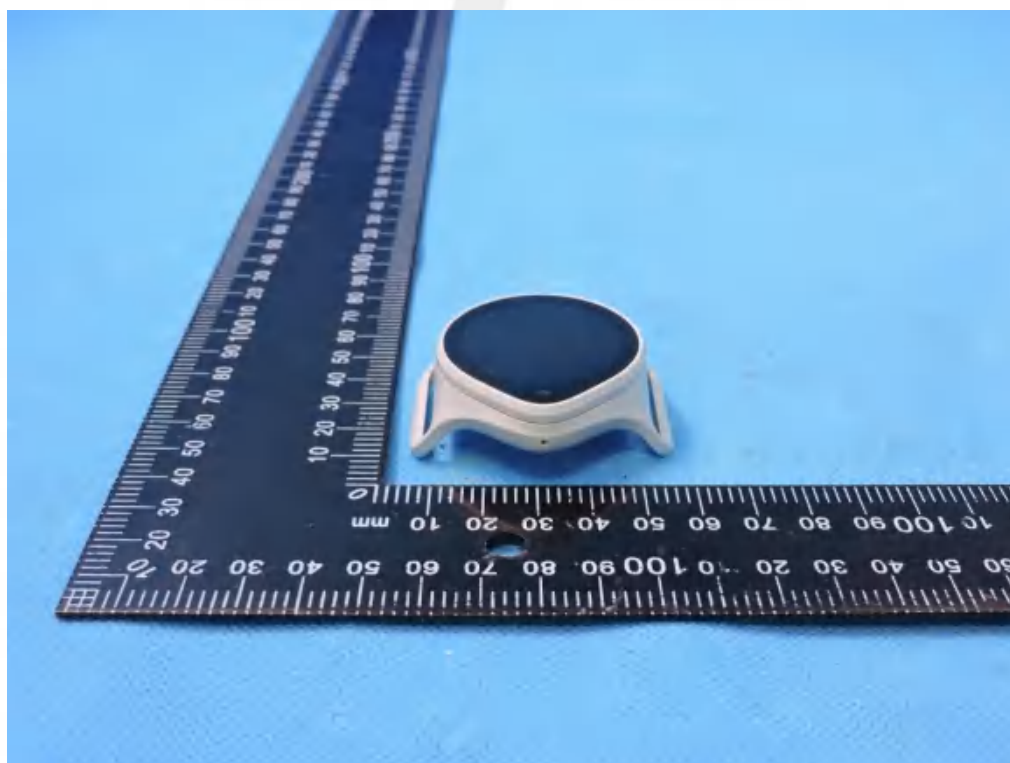




Left Edge



Right Edge





10.2 Setup Photo

Front of face(separation distance is 10mm)



Wrist(separation distance is 0mm)





Liquid depth (15 cm)





11. SAR Result Summary

11.1 Front of face SAR

Band	Model	Test Position	Freq.	SAR (1g) (W/kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Scaled SAR (W/Kg)	Meas.No.
GSM850	GPRS Data-4 Slot	Front of face	824.2	0.112	0.33	27.50	27.29	0.118	1
GSM1900	GPRS Data-4 Slot	Front of face	1909.8	0.387	0.78	27.50	27.19	0.416	3
WCDMA Band II	HSDPA	Front of face	1852.4	0.665	0.26	23.00	22.28	0.785	/
		Front of face	1880	0.796	-2.80	23.00	22.59	0.875	5
		Front of face	1907.6	0.621	0.12	23.00	22.39	0.715	/
WCDMA Band V	RMC	Front of face	836.6	0.11	-0.19	23.00	22.55	0.122	7
2.4GHz WLAN	802.11b	Front of face	2462	0.090	3.49	17.50	17.20	0.096	9
BLE	GFSK	Front of face	2442	0.044	-0.39	1.00	0.72	0.047	11

Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Freq.	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	49	Front of face	1900	0.845	-3.67	23	23.5	0.753	13
			50	0	Front of face	1900	0.754	2.70	22.5	22.47	0.759	/
LTE Band 4	20M	QPSK	1	0	Front of face	1720	0.311	-3.53	24	23.02	0.390	15
			50	0	Front of face	1720	0.288	-3.32	22	21.98	0.289	/
LTE Band 5	10M	QPSK	1	24	Front of face	836.5	0.146	2.00	24	23.33	0.170	17
			25	12	Front of face	836.5	0.125	2.76	22.5	22.3	0.131	/
LTE Band 7	10M	QPSK	1	0	Front of face	2510	0.457	-1.79	23.5	22.93	0.521	19
			50	0	Front of face	2510	0.425	-1.36	22	21.96	0.429	/
LTE Band 12	10M	QPSK	1	0	Front of face	711	0.037	-0.09	24	23.5	0.042	21
			25	0	Front of face	704	0.032	-3.69	23	22.52	0.036	/



LTE Band 17	10M	QPSK	1	0	Front of face	711	0.038	3.21	24	23.54	0.042	23
			25	0	Front of face	709	0.031	-3.87	23	22.37	0.036	/
LTE Band 25	20M	QPSK	1	0	Front of face	1860	1.021	-0.14	24.3	23.15	1.331	/
			1	0	Front of face	1882.5	1.029	0.27	24.3	23.4	1.266	/
			1	0	Front of face	1905	1.258	-0.37	24.3	23.58	1.485	25
			50	0	Front of face	1905	0.750	-2.07	22.5	22.47	0.755	/
			100	0	Front of face	1905	0.762	0.80	22.5	22.37	0.785	/
	5M	QPSK	1	0	Front of face	1912.5	0.712	-1.65	25.5	25.14	0.774	/
			12	0	Front of face	1912.5	0.736	-3.46	25	24.81	0.769	/
		16-QAM	1	0	Front of face	1912.5	0.726	0.20	25	24.99	0.728	/
			12	0	Front of face	1912.5	0.714	3.77	24.5	24.48	0.717	/
	3M	QPSK	1	0	Front of face	1913.5	0.702	-0.02	25	24.54	0.780	/
			8	0	Front of face	1913.5	0.710	-1.79	24.5	24.38	0.730	/
LTE Band 26	15M	QPSK	1	0	Front of face	831.5	0.223	-1.23	24	23.88	0.229	27
			36	0	Front of face	821.5	0.120	-1.92	23	22.7	0.129	/
LTE Band 38	20M	QPSK	1	0	Front of face	2595	0.133	3.95	23	22.95	0.135	29
			50	0	Front of face	2595	0.120	-2.03	22	21.7	0.129	/
LTE Band 41	20M	QPSK	1	0	Front of face	2680	0.119	-2.21	23.5	23.05	0.132	31
			50	0	Front of face	2506	0.102	-2.10	22	21.71	0.109	/

Note:

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



11.2 Wrist SAR

Band	Model	Test Position	Freq.	SAR (10g) (W/kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Scaled SAR (W/Kg)	Meas.No.
GSM850	GPRS Data-4 Slot	Wrist	824.2	0.365	-1.13	27.50	27.29	0.383	2
GSM1900	GPRS Data-4 Slot	Wrist	1909.8	1.296	2.21	27.50	27.19	1.392	4
WCDMA Band II	HSDPA	Wrist	1852.4	1.998	-3.06	23.00	22.28	2.358	/
		Wrist	1880	2.194	1.03	23.00	22.59	2.411	6
		Wrist	1907.6	1.936	1.26	23.00	22.39	2.228	/
WCDMA Band V	RMC	Wrist	836.6	0.463	-2.11	23.00	22.55	0.514	8
2.4GHz WLAN	802.11b	Wrist	2462	0.311	-2.67	17.50	17.20	0.333	10
BLE	GFSK	Wrist	2442	0.175	3.58	1.00	0.72	0.187	12

Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Freq.	Result 10g (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	49	Wrist	1860	2.221	-0.91	23	23.31	2.068	/
			1	49	Wrist	1880	2.232	2.70	23	23.25	2.107	/
			1	49	Wrist	1900	2.412	-3.87	23	23.5	2.150	14
			50	0	Wrist	1900	1.902	-3.17	22.5	22.47	1.915	/
			100	0	Wrist	1900	1.852	-3.02	22.5	22.45	1.873	/
LTE Band 4	20M	QPSK	1	0	Wrist	1720	1.863	-2.88	24	23.02	2.335	16
			1	0	Wrist	1732.5	1.652	-0.26	24	22.81	2.173	/
			1	0	Wrist	1745	1.662	-2.59	24	22.99	2.097	/
			50	0	Wrist	1720	1.521	2.45	22	21.98	1.528	/
			100	0	Wrist	1720	1.625	0.49	22	21.92	1.655	/
LTE Band 5	10M	QPSK	1	24	Wrist	836.5	0.493	0.51	24	23.33	0.575	18
			25	12	Wrist	836.5	0.325	-3.22	22.5	22.3	0.340	/
LTE Band 7	10M	QPSK	1	0	Wrist	2510	0.865	-3.80	23.5	22.93	0.986	20
			50	0	Wrist	2510	0.625	-1.99	22	21.96	0.631	/
LTE Band 12	10M	QPSK	1	0	Wrist	711	0.140	1.75	24	23.5	0.157	22
			25	0	Wrist	704	0.124	1.75	23	22.52	0.138	/
LTE Band 17	10M	QPSK	1	0	Wrist	711	0.135	-1.06	24	23.54	0.150	24
			25	0	Wrist	709	0.129	0.43	23	22.37	0.149	/



LTE Band 25	20M	QPSK	1	0	Wrist	1860	2.102	-0.61	24.5	23.15	2.868	/
			1	0	Wrist	1882.5	2.023	-0.52	24.5	23.4	2.606	/
			1	0	Wrist	1905	2.404	0.05	24.5	23.58	2.971	26
			50	0	Wrist	1905	1.906	1.90	22.5	22.47	1.919	/
			100	0	Wrist	1905	1.912	0.24	22.5	22.37	1.970	/
	5M	QPSK	1	0	Wrist	1912.5	1.825	1.57	25.5	25.14	1.983	/
			12	0	Wrist	1912.5	1.832	-0.62	25	24.81	1.914	/
		16-QAM	1	0	Wrist	1912.5	1.841	-1.75	25	24.99	1.845	/
			12	0	Wrist	1912.5	1.836	-3.51	24.5	24.48	1.844	/
	3M	QPSK	1	0	Wrist	1913.5	1.759	1.69	25	24.54	1.956	/
			8	0	Wrist	1913.5	1.000	-2.84	24.5	24.38	1.028	/
LTE Band 26	15M	QPSK	1	0	Wrist	831.5	0.375	-3.61	24	23.88	0.386	28
			36	0	Wrist	821.5	0.336	-2.25	23	22.7	0.360	/
LTE Band 38	20M	QPSK	1	0	Wrist	2595	0.478	2.19	23	22.95	0.484	30
			50	0	Wrist	2595	0.425	-2.38	22	21.7	0.455	/
LTE Band 41	20M	QPSK	1	0	Wrist	2680	0.465	-3.44	23.5	23.05	0.516	32
			50	0	Wrist	2506	0.352	-2.10	22	21.71	0.376	/

Note:

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



11.3 Repeated SAR

Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Freq.	Result 1g (W/Kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Scaled SAR(W/Kg)	Meas. No.
LTE Band 25	20M	QPSK	1	0	Front of face	1860	0.975	2.15	24.5	23.58	1.205	-
			1	0	Front of face	1882.5	1.004	-1.52	24.5	23.58	1.241	-
			1	0	Front of face	1905	1.236	-0.14	24.5	23.58	1.528	-

Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Freq.	Result 1g (W/Kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Scaled SAR(W/Kg)	Meas. No.
LTE Band 4	20M	QPSK	1	49	Wrist	1860	2.130	-3.32	23	23.31	1.983	-
			1	49	Wrist	1880	2.217	-2.27	23	23.25	2.093	-
			1	49	Wrist	1900	2.400	-3.28	23	23.5	2.139	-
LTE Band 4	20M	QPSK	1	0	Wrist	1720	1.863	-2.21	24	23.02	2.326	-
			1	0	Wrist	1732.5	1.606	2.50	24	22.81	2.112	-
			1	0	Wrist	1745	1.610	3.20	24	22.99	2.032	-
LTE Band 25	20M	QPSK	1	0	Wrist	1860	2.071	2.06	24.5	23.15	2.826	-
			1	0	Wrist	1882.5	1.952	-0.51	24.5	23.4	2.515	-
			1	0	Wrist	1905	2.289	3.28	24.5	23.58	2.829	-

Band	Mode	Test Position	Freq.	Result 1g (W/Kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Scaled SAR(W/Kg)	Meas. No.
WCDMA Band II	HSDPA	Wrist	1852.4	1.945	2.08	23.00	22.28	2.296	-
		Wrist	1880	2.117	-3.34	23.00	22.59	2.327	-
		Wrist	1907.6	1.846	-2.49	23.00	22.39	2.124	-
WCDMA Band II	HSDPA	Front of face	1852.4	0.659	-1.55	23.00	22.28	0.778	-
		Front of face	1880	0.788	-1.77	23.00	22.59	0.866	-
		Front of face	1907.6	0.612	3.21	23.00	22.39	0.704	-

**11.4 repeated SAR measurement**

Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Freq.	Original Measured SAR 1g(W/kg)	1 st Repeated SAR 1g	Ratio	Original Measured	2nd Repeated SAR 1g	Ratio
LTE Band 25	20M	QPSK	1	0	Front of face	1860	1.021	0.975	1.047	-	-	-
			1	0	Front of face	1882.5	1.029	1.004	1.025	-	-	-
			1	0	Front of face	1905	1.258	1.236	1.018	-	-	-

Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Freq.	Original Measured SAR 10g(W/kg)	1 st Repeated SAR 10g	Ratio	Original Measured	2nd Repeated SAR 1g	Ratio
LTE Band 2	20M	QPSK	1	49	Wrist	1860	2.221	2.130	1.043			
			1	49	Wrist	1880	2.232	2.217	1.007	-	-	-
			1	49	Wrist	1900	2.412	2.400	1.005	-	-	-
LTE Band 4	20M	QPSK	1	0	Wrist	1720	1.863	1.856	1.004			
			1	0	Wrist	1732.5	1.652	1.606	1.029	-	-	-
			1	0	Wrist	1745	1.662	1.610	1.032	-	-	-
LTE Band 25	20M	QPSK	1	0	Wrist	1860	2.102	2.071	1.015			
			1	0	Wrist	1882.5	2.023	1.952	1.036	-	-	-
			1	0	Wrist	1905	2.404	2.289	1.050	-	-	-



Band	Mode	Test Position	Freq.	Original Measured SAR 1g(W/kg)	1 st Repeated SAR 1g	Ratio	Original Measured SAR 10g(W/kg)	2nd Repeated SAR 10g	Ratio
WCDMA Band II	HSDPA	Wrist	1852.4	1.998	1.945	1.027	-	-	-
		Wrist	1880	2.194	2.117	1.036	-	-	-
		Wrist	1907.6	1.936	1.846	1.049	-	-	-
WCDMA Band II	HSDPA	Front of face	1852.4	0.665	0.659	1.009	-	-	-
		Front of face	1880	0.796	0.788	1.010	-	-	-
		Front of face	1907.6	0.621	0.612	1.015	-	-	-

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
Front to face	1. GSM +2.4G WLAN
	2. GSM +BLE
	3. WCDMA +2.4G WLAN
	4. WCDMA +BLE
	5. LTE + 2.4G WLAN
	6. LTE +BLE
Wrist	1. GSM +2.4G WLAN
	2. GSM +BLE
	3. WCDMA +2.4G WLAN
	4. WCDMA +BLE
	5. LTE + 2.4G WLAN
	6. LTE +BLE

NOTE:

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



Simultaneous Mode	Position	Mode	Max.SAR	Sum SAR
			(W/kg)	(W/kg)
GSM + 2.4G WLAN	Front of face	GSM	0.416	0.512
		2.4G WLAN	0.096	
	Wrist	GSM	1.392	1.725
		2.4G WLAN	0.333	
WCDMA + 2.4G WLAN	Front of face	WCDMA	0.875	0.971
		2.4G WLAN	0.096	
	Wrist	WCDMA	2.411	2.744
		2.4G WLAN	0.333	
LTE + 2.4G WLAN	Front of face	LTE	1.485	1.581
		2.4G WLAN	0.096	
	Wrist	LTE	2.971	3.304
		2.4G WLAN	0.333	
GSM +BLE	Front of face	GSM	0.416	0.463
		BLE	0.047	
	Wrist	GSM	1.392	1.579
		BLE	0.187	
WCDMA + BLE	Front of face	WCDMA	0.875	0.922
		BLE	0.047	
	Wrist	WCDMA	2.411	2.598
		BLE	0.187	
LTE + BLE	Front of face	LTE	1.485	1.532
		BLE	0.047	
	Wrist	LTE	2.971	3.158
		BLE	0.187	

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



12. Equipment List

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
750MHz Dipole	MVG	SID750	SN 30/14 DIP0G750-331	2020.07.14	2023.07.13
835MHz Dipole	MVG	SID835	SN 30/14 DIP0G835-332	2020.07.14	2023.07.13
1800MHz Dipole	MVG	SID1800	SN 30/14 DIP1G800-329	2020.07.14	2023.07.13
1900MHz Dipole	MVG	SID1900	SN 30/14 DIP1G900-333	2020.07.14	2023.07.13
2450MHz Dipole	MVG	SID2450	SN 30/14 DIP2G450-335	2020.07.14	2023.07.13
2600MHz Dipole	MVG	SID2600	SN 30/14 DIP2G600-336	2020.07.14	2023.07.13
E-Field Probe	MVG	SSE2	SN 07/21 EPGO352	2022.02.28	2023.03.01
Dielectric Probe Kit	MVG	SCLMP	SN 32/14 OCPG67	2021.11.23	2022.11.22
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
Network Analyzer	Agilent	8753ES	US38432810	2021.09.29	2022.09.28
Multi Meter	Keithley	Multi Meter 2000	4050073	2021.10.08	2022.10.07



Appendix A. System Validation Plots

System Performance Check Data (750MHz)

Type: Phone measurement (Complete)

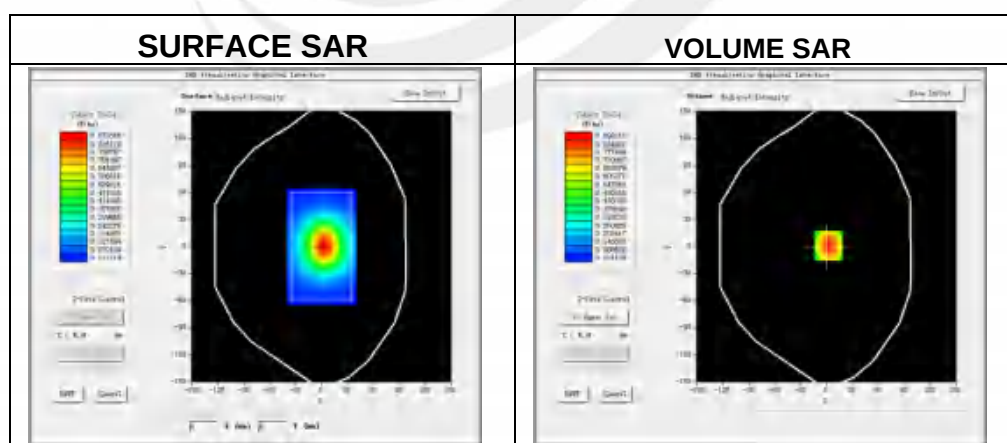
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2022-05-05

Experimental conditions

Phantom	Validation plane
Device Position	-
Band	750MHz
Channels	-
Signal	CW
Frequency (MHz)	750MHz
Relative permittivity	42.12
Conductivity (S/m)	0.84
Probe	SN 07/21 EPGO352
ConvF	1.43
Crest factor	1:1

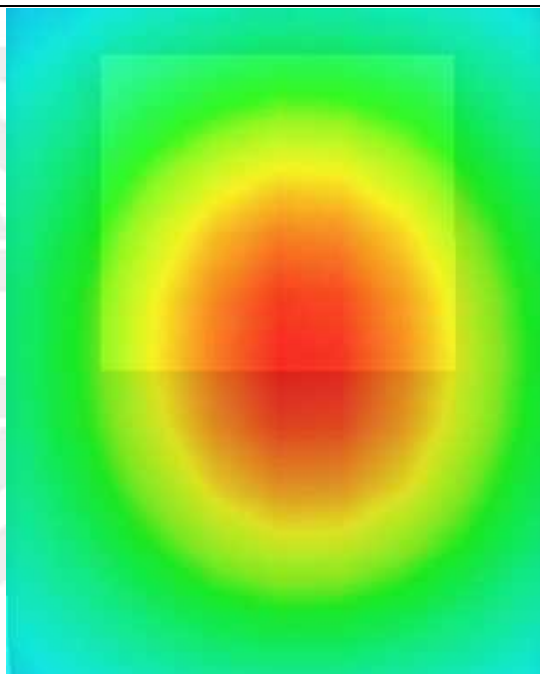
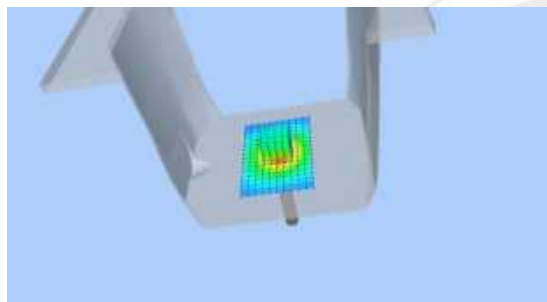
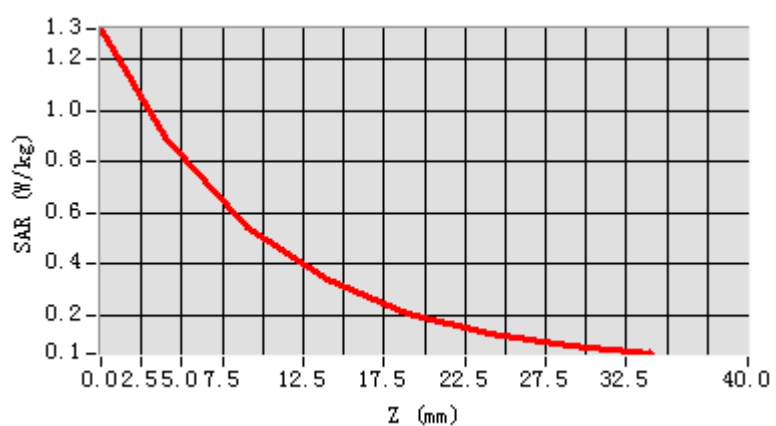


Maximum location: X=2.00, Y=1.00

SAR 10g (W/Kg)	0.577259
SAR 1g (W/Kg)	0.827269



Z Axis Scan



**System Performance Check Data (835MHz)**

Type: Phone measurement (Complete)

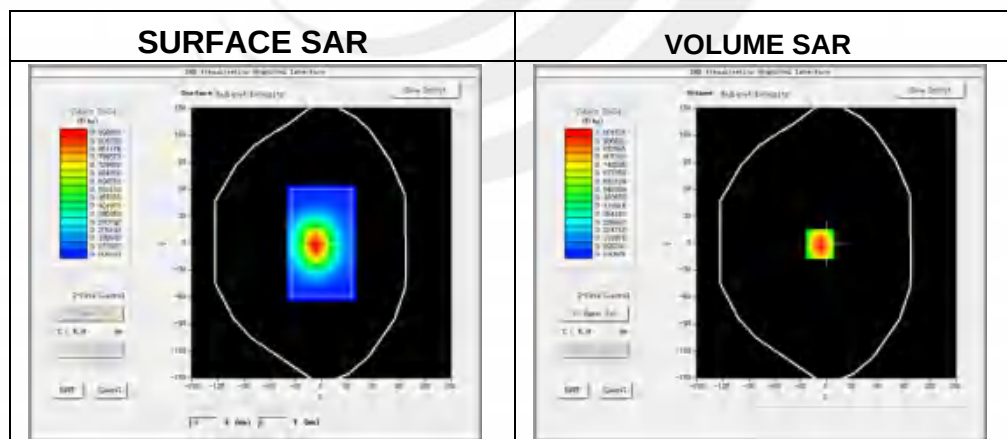
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2022-05-09

Experimental conditions

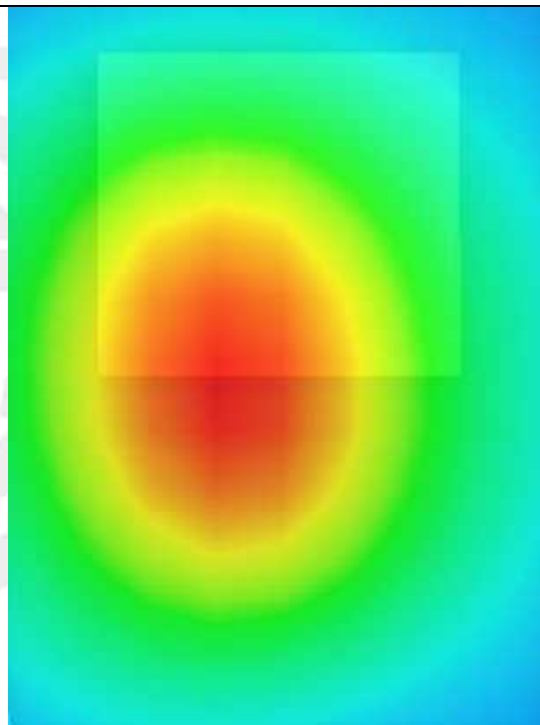
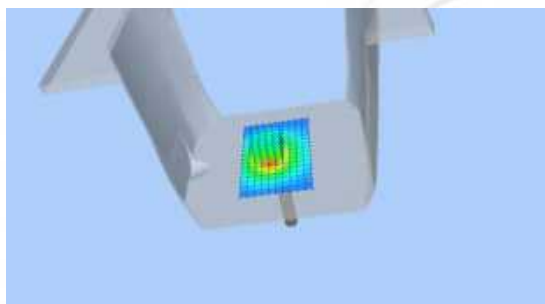
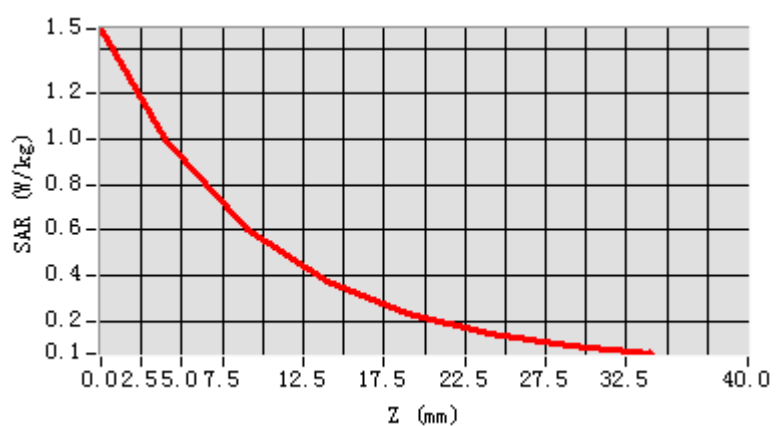
Phantom	Validation plane
Device Position	-
Band	835MHz
Channels	-
Signal	CW
Frequency (MHz)	835MHz
Relative permittivity	41.07
Conductivity (S/m)	0.97
Probe	SN 07/21 EPG0352
ConvF:	1.48
Crest factor:	1:1

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

SAR 10g (W/Kg)	0.665659
SAR 1g (W/Kg)	0.961710



Z Axis Scan



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

Type: Phone measurement (Complete)

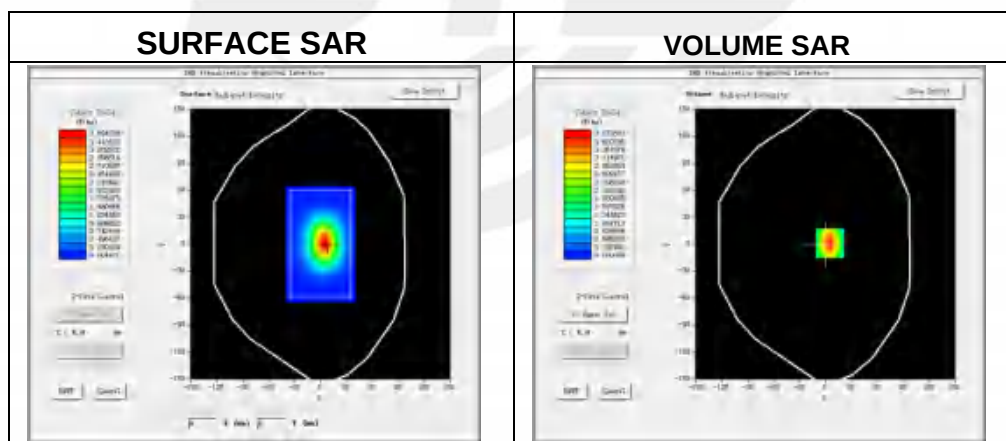
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2022-05-10

Experimental conditions.

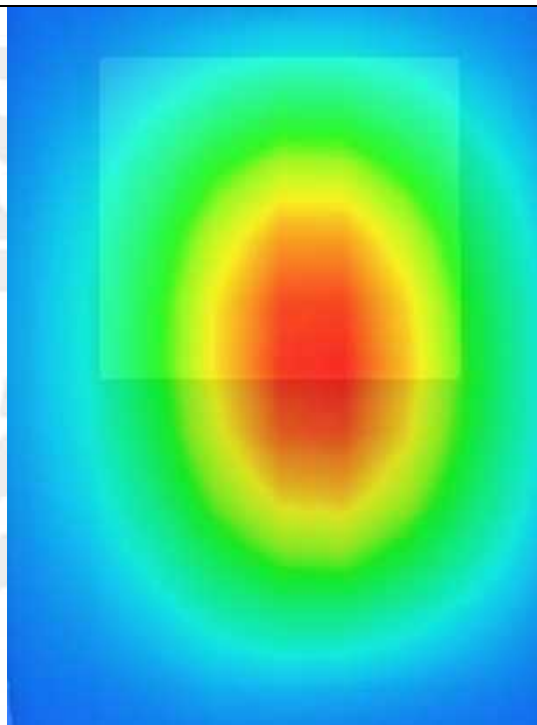
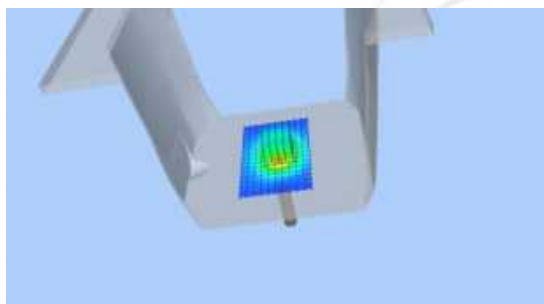
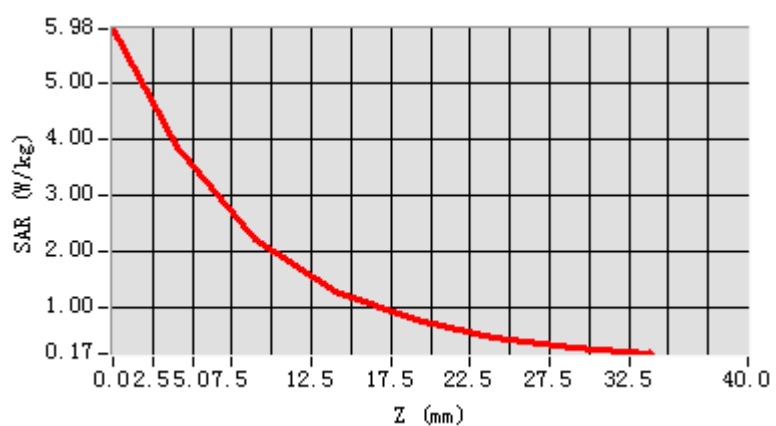
Phantom	Validation plane
Device Position	-
Band	1800MHz
Channels	-
Signal	CW
Frequency (MHz)	1800MHz
Relative permittivity	40.36
Conductivity (S/m)	1.39
Probe	SN 07/21 EPGO352
ConvF	1.60
Crest factor:	1:1

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

SAR 10g (W/Kg)	2.012627
SAR 1g (W/Kg)	3.819505



Z Axis Scan



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

Type: Phone measurement (Complete)

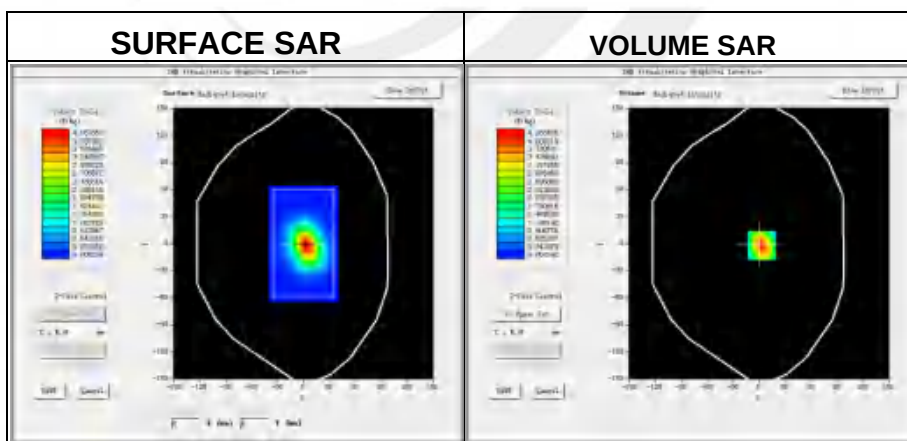
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2022-05-20

Experimental conditions.

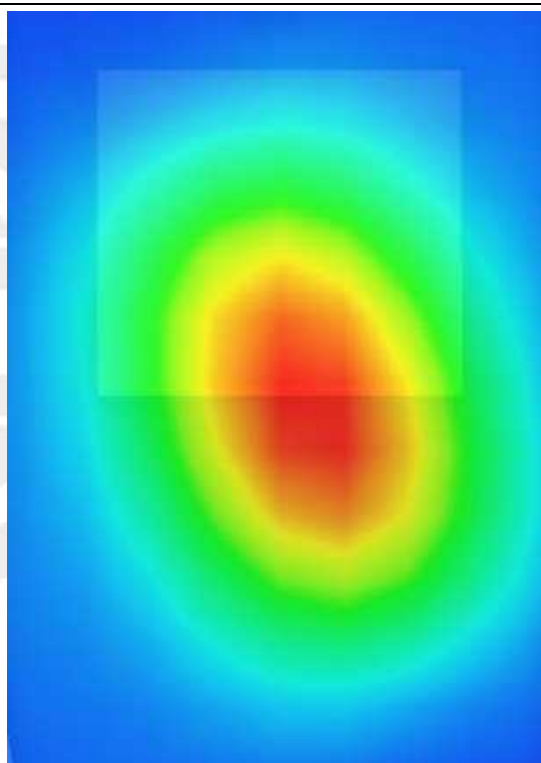
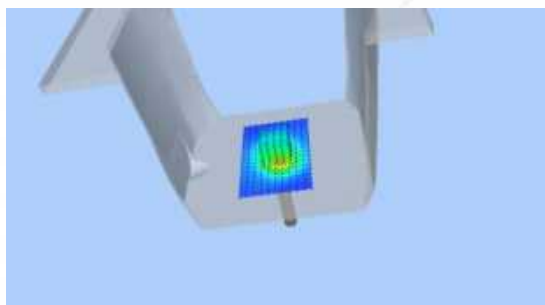
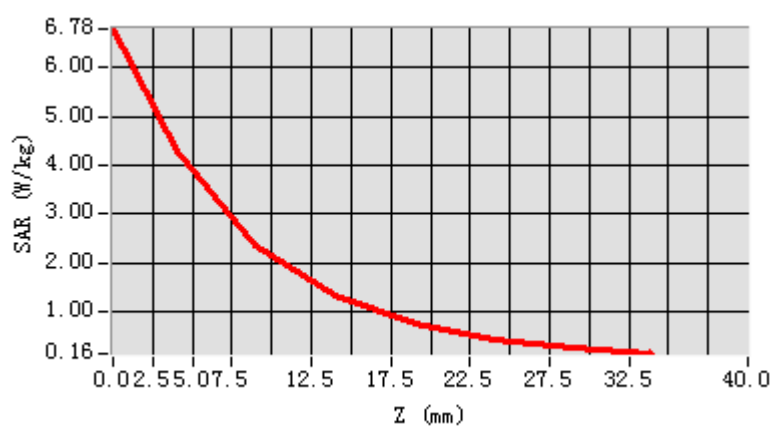
Phantom	Validation plane
Device Position	-
Band	1900MHz
Channels	-
Signal	CW
Frequency (MHz)	1900MHz
Relative permittivity	40.34
Conductivity (S/m)	1.39
Probe	SN 07/21 EPGO352
ConvF:	1.84
Crest factor:	1:1

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

SAR 10g (W/Kg)	2.038093
SAR 1g (W/Kg)	3.963429



Z Axis Scan



**System Performance Check Data (2450MHz)**

Type: Phone measurement (Complete)

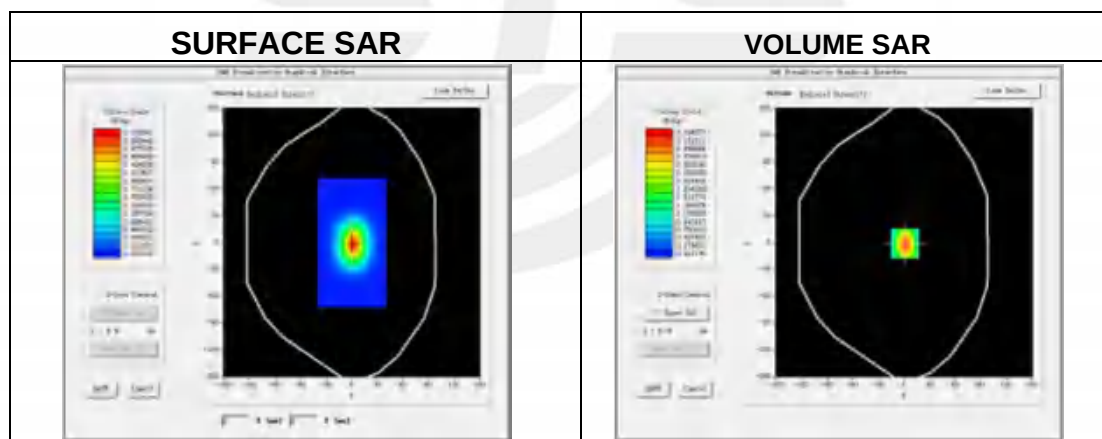
Area scan resolution: dx=8mm, dy=8mm

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

Date of measurement: 2022-05-23

Experimental conditions.

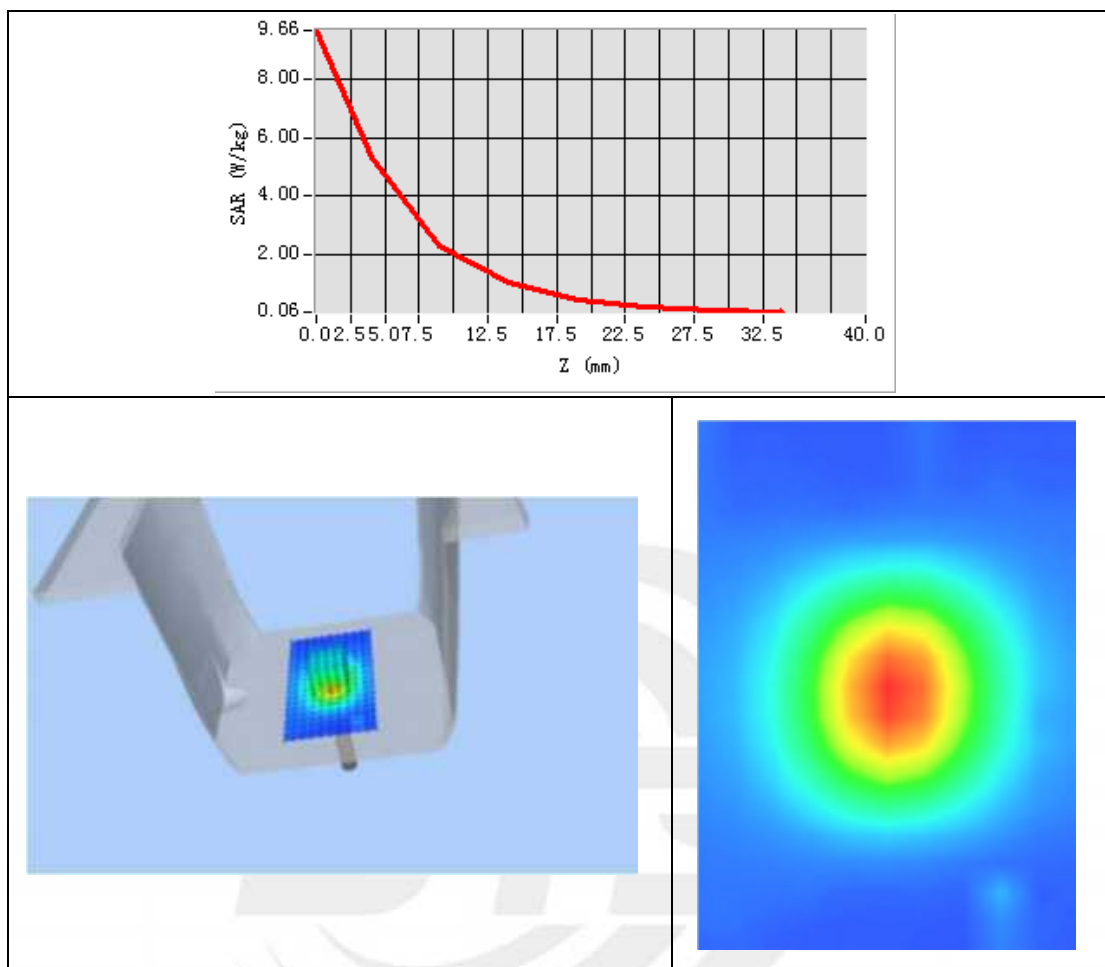
Device Position	Validation plane
Band	2450 MHz
Channels	-
Signal	CW
Frequency (MHz)	2450
Relative permittivity	39.69
Conductivity (S/m)	1.78
Probe	SN 07/21 EPGO352
ConvF	1.97
Crest factor:	1:1

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

SAR 10g (W/Kg)	2.400326
SAR 1g (W/Kg)	5.248001



Z Axis Scan



**System Performance Check Data (2600MHz)**

Type: Phone measurement (Complete)

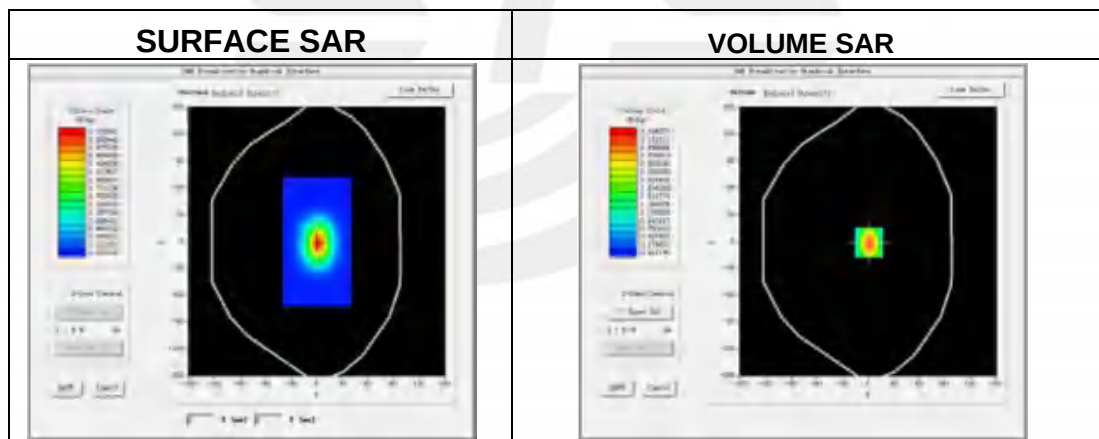
Area scan resolution: dx=8mm, dy=8mm

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

Date of measurement: 2022-05-24

Experimental conditions.

Device Position	Validation plane
Band	2600 MHz
Channels	-
Signal	CW
Frequency (MHz)	2600
Relative permittivity	39.24
Conductivity (S/m)	1.96
Probe	SN 07/21 EPGO352
ConvF	1.85
Crest factor:	1:1

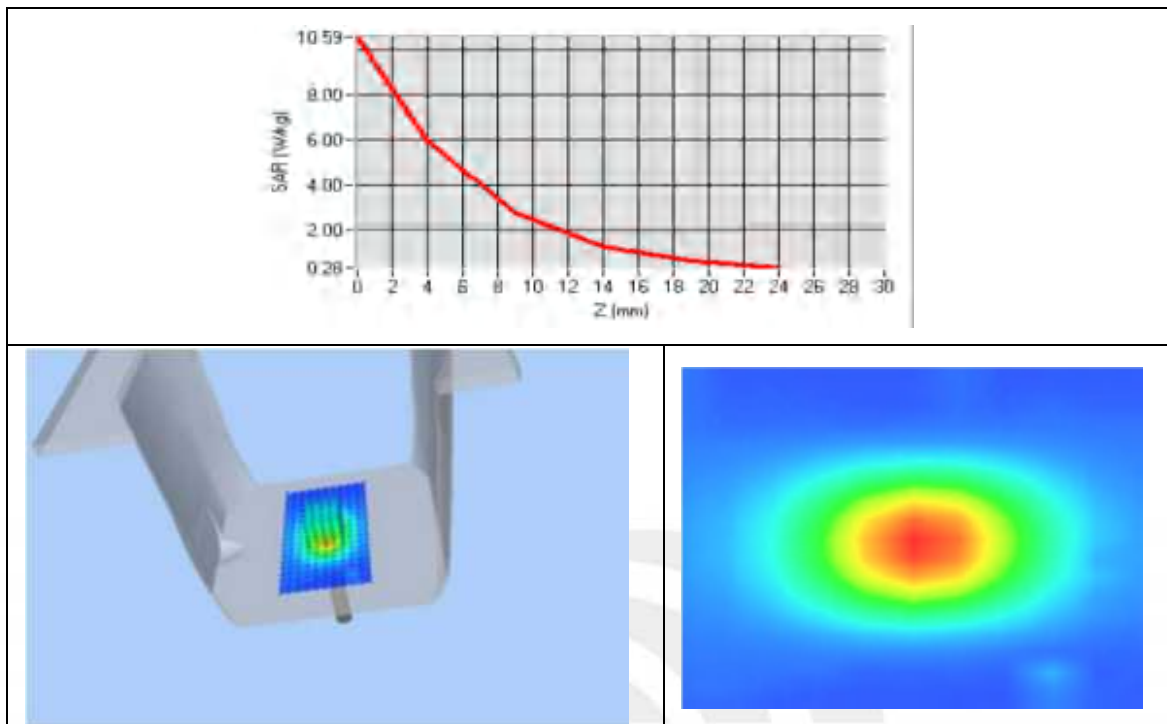


Maximum location: X=3.00, Y=1.00

SAR 10g (W/Kg)	2.497451
SAR 1g (W/Kg)	5.530635



Z Axis Scan





Appendix B. SAR Test Plots

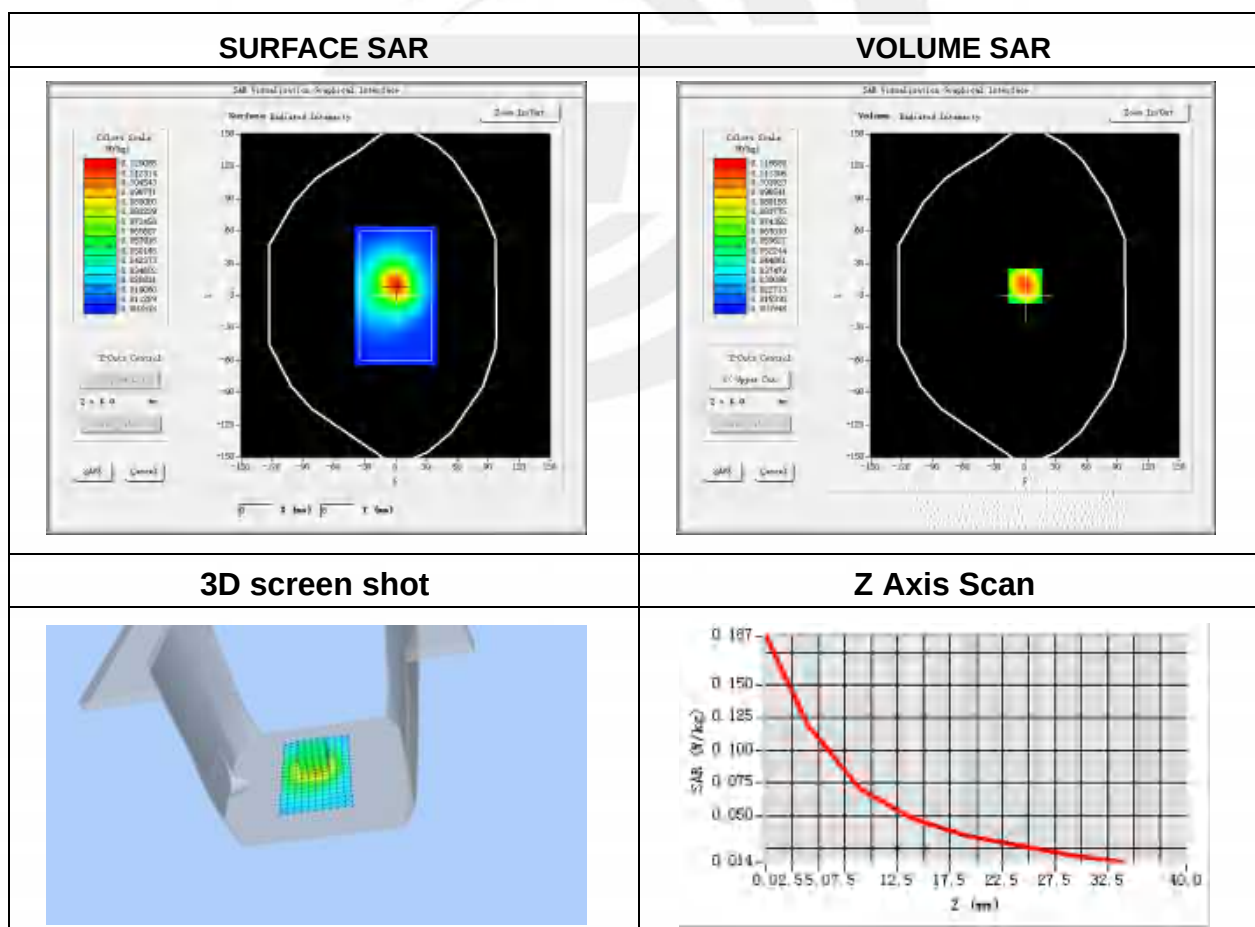
Plot 1: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-09
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	Front of face
Band	GPRS 850
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	824.2

Maximum location: X=0.00, Y=9.00

SAR Peak: 0.19 W/kg

SAR 10g (W/Kg)	0.066962
SAR 1g (W/Kg)	0.111656



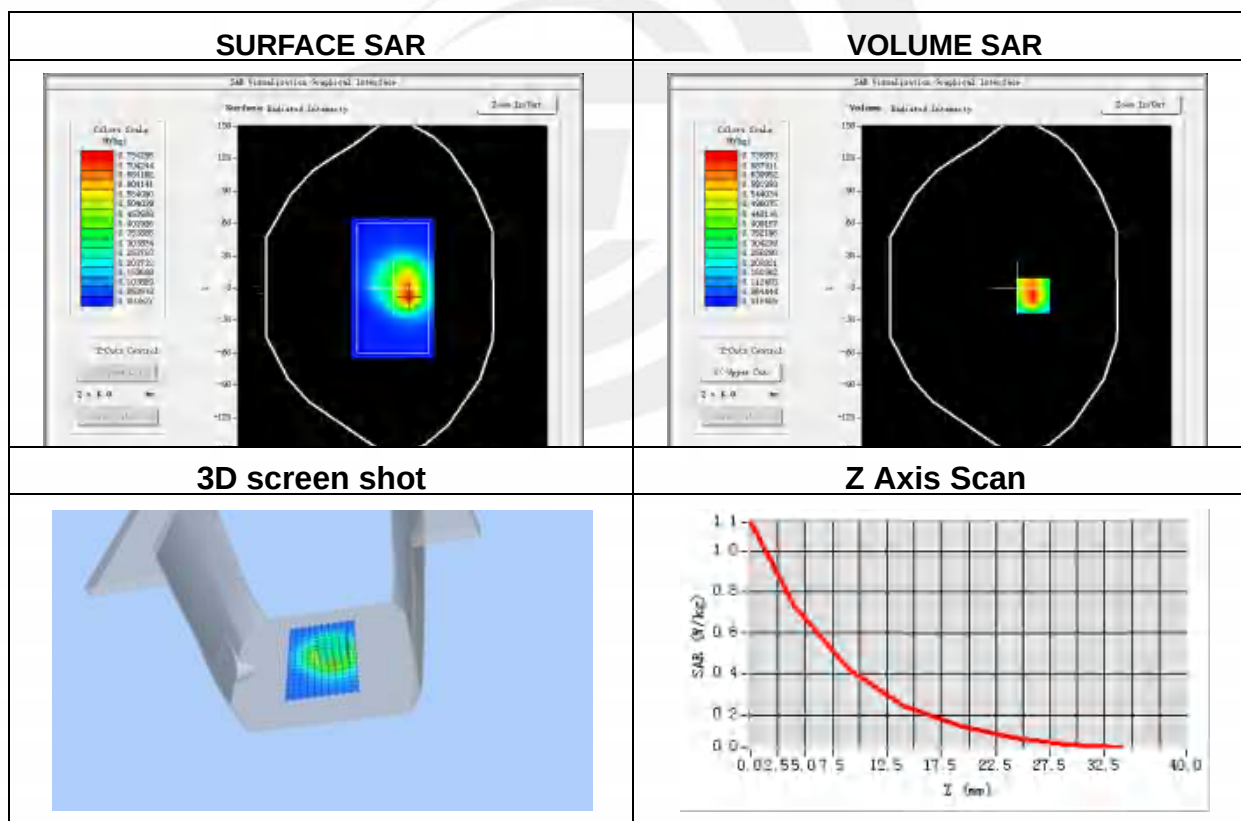

Plot 2: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-09
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	Wrist
Band	GPRS 850
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	824.2

Maximum location: X=16.00, Y=-7.00

SAR Peak: 1.25 W/kg

SAR 10g (W/Kg)	0.365479
SAR 1g (W/Kg)	0.704162



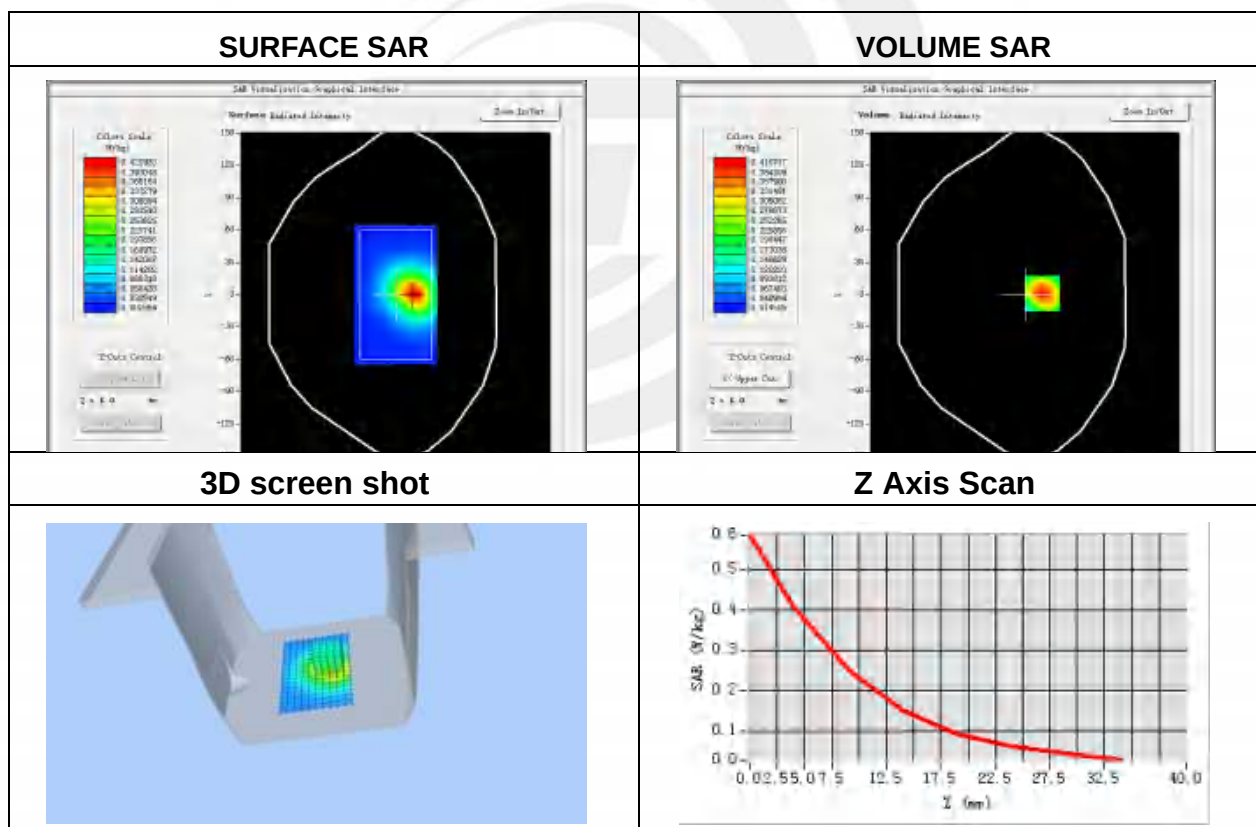

Plot 3: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-10
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	Front of face
Band	GPRS 1900
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	1745

Maximum location: X=17.00, Y=1.00

SAR Peak: 0.59 W/kg

SAR 10g (W/Kg)	0.219795
SAR 1g (W/Kg)	0.386766



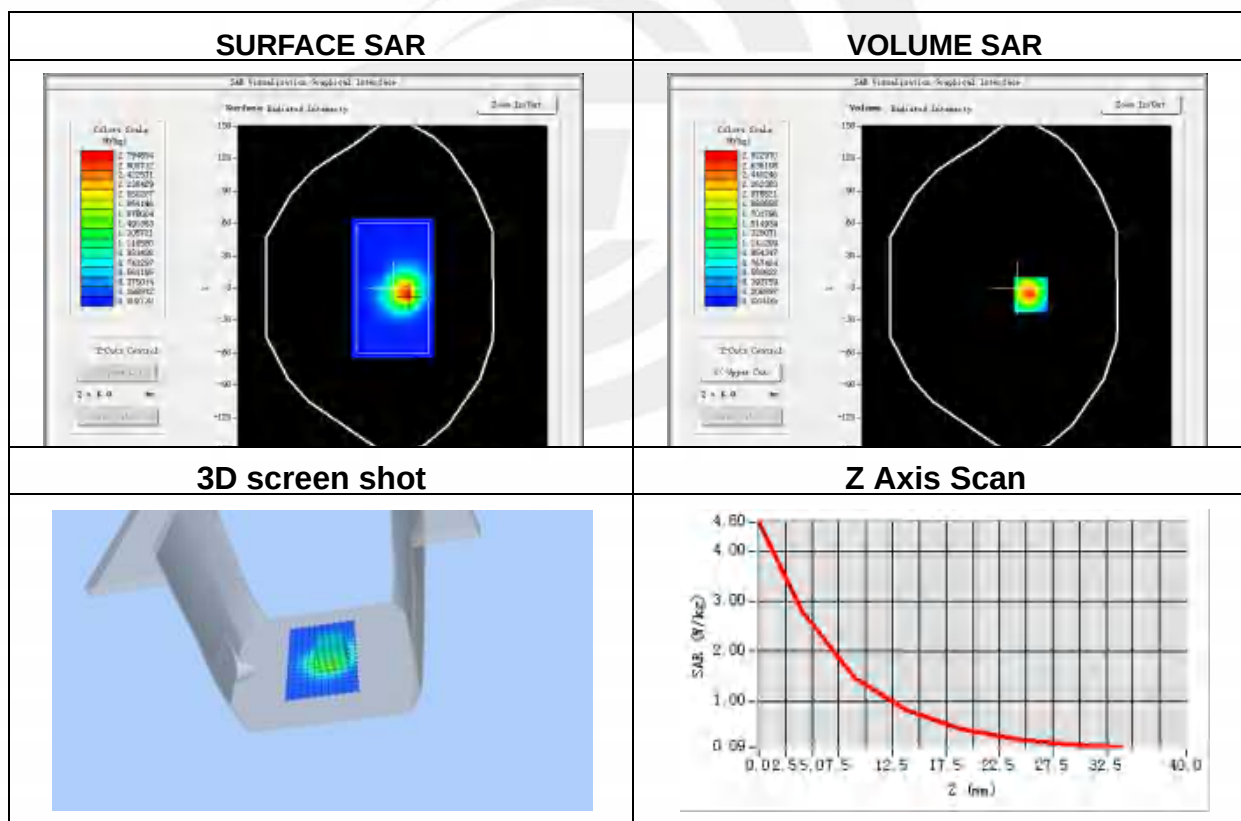

Plot 4: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-10
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	Wrist
Band	GPRS 1900
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	1745

Maximum location: X=14.00, Y=-6.00

SAR Peak: 4.58 W/kg

SAR 10g (W/Kg)	1.295967
SAR 1g (W/Kg)	2.618891



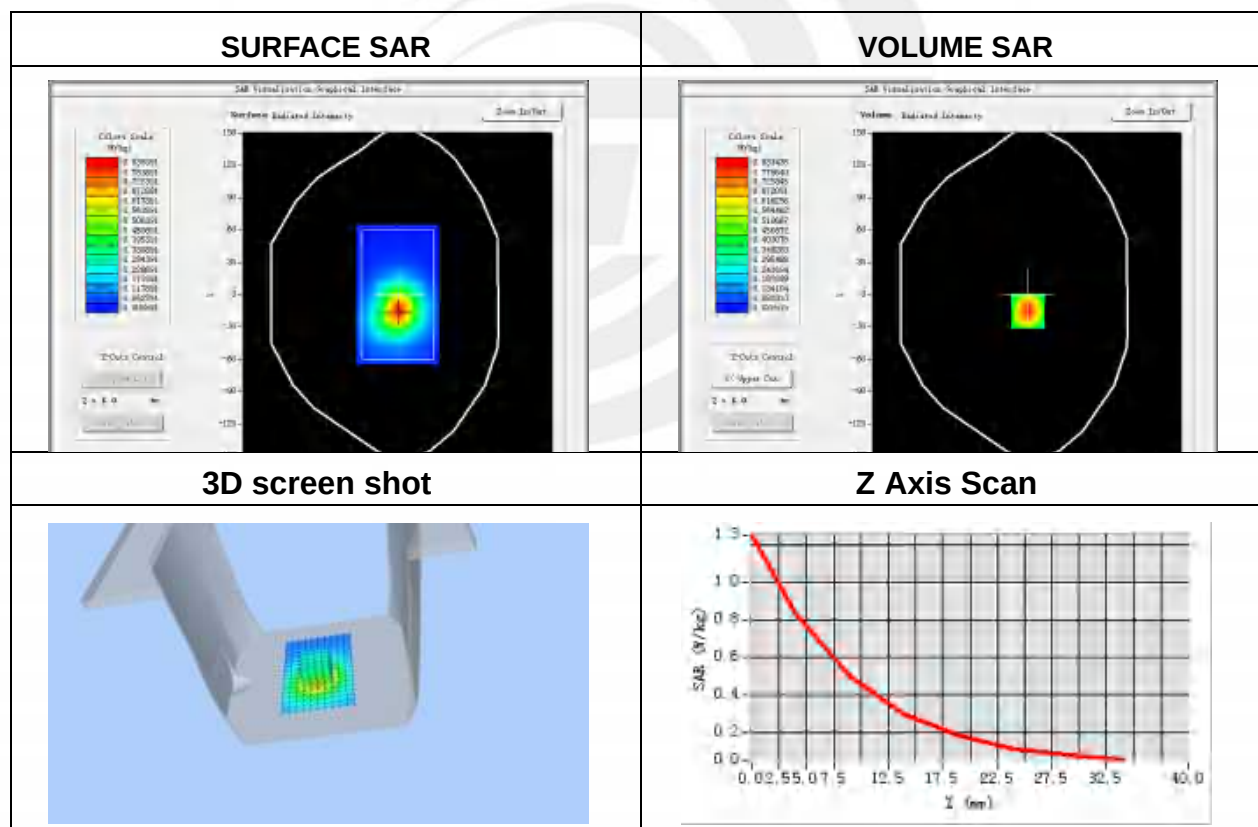

Plot 5: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-20
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 of face
Band	WCDMA II
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1880

Maximum location: X=1.00, Y=-15.00

SAR Peak: 1.25 W/kg

SAR 10g (W/Kg)	0.439583
SAR 1g (W/Kg)	0.796029



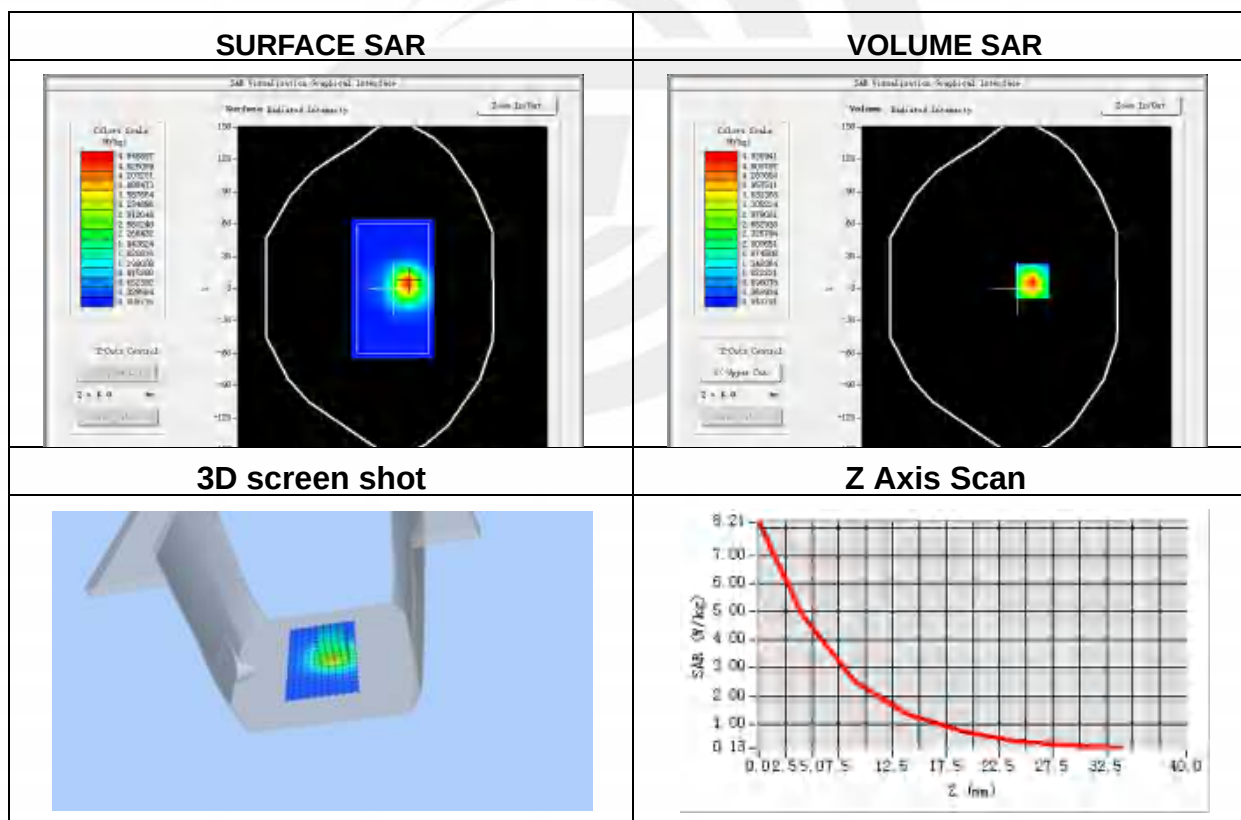

Plot 6: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-20
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	Wrist
Band	WCDMA II
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1880

Maximum location: X=15.00, Y=7.00

SAR Peak: 8.11 W/kg

SAR 10g (W/Kg)	2.194367
SAR 1g (W/Kg)	4.611578



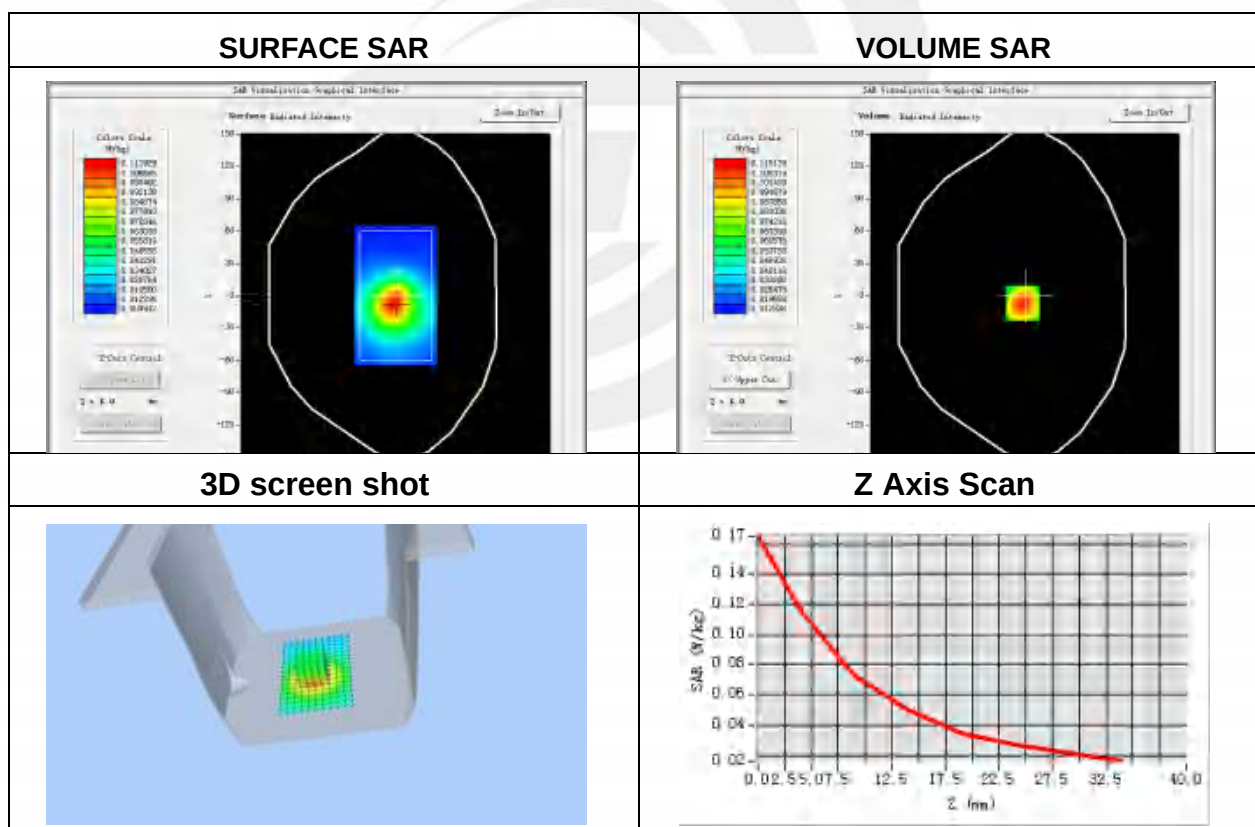

Plot 7: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-09
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 of face
Band	WCDMA 5
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	836.6

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

SAR Peak: 0.17 W/kg

SAR 10g (W/Kg)	0.068473
SAR 1g (W/Kg)	0.110437



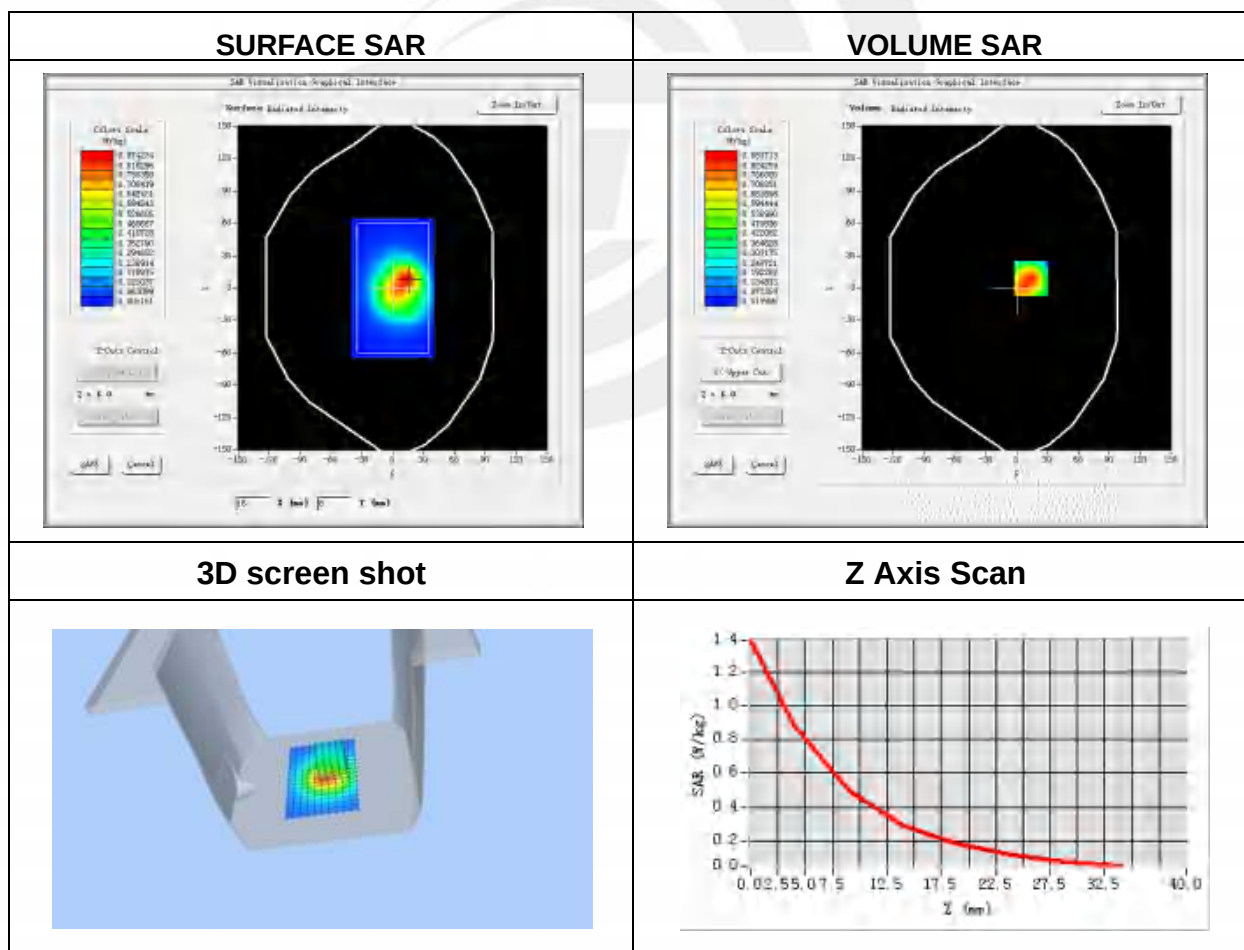

Plot 8: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-09
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	Wrist
Band	WCDMA 5
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	836.6

Maximum location: X=14.00, Y=9.00

SAR Peak: 1.43 W/kg

SAR 10g (W/Kg)	0.463472
SAR 1g (W/Kg)	0.843874



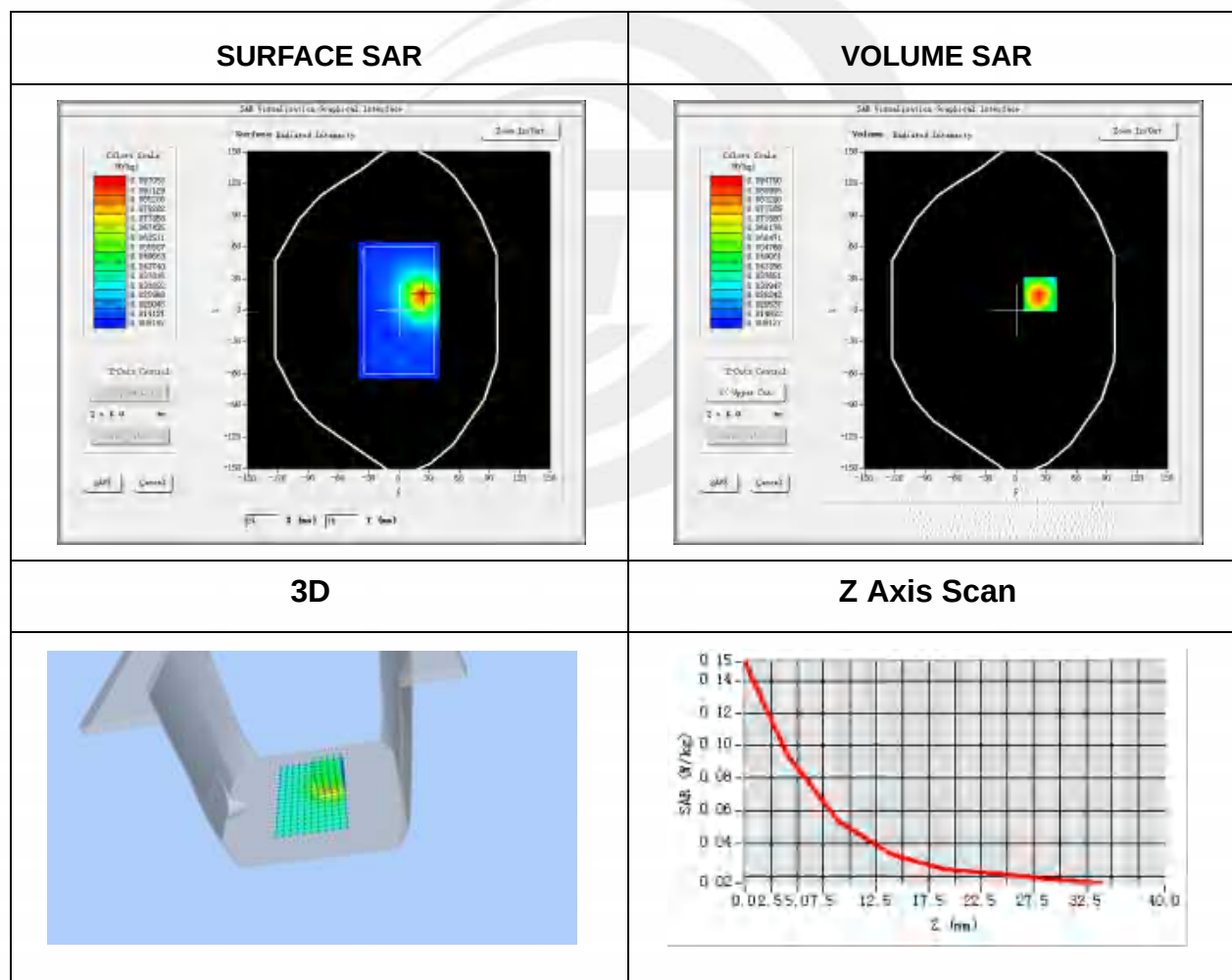

Plot 9: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-23
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 of face
Band	IEEE 802.11b ISM
Signal	IEEE802.b (Crest factor: 1.0)
Frequency (MHz)	2462

Maximum location: X=24.00, Y=15.00

SAR Peak: 0.15 W/kg

SAR 10g (W/Kg)	0.049855
SAR 1g (W/Kg)	0.089951



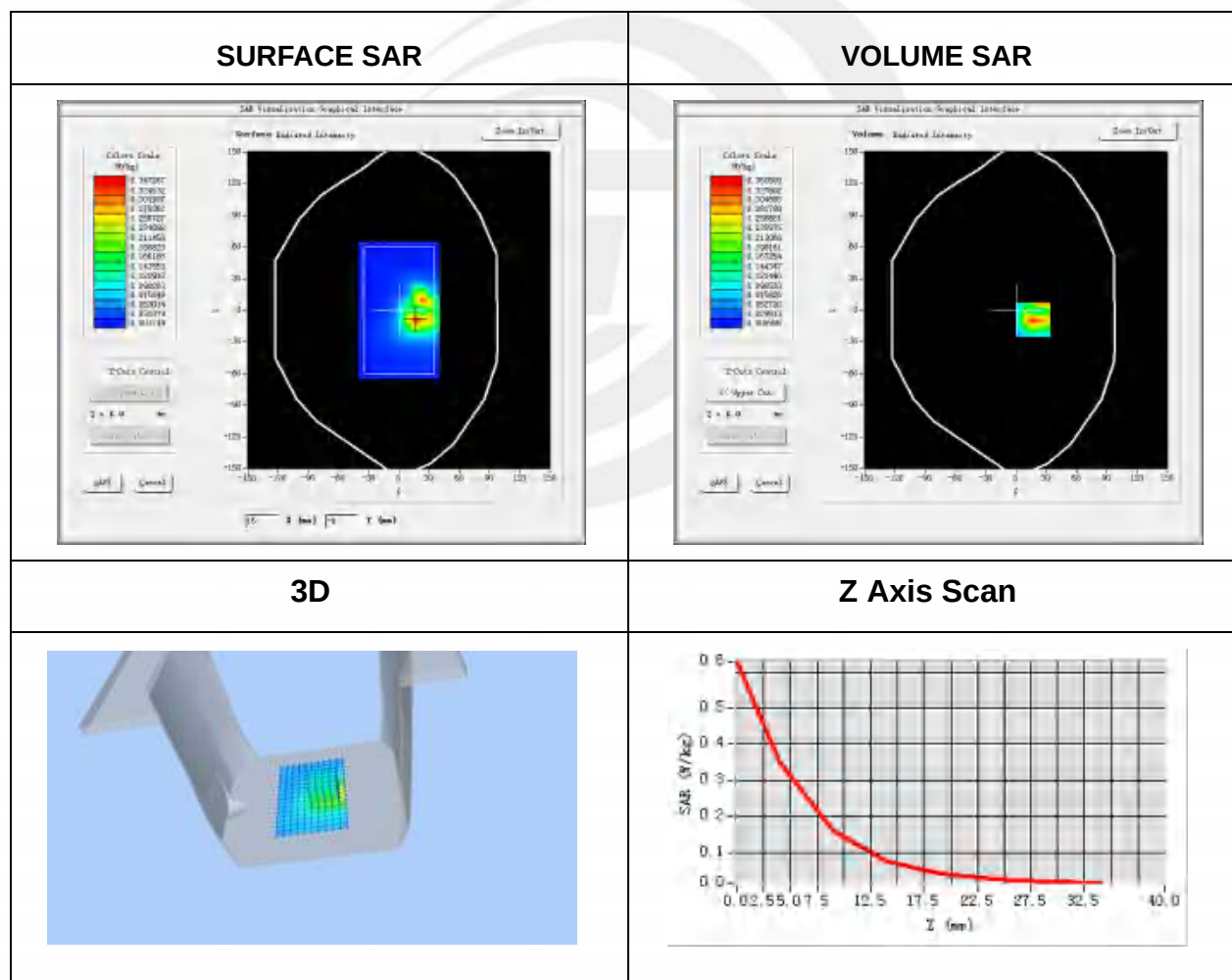

Plot 10: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-23
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	Wrist
Band	IEEE 802.11b ISM
Signal	IEEE802.b (Crest factor: 1.0)
Frequency (MHz)	2462

Maximum location: X=17.00, Y=-9.00

SAR Peak: 0.64 W/kg

SAR 10g (W/Kg)	0.133180
SAR 1g (W/Kg)	0.310824



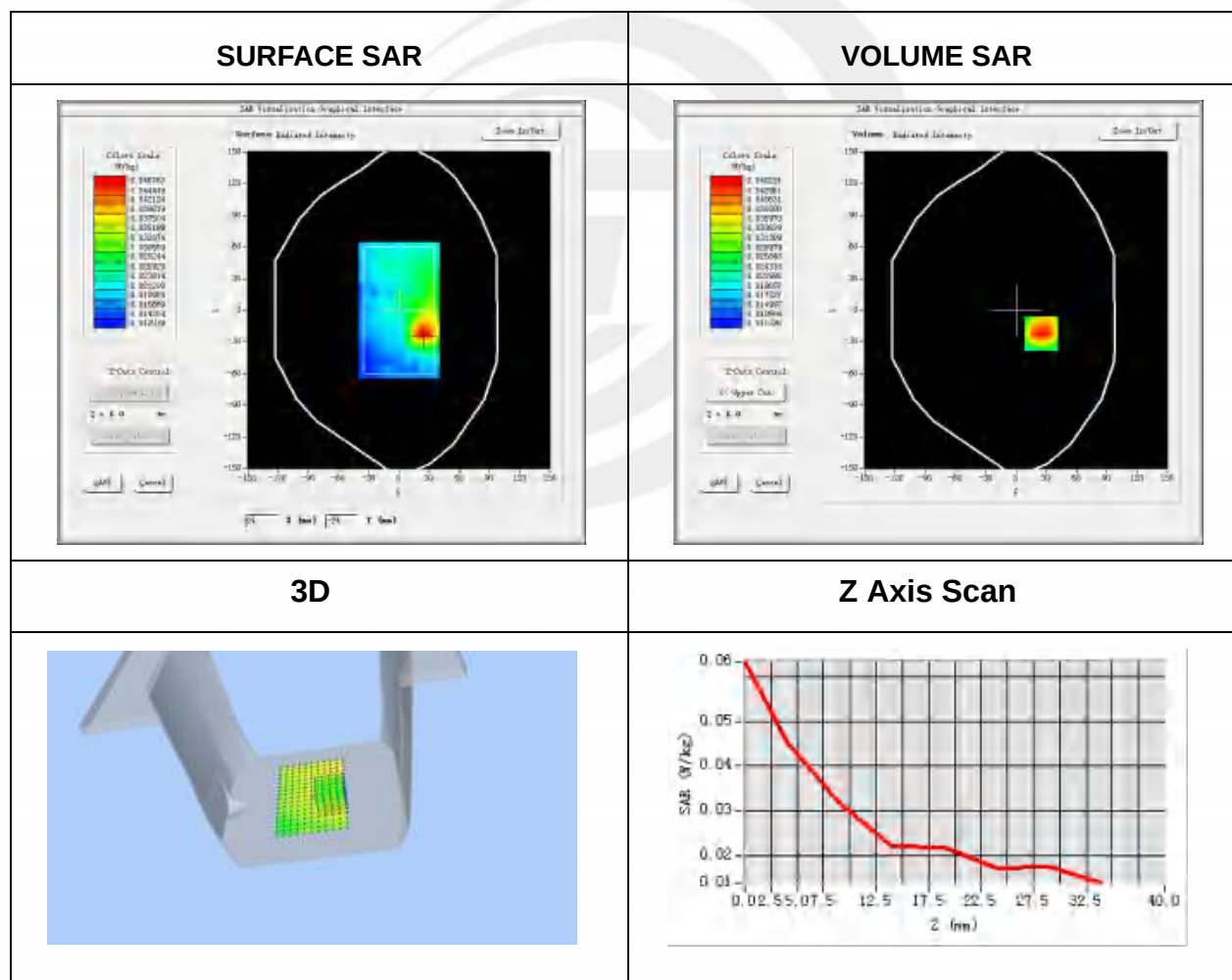

Plot 11: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-23
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 of face
Band	BLE
Signal	GFSK (Crest factor: 1.0)
Frequency (MHz)	2442

Maximum location: X=25.00, Y=-22.00

SAR Peak: 0.07 W/kg

SAR 10g (W/Kg)	0.029447
SAR 1g (W/Kg)	0.043592





Plot 12: DUT: NickWatch V1; EUT Model: TRKNICK001

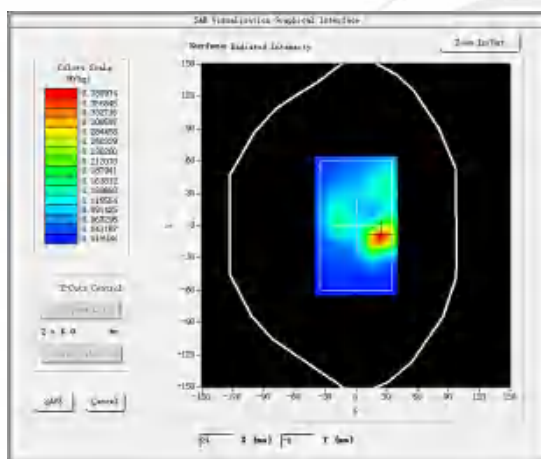
Test Date	2022-05-23
Probe	SN 07/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Wrist
Band	BLE
Signal	GFSK (Crest factor: 1.0)
Frequency (MHz)	2442

Maximum location: X=24.00, Y=-10.00

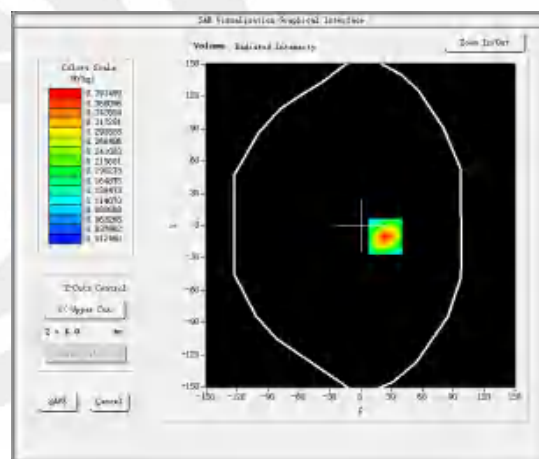
SAR Peak: 0.66 W/kg

SAR 10g (W/Kg)	0.175389
SAR 1g (W/Kg)	0.366916

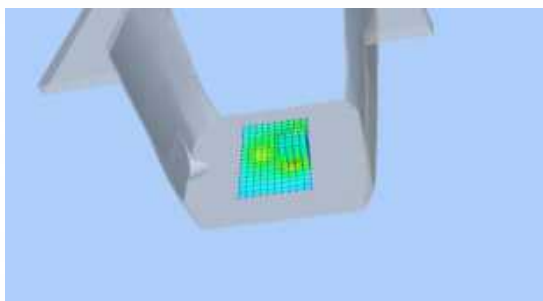
SURFACE SAR



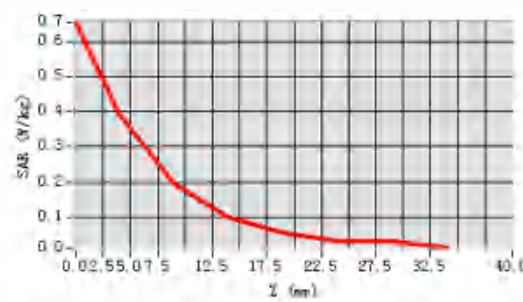
VOLUME SAR



3D



Z Axis Scan



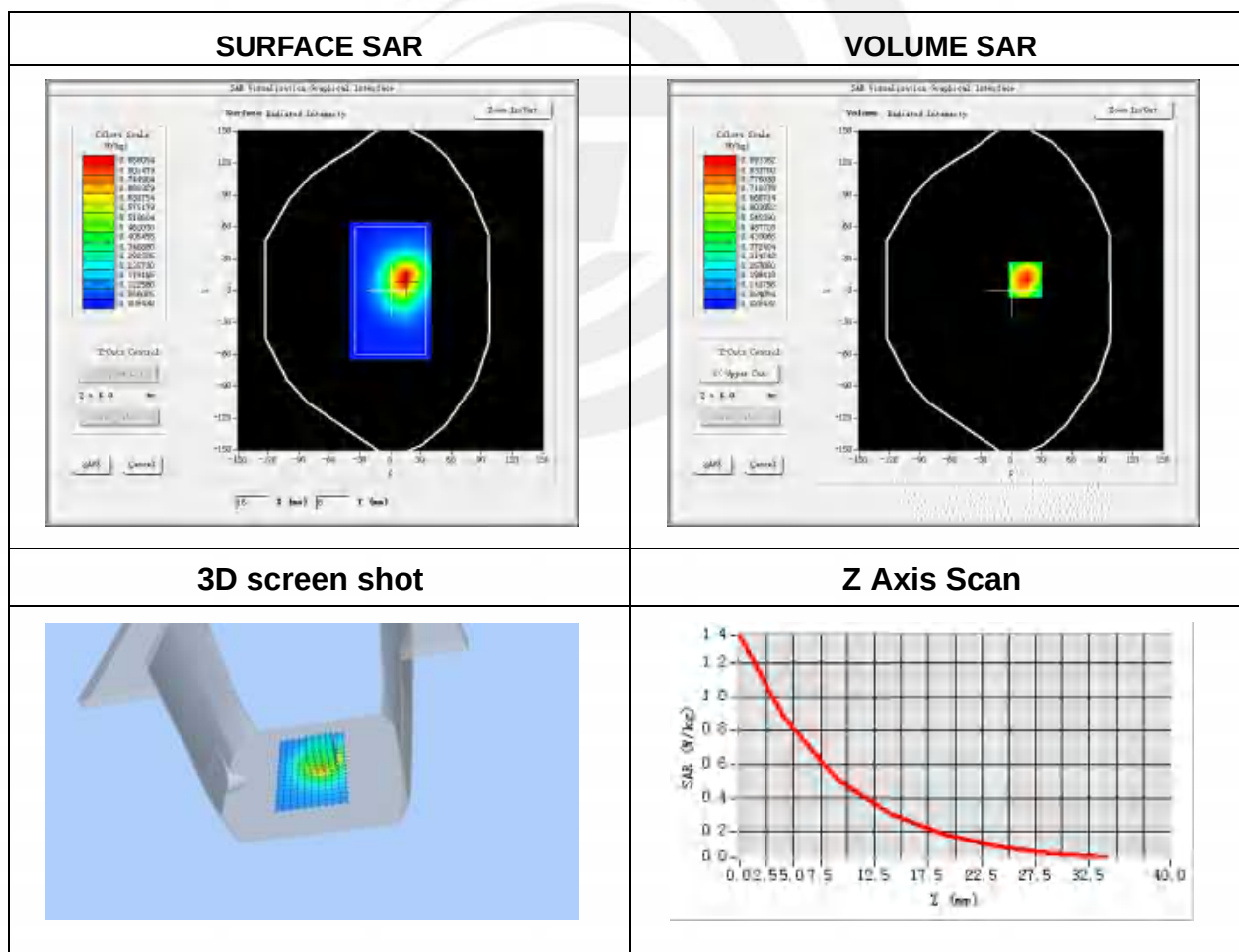

Plot 13: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-20
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 of face
Band	LTE Band 2
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	1900

Maximum location: X=14.00, Y=10.00

SAR Peak: 1.36 W/kg

SAR 10g (W/Kg)	0.460273
SAR 1g (W/Kg)	0.844862



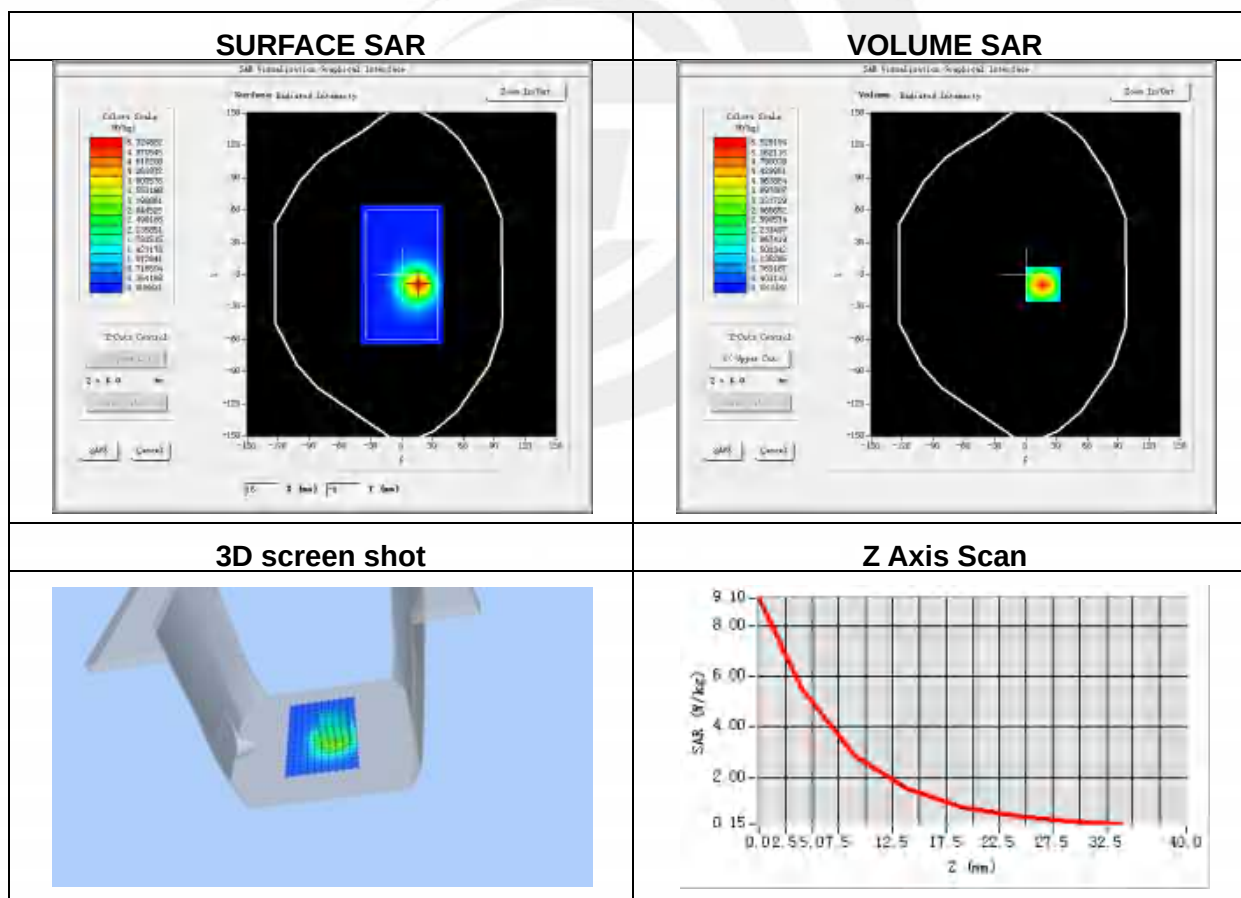

Plot 14: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-20
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	Wrist
Band	LTE Band 2
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1900

Maximum location: X=17.00, Y=-9.00

SAR Peak: 9.29 W/kg

SAR 10g (W/Kg)	2.419764
SAR 1g (W/Kg)	5.090155



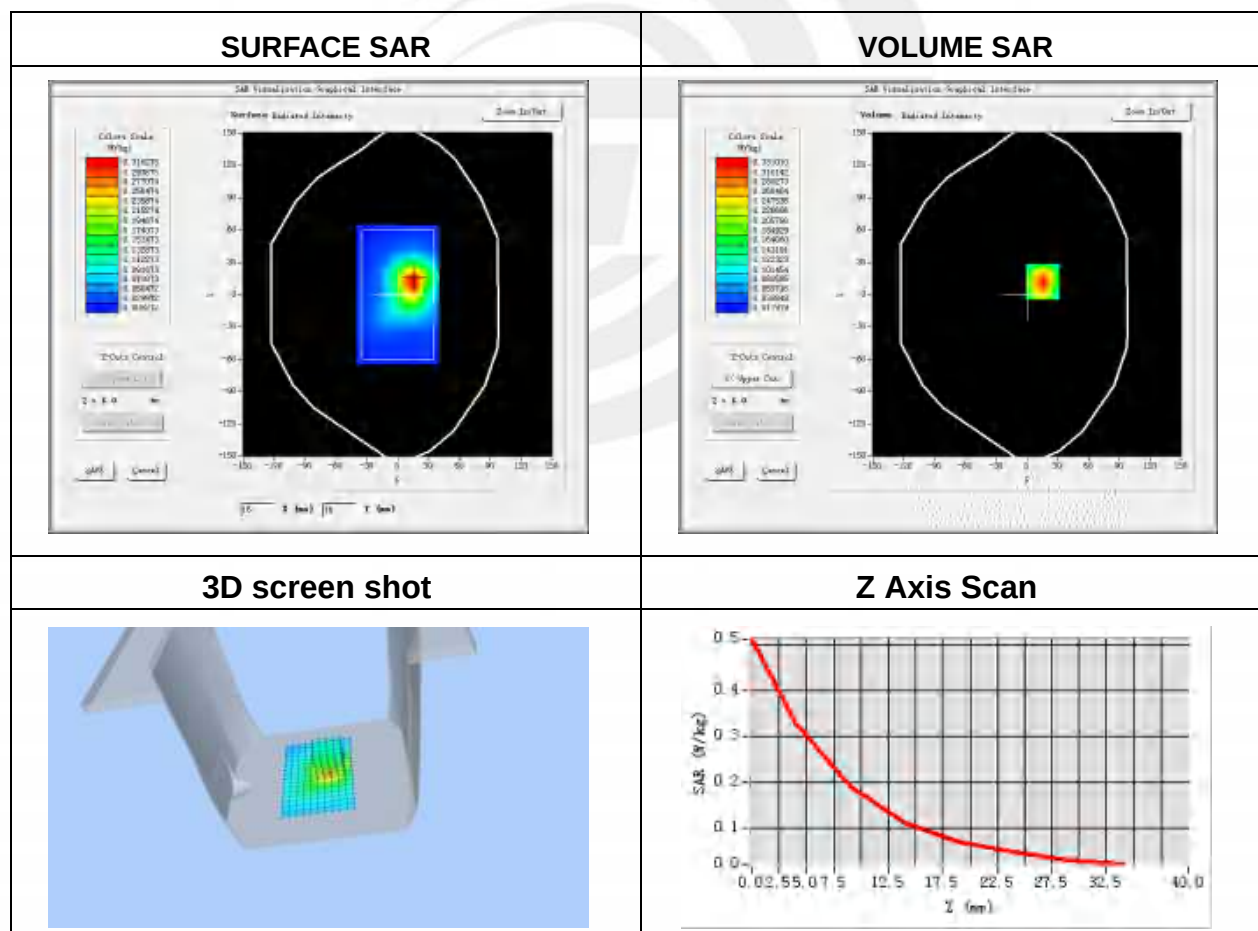

Plot 15: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-10
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 of face
Band	LTE Band 4
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1720

Maximum location: X=15.00, Y=12.00

SAR Peak: 0.51 W/kg

SAR 10g (W/Kg)	0.168449
SAR 1g (W/Kg)	0.310772



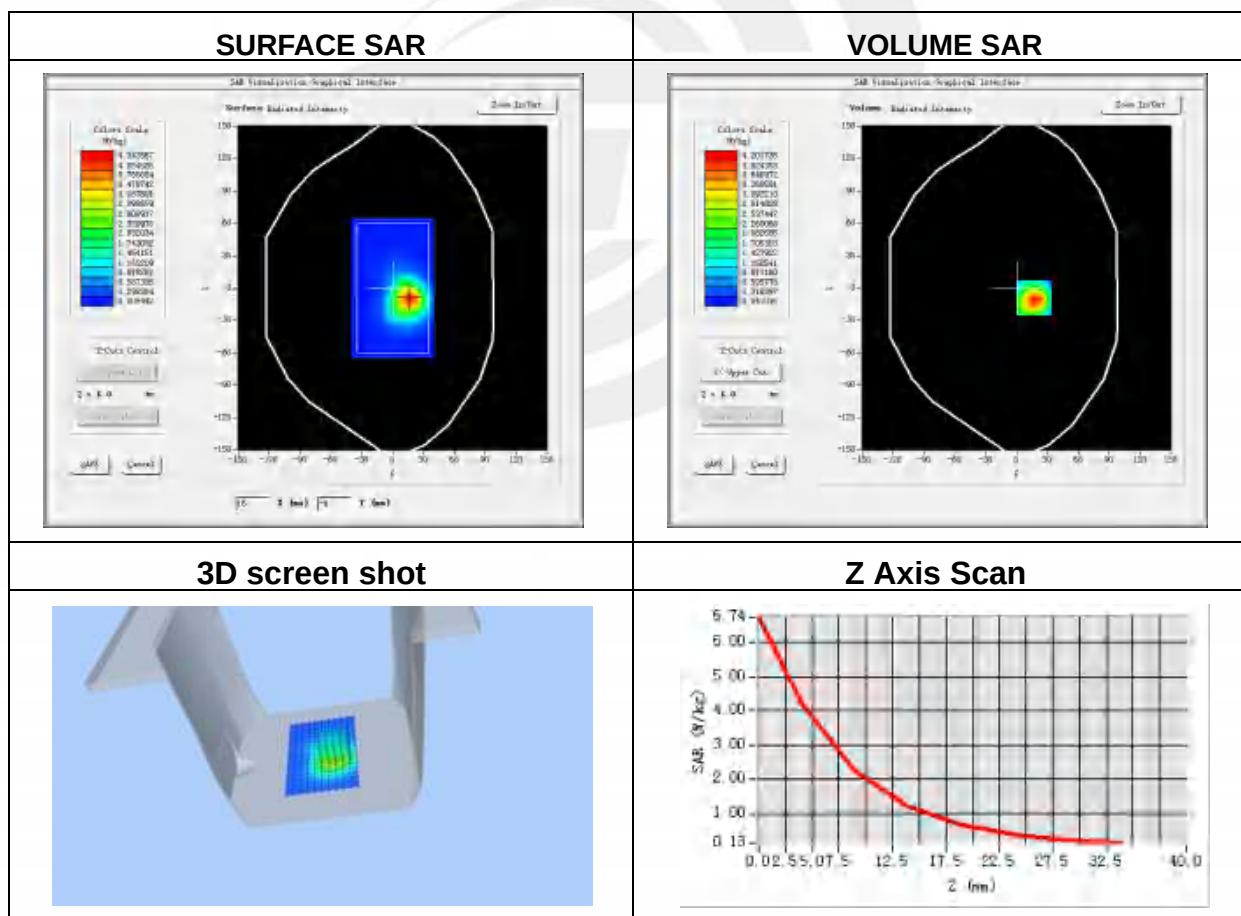

Plot 16: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-10
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	Wrist
Band	LTE Band 4
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1720

Maximum location: X=17.00, Y=-9.00

SAR Peak: 7.37 W/kg

SAR 10g (W/Kg)	1.862647
SAR 1g (W/Kg)	4.003405



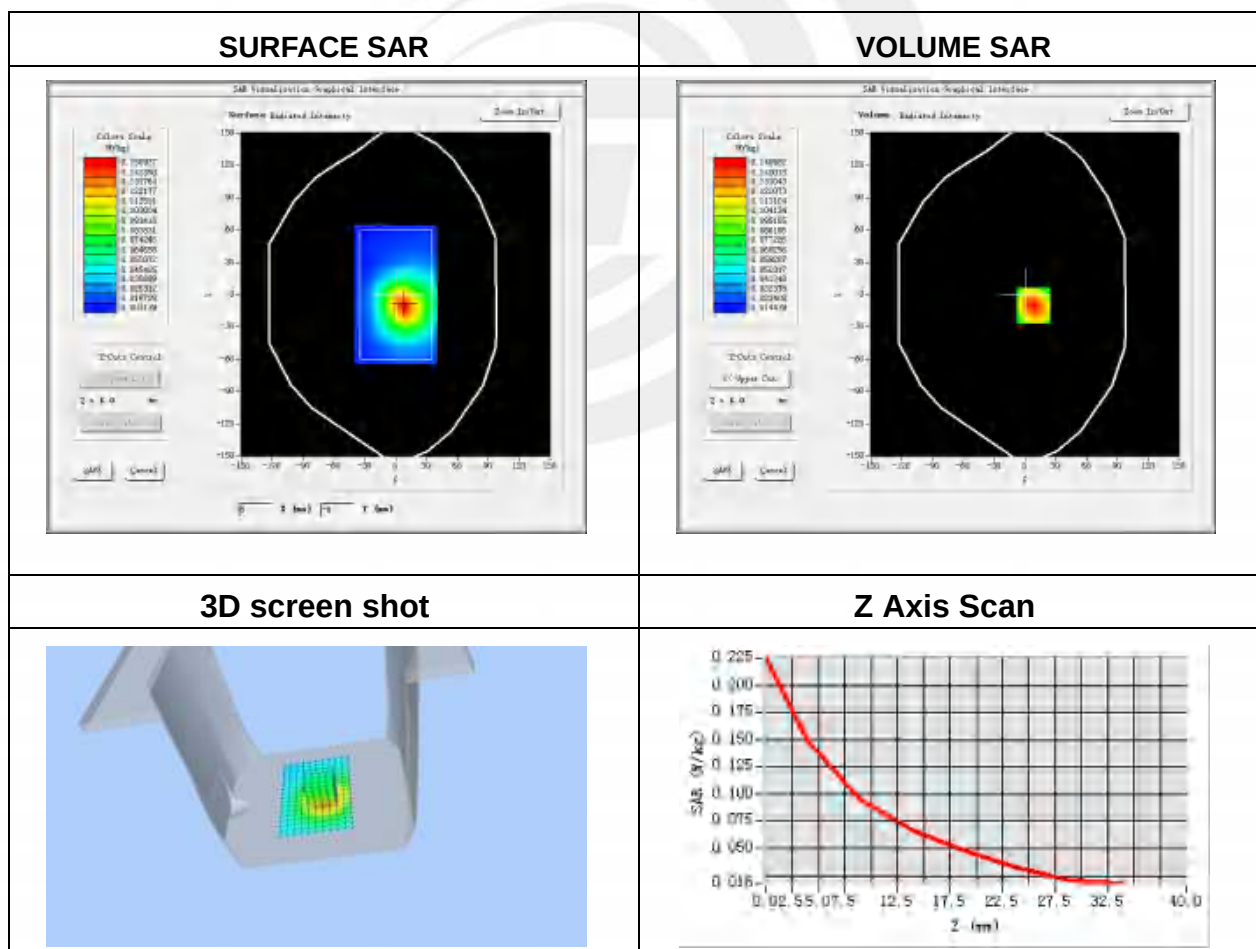

Plot 17: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-09
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 of face
Band	LTE Band 5
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	836.5

Maximum location: X=8.00, Y=-10.00

SAR Peak: 0.22 W/kg

SAR 10g (W/Kg)	0.089078
SAR 1g (W/Kg)	0.146077



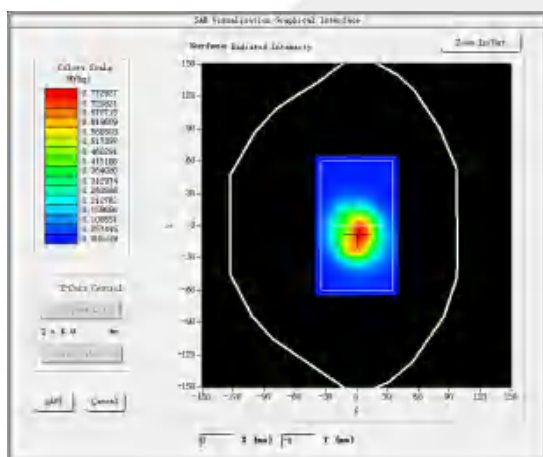
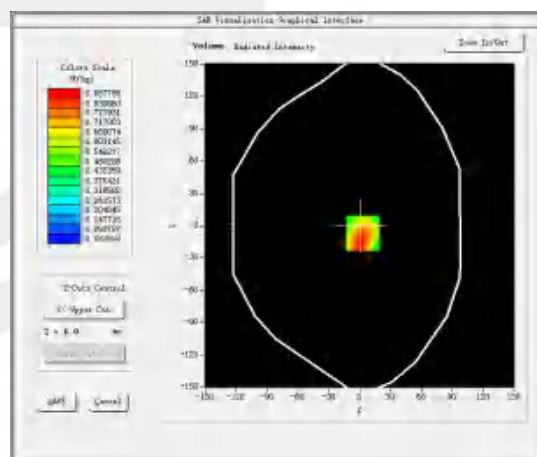
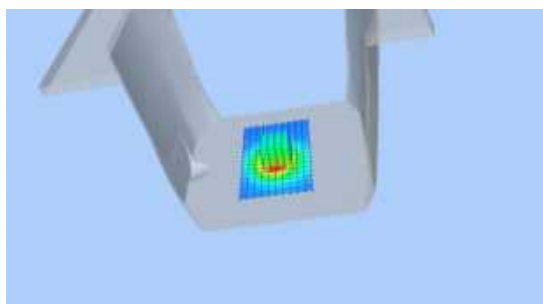
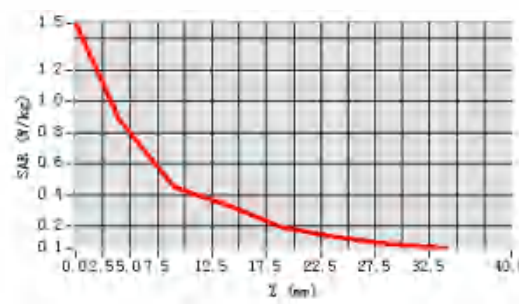

Plot 18: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-09
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	Wrist
Band	LTE Band 5
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	836.5

Maximum location: X=3.00, Y=-7.00

SAR Peak: 1.52 W/kg

SAR 10g (W/Kg)	0.492838
SAR 1g (W/Kg)	0.868467

SURFACE SAR

VOLUME SAR

3D screen shot

Z Axis Scan


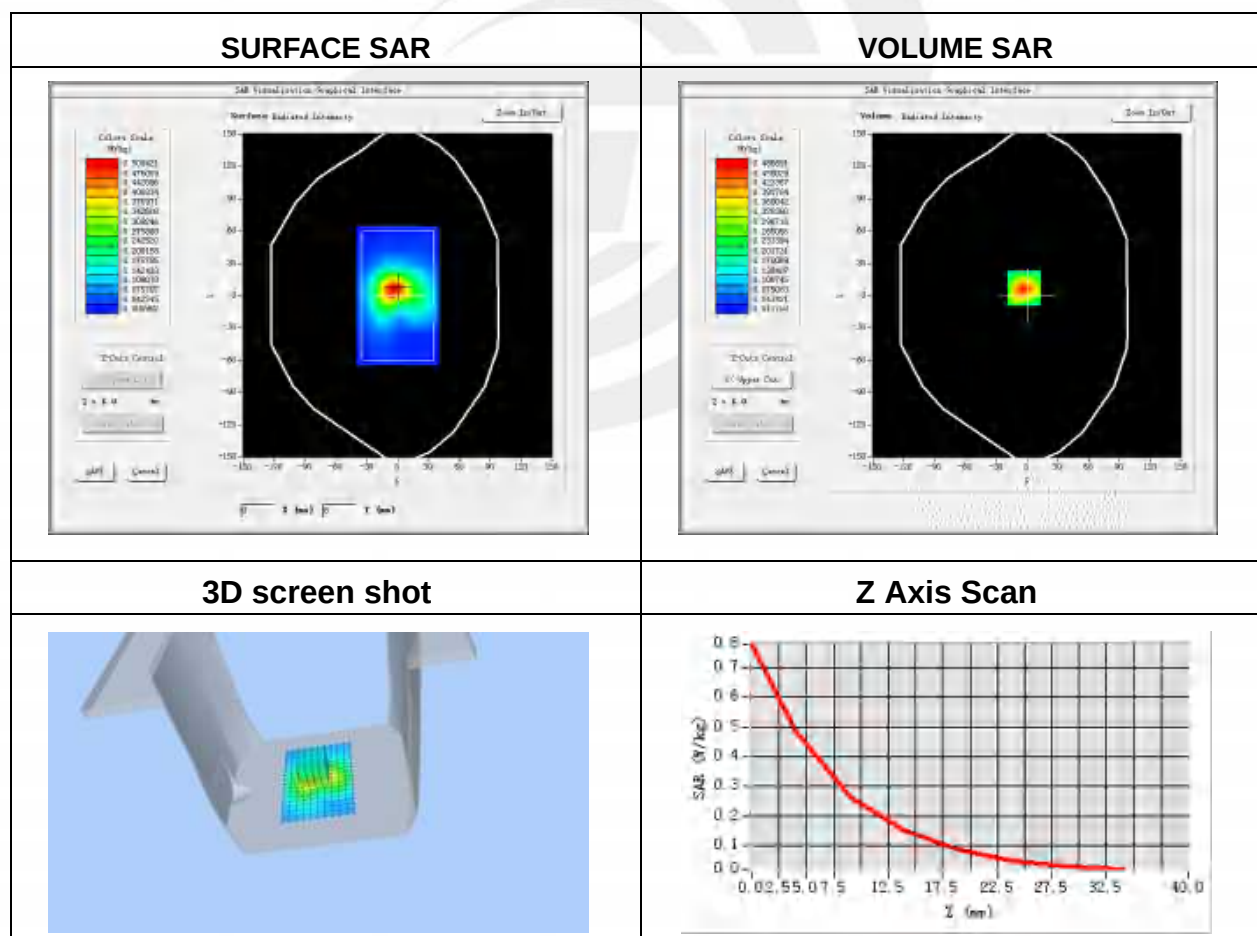

Plot 19: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-24
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 of face
Band	LTE Band 7
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	2510

Maximum location: X=-3.00, Y=7.00

SAR Peak: 0.78 W/kg

SAR 10g (W/Kg)	0.233006
SAR 1g (W/Kg)	0.457209



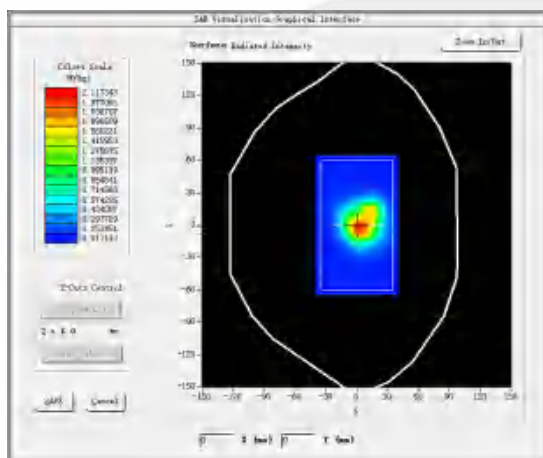
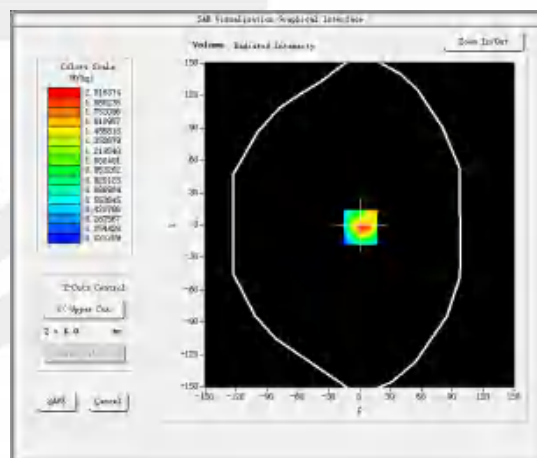
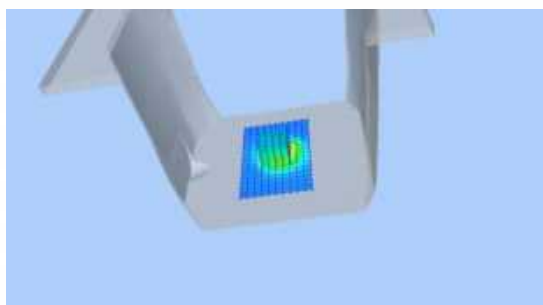
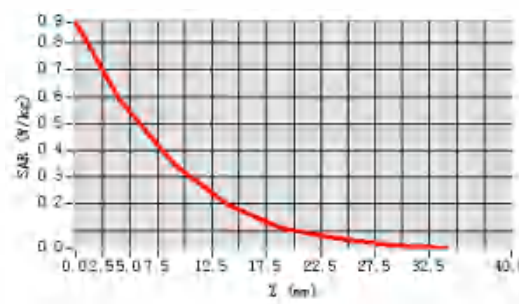

Plot 20: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-24
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	Wrist
Band	LTE Band 7
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	2510

Maximum location: X=1.00, Y=-2.00

SAR Peak: 3.59 W/kg

SAR 10g (W/Kg)	0.865357
SAR 1g (W/Kg)	1.904451

SURFACE SAR

VOLUME SAR

3D screen shot

Z Axis Scan


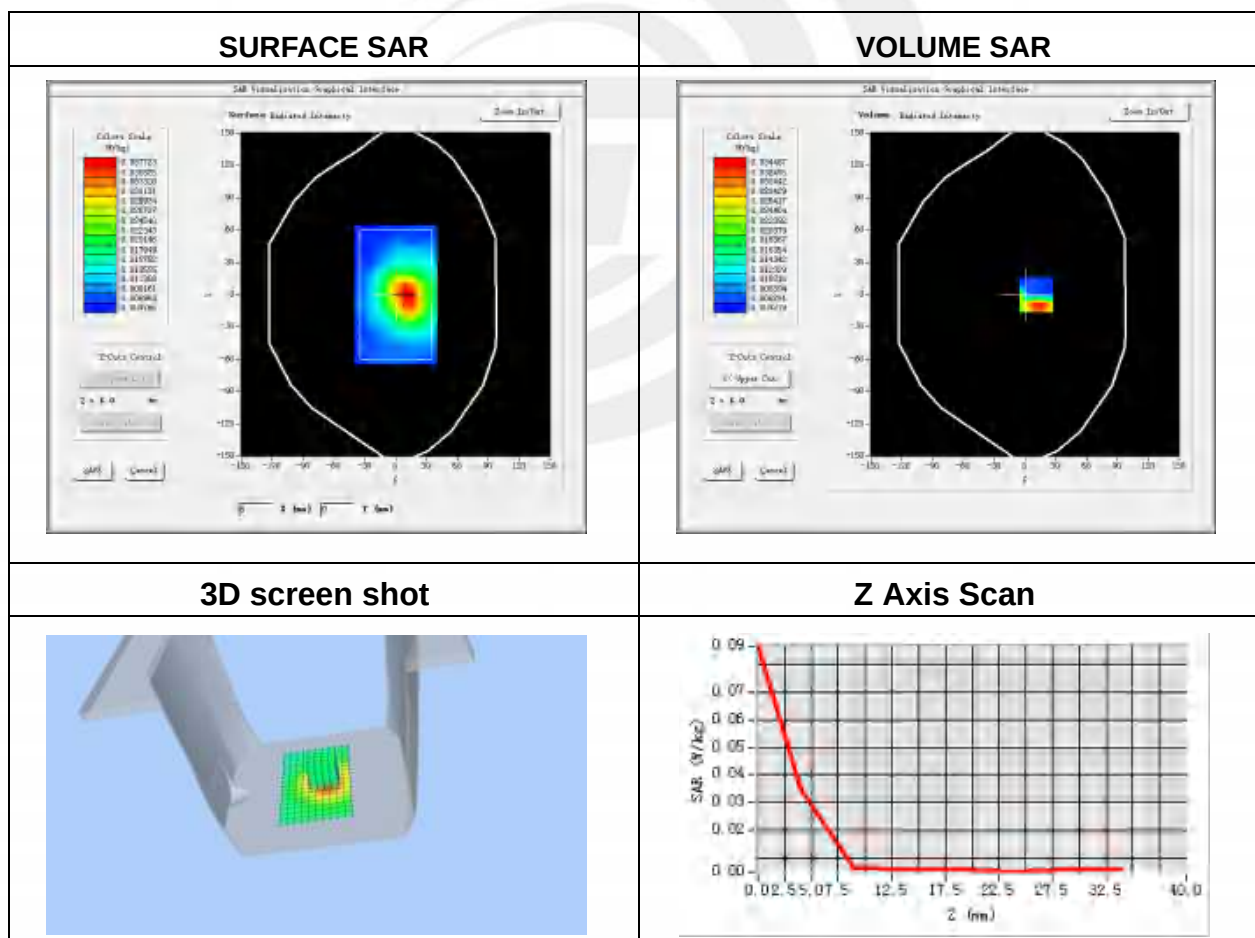

Plot 21: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-05
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 of face
Band	LTE Band 12
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	711

Maximum location: X=11.00, Y=0.00

SAR Peak: 0.09 W/kg

SAR 10g (W/Kg)	0.013512
SAR 1g (W/Kg)	0.037031



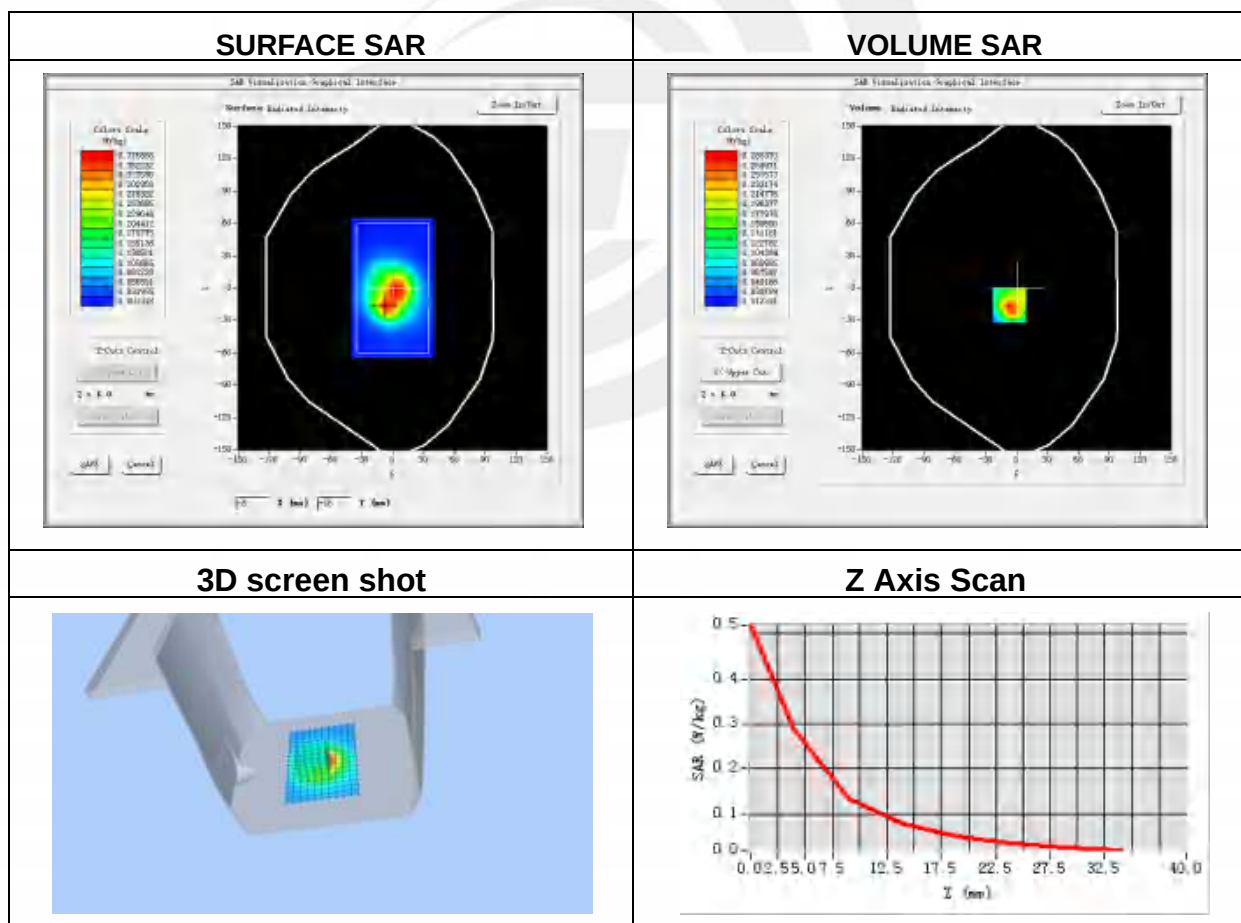

Plot 22: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-05
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	Wrist
Band	LTE Band 12
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	711

Maximum location: X=-7.00, Y=-16.00

SAR Peak: 0.57 W/kg

SAR 10g (W/Kg)	0.140342
SAR 1g (W/Kg)	0.292759



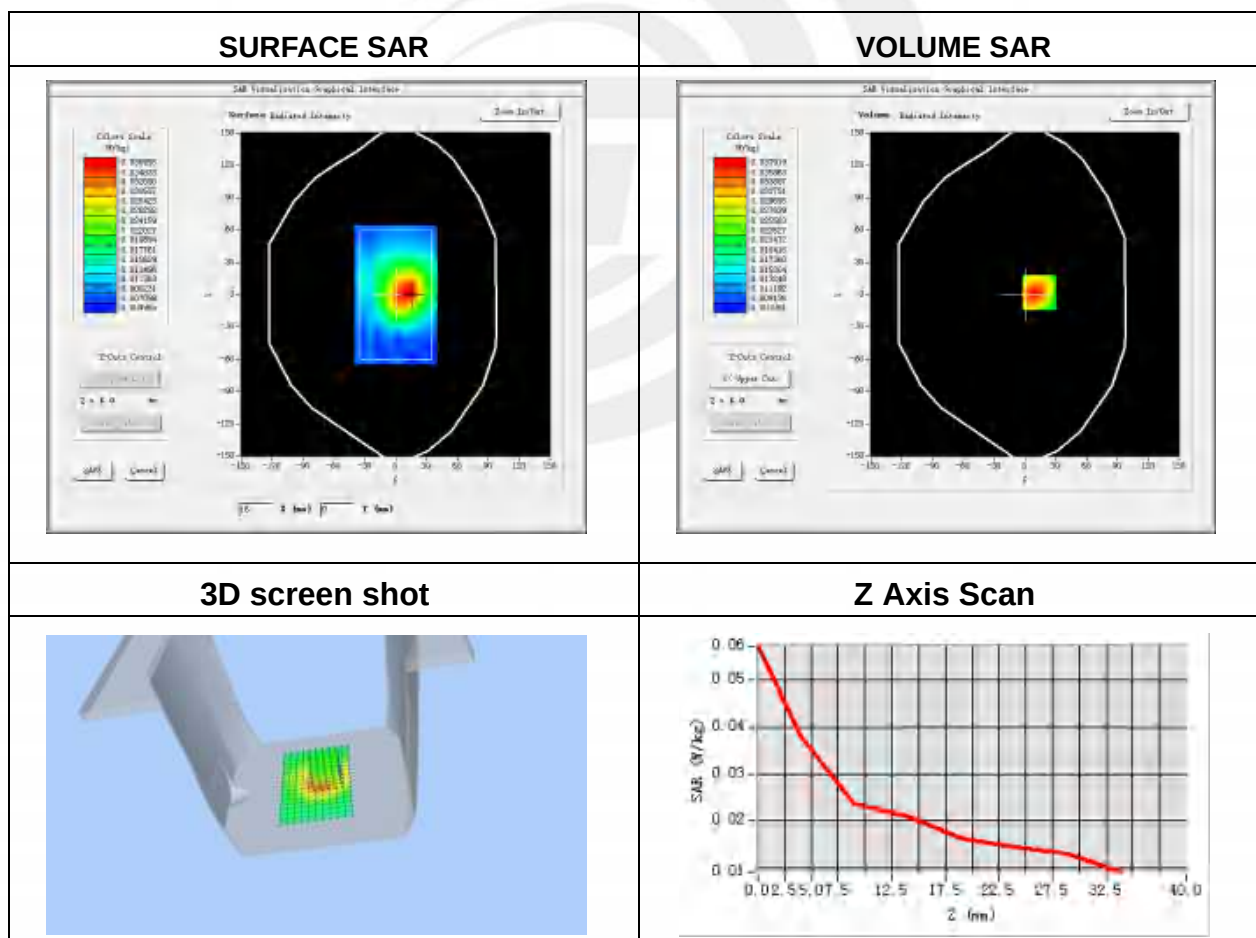

Plot 23: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-05
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 of face
Band	LTE Band 17
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	711

Maximum location: X=14.00, Y=2.00

SAR Peak: 0.06 W/kg

SAR 10g (W/Kg)	0.025968
SAR 1g (W/Kg)	0.038285



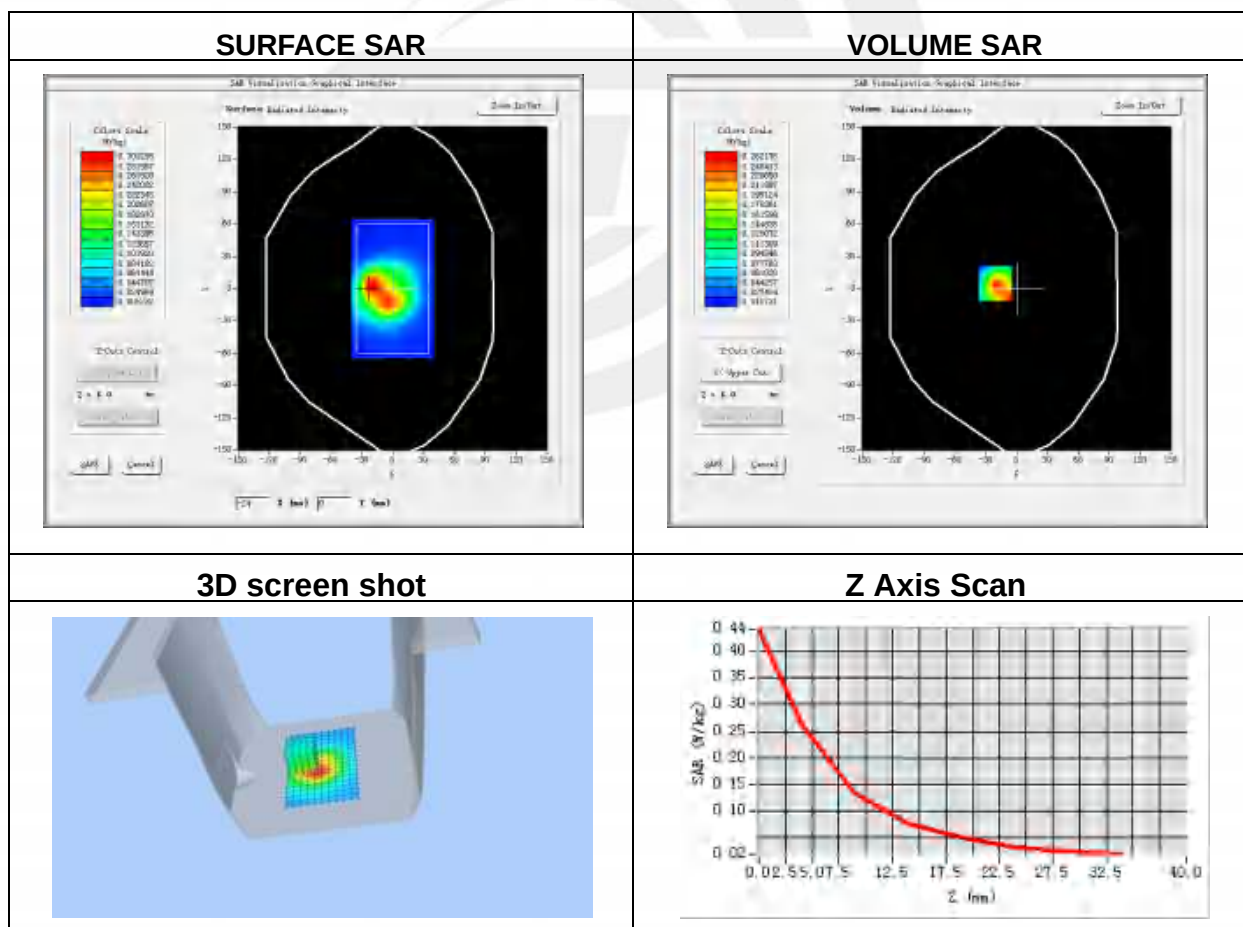

Plot 24: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-05
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	Wrist
Band	LTE Band 17
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	711

Maximum location: X=-21.00, Y=5.00

SAR Peak: 0.44 W/kg

SAR 10g (W/Kg)	0.135087
SAR 1g (W/Kg)	0.248337



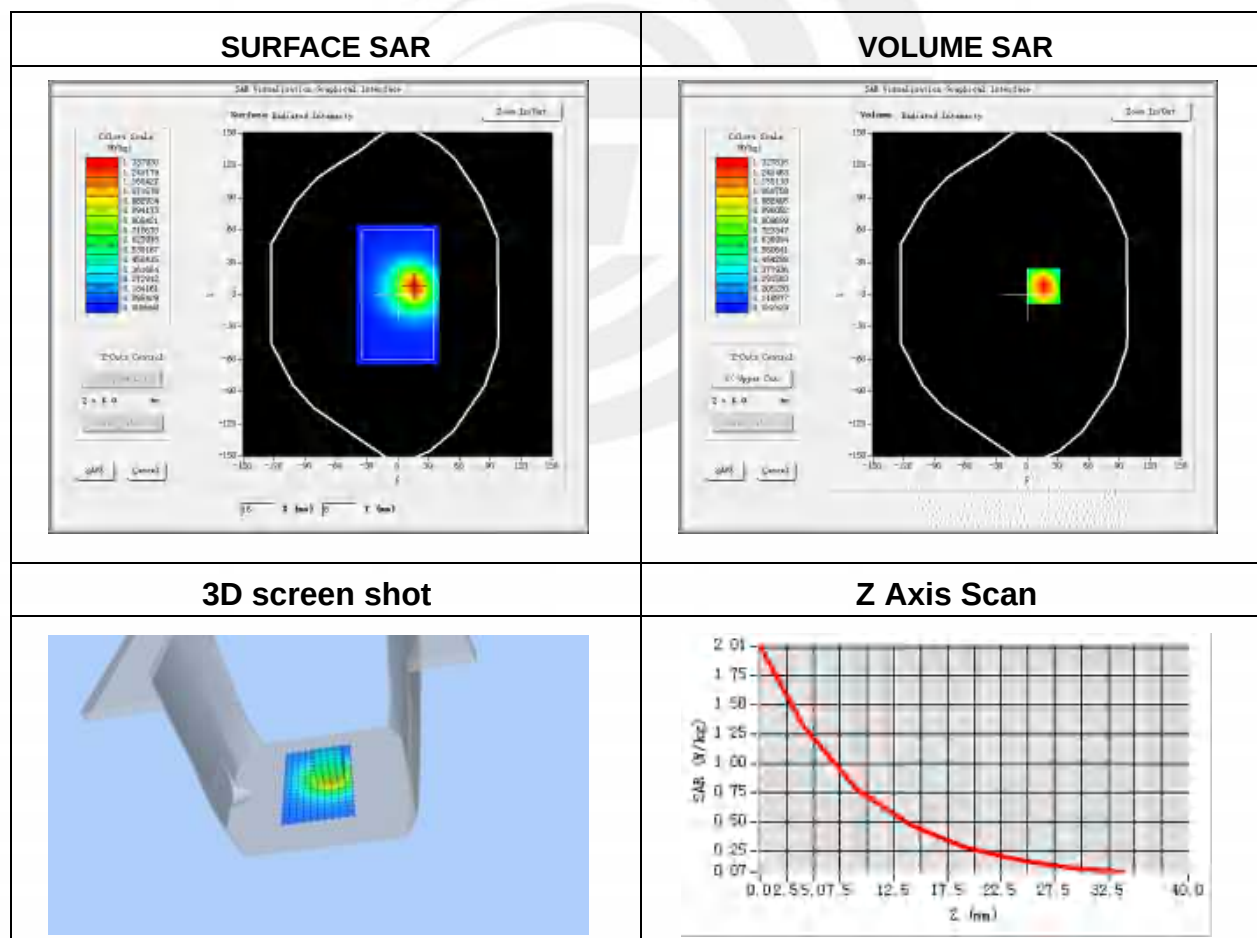

Plot 25: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-20
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 of face
Band	LTE Band 25
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1905

Maximum location: X=16.00, Y=8.00

SAR Peak: 2.01 W/kg

SAR 10g (W/Kg)	0.692737
SAR 1g (W/Kg)	1.257970



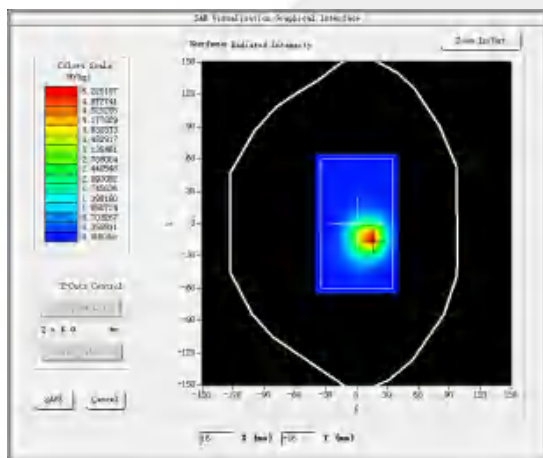
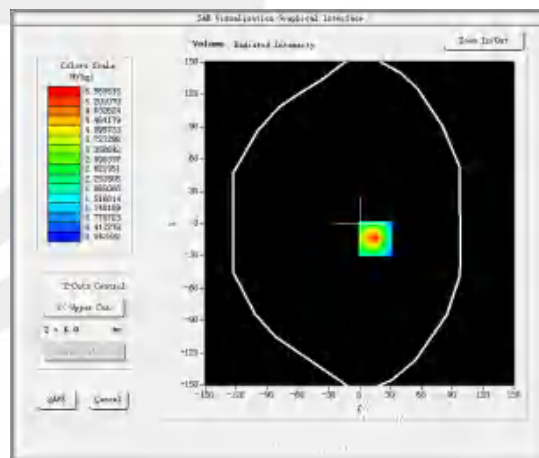
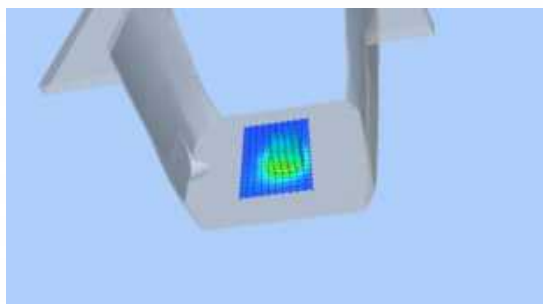
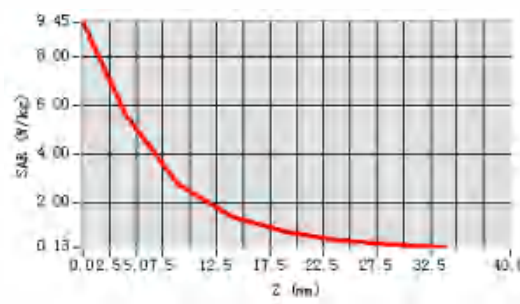

Plot 26: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-20
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	Wrist
Band	LTE Band 25
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1905

Maximum location: X=15.00, Y=-14.00

SAR Peak: 9.34 W/kg

SAR 10g (W/Kg)	2.403808
SAR 1g (W/Kg)	5.119036

SURFACE SAR

VOLUME SAR

3D screen shot

Z Axis Scan


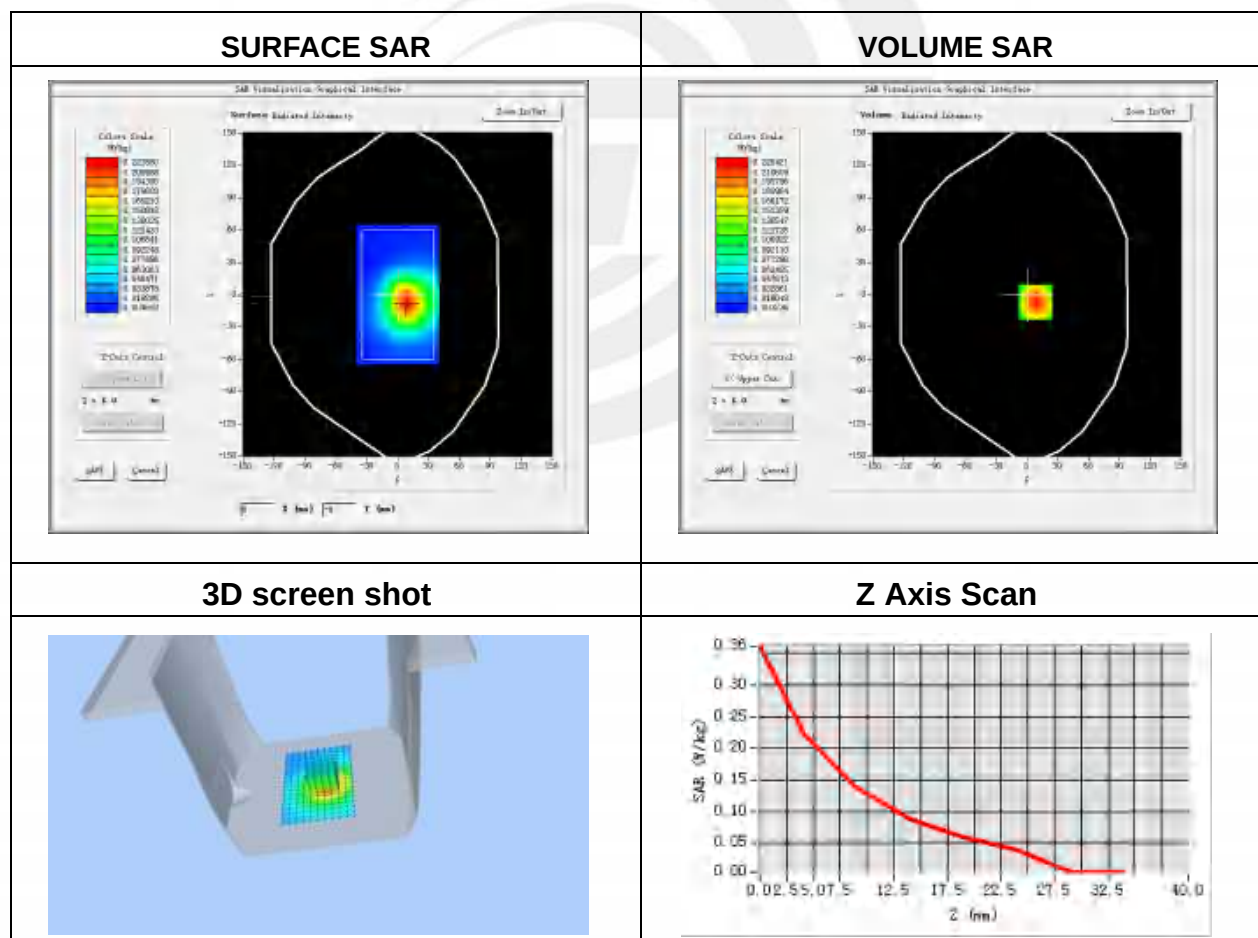

Plot 27: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-09
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	Front of face
Band	LTE Band 26
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	831.5

Maximum location: X=8.00, Y=-7.00

SAR Peak: 0.35 W/kg

SAR 10g (W/Kg)	0.128740
SAR 1g (W/Kg)	0.223440



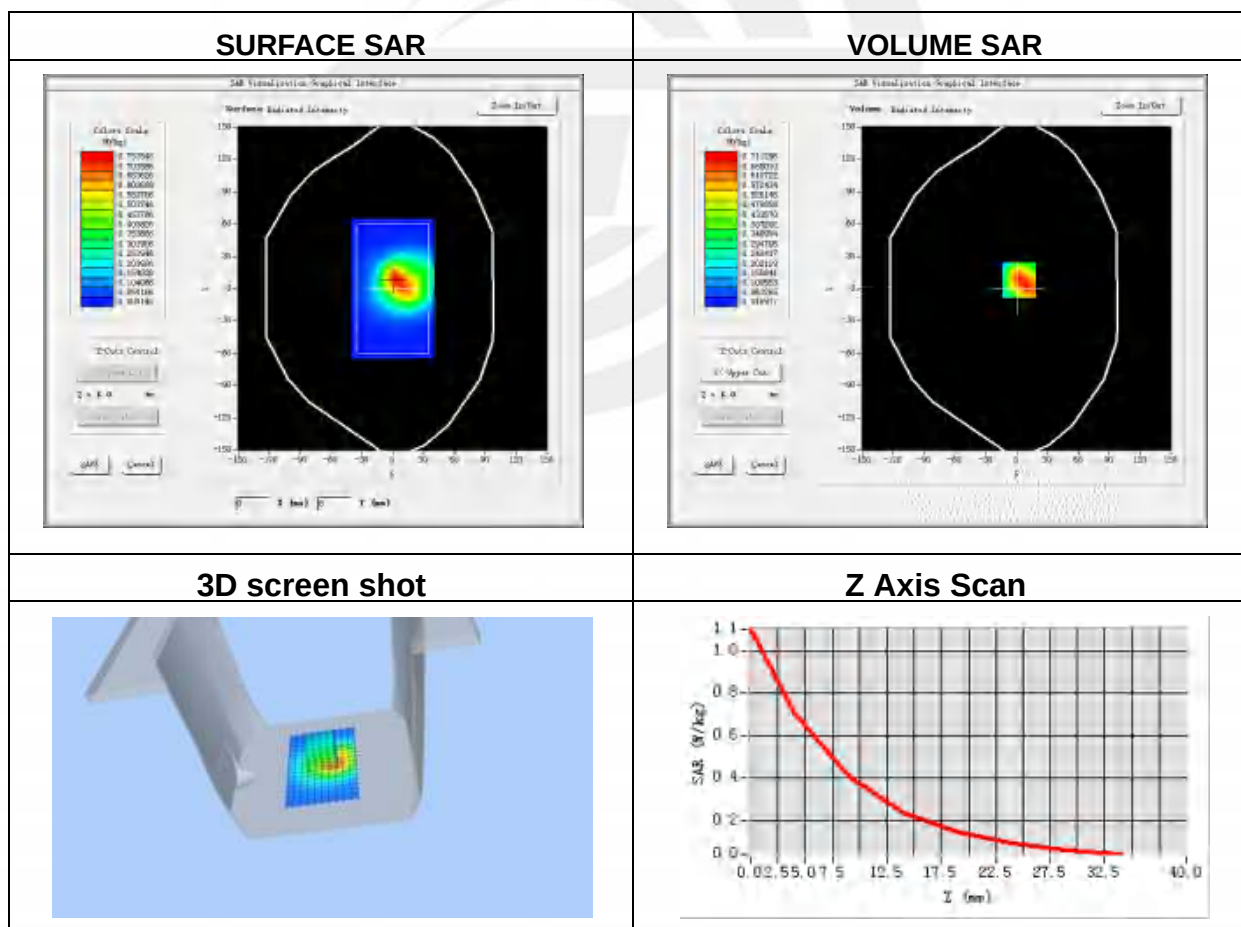

Plot 28: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-09
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	Wrist
Band	LTE Band 26
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	831.5

Maximum location: X=2.00, Y=8.00

SAR Peak: 1.15 W/kg

SAR 10g (W/Kg)	0.374612
SAR 1g (W/Kg)	0.680310



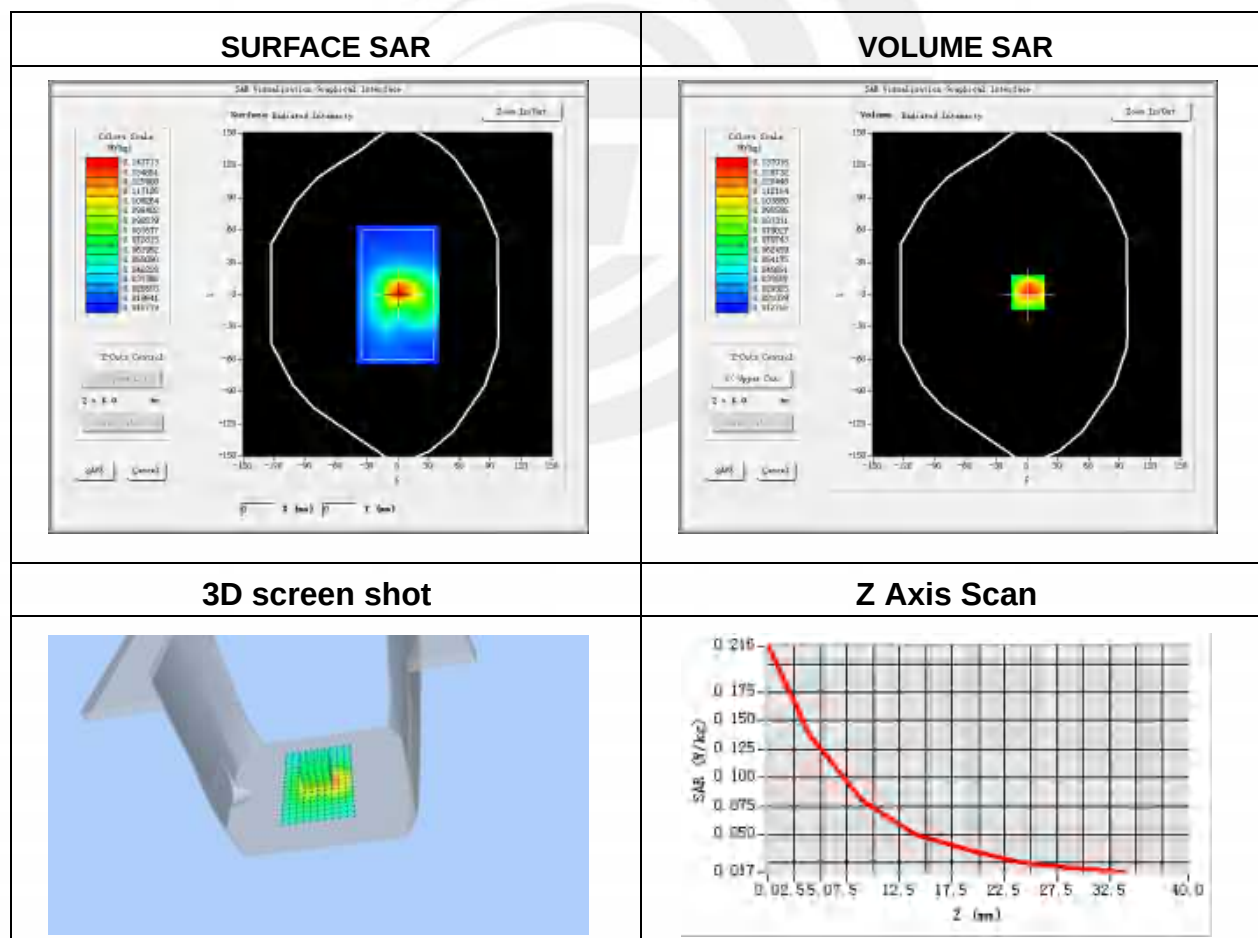

Plot 29: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-24
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	Front of face
Band	LTE Band 38
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	2595

Maximum location: X=1.00, Y=2.00

SAR Peak: 0.22 W/kg

SAR 10g (W/Kg)	0.074522
SAR 1g (W/Kg)	0.132889



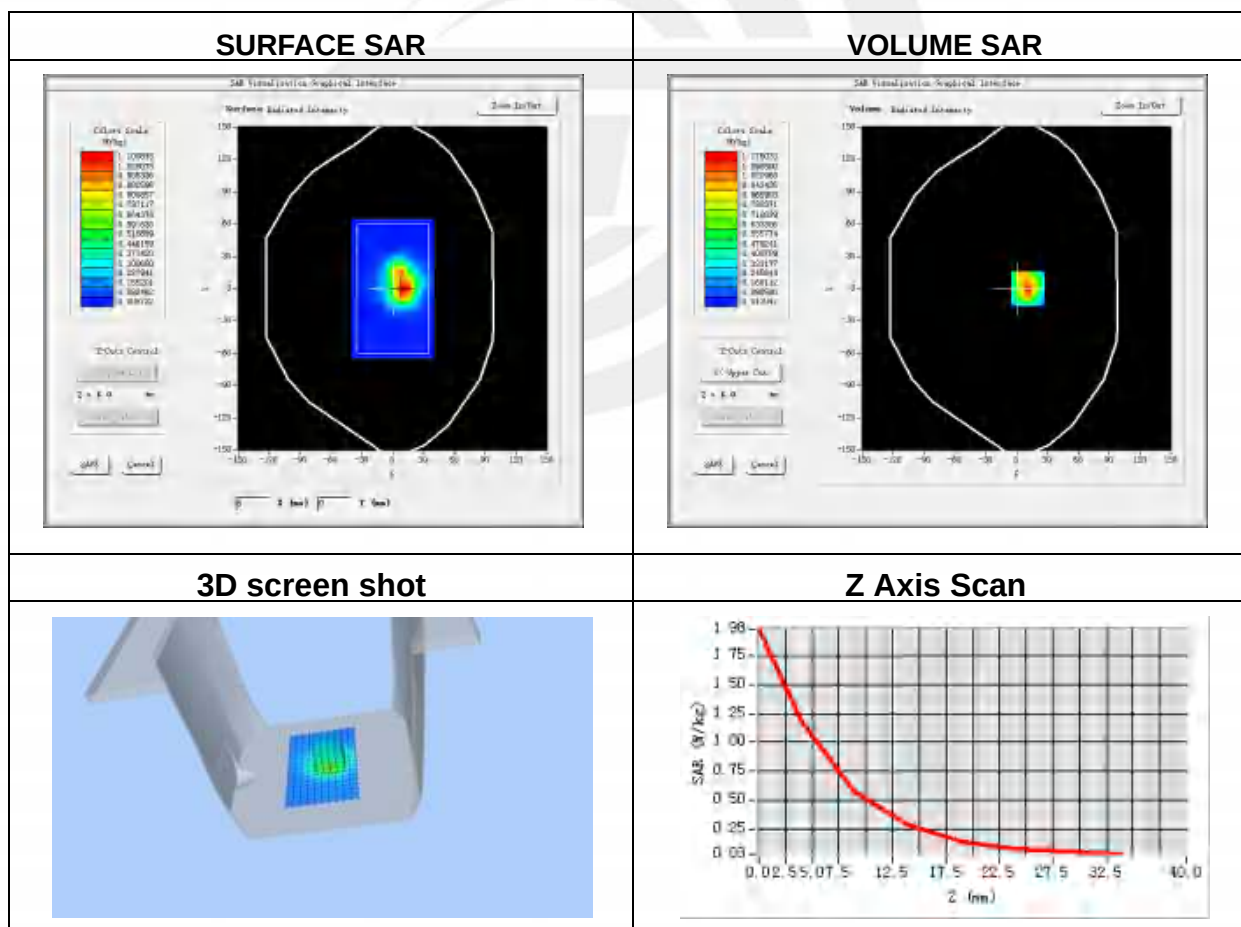

Plot 30: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-24
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	Wrist
Band	LTE Band 38
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	2595

Maximum location: X=11.00, Y=0.00

SAR Peak: 2.00 W/kg

SAR 10g (W/Kg)	0.478156
SAR 1g (W/Kg)	1.089017



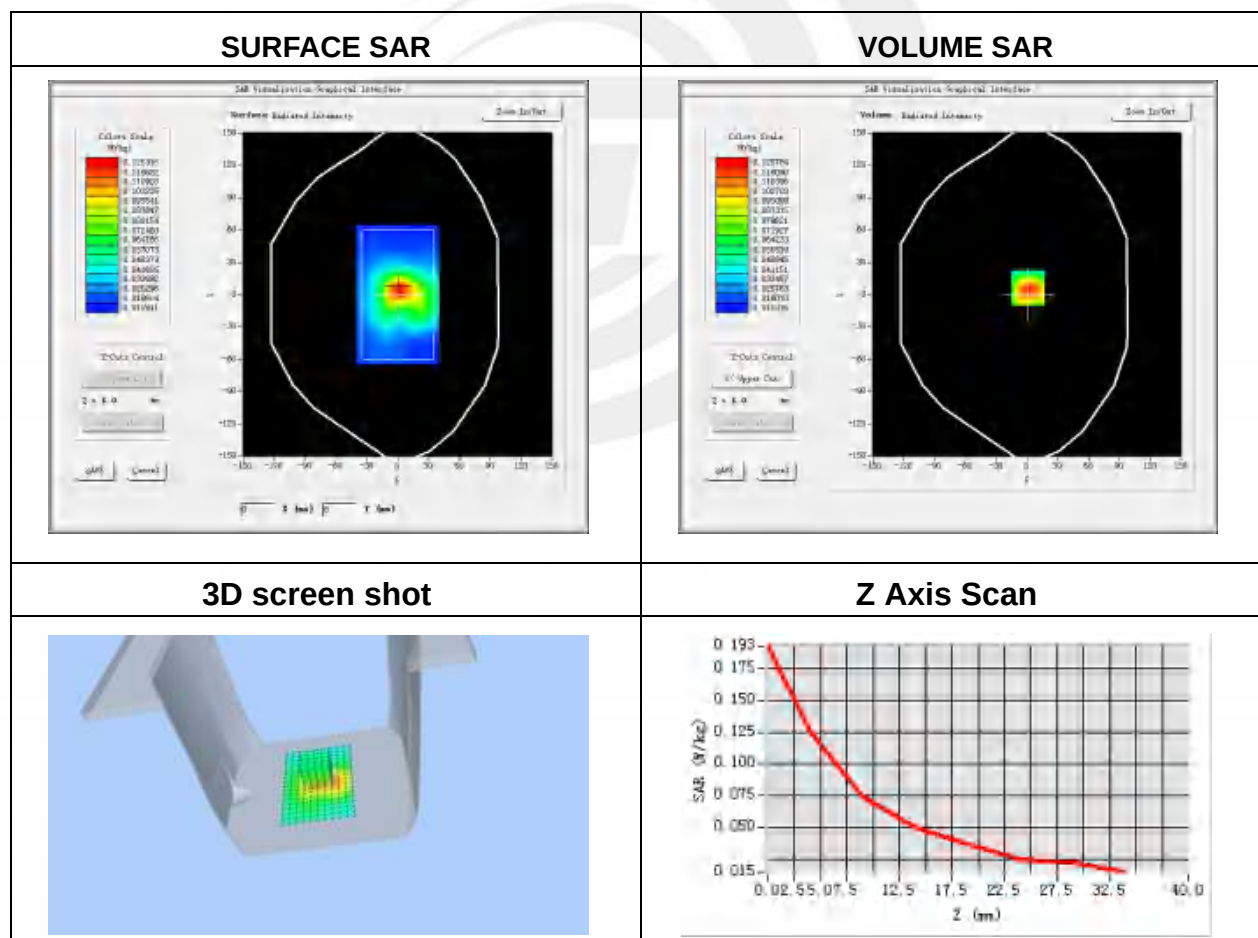

Plot 31: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-24
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 of face
Band	LTE Band 41
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	2680

Maximum location: X=1.00, Y=6.00

SAR Peak: 0.19 W/kg

SAR 10g (W/Kg)	0.069172
SAR 1g (W/Kg)	0.119410



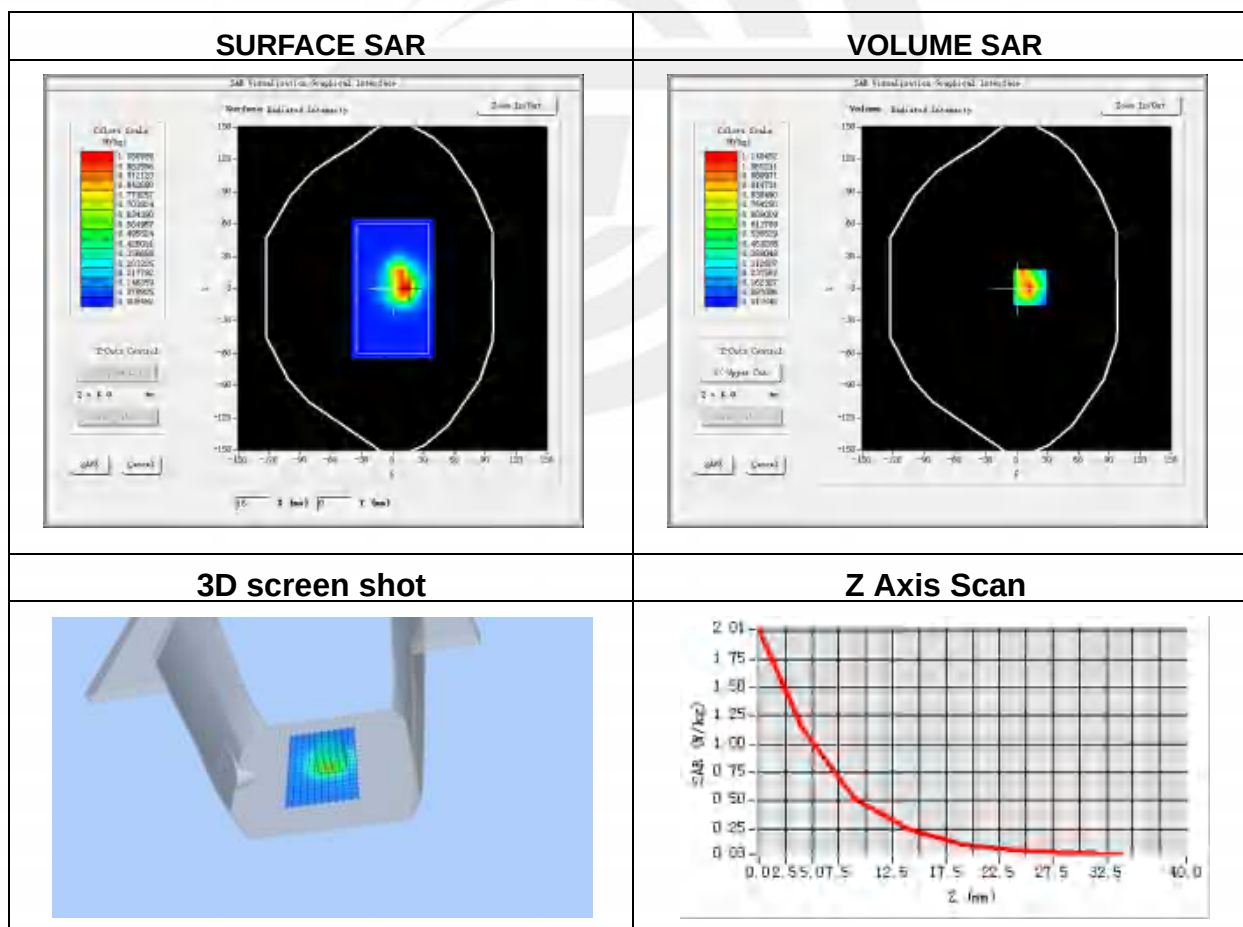

Plot 32: DUT: NickWatch V1; EUT Model: TRKNICK001

Test Date	2022-05-24
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	Wrist
Band	LTE Band 41
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	2680

Maximum location: X=13.00, Y=1.00

SAR Peak: 1.99 W/kg

SAR 10g (W/Kg)	0.464808
SAR 1g (W/Kg)	1.056606





Appendix C. Probe Calibration And Dipole Calibration Report

Refer the appendix Calibration Report.

※※※※END OF THE REPORT※※※※

