FCC SAR TEST REPORT

Report No: STS1502007F1

Issued for

MAXWEST TELECOM

Street: 11037 Warner Ave #201 Fountain Valley, Ca, 92708 USA

Product Name:	Tablet
Brand Name:	MAXWEST
Model No.:	Nitro Phablet 71
Series Model:	N/A
FCC ID:	ONGNITROTAB71
Test Standard:	ANSI/IEEE Std. C95.1
	FCC 47 CFR Part 2 (2.1093)
	IEEE 1528: 2003
Max. SAR (1g):	Body:1.170 W/kg

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Test Report Certification

Applicant's name	:	MAXWEST TELECOM
Address	:	11037 Warner Ave #201 Fountain Valley, Ca, 92708 USA
Manufacture's Name.....	:	MAXWEST TELECOM
Address	:	11037 Warner Ave #201 Fountain Valley, Ca, 92708 USA

Product description

Product name	:	Tablet
Trademark	:	MAXWEST
Model and/or type reference	:	Nitro Phablet 71
Serial Model:		N/A
IMEI No. :		358903060000513
Standards	:	ANSI/IEEE Std. C95.1-1992 FCC 47 CFR Part 2 (2.1093) IEEE 1528: 2003

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	:	Feb. 09,2015 to Mar. 9,2015
Date of Issue.....	:	Mar. 9,2015
Test Result.....	:	Pass

Testing Engineer : Allen Chen

(Allen Chen)

Technical Manager : John Zou

(John Zou)

Authorized Signatory : Bovey Yang

(Bovey Yang)

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1. General Information

1.1 EUT Description

Equipment	Tablet	
Brand Name	MAXWEST	
Model No.	Nitro Phablet 71	
Serial Model	N/A	
FCC ID	ONGNITROTAB71	
IMEI No.	358903060000513	
Adapter	Input: AC100-240V, 500mA, 50/60 Hz Output: DC 5V, 2000mA	
Battery	Rated Voltage: 3.7V Charge Limit: 4.2V Capacity: 2800mAh	
Hardware Version	KT780B_MB_V1.1	
Software Version	Nitro_tab71_eng4.4.2_20150101V1	
Frequency Range	GSM 850: 824.2 ~ 848.8 MHz PCS1900: 1850.2 ~ 1909.8 MHz WCDMA II: 1852.4~1907.6 MHz WCDMA V: 826.4~846.6 MHz WLAN 802.11 b/g/n(HT20):2412-2462 MHz WLAN 802.11 n(HT40):2422-2452 MHz Bluetooth：2402~2480MHz	
Transmit Power(MAX):	**SIM 1 Card** GSM 850: 31.88dBm GSM 1900: 28.64dBm WCDMA II: 22.24dBm WCDMA V: 22.38dBm **SIM 2 Card** GSM 850: 31.65dBm GSM 1900: 28.44dBm	802.11b: 9.83dBm 802.11g: 8.25dBm 802.11n(HT20/HT40): 7.15dBm/5.66dBm Bluetooth: 0.51dBm
Max. Reported SAR(1g):	Body: GSM 850: 1.008W/kg GSM 1900: 0.730 W/kg WCDMA II: 1.170W/kg WCDMA V: 1.010 W/kg WIFI: 0.380 W/kg	GPRS: GSM 850: 0.458W/kg GSM 1900: 0.369W/kg
Operating Mode:	GSM: GSM Voice/GPRS/EGPRS Class 12; WCDMA: RMC/HSDPA/HSUPA Release 6; WLAN: 802.11 b/g/n; Bluetooth: V4.0 + EDR (GFSK + π /4DQPSK+8DPSK)	
Antenna Specification:	GSM/WCDMA: PIFA Antenna BT/WIFI: PIFA Antenna	
SIM Card	Support dual-SIM, dual standby, the multiple SIM card with two lines cannot transmitting at the same time	
DTM Mode:	Not Support	

Product	Type	
	☒ Production unit	☐ Identical Prototype

1.2 Test Environment

Ambient conditions in the SAR laboratory:

Items	Required	Actual
Temperature (℃)	18-25	22~23
Humidity (%RH)	30-70	55~65

1.3 Test Facility

Shenzhen STS Test Services Co., Ltd.
Add. : 1/F, Building 2, Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
FCC Registration No.: 842334;IC Registration No.: 12108A-1

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. 1528-2003	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
4	FCC KDB 447498 D01 v05r02	Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies
5	FCC KDB 865664 D01 v01r03	SAR Measurement 100 MHz to 6 GHz
6	FCC KDB 941225 D06 v02	SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities
7	FCC KDB 941225 D01 v03	SAR Measurement Procedures for 3G Devices
8	FCC KDB 248227 D01 v01r02	SAR Measurement Procedures for 802.11 a/b/g Transmitters
9	FCC KDB 616217 D04 v01r01	SAR for laptop and tablets

SAR assessments have been made in line with the requirements of IEEE-1528:2003, FCC Supplement C, and comply with ANSI/IEEE C95.1-1992 “Uncontrolled Environments” limits. These limits apply to a location which is deemed as “Uncontrolled Environment” which can be described as a situation where the general public may be exposed to an RF source with no prior knowledge or control over their exposure.

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

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

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

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

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

Population/Uncontrolled Environments:
are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure.

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

NOTE
GENERAL POPULATION/UNCONTROLLED EXPOSURE
PARTIAL BODY LIMIT
1.6 W/kg

3. SAR Measurement System

3.1 Definition of Specific Absorption Rate (SAR)

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

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

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

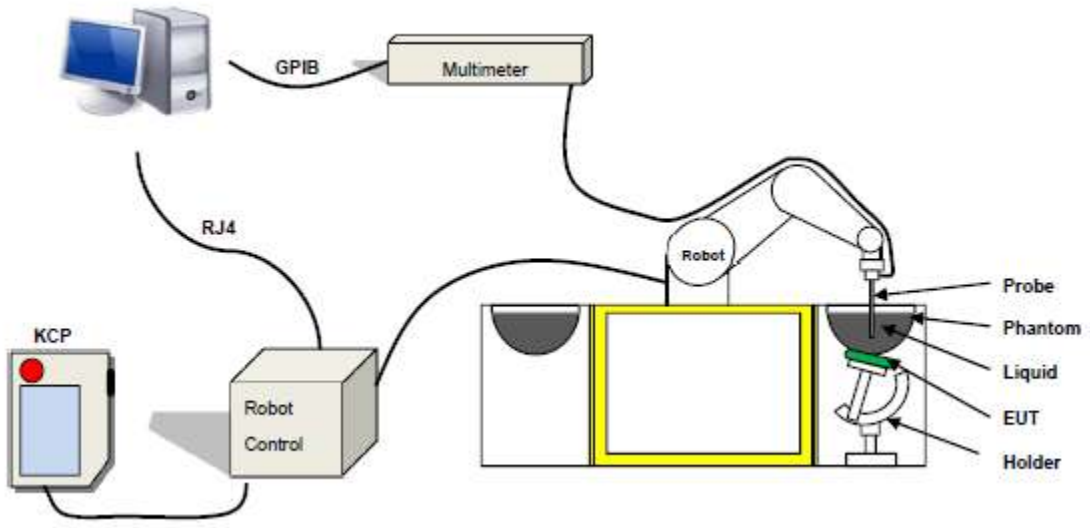
SAR is expressed in units of Watts per kilogram (W/kg) SAR measurement can be related to the electrical field in the tissue by

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

Where: σ is the conductivity of the tissue,
ρ is the mass density of the tissue and E is the RMS electrical field strength.

3.2 SAR System

SATIMO 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 17/14 EP221 with following specifications is used

- Dynamic range: 0.01-100 W/kg
- Tip Diameter :5 mm
- Distance between probe tip and sensor center: 2.7mm
- Distance between sensor center and the inner phantom surface: 4 mm (repeatability better than +/- 1mm)
- Probe linearity: ＜0.25 dB
- Axial Isotropy: ＜0.25 dB
- Spherical Isotropy: ＜0.25 dB
- Calibration range: 450MHz to 2600MHz for head & body simulating liquid.

Angle between probe axis (evaluation axis) and surface normal line: less than 30°

Figure 1 – *Satimo COMOSAR Dosimetric E field Dipole*

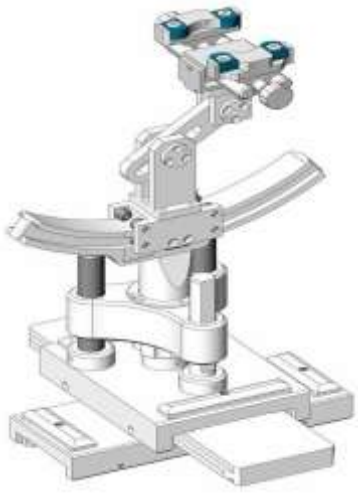
3.2.2 Phantom

For the measurements the SAM twin phantom defined by the IEEE-1528:2003 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.

The SAM twin 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.

SN 32/14 SAM115

3.2.3 Device Holder

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

4. Tissue Simulating Liquids

4.1 Simulating Liquids Parameter Check

For SAR measurement of the field distribution inside the phantom, the phantom must be filled with homogeneous tissue simulating liquid to a depth of at least 15cm. For head SAR testing the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15cm For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15cm.The nominal dielectric values of the tissue simulating liquids in the phantom and the tolerance of 5%.

Frequency (MHz)	Water	Suger	Cellulose	Salt	Preventol	Dgbe	Conductivity	Permitivity:
	%	%	%	%	%	%	σ	ε
Body								
835	50.8	48.2	0	0.9	0.1	0	0.97	55.2
900	50.8	48.2	0	0.9	0.1	0	1.05	55.0
1800,1900,2000	40.5	58.0	0	0.5	0.5	0	1.52	53.3
2450	73.2	0	0	0.04	0	26.7	1.95	52.7

LIQUID MEASUREMENT RESULTS

Date: Feb.11, 2015 **Ambient condition:** Temperature 20.3°C **Relative humidity:** 56.8%

Body Simulating Liquid		Parameters	Target	Measured	Deviation[%]	Limited[%]
Frequency	Temp. [°C]					
824.2 MHz	20.2	Permitivity:	55.20	55.49	0.53	± 5
		Conductivity:	0.97	0.95	-2.06	± 5
835 MHz		Permitivity:	55.20	54.45	-1.36	± 5
		Conductivity:	0.97	0.96	-1.03	± 5
836.6 MHz		Permitivity:	55.20	54.16	-1.88	± 5
		Conductivity:	0.97	0.96	-1.03	± 5
848.8 MHz		Permitivity:	55.20	53.29	-3.46	± 5
		Conductivity:	0.97	0.98	1.03	± 5

Date: Feb.10, 2015 **Ambient condition:** Temperature 20.3°C **Relative humidity:** 55.3%

Body Simulating Liquid		Parameters	Target	Measured	Deviation[%]	Limited[%]
Frequency	Temp. [°C]					
826.4 MHz	20.0	Permitivity:	55.20	56.78	2.86	± 5
		Conductivity:	0.97	0.94	-3.09	± 5
835 MHz		Permitivity:	55.20	55.19	-0.02	± 5
		Conductivity:	0.97	0.96	-1.03	± 5
836.6 MHz		Permitivity:	55.20	54.81	-0.71	± 5
		Conductivity:	0.97	0.97	0	± 5
846.6 MHz		Permitivity:	55.20	54.09	-2.01	± 5
		Conductivity:	0.97	0.98	1.03	± 5

Date: Mar.09, 2015 **Ambient condition:** Temperature 19.0°C **Relative humidity:** 49.5%

Body Simulating Liquid		Parameters	Target	Measured	Deviation[%]	Limited[%]
Frequency	Temp. [°C]					
1850.2MHz	19.9	Permitivity:	53.30	54.02	1.35	± 5
		Conductivity:	1.52	1.49	-1.97	± 5
1852.4MHz		Permitivity:	53.30	54.00	1.31	± 5
		Conductivity:	1.52	1.48	-2.63	± 5
1880 MHz		Permitivity:	53.30	53.16	-0.26	± 5
		Conductivity:	1.52	1.51	-0.66	± 5
1900 MHz		Permitivity:	53.30	53.25	-0.09	± 5
		Conductivity:	1.52	1.53	0.66	± 5
1907.6MHz		Permitivity:	53.30	52.31	-1.86	± 5
		Conductivity:	1.52	1.51	-0.66	± 5
1909.8MHz		Permitivity:	53.30	52.33	-1.82	± 5
		Conductivity:	1.52	1.52	0	± 5

Date: Mar.6, 2015 **Ambient condition:** Temperature 21.7°C **Relative humidity:** 57.6%

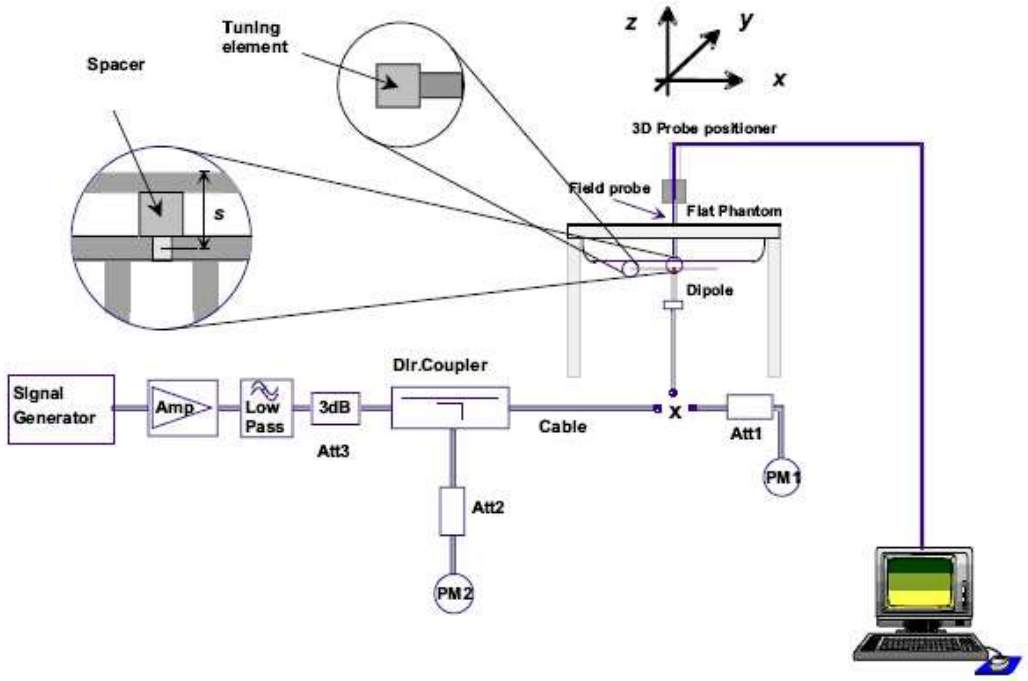
Body Simulating Liquid		Parameters	Target	Measured	Deviation[%]	Limited[%]
Frequency	Temp. [°C]					
2412	21.1	Permitivity:	52.7	54.68	3.76	± 5
		Conductivity:	1.95	1.88	-3.59	± 5
2437		Permitivity:	52.7	53.07	0.70	± 5
		Conductivity:	1.95	1.93	-1.03	± 5
2450		Permitivity:	52.7	53.92	2.31	± 5
		Conductivity:	1.95	1.92	-1.54	± 5
2462		Permitivity:	52.7	52.46	-0.46	± 5
		Conductivity:	1.95	1.97	1.03	± 5

5. SAR System Validation

5.1 Validation System

Each SATIMO system is equipped with one or more system validation kits. These units, together with the predefined measurement procedures within the SATIMO 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 SATIMO, the validation data should be within its specification of 10 %.

Freq.(MHz)	Power(mw)	Tested Value (W/Kg)	Normalized SAR (W/kg)	Target(W/Kg)	Deviation[%]	Ambient Temperature (°C)	Relative Humidity (%)	Date
835 Body	63.1	0.579	9.267	9.93	-6.68	20.3	55.3	2015-02-10
835 Body	63.1	0.660	10.562	9.93	6.36	20.3	56.8	2015-02-11
1900 Body	63.1	2.673	42.768	43.33	-1.30	19.0	49.5	2015-03-09
2450 Body	63.1	3.54	56.64	55.65	1.78	21.7	57.6	2015-03-6

Note: The tolerance limit of System validation ±10%.

6. SAR Evaluation Procedures

The EUT is set to transmit at the required power in line with product specification, at each frequency relating to the LOW, MID, and HIGH channel settings.
Pre-scans are made on the device to establish the location for the transmitting antenna, using a large area scan in either air or tissue simulation fluid.
The EUT is placed against the SAM twin phantom where the maximum area scan dimensions are larger than the physical size of the resonating antenna. When the scan size is not large enough to cover the peak SAR distribution, it is modified by either extending the area scan size in both the X and Y directions, or the device is shifted within the predefined area.
The area scan is then run to establish the peak SAR location (interpolated resolution set at $1mm^2$) which is then used to orient the center of the zoom scan. The zoom scan is then executed and the 1g and 10g averages are derived from the zoom scan volume (interpolated resolution set at $1mm^3$).
When multiple peak SAR location were found during the same configuration or test mode, Zoom scan shall performed on each peak SAR location, only the peak point with maximum SAR value will be reported for the configuration or test mode.

Area Scan& Zoom Scan
Area scans are defined prior to the measurement process being executed with a user defined variable spacing between each measurement point (integral) allowing low uncertainty measurements to be conducted. Scans defined for FCC applications utilize a $10mm^2$ step integral, with 1mm interpolation used to locate the peak SAR area used for zoom scan assessments. In this report, Area Scan: dx=8mm dy=8mm
When an Area Scan has measured all reachable points, it computes the field maxima found in the scanned area, within a range of the global maximum. The range (in dB) is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE 1528-2003 and relevant KDB files, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan).
Zoom Scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 g and 10 g of simulated tissue. A density of 1000 kg/m^3 is used to represent the head and body tissue density and not the phantom liquid density, in order to be consistent with the definition of the liquid dielectric properties, i.e. the side length of the 1 g cube is 10mm, with the side length of the 10 g cube 21,5mm.

The zoom scan integer steps can be user defined so as to reduce uncertainty, but normal practice for typical test applications utilize a physical step of 8mmx8mmx5mm providing a volume of 30mm in the X & Y axis, and 30mm in the Z axis.

			≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			5 ± 1 mm	½·δ·ln(2) ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location			30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}			≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
			When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	
Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	≤ 1.5·$\Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm

Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.

* When zoom scan is required and the *reported* SAR from the *area scan based 1-g SAR estimation* procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.

7. EUT Antenna Location Sketch

It is a Tablet, support GSM mode and WCDMA mode.

WWAN Antenna

WIFI/BT Antenna

7.1 SAR TEST EXCLUSION CONSIDER TABLE

According with FCC KDB 447498 D01v05r02, appendix A, <SAR test exclusion thresholds for 100MHz~6GHz and≤50mm＞table, this device SAR test configurations consider as following:

For WWAN mode:

Test Configurations	Antenna to edges/surface	SAR required
Back	<25mm	Yes
Front	<25mm	Yes
Edge 1 (Top)	150	No
Edge 2 (Right)	2	Yes
Edge 3 (Bottom)	2	Yes
Edge 4 (Left)	70	No

For WLAN mode:

Test Configurations	Antenna to edges/surface	SAR required
Back	<25mm	Yes
Front	<25mm	Yes
Edge 1 (Top)	2	Yes
Edge 2 (Right)	72	No
Edge 3 (Bottom)	176	No
Edge 4 (Left)	2	Yes

Note：

1. Maximum power is the source-based time-average power and represents the maximum RF output power among production units.
2. Per KDB 447498 D01v05r02, for larger devices, the test separation distance of adjacent edge configuration is determined by the closest separation between the antenna and the user.
3. Per KDB 447498 D01v05r02, standalone SAR test exclusion threshold is applied; if the distance of the antenna to the user is <5mm, 5mm is user to determine SAR exclusion threshold
4. Per KDB 447498 D01v05r02, the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distance ≤50mm are determined by:
   [(max. power of channel, including tune-up tolerance, mw)/(min. test separation distance, mm)]*[√f(GHZ）)≤3.0 for 1-g SAR and≤7.5 for10-g extremity SAR
   f(GHz) is the RF channel transmit frequency in GHz
   Power and distance are rounded to the nearest mw and mm before calculation
   The result is rounded to one decimal place for comparison
   For <50mm distance, we just calculate mw of the exclusion threshold value(3.0)to do compare
5. Per KDB 447498 D01v05r02, at 100 MHz to 6GHz and for test separation distances >50mm, the SAR test exclusion threshold is determined according to the following
   a)[threshold at 50mm in step 1]+(test separation distance -50mm)*(f (MHz)/150)]mw, at 100 MHz to 1500 MHz

b) [threshold at 50mm in step1]+(test separation distance -50mm) *10]mw at＞1500MHz and≤6GHz

6. Per KDB 248227 D01v01r02, choose the highest output power channel to test SAR and determine further SAR exclusion 8.for each frequency band ,testing at higher data rates and higher order modulations is not required when the maximum average output power for each of each of these configurations is less than 1/4db higher than those measured at the lower data rate than 11b mode ,thus the SAR can be excluded.

8. EUT Test Position

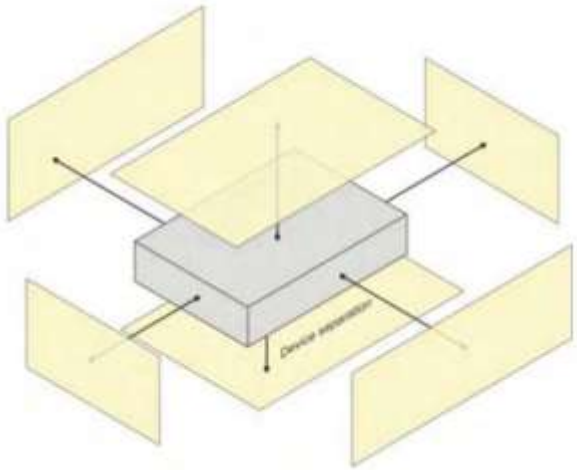
This EUT was tested in Body back and Body front and 4 edges.

8.1. Body Worn Position

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

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

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



9. Power Reduction by G sensor

1. According to KDB616217 D04 chapter 6.2, this part of procedures should be applied to determine G sensor triggering distance if there is power reduction (Conducted power).
2. 4 edges of the EUT were placed directly below the flat phantom. Tested the conducted power, then rotating the EUT and test left edge (example: rotating screen watching video, triggering G sensor) and right edge and Bottom edge .

Measurement results

GSM850

	Top Edge	Left Edge	Right Edge	Bottom Edge
GSM850(Voice)	32.22	32.20	32.21	32.23
GSM850 GPRS 1 slot	32.23	32.25	32.22	32.25
GSM850 GPRS 2 slot	31.24	31.23	31.23	31.26
GSM850 GPRS 3 slot	29.10	29.14	29.15	29.12
GSM850 GPRS 4 slot	28.04	28.07	28.02	28.07
GSM850 EGPRS 1 slot	29.67	29.66	29.66	29.63
GSM850 EGPRS 2 slot	29.46	29.45	29.48	29.49
GSM850 EGPRS 3 slot	27.27	27.28	27.25	27.25
GSM850 EGPRS 4 slot	26.91	26.90	26.93	26.90

GSM1900

	Top Edge	Left Edge	Right Edge	Bottom Edge
GSM1900(Voice)	28.92	28.95	28.93	28.90
GSM1900 GPRS 1 slot	28.86	28.89	28.89	28.89
GSM1900 GPRS 2 slot	27.93	27.94	27.95	27.96
GSM1900 GPRS 3 slot	25.97	25.93	25.93	25.93
GSM1900 GPRS 4 slot	24.94	24.94	24.91	24.91
GSM1900 EGPRS 1 slot	26.78	26.78	26.70	26.77
GSM1900 EGPRS 2 slot	25.86	25.86	25.85	25.82
GSM1900 EGPRS 3 slot	24.68	24.68	24.64	24.63
GSM1900 EGPRS 4 slot	23.66	23.66	23.66	23.65

BAND V

	Top Edge	Left Edge	Right Edge	Bottom Edge
WCDMA 850 RMC	22.75	22.73	22.74	22.76
WCDMA 850 AMR	22.70	22.75	22.72	22.70
HSDPA Subtest 1	22.52	22.52	22.54	22.54
HSDPA Subtest 2	21.72	21.70	21.70	21.73
HSDPA Subtest 3	20.68	20.64	20.63	20.65
HSDPA Subtest 4	20.66	20.61	20.64	20.64
HSUPA Subtest 1	22.72	22.76	22.75	22.74
HSUPA Subtest 2	21.63	21.67	21.67	21.67
HSUPA Subtest 3	21.05	21.02	21.09	21.08
HSUPA Subtest 4	20.44	20.46	20.46	20.46
HSUPA Subtest 5	20.06	20.07	20.02	20.05

BAND II

	Top Edge	Left Edge	Right Edge	Bottom Edge
WCDMA 1900 RMC	22.59	22.54	22.57	22.56
WCDMA 1900 AMR	22.55	22.56	22.51	22.58
HSDPA Subtest 1	22.47	22.48	22.42	22.45
HSDPA Subtest 2	21.59	21.52	21.56	21.57
HSDPA Subtest 3	21.05	21.00	21.03	21.02
HSDPA Subtest 4	20.12	20.14	20.14	20.16
HSUPA Subtest 1	22.36	22.36	22.35	22.37
HSUPA Subtest 2	21.54	21.59	21.52	21.54
HSUPA Subtest 3	20.92	20.97	20.93	20.96
HSUPA Subtest 4	20.37	20.35	20.37	20.35
HSUPA Subtest 5	19.76	19.73	19.72	19.73

From the above results, there is no influence of G sensor to output power and don't need to assessment.

10. Uncertainty

10.1 Measurement Uncertainty

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in IEEE 1528: 2003.This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

NO	Source	Tol(%)	Prob. Dist.	Div. k	ci (1g)	ci (10g)	1gUi	10gUi	Veff
Deviation									
1	Probe calibration	5.8	N	1	1	1	5.8	5.8	∞
2	Axial isotropy	3.5	R	√3	$(1\text{-cp})^{1/2}$	$(1\text{-cp})^{1/2}$	1.43	1.43	∞
3	Hemispherical isotropy	5.9	R	√3	$\sqrt{C_p}$	$\sqrt{C_p}$	2.41	2.41	∞
4	Boundary effect	1.0	R	√3	1	1	0.58	0.58	∞
5	Linearity	4.7	R	√3	1	1	2.71	2.71	∞
6	System Detection limits	1.0	R	√3	1	1	0.58	0.58	∞
7	Readout electronics	0.5	N	1	1	1	0.50	0.50	∞
8	Response time	0	R	√3	1	1	0	0	∞
9	Integration time	1.4	R	√3	1	1	0.81	0.81	∞
10	Ambient noise	3.0	R	√3	1	1	1.73	1.73	∞
11	Ambient reflections	3.0	R	√3	1	1	1.73	1.73	∞
12	Probe positioner mech. restrictions	1.4	R	√3	1	1	0.81	0.81	∞
13	Probe positioning with respect to phantom shell	1.4	R	√3	1	1	0.81	0.81	∞
14	Max.SAR evaluation	1.0	R	√3	1	1	0.6	0.6	∞
Test sample related									

15	Device positioning	2.6	N	1	1	1	2.6	2.6	11
16	Device holder	3	N	1	1	1	3.0	3.0	7
17	Drift of output power	5.0	R	√3	1	1	2.89	2.89	∞
Phantom and set-up									
18	Phantom uncertainty	4.0	R	√3	1	1	2.31	2.31	∞
19	Liquid conductivity (target)	2.5	N	1	0.78	0.71	1.95	1.78	5
20	Liquid conductivity (meas)	4	N	1	0.23	0.26	0.92	1.04	5
21	Liquid Permittivity (target)	2.5	N	1	0.78	0.71	1.95	1.78	∞
22	Liquid Permittivity (meas)	5.0	N	1	0.23	0.26	1.15	1.30	∞
Combined standard			RSS	$U_C = \sqrt{\sum_{i=1}^{n} C_i^2 U_i^2}$			10.63%	10.54%	
Expanded uncertainty (P=95%)		$U = k\, U_C$,k=2					21.26%	21.08%	

10.2 System cheek Uncertainty

NO	Source	Tol(%)	Prob. Dist.	Div. k	ci (1g)	ci (10g)	1gUi	10gUi	Veff
[redacted]									
1	Probe calibration	5.8	N	1	1	1	5.8	5.8	∞
2	Axial isotropy	3.5	R	√3	$(1\text{-cp})^{1/2}$	$(1\text{-cp})^{1/2}$	1.43	1.43	∞
3	Hemispherical isotropy	5.9	R	√3	$\sqrt{C_p}$	$\sqrt{C_p}$	2.41	2.41	∞
4	Boundary effect	1.0	R	√3	1	1	0.58	0.58	∞
5	Linearity	4.7	R	√3	1	1	2.71	2.71	∞
6	System Detection limits	1.0	R	√3	1	1	0.58	0.58	∞
7	Modulation response	0	N	1	1	1	0	0	∞
8	Readout electronics	0.5	N	1	1	1	0.50	0.50	∞
9	Response time	0	R	√3	1	1	0	0	∞
10	Integration time	1.4	R	√3	1	1	0.81	0.81	∞
11	Ambient noise	3.0	R	√3	1	1	1.73	1.73	∞
12	Ambient reflections	3.0	R	√3	1	1	1.73	1.73	∞
13	Probe positioner mech. restrictions	1.4	R	√3	1	1	0.81	0.81	∞
14	Probe positioning with respect to phantom shell	1.4	R	√3	1	1	0.81	0.81	∞
15	Max.SAR evaluation	1.0	R	√3	1	1	0.6	0.6	∞
Dipole									

16	Deviation of experimental source from numerical source	4	N	1	1	1	4.00	4.00	∞
17	Input power and SAR drit measurement	5	R	$\sqrt{3}$	1	1	2.89	2.89	∞
18	Dipole Axis to liquid Distance	2	R	$\sqrt{3}$	1	1			∞
Phantom and set-up									
19	Phantom uncertainty	4.0	R	√3	1	1	2.31	2.31	∞
20	Uncertainty in SAR correction for deviation(in permittivity and conductivity)	2.0	N	1	1	0.84	2	1.68	∞
21	Liquid conductivity (target)	2	N	1	1	0.84	2.00	1.68	∞
22	Liquid conductivity (temperature uncertainty)	2.5	N	1	0.78	0.71	1.95	1.78	5
23	Liquid conductivity (meas)	4	N	1	0.23	0.26	0.92	1.04	5
24	Liquid Permittivity (target)	2.5	N	1	0.78	0.71	1.95	1.78	∞
25	Liquid Permittivity (temperature uncertainty)	2.5	N	1	0.78	0.71	1.95	1.78	5
26	Liquid Permittivity (meas)	5.0	N	1	0.23	0.26	1.15	1.30	∞
Combined standard			RSS	$U_C = \sqrt{\sum_{i=1}^{n} C_i^2 U_i^2}$			10.15%	10.05%	
Expanded uncertainty (P=95%)		$U = k\ U_C$,k=2					21.29%	21.10%	

11. Conducted Power Measurement

TEST RESULT:
(SIM 1 Card)
GSM 850:

Mode	Frequency (MHz)	Peak Powe(dBm)	AVG Power(dBm)	Duty cycle Factor(dBm)	Frame Power(dBm)
GSM850	824.2	**32.26**	**31.88**	-9	22.88
	836.6	32.21	31.84	-9	22.84
	848.8	32.18	31.72	-9	22.72
GPRS850 (1 Slot)	824.2	32.19	31.83	-9	22.83
	836.6	32.23	31.81	-9	22.81
	848.8	32.15	31.75	-9	22.75
GPRS850 (2 Slot)	824.2	31.17	30.88	-6	24.88
	836.6	31.15	30.84	-6	24.84
	848.8	31.22	30.91	-6	24.91
GPRS850 (3 Slot)	824.2	29.09	28.76	-4.26	24.5
	836.6	28.96	28.77	-4.26	24.51
	848.8	29.13	28.85	-4.26	24.59
GPRS850 (4 Slot)	824.2	27.97	27.63	-3	24.63
	836.6	27.84	27.65	-3	24.65
	848.8	28.06	27.77	-3	24.77
EDGE850 (1 Slot)	824.2	29.68	28.89	-9	19.89
	836.6	29.59	28.82	-9	19.82
	848.8	29.56	28.74	-9	19.74
EDGE850 (2 Slot)	824.2	29.45	28.68	-6	22.68
	836.6	29.42	28.64	-6	22.64
	848.8	29.41	28.61	-6	22.61
EDGE850 (3 Slot)	824.2	27.24	26.58	-4.26	22.32
	836.6	27.21	26.52	-4.26	22.26
	848.8	27.18	26.47	-4.26	22.21
EDGE850 (4 Slot)	824.2	26.94	26.35	-3	23.35
	836.6	26.91	26.32	-3	23.32
	848.8	26.86	26.28	-3	23.28

PCS 1900:

Mode	Frequency (MHz)	Peak Power(dBm)	AVG Power(dBm)	Duty cycle Factor(dBm)	Frame Power(dBm)
GSM1900	1850.2	**28.92**	**28.64**	-9	19.64
	1880	28.88	28.61	-9	19.61
	1909.8	28.87	28.57	-9	19.57
GPRS1900 (1 Slot)	1850.2	28.86	28.53	-9	19.53
	1880	28.83	28.51	-9	19.51
	1909.8	28.81	28.47	-9	19.47
GPRS1900 (2 Slot)	1850.2	27.93	27.59	-6	21.59
	1880	27.85	27.56	-6	21.56
	1909.8	27.82	27.52	-6	21.52
GPRS1900 (3 Slot)	1850.2	25.97	25.58	-4.26	21.32
	1880	25.78	25.45	-4.26	21.19
	1909.8	25.73	25.41	-4.26	21.15
GPRS1900 (4 Slot)	1850.2	24.94	24.57	-3	21.57
	1880	24.68	24.44	-3	21.44
	1909.8	24.61	24.39	-3	21.39
EDGE1900 (1 Slot)	1850.2	26.78	26.43	-9	17.43
	1880	26.72	26.40	-9	17.4
	1909.8	26.74	26.34	-9	17.34
EDGE1900 (2 Slot)	1850.2	25.86	25.51	-6	19.51
	1880	25.83	25.46	-6	19.46
	1909.8	25.72	25.42	-6	19.42
EDGE1900 (3 Slot)	1850.2	24.68	24.31	-4.26	20.05
	1880	24.64	24.29	-4.26	20.03
	1909.8	24.61	24.25	-4.26	19.99
EDGE1900 (4 Slot)	1850.2	23.53	23.23	-3	20.23
	1880	23.66	23.21	-3	20.21
	1909.8	23.51	23.16	-3	20.16

Note 1:
The Frame Power (Source-based time-averaged Power) is scaled the maximum burst average power based on time slots. The calculated methods are show as following:
Frame Power = Max burst power (1 Up Slot) – 9 dB
Frame Power = Max burst power (2 Up Slot) – 6 dB
Frame Power = Max burst power (3 Up Slot) – 4.26 dB
Frame Power = Max burst power (4 Up Slot) – 3 dB

(SIM 2 Card)

GSM 850:

Mode	Frequency (MHz)	Peak Power(dBm)	AVG Power(dBm)
GSM850	824.2	32.09	31.53
	836.6	32.12	31.58
	848.8	**32.18**	**31.65**
GPRS850 (1 Slot)	824.2	31.63	31.32
	836.6	31.61	31.29
	848.8	31.55	31.24
GPRS850 (2 Slot)	824.2	31.19	30.75
	836.6	31.13	30.72
	848.8	31.27	30.83
GPRS850 (3 Slot)	824.2	29.15	28.71
	836.6	28.93	28.75
	848.8	29.17	28.82
GPRS850 (4 Slot)	824.2	27.86	27.45
	836.6	27.82	27.43
	848.8	28.01	27.57
EDGE850 (1 Slot)	824.2	29.57	28.83
	836.6	29.52	28.77
	848.8	29.51	28.72
EDGE850 (2 Slot)	824.2	29.43	28.65
	836.6	29.38	28.61
	848.8	29.36	28.57
EDGE850 (3 Slot)	824.2	27.22	26.53
	836.6	27.19	26.48
	848.8	27.15	26.44
EDGE850 (4 Slot)	824.2	26.88	26.33
	836.6	26.86	26.29
	848.8	26.81	26.24

PCS 1900:

Mode	Frequency (MHz)	Peak Power(dBm)	AVG Power(dBm)
GSM1900	1850.2	**28.71**	**28.44**
	1880	28.67	28.39
	1909.8	28.64	28.26
GPRS1900 (1 Slot)	1850.2	28.61	28.11
	1880	28.56	28.14
	1909.8	28.54	28.12
GPRS1900 (2 Slot)	1850.2	27.91	27.65
	1880	27.88	27.61
	1909.8	27.86	27.58
GPRS1900 (3 Slot)	1850.2	25.92	25.54
	1880	25.84	25.49
	1909.8	25.82	25.47
GPRS1900 (4 Slot)	1850.2	24.91	24.62
	1880	24.87	24.56
	1909.8	24.74	24.46
EDGE1900 (1 Slot)	1850.2	26.69	26.35
	1880	26.65	26.30
	1909.8	26.61	26.24
EDGE1900 (2 Slot)	1850.2	25.78	25.41
	1880	25.73	25.36
	1909.8	25.71	25.32
EDGE1900 (3 Slot)	1850.2	24.65	24.28
	1880	24.62	24.25
	1909.8	24.58	24.23
EDGE1900 (4 Slot)	1850.2	23.51	23.21
	1880	23.46	23.17
	1909.8	23.42	23.14

UMTS BAND

HSDPA Setup Configuration:

·The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.

·The RF path losses were compensated into the measurements.

·A call was established between EUT and Based Station with following setting:

(1) Set Gain Factors(βc and βd) parameters set according to each

(2) Set RMC 12.2Kbps+HSDPA mode.

(3) Set Cell Power=-86dBm

(4) Set HS-DSCH Configuration Type to FRC (H-set 1, QPSK)

(5) Select HSDPA Uplink Parameters

(6) Set Delta ACK, Delta NACK and Delta CQI=8

(7) Set Ack - Nack Repetition Factor to 3

(8) Set CQI Feedback Cycle (k) to 4ms

(9) Set CQI Repetition Factor to 2

(10) Power Ctrl Mode=All Up bits

·The transmitted maximum output power was recorded.

Table C.10.2.4: β values for transmitter characteristics tests with HS-DPCCH

Sub-test	βc (Note5)	βd	βd (SF)	βc/βd	βHS (Note1, Note 2)	CM (dB) (Note 3)	MPR (dB) (Note 3)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15(Note 4)	15/15(Note 4)	64	12/15(Note 4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note 1: ΔACK, ΔNACK and ΔCQI = 30/15 with β_{hs} = 30/15 * β_c .
Note 2: For the HS-DPCCH power mask requirement test in clause 5.2C, 5.7A, and the Error Vector Magnitude (EVM) with HS-DPCCH test in clause 5.13.1A, and HSDPA EVM with phase discontinuity in clause 5.13.1AA, ΔACK and ΔNACK = 30/15 with β_{hs} = 30/15 * β_c , and ΔCQI = 24/15 with β_{hs} = 24/15 * β_c .
Note 3: CM = 1 for βc/βd =12/15, hs/ c=24/15. For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.
Note 4: For subtest 2 the c/ d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to c = 11/15 and d = 15/15.

HSUPA Setup Configuration:

· The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.

· The RF path losses were compensated into the measurements.

· A call was established between EUT and Base Station with following setting * :

(1) Call Configs = 5.2B, 5.9B, 5.10B, and 5.13.2B with QPSK

(2) Set the Gain Factors (βc and βd) and parameters (AG Index) were set according to each specific sub-test in the following table, C11.1.3, quoted from the TS 34.121

(3) Set Cell Power = -86 dBm

(4) Set Channel Type = 12.2k + HSPA

(5) Set UE Target Power

(6) Power Ctrl Mode= Alternating bits

(7) Set and observe the E-TFCI

(8) Confirm that E-TFCI is equal to the target E-TFCI of 75 for sub-test 1, and other subtest's E-TFCI

· The transmitted maximum output power was recorded.

Table C.11.1.3: β values for transmitter characteristics tests with HS-DPCCH and E-DCH

Sub-test	βc	βd	βd (SF)	βc/βd	βHS (Note1)	βec	βed (Note 4) (Note 5)	βed (SF)	βed (Codes)	CM (dB) (Note 2)	MPR (dB) (Note 2) (Note 6)	AG Index (Note 5)	E-TFCI
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/225	1309/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	βed1: 47/15 βed2: 47/15	4 4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15	0	-	-	5/15	5/15	47/15	4	1	1.0	0.0	12	67

Note 1: For sub-test 1 to 4, ΔACK, ΔNACK and ΔCQI = 30/15 with β_{hs} = 30/15 * β_c . For sub-test 5, ΔACK, ΔNACK and ΔCQI = 5/15 with β_{hs} = 5/15 * β_c .

Note 2: CM = 1 for βc/βd =12/15, hs/ 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.

Note 3: For subtest 1 the c/ d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to c = 10/15 and d = 15/15.

Note 4: In case of testing by UE using E-DPDCH Physical Layer category 1, Sub-test 3 is omitted according to TS25.306 Table 5.1g.

Note 5: βed cannot be set directly; it is set by Absolute Grant Value.

Note 6: For subtests 2, 3 and 4, UE may perform E-DPDCH power scaling at max power which could results in slightly smaller MPR values.

UMTS BAND V

Mode	Frequency(MHz)	Peak Power(dBm)	AVG Power(dBm)
WCDMA 850 RMC	826.4	**22.75**	**22.38**
	836.6	22.72	22.36
	846.6	22.64	22.26
WCDMA 850 AMR	826.4	22.52	22.33
	836.6	22.70	22.26
	846.6	22.45	22.14
HSDPA Subtest 1	826.4	22.52	22.29
	836.6	22.48	22.24
	846.6	22.43	22.21
HSDPA Subtest 2	826.4	21.64	21.22
	836.6	21.71	21.18
	846.6	21.72	21.13
HSDPA Subtest 3	826.4	20.68	20.46
	836.6	21.65	21.15
	846.6	20.58	20.13
HSDPA Subtest 4	826.4	20.66	19.98
	836.6	20.62	20.21
	846.6	20.65	19.96
HSUPA Subtest 1	826.4	22.57	22.24
	836.6	22.72	22.29
	846.6	22.64	22.21
HSUPA Subtest 2	826.4	21.61	21.38
	836.6	21.63	21.26
	846.6	21.52	21.16
HSUPA Subtest 3	826.4	20.87	20.48
	836.6	21.05	20.41
	846.6	20.89	20.36
HSUPA Subtest 4	826.4	20.39	19.93
	836.6	20.44	20.16
	846.6	20.37	19.86
HSUPA Subtest 5	826.4	19.89	19.54
	836.6	20.06	19.78
	846.6	19.87	19.49

UMTS BAND II

Mode	Frequency(MHz)	Peak Power(dBm)	AVG Power(dBm)
WCDMA 1900 RMC	1852.4	**22.59**	**22.24**
	1880	22.42	22.21
	1907.6	22.38	22.15
WCDMA 1900 AMR	1852.4	22.55	22.22
	1880	22.35	22.10
	1907.6	22.31	21.84
HSDPA Subtest 1	1852.4	22.47	22.25
	1880	22.43	22.21
	1907.6	22.35	21.99
HSDPA Subtest 2	1852.4	21.59	21.18
	1880	21.41	20.86
	1907.6	21.38	21.04
HSDPA Subtest 3	1852.4	21.05	20.69
	1880	20.77	20.23
	1907.6	20.65	20.35
HSDPA Subtest 4	1852.4	20.12	19.87
	1880	19.88	19.51
	1907.6	20.04	19.65
HSUPA Subtest 1	1852.4	22.36	22.05
	1880	22.27	21.96
	1907.6	22.21	21.93
HSUPA Subtest 2	1852.4	21.54	21.19
	1880	21.46	20.93
	1907.6	21.37	20.88
HSUPA Subtest 3	1852.4	20.96	20.71
	1880	20.84	20.56
	1907.6	20.82	20.35
HSUPA Subtest 4	1852.4	20.34	20.06
	1880	20.27	19.75
	1907.6	19.89	19.42
HSUPA Subtest 5	1852.4	19.75	19.41
	1880	19.69	19.29
	1907.6	19.54	18.98

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≤ CM≤3.5	MAX(CM-1,0)
Note: CM=1 for βc/βd=12/15, βhs/ βc=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.

WIFI

Mode	Channel Number	Frequency (MHz)	Peak Conducted Output Power (dBm)
802.11b	1	2412	**9.83**
	6	2437	9.69
	11	2462	9.28
802.11g	1	2412	8.25
	6	2437	8.18
	11	2462	8.12
802.11n(HT-20)	1	2412	7.15
	6	2437	7.12
	11	2462	7.08
802.11n(HT-40)	3	2422	5.62
	6	2437	5.66
	9	2452	5.45

Bluetooth 3.0

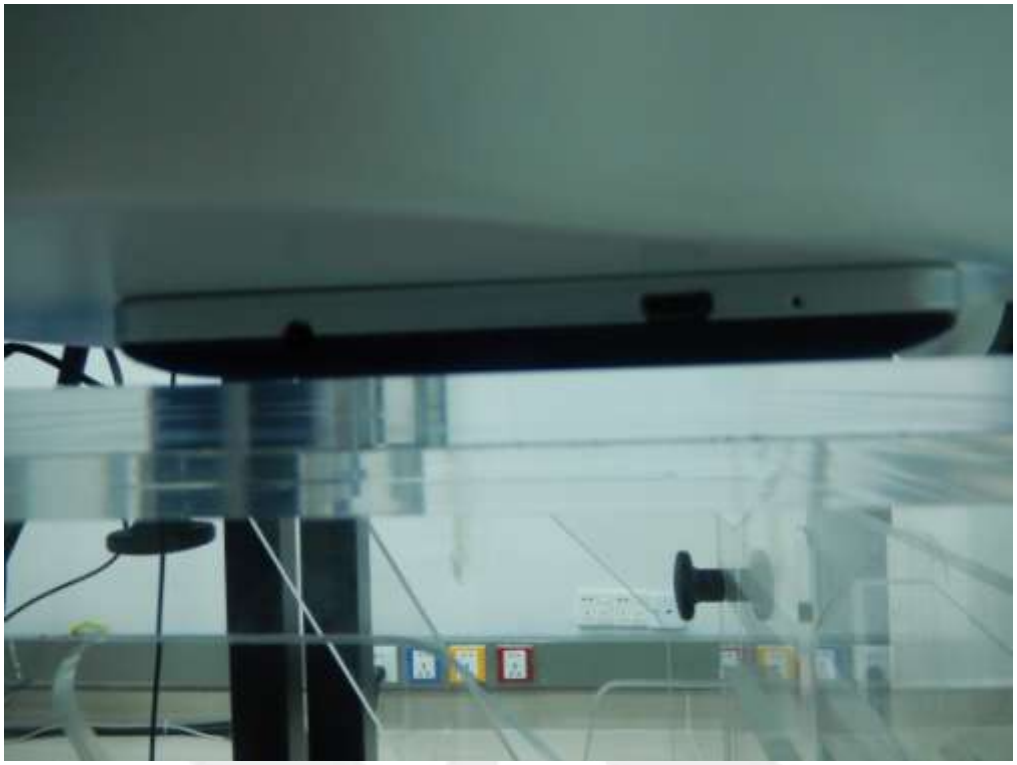
Mode	Channel Number	Frequency (MHz)	Peak Output Power (dBm)
GFSK(1M)	0	2402	-1.93
	39	2441	-0.67
	78	2480	**0.51**
π/4-DQPSK(2Mbps)	0	2402	-2.44
	39	2441	-1.14
	78	2480	0.03
8-DPSK(3Mbps)	0	2402	-2.40
	39	2441	-1.12
	78	2480	0.07

Bluetooth 4.0

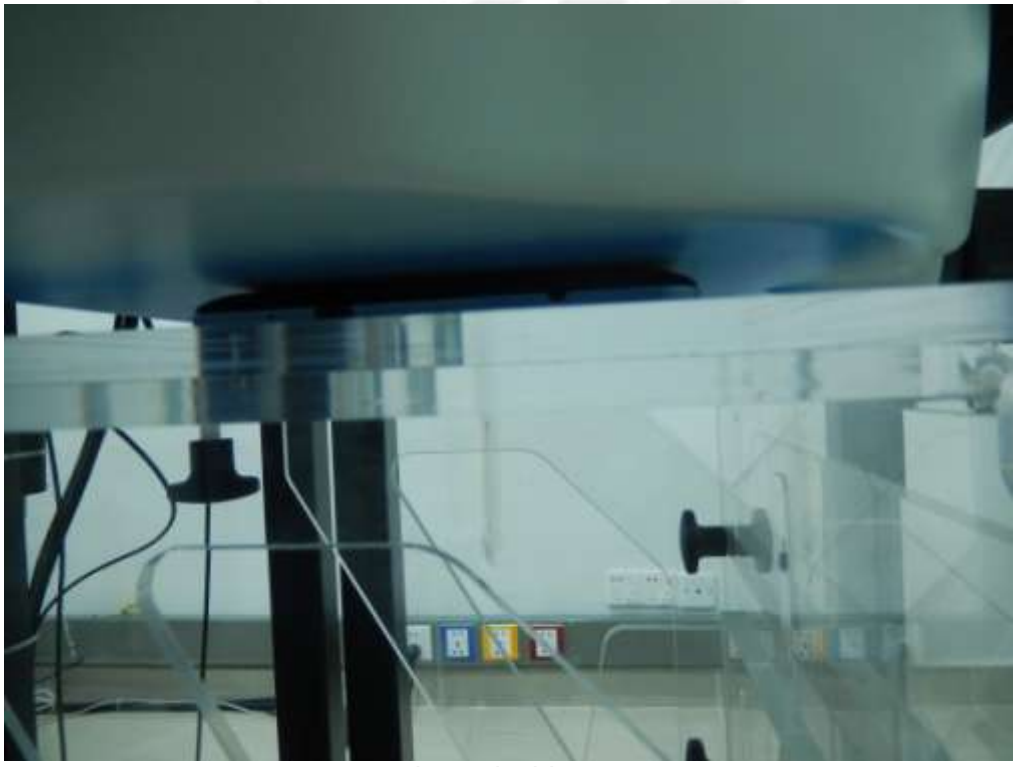
Mode	Channel Number	Frequency (MHz)	Peak Output Power (dBm)
GFSK	1	2402	-9.73
	20	2441	-8.52
	40	2480	-7.71

12. EUT And Test Setup Photo

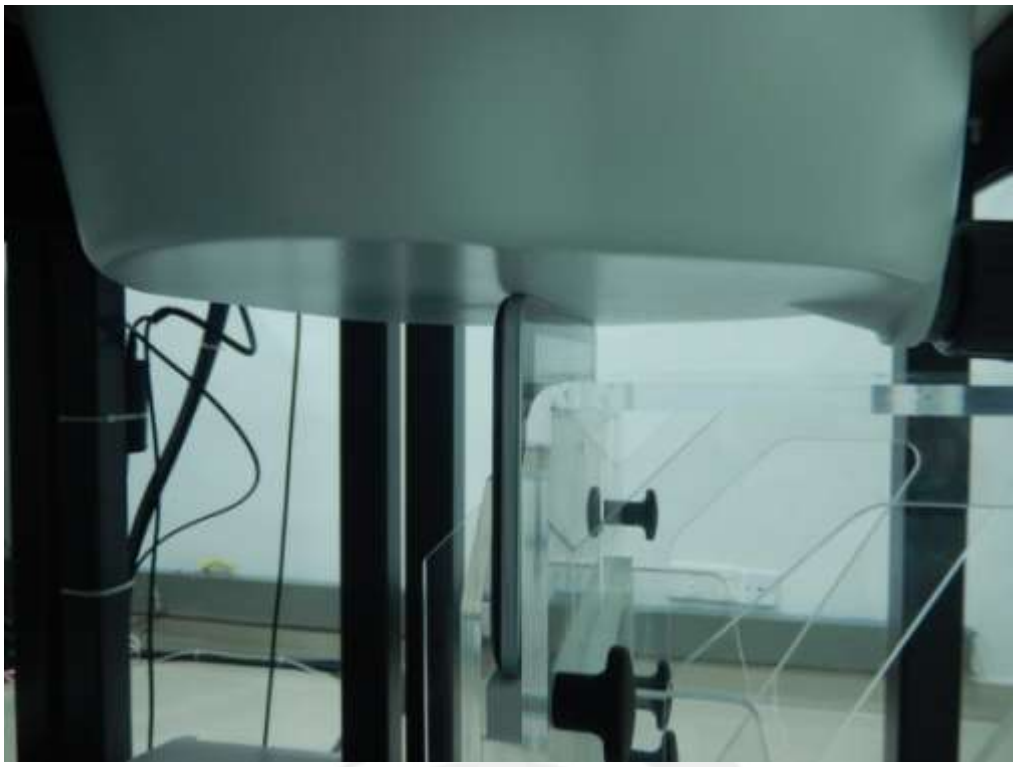
12.1Setup Photo



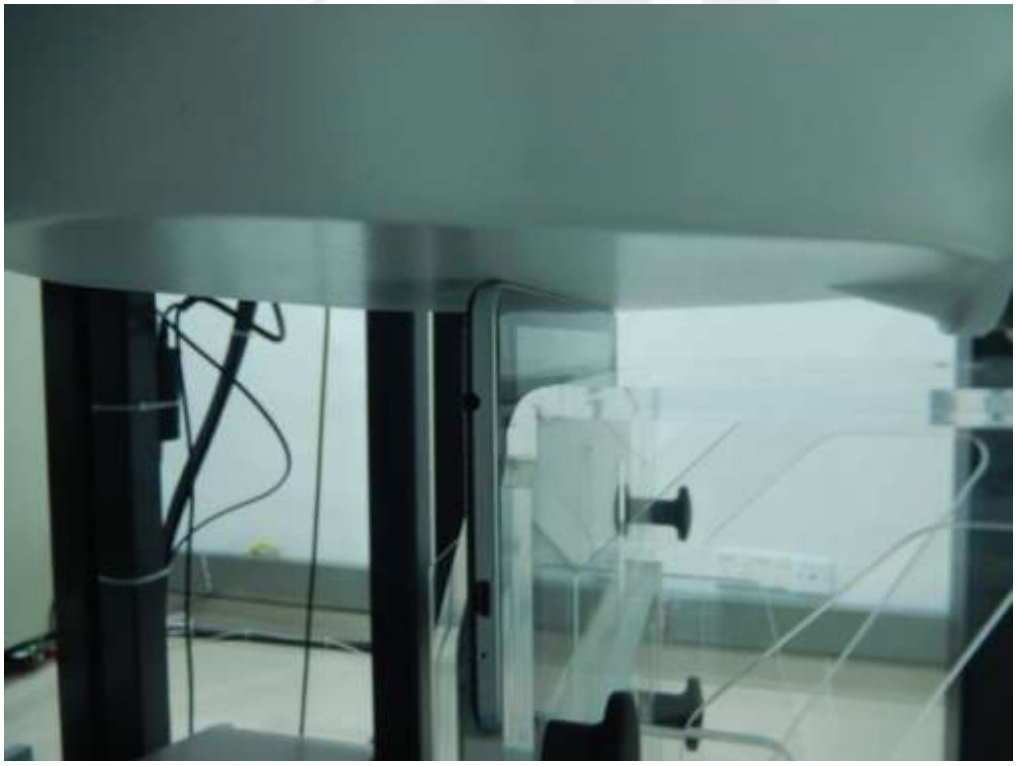
Body Front side 0mm



Body Back side 0mm

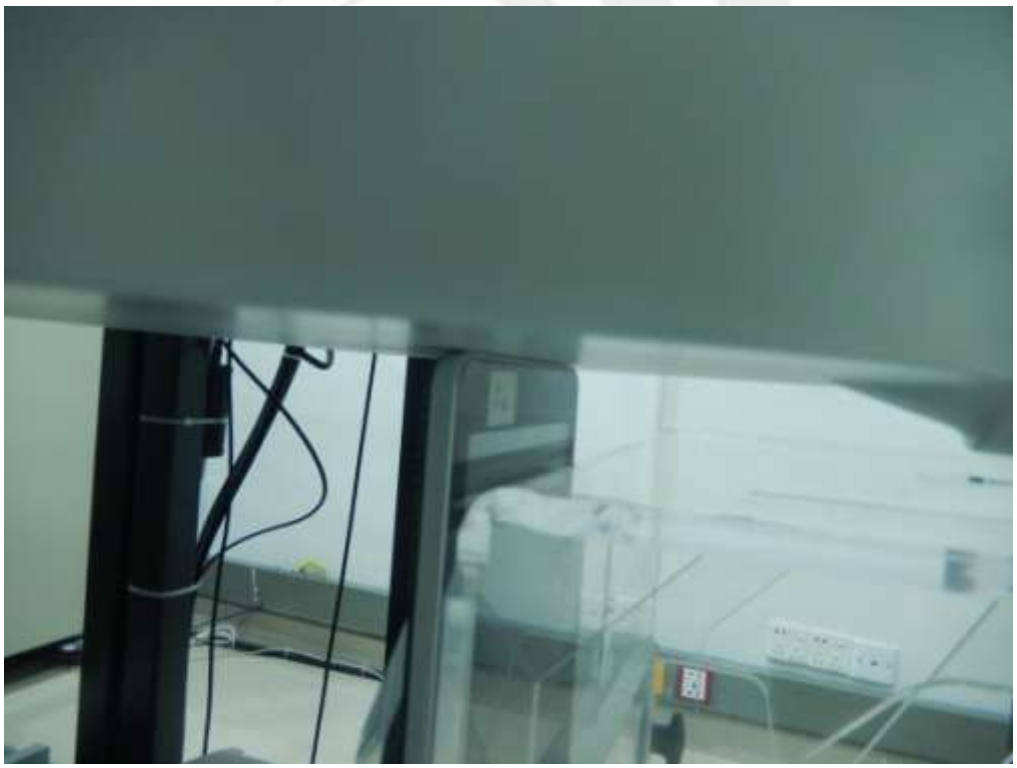


Body left side

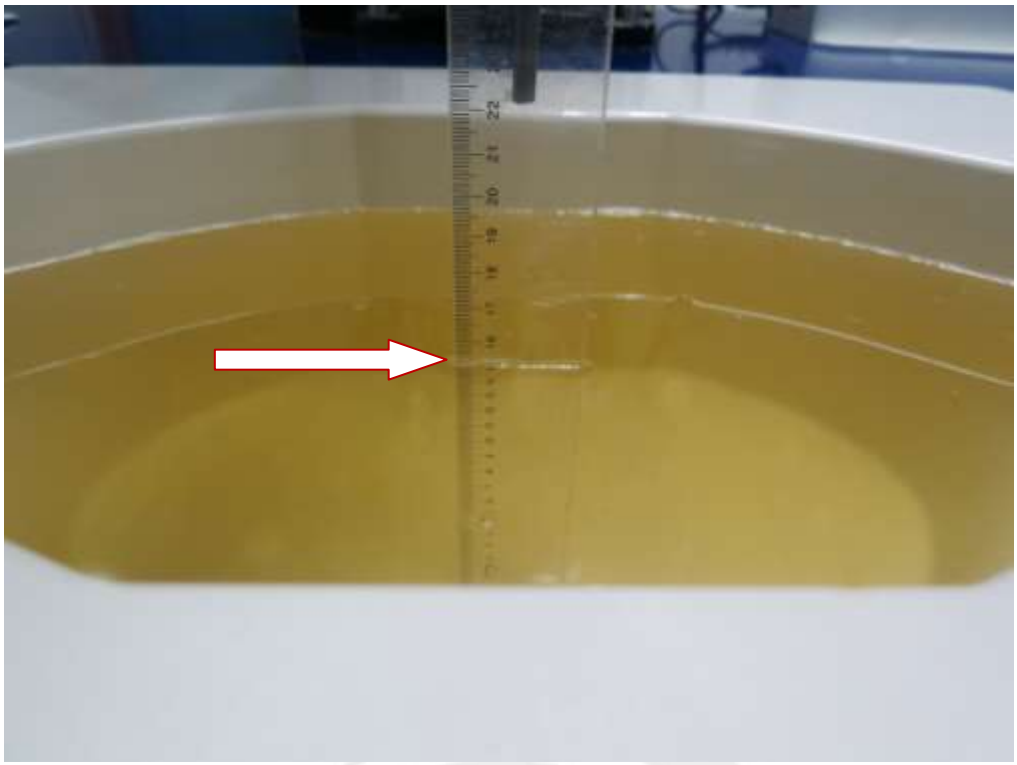


Body Right side

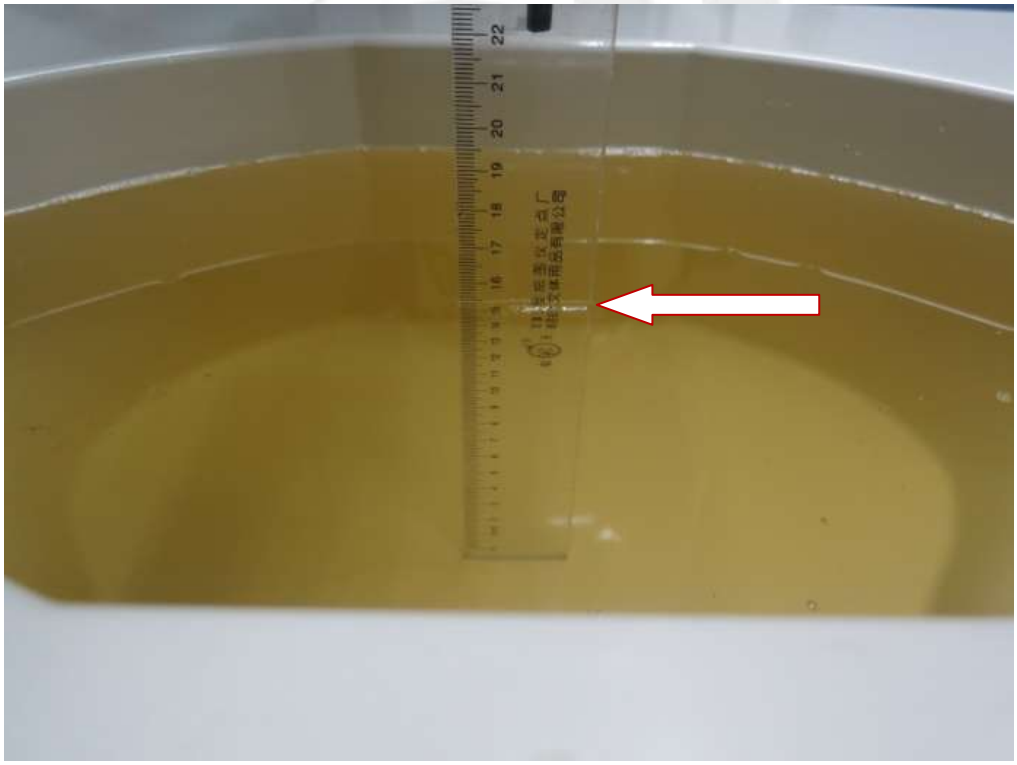
Body top side



Body bottom side



Body Liquid depth at 850 MHz (15cm)



Body Liquid depth at 1900 MHz (15cm)

Body Liquid depth at 2450MHz (15 cm)

13. SAR Result Summary

13.1 Body SAR

Summary of Measurement Results (SIM 1 Card)

Band	Mode	Test Position	Channel	Result 1g (W/Kg)	Power Drift(%)	Max. Turn-up Power(dBm)	Meas. Output Power(dBm)	Scaled SAR (W/Kg)	Meas. No.
GSM 850	Voice (body-worn)	Front side	CH 190	0.442	1.85	33	31.84	0.577	1
		Back side	CH 128	0.779	-0.89	33	31.88	1.008	2
		Back side	CH 190	0.781	1.23	33	31.84	1.020	3
		Back side	CH 251	**0.810**	0.67	33	31.72	**1.088**	4
		Left side	CH 190	0.226	-1.36	33	31.84	0.295	5
		Right side	CH 190	0.094	-0.33	33	31.84	0.123	6
		Top side	CH 190	0.551	0.26	33	31.84	0.720	7
		Bottom side	CH 190	0.030	0.64	33	31.84	0.039	8
	GPRS Data-2 Slot	Front side	CH 190	0.258	0.85	32	30.84	0.337	9
		Back side	CH 190	**0.351**	-0.21	32	30.84	**0.458**	10
		Left side	CH 190	0.113	0.26	32	30.84	0.148	11
		Right side	CH 190	0.053	-0.37	32	30.84	0.069	12
		Top side	CH 190	0.274	0.45	32	30.84	0.358	13
		Bottom side	CH 190	0.017	0.25	32	30.84	0.022	14
GSM1900	Voice	Front side	CH 661	0.378	0.33	29	28.61	0.414	15
		Back side	CH 661	**0.667**	-0.74	29	28.61	**0.730**	16
		Left side	CH 661	0.207	0.15	29	28.61	0.226	17
		Right side	CH 661	0.122	-0.86	29	28.61	0.133	18
		Top side	CH 661	0.516	-0.24	29	28.61	0.564	19
		Bottom side	CH 661	0.067	1.23	29	28.61	0.073	20
	GPRS Data-2 Slot	Front side	CH 661	0.310	0.64	28	27.56	0.343	21
		Back side	CH 661	**0.333**	-0.78	28	27.56	**0.369**	22
		Left side	CH 661	0.115	0.21	28	27.56	0.127	23
		Right side	CH 661	0.070	-0.15	28	27.56	0.077	24
		Top side	CH 661	0.273	-0.64	28	27.56	0.302	25
		Bottom side	CH 661	0.035	0.74	28	27.56	0.039	26
WCDMA II	RMC (body-worn)	Front side	CH9400	0.566	0.15	23	22.21	0.679	27
		Back side	CH9262	**0.982**	0.29	23	22.24	**1.170**	28
		Back side	CH9400	0.936	-0.64	23	22.21	1.123	29
		Back side	CH9538	0.957	0.22	23	22.15	1.164	30
		Left side	CH9400	0.262	-0.14	23	22.21	0.314	31
		Right side	CH9400	0.126	0.74	23	22.21	0.151	32
		Top side	CH9262	0.809	0.12	23	22.24	0.964	33
		Top side	CH9400	0.886	-0.32	23	22.21	1.063	34

		Top side	CH9538	0.726	-0.74	23	21.96	0.922	35
		Bottom side	CH9400	0.274	-0.96	23	22.21	0.329	36
WCDMA V	RMC （body-worn ）	Front side	CH4183	0.641	-0.23	23	22.36	0.743	37
		Back side	CH 4132	0.839	-0.35	23	22.38	0.968	38
		Back side	CH 4183	**0.872**	0.49	23	22.36	**1.010**	39
		Back side	CH 4233	0.817	0.28	23	22.26	0.969	40
		Left side	CH4183	0.299	-0.71	23	22.36	0.346	41
		Right side	CH4183	0.143	-0.28	23	22.36	0.166	42
		Top side	CH4183	0.758	0.34	23	22.36	0.878	43
		Bottom side	CH4183	0.051	-0.10	23	22.36	0.059	44

Summary of Measurement Results (SIM 2 Card)

Band	Mode	Test Position	Channel	Result 1g (W/Kg)	Power Drift(%)	Max. Turn-up Power(dBm)	Meas.Output Power(dBm)	Scaled SAR (W/Kg)	Meas. No.
GSM 850	Voice （body-worn）	Back side	CH 251	0.784	0.51	33	31.65	1.070	45
GSM1900	Voice （body-worn）	Back side	CH 661	0.621	-0.45	29	28.39	0.715	46

Note:
When the 1-g Reported SAR is ≤ 0.8 W/kg, testing for low and high channel is optional. Refer to KDB 447498.
Two card slot can't work at the same time.
The test separation of all above table is 0mm.

Summary of Measurement Results (Repeated SAR)

Band	Mode	Test Position	Channel	Once SAR (1g) (W/kg)	Twice SAR (1g) (W/kg)	Third SAR (1g) (W/kg)	Limit W/kg	Meas. No.
GSM 850	Voice （body-worn）	Back side	CH 251	0.724	-	-	1.6	47
WCDMA V	RMC （body-worn）	Back side	CH 4183	0.804	-	-	1.6	48
WCDMA V	RMC （body-worn）	Top side	CH4183	0.636	-	-	1.6	49
WCDMA II	RMC （body-worn）	Back side	CH9262	0.899	-	-	1.6	50
WCDMA II	RMC （body-worn）	Top side	CH9400	0.887	-	-	1.6	51

Summary of Measurement Results (WIFI)

Band	Mode	Test Position	Channel	Result 1g (W/Kg)	Power Drift(%)	Max. Turn-up Power(dBm)	Meas. Output Power(dBm)	Scaled SAR (W/Kg)	Meas. No.
802.11b	DTS	Body back	CH 6	0.354	-0.25	10	9.69	**0.380**	52
		Body front	CH 6	0.167	-1.96	10	9.69	0.179	53
		Left side	CH 6	0.014	0.37	10	9.69	0.015	54
		Right side	CH 6	0.167	-0.24	10	9.69	0.179	55
		Top side	CH 6	0.243	0.53	10	9.69	0.261	56
		Bottom side	CH 6	0.025	1.12	10	9.69	0.027	57

Note:
· According to KDB248227, SAR is not required for 802.11n HT20/HT40 channels when the maximum average output power is less than 1/4 dB higher than that measured on the corresponding 802.11a/b channels.
· All of above “DTS” means data transmitters.
· The test separation of all above table for body part is 0mm.

Simultaneous Multi-band Transmission Evaluation:

Application Simultaneous Transmission information:

Position	Simultaneous state
Body	1. GSM + WIFI
	2. GSM + Bluetooth
	3. WCDMA + WIFI
	4. WCDMA + Bluetooth

NOTE:

1. Bluetooth and WIFI can't simultaneous transmission at the same time.
2. For simultaneous transmission at body exposure position, 2 transmitters simultaneous transmission was the worst state.
3. Based upon KDB 447498 D01 v05, BT SAR is excluded as below table.
4. If the test separation distance is <5mm, 5mm is used for excluded SAR calculation.
5. For minimum test separation distance≦50mm,Bluetooth standalone SAR is excluded according to [(max. power of channel, including tune-up tolerance, mW)/ (min. test separation distance, mm) ·[√f (GHz) /x] ≦3.0 for 1-g SAR and ≦7.5 for 10-g extremity SAR
6. The reported SAR summation is calculated based on the same configuration and test position.
7. KDB 447498 / 4.3.2 (2) when standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:

a) (max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]·[√f (GHz) /x] W/kg for test separation distances≤50 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.

Estimated SAR		Maximum Peak Power		Antenna to user(mm)	Frequency(GHz)	Stand alone SAR(1g) [W/kg]
		dBm	mW			
BT	Body	1	1.995	0	2.480	0.053

Sum of the SAR for GSM 850 &Wi-Fi & BT:

RF Exposure Conditions	Test Position	Simultaneous Transmission Scenario			Σ1-g SAR (W/Kg)
		GSM 850 Band	WI-Fi DTS Band	Bluetooth	
Body-worn	Front	0.577	0.179		0.756
	Rear	1.088	0.380		1.468
	Left side	0.295	0.015		0.31
	Right side	0.123	0.179		0.302
	Top side	0.720	0.261		0.981
	Bottom side	0.039	0.027		0.066
	Rear	0.577		0.053	0.63
	Front	1.088		0.053	1.141
	Left side	0.295		0.053	0.348
	Right side	0.123		0.053	0.176
	Top side	0.720		0.053	0.773
	Bottom side	0.039		0.053	0.092
GPRS	Front	0.337		0.053	0.390
	Rear	0.458		0.053	0.511
	Left side	0.148		0.053	0.201
	Right side	0.069		0.053	0.122
	Top side	0.358		0.053	0.411
	Bottom side	0.022		0.053	0.075

Sum of the SAR for GSM 1900 &Wi-Fi & BT:

RF Exposure Conditions	Test Position	Simultaneous Transmission Scenario			Σ1-g SAR (W/Kg)
		GSM 1900 Band	WI-Fi DTS Band	Bluetooth	
Body-worn	Front	0.414	0.179		0.593
	Rear	0.730	0.380		1.11
	Left side	0.226	0.015		0.241
	Right side	0.133	0.179		0.312
	Top side	0.564	0.261		0.825
	Bottom side	0.073	0.027		0.1
	Front	0.414		0.053	0.467
	Rear	0.730		0.053	0.783
	Left side	0.226		0.053	0.279
	Right side	0.133		0.053	0.186
	Top side	0.564		0.053	0.617
	Bottom side	0.073		0.053	0.126
GPRS	Front	0.343		0.053	0.396
	Rear	0.369		0.053	0.422
	Left side	0.127		0.053	0.180
	Right side	0.077		0.053	0.130
	Top side	0.302		0.053	0.355
	Bottom side	0.039		0.053	0.092

Sum of the SAR for WCDMA Band II &Wi-Fi & BT:

RF Exposure Conditions	Test Position	Simultaneous Transmission Scenario			Σ1-g SAR (W/Kg)
		WCDMA Band II	Wi-Fi DTS Band	Bluetooth	
Body-worn	Front	0.679	0.179		0.858
	Rear	1.170	0.380		1.55
	Left side	0.314	0.015		0.329
	Right side	0.151	0.179		0.33
	Top side	1.063	0.261		1.324
	Bottom side	0.329	0.027		0.356
	Front	0.679		0.053	0.732
	Rear	1.170		0.053	1.223
	Left side	0.314		0.053	0.367
	Right side	0.151		0.053	0.204
	Top side	1.063		0.053	1.116
	Bottom side	0.329		0.053	0.382

Sum of the SAR for WCDMA Band V &Wi-Fi & BT:

RF Exposure Conditions	Test Position	Simultaneous Transmission Scenario			Σ1-g SAR (W/Kg)
		WCDMA Band V	Wi-Fi DTS Band	Bluetooth	
Body-worn	Front	0.743	0.179		0.922
	Rear	1.010	0.380		1.39
	Left side	0.346	0.015		0.361
	Right side	0.166	0.179		0.345
	Top side	0.878	0.261		1.139
	Bottom side	0.059	0.027		0.086
	Front	0.743		0.053	0.796
	Rear	1.010		0.053	1.063
	Left side	0.346		0.053	0.399
	Right side	0.166		0.053	0.219
	Top side	0.878		0.053	0.931
	Bottom side	0.059		0.053	0.112

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

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

14. Equipment List

NO.	Instrument	Manufacturer	Model	S/N	Cal. Date	Cal. Due Date
1	835MHz Dipole	SATIMO	SID835	SN 30/14 DIP0G835-332	2014.09.01	2015.08.31
2	1900MHz Dipole	SATIMO	SID1900	SN 30/14 DIP1G900-333	2014.09.01	2015.08.31
3	2450MHz Dipole	SATIMO	SID2450	SN 30/14 DIP2G450-335	2014.09.01	2015.08.31
4	E-Field Probe	SATIMO	SSE5	SN 17/14 EP221	2014.09.01	2015.08.31
5	Antenna	SATIMO	ANTA3	SN 07/13 ZNTA52	2014.09.01	2015.08.31
6	Waveguide	SATIMO	SWG5500	SN 13/14 WGA32	2014.09.01	2015.08.31
7	Phantom	SATIMO	SAM	SN_4511_SAM90	2014.09.01	2015.08.31
8	SAR TEST BENCH	SATIMO	Tablet POSITIONNING SYSTEM	SN 32/14 MSH97	2014.09.01	--
9	SAR TEST BENCH	SATIMO	LAPTOP POSITIONNING SYSTEM	SN 32/14 LSH29	2014.09.01	2015.08.31
10	Dielectric Probe Kit	SATIMO	SCLMP	SN 32/14 OCPG52	2014.09.01	2015.08.31
11	Multi Meter	Keithley	Multi Meter 2000	4050073	2014.11.20	2015.11.19
12	Signal Generator	R&S	SMF100A	104260	2014.10.27	2015.10.26
13	Power Meter	R&S	NRP	100510	2014.10.25	2015.10.24
14	Power Sensor	R&S	NRP-Z11	101919	2014.10.25	2015.10.24
15	Network Analyzer	R&S	5071C	EMY46103472	2014.12.12	2015.12.11
16	Power Amplifier	SATIMO	ZHL-42W	9638	2014.11.20	2015.11.19
17	Power Meter	R&S	NRP-Z23	US38261498	2014.10.25	2015.10.24
18	Power Sensor	R&S	NRP-Z21	1137.6000.02	2014.10.22	2015.10.21

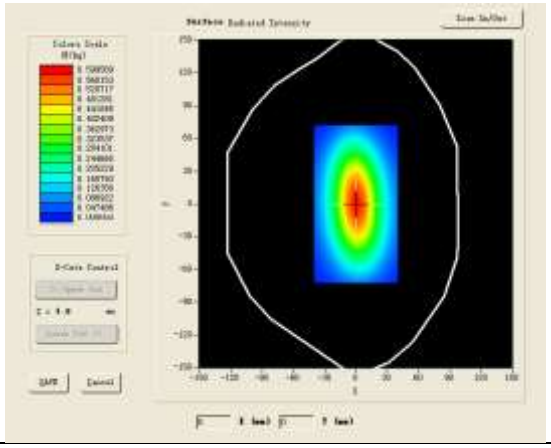
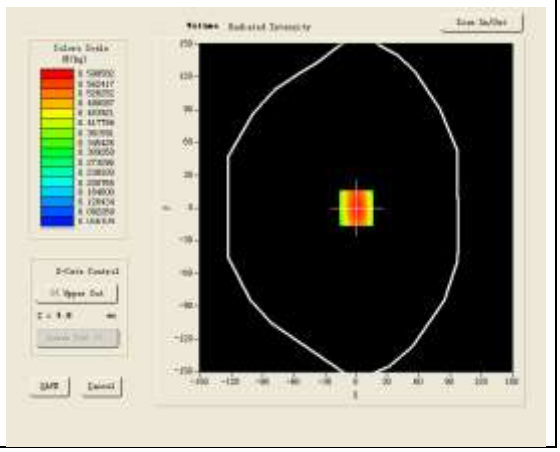
Appendix A. System Validation Plots

System Performance Check Data (835MHz Body)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm,dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2015.02.10
Measurement duration: 14 minutes 13 seconds

Experimental conditions.

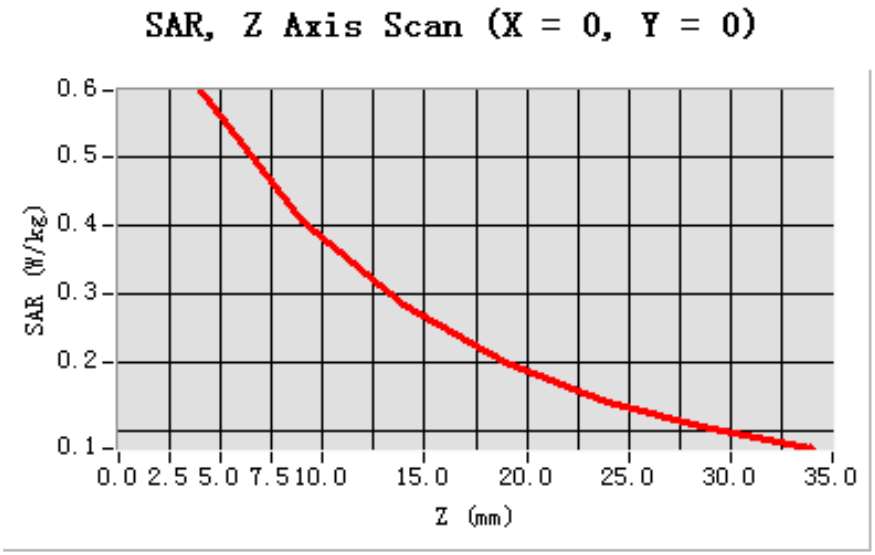
Probe	SN 17/14 EP221
Phantom	Validation plane
Device Position	-
Band	835MHz
Channels	-
Signal	CW
Frequency (MHz)	835MHz
Relative permittivity (real part)	55.19
Relative permittivity	20.672109
Conductivity (S/m)	0.96
Power drift (%)	0.60000
Ambient Temperature:	20.3℃
Liquid Temperature:	20.0℃
ConvF:	5.02
Crest factor:	1:1

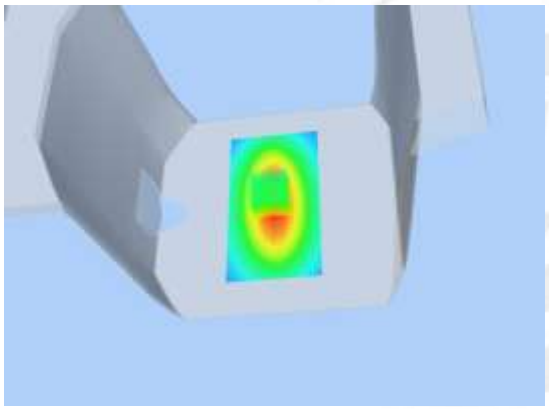
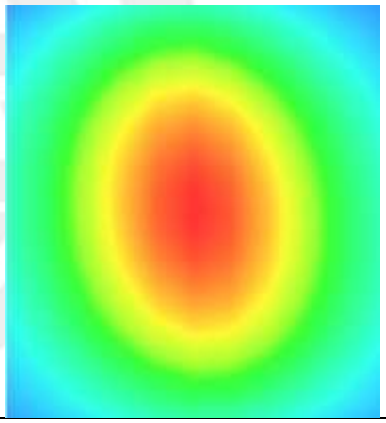
SURFACE SAR	VOLUME SAR
	

Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	0.378544
SAR 1g (W/Kg)	0.579218

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.5968	0.4071	0.2882	0.2004	0.1460	0.1045



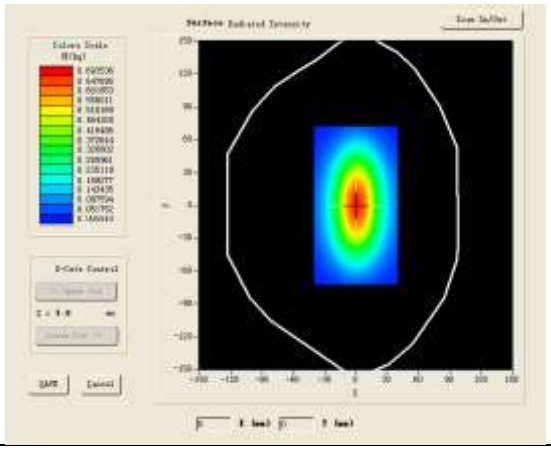
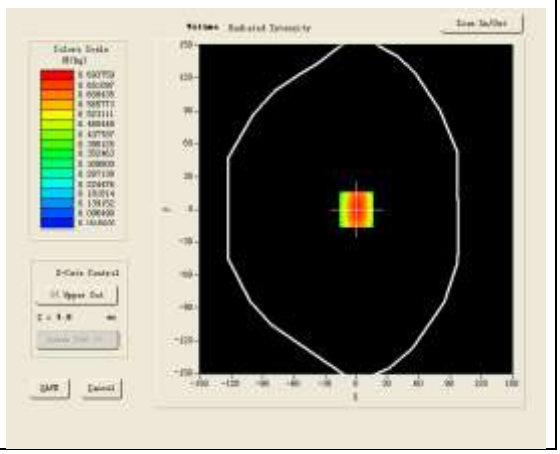
3D screen shot	Hot spot position
	

System Performance Check Data (835MHz Body)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm,dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2015.02.11
Measurement duration: 14 minutes 13 seconds

Experimental conditions.

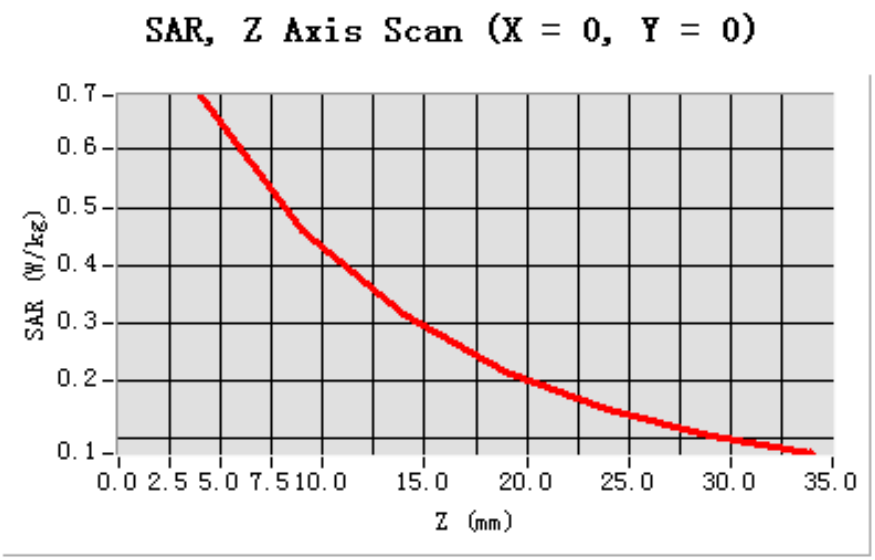
Probe	SN 17/14 EP221
Phantom	Validation plane
Device Position	-
Band	835MHz
Channels	-
Signal	CW
Frequency (MHz)	835MHz
Relative permittivity (real part)	54.45
Relative permittivity	20.672109
Conductivity (S/m)	0.96
Power drift (%)	0.574321
Ambient Temperature:	20.3℃
Liquid Temperature:	20.2℃
ConvF:	5.02
Crest factor:	1:1

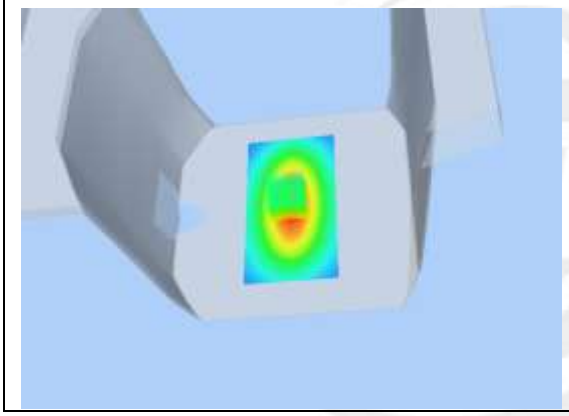
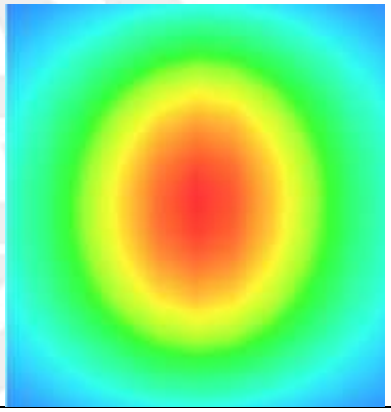
SURFACE SAR	VOLUME SAR
	

Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	0.425214
SAR 1g (W/Kg)	0.660121

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.6901	0.4642	0.3109	0.2145	0.1492	0.1015



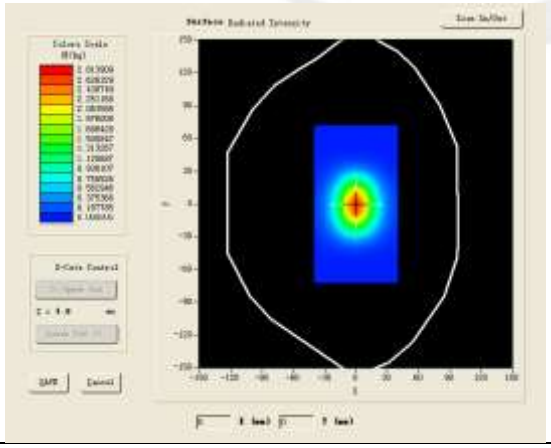
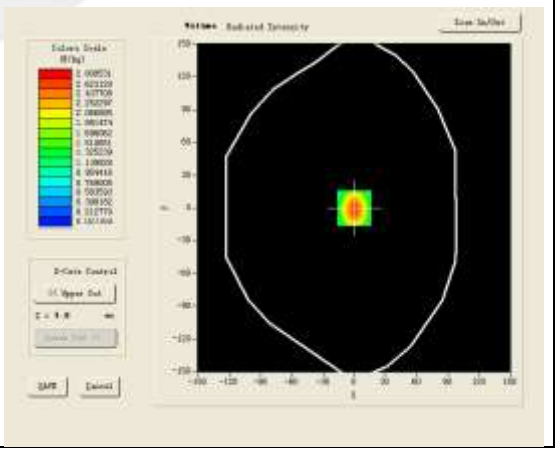
3D screen shot	Hot spot position
	

System Performance Check Data (1900MHz Body)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm,dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2015.03.09
Measurement duration: 14 minutes 37 seconds

Experimental conditions.

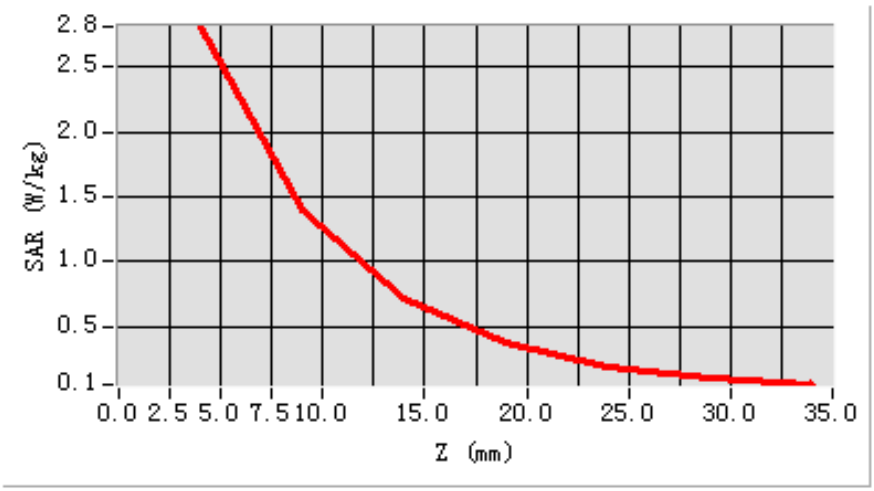
Device Position	-
Band	1900MHz
Channels	-
Signal	CW
Frequency (MHz)	1900
Relative permittivity (real part)	53.25
Relative permittivity	14.47
Conductivity (S/m)	1.53
Power drift (%)	0.45
Ambient Temperature:	19.0°C
Liquid Temperature:	19.9C
Probe	SN 17/14 EP221
ConvF:	4.85
Crest factor:	1:1

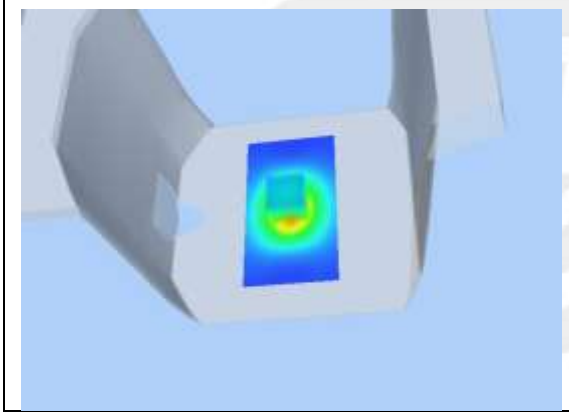
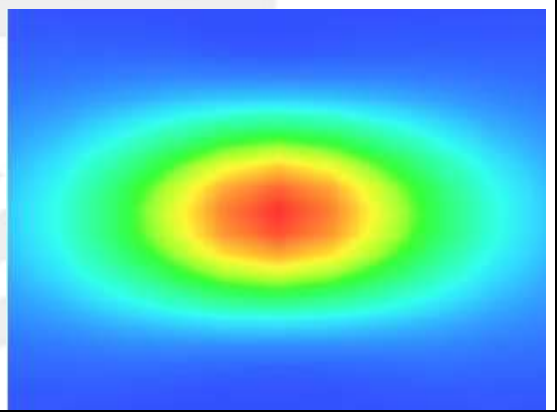
SURFACE SAR	VOLUME SAR
	

Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	1.334194
SAR 1g (W/Kg)	2.673493

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	2.8085	1.4032	0.7252	0.3793	0.1995	0.1058



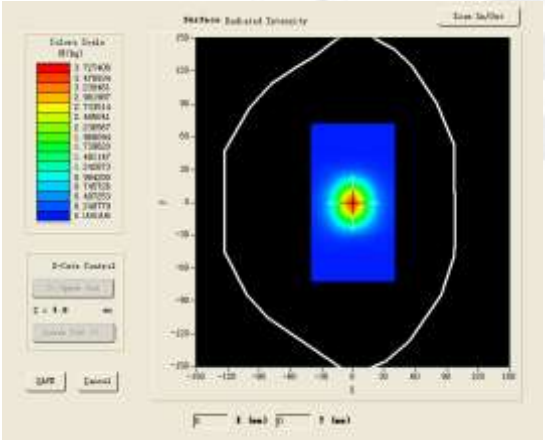
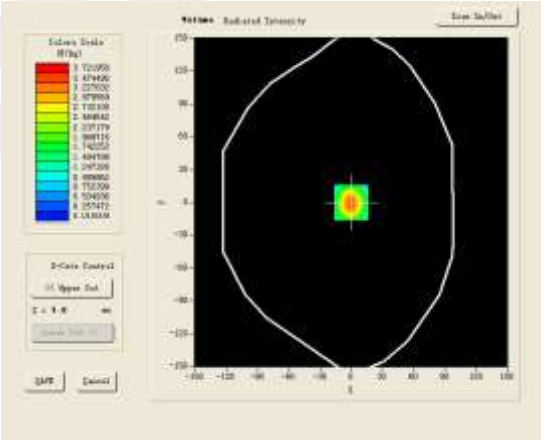
3D screen shot	Hot spot position
	

System Performance Check Data (2450MHz Body)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm,dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2015.03.6
Measurement duration: 14 minutes 46 seconds

Experimental conditions.

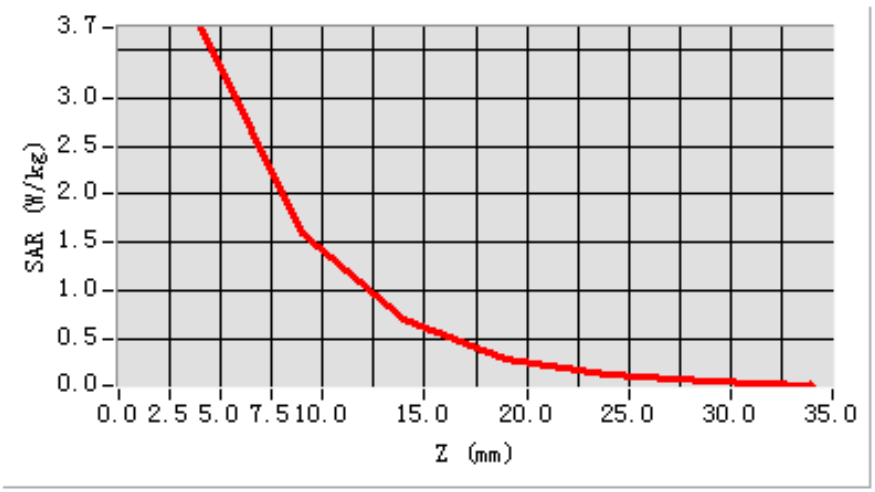
Device Position	-
Band	2450MHz
Channels	-
Signal	CW
Frequency (MHz)	2450
Relative permittivity (real part)	53.92
Relative permittivity	14.58
Conductivity (S/m)	1.92
Power drift (%)	0.37
Ambient Temperature:	21.7
Liquid Temperature:	21.1
Probe	SN 17/14 EP221
ConvF:	4.25
Crest factor:	1:1

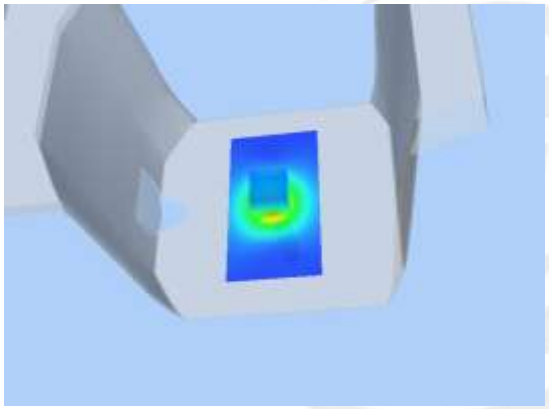
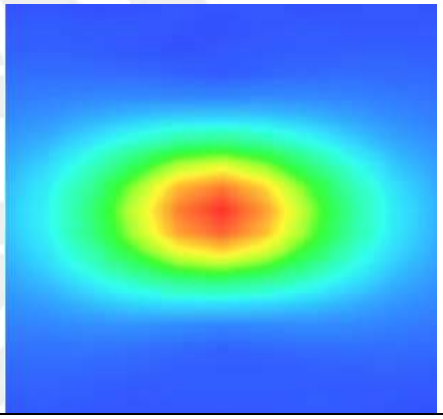
SURFACE SAR	VOLUME SAR
	

Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	1.575901
SAR 1g (W/Kg)	3.540028

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	3.7221	1.5952	0.7054	0.3118	0.1393	0.0619

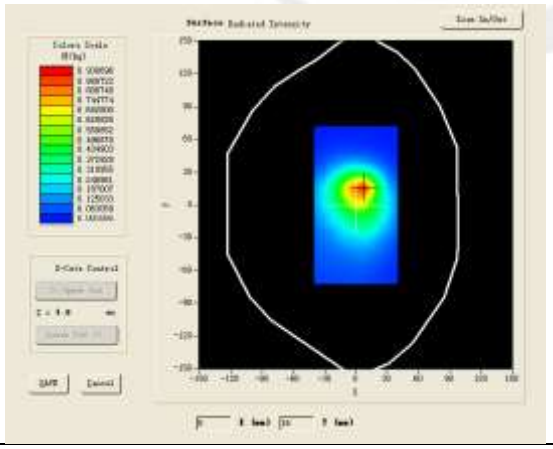
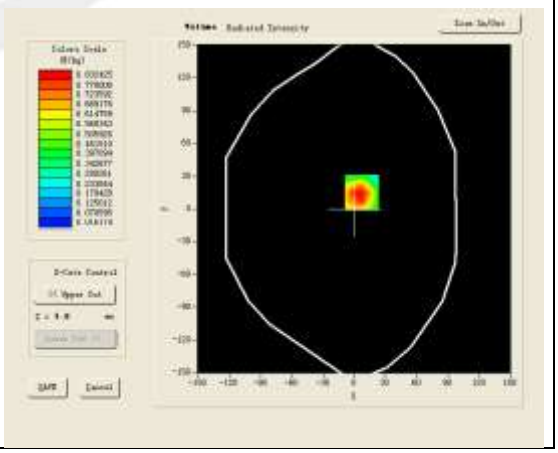


3D screen shot	Hot spot position
	

Appendix B. SAR Test Plots

Plot 4: DUT: Tablet; EUT Model: Nitro Phablet 71

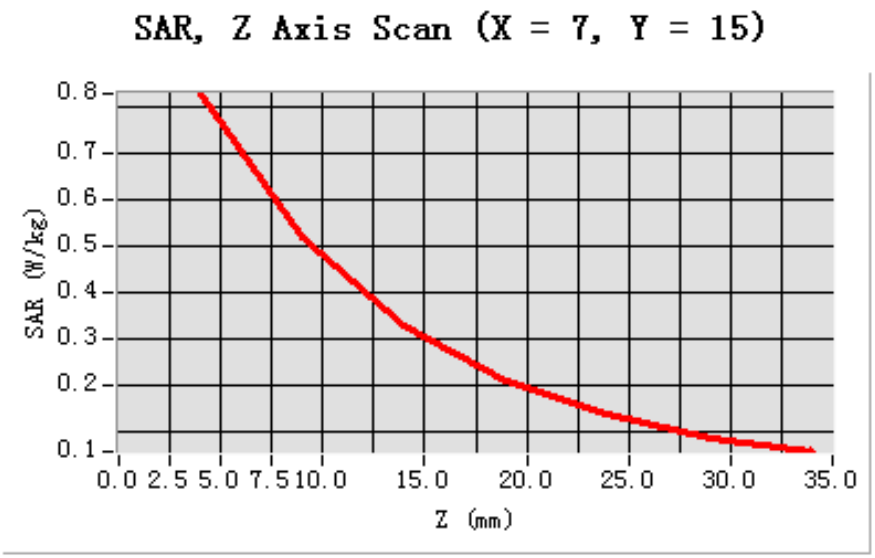
Test Data	2015-02-11
Ambient Temperature(°C)	20.30
Liquid Temperature(°C)	20.20
Probe	SN 17/14 EP221
ConvF	5.02
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body Behind
Band	GSM 850
Channels	High
Signal	TDMA (Crest factor: 8.32)
Frequency (MHz)	848.8
Relative permittivity (real part)	53.29
Conductivity (S/m)	0.98
Variation (%)	0.67

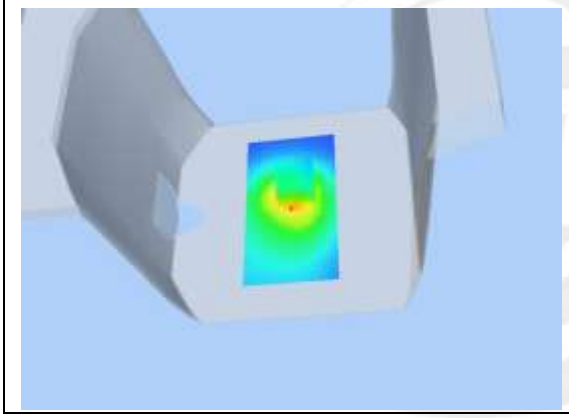
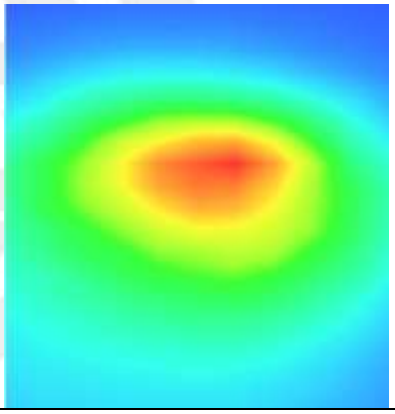
SURFACE SAR	VOLUME SAR
	

Maximum location: X=7.00, Y=15.00

SAR 10g (W/Kg)	0.483760
SAR 1g (W/Kg)	0.809583

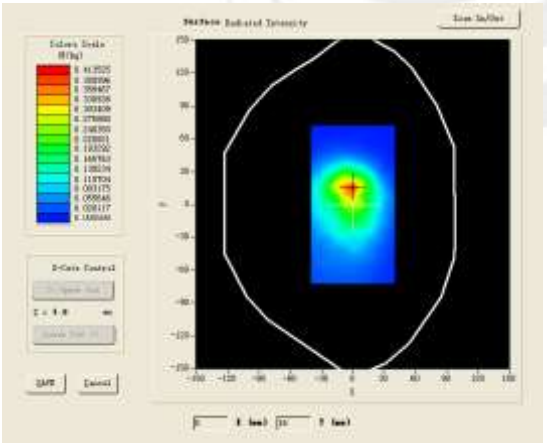
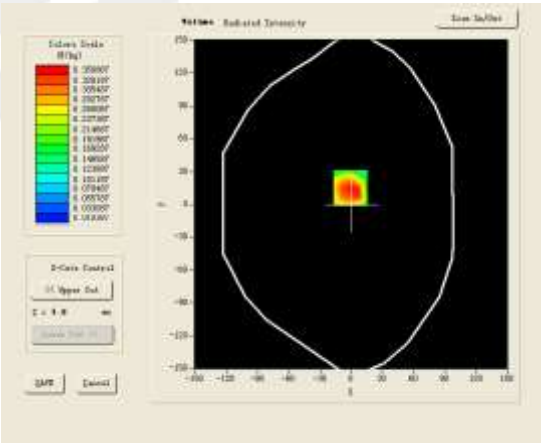
Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.8280	0.5187	0.3293	0.2079	0.1365	0.0842



3D screen shot	Hot spot position
	

Plot 10: DUT: Tablet; EUT Model: Nitro Phablet 71

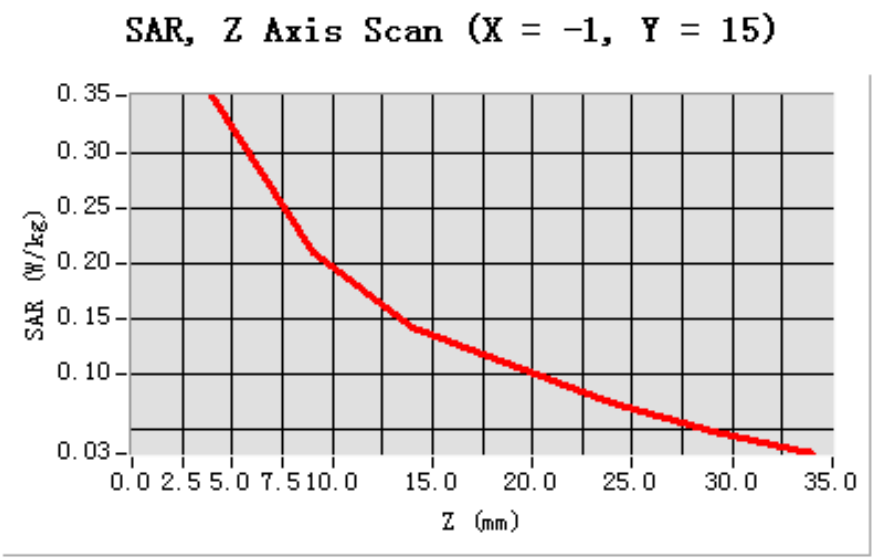
Test Data	2015-02-11
Ambient Temperature(°C)	20.30
Liquid Temperature(°C)	20.20
Probe	SN 17/14 EP221
ConvF	5.02
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body Behind
Band	GPRS 850
Channels	Middle
Signal	TDMA (Crest factor: 4.0)
Frequency (MHz)	836.6
Relative permittivity (real part)	54.16
Conductivity (S/m)	0.96
Variation (%)	-0.21

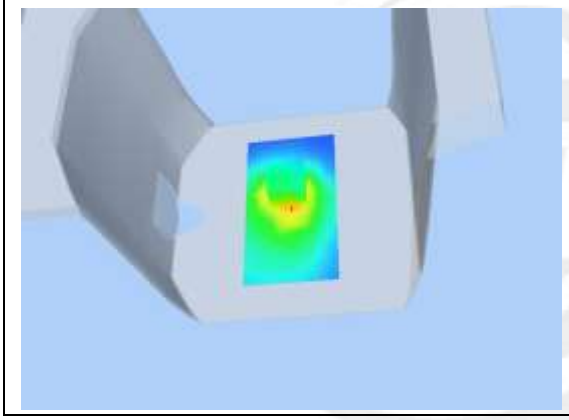
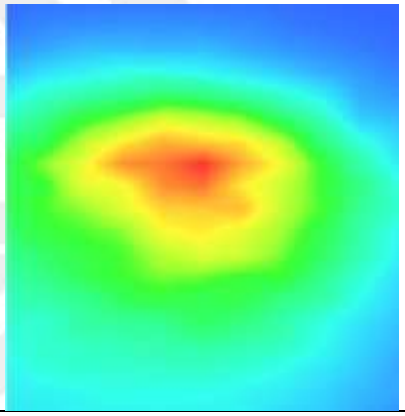
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-1.00, Y=15.00

SAR 10g (W/Kg)	0.201772
SAR 1g (W/Kg)	0.350633

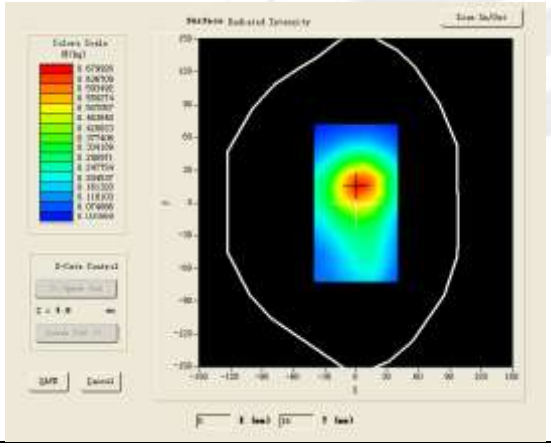
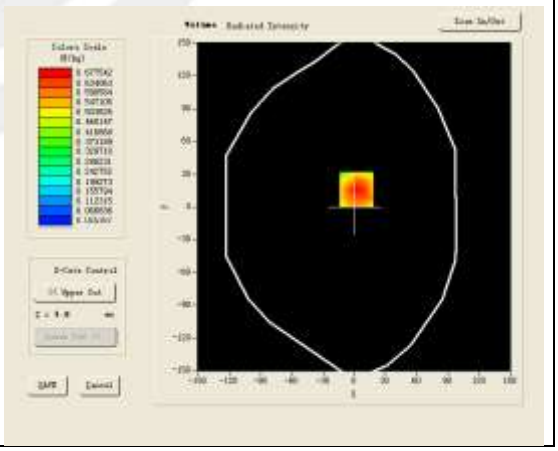
Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.3509	0.2084	0.1416	0.1082	0.0731	0.0482



3D screen shot	Hot spot position
	

Plot 16: DUT: Tablet; EUT Model: Nitro Phablet 71

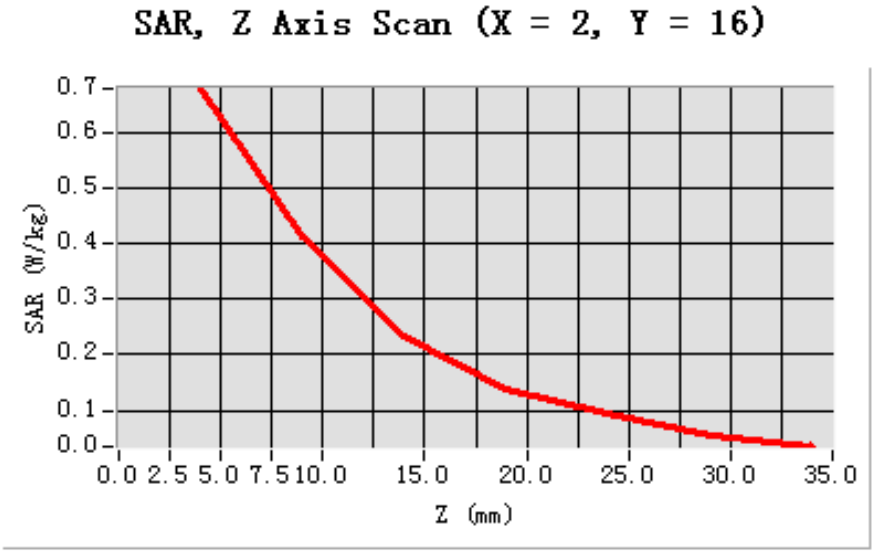
Test Data	2015-3-09
Ambient Temperature(°C)	19.0
Liquid Temperature(°C)	19.9
Probe	SN 17/14 EP221
ConvF	4.85
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body Behind
Band	GSM1900
Channels	Middle
Signal	TDMA (Crest factor: 8.32)
Frequency (MHz)	1880
Relative permittivity (real part)	53.16
Conductivity (S/m)	1.51
Variation (%)	-0.74

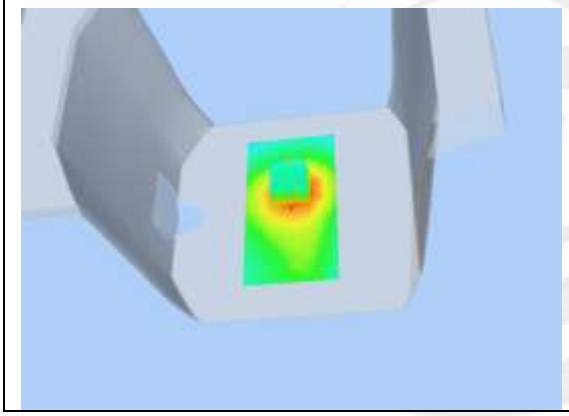
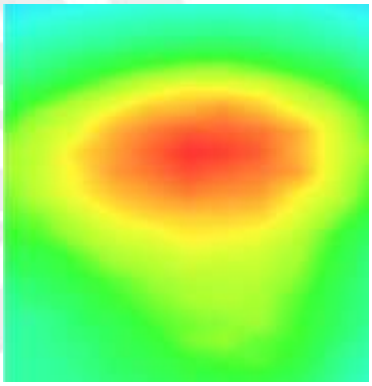
SURFACE SAR	VOLUME SAR
	

Maximum location: X=2.00, Y=16.00

SAR 10g (W/Kg)	0.393890
SAR 1g (W/Kg)	0.667458

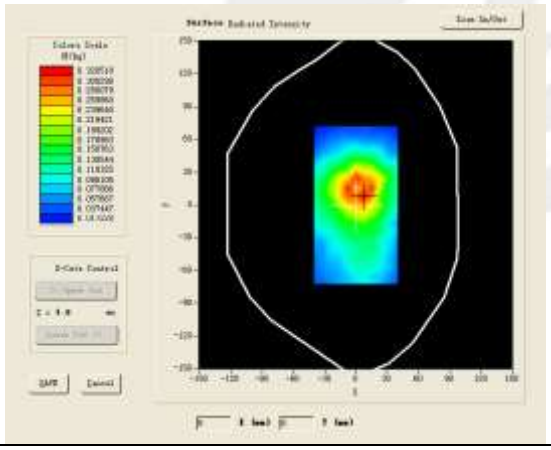
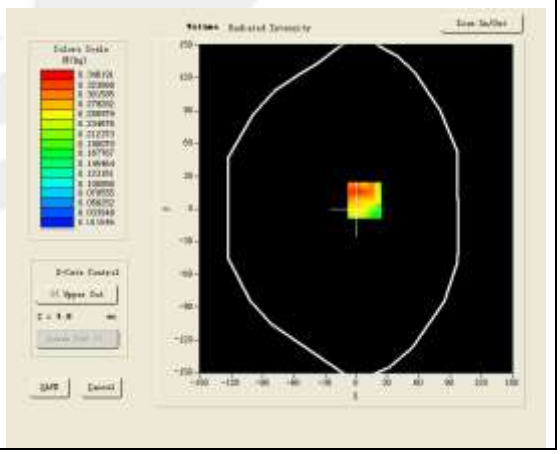
Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.6773	0.4101	0.2336	0.1385	0.0937	0.0552



3D screen shot	Hot spot position
	

Plot 22: DUT: Tablet; EUT Model: Nitro Phablet 71

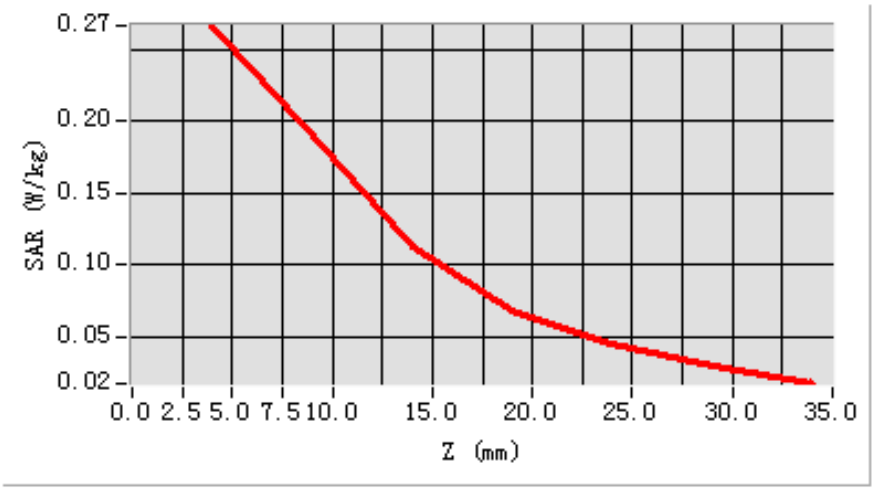
Test Data	2015-3-09
Ambient Temperature(°C)	19.0
Liquid Temperature(°C)	19.9
Probe	SN 17/14 EP221
ConvF	4.85
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body Behind
Band	GPRS 1900
Channels	Middle
Signal	TDMA (Crest factor: 4.0)
Frequency (MHz)	1880
Relative permittivity (real part)	53.16
Conductivity (S/m)	1.51
Variation (%)	-0.78

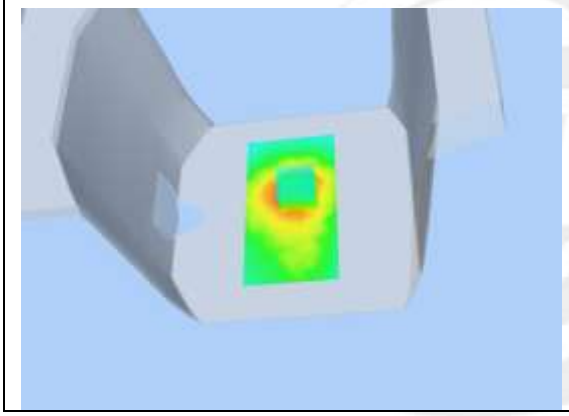
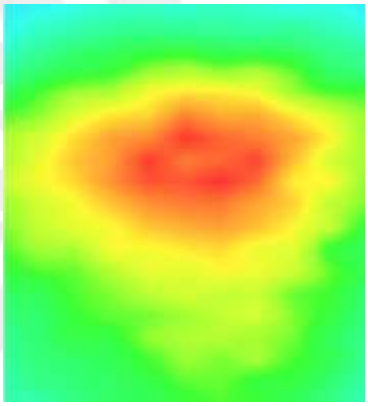
SURFACE SAR	VOLUME SAR
	

Maximum location: X=8.00, Y=8.00

SAR 10g (W/Kg)	0.1896221
SAR 1g (W/Kg)	0.3334883

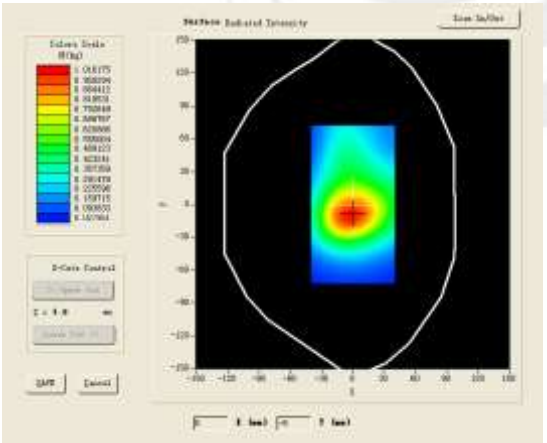
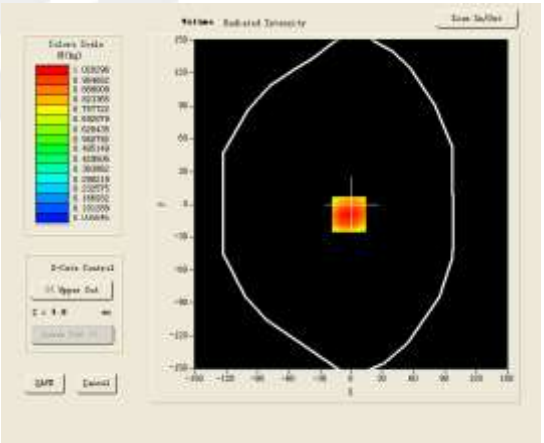
Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.2665	0.1891	0.1132	0.0684	0.0458	0.0301



3D screen shot	Hot spot position
	

Plot 28: DUT: Tablet; EUT Model: Nitro Phablet 71

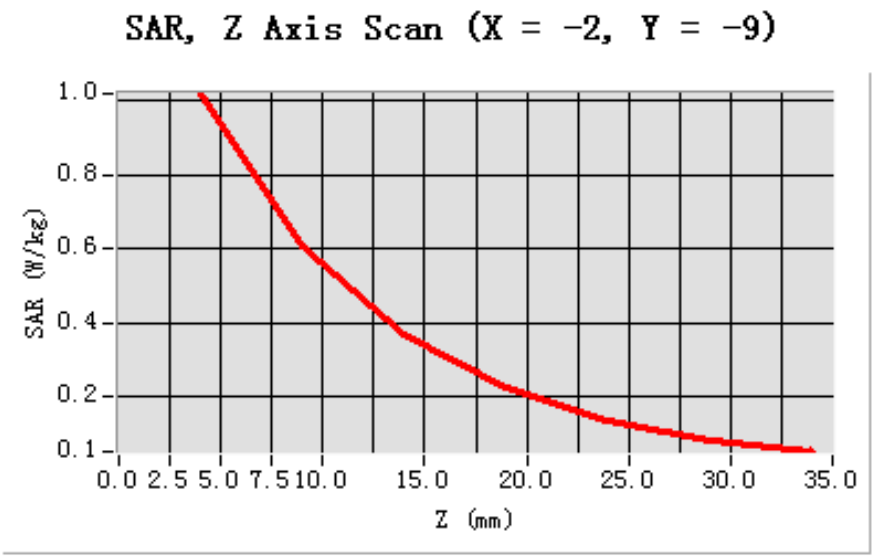
Test Data	2015-3-09
Ambient Temperature(°C)	19.0
Liquid Temperature(°C)	19.9
Probe	SN 17/14 EP221
ConvF	4.85
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back side
Band	WCDMA II
Channels	Low
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1852.4
Relative permittivity (real part)	54.00
Conductivity (S/m)	1.48
Variation (%)	0.29

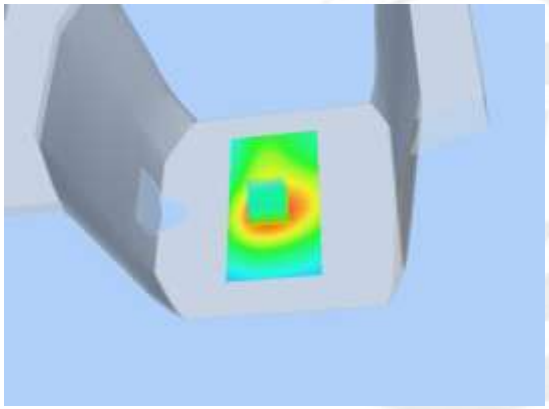
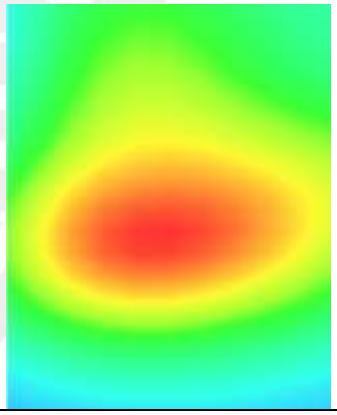
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-2.00, Y=-9.00

SAR 10g (W/Kg)	0.588852
SAR 1g (W/Kg)	0.981905

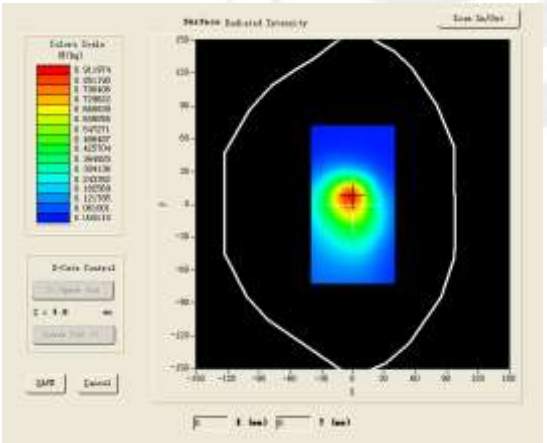
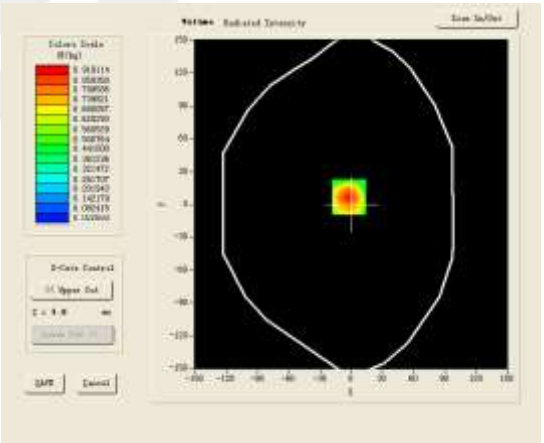
Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	1.0201	0.6092	0.3689	0.2234	0.1363	0.0826



3D screen shot	Hot spot position
	

Plot 39: DUT: Tablet; EUT Model: Nitro Phablet 71

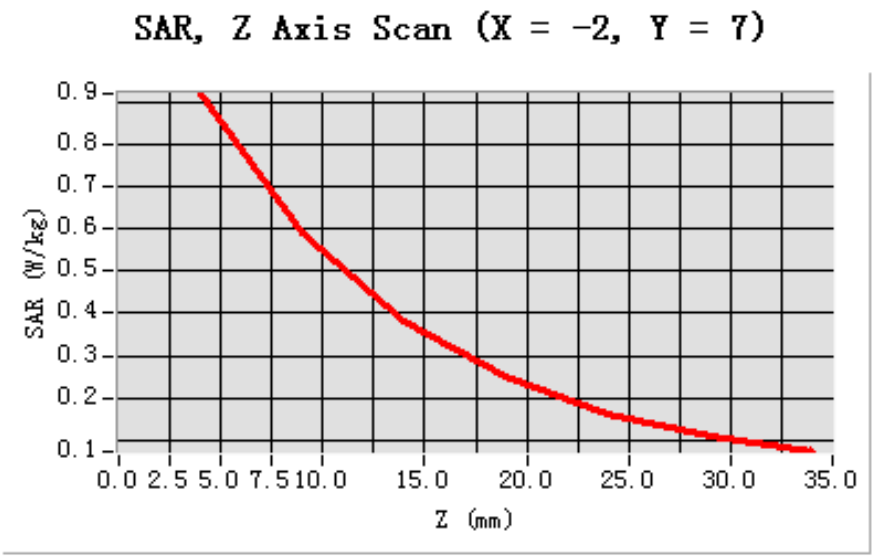
Test Data	2015-02-10
Ambient Temperature(°C)	20.3
Liquid Temperature(°C)	20.0
Probe	SN 17/14 EP221
ConvF	5.02
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back
Band	WCDMA V
Channels	Middle
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	836.6
Relative permittivity (real part)	54.81
Conductivity (S/m)	0.97
Variation (%)	0.49

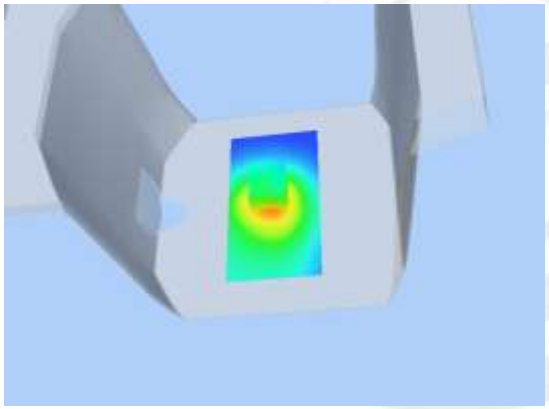
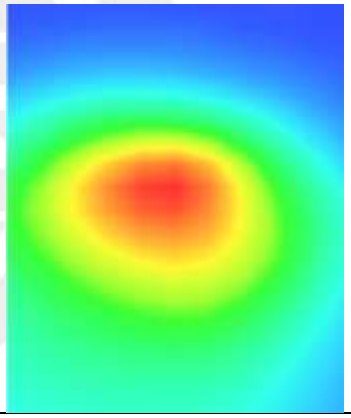
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-2.00, Y=7.00

SAR 10g (W/Kg)	0.530388
SAR 1g (W/Kg)	0.871865

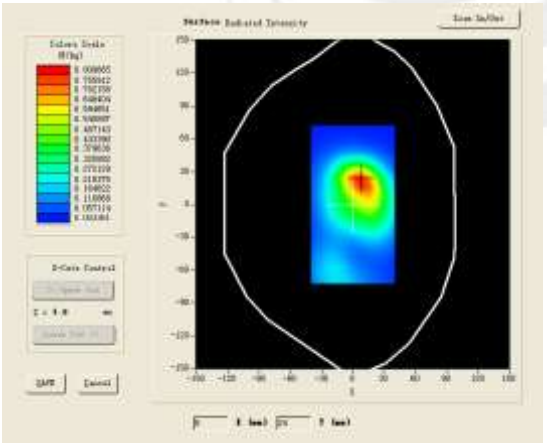
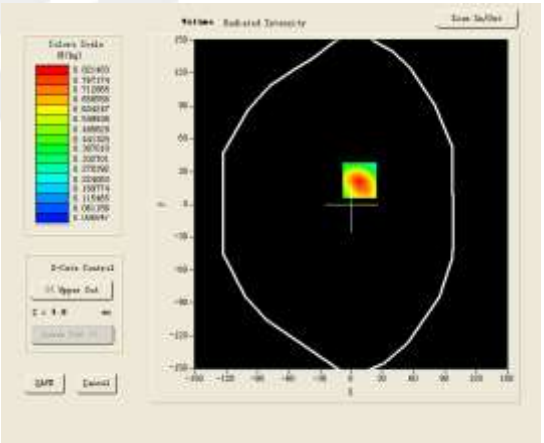
Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.9191	0.5878	0.3813	0.2486	0.1641	0.1093



3D screen shot	Hot spot position
	

Plot 45: DUT: Tablet; EUT Model: Nitro Phablet 71

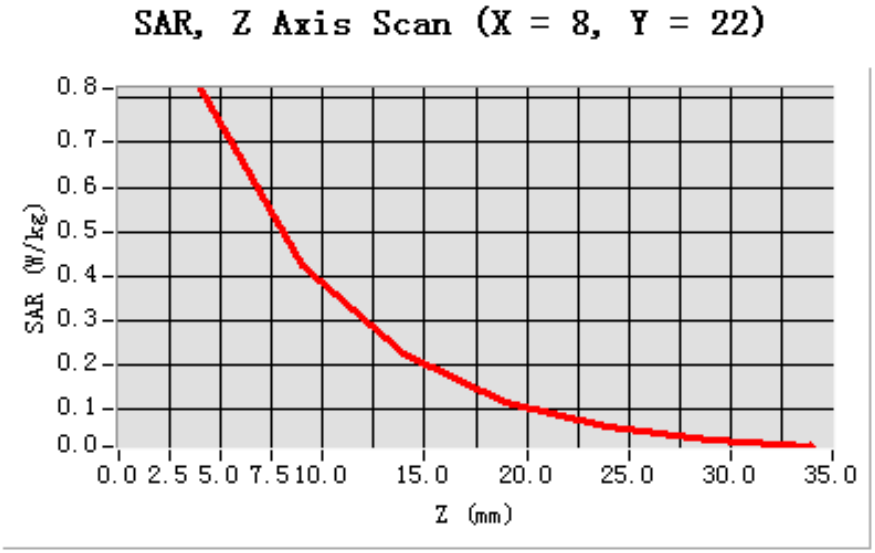
Test Data	2015-02-11
Ambient Temperature(°C)	20.30
Liquid Temperature(°C)	20.20
Probe	SN 17/14 EP221
ConvF	5.02
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body Behind
Band	GSM 850
Channels	High
Signal	TDMA (Crest factor: 8.32)
Frequency (MHz)	848.8
Relative permittivity (real part)	53.29
Conductivity (S/m)	0.98
Variation (%)	0.67

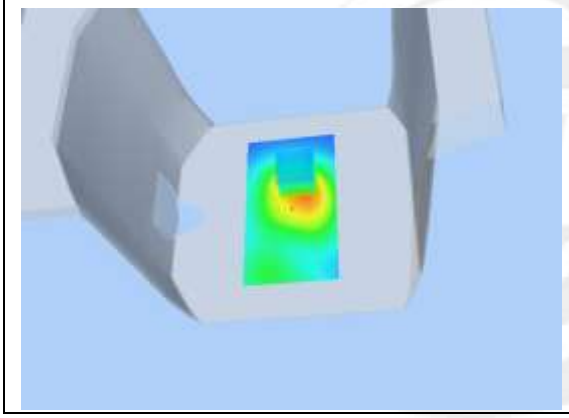
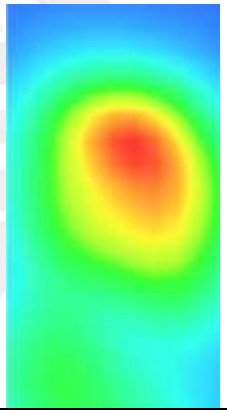
SURFACE SAR	VOLUME SAR
	

Maximum location: X=8.00, Y=22.00

SAR 10g (W/Kg)	0.404328
SAR 1g (W/Kg)	0.783528

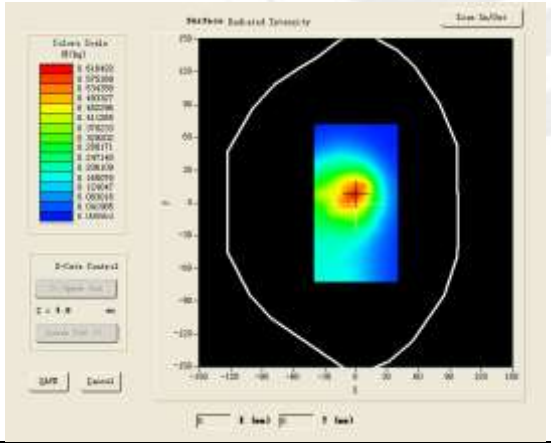
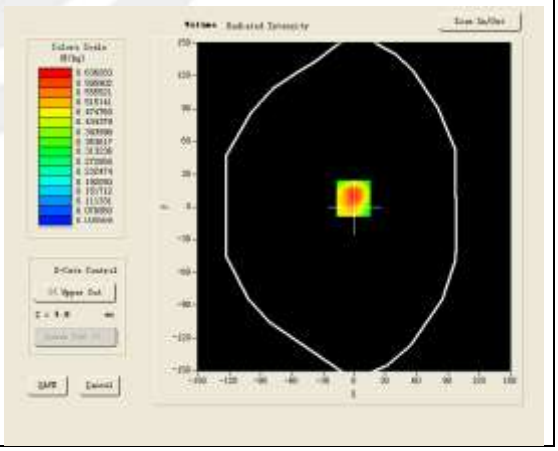
Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.8209	0.4236	0.2241	0.1178	0.0627	0.0329



3D screen shot	Hot spot position
	

Plot 46: DUT: Tablet; EUT Model: Nitro Phablet 71

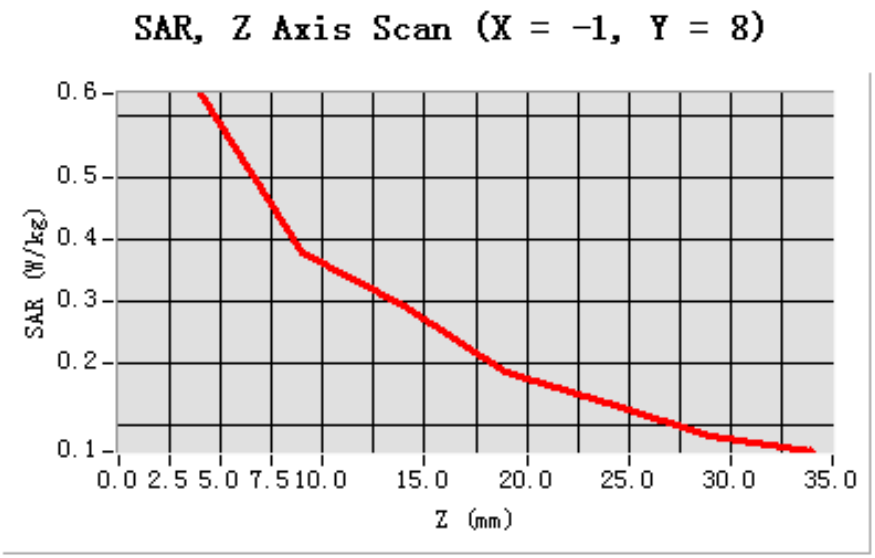
Test Data	2015-3-09
Ambient Temperature(°C)	19.0
Liquid Temperature(°C)	19.9
Probe	SN 17/14 EP221
ConvF	4.85
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body Behind
Band	GSM1900
Channels	Middle
Signal	TDMA (Crest factor: 8.32)
Frequency (MHz)	1880
Relative permittivity (real part)	53.16
Conductivity (S/m)	1.51
Variation (%)	-0.16

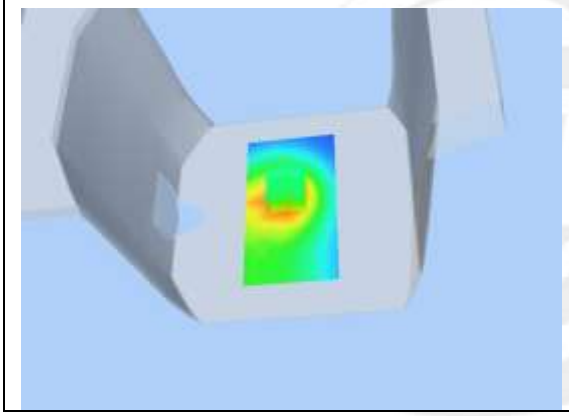
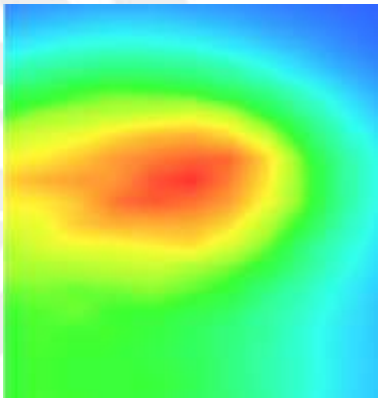
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-1.00, Y=8.00

SAR 10g (W/Kg)	0.364372
SAR 1g (W/Kg)	0.620952

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.6357	0.3811	0.2925	0.1853	0.1346	0.0827

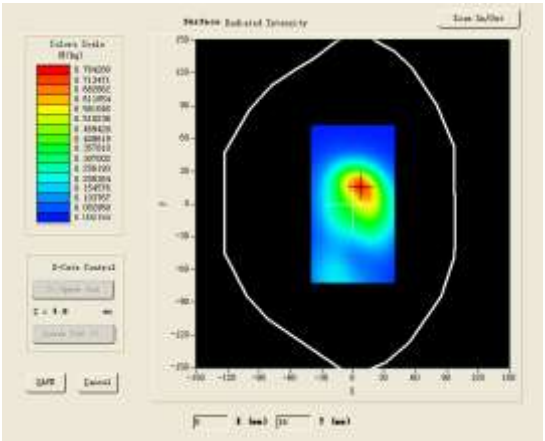
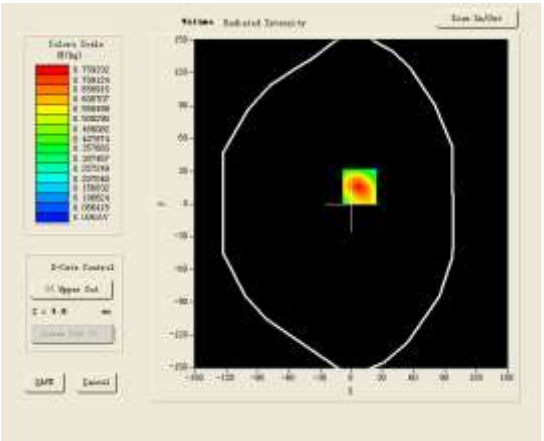


3D screen shot	Hot spot position
	

Repeated SAR

Plot 47: DUT: Tablet; EUT Model: Nitro Phablet 71

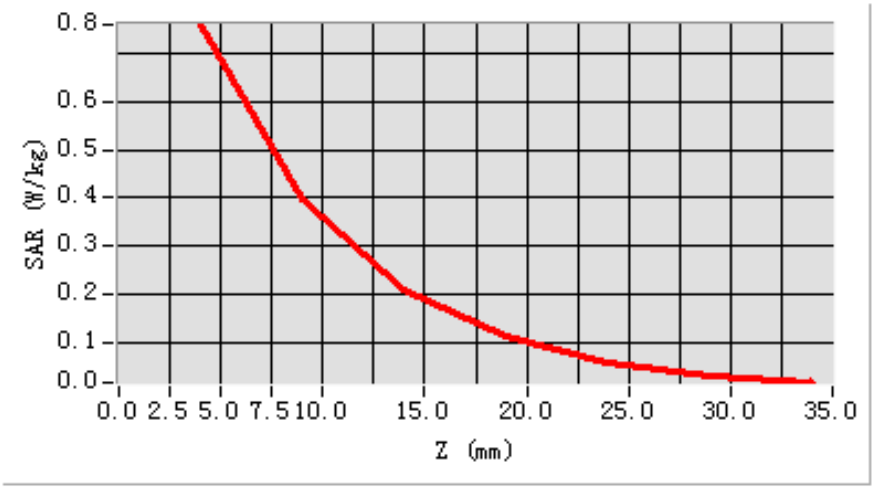
Test Data	2015-02-11
Ambient Temperature(°C)	20.30
Liquid Temperature(°C)	20.20
Probe	SN 17/14 EP221
ConvF	5.02
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body Behind
Band	GSM 850
Channels	High
Signal	TDMA (Crest factor: 8.32)
Frequency (MHz)	848.8
Relative permittivity (real part)	53.29
Conductivity (S/m)	0.98
Variation (%)	0.67

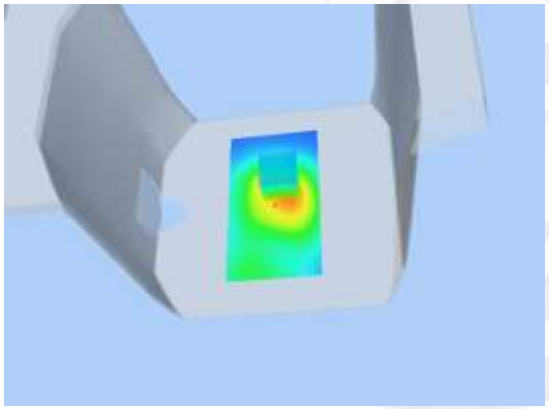
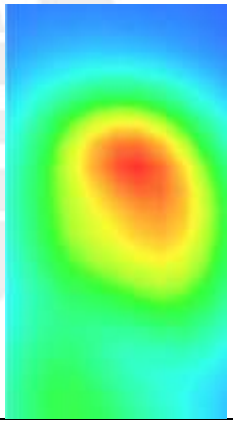
SURFACE SAR	VOLUME SAR
	

Maximum location: X=8.00, Y=16.00

SAR 10g (W/Kg)	0.372369
SAR 1g (W/Kg)	0.724619

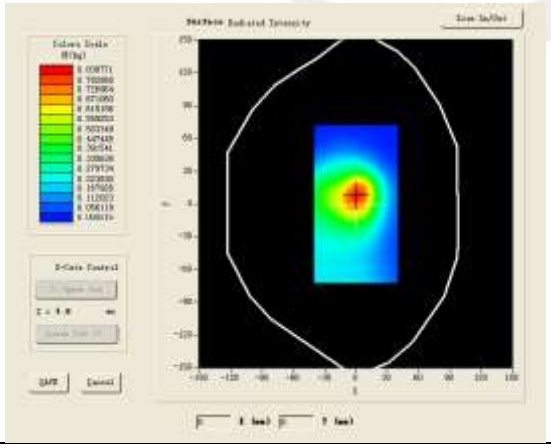
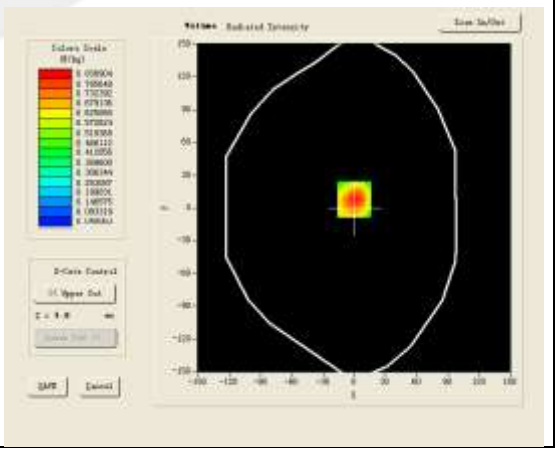
Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.7583	0.3961	0.2079	0.1109	0.0587	0.0313



3D screen shot	Hot spot position
	

Plot 48: DUT: Tablet; EUT Model: Nitro Phablet 71

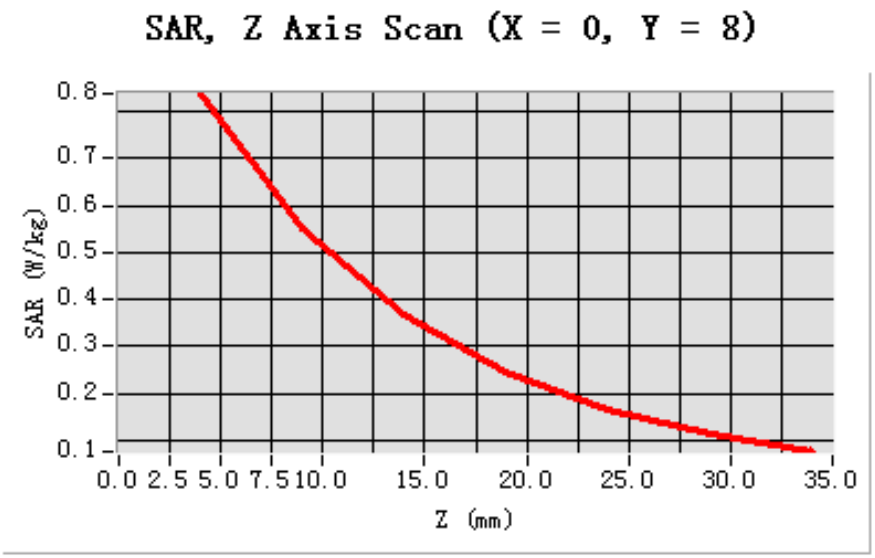
Test Data	2015-02-10
Ambient Temperature(°C)	20.3
Liquid Temperature(°C)	20.0
Probe	SN 17/14 EP221
ConvF	5.02
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back
Band	WCDMA V
Channels	Middle
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	836.6
Relative permittivity (real part)	54.81
Conductivity (S/m)	0.97
Variation (%)	0.49

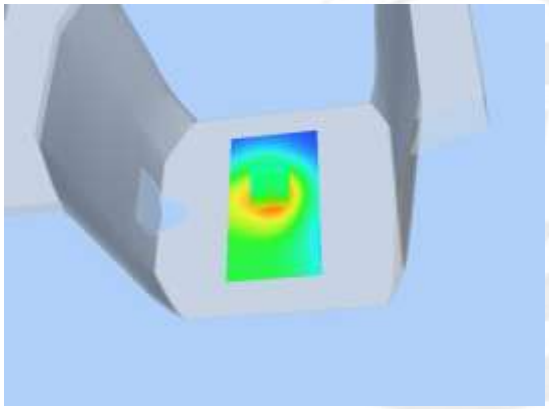
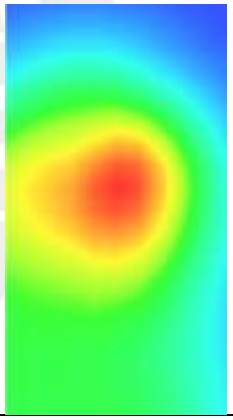
SURFACE SAR	VOLUME SAR
	

Maximum location: X=0.00, Y=8.00

SAR 10g (W/Kg)	0.494328
SAR 1g (W/Kg)	0.803751

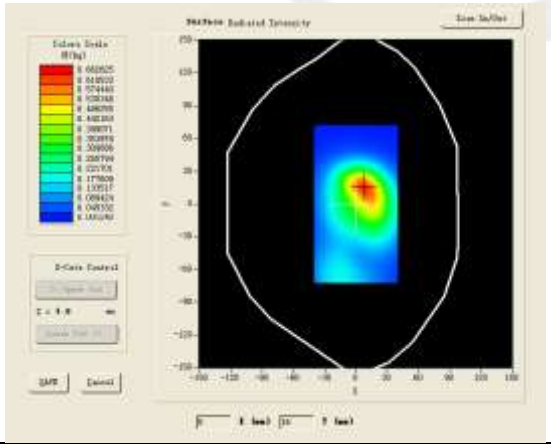
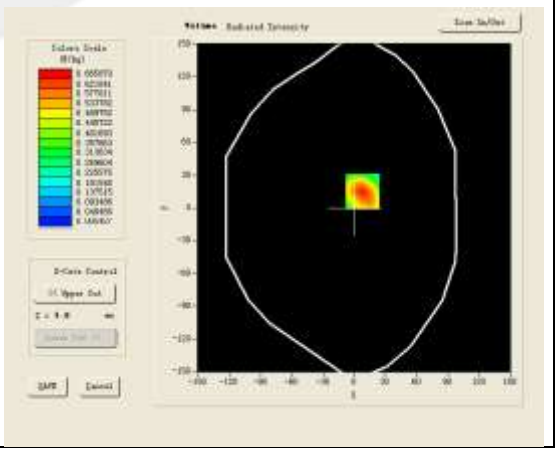
Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.8378	0.5497	0.3662	0.2438	0.1639	0.1123



3D screen shot	Hot spot position
	

Plot 49: DUT: Tablet; EUT Model: Nitro Phablet 71

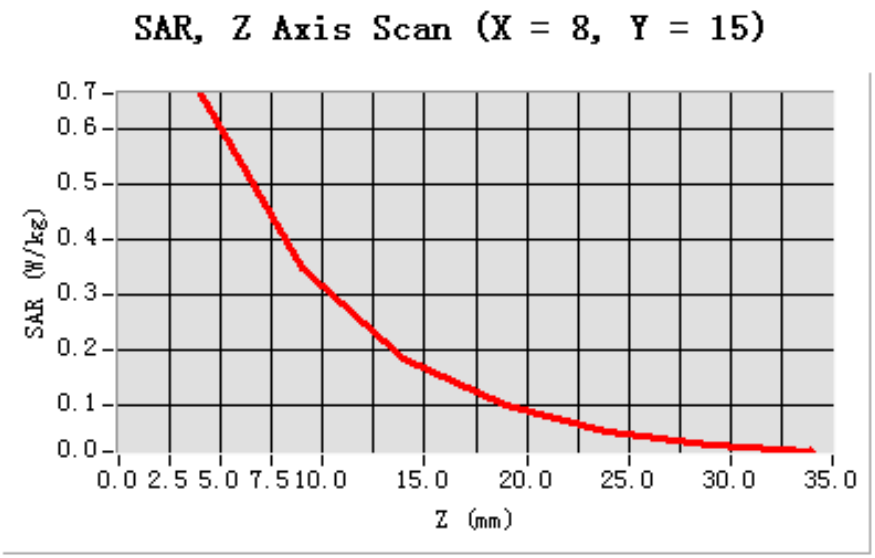
Test Data	2015-02-10
Ambient Temperature(°C)	20.3
Liquid Temperature(°C)	20.0
Probe	SN 17/14 EP221
ConvF	5.02
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body top side
Band	WCDMA V
Channels	Middle
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	836.6
Relative permittivity (real part)	54.81
Conductivity (S/m)	0.97
Variation (%)	0.34

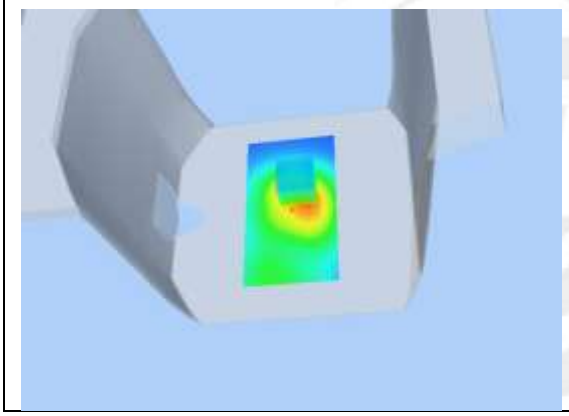
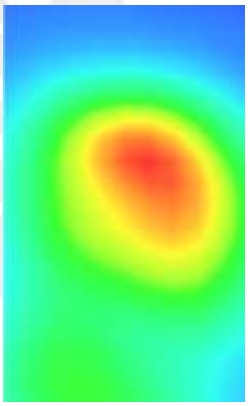
SURFACE SAR	VOLUME SAR
	

Maximum location: X=8.00, Y=15.00

SAR 10g (W/Kg)	0.334730
SAR 1g (W/Kg)	0.635893

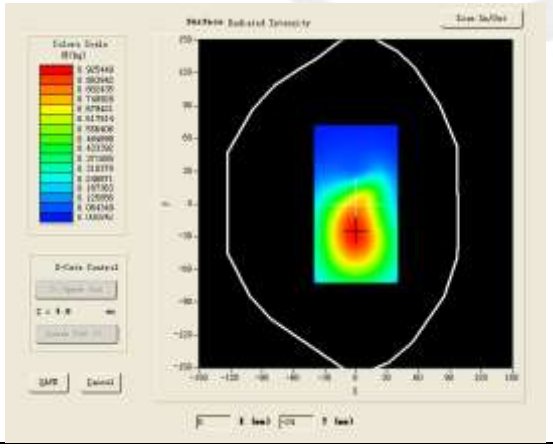
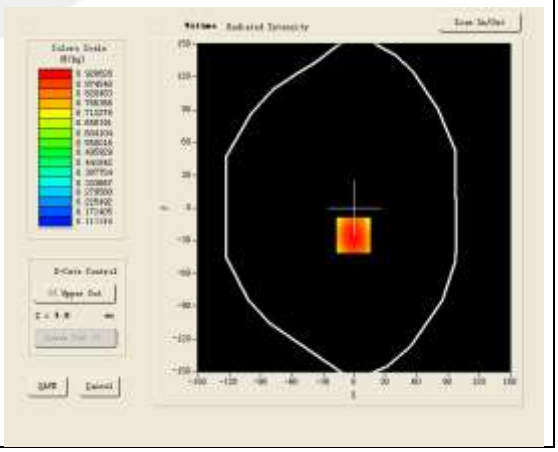
Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.6662	0.3479	0.1861	0.0988	0.0537	0.0270



3D screen shot	Hot spot position
	

Plot 50: DUT: Tablet; EUT Model: Nitro Phablet 71

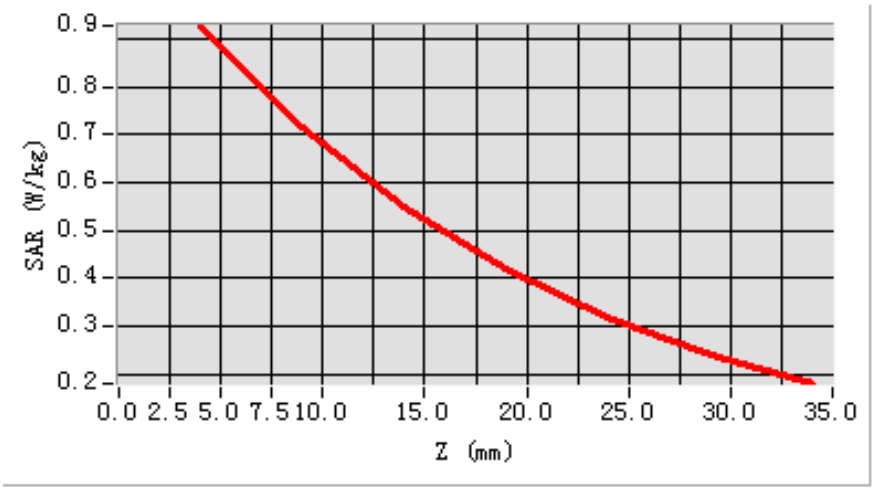
Test Data	2015-3-09
Ambient Temperature(°C)	19.0
Liquid Temperature(°C)	19.9
Probe	SN 17/14 EP221
ConvF	4.85
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back side
Band	WCDMA II
Channels	Low
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1852.4
Relative permittivity (real part)	54.00
Conductivity (S/m)	1.48
Variation (%)	-0.94

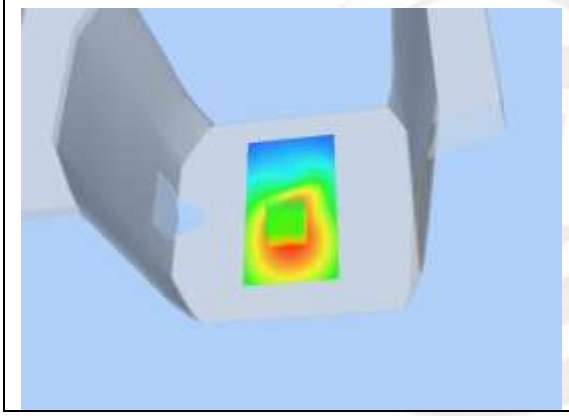
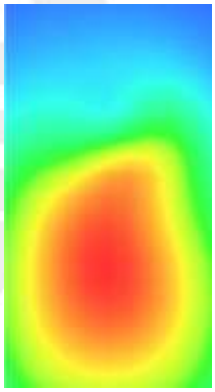
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-1.00, Y=-25.00

SAR 10g (W/Kg)	0.654279
SAR 1g (W/Kg)	0.898525

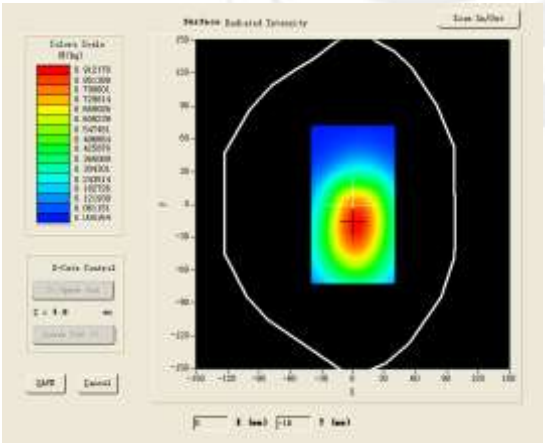
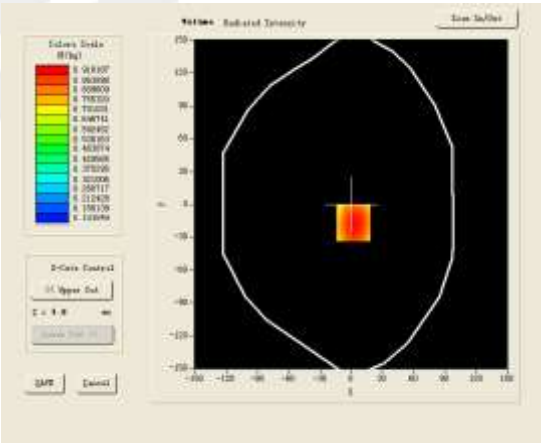
Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.9279	0.7164	0.5486	0.4151	0.3186	0.2389



3D screen shot	Hot spot position
	

Plot 51: DUT: Tablet; EUT Model: Nitro Phablet 71

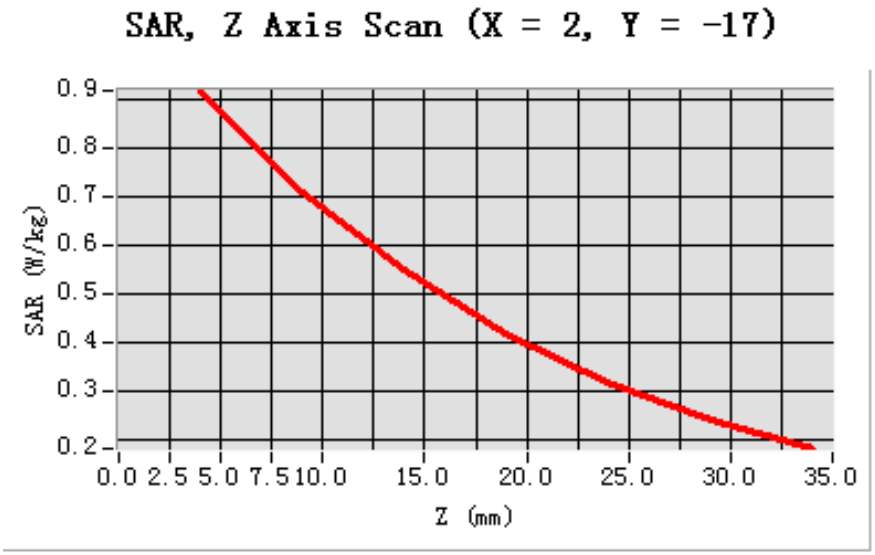
Test Data	2015-3-09
Ambient Temperature(°C)	19.0
Liquid Temperature(°C)	19.9
Probe	SN 17/14 EP221
ConvF	4.85
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body top side
Band	WCDMA II
Channels	Middle
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1880
Relative permittivity (real part)	53.11
Conductivity (S/m)	1.51
Variation (%)	-0.10

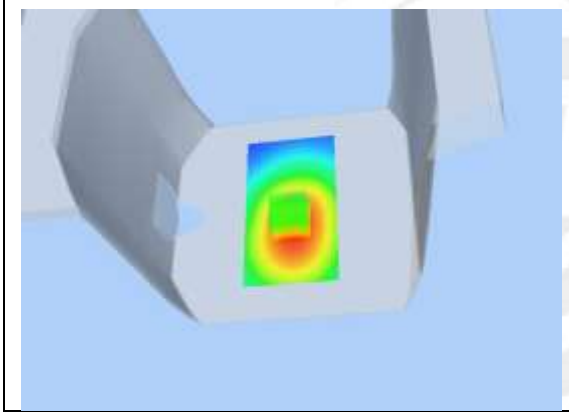
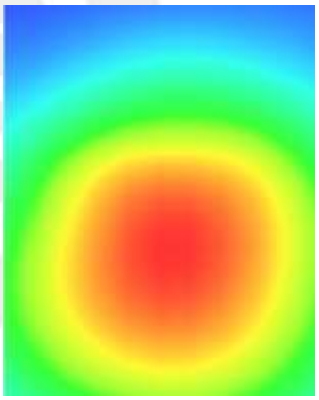
SURFACE SAR	VOLUME SAR
	

Maximum location: X=2.00, Y=-17.00

SAR 10g (W/Kg)	0.651369
SAR 1g (W/Kg)	0.886598

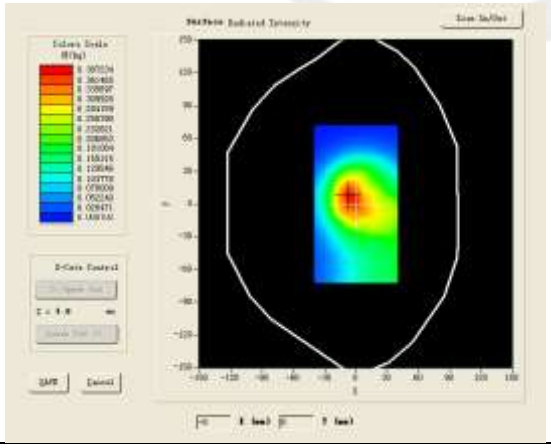
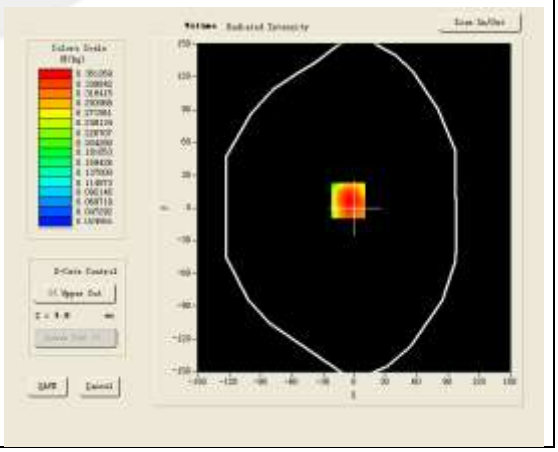
Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.9179	0.7113	0.5476	0.4192	0.3181	0.2406



3D screen shot	Hot spot position
	

Plot 52: DUT: Tablet; EUT Model: Nitro Phablet 71

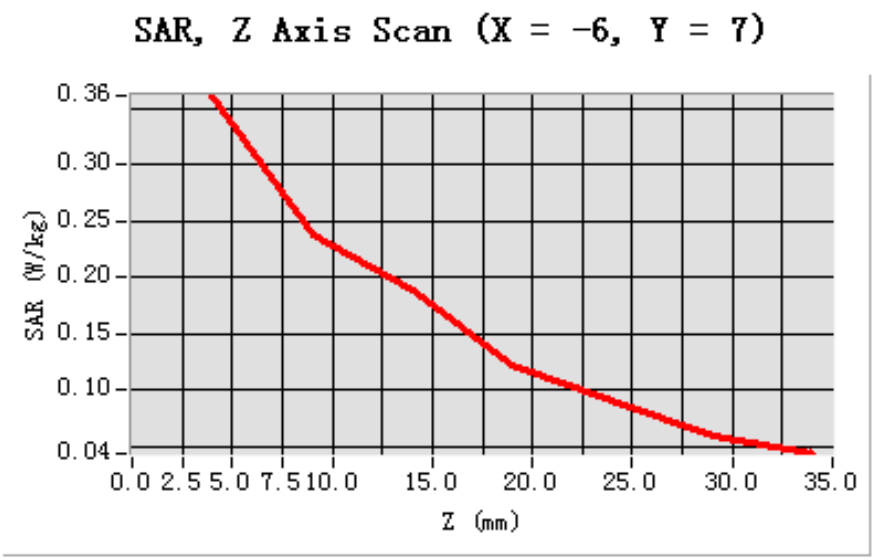
Test Data	2015-03-6
Ambient Temperature(°C)	21.7
Liquid Temperature(°C)	21.1
Probe	SN 17/14 EP221
ConvF	4.25
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back side
Band	2450MHz
Channels	Middle
Signal	Crest factor: 1.0
Frequency (MHz)	2437
Relative permittivity (real part)	53.07
Conductivity (S/m)	1.93
Variation (%)	-0.25

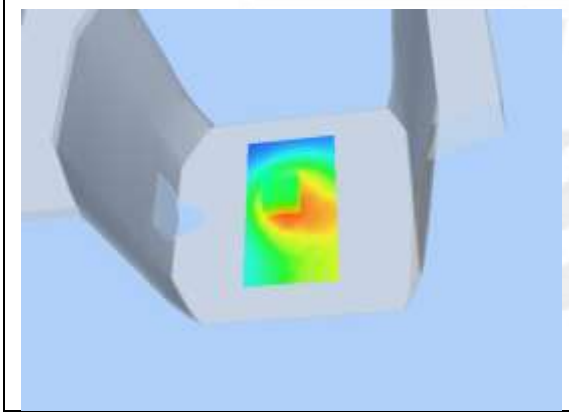
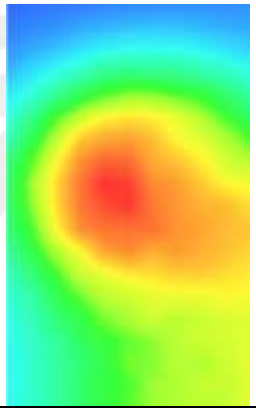
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-6.00, Y=7.00

SAR 10g (W/Kg)	0.238259
SAR 1g (W/Kg)	0.354275

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.3683	0.2349	0.1852	0.1220	0.0905	0.0610



3D screen shot	Hot spot position
	

Appendix C. Probe Calibration And Dipole Calibration Report

Refer the appendix Calibration Report.