



# FCC SAR TEST REPORT

Report No: STS1702103H02

Issued for

Pod Trackers Pty Ltd.

Lvl 9, 61 Lavender St., Milsons Point NSW 2061, Australia

Product Name:	Pod 3 GPS Tracker and Activity Monitor			
Brand Name:	N/A			
Model Name:	POD-003			
Series Model:	N/A			
FCC ID:	2AD83POD-3			
	ANSI/IEEE Std. C95.1			
Test Standard:	FCC 47 CFR Part 2 ( 2.1093)			
	IEEE 1528: 2013			
Max. Report	Body:0.624 W/kg			
SAR (1g):	ing con			

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## **Test Report Certification**

Applicant's name ...... Pod Trackers Pty Ltd.

Address ...... Evl 9, 61 Lavender St., Milsons Point NSW 2061, Australia

Manufacture's Name.....: Kaifa Technology Co., Ltd

Address ...... 7006 Caitain Rd., Futian Distric, Shenzhen, China

**Product description** 

Product name ...... Pod 3 GPS Tracker and Activity Monitor

Trademark .....: N/A

Model and/or type reference : POD-003

Series Model.....: N/A

ANSI/IEEE Std. C95.1-1992

**Standards**..... FCC 47 CFR Part 2 ( 2.1093)

IEEE 1528: 2013

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

Date of Issue...... 20 Mar. 2017

Test Result..... Pass

Testing Engineer : Jan 13 u

(Aaron Bu)

Technical Manager :

Authorized Signatory:

(Jonn Zou)

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(Vita Li)



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## 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

1.1 EUT Descriptio						
Equipment	Pod 3 GPS Tracker and Activity Monitor					
Brand Name	N/A					
Model No.	POD-003					
Series Model	N/A					
FCC ID	2AD83POD-3					
Model Difference	N/A					
Adapter	N/A					
·	Rated Voltage: 3.7 V;					
Battery	Charge Limit: 4.2 V;					
	Capacity: 420 mAh					
Device Category	Portable					
Product stage	Production unit					
RF Exposure	General Population / Uncontrolled					
Environment						
Hardware Version	N/A					
Software Version	N/A					
	GSM 850:824.2~848.8MHz					
	PCS1900:1850.2~1909.8MHz					
Frequency Range	WCDMA Band II:1852.4~1907.6MHz					
Trequency rearige	WCDMA Band V:826.4~846.6MHz					
	WLAN 802.11b/g/n(HT20/40):2412~2462MHz					
	Bluetooth:2402~ 2480MHz					
	Band Mode Body (W/kg)					
	PCT GSM 850 0.624					
Max. Reported	PCT GSM 1900 0.624					
SAR(1g):	PCT WCDMA Band II 0.550					
(Limit:1.6W/kg)	PCT   WCDMA Band V   0.508					
	DTS WIFI 0.289					
	DSS Bluetooth <sup>Note</sup> 0.067					
1-g Sum SAR	0.913					
FCC Equipment	PCS Licensed Transmitter worn on body(PCT)					
Class	Part 15 Spread Spectrum Transmitter (DSS)					
Ciaoo	Digital Transmission System (DTS)					
	GSM: GSM Voice; GPRS; EGPRS Class 12;					
Operating Mode:	WCDMA:RMC,HSDPA,HSUPA Release 6;					
a porating model	WLAN: 802.11 b/g/n(HT20/40);					
A .	Bluetooth: V4.0					
Antenna	GSM,WCDMA: Internal Antenna					
Specification:	BT,WIFI: Internal Antenna					
SIM Card	Support single card					
Hotspot Mode:	Not Support					
DTM Mode:	Not Support					
Note:						

#### Note:

- 1. Bluetooth SAR was estimated
- 2. 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	Actual
Temperature (°C)	18-25	22~23
Humidity (%RH)	30-70	55~65

## 1.3 Test Factory

Shenzhen STS Test Services Co., Ltd.

Add.: 1/F, Building B, Zhuoke Science Park, No. 190, Chongqing Road, Fuyong,

Baoan District, Shenzhen, Guangdong, China

CNAS Registration No.: L7649; 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. 1528-2013	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
4	FCC KDB 447498 D01 v06	Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies
5	FCC KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
6	FCC KDB 865664 D02 v01r02	RF Exposure Reporting
7	FCC KDB 941225 D01 v03r01	SAR Measurement Procedures for 3G Devices
8	FCC KDB 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 1 gram of tissue defined as a tissue volume in the shape of a cube. SAR for hands, wrists, feet and ankles is averaged over any 10 grams of tissue defined as a tissue volume in the shape of a cube.

#### **Population/Uncontrolled Environments:**

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

#### **Occupational/Controlled Environments:**

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

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



## 3. SAR Measurement System

## 3.1 Definition Of Specific Absorption Rate (SAR)

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

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density ( $\rho$ ). 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

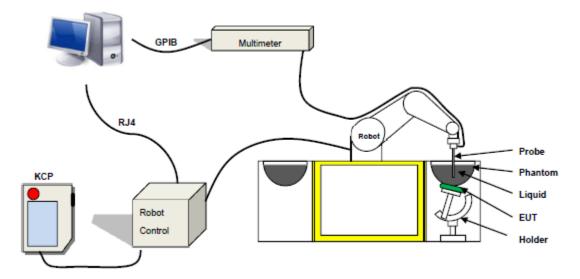
$$SAR = \frac{\sigma E^2}{\rho}$$

Where:  $\sigma$  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 14/16 EP309 with following specifications is used

- Dynamic range: 0.01-100 W/kg
- Tip Diameter: 5 mm
- Length of Individual Dipoles: 4.5 mm
- Maximum external diameter: 8 mm
- Distance between dipole/probe extremity: 8 mm (repeatability better than +/- 2.7mm)
- Probe linearity: 0±2.27%(±0.10dB)
- Axial Isotropy: < 0.10 dB
- Spherical Isotropy: < 0.10 dB
- Calibration range: 400 MHz to 3 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  $\pm$  0.5 mm would produce a SAR uncertainty of  $\pm$  20 %. Accurate device positioning is therefore crucial for accurate and repeatable measurements. The positions in which the devices must be measured are defined by the standards.



## 4. Tissue Simulating Liquids

## 4.1 Simulating Liquids Parameter Check

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

Frequency	Bactericide	DGBE	HEC	NaCl	Sucrose	1,2-Propan ediol	X100	Water	Conductivity	Permittivity
(MHz)	%	%	%	%	%	%	%	%	σ	εr
750	/	/	/	0.79	/	64.81	/	34.40	0.97	41.8
835	/	/	/	0.79	/	64.81	/	34.40	0.97	41.8
900	/	/	/	0.79	/	64.81	/	34.40	0.97	41.8
1800	/	13.84	/	0.35	/	/	30.45	55.36	1.38	41.0
1900	/	13.84	/	0.35	1	1	30.45	55.36	1.38	41.0
2000	/	7.99	1	0.16	1	1	19.97	71.88	1.55	41.1
2450	/	7.99	1/	0.16	1	1	19.97	71.88	1.88	40.3
2600	/	7.99	1	0.16	/	1	19.97	71.88	1.88	40.3

	Tissue dielectric pa	arameters for head and b	oody phantoms	
Frequency	ε	r		ਨ /m
, ,	Head	Body	Head	Body
300	45.3	58.2	0.87	0.92
450	43.5	58.7	0.87	0.94
900	41.5	55.0	0.97	1.05
1450	40.5	54.0	1.20	1.30
1800	40.0	53.3	1.40	1.52
2450	39.2	52.7	1.80	1.95
3000	38.5	52.0	2.40	2.73
5800	35.3	48.2	5.27	6.00

#### **LIQUID MEASUREMENT RESULTS**

Date: 17 Mar. 2017 Ambient condition: Temperature 23.9°C Relative humidity: 55%

Body Simulating Liquid			<b>-</b>		D : (: 10/1	Limited[%]	
Frequency	Temp. [°C]	Parameters Target		Measured	Deviation[%]		
925 MU-	22.40	Permitivity:	55.20	54.12	-1.96	± 5	
835 MHz 22.40 —	Conductivity:	0.97	0.95	-2.06	± 5		
1900 MHz 22.40 -	Permitivity:	53.30	53.21	-0.17	± 5		
	Conductivity:	1.52	1.50	-1.32	± 5		
2450 MHz	22.40	Permitivity:	52.70	53.41	1.35	± 5	
2430 WITZ	22.40	Conductivity:	1.95	1.93	-1.03	± 5	

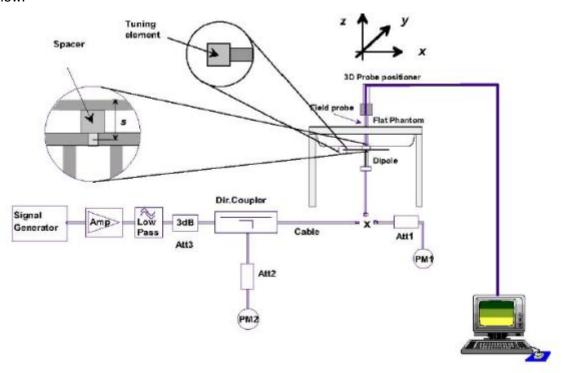


## 5. SAR System Validation

## 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 %.

Ambient condition: Temperature 23.9°C Relative humidity: 55%

Freq.(MHz)	Power(mW)	Tested Value (W/Kg)	Normalized SAR (W/kg)	Target(W/Kg)	Tolerance(%)	Date
835 Body	100	0.941	9.41	9.56	-1.62	2017-03-17
1900 Body	100	4.161	41.61	39.7	4.81	2017-03-17
2450 Body	100	5.317	53.17	52.4	1.47	2017-03-17

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





#### 6. SAR Evaluation Procedures

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

The following steps are used for each test position

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

#### Area Scan& Zoom Scan:

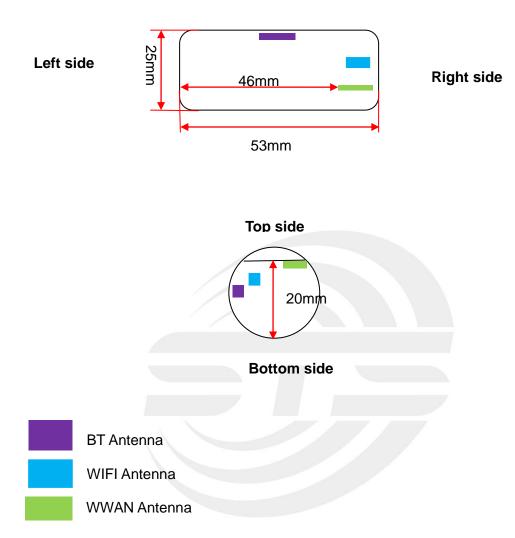
First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan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

It is a Pod 3 GPS Tracker and Activity Monitor, support GSM/WCDMA mode.





#### 8. EUT Test Position

#### 8.1 This EUT was tested in Front Face and Rear Face.

**Body-worn Position Conditions:** 

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





## 9. Uncertainty

## 9.1 Measurement Uncertainty

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

NO	Source	Tol(%)	Prob. Dist.	Div. k	ci (1g)	ci (10g)	1gUi	10gUi	Veff
Meas	urement System□								
1	Probe calibration	5.8	N	1	1	1	5.8	5.8	80
2	Axial isotropy	3.5	R	√3	(1-cp) <sup>1/2</sup>	(1-cp) <sup>1/2</sup>	1.43	1.43	8
3	Hemispherical isotropy	5.9	R	√3	√Cp	√Cp	2.41	2.41	8
4	Boundary effect	1.0	R	√3	1	1	0.58	0.58	8
5	Linearity	4.7	R	√3	1	1	2.71	2.71	80
6	System Detection limits	1.0	R	√3	1	1	0.58	0.58	80
7	Readout electronics	0.5	N	1	1	1	0.50	0.50	8
8	Response time	0	R	√3	1	1	0	0	8
9	Integration time	1.4	R	√3	1	1	0.81	0.81	8
10	Ambient noise	3.0	R	√3	1	1	1.73	1.73	8
11	Ambient reflections	3.0	R	√3	1	1	1.73	1.73	8
12	Probe positioner mech. restrictions	1.4	R	√3	1	1	0.81	0.81	8
13	Probe positioning with respect to phantom shell	1.4	R	√3	1	1	0.81	0.81	80
14	Max.SAR evaluation	1.0	R	√3	1	1	0.6	0.6	8
Test s	sample related								
15	Device positioning	2.6	N	1	1	1	2.6	2.6	11



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		1	1	1	1			1	,
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	8
Phant	Phantom and set-up								
18	Phantom uncertainty	4.0	R	√3	1	1	2.31	2.31	8
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	8
22	Liquid Permittivity (meas)	5.0	N	1	0.23	0.26	1.15	1.30	8
Comb	Combined standard RSS			U	$T_C = \sqrt{\sum_{i=1}^n C_i^2 U}$	2 i	10.63%	10.54%	
	Expanded uncertainty $U = k \ U_c \ , \mbox{k=2}$					21.26%	21.08%		



## 9.2 System validation Uncertainty

NO	Source	Tol(%)	Prob. Dist.	Div. k	ci (1g)	ci (10g)	1gUi	10gUi	Veff
Meas	urement System□								
1	Probe calibration	5.8	N	1	1	1	5.8	5.8	8
2	Axial isotropy	3.5	R	√3	(1-cp) <sup>1/2</sup>	(1-cp) <sup>1/2</sup>	1.43	1.43	8
3	Hemispherical isotropy	5.9	R	√3	√Cp	√Cp	2.41	2.41	8
4	Boundary effect	1.0	R	√3	1	1	0.58	0.58	8
5	Linearity	4.7	R	√3	1	1	2.71	2.71	8
6	System Detection limits	1.0	R	√3	1	1	0.58	0.58	8
7	Modulation response	0	N	1	1	1	0	0	8
8	Readout electronics	0.5	N	1	1	1	0.50	0.50	8
9	Response time	0	R	√3	1	1	0	0	8
10	Integration time	1.4	R	√3	1	1	0.81	0.81	8
11	Ambient noise	3.0	R	√3	1	1	1.73	1.73	8
12	Ambient reflections	3.0	R	√3	1	1	1.73	1.73	8
13	Probe positioner mech. restrictions	1.4	R	√3	1	1	0.81	0.81	8
14	Probe positioning with respect to phantom shell	1.4	R	√3	1	1	0.81	0.81	8
15	Max.SAR evaluation	1.0	R	√3	1	1	0.6	0.6	8
Dipole	) )	•	•	•	•	•			
16	Deviation of experimental source from	4	N	1	1	1	4.00	4.00	8



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	ı	1	T	1	T	T		T	Г
17	Input power and SAR drit measurement	5	R	√3	1	1	2.89	2.89	∞
18	Dipole Axis to liquid Distance	2	R	√3	1	1			∞
Phant	Phantom and set-up								
19	Phantom uncertainty	4.0	R	√3	1	1	2.31	2.31	8
20	Uncertainty in SAR correction for deviation(in	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	8
25	Liquid Permittivity (temperature uncertainty)	2.5	N	1	0.78	0.71	1.95	1.78	5

0.23

 $U_{C} = \sqrt{\sum_{i=1}^{n} C_{i}^{2} U_{i}^{2}}$ 

 $U=k\ U_{\scriptscriptstyle C}$  ,k=2

0.26

1.15

10.15%

20.29%

1.30

10.05%

20.10%

Liquid Permittivity

(meas)

Combined standard

Expanded uncertainty (P=95%)

5.0

Ν

RSS

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#### 10. Conducted Power Measurement

#### 10.1 Test Result

Burst Average Power (dBm)						
Band		GSM 850		PCS 1900		
Channel	128	190	251	512	661	810
Frequency (MHz)	824.2	836.6	848.8	1850.2	1880.0	1909.8
GSM(GMSK, 1-Slot)	32.25	32.28	32.50	29.78	29.62	29.69
GPRS (GMSK, 1-Slot)	32.26	32.27	32.47	28.76	28.21	28.67
GPRS (GMSK, 2-Slot)	31.41	31.52	31.72	28.00	27.45	27.92
GPRS (GMSK, 3-Slot)	29.35	29.54	29.74	26.34	26.48	26.54
GPRS (GMSK, 4-Slot)	27.46	27.43	27.63	24.35	24.37	24.83
EGPRS(8PSK, 1-Slot)	26.39	26.86	26.44	24.64	24.63	24.99
EGPRS(8PSK, 2-Slot)	25.44	25.58	25.50	23.47	23.41	23.73
EGPRS(8PSK, 3-Slot)	23.52	23.44	23.62	23.43	22.37	22.34
EGPRS(8PSK, 4-Slot)	22.49	22.36	22.58	21.33	21.11	21.43

Remark: GPRS, CS4 coding scheme. EGPRS, MCS9 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

Frequency (MHz)       824.2       836.6       848.8       1850.2       1880.0       19         GSM(GMSK, 1-Slot)       23.22       23.25       23.47       20.75       20.59       20         GPRS (GMSK, 1-Slot)       23.23       23.24       23.44       19.73       19.18       19         GPRS (GMSK, 2-Slot)       25.39       25.50       25.70       21.98       21.43       20         GPRS (GMSK, 3-Slot)       25.09       25.28       25.48       22.08       22.22       22	10
Frequency (MHz)       824.2       836.6       848.8       1850.2       1880.0       19         GSM(GMSK, 1-Slot)       23.22       23.25       23.47       20.75       20.59       20         GPRS (GMSK, 1-Slot)       23.23       23.24       23.44       19.73       19.18       19         GPRS (GMSK, 2-Slot)       25.39       25.50       25.70       21.98       21.43       22         GPRS (GMSK, 3-Slot)       25.09       25.28       25.48       22.08       22.22       22	10
GSM(GMSK, 1-Slot)       23.22       23.25       23.47       20.75       20.59       20.59         GPRS (GMSK, 1-Slot)       23.23       23.24       23.44       19.73       19.18       19.18         GPRS (GMSK, 2-Slot)       25.39       25.50       25.70       21.98       21.43       22.22         GPRS (GMSK, 3-Slot)       25.09       25.28       25.48       22.08       22.22       22.22	10
GPRS (GMSK, 1-Slot)       23.23       23.24       23.44       19.73       19.18       19.18         GPRS (GMSK, 2-Slot)       25.39       25.50       25.70       21.98       21.43       22.22         GPRS (GMSK, 3-Slot)       25.09       25.28       25.48       22.08       22.22       22.22	09.8
GPRS (GMSK, 2-Slot)     25.39     25.50     25.70     21.98     21.43     21.43       GPRS (GMSK, 3-Slot)     25.09     25.28     25.48     22.08     22.22     22.22	).66
GPRS (GMSK, 3-Slot) 25.09 25.28 25.48 22.08 22.22 22	9.64
	.90
GPRS (GMSK, 4-Slot) 24.45 24.42 24.62 21.34 21.36 2	2.28
	.82
EGPRS(8PSK, 1-Slot) 17.36 17.83 17.41 15.61 15.60 15	5.96
EGPRS(8PSK, 2-Slot) 19.42 19.56 19.48 17.45 17.39 17	7.71
EGPRS(8PSK, 3-Slot) 19.26 19.18 19.36 19.17 18.11 18	3.08
EGPRS(8PSK, 4-Slot) 19.48 19.35 19.57 18.32 18.10 18	3.42

#### Remark:

- 1. SAR testing was performed on the maximum frame-averaged power mode.
- 2. The frame-averaged power is linearly proportion to the slot number configured and it is linearly scaled the maximum

burst-averaged power based on time slots. The calculated method is shown as below:

Frame-averaged power = Burst averaged power (1 Tx Slot) – 9.03 dB

Frame-averaged power = Burst averaged power (2 Tx Slots) - 6.02 dB

Frame-averaged power = Burst averaged power (3 Tx Slots) - 4.26 dB

Frame-averaged power = Burst averaged power (4 Tx Slots) – 3.01 dB



#### **WCDMA**

Band	WCDMA Band V			WCDMA Band II		
Channel	4132	4183	4233	9262	9400	9538
Frequency (MHz)	826.4	836.6	846.6	1852.4	1880.0	1907.6
RMC 12.2Kbps	22.80	22.69	22.67	24.14	24.66	24.27
HSDPA Subtest-1	22.43	22.35	22.40	24.12	24.65	24.25
HSDPA Subtest-2	22.37	22.34	22.40	24.11	24.63	24.24
HSDPA Subtest-3	22.32	22.30	22.32	24.09	24.62	24.22
HSDPA Subtest-4	22.29	22.21	22.34	24.09	24.60	24.20
HSUPA Subtest-1	22.27	22.30	22.28	24.13	24.64	24.26
HSUPA Subtest-2	22.24	22.19	22.30	24.10	24.63	24.24
HSUPA Subtest-3	22.37	22.29	22.34	24.08	24.62	24.23
HSUPA Subtest-4	22.19	22.22	22.30	24.14	24.66	24.27

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	0≤ CM≤3.5	MAX(CM-1,0)
HS-DPDCH,E-DPDCH and E-DPCCH	0 < 0 W < 5.5	IVIAA(CIVI-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.



#### WIFI

Mode	Channel Number	Frequency (MHz)	Average Power (dBm)
	1	2412	18.35
802.11b	6	2437	18.54
	11	2462	18.48
802.11g	1	2412	16.16
	6	2437	16.20
	11	2462	16.15
	1	2412	16.34
802.11n(HT 20)	6	2437	16.43
	11	2462	16.39
	3	2422	15.56
802.11n(HT 40)	6	2437	15.49
	9	2452	15.51

## BT 4.0

Mode	Channel Number	Frequency (MHz)	Average Power (dBm)
	0	2402	1.56
GFSK(1Mbps)	19	2440	1.49
	39	2480	1.51



## 10.2 Tune-up Power

Mode	GSM850(AVG)	GSM1900(AVG)
GSM/PCS	32±1dBm	29±1dBm
GPRS (1 Slot)	32±1dBm	28±1dBm
GPRS (2 Slot)	31±1dBm	28±1dBm
GPRS (3 Slot)	29±1dBm	26±1dBm
GPRS (4 Slot)	27±1dBm	24±1dBm
EDGE (1 Slot)	26±1dBm	24±1dBm
EDGE (2 Slot)	25±1dBm	23±1dBm
EDGE (3 Slot)	23±1dBm	23±1dBm
EDGE (4 Slot)	22±1dBm	21±1dBm

Mode	WCDMA Band V (AVG)	WCDMA Band II (AVG)
RMC	22±1dBm	24±1dBm
HSDPA Subtest-1	22±1dBm	24±1dBm
HSDPA Subtest-2	22±1dBm	24±1dBm
HSDPA Subtest-3	22±1dBm	24±1dBm
HSDPA Subtest-4	22±1dBm	24±1dBm
HSUPA Subtest-1	22±1dBm	24±1dBm
HSUPA Subtest-2	22±1dBm	24±1dBm
HSUPA Subtest-3	22±1dBm	24±1dBm
HSUPA Subtest-4	22±1dBm	24±1dBm
HSUPA Subtest-5	22±1dBm	24±1dBm

Mode	WIFI(AVG)
IEEE 802.11b	18±1dBm
IEEE 802.11g	16±1dBm
IEEE 802.11n(HT 20)	16±1dBm
IEEE 802.11n(HT 40)	15±1dBm

Mode	BT 4.0(AVG)
GFSK	1±1dBm





## 10.3 SAR Test Exclusions Applied

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

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

- 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

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

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

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

**Bluetooth Body SAR was not required**;  $[(1.585/5)^* \sqrt{2.480}] = 0.50 < 3.0$ .

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

**2.4 GHz WIFI Body SAR was required**;  $[(79.433/5)^* \sqrt{2.462}] = 12.46 > 3.0$ .





## 11. EUT And Test Setup Photo

## 11.1 EUT Photo

Photo 1

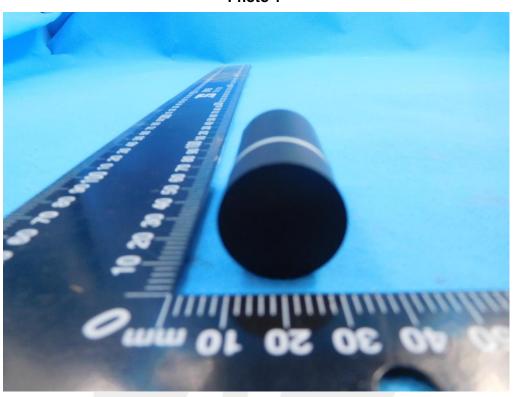


Photo 2

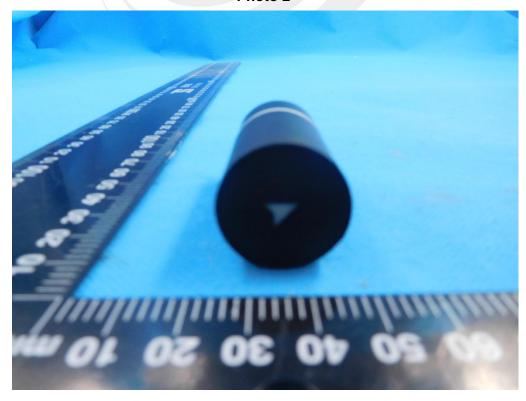




Photo 3

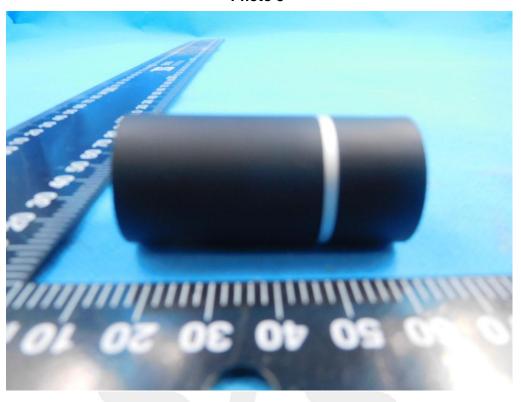
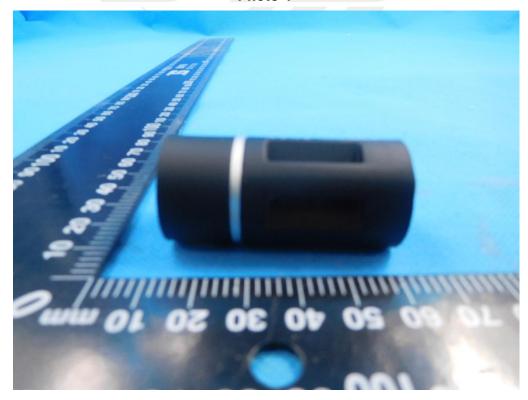


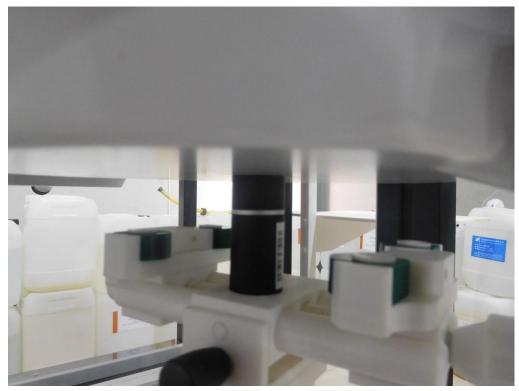
Photo 4



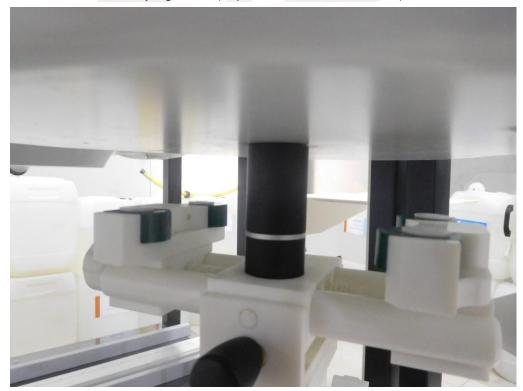


## 11.2 Setup Photo

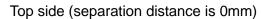




Body right side(separation distance is 0mm)







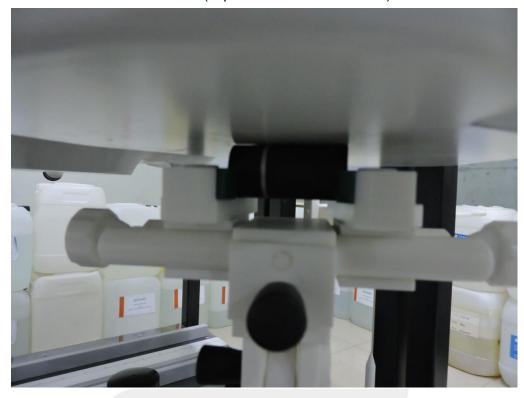


Bottom side (separation distance is 0mm)

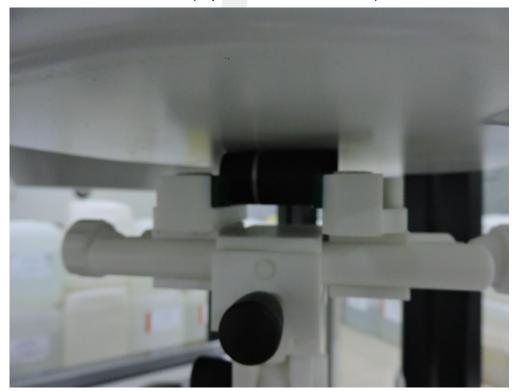




## Front side (separation distance is 0mm)



Back side (separation distance is 0mm)

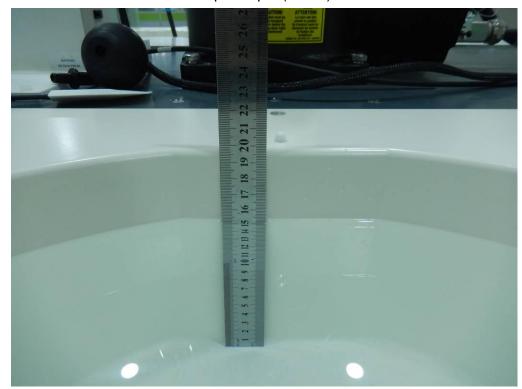








Liquid depth (15 cm)







## 12. SAR Result Summary

#### 12.1 Body-worn SAR

Band	Mode	Test Position	Ch.	Result 1g (W/Kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Scaled SAR (W/Kg)	Meas. No.
		Left side	251	0.098	3.09	32	31.72	0.105	/
		Right side	251	0.585	-0.42	32	31.72	0.624	1
GSM 850	GPRS	Top side	251	0.216	-2.24	32	31.72	0.230	/
GSIVI 650	Data-2 Slot	Bottom side	251	0.024	1.34	32	31.72	0.026	/
		Front side	251	0.113	-2.16	32	31.72	0.121	/
		Back side	251	0.124	-2.54	32	31.72	0.132	/
		Left side	810	0.084	1.77	27	26.54	0.093	/
		Right side	810	0.561	-1.44	27	26.54	0.624	2
GSM1900	GPRS	Top side	810	0.201	2.46	27	26.54	0.223	/
GSW1900	Data-3 Slot	Bottom side	810	0.013	1.02	27	26.54	0.014	/
		Front side	810	0.080	-3.05	27	26.54	0.089	/
		Back side	810	0.064	-2.11	27	26.54	0.071	/
		Left side	9400	0.076	-0.54	25	24.66	0.082	/
		Right side	9400	0.509	-4.00	25	24.66	0.550	3
WCDMA	RMC	Top side	9400	0.197	3.12	25	24.66	0.213	/
Band II	RIVIC	Bottom side	9400	0.009	-0.59	25	24.66	0.010	/
		Front side	9400	0.065	-0.36	25	24.66	0.070	/
		Back side	9400	0.054	2.18	25	24.66	0.058	/
		Left side	4132	0.066	-2.89	23	22.80	0.069	/
		Right side	4132	0.485	-0.23	23	22.80	0.508	4
WCDMA	RMC	Top side	4132	0.154	1.66	23	22.80	0.161	/
Band V	KIVIC	Bottom side	4132	0.008	0.96	23	22.80	0.008	/
		Front side	4132	0.047	2.45	23	22.80	0.049	/
		Back side	4132	0.035	-3.14	23	22.80	0.037	/

Band	Mode	Test Position	Ch.	Result 1g (W/Kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Duty cycle(%)	Scaled SAR (W/Kg)	Meas. No.
		Left side	6	0.009	2.16	19	18.54	100	0.010	/
		Right side	6	0.260	-0.90	19	18.54	100	0.289	5
WIFI	802.11b	Top side	6	0.098	-0.34	19	18.54	100	0.109	/
VVIFI	602.110	Bottom side	6	0.006	-2.11	19	18.54	100	0.008	/
		Front side	6	0.018	-0.69	19	18.54	100	0.025	/
		Back side	6	0.014	-2.43	19	18.54	100	0.020	/

#### Note:

- 1. The test separation of all above table is 0mm.
- 2. Per KDB 248227- When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg. (The highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power was **0.169** W/Kg for Body)
- 3. When the user enables the personal Wireless router functions for the handsets, actual operations include simultaneous transmission of both the Wi-Fi transmitting frequency and thus cannot be evaluated for SAR under actual use conditions. The "Portable Hotspot" feature on the handset was NOT activated, to ensure the SAR measurements were evaluated for a single transmission frequency RF signal.
- 4. Different transmission modes, under the same operating frequency to reduce the lower power mode test, does not affect the worst situation

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5. In this test reduction protocol, the decision to apply the complete measurement procedure ("full SAR measurement") is taken after looking at peak SAR values measured from the area scan (not the final peak spatial-average SAR). Moreover, a threshold value is necessary since the goal is to avoid the zoom scan for some particular measurement configurations as well as the applicability of a particular fast SAR algorithm to estimate the peak spatial-average SAR.

#### **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 head and 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  $\leq$  50mm,Bluetooth standalone SAR is excluded according to [(max. power of channel, including tune-up tolerance, mW)/ (min. test separation distance, mm) · [ $\sqrt{f}$  (GHz) /x]  $\leq$  3.0 for 1-g SAR and  $\leq$  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)]·[ $\sqrt{f}$  (GHz) /x] W/kg for test separation distances  $\leq$  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.

Estimat	ed SAR	Maximu	imum Power Antenna Frequency(GHz)		Stand alone	
		dBm	mW	to user(mm)	1 7 7	SAR(1g) [W/kg]
ВТ	Body	2	1.585	5	2.480	0.067



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Simultaneous Mode	Position	Mode	Max. 1-g SAR (W/kg)	1-g Sum SAR (W/kg)	
GSM + WIFI	Pody	GSM Data	0.624	0.913	
GSW + WIFI	Body	WIFI	0.289	0.913	
GSM + Bluetooth	Dody	GSM Data	0.624	0.604	
GSW + Bluetooth	Body	Bluetooth	0.067	0.691	
\\\\CD\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Dody	GSM Data	0.550	0.020	
WCDIVIA + WIFI	WCDMA + WIFI Body		0.289	0.839	
MCDMA - Blueteeth	Pody	GSM Data	0.550	0.617	
WCDMA + Bluetooth	Body	Bluetooth	0.067	0.617	

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

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



## 13. Equipment List

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
835MHz Dipole	SATIMO	SID835	SN 30/14 DIP0G835-332	2014.09.01	2017.08.31
1900MHz Dipole	SATIMO	SID1900	SN 30/14 DIP1G900-333	2014.09.01	2017.08.31
2450MHzDipole	SATIMO	SID2450	SN 30/14 DIP2G450-335	2014.09.01	2017.08.31
Antenna	SATIMO	ANTA3	SN 07/13 ZNTA52	2014.09.01	2017.08.31
Waveguide	SATIMO	SWG5500	SN 13/14 WGA32	2014.09.01	2017.08.31
E-Field Probe	MVG	SSE5	SN 14/16 EP309	2016.12.05	2017.12.04
Phantom1	SATIMO	SAM	SN 32/14 SAM115	N/A	N/A
Phantom2	SATIMO	SAM	SN 32/14 SAM116	N/A	N/A
SAR TEST BENCH	SATIMO	MOBILE PHONE POSITIONNIN G SYSTEM	SN 32/14 MSH97	N/A	N/A
SAR TEST BENCH	SATIMO	LAPTOP POSITIONNIN G SYSTEM	SN 32/14 LSH29	N/A	N/A
Dielectric Probe Kit	SATIMO	SCLMP	SN 32/14 OCPG52	2016.08.30	2017.08.29
Multi Meter	Keithley	Multi Meter 2000	4050073	2016.10.23	2017.10.22
Signal Generator	Agilent	N5182A	MY50140530	2016.10.23	2017.10.22
Power Meter	R&S	NRP	100510	2016.10.23	2017.10.22
Power Meter	HP	EPM-442A	GB37170267	2016.10.23	2017.10.22
Power Sensor	R&S	NRP-Z11	101919	2016.10.23	2017.10.22
Power Sensor	HP	8481A	2702A65976	2016.10.23	2017.10.22
Power Sensor	R&S	NRP-Z21	103971	2016.10.23	2017.10.22
Network Analyzer	Agilent	5071C	EMY46103472	2016.10.23	2017.10.22
Attenuator 1	PE	PE7005-10	N/A	2016.10.23	2017.10.22
Attenuator 2	PE	PE7005-3	N/A	2016.10.23	2017.10.22
Attenuator 3	Woken	WK0602-XX	N/A	2016.10.23	2017.10.22
Dual Directional Coupler	Agilent	778D	50422	2016.10.23	2017.10.22



## **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: 2017-03-17

Measurement duration: 14 minutes 13 seconds

## **Experimental conditions.**

Probe	
Phantom	Validation plane
Device Position	-
Band	835MHz
Channels	
Signal	CW
Frequency (MHz)	835MHz
Relative permittivity (real part)	54.12
Relative permittivity	21.408187
Conductivity (S/m)	0.95
Power drift (%)	0.090000
Probe	SN 14/16 EP309
ConvF:	5.90
Crest factor:	1:1

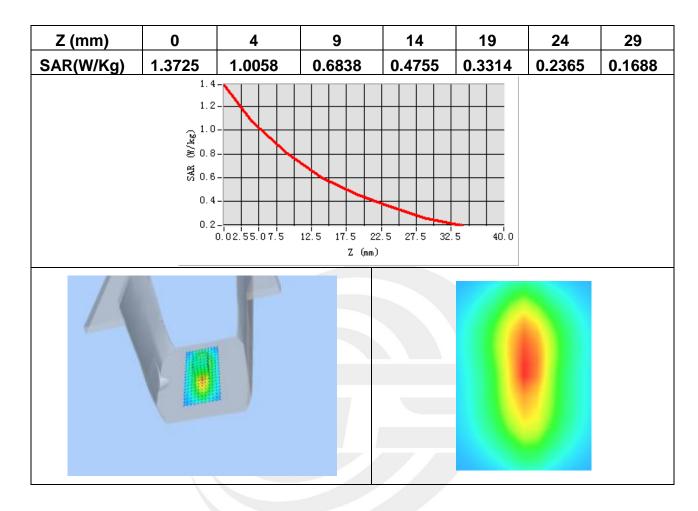
Maximum location: X=1.00, Y=0.00

SAR Peak: 1.45 W/kg

SAR 10g (W/Kg)	0.613913
SAR 1g (W/Kg)	0.941052



## **Z Axis Scan**





## System Performance Check Data (1900MHz Body)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm,dy=8mm

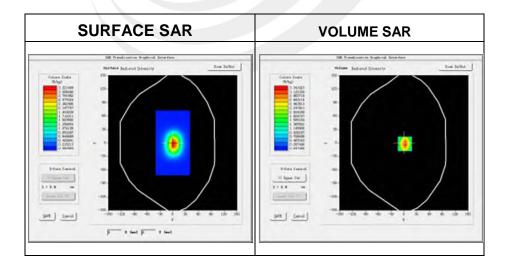
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2017-03-17

Measurement duration: 14 minutes 46 seconds

## Experimental conditions.

Device Position	-
Band	1900MHz
Channels	-
Signal	CW
Frequency (MHz)	1900
Relative permittivity (real part)	53.21
Relative permittivity	12.87531
Conductivity (S/m)	1.50
Power drift (%)	0.37
Probe	SN 14/16 EP309
ConvF:	5.67
Crest factor:	1:1





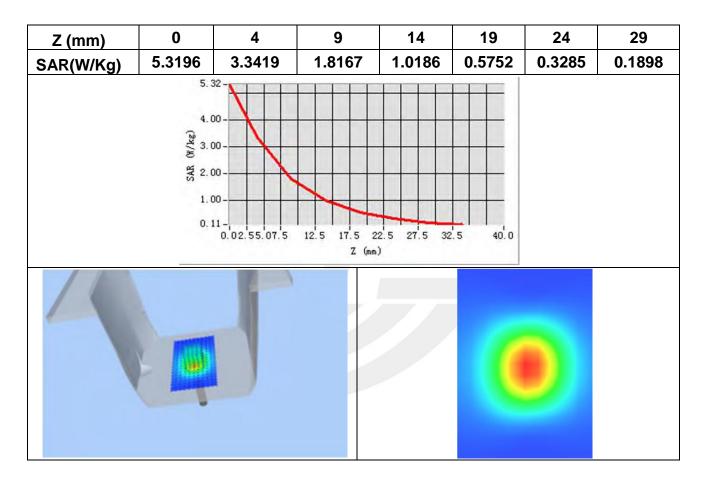
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Maximum location: X=2.00, Y=2.00

SAR Peak: 5.30 W/kg

SAR 10g (W/Kg)	2.383383
SAR 1g (W/Kg)	4.160721

## **Z Axis Scan**





## System Performance Check Data (2450MHz Body)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm,dy=8mm

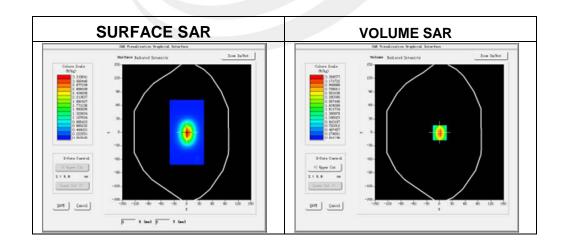
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2017-03-17

Measurement duration: 14 minutes 23 seconds

## Experimental conditions.

Device Position	Validation plane
Band	2450 MHz
Channels	-
Signal	CW
Frequency (MHz)	2450
Relative permittivity (real part)	52.41
Relative permittivity	12.930000
Conductivity (S/m)	1.93
Power drift (%)	-1.200000
Probe	SN 14/16 EP309
ConvF	5.24
Crest factor:	1:1





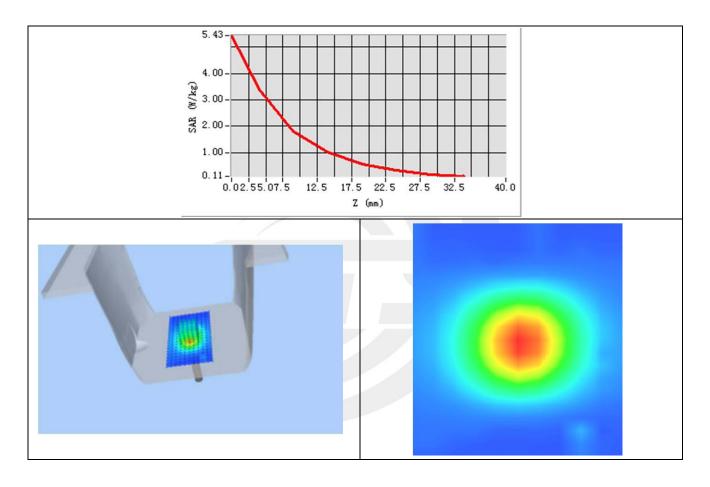




Maximum location: X=3.00, Y=1.00

SAR 10g (W/Kg)	2.338810
SAR 1g (W/Kg)	5.316861

## **Z Axis Scan**



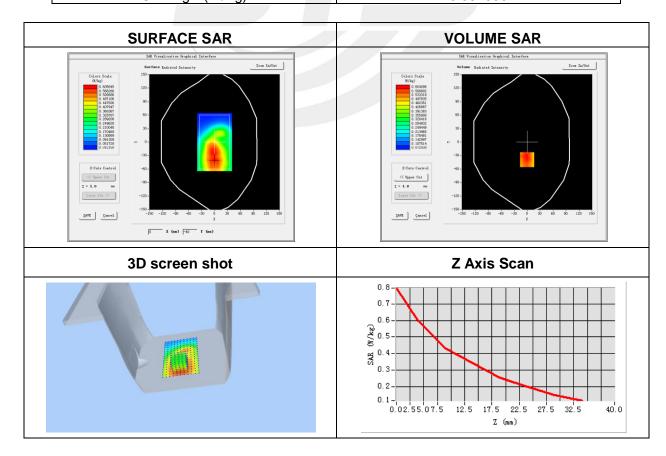


## **Appendix B. SAR Test Plots**Plot 1: DUT: Pod 3 GPS Tracker and Activity Monitor; EUT Model: POD-003

Test Date	2017-03-17
Probe	SN 14/16 EP309
ConvF	5.90
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	GPRS 850
Channels	High
Signal	Duty Cycle: 1:2.00 (Crest factor: 2.0)
Frequency (MHz)	848.8
Relative permittivity (real part)	55.20
Conductivity (S/m)	0.97
Variation (%)	-0.42
Relative permittivity (real part)  Conductivity (S/m)	55.20 0.97

Maximum location: X=0.00, Y=-39.00 SAR Peak: 0.79 W/kg

o	
SAR 10g (W/Kg)	0.318944
SAR 1g (W/Kg)	0.584698



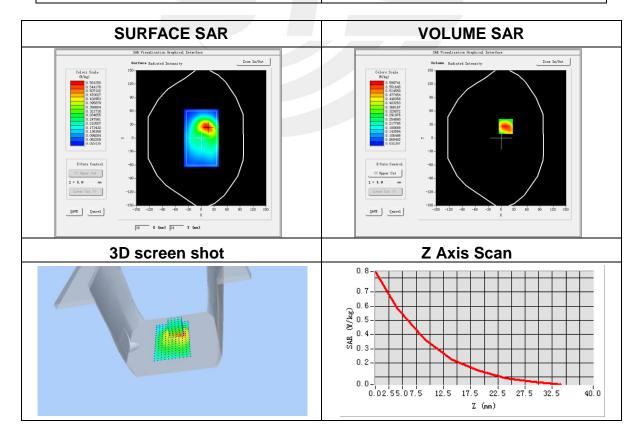


Plot 2: DUT: Pod 3 GPS Tracker and Activity Monitor; EUT Model: POD-003

,
2017-03-17
SN 14/16 EP309
5.67
dx=8mm dy=8mm, h= 5.00 mm
5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Validation plane
Body back side
GPRS 1900
High
Duty Cycle: 1:2.00 (Crest factor: 2.0)
1909.8
53.30
1.52
-1.44

Maximum location: X=11.00, Y=26.00 SAR Peak: 0.90 W/kg

SAR 10g (W/Kg)	0.322612
SAR 1g (W/Kg)	0.560988



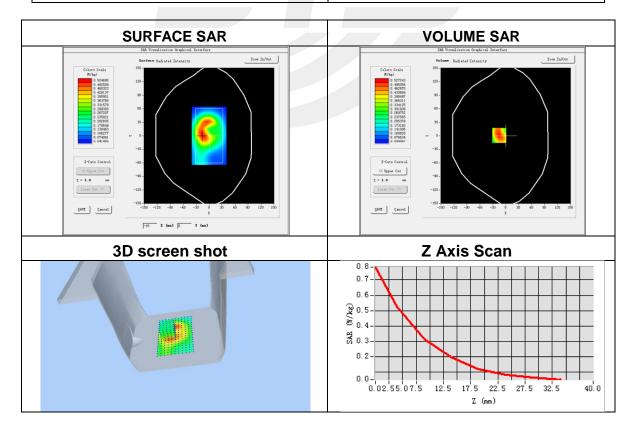


## Plot 3: DUT: Pod 3 GPS Tracker and Activity Monitor; EUT Model: POD-003

	,
Test Date	2017-03-17
Probe	SN 14/16 EP309
ConvF	5.67
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,
Zoomscan	Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back side
Band	WCDMA II
Channels	Middle
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1880.0
Relative permittivity (real part)	39.71
Conductivity (S/m)	1.40
Variation (%)	-4.00

Maximum location: X=-15.00, Y=1.00 SAR Peak: 0.79 W/kg

	3
SAR 10g (W/Kg)	0.299329
SAR 1g (W/Kg)	0.508839





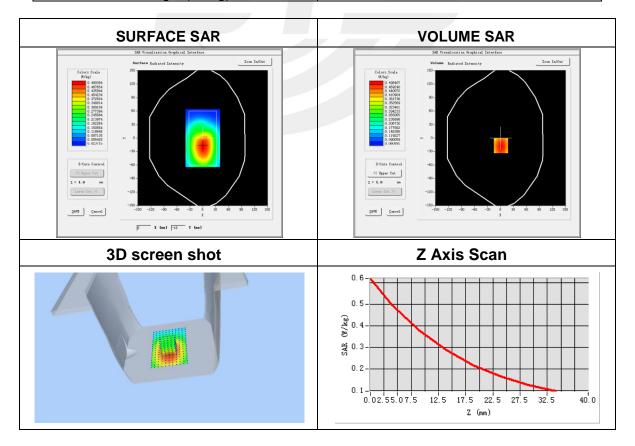
Plot 4: DUT: Pod 3 GPS Tracker and Activity Monitor; EUT Model: POD-003

	•
Test Date	2017-03-17
Probe	SN 14/16 EP309
ConvF	5.90
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,
Zoomscan	Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back side
Band	WCDMA V
Channels	Low
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	826.4
Relative permittivity (real part)	55.5
Conductivity (S/m)	0.96
Variation (%)	-0.23

Maximum location: X=1.00, Y=-17.00

SAR Peak: 0.62 W/kg

SAR 10g (W/Kg)	0.352616
SAR 1g (W/Kg)	0.485313



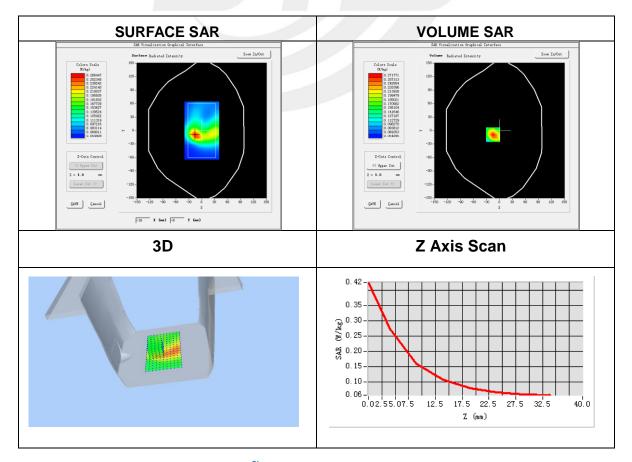


## Plot 5: DUT: Pod 3 GPS Tracker and Activity Monitor; EUT Model: POD-003

·
2017-03-17
SN 14/16 EP309
5.24
dx=8mm dy=8mm, h= 5.00 mm
5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Validation plane
Body back side
IEEE 802.11b ISM
Middle
IEEE802.b (Crest factor: 1.0)
2437
52.40
1.94
-0.90

Maximum location: X=-15.00, Y=-9.00 SAR Peak: 0.43 W/kg

SAR 10g (W/Kg)	0.151332
SAR 1g (W/Kg)	0.260048







## Appendix C. Probe Calibration And Dipole Calibration Report

Refer the appendix Calibration Report.

