

# **SAR Test Report**

### Technical Report No.: 60.870.15.005.01S Date: 2015-06-18

CLIENT:	Date. 2015-00-18
Company Name:	Binatone Electronics International Limited
Address:	Floor 23A, 9 Des Voeux Road West, Sheung Wan, Hong Kong
MANUFACTURING PLACE	E:
Company Name:	Vtech (Dongguan) Telecommunication Limited
Address:	VTech Science Park, Xia Ling Bei Management Zone, Liaobu, Dongguan, Guangdong, China
TEST SUBJECT:	
Model name:	Digital Video Baby Monitor
Brand name:	motorola
Model no.:	MBP854CONNECTPU
FCC ID:	VLJ-MBP854HDSPU
TEST SPECIFICATION:	IEEE Std. 1528:2003 IEEE Std. 1528a:2005 FCC 47CFR § 2.1093 IEEE/ANSI C95.1:1992

#### TEST RESULTS: POSITIVE

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Prepared by: Ray Cheung

Approval by: Nicolas Cheng

**Project Engineer** Date: 2015-06-18



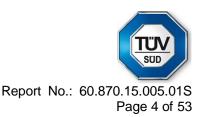
	Test Report Certification					
Applicant Name	Binatone Elctronics International Limited					
Applicant Address	Floor 23A, 9 Des Voeux Road West, Sheung Wan, Hong Kong					
Manufacturer Name	Vtech (Dongguan) Telecommunication Limited					
Manufacturer Address	VTech Science Park, Xia Ling Bei Management Zone, Liaobu Dongguan, Guangdong, China					
Product Designation	Digital Video Baby Monitor (Parent Unit)					
Brand Name	motorola					
Model Name	MBP854CONNECTPU					
Different Description	N/A					
EUT Voltage	DC3.7V by battery					
Applicable Standard	IEEE Std. 1528:2003 IEEE Std. 1528a:2005 FCC 47CFR § 2.1093 IEEE/ANSI C95.1:1992					
Test Date	May 25,2015					
Performed Location	Attestation of Global Compliance(Shenzhen) Co., Ltd.					
	2 F, Building 2, No.1-No.4, Chaxi Sanwei Technical Industrial Park, Gushu, Xixiang Street, Bao'an District, Shenzhen, China					



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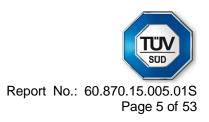
### **1. SUMMARY OF MAXIMUM SAR VALUE**

#### The maximum results of Specific Absorption Rate (SAR) found during testing for EUT are as follows:

Frequency Band	Highest Reported SAR(W/Kg)
	Body-worn(with 0mm separation)
2.4G	0.615

This device is compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6W/Kg) specified in IEEE Std. 1528:2003; IEEE1528a-2005;FCC 47CFR § 2.1093; IEEE/ANSI C95.1:1992 and the following specific FCC Test Procedures:

- · KDB 447498 D01 General RF Exposure Guidance v05r02
- · KDB 865664 D01 SAR measurement 100 MHz to 6 GHz v01r03
- · KDB 648474 D04 Handset SAR v01r02

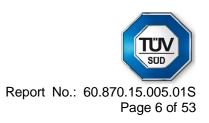


## 2. GENERAL INFORMATION

## 2.1. EUT Description

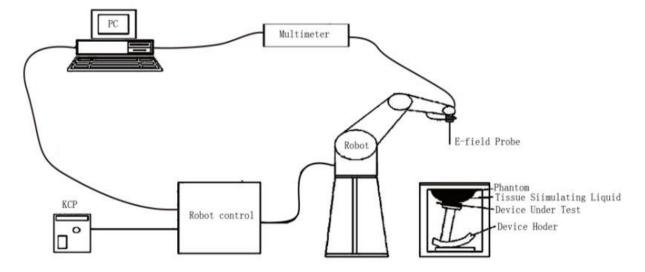
General Information	Seneral Information					
Product Designation	Digital Video Baby Monitor (Parent Unit)					
Test Model	MBP854CONNECTPU					
Hardware Version	N/A					
Software Version	N/A					
Device Category	Portable					
RF Exposure Environment	Uncontrolled					
Antenna Type	Internal					
2.4GHz						
Operation Frequency	2402~2479MHz					
Type of modulation						
Peak Power	19.11dBm					
Antenna Gain	0dBi					

Product	Туре				
FIODUCI	Production unit	Identical Prototype			



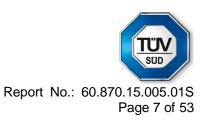
## 3. SAR MEASUREMENT SYSTEM

## 3.1. The SATIMO system used for performing compliance tests consists of following items



The COMOSAR system for performing compliance tests consists of the following items:

- The PC. It controls most of the bench devices and stores measurement data. A computer running WinXP and the Opensar software.
- The E-Field probe. The probe is a 3-axis system made of 3 distinct dipoles. Each dipole returns a voltage in function of the ambient electric field.
- The Keithley multimeter measures each probe dipole voltages.
- The SAM phantom simulates a human head. The measurement of the electric field is made inside the phantom.
- · The liquids simulate the dielectric properties of the human head tissues.
- · The network emulator controls the mobile phone under test.
- The validation dipoles are used to measure a reference SAR. They are used to periodically check the bench to make sure that there is no drift of the system characteristics over time.
- $\cdot$  The phantom, the device holder and other accessories according to the targeted measurement.



#### 3.2. COMOSAR E-Field Probe

The SAR measurement is conducted with the dosimetric probe manufactured by SATIMO. The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency. SATIMO conducts the probe calibration in compliance with international and national standards (e.g. IEEE 1528 and relevant KDB files.) The calibration data are in Appendix D.

#### Isotropic E-Field Probe Specification

Model	SSE5				
Manufacture	SATIMO				
Frequency	0.3GHz-3GHz Linearity:±0.09dB(300MHz-3GHz)	\$2553-67+			
Dynamic Range	0.01W/Kg-100W/Kg Linearity:±0.09dB	73322			
Dimensions	Overall length:330mm Length of individual dipoles:4.5mm Maximum external diameter:8mm Probe Tip external diameter:5mm Distance between dipoles/ probe extremity:2.7mm				
Application	High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 3 GHz with precision of better 30%.				

#### 3.3. Robot

The COMOSAR system uses the KUKA robot from SATIMO SA (France).For the 6-axis controller COMOSAR system, the KUKA robot controller version from SATIMO is used.

The XL robot series have many features that are important for our application:

□ High precision (repeatability 0.02 mm)

- □ High reliability (industrial design)
- □ Jerk-free straight movements
- □ Low ELF interference (the closed metallic
- construction shields against motor control fields)
- □ 6-axis controller



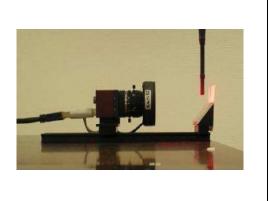


#### 3.4. Video Positioning System

The video positioning system is used in OpenSAR to check the probe. Which is composed of a camera, LED, mirror and mechanical parts.The camera is piloted by the main computer with firewire link.

During the process, the actual position of the probe tip with respect to the robot arm is measured, as well as the probe length and the horizontal probe offset. The software then corrects all movements, such that the robot coordinates are valid for the probe tip.

The repeatability of this process is better than 0.1 mm. If a position has been taught with an aligned probe, the same position will be reached with another aligned probe within 0.1 mm, even if the other probe has different dimensions. During probe rotations, the probe tip will keep its actual position.



#### 3.5. Device Holder

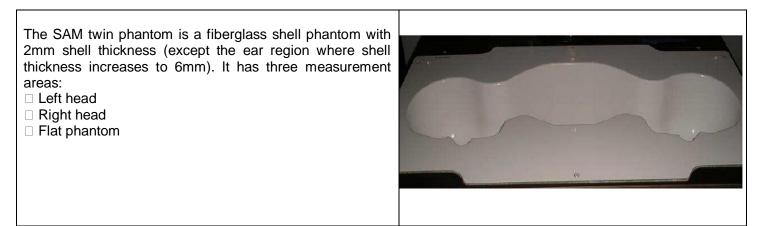
The COMOSAR device holder is designed to cope with different positions given in the standard. It has two scales for the device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear reference points). The rotation center for both scales is the ear 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  $\epsilon r$  =3 and loss tangent  $\delta$  = 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.

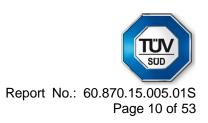




#### 3.6. SAM Twin Phantom



The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. A white cover is provided to tap the phantom during off-periods to prevent water evaporation and changes in the liquid parameters. On the phantom top, three reference markers are provided to identify the phantom position with respect to the robot.



## 4. SAR MEASUREMENT PROCEDURE

#### 4.1. Specific Absorption Rate (SAR)

SAR is related to the rate at which energy is absorbed per unit mass in 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 occupational/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 given mass 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 can be obtained using either of the following equations:

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

$$SAR = c_h \frac{dT}{dt}_{t=0}$$

Where

SAR is the specific absorption rate in watts per kilogram;

- E is the r.m.s. value of the electric field strength in the tissue in volts per meter;  $\sigma$  is the conductivity of the tissue in siemens per metre;
- ρ is the density of the tissue in kilograms per cubic metre;
- c<sub>h</sub> is the heat capacity of the tissue in joules per kilogram and Kelvin;

$$\frac{dT}{dt}$$
 | **t** = **0** is the initial time derivative of temperature in the tissue in kelvins per second



#### 4.2. SAR Measurement Procedure

#### Step 1: Power Reference Measurement

The Power Reference Measurement and Power Drift Measurement are for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface is 2.7mm This distance cannot be smaller than the distance os sensor calibration points to probe tip as `defined in the probe properties,

#### Step 2: Area Scan

The Area Scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in SATIMO software can find the maximum locations even in relatively coarse grids. When an Area Scan has measured all reachable points, it computes the field maximal 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 2db range is required in IEEE Standard 1528 and IEC62209 standards, whereby 3db is a requirement when compliance is assessed in accordance with the ARIB standard (Japan) If one Zoom Scan follows the Area Scan, then only the absolute maximum will be taken as reference. For cases where multiple maximum are detected, the number of Zoom Scan has to be increased accordingly.

Area Scan Parameters	extracted from KDP	865661 DO1 SAR	Magguramant	100MHz to 6GHz
Alea Scall Falameters	EXILACIEU ITUITI NDE	000004 DUT SAN	ineasurement	

	$\leq$ 3 GHz	> 3 GHz	
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	$5 \pm 1 \text{ mm}$	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5 \text{ mm}$	
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30°±1°	20°±1°	
	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm	
Maximum area scan spatial resolution: $\Delta x_{Area}$ , $\Delta y_{Area}$	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 $\leq$ the corresponding x or y dimension of the test device with at least one measurement point on the test device.		

#### Step 3: Zoom Scan

Zoom Scan are used to assess the peak spatial SAR value within a cubic average volume containing 1g abd 10g of simulated tissue. The Zoom Scan measures points(refer to table below) within a cube whose base faces are centered on the maxima found in a preceding area scan job within the same procedure. When the measurement is done, the Zoom Scan evaluates the averaged SAR for 1g and 10g and displays these values next to the job's label.



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Maximum zoom scan spatial resolution: $\Delta x_{Zoom}$ , $\Delta y_{Zoom}$			$\leq 2 \text{ GHz}: \leq 8 \text{ mm}$ 2 - 3 GHz: $\leq 5 \text{ mm}^*$	$3 - 4 \text{ GHz:} \le 5 \text{ mm}^*$ $4 - 6 \text{ GHz:} \le 4 \text{ mm}^*$
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤5 mm	$\begin{array}{c} 3-4 \ \text{GHz:} \leq 4 \ \text{mm} \\ 4-5 \ \text{GHz:} \leq 3 \ \text{mm} \\ 5-6 \ \text{GHz:} \leq 2 \ \text{mm} \end{array}$
	graded	$\Delta z_{Zoom}(1)$ : between 1 <sup>st</sup> two points closest to phantom surface	$\leq$ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
	grid ∆z <sub>Zoom</sub> (n>1): between subsequent points		$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume x, y, z		$\geq$ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm	
P1528-2011 for d * When zoom scan is KDB 447498 is ≤ 1.4	letails. required a: 4 W/kg, ≤	nd the <u>reported</u> SAR from	incidence to the tissue media the <i>area scan based 1-g SA</i> m zoom scan resolution may	um; see draft standard IEEF

#### Zoom Scan Parameters extracted from KDB865664 d01 SAR Measurement 100MHz to 6GHz

#### Step 4: Power Drift Measurement

The Power Drift Measurement measures the field at the same location as the most recent power reference measurement within the same procedure, and with the same settings. The Power Drift Measurement gives the field difference in dB from the reading conducted within the same settings. This allows a user to monitor the power drift of the device under test within a batch process. The measurement procedure is the same as Step 1.



## 5. TISSUE SIMULATING LIQUID

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% are listed in 5.3

#### 5.1. The composition of the tissue simulating liquid

Ingredient	Water	Salt	Sugar	HEC	Preventol	DGBE	TWEEN	Triton X-100
2450MHz	$\checkmark$	$\checkmark$				$\checkmark$		

#### 5.2. Tissue Dielectric Parameters for Head and Body Phantoms

The head tissue dielectric parameters recommended by the IEEE 1528 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 IEEE 1528 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 IEEE 1528.

Target Frequency	hea	ad	body		
(MHz)	٤٢	σ (S/m)	٤r	σ (S/m)	
300	45.3	0.87	58.2	0.92	
450	43.5	0.87	56.7	0.94	
835	41.5	0.90	55.2	0.97	
900	41.5	0.97	55.0	1.05	
915	41.5	1.01	55.0	1.06	
1450	40.5	1.20	54.0	1.30	
1610	40.3	1.29	53.8	1.40	
1800 – 2000	40.0	1.40	53.3	1.52	
2450	39.2	1.80	52.7	1.95	
3000	38.5	2.40	52.0	2.73	

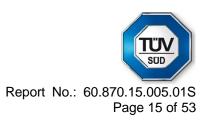
( $\epsilon r$  = relative permittivity,  $\sigma$  = conductivity and  $\rho$  = 1000 kg/m3)



#### 5.3. Tissue Calibration Result

The dielectric parameters of the liquids were verified prior to the SAR evaluation using SATIMO Dielectric Probe Kit and R&S Network Analyzer ZVL6.

	Tissue Stimulant Measurement for 2.4GHz											
	Fr.	Dielectric Par	Tissue	To at time a								
	(MHz)	εr52.7(50.065-55.335)	δ[s/m]1.95(1.8525-2.0475)	Temp [°C]	Test time							
Body	2402	53.83	1.87									
	2440	53.41	1.90	21.2	May 25,2015							
	2450	53.11	1.92	21.2	Way 25,2015							
	2479	52.54	1.95									



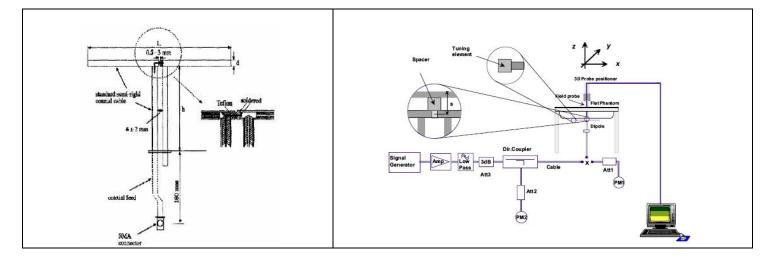
## 6. SAR SYSTEM CHECK PROCEDURE

#### 6.1. SAR System Check Procedures

SAR system check is required to confirm measurement accuracy, according to the tissue dielectric media, probe calibration points and other system operating parameters required for measuring the SAR of a test device. The system verification must be performed for each frequency band and within the valid range of each probe calibration point required for testing the device. The same SAR probe(s) and tissue-equivalent media combinations used with each specific SAR system for system verification must be used for device testing. When multiple probe calibration points are required to cover substantially large transmission bands, independent system verifications are required for each probe calibration point. A system verification must be performed before each series of SAR measurements using the same probe calibration point and tissue-equivalent medium. Additional system verification should be considered according to the conditions of the tissue-equivalent medium and measured tissue dielectric parameters, typically every three to four days when the liquid parameters are remeasured or sooner when marginal liquid parameters are used at the beginning of a series of measurements.

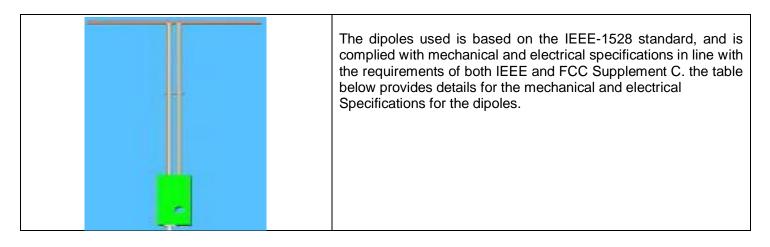
Each SATIMO system is equipped with one or more system check kits. These units, together with the predefined measurement procedures within the SATIMO software, enable the user to conduct the system check and system validation. System kit includes a dipole, and dipole device holder.

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 check setup is shown as below.





## 6.2. SAR System Check 6.2.1. Dipoles



Frequency	L (mm)	h (mm)	d (mm)
2450MHz	51.5	30.4	3.6

#### 6.2.2. System Check Result

System Performance Check at 2450MHz									
Validation Kit: SN 46/11 DIP 2G450-189									
Frequency		get W/Kg)	Reference Result Tested (± 10%) Value(W/Kg)			Tissue Temp.	Test time		
[MHz]	1g	10g	1g	10g	1g	10g	[°C]		
2450	54.19	24.96	48.771-59.609	22.464-27.456	56.848	26.210	21.2	May 25,2015	

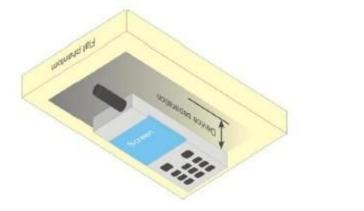


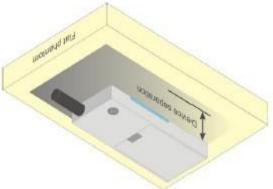
## 7. EUT TEST POSITION

This EUT was tested in Body back and 4 edges.

### 7.1. 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.** .







## 8. SAR EXPOSURE LIMITS

SAR assessments have been made in line with the requirements of IEEE-1528, 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.

#### Limits for General Population/Uncontrolled Exposure (W/kg)

Type Exposure	Uncontrolled Environment Limit (W/kg)
Spatial Peak SAR (1g cube tissue for brain or body)	1.60
Spatial Average SAR (Whole body)	0.08
Spatial Peak SAR (Limbs)	4.0



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## 9. TEST EQUIPMENT LIST

Equipment description	Manufacturer/ Model	Identification No.	Current calibration date	Next calibration date
SAR Probe	SATIMO	SN 22/12 EP159	12/03/2014	12/02/2015
TISSUE Probe	SATIMO	SN 45/11 OCPG45	12/03/2014	12/02/2015
Phantom	SATIMO	SN_4511_SAM90	Validated. No cal required.	Validated. No cal required.
Liquid	SATIMO	-	Validated. No cal required.	Validated. No cal required.
Comm Tester	R&S - CMU200	069Y7-158-13-712	03/06/2015	03/05/2016
Comm Tester	Agilent-8960	GB46310822	03/06/2015	03/05/2016
Multimeter	Keithley 2000	1188656	03/06/2015	03/05/2016
Dipole	SATIMO SID2450	SN46/11 DIP 2G450-189	11/14/2013	11/13/2016
Signal Generator	Agilent-E4438C	MY44260051	03/06/2015	03/05/2016
Power Sensor	NRP-Z23	US38261498	03/06/2015	03/05/2016
Spectrum Analyzer E4440	Agilent	US41421290	07/25/2014	07/24/2015
Network Analyzer	Rhode & Schwarz ZVL6	SN100132	03/06/2015	03/05/2016
Attenuator	Warison /WATT-6SR1211	N/A	N/A	N/A
Attenuator	Mini-circuits / VAT-10+	N/A N/A		N/A
Amplifier	EM30180	SN060552	03/06/2015	03/05/2016
Directional Couple	Werlatone/ C6026-10	SN99482	07/30/2014	07/29/2015
Power Sensor	NRP-Z21	1137.6000.02	10/22/2014	10/21/2015
Power Viewer	R&S	V2.3.1.0	N/A	N/A

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

- 1. There is no physical damage on the dipole;
- 2. System validation with specific dipole is within 10% of calibrated value;
- 3. Return-loss is within 20% of calibrated measurement;
- 4. Impedance is within  $5\Omega$  of calibrated measurement.



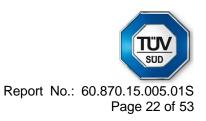
## **10. MEASUREMENT UNCERTAINTY**

SATIMO Uncertainty									
Measurement uncertainty for 300 MHz to 3 GHz averaged over 1 gram / 10 gram.									
Uncertainty Component	Sec.	Tol (+- %)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+-%)	10g Ui (+-%)	Vi
Measurement System									
Probe calibration	E.2.1	7.0	N	1	1	1	6.98	6.98	8
Axial Isotropy	E.2.2	2.5	R	$\sqrt{3}$	1	1	1.16	1.16	$\infty$
Hemispherical Isotropy	E.2.2	4.0	R	$\sqrt{3}$	1	1	2.33	2.33	$\infty$
Boundary effect	E.2.3	1.0	R	$\sqrt{3}$	1	1	0.58	0.58	8
Linearity	E.2.4	5.0	R	$\sqrt{3}$	1	1	2.87	2.87	8
System detection limits	E.2.5	1.0	R	$\sqrt{3}$	1	1	0.58	0.58	$\infty$
Readout Electronics	E.2.6	0.02	N		1	1	0.03	0.03	$\infty$
Response Time	E.2.7	3.0	R	$\sqrt{3}$	1	1	1.70	1.70	8
Integration Time	E.2.8	2.0	R	$\sqrt{3}$	1	1	1.16	1.16	8
RF ambient Conditions	E.6.1	3.0	R	$\sqrt{3}$	1	1	1.71	1.71	8
Probe positioner Mechanical Tolerance	E.6.2	2.0	R	$\sqrt{3}$	1	1	1.15	1.15	∞
Probe positioning with respect to Phantom Shell	E.6.3	0.05	R	$\sqrt{3}$	1	1	0.03	0.03	∞
Extrapolation, interpolation and integration Algoritms for Max. SAR Evaluation	E.5.2	5.0	R	√3	1	1	2.91	2.91	ø
Test sample Related									
Test sample positioning	E.4.2.1	0.03	N	1	1	1	0.05	0.05	N-1
Device Holder Uncertainty	E.4.1.1	5.00	N	1	1	1	4.95	4.95	8
Output power Variation - SAR drift measurement	6.6.2	0.65	R	√3	1	1	0.36	0.36	ø
Phantom and Tissue Para	meters								
Phantom Uncertainty (Shape and thickness tolerances)	E.3.1	0.05	R	√3	1	1	0.02	0.02	×
Liquid conductivity deviation from target value	E.3.2	5.00	R	√3	0.64	0.43	1.83	1.23	∞
Liquid conductivity - measurement uncertainty	E.3.3	5.00	N	1	0.64	0.43	3.18	2.14	ø
Liquid permittivity - deviation from target value	E.3.2	0.03	R	$\sqrt{3}$	0.6	0.49	0.01	0.01	ø
Liquid permittivity - measurement uncertainty	E.3.3	10.00	N	1	0.6	0.49	6.06	4.95	М
Combined Standard Uncertainty			RSS				11.17	10.63	ø
Expanded Uncertainty (95% Confidence interval)			k				22.34	21.26	



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SATIMO Uncertainty											
System uncertainty for 300 MHz to 3 GHz averaged over 1 gram / 10 gram.											
Uncertainty Component	Sec.	Tol (+- %)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+-%)	10g Ui (+-%)	Vi		
Measurement System											
Probe calibration	E.2.1	7.0	Ν	1	1	1	6.98	6.98	8		
Axial Isotropy	E.2.2	2.5	R	$\sqrt{3}$	1	1	1.16	1.16	8		
Hemispherical Isotropy	E.2.2	4.0	R	√3	1	1	2.33	2.33	$\infty$		
Boundary Effects	E.2.3	1.0	R	√3	1	1	0.58	0.58	$\infty$		
Linearity	E.2.4	5.0	R	$\sqrt{3}$	1	1	2.87	2.87	8		
System detection limits	E.2.5	1.0	R	√3	1	1	0.58	0.58	8		
Readout Electronics	E.2.6	0.02	Ν	1	1	1	0.03	0.03	8		
Response Time	E.2.7	3.0	R	√3	1	1	1.70	1.70	8		
Integration Time	E.2.8	2.0	R	$\sqrt{3}$	1	1	1.16	1.16	8		
RF ambient Conditions	E.6.1	3.0	R	$\sqrt{3}$	1	1	1.71	1.71	8		
Probe positioner Mechanical Tolerance	E.6.2	2.0	R	√3	1	1	1.15	1.15	8		
Probe positioning with respect to Phantom Shell	E.6.3	0.05	R	√3	1	1	0.03	0.03	8		
Extrapolation, interpolation and integration Algoritms for Max. SAR Evaluation	E.5.2	5.0	R	√3	1	1	2.91	2.91	8		
Dipole											
Dipole axis to liquid Distance	8,E.4.2	1.00	Ν	$\sqrt{3}$	1	1	0.55	0.55	N-1		
Input power and SAR drift measurement	8,6.6.2	0.65	R	$\sqrt{3}$	1	1	0.36	0.36	8		
Phantom and Tissue Paran	neters										
Phantom Uncertainty (Shape and thickness tolerances)	E.3.1	0.05	R	√3	1	1	0.02	0.02	8		
Liquid conductivity - deviation from target value	E.3.2	5.00	R	√3	0.64	0.43	1.83	1.23	8		
Liquid conductivity - measurement uncertainty	E.3.3	5.00	N	1	0.64	0.43	3.18	2.14	8		
Liquid permittivity - deviation from target value	E.3.2	0.03	R	√3	0.6	0.49	0.01	0.01	ø		
Liquid permittivity - measurement uncertainty	E.3.3	10.00	Ν	1	0.6	0.49	6.06	4.95	М		
Combined Standard Uncertainty			RSS				10.03	9.42			
Expanded Uncertainty (95% Confidence interval)			k				20.05	18.85			
	1				l	I	l	1			



## 11. CONDUCTED POWER MEASUREMENT 2.4GHz

Mode	Frequency(MHz)	Peak Power (dBm)
	2402	18.79
GFSK Modulation	2440	19.04
	2479	19.11



## **12. TEST RESULTS**

## 12.1. SAR Test Results Summary 12.1.1. Test position and configuration

Body SAR was performed with the device 0mm from the phantom. **12.1.2. Operation Mode** 

- 1. Per KDB 447498 D01 v05r02 ,for each exposure position, if the highest 1-g SAR is  $\leq$  0.8 W/kg, testing for low and high channel is optional.
- 2. Per KDB 865664 D01 v01r03,for each frequency band, if the measured SAR is ≥0.8W/Kg, testing for repeated SAR measurement is required , that the highest measured SAR is only to be tested. When the SAR results are near the limit, the following procedures are required for each device to verify these types of SAR measurement related variation concerns by repeating the highest measured SAR configuration in each frequency band.
  - (1) When the original highest measured SAR is  $\geq 0.8W/Kg$ , repeat that measurement once.
  - (2) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is  $\geq$ 1.20 or when the original or repeated measurement is  $\geq$ 1.45 W/Kg.
  - (3) Perform a third repeated measurement only if the original, first and second repeated measurement is  $\geq$  1.5 W/Kg and ratio of largest to smallest SAR for the original, first and second measurement is  $\geq$  1.20.
- 3. Maximum Scaling SAR in order to calculate the Maximum SAR values to test under the standard Peak Power, Calculation method is as follows:

Maximum Scaling SAR =tested SAR (Max.)  $\times$  [maximum turn-up power (mw)/ maximum measurement output power(mw)]



#### 12.1.3. Test Result

SAR MEASUREMENT									
Depth of Liquid	I (cm):>15			Relative	Humidity (	%): 61.2			
Product: Digita	I Video Baby Monitor	(Parent U	nit)						
Test Mode:2.40	GHz Antenna Open								
Position	Mode	Ch.	Fr. (MHz)	Power Drift (<±5%)	SAR (1g) (W/kg)	Max. Turn-up Power (dBm)	Meas. output Power (dBm)	Scaled SAR (W/Kg)	Limit W/kg
Body-back	DTS	Low	2402	-0.37	0.264	20	18.79	0.349	1.6
Body-back	DTS	Mid.	2440	1.02	0.337	20	19.04	0.420	1.6
Body-back	DTS	High	2479	-0.06	0.243	20	19.11	0.298	1.6
Body - Left	DTS	Mid.	2440	-1.33	0.315	20	19.04	0.393	1.6
Body - Right	DTS	Mid.	2440	1.96	0.034	20	19.04	0.042	1.6
Body-Bottom	DTS	Mid.	2440	-0.49	0.046	20	19.04	0.057	1.6

Note:

• When the 1-g Reported SAR is  $\leq$  0.8W/kg, testing for low and high channel is optional.

• The test separation of all above table for Body is 0mm, above test mode see the Photographs.

• All of above "DTS" means data transmitters.

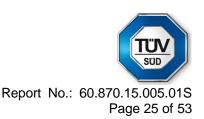
SAR MEASUR	SAR MEASUREMENT									
Depth of Liquid	(cm):>15			Relative	Humidity (	%): 61.2				
Product: Digital	Product: Digital Video Baby Monitor (Parent Unit)									
Test Mode:2.40	GHz Antenna Close	d								
Position	Mode	Ch.	Fr. (MHz)	Power Drift (<±5%)	SAR (1g) (W/kg)	Max. Turn-up Power (dBm)	Meas. output Power (dBm)	Scaled SAR (W/Kg)	Limit W/kg	
Body-back	DTS	Low	2402	-1.69	0.323	20	18.79	0.427	1.6	
Body-back	DTS	Mid.	2440	0.67	0.493	20	19.04	0.615	1.6	
Body-back	DTS	High	2479	-0.48	0.313	20	19.11	0.384	1.6	
Body - Left	DTS	Mid.	2440	-0.33	0.355	20	19.04	0.443	1.6	
Body - Right	DTS	Mid.	2440	0.15	0.049	20	19.04	0.061	1.6	
Body - Top	DTS	Mid.	2440	-0.03	0.031	20	19.04	0.039	1.6	
Body-Bottom	DTS	Mid.	2440	0.95	0.379	20	19.04	0.473	1.6	

Note:

• When the 1-g Reported SAR is  $\leq$  0.8W/kg, testing for low and high channel is optional.

• The test separation of all above table for Body is 0mm, above test mode see the Photographs.

• All of above "DTS" means data transmitters.



#### APPENDIX A. SAR SYSTEM CHECK DATA Test Laboratory: AGC Lab

Date: May 25,2015

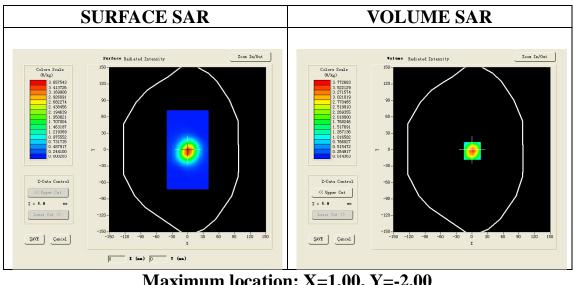
System Check 2450 MHz DUT: Dipole 2450 MHz Type: SID 2450 Communication System CW; Communication System Band: D2450 (2450.0 MHz); Duty Cycle: 1:1; Conv.F=4.07 Frequency: 2450 MHz; Medium parameters used: f = 2450 MHz;  $\sigma = 1.90$  mho/m;  $\epsilon r = 53.41$ ;  $\rho = 1000$  kg/m<sup>3</sup>; Phantom section: Flat Section; Input Power=18dBm

Ambient temperature (°C):21.5, Liquid temperature (°C): 21.2

SATIMO Configuration

- Probe: SSE5; Calibrated: 12/03/2014; Serial No.:SN 22/12 EP159
- · Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4\_02\_01

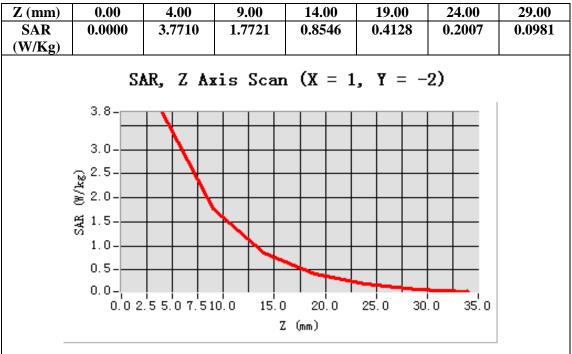
**Configuration/System Check 2450MHz/Area Scan:** Measurement grid: dx=8mm, dy=8mm **Configuration/System Check 2450MHz/Zoom Scan:** Measurement grid: dx=5mm,dy=5mm, dz=5mm

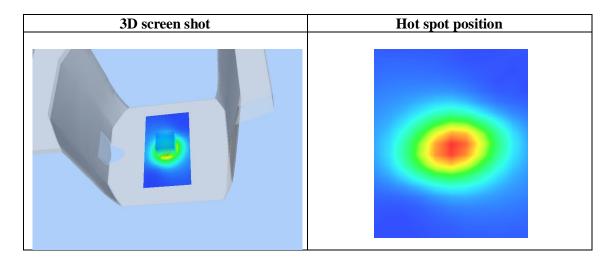


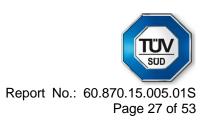
SAR 10g (W/Kg)	1.638067					
SAR 1g (W/Kg)	3.553004					



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## APPENDIX B. SAR MEASUREMENT DATA

Antenna Open Test Laboratory: AGC Lab 2.4GHz Low-Body -Back DUT: Digital Video Baby Monitor (Parent Unit); Type: MBP854CONNECTPU

#### Date: May 25,2015

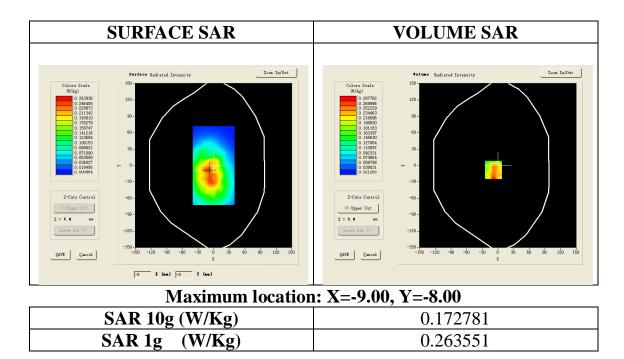
Communication System: Wi-Fi; Communication System Band: 2450; Duty Cycle: 1:1; Conv.F=4.07; Frequency: 2402MHz; Medium parameters used: f = 2450 MHz;  $\sigma$  =1.90 mho/m;  $\epsilon$ r =53.41;  $\rho$ = 1000 kg/m<sup>3</sup>; Phantom section: Flat Section Ambient temperature (°C):21.5, Liquid temperature (°C): 21.2

SATIMO Configuration:

- Probe: SSE5; Calibrated: 12/03/2014; Serial No.:SN22/12 EP159
- · Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4\_02\_01

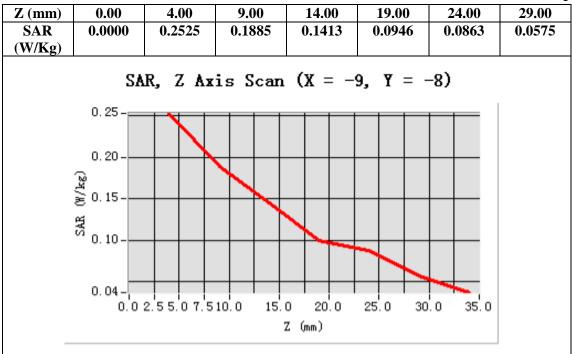
**Configuration/2.4GHz Low- Body- Back /Area Scan:** Measurement grid: dx=8mm, dy=8mm **Configuration/2.4GHz Low- Body- Back /Zoom Scan:** Measurement grid: dx=5mm,dy=5mm, dz=5mm;

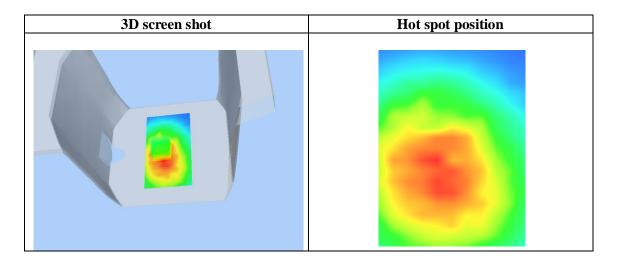
Area Scan	surf_sam_plan.txt
ZoomScan	7x7x7,dx=5mm dy=5mm dz=5mm
Phantom	Validation plane
Device Position	Body Back
Band	2.4GHz
Channels	Low
Signal	Crest factor: 1.0

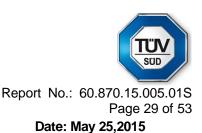




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#### Test Laboratory: AGC Lab 2.4GHz Mid-Body-Back DUT: Digital Video Baby Monitor (Parent Unit); Type: MBP854CONNECTPU

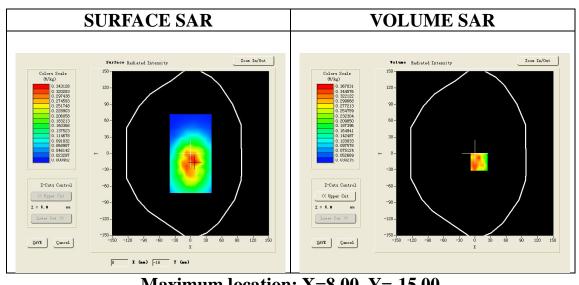
Communication System: Wi-Fi; Communication System Band: 2450; Duty Cycle: 1:1; Conv.F=4.07; Frequency: 2440 MHz; Medium parameters used: f = 2450 MHz;  $\sigma$  =1.90 mho/m;  $\epsilon$ r =53.41;  $\rho$ = 1000 kg/m<sup>3</sup>; Phantom section: Flat Section Ambient temperature (°C):21.5, Liquid temperature (°C): 21.2

SATIMO Configuration:

- Probe: SSE5; Calibrated: 12/03/2014; Serial No.:SN22/12 EP159
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4\_02\_01

**Configuration/2.4GHz Mid- Body- Back /Area Scan:** Measurement grid: dx=8mm, dy=8mm **Configuration/2.4GHz Mid- Body- Back /Zoom Scan:** Measurement grid: dx=5mm,dy=5mm, dz=5mm;

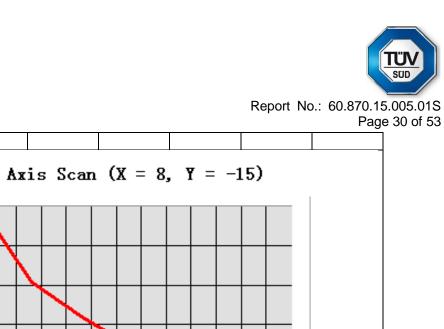
Area Scan	surf_sam_plan.txt		
ZoomScan	7x7x7,dx=5mm dy=5mm dz=5mm		
Phantom	Validation plane		
Device Position	Body Back		
Band	2.4GHz		
Channels	Middle		
Signal	Crest factor: 1.0		

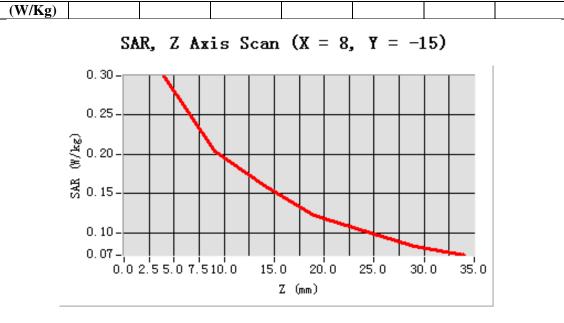


$\mathbf{W}_{\mathbf{X}} = \mathbf{W}_{\mathbf{X}} = $				
SAR 10g (W/Kg)	0.229372			
SAR 1g (W/Kg)	0.337251			

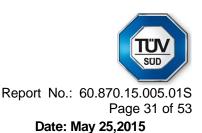
Z	(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
	SAR	0.0000	0.2993	0.2045	0.1613	0.1221	0.1034	0.0837

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3D screen shot	Hot spot position



#### Test Laboratory: AGC Lab 2.4GHz High-Body- Back DUT: Digital Video Baby Monitor (Parent Unit); Type: MBP854CONNECTPU

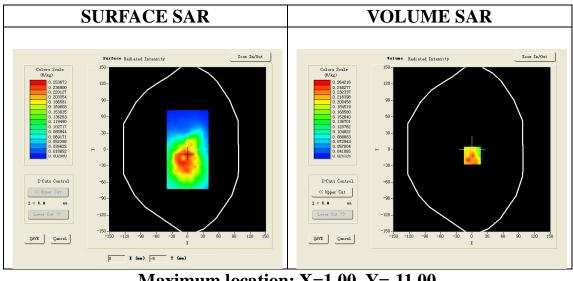
Communication System: Wi-Fi; Communication System Band: 2450; Duty Cycle: 1:1; Conv.F=4.07; Frequency: 2479MHz; Medium parameters used: f = 2450 MHz;  $\sigma$  =1.90 mho/m;  $\epsilon r$  =53.41;  $\rho$ = 1000 kg/m<sup>3</sup>; Phantom section: Flat Section Ambient temperature (°C):21.5, Liquid temperature (°C): 21.2

SATIMO Configuration:

- Probe: SSE5; Calibrated: 12/03/2014; Serial No.:SN22/12 EP159
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4\_02\_01

**Configuration/2.4GHz High- Body- Back /Area Scan:** Measurement grid: dx=8mm, dy=8mm **Configuration/2.4GHz High- Body- Back /Zoom Scan:** Measurement grid: dx=5mm,dy=5mm, dz=5mm;

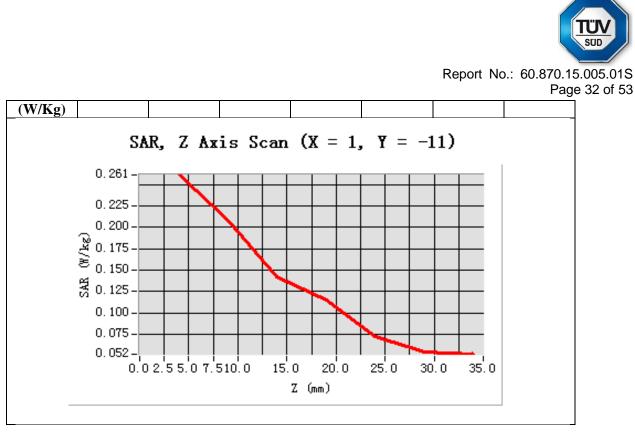
Area Scan	surf_sam_plan.txt
ZoomScan	7x7x7,dx=5mm dy=5mm dz=5mm
Phantom	Validation plane
Device Position	Body Back
Band	2.4GHz
Channels	High
Signal	Crest factor: 1.0



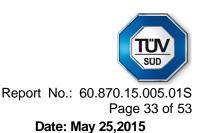
Maximum location: $A=1.00, Y=-11.00$				
SAR 10g (W/Kg)	0.172516			
SAR 1g (W/Kg)	0.243075			

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.2612	0.2076	0.1418	0.1147	0.0715	0.0539

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3D screen shot	Hot spot position



#### Test Laboratory: AGC Lab 2.4GHz Mid-Body- Left DUT: Digital Video Baby Monitor (Parent Unit) ; Type: MBP854CONNECTPU

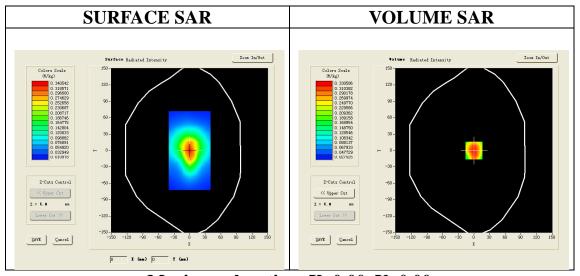
Communication System: Wi-Fi; Communication System Band: 2450; Duty Cycle: 1:1; Conv.F=4.07; Frequency: 2440 MHz; Medium parameters used: f = 2450 MHz;  $\sigma$  =1.90 mho/m;  $\epsilon$ r =53.41;  $\rho$ = 1000 kg/m<sup>3</sup>; Phantom section: Flat Section Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.2

SATIMO Configuration:

- Probe: SSE5; Calibrated: 12/03/2014; Serial No.:SN22/12 EP159
- · Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4\_02\_01

**Configuration/2.4GHz Mid-Body- Left/Area Scan:** Measurement grid: dx=8mm, dy=8mm **Configuration/2.4GHz Mid-Body- Left/Zoom Scan:** Measurement grid: dx=5mm,dy=5mm, dz=5mm;

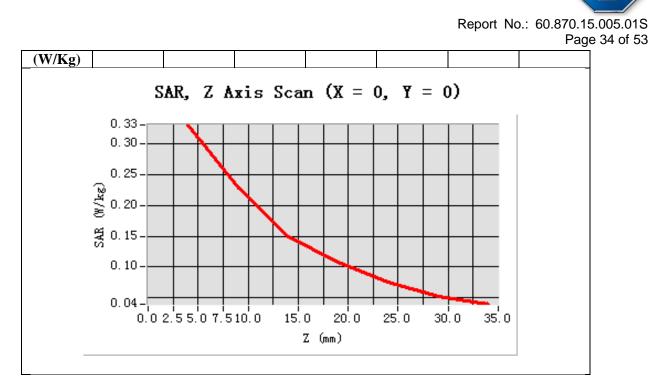
Area Scan	surf_sam_plan.txt		
ZoomScan	7x7x7,dx=5mm dy=5mm dz=5mm		
Phantom	Validation plane		
Device Position	Body Left		
Band	2.4GHz		
Channels	Middle		
Signal	Crest factor: 1.0		



Maximum location: X=0.00, Y=0.00				
SAR 10g (W/Kg)	0.198712			
SAR 1g (W/Kg)	0.315361			

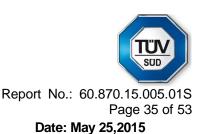
Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.3303	0.2267	0.1489	0.1062	0.0747	0.0531

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SÜD

3D screen shot	Hot spot position



#### Test Laboratory: AGC Lab 2.4GHz Mid-Body- Right DUT: Digital Video Baby Monitor (Parent Unit) ; Type: MBP854CONNECTPU

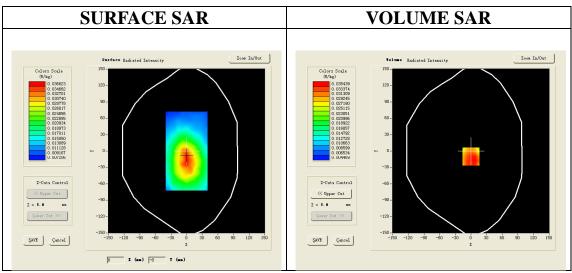
Communication System: Wi-Fi; Communication System Band: 2450; Duty Cycle: 1:1; Conv.F=4.07; Frequency: 2440 MHz; Medium parameters used: f = 2450 MHz;  $\sigma$  =1.90 mho/m;  $\epsilon$ r =53.41;  $\rho$ = 1000 kg/m<sup>3</sup>; Phantom section: Flat Section Ambient temperature (°C):21.5, Liquid temperature (°C): 21.2

SATIMO Configuration:

- Probe: SSE5; Calibrated: 12/03/2014; Serial No.:SN22/12 EP159
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4\_02\_01

**Configuration/2.4GHz Mid-Body- Right/Area Scan:** Measurement grid: dx=8mm, dy=8mm **Configuration/2.4GHz Mid-Body- Right/Zoom Scan:** Measurement grid: dx=5mm,dy=5mm, dz=5mm;

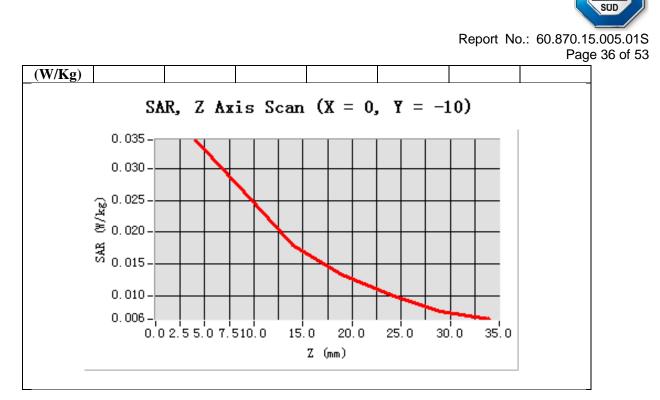
Area Scan	surf_sam_plan.txt			
ZoomScan	7x7x7,dx=5mm dy=5mm dz=5mm			
Phantom	Validation plane			
Device Position	Body Right 2.4GHz			
Band				
Channels	Middle			
Signal	Crest factor: 1.0			



Maximum location: X=0.00, Y=-10.00			
SAR 10g (W/Kg)	0.023516		
SAR 1g (W/Kg)	0.034172		

ſ	Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
	SAR	0.0000	0.0351	0.0263	0.0175	0.0141	0.0102	0.0075

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3D screen shot	Hot spot position		



### Date: May 25,2015

#### Test Laboratory: AGC Lab 2.4GHz Mid-Body-Bottom DUT: Digital Video Baby Monitor (Parent Unit) ; Type: MBP854CONNECTPU

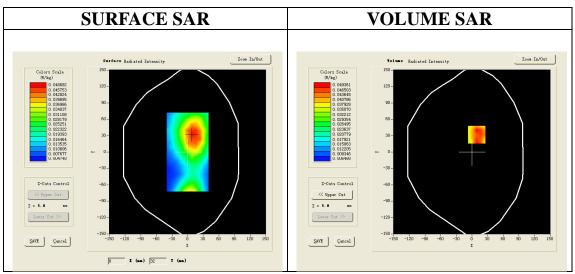
Communication System: Wi-Fi; Communication System Band: 2450; Duty Cycle: 1:1; Conv.F=4.07; Frequency: 2440 MHz; Medium parameters used: f = 2450 MHz;  $\sigma$  =1.90 mho/m;  $\epsilon$ r =53.41;  $\rho$ = 1000 kg/m<sup>3</sup>; Phantom section: Flat Section Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.2

SATIMO Configuration:

- Probe: SSE5; Calibrated: 12/03/2014; Serial No.:SN22/12 EP159
- · Sensor-Surface: 4mm (Mechanical Surface Detection)
- · Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4\_02\_01

**Configuration/2.4GHz Mid-Body-Bottom/Area Scan:** Measurement grid: dx=8mm, dy=8mm **Configuration/2.4GHz Mid-Body-Bottom/Zoom Scan:** Measurement grid: dx=5mm,dy=5mm, dz=5mm;

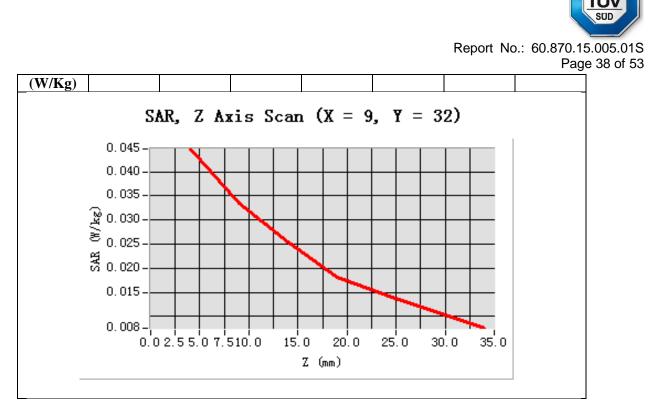
Area Scan	surf_sam_plan.txt
ZoomScan	7x7x7,dx=5mm dy=5mm dz=5mm
Phantom	Validation plane
Device Position	Body Bottom
Band	2.4GHz
Channels	Middle
Signal	Crest factor: 1.0



Maximum location: X=9.00, Y=32.00				
SAR 10g (W/Kg)	0.031735			
SAR 1g (W/Kg)	0.046374			

Γ	Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
	SAR	0.0000	0.0446	0.0335	0.0251	0.0176	0.0137	0.0109

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3D screen shot	Hot spot position



### Antenna Closed Test Laboratory: AGC Lab 2.4GHz Low-Body- Back DUT: Digital Video Baby Monitor (Parent Unit); Type: MBP854CONNECTPU

Date: May 25,2015

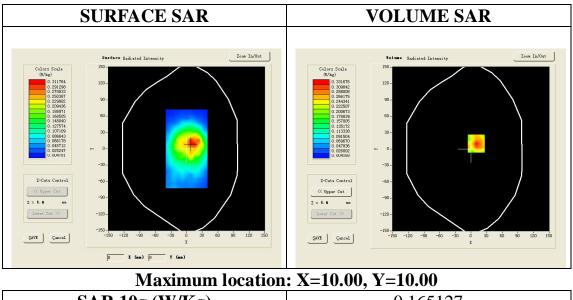
Communication System: Wi-Fi; Communication System Band: 2450; Duty Cycle: 1:1; Conv.F=4.07; Frequency: 2402MHz; Medium parameters used: f = 2450 MHz;  $\sigma$  =1.90 mho/m;  $\epsilon$ r =53.41;  $\rho$ = 1000 kg/m<sup>3</sup>; Phantom section: Flat Section Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.2

SATIMO Configuration:

- Probe: SSE5; Calibrated: 12/03/2014; Serial No.:SN22/12 EP159
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4\_02\_01

**Configuration/2.4GHz Low- Body- Back /Area Scan:** Measurement grid: dx=8mm, dy=8mm **Configuration/2.4GHz Low- Body- Back /Zoom Scan:** Measurement grid: dx=5mm,dy=5mm, dz=5mm;

Area Scan	surf_sam_plan.txt
ZoomScan	7x7x7,dx=5mm dy=5mm dz=5mm
Phantom	Validation plane
Device Position	Body Back
Band	2.4GHz
Channels	Low
Signal	Crest factor: 1.0



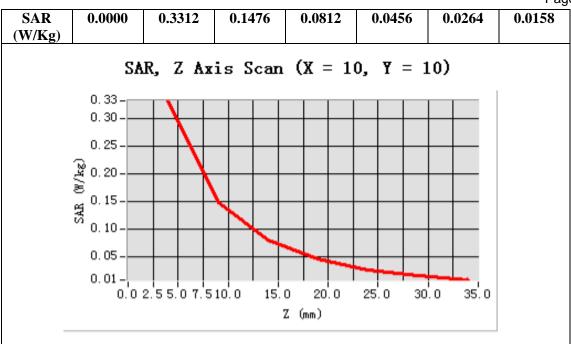
SAR 10g (W/Kg)	0.165127	
SAR 1g (W/Kg)	0.322507	

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00

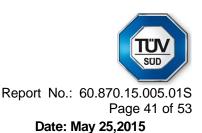
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3D screen shot	Hot spot position



#### Test Laboratory: AGC Lab 2.4GHz Mid-Body-Back DUT: Digital Video Baby Monitor (Parent Unit); Type: MBP854CONNECTPU

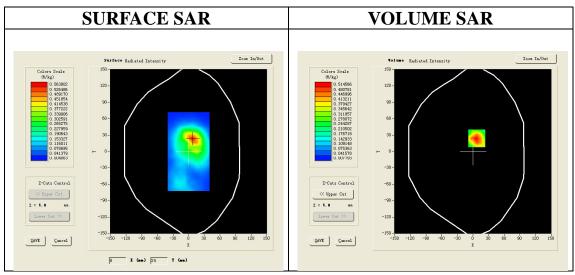
Communication System: Wi-Fi; Communication System Band: 2450; Duty Cycle: 1:1; Conv.F=4.07; Frequency: 2440 MHz; Medium parameters used: f = 2450 MHz;  $\sigma$  =1.90 mho/m;  $\epsilon$ r =53.41;  $\rho$ = 1000 kg/m<sup>3</sup>; Phantom section: Flat Section Ambient temperature (°C):21.5, Liquid temperature (°C): 21.2

SATIMO Configuration:

- Probe: SSE5; Calibrated: 12/03/2014; Serial No.:SN22/12 EP159
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4\_02\_01

**Configuration/2.4GHz Mid- Body- Back /Area Scan:** Measurement grid: dx=8mm, dy=8mm **Configuration/2.4GHz Mid- Body- Back /Zoom Scan:** Measurement grid: dx=5mm,dy=5mm, dz=5mm;

Area Scan	surf_sam_plan.txt
ZoomScan	7x7x7,dx=5mm dy=5mm dz=5mm
Phantom	Validation plane
Device Position	Body Back
Band	2.4GHz
Channels	Middle
Signal	Crest factor: 1.0

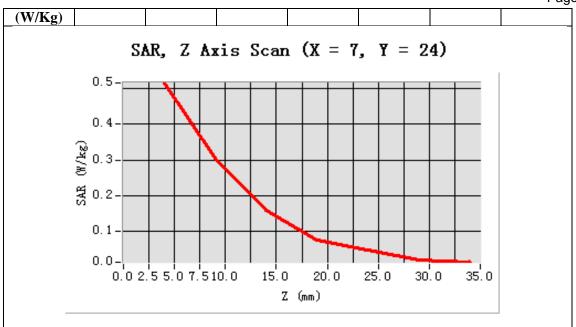


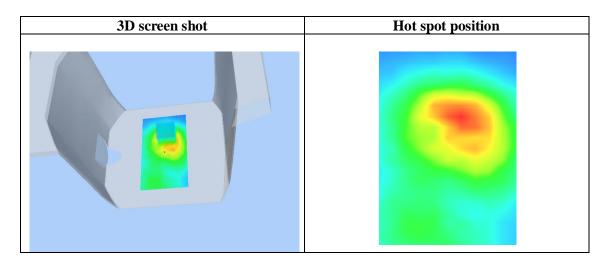
Maximum location: X=7.00, Y=24.00				
SAR 10g (W/Kg)	0.261752			
SAR 1g (W/Kg)	0.493052			

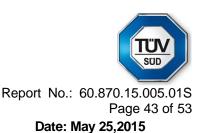
Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.5142	0.3035	0.1612	0.0782	0.0493	0.0233

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#### Test Laboratory: AGC Lab 2.4GHz High-Body- Back DUT: Digital Video Baby Monitor (Parent Unit); Type: MBP854CONNECTPU

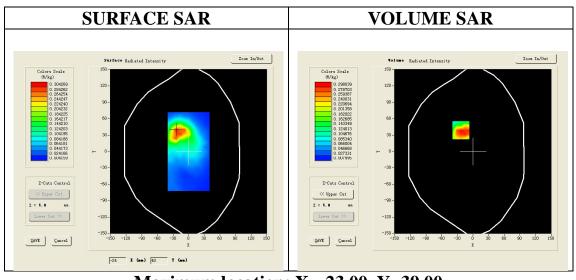
Communication System: Wi-Fi; Communication System Band: 2450; Duty Cycle: 1:1; Conv.F=4.07; Frequency: 2479MHz; Medium parameters used: f = 2450 MHz;  $\sigma$  =1.90 mho/m;  $\epsilon r$  =53.41;  $\rho$ = 1000 kg/m<sup>3</sup>; Phantom section: Flat Section Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.2

SATIMO Configuration:

- Probe: SSE5; Calibrated: 12/03/2014; Serial No.:SN22/12 EP159
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4\_02\_01

**Configuration/2.4GHz High- Body- Back /Area Scan:** Measurement grid: dx=8mm, dy=8mm **Configuration/2.4GHz High- Body- Back /Zoom Scan:** Measurement grid: dx=5mm,dy=5mm, dz=5mm;

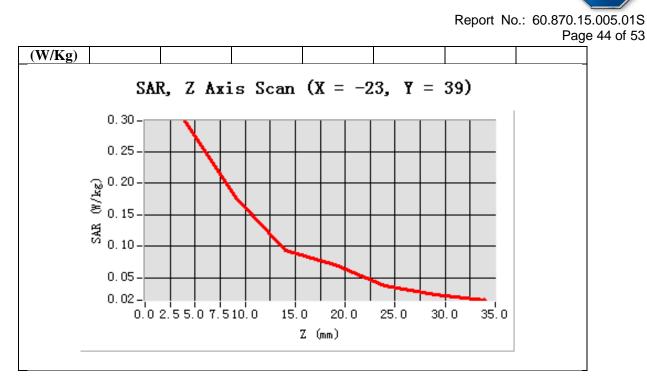
Area Scan	surf_sam_plan.txt
ZoomScan	7x7x7,dx=5mm dy=5mm dz=5mm
Phantom	Validation plane
Device Position	Body Back
Band	2.4GHz
Channels	High
Signal	Crest factor: 1.0



Maximum location: X=-23.00, Y=39.00				
SAR 10g (W/Kg)	0.165361			
SAR 1g (W/Kg)	0.312751			

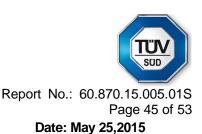
Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.2975	0.1772	0.0935	0.0715	0.0369	0.0238

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3D screen shot	Hot spot position



#### Test Laboratory: AGC Lab 2.4GHz Mid-Body- Left DUT: Digital Video Baby Monitor (Parent Unit) ; Type: MBP854CONNECTPU

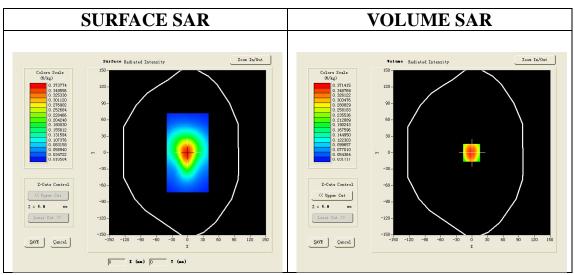
Communication System: Wi-Fi; Communication System Band: 2450; Duty Cycle: 1:1; Conv.F=4.07; Frequency: 2440 MHz; Medium parameters used: f = 2450 MHz;  $\sigma$  =1.90 mho/m;  $\epsilon$ r =53.41;  $\rho$ = 1000 kg/m<sup>3</sup>; Phantom section: Flat Section Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.2

SATIMO Configuration:

- Probe: SSE5; Calibrated: 12/03/2014; Serial No.:SN22/12 EP159
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4\_02\_01

**Configuration/2.4GHz Mid-Body- Left /Area Scan:** Measurement grid: dx=8mm, dy=8mm **Configuration/2.4GHz Mid-Body- Left /Zoom Scan:** Measurement grid: dx=5mm,dy=5mm, dz=5mm;

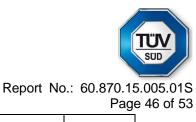
Area Scan	surf_sam_plan.txt
ZoomScan	7x7x7,dx=5mm dy=5mm dz=5mm
Phantom	Validation plane
Device Position	Body Left
Band	2.4GHz
Channels	Middle
Signal	Crest factor: 1.0

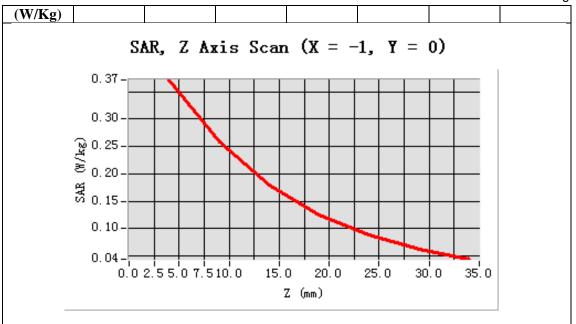


Maximum location: X=-1.00, Y=0.00				
SAR 10g (W/Kg)	0.233571			
SAR 1g (W/Kg)	0.354576			

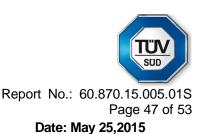
Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.3715	0.2575	0.1783	0.1262	0.0878	0.0623

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3D screen shot	Hot spot position



#### Test Laboratory: AGC Lab 2.4GHz Mid-Body- Right DUT: Digital Video Baby Monitor (Parent Unit) ; Type: MBP854CONNECTPU

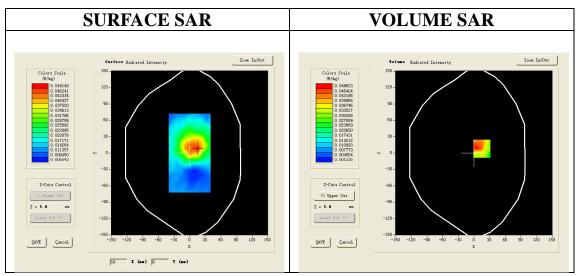
Communication System: Wi-Fi; Communication System Band: 2450; Duty Cycle: 1:1; Conv.F=4.07; Frequency: 2440 MHz; Medium parameters used: f = 2450 MHz;  $\sigma$  =1.90 mho/m;  $\epsilon$ r =53.41;  $\rho$ = 1000 kg/m<sup>3</sup>; Phantom section: Flat Section Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.2

SATIMO Configuration:

- Probe: SSE5; Calibrated: 12/03/2014; Serial No.:SN22/12 EP159
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4\_02\_01

**Configuration/2.4GHz Mid-Body- Right /Area Scan:** Measurement grid: dx=8mm, dy=8mm **Configuration/2.4GHz Mid-Body- Right /Zoom Scan:** Measurement grid: dx=5mm,dy=5mm, dz=5mm;

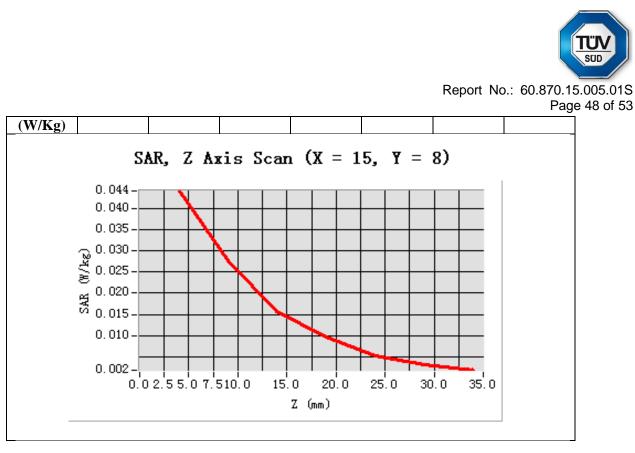
Area Scan	surf_sam_plan.txt
ZoomScan	7x7x7,dx=5mm dy=5mm dz=5mm
Phantom	Validation plane
Device Position	Body Right
Band	2.4GHz
Channels	Middle
Signal	Crest factor: 1.0



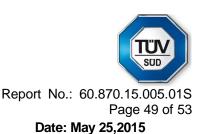
Maximum location: X=15.00, Y=8.00				
SAR 10g (W/Kg)	0.026782			
SAR 1g (W/Kg)	0.048624			

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.0451	0.0263	0.0152	0.0088	0.0046	0.0035

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3D screen shot	Hot spot position



#### Test Laboratory: AGC Lab 2.4GHz Mid-Body- Top DUT: Digital Video Baby Monitor (Parent Unit) ; Type: MBP854CONNECTPU

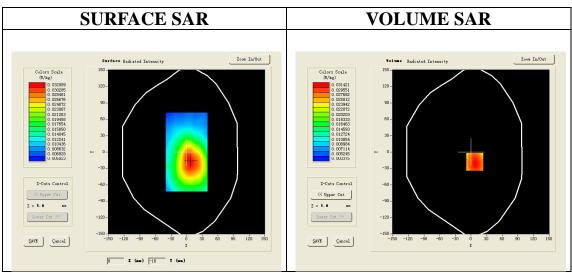
Communication System: Wi-Fi; Communication System Band: 2450; Duty Cycle: 1:1; Conv.F=4.07; Frequency: 2440 MHz; Medium parameters used: f = 2450 MHz;  $\sigma$  =1.90 mho/m;  $\epsilon$ r =53.41;  $\rho$ = 1000 kg/m<sup>3</sup>; Phantom section: Flat Section Ambient temperature (°C):21.5, Liquid temperature (°C): 21.2

SATIMO Configuration:

- Probe: SSE5; Calibrated: 12/03/2014; Serial No.:SN22/12 EP159
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4\_02\_01

**Configuration/2.4GHz Mid-Body- Top /Area Scan:** Measurement grid: dx=8mm, dy=8mm **Configuration/2.4GHz Mid-Body- Top /Zoom Scan:** Measurement grid: dx=5mm,dy=5mm, dz=5mm;

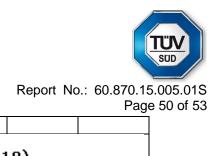
Area Scan	surf_sam_plan.txt
ZoomScan	7x7x7,dx=5mm dy=5mm dz=5mm
Phantom	Validation plane
Device Position	Body Top
Band	2.4GHz
Channels	Middle
Signal	Crest factor: 1.0

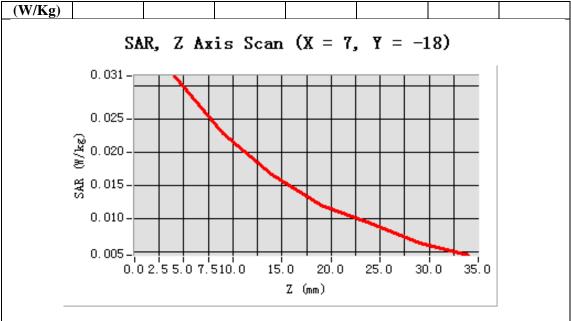


Maximum location: X=7.00, Y=-18.00			
SAR 10g (W/Kg)	0.020273		
SAR 1g (W/Kg)	0.031073		

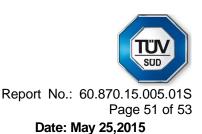
Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.0305	0.0231	0.0157	0.0125	0.0087	0.0059

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3D screen shot	Hot spot position		



#### Test Laboratory: AGC Lab 2.4GHz Mid-Body- Bottom DUT: Digital Video Baby Monitor (Parent Unit) ; Type: MBP854CONNECTPU

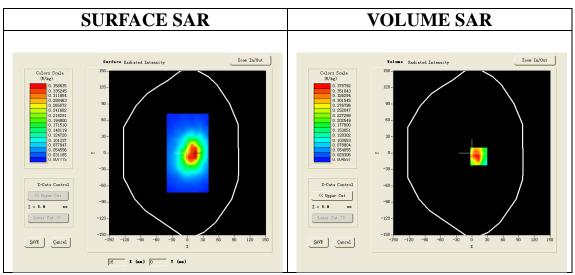
Communication System: Wi-Fi; Communication System Band: 2450; Duty Cycle: 1:1; Conv.F=4.07; Frequency: 2440 MHz; Medium parameters used: f = 2450 MHz;  $\sigma$  =1.90 mho/m;  $\epsilon$ r =53.41;  $\rho$ = 1000 kg/m<sup>3</sup>; Phantom section: Flat Section Ambient temperature (°C):21.5, Liquid temperature (°C): 21.2

SATIMO Configuration:

- Probe: SSE5; Calibrated: 12/03/2014; Serial No.:SN22/12 EP159
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4\_02\_01

**Configuration/2.4GHz Mid-Body- Bottom /Area Scan:** Measurement grid: dx=8mm, dy=8mm **Configuration/2.4GHz Mid-Body- Bottom /Zoom Scan:** Measurement grid: dx=5mm,dy=5mm, dz=5mm;

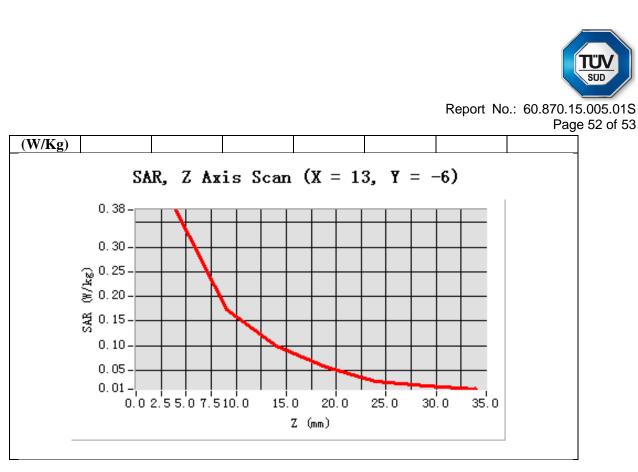
Area Scan	surf_sam_plan.txt		
ZoomScan	7x7x7,dx=5mm dy=5mm dz=5mm		
Phantom	Validation plane		
Device Position	Body Bottom		
Band	2.4GHz		
Channels	Middle		
Signal	Crest factor: 1.0		



Maximum location: X=13.00, Y=-6.00			
SAR 10g (W/Kg)	0.185792		
SAR 1g (W/Kg)	0.378617		

ſ	Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
	SAR	0.0000	0.3762	0.1731	0.0979	0.0576	0.0269	0.0192

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3D screen shot	Hot spot position



# **APPENDIX C. TEST SETUP PHOTOGRAPHS & EUT PHOTOGRAPHS**

Refer to Attached files.

## APPENDIX D. CALIBRATION DATA

Refer to Attached files.