SAR TEST REPORT

Test report No:	**EMC-FCC-A0019**
Type of Equipment:	**Baby Monitor**
Model Name:	**SEW-3037W**
Applicant:	**Samsung Techwin Co., Ltd.**
FCC ID:	**NLMSEW3037W**
FCC Rule Part:	**CFR §2.1093**
Test standards:	**IEEE 1528, 2003** **ANSI/IEEE C95.1** **KDB Publication**
Max. SAR(1g):	**1.24 W/kg**
Test result:	**Complied**

This report details the results of the testing carried out on one sample, the results contained in this testreport do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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Date of receipt: 2015.05.04

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Issued date: 2015.06.03

Tested by: Kim Dong-kyu

Approved by: Choi Cheon-sig

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1. Applicant information

Applicant:	Samsung Techwin Co., Ltd.
Address:	84, Jeongdong-ro, Seonsan-gu, Changwon-si, Gyeongsangnam-do, Korea
Telephone:	+82-70-7147-8361
Fax:	+82-31-277-2784
E-mail:	js2002.kang@samsung.com
Contact name:	Kim Cheol-Gyo

Manufacturer:	GCT
Address:	FLAT/RM 308 3/F KWONG SANG HONG CENTRE 151-153H01 BUN ROAD SWUN TONGI

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2. Laboratory information

Address

EMC compliance Ltd.

480-5, Sindong, Yeongtong-gu, Suwon-i, Gyeonggi-do, Korea

TEL: 82 31 336 9919 FAX: 82 505 299 8311

Certificate

KOLAS No.: 231

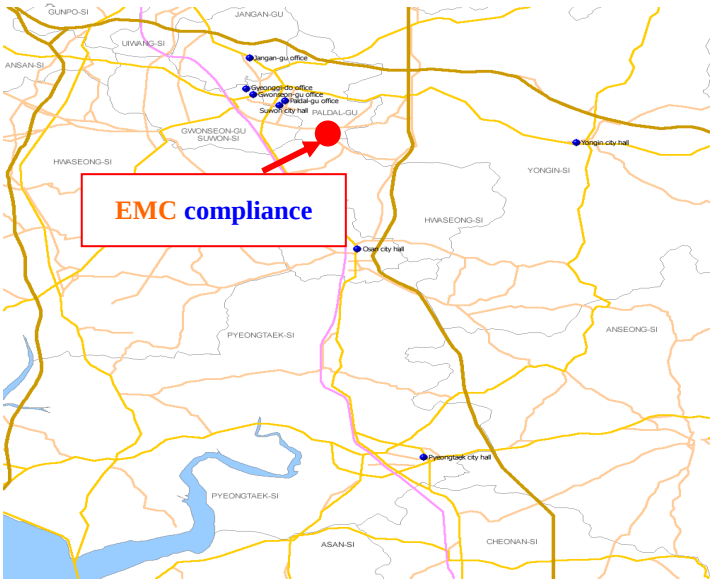
FCC Site Designation No.: KR0040

FCC Site Registration No.: 687132

VCCI Site Registration No.: R-3327, G-198, C-3706, T-1849

IC Site Registration No.: 8035A-2

SITE MAP



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3. Identification of Sample

EUT Type	Baby Monitor
Brand Name	Samsung Techwin Co., Ltd.
Mode of Operation	FHSS
Model Number	SEW-3037W
Serial Number	N/A
Max. Power	14.06 dBm
Tx Freq.Range	2 410.875 ~ 2 471.625 MHz
Rx Freq.Range	2 410.875 ~ 2 471.625 MHz
Antenna Type	PCB Type
Normal Voltage	DC 3.7 V
H/W Version	VM9600-ALL-HM00
S/W Version	HS961020130408_5F71

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4.Test Result Summary

Frequency		Average Power (dBm)	Max. tune up power (dBm)	Scaling Factor	EUT Position	Measured 1 g SAR (W/kg)	Scaled 1 g SAR (W/kg)	1 g SAR Limit (W/kg)
MHz	Channel							
2 471.625	5	14.45	16	1.4289	Back_out	0.867	**1.24**	1.6
Frequency		Average Power (dBm)	Max. tune up power (dBm)	Scaling Factor	EUT Position	Measured 1 g SAR (W/kg)	Scaled 1 g SAR (W/kg)	1 g SAR Limit (W/kg)
MHz	Channel							
2 441.250	3	14.06	16	1.5631	Top_in	0.702	**1.10**	4.0

* Contain the results of the worst test SAR including battery.

5. Report Overview

This report details the results of testing carried out on the samples listed in section 3, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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6. Test Lab Declaration or Comments

None

7. Applicant Declaration or Comments

None

8. Measurement Uncertainty

All measurements and results are recorded and maintained at the laboratory performing the tests and measurement uncertainties are taken into account when comparing measurements to pass/ fail criteria.

Uncertainty of SAR equipments for measurement 300 MHz to 3GHz

A	*b*	*c*	D	*e = f(d,k)*	*g*	*i = c x g / e*	*k*
Source of Uncertainty	**Description IEEE P1528**	**Tolerance/ Uncertainty value**	**Probability Distribution**	**Div.**	**Ci**	**Standard uncertainty**	**Vi or Veff**
	(0.3 ~ 3 GHz)	± %			(1 g)	± %, (1 g)	
Measurement System							
Probe calibration(k=1)	E.2.1	6.30	N	1	1	6.30	∞
Axial isotropy	E.2.2	0.50	R	1.73	0.71	0.20	∞
Hemispherical isotropy	E.2.2	2.60	R	1.73	0.71	1.06	∞
Linearity	E.2.4	0.60	R	1.73	1	0.35	∞
Boundary effect	E.2.3	1.00	R	1.73	1	0.58	∞
System detection limits	E.2.5	1.00	R	1.73	1	0.58	∞
Readout electronics	E.2.6	0.30	N	1	1	0.30	∞
Response time	E.2.7	0.80	R	1.73	1	0.46	∞
Integration time	E.2.8	2.60	R	1.73	1	1.50	∞
RF ambient conditions–noise	E.6.1	3.00	R	1.73	1	1.73	∞
RF ambient conditions–reflections	E.6.1	3.00	R	1.73	1	1.73	∞
Probe positioner mechanical tolerance	E.6.2	0.40	R	1.73	1	0.23	∞
Probe positioning with respect to phantom shell	E.6.3	2.90	R	1.73	1	1.67	∞
Extrapolation, interpolation, and integration algorithms for max. SAR evaluation	E.5	2.00	R	1.73	1	1.15	∞
Test Sample Related							
Test sample positioning	E.4.2	4.71	N	1	1	4.71	9
Device holder uncertainty	E.4.1	3.60	N	1	1	3.60	5
Output power variation—SAR drift measurement	6.6.2	5.00	R	1.73	1	2.89	∞
Phantom and Tissue Parameters							
Phantom uncertainty (shape and thickness tolerances)	E.3.1	7.50	R	1.73	1	4.33	∞
Liquid conductivity-measurement uncertainty	E.3.3	1.53	N	1	0.64	0.98	5
Liquid permittivity-measurement uncertainty	E.3.3	3.07	N	1	0.6	1.84	5
Liquid conductivity-deviation from target values	E.3.2	5.00	R	1.73	0.64	1.85	∞
Liquid permittivity-deviation from target values	E.3.2	5.00	R	1.73	0.6	1.73	∞
Combined standard uncertainty				RSS		11.29	183
Expanded uncertainty (95% CONFIDENCE INTERVAL)				K=2		22.57	

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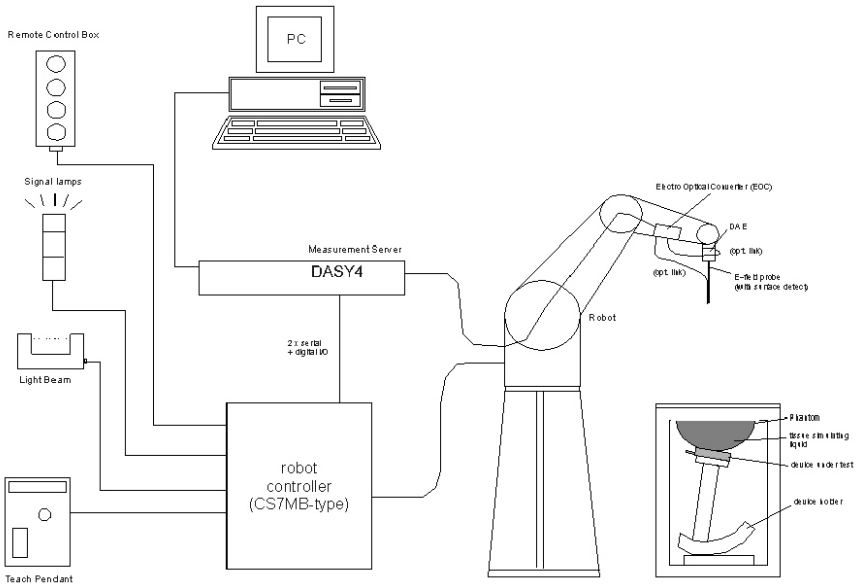
9. The SAR Measurement System



<SAR System Configuration>

- A standard high precision 6-axis robot (Staubli RX family) with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- A dosimetric probe, i.e., an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid. The probe is equipped with an optical surface detector system.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion between optical and electrical of the signals for the digital communication to the DAE and for the analog signal from the optical surface detection. The EOC is connected to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- A probe alignment unit which improves the (absolute) accuracy of the probe positioning.
- A computer operating Windows 2000 or Windows XP.
- DASY4 software.
- Remote control with teach pendant and additional circuitry for robot safety such as warning lamps, etc.
- The SAM twin phantom enabling testing left-hand and right-hand usage.
- The device holder for handheld mobile phones.
- Tissue simulating liquid mixed according to the given recipes.
- Validation dipole kits allowing to validate the proper functioning of the system.

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9.1 Isotropic E-field Probe

EX3DV4 **Smallest Isotropic E-Field Probe for Dosimetric Measurements (Preliminary Specifications)**	
	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	ISO/IEC 17025 calibration service available.
Frequency	10 MHz to > 6 GHz Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	± 0.3 dB in TSL (rotation around probe axis) ± 0.5 dB in TSL (rotation normal to probe axis)
Dynamic Range	10 µW/g to > 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 µW/g)
Dimensions	Overall length: 337 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm
Application	High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields); the only probe that enables compliance testing for frequencies up to 6 GHz with precision of better 30%.
Compatibility	DASY3, DASY4, DASY52 SAR and higher, EASY4/MRI

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9.2 Phantom

Twin SAM

The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEEE 1528 and IEC 62209-1. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents evaporation of the liquid. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by teaching three points with the robot.

Twin SAM V5.0 has the same shell geometry and is manufactured from the same material as Twin SAM V4.0, but has reinforced top structure.

Material	Vinylester, glass fiber reinforced (VE-GF)
Liquid Compatibility	Compatible with all SPEAG tissue simulating liquids (incl. DGBE type)
Shell Thickness	2 ± 0.2 mm (6 ± 0.2 mm at ear point)
Dimensions (incl. Wooden Support)	Length: 1000 mm Width: 500 mm Height: adjustable feet
Filling Volume	approx. 25 liters
Wooden Support	SPEAG standard phantom table
Accessories	Mounting Device and Adaptors

9.3 Device Holder for Transmitters

Mounting Devices and Adaptors

Mounting Device for Hand-Held Transmitters

MD4HHTV5 - Mounting Device for Hand-Held Transmitters

In combination with the Twin SAM V5.0/V5.0c or ELI Phantoms, the Mounting Device for Hand-Held Transmitters enables rotation of the mounted transmitter device to specified spherical coordinates. At the heads, the rotation axis is at the ear opening. Transmitter devices can be easily and accurately positioned according to IEC 62209-1, IEEE 1528, FCC, or other specifications. The device holder can be locked for positioning at different phantom sections (left head, right head, flat).

Material: Polyoxymethylene (POM)

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10. System Verification

10.1 Tissue Verification

The dielectric properties for this Tissue Simulant Liquids were measured by using the SPEAG Model DAK3.5 Dielectric Probe (rates frequency band 200 MHz to 20 GHz) in conjunction with Agilent E5070B Network Analyzer (9 kHz -3000 MHz). The Conductivity (σ) and Permittivity (ρ) are listed in Table 1.For the SAR measurement given in this report. The temperature variation of the Tissue Simulant Liquids was (22 ± 2) ℃.

Freq. (MHz)	Tissue Type	Limit/Measured	Permittivity (ρ)	Conductivity (σ)	Temp (℃)
2410.875	MSL2450	Recommended Limit	52.75± 5 % (50.1131 ~ 55.3882)	1.91± 5 % (1.8180 ~ 2.0094)	22 ± 2
		Measured, 2015-05-13	52.99	1.92	20.81
2441.250	MSL2450	Recommended Limit	52.71± 5 % (50.0745 ~ 55.3455)	1.94± 5 % (1.8430 ~ 2.0370)	22 ± 2
		Measured, 2015-05-13	52.84	1.97	20.81
2450.000	MSL2450	Recommended Limit	52.70± 5 % (50.0650 ~ 55.3350)	1.95± 5 % (1.8525 ~ 2.0475)	22 ± 2
		Measured, 2015-05-13	52.79	1.98	20.81
2471.625	MSL2450	Recommended Limit	52.68± 5 % (50.0460 ~ 55.3140)	1.98± 5 % (1.8810 ~ 2.0790)	22 ± 2
		Measured, 2015-05-13	52.65	2.01	20.81

<Table 1.Measurement result of Tissue electric parameters>

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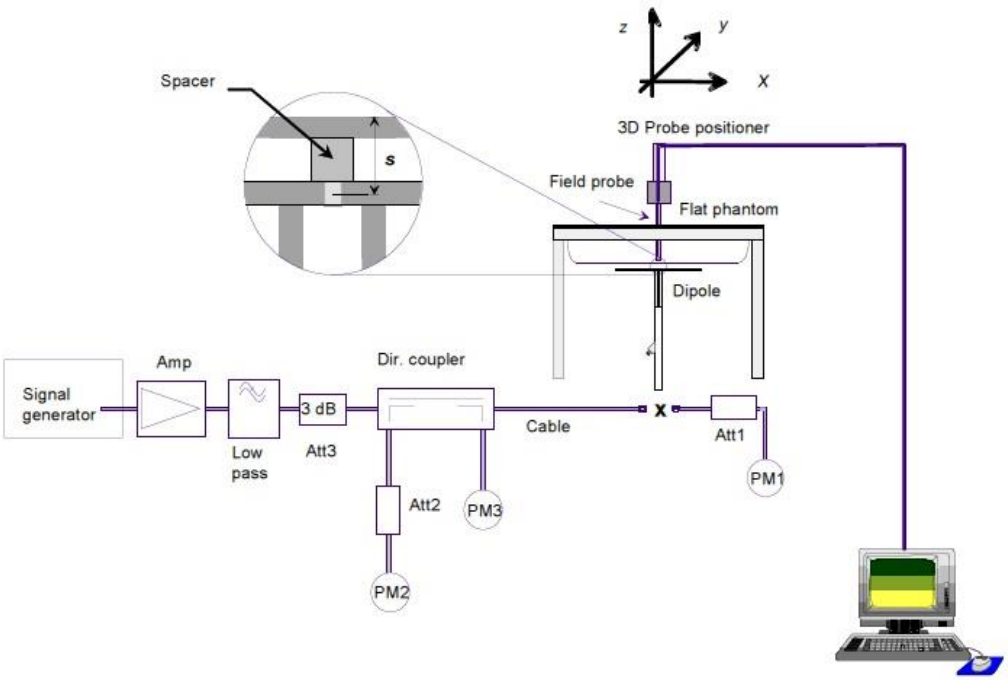
10.2 Test System Verification

The microwave circuit arrangement for system verification is sketched below picture. The daily system accuracy verification occurs within the flat section of the SAM phantom. A SAR measurement was performed to see if the measured SAR was within ± 10% from the target SAR values. The tests were conducted on the same days as the measurement of the EUT. The obtained results from the system accuracy verification are displayed in the table Table 2 (A power level of 250 ㎽ was input to the dipole antenna). During the tests, the ambient temperature of the laboratory was in the range (22 ± 2) ℃,the relative humidity was in the range (50 ± 20) % and the liquid depth above the ear/grid reference points was above 15 cm in all the cases. It is seen that the system is operating within its specification, as the results are within acceptable tolerance of the reference values.



Validation Kit	Dipole Ant. S/N	Frequency (MHz)	Tissue Type	Limit/Measurement (Normalized to 1 W)		
					1 g	10 g
D2450V2	895	2 450	MSL2450	Recommended Limit (Normalized)	50.9 ± 10 % (45.81 ~ 55.99)	23.6 ± 10 % (21.24 ~ 25.96)
				Measured, 2015-05-13	52.00	24.16

<Table 2.Test System Verification Result>

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11. Operation Configurations

Measurements were performed at the lowest, middle and highest channels of the operating band. The EUT was set to maximum power level during all tests and at the beginning of each test the battery was fully charged.

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12. SAR Measurement Procedures

Step 1: Power Reference Measurement
The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift ofthe device under test in the batch process. The Minimum distance of probe sensors to surfacedetermines the closest measurement point to phantom surface. The minimum distance of probe sensorsto surface is 2 mm. This distance cannot be smaller than the Distance of sensor calibration points toprobe 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 doinga fine measurement around the hot spot. The sophisticated interpolation routines implemented in DASYsoftware can find the maximum locations even in relatively coarse grids. When an Area Scan hasmeasured all reachable points, it computes the field maximal found in the scanned area, within a rangeof the global maximum. The range (in dB) is specified in the standards for compliance testing. Forexample, a 2 dB range is required in IEEE Standard 1528 and IEC 62209 standards, whereby 3 dB is arequirement when compliance is assessed in accordance with the ARIB standard (Japan). If only oneZoom Scan follows the Area Scan, then only the absolute maximum will be taken as reference. Forcases where multiple maximums are detected, the number of Zoom Scans has to be increasedaccordingly.

Area Scan Parameters extracted from KDB 865664 D01 SAR Measument 100 MHz to 6 GHz v01r03.

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	½·δ·ln(2) ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

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Step 3: Zoom Scan

Zoom Scans are used to assess the peak spatial SAR values within a cubic averaging volume containing1 g and 10 g of simulated tissue. The Zoom Scan measures 5x5x7 points within a cube whose base faces are centered on the maxima found in a preceding area scanjob within the same procedure. When the measurement is done, the Zoom Scan evaluates theaveraged SAR for 1 g and 10 g and displays these values next to the job's label.

Zoom Scan Parameters extracted from KDB 865664 D01 SAR Measument 100 MHz to 6 GHz v01r03.

			≤ 3 GHz	> 3 GHz
Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm

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

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

Step 4: Power drift measurement

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

Step 5: Z-Scan

The Z Scan measures points along a vertical straight line. The line runs along the Z-axis of a onedimensionalgrid. In order to get a reasonable extrapolation, the extrapolated distance should not belarger than the step size in Z-direction.

* Z Scan Report on Liquid Measure the height Annex A.4 Liquid Depth photo to replace

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13. Test Equipment Information

Test Platform	SPEAG DASY5 System			
Version	DASY5 : Version 52.8.8.1222 SEMCAD : Version 14.6.10 (7331)			
Location	EMC compliance Lab.			
Manufacture	SPEAG			
Hardware Reference				
Equipment	Model	Serial Number	Date of Calibration	Due date of next Calibration
Shield Room	Shield Room	None	N/A	N/A
DASY5 Robot	TX90XL Speag	F12/5L7FA1/A/01	N/A	N/A
DASY5 Controller	TX90XL Speag	F12/5L7FA1/C/01	N/A	N/A
Phantom	SAM Twin Phantom	1728	N/A	N/A
Mounting Device	Mounting Device	None	N/A	N/A
DAE	DAE4	1342	2014-07-24	2015-07-24
Probes	EX3DV4	3865	2014-08-25	2015-08-25
Dipole Validation Kits	D2450V2	895	2014-07-24	2016-07-24
Network Analyzer	E5071B	MY42403524	2014-07-15	2015-07-15
Dual Directional Coupler	772D	2839A00719	2014-08-29	2015-08-29
Signal Generator	E4438C	MY42080486	2015-01-19	2016-01-19
Power Amplifier	2055 BBS3Q7E9I	1005D/C0521	2014-05-15	2015-05-15
LP Filter	LA-30N	40058	2014-08-29	2015-08-29
Dual Power Meter	E4419B	GB43312301	2014-07-17	2015-07-17
Power Sensor	8481H	3318A19377	2014-08-30	2015-08-30
Power Sensor	8481H	3318A19379	2014-08-30	2015-08-30
Dielectric Assessment Kit	DAK-3.5	1078	2014-08-19	2015-08-19
Humidity/Baro/Temp. Data Recorder	MHB-382SD	73871	2014-08-26	2015-08-26

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14. RF Average Conducted Output Power

14.1 Average Conducted Output Power

Mode	Conducted Powers (dBm)		
	2410.875	2441.250	2471.625
FHSS	15.38	14.06	14.45

14.2 Max. tune up power

Mode	Target Power	Tolerance	Max. Allowed Power
FHSS	14 dBm	± 2 dB	16 dBm

15. SAR Test Results

15.1 Body SAR

Frequency		Average Power (dBm)	Max. tune up power (dBm)	Scaling Factor	EUT Position	Measured 1 g SAR (W/kg)	Scaled 1 g SAR (W/kg)	1 g SAR Limit (W/kg)
MHz	Channel							
2 441.250	3	14.06	16	1.5631	Front_out	0.289	0.452	1.6
2 441.250	3	14.06	16	1.5631	Back_out	0.579	0.905	
2 410.875	0	15.38	16	1.1535	Back_out	0.691	0.797	
2 471.625	5	14.45	16	1.4289	Back_out	0.867	**1.24**	

<Note> SAR valueswere scaled to the maximum allowed power to determine compliance per KDB Publication 447498D01v05r02.

15.2 Limb SAR

Frequency		Average Power (dBm)	Max. tune up power (dBm)	Scaling Factor	EUT Position	Measured 10 g SAR (W/kg)	Scaled 10 g SAR (W/kg)	10 g SAR Limits (W/kg)
MHz	Channel							
2 441.250	3	14.06	16	1.5631	Front_out	0.148	0.231	4.0
2 441.250	3	14.06	16	1.5631	Back_out	0.281	0.439	
2 441.250	3	14.06	16	1.5631	Top_in	0.702	**1.10**	
2 441.250	3	14.06	16	1.5631	Left_out	0.135	0.211	
2 441.250	3	14.06	16	1.5631	Right_out	0.000	0.000	
2 441.250	3	14.06	16	1.5631	Bottom_out	0.003	0.005	
2 410.875	0	15.38	16	1.1535	Top_in	0.569	0.656	
2 471.625	5	14.45	16	1.4289	Top_in	0.517	0.739	

<Note> SAR valueswere scaled to the maximum allowed power to determine compliance per KDB Publication 447498D01v05r02.

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16. Test System Verification Results

System check for 2450 MHz(2015-05-13)

Procedure Name: d=10mm, Pin=250 mW, dist=2.0mm (EX-Probe)

Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used: f = 2450 MHz; σ = 1.979 S/m; ε_r = 52.775; ρ = 1000 kg/m^3

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3865; ConvF(7.56, 7.56, 7.56); Calibrated: 2014-08-25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 2014-07-24
- Phantom: SAM twin 1728; Type: QD000P40CD; Serial: TP:1728
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

System Performance Check at Frequencies/d=10mm, Pin=250 mW, dist=2.0mm (EX-Probe)/Area Scan (81x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 19.9 W/kg

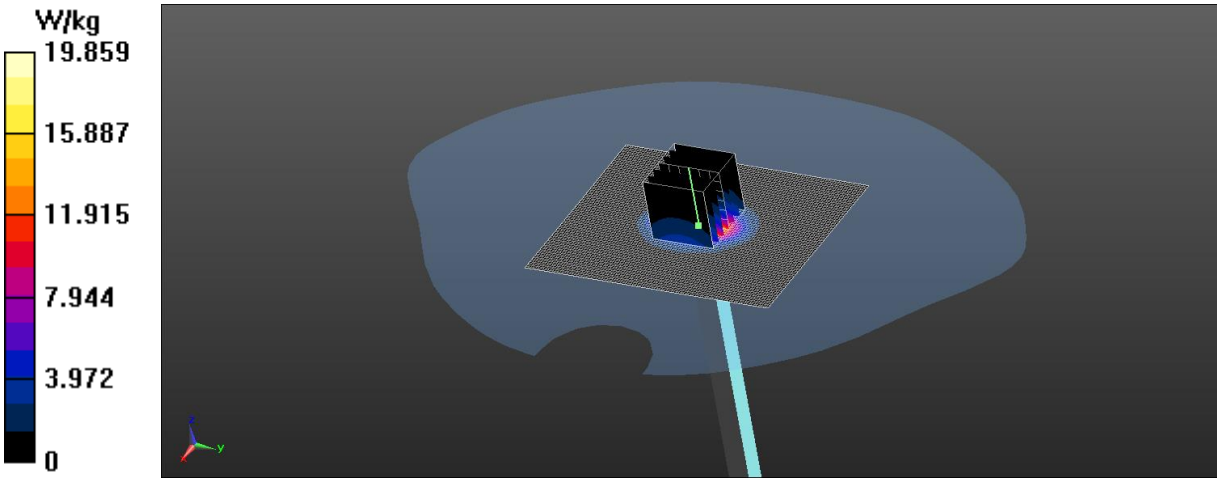
System Performance Check at Frequencies/d=10mm, Pin=250 mW, dist=2.0mm (EX-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 101.5 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 26.8 W/kg

SAR(1 g) = 13 W/kg; SAR(10 g) = 6.04 W/kg

Maximum value of SAR (measured) = 19.9 W/kg



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17. Test Results

#1

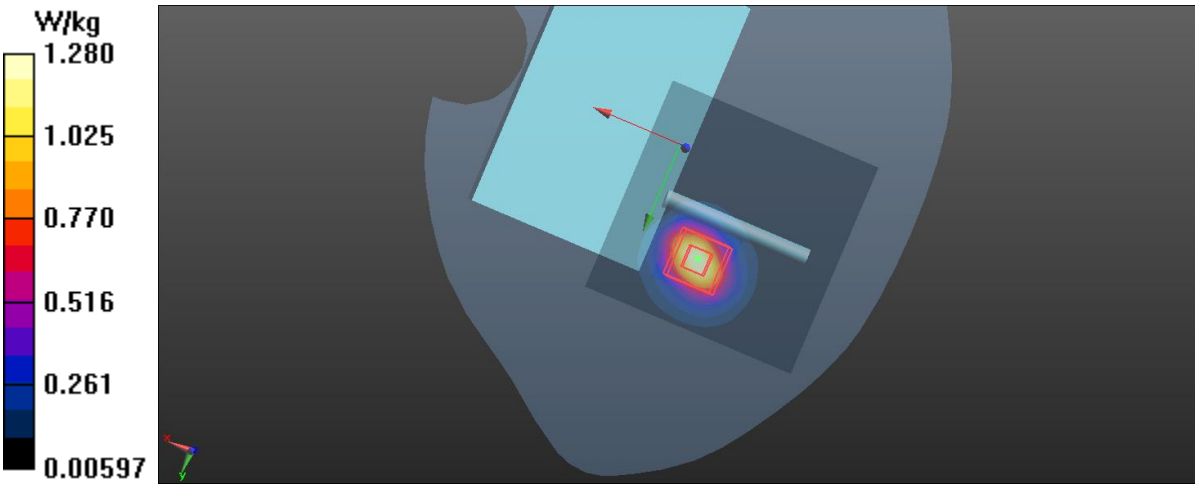
Procedure Name: SEW-3037W_c.0_f.2471.625_Body Back_out

Frequency: 2471.62 MHz; Duty Cycle: 1:1
Medium parameters used: f = 2471.62 MHz; σ = 2.006 S/m; ε_r = 52.649; ρ = 1000 kg/m^3
Phantom section: Flat Section
DASY5 Configuration:

- Probe: EX3DV4 - SN3865; ConvF(7.56, 7.56, 7.56); Calibrated: 2014-08-25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 2014-07-24
- Phantom: SAM twin 1728; Type: QD000P40CD; Serial: TP:1728
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/SEW-3037W_c.0_f.2471.625_Body Back_out/Area Scan (81x81x1):
Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.33 W/kg

Configuration/SEW-3037W_c.0_f.2471.625_Body Back_out/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.53 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 1.73 W/kg
SAR(1 g) = 0.867 W/kg; SAR(10 g) = 0.418 W/kg
Maximum value of SAR (measured) = 1.28 W/kg



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#2

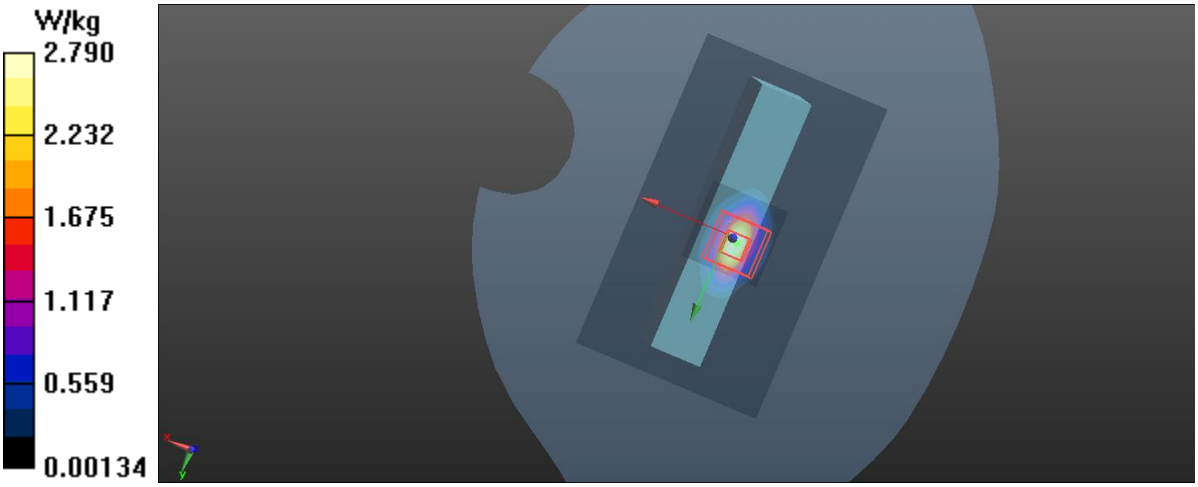
Procedure Name: SEW-3037W_c.3_f.2441.250_Body Top_in

Frequency: 2441.25 MHz; Duty Cycle: 1:1
Medium parameters used: f = 2441.25 MHz; σ = 1.969 S/m; ε_r = 52.836; ρ = 1000 kg/m^3
Phantom section: Flat Section
DASY5 Configuration:

- Probe: EX3DV4 - SN3865; ConvF(7.56, 7.56, 7.56); Calibrated: 2014-08-25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 2014-07-24
- Phantom: SAM twin 1728; Type: QD000P40CD; Serial: TP:1728
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/SEW-3037W_c.3_f.2441.250_Body Top_in/Area Scan (71x121x1):
Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 3.15 W/kg

Configuration/SEW-3037W_c.3_f.2441.250_Body Top_in/Zoom Scan (7x7x7) (8x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 30.86 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 4.01 W/kg
SAR(1 g) = 1.74 W/kg; SAR(10 g) = 0.702 W/kg
Maximum value of SAR (measured) = 2.79 W/kg



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Annex A. Photographs

Annex A.1 EUT

Front View

Front Antenna Out View

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Back View

Right side View

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Left side View

Top side View

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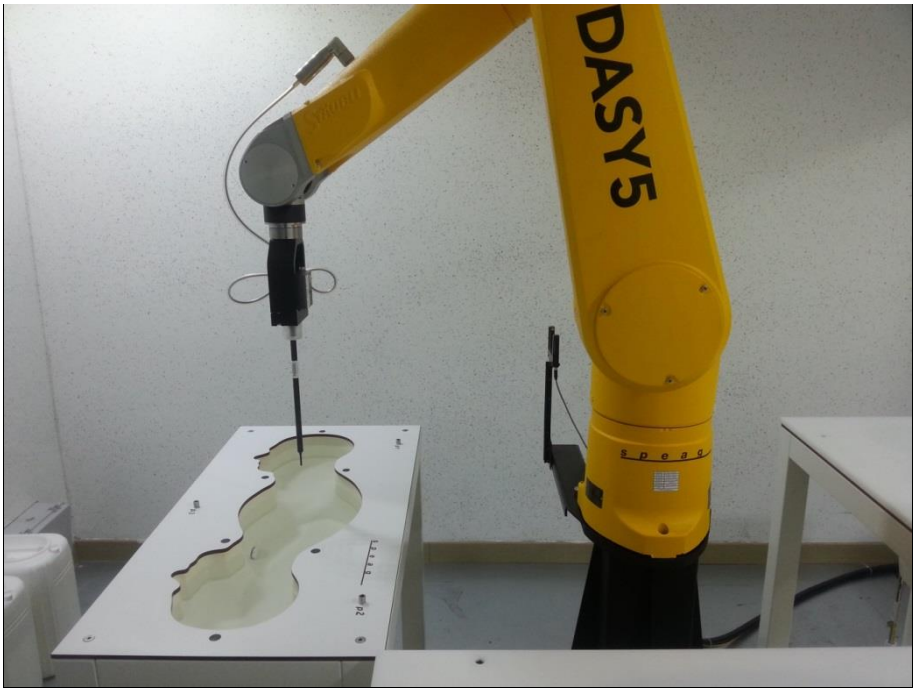
Bottom side View

Annex A.2 Photographs of Test Setup



Photograph of the SAR measurement System

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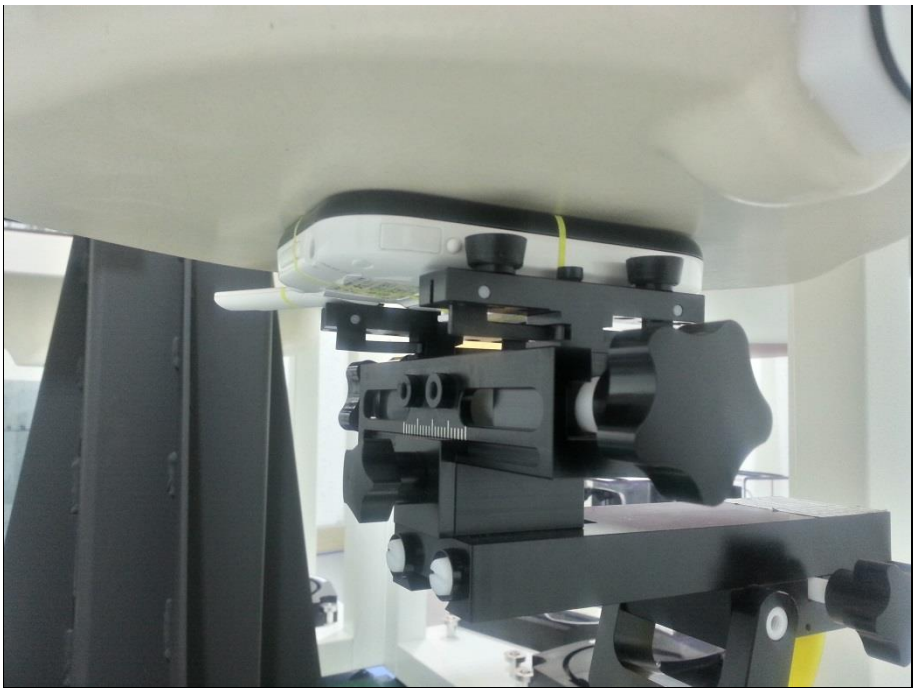
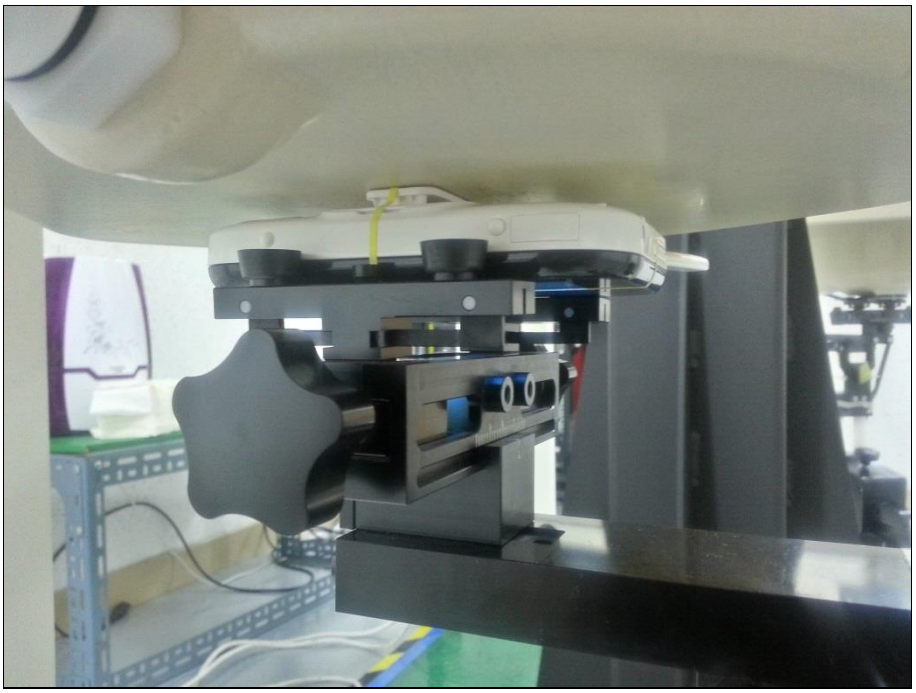
Annex A.3 Test Position



(a) Body_Front



(b)Body_Back

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