TEST REPORT

KCTL Inc. 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea TEL: 82-31-285-0894 FAX: 82-505-299-8311 www.kctl.co.kr	Report No.: KR21-SPF0070-A Page (1) of (55)	KCTL

1. Client

- Name : Insopack Co., Ltd.
- Address : (Gajeong-dong, 708) 708, 218, Gajeong-ro Yuseong-gu, Daejeon, Korea
- Date of Receipt : 2021-08-20

2. Use of Report : Certification

3. Name of Product and Model : ACRO-S2

- Model Name : ACRO-S2
- Manufacturer and Country of Origin : Insopack Co., Ltd. / KOREA

4. FCC ID : RGN-ACRO-S2

5. Date of Test : 2021-09-01

6. Location of Test : ■ Permanent Testing Lab □ On Site Testing
(Address: 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea)

7. Test Standards : IEEE 1528-2013, ANSI/IEEE C95.1, KDB Publication

8. Test Results : Refer to the test result in the test report

Affirmation	Tested by Name : Kyounghoo Min (Signature)	Technical Manager Name : Jongwon Ma (Signature)

2021-09-28

KCTL Inc.

REPORT REVISION HISTORY

Date	Revision	Page No
2021-09-14	Originally issued	-
2021-09-28	Removed Appendix C Updated -Address of Client and Manufacturer -Distance of test setup photo : Appendix C	- - 1,4 53~55

Note: The Report No. KR21-SPF0070 is superseded by the report No. KR21-SPF0070-A

General remarks for test reports

Statement concerning the uncertainty of the measurement systems used for the tests

(may be required by the product standard or client)

☐ **Internal procedure used for type testing through which traceability of the measuring uncertainty has been established:**

Procedure number, issue date and title:

Calculations leading to the reported values are on file with the testing laboratory that conducted the testing.

☒ **Statement not required by the standard or client used for type testing**

1. Identification when information is provided by the customer: Information marked " # " is provided by the customer. - Disclaimer: This information is provided by the customer and can affect the validity of results.

CONTENTS

1. General information

Client	:	Insopack Co., Ltd.
Address	:	(Gajeong-dong, 708) 708, 218, Gajeong-ro Yuseong-gu, Daejeon, Korea
Manufacturer	:	Insopack Co., Ltd.
Address	:	(Gajeong-dong, 708) 708, 218, Gajeong-ro Yuseong-gu, Daejeon, Korea
Contact Person	:	Jeong Hyun Cho / jhcho@insopack.co.kr
Laboratory	:	KCTL Inc.
Address	:	65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea
Accreditations	:	FCC Site Designation No: KR0040, FCC Site Registration No: 687132 VCCI Registration No. : R-3327, G-198, C-3706, T-1849 CAB Identifier: KR0040, ISED Number: 8035A KOLAS No.: KT231

1.1 Report Overview

This report details the results of testing carried out on the samples listed in section 2, 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.

This report may only be reproduced and distributed in full. If the product in this test report is used in any configuration other than that detailed in the test report, the manufacturer must ensure the new configuration complies with all relevant standards and certification requirements. Any mention of KCTL Inc. Wireless lab or testing done by KCTL Inc. Wireless lab made in connection with the distribution or use of the tested product must be approved in writing by KCTL Inc. Wireless lab.

2. Device information

2.1 Basic description

<table>
<tr><td colspan="2">Product Name</td><td colspan="2">ACRO-S2</td></tr>
<tr><td colspan="2">Product Model Name</td><td colspan="2">ACRO-S2</td></tr>
<tr><td colspan="2">Product Manufacturer</td><td colspan="2">Insopack Co., Ltd.</td></tr>
<tr><td>Product Serial Number</td><td>Radiation</td><td colspan="2">@1</td></tr>
<tr><td colspan="2" rowspan="2">Tx Freq. Range</td><td>Band & Mode</td><td>Tx Frequency(㎒)</td></tr>
<tr><td>4GFSK</td><td>902.975 ~ 927.025</td></tr>
</table>

2.2 Summary of SAR Test Result

<table>
<tr><td rowspan="3">Mode</td><td rowspan="3">Equipment Class</td><td>Highest Reported</td></tr>
<tr><td>1g SAR (W/kg)</td></tr>
<tr><td>Body</td></tr>
<tr><td>4GFSK</td><td>DSS</td><td>0.28</td></tr>
<tr><td colspan="2">Simultaneous SAR per KDB 690783 D01v01r03</td><td>N/A</td></tr>
</table>

2.3 #Maximum Tune-up power

This device operates using the following maximum output power specifications. SAR values were scaled to the maximum allowed power to determine compliance per KDB Publication 447498 D01v06.

2.3.1 #Maximum 4GFSK Output Power

Mode	Output Power (dBm)		
	Target	Max. Allowed	SAR Test
4GFSK	16.10	17.10	Yes

2.4 #DUT Antenna Locations

Mode	RF Exposure Conditions	Device Edge for SAR Testing (Front View)					
		Front	Rear	Left Edge	Right Edge	Top	Bottom
4GFSK	Body	Yes	Yes	Yes	Yes	Yes	Yes

Note: The evaluation was evaluated for all planes without considering the antenna distance.

2.5 #Simultaneous Transmission Configurations

Mode	Scenario	Operation
4GFSK	N/A	No

2.6 SAR Test Methods and Procedures

The tests documented in this report were performed in accordance with IEEE 1528-2013 and the following published KDB procedures:

- IEEE 1528-2013
- 447498 D01 General RF Exposure Guidance v06
- 865664 D01 SAR measurement 100 ㎒ to 6 ㎓ v01r04
- 865664 D02 RF Exposure Reporting v01r02

3. Specific Absorption Rate

3.1 Introduction

The 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.

3.2 SAR Definition

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

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

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

$$SAR = C\left(\frac{\delta T}{\delta t}\right)$$

Where: C is the specific head capacity, δT is the temperature rise and δt is the exposure duration, or related to the electrical field in the tissue by

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

Where: σ is the conductivity of the tissue, ρ is the mass density of the tissue and E is the RMS electrical field strength. However for evaluating SAR of low power transmitter, electrical field measurement is typically applied.

4. SAR Measurement Procedures

4.1 SAR Scan Procedures

Step 1: Power Reference Measurement

The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the device under test in the batch process. The Minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. The minimum distance of probe sensors to surface is 1.4 ㎜. This distance cannot be smaller than the Distance of sensor calibration points to probe tip as defined in the probe properties.

Step 2: Area Scan & Zoom 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 and Zoom Scans are used to assess the peak spatial SAR values within a cubic averaging volume containing1 g and 10 g of simulated tissue. If only one Zoom Scan follows the Area Scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of Zoom Scans has to be increased accordingly. Area Scan & Zoom Scan Parameters extracted from KDB 865664 D01 SAR Measurement 100 ㎒ to 6 ㎓ v01r04.

			≤ 3 ㎓	> 3 ㎓
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			5 ㎜ ± 1 ㎜	½·δ·ln(2) ㎜ 0.5 ㎜
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 ㎓: ≤ 15 ㎜ 2 – 3 ㎓: ≤ 12 ㎜	3 – 4 ㎓: ≤ 12 ㎜ 4 – 6 ㎓: ≤ 10 ㎜
			When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	
Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}			≤ 2 ㎓: ≤ 8 ㎜ 2 – 3 ㎓: ≤ 5 ㎜*	3 – 4 ㎓: ≤ 5 ㎜* 4 – 6 ㎓: ≤ 4 ㎜*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 ㎜	3 – 4 ㎓: ≤ 4 ㎜ 4 – 5 ㎓: ≤ 3 ㎜ 5 – 6 ㎓: ≤ 2 ㎜
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 ㎜	3 – 4 ㎓: ≤ 3 ㎜ 4 – 5 ㎓: ≤ 2.5 ㎜ 5 – 6 ㎓: ≤ 2 ㎜
		$\Delta z_{Zoom}(n>1)$: between subsequent points	≤ 1.5·$\Delta z_{Zoom}(n-1)$ ㎜	
Minimum zoom scan volume	x, y, z		≥ 30 ㎜	3 – 4 ㎓: ≥ 28 ㎜ 4 – 5 ㎓: ≥ 25 ㎜ 5 – 6 ㎓: ≥ 22 ㎜
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see IEEE Std 1528-2013 for details. * When zoom scan is required and the reported SAR from the area scan based 1-g SAR estimation procedures of KDB Publication 447498 is ≤ 1.4 W/kg, ≤ 8 ㎜, ≤ 7 ㎜ and ≤ 5 ㎜ zoom scan resolution may be applied, respectively, for 2 ㎓ to 3 ㎓, 3 ㎓ to 4 ㎓ and 4 ㎓ to 6 ㎓.				

Step 3: 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 ㏈ from the reading conducted within the last Power Reference Measurement. 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. SAR Measurement Configurations

5.1 Body-Worn Accessory Configurations

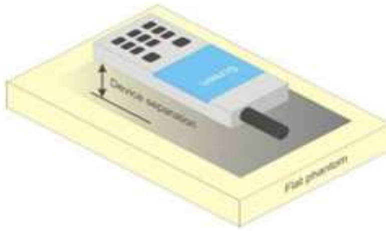


Figure 7
Sample Body-Worn Diagram

Body-worn operating configurations are tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in a normal use configuration (see Figure 7). Per FCC KDB Publication 648474 D04v01r03, 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 FCC KDB Publication 447498 D01v06 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. 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 that body-worn accessory with a headset attached to the handset.

Accessories for Body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that do contain metallic components. When multiple accessories that do not contain metallic components are supplied with the device, the device is tested with only the accessory that dictates the closest spacing to the body. Then multiple accessories that contain metallic components are tested with the device with each accessory. If multiple accessories share an identical metallic component (i.e. the same metallic belt-clip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.
Body-worn accessories may not always be supplied or available as options for some devices intended to be authorized for body-worn use. In this case, a test configuration with a separation distance between the back of the device and the flat phantom is used. Test position spacing was documented. Transmitters that are designed to operate in front of a person's face, as in push-to-talk configurations, are tested for SAR compliance with the front of the device positioned to face the flat phantom in head fluid. For devices that are carried next to the body such as a shoulder, waist or chest-worn transmitters, SAR compliance is tested with the accessories, including headsets and microphones, attached to the device and positioned against a flat phantom in a normal use configuration.

The voice call function of the DUT is enabled only with earphones connected.

6. RF Exposure Limits

UNCONTROLLED ENVIRONMENTS are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure. The general population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

CONTROLLED ENVIRONMENTS are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation). In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. This exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Human Exposure	Uncontrolled Environment General Population	Controlled Environment Occupational
Partial Peak SAR [1] (Partial)	1.60 mW/g	8.00 mW/g
Partial Average SAR [2] (Whole Body)	0.08 mW/g	0.40 mW/g
Partial Peak SAR [3] (Hands/Feet/Ankle/Wrist)	4.00 mW/g	20.00 mW/g

1) The spatial Peak value of the SAR averaged over any 1g gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.
2) The spatial Average value of the SAR averaged over the whole body.
3) The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

7. SAR General Measurement Procedures

7.1 Measured and Reported SAR

Per FCC KDB Publication 447498 D01v06, When SAR is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance. For simultaneous transmission, the measured aggregate SAR must be scaled according to the sum of the differences between the maximum tune-up tolerance and actual power used to test each transmitter. When SAR is measured at or scaled to the maximum tune-up tolerance limit, the results are referred to as reported SAR. Test highest reported SAR results are identified on the grant of equipment authorization according to procedures in KDB 690783 D01v01r03.

8. RF Average Conducted Output Power

8.1 Average Conducted Output Power

Mode	Average Conducted Power (dB m)		
	902.975 MHz	914.675 MHz	927.025 MHz
	Ch. 2	Ch. 20	Ch. 39
4GFSK	16.10	15.67	15.21

8.2 Wireless Band Duty Cycle

Mode	Operating Modes	Duty Cycle (%)
4GFSK		100

Note: The tested in the worst Duty conditions using the program as requested by the Manufacturer.

9. System Verification

9.1 Tissue Verification

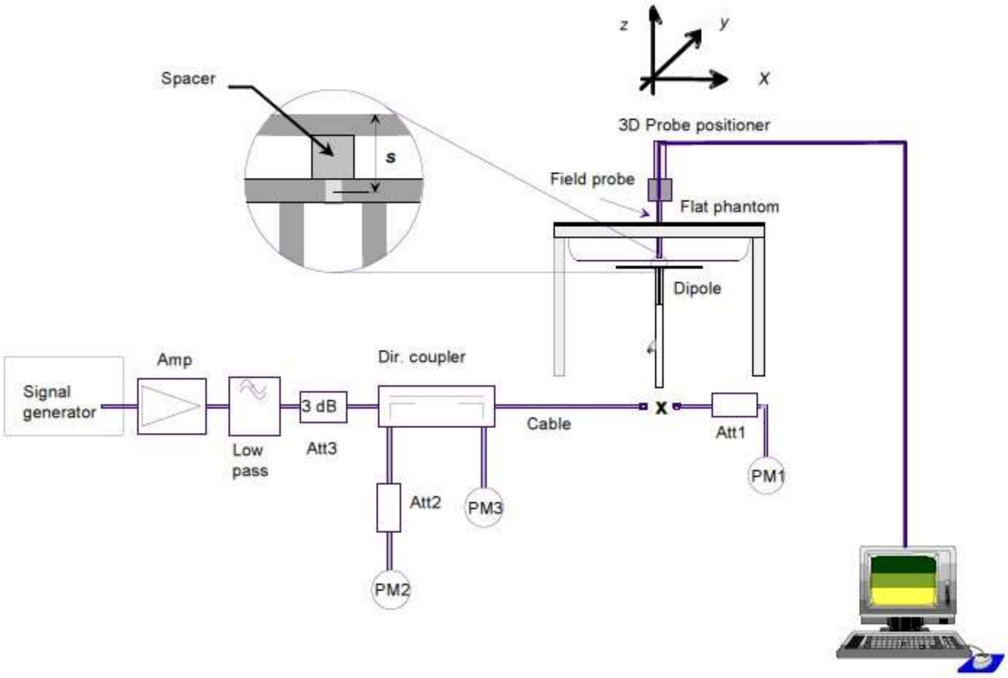
The dielectric properties for this Tissue Simulant Liquids were measured by using the SPEAG Model DAK3.5 Dielectric Probe in conjunction with Agilent E5071B Network Analyzer (300 ㎑ – 8 500 ㎒). The Conductivity (σ) and Permittivity (ρ) are listed in Table 1.For the SAR measurement given in this report. The temperature variation of the Tissue Simulant Liquids was (22 ± 2) ℃.

Freq. (㎒)	Limit/Measured		Permittivity (ρ)	Conductivity (σ)	Temp. (°C)
900.0	Recommended Limit		41.50 ± 5 % (39.43 ~ 43.58)	0.97 ± 5 % (0.92 ~ 1.02)	22 ± 2
	Measured	2021-09-01	41.52	0.99	21.02

<Table 1.Measurement result of Tissue electric parameters>

9.2 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 2. 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 ㎝ 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.



Verification Kit	Probe S/N	Frequency (㎒)	Tissue Type	Limit/Measured (Normalized to 1 W)		
D900V2 SN: 1d138	EX3DV4 SN: 7541	900.0	HSL	Recommended Limit 1g (Normalized)		10.70 ± 10 % (9.63 ~ 11.77)
				Measured	2021-09-01	10.72

<Table 2. System Verification>

10. SAR Test Results

10.1 Standalone SAR Test Results

RF Exposure Conditions	Mode	EUT Position	Distance (㎜)	Frequency (㎒)	Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Duty Cycle Compensate Factor	Measured 1g SAR (W/㎏)	Scaled 1g SAR (W/㎏)	Plot No.
Body	4GFSK	Front	0	902.975	16.10	17.10	1.259	1.000	0.112	0.141	
		Rear	0	902.975	16.10	17.10	1.259	1.000	0.222	**0.279**	1
		Left	0	902.975	16.10	17.10	1.259	1.000	0.034	0.043	
		Right	0	902.975	16.10	17.10	1.259	1.000	0.107	0.135	
		Top	0	902.975	16.10	17.10	1.259	1.000	0.077	0.097	
		Bottom	0	902.975	16.10	17.10	1.259	1.000	0.013	0.016	

General Notes:

1. The test data reported are the worst-case SAR values according to test procedures specified in FCC KDB Publication 447498 D01v06.
2. All modes of operation were investigated, and worst-case results are reported.
3. Battery is fully charged for all readings and the standard batteries are the only options.
4. Liquid tissue depth was at least 15 ㎝.
5. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
6. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB Publication 447498 D01v06.
7. The voice call function of the DUT is enabled only with earphones connected.

11. SAR Measurement Variability

Per FCC KDB Publication 865664 D01v01r04, SAR measurement variability was assessed for each frequency band, which was determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media were required for SAR measurements in a frequency band, the variability measurement procedures were applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. These additional measurements were repeated after the completion of all measurements requiring the same head or body tissue equivalent medium in a frequency band. The test device was returned to ambient conditions (normal room temperature) with the battery fully charged before it was re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR Measurement Variability was assessed using the following procedures for each frequency band:

1) **Repeated measurements are not required when the original highest measured SAR is < 0.80 W/㎏.**
2) When the original highest measured SAR is ≥ 0.80 W/㎏, the measurement was repeated once.
3) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/㎏ (~ 10% from the 1-g SAR limit).
4) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/㎏ and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

Band	Frequency (㎒)	EUT Position	Separation Distance (㎜)	Measured 1 g SAR (W/kg)	Measured 1 g SAR (W/kg)	Ratio
N/A						

12. Measurement Uncertainty

Per KDB 865664 D01 SAR measurement 100 ㎒ to 6㎓, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg and the measured 10-g SAR within a frequency band is < 3.75 W/kg. The expanded SAR measurement uncertainty must be ≤ 30%, for a confidence interval of *k* = 2. If these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE Standard 1528-2013 is not required in SAR reports submitted for equipment approval. For this device, the highest measured 1-g SAR is less 1.5W/kg and highest measured 10-g SAR is less 3.75 W/kg. Therefore, the measurement uncertainty table is not required in this report.

13. Test Equipment Information

Test Platform	SPEAG DASY5 System			
Version	DASY52: 52.10.4.1527 / SEMCAD: 14.6.14 (7483)			
Location	KCTL Inc, 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Korea			
Manufacture	SPEAG			
Hardware Reference				
Equipment	Model	Serial Number	Date of Calibration	Due date of next Calibration
Shield Room	-	8F - 2	-	-
DASY5 Robot	TX90XL	F12/5L7FA1/A/01	-	-
Phantom	Twin SAM Phantom	1728	-	-
Mounting Device	Mounting Device	-	-	-
DAE	DAE4	1567	2021-03-23	2022-03-23
Probe	EX3DV4	7541	2021-07-30	2022-07-30
ESG Vector Signal Generator	E4438C	MY42080486	2021-05-10	2022-05-10
Dual Power Meter	E4419B	GB43312301	2021-05-11	2022-05-11
Power Sensor	8481H	3318A 19379	2021-05-11	2022-05-11
Power Sensor	8481H	3318A 19377	2021-05-11	2022-05-11
Attenuator	8491B 3dB	17387	2021-05-10	2022-05-10
Attenuator	8491B-6dB	MY39270294	2021-05-10	2022-05-10
Attenuator	8491B 10dB	29425	2021-05-10	2022-05-10
Power Amplifier	GRF5039	1062	2021-05-10	2022-05-10
Dual Directional Coupler	778D	16059	2021-05-10	2022-05-10
Low Pass Filter	NLP-1000+	VUU86701432	2021-05-10	2022-05-10
Dipole Validation Kits	D900V2	1d138	2020-05-19	2022-05-19
Network Analyzer	E5071B	MY42403524	2021-02-15	2022-02-15
Dielectric Assessment Kit	DAK-3.5	1046	2021-04-21	2022-04-21
Humidity/Temp	MHB-382SD	23107	2021-05-13	2022-05-13
Spectrum Analyzer	FSP7	100289	2020-12-23	2021-12-23

14. Test System Verification Results

Date: 2021-09-01

Test Laboratory: KCTL Inc.
File Name: 900 MHz Verification Input Power 250 mW 2021-09-01.da52:0

DUT: Dipole 900 MHz D900V2, Type: D900V2, Serial: D900V2 - SN:1d138

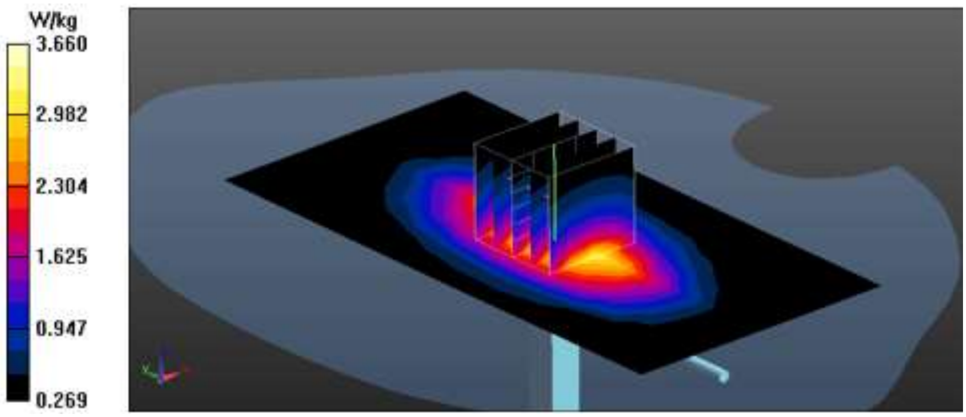
Communication System: UID 0, CW (0); Frequency: 900 MHz; Duty Cycle: 1:1
Medium parameters used: f = 900 MHz; σ = 0.988 S/m; ε_r = 41.52; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7541; ConvF(9.81, 9.81, 9.81) @ 900 MHz; ; Calibrated: 2021-07-30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1567; Calibrated: 2021-03-23
- Phantom: SAM twin 1728; Type: QD000P40CD; Serial: TP:1728
- Measurement SW: DASY52, Version 52.10 (4);

System Performance Check/900 MHz Verification Input Power 250 mW 2021-09-01/Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.53 W/kg

System Performance Check/900 MHz Verification Input Power 250 mW 2021-09-01/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 62.38 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 4.18 W/kg
SAR(1 g) = 2.68 W/kg; SAR(10 g) = 1.73 W/kg
Smallest distance from peaks to all points 3 dB below = 16.1 mm
Ratio of SAR at M2 to SAR at M1 = 64%
Maximum value of SAR (measured) = 3.66 W/kg



15. Test Results

1)

Date: 2021-09-01

Test Laboratory: KCTL Inc.
File Name: 1.4GFSK_Body.da53:0

DUT: ACRO-S2, Type: FM Transceiver, Serial: @1

Communication System: UID 0, 4GFSK (0); Frequency: 902.975 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 902.975 MHz; σ = 0.99 S/m; ε_r = 41.495; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

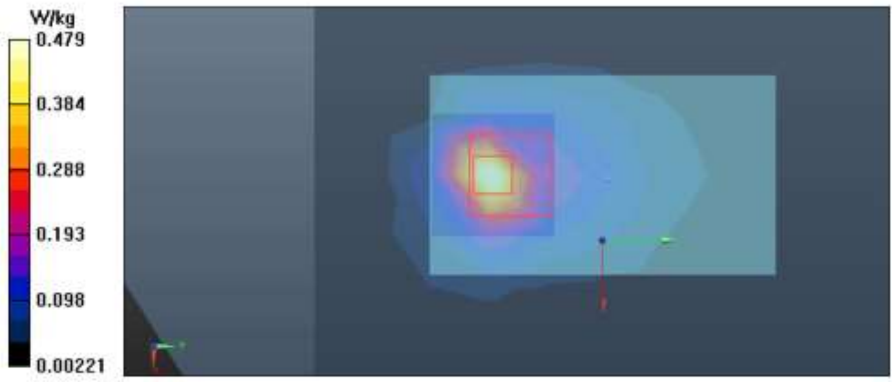
- Probe: EX3DV4 - SN7541; ConvF(9.81, 9.81, 9.81) @ 902.975 MHz; ; Calibrated: 2021-07-30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1567; Calibrated: 2021-03-23
- Phantom: SAM twin 1728; Type: QD000P40CD; Serial: TP:1728
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/4GFSK_CH2_Rear_0 mm/Area Scan (9x11x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.538 W/kg

Configuration/4GFSK_CH2_Rear_0 mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.09 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.662 W/kg
SAR(1 g) = 0.222 W/kg; SAR(10 g) = 0.104 W/kg
Smallest distance from peaks to all points 3 dB below = 8 mm
Ratio of SAR at M2 to SAR at M1 = 32.9%

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.479 W/kg



Appendixes List

Appendix A	A.1 Probe Calibration certificate (EX3DV4_7541) A.2 Dipole Calibration certificate (D900V2_1d138) A.3 Justification for Extended SAR Dipole Calibrations
Appendix B	SAR Tissue Specification
Appendix C	Test Setup Photo