ACCREDITED
CERT #0955.01

INDUSTRIAL®
INSPECTION & ANALYSIS

Test Report –FCC Specific Absorption Rate (SAR)

Applicant: UIM Pressure Implant Inc.

Signature: Sr. EMC Engineer EMC-003838-NE CERTIFIED iNARTE ENGINEER

Name & Title: Tim Royer, EMC Engineer

Date of Signature 06/24/2025

Signature:

Name & Title: Fouzia Syed, Senior Test Engineer.

Date of Signature 06/24/2025

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1. Applicant Information

Applicant: UIM Pressure Implant Inc.

Address: 387 Airport-Industrial Drive,
Ypsilanti, MI 48198

2. Location of Testing

2.1. Test Laboratory

Timco Engineering Inc. is a subsidiary of Industrial Inspection & Analysis, Inc. ("IIA"). Testing was performed at IIA's permanent laboratory located at 13146 NW 86th Drive, Suite 400, Alachua, Florida 32615.

FCC test firm # 578780
FCC Designation # US1070
FCC site registration is under A2LA certificate # 0955.01
ISED Canada test site registration # 2056A
EU Notified Body # 1177
For all designations see A2LA scope # 0955.01

3. Test Sample(s) (EUT/DUT)

The test sample was received: 05/06/2025

Dates of Testing: 05/06/2025~08/27/2025

3.1. Description of the EUT

A description as well as unambiguous identification of the EUT(s) tested. Where more than one sample is required for technical reasons (such as the use of connected units for the purpose of conducted output power testing where the product units will have integral antennas), each specific test shall identify which unit was tested.

Identification	
FCC ID:	2B0PDAIHS202888
Brief Description	RFID reader for Pressure Implant Monitoring
Model(s) #	AIHS-MU
Firmware version	dsPIC 5.24
Serial Number	60LB9268

Technical Characteristics	
Technology	13.56 MHz RFID Reader
Frequency Range	13.56 MHz
Modulation	CW
Number of Channels	1
Duty Cycle	100%
Voltage Rating (AC or Batt.)	12 VDC via power adaptor

Antenna Characteristics			
Antenna	Frequency Range MHz	Mode / BW	Antenna Gain
1	13.56	Transmit	0

- Note: Information such as antenna gain, firmware/software numbers are provided by manufacturer and cannot be validated by the test lab.

Operating conditions during Testing:

No modifications of the device under test (including firmware, specific software settings, and input/output signal levels to the EUT).

Peripherals used during Testing:

No peripherals used.

4. Test methods & Applicable Regulatory Limits

4.1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR):

Device Type	Frequency Band	Highest SAR Summary Body Separation 0mm 1g SAR (W/kg)	Result
RFID reader	13.56 MHz	1.38	PASS

Industrial Inspection & Analysis, Inc.

FCC site registration is under A2LA certificate # 0955.01

ISED Canada test site registration # 2056A

EU Notified Body # 1177

For all designations see A2LA scope # 0955.01

This device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg for Partial-Body 1g SAR) specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013 and FCC KDB publications.

4.2. Guidance Used:

The Specific Absorption Rate (SAR) testing specification, method, and procedure for this device is in accordance with the following standards, the below KDB standard may not include in the TAF code without accreditation.

- FCC 47 CFR Part 2 (2.1093)
- ANSI/IEEE C95.1-1992
- IEEE 1528-2013
- FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
- FCC KDB 865664 D02 SAR Reporting v01r02
- FCC KDB 447498 D01 General RF Exposure Guidance v06

5. RF Exposure Limits

5.1. Uncontrolled Environment

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 people 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 people in its vicinity.

5.2. Controlled Environment

Controlled Environments are defined as locations where there is exposure that may be incurred by people who are aware of the potential for exposure, (i.e. as a result of employment or occupation). In general, occupational/controlled exposure limits are applicable to situations in which people 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. The 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.

(W/kg)	Whole Body	Partial Body	Hands, Wrists, Feet and Ankles
Limits for Occupational/Controlled Exposure	0.4	8	20
Limits for General Population/Uncontrolled Exposure	0.08	1.6	4

Whole-Body SAR is averaged over the entire body, partial-body SAR is averaged over any 1gram of tissue defined as a tissue volume in the shape of a cube. SAR for hands, wrists, feet and ankles is averaged over 10 grams of tissue defined as a tissue volume in the shape of a cube.

6. Specific Absorption Rate (SAR)

6.1. Introduction

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.

6.2. 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:

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

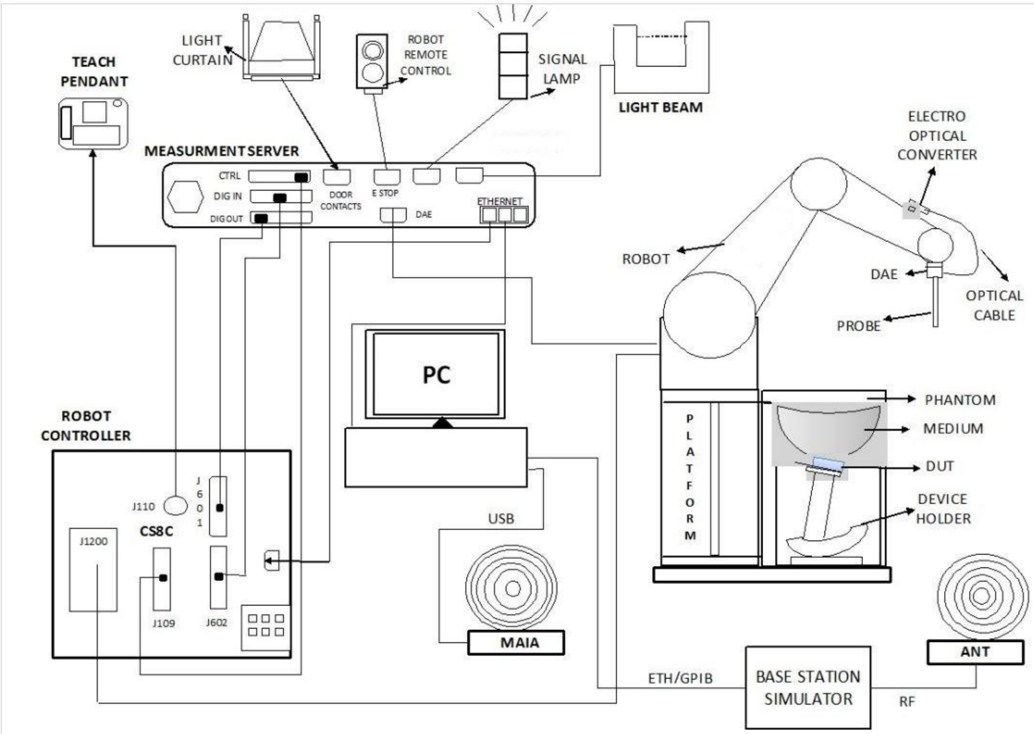
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

6.3. System Description and Setup

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



- The DASY system in SAR Configuration is shown above.
- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- 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 from optical to electrical signals for digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform critical tasks such as signal filtering, control of robot operation and fast movement interruptions.
- The Light Beam is used for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running windows software and DASY software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

6.4. E-Field Probe

The SAR measurement is conducted with the dosimetric probe (manufactured by SPEAG). 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. This probe has a built-in optical surface detection system to prevent collisions with phantoms.

EX3DV4 Probe

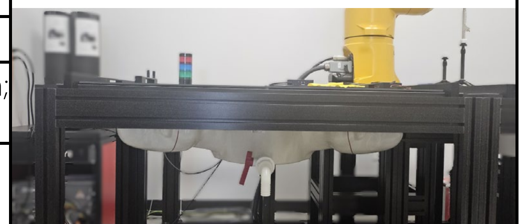
Construction	Symmetric design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	4 MHz – >6 GHz Linearity: ±0.2 dB (30 MHz – 6 GHz)	
Directivity	±0.3 dB in TSL (rotation around probe axis) ±0.5 dB in TSL (rotation normal to probe axis)	
Dynamic Range	10 µW/g – >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	

6.5. Data Acquisition Electronics (DAE)

The Data acquisition electronics (DAE) consists of a highly sensitive electrometer-grade preamplifier with auto zeroing, a channel and gain switching multiplexer, a fast 16-bit AD converter and a command decoder and control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information as well as an optical downlink for data and status information as well as an optical uplink for commands and the clock. The input impedance of the DAE is 200MOhm, the inputs are symmetrical and floating. Common mode rejection is above 80dB.

6.6. Phantom

SAM Twin Phantom

Shell Thickness	2 ± 0.2 mm. Center ear point: 6 ± 0.2 mm	
Filling Volume	Approx. 25 liters	
Dimensions	Length: 1000 mm; Width: 500 mm; Height: adjustable feet	
Measurement Areas	Left Hand, Right Hand, Flat Phantom	

The bottom plate contains three pairs 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.

ELI Phantom

Shell Thickness	2 ± 0.2 mm (sagging: <1%)	
Filling Volume	Approx. 30 liters	
Dimensions	Major ellipse axis: 600 mm Minor axis: 400 mm	

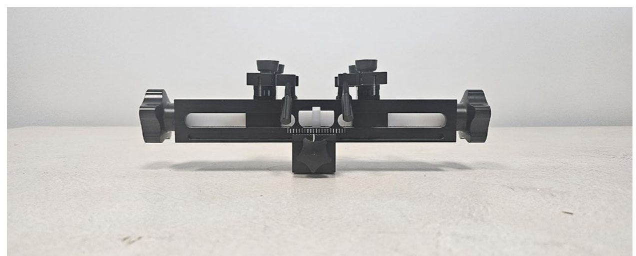
The ELI phantom is intended for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI4 is fully compatible with standard and all known tissue simulating liquids.

6.7. Device Holder

Mounting Device for Hand-Held Transmitter

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 be 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). And upgrade kit to Mounting Device to enable easy mounting of wider devices like big smart-phones, e-books, small tablets, etc. It holds devices with widths up to 140 mm.

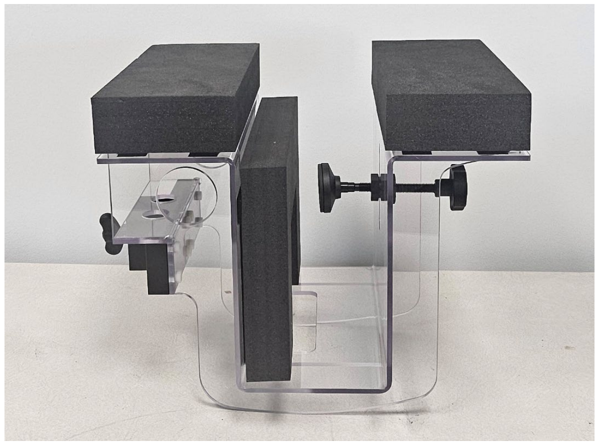
Mounting Device for Hand-Held Transmitters



Mounting Device Adaptor for Wide-Phones

Mounting Device for Laptops and other Body-Worn Transmitters

The extension is lightweight and made of POM, acrylic glass and foam. It fits easily on the upper part of the mounting device in place of the phone positioned. The extension is fully compatible with the SAM Twin and ELI phantoms.



Mounting Device for Laptops

6.8. Phantom & Simulating Tissue Specifications

Head & Body Simulating Mixture Characterization

The head and body mixtures consist of the material based on the table listed below. The mixture is calibrated to obtain proper dielectric constant (permittivity) and conductivity of the desired tissue. Body tissue parameters that have not been specified in P1528 are derived from the tissue dielectric parameters computed from the 4-Cole-Cole equations.

Typical Composition of Ingredients for Tissue

Ingredients (Mixing Percentage)	Simulating Tissue		
	450 MHz Head	600 MHz Head	900 MHz Head
Water	Proprietary Mixture Procured from SPEAG		
Sugar			
Salt			
HEC			
Bactericide			
DGBE			
Dielectric Constant	43.5	42.72	41.5
Conductivity (S/m)	0.87	0.88	0.97

7. Measurement Procedures

The measurement procedures are as follows:
(a) Place the EUT in the positions as Annex B demonstrates.
(b) Set scan area, grid size and other setting on the DASY software.
(c) Measure SAR results for the highest power channel on each testing position.
(d) Find out the largest SAR result on these testing positions of each band.
(e) Measure SAR results for other channels in the worst SAR testing position if the reported SAR of highest power channel is larger than 0.8 W/kg.

According to the test standard, the recommended procedure for assessing the peak spatial-average SAR value consists of the following steps:

(a) Power reference measurement
(b) Area scan
(c) Zoom scan.
(d) Power drift measurement

7.1. Spatial Peak SAR Evaluation

The procedure for spatial peak SAR evaluation has been implemented according to the test standard. It can be conducted for 1g and 10g, as well as for user-specific masses. The DASY software includes all numerical procedures necessary to evaluate the spatial peak SAR value.

The basis for the evaluation is a "cube" measurement. The measured volume must include the 1g and 10g cubes with the highest average SAR values. For that purpose, the center of the measured volume is aligned to the interpolated peak SAR value of a previously performed area scan.

The entire evaluation of the spatial peak values is performed within the post-processing engine (SEMCAD). The system always gives the maximum value for the 1g and 10g cubes. The algorithm to find the cube with highest average SAR is divided into the following stages:

(a) Extraction of the measured data (grid and values) from the Zoom Scan
(b) Calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
(c) Generation of a high-resolution mesh within the measured volume
(d) Interpolation of all measured values form the measurement grid to the high-resolution grid.
(e) Extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
(f) Calculation of the average SAR within masses of 1g and 10g

7.2. 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. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

7.3. Scans

7.3.1. 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 DASY software can find the maximum found in the scanned area, within a range of the global maximum. The range (in dB0 is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE standard 1528 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan), 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 parameters extracted from FCC KDB 865664 D01v01r04 SAR measurement 100 MHz to 6 GHz.

<table>
<tr><th>Parameter</th><th>≤ 3 GHz</th><th>> 3 GHz</th></tr>
<tr><td>Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface</td><td>5 ± 1 mm</td><td>$\frac{1}{2}\cdot\delta\cdot\ln(2) \pm 0.5$ mm</td></tr>
<tr><td>Maximum probe angle from probe axis to phantom surface normal at the measurement location</td><td>30° ± 1°</td><td>20° ± 1°</td></tr>
<tr><td rowspan="3">Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}</td><td>≤ 2 GHz: ≤ 15 mm</td><td>3 – 4 GHz: ≤ 12 mm</td></tr>
<tr><td>2 – 3 GHz: ≤ 12 mm</td><td>4 – 6 GHz: ≤ 10 mm</td></tr>
<tr><td colspan="2">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.</td></tr>
</table>

7.3.2. Zoom Scan

Zoom scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 gram and 10 gram of simulated tissue. The zoom scan measures points (refer to table below) within a cube shoes 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 average SAR for 1 gram and 10 gram and displays these values next to the job's label.

Zoom scan parameters extracted from FCC KDB 865664 D01v01r04 SAR measurement 100 MHz to 6 GHz.

Parameter			≤ 3 GHz	> 3 GHz
Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}			≤ 2 GHz: ≤ 8 mm	3 – 4 GHz: ≤ 5 mm*
			2 – 3 GHz: ≤ 5 mm*	4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	Uniform grid: ΔzZoom(n)		≤ 5 mm	3 – 4 GHz: ≤ 4 mm
				4 – 5 GHz: ≤ 3 mm
				5 – 6 GHz: ≤ 2 mm
	Graded Grid	— ΔzZoom(1): between first two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm
				4 – 5 GHz: ≤ 2.5 mm
				5 – 6 GHz: ≤ 2 mm
		— ΔzZoom(n>1): between subsequent points	≤ 1.5·Δz_{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
Notes: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.				
*When zoom scan is required and the reported SAR from the area scan based 1-g SAR estimation procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for: 2 GHz to 3 GHz, 3 GHz to 4 GHz, and 4 GHz to 6 GHz				

7.3.3. Volume Scan Procedures

The volume scan is used to assess overlapping SAR distributions for antennas transmitting in different frequency bands. It is equivalent to an oversized zoom scan used in standalone measurements. The measurement volume will be used to enclose all the simultaneous transmitting antennas. For antennas transmitting simultaneously in different frequency bands, the volume scan is measured separately in each frequency band. In order to sum up correctly to compute the 1g aggregate SAR, the EUT remain in the same test position for all measurements and all volume scan use the same spatial resolution and grid spacing. When all volume scans were completed, the software, SEMCAD postprocessor can combine and subsequently superpose these measurement data to calculate the multiband SAR.

7.4. Power Drift Monitoring

All SAR testing is under the EUT install full charged battery and transmit maximum output power. In DASY measurement software, the power reference measurement and power drift measurement procedures are used for monitoring the power drift of EUT during SAR test. Both these procedures measure the field at a specified reference position before and after the SAR testing. The software will calculate the field difference in dB. If the power drifts more than 5%, the SAR will be retested.

8. List of Test Equipment

Test Equipment						
Type	Device	Manufacturer	Model	SN#	Current Cal	Cal Due
Vector Network Analyzer	N/A	Cooper D2450V2	929	N/A	11/19/2024	11/19/2027
DAE4ip	Data acquisition electronics	SPEAG	SD000D14 AG	1907	05/05/2025	05/05/2026
Open-ended Coaxial probe	Dielectric parameter probes	DAK	DAKS-3.5	1177	4/22/2024	4/22/2027
Open-ended Coaxial probe	Dielectric parameter probes	DAK	DAKS-12	1056	4/24/2024	4/24/2027
E-field Probes	E-field Probes	SPEAG	EX3DV4	7871	05/05/2025	05/05/2026
Dipole	Semirigid Coaxial cable	SPEAG	CLA-13	1045	04/08/2024	4/2/2027
Reflectometer	Planar R60	Cooper Mountain Technologies	R60	24043108	4/22/2024	4/22/2027
Verification kit	Verification Kit	DAK	TSL HU16	SL-AAH U16BC 2404120	4/12/2024	4/12/2027
Liquid	Head/Shoulder simulating liquid	SPEAG	TSL	D450V3-1127	4/23/2024	4/23/2027
Receiver	EMI Test Receiver R&S ESW44	Rohde & Schwarz	ESW44	103049	10/13/2022	10/12/2025
Digital Thermometer	Thermocouples	LKMelectronic	DTM3000-spezial	N/A	4/1/2024	4/1/2027

The FCC permits an extended calibration of up to three years for dipoles: Extended calibration data found in annex D

- They must have no physical damage.
- They must exhibit a return loss of < -20 dB.
- The return loss must be within 20% of the last calibration value.
- The impedance must be within 5 ohms of the last calibration value.

Software			
Software	Author	Version	Validation on
ESU Firmware	Rohde & Schwarz	4.43 SP3; BIOS v5.1-24-3	2018
RSCommander	Rohde & Schwarz	1.6.4	2014
ScopeExplorer	LeCroy	v2.25.0.0	2009
Field Strength	Timco	v4.10.7.0	2016
DASY8 Module SAR	SPEAG	V16.2.4.2524	2024
DAKS	DAK	V3.0.6.14	2024

9. Environmental Conditions

Temperature & Humidity

Measurements performed at the test site did not exceed the following:

Parameter	Measurement
Temperature	21 C ± 2℃
Humidity	55% +/- 5%
Barometric Pressure	30.05 in Hg
Note: Specific environmental conditions that are applicable to a specific test are available in the test result section.	

13146 NW 86th Drive, Suite 400, Alachua, Florida 32615
(352) 472-5500 / testing@industrial-ia.com

System Verification

9.1. Tissue Verification

The tissue dielectric parameters of tissue-equivalent media used for SAR measurements must be characterized within a temperature range of 18℃ to 25℃, measured with calibrated instruments and apparatuses, such as network analyzers.

and temperature probes. The temperature of the tissue-equivalent medium during SAR measurement must also be within 18℃ to 25℃ and within ± 2℃ of the temperature when the tissue parameters are characterized. The tissue dielectric measurement system must be calibrated before use. The dielectric parameters must be measured before the

tissue-equivalent medium is used in a series of SAR measurements.

The liquid tissue depth was at least 15cm in the phantom for all SAR testing.

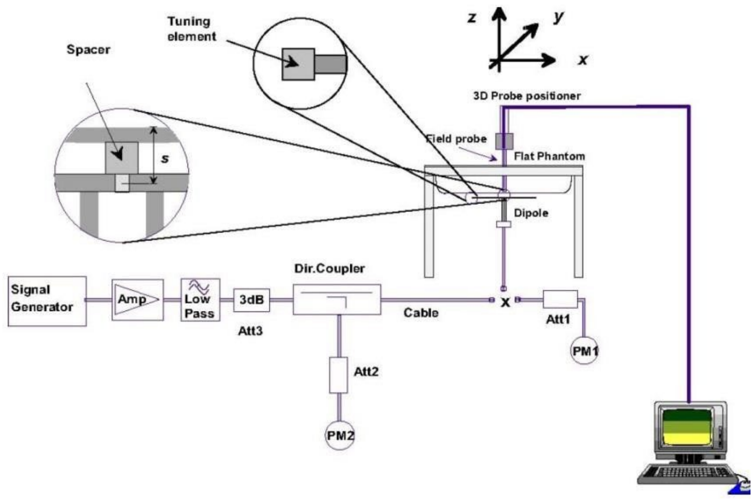
Tissue Dielectric Parameter Check Results

Frequency	Temp	Permittivity ε'		Delta	Conductivity σ (S/m)		Delta	Date
(MHz)	(℃+/-2)	Measured	Target	+/-5%	Measured	Target	+/-5%	
10	21	52.60	55.00	-4.36	0.78	0.75	4.00	8/27/2025
15	21	52.90	55.00	-3.82	0.78	0.75	4.13	8/27/2025
20	21	53.20	55.00	-3.27	0.78	0.75	4.27	8/27/2025

9.2. System Performance Check Results

Compared to the original SAR value provided by SPEAG, the verification data should be within its specification of 10 %. Below table shows the target SAR and measured SAR after normalized to 1W input power. The table below indicates the system performance check can meet the variation criteria and the plots can be referred to Annex C of this report.

Date	Frequency	Dipole	Probe	Measured				Target		Delta		Input Power (dBm)	Plot no
				Measured		scaled to 1 W		Normalized at 1W		(+/-10%)			
	(MHz)			1g	10g	1g	10g	1g	10g	1g	10g		
8/27/2025	13	CLA-13 - SN1045	EX3DV4	0.011	0.007	0.45	0.29	0.453	0.281	-1.08	1.48	13.9	1



System Performance Check Setup

Setup Photo

10. Output Power

Output Power			
Tuned Frequency (MHz)	Power Output (dBm)	Power Output (W)	Duty Cycle %
13.56	6	0.004	100%

10.1. Test Reduction table.

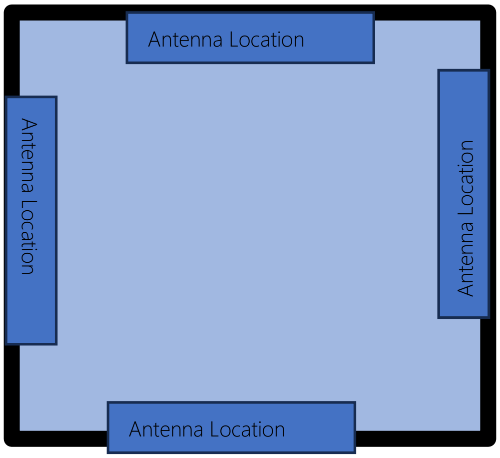
Frequency	Side	Tested/ Reduced
13.56 MHz	Back	Tested
	Edge left	Tested
	Edge Right	Tested
	Top	Tested
	Front	Tested

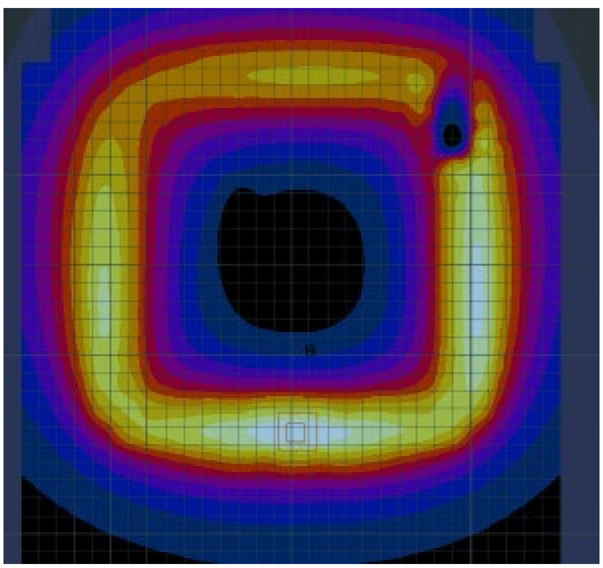
Reduced- When Reported SAR ≤0.8 W/kg, SAR is not required for the remaining test configuration per KDB 447495 D01 v06.

11. Antenna Location

Front View

Top





The Antena is located on the side of the device

Distance of the Antenna To the EUT surface/edge and Hotspot mode

Hotspot	Back	Front	Top	Bottom	Right Side	Left side
	≤25 mm	≤25 mm	≥25 mm	≤25 mm	≥25 mm	≥25 mm
	Yes	Yes	Yes	No	Yes	Yes

12. SAR Test Results

General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
   a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
   b. For SAR testing of WLAN signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
   c. For WLAN/Bluetooth: Reported SAR(W/kg) = Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the *reported* 1-g or 10-g SAR for the mid-band or highest output power channel is:
   - ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz.
   - ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
   - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz.
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥0.8W/kg.

12.1. Body SAR Measurements

Plot no	Frequency MHz	Test Position	Gap	Avg output power		Duty Factor	Tune- up limit		Tune-up	Power drift	Measured SAR	Reported SAR
			mm	dBm	(W)		dBm	(W)	Scaling Factor	(dB)	1g (W/Kg)	1g (W/Kg)
2	13.56	Front	0	6	0.004	100	7	0.005	1.26	-0.010	0.786	0.990
3	13.56	Back	0	6	0.004	100	7	0.005	1.26	-0.120	0.866	1.090
4	13.56	Edge Left	0	6	0.004	100	7	0.005	1.26	-0.050	1.100	1.385
5	13.56	EDGE Right	0	6	0.004	100	7	0.005	1.26	-0.070	1.060	1.334
6	13.56	Top	0	6	0.004	100	7	0.005	1.26	-0.030	0.978	1.231

1g extremity SAR is required.
The distance between the device and the phantom is 0mm.

12.2. Uncertainty Assessment

Per KDB 865664 D01 SAR measurement 100MHz to 6GHz, 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 Std 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 3.75W/kg. Therefore, the measurement uncertainty table is not required in this report.

Declaration of Conformity:
The test results with all measurement uncertainty excluded is presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:
The declared product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibility for the accuracy of product specification.

13. References

[1] FCC 47 CFR Part 2 "Frequency Allocations and Radio Treaty Matters; General Rules and Regulations"

[2] ANSI/IEEE Std. C95.1-1992, "IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz", September 1992

[3] IEEE Std. 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", Sep 2013

[4] FCC KDB 447498 D01 v06, "Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies", Oct 2015

[5] FCC KDB 865664 D01 v01r04, "SAR Measurement Requirements for 100 MHz to 6 GHz", Aug 2015.

[6] FCC KDB 865664 D02 v01r02, "RF Exposure Compliance Reporting and Documentation Considerations" Oct 2015.

[7] SPEAG DASY System Handbook

14. ANNEX-B – Test Setup Photographs

Test setup photographs are located in a separate supplementary ANNEX-B document.

15. ANNEX-C – Plots

Test plots are located in a separate supplementary ANNEX-C document.

16. ANNEX-D – Calibration Certificates

Calibration certificates are located in a separate supplementary ANNEX-D document.

17. History of Test Report Changes

Test Report #	Revision #	Description	Date of Issue
TR_20778-25_FCC SAR Report_	1	Initial release	06/24/2025
	2	Changes to pages 19-25	07/22/2025
	3	Changes to pages 19-25	08/28/2025

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END OF TEST REPORT