

WPT RF EXPOSURE EVALUATION TEST REPORT**Applicant Name:**

BH EVS Co., Ltd.
5, Magokjungang 8-ro 5-gil,
Gangseo-gu, Seoul,
07794 Republic of Korea

Date of Testing:

3/18/2025 – 3/28/2025

Test Site/Location:

Element Washington DC LLC,
Columbia, MD, USA

Test Report Serial No.:

1M2503170029-08-R1.2A6WX

Date of Issue:

5/13/2025

FCC ID: 2A6WXWCNIS31SS

APPLICANT: BH EVS CO., LTD.


Apparatus/Device:	Wireless Charger
Application Type:	Certification
Model:	WCNIS31S
Device Serial No.:	Pre-production Sample [SN: Sample 1]
FCC Specification(s):	FCC 47 CFR Part 2.1093 KDB 680106 D01

	Thermal
	Basic Restriction
	Peak Spatial SAR (W/kg)
WPT	<0.01
FCC Limit	1.6
Tested Distance	0mm
VERDICT	Pass

Note: This revised Test Report (S/N: 1M2503170029-08-R1.2A6WX) supersedes and replaces the previously issued test report on the same subject device for the same type of testing as indicated. Please discard or destroy the previously issued test report(s) and dispose of it accordingly.

The device bearing the identifier specified above has been shown to comply with the applicable technical standards as indicated in the measurement report and has been tested in accordance with the measurement procedures specified in FCC 47 CFR Part 2.1093 and KDB 680106 D01 v03r01. These measurements were performed with no deviation from the standards. Test results reported herein relate only to the item(s) tested.

I authorize and attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.



R1 Ortañez
Executive Vice President




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APPENDIX A: RF EXPOSURE TEST PLOTS

APPENDIX B: TEST SETUP PHOTOGRAPHS

APPENDIX C: CALIBRATION CERTIFICATE

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1 DEVICE UNDER TEST

1.1 Device Overview

Table 1-1
WPT Specifications

Item	Description
Mode(s) Evaluated	Object Detection (Standby) WPT Charging – BPP (Base Power Profile)* WPT Charging – EPP (Extended Power Profile) WPT Charging – MPP (Magnetic Power Profile)
Operating Frequency	80-360kHz
Maximum Tx Power	15W
Modulation/Protocol	ASK
Maximum Duty Cycle	100%
# of Coil Turns	11
Tx Coil Diameter	20.5mm (Inner) / 40mm (Outer)

*Note: BPP charging mode was evaluated but not tested, as the EPP charging mode operated at a higher power level. Additional operational details can be found in the operational description document.

Power down time (ms) was measured ten times across 3 different handset clients. The average power time was determined to be under 1 second.

단위 : ms


MD	1	2	3	4	5	6	7	8	9	10	AVG
Galaxy S24	943	957	964	943	955	905	965	967	920	911	943
iPhone 16 Pro Max	977	915	879	977	949	853	879	915	953	922	921.9
Galaxy S21	951	886	969	939	927	971	957	964	954	947	946.5



Figure 1-1 WPT Load Removal Power Down




Figure 1-2 WPT Occupied Bandwidth

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2 MEASUREMENT SYSTEM

2.1 DASY6/8 Module WPT V2.6+

System	DASY6/8 Module WPT is composed of the isotropic probe MAGPy-8H3D+E3D Version 2, the reference probe (MAGPy-RAφ), and the data acquisition system (MAGPy-DAS) mounted to the DASY6/8 robot via the emergency stop (MAGPy-ES). It measures the incident electric (E-) and magnetic (H-) fields in a volume from the surface of the device under test (DUT) using advanced field reconstructions to obtain a high-resolution (mm range) field distribution. The induced E-field distributions and specific absorption rate (SAR) are assessed with Sim4Life's Quasi-Static EM Solver (P-EM-QS) using only the measured data. At each probe location, eight sets of isotropic H-field values and one set of isotropic E-field values are acquired in parallel. The dedicated graphical user interface (GUI) fully automates the testing workflow.
Applications	Laboratory evaluation of WPT systems and any other local electromagnetic source not requiring magnetic (H-) field volume scans exceeding 2000 mm × 1000 mm × 1500 mm: <ul style="list-style-type: none"> Assessment of high-resolution H-field distribution (3 kHz – 10 MHz) Assessment of high-resolution E-field distribution (3 kHz – 10 MHz) Determination of the induced field and SAR distribution in the standard phantom (3 kHz – 4 MHz) Demonstration of compliance (3 kHz – 4 MHz) with international standards and national regulations, e.g., IEC PAS 63184, FCC KDB 680106 D01, ISED Canada SPR-002
Basic Components	The basic components of DASY6/8 Module WPT are: <ul style="list-style-type: none"> Platform and DASY6/8 TX-90XL or TX2-90XL Robot DASY6/8 Measurement Server EOC8 Light-Beam Unit Quick Adapter Change System (QACSV1) DASY6/8 PC
MAGPy-DAS	The MAGPy-DAS includes: <ul style="list-style-type: none"> 27 14-bit ADC channels with 25 MSPs Peak detection stage Hardware supervising unit Data transfer to the backend 22 tap FIR filter
MAGPy-8H3D+E3D V2	The MAGPy-8H3D+E3D probe consists of eight isotropic H-field sensors and one isotropic E-field sensor: Probe design: <ul style="list-style-type: none"> Probe length: 335 mm Probe tip diameter: 60 mm 8H3D: eight isotropic 1 cm²-H-field sensors, arranged at the corners of a 22 mm cube First H-field sensor plane: 7.5 mm from the probe tip E3D: one isotropic E-field sensor (dipole/monopole) Sensor specifications: <ul style="list-style-type: none"> Frequency range: 3 kHz – 10 MHz H-field dynamic range: 0.1 A/m – 3200 A/m (0.12 μT – 4 mT) H-field extrapolation uncertainty: 0.6 dB (k = 2) E-field dynamic range: 0.08 V/m – 2000 V/m

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MAGPy-RAϕV2	Specifications of the MAGPy-RA ϕ reference amplitude and phase probe: <ul style="list-style-type: none"> • Frequency range: 3 kHz – 10 MHz • Dynamic range: 0.1 A/m – 3200 A/m (0.12 μT – 4 mT) • Loop coil area: 18.9 cm² • Sensor size: 51 mm \times 51 mm \times 0.2 mm
Software	Software components: <ul style="list-style-type: none"> • DASY6/8 Module WPT application programming interface (API) • WPT backend • Jupyter Notebook GUI • Sim4Life plugin (vector potential reconstruction, P-EM-QS solver)



Figure 2-1
DASY 6/8 Module WPT V2.6+ Test System

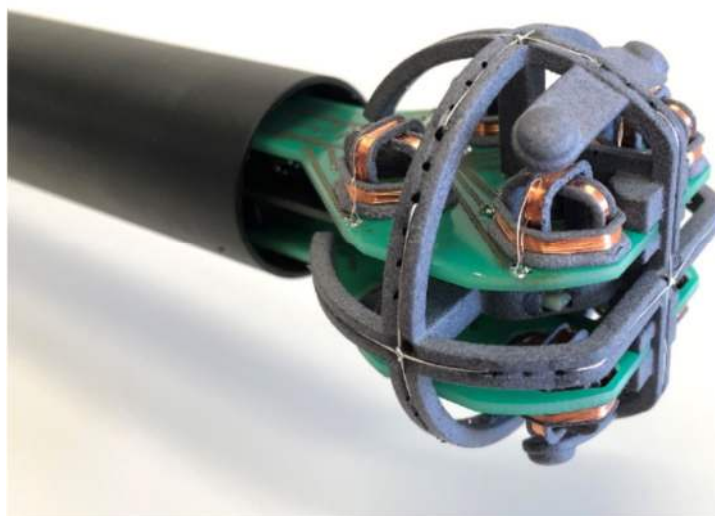



Figure 2-2
MAGPy-8H3D+E3 V2 Measurement Probe

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3 MEASUREMENT PROCEDURE

3.1 Measurement Procedure

Direct measurement (per FCC 47 CFR Part 2.1093 and KDB 680106 D01) against the basic restrictions was employed for this report.

3.2 Measurement Distance

The measurement distance (spacing) is the manufacturer's declared separation distance obtained via information in the user manual. This shall be measured as the distance from the edge of the device to the edge of the measurement probe.

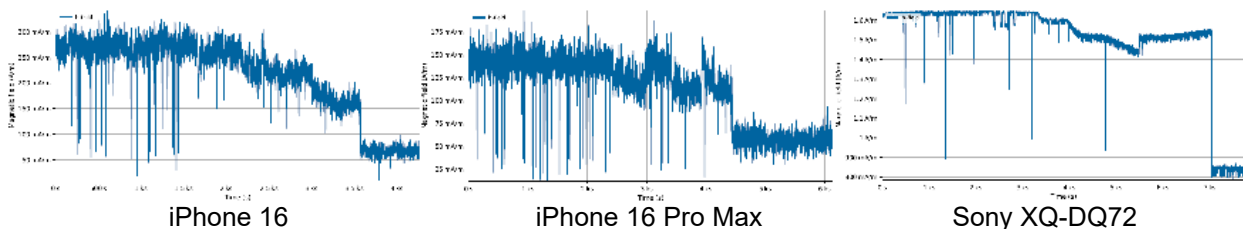
The DUT will be installed in accordance with the manufacturer's specified installation guidelines within a vehicle. All testing for compliance was performed with a 0mm separation distance to account for the full range of possible installation configurations. This conservative approach serves as an overestimate of the expected exposure levels.

3.3 Load Device Information

Table 3-1
WPT Load Devices

DUT Operating Mode Tested	RX Device	S/N
Object Detection (Standby)	N/A	N/A
WPT Charging – EPP (Extended Power Profile)	Sony XQ-DQ72	QV77002NJ4
WPT Charging – MPP (Magnetic Power Profile)	iPhone 16 (RX1)	H5KF4VC3QN
	iPhone 16 Pro Max (RX2)	KJ5411J7Y7

The RX devices listed above were utilized to configure the DUT according to the specified charge profile, while encompassing a range of form factors compatible with the DUT. An investigation was carried out on each RX device to determine the worst-case battery state to be used for testing.




The max charging rate was observed at a low battery level (<20%) and was used for all testing.

3.4 Measurement Personnel

All measurements in this report were performed by the following personnel:

Test Engineer: Justin DeVos

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4 RF EXPOSURE LIMITS

4.1 Limits for Maximum Permissible Exposure

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(i) LIMITS FOR OCCUPATIONAL/CONTROLLED EXPOSURE				
0.3-3.0	614	1.63	*(100)	≤6
3.0-30	1842/f	4.89/f	*(900/f ²)	<6
30-300	61.4	0.163	1.0	<6
300-1,500			f/300	<6
1,500-100,000			5	<6
(ii) LIMITS FOR GENERAL POPULATION/UNCONTROLLED EXPOSURE				
0.3-1.34	614	1.63	*(100)	<30
1.34-30	824/f	2.19/f	*(180/f ²)	<30
30-300	27.5	0.073	0.2	<30
300-1,500			f/1500	<30
1,500-100,000			1.0	<30

f = frequency in MHz. * = Plane-wave equivalent power density.


(1) Occupational/controlled exposure limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. The phrase fully aware in the context of applying these exposure limits means that an exposed person has received written and/or verbal information fully explaining the potential for RF exposure resulting from his or her employment. With the exception of transient persons, this phrase also means that an exposed person has received appropriate training regarding work practices relating to controlling or mitigating his or her exposure. In situations when an untrained person is transient through a location where occupational/controlled limits apply, he or she must be made aware of the potential for exposure and be supervised by trained personnel pursuant to § 1.1307(b)(2) of this part where use of time averaging is required to ensure compliance with the general population exposure limit. The phrase exercise control means that an exposed person is allowed and also knows how to reduce or avoid exposure by administrative or engineering work practices, such as use of personal protective equipment or time averaging of exposure.

(2) General population/uncontrolled exposure limits apply in 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 fully aware of the potential for exposure or cannot exercise control over their exposure. For example, RF sources intended for consumer use shall be subject to the limits for general population/uncontrolled exposure in this section.

4.2 Limits for Peak Spatial SAR

The SAR limits for general population/uncontrolled exposure are 0.08 W/kg, as averaged over the whole body, and a peak spatial-average SAR of 1.6 W/kg, averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the parts of the human body treated as extremities, such as hands, wrists, feet, ankles, and pinnae, where the peak spatial-average SAR limit is 4 W/kg, averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube). Exposure may be averaged over a time period not to exceed 30 minutes to determine compliance with general population/uncontrolled SAR limits.

**An evaluation against the limits for peak spatial SAR shall be performed when the DUT exceeds the limits for maximum permissible exposure.

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5 SYSTEM CHECK

Prior to testing, a system check was performed to verify that the test system operates as expected and measures RF exposure accurately. A known E-field/H-field source was used to verify readings of the measurement probe to $\pm 1.24\text{dB}$ of the known fields. A virtual half-space phantom with tissue properties $\epsilon_r = 55$, $\sigma = 0.75\text{S/m}$, $\rho = 1000\text{kg/m}^3$.

5.1 System Check

Table 5-1
System Check – 3/18/2025

Test Date	Frequency	Distance	Value	Incident H-Field (A/m)	Induced Peak Current Density (A/m ² , RMS)	Induced Peak E-field (V/m)			Peak Spatial SAR (mW/kg)	
						Cube Avg.	Local	Line Avg.	1g Avg.	10g Avg.
3/18/2025	85kHz	0	Measurement	205	2.31	3.29	3.33	3.34	6.28	4.67
			Deviation (dB)	-0.41	-0.37	-0.36	-0.36	-0.36	-0.31	-0.28
		2	Measurement	185	2.18	3.1	3.13	3.14	5.62	4.23
			Deviation (dB)	-0.50	-0.31	-0.33	-0.33	-0.33	-0.29	-0.27
3/18/2025	400kHz	0	Measurement	274	2.78	4.42	4.54	4.55	7.37	3.56
			Deviation (dB)	0.10	0.22	0.30	0.29	0.33	0.05	-0.07
		2	Measurement	240	2.34	3.79	3.9	3.92	5.32	2.62
			Deviation (dB)	0.07	0.07	0.21	0.18	0.25	-0.02	-0.11


* A virtual half-space phantom with tissue properties $\epsilon_r = 55$, $\sigma = 0.75\text{S/m}$, $\rho = 1000\text{kg/m}^3$ was used to calculate the results in Table 5-1 and Table 5-2.

Table 5-2
Equipment List

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
SPEAG	V-COIL350/85	85kHz MAGPy System Validation Source	8/26/2024	Annual	8/26/2025	1031
SPEAG	V-COIL50/400	400kHz MAGPy System Validation Source	8/28/2024	Annual	8/28/2025	1030
SPEAG	MAGPy-H3D / MAGPy-DAS	Magnetic Amplitude and Gradient Probe and Data Acquisition System	8/13/2024	Annual	8/13/2025	3116



Figure 5-1
System Check Setup Photo

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6

DATA SUMMARY

6.1 Test Data

Frequency (kHz)	Distance (mm)	Incident H-field (A/m)						Limit (A/m)
		EUT Sides						
		Top	Bottom	Left	Right	Front	Back	
83	0	0.595	0.574	1.730	1.200	223.000	0.336	1.63
83	2	0.518	0.484	1.510	1.060	194.000	0.288	1.63

Table 6-1. Standby (Ping) Incident H-Field**

Frequency (kHz)	Distance (mm)	Incident E-field (V/m)						Limit (V/m)
		EUT Sides						
		Top	Bottom	Left	Right	Front	Back	
83	0	0.205	0.204	0.278	0.340	40.800	0.134	614
83	2	0.207	0.200	0.263	0.314	36.600	0.133	614

Table 6-2. Standby (Ping) Incident E-Field

Frequency (kHz)	Distance (mm)	SAR (mW/kg)						Limit (W/kg)
		EUT Sides						
		Top	Bottom	Left	Right	Front	Back	
83	0	0.00001	0.00001	0.00005	0.00002	0.07410	0.00001	1.6
83	2	0.00001	0.00000	0.00004	0.00002	0.05170	0.00001	1.6

Table 6-3. Standby (Ping) SAR

Frequency (kHz)	Distance (mm)	Incident H-field (A/m)						Limit (A/m)
		EUT Sides						
		Top	Bottom	Left	Right	Front	Back	
128	0	0.831	0.719	2.930	4.650	5.720	1.210	1.63
128	2	0.754	0.638	2.650	4.090	5.050	1.060	1.63

Table 6-4. EPP Incident H-Field**


Frequency (kHz)	Distance (mm)	Incident E-field (V/m)						Limit (V/m)
		EUT Sides						
		Top	Bottom	Left	Right	Front	Back	
128	0	38.800	64.200	11.700	8.460	104.000	6.090	614
128	2	35.200	58.000	11.100	8.170	94.100	5.860	614

Table 6-5. EPP Incident E-Field

Frequency (kHz)	Distance (mm)	SAR (mW/kg)						Limit (W/kg)
		EUT Sides						
		Top	Bottom	Left	Right	Front	Back	
128	0	0.00006	0.00005	0.00034	0.00086	0.00124	0.00022	1.6
128	2	0.00006	0.00004	0.00029	0.00072	0.00109	0.00020	1.6

Table 6-6. EPP SAR

**An evaluation against the limits for peak spatial SAR shall be performed when the DUT exceeds the limits for maximum permissible exposure.

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Frequency (kHz)	Distance (mm)	Incident H-field (A/m)						Limit (A/m)
		EUT Sides						
		Top	Bottom	Left	Right	Front	Back	
360	0	0.333	0.558	0.742	1.090	0.937	0.263	1.63
360	2	0.295	0.498	0.637	0.964	0.813	0.193	1.63

Table 6-7. MPP (RX1) Incident H-Field

Frequency (kHz)	Distance (mm)	Incident E-field (V/m)						Limit (V/m)
		EUT Sides						
		Top	Bottom	Left	Right	Front	Back	
360	0	87.800	79.900	20.900	13.800	188.000	3.740	614
360	2	79.400	72.900	20.000	13.400	168.000	3.600	614

Table 6-8. MPP (RX1) Incident E-Field

Frequency (kHz)	Distance (mm)	SAR (mW/kg)						Limit (W/kg)
		EUT Sides						
		Top	Bottom	Left	Right	Front	Back	
360	0	0.00009	0.00018	0.00012	0.00014	0.00039	0.00003	1.6
360	2	0.00008	0.00016	0.00012	0.00012	0.00031	0.00002	1.6

Table 6-9. MPP (RX1) SAR

Frequency (kHz)	Distance (mm)	Incident H-field (A/m)						Limit (A/m)
		EUT Sides						
		Top	Bottom	Left	Right	Front	Back	
360	0	0.202	0.654	0.806	1.470	0.648	0.188	1.63
360	2	0.176	0.552	0.734	1.270	0.566	0.152	1.63


Table 6-10. MPP (RX2) Incident H-Field

Frequency (kHz)	Distance (mm)	Incident E-field (V/m)						Limit (V/m)
		EUT Sides						
		Top	Bottom	Left	Right	Front	Back	
360	0	62.900	122.000	26.100	15.400	118.000	8.650	614
360	2	56.900	110.000	24.900	14.700	107.000	8.310	614

Table 6-11. MPP (RX2) Incident E-Field

Frequency (kHz)	Distance (mm)	SAR (mW/kg)						Limit (W/kg)
		EUT Sides						
		Top	Bottom	Left	Right	Front	Back	
360	0	0.00005	0.00024	0.00014	0.00022	0.00017	0.00003	1.6
360	2	0.00004	0.00021	0.00013	0.00018	0.00014	0.00003	1.6


Table 6-12. MPP (RX2) SAR

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Frequency (kHz)	Distance (mm)	Worst Case Evaluation at 15cm		
		Incident H-Field	Incident E-Field	SAR
83	150	0.33200	0.29400	0.00000

Table 6-13. Worst Case Evaluation at 15cm*

*Note: Compliance at 0 mm separation distance was demonstrated using test equipment capable of accurately evaluating SAR below 4 MHz. In addition, electric (E) and magnetic (H) field measurements were evaluated against MPE reference levels at 15cm to demonstrate compliance.

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7 INFORMATIVE MEASUREMENT UNCERTAINTY

7.1 Uncertainty Budget of Peak Incident H-Field

DASY6 Uncertainty Budget for Peak Incident <i>H</i> -field according to IEC/IEEE 63184						
Item	Error Description	Unc. Value (±dB)	Probab. Distr.	Div.	(c_i)	Std. Unc. (±dB)
Measurement system						
1	Amplitude calibration uncertainty	0.35	N	1	1	0.35
2	Probe anisotropy	0.6	R	$\sqrt{3}$	1	0.35
3	Probe dynamic linearity	0.2	R	$\sqrt{3}$	1	0.12
4	Probe frequency domain response	0.3	R	$\sqrt{3}$	1	0.17
5	Probe frequency linear interp. fit	0.15	R	$\sqrt{3}$	1	0.09
6	Spatial averaging	0.1	R	$\sqrt{3}$	1	0.06
7	Parasitic E-field sensitivity	0.1	R	$\sqrt{3}$	1	0.06
8	Detection limit	0.15	R	$\sqrt{3}$	1	0.09
9	Readout electronics	0	N	1	1	0
10	Probe positioning	0.19	N	1	1	0.19
11	Repeatability	0.1	N	1	1	0.10
12	Surface field reconstruction	0.3	N	1	1	0.3
Combined uncertainty ($k = 1$)						0.67
Expanded uncertainty ($k = 2$)						1.33 (16.6%)


7.2 Uncertainty Budget of Peak Incident E-Field

DASY6 Uncertainty Budget for Incident <i>E</i> -field according to IEC/IEEE 63184						
Item	Error Description	Unc. Value (±dB)	Probab. Distr.	Div.	(c_i)	Std. Unc. (±dB)
Measurement system						
1	Amplitude calibration uncertainty	0.53	N	1	1	0.53
2	Probe anisotropy	0.8	R	$\sqrt{3}$	1	0.46
3	Probe dynamic linearity	1	R	$\sqrt{3}$	1	0.58
4	Probe frequency domain response	0.3	R	$\sqrt{3}$	1	0.17
5	Probe frequency linear interp. fit	0.15	R	$\sqrt{3}$	1	0.09
6	Parasitic H-field sensitivity	0.2	R	$\sqrt{3}$	1	0.12
7	Detection limit	0.15	R	$\sqrt{3}$	1	0.09
8	Readout electronics	0	N	1	1	0
9	Repeatability	0.1	N	1	1	0.10
Combined uncertainty ($k = 1$)						0.95
Expanded uncertainty ($k = 2$)						1.89 (24.4%)

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7.3 Uncertainty Budget of Cube Average E_{ind}

DASY6 Uncertainty Budget for Peak $2 \times 2 \times 2 \text{ mm}^3$ Cube-Average E_{ind} according to IEC/IEEE 63184						
Item	Error Description	Unc. Value ($\pm \text{dB}$)	Probab. Distr.	Div.	(c_i)	Std. Unc. ($\pm \text{dB}$)
Measurement system						
1	Amplitude calibration uncertainty	0.35	N	1	1	0.35
2	Probe anisotropy	0.6	R	$\sqrt{3}$	1	0.35
3	Probe dynamic linearity	0.2	R	$\sqrt{3}$	1	0.12
4	Probe frequency domain response	0.3	R	$\sqrt{3}$	1	0.17
5	Probe frequency linear interp. fit	0.15	R	$\sqrt{3}$	1	0.09
6	Spatial averaging	0.1	R	$\sqrt{3}$	1	0.06
7	Parasitic E -field sensitivity	0.1	R	$\sqrt{3}$	1	0.06
8	Detection limit	0.15	R	$\sqrt{3}$	1	0.09
9	Readout electronics	0	N	1	1	0
10	Probe positioning	0.19	N	1	1	0.19
11	Repeatability	0.1	N	1	1	0.1
12	Surface field reconstruction	0.3	N	1	1	0.3
Numerical simulations						
13	Grid resolution	0.18	R	$\sqrt{3}$	1	0.10
14	Tissue parameters	0	R	$\sqrt{3}$	1	0
15	Exposure position	0	R	$\sqrt{3}$	1	0
16	Source representation	0.24	N	1	1	0.24
17	Convergence and power budget	0	R	$\sqrt{3}$	1	0
18	Boundary conditions	0.1	R	$\sqrt{3}$	1	0.06
19	Phantom loading/backscattering	0.1	R	$\sqrt{3}$	1	0.06
Combined uncertainty ($k = 1$)						0.72
Expanded uncertainty ($k = 2$)						1.44 (18.0%)

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7.4 Uncertainty Budget of Line Average E_{ind}

DASY6 Uncertainty Budget for Peak 5 mm Line-Average E_{ind} according to IEC/IEEE 63184						
Item	Error Description	Unc. Value (\pm dB)	Probab. Distr.	Div.	(c_i)	Std. Unc. (\pm dB)
Measurement system						
1	Amplitude calibration uncertainty	0.35	N	1	1	0.35
2	Probe anisotropy	0.6	R	$\sqrt{3}$	1	0.35
3	Probe dynamic linearity	0.2	R	$\sqrt{3}$	1	0.12
4	Probe frequency domain response	0.3	R	$\sqrt{3}$	1	0.17
5	Probe frequency linear interp. fit	0.15	R	$\sqrt{3}$	1	0.09
6	Spatial averaging	0.1	R	$\sqrt{3}$	1	0.06
7	Parasitic E -field sensitivity	0.1	R	$\sqrt{3}$	1	0.06
8	Detection limit	0.15	R	$\sqrt{3}$	1	0.09
9	Readout electronics	0	N	1	1	0
10	Probe positioning	0.19	N	1	1	0.19
11	Repeatability	0.1	N	1	1	0.1
12	Surface field reconstruction	0.3	N	1	1	0.3
Numerical simulations						
13	Grid resolution	0.25	R	$\sqrt{3}$	1	0.14
14	Tissue parameters	0	R	$\sqrt{3}$	1	0
15	Exposure position	0	R	$\sqrt{3}$	1	0
16	Source representation	0.27	N	1	1	0.27
17	Convergence and power budget	0	R	$\sqrt{3}$	1	0
18	Boundary conditions	0.1	R	$\sqrt{3}$	1	0.06
19	Phantom loading/backscattering	0.1	R	$\sqrt{3}$	1	0.06
Combined uncertainty ($k = 1$)						0.74
Expanded uncertainty ($k = 2$)						1.48 (18.5%)

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7.5 Uncertainty Budget of Local E_{ind}

DASY6 Uncertainty Budget for Peak Local E_{ind} according to IEC/IEEE 63184						
Item	Error Description	Unc. Value (\pm dB)	Probab. Distr.	Div.	(c_i)	Std. Unc. (\pm dB)
Measurement system						
1	Amplitude calibration uncertainty	0.35	N	1	1	0.35
2	Probe anisotropy	0.6	R	$\sqrt{3}$	1	0.35
3	Probe dynamic linearity	0.2	R	$\sqrt{3}$	1	0.12
4	Probe frequency domain response	0.3	R	$\sqrt{3}$	1	0.17
5	Probe frequency linear interp. fit	0.15	R	$\sqrt{3}$	1	0.09
6	Spatial averaging	0.1	R	$\sqrt{3}$	1	0.06
7	Parasitic E -field sensitivity	0.1	R	$\sqrt{3}$	1	0.06
8	Detection limit	0.15	R	$\sqrt{3}$	1	0.09
9	Readout electronics	0	N	1	1	0
10	Probe positioning	0.19	N	1	1	0.19
11	Repeatability	0.1	N	1	1	0.1
12	Surface field reconstruction	0.3	N	1	1	0.3
Numerical simulations						
13	Grid resolution	0.09	R	$\sqrt{3}$	1	0.05
14	Tissue parameters	0	R	$\sqrt{3}$	1	0
15	Exposure position	0	R	$\sqrt{3}$	1	0
16	Source representation	0.27	N	1	1	0.27
17	Convergence and power budget	0	R	$\sqrt{3}$	1	0
18	Boundary conditions	0.1	R	$\sqrt{3}$	1	0.06
19	Phantom loading/backscattering	0.1	R	$\sqrt{3}$	1	0.06
Combined uncertainty ($k = 1$)						0.73
Expanded uncertainty ($k = 2$)						1.45 (18.2%)

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7.6 Uncertainty Budget of Peak 1 cm² Area Average J_{ind}

DASY6 Uncertainty Budget for Peak 1 cm ² Area-Average J _{ind} according to IEC/IEEE 63184						
Item	Error Description	Unc. Value (±dB)	Probab. Distr.	Div.	(c _i)	Std. Unc. (±dB)
Measurement system						
1	Amplitude calibration uncertainty	0.35	N	1	1	0.35
2	Probe anisotropy	0.6	R	√3	1	0.35
3	Probe dynamic linearity	0.2	R	√3	1	0.12
4	Probe frequency domain response	0.3	R	√3	1	0.17
5	Probe frequency linear interp. fit	0.15	R	√3	1	0.09
6	Spatial averaging	0.1	R	√3	1	0.06
7	Parasitic E-field sensitivity	0.1	R	√3	1	0.06
8	Detection limit	0.15	R	√3	1	0.09
9	Readout electronics	0	N	1	1	0
10	Probe positioning	0.19	N	1	1	0.19
11	Repeatability	0.1	N	1	1	0.1
12	Surface field reconstruction	0.3	N	1	1	0.3
Numerical simulations						
13	Grid resolution	0.12	R	√3	1	0.07
14	Tissue parameters	0	R	√3	1	0
15	Exposure position	0	R	√3	1	0
16	Source representation	0.1	N	1	1	0.1
17	Convergence and power budget	0	R	√3	1	0
18	Boundary conditions	0.1	R	√3	1	0.06
19	Phantom loading/backscattering	0.1	R	√3	1	0.06
Combined uncertainty (k = 1)						0.68
Expanded uncertainty (k = 2)						1.36 (17.0%)

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7.7 Uncertainty Budget of psSAR 1g

DASY6 Uncertainty Budget for psSAR1 g according to IEC/IEEE 63184						
Item	Error Description	Unc. Value (±dB)	Probab. Distr.	Div.	(c_i)	Std. Unc. (±dB)
Measurement system						
1	Amplitude calibration uncertainty	0.35	N	1	1	0.35
2	Probe anisotropy	0.6	R	$\sqrt{3}$	1	0.35
3	Probe dynamic linearity	0.2	R	$\sqrt{3}$	1	0.12
4	Probe frequency domain response	0.3	R	$\sqrt{3}$	1	0.17
5	Probe frequency linear interp. fit	0.15	R	$\sqrt{3}$	1	0.09
6	Spatial averaging	0.1	R	$\sqrt{3}$	1	0.06
7	Parasitic E -field sensitivity	0.1	R	$\sqrt{3}$	1	0.06
8	Detection limit	0.15	R	$\sqrt{3}$	1	0.09
9	Readout electronics	0	N	1	1	0
10	Probe positioning	0.19	N	1	1	0.19
11	Repeatability	0.1	N	1	1	0.1
12	Surface field reconstruction	0.2	N	1	1	0.2
Numerical simulations						
13	Grid resolution	0.02	R	$\sqrt{3}$	1	0.01
14	Tissue parameters	0	R	$\sqrt{3}$	1	0
15	Exposure position	0	R	$\sqrt{3}$	1	0
16	Source representation	0.09	N	1	1	0.09
17	Convergence and power budget	0	R	$\sqrt{3}$	1	0
18	Boundary conditions	0.1	R	$\sqrt{3}$	1	0.06
19	Phantom loading/backscattering	0.1	R	$\sqrt{3}$	1	0.06
Combined uncertainty ($k = 1$)						0.63
Expanded uncertainty ($k = 2$)						1.27 (33.9%)

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7.8 Uncertainty Budget of psSAR 10g


DASY6 Uncertainty Budget for psSAR10g according to IEC/IEEE 63184						
Item	Error Description	Unc. Value (±dB)	Probab. Distr.	Div.	(c_i)	Std. Unc. (±dB)
Measurement system						
1	Amplitude calibration uncertainty	0.35	N	1	1	0.35
2	Probe anisotropy	0.6	R	$\sqrt{3}$	1	0.35
3	Probe dynamic linearity	0.2	R	$\sqrt{3}$	1	0.12
4	Probe frequency domain response	0.3	R	$\sqrt{3}$	1	0.17
5	Probe frequency linear interp. fit	0.15	R	$\sqrt{3}$	1	0.09
6	Spatial averaging	0.1	R	$\sqrt{3}$	1	0.06
7	Parasitic <i>E</i> -field sensitivity	0.1	R	$\sqrt{3}$	1	0.06
8	Detection limit	0.15	R	$\sqrt{3}$	1	0.09
9	Readout electronics	0	N	1	1	0
10	Probe positioning	0.19	N	1	1	0.19
11	Repeatability	0.1	N	1	1	0.1
12	Surface field reconstruction	0.2	N	1	1	0.2
Numerical simulations						
13	Grid resolution	0	R	$\sqrt{3}$	1	0
14	Tissue parameters	0	R	$\sqrt{3}$	1	0
15	Exposure position	0	R	$\sqrt{3}$	1	0
16	Source representation	0.04	N	1	1	0.04
17	Convergence and power budget	0	R	$\sqrt{3}$	1	0
18	Boundary conditions	0.1	R	$\sqrt{3}$	1	0.06
19	Phantom loading/backscattering	0.1	R	$\sqrt{3}$	1	0.06
Combined uncertainty ($k = 1$)						0.63
Expanded uncertainty ($k = 2$)						1.25 (33.4%)

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8 CONCLUSION


8.1 Measurement Conclusion

The RF exposure evaluation indicates that the DUT complies with the exposure limits presented in FCC 47 CFR Part 2.1093 and KDB 680106 D01 with respect to all parameters subject to this test. The worst-case configuration was evaluated against and satisfies the MPE/SAR requirements. Precise laboratory measures were taken to assure repeatability of the tests. The results and statements relate only to the item(s) tested.

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