



# Element Washington DC LLC

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## 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:**

4/7/2025 – 4/17/2025

**Test Site/Location:**

Element Washington DC LLC,  
Columbia, MD, USA

**Test Report Serial No.:**

1M2503250034-03.2A6WX

**Date of Issue:**

5/12/2025

**FCC ID:** **2A6WXWCREN30A**

**APPLICANT:** **BH EVS CO., LTD.**

<b>Apparatus/Device:</b>	Wireless Charger
<b>Application Type:</b>	Certification
<b>Model(s):</b>	WCREN30A
<b>Device Serial No.:</b>	Pre-production Sample [SN: MD03]
<b>FCC Specification(s):</b>	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

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.

RJ Ortanez  
Executive Vice President



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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.

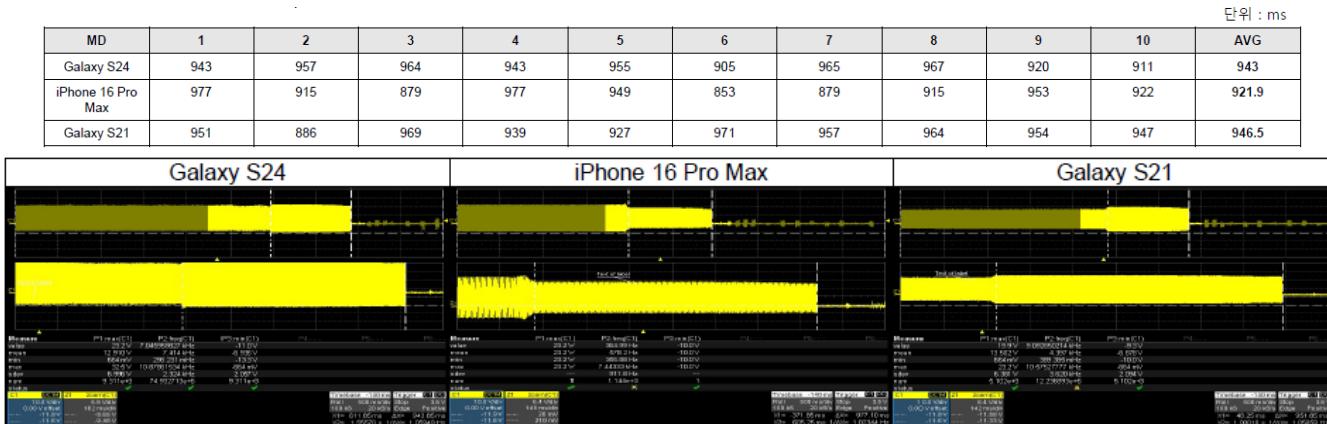


Figure 1-1 WPT Load Removal Power Down

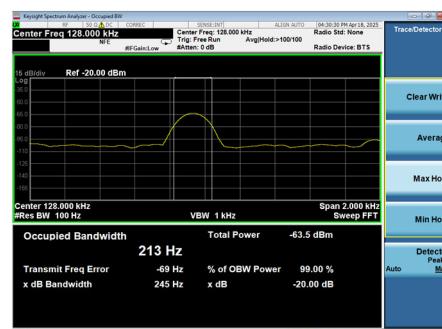


Figure 1-2 WPT Occupied Bandwidth

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## 2 MEASUREMENT SYSTEM

### 2.1 DASY6/8 Module WPT V2.6+

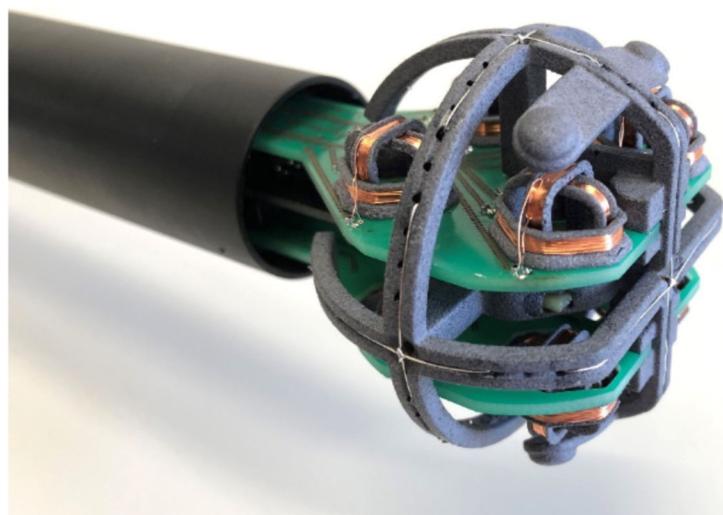
<b>System</b>	DASY6/8 Module WPT is composed of the isotropic probe MAGPy-8H3D+E3D Version 2, the reference probe (MAGPy-RA $\phi$ ), and the data acquisition system (MAGPy-DAS) mounted to the DASY6/8 robot via the emergency stop (MAGPy-ES). It measures the incident electric (E-) and magnetic (H-) fields 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.
<b>Applications</b>	Laboratory evaluation of WPT systems and any other local electromagnetic source not requiring magnetic (H-) field volume scans exceeding 2000 mm $\times$ 1000 mm $\times$ 1500 mm: <ul style="list-style-type: none"> <li>Assessment of high-resolution H-field distribution (3 kHz – 10 MHz)</li> <li>Assessment of high-resolution E-field distribution (3 kHz – 10 MHz)</li> <li>Determination of the induced field and SAR distribution in the standard phantom (3 kHz – 4 MHz)</li> <li>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</li> </ul>
<b>Basic Components</b>	The basic components of DASY6/8 Module WPT are: <ul style="list-style-type: none"> <li>Platform and DASY6/8 TX-90XL or TX2-90XL Robot</li> <li>DASY6/8 Measurement Server</li> <li>EOC8</li> <li>Light-Beam Unit</li> <li>Quick Adapter Change System (QACSV1)</li> <li>DASY6/8 PC</li> </ul>
<b>MAGPy-DAS</b>	The MAGPy-DAS includes: <ul style="list-style-type: none"> <li>27 14-bit ADC channels with 25 MSPs</li> <li>Peak detection stage</li> <li>Hardware supervising unit</li> <li>Data transfer to the backend</li> <li>22 tap FIR filter</li> </ul>
<b>MAGPy-8H3D+E3D V2</b>	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"> <li>Probe length: 335 mm</li> <li>Probe tip diameter: 60 mm</li> <li>8H3D: eight isotropic 1 cm<sup>2</sup>-H-field sensors, arranged at the corners of a 22 mm cube</li> <li>First H-field sensor plane: 7.5 mm from the probe tip</li> <li>E3D: one isotropic E-field sensor (dipole/monopole)</li> </ul> Sensor specifications: <ul style="list-style-type: none"> <li>Frequency range: 3 kHz – 10 MHz</li> <li>H-field dynamic range: 0.1 A/m – 3200 A/m (0.12 <math>\mu</math>T – 4 mT)</li> <li>H-field extrapolation uncertainty: 0.6 dB (<math>k = 2</math>)</li> <li>E-field dynamic range: 0.08 V/m – 2000 V/m</li> </ul>

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<b>MAGPy-RA<math>\phi</math>V2</b>	Specifications of the MAGPy-RA $\phi$ reference amplitude and phase probe: <ul style="list-style-type: none"> <li>• Frequency range: 3 kHz – 10 MHz</li> <li>• Dynamic range: 0.1 A/m – 3200 A/m (0.12 <math>\mu</math>T – 4 mT)</li> <li>• Loop coil area: 18.9 cm<sup>2</sup></li> <li>• Sensor size: 51 mm × 51 mm × 0.2 mm</li> </ul>
<b>Software</b>	Software components: <ul style="list-style-type: none"> <li>• DASY6/8 Module WPT application programming interface (API)</li> <li>• WPT backend</li> <li>• Jupyter Notebook GUI</li> <li>• Sim4Life plugin (vector potential reconstruction, P-EM-QS solver)</li> </ul>



**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

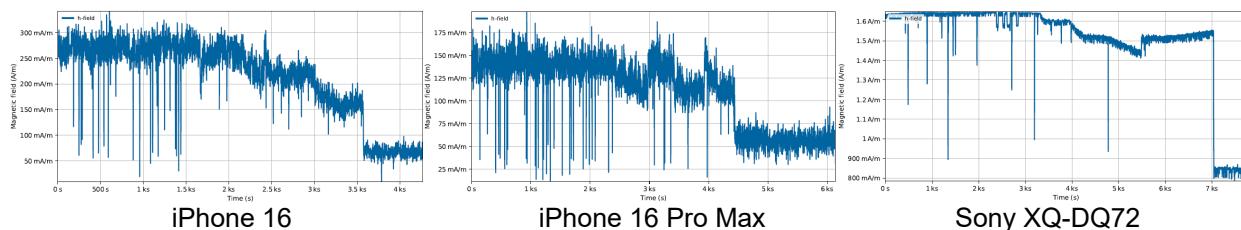
The measurement distance (spacing) is the manufacturer's declared separation distance obtained via information in the user manual. This shall be measured as the distance from the edge of the device to the edge of the measurement probe. Since it is possible for a user to touch the device while wirelessly charging, all testing for compliance was done at 0mm as a conservative approach.

### 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 <sup>2</sup> )	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 <sup>2</sup> )	<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 <sup>2</sup> )	<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

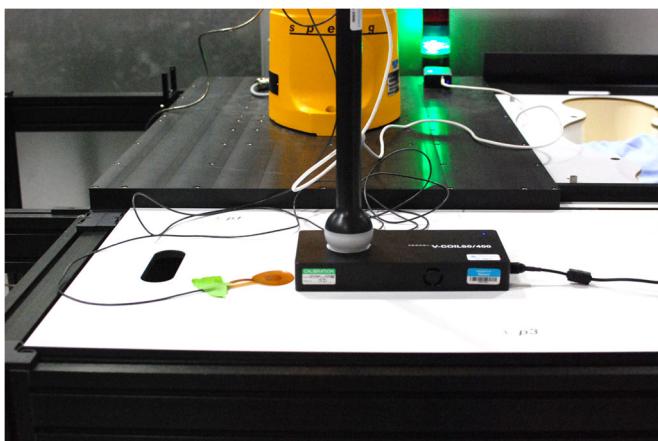
**Table 5-1**  
**System Check – 4/13/2025**

Test Date	Frequency	Distance	Value	Incident H-Field (A/m)	Induced Peak Current Density (A/m <sup>2</sup> , RMS)	Induced Peak E-field (V/m)			Peak Spacial SAR (mW/kg)	
						Cube Avg.	Local	Line Avg.	1g Avg.	10g Avg.
4/13/2025	85kHz	0	Measurement	200	2.33	3.32	3.35	3.36	6.4	4.75
			Deviation (dB)	-0.63	-0.29	-0.28	-0.31	-0.30	-0.23	-0.21
		2	Measurement	182	2.2	3.12	3.15	3.16	5.72	4.31
			Deviation (dB)	-0.64	-0.23	-0.27	-0.27	-0.27	-0.21	-0.19
4/13/2025	400kHz	0	Measurement	271	2.76	4.38	4.5	4.51	7.45	3.66
			Deviation (dB)	0.00	0.16	0.22	0.21	0.25	0.10	0.05
		2	Measurement	238	2.34	3.77	3.88	3.89	5.40	2.7
			Deviation (dB)	0.00	0.07	0.16	0.14	0.18	0.05	0.02

\* 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

Frequency (kHz)	Distance (mm)	Incident H-field (A/m)						Limit (A/m)	
		EUT Sides							
		Top	Bottom	Left	Right	Front	Back		
224	0	0.238	0.260	0.854	0.858	155.000	0.318	1.63	
224	2	0.192	0.208	0.634	0.670	132.000	0.289	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		
224	0	0.457	0.555	1.200	1.910	74.600	0.215	614	
224	2	0.452	0.510	1.130	1.730	73.000	0.233	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		
224	0	0.000003	0.000000	0.000002	0.000004	0.297000	0.000041	1.6	
224	2	0.000003	0.000000	0.000002	0.000003	0.190000	0.000036	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	0.622	0.706	3.670	6.110	6.060	1.490	1.63	
128	2	0.524	0.645	3.280	5.470	5.320	1.320	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	43.100	42.000	12.300	9.680	78.300	6.200	614	
128	2	39.300	38.600	11.700	9.270	70.900	5.970	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	0.000013	0.000059	0.000424	0.000834	0.001110	0.000265	1.6	
128	2	0.000011	0.000056	0.000387	0.000685	0.000906	0.000232	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	0.331	0.455	0.637	1.150	1.110	0.258	1.63	
360	2	0.296	0.390	0.556	1.020	0.969	0.229	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	83.500	331.000	30.500	29.300	235.000	14.000	614	
360	2	76.400	293.000	29.100	28.000	212.000	13.400	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	0.00011	0.00087	0.00015	0.00024	0.00056	0.00004	1.6	
360	2	0.00009	0.00069	0.00013	0.00020	0.00046	0.00003	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	0.059	0.068	0.987	1.560	0.853	0.266	1.63	
360	2	0.051	0.061	0.801	1.370	0.743	0.239	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	122.000	106.000	42.700	33.900	231.000	20.200	614	
360	2	111.000	97.100	40.500	32.100	208.000	19.300	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	0.000116	0.000089	0.000084	0.000407	0.0005	0.00006	1.6	
360	2	0.000097	0.000074	0.000078	0.000340	0.0004	0.00005	1.6	

**Table 6-12. MPP (RX2) SAR**

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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)
<b>Measurement system</b>						
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)
<b>Measurement system</b>						
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 $E_{\text{ind}}$

DASY6 Uncertainty Budget for Peak $2 \times 2 \times 2 \text{ mm}^3$ Cube-Average $E_{\text{ind}}$ according to IEC/IEEE 63184						
Item	Error Description	Unc. Value ( $\pm \text{dB}$ )	Probab. Distr.	Div.	$(c_i)$	Std. Unc. ( $\pm \text{dB}$ )
<b>Measurement system</b>						
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
<b>Numerical simulations</b>						
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
<b>Combined uncertainty (<math>k = 1</math>)</b>						
<b>Expanded uncertainty (<math>k = 2</math>)</b>						
<b>0.72</b>						
<b>1.44 (18.0%)</b>						

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## 7.4 Uncertainty Budget of Line Average $E_{\text{ind}}$

DASY6 Uncertainty Budget for Peak 5 mm Line-Average $E_{\text{ind}}$ according to IEC/IEEE 63184						
Item	Error Description	Unc. Value ( $\pm$ dB)	Probab. Distr.	Div.	$(c_i)$	Std. Unc. ( $\pm$ dB)
<b>Measurement system</b>						
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
<b>Numerical simulations</b>						
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 ( $k = 1$ )						
Expanded uncertainty ( $k = 2$ )						
<b>0.74</b>						
<b>1.48 (18.5%)</b>						

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## 7.5 Uncertainty Budget of Local $E_{\text{ind}}$

DASY6 Uncertainty Budget for Peak Local $E_{\text{ind}}$ according to IEC/IEEE 63184						
Item	Error Description	Unc. Value ( $\pm$ dB)	Probab. Distr.	Div.	$(c_i)$	Std. Unc. ( $\pm$ dB)
<b>Measurement system</b>						
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
<b>Numerical simulations</b>						
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 ( $k = 1$ )						
Expanded uncertainty ( $k = 2$ )						
						0.73
						<b>1.45 (18.2%)</b>

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## 7.6 Uncertainty Budget of Peak 1 cm<sup>2</sup> Area Average $J_{ind}$

DASY6 Uncertainty Budget for Peak 1 cm <sup>2</sup> Area-Average $J_{ind}$ according to IEC/IEEE 63184						
Item	Error Description	Unc. Value (±dB)	Probab. Distr.	Div.	( $c_i$ )	Std. Unc. (±dB)
<b>Measurement system</b>						
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
<b>Numerical simulations</b>						
13	Grid resolution	0.12	R	$\sqrt{3}$	1	0.07
14	Tissue parameters	0	R	$\sqrt{3}$	1	0
15	Exposure position	0	R	$\sqrt{3}$	1	0
16	Source representation	0.1	N	1	1	0.1
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 ( $k = 1$ )						
Expanded uncertainty ( $k = 2$ )						
<b>0.68</b>						
<b>1.36 (17.0%)</b>						

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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 ( $\pm$ dB)	Probab. Distr.	Div.	$(c_i)$	Std. Unc. ( $\pm$ dB)
<b>Measurement system</b>						
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
<b>Numerical simulations</b>						
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
<b>Combined uncertainty (<math>k = 1</math>)</b>						0.63
<b>Expanded uncertainty (<math>k = 2</math>)</b>						1.27 (33.9%)

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## 7.8 Uncertainty Budget of psSAR 10g

DASY6 Uncertainty Budget for psSAR10 g according to IEC/IEEE 63184						
Item	Error Description	Unc. Value ( $\pm$ dB)	Probab. Distr.	Div.	$(c_i)$	Std. Unc. ( $\pm$ dB)
<b>Measurement system</b>						
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
<b>Numerical simulations</b>						
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 ( $k = 1$ )						
Expanded uncertainty ( $k = 2$ )						

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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 v03r01 with respect to all parameters subject to this test. The worst-case configuration was evaluated against and satisfies the requirement of peak special SAR < 1.6 W/kg. 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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