FCC Part 1 Subpart I
FCC Part 2 Subpart J

TEST REPORT

FOR

WIRELESS CHARGER

MODEL NO: A2384

FCC ID: BCGA2384

REPORT NUMBER: 13371066-E2V2

ISSUE DATE: APRIL 26, 2021

Prepared for
APPLE INC.
1 APPLE PARK WAY
CUPERTINO, CA 95014, U.S.A.

Prepared by
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	4/23/2021	Initial Issue	Chin Pang
V2	4/26/2021	Addressed TCB comments	Tri Pham

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: APPLE INC.
1 APPLE PARK WAY
CUPERTINO, CA 95014, U.S.A

EUT DESCRIPTION: MAG SAFE BATTERY PACK

MODEL NUMBER: A2384

BRAND: APPLE

SERIAL NUMBER: DND303100LC0NJM1P

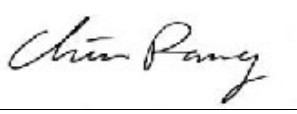
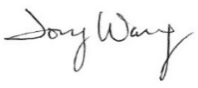
SAMPLE RECEIPT DATE: 03/04/2021

DATE TESTED: APRIL 08-15, 2021

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
FCC PART 1 SUBPART I & PART 2 SUBPART J	Complies

UL Verification Services Inc. measured the RF Exposure of the above equipment in accordance with the requirements set forth in the above standards, using test results reported in the test report documents referenced below and/or documentation furnished by the applicant. All indications of Pass/Fail in this report are opinions expressed by UL Verification Services Inc. based on interpretations of these calculations. The results show that the equipment is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Reviewed By:		Prepared By:
		
Chin Pang		Tony Wang
Senior engineer		Test Engineer
UL Verification Service Inc.		UL Verification Services Inc.

2. TEST METHODOLOGY

All calculations were made in accordance with FCC OET Bulletin 65 Edition 97-01 and KDB 680106 D01.

3. FACILITIES AND ACCREDITATION

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0, for all testing performed within the scope of this report. Testing was performed at the locations noted below.

	Address	ISED CABID	ISED Company Number	FCC Registration
☐	Building 1: 47173 Benicia Street, Fremont, CA 94538	US0104	2324A	208313
☒	Building 2: 47266 Benicia Street, Fremont, CA 94538	US0104	22541	208313
☐	Building 4: 47658 Kato Rd, Fremont, CA 94538	US0104	2324B	208313
☒	Temperature B Room			

4. KDB 680106 D01 SECTION 5b EQUIPMENT APPROVAL CONSIDERATIONS

Requirement	Device
(1) Power transfer frequency is less than 1 MHz.	Yes. The operating frequencies are 360kHz and 127.7kHz.
(2) Output power from each primary coil is less than or equal to 15 watts.	Yes. The maximum power is 15 Watts
(3) The transfer system includes only single primary and secondary coils. This includes charging systems that may have multiple primary coils and clients that are able to detect and allow coupling only between individual pairs of coils.	Yes. The system includes one single primary and secondary coil and the device is designed to charge a single client.
(4) Client device is placed directly in contact with the transmitter.	Yes. The client device is placed directly in contact with the transmitter.
(5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).	No. Portable operating frequency only available @360kHz. and for 127.7KHz charging frequency it supports mobile configuration only.
(6) The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.	No. For 360kHz operating frequency at portable position, the measurement was taken using a probe place 0mm separate distance for all sides of standby and charging modes. Please see exposure simulation report for the worst case leakage of portable position. For 127.7kHz operating frequency at mobile position, the measurement was taken based on KDB 680106 D01. The worst case leakage of mobile position @127.7kHz is 17.36%.

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The Magsafe battery pack described in this document inductively charges other Apple supported wireless charging devices. The charging function operates at 127.7 kHz (Qi) and 360.0 kHz. The Magsafe battery pack supports charging up to 5 W at 127.7 kHz and 15 W at 360.0 kHz and NFC passive tag operation.

5.2. WORST-CASE CONFIGURATION AND MODE

The EUT is a single frequency magnetic charger enclosed in plastic case with 1 meter cable length USB -C type. For the standby mode, the measurements were taken on radiated spurious emissions due to 127.7kHz is un-intentional radiation coming from the response of LC resonance to the DC pulse signal. For operation mode, it was tested with the WPT clients. For the entire radiated emissions test, the EUT was investigated on the following configuration during the test at its natural orientation. Portable configuration was not performed for devices charging at 127.7kHz because they do not have magnetic capabilities.

@360kHz Operating Frequency with Portable Position:
Please see exposure simulation report

@127.7kHz Operating Frequency with Mobile Position:

Note: Tethered mode = With AC Adapter; Untethered mode=With internal battery

Config	Mode	Descriptions
1	Tethered Mode EUT Standby -	EUT Alone powered by AC/DC adapter.
2	Untethered Mode EUT Standby -	EUT Alone powered by internal battery.
3	Tethered mode-EUT + Legacy Phone	EUT with AC Adapter + Legacy phone in operating mode
4	Untethered mode-EUT + Legacy Phone	EUT powered by internal battery + Legacy phone in operating mode
5	Tethered mode-EUT + Legacy Phone	4mm airgap and 4mm shift top and bottom and the EUT is powered by AC Adapter
6	Untethered mode-EUT + Legacy Phone	4mm airgap and 4mm shift top and bottom and the EUT is powered by internal battery.
7	Tethered mode-EUT + AirPods	EUT + AirPods in operating mode and is powered by AC Adapter
8	Untethered mode-EUT + AirPods	EUT + AirPods in operating mode and is powered by internal battery
9	Tethered mode-EUT + AirPods	2mm airgap and 3mm shift top and bottom and the EUT + AirPods in operating mode powered by AC Adapter
10	Untethered mode-EUT + AirPods	2mm airgap and 3mm shift top and bottom and the EUT + AirPods in operating mode powered by internal battery

5.3. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

SUPPORT EQUIPMENT & PERIPHERALS LIST				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
WPT Client (5W Legacy iPhone)	Apple	A2161	G6TZ500YNCD3	BCGE3306A
WPT Client (1W Load AirPods Charging Case)	Apple	A1938	DLCZ415LLKKT	BCGA2032
Wireless Charger	Apple	A2384	DND303100LC0NJM1P	BCGA2384
AC/DC Adapter	Apple	A2305	F16010600QRPM061B	N/A

I/O CABLES

The EUT with lightning to USB-C cable powered by AC/DC Adapter.

TEST SETUP

The following 10 configurations are tested:

@360kHz Operating Frequency:

Please see exposure simulation report.

@127.7kHz Operating Frequency:

Configuration	Mode	Descriptions
1	Standby	EUT Alone powered by AC/DC adapter
2	Standby	EUT Alone powered by Internal Battery
3 (5W, Direct Contact)	Operating (Legacy iPhone, ~10% Power Charging)	EUT with lightning to USB-C cable powered by AC/DC Adapter & Wireless Charging to WPT Client
	Operating (iPhone, 25~60% Power Charging)	EUT with lightning to USB-C cable powered by AC/DC Adapter & Wireless Charging to WPT Client
	Operating (iPhone, >75% Power Charging)	EUT with lightning to USB-C cable powered by AC/DC Adapter & Wireless Charging to WPT Client
4 (5W, Direct Contact	Operating (Legacy iPhone, ~10% Power Charging)	EUT powered by Internal battery & Wireless Charging to WPT Client
	Operating (iPhone, 25~60% Power Charging)	EUT powered by internal battery & Wireless Charging to WPT Client
	Operating (iPhone, >75% Power Charging)	EUT powered by internal battery & Wireless Charging to WPT Client
5 (3.5W, 4mm Airgap + 4mm Shift to Top or Bottom)	Operating (iPhone, ~10% Power Charging)	EUT with lightning to USB-C cable powered by AC/DC Adapter & Wireless Charging to WPT Client
	Operating (iPhone, 25~60% Power Charging)	EUT with lightning to USB-C cable powered by AC/DC Adapter & Wireless Charging to WPT Client
	Operating (iPhone, >75% Power Charging)	EUT with lightning to USB-C cable powered by AC/DC Adapter & Wireless Charging to WPT Client
6 (3.5W, 4mm Airgap + 4mm Shift to Top or Bottom)	Operating (iPhone, ~10% Power Charging)	EUT powered by internal battery & Wireless Charging to WPT Client
	Operating (iPhone, 25~60% Power Charging)	EUT powered by internal battery & Wireless Charging to WPT Client
	Operating (iPhone, >75% Power Charging)	EUT powered by internal battery & Wireless Charging to WPT Client

7 (1W, Direct Contact)	Operating (AirPods, ~10% Power Charging)	EUT with lightning to USB-C cable powered by AC/DC Adapter & Wireless Charging to WPT Client
	Operating (AirPods, 25~60% Power Charging)	EUT with lightning to USB-C cable powered by AC/DC Adapter & Wireless Charging to WPT Client
	Operating (AirPods, >75% Power Charging)	EUT with lightning to USB-C cable powered by AC/DC Adapter & Wireless Charging to WPT Client
8 (1W, Direct Contact)	Operating (AirPods, ~10% Power Charging)	EUT powered by internal battery & Wireless Charging to WPT Client
	Operating (AirPods, >25~60% Power Charging)	EUT powered by internal battery & Wireless Charging to WPT Client
	Operating (AirPods, >75% Power Charging)	EUT powered by internal battery & Wireless Charging to WPT Client
9 (1W, 2mm Airgap + 3mm Shift to Top or Bottom)	Operating (AirPods, ~10% Power Charging)	EUT with lightning to USB-C cable powered by AC/DC Adapter & Wireless Charging to WPT Client
	Operating (AirPods, 25~60% Power Charging)	EUT with lightning to USB-C cable powered by AC/DC Adapter & Wireless Charging to WPT Client
	Operating (AirPods, >75% Power Charging)	EUT with lightning to USB-C cable powered by AC/DC Adapter & Wireless Charging to WPT Client
10 (1W, 2mm Airgap + 3mm Shift to Top or Bottom)	Operating (AirPods, ~10% Power Charging)	EUT powered by internal battery & Wireless Charging to WPT Client
	Operating (AirPods, 25~60% Power Charging)	EUT powered by internal battery & Wireless Charging to WPT Client
	Operating (AirPods, >75% Power Charging)	EUT powered by internal battery & Wireless Charging to WPT Client

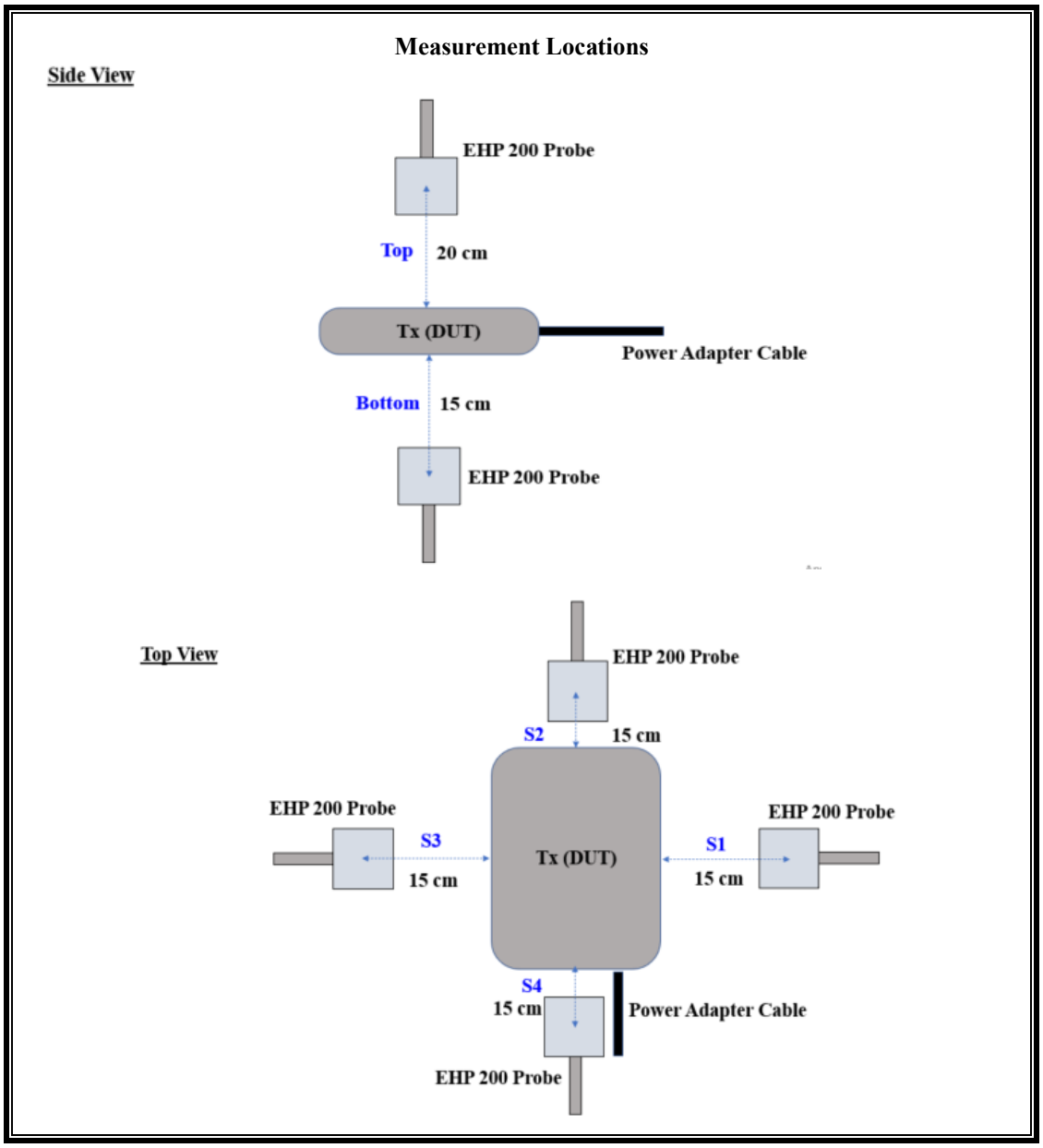
MEASUREMENT SETUP

For the 360kHz charging frequency with 15W load at portable position, please see exposure simulation report.

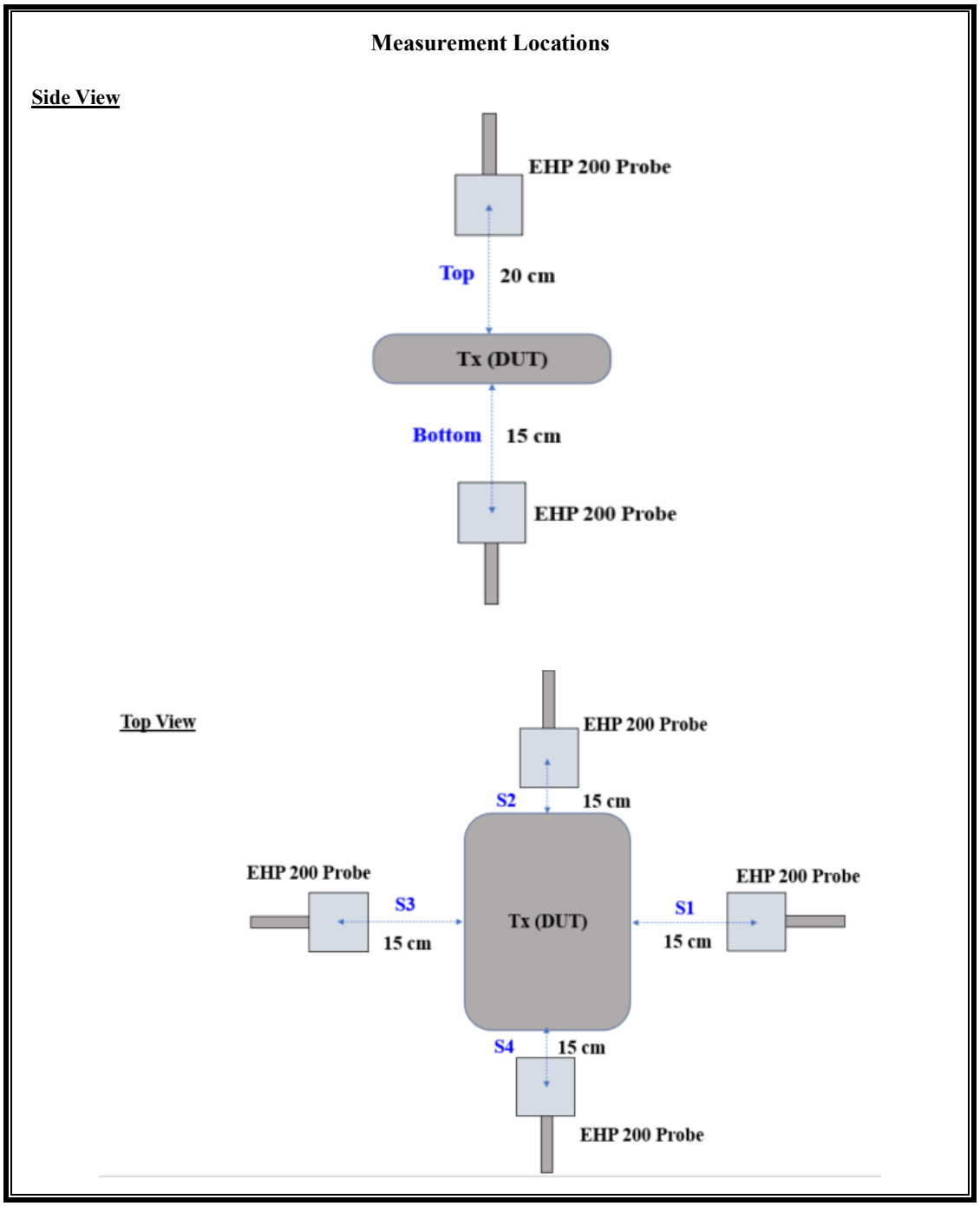
For the 127.7kHz charging frequency with 5W and 1W loads at mobile position, the measurement was taken using a probe placed 15 cm surrounding the device and 20 cm above the top surface for all configurations per KDB 680106 D01.

@127.7KHZ OPERATING FREQUENCY IN MOBILE POSTION

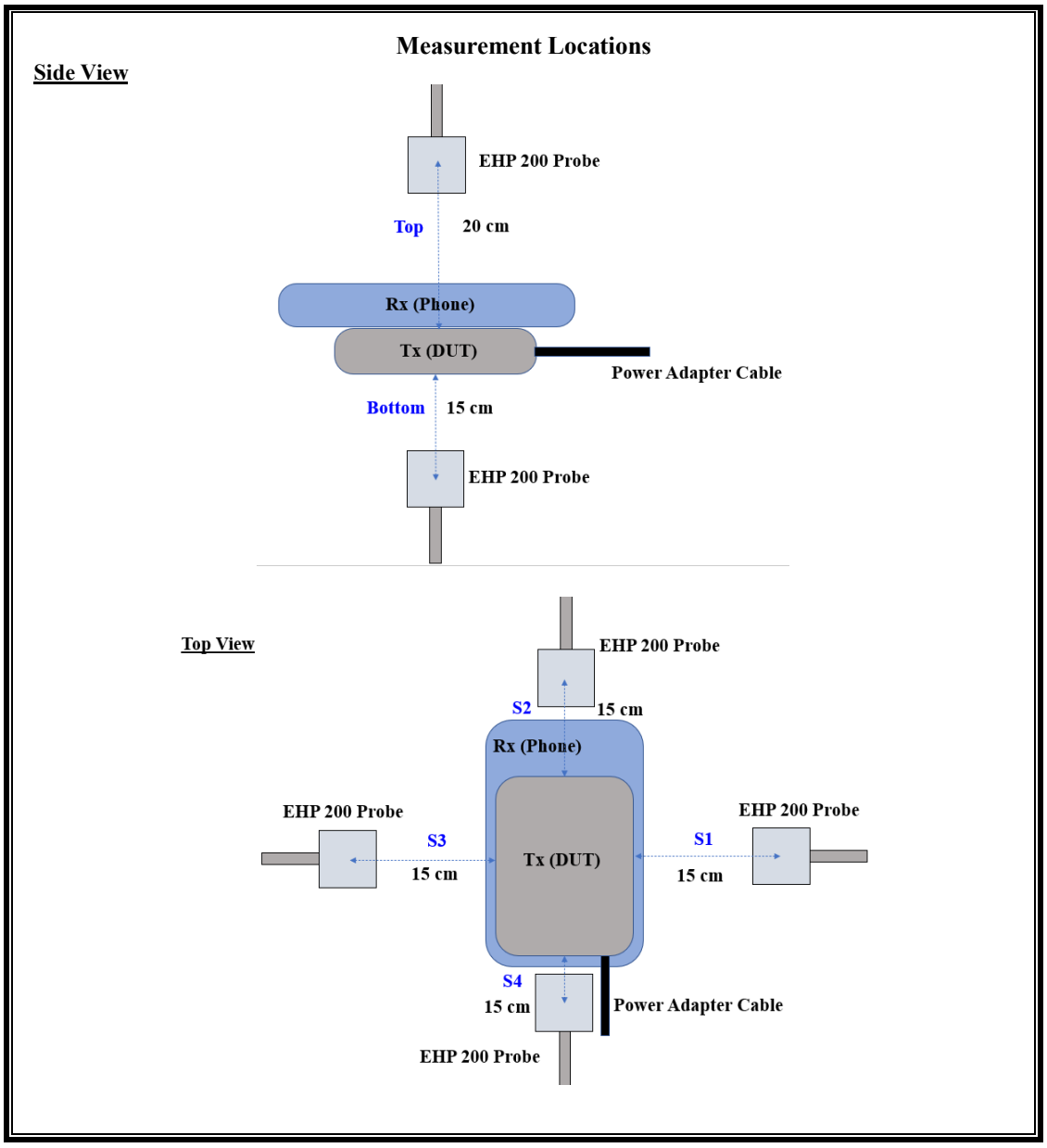
CONFIGURATION 1 (EUT + AC Adapter)



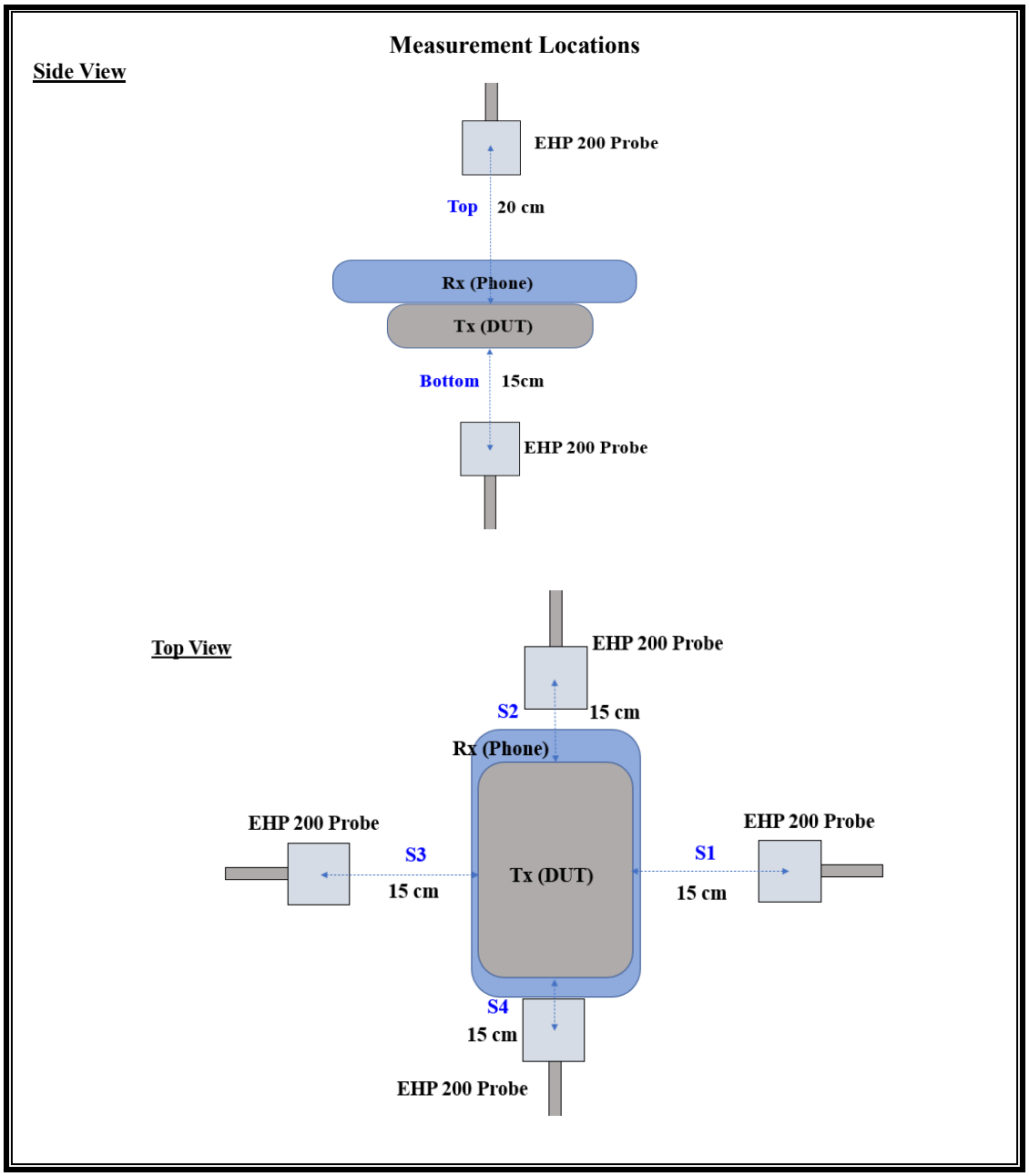
CONFIGURATION 2 (EUT + Internal Battery)



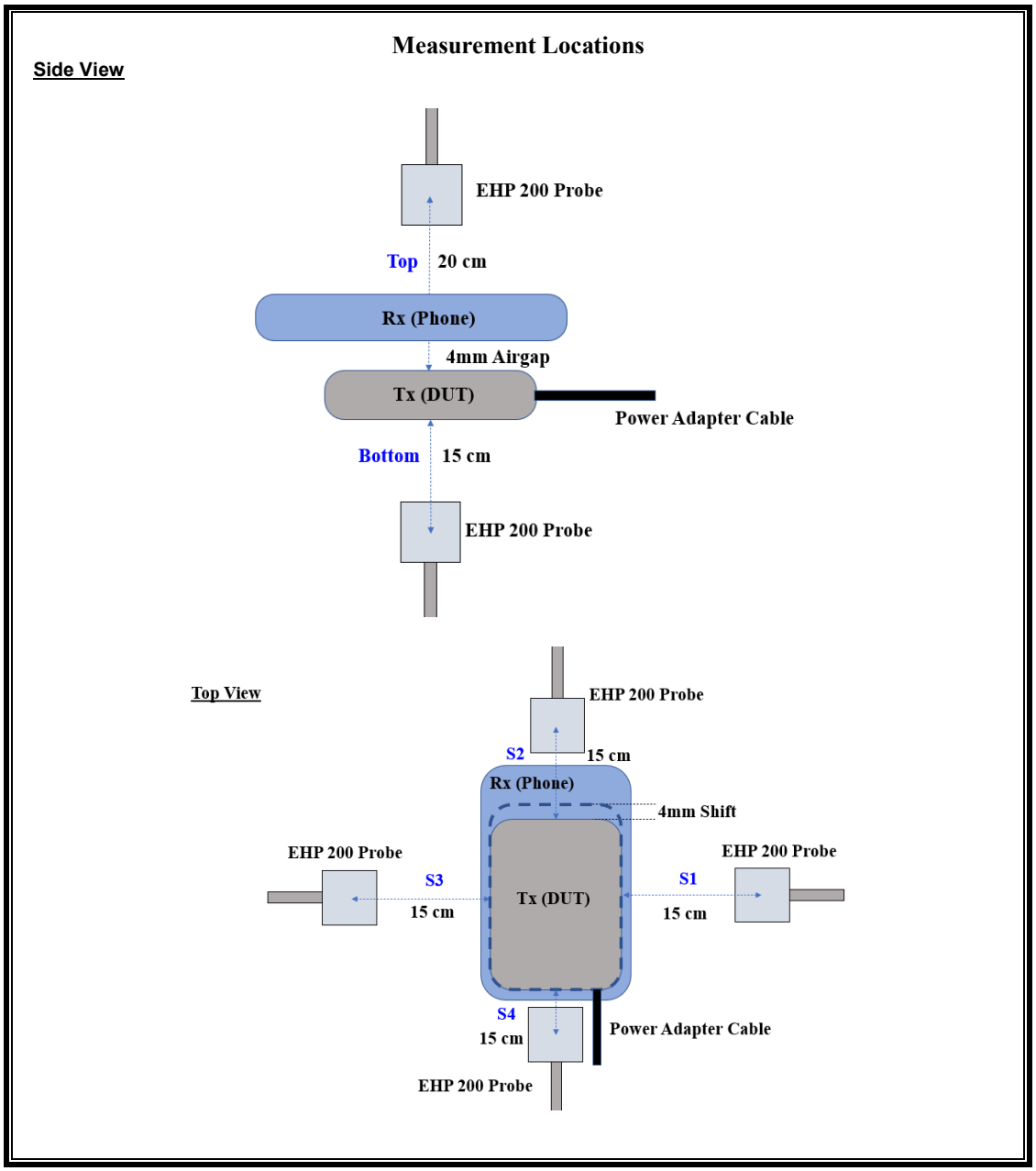
CONFIGURATION 3 (EUT + AC Adapter + Phone)



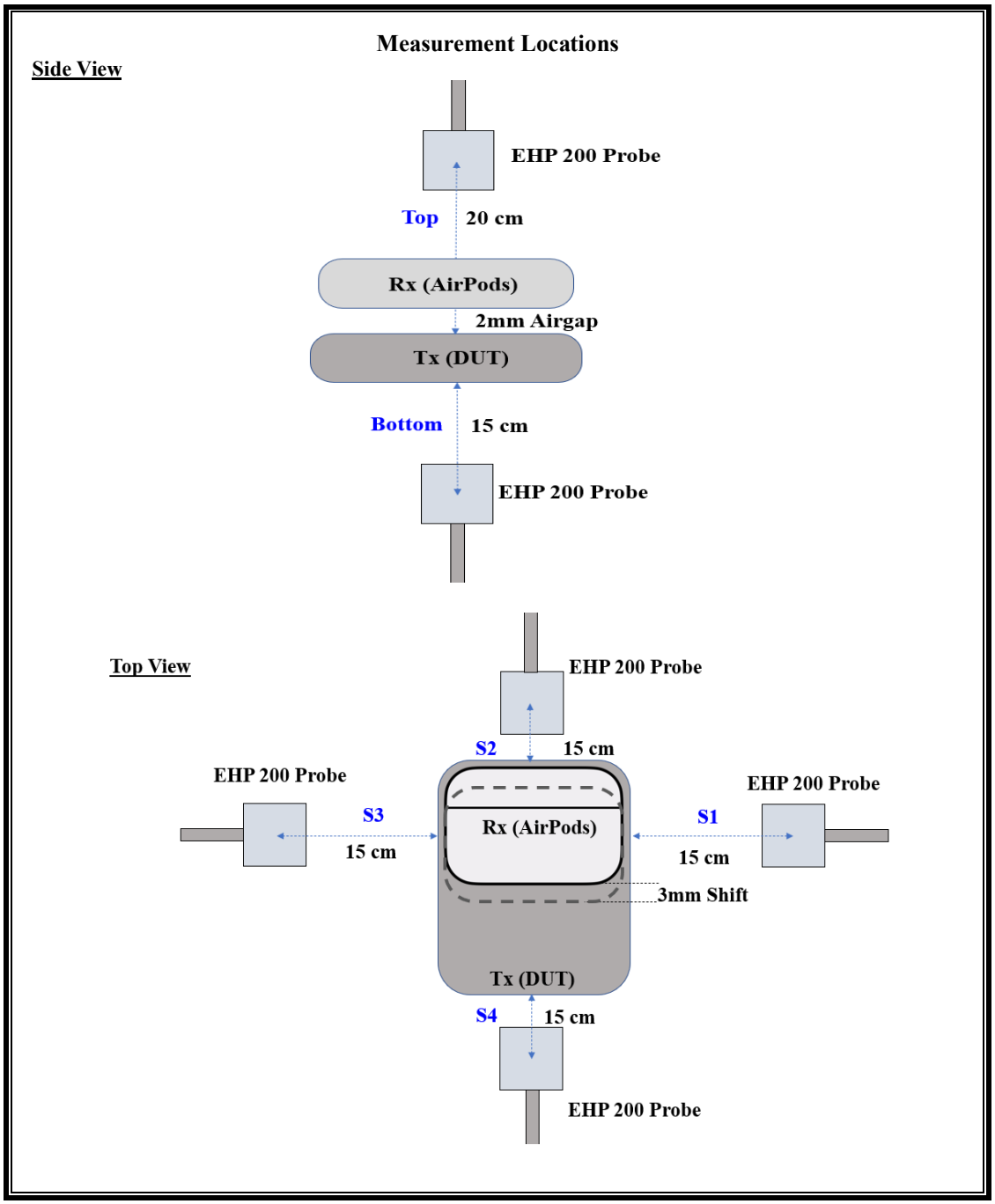
CONFIGURATION 4 (EUT + Internal Battery + Phone)



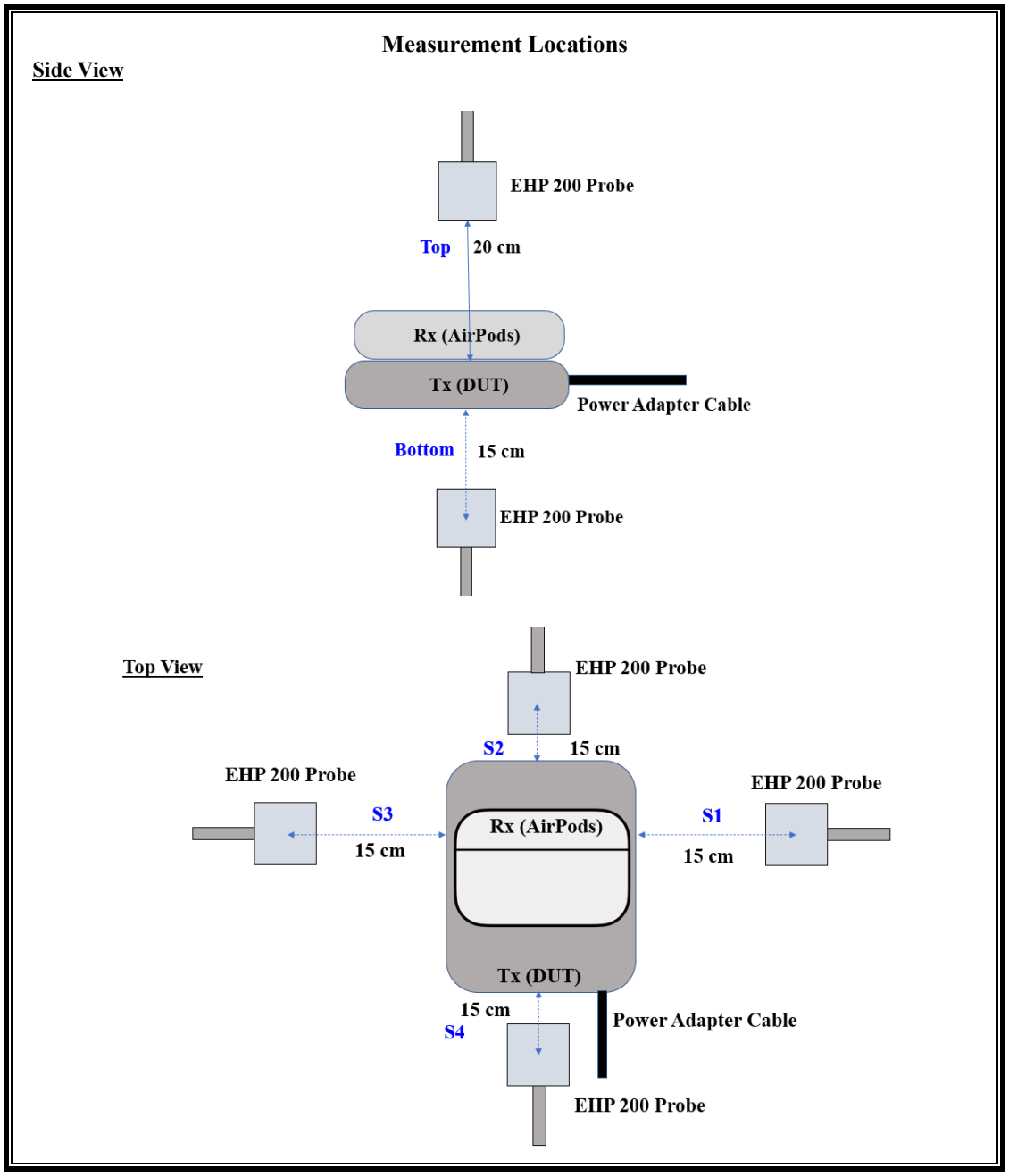
CONFIGURATION 5 (EUT + AC Adapter + Phone with 4mm gap & 4mm Shift)



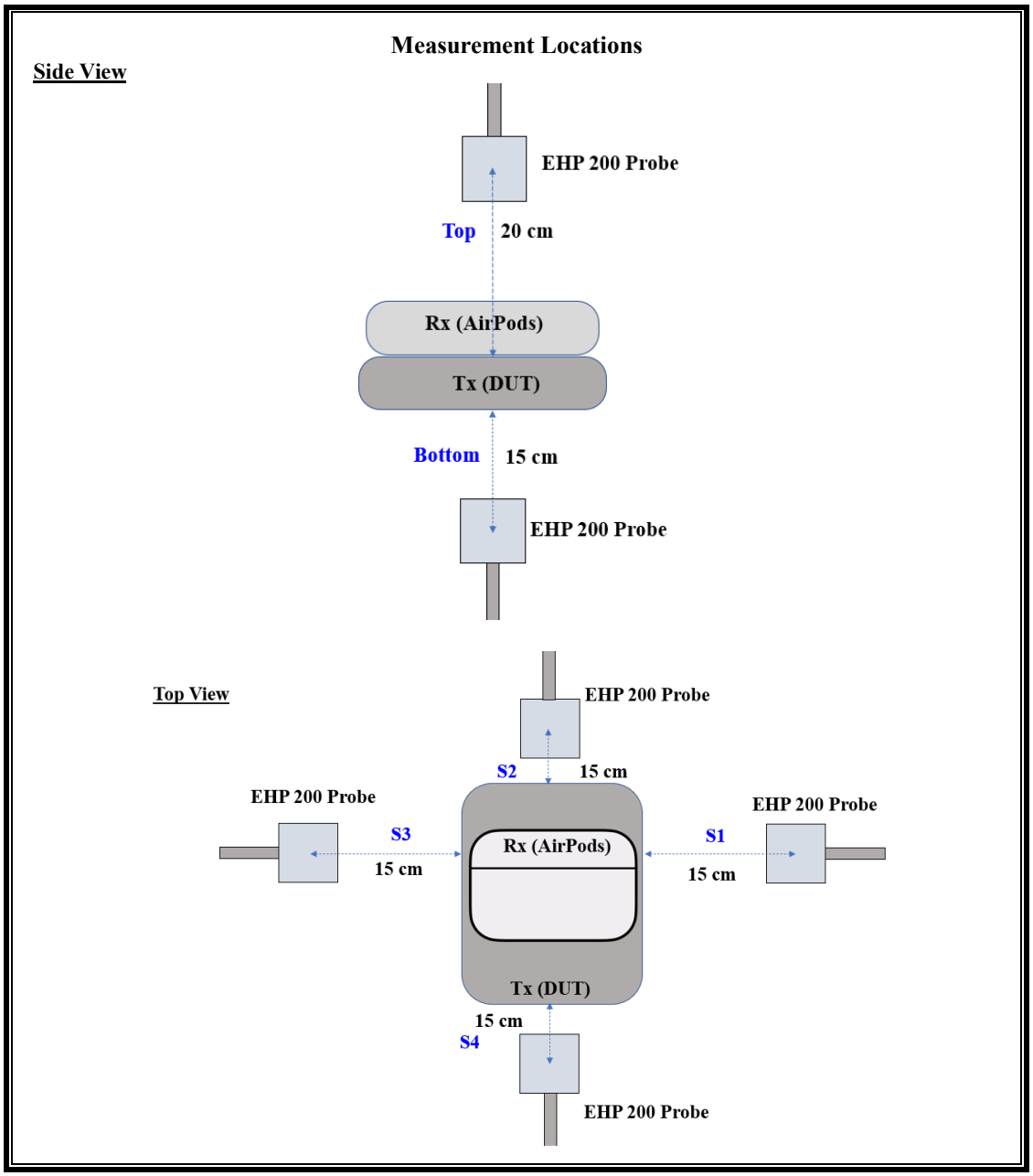
CONFIGURATION 6 (EUT + Internal Battery + Phone with 4 mm gap & 4mm Shift)



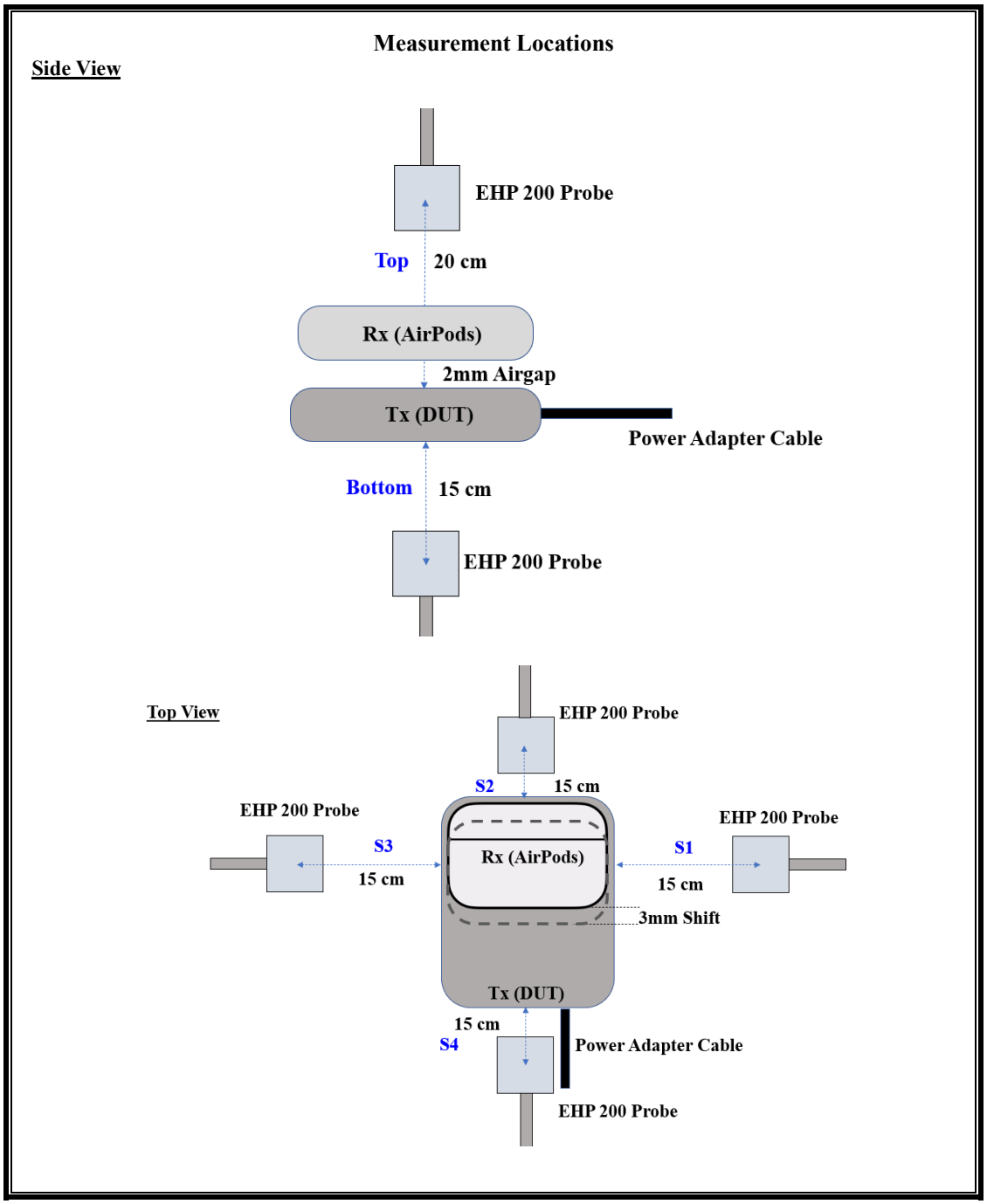
CONFIGURATION 7 (EUT + AC Adapter + AirPods)



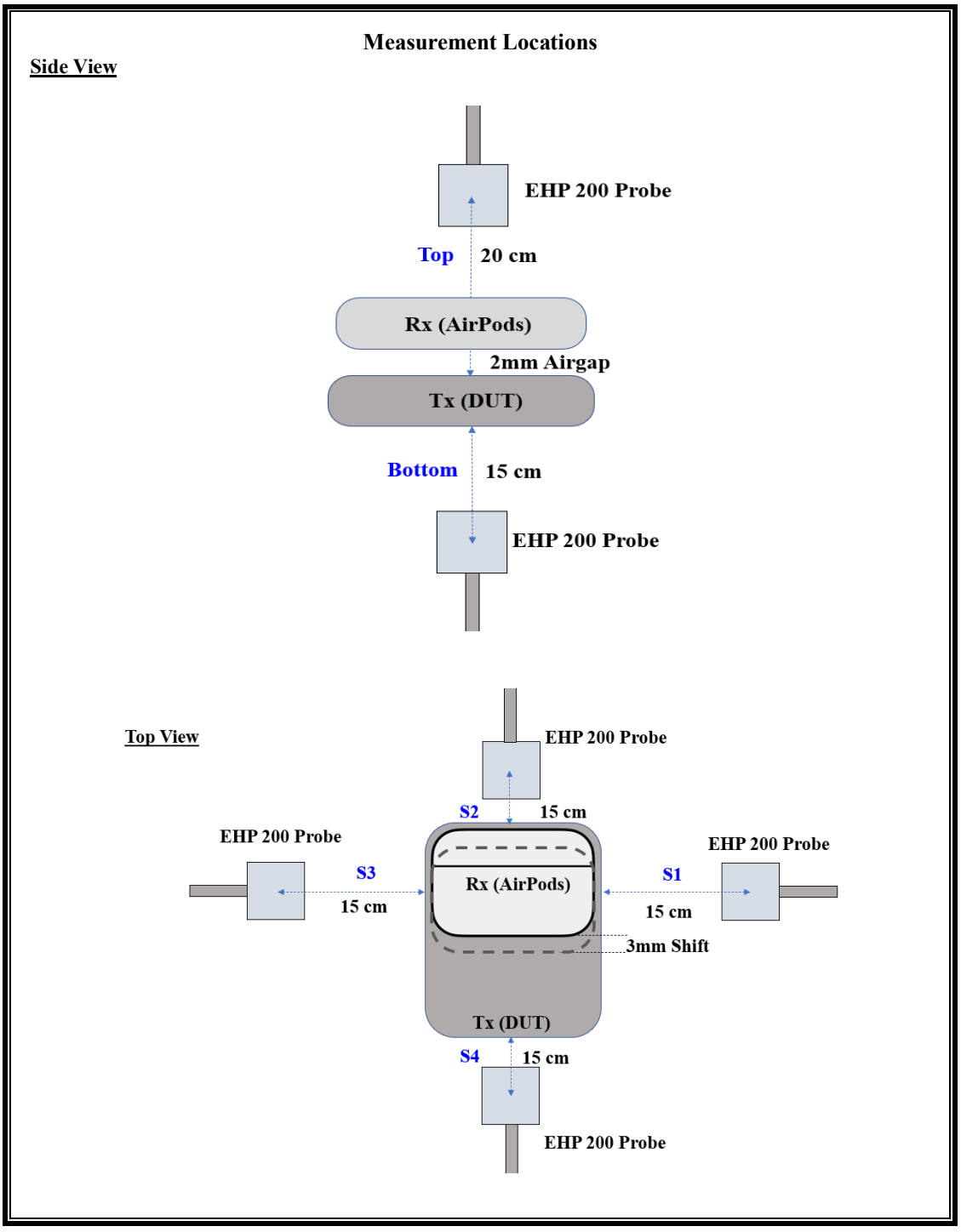
CONFIGURATION 8 (EUT + Internal Battery + AirPods)



CONFIGURATION 9 (EUT + AC Adapter + AirPods with 2mm gap & 3mm Shift)



CONFIGURATION 10 (EUT + Internal Battery + AirPods with 2mm gap & 3mm Shift)



6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was used for the tests documented in this report:

Test Equipment List						
Description	**Manufacturer**	**Model**	**S/N**	**Label ID**	**Cal Due**	**Cal Date**
Electric and Magnetic Field Probe	Narda	EHP-200A	160WX41008	T1085	01/16/2022	01/16/2021
Spectrum Analyzer, PXA, 3Hz to 44GHz	Agilent (Keysight) Technologies	N9030A-544	MY52350671	T342	01/25/2022	01/25/2021

7. DUTY CYCLE

LIMITS

None; for reporting purposes only.

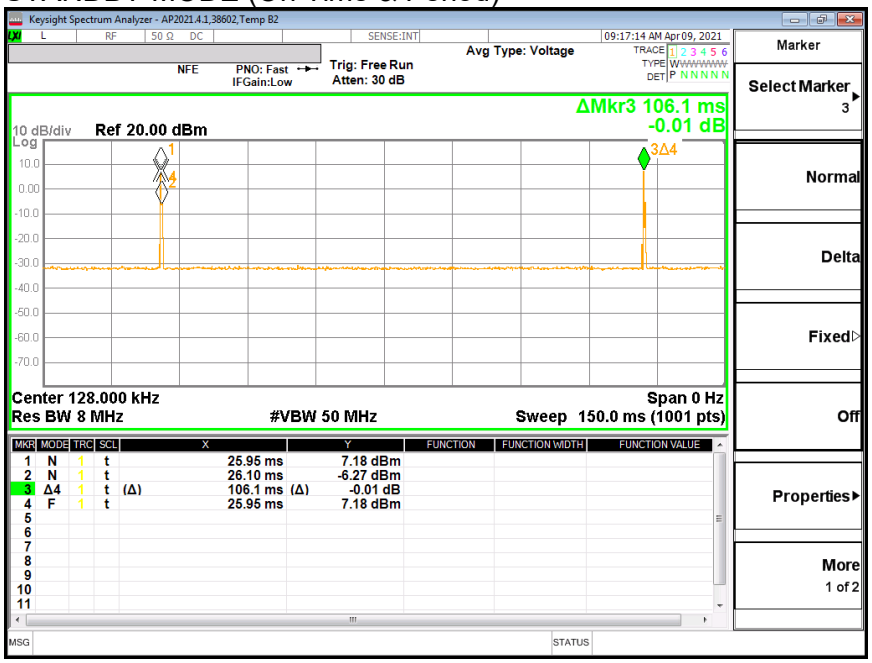
PROCEDURE

Zero-Span Spectrum Analyzer Method.

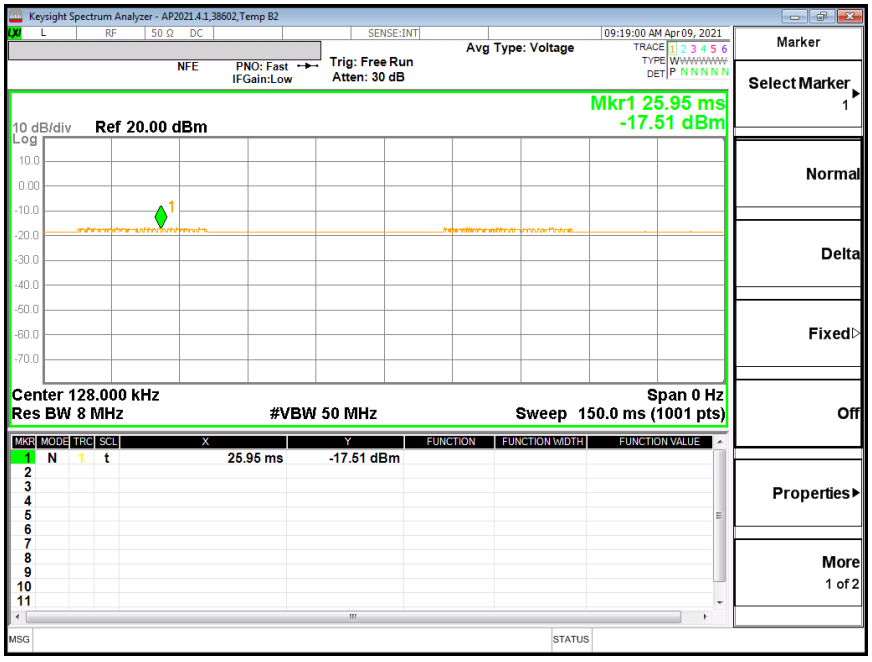
ON TIME AND DUTY CYCLE RESULTS

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)
Standby	26.10	106.10	0.25	24.60%	6.09
Operating	100.00	100.00	1.00	100.00%	0.00

STANDBY MODE (On Time & Period)



OPERATING MODE



8. MAXIMUM PERMISSIBLE RF EXPOSURE

8.1. FCC LIMITS AND SUMMARY

§1.1310 The criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio-frequency (RF) radiation as specified in §1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of §2.1093 of this chapter.

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
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
300–1500			f/300	6
1500–100,000			5	6
(B) 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

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)—Continued

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
30–300	27.5	0.073	0.2	30
300–1500			f/1500	30
1500–100,000			1.0	30

f = frequency in MHz
* = Plane-wave equivalent power density
NOTE 1 TO TABLE 1: Occupational/controlled 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. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.
NOTE 2 TO TABLE 1: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

RESULTS

ID:	38602	Date:	04/08/2021-04/15/2021

Configuration #1:

Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure	Maximum Average (A/m)	Percentage (%)
614	0.079	0.01%	1.63	0.007	0.43%

Configuration #2:

Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure	Maximum Average (A/m)	Percentage (%)
614	0.063	0.01%	1.63	0.007	0.43%

Configuration #3:

Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure	Maximum Average (A/m)	Percentage (%)
614	0.578	0.09%	1.63	0.029	1.78%

Configuration #4:

Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure	Maximum Average (A/m)	Percentage (%)
614	0.270	0.04%	1.63	0.028	1.72%

Configuration #5:

Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure	Maximum Average (A/m)	Percentage (%)
614	0.384	0.06%	1.63	0.080	4.91%

Configuration #6:

Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure	Maximum Average (A/m)	Percentage (%)
614	0.325	0.05%	1.63	0.078	4.79%

Configuration #7:

Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure	Maximum Average (A/m)	Percentage (%)
614	0.429	0.07%	1.63	0.074	4.54%

Configuration #8:

Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure	Maximum Average (A/m)	Percentage (%)
614	0.367	0.06%	1.63	0.066	4.05%

Configuration #9:

Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure	Maximum Average (A/m)	Percentage (%)
614	0.511	0.08%	1.63	0.283	17.36%

Configuration #10:

Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure	Maximum Average (A/m)	Percentage (%)
614	0.487	0.08%	1.63	0.277	16.99%

E- FIELD AND H- FIELD MEASUREMENTS

Note: Peak measurements were performed. RMS values were calculated from the peak measurement. Please refer to the formula for calculating the RMS values: [Field Strength x √Duty Cycle].

Configuration #1 (Tethered Mode-EUT With Power Adapter)

Configuration	Test Mode	Measuring Distance (cm)	Electric Field Limit (V/m)	Electric Field Reading (V/m)				Magnetic Field Limit (A/m)	Magnetic Field Reading (A/m)			
			IC Limit	Location	Peak	Duty Cycle %	FCC Average	IC Limit	Location	Peak	Duty Cycle %	FCC Average
1	Standby	15 cm surrounding the device (S1 - S4 & Rear) and 20 cm above the top surface of the EUT	614	S1	0.221	6.09	0.055	1.63	S1	0.026	6.09	0.007
				S2	0.220		0.054		S2	0.026		0.006
				S3	0.221		0.055		S3	0.025		0.006
				S4	0.277		0.068		S4	0.025		0.006
				Bottom	0.320		**0.079**		Bottom	0.028		0.007
				Top	0.301		0.074		Top	0.029		**0.007**
				Max	0.320		**0.079**		Max	0.029		**0.007**

Configuration #2 (Untethered Mode-EUT powered by internal Battery)

Configuration	Test Mode	Measuring Distance (cm)	Electric Field Limit (V/m)	Electric Field Reading (V/m)				Magnetic Field Limit (A/m)	Magnetic Field Reading (A/m)			
			IC Limit	Location	Peak	Duty Cycle %	FCC Average	IC Limit	Location	Peak	Duty Cycle %	FCC Average
2	Standby	15 cm surrounding the device (S1 - S4 & Rear) and 20 cm above the top surface of the EUT	614	S1	0.220	6.09	0.054	1.63	S1	0.027	6.09	0.007
				S2	0.228		0.056		S2	0.027		0.007
				S3	0.221		0.055		S3	0.027		0.007
				S4	0.255		**0.063**		S4	0.027		0.007
				Bottom	0.252		0.062		Bottom	0.027		0.007
				Top	0.252		0.062		Top	0.028		**0.007**
				Max	0.255		**0.063**		Max	0.028		**0.007**

Configuration #3 (5W, Tethered Mode--EUT + Legacy Phone + AC adapter)

Configuration	Test Mode	Measuring Distance (cm)	Electric Field Limit (V/m)	Electric Field Reading (V/m)				Magnetic Field Limit (A/m)	Magnetic Field Reading (A/m)			
			FCC	Location	Peak	Duty Cycle %	FCC Average	FCC	Location	Peak	Duty Cycle %	FCC Average
3	Operating Real Product (Power ~10% Charging)	15 cm surrounding the device (S1 - S4 & Rear) and 20 cm above the top surface of the EUT	614	S1	0.243	100	0.243	1.63	S1	0.025	100	0.025
				S2	0.255		0.255		S2	0.027		0.027
				S3	0.243		0.243		S3	0.026		0.026
				S4	0.245		0.245		S4	0.027		0.027
				Bottom	0.525		0.525		Bottom	0.027		0.027
				Top	0.321		0.321		Top	0.027		0.027
				Max	0.525		0.525		Max	0.027		0.027
	Operating Real Product (Power 25% ~ 60% Charging)			S1	0.244	100	0.244		S1	0.026	100	0.026
				S2	0.259		0.259		S2	0.028		0.028
				S3	0.251		0.251		S3	0.027		0.027
				S4	0.266		0.266		S4	0.027		0.027
				Bottom	0.578		**0.578**		Bottom	0.027		0.027
				Top	0.321		0.321		Top	0.029		**0.029**
				Max	0.578		**0.578**		Max	0.029		**0.029**
	Operating Real Product (Power >75% Charging)			S1	0.251	100	0.251		S1	0.025	100	0.025
				S2	0.259		0.259		S2	0.027		0.027
				S3	0.244		0.244		S3	0.027		0.027
				S4	0.243		0.243		S4	0.027		0.027
				Bottom	0.567		0.567		Bottom	0.027		0.027
				Top	0.311		0.311		Top	0.027		0.027
				Max	0.567		0.567		Max	0.027		0.027

Configuration #4 (5W, Untethered Mode--EUT + Legacy Phone + internal battery)

Configuration	Test Mode	Measuring Distance (cm)	Electric Field Limit (V/m)	Electric Field Reading (V/m)				Magnetic Field Limit (A/m)	Magnetic Field Reading (A/m)			
			FCC	Location	Peak	Duty Cycle %	FCC Average	FCC	Location	Peak	Duty Cycle %	FCC Average
4	Operating Real Product (Power ~10% Charging)	15 cm surrounding the device (S1 - S4 & Rear) and 20 cm above the top surface of the EUT	614	S1	0.213	100	0.213	1.63	S1	0.025	100	0.025
				S2	0.236		0.236		S2	0.026		0.026
				S3	0.244		0.244		S3	0.025		0.025
				S4	0.221		0.221		S4	0.025		0.025
				Bottom	0.255		0.255		Bottom	0.025		0.025
				Top	0.221		0.221		Top	0.025		0.025
				Max	0.255		0.255		Max	0.026		0.026
	Operating Real Product (Power 25% ~ 60% Charging)			S1	0.221	100	0.221		S1	0.027	100	0.027
				S2	0.236		0.236		S2	0.028		**0.028**
				S3	0.262		0.262		S3	0.025		0.025
				S4	0.228		0.228		S4	0.025		0.025
				Bottom	0.270		**0.270**		Bottom	0.025		0.025
				Top	0.228		0.228		Top	0.025		0.025
				Max	0.270		**0.270**		Max	0.028		**0.028**
	Operating Real Product (Power >75% Charging)			S1	0.220	100	0.220		S1	0.027	100	0.027
				S2	0.228		0.228		S2	0.027		0.027
				S3	0.221		0.221		S3	0.025		0.025
				S4	0.219		0.219		S4	0.025		0.025
				Bottom	0.255		0.255		Bottom	0.025		0.025
				Top	0.218		0.218		Top	0.025		0.025
				Max	0.255		0.255		Max	0.027		0.027

Configuration #5 (4mm gap & 4mm shift , tethered Mode, Legacy phone + AC Adapter)

Configuration	Test Mode	Measuring Distance (cm)	Electric Field Limit (V/m)	Electric Field Reading (V/m)				Magnetic Field Limit (A/m)	Magnetic Field Reading (A/m)			
			FCC	Location	Peak	Duty Cycle %	FCC Average	FCC	Location	Peak	Duty Cycle %	FCC Average
5	Operating Real Product (Power >10% Charging) (4mm Airgap at Center)	15 cm surrounding the device (S1 - S4 & Rear) and 20 cm above the top surface of the EUT	614	S1	0.243	100	0.243	1.63	S1	0.030	100	0.030
				S2	0.243		0.243		S2	0.025		0.025
				S3	0.245		0.245		S3	0.032		0.032
				S4	0.245		0.245		S4	0.027		0.027
				Bottom	0.345		0.345		Bottom	0.033		0.033
				Top	0.253		0.253		Top	0.028		0.028
				Max	0.345		0.345		Max	0.033		0.033
	Operating Real Product (Power >10% Charging) (4mm Airgap & 4mm Shift to the Top)			S1	0.251	100	0.251		S1	0.031	100	0.031
				S2	0.251		0.251		S2	0.045		0.045
				S3	0.279		0.279		S3	0.031		0.031
				S4	0.266		0.266		S4	0.035		0.035
				Bottom	0.361		0.361		Bottom	0.036		0.036
				Top	0.235		0.235		Top	0.027		0.027
				Max	0.351		0.351		Max	0.045		0.045
	Operating Real Product (Power >10% Charging) (4mm Airgap & 4mm Shift to the Bottom)			S1	0.236	100	0.236		S1	0.041	100	0.041
				S2	0.251		0.251		S2	0.077		0.077
				S3	0.228		0.228		S3	0.035		0.035
				S4	0.232		0.232		S4	0.036		0.036
				Bottom	0.371		0.371		Bottom	0.039		0.039
				Top	0.235		0.235		Top	0.030		0.030
				Max	0.371		0.371		Max	0.077		0.077
	Operating Real Product (Power ~25% ~60% Charging) (4mm Airgap at Center)			S1	0.251	100	0.251		S1	0.028	100	0.028
				S2	0.245		0.245		S2	0.025		0.025
				S3	0.247		0.247		S3	0.034		0.034
				S4	0.266		0.266		S4	0.027		0.027
				Bottom	0.371		0.371		Bottom	0.035		0.035
				Top	0.254		0.254		Top	0.030		0.030
				Max	0.371		0.371		Max	0.035		0.035
	Operating Real Product (Power ~25% ~60%% Charging) (4mm Airgap & 4mm Shift to the Top)			S1	0.251	100	0.251		S1	0.030	100	0.030
				S2	0.266		0.266		S2	0.045		0.045
				S3	0.251		0.251		S3	0.031		0.031
				S4	0.274		0.274		S4	0.035		0.035
				Bottom	0.375		0.375		Bottom	0.034		0.034
				Top	0.245		0.245		Top	0.029		0.029
				Max	0.375		0.375		Max	0.045		0.045
	Operating Real Product (Power 25% ~60% Charging) (4mm Airgap & 4mm Shift to the Bottom)			S1	0.244	100	0.244		S1	0.041	100	0.041
				S2	0.256		0.256		S2	0.080		0.080
				S3	0.236		0.236		S3	0.035		0.035
				S4	0.245		0.245		S4	0.039		0.039
				Bottom	0.384		0.384		Bottom	0.039		0.039
				Top	0.245		0.245		Top	0.031		0.031
				Max	0.384		0.384		Max	0.080		0.080
	Operating Real Product (Power >75% Charging) (4mm Airgap at Center)			S1	0.244	100	0.244		S1	0.030	100	0.030
				S2	0.243		0.243		S2	0.025		0.025
				S3	0.237		0.237		S3	0.032		0.032
				S4	0.254		0.254		S4	0.025		0.025
				Bottom	0.374		0.374		Bottom	0.034		0.034
				Top	0.254		0.254		Top	0.030		0.030
				Max	0.374		0.374		Max	0.034		0.034
	Operating Real Product (Power >75% Charging) 4mm Airgap &4mm Shift to the Top)			S1	0.251	100	0.251		S1	0.030	100	0.030
				S2	0.266		0.266		S2	0.044		0.044
				S3	0.251		0.251		S3	0.031		0.031
				S4	0.268		0.268		S4	0.034		0.034
				Bottom	0.373		0.373		Bottom	0.031		0.031
				Top	0.245		0.245		Top	0.029		0.029
				Max	0.373		0.373		Max	0.044		0.044
	Operating Real Product (Power >75% Charging) 4mm Airgap & 4mm Shift to the Bottom)			S1	0.244	100	0.244		S1	0.040	100	0.040
				S2	0.266		0.266		S2	0.078		0.078
				S3	0.244		0.244		S3	0.034		0.034
				S4	0.231		0.231		S4	0.039		0.039
				Bottom	0.380		0.380		Bottom	0.041		0.041
				Top	0.245		0.245		Top	0.030		0.030
				Max	0.380		0.380		Max	0.065		0.065

Configuration #6 (4mm gap & 4mm shift , Untethered Mode, Legacy phone + Battery)

Configuration	Test Mode	Measuring Distance (cm)	Electric Field Limit (V/m)	Electric Field Reading (V/m)				Magnetic Field Limit (A/m)	Magnetic Field Reading (A/m)			
			FCC	Location	Peak	Duty Cycle %	FCC Average	FCC	Location	Peak	Duty Cycle %	FCC Average
6	Operating Real Product (Power >10% Charging) (4mm Airgap at Center)	15 cm surrounding the device (S1 - S4 & Rear) and 20 cm above the top surface of the EUT	614	S1	0.285	100	0.285	1.63	S1	0.036	100	0.036
				S2	0.308		0.308		S2	0.027		0.027
				S3	0.314		0.314		S3	0.036		0.036
				S4	0.283		0.283		S4	0.027		0.027
				Bottom	0.282		0.282		Bottom	0.032		0.032
				Top	0.292		0.292		Top	0.028		0.028
				Max	0.308		0.308		Max	0.036		0.036
	Operating Real Product (Power >10% Charging) (4mm Airgap & 4mm Shift to the Top)			S1	0.221	100	0.221		S1	0.033	100	0.033
				S2	0.228		0.228		S2	0.051		0.051
				S3	0.221		0.221		S3	0.035		0.035
				S4	0.222		0.222		S4	0.036		0.036
				Bottom	0.245		0.245		Bottom	0.033		0.033
				Top	0.228		0.228		Top	0.029		0.029
				Max	0.245		0.245		Max	0.051		0.051
	Operating Real Product (Power >10% Charging) (4mm Airgap & 4mm Shift to the Bottom)			S1	0.244	100	0.244		S1	0.060	100	0.060
				S2	0.285		0.285		S2	0.071		0.071
				S3	0.268		0.268		S3	0.026		0.026
				S4	0.257		0.257		S4	0.025		0.025
				Bottom	0.237		0.237		Bottom	0.027		0.027
				Top	0.212		0.212		Top	0.026		0.026
				Max	0.285		0.285		Max	0.071		0.071
	Operating Real Product (Power ~25% ~60% Charging) (4mm Airgap at Center)			S1	0.297	100	0.297		S1	0.036	100	0.036
				S2	0.314		0.314		S2	0.027		0.027
				S3	0.325		**0.325**		S3	0.035		0.035
				S4	0.303		0.303		S4	0.026		0.026
				Bottom	0.289		0.289		Bottom	0.035		0.035
				Top	0.300		0.300		Top	0.030		0.030
				Max	0.325		**0.325**		Max	0.036		0.036
	Operating Real Product (Power ~25% ~60% Charging) (4mm Airgap & 4mm Shift to the Top)			S1	0.228	100	0.228		S1	0.033	100	0.033
				S2	0.251		0.251		S2	0.053		0.053
				S3	0.244		0.244		S3	0.032		0.032
				S4	0.220		0.220		S4	0.035		0.035
				Bottom	0.255		0.255		Bottom	0.036		0.036
				Top	0.228		0.228		Top	0.031		0.031
				Max	0.255		0.255		Max	0.053		0.053
	Operating Real Product (Power 25% ~60% Charging) (4mm Airgap & 4mm Shift to the Bottom)			S1	0.230	100	0.230		S1	0.058	100	0.058
				S2	0.285		0.285		S2	0.078		**0.078**
				S3	0.283		0.283		S3	0.026		0.026
				S4	0.264		0.264		S4	0.026		0.026
				Bottom	0.247		0.247		Bottom	0.026		0.026
				Top	0.218		0.218		Top	0.027		0.027
				Max	0.285		0.285		Max	0.078		**0.078**
	Operating Real Product (Power >75% Charging) (4mm Airgap at Center)			S1	0.283	100	0.283		S1	0.036	100	0.036
				S2	0.314		0.314		S2	0.027		0.027
				S3	0.325		**0.325**		S3	0.035		0.035
				S4	0.297		0.297		S4	0.027		0.027
				Bottom	0.282		0.282		Bottom	0.033		0.033
				Top	0.300		0.300		Top	0.030		0.030
				Max	0.325		**0.325**		Max	0.036		0.036
	Operating Real Product (Power >75% Charging) 4mm Airgap &4mm Shift to the Top)			S1	0.221	100	0.221		S1	0.031	100	0.031
				S2	0.228		0.228		S2	0.051		0.051
				S3	0.237		0.237		S3	0.035		0.035
				S4	0.221		0.221		S4	0.037		0.037
				Bottom	0.248		0.248		Bottom	0.036		0.036
				Top	0.218		0.218		Top	0.027		0.027
				Max	0.248		0.248		Max	0.051		0.051
	Operating Real Product (Power >75% Charging) 4mm Airgap & 4mm Shift to the Bottom)			S1	0.230	100	0.230		S1	0.058	100	0.058
				S2	0.282		0.282		S2	0.076		0.076
				S3	0.268		0.268		S3	0.027		0.027
				S4	0.264		0.264		S4	0.026		0.026
				Bottom	0.235		0.235		Bottom	0.026		0.026
				Top	0.218		0.218		Top	0.027		0.027
				Max	0.282		0.282		Max	0.078		0.078

Configuration #7 (1W , tethered Mode, Airpod + AC Adapter)

Configuration	Test Mode	Measuring Distance (cm)	Electric Field Limit (V/m)	Electric Field Reading (V/m)				Magnetic Field Limit (A/m)	Magnetic Field Reading (A/m)			
			FCC	Location	Peak	Duty Cycle %	FCC Average	FCC	Location	Peak	Duty Cycle %	FCC Average
7	Operating Real Product (Power ~10% Charging)	15 cm surrounding the device (S1 - S4 & Rear) and 20 cm above the top surface of the EUT	614	S1	0.213	100	0.213	1.63	S1	0.036	100	0.036
				S2	0.282		0.282		S2	0.072		0.072
				S3	0.213		0.213		S3	0.043		0.043
				S4	0.221		0.221		S4	0.031		0.031
				Bottom	0.417		0.417		Bottom	0.068		0.068
				Top	0.334		0.334		Top	0.059		0.059
				Max	0.417		0.417		Max	0.072		0.072
	Operating Real Product (Power 25% ~ 60% Charging)			S1	0.236	100	0.236		S1	0.038	100	0.038
				S2	0.282		0.282		S2	0.073		0.073
				S3	0.218		0.218		S3	0.043		0.043
				S4	0.220		0.220		S4	0.033		0.033
				Bottom	0.429		0.429		Bottom	0.069		0.069
				Top	0.429		**0.429**		Top	0.074		**0.074**
				Max	0.429		**0.429**		Max	0.074		**0.074**
	Operating Real Product (Power >75% Charging)			S1	0.239	100	0.239		S1	0.038	100	0.038
				S2	0.262		0.262		S2	0.072		0.072
				S3	0.221		0.221		S3	0.041		0.041
				S4	0.218		0.218		S4	0.031		0.031
				Bottom	0.415		0.415		Bottom	0.067		0.067
				Top	0.337		0.337		Top	0.062		0.062
				Max	0.415		0.415		Max	0.072		0.072

Configuration #8 (1W , Untethered Mode, Airpod + internal Battery)

Configuration	Test Mode	Measuring Distance (cm)	Electric Field Limit (V/m)	Electric Field Reading (V/m)				Magnetic Field Limit (A/m)	Magnetic Field Reading (A/m)			
			FCC	Location	Peak	Duty Cycle %	FCC Average	FCC	Location	Peak	Duty Cycle %	FCC Average
8	Operating Real Product (Power ~10% Charging)	15 cm surrounding the device (S1 - S4 & Rear) and 20 cm above the top surface of the EUT	614	S1	0.251	100	0.251	1.63	S1	0.034	100	0.034
				S2	0.282		0.282		S2	0.057		0.057
				S3	0.251		0.251		S3	0.039		0.039
				S4	0.259		0.259		S4	0.033		0.033
				Bottom	0.271		0.271		Bottom	0.061		0.061
				Top	0.300		0.300		Top	0.053		0.053
				Max	0.300		0.300		Max	0.061		0.061
	Operating Real Product (Power 25% ~ 60% Charging)			S1	0.256	100	0.256		S1	0.033	100	0.033
				S2	0.323		0.323		S2	0.059		0.059
				S3	0.266		0.266		S3	0.037		0.037
				S4	0.262		0.262		S4	0.042		0.042
				Bottom	0.309		0.309		Bottom	0.066		**0.066**
				Top	0.367		**0.367**		Top	0.057		0.057
				Max	0.367		**0.367**		Max	0.066		**0.066**
	Operating Real Product (Power >75% Charging)			S1	0.255	100	0.255		S1	0.033	100	0.033
				S2	0.280		0.280		S2	0.056		0.056
				S3	0.251		0.251		S3	0.038		0.038
				S4	0.262		0.262		S4	0.039		0.039
				Bottom	0.309		0.309		Bottom	0.064		0.064
				Top	0.346		0.346		Top	0.061		0.061
				Max	0.346		0.346		Max	0.064		0.064

Configuration #9 (2mm Gap & 3mm Shift , tethered Mode, Airpod + AC adapter)

Configuration	Test Mode	Measuring Distance (cm)	Electric Field Limit (V/m)	Electric Field Reading (V/m)				Magnetic Field Limit (A/m)	Magnetic Field Reading (A/m)			
			FCC	Location	Peak	Duty Cycle %	FCC Average	FCC	Location	Peak	Duty Cycle %	FCC Average
9	Operating Real Product (Power >10% Charging) (2mm Airgap at Center)	15 cm surrounding the device (S1 - S4 & Rear) and 20 cm above the top surface of the EUT	614	S1	0.251	100	0.251	1.63	S1	0.037	100	0.037
				S2	0.292		0.292		S2	0.082		0.082
				S3	0.228		0.228		S3	0.035		0.035
				S4	0.220		0.220		S4	0.031		0.031
				Bottom	0.432		0.432		Bottom	0.088		0.088
				Top	0.411		0.411		Top	0.071		0.071
				Max	0.432		0.432		Max	0.088		0.088
	Operating Real Product (Power >10% Charging) (2mm Airgap & 3mm Shift to the Top)			S1	0.285	100	0.285		S1	0.029	100	0.029
				S2	0.318		0.318		S2	0.054		0.054
				S3	0.388		0.388		S3	0.030		0.030
				S4	0.364		0.364		S4	0.030		0.030
				Bottom	0.442		0.442		Bottom	0.280		0.280
				Top	0.060		0.060		Top	0.074		0.074
				Max	0.442		0.442		Max	0.028		0.028
	Operating Real Product (Power >10% Charging) (2mm Airgap & 3mm Shift to the Bottom)			S1	0.289	100	0.289		S1	0.037	100	0.037
				S2	0.307		0.307		S2	0.093		0.093
				S3	0.329		0.329		S3	0.042		0.042
				S4	0.294		0.294		S4	0.044		0.044
				Bottom	0.476		0.476		Bottom	0.134		0.134
				Top	0.272		0.272		Top	0.075		0.075
				Max	0.476		0.476		Max	0.097		0.097
	Operating Real Product (Power ~25% ~60% Charging) (2mm Airgap at Center)			S1	0.251	100	0.251		S1	0.035	100	0.036
				S2	0.293		0.293		S2	0.085		0.085
				S3	0.228		0.228		S3	0.037		0.037
				S4	0.218		0.218		S4	0.032		0.032
				Bottom	0.437		0.437		Bottom	0.098		0.098
				Top	0.412		0.412		Top	0.074		0.074
				Max	0.437		0.437		Max	0.098		0.098
	Operating Real Product (Power ~25% ~60% Charging) (2mm Airgap & 3mm Shift to the Top)			S1	0.418	100	0.418		S1	0.031	100	0.031
				S2	0.411		0.411		S2	0.060		0.060
				S3	0.444		0.444		S3	0.029		0.029
				S4	0.385		0.385		S4	0.029		0.029
				Bottom	0.452		0.452		Bottom	0.283		**0.283**
				Top	0.057		0.057		Top	0.077		0.077
				Max	0.452		0.452		Max	0.283		**0.283**
	Operating Real Product (Power 25% ~60% Charging) (2mm Airgap & 3mm Shift to the Bottom)			S1	0.302	100	0.302		S1	0.039	100	0.039
				S2	0.316		0.316		S2	0.094		0.094
				S3	0.344		0.344		S3	0.044		0.044
				S4	0.316		0.316		S4	0.042		0.042
				Bottom	0.511		**0.511**		Bottom	0.151		0.151
				Top	0.288		0.288		Top	0.078		0.078
				Max	0.511		**0.511**		Max	0.151		0.151
	Operating Real Product (Power >75% Charging) (2mm Airgap at Center)			S1	0.251	100	0.251		S1	0.035	100	0.038
				S2	0.315		0.315		S2	0.078		0.078
				S3	0.228		0.228		S3	0.038		0.038
				S4	0.228		0.228		S4	0.031		0.031
				Bottom	0.429		0.429		Bottom	0.099		0.099
				Top	0.406		0.406		Top	0.071		0.071
				Max	0.429		0.429		Max	0.099		0.099
	Operating Real Product (Power >75% Charging) (2mm Airgap & 3mm Shift to the Top)			S1	0.360	100	0.360		S1	0.031	100	0.031
				S2	0.334		0.334		S2	0.056		0.056
				S3	0.346		0.346		S3	0.027		0.027
				S4	0.407		0.407		S4	0.027		0.027
				Bottom	0.464		0.464		Bottom	0.278		0.278
				Top	0.057		0.057		Top	0.278		0.278
				Max	0.464		0.464		Max	0.277		0.277
	Operating Real Product (Power >75% Charging) (2mm Airgap & 3mm Shift to the Bottom)			S1	0.314	100	0.314		S1	0.040	100	0.040
				S2	0.415		0.415		S2	0.094		0.094
				S3	0.329		0.329		S3	0.043		0.043
				S4	0.329		0.329		S4	0.038		0.038
				Bottom	0.473		0.473		Bottom	0.149		0.149
				Top	0.272		0.272		Top	0.081		0.081
				Max	0.473		0.473		Max	0.149		0.149

Configuration #10 (2mm Gap & 3mm Shift , Untethered Mode, Airpod + Internal Battery)

Configuration	Test Mode	Measuring Distance (cm)	Electric Field Limit (V/m)	Electric Field Reading (V/m)				Magnetic Field Limit (A/m)	Magnetic Field Reading (A/m)			
			FCC	Location	Peak	Duty Cycle %	FCC Average	FCC	Location	Peak	Duty Cycle %	FCC Average
10	Operating Real Product (Power >10% Charging) (2mm Airgap at Center)	15 cm surrounding the device (S1 - S4 & Rear) and 20 cm above the top surface of the EUT	614	S1	0.228		0.228	1.63	S1	0.033		0.033
				S2	0.279		0.279		S2	0.081		0.081
				S3	0.251		0.251		S3	0.047		0.047
				S4	0.251	100	0.251		S4	0.033	100	0.033
				Bottom	0.326		0.326		Bottom	0.101		0.101
				Top	0.327		0.327		Top	0.071		0.071
				Max	0.327		0.327		Max	0.101		0.101
	Operating Real Product (Power >10% Charging) (2mm Airgap & 3mm Shift to the Top)			S1	0.228		0.228		S1	0.033		0.033
				S2	0.262		0.262		S2	0.066		0.066
				S3	0.228		0.228		S3	0.038		0.038
				S4	0.254	100	0.254		S4	0.031	100	0.031
				Bottom	0.092		0.092		Bottom	0.274		0.274
				Top	0.309		0.309		Top	0.062		0.062
				Max	0.309		0.309		Max	0.274		0.274
	Operating Real Product (Power >10% Charging) (2mm Airgap & 3mm Shift to the Bottom)			S1	0.244		0.244		S1	0.038		0.038
				S2	0.323		0.323		S2	0.102		0.102
				S3	0.220		0.220		S3	0.050		0.050
				S4	0.213	100	0.213		S4	0.044	100	0.044
				Bottom	0.361		0.361		Bottom	0.133		0.133
				Top	0.477		0.477		Top	0.090		0.090
				Max	0.477		0.477		Max	0.133		0.133
	Operating Real Product (Power ~25% ~60% Charging) (2mm Airgap at Center)			S1	0.228		0.228		S1	0.049		0.049
				S2	0.282		0.282		S2	0.084		0.084
				S3	0.268		0.268		S3	0.054		0.054
				S4	0.244	100	0.244		S4	0.034	100	0.034
				Bottom	0.307		0.307		Bottom	0.108		0.108
				Top	0.353		0.353		Top	0.068		0.068
				Max	0.353		0.353		Max	0.108		0.108
	Operating Real Product (Power ~25% ~60% Charging) (2mm Airgap & 3mm Shift to the Top)			S1	0.245		0.245		S1	0.031		0.031
				S2	0.282		0.282		S2	0.066		0.066
				S3	0.254		0.254		S3	0.037		0.037
				S4	0.285	100	0.285		S4	0.030	100	0.030
				Bottom	0.086		0.086		Bottom	0.277		**0.277**
				Top	0.326		0.326		Top	0.065		0.065
				Max	0.326		0.326		Max	0.277		**0.277**
	Operating Real Product (Power 25% ~60% Charging) (2mm Airgap & 3mm Shift to the Bottom)			S1	0.251		0.251		S1	0.040		0.040
				S2	0.301		0.301		S2	0.103		0.103
				S3	0.218		0.218		S3	0.049		0.049
				S4	0.218	100	0.218		S4	0.044	100	0.044
				Bottom	0.352		0.352		Bottom	0.134		0.134
				Top	0.487		**0.487**		Top	0.089		0.089
				Max	0.487		**0.487**		Max	0.134		0.134
	Operating Real Product (Power >75% Charging) (2mm Airgap at Center)			S1	0.228		0.228		S1	0.049		0.049
				S2	0.315		0.315		S2	0.084		0.084
				S3	0.268		0.268		S3	0.053		0.053
				S4	0.245	100	0.245		S4	0.036	100	0.036
				Bottom	0.326		0.326		Bottom	0.111		0.111
				Top	0.343		0.343		Top	0.071		0.071
				Max	0.343		0.343		Max	0.111		0.111
	Operating Real Product (Power >75% Charging) (2mm Airgap & 3mm Shift to the Top)			S1	0.254		0.254		S1	0.035		0.035
				S2	0.290		0.290		S2	0.066		0.066
				S3	0.264		0.264		S3	0.036		0.036
				S4	0.259	100	0.259		S4	0.031	100	0.031
				Bottom	0.086		0.086		Bottom	0.276		0.276
				Top	0.301		0.301		Top	0.062		0.062
				Max	0.301		0.301		Max	0.276		0.276
	Operating Real Product (Power >75% Charging) (2mm Airgap & 3mm Shift to the Bottom)			S1	0.244		0.244		S1	0.042		0.042
				S2	0.321		0.321		S2	0.101		0.101
				S3	0.220		0.220		S3	0.053		0.053
				S4	0.220	100	0.220		S4	0.043	100	0.043
				Bottom	0.370		0.370		Bottom	0.130		0.130
				Top	0.439		0.439		Top	0.093		0.093
				Max	0.439		0.439		Max	0.130		0.130

9. SETUP PHOTO

Please see setup photo report 13371066-EP1V1

END OF TEST REPORT