



# **TEST REPORT**

**Report Number. :** 13573637-E2V2

**Applicant :** BELKIN INTERNATIONAL, INC  
12045 EAST WATERFRONT DRIVE  
PLAYA VISTA, CA 90094, U.S.A.

**Model :** WIZ009

**FCC ID :** K7SWIZ009

**EUT Description :** BOOST ↑ CHARGE™ PRO 3-in-1 Magnetic Wireless Charger

**Test Standard(s) :** FCC PART 1 SUBPART I  
FCC PART 2 SUBPART J

**Date Of Issue:**  
December 02, 2020

**Prepared by:**  
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Revision History

Rev.	Issue Date	Revisions	Revised By
V1	11/24/2020	Initial Issue	---
V2	12/2/2020	Updated Section 4 to address TCB's question and updated setup photos report revision number	Tina Chu

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## 1. ATTESTATION OF TEST RESULTS

**COMPANY NAME:** BELKIN INTERNATIONAL, INC.  
12045 EAST WATERFRONT DRIVE  
PLAYA VISTA, CA 90094 U.S.A.

**EUT DESCRIPTION:** BOOST ↑ CHARGE™ PRO 3-in-1 Magnetic Wireless Charger

**MODEL NUMBER:** WIZ009

**SERIAL NUMBER:** DLC040200S4PP493B

**DATE TESTED:** NOVEMBER 04, 2020 TO NOVEMBER 18, 2020

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

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise.

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 the U.S. government.

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Prepared By:



Tina Chu  
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Consumer Technology Division  
UL Verification Services Inc.

## 2. TEST METHODOLOGY

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

## 3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 and 47266 Benicia Street, and 47658 Kato Road, Fremont, California, USA. Line conducted emissions were measured at 47658 Kato Road address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

47173 Benicia Street	47266 Benicia Street	47658 Kato Rd
<input type="checkbox"/> Chamber A	<input type="checkbox"/> Chamber D	<input type="checkbox"/> Chamber I
<input type="checkbox"/> Chamber B	<input type="checkbox"/> Chamber E	<input type="checkbox"/> Chamber J
<input type="checkbox"/> Chamber C	<input type="checkbox"/> Chamber F	<input type="checkbox"/> Chamber K
	<input type="checkbox"/> Chamber G	<input type="checkbox"/> Chamber L
	<input checked="" type="checkbox"/> Chamber H	<input type="checkbox"/> Chamber M

The above test sites and facilities are covered under FCC Test Firm Registration # 208313. Chambers above are covered under Industry Canada company address and respective code: 22541.

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0

#### 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, 110.5kHz-148.5kHz, and 326kHz.
(2) Output power from each primary coil is less than or equal to 15 watts.	Yes. The maximum power are 15W (360kHz), 1W(110.5kHz-148.5kHz), and 1W (326kHz).
(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 has three separated individual coil and each of them only allows for capable wireless power transfer between one source and one client at any given time.
(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).	Yes. It is a mobile device.
(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.	<p>The worst case leakage  @360kHz is 31.61%  @110.5kHz to 148.5kHz is 11.5%  @326kHz is 3.54%</p> <p>The total aggregate H-field strength is  <math>(31.61+11.5+3.54)\% = 46.65\%</math> of the MPE limit.</p>

## 5. EQUIPMENT UNDER TEST

### 5.1. DESCRIPTION OF EUT

The EUT is a BOOST ↑ CHARGE™ PRO 3-in-1 Magnetic Wireless Charger with 3 separated charging coils that is capable of charging 3 client devices at the same time. First coil is used for charging an iPhone at 360kHz (15W power), second coil is used to charge AirPods Charging Case at 110.5kHz – 148.5kHz (1W power), and the third coil is used for charging an Apple Watch at 326kHz (1W power). EUT is powered from AC/DC adapter.

### 5.2. WORST-CASE CONFIGURATION AND MODE

Worst case orientation of the client devices have been investigated, there is no significant delta when the client devices at different orientations. All testing is based on direct contact and no shifts position due to magnetic charger pad, the AirPods Charging Case is placed at the maximum power position during the testing. For the entire radiated emissions test, the EUT was investigated on the following configuration during the test at its natural orientation.

Config	Mode	Descriptions
1	Standby	EUT standalone, powered by AC/DC adapter.
2	Operating @360kHz. (~10%, 20~60%, and >75% Power Charging)	Direct contact during charging between the EUT & WPT Client (iPhone 12), and the EUT is powered by AC/DC adapter.
3	Operating @110.5kHz to 148.5kHz (~10%, 20~60%, and >75% Power Charging)	Direct contact during charging between the EUT & WPT Client (AirPods Charging Case with AirPods charging inside), and the EUT is powered by AC/DC adapter.
4	Operating @326kHz (~10%, 20~60%, and >75% Power Charging)	Direct contact during charging between the EUT & WPT Client (Apple Watch), and the EUT is powered by AC/DC adapter.
5	Operating @360kHz and 110.5kHz to 148.5kHz (~10%, 20~60%, and >75% Power Charging)	Direct contact during charging between the EUT & WPT Client (iPhone 12, AirPods Charging Case with AirPods charging inside) and the EUT is powered by AC/DC adapter.
6	Operating @360kHz and 326kHz (~10%, 20~60%, and >75% Power Charging)	Direct contact during charging between the EUT & WPT Client (iPhone 12, Apple Watch) and the EUT is powered by AC/DC adapter.
7	Operating @110.5kHz to 148.5kHz and 326kHz (~10%, 20~60%, and >75% Power Charging)	Direct contact during charging between the EUT & WPT Client (AirPods Charging Case with AirPods charging inside, Apple Watch) and the EUT is powered by AC/DC adapter.
8	Operating @360kHz, 110.5kHz to 148.5kHz and 326kHz (~10%, 20~60%, and >75% Power Charging)	Direct contact during charging between the EUT & WPT Client (iPhone 12, AirPods Charging Case with AirPods charging inside, Apple Watch) and the EUT is powered by AC/DC adapter.

### 5.3. DESCRIPTION OF TEST SETUP

#### SUPPORT EQUIPMENT

SUPPORT TEST EQUIPMENT						
Description		Manufacturer	Model	Serial Number		FCC ID/ DoC
AC/DC adapter		Channel Well Technology Co., Ltd.	2ACR040G NJ	N/A		DoC
iPhone 12 Pro		Apple	A2341	DNPDF3C90D82		BCG-E3545A
iPhone 12 Pro		Apple	A2341	DNPDKW2B0D80		BCG-E3545A
iPhone 12		Apple	A2172	G6TDG5VJ0DXT		BCG-E3542A
AirPods Charging Case		Apple	A2190	H35D18FMLTTK		DoC
AirPods Charging Case		Apple	A2190	GX4ZHCSNLKKT		DoC
AirPods Charging Case		Apple	A2190	H35CX3JULKKT		DoC
Apple Watch		Apple	A1977	FH7XG2HZKDH2		BCG-A1977
Apple Watch		Apple	A1554	FHLPNJQEG9J6		BCG-E2871
Apple Watch		Apple	A2352	G99D534CQ07W		BCG-A2352
AirPods		Apple	A2083	H36D37S0JQH3		BCG-A2083
AirPods		Apple	A2083	H34D33VVJQH4		BCG-A2083
AirPods		Apple	A2083	GX5ZG9HPJQH4		BCG-A2083
AirPods		Apple	A2083	GX6ZJ845JQH3		BCG-A2083
AirPods		Apple	A2083	H36D2EXBJQH4		BCG-A2083
AirPods		Apple	A2083	H32D2352JQH3		BCG-A2083
I/O CABLES (AC LINE CONDUCTED)						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	DC	1	Barrel	Un-shielded	1.5	From AC/DC adapter ,40W Power supply

#### TEST SETUP

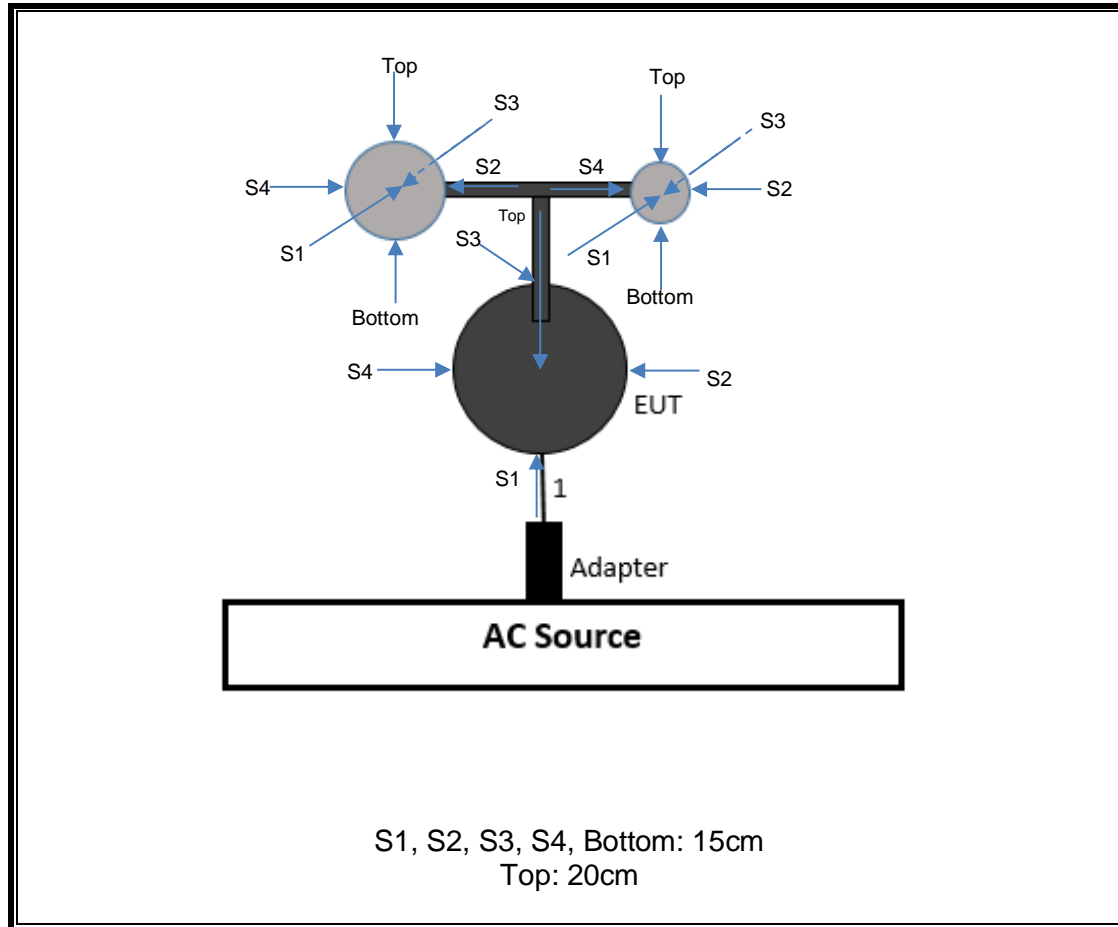
The following configurations are tested:

#### MEASUREMENT SETUP

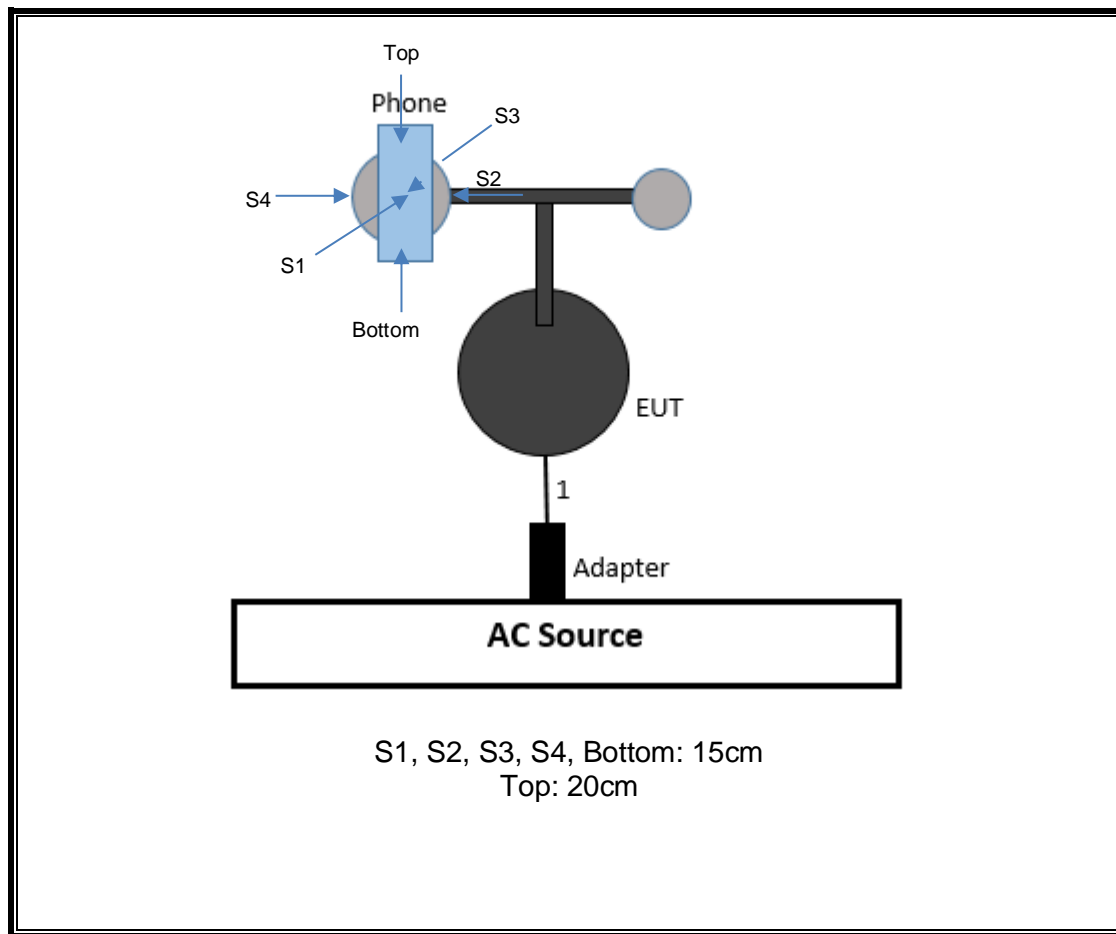
The measurements were taken using a probe placed 15 cm surrounding the device and 20 cm above the top surface for all configurations on each individual coil per KDB 680106 D01.



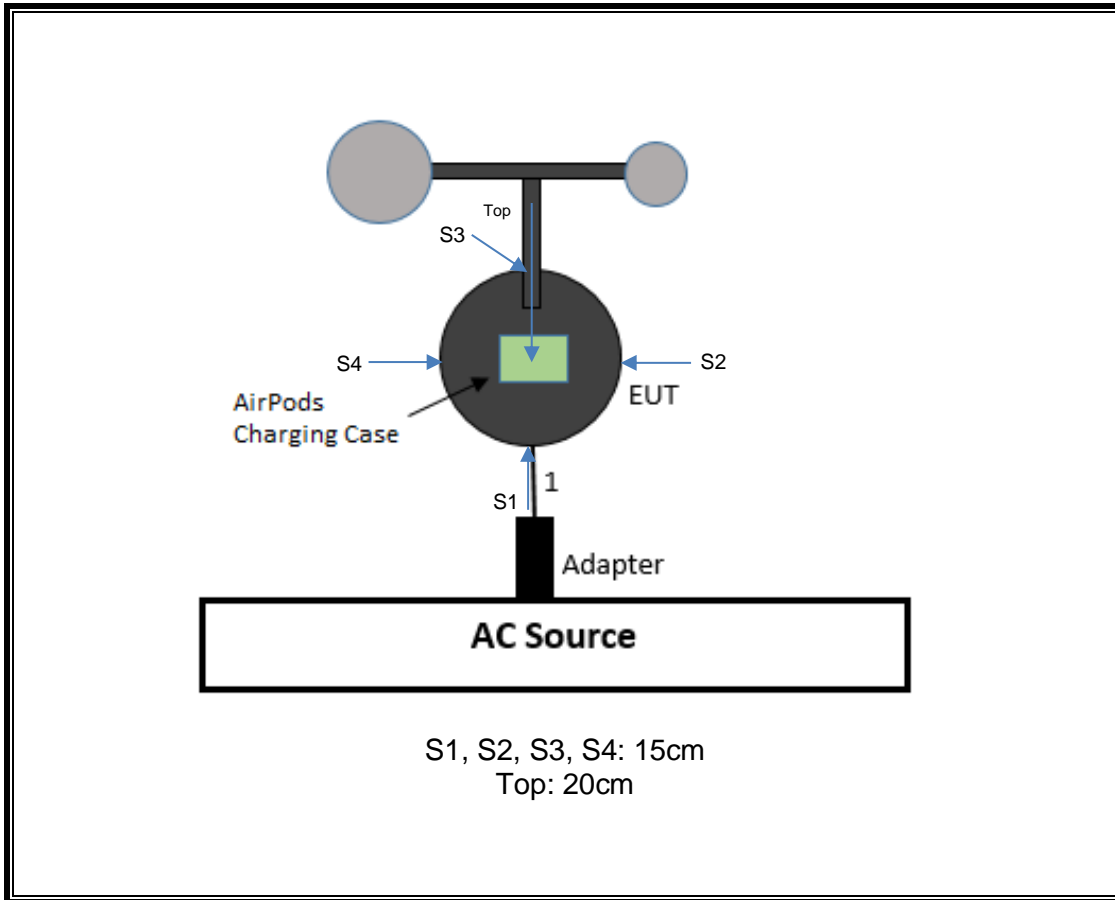
**CONFIGURATION 1: Standby**



**CONFIGURATION 2: iPhone**



**CONFIGURATION 3: AirPods Charging Case with AirPods**



Top

Watch

S3

S2

S4

S1

Bottom

EUT

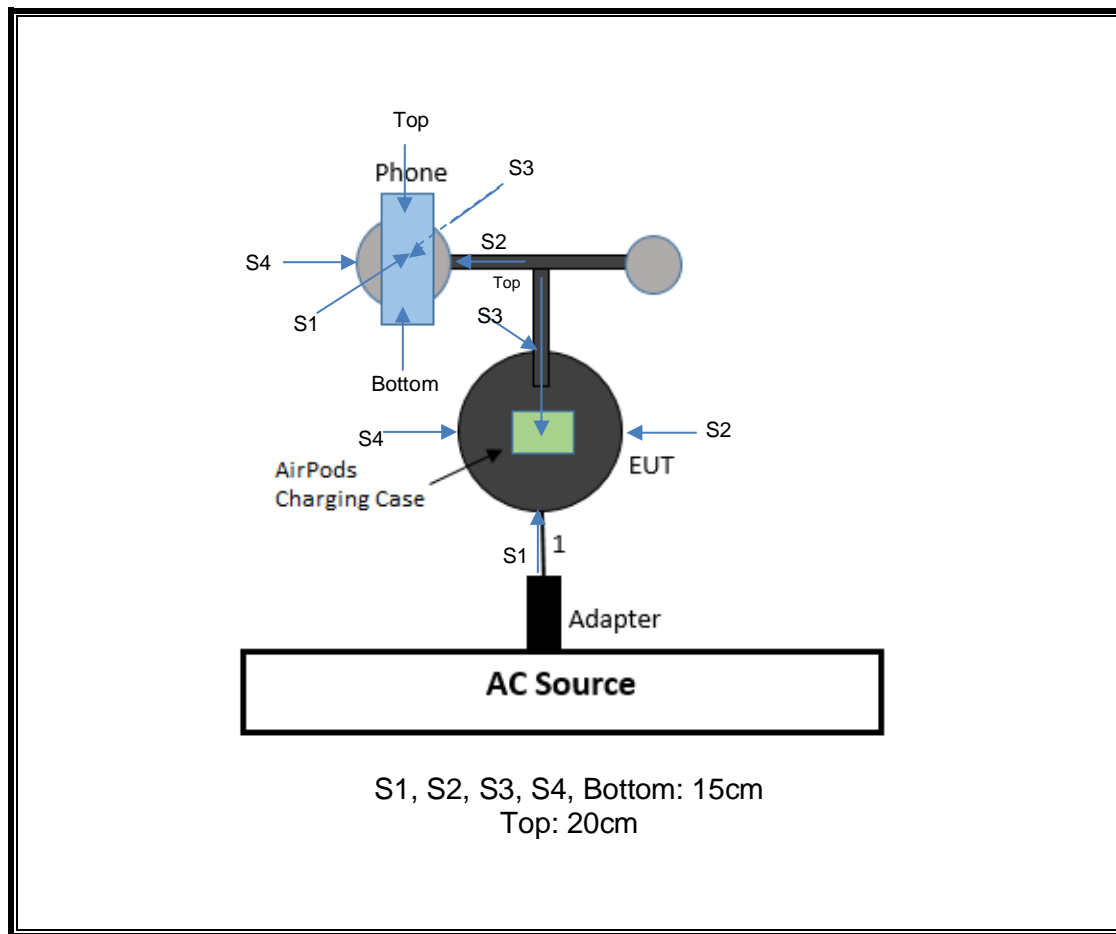
1

Adapter

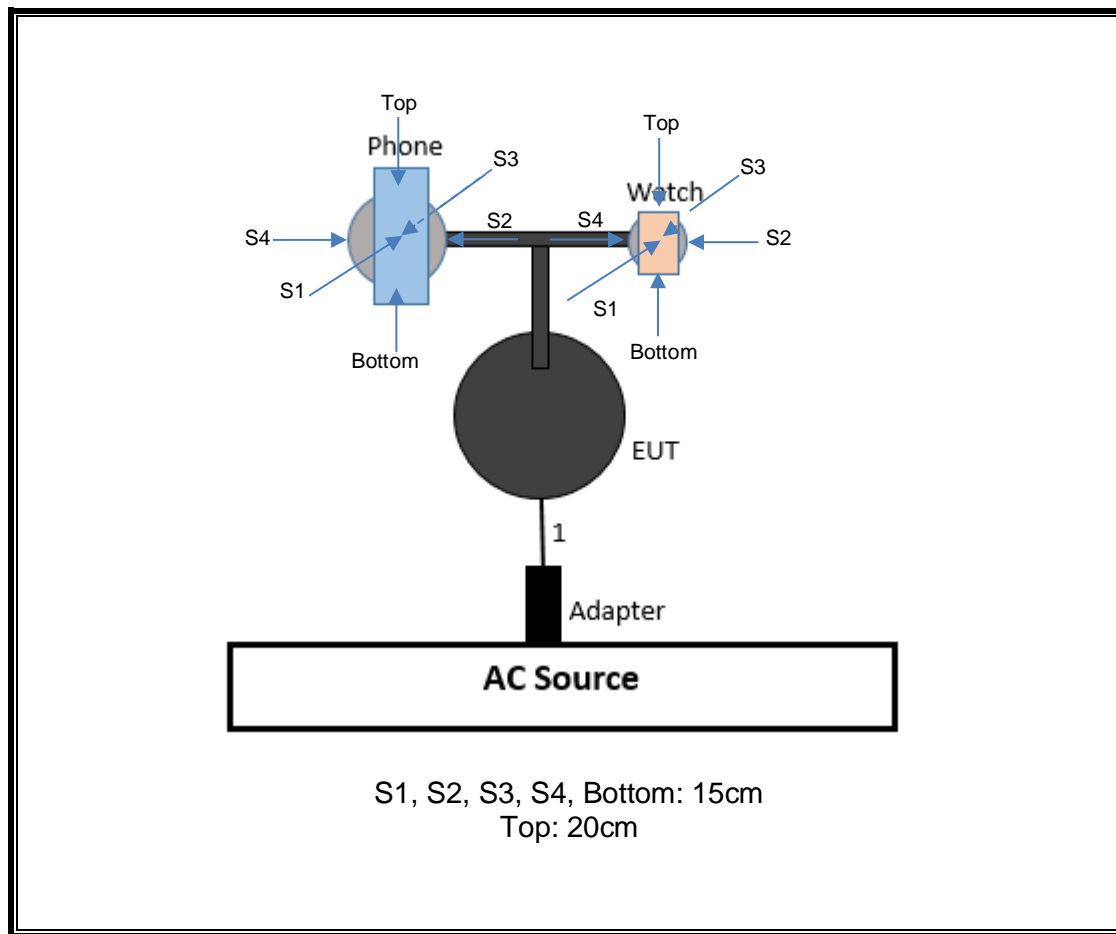
AC Source

S1, S2, S3, S4, Bottom: 15cm  
Top: 20cm

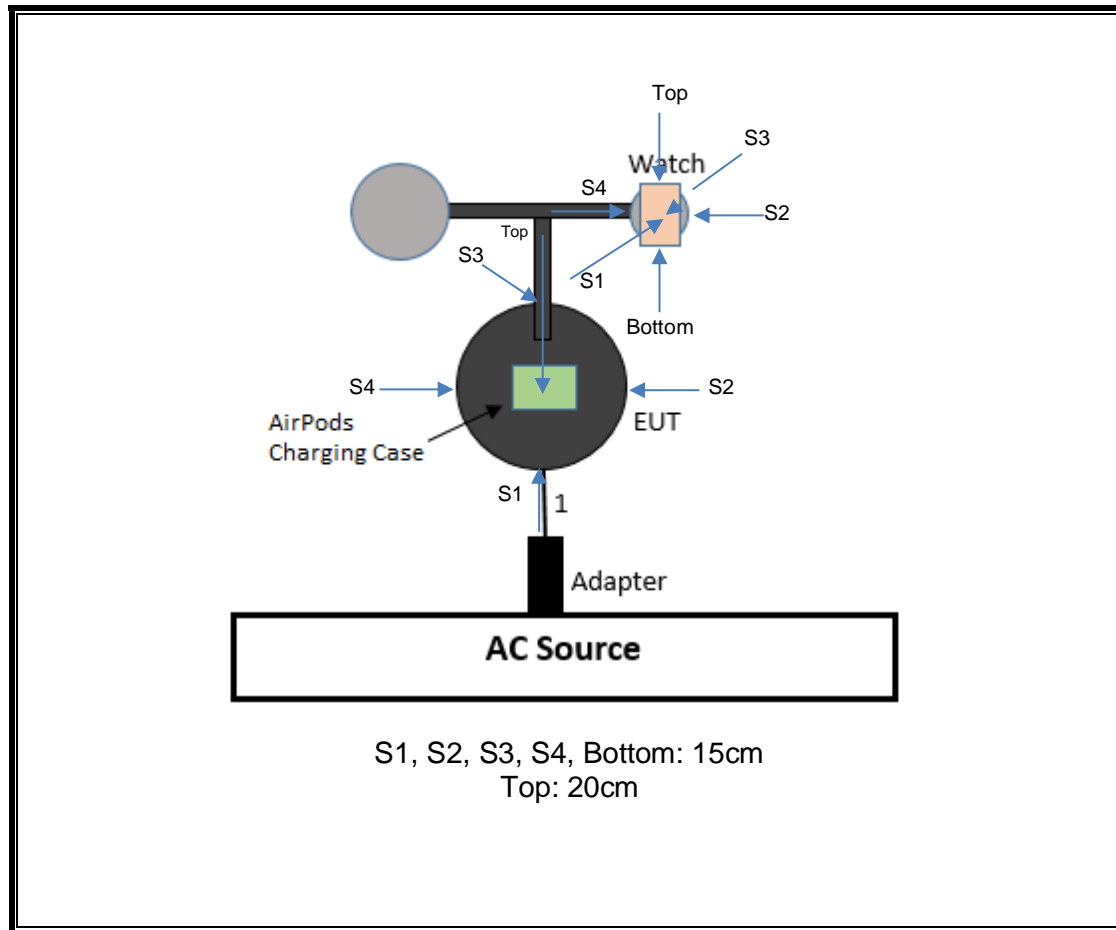
**CONFIGURATION 5: iPhone + AirPods Charging Case with AirPods**



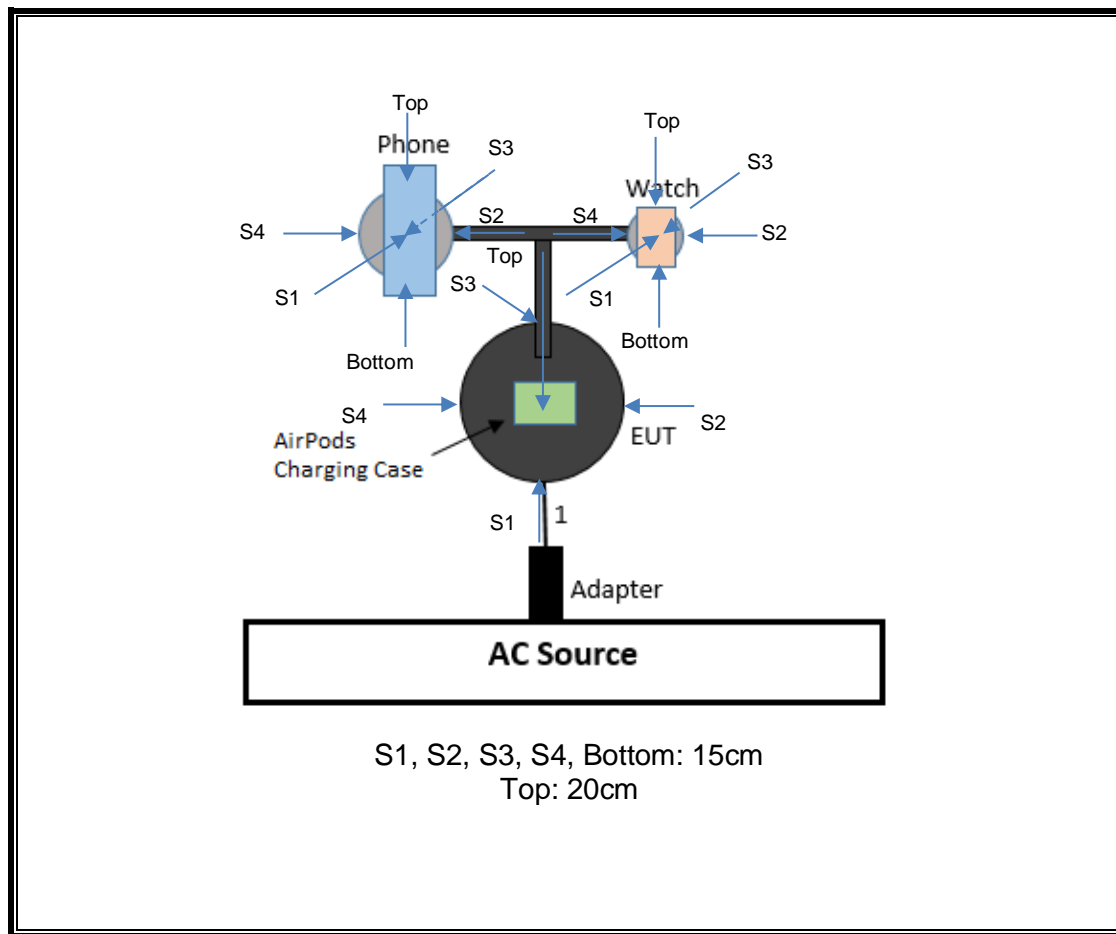
**CONFIGURATION 6: iPhone + Apple Watch**



**CONFIGURATION 7: AirPods Charging Case with AirPods + Apple Watch**



**CONFIGURATION 8: iPhone + AirPods Charging Case with AirPods + Apple Watch**





## 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	12/02/2020	12/02/2019
Spectrum Analyzer, PXA, 3Hz to 44GHz	Agilent (Keysight) Technologies	N9030A-544	MY52350176	T1210	01/28/2021	01/28/2020

## 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 @ 360kHz	1.26	101.20	0.01	1.25%	19.05
Standby @ 147.6kHz	66.00	1143.00	0.06	5.77%	12.39
Standby @ 326kHz	12.00	199.80	0.06	6.01%	12.21
Operating Frequency @ 360kHz	100.00	100.00	1.00	100.00%	0.00
Operating Frequency @ 147.6kHz	100.00	100.00	1.00	100.00%	0.00
Operating Frequency @ 326kHz	100.00	100.00	1.00	100.00%	0.00



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

### RESULT

Test Engineer:	20769 RB, 38602 TW	Test Date:	11/09/2020 to 11/18/2020
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## **MAXIMUM RESULT SUMMARY**

### **CONFIGURATION 1: Standby**

360kHz

Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure	Maximum Average (A/m)	Percentage (%)
614	0.026	0.00%	1.63	0.005	0.28%

110.5kHz to 148.5kHz

Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure	Maximum Average (A/m)	Percentage (%)
614	0.081	0.01%	1.63	0.080	4.91%

326kHz

Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure	Maximum Average (A/m)	Percentage (%)
614	0.058	0.01%	1.63	0.017	1.05%

### **CONFIGURATION 2: iPhone**

360kHz

Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure	Maximum Average (A/m)	Percentage (%)
614	0.418	0.07%	1.63	0.148	9.08%

### **CONFIGURATION 3: AirPods Charging Case with AirPods**

110.5kHz to 148.5kHz

Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure	Maximum Average (A/m)	Percentage (%)
614	0.647	0.11%	1.63	0.187	11.50%

### **CONFIGURATION 4: Apple Watch**

326kHz

Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure	Maximum Average (A/m)	Percentage (%)
614	0.237	0.04%	1.63	0.038	2.30%

**CONFIGURATION 5: iPhone + AirPods Charging Case with AirPods**

360kHz

Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure	Maximum Average (A/m)	Percentage (%)
614	0.447	0.07%	1.63	0.515	31.61%

110.5kHz to 148.5kHz

Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure	Maximum Average (A/m)	Percentage (%)
614	0.911	0.15%	1.63	0.036	2.23%

**CONFIGURATION 6: iPhone + Apple Watch**

360kHz

Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure	Maximum Average (A/m)	Percentage (%)
614	0.718	0.12%	1.63	0.073	4.46%

326kHz

Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure	Maximum Average (A/m)	Percentage (%)
614	0.884	0.14%	1.63	0.043	2.61%

**CONFIGURATION 7: AirPods Charging Case with AirPods + Apple Watch**

110.5kHz to 148.5kHz

Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure	Maximum Average (A/m)	Percentage (%)
614	0.486	0.08%	1.63	0.135	8.28%

326kHz

Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure	Maximum Average (A/m)	Percentage (%)
614	0.251	0.04%	1.63	0.058	3.54%

**CONFIGURATION 8: iPhone + AirPods Charging Case with AirPods + Apple Watch**

360kHz

Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure	Maximum Average (A/m)	Percentage (%)
614	0.884	0.14%	1.63	0.066	4.02%

110.5kHz to 148.5kHz

Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure	Maximum Average (A/m)	Percentage (%)
614	0.994	0.16%	1.63	0.159	9.74%

326kHz

Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure	Maximum Average (A/m)	Percentage (%)
614	1.065	0.17%	1.63	0.053	3.26%

## 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  $\sqrt{\text{Duty Cycle}}$ ].

### CONFIGURATION 1: Standby

FCC Limit @360kHz														
Configuration	Test Mode	Measuring Distance (cm)	Electric Field Limit	Electric Field Reading				Magnetic Field Limit	Magnetic Field Reading					
			(V/m)	(V/m)				(A/m)	(A/m)					
			FCC Limit	Location	Peak	Duty Cycle %	FCC Average	FCC Limit	Location	Peak	Duty Cycle %	FCC Average		
1	Standby	15 cm surrounding the device (S1 - S4) and 20 cm above the top surface of the EUT	614	S1	0.227	1.3	0.025	1.63	S1	0.036	1.25	0.004		
				S2	0.226		0.025		S2	0.042		0.005		
				S3	0.235		0.026		S3	0.037		0.004		
				S4	0.235		0.026		S4	0.036		0.004		
				Top	0.227		0.025		Top	0.036		0.004		
				Bottom	0.227		0.025		Bottom	0.036		0.004		
				Max	0.235		0.026		Max	0.042		0.005		
FCC Limit @110.5kHz to 148.5kHz														
Configuration	Test Mode	Measuring Distance (cm)	Electric Field Limit	Electric Field Reading				Magnetic Field Limit	Magnetic Field Reading					
			(V/m)	(V/m)				(A/m)	(A/m)					
			FCC Limit	Location	Peak	Duty Cycle %	FCC Average	FCC Limit	Location	Peak	Duty Cycle %	FCC Average		
1	Standby	15 cm surrounding the device (S1 - S4) and 20 cm above the top surface of the EUT	614	S1	0.269	5.8	0.065	1.63	S1	0.033	5.8	0.008		
				S2	0.258		0.062		S2	0.052		0.012		
				S3	0.312		0.075		S3	0.037		0.009		
				S4	0.266		0.064		S4	0.054		0.013		
				Top	0.338		0.081		Top	0.332		0.080		
				Max	0.338		0.081		Max	0.332		0.080		
FCC Limit @326kHz														
Configuration	Test Mode	Measuring Distance (cm)	Electric Field Limit	Electric Field Reading				Magnetic Field Limit	Magnetic Field Reading					
			(V/m)	(V/m)				(A/m)	(A/m)					
			FCC Limit	Location	Peak	Duty Cycle %	FCC Average	FCC Limit	Location	Peak	Duty Cycle %	FCC Average		
1	Standby	15 cm surrounding the device (S1 - S4) and 20 cm above the top surface of the EUT	614	S1	0.226	6.0	0.055	1.63	S1	0.070	6.0	0.017		
				S2	0.235		0.058		S2	0.039		0.009		
				S3	0.235		0.058		S3	0.040		0.010		
				S4	0.227		0.056		S4	0.036		0.009		
				Top	0.235		0.058		Top	0.036		0.009		
				Bottom	0.235		0.058		Bottom	0.036		0.009		
				Max	0.235		0.058		Max	0.070		0.017		



### CONFIGURATION 2: iPhone

FCC Limit		@ Direct Contact											
Configuration	Test Mode	Measuring Distance (cm)	Electric Field Limit	Electric Field Reading				Magnetic Field Limit	Magnetic Field Reading				
			(V/m)	(V/m)				(A/m)	(A/m)				
			FCC	Location	Peak	Duty Cycle %	FCC Average	FCC	Location	Peak	Duty Cycle %	FCC Average	
2	Operating Real Product (Power ~10% Charging)	15 cm surrounding the device (S1 - S4) and 20 cm above the top surface of the EUT	614	S1	0.410	100	0.410	1.63	S1	0.036	100	0.036	
	S2			0.373	0.373		S2		0.148	0.148			
	S3			0.246	0.246		S3		0.043	0.043			
	S4			0.237	0.237		S4		0.036	0.036			
	Top			0.244	0.244		Top		0.034	0.034			
	Bottom			0.262	0.262		Bottom		0.037	0.037			
	Max			0.410	0.410		Max		0.148	0.148			
	S1			0.389	100	0.389	1.63		S1	0.035	100	0.035	
	S2			0.302		0.302			S2	0.122		0.122	
	S3			0.274		0.274			S3	0.036		0.036	
	S4			0.251		0.251			S4	0.034		0.034	
	Top			0.274		0.274			Top	0.037		0.037	
	Bottom			0.352		0.352			Bottom	0.036		0.036	
	Max			0.389		0.389			Max	0.122		0.122	
	S1			0.418	100	0.418			1.63	S1	0.036	100	0.036
	S2			0.245		0.245				S2	0.135		0.135
	S3			0.228		0.228				S3	0.036		0.036
	S4			0.228		0.228				S4	0.037		0.037
	Top			0.282		0.282				Top	0.033		0.033
	Bottom			0.303		0.303				Bottom	0.036		0.036
	Max			0.418		0.418				Max	0.135		0.135

### CONFIGURATION 3: AirPods Charging Case with AirPods

FCC Limit @ Direct Contact													
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 %
			3	Operating Real Product (Power ~10% Charging)	15 cm surrounding the device (S1 - S4) and 20 cm above the top surface of the EUT	614	S1	0.269	100	0.269	1.63	S1	0.045
S2	0.262	0.262					S2	0.035		0.035			
S3	0.369	0.369					S3	0.053		0.053			
S4	0.647	0.647					S4	0.044		0.044			
Top	0.303	0.303					Top	0.159		0.159			
Max	0.647	0.647					Max	0.159		0.159			
S1	0.262	100					0.262	S1		0.045		0.045	
S2	0.247			0.247			S2	0.036	0.036				
S3	0.248			0.248			S3	0.055	0.055				
S4	0.360			0.360			S4	0.045	0.045				
Top	0.325			0.325			Top	0.187	0.187				
Max	0.360			0.360			Max	0.187	0.187				
Operating Real Product (Power 20% ~ 60% Charging)	S1			0.247			100	0.247	S1	0.045		0.045	
	S2	0.259		0.259				S2	0.033	0.033			
	S3	0.317		0.317				S3	0.053	0.053			
	S4	0.469		0.469				S4	0.044	0.044			
	Top	0.381		0.381				Top	0.139	0.139			
	Max	0.469		0.469				Max	0.139	0.139			
	Operating Real Product (Power >75% Charging)	S1	0.247	100	0.247	S1		0.045	0.045				
S2		0.259	0.259		S2	0.033	0.033						
S3		0.317	0.317		S3	0.053	0.053						
S4		0.469	0.469		S4	0.044	0.044						
Top		0.381	0.381		Top	0.139	0.139						
Max		0.469	0.469		Max	0.139	0.139						

FCC Limit		@ Direct Contact													
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) and 20 cm above the top surface of the EUT	614	100	S1	0.227	100	0.227	1.63	S1	0.036	100	0.036		
					S2	0.235		0.235		S2	0.036		0.036		
					S3	0.226		0.226		S3	0.037		0.037		
					S4	0.218		0.218		S4	0.036		0.036		
					Top	0.218		0.218		Top	0.036		0.036		
					Bottom	0.235		0.235		Bottom	0.038		0.038		
					Max	0.235		0.235		Max	0.038		0.038		
					S1	0.227		0.227		S1	0.036		0.036		
	Operating Real Product (Power 20% ~ 60% Charging)			100	S2	0.227	0.227	S2	0.036	0.036					
					S3	0.235	0.235	S3	0.037	0.037					
					S4	0.226	0.226	S4	0.036	0.036					
					Top	0.226	0.226	Top	0.036	0.036					
					Bottom	0.218	0.218	Bottom	0.036	0.036					
					Max	0.235	0.235	Max	0.037	0.037					
					S1	0.236	0.236	S1	0.037	0.037					
					S2	0.226	0.226	S2	0.036	0.036					
	Operating Real Product (Power >75% Charging)			100	S3	0.218	0.218	S3	0.035	0.035					
					S4	0.227	0.227	S4	0.036	0.036					
					Top	0.226	0.226	Top	0.036	0.036					
					Bottom	0.237	0.237	Bottom	0.036	0.036					
					Max	0.237	0.237	Max	0.037	0.037					

**CONFIGURATION 5: iPhone + AirPods Charging Case with AirPods**

FCC Limit @ Direct Contact iPhone 360kHz												
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
			5	Operating Real Product (Power ~10% Charging)	15 cm surrounding the device (S1 - S4) and 20 cm above the top surface of the EUT	614	S1	0.447	100	0.447	1.63	S1
S2	0.409	0.409					S2	0.282		0.282		
S3	0.415	0.415					S3	0.039		0.039		
S4	0.277	0.277					S4	0.037		0.037		
Top	0.333	0.333					Top	0.337		0.337		
Bottom	0.312	0.312					Bottom	0.036		0.036		
Max	0.447	0.447					Max	0.337		0.337		
Operating Real Product (Power 20% ~ 60% Charging)	S1	0.434					100	0.434	S1	0.041		100
	S2	0.412		0.412				S2	0.506	0.506		
	S3	0.337		0.337				S3	0.034	0.034		
	S4	0.384		0.384				S4	0.037	0.037		
	Top	0.269		0.269				Top	0.035	0.035		
	Bottom	0.256		0.256				Bottom	0.036	0.036		
	Max	0.434		0.434				Max	0.506	0.506		
	Operating Real Product (Power >75% Charging)	S1		0.425			100	0.425	S1	0.040		100
S2		0.294		0.294				S2	0.515	0.515		
S3		0.303		0.303				S3	0.036	0.036		
S4		0.398		0.398				S4	0.033	0.033		
Top		0.277		0.277				Top	0.036	0.036		
Bottom	0.419	0.419		Bottom			0.037	0.037				
Max	0.425	0.425		Max			0.515	0.515				

FCC Limit @ Direct Contact 110.5kHz to 148.5kHz AirPods Case												
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
			5	Operating Real Product (Power ~10% Charging)	15 cm surrounding the device (S1 - S4) and 20 cm above the top surface of the EUT	614	S1	0.371	100	0.371	1.63	S1
S2	0.334	0.334					S2	0.036		0.036		
S3	0.500	0.500					S3	0.036		0.036		
S4	0.506	0.506					S4	0.036		0.036		
Top	0.841	0.841					Top	0.036		0.036		
Max	0.841	0.841					Max	0.036		0.036		
Operating Real Product (Power 20% ~ 60% Charging)	S1	0.411					100	0.411		S1		0.036
	S2	0.343		0.343				S2	0.034	0.034		
	S3	0.540		0.540				S3	0.036	0.036		
	S4	0.572		0.572				S4	0.035	0.035		
	Top	0.911		0.911				Top	0.036	0.036		
	Max	0.911		0.911				Max	0.036	0.036		
	Operating Real Product (Power >75% Charging)	S1		0.391			100	0.391	S1	0.036		100
S2		0.316		0.316				S2	0.035	0.035		
S3		0.533		0.533				S3	0.036	0.036		
S4		0.597		0.597				S4	0.035	0.035		
Top		0.817		0.817				Top	0.036	0.036		
Max		0.817		0.817				Max	0.036	0.036		

**CONFIGURATION 6: iPhone + Apple Watch**

FCC Limit @ Direct Contact iPhone 360kHz														
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)	15 cm surrounding the device (S1 - S4) and 20 cm above the top surface of the EUT	614	S1	0.718	100	0.718	1.63	S1	0.037	100	0.037		
				S2	0.300		0.300		S2	0.073		0.073		
				S3	0.438		0.438		S3	0.036		0.036		
				S4	0.408		0.408		S4	0.036		0.036		
				Top	0.266		0.266		Top	0.034		0.034		
				Bottom	0.352		0.352		Bottom	0.035		0.035		
				Max	0.718		0.718		Max	0.073		0.073		
				S1	0.489		100		0.489	1.63		S1	0.033	100
	S2			0.350	0.350	S2		0.040	0.040					
	S3			0.397	0.397	S3		0.034	0.034					
	S4			0.332	0.332	S4		0.036	0.036					
	Top			0.357	0.357	Top		0.034	0.034					
	Bottom			0.352	0.352	Bottom		0.036	0.036					
	Max			0.489	0.489	Max		0.040	0.040					
	S1			0.343	100	0.343		1.63	S1		0.034	100	0.034	
	S2			0.398		0.398	S2		0.034	0.034				
	S3			0.378		0.378	S3		0.037	0.037				
	S4			0.328		0.328	S4		0.036	0.036				
	Top			0.313		0.313	Top		0.033	0.033				
	Bottom			0.365		0.365	Bottom		0.035	0.035				
	Max			0.398		0.398	Max		0.037	0.037				

FCC Limit @ Direct Contact Apple Watch 326kHz														
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)	15 cm surrounding the device (S1 - S4) and 20 cm above the top surface of the EUT	614	S1	0.385	100	0.385	1.63	S1	0.036	100	0.036		
				S2	0.227		0.227		S2	0.036		0.036		
				S3	0.266		0.266		S3	0.035		0.035		
				S4	0.804		0.804		S4	0.039		0.039		
				Top	0.274		0.274		Top	0.033		0.033		
				Bottom	0.343		0.343		Bottom	0.036		0.036		
				Max	0.804		0.804		Max	0.039		0.039		
				S1	0.388		100		0.388	1.63		S1	0.035	100
	S2			0.235	0.235	S2		0.037	0.037					
	S3			0.274	0.274	S3		0.036	0.036					
	S4			0.884	0.884	S4		0.043	0.043					
	Top			0.274	0.274	Top		0.036	0.036					
	Bottom			0.354	0.354	Bottom		0.037	0.037					
	Max			0.884	0.884	Max		0.043	0.043					
	S1			0.393	100	0.393		1.63	S1		0.034	100	0.034	
	S2			0.235		0.235	S2		0.036	0.036				
	S3			0.282		0.282	S3		0.036	0.036				
	S4			0.777		0.777	S4		0.043	0.043				
	Top			0.293		0.293	Top		0.034	0.034				
	Bottom			0.349		0.349	Bottom		0.036	0.036				
	Max			0.777		0.777	Max		0.043	0.043				

**CONFIGURATION 7: AirPods Charging Case with AirPods + Apple Watch**

FCC Limit @ Direct Contact 110.5kHz to 148.5kHz AirPods Case												
Configuration	Test Mode	Measuring Distance (cm)	Electric Field Limit	Electric Field Reading				Magnetic Field Limit	Magnetic Field Reading			
			(V/m)	(V/m)				(A/m)	(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) and 20 cm above the top surface of the EUT	614	S1	0.345	100	0.345	1.63	S1	0.079	100	0.079
				S2	0.486		0.486		S2	0.040		0.040
				S3	0.360		0.360		S3	0.037		0.037
				S4	0.258		0.258		S4	0.041		0.041
				Top	0.353		0.353		Top	0.135		0.135
				Max	0.486		0.486		Max	0.135		0.135
	Operating Real Product (Power 20% ~ 60% Charging)			S1	0.251	100	0.251		S1	0.110	100	0.110
				S2	0.256		0.256		S2	0.038		0.038
				S3	0.396		0.396		S3	0.035		0.035
				S4	0.269		0.269		S4	0.042		0.042
				Top	0.391		0.391		Top	0.124		0.124
				Max	0.396		0.396		Max	0.124		0.124
	Operating Real Product (Power >75% Charging)			S1	0.269	100	0.269		S1	0.083	100	0.083
				S2	0.259		0.259		S2	0.035		0.035
				S3	0.463		0.463		S3	0.035		0.035
				S4	0.266		0.266		S4	0.050		0.050
				Top	0.383		0.383		Top	0.135		0.135
				Max	0.463		0.463		Max	0.135		0.135

FCC Limit @ Direct Contact Apple Watch 326kHz														
Configuration	Test Mode	Measuring Distance (cm)	Electric Field Limit	Electric Field Reading				Magnetic Field Limit	Magnetic Field Reading					
			(V/m)	(V/m)				(A/m)	(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) and 20 cm above the top surface of the EUT	614	S1	0.235	100	0.235	1.63	S1	0.034	100	0.034		
				S2	0.245		0.245		S2	0.036		0.036		
				S3	0.227		0.227		S3	0.037		0.037		
				S4	0.227		0.227		S4	0.056		0.056		
				Top	0.227		0.227		Top	0.034		0.034		
				Bottom	0.226		0.226		Bottom	0.036		0.036		
	Operating Real Product (Power 20% ~ 60% Charging)			Max	0.245	100	0.245		Max	0.056	100	0.056		
				S1	0.228		0.228		S1	0.036		0.036		
				S2	0.226		0.226		S2	0.036		0.036		
				S3	0.227		0.227		S3	0.036		0.036		
				S4	0.068		0.068		S4	0.048		0.048		
				Top	0.226		0.226		Top	0.036		0.036		
	Operating Real Product (Power >75% Charging)			Bottom	0.227	100	0.227		Bottom	0.033	100	0.033		
				Max	0.228		0.228		Max	0.048		0.048		
				S1	0.251		0.251		S1	0.036		0.036		
				S2	0.235		0.235		S2	0.034		0.034		
				S3	0.227		0.227		S3	0.036		0.036		
				S4	0.218		0.218		S4	0.058		0.058		
				Top	0.235	100	0.235		Top	0.034	100	0.034		
				Bottom	0.227		0.227		Bottom	0.034		0.034		
				Max	0.251		0.251		Max	0.058		0.058		

**CONFIGURATION 8: iPhone + AirPods Charging Case with AirPods + Apple Watch**

FCC Limit @ Direct Contact iPhone 360kHz												
Configuration	Test Mode	Measuring Distance (cm)	Electric Field Limit	Electric Field Reading				Magnetic Field Limit	Magnetic Field Reading			
			(V/m)	(V/m)				(A/m)	(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) and 20 cm above the top surface of the EUT	614	S1	0.884	100	0.884	1.63	S1	0.036	100	0.036
				S2	0.307		0.307		S2	0.066		0.066
				S3	0.556		0.556		S3	0.036		0.036
				S4	0.476		0.476		S4	0.038		0.038
				Top	0.266		0.266		Top	0.036		0.036
				Bottom	0.253		0.253		Bottom	0.036		0.036
				Max	0.884		0.884		Max	0.066		0.066
	Operating Real Product (Power 20% ~ 60% Charging)			S1	0.422	100	0.422		S1	0.036	100	0.036
				S2	0.282		0.282		S2	0.045		0.045
				S3	0.425		0.425		S3	0.036		0.036
				S4	0.332		0.332		S4	0.036		0.036
				Top	0.235		0.235		Top	0.036		0.036
				Bottom	0.318		0.318		Bottom	0.034		0.034
				Max	0.425		0.425		Max	0.045		0.045
	Operating Real Product (Power >75% Charging)			S1	0.352	100	0.352		S1	0.036	100	0.036
				S2	0.315		0.315		S2	0.039		0.039
				S3	0.332		0.332		S3	0.039		0.039
				S4	0.520		0.520		S4	0.037		0.037
				Top	0.236		0.236		Top	0.036		0.036
				Bottom	0.262		0.262		Bottom	0.036		0.036
				Max	0.520		0.520		Max	0.039		0.039

FCC Limit @ Direct Contact 110.5kHz to 148.5kHz AirPods Case												
Configuration	Test Mode	Measuring Distance (cm)	Electric Field Limit	Electric Field Reading				Magnetic Field Limit	Magnetic Field Reading			
			(V/m)	(V/m)				(A/m)	(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) and 20 cm above the top surface of the EUT	614	S1	0.301	100	0.301	1.63	S1	0.036	100	0.036
				S2	0.266		0.266		S2	0.046		0.046
				S3	0.343		0.343		S3	0.093		0.093
				S4	0.338		0.338		S4	0.071		0.071
				Top	0.971		0.971		Top	0.154		0.154
				Bottom	0.971		0.971		Bottom	0.154		0.154
				Max	0.971		0.971		Max	0.154		0.154
	Operating Real Product (Power 20% ~ 60% Charging)			S1	0.307	100	0.307		S1	0.035	100	0.035
				S2	0.279		0.279		S2	0.044		0.044
				S3	0.334		0.334		S3	0.070		0.070
				S4	0.371		0.371		S4	0.047		0.047
				Top	0.985		0.985		Top	0.152		0.152
				Bottom	0.985		0.985		Bottom	0.152		0.152
				Max	0.985		0.985		Max	0.152		0.152
	Operating Real Product (Power >75% Charging)			S1	0.307	100	0.307		S1	0.035	100	0.035
				S2	0.294		0.294		S2	0.047		0.047
				S3	0.383		0.383		S3	0.069		0.069
				S4	0.358		0.358		S4	0.049		0.049
				Top	0.994		0.994		Top	0.159		0.159
				Bottom	0.994		0.994		Bottom	0.159		0.159
				Max	0.994		0.994		Max	0.159		0.159

FCC Limit @ Direct Contact Apple Watch 326kHz												
Configuration	Test Mode	Measuring Distance (cm)	Electric Field Limit	Electric Field Reading				Magnetic Field Limit	Magnetic Field Reading			
			(V/m)	(V/m)				(A/m)	(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) and 20 cm above the top surface of the EUT	614	S1	0.516	100	0.516	1.63	S1	0.036	100	0.036
				S2	0.226		0.226		S2	0.036		0.036
				S3	0.292		0.292		S3	0.036		0.036
				S4	1.031		1.031		S4	0.053		0.053
				Top	0.245		0.245		Top	0.034		0.034
				Bottom	0.422		0.422		Bottom	0.036		0.036
				Max	1.031		1.031		Max	0.053		0.053
	Operating Real Product (Power 20% ~ 60% Charging)			S1	0.451	100	0.451		S1	0.034	100	0.034
				S2	0.235		0.235		S2	0.034		0.034
				S3	0.292		0.292		S3	0.036		0.036
				S4	1.042		1.042		S4	0.053		0.053
				Top	0.237		0.237		Top	0.036		0.036
				Bottom	0.422		0.422		Bottom	0.036		0.036
				Max	1.042		1.042		Max	0.053		0.053
	Operating Real Product (Power >75% Charging)			S1	0.478	100	0.478		S1	0.036	100	0.036
				S2	0.227		0.227		S2	0.033		0.033
				S3	0.342		0.342		S3	0.037		0.037
				S4	1.065		1.065		S4	0.052		0.052
				Top	0.258		0.258		Top	0.036		0.036
				Bottom	0.422		0.422		Bottom	0.036		0.036
				Max	1.065		1.065		Max	0.052		0.052

## 9. SETUP PHOTO

Please see setup photo report 13573637-EP1V2

**END OF TEST REPORT**