TEST REPORT

Report Number. : 13941431-E2V1

Applicant	:	BELKIN INTERNATIONAL, INC 12045 EAST WATERFRONT DRIVE PLAYA VISTA, CA 90094, U.S.A.
Model	:	WIZ015
FCC ID	:	K7SWIZ015
EUT Description	:	WIRELESS CHARGER
Test Standard(s)	:	FCC PART 1 SUBPART I FCC PART 2 SUBPART J

Date Of Issue:
October 06, 2021

Prepared by:
UL Verification Services Inc.
47173 Benicia Street
Fremont, CA 94538 U.S.A.
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ACCREDITED
CERT #0751.05

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	10/6/2021	Initial Issue	---

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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: WIRELESS CHARGER

MODEL NUMBER: WIZ015

SERIAL NUMBER: 51V10F69B00107

DATE TESTED: SEPTEMBER 27, 2021 TO SEPTEMBER 30, 2021

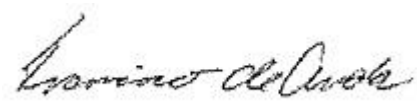
APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
FCC PART 1 SUBPART I & PART 2 SUBPART J	Complies

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 A2LA, NIST, any agency of the Federal Government, or any agency of the U.S. government.

Approved & Released For
UL Verification Services Inc. By:



Francisco de Anda
Staff Engineer
Consumer Technology Division
UL Verification Services Inc.

Prepared By:

Tina Chu
Senior Project Engineer
Consumer Technology Division
UL Verification Services Inc.

2. TEST METHODOLOGY

This report contains data provided by the customer which can impact the validity of results. UL Verification Services Inc. is only responsible for the validity of results after the integration of the data provided by the customer.

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

3. FACILITIES AND ACCREDITATION

UL LLC is accredited by A2LA, certification #0751.05, 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, USA	US0104	2324A	208313
☐	Building 2: 47266 Benicia Street, Fremont, CA 94538, USA	US0104	22541	208313
☒	Building 4: 47658 Kato Rd, Fremont, CA 94538, USA	US0104	2324B	208313

4. DECISION RULES AND MEASUREMENT UNCERTAINTY

4.1. METROLOGICAL TRACEABILITY

All test and measuring equipment utilized to perform the tests documented in this report are calibrated on a regular basis, with a maximum time between calibrations of one year or the manufacturers' recommendation, whichever is less, and where applicable is traceable to recognized national standards.

4.2. DECISION RULES

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4:2012 Clause 8.2. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	U_{Lab}
Magnetic Field Reading (A/m)	+/-0.04284 (A/m)
Electric Field Reading (V/m)	+/-0.03682 (V/m)

Uncertainty figures are valid to a confidence level of 95.45%.

5. KDB 680106 D01 SECTION 5b EQUIPMENT APPROVAL CONSIDERATIONS

<table>
<tr><th>Requirement</th><th>Device</th></tr>
<tr><td>(1) Power transfer frequency is less than 1 MHz.</td><td>No. The maximum operating frequency is 1.778MHz.</td></tr>
<tr><td>(2) Output power from each primary coil is less than or equal to 15 watts.</td><td>Yes. The maximum power is 5W.</td></tr>
<tr><td>(3) The system may consist of more than one source primary coils, charging one or more clients. If more than one primary coil is present, the coil pairs may be powered on at the same time.</td><td>No. The system has one individual coil and only allows for capable wireless power transfer between one source and one client at any given time.</td></tr>
<tr><td>(4) Client device is placed directly in contact with the transmitter.</td><td>Yes. The client device is placed directly in contact with the transmitter.</td></tr>
<tr><td>(5)Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion)</td><td>Yes. It is a mobile device.</td></tr>
<tr><td>(6) The aggregate H-field strengths anywhere at or beyond 15 cm surrounding the device, and 20 cm away from the surface from all coils that by design can simultaneously transmit, and while those coils are simultaneously energized, are demonstrated to be less than 50% of the applicable MPE
limit.</td><td>
<table>
<tr><th colspan="2">The worst case leakage</th></tr>
<tr><td>FCC Config 1: Flatbed Standby 326.5kHz</td><td>1.04%</td></tr>
<tr><td>FCC Config 2: Flatbed Charging Apple Watch 326.5kHz</td><td>1.04%</td></tr>
<tr><td>FCC Config 3: Flatbed Charging Apple Watch 1.778MHz</td><td>0.18%</td></tr>
<tr><td>FCC Config 4: Tilt Standby 326.5kHz</td><td>1.02%</td></tr>
<tr><td>FCC Config 5: Tilt Charging Apple Watch 326.5kHz</td><td>1.15%</td></tr>
<tr><td>FCC Config 6: Tilt Charging Apple Watch 1.778MHz</td><td>0.25%</td></tr>
</table>
</td></tr>
</table>

6. EQUIPMENT UNDER TEST

6.1. DESCRIPTION OF EUT

The EUT is a Wireless Charger with one charging coil that is capable of charging 1 Apple Watch at a time. The charging frequencies are 326.5 kHz and 1.778MHz, and the maximum power consumption is 5W.

6.2. WORST-CASE CONFIGURATION AND MODE

EUT is a dual frequency magnetic desktop charger. For all tests, the EUT was connected to an AC/DC power adapter. The EUT's charging pad can be positioned in two orthogonal orientations, X (flatbed) and Y (tilt).

The inner base of the EUT has the option to be elevated. After our investigation, this was found to be the worst mode of configuration.

Worst case orientation of the client devices have been investigated and there is no significant delta at each orientation.

For the entire testing, the EUT was investigated at its natural orientation.

All testing is based on direct contact with no shifts in position due to the embedded magnet in the charger pad.

Config	Mode	Descriptions	Client
1	Standby @326.5kHz	EUT standalone, charging pad in flatbed orientation with inner base elevated, powered by AC/DC adapter.	None
2	Operating @326.5kHz	Charging pad in flatbed orientation with inner base elevated, direct contact during charging between the EUT & WPT Client, EUT is powered by AC/DC adapter. (~10%, 20~60%, and >75% Power Charging)	Legacy Apple Watch
3	Operating @1.778MHz		New Apple Watch
4	Standby@326.5kHz	EUT standalone, charging pad in tilt upright orientation with inner base elevated, powered by AC/DC adapter.	None
5	Operating @326.5kHz	Charging pad in tilt upright orientation with inner base elevated, direct contact during charging between the EUT & WPT Client, EUT is powered by AC/DC adapter. (~10%, 20~60%, and >75% Power Charging)	Legacy Apple Watch
6	Operating @1.778MHz		New Apple Watch

7. 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	03/16/2022	03/16/2021
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	101724	PRE0179367	02/21/2022	02/21/2021

8. DUTY CYCLE

LIMITS

None; for reporting purposes only.

PROCEDURE

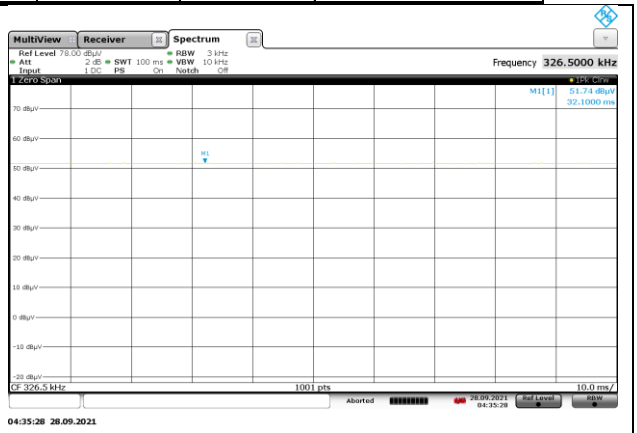
Zero-Span Spectrum Analyzer Method.

ON TIME AND DUTY CYCLE RESULTS

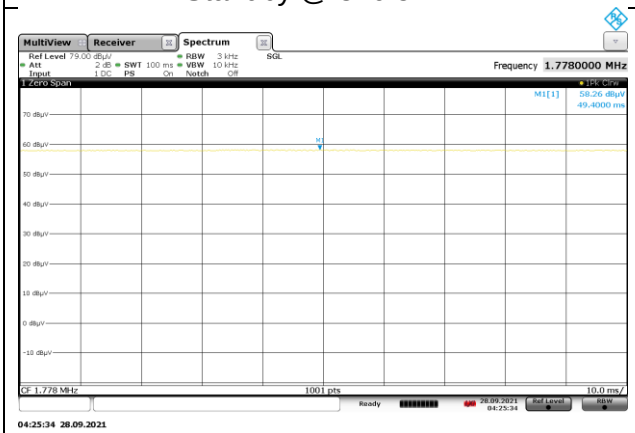
Test Engineer:	10629 RL

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)
Standby @ 326.5kHz	16.80	201.63	0.08	8.33	10.79
Operating Frequency @ 326.5kHz	1.00	1.00	1.00	100.00	0.00
Operating Frequency @ 1.778MHz	1.00	1.00	1.00	100.00	0.00

Standby @ 326.5kHz



Operating @ 326.5kHz



Operating @ 1.778MHz

9. MAXIMUM PERMISSIBLE RF EXPOSURE

9.1. 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.

RESULT

Test Engineer:	29435 TC	Test Date:	9/27/2021-9/30-2021

9.1.1. MAXIMUM RESULT SUMMARY

CONFIGURATION 1: FLATBED ORIENTATION STANDBY MODE @ 326.5kHz

FCC Config 1: Flatbed Standby 326.5kHz					
Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure Limit	Maximum Average (A/m)	Percentage (%)
614	0.107	0.02%	1.63	0.017	1.04%

CONFIGURATION 2: FLATBED ORIENTATION OPERATING WITH Apple Watch @ 326.5kHz

FCC Config 2: Flatbed Charging Apple Watch 326.5kHz					
Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure Limit	Maximum Average (A/m)	Percentage (%)
614	0.129	0.02%	1.63	0.017	1.04%

CONFIGURATION 3: FLATBED ORIENTATION OPERATING WITH Apple Watch @ 1.778MHz

FCC Config 3: Flatbed Charging Apple Watch 1.778MHz					
Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure Limit	Maximum Average (A/m)	Percentage (%)
463.44	0.115	0.02%	1.23	0.002	0.18%

CONFIGURATION 4: TILT ORIENTATION STANDBY MODE @ 326.5kHz

FCC Config 4: Tilt Standby 326.5kHz					
Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure Limit	Maximum Average (A/m)	Percentage (%)
614	0.107	0.02%	1.63	0.017	1.02%

CONFIGURATION 5: TILT ORIENTATION OPERATING WITH Apple Watch @ 326.5kHz

FCC Config 5: Tilt Charging Apple Watch 326.5kHz					
Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure Limit	Maximum Average (A/m)	Percentage (%)
614	0.137	0.02%	1.63	0.019	1.15%

CONFIGURATION 6: TILT ORIENTATION OPERATING WITH Apple Watch @ 1.778MHz

FCC Config 6: Tilt Charging Apple Watch 1.778MHz					
Electric Field Limit			Magnetic Field Limit		
FCC RF Exposure Limit	Maximum Average (V/m)	Percentage (%)	FCC RF Exposure Limit	Maximum Average (A/m)	Percentage (%)
463.44	0.117	0.03%	1.23	0.003	0.25%

9.1.2. 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: FLATBED ORIENTATION STANDBY MODE @ 326.5kHz

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 Limit	Location	Peak	Duty Cycle %	FCC Average	FCC Limit	Location	Peak	Duty Cycle %	FCC Average
1	Standby	15 cm surrounding the device (S1 - S4, bottom) and 20 cm above the top surface of the EUT	614	S1	0.371	8.3	0.107	1.63	S1	0.057	8.3	0.016
				S2	0.362		0.105		S2	0.057		0.016
				S3	0.371		0.107		S3	0.055		0.016
				S4	0.371		0.107		S4	0.059		0.017
				Top	0.371		0.107		Top	0.057		0.016
				Bottom	0.362		0.105		Bottom	0.059		0.017
				Max	0.372		**0.107**		Max	0.059		**0.017**

CONFIGURATION 2: FLATBED ORIENTATION OPERATING WITH Apple Watch @ 326.5kHz

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
2	Operating Real Product (Power ~10% Charging)	15 cm surrounding the device (S1 - S4, bottom) and 20 cm above the top surface of the EUT	614	S1	0.120	100	0.120	1.63	S1	0.004	100	0.004
				S2	0.129		**0.129**		S2	0.003		0.003
				S3	0.117		0.117		S3	0.003		0.003
				S4	0.111		0.111		S4	0.002		0.002
				Top	0.111		0.111		Top	0.002		0.002
				Bottom	0.112		0.112		Bottom	0.003		0.003
				Max	0.129		**0.129**		Max	0.004		0.004
	Operating Real Product (Power 20% ~ 60% Charging)			S1	0.100	100	0.100		S1	0.003	100	0.003
				S2	0.105		0.105		S2	0.002		0.002
				S3	0.111		0.111		S3	0.003		0.003
				S4	0.120		0.120		S4	0.002		0.002
				Top	0.111		0.111		Top	0.002		0.002
				Bottom	0.111		0.111		Bottom	0.002		0.002
				Max	0.120		0.120		Max	0.003		0.003
	Operating Real Product (Power >75% Charging)			S1	0.111	100	0.111		S1	0.017	100	0.017
				S2	0.111		0.111		S2	0.017		0.017
				S3	0.111		0.111		S3	0.017		0.017
				S4	0.111		0.111		S4	0.017		0.017
				Top	0.111		0.111		Top	0.017		0.017
				Bottom	0.111		0.111		Bottom	0.017		0.017
				Max	0.111		0.111		Max	0.017		**0.017**

CONFIGURATION 3: FLATBED ORIENTATION OPERATING WITH Apple Watch @ 1.778MHz

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, bottom) and 20 cm above the top surface of the EUT	463.44	S1	0.105	100	0.105	1.23	S1	0.002	100	**0.002**
				S2	0.101		0.101		S2	0.002		0.002
				S3	0.105		0.105		S3	0.002		0.002
				S4	0.105		0.105		S4	0.002		0.002
				Top	0.105		0.105		Top	0.002		0.002
				Bottom	0.105		0.105		Bottom	0.002		0.002
				Max	0.105		0.105		Max	0.002		**0.002**
	Operating Real Product (Power 20% ~ 60% Charging)			S1	0.115	100	**0.115**		S1	0.002	100	0.002
				S2	0.105		0.105		S2	0.002		0.002
				S3	0.105		0.105		S3	0.002		0.002
				S4	0.105		0.105		S4	0.002		0.002
				Top	0.094		0.094		Top	0.002		0.002
				Bottom	0.105		0.105		Bottom	0.002		0.002
				Max	0.115		**0.115**		Max	0.002		0.002
	Operating Real Product (Power >75% Charging)			S1	0.100	100	0.100		S1	0.002	100	0.002
				S2	0.105		0.105		S2	0.002		0.002
				S3	0.105		0.105		S3	0.002		0.002
				S4	0.101		0.101		S4	0.002		0.002
				Top	0.105		0.105		Top	0.002		0.002
				Bottom	0.105		0.105		Bottom	0.002		0.002
				Max	0.105		0.105		Max	0.002		0.002

CONFIGURATION 4: TILT ORIENTATION STANDBY MODE @ 326.5kHz

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 Limit	Location	Peak	Duty Cycle %	FCC Average	FCC Limit	Location	Peak	Duty Cycle %	FCC Average
4	Standby	15 cm surrounding the device (S1 - S4, bottom) and 20 cm above the top surface of the EUT	614	S1	0.362	8.3	0.105	1.63	S1	0.058	8.3	**0.017**
				S2	0.347		0.100		S2	0.055		0.016
				S3	0.343		0.099		S3	0.055		0.016
				S4	0.343		0.099		S4	0.054		0.016
				Top	0.354		0.102		Top	0.054		0.016
				Bottom	0.352		0.102		Bottom	0.057		0.016
				Max	0.372		**0.107**		Max	0.058		**0.017**

CONFIGURATION 5: TILT ORIENTATION OPERATING WITH Apple Watch @ 326.5kHz

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)	15 cm surrounding the device (S1 - S4, bottom) and 20 cm above the top surface of the EUT	614	S1	0.111	100	0.111	1.63	S1	0.017	100	0.017
				S2	0.111		0.111		S2	0.019		**0.019**
				S3	0.111		0.111		S3	0.017		0.017
				S4	0.111		0.111		S4	0.017		0.017
				Top	0.111		0.111		Top	0.016		0.016
				Bottom	0.111		0.111		Bottom	0.017		0.017
				Max	0.111		0.111		Max	0.019		**0.019**
	Operating Real Product (Power 20% ~ 60% Charging)			S1	0.137	100	**0.137**		S1	0.004	100	0.004
				S2	0.105		0.105		S2	0.002		0.002
				S3	0.111		0.111		S3	0.005		0.005
				S4	0.105		0.105		S4	0.002		0.002
				Top	0.111		0.111		Top	0.002		0.002
				Bottom	0.111		0.111		Bottom	0.003		0.003
				Max	0.137		**0.137**		Max	0.005		0.005
	Operating Real Product (Power >75% Charging)			S1	0.111	100	0.111		S1	0.018	100	0.018
				S2	0.111		0.111		S2	0.017		0.017
				S3	0.111		0.111		S3	0.017		0.017
				S4	0.111		0.111		S4	0.016		0.016
				Top	0.111		0.111		Top	0.017		0.017
				Bottom	0.111		0.111		Bottom	0.019		**0.019**
				Max	0.111		0.111		Max	0.019		**0.019**

CONFIGURATION 6: TILT ORIENTATION OPERATING WITH Apple Watch @ 1.778MHz

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, bottom) and 20 cm above the top surface of the EUT	463.44	S1	0.115	100	0.115	1.23	S1	0.003	100	**0.003**
				S2	0.105		0.105		S2	0.002		0.002
				S3	0.105		0.105		S3	0.002		0.002
				S4	0.105		0.105		S4	0.002		0.002
				Top	0.105		0.105		Top	0.002		0.002
				Bottom	0.105		0.105		Bottom	0.003		0.003
				Max	0.115		0.115		Max	0.003		**0.003**
	Operating Real Product (Power 20% ~ 60% Charging)			S1	0.117	100	**0.117**		S1	0.003	100	0.003
				S2	0.105		0.105		S2	0.002		0.002
				S3	0.105		0.105		S3	0.003		0.003
				S4	0.105		0.105		S4	0.002		0.002
				Top	0.100		0.100		Top	0.002		0.002
				Bottom	0.105		0.105		Bottom	0.003		0.003
				Max	0.117		**0.117**		Max	0.003		0.003
	Operating Real Product (Power >75% Charging)			S1	0.105	100	0.105		S1	0.003	100	**0.003**
				S2	0.105		0.105		S2	0.002		0.002
				S3	0.111		0.111		S3	0.003		0.003
				S4	0.105		0.105		S4	0.002		0.002
				Top	0.094		0.094		Top	0.002		0.002
				Bottom	0.105		0.105		Bottom	0.003		**0.003**
				Max	0.111		0.111		Max	0.003		**0.003**

10. RF EXPOSURE TEST SETUP AND SETUP PHOTO

Please see description of RF exposure test up and setup photo report 13941431-EP1

END OF TEST REPORT