



**FCC Part 1 Subpart I  
FCC Part 2 Subpart J**

**TEST REPORT**

**FOR**

**GSM/WCDMA/LTE/5G Phone with BT, DTS/UNII a/b/g/n/ac/ax, GPS, WPT & NFC**

**FCC ID: PY7-83376C**

**REPORT NUMBER: R14639481-E3**

**ISSUE DATE: 2023-03-20**

**Prepared for  
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## REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	2023-03-10	Initial Issue	B. Kiewra
V2	2023-03-20	Added Section 6	B. Kiewra
V3	2023-03-23	Revised sections 6.1 and 6.2 to clarify that NFC is the same on both leveraged and tested EUT.	B. Kiewra

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# 1. ATTESTATION OF TEST RESULTS

**COMPANY NAME:** Sony Corporation  
 1-7-1 Konan Minato-ku  
 Tokyo, 108-0075, Japan

**EUT DESCRIPTION:** GSM/WCDMA/LTE/5G Phone with BT, DTS/UNII a/b/g/n/ac/ax,  
 GPS, WPT & NFC

**SERIAL NUMBER:** QV7700FJFR(Server), QV7700L2FR(Client),  
 QV7700EYFN(Client)

**SAMPLE RECEIPT DATE:** 2023-02-06

**DATE TESTED:** 2023-03-08

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

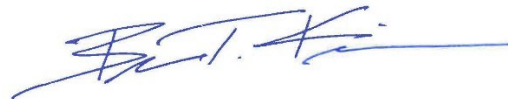
UL LLC tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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 LLC and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL LLC will constitute fraud and shall nullify the document.

Approved & Released  
 For UL LLC By:

Prepared By:

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 UL LLC

## 2. TEST METHODOLOGY

All testing / calculations were made in accordance with FCC KDB 447498 D01, KDB 447498 D03, KDB 680106 D01 v03r01.

## 3. FACILITIES AND ACCREDITATION

UL LLC is accredited by A2LA, certification # 0751.06, 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
<input type="checkbox"/>	Building: 12 Laboratory Dr RTP, NC 27709, U.S.A	US0067	2180C	825374
<input checked="" type="checkbox"/>	Building: 2800 Perimeter Park Dr. Suite B Morrisville, NC 27560, U.S.A		27265	

## 4. DECISION RULES AND MEASUREMENT UNCERTAINTY

### 4.1. METROLOGICAL TRACEABILITY

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

### 4.2. DECISION RULES

For all tests where the applicable  $U_{LAB} \leq U_{MAX}$  the Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4: 2012 Clause 8.2, where  $U_{MAX} = 30\%$  (0.3) for RF Exposure evaluations. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

For all tests where the applicable  $U_{LAB} > U_{MAX}$  the Decision Rule is based on Guarded Acceptance in accordance with ISO Guide 98-4: 2012 Clause 8.3.2, with a guard band equal to  $(U_{LAB} - U_{MAX})$ , where  $U_{MAX} = 30\%$  (0.3) for RF Exposure evaluations. (Test results are adjusted by the value of the guard band to determine 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 using Exposure Level Meter	$\pm 0.80$ dB
Electric Field using Exposure Level Meter	$\pm 0.91$ dB
Time	3.39%

Uncertainty figures are valid to a confidence level of 95%,  $k = 2$ .

## 5. EQUIPMENT UNDER TEST

### 5.1. DESCRIPTION OF EUT

The EUT is a GSM/WCDMA/LTE/5G Phone with BT, DTS/UNII a/b/g/n/ac/ax, GPS, WPT & NFC. This test report covers WPT testing. The device can function as a WPT charger operating from 111-145kHz.

### 5.2. DESCRIPTION OF TEST SETUP

#### SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
Power Supply	Sony	XQZ-UC1	1821W34209856	NA

#### I/O CABLES

I/O Cable List						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	USB	1	USB-C	Shielded	<3m	Connected to power supply

#### TEST SETUP

The following configurations were tested. This evaluation was a spot check of a model variant covered under UL report R14634918-E9. The worst-case configuration and load condition (configuration 3 at 50% charge state for E-Field and configuration 5 at 100% charge state for H-Field) was utilized.

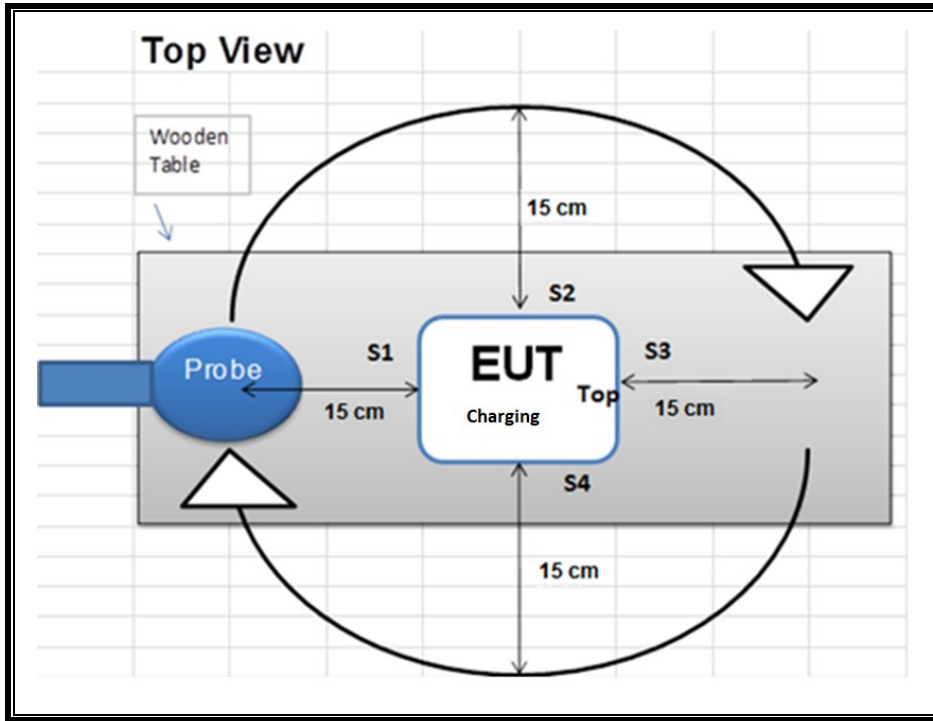
Configuration	Mode	Descriptions
3	Operating with server (source) and client (load) aligned, with 90° rotation between them. (With EUT 50% charging)	EUT powered by AC/DC adapter
5	Same as configuration 3, with a worst case misalignment between the server and client. (With EUT 100% charged)	EUT powered by AC/DC adapter

Please refer to R14639481-EP4 for setup diagrams.

**MEASUREMENT SETUP**

The measurement was taken using a probe placed 15cm surrounding the device per KDB 680106 D01 v03r01.

**CONFIGURATIONS 3,5**



Note: This is a 2D representation of setup. EUT and load are stacked on top of each other.



## 6. REUSE OF TEST DATA

### 6.1. INTRODUCTION

According to the manufacturer, FCC ID: PY7-12907W and FCC ID: PY7-83376C unlicensed radios (WLAN/BT/BLE/WPT/NFC) are electrically identical. The FCC ID: PY7-12907W test data shall remain representative of FCC ID: PY7-83376C so, FCC ID: PY7-83376C leverages test data from FCC ID: PY7-12907W.

The applicant takes full responsibility that the test data as referenced in this section represents compliance for this FCC ID.

### 6.2. DEVICES DIFFERENCES

Difference between PY7-12907W and PY7-83376C:

Sony Corporation hereby declares that the hardware of WLAN 2.4GHz , WLAN 5GHz, Bluetooth, GPS, NFC and WPT is identical among PY7-12907W and PY7-83376C. The change is related only to the cellular radios. Therefore the following report/data of PY7-12907W may represent for PY7-83376C.

### 6.3. REFERENCE DETAIL

Equipment Class	Reference FCC ID	Report Title/Section
DCD	PY7-12907W	R14634918-E9 v2 FCC WPT RF EXPOSURE REPORT / All Sections

### 6.4. SPOT CHECK VERIFICATION RESULTS SUMMARY

PY7-12907W

Electric Field			Magnetic Field		
FCC Limit (V/m)	Maximum Average Reading (V/m)	Percentage (%)	FCC Limit (A/m)	Maximum Average Reading (A/m)	Percentage (%)
614	2.616	0.43%	1.63	0.159	9.75%

PY7-83376C

Electric Field			Magnetic Field		
FCC Limit (V/m)	Maximum Average Reading (V/m)	Percentage (%)	FCC Limit (A/m)	Maximum Average Reading (A/m)	Percentage (%)
614	2.512	0.41%	1.63	0.045	2.76%

The delta did not exceed 30% above PY7-12907W.

## 7. TEST AND MEASUREMENT EQUIPMENT

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

Test Equipment List					
Description	Manufacturer	Model	Equip. ID	Cal Date	Cal Due
Electric and Magnetic Field Probe	Narda	EHP-200AC	FA0001	2022-07-20	2023-07-20

## 8. MAXIMUM PERMISSIBLE RF EXPOSURE TEST RESULTS

### 8.1. FCC LIMITS

§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.

**Note:** The limit at 300 kHz was used for devices operating between 100-300 kHz.

## 8.2. SUMMARY OF TEST RESULTS

### RESULTS

<b>ID:</b>	84740/21193	<b>Date:</b>	2023-03-08
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Note: Both magnetic and electric field strengths have been investigated from 9 kHz to 30 MHz at 15cm surrounding the device of the EUT operation frequency at 111-145kHz.

The inductive wireless power transfer device meets all of the following requirements:

- Power transfer frequency is less than 1 MHz
- Output power from each primary coil is less than or equal to 15 watts.
- 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.
- Client device is placed directly in contact with the transmitter.
- Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).
- 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.

### FCC RF EXPOSURE SUMMARY OF RESULTS

Electric Field			Magnetic Field		
FCC Limit (V/m)	Maximum Average Reading (V/m)	Percentage (%)	FCC Limit (A/m)	Maximum Average Reading (A/m)	Percentage (%)
614	2.512	0.41%	1.63	0.045	2.76%

**Note:** since the E and H field are lower than the limit by more than 50% of the limit then a PAG is not required.

### 8.3. DETAILED TEST RESULTS

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

Config	Test Mode	Meas Dist (cm)	E field Limit (V/m)	Electric Field Reading (V/m)			
			FCC	Location	Peak	Duty Cycle %	FCC Average
3	Operating Power 50% Charging	15cm surrounding the device	614	S1	2.512	100.00	<b>2.512</b>

Config	Test Mode	Meas Dist (cm)	Magnetic Field Limit (A/m)	Magnetic Field Reading (A/m)			
			FCC	Location	Peak	Duty Cycle %	FCC Average
5	Operating Power 100 % Charged	15cm surrounding the device	1.63	S1	0.045	100.00	0.045

## 9. SETUP PHOTO

Please refer to R14639481-EP4 for setup photos.

**END OF REPORT**