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RF EXPOSURE EVALUATION REPORT (WPT)

Applicant Name:
SONY CORPORATION
1-7-1 Konan Minato-ku
Tokyo, 108-0075, Japan

Date of Testing:
03/27/2023 – 03/31/2023
Test Site/Location:
ELEMENT, Columbia, MD, USA
Test Report Serial No.:
1M2302230018-16.PY7
Date of Issue:
04/13/2023

FCC ID: **PY7-25682R**

APPLICANT: **SONY CORPORATION**

DUT Type:	Portable Handset
Application Type:	Engineering Evaluation
Device Serial No.:	Pre-production Sample [SN: 89747]
FCC Rule Part(s):	Part 1 Subpart I
	Part 2 Subpart J
FCC Guidance:	KDB 680106 v03r01

The worst-case configuration from the original technical evaluation (Report Number: R14634918-E9) was evaluated for this report. The device has been shown to comply with the applicable technical standards as indicated in the measurement report and has been tested in accordance with the measurement procedures specified. Test results reported herein relate only to the item(s) tested.

I authorize and attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all people taking them.

RJ Ortanez
Executive Vice President

ACCREDITED
CERT #2041.01

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1 DEVICE UNDER TEST

1.1 Device Overview

Mode	Operating Mode	Tx Frequency
WPT	Wireless Power Transfer	110 kHz – 148 kHz

The device under test (DUT) in this filing (**FCC ID: PY7-25682R**) and the reference device certified under **FCC ID: PY7-12907W** share a common design. The DUT differs from the reference device with respect to the components and antennas used for licensed (cellular) bands, however the components used for wireless power transfer are identical between the DUT and reference device.

1.2 Worst-Case Test Configurations

The DUT was tested in the worst-case E-field and H-field configurations from the Original Certification Report (Report Number: R14634918-E9). The test configurations included in this report are:

- E-field:
  - Config 3 (source and client aligned with 90deg rotation)
  - 50% charged
  - 15 cm separation
  - Side S1 (left side from the front view)
- H-field:
  - Config 5 (source and client misaligned with 90deg rotation)
  - 100% charged
  - 15 cm separation
  - Side S1 (left side from the front view)

Each spot check test on the DUT was performed using the same procedures and settings that were used to perform the test on the corresponding reference device.

1.3 Test Distance

The DUT is a handheld cellular phone where the WPT charging function is limited to mobile use conditions intended for desktop applications. The separation distance of the DUT to the probe is 15 cm for edges per KDB 680106 v03r01.

2 RF EXPOSURE DATA SUMMARY

2.1 Electric Field Data

Table 2-1
RF Exposure – Electric Field Worst Case Configuration

Config	Test Mode	Measurement Distance (cm)	FCC Limit (V/m)	Side/Edge	Peak Field Strength (V/m)	Duty Cycle (%)	RMS Field Strength (V/m)	Exposure Ratio (RMS/limit)
3	50% charged	15	614	S1	0.525	100	0.525	0.001

2.2 Magnetic Field Data

Table 2-2
RF Exposure – Magnetic Field Worst Case Configuration

Config	Test Mode	Measurement Distance (cm)	FCC Limit (A/m)	Side/Edge	Peak Field Strength (A/m)	Duty Cycle (%)	RMS Field Strength (A/m)	Exposure Ratio (RMS/limit)
5	100% charged	15	1.63	S1	0.154	100	0.154	0.094

2.3 RF Exposure Data Test Notes

1. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
2. Since the WPT signal during the evaluation was operating with a duty cycle of 100%, a short monitoring period was used at each measurement point to measure the highest instantaneous peak field strength.