



WPT EVALUATION REPORT

E/H-field Measurement for Wireless Power Transfer

Applicant Name:

Samsung Electronics Co., Ltd.
129, Samsung-ro,
Yeongtong-gu, Suwon-si
Gyeonggi-do, 16677, Korea

Date of Testing:

05/23/2021

Test Site/Location:

PCTEST Lab, Columbia, MD, USA

Test Report Serial No.:

1M2108160097-20.A3L

FCC ID:

A3LSMF711B1

APPLICANT:

Samsung Electronics Co., Ltd.

Application Type:

Certification

Model:

SM-F711B

EUT Type:

Portable Handset

FCC Rule Part(s):

CFR §2.1093

FCC Classification:

Part 15 Low Power Transmitter Below 1705kHz (DCD)

Frequency Range:

110 – 148kHz

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.10-2013. Test results reported herein relate only to the item(s) tested.

I 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 persons taking them.



Randy Ortanez
President



FCC ID: A3LSMF711B1		WPT EVALUATION REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2108160097-20.A3L	Test Dates: 05/23/2021	EUT Type: Portable Handset		Page 1 of 6

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1. INTRODUCTION

1.1 Scope

Measurement and determination of RF Exposure due to RF emissions from low power wireless power transfer devices (intentional radiators) for compliance with the technical rules and regulations of the Federal Communications Commission.

1.2 PCTEST Test Location

These measurement tests were conducted at the PCTEST Engineering Laboratory, Inc. facility located in Columbia, MD 21046. The measurement facility is compliant with the test site requirements specified in ANSI C63.4-2014.

1.3 Test Facility / Accreditations

- PCTEST is an ISO 17025-2017 accredited test facility under the American Association for Laboratory Accreditation (A2LA) with Certificate number 2041.01 for Specific Absorption Rate (SAR), Radio Frequency Exposure (RFx), Hearing Aid Compatibility (HAC) testing, where applicable, and Electromagnetic Compatibility (EMC) testing for FCC and Innovation, Science, and Economic Development Canada rules.
- PCTEST TCB is a Telecommunication Certification Body (TCB) accredited to ISO/IEC 17065-2012 by A2LA (Certificate number 2041.03) in all scopes of FCC Rules and ISSED Standards (RSS).
- PCTEST facility is a registered (2451B) test laboratory with the site description on file with ISSED.

1.4 Test Guidance Applied

- FCC KDB Publication 680106D01 v03r01

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2. MEASUREMENT DATA

FCC ID:	A3LSMF711B1
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Test Procedure:	KDB 680106 D01 v03r01

2.1 Data Tables

E Measurements (V/m)	10% Battery		50% Battery		70% Battery		Limit (V/m)
	Distance from probe (cm)		Distance from probe (cm)		Distance from probe (cm)		
	15	20	15	20	15	20	
A (Bottom)	0.164	0.145	0.206	0.148	0.118	0.100	614.00
B (Right)	0.198	0.145	0.215	0.196	0.173	0.118	614.00
C (Top)	0.145	0.156	0.224	0.173	0.162	0.130	614.00
D (Left)	0.235	0.145	0.206	0.195	0.169	0.131	614.00
E (Front)	0.370	0.237	0.444	0.243	0.284	0.213	614.00
F (Back)	0.438	0.232	0.444	0.243	0.391	0.226	614.00

Table 1. E-field Measurement by distance/battery level (Device to Device) – CLOSED

H Measurements (A/m)	10% Battery		50% Battery		70% Battery		Limit (A/m)
	Distance from probe (cm)		Distance from probe (cm)		Distance from probe (cm)		
	15	20	15	20	15	20	
A (Bottom)	0.048	0.046	0.048	0.044	0.035	0.035	1.63
B (Right)	0.048	0.048	0.048	0.049	0.043	0.035	1.63
C (Top)	0.055	0.048	0.048	0.048	0.035	0.041	1.63
D (Left)	0.048	0.046	0.048	0.051	0.043	0.041	1.63
E (Front)	0.051	0.048	0.048	0.044	0.043	0.069	1.63
F (Back)	0.062	0.056	0.048	0.046	0.066	0.056	1.63

Table 2. H-field Measurement by distance/battery level (Device to Device) – CLOSED

E Measurements (V/m)	10% Battery		50% Battery		70% Battery		Limit (V/m)
	Distance from probe (cm)		Distance from probe (cm)		Distance from probe (cm)		
	15	20	15	20	15	20	
A (Bottom)	0.173	0.137	0.198	0.191	0.108	0.111	614.00
B (Right)	0.160	0.145	0.180	0.168	0.129	0.122	614.00
C (Top)	0.163	0.129	0.181	0.147	0.134	0.134	614.00
D (Left)	0.184	0.145	0.184	0.181	0.126	0.111	614.00
E (Front)	0.249	0.198	0.256	0.186	0.237	0.170	614.00
F (Back)	0.289	0.186	0.268	0.199	0.246	0.170	614.00

Table 3. E-field Measurement by distance/battery level (Device to Device) – OPEN

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H Measurements (A/m)	10% Battery		50% Battery		70% Battery		Limit (A/m)
	Distance from probe (cm)		Distance from probe (cm)		Distance from probe (cm)		
	15	20	15	20	15	20	
A (Bottom)	0.051	0.048	0.043	0.041	0.043	0.035	1.63
B (Right)	0.051	0.044	0.048	0.048	0.035	0.043	1.63
C (Top)	0.048	0.051	0.043	0.043	0.035	0.035	1.63
D (Left)	0.048	0.046	0.034	0.048	0.043	0.035	1.63
E (Front)	0.051	0.048	0.048	0.043	0.035	0.035	1.63
F (Back)	0.051	0.051	0.051	0.043	0.056	0.062	1.63

Table 4. H-field Measurement by distance/battery level (Device to Device) - OPEN

A	B	C	D	E	F
BOTTOM EDGE	RIGHT EDGE	TOP EDGE	LEFT EDGE	FRONT (SCREEN)	Back

Table 5. EUT Position Description

Notes:

1. The right and left edge are determined with the EUT screen facing the user.
2. H-Field Measurements were found to be noise floor.
3. Limits shown are from Table 1 in §1.1310(e)(1) of the FCC Rules as indicated in FCC KDB 680106.

2.2 Description of Test Setup

- o Testing was performed with a calibrated field probe.
- o Measurement was performed on each side of the EUT, with sides labeled as described per Table 5.
- o Testing was performed at the distances and different battery level as indicated on Table 1 and Table 2.
- o Measurement procedure was performed per FCC KDB 680106 and FCC Guidance.
- o Load device is an identical model to the DUT.

2.3 Test Equipment

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
Narda	EHP-200AC	Electric & Magnetic Field Probe	9/15/2020	Annual	9/15/2021	170WX70211

Table 6. Test Equipment

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3. CONCLUSION

The data collected relate only to the item(s) tested and show that the **Samsung Portable Handset FCC ID: A3LSMF711B1** has been verified to comply with the requirements specified in Part 2 (§2.1093) of the FCC Rules.

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