



RF EXPOSURE EVALUATION DOCUMENT

For WPT(wireless Power Transfer)

Applicant : SAMSUNG ELECTRONICS CO., LTD.
129 SAMSUNG-RO, YEONGTONG-GU, SUWON-SI,
GYEONGGI-DO, 16677, KOREA

Model : SM-N986B1/DS, SM-N986B1

FCC ID : A3LSMN986B1

EUT Description : GSM/WCDMA/LTE Phone + BT/BLE, DTS/UNII a/b/g/n/ac/ax,
NFC, WPT and UWB

Test Standard(s) : FCC 47 CFR PART 2 SUBPART J

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Prepared by:

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1. TEST METHODOLOGY

Per FCC Guidance, WPT function was evaluated for portable exposure condition. The tests documented in this report were performed in accordance with following methods.

1. FCC CFR 47 Part 2.
2. 680106 D01 RF Exposure Wireless Charging Apps v03r01.

2. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea. Line conducted emissions are measured only at the 218 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.

| |
|---|
| 218 Maeyeong-ro |
| <input checked="" type="checkbox"/> Shield Room |

UL Korea, Ltd. is accredited by IAS, Laboratory Code TL-637. The full scope of accreditation can be viewed at <https://www.iasonline.org/wp-content/uploads/2017/05/TL-637-cert-New.pdf>.

3. INFORMATION OF EQUIPMENT UNDER TEST

| Information | |
|---------------------------|-----------------------------------|
| Operating frequency [MHz] | 0.59 - 0.625 |
| Maximum output power [mW] | 50 |
| Charging type | Inductive wireless power transfer |
| Operating duty factor | 0.33 |

4. TEST EQUIPMENT

| Test Equipment List | | | | |
|---------------------|--------------|-----------|------------|------------|
| Description | Manufacturer | Model | S/N | Cal Due |
| E-H Field Analyzer | Narda | EHP-200AC | 170WX91008 | 2022-08-06 |



5. MEASUREMENT RESULT

5.1. H-field measurement results of EUT's 6 sides

| Distance | H-field measurement [A/m] | | | | | |
|----------|---------------------------|--------|--------|--------|--------|--------|
| | Rear | Front | Edge.1 | Edge.2 | Edge.3 | Edge.4 |
| 0cm | 1.0154 | 0.2373 | 0.0594 | 0.0332 | 0.0258 | 0.4559 |

Note: 0cm distance was measured from the center of the probe head to the edge of the DUT.

5.2. H-field measurement results for 0cm to 10cm at Rear side.

| Distance [cm] | H-field meas. [A/m] | H-field x (duty factor) [A/m] | FCC Limit [A/m] |
|---------------|---------------------|-------------------------------|-----------------|
| 0 | 1.0154 | 0.3351 | 1.63 |
| 1 | 0.4992 | 0.1647 | |
| 2 | 0.2842 | 0.0938 | |
| 3 | 0.1501 | 0.0495 | |
| 4 | 0.1364 | 0.0450 | |
| 5 | 0.0765 | 0.0252 | |
| 6 | 0.0484 | 0.0160 | |
| 7 | 0.0302 | 0.0100 | |
| 8 | 0.0194 | 0.0064 | |
| 9 | 0.0154 | 0.0051 | |
| 10 | 0.0143 | 0.0047 | |

5.3. Corrected H-field measurement

Operating duty factor is based on Averaging time of §1.1310 table 1.

- $1.0154 \text{ A/m} * 0.33 = 0.3351 \text{ A/m}$

END OF EVALUATION DOCUMENT