RF EXPOSURE EVALUATION REPORT

Product Name:	Mi Wireless Charger
Trade Mark:	MI
Model No.:	MDY-09-EF
Report Number:	180106014RFC-1
Test Standards:	FCC 47 CFR Part 1 Subpart I
FCC ID:	2AFZZ-MDY09EF
Test Result:	PASS
Date of Issue:	February 3, 2018

Prepared for:

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Version

Version No.	Date	Description
V1.0	February 3, 2018	Original

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1. GENERAL INFORMATION

1.1 CLIENT INFORMATION

Applicant:	Xiaomi Communications Co., Ltd
Address of Applicant:	The Rainbow City of China Resources, NO.68, Qinghe Middle Street, Haidian District, Beijing, China
Manufacturer:	Xiaomi Communications Co., Ltd
Address of Manufacturer:	The Rainbow City of China Resources, NO.68, Qinghe Middle Street, Haidian District, Beijing, China

1.2 EUT INFORMATION

Product Name:	Mi Wireless Charger
Model No.:	MDY-09-EF
Add. Model No.:	N/A
Trade Mark:	MI
DUT Stage:	Identical Prototype
Operating Frequency Range:	111KHz-148KHz
Antenna Type:	Coil antenna
Power Supply	DC5V/9V Supplied by the adapter
Temperature Range	0°C ~ +35°C

1.3 OTHER INFORMATION

Accessories

Description	Manufacturer	Model No.	Serial Number	Supplied by
USB type C cable 0.8m	LUXSHARE	L23312	N/A	XIAOMI
USB type C cable 0.8m	KELI	K23312	N/A	XIAOMI

Support Equipment

Description	Manufacturer	Model No.	Serial Number	Supplied by
adapter	XIAOMI	MDY-08-EF	N/A	XIAOMI
Mobile phone	XIAOMI	M1803D5XA	N/A	XIAOMI

1.4 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF product, according to the specifications of the manufacturers. It must comply with the requirements of the following standards:

FCC 47 CFR Part 1 Subpart I

All test items have been performed and recorded as per the above standards

1.5 DEVIATION FROM STANDARDS

None.

1.6 ABNORMALITIES FROM STANDARD CONDITIONS

None.

1.7 OTHER INFORMATION REQUESTED BY THE CUSTOMER

None.

2. EQUIPMENT LIST

Conducted Emission Test Equipment List						
Used	**Equipment**	**Manufacturer**	**Model No.**	**Serial Number**	**Cal. date (mm dd, yyyy)**	**Cal. Due date (mm dd, yyyy)**
☑	E-Field Probe	narda	EMR-20	2244/90.21 AH-0001	Jan. 29, 2018	Jan. 28, 2019
☑	EM radiation meter	narda	EMR-20	AF-0024	Jan. 29, 2018	Jan. 28, 2019
☑	B-Field Probe	narda	ELT-400	C-0014 2300/90.10	Mar. 08, 2017	Mar. 08, 2018
☑	Broadband Field Meter	narda	ELT-400	C-0014 0304/03	Mar. 08, 2017	Mar. 08, 2018
☑	3M Chamber & Accessory Equipment	ETS-LINDGREN	3M	N/A	Dec. 20, 2015	Dec. 19, 2018

3. MPE EVALUATION

3.1 REFERENCE DOCUMENTS FOR EVALUATION

No.	Identity	Document Title
1	FCC 47 CFR Part 1 Subpart I	PROCEDURES IMPLEMENTING THE NATIONAL ENVIRONMENTAL POLICY ACT OF 1969

3.2 MPE COMPLIANCE REQUIREMENT

3.2.1 Limits

3.2.1.1 FCC 47 CFR Part 1 Subpart I

According to §1.1307(b)(1), system operating under the provisions of this section shall be operating in a manner that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure.

Limits for Occupational / Controlled Exposure

Frequency range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Times $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f)*	6
30-300	61.4	0.163	1.0	6
300-1500	/	/	F/300	6
1500-100000	/	/	5	6

Limits for General Population / Uncontrolled Exposure

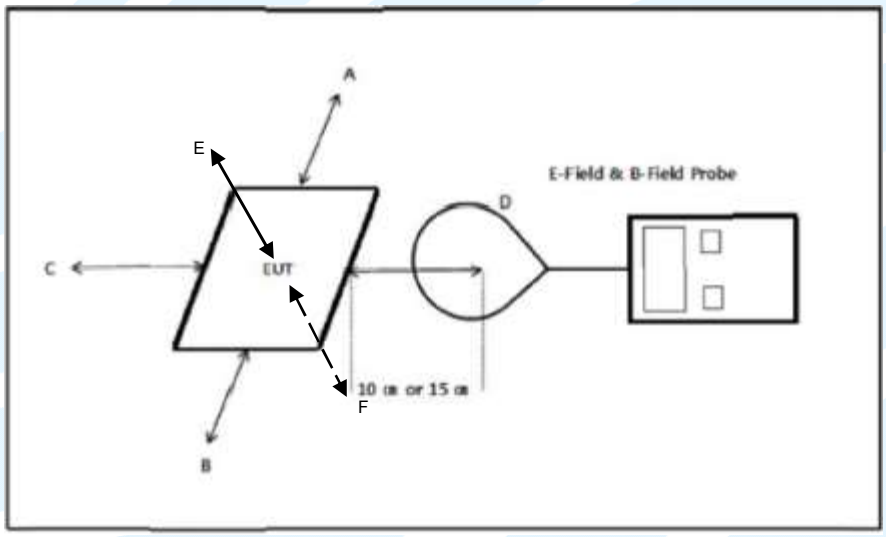
Frequency range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Times $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	F/1500	30
1500-100000	/	/	1	30

Note: f = frequency in MHz: * = Plane-wave equivalents power density.

3.2.2 Test Procedure

Enabled the EUT to transmit and receive data continue
a. The field strength of both E-field and H-field was measured at 10cm using the equipment list above for determining compliance with the MPE requirements of FCC Part 1.1310.
b. The RF power density was measured with the battery at 3 different charge conditions: battery at less than 1 % , battery at 50% charger, battery at 99% charger,.
c. Maximum E-field and H-field measurements were made 10cm from each side of the EUT. Along the side of the EUT and still 10cm away from the edge of the EU T, the field probes were positioned at the location where there is maximum field strength. The maximum E-field and H-field is reported below.
d. This device uses a wireless charging circuit for power transfer operating at the frequency of 111-148 kHz. Thus, the 300 kHz limits were used: E-field Limit = 614 (V/m); H-field limit = 1.63 (A/m).

3.2.3 Test setup



Note
- The RF exposure test is performed in the shield room
- The test distance is between the edge of the charger and the geometric center of probe

3.3 TEST DATA

E-Field Strength

Test Mode	Frequency Range (kHz)	Distance	Probe Position A (V/m)	Probe Position B (V/m)	Probe Position C (V/m)	Probe Position D (V/m)	Probe Position E (V/m)	Probe Position F (V/m)	Limits (V/m)
Mode 1	<1% Battery status	10CM	0.50	0.26	0.31	0.29	0.49	0.27	614.00
Mode 2	50% Battery status	10CM	0.44	0.30	0.27	0.26	0.64	0.30	614.00
Mode 3	99% Battery status	10CM	0.43	0.25	0.25	0.27	0.71	0.31	614.00

H-Field Strength

Test Mode	Frequency Range (kHz)	Distance	Probe Position A (A/m)	Probe Position B (A/m)	Probe Position C (A/m)	Probe Position D (A/m)	Probe Position E (A/m)	Probe Position F (A/m)	Limits (A/m)
Mode 1	<1% Battery status	10CM	0.055	0.061	0.043	0.041	0.049	0.063	1.630
Mode 2	50% Battery status	10CM	0.059	0.070	0.045	0.038	0.051	0.074	1.630
Mode 3	99% Battery status	10CM	0.056	0.065	0.044	0.039	0.053	0.066	1.630

Remark:
The device meets the mobile RF exposure limit at a 10cm separation distance as specified in &2.1091 of the FCC Rules.

The maximum leakage fields at 10cm surrounding the device from all simultaneous transmitting coils are demonstrated to be less than 30% of the MPE limit.

APPENDIX 1 PHOTOS OF RF EXPOSURE TEST SETUP

See test photos attached in Appendix 1 for the actual connections between Product and support equipment.

*** End of Report ***