

Report No.: KSCR220800148702

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TEST REPORT

Application No.:KSCR2208001487ATFCC ID:2AMIN-WCJ05ZMApplicant:ZIMI CORPORATION

Address of Applicant: Room A913, No.159 Chengjiang Road, Jiangyin City, Jiangsu Province,

214431, P.R.C

Manufacturer: ZIMI CORPORATION

Address of Manufacturer: Room A913, No.159 Chengijang Road, Jiangyin City, Jiangsu Province,

214431, P.R.C

Equipment Under Test (EUT):

EUT Name: Xiaomi 50W Wireless Car Charger

Model No.: WCJ05ZM Trade Mark: Xiaomi

Standard(s): 47 CFR Part 18

Date of Receipt: 2022-08-19

Date of Test: 2022-09-30 to 2022-09-30

Date of Issue: 2022-09-30

Test Result: Pass*

Eric Lin Laboratory Manager

Fra fin



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^{*} In the configuration tested, the EUT complied with the standards specified above.



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	Revision Record						
Version	Version Description Date						
00	Original	2022-09-30	/				

Authorized for issue by:			
	Cerin Lim		
	Eric_Liu/Project Engineer		
	Eric Li		
	Eric Lin /Reviewer	_	



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2 Test Summary

Emission Part							
Item	Standard	Method	Requirement	Result			
Radiated Emissions (Magnetic field Strength)(9kHz- 30MHz)	47 CFR Part 18	FCC/OST MP-5:1986	18.305(b)	Pass			



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4 General Information

4.1 Details of E.U.T.

Power supply:	DC 12V-20V,3.25A Max
Operation frequency:	115kHz to 148kHz
Modulation type:	Load modulation
Antenna type:	Inductive Loop Coil Antenna
Wireless Output Power:	50W(Max)

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Load	Resistance	N/A	N/A
Car Charger	CukTech	WCJ05CCZM	
Mobile Phone	Xiaomi	11	



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4.3 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	8.4 x 10 ⁻⁸
2	Timeout	2s
		4.2dB (Below 30MHz)
3	Radiated Spurious Emission Test	4.5dB (30MHz-1GHz)
3		5.1dB (1GHz-18GHz)
		5.4dB (Above 18GHz)
4	Temperature Test	1°C
5	Humidity Test	3%
6	Supply Voltages	1.5%
7	Time	3%

Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



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4.4 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

No tests were sub-contracted.

Note:

- 1. SGS is not responsible for wrong test results due to incorrect information (e.g., max. internal working frequency, antenna gain, cable loss, etc) is provided by the applicant. (If applicable).
- 2. SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (If applicable).

4.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• A2LA

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

FCC

Compliance Certification Services (Kunshan) Inc. has been recognized as an accredited testing laboratory. Designation Number: CN1172.

• ISED

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory. Company Number: 2324E

VCCI

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 respectively.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None



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5 Equipment List

Item	Equipment	Manufacturer	Model	Inventory No	Cal Date	Cal. Due Date			
RF Ra	RF Radiated Test								
1	Spectrum Analyzer	R&S	FSV40	KUS1806E003	08/22/2022	08/21/2023			
2	Universal Radio Communication Tester	R&S	CMW500	KSEM009-1	04/01/2022	03/31/2023			
3	Signal Generator	Agilent	E8257C	KS301066	08/22/2022	08/21/2023			
4	Loop Antenna	COM-POWER	AL-130R	KUS1806E001	04/13/2021	04/12/2023			
5	Bilog Antenna	TESEQ	CBL 6112D	KUS1806E005	06/29/2021	06/28/2023			
6	Bilog Antenna	SCHWARZBECK	VULB9160	CZ301016	04/13/2021	04/12/2024			
7	Horn-antenna(1-18GHz)	Schwarzbeck	BBHA9120D	KS301079	04/02/2022	04/01/2024			
8	Horn-antenna(1-18GHz)	ETS-LINDGREN	3117	KS301186	02/22/2021	02/21/2023			
9	Horn Antenna(18-40GHz)	Schwarzbeck	BBHA9170	CZ301058	03/17/2022	03/16/2023			
10	Amplifier(30MHz~18GHz)	PANSHAN TECHNOLOGY	LNA:1~18G	KSEM010-1	01/22/2022	01/21/2023			
11	Amplifier(18~40GHz)	COM-POWER	PAM-840A	KUS1710E001	01/22/2022	01/21/2023			
12	RE Test Cable REBES MICROWAVE		/	CZ301097	11/14/2021	11/13/2022			
13	Temperature & Humidity Recorder Renke Control		RS-WS-N01-6J	KSEM024-4	01/04/2022	31/03/2023			
14	Software	Faratronic	EZ_EMC-v 3A1	/	N/A	N/A			



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6 Radio Spectrum Matter Test Results

6.1 Radiated Emissions (Magnetic field Strength)(9kHz-30MHz)

Test Requirement: 47 CFR Part 18

Test Method: FCC OST/MP-5:1986

Frequency Range: 9kHz to 30MHz

Measurement Distance: 3m

Limit:

Equipment	Operating frequency	RF Power generated by equipment (watts)	Field strength limit (uV/m)	Distance (meters)
Any type unless otherwise specified (miscellaneous)	Any non-ISM frequency	Below 500 500 or more	15 15 × SQRT(power/500)	300 1300

Field strength may not exceed 10 µV/m at 1600 meters. Consumer equipment operating below 1000 MHz is not permitted the increase in field strength otherwise permitted here for power over 500 watts.

	T				
Frequency band in which device	Range of frequency measurements				
operates (MHz)	Lowest frequency	Highest frequency			
Below 1.705	Lowest frequency generated in the device, but not lower than 9 kHz	30 MHz.			
1.705 to 30	Lowest frequency generated in the device, but not lower than 9 kHz	400 MHz.			
30 to 500	Lowest frequency generated in the device or 25 MHz, whichever is lower	Tenth harmonic or 1,000 MHz, whichever is higher.			
500 to 1,000	Lowest frequency generated in the device or 100 MHz, whichever is lower	Tenth harmonic.			

6.1.1 E.U.T. Operation

Operating Environment:

Temperatur: 24 °C Humidity: 48 % RH Atmospheric Pressure: 1010 mbar

6.1.1 Test Mode Description

Pre-scan / Final test	Mode Code	Description
	00	Wireless charging mode _Keep the load charging via EUT, wireless charging load shall be set at empty load respectively.(0W)
Pre-scan	01	Wireless charging mode _Keep the load charging via EUT, wireless charging load shall be set at empty load respectively.(25W)
	02	Wireless charging mode _Keep the load charging via EUT, wireless charging load shall be set at empty load respectively.(50W)
Final test	02	Wireless charging mode _Keep the load charging via EUT, wireless charging load shall be set at empty load respectively.(50W)



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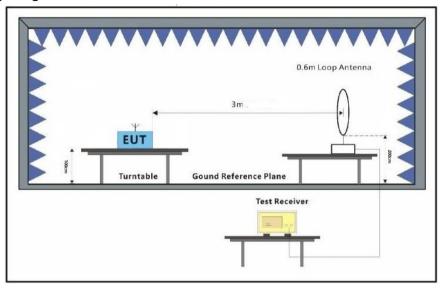
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6.1.2 Test Setup Diagram



6.1.3 Measurement Data

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities.



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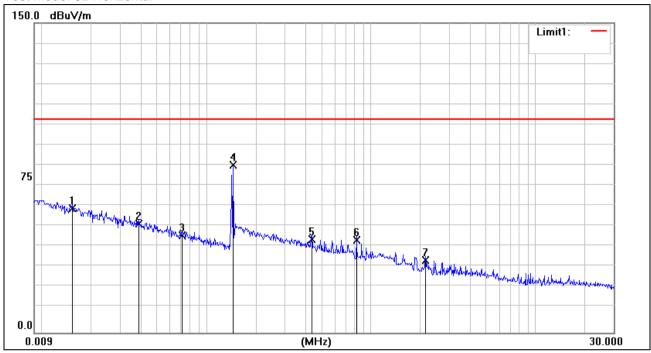
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Test mode: 02 Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.0154	44.12	15.93	60.05	103.50	-43.45	QP
2	0.0388	37.10	15.66	52.76	103.50	-50.74	QP
3	0.0708	31.86	15.29	47.15	103.50	-56.35	QP
4	0.1454	66.91	14.45	81.36	103.50	-22.14	peak
5	0.4350	30.91	14.44	45.35	103.50	-58.15	QP
6	0.8174	30.19	14.44	44.63	103.50	-58.87	QP
7	2.1326	20.48	14.41	34.89	103.50	-68.61	QP

Correct factor= Antenna Factor+Cable Loss Result Level=Reading Level+Correct factor Margin Level= Result Level-Limit



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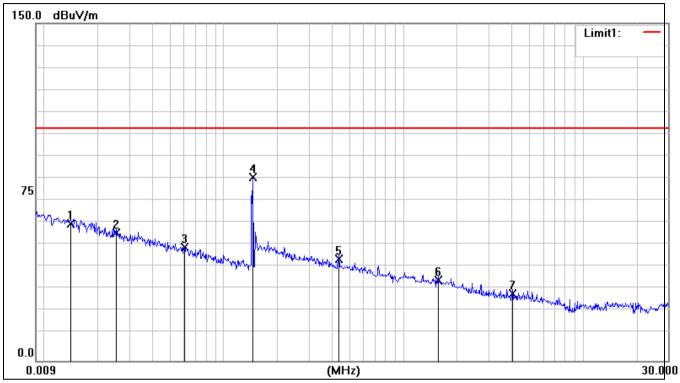
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Test mode: 02 Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.0140	44.98	15.95	60.93	103.50	-42.57	QP
2	0.0251	40.96	15.83	56.79	103.50	-46.71	QP
3	0.0604	35.02	15.42	50.44	103.50	-53.06	QP
4	0.1454	66.84	14.45	81.29	103.50	-22.21	peak
5	0.4350	30.71	14.42	45.13	103.50	-58.37	QP
6	1.5601	21.68	14.31	35.99	103.50	-67.51	QP
7	4.0704	15.73	14.05	29.78	103.50	-73.72	QP

Correct factor= Antenna Factor+Cable Loss Result Level=Reading Level+Correct factor Margin Level= Result Level-Limit



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7 Test Setup Photo

Refer to Appendix - Test Setup Photo for KSCR2208001487AT

8 EUT Constructional Details (EUT Photos)

Refer to Appendix - Photographs of EUT Constructional Details for KSCR2208001487AT

- End of the Report -



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