FCC RF Test Report

APPLICANT : Xiaomi Communications Co., Ltd.

EQUIPMENT: Mobile Phone

BRAND NAME : Redmi

MODEL NAME : M1903C3EH

FCC ID : 2AFZZ-RMSC3EH

STANDARD : 47 CFR Part 2, 22(H), 24(E)

CLASSIFICATION : PCS Licensed Transmitter Held to Ear (PCE)

This is a data re-used report which is only valid together with the original test report. We, Sporton International (Kunshan) Inc., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.26-2015 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International (Kunshan) Inc., the test report shall not be reproduced except in full.

Reviewed by: Jason Jia / Supervisor

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Approved by: James Huang / Manager

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Sporton International (Kunshan) Inc.

TEL: 86-512-57900158 FAX: 86-512-57900958 FCC ID: 2AFZZ-RMSC3EH Page Number : 1 of 7
Report Issued Date : Jun. 06, 2019
Report Version : Rev. 01

Report No.: FG931208-01A

Report Template No.: BU5-FG22/24 Version 2.0

TABLE OF CONTENTS

RE'	VISION	I HISTORY	.3		
	GENERAL DESCRIPTION				
		Applicant			
		Product Feature of Equipment Under Test			
	1.3	Product Specification of Equipment Under Test	. 5		
	1.4	Modification of EUT	. 5		
	1.5	Re-use of Measured Data	. 6		
AP	APPENDIX A. REFERENCE REPORT				

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TEL: 86-512-57900158 FAX: 86-512-57900958 FCC ID: 2AFZZ-RMSC3EH Page Number : 2 of 7
Report Issued Date : Jun. 06, 2019
Report Version : Rev. 01

Report Template No.: BU5-FG22/24 Version 2.0

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG931208-01A	Rev. 01	Initial issue of report	Jun. 06, 2019

Sporton International (Kunshan) Inc.

TEL: 86-512-57900158 FAX: 86-512-57900958 FCC ID: 2AFZZ-RMSC3EH Page Number : 3 of 7
Report Issued Date : Jun. 06, 2019
Report Version : Rev. 01

Report Template No.: BU5-FG22/24 Version 2.0

1 General Description

1.1 Applicant

Xiaomi Communications Co., Ltd.

The Rainbow City of China Resources, NO.68, Qinghe Middle Street, Haidian District, Beijing, China

1.2 Product Feature of Equipment Under Test

Product Feature			
Equipment	Mobile Phone		
Brand Name	Redmi		
Model Name	M1903C3EH		
FCC ID	2AFZZ-RMSC3EH		
EUT supports Radios application	GSM/GPRS/EGPRS/WCDMA/HSPA/ DC-HSDPA/HSPA+(16QAM uplink is not supported)/LTE WLAN 2.4GHz 802.11b/g/n HT20 Bluetooth BR /EDR/ LE FM Receiver / GNSS		
HW Version	V2		
SW Version	MIUI10		
EUT Stage	Identical Prototype		

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

Sporton International (Kunshan) Inc. TEL: 86-512-57900158

FAX: 86-512-57900958 FCC ID: 2AFZZ-RMSC3EH Page Number : 4 of 7
Report Issued Date : Jun. 06, 2019
Report Version : Rev. 01

Report Template No.: BU5-FG22/24 Version 2.0

1.3 Product Specification of Equipment Under Test

Standards-related Product Specification				
GSM/GPRS/EDGE:				
	850:	824.2 MHz ~ 848.8 MHz		
	1900:	1850.2 MHz ~ 1909.8MHz		
Tx Frequency	WCDMA:			
	Band V:	826.4 MHz ~ 846.6 MHz		
	Band II:	1852.4 MHz ~ 1907.6 MHz		
	Band IV:	1712.4 MHz ~ 1752.6 MHz		
	GSM/GPRS/E			
	850:	869.2 MHz ~ 893.8 MHz		
	1900:	1930.2 MHz ~ 1989.8 MHz		
Rx Frequency	WCDMA:			
	Band V:	871.4 MHz ~ 891.6 MHz		
	Band II:	1932.4 MHz ~ 1987.6 MHz		
	Band IV:	2112.4 MHz ~ 2152.6 MHz		
Antenna Type	PIFA Antenna			
	Cellular Band: -1.00 dBi			
Antenna Gain	PCS Band: -0.20 dBi			
	AWS Band: -0.20 dBi			
	GSM: GMSK			
	GPRS: GMSK			
	EDGE: GMSK / 8PSK			
Type of Modulation	WCDMA: BPSK (Uplink)			
	HSDPA/DC-HSDPA: QPSK (Uplink) HSUPA: QPSK (Uplink)			
	HSPA+: 16QAM (uplink is not supported)			
	DC-HSDPA: 64QAM			

1.4 Modification of EUT

No modifications are made to the EUT during all test items.

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TEL: 86-512-57900158 FAX: 86-512-57900958 FCC ID: 2AFZZ-RMSC3EH Page Number : 5 of 7
Report Issued Date : Jun. 06, 2019
Report Version : Rev. 01

Report No.: FG931208-01A

Report Template No.: BU5-FG22/24 Version 2.0

1.5 Re-use of Measured Data

1.6.1 Introduction Section

This application re-uses data collected on a similar device. The subject device of this application (Model: M1903C3EH, FCC ID: 2AFZZ-RMSC3EH) is electrically identical to the reference device (Model: M1903C3EG, FCC ID: 2AFZZ-RMSC3EG) for the portions of the circuitry corresponding to the data being re-used, as treated by KDB Publication 484596 D01.

1.6.2 Difference Section

For details concerning the similarity with respect to component placement, mechanical/electrical design etc., please refer to the Product Equality Declaration.

The re-used RF data includes the following bands provided in Appendix A (Sporton RF Report No. FG931208A for the reference device Model: M1903C3EG, FCC ID: 2AFZZ-RMSC3EG).

1.6.3 Reference detail Section:

Equipment Class	Reference FCC ID	Folder Test	Report Title/Section	
DOE (20)	2AFZZ-RMSC3EG	Part22H.24E	All coefficient applicable	
PCE (2G/3G)	ZAFZZ-RIVISUSEG	(FG931208A)	All sections applicable	
DOE (LTE)	E (LTE) 2AFZZ-RMSC3EG	Part22H.24E.27L.27M	All acations applicable	
PCE (LTE)		(FG931208B)	All sections applicable	

Sporton International (Kunshan) Inc.Page NumberTEL: 86-512-57900158Report Issued

FCC ID : 2AFZZ-RMSC3EH

FAX: 86-512-57900958

Report Issued Date : Jun. 06, 2019
Report Version : Rev. 01

Report No.: FG931208-01A

Report Template No.: BU5-FG22/24 Version 2.0

1.6.4 Spot Check Verification Data Section

In order to confirm hardware similarity of the subject device with the reference device, spot check measurements were performed on the subject device for the radiated spurious emission, the test result were consistent with FCC ID: 2AFZZ-RMSC3EG.

Assertions concerning the similarity of these devices are based on representations by the applicant. The applicant accepts full responsibility for the validity of the similarity claim, and for the determination that verification test data are sufficient to support it.

Test Item	Mode	2AFZZ-RMSC3EG Worst Result	2AFZZ-RMSC3EH Worst Result	Difference (dB)
	GSM 850	-36.7	-41.83	-5.13
Radiated Spurious	LTE Band 2	-44.31	-52	-7.69
Emission	LTE Band 4	-53.38	-51.64	1.74
(Haromic) (dBm)	LTE Band 7	-41.25	-58.39	-17.14
	LTE Band 38	-42.42	-54.21	-11.79

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TEL: 86-512-57900158 FAX: 86-512-57900958 FCC ID: 2AFZZ-RMSC3EH Page Number : 7 of 7
Report Issued Date : Jun. 06, 2019
Report Version : Rev. 01

Report Template No.: BU5-FG22/24 Version 2.0

Appendix A. Reference Report

Please refer to Sporton report number FG931208A which is issued separately.

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TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: 2AFZZ-RMSC3EH Page Number : A1 of A1
Report Issued Date : Jun. 06, 2019
Report Version : Rev. 01

Report Template No.: BU5-FG22/24 Version 2.0