

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), 27(L), 27(M)
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.



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REVISION HISTORY

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



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.

1.3 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	LTE Band 2 : 1850.7 MHz ~ 1909.3 MHz LTE Band 4 : 1710.7 MHz ~ 1754.3 MHz LTE Band 5 : 824.7 MHz ~ 848.3 MHz LTE Band 7 : 2502.5 MHz ~ 2567.5 MHz LTE Band 38 : 2572.5MHz ~ 2617.5MHz
Rx Frequency	LTE Band 2 : 1930.7 MHz ~ 1989.3 MHz LTE Band 4 : 2110.7 MHz ~ 2154.3 MHz LTE Band 5 : 869.7 MHz ~ 893.3 MHz LTE Band 7 : 2622.5MHz ~ 2687.5 MHz LTE Band 38 : 2572.5MHz ~ 2617.5MHz
Bandwidth	LTE Band 2 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 4 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 5 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 7 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 38 : 5MHz / 10MHz / 15MHz / 20MHz
Antenna Gain	LTE Band 2 : -0.20 dBi LTE Band 4 : -0.20 dBi LTE Band 5 : -1.00 dBi LTE Band 7 : -0.40 dBi LTE Band 38 : 0.30 dBi
Type of Modulation	QPSK / 16QAM / 64QAM

1.4 Modification of EUT

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



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. FG931208B 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
PCE (2G/3G)	2AFZZ-RMSC3EG	Part22H.24E (FG931208A)	All sections applicable
PCE (LTE)	2AFZZ-RMSC3EG	Part22H.24E.27L.27M (FG931208B)	All sections applicable

**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)
Radiated Spurious Emission (Harmonic) (dBm)	GSM 850	-36.7	-41.83	-5.13
	LTE Band 2	-44.31	-52	-7.69
	LTE Band 4	-53.38	-51.64	1.74
	LTE Band 7	-41.25	-58.39	-17.14
	LTE Band 38	-42.42	-54.21	-11.79



Appendix A. Reference Report

Please refer to Sporton report number FG931208B which is issued separately.