



FCC RF Test Report

APPLICANT : Xiaomi Communications Co., Ltd.
EQUIPMENT : Mobile Phone
BRAND NAME : Redmi
MODEL NAME : M1903C3EH
FCC ID : 2AFZZ-RMSC3EH
STANDARD : FCC Part 15 Subpart C §15.247
CLASSIFICATION : Digital Spread Spectrum (DSS)

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 test procedures and has been in 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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APPENDIX A. REFERENCE REPORT



REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR931208-01A	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/Rx Frequency Range	2402 MHz ~ 2480 MHz
Number of Channels	79
Carrier Frequency of Each Channel	2402+n*1 MHz; n=0~78
Antenna Type / Gain	PIFA Antenna with gain 1.23 dBi
Type of Modulation	Bluetooth BR (1Mbps) : GFSK Bluetooth EDR (2Mbps) : $\pi/4$ -DQPSK Bluetooth EDR (3Mbps) : 8-DPSK

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. FR931208A 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
DSS (BR/EDR)	2AFZZ-RMSC3EG	Part15C (FR931208A)	All sections applicable
DTS (BLE)	2AFZZ-RMSC3EG	Part15C (FR931208B)	All sections applicable
DTS (WLAN)	2AFZZ-RMSC3EG	Part15C (FR931208C)	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)
Peak Conducted Power (dBm)	BT (1Mbps)	7.97	7.86	-0.11
	BT (2Mbps)	7.19	7.06	-0.13
	BT (3Mbps)	7.75	7.69	-0.06
	BT LE	3.32	3.26	-0.06
	802.11b	19.66	19.64	-0.02
	802.11g	22.45	22.42	-0.03
	11n HT20	22.14	22.11	-0.03
Radiated Spurious Emission (dBuV/m)	BT (BR/EDR)	54.51	55.07	0.56
	BT (LE)	45.58	46.33	0.75
	802.11n-HT20	49.89	47.63	-2.26



Appendix A. Reference Report

Please refer to Sporton report number FR931208A which is issued separately.