



FCC RF Test Report

APPLICANT : Xiaomi Communications Co., Ltd.
EQUIPMENT : Mobile Phone
BRAND NAME : Redmi
MODEL NAME : M2101K6R
FCC ID : 2AFZZK6R
STANDARD : 47 CFR Part 2, 22(H), 24(E), 27(L)
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 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.

Jason Jia

Reviewed by: Jason Jia / Supervisor

James Huang

Approved by: James Huang / Manager



Sporton International (Kunshan) Inc.

**No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300
People's Republic of China**



TABLE OF CONTENTS

REVISION HISTORY..... 3

1 GENERAL DESCRIPTION..... 4

 1.1 Applicant 4

 1.2 Manufacturer..... 4

 1.3 Product Feature of Equipment Under Test..... 4

 1.4 Product Specification of Equipment Under Test..... 4

 1.5 Modification of EUT 5

 1.6 Testing Location 6

 1.7 Test Software..... 6

 1.8 Re-use of Measured Data 6

2 LIST OF MEASURING EQUIPMENT..... 8

APPENDIX A. SETUP PHOTOGRAPHS

APPENDIX B. REFERENCE REPORT



REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG0N2803-01A	Rev. 01	Initial issue of report	Jan. 20, 2021



1 General Description

1.1 Applicant

Xiaomi Communications Co., Ltd.

#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

1.2 Manufacturer

Xiaomi Communications Co., Ltd.

#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Phone
Brand Name	Redmi
Model Name	M2101K6R
FCC ID	2AFZZK6R
EUT supports Radios application	GSM/WCDMA/LTE/NFC WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE FM Receiver and GNSS
HW Version	P2
SW Version	MIUI 12
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.

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	GSM/GPRS/EDGE: 850: 824.2 MHz ~ 848.8 MHz 1900: 1850.2 MHz ~ 1909.8MHz 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
Rx Frequency	GSM/GPRS/EDGE: 850: 869.2 MHz ~ 893.8 MHz 1900: 1930.2 MHz ~ 1989.8 MHz 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 for Bottom Antenna Loop Antenna for Top Antenna
Antenna Gain	Ant:2: Top Antenna: Cellular Band: -4.9 dBi PCS Band: -1.9 dBi AWS Band: -0.6 dBi Ant 1: Bottom Antenna: Cellular Band: -5.7 dBi PCS Band: -1.5 dBi AWS Band: -1.2 dBi
Type of Modulation	GSM: GMSK GPRS: GMSK EDGE: GMSK / 8PSK WCDMA : BPSK HSPA : QPSK HSUPA : QPSK HSPA+ : 16QAM DC-HSDPA : 64QAM

1.5 Modification of EUT

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



1.6 Testing Location

Sporton International (Kunshan) Inc. is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Test Firm	Sporton International (Kunshan) Inc.		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158 FAX : +86-512-57900958		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	03CH04-KS	CN1257	314309

1.7 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH04-KS	AUDIX	E3	6.2009-8-24a

1.8 Re-use of Measured Data

1.8.1 Introduction Section

This application re-uses data collected on a similar device. The subject device of this application (Model: M2101K6R, FCC ID: 2AFZZK6R) is electrically identical to the reference device (Model: M2101K6G, FCC ID: 2AFZZK6G) for the portions of the circuitry corresponding to the data being re-used, as treated by KDB Publication 484596 D01.

1.8.2 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 B (Sporton RF Report No. FG0N2803A for the reference device Model: M2101K6G, FCC ID: 2AFZZK6G).



1.8.3 Reference detail Section:

Equipment Class	Reference FCC ID	Folder Test	Report Title/Section
PCE (2G/3G)	2AFZZK6G	Part22H.24E.27L(FG0N2803A)	All sections applicable

1.8.4 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 following test items, the test result were consistent with FCC ID: 2AFZZK6G.

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	2AFZZK6G Worst Result	2AFZZK6R Worst Result	Difference (dB)
Radiated Spurious Emission (dBm)	Part 22H EDGE 850 Middle	-38.97	-46.71	7.74



2 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EXA Spectrum Analyzer	Keysight	N9010A	MY55150244	10Hz-44G,MAX 30dB	Apr. 15, 2020	Dec. 23, 2020	Apr. 14, 2021	Radiation (03CH04-KS)
Bilog Antenna	TeseQ	CBL6111D	49922	30MHz-1GHz	Jan. 03, 2020	Dec. 23, 2020	Jan. 02, 2021	Radiation (03CH04-KS)
Horn Antenna	Schwarzbeck	BBHA9120D	1356	1GHz~18GHz	Apr. 20, 2020	Dec. 23, 2020	Apr. 19, 2021	Radiation (03CH04-KS)
SHF-EHF Horn	Com-power	AH-840	101115	18GHz~40GHz	Nov. 09, 2020	Dec. 23, 2020	Nov. 08, 2021	Radiation (03CH04-KS)
Amplifier	SONOMA	310N	187289	9KHz-1GHz	Jan. 03, 2020	Dec. 23, 2020	Jan. 02, 2021	Radiation (03CH04-KS)
Amplifier	MITEQ	EM18G40G GA	060728	18~40GHz	Jan. 08, 2020	Dec. 23, 2020	Jan. 07, 2021	Radiation (03CH04-KS)
high gain Amplifier	MITEQ	AMF-7D-00 101800-30-1 0P	2025788	1Ghz-18Ghz	Jan. 03, 2020	Dec. 23, 2020	Jan. 02, 2021	Radiation (03CH04-KS)
Amplifier	Keysight	83017A	MY57280106	500MHz~26.5GHz	Oct. 14, 2020	Dec. 23, 2020	Oct. 13, 2021	Radiation (03CH04-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Dec. 23, 2020	NCR	Radiation (03CH04-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Dec. 23, 2020	NCR	Radiation (03CH04-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Dec. 23, 2020	NCR	Radiation (03CH04-KS)

NCR: No Calibration Required



Appendix B. Reference Report

Please refer to Sporton report number FG0N2803A which is issued separately.