



FCC RF Test Report

APPLICANT : Xiaomi Communications Co., Ltd.
EQUIPMENT : Mobile Phone
BRAND NAME : MI
MODEL NAME : M1806E7TH
FCC ID : 2AFZZ-RMSE7TH
STANDARD : FCC Part 15 Subpart E §15.407
CLASSIFICATION : (NII) Unlicensed National Information Infrastructure

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.

James Huang



Approved by: James Huang / Manager

Sporton International (Kunshan) Inc.

**No.3-2 Ping-Xiang Rd, Kunshan Development Zone Kunshan City Jiangsu Province 215335
China**



TABLE OF CONTENTS

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	Re-use of Measured Data	6

APPENDIX A. REFERENCE REPORT



REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR862604-01D	Rev. 01	Initial issue of report	Aug. 21, 2018



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 Manufacturer

Xiaomi Communications Co., Ltd.

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

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Phone
Brand Name	MI
Model Name	M1806E7TH
FCC ID	2AFZZ-RMSE7TH
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/HT40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE
HW Version	P2.0
SW Version	MIUI 9
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/Rx Frequency Range	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5720 MHz
Antenna Type / Gain	<5180 MHz ~ 5240 MHz> PIFA Antenna with gain -4.40 dBi <5260 MHz ~ 5320 MHz> PIFA Antenna with gain -3.40 dBi <5500 MHz ~ 5720 MHz > PIFA Antenna with gain -3.90 dBi
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)



1.5 Modification of EUT

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



1.6 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: M1806E7TH, FCC ID: 2AFZZ-RMSE7TH) is electrically identical to the reference device (Model: M1806E7TG, FCC ID: 2AFZZ-RMSE7TG) 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. FR862604D for the reference device Model: M1806E7TG, FCC ID: 2AFZZ-RMSE7TG).

1.6.3 Reference detail Section:

Equipment Class	Reference FCC ID	Folder Test	Report Title/Section
NII (B1~3)	2AFZZ-RMSE7TG	Part15E(FR862604D)	All sections applicable
NII (B4)	2AFZZ-RMSE7TG	Part15E(FR862604E)	All sections applicable
NII (DFS)	2AFZZ-RMSE7TG	Part15E(FZ862604)	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 Conducted Power, the test result were consistent with FCC ID: 2AFZZ-RMSE7TG.

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	Worst Result 2AFZZ-RMSE7TG	Worst Result 2AFZZ-RMSE7TH	Difference (dB)
Average Conducted Power (dBm)	802.11a, 5.2GHz	16.25	15.96	0.30
	802.11n HT20, 5.2GHz	13.99	13.62	0.37
	802.11n HT40, 5.2GHz	13.74	13.22	0.52
	802.11ac VHT20, 5.2GHz	12.03	11.50	0.53
	802.11ac VHT40, 5.2GHz	11.84	11.43	0.41
	802.11ac VHT80, 5.2GHz	11.82	11.38	0.44
	802.11a, 5.3GHz	16.27	15.87	0.41
	802.11n HT20, 5.3GHz	13.95	13.63	0.32
	802.11n HT40, 5.3GHz	13.85	13.44	0.41
	802.11ac VHT20, 5.3GHz	11.98	11.36	0.62
	802.11ac VHT40, 5.3GHz	11.82	11.31	0.51
	802.11ac VHT80, 5.3GHz	11.79	11.30	0.49
	802.11a, 5.5GHz	15.91	15.58	0.34
	802.11n HT20, 5.5GHz	13.97	13.46	0.51
	802.11n HT40, 5.5GHz	13.84	13.50	0.34
	802.11ac VHT20, 5.5GHz	11.90	11.30	0.60
	802.11ac VHT40, 5.5GHz	11.80	11.23	0.57
	802.11ac VHT80, 5.5GHz	11.71	11.10	0.61



Appendix A. Reference Report

Please refer to Sporton report number FR862604D which is issued separately.