



# FCC RF Test Report

**APPLICANT** : Motorola Mobility LLC  
**EQUIPMENT** : Mobile Cellular Phone  
**BRAND NAME** : Motorola  
**MODEL NAME** : XT2129-1  
**FCC ID** : IHDT56ZN1  
**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 (ShenZhen) 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 (ShenZhen) Inc., the test report shall not be reproduced except in full.

Reviewed by: Derreck Chen / Supervisor

Approved by: Eric Shih / Manager



**Sporton International (ShenZhen) Inc.**

**1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055**

**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 ..... 4

    1.6 Testing Location ..... 5

    1.7 Re-use of Measured Data ..... 5

2 LIST OF MEASURING EQUIPMENT..... 6

APPENDIX A. REFERENCE REPORT



### REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR002023-01E	Rev. 01	Initial issue of report	Dec. 21, 2020



# 1 General Description

## 1.1 Applicant

Motorola Mobility LLC  
222 W,Merchandise Mart Plaza,Chicago,IL60654 USA

## 1.2 Manufacturer

Motorola Mobility LLC  
222 W,Merchandise Mart Plaza,Chicago,IL60654 USA

## 1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2129-1
FCC ID	IHDT56ZN1
EUT supports Radios application	GSM/ WCDMA/ LTE WLAN 2.4GHz 802.11b/g/n HT20 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE FM Receiver and GNSS
HW Version	DVT2
SW Version	RRC31.30
EUT Stage	Production Unit

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	5745 MHz ~ 5825 MHz
Antenna Type / Gain	PIFA Antenna with gain -4.50 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 Testing Location

Sporton International (Shenzhen) Inc. is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

<b>Test Firm</b>	Sporton International (Shenzhen) Inc.		
<b>Test Site Location</b>	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
<b>Test Site No.</b>	<b>Sporton Site No.</b>	<b>FCC Designation No.</b>	<b>FCC Test Firm Registration No.</b>
	TH01-SZ	CN1256	421272

### 1.7 Re-use of Measured Data

#### 1.7.1 Introduction Section

This application re-uses data collected on a similar device. The subject device of this application (Model: XT2129-1, FCC ID: IHDT56ZN1) is electrically identical to the reference device (Model: XT2129-2, FCC ID: IHDT56ZN2) for the portions of the circuitry corresponding to the data being re-used, as treated by KDB Publication 484596 D01.

#### 1.7.2 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. FR002023F for the reference device Model: XT2129-2, FCC ID: IHDT56ZN2).



1.7.3 Reference detail Section:

Equipment Class	Reference FCC ID	Folder Test	Report Title/Section
NII (B1~3)	IHDT56ZN2	Part15E(FR002023E)	All sections applicable
NII (B4)	IHDT56ZN2	Part15E(FR002023F)	All sections applicable
DFS	IHDT56ZN2	Part15E(FZ002023)	All sections applicable

1.7.4 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: IHDT56ZN2.

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	IHDT56ZN2 Worst Result	IHDT56ZN1 Worst Result	Difference (dB)
Average Conducted Power (dBm)	802.11a _ Ch60	17.67	17.14	-0.53
	802.11n HT20_ Ch64	17.71	17.35	-0.36
	802.11n HT40_ Ch134	17.67	17.29	-0.38
	802.11ac VHT20_ Ch64	17.68	17.51	-0.17
	802.11ac VHT40_ Ch134	17.62	17.33	-0.29
	802.11ac VHT80_ Ch42	15.01	14.65	-0.36



## 2 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 17, 2020	Dec. 09, 2020	Apr. 16, 2021	Conducted (TH01-SZ)
Pulse Power Sensor	Anritsu	MA2411B	1207253	30MHz~40GHz	Dec. 26, 2019	Dec. 09, 2020	Dec. 25, 2020	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1218010	50MHz Bandwidth	Dec. 26, 2019	Dec. 09, 2020	Dec. 25, 2020	Conducted (TH01-SZ)



## **Appendix A. Reference Report**

Please refer to Sporton report number FR002023F which is issued separately.