



# Spot Check Evaluation

APPLICANT : Motorola Mobility LLC  
EQUIPMENT : Mobile Cellular Phone  
BRAND NAME : Motorola  
MODEL NAME : XT2229-2  
FCC ID : IHDT56AC6  
STANDARD : 47 CFR Part 2, 22(H), 24(E), 27(M)  
47 CFR Part 15 Subpart E §15.407

We, Sporton International Inc. (ShenZhen), 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 Inc. (ShenZhen), the test report shall not be reproduced except in full.

Reviewed by: Derreck Chen / Supervisor

Approved by: Eric Shih / Manager



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**People's Republic of China**



## **TABLE OF CONTENTS**

|                                                  |          |
|--------------------------------------------------|----------|
| <b>REVISION HISTORY.....</b>                     | <b>3</b> |
| <b>1 GENERAL DESCRIPTION.....</b>                | <b>4</b> |
| 1.1 Applicant.....                               | 4        |
| 1.2 Manufacturer.....                            | 4        |
| 1.3 Product Feature of Equipment Under Test..... | 4        |
| 1.4 Modification of EUT .....                    | 4        |
| 1.5 Testing Location .....                       | 5        |
| <b>2 RE-USE OF MEASURED DATA.....</b>            | <b>6</b> |
| 2.1 Introduction Section .....                   | 6        |
| 2.2 Model Difference Information .....           | 6        |
| 2.3 Reference detail Section: .....              | 6        |
| 2.4 Spot Check Verification Data Section.....    | 7        |
| <b>3 LIST OF MEASURING EQUIPMENT.....</b>        | <b>8</b> |
| <b>APPENDIX A. SETUP PHOTOGRAPHS</b>             |          |



## REVISION HISTORY

| REPORT NO. | VERSION | DESCRIPTION             | ISSUED DATE   |
|------------|---------|-------------------------|---------------|
| 1N1011-03  | Rev. 01 | Initial issue of report | Mar. 15, 2022 |
|            |         |                         |               |
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# 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                      | XT2229-2                                                                                                                                                |
| FCC ID                          | IHDT56AC6                                                                                                                                               |
| EUT supports Radios application | GSM/WCDMA/LTE<br>WLAN 2.4GHz 802.11b/g/n HT20<br>WLAN 5GHz 802.11a/n HT20/HT40<br>WLAN 5GHz 802.11ac VHT20/VHT40/VHT80<br>Bluetooth BR/EDR/LE, GNSS, FM |
| HW Version                      | DVT2                                                                                                                                                    |
| SW Version                      | STA32.48                                                                                                                                                |
| 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 Modification of EUT

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



## 1.5 Testing Location

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

|                           |                                                                                                                                                                         |                            |                                       |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------------|
| <b>Test Firm</b>          | Sporton International Inc. (Shenzhen)                                                                                                                                   |                            |                                       |
| <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<br>TEL: +86-755-86379589<br>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                                |

  

|                           |                                                                                                                                                                                           |                            |                                       |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------------|
| <b>Test Firm</b>          | Sporton International Inc. (Shenzhen)                                                                                                                                                     |                            |                                       |
| <b>Test Site Location</b> | 101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City Guangdong Province China 518103<br>TEL: +86-755-33202398 |                            |                                       |
| <b>Test Site No.</b>      | <b>Sporton Site No.</b>                                                                                                                                                                   | <b>FCC Designation No.</b> | <b>FCC Test Firm Registration No.</b> |
|                           | 03CH01-SZ                                                                                                                                                                                 | CN1256                     | 421272                                |



## 2 Re-use of Measured Data

### 2.1 Introduction Section

This application re-uses data collected on a similar device. The subject device of this application (Model: XT2229-2, FCC ID: IHDT56AC6) is electrically identical to the reference device (Model: XT2231-2, FCC ID: IHDT56AC3) for the portions of the circuitry corresponding to the data being re-used. Based on their similarity, the FCC Part 22, 24, 27 reuse the original model's result and do spot-check, following the FCC KDB 484596 D01 v01.

The applicant takes full responsibility that the test data as referenced in this report represent compliance for this FCC ID: IHDT56AC6 .

### 2.2 Model Difference Information

The **main** difference between FCC ID: IHDT56AC3 and FCC ID: IHDT56AC6 is as below:

- Remove NFC.

Other differences and all the details of similarity and difference can be found in the confidential documents (XT2229-2\_Operational Description of Product Equality Declaration).

### 2.3 Reference detail Section:

| Rule Part  | Equipment Class | Frequency Band (MHz)   | Reference FCC ID(Parent) | Type Grant/ Permissive Change | Reference Title | FCC ID Filling (Variant) | Report Title/Section    |
|------------|-----------------|------------------------|--------------------------|-------------------------------|-----------------|--------------------------|-------------------------|
| 15E        | DFS             | 5250~5350<br>5470~5725 | IHDT56AC2                | Original Grant                | 1N1011-01       | IHDT56AC6                | All sections applicable |
|            |                 |                        | IHDT56AC3                | Data reuse                    |                 |                          |                         |
| 22, 24, 27 | PCE (GSM)       | GSM 850/1900           | IHDT56AC2                | Original Grant                | 1N1011-01       | IHDT56AC6                | All sections applicable |
|            |                 |                        | IHDT56AC3                | Data reuse                    |                 |                          |                         |
|            | PCE (WCDMA)     | Band II, V             | IHDT56AC2                | Original Grant                | 1N1011-01       | IHDT56AC6                | All sections applicable |
|            |                 |                        | IHDT56AC3                | Data reuse                    |                 |                          |                         |
|            | PCE (LTE)       | B5/7/38                | IHDT56AC2                | Original Grant                | 1N1011-01       | IHDT56AC6                | All sections applicable |
|            |                 |                        | IHDT56AC3                | Data reuse                    |                 |                          |                         |
|            | PCE (LTE)       | B41                    | IHDT56AC3                | Original Grant                | FG1N1011-01     | IHDT56AC6                | All sections applicable |



## 2.4 Spot Check Verification Data Section

Conducted power test and radiated spurious emission test against the variant model based on the worst-case condition from the original model was performed in this filing to demonstrate the test data from original model remains representative for the variant model

Summary for power and RSE spot check for each rule entry and technology is listed as below:

| Test Item                   | Mode          | IHDT56AC3<br>Parent<br>Worst Result | IHDT56AC6<br>Variant<br>Check Result | Difference (dB) |
|-----------------------------|---------------|-------------------------------------|--------------------------------------|-----------------|
| Conducted<br>Power<br>(dBm) | GSM850        | 32.61                               | 32.61                                | 0               |
|                             | GSM1900       | 29.50                               | 29.50                                | 0               |
|                             | WCDMA band II | 22.80                               | 22.80                                | 0               |
|                             | WCDMA band V  | 22.82                               | 22.82                                | 0               |
|                             | LTE band 5    | 22.96                               | 22.96                                | 0               |
|                             | LTE band 7    | 22.69                               | 22.69                                | 0               |
|                             | LTE band 38   | 23.26                               | 23.26                                | 0               |
|                             | LTE band 41   | 23.19                               | 23.19                                | 0               |

| Test Item                               | Mode                 | IHDT56AC3<br>Parent<br>Worst Result | IHDT56AC6<br>Variant<br>Check Result | Difference (dB) |
|-----------------------------------------|----------------------|-------------------------------------|--------------------------------------|-----------------|
| Radiated Spurious<br>Emission<br>( dBm) | Part 22H-2G-3G-850   | 33.91                               | 35.94                                | 2.03            |
|                                         | Part 24E-2G-3G-1900  | 33.24                               | 38.19                                | 4.95            |
|                                         | Part 27M-Band 7      | 26.44                               | 26.70                                | 0.26            |
|                                         | Part 27M-LTE Band 41 | 25.66                               | 25.44                                | 0.22            |

Conclusion:

Radiated spurious emission test against the variant model based on the worst-case condition from the original model was performed in this filing to demonstrate the test data from original model remains representative for the variant model.

Based on the spot check test result, the test data from the original model is representative for the variant model. The power level and RSE spot check are shown within expected level compliant to limit line.

We are using power and ERP/EIRP measurements from the original parent model reports to list on the grant.

We confirm that the test data reuse policy of FCC KDB 484596 D01 Referencing Test Data v01 has been followed and the test data as referenced from the parent model report represents compliance with new FCC ID.



### 3 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. 08, 2021    | Mar. 02, 2022 | Apr. 07, 2022 | Conducted (TH01-SZ)   |
| Power Divider             | TOJOIN       | PS-2SM-04<br>265                 | 60.06.020.00<br>77 | 0.4GHz~26.5G<br>Hz | Dec. 25, 2021    | Mar. 02, 2022 | Dec. 24, 2022 | Conducted (TH01-SZ)   |
| EXA Spectrum Analyzer     | KEYSIGHT     | N9010A                           | MY55150213         | 10Hz~44GHz         | Jul. 21, 2021    | Mar. 01, 2022 | Jul. 20, 2022 | Radiation (03CH01-SZ) |
| Loop Antenna              | R&S          | HFH2-Z2                          | 100354             | 9kHz~30MHz         | Jun. 22, 2021    | Mar. 01, 2022 | Jun. 21, 2022 | Radiation (03CH01-SZ) |
| Bilog Antenna             | TeseQ        | CBL6112D                         | 35407              | 30MHz~2GHz         | Jul. 15, 2021    | Mar. 01, 2022 | Jul. 14, 2022 | Radiation (03CH01-SZ) |
| Double Ridge Horn Antenna | ETS-Lindgren | 3117                             | 00119436           | 1GHz~18GHz         | Jul. 25, 2021    | Mar. 01, 2022 | Jul. 24, 2022 | Radiation (03CH01-SZ) |
| SHF-EHF Horn              | com-power    | AH-840                           | 101071             | 18GHz~40GHz        | Apr. 11, 2021    | Mar. 01, 2022 | Apr. 10, 2022 | Radiation (03CH01-SZ) |
| LF Amplifier              | Burgeon      | BPA-530                          | 102209             | 0.01~3000Mhz       | Apr. 07, 2021    | Mar. 01, 2022 | Apr. 06, 2022 | Radiation (03CH01-SZ) |
| HF Amplifier              | MITEQ        | AMF-7D-00<br>101800-30-<br>10P-R | 1943528            | 1GHz~18GHz         | Oct. 16, 2021    | Mar. 01, 2022 | Oct. 15, 2022 | Radiation (03CH01-SZ) |
| HF Amplifier              | KEYSIGHT     | 83017A                           | MY53270105         | 0.5GHz~26.5Gh<br>z | Oct. 16, 2021    | Mar. 01, 2022 | Oct. 15, 2022 | Radiation (03CH01-SZ) |
| HF Amplifier              | MITEQ        | TTA1840-3<br>5-HG                | 1871923            | 18GHz~40GHz        | Jul. 21, 2021    | Mar. 01, 2022 | Jul. 20, 2022 | Radiation (03CH01-SZ) |
| AC Power Source           | Chroma       | 61601                            | 6160100019<br>85   | N/A                | NCR              | Mar. 01, 2022 | NCR           | Radiation (03CH01-SZ) |
| Turn Table                | EM           | EM1000                           | N/A                | 0~360 degree       | NCR              | Mar. 01, 2022 | NCR           | Radiation (03CH01-SZ) |
| Antenna Mast              | EM           | EM1000                           | N/A                | 1 m~4 m            | NCR              | Mar. 01, 2022 | NCR           | Radiation (03CH01-SZ) |

NCR: No Calibration Required.

-THE END-