



Spot Check Evaluation

APPLICANT : Motorola Mobility LLC
EQUIPMENT : Mobile Cellular Phone
BRAND NAME : Motorola
MODEL NAME : XT2141-1
FCC ID : IHDT56ZP1
STANDARD : 47 CFR Part 15 Subpart C §15.225
 : 47 CFR Part 15 Subpart C §15.247
 : 47 CFR Part 15 Subpart E §15.407
TEST DATE(S) : Jun. 22, 2021

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.

Derreck Chen

Reviewed by: Derreck Chen / Supervisor

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Approved by: Eric Shih / Manager



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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
151701-02	Rev. 01	Initial issue of report	Jul. 10, 2021



1 General Description

1.1 Applicant

Motorola Mobility LLC
222 W, Merchandise Mart Plaza, Chicago IL 60654 USA

1.2 Manufacturer

Motorola Mobility LLC
222 W, Merchandise Mart Plaza, Chicago IL 60654 USA

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2141-1
FCC ID	IHDT56ZP1
EUT supports Radios application	GSM/WCDMA/LTE/5G NR WLAN 2.4GHz 802.11b/g/n HT20 WLAN 2.4GHz 802.11ac/ax VHT20/HE20 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80/VHT160 WLAN 5GHz 802.11ax HE20/HE40/HE80/HE160 WLAN 6GHz 802.11a/n HT20/HT40 WLAN 6GHz 802.11ac VHT20/VHT40/VHT80/VHT160 WLAN 6GHz 802.11ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE NFC and GNSS
HW Version	DVT2
SW Version	RRM31.Q3
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 Specification of Accessory

Specification of Accessory				
AC Adapter 1	Brand Name	Motorola (Salom)	Model Name	MC-301
AC Adapter 2	Brand Name	Motorola (Acbel)	Model Name	MC-301
Battery	Brand Name	Motorola (ATL)	Model Name	MB50
USB Cable 1	Brand Name	Motorola (Luxshare)	Model Name	SC18D13217
USB Cable 2	Brand Name	Motorola (Saibao)	Model Name	SC18D13215
USB Cable 3	Brand Name	Motorola (Cabletech)	Model Name	SC18D13216

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.

Test Firm	Sporton International (Shenzhen) Inc.		
Test Site Location	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		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	TH01-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: XT2141-1, FCC ID: IHDT56ZP1) is electrically identical to the reference device (Model: XT2141-2, FCC ID: IHDT56ZP2) for the portions of the circuitry corresponding to the data being re-used. Based on their similarity, the FCC Part 15C (equipment class: DTS, DSS, DXX) and FCC Part 15E (equipment class: NII, 6XD) 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: IHDT56ZP1 .

2.2 Model Difference Information

The **main** difference between FCC ID: IHDT56ZP2 and FCC ID: IHDT56ZP1 is as below:

- Remove 5G NR n25/n41, WCDMA Band IV and LTE Band 14/18/19/25/26/30/38/39/40/41/71.
- Add LTE Band 48

Other differences and all the details of similarity and difference can be found in the confidential documents.



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
15C	DSS (BR/EDR)	2400~2483.5	IHDT56ZP2	Original Grant	FR151701-01A	IHDT56ZP1	All sections applicable
	DTS (BLE)	2400~2483.5	IHDT56ZP2	Original Grant	FR151701-01B	IHDT56ZP1	All sections applicable
	DTS (WLAN)	2400~2483.5	IHDT56ZP2	Original Grant	FR151701-01C	IHDT56ZP1	All sections applicable
	DXX (NFC)	13.56	IHDT56ZP2	Original Grant	FR151701-01D	IHDT56ZP1	All sections applicable
15E	NII (U-NII-1)	5150~5250	IHDT56ZP2	Original Grant	FR151701-01E	IHDT56ZP1	All sections applicable
	NII (U-NII-2A)	5250~5350	IHDT56ZP2	Original Grant	FR151701-01E	IHDT56ZP1	All sections applicable
	NII (U-NII-2C)	5470~5725	IHDT56ZP2	Original Grant	FR151701-01E	IHDT56ZP1	All sections applicable
	NII (U-NII-3)	5725~5850	IHDT56ZP2	Original Grant	FR151701-01F	IHDT56ZP1	All sections applicable
	NII (DFS)	5250~5350 5470~5725	IHDT56ZP2	Original Grant	FZ151701-01	IHDT56ZP1	All sections applicable
	6XD (U-NII-5)	5925~6425	IHDT56ZP2	Original Grant	FR151701-01G	IHDT56ZP1	All sections applicable
	6XD (U-NII-6)	6425~6525	IHDT56ZP2	Original Grant	FR151701-01G	IHDT56ZP1	All sections applicable
	6XD (U-NII-7)	6525~6875	IHDT56ZP2	Original Grant	FR151701-01G	IHDT56ZP1	All sections applicable
	6XD (U-NII-8)	6875~7125	IHDT56ZP2	Original Grant	FR151701-01G	IHDT56ZP1	All sections applicable



2.4 Spot Check Verification Data Section

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

Test Item	Mode	IHDT56ZP2 Parent Worst Result	IHDT56ZP1 Variant Check Result	Difference (dB)
Conducted Power (dBm)	BT-1Mbps CH00	11.3	11.2	0.1
	BLE4.2(1Mbps) CH19	7.1	6.9	0.2
	BLE5.2(2Mbps) CH19	7.2	7	0.2
	WLAN 2.4GHz 802.11b CH01 (MIMO)	21.66	21.21	0.45
	WLAN 2.4GHz 802.11g CH01 (MIMO)	20.71	20.27	0.44
	WLAN 2.4GHz 802.11n HT20 CH01 (MIMO)	19.91	19.27	0.64
	WLAN 2.4GHz 802.11ax HE20 CH01 (MIMO)	20.01	19.47	0.54
	WLAN 5GHz 802.11a CH140 (MIMO)	20.26	19.18	1.08
	WLAN 5GHz 802.11n HT20 CH140 (MIMO)	19.88	18.76	1.12
	WLAN 5GHz 802.11ac VHT20 CH140 (MIMO)	19.81	18.70	1.11
	WLAN 5GHz 802.11n HT40 CH134 (MIMO)	19.28	18.13	1.15
	WLAN 5GHz 802.11ac VHT40 CH134 (MIMO)	19.21	18.05	1.16
	WLAN 5GHz 802.11ac VHT80 CH106 (MIMO)	18.63	18.04	0.59
	WLAN 5GHz 802.11ac VHT160 CH50 (MIMO)	17.41	17.17	0.24
	WLAN 5GHz 802.11ax HE20 CH140 (MIMO)	20.08	19.02	1.06
	WLAN 5GHz 802.11ax HE40 CH134 (MIMO)	18.94	17.87	1.07
	WLAN 5GHz 802.11ax HE80 CH106 (MIMO)	18.58	17.97	0.61
	WLAN 5GHz 802.11ax HE160 CH106 (MIMO)	17.48	17.15	0.33
	WLAN 6GHz 802.11a (7105 MHz) (MIMO)	12.05	11.83	0.22
	WLAN 6GHz 802.11n HT20 (7105 MHz) (MIMO)	12.87	12.58	0.29
	WLAN 6GHz 802.11ac VHT20 (7105 MHz) (MIMO)	12.86	12.54	0.32
	WLAN 6GHz 802.11n HT40 (7095 MHz) (MIMO)	14.06	13.96	0.1
	WLAN 6GHz 802.11ac VHT40 (7095 MHz) (MIMO)	14.02	13.90	0.12
	WLAN 6GHz 802.11ac VHT80 (7075 MHz) (MIMO)	13.52	13.48	0.04
	WLAN 6GHz 802.11ac VHT160 (6955 MHz) (MIMO)	12.60	12.53	0.07
	WLAN 6GHz 802.11ax HE20 (7105 MHz) (MIMO)	12.88	12.78	0.1
	WLAN 6GHz 802.11ax HE40 (7095 MHz) (MIMO)	13.76	13.65	0.11
	WLAN 6GHz 802.11ax HE80 (7075 MHz) (MIMO)	13.29	13.23	0.06
WLAN 6GHz 802.11ax HE160 (6955 MHz) (MIMO)	12.56	12.42	0.14	



Conclusion:

Conducted power 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 spot check are shown within expected level compliant to limit line.

We are using power measurement from the original parent model reports to list on the grant.

The same DFS detection is used in the variant. Hence, there is no spot check data for DFS.

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
Pulse Power Sensor	Anritsu	MA2411B	1207253	30MHz~40GHz	Dec. 25, 2020	Jun. 22, 2021	Dec. 24, 2021	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1218010	50MHz Bandwidth	Dec. 25, 2020	Jun. 22, 2021	Dec. 24, 2021	Conducted (TH01-SZ)

-THE END-