



FCC RF Test Report

APPLICANT : Motorola Mobility LLC
EQUIPMENT : Mobile Cellular Phone
BRAND NAME : Motorola
MODEL NAME : XT1970-3
FCC ID : IHDT56XT2
STANDARD : FCC Part 15 Subpart C §15.247
CLASSIFICATION : (DSS) Spread Spectrum Transmitter

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.

Approved by: James Huang / Manager



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APPENDIX A. REFERENCE REPORT



REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR8D2002-01A	Rev. 01	Initial issue of report	Mar. 15, 2019



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	XT1970-3
FCC ID	IHDT56XT2
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 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth BR / EDR / LE NFC/GNSS/FM Receiver
HW Version	DVT2
SW Version	PSA29.76
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	2402 MHz ~ 2480 MHz
Number of Channels	79
Carrier Frequency of Each Channel	2402+n*1 MHz; n=0~78
Antenna Type / Gain	PIFA Antenna with gain -0.5 dBi
Type of Modulation	Bluetooth BR (1Mbps) : GFSK Bluetooth EDR (2Mbps) : $\pi/4$ -DQPSK Bluetooth EDR (3Mbps) : 8-DPSK

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: XT1970-3, FCC ID: IHDT56XT2) is electrically identical to the reference device (Model: XT1970-1, XT1970-2, FCC ID: IHDT56XT1) 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. FR8D2002A for the reference device Model: XT1970-1, XT1970-2, FCC ID: IHDT56XT1).

1.6.3 Reference detail Section:

Equipment Class	Reference FCC ID	Folder Test	Report Title/Section
DSS (BR/EDR)	IHDT56XT1	Part15C(FR8D2002A)	All sections applicable
DTS (BLE)	IHDT56XT1	Part15C(FR8D2002B)	All sections applicable
DTS (WLAN)	IHDT56XT1	Part15C(FR8D2002C)	All sections applicable
DXX(NFC)	IHDT56XT1	Part15C(FR8D2002D)	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 radiated spurious emission, the test result were consistent with FCC ID: IHDT56XT1.

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	IHDT56XT1 Worst Result	IHDT56XT2 Worst Result	Difference (dB)
Radiated Spurious Emission (Band Edge. Harmonic) (dBuV/m)	BT2.0 _Tx_Ch78	58.46	63.45	4.99
	BT4.2 _Tx_Ch39	44.8	46.56	1.76
	BT5.0 _Tx_Ch39	46.16	50.23	4.04
	11n(20)_Tx_Ch11	44.9	48.99	4.09
	NFC(Field Strength)	53.35	52.29	1.06



Appendix A. Reference Report

Please refer to Sporton report number FR8D2002A which is issued separately.