



FCC RF Test Report

APPLICANT : Motorola Mobility LLC
EQUIPMENT : Mobile Cellular Phone
BRAND NAME : Motorola
MODEL NAME : XT2005-4, XT2005DL, XT2005-5
FCC ID : IHDT56YA2
STANDARD : 47 CFR Part 2, 22(H), 24(E), 27(L)
CLASSIFICATION : PCS Licensed Transmitter Held to Ear (PCE)

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.



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APPENDIX A. REFERENCE REPORT



REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG922110-01A	Rev. 01	Initial issue of report	May 13, 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	XT2005-4, XT2005DL, XT2005-5
FCC ID	IHDT56YA2
EUT supports Radios application	CDMA/EV-DO/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 Bluetooth BR / EDR / LE FM Receiver/GNSS
HW Version	88941-1-12
SW Version	fastboot_surfna_oem_userdebug_9_PP29.12_2fc78_intcfg-t est-keys_oem
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 Frequency	GSM/GPRS/EDGE: 850: 824.2 MHz ~ 848.8 MHz 1900: 1850.2 MHz ~ 1909.8MHz WCDMA: Band V: 826.4 MHz ~ 846.6 MHz Band II: 1852.4 MHz ~ 1907.6 MHz Band IV: 1712.4 MHz ~ 1752.6 MHz CDMA2000: BC0: 824.70 MHz ~ 848.31 MHz BC1: 1851.25 MHz ~ 1908.75 MHz
Rx Frequency	GSM/GPRS/EDGE: 850: 869.2 MHz ~ 893.8 MHz 1900: 1930.2 MHz ~ 1989.8 MHz WCDMA: Band V: 871.4 MHz ~ 891.6 MHz Band II: 1932.4 MHz ~ 1987.6 MHz Band IV: 2112.4 MHz ~ 2152.6 MHz CDMA2000: BC0: 869.70 MHz ~ 893.31 MHz BC1: 1931.25 MHz ~ 1988.75 MHz
Antenna Type	Coupling type (LDS) Antenna
Antenna Gain	Cellular Band: 2.00 dBi PCS Band: 2.10 dBi AWS Band: 1.10 dBi
Type of Modulation	GSM: GMSK GPRS: GMSK EDGE: GMSK / 8PSK WCDMA : BPSK HSDPA/DC-HSDPA : QPSK HSUPA : QPSK HSPA+ : 16QAM (uplink is not supported) DC-HSDPA : 64QAM CDMA2000 1xRTT: QPSK CDMA2000 1xEV-DO: QPSK/8PSK

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: XT2005-4, XT2005DL, XT2005-5, FCC ID: IHDT56YA2) is electrically identical to the reference device (Model: XT2005-3, FCC ID: IHDT56YA3) 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. FG922110A for the reference device Model: XT2005-3, FCC ID: IHDT56YA3).

1.6.3 Reference detail Section:

Equipment Class	Reference FCC ID	Folder Test	Report Title/Section
PCE (2G/3G)	IHDT56YA3	Part22H.24E.27L(FG922110A)	All sections applicable
PCE (LTE)	IHDT56YA3	Part22H.24E.27L.27M.27H.27N (FG922110B)	All sections applicable (LTE B13 and B41C for full test)



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 following test items, the test result were consistent with FCC ID: IHDT56YA3.

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	IHDT56YA3 Worst Result	IHDT56YA2 Worst Result	Difference (dB)
Average Conducted Power (dBm)	GSM 850	32.19	32.74	-0.55
	GSM 1900	29.45	29.72	-0.27
	WCDMA Band II	22.39	23.38	-0.99
	WCDMA Band IV	22.42	22.79	-0.37
	WCDMA Band V	22.80	23.14	-0.34
	CDMA BC0	24.57	24.24	0.33
	CDMA BC1	24.74	24.31	0.43
	LTE Band 2	23.17	23.05	0.12
	LTE Band 4	23.15	22.95	0.20
	LTE Band 5	23.18	22.97	0.21
	LTE Band 12	23.19	22.97	0.22
	LTE Band 25	22.94	22.81	0.13
	LTE Band 26	23.27	23.10	0.17
	LTE Band 41	26.21	25.99	0.22
	LTE Band 66	22.85	23.86	-1.01
LTE Band 71	23.13	22.79	0.34	
Radiated Spurious Emission	GSM 850	-49.58	-52.61	3.03
	LTE Band 25	-52.11	-50.32	-1.79
	LTE Band 12	-66.09	-65.39	-0.70
	LTE Band 66	-53.72	-52.43	-1.29
	LTE Band 41	-39.44	-41.18	1.74
	LTE Band 71	-64.21	-64.24	0.03



Appendix A. Reference Report

Please refer to Sporton report number FG922110A which is issued separately.