



FCC Part 96.47 TEST REPORT

FCC ID : IHDT56AH4
Equipment : Mobile Cellular Phone
Brand Name : Motorola
Model Name : XT2311-3, XT2311-4, XT2311DL
Applicant : Motorola Mobility LLC
222 W,Merchandise Mart Plaza, Chicago IL
60654 USA
Manufacturer : Motorola Mobility LLC
222 W,Merchandise Mart Plaza, Chicago IL
60654 USA
Standard : FCC Part 96.47
RF Interface : 5G NR

The product was received on Oct. 10, 2022 and testing was performed from Oct. 10, 2022 to Oct. 11, 2022. We, Sporton International (USA) 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 from Sporton International (USA) Inc., the test report shall not be reproduced except in full.

Approved by: Lance Tang

Sporton International (USA) Inc.

1175 Montague Expressway, Milpitas, CA 95035



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History of this test report

Report No.	Version	Description	Issue Date
FG220928001	01	Initial issue of report	Oct. 20, 2022
FG220928001	02	1. Revise product feature and accessory list 2. Add 5G NR n48 specification in section 1.2	Nov. 16, 2022



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3	96.47	End User Device additional requirement	Pass	-

Conformity Assessment Condition: The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
Comments and Explanations: The product specifications of the EUT presented in the report are declared by the manufacturer who shall take full responsibility for the authenticity.



1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2311-3, XT2311-4, XT2311DL
FCC ID	IHDT56AH4
IMEI Code	358373300024873
EUT supports Radios application	GSM/EGPRS/WCDMA/HSPA/LTE/5G NR/ GNSS/ FM Receiver WLAN 11a/b/g/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE
HW Version	DVT2
SW Version	TTO33.44
EUT Stage	Identical Prototype

Remark: The above EUT's information is declared by manufacturer.

Accessory List	
AC Adapter 1	Brand Name : Motorola
	Model Name : MC-101
	Manufacturer : AOHAJ
AC Adapter 2	Brand Name : Motorola
	Model Name : MC-101
	Manufacturer : Chenyang
AC Adapter 3	Brand Name : Motorola
	Model Name : MC-101
	Manufacturer : Salcomp
Battery 1	Brand Name : Motorola
	Model Name : PD50
	Manufacturer : Sunwoda
Battery 2	Brand Name : Motorola
	Model Name : PD50
	Manufacturer : SCUD
USB Cable 1	Brand Name : HX
	Model Name : S928D43190
USB Cable 2	Brand Name : NAAE
	Model Name : S928D43191



1.2 Product Specification of Equipment Under Test

Product Specification is subject to this standard	
Tx Frequency	5G NR n48: 3550 MHz ~ 3700 MHz
Rx Frequency	5G NR n48: 3550 MHz ~ 3700 MHz
SCS	30kHz
Bandwidth	10 MHz / 15 MHz / 20 MHz / 40 MHz / 50 MHz / 60 MHz / 80 MHz / 90 MHz / 100 MHz
Antenna Gain	-2.4 dBi
Type of Modulation	DFT-s-OFDM (PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM) CP-OFDM (QPSK / 16QAM / 64QAM / 256QAM)

Remark: The above EUT's information is declared by manufacturer. Please refer to Comments and Explanations in report summary.

1.3 Modification of EUT

No modifications are made to the EUT during the test.

1.4 Testing Laboratory

Test Site	Sporton International (USA) Inc.
Test Site Location	1175 Montague Expressway, Milpitas, CA 95035 TEL: (408) 904-3300
Test Site No.	Sporton Site No. TH01-CA
Test Engineer	Venkata Kondepudi
Temperature	23.6 °C
Relative Humidity	47.4 %

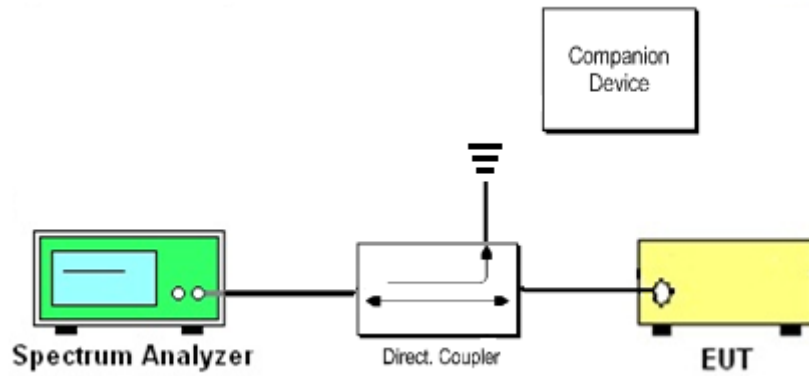
1.5 Applicable Standards

- ♦ FCC Part 96.47
- ♦ FCC KDB 940660 D01 Part 96 CBRS Eqpt v03
- ♦ WINNF-TS-0122-V1.0.2 CBRS CBSD Test Specification

Remark: All test items are verified and recorded according to the standards without deviation during the test.

2 Test Configuration of Equipment Under Test

2.1 Connection Diagram of Test System



The companion device is certified NR CBSD (FCC ID: PIDAS2900)



3 End User Device additional requirement

3.1 Test Requirement

FCC Part 96.47

(a) End User Devices may operate only if they can positively receive and decode an authorization signal transmitted by a CBSD, including the frequencies and power limits for their operation.

(1) An End User Device must discontinue operations, change frequencies, or change its operational power level within 10 seconds of receiving instructions from its associated CBSD.

3.2 Test Procedure

Following procedure can be done by applying WINNF-TS-0122-V1.0.2 CBRS CBSD Test Specification, use the certified Airspan NR CBSD (FCC ID: PIDAS2900) as companion device to show compliance with Part 96.47 requirement for End User Device (EUD):

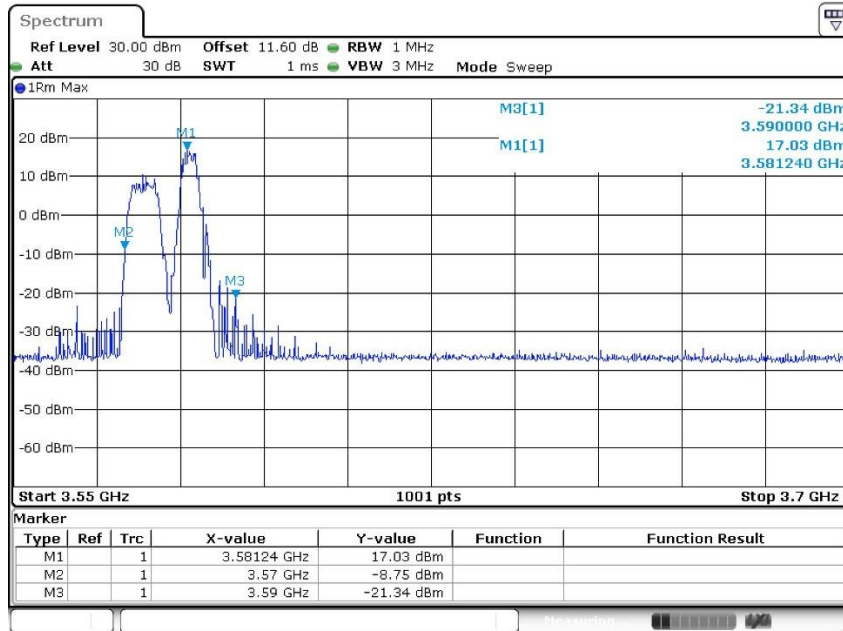
1. Setup with frequency 3570-3590MHz and power level 24dBm/MHz
2. Enable CBSD service from Airspan ACP management
3. Check EUD Tx Frequency and power
4. Disable CBSD service from Airspan ACP management
 - a. Check EUD stops transmission within 10seconds.

5. Setup with frequency 3670-3690MHz and power level 34dBm/MHz
6. Enable CBSD service from Airspan ACP management
7. Check EUD Tx Frequency and power
8. Disable CBSD service from Airspan ACP management
 - a. Check EUD stops transmission within 10seconds.

3.3 Test Result

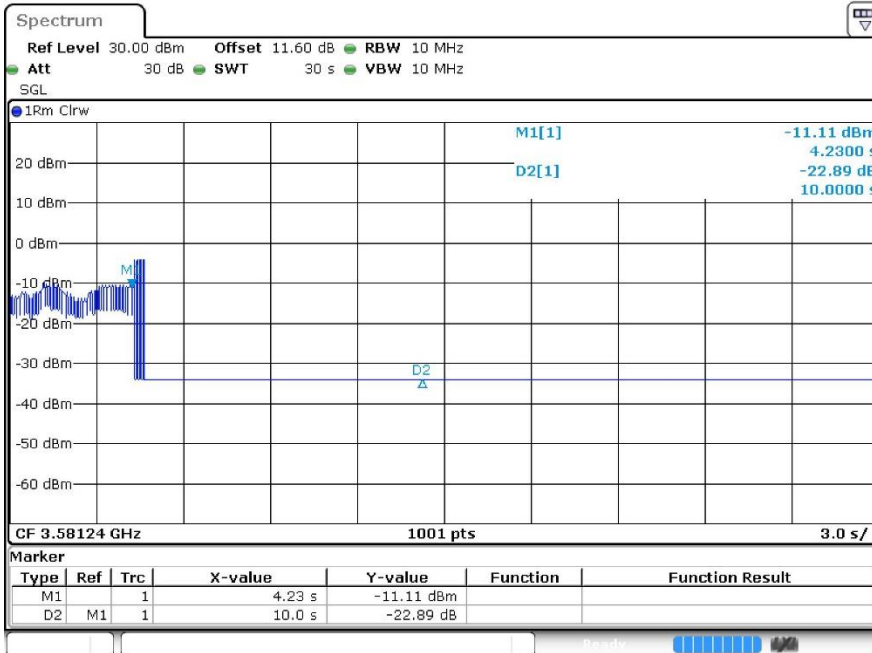
[Step 1] Setup at frequency 3570-3590MHz and power level 24dBm/MHz

[Step 3] Check EUD Tx Frequency and power



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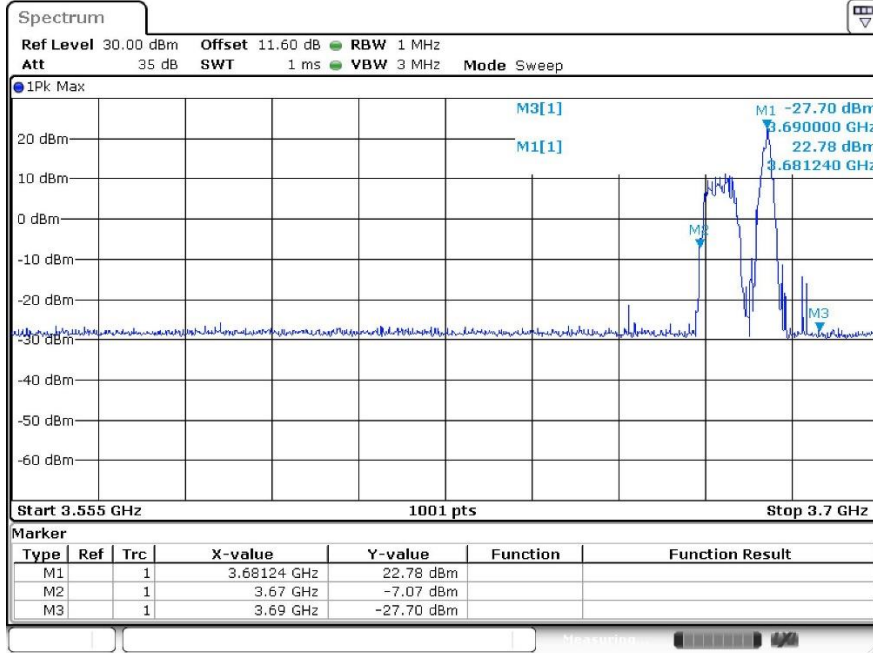
[Step 4.a.] EUD stops transmission within 10 seconds after receiving instructions from its associated CBSD.



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[Step 5] Setup at 3670-3690MHz & power level 34dBm/MHz

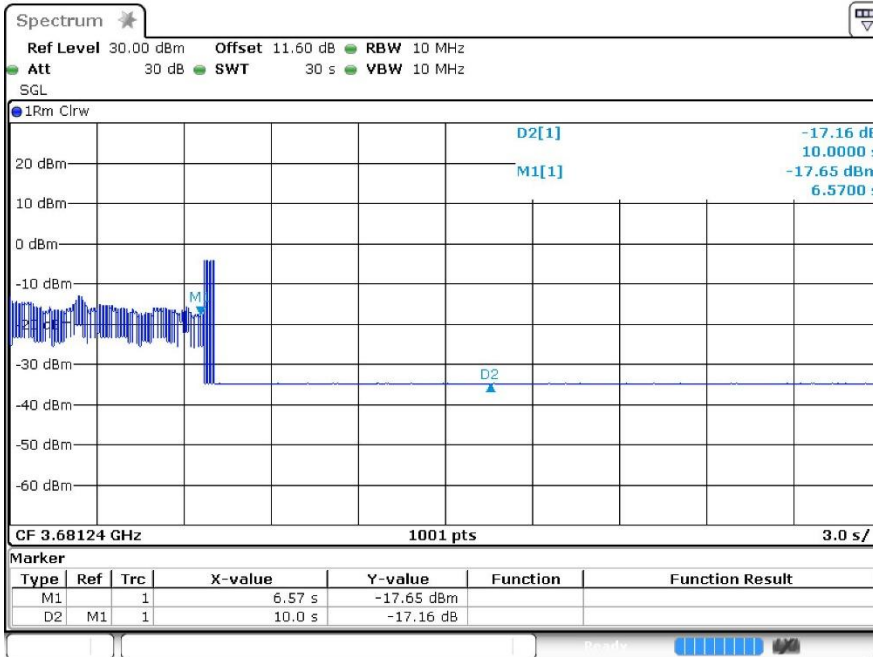
[Step 7] Check EUD Tx Frequency and power



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[Step 8.a.] After changing the frequency and power level,

The module (EUT) discontinues operation, changes frequencies, or changes its operational power level within 10 seconds after receiving instructions from its associated CBSD. Test result is PASS.



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4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSW43	104042	2Hz~43GHz	Nov. 18, 2021	Oct. 10, 2022~ Oct. 11, 2022	Nov. 17, 2022	TH01-CA

————THE END————