



FCC Part 96.47 TEST REPORT

FCC ID : A4RG013A
Equipment : Phone
Model Name : G013A
Applicant : Google LLC
1600 Amphitheatre Parkway, Mountain View,
California, 94043 USA
Standard : FCC Part 96.47

This is Class II permissive change filing, the change is to enable LTE Band 48.

The test was completed on Nov. 09, 2018. We, SPORTON INTERNATIONAL 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 report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Jones Tsai

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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History of this test report

Report No.	Version	Description	Issued Date
FG820225-07A	01	Initial issue of report	Nov. 12, 2018



Summary of Test Result

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

Reviewed by: William Chen

Report Producer: Dara Chiu

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Phone
Model Name	G013A
FCC ID	A4RG013A
EUT supports Radios application	CDMA/EV-DO/GSM/EGPRS/WCDMA/HSPA/LTE/NFC/ GNSS/WPC WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE
EUT Stage	Identical Prototype

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

1.2 Modification of EUT

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

1.3 Testing Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW1190 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	Sporton Site No. DFS02-HY

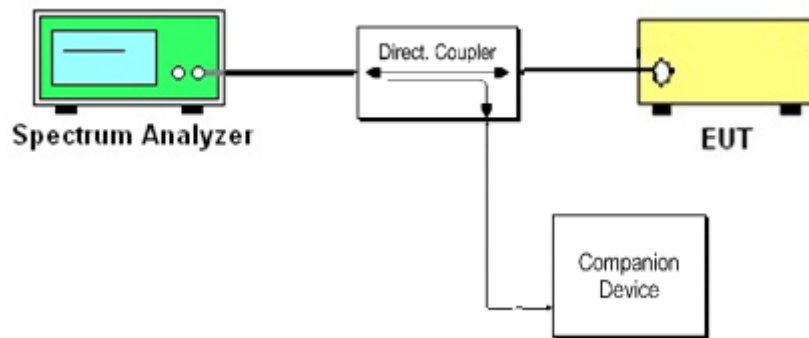
1.4 Applicable Standards

- ♦ FCC Part 96.47
- ♦ FCC KDB 940660 D01 Part 96 CBRS Eqpt v01
- ♦ WINNF-TS-0122-V1.0.0 CBRS CBSD Test Specification

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

2 Test Configuration of Equipment Under Test

2.1 Connection Diagram of Test System



The companion device is certified CBRS (FCC ID: S9GQ710US00).
Where the Companion Device connection with EUT is by radiated method.



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-V1.0.0 CBRS CBSD Test Specification, use the certified Ruckus CBSD (FCC ID: S9GQ910US00) as companion device to show compliance with Part 96.47 requirement for End User Device (EUD):

1. Setup WINNF.PT.C.HBT.1 with 3615-3635MHz & power level 13dBm/MHz
2. Enable AP service (CBSD) from Ruckus Cloud management
3. Check EUD Tx Frequency and power
4. Disable AP service from Ruckus Cloud management
 - a. Check EUD stops transmission within 10seconds

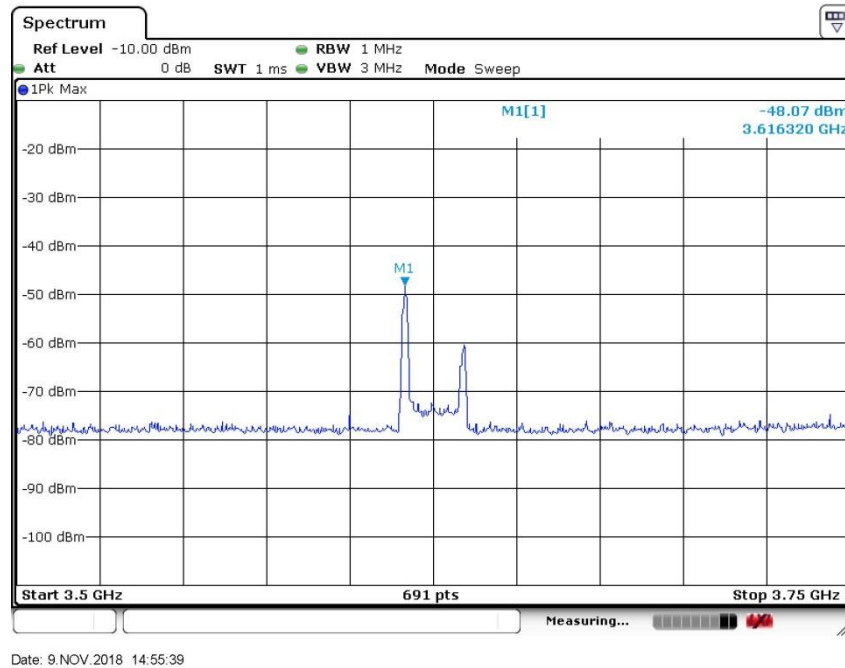
5. Setup WINNF.PT.C.HBT.1 with 3680-3700 MHz & power level 8dBm/MHz
6. Enable AP service (CBSD) from Ruckus Cloud management
7. Check EUD Tx Frequency and power
8. Disable AP service from Ruckus Cloud management
 - a. Check EUD stops transmission within 10seconds

3.3 Test Result

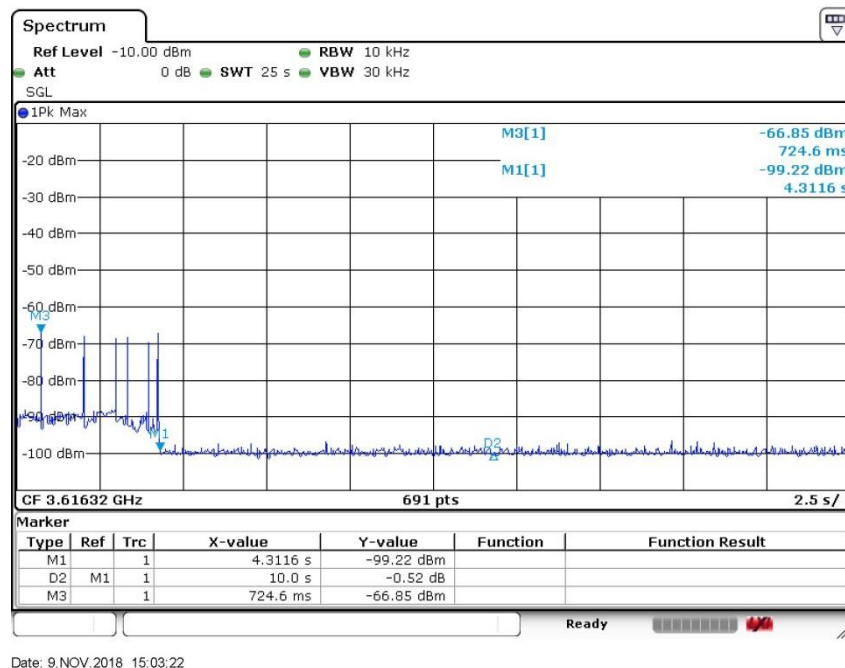
[Step 1] Setup with frequency 3615-3635MHz and power level 13dBm/MHz

[Step 3] Check EUD Tx Frequency and power

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



UE worst frequency is 3.61632GHz and zoom in to check power level at time domain.

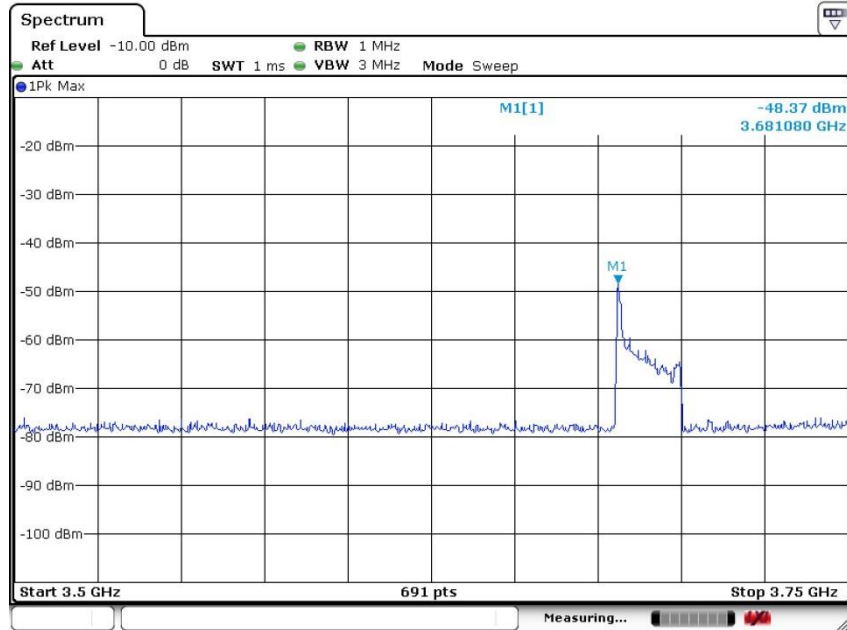




[Step 5] Setup with 3680-3700MHz & power level 8dBm/MHz

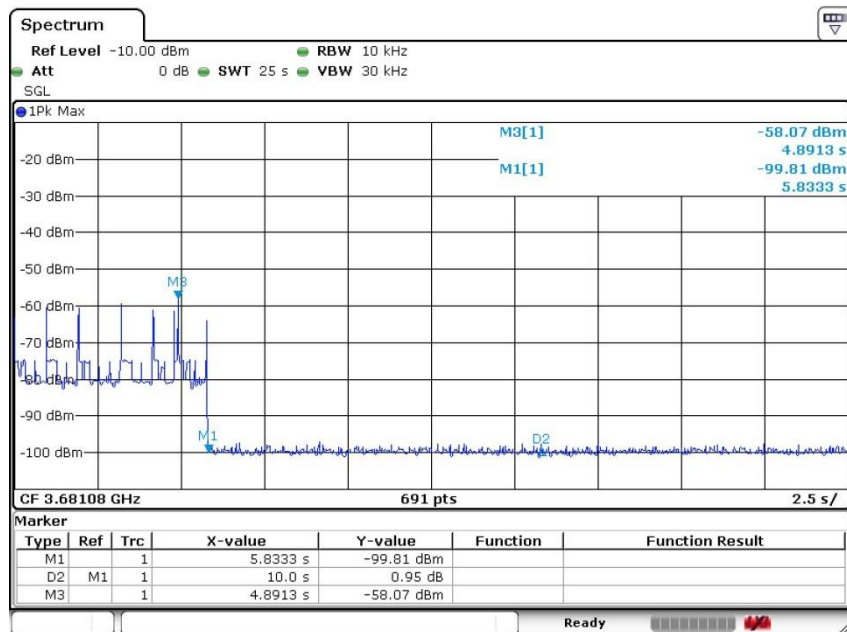
[Step 7] Check EUD Tx Frequency and power

[Step 8.a.] After changing the frequency and power level, the module (EUT) discontinues operations, change frequencies, or change its operational power level within 10 seconds of receiving instructions from its associated CBSD. Test result is PASS.



Date: 9.NOV.2018 14:41:31

UE worst frequency is 3.68108GHz and zoom in to check power level at time domain.



Date: 9.NOV.2018 14:49:44



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	Rohde & Schwarz	FSV	103738	9kHz ~ 30GHz	Apr. 22, 2018	Nov. 09, 2018	Apr. 21, 2019	DFS02-HY