



FCC Part 96.47 TEST REPORT

FCC ID : MSQAI2401
Equipment : ASUS Phone(Mobile Phone)
Brand Name : ASUS
Model Name : ASUS_AI2401_E
Applicant : ASUSTeK COMPUTER INC.
1F., No. 15, Lide Rd., Beitou Dist., Taipei City 112, Taiwan
Manufacturer : ASUSTeK COMPUTER INC.
1F., No. 15, Lide Rd., Beitou Dist., Taipei City 112, Taiwan
Standard : FCC Part 96.47
RF Interface : LTE B48

The product was received on Sep. 26, 2023, and testing was performed from Nov. 08, 2023 to Nov. 10, 2023. We, Sporton International Inc. Wensan Laboratory, 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 Inc. Wensan Laboratory, the test report shall not be reproduced except in full.

Approved by: Jones Tsai

Sporton International Inc. Wensan Laboratory

No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010



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Appendix A. Setup Photographs



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/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
Disclaimer: The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Thomas Chen

Report Producer: Ming Chen



1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
General Specs	GSM/WCDMA/LTE/5G NR, Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n/ac/ax/be, Wi-Fi 5GHz 802.11a/n/ac/ax/be, Wi-Fi 6GHz 802.11a/ax/be, NFC, WPC Rx and GNSS.
Sample 1	SKU 1
Sample 2	SKU 2
Sample 3	SKU 3
Sample 4	SKU 4
Antenna Type	WWAN: PIFA Antenna WLAN: <Ant. 4>: PIFA Antenna <Ant. 5>: PIFA Antenna <Ant. 6>: PIFA Antenna Bluetooth: <Ant. 4>: PIFA Antenna <Ant. 5>: PIFA Antenna <Ant. 6>: PIFA Antenna GPS / Glonass / BDS / Galileo / SBAS: PIFA Antenna NFC: Loop Antenna WPC Rx: Loop Antenna

Remark:

1. The EUT's information above is declared by manufacturer. Please refer to Disclaimer in report summary.
2. All the tests performed with Sample 1.



Sample Information		
SKU	SKU1	SKU2
Model	ASUS_AI2401_E	ASUS_AI2401_E
Config.	US(Pro)	US(Enrty)
RF module board	US(Pro)	US(Enrty)
LCD+Touch front frame module	AI2401 FRONT CASE ASSY	AI2401 FRONT CASE ASSY
DDR	16G(HYNIX) HYNIX / H58G76BK8HX095	16G(Micron) Micron / MT62F2G64D8ZA-023 WT:C
UFS	1TB(Samsung) Samsung / KLUGGARHHD-B0G1	512G(HYNIX) (UFS4.0) HYNIX / HN8T274EJKX130
MB	AI2401_MB	AI2401_MB
Back cover SKU	WW Pro(Mini LED)	WW Entry(LGF)
Battery	SCUD / C21P2301	SCUD / C21P2301
Main 50+13M	SHINETECH / DDN03B	RAYPRUS / CASDJ-000A
Tele 32M	Kunshan Q-TECH / C3HS01	SHINETECH / DHG01B
Front 32M	TSPRECISION / TVHF3046	RAYPRUS / CASG-000A
PCB	COMPEQ	COMPEQ
CPU	QUALCOMM SM-8650 MPSP1629	QUALCOMM SM-8650 MPSP1629
WPC antenna	ASAP	INPAQ
NFC antenna	ASAP	INPAQ
WWAN/WLAN/BT/GPS antenna	INPAQ	ASAP



Sample Information		
SKU	SKU3	SKU4
Model	ASUS_AI2401_E	ASUS_AI2401_E
Config.	US(Pro)	US(Enrty)
RF module board	US(Pro)	US(Enrty)
LCD+Touch front frame module	AI2401 FRONT CASE ASSY	AI2401 FRONT CASE ASSY
DDR	16G(HYNIX) HYNIX / H58G76BK8HX095	16G(Micron) Micron / MT62F2G64D8ZA-023 WT:C
UFS	1TB(Samsung) Samsung / KLUGGARHHD-B0G1	512G(HYNIX) (UFS4.0) HYNIX / HN8T274EJKX130
MB	AI2401_MB	AI2401_MB
Back cover SKU	WW Pro(Mini LED)	WW Entry(LGF)
Battery	SCUD / C21P2301	SCUD / C21P2301
Main 50+13M	RAYPRUS / CASDJ-000A	SHINETECH / DDN03B
Tele 32M	SHINETECH / DHG01B	Kunshan Q-TECH / C3HS01
Front 32M	RAYPRUS / CASG-000A	TSPRECISION / TVHF3046
PCB	COMPEQ	COMPEQ
CPU	QUALCOMM SM-8650 MPSP1629	QUALCOMM SM-8650 MPSP1629
WPC antenna	INPAQ	ASAP
NFC antenna	INPAQ	ASAP
WWAN/WLAN/BT/GPS antenna	ASAP	INPAQ

1.2 Modification of EUT

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



1.3 Testing Location

Test Site	Sporton International Inc. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010 TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	Sporton Site No. TH05-HY
Test Engineer	Thomas Chen
Temperature	24 ~ 27 °C
Relative Humidity	49 ~ 55 %

FCC designation No.: TW3786

1.4 Applicable Standards

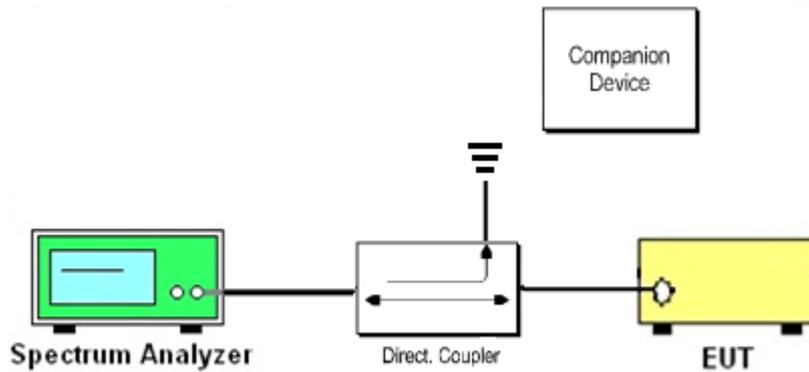
- ♦ FCC Part 96.47
- ♦ FCC KDB 940660 D01 Part 96 CBRS Eqpt v03
- ♦ WINNF-TS-0122-V1.0.2 CBRS CBSD Test Specification

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. The TAF code is not including all the FCC KDB listed without accreditation.

2 Test Configuration of Equipment Under Test

2.1 Connection Diagram of Test System



The companion device is certified CBSD (FCC ID: S9GQ710US02)



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 Ruckus CBSD (FCC ID: S9GQ710US02) as a companion device to show compliance with Part 96.47 requirement for End User Device (EUD):

1. Configure SAS granted CBSD to operate at frequency 3600-3620 MHz and power level 20 dBm/MHz
2. Enable AP service 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 10 seconds.

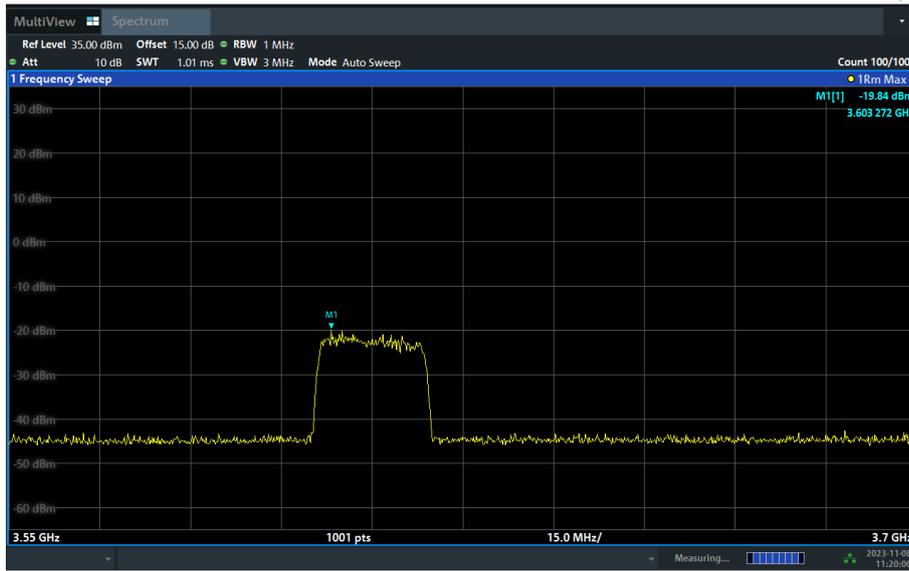
5. Configure SAS granted CBSD to operate at frequency 3670-3690 MHz & power level 10 dBm/MHz
6. Enable AP service from Ruckus Cloud management
7. Check EUD Tx Frequency and power
8. Disable AP service from Ruckus Cloud management
 - a. Check EUD stops transmission within 10 seconds.



3.3 Test Result

[Step 1] Configure SAS granted CBSD to operate at frequency 3600-3620 MHz and power level 20 dBm/MHz

[Step 3] Check EUD Tx Frequency and power



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

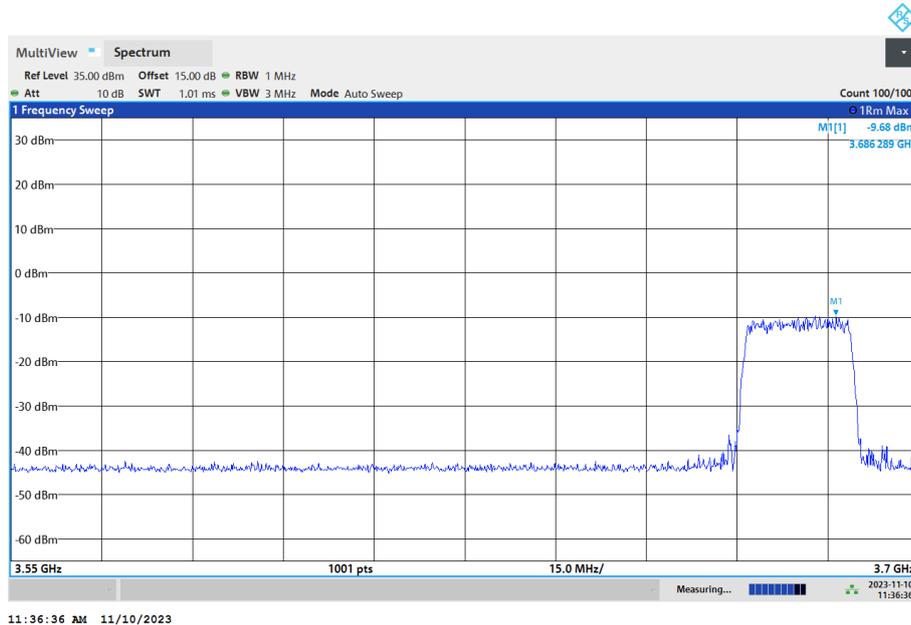


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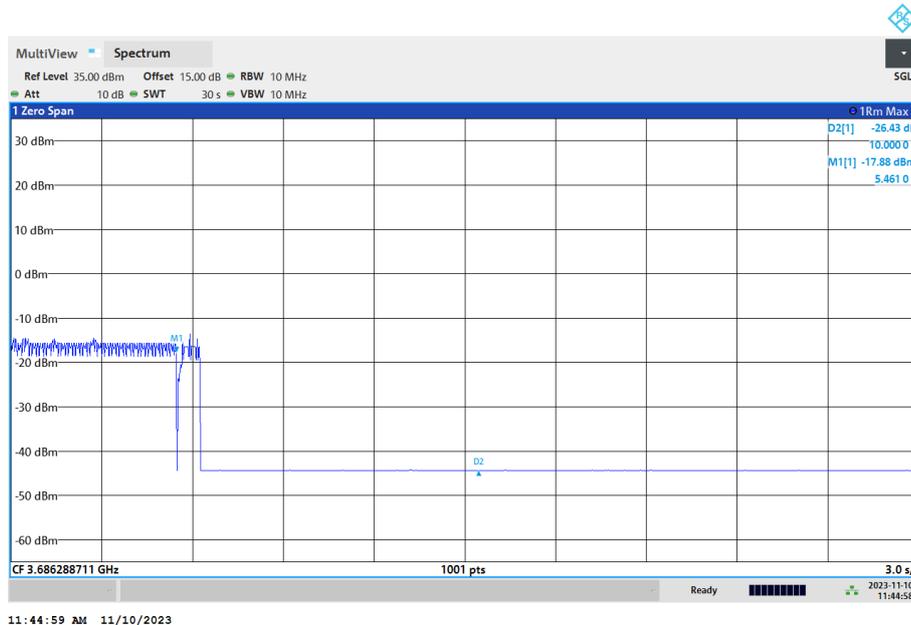
[Step 5] Configure SAS granted CBSD to operate at frequency 3670-3690 MHz & power level 10 dBm/MHz

[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.





4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV3044	101467	10Hz~44GHz	Feb. 01, 2023	Nov. 08, 2023 Nov. 10, 2023	Jan. 31, 2024	Conducted (TH05-HY)