

FCC Part 96.47 REPORT

Certification

Applicant Name:

SAMSUNG Electronics Co., Ltd.

Date of Issue:

January 27, 2023

Address:

129, Samsung-ro, Yeongtong-gu,
Suwon-si, Gyeonggi-do, 16677, Rep. of Korea

Location:

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Report No.: HCT-RF-2301-FC084-R1

FCC ID:

A3LSMA546U

APPLICANT:

SAMSUNG Electronics Co., Ltd.

Model(s): SM-A546U
Additional Model(s): SM-A546U1, SM-S546VL
EUT Type: Mobile phone
FCC Classification: Citizens Band End User Devices (CBE)
FCC Rule Part(s): §96.47

Report No.: HCT-RF-2301-FC084-R1

REVIEWED BY



Report prepared by : Jae Ryang Do
Engineer of Telecommunication Testing Center

Report approved by : Kwon Jeong
Manager of Telecommunication Testing Center

This test results were applied only to the test methods required by the standard.

This laboratory is not accredited for the test results marked *.

The above Test Report is the accredited test result by (KS Q) ISO/IEC 17025 and KOLAS(Korea Laboratory Accreditation Scheme), which signed the ILAC-MRA. (HCT Accreditation No.: KT197)

* The report shall not be reproduced except in full(only partly) without approval of the laboratory.

Version

TEST REPORT NO.	DATE	DESCRIPTION
HCT-RF-2301-FC084	January 26, 2023	- First Approval Report
HCT-RF-2301-FC084-R1	January 27, 2023	- Revised the bandwidth on page 5

The result shown in this test report refer only to the sample(s) tested unless otherwise stated.

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MEASUREMENT REPORT

1. GENERAL INFORMATION

Applicant Name:	SAMSUNG Electronics Co., Ltd.
Address:	129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
FCC ID:	A3LSMA546U
Application Type:	Certification
FCC Classification:	Citizens Band End User Devices (CBE)
FCC Rule Part(s):	§96
RF Specification:	5G Sub6 n48
EUT Type:	Mobile Phone
Model(s):	SM-A546U
Additional Model(s):	SM-A546U1, SM-S546VL
Bandwidth(MHz):	10, 15, 20, 40
SCS(KHz):	30
Waveform	CP-OFDM, DFT-S-OFDM
Operating Frequency Range	3550.0 – 3700.0 MHz
Date(s) of Tests:	January 25, 2023 ~ January 26, 2023
Serial number:	R3CTB0F5QVZ

2. INTRODUCTION

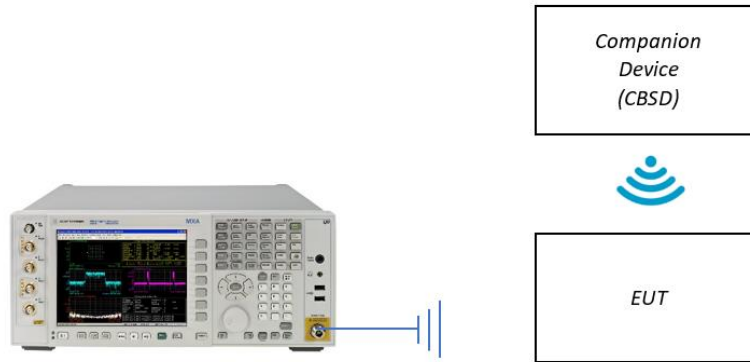
The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

3. DESCRIPTION OF TESTS

3.1 TEST PROCEDURE

Test Description	Test Procedure Used
End User Device Additional Requirement (CBSD Protocol)	- KDB 940660 D01 v01 - WINNF-18-IN-00178 v1.0.0.00

3.2 End User Device Additional Requirement (CBSD Protocol)



Test setup

Test Overview

End user device additional requirements (CBSD Protocol) are tested per the test procedures listed below. During testing, the EUT is connected to a certified CBSD (FCC ID: PIDAS2900) as a companion device to show compliance with Part 96.47.

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.

Test Channel & Power

1. Setup companion device with 3550 MHz - 3570 MHz(BW 20MHz) and power level 5 dBm
2. Setup companion device with 3570 MHz - 3590 MHz(BW 20MHz) and power level 20 dBm

Test Procedure

1. Enable AP service from companion device.
2. EUT is connected to a companion device.
3. Check EUT Tx frequency and power.
4. Disable AP service from companion device and check EUT stop transmission within 10 s.

4. LIST OF TEST EQUIPMENT

Equipment	Model	Manufacturer	Serial No.	Due to Calibration	Calibration Interval
Signal Analyzer (2 Hz ~ 50.0 GHz)	N9030B	Keysight	MY55480167	05/30/2023	Annual
Horn Antenna (1 GHz ~ 18 GHz)	BBHA 9120D	Schwarzbeck	9120D-1300	01/18/2024	Biennial
Companion device (FCC ID: PIDAS2900)	AirSpeed 2900	Airspan Networks inc	-	-	-

Note:

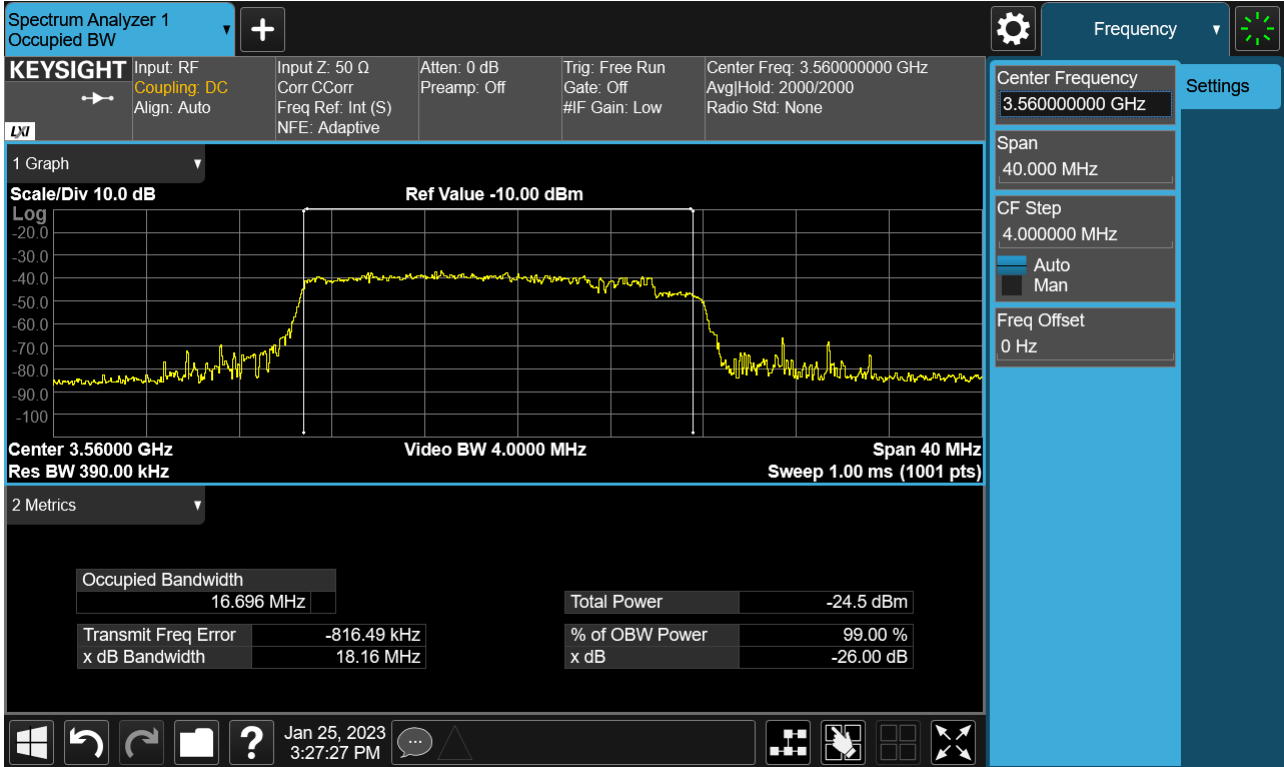
1. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.
2. Especially, all antenna for measurement is calibrated in accordance with the requirements of C63.5 (Version : 2017).

5. SUMMARY OF TEST RESULTS

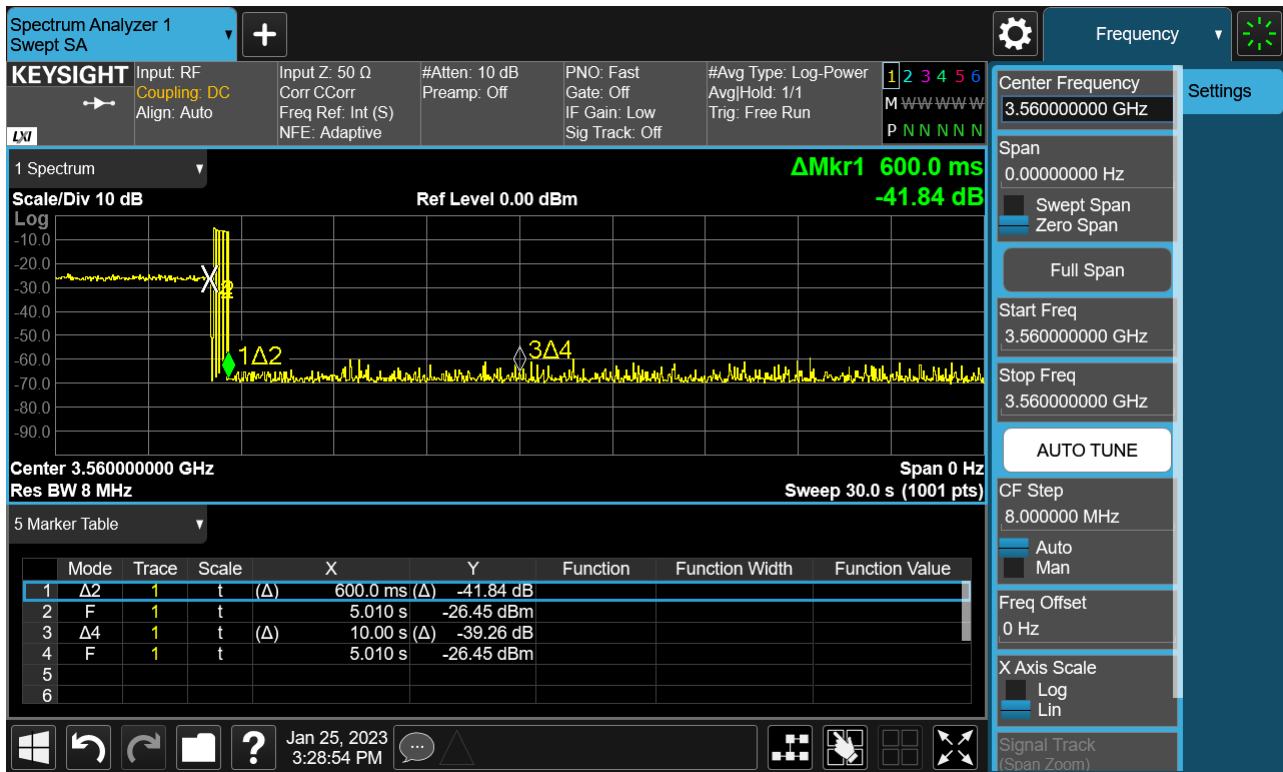
Test Description	FCC Part Section(s)	Test Limit	Test Condition	Test Result
End User Device Additional Requirements (CBSD Protocol)	§96.47	End User Devices may operate only if they can positively receive and decode an authorization signal transmitted by a CBSD, including the frequencies and power limits for their operation. 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.	Radiated	PASS

6. TEST RESULT

Test#1: 3560 MHz(BW: 20 MHz)



Stop Operation Within 10 s



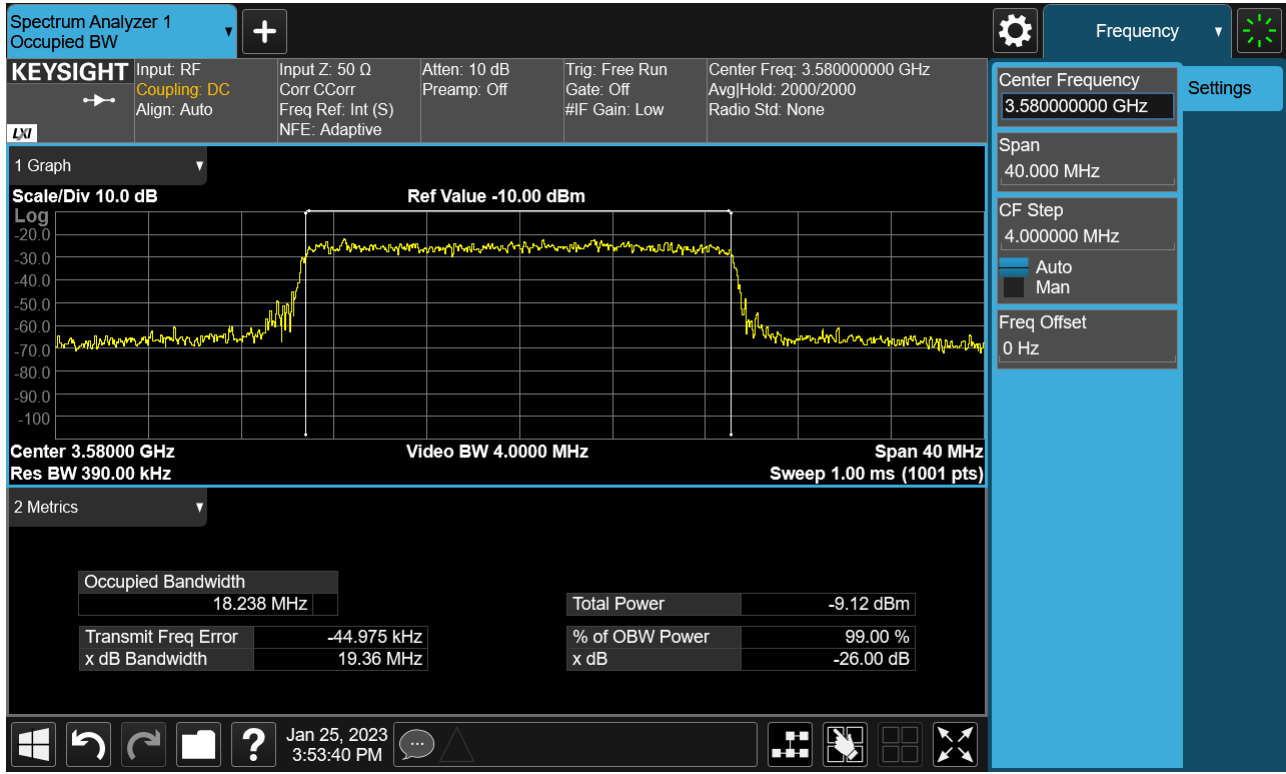
Note:

Marker 2: CBSD sends instructions to discontinue NR n48 operations.

Marker 1Δ2: EUT discontinues operation. (0.60 s)

Marker 3Δ4: 10 seconds elapsed time from CBSD sending instructions to EUT.(10.0 s)

Test#2: 3580 MHz(BW: 20 MHz)



Stop Operation Within 10 s



Note:

Marker 2: CBSD sends instructions to discontinue NR n48 operations..

Marker 1Δ2: EUT discontinues operation. (0.72 s)

Marker 3Δ4: 10 seconds elapsed time from CBSD sending instructions to EUT.(10.0 s)

7. ANNEX A_ TEST SETUP PHOTO

Please refer to test setup photo file no. as follows;

No.	Description
1	HCT-RF-2301-FC084-P