

# 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:**

HCT CO., LTD.,  
74, Seoicheon-ro 578beon-gil, Majang-myeon,  
Icheon-si, Gyeonggi-do, 17383, Rep. of KOREA

**Report No.:** HCT-RF-2301-FC085-R1

**FCC ID:**

**A3LSMA546V**

**APPLICANT:**

**SAMSUNG Electronics Co., Ltd.**

Model(s): SM-A546V  
Additional Model(s): -  
EUT Type: Mobile phone  
FCC Classification: Citizens Band End User Devices (CBE)  
FCC Rule Part(s): §96.47

Report No.: HCT-RF-2301-FC085-R1

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REVIEWED BY



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

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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-FC085    | January 26, 2023 | - First Approval Report           |
| HCT-RF-2301-FC085-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

|                                  |  |
|----------------------------------|--|
| <b>Applicant Name:</b>           | SAMSUNG Electronics Co., Ltd.  |
| <b>Address:</b>                  | 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea |
| <b>FCC ID:</b>                   | A3LSMA546V   |
| <b>Application Type:</b>         | Certification  |
| <b>FCC Classification:</b>       | Citizens Band End User Devices (CBE)                                       |
| <b>FCC Rule Part(s):</b>         | §96  |
| <b>RF Specification:</b>         | 5G Sub6 n48  |
| <b>EUT Type:</b>                 | Mobile Phone   |
| <b>Model(s):</b>                 | SM-A546V   |
| <b>Additional Model(s):</b>      | -  |
| <b>Bandwidth(MHz):</b>           | 10, 15, 20, 40   |
| <b>SCS(KHz):</b>                 | 30   |
| <b>Waveform</b>                  | CP-OFDM, DFT-S-OFDM  |
| <b>Operating Frequency Range</b> | 3550.0 – 3700.0 MHz  |
| <b>Date(s) of Tests:</b>         | January 25, 2023 ~ January 26, 2023  |
| <b>Serial number:</b>            | R3CTB0J1BAE  |

## 2. INTRODUCTION

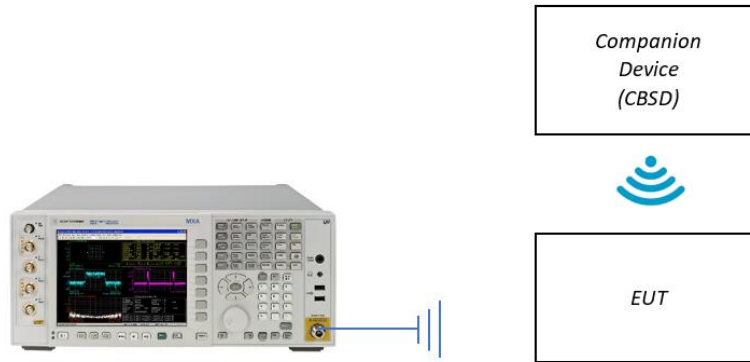
The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

## 3. DESCRIPTION OF TESTS

### 3.1 TEST PROCEDURE

| Test Description  | Test Procedure Used   |
|---|---|
| End User Device Additional Requirement<br>(CBSD Protocol) | - KDB 940660 D01 v01<br>- WINNF-TS-0122 V1.0.2 CBRS CBSD Test Specification |

### 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<br>(2 Hz ~ 50.0 GHz)    | N9030B        | Keysight                | MY55480167 | 05/30/2023         | Annual               |
| Horn Antenna<br>(1 GHz ~ 18 GHz)        | BBHA 9120D    | Schwarzbeck             | 9120D-1300 | 01/18/2024         | Biennial             |
| Companion device<br>(FCC ID: PIDAS2900) | AirSpeed 2900 | Airspan Networks<br>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).

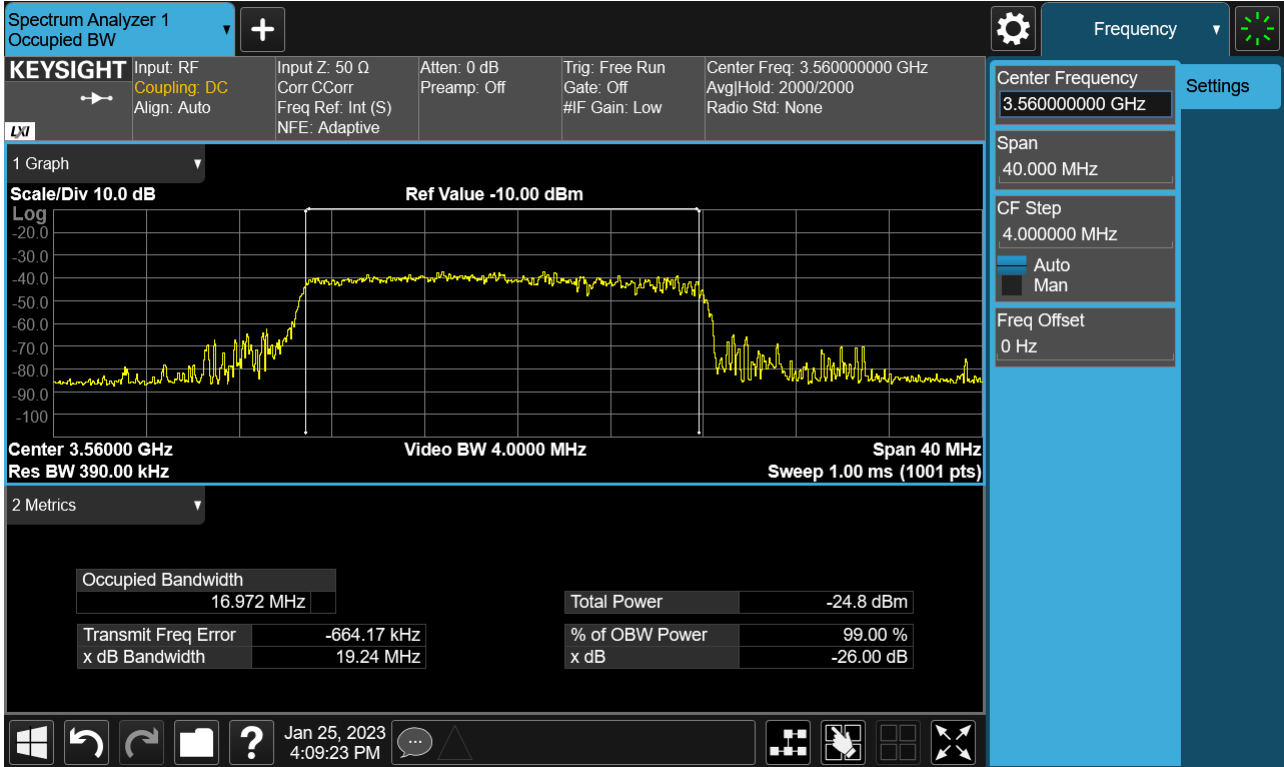


**5. SUMMARY OF TEST RESULTS**

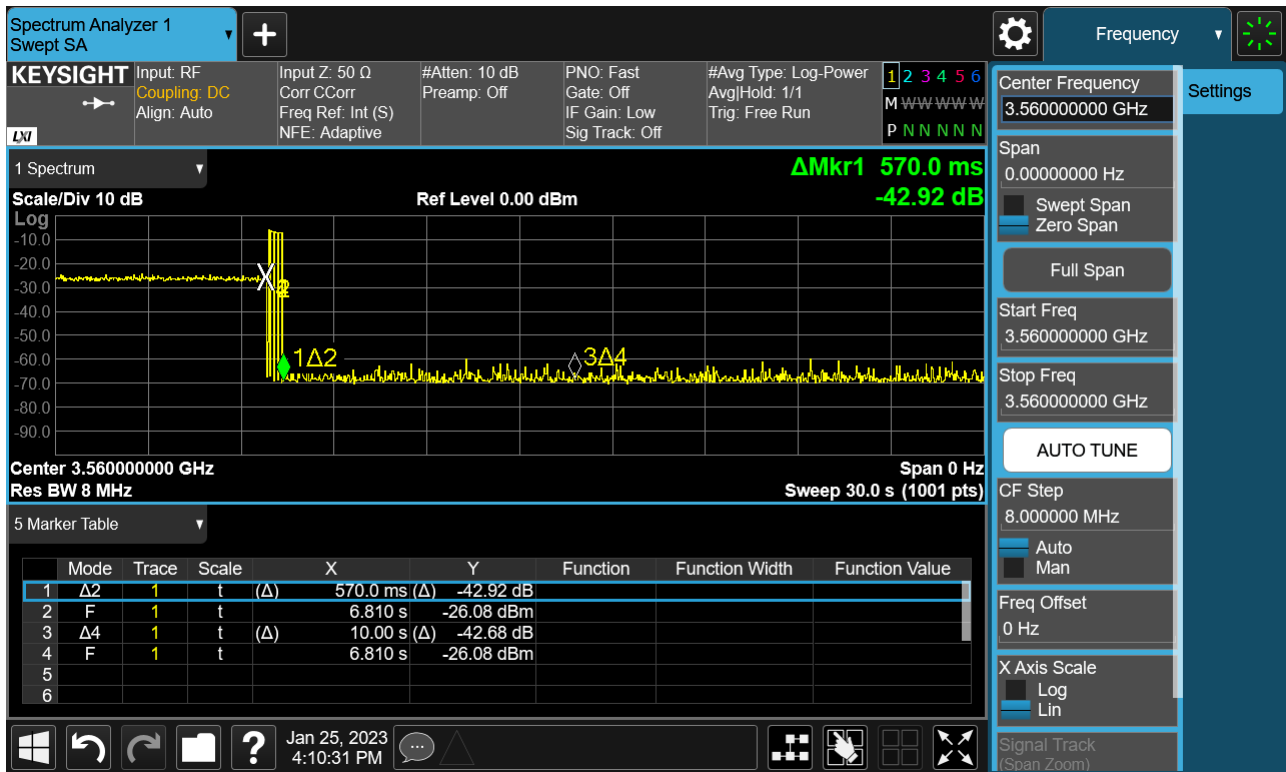
| Test Description   | FCC Part Section(s) | Test Limit  | Test Condition | Test Result |
|--|---------------------|---|----------------|-------------|
| End User Device<br>Additional<br>Requirements<br>(CBSD Protocol) | §96.47              | End User Devices may operate only if they can positively receive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



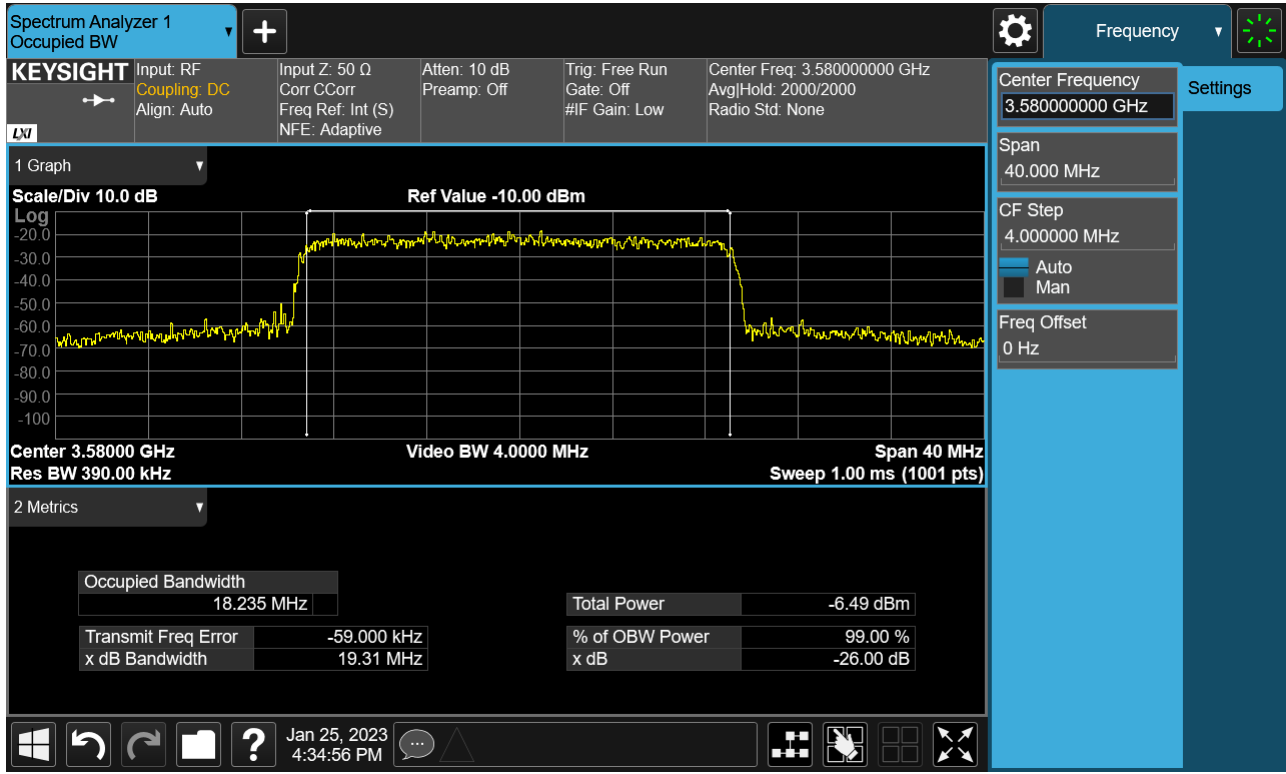
**Note:**

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

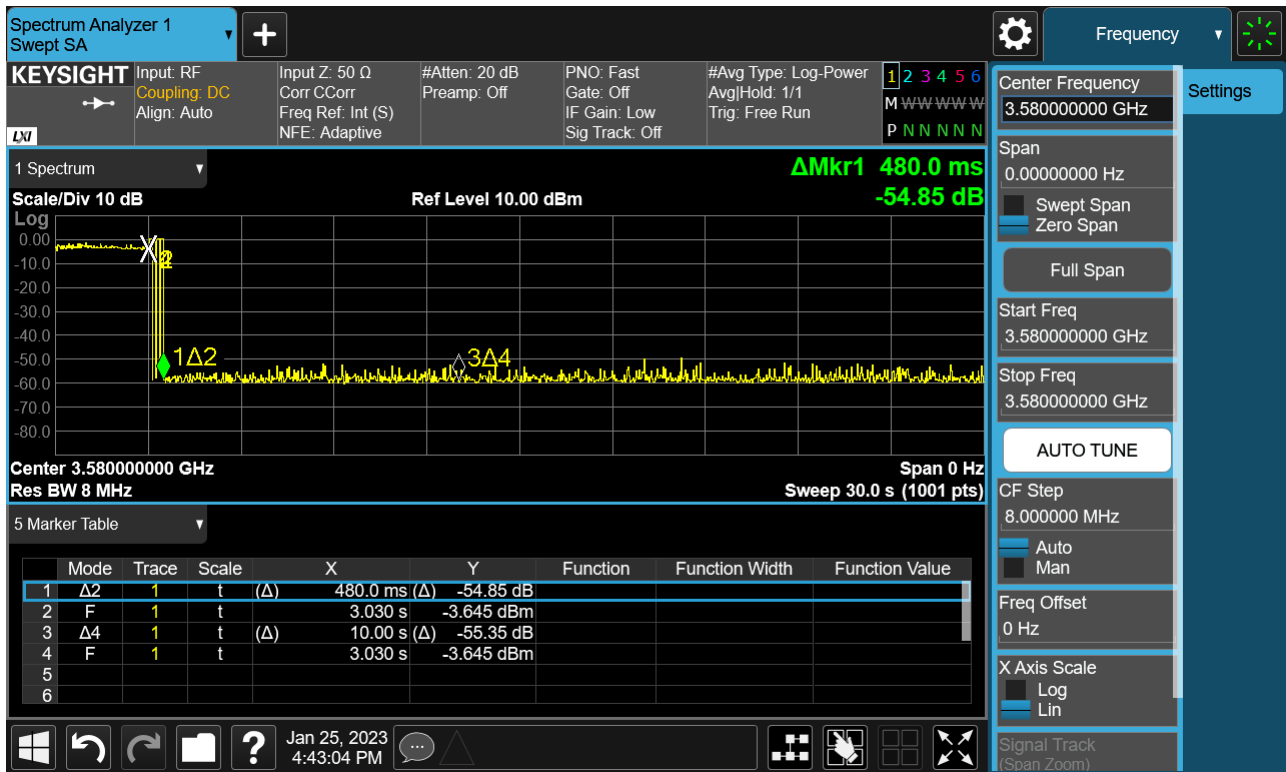
Marker 1Δ2: EUT discontinues operation. (0.57 s)

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. (0.48 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-FC085-P |