

# TEST REPORT

**Product Name : Base Station**  
**Model Number : SBS0A**  
**FCC ID : 2AU4DDDO**

**Prepared for** : X-Sense Innovations Co., Ltd.  
**Address** : Room 1701, Block 3, Shenzhen International  
Innovation Valley, Dashi 1st Road, Xili Community, Xili  
Subdistrict, Nanshan District, Shenzhen.

**Prepared by** : EMTEK (DONGGUAN) CO., LTD.  
**Address** : 1&2/F., Building 2, Zone A, Zhongda Marine  
Biotechnology Research and Development Base,  
No.9, Xincheng Avenue, Songshanhu High-technology  
Industrial Development Zone, Dongguan, Guangdong,  
China

TEL: +86-0769-22807078  
FAX: +86-0769-22807079

**Report Number** : EDG2607140149E00202R  
**Date of sample receipt** : July 14, 2026  
**Date(s) of Tests** : July 14, 2026 to August 31, 2026  
**Date of issue** : August 31, 2026

## TABLE OF CONTENTS

|                                                      |           |
|------------------------------------------------------|-----------|
| <b>1 TEST RESULT CERTIFICATION .....</b>             | <b>4</b>  |
| <b>2 EUT TECHNICAL DESCRIPTION .....</b>             | <b>5</b>  |
| <b>3 SUMMARY OF TEST RESULT .....</b>                | <b>7</b>  |
| <b>4 TEST METHODOLOGY .....</b>                      | <b>8</b>  |
| 4.1 GENERAL DESCRIPTION OF APPLIED STANDARDS .....   | 8         |
| 4.2 MEASUREMENT EQUIPMENT USED .....                 | 8         |
| 4.3 DESCRIPTION OF TEST MODES .....                  | 10        |
| <b>5 FACILITIES AND ACCREDITATIONS .....</b>         | <b>12</b> |
| 5.1 FACILITIES .....                                 | 12        |
| 5.2 LABORATORY ACCREDITATIONS AND LISTINGS .....     | 12        |
| <b>6 TEST SYSTEM UNCERTAINTY .....</b>               | <b>13</b> |
| <b>7 SETUP OF EQUIPMENT UNDER TEST .....</b>         | <b>14</b> |
| 7.1 RADIO FREQUENCY TEST SETUP .....                 | 14        |
| 7.2 RADIO FREQUENCY TEST SETUP .....                 | 14        |
| 7.3 CONDUCTED EMISSION TEST SETUP .....              | 16        |
| 7.4 BLOCK DIAGRAM CONFIGURATION OF TEST SYSTEM ..... | 17        |
| 7.5 SUPPORT EQUIPMENT .....                          | 17        |
| <b>8 TEST REQUIREMENTS .....</b>                     | <b>18</b> |
| 8.1 BANDWIDTH MEASUREMENT .....                      | 18        |
| 8.2 MAXIMUM CONDUCTED OUTPUT POWER .....             | 88        |
| 8.3 MAXIMUM PEAK POWER DENSITY .....                 | 120       |
| 8.4 UNDESIRABLE RADIATED SPURIOUS EMISSION .....     | 153       |
| 8.5 POWER LINE CONDUCTED EMISSIONS .....             | 192       |
| 8.6 ANTENNA APPLICATION .....                        | 195       |

## Modified Information

| Version | Report No.           | Revision Date | Summary         |
|---------|----------------------|---------------|-----------------|
| Ver.1.0 | EDG2607140149E00202R | /             | Original Report |
|         |                      |               |                 |
|         |                      |               |                 |
|         |                      |               |                 |
|         |                      |               |                 |
|         |                      |               |                 |
|         |                      |               |                 |
|         |                      |               |                 |
|         |                      |               |                 |
|         |                      |               |                 |
|         |                      |               |                 |
|         |                      |               |                 |

## 1 TEST RESULT CERTIFICATION

Applicant : X-Sense Innovations Co., Ltd.  
Address : Room 1701, Block 3, Shenzhen International Innovation Valley, Dashi 1st Road, Xili Community, Xili Subdistrict, Nanshan District, Shenzhen.  
Manufacturer : X-Sense Electronics Co., Ltd.  
Address : Room 402, Building 4, No. 9, Jinshagang 1st Road, Shixia Village, Dalang Town, Dongguan City, 523750 Guangdong, P.R. CHINA  
EUT : Base Station  
Model Name : SBS0A  
Trademark : X-SENSE

### Measurement Procedure Used:

| APPLICABLE STANDARDS                                          |             |
|---------------------------------------------------------------|-------------|
| STANDARD                                                      | TEST RESULT |
| FCC 47 CFR Part 2, Subpart J<br>FCC 47 CFR Part 15, Subpart E | PASS        |

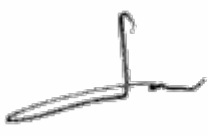
The above equipment was tested by EMTEK (DONGGUAN) CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2020) and the energy emitted by the sample EUT tested as described in this report is in compliance with the above table standards requirement.

The test results of this report relate only to the tested sample identified in this report.

Date of Test : July 14, 2026 to August 31, 2026

Prepared by : Warren Deng  
Warren Deng /Editor

Reviewer : Jessica Zhang  
Jessica Zhang /Supervisor

Approved & Authorized Signer :  EMTEK (DONGGUAN) CO., LTD. TESTING  
Sam Lv /Manager

## 2 EUT TECHNICAL DESCRIPTION

|                         |                                                                                                                                                                                                                      |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Name:</b>    | Base Station                                                                                                                                                                                                         |
| <b>Model Number:</b>    | SBS0A<br>(Note: The product is available in two colors, black and white. The two versions differ only in color and are identical in all other respects.)                                                             |
| <b>WIFI Type:</b>       | UNII-1: 5150MHz-5250MHz Band<br>UNII-2A: 5250MHz-5350MHz Band<br>UNII-2C: 5470MHz-5725MHz Band<br>UNII-3: 5725MHz-5850MHz Band                                                                                       |
| <b>WLAN Supported:</b>  | IEEE 802.11a<br>IEEE 802.11n(20MHz channel bandwidth)<br>IEEE 802.11n(40MHz channel bandwidth)<br>IEEE 802.11ac(20MHz channel bandwidth)<br>IEEE 802.11ax(20MHz channel bandwidth)                                   |
| <b>Modulation:</b>      | OFDM/OFDMA                                                                                                                                                                                                           |
| <b>Frequency Range:</b> | 5150MHz-5250MHz Band:<br>5180-5240MHz for 802.11a<br>5180-5240MHz for 802.11n(20)<br>5190-5230MHz for 802.11n(40)<br>5180-5240MHz for 802.11ac(20)<br>5180-5240MHz for 802.11ax(20)                                  |
|                         | 5250MHz-5350MHz Band:<br>5260-5320MHz for 802.11a<br>5260-5320MHz for 802.11n(20)<br>5270-5310MHz for 802.11n(40)<br>5260-5320MHz for 802.11ac(20)<br>5260-5320MHz for 802.11ax(20)                                  |
|                         | 5470MHz-5725MHz Band:<br>5500-5700MHz for 802.11a<br>5500-5700MHz for 802.11n(20)<br>5510-5670MHz for 802.11n(40)<br>5500-5700MHz for 802.11ac(20)<br>5500-5700MHz for 802.11ax(20)                                  |
|                         | 5725MHz-5850MHz Band:<br>5745-5825MHz for 802.11a<br>5745-5825MHz for 802.11n(20)<br>5755-5795MHz for 802.11n(40)<br>5745-5825MHz for 802.11ac(20)<br>5745-5825MHz for 802.11ax(20)<br>5745-5825MHz for 802.11ax(20) |
| <b>TPC Function:</b>    | N/A                                                                                                                                                                                                                  |
| <b>DFS Function:</b>    | Pass                                                                                                                                                                                                                 |

|                               |                                                                                                    |
|-------------------------------|----------------------------------------------------------------------------------------------------|
| <b>Power Supply:</b>          | Adapter:<br>Input: 100-240V~, 0.2A MAX.<br>Output: 5.0V= 1.0A                                      |
| <b>Temperature Range:</b>     | 0°C ~ +45°C                                                                                        |
| <b>Antenna Type:</b>          | PCB Antenna                                                                                        |
| <b>Gain:</b>                  | UNII-1: 3.07 dBi<br>UNII-2A: 1.93 dBi<br>UNII-2C: 3.43 dBi<br>UNII-3: 2.80 dBi                     |
| <b>Transmit Power:</b>        | UNII-1 Band: 9.42 dBm<br>UNII-2A Band: 9.54 dBm<br>UNII-2C Band: 6.62 dBm<br>UNII-3 Band: 7.37 dBm |
| <b>Product SW/HW version:</b> | SBS0A Matter_V0.2                                                                                  |
| <b>Radio SW/HW version:</b>   | V0.2                                                                                               |
| <b>Temperature Range:</b>     | 4 .4°C ~ +37.8°C                                                                                   |

### 3 SUMMARY OF TEST RESULT

| FCC Part Clause          | Test Parameter                 | Verdict | Remark |
|--------------------------|--------------------------------|---------|--------|
| 15.407 (a)<br>15.407 (e) | 99% , 6dB and 26dB Bandwidth   | PASS    |        |
| 15.407 (a)               | Maximum Conducted Output Power | PASS    |        |
| 15.407 (a)               | Peak Power Spectral Density    | PASS    |        |
| 15.407 (b)               | Radiated Spurious Emission     | PASS    |        |
| 15.407 (b)(6)<br>15.207  | Power Line Conducted Emission  | PASS    |        |
| 15.407(a)<br>15.203      | Antenna Application            | PASS    |        |

NOTE1: The results of this report do not take into account the uncertainty.

NOTE2: According to FCC OET KDB 789033 D2 General UNII Test Procedures New Rules v02r01, In addition, the radiated test is also performed to ensure the emissions emanating from the device cabinet also comply with the applicable limits.

#### RELATED SUBMITTAL(S) / GRANT(S):

This submittal(s) (test report) is filing to comply with the above table standards requirement.

## 4 TEST METHODOLOGY

### 4.1 GENERAL DESCRIPTION OF APPLIED STANDARDS

According to its specifications, the EUT must comply with the requirements of the following standards:

FCC 47 CFR Part 2, Subpart J

FCC 47 CFR Part 15, Subpart E

FCC KDB 789033 D2 General UNII Test Procedures New Rules v02r01

### 4.2 MEASUREMENT EQUIPMENT USED

#### Conducted Emission Test Equipment

| Equipment                  | Manufacturer         | Model No.    | Serial No. | Last Cal. | Cal. Interval |
|----------------------------|----------------------|--------------|------------|-----------|---------------|
| EMI Test Receiver          | Rohde&Schwarz        | ESCI         | 100137     | 2026/4/23 | 1Year         |
| AMN                        | Rohde&Schwarz        | ENV216       | 101209     | 2026/4/23 | 1Year         |
| AMN                        | Rohde&Schwarz        | ENV216       | 100017     | 2026/4/23 | 1Year         |
| RF Switching Unit          | CDS                  | RSU-M2       | 38401      | 2026/4/23 | 1Year         |
| AMN                        | Schwarzbeck          | NNLK8121     | 8121-641   | 2026/4/23 | 1Year         |
| AMN                        | Rohde&Schwarz        | ESH3-Z6      | 101101     | 2026/4/23 | 1Year         |
| AMN                        | Rohde&Schwarz        | ESH3-Z6      | 101102     | 2026/4/23 | 1Year         |
| Power Splitters & Dividers | Weinschel Associates | WA1506A      | A1066      | 2026/4/23 | 1Year         |
| Current Probe              | FCC                  | F-52         | 8377       | 2026/4/23 | 1Year         |
| Passive voltage probe      | Rohde&Schwarz        | ESH2-Z3      | 100122     | 2026/4/23 | 1Year         |
| Cable                      | Rosenberger          | RG 223/U     | 525178     | 2026/4/23 | 2Year         |
| Cable                      | Rosenberger          | RG223/U      | 525179     | 2026/4/23 | 2Year         |
| Test Software              | Farad                | Ver.CON-03A1 | --         | N/A       | N/A           |

#### For Spurious Emissions Test

| Equipment             | Manufacturer  | Model No.   | Serial No.   | Last Cal. | Cal. Interval |
|-----------------------|---------------|-------------|--------------|-----------|---------------|
| EMI Test Receiver     | Rohde&Schwarz | ESCI        | 101415       | 2026/4/23 | 1Year         |
| Bi-log Hybrid Antenna | Schwarzbeck   | VULB9163    | 141          | 2026/4/25 | 1Year         |
| Pre-Amplifier         | HP            | 8447F       | OPTH64       | 2026/4/23 | 1 Year        |
| Signal Analyzer       | R&S           | FSV30       | 103039       | 2026/4/23 | 1 Year        |
| Horn Antenna          | Schwarzbeck   | BBHA9120D   | 1272         | 2026/4/25 | 1Year         |
| Horn Antenna          | Schwarzbeck   | BBHA9170    | 9170-567     | 2026/4/25 | 1Year         |
| Pre-Amplifier         | LUNAR EM      | PM1-18-40   | J10100000081 | 2026/4/27 | 1Year         |
| Loop antenna          | Schwarzbeck   | FMZB1519    | 1519-012     | 2026/4/25 | 1Year         |
| Cable                 | Rosenberger   | CIL02       | A0783566     | 2026/4/23 | 2Year         |
| Cable                 | HTS           | CBL-26      | D1245        | 2026/4/23 | 2Year         |
| Cable                 | HTS           | CBL-26      | D8503        | 2026/4/23 | 2Year         |
| Cable                 | HTS           | CBL-26      | /            | 2026/4/23 | 2Year         |
| Test Software         | Farad         | Ver.RA-03A1 | --           | N/A       | N/A           |

**For other test items:**

| Equipment                         | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|-----------------------------------|--------------|-----------|------------|-----------|---------------|
| Wireless Connectivity Tester      | R&S          | CMW270    | 102543     | 2026/4/23 | 1Year         |
| Automatic Control Unit            | Tonscend     | JS0806-2  | 2118060480 | 2026/4/23 | 1Year         |
| Signal Analyzer                   | KEYSIGHT     | N9010B    | MY60242456 | 2026/4/23 | 1Year         |
| Analog Signal Generator           | KEYSIGHT     | N5173B    | MY61252625 | 2026/4/23 | 1Year         |
| UP/DOWN-Converter                 | R&S          | CMW-Z800A | 100274     | 2026/4/23 | 1Year         |
| Vector Signal Generator           | KEYSIGHT     | N5182B    | MY61252674 | 2026/4/23 | 1Year         |
| Frequency Extender                | KEYSIGHT     | N5182BX07 | MY59362541 | 2026/4/23 | 1Year         |
| Temperature&Humidity test chamber | ESPEC        | EL-02KA   | 12107166   | 2026/4/23 | 1 Year        |
| Radio frequency test system       | Tonscend     | JS1120-3  | V3.5.39    | N/A       | N/A           |

**Remark:** Each piece of equipment is scheduled for calibration once a year.

*For measurement cables(It is from the antenna end of EUT to the test port of test equipment.)*

| Equipment         | Manufacturer              | cable loss | Application frequency band | Measurement data of line loss comes from | Last Cal. | Cal. Interval |
|-------------------|---------------------------|------------|----------------------------|------------------------------------------|-----------|---------------|
| measurement cable | Provided by the applicant | 1.5 dBm    | 5150-5350MHz               | Manufacturers claim themselves.          | N/A       | N/A           |
| measurement cable | Provided by the applicant | 1.5 dBm    | 5725-5850MHz               | Manufacturers claim themselves.          | N/A       | N/A           |

### 4.3 DESCRIPTION OF TEST MODES

The EUT has been tested under its typical operating condition.

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

Test of channel included the lowest and middle and highest frequency to perform the test, then record on this report.

Pre-defined engineering program for regulatory testing used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

#### Wifi 5G with 5150-5250MHz

Frequency and Channels list for 802.11a/n(20)/ac(20)/ax(20):

| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
|---------|-----------------|---------|-----------------|---------|-----------------|
| 36      | 5180            | 44      | 5220            | -       | -               |
| 40      | 5200            | 48      | 5240            | -       | -               |

Frequency and Channels list for 802.11n (40)/ac(40)/ax(40):

| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
|---------|-----------------|---------|-----------------|---------|-----------------|
| 38      | 5190            | -       | -               | -       | -               |
| 46      | 5230            | -       | -               | -       | -               |

**Test Frequency and Channels** for 802.11a/n(20)/ac(20)/ax(20):

| Lowest Frequency |                 | Middle Frequency |                 | Highest Frequency |                 |
|------------------|-----------------|------------------|-----------------|-------------------|-----------------|
| Channel          | Frequency (MHz) | Channel          | Frequency (MHz) | Channel           | Frequency (MHz) |
| 36               | 5180            | 40               | 5200            | 48                | 5240            |

**Test Frequency and channels** for 802.11n (40):

| Lowest Frequency |                 | Middle Frequency |                 | Highest Frequency |                 |
|------------------|-----------------|------------------|-----------------|-------------------|-----------------|
| Channel          | Frequency (MHz) | Channel          | Frequency (MHz) | Channel           | Frequency (MHz) |
| 38               | 5190            | -                | -               | 46                | 5230            |

#### Wifi 5G with 5725MHz-5850MHz

Frequency and Channels list for 802.11a/n(20)/802.11ac(20)/ax(20):

| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
|---------|-----------------|---------|-----------------|---------|-----------------|
| 149     | 5745            | 157     | 5785            | 165     | 5825            |
| 153     | 5765            | 161     | 5805            | -       | -               |

Frequency and Channels list for 802.11n(40):

| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
|---------|-----------------|---------|-----------------|---------|-----------------|
| 151     | 5755            | -       | -               | -       | -               |
| 159     | 5795            | -       | -               | -       | -               |

**Test Frequency and Channels** for 802.11a/n(20)/ac(20)/ax(20):

| Lowest Frequency |                 | Middle Frequency |                 | Highest Frequency |                 |
|------------------|-----------------|------------------|-----------------|-------------------|-----------------|
| Channel          | Frequency (MHz) | Channel          | Frequency (MHz) | Channel           | Frequency (MHz) |
| 149              | 5745            | 157              | 5785            | 165               | 5825            |

**Test Frequency and channels** for 802.11n(40):

| Lowest Frequency |                 | Middle Frequency |                 | Highest Frequency |                 |
|------------------|-----------------|------------------|-----------------|-------------------|-----------------|
| Channel          | Frequency (MHz) | Channel          | Frequency (MHz) | Channel           | Frequency (MHz) |
| 151              | 5755            | -                | -               | 159               | 5795            |



## 5 FACILITIES AND ACCREDITATIONS

### 5.1 FACILITIES

All measurement facilities used to collect the measurement data are located at:

1&2/F., Building 2, Zone A, Zhongda Marine Biotechnology Research and Development Base, No.9, Xincheng Avenue, Songshanhu High-technology Industrial Development Zone, Dongguan, Guangdong, China

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.10 and CISPR Publication 22.

### 5.2 LABORATORY ACCREDITATIONS AND LISTINGS

| Site Description |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EMC Lab.         | <p>: <b>Accredited by CNAS</b><br/> Accredited by CNAS, 2026.08.12<br/> The certificate is valid until 2030.07.05<br/> The Laboratory has been assessed and proved to be in compliance with CNAS/CL01:2018<br/> The Certificate Registration Number is L3150</p> <p><b>Accredited by FCC</b><br/> Designation Number: CN1451<br/> Test Firm Registration Number: 846861</p> <p><b>Accredited by A2LA</b><br/> The Certificate Number is 4321.02.</p> <p>Accredited by Industry Canada<br/> The Conformity Assessment Body Identifier is CN0113</p> |
| Name of Firm     | : EMTEK (DONGGUAN) CO., LTD.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Site Location    | : 1&2/F., Building 2, Zone A, Zhongda Marine Biotechnology Research and Development Base, No.9, Xincheng Avenue, Songshanhu High-technology Industrial Development Zone, Dongguan, Guangdong, China                                                                                                                                                                                                                                                                                                                                                |

## 6 TEST SYSTEM UNCERTAINTY

The following measurement uncertainty levels have been estimated for tests performed on the apparatus:

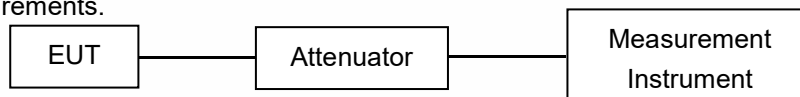
| Parameter                      | Uncertainty |
|--------------------------------|-------------|
| Radio Frequency                | ±20Hz       |
| Maximum Peak Output Power Test | ±1.0dB      |
| Conducted Emissions Test       | ±2.0dB      |
| Radiated Emission Test         | ±2.0dB      |
| Power Density                  | ±2.0dB      |
| Occupied Bandwidth Test        | ±1.0dB      |
| Band Edge Test                 | ±3dB        |
| All emission, radiated         | ±3dB        |
| Antenna Port Emission          | ±3dB        |
| Temperature                    | ±0.5°C      |
| Humidity                       | ±3%         |

Measurement Uncertainty for a level of Confidence of 95%.

## 7 SETUP OF EQUIPMENT UNDER TEST

### 7.1 RADIO FREQUENCY TEST SETUP

The WLAN component's antenna ports(s) of the EUT are connected to the measurement instrument per an appropriate attenuator. The EUT is controlled by PC/software to emit the specified signals for the purpose of measurements.



### 7.2 RADIO FREQUENCY TEST SETUP

The test site semi-anechoic chamber has met the requirement of NSA tolerance 4 dB according to the standards: ANSI C63.10. The test distance is 3m. The setup is according to the requirements in Section 13.1.4.1 of ANSI C63.10-2020 and CAN/CSA-CEI/IEC CISPR 22.

Below 30MHz:

The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna (loop antenna). The Antenna should be positioned with its plane vertical at the specified distance from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. The center of the loop shall be 1 m above the ground. For certain applications, the loop antenna plane may also need to be positioned horizontally at the specified distance from the EUT.

Above 30MHz:

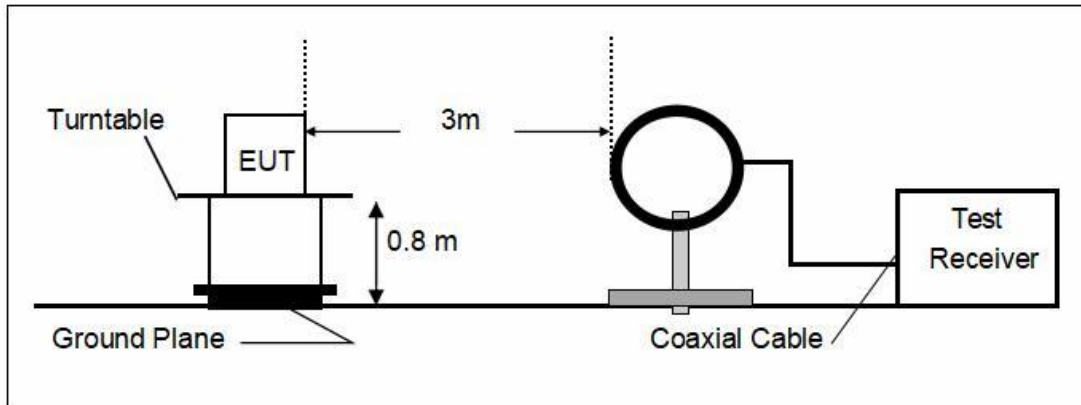
The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).

Above 1GHz:

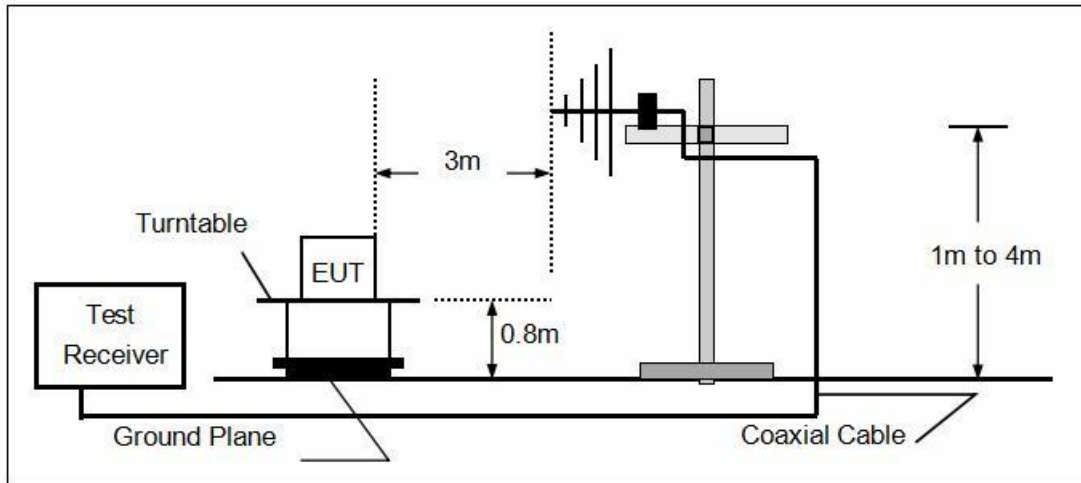
(Note: the FCC's permission to use 1.5m as an alternative per TCBC Conf call of Dec. 2, 2014.)

The EUT is placed on a turntable 1.5 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).

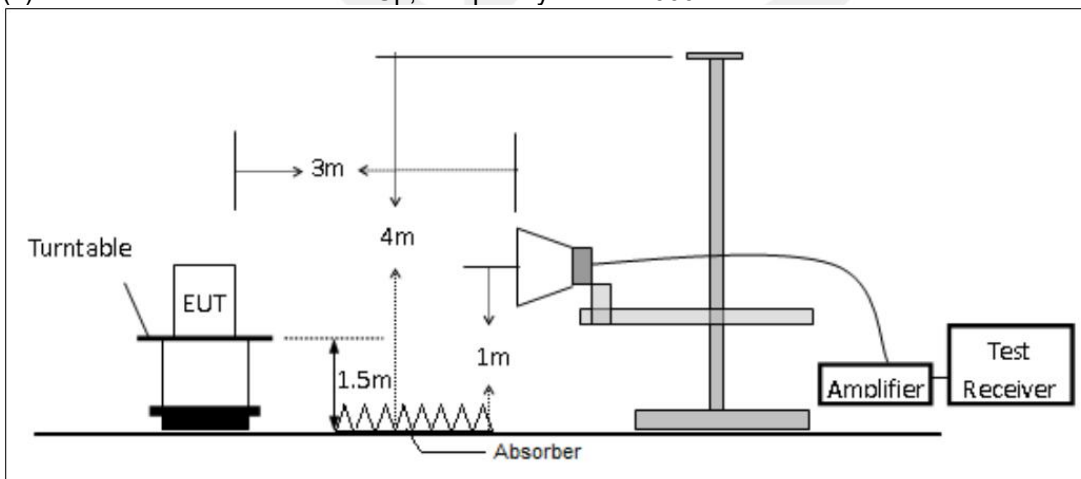
(a) Radiated Emission Test Set-Up, Frequency Below 30MHz



(b) Radiated Emission Test Set-Up, Frequency Below 1000MHz



(c) Radiated Emission Test Set-Up, Frequency above 1000MHz

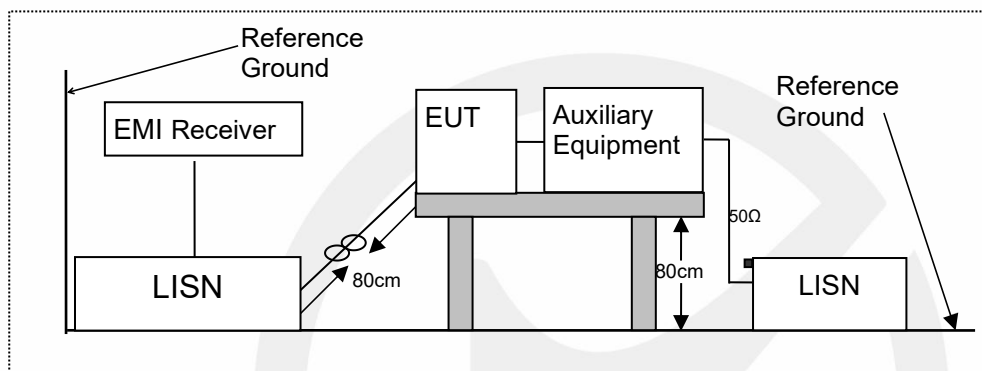


### 7.3 CONDUCTED EMISSION TEST SETUP

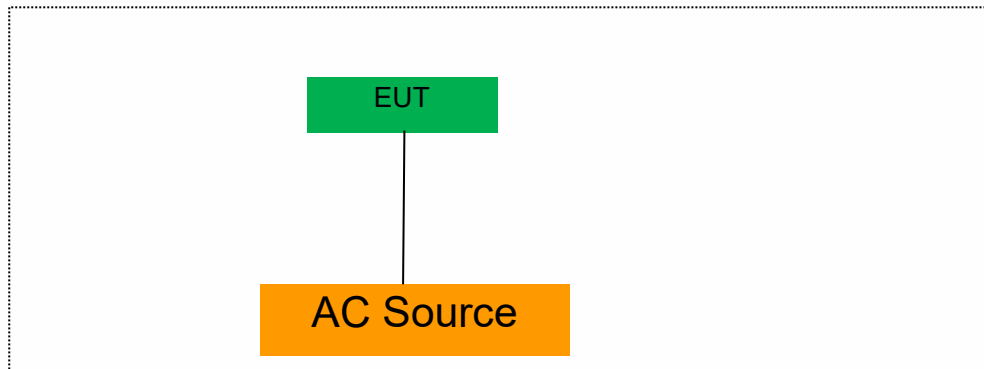
The mains cable of the EUT (maybe per AC/DC Adapter) must be connected to LISN. The LISN shall be placed 0.8 m from the boundary of EUT and bonded to a ground reference plane for LISN mounted on top of the ground reference plane. This distance is between the closest points of the LISN and the EUT. All other units of the EUT and associated equipment shall be at least 0.8m from the LISN.

Ground connections, where required for safety purposes, shall be connected to the reference ground point of the LISN and, where not otherwise provided or specified by the manufacturer, shall be of same length as the mains cable and run parallel to the mains connection at a separation distance of not more than 0.1 m.

According to the requirements in Section 13.1.4.1 of ANSI C63.10-2020 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode.



## 7.4 BLOCK DIAGRAM CONFIGURATION OF TEST SYSTEM



## 7.5 SUPPORT EQUIPMENT

N/A

Notes:

- 1.All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
- 2.Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

## 8 TEST REQUIREMENTS

### 8.1 BANDWIDTH MEASUREMENT

#### 8.1.1 Applicable Standard

According to FCC Part 15.407(a)(1) for UNII Band I  
According to FCC Part 15.407(a)(2) for UNII Band II-A and UNII Band II-C  
According to FCC Part 15.407(a)(3) for UNII Band III  
According to FCC Part 15.407(e) for UNII Band III  
According to 789033 D02 Section II(C)  
According to 789033 D02 Section II(D)

#### 8.1.2 Conformance Limit

(1) For the band 5.15-5.25 GHz.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(3) For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(e) Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

#### 8.1.3 Test Configuration

Test according to clause 6.1 radio frequency test setup.

#### 8.1.4 Test Procedure

According to 789033 D02 v02r01 section C&D, the following is the measurement procedure.

##### 1. Emission Bandwidth (EBW)

- Set RBW = approximately 1% of the emission bandwidth.
- Set the VBW > RBW.
- Detector = Peak.
- Trace mode = max hold.
- Measure the maximum width of the emission that is 26 dB down from the maximum of the emission.

Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

## 2. Minimum Emission Bandwidth for the band 5.725-5.85 GHz

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.715-5.85 GHz. The following procedure shall be used for measuring this bandwidth:

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW)  $\geq 3 \times \text{RBW}$ .
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Note: The automatic bandwidth measurement capability of a spectrum analyzer or EMI receiver may be employed if it implements the functionality described above.

## D. 99 Percent Occupied Bandwidth

The 99-percent occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5 % of the total mean power of the given emission. Measurement of the 99-percent occupied bandwidth is required only as a condition for using the optional band-edge measurement techniques described in section II.G.3.d). Measurements of 99-percent occupied bandwidth may also optionally be used in lieu of the EBW to 789033 D02 v01r02 General UNII Test Procedures New Rules v01 define the minimum frequency range over which the spectrum is integrated when measuring maximum conducted output power as described in section II.E. However, the EBW must be measured to determine bandwidth dependent limits on maximum conducted output power in accordance with 15.407(a).

The following procedure shall be used for measuring (99 %) power bandwidth:

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW.
4. Set VBW  $\geq 3 \times \text{RBW}$ .
5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

## 8.1.5 Test Results

Temperature : 25°C  
Humidity : 45 %

ATM Pressure:: 1011 mbar  
Test Engineer: Calvin

### Emission Bandwidth (26dB)

| TestMode   | Antenna | Frequency[MHz] | 26db EBW [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|------------|---------|----------------|----------------|----------|----------|------------|---------|
| 11A        | Ant1    | 5180           | 22.960         | 5170.000 | 5192.960 | ---        | ---     |
| 11A        | Ant1    | 5200           | 22.600         | 5190.040 | 5212.640 | ---        | ---     |
| 11A        | Ant1    | 5240           | 22.880         | 5230.360 | 5253.240 | ---        | ---     |
| 11A        | Ant1    | 5260           | 22.640         | 5250.320 | 5272.960 | ---        | ---     |
| 11A        | Ant1    | 5280           | 22.040         | 5270.040 | 5292.080 | ---        | ---     |
| 11A        | Ant1    | 5320           | 23.120         | 5309.600 | 5332.720 | ---        | ---     |
| 11A        | Ant1    | 5500           | 19.920         | 5490.160 | 5510.080 | ---        | ---     |
| 11A        | Ant1    | 5580           | 20.240         | 5570.000 | 5590.240 | ---        | ---     |
| 11A        | Ant1    | 5700           | 20.080         | 5690.000 | 5710.080 | ---        | ---     |
| 11A        | Ant1    | 5745           | 21.600         | 5733.800 | 5755.400 | ---        | ---     |
| 11A        | Ant1    | 5785           | 19.960         | 5775.320 | 5795.280 | ---        | ---     |
| 11A        | Ant1    | 5825           | 20.040         | 5814.840 | 5834.880 | ---        | ---     |
| 11N20SISO  | Ant1    | 5180           | 21.600         | 5169.120 | 5190.720 | ---        | ---     |
| 11N20SISO  | Ant1    | 5200           | 20.960         | 5189.560 | 5210.520 | ---        | ---     |
| 11N20SISO  | Ant1    | 5240           | 21.640         | 5229.120 | 5250.760 | ---        | ---     |
| 11N20SISO  | Ant1    | 5260           | 20.880         | 5249.760 | 5270.640 | ---        | ---     |
| 11N20SISO  | Ant1    | 5280           | 23.040         | 5269.640 | 5292.680 | ---        | ---     |
| 11N20SISO  | Ant1    | 5320           | 23.040         | 5309.560 | 5332.600 | ---        | ---     |
| 11N20SISO  | Ant1    | 5500           | 20.880         | 5489.520 | 5510.400 | ---        | ---     |
| 11N20SISO  | Ant1    | 5580           | 20.360         | 5569.880 | 5590.240 | ---        | ---     |
| 11N20SISO  | Ant1    | 5700           | 20.520         | 5689.680 | 5710.200 | ---        | ---     |
| 11N20SISO  | Ant1    | 5745           | 22.040         | 5733.880 | 5755.920 | ---        | ---     |
| 11N20SISO  | Ant1    | 5785           | 21.080         | 5774.680 | 5795.760 | ---        | ---     |
| 11N20SISO  | Ant1    | 5825           | 20.840         | 5814.560 | 5835.400 | ---        | ---     |
| 11N40SISO  | Ant1    | 5190           | 40.000         | 5170.080 | 5210.080 | ---        | ---     |
| 11N40SISO  | Ant1    | 5230           | 41.200         | 5210.000 | 5251.200 | ---        | ---     |
| 11N40SISO  | Ant1    | 5270           | 42.240         | 5250.160 | 5292.400 | ---        | ---     |
| 11N40SISO  | Ant1    | 5310           | 48.080         | 5290.080 | 5338.160 | ---        | ---     |
| 11N40SISO  | Ant1    | 5510           | 40.160         | 5489.920 | 5530.080 | ---        | ---     |
| 11N40SISO  | Ant1    | 5550           | 40.080         | 5529.840 | 5569.920 | ---        | ---     |
| 11N40SISO  | Ant1    | 5670           | 40.160         | 5650.000 | 5690.160 | ---        | ---     |
| 11N40SISO  | Ant1    | 5755           | 40.960         | 5735.000 | 5775.960 | ---        | ---     |
| 11N40SISO  | Ant1    | 5795           | 40.880         | 5773.960 | 5814.840 | ---        | ---     |
| 11AC20SISO | Ant1    | 5180           | 20.720         | 5169.440 | 5190.160 | ---        | ---     |
| 11AC20SISO | Ant1    | 5200           | 21.080         | 5189.360 | 5210.440 | ---        | ---     |
| 11AC20SISO | Ant1    | 5240           | 20.960         | 5229.640 | 5250.600 | ---        | ---     |
| 11AC20SISO | Ant1    | 5260           | 22.120         | 5249.960 | 5272.080 | ---        | ---     |
| 11AC20SISO | Ant1    | 5280           | 21.520         | 5269.480 | 5291.000 | ---        | ---     |
| 11AC20SISO | Ant1    | 5320           | 22.480         | 5309.400 | 5331.880 | ---        | ---     |
| 11AC20SISO | Ant1    | 5500           | 20.680         | 5489.520 | 5510.200 | ---        | ---     |
| 11AC20SISO | Ant1    | 5580           | 20.960         | 5569.600 | 5590.560 | ---        | ---     |
| 11AC20SISO | Ant1    | 5700           | 20.720         | 5689.680 | 5710.400 | ---        | ---     |
| 11AC20SISO | Ant1    | 5745           | 21.280         | 5734.480 | 5755.760 | ---        | ---     |
| 11AC20SISO | Ant1    | 5785           | 20.840         | 5774.800 | 5795.640 | ---        | ---     |
| 11AC20SISO | Ant1    | 5825           | 21.120         | 5814.400 | 5835.520 | ---        | ---     |
| 11AX20SISO | Ant1    | 5180           | 20.840         | 5169.640 | 5190.480 | ---        | ---     |
| 11AX20SISO | Ant1    | 5200           | 21.080         | 5189.640 | 5210.720 | ---        | ---     |
| 11AX20SISO | Ant1    | 5240           | 20.880         | 5229.680 | 5250.560 | ---        | ---     |
| 11AX20SISO | Ant1    | 5260           | 20.880         | 5249.720 | 5270.600 | ---        | ---     |
| 11AX20SISO | Ant1    | 5280           | 22.160         | 5269.080 | 5291.240 | ---        | ---     |

|            |      |      |        |          |          |     |     |
|------------|------|------|--------|----------|----------|-----|-----|
| 11AX20SISO | Ant1 | 5320 | 22.520 | 5309.080 | 5331.600 | --- | --- |
| 11AX20SISO | Ant1 | 5500 | 21.560 | 5489.320 | 5510.880 | --- | --- |
| 11AX20SISO | Ant1 | 5580 | 20.400 | 5569.760 | 5590.160 | --- | --- |
| 11AX20SISO | Ant1 | 5700 | 22.360 | 5689.120 | 5711.480 | --- | --- |
| 11AX20SISO | Ant1 | 5745 | 21.160 | 5734.480 | 5755.640 | --- | --- |
| 11AX20SISO | Ant1 | 5785 | 20.760 | 5774.560 | 5795.320 | --- | --- |
| 11AX20SISO | Ant1 | 5825 | 21.080 | 5814.400 | 5835.480 | --- | --- |



**Spectrum Analyzer 1**  
Swept SA

**KEYSIGHT** Input RF: Coupling: DC, Align: Auto  
Input Z: 50  $\Omega$ , Corr CCorr, Freq Ref: Int (S)  
#Atten: 30 dB,  $\mu$ W Path: Standard  
PNO: Fast, Gate: Off, IF Gain: Low, Sig Track: Off  
#Avg Type: Power (RMS), Avg/Hold: 100/100, Trng: Free Run  
M 1 2 3 4 5 6  
P P P P P P

Center Frequency: 5.18000000 GHz  
Span: 40.000000 MHz  
Start Freq: 5.16000000 GHz  
Stop Freq: 5.20000000 GHz  
Full Span  
AUTO TUNE  
CF Step: 4.000000 MHz  
Freq Offset: 0 Hz  
X Axis Scale: Log  
Signal Track (Span Zoom)

1 Spectrum  
Scale/Div 10 dB  
Ref Lvl Offset 13.66 dB  
Ref Level 20.00 dBm  
Center 5.18000 GHz  
#Res BW 220 kHz  
#Video BW 680 kHz  
Span 40.00 MHz  
Sweep 1.00 ms (1001 pts)

5 Marker Table

|   | Mode       | Trace | Scale | X                                   | Y          | Function | Function Width | Function Value |
|---|------------|-------|-------|-------------------------------------|------------|----------|----------------|----------------|
| 1 | N          | 1     | f     | 5.170 00 GHz                        | -23.55 dBm |          |                |                |
| 2 | N          | 1     | f     | 5.182 08 GHz                        | 3.251 dBm  |          |                |                |
| 3 | $\Delta$ 1 | 1     | f     | ( $\Delta$ ) 22.96 MHz ( $\Delta$ ) | -1.638 dB  |          |                |                |
| 4 |            |       |       |                                     |            |          |                |                |
| 5 |            |       |       |                                     |            |          |                |                |
| 6 |            |       |       |                                     |            |          |                |                |

Jul 21, 2026 2:31:57 PM

11A-Ant1-5180

**Spectrum Analyzer 1**  
Swept SA

**KEYSIGHT** Input RF: Coupling: DC, Align: Auto  
Input Z: 50  $\Omega$ , Corr CCorr, Freq Ref: Int (S)  
#Atten: 30 dB,  $\mu$ W Path: Standard  
PNO: Fast, Gate: Off, IF Gain: Low, Sig Track: Off  
#Avg Type: Power (RMS), Avg/Hold: 100/100, Trng: Free Run  
M 1 2 3 4 5 6  
P P P P P P

Center Frequency: 5.20000000 GHz  
Span: 40.000000 MHz  
Start Freq: 5.18000000 GHz  
Stop Freq: 5.22000000 GHz  
Full Span  
AUTO TUNE  
CF Step: 4.000000 MHz  
Freq Offset: 0 Hz  
X Axis Scale: Log  
Signal Track (Span Zoom)

1 Spectrum  
Scale/Div 10 dB  
Ref Lvl Offset 13.66 dB  
Ref Level 20.00 dBm  
Center 5.20000 GHz  
#Res BW 220 kHz  
#Video BW 680 kHz  
Span 40.00 MHz  
Sweep 1.00 ms (1001 pts)

5 Marker Table

|   | Mode       | Trace | Scale | X                                   | Y          | Function | Function Width | Function Value |
|---|------------|-------|-------|-------------------------------------|------------|----------|----------------|----------------|
| 1 | N          | 1     | f     | 5.190 04 GHz                        | -24.16 dBm |          |                |                |
| 2 | N          | 1     | f     | 5.201 24 GHz                        | 3.220 dBm  |          |                |                |
| 3 | $\Delta$ 1 | 1     | f     | ( $\Delta$ ) 22.60 MHz ( $\Delta$ ) | -0.1880 dB |          |                |                |
| 4 |            |       |       |                                     |            |          |                |                |
| 5 |            |       |       |                                     |            |          |                |                |
| 6 |            |       |       |                                     |            |          |                |                |

Jul 21, 2026 3:49:19 PM

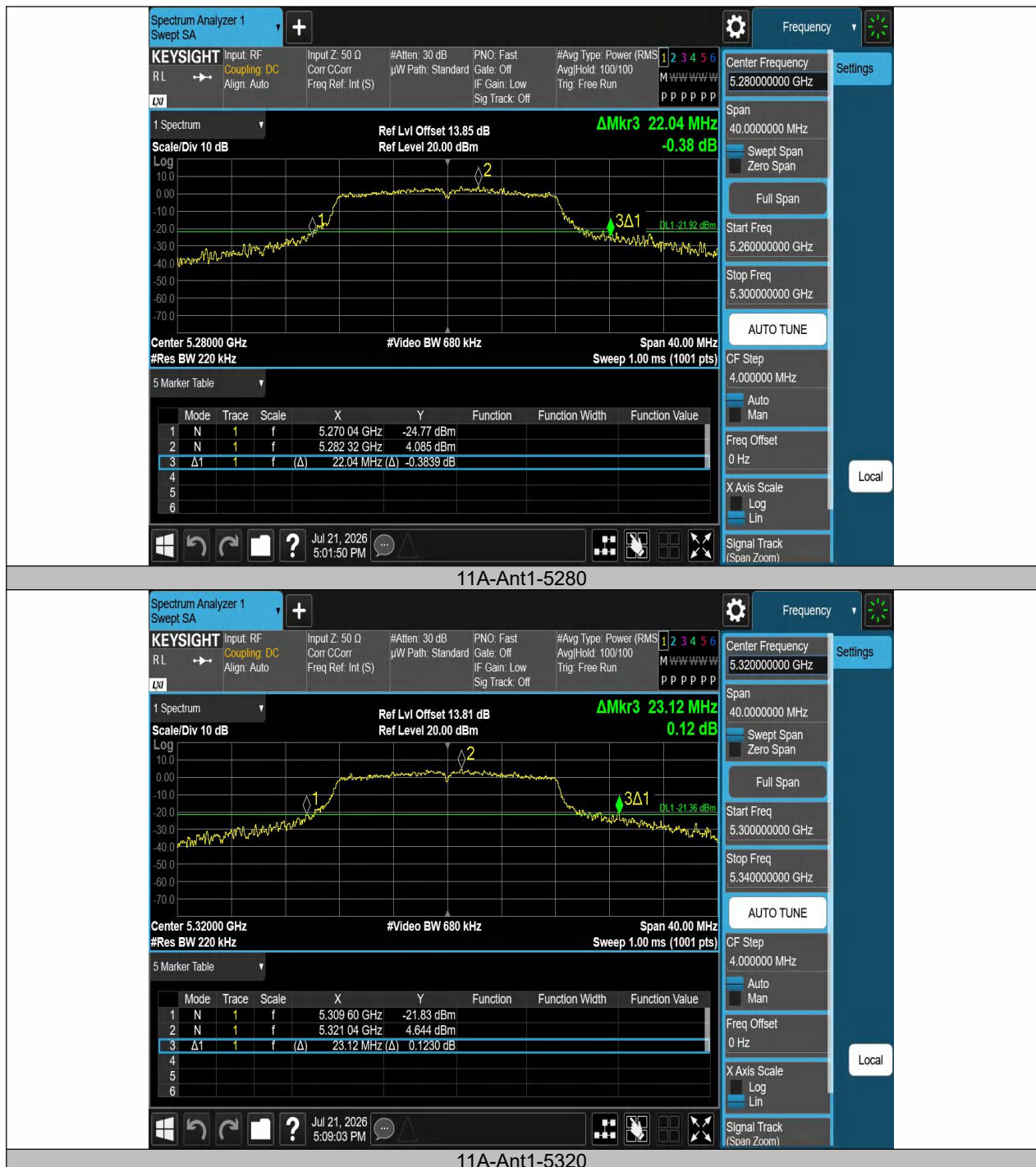
11A-Ant1-5200



11A-Ant1-5240



11A-Ant1-5260

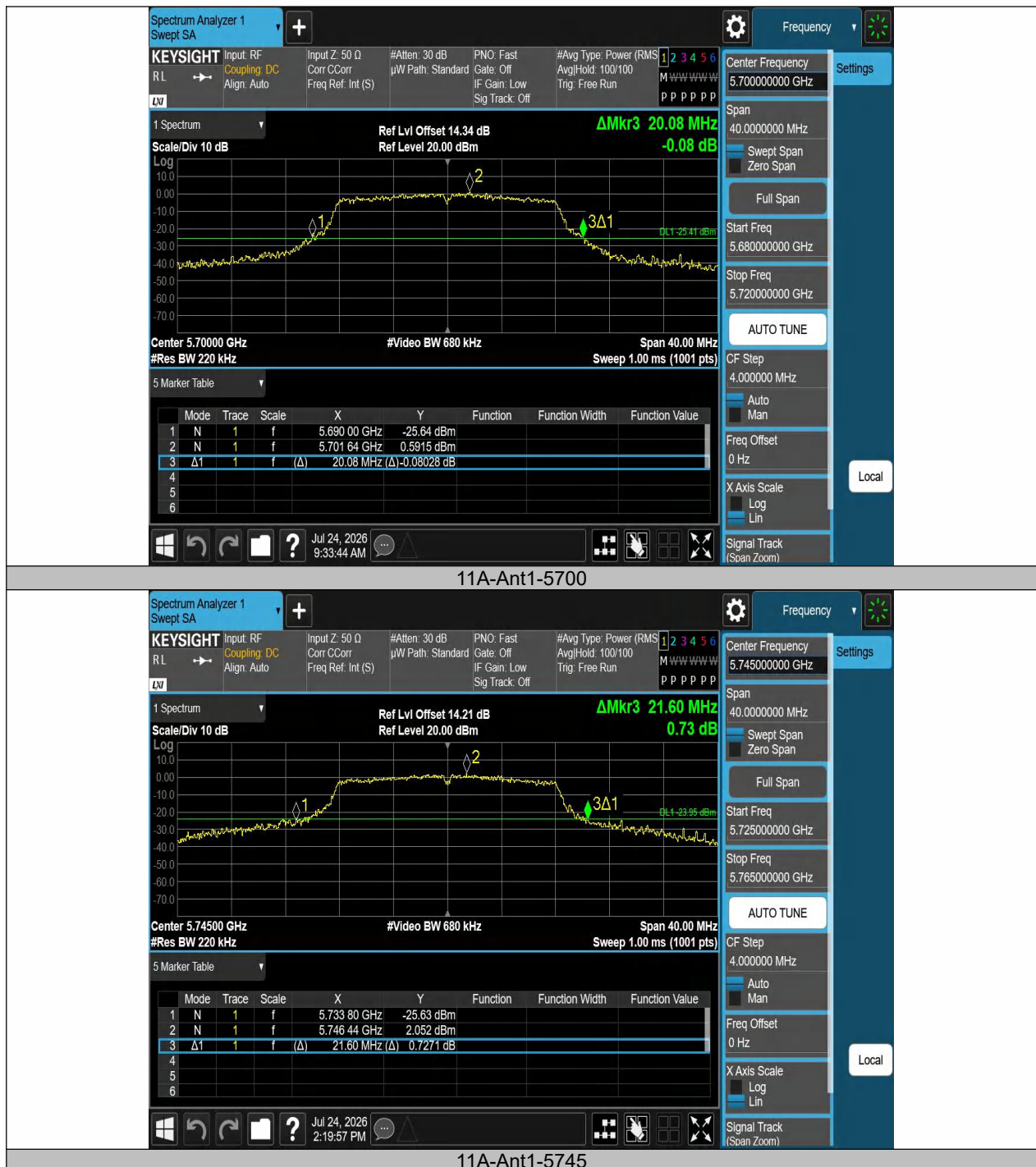




11A-Ant1-5500



11A-Ant1-5580





11A-Ant1-5785



11A-Ant1-5825

