



ELEMENT MATERIALS TECHNOLOGY,  
Columbia MD

(formerly PCTEST)

7185 Oakland Mills Road, Columbia, MD 21046 USA

Tel. 410.290.6652 / Fax 410.381.1520

<http://www.element.com>

**MEASUREMENT REPORT**

**FCC Part 15.407 802.11a/ax/be WiFi 6GHz VLP (OFDM)**

**Applicant Name:**

Samsung Electronics Co., Ltd.

129, Samsung-ro,

Yeongtong-gu, Suwon-si

Gyeonggi-do, 16677, Korea

**Date of Testing:**

9/2/25 - 12/30/25

**Test Report Issue Date:**

1/14/2026

**Test Site/Location:**

Element Lab., Columbia, MD, USA

**Test Report Serial No.:**

1M2508270084-22-R1.A3L

**FCC ID:**

**A3LSMS942B**

**APPLICANT:**

**Samsung Electronics Co., Ltd.**

**Application Type:**

Certification

**Model:**

SM-S942B/DS

**Additional Model(s):**

SM-S942B

**EUT Type:**

Portable Handset

**Frequency Range:**

5935 – 7115MHz

**Modulation Type:**

OFDM

**FCC Classification:**

15E 6GHz Very Low Power Device (6VL)

**FCC Rule Part(s):**

Part 15 Subpart E (15.407)

**Test Procedure(s):**

ANSI C63.10:2020 + Cor. 1:2023, KDB 987594 D02 v03,  
KDB 648474 D03 v01r04

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.10:2020. Test results reported herein relate only to the item(s) tested.

This revised Test Report (S/N: 1M2508270084-22-R1.A3L) supersedes and replaces the previously issued test report (S/N: 1M2508270084-22.A3L) on the same subject device for the same type of testing as indicated. Please discard or destroy the previously issued test report(s) and dispose of it accordingly.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

RJ Ortanez  
Executive Vice President



|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS942B                         | <b>MEASUREMENT REPORT</b>               |                                      | <b>Approved by:</b><br>Technical Manager |
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## TEST REPORT REVISION HISTORY

| Rev. No. | Description                             | Issue Date | Revised By    |
|----------|-----------------------------------------|------------|---------------|
| -        | Initial Release                         | 1/14/2026  | WKR0000005883 |
| 1        | Addressed comments made by TCB reviewer | 1/14/2026  | WKR0000005826 |
|          |                                         |            |               |

|                                                   |                                         |                                      |                                          |
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## MEASUREMENT REPORT

| Channel Bandwidth [MHz] | UNII Band | Tx Frequency [MHz] | MIMO            |                  |
|-------------------------|-----------|--------------------|-----------------|------------------|
|                         |           |                    | Max. Power [mW] | Max. Power [dBm] |
| 20                      | 5         | 5935 - 6415        | 5.12            | 7.09             |
|                         | 6         | 6435 - 6515        | 3.73            | 5.72             |
|                         | 7         | 6535 - 6875        | 3.86            | 5.86             |
|                         | 8         | 6895 - 7115        | 4.62            | 6.65             |
| 40                      | 5         | 5965 - 6405        | 6.67            | 8.24             |
|                         | 6         | 6445 - 6525        | 4.78            | 6.79             |
|                         | 7         | 6565 - 6845        | 4.88            | 6.88             |
|                         | 8         | 6885 - 7085        | 6.08            | 7.84             |
| 80                      | 5         | 5985 - 6385        | 6.73            | 8.28             |
|                         | 6         | 6465               | 4.71            | 6.73             |
|                         | 7         | 6545 - 6865        | 4.86            | 6.86             |
|                         | 8         | 6945 - 7025        | 6.01            | 7.79             |
| 160                     | 5         | 6025 - 6345        | 6.46            | 8.10             |
|                         | 6         | 6505               | 4.73            | 6.75             |
|                         | 7         | 6665 - 6825        | 4.41            | 6.44             |
|                         | 8         | 6985               | 5.86            | 7.68             |
| 320                     | 5         | 6105 - 6265        | 6.31            | 8.00             |
|                         | 6         | 6425               | 4.33            | 6.37             |
|                         | 7         | 6585 - 6745        | 4.97            | 6.97             |
|                         | 8         | 6905               | 5.92            | 7.72             |

EUT Overview - EIRP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
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## 1.0 INTRODUCTION

### 1.1 Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Innovation, Science and Economic Development Canada.

### 1.2 Element Test Location

Measurements were conducted at the Element laboratory(ies) indicated in Section 1.3 below. All measurement facilities are compliant with the test site requirements specified in ANSI C63.4:2014 and KDB 414788 D01 v01r01.

### 1.3 Test Facility / Accreditations

**Measurements were performed at Element lab located in Columbia, MD 21046, U.S.A.**

- Element Washington DC LLC is an ISO 17025-2017 accredited test facility under the American Association for Laboratory Accreditation (A2LA) with Certificate number 2041.01 for Specific Absorption Rate (SAR), Hearing Aid Compatibility (HAC) testing, where applicable, and Electromagnetic Compatibility (EMC) testing for FCC and Innovation, Science, and Economic Development Canada rules.
- Element Washington DC LLC TCB is a Telecommunication Certification Body (TCB) accredited to ISO/IEC 17065-2012 by A2LA (Certificate number 2041.03) in all scopes of FCC Rules and ISED Standards (RSS).
- Element Washington DC LLC facility is a registered test laboratory with the site description on file with ISED (Wireless Test Lab number 2451B) and FCC (Designation Number US1113).
- Element Washington DC LLC is a Recognized U.S. Certification Assessment Body (CAB # US0110) for ISED Canada as designated by NIST under the U.S. and Canada Mutual Recognition Agreements (MRAs).

|                                                   |                                         |                                      |                                          |
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## 2.0 PRODUCT INFORMATION

### 2.1 Equipment Description

The Equipment Under Test (EUT) is the **Samsung Electronics Co., Ltd. Portable Handset FCC ID: A3LSMS942B**. The test data contained in this report pertains only to the emissions due to the EUT's UNII transmitter while operating in the 6GHz band in very low power (VLP) mode.

**Test Device Serial No.:** 0282M, 0064M, 0111M, 0067M, 0001M, 0018M, 0086M, 0015M

### 2.2 Device Capabilities

This device contains the following capabilities:

850/1900 GSM/GPRS/EDGE, 850/1700/1900 WCDMA/HSPA, Multi-band LTE, Multi-band 5G NR (FR1), 802.11b/g/n/ac/ax/be WLAN, 802.11a/n/ac/ax/be UNII (5GHz and 6GHz), Bluetooth (1x, EDR, LE), NFC, Wireless Power Transfer

| Band 5 |                 | Band 6 |                 | Band 7 |                 | Band 8 |                 |
|--------|-----------------|--------|-----------------|--------|-----------------|--------|-----------------|
| Ch.    | Frequency (MHz) | Ch.    | Frequency (MHz) | Ch.    | Frequency (MHz) | Ch.    | Frequency (MHz) |
| 2      | 5935            | 97     | 6435            | 117    | 6535            | 189    | 6895            |
| :      | :               | :      | :               | :      | :               | :      | :               |
| 45     | 6175            | 105    | 6475            | 149    | 6695            | 209    | 6995            |
| :      | :               | :      | :               | :      | :               | :      | :               |
| 93     | 6415            | 113    | 6515            | 185    | 6875            | 233    | 7115            |

Table 2-1. 802.11a/ax/be (20MHz) Frequency / Channel Operations

| Band 5 |                 | Band 6 |                 | Band 7 |                 | Band 8 |                 |
|--------|-----------------|--------|-----------------|--------|-----------------|--------|-----------------|
| Ch.    | Frequency (MHz) | Ch.    | Frequency (MHz) | Ch.    | Frequency (MHz) | Ch.    | Frequency (MHz) |
| 3      | 5965            | 99     | 6445            | 123    | 6565            | 187    | 6885            |
| :      | :               | :      | :               | :      | :               | :      | :               |
| 43     | 6165            | 107    | 6485            | 155    | 6725            | 211    | 7005            |
| :      | :               | :      | :               | :      | :               | :      | :               |
| 91     | 6405            | 115    | 6525            | 179    | 6845            | 227    | 7085            |

Table 2-2. 802.11ax/be (40MHz BW) Frequency / Channel Operations

| Band 5 |                 | Band 6 |                 | Band 7 |                 | Band 8 |                 |
|--------|-----------------|--------|-----------------|--------|-----------------|--------|-----------------|
| Ch.    | Frequency (MHz) | Ch.    | Frequency (MHz) | Ch.    | Frequency (MHz) | Ch.    | Frequency (MHz) |
| 7      | 5985            | 103    | 6465            | 119    | 6545            | 199    | 6945            |
| :      | :               |        |                 | :      | :               | :      | :               |
| 39     | 6145            |        |                 | 151    | 6705            | 215    | 7025            |
| :      | :               |        |                 | :      | :               |        |                 |
| 87     | 6385            |        |                 | 183    | 6865            |        |                 |

Table 2-3. 802.11ax/be (80MHz BW) Frequency / Channel Operations

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
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| Band 5 |                 | Band 6 |                 | Band 7 |                 | Band 8 |                 |
|--------|-----------------|--------|-----------------|--------|-----------------|--------|-----------------|
| Ch.    | Frequency (MHz) | Ch.    | Frequency (MHz) | Ch.    | Frequency (MHz) | Ch.    | Frequency (MHz) |
| 15     | 6025            | 111    | 6505            | 143    | 6665            | 207    | 6985            |
| 47     | 6185            |        |                 | 175    | 6825            |        |                 |
| 79     | 6345            |        |                 |        |                 |        |                 |

**Table 2-4. 802.11ax/be (160MHz BW) Frequency / Channel Operations**

| Band 5 |                 | Band 6 |                 | Band 7 |                 | Band 8 |                 |
|--------|-----------------|--------|-----------------|--------|-----------------|--------|-----------------|
| Ch.    | Frequency (MHz) | Ch.    | Frequency (MHz) | Ch.    | Frequency (MHz) | Ch.    | Frequency (MHz) |
| 31     | 6105            | 95     | 6425            | 127    | 6585            | 191    | 6905            |
| 63     | 6265            |        |                 | 159    | 6745            |        |                 |

**Table 2-5. 802.11be (320MHz BW) Frequency / Channel Operations**

**Notes:**

- 6GHz NII operation is possible in 20MHz, 40MHz, 80MHz, 160MHz, and 320MHz channel bandwidths. The maximum achievable duty cycles for all modes were determined based on measurements performed on a spectrum analyzer in zero-span mode with RBW = 8MHz, VBW = 50MHz, and detector = peak per the guidance of Section B)2)b) of ANSI C63.10:2020. The RBW and VBW were both greater than 50/T, where T is the minimum transmission duration, and the number of sweep points across T was greater than 100. The duty cycles are as follows:

| 802.11 Mode/Band |                              | ANT1           |                    | ANT2           |                    | MIMO (1+2)     |                    |
|------------------|------------------------------|----------------|--------------------|----------------|--------------------|----------------|--------------------|
|                  |                              | Duty Cycle [%] | Radiated DCCF [dB] | Duty Cycle [%] | Radiated DCCF [dB] | Duty Cycle [%] | Radiated DCCF [dB] |
| 6GHz             | a                            | 93.67          | 0.28               | 93.67          | 0.28               | 93.67          | 0.28               |
|                  | ax (HE20)                    | 99.71          | N/A                | 99.69          | N/A                | 99.69          | N/A                |
|                  | be (EHT20)                   | 99.67          | N/A                | 99.65          | N/A                | 99.71          | N/A                |
|                  | ax (HE40)                    | 99.67          | N/A                | 99.71          | N/A                | 99.85          | N/A                |
|                  | be (EHT40)                   | 99.69          | N/A                | 99.69          | N/A                | 99.69          | N/A                |
|                  | ax (HE80)                    | 99.71          | N/A                | 99.69          | N/A                | 99.71          | N/A                |
|                  | be (EHT80)                   | 99.71          | N/A                | 99.69          | N/A                | 99.69          | N/A                |
|                  | be (EHT80, 20MHz Puncture)   | 99.69          | N/A                | 99.69          | N/A                | 99.69          | N/A                |
|                  | ax (HE160)                   | 99.67          | N/A                | 99.69          | N/A                | 99.63          | N/A                |
|                  | be (EHT160)                  | 99.69          | N/A                | 99.71          | N/A                | 99.69          | N/A                |
|                  | be (EHT160, 20MHz Puncture)  | 99.69          | N/A                | 99.71          | N/A                | 99.71          | N/A                |
|                  | be (EHT320)                  | 99.67          | N/A                | 99.67          | N/A                | 99.67          | N/A                |
|                  | be (EHT320, 40MHz Puncture)  | 99.67          | N/A                | 99.65          | N/A                | 99.69          | N/A                |
|                  | be (EHT320, 80MHz Puncture)  | 99.67          | N/A                | 99.67          | N/A                | 99.67          | N/A                |
|                  | be (EHT320, 120MHz Puncture) | 99.69          | N/A                | 99.65          | N/A                | 99.67          | N/A                |

**Table 2-6. Measured Duty Cycles**

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
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2. The device employs MIMO technology. Below are the possible configurations.

| WiFi Configurations |      | SISO |      | CDD  |      | SDM  |      |
|---------------------|------|------|------|------|------|------|------|
|                     |      | ANT1 | ANT2 | ANT1 | ANT2 | ANT1 | ANT2 |
| 6GHz                | 11a  | ✓    | ✓    | ✓    | ✓    | ✗    | ✗    |
|                     | 11ax | ✓    | ✓    | ✓    | ✓    | ✓    | ✓    |
|                     | 11be | ✓    | ✓    | ✓    | ✓    | ✓    | ✓    |

**Table 2-7. Antenna / Technology Configurations**

✓ = Support; ✗ = NOT Support

**SISO** = Single Input Single Output

**SDM** = Spatial Diversity Multiplexing – MIMO function

**CDD** = Cyclic Delay Diversity – 2Tx Function

3. The device supports the following data rates (shown in Mbps):

| 802.11a | MCS Index |     | Spatial Stream | OFDM (802.11ax/be) |          |          |          |          |          |          |          |          |          |          |          |          |          |          |
|---------|-----------|-----|----------------|--------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|         |           |     |                | 20MHz              |          |          | 40MHz    |          |          | 80MHz    |          |          | 160MHz   |          |          | 320MHz   |          |          |
|         | HT        | EHT |                | 0.8µs GI           | 1.6µs GI | 3.2µs GI | 0.8µs GI | 1.6µs GI | 3.2µs GI | 0.8µs GI | 1.6µs GI | 3.2µs GI | 0.8µs GI | 1.6µs GI | 3.2µs GI | 0.8µs GI | 1.6µs GI | 3.2µs GI |
| 6       | 0         | 0   | 1              | 8.6                | 8.1      | 7.3      | 17.2     | 16.3     | 14.6     | 36       | 34       | 30.6     | 72.1     | 68.1     | 61.3     | 144.1    | 136.1    | 122.5    |
| 9       | 1         | 1   | 1              | 17.2               | 16.3     | 14.6     | 34.4     | 32.5     | 29.3     | 72.1     | 68.1     | 61.3     | 144.1    | 136.1    | 122.5    | 288.2    | 272.2    | 245      |
| 12      | 2         | 2   | 1              | 25.8               | 24.4     | 21.9     | 51.6     | 48.8     | 43.9     | 108.1    | 102.1    | 91.9     | 216.2    | 204.2    | 183.8    | 432.4    | 408.3    | 367.5    |
| 18      | 3         | 3   | 1              | 34.4               | 32.5     | 29.3     | 68.8     | 65       | 58.5     | 144.1    | 136.1    | 122.5    | 288.2    | 272.2    | 245      | 576.5    | 544.4    | 490      |
| 24      | 4         | 4   | 1              | 51.6               | 48.8     | 43.9     | 103.2    | 97.5     | 87.8     | 216.2    | 204.2    | 183.8    | 432.4    | 408.3    | 367.5    | 864.7    | 816.7    | 735      |
| 36      | 5         | 5   | 1              | 68.8               | 65       | 58.5     | 137.6    | 130      | 117      | 288.2    | 272.2    | 245      | 576.5    | 544.4    | 490      | 1152.9   | 1088.9   | 980      |
| 48      | 7         | 6   | 1              | 77.4               | 73.1     | 65.8     | 154.9    | 146.3    | 131.6    | 324.3    | 306.3    | 275.6    | 648.5    | 612.5    | 551.3    | 1297.1   | 1225     | 1102.5   |
| 54      | 7         | 7   | 1              | 86                 | 81.3     | 73.1     | 172.1    | 162.5    | 146.3    | 360.3    | 340.3    | 306.3    | 720.6    | 680.6    | 612.5    | 1441.2   | 1361.1   | 1225     |
|         | 8         | 1   | 1              | 103.2              | 97.5     | 87.8     | 206.5    | 195      | 175.5    | 432.4    | 408.3    | 367.5    | 864.7    | 816.7    | 735      | 1729.4   | 1633.3   | 1470     |
|         | 9         | 1   | 1              | 114.7              | 108.3    | 97.5     | 229.4    | 216.7    | 195      | 480.4    | 453.7    | 408.3    | 960.8    | 907.4    | 816.7    | 1921.6   | 1814.8   | 1633.3   |
|         | 10        | 1   | 1              | 129                | 121.9    | 109.7    | 258.1    | 243.8    | 219.4    | 540.4    | 510.4    | 459.4    | 1080.9   | 1020.8   | 918.8    | 2161.8   | 2041.7   | 1837.5   |
|         | 11        | 1   | 1              | 143.4              | 135.4    | 121.9    | 286.8    | 270.8    | 243.8    | 600.5    | 567.1    | 510.4    | 1201     | 1134.3   | 1020.8   | 2402     | 2268.5   | 2041.7   |
|         | 12        | 1   | 1              | 154.9              | 146.3    | 131.6    | 309.7    | 292.5    | 263.3    | 648.5    | 612.5    | 551.3    | 1297.1   | 1225     | 1102.5   | 2594.1   | 2450     | 2205     |
|         | 13        | 1   | 1              | 172.1              | 162.5    | 146.3    | 344.1    | 325      | 292.5    | 720.6    | 680.6    | 612.5    | 1441.2   | 1361.1   | 1225     | 2882.4   | 2722.2   | 2450     |
| 6       | 8         | 0   | 2              | 17.2               | 16.3     | 14.6     | 34.4     | 32.5     | 29.3     | 72.1     | 68.1     | 61.3     | 144.1    | 136.1    | 122.5    | 288.2    | 272.2    | 245      |
| 9       | 9         | 1   | 2              | 34.4               | 32.5     | 29.3     | 68.8     | 65       | 58.5     | 144.1    | 136.1    | 122.5    | 288.2    | 272.2    | 245      | 576.5    | 544.4    | 490      |
| 12      | 10        | 2   | 2              | 51.6               | 48.8     | 43.9     | 103.2    | 97.5     | 87.8     | 216.2    | 204.2    | 183.8    | 432.4    | 408.3    | 367.5    | 864.7    | 816.7    | 735      |
| 18      | 11        | 3   | 2              | 68.8               | 65       | 58.5     | 137.6    | 130      | 117      | 288.2    | 272.2    | 245      | 576.5    | 544.4    | 490      | 1152.9   | 1088.9   | 980      |
| 24      | 12        | 4   | 2              | 103.2              | 97.5     | 87.8     | 206.5    | 195      | 175.5    | 432.4    | 408.3    | 367.5    | 864.7    | 816.7    | 735      | 1729.4   | 1633.3   | 1470     |
| 36      | 13        | 5   | 2              | 137.6              | 130      | 117      | 275.3    | 260      | 234      | 576.5    | 544.4    | 490      | 1152.9   | 1088.9   | 980      | 2305.9   | 2177.8   | 1960     |
| 48      | 14        | 6   | 2              | 154.9              | 146.3    | 131.6    | 309.7    | 292.5    | 263.3    | 648.5    | 612.5    | 551.3    | 1297.1   | 1225     | 1102.5   | 2594.1   | 2450     | 2205     |
| 54      | 15        | 7   | 2              | 172.1              | 162.5    | 146.3    | 344.1    | 325      | 292.5    | 720.6    | 680.6    | 612.5    | 1441.2   | 1361.1   | 1225     | 2882.4   | 2722.2   | 2450     |
|         | 8         | 2   | 2              | 206.5              | 195      | 175.5    | 412.9    | 390      | 351      | 864.7    | 816.7    | 735      | 1729.4   | 1633.3   | 1470     | 3458.8   | 3266.7   | 2940     |
|         | 9         | 2   | 2              | 229.4              | 216.7    | 195      | 458.8    | 433.3    | 390      | 960.8    | 907.4    | 816.7    | 1921.6   | 1814.8   | 1633.3   | 3843.1   | 3629.6   | 3266.7   |
|         | 10        | 2   | 2              | 258.1              | 243.8    | 219.4    | 516.2    | 487.5    | 438.8    | 1080.9   | 1020.8   | 918.8    | 2161.8   | 2041.7   | 1837.5   | 4323.5   | 4083.3   | 3675     |
|         | 11        | 2   | 2              | 286.8              | 270.8    | 243.8    | 573.5    | 541.7    | 487.5    | 1201     | 1134.3   | 1020.8   | 2402     | 2268.5   | 2041.7   | 4803.9   | 4537     | 4083.3   |
|         | 12        | 2   | 2              | 309.7              | 292.5    | 263.3    | 619.4    | 585      | 526.5    | 1297.1   | 1225     | 1102.5   | 2594.1   | 2450     | 2205     | 5188.2   | 4900     | 4410     |
|         | 13        | 2   | 2              | 344.1              | 325      | 292.5    | 688.2    | 650      | 585      | 1441.2   | 1361.1   | 1225     | 2882.4   | 2722.2   | 2450     | 5764.7   | 5444.4   | 4900     |

**Table 2-8. Supported Data Rates**

4. The device supports either Standard Power (SP) or Low Power Indoor (LPI) operation in the following UNII bands:

| UNII Band | Standard Power (SP) | Low Power Indoor (LPI) | Very Low Power (VLP) |
|-----------|---------------------|------------------------|----------------------|
| UNII 5    | ✓                   | ✓                      | ✓                    |
| UNII 6    | ✗                   | ✓                      | ✓                    |
| UNII 7    | ✓                   | ✓                      | ✓                    |
| UNII 8    | ✗                   | ✓                      | ✓                    |

**Table 2-9. Power Operation**

✓ = Support; ✗ = NOT Support

5. The device supports channel puncturing for 80MHz, 160MHz, and 320MHz bandwidths.

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
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## 2.3 Antenna Description

The manufacturer provided the antenna gains which can affect the validity of test results used for determination of compliance. The following antenna gains are used in this device per the "Unlicensed Band Antenna Gain" document provided by the client. This document is also included in the filing as a public exhibit.

| Frequency | Ant1<br>Peak Gain<br>[dBi] | Ant2<br>Peak Gain<br>[dBi] |
|-----------|----------------------------|----------------------------|
| 5925 MHz  | -3.93                      | -4.52                      |
| 6025 MHz  | -3.88                      | -3.39                      |
| 6125 MHz  | -5.21                      | -4.64                      |
| 6225 MHz  | -6.52                      | -5.37                      |
| 6325 MHz  | -5.03                      | -3.91                      |
| 6425 MHz  | -6.03                      | -4.4                       |
| 6525 MHz  | -6.23                      | -4.12                      |
| 6625MHz   | -5.8                       | -4.18                      |
| 6725MHz   | -5.75                      | -4.82                      |
| 6825MHz   | -5.51                      | -5.64                      |
| 6925MHz   | -3.4                       | -5.17                      |
| 7025MHz   | -5.54                      | -4.59                      |
| 7125MHz   | -4.9                       | -6.13                      |

**Table 2-10 Antenna Peak Gain per Frequency**

|                 | Ant1<br>Peak Gain<br>[dBi] | Ant2<br>Peak Gain<br>[dBi] | Directional<br>Gain [dBi] |
|-----------------|----------------------------|----------------------------|---------------------------|
| 5925 – 6425 MHz | -3.88                      | -3.39                      | -0.62                     |
| 6425 – 6525 MHz | -6.03                      | -4.12                      | -2.01                     |
| 6525 – 6875 MHz | -5.51                      | -4.12                      | -1.78                     |
| 6875 – 7125 MHz | -3.4                       | -4.59                      | -0.96                     |

**Table 2-11. Antenna Peak Gain**

## 2.4 Test Configuration

The EUT was tested per the guidance of ANSI C63.10:2020 and KDB 987594 D02 v03. ANSI C63.10:2020 was used to reference the appropriate EUT setup for radiated spurious emissions testing and AC line conducted testing. See Sections 3.2 for AC line conducted emissions test setups, 3.3 for radiated emissions test setups, and 7.2, 7.3, 7.4, 7.5 and 7.6 for antenna port conducted emissions test setups.

This device supports wireless charging capability and, thus, is subject to the test requirements of KDB 648474 D03 v01r04. Additional radiated spurious emission measurements were performed with the EUT lying flat on an authorized wireless charging pad (WCP) Model: NQ-WC-06 while operating under normal conditions in a simulated call or data transmission configuration. The worst case radiated emissions data is shown in this report.

## 2.5 Software and Firmware

The test was conducted with firmware version S942BXXU0AYI8 installed on the EUT.

## 2.6 EMI Suppression Device(s) / Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.

|                                                   |                                         |                                      |                                          |
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## 3.0 DESCRIPTION OF TESTS

### 3.1 Evaluation Procedure

The measurement procedures described in the American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices (ANSI C63.10:2020) and the guidance provided in KDB 987594 D02 v03 were used in the measurement of the EUT.

Deviation from measurement procedure.....None

### 3.2 AC Line Conducted Emissions

The line-conducted facility is located inside a 10'x16'x9' shielded enclosure. The shielded enclosure is manufactured by ETS Lindgren RF Enclosures. The shielding effectiveness of the shielded room is in accordance with MIL-Std-285 or NSA 65-5. A 1m x 1.5m wooden table 80cm high is placed 40cm away from the vertical wall and 80cm away from the sidewall of the shielded room. Two 10kHz-30MHz, 50Ω/50μH Line-Impedance Stabilization Networks (LISNs) are bonded to the shielded room floor. Power to the LISNs is filtered by external high-current high-insertion loss power line filters. The external power line filter is an ETS Lindgren Model LPRX-4X30 (100dB Attenuation, 14kHz-18GHz) and the two EMI/RFI filters are ETS Lindgren Model LRW-2030-S1 (100dB Minimum Insertion Loss, 14kHz – 10GHz). These filters attenuate ambient signal noise from entering the measurement lines. These filters are also bonded to the shielded enclosure.

The EUT is powered from one LISN and the support equipment is powered from the second LISN. If the EUT is a DC-powered device, power will be derived from the source power supply it normally will be powered from and this supply line(s) will be connected to the second LISN. All interconnecting cables more than 1 meter were shortened to a 1 meter length by non-inductive bundling (serpentine fashion) and draped over the back edge of the test table. All cables were at least 40cm above the horizontal reference groundplane. Power cables for support equipment were routed down to the second LISN while ensuring that that cables were not draped over the second LISN.

Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The RF output of the LISN was connected to the spectrum analyzer and exploratory measurements were made to determine the frequencies producing the maximum emission from the EUT. The spectrum was scanned from 150kHz to 30MHz with a spectrum analyzer. The detector function was set to peak mode for exploratory measurements while the bandwidth of the analyzer was set to 10kHz. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Once the worst case emissions have been identified, the one EUT cable configuration/arrangement and mode of operation that produced these emissions is used for final measurements on the same test site. The analyzer is set to CISPR quasi-peak and average detectors with a 9kHz resolution bandwidth for final measurements.

Line conducted emissions test results are shown in section 7.9. The EMI Receiver mode of the Agilent MXE was used to perform AC line conducted emissions testing.

|                                                   |                                         |                                      |                                          |
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### 3.3 Radiated Emissions

The radiated test facilities consisted of an indoor 3-meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. The test site inside the chamber is a 6m x 5.2m elliptical, obstruction-free area in accordance with Figure 5.7 of Clause 5 in ANSI C63.4:2014. Absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections for measurements above 1GHz. An 80cm tall test table made of Styrodur is placed on top of the turn table. For measurements above 1GHz, an additional Styrodur pedestal is placed on top of the test table to bring the total table height to 1.5m.

For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive antenna height using a broadband antenna from 30MHz up to the upper frequency shown in 15.33 depending on the highest frequency generated or used in the device or on which the device operates or tunes. For frequencies above 1GHz, linearly polarized double ridge horn antennas were used. For frequencies below 30MHz, a calibrated loop antenna was used. When exploratory measurements were necessary, they were performed at 1 meter test distance inside the semi-anechoic chamber using broadband antennas, broadband amplifiers, and spectrum analyzers to determine the frequencies and modes producing the maximum emissions. Sufficient time for the EUT, support equipment, and test equipment was allowed for them to warm up to their normal operating condition. The test set-up was placed on top of the 1 x 1.5 meter table. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Appropriate precautions were taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, mode of operation, turntable azimuth, and receive antenna height were noted for each frequency found.

Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and horn antennas. The test setup was configured to the setup that produced the worst-case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable containing the EUT was rotated through 360 degrees and the height of the receive antenna was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the orientation of the EUT through three orthogonal planes and changing the polarity of the receive antenna, whichever produced the worst-case emissions.

All radiated measurements are performed in a chamber that meets the site requirements per ANSI C63.4:2014. Additionally, radiated emissions below 30MHz are also validated on an Open Area Test Site to assert correlation with the chamber measurements per the requirements of KDB 414788 D01 v01r01.

### 3.4 Environmental Conditions

The temperature is controlled within range of 15°C to 35°C. The relative humidity is controlled within range of 10% to 75%. The atmospheric pressure is monitored within the range 86-106kPa (860-1060mbar).

|                                                   |                                         |                                      |                                          |
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## 4.0 ANTENNA REQUIREMENTS

### Excerpt from §15.203 of the FCC Rules/Regulations:

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.”

- The antennas of the EUT are **permanently attached**.
- There are no provisions for connection to an external antenna.

### Conclusion:

The EUT complies with the requirement of §15.203.

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
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## 5.0 MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.10:2020. All measurement uncertainty values are shown with a coverage factor of  $k = 2$  to indicate a 95% level of confidence. The measurement uncertainty shown below meets or exceeds the  $U_{\text{CISPR}}$  measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

| Contribution                                     | Expanded Uncertainty ( $\pm$ dB) |
|--------------------------------------------------|----------------------------------|
| Contention Based Protocol Conducted Measurements | 0.86                             |
| Conducted Bench Top Measurements                 | 1.13                             |
| Line Conducted Disturbance                       | 3.09                             |
| Radiated Disturbance (<1GHz)                     | 4.98                             |
| Radiated Disturbance (>1GHz)                     | 5.07                             |
| Radiated Disturbance (>18GHz)                    | 5.09                             |

**Table 5-1. Measurement Uncertainty Budget**

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
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## 6.0 TEST EQUIPMENT CALIBRATION DATA

Test Equipment Calibration is traceable to the National Institute of Standards and Technology (NIST). Measurements antennas used during testing were calibrated in accordance to the requirements of ANSI C63.5-2017.

| Manufacturer          | Model      | Description                          | Cal Date   | Cal Interval | Cal Due    | Serial Number |
|-----------------------|------------|--------------------------------------|------------|--------------|------------|---------------|
| -                     | MD 1M 40   | EMC Cable and Switch System          | 2/25/2025  | Annual       | 2/25/2026  | MD 1M 40      |
| -                     | AP1-002    | EMC Cable and Switch System          | 2/25/2025  | Annual       | 2/25/2026  | AP1-002       |
| -                     | AP2-001    | EMC Cable and Switch System          | 2/25/2025  | Annual       | 2/25/2026  | AP2-001       |
| -                     | AP2-002    | EMC Cable and Switch System          | 2/25/2025  | Annual       | 2/25/2026  | AP2-002       |
| -                     | ETS-001    | EMC Cable and Switch System          | 2/25/2025  | Annual       | 2/25/2026  | ETS-001       |
| -                     | ETS-002    | EMC Cable and Switch System          | 2/25/2025  | Annual       | 2/25/2026  | ETS-002       |
| -                     | WL25-1     | Conducted Cable Set (25GHz)          | 2/25/2025  | Annual       | 2/25/2026  | WL25-1        |
| -                     | WL25-2     | Conducted Cable Set (25GHz)          | 2/25/2025  | Annual       | 2/25/2026  | WL25-2        |
| -                     | WL40-1     | Conducted Cable Set (40GHz)          | 2/25/2025  | Annual       | 2/25/2026  | WL40-1        |
| Agilent               | N9038A     | MXE EMI Receiver                     | 11/10/2025 | Annual       | 11/10/2026 | MYS1210133    |
| Anritsu               | MA24408A   | POWER SENSOR                         | 2/11/2025  | Annual       | 2/11/2026  | 12776         |
| EMCO                  | 3115       | Horn Antenna (1-18GHz)               | 9/6/2024   | Biennial     | 9/6/2026   | 9704-5182     |
| Espec                 | ESX-2CA    | Environmental Chamber                | 11/20/2024 | Biennial     | 11/20/2026 | 17620         |
| ETS Lindgren          | 3117       | 1-18 GHz DRG Horn (Medium)           | 6/4/2025   | Biennial     | 6/4/2027   | 125518        |
| ETS-Lindgren          | 3164-05    | Quad Ridge Horn (Small) 2 - 18GHz    | 6/4/2025   | Biennial     | 6/4/2027   | 208255        |
| ETS-Lindgren          | 3816/2NM   | Line Impedance Stabilization Network | 4/21/2025  | Biennial     | 4/21/2027  | 114451        |
| Keysight Technologies | N9030A     | PXA Signal Analyzer (44GHz)          | 6/6/2025   | Annual       | 6/6/2026   | MYS2350166    |
| Keysight Technologies | N9020A     | MXA Signal Analyzer                  | 6/4/2025   | Annual       | 6/4/2026   | MYS4500644    |
| Keysight Technologies | N9030A     | PXA Signal Analyzer                  | 11/3/2025  | Annual       | 11/3/2026  | MYS4490576    |
| Pasternack            | NMLC-2     | Line Conducted Emissions Cable (NM)  | 3/25/2025  | Annual       | 3/25/2026  | NMLC-2        |
| Rohde & Schwarz       | CMX500     | 5G Radio Communication Tester        | N/A        |              |            | 101202        |
| Rohde & Schwarz       | ESW44      | EMI Test Receiver 2Hz to 44 GHz      | 3/25/2025  | Annual       | 3/25/2026  | 101716        |
| Rohde & Schwarz       | ESU26      | EMI Test Receiver (26.5GHz)          | 10/16/2024 | Annual       | 12/31/2025 | 100342        |
| Rohde & Schwarz       | ENV216     | Two-Line V-Network                   | 3/21/2025  | Biennial     | 3/21/2027  | 101380        |
| Rohde & Schwarz       | 180-422-KF | Horn (18 - 40GHz)                    | 10/9/2024  | Biennial     | 10/9/2026  | U157403-01    |
| Sunol                 | JB5        | Bi-Log Antenna (30M - 5GHz)          | 9/11/2024  | Biennial     | 9/11/2026  | A051107       |
| Sunol                 | JB6        | Bi-Log Antenna (30M - 5GHz)          | 3/24/2025  | Biennial     | 3/24/2027  | A082816       |

**Table 6-1. Test Equipment Calibration Table**

**Note:**

For equipment listed above that has a calibration date or calibration due date that falls within the test date range, care was taken to ensure that this equipment was used after the calibration date and before the calibration due date.

| Component                          | Serial Number |
|------------------------------------|---------------|
| MegaPhase Cable TM26-S1S1-36       | 18160103 003  |
| Pasternack 6dB Attenuator PE7005-6 | N/A           |

**Table 6-2. WL25-1 Conducted Cable Set Components**

| Component                        | Serial Number |
|----------------------------------|---------------|
| MiniCircuits Cable CBL-2FT-SMSM+ | 77743         |
| MCL 6dB Attenuator BW-S6W2+      | 1314          |

**Table 6-3. WL25-2 Conducted Cable Set Components**

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
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| Component                        | Serial Number |
|----------------------------------|---------------|
| MegaPhase Cable TM40K1K1-36      | 18160102 001  |
| MCL 10dB Attenuator BW-K10 2W44+ | 1902          |

**Table 6-4. WL40-1 Conducted Cable Set Components**

| Component                                 | Serial Number |
|-------------------------------------------|---------------|
| Pasternack Cable RG214/U                  | 111815        |
| MegaPhase (CAGE 1GVT4) Cable GR18-N5N5-24 | 14042714 001  |

**Table 6-5. ETS-001 EMC Cable and Switch System Components**

| Component                                  | Serial Number |
|--------------------------------------------|---------------|
| MegaPhase (CAGE 1GVT4) Cable GR18-N5N5-24  | 14042714 001  |
| MegaPhase (CAGE 1GVT4) Cable NC29-N1N1-324 | 20502201 001  |
| Rohde & Schwarz SF Unit                    | 102134        |
| Minicircuits Cable CBL=0.5M-NMNM+          | 15440         |

**Table 6-6. ETS-002 EMC Cable and Switch System Components**

| Component                        | Serial Number |
|----------------------------------|---------------|
| Sucoflex 106A Cable              | 501992        |
| MegaPhase Cable N29-N1N1-324     | 20335606 001  |
| Rohde & Schwarz SF Unit          | 102133        |
| MiniCircuits Cable CBL-2FT-SMSM+ | 77745         |
| MegaPhase Cable 10511-1          | 15034701 001  |
| MiniCircuits Switch RC 2SPDT-A18 | 11703270 041  |
| Sucoflex 104 Cable               | 320259/4      |
| Sucoflex 104 Cable               | 321999/4      |
| Sucoflex 104 Cable               | 321995/4      |

**Table 6-7. AP1-002 EMC Cable and Switch System Components**

| Component                                                 | Serial Number |
|-----------------------------------------------------------|---------------|
| Flex Cable                                                | P2A-0001      |
| Micro-Coax Utilifex Cable UFB311A-Q-3346-50U50U MFR 64639 | 231978-003    |
| Chamber Passthrough                                       | CP4/X12       |
| Micro-Coax Utilifex Cable UFB311A-1-0629-50U50U MFR 64639 | 231986-003    |
| Micro-Coax Utilifex Cable UFB142A-0-0629-5GU200 MFR 6463  | 232069-001    |
| Rohde & Schwarz TS-PR8 Pre-Amplifier                      | 102335        |
| Rohde & Schwarz OSP130 Open Switch and Control Unit       | 101181        |

**Table 6-8. AP2-001 EMC Cable and Switch System Components**

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
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| Component                                                 | Serial Number |
|-----------------------------------------------------------|---------------|
| MiniCircuits Cable CBL-0.5M-SMNM+                         | 47261         |
| Micro-Coax Utilflex Cable UFB311A-Q-3346-50U50U MFR 64639 | 231978-001    |
| Micro-Coax Utilflex Cable UFB311A-1-0629-50U50U MFR 64639 | 231986-002    |
| MegaPhase (CAGE 1GVT4) Cable NC29-N1N1-324                | 19046401 001  |
| Megaphase (CAGE 1GVT4) Flex Cable 10511-1                 | 15044701-006  |
| Micro-Coax Utilflex Cable UFB311A-Q-3346-50U50U MFR 64639 | 231978-002    |
| Micro-Coax Utilflex Cable UFB311A-1-0629-50U50U MFR 64639 | 231986-004    |
| Micro-Coax Utilflex Cable UFB142A-0-0629-5GU200 MFR 64639 | 232069-001    |
| Rohde & Schwarz SF Unit                                   | 102138        |
| Rohde & Schwarz OSP130 Open Switch and Control Unit       | 101181        |
| Micro-Coax Utilflex Cable UFB311A-Q-3346-50U50U MFR 64639 | 231978-003    |
| Micro-Coax Utilflex Cable UFB311A-1-0629-50U50U MFR 64639 | 231986-003    |
| Rohde & Schwarz TS-PR8 Pre-Amplifier                      | 102335        |

**Table 6-9. AP2-002 EMC Cable and Switch System Components**

| Component                                 | Serial Number    |
|-------------------------------------------|------------------|
| MegaPhase Cable TM40-K1K1-30              | 20233002-004     |
| UTIPLEX Cable                             | 64639 232063-001 |
| Rohde & Schwarz Pre-amp RS-PR1840 18G-40G | 9037.7670.02     |

**Table 6-10. MD 1M 18-40 EMC Cable and Switch System Components**

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS942B                         | <b>MEASUREMENT REPORT</b>               |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2508270084-22-R1.A3L | <b>Test Dates:</b><br>9/2/25 - 12/30/25 | <b>EUT Type:</b><br>Portable Handset | Page 17 of 113                           |

## 7.0 TEST RESULTS

### 7.1 Summary

Company Name: Samsung Electronics Co., Ltd.  
 FCC ID: A3LSMS942B  
 FCC Classification: 15E 6GHz Very Low Power Device (6VL)

| FCC Part Section(s)      | Test Description                                                              | Test Limit                                                                                                                                                                                                                     | Test Condition | Test Result | Reference   |
|--------------------------|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------|-------------|
| 2.1046,<br>15.407(a)(12) | Maximum Conducted Output Power                                                | N/A                                                                                                                                                                                                                            | CONDUCTED      | PASS        | Section 7.3 |
| 15.407(a)(9)             | Maximum Radiated Output Power                                                 | < 14dBm e.i.r.p.                                                                                                                                                                                                               |                | PASS        | Section 7.3 |
| 2.1049,<br>15.407(a)(11) | Occupied Bandwidth/ 26dB Bandwidth                                            | 99% of the occupied bandwidth of any channel must be contained within each of its respective U-NII sub bands.<br><br>The maximum transmitter channel bandwidth for U-NII devices in the 5.925-7.125 GHz band is 320 megahertz. |                | PASS        | Section 7.2 |
| 15.407(a)(9)             | Maximum Power Spectral Density                                                | < -5dBm/MHz e.i.r.p.                                                                                                                                                                                                           |                | PASS        | Section 7.4 |
| 15.407(b)(7)             | In-Band Emissions                                                             | EUT must meet the limits detailed in 15.407(b)(7)                                                                                                                                                                              |                | PASS        | Section 7.5 |
| 15.407(d)(6)             | Contention Based Protocol                                                     | EUT must detect AWGN signal with 90% (or better) certainty                                                                                                                                                                     | RADIATED       | PASS        | Section 7.6 |
| 15.407(d)(10)            | Transmit Power Control                                                        | Must operate at least 6 dB below the maximum EIRP power spectral density (PSD) value of -5 dBm/MHz                                                                                                                             |                | PASS        | Section 7.7 |
| 15.407(b)(6)             | Undesirable Emissions                                                         | < -27dBm/MHz e.i.r.p. outside of the 5.925 – 7.125GHz band                                                                                                                                                                     |                | PASS        | Section 7.8 |
| 15.205,<br>15.209        | General Field Strength Limits (Restricted Bands and Radiated Emission Limits) | Emissions in restricted bands must meet the radiated limits detailed in 15.209                                                                                                                                                 |                | PASS        | Section 7.8 |
| 15.407(b)(9)             | AC Conducted Emissions (150kHz – 30MHz)                                       | < FCC 15.207 limits                                                                                                                                                                                                            | LINE CONDUCTED | PASS        | Section 7.9 |

**Table 7-1. Summary of Test Results**

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 18 of 113                    |

**Notes:**

- 1) All channels, modes, and modulations/data rates were investigated among all UNII bands. The test results shown in the following sections represent the worst-case emissions.
- 2) The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.
- 3) All antenna port conducted emissions testing was performed on a test bench with the antenna port of the EUT connected to the spectrum analyzer through calibrated cables and attenuators.
- 4) For conducted spurious emissions, automated test software was used to measure emissions and capture the corresponding plots necessary to show compliance. The measurement software utilized is Element "EMC Software Tool" Version 2.3.0.
- 5) For radiated band edge, automated test software was used to measure emissions and capture the corresponding plots necessary to show compliance. The measurement software utilized is Element "Chamber Automation," Version 1.6.1.

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS942B                         | <b>MEASUREMENT REPORT</b>               |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2508270084-22-R1.A3L | <b>Test Dates:</b><br>9/2/25 - 12/30/25 | <b>EUT Type:</b><br>Portable Handset | Page 19 of 113                           |

## 7.2 26dB Bandwidth Measurement

### Test Overview and Limit

The bandwidth at 26dB down from the highest in-band spectral density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10:2020, and at the appropriate frequencies. The spectrum analyzer's bandwidth measurement function is configured to measure the 26dB bandwidth.

### Test Procedure Used

ANSI C63.10:2020 – Section 12.5

### Test Settings

1. The signal analyzers' automatic bandwidth measurement capability was used to perform the 26dB bandwidth measurement. The "X" dB bandwidth parameter was set to  $X = 26$ . The automatic bandwidth measurement function also has the capability of simultaneously measuring the 99% occupied bandwidth. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. RBW = approximately 1% of the emission bandwidth
3.  $VBW \geq 3 \times RBW$
4. Detector = Peak
5. Trace mode = max hold

### Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



**Figure 7-1. Test Instrument & Measurement Setup**

### Test Notes

1. All cases were investigated; a subset of the plots taken were included to represent relevant settings and measurements.
2. In this section, the bandwidth data table (Table 7-2, 7-3) includes mainly the 26dB bandwidth measurements. In case of 320MHz operation, an occupied bandwidth measurement was included in the table to demonstrate compliance. Thus, all measurements in the tables are 26dB bandwidth measurements except for the 320MHz bandwidth cases which are occupied bandwidth measurements.

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS942B                         | <b>MEASUREMENT REPORT</b>               |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2508270084-22-R1.A3L | <b>Test Dates:</b><br>9/2/25 - 12/30/25 | <b>EUT Type:</b><br>Portable Handset | Page 20 of 113                           |

|            | Frequency [MHz] | Channel | 802.11 MODE | Antenna-1 26dB Bandwidth [MHz] | Antenna-2 26dB Bandwidth [MHz] | Antenna-1 Occupied Bandwidth [MHz] | Antenna-2 Occupied Bandwidth [MHz] |
|------------|-----------------|---------|-------------|--------------------------------|--------------------------------|------------------------------------|------------------------------------|
| Band 5     | 5935            | 2       | a           | 24.19                          | 24.00                          | 17.70                              | 17.87                              |
|            | 6175            | 45      | a           | 23.45                          | 23.90                          | 17.57                              | 17.76                              |
|            | 6415            | 93      | a           | 23.79                          | 23.74                          | 17.49                              | 17.71                              |
|            | 5935            | 2       | be (20MHz)  | 24.53                          | 23.79                          | 19.42                              | 19.41                              |
|            | 6175            | 45      | be (20MHz)  | 23.43                          | 22.91                          | 19.32                              | 19.40                              |
|            | 6415            | 93      | be (20MHz)  | 23.46                          | 23.07                          | 19.38                              | 19.26                              |
|            | 5695            | 3       | be (40MHz)  | 44.70                          | 46.43                          | 38.41                              | 38.45                              |
|            | 6165            | 43      | be (40MHz)  | 44.90                          | 45.03                          | 38.31                              | 38.44                              |
|            | 6405            | 91      | be (40MHz)  | 44.29                          | 44.61                          | 38.24                              | 38.46                              |
|            | 5985            | 7       | be (80MHz)  | 88.92                          | 88.23                          | 78.25                              | 78.41                              |
|            | 6145            | 39      | be (80MHz)  | 87.97                          | 89.68                          | 78.16                              | 78.18                              |
|            | 6385            | 87      | be (80MHz)  | 89.64                          | 91.47                          | 77.99                              | 78.21                              |
|            | 6025            | 15      | be (160MHz) | 174.02                         | 176.79                         | 157.65                             | 157.47                             |
|            | 6185            | 47      | be (160MHz) | 173.67                         | 175.46                         | 157.47                             | 157.68                             |
|            | 6345            | 79      | be (160MHz) | 171.96                         | 174.63                         | 157.68                             | 157.47                             |
|            | 6105            | 31      | be (320MHz) | -                              | -                              | 332.28                             | 331.89                             |
|            | 6265            | 63      | be (320MHz) | -                              | -                              | 329.85                             | 332.60                             |
| Band 6     | 6435            | 97      | a           | 24.02                          | 24.17                          | 17.55                              | 17.58                              |
|            | 6475            | 105     | a           | 23.42                          | 23.76                          | 17.50                              | 17.69                              |
|            | 6515            | 113     | a           | 23.51                          | 23.78                          | 17.61                              | 17.66                              |
|            | 6435            | 97      | be (20MHz)  | 24.12                          | 23.19                          | 19.40                              | 19.32                              |
|            | 6475            | 105     | be (20MHz)  | 23.87                          | 23.53                          | 19.35                              | 19.24                              |
|            | 6515            | 113     | be (20MHz)  | 23.46                          | 23.63                          | 19.32                              | 19.30                              |
|            | 6445            | 99      | be (40MHz)  | 43.83                          | 44.61                          | 38.27                              | 38.38                              |
|            | 6485            | 107     | be (40MHz)  | 44.46                          | 44.85                          | 38.31                              | 38.44                              |
|            | 6525            | 115     | be (40MHz)  | 45.60                          | 45.12                          | 38.36                              | 38.44                              |
|            | 6465            | 103     | be (80MHz)  | 91.27                          | 91.10                          | 78.09                              | 77.99                              |
| Band 5/6/7 | 6505            | 111     | be (160MHz) | 173.48                         | 175.11                         | 157.52                             | 157.51                             |
|            | 6425            | 95      | be (320MHz) | -                              | -                              | 331.33                             | 332.27                             |
| Band 7     | 6535            | 117     | a           | 23.41                          | 23.97                          | 17.47                              | 17.76                              |
|            | 6695            | 149     | a           | 23.36                          | 23.74                          | 17.54                              | 17.94                              |
|            | 6875            | 185     | a           | 23.43                          | 24.11                          | 17.62                              | 17.79                              |
|            | 6535            | 117     | be (20MHz)  | 23.21                          | 23.10                          | 19.40                              | 19.39                              |
|            | 6695            | 149     | be (20MHz)  | 23.74                          | 23.32                          | 19.49                              | 19.34                              |
|            | 6875            | 185     | be (20MHz)  | 23.36                          | 23.46                          | 19.33                              | 19.34                              |
|            | 6565            | 123     | be (40MHz)  | 44.64                          | 45.27                          | 38.44                              | 38.53                              |
|            | 6725            | 155     | be (40MHz)  | 44.29                          | 45.07                          | 38.40                              | 38.43                              |
|            | 6885            | 179     | be (40MHz)  | 45.49                          | 45.33                          | 38.41                              | 38.35                              |
|            | 6545            | 119     | be (80MHz)  | 91.29                          | 90.46                          | 78.10                              | 78.45                              |
|            | 6705            | 151     | be (80MHz)  | 89.31                          | 89.70                          | 78.21                              | 78.17                              |
|            | 6865            | 183     | be (80MHz)  | 90.33                          | 90.43                          | 78.22                              | 78.22                              |
|            | 6665            | 143     | be (160MHz) | 171.38                         | 175.92                         | 157.58                             | 157.44                             |
|            | 6825            | 175     | be (160MHz) | 175.20                         | 173.83                         | 157.54                             | 157.68                             |
| Band 6/7   | 6585            | 127     | be (320MHz) | -                              | -                              | 328.79                             | 330.47                             |
| Band 7/8   | 6745            | 159     | be (320MHz) | -                              | -                              | 328.52                             | 333.02                             |
| Band 8     | 6895            | 189     | a           | 23.40                          | 23.98                          | 17.56                              | 17.69                              |
|            | 6995            | 209     | a           | 23.99                          | 24.14                          | 17.64                              | 17.71                              |
|            | 7115            | 233     | a           | 23.74                          | 24.12                          | 17.61                              | 17.71                              |
|            | 6895            | 189     | be (20MHz)  | 23.61                          | 23.47                          | 19.32                              | 19.43                              |
|            | 6995            | 209     | be (20MHz)  | 23.54                          | 23.77                          | 19.41                              | 19.33                              |
|            | 7115            | 233     | be (20MHz)  | 23.23                          | 23.43                          | 19.46                              | 19.34                              |
|            | 6925            | 187     | be (40MHz)  | 43.56                          | 46.48                          | 38.38                              | 38.59                              |
|            | 7005            | 211     | be (40MHz)  | 44.28                          | 44.16                          | 38.32                              | 38.35                              |
|            | 7085            | 227     | be (40MHz)  | 46.24                          | 44.83                          | 38.43                              | 38.45                              |
|            | 6945            | 199     | be (80MHz)  | 89.00                          | 90.21                          | 78.04                              | 78.30                              |
|            | 7025            | 215     | be (80MHz)  | 88.83                          | 90.42                          | 78.11                              | 78.30                              |
|            | 6985            | 207     | be (160MHz) | 173.99                         | 177.91                         | 157.41                             | 157.77                             |
| Band 7/8   | 6905            | 191     | be (320MHz) | -                              | -                              | 329.03                             | 329.91                             |

**Table 7-2. 26dB Bandwidth Results - VLP**

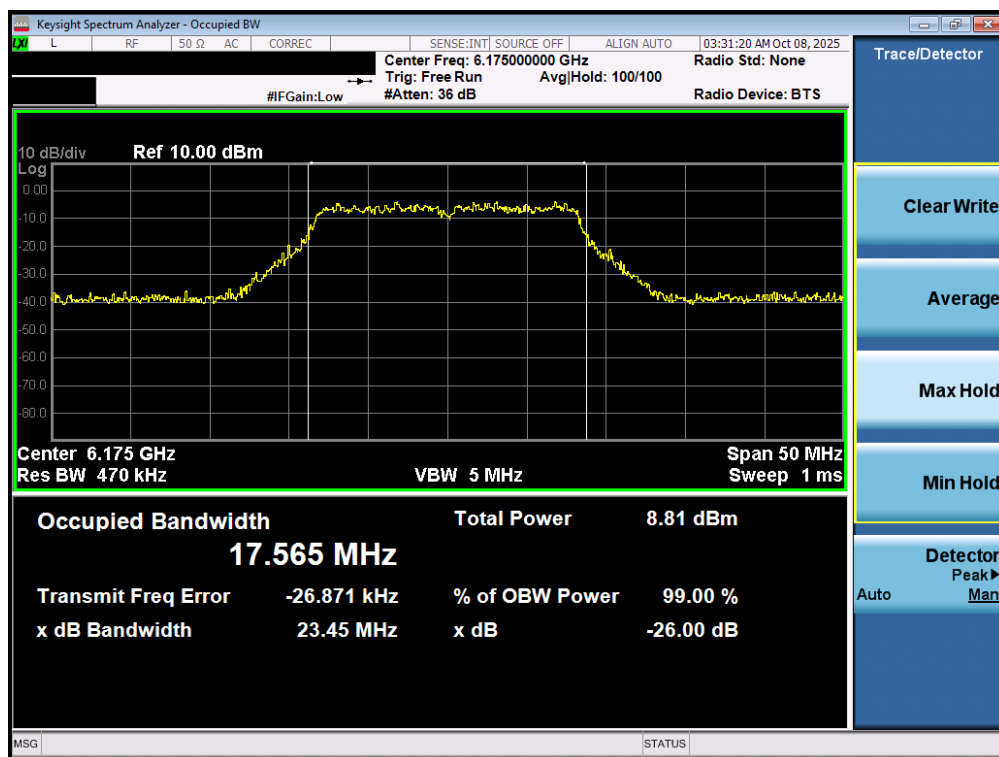
|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS942B                         | <b>MEASUREMENT REPORT</b>               |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2508270084-22-R1.A3L | <b>Test Dates:</b><br>9/2/25 - 12/30/25 | <b>EUT Type:</b><br>Portable Handset | Page 21 of 113                           |

|            | Frequency [MHz] | Channel | 802.11 MODE | Puncture Size | Antenna-1 26dB Bandwidth [MHz] | Antenna-2 26dB Bandwidth [MHz] | Antenna-1 Occupied Bandwidth [MHz] | Antenna-2 Occupied Bandwidth [MHz] |
|------------|-----------------|---------|-------------|---------------|--------------------------------|--------------------------------|------------------------------------|------------------------------------|
| Band 5     | 6145            | 39      | be (80MHz)  | 20MHz         | 88.93                          | 89.61                          | 78.97                              | 78.73                              |
|            | 6185            | 47      | be (160MHz) | 20MHz         | 174.47                         | 172.62                         | 158.53                             | 158.05                             |
|            | 6185            | 47      | be (160MHz) | 40MHz         | 177.65                         | 172.81                         | 158.74                             | 158.30                             |
|            | 6105            | 31      | be (320MHz) | 40MHz         | -                              | -                              | 315.88                             | 315.84                             |
|            | 6105            | 31      | be (320MHz) | 80MHz         | 333.38                         | 332.14                         | 316.44                             | 315.95                             |
|            | 6105            | 31      | be (320MHz) | 120MHz        | 282.63                         | 272.66                         | 198.58                             | 198.16                             |
| Band 6     | 6465            | 103     | be (80MHz)  | 20MHz         | 91.66                          | 91.70                          | 78.81                              | 79.00                              |
|            | 6505            | 111     | be (160MHz) | 20MHz         | 176.04                         | 176.74                         | 158.60                             | 158.25                             |
|            | 6505            | 111     | be (160MHz) | 40MHz         | 171.89                         | 174.81                         | 158.71                             | 158.44                             |
| Band 5/6/7 | 6425            | 95      | be (320MHz) | 40MHz         | 315.30                         | 315.28                         | 315.30                             | 315.28                             |
|            | 6425            | 95      | be (320MHz) | 80MHz         | 315.94                         | 315.89                         | 315.94                             | 315.89                             |
|            | 6425            | 95      | be (320MHz) | 120MHz        | 197.61                         | 197.76                         | 197.61                             | 197.76                             |
| Band 7     | 6705            | 151     | be (80MHz)  | 20MHz         | 88.57                          | 90.31                          | 78.86                              | 78.66                              |
|            | 6665            | 143     | be (160MHz) | 20MHz         | 174.88                         | 173.34                         | 159.05                             | 157.87                             |
|            | 6665            | 143     | be (160MHz) | 40MHz         | 174.17                         | 175.83                         | 159.23                             | 158.03                             |
| Band 7/8   | 6745            | 159     | be (320MHz) | 40MHz         | 315.17                         | 314.48                         | 315.17                             | 314.48                             |
|            | 6745            | 159     | be (320MHz) | 80MHz         | 315.58                         | 316.21                         | 315.58                             | 316.21                             |
|            | 6745            | 159     | be (320MHz) | 120MHz        | 197.22                         | 197.54                         | 197.22                             | 197.54                             |
| Band 8     | 7025            | 215     | be (80MHz)  | 20MHz         | 88.64                          | 91.48                          | 78.87                              | 79.21                              |
|            | 6985            | 207     | be (160MHz) | 20MHz         | 173.98                         | 175.20                         | 158.70                             | 157.92                             |
|            | 6985            | 207     | be (160MHz) | 40MHz         | 175.34                         | 175.58                         | 159.43                             | 158.45                             |
| Band 7/8   | 6905            | 191     | be (320MHz) | 40MHz         | 315.34                         | 314.72                         | 315.34                             | 314.72                             |
|            | 6905            | 191     | be (320MHz) | 80MHz         | 315.92                         | 316.32                         | 315.92                             | 316.32                             |
|            | 6905            | 191     | be (320MHz) | 120MHz        | 197.45                         | 197.81                         | 197.45                             | 197.81                             |

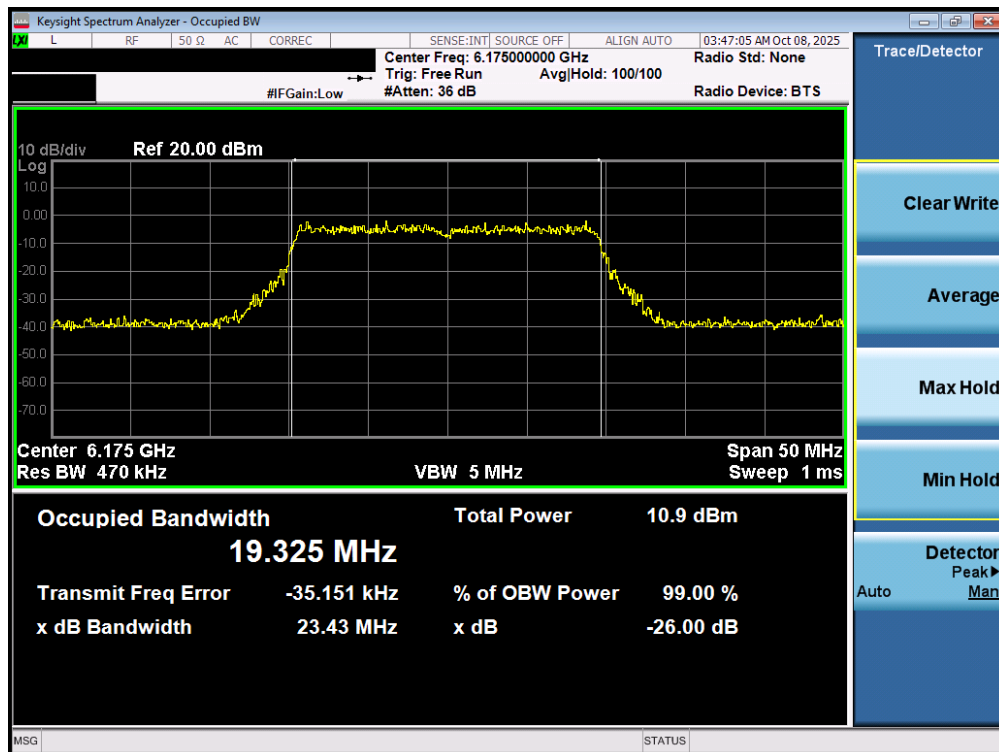
**Table 7-3. 26dB Bandwidth Results – Punctured Cases – VLP**

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS942B                         | <b>MEASUREMENT REPORT</b>               |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2508270084-22-R1.A3L | <b>Test Dates:</b><br>9/2/25 - 12/30/25 | <b>EUT Type:</b><br>Portable Handset | Page 22 of 113                           |

## 7.2.1 MIMO Antenna-1 26 dB Bandwidth Measurements - (UNII Band 5)

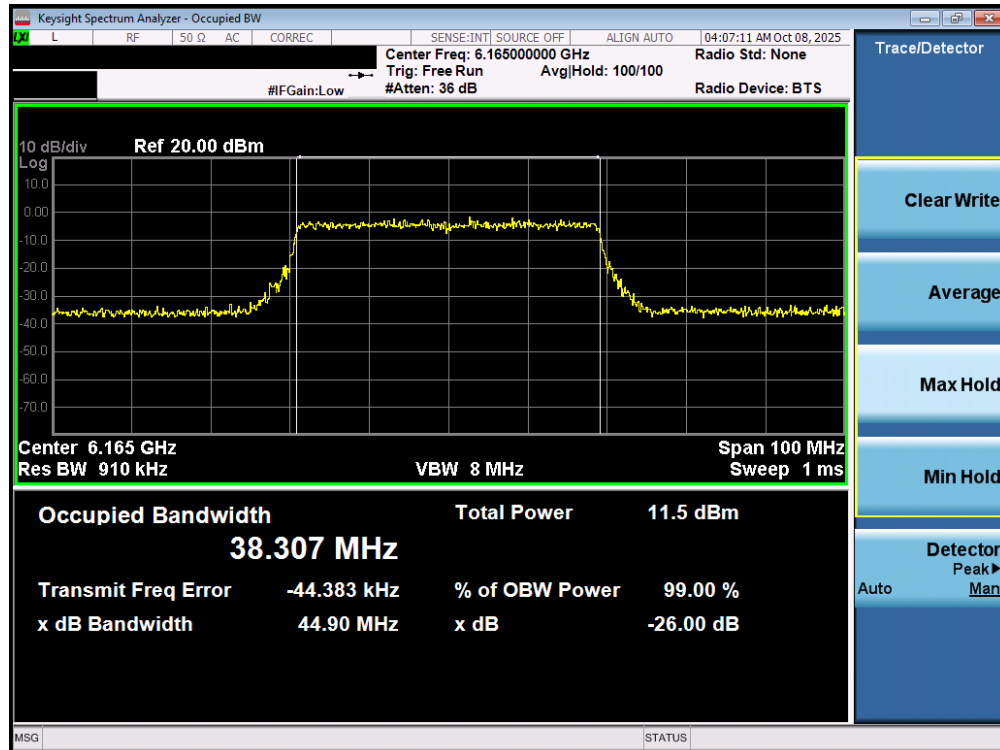


Plot 7-1. 26dB Bandwidth Plot MIMO ANT1 (20MHz 802.11a (UNII Band 5) – Ch. 45) - VLP

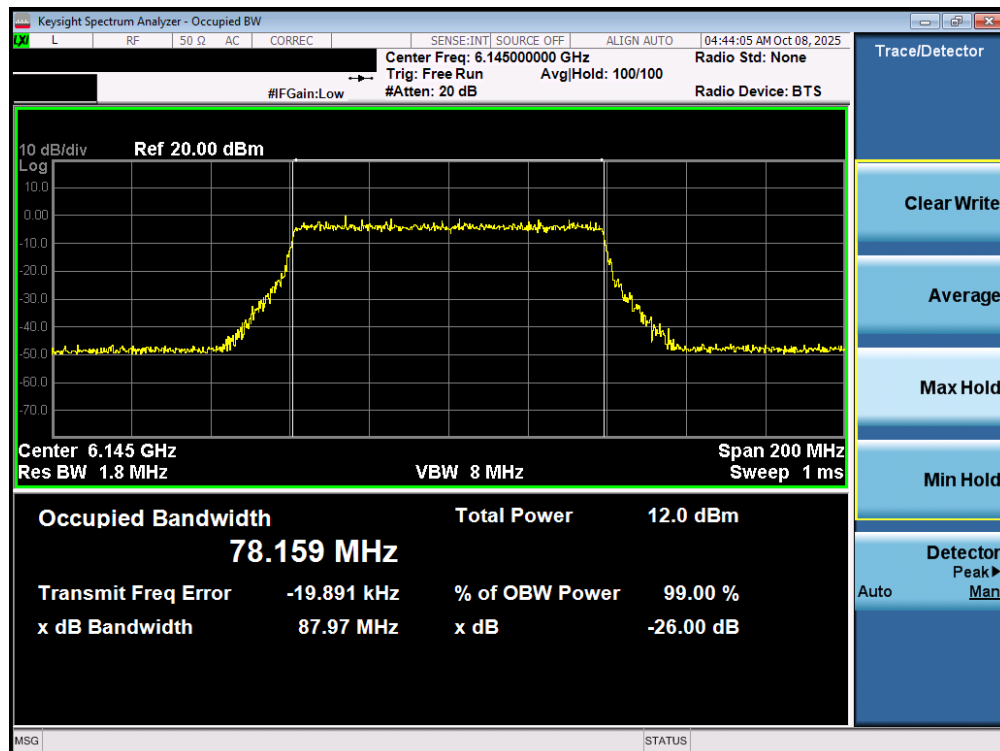


Plot 7-2. 26dB Bandwidth Plot MIMO ANT1 (20MHz 802.11ax/be (UNII Band 5) – Ch. 45) - VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 23 of 113                    |

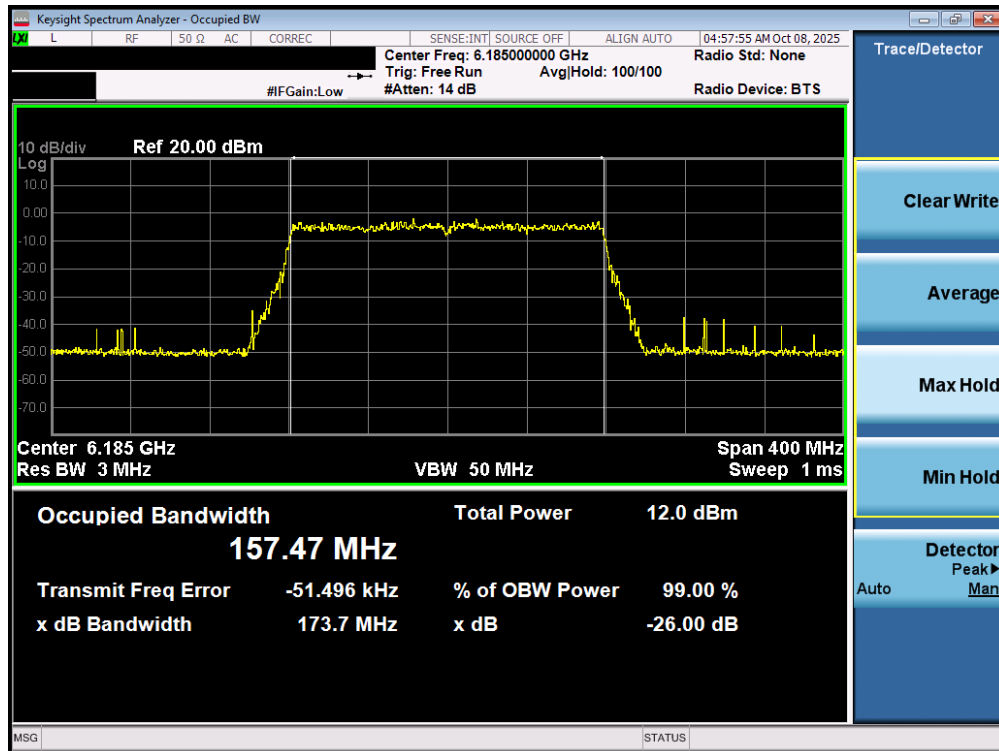


Plot 7-3. 26dB Bandwidth Plot MIMO ANT1 (40MHz 802.11ax/be (UNII Band 5) – Ch. 43) - VLP

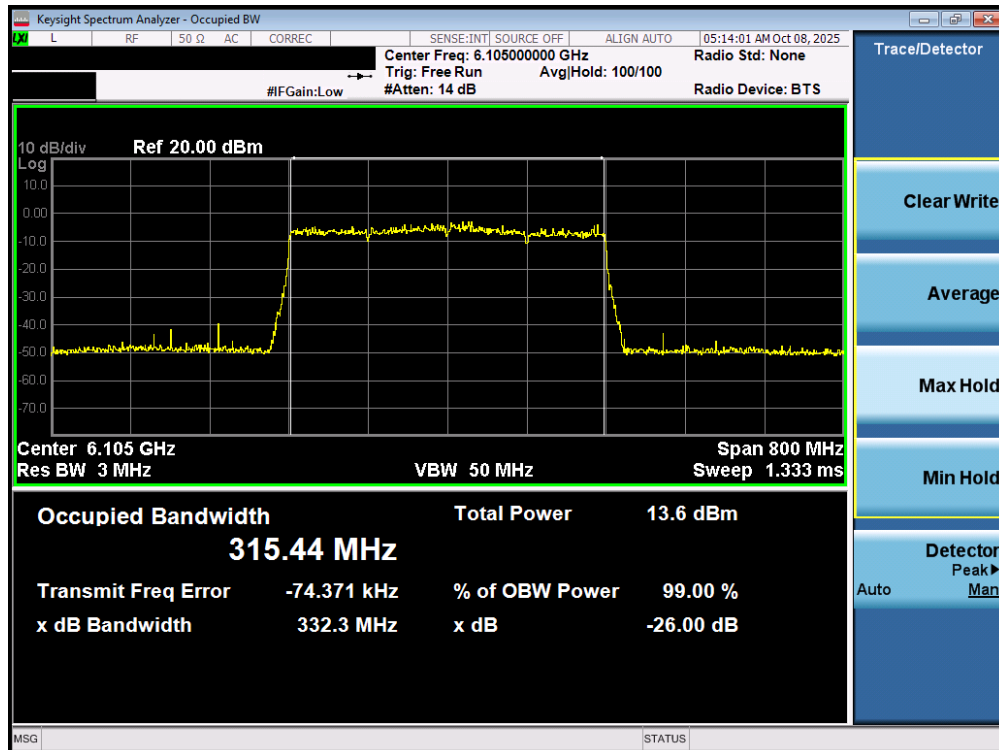


Plot 7-4. 26dB Bandwidth Plot MIMO ANT1 (80MHz 802.11ax/be (UNII Band 5) – Ch. 39) - VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 24 of 113                    |

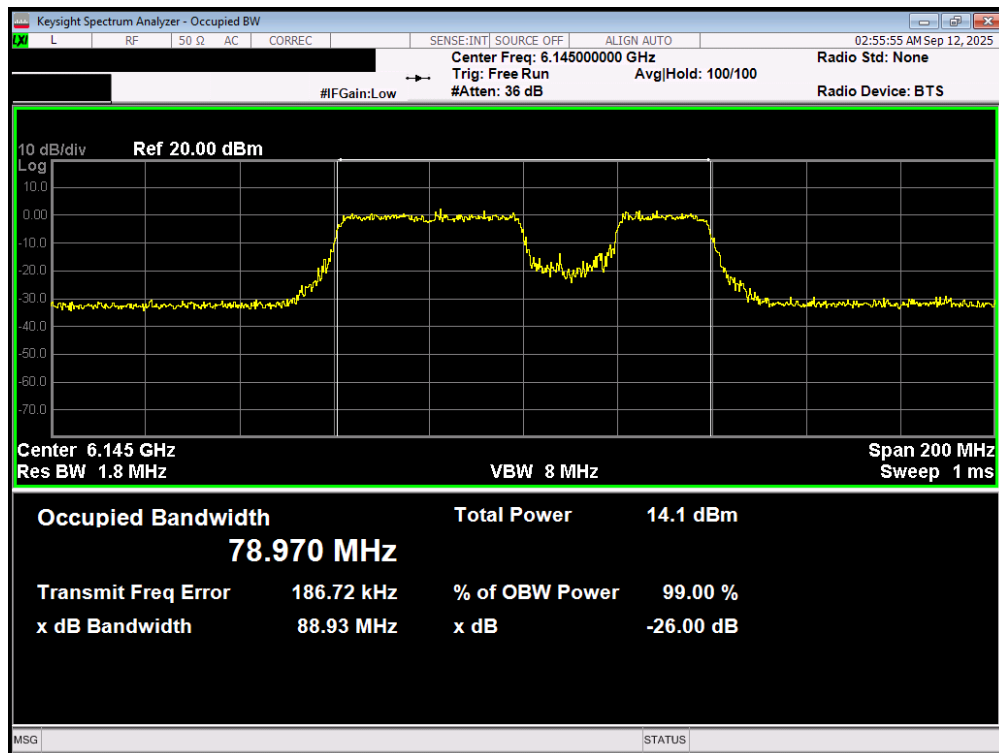


Plot 7-5. 26dB Bandwidth Plot MIMO ANT1 (160MHz 802.11ax/be (UNII Band 5) – Ch. 47) - VLP

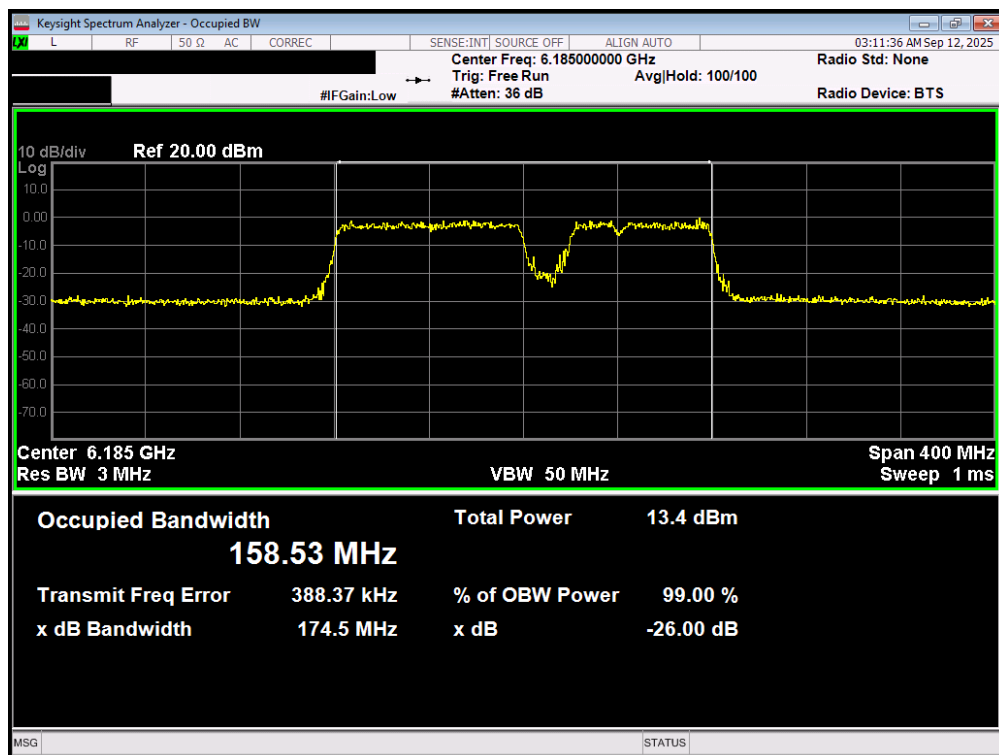


Plot 7-6. 26dB Bandwidth Plot MIMO ANT1 (320MHz 802.11ax/be (UNII Band 5) – Ch. 31) - VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 25 of 113                    |

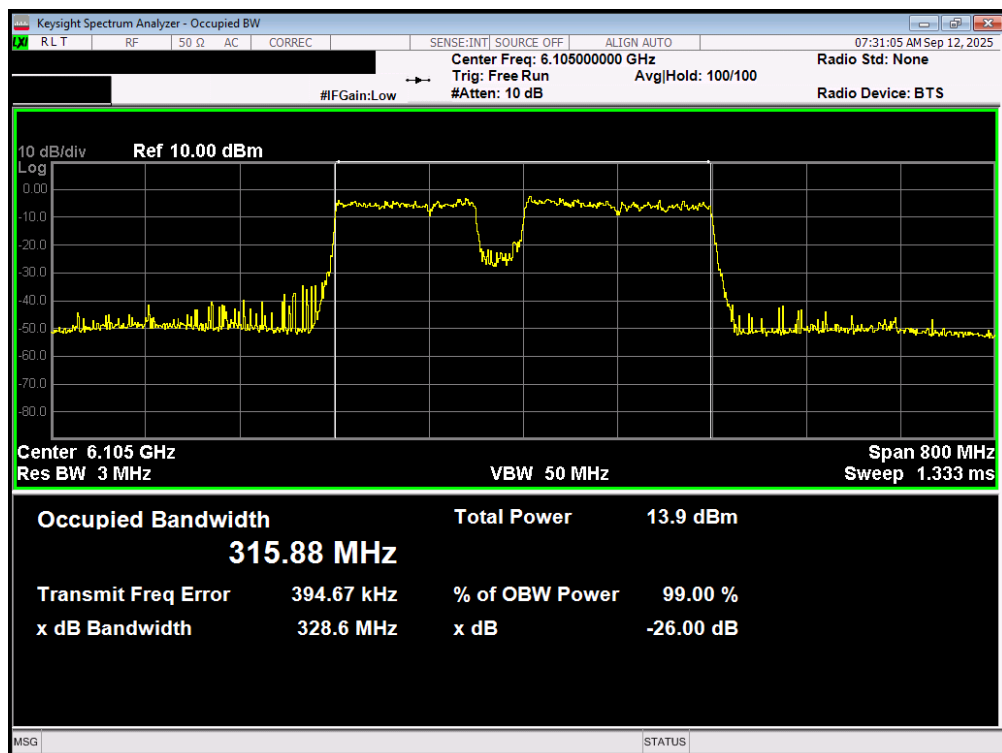


Plot 7-7. 26dB Bandwidth Plot MIMO ANT1 (80MHz 802.11be (UNII Band 5) – Ch. 39) – 20MHz Punctured - VLP



Plot 7-8. 26dB Bandwidth Plot MIMO ANT1 (160MHz 802.11be (UNII Band 5) – Ch. 47) – 20MHz Punctured - VLP

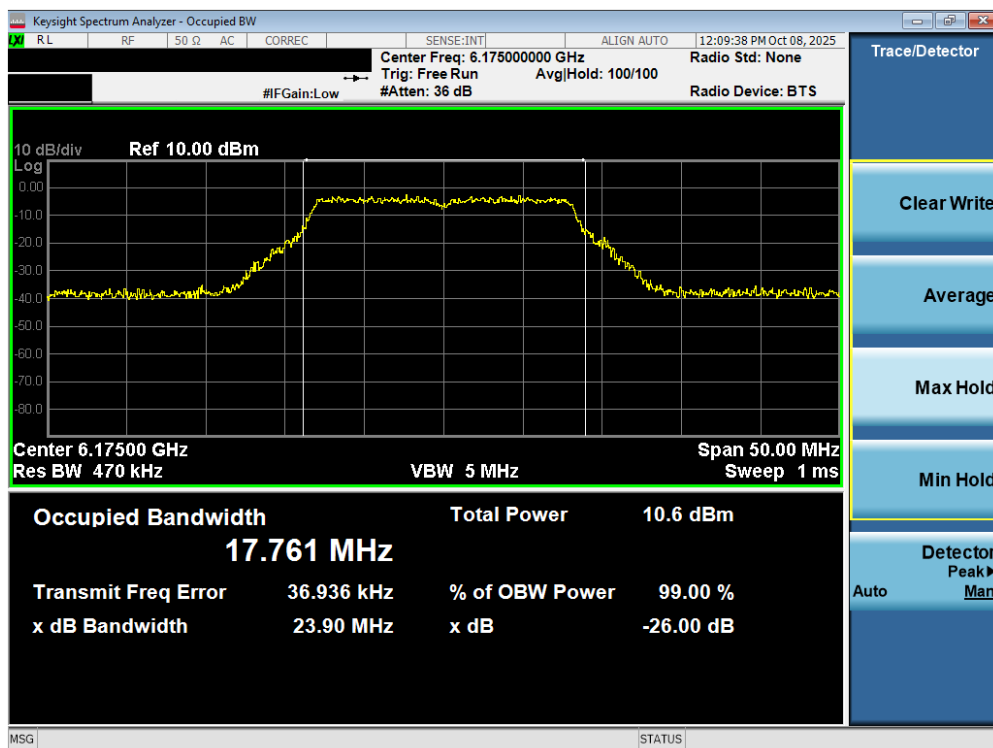
|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 26 of 113                    |



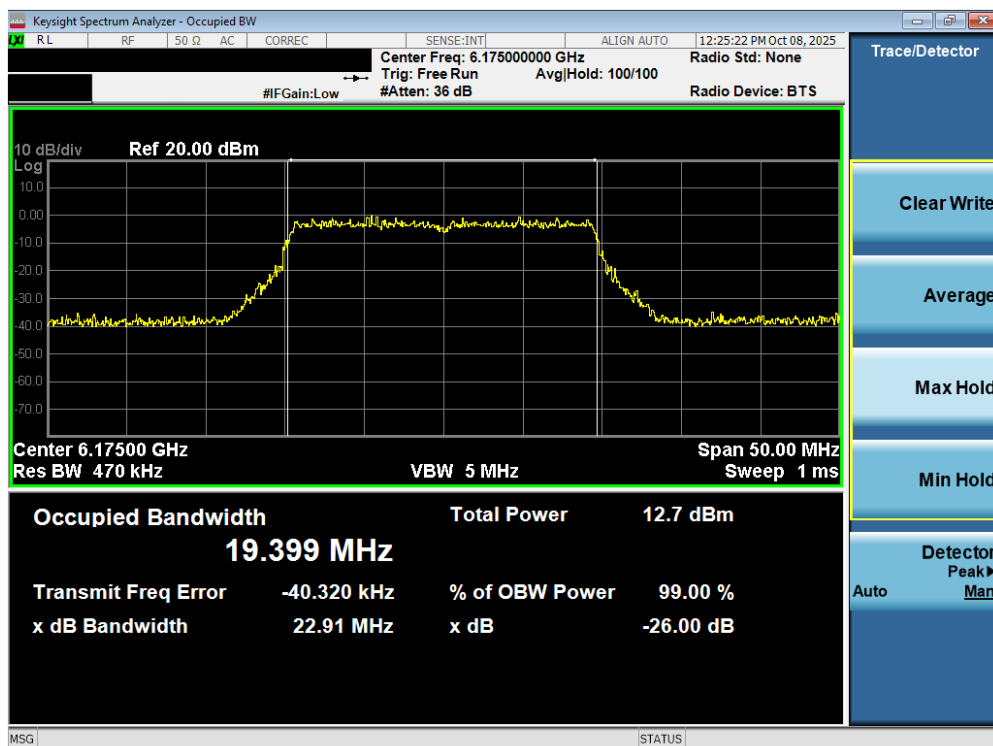
Plot 7-9. 26dB Bandwidth Plot MIMO ANT1 (320MHz 802.11be (UNII Band 5) – Ch. 31) – 40MHz Punctured - VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 27 of 113                    |

## 7.2.2 MIMO Antenna-2 26 dB Bandwidth Measurements - (UNII Band 5)

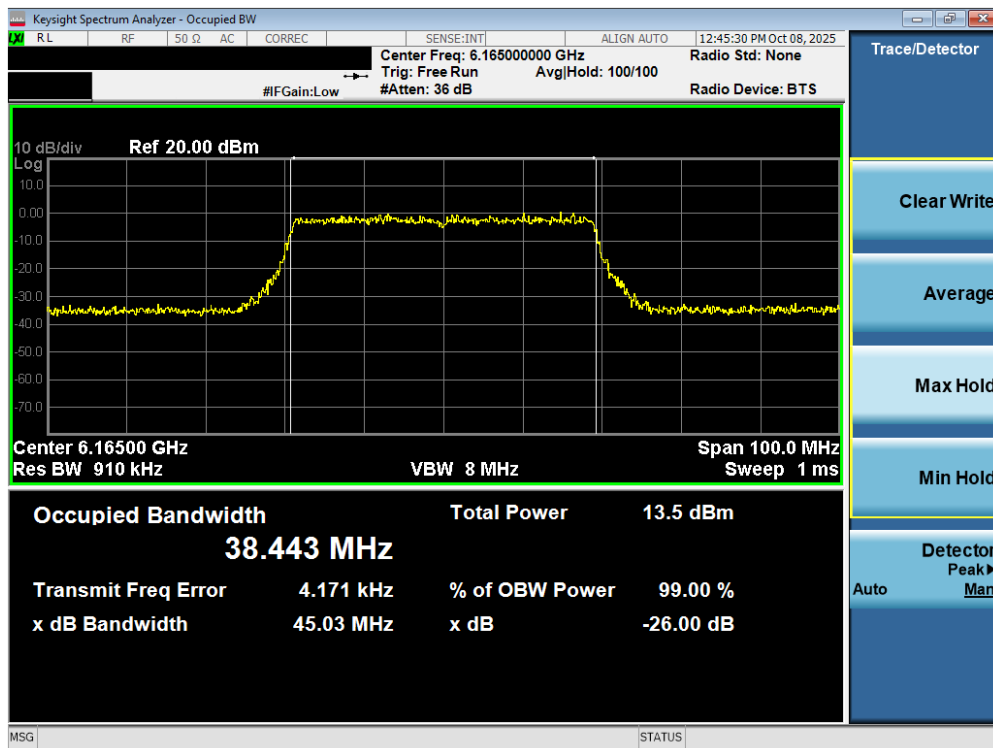


Plot 7-10. 26dB Bandwidth Plot MIMO ANT2 (20MHz 802.11a (UNII Band 5) – Ch. 45) - VLP

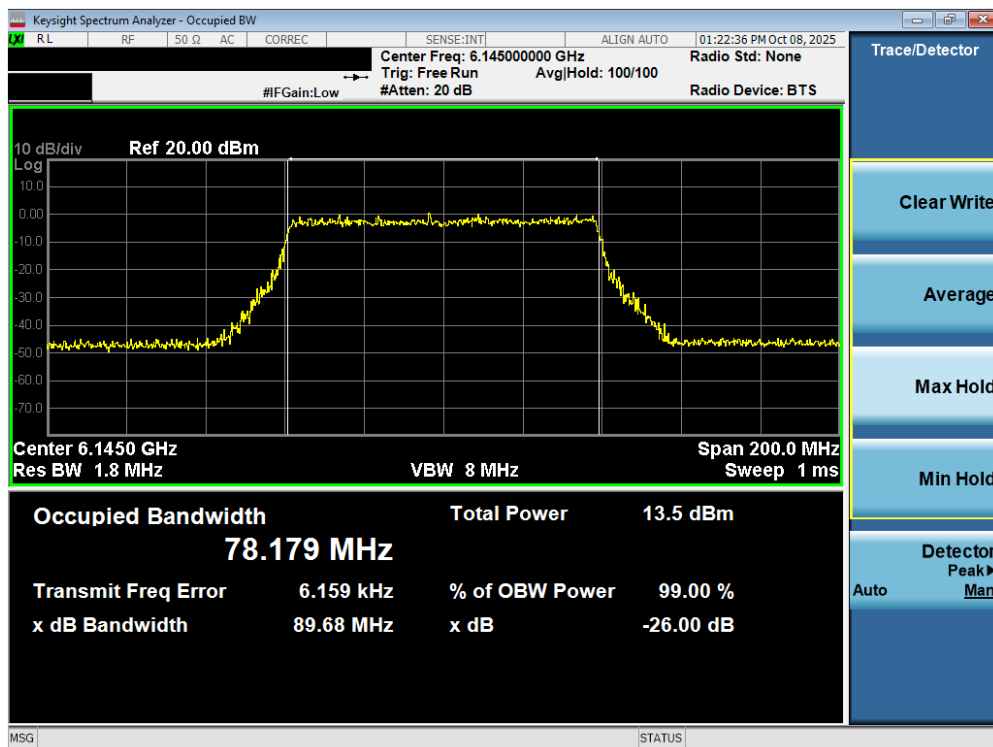


Plot 7-11. 26dB Bandwidth Plot MIMO ANT2 (20MHz 802.11ax/be (UNII Band 5) – Ch. 45) - VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 28 of 113                    |

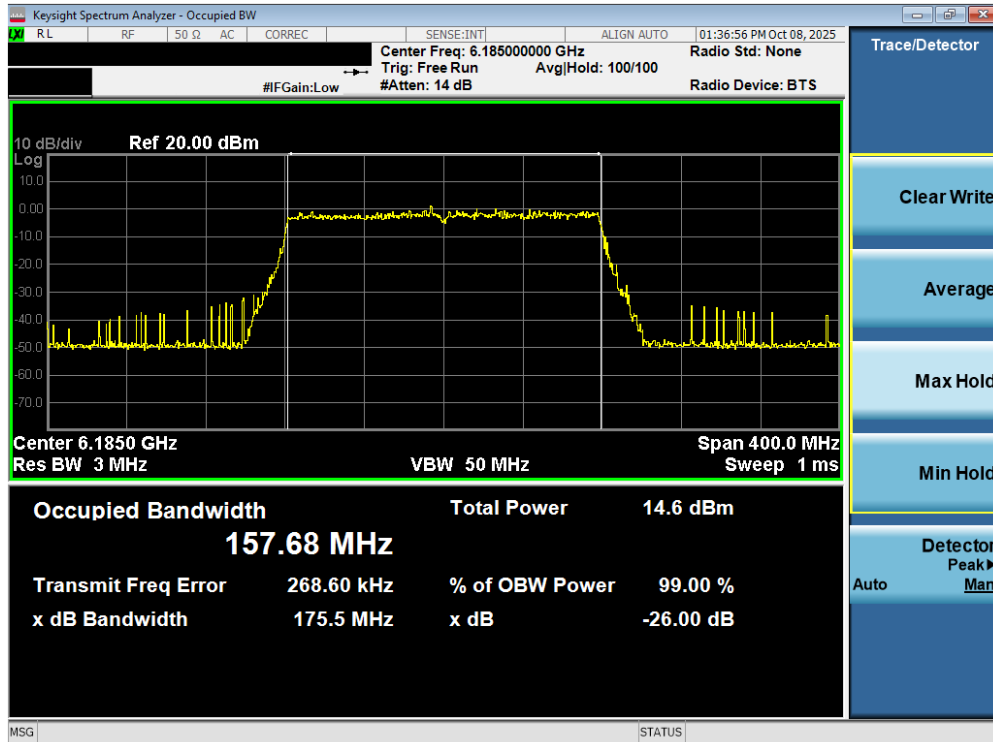


Plot 7-12. 26dB Bandwidth Plot MIMO ANT2 (40MHz 802.11ax/be (UNII Band 5) – Ch. 43) - VLP

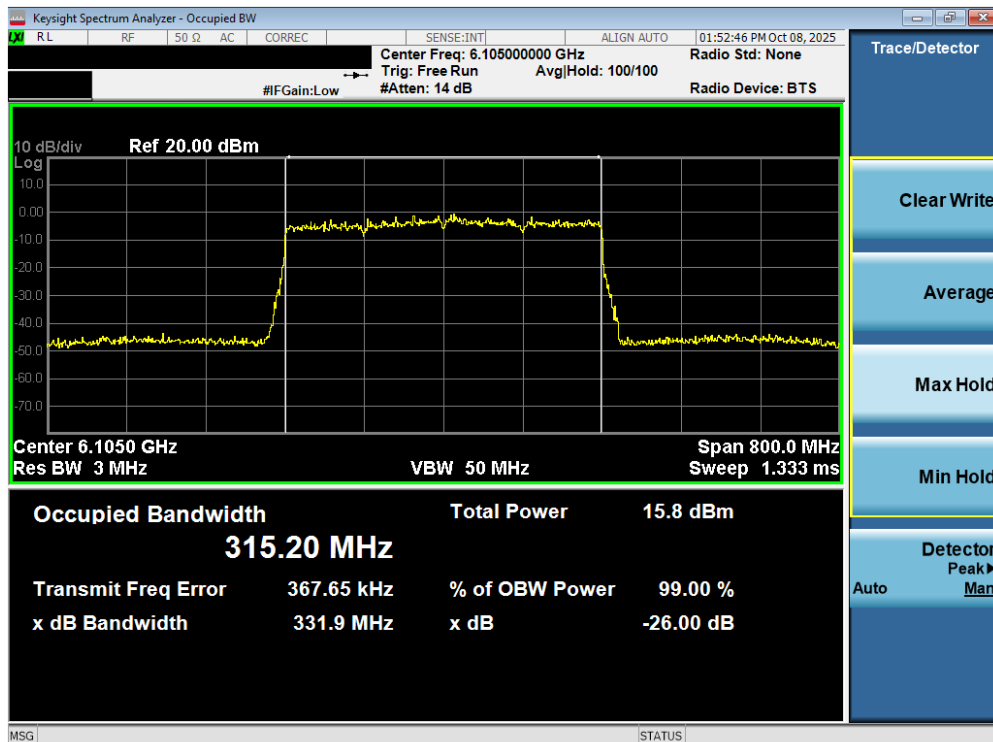


Plot 7-13. 26dB Bandwidth Plot MIMO ANT2 (80MHz 802.11ax/be (UNII Band 5) – Ch. 39) - VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 29 of 113                    |

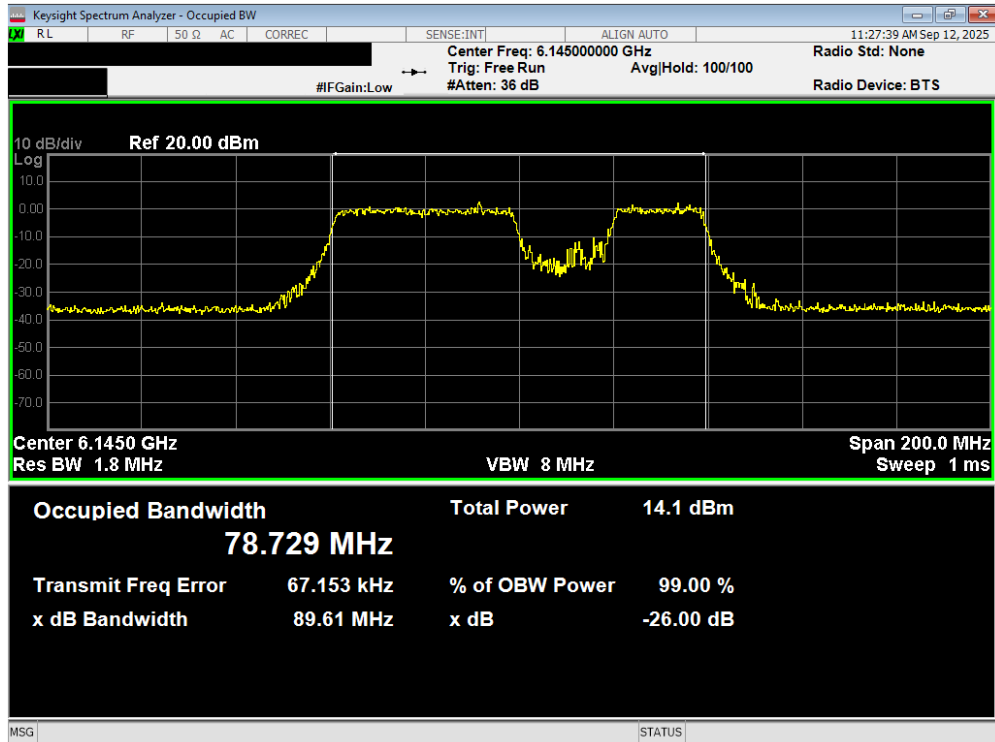


Plot 7-14. 26dB Bandwidth Plot MIMO ANT2 (160MHz 802.11ax/be (UNII Band 5) – Ch. 47) - VLP

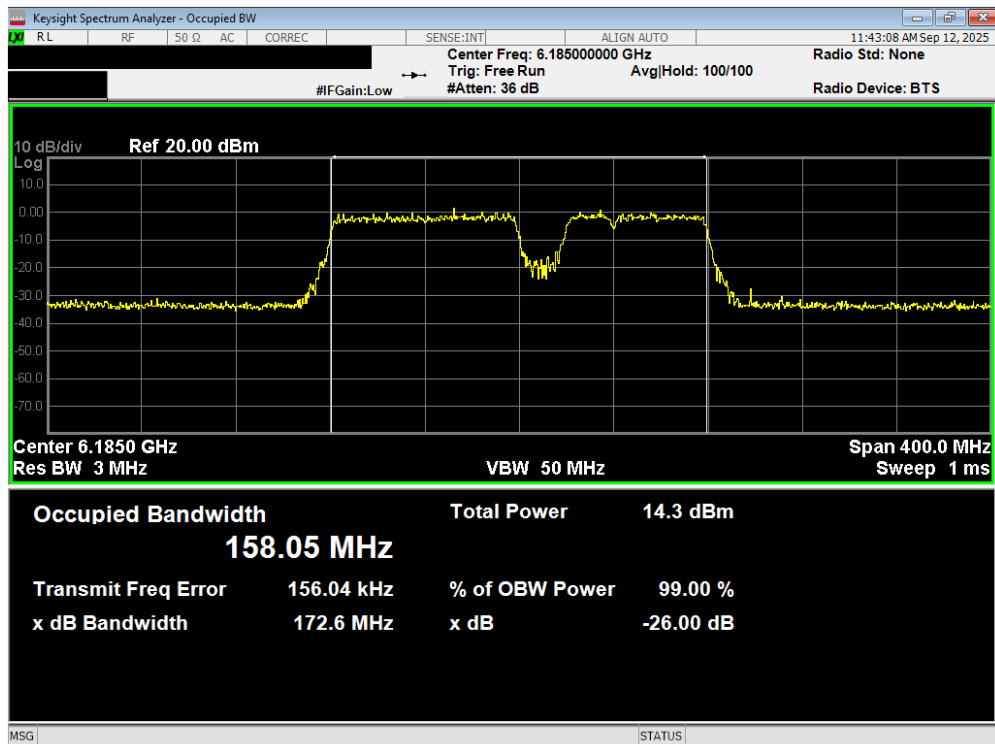


Plot 7-15. 26dB Bandwidth Plot MIMO ANT2 (320MHz 802.11ax/be (UNII Band 5) – Ch. 31) - VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 30 of 113                    |

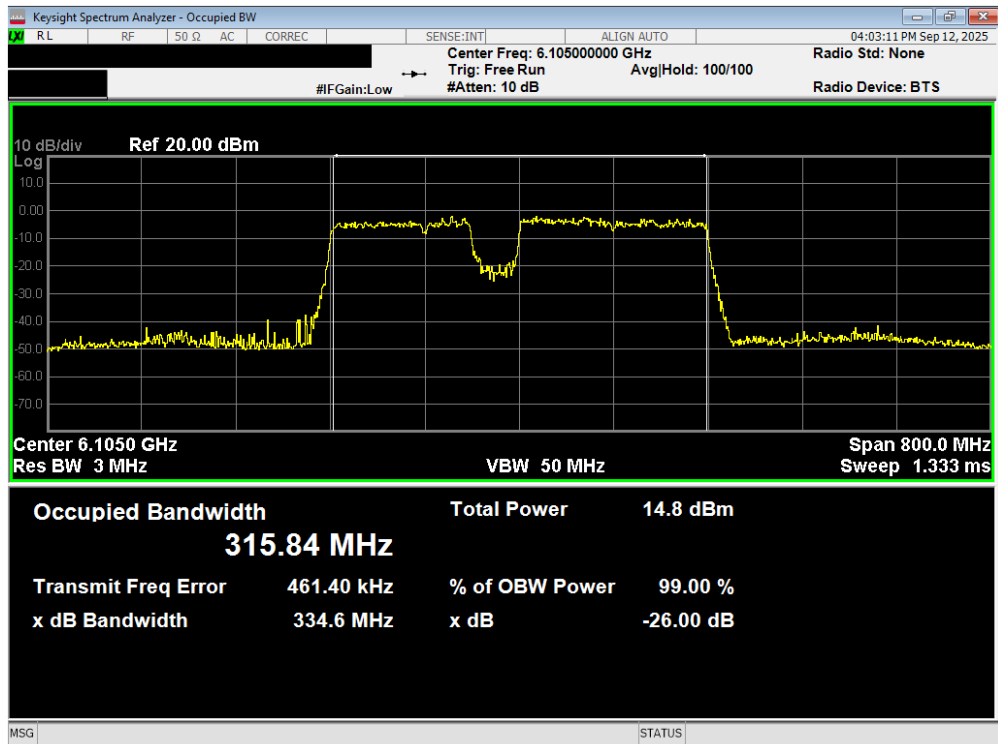


Plot 7-16. 26dB Bandwidth Plot MIMO ANT2 (80MHz 802.11be (UNII Band 5) – Ch. 39) – 20MHz Punctured - VLP



Plot 7-17. 26dB Bandwidth Plot MIMO ANT2 (160MHz 802.11be (UNII Band 5) – Ch. 47) – 20MHz Punctured - VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 31 of 113                    |



Plot 7-18. 26dB Bandwidth Plot MIMO ANT2 (320MHz 802.11be (UNII Band 5) – Ch. 31) – 40MHz Punctured - VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 32 of 113                    |

## 7.3 UNII Output Power Measurement

### Test Overview and Limits

A transmitter antenna terminal of the EUT is connected to the input of an RF pulse power sensor. Measurement is made using a broadband average power meter while the EUT is operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10:2020 and KDB 789033 D02 v02r01, and at the appropriate frequencies.

**For very low power devices operating in the 5.925-7.125 GHz band, the maximum power spectral density must not exceed -5 dBm e.i.r.p in any 1-megahertz band and the maximum e.i.r.p must not exceed 14 dBm.**

### Test Procedure Used

ANSI C63.10:2020 – Section 12.4.3.2 Method PM-G

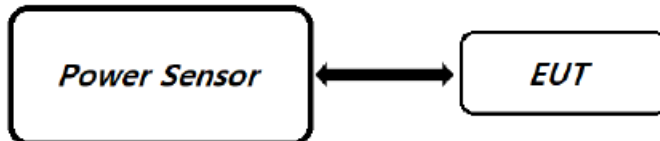
ANSI C63.10:2020 – Section 14.5.2.3 Measure-and-Sum Technique

### Test Settings

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

### Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



**Figure 7-2. Test Instrument & Measurement Setup**

### Test Notes

Power targets for punctured test cases match the next smallest bandwidth. E.g. 80MHz punctured target = 40MHz full bandwidth target, 160MHz punctured target = 80MHz full bandwidth target, etc.

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS942B                         | <b>MEASUREMENT REPORT</b>               |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2508270084-22-R1.A3L | <b>Test Dates:</b><br>9/2/25 - 12/30/25 | <b>EUT Type:</b><br>Portable Handset | Page 33 of 113                           |

## MIMO Maximum Conducted Output Power Measurements

| 6GHz WIFI (20MHz 802.11a MIMO) |               |         |                             |      |      | Directional<br>Ant. Gain<br>[dBi] | Max e.i.r.p<br>[dBm] | e.i.r.p Limit<br>[dBm] | e.i.r.p Margin<br>[dB] |
|--------------------------------|---------------|---------|-----------------------------|------|------|-----------------------------------|----------------------|------------------------|------------------------|
| Band                           | Freq<br>[MHz] | Channel | Avg. Conducted Powers [dBm] |      |      |                                   |                      |                        |                        |
|                                |               |         | ANT1                        | ANT2 | MIMO |                                   |                      |                        |                        |
| UNII-5                         | 5935          | 2       | 4.06                        | 4.48 | 7.29 | -0.62                             | 6.67                 | 14.00                  | -7.33                  |
|                                | 5955          | 1       | 4.30                        | 4.21 | 7.27 | -0.62                             | 6.65                 | 14.00                  | -7.35                  |
|                                | 6175          | 45      | 4.50                        | 4.43 | 7.48 | -0.62                             | 6.86                 | 14.00                  | -7.14                  |
|                                | 6415          | 93      | 4.15                        | 4.53 | 7.35 | -0.62                             | 6.73                 | 14.00                  | -7.27                  |
| UNII-6                         | 6435          | 97      | 4.18                        | 4.67 | 7.44 | -2.01                             | 5.43                 | 14.00                  | -8.57                  |
|                                | 6475          | 105     | 4.20                        | 4.67 | 7.45 | -2.01                             | 5.44                 | 14.00                  | -8.56                  |
|                                | 6515          | 113     | 4.02                        | 4.55 | 7.30 | -2.01                             | 5.29                 | 14.00                  | -8.71                  |
| UNII-7                         | 6535          | 117     | 4.02                        | 4.40 | 7.22 | -1.78                             | 5.44                 | 14.00                  | -8.56                  |
|                                | 6675          | 145     | 4.29                        | 3.85 | 7.09 | -1.78                             | 5.31                 | 14.00                  | -8.69                  |
|                                | 6695          | 149     | 4.26                        | 3.80 | 7.05 | -1.78                             | 5.27                 | 14.00                  | -8.73                  |
|                                | 6875          | 185     | 4.23                        | 4.49 | 7.37 | -1.78                             | 5.59                 | 14.00                  | -8.41                  |
| UNII-8                         | 6895          | 189     | 4.28                        | 4.47 | 7.39 | -0.96                             | 6.43                 | 14.00                  | -7.57                  |
|                                | 6995          | 209     | 4.37                        | 4.49 | 7.44 | -0.96                             | 6.48                 | 14.00                  | -7.52                  |
|                                | 7115          | 233     | 4.53                        | 4.63 | 7.59 | -0.96                             | 6.63                 | 14.00                  | -7.37                  |

Table 7-4. MIMO 20MHz BW 802.11a (UNII) Maximum Conducted Output Power

| 6GHz WIFI (20MHz 802.11ax MIMO) |               |         |                             |      |      | Directional<br>Ant. Gain<br>[dBi] | Max e.i.r.p<br>[dBm] | e.i.r.p Limit<br>[dBm] | e.i.r.p Margin<br>[dB] |
|---------------------------------|---------------|---------|-----------------------------|------|------|-----------------------------------|----------------------|------------------------|------------------------|
| Band                            | Freq<br>[MHz] | Channel | Avg. Conducted Powers [dBm] |      |      |                                   |                      |                        |                        |
|                                 |               |         | ANT1                        | ANT2 | MIMO |                                   |                      |                        |                        |
| UNII-5                          | 5935          | 2       | 4.42                        | 4.89 | 7.67 | -0.62                             | 7.05                 | 14.00                  | -6.95                  |
|                                 | 5955          | 1       | 4.68                        | 4.60 | 7.65 | -0.62                             | 7.03                 | 14.00                  | -6.97                  |
|                                 | 6175          | 45      | 4.52                        | 4.46 | 7.50 | -0.62                             | 6.88                 | 14.00                  | -7.12                  |
|                                 | 6415          | 93      | 4.02                        | 4.46 | 7.26 | -0.62                             | 6.64                 | 14.00                  | -7.36                  |
| UNII-6                          | 6435          | 97      | 4.07                        | 4.53 | 7.32 | -2.01                             | 5.31                 | 14.00                  | -8.69                  |
|                                 | 6475          | 105     | 4.02                        | 4.52 | 7.29 | -2.01                             | 5.28                 | 14.00                  | -8.72                  |
|                                 | 6515          | 113     | 4.47                        | 4.96 | 7.73 | -2.01                             | 5.72                 | 14.00                  | -8.28                  |
| UNII-7                          | 6535          | 117     | 4.46                        | 4.79 | 7.64 | -1.78                             | 5.86                 | 14.00                  | -8.14                  |
|                                 | 6675          | 145     | 4.73                        | 4.16 | 7.46 | -1.78                             | 5.68                 | 14.00                  | -8.32                  |
|                                 | 6695          | 149     | 4.69                        | 4.20 | 7.46 | -1.78                             | 5.68                 | 14.00                  | -8.32                  |
|                                 | 6875          | 185     | 4.15                        | 4.57 | 7.38 | -1.78                             | 5.60                 | 14.00                  | -8.40                  |
| UNII-8                          | 6895          | 189     | 4.13                        | 4.84 | 7.51 | -0.96                             | 6.55                 | 14.00                  | -7.45                  |
|                                 | 6995          | 209     | 4.40                        | 4.39 | 7.41 | -0.96                             | 6.45                 | 14.00                  | -7.55                  |
|                                 | 7115          | 233     | 4.51                        | 4.69 | 7.61 | -0.96                             | 6.65                 | 14.00                  | -7.35                  |

Table 7-5. MIMO 20MHz BW 802.11ax (UNII) Maximum Conducted Output Power

| 6GHz WIFI (20MHz 802.11be MIMO) |               |         |                             |      |      | Directional<br>Ant. Gain<br>[dBi] | Max e.i.r.p<br>[dBm] | e.i.r.p Limit<br>[dBm] | e.i.r.p Margin<br>[dB] |
|---------------------------------|---------------|---------|-----------------------------|------|------|-----------------------------------|----------------------|------------------------|------------------------|
| Band                            | Freq<br>[MHz] | Channel | Avg. Conducted Powers [dBm] |      |      |                                   |                      |                        |                        |
|                                 |               |         | ANT1                        | ANT2 | MIMO |                                   |                      |                        |                        |
| UNII-5                          | 5935          | 2       | 4.45                        | 4.94 | 7.71 | -0.62                             | 7.09                 | 14.00                  | -6.91                  |
|                                 | 5955          | 1       | 4.69                        | 4.61 | 7.66 | -0.62                             | 7.04                 | 14.00                  | -6.96                  |
|                                 | 6175          | 45      | 4.46                        | 4.23 | 7.36 | -0.62                             | 6.74                 | 14.00                  | -7.26                  |
|                                 | 6415          | 93      | 4.03                        | 4.44 | 7.25 | -0.62                             | 6.63                 | 14.00                  | -7.37                  |
| UNII-6                          | 6435          | 97      | 4.06                        | 4.57 | 7.33 | -2.01                             | 5.32                 | 14.00                  | -8.68                  |
|                                 | 6475          | 105     | 4.09                        | 4.55 | 7.34 | -2.01                             | 5.33                 | 14.00                  | -8.67                  |
|                                 | 6515          | 113     | 4.45                        | 4.90 | 7.69 | -2.01                             | 5.68                 | 14.00                  | -8.32                  |
| UNII-7                          | 6535          | 117     | 4.45                        | 4.78 | 7.63 | -1.78                             | 5.85                 | 14.00                  | -8.15                  |
|                                 | 6675          | 145     | 4.65                        | 4.18 | 7.43 | -1.78                             | 5.65                 | 14.00                  | -8.35                  |
|                                 | 6695          | 149     | 4.60                        | 4.22 | 7.42 | -1.78                             | 5.64                 | 14.00                  | -8.36                  |
|                                 | 6875          | 185     | 4.15                        | 4.55 | 7.36 | -1.78                             | 5.58                 | 14.00                  | -8.42                  |
| UNII-8                          | 6895          | 189     | 4.14                        | 4.58 | 7.38 | -0.96                             | 6.42                 | 14.00                  | -7.58                  |
|                                 | 6995          | 209     | 4.35                        | 4.42 | 7.40 | -0.96                             | 6.44                 | 14.00                  | -7.56                  |
|                                 | 7115          | 233     | 4.55                        | 4.08 | 7.33 | -0.96                             | 6.37                 | 14.00                  | -7.63                  |

Table 7-6. MIMO 20MHz BW 802.11be (UNII) Maximum Conducted Output Power

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 34 of 113                    |

| 6GHz WIFI (40MHz 802.11ax MIMO) |               |         |                             |      |      | Directional<br>Ant. Gain<br>[dBi] | Max e.i.r.p<br>[dBm] | e.i.r.p Limit<br>[dBm] | e.i.r.p Margin<br>[dB] |
|---------------------------------|---------------|---------|-----------------------------|------|------|-----------------------------------|----------------------|------------------------|------------------------|
| Band                            | Freq<br>[MHz] | Channel | Avg. Conducted Powers [dBm] |      |      |                                   |                      |                        |                        |
|                                 |               |         | ANT1                        | ANT2 | MIMO |                                   |                      |                        |                        |
| UNII-5                          | 5965          | 3       | 5.65                        | 5.61 | 8.64 | -0.62                             | 8.02                 | 14.00                  | -5.98                  |
|                                 | 6165          | 43      | 5.90                        | 5.67 | 8.80 | -0.62                             | 8.18                 | 14.00                  | -5.82                  |
|                                 | 6285          | 67      | 5.79                        | 5.91 | 8.86 | -0.62                             | 8.24                 | 14.00                  | -5.76                  |
|                                 | 6405          | 91      | 5.53                        | 5.90 | 8.73 | -0.62                             | 8.11                 | 14.00                  | -5.89                  |
| UNII-6                          | 6445          | 99      | 5.46                        | 5.97 | 8.73 | -2.01                             | 6.72                 | 14.00                  | -7.28                  |
|                                 | 6485          | 107     | 5.45                        | 5.96 | 8.72 | -2.01                             | 6.71                 | 14.00                  | -7.29                  |
|                                 | 6525          | 115     | 5.34                        | 5.76 | 8.57 | -1.78                             | 6.79                 | 14.00                  | -7.21                  |
| UNII-7                          | 6565          | 123     | 5.06                        | 5.32 | 8.20 | -1.78                             | 6.42                 | 14.00                  | -7.58                  |
|                                 | 6685          | 147     | 5.53                        | 5.16 | 8.36 | -1.78                             | 6.58                 | 14.00                  | -7.42                  |
|                                 | 6725          | 155     | 5.52                        | 5.13 | 8.34 | -1.78                             | 6.56                 | 14.00                  | -7.44                  |
|                                 | 6845          | 179     | 5.46                        | 5.50 | 8.49 | -1.78                             | 6.71                 | 14.00                  | -7.29                  |
| UNII-8                          | 6885          | 187     | 5.12                        | 5.56 | 8.35 | -0.96                             | 7.39                 | 14.00                  | -6.61                  |
|                                 | 7005          | 211     | 5.76                        | 5.80 | 8.79 | -0.96                             | 7.83                 | 14.00                  | -6.17                  |
|                                 | 7085          | 227     | 5.85                        | 5.72 | 8.80 | -0.96                             | 7.84                 | 14.00                  | -6.16                  |

**Table 7-7. MIMO 40MHz BW 802.11ax (UNII) Maximum Conducted Output Power**

| 6GHz WIFI (40MHz 802.11be MIMO) |               |         |                             |      |      | Directional<br>Ant. Gain<br>[dBi] | Max e.i.r.p<br>[dBm] | e.i.r.p Limit<br>[dBm] | e.i.r.p Margin<br>[dB] |
|---------------------------------|---------------|---------|-----------------------------|------|------|-----------------------------------|----------------------|------------------------|------------------------|
| Band                            | Freq<br>[MHz] | Channel | Avg. Conducted Powers [dBm] |      |      |                                   |                      |                        |                        |
|                                 |               |         | ANT1                        | ANT2 | MIMO |                                   |                      |                        |                        |
| UNII-5                          | 5965          | 3       | 5.48                        | 5.42 | 8.46 | -0.62                             | 7.84                 | 14.00                  | -6.16                  |
|                                 | 6165          | 43      | 5.73                        | 5.50 | 8.63 | -0.62                             | 8.01                 | 14.00                  | -5.99                  |
|                                 | 6285          | 67      | 5.55                        | 5.75 | 8.66 | -0.62                             | 8.04                 | 14.00                  | -5.96                  |
|                                 | 6405          | 91      | 5.36                        | 5.72 | 8.55 | -0.62                             | 7.93                 | 14.00                  | -6.07                  |
| UNII-6                          | 6445          | 99      | 5.25                        | 5.75 | 8.52 | -2.01                             | 6.51                 | 14.00                  | -7.49                  |
|                                 | 6485          | 107     | 5.26                        | 5.80 | 8.55 | -2.01                             | 6.54                 | 14.00                  | -7.46                  |
|                                 | 6525          | 115     | 5.12                        | 5.52 | 8.33 | -1.78                             | 6.55                 | 14.00                  | -7.45                  |
| UNII-7                          | 6565          | 123     | 5.28                        | 5.56 | 8.43 | -1.78                             | 6.65                 | 14.00                  | -7.35                  |
|                                 | 6685          | 147     | 5.84                        | 5.46 | 8.66 | -1.78                             | 6.88                 | 14.00                  | -7.12                  |
|                                 | 6725          | 155     | 5.78                        | 5.42 | 8.61 | -1.78                             | 6.83                 | 14.00                  | -7.17                  |
|                                 | 6845          | 179     | 5.25                        | 5.28 | 8.28 | -1.78                             | 6.50                 | 14.00                  | -7.50                  |
| UNII-8                          | 6885          | 187     | 5.30                        | 5.69 | 8.51 | -0.96                             | 7.55                 | 14.00                  | -6.45                  |
|                                 | 7005          | 211     | 5.63                        | 5.64 | 8.65 | -0.96                             | 7.69                 | 14.00                  | -6.31                  |
|                                 | 7085          | 227     | 5.65                        | 5.47 | 8.57 | -0.96                             | 7.61                 | 14.00                  | -6.39                  |

**Table 7-8. MIMO 40MHz BW 802.11be (UNII) Maximum Conducted Output Power**

| 6GHz WIFI (80MHz 802.11ax MIMO) |               |         |                             |      |      | Directional<br>Ant. Gain<br>[dBi] | Max e.i.r.p<br>[dBm] | e.i.r.p Limit<br>[dBm] | e.i.r.p Margin<br>[dB] |
|---------------------------------|---------------|---------|-----------------------------|------|------|-----------------------------------|----------------------|------------------------|------------------------|
| Band                            | Freq<br>[MHz] | Channel | Avg. Conducted Powers [dBm] |      |      |                                   |                      |                        |                        |
|                                 |               |         | ANT1                        | ANT2 | MIMO |                                   |                      |                        |                        |
| UNII-5                          | 5985          | 7       | 5.58                        | 5.37 | 8.49 | -0.62                             | 7.87                 | 14.00                  | -6.13                  |
|                                 | 6145          | 39      | 5.68                        | 5.39 | 8.55 | -0.62                             | 7.93                 | 14.00                  | -6.07                  |
|                                 | 6305          | 71      | 5.42                        | 5.55 | 8.50 | -0.62                             | 7.88                 | 14.00                  | -6.12                  |
|                                 | 6385          | 87      | 5.47                        | 5.65 | 8.57 | -0.62                             | 7.95                 | 14.00                  | -6.05                  |
| UNII-6                          | 6465          | 103     | 5.25                        | 5.76 | 8.52 | -2.01                             | 6.51                 | 14.00                  | -7.49                  |
| UNII-7                          | 6545          | 119     | 5.04                        | 5.36 | 8.21 | -1.78                             | 6.43                 | 14.00                  | -7.57                  |
|                                 | 6705          | 151     | 5.82                        | 5.43 | 8.64 | -1.78                             | 6.86                 | 14.00                  | -7.14                  |
|                                 | 6785          | 167     | 5.76                        | 5.19 | 8.49 | -1.78                             | 6.71                 | 14.00                  | -7.29                  |
|                                 | 6865          | 183     | 5.28                        | 5.87 | 8.60 | -1.78                             | 6.82                 | 14.00                  | -7.18                  |
| UNII-8                          | 6945          | 199     | 5.56                        | 5.76 | 8.67 | -0.96                             | 7.71                 | 14.00                  | -6.29                  |
|                                 | 7025          | 215     | 5.70                        | 5.72 | 8.72 | -0.96                             | 7.76                 | 14.00                  | -6.24                  |

**Table 7-9. MIMO 80MHz BW 802.11ax (UNII) Maximum Conducted Output Power**

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS942B                         | <b>MEASUREMENT REPORT</b>               |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2508270084-22-R1.A3L | <b>Test Dates:</b><br>9/2/25 - 12/30/25 | <b>EUT Type:</b><br>Portable Handset | Page 35 of 113                           |

| 6GHz WIFI (80MHz 802.11be MIMO) |               |         |                             |      |      | Directional<br>Ant. Gain<br>[dBi] | Max e.i.r.p<br>[dBm] | e.i.r.p Limit<br>[dBm] | e.i.r.p Margin<br>[dB] |
|---------------------------------|---------------|---------|-----------------------------|------|------|-----------------------------------|----------------------|------------------------|------------------------|
| Band                            | Freq<br>[MHz] | Channel | Avg. Conducted Powers [dBm] |      |      |                                   |                      |                        |                        |
|                                 |               |         | ANT1                        | ANT2 | MIMO |                                   |                      |                        |                        |
| UNII-5                          | 5985          | 7       | 5.59                        | 5.42 | 8.52 | -0.62                             | 7.90                 | 14.00                  | -6.10                  |
|                                 | 6145          | 39      | 5.66                        | 5.46 | 8.57 | -0.62                             | 7.95                 | 14.00                  | -6.05                  |
|                                 | 6305          | 71      | 5.48                        | 5.60 | 8.55 | -0.62                             | 7.93                 | 14.00                  | -6.07                  |
|                                 | 6385          | 87      | 5.47                        | 5.65 | 8.57 | -0.62                             | 7.95                 | 14.00                  | -6.05                  |
| UNII-6                          | 6465          | 103     | 5.29                        | 5.72 | 8.52 | -2.01                             | 6.51                 | 14.00                  | -7.49                  |
| UNII-7                          | 6545          | 119     | 5.15                        | 5.23 | 8.20 | -1.78                             | 6.42                 | 14.00                  | -7.58                  |
|                                 | 6705          | 151     | 5.82                        | 5.44 | 8.64 | -1.78                             | 6.86                 | 14.00                  | -7.14                  |
|                                 | 6785          | 167     | 5.47                        | 5.22 | 8.36 | -1.78                             | 6.58                 | 14.00                  | -7.42                  |
|                                 | 6865          | 183     | 5.30                        | 5.88 | 8.61 | -1.78                             | 6.83                 | 14.00                  | -7.17                  |
| UNII-8                          | 6945          | 199     | 5.50                        | 5.80 | 8.66 | -0.96                             | 7.70                 | 14.00                  | -6.30                  |
|                                 | 7025          | 215     | 5.74                        | 5.74 | 8.75 | -0.96                             | 7.79                 | 14.00                  | -6.21                  |

**Table 7-10. MIMO 80MHz BW 802.11be (UNII) Maximum Conducted Output Power**

| 6GHz WIFI (160MHz 802.11ax MIMO) |               |         |                             |      |      | Directional<br>Ant. Gain<br>[dBi] | Max e.i.r.p<br>[dBm] | e.i.r.p Limit<br>[dBm] | e.i.r.p Margin<br>[dB] |
|----------------------------------|---------------|---------|-----------------------------|------|------|-----------------------------------|----------------------|------------------------|------------------------|
| Band                             | Freq<br>[MHz] | Channel | Avg. Conducted Powers [dBm] |      |      |                                   |                      |                        |                        |
|                                  |               |         | ANT1                        | ANT2 | MIMO |                                   |                      |                        |                        |
| UNII-5                           | 6025          | 15      | 5.89                        | 5.33 | 8.63 | -0.62                             | 8.01                 | 14.00                  | -5.99                  |
|                                  | 6185          | 47      | 5.74                        | 5.60 | 8.68 | -0.62                             | 8.06                 | 14.00                  | -5.94                  |
|                                  | 6345          | 79      | 5.57                        | 5.67 | 8.63 | -0.62                             | 8.01                 | 14.00                  | -5.99                  |
| UNII-6                           | 6505          | 111     | 5.23                        | 5.80 | 8.53 | -1.78                             | 6.75                 | 14.00                  | -7.25                  |
| UNII-7                           | 6665          | 143     | 5.25                        | 4.90 | 8.09 | -1.78                             | 6.31                 | 14.00                  | -7.69                  |
|                                  | 6825          | 175     | 5.32                        | 5.10 | 8.22 | -1.78                             | 6.44                 | 14.00                  | -7.56                  |
| UNII-8                           | 6985          | 207     | 5.58                        | 5.68 | 8.64 | -0.96                             | 7.68                 | 14.00                  | -6.32                  |

**Table 7-11. MIMO 160MHz BW 802.11ax (UNII) Maximum Conducted Output Power**

| 6GHz WIFI (160MHz 802.11be MIMO) |               |         |                             |      |      | Directional<br>Ant. Gain<br>[dBi] | Max e.i.r.p<br>[dBm] | e.i.r.p Limit<br>[dBm] | e.i.r.p Margin<br>[dB] |
|----------------------------------|---------------|---------|-----------------------------|------|------|-----------------------------------|----------------------|------------------------|------------------------|
| Band                             | Freq<br>[MHz] | Channel | Avg. Conducted Powers [dBm] |      |      |                                   |                      |                        |                        |
|                                  |               |         | ANT1                        | ANT2 | MIMO |                                   |                      |                        |                        |
| UNII-5                           | 6025          | 15      | 5.14                        | 4.78 | 7.97 | -0.62                             | 7.35                 | 14.00                  | -6.65                  |
|                                  | 6185          | 47      | 5.10                        | 4.90 | 8.01 | -0.62                             | 7.39                 | 14.00                  | -6.61                  |
|                                  | 6345          | 79      | 4.90                        | 5.09 | 8.01 | -0.62                             | 7.39                 | 14.00                  | -6.61                  |
| UNII-6                           | 6505          | 111     | 4.50                        | 5.06 | 7.80 | -1.78                             | 6.02                 | 14.00                  | -7.98                  |
| UNII-7                           | 6665          | 143     | 4.62                        | 4.30 | 7.47 | -1.78                             | 5.69                 | 14.00                  | -8.31                  |
|                                  | 6825          | 175     | 4.70                        | 4.45 | 7.59 | -1.78                             | 5.81                 | 14.00                  | -8.19                  |
| UNII-8                           | 6985          | 207     | 4.90                        | 4.88 | 7.90 | -0.96                             | 6.94                 | 14.00                  | -7.06                  |

**Table 7-12. MIMO 160MHz BW 802.11be (UNII) Maximum Conducted Output Power**

| 6GHz WIFI (320MHz 802.11be MIMO) |               |         |                             |      |      | Directional<br>Ant. Gain<br>[dBi] | Max e.i.r.p<br>[dBm] | e.i.r.p Limit<br>[dBm] | e.i.r.p Margin<br>[dB] |
|----------------------------------|---------------|---------|-----------------------------|------|------|-----------------------------------|----------------------|------------------------|------------------------|
| Band                             | Freq<br>[MHz] | Channel | Avg. Conducted Powers [dBm] |      |      |                                   |                      |                        |                        |
|                                  |               |         | ANT1                        | ANT2 | MIMO |                                   |                      |                        |                        |
| UNII-5                           | 6105          | 31      | 5.34                        | 5.49 | 8.43 | -0.62                             | 7.81                 | 14.00                  | -6.19                  |
| UNII-5                           | 6265          | 63      | 5.04                        | 5.51 | 8.29 | -0.62                             | 7.67                 | 14.00                  | -6.33                  |
| UNII-6                           | 6425          | 95      | 5.12                        | 5.21 | 8.18 | -2.01                             | 6.17                 | 14.00                  | -7.83                  |
| UNII-7                           | 6585          | 127     | 5.49                        | 5.65 | 8.58 | -1.78                             | 6.80                 | 14.00                  | -7.20                  |
| UNII-7                           | 6745          | 159     | 5.40                        | 5.78 | 8.60 | -1.78                             | 6.82                 | 14.00                  | -7.18                  |
| UNII-8                           | 6905          | 191     | 5.07                        | 5.65 | 8.38 | -0.96                             | 7.42                 | 14.00                  | -6.58                  |

**Table 7-13. MIMO 320MHz BW 802.11be (UNII) Maximum Conducted Output Power**

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS942B                         | <b>MEASUREMENT REPORT</b>               |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2508270084-22-R1.A3L | <b>Test Dates:</b><br>9/2/25 - 12/30/25 | <b>EUT Type:</b><br>Portable Handset | Page 36 of 113                           |

| Band | Freq [MHz] | Channel | Puncture Size | Average Conducted Power (dBm) |      |      |      |      |      |      |      |      | Dir. Ant. Gain [dBi] | Max e.i.r.p [dBm] | e.i.r.p Limit [dBm] | e.i.r.p Margin [dB] |
|------|------------|---------|---------------|-------------------------------|------|------|------|------|------|------|------|------|----------------------|-------------------|---------------------|---------------------|
|      |            |         |               | Puncture Case                 |      |      |      |      |      |      |      |      |                      |                   |                     |                     |
|      |            |         |               | 90                            |      |      | 91   |      |      | 93   |      |      |                      |                   |                     |                     |
|      |            |         |               | ANT1                          | ANT2 | MIMO | ANT1 | ANT2 | MIMO | ANT1 | ANT2 | MIMO |                      |                   |                     |                     |
| 5    | 5985       | 7       | 20MHz         | 5.43                          | 5.26 | 8.36 | 5.23 | 5.13 | 8.19 | 5.30 | 5.25 | 8.29 | -0.62                | 7.73              | 14.00               | -6.27               |
|      | 6145       | 39      | 20MHz         | 5.97                          | 5.09 | 8.56 | 5.97 | 5.66 | 8.83 | 5.99 | 5.79 | 8.90 | -0.62                | 8.28              | 14.00               | -5.72               |
|      | 6385       | 87      | 20MHz         | 5.26                          | 5.10 | 8.19 | 5.19 | 5.03 | 8.12 | 5.24 | 5.08 | 8.17 | -0.62                | 7.57              | 14.00               | -6.43               |
| 6    | 6465       | 103     | 20MHz         | 5.18                          | 5.33 | 8.27 | 5.50 | 5.96 | 8.75 | 5.06 | 5.32 | 8.20 | -2.01                | 6.73              | 14.00               | -7.27               |
|      | 6545       | 119     | 20MHz         | 5.13                          | 5.39 | 8.27 | 5.00 | 5.30 | 8.16 | 5.06 | 5.37 | 8.23 | -1.78                | 6.50              | 14.00               | -7.50               |
|      | 6705       | 151     | 20MHz         | 5.63                          | 5.34 | 8.50 | 5.55 | 5.20 | 8.39 | 5.70 | 5.32 | 8.52 | -1.78                | 6.75              | 14.00               | -7.25               |
| 7    | 6865       | 183     | 20MHz         | 5.28                          | 5.57 | 8.44 | 5.12 | 5.50 | 8.32 | 5.30 | 5.72 | 8.53 | -1.78                | 6.75              | 14.00               | -7.25               |
|      | 6945       | 199     | 20MHz         | 5.62                          | 5.59 | 8.62 | 5.47 | 5.50 | 8.50 | 5.65 | 5.63 | 8.65 | -0.96                | 7.69              | 14.00               | -6.31               |
|      | 7025       | 215     | 20MHz         | 5.69                          | 5.08 | 8.41 | 5.47 | 5.02 | 8.26 | 5.64 | 5.21 | 8.44 | -0.96                | 7.48              | 14.00               | -6.52               |

**Table 7-14. MIMO 80MHz BW 802.11be (UNII) Maximum Conducted Output Power – 40MHz Puncture**

| Band | Freq [MHz] | Channel | Puncture Size | Average Conducted Power (dBm) |      |      |      |      |      |      |      |      | Dir. Ant. Gain [dBi] | Max e.i.r.p [dBm] | e.i.r.p Limit [dBm] | e.i.r.p Margin [dB] |
|------|------------|---------|---------------|-------------------------------|------|------|------|------|------|------|------|------|----------------------|-------------------|---------------------|---------------------|
|      |            |         |               | Puncture Case                 |      |      |      |      |      |      |      |      |                      |                   |                     |                     |
|      |            |         |               | 94                            |      |      | 95   |      |      | 1094 |      |      |                      |                   |                     |                     |
|      | ANT1       | ANT2    | MIMO          | ANT1                          | ANT2 | MIMO | ANT1 | ANT2 | MIMO |      |      |      |                      |                   |                     |                     |
| 5    | 6025       | 15      | 40MHz         | 5.86                          | 5.46 | 8.67 | 5.50 | 5.16 | 8.34 | 5.40 | 5.18 | 8.30 | -0.62                | 8.05              | 14.00               | -5.95               |
|      | 6185       | 47      | 40MHz         | 5.75                          | 5.67 | 8.72 | 5.45 | 5.36 | 8.42 | 5.39 | 5.36 | 8.39 | -0.62                | 8.10              | 14.00               | -5.90               |
| 6    | 6345       | 79      | 40MHz         | 5.40                          | 5.80 | 8.61 | 5.30 | 5.55 | 8.44 | 5.02 | 5.10 | 8.07 | -0.62                | 7.99              | 14.00               | -6.01               |
|      | 6505       | 111     | 40MHz         | 5.21                          | 5.87 | 8.56 | 4.99 | 5.55 | 8.29 | 4.98 | 5.64 | 8.33 | -2.01                | 6.55              | 14.00               | -7.45               |
| 7    | 6665       | 143     | 40MHz         | 5.17                          | 5.06 | 8.13 | 4.90 | 4.75 | 7.84 | 4.90 | 4.75 | 7.84 | -1.78                | 6.35              | 14.00               | -7.65               |
|      | 6825       | 175     | 40MHz         | 5.23                          | 5.10 | 8.18 | 4.95 | 4.85 | 7.91 | 5.00 | 4.72 | 7.87 | -1.78                | 6.40              | 14.00               | -7.60               |
| 8    | 6985       | 207     | 40MHz         | 5.40                          | 5.33 | 8.38 | 5.20 | 5.00 | 8.11 | 5.12 | 5.00 | 8.07 | -0.96                | 7.41              | 14.00               | -6.59               |

**Table 7-15. MIMO 160MHz BW 802.11be (UNII) Maximum Conducted Output Power – 20MHz Puncture**

| Band | Freq [MHz] | Channel | Puncture Size | Average Conducted Power (dBm) |      |      |      |      |      |      |      |      | Dir. Ant. Gain<br>[dBi] | Max e.i.r.p<br>[dBm] | e.i.r.p Limit<br>[dBm] | e.i.r.p Margin<br>[dB] |
|------|------------|---------|---------------|-------------------------------|------|------|------|------|------|------|------|------|-------------------------|----------------------|------------------------|------------------------|
|      |            |         |               | Puncture Case                 |      |      |      |      |      |      |      |      |                         |                      |                        |                        |
|      |            |         |               | 96                            |      |      | 99   |      |      | 1099 |      |      |                         |                      |                        |                        |
|      | ANT1       | ANT2    | MIMO          | ANT1                          | ANT2 | MIMO | ANT1 | ANT2 | MIMO |      |      |      |                         |                      |                        |                        |
| 5    | 6025       | 15      | 20MHz         | 5.70                          | 5.35 | 8.54 | 5.50 | 5.24 | 8.38 | 5.57 | 5.35 | 8.47 | -0.62                   | 7.92                 | 14.00                  | -6.08                  |
|      | 6185       | 47      | 20MHz         | 5.64                          | 5.59 | 8.63 | 5.48 | 5.43 | 8.47 | 5.48 | 5.43 | 8.47 | -0.62                   | 8.00                 | 14.00                  | -6.00                  |
| 6    | 6345       | 79      | 20MHz         | 5.09                          | 5.38 | 8.25 | 5.29 | 5.58 | 8.45 | 5.42 | 5.75 | 8.60 | -0.62                   | 7.98                 | 14.00                  | -6.02                  |
|      | 6505       | 111     | 20MHz         | 5.12                          | 5.78 | 8.47 | 5.00 | 5.65 | 8.35 | 5.10 | 5.83 | 8.49 | -2.01                   | 6.48                 | 14.00                  | -7.52                  |
| 7    | 6665       | 143     | 20MHz         | 5.12                          | 4.90 | 8.02 | 5.00 | 4.85 | 7.94 | 5.13 | 5.00 | 8.08 | -1.78                   | 6.30                 | 14.00                  | -7.70                  |
|      | 6825       | 175     | 20MHz         | 5.17                          | 5.10 | 8.15 | 5.10 | 4.96 | 8.04 | 5.18 | 5.20 | 8.20 | -1.78                   | 6.42                 | 14.00                  | -7.58                  |
| 8    | 6985       | 207     | 20MHz         | 5.47                          | 5.56 | 8.53 | 5.32 | 5.46 | 8.40 | 5.46 | 5.63 | 8.56 | -0.96                   | 7.59                 | 14.00                  | -6.41                  |

**Table 7-16. MIMO 160MHz BW 802.11be (UNII) Maximum Conducted Output Power – 40MHz Puncture**

| Band | Freq [MHz] | Channel | Puncture Size | Average Conducted Power (dBm) |      |      |      |      |      |       |      |      |       |      |       | Dir. Ant. Gain | Max e.i.r.p [dBm] | e.i.r.p Limit [dBm] | e.i.r.p Margin [dB] |
|------|------------|---------|---------------|-------------------------------|------|------|------|------|------|-------|------|------|-------|------|-------|----------------|-------------------|---------------------|---------------------|
|      |            |         |               | Puncture Case                 |      |      |      |      |      |       |      |      |       |      |       |                |                   |                     |                     |
|      |            |         |               | 100                           |      |      | 1101 |      |      | 11103 |      |      |       |      |       |                |                   |                     |                     |
|      |            |         |               | ANT1                          | ANT2 | MIMO | ANT1 | ANT2 | MIMO | ANT1  | ANT2 | MIMO | ANT1  | ANT2 | MIMO  |                |                   |                     |                     |
| 5    | 6105       | 31      | 40MHz         | 5.37                          | 5.60 | 8.50 | 5.20 | 5.55 | 8.39 | 5.42  | 5.62 | 8.53 | -0.62 | 7.91 | 14.00 | -6.09          |                   |                     |                     |
|      | 6265       | 63      | 40MHz         | 5.11                          | 5.70 | 8.43 | 5.00 | 5.70 | 8.37 | 5.10  | 5.68 | 8.41 | -0.62 | 7.80 | 14.00 | -6.20          |                   |                     |                     |
|      | 6425       | 95      | 40MHz         | 5.15                          | 5.42 | 8.30 | 5.15 | 5.40 | 8.29 | 5.16  | 5.39 | 8.29 | -2.01 | 6.29 | 14.00 | -7.71          |                   |                     |                     |
| 7    | 6585       | 127     | 40MHz         | 5.46                          | 5.82 | 8.65 | 5.50 | 5.70 | 8.61 | 5.48  | 5.87 | 8.69 | -1.78 | 6.91 | 14.00 | -7.09          |                   |                     |                     |
|      | 6745       | 159     | 40MHz         | 5.46                          | 5.99 | 8.74 | 4.90 | 5.78 | 8.37 | 5.50  | 5.86 | 8.69 | -1.78 | 6.97 | 14.00 | -7.03          |                   |                     |                     |
|      | 6905       | 191     | 40MHz         | 5.20                          | 5.90 | 8.57 | 5.14 | 5.98 | 8.59 | 5.17  | 5.83 | 8.52 | -0.96 | 7.63 | 14.00 | -6.37          |                   |                     |                     |

**Table 7-17. MIMO 320MHz BW 802.11be (UNII) Maximum Conducted Output Power – 40MHz Puncture**

| Band | Freq [MHz] | Channel | Puncture Size | Average Conducted Power (dBm) |      |      |      |      |      |       |      |      |       | Dir. Ant. Gain | Max e.i.r.p [dBm] | e.i.r.p Limit [dBm] | e.i.r.p Margin [dB] |
|------|------------|---------|---------------|-------------------------------|------|------|------|------|------|-------|------|------|-------|----------------|-------------------|---------------------|---------------------|
|      |            |         |               | Puncture Case                 |      |      |      |      |      |       |      |      |       |                |                   |                     |                     |
|      |            |         |               | 104                           |      |      | 1104 |      |      | 11104 |      |      |       |                |                   |                     |                     |
|      |            |         |               | ANT1                          | ANT2 | MIMO | ANT1 | ANT2 | MIMO | ANT1  | ANT2 | MIMO | MIMO  |                |                   |                     |                     |
| 5    | 6105       | 31      | 80MHz         | 5.11                          | 5.32 | 8.23 | 5.26 | 5.45 | 8.37 | 5.46  | 5.76 | 8.62 | -0.62 | 8.00           | 14.00             | -6.00               |                     |
|      | 6265       | 63      | 80MHz         | 5.32                          | 5.89 | 8.62 | 5.01 | 5.56 | 8.30 | 5.26  | 5.90 | 8.60 | -0.62 | 8.00           | 14.00             | -6.00               |                     |
| 6    | 6425       | 95      | 80MHz         | 5.23                          | 5.38 | 8.32 | 5.00 | 5.07 | 8.05 | 5.29  | 5.45 | 8.38 | -2.01 | 6.37           | 14.00             | -7.63               |                     |
| 7    | 6585       | 127     | 80MHz         | 5.12                          | 5.52 | 8.33 | 4.92 | 5.18 | 8.06 | 5.21  | 5.44 | 8.34 | -1.78 | 6.56           | 14.00             | -7.44               |                     |
|      | 6745       | 159     | 80MHz         | 5.13                          | 5.48 | 8.32 | 4.90 | 5.20 | 8.06 | 5.20  | 5.72 | 8.48 | -1.78 | 6.70           | 14.00             | -7.30               |                     |
| 8    | 6905       | 191     | 80MHz         | 5.35                          | 5.76 | 8.57 | 5.06 | 5.48 | 8.29 | 5.40  | 5.94 | 8.69 | -0.96 | 7.72           | 14.00             | -6.28               |                     |

**Table 7-18. MIMO 320MHz BW 802.11be (UNII) Maximum Conducted Output Power – 80MHz Puncture**

| Band | Freq [MHz] | Channel | Puncture Size | Average Conducted Power (dBm) |      |      |      |      |      |       |      |      | Dir. Ant. Gain | Max e.i.r.p [dBm] | e.i.r.p Limit [dBm] | e.i.r.p Margin [dB] |
|------|------------|---------|---------------|-------------------------------|------|------|------|------|------|-------|------|------|----------------|-------------------|---------------------|---------------------|
|      |            |         |               | Puncture Case                 |      |      |      |      |      |       |      |      |                |                   |                     |                     |
|      |            |         |               | 105                           |      |      | 1106 |      |      | 11106 |      |      |                |                   |                     |                     |
|      |            |         |               | ANT1                          | ANT2 | MIMO | ANT1 | ANT2 | MIMO | ANT1  | ANT2 | MIMO |                |                   |                     |                     |
| 5    | 6105       | 31      | 120MHz        | 5.05                          | 5.29 | 8.18 | 5.31 | 5.53 | 8.43 | 5.44  | 5.71 | 8.59 | -0.62          | 7.97              | 14.00               | -6.03               |
|      | 6265       | 63      | 120MHz        | 5.29                          | 5.87 | 8.60 | 5.11 | 5.64 | 8.39 | 5.28  | 5.88 | 8.60 | -0.62          | 7.98              | 14.00               | -6.02               |
| 6    | 6425       | 95      | 120MHz        | 5.26                          | 5.35 | 8.32 | 5.00 | 5.23 | 8.13 | 5.26  | 5.42 | 8.35 | -2.01          | 6.34              | 14.00               | -7.66               |
| 7    | 6585       | 127     | 120MHz        | 5.13                          | 5.42 | 8.29 | 5.08 | 5.39 | 8.25 | 5.13  | 5.43 | 8.29 | -1.78          | 6.52              | 14.00               | -7.48               |
|      | 6745       | 159     | 120MHz        | 5.07                          | 5.51 | 8.31 | 4.90 | 5.42 | 8.18 | 5.13  | 5.60 | 8.38 | -1.78          | 6.60              | 14.00               | -7.40               |
| 8    | 6905       | 191     | 120MHz        | 5.33                          | 5.82 | 8.59 | 5.13 | 5.59 | 8.38 | 5.38  | 5.93 | 8.66 | -0.96          | 7.69              | 14.00               | -6.31               |

**Table 7-19. MIMO 320MHz BW 802.11be (UNII) Maximum Conducted Output Power – 120MHz Puncture**

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 37 of 113                    |



#### Sample MIMO Calculation:

At 5935MHz in 802.11a (20MHz BW) mode, the average conducted output power was measured to be 4.06 dBm for Antenna-1 and 4.48 dBm for Antenna-2.

Antenna 1 + Antenna 2 = MIMO

$$(4.06 \text{ dBm} + 4.48 \text{ dBm}) = (2.547 \text{ mW} + 2.805 \text{ mW}) = 5.352 \text{ mW} = 7.29 \text{ dBm}$$

#### Sample Directional Gain Calculation:

Per ANSI C63.10:2020 Section 14.6.3, the directional gain is calculated using the following formula, where  $G_N$  is the gain of the nth antenna and  $N_{ANT}$ , the total number of antennas used.

$$\text{Directional gain} = 10 \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N_{ANT}] \text{ dBi}$$

#### Sample e.i.r.p. Calculation:

At 5935MHz in 802.11a (20MHz BW) mode, the average MIMO conducted power was calculated to be 7.29 dBm with directional gain of -0.62 dBi.

$$\text{e.i.r.p. (dBm)} = \text{Conducted Power (dBm)} + \text{Ant gain (dBi)}$$

$$7.29 \text{ dBm} + -0.62 \text{ dBi} = 6.67 \text{ dBm}$$

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS942B                         | <b>MEASUREMENT REPORT</b>               |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2508270084-22-R1.A3L | <b>Test Dates:</b><br>9/2/25 - 12/30/25 | <b>EUT Type:</b><br>Portable Handset | Page 38 of 113                           |

## 7.4 Maximum Power Spectral Density

### Test Overview and Limit

The spectrum analyzer was connected to the antenna terminal while the EUT was operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10:2020, and at the appropriate frequencies. Method SA-1, as defined in ANSI C63.10:2020, was used to measure the power spectral density for 802.11a/ax and 802.11be.

***For very low power devices operating in the 5.925-7.125 GHz band, the maximum power spectral density must not exceed -5 dBm e.i.r.p in any 1-megahertz band and the maximum e.i.r.p must not exceed 14 dBm***

### Test Procedure Used

ANSI C63.10:2020 – Section 12.4.2.2

ANSI C63.10:2020 – Section 14.5.2.3 Measure-and-Sum Technique

### Test Settings

1. Analyzer was set to the center frequency of the UNII channel under investigation.
2. Span was set to encompass the entire emission bandwidth of the signal.
3. RBW = 1MHz
4. VBW = 3MHz
5. Number of sweep points  $\geq 2 \times (\text{span/RBW})$
6. Sweep time = auto
7. Detector = power averaging (RMS)
8. Trigger was set to free run for all modes.
9. Trace was averaged over 100 sweeps.
10. The peak search function of the spectrum analyzer was used to find the peak of the spectrum.

### Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



**Figure 7-3. Test Instrument & Measurement Setup**

### Test Notes

None.

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 39 of 113                    |

## MIMO Power Spectral Density Measurements

|        | Frequency [MHz] | Channel | 802.11 MODE | Antenna-1 Power Density [dBm] | Antenna-2 Power Density [dBm] | Antenna-1 Gain [dBi] | Antenna-2 Gain [dBi] | Summed MIMO Power Density [dBm/MHz] | Directional Gain [dBi] | DCCF [dB] | EIRP Density [dBm/MHz] | EIRP Density Limit [dBm/MHz] | Margin [dB] |
|--------|-----------------|---------|-------------|-------------------------------|-------------------------------|----------------------|----------------------|-------------------------------------|------------------------|-----------|------------------------|------------------------------|-------------|
| Band 5 | 5935            | 2       | a           | -9.26                         | -7.67                         | -3.88                | -3.39                | -5.38                               | -0.62                  | 0.28      | -5.72                  | -5                           | -0.72       |
|        | 6175            | 45      | a           | -9.14                         | -7.28                         | -3.88                | -3.39                | -5.10                               | -0.62                  | 0.28      | -5.44                  | -5                           | -0.44       |
|        | 6415            | 93      | a           | -8.70                         | -7.47                         | -3.88                | -3.39                | -5.03                               | -0.62                  | 0.28      | -5.37                  | -5                           | -0.37       |
|        | 5935            | 2       | be (20MHz)  | -8.95                         | -7.19                         | -3.88                | -3.39                | -4.97                               | -0.62                  | 0.00      | -5.60                  | -5                           | -0.60       |
|        | 6175            | 45      | be (20MHz)  | -8.61                         | -6.55                         | -3.88                | -3.39                | -4.44                               | -0.62                  | 0.00      | -5.07                  | -5                           | -0.07       |
|        | 6415            | 93      | be (20MHz)  | -8.06                         | -7.28                         | -3.88                | -3.39                | -4.65                               | -0.62                  | 0.00      | -5.27                  | -5                           | -0.27       |
|        | 5965            | 3       | be (40MHz)  | -11.57                        | -9.67                         | -3.88                | -3.39                | -7.50                               | -0.62                  | 0.00      | -8.13                  | -5                           | -3.13       |
|        | 6165            | 43      | be (40MHz)  | -11.10                        | -9.37                         | -3.88                | -3.39                | -7.14                               | -0.62                  | 0.00      | -7.76                  | -5                           | -2.76       |
|        | 6405            | 91      | be (40MHz)  | -10.69                        | -9.42                         | -3.88                | -3.39                | -7.00                               | -0.62                  | 0.00      | -7.62                  | -5                           | -2.62       |
|        | 5985            | 7       | be (80MHz)  | -14.48                        | -12.94                        | -3.88                | -3.39                | -10.63                              | -0.62                  | 0.00      | -11.25                 | -5                           | -6.25       |
|        | 6145            | 39      | be (80MHz)  | -14.49                        | -12.78                        | -3.88                | -3.39                | -10.54                              | -0.62                  | 0.00      | -11.16                 | -5                           | -6.16       |
|        | 6385            | 87      | be (80MHz)  | -13.84                        | -12.52                        | -3.88                | -3.39                | -10.12                              | -0.62                  | 0.00      | -10.74                 | -5                           | -5.74       |
|        | 6025            | 15      | be (160MHz) | -17.88                        | -15.22                        | -3.88                | -3.39                | -13.34                              | -0.62                  | 0.00      | -13.96                 | -5                           | -8.96       |
|        | 6185            | 47      | be (160MHz) | -17.62                        | -15.42                        | -3.88                | -3.39                | -13.37                              | -0.62                  | 0.00      | -13.99                 | -5                           | -8.99       |
|        | 6345            | 79      | be (160MHz) | -16.90                        | -15.38                        | -3.88                | -3.39                | -13.06                              | -0.62                  | 0.00      | -13.68                 | -5                           | -8.68       |
| Band 6 | 6105            | 31      | be (320MHz) | -18.51                        | -15.91                        | -3.88                | -3.39                | -14.01                              | -0.62                  | 0.00      | -14.63                 | -5                           | -9.63       |
|        | 6265            | 63      | be (320MHz) | -17.65                        | -16.09                        | -3.88                | -3.39                | -13.79                              | -0.62                  | 0.00      | -14.41                 | -5                           | -9.41       |
|        | 6435            | 97      | a           | -8.46                         | -7.36                         | -6.03                | -4.12                | -4.86                               | -2.01                  | 0.28      | -6.60                  | -5                           | -1.60       |
|        | 6475            | 105     | a           | -8.70                         | -7.54                         | -6.03                | -4.12                | -5.07                               | -2.01                  | 0.28      | -6.81                  | -5                           | -1.81       |
|        | 6515            | 113     | a           | -8.91                         | -7.99                         | -6.03                | -4.12                | -5.42                               | -2.01                  | 0.28      | -7.15                  | -5                           | -2.15       |
|        | 6435            | 97      | be (20MHz)  | -8.71                         | -7.32                         | -6.03                | -4.12                | -4.95                               | -2.01                  | 0.00      | -6.96                  | -5                           | -1.96       |
|        | 6475            | 105     | be (20MHz)  | -8.75                         | -7.30                         | -6.03                | -4.12                | -4.95                               | -2.01                  | 0.00      | -6.97                  | -5                           | -1.97       |
|        | 6515            | 113     | be (20MHz)  | -9.05                         | -7.63                         | -6.03                | -4.12                | -5.27                               | -2.01                  | 0.00      | -7.29                  | -5                           | -2.29       |
|        | 6445            | 99      | be (40MHz)  | -10.57                        | -9.38                         | -6.03                | -4.12                | -6.92                               | -2.01                  | 0.00      | -8.93                  | -5                           | -3.93       |
|        | 6485            | 107     | be (40MHz)  | -10.78                        | -9.66                         | -6.03                | -4.12                | -7.17                               | -2.01                  | 0.00      | -9.19                  | -5                           | -4.19       |
|        | 6525            | 115     | be (40MHz)  | -11.04                        | -9.91                         | -6.03                | -4.12                | -7.43                               | -2.01                  | 0.00      | -9.44                  | -5                           | -4.44       |
|        | 6465            | 103     | be (80MHz)  | -13.72                        | -12.85                        | -6.03                | -4.12                | -10.25                              | -2.01                  | 0.00      | -12.26                 | -5                           | -7.26       |
|        | 6505            | 111     | be (160MHz) | -16.80                        | -15.94                        | -6.03                | -4.12                | -13.34                              | -2.01                  | 0.00      | -15.35                 | -5                           | -10.35      |
|        | 6425            | 95      | be (320MHz) | -17.19                        | -16.04                        | -3.88                | -3.39                | -13.56                              | -0.62                  | 0.00      | -14.19                 | -5                           | -9.19       |
|        | 6535            | 117     | a           | -9.10                         | -8.04                         | -5.51                | -4.12                | -5.53                               | -1.78                  | 0.28      | -7.02                  | -5                           | -2.02       |
|        | 6695            | 149     | a           | -9.04                         | -7.29                         | -5.51                | -4.12                | -5.07                               | -1.78                  | 0.28      | -6.56                  | -5                           | -1.56       |
| Band 7 | 6875            | 185     | a           | -8.26                         | -7.59                         | -5.51                | -4.12                | -4.90                               | -1.78                  | 0.28      | -6.40                  | -5                           | -1.40       |
|        | 6535            | 117     | be (20MHz)  | -8.99                         | -7.90                         | -5.51                | -4.12                | -5.40                               | -1.78                  | 0.00      | -7.18                  | -5                           | -2.18       |
|        | 6695            | 149     | be (20MHz)  | -9.42                         | -7.00                         | -5.51                | -4.12                | -5.03                               | -1.78                  | 0.00      | -6.81                  | -5                           | -1.81       |
|        | 6875            | 185     | be (20MHz)  | -8.20                         | -7.50                         | -5.51                | -4.12                | -4.82                               | -1.78                  | 0.00      | -6.60                  | -5                           | -1.60       |
|        | 6565            | 123     | be (40MHz)  | -10.95                        | -10.17                        | -5.51                | -4.12                | -7.53                               | -1.78                  | 0.00      | -9.31                  | -5                           | -4.31       |
|        | 6725            | 155     | be (40MHz)  | -11.25                        | -9.28                         | -5.51                | -4.12                | -7.14                               | -1.78                  | 0.00      | -8.92                  | -5                           | -3.92       |
|        | 6845            | 179     | be (40MHz)  | -10.73                        | -9.55                         | -5.51                | -4.12                | -7.09                               | -1.78                  | 0.00      | -8.86                  | -5                           | -3.86       |
|        | 6545            | 119     | be (80MHz)  | -14.18                        | -12.99                        | -5.51                | -4.12                | -10.53                              | -1.78                  | 0.00      | -12.31                 | -5                           | -7.31       |
|        | 6705            | 151     | be (80MHz)  | -14.22                        | -12.78                        | -5.51                | -4.12                | -10.43                              | -1.78                  | 0.00      | -12.21                 | -5                           | -7.21       |
|        | 6865            | 183     | be (80MHz)  | -13.33                        | -13.30                        | -5.51                | -4.12                | -10.31                              | -1.78                  | 0.00      | -12.08                 | -5                           | -7.08       |
|        | 6665            | 143     | be (160MHz) | -17.72                        | -15.60                        | -5.51                | -4.12                | -13.52                              | -1.78                  | 0.00      | -15.30                 | -5                           | -10.30      |
|        | 6825            | 175     | be (160MHz) | -17.23                        | -15.74                        | -5.51                | -4.12                | -13.41                              | -1.78                  | 0.00      | -15.19                 | -5                           | -10.19      |
|        | 6585            | 127     | be (320MHz) | -17.68                        | -15.96                        | -5.51                | -4.12                | -13.72                              | -1.78                  | 0.00      | -15.50                 | -5                           | -10.50      |
|        | 6745            | 159     | be (320MHz) | -17.68                        | -15.98                        | -3.40                | -4.12                | -13.74                              | -0.96                  | 0.00      | -14.70                 | -5                           | -9.70       |
|        | 6895            | 189     | a           | -8.52                         | -7.46                         | -3.40                | -4.59                | -4.94                               | -0.96                  | 0.28      | -5.63                  | -5                           | -0.63       |
|        | 6995            | 209     | a           | -9.16                         | -7.24                         | -3.40                | -4.59                | -5.08                               | -0.96                  | 0.28      | -5.77                  | -5                           | -0.77       |
| Band 8 | 7115            | 233     | a           | -8.86                         | -7.21                         | -3.40                | -4.59                | -4.95                               | -0.96                  | 0.28      | -5.63                  | -5                           | -0.63       |
|        | 6895            | 189     | be (20MHz)  | -8.43                         | -7.45                         | -3.40                | -4.59                | -4.90                               | -0.96                  | 0.00      | -5.86                  | -5                           | -0.86       |
|        | 6995            | 209     | be (20MHz)  | -9.05                         | -7.15                         | -3.40                | -4.59                | -4.99                               | -0.96                  | 0.00      | -5.95                  | -5                           | -0.95       |
|        | 7115            | 233     | be (20MHz)  | -9.02                         | -6.76                         | -3.40                | -4.59                | -4.73                               | -0.96                  | 0.00      | -5.70                  | -5                           | -0.70       |
|        | 6885            | 187     | be (40MHz)  | -10.49                        | -9.79                         | -3.40                | -4.59                | -7.12                               | -0.96                  | 0.00      | -8.08                  | -5                           | -3.08       |
|        | 7005            | 211     | be (40MHz)  | -10.92                        | -9.46                         | -3.40                | -4.59                | -7.12                               | -0.96                  | 0.00      | -8.08                  | -5                           | -3.08       |
|        | 7085            | 227     | be (40MHz)  | -11.31                        | -9.34                         | -3.40                | -4.59                | -7.20                               | -0.96                  | 0.00      | -8.17                  | -5                           | -3.17       |
|        | 6945            | 199     | be (80MHz)  | -13.77                        | -13.06                        | -3.40                | -4.59                | -10.39                              | -0.96                  | 0.00      | -11.35                 | -5                           | -6.35       |
|        | 7025            | 215     | be (80MHz)  | -13.70                        | -12.92                        | -3.40                | -4.59                | -10.28                              | -0.96                  | 0.00      | -11.25                 | -5                           | -6.25       |
|        | 6985            | 207     | be (160MHz) | -16.93                        | -15.41                        | -3.40                | -4.59                | -13.09                              | -0.96                  | 0.00      | -14.06                 | -5                           | -9.06       |
|        | 6905            | 191     | be (320MHz) | -17.35                        | -16.13                        | 0.00                 | 0.00                 | -13.69                              | -0.96                  | 0.00      | -14.65                 | -5                           | -9.65       |

Table 7-20. MIMO e.i.r.p. Conducted Power Spectral Density Measurements VLP

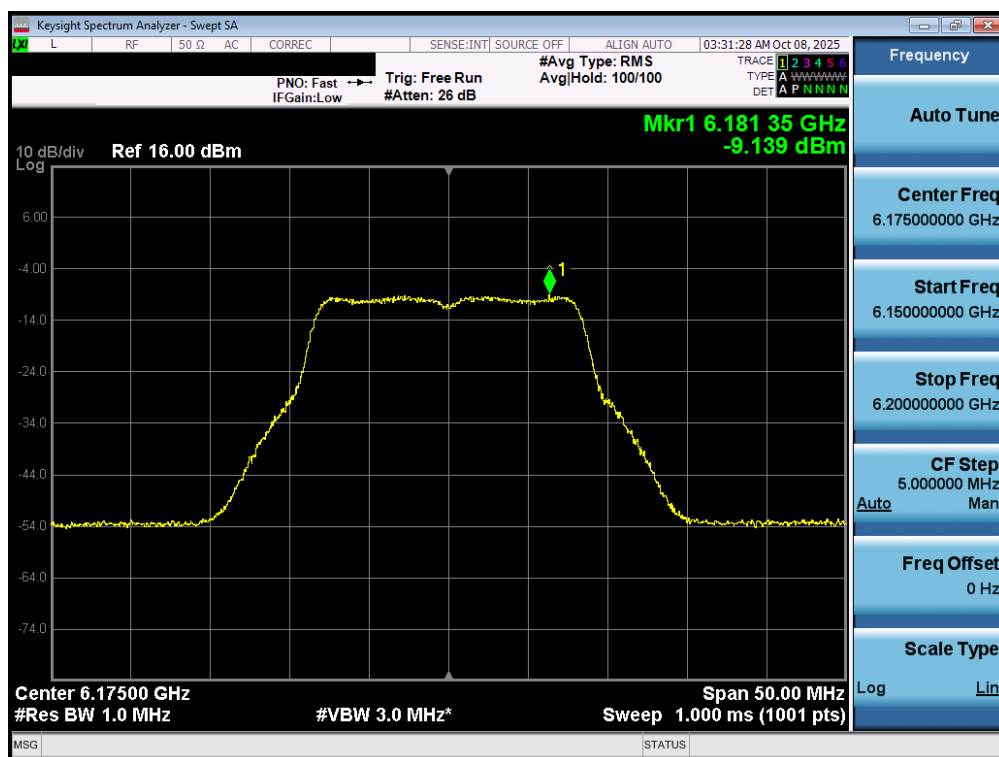
|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 40 of 113                    |

|            | Frequency [MHz] | Channel | 802.11 MODE | Puncture Size | Antenna-1 Power Density [dBm] | Antenna-2 Power Density [dBm] | Antenna-1 Gain [dBi] | Antenna-2 Gain [dBi] | Summed MIMO Power Density [dBm/MHz] | Directional Gain [dBi] | EIRP Density [dBm/MHz] | EIRP Density Limit [dBm/MHz] | Margin [dB] |
|------------|-----------------|---------|-------------|---------------|-------------------------------|-------------------------------|----------------------|----------------------|-------------------------------------|------------------------|------------------------|------------------------------|-------------|
| Band 5     | 6145            | 39      | be (80MHz)  | 20MHz         | -11.54                        | -11.12                        | -3.88                | -3.39                | -8.31                               | -0.62                  | -8.93                  | -5                           | -3.93       |
|            | 6185            | 47      | be (160MHz) | 20MHz         | -15.43                        | -14.59                        | -3.88                | -3.39                | -11.98                              | -0.62                  | -12.60                 | -5                           | -7.60       |
|            | 6185            | 47      | be (160MHz) | 40MHz         | -15.13                        | -13.76                        | -3.88                | -3.39                | -11.38                              | -0.62                  | -12.00                 | -5                           | -7.00       |
|            | 6105            | 31      | be (320MHz) | 40MHz         | -17.45                        | -16.49                        | -6.03                | -4.12                | -13.94                              | -2.01                  | -15.95                 | -5                           | -10.95      |
|            | 6105            | 31      | be (320MHz) | 80MHz         | -16.67                        | -15.86                        | -6.03                | -4.12                | -13.24                              | -2.01                  | -15.25                 | -5                           | -10.25      |
| Band 6     | 6105            | 31      | be (320MHz) | 120MHz        | -16.25                        | -15.23                        | -6.03                | -4.12                | -12.70                              | -2.01                  | -14.71                 | -5                           | -9.71       |
|            | 6465            | 103     | be (80MHz)  | 20MHz         | -11.10                        | -10.85                        | -6.03                | -4.12                | -7.96                               | -2.01                  | -9.97                  | -5                           | -4.97       |
|            | 6505            | 111     | be (160MHz) | 20MHz         | -15.36                        | -15.24                        | -6.03                | -4.12                | -12.29                              | -2.01                  | -14.30                 | -5                           | -9.30       |
|            | 6505            | 111     | be (160MHz) | 40MHz         | -14.85                        | -14.39                        | -6.03                | -4.12                | -11.60                              | -2.01                  | -13.62                 | -5                           | -8.62       |
|            | 6425            | 95      | be (320MHz) | 40MHz         | -16.85                        | -16.34                        | -3.88                | -3.39                | -13.58                              | -0.62                  | -14.20                 | -5                           | -9.20       |
| Band 5/6/7 | 6425            | 95      | be (320MHz) | 80MHz         | -16.16                        | -15.98                        | -3.88                | -3.39                | -13.05                              | -0.62                  | -13.68                 | -5                           | -8.68       |
|            | 6425            | 95      | be (320MHz) | 120MHz        | -15.40                        | -15.35                        | -3.88                | -3.39                | -12.37                              | -0.62                  | -12.99                 | -5                           | -7.99       |
|            | 6705            | 151     | be (80MHz)  | 20MHz         | -11.71                        | -10.56                        | -5.51                | -4.12                | -8.09                               | -1.78                  | -9.87                  | -5                           | -4.87       |
| Band 7     | 6665            | 143     | be (160MHz) | 20MHz         | -16.06                        | -15.02                        | -5.51                | -4.12                | -12.50                              | -1.78                  | -14.28                 | -5                           | -9.28       |
|            | 6665            | 143     | be (160MHz) | 40MHz         | -15.28                        | -14.43                        | -5.51                | -4.12                | -11.82                              | -1.78                  | -13.60                 | -5                           | -8.60       |
|            | 6745            | 159     | be (320MHz) | 40MHz         | -17.34                        | -16.15                        | -3.40                | -4.12                | -13.70                              | -0.96                  | -14.66                 | -5                           | -9.66       |
| Band 7/8   | 6745            | 159     | be (320MHz) | 80MHz         | -16.44                        | -15.20                        | -3.40                | -4.12                | -12.77                              | -0.96                  | -13.73                 | -5                           | -8.73       |
|            | 6745            | 159     | be (320MHz) | 120MHz        | -16.20                        | -15.01                        | -3.40                | -4.12                | -12.55                              | -0.96                  | -13.52                 | -5                           | -8.52       |
|            | 7025            | 215     | be (80MHz)  | 20MHz         | -11.65                        | -10.87                        | -3.40                | -4.59                | -8.24                               | -0.96                  | -9.20                  | -5                           | -4.20       |
| Band 8     | 6985            | 207     | be (160MHz) | 20MHz         | -15.92                        | -14.61                        | -3.40                | -4.59                | -12.20                              | -0.96                  | -13.17                 | -5                           | -8.17       |
|            | 6985            | 207     | be (160MHz) | 40MHz         | -15.10                        | -14.37                        | -3.40                | -4.59                | -11.71                              | -0.96                  | -12.67                 | -5                           | -7.67       |
|            | 6905            | 191     | be (320MHz) | 40MHz         | -17.03                        | -15.95                        | -3.40                | -4.12                | -13.45                              | -0.96                  | -14.41                 | -5                           | -9.41       |
| Band 7/8   | 6905            | 191     | be (320MHz) | 80MHz         | -16.11                        | -15.62                        | -3.40                | -4.12                | -12.85                              | -0.96                  | -13.81                 | -5                           | -8.81       |
|            | 6905            | 191     | be (320MHz) | 120MHz        | -16.07                        | -15.13                        | -3.40                | -4.12                | -12.56                              | -0.96                  | -13.53                 | -5                           | -8.53       |

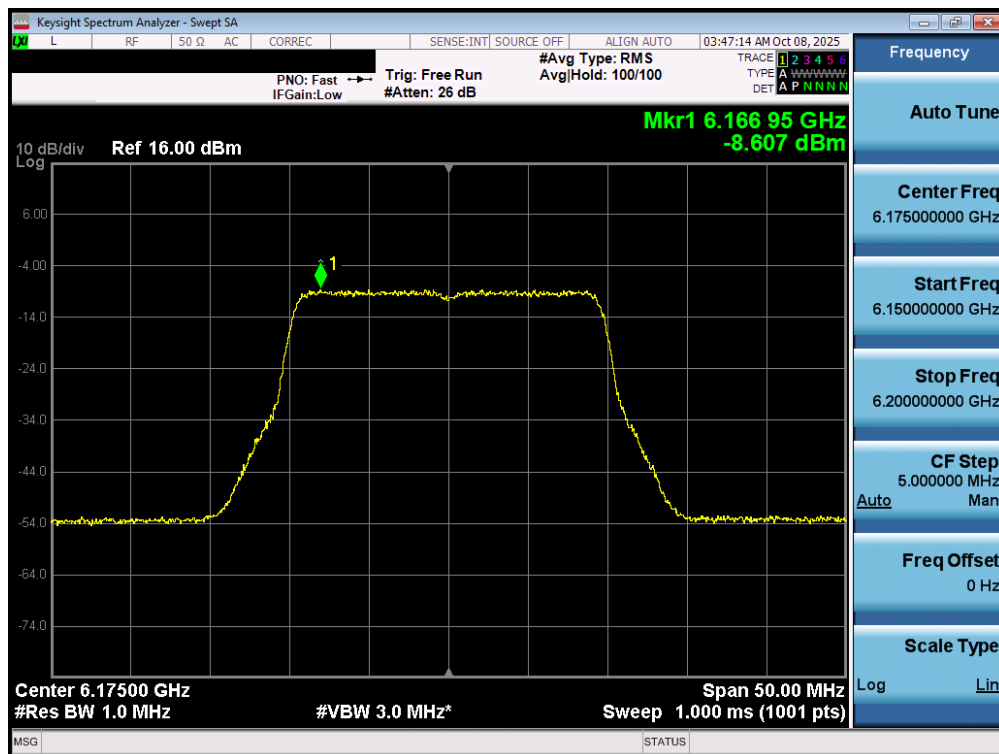
**Table 7-21. MIMO e.i.r.p. Conducted Power Spectral Density Measurements – Punctured Cases VLP**

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS942B                         | <b>MEASUREMENT REPORT</b>               |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2508270084-22-R1.A3L | <b>Test Dates:</b><br>9/2/25 - 12/30/25 | <b>EUT Type:</b><br>Portable Handset | Page 41 of 113                           |

## 7.4.1 MIMO Antenna-1 Power Spectral Density Measurement - (UNII Band 5)

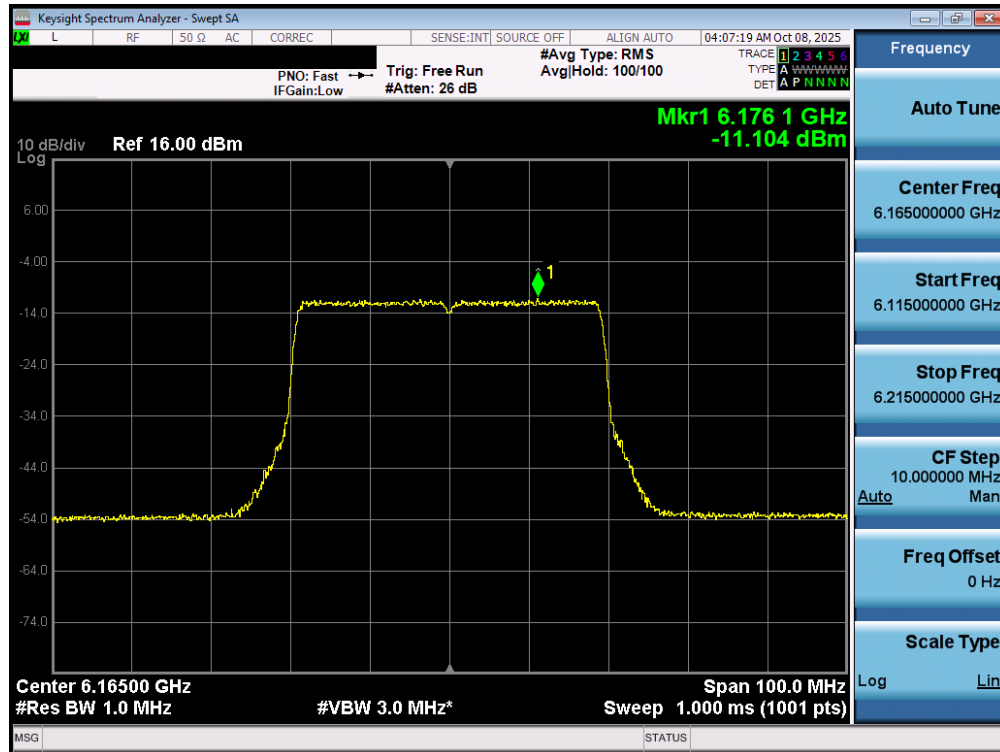


Plot 7-19. Power Spectral Density Plot MIMO ANT1 (20MHz 802.11a (UNII Band 5) – Ch. 45) - VLP

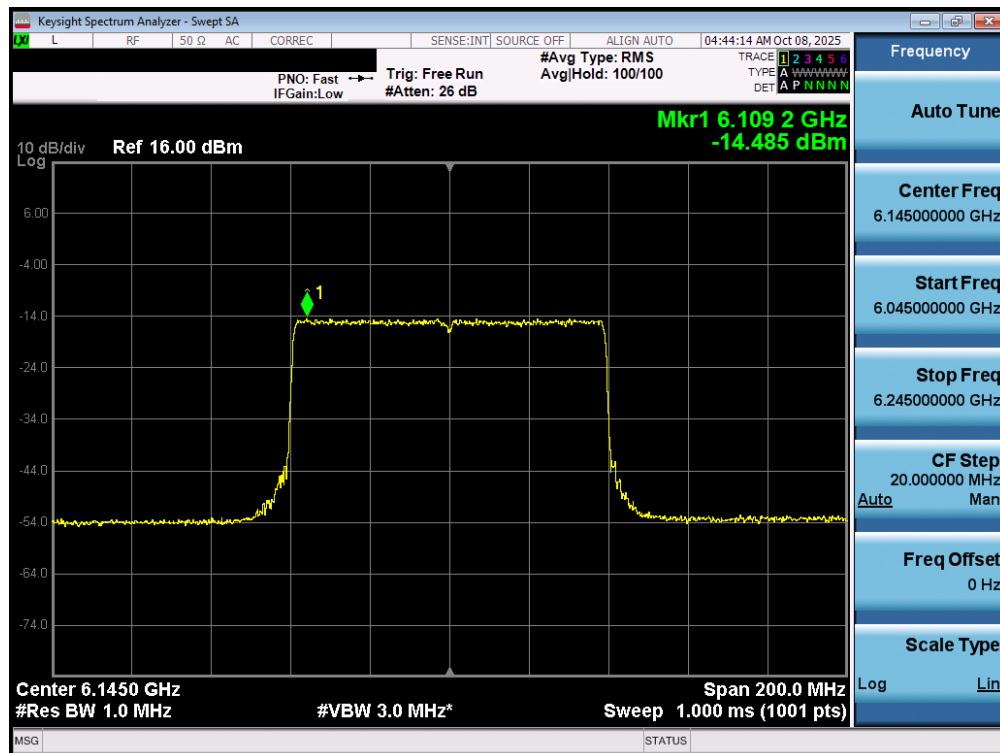


Plot 7-20. Power Spectral Density Plot MIMO ANT1 (20MHz 802.11ax/be (UNII Band 5) – Ch. 45) - VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 42 of 113                    |

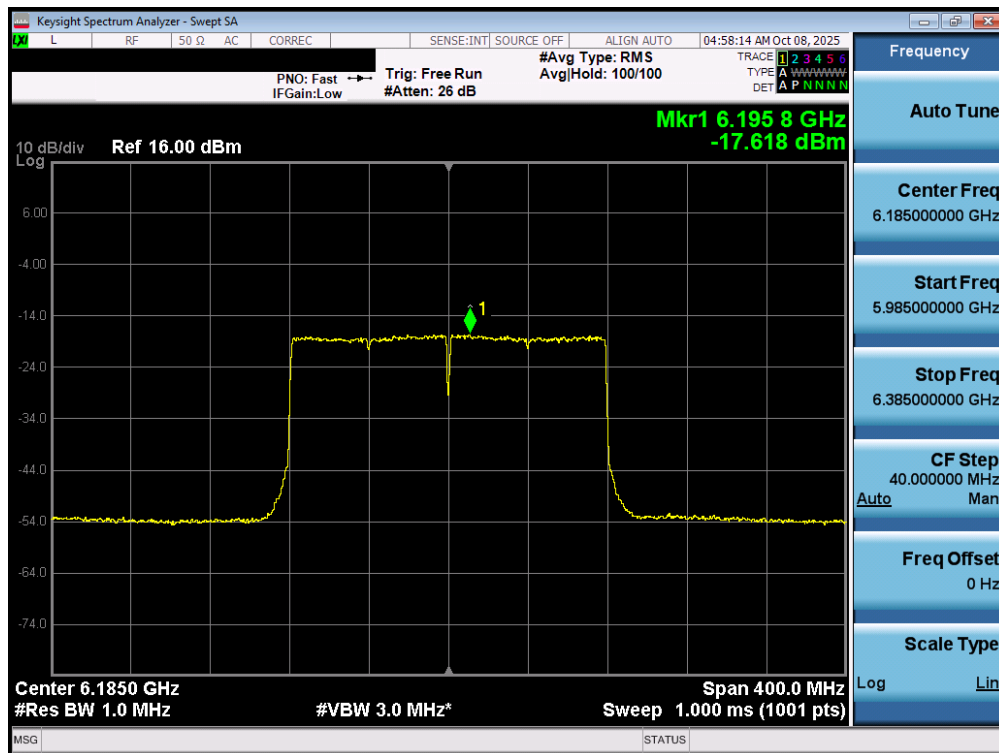


Plot 7-21. Power Spectral Density Plot MIMO ANT1 (40MHz 802.11ax/be (UNII Band 5) – Ch. 43) - VLP

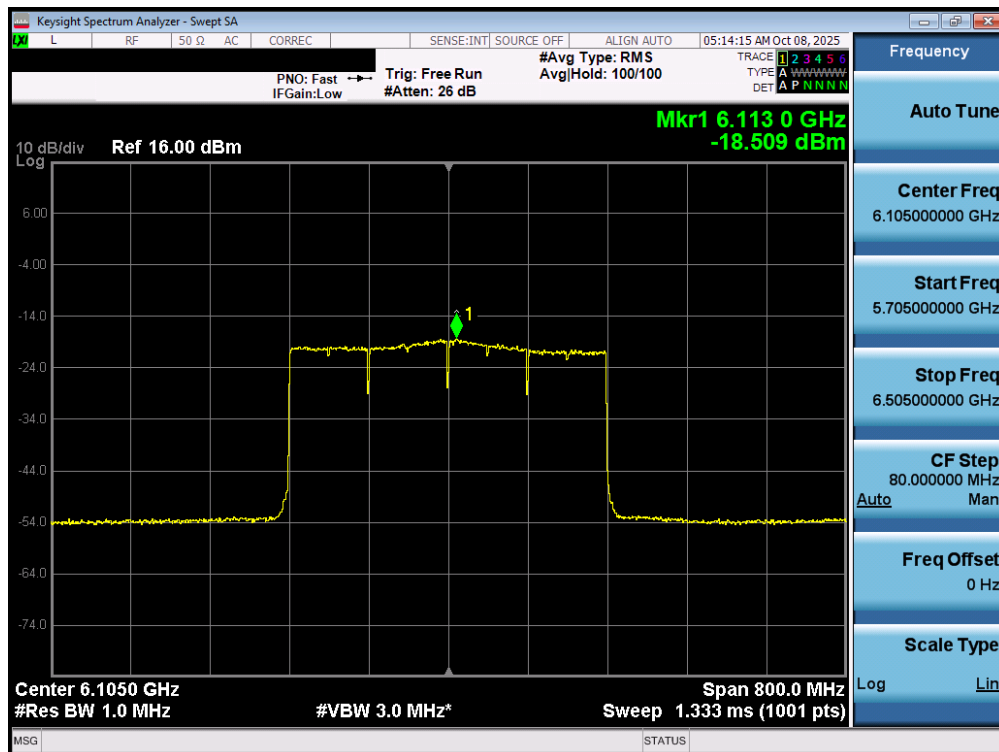


Plot 7-22. Power Spectral Density Plot MIMO ANT1 (80MHz 802.11ax/be (UNII Band 5) – Ch. 39) - VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 43 of 113                    |

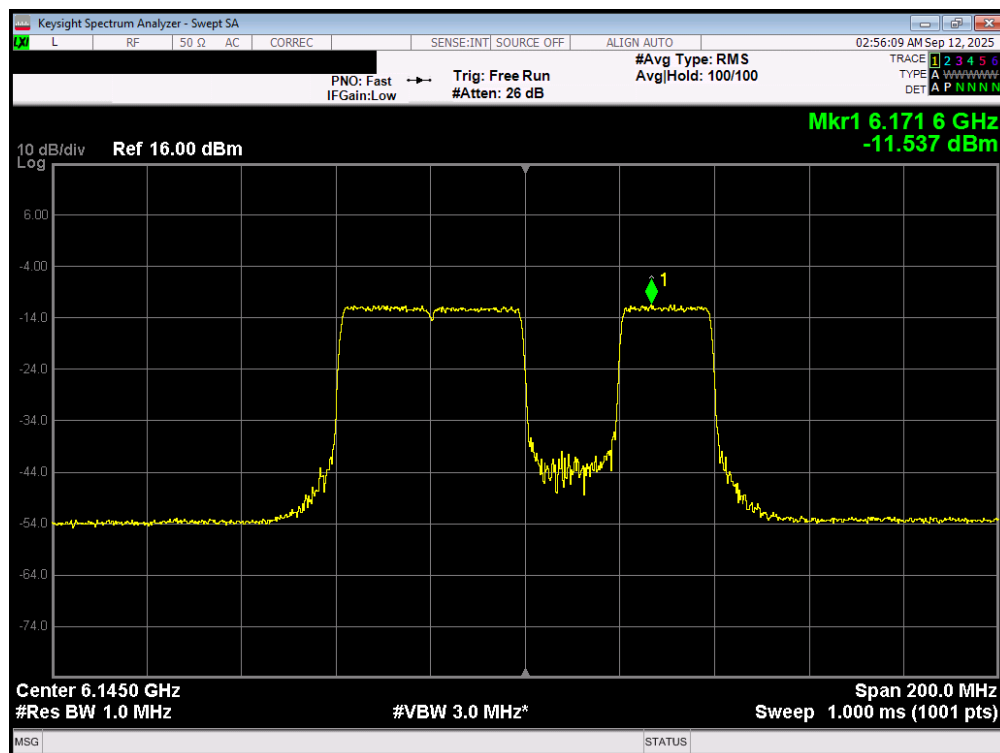


Plot 7-23. Power Spectral Density Plot MIMO ANT1 (160MHz 802.11ax/be (UNII Band 5) – Ch. 47) - VLP

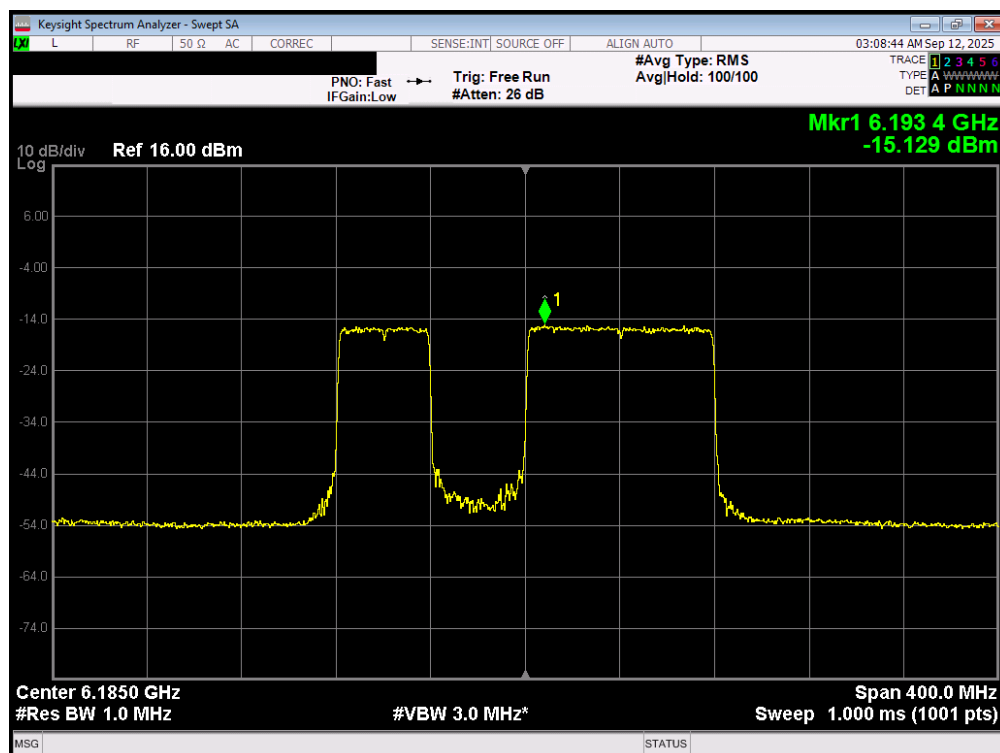


Plot 7-24. Power Spectral Density Plot MIMO ANT1 (320MHz 802.11ax/be (UNII Band 5) – Ch. 31) - VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 44 of 113                    |

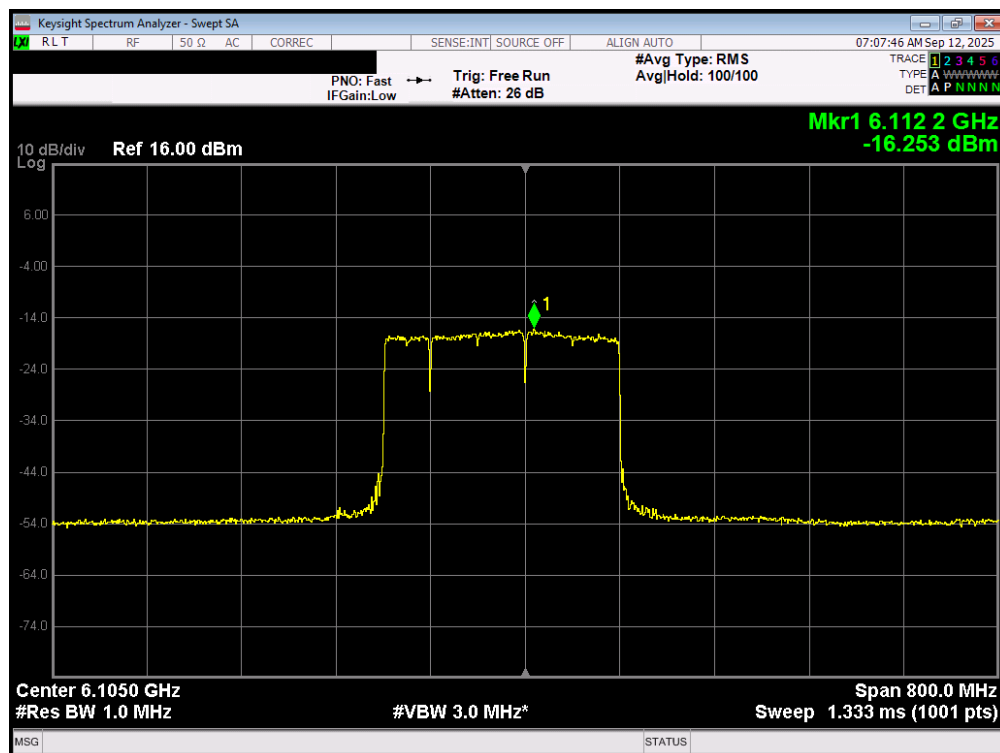


Plot 7-25. Power Spectral Density Plot MIMO ANT1 (80MHz 802.11be (UNII Band 5) – Ch. 39) – 20MHz Punctured - VLP



Plot 7-26. Power Spectral Density Plot MIMO ANT1 (160MHz 802.11be (UNII Band 5) – Ch. 47) – 40MHz Punctured - VLP

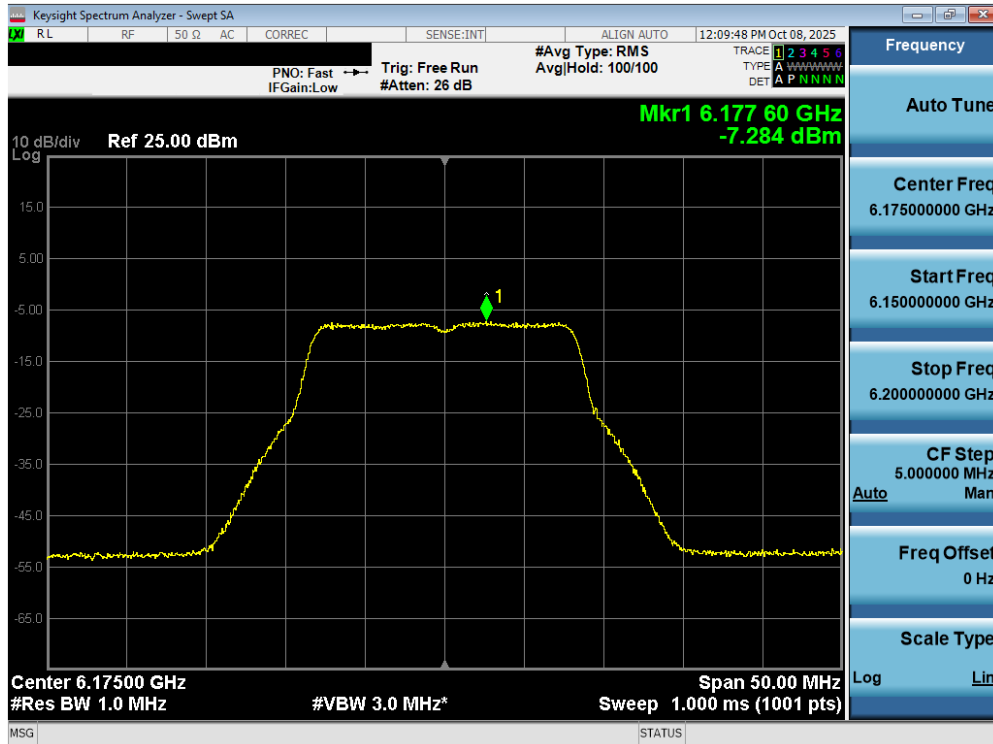
|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 45 of 113                    |



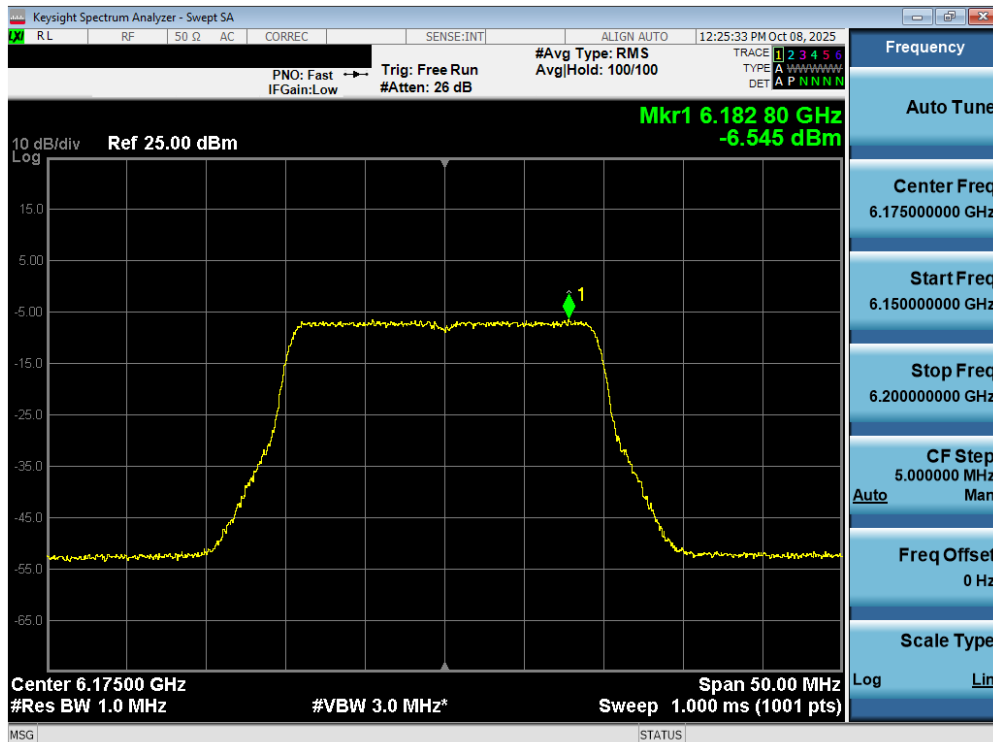
Plot 7-27. Power Spectral Density Plot MIMO ANT1 (320MHz 802.11be (UNII Band 5) – Ch. 31) – 120MHz Punctured - VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 46 of 113                    |

## 7.4.2 MIMO Antenna-2 Power Spectral Density Measurement - (UNII Band 5)

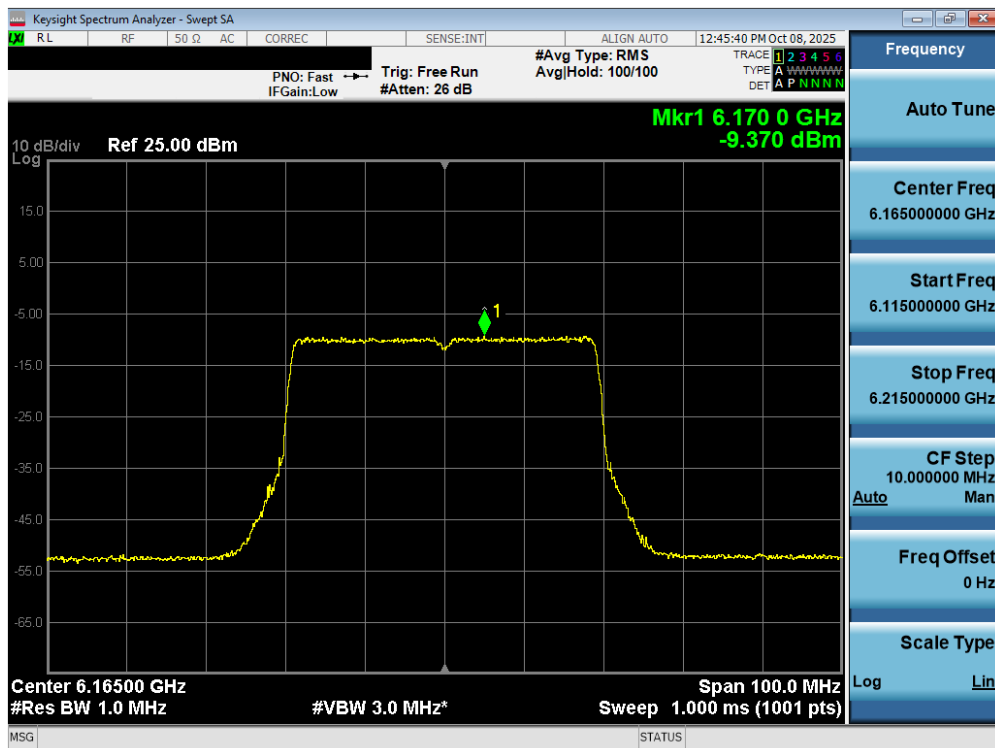


Plot 7-28. Power Spectral Density Plot MIMO ANT2 (20MHz 802.11a (UNII Band 5) – Ch. 45) - VLP

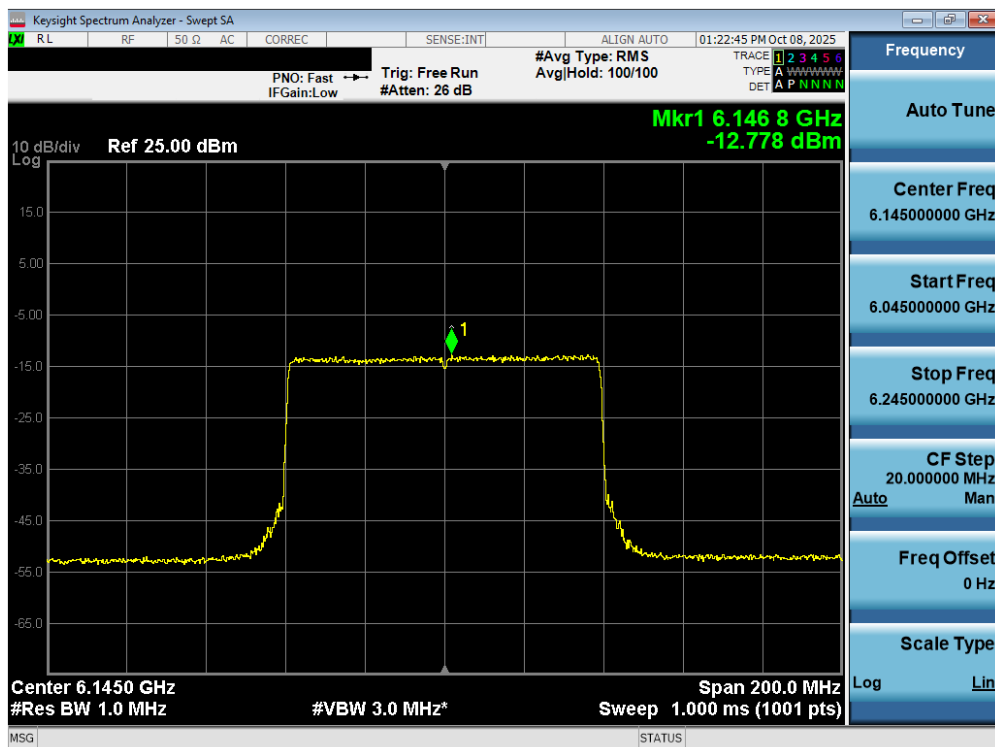


Plot 7-29. Power Spectral Density Plot MIMO ANT2 (20MHz 802.11ax/be (UNII Band 5) – Ch. 45) - VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 47 of 113                    |

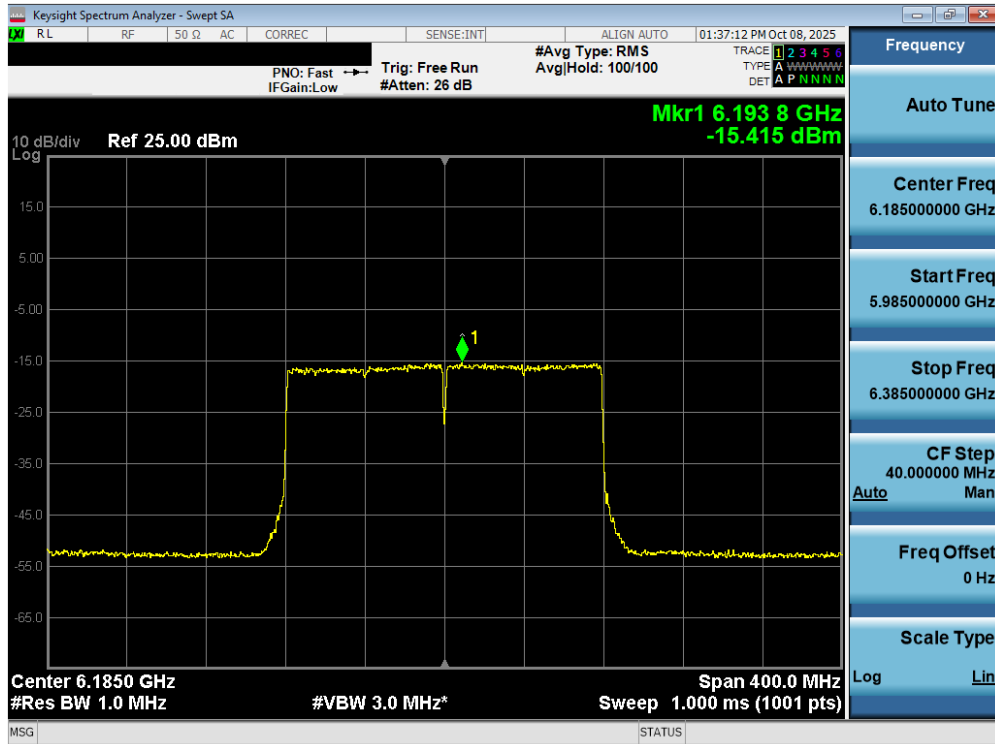


Plot 7-30. Power Spectral Density Plot MIMO ANT2 (40MHz 802.11ax/be (UNII Band 5) – Ch. 43) - VLP

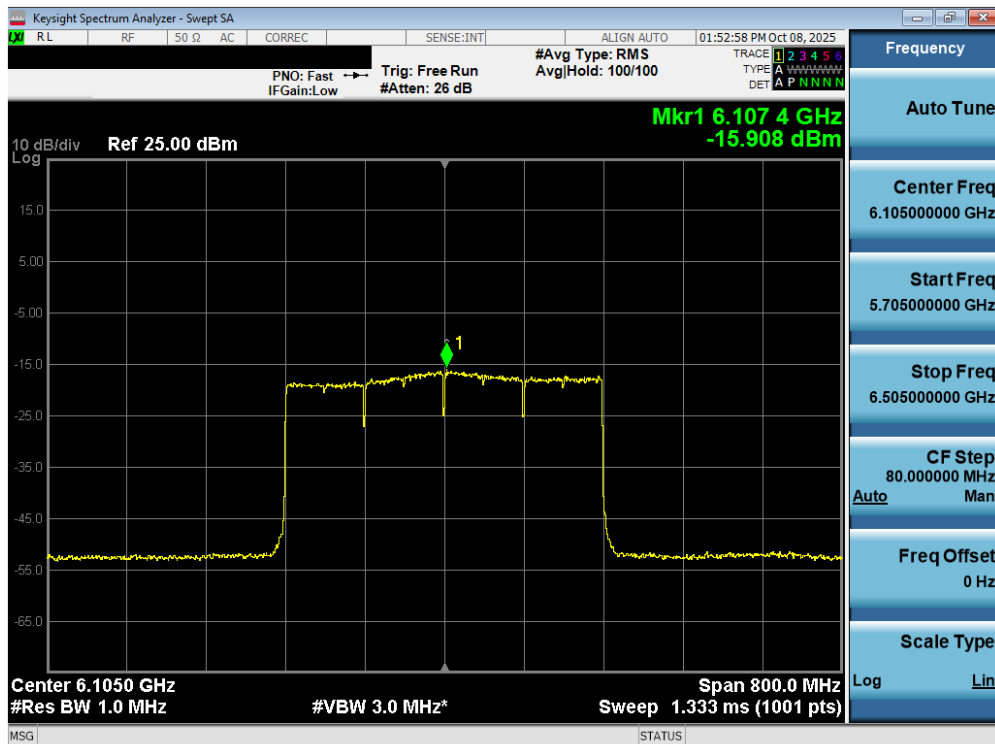


Plot 7-31. Power Spectral Density Plot MIMO ANT2 (80MHz 802.11ax/be (UNII Band 5) – Ch. 39) - VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 48 of 113                    |

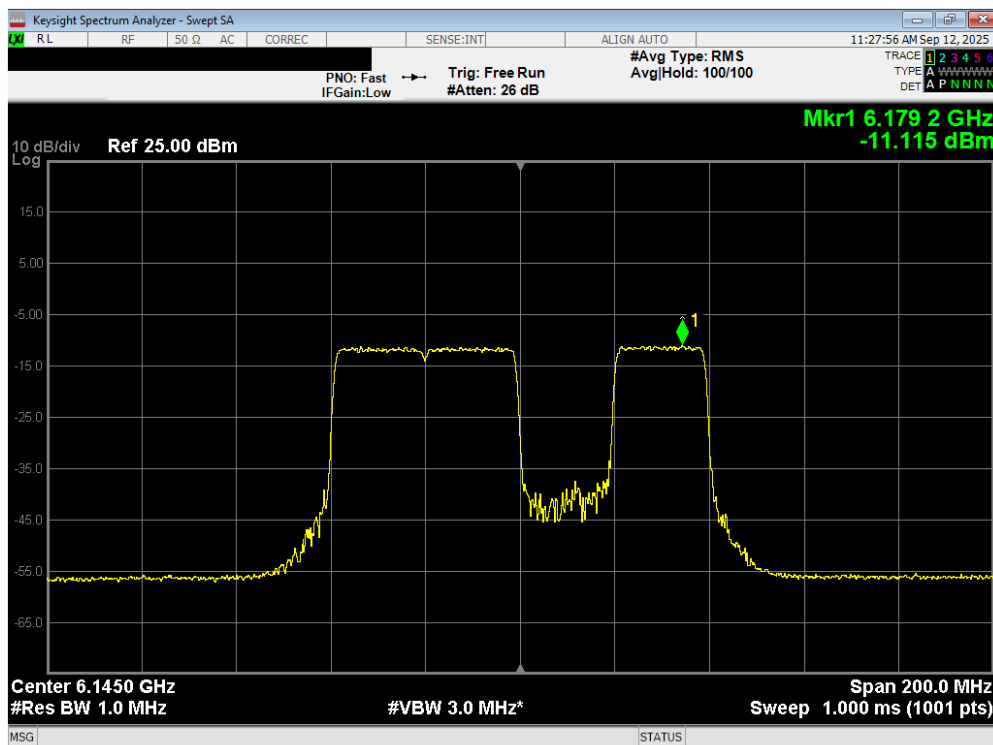


Plot 7-32. Power Spectral Density Plot MIMO ANT2 (160MHz 802.11ax/be (UNII Band 5) – Ch. 47) - VLP

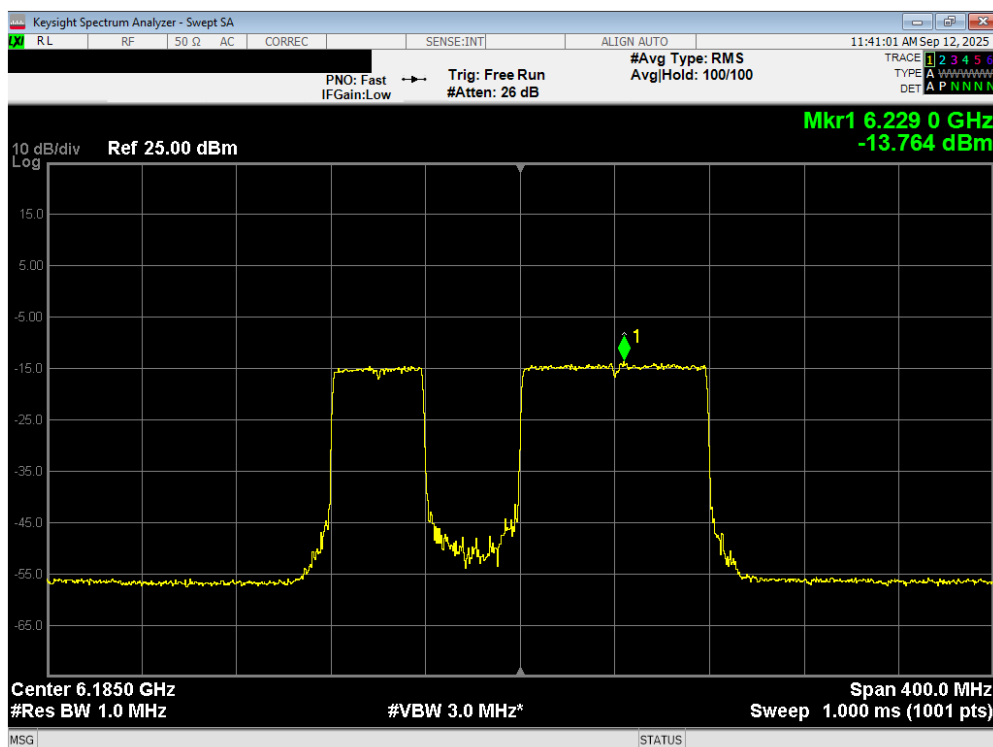


Plot 7-33. Power Spectral Density Plot MIMO ANT2 (320MHz 802.11ax/be (UNII Band 5) – Ch. 31) - VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 49 of 113                    |

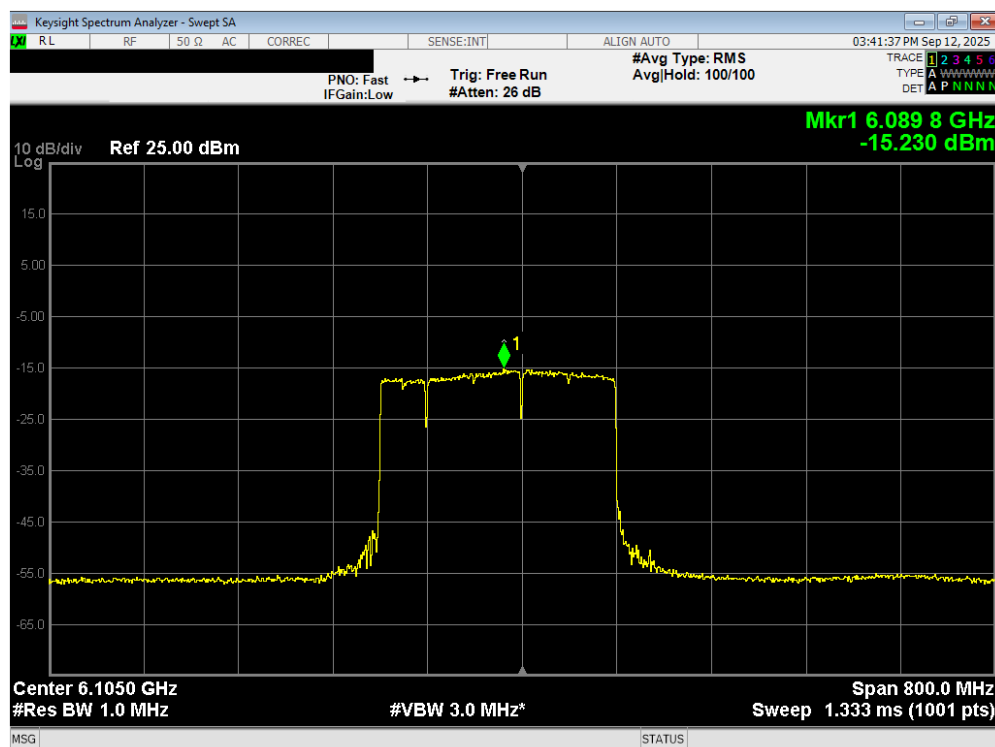


Plot 7-34. Power Spectral Density Plot MIMO ANT2 (80MHz 802.11be (UNII Band 5) – Ch. 39) – 20MHz Punctured - VLP



Plot 7-35. Power Spectral Density Plot MIMO ANT2 (160MHz 802.11be (UNII Band 5) – Ch. 47) – 40MHz Punctured - VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 50 of 113                    |



Plot 7-36. Power Spectral Density Plot MIMO ANT2 (320MHz 802.11be (UNII Band 5) – Ch. 31) – 120MHz Punctured – VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 51 of 113                    |

**Note:**

Per ANSI C63.10:2020 Section 14.5.2.3 the power spectral density at Antenna 1 and Antenna 2 were first measured separately as shown in the section above. The measured values were then summed in linear power units then converted back to dBm.

Per ANSI C63.10:2020 Section 14.6.3, the directional gain is calculated using the following formula, where  $G_N$  is the gain of the nth antenna and  $N_{ANT}$ , the total number of antennas used.

$$\text{Directional gain} = 10 \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N_{ANT}] \text{ dBi}$$

**Sample MIMO Calculation:**

At 5935MHz in 802.11a (20MHz BW) mode, the average conducted power spectral density was measured to be -9.26 dBm for Antenna-1 and -7.67 dBm for Antenna-2.

Antenna 1 + Antenna 2 = MIMO

$$(-9.26 \text{ dBm} + -7.67 \text{ dBm}) = (0.119 \text{ mW} + 0.171 \text{ mW}) = 0.290 \text{ mW} = -5.38 \text{ dBm}$$

**Sample e.i.r.p Power Spectral Density Calculation:**

At 5935 MHz in 802.11a (20MHz BW) mode, the average MIMO power density was calculated to be -5.38 dBm with directional gain of -0.62 dBi.

$$\text{e.i.r.p. Power Spectral Density(dBm)} = \text{Power Spectral Density (dBm)} + \text{Ant gain (dBi)} + \text{DCCF (dB)}$$

$$-5.38 \text{ dBm} + -0.62 \text{ dBi} + 0.28\text{dB} = -5.72 \text{ dBm}$$

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS942B                         | <b>MEASUREMENT REPORT</b>               |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2508270084-22-R1.A3L | <b>Test Dates:</b><br>9/2/25 - 12/30/25 | <b>EUT Type:</b><br>Portable Handset | Page 52 of 113                           |

## 7.5 In-Band Emissions

### Test Overview and Limit

The spectrum analyzer was connected to the antenna terminal while the EUT was operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10:2020, and at the appropriate frequencies.

**For transmitters operating within the 5.925-7.125 GHz bands: Power spectral density must be suppressed by 20 dB at 1 MHz outside of channel edge, by 28 dB at one channel bandwidth from the channel center, and by 40 dB at one- and one-half times the channel bandwidth away from channel center. At frequencies between one megahertz outside an unlicensed device's channel edge and one channel bandwidth from the center of the channel, the limits must be linearly interpolated between 20 dB and 28 dB suppression, and at frequencies between one and one- and one-half times an unlicensed device's channel bandwidth, the limits must be linearly interpolated between 28 dB and 40 dB suppression. Emissions removed from the channel center by more than one- and one-half times the channel bandwidth must be suppressed by at least 40 dB.**

### Test Procedure Used

KDB 987594 D02 v03

### Test Settings

1. Connect output of the antenna port to a spectrum analyzer or EMI receiver, with appropriate attenuation, as to not damage the instrumentation.
2. Set the reference level of the measuring equipment in accordance with procedure 4.1.6.2 of ANSI C63.10:2020.
3. Measure the 26 dB EBW using the test procedure 12.5.2 of ANSI C63.10:2020. (This will be used to determine the channel edge.)
4. Measure the power spectral density (which will be used for emissions mask reference) using the following procedure:
  - a) Set the span to encompass the entire 26 dB EBW of the signal.
  - b) Set RBW = same RBW used for 26 dB EBW measurement.
  - c) Set VBW  $\geq 3 \times$  RBW
  - d) Number of points in sweep  $\geq [2 \times \text{span} / \text{RBW}]$ .
  - e) Sweep time = auto.
  - f) Detector = RMS (i.e., power averaging)
  - g) Trace average at least 100 traces in power averaging (rms) mode.
  - h) Use the peak search function on the instrument to find the peak of the spectrum.
5. For the purposes of developing the emission mask, the channel bandwidth is defined as the 26 dB EBW.
6. Using the measuring equipment limit line function, develop the emissions mask based on the following requirements. The emissions power spectral density must be reduced below the peak power spectral density (in dB) as follows:
  - i) Suppressed by 20 dB at 1 MHz outside of the channel edge. (The channel edge is defined as the 26-dB point on either side of the carrier center frequency.)
  - j) Suppressed by 28 dB at one channel bandwidth from the channel center.
  - k) Suppressed by 40 dB at one- and one-half times the channel bandwidth from the channel center.
7. Adjust the span to encompass the entire mask as necessary.
8. Clear trace.
9. Trace average at least 100 traces in power averaging (rms) mode.
10. Adjust the reference level as necessary so that the crest of the channel touches the top of the emission mask.

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS942B                         | <b>MEASUREMENT REPORT</b>               |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2508270084-22-R1.A3L | <b>Test Dates:</b><br>9/2/25 - 12/30/25 | <b>EUT Type:</b><br>Portable Handset | Page 53 of 113                           |

**Test Setup**

The EUT and measurement equipment were set up as shown in the diagram below.



**Figure 7-4. Test Instrument & Measurement Setup**

**Test Notes**

None.

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 54 of 113                    |

|            | Frequency [MHz] | Channel | 802.11 MODE | Antenna-1 In-Band Emission | Antenna-2 In-Band Emission |
|------------|-----------------|---------|-------------|----------------------------|----------------------------|
| Band 5     | 5935            | 2       | a           | PASS                       | PASS                       |
|            | 6175            | 45      | a           | PASS                       | PASS                       |
|            | 6415            | 93      | a           | PASS                       | PASS                       |
|            | 5935            | 2       | be (20MHz)  | PASS                       | PASS                       |
|            | 6175            | 45      | be (20MHz)  | PASS                       | PASS                       |
|            | 6415            | 93      | be (20MHz)  | PASS                       | PASS                       |
|            | 5965            | 3       | be (40MHz)  | PASS                       | PASS                       |
|            | 6165            | 43      | be (40MHz)  | PASS                       | PASS                       |
|            | 6405            | 91      | be (40MHz)  | PASS                       | PASS                       |
|            | 5985            | 7       | be (80MHz)  | PASS                       | PASS                       |
|            | 6145            | 39      | be (80MHz)  | PASS                       | PASS                       |
|            | 6385            | 87      | be (80MHz)  | PASS                       | PASS                       |
|            | 6025            | 15      | be (160MHz) | PASS                       | PASS                       |
|            | 6185            | 47      | be (160MHz) | PASS                       | PASS                       |
|            | 6345            | 79      | be (160MHz) | PASS                       | PASS                       |
|            | 6105            | 31      | be (320MHz) | PASS                       | PASS                       |
| Band 6     | 6265            | 63      | be (320MHz) | PASS                       | PASS                       |
|            | 6435            | 97      | a           | PASS                       | PASS                       |
|            | 6475            | 105     | a           | PASS                       | PASS                       |
|            | 6515            | 113     | a           | PASS                       | PASS                       |
|            | 6435            | 97      | be (20MHz)  | PASS                       | PASS                       |
|            | 6475            | 105     | be (20MHz)  | PASS                       | PASS                       |
|            | 6515            | 113     | be (20MHz)  | PASS                       | PASS                       |
|            | 6445            | 99      | be (40MHz)  | PASS                       | PASS                       |
|            | 6485            | 107     | be (40MHz)  | PASS                       | PASS                       |
|            | 6525            | 115     | be (40MHz)  | PASS                       | PASS                       |
| Band 5/6/7 | 6465            | 103     | be (80MHz)  | PASS                       | PASS                       |
|            | 6505            | 111     | be (160MHz) | PASS                       | PASS                       |
| Band 7     | 6425            | 95      | be (320MHz) | PASS                       | PASS                       |
|            | 6535            | 117     | a           | PASS                       | PASS                       |
|            | 6695            | 149     | a           | PASS                       | PASS                       |
|            | 6875            | 185     | a           | PASS                       | PASS                       |
|            | 6535            | 117     | be (20MHz)  | PASS                       | PASS                       |
|            | 6695            | 149     | be (20MHz)  | PASS                       | PASS                       |
|            | 6875            | 185     | be (20MHz)  | PASS                       | PASS                       |
|            | 6565            | 123     | be (40MHz)  | PASS                       | PASS                       |
|            | 6725            | 155     | be (40MHz)  | PASS                       | PASS                       |
|            | 6885            | 179     | be (40MHz)  | PASS                       | PASS                       |
|            | 6545            | 119     | be (80MHz)  | PASS                       | PASS                       |
|            | 6705            | 151     | be (80MHz)  | PASS                       | PASS                       |
|            | 6865            | 183     | be (80MHz)  | PASS                       | PASS                       |
|            | 6665            | 143     | be (160MHz) | PASS                       | PASS                       |
| Band 6/7   | 6825            | 175     | be (160MHz) | PASS                       | PASS                       |
|            | 6665            | 127     | be (320MHz) | PASS                       | PASS                       |
| Band 7/8   | 6745            | 159     | be (320MHz) | PASS                       | PASS                       |
| Band 8     | 6895            | 189     | a           | PASS                       | PASS                       |
|            | 6995            | 209     | a           | PASS                       | PASS                       |
|            | 7115            | 233     | a           | PASS                       | PASS                       |
|            | 6895            | 189     | be (20MHz)  | PASS                       | PASS                       |
|            | 6995            | 209     | be (20MHz)  | PASS                       | PASS                       |
|            | 7115            | 233     | be (20MHz)  | PASS                       | PASS                       |
|            | 6925            | 187     | be (40MHz)  | PASS                       | PASS                       |
|            | 7005            | 211     | be (40MHz)  | PASS                       | PASS                       |
|            | 7085            | 227     | be (40MHz)  | PASS                       | PASS                       |
|            | 6945            | 199     | be (80MHz)  | PASS                       | PASS                       |
|            | 7025            | 215     | be (80MHz)  | PASS                       | PASS                       |
|            | 6985            | 207     | be (160MHz) | PASS                       | PASS                       |
| Band 7/8   | 6905            | 191     | be (320MHz) | PASS                       | PASS                       |

**Table 7-22. MIMO In-Band Emissions Results – VLP**

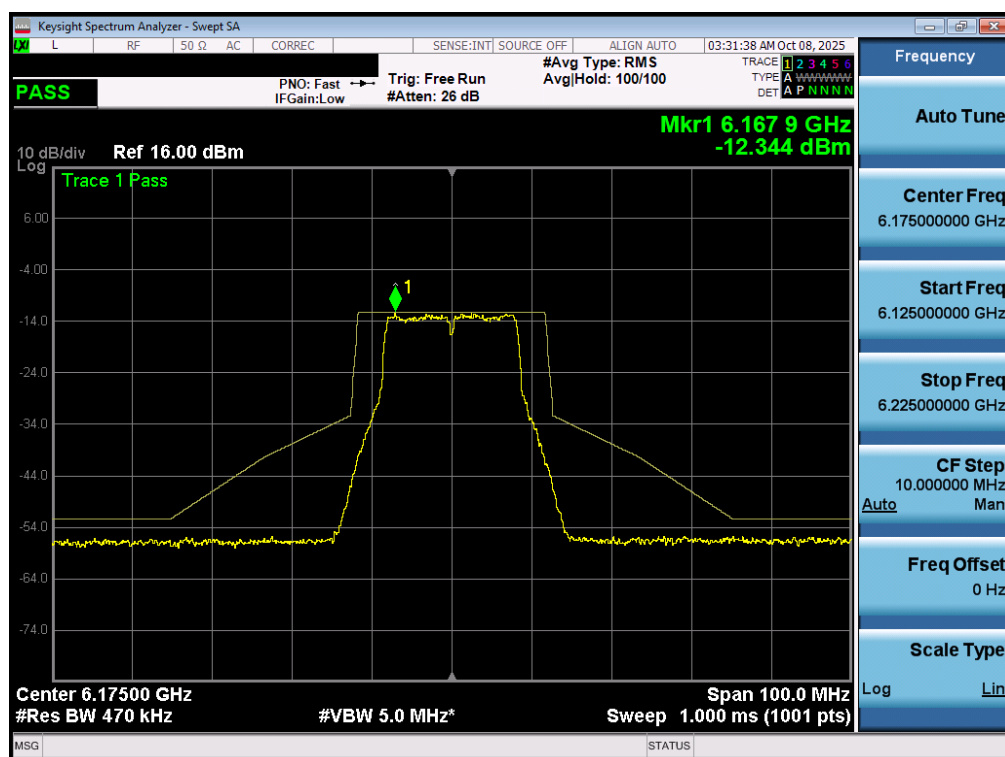
|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS942B                         | <b>MEASUREMENT REPORT</b>               |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2508270084-22-R1.A3L | <b>Test Dates:</b><br>9/2/25 - 12/30/25 | <b>EUT Type:</b><br>Portable Handset | Page 55 of 113                           |

|                   | Frequency<br>[MHz] | Channel | 802.11<br>MODE | Puncture Size | Antenna-1<br>In-Band<br>Emission | Antenna-2<br>In-Band<br>Emission |
|-------------------|--------------------|---------|----------------|---------------|----------------------------------|----------------------------------|
| <b>Band 5</b>     | 6145               | 39      | be (80MHz)     | 20MHz         | PASS                             | PASS                             |
|                   | 6185               | 47      | be (160MHz)    | 20MHz         | PASS                             | PASS                             |
|                   | 6185               | 47      | be (160MHz)    | 40MHz         | PASS                             | PASS                             |
|                   | 6105               | 31      | be (320MHz)    | 40MHz         | PASS                             | PASS                             |
|                   | 6105               | 31      | be (320MHz)    | 80MHz         | PASS                             | PASS                             |
|                   | 6105               | 31      | be (320MHz)    | 120MHz        | PASS                             | PASS                             |
| <b>Band 6</b>     | 6465               | 103     | be (80MHz)     | 20MHz         | PASS                             | PASS                             |
|                   | 6505               | 111     | be (160MHz)    | 20MHz         | PASS                             | PASS                             |
|                   | 6505               | 111     | be (160MHz)    | 40MHz         | PASS                             | PASS                             |
| <b>Band 5/6/7</b> | 6425               | 95      | be (320MHz)    | 40MHz         | PASS                             | PASS                             |
|                   | 6425               | 95      | be (320MHz)    | 80MHz         | PASS                             | PASS                             |
|                   | 6425               | 95      | be (320MHz)    | 120MHz        | PASS                             | PASS                             |
| <b>Band 7</b>     | 6705               | 151     | be (80MHz)     | 20MHz         | PASS                             | PASS                             |
|                   | 6665               | 143     | be (160MHz)    | 20MHz         | PASS                             | PASS                             |
|                   | 6665               | 143     | be (160MHz)    | 40MHz         | PASS                             | PASS                             |
| <b>Band 7/8</b>   | 6745               | 159     | be (320MHz)    | 40MHz         | PASS                             | PASS                             |
|                   | 6745               | 159     | be (320MHz)    | 80MHz         | PASS                             | PASS                             |
|                   | 6745               | 159     | be (320MHz)    | 120MHz        | PASS                             | PASS                             |
| <b>Band 8</b>     | 7025               | 215     | be (80MHz)     | 20MHz         | PASS                             | PASS                             |
|                   | 6985               | 207     | be (160MHz)    | 20MHz         | PASS                             | PASS                             |
|                   | 6985               | 207     | be (160MHz)    | 40MHz         | PASS                             | PASS                             |
| <b>Band 7/8</b>   | 6905               | 191     | be (320MHz)    | 40MHz         | PASS                             | PASS                             |
|                   | 6905               | 191     | be (320MHz)    | 80MHz         | PASS                             | PASS                             |
|                   | 6905               | 191     | be (320MHz)    | 120MHz        | PASS                             | PASS                             |

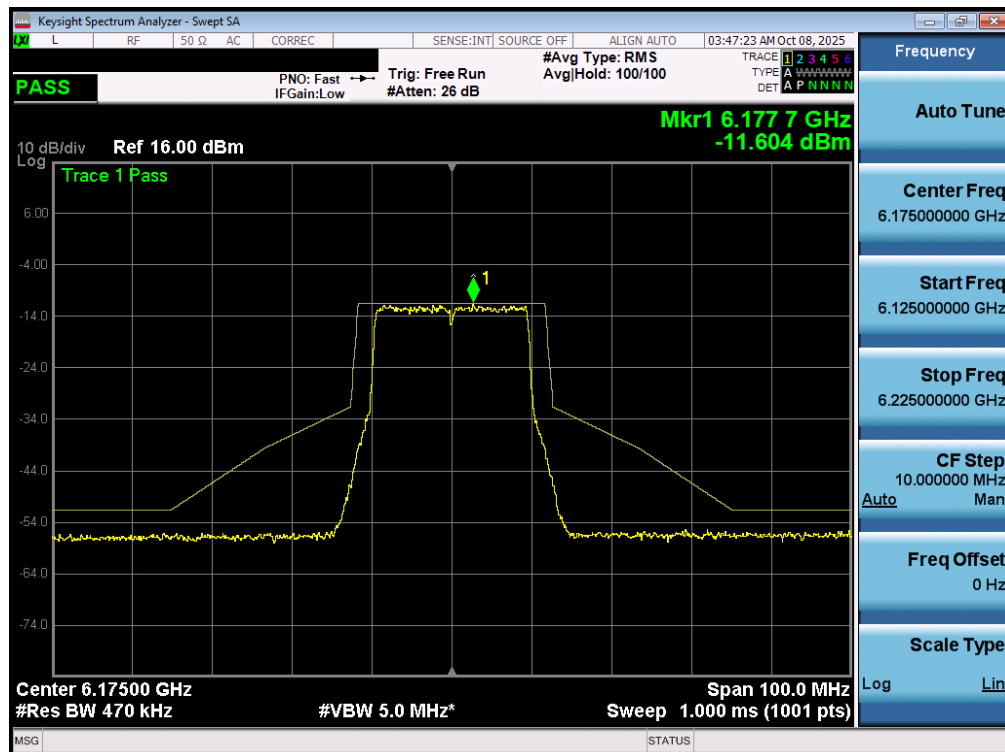
**Table 7-23. MIMO In-Band Emissions Results – Punctured Cases – VLP**

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS942B                         | <b>MEASUREMENT REPORT</b>               |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2508270084-22-R1.A3L | <b>Test Dates:</b><br>9/2/25 - 12/30/25 | <b>EUT Type:</b><br>Portable Handset | Page 56 of 113                           |

## 7.5.1 MIMO Antenna-1 In-Band Emission Plot Measurement - (UNII Band 5)

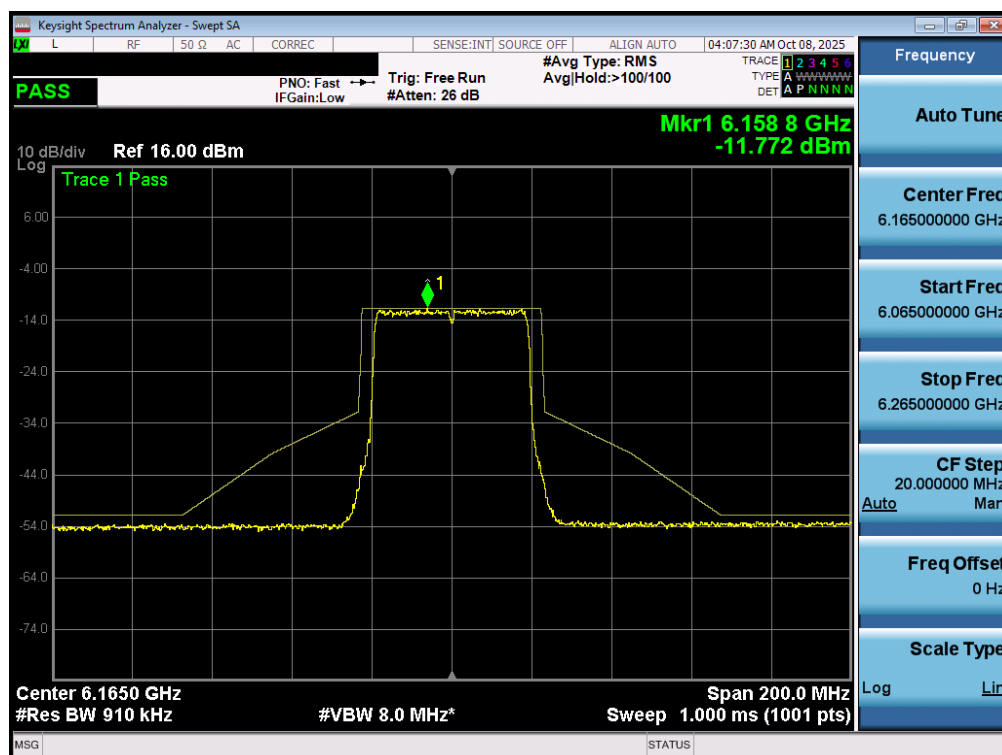


Plot 7-37. In Band Emissions Plot MIMO ANT1 (20MHz 802.11a (UNII Band 5) – Ch. 45) - VLP

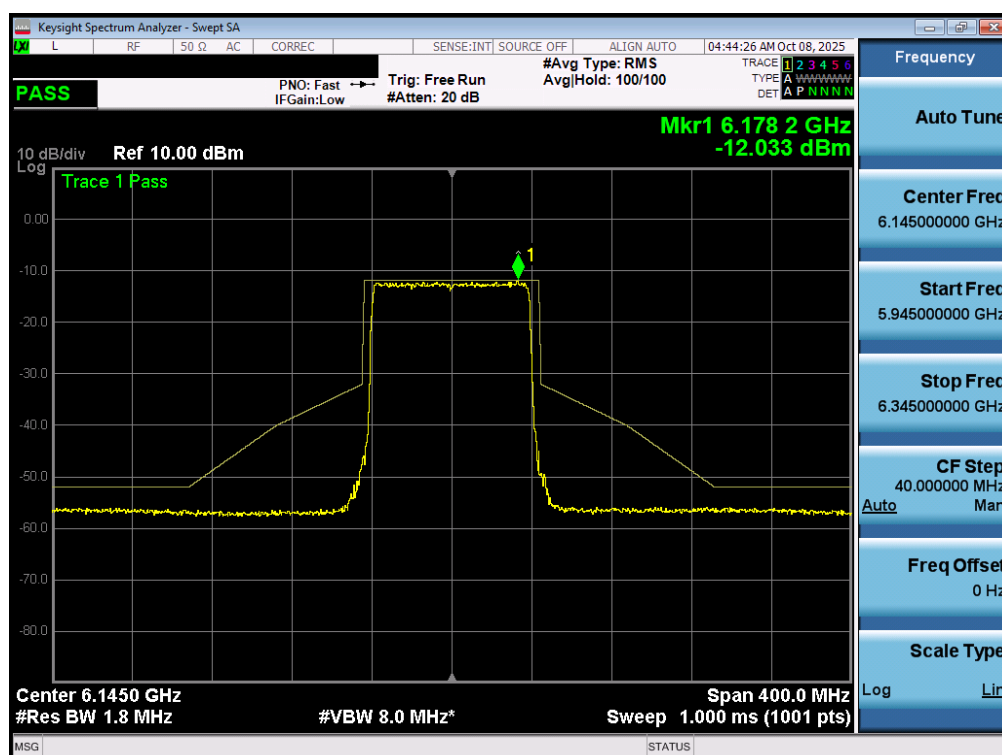


Plot 7-38. In Band Emissions Plot MIMO ANT1 (20MHz 802.11ax/be (UNII Band 5) – Ch. 45) - VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 57 of 113                    |

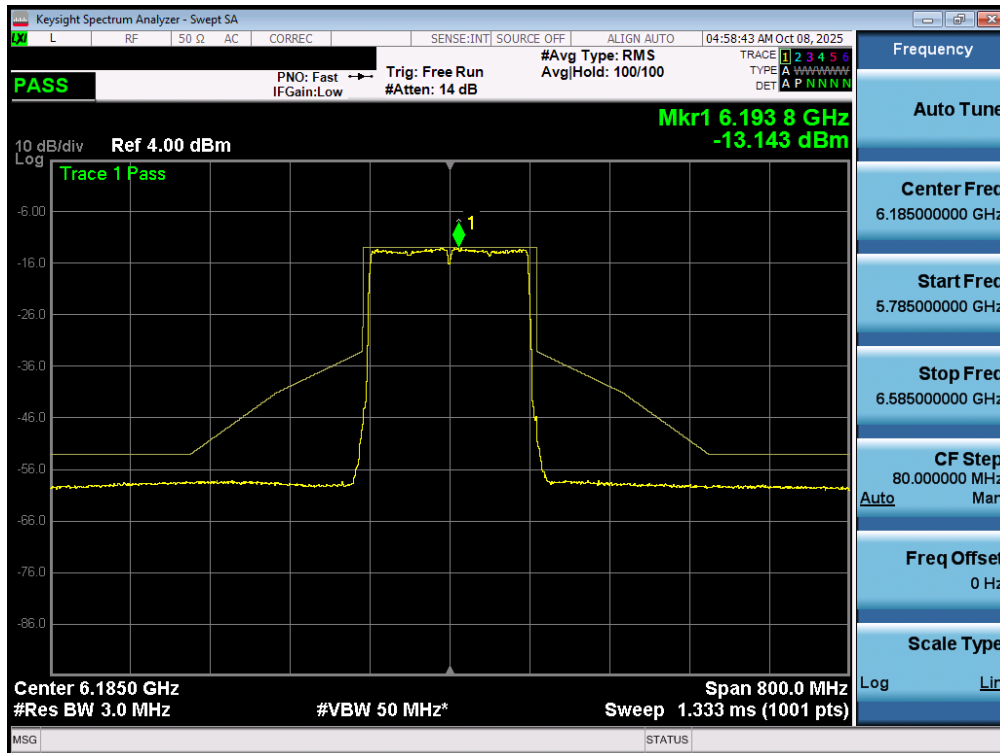


Plot 7-39. In Band Emissions Plot MIMO ANT1 (40MHz 802.11ax/be (UNII Band 5) – Ch. 43) - VLP

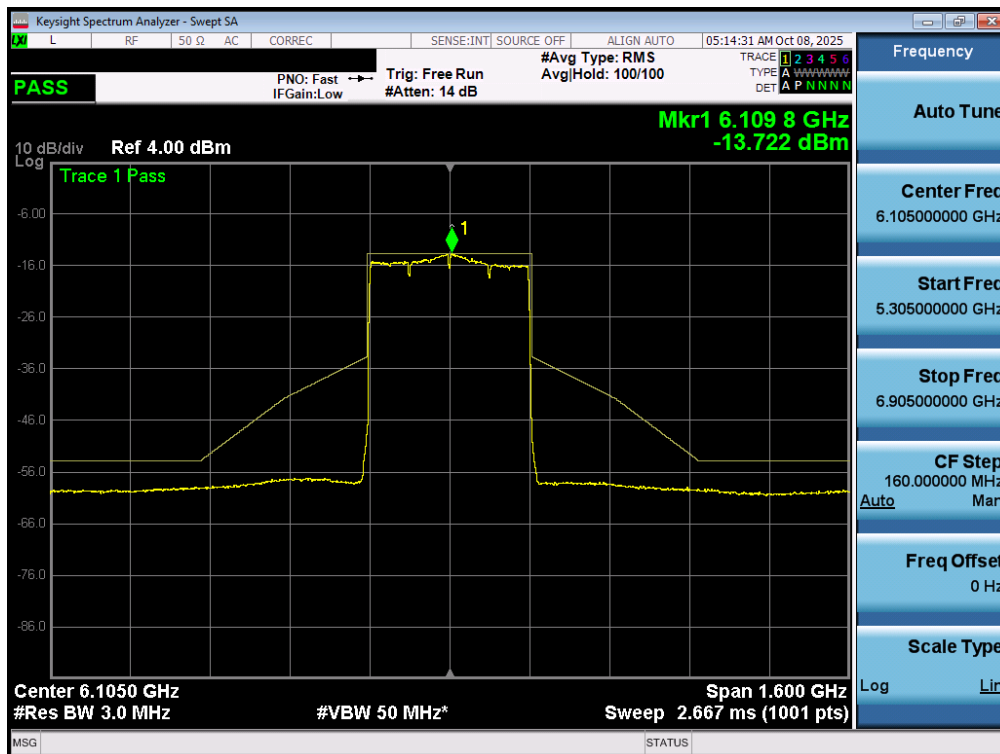


Plot 7-40. In Band Emissions Plot MIMO ANT1 (80MHz 802.11ax/be (UNII Band 5) – Ch. 39) - VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 58 of 113                    |

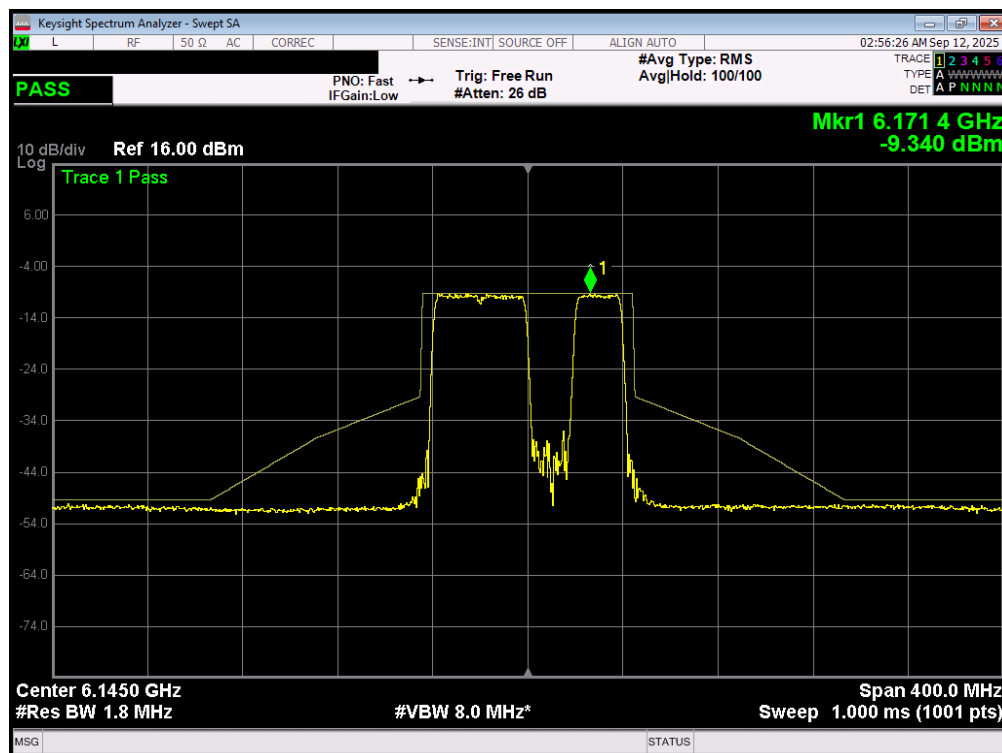


Plot 7-41. In Band Emissions Plot MIMO ANT1 (160MHz 802.11ax/be (UNII Band 5) – Ch. 47) - VLP

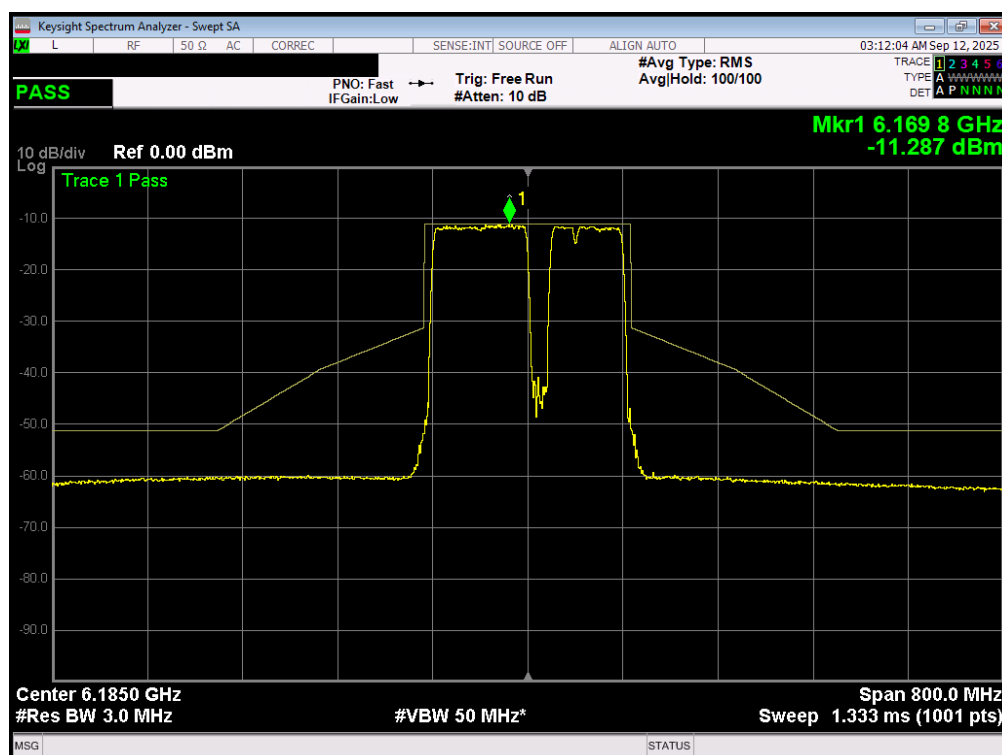


Plot 7-42. In Band Emissions Plot MIMO ANT1 (320MHz 802.11ax/be (UNII Band 5) – Ch. 31) - VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 59 of 113                    |

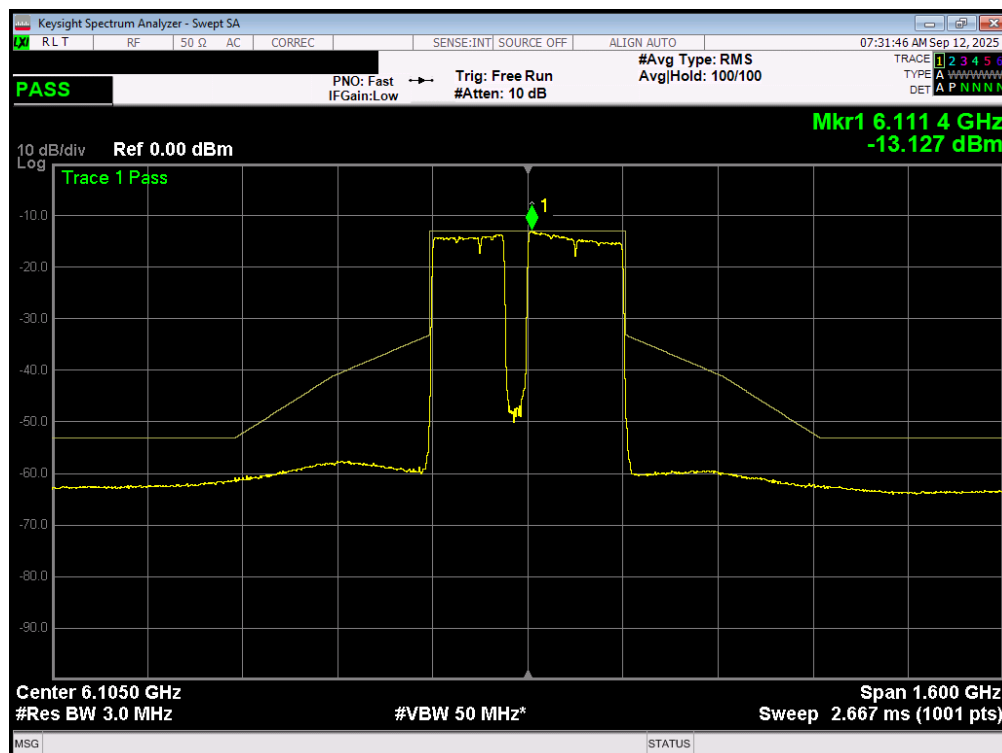


Plot 7-43. In Band Emissions Plot MIMO ANT1 (80MHz 802.11be (UNII Band 5) – Ch. 39) – 20MHz Punctured - VLP



Plot 7-44. In Band Emissions Plot MIMO ANT1 (160MHz 802.11be (UNII Band 5) – Ch. 47) – 20MHz Punctured - VLP

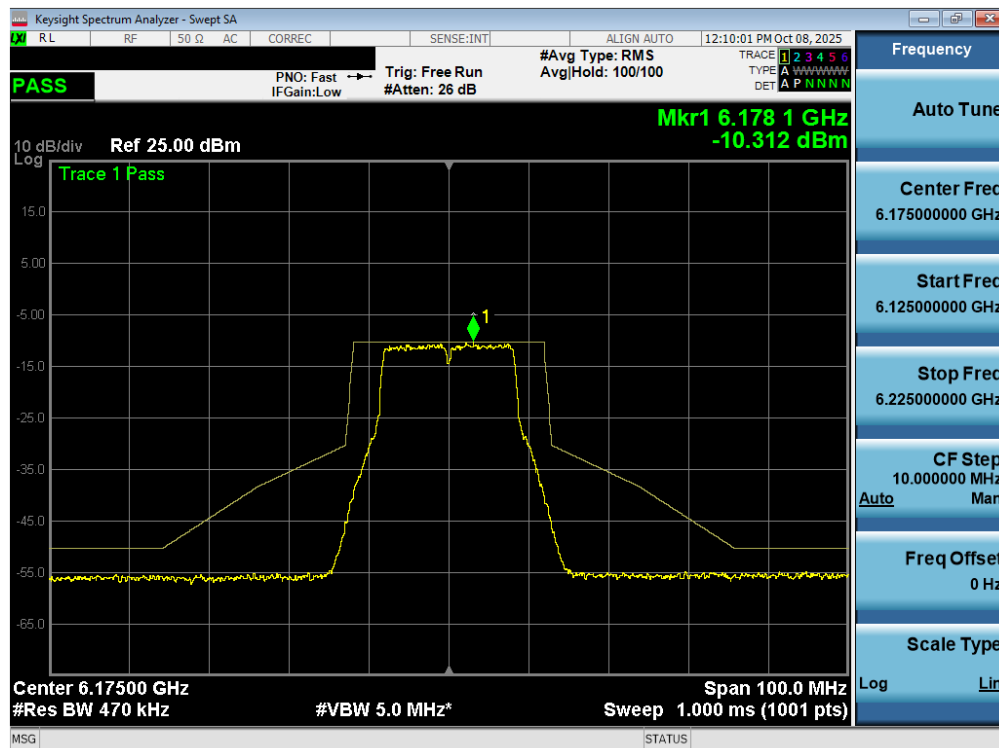
|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 60 of 113                    |



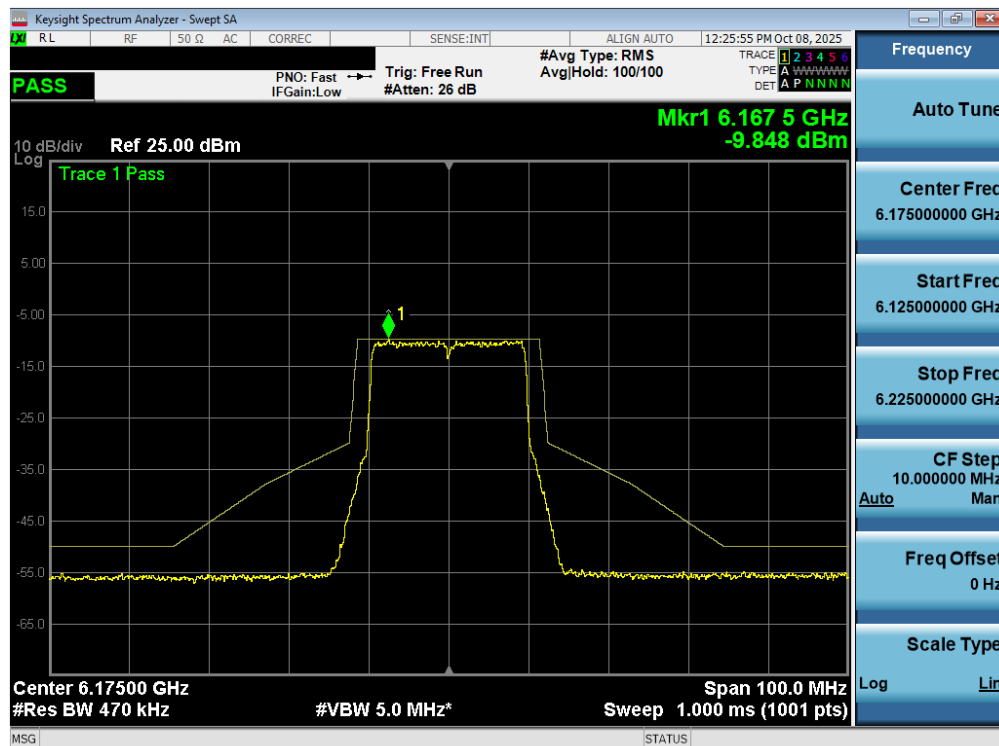
Plot 7-45. In Band Emissions Plot MIMO ANT1 (320MHz 802.11be (UNII Band 5) – Ch. 31) – 40MHz Punctured - VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 61 of 113                    |

## 7.5.2 MIMO Antenna-2 In-Band Emission Plot Measurement - (UNII Band 5)

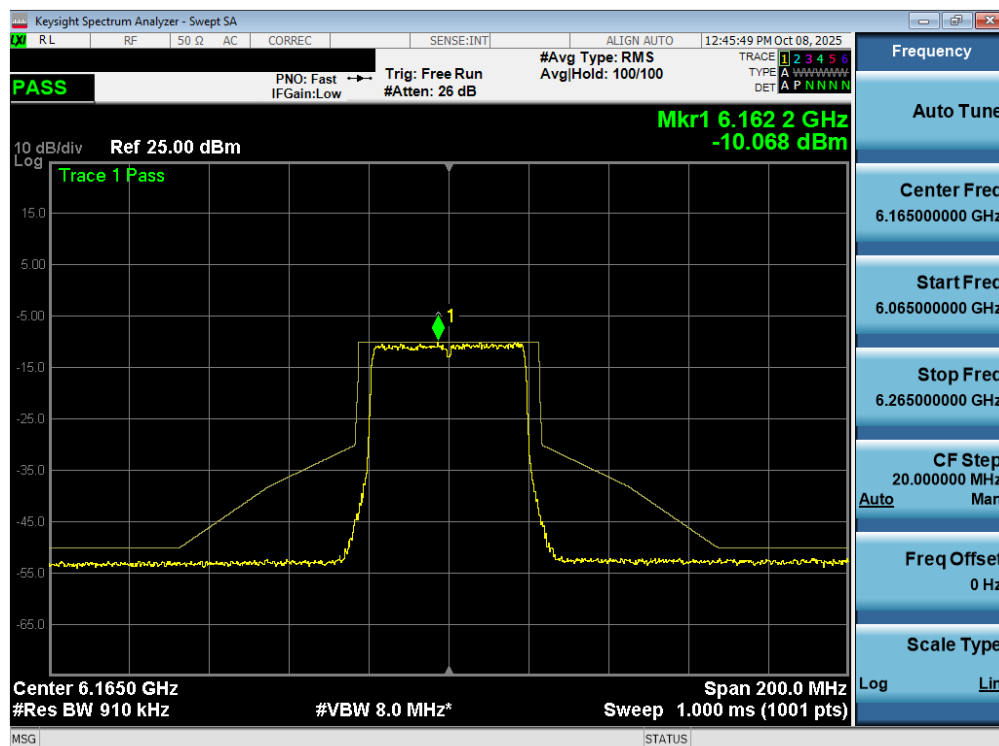


Plot 7-46. In Band Emissions Plot MIMO ANT2 (20MHz 802.11a (UNII Band 5) – Ch. 45) - VLP

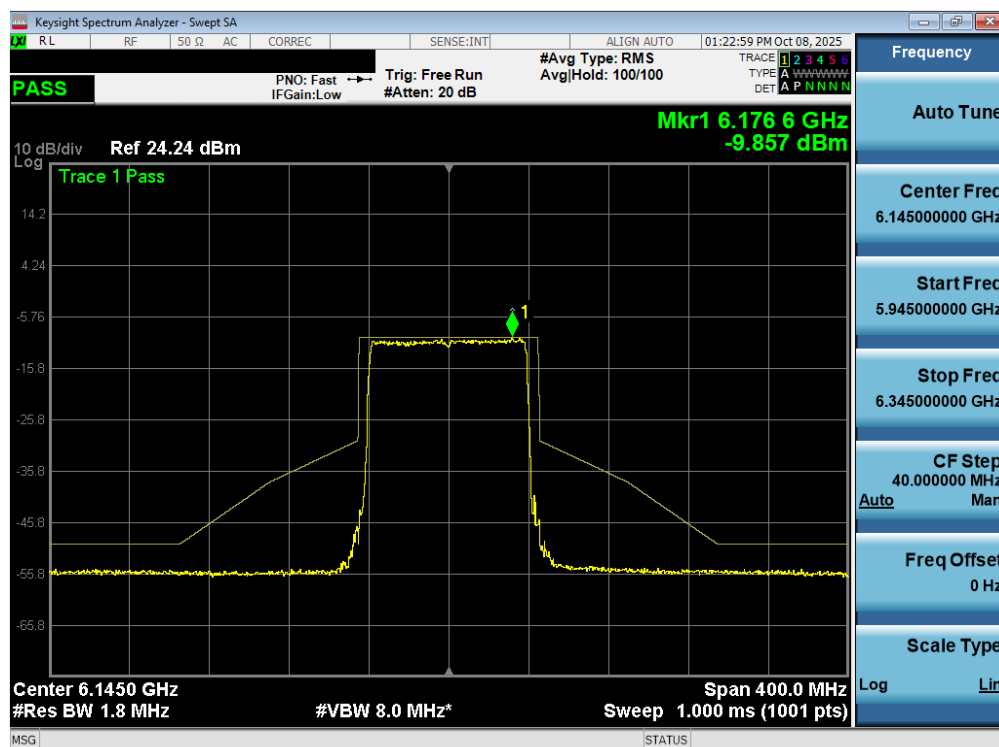


Plot 7-47. In Band Emissions Plot MIMO ANT2 (20MHz 802.11ax/be (UNII Band 5) – Ch. 45) - VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 62 of 113                    |

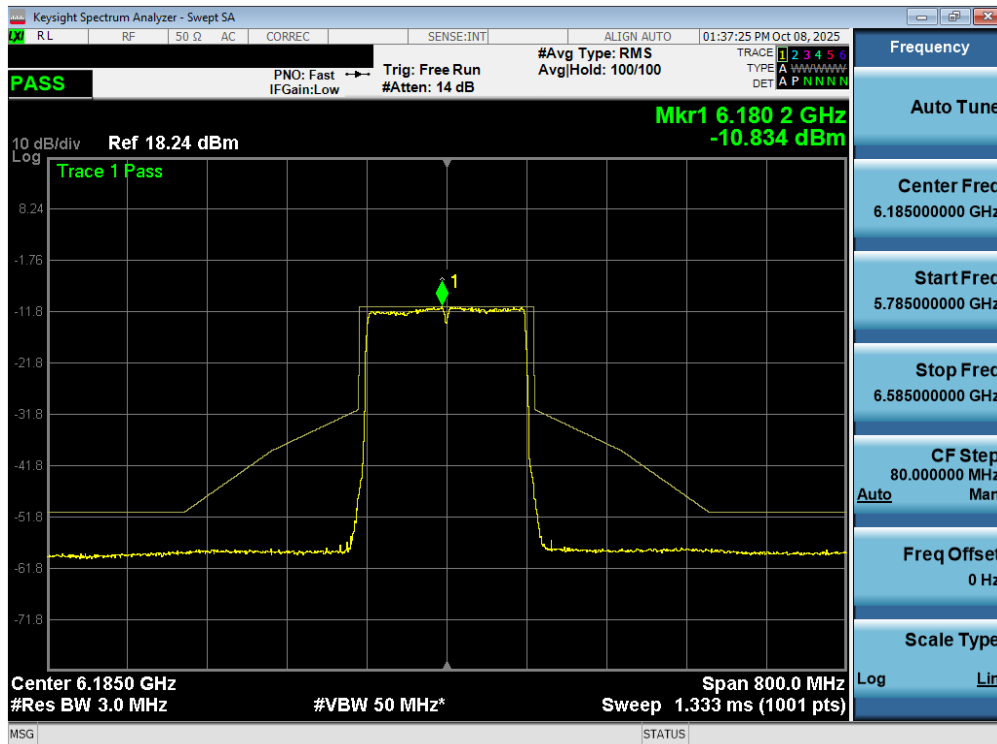


Plot 7-48. In Band Emissions Plot MIMO ANT2 (40MHz 802.11ax/be (UNII Band 5) – Ch. 43) - VLP

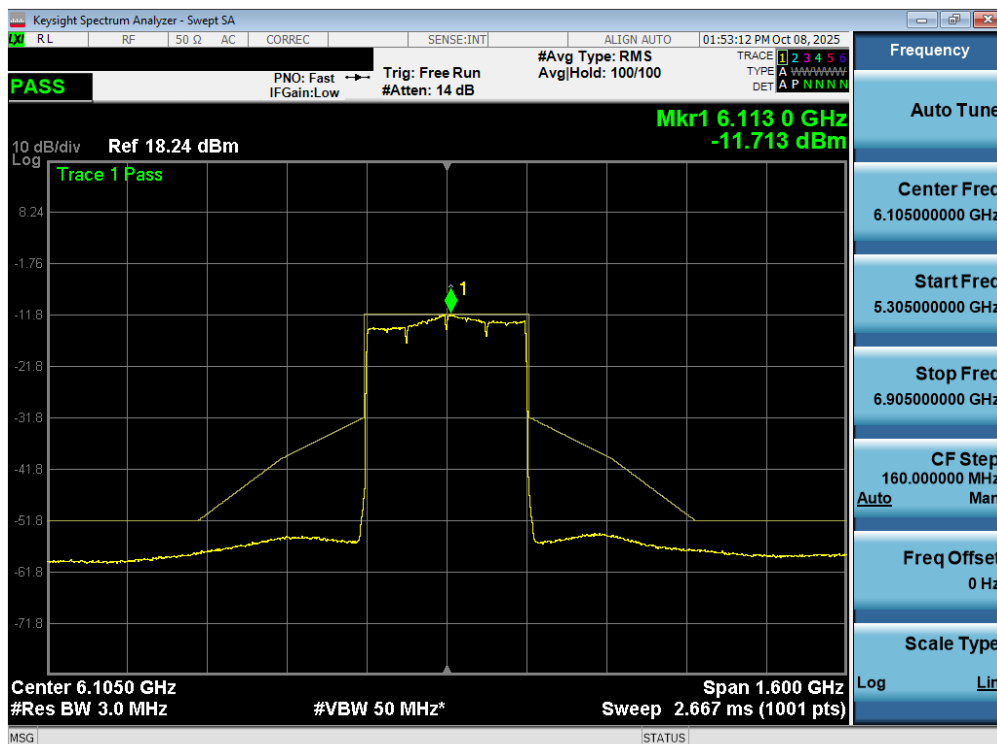


Plot 7-49. In Band Emissions Plot MIMO ANT2 (80MHz 802.11ax/be (UNII Band 5) – Ch. 39) - VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 63 of 113                    |

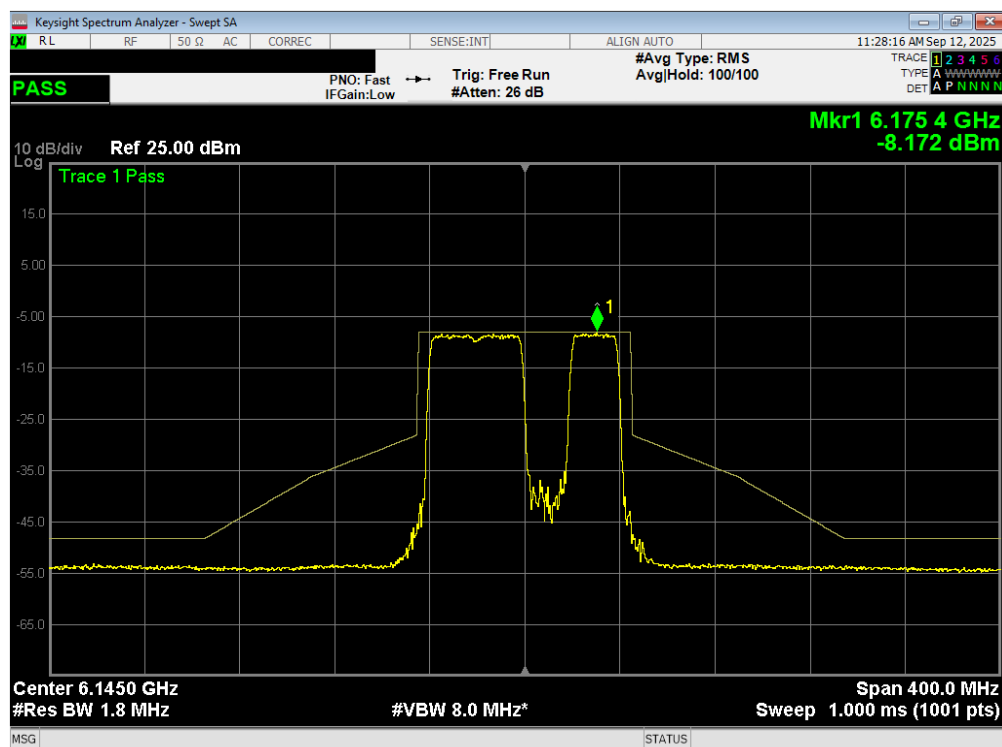


Plot 7-50. In Band Emissions Plot MIMO ANT2 (160MHz 802.11ax/be (UNII Band 5) – Ch. 47) - VLP

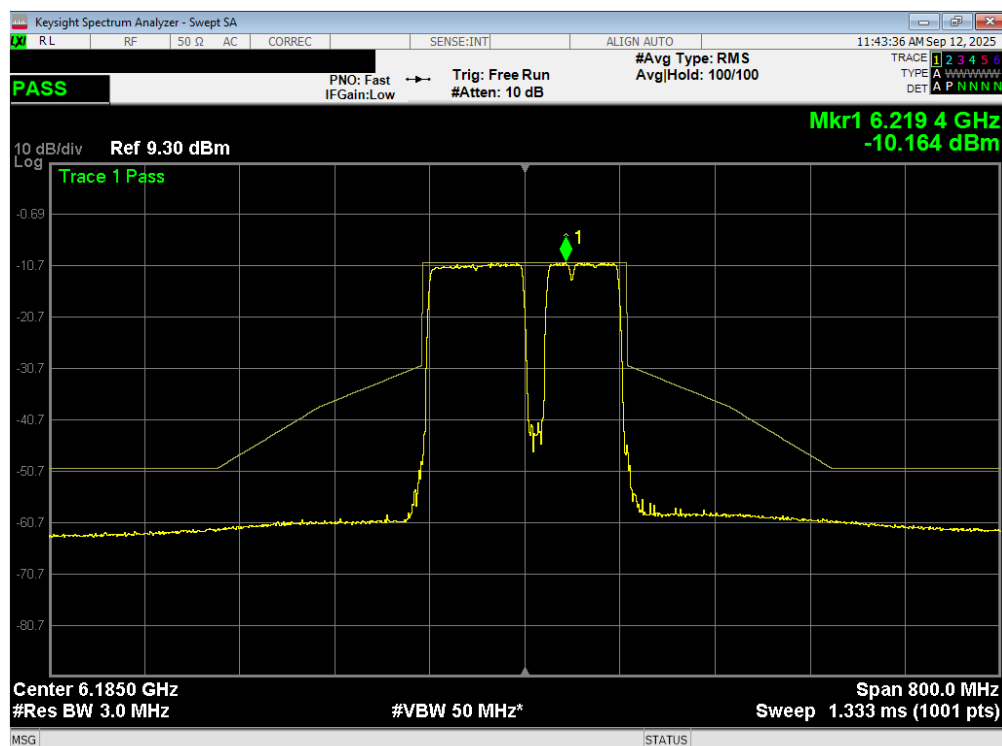


Plot 7-51. In Band Emissions Plot MIMO ANT2 (320MHz 802.11ax/be (UNII Band 5) – Ch. 31) - VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 64 of 113                    |

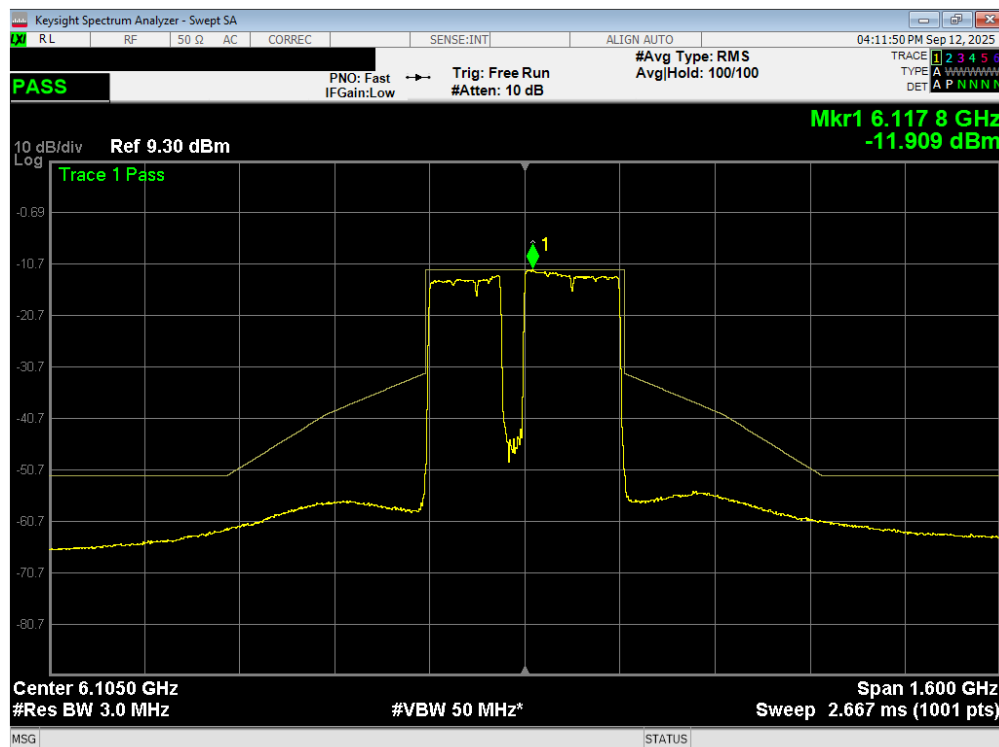


Plot 7-52. In Band Emissions Plot MIMO ANT2 (80MHz 802.11be (UNII Band 5) – Ch. 39) – 20MHz Punctured - VLP



Plot 7-53. In Band Emissions Plot MIMO ANT2 (160MHz 802.11be (UNII Band 5) – Ch. 47) – 20MHz Punctured - VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 65 of 113                    |



Plot 7-54. In Band Emissions Plot MIMO ANT2 (320MHz 802.11be (UNII Band 5) – Ch. 31) – 40MHz Punctured - VLP

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 66 of 113                    |

## 7.6 Contention Based Protocol

### Test Overview and Limit

Indoor access points, subordinate devices, very low power devices, and client devices operating in the 5.925-7.125 GHz band (herein referred to as unlicensed devices) are required to use technologies that include a contention-based protocol to avoid co-channel interference with incumbent devices sharing the band. To ensure incumbent co-channel operations are detected in a technology-agnostic manner, unlicensed devices are required to detect co-channel radio frequency energy (energy detect) and avoid simultaneous transmission.

Unlicensed indoor low-power devices must detect co-channel radio frequency power that is at least -62 dBm or lower. Upon detection of energy in the band, unlicensed low power indoor devices must vacate the channel and stay off the channel if detected radio frequency power is equal to or greater than the threshold (-62 dBm). The -62 dBm (or lower) threshold is referenced to a 0 dBi antenna gain.

To ensure incumbent operations are reliably detected in the band, low power indoor devices must detect RF energy throughout their intended operating channel.

### Test Procedure Used

KDB 987594 D02 v03

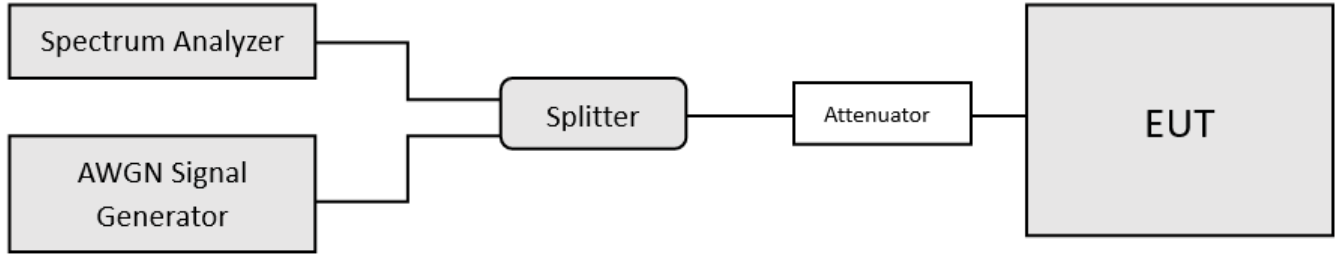
### Test Settings

1. Configure the EUT to transmit with a constant duty cycle.
2. Set the operating parameters of the EUT including power level, operating frequency, modulation, and bandwidth.
3. Set the signal analyzer center frequency to the nominal EUT channel center frequency. The span range of the signal analyzer shall be between two times and five times the OBW of the EUT. Connect the output port of the EUT to the signal analyzer 2. Ensure that the attenuator 2 provides enough attenuation to not overload the signal analyzer 2 receiver.
4. Monitoring the signal analyzer 2, verify the EUT is operating and transmitting with the parameters set at step two.
5. Using an AWGN signal source, generate (but do not transmit, i.e., RF OFF) a 10 MHz-wide AWGN signal. Use Table 1 to determine the center frequency of the 10 MHz AWGN signal relative to the EUT's channel bandwidth and center frequency.
6. Set the AWGN signal power to an extremely low level (more than 20 dB below the -62 dBm threshold). Connect the AWGN signal source, via a 3-dB splitter, to the signal analyzer 1 and the EUT as shown in Figure 2.
7. Transmit the AWGN signal (RF ON) and verify its characteristics on the signal analyzer 1.
8. Monitor the signal analyzer 2 to verify if the AWGN signal has been detected and the EUT has ceased transmission. If the EUT continues to transmit, then incrementally increase the AWGN signal power level until the EUT stops transmitting.
9. (Including all losses in the RF paths) Determine and record the AWGN signal power level (at the EUT's antenna port) at which the EUT ceased transmission. Repeat the procedure at least 10 times to verify the EUT can detect an AWGN signal with 90% (or better) level of certainty.
10. Refer to Table 1 of KDB 987594 D02 v03 to determine the number of times the detection threshold testing needs to be repeated. If testing is required more than once, then go back to step 5, choose a different center frequency for the AWGN signal, and repeat the process.

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS942B                         | <b>MEASUREMENT REPORT</b>               |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2508270084-22-R1.A3L | <b>Test Dates:</b><br>9/2/25 - 12/30/25 | <b>EUT Type:</b><br>Portable Handset | Page 67 of 113                           |

## Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



**Figure 7-5. Contention-based protocol test setup conducted method.**

## Test Notes

1. Per guidance from KDB 987594 D02 v03, contention-based protocol was tested using an AWGN signal with a bandwidth of 10MHz. The amplitude of the signal was increased until detected by the EUT, signaled by the ceasing of transmission, M1 indicates the point at which the AWGN signal is introduced. D1 indicates where the AWGN signal is terminated, at least 10 seconds following M1.
2. 15 trials were run to assure that at least 90% of certainty was met.
3. Per Guidance from KDB 987594 D04 v03, contention-based protocol was tested with receiver with the lowest antenna gain.
4. All CBP Timing Plots shown are for the ceased condition.
5. A Rohde & Schwarz CMX500 base station simulator was used as a WiFi AP for this test.

$$\text{Detection Level} = \text{Injected AWGN Power (dBm)} - \text{Antenna Gain (dBi)} + \text{Path Loss (dB)}$$

### Equation 7-1. Detection Level Calculation

| Band        | Channel | Channel Freq [MHz] | Channel BW [MHz] | Incumbent Freq [MHz] | Injected (AWGN) [dBm] | Antenna Gain [dBi] | Path Loss (dB) | Adjusted Power Level [dBm] | Detection Limit [dBm] | Margin [dB] |
|-------------|---------|--------------------|------------------|----------------------|-----------------------|--------------------|----------------|----------------------------|-----------------------|-------------|
| UNII Band 5 | 53      | 6215               | 20               | 6215                 | -70.52                | -6.52              | 0.71           | -63.29                     | -62.0                 | -1.29       |
|             |         |                    |                  | 6110                 | -73.72                | -6.52              | 0.71           | -66.49                     | -62.0                 | -4.49       |
|             | 63      | 6265               | 320              | 6265                 | -69.38                | -6.52              | 0.71           | -62.15                     | -62.0                 | -0.15       |
|             |         |                    |                  | 6420                 | -75.47                | -6.52              | 0.71           | -68.24                     | -62.0                 | -6.24       |
| UNII Band 6 | 101     | 6455               | 20               | 6455                 | -76.72                | -6.23              | 0.66           | -69.83                     | -62.0                 | -7.83       |
|             |         |                    |                  | 6270                 | -73.92                | -6.23              | 0.66           | -67.03                     | -62.0                 | -5.03       |
|             | 95      | 6425               | 320              | 6425                 | -70.72                | -6.23              | 0.66           | -63.83                     | -62.0                 | -1.83       |
|             |         |                    |                  | 6580                 | -70.82                | -6.23              | 0.66           | -63.93                     | -62.0                 | -1.93       |
| UNII Band 7 | 149     | 6695               | 20               | 6695                 | -78.06                | -6.23              | 0.66           | -71.17                     | -62.0                 | -9.17       |
|             |         |                    |                  | 6590                 | -74.12                | -6.23              | 0.66           | -67.23                     | -62.0                 | -5.23       |
|             | 159     | 6745               | 320              | 6745                 | -70.45                | -6.23              | 0.66           | -63.56                     | -62.0                 | -1.56       |
|             |         |                    |                  | 6900                 | -78.75                | -6.23              | 0.66           | -71.86                     | -62.0                 | -9.86       |
| UNII Band 8 | 197     | 6935               | 20               | 6935                 | -77.56                | -5.54              | 0.76           | -71.26                     | -62.0                 | -9.26       |
|             |         |                    |                  | 6750                 | -77.90                | -5.54              | 0.76           | -71.60                     | -62.0                 | -9.60       |
|             | 191     | 6905               | 320              | 6905                 | -77.06                | -5.54              | 0.76           | -70.76                     | -62.0                 | -8.76       |
|             |         |                    |                  | 7060                 | -78.98                | -5.54              | 0.76           | -72.68                     | -62.0                 | -10.68      |

**Table 7-24. Contention Based Protocol – Incumbent Detection Results**

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS942B                         | <b>MEASUREMENT REPORT</b>               |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2508270084-22-R1.A3L | <b>Test Dates:</b><br>9/2/25 - 12/30/25 | <b>EUT Type:</b><br>Portable Handset | Page 68 of 113                           |

| Band        | Channel | Channel Freq [MHz] | Channel BW [MHz] | Incumbent Freq [MHz] | Antenna Gain [dBi] | EUT Transmission Status   |         |        | Detection Limit [dBm] | Margin [dB] |
|-------------|---------|--------------------|------------------|----------------------|--------------------|---------------------------|---------|--------|-----------------------|-------------|
|             |         |                    |                  |                      |                    | Adjusted AWGN Power (dBm) |         |        |                       |             |
|             |         |                    |                  |                      |                    | Normal                    | Minimal | Ceased |                       |             |
| UNII Band 5 | 53      | 6215               | 20               | 6215                 | -6.52              | -68.03                    | -65.98  | -63.29 | -62.0                 | -1.29       |
|             | 31      | 6265               | 320              | 6110                 | -6.52              | -73.72                    | -68.91  | -66.49 | -62.0                 | -4.49       |
|             |         |                    |                  | 6265                 | -6.52              | -66.97                    | -63.89  | -62.15 | -62.0                 | -0.15       |
|             |         |                    |                  | 6420                 | -6.52              | -74.53                    | -68.78  | -68.24 | -62.0                 | -6.24       |
| UNII Band 6 | 101     | 6455               | 20               | 6455                 | -6.23              | -73.10                    | -70.71  | -69.83 | -62.0                 | -7.83       |
|             | 95      | 6425               | 320              | 6270                 | -6.23              | -70.80                    | -69.98  | -67.03 | -62.0                 | -5.03       |
|             |         |                    |                  | 6425                 | -6.23              | -70.43                    | -64.06  | -63.83 | -62.0                 | -1.83       |
|             |         |                    |                  | 6580                 | -6.23              | -68.63                    | -65.22  | -63.93 | -62.0                 | -1.93       |
| UNII Band 7 | 149     | 6695               | 20               | 6695                 | -6.23              | -76.08                    | -73.32  | -71.17 | -62.0                 | -9.17       |
|             | 159     | 6745               | 320              | 6590                 | -6.23              | -74.04                    | -69.46  | -67.23 | -62.0                 | -5.23       |
|             |         |                    |                  | 6745                 | -6.23              | -70.66                    | -65.62  | -63.56 | -62.0                 | -1.56       |
|             |         |                    |                  | 6900                 | -6.23              | -80.66                    | -74.40  | -71.86 | -62.0                 | -9.86       |
| UNII Band 8 | 197     | 6935               | 20               | 6935                 | -5.54              | -74.77                    | -71.70  | -71.26 | -62.0                 | -9.26       |
|             | 191     | 6905               | 320              | 6750                 | -5.54              | -77.31                    | -72.98  | -71.60 | -62.0                 | -9.60       |
|             |         |                    |                  | 6905                 | -5.54              | -79.90                    | -73.63  | -70.76 | -62.0                 | -8.76       |
|             |         |                    |                  | 7060                 | -5.54              | -81.78                    | -74.99  | -72.68 | -62.0                 | -10.68      |

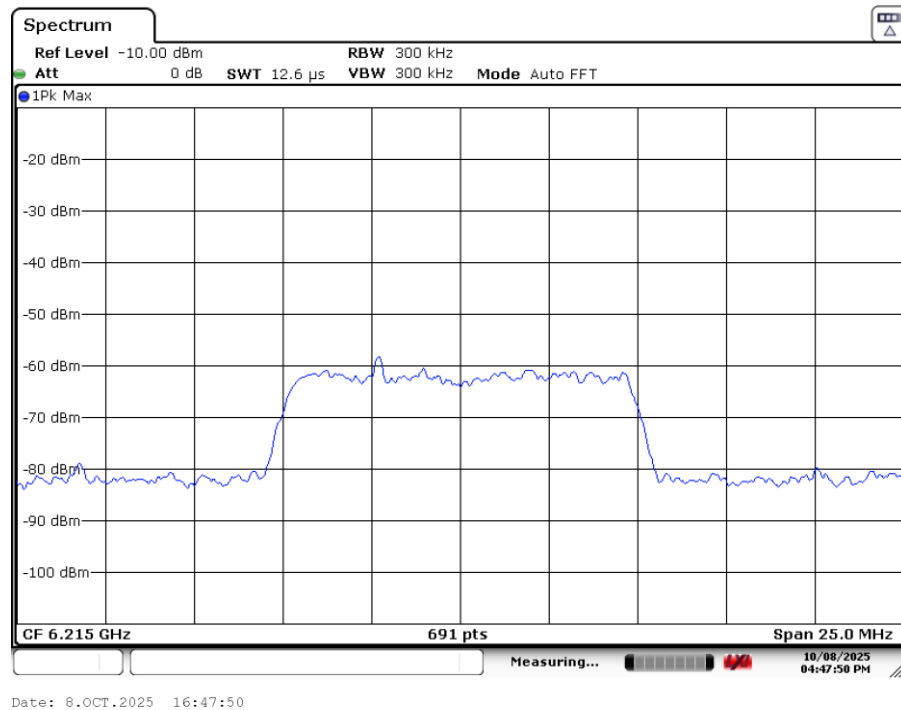
**Table 7-25. Contention Based Protocol – Detection Results – All Tx Cases**

| Band        | Channel | Channel Freq [MHz] | Channel BW [MHz] | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | Detection Rate (%) |
|-------------|---------|--------------------|------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------------|
| UNII Band 5 | 53      | 6215               | 20               | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 100                |
|             | 31      | 6265               | 320              | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 100                |
|             |         |                    |                  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 100                |
|             |         |                    |                  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 100                |
| UNII Band 6 | 101     | 6455               | 20               | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 100                |
|             | 95      | 6425               | 320              | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 100                |
|             |         |                    |                  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 100                |
|             |         |                    |                  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 100                |
| UNII Band 7 | 149     | 6695               | 20               | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 100                |
|             | 159     | 6745               | 320              | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 100                |
|             |         |                    |                  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 100                |
|             |         |                    |                  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 100                |
| UNII Band 8 | 197     | 6935               | 20               | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 100                |
|             | 191     | 6905               | 320              | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 100                |
|             |         |                    |                  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 100                |
|             |         |                    |                  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 100                |

**Table 7-26. Contention Based Protocol – Incumbent Detection Trial Results**

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS942B                         | <b>MEASUREMENT REPORT</b>               |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2508270084-22-R1.A3L | <b>Test Dates:</b><br>9/2/25 - 12/30/25 | <b>EUT Type:</b><br>Portable Handset | Page 69 of 113                           |

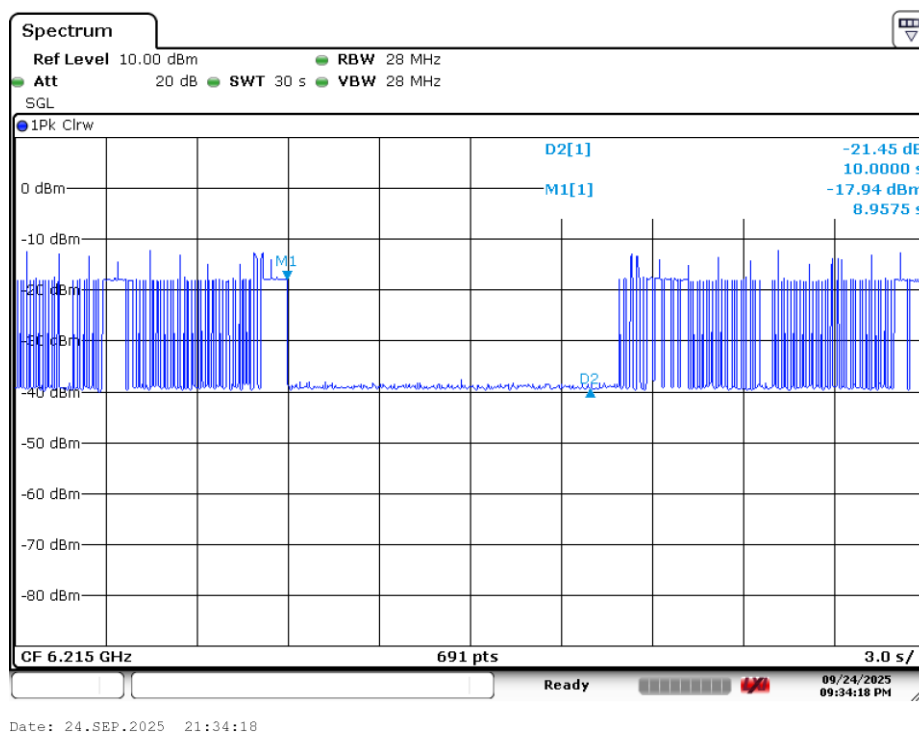
## 7.6.1 AWGN Plots



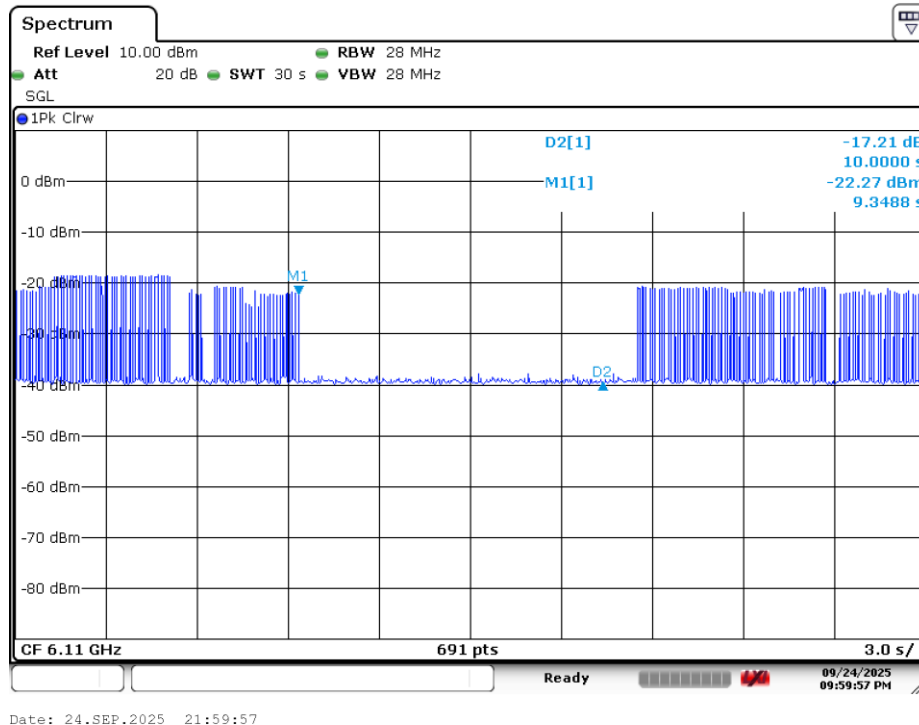
Plot 7-55. AWGN Signal (Demonstration)

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 70 of 113                    |

## 7.6.2 CBP Timing Plots



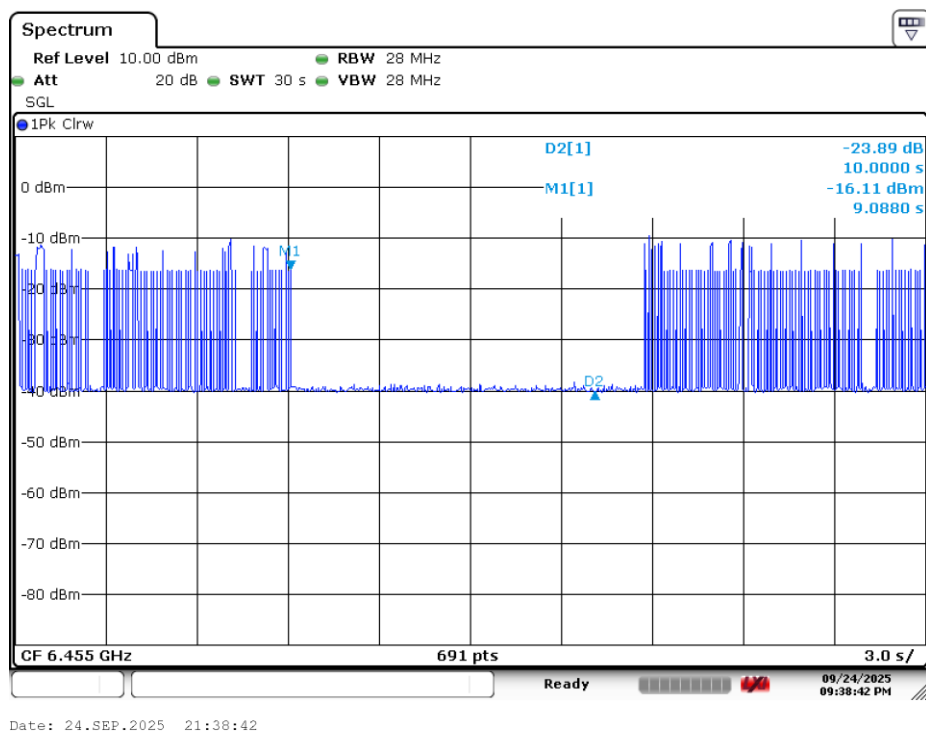
Plot 7-56. Contention Based Protocol Timing Plot (20MHz (UNII Band 5) – Ch. 53)



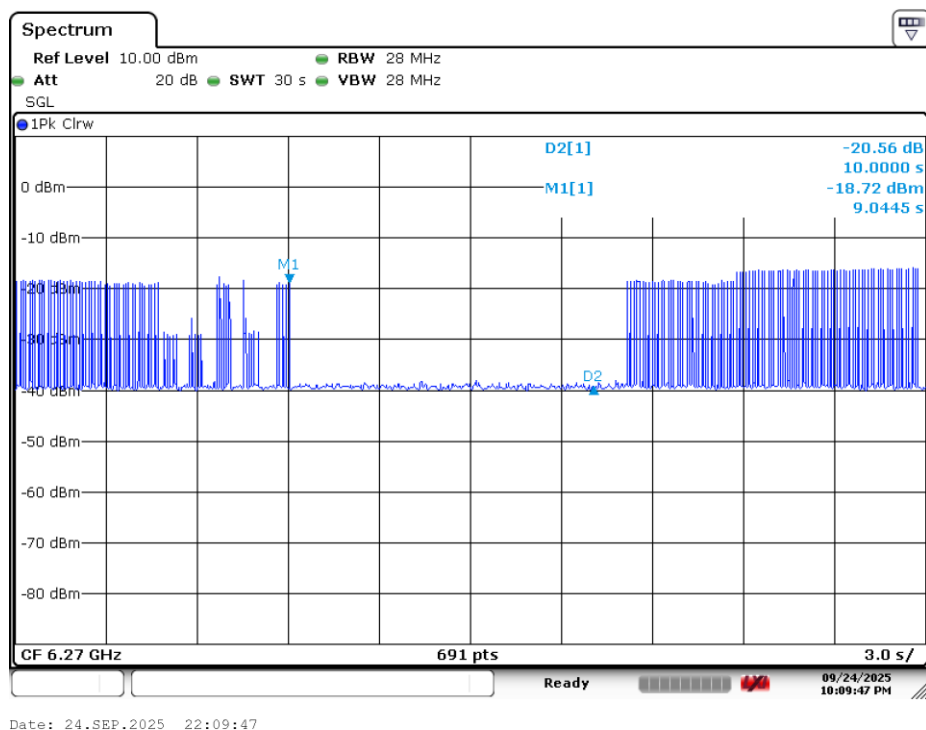
Plot 7-57. Contention Based Protocol Timing Plot (320MHz (UNII Band 5) – Ch. 63 Low)

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 71 of 113                    |



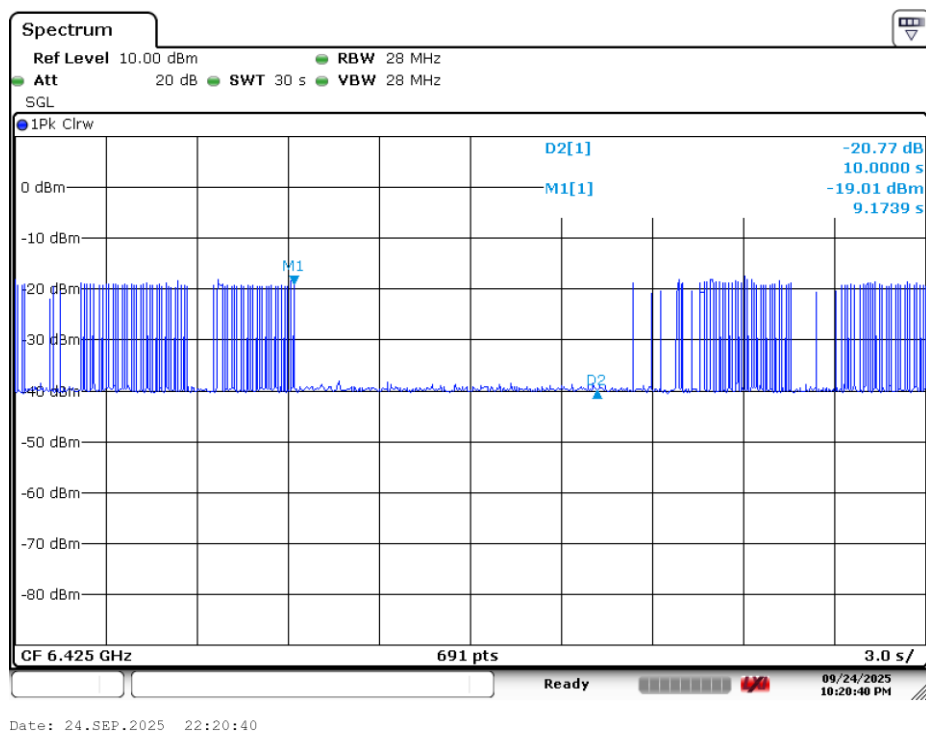


**Plot 7-60. Contention Based Protocol Timing Plot (20MHz (UNII Band 6) – Ch. 101)**

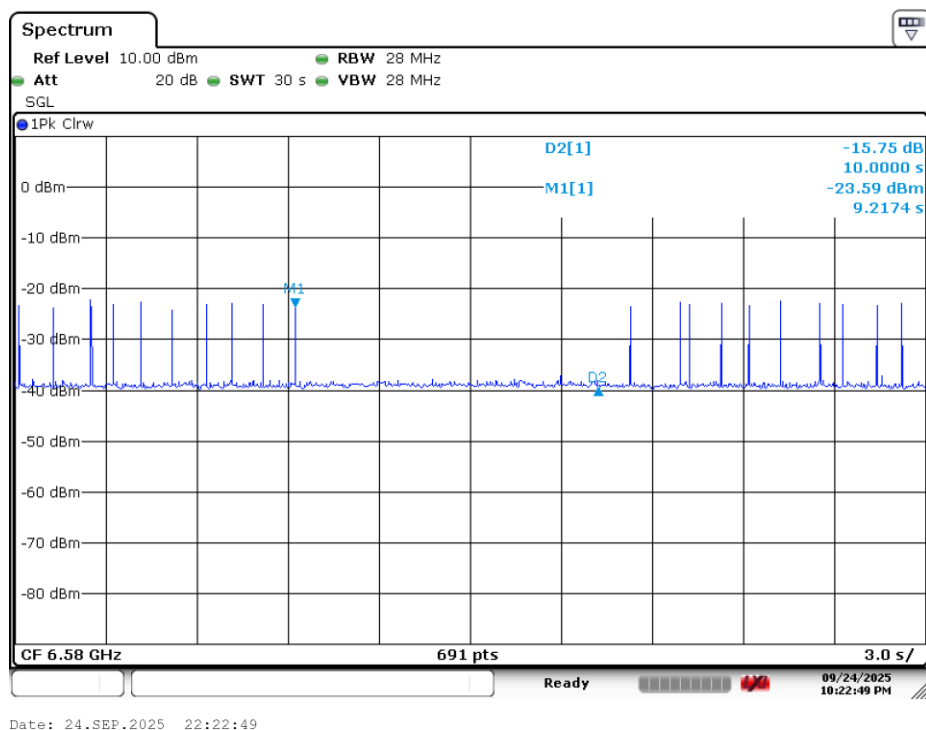


**Plot 7-61. Contention Based Protocol Timing Plot (320MHz (UNII Band 6) – Ch. 95 Low)**

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 73 of 113                    |

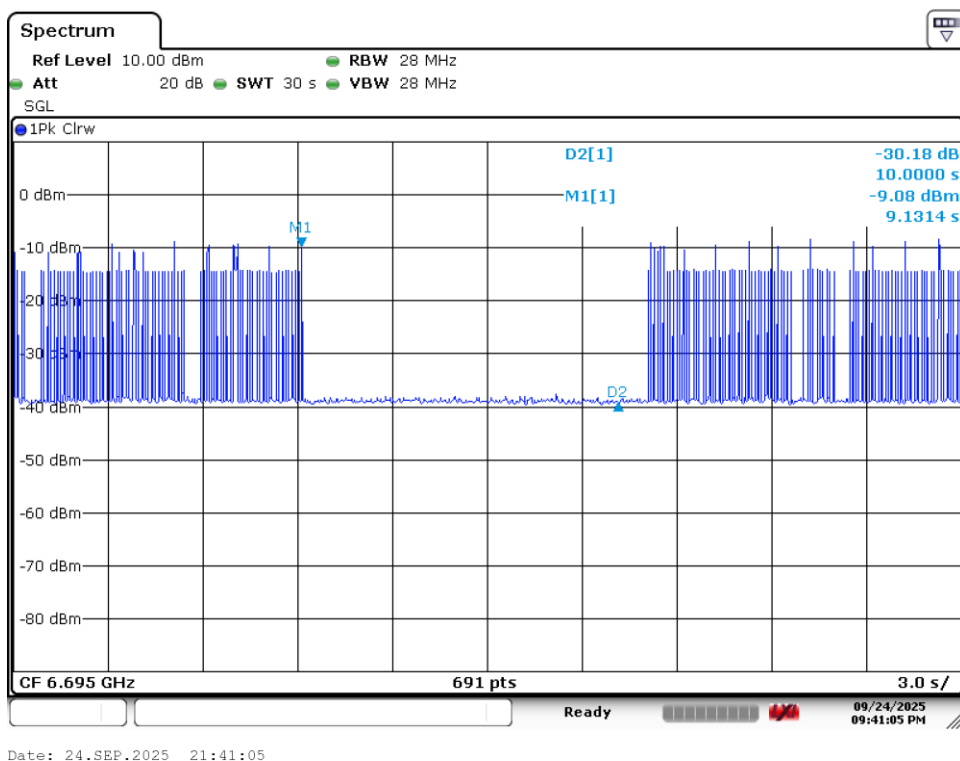


Plot 7-62. Contention Based Protocol Timing Plot (320MHz (UNII Band 6) – Ch. 95 Mid)

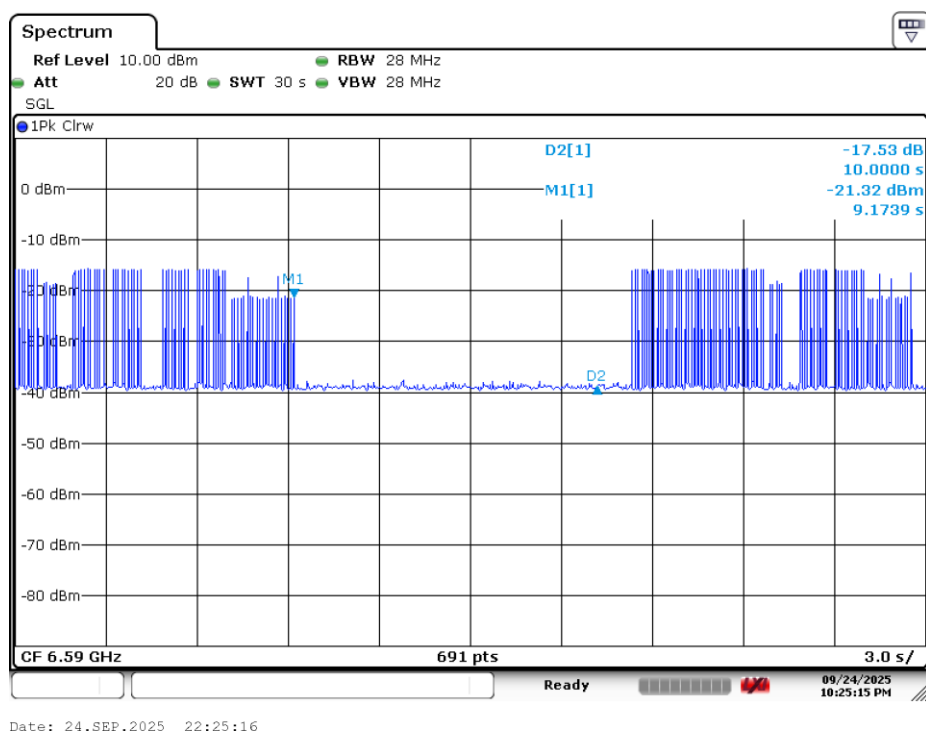


Plot 7-63. Contention Based Protocol Timing Plot (320MHz (UNII Band 6) – Ch. 95 High)

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 74 of 113                    |

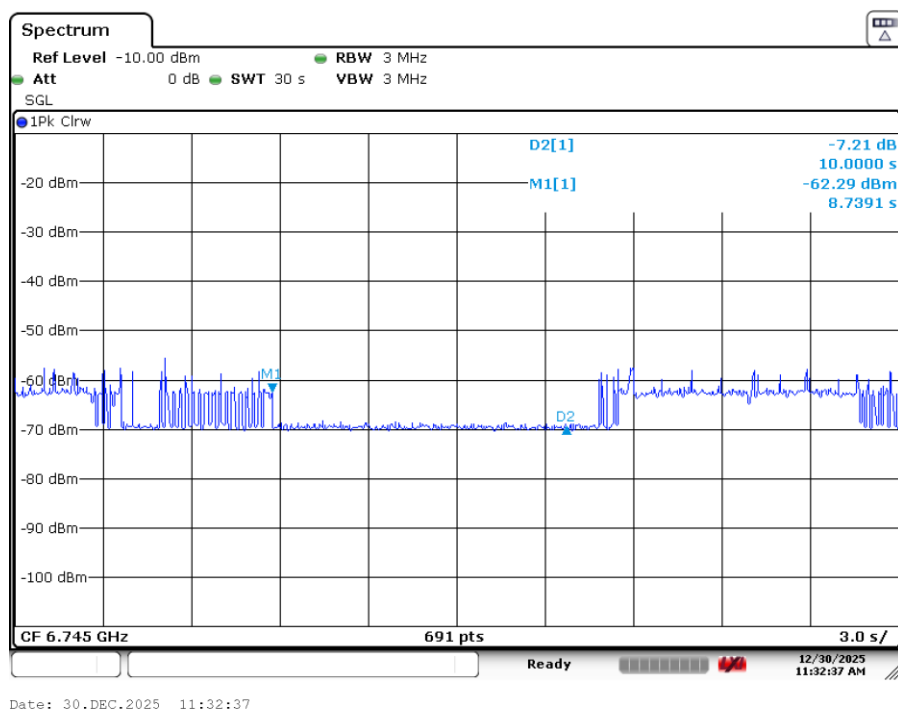


**Plot 7-64. Contention Based Protocol Timing Plot (20MHz (UNII Band 7) – Ch. 149)**

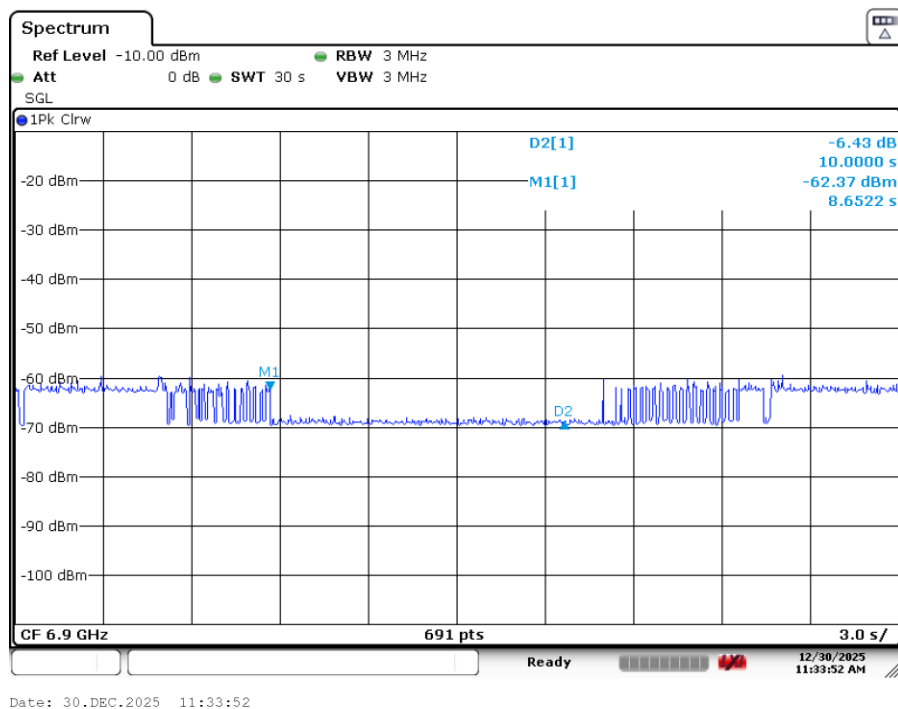


**Plot 7-65. Contention Based Protocol Timing Plot (320MHz (UNII Band 7) – Ch. 159 Low)**

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 75 of 113                    |

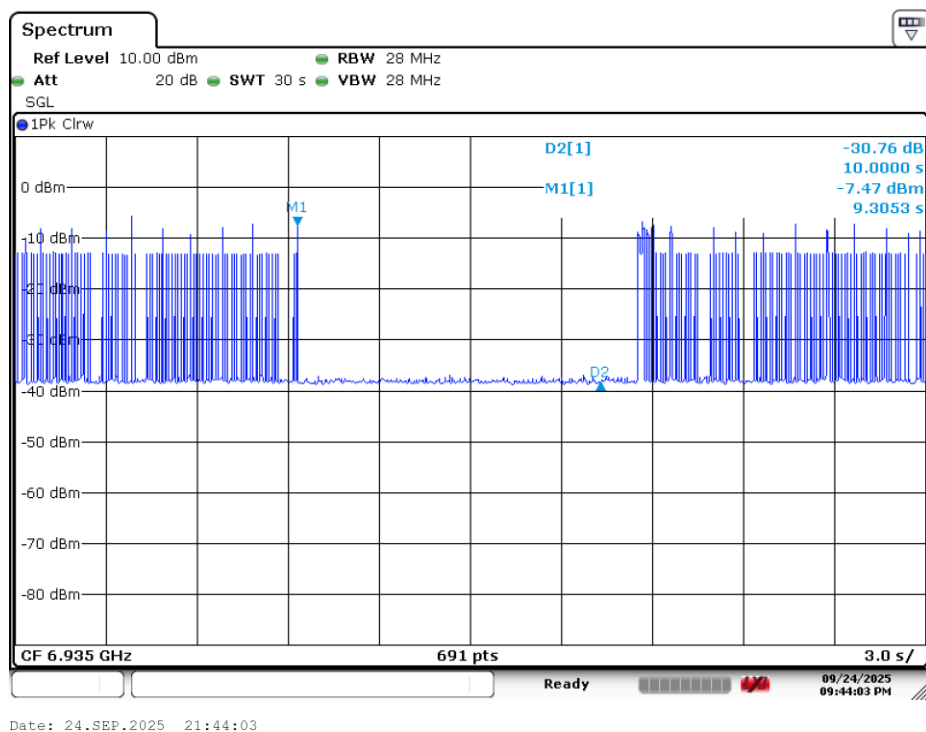


**Plot 7-66. Contention Based Protocol Timing Plot (320MHz (UNII Band 7) – Ch. 159 Mid)**

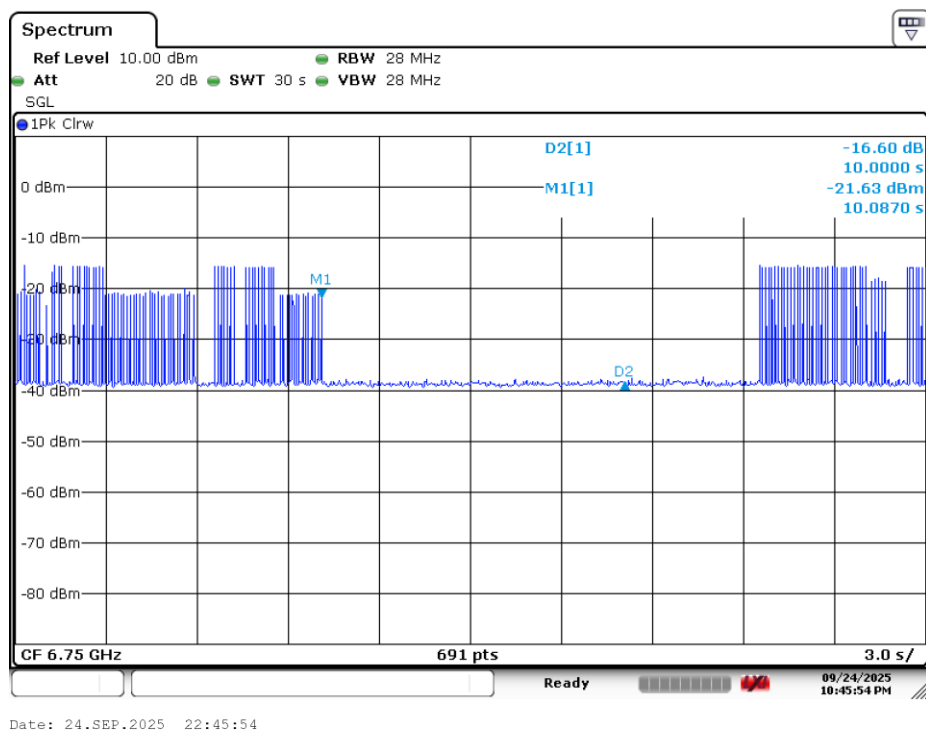


**Plot 7-67. Contention Based Protocol Timing Plot (320MHz (UNII Band 7) – Ch. 159 High)**

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 76 of 113                    |

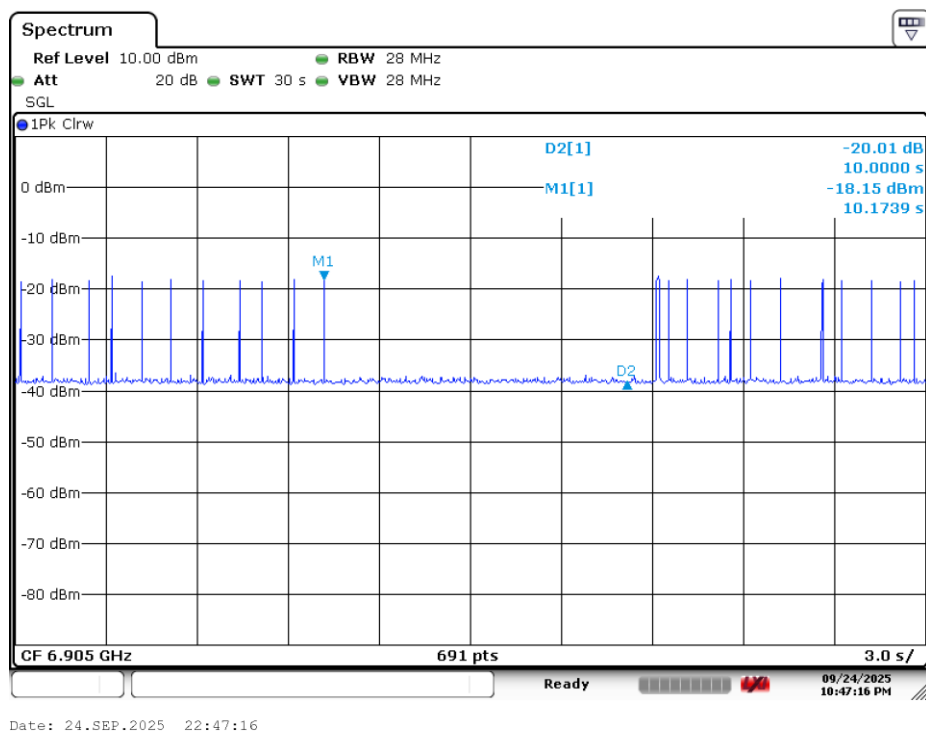


**Plot 7-68. Contention Based Protocol Timing Plot (20MHz (UNII Band 8) – Ch. 197)**

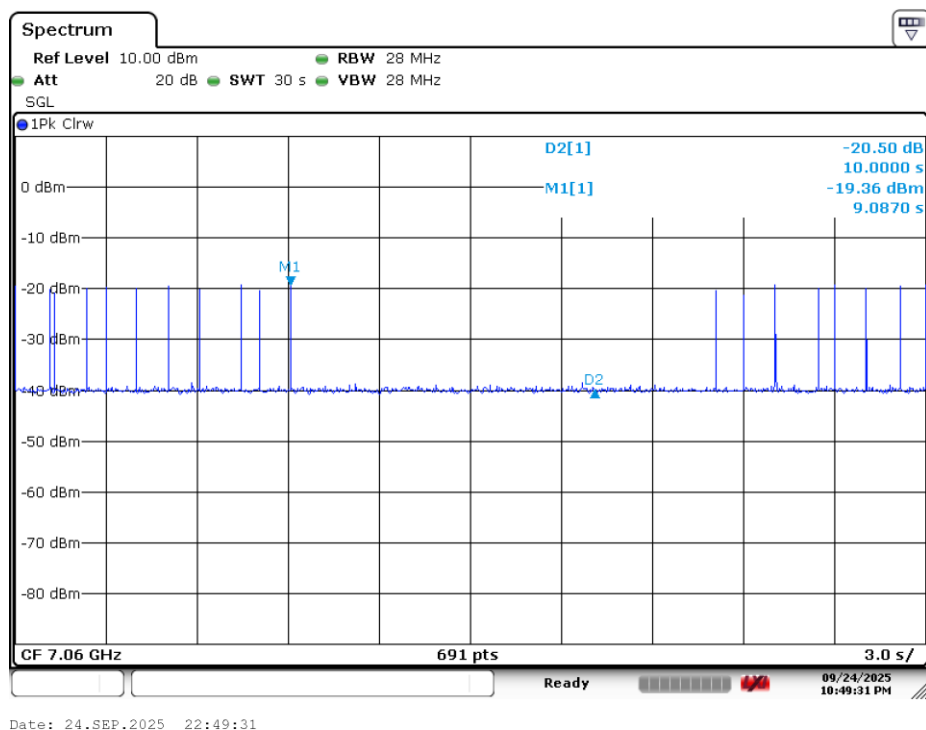


**Plot 7-69. Contention Based Protocol Timing Plot (320MHz (UNII Band 8) – Ch. 191 Low)**

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 77 of 113                    |



**Plot 7-70. Contention Based Protocol Timing Plot (320MHz (UNII Band 8) – Ch. 191 Mid)**



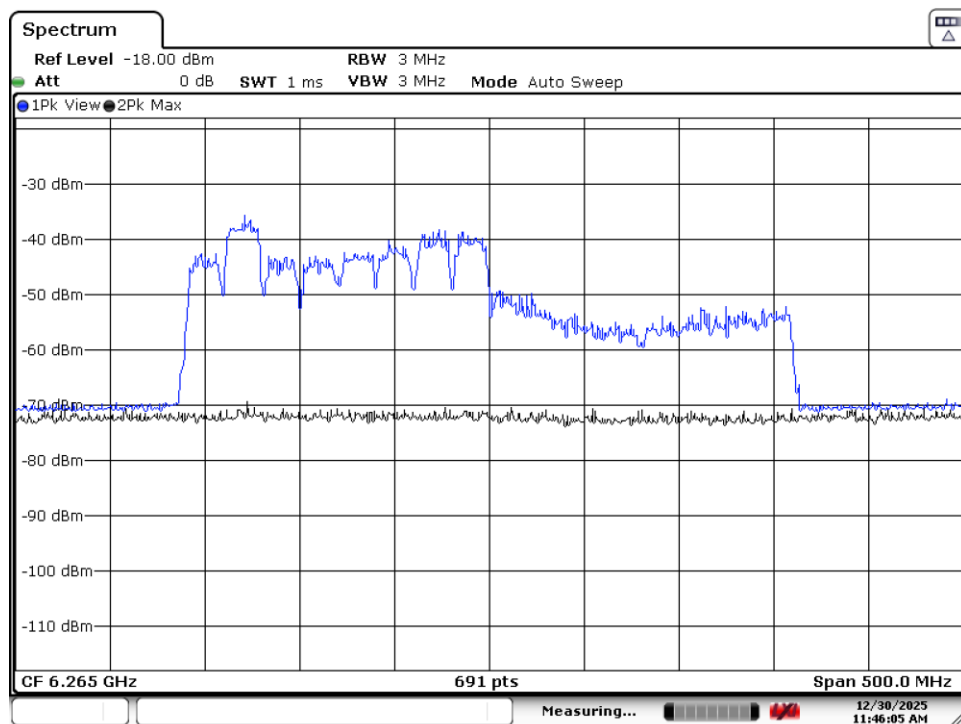
**Plot 7-71. Contention Based Protocol Timing Plot (320MHz (UNII Band 8) – Ch. 191 High)**

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 78 of 113                    |

### 7.6.3 Channel Move Plots

This section demonstrates the effect of injecting the AWGN signal at various locations throughout the 802.11be 320MHz signal. The blue trace shows the full 320MHz signal prior to AWGN injection while the black trace shows the spectrum following AWGN injection. The following items were observed as demonstrated in the three plots shown below:

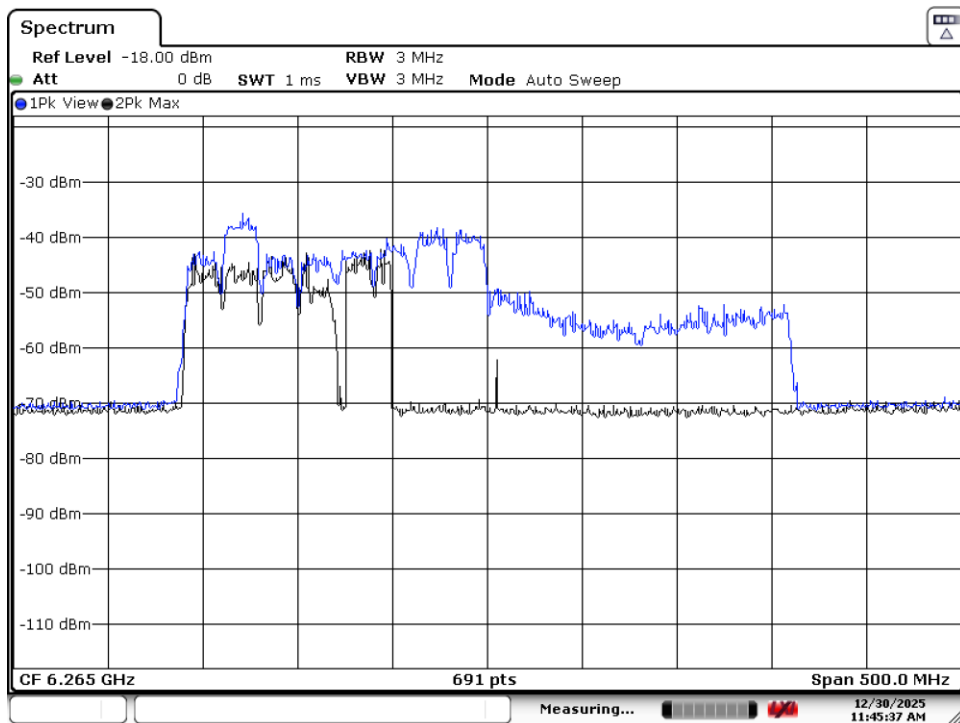
- When a 10 MHz AWGN signal centered at 6590 MHz (lower edge of channel) is injected, the channel completely stops transmitting.
- When a 10 MHz AWGN signal centered at 6745 MHz (middle of channel) is injected, the channel did not completely cease transmission; however, a reduction in the transmission bandwidth was observed.
- When a 10 MHz AWGN signal centered at 6900 MHz (upper edge of channel) is injected, the channel did not completely cease transmission; however, a reduction in the transmission bandwidth was observed.



Date: 30.DEC.2025 11:46:04

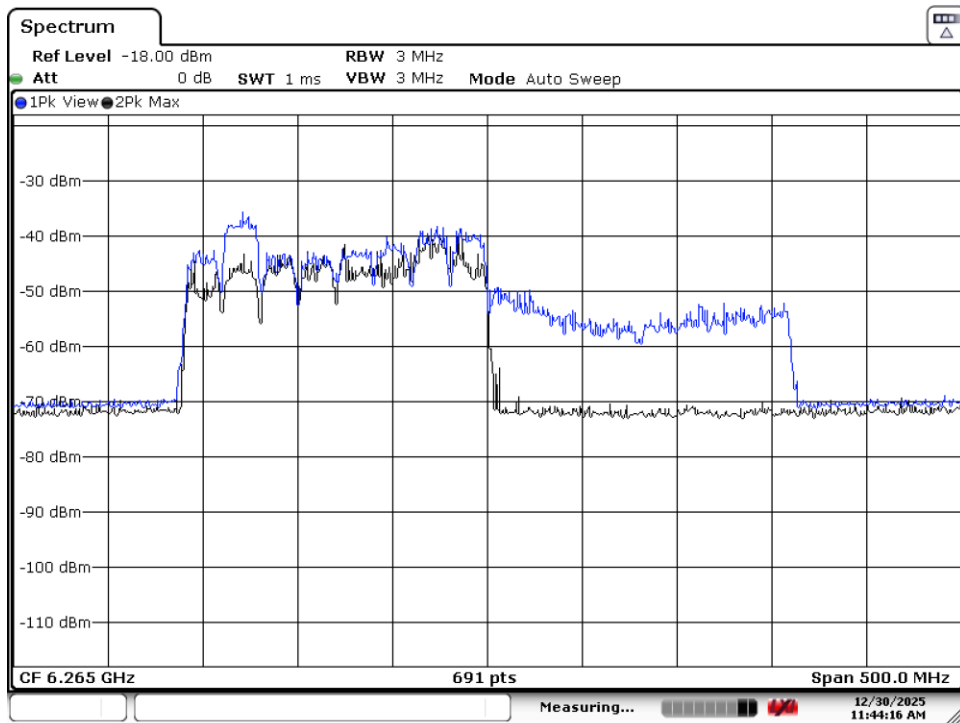
**Plot 7-72. CBP 320MHz Channel - Injection Lower Edge – [6590 MHz]**

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS942B                         | <b>MEASUREMENT REPORT</b>               |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2508270084-22-R1.A3L | <b>Test Dates:</b><br>9/2/25 - 12/30/25 | <b>EUT Type:</b><br>Portable Handset | Page 79 of 113                           |



Date: 30.DEC.2025 11:45:37

Plot 7-73. CBP 320MHz Channel - Injection Center – [6745 MHz]



Date: 30.DEC.2025 11:44:16

Plot 7-74. CBP 320MHz Channel - Injection Upper Edge – [6900 MHz]

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 80 of 113                    |

## 7.7 Transmit Power Control

### Test Overview and Limit

Very low-power devices operating in the 5.925–6.425 and 6.525–6.875 GHz bands shall employ a TPC mechanism. A very low-power device must demonstrate the capability to operate at least 6 dB below the maximum EIRP PSD value of -5 dBm/MHz.

### Test Procedures Used

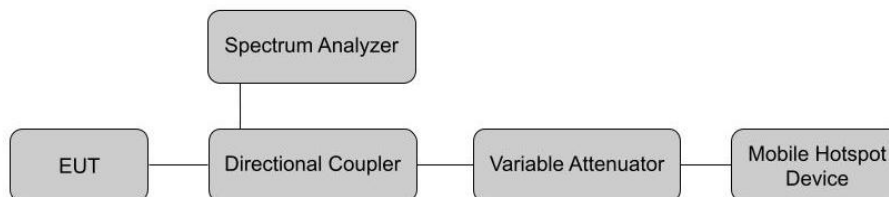
KDB 987594 D02 v03  
ANSI C63.10:2020 Section 12.4.2.6 (Using Method SA-3)

### Test Settings

1. Analyzer was set to the center frequency of the UNII channel under investigation
2. Span was set to encompass the entire emission bandwidth of the signal
3. RBW = 1MHz
4. VBW = 3MHz
5. Number of sweep points  $\geq 2 \times (\text{span}/\text{RBW})$
6. Sweep time = 2s (i.e. sweep time  $< \# \text{ points} \times T$ , per Section 12.3.2.6)
7. Detector = power averaging (RMS)
8. Trace was set to max hold to allow the trace to stabilize
9. Trigger was set to free run for all modes
10. The peak search function of the spectrum analyzer was used to find the peak of the spectrum.

### Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



**Figure 7-6. Test Instrument & Measurement Setup**

This test demonstrates the ability of the device to increase and decrease power by the required 6dB as the RSSI is decreased and increased via attenuation from a variable attenuator.

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS942B                         | <b>MEASUREMENT REPORT</b>               |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2508270084-22-R1.A3L | <b>Test Dates:</b><br>9/2/25 - 12/30/25 | <b>EUT Type:</b><br>Portable Handset | Page 81 of 113                           |

1. Configure EUT and Mobile Hotspot Device for connection as shown in figure above
2. Set variable attenuator to 0dB (noise free spectral environment, high RSSI simulation)
3. Establish connection between EUT and Mobile Hotspot Device
4. Capture PSD on Spectrum analyzer
5. Adjust attenuator to set high attenuation (noisy spectral environment, low RSSI simulation)
6. Capture PSD on Spectrum analyzer
7. Compare the highest PSD captured in step 4 to the highest PSD on step 6

### **Test Notes**

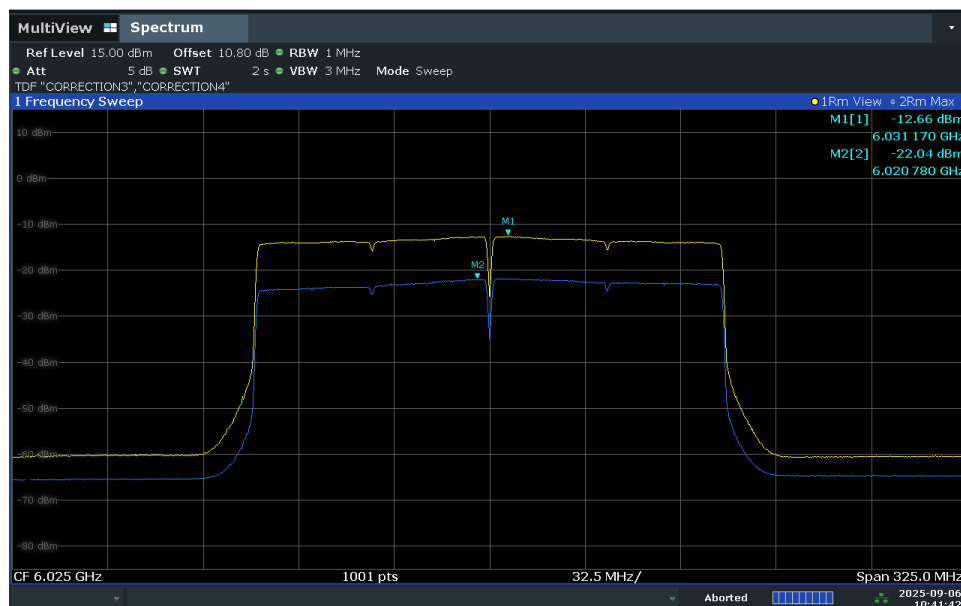
1. TPC is triggered when high RSSI condition is detected. As RSSI decreases via an increase in channel attenuation, the transmitters' output power will increase back to maximum allowed power
2. Implementation Expectation: Tx power Backoff is enabled at -28dBm or higher RSSI level. Backoff is disabled at -58dBm or lower RSSI Level.
3. The e.i.r.p. density is measured across both antenna ports and accounting for directional gain as shown below.

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS942B                         | <b>MEASUREMENT REPORT</b>               |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2508270084-22-R1.A3L | <b>Test Dates:</b><br>9/2/25 - 12/30/25 | <b>EUT Type:</b><br>Portable Handset | Page 82 of 113                           |

| Frequency [MHz] | Channel | 802.11 MODE | RSSI Level [dBm] | Antenna-1 Power Density [dBm] | Antenna-2 Power Density [dBm] | Antenna-1 Gain [dBi] | Antenna-2 Gain [dBi] | Summed MIMO Power Density [dBm/MHz] | Directional Gain [dBi] | e.i.r.p Density [dBm/MHz] | Max EIRP Density [dBm/MHz] | Margin [dB] |
|-----------------|---------|-------------|------------------|-------------------------------|-------------------------------|----------------------|----------------------|-------------------------------------|------------------------|---------------------------|----------------------------|-------------|
| 6025            | 15      | ax (160MHz) | -53              | -12.66                        | -14.92                        | -3.88                | -3.39                | -10.63                              | -0.62                  | -10.98                    | -5                         | -5.98       |
|                 |         |             | -28              | -22.04                        | -21.52                        | -3.88                | -3.39                | -18.76                              | -0.62                  | -19.10                    | -11                        | -8.10       |

**Table 7-27. e.i.r.p. Power Spectral Density Measurements**

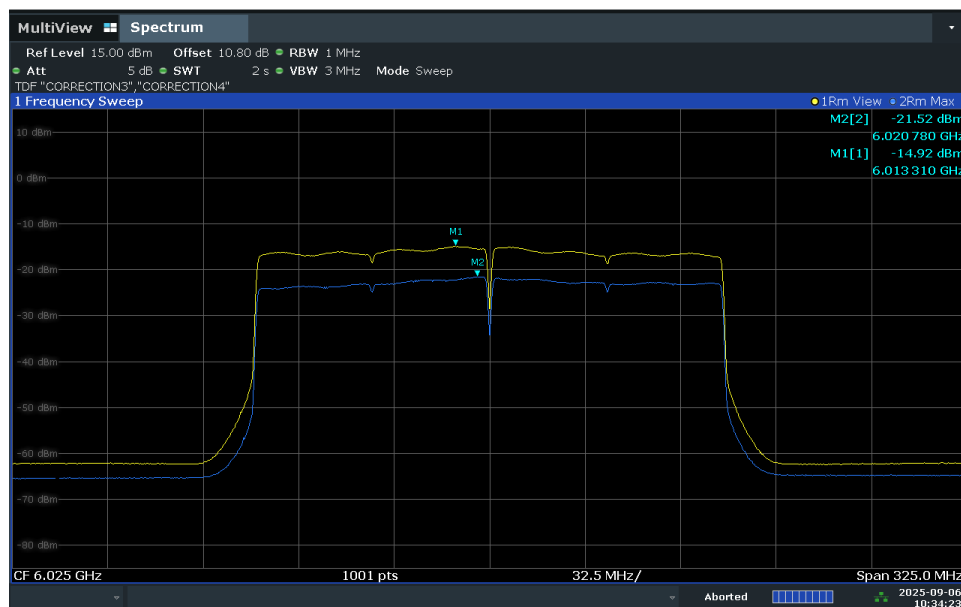
ACLRResults



**Plot 7-75. Power Spectral Density Plot –**

**ANT1 (160MHz Bandwidth, RSSI level at -53dBm (yellow) and -28dBm (blue))**

ACLRResults



**Plot 7-76. Power Spectral Density Plot –**

**ANT2 (160MHz Bandwidth, RSSI level at -53dBm (yellow) and -28dBm (blue))**

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 83 of 113                    |

## 7.8 Radiated Emission Measurements

### Test Overview and Limit

All out of band radiated spurious emissions are measured with a spectrum analyzer connected to a receive antenna while the EUT is operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10:2020, and at the appropriate frequencies. All channels, modes (e.g. 802.11a, 802.11ax, 802.11be (20/40/80/160/320MHz), and modulations/data rates were investigated among all UNII bands. Only the radiated emissions of the configuration that produced the worst-case emissions are reported in this section.

***For transmitters operating in the 5.925-7.125 GHz band: All emissions outside of the 5.925-7.125 GHz band shall not exceed an EIRP of -27dBm/MHz (68.2dBuV/m at a 3m distance). Emissions found in a restricted band are subject to the limits of 15.209 as shown in the table below.***

| Frequency         | Field Strength<br>[μV/m] | Measured Distance<br>[Meters] |
|-------------------|--------------------------|-------------------------------|
| 0.009 – 0.490 MHz | 2400\F (kHz)             | 300                           |
| 0.490 – 1.705 MHz | 24000\F (kHz)            | 30                            |
| 1.705 – 30.00 MHz | 30                       | 30                            |
| 30.00 – 88.00 MHz | 100                      | 3                             |
| 88.00 – 216.0 MHz | 150                      | 3                             |
| 216.0 – 960.0 MHz | 200                      | 3                             |
| Above 960.0 MHz   | 500                      | 3                             |

**Table 7-28. Radiated Limits**

### Test Procedures Used

ANSI C63.10:2020 – Sections 12.7.7.2, 12.7.6, 12.7.5

### Test Settings – Above 1GHz

#### **Average Field Strength Measurements (Method AD – Average Detection)**

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest.
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = power average (RMS)
5. Number of measurement points = 1001 (Number of points must be  $\geq 2 \times \text{span/RBW}$ )
6. Sweep time = auto
7. Trace (RMS) averaging was performed over at least 100 traces.

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS942B                         | <b>MEASUREMENT REPORT</b>               |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2508270084-22-R1.A3L | <b>Test Dates:</b><br>9/2/25 - 12/30/25 | <b>EUT Type:</b><br>Portable Handset | Page 84 of 113                           |

### Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest.
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize.

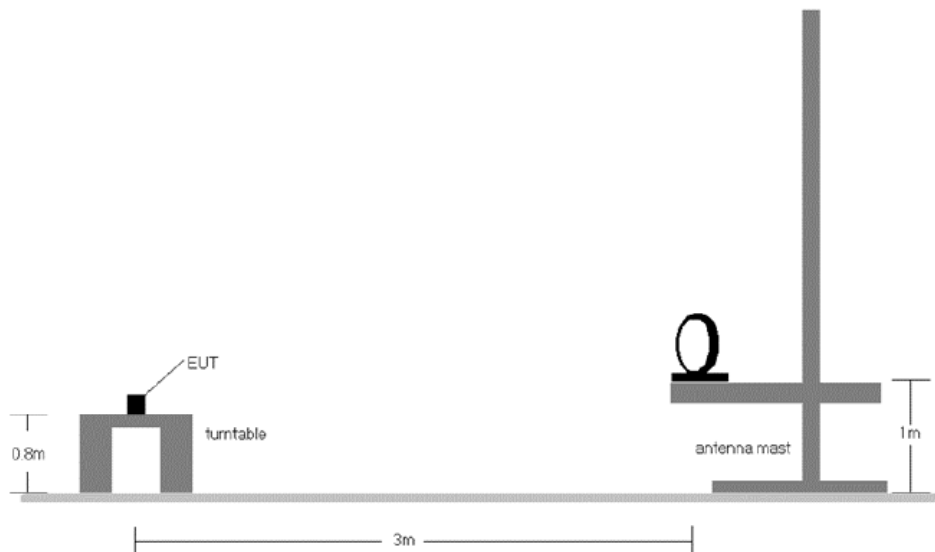
### Test Settings – Below 1GHz

#### Quasi-Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest.
2. RBW = 120kHz (for emissions from 30MHz – 1GHz)
3. Detector = quasi-peak
4. Sweep time = auto couple
5. Trace mode = max hold
6. Trace was allowed to stabilize.

### Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



**Figure 7-7. Radiated Test Setup < 30MHz**

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS942B                         | <b>MEASUREMENT REPORT</b>               |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2508270084-22-R1.A3L | <b>Test Dates:</b><br>9/2/25 - 12/30/25 | <b>EUT Type:</b><br>Portable Handset | Page 85 of 113                           |

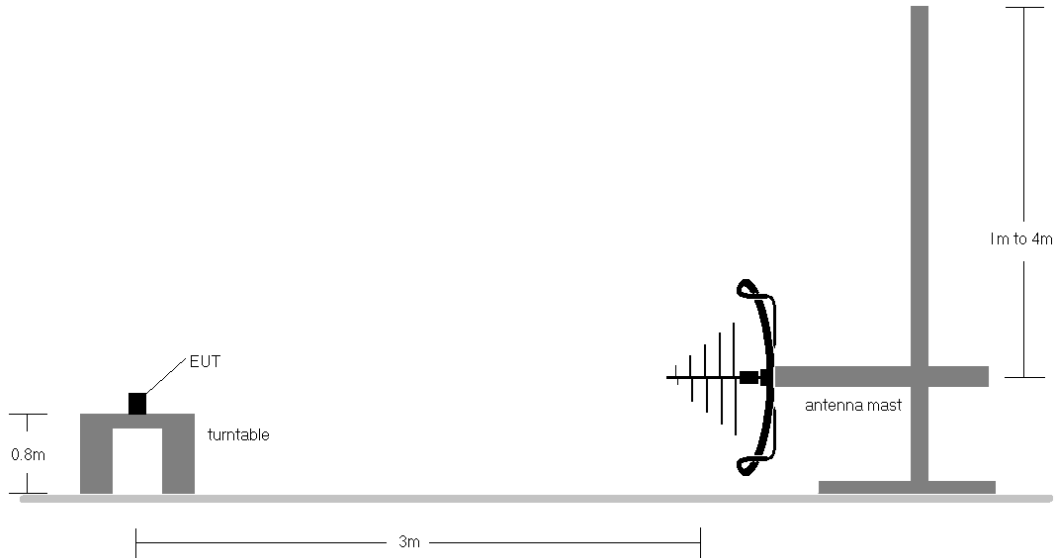


Figure 7-8. Radiated Test Setup < 1GHz

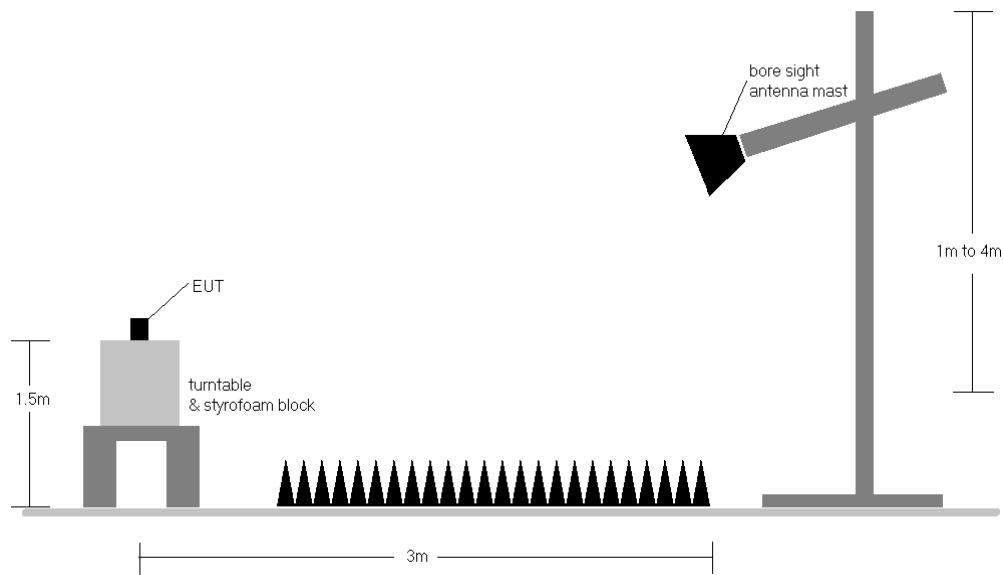


Figure 7-9. Radiated Test Setup > 1GHz

|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 86 of 113                    |

## Test Notes

1. All spurious emissions lying in restricted bands specified in §15.205 are below the limits specified in §15.209. All spurious emissions that do not lie in a restricted band are subject to an average limit of -27dBm/MHz. At 3 meters, the field strength limit in dB $\mu$ V/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions of 68.2dB $\mu$ V/m.
2. All spurious emissions that do not lie in a restricted band are subject to a peak limit not to exceed 20dB of the average limit [68.2dB $\mu$ V/m]. If a peak measurement passes the average limit, it was determined no further investigation is necessary.
3. The antenna is manipulated through typical positions, polarity, and length during the tests. The EUT is manipulated through three orthogonal planes.
4. This unit was tested with its standard battery.
5. The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter using CISPR quasi peak detector below 1GHz. Above 1 GHz, average and peak measurements were taken using linearly polarized horn antennas. The worst-case emissions are reported, however emissions whose levels were not within 20dB of the respective limits were not reported.
6. Emissions below 18GHz were measured at a 3-meter test distance while emissions above 18GHz were measured at a 1-meter test distance with the application of a distance correction factor.
7. The wide spectrum spurious emissions plots shown on the following pages are used only for the purpose of emission identification. Any emissions found to be within 20dB of the limit are fully investigated and the results are shown in this section. The "-" shown in the following RSE tables are used to denote a noise floor measurement.
8. In the case where a peak-detector measurement passed the given RMS limit it was determined sufficient to demonstrate compliance.
9. The results recorded using the broadband antenna are known to correlate with the results obtained by using a tuned dipole with an acceptable degree of accuracy. The VSWR for the measurement antenna was found to be less than 2:1.
10. In this section, plots showing measurements shown as "channel power" are recorded using the integration methods described in Section 11.12.3.2 of ANSI C63.10:2020 for average and peak measurements as allowed per Section 12.7.4.4.1. Also, the average measurements include the duty cycle correction factor shown in Section 2.2 of this report.

## Sample Calculations

### Determining Spurious Emissions Levels

- Field Strength Level [dB $\mu$ V/m] = Analyzer Level [dBm] + 107 + AFCL [dB/m]
- AFCL [dB/m] = Antenna Factor [dB/m] + Cable Loss [dB]
- Margin [dB] = Field Strength Level [dB $\mu$ V/m] – Limit [dB $\mu$ V/m]

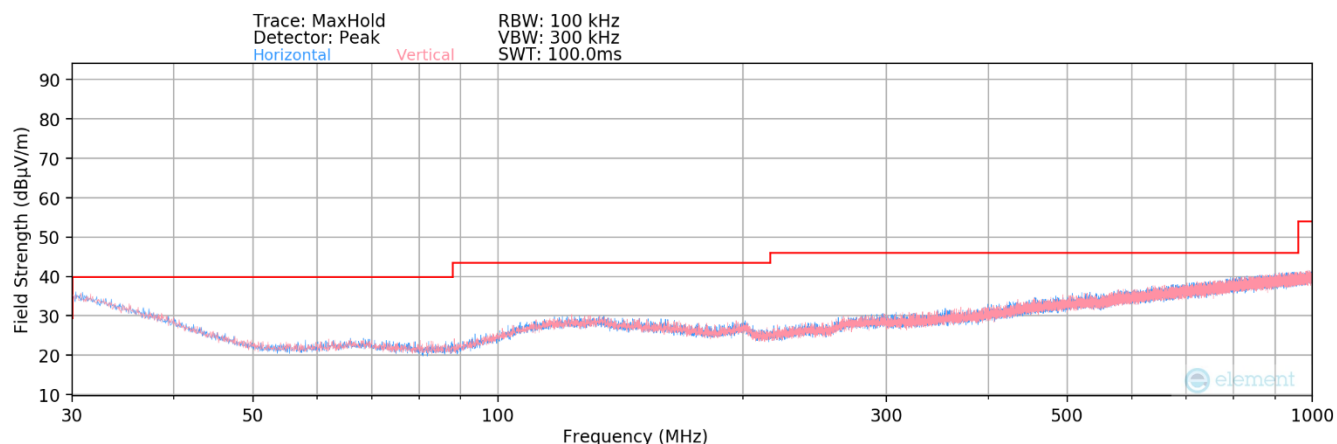
|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 87 of 113                    |

## Radiated Band Edge Measurement Offset

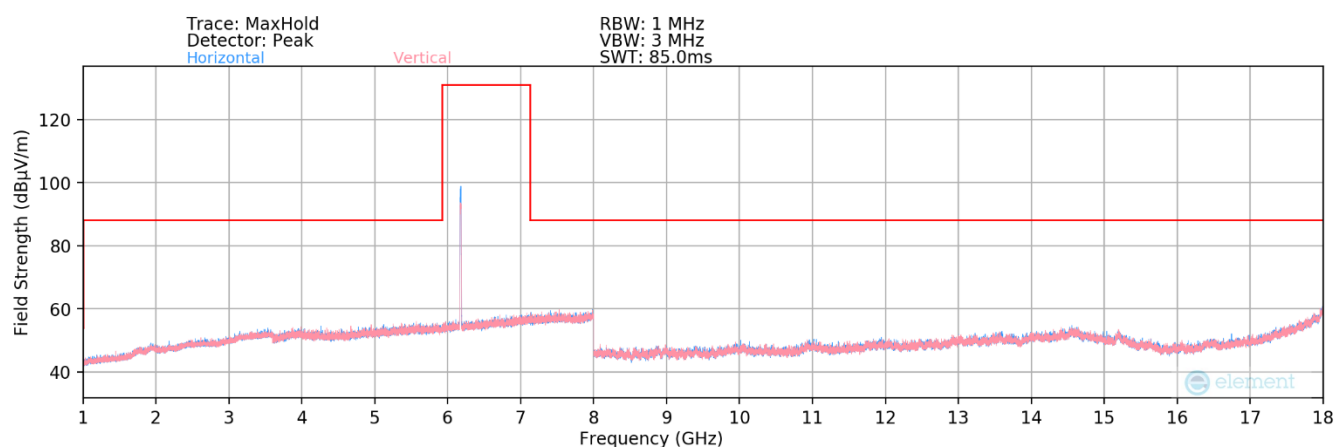
The amplitude offset shown in the radiated restricted band edge plots was calculated using the formula:

$$\text{Offset (dB)} = (\text{Antenna Factor} + \text{Cable Loss} + \text{Attenuator}) - \text{Preamplifier Gain}$$

## 7.8.1 MIMO Radiated Spurious Emission Measurements

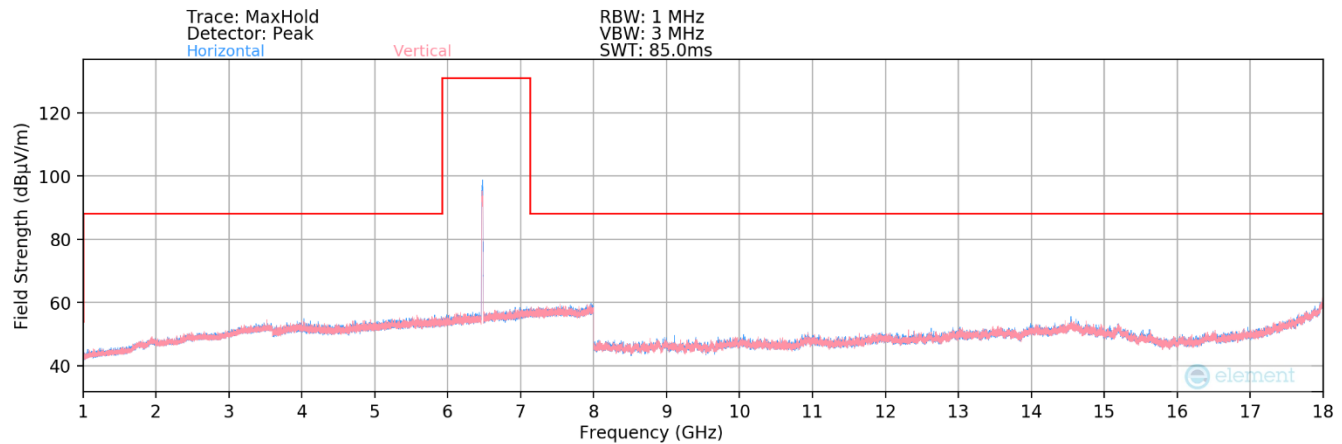


Plot 7-77. Radiated Spurious Plot below 1GHz MIMO (802.11a)

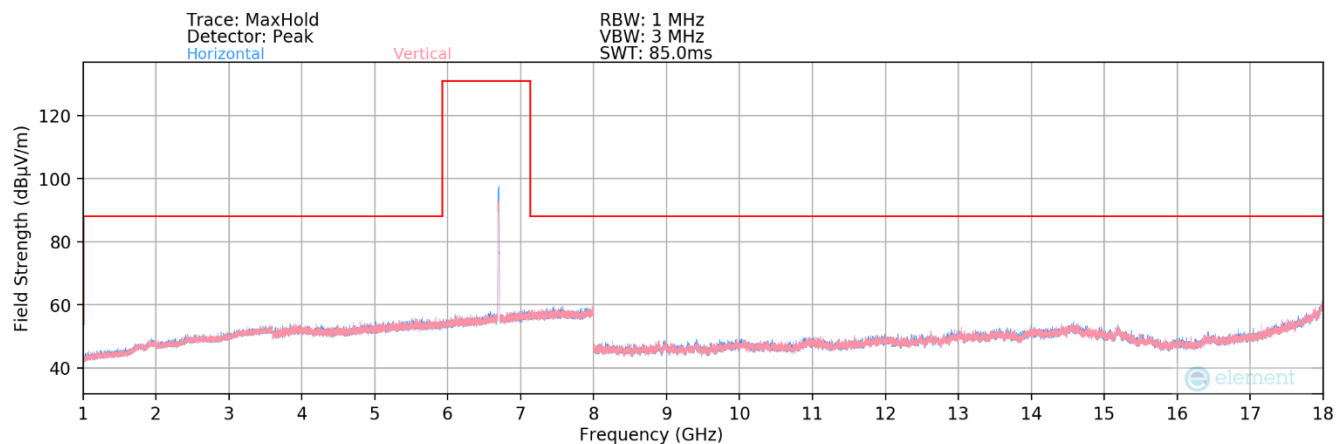


Plot 7-78. Radiated Spurious Plot 1GHz – 18GHz MIMO (802.11a – UNII Band 5 Ch. 45)

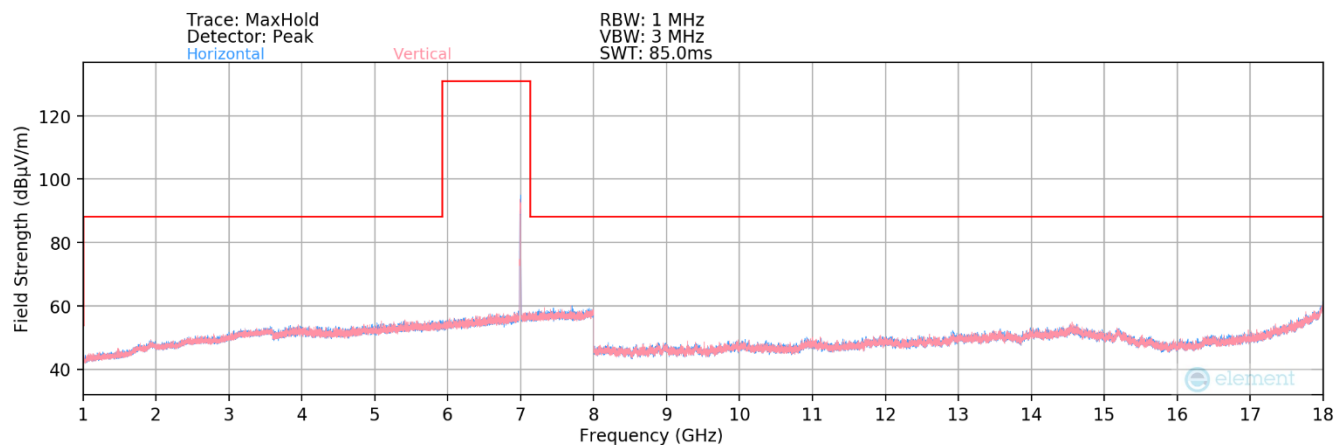
|                                            |                                  |                               |                                   |
|--------------------------------------------|----------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS942B                         | MEASUREMENT REPORT               |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2508270084-22-R1.A3L | Test Dates:<br>9/2/25 - 12/30/25 | EUT Type:<br>Portable Handset | Page 88 of 113                    |



**Plot 7-79. Radiated Spurious Plot 1GHz – 18GHz MIMO (802.11a – UNII Band 6 Ch. 105)**



**Plot 7-80. Radiated Spurious Plot 1GHz – 18GHz MIMO (802.11a – UNII Band 7 Ch. 149)**



**Plot 7-81. Radiated Spurious Plot 1GHz – 18GHz MIMO (802.11a – UNII Band 8 Ch. 209)**

|                                                   |                                         |                                      |                                          |
|---------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS942B                         | <b>MEASUREMENT REPORT</b>               |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2508270084-22-R1.A3L | <b>Test Dates:</b><br>9/2/25 - 12/30/25 | <b>EUT Type:</b><br>Portable Handset | Page 89 of 113                           |