

# FCC Test Report

Apple Inc  
Model: A3186



In accordance with FCC 47 CFR Part 15E  
(6 GHz WLAN)

Prepared for: Apple Inc  
One Apple Park Way  
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California  
95014  
USA

FCC ID: BCGA3186

## COMMERCIAL-IN-CONFIDENCE

Document 75961394-108 Issue 03

### SIGNATURE

| NAME           | JOB TITLE   | RESPONSIBLE FOR      | ISSUE DATE       |
|----------------|-------------|----------------------|------------------|
| James O'Reilly | RF Engineer | Authorised Signatory | 07 November 2024 |

Signatures in this approval box have checked this document in line with the requirements of TÜV SÜD document control rules.

### ENGINEERING STATEMENT

The measurements shown in this report were made in accordance with the procedures described on test pages. All reported testing was carried out on a sample equipment to demonstrate limited compliance with FCC 47 CFR Part 15E. The sample tested was found to comply with the requirements defined in the applied rules.

| RESPONSIBLE FOR   | NAME            | DATE             | SIGNATURE |
|-------------------|-----------------|------------------|-----------|
| Report Generation | Rachael Watkins | 07 November 2024 |           |

FCC Accreditation  
553713/UK2026 Concorde Park, Fareham Test Laboratory

### EXECUTIVE SUMMARY

A sample of this product was tested and found to be compliant with FCC 47 CFR Part 15E: 2023 for the tests detailed in section 1.3.



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# 1 Report Summary

## 1.1 Report Modification Record

Alterations and additions to this report will be issued to the holders of each copy in the form of a complete document.

| Issue | Description of Change                                                                                                 | Date of Issue    |
|-------|-----------------------------------------------------------------------------------------------------------------------|------------------|
| 1     | First Issue                                                                                                           | 16-October-2024  |
| 2     | Updated section 2.9                                                                                                   | 24-October-2024  |
| 3     | Updated sections 1.2, 2.1 and 2.8 for OBW/IBE test results (160 MHz) and addition of OBW 26 dB plots in section 2.1.6 | 07-November-2024 |

Table 1

## 1.2 Introduction

|                               |                                                                                                                                                                                                                                 |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Applicant                     | Apple Inc                                                                                                                                                                                                                       |
| Manufacturer                  | Apple Inc                                                                                                                                                                                                                       |
| EUT/Sample Identification     | Refer to section 1.6                                                                                                                                                                                                            |
| Test Specification/Issue/Date | FCC 47 CFR Part 15E: 2023                                                                                                                                                                                                       |
| Start of Test                 | 11-July-2024                                                                                                                                                                                                                    |
| Finish of Test                | 06-November-2024                                                                                                                                                                                                                |
| Name of Engineer(s)           | David Hill, Jayvir Makwana, Feda Hussein, Stefan Gilfedder, Ahmed Al Derdiri, Akhil Rajendran Bhaskaran Nair, Tony Baby, Vineeth Nagaraj, Elliot Callender, Ian Hart, Ioan-Alexandru Bogatu, Morsalin Hossain and Mustafa Murad |
| Related Document(s)           | ANSI C63.10 (2020)<br>KDB 662911 D01 v02r01<br>KDB 789033 D02 v02r01<br>KDB 987594 D02 v02<br>KDB 987594 DR03-45383                                                                                                             |



### 1.3 Brief Summary of Results

A brief summary of the tests carried out in accordance with FCC 47 CFR Part 15E is shown below.

| Section                            | Specification Clause  | Test Description                                 | Result | Comments/Base Standard                                                                                      |
|------------------------------------|-----------------------|--------------------------------------------------|--------|-------------------------------------------------------------------------------------------------------------|
| Configuration and Mode: 6 GHz WLAN |                       |                                                  |        |                                                                                                             |
| -                                  | 15.203                | Antenna Requirement                              | N/T    | The device complies with the provisions of this section, as it uses permanently attached integral antennas. |
| 2.1                                | 15.407 (a)            | Emission Bandwidth                               | Pass   | KDB 789033 D02 v02r01                                                                                       |
| 2.2                                | 15.407(a)             | Dual Client Test                                 | Pass   | KDB 987594 D02 v02r01                                                                                       |
| 2.3                                | 15.407 (d)(10)        | Transmit Power Control                           | Pass   | KDB 987594 DR03-45383                                                                                       |
| 2.4                                | 15.407 (a)            | Maximum Conducted Output Power                   | Pass   | KDB 662911 D01 v02r01<br>KDB 789033 D02 v02r01                                                              |
| 2.5                                | 15.407 (a)            | Maximum Conducted Power Spectral Density         | Pass   | KDB 662911 D01 v02r01<br>KDB 789033 D02 v02r01                                                              |
| 2.6                                | 15.407 (b)            | Authorised Band Edges                            | Pass   | ANSI C63.10 (2020)<br>KDB 789033 D02 v02r01                                                                 |
| 2.7                                | 15.209 and 15.407 (b) | Spurious Radiated Emissions                      | Pass   | ANSI C63.10 (2020)<br>KDB 789033 D02 v02r01                                                                 |
| 2.8                                | 15.407 (b)            | Unwanted Emissions within the 5925-7125 MHz band | Pass   | KDB 987594 D02 v02r01                                                                                       |
| 2.9                                | 15.407 (d)(6)         | Contention Based Protocol                        | Pass   | KDB 987594 D02 v02r01                                                                                       |

**Table 2**



## **1.4 Product Information**

### **1.4.1 Technical Description**

The equipment under test (EUT) was a portable laptop computer.

### **1.4.2 Test Modes**

The EUT's 6 GHz 802.11 radio supported SISO (Single Input/Single Output) and 2x2 MIMO (Multiple Input/Multiple Output) modes. 802.11a supports 20 MHz bandwidth only. 802.11ax supported 20 MHz, 40 MHz, 80 MHz and 160 MHz bandwidths.

802.11a mode supported SISO operation only. 802.11ax supported SISO, Cyclic Delay Diversity (CDD) and Space Division Multiplexing (SDM) modes. It also supported Transmit Beamforming (TxBF) mode on 20 MHz, 40 MHz and 80 MHz bandwidths. The EUT supported 802.11ax Single User (SU) and Multi-User (MU) with all Resource Unit (RU) sizes from 26 subcarriers, up to the maximum allowed, dependent on channel bandwidth.

The EUT is categorized a Dual Client (6CD) device operating in the 5.925-7.125 GHz bands. It will operate under the control of a Low Power Indoor (LPI) access point, or a standard power access point.

The EUT can also operate as a Very Low Power (6VL) device.

The EUT uses different output powers per core dependent on how many cores are used. The EUT also uses different power tables for Cyclic Delay Diversity (CDD), Space Division Multiplexing (SDM) and Transmit Beamforming (TxBF) modes. It uses the same conducted power across all cores in any given mode, but due to the different antenna gains the radiated powers per core differ.

After preliminary investigations were performed to find worst-case operation, the EUT was tested in the following modes:

SISO Modes (Core 0 or 1):

- 802.11a – 12 Mbps
- 802.11ax HE20 SU – MCS2x1
- 802.11ax HE40 SU – MCS2x1
- 802.11ax HE80 SU – MCS2x1
- 802.11ax HE160 SU – MCS2x1
- 802.11ax HE20 MU RU26/52/106 – MCS2x1

2x2 MIMO Modes (Core 0+1):

- 802.11ax HE20 SU – CDD (MCS2x1), SDM (MCS2x2) and TxBF (MCS2x1)
- 802.11ax HE40 SU – CDD (MCS2x1), SDM (MCS2x2) and TxBF (MCS2x1)
- 802.11ax HE80 SU – CDD (MCS2x1), SDM (MCS2x2) and TxBF (MCS2x1)
- 802.11ax HE160 SU – CDD (MCS2x1) and SDM (MCS2x2)
- 802.11ax HE20 MU RU26/52/106 – CDD (MCS2x1) and SDM (MCS2x2)

\*Note: The RU offset for bottom and middle channels were placed in the lowest position and on the top channel, the offset was placed in the upper most position



### 1.4.3 Test Setup

For conducted tests the EUT antennas were disconnected and replaced with U.FL to SMA test cables to enable conducted testing on each core. The loss of these test cables were known and compensated for in any conducted measurements.

For all testing except Contention Based Protocol, Dual Client & TPC tests the EUT was put into a continuous transmit test mode with the chipset manufacturer's test commands. The EUT then transmitted the required type of packeted 802.11 data frames of fixed length, containing the standard headers and with pseudo-random data content, ensuring the measured signals were representative and contained all the symbols at the highest power control level.

The test setup used for Contention Based Protocol, Dual Client & TPC tests are described in the relevant test result sections of the present document.

### 1.4.4 Antenna Gain Table

| Antenna Port | Frequency Range (MHz) | Peak Gain (dBi) | Conducted Cable Loss (dB) |
|--------------|-----------------------|-----------------|---------------------------|
| Core 0       | 5925 to 6105          | 6.4             | 1.15                      |
|              | 6105 to 6265          | 6.1             | 1.17                      |
|              | 6265 to 6425          | 5.4             | 1.21                      |
|              | 6425 to 6525          | 3.9             | 1.27                      |
|              | 6525 to 6875          | 5.6             | 1.25                      |
|              | 6875 to 7125          | 3.2             | 1.26                      |
| Core 1       | 5925 to 6105          | 4.0             | 1.15                      |
|              | 6105 to 6265          | 2.9             | 1.17                      |
|              | 6265 to 6425          | 2.1             | 1.21                      |
|              | 6425 to 6525          | 2.8             | 1.27                      |
|              | 6525 to 6875          | 4.6             | 1.25                      |
|              | 6875 to 7125          | 4.0             | 1.26                      |

**Table 3**

### 1.5 Deviations from the Standard

No deviations from the applicable test standard were made during testing.



## 1.6 Identification of the EUT

The table below details identification of the EUT(s) that have been used to carry out the testing within this report.

| Model: A3186  |                  |                  |                       |
|---------------|------------------|------------------|-----------------------|
| Serial Number | Hardware Version | Software Version | Firmware              |
| GQFXQXKN7J    | REV1.0           | 24A32191n        | 23.30.16              |
| FQHPMW6WWW    | REV1.0           | 24A32191n        | 23.30.16              |
| M6L2V7JQ91    | REV1.0           | 24A301           | 23.10.876.0.41.51.158 |
| M44MHNWLH2    | REV1.0           | 24A32190v        | 22.1.65.459           |
| M496C9XMTP    | REV1.0           | 24B13a           | 23.10.876.0.41.51.158 |
| LXXD3YHT0L    | REV1.0           | 24A32191n        | 22.1.65.459           |
| K6W2TF9JLC    | REV1.0           | 24B2056          | 23.10.889.3           |

Table 4

## 1.7 EUT Modification Record

The table below details modifications made to the EUT during the test programme.

The modifications incorporated during each test are recorded on the appropriate test pages.

| Modification State                      | Description of Modification still fitted to EUT | Modification Fitted By | Date Modification Fitted |
|-----------------------------------------|-------------------------------------------------|------------------------|--------------------------|
| Model: A3186, Serial Number: FQHPMW6WWW |                                                 |                        |                          |
| 0                                       | As supplied by the customer                     | Not Applicable         | Not Applicable           |
| Model: A3186, Serial Number: GQFXQXKN7J |                                                 |                        |                          |
| 0                                       | As supplied by the customer                     | Not Applicable         | Not Applicable           |
| Model: A3186, Serial Number: M6L2V7JQ91 |                                                 |                        |                          |
| 0                                       | As supplied by the customer                     | Not Applicable         | Not Applicable           |
| Model: A3186, Serial Number: M44MHNWLH2 |                                                 |                        |                          |
| 0                                       | As supplied by the customer                     | Not Applicable         | Not Applicable           |
| Model: A3186, Serial Number: M496C9XMTP |                                                 |                        |                          |
| 0                                       | As supplied by the customer                     | Not Applicable         | Not Applicable           |
| Model: A3186, Serial Number: LXXD3YHT0L |                                                 |                        |                          |
| 0                                       | As supplied by the customer                     | Not Applicable         | Not Applicable           |
| Model: A3186, Serial Number: K6W2TF9JLC |                                                 |                        |                          |
| 0                                       | As supplied by the customer                     | Not Applicable         | Not Applicable           |

Table 5



## 1.8 Test Location

TÜV SÜD conducted the following tests at our Concorde Park Test Laboratory.

| Test Name                                        | Name of Engineer(s)                                                             | Accreditation |
|--------------------------------------------------|---------------------------------------------------------------------------------|---------------|
| Configuration and Mode: 6 GHz WLAN               |                                                                                 |               |
| Emission Bandwidth                               | David Hill, Jayvir Makwana, Feda Hussein and Mustafa Murad                      | UKAS          |
| Dual Client Test                                 | Stefan Gilfedder                                                                | UKAS          |
| Transmit Power Control                           | Stefan Gilfedder                                                                | UKAS          |
| Maximum Conducted Output Power                   | David Hill, Jayvir Makwana and Feda Hussein                                     | UKAS          |
| Maximum Conducted Power Spectral Density         | David Hill, Jayvir Makwana and Feda Hussein                                     | UKAS          |
| Authorised Band Edges                            | Ahmed Al Derdiri, Akhil Rajendran Bhaskaran Nair, Tony Baby and Vineeth Nagaraj | UKAS          |
| Spurious Radiated Emissions                      | Elliot Callender, Ian Hart, Ioan-Alexandru Bogatu and Morsalin Hossain          | UKAS          |
| Unwanted Emissions within the 5925-7125 MHz band | David Hill, Jayvir Makwana, Feda Hussein and Mustafa Murad                      | UKAS          |
| Contention Based Protocol                        | Stefan Gilfedder                                                                | UKAS          |

**Table 6**

Office Address:

TÜV SÜD  
Concorde Park  
Concorde Way  
Fareham  
Hampshire  
PO15 5FG  
United Kingdom



## 2 Test Details

### 2.1 Emission Bandwidth

#### 2.1.1 Specification Reference

FCC 47 CFR Part 15E, Clause 15.407 (a)

#### 2.1.2 Equipment Under Test and Modification State

A3186, S/N: M44MHNWLH2 - Modification State 0  
A3186, S/N: M496C9XMTP - Modification State 0  
A3186, S/N: LXXD3YHT0L - Modification State 0

#### 2.1.3 Date of Test

28-August-2024 to 06-November-2024

#### 2.1.4 Test Method

The test was performed in accordance with KDB 789033 D02 clause II.C.1 for 26 dB bandwidth and clause II.D for 99% occupied bandwidth.

#### 2.1.5 Environmental Conditions

|                     |                |
|---------------------|----------------|
| Ambient Temperature | 20.8 - 22.3 °C |
| Relative Humidity   | 49.0 - 57.3 %  |

## 2.1.6 Test Results

### 6 GHz WLAN

#### SISO

| Protocol              | 26 dB Bandwidth (MHz) |         |
|-----------------------|-----------------------|---------|
|                       | Minimum               | Maximum |
| 802.11a LPI           | 20.940                | 21.240  |
| 802.11ax HE20 SU LPI  | 21.240                | 21.420  |
| 802.11ax HE40 SU LPI  | 41.760                | 42.240  |
| 802.11ax HE80 SU LPI  | 82.280                | 82.940  |
| 802.11ax HE160 SU LPI | 166.740               | 167.580 |
| 802.11a SP            | 21.000                | 21.540  |
| 802.11ax HE20 SU SP   | 21.240                | 21.780  |
| 802.11ax HE40 SU SP   | 42.000                | 43.080  |
| 802.11ax HE80 SU SP   | 82.500                | 84.480  |
| 802.11ax HE160 SU SP  | 166.740               | 167.580 |
| 802.11a VLP           | 21.060                | 21.120  |
| 802.11ax HE20 SU VLP  | 21.180                | 21.360  |
| 802.11ax HE40 SU VLP  | 41.880                | 42.240  |
| 802.11ax HE80 SU VLP  | 82.500                | 82.940  |
| 802.11ax HE160 SU VLP | 166.320               | 167.580 |

Table 7 - 26 dB Bandwidth Summary Results - SISO

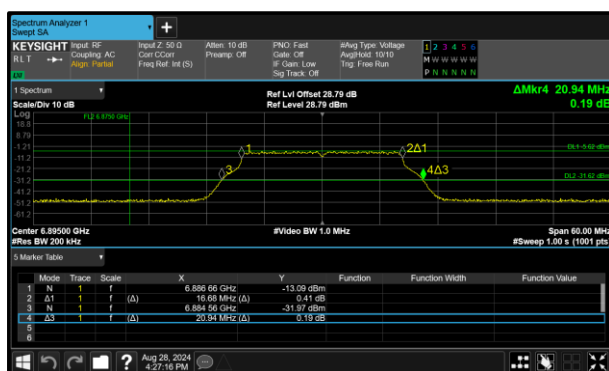


Figure 1 - 802.11a LPI Minimum 26 dB EBW

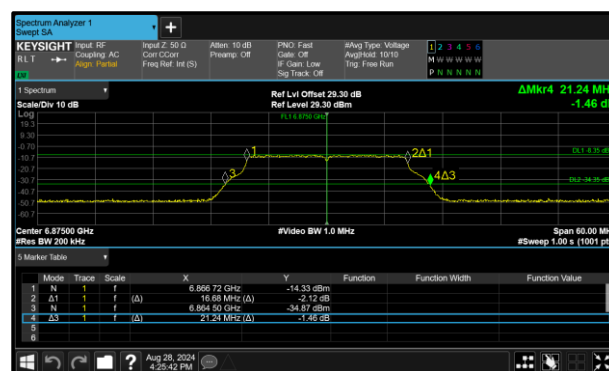


Figure 2 - 802.11a LPI Maximum 26 dB EBW

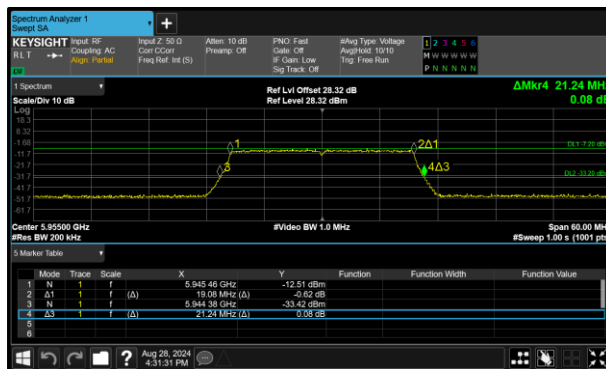


Figure 3 - 802.11ax HE20 SU LPI Minimum 26 dB EBW

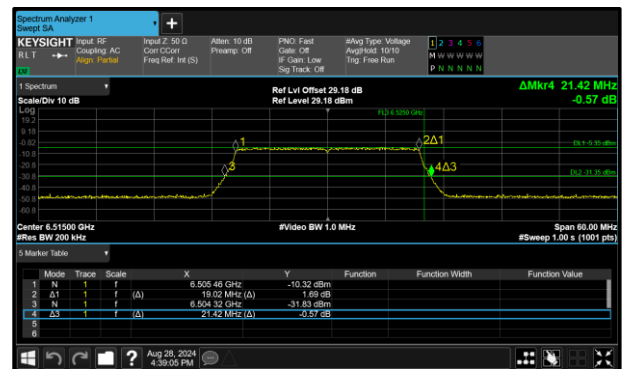


Figure 4 - 802.11ax HE20 SU LPI Maximum 26 dB EBW

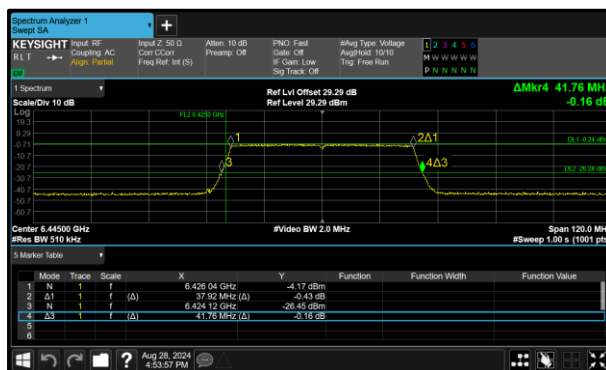


Figure 5 - 802.11ax HE40 SU LPI Minimum 26 dB EBW



Figure 6 - 802.11ax HE40 SU LPI Maximum 26 dB EBW

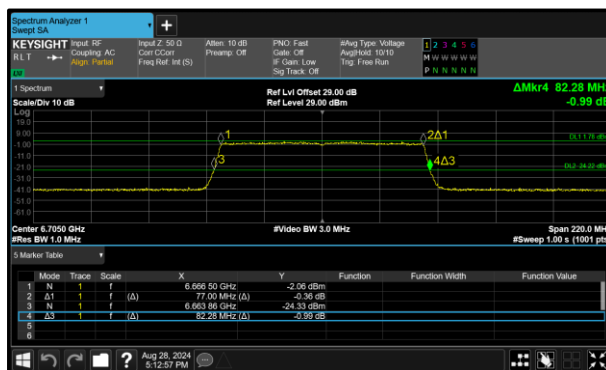


Figure 7 - 802.11ax HE80 SU LPI Minimum 26 dB EBW

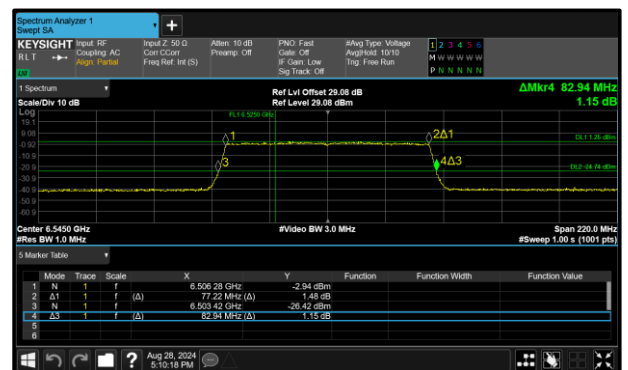


Figure 8 - 802.11ax HE80 SU LPI Maximum 26 dB EBW

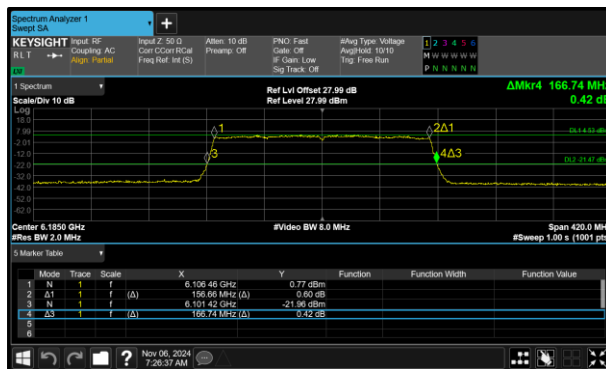


Figure 9 - 802.11ax HE160 SU LPI Minimum 26 dB EBW

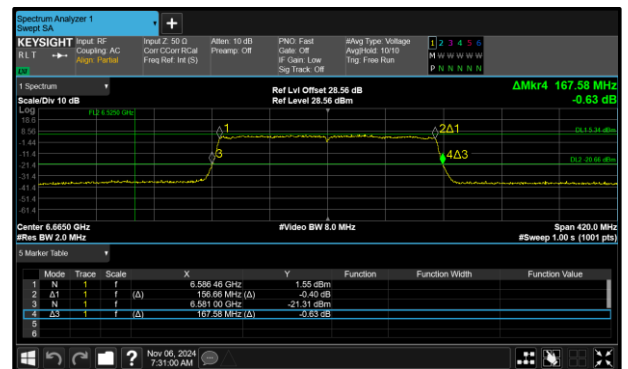


Figure 10 - 802.11ax HE160 SU LPI Maximum 26 dB EBW

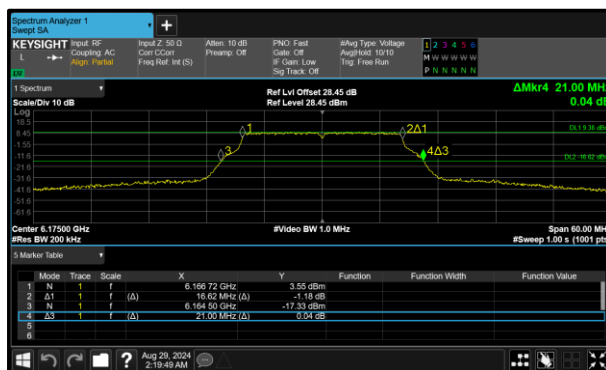


Figure 11 - 802.11a SP Minimum 26 dB EBW

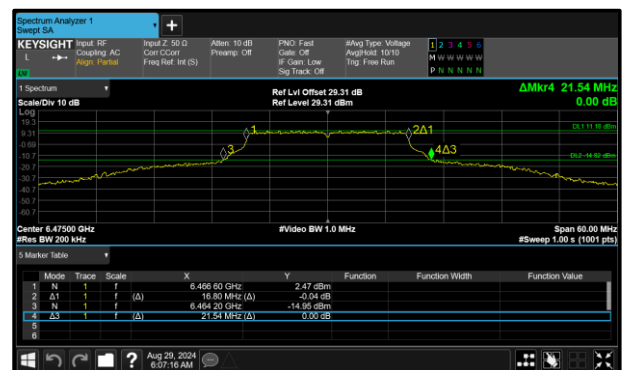


Figure 12 - 802.11a SP Maximum 26 dB EBW

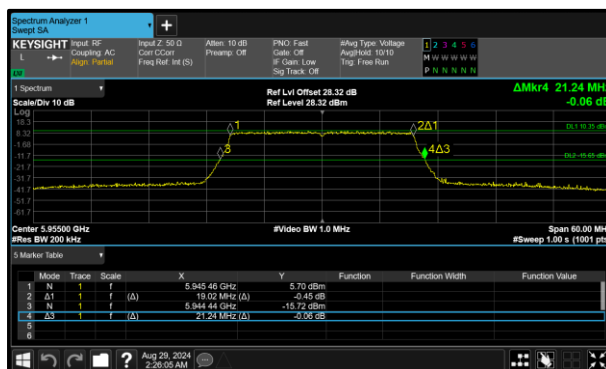


Figure 13 - 802.11ax HE20 SU SP Minimum 26 dB EBW

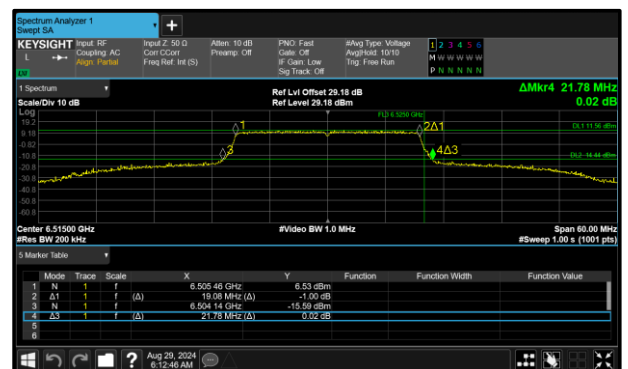


Figure 14 - 802.11ax HE20 SU SP Maximum 26 dB EBW

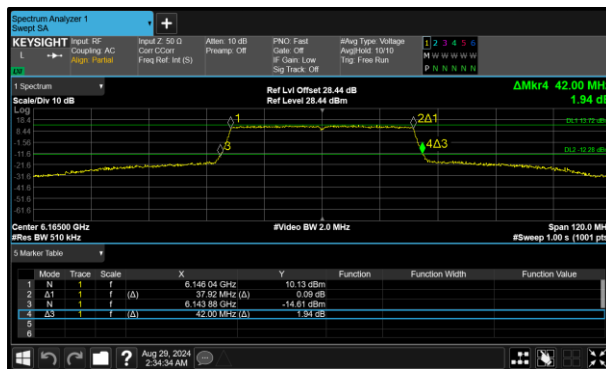


Figure 15 - 802.11ax HE40 SU SP Minimum 26 dB EBW

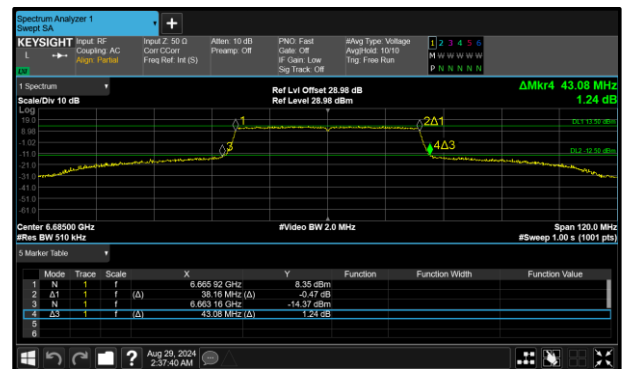


Figure 16 - 802.11ax HE40 SU SP Maximum 26 dB EBW

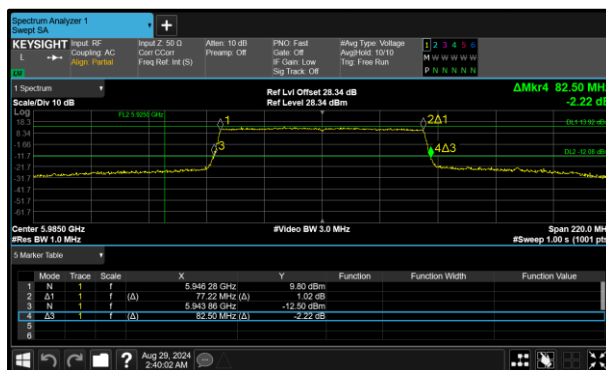


Figure 17 - 802.11ax HE80 SU SP Minimum 26 dB EBW

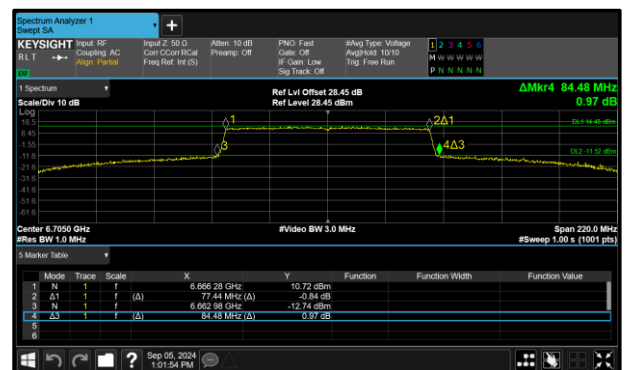


Figure 18 - 802.11ax HE80 SU SP Maximum 26 dB EBW

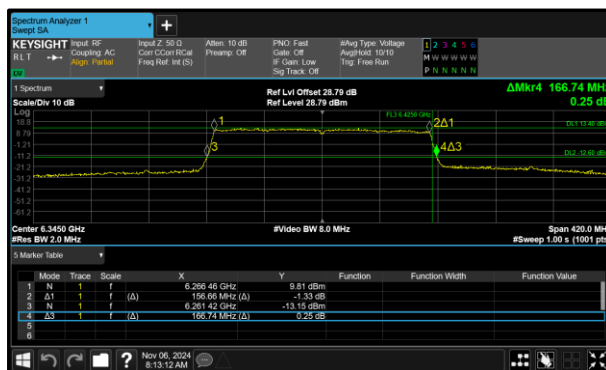


Figure 19 - 802.11ax HE160 SU SP Minimum 26 dB EBW

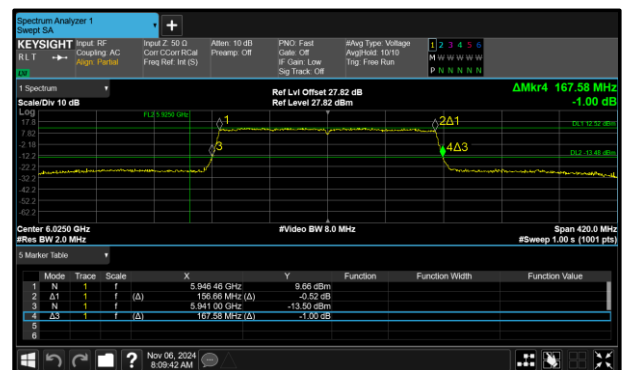


Figure 20 - 802.11ax HE160 SU SP Maximum 26 dB EBW

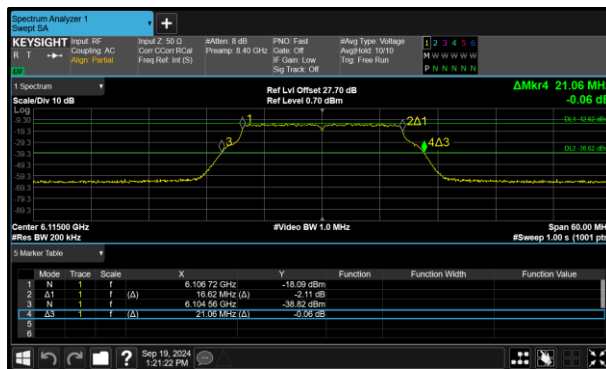


Figure 21 - 802.11a VLP Minimum 26 dB EBW

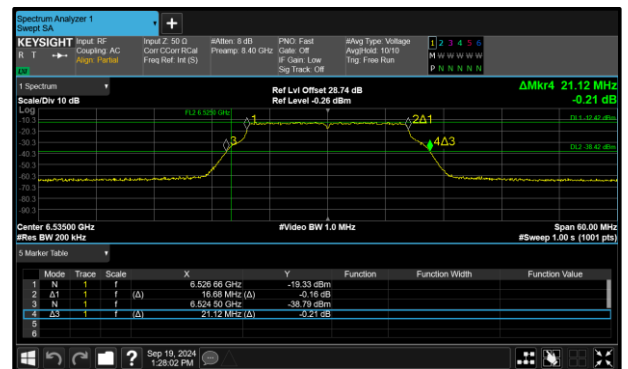


Figure 22 - 802.11a VLP Maximum 26 dB EBW

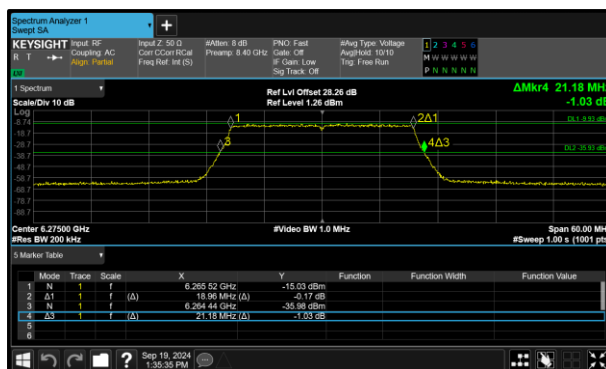


Figure 23 - 802.11ax HE20 SU VLP Minimum 26 dB EBW

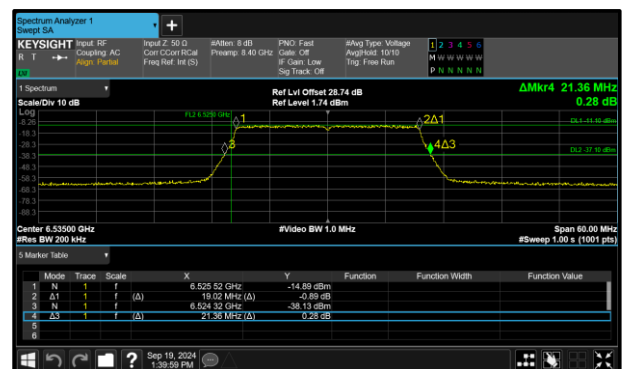


Figure 24 - 802.11ax HE20 SU VLP Maximum 26 dB EBW

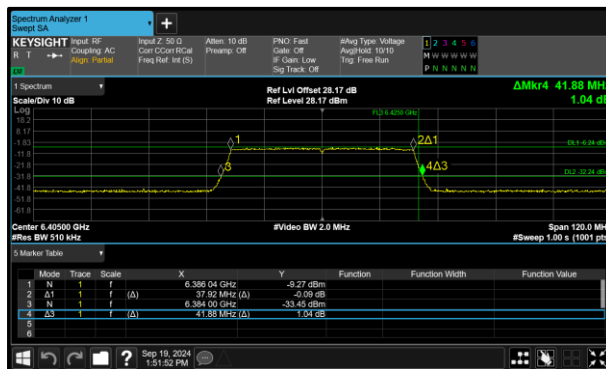


Figure 25 - 802.11ax HE40 SU VLP Minimum 26 dB EBW

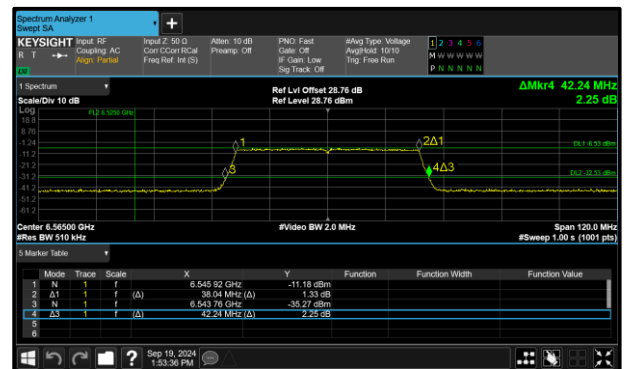


Figure 26 - 802.11ax HE40 SU VLP Maximum 26 dB EBW

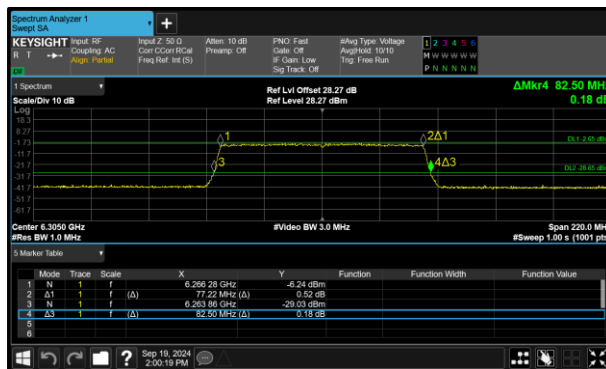


Figure 27 - 802.11ax HE80 SU VLP Minimum 26 dB EBW

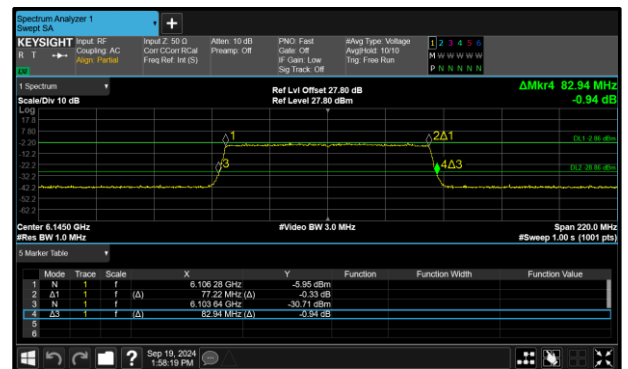


Figure 28 - 802.11ax HE80 SU VLP Maximum 26 dB EBW

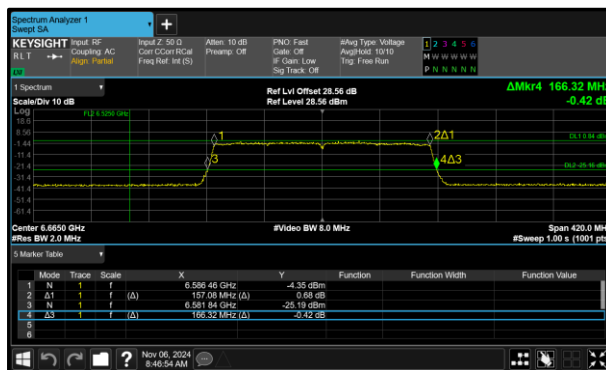


Figure 29 - 802.11ax HE160 SU VLP Minimum 26 dB EBW

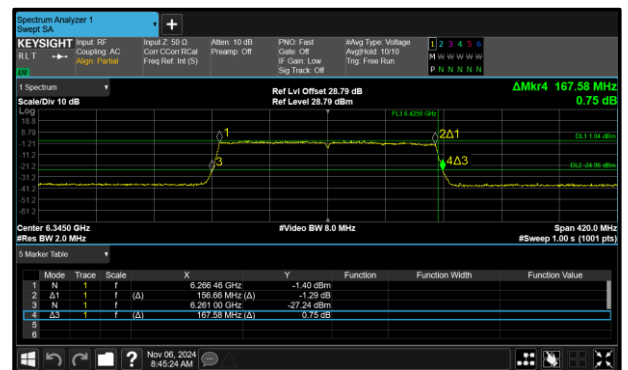


Figure 30 - 802.11ax HE160 SU VLP Maximum 26 dB EBW

| Protocol              | 99% Bandwidth (MHz) |         |
|-----------------------|---------------------|---------|
|                       | Minimum             | Maximum |
| 802.11a LPI           | 16.680              | 16.740  |
| 802.11ax HE20 SU LPI  | 18.960              | 19.080  |
| 802.11ax HE40 SU LPI  | 37.920              | 38.040  |
| 802.11ax HE80 SU LPI  | 77.000              | 77.440  |
| 802.11ax HE160 SU LPI | 156.240             | 156.660 |
| 802.11a SP            | 16.620              | 16.800  |
| 802.11ax HE20 SU SP   | 19.020              | 19.080  |
| 802.11ax HE40 SU SP   | 37.920              | 38.160  |
| 802.11ax HE80 SU SP   | 77.220              | 77.440  |
| 802.11ax HE160 SU SP  | 156.660             | 156.660 |
| 802.11a VLP           | 16.620              | 16.740  |
| 802.11ax HE20 SU VLP  | 18.960              | 19.080  |
| 802.11ax HE40 SU VLP  | 37.920              | 38.040  |
| 802.11ax HE80 SU VLP  | 77.220              | 77.440  |
| 802.11ax HE160 SU VLP | 156.660             | 156.660 |

Table 8 - 99% Bandwidth Summary Results - SISO

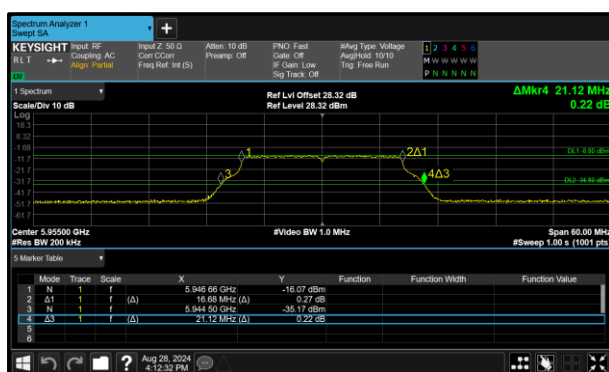


Figure 31 - 802.11a LPI Minimum 99% OBW

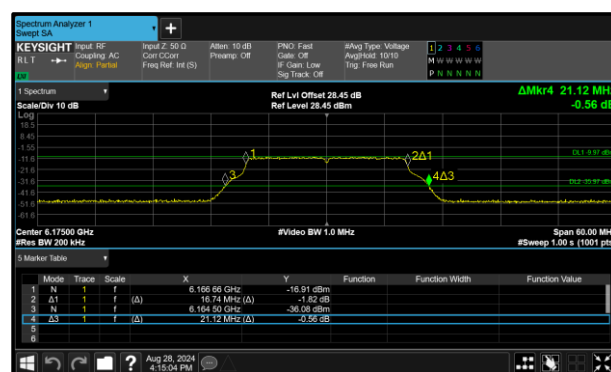


Figure 32 - 802.11a LPI Maximum 99% OBW

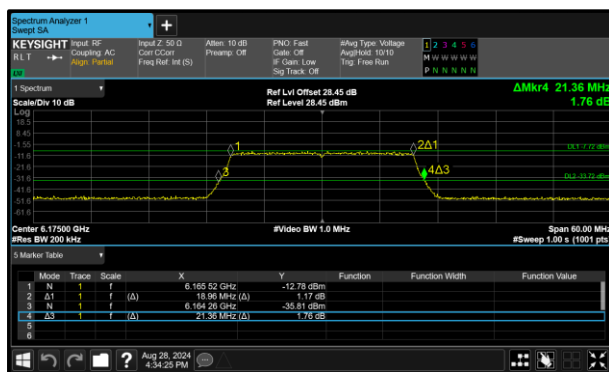


Figure 33 - 802.11ax HE20 SU LPI Minimum 99% OBW

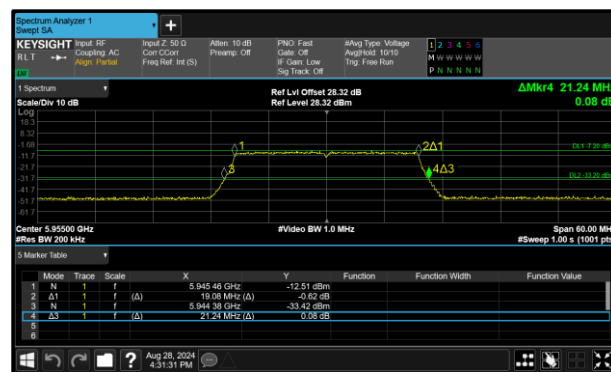


Figure 34 - 802.11ax HE20 SU LPI Maximum 99% OBW

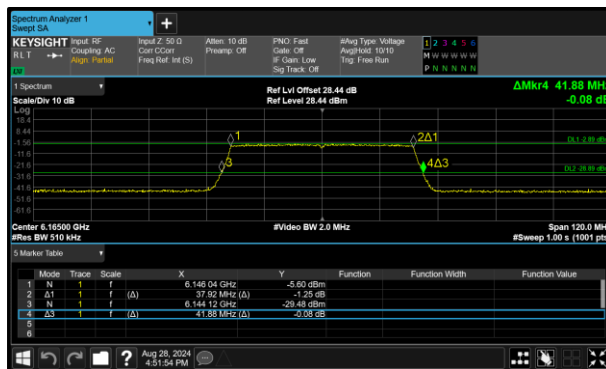


Figure 35 - 802.11ax HE40 SU LPI Minimum 99% OBW

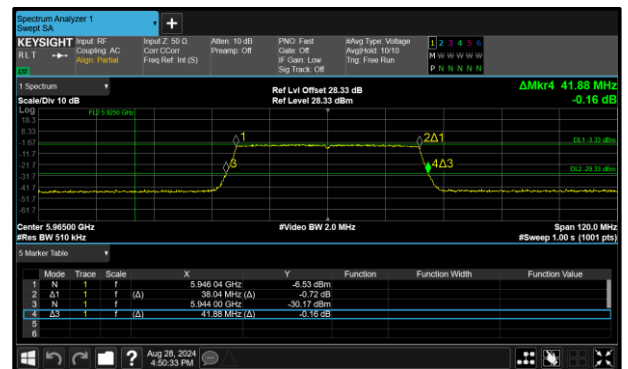


Figure 36 - 802.11ax HE40 SU LPI Maximum 99% OBW

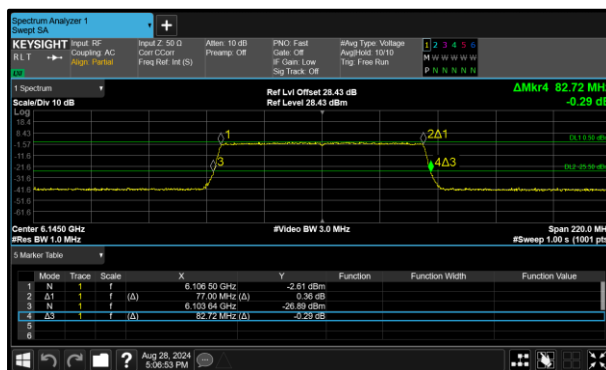


Figure 37 - 802.11ax HE80 SU LPI Minimum 99% OBW

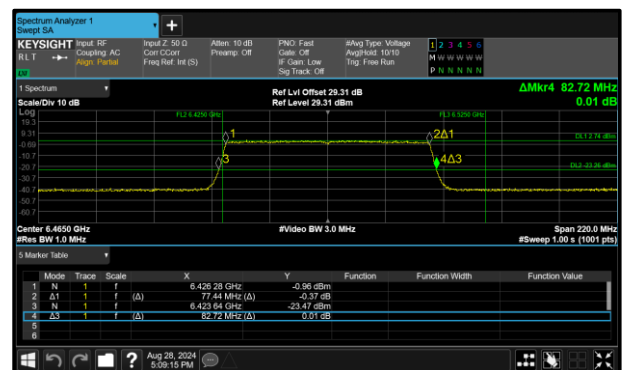


Figure 38 - 802.11ax HE80 SU LPI Maximum 99% OBW

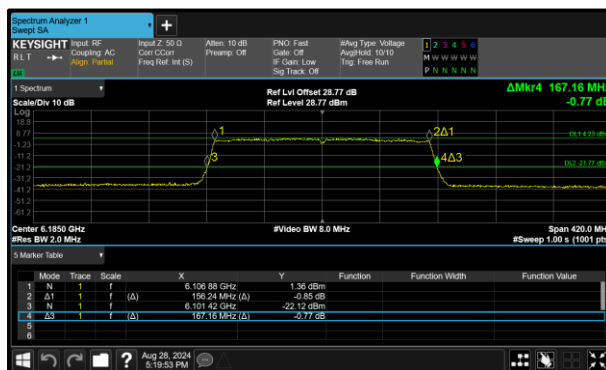


Figure 39 - 802.11ax HE160 SU LPI Minimum 99% OBW

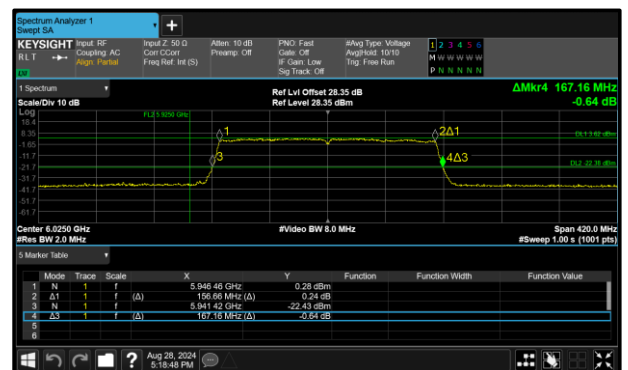


Figure 40 - 802.11ax HE160 SU LPI Maximum 99% OBW

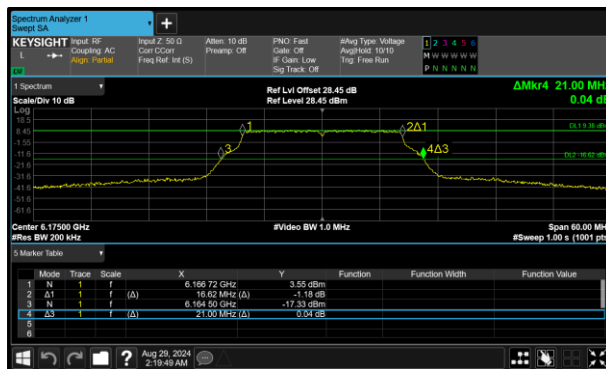


Figure 41 - 802.11a SP Minimum 99% OBW

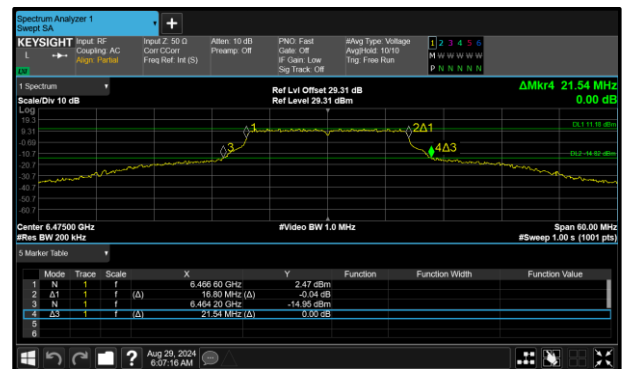


Figure 42 - 802.11a SP Maximum 99% OBW

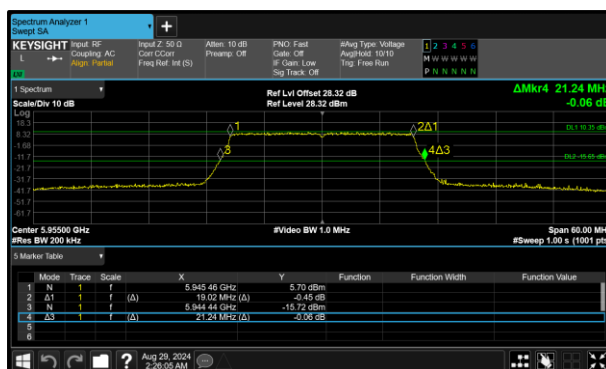


Figure 43 - 802.11ax HE20 SU SP Minimum 99% OBW

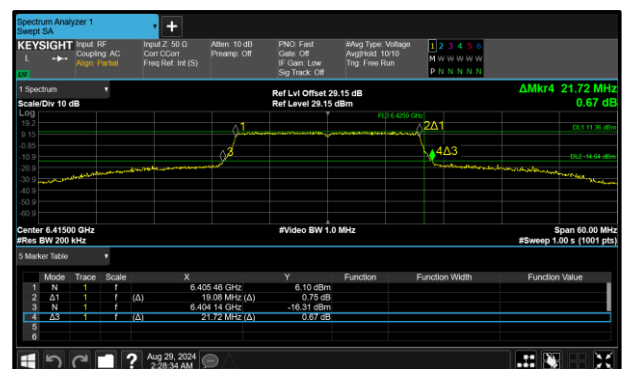


Figure 44 - 802.11ax HE20 SU SP Maximum 99% OBW

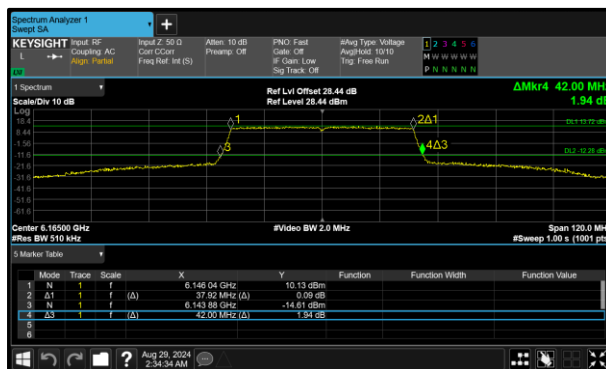


Figure 45 - 802.11ax HE40 SU SP Minimum 99% OBW

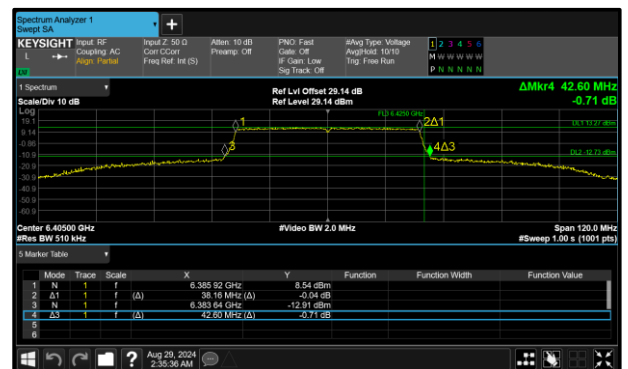


Figure 46 - 802.11ax HE40 SU SP Maximum 99% OBW

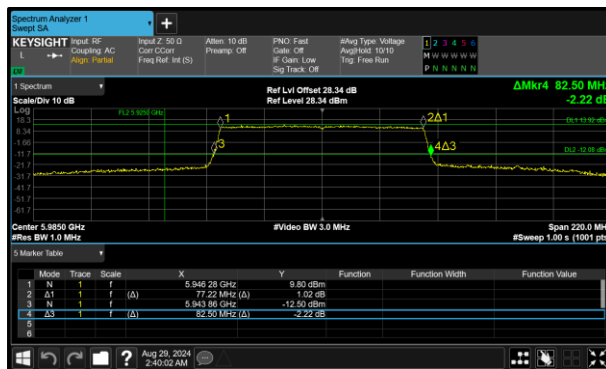


Figure 47 - 802.11ax HE80 SU SP Minimum 99% OBW

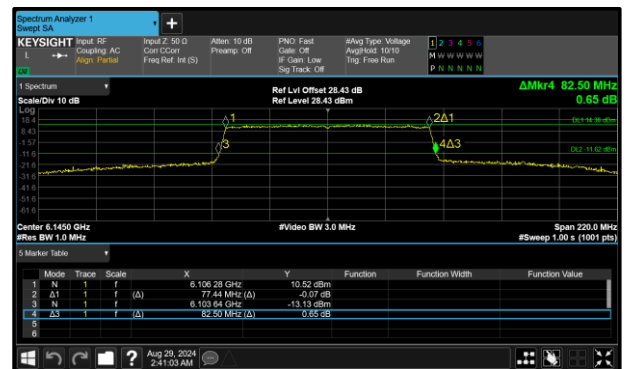


Figure 48 - 802.11ax HE80 SU SP Maximum 99% OBW

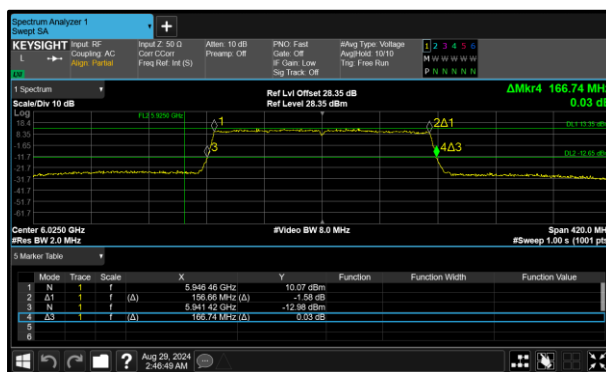


Figure 49 - 802.11ax HE160 SU SP Minimum 99% OBW

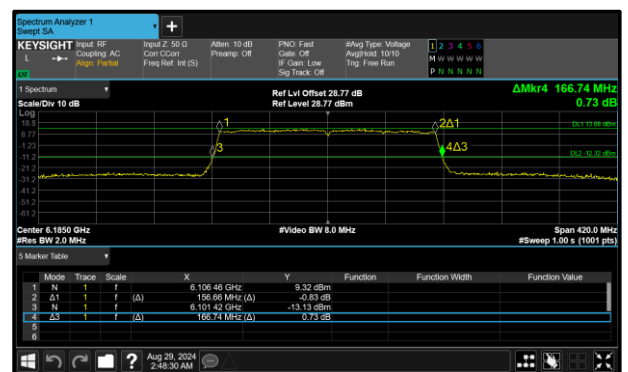


Figure 50 - 802.11ax HE160 SU SP Maximum 99% OBW

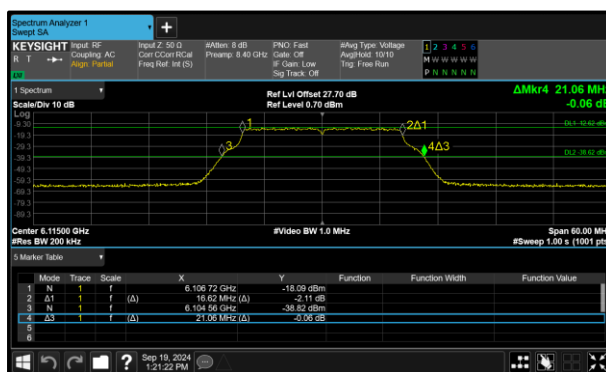


Figure 51 - 802.11a VLP Minimum 99% OBW

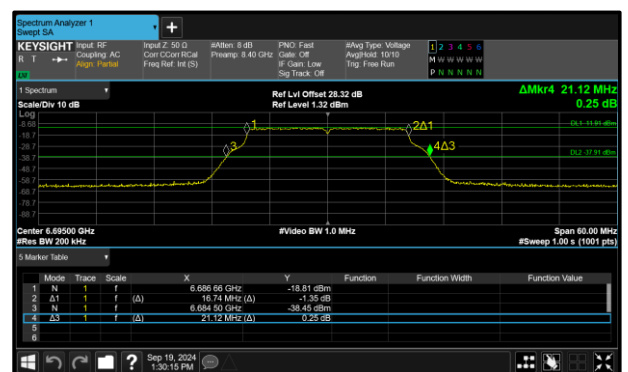


Figure 52 - 802.11a VLP Maximum 99% OBW

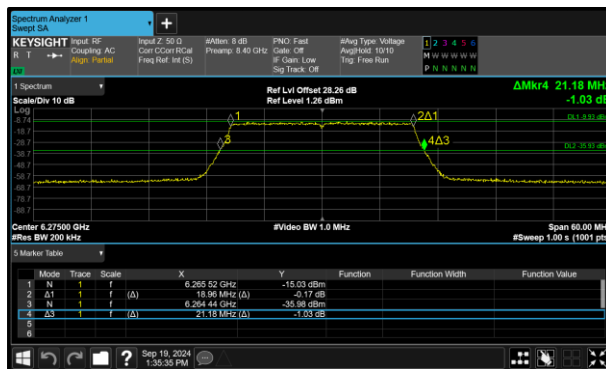


Figure 53 - 802.11ax HE20 SU VLP Minimum 99% OBW

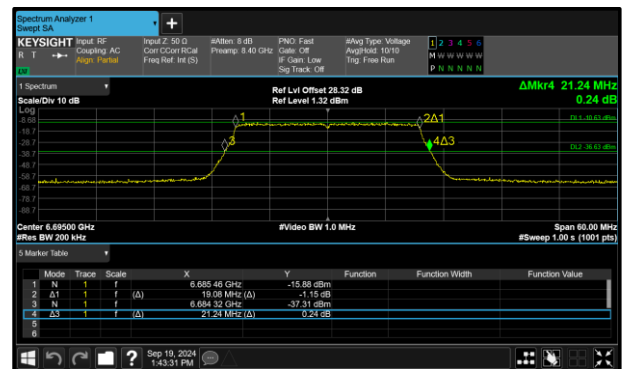


Figure 54 - 802.11ax HE20 SU VLP Maximum 99% OBW

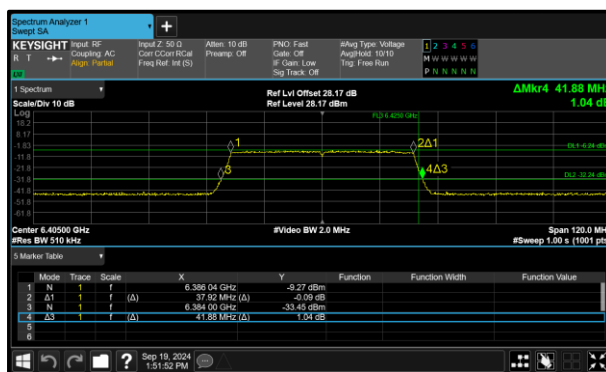


Figure 55 - 802.11ax HE40 SU VLP Minimum 99% OBW

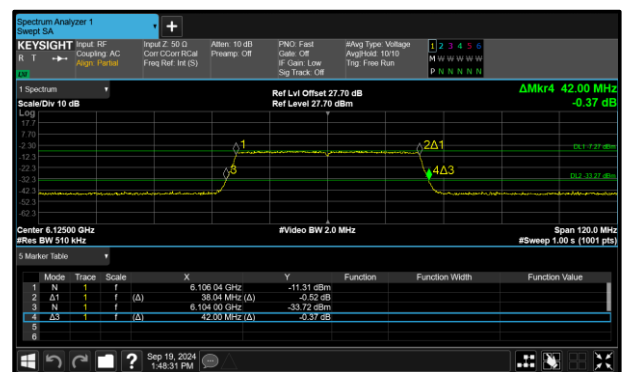


Figure 56 - 802.11ax HE40 SU VLP Maximum 99% OBW

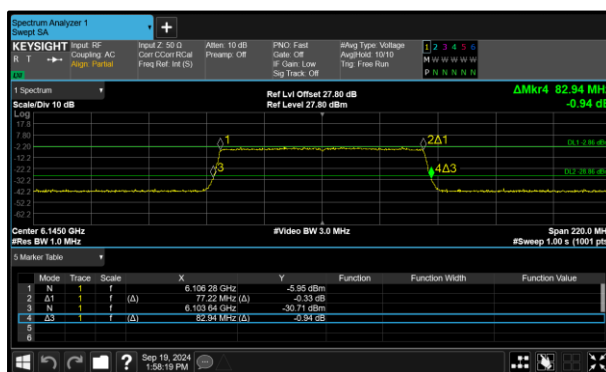


Figure 57 - 802.11ax HE80 SU VLP Minimum 99% OBW

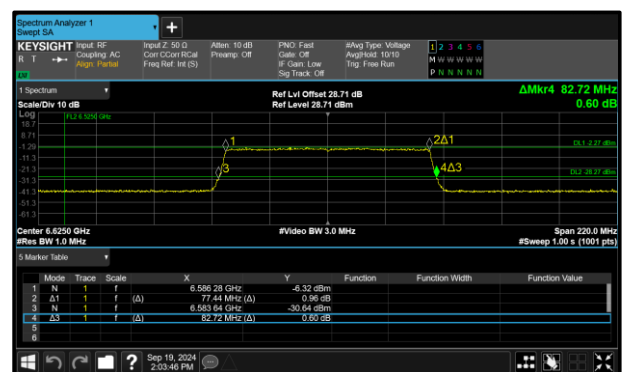


Figure 58 - 802.11ax HE80 SU VLP Maximum 99% OBW

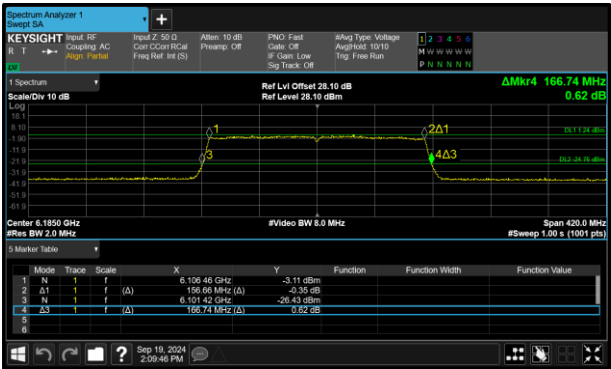


Figure 59 - 802.11ax HE160 SU VLP Minimum  
99% OBW

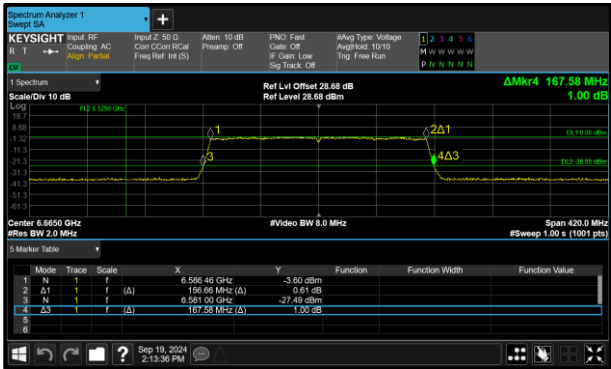


Figure 60 - 802.11ax HE160 SU VLP Maximum  
99% OBW



| Test Configuration       |                                                                          |                 |                                          |
|--------------------------|--------------------------------------------------------------------------|-----------------|------------------------------------------|
| Frequency Range:         | 5.925-6.425 GHz<br>6.425-6.525 GHz<br>6.525-6.875 GHz<br>6.875-7.125 GHz | Band:           | U-NII-5<br>U-NII-6<br>U-NII-7<br>U-NII-8 |
| Limit Clause(s):         | 15.407 (a)(11)<br>RSS-248 4.4                                            | Test Method(s): | C63.10 6.9.3<br>C63.10 12.5.2            |
| Additional Reference(s): | -                                                                        |                 |                                          |

| DUT Configuration      |                       |                          |     |
|------------------------|-----------------------|--------------------------|-----|
| Mode:                  | 802.11a LPI           | Duty Cycle (%):          | -   |
| Data Rate:             | 12 Mbps               | DCCF (dB):               | -   |
| Antenna Configuration: | SISO                  | Peak Antenna Gain (dBi): | -   |
| Active Port(s):        | A B (Core 0   Core 1) | Active Chain(s):         | 0 1 |

| Test Frequency (MHz) | 26 dB Bandwidth (MHz) |        |   |   | FCC Limit (MHz) |
|----------------------|-----------------------|--------|---|---|-----------------|
|                      | A                     | B      | C | D |                 |
| 5955                 | 21.120                | -      | - | - | 320.0           |
| 6175                 | 21.120                | -      | - | - | 320.0           |
| 6415                 | 21.120                | -      | - | - | 320.0           |
| 6435                 | 21.180                | -      | - | - | 320.0           |
| 6475                 | 21.180                | -      | - | - | 320.0           |
| 6515                 | 21.120                | -      | - | - | 320.0           |
| 6535                 | 21.120                | -      | - | - | 320.0           |
| 6695                 | 21.180                | -      | - | - | 320.0           |
| 6855                 | 21.120                | -      | - | - | 320.0           |
| 6875                 | 21.240                | -      | - | - | 320.0           |
| 6895                 | -                     | 20.940 | - | - | 320.0           |
| 6995                 | -                     | 20.940 | - | - | 320.0           |
| 7115                 | -                     | 21.060 | - | - | 320.0           |

**Table 9 - 26 dB Bandwidth Results**



| Test Frequency<br>(MHz) | 99% Bandwidth (MHz) |        |   |   | (MHz) |
|-------------------------|---------------------|--------|---|---|-------|
|                         | A                   | B      | C | D |       |
| 5955                    | 16.680              | -      | - | - | 320.0 |
| 6175                    | 16.740              | -      | - | - | 320.0 |
| 6415                    | 16.680              | -      | - | - | 320.0 |
| 6435                    | 16.740              | -      | - | - | 320.0 |
| 6475                    | 16.680              | -      | - | - | 320.0 |
| 6515                    | 16.740              | -      | - | - | 320.0 |
| 6535                    | 16.740              | -      | - | - | 320.0 |
| 6695                    | 16.740              | -      | - | - | 320.0 |
| 6855                    | 16.740              | -      | - | - | 320.0 |
| 6875                    | 16.680              | -      | - | - | 320.0 |
| 6895                    | -                   | 16.680 | - | - | 320.0 |
| 6995                    | -                   | 16.680 | - | - | 320.0 |
| 7115                    | -                   | 16.680 | - | - | 320.0 |

**Table 10 - 99% Bandwidth Results**



| Test Configuration       |                                                                          |                 |                                          |
|--------------------------|--------------------------------------------------------------------------|-----------------|------------------------------------------|
| Frequency Range:         | 5.925-6.425 GHz<br>6.425-6.525 GHz<br>6.525-6.875 GHz<br>6.875-7.125 GHz | Band:           | U-NII-5<br>U-NII-6<br>U-NII-7<br>U-NII-8 |
| Limit Clause(s):         | 15.407 (a)(11)<br>RSS-248 4.4                                            | Test Method(s): | C63.10 6.9.3<br>C63.10 12.5.2            |
| Additional Reference(s): | -                                                                        |                 |                                          |

| DUT Configuration         |                       |                          |     |
|---------------------------|-----------------------|--------------------------|-----|
| Mode:                     | 802.11ax HE20 SU LPI  | Duty Cycle (%):          | -   |
| Modulation Coding Scheme: | MCS2x1                | DCCF (dB):               | -   |
| Antenna Configuration:    | SISO                  | Peak Antenna Gain (dBi): | -   |
| Active Port(s):           | A B (Core 0   Core 1) | Active Chain(s):         | 0 1 |

| Test Frequency (MHz) | 26 dB Bandwidth (MHz) |        |   |   | FCC Limit (MHz) |
|----------------------|-----------------------|--------|---|---|-----------------|
|                      | A                     | B      | C | D |                 |
| 5955                 | 21.240                | -      | - | - | 320.0           |
| 6175                 | 21.360                | -      | - | - | 320.0           |
| 6415                 | 21.360                | -      | - | - | 320.0           |
| 6435                 | 21.240                | -      | - | - | 320.0           |
| 6475                 | 21.360                | -      | - | - | 320.0           |
| 6515                 | 21.420                | -      | - | - | 320.0           |
| 6535                 | 21.240                | -      | - | - | 320.0           |
| 6695                 | 21.240                | -      | - | - | 320.0           |
| 6855                 | 21.300                | -      | - | - | 320.0           |
| 6875                 | 21.360                | -      | - | - | 320.0           |
| 6895                 | -                     | 21.240 | - | - | 320.0           |
| 6995                 | -                     | 21.240 | - | - | 320.0           |
| 7095                 | -                     | 21.240 | - | - | 320.0           |

**Table 11 - 26 dB Bandwidth Results**



| Test Frequency<br>(MHz) | 99% Bandwidth (MHz) |        |   |   | (MHz) |
|-------------------------|---------------------|--------|---|---|-------|
|                         | A                   | B      | C | D |       |
| 5955                    | 19.080              | -      | - | - | 320.0 |
| 6175                    | 18.960              | -      | - | - | 320.0 |
| 6415                    | 19.080              | -      | - | - | 320.0 |
| 6435                    | 19.020              | -      | - | - | 320.0 |
| 6475                    | 19.020              | -      | - | - | 320.0 |
| 6515                    | 19.020              | -      | - | - | 320.0 |
| 6535                    | 19.080              | -      | - | - | 320.0 |
| 6695                    | 19.020              | -      | - | - | 320.0 |
| 6855                    | 19.080              | -      | - | - | 320.0 |
| 6875                    | 19.080              | -      | - | - | 320.0 |
| 6895                    | -                   | 18.960 | - | - | 320.0 |
| 6995                    | -                   | 19.020 | - | - | 320.0 |
| 7095                    | -                   | 19.020 | - | - | 320.0 |

**Table 12 - 99% Bandwidth Results**



| Test Configuration       |                                                                          |                 |                                          |
|--------------------------|--------------------------------------------------------------------------|-----------------|------------------------------------------|
| Frequency Range:         | 5.925-6.425 GHz<br>6.425-6.525 GHz<br>6.525-6.875 GHz<br>6.875-7.125 GHz | Band:           | U-NII-5<br>U-NII-6<br>U-NII-7<br>U-NII-8 |
| Limit Clause(s):         | 15.407 (a)(11)<br>RSS-248 4.4                                            | Test Method(s): | C63.10 6.9.3<br>C63.10 12.5.2            |
| Additional Reference(s): | -                                                                        |                 |                                          |

| DUT Configuration         |                       |                          |     |
|---------------------------|-----------------------|--------------------------|-----|
| Mode:                     | 802.11ax HE40 SU LPI  | Duty Cycle (%):          | -   |
| Modulation Coding Scheme: | MCS2x1                | DCCF (dB):               | -   |
| Antenna Configuration:    | SISO                  | Peak Antenna Gain (dBi): | -   |
| Active Port(s):           | A B (Core 0   Core 1) | Active Chain(s):         | 0 1 |

| Test Frequency (MHz) | 26 dB Bandwidth (MHz) |        |   |   | FCC Limit (MHz) |
|----------------------|-----------------------|--------|---|---|-----------------|
|                      | A                     | B      | C | D |                 |
| 5965                 | 41.880                | -      | - | - | 320.0           |
| 6165                 | 41.880                | -      | - | - | 320.0           |
| 6405                 | 42.000                | -      | - | - | 320.0           |
| 6445                 | 41.760                | -      | - | - | 320.0           |
| 6485                 | 42.120                | -      | - | - | 320.0           |
| 6525                 | 41.880                | -      | - | - | 320.0           |
| 6565                 | 41.880                | -      | - | - | 320.0           |
| 6685                 | 41.880                | -      | - | - | 320.0           |
| 6845                 | 42.240                | -      | - | - | 320.0           |
| 6885                 | 42.000                | -      | - | - | 320.0           |
| 6925                 | -                     | 42.000 | - | - | 320.0           |
| 7005                 | -                     | 41.760 | - | - | 320.0           |
| 7085                 | -                     | 42.120 | - | - | 320.0           |

**Table 13 - 26 dB Bandwidth Results**



| Test Frequency<br>(MHz) | 99% Bandwidth (MHz) |        |   |   | (MHz) |
|-------------------------|---------------------|--------|---|---|-------|
|                         | A                   | B      | C | D |       |
| 5965                    | 38.040              | -      | - | - | 320.0 |
| 6165                    | 37.920              | -      | - | - | 320.0 |
| 6405                    | 37.920              | -      | - | - | 320.0 |
| 6445                    | 37.920              | -      | - | - | 320.0 |
| 6485                    | 37.920              | -      | - | - | 320.0 |
| 6525                    | 38.040              | -      | - | - | 320.0 |
| 6565                    | 38.040              | -      | - | - | 320.0 |
| 6685                    | 37.920              | -      | - | - | 320.0 |
| 6845                    | 38.040              | -      | - | - | 320.0 |
| 6885                    | 37.920              | -      | - | - | 320.0 |
| 6925                    | -                   | 38.040 | - | - | 320.0 |
| 7005                    | -                   | 37.920 | - | - | 320.0 |
| 7085                    | -                   | 37.920 | - | - | 320.0 |

**Table 14 - 99% Bandwidth Results**



| Test Configuration       |                                                                          |                 |                                          |
|--------------------------|--------------------------------------------------------------------------|-----------------|------------------------------------------|
| Frequency Range:         | 5.925-6.425 GHz<br>6.425-6.525 GHz<br>6.525-6.875 GHz<br>6.875-7.125 GHz | Band:           | U-NII-5<br>U-NII-6<br>U-NII-7<br>U-NII-8 |
| Limit Clause(s):         | 15.407 (a)(11)<br>RSS-248 4.4                                            | Test Method(s): | C63.10 6.9.3<br>C63.10 12.5.2            |
| Additional Reference(s): | -                                                                        |                 |                                          |

| DUT Configuration         |                       |                          |     |
|---------------------------|-----------------------|--------------------------|-----|
| Mode:                     | 802.11ax HE80 SU LPI  | Duty Cycle (%):          | -   |
| Modulation Coding Scheme: | MCS2x1                | DCCF (dB):               | -   |
| Antenna Configuration:    | SISO                  | Peak Antenna Gain (dBi): | -   |
| Active Port(s):           | A B (Core 0   Core 1) | Active Chain(s):         | 0 1 |

| Test Frequency (MHz) | 26 dB Bandwidth (MHz) |        |   |   | FCC Limit (MHz) |
|----------------------|-----------------------|--------|---|---|-----------------|
|                      | A                     | B      | C | D |                 |
| 5985                 | 82.500                | -      | - | - | 320.0           |
| 6145                 | 82.720                | -      | - | - | 320.0           |
| 6385                 | 82.720                | -      | - | - | 320.0           |
| 6465                 | 82.720                | -      | - | - | 320.0           |
| 6545                 | 82.940                | -      | - | - | 320.0           |
| 6625                 | 82.940                | -      | - | - | 320.0           |
| 6705                 | 82.280                | -      | - | - | 320.0           |
| 6785                 | 82.500                | -      | - | - | 320.0           |
| 6865                 | 82.720                | -      | - | - | 320.0           |
| 6945                 | -                     | 82.500 | - | - | 320.0           |
| 7025                 | -                     | 82.720 | - | - | 320.0           |

**Table 15 - 26 dB Bandwidth Results**



| Test Frequency<br>(MHz) | 99% Bandwidth (MHz) |        |   |   | (MHz) |
|-------------------------|---------------------|--------|---|---|-------|
|                         | A                   | B      | C | D |       |
| 5985                    | 77.220              | -      | - | - | 320.0 |
| 6145                    | 77.000              | -      | - | - | 320.0 |
| 6385                    | 77.220              | -      | - | - | 320.0 |
| 6465                    | 77.440              | -      | - | - | 320.0 |
| 6545                    | 77.220              | -      | - | - | 320.0 |
| 6625                    | 77.440              | -      | - | - | 320.0 |
| 6705                    | 77.000              | -      | - | - | 320.0 |
| 6785                    | 77.220              | -      | - | - | 320.0 |
| 6865                    | 77.220              | -      | - | - | 320.0 |
| 6945                    | -                   | 77.440 | - | - | 320.0 |
| 7025                    | -                   | 77.000 | - | - | 320.0 |

**Table 16 - 99% Bandwidth Results**



| Test Configuration       |                                                                          |                 |                                          |
|--------------------------|--------------------------------------------------------------------------|-----------------|------------------------------------------|
| Frequency Range:         | 5.925-6.425 GHz<br>6.425-6.525 GHz<br>6.525-6.875 GHz<br>6.875-7.125 GHz | Band:           | U-NII-5<br>U-NII-6<br>U-NII-7<br>U-NII-8 |
| Limit Clause(s):         | 15.407 (a)(11)<br>RSS-248 4.4                                            | Test Method(s): | C63.10 6.9.3<br>C63.10 12.5.2            |
| Additional Reference(s): | -                                                                        |                 |                                          |

| DUT Configuration         |                       |                          |     |
|---------------------------|-----------------------|--------------------------|-----|
| Mode:                     | 802.11ax HE160 SU LPI | Duty Cycle (%):          | -   |
| Modulation Coding Scheme: | MCS2x1                | DCCF (dB):               | -   |
| Antenna Configuration:    | SISO                  | Peak Antenna Gain (dBi): | -   |
| Active Port(s):           | A B (Core 0   Core 1) | Active Chain(s):         | 0 1 |

| Test Frequency (MHz) | 26 dB Bandwidth (MHz) |         |   |   | FCC Limit (MHz) |
|----------------------|-----------------------|---------|---|---|-----------------|
|                      | A                     | B       | C | D |                 |
| 6025                 | 167.160               | -       | - | - | 320.0           |
| 6185                 | 166.740               | -       | - | - | 320.0           |
| 6345                 | 167.160               | -       | - | - | 320.0           |
| 6505                 | 166.740               | -       | - | - | 320.0           |
| 6665                 | 167.580               | -       | - | - | 320.0           |
| 6825                 | 167.160               | -       | - | - | 320.0           |
| 6985                 | -                     | 166.740 | - | - | 320.0           |

**Table 17 - 26 dB Bandwidth Results**

| Test Frequency (MHz) | 99% Bandwidth (MHz) |         |   |   | (MHz) |
|----------------------|---------------------|---------|---|---|-------|
|                      | A                   | B       | C | D |       |
| 6025                 | 156.660             | -       | - | - | 320.0 |
| 6185                 | 156.240             | -       | - | - | 320.0 |
| 6345                 | 156.660             | -       | - | - | 320.0 |
| 6505                 | 156.660             | -       | - | - | 320.0 |
| 6665                 | 156.240             | -       | - | - | 320.0 |
| 6825                 | 156.660             | -       | - | - | 320.0 |
| 6985                 | -                   | 156.240 | - | - | 320.0 |

**Table 18 - 99% Bandwidth Results**



| Test Configuration       |                                                       |                 |                               |
|--------------------------|-------------------------------------------------------|-----------------|-------------------------------|
| Frequency Range:         | 5.925-6.425 GHz<br>6.425-6.525 GHz<br>6.525-6.875 GHz | Band:           | U-NII-5<br>U-NII-6<br>U-NII-7 |
| Limit Clause(s):         | 15.407 (a)(11)<br>RSS-248 4.4                         | Test Method(s): | C63.10 6.9.3<br>C63.10 12.5.2 |
| Additional Reference(s): | -                                                     |                 |                               |

| DUT Configuration      |            |                          |   |
|------------------------|------------|--------------------------|---|
| Mode:                  | 802.11a SP | Duty Cycle (%):          | - |
| Data Rate:             | 12 Mbps    | DCCF (dB):               | - |
| Antenna Configuration: | SISO       | Peak Antenna Gain (dBi): | - |
| Active Port(s):        | A (Core 0) | Active Chain(s):         | 0 |

| Test Frequency (MHz) | 26 dB Bandwidth (MHz) |   |   |   | FCC Limit (MHz) |
|----------------------|-----------------------|---|---|---|-----------------|
|                      | A                     | B | C | D |                 |
| 5955                 | 21.120                | - | - | - | 320.0           |
| 6175                 | 21.000                | - | - | - | 320.0           |
| 6415                 | 21.240                | - | - | - | 320.0           |
| 6435                 | 21.360                | - | - | - | 320.0           |
| 6475                 | 21.540                | - | - | - | 320.0           |
| 6515                 | 21.420                | - | - | - | 320.0           |
| 6535                 | 21.120                | - | - | - | 320.0           |
| 6695                 | 21.120                | - | - | - | 320.0           |
| 6855                 | 21.120                | - | - | - | 320.0           |

**Table 19 - 26 dB Bandwidth Results**

| Test Frequency (MHz) | 99% Bandwidth (MHz) |   |   |   | (MHz) |
|----------------------|---------------------|---|---|---|-------|
|                      | A                   | B | C | D |       |
| 5955                 | 16.680              | - | - | - | 320.0 |
| 6175                 | 16.620              | - | - | - | 320.0 |
| 6415                 | 16.680              | - | - | - | 320.0 |
| 6435                 | 16.740              | - | - | - | 320.0 |
| 6475                 | 16.800              | - | - | - | 320.0 |
| 6515                 | 16.740              | - | - | - | 320.0 |
| 6535                 | 16.680              | - | - | - | 320.0 |
| 6695                 | 16.680              | - | - | - | 320.0 |
| 6855                 | 16.680              | - | - | - | 320.0 |

**Table 20 - 99% Bandwidth Results**



| Test Configuration       |                                                       |                 |                               |
|--------------------------|-------------------------------------------------------|-----------------|-------------------------------|
| Frequency Range:         | 5.925-6.425 GHz<br>6.425-6.525 GHz<br>6.525-6.875 GHz | Band:           | U-NII-5<br>U-NII-6<br>U-NII-7 |
| Limit Clause(s):         | 15.407 (a)(11)<br>RSS-248 4.4                         | Test Method(s): | C63.10 6.9.3<br>C63.10 12.5.2 |
| Additional Reference(s): | -                                                     |                 |                               |

| DUT Configuration         |                     |                          |   |
|---------------------------|---------------------|--------------------------|---|
| Mode:                     | 802.11ax HE20 SU SP | Duty Cycle (%):          | - |
| Modulation Coding Scheme: | MCS2x1              | DCCF (dB):               | - |
| Antenna Configuration:    | SISO                | Peak Antenna Gain (dBi): | - |
| Active Port(s):           | A (Core 0)          | Active Chain(s):         | 0 |

| Test Frequency (MHz) | 26 dB Bandwidth (MHz) |   |   |   | FCC Limit (MHz) |
|----------------------|-----------------------|---|---|---|-----------------|
|                      | A                     | B | C | D |                 |
| 5955                 | 21.240                | - | - | - | 320.0           |
| 6175                 | 21.360                | - | - | - | 320.0           |
| 6415                 | 21.720                | - | - | - | 320.0           |
| 6435                 | 21.420                | - | - | - | 320.0           |
| 6475                 | 21.660                | - | - | - | 320.0           |
| 6515                 | 21.780                | - | - | - | 320.0           |
| 6535                 | 21.480                | - | - | - | 320.0           |
| 6695                 | 21.360                | - | - | - | 320.0           |
| 6855                 | 21.480                | - | - | - | 320.0           |

**Table 21 - 26 dB Bandwidth Results**

| Test Frequency (MHz) | 99% Bandwidth (MHz) |   |   |   | (MHz) |
|----------------------|---------------------|---|---|---|-------|
|                      | A                   | B | C | D |       |
| 5955                 | 19.020              | - | - | - | 320.0 |
| 6175                 | 19.020              | - | - | - | 320.0 |
| 6415                 | 19.080              | - | - | - | 320.0 |
| 6435                 | 19.080              | - | - | - | 320.0 |
| 6475                 | 19.080              | - | - | - | 320.0 |
| 6515                 | 19.080              | - | - | - | 320.0 |
| 6535                 | 19.080              | - | - | - | 320.0 |
| 6695                 | 19.080              | - | - | - | 320.0 |
| 6855                 | 19.080              | - | - | - | 320.0 |

**Table 22 - 99% Bandwidth Results**



| Test Configuration       |                                                       |                 |                               |
|--------------------------|-------------------------------------------------------|-----------------|-------------------------------|
| Frequency Range:         | 5.925-6.425 GHz<br>6.425-6.525 GHz<br>6.525-6.875 GHz | Band:           | U-NII-5<br>U-NII-6<br>U-NII-7 |
| Limit Clause(s):         | 15.407 (a)(11)<br>RSS-248 4.4                         | Test Method(s): | C63.10 6.9.3<br>C63.10 12.5.2 |
| Additional Reference(s): | -                                                     |                 |                               |

| DUT Configuration         |                     |                          |   |
|---------------------------|---------------------|--------------------------|---|
| Mode:                     | 802.11ax HE40 SU SP | Duty Cycle (%):          | - |
| Modulation Coding Scheme: | MCS2x1              | DCCF (dB):               | - |
| Antenna Configuration:    | SISO                | Peak Antenna Gain (dBi): | - |
| Active Port(s):           | A (Core 0)          | Active Chain(s):         | 0 |

| Test Frequency (MHz) | 26 dB Bandwidth (MHz) |   |   |   | FCC Limit (MHz) |
|----------------------|-----------------------|---|---|---|-----------------|
|                      | A                     | B | C | D |                 |
| 5965                 | 42.120                | - | - | - | 320.0           |
| 6165                 | 42.000                | - | - | - | 320.0           |
| 6405                 | 42.600                | - | - | - | 320.0           |
| 6445                 | 42.480                | - | - | - | 320.0           |
| 6485                 | 42.720                | - | - | - | 320.0           |
| 6525                 | 42.840                | - | - | - | 320.0           |
| 6565                 | 42.600                | - | - | - | 320.0           |
| 6685                 | 43.080                | - | - | - | 320.0           |
| 6845                 | 42.600                | - | - | - | 320.0           |

**Table 23 - 26 dB Bandwidth Results**

| Test Frequency (MHz) | 99% Bandwidth (MHz) |   |   |   | (MHz) |
|----------------------|---------------------|---|---|---|-------|
|                      | A                   | B | C | D |       |
| 5965                 | 38.040              | - | - | - | 320.0 |
| 6165                 | 37.920              | - | - | - | 320.0 |
| 6405                 | 38.160              | - | - | - | 320.0 |
| 6445                 | 38.160              | - | - | - | 320.0 |
| 6485                 | 38.160              | - | - | - | 320.0 |
| 6525                 | 38.160              | - | - | - | 320.0 |
| 6565                 | 38.160              | - | - | - | 320.0 |
| 6685                 | 38.160              | - | - | - | 320.0 |
| 6845                 | 38.160              | - | - | - | 320.0 |

**Table 24 - 99% Bandwidth Results**



| Test Configuration       |                                                       |                 |                               |
|--------------------------|-------------------------------------------------------|-----------------|-------------------------------|
| Frequency Range:         | 5.925-6.425 GHz<br>6.425-6.525 GHz<br>6.525-6.875 GHz | Band:           | U-NII-5<br>U-NII-6<br>U-NII-7 |
| Limit Clause(s):         | 15.407 (a)(11)<br>RSS-248 4.4                         | Test Method(s): | C63.10 6.9.3<br>C63.10 12.5.2 |
| Additional Reference(s): | -                                                     |                 |                               |

| DUT Configuration         |                     |                          |   |
|---------------------------|---------------------|--------------------------|---|
| Mode:                     | 802.11ax HE80 SU SP | Duty Cycle (%):          | - |
| Modulation Coding Scheme: | MCS2x1              | DCCF (dB):               | - |
| Antenna Configuration:    | SISO                | Peak Antenna Gain (dBi): | - |
| Active Port(s):           | A (Core 0)          | Active Chain(s):         | 0 |

| Test Frequency (MHz) | 26 dB Bandwidth (MHz) |   |   |   | FCC Limit (MHz) |
|----------------------|-----------------------|---|---|---|-----------------|
|                      | A                     | B | C | D |                 |
| 5985                 | 82.500                | - | - | - | 320.0           |
| 6145                 | 82.500                | - | - | - | 320.0           |
| 6385                 | 83.380                | - | - | - | 320.0           |
| 6465                 | 82.940                | - | - | - | 320.0           |
| 6545                 | 82.940                | - | - | - | 320.0           |
| 6625                 | 82.940                | - | - | - | 320.0           |
| 6705                 | 84.480                | - | - | - | 320.0           |
| 6785                 | 82.940                | - | - | - | 320.0           |

**Table 25 - 26 dB Bandwidth Results**

| Test Frequency (MHz) | 99% Bandwidth (MHz) |   |   |   | (MHz) |
|----------------------|---------------------|---|---|---|-------|
|                      | A                   | B | C | D |       |
| 5985                 | 77.220              | - | - | - | 320.0 |
| 6145                 | 77.440              | - | - | - | 320.0 |
| 6385                 | 77.440              | - | - | - | 320.0 |
| 6465                 | 77.440              | - | - | - | 320.0 |
| 6545                 | 77.440              | - | - | - | 320.0 |
| 6625                 | 77.440              | - | - | - | 320.0 |
| 6705                 | 77.440              | - | - | - | 320.0 |
| 6785                 | 77.440              | - | - | - | 320.0 |

**Table 26 - 99% Bandwidth Results**



| Test Configuration       |                                                       |                 |                               |
|--------------------------|-------------------------------------------------------|-----------------|-------------------------------|
| Frequency Range:         | 5.925-6.425 GHz<br>6.425-6.525 GHz<br>6.525-6.875 GHz | Band:           | U-NII-5<br>U-NII-6<br>U-NII-7 |
| Limit Clause(s):         | 15.407 (a)(11)<br>RSS-248 4.4                         | Test Method(s): | C63.10 6.9.3<br>C63.10 12.5.2 |
| Additional Reference(s): | -                                                     |                 |                               |

| DUT Configuration         |                      |                          |   |
|---------------------------|----------------------|--------------------------|---|
| Mode:                     | 802.11ax HE160 SU SP | Duty Cycle (%):          | - |
| Modulation Coding Scheme: | MCS2x1               | DCCF (dB):               | - |
| Antenna Configuration:    | SISO                 | Peak Antenna Gain (dBi): | - |
| Active Port(s):           | A (Core 0)           | Active Chain(s):         | 0 |

| Test Frequency (MHz) | 26 dB Bandwidth (MHz) |   |   |   | FCC Limit (MHz) |
|----------------------|-----------------------|---|---|---|-----------------|
|                      | A                     | B | C | D |                 |
| 6025                 | 167.580               | - | - | - | 320.0           |
| 6185                 | 167.160               | - | - | - | 320.0           |
| 6345                 | 166.740               | - | - | - | 320.0           |
| 6505                 | 166.740               | - | - | - | 320.0           |
| 6665                 | 167.580               | - | - | - | 320.0           |

**Table 27 - 26 dB Bandwidth Results**

| Test Frequency (MHz) | 99% Bandwidth (MHz) |   |   |   | (MHz) |
|----------------------|---------------------|---|---|---|-------|
|                      | A                   | B | C | D |       |
| 6025                 | 156.660             | - | - | - | 320.0 |
| 6185                 | 156.660             | - | - | - | 320.0 |
| 6345                 | 156.660             | - | - | - | 320.0 |
| 6505                 | 156.660             | - | - | - | 320.0 |
| 6665                 | 156.660             | - | - | - | 320.0 |

**Table 28 - 99% Bandwidth Results**



| Test Configuration       |                                    |                 |                               |
|--------------------------|------------------------------------|-----------------|-------------------------------|
| Frequency Range:         | 5.925-6.425 GHz<br>6.525-6.875 GHz | Band:           | U-NII-5<br>U-NII-7            |
| Limit Clause(s):         | 15.407 (a)(11)                     | Test Method(s): | C63.10 6.9.3<br>C63.10 12.5.2 |
| Additional Reference(s): | -                                  |                 |                               |

| DUT Configuration      |             |                          |   |
|------------------------|-------------|--------------------------|---|
| Mode:                  | 802.11a VLP | Duty Cycle (%):          | - |
| Data Rate:             | 12 Mbps     | DCCF (dB):               | - |
| Antenna Configuration: | SISO        | Peak Antenna Gain (dBi): | - |
| Active Port(s):        | A (Core 0)  | Active Chain(s):         | 0 |

| Test Frequency (MHz) | 26 dB Bandwidth (MHz) |   |   |   | FCC Limit (MHz) |
|----------------------|-----------------------|---|---|---|-----------------|
|                      | A                     | B | C | D |                 |
| 6115                 | 21.060                | - | - | - | 320.0           |
| 6275                 | 21.060                | - | - | - | 320.0           |
| 6415                 | 21.060                | - | - | - | 320.0           |
| 6535                 | 21.120                | - | - | - | 320.0           |
| 6695                 | 21.120                | - | - | - | 320.0           |
| 6855                 | 21.120                | - | - | - | 320.0           |

**Table 29 - 26 dB Bandwidth Results**

| Test Frequency (MHz) | 99% Bandwidth (MHz) |   |   |   | (MHz) |
|----------------------|---------------------|---|---|---|-------|
|                      | A                   | B | C | D |       |
| 6115                 | 16.620              | - | - | - | 320.0 |
| 6275                 | 16.620              | - | - | - | 320.0 |
| 6415                 | 16.680              | - | - | - | 320.0 |
| 6535                 | 16.680              | - | - | - | 320.0 |
| 6695                 | 16.740              | - | - | - | 320.0 |
| 6855                 | 16.680              | - | - | - | 320.0 |

**Table 30 - 99% Bandwidth Results**



| Test Configuration       |                                    |                 |                               |
|--------------------------|------------------------------------|-----------------|-------------------------------|
| Frequency Range:         | 5.925-6.425 GHz<br>6.525-6.875 GHz | Band:           | U-NII-5<br>U-NII-7            |
| Limit Clause(s):         | 15.407 (a)(11)                     | Test Method(s): | C63.10 6.9.3<br>C63.10 12.5.2 |
| Additional Reference(s): | -                                  |                 |                               |

| DUT Configuration         |                      |                          |   |
|---------------------------|----------------------|--------------------------|---|
| Mode:                     | 802.11ax HE20 SU VLP | Duty Cycle (%):          | - |
| Modulation Coding Scheme: | MCS2x1               | DCCF (dB):               | - |
| Antenna Configuration:    | SISO                 | Peak Antenna Gain (dBi): | - |
| Active Port(s):           | A (Core 0)           | Active Chain(s):         | 0 |

| Test Frequency (MHz) | 26 dB Bandwidth (MHz) |   |   |   | FCC Limit (MHz) |
|----------------------|-----------------------|---|---|---|-----------------|
|                      | A                     | B | C | D |                 |
| 6115                 | 21.240                | - | - | - | 320.0           |
| 6275                 | 21.180                | - | - | - | 320.0           |
| 6415                 | 21.300                | - | - | - | 320.0           |
| 6535                 | 21.360                | - | - | - | 320.0           |
| 6695                 | 21.240                | - | - | - | 320.0           |
| 6855                 | 21.240                | - | - | - | 320.0           |

**Table 31 - 26 dB Bandwidth Results**

| Test Frequency (MHz) | 99% Bandwidth (MHz) |   |   |   | (MHz) |
|----------------------|---------------------|---|---|---|-------|
|                      | A                   | B | C | D |       |
| 6115                 | 19.020              | - | - | - | 320.0 |
| 6275                 | 18.960              | - | - | - | 320.0 |
| 6415                 | 19.020              | - | - | - | 320.0 |
| 6535                 | 19.020              | - | - | - | 320.0 |
| 6695                 | 19.080              | - | - | - | 320.0 |
| 6855                 | 19.080              | - | - | - | 320.0 |

**Table 32 - 99% Bandwidth Results**



| Test Configuration       |                                    |                 |                               |
|--------------------------|------------------------------------|-----------------|-------------------------------|
| Frequency Range:         | 5.925-6.425 GHz<br>6.525-6.875 GHz | Band:           | U-NII-5<br>U-NII-7            |
| Limit Clause(s):         | 15.407 (a)(11)                     | Test Method(s): | C63.10 6.9.3<br>C63.10 12.5.2 |
| Additional Reference(s): | -                                  |                 |                               |

| DUT Configuration         |                      |                          |   |
|---------------------------|----------------------|--------------------------|---|
| Mode:                     | 802.11ax HE40 SU VLP | Duty Cycle (%):          | - |
| Modulation Coding Scheme: | MCS2x1               | DCCF (dB):               | - |
| Antenna Configuration:    | SISO                 | Peak Antenna Gain (dBi): | - |
| Active Port(s):           | A (Core 0)           | Active Chain(s):         | 0 |

| Test Frequency (MHz) | 26 dB Bandwidth (MHz) |   |   |   | FCC Limit (MHz) |
|----------------------|-----------------------|---|---|---|-----------------|
|                      | A                     | B | C | D |                 |
| 6125                 | 42.000                | - | - | - | 320.0           |
| 6285                 | 42.120                | - | - | - | 320.0           |
| 6405                 | 41.880                | - | - | - | 320.0           |
| 6565                 | 42.240                | - | - | - | 320.0           |
| 6685                 | 42.000                | - | - | - | 320.0           |
| 6845                 | 41.880                | - | - | - | 320.0           |

**Table 33 - 26 dB Bandwidth Results**

| Test Frequency (MHz) | 99% Bandwidth (MHz) |   |   |   | (MHz) |
|----------------------|---------------------|---|---|---|-------|
|                      | A                   | B | C | D |       |
| 6125                 | 38.040              | - | - | - | 320.0 |
| 6285                 | 38.040              | - | - | - | 320.0 |
| 6405                 | 37.920              | - | - | - | 320.0 |
| 6565                 | 38.040              | - | - | - | 320.0 |
| 6685                 | 38.040              | - | - | - | 320.0 |
| 6845                 | 38.040              | - | - | - | 320.0 |

**Table 34 - 99% Bandwidth Results**



| Test Configuration       |                                    |                 |                               |
|--------------------------|------------------------------------|-----------------|-------------------------------|
| Frequency Range:         | 5.925-6.425 GHz<br>6.525-6.875 GHz | Band:           | U-NII-5<br>U-NII-7            |
| Limit Clause(s):         | 15.407 (a)(11)                     | Test Method(s): | C63.10 6.9.3<br>C63.10 12.5.2 |
| Additional Reference(s): | -                                  |                 |                               |

| DUT Configuration         |                      |                          |   |
|---------------------------|----------------------|--------------------------|---|
| Mode:                     | 802.11ax HE80 SU VLP | Duty Cycle (%):          | - |
| Modulation Coding Scheme: | MCS2x1               | DCCF (dB):               | - |
| Antenna Configuration:    | SISO                 | Peak Antenna Gain (dBi): | - |
| Active Port(s):           | A (Core 0)           | Active Chain(s):         | 0 |

| Test Frequency (MHz) | 26 dB Bandwidth (MHz) |   |   |   | FCC Limit (MHz) |
|----------------------|-----------------------|---|---|---|-----------------|
|                      | A                     | B | C | D |                 |
| 6145                 | 82.940                | - | - | - | 320.0           |
| 6305                 | 82.500                | - | - | - | 320.0           |
| 6385                 | 82.720                | - | - | - | 320.0           |
| 6625                 | 82.720                | - | - | - | 320.0           |
| 6705                 | 82.720                | - | - | - | 320.0           |
| 6785                 | 82.720                | - | - | - | 320.0           |

**Table 35 - 26 dB Bandwidth Results**

| Test Frequency (MHz) | 99% Bandwidth (MHz) |   |   |   | (MHz) |
|----------------------|---------------------|---|---|---|-------|
|                      | A                   | B | C | D |       |
| 6145                 | 77.220              | - | - | - | 320.0 |
| 6305                 | 77.220              | - | - | - | 320.0 |
| 6385                 | 77.220              | - | - | - | 320.0 |
| 6625                 | 77.440              | - | - | - | 320.0 |
| 6705                 | 77.220              | - | - | - | 320.0 |
| 6785                 | 77.440              | - | - | - | 320.0 |

**Table 36 - 99% Bandwidth Results**



| Test Configuration       |                                    |                 |                               |
|--------------------------|------------------------------------|-----------------|-------------------------------|
| Frequency Range:         | 5.925-6.425 GHz<br>6.525-6.875 GHz | Band:           | U-NII-5<br>U-NII-7            |
| Limit Clause(s):         | 15.407 (a)(11)                     | Test Method(s): | C63.10 6.9.3<br>C63.10 12.5.2 |
| Additional Reference(s): | -                                  |                 |                               |

| DUT Configuration         |                       |                          |   |
|---------------------------|-----------------------|--------------------------|---|
| Mode:                     | 802.11ax HE160 SU VLP | Duty Cycle (%):          | - |
| Modulation Coding Scheme: | MCS2x1                | DCCF (dB):               | - |
| Antenna Configuration:    | SISO                  | Peak Antenna Gain (dBi): | - |
| Active Port(s):           | A (Core 0)            | Active Chain(s):         | 0 |

| Test Frequency (MHz) | 26 dB Bandwidth (MHz) |   |   |   | FCC Limit (MHz) |
|----------------------|-----------------------|---|---|---|-----------------|
|                      | A                     | B | C | D |                 |
| 6185                 | 167.160               | - | - | - | 320.0           |
| 6345                 | 167.580               | - | - | - | 320.0           |
| 6665                 | 166.320               | - | - | - | 320.0           |

**Table 37 - 26 dB Bandwidth Results**

| Test Frequency (MHz) | 99% Bandwidth (MHz) |   |   |   | (MHz) |
|----------------------|---------------------|---|---|---|-------|
|                      | A                   | B | C | D |       |
| 6185                 | 156.660             | - | - | - | 320.0 |
| 6345                 | 156.660             | - | - | - | 320.0 |
| 6665                 | 156.660             | - | - | - | 320.0 |

**Table 38 - 99% Bandwidth Results**

## MIMO CDD

| Protocol              | 26 dB Bandwidth (MHz) |         |
|-----------------------|-----------------------|---------|
|                       | Minimum               | Maximum |
| 802.11ax HE20 SU LPI  | 21.180                | 21.480  |
| 802.11ax HE40 SU LPI  | 41.760                | 42.240  |
| 802.11ax HE80 SU LPI  | 82.280                | 83.160  |
| 802.11ax HE160 SU LPI | 165.900               | 167.580 |
| 802.11ax HE20 SU SP   | 21.180                | 21.480  |
| 802.11ax HE40 SU SP   | 41.760                | 42.120  |
| 802.11ax HE80 SU SP   | 82.500                | 84.040  |
| 802.11ax HE160 SU SP  | 165.900               | 167.580 |
| 802.11ax HE40 SU VLP  | 41.760                | 42.240  |
| 802.11ax HE80 SU VLP  | 82.280                | 82.940  |
| 802.11ax HE160 SU VLP | 166.740               | 167.580 |

Table 39 - 26 dB Bandwidth Summary Results - MIMO CDD

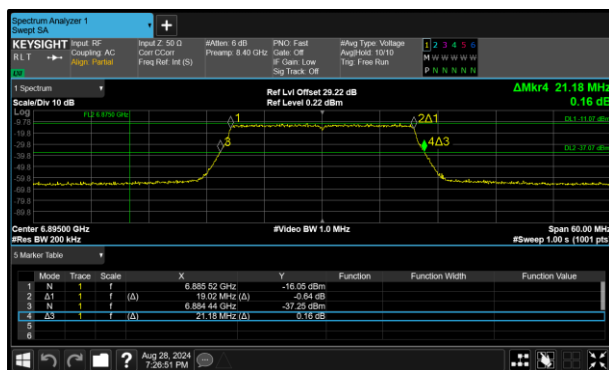


Figure 61 - 802.11ax HE20 SU LPI Minimum 26 dB EBW

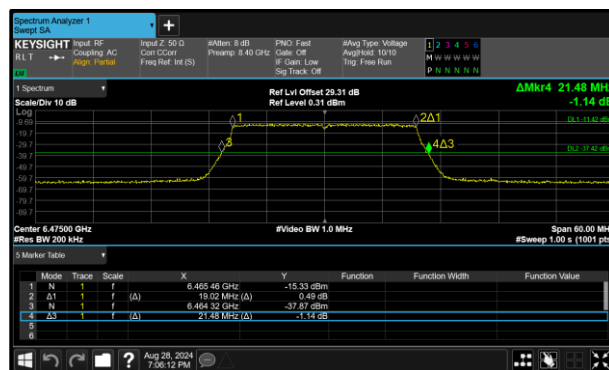


Figure 62 - 802.11ax HE20 SU LPI Maximum 26 dB EBW

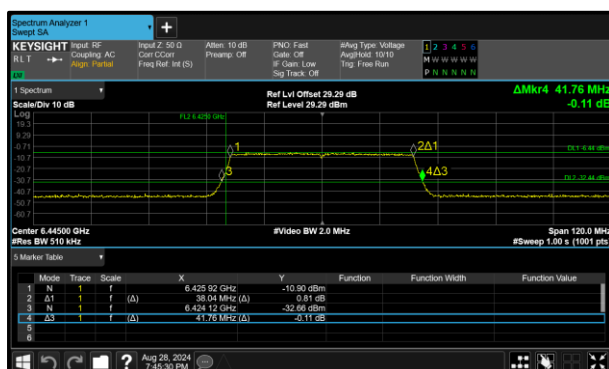


Figure 63 - 802.11ax HE40 SU LPI Minimum 26 dB EBW

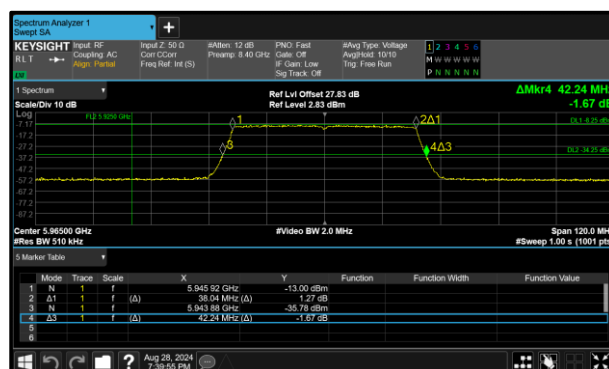


Figure 64 - 802.11ax HE40 SU LPI Maximum 26 dB EBW

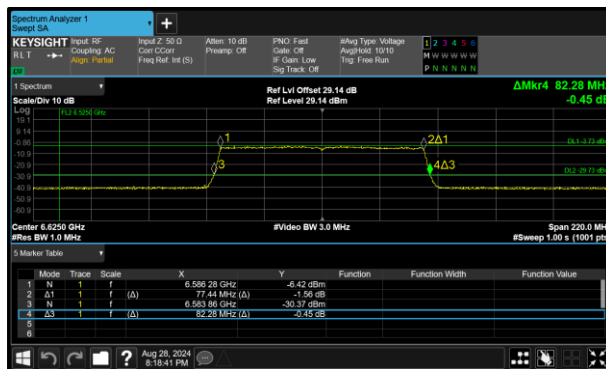


Figure 65 - 802.11ax HE80 SU LPI Minimum 26 dB EBW

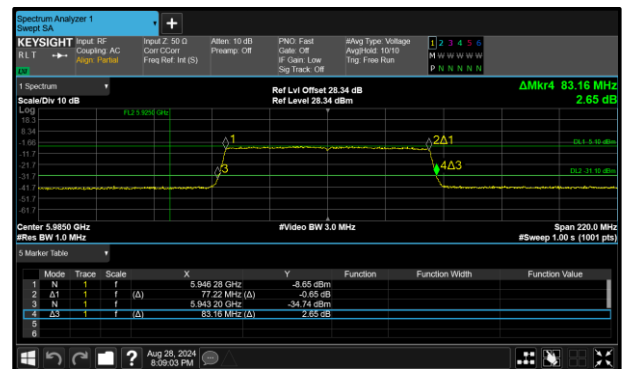


Figure 66 - 802.11ax HE80 SU LPI Maximum 26 dB EBW

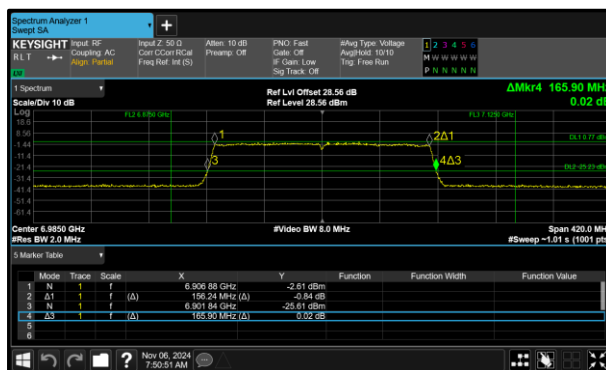


Figure 67 - 802.11ax HE160 SU LPI Minimum 26 dB EBW

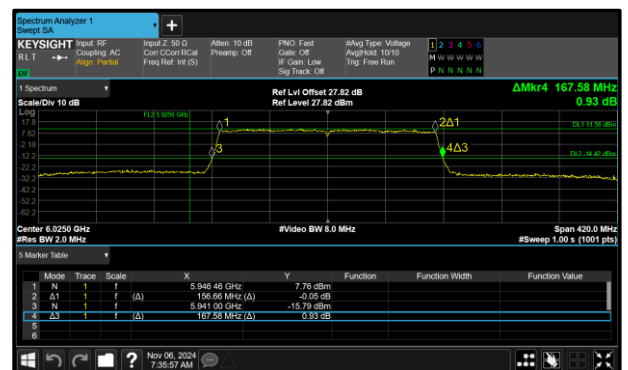


Figure 68 - 802.11ax HE160 SU LPI Maximum 26 dB EBW

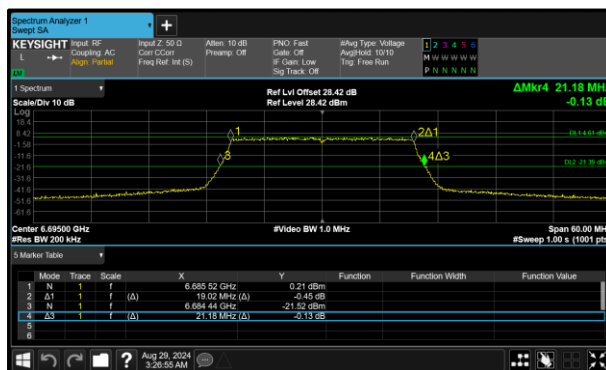


Figure 69 - 802.11ax HE20 SU SP Minimum 26 dB EBW



Figure 70 - 802.11ax HE20 SU SP Maximum 26 dB EBW

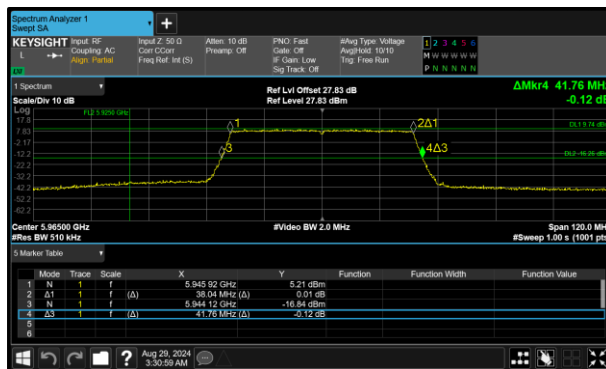


Figure 71 - 802.11ax HE40 SU SP Minimum 26 dB EBW

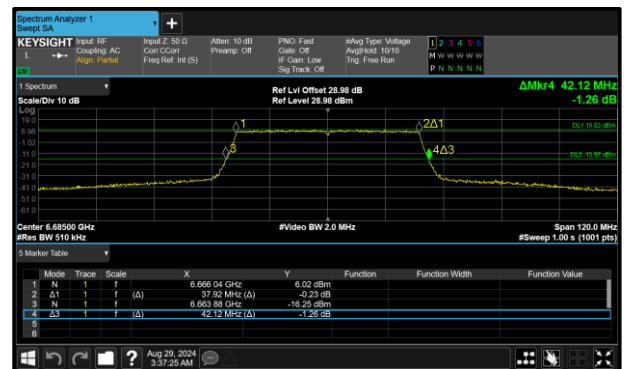


Figure 72 - 802.11ax HE40 SU SP Maximum 26 dB EBW

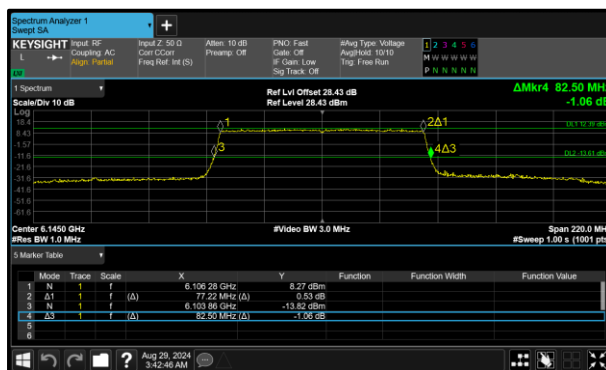


Figure 73 - 802.11ax HE80 SU SP Minimum 26 dB EBW



Figure 74 - 802.11ax HE80 SU SP Maximum 26 dB EBW

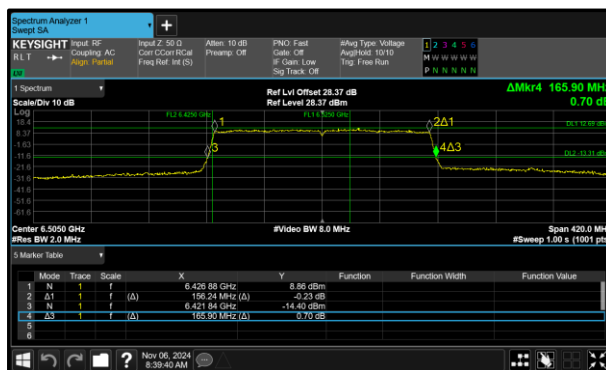


Figure 75 - 802.11ax HE160 SU SP Minimum 26 dB EBW

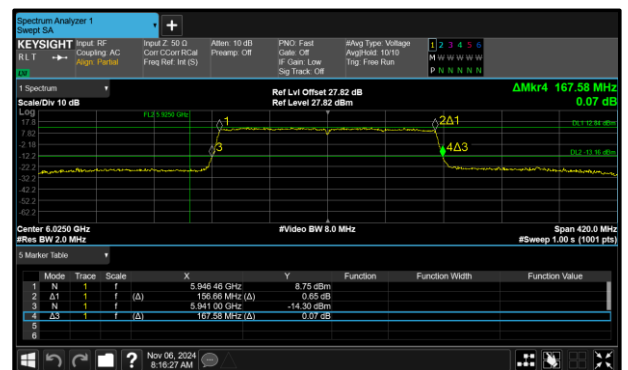


Figure 76 - 802.11ax HE160 SU SP Maximum 26 dB EBW