

FCC and ISED Test Report

Apple Inc
Model: A3137

In accordance with FCC 47 CFR Part 15E,
ISED RSS-248 and ISED RSS-GEN
(6 GHz WLAN)

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



TUV SUD
Limited
Digitally signed
by TUV SUD
Limited
Date: 2024.11.06
14:34:57 Z

FCC ID: BCGA3137

IC: 579C-A3137

COMMERCIAL-IN-CONFIDENCE

Document 75960487-19 Issue 06

SIGNATURE

NAME	JOB TITLE	RESPONSIBLE FOR	ISSUE DATE
James O'Reilly	RF Engineer	Authorised Signatory	06 November 2024

Signatures in this approval box have checked this document in line with the requirements of TUV SUD 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, ISED RSS-248 and ISED RSS-GEN. The sample tested was found to comply with the requirements defined in the applied rules.

RESPONSIBLE FOR	NAME	DATE	SIGNATURE
Report Generation	Lauren Walters	06 November 2024	

FCC Accreditation

553713/UK2026 Concorde Park, Fareham Test Laboratory

ISED Accreditation

28798/UK0003 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, ISED RSS-248: Issue 2 (2022-12) and ISED RSS-GEN: Issue 5 (2018-04) + A2 (2021-02) for the tests detailed in section 1.3.



DISCLAIMER AND COPYRIGHT

This non-binding report has been prepared by TÜV SÜD with all reasonable skill and care. The document is confidential to the potential Client and TÜV SÜD. No part of this document may be reproduced without the prior written approval of TÜV SÜD. © 2024 TÜV SÜD. This report relates only to the actual item/items tested.

ACCREDITATION

Our UKAS Accreditation does not cover opinions and interpretations and any expressed are outside the scope of our UKAS Accreditation. Results of tests not covered by our UKAS Accreditation Schedule are marked NUA (Not UKAS Accredited). Results of tests covered by our Flexible UKAS Accreditation Schedule are marked FS (Flexible Scope).

TÜV SÜD
is a trading name of TÜV SÜD Ltd
Registered in Scotland at East Kilbride,
Glasgow G75 0QF, United Kingdom
Registered number: SC215164

TÜV SÜD Ltd is a
TÜV SÜD Group Company

Phone: +44 (0) 1489 558100
Fax: +44 (0) 1489 558101
www.tuvsud.com/en

TÜV SÜD
Octagon House
Concorde Way
Fareham
Hampshire PO15 5RL
United Kingdom



Contents

1	Report Summary	2
1.1	Report Modification Record.....	2
1.2	Introduction.....	2
1.3	Brief Summary of Results	3
1.4	Product Information	4
1.5	Deviations from the Standard.....	5
1.6	Identification of the EUT	6
1.7	EUT Modification Record	6
1.8	Test Location	7
2	Test Details	8
2.1	Emission Bandwidth	8
2.2	Dual Client Test.....	109
2.3	Transmit Power Control.....	113
2.4	Maximum Conducted Output Power	117
2.5	Maximum Conducted Power Spectral Density	183
2.6	Authorised Band Edges	250
2.7	Spurious Radiated Emissions	298
2.8	Unwanted Emissions within the 5925-7125 MHz band.....	319
2.9	Contention Based Protocol	411
3	Measurement Uncertainty	432



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	25-September-2024
2	Updated sections 1.3, 1.8, 2.3 and 3	08-October-2024
3	Updated section 2.9	24-October-2024
4	Addition of limit to result tables in section 2.1.6	27-October-2024
5	Addition of 26 dB plots to section 2.1.6	29-October-2024
6	Updated sections 1.2, 2.1 and 2.8 for OBW/IBE test results (160 MHz)	06-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 ISED RSS-248: Issue 2 (2022-12) ISED RSS-GEN: Issue 5 (2018-04) + A2 (2021-02)
Start of Test	28-April-2024
Finish of Test	31-October-2024
Name of Engineer(s)	Feda Hussein, Stefan Gilfedder, David Hill, Akhil Rajendran Bhaskaran Nair, Ahmed Al Derdiri, Colin Brain, Ioan-Alexandru Bogatu, Morsalin Hossain, Ian Hart, Vineeth Nagaraj, Jayvir Makwana and Philip Harrison
Related Document(s)	ANSI C63.10 (2020) KDB 662911 D01 v02r01 KDB 789033 D02 v02r01 KDB 987594 D02 v02r01 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, ISED RSS-248 and ISED RSS-GEN is shown below.

Section	Specification Clause			Test Description	Result	Comments/Base Standard
	Part 15E	RSS-248	RSS-GEN			
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)	4.4	6.7	Emission Bandwidth	Pass	KDB 789033 D02 v02r01
2.2	15.407(a)	4.5	6.12	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)	4.5	6.12	Maximum Conducted Output Power	Pass	KDB 662911 D01 v02r01 KDB 789033 D02 v02r01
2.5	15.407 (a)	4.5	-	Maximum Conducted Power Spectral Density	Pass	KDB 662911 D01 v02r01 KDB 789033 D02 v02r01
2.6	15.407 (b)	4.6	6.13	Authorised Band Edges	Pass	ANSI C63.10 (2020) KDB 789033 D02 v02r01
2.7	15.209 and 15.407 (b)	4.6	6.13 and 8.9	Spurious Radiated Emissions	Pass	ANSI C63.10 (2020) KDB 789033 D02 v02r01
2.8	15.407 (b)	4.6	6.13	Unwanted Emissions within the 5925-7125 MHz band	Pass	KDB 987594 D02 v02
2.9	15.407 (d)(6)	4.7	-	Contention Based Protocol	Pass	KDB 987594 D02 v02

Table 2



1.4 Product Information

1.4.1 Technical Description

The equipment under test (EUT) was a desktop 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 as a Dual Client (6CD) 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 for U-NII-5 / 6 / 7 / 8):

- 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 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 is described in the test result section 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	3.40	1.90
	6105 to 6265	2.40	1.93
	6265 to 6425	2.90	2.06
	6425 to 6525	4.50	2.10
	6525 to 6875	3.80	2.21
	6875 to 7125	3.20	2.36
Core 1	5925 to 6105	4.40	2.25
	6105 to 6265	4.20	2.30
	6265 to 6425	5.70	2.28
	6425 to 6525	4.60	2.19
	6525 to 6875	4.00	2.18
	6875 to 7125	4.40	2.43

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: A3137			
Serial Number	Hardware Version	Software Version	Firmware
DMKVPMJ9XD	REV1.0	24A81452a	23.10.787.0.41.51.135
H6D001F73D	REV1.0	24A81452a	23.30.16
G63HC93373	REV1.0	24A81452a	23.30.16
FV5VYV72RL	REV1.0	24A81452a	23.30.16
LQ9QKVW0H6	REV1.0	24A81452a	23.30.16
G5022YM6RR	REV1.0	24A81452a	23.30.16
MHCWWV5343	REV1.0	24A240	23.10.849.0.41.51.149
M42K4610G2	REV1.0	24A81452a	23.30.16
JGKM3PYTDT	REV1.0	24E100	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: A3137, Serial Number: FV5VYV72RL			
0	As supplied by the customer	Not Applicable	Not Applicable
Model: A3137, Serial Number: G63HC93373			
0	As supplied by the customer	Not Applicable	Not Applicable
Model: A3137, Serial Number: M42K4610G2			
0	As supplied by the customer	Not Applicable	Not Applicable
Model: A3137, Serial Number: LQ9QKVW0H6			
0	As supplied by the customer	Not Applicable	Not Applicable
Model: A3137, Serial Number: DMKVPMJ9XD			
0	As supplied by the customer	Not Applicable	Not Applicable
Model: A3137, Serial Number: H6D001F73D			
0	As supplied by the customer	Not Applicable	Not Applicable
Model: A3137, Serial Number: MHCWWV5343			
0	As supplied by the customer	Not Applicable	Not Applicable
Model: A3137, Serial Number: G5022YM6RR			
0	As supplied by the customer	Not Applicable	Not Applicable
Model: A3137, Serial Number: JGKM3PYTDT			
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, Feda Hussein and Jayvir Makwana	UKAS
Dual Client Test	Stefan Gilfedder	UKAS
Transmit Power Control	Philip Harrison	UKAS
Maximum Conducted Output Power	David Hill and Feda Hussein	UKAS
Maximum Conducted Power Spectral Density	David Hill and Feda Hussein	UKAS
Authorised Band Edges	Akhil Rajendran Bhaskaran Nair, Ahmed Al Derdiri, Colin Brain, Ioan-Alexandru Bogatu and Morsalin Hossain	UKAS
Spurious Radiated Emissions	Akhil Rajendran Bhaskaran Nair, Ian Hart, Morsalin Hossain and Vineeth Nagaraj	UKAS
Unwanted Emissions within the 5925-7125 MHz band	David Hill, Feda Hussein and Jayvir Makwana	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)
ISED RSS-248, Clause 4.4
ISED RSS-GEN, Clause 6.7

2.1.2 Equipment Under Test and Modification State

A3137, S/N: H6D001F73D - Modification State 0
A3137, S/N: MHCWWV5343 - Modification State 0
A3137, S/N: G5022YM6RR - Modification State 0

2.1.3 Date of Test

26-June-2024 to 31-October-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 D for 99% occupied bandwidth.

2.1.5 Environmental Conditions

Ambient Temperature	20.7 - 22.4 °C
Relative Humidity	48.5 - 59.1 %

2.1.6 Test Results

6 GHz WLAN

SISO

Protocol	26 dB Bandwidth (MHz)	
	Minimum	Maximum
802.11a LPI	20.880	21.120
802.11ax HE20 SU LPI	21.240	21.540
802.11ax HE40 SU LPI	41.760	42.120
802.11ax HE80 SU LPI	82.500	82.940
802.11ax HE160 SU LPI	166.740	167.580
802.11a SP	21.000	32.720
802.11ax HE20 SU SP	21.480	34.900
802.11ax HE40 SU SP	42.120	73.220
802.11ax HE80 SU SP	82.720	140.280
802.11ax HE160 SU SP	166.320	167.160

Table 7 - 26 dB Bandwidth Summary Results - SISO

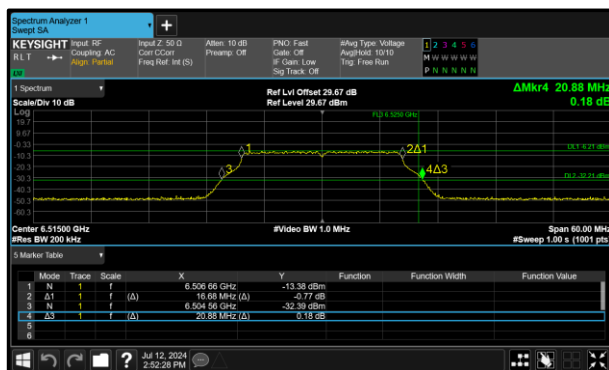


Figure 1 - 802.11a LPI Minimum 26 dB EBW

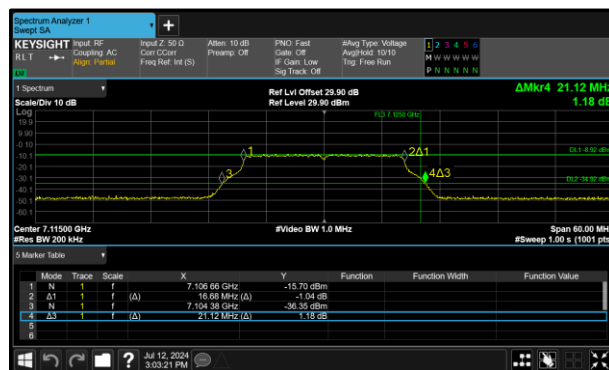


Figure 2 - 802.11a LPI Maximum 26 dB EBW

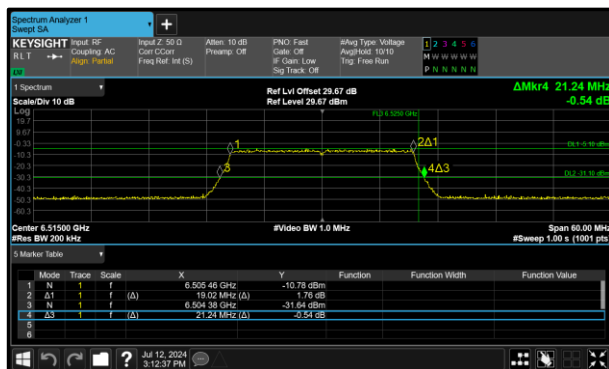


Figure 3 - 802.11ax HE20 SU LPI Minimum 26 dB EBW

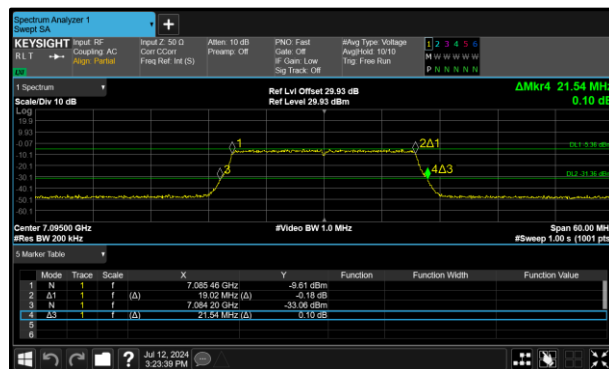


Figure 4 - 802.11ax HE20 SU LPI Maximum 26 dB EBW

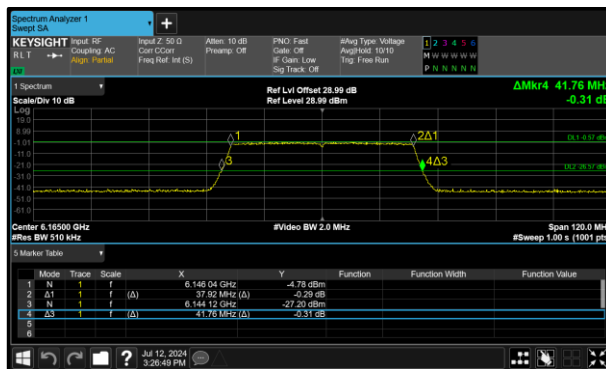


Figure 5 - 802.11ax HE40 SU LPI Minimum 26 dB EBW

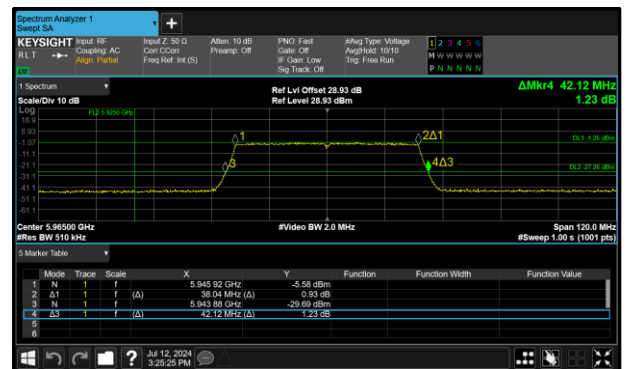


Figure 6 - 802.11ax HE40 SU LPI Maximum 26 dB EBW

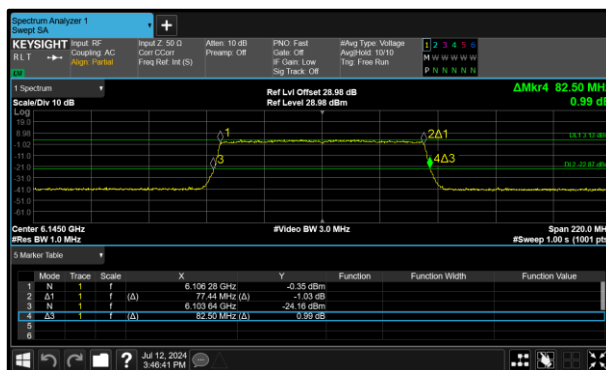


Figure 7 - 802.11ax HE80 SU LPI Minimum 26 dB EBW

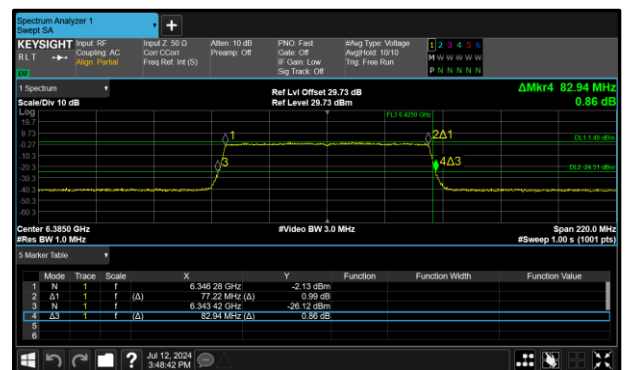


Figure 8 - 802.11ax HE80 SU LPI Maximum 26 dB EBW

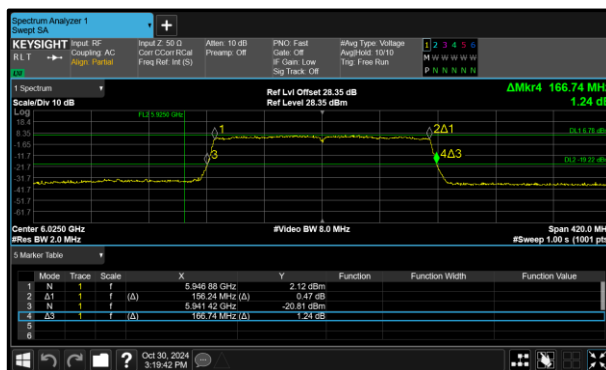


Figure 9 - 802.11ax HE160 SU LPI Minimum 26 dB EBW

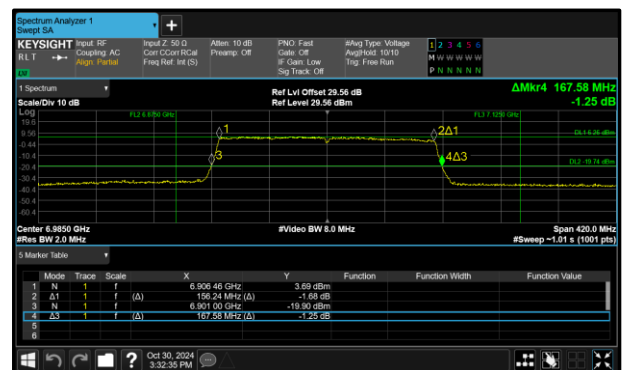


Figure 10 - 802.11ax HE160 SU LPI Maximum 26 dB EBW

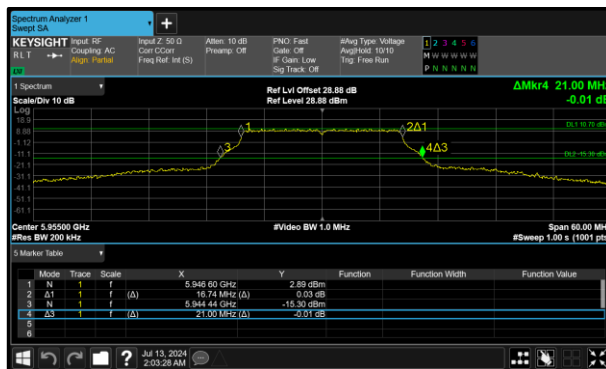


Figure 11 - 802.11a SP Minimum 26 dB EBW

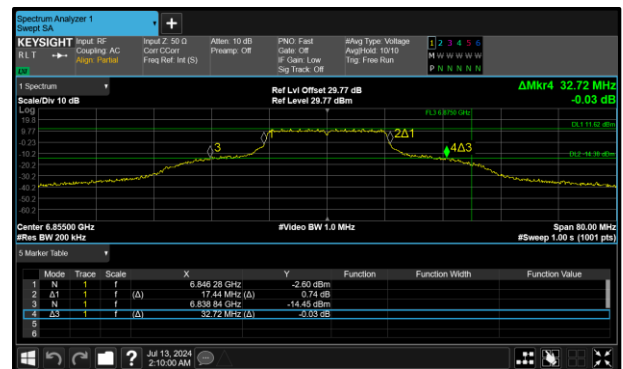


Figure 12 - 802.11a SP Maximum 26 dB EBW

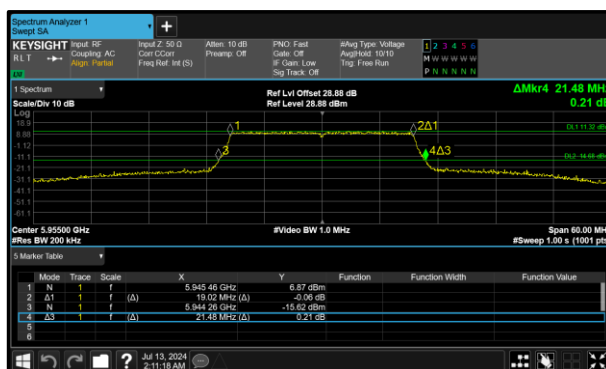


Figure 13 - 802.11ax HE20 SU SP Minimum 26 dB EBW

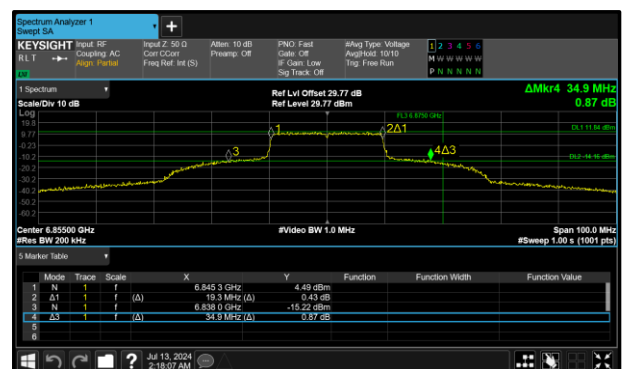


Figure 14 - 802.11ax HE20 SU SP Maximum 26 dB EBW

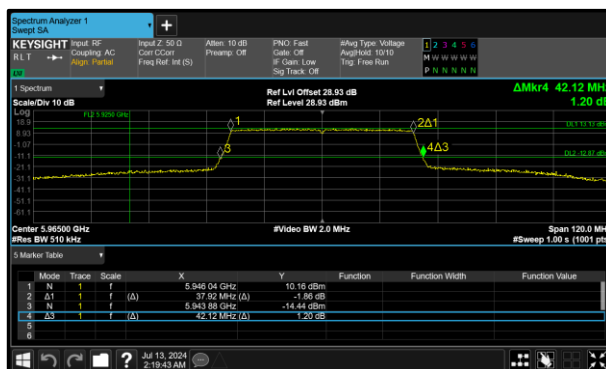


Figure 15 - 802.11ax HE40 SU SP Minimum 26 dB EBW

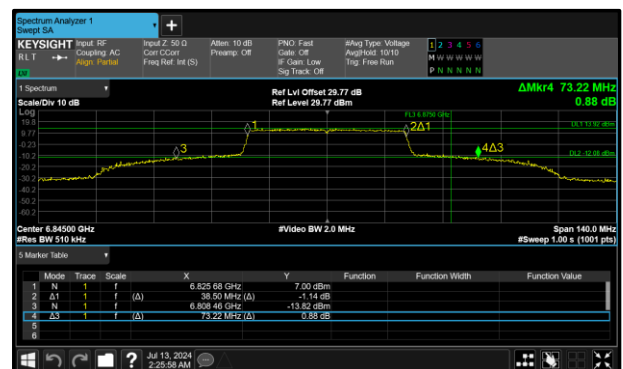


Figure 16 - 802.11ax HE40 SU SP Maximum 26 dB EBW

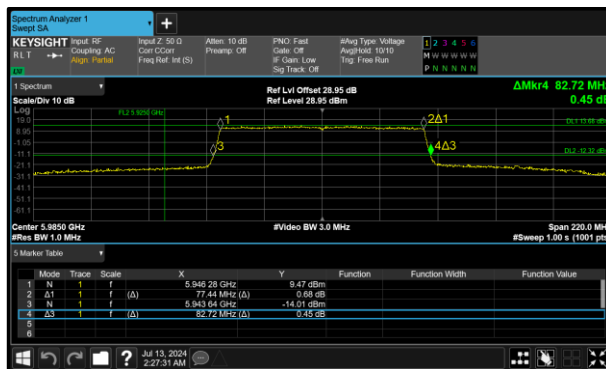


Figure 17 - 802.11ax HE80 SU SP Minimum 26 dB EBW

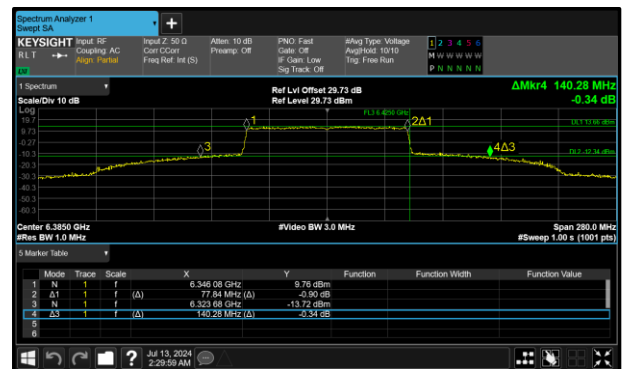


Figure 18 - 802.11ax HE80 SU SP Maximum 26 dB EBW

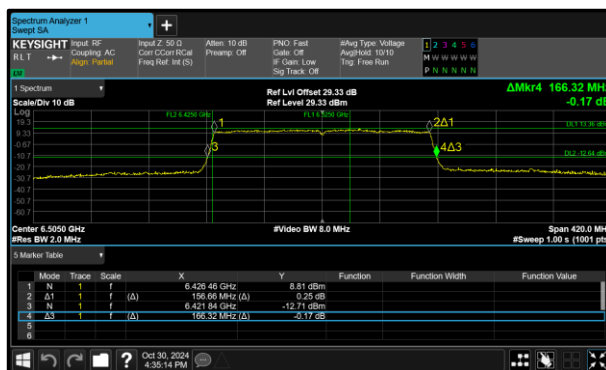


Figure 19 - 802.11ax HE160 SU SP Minimum 26 dB EBW

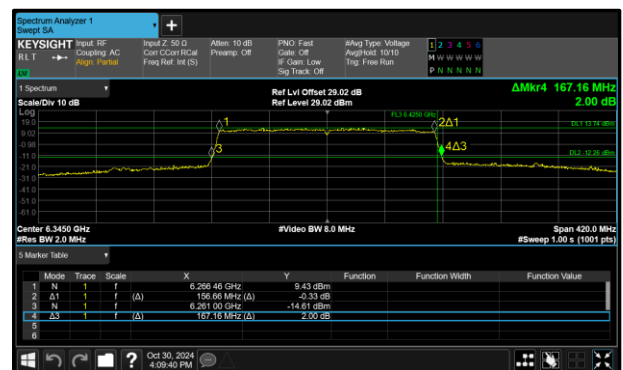


Figure 20 - 802.11ax HE160 SU SP Maximum 26 dB EBW

Protocol	99% Bandwidth (MHz)	
	Minimum	Maximum
802.11a LPI	16.680	16.680
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	156.660	156.660
802.11a SP	16.740	17.440
802.11ax HE20 SU SP	19.020	19.300
802.11ax HE40 SU SP	37.920	38.500
802.11ax HE80 SU SP	77.440	77.840
802.11ax HE160 SU SP	156.240	156.660

Table 8 - 99% Bandwidth Summary Results - SISO

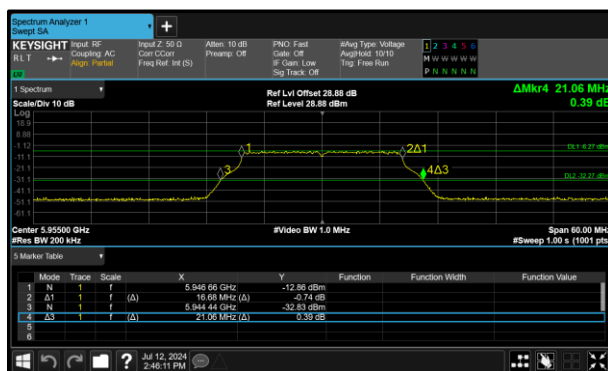


Figure 21 - 802.11a LPI Minimum 99% OBW

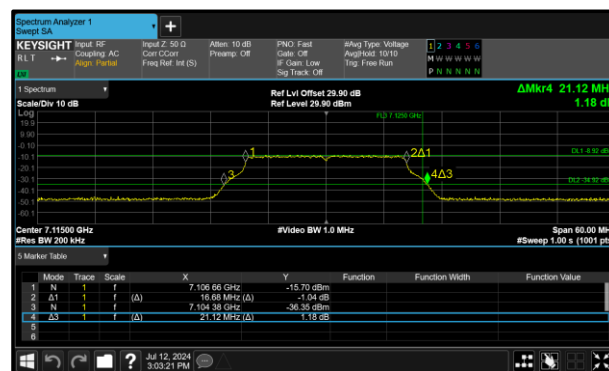


Figure 22 - 802.11a LPI Maximum 99% OBW

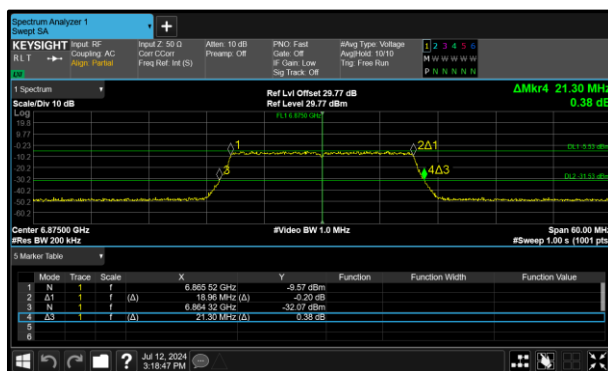


Figure 23 - 802.11ax HE20 SU LPI Minimum 99% OBW

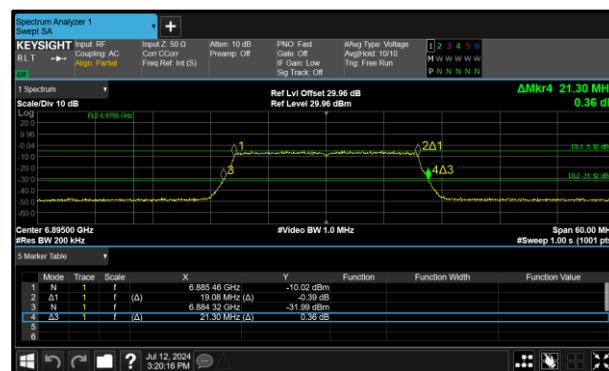


Figure 24 - 802.11ax HE20 SU LPI Maximum 99% OBW

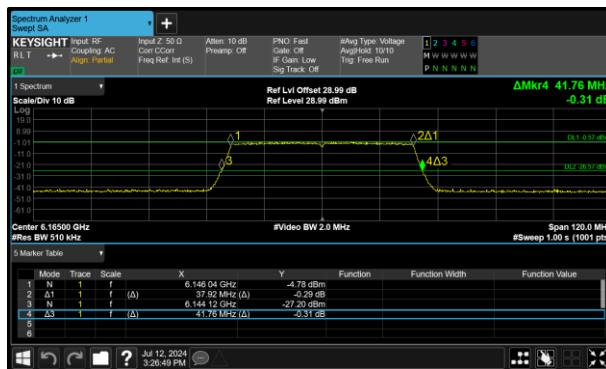


Figure 25 - 802.11ax HE40 SU LPI Minimum 99% OBW

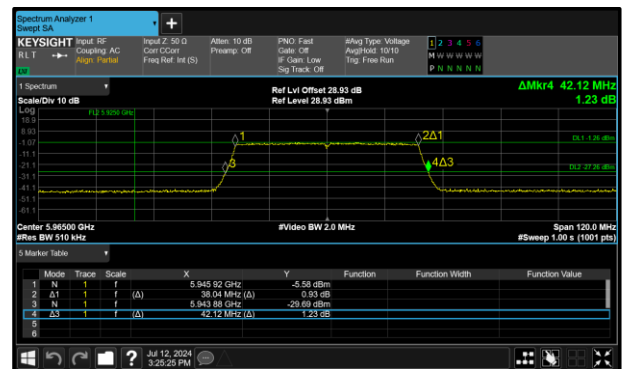


Figure 26 - 802.11ax HE40 SU LPI Maximum 99% OBW

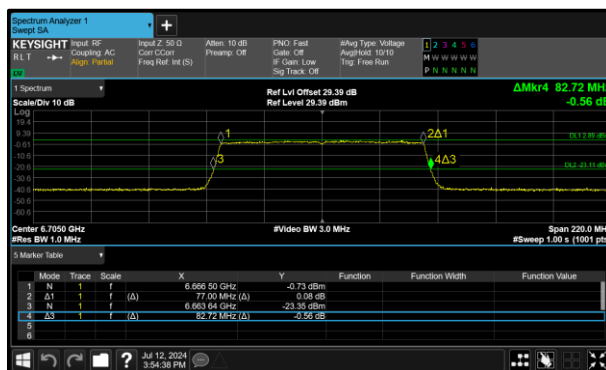


Figure 27 - 802.11ax HE80 SU LPI Minimum 99% OBW

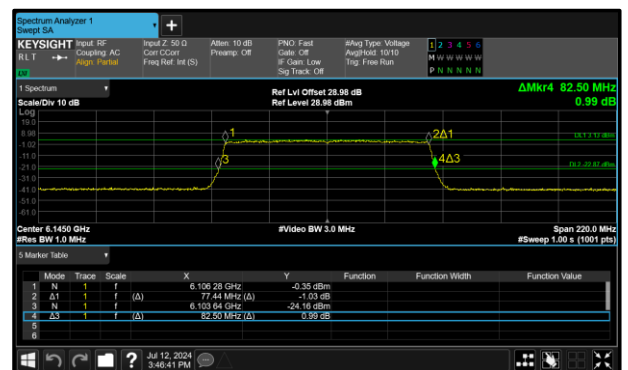


Figure 28 - 802.11ax HE80 SU LPI Maximum 99% OBW

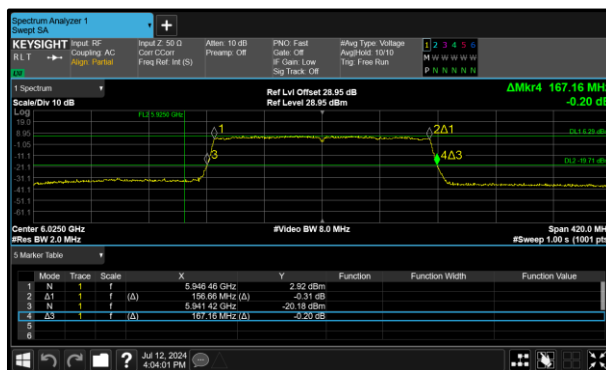


Figure 29 - 802.11ax HE160 SU LPI Minimum 99% OBW

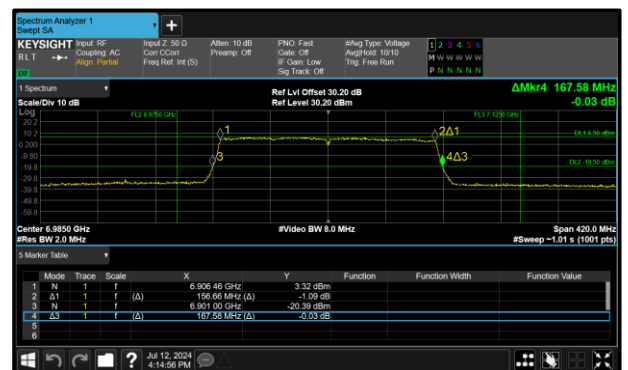


Figure 30 - 802.11ax HE160 SU LPI Maximum 99% OBW

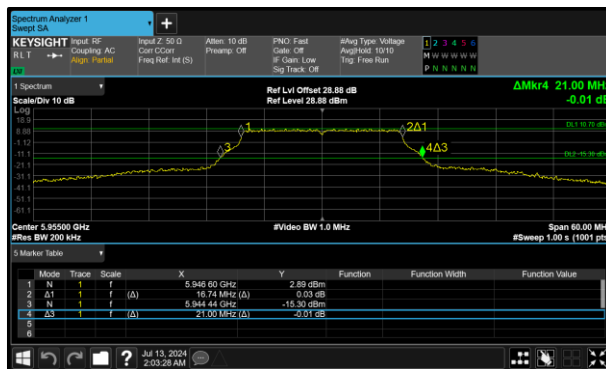


Figure 31 - 802.11a SP Minimum 99% OBW

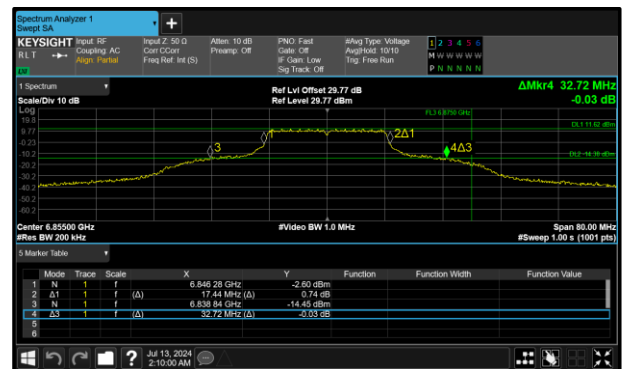


Figure 32 - 802.11a SP Maximum 99% OBW

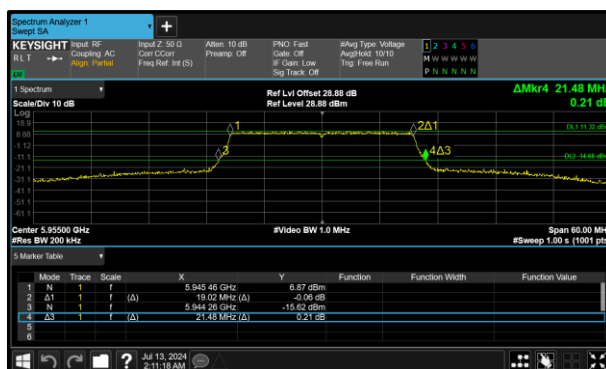


Figure 33 - 802.11ax HE20 SU SP Minimum 99% OBW

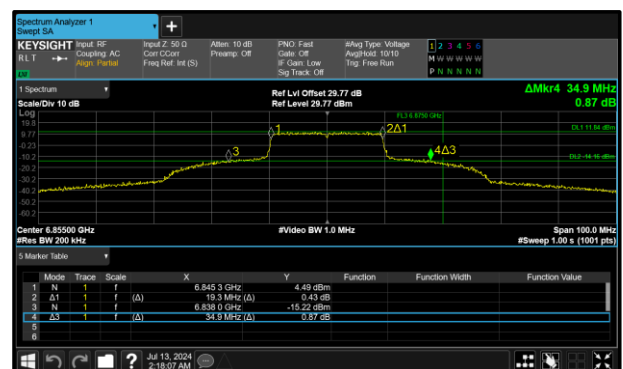


Figure 34 - 802.11ax HE20 SU SP Maximum 99% OBW

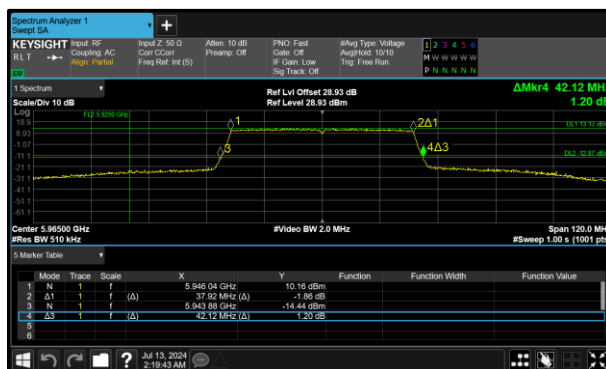


Figure 35 - 802.11ax HE40 SU SP Minimum 99% OBW

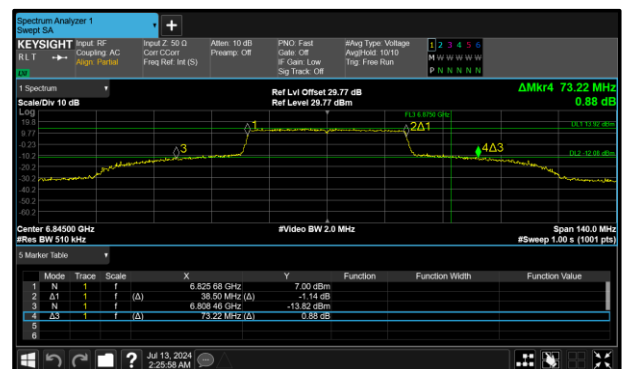


Figure 36 - 802.11ax HE40 SU SP Maximum 99% OBW

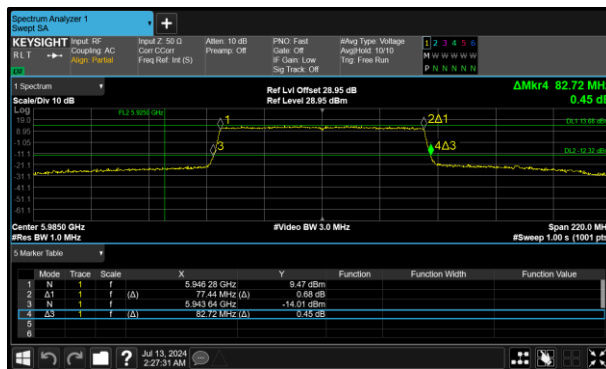


Figure 37 - 802.11ax HE80 SU SP Minimum 99% OBW



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

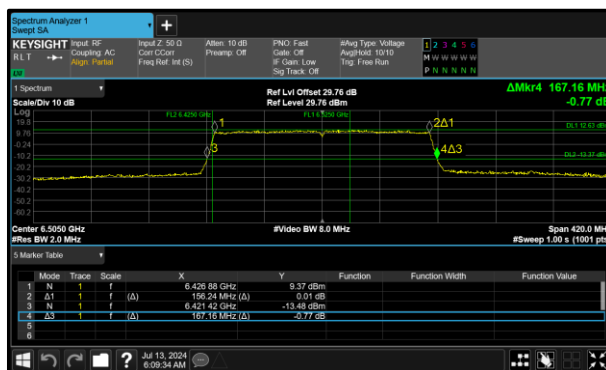


Figure 39 - 802.11ax HE160 SU SP Minimum 99% OBW

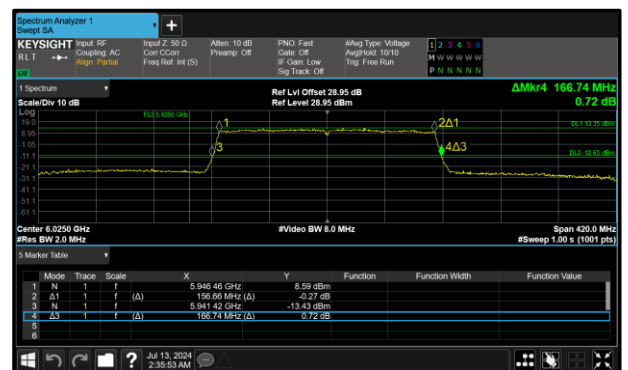


Figure 40 - 802.11ax HE160 SU SP Maximum 99% OBW



Test Configuration			
Frequency Range:	5.925-6.425 GHz 6.425-6.525 GHz 6.525-6.875 GHz 6.875-7.125 GHz	Band:	U-NII-5 U-NII-6 U-NII-7 U-NII-8
Limit Clause(s):	15.407 (a)(11) RSS-248 4.4	Test Method(s):	C63.10 6.9.3 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):	B Core 1	Active Chain(s):	1

Test Frequency (MHz)	26 dB Bandwidth (MHz)				FCC Limit (MHz)
	A	B	C	D	
5955	-	21.060	-	-	320.00
6175	-	21.000	-	-	320.00
6415	-	20.940	-	-	320.00
6435	-	21.000	-	-	320.00
6475	-	21.000	-	-	320.00
6515	-	20.880	-	-	320.00
6535	-	21.000	-	-	320.00
6695	-	21.000	-	-	320.00
6855	-	21.060	-	-	320.00
6875	-	21.000	-	-	320.00
6895	-	21.000	-	-	320.00
6995	-	20.940	-	-	320.00
7115	-	21.120	-	-	320.00

Table 9 - 26 dB Bandwidth Results



Test Frequency (MHz)	99% Bandwidth (MHz)				ISED Limit (MHz)
	A	B	C	D	
5955	-	16.680	-	-	320.00
6175	-	16.680	-	-	320.00
6415	-	16.680	-	-	320.00
6435	-	16.680	-	-	320.00
6475	-	16.680	-	-	320.00
6515	-	16.680	-	-	320.00
6535	-	16.680	-	-	320.00
6695	-	16.680	-	-	320.00
6855	-	16.680	-	-	320.00
6875	-	16.680	-	-	320.00
6895	-	16.680	-	-	320.00
6995	-	16.680	-	-	320.00
7115	-	16.680	-	-	320.00

Table 10 - 99% Bandwidth Results



Test Configuration			
Frequency Range:	5.925-6.425 GHz 6.425-6.525 GHz 6.525-6.875 GHz 6.875-7.125 GHz	Band:	U-NII-5 U-NII-6 U-NII-7 U-NII-8
Limit Clause(s):	15.407 (a)(11) RSS-248 4.4	Test Method(s):	C63.10 6.9.3 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):	B Core 1	Active Chain(s):	1

Test Frequency (MHz)	26 dB Bandwidth (MHz)				FCC Limit (MHz)
	A	B	C	D	
5955	-	21.360	-	-	320.00
6175	-	21.360	-	-	320.00
6415	-	21.480	-	-	320.00
6435	-	21.360	-	-	320.00
6475	-	21.420	-	-	320.00
6515	-	21.240	-	-	320.00
6535	-	21.360	-	-	320.00
6695	-	21.300	-	-	320.00
6855	-	21.420	-	-	320.00
6875	-	21.300	-	-	320.00
6895	-	21.300	-	-	320.00
6995	-	21.300	-	-	320.00
7095	-	21.540	-	-	320.00

Table 11 - 26 dB Bandwidth Results



Test Frequency (MHz)	99% Bandwidth (MHz)				ISED Limit (MHz)
	A	B	C	D	
5955	-	19.020	-	-	320.00
6175	-	19.020	-	-	320.00
6415	-	19.020	-	-	320.00
6435	-	19.020	-	-	320.00
6475	-	19.020	-	-	320.00
6515	-	19.020	-	-	320.00
6535	-	19.020	-	-	320.00
6695	-	19.020	-	-	320.00
6855	-	19.020	-	-	320.00
6875	-	18.960	-	-	320.00
6895	-	19.080	-	-	320.00
6995	-	19.020	-	-	320.00
7095	-	19.020	-	-	320.00

Table 12 - 99% Bandwidth Results



Test Configuration			
Frequency Range:	5.925-6.425 GHz 6.425-6.525 GHz 6.525-6.875 GHz 6.875-7.125 GHz	Band:	U-NII-5 U-NII-6 U-NII-7 U-NII-8
Limit Clause(s):	15.407 (a)(11) RSS-248 4.4	Test Method(s):	C63.10 6.9.3 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):	B Core 1	Active Chain(s):	1

Test Frequency (MHz)	26 dB Bandwidth (MHz)				FCC Limit (MHz)
	A	B	C	D	
5965	-	42.120	-	-	320.00
6165	-	41.760	-	-	320.00
6405	-	42.000	-	-	320.00
6445	-	41.880	-	-	320.00
6485	-	41.880	-	-	320.00
6525	-	41.880	-	-	320.00
6565	-	42.000	-	-	320.00
6685	-	42.000	-	-	320.00
6845	-	42.000	-	-	320.00
6885	-	42.000	-	-	320.00
6925	-	42.120	-	-	320.00
7005	-	41.760	-	-	320.00
7085	-	42.000	-	-	320.00

Table 13 - 26 dB Bandwidth Results



Test Frequency (MHz)	99% Bandwidth (MHz)				ISED Limit (MHz)
	A	B	C	D	
5965	-	38.040	-	-	320.00
6165	-	37.920	-	-	320.00
6405	-	37.920	-	-	320.00
6445	-	37.920	-	-	320.00
6485	-	38.040	-	-	320.00
6525	-	38.040	-	-	320.00
6565	-	37.920	-	-	320.00
6685	-	38.040	-	-	320.00
6845	-	38.040	-	-	320.00
6885	-	38.040	-	-	320.00
6925	-	38.040	-	-	320.00
7005	-	37.920	-	-	320.00
7085	-	38.040	-	-	320.00

Table 14 - 99% Bandwidth Results



Test Configuration			
Frequency Range:	5.925-6.425 GHz 6.425-6.525 GHz 6.525-6.875 GHz 6.875-7.125 GHz	Band:	U-NII-5 U-NII-6 U-NII-7 U-NII-8
Limit Clause(s):	15.407 (a)(11) RSS-248 4.4	Test Method(s):	C63.10 6.9.3 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):	B Core 1	Active Chain(s):	1

Test Frequency (MHz)	26 dB Bandwidth (MHz)				FCC Limit (MHz)
	A	B	C	D	
5985	-	82.720	-	-	320.00
6145	-	82.500	-	-	320.00
6385	-	82.940	-	-	320.00
6465	-	82.500	-	-	320.00
6545	-	82.720	-	-	320.00
6625	-	82.940	-	-	320.00
6705	-	82.720	-	-	320.00
6785	-	82.720	-	-	320.00
6865	-	82.500	-	-	320.00
6945	-	82.500	-	-	320.00
7025	-	82.720	-	-	320.00

Table 15 - 26 dB Bandwidth Results



Test Frequency (MHz)	99% Bandwidth (MHz)				ISED Limit (MHz)
	A	B	C	D	
5985	-	77.220	-	-	320.00
6145	-	77.440	-	-	320.00
6385	-	77.220	-	-	320.00
6465	-	77.440	-	-	320.00
6545	-	77.440	-	-	320.00
6625	-	77.440	-	-	320.00
6705	-	77.000	-	-	320.00
6785	-	77.220	-	-	320.00
6865	-	77.220	-	-	320.00
6945	-	77.220	-	-	320.00
7025	-	77.220	-	-	320.00

Table 16 - 99% Bandwidth Results



Test Configuration			
Frequency Range:	5.925-6.425 GHz 6.425-6.525 GHz 6.525-6.875 GHz 6.875-7.125 GHz	Band:	U-NII-5 U-NII-6 U-NII-7 U-NII-8
Limit Clause(s):	15.407 (a)(11) RSS-248 4.4	Test Method(s):	C63.10 6.9.3 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):	B Core 1	Active Chain(s):	1

Test Frequency (MHz)	26 dB Bandwidth (MHz)				FCC Limit (MHz)
	A	B	C	D	
6025	-	166.740	-	-	320.00
6185	-	167.160	-	-	320.00
6345	-	166.740	-	-	320.00
6505	-	166.740	-	-	320.00
6665	-	167.160	-	-	320.00
6825	-	166.740	-	-	320.00
6985	-	167.580	-	-	320.00

Table 17 - 26 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				ISED Limit (MHz)
	A	B	C	D	
6025	-	156.660	-	-	320.00
6185	-	156.660	-	-	320.00
6345	-	156.660	-	-	320.00
6505	-	156.660	-	-	320.00
6665	-	156.660	-	-	320.00
6825	-	156.660	-	-	320.00
6985	-	156.660	-	-	320.00

Table 18 - 99% Bandwidth Results



Test Configuration			
Frequency Range:	5.925-6.425 GHz 6.425-6.525 GHz 6.525-6.875 GHz	Band:	U-NII-5 U-NII-6 U-NII-7
Limit Clause(s):	15.407 (a)(11) RSS-248 4.4	Test Method(s):	C63.10 6.9.3 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):	B Core 1	Active Chain(s):	1

Test Frequency (MHz)	26 dB Bandwidth (MHz)				FCC Limit (MHz)
	A	B	C	D	
5955	-	21.000	-	-	320.00
6175	-	21.300	-	-	320.00
6415	-	22.080	-	-	320.00
6535	-	22.260	-	-	320.00
6695	-	22.920	-	-	320.00
6855	-	32.720	-	-	320.00

Table 19 - 26 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				ISED Limit (MHz)
	A	B	C	D	
5955	-	16.740	-	-	320.00
6175	-	16.800	-	-	320.00
6415	-	16.800	-	-	320.00
6435	-	17.100	-	-	320.00
6475	-	16.980	-	-	320.00
6515	-	16.920	-	-	320.00
6535	-	16.860	-	-	320.00
6695	-	16.920	-	-	320.00
6855	-	17.440	-	-	320.00

Table 20 - 99% Bandwidth Results



Test Configuration			
Frequency Range:	5.925-6.425 GHz 6.425-6.525 GHz 6.525-6.875 GHz	Band:	U-NII-5 U-NII-6 U-NII-7
Limit Clause(s):	15.407 (a)(11) RSS-248 4.4	Test Method(s):	C63.10 6.9.3 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):	B Core 1	Active Chain(s):	1

Test Frequency (MHz)	26 dB Bandwidth (MHz)				FCC Limit (MHz)
	A	B	C	D	
6535	-	21.900	-	-	320.00
5955	-	21.480	-	-	320.00
6175	-	21.540	-	-	320.00
6415	-	22.080	-	-	320.00
6855	-	34.900	-	-	320.00
6695	-	22.860	-	-	320.00

Table 21 - 26 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				ISED Limit (MHz)
	A	B	C	D	
6535	-	19.140	-	-	320.00
5955	-	19.020	-	-	320.00
6175	-	19.080	-	-	320.00
6415	-	19.140	-	-	320.00
6435	-	19.140	-	-	320.00
6475	-	19.200	-	-	320.00
6515	-	19.140	-	-	320.00
6855	-	19.300	-	-	320.00
6695	-	19.140	-	-	320.00

Table 22 - 99% Bandwidth Results



Test Configuration			
Frequency Range:	5.925-6.425 GHz 6.425-6.525 GHz 6.525-6.875 GHz	Band:	U-NII-5 U-NII-6 U-NII-7
Limit Clause(s):	15.407 (a)(11) RSS-248 4.4	Test Method(s):	C63.10 6.9.3 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):	B Core 1	Active Chain(s):	1

Test Frequency (MHz)	26 dB Bandwidth (MHz)				FCC Limit (MHz)
	A	B	C	D	
5965	-	42.120	-	-	320.00
6165	-	42.360	-	-	320.00
6405	-	68.320	-	-	320.00
6565	-	43.320	-	-	320.00
6685	-	43.200	-	-	320.00
6845	-	73.220	-	-	320.00

Table 23 - 26 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				ISED Limit (MHz)
	A	B	C	D	
5965	-	37.920	-	-	320.00
6165	-	38.040	-	-	320.00
6405	-	38.360	-	-	320.00
6445	-	38.400	-	-	320.00
6485	-	38.160	-	-	320.00
6525	-	38.160	-	-	320.00
6565	-	38.160	-	-	320.00
6685	-	38.160	-	-	320.00
6845	-	38.500	-	-	320.00

Table 24 - 99% Bandwidth Results



Test Configuration			
Frequency Range:	5.925-6.425 GHz 6.425-6.525 GHz 6.525-6.875 GHz	Band:	U-NII-5 U-NII-6 U-NII-7
Limit Clause(s):	15.407 (a)(11) RSS-248 4.4	Test Method(s):	C63.10 6.9.3 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):	B Core 1	Active Chain(s):	1

Test Frequency (MHz)	26 dB Bandwidth (MHz)				FCC Limit (MHz)
	A	B	C	D	
5985	-	82.720	-	-	320.00
6145	-	83.160	-	-	320.00
6385	-	140.280	-	-	320.00
6625	-	97.680	-	-	320.00
6705	-	100.980	-	-	320.00
6785	-	130.560	-	-	320.00

Table 25 - 26 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				ISED Limit (MHz)
	A	B	C	D	
5985	-	77.440	-	-	320.00
6145	-	77.440	-	-	320.00
6385	-	77.840	-	-	320.00
6465	-	77.760	-	-	320.00
6545	-	77.440	-	-	320.00
6625	-	77.440	-	-	320.00
6705	-	77.440	-	-	320.00
6785	-	77.760	-	-	320.00

Table 26 - 99% Bandwidth Results



Test Configuration			
Frequency Range:	5.925-6.425 GHz 6.425-6.525 GHz 6.525-6.875 GHz	Band:	U-NII-5 U-NII-6 U-NII-7
Limit Clause(s):	15.407 (a)(11) RSS-248 4.4	Test Method(s):	C63.10 6.9.3 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):	B Core 1	Active Chain(s):	1

Test Frequency (MHz)	26 dB Bandwidth (MHz)				FCC Limit (MHz)
	A	B	C	D	
6025	-	166.740	-	-	320.00
6185	-	166.740	-	-	320.00
6345	-	167.160	-	-	320.00
6665	-	167.160	-	-	320.00

Table 27 - 26 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				ISED Limit (MHz)
	A	B	C	D	
6025	-	156.660	-	-	320.00
6185	-	156.660	-	-	320.00
6345	-	156.660	-	-	320.00
6505	-	156.240	-	-	320.00
6665	-	156.660	-	-	320.00

Table 28 - 99% Bandwidth Results



Protocol	26 dB Bandwidth (MHz)	
	Minimum	Maximum
802.11a VLP	21.000	21.120
802.11ax HE20 SU VLP	21.300	21.480
802.11ax HE40 SU VLP	41.760	42.120
802.11ax HE80 SU VLP	82.500	83.160
802.11ax HE160 SU VLP	166.740	167.580

Table 29 - 26dB Bandwidth Summary Results - SISO

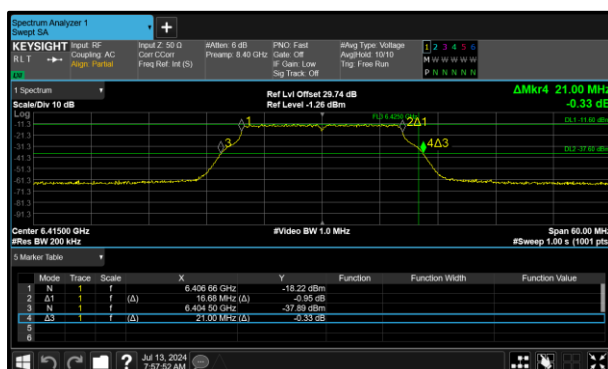


Figure 41 - 802.11a VLP Minimum 26 dB EBW

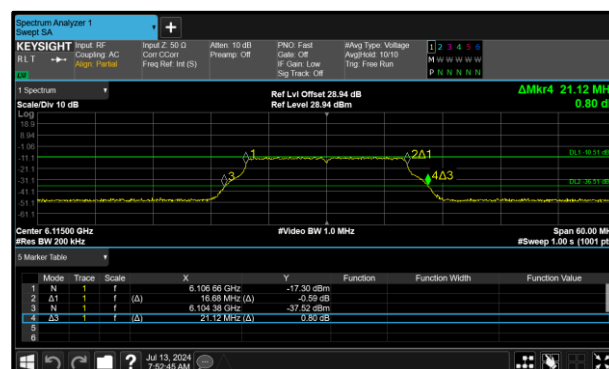


Figure 42 - 802.11a VLP Maximum 26 dB EBW

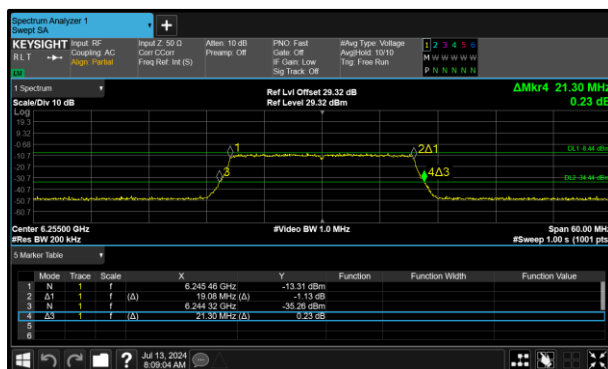


Figure 43 - 802.11ax HE20 SU VLP Minimum 26 dB EBW

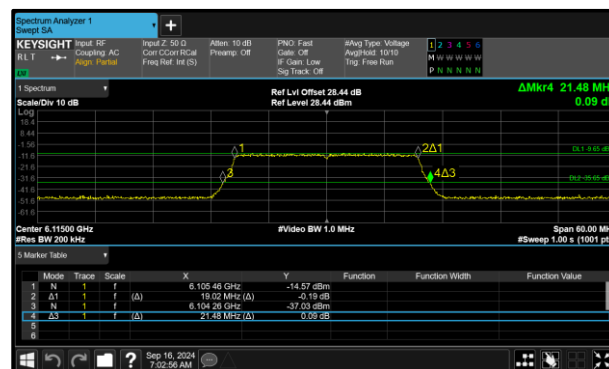


Figure 44 - 802.11ax HE20 SU VLP Maximum 26 dB EBW

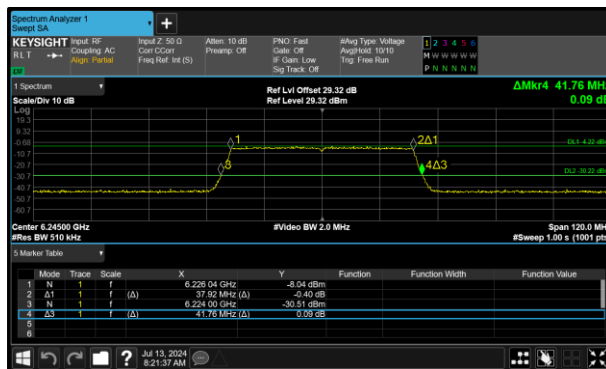


Figure 45 - 802.11ax HE40 SU VLP Minimum 26 dB EBW

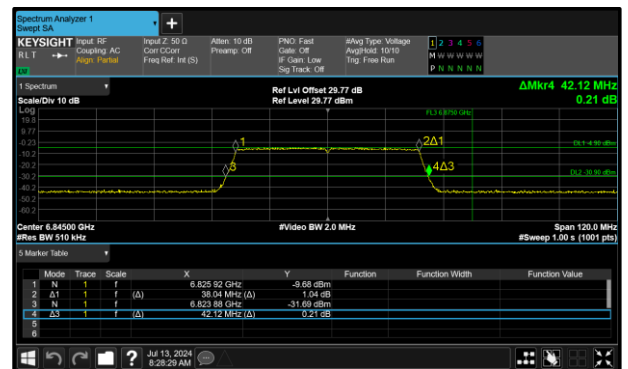


Figure 46 - 802.11ax HE40 SU VLP Maximum 26 dB EBW

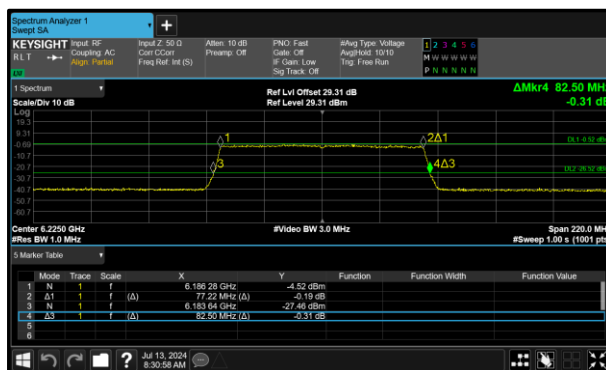


Figure 47 - 802.11ax HE80 SU VLP Minimum 26 dB EBW

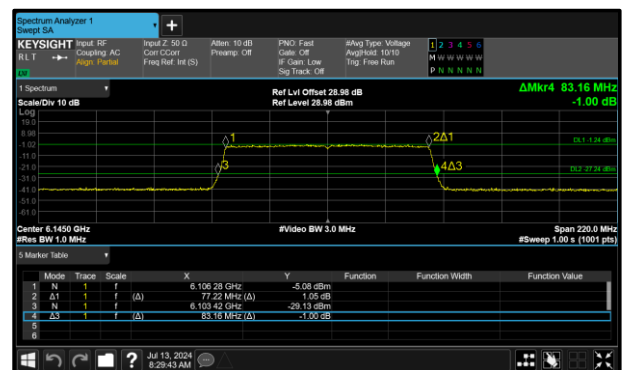


Figure 48 - 802.11ax HE80 SU VLP Maximum 26 dB EBW

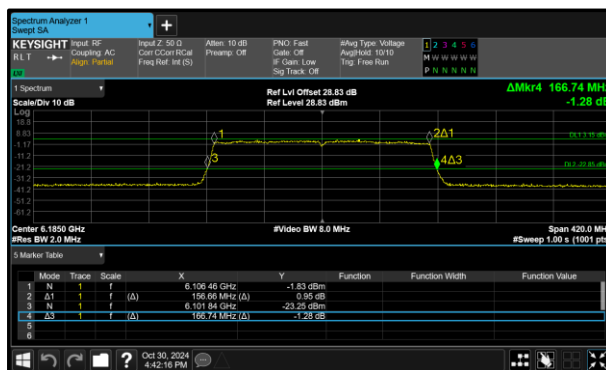


Figure 49 - 802.11ax HE160 SU VLP Minimum 26 dB EBW

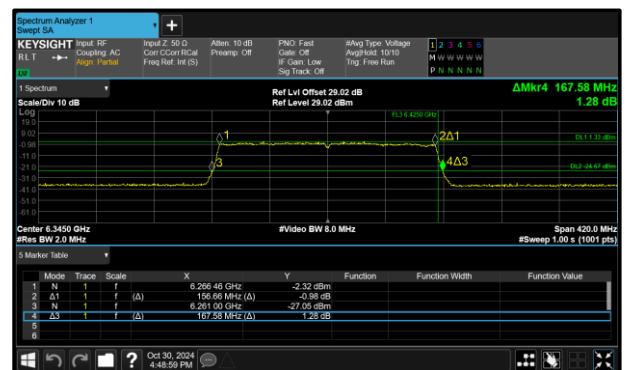


Figure 50 - 802.11ax HE160 SU VLP Maximum 26 dB EBW



Protocol	99% Bandwidth (MHz)	
	Minimum	Maximum
802.11a VLP	16.680	16.680
802.11ax HE20 SU VLP	19.020	19.080
802.11ax HE40 SU VLP	37.920	38.160
802.11ax HE80 SU VLP	77.000	77.440
802.11ax HE160 SU VLP	156.660	156.660

Table 30 - 99% Bandwidth Summary Results - SISO

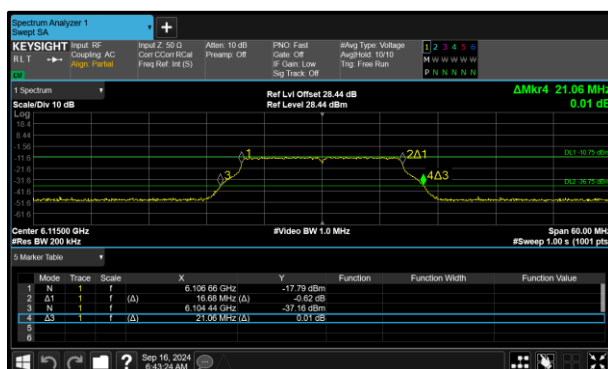


Figure 51 - 802.11a VLP Minimum 99% OBW



Figure 52 - 802.11a VLP Maximum 99% OBW

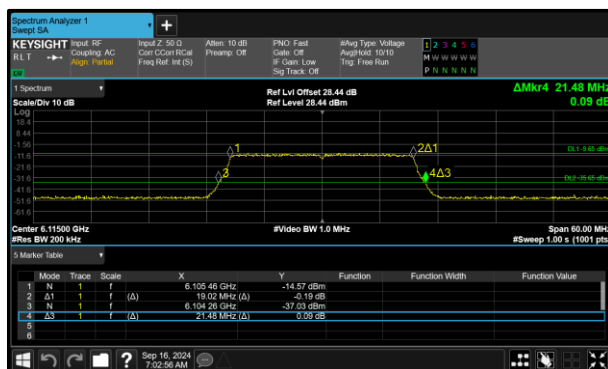


Figure 53 - 802.11ax HE20 SU VLP Minimum 99% OBW

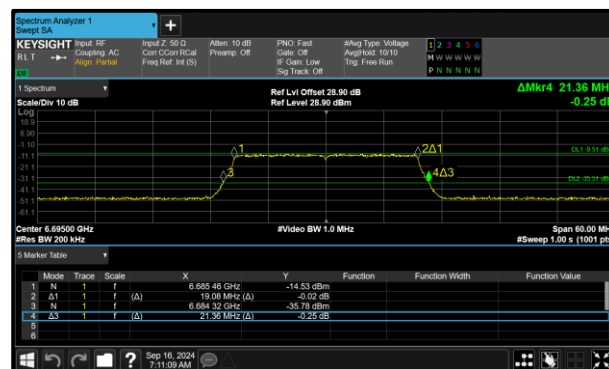


Figure 54 - 802.11ax HE20 SU VLP Maximum 99% OBW

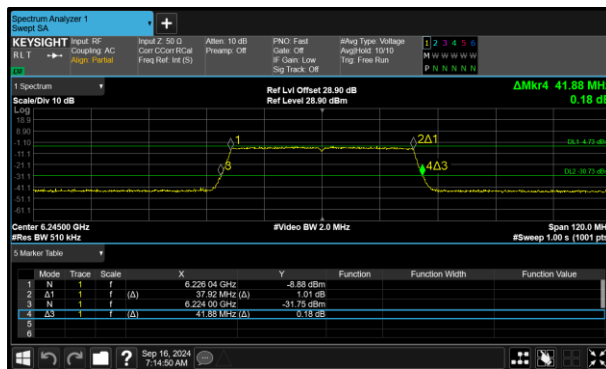


Figure 55 - 802.11ax HE40 SU VLP Minimum 99% OBW

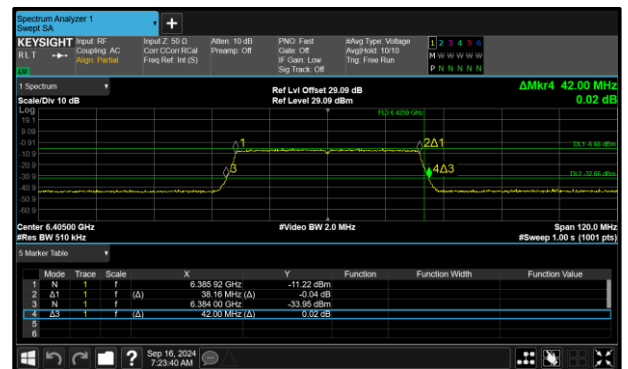


Figure 56 - 802.11ax HE40 SU VLP Maximum 99% OBW

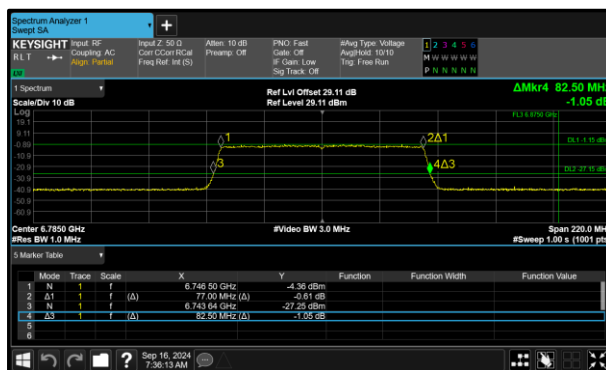


Figure 57 - 802.11ax HE80 SU VLP Minimum 99% OBW



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

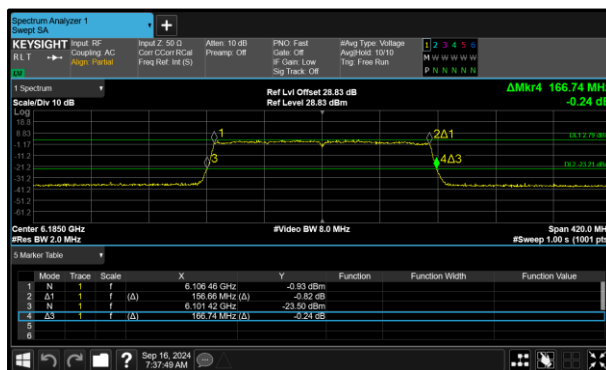


Figure 59 - 802.11ax HE160 SU VLP Minimum 99% OBW

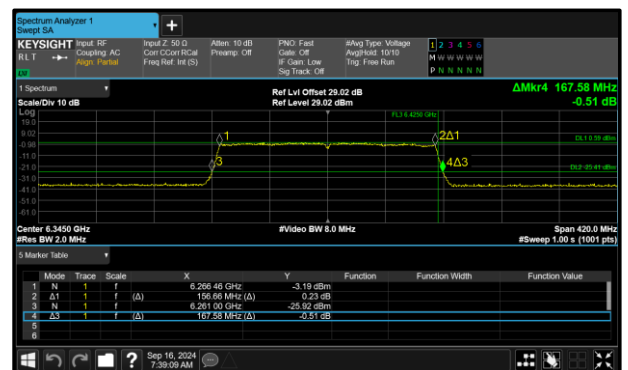


Figure 60 - 802.11ax HE160 SU VLP Maximum 99% OBW



Test Configuration			
Frequency Range:	5.925-6.425 GHz 6.525-6.875 GHz	Band:	U-NII-5 U-NII-7
Limit Clause(s):	15.407 (a)(11) RSS-248 4.4	Test Method(s):	C63.10 6.9.3 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 B (Core 0 Core 1)	Active Chain(s):	0 1

Test Frequency (MHz)	26 dB Bandwidth (MHz)				FCC Limit (MHz)
	A	B	C	D	
6115	-	21.060	-	-	320.00
6255	-	21.120	-	-	320.00
6415	-	21.000	-	-	320.00
6535	-	21.060	-	-	320.00
6695	-	21.060	-	-	320.00
6855	-	21.060	-	-	320.00

Table 31 - 26 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				ISED Limit (MHz)
	A	B	C	D	
6115	-	16.680	-	-	320.00
6255	-	16.680	-	-	320.00
6415	-	16.680	-	-	320.00
6535	-	16.680	-	-	320.00
6695	-	16.680	-	-	320.00
6855	-	16.680	-	-	320.00

Table 32 - 99% Bandwidth Results



Test Configuration			
Frequency Range:	5.925-6.425 GHz 6.525-6.875 GHz	Band:	U-NII-5 U-NII-7
Limit Clause(s):	15.407 (a)(11) RSS-248 4.4	Test Method(s):	C63.10 6.9.3 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 B (Core 0 Core 1)	Active Chain(s):	0 1

Test Frequency (MHz)	26 dB Bandwidth (MHz)				FCC Limit (MHz)
	A	B	C	D	
6115	-	21.480	-	-	320.00
6255	-	21.480	-	-	320.00
6415	-	21.360	-	-	320.00
6535	-	21.420	-	-	320.00
6695	-	21.360	-	-	320.00
6855	-	21.360	-	-	320.00

Table 33 - 26 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				ISED Limit (MHz)
	A	B	C	D	
6115	-	19.020	-	-	320.00
6255	-	19.020	-	-	320.00
6415	-	19.020	-	-	320.00
6535	-	19.020	-	-	320.00
6695	-	19.080	-	-	320.00
6855	-	19.020	-	-	320.00

Table 34 - 99% Bandwidth Results



Test Configuration			
Frequency Range:	5.925-6.425 GHz 6.525-6.875 GHz	Band:	U-NII-5 U-NII-7
Limit Clause(s):	15.407 (a)(11) RSS-248 4.4	Test Method(s):	C63.10 6.9.3 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 B (Core 0 Core 1)	Active Chain(s):	0 1

Test Frequency (MHz)	26 dB Bandwidth (MHz)				FCC Limit (MHz)
	A	B	C	D	
6125	-	41.760	-	-	320.00
6245	-	41.880	-	-	320.00
6405	-	42.000	-	-	320.00
6565	-	42.000	-	-	320.00
6685	-	41.880	-	-	320.00
6845	-	42.120	-	-	320.00

Table 35 - 26 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				ISED Limit (MHz)
	A	B	C	D	
6125	-	38.040	-	-	320.00
6245	-	37.920	-	-	320.00
6405	-	38.160	-	-	320.00
6565	-	38.160	-	-	320.00
6685	-	38.040	-	-	320.00
6845	-	37.920	-	-	320.00

Table 36 - 99% Bandwidth Results



Test Configuration			
Frequency Range:	5.925-6.425 GHz 6.525-6.875 GHz	Band:	U-NII-5 U-NII-7
Limit Clause(s):	15.407 (a)(11) RSS-248 4.4	Test Method(s):	C63.10 6.9.3 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 B (Core 0 Core 1)	Active Chain(s):	0 1

Test Frequency (MHz)	26 dB Bandwidth (MHz)				FCC Limit (MHz)
	A	B	C	D	
6145	-	82.940	-	-	320.00
6225	-	82.720	-	-	320.00
6385	-	82.500	-	-	320.00
6625	-	82.720	-	-	320.00
6705	-	82.720	-	-	320.00
6785	-	82.500	-	-	320.00

Table 37 - 26 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				ISED Limit (MHz)
	A	B	C	D	
6145	-	77.220	-	-	320.00
6225	-	77.220	-	-	320.00
6385	-	77.220	-	-	320.00
6625	-	77.440	-	-	320.00
6705	-	77.440	-	-	320.00
6785	-	77.000	-	-	320.00

Table 38 - 99% Bandwidth Results



Test Configuration			
Frequency Range:	5.925-6.425 GHz 6.525-6.875 GHz	Band:	U-NII-5 U-NII-7
Limit Clause(s):	15.407 (a)(11) RSS-248 4.4	Test Method(s):	C63.10 6.9.3 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 B (Core 0 Core 1)	Active Chain(s):	0 1

Test Frequency (MHz)	26 dB Bandwidth (MHz)				FCC Limit (MHz)
	A	B	C	D	
6185	-	166.740	-	-	320.00
6345	-	167.160	-	-	320.00
6665	-	167.580	-	-	320.00

Table 39 - 26 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				ISED Limit (MHz)
	A	B	C	D	
6185	-	156.660	-	-	320.00
6345	-	156.660	-	-	320.00
6665	-	156.660	-	-	320.00

Table 40 - 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	82.500	83.380
802.11ax HE160 SU LPI	166.320	167.580
802.11ax HE20 SU SP	21.060	21.420
802.11ax HE40 SU SP	41.760	42.240
802.11ax HE80 SU SP	82.500	130.560
802.11ax HE160 SU SP	166.320	167.580

Table 41 - 26 dB Bandwidth Summary Results - MIMO CDD

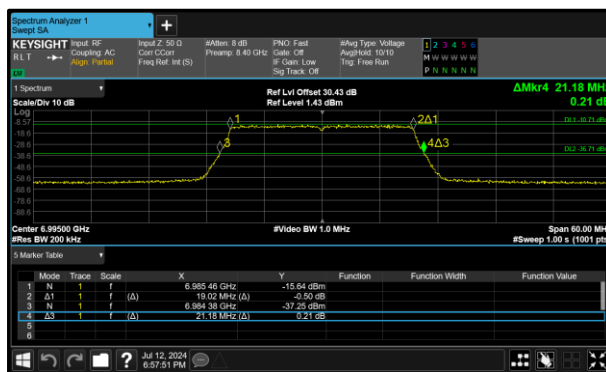


Figure 61 - 802.11ax HE20 SU LPI Minimum 26 dB EBW

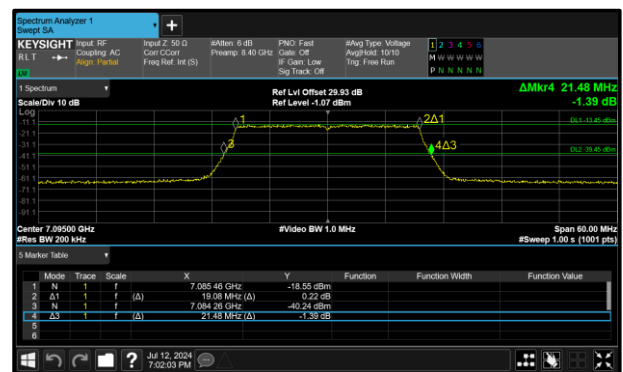


Figure 62 - 802.11ax HE20 SU LPI Maximum 26 dB EBW

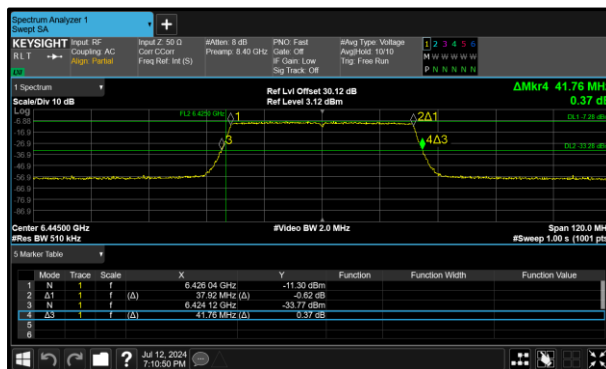


Figure 63 - 802.11ax HE40 SU LPI Minimum 26 dB EBW

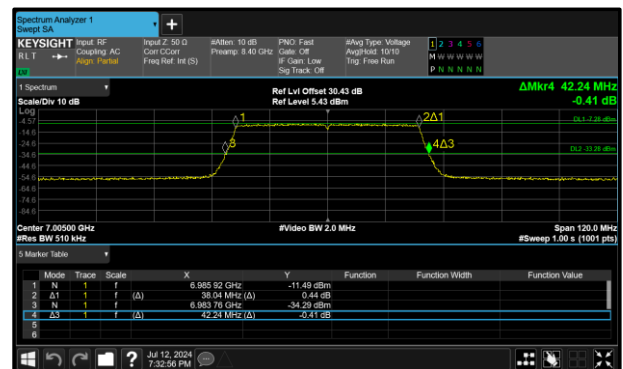


Figure 64 - 802.11ax HE40 SU LPI Maximum 26 dB EBW

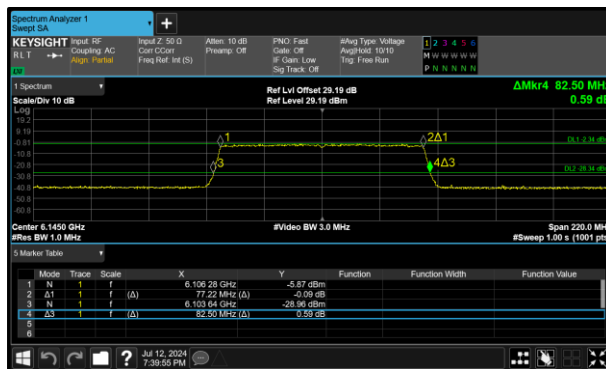


Figure 65 - 802.11ax HE80 SU LPI Minimum 26 dB EBW

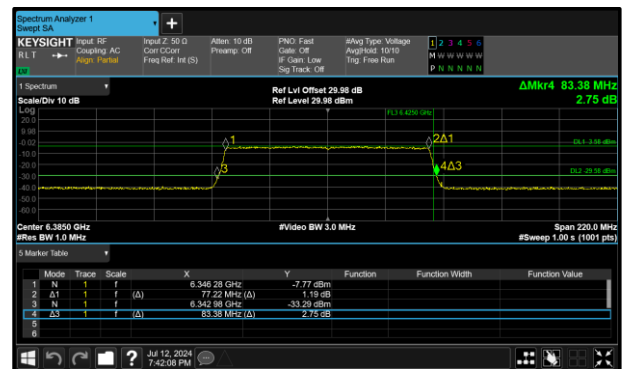


Figure 66 - 802.11ax HE80 SU LPI Maximum 26 dB EBW

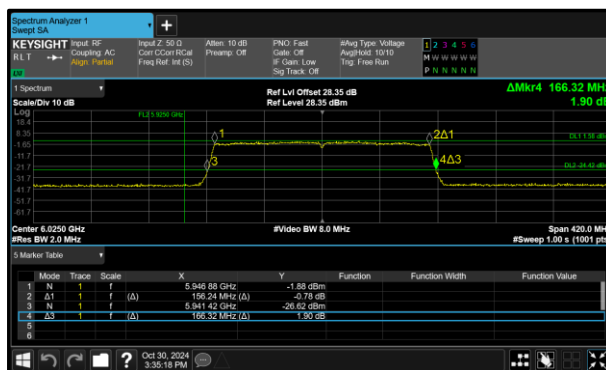


Figure 67 - 802.11ax HE160 SU LPI Minimum 26 dB EBW

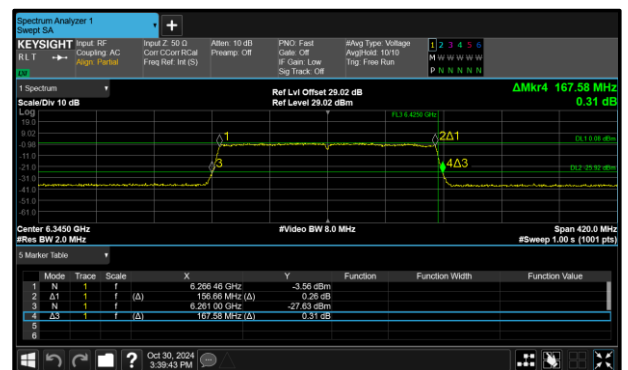


Figure 68 - 802.11ax HE160 SU LPI Maximum 26 dB EBW

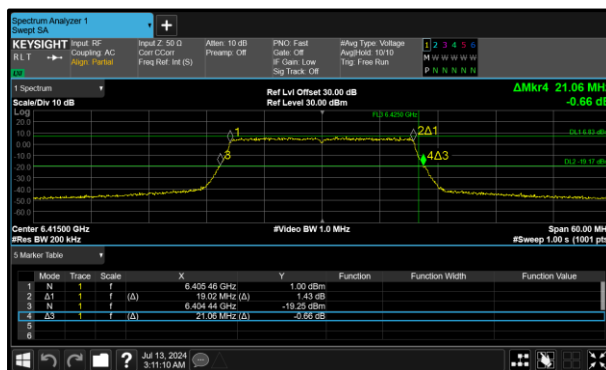


Figure 69 - 802.11ax HE20 SU SP Minimum 26 dB EBW

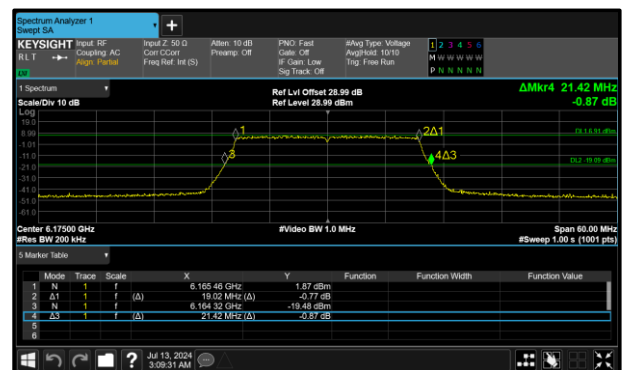


Figure 70 - 802.11ax HE20 SU SP Maximum 26 dB EBW

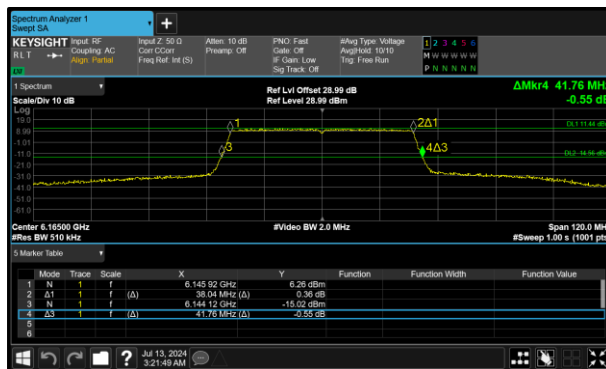


Figure 71 - 802.11ax HE40 SU SP Minimum 26 dB EBW

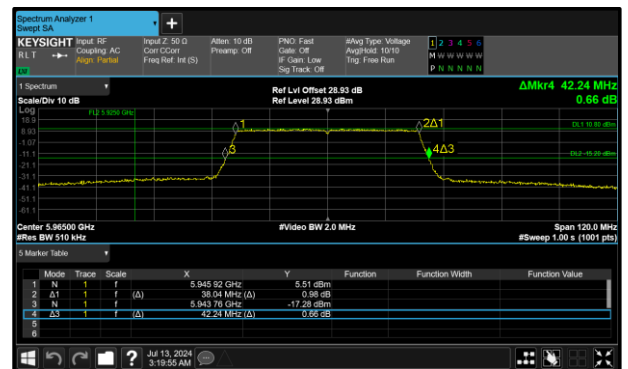


Figure 72 - 802.11ax HE40 SU SP Maximum 26 dB EBW

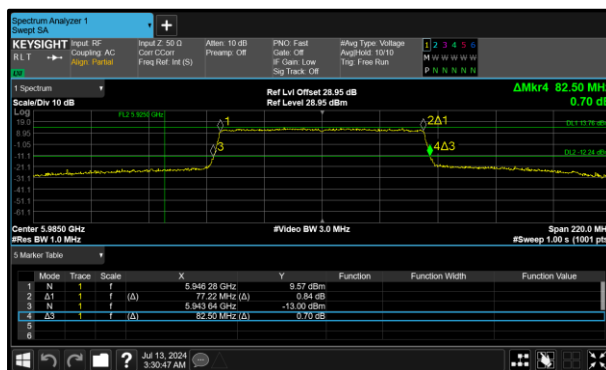


Figure 73 - 802.11ax HE80 SU SP Minimum 26 dB EBW

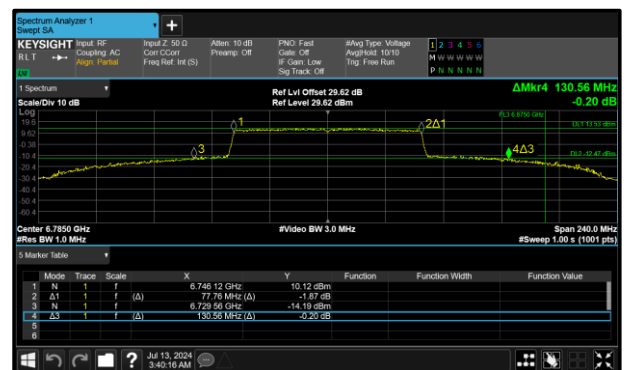


Figure 74 - 802.11ax HE80 SU SP Maximum 26 dB EBW

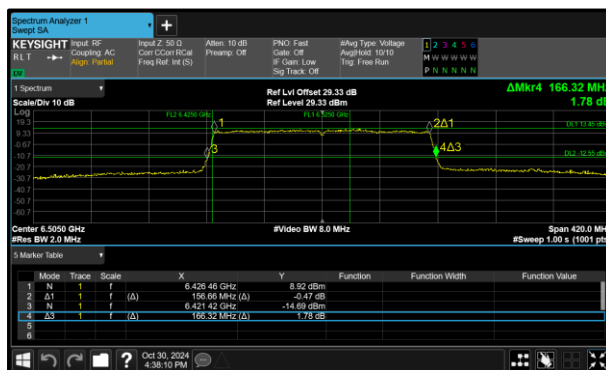


Figure 75 - 802.11ax HE160 SU SP Minimum 26 dB EBW

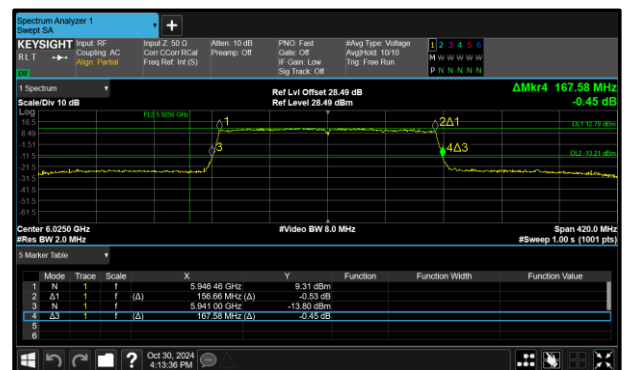


Figure 76 - 802.11ax HE160 SU SP Maximum 26 dB EBW



Protocol	99% Bandwidth (MHz)	
	Minimum	Maximum
802.11ax HE20 SU LPI	19.020	19.080
802.11ax HE40 SU LPI	37.920	38.160
802.11ax HE80 SU LPI	77.220	77.440
802.11ax HE160 SU LPI	156.240	156.660
802.11ax HE20 SU SP	19.020	19.080
802.11ax HE40 SU SP	37.920	38.040
802.11ax HE80 SU SP	77.220	77.760
802.11ax HE160 SU SP	156.240	156.660

Table 42 - 99% Bandwidth Summary Results - MIMO CDD

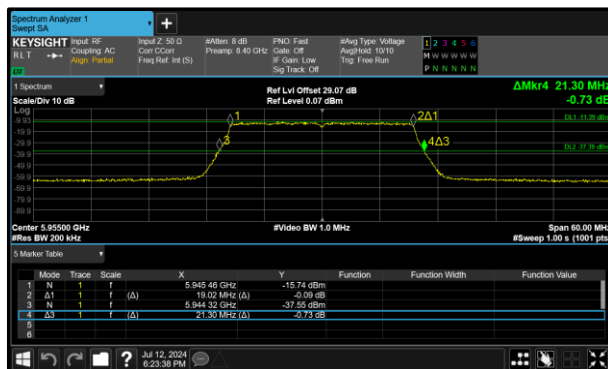


Figure 77 - 802.11ax HE20 SU LPI Minimum 99% OBW

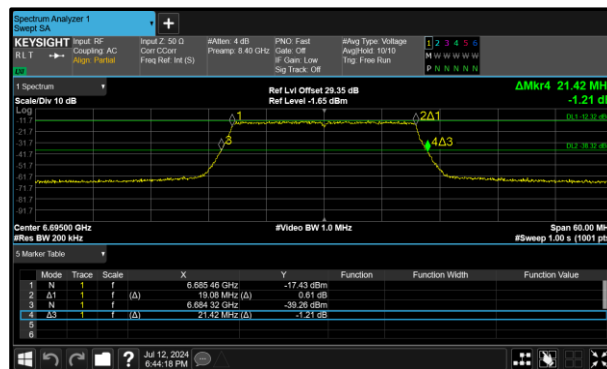


Figure 78 - 802.11ax HE20 SU LPI Maximum 99% OBW

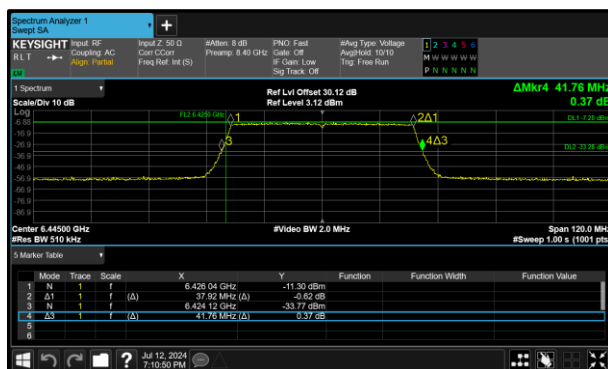


Figure 79 - 802.11ax HE40 SU LPI Minimum 99% OBW

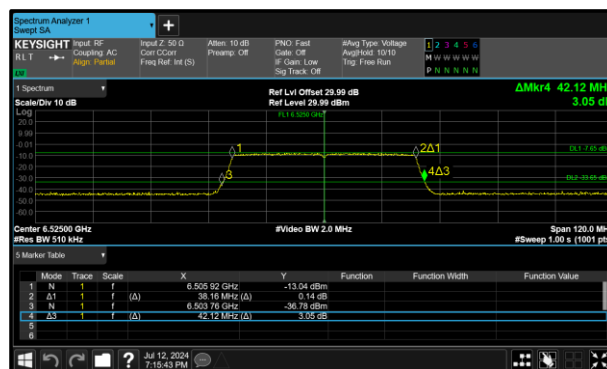


Figure 80 - 802.11ax HE40 SU LPI Maximum 99% OBW

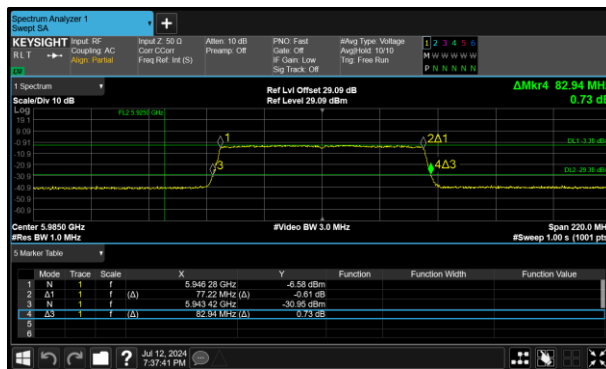


Figure 81 - 802.11ax HE80 SU LPI Minimum 99% OBW

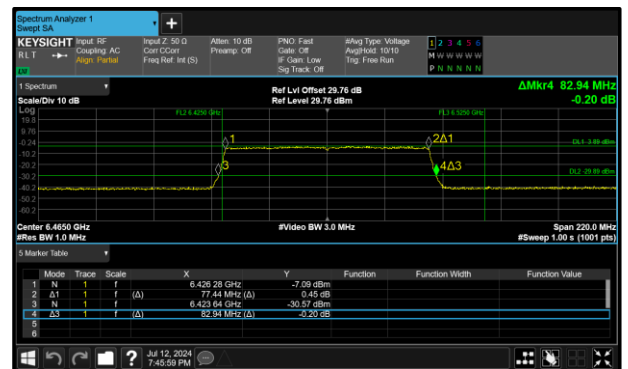


Figure 82 - 802.11ax HE80 SU LPI Maximum 99% OBW

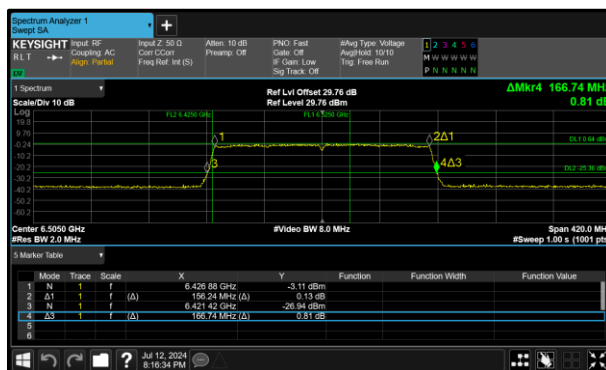


Figure 83 - 802.11ax HE160 SU LPI Minimum 99% OBW

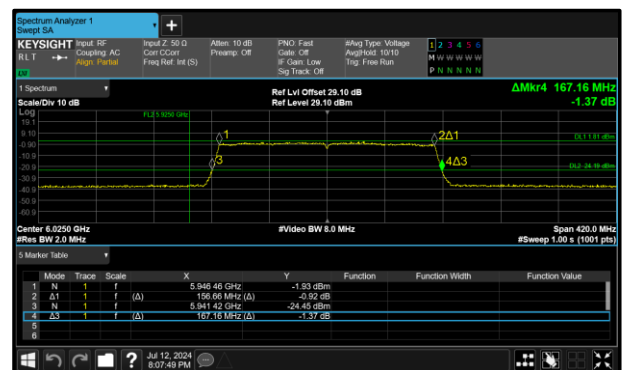


Figure 84 - 802.11ax HE160 SU LPI Maximum 99% OBW