TEST REPORT

Report Number: 15126863-E8V2

Applicant	:	Sonos, Inc. 301 Coromar Dr Goleta, CA 93117 USA
Model	:	S55
Brand	:	Sonos
FCC ID	:	SBVRM055
IC	:	5373A-RM055
EUT Description	:	Wireless Smart Speaker
Test Standard(s)	:	FCC 47 CFR PART 15 SUBPART E ISED RSS-248 ISSUE 2 ISED RSS-GEN ISSUE 5 + A1

Date Of Issue:
2024-06-14

Prepared by:
UL Verification Services Inc.
47173 Benicia Street
Fremont, CA 94538 U.S.A.
TEL: (510) 319-4000
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ACCREDITED
CERT #0751.05

REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	2024-05-31	Initial Issue	---
V2	2024-06-14	Section 6.6, 9.2.1, 9.2.10, 9.4.4 Updated	Henry Lau

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TABLE OF CONTENTS

UL VERIFICATION SERVICES
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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Sonos, Inc.
301 Coromar Dr.
Goleta, CA 93117 USA

EUT DESCRIPTION: Wireless Smart Speaker

MODEL: S55

BRAND: Sonos

SERIAL NUMBER: Radiated: 000E58BF9FD11
Conducted: 000E58661EF23

DATE TESTED: 2024-04-04 to 2024-05-24

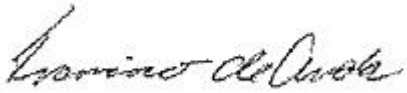
APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart E	Complies
ISED RSS-248 Issue 2	Complies
ISED RSS-GEN Issue 5 + A1 + A2	Complies

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise.

This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document.

Approved & Released For
UL Verification Services Inc. By:



Francisco de Anda
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UL Verification Services Inc.

Prepared By:

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UL Verification Services Inc.

2. TEST RESULT SUMMARY

This report contains data provided by the customer which can impact the validity of results. UL Verification Services Inc. is only responsible for correctly integrating customer-provided data with measurements performed by UL Verification Services Inc.

FCC Clause	ISED Clause	Requirement	Result	Comment
See Comment		Duty Cycle	Reporting purposes only	ANSI C63.10 Section 12.2 ...
See Comment	RSS-GEN 6.7	99% BW	Reporting purposes only	ANSI C63.10 Section 6.9.3
§15.407 (a) (10)	---	26dB BW	Compliant	None.
§15.407 (a) (8)	RSS-248 4.5.3	Output Power e.i.r.p.	Compliant	Indoor Client.
§15.407 (a) (8)	RSS-248 4.5.3	PSD e.i.r.p	Compliant	Indoor Client.
§15.407 (b) (6)	RSS-248 46.2(a)	Emissions outside 5.925-7.125 GHz band	Compliant	None
§15.407 (b) (7)	RSS-248 4.6.2(b)	Emissions within 5.925-7.125 GHz Band(Emissions Mask)	Compliant	None
§15.205	RSS-GEN 8.10	Unwanted emissions in restricted bands	Compliant	None
§15.209	RSS-GEN 8.9	Radiated Spurious Emissions	Compliant	None
§15.207	RSS-GEN 8.8	AC Mains Conducted Emissions	Compliant	None

3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with:

- FCC CFR 47 Part 2
- FCC CFR 47 Part 15
- FCC KDB 662911 Measurement of Transmitters with Multiple Output, MIMO
- FCC KDB 789033 D02 UNII Test Procedures New Rules
- FCC KDB 987594 D01 U-NII 6GHz General Requirements
- FCC KDB 987594 D02 U-NII 6 GHz EMC Measurement
- KDB 414788 D01 Radiated Test Site
- ANSI C63.10-2013
- RSS-GEN Issue 5 + A1 + A2
- RSS-248 Issue 2

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4. FACILITIES AND ACCREDITATION

UL Verification Services Inc. is accredited by A2LA, Certificate Number 0751.05, for all testing performed within the scope of this report. Testing was performed at the locations noted below.

	Address	ISED CABID	ISED Company Number	FCC Registration
☒	Building 1: 47173 Benicia Street, Fremont, CA 94538, USA	US0104	2324A	550739
☐	Building 2: 47266 Benicia Street, Fremont, CA 94538, USA			
☐	Building 3: 843 Auburn Court, Fremont, CA 94538, USA			
☒	Building 4: 47658 Kato Rd, Fremont, CA 94538, USA			
☐	Building 5: 47670 Kato Rd, Fremont, CA 94538, USA			

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5. DECISION RULES AND MEASUREMENT UNCERTAINTY

5.1. METROLOGICAL TRACEABILITY

All test and measuring equipment utilized to perform the tests documented in this report are calibrated on a regular basis, with a maximum time between calibrations of one year or the manufacturers' recommendation, whichever is less, and where applicable is traceable to recognized national standards.

5.2. DECISION RULES

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4:2012 Clause 8.2. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

5.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	U_{Lab}
Radio Frequency (Spectrum Analyzer)	141.16 Hz
Occupied Bandwidth	1.22%
RF Power Measurement Direct Method Using Power Meter	1.3 dB (PK) / 0.45 dB (AV)
RF Power Measurement Using Spectrum Analyzer	0.33dB
Unwanted Emissions, Conducted	1.94 dB
Power Spectral Density	2.466 dB
Worst Case Conducted Disturbance, 9kHz to 0.15 MHz	3.78 dB
Worst Case Conducted Disturbance, 0.15 to 30 MHz	3.40 dB
Worst Case Radiated Disturbance, 9kHz to 30 MHz	2.87 dB
Worst Case Radiated Disturbance, 30 to 1000 MHz	6.01 dB
Worst Case Radiated Disturbance, 1000 to 18000 MHz	4.73 dB
Worst Case Radiated Disturbance, 18000 to 26000 MHz	4.51 dB
Worst Case Radiated Disturbance, 26000 to 40000 MHz	5.29 dB
Time Domain Measurements	3.39%
Temperature	0.57˚C
Relative Humidity	3.39%
DC Supply Voltages	0.57%

Uncertainty figures are valid to a confidence level of 95%.

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RADIATED EMISSIONS

Where relevant, the following sample calculation is provided:
Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)
36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

MAINS CONDUCTED EMISSIONS

Where relevant, the following sample calculation is provided:
Final Voltage (dBuV) = Measured Voltage (dBuV) + Cable Loss (dB) + Limiter Factor (dB) + LISN Insertion Loss.
36.5 dBuV + 0 dB +10.1 dB+ 0 dB = 46.6 dBuV

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6. EQUIPMENT UNDER TEST

6.1. EUT DESCRIPTION

The EUT is a Wireless Smart Speaker.

This report covers ax 6E Wifi radio.

6.2. EUT DEVICE CLASS

EUT is of the following device class;

Low Power Client	U-NII Bands of Operation			
	5	6	7	8
Indoor Client (6XD)	☒	☒	☒	☒

6.3. MAXIMUM OUTPUT POWER

The transmitter has a maximum e.i.r.p. output power as follows:

6.3.1. U-NII 5 (5.925-6.425 GHz) BAND

802.11 ax MODE 2TX

Frequency Range (MHz)	Mode	e.i.r.p. Power (dBm)	Output Power (mW)
2TX CDD -UNII-5 band			
5955-6415	802.11ax HE20 SU	7.82	6.05
	802.11ax HE20 OFDMA, 106-Tones	3.69	2.34
	802.11ax HE20 OFDMA, 52-Tones	-0.67	0.86
	802.11ax HE20 OFDMA, 26-Tones	-0.39	0.91
5965-6405	802.11ax HE40 SU	-9.40	0.11
5985-6385	802.11ax HE80 SU	12.37	17.26

6.3.2. U-NII-6 (6.425-6.525 GHz) BAND

802.11 ax MODE 2TX

Frequency Range (MHz)	Mode	e.i.r.p. Power (dBm)	Output Power (mW)
2TX CDD -UNII-6 band			
6435-6515	802.11ax HE20 SU	6.53	4.50
	802.11ax HE20 OFDMA, 106-Tones	3.53	2.25
	802.11ax HE20 OFDMA, 52-Tones	-0.33	0.93
	802.11ax HE20 OFDMA, 26-Tones	-1.93	0.64
6445-6485	802.11ax HE40 SU	8.94	7.83
6525 (Straddle)	802.11ax HE40 SU	7.64	5.81
6465	802.11ax HE80 SU	11.60	14.45
6545 (Straddle)	802.11ax HE80 SU	11.96	15.69

6.3.3. U-NII-7 (6.525-6.875 GHz) BAND

802.11 ax MODE 2TX

Frequency Range (MHz)	Mode	e.i.r.p. Power (dBm)	Output Power (mW)
2TX CDD -UNII-7 Band			
6535-6855	802.11ax HE20 SU	6.84	4.83
	802.11ax HE20 OFDMA, 106-Tones	3.30	2.14
	802.11ax HE20 OFDMA, 52-Tones	0.29	1.07
	802.11ax HE20 OFDMA, 26-Tones	-1.57	0.70
6525 (Straddle)	802.11ax HE40 SU	7.64	5.81
6525-6845	802.11ax HE40 SU	8.51	7.10
6545(Straddle)	802.11ax HE80 SU	11.96	15.70
6545-6785	802.11ax HE80 SU	11.31	13.52
6875 (Straddle)	802.11ax HE20 SU	6.65	4.62
6885 (Straddle)	802.11ax HE40 SU	8.21	6.62
6865 (Straddle)	802.11ax HE80 SU	10.41	10.99

6.3.4. U-NII 8 (6.875-7.125 GHz) BAND

802.11 ax MODE 2TX

Frequency Range (MHz)	Mode	e.i.r.p. Power (dBm)	Output Power (mW)
2TX CDD -UNII-8 Band			
6895-7115	802.11ax HE20 SU	6.36	4.33
	802.11ax HE20 OFDMA, 106-Tones	3.09	2.04
	802.11ax HE20 OFDMA, 52-Tones	0.25	1.06
	802.11ax HE20 OFDMA, 26-Tones	-1.69	0.68
6925-7085	802.11ax HE40 SU	8.27	6.71
6945-7025	802.11ax HE80 SU	10.80	12.02
6875 (Straddle)	802.11ax HE20 SU	6.65	4.62
	802.11ax HE20 OFDMA, 106-Tones	3.76	2.38
	802.11ax HE20 OFDMA, 52-Tones	0.29	1.07
	802.11ax HE20 OFDMA, 26-Tones	-1.60	0.69
6885 (Straddle)	802.11ax HE40 SU	8.21	6.62
6865 (Straddle)	802.11ax HE80 SU	10.41	10.99

6.4. DESCRIPTION OF AVAILABLE ANTENNAS

The antenna(s) gain and type, as provided by the manufacturer' are as follows:

The radio utilizes PCB type antenna, with max gains of:

Frequency Range (GHz)	Type	Declared Uncorrelated Gain (dBi)	Declared correlated Gain (dBi)
5.925-6.425	PCB	5.8	8.0
6.425-6.525		2.9	5.8
6.525-6.875		2.8	5.4
6.875-7.125		2.8	5.6

6.5. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was 78.1-48130-diag-jaws-dev-woosung-202312211600

6.6. WORST-CASE CONFIGURATION AND MODE

WORST-CASE CONFIGURATION AND MODE FOR FINAL TEST

Radiated emissions below 1GHz, above 18GHz, and power line conducted emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario.

Band edge and radiated emissions between 1GHz and 18GHz were performed with the EUT set to transmit at the highest power on low, middle, and high channels.

The EUT can only be setup in desktop orientation; therefore, all radiated testing was performed with the EUT in desktop orientation.

The fundamental of the EUT was investigated in the antenna combinations, it was determined that:
ANT2 and ANT4 was the worst case in the UNII 5.
ANT1 and ANT3 was the worst case in the UNII 6,7,8.
Therefore, all final testing was performed with ANT2 and ANT4 and ANT1 and ANT3 as stated above.
Worst-case data rates as provided by the client were:

802.11ax HE20mode: MCS0
802.11ax HE40mode: MCS0
802.11ax HE80mode: MCS0

Preliminary Investigation were performed for 802.11ax modes were determined by the following:

- Testing was perfomed 802.11ax HE20 26T, 52T, 106T, SU, & HE40 SU (Single User) to cover HE40 26T, 52T,106T and 242T.

- Testing was perfomed 802.11ax HE20 26T, 52T, 106T, SU, HE40 SU, & HE80 SU (Single User) to cover HE80 26T, 52T, 106T, 242T and 484T.

- HE20 26T Harmonics and Spurious Emissions were ran at max power between 26T, 52T, 106T, 242T, 484T, 996T and SU Mode across all bandwidths and bands to cover HE20 52T,106T and SU, HE40 26T,52T,106T,242T and SU, and HE80 26T,52T,106T,242T,484T and SU as worst case power and PSD.

Also, Preliminary Investigation conducted power were performed to compare SU modes and FT (Full Tone) Tone modes. It was determined that SU Tone modes were worst case over Full Tone mode in every instance. Therefore, only Single User was tested and represents FT mode as worst case scenario.

6.7. DESCRIPTION OF TEST SETUP

SUPPORT TEST EQUIPMENT				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID/ DoC**
Laptop	Lenovo	X1 Carbon	R90HKAXZ	Doc
Laptop AC/DC AC/DC Adapter	Lenovo	ADLX90NLC2A	11S45N0247Z1ZS9B54B8EJ	Doc
USB-A to Ethernet Adapter	Plugable	USB2-E100	8CAE4CEBE0D9	Doc

I/O CABLES (CONDUCTED TEST)						
Cable No.	**Port**	**# of Identical Ports**	**Connector Type**	**Cable Type**	**Cable Length (m)**	**Remarks**
1	AC	3	AC	Un-shielded	1.25	AC Mains to Spectrum Analyzer/AC/DC Adapter
2	DC	1	DC	Un-shielded	1	AC/DC Adapter to Laptop
3	USB-A to Ethernet Adapter	1	USB-A	Shielded	0.5	Laptop to EUT
4	Ethernet	1	RJ45	Un-shielded	1	Laptop to USB Ethernet Adapter
5	SMA Cable	1	SMA	Un-Shielded	1.0	EUT to Spectrum Analyzer

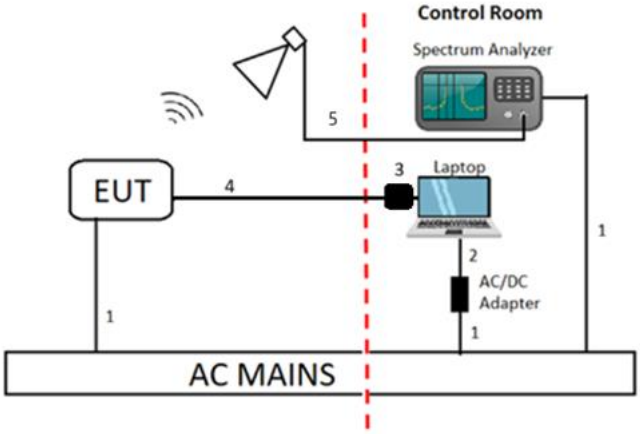
I/O CABLES (RADIATED TEST)						
Cable No.	**Port**	**# Of Identical Ports**	**Connector Type**	**Cable Type**	**Cable Length (m)**	**Remarks**
1	AC	3	AC	Un-shielded	1.25	AC Mains to Spectrum Analyzer/AC/DC Adapter
2	DC	1	DC	Un-shielded	1	AC/DC Adapter to Laptop
3	USB-A to Ethernet Adapter	1	USB-A	Shielded	0.5	Laptop to EUT
4	Ethernet	1	RJ45	Un-shielded	1	Laptop to USB Ethernet Adapter
5	SMA Cable	1	SMA	Un-Shielded	10	EUT to Horn Antenna

TEST SETUP

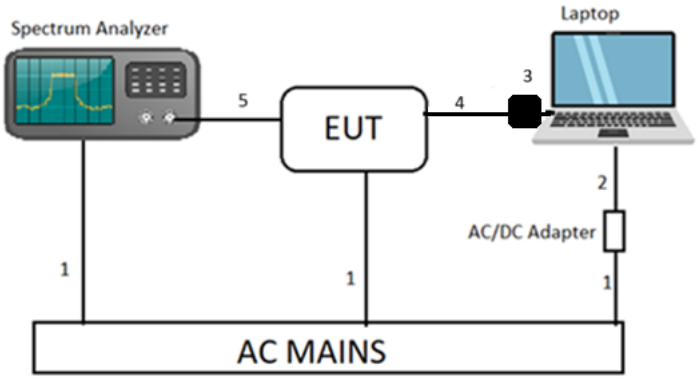
The EUT is a stand-alone unit, and the radio is exercised remotely by Sonos Compliance GUI test utility software via ethernet.

SETUP DIAGRAM

Radiated Configuration



Conducted/AC Line Configuration



7. MEASUREMENT METHOD

On Time and Duty Cycle: KDB 789033 D02 v02r01, Section B.

26 dB Emission BW: KDB 789033 D02 v02r01, Section C.1

Conducted Output Power: KDB 789033 D02 v02r01, Section II E.2.d (Method SA-2).
Output Power (e.i.r.p), Conducted Power + Ant Gain= EIRP:

Power Spectral Density(PSD): KDB 789033 D02 v02r01, Section F

Spurious emissions within 5.925-7.125 GHz Band(Emissions Mask): KDB 987594 D02 EMC Measurement Section II-J

Unwanted emissions in restricted bands: KDB 789033 D02 v02r01, Sections G.3, G.4, G.5, and G.6.

Unwanted emissions in non-restricted bands: KDB 789033 D02 v02r01, Sections G.3, G.4, and G.5.

AC Power Line Conducted Emissions: ANSI C63.10-2013, Section 6.2.

Radiated Spurious Emissions Below 30MHz: ANSI C63.10-2013 Section 6.4

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8. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

TEST EQUIPMENT LIST					
Description	**Manufacturer**	**Model**	**ID Num**	**Cal Due**	**Last Cal**
Antenna, Broadband Hybrid, 30MHz to 2GHz	Sunol Sciences Corp.	JB1	80293	2025-04-30	2023-04-11
Amplifier, 9KHz to 1GHz, 32dB	SONOMA INSTRUMENT	310	213877	2025-03-31	2024-03-25
Antenna, Horn 1-18GHz	ETS-Lindgren (Cedar Park, Texas)	3117	206805	2024-07-31	2023-07-11
RF Filter Box, 1-18GHz	FREMONT	6 Port Silver box	171013	2025-12-02	2024-02-02
RF Filter Box, 1-18GHz	FREMONT	n/a	171875	2025-03-31	2024-03-23
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	191429	2025-02-28	2024-02-11
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	230547	2025-02-28	2024-02-11
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	225688	2025-02-11	2024-02-11
Antenna, Horn 18 to 26.5GHz	ARA	MWH-1826/B	199659	2024-12-31	2022-12-06
Amplifier 18-26.5GHz, +5Vdc, 60dB min	AMPLICAL	AMP18G26.5-60	234683	2025-05-31	2024-05-13
Antenna, Passive Loop 30Hz - 1MHz	ELECTRO METRICS	EM-6871	219908	2024-09-30	2023-09-13
Antenna, Passive Loop 100KHz - 30MHz	ELECTRO METRICS	EM-6872	219910	2024-05-31	2023-05-31
Spectrum Analyzer, PXA, 2Hz to 26.5GHz	Keysight Technologies Inc	N9030B	245121	2025-02-07	2024-02-07
Power Meter, P-series single channel	Keysight Technologies Inc	N1911A	90718	2025-01-31	2024-01-25
Power Sensor, P - series, 50MHz to 18GHz, Wideband	Keysight Technologies Inc	N1921A	90388	2024-06-30	2023-06-23
AC Line Conducted					
LISN	Fischer Custom Communications, Inc`	FCC-LISN-50/250-25-2-01-480V	175765	2025-01-31	2024-01-26
EMI TEST RECEIVER	Rohde & Schwarz	ESR	171646	2025-02-28	2024-02-27
Transient Limiter	TE	TBFL1	127455	2025-02-28	2024-02-27
UL TEST SOFTWARE LIST					
Radiated Software	UL	UL EMC	Ver 2023-01-18, 2023-05-01		
Antenna Port Software	UL	UL RF	Ver 2022-08-16		
AC Line Conducted Software	UL	UL EMC	Rev 9.5, 2023-03-03		

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9. ANTENNA PORT TEST RESULTS

9.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

KDB 789033 Zero-Span Spectrum Analyzer Method.

RESULTS

Test Engineer:	2024-04-05 ZS 16080

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
802.11ax HE20 OFDMA, SU	4.097	4.855	0.844	84.39%	0.74	0.244
802.11ax HE20 OFDMA, RU size 106T	0.435	1.038	0.419	41.95%	3.77	2.297
802.11ax HE20 OFDMA, RU size 52T	0.495	1.098	0.451	45.12%	3.46	2.019
802.11ax HE20 OFDMA, RU size 26T	0.580	1.164	0.498	49.81%	3.03	1.725
802.11ax HE40 OFDMA, SU	2.079	2.834	0.734	73.36%	1.35	0.481
802.11ax HE80 OFDMA, SU	1.024	1.771	0.578	57.82%	2.38	0.977

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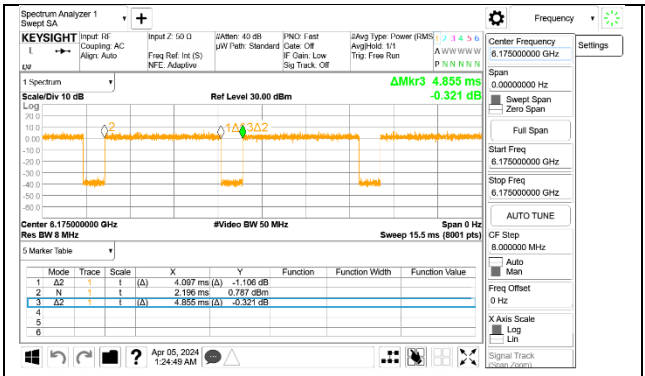
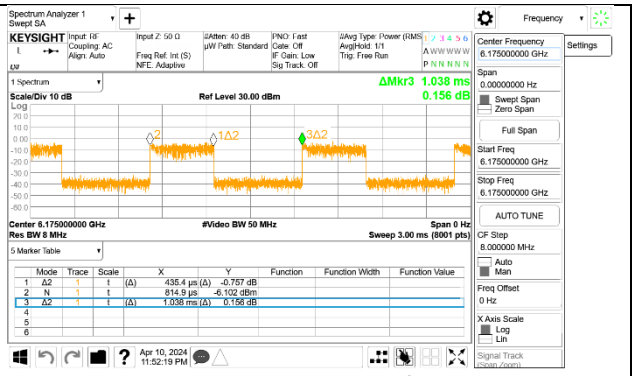
DUTY CYCLE PLOTS

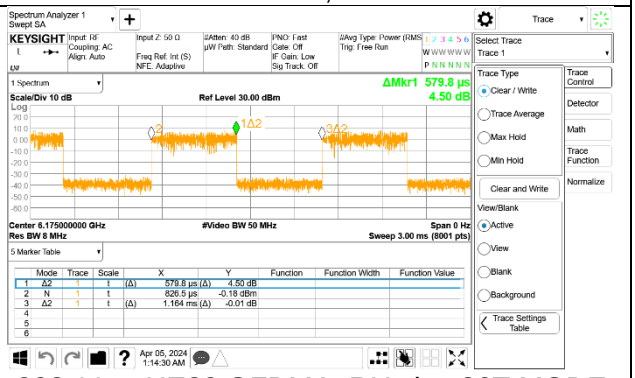


802.11ax HE20 OFDMA, OFDMA MODE: SU

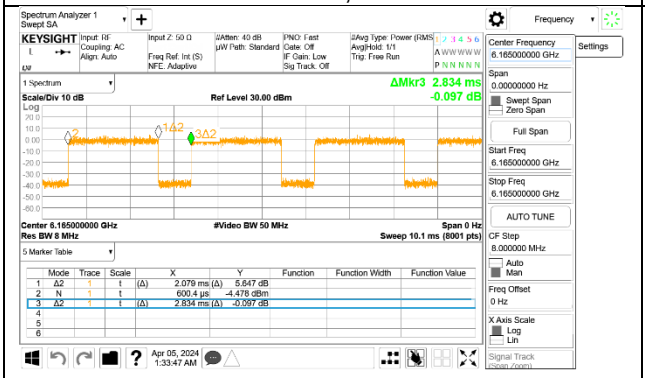


802.11ax HE20 OFDMA, RU size 106T MODE

802.11ax HE20 OFDMA, RU size 52T MODE



802.11ax HE20 OFDMA, RU size 26T MODE



802.11ax HE40 OFDMA, OFDMA MODE: SU

802.11ax HE80 OFDMA, OFDMA MODE: SU

9.2. 26 dB BANDWIDTH

LIMITS

None; for reporting purposes only.

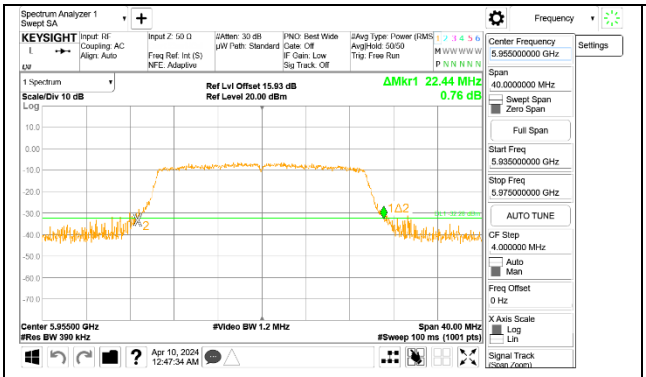
RESULTS

9.2.1. 802.11ax HE20 MODE 2TX IN THE UNII-5 BAND

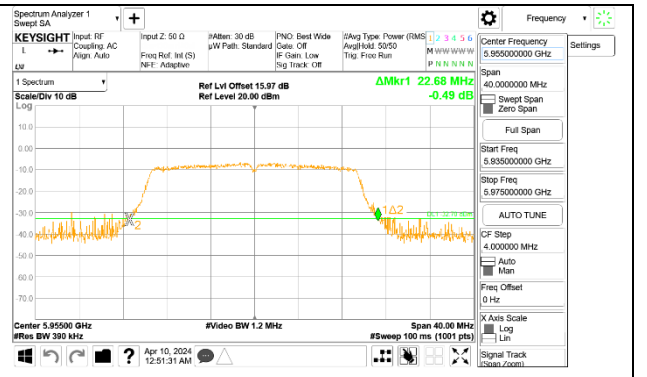
2TX Antenna 2 + Antenna 4 CDD OFDMA MODE: SU, Single User

Channel	Frequency (MHz)	26 dB Bandwidth Antenna 2 (MHz)	26 dB Bandwidth Antenna 4 (MHz)
Low	5955	22.44	22.68
Mid	6175	22.16	22.56
High	6415	22.12	22.44

LOW

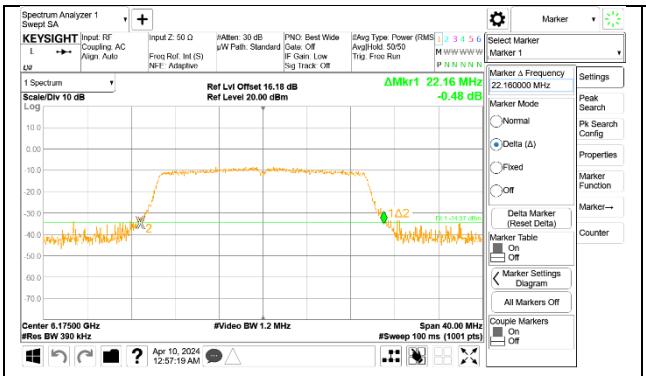


LOW CHANNEL Antenna 2

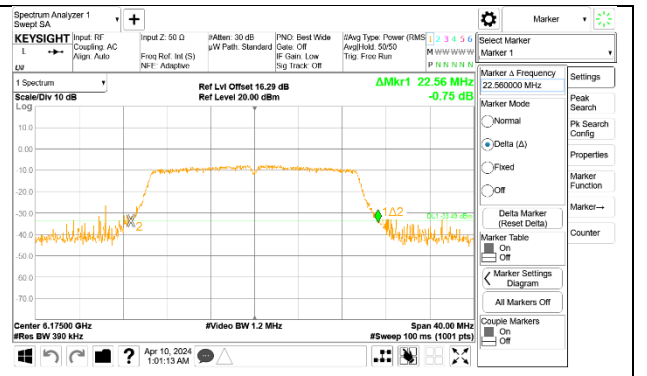


LOW CHANNEL Antenna 4

MID

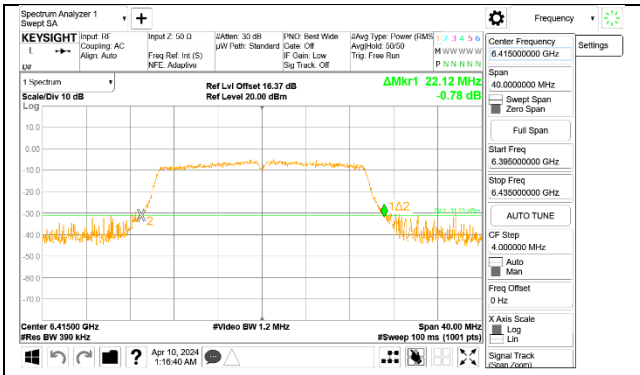


MID CHANNEL Antenna 2

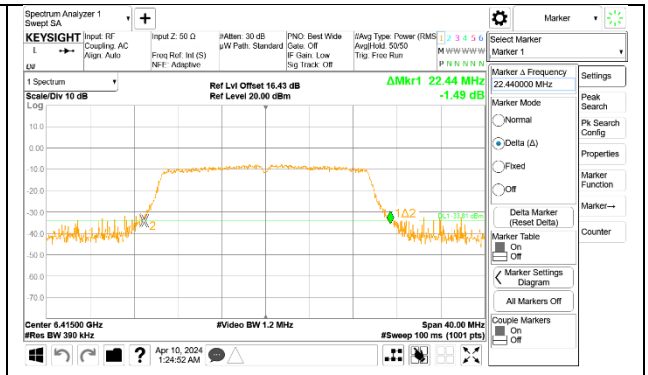


MID CHANNEL Antenna 4

HIGH



HIGH CHANNEL Antenna 2

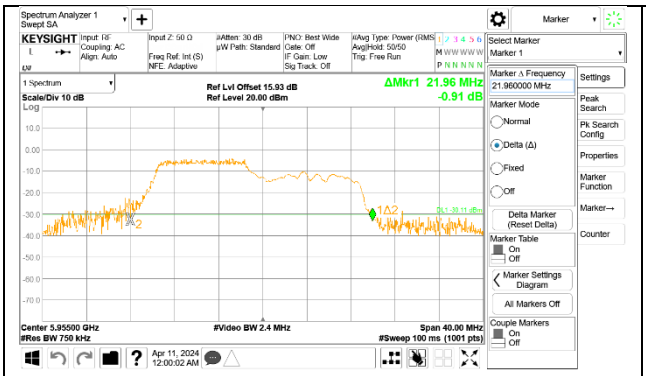


HIGH CHANNEL Antenna 4

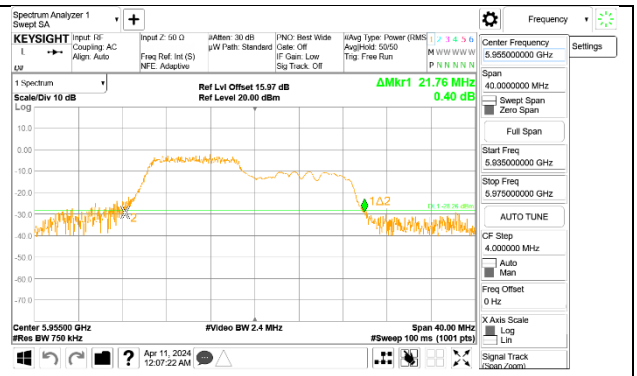
2TX Antenna 2 + Antenna 4 CDD OFDMA MODE: 106-Tones, RU Index 53

Channel	Frequency (MHz)	26 dB Bandwidth Antenna 2 (MHz)	26 dB Bandwidth Antenna 4 (MHz)
Low	5965	21.96	21.76
Mid	6165	21.72	21.32

LOW

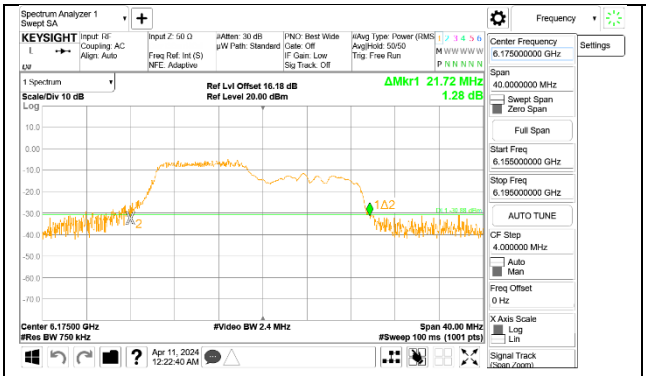


LOW CHANNEL Antenna 2

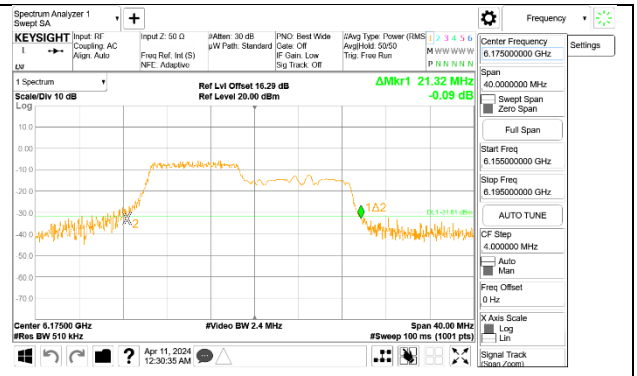


LOW CHANNEL Antenna 4

MID



MID CHANNEL Antenna 2

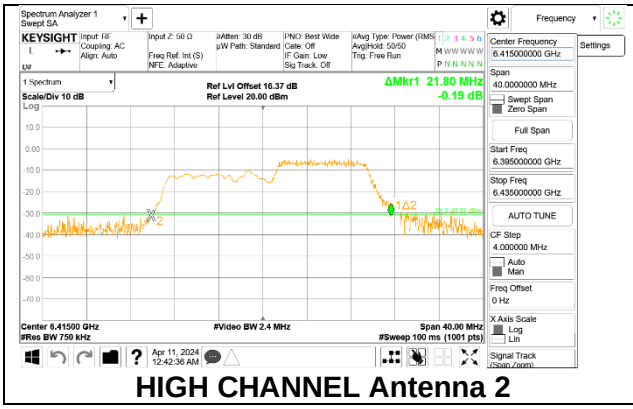


MID CHANNEL Antenna 4

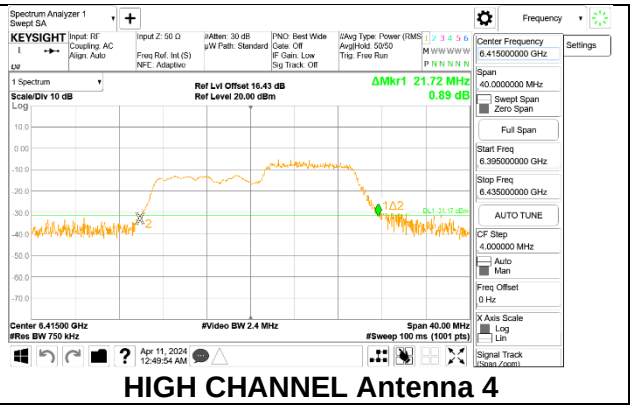
2TX Antenna 2 + Antenna 4 CDD OFDMA MODE: 106-Tones, RU Index 54

Channel	Frequency (MHz)	26 dB Bandwidth Antenna 2 (MHz)	26 dB Bandwidth Antenna 4 (MHz)
High	6405	21.80	21.72

HIGH



HIGH CHANNEL Antenna 2

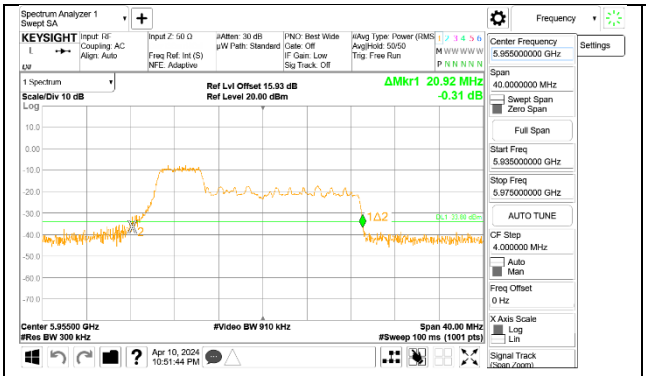


HIGH CHANNEL Antenna 4

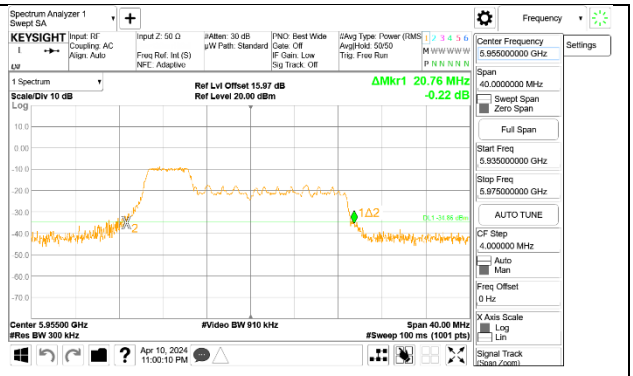
2TX Antenna 2 + Antenna 4 CDD OFDMA MODE: 52-Tones, RU Index 37

Channel	Frequency (MHz)	26 dB Bandwidth Antenna 2 (MHz)	26 dB Bandwidth Antenna 4 (MHz)
Low	5955	20.92	20.76

LOW



LOW CHANNEL Antenna 2

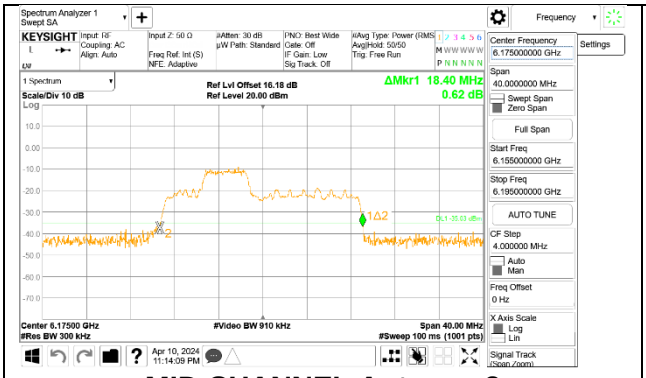


LOW CHANNEL Antenna 4

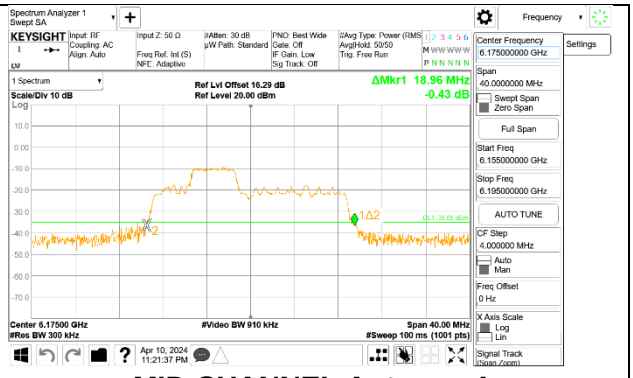
2TX Antenna 2 + Antenna 4 CDD OFDMA MODE: 52-Tones, RU Index 38

Channel	Frequency (MHz)	26 dB Bandwidth Antenna 2 (MHz)	26 dB Bandwidth Antenna 4 (MHz)
Mid	6175	18.40	18.96

MID



MID CHANNEL Antenna 2

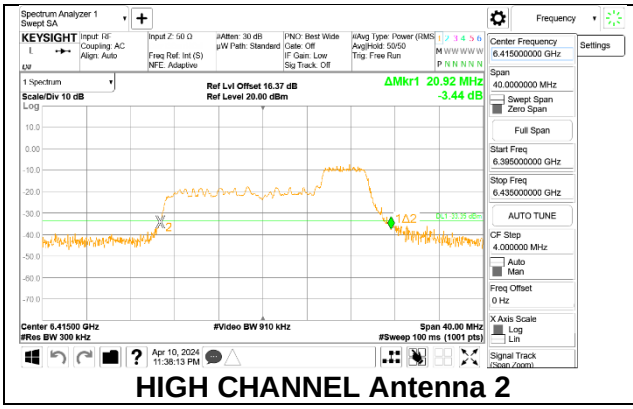


MID CHANNEL Antenna 4

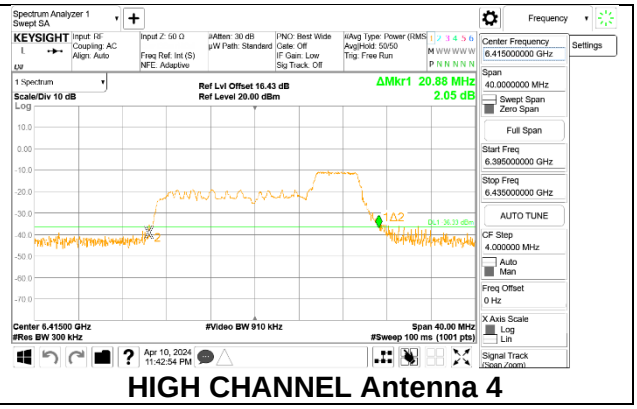
2TX Antenna 2 + Antenna 4 CDD OFDMA MODE: 52-Tones, RU Index 40

Channel	Frequency (MHz)	26 dB Bandwidth Antenna 2 (MHz)	26 dB Bandwidth Antenna 4 (MHz)
High	6415	20.92	20.88

HIGH



HIGH CHANNEL Antenna 2

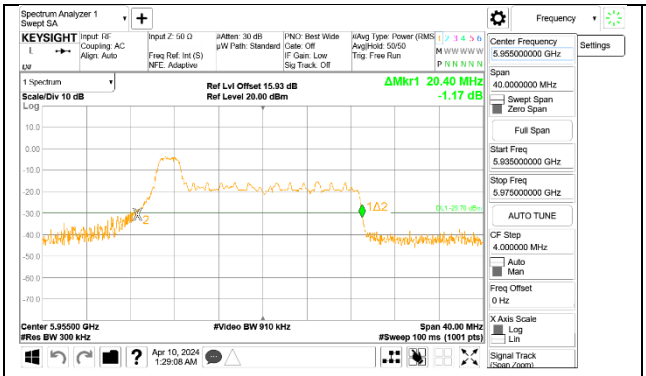


HIGH CHANNEL Antenna 4

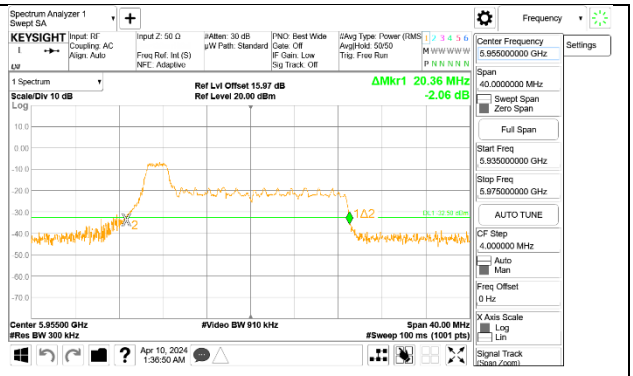
2TX Antenna 2 + Antenna 4 CDD OFDMA MODE: 26-Tones, RU Index 0

Channel	Frequency (MHz)	26 dB Bandwidth Antenna 2 (MHz)	26 dB Bandwidth Antenna 4 (MHz)
Low	5955	20.40	20.36

LOW



LOW CHANNEL Antenna 2

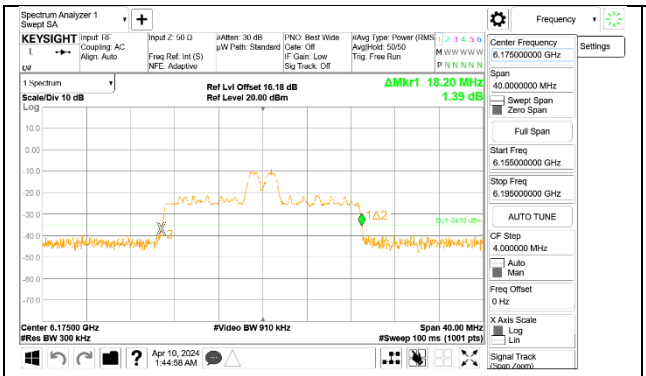


LOW CHANNEL Antenna 4

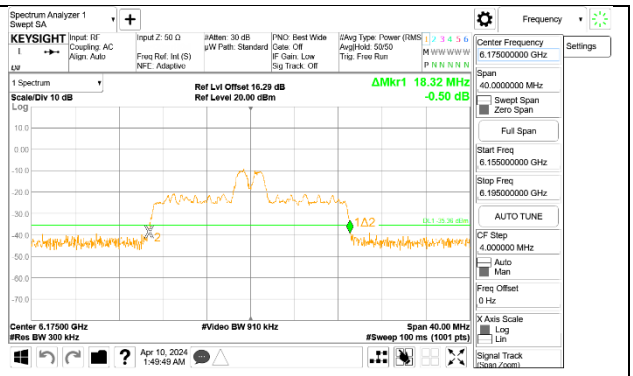
2TX Antenna 2 + Antenna 4 CDD OFDMA MODE: 26-Tones, RU Index 4

Channel	Frequency (MHz)	26 dB Bandwidth Antenna 2 (MHz)	26 dB Bandwidth Antenna 4 (MHz)
Mid	6175	18.20	18.32

MID



MID CHANNEL Antenna 2

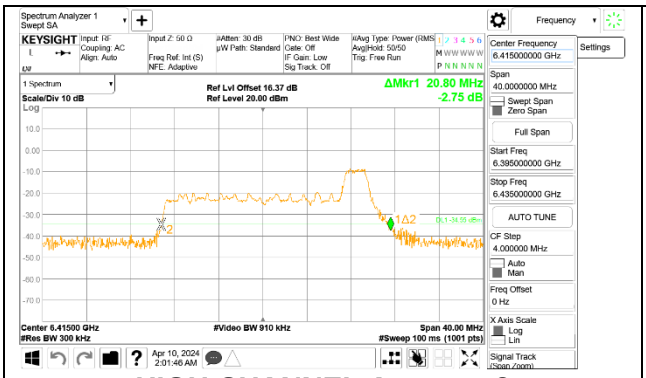


MID CHANNEL Antenna 4

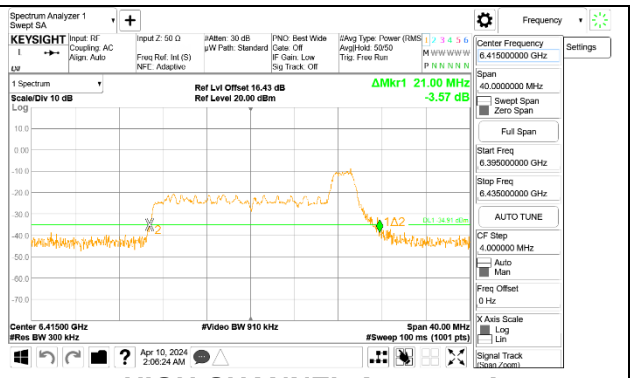
2TX Antenna 2 + Antenna 4 CDD OFDMA MODE: 26-Tones, RU Index 8

Channel	Frequency (MHz)	26 dB Bandwidth Antenna 2 (MHz)	26 dB Bandwidth Antenna 4 (MHz)
High	6415	20.80	21.00

HIGH



HIGH CHANNEL Antenna 2



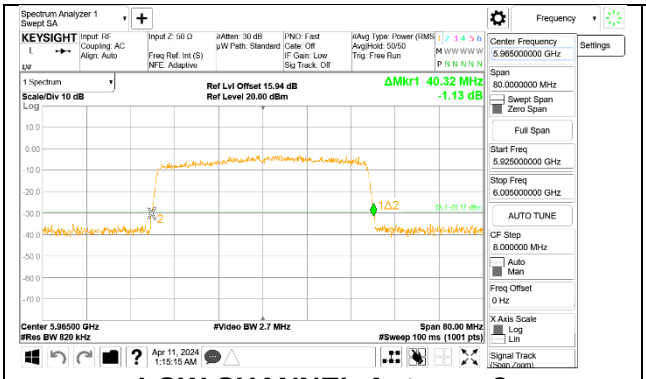
HIGH CHANNEL Antenna 4

9.2.2. 802.11ax HE40 MODE 2TX IN THE UNII-5 BAND

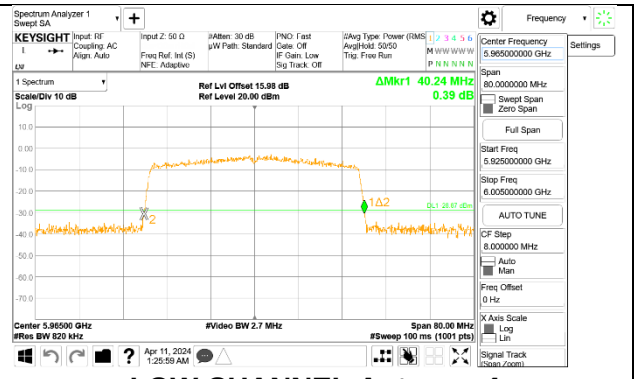
2TX Antenna 2 + Antenna 4 CDD OFDMA MODE: SU, Single User

Channel	Frequency (MHz)	26 dB Bandwidth Antenna 2 (MHz)	26 dB Bandwidth Antenna 4 (MHz)
Low	5965	40.32	40.24
Mid	6165	40.24	40.24
High	6405	40.24	40.40

LOW

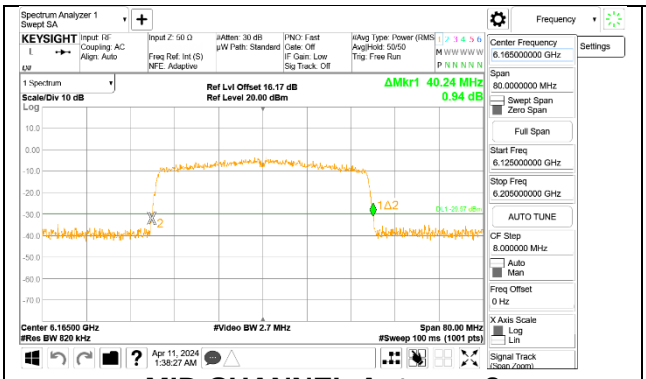


LOW CHANNEL Antenna 2

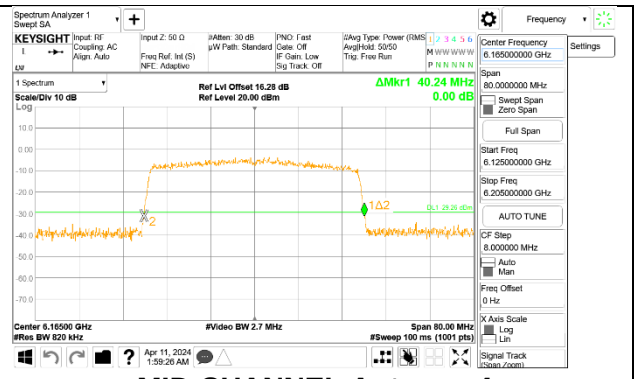


LOW CHANNEL Antenna 4

MID

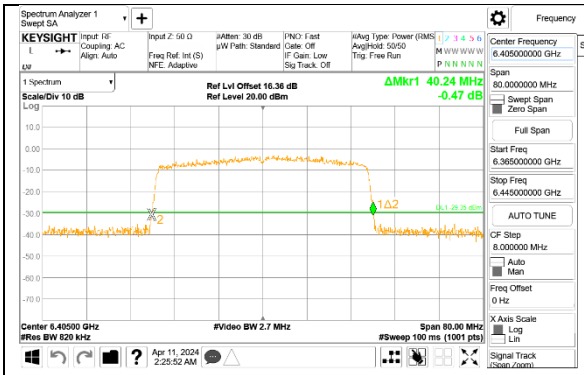


MID CHANNEL Antenna 2

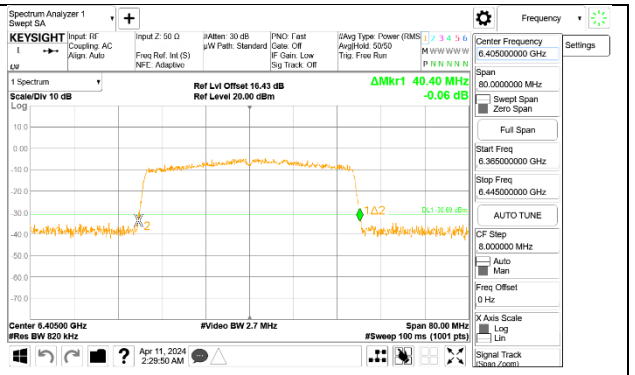


MID CHANNEL Antenna 4

HIGH



HIGH CHANNEL Antenna 2



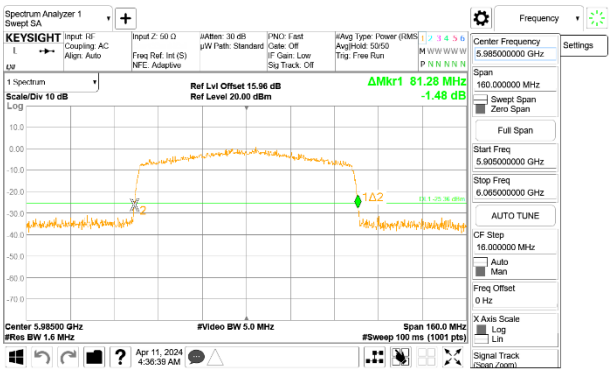
HIGH CHANNEL Antenna 4

9.2.3. 802.11ax HE80 MODE 2TX IN THE UNII-5 BAND

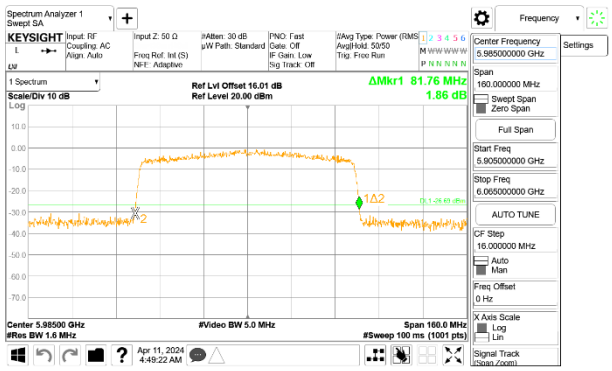
2TX Antenna 2 + Antenna 4 CDD OFDMA MODE: SU, Single User

Channel	Frequency (MHz)	26 dB Bandwidth Antenna 2 (MHz)	26 dB Bandwidth Antenna 4 (MHz)
Low	5985	81.28	81.76
Mid	6145	81.76	81.60
High	6385	81.76	81.92

LOW

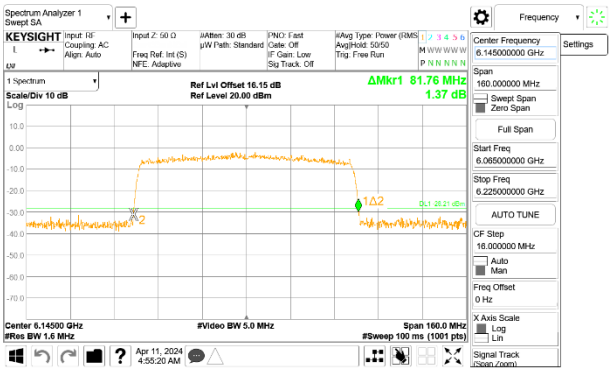


LOW CHANNEL Antenna 2

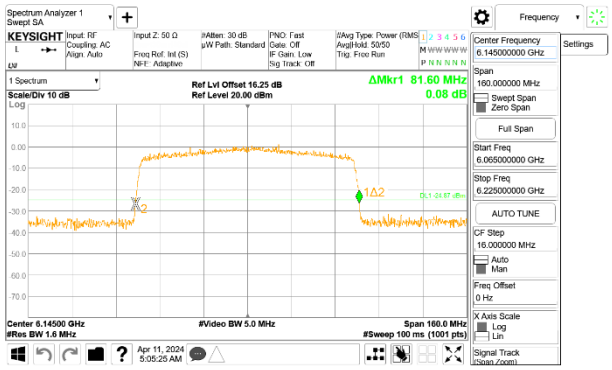


LOW CHANNEL Antenna 4

MID

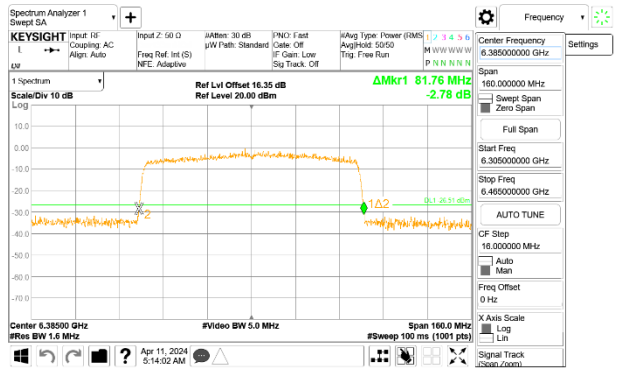


MID CHANNEL Antenna 2

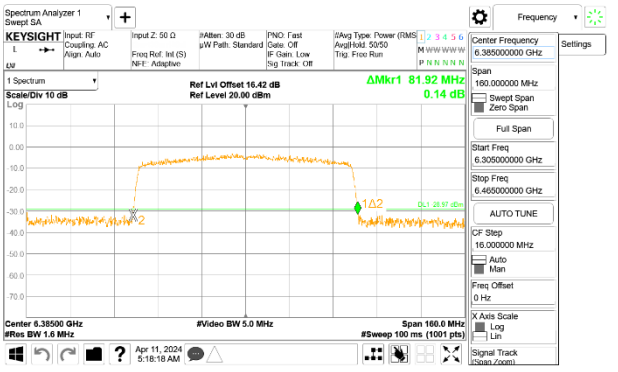


MID CHANNEL Antenna 4

HIGH



HIGH CHANNEL Antenna 2



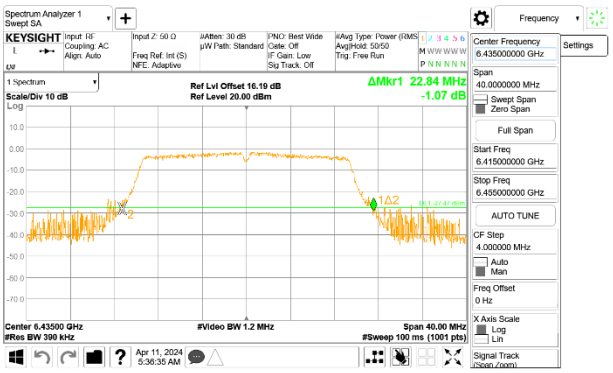
HIGH CHANNEL Antenna 4

9.2.4. 802.11ax HE20 MODE 2TX IN THE UNII-6 BAND

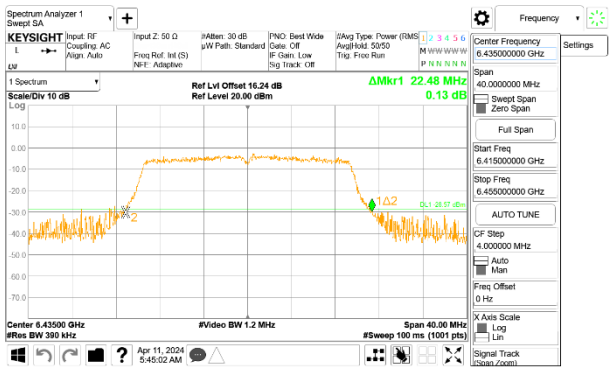
2TX Antenna 1 + Antenna 3 CDD OFDMA MODE: SU, Single User

Channel	Frequency (MHz)	26 dB Bandwidth Antenna 1 (MHz)	26 dB Bandwidth Antenna 3 (MHz)
Low	6435	22.84	22.48
Mid	6475	22.68	22.44
High	6515	22.64	22.40

LOW

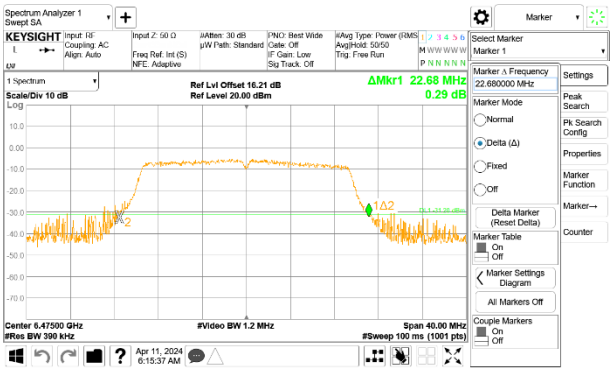


LOW CHANNEL Antenna 1

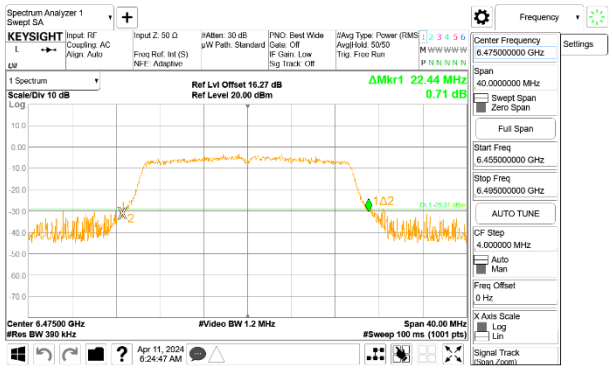


LOW CHANNEL Antenna 3

MID

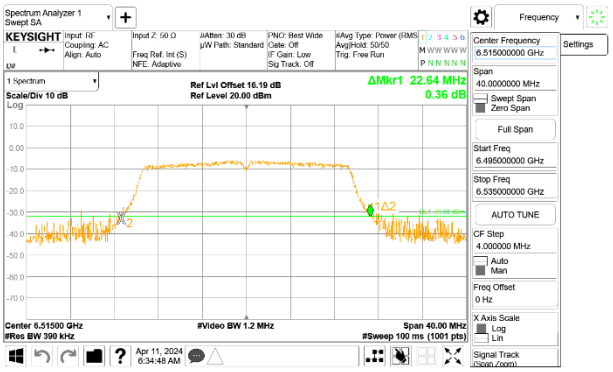


MID CHANNEL Antenna 1

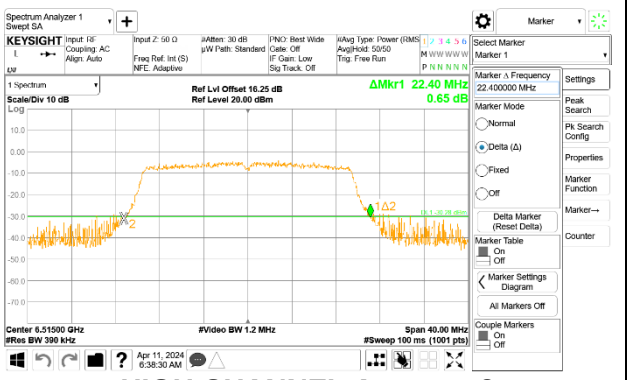


MID CHANNEL Antenna 3

HIGH



HIGH CHANNEL Antenna 1

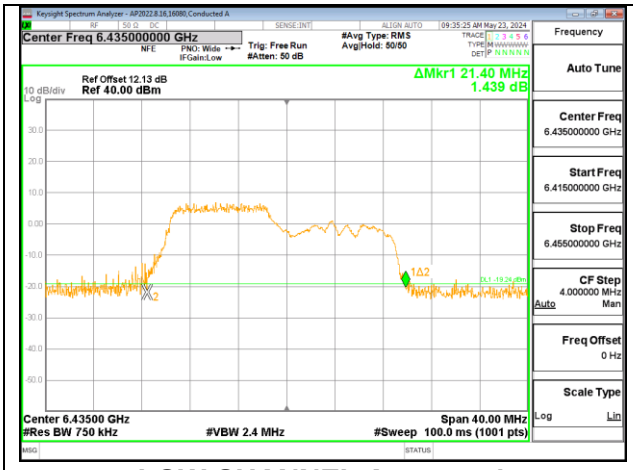


HIGH CHANNEL Antenna 3

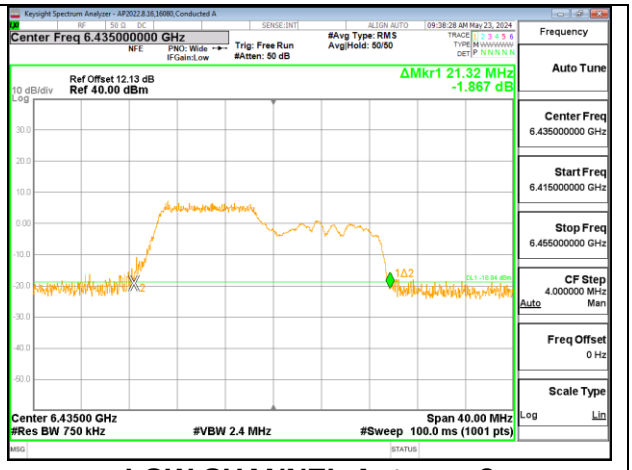
2TX Antenna 1 + Antenna 3 CDD OFDMA MODE: 106-Tones, RU Index 53

Channel	Frequency (MHz)	26 dB Bandwidth Antenna 1 (MHz)	26 dB Bandwidth Antenna 3 (MHz)
Low	6435	22.40	22.68
Mid	6475	21.16	21.48

LOW

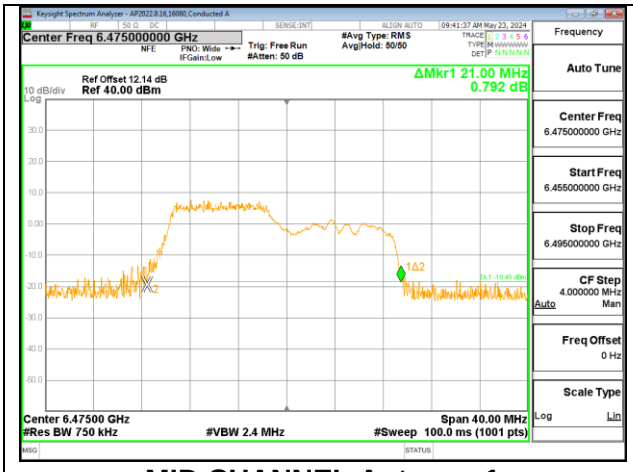


LOW CHANNEL Antenna 1



LOW CHANNEL Antenna 3

MID



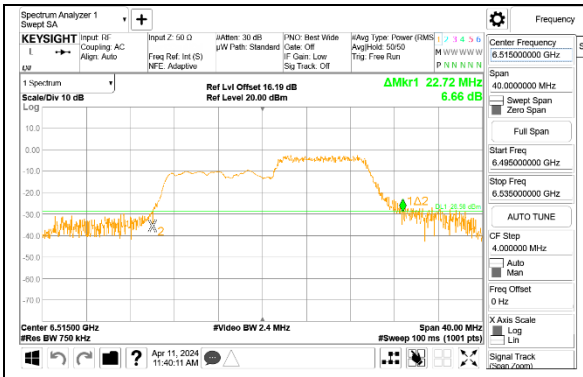
MID CHANNEL Antenna 1

MID CHANNEL Antenna 3

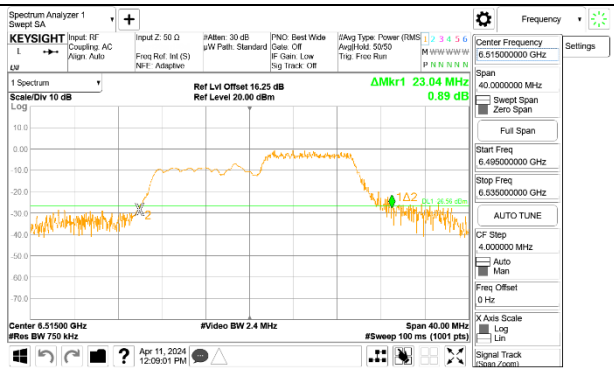
2TX Antenna 1 + Antenna 3 CDD OFDMA MODE: 106-Tones, RU Index 54

Channel	Frequency (MHz)	26 dB Bandwidth Antenna 1 (MHz)	26 dB Bandwidth Antenna 3 (MHz)
High	6515	22.72	23.04

HIGH



HIGH CHANNEL Antenna 1

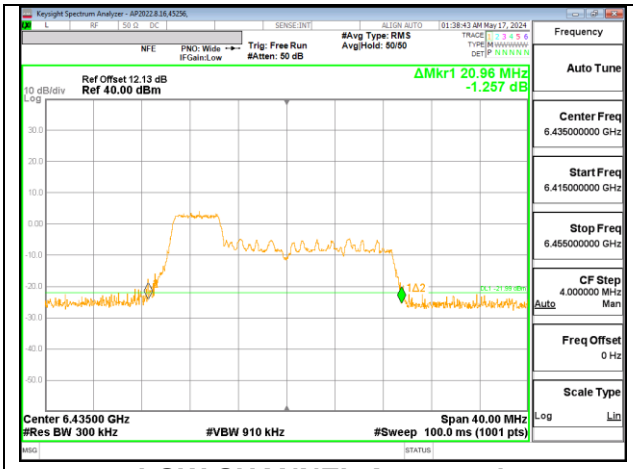


HIGH CHANNEL Antenna 3

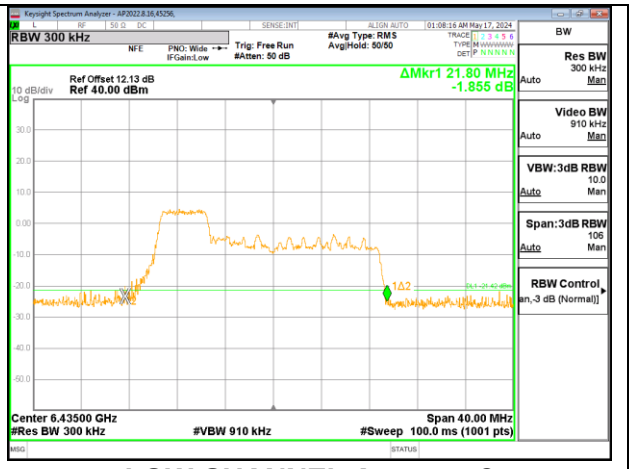
2TX Antenna 1 + Antenna 3 CDD OFDMA MODE: 52-Tones, RU Index 37

Channel	Frequency (MHz)	26 dB Bandwidth Antenna 1 (MHz)	26 dB Bandwidth Antenna 3 (MHz)
Low	6435	20.96	21.80

LOW



LOW CHANNEL Antenna 1

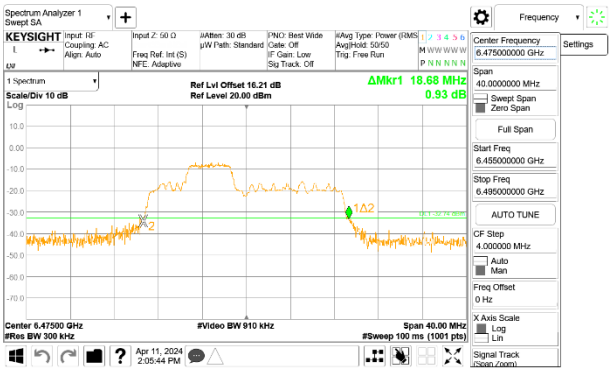


LOW CHANNEL Antenna 3

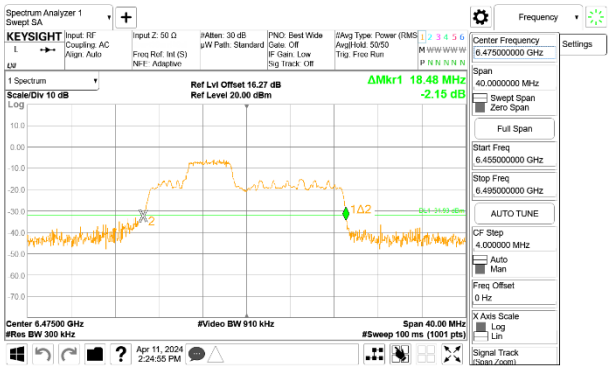
2TX Antenna 1 + Antenna 3 CDD OFDMA MODE: 52-Tones, RU Index 38

Channel	Frequency (MHz)	26 dB Bandwidth Antenna 1 (MHz)	26 dB Bandwidth Antenna 3 (MHz)
Mid	6475	18.68	18.48

MID



MID CHANNEL Antenna 1

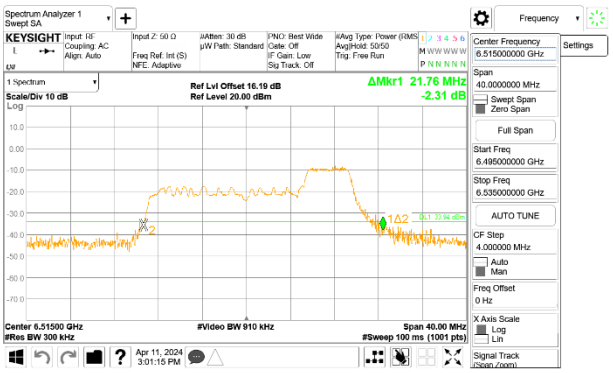


MID CHANNEL Antenna 3

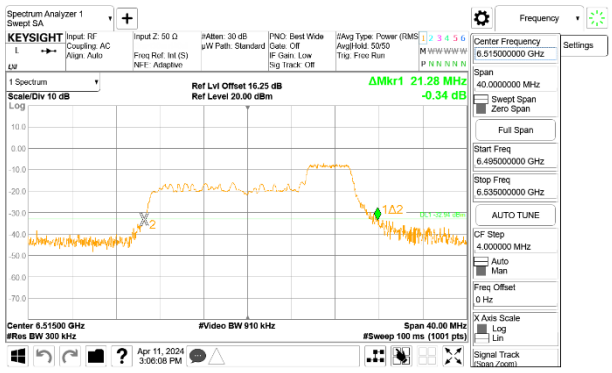
2TX Antenna 1 + Antenna 3 CDD OFDMA MODE: 52-Tones, RU Index 40

Channel	Frequency (MHz)	26 dB Bandwidth Antenna 1 (MHz)	26 dB Bandwidth Antenna 3 (MHz)
High	6515	21.76	21.28

HIGH



HIGH CHANNEL Antenna 1

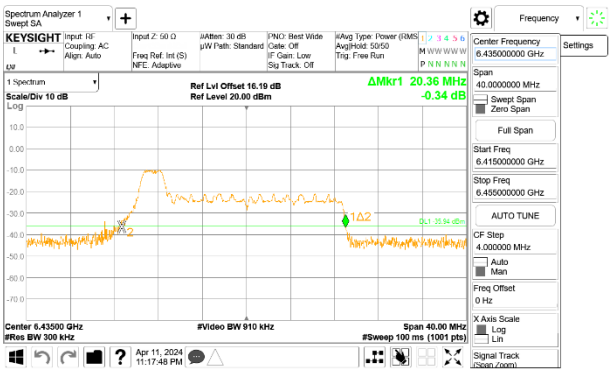


HIGH CHANNEL Antenna 3

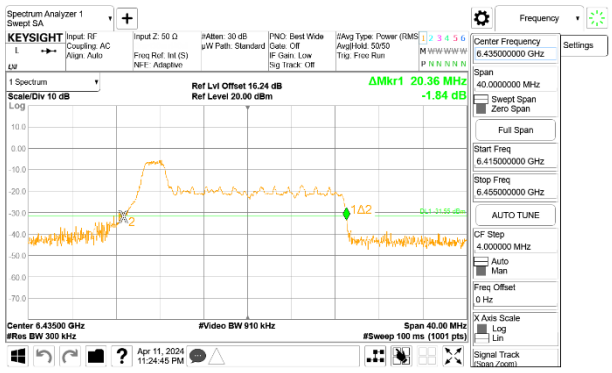
2TX Antenna 1 + Antenna 3 CDD OFDMA MODE: 26-Tones, RU Index 0

Channel	Frequency (MHz)	26 dB Bandwidth Antenna 1 (MHz)	26 dB Bandwidth Antenna 3 (MHz)
Low	6435	20.36	20.36

LOW



LOW CHANNEL Antenna 1

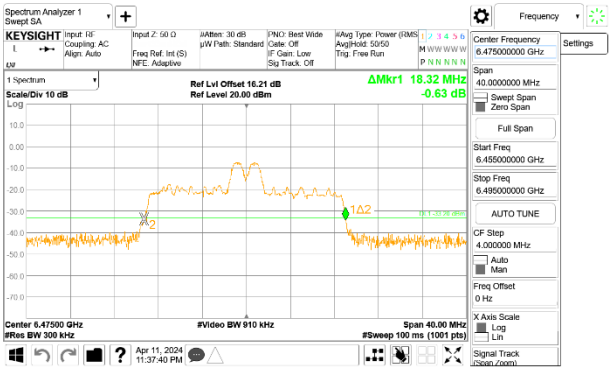


LOW CHANNEL Antenna 3

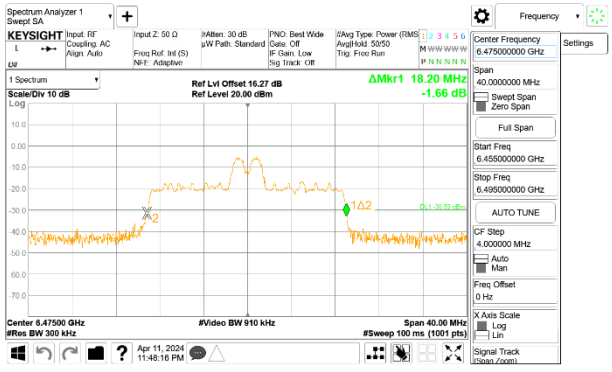
2TX Antenna 1 + Antenna 3 CDD OFDMA MODE: 26-Tones, RU Index 4

Channel	Frequency (MHz)	26 dB Bandwidth Antenna 1 (MHz)	26 dB Bandwidth Antenna 3 (MHz)
Mid	6475	18.32	18.20

MID



MID CHANNEL Antenna 1

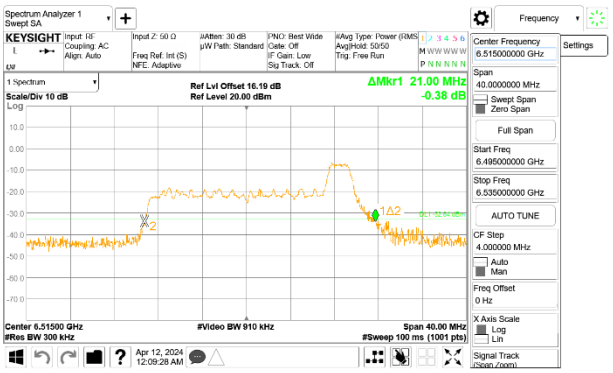


MID CHANNEL Antenna 3

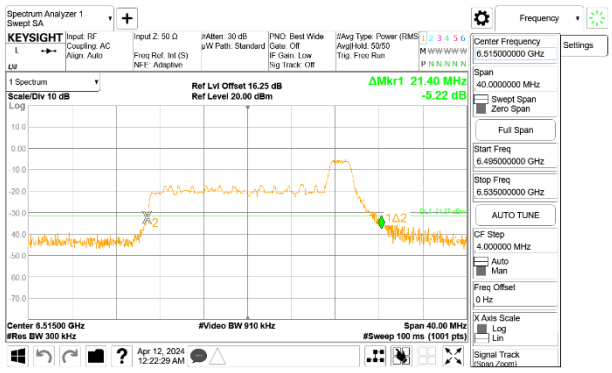
2TX Antenna 1 + Antenna 3 CDD OFDMA MODE: 26-Tones, RU Index 8

Channel	Frequency (MHz)	26 dB Bandwidth Antenna 1 (MHz)	26 dB Bandwidth Antenna 3 (MHz)
High	6515	21.00	21.40

HIGH



HIGH CHANNEL Antenna 1



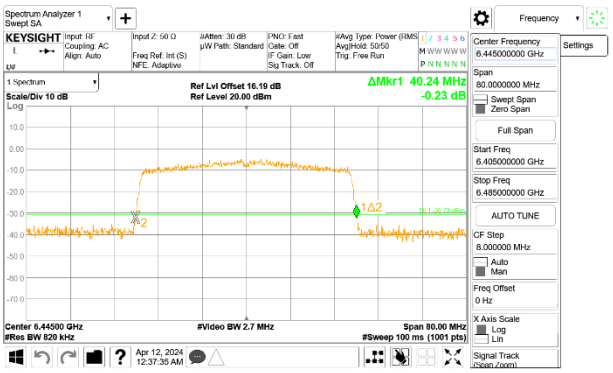
HIGH CHANNEL Antenna 3

9.2.5. 802.11ax HE40 MODE 2TX IN THE UNII-6 BAND

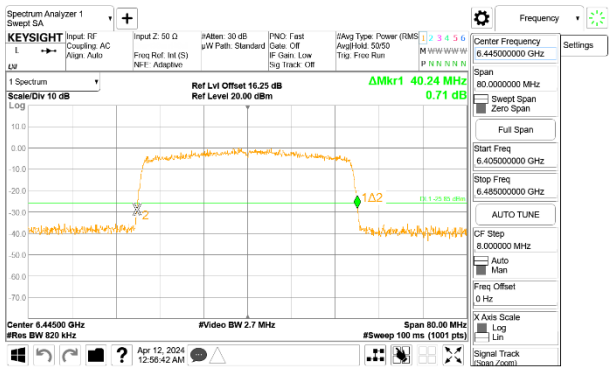
2TX Antenna 1 + Antenna 3 CDD OFDMA MODE: SU, Single User

Channel	Frequency (MHz)	26 dB Bandwidth Antenna 1 (MHz)	26 dB Bandwidth Antenna 3 (MHz)
Low	6445	40.24	40.24
High	6485	40.40	40.24
H Straddle	6525	40.24	40.08

LOW

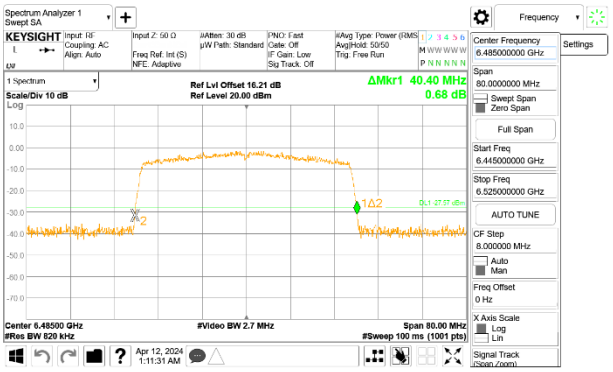


LOW CHANNEL Antenna 1

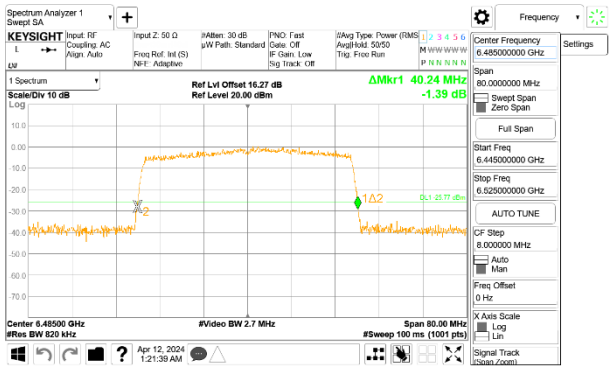


LOW CHANNEL Antenna 3

HIGH

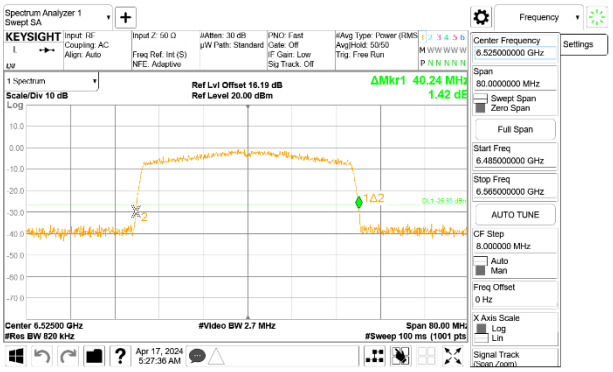


HIGH CHANNEL Antenna 1

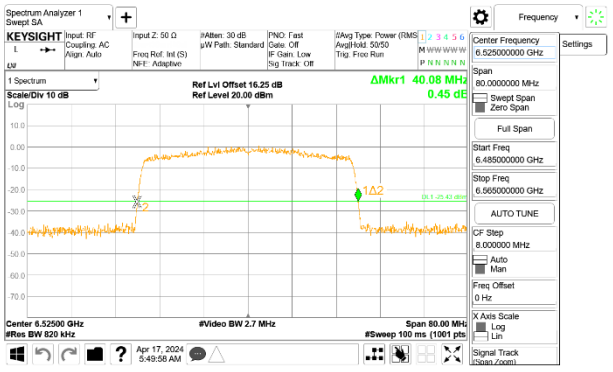


HIGH CHANNEL Antenna 3

H STRADDLE



H STRADDLE Antenna 1



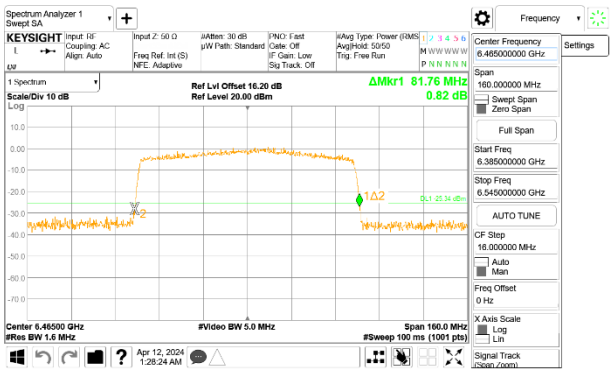
H STRADDLE Antenna 3

9.2.6. 802.11ax HE80 MODE 2TX IN THE UNII-6 BAND

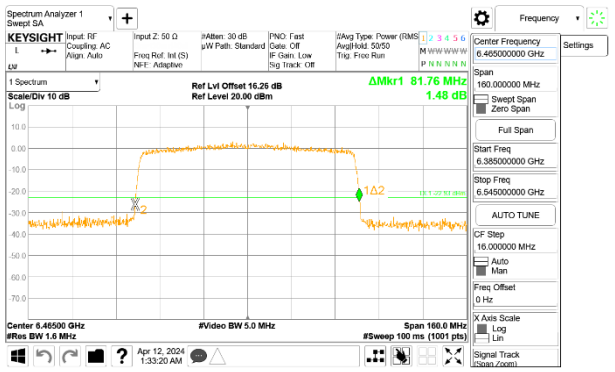
2TX Antenna 1 + Antenna 3 CDD OFDMA MODE: SU, Single User

Channel	Frequency (MHz)	26 dB Bandwidth Antenna 1 (MHz)	26 dB Bandwidth Antenna 3 (MHz)
Mid	6465	81.76	81.76
H Straddle	6525	81.92	81.60

MID

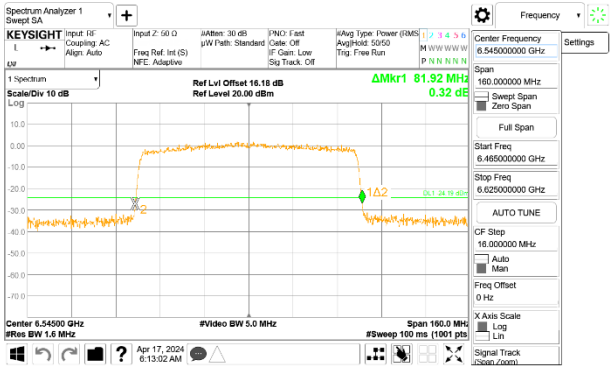


MID CHANNEL Antenna 1

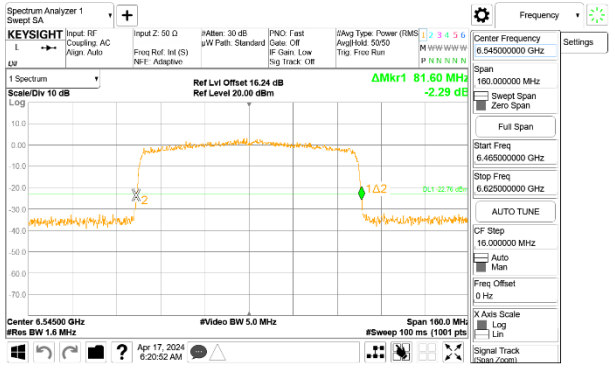


MID CHANNEL Antenna 3

H STRADDLE



H STRADDLE Antenna 1



H STRADDLE Antenna 3