TEST REPORT

Report Number: R15110020-E5

Applicant	:	Sony Corporation 1-7-1 Konan Minato-ku Tokyo, 108-0075, Japan
FCC ID	:	PY7-13187R
EUT Description	:	GSM/WCDMA/LTE/5G Phone with BT, DTS/UNII a/b/g/n/ac/ax, GPS, WPT & NFC
Test Standard(s)	:	FCC 47 CFR PART 15 SUBPART E

Date Of Issue:
2024-03-22

Prepared by:
UL LLC
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CERT #0751.06

REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	2024-03-19	Initial Issue	Brian Kiewra
V2	2024-03-22	Revised antenna gain and type in section 6.3	Brian Kiewra

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Sony Corporation
1-7-1 Konan Minato-ku
Tokyo, 108-0075, Japan

EUT DESCRIPTION: GSM/WCDMA/LTE/5G Phone with BT, DTS/UNII a/b/g/n/ac/ax, GPS, WPT & NFC

SERIAL NUMBERS: QV7700NWLQ

SAMPLE RECEIPT DATE: 2024-01-26

DATE TESTED: 2024-02-22 to 2024-03-15

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart E	Complies

UL LLC 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 LLC and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL LLC will constitute fraud and shall nullify the document.

Approved & Released
For UL LLC By:

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2. TEST RESULT SUMMARY

This report contains data/info provided by the customer which can impact the validity of results. UL LLC is only responsible for the validity of results after the integration of the data provided by the customer.
Below is a list of the data/info provided by the customer:
1) Antenna gain and type (see section 6.3)
2) Worst-case data rates (see section 6.5)

FCC Clause	Requirement	Result	Comment
See Comment	Duty Cycle	Reporting purposes only	Per ANSI C63.10, Section 12.2.
See Comment	26dB BW	Reporting purposes only	Per ANSI C63.10 Sections 6.9.2
15.407 (e)	6 dB BW	Compliant	None
15.407 (a) (1-3), (h) (1)	Output Power		
15.407 (a) (1-3)	PSD		
15.209, 15.205, 15.407 (b)	Radiated Emissions		
15.207	AC Mains Conducted Emissions		

3. METHODOLOGY

The tests documented in this report were performed in accordance with;
- FCC 47 CFR Part 2
- FCC 47 CFR Part 15,
- FCC KDB 662911 D01 v02r01,
- FCC KDB 905462 D06 v02
- FCC KDB 789033 D02 v02r01,
- KDB 414788 D01 Radiated Test Site v01r01
- ANSI C63.10-2020

4. FACILITIES AND ACCREDITATION

UL LLC is accredited by A2LA, certification # 0751.06, 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: 12 Laboratory Dr RTP, NC 27709, U.S.A	US0067	2180C	825374
☒	Building: 2800 Perimeter Park Dr. Suite B Morrisville, NC 27560, U.S.A		27265	

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)	141.2 Hz
Occupied Channel Bandwidth	1.22%
RF output power, conducted	1.3 dB (PK) 0.45 dB (AV)
Power Spectral Density, conducted	2.47 dB
Unwanted Emissions, conducted	1.94 dB
All emissions, radiated	6.01 dB

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

5.4. SAMPLE CALCULATION

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 GSM/WCDMA/LTE/5G Phone with BT, DTS/UNII a/b/g/n/ac/ax, GPS, WPT & NFC. This report covers the 5GHz bands testing requirements of the EUT.

6.2. MAXIMUM OUTPUT POWER

The transmitter has a summed maximum conducted output power as follows:

5.2 GHz BAND

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
5.2 GHz band, 2TX			
5180-5240	802.11a	13.83	24.15
5180-5240	802.11n HT20	13.84	24.21
5190-5230	802.11n HT40	14.01	25.18
5210	802.11ac VHT80	13.90	24.55
5180-5240	802.11ax HE20	14.07	25.53
5190-5230	802.11ax HE40	13.93	24.72
5210	802.11ax HE80	14.15	26.00

5.3 GHz BAND

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
5.3 GHz band, 2TX			
5260 - 5320	802.11a	13.93	24.72
5260 - 5320	802.11n HT20	14.04	25.35
5270 - 5310	802.11n HT40	14.02	25.23
5290	802.11ac VHT80	13.53	22.54
5250	802.11ac VHT160	13.91	24.60
5260 - 5320	802.11ax HE20	14.16	26.06
5270 - 5310	802.11ax HE40	14.13	25.88
5290	802.11ax HE80	13.63	23.07
5250	802.11ax HE160	14.08	25.59

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5.6 GHz BAND

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
5.6 GHz band, 2TX			
5500-5720	802.11a	13.87	24.38
5500-5720	802.11n HT20	14.00	25.12
5510-5710	802.11n HT40	14.12	25.82
5530-5690	802.11ac VHT80	14.06	25.47
5570	802.11ac VHT160	11.71	14.83
5500-5720	802.11ax HE20	14.18	26.18
5510-5710	802.11ax HE40	14.01	25.18
5530-5690	802.11ax HE80	13.67	23.28
5570	802.11ax HE160	12.52	17.86

5.8 GHz BAND

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
5.2 GHz band, 2TX			
5745-5825	802.11a	13.92	24.66
5745-5825	802.11n HT20	14.00	25.12
5755-5795	802.11n HT40	14.02	25.23
5775	802.11ac VHT80	14.06	25.47
5745-5825	802.11ax HE20	14.15	26.00
5755-5795	802.11ax HE40	14.00	25.12
5775	802.11ax HE80	13.67	23.28

6.3. DESCRIPTION OF AVAILABLE ANTENNAS

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

Chain	Designation in Documentation	Type	Frequency Range (MHz)	Maximum Gain (dBi)
0	WiFi Main	Loop	5180-5320	-1.11
			5500-5720	-0.63
			5725-5850	-0.84
1	WiFi Sub	Monopole	5180-5320	-2.21
			5500-5720	-0.97
			5725-5850	-0.73

6.4. SOFTWARE AND FIRMWARE

The firmware version used during testing was 0.220.

6.5. WORST-CASE CONFIGURATION AND MODE

The fundamental of the EUT was investigated in three orthogonal orientations X,Y,Z, it was determined that Z orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in Z orientation.

Band edge was performed with the EUT set to transmit on low and high channels with the EUT set to transmit at the widest bandwidths with the highest power setting.

Radiated spurious and harmonic emissions between 1GHz and 18GHz were performed with the EUT set to transmit at the worst-case mode/channel based on power and PSD.

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

Worst-case data rates as provided by the client were:

- 802.11a mode: 6 Mbps
- 802.11n HT20/802.11ax HE20 modes: MCS0
- 802.11n HT40/802.11ax HE40 modes: MCS0
- 802.11ac VHT80/802.11ax HE80 modes: MCS0 (Nss = 1)
- 802.11ac VHT160/802.11ax HE160 modes: MCS0 (Nss = 1)

All testing performed in 2Tx mode (NSS=1), where power per chain is equivalent to the 1Tx power on each chain. Based on preliminary testing, this allows 2Tx testing to cover all 1Tx testing.

PSD testing performed on modes with lowest BW and highest power setting only.

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6.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
Laptop	Dell	Inspiron 15 3000	5KPQJP3	NA
AC Adaptor	Sony	XQZ-UC1	1821W34209742	NA
Headphones	Sony	MDR-EX15AP	NA	NA

I/O CABLES

I/O Cable List						
Cable No.	**Port**	**# of Identical Ports**	**Connector Type**	**Cable Type**	**Cable Length (m)**	**Remarks**
1	USB-C	1	USB-C	Shielded	<3m	XQZ-UB1
2	Aux	1	AUX	Shielded	<3m	Headphones

TEST SETUP

The EUT is connected to a host laptop computer and configured via test software before the tests. Test software exercised the radio card.

SETUP DIAGRAMS

Please refer to R15110020-EP3 for setup diagrams

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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

6 dB Emission BW: KDB 789033 D02 v02r01, Section C.2

Conducted Output Power: KDB 789033 D02 v02r01, Section E.3.b (Method PM-G)

Power Spectral Density: KDB 789033 D02 v02r01, Section F

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

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

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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 Used - Wireless Conducted Measurement Equipment

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
90411	Spectrum Analyzer	Keysight Technologies	N9030A	2023-08-02	2024-08-02
179892	Environmental Meter	Fisher Scientific	15-077-963	2023-07-26	2024-06-31
211055	Real-Time Peak Power Sensor 50MHz to 8GHz	Boonton	RTP5000	2023-08-01	2024-08-01
211057	Real-Time Peak Power Sensor 50MHz to 8GHz	Boonton	RTP5000	2023-08-01	2024-08-01
76022	DC Regulated Power Supply	CircuitSpecialists.Com	CSI3005X5	NA	NA
Power Software	Boonton Power Analyzer	Boonton	Version 3.0.13.0	NA	NA
SOFTEMI	Antenna Port Software	UL	Version 2022.8.16	NA	NA
CBL028	SMA Cable	Sucoflex	104PEA	2024-02-16	2025-02-16
CBL029	SMA Cable	Sucoflex	104PEA	2024-02-16	2025-02-16
226563	SMA Coaxial 10dB Attenuator 25MHz-18GHz	CentricRF	C18S2-10	2024-02-29	2025-02-29
226559	SMA Coaxial 10dB Attenuator 25MHz-18GHz	CentricRF	C18S2-10	2024-02-29	2025-02-29

Test Equipment Used - Line-Conducted Emissions – Voltage (Morrisville – Conducted 1)

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
CBL087	Coax cable, RG223, N-male to BNC-male, 20-ft.	Pasternack	PE3W06143-240	2023-04-04	2024-04-04
179892	Environmental Meter	Fisher Scientific	15-077-963	2023-07-26	2024-06-31
80391	LISN, 50-ohm/50-uH, 250uH 2-conductor, 25A	Fischer Custom Com.	FCC-LISN-50/250-25-2-01	2023-07-31	2024-07-31
75141	EMI Test Receiver 9kHz-7GHz	Rohde & Schwarz	ESCI 7	2023-08-01	2024-08-01
52859	Transient Limiter, 0.009-100MHz	Electro-Metrics	EM-7600	2023-04-04	2024-04-04
PS214	AC Power Source	Elgar	CW2501M	NA	NA
SOFTEMI	EMI Software	UL	Version 9.5 (18 Oct 2021)		
84681	ANSI C63.4 1m extension cable.	UL	Per Annex B of ANSI C63.4	2023-09-18	2024-09-18

Test Equipment Used - Radiated Disturbance Emissions Test Equipment (Morrisville – Chamber 4)

Equipment ID	Description	Manufacturer/Brand	Model Number	Last Cal.	Next Cal.
0.009-30MHz					
135144	Active Loop Antenna	ETS-Lindgren	6502	2024-01-24	2025-01-24
30-1000 MHz					
90628	Hybrid Broadband Antenna	Sunol Sciences Corp.	JB3	2024-01-02	2026-01-02
1-18 GHz					
89509	Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz	ETS Lindgren	3117	2023-05-23	2025-05-23
18-40 GHz					
204704	Horn Antenna, 18-26.5GHz	Com-Power	AH-826	2023-07-20	2025-07-20
204705	Horn Antenna, 26-40GHz	Com-Power	AH-640	2023-07-20	2025-07-20
Gain-Loss Chains					
207638	Gain-loss string: 0.009-30MHz	Various	Various	2023-09-18	2024-09-18
207639	Gain-loss string: 25-1000MHz	Various	Various	2023-09-18	2024-09-18
207640	Gain-loss string: 1-18GHz	Various	Various	2023-05-17	2024-05-17
225795	Gain-loss string: 18-40GHz	Various	Various	2023-05-17	2024-05-17
Receiver & Software					
197955	Spectrum Analyzer	Rohde & Schwarz	ESW44	2023-04-10	2024-04-10
214284	Spectrum Analyzer	Rohde & Schwarz	FSW50	2024-02-04	2025-02-04
81018	Spectrum Analyzer	Agilent	E4446A	2023-08-01	2024-08-01
SOFTEMI	EMI Software	UL	Version 9.5 (18 Oct 2021)		
Additional Equipment used					
241204	Environmental Meter	Fisher Scientific	15-077-963	2023-09-05	2025-09-05

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Test Equipment Used - Radiated Disturbance Emissions Test Equipment (Morrisville – Chamber 2)

Equipment ID	Description	Manufacturer/Brand	Model Number	Last Cal.	Next Cal.
1-18 GHz					
86408	Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz	ETS Lindgren	3117	2023-06-19	2025-06-19
Gain-Loss Chains					
91977	Gain-loss string: 1-18GHz	Various	Various	2023-06-06	2024-06-06
Receiver & Software					
197955	Spectrum Analyzer	Rohde & Schwarz	ESW44	2023-04-10	2024-04-10
SOFTEMI	EMI Software	UL	Version 9.5 (18 Oct 2021)		
Additional Equipment used					
200540	Environmental Meter	Fisher Scientific	15-077-963	2023-07-19	2025-07-19

9. ANTENNA PORT TEST RESULTS

9.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

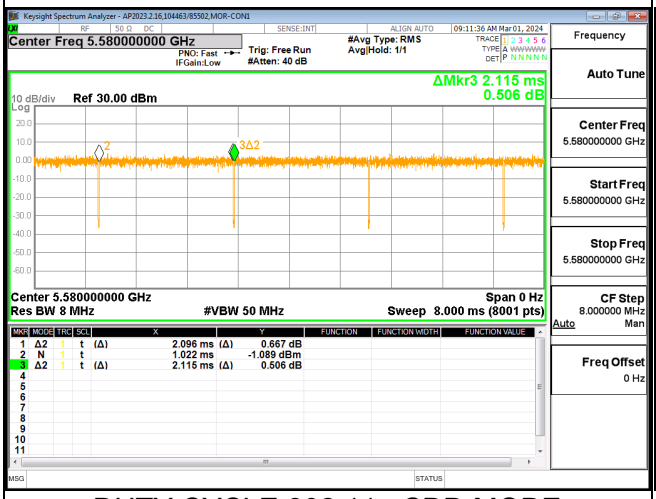
PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method.

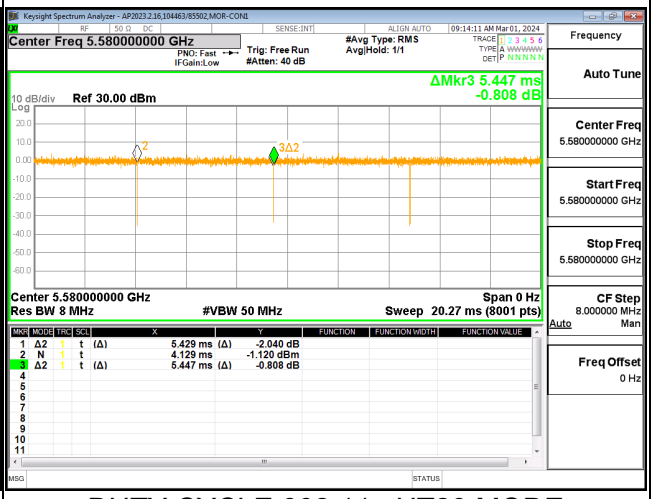
ON TIME AND DUTY CYCLE RESULTS

Mode	On Time B (ms)	Period (ms)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)
802.11a	2.096	2.115	0.991	99.10%	0.00
802.11n HT20	5.429	5.447	0.997	99.67%	0.00
802.11n HT40	5.429	5.447	0.997	99.67%	0.00
802.11n HT80	5.426	5.444	0.997	99.67%	0.00
802.11n HT160	5.426	5.444	0.997	99.67%	0.00
802.11ax HE20 26T	5.087	5.107	0.996	99.61%	0.00
802.11ax HE20 52T	5.074	5.095	0.996	99.59%	0.00
802.11ax HE20 106T	3.896	3.915	0.995	99.51%	0.00
802.11ax HE20 242T	1.74	1.759	0.989	98.92%	0.00
802.11ax HE20 SU	5.452	5.469	0.997	99.69%	0.00
802.11ax HE40 484T	0.907	0.926	0.979	97.95%	0.18
802.11ax HE40 SU	5.449	5.457	0.999	99.85%	0.00
802.11ax HE80 996T	0.667	0.686	0.972	97.23%	0.24
802.11ax HE80 SU	5.449	5.469	0.996	99.63%	0.00
802.11ax HE160 2x996T	0.663	0.682	0.972	97.21%	0.25
802.11ax HE160 SU	5.449	5.469	0.996	99.63%	0.00

DUTY CYCLE PLOTS

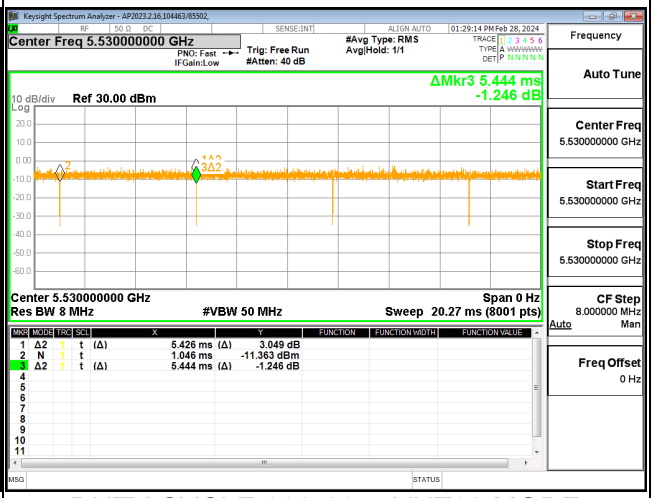


DUTY CYCLE 802.11a CDD MODE

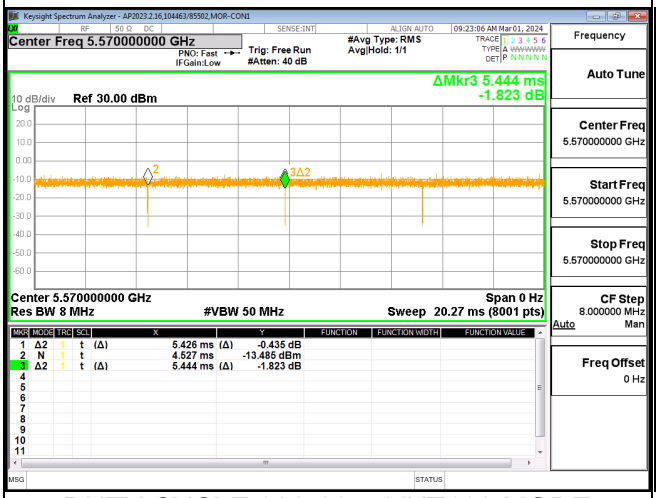


DUTY CYCLE 802.11n HT20 MODE

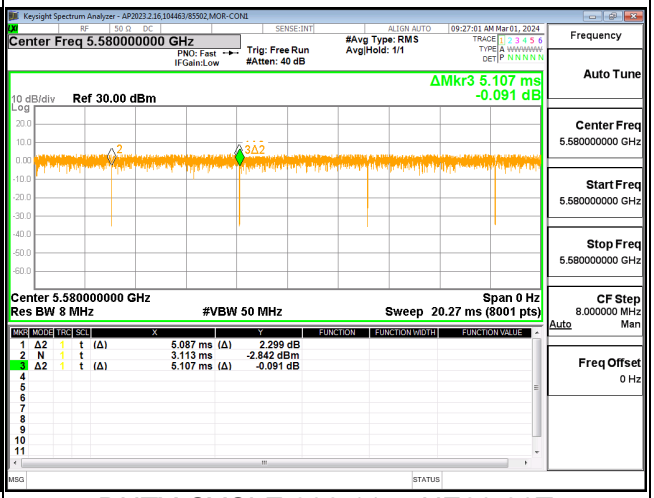
DUTY CYCLE 802.11n HT40 MODE



DUTY CYCLE 802.11ac VHT80 MODE



DUTY CYCLE 802.11ac VHT160 MODE

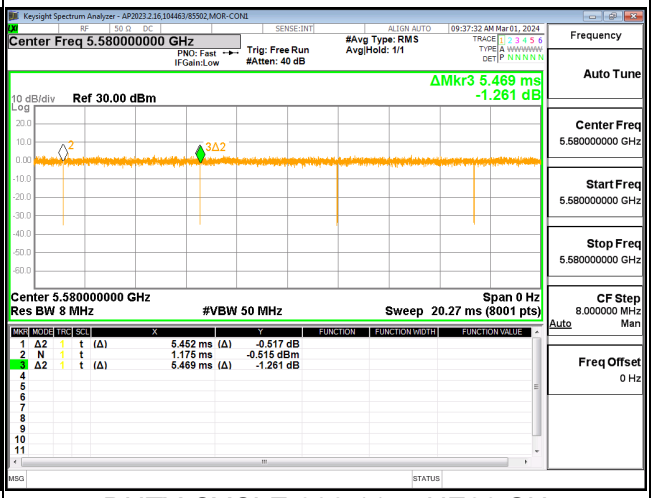


DUTY CYCLE 802.11ax HE20 26T

DUTY CYCLE 802.11ax HE20 52T

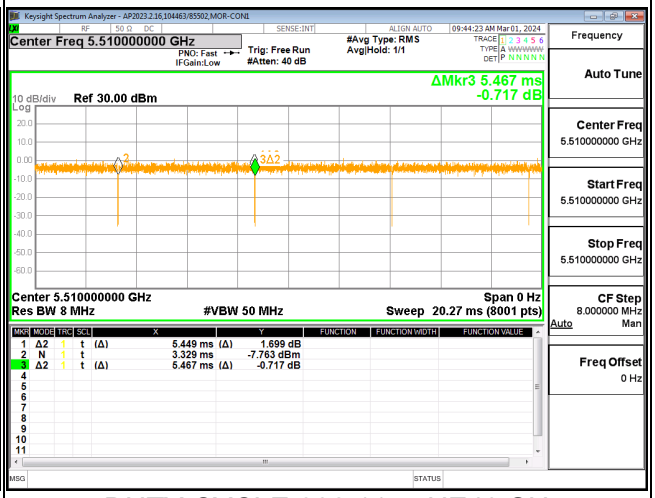
DUTY CYCLE 802.11ax HE20 106T

DUTY CYCLE 802.11ax HE20 242T



DUTY CYCLE 802.11ax HE20 SU

DUTY CYCLE 802.11ax HE40 484T



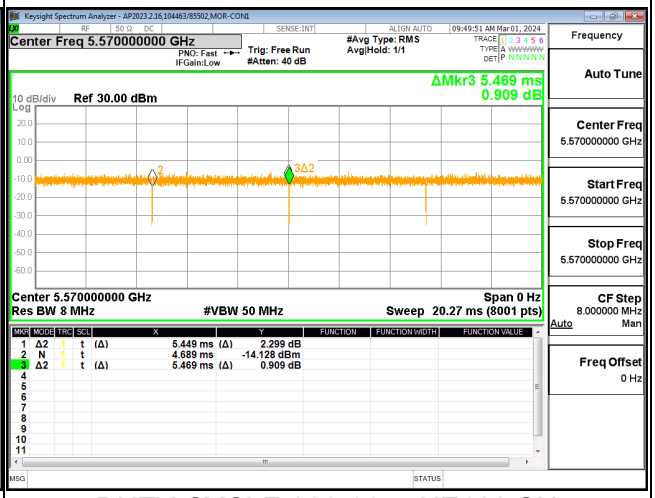
DUTY CYCLE 802.11ax HE40 SU

UL LLC
12 Laboratory Dr., RTP, NC 27709; USA TEL: (919) 549-1364

DUTY CYCLE 802.11ax HE80 996T

DUTY CYCLE 802.11ax HE80 SU

DUTY CYCLE 802.11ax HE160 2x996T



DUTY CYCLE 802.11ax HE160 SU

9.2. 26 dB BANDWIDTH

LIMITS

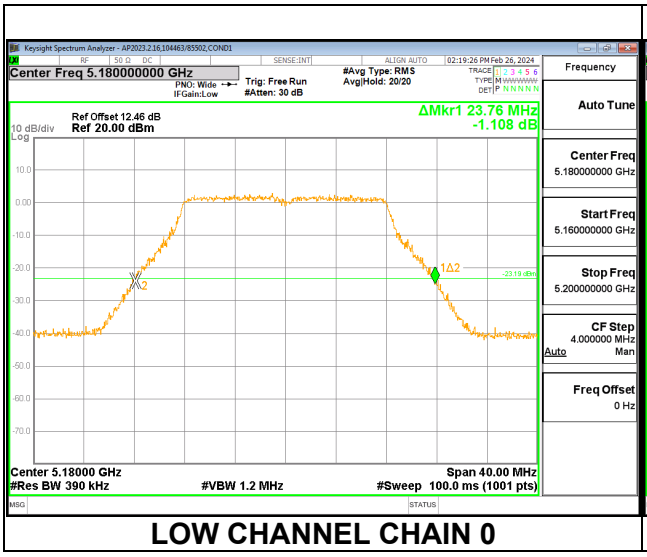
None; for reporting purposes only.

RESULTS

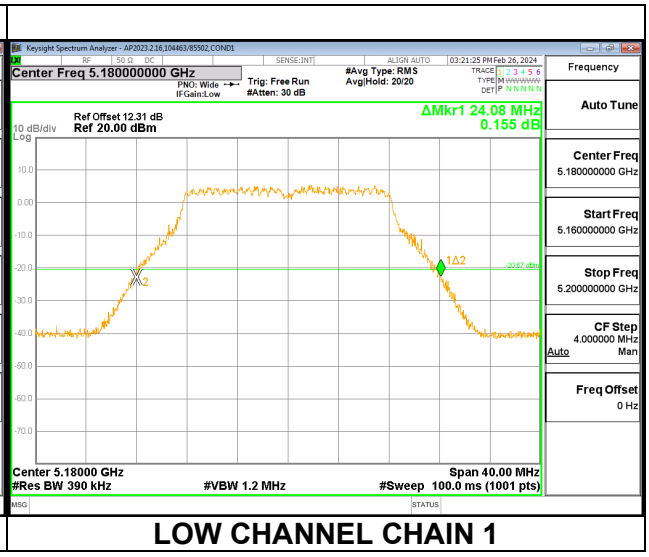
9.2.1. 802.11a MODE IN THE 5.2 GHz BAND

2TX CHAIN 0 + CHAIN 1 CDD MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5180	23.76	24.08
Mid	5200	23.96	23.48
High	5240	23.72	23.88



LOW CHANNEL CHAIN 0

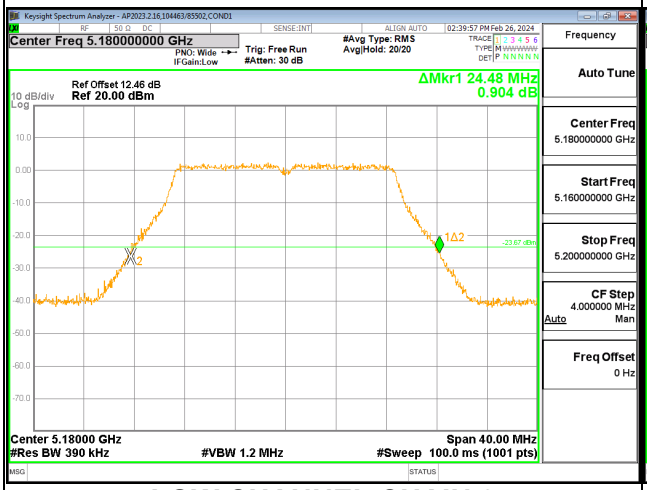


LOW CHANNEL CHAIN 1

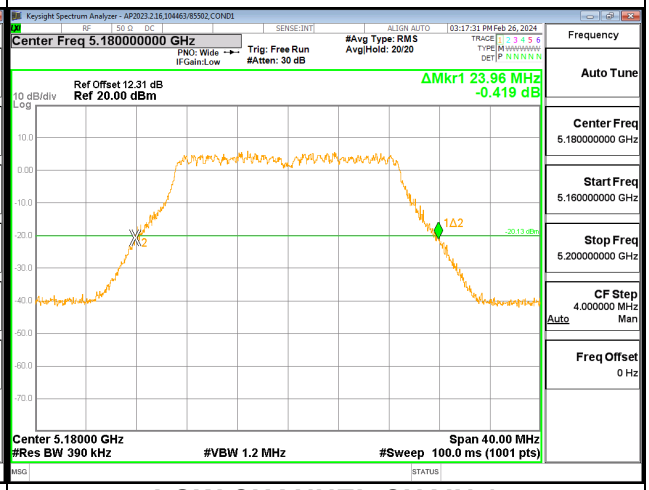
9.2.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

2TX CHAIN 0 + CHAIN 1 CDD MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5180	24.48	23.96
Mid	5200	24.44	23.80
High	5240	24.36	23.88



LOW CHANNEL CHAIN 0

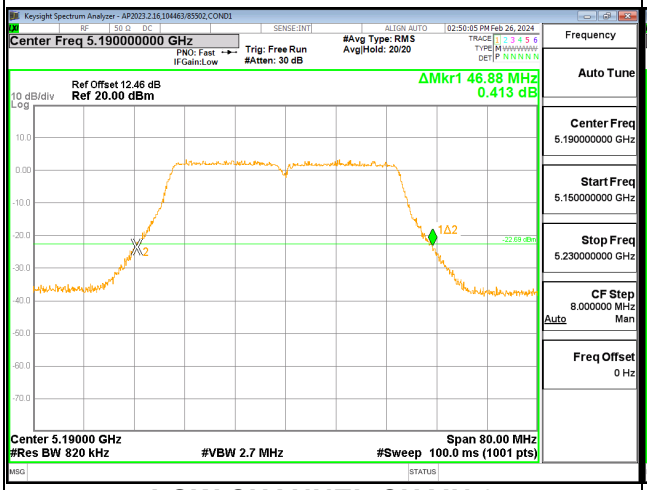


LOW CHANNEL CHAIN 1

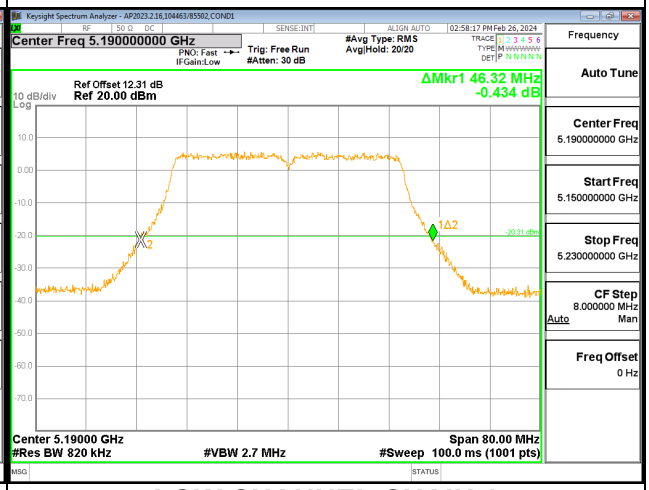
9.2.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

2TX CHAIN 0 + CHAIN 1 CDD MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5190	46.88	46.32
High	5230	46.56	46.24



LOW CHANNEL CHAIN 0

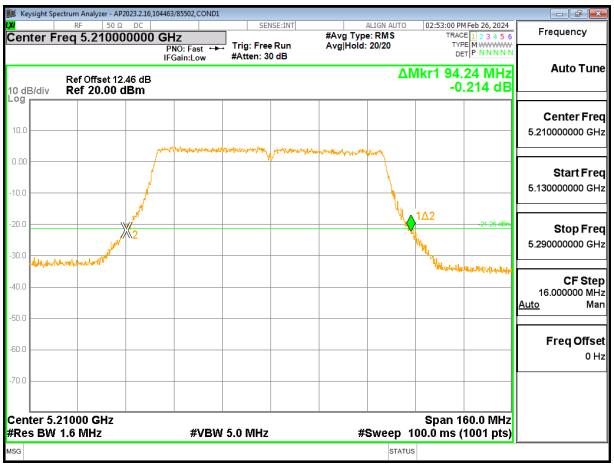


LOW CHANNEL CHAIN 1

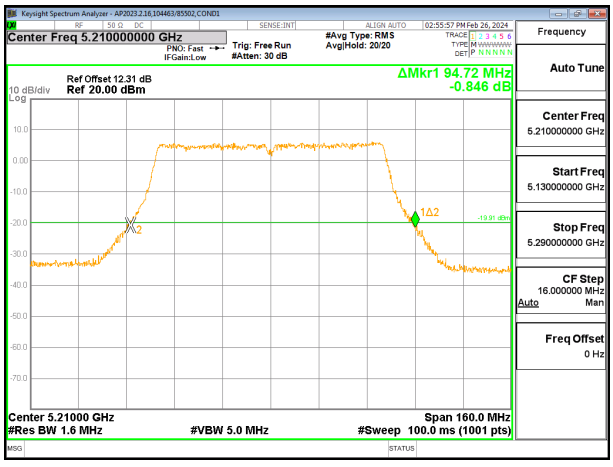
9.2.4. 802.11ac VHT80 MODE IN THE 5.2 GHz BAND

2TX CHAIN 0 + CHAIN 1 CDD MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Mid	5210	94.24	94.72



MID CHANNEL CHAIN 0

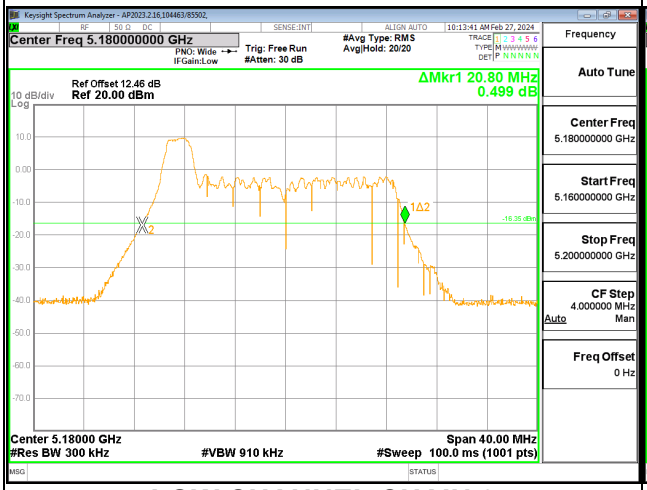


MID CHANNEL CHAIN 1

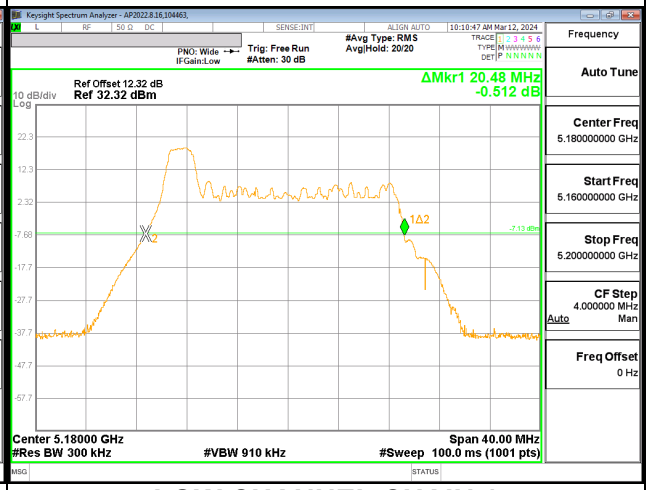
9.2.5. 802.11ax HE20 MODE 2TX IN THE 5.2GHz BAND

2TX 26T MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5180	20.80	20.48
Mid	5200	20.36	18.48
High	5240	20.68	20.36



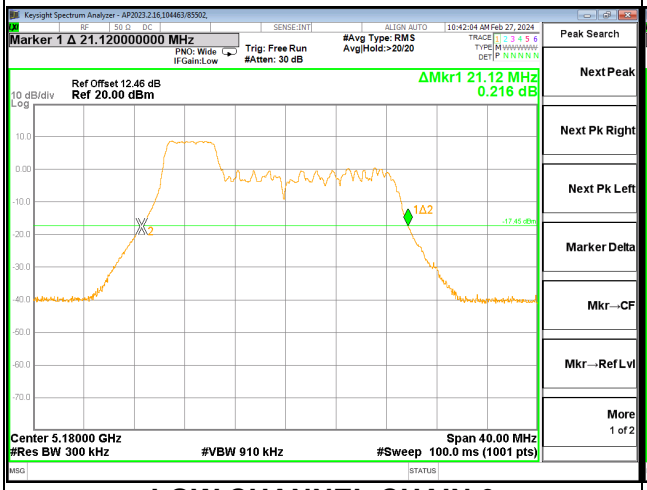
LOW CHANNEL CHAIN 0



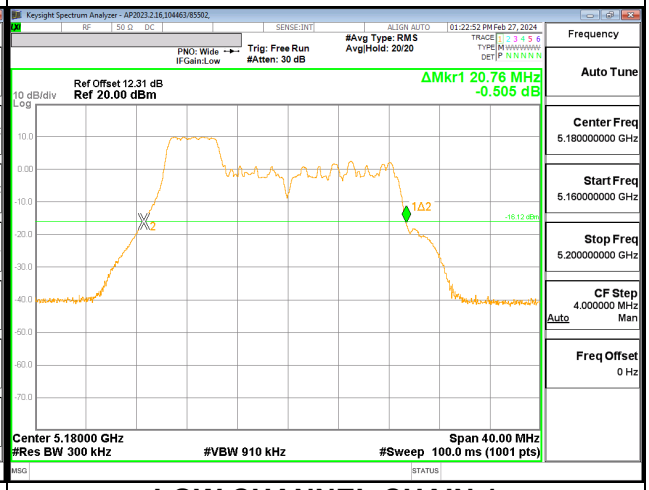
LOW CHANNEL CHAIN 1

2TX 52T MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5180	21.12	20.76
Mid	5200	19.20	18.84
High	5240	20.88	20.64



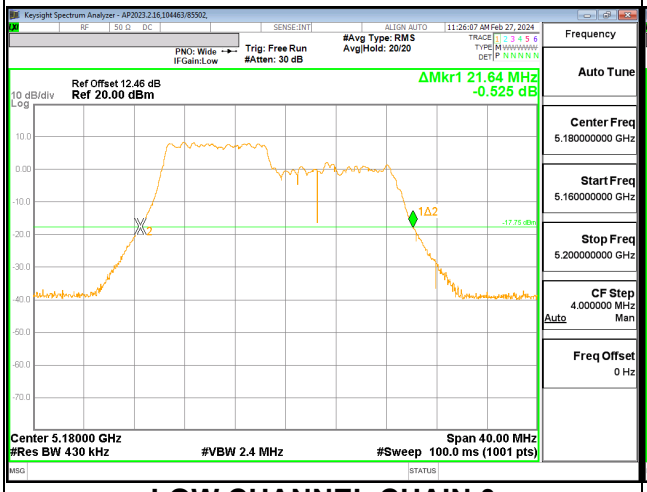
LOW CHANNEL CHAIN 0



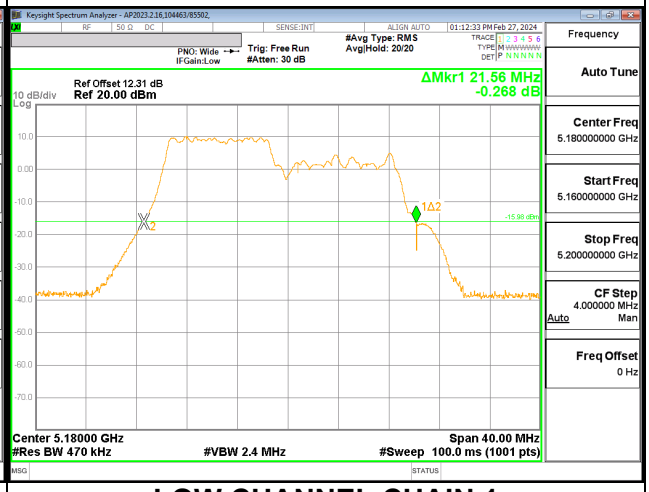
LOW CHANNEL CHAIN 1

2TX 106T MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5180	21.64	21.56
Mid	5200	21.60	21.56
High	5230	21.52	21.40



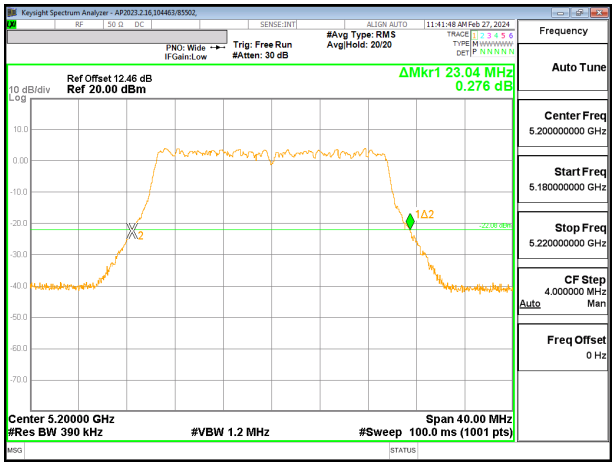
LOW CHANNEL CHAIN 0



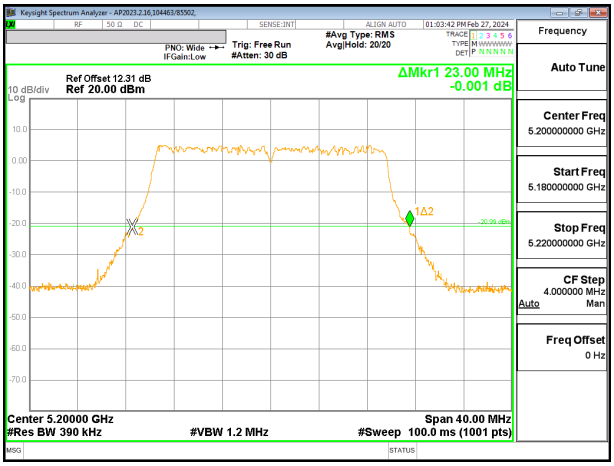
LOW CHANNEL CHAIN 1

2TX 242T MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5180	22.92	22.92
Mid	5200	23.04	23.00
High	5240	22.96	22.88



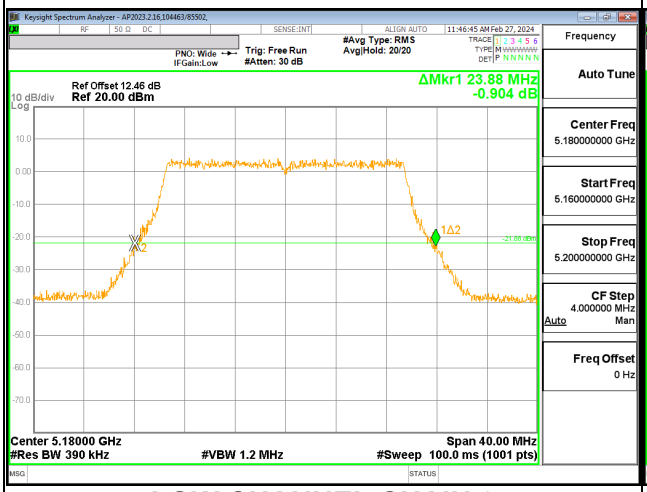
MID CHANNEL CHAIN 0



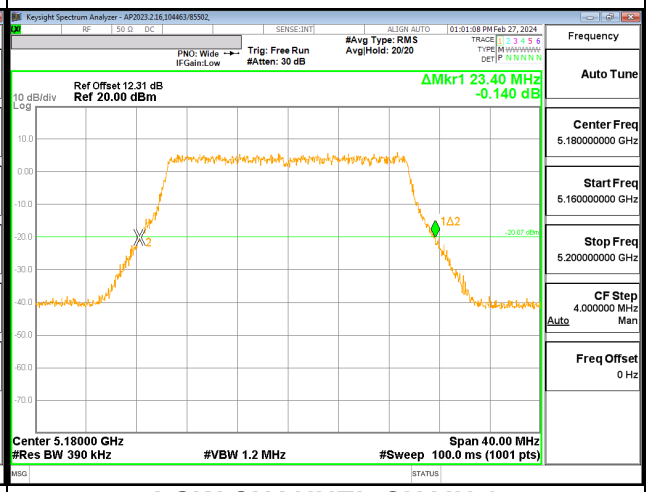
MID CHANNEL CHAIN 1

2TX SU MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5180	23.88	23.40
Mid	5200	23.28	23.36
High	5240	23.24	23.60



LOW CHANNEL CHAIN 0

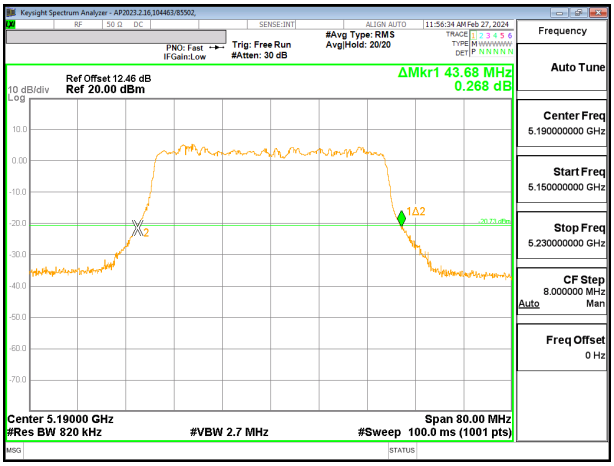


LOW CHANNEL CHAIN 1

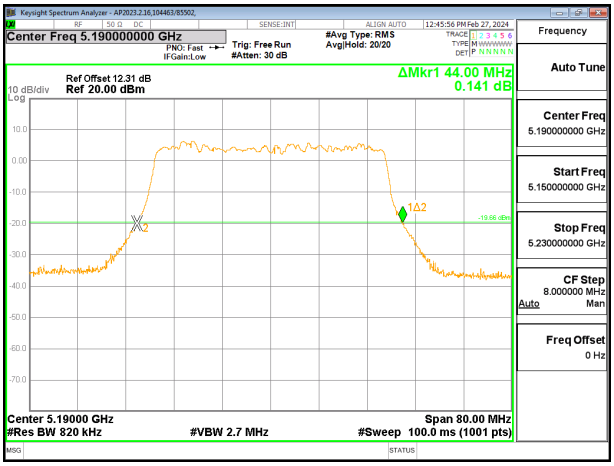
9.2.6. 802.11ax HE40 MODE 2TX IN THE 5.2GHz BAND

2TX 484T MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5190	43.68	44.00
High	5230	43.28	43.84



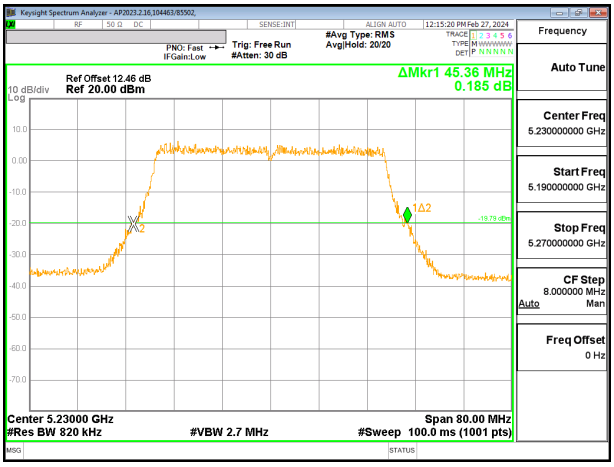
LOW CHANNEL CHAIN 0



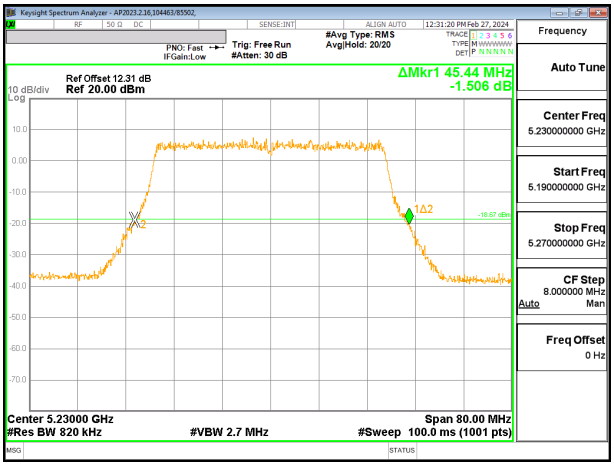
LOW CHANNEL CHAIN 1

2TX SU MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5190	45.04	44.64
High	5230	45.36	45.44



HIGH CHANNEL CHAIN 0

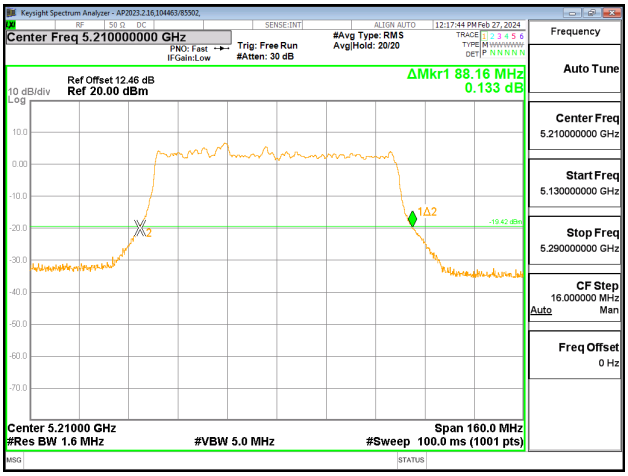


HIGH CHANNEL CHAIN 1

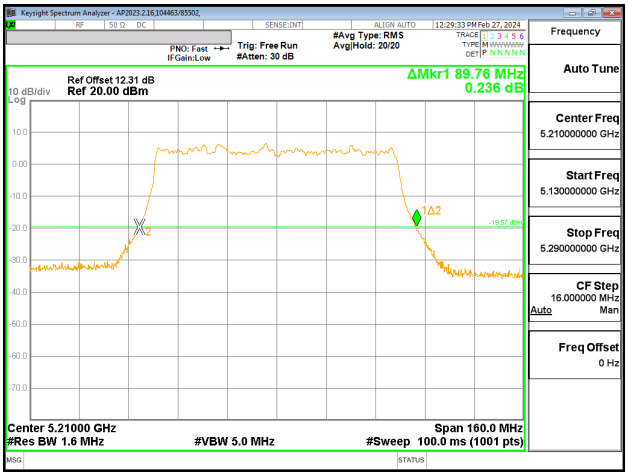
9.2.7. 802.11ax HE80 MODE 2TX IN THE 5.2GHz BAND

2TX 996T MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Mid	5210	88.16	89.76



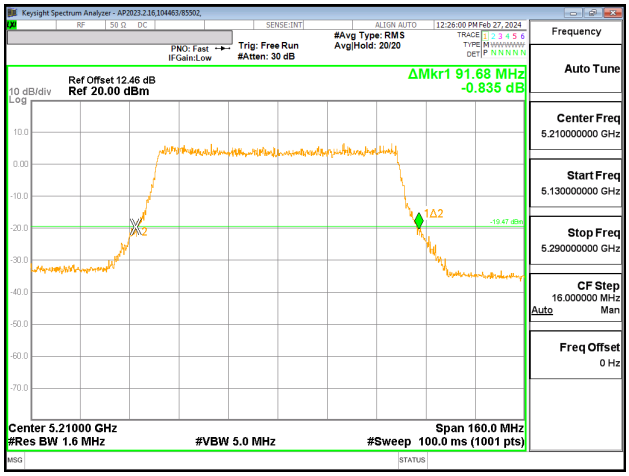
MID CHANNEL CHAIN 0



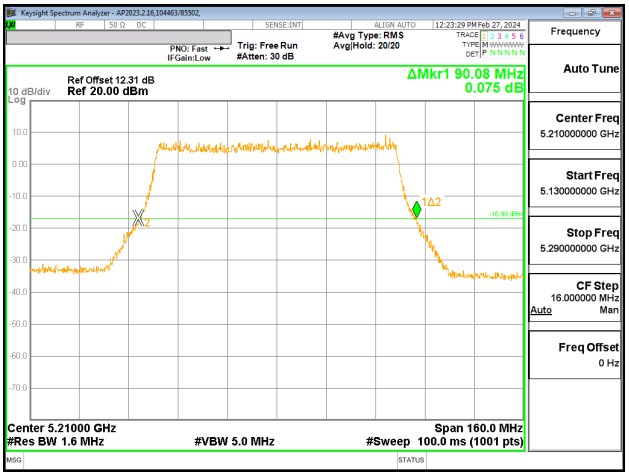
MID CHANNEL CHAIN 1

2TX SU MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Mid	5210	91.68	90.08



MID CHANNEL CHAIN 0

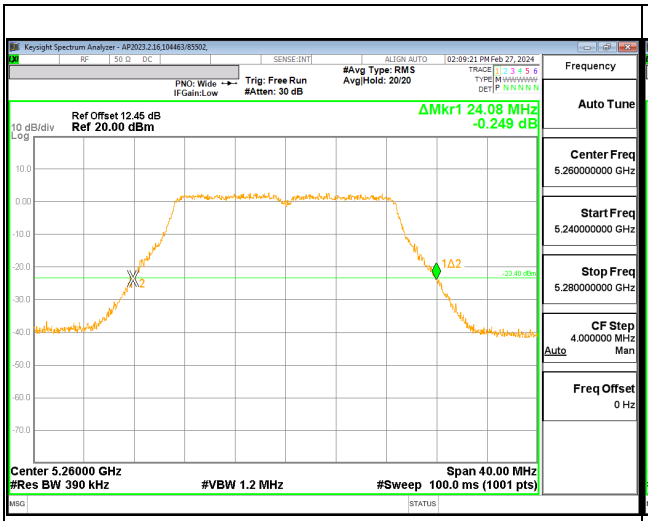


MID CHANNEL CHAIN 1

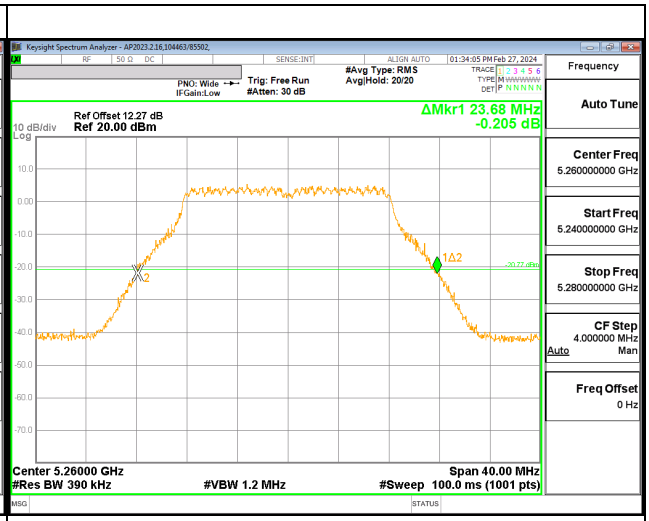
9.2.8. 802.11a MODE IN THE 5.3 GHz BAND

2TX CHAIN 0 + CHAIN 1 CDD MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5260	24.08	23.68
Mid	5300	24.12	23.24
High	5320	24.00	23.48



LOW CHANNEL CHAIN 0

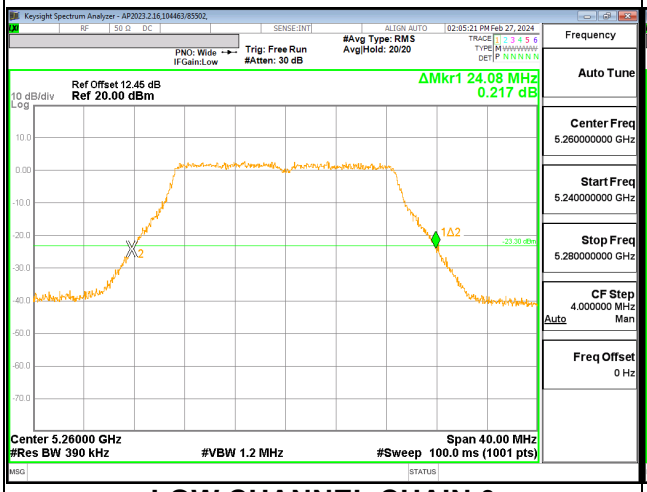


LOW CHANNEL CHAIN 1

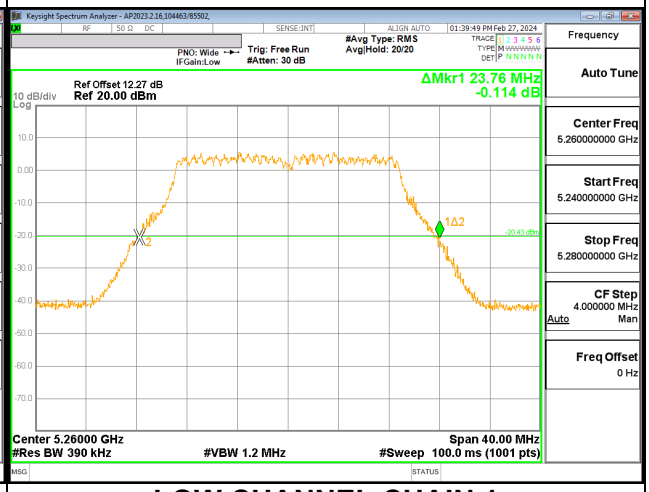
9.2.9. 802.11n HT20 MODE IN THE 5.3 GHz BAND

2TX CHAIN 0 + CHAIN 1 CDD MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5260	24.08	23.76
Mid	5300	23.92	23.52
High	5320	23.92	23.88



LOW CHANNEL CHAIN 0

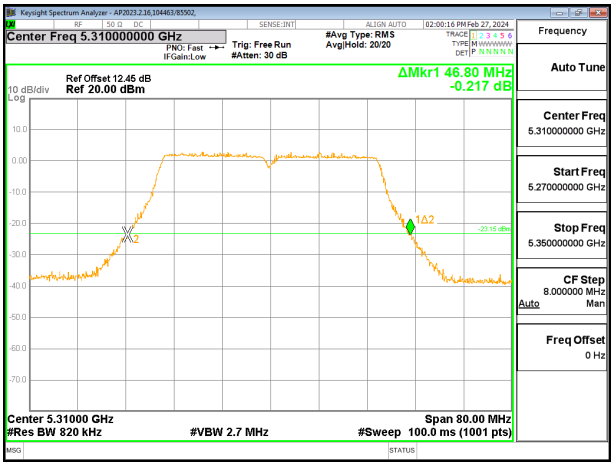


LOW CHANNEL CHAIN 1

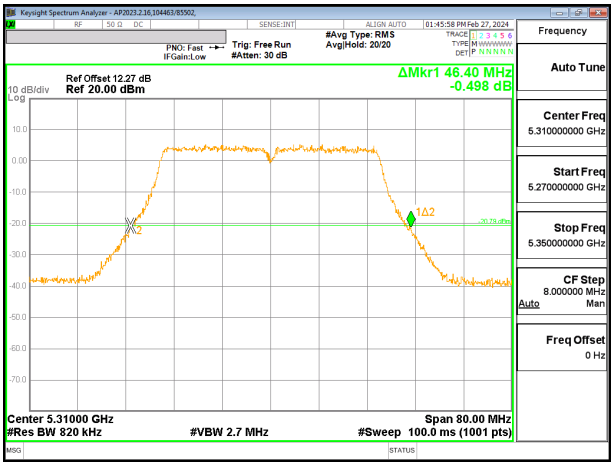
9.2.10. 802.11n HT40 MODE IN THE 5.3 GHz BAND

2TX CHAIN 0 + CHAIN 1 CDD MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5270	46.56	46.32
High	5310	46.80	46.40



HIGH CHANNEL CHAIN 0

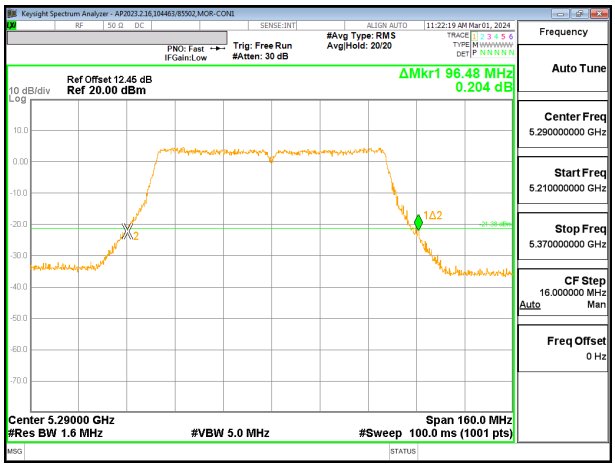


HIGH CHANNEL CHAIN 1

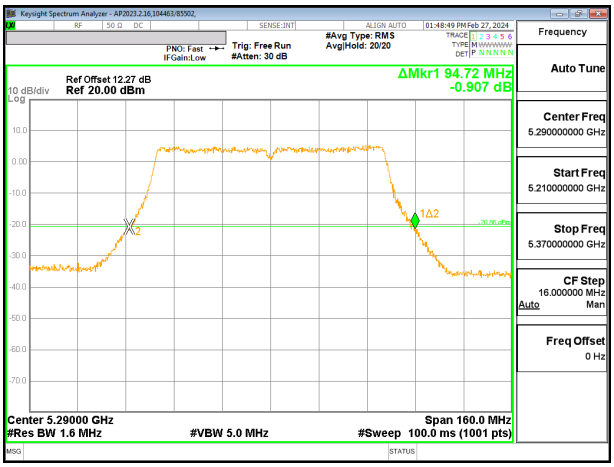
9.2.11. 802.11ac VHT80 MODE IN THE 5.3 GHz BAND

2TX CHAIN 0 + CHAIN 1 CDD MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Mid	5290	96.48	94.72



MID CHANNEL CHAIN 0

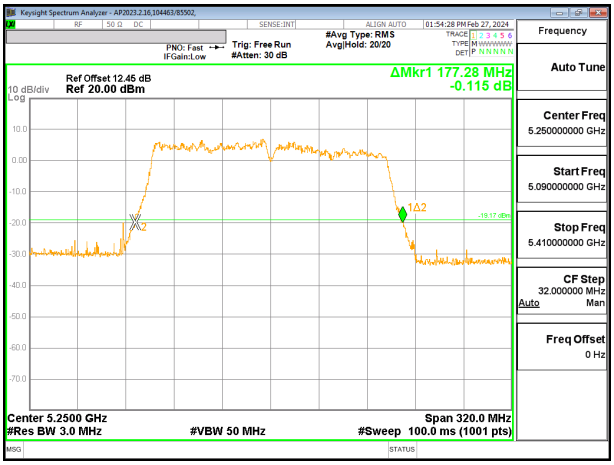


MID CHANNEL CHAIN 1

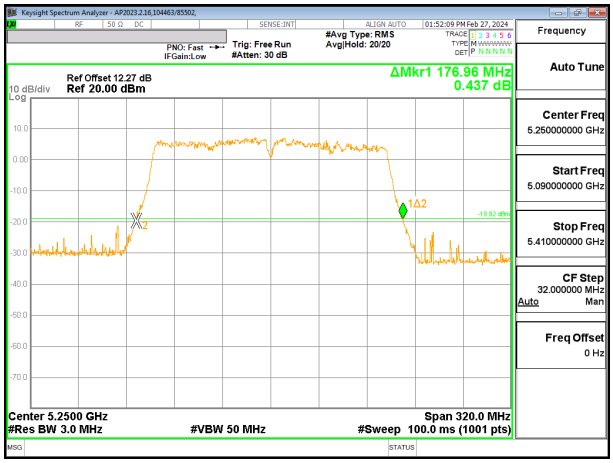
9.2.12. 802.11ac VHT160 MODE IN THE 5.2/5.3 GHz BAND

2TX CHAIN 0 + CHAIN 1 CDD MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Mid	5250	177.28	176.96



MID CHANNEL CHAIN 0

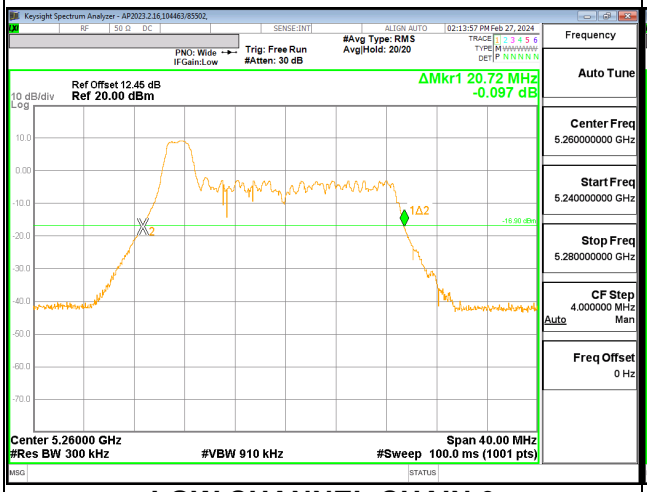


MID CHANNEL CHAIN 1

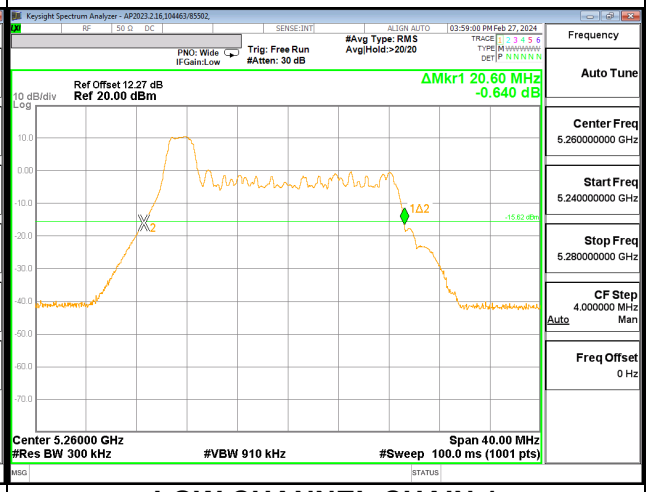
9.2.13. 802.11ax HE20 MODE 2TX IN THE 5.3GHz BAND

2TX 26T MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5260	20.72	20.60
Mid	5300	18.88	18.48
High	5320	20.72	20.40



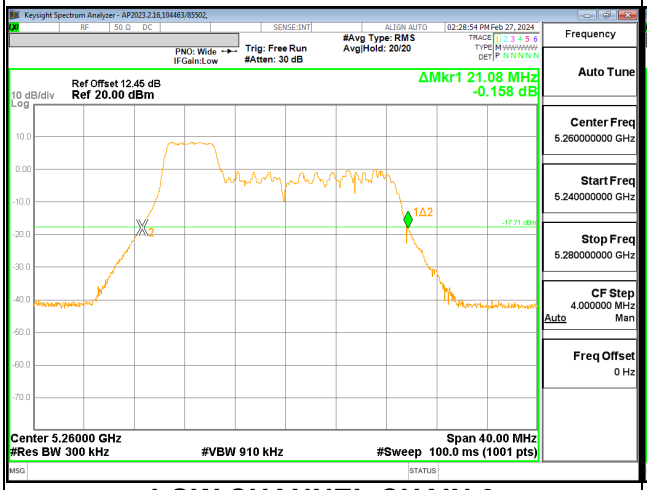
LOW CHANNEL CHAIN 0



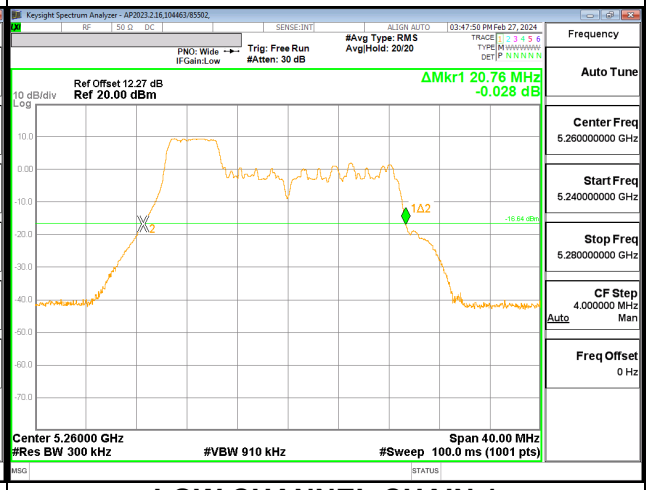
LOW CHANNEL CHAIN 1

2TX 52T MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5260	21.08	20.76
Mid	5300	19.32	18.80
High	5320	20.84	20.80



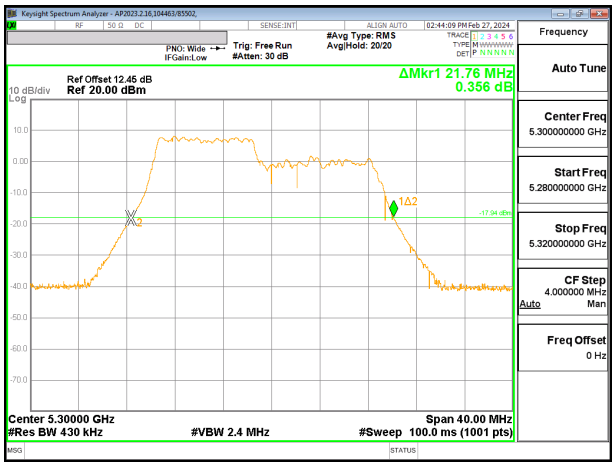
LOW CHANNEL CHAIN 0



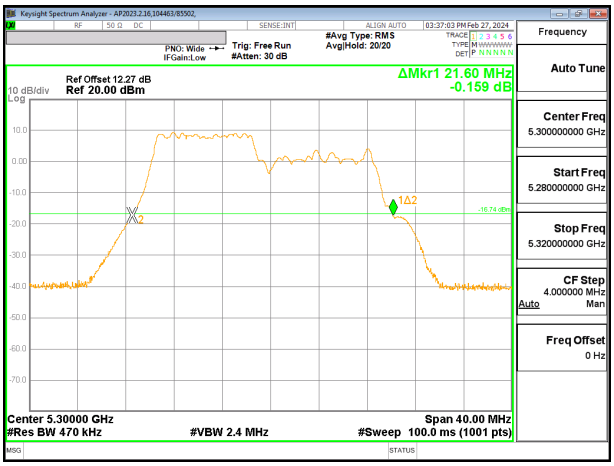
LOW CHANNEL CHAIN 1

2TX 106T MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5260	21.64	21.56
Mid	5300	21.76	21.60
High	5320	21.60	21.20



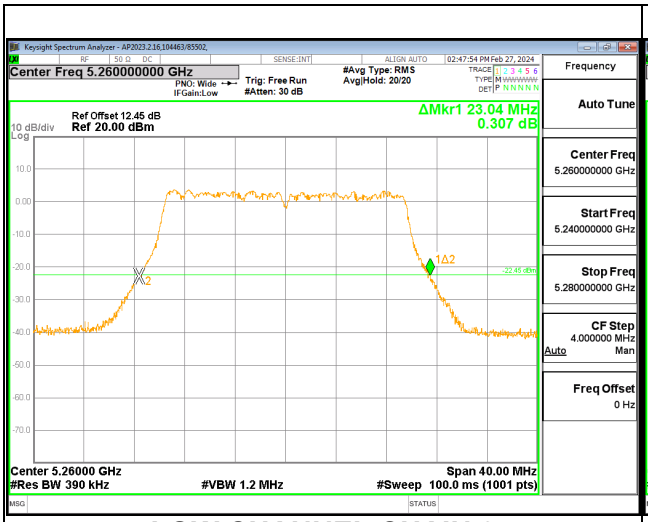
MID CHANNEL CHAIN 0



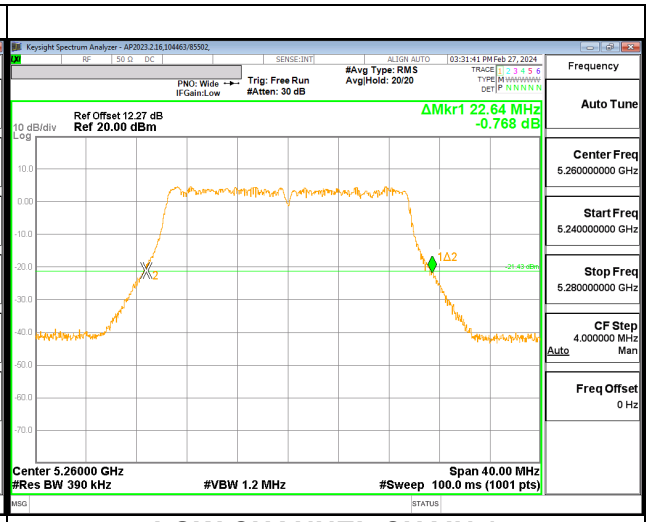
MID CHANNEL CHAIN 1

2TX 242T MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5260	23.04	22.64
Mid	5300	22.96	22.92
High	5320	22.96	22.52



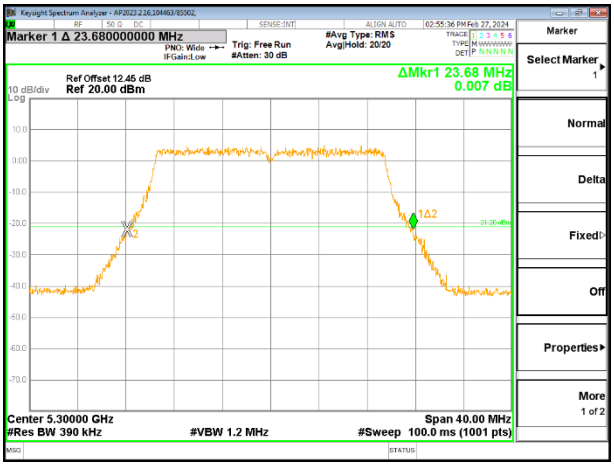
LOW CHANNEL CHAIN 0



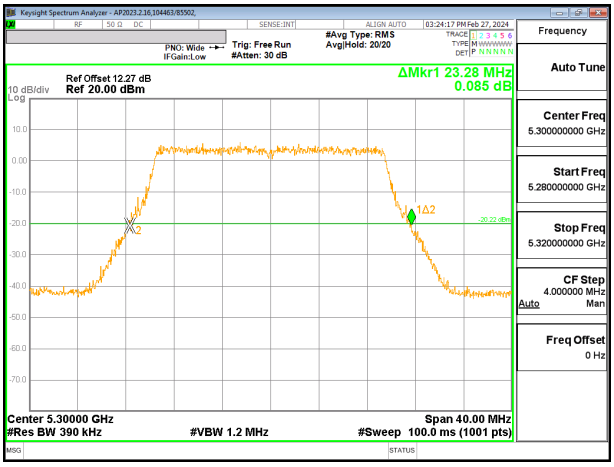
LOW CHANNEL CHAIN 1

2TX SU MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5260	23.12	23.36
Mid	5300	23.68	23.28
High	5320	23.44	22.84



MID CHANNEL CHAIN 0

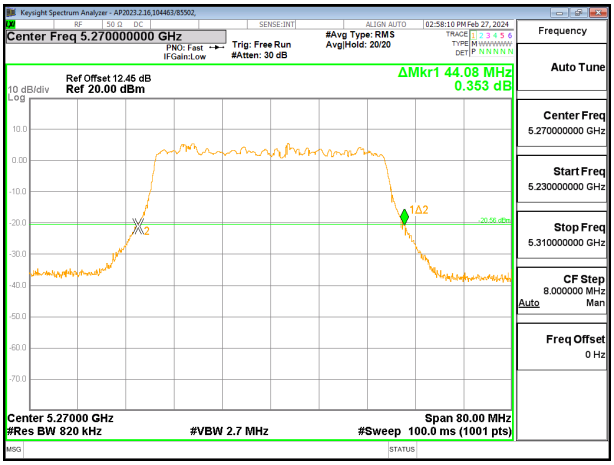


MID CHANNEL CHAIN 1

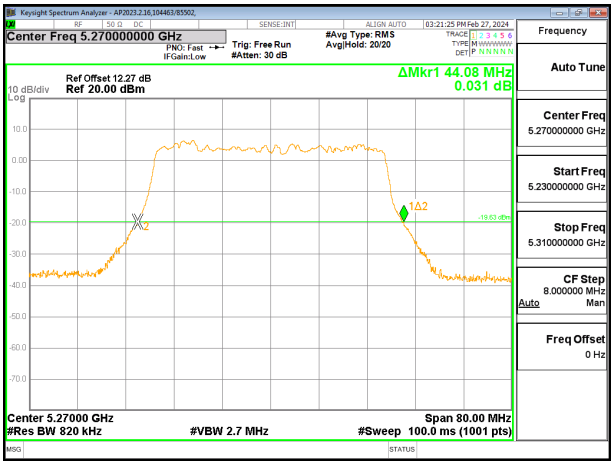
9.2.14. 802.11ax HE40 MODE 2TX IN THE 5.3GHz BAND

2TX 484T MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5270	44.08	44.08
High	5310	43.28	44.00



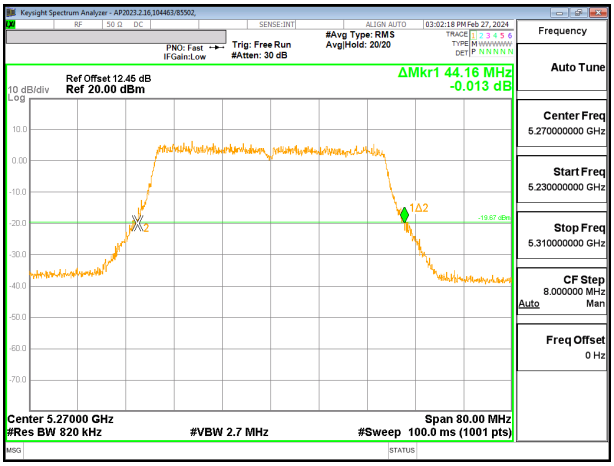
LOW CHANNEL CHAIN 0



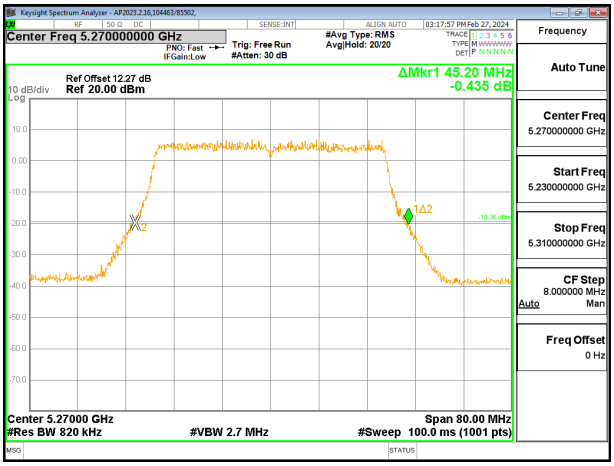
LOW CHANNEL CHAIN 1

2TX SU MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5270	44.16	45.20
High	5310	44.80	44.72



LOW CHANNEL CHAIN 0

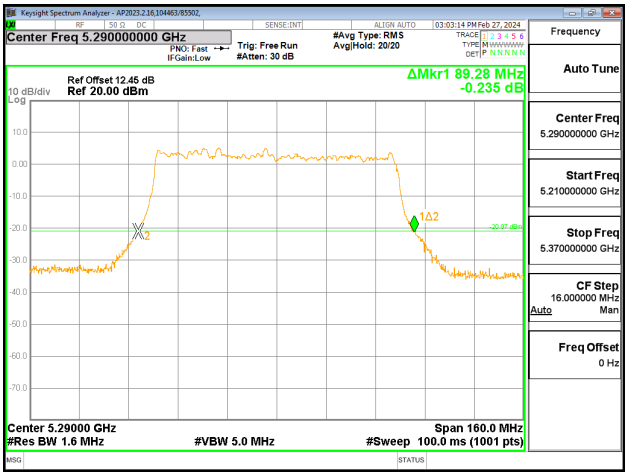


LOW CHANNEL CHAIN 1

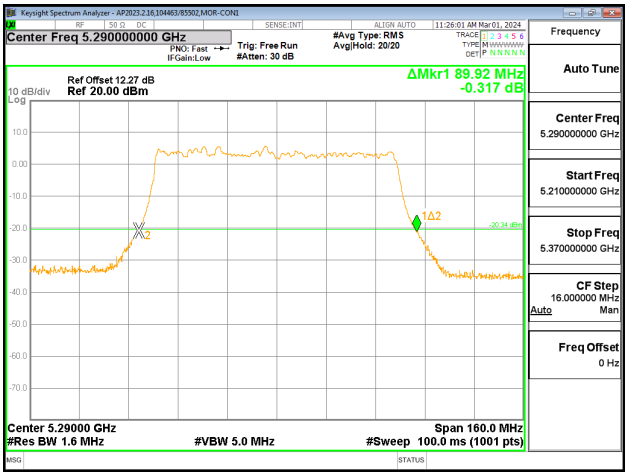
9.2.15. 802.11ax HE80 MODE 2TX IN THE 5.3GHz BAND

2TX 996T MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Mid	5290	89.28	89.92



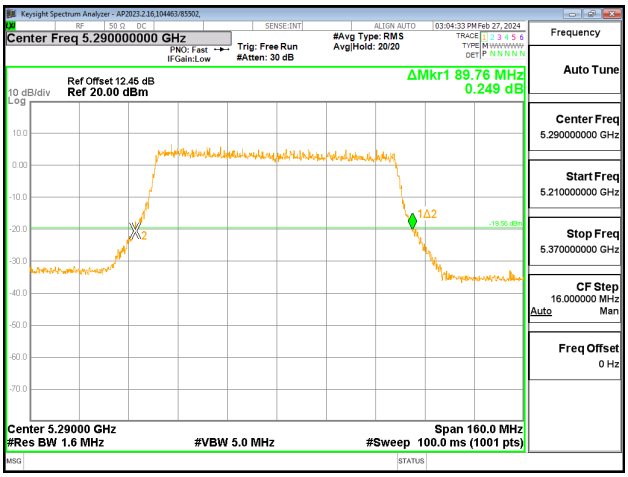
MID CHANNEL CHAIN 0



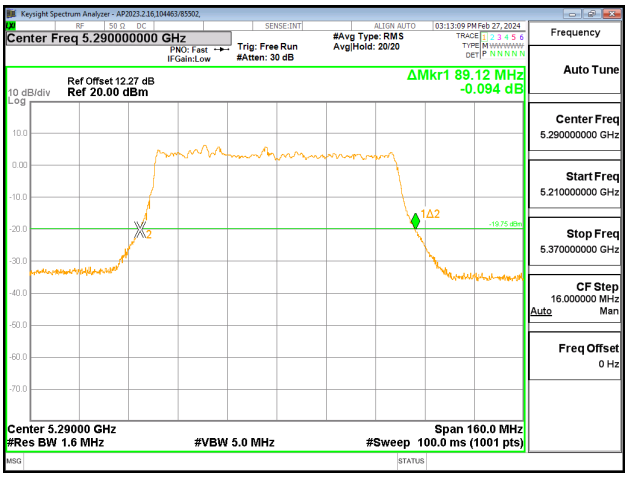
MID CHANNEL CHAIN 1

2TX SU MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Mid	5290	89.76	89.12



MID CHANNEL CHAIN 0

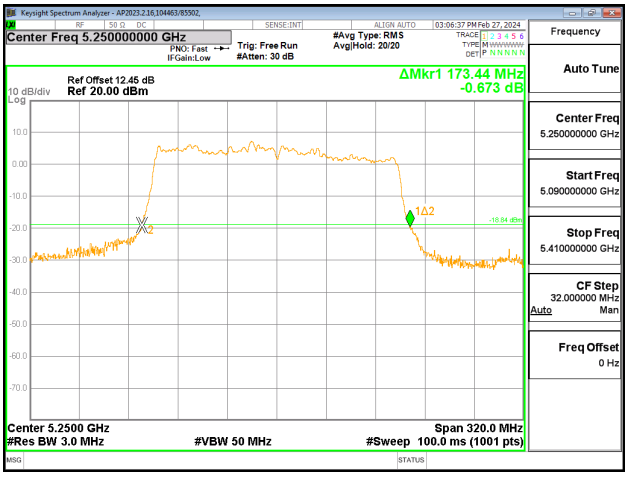


MID CHANNEL CHAIN 1

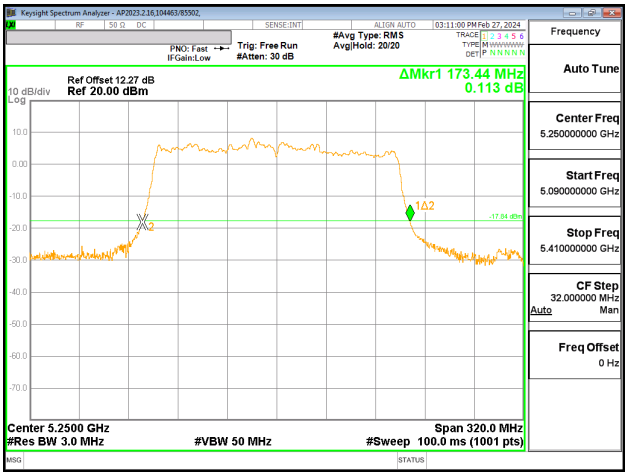
9.2.16. 802.11ax HE160 MODE 2TX IN THE 5.2GHz & 5.3GHz BAND

2TX 2x996T MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Mid	5250	173.44	173.44



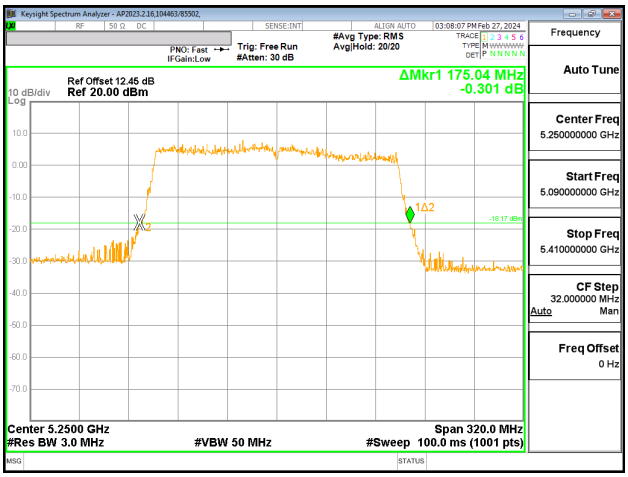
MID CHANNEL CHAIN 0



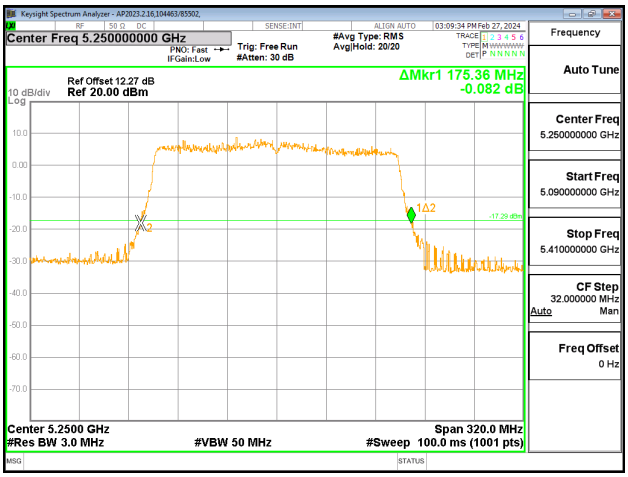
MID CHANNEL CHAIN 1

2TX SU MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Mid	5250	175.04	175.36



MID CHANNEL CHAIN 0

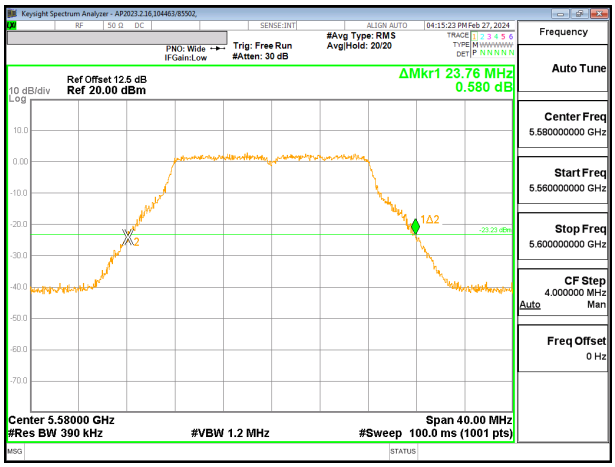


MID CHANNEL CHAIN 1

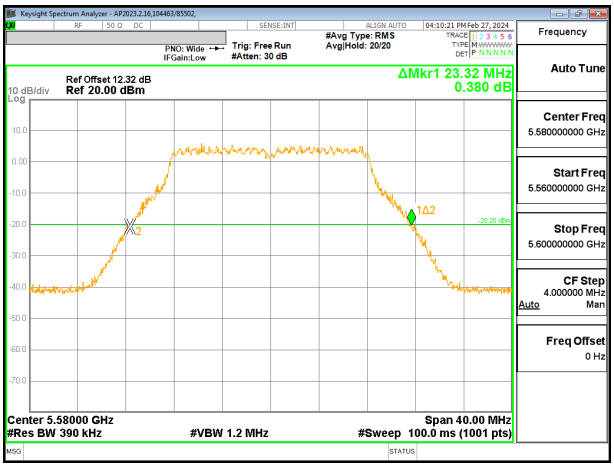
9.2.17. 802.11a MODE IN THE 5.6 GHz BAND

2TX CHAIN 0 + CHAIN 1 CDD MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5500	23.68	23.40
Mid	5580	23.76	23.32
High	5700	23.56	23.44
144	5720	16.92	16.92



MID CHANNEL CHAIN 0

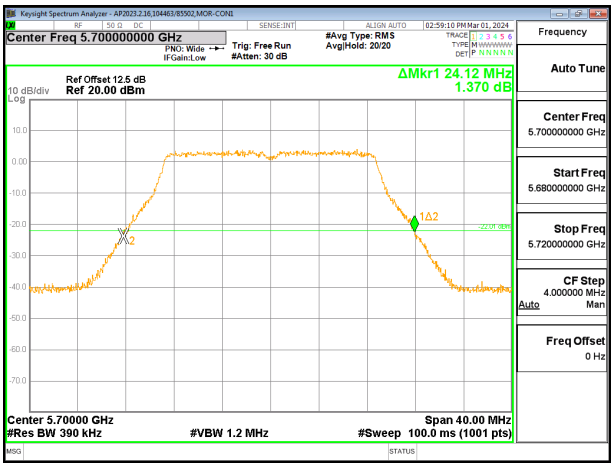


MID CHANNEL CHAIN 1

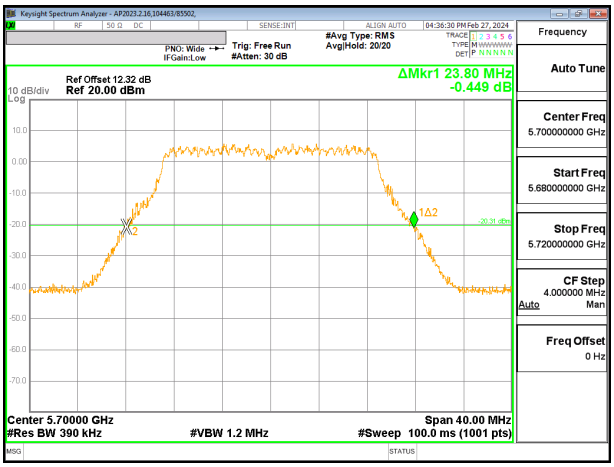
9.2.18. 802.11n HT20 MODE IN THE 5.6 GHz BAND

2TX CHAIN 0 + CHAIN 1 CDD MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5500	23.96	24.04
Mid	5580	23.72	23.64
High	5700	24.12	23.80
144	5720	17.28	16.92



HIGH CHANNEL CHAIN 0

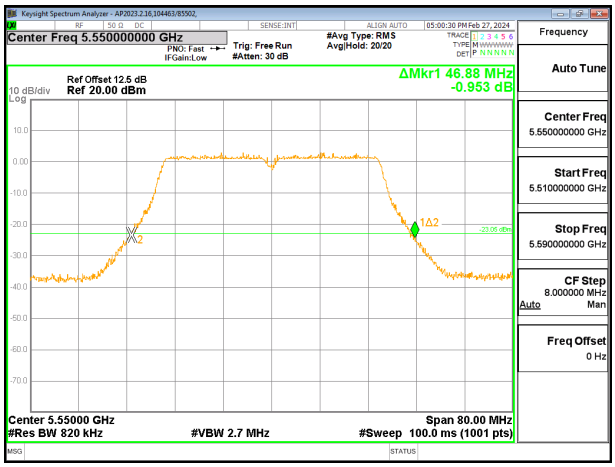


HIGH CHANNEL CHAIN 1

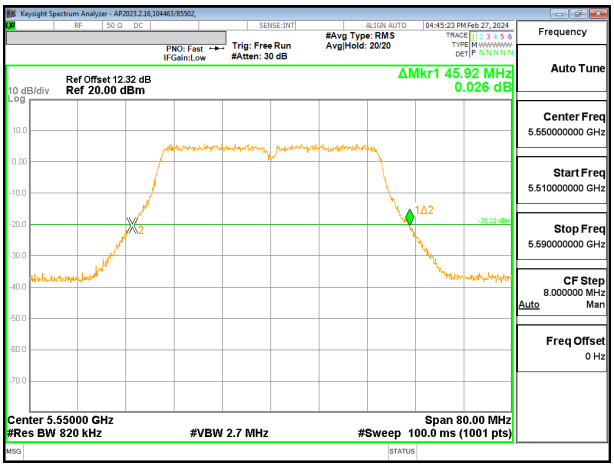
9.2.19. 802.11n HT40 MODE IN THE 5.6 GHz BAND

2TX CHAIN 0 + CHAIN 1 CDD MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5510	46.80	45.68
Mid	5550	46.88	45.92
High	5670	46.48	45.84
142	5710	38.20	38.12



MID CHANNEL CHAIN 0

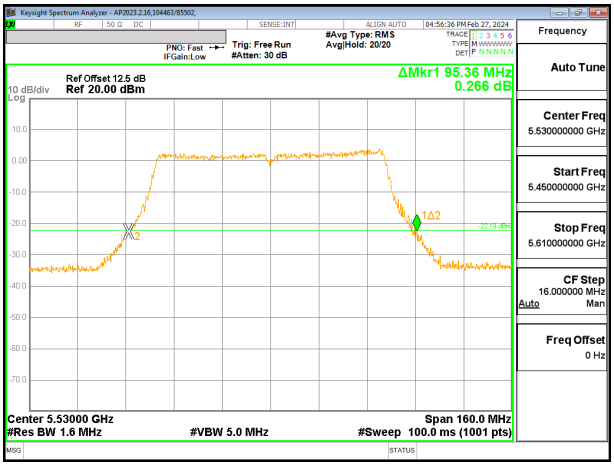


MID CHANNEL CHAIN 1

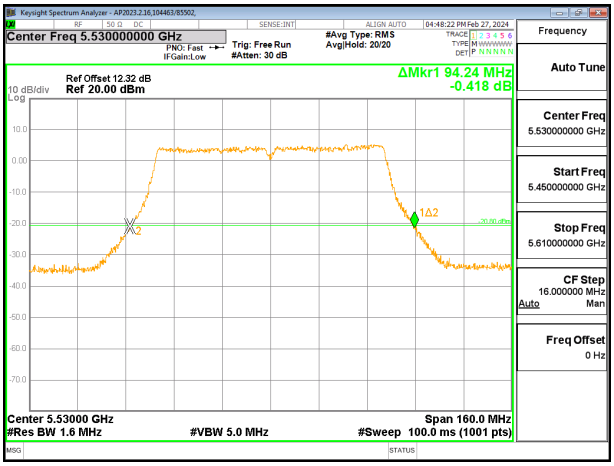
9.2.20. 802.11ac VHT80 MODE IN THE 5.6 GHz BAND

2TX CHAIN 0 + CHAIN 1 CDD MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5530	95.36	94.24
High	5610	94.40	93.76
138	5690	82.04	81.56



LOW CHANNEL CHAIN 0

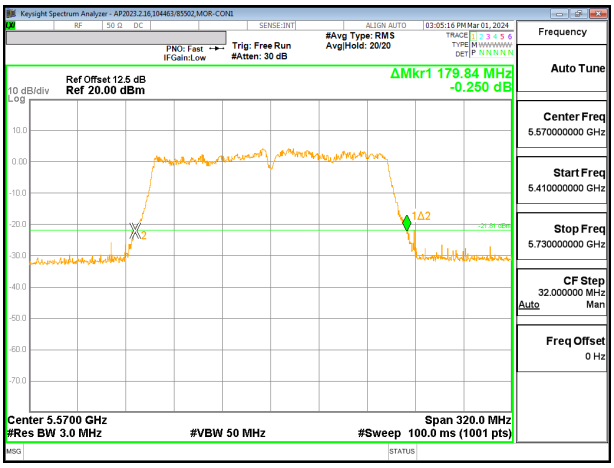


LOW CHANNEL CHAIN 1

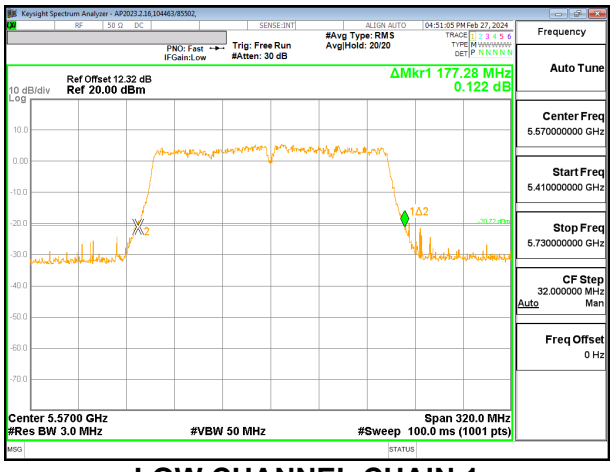
9.2.21. 802.11ac VHT160 MODE IN THE 5.6 GHz BAND

2TX CHAIN 0 + CHAIN 1 CDD MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5570	179.84	177.28



LOW CHANNEL CHAIN 0

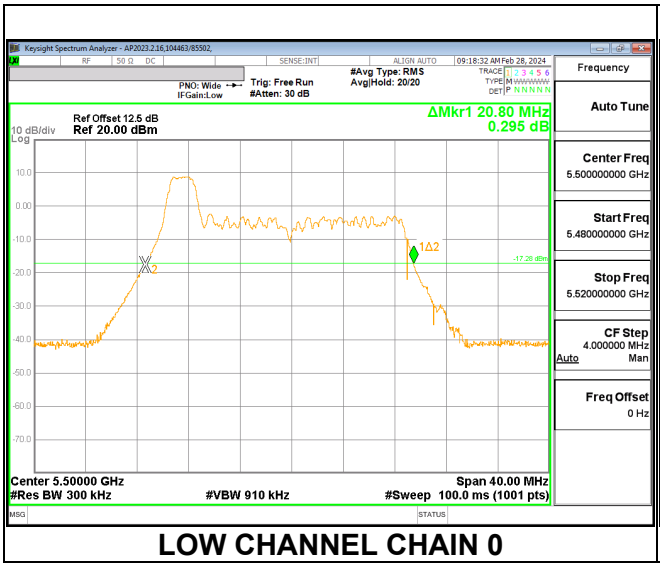


LOW CHANNEL CHAIN 1

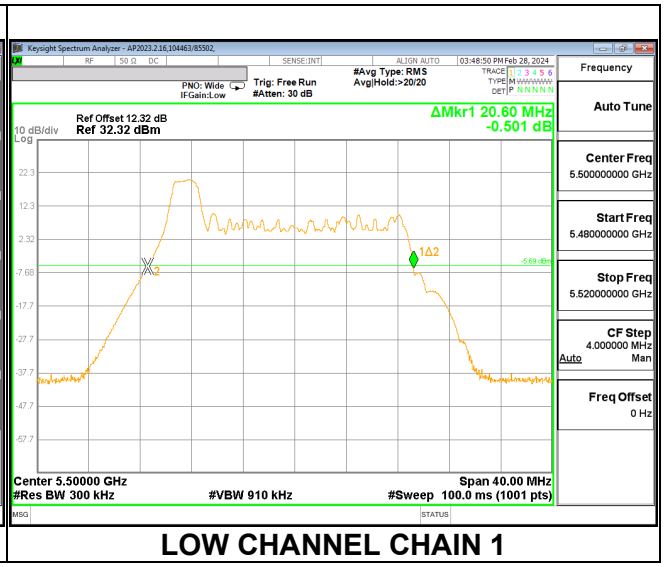
9.2.22. 802.11ax HE20 MODE 2TX IN THE 5.6GHz BAND

2Tx 26T MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5500	20.80	20.60
Mid	5580	18.88	18.48
High	5700	20.68	20.48
144	5720	16.40	16.28



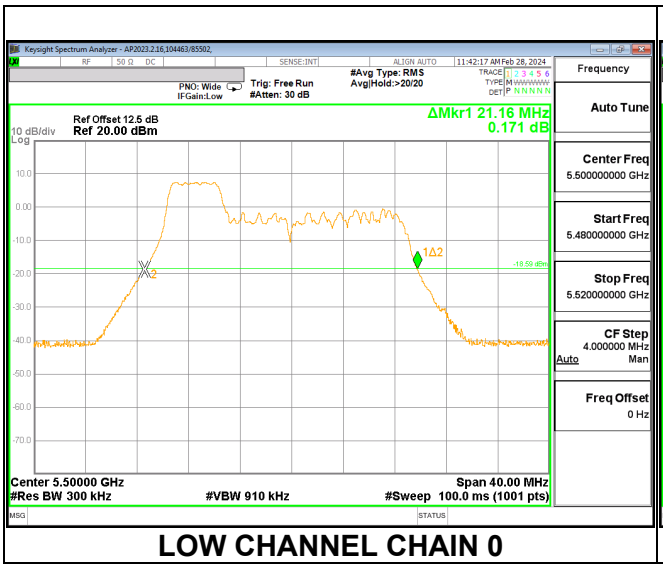
LOW CHANNEL CHAIN 0



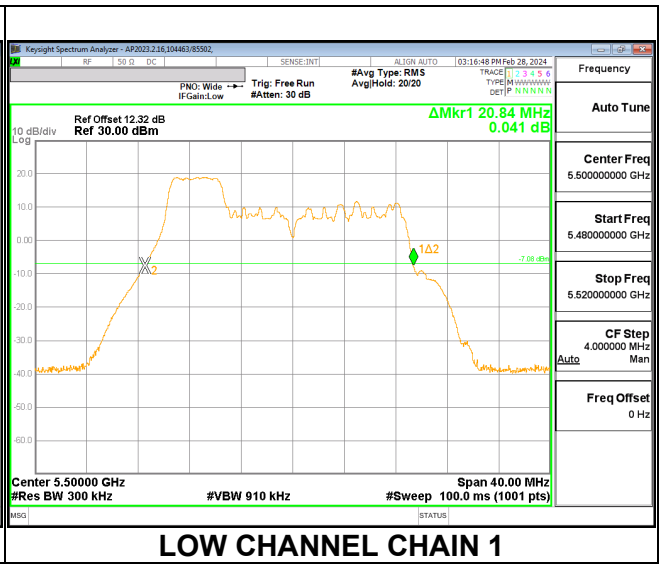
LOW CHANNEL CHAIN 1

2TX 52T MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5500	21.16	20.84
Mid	5580	19.40	18.84
High	5700	20.84	20.80
144	5720	16.44	16.56



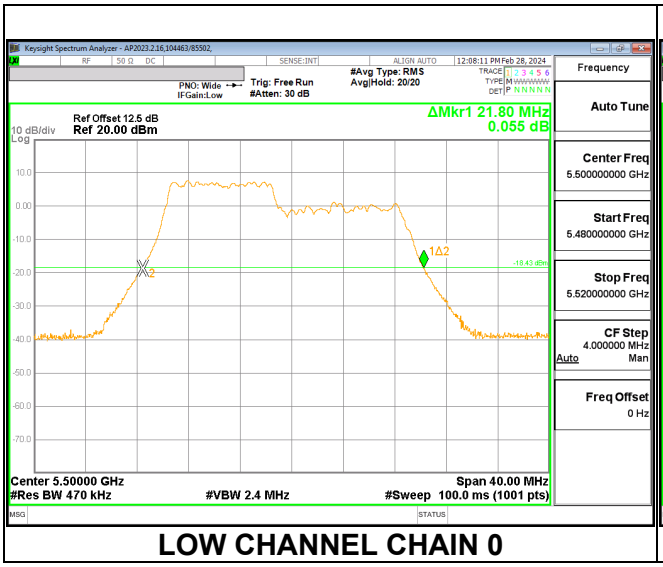
LOW CHANNEL CHAIN 0



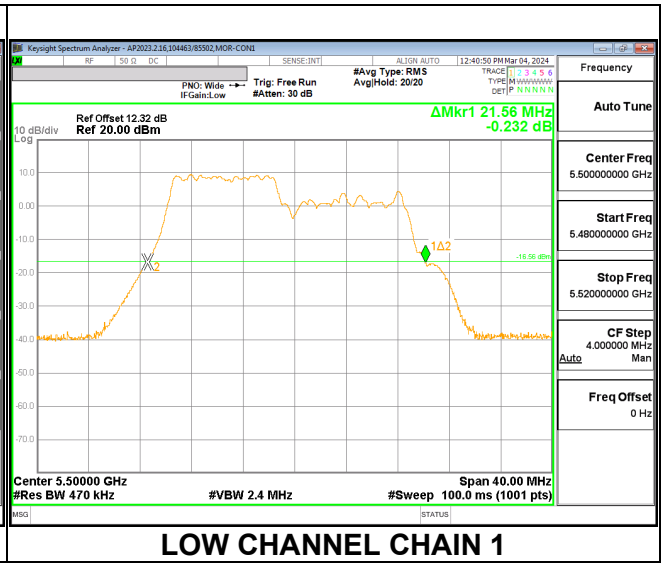
LOW CHANNEL CHAIN 1

2TX 106T MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5500	21.80	21.56
Mid	5580	21.76	21.52
High	5700	21.56	21.68
144	5720	16.56	16.44



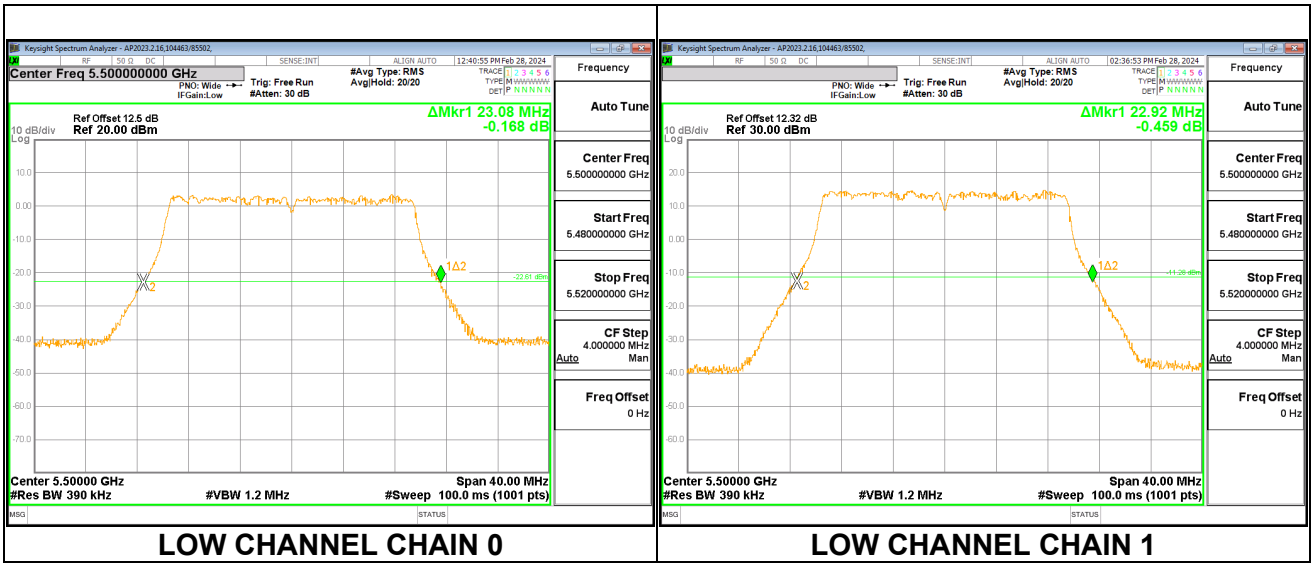
LOW CHANNEL CHAIN 0



LOW CHANNEL CHAIN 1

2TX 242T MODE

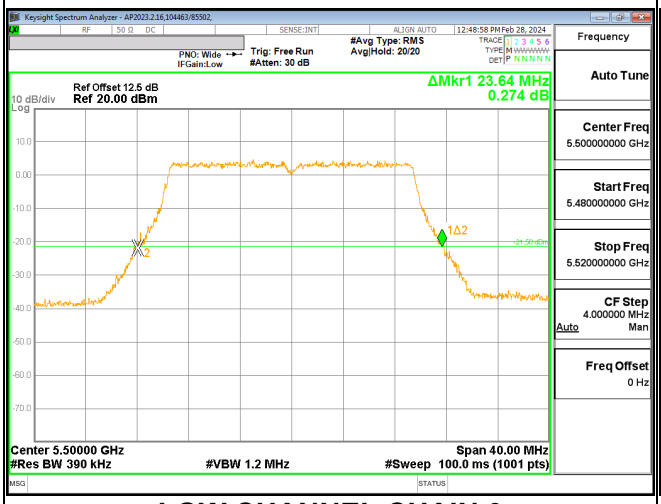
Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5500	23.08	22.92
Mid	5580	23.04	22.80
High	5700	22.40	22.80
144	5720	16.52	16.40



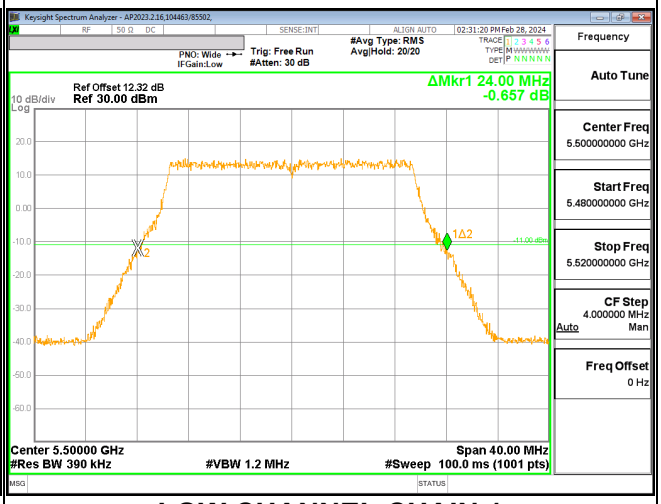
LOW CHANNEL CHAIN 0 **LOW CHANNEL CHAIN 1**

2TX SU MODE

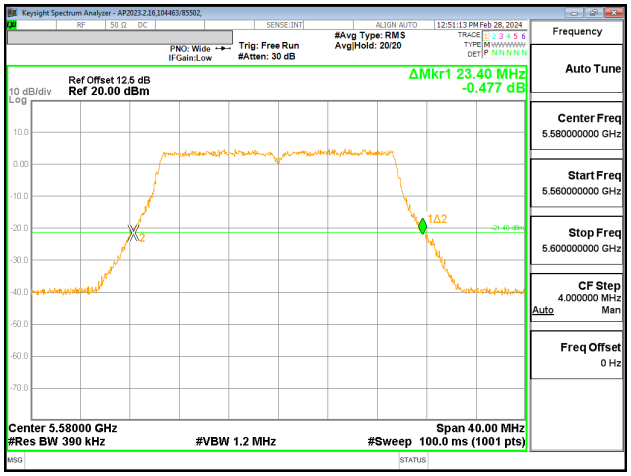
Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5500	23.64	24.00
Mid	5580	23.40	23.56
High	5700	23.76	23.80
144	5720	16.65	16.80



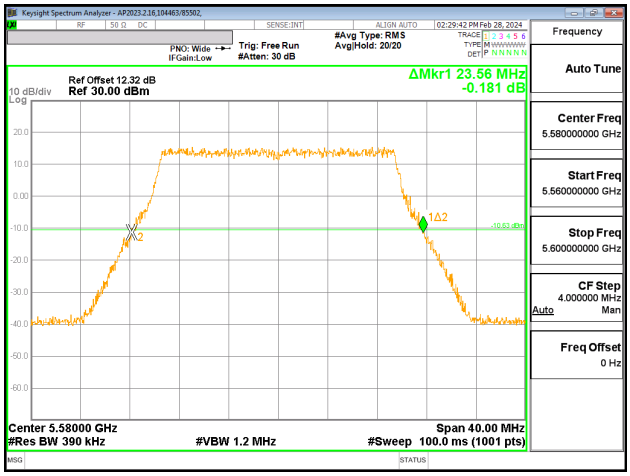
LOW CHANNEL CHAIN 0



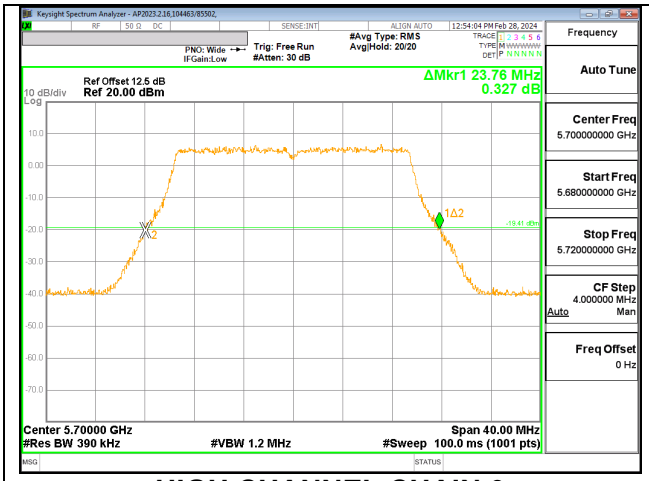
LOW CHANNEL CHAIN 1



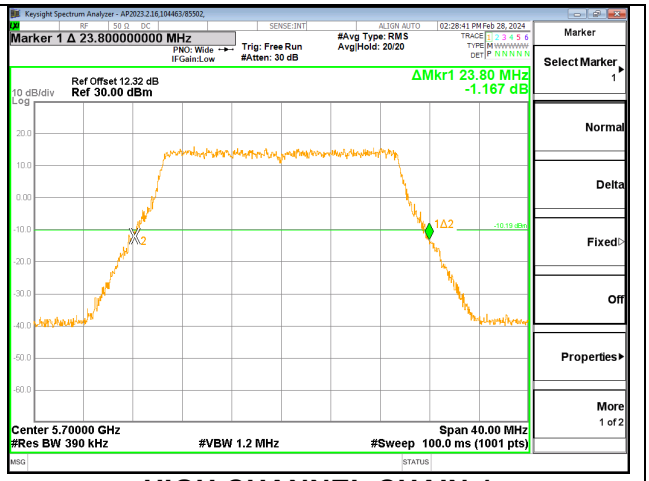
MID CHANNEL CHAIN 0



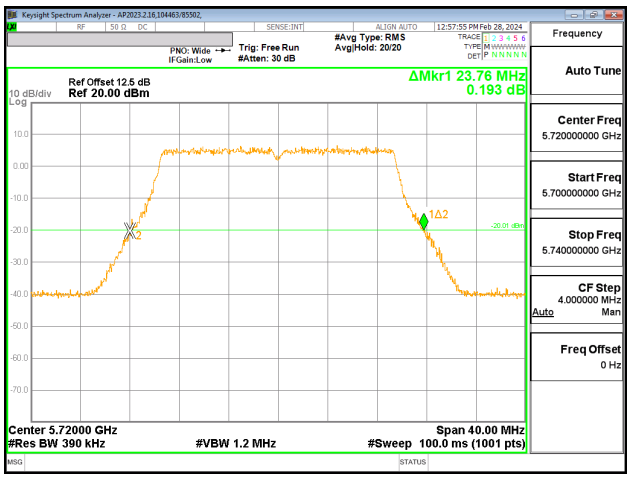
MID CHANNEL CHAIN 1



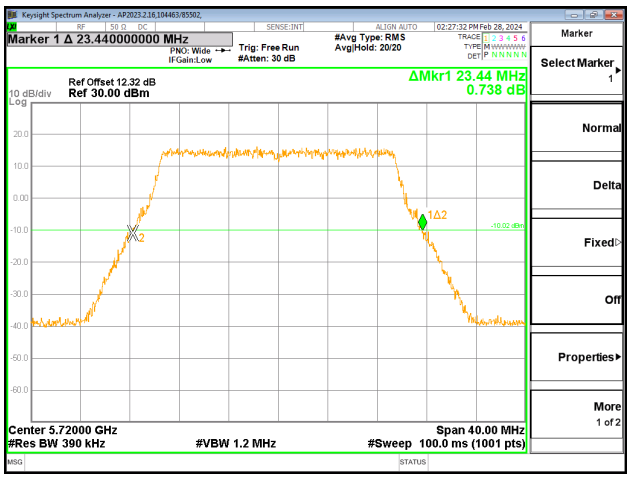
HIGH CHANNEL CHAIN 0



HIGH CHANNEL CHAIN 1



CHANNEL 144 CHAIN 0

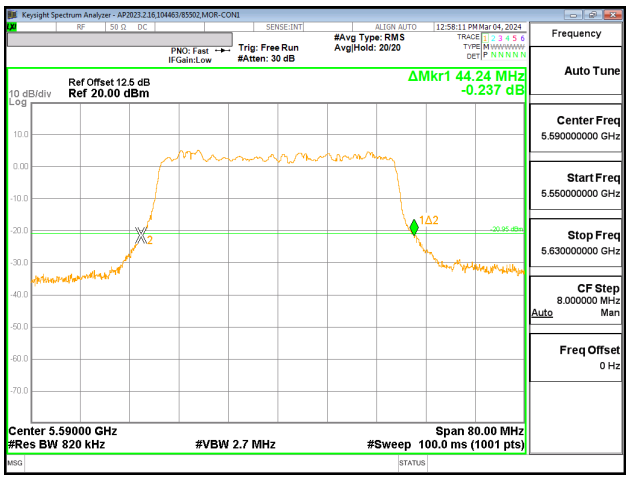


CHANNEL 144 CHAIN 1

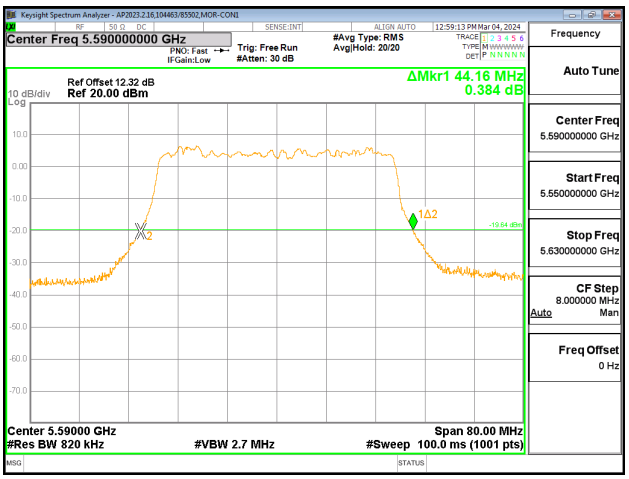
9.2.23. 802.11ax HE40 MODE 2TX IN THE 5.6GHz BAND

2TX 484T MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5510	43.76	44.16
Mid	5590	44.24	44.16
High	5670	43.76	43.84
142	5710	37.24	37.00



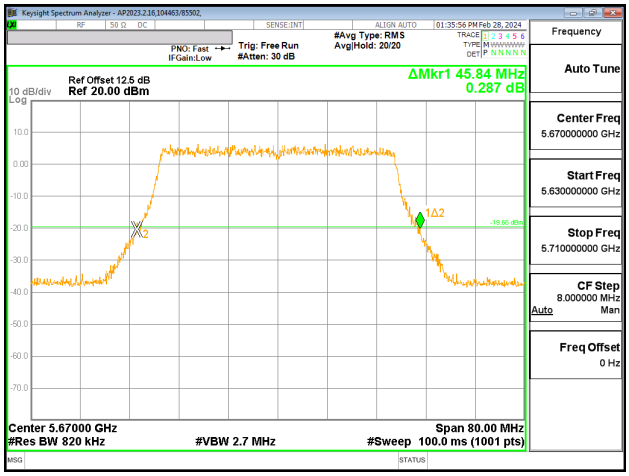
MID CHANNEL CHAIN 0



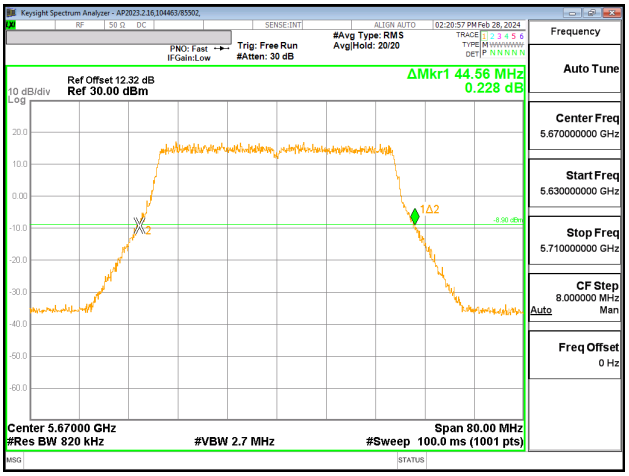
MID CHANNEL CHAIN 1

2TX SU MODE

Channel	Frequency (MHz)	26 dB Bandwidth Chain 0 (MHz)	26 dB Bandwidth Chain 1 (MHz)
Low	5510	45.68	45.04
Mid	5590	45.76	44.88
High	5670	45.84	44.56
142	5710	37.64	37.32



HIGH CHANNEL CHAIN 0



HIGH CHANNEL CHAIN 1