TEST REPORT

Report Number: 14523758-E4V2

Applicant	:	APPLE, INC. 1 APPLE PARK WAY CUPERTINO, CA 95014, U.S.A
Model	:	A2846 (Parent Model) A3089, A3090, A3092 (Variant Models)
Brand	:	APPLE
FCC ID	:	BCG-E8427A (Parent Model) BCG-E8428A, BCG-E8429A, BCG-E8430A (variant Models)
IC ID	:	579C-E8427A (Parent Model) 579C-E8428A, 579C-E8429A, 579C-E8430A (Variant Models)
EUT Description	:	SMARTPAHONE
Test Standard(s)	:	FCC 47 CFR PART 15 SUBPART C ISED RSS-247 ISSUE 2 ISED RSS-GEN ISSUE 5 + A1 + A2

Date Of Issue:
July 07, 2023

Prepared by:
UL Verification Services Inc.
47173 Benicia Street
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CERT #0751.05

REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	7/1/2023	Initial Issue	Chin Pang
V2	7/7/2023	Address TCB's question section 6.5, 8, 9.1, and 10	Chin Pang

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: APPLE INC.
1 APPLE PARK WAY
CUPERTINO, CA 95014, U.S.A

EUT DESCRIPTION: SMARTPHONE

MODEL: A2846 (Parent Model)
A3089, A3090, A3092 (Variant Models)

BRAND: APPLE

SERIAL NUMBER: V9CMW29KXK, P6XL92MQDL

SAMPLE RECEIPT DATE: JANUARY 30, 2023

DATE TESTED: JANUARY 30, 2023 – JULY 12, 2023

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart C	Complies
ISED RSS-247 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. This report must not be used by the client to claim product certification, approval, or endorsement by A2LA, NIST, any agency of the Federal Government, or any agency of the U.S. government.

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Approved & Released For
UL Verification Services Inc. By:

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2. TEST RESULTS SUMMARY

FCC Clause	ISED Clause	Requirement	Result	Comment
See Comment		Duty Cycle	Reporting purposes only	ANSI C63.10 Section 11.6.
-	RSS-GEN 6.7	99% OBW	Reporting purposes only	ANSI C63.10 Section 6.9.3.
15.247 (a) (2)	RSS-247 5.2 (a)	6dB BW	Complies	None.
15.247 (b) (3)	RSS-247 5.4 (d)	Output Power (Average)	Complies	Per ANSI C63.10, Section 11.9.2.3.2..
15.247 (e)	RSS-247 5.2 (b)	PSD	Complies	None.
15.247 (d)	RSS-247 5.5	Conducted Spurious Emissions	Complies	None.
15.209, 15.205	RSS-GEN 8.9, 8.10	Radiated Emissions	Complies	None.
15.207	RSS-Gen 8.8	AC Mains Conducted Emissions	Complies	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 558074 D01 v05r02 15.247 Meas Guidance
- ANSI C63.10-2013
- RSS-GEN Issue 5 + A1 + A2
- KDB 414788 D01 Radiated Test Site v01r01-247 Issue 2

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4. FACILITIES AND ACCREDITATION

UL Verifications Services Inc. is accredited by A2LA, certification #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			

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.)

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5.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	U_{LAB}
Conducted Antenna Port Emission Measurement	1.94
Power Spectral Density	2.466
Time Domain Measurements Using SA	3.39
RF Power Measurement Direct Method Using Power Meter	0.450 (Peak), 1.3 (Ave)
Radio Frequency (Spectrum Analyzer)	141.16 Hz
Occupied Bandwidth	1.2%
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

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

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6. EQUIPMENT UNDER TEST

6.1. EUT DESCRIPTION

The Apple iPhone is a smartphone with multimedia functions (music, application support, and video),cellular GSM, GPRS, EGPRS, UMTS, LTE, 5G, IEEE 802.11a/b/g/n/ac/ax, Bluetooth, Ultra-Wideband, GPS, NFC, 802.15.4ab-NB and MSS technologies. The rechargeable battery is not user accessible.

Testing was performed on the parent model and is used to support the application for the parent and variants identified in this report based on the test plan submitted and approved via KDB inquiry by the FCC and by ISED-Canada.

The Model and FCC/IC ID covered by this report includes:

Parent Model: A2846, FCC ID: BCG-E8427A, IC ID: 579C-E8427A

Variant Models: A3089; FCC ID: BCG-E8428A, IC ID: 579C-E8428A
A3090 FCC ID: BCG-E8429A, IC ID: 579C-E8429A
A3092; FCC ID: BCG-E8430A, IC ID: 579C-E8430A

6.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
1Tx			
2412 - 2472	802.11b	21.45	139.64
	802.11g	Covered by 802.11n HT20 1TX	
	802.11n HT20	21.52	141.91
	802.11ax HE20	21.48	140.60

2Tx			
2412 - 2472	802.11n HT20 CDD	24.47	279.90
	802.11g SDM/STBC	Covered by 802.11n HT20 2TX CDD	
	802.11ax HE20	24.48	280.54

6.3. DESCRIPTION OF AVAILABLE ANTENNAS

The antenna(s) gain and type, as provided by the manufacturer' are as follows:
Cable loss is 1.96 dB for antenna 4 and 2.18dB for Antenna 3

Frequency Range (GHz)	ANT 4 (dBi)	ANT 3 (dBi)
2.4	-1.0	-1.90

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6.4. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was WiFi FW Version: 20_97_1_4.

6.5. WORST-CASE CONFIGURATION AND MODE

EUT was investigated in three orthogonal orientations X (Flatbed), Y (Landscape) and Z (Portrait) on ANT 4 , ANT 3, and 2TX. It was determined that X (Flatbed) orientation was worst-case orientation for ANT 4 and Y (Landscape) for ANT 3 and 2TX.

With same power on Full RU and SU higher data rate, investigation were performed on both bandedge to determine the worst case, and SU mode was determined to be the worst case.

Radiated band edge, harmonic, and spurious emissions from 1GHz to 18GHz were performed with the EUT set to transmit at highest power on Low/Middle/High channels.

Radiated emissions below 1GHz, 18-26GHz and power line conducted emissions were performed with the EUT transmits at the channel with the highest output power as worst-case scenario. There were no emissions found below 30MHz within 20dB of the limit.

For radiated harmonics spurious below 1GHz, 1-18GHz L/M/H channels, 18-26GHz, and power line conducted emissions were performed with the EUT set at the 2TX CDD mode among the CDD/SDM modes and 2TX HE mode with power setting equal or higher than SISO modes as worst-case scenario. G mode covered by HT20 mode since it has the same power as HT20.

Below 1GHz tests were performed with EUT connected to AC power adapter as the worst case; and for above 1GHz tests, the worst-case configuration reported was with EUT only. For AC line conducted emission, test was investigated with AC power adapter and with laptop.

The output power and psd for the 802.11 ax mode were investigated between all different tones, and we found that SU mode had the highest output power and the lowest tone had the highest PSD readings. And after investigation, antenna port conducted tests were performed on both SU and lowest tones; radiated spurious emission and radiated band edge tests were performed on SU and lowest tones.

Low data rate was used to test on antenna port conducted tests and radiated spurious emissions since it has the highest maximum power. For radiated bandedge, following are the worst-case data rates set for test:

802.11b mode: 1 Mbps
802.11n HT20mode: MCS7
802.11ax HE20mode: MCS9
802.11ax HE20 RU26 and SU, MCS9

Note: In the Radiated Plots and emissions data, ANT0=ANT4 and ANT1=ANT 3.

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6.6. DESCRIPTION OF TEST SETUP

SUPPORT TEST EQUIPMENT				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID/ DoC**
Laptop	Apple	Macbook Pro	C02VD7SAHV22	BCGA1708
Laptop AC/DC adapter	Liteon Technology	A1424	NSW25679	DoC
EUT AC/DC adapter	Apple	A1720	C3D8417A7R93KVPA8	DoC
Conducted Switch Box	UL	n/a	208281	N/A
10dB Fixed Attenuator, 2 Watts Up to 26.5 GHz	Pasternack Enterprises	PE7024-10	236358	N/A

I/O CABLES (RF CONDUCTED TEST)						
Cable No.	**Port**	**# of Identical Ports**	**Connector Type**	**Cable Type**	**Cable Length (m)**	**Remarks**
1	SMA	1	SMA	Shielded	0.75	To spectrum Analyzer
2	Antenna	2	SMA	Un-shielded	0.2	To Conducted Switch Box
3	USB-C	1	USB-C	Shielded	1.0	N/A
4	AC	1	AC	Un-shielded	2	N/A

I/O CABLES (RF RADIATED AND AC LINE CONDUCTED TEST)						
Cable No.	**Port**	**# of Identical Ports**	**Connector Type**	**Cable Type**	**Cable Length (m)**	**Remarks**
1	AC	1	AC	Un-shielded	2	N/A
2	USB	1	USB	Shielded	1	N/A

TEST SETUP

The EUT setup is shown as below. Test software exercised the radio card.

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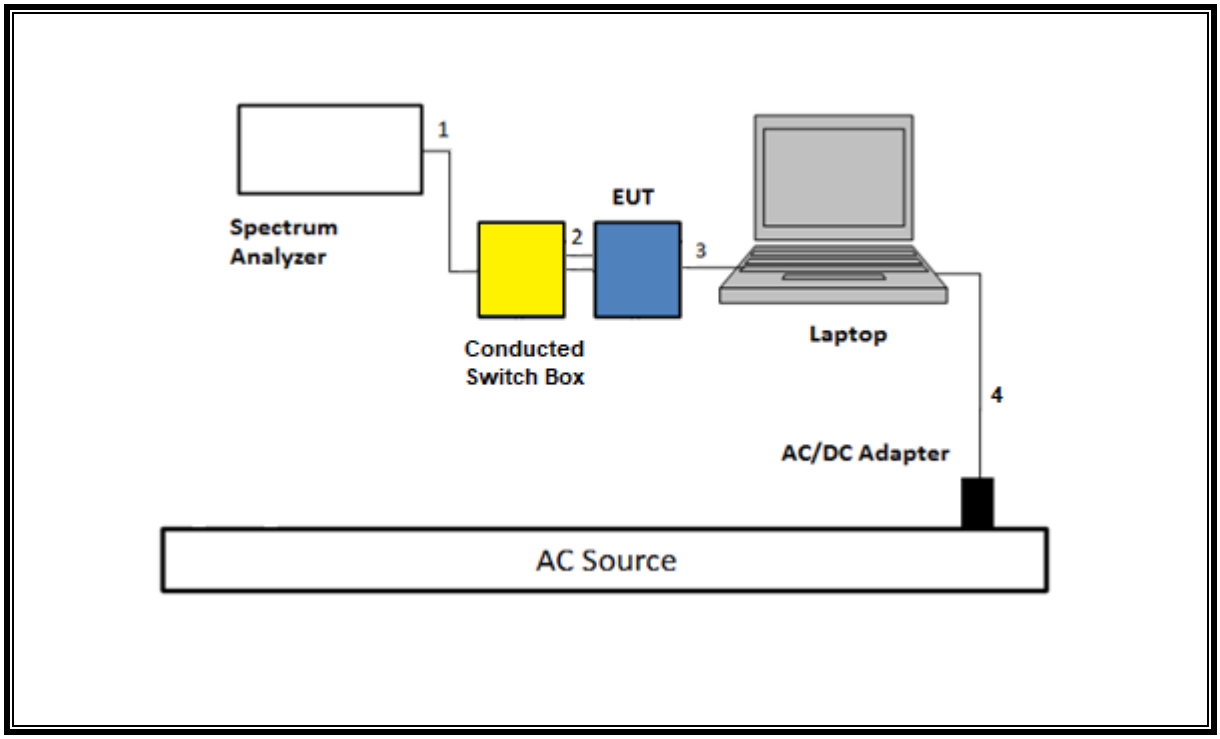
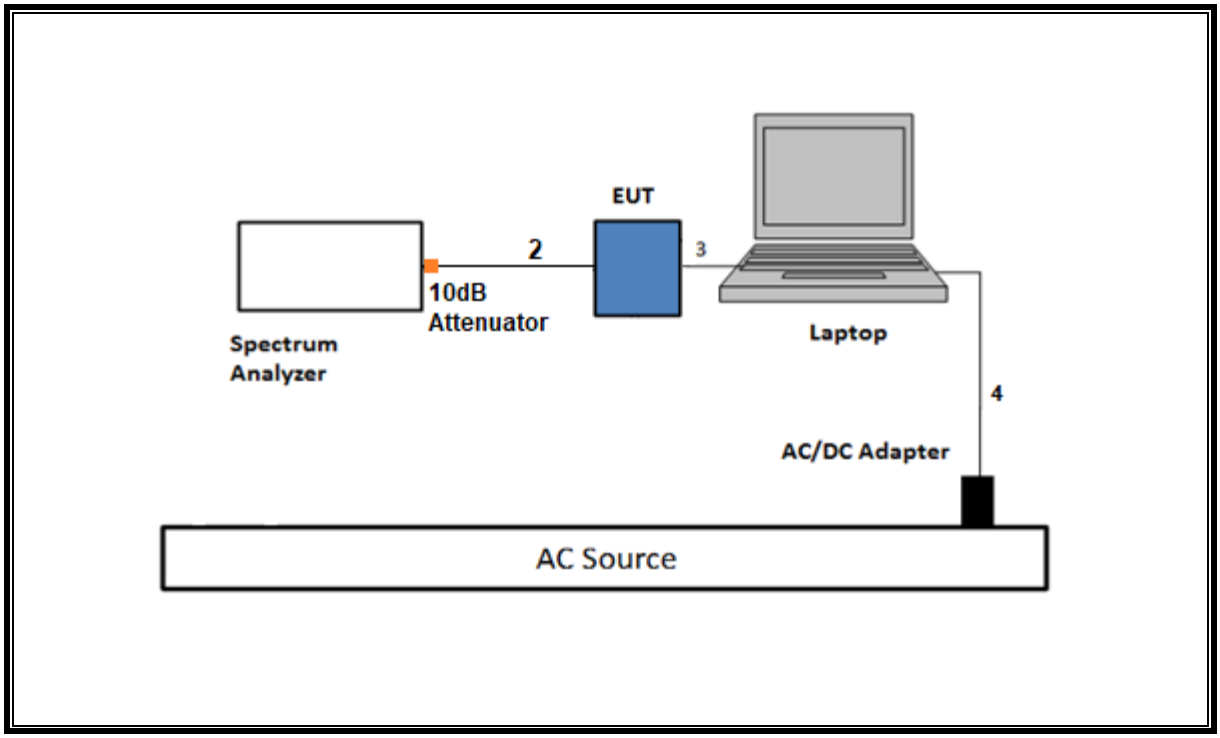
SETUP DIAGRAM FOR CONDUCTED TESTS





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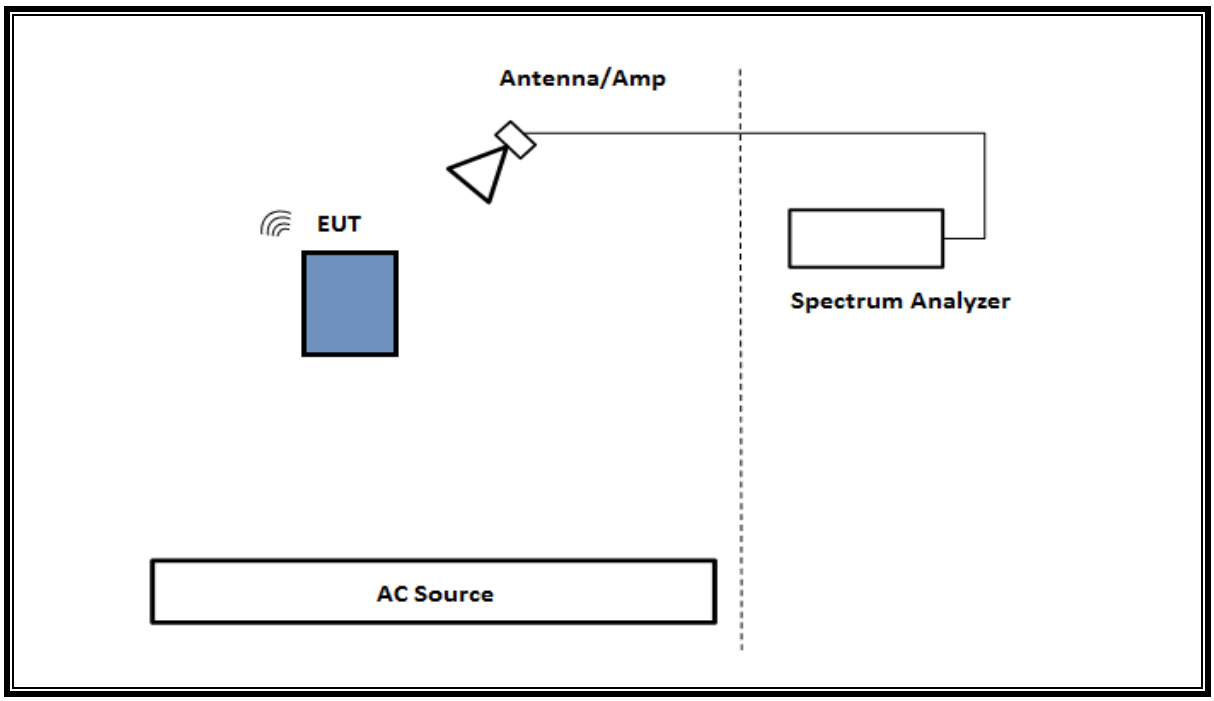
SETUP DIAGRAM FOR RADIATED TESTS Above 1 GHz



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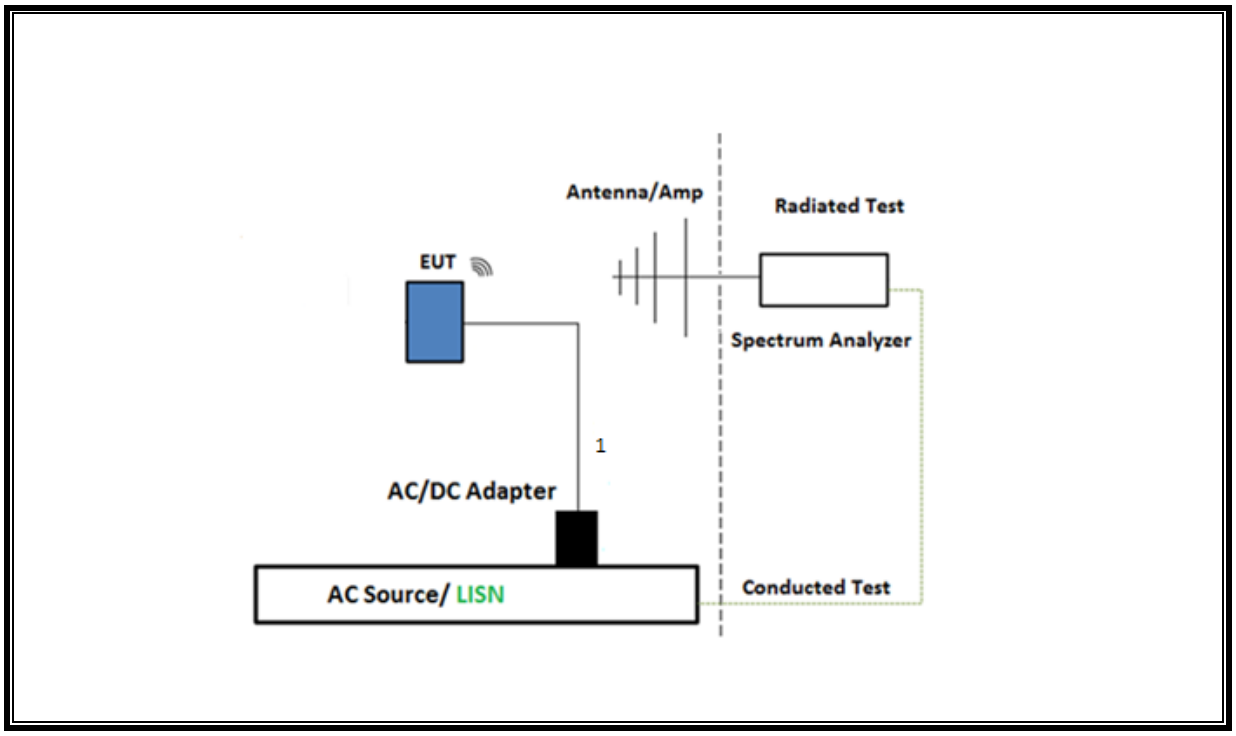
SETUP DIAGRAM FOR Below 1GHz and AC LINE CONDUCTED TEST



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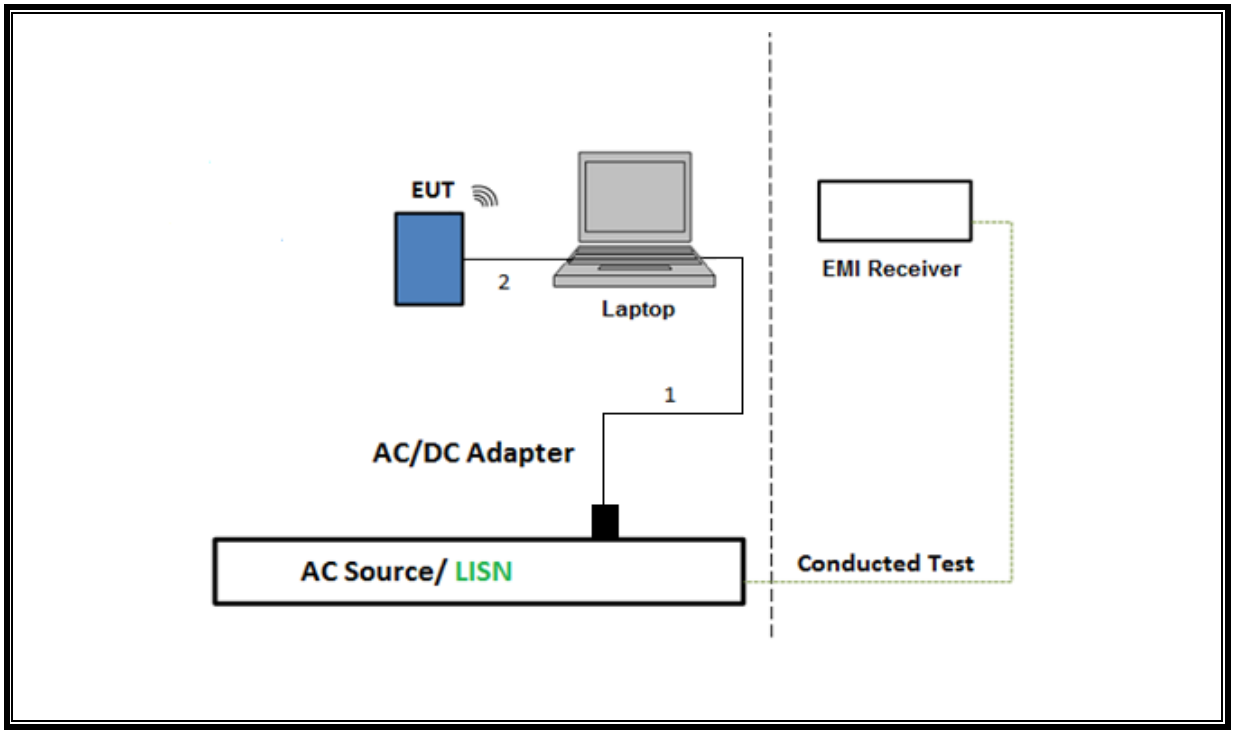
TEST SETUP- AC LINE CONDUCTED: LAPTOP CONFIGURATION



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7. MEASUREMENT METHOD

Test Item	Test Method
6 dB BW	ANSI C63.10 Subclause -11.8.1 RBW ≥ DTS BW
99% BW	ANSI C63.10-2013, Subclause 6.9.3.
Output Power	ANSI C63.10 Subclause -11.9.2.3.1 Method AVGPM (Measurement using an RF average-reading power meter)
PSD	ANSI C63.10 Subclause -11.10.3 Method AVGPSD-1
Radiated emissions non-restricted frequency bands	ANSI C63.10 Subclause -11.11 & Clause 13
Radiated emissions restricted frequency bands	ANSI C63.10 Subclause -11.12.1 & Clause 13
Conducted emissions in restricted frequency bands	ANSI C63.10 Subclause -11.12.2
Band-edge	ANSI C63.10 Subclause -11.13.3.2 & Clause 13: Integration method -Peak detection
Band-edge	ANSI C63.10 Subclause -11.13.3.3 & Clause 13: Integration method -Trace averaging with continuous transmission at full power
Radiated Spurious Emissions Below 30MHz	ANSI C63.10-2013 Subclause 6.4 & Clause 13
AC Power Line Conducted Emissions	ANSI C63.10-2013, Subclause 6.2

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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**
Spectrum Analyzer, PSA, 3Hz to 26.5GHz	Keysight Technologies Inc	E4440A	81311	02/29/2024	02/29/2023
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight Technologies Inc	N9030A	125179	02/29/2024	02/29/2023
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight Technologies Inc	E4446A	80396	01/31/2024	01/31/2023
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight Technologies Inc	N9030A	87738	01/31/2024	01/31/2023
*Conducted Switch Box	N/A	CSB	221008	06/21/2023	06/21/2022
Conducted Switch Box	N/A	CSB	208281	04/30/2024	04/30/2023
10dB Fixed Attenuator, 2 Watts Up to 26.5 GHz	Pasternack Enterprises	PE7024-10	236358	Verified/Characterized before use	
10dB Fixed Attenuator, 2 Watts Up to 26.5 GHz	Pasternack Enterprises	PE7024-10	236355	Verified/Characterized before use	
Power Meter, P-series single channel	Keysight Technologies Inc	N1911A	90756	01/31/2024	01/31/2023
Power Sensor, P- series, 50MHz to 18GHz, Wideband	Keysight Technologies Inc	N1921A	90389	01/31/2024	01/31/2023
Antenna, Horn 1-18GHz	ETS Lindgren	3117	222740	08/31/2023	08/31/2022
Filter Box, 1-18GHz 12 Port	UL-FR1	Frankenstein	217255	08/23/2023	08/23/2022
EMI Test Receiver	Rohde & Schwarz	ESW44	201500	02/29/2024	02/29/2023
Antenna, Horn 1-18GHz	ETS Lindgren	3117	230300	01/12/2024	01/12/2023
RF Filter Box, 1-18GHz, 12 Port	UL-FR1	Frankenstein	216812	09/17/2023	09/17/2022
Antenna, Horn 1-18GHz	ETS Lindgren	3117	84797	09/20/2023	09/20/2022
RF Filter Box 1-18GHz	UL-FR	NA	206359	08/13/2023	08/13/2022
Antenna, Broadband Hybrid, 30MHz to 3GHz	Sunol Sciences Corp	JB3	80714	10/06/2023	10/06/2022
Amplifier, 9KHz to 1GHz, 32dB	SONOMA INSTRUMENT	310	204041	08/24/2023	08/24/2022
*Antenna Horn, 18 to 26.5GHz	ARA	MWH-1826/B	172353	06/01/2023	06/01/2022
RF Amplifier Assembly, 18-26.5GHz, 60dB Gain	AMPLICAL	AMP18G26.5-60	171583	02/29/2024	02/29/2023
EMI Receiver	Rohde & Schwarz	ESW44	235670	04/30/2024	04/30/2023
EMI Test Receiver	Rohde & Schwarz	ESW44	169927	02/29/2024	02/29/2023
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	206807	02/28/2024	02/28/2023
RF Filter Box, 1-18GHz	UL-FR1	N/A	171875	11/10/2023	11/10/2022
Antenna, Passive Loop 100KHz to 30MHz	ETS-Lindgren	EM-6872	170015	07/28/2023	07/28/2022
Antenna, Passive Loop 30Hz to 1MHz	Electro-Metrics	EM-6871	170013	07/28/2023	07/28/2022
Antenna, Horn 1-18GHz	ETS Lindgren	3117	226672	01/09/2024	01/09/2023
*EMI Receiver	Rohde & Schwarz	ESW44	201502	02/22/2023	02/22/2022

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AC Line Conducted					
Description	**Manufacturer**	**Model**	**ID Num**	**Cal Due**	**Last Cal**
EMI Test Receiver 9kHz-7GHz	Rohde & Schwarz	ESR	93091	02/29/2024	02/29/2023
LISN for Conducted Emissions CISPR-16	FISCHER CUSTOM COMMUNICATIONS	FCC-LISN-50/250-25-2-01-480V	175764	01/31/2024	01/31/2023
Transient Limiter	TE	TBFL1	207996	07/15/2023	07/15/2022
UL AUTOMATION SOFTWARE					
Radiated Software	UL	UL EMC	Ver 9.5, May 1 , 2023		
Conducted Software	UL	UL EMC	2020.8.16		
AC Line Conducted Software	UL	UL EMC	Ver 9.5, Mar 3, 2023		

*Testing is completed before equipment expiration date.

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9. ANTENNA PORT TEST RESULTS

9.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

PROCEDURE

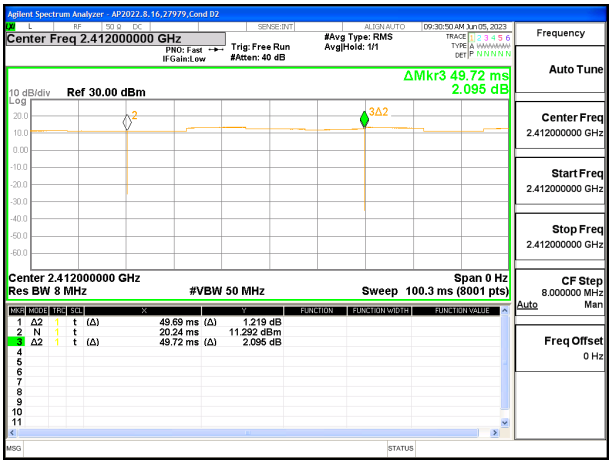
KDB 558074 Zero-Span Spectrum Analyzer Method.

ON TIME AND DUTY CYCLE RESULTS

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
2.4GHz Band						
802.11b	49.690	49.720	0.999	99.94%	0.00	0.010
802.11n HT20 MCS0	3.768	3.790	0.994	99.42%	0.00	0.010
802.11n HT20 MCS7	0.412	0.434	0.950	95.02%	0.22	2.427
802.11ax HE20, RU26 MCS0	3.992	4.037	0.989	98.89%	0.00	0.010
802.11ax HE20, SU MCS0	1.487	1.509	0.985	98.54%	0.00	0.010
802.11ax HE20, RU26 MCS9	0.350	0.394	0.887	88.69%	0.52	2.859
802.11ax HE20, SU MCS9	0.168	0.190	0.883	88.30%	0.54	5.967

Note: Duty cycle 2TX is the same as 1TX. And to reduce file size, only two plots are included.

DUTY CYCLE PLOTS



DUTY CYCLE 802.11b MODE

DUTY CYCLE 802.11n HT20 MCS0

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9.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

Only Mid channel plot is reported to show setting parameter complies with testing method/procedure.

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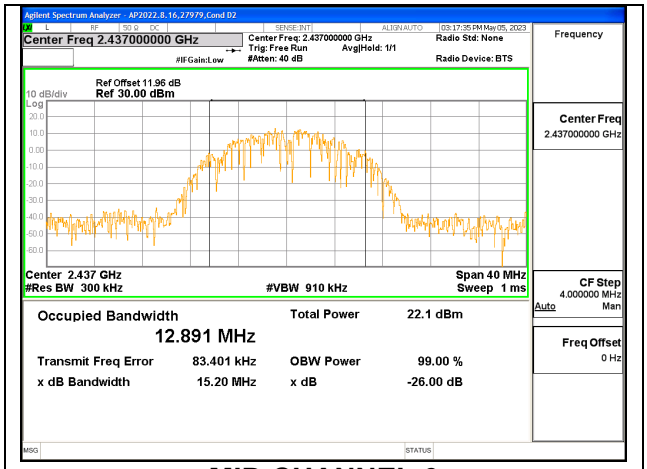
9.2.1. 802.11b MODE 1TX

1TX ANT 4 MODE

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low 1	2412	12.722
Mid 6	2437	12.891
High 11	2462	12.693
High 12	2467	12.702
High 13	2472	12.715



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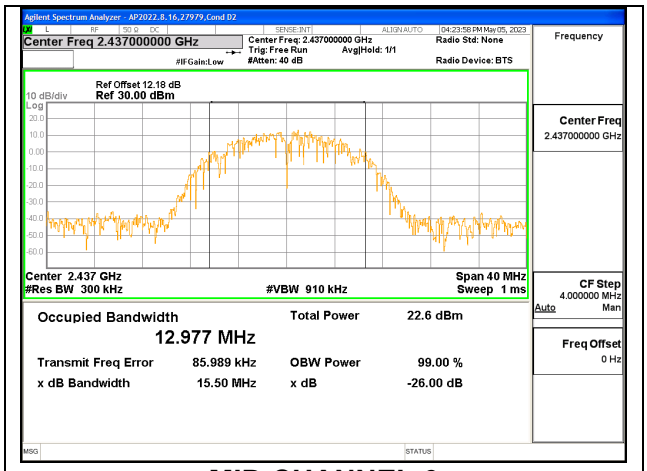
1TX ANT 3 MODE

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low 1	2412	12.729
Mid 6	2437	12.977
High 11	2462	12.976
High 12	2467	12.754
High 13	2472	12.774



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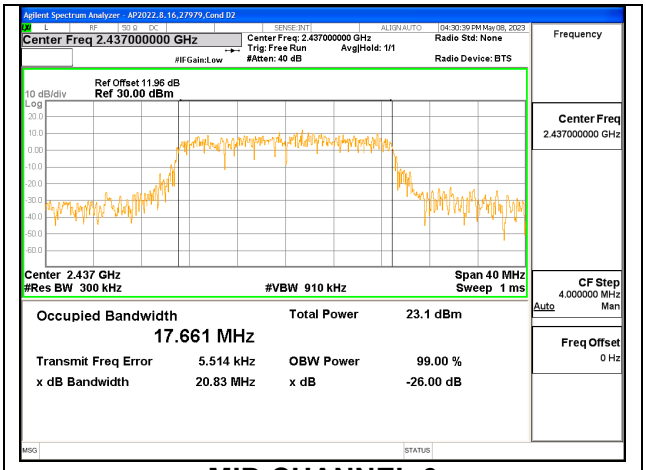
9.2.2. 802.11n HT20 MODE

1TX ANT 4 MODE

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low 1	2412	17.622
Low 2	2417	17.609
Low 3	2422	17.566
Mid 6	2437	17.661
High 9	2452	17.722
High 10	2457	17.718
High 11	2462	17.57
High 12	2467	17.684
High 13	2472	17.544



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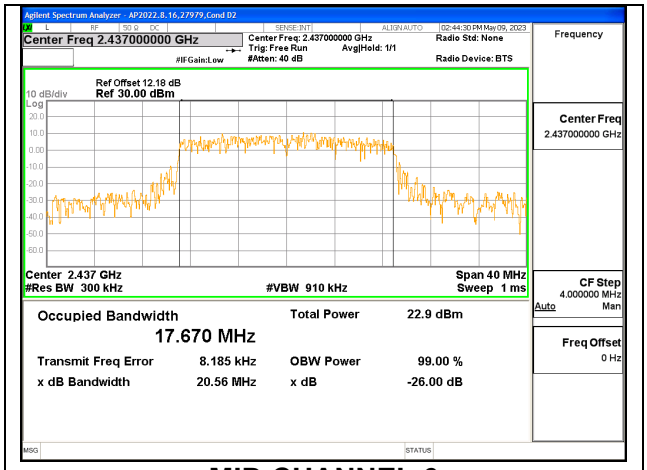
1TX ANT 3 MODE

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low 1	2412	17.742
Low 2	2417	17.647
Low 3	2422	17.854
Mid 6	2437	17.670
High 9	2452	17.678
High 10	2457	17.662
High 11	2462	17.713
High 12	2467	17.717
High 13	2472	17.690



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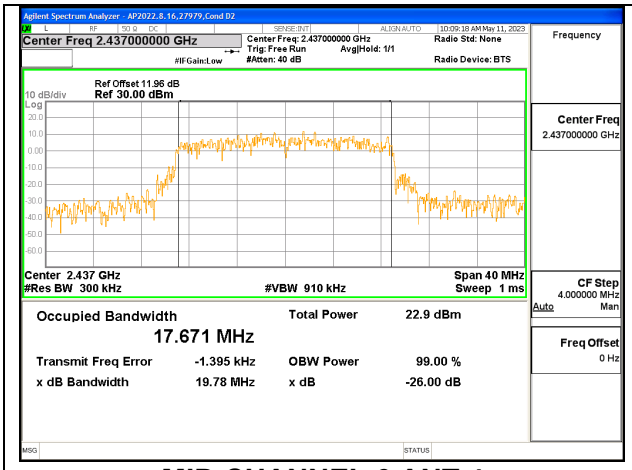
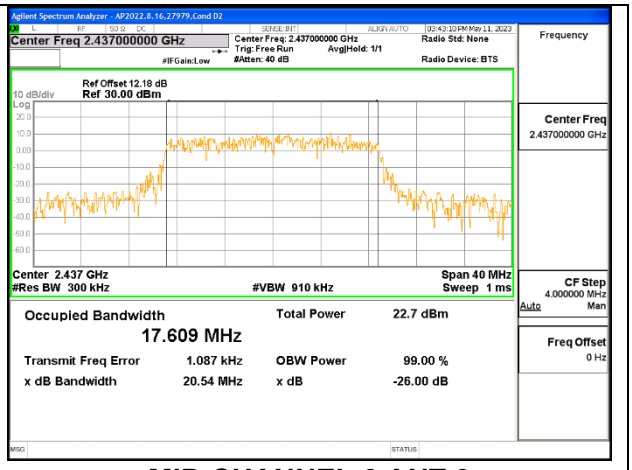
9.2.3. 802.11n HT20 CDD MODE 2TX

ANT 4 + ANT 3 2TX MODE

Channel	Frequency (MHz)	99% Bandwidth (MHz) ANT 4	99% Bandwidth (MHz) ANT 3
Low 1	2412	17.745	17.715
Low 2	2417	17.69	17.708
Low 3	2422	17.627	17.812
Low 4	2427	17.625	17.680
Mid 6	2437	17.671	17.609
High 8	2447	17.609	17.600
High 9	2452	17.544	17.698
High 10	2457	17.694	17.631
High 11	2462	17.787	17.839
High 12	2467	17.940	17.842
High 13	2472	17.621	17.605



MID CHANNEL 6 ANT 4



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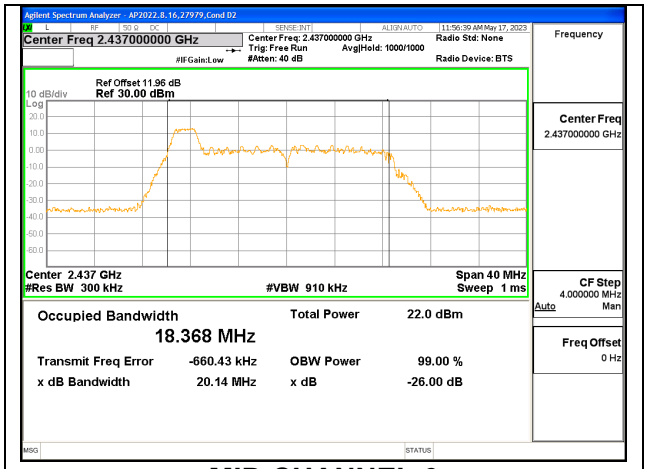
9.2.4. 802.11ax HE20 MODE

ANT 4 LEGACY SISO MODE: 26-Tones, RU Index 0

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low 1	2412	18.440
Mid 6	2437	18.368
High 11	2462	18.387
High 12	2467	18.465
High 13	2472	18.446



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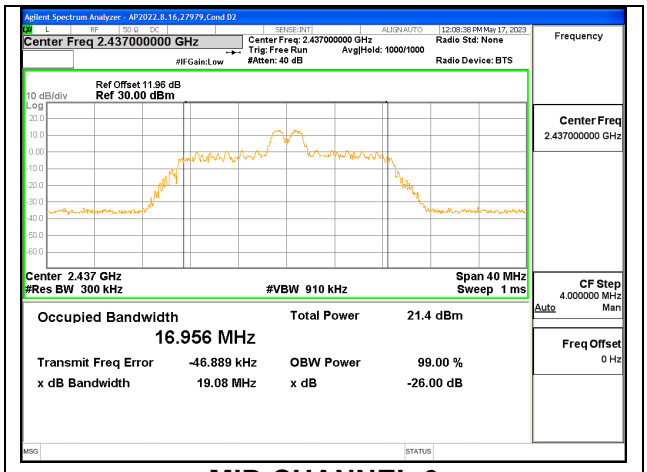
ANT 4 LEGACY SISO MODE: 26-Tones, RU Index 4

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low 1	2412	17.055
Mid 6	2437	16.956
High 11	2462	17.170
High 12	2467	17.229
High 13	2472	17.162



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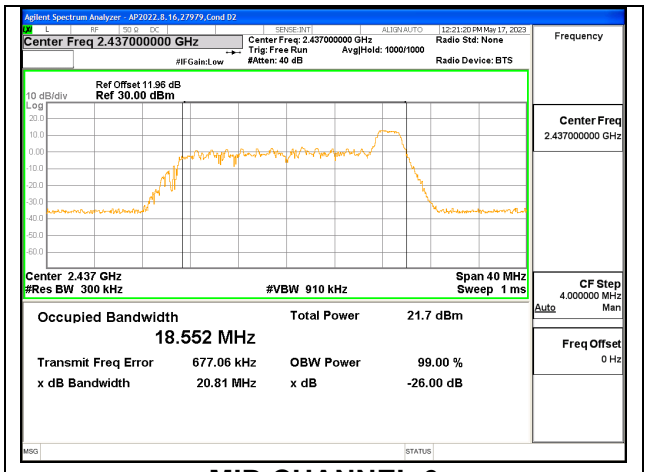
ANT 4 LEGACY SISO MODE: 26-Tones, RU Index 8

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low 1	2412	18.767
Mid 6	2437	18.552
High 11	2462	18.759
High 12	2467	18.649
High 13	2472	18.837



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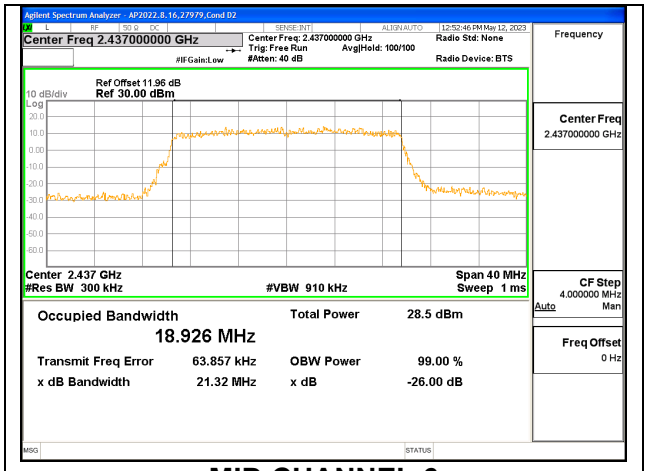
ANT 4 LEGACY SISO MODE: SU Mode

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low 1	2412	19.082
Low 2	2417	18.967
Low 3	2422	18.996
Mid 6	2437	18.926
High 9	2452	18.978
High 10	2457	18.978
High 11	2462	18.995
High 12	2467	18.971
High 13	2472	18.932



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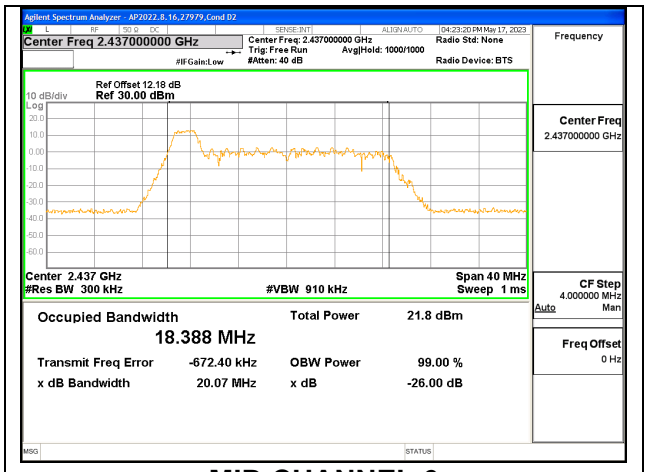
ANT 3 LEGACY SISO MODE: 26-Tones, RU Index 0

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low 1	2412	18.435
Mid 6	2437	18.388
High 11	2462	18.162
High 12	2467	18.417
High 13	2472	18.291



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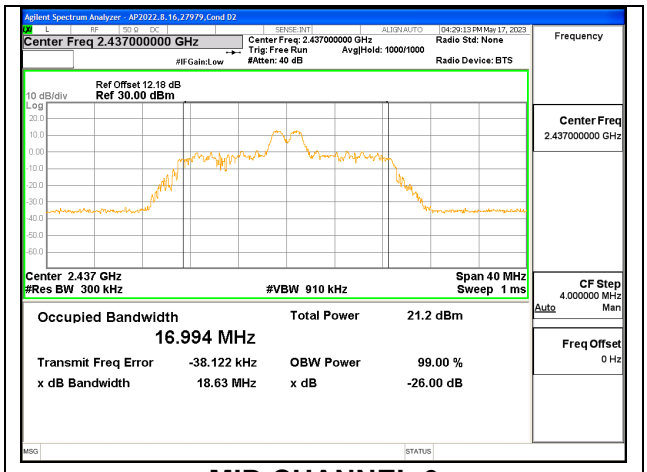
ANT 3 LEGACY SISO MODE: 26-Tones, RU Index 4

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low 1	2412	17.015
Mid 6	2437	16.994
High 11	2462	17.054
High 12	2467	16.992
High 13	2472	16.697



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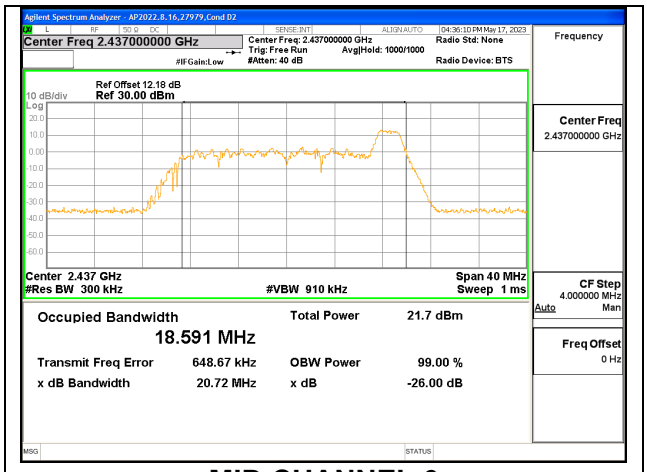
ANT 3 LEGACY SISO MODE: 26-Tones, RU Index 8

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low 1	2412	18.626
Mid 6	2437	18.591
High 11	2462	18.571
High 12	2467	18.805
High 13	2472	18.679



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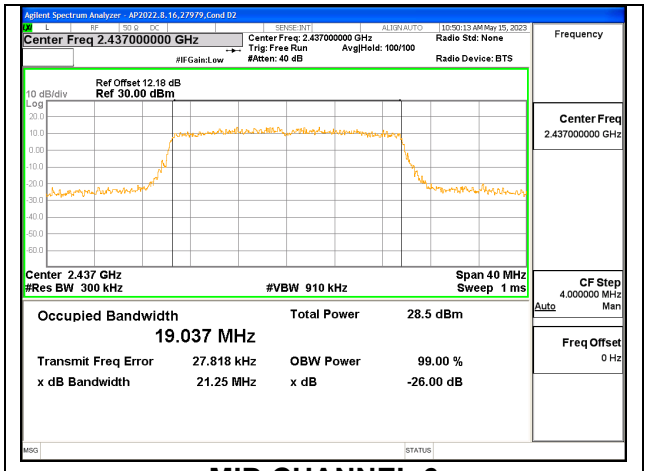
ANT 3 LEGACY SISO MODE: SU Mode

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low 1	2412	19.067
Low 2	2417	18.979
Low 3	2422	19.003
Mid 6	2437	19.037
High 9	2452	18.994
High 10	2457	19.014
High 11	2462	19.006
High 12	2467	19.013
High 13	2472	18.919



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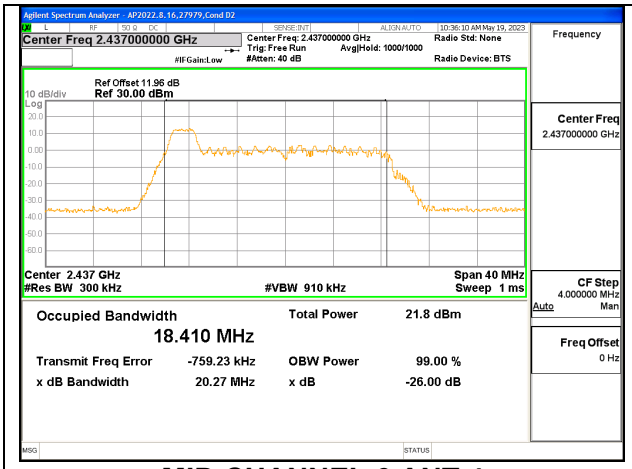
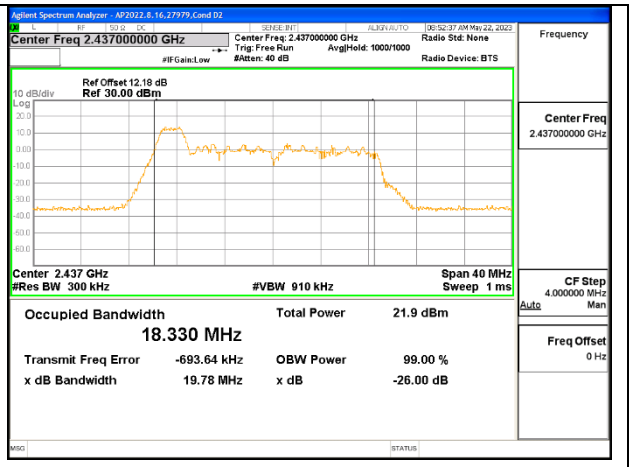
9.2.5. 802.11ax HE20 OFDMA MODE 2TX

ANT 4 + ANT 3 2TX MODE: 26-Tones, RU Index 0

Channel	Frequency (MHz)	99% Bandwidth (MHz) ANT 4	99% Bandwidth (MHz) ANT 3
Low 1	2412	18.433	18.332
Mid 6	2437	18.410	18.330
High 11	2462	18.415	18.121
High 12	2467	18.265	18.360
High 13	2472	18.400	18.322



MID CHANNEL 6 ANT 4



MID CHANNEL 6 ANT 3

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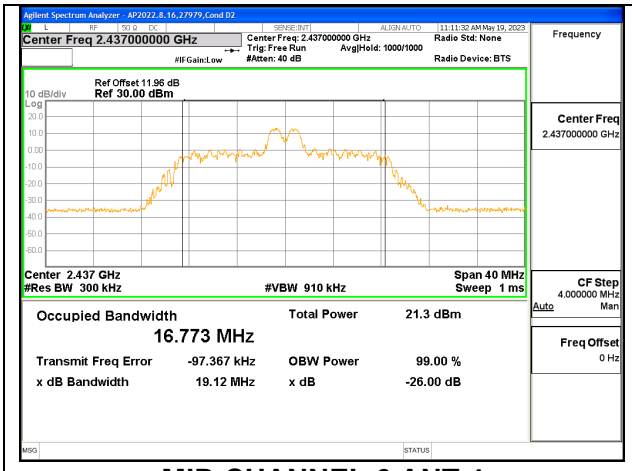
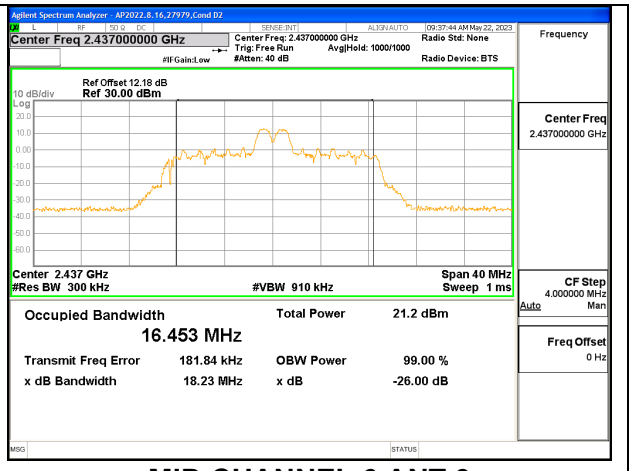
ANT 4 + ANT 3 2TX MODE: 26-Tones, RU Index 4

Channel	Frequency (MHz)	99% Bandwidth (MHz) ANT 4	99% Bandwidth (MHz) ANT 3
Low 1	2412	17.088	16.866
Mid 6	2437	16.773	16.453
High 11	2462	17.170	16.898
High 12	2467	17.305	16.765
High 13	2472	16.778	16.927



MID CHANNEL 6 ANT 4



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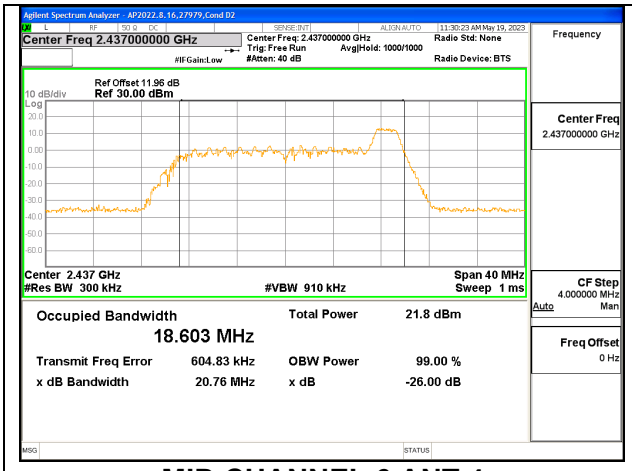
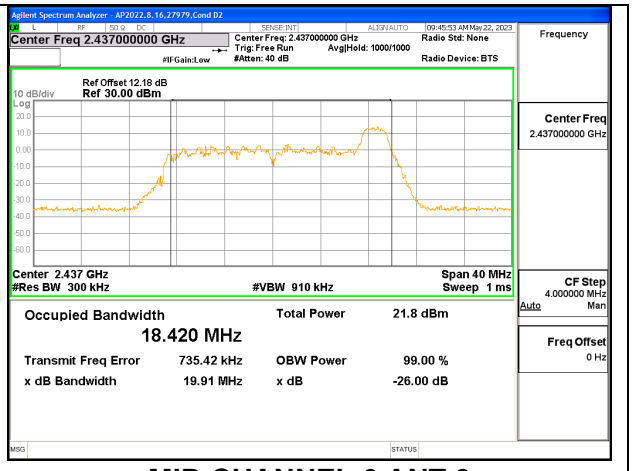
ANT 4 + ANT 3 2TX MODE: 26-Tones, RU Index 8

Channel	Frequency (MHz)	99% Bandwidth (MHz) ANT 4	99% Bandwidth (MHz) ANT 3
Low 1	2412	18.714	18.493
Mid 6	2437	18.603	18.420
High 11	2462	18.749	18.511
High 12	2467	18.729	18.461
High 13	2472	18.789	18.468



MID CHANNEL 6 ANT 4



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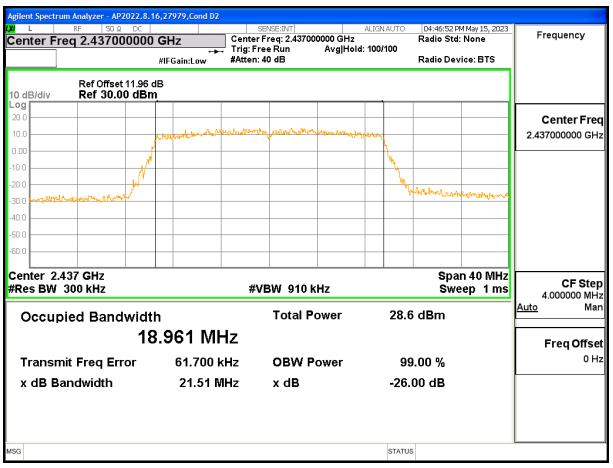
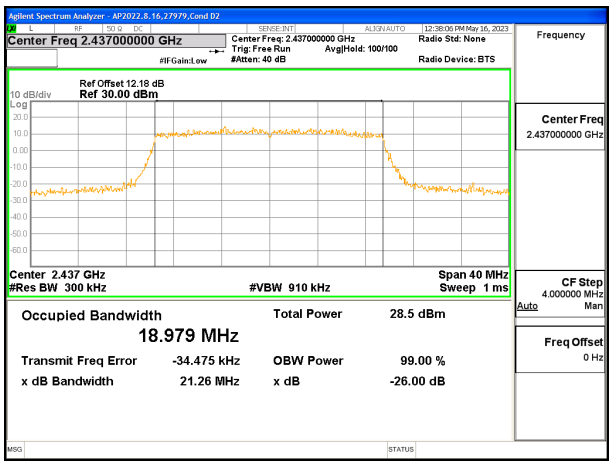
ANT 4 + ANT 3 2TX MODE: SU MODE

Channel	Frequency (MHz)	99% Bandwidth (MHz) ANT 4	99% Bandwidth (MHz) ANT 3
Low 1	2412	19.112	19.056
Low 2	2417	18.971	18.952
Low 3	2422	18.976	18.959
Low 4	2427	18.971	18.915
Mid 6	2437	18.961	18.979
High 8	2447	18.973	18.983
High 9	2452	18.981	18.982
High 10	2457	18.975	18.966
High 11	2462	19.011	18.960
High 12	2467	18.993	19.001
High 13	2472	18.886	18.955



MID CHANNEL 6 ANT 4



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9.3. 6dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

RSS-247 5.2 (a)

The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

The 6dB bandwidth was measured for the narrowest bandwidth mode, b Mode and ax HE20 Mode 26-Tones as worst case to demonstrate compliance with the minimum required bandwidth of 500 kHz to cover all OFDMA modes.

Only Mid channel plot is reported to show setting parameter complies with testing method/procedure.

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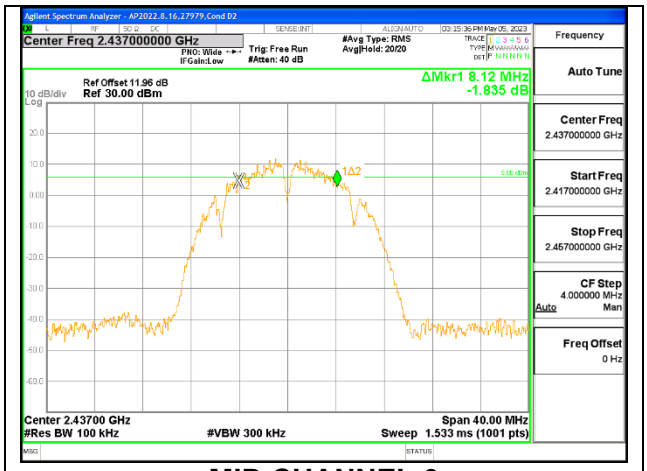
9.3.1. 802.11b MODE 1TX

1TX ANT 4 MODE

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)
Low 1	2412	8.44	0.5
Low 2	2417	8.64	0.5
Mid 6	2437	8.12	0.5
High 11	2462	7.72	0.5
High 12	2467	8.64	0.5
High 13	2472	8.44	0.5



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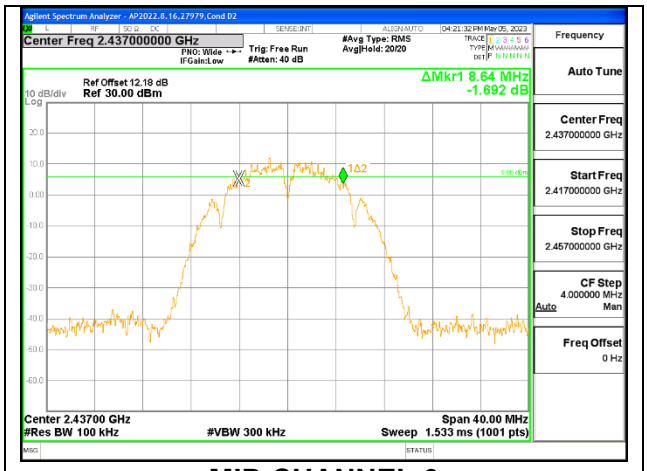
1TX ANT 3 MODE

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)
Low 1	2412	6.68	0.5
Low 2	2417	8.20	0.5
Mid 6	2437	8.64	0.5
High 11	2462	7.04	0.5
High 12	2467	7.76	0.5
High 13	2472	8.64	0.5



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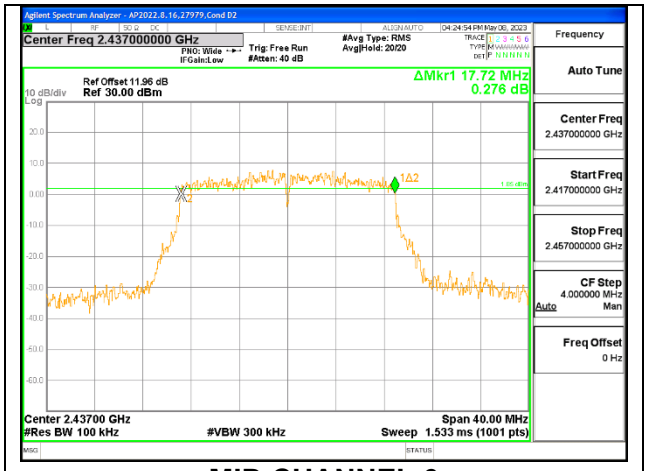
9.3.2. 802.11n HT20 MODE

1TX ANT 4 MODE

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)
Low 1	2412	17.76	0.5
Low 2	2417	17.68	0.5
Low 3	2422	17.72	0.5
Mid 6	2437	17.72	0.5
High 9	2452	17.76	0.5
High 10	2457	17.24	0.5
High 11	2462	17.72	0.5
High 12	2467	17.76	0.5
High 13	2472	17.36	0.5



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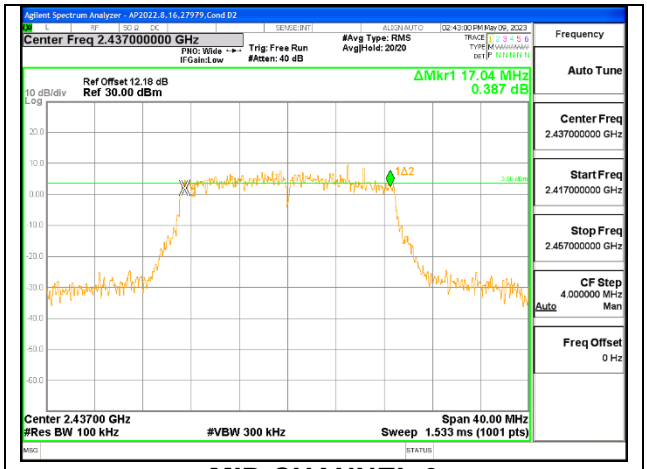
1TX ANT 3 MODE

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)
Low 1	2412	17.76	0.5
Low 2	2417	17.68	0.5
Low 3	2422	17.72	0.5
Mid 6	2437	17.04	0.5
High 9	2452	17.68	0.5
High 10	2457	17.68	0.5
High 11	2462	17.68	0.5
High 12	2467	17.76	0.5
High 13	2472	17.64	0.5



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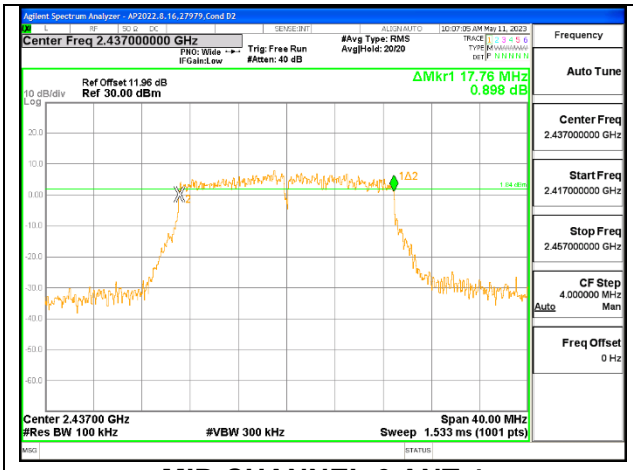
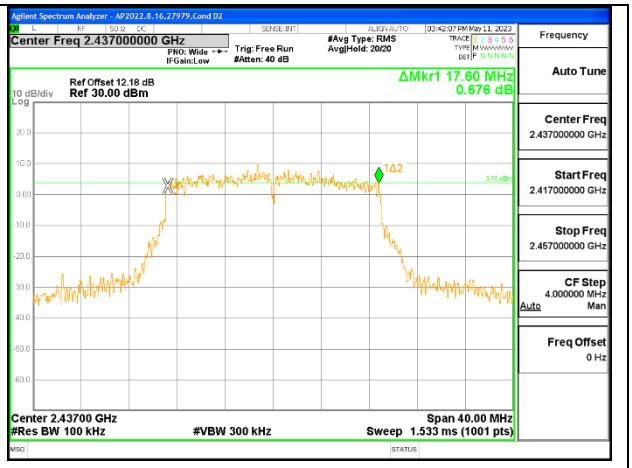
9.3.3. 802.11n HT20 MODE CDD MODE 2TX

ANT 4 + ANT 3 2TX MODE

Channel	Frequency (MHz)	6dB BW(MHz) ANT 4	6dB BW (MHz) ANT 3	Minimum Limit (MHz)
Low 1	2412	17.68	17.76	0.5
Low 2	2417	17.68	17.72	0.5
Low 3	2422	17.64	17.40	0.5
Low 4	2427	17.72	17.56	0.5
Mid 6	2437	17.76	17.60	0.5
High 8	2447	16.96	17.44	0.5
High 9	2452	17.04	17.68	0.5
High 10	2457	17.76	17.68	0.5
High 11	2462	16.44	17.72	0.5
High 12	2467	17.04	17.68	0.5
High 13	2472	17.68	17.64	0.5



MID CHANNEL 6 ANT 4



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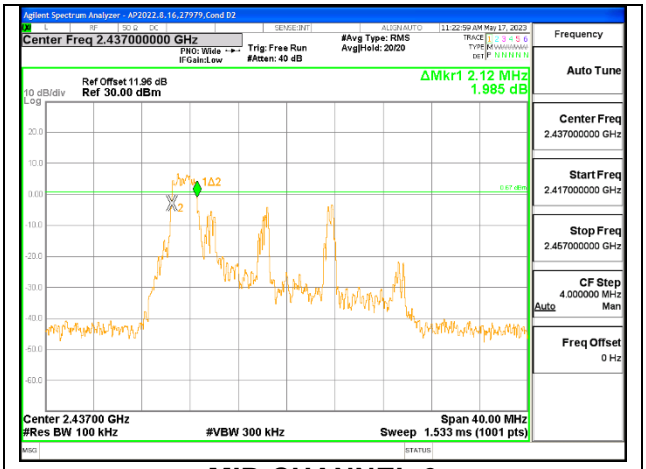
9.3.4. 802.11ax HE20 MODE

ANT 4 LEGACY SISO MODE: 26-Tones, RU Index 0

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)
Low 1	2412	2.12	0.5
Mid 6	2437	2.12	0.5
High 11	2462	2.12	0.5
High 12	2467	2.04	0.5
High 13	2472	2.12	0.5



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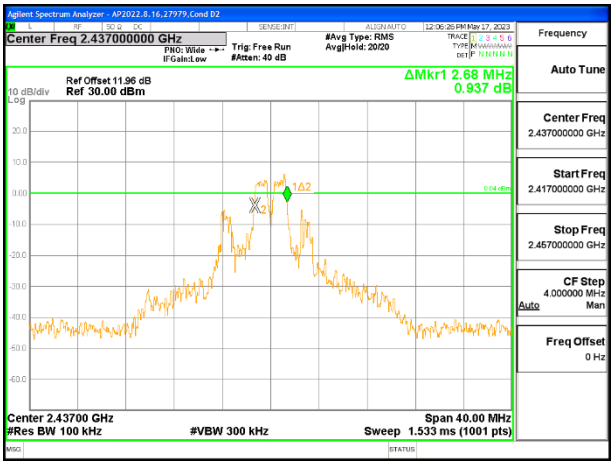
ANT 4 LEGACY SISO MODE: 26-Tones, RU Index 4

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)
Low 1	2412	2.72	0.5
Mid 6	2437	2.68	0.5
High 11	2462	2.68	0.5
High 12	2467	2.76	0.5
High 13	2472	2.64	0.5



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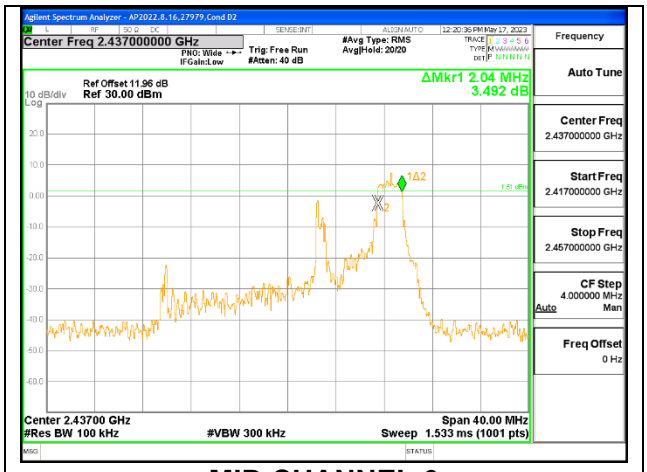
ANT 4 LEGACY SISO MODE: 26-Tones, RU Index 8

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)
Low 1	2412	2.04	0.5
Mid 6	2437	2.04	0.5
High 11	2462	2.12	0.5
High 12	2467	2.08	0.5
High 13	2472	2.08	0.5



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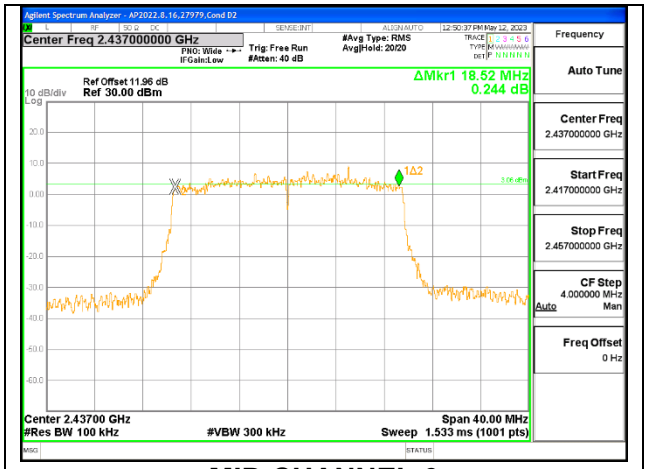
ANT 4 LEGACY SISO MODE: SU Mode

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)
Low 1	2412	18.40	0.5
Low 2	2417	18.84	0.5
Low 3	2422	19.04	0.5
Mid 6	2437	18.52	0.5
High 9	2452	18.72	0.5
High 10	2457	19.00	0.5
High 11	2462	19.16	0.5
High 12	2467	18.68	0.5
High 13	2472	18.60	0.5



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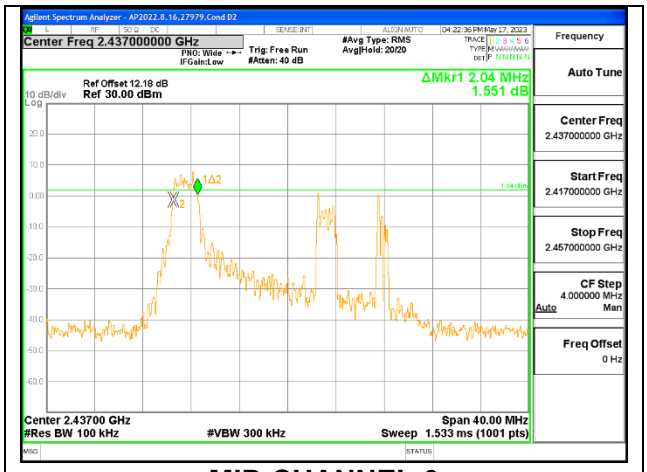
ANT 3 LEGACY SISO MODE: 26-Tones, RU Index 0

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)
Low 1	2412	2.12	0.5
Mid 6	2437	2.04	0.5
High 11	2462	2.08	0.5
High 12	2467	2.16	0.5
High 13	2472	2.08	0.5



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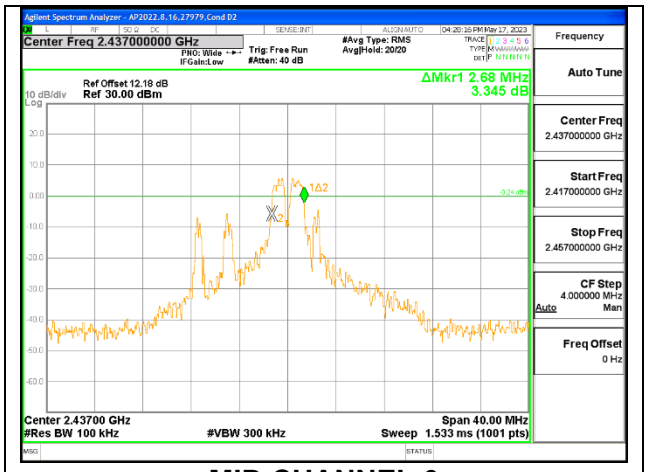
ANT 3 LEGACY SISO MODE: 26-Tones, RU Index 4

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)
Low 1	2412	2.64	0.5
Mid 6	2437	2.68	0.5
High 11	2462	2.68	0.5
High 12	2467	2.68	0.5
High 13	2472	2.68	0.5



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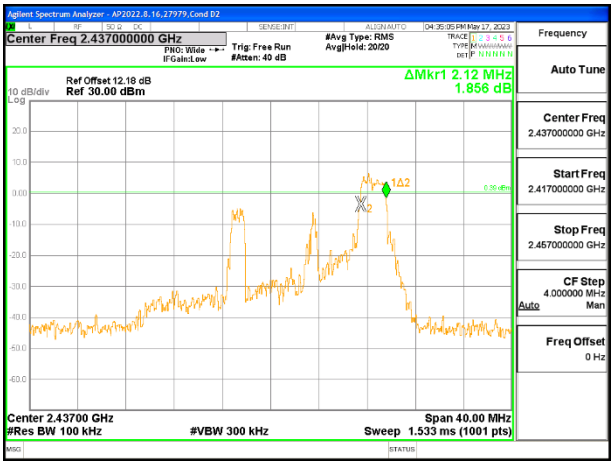
ANT 3 LEGACY SISO MODE: 26-Tones, RU Index 8

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)
Low 1	2412	2.12	0.5
Mid 6	2437	2.12	0.5
High 11	2462	2.16	0.5
High 12	2467	2.16	0.5
High 13	2472	2.2	0.5



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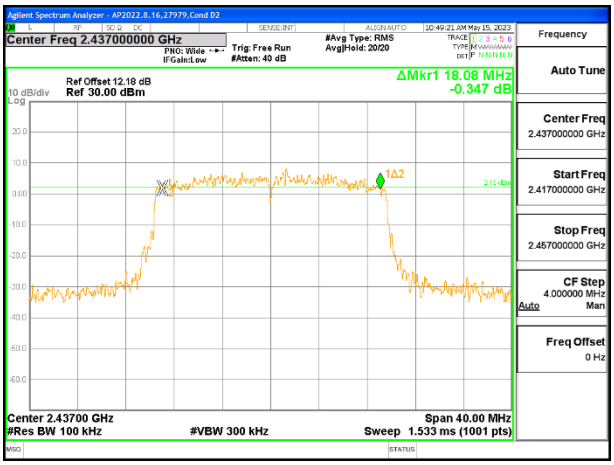
ANT 3 LEGACY SISO MODE: SU Mode

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)
Low 1	2412	18.48	0.5
Low 2	2417	18.96	0.5
Low 3	2422	19.04	0.5
Mid 6	2437	18.08	0.5
High 9	2452	19.04	0.5
High 10	2457	18.84	0.5
High 11	2462	18.84	0.5
High 12	2467	18.40	0.5
High 13	2472	18.92	0.5



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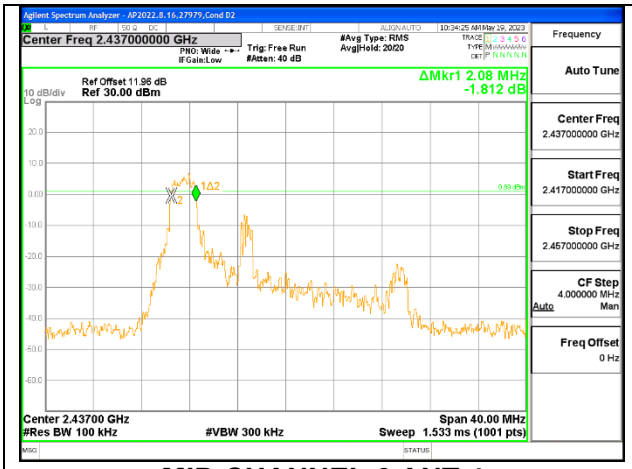
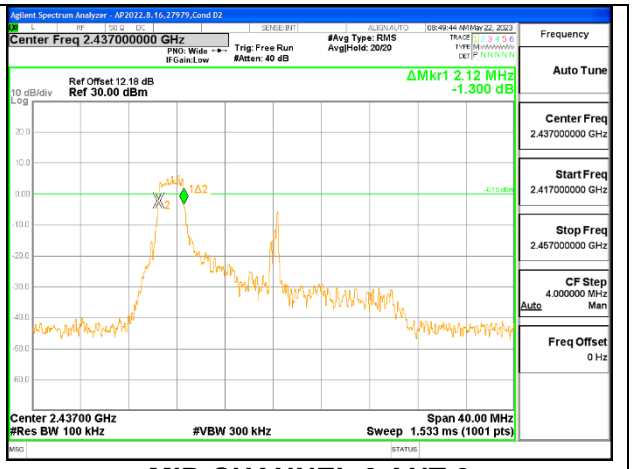
9.3.5. 802.11ax HE20 OFDMA MODE 2TX

ANT 4 + ANT 3 2TX MODE: 26-Tones, RU Index 0

Channel	Frequency (MHz)	6dB BW(MHz) ANT 4	6dB BW (MHz) ANT 3	Minimum Limit (MHz)
Low 1	2412	2.16	2.16	0.5
Mid 6	2437	2.08	2.12	0.5
High 11	2462	2.12	2.24	0.5
High 12	2467	2.16	2.08	0.5
High 13	2472	2.12	2.04	0.5



MID CHANNEL 6 ANT 4



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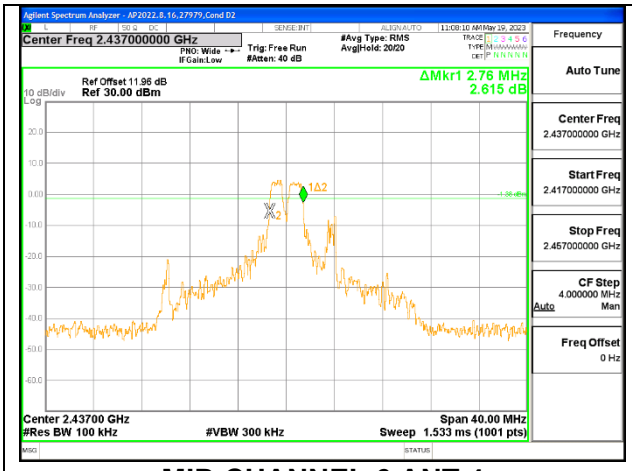
ANT 4 + ANT 3 2TX MODE: 26-Tones, RU Index 4

Channel	Frequency (MHz)	6dB BW(MHz) ANT 4	6dB BW (MHz) ANT 3	Minimum Limit (MHz)
Low 1	2412	2.76	2.60	0.5
Mid 6	2437	2.76	2.68	0.5
High 11	2462	2.72	2.68	0.5
High 12	2467	2.68	2.68	0.5
High 13	2472	2.76	2.68	0.5



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MID CHANNEL 6 ANT 3

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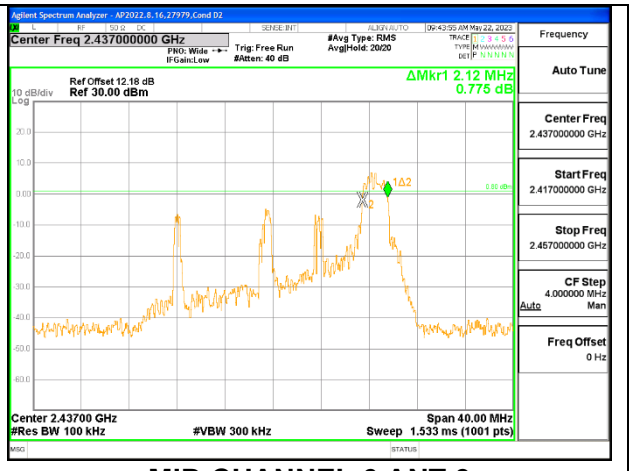
ANT 4 + ANT 3 2TX MODE: 26-Tones, RU Index 8

Channel	Frequency (MHz)	6dB BW(MHz) ANT 4	6dB BW (MHz) ANT 3	Minimum Limit (MHz)
Low 1	2412	2.16	2.12	0.5
Mid 6	2437	2.16	2.12	0.5
High 11	2462	2.08	2.20	0.5
High 12	2467	2.04	2.04	0.5
High 13	2472	2.12	2.08	0.5

MID CHANNEL 6 ANT 4



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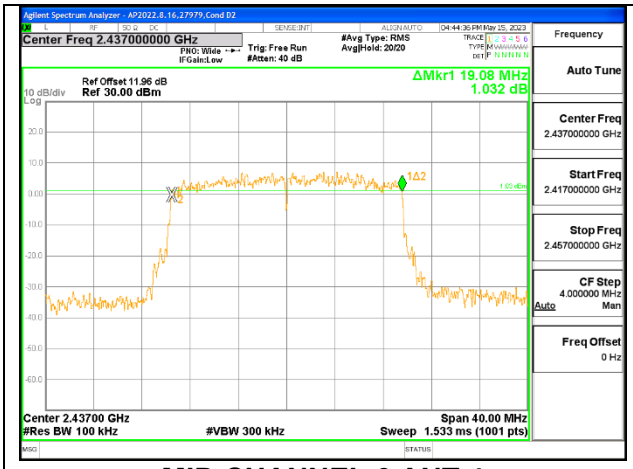
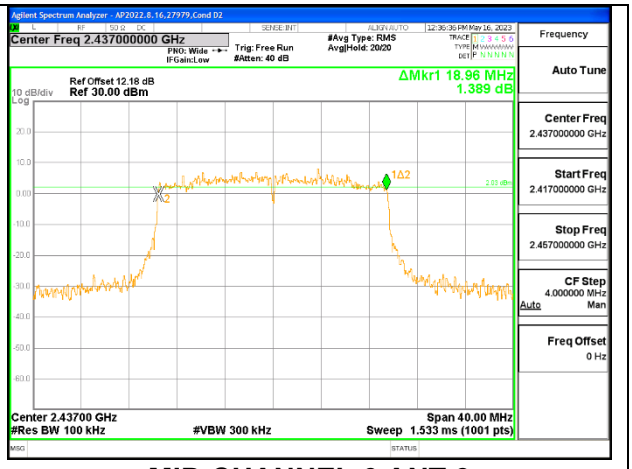
ANT 4 + ANT 3 2TX MODE: SU Mode

Channel	Frequency (MHz)	6dB BW(MHz) ANT 4	6dB BW (MHz) ANT 3	Minimum Limit (MHz)
Low 1	2412	18.76	18.36	0.5
Low 2	2417	18.72	18.24	0.5
Low 3	2422	18.40	18.52	0.5
Low 4	2417	18.40	19.00	0.5
Mid 6	2437	19.08	18.96	0.5
High 8	2447	19.12	19.00	0.5
High 9	2452	18.36	18.96	0.5
High 10	2457	18.08	19.00	0.5
High 11	2462	18.72	18.68	0.5
High 12	2467	18.24	19.16	0.5
High 13	2472	18.68	18.84	0.5



MID CHANNEL 6 ANT 4



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9.4. OUTPUT POWER

LIMITS

FCC §15.247 (b) (3)

RSS-247 5.4 (d)

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

TEST PROCEDURE

Measurements perform using a wideband RF power meter.

The power output was measured on the EUT antenna port using SMA cable with 10dB attenuator connected to a power meter via wideband power sensor. Average output power was read directly from the power meter.

DIRECTIONAL ANTENNA GAIN

For 1 TX:
There is only one transmitter output therefore the directional gain is equal to the antenna gain.

For 2 TX:

Tx chains are uncorrelated for power and correlated for PSD due to the device supporting CDD in all MIMO modes. The directional gains are as follows:

Band (GHz)	ANT 4 Antenna Gain (dBi)	ANT 3 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)	Correlated Chains Directional Gain (dBi)
2.4	-1.00	-1.90	-1.43	1.57

RESULTS

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DIRECTIONAL GAIN CALCULATION:

ANSI C63.10-2013 section 14.4.3

Uncorrelated directional gain=10*LOG((10^(Ant1/10)+10^(Ant2/10))/2)
Correlated directional Gain=10*LOG(((10^(Ant1/20)+10^(Ant2/20))^2)/2)

Sample Calculation:

Ant4=-1.00, Ant3=-1.90

Uncorrelated Antenna gain=10log[(10^(-1.0/10)+10^(-1.90/10))/2]=-1.43dBi

Correlated Antenna gain=10log[(10^(-1.0/20)+10^(-1.90/20))^2)/2]=1.57dBi

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9.4.1. 802.11b MODE 1TX

Test Engineer:	27979
Test Date:	6/1/1023

1TX ANT 4 MODE

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Max Power (dBm)
Low 1	2412	-1.00	30.00	30	36	30.00
Mid 6	2437	-1.00	30.00	30	36	30.00
High 11	2462	-1.00	30.00	30	36	30.00
High 12	2467	-1.00	30.00	30	36	30.00
High 13	2472	-1.00	30.00	30	36	30.00

Duty Cycle CF (dB)	0.00	**Included in Calculations of Corr'd Power**

Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low 1	2412	20.40	20.40	30.00	-9.60
Mid 6	2437	21.41	21.41	30.00	-8.59
High 11	2462	21.45	21.45	30.00	-8.55
High 12	2467	20.44	20.44	30.00	-9.56
High 13	2472	17.91	17.91	30.00	-12.09

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1TX ANT 3 MODE

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Max Power (dBm)
Low 1	2412	-1.90	30.00	30	36	30.00
Mid 6	2437	-1.90	30.00	30	36	30.00
High 11	2462	-1.90	30.00	30	36	30.00
High 12	2467	-1.90	30.00	30	36	30.00
High 13	2472	-1.90	30.00	30	36	30.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low 1	2412	20.41	20.41	30.00	-9.59
Mid 6	2437	21.40	21.40	30.00	-8.60
High 11	2462	21.45	21.45	30.00	-8.55
High 12	2467	20.44	20.44	30.00	-9.56
High 13	2472	17.94	17.94	30.00	-12.06

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9.4.2. 802.11n HT20 MODE

Test Engineer:	27979
Test Date:	6/1/2023

1TX ANT 4 MODE

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Max Power (dBm)
Low 1	2412	-1.00	30.00	30	36	30.00
Low 2	2417	-1.00	30.00	30	36	30.00
Low 3	2422	-1.00	30.00	30	36	30.00
Mid 6	2437	-1.00	30.00	30	36	30.00
High 9	2452	-1.00	30.00	30	36	30.00
High 10	2457	-1.00	30.00	30	36	30.00
High 11	2462	-1.00	30.00	30	36	30.00
High 12	2467	-1.00	30.00	30	36	30.00
High 13	2472	-1.00	30.00	30	36	30.00

Duty Cycle CF (dB)	0.00	**Included in Calculations of Corr'd Power**

Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low 1	2412	17.97	17.97	30.00	-12.03
Low 2	2417	19.47	19.47	30.00	-10.53
Low 3	2422	21.52	21.52	30.00	-8.48
Mid 6	2437	21.45	21.45	30.00	-8.55
High 9	2452	20.91	20.91	30.00	-9.09
High 10	2457	19.47	19.47	30.00	-10.53
High 11	2462	18.40	18.40	30.00	-11.60
High 12	2467	15.93	15.93	30.00	-14.07
High 13	2472	12.97	12.97	30.00	-17.03

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1TX ANT 3 MODE

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Max Power (dBm)
Low 1	2412	-1.90	30.00	30	36	30.00
Low 2	2417	-1.90	30.00	30	36	30.00
Low 3	2422	-1.90	30.00	30	36	30.00
Mid 6	2437	-1.90	30.00	30	36	30.00
High 9	2452	-1.90	30.00	30	36	30.00
High 10	2457	-1.90	30.00	30	36	30.00
High 11	2462	-1.90	30.00	30	36	30.00
High 12	2467	-1.90	30.00	30	36	30.00
High 13	2472	-1.90	30.00	30	36	30.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low 1	2412	17.94	17.94	30.00	-12.06
Low 2	2417	19.41	19.41	30.00	-10.59
Low 3	2422	21.44	21.44	30.00	-8.56
Mid 6	2437	21.45	21.45	30.00	-8.55
High 9	2452	20.93	20.93	30.00	-9.07
High 10	2457	19.48	19.48	30.00	-10.52
High 11	2462	18.44	18.44	30.00	-11.56
High 12	2467	15.90	15.90	30.00	-14.10
High 13	2472	12.88	12.88	30.00	-17.12

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9.4.3. 802.11n HT20 CDD MODE 2TX

Test Engineer:	27979
Test Date:	6/1/2023

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC/ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Max Power (dBm)
Low 1	2412	1.57	30.00	36	30.00
Low 2	2417	1.57	30.00	36	30.00
Low 3	2422	1.57	30.00	36	30.00
Low 4	2427	1.57	30.00	36	30.00
Mid 6	2437	1.57	30.00	36	30.00
High 8	2447	1.57	30.00	36	30.00
High 9	2452	1.57	30.00	36	30.00
High 10	2457	1.57	30.00	36	30.00
High 11	2462	1.57	30.00	36	30.00
High 12	2467	1.57	30.00	36	30.00
High 13	2472	1.57	30.00	36	30.00

Duty Cycle CF (dB)	0.00	**Included in Calculations of Corr'd Power**

Results

Channel	Frequency (MHz)	ANT 4 Meas Power (dBm)	ANT 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low 1	2412	17.47	17.44	20.47	30.00	-9.53
Low 2	2417	18.47	18.48	21.49	30.00	-8.51
Low 3	2422	19.91	19.91	22.92	30.00	-7.08
Low 4	2427	21.47	21.44	24.47	30.00	-5.53
Mid 6	2437	21.42	21.40	24.42	30.00	-5.58
High 8	2447	21.45	21.46	24.47	30.00	-5.53
High 9	2452	19.47	19.40	22.45	30.00	-7.55
High 10	2457	18.43	18.41	21.43	30.00	-8.57
High 11	2462	17.47	17.41	20.45	30.00	-9.55
High 12	2467	14.95	14.96	17.97	30.00	-12.03
High 13	2472	11.96	11.97	14.98	30.00	-15.02

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9.4.4. 802.11ax HE20 MODE

Test Engineer:	27979
Test Date:	6/1/2023

1TX ANT 4 MODE: 26-Tones, RU Index 0

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Max Power (dBm)
Low 1	2412	-1.00	30.00	30	36	30.00
Mid 6	2437	-1.00	30.00	30	36	30.00
High 11	2462	-1.00	30.00	30	36	30.00
High 12	2467	-1.00	30.00	30	36	30.00
High 13	2472	-1.00	30.00	30	36	30.00

Duty Cycle CF (dB)	0.00	**Included in Calculations of Corr'd Power**

Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low 1	2412	11.91	11.91	30.00	-18.09
Mid 6	2437	11.93	11.93	30.00	-18.07
High 11	2462	11.87	11.87	30.00	-18.13
High 12	2467	11.97	11.97	30.00	-18.03
High 13	2472	-0.29	-0.29	30.00	-30.29

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1TX ANT 4 MODE: 26-Tones, RU Index 4

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Max Power (dBm)
Low 1	2412	-1.00	30.00	30	36	30.00
Mid 6	2437	-1.00	30.00	30	36	30.00
High 11	2462	-1.00	30.00	30	36	30.00
High 12	2467	-1.00	30.00	30	36	30.00
High 13	2472	-1.00	30.00	30	36	30.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low 1	2412	11.97	11.97	30.00	-18.03
Mid 6	2437	11.92	11.92	30.00	-18.08
High 11	2462	11.92	11.92	30.00	-18.08
High 12	2467	11.92	11.92	30.00	-18.08
High 13	2472	-0.02	-0.02	30.00	-30.02

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1TX ANT 4 MODE: 26-Tones, RU Index 8

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Max Power (dBm)
Low 1	2412	-1.00	30.00	30	36	30.00
Mid 6	2437	-1.00	30.00	30	36	30.00
High 11	2462	-1.00	30.00	30	36	30.00
High 12	2467	-1.00	30.00	30	36	30.00
High 13	2472	-1.00	30.00	30	36	30.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low 1	2412	11.95	11.95	30.00	-18.05
Mid 6	2437	11.95	11.95	30.00	-18.05
High 11	2462	11.97	11.97	30.00	-18.03
High 12	2467	11.97	11.97	30.00	-18.03
High 13	2472	-0.15	-0.15	30.00	-30.15

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1TX ANT 4 MODE: SU Mode

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Max Power (dBm)
Low 1	2412	-1.00	30.00	30	36	30.00
Low 2	2417	-1.00	30.00	30	36	30.00
Low 3	2422	-1.00	30.00	30	36	30.00
Mid 6	2437	-1.00	30.00	30	36	30.00
High 9	2452	-1.00	30.00	30	36	30.00
High 10	2457	-1.00	30.00	30	36	30.00
High 11	2462	-1.00	30.00	30	36	30.00
High 12	2467	-1.00	30.00	30	36	30.00
High 13	2472	-1.00	30.00	30	36	30.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low 1	2412	16.91	16.91	30.00	-13.09
Low 2	2417	17.92	17.92	30.00	-12.08
Low 3	2422	21.48	21.48	30.00	-8.52
Mid 6	2437	21.43	21.43	30.00	-8.57
High 9	2452	21.40	21.40	30.00	-8.60
High 10	2457	17.95	17.95	30.00	-12.05
High 11	2462	16.91	16.91	30.00	-13.09
High 12	2467	14.87	14.87	30.00	-15.13
High 13	2472	8.88	8.88	30.00	-21.12

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1TX ANT 3 MODE: 26-Tones, RU Index 0

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Max Power (dBm)
Low 1	2412	-1.90	30.00	30	36	30.00
Mid 6	2437	-1.90	30.00	30	36	30.00
High 11	2462	-1.90	30.00	30	36	30.00
High 12	2467	-1.90	30.00	30	36	30.00
High 13	2472	-1.90	30.00	30	36	30.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low 1	2412	11.95	11.95	30.00	-18.05
Mid 6	2437	11.97	11.97	30.00	-18.03
High 11	2462	11.98	11.98	30.00	-18.02
High 12	2467	11.97	11.97	30.00	-18.03
High 13	2472	-0.79	-0.79	30.00	-30.79

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1TX ANT 3 MODE: 26-Tones, RU Index 4

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Max Power (dBm)
Low 1	2412	-1.90	30.00	30	36	30.00
Mid 6	2437	-1.90	30.00	30	36	30.00
High 11	2462	-1.90	30.00	30	36	30.00
High 12	2467	-1.90	30.00	30	36	30.00
High 13	2472	-1.90	30.00	30	36	30.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low 1	2412	11.97	11.97	30.00	-18.03
Mid 6	2437	11.89	11.89	30.00	-18.11
High 11	2462	11.91	11.91	30.00	-18.09
High 12	2467	11.96	11.96	30.00	-18.04
High 13	2472	-0.21	-0.21	30.00	-30.21

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1TX ANT 3 MODE: 26-Tones, RU Index 8

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Max Power (dBm)
Low 1	2412	-1.90	30.00	30	36	30.00
Mid 6	2437	-1.90	30.00	30	36	30.00
High 11	2462	-1.90	30.00	30	36	30.00
High 12	2467	-1.90	30.00	30	36	30.00
High 13	2472	-1.90	30.00	30	36	30.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low 1	2412	11.88	11.88	30.00	-18.12
Mid 6	2437	11.95	11.95	30.00	-18.05
High 11	2462	11.92	11.92	30.00	-18.08
High 12	2467	11.98	11.98	30.00	-18.02
High 13	2472	-0.72	-0.72	30.00	-30.72

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1TX ANT 3 MODE: SU Mode

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Max Power (dBm)
Low 1	2412	-1.90	30.00	30	36	30.00
Low 2	2417	-1.90	30.00	30	36	30.00
Low 3	2422	-1.90	30.00	30	36	30.00
Mid 6	2437	-1.90	30.00	30	36	30.00
High 9	2452	-1.90	30.00	30	36	30.00
High 10	2457	-1.90	30.00	30	36	30.00
High 11	2462	-1.90	30.00	30	36	30.00
High 12	2467	-1.90	30.00	30	36	30.00
High 13	2472	-1.90	30.00	30	36	30.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low 1	2412	16.98	16.98	30.00	-13.02
Low 2	2417	17.91	17.91	30.00	-12.09
Low 3	2422	21.45	21.45	30.00	-8.55
Mid 6	2437	21.43	21.43	30.00	-8.57
High 9	2452	21.47	21.47	30.00	-8.53
High 10	2457	17.88	17.88	30.00	-12.12
High 11	2462	16.92	16.92	30.00	-13.08
High 12	2467	14.92	14.92	30.00	-15.08
High 13	2472	8.88	8.88	30.00	-21.12

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9.4.5. 802.11ax HE20 OFDMA MODE 2TX

Test Engineer:	27979
Test Date:	6/1/2023

ANT 4 + ANT 3 2TX MODE: 26-Tones, RU Index 0

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC/ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Max Power (dBm)
Low 1	2412	1.57	30.00	36	30.00
Mid 6	2437	1.57	30.00	36	30.00
High 11	2462	1.57	30.00	36	30.00
High 12	2467	1.57	30.00	36	30.00
High 13	2472	1.57	30.00	36	30.00

Duty Cycle CF (dB)	0.00	**Included in Calculations of Corr'd Power**

Results

Channel	Frequency (MHz)	ANT 4 Meas Power (dBm)	ANT 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low 1	2412	11.94	11.94	14.95	30.00	-15.05
Mid 6	2437	11.92	11.87	14.91	30.00	-15.09
High 11	2462	11.92	11.91	14.93	30.00	-15.07
High 12	2467	11.97	11.94	14.97	30.00	-15.03
High 13	2472	-0.33	-0.67	2.51	30.00	-27.49

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ANT 4 + ANT 3 2TX MODE: 26-Tones, RU Index 4

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC/ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Max Power (dBm)
Low 1	2412	1.57	30.00	36	30.00
Mid 6	2437	1.57	30.00	36	30.00
High 11	2462	1.57	30.00	36	30.00
High 12	2467	1.57	30.00	36	30.00
High 13	2472	1.57	30.00	36	30.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Results

Channel	Frequency (MHz)	ANT 4 Meas Power (dBm)	ANT 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low 1	2412	11.93	11.95	14.95	30.00	-15.05
Mid 6	2437	11.92	11.90	14.92	30.00	-15.08
High 11	2462	11.92	11.97	14.96	30.00	-15.04
High 12	2467	11.93	11.95	14.95	30.00	-15.05
High 13	2472	-0.02	-0.12	2.94	30.00	-27.06

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ANT 4 + ANT 3 2TX MODE: 26-Tones, RU Index 8

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC/ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Max Power (dBm)
Low 1	2412	1.57	30.00	36	30.00
Mid 6	2437	1.57	30.00	36	30.00
High 11	2462	1.57	30.00	36	30.00
High 12	2467	1.57	30.00	36	30.00
High 13	2472	1.57	30.00	36	30.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Results

Channel	Frequency (MHz)	ANT 4 Meas Power (dBm)	ANT 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low 1	2412	11.93	11.91	14.93	30.00	-15.07
Mid 6	2437	11.94	11.90	14.93	30.00	-15.07
High 11	2462	11.97	11.97	14.98	30.00	-15.02
High 12	2467	11.88	11.97	14.94	30.00	-15.06
High 13	2472	-0.27	-0.54	2.61	30.00	-27.39

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ANT 4 + ANT 3 2TX MODE: SU Mode

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC/ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Max Power (dBm)
Low 1	2412	1.57	30.00	36	30.00
Low 2	2417	1.57	30.00	36	30.00
Low 3	2422	1.57	30.00	36	30.00
Low 4	2427	1.57	30.00	36	30.00
Mid 6	2437	1.57	30.00	36	30.00
High 8	2447	1.57	30.00	36	30.00
High 9	2452	1.57	30.00	36	30.00
High 10	2457	1.57	30.00	36	30.00
High 11	2462	1.57	30.00	36	30.00
High 12	2467	1.57	30.00	36	30.00
High 13	2472	1.57	30.00	36	30.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Results

Channel	Frequency (MHz)	ANT 4 Meas Power (dBm)	ANT 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low 1	2412	15.98	15.92	18.96	30.00	-11.04
Low 2	2417	16.82	16.97	19.91	30.00	-10.09
Low 3	2422	18.90	18.91	21.92	30.00	-8.08
Low 4	2427	21.40	21.41	24.42	30.00	-5.58
Mid 6	2437	21.47	21.42	24.46	30.00	-5.54
High 8	2447	21.47	21.47	24.48	30.00	-5.52
High 9	2452	18.47	18.47	21.48	30.00	-8.52
High 10	2457	16.91	16.90	19.92	30.00	-10.08
High 11	2462	15.92	15.97	18.96	30.00	-11.04
High 12	2467	13.91	13.95	16.94	30.00	-13.06
High 13	2472	8.45	8.40	11.44	30.00	-18.56

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9.5. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

RSS-247 (5.2) (b)

The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

RESULTS

Only Mid channel plot is reported to show setting parameter complies with testing method/procedure.

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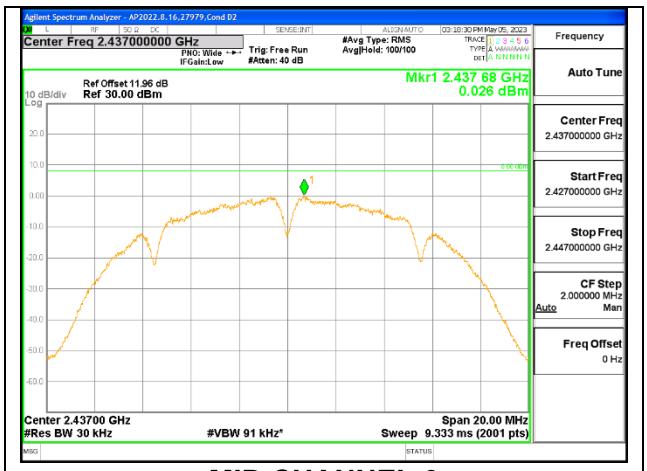
9.5.1. 802.11b MODE 1TX

1TX ANT 4 MODE

Duty Cycle CF (dB)		0.00	Included in Calculations of Corr'd PSD		
Channel	Frequency (MHz)	Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low 1	2412	-0.996	-0.996	8.0	-9.0
Mid 6	2437	0.026	0.026	8.0	-8.0
High 11	2462	0.115	0.115	8.0	-7.9
High 12	2467	-1.077	-1.077	8.0	-9.1
High 13	2472	-3.480	-3.480	8.0	-11.5



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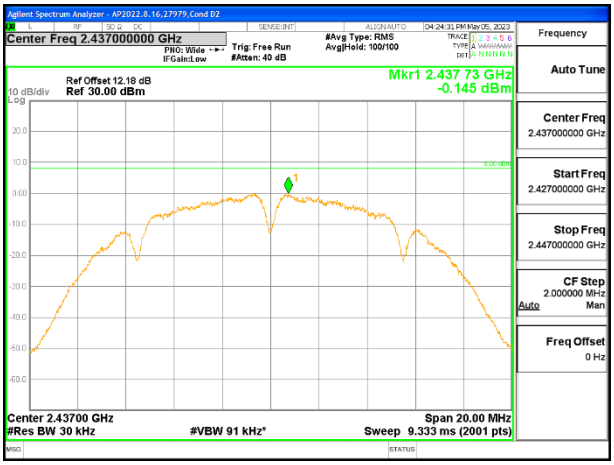
1TX ANT 3 MODE

Duty Cycle CF (dB)		0.00	Included in Calculations of Corr'd PSD		
Channel	Frequency (MHz)	Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low 1	2412	-1.087	-1.087	8.0	-9.1
Mid 6	2437	-0.145	-0.145	8.0	-8.1
High 11	2462	-0.106	-0.106	8.0	-8.1
High 12	2467	-0.621	-0.621	8.0	-8.6
High 13	2472	-3.324	-3.324	8.0	-11.3



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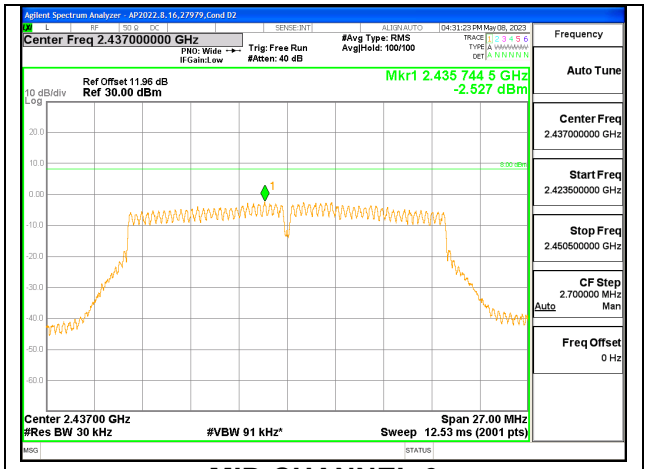
9.5.2. 802.11n HT20 MODE

1TX ANT 4 MODE

Duty Cycle CF (dB)		0.00	Included in Calculations of Corr'd PSD		
Channel	Frequency (MHz)	Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low 1	2412	-6.749	-6.749	8.0	-14.7
Low 2	2417	-4.485	-4.485	8.0	-12.5
Low 3	2422	-2.490	-2.490	8.0	-10.5
Mid 6	2437	-2.527	-2.527	8.0	-10.5
High 9	2452	-2.473	-2.473	8.0	-10.5
High 10	2457	-4.439	-4.439	8.0	-12.4
High 11	2462	-5.700	-5.700	8.0	-13.7
High 12	2467	-7.951	-7.951	8.0	-16.0
High 13	2472	-9.933	-9.933	8.0	-17.9



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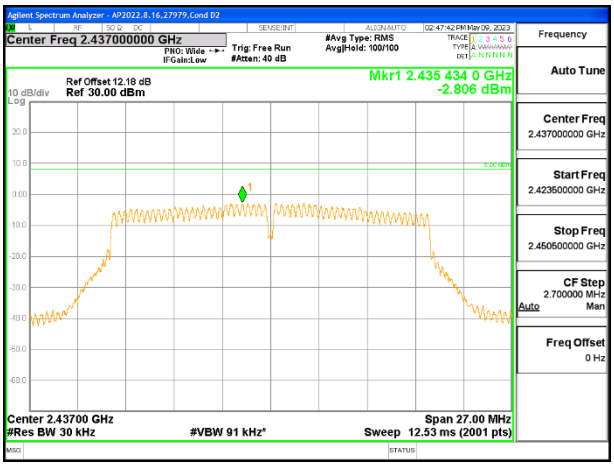
1TX ANT 3 MODE

Duty Cycle CF (dB)		0.00	Included in Calculations of Corr'd PSD		
Channel	Frequency (MHz)	Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low 1	2412	-6.434	-6.434	8.0	-14.4
Low 2	2417	-4.777	-4.777	8.0	-12.8
Low 3	2422	-2.694	-2.694	8.0	-10.7
Mid 6	2437	-2.806	-2.806	8.0	-10.8
High 9	2452	-2.882	-2.882	8.0	-10.9
High 10	2457	-4.689	-4.689	8.0	-12.7
High 11	2462	-5.497	-5.497	8.0	-13.5
High 12	2467	-8.057	-8.057	8.0	-16.1
High 13	2472	-9.998	-9.998	8.0	-18.0



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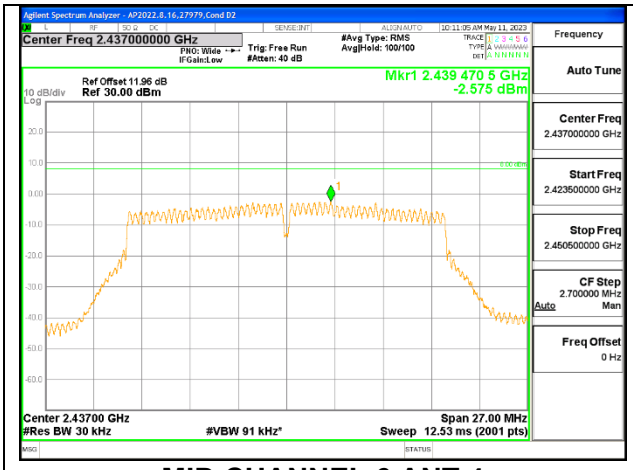
9.5.3. 802.11n HT20 CDD MODE 2TX

ANT 4 + ANT 3 2TX MODE

Duty Cycle CF (dB)		0.00	Included in Calculations of Corr'd PSD			
Channel	Frequency (MHz)	ANT4 Meas (dBm/ 3kHz)	ANT3 Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low 1	2412	-6.530	-6.711	-3.609	8.0	-11.6
Low 2	2417	-5.714	-5.659	-2.676	8.0	-10.7
Low 3	2422	-4.219	-4.273	-1.236	8.0	-9.2
Mid 6	2437	-2.575	-2.386	0.531	8.0	-7.5
High 9	2452	-4.232	-4.483	-1.345	8.0	-9.3
High 10	2457	-5.500	-5.423	-2.451	8.0	-10.5
High 11	2462	-6.479	-6.110	-3.280	8.0	-11.3
High 12	2467	-9.336	-9.083	-6.197	8.0	-14.2
High 13	2472	-11.329	-11.103	-8.204	8.0	-16.2



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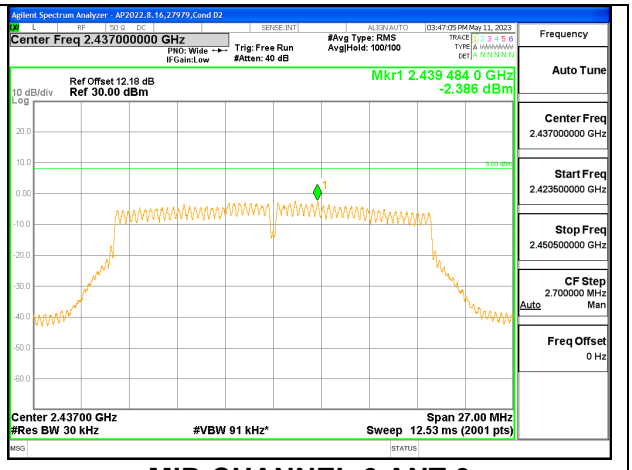

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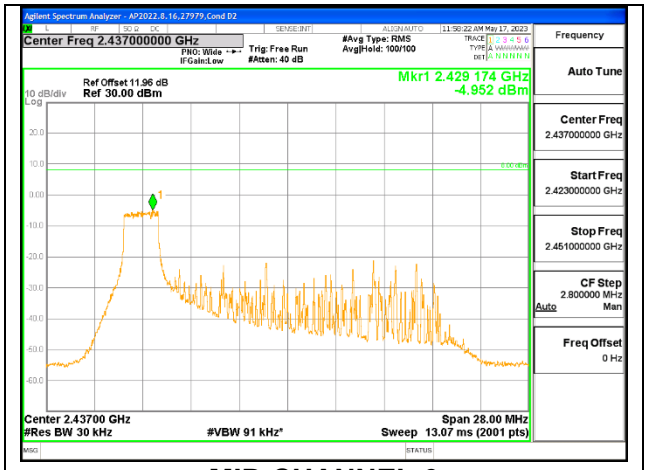
9.5.4. 802.11ax HE20 MODE

1TX ANT 4 MODE , 26-Tone RU Index 0

Duty Cycle CF (dB)		0.00	Included in Calculations of Corr'd PSD		
Channel	Frequency (MHz)	Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low 1	2412	-4.754	-4.754	8.0	-12.8
Mid 6	2437	-4.952	-4.952	8.0	-13.0
High 11	2462	-4.980	-4.980	8.0	-13.0
High 12	2467	-5.036	-5.036	8.0	-13.0
High 13	2472	-15.830	-15.830	8.0	-23.8



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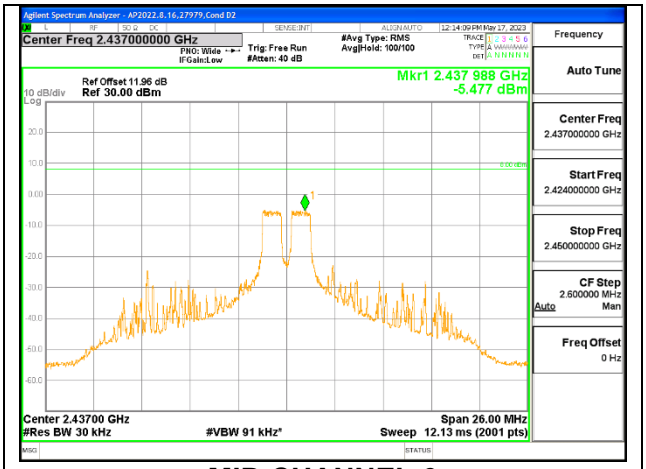
1TX ANT 4 MODE , 26-Tone RU Index 4

Duty Cycle CF (dB)		0.00	Included in Calculations of Corr'd PSD		
Channel	Frequency (MHz)	Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low 1	2412	-5.050	-5.050	8.0	-13.1
Mid 6	2437	-5.477	-5.477	8.0	-13.5
High 11	2462	-4.943	-4.943	8.0	-12.9
High 12	2467	-4.843	-4.843	8.0	-12.8
High 13	2472	-15.762	-15.762	8.0	-23.8



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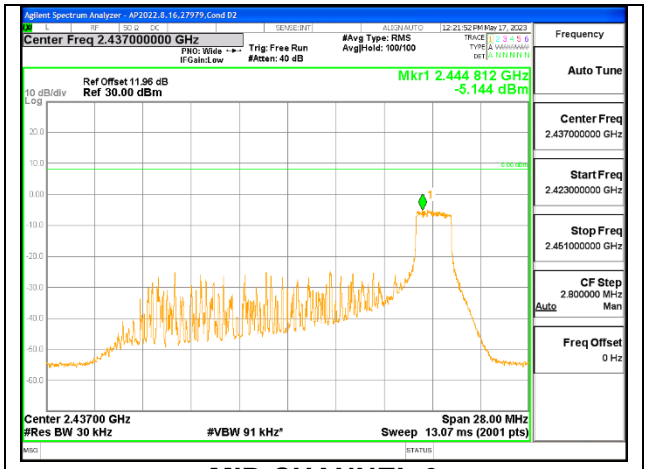
1TX ANT 4 MODE , 26-Tone RU Index 8

Duty Cycle CF (dB)		0.00	Included in Calculations of Corr'd PSD		
Channel	Frequency (MHz)	Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low 1	2412	-5.249	-5.249	8.0	-13.2
Mid 6	2437	-5.144	-5.144	8.0	-13.1
High 11	2462	-4.975	-4.975	8.0	-13.0
High 12	2467	-4.953	-4.953	8.0	-13.0
High 13	2472	-15.562	-15.562	8.0	-23.6



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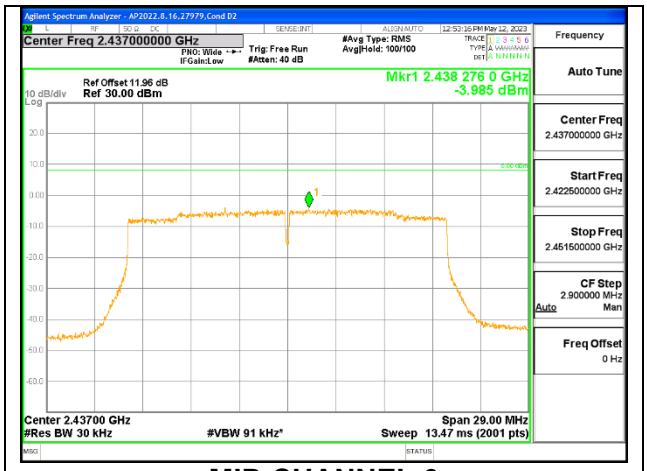
1TX ANT 4 MODE , SU MODE

Duty Cycle CF (dB)		0.00	Included in Calculations of Corr'd PSD		
Channel	Frequency (MHz)	Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low 1	2412	-8.707	-8.707	8.0	-16.7
Low 2	2417	-7.747	-7.747	8.0	-15.7
Low 3	2422	-4.041	-4.041	8.0	-12.0
Mid 6	2437	-3.985	-3.985	8.0	-12.0
High 9	2452	-3.807	-3.807	8.0	-11.8
High 10	2457	-7.349	-7.349	8.0	-15.3
High 11	2462	-8.773	-8.773	8.0	-16.8
High 12	2467	-10.771	-10.771	8.0	-18.8
High 13	2472	-16.898	-16.898	8.0	-24.9



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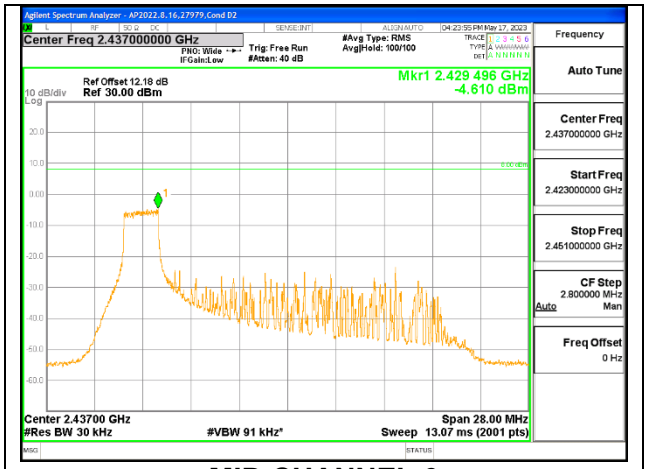
1TX ANT 3 MODE , 26-Tone RU Index 0

Duty Cycle CF (dB)		0.00	Included in Calculations of Corr'd PSD		
Channel	Frequency (MHz)	Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low 1	2412	-4.830	-4.830	8.0	-12.8
Mid 6	2437	-4.610	-4.610	8.0	-12.6
High 11	2462	-5.034	-5.034	8.0	-13.0
High 12	2467	-5.020	-5.020	8.0	-13.0
High 13	2472	-16.069	-16.069	8.0	-24.1



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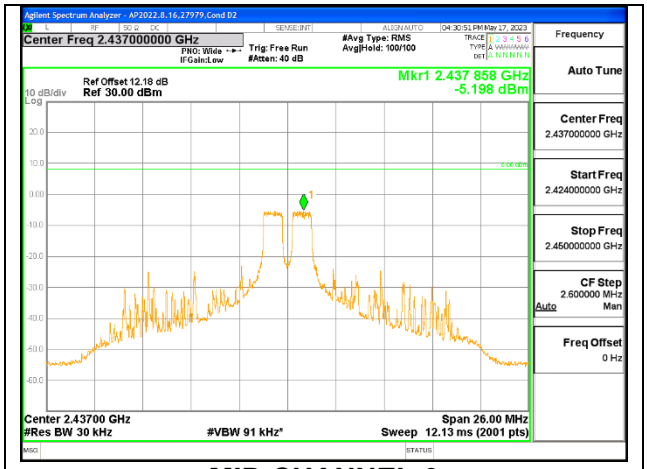
1TX ANT 3 MODE , 26-Tone RU Index 4

Duty Cycle CF (dB)		0.00	Included in Calculations of Corr'd PSD		
Channel	Frequency (MHz)	Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low 1	2412	-5.309	-5.309	8.0	-13.3
Mid 6	2437	-5.198	-5.198	8.0	-13.2
High 11	2462	-4.990	-4.990	8.0	-13.0
High 12	2467	-4.990	-4.990	8.0	-13.0
High 13	2472	-16.250	-16.250	8.0	-24.3



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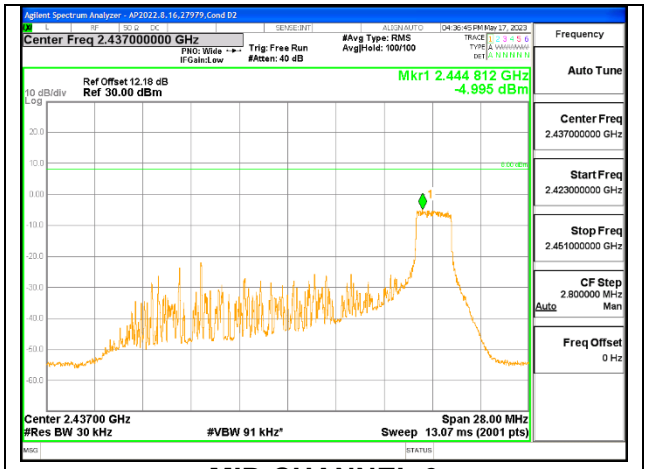
1TX ANT 3 MODE , 26-Tone RU Index 8

Duty Cycle CF (dB)		0.00	Included in Calculations of Corr'd PSD		
Channel	Frequency (MHz)	Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low 1	2412	-4.990	-4.990	8.0	-13.0
Mid 6	2437	-4.995	-4.995	8.0	-13.0
High 11	2462	-4.758	-4.758	8.0	-12.8
High 12	2467	-5.009	-5.009	8.0	-13.0
High 13	2472	-16.579	-16.579	8.0	-24.6



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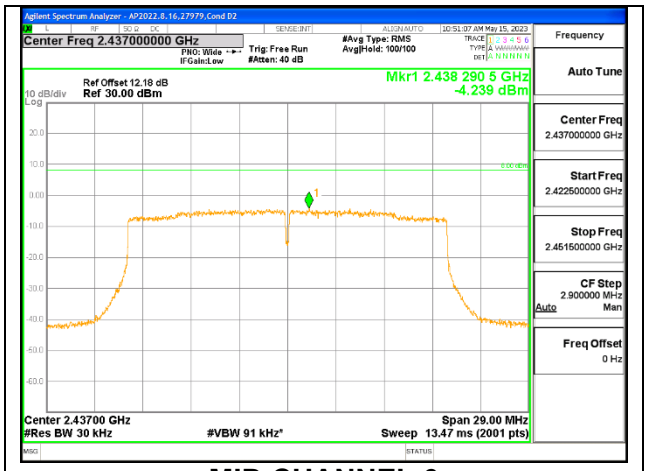
1TX ANT 3 MODE , SU Mode

Duty Cycle CF (dB)		0.00	Included in Calculations of Corr'd PSD		
Channel	Frequency (MHz)	Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low 1	2412	-8.866	-8.866	8.0	-16.9
Low 2	2417	-7.932	-7.932	8.0	-15.9
Low 3	2422	-4.017	-4.017	8.0	-12.0
Mid 6	2437	-4.239	-4.239	8.0	-12.2
High 9	2452	-4.167	-4.167	8.0	-12.2
High 10	2457	-7.619	-7.619	8.0	-15.6
High 11	2462	-8.615	-8.615	8.0	-16.6
High 12	2467	-10.776	-10.776	8.0	-18.8
High 13	2472	-16.848	-16.848	8.0	-24.8



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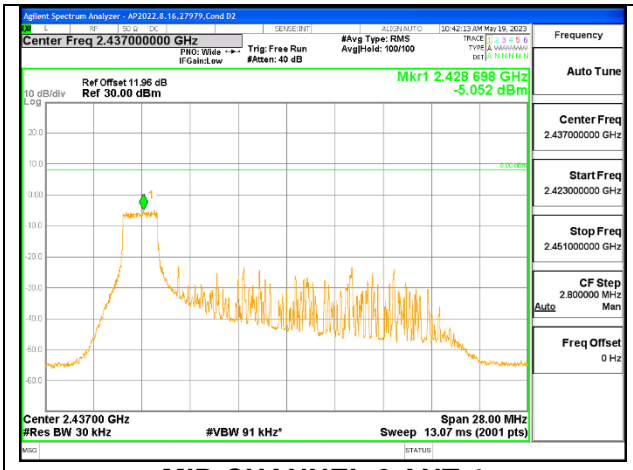
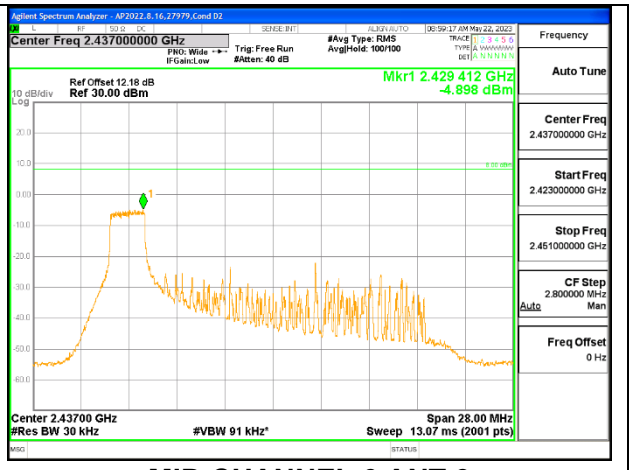
9.5.5. 802.11ax HE20 OFDMA MODE 2TX

ANT 4 + ANT 3 2TX MODE: 26-Tones, RU Index 0

Duty Cycle CF (dB)		0.00	Included in Calculations of Corr'd PSD			
Channel	Frequency (MHz)	ANT 4 Meas (dBm/ 3kHz)	ANT 3 Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low 1	2412	-5.005	-4.801	-1.892	8.0	-9.9
Mid 6	2437	-5.052	-4.898	-1.964	8.0	-10.0
High 11	2462	-5.081	-4.988	-2.024	8.0	-10.0
High 12	2467	-5.082	-5.014	-2.038	8.0	-10.0
High 13	2472	-16.173	-16.647	-13.393	8.0	-21.4



MID CHANNEL 6 ANT 4



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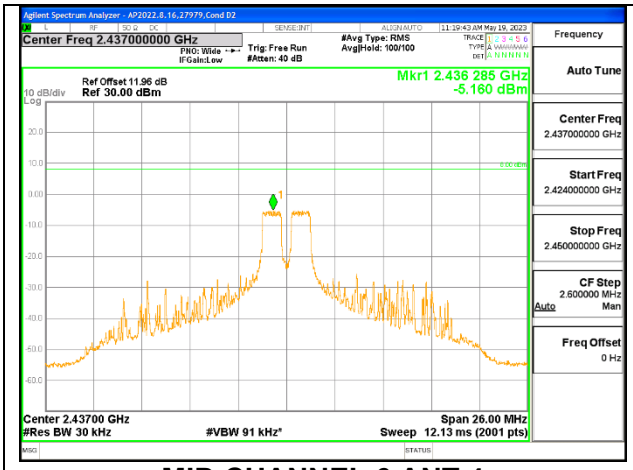
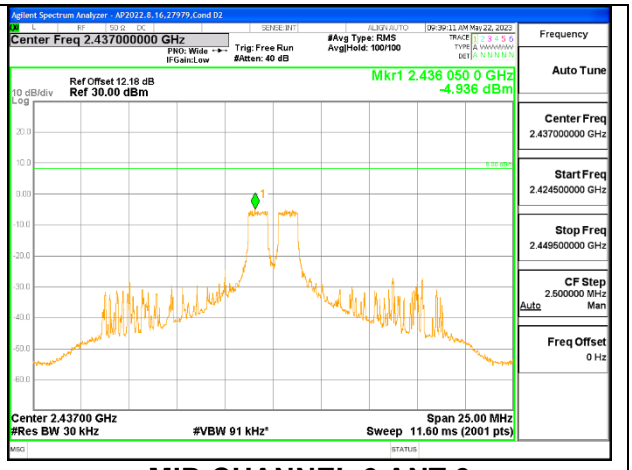
ANT 4 + ANT 3 2TX MODE: 26-Tones, RU Index 4

Duty Cycle CF (dB)		0.00	Included in Calculations of Corr'd PSD			
Channel	Frequency (MHz)	ANT 4 Meas (dBm/ 3kHz)	ANT 3 Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low 1	2412	-5.043	-4.948	-1.985	8.0	-10.0
Mid 6	2437	-5.160	-4.936	-2.036	8.0	-10.0
High 11	2462	-5.153	-5.290	-2.211	8.0	-10.2
High 12	2467	-4.890	-4.838	-1.854	8.0	-9.9
High 13	2472	-15.741	-15.788	-12.754	8.0	-20.8



MID CHANNEL 6 ANT 4



MID CHANNEL 6 ANT 3

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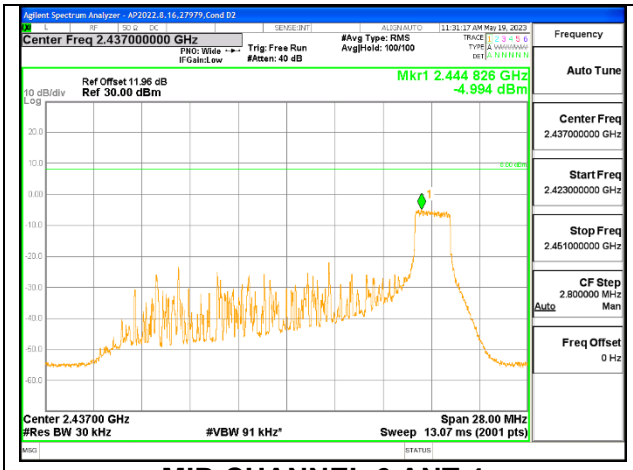
ANT 4 + ANT 3 2TX MODE: 26-Tones, RU Index 8

Duty Cycle CF (dB)		0.00	Included in Calculations of Corr'd PSD			
Channel	Frequency (MHz)	ANT 4 Meas (dBm/ 3kHz)	ANT 3 Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low 1	2412	-5.071	-4.848	-1.948	8.0	-9.9
Mid 6	2437	-4.994	-5.036	-2.005	8.0	-10.0
High 11	2462	-5.170	-5.028	-2.088	8.0	-10.1
High 12	2467	-4.926	-5.005	-1.955	8.0	-10.0
High 13	2472	-15.958	-16.270	-13.101	8.0	-21.1



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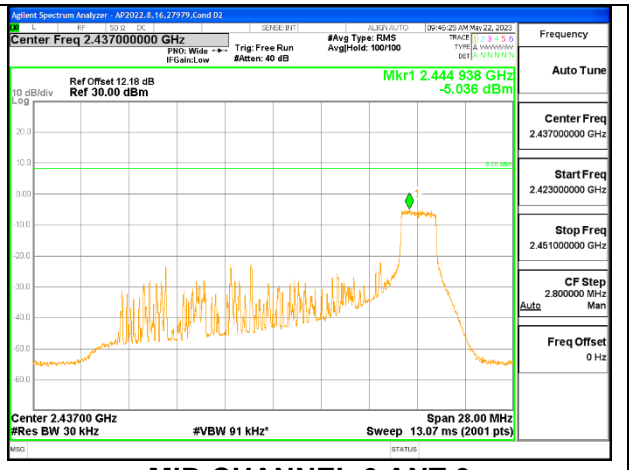

MID CHANNEL 6 ANT 3

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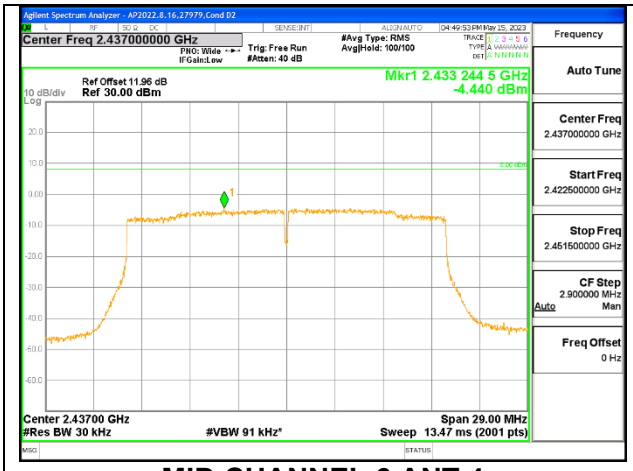
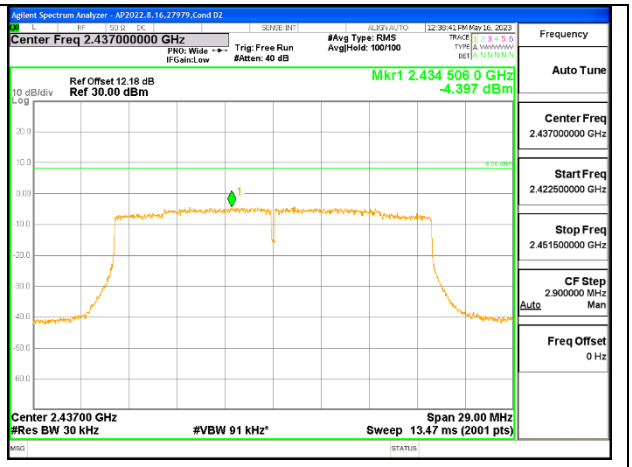
ANT 4 + ANT 3 2TX MODE: SU MODE

Duty Cycle CF (dB)		0.00	Included in Calculations of Corr'd PSD			
Channel	Frequency (MHz)	ANT 4 Meas (dBm/ 3kHz)	ANT 3 Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low 1	2412	-9.567	-9.648	-6.597	8.0	-14.6
Low 2	2417	-8.585	-8.681	-5.622	8.0	-13.6
Low 3	2422	-6.794	-6.785	-3.779	8.0	-11.8
Mid 6	2437	-4.440	-4.397	-1.408	8.0	-9.4
High 9	2452	-7.146	-7.116	-4.121	8.0	-12.1
High 10	2457	-8.564	-8.515	-5.529	8.0	-13.5
High 11	2462	-9.379	-9.835	-6.591	8.0	-14.6
High 12	2467	-11.828	-11.789	-8.798	8.0	-16.8
High 13	2472	-17.542	-17.407	-14.464	8.0	-22.5



MID CHANNEL 6 ANT 4



MID CHANNEL 6 ANT 3

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9.6. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

RSS-247 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

RESULTS

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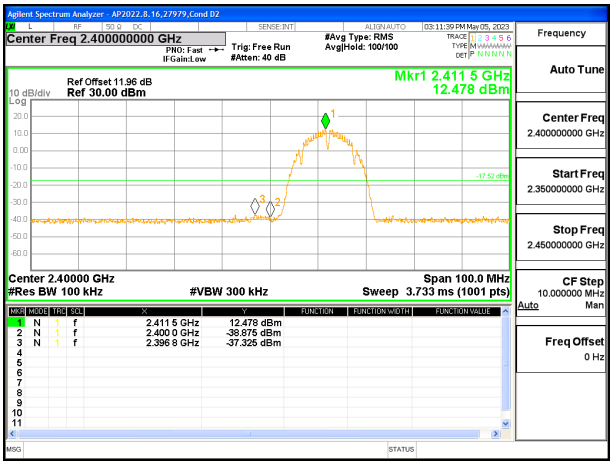
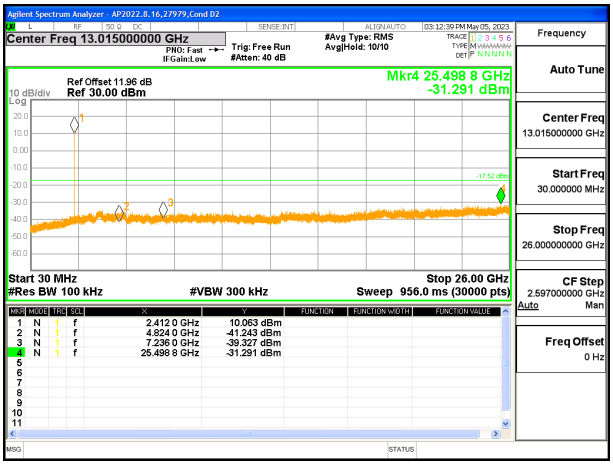
9.6.1. 802.11b MODE 1TX

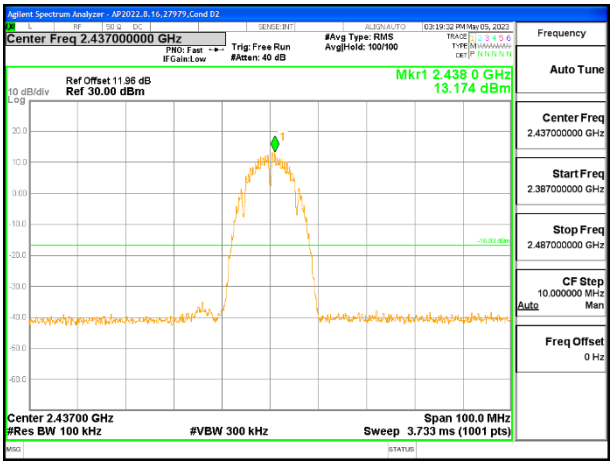
1TX ANT 4 MODE



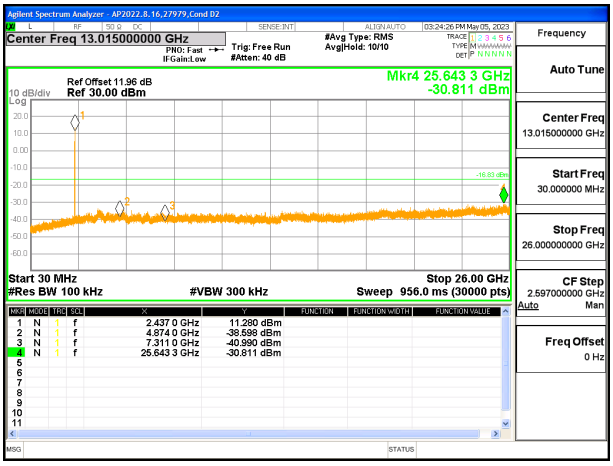
LOW CHANNEL 1 BANDEDGE



OUT-OF-BAND LOW CHANNEL 1



IN-BAND REFERNCE LEVEL



OUT-OF-BAND MID CHANNEL

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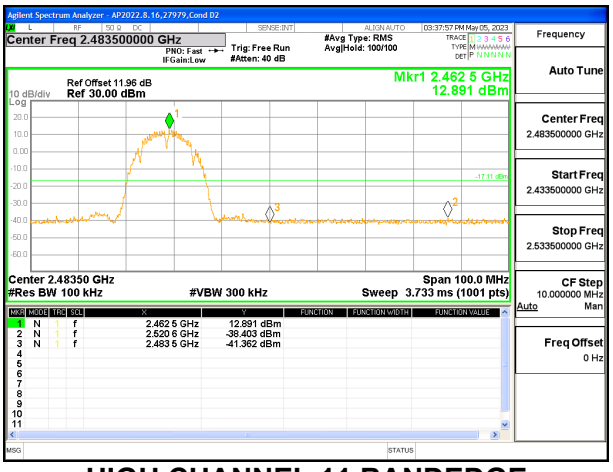
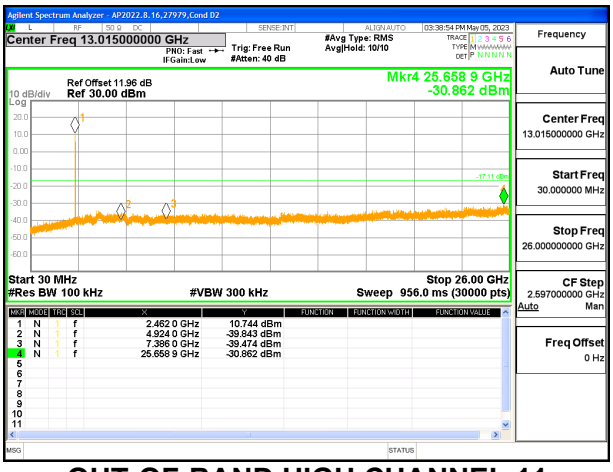
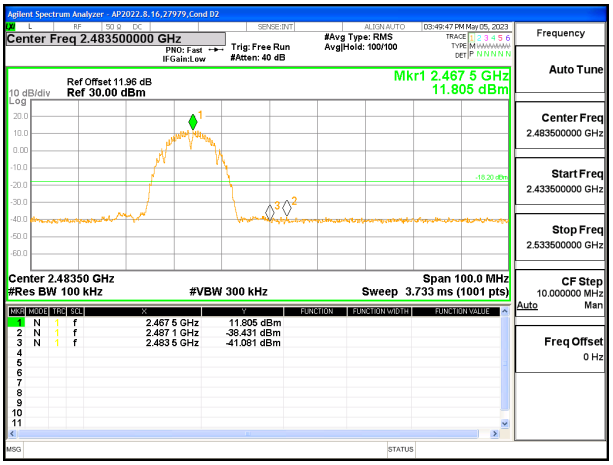


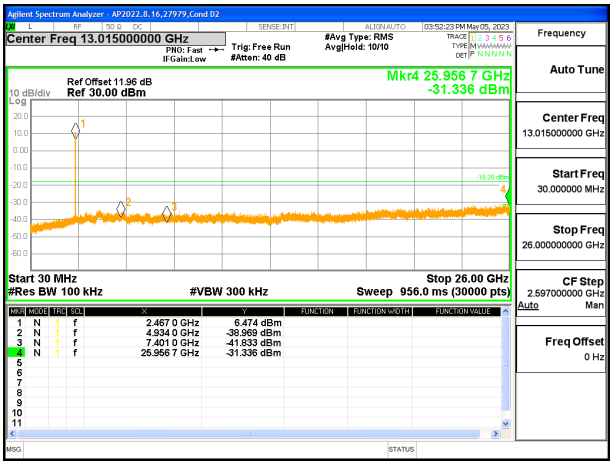
HIGH CHANNEL 11 BANDEDGE



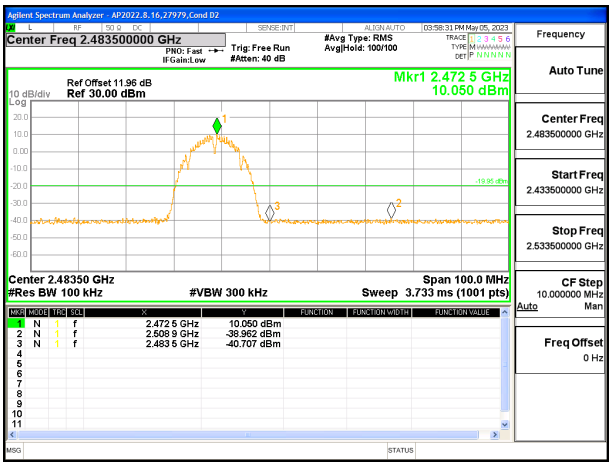
OUT-OF-BAND HIGH CHANNEL 11



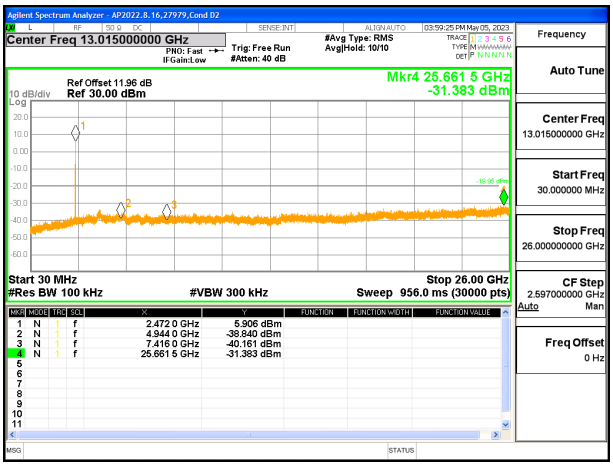
HIGH CHANNEL 12 BANDEDGE



OUT-OF-BAND HIGH CHANNEL 12



HIGH CHANNEL 13 BANDEDGE



OUT-OF-BAND HIGH CHANNEL 13

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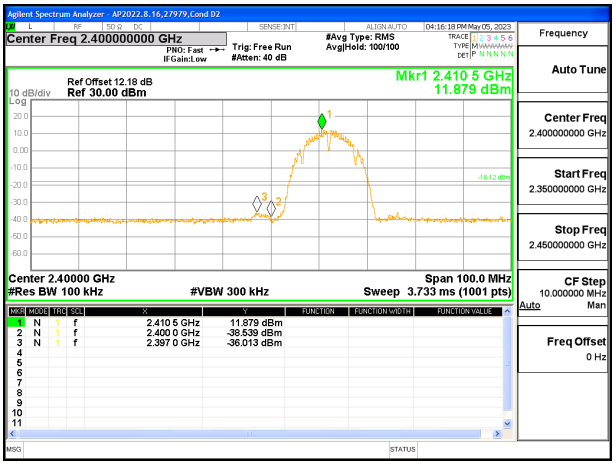
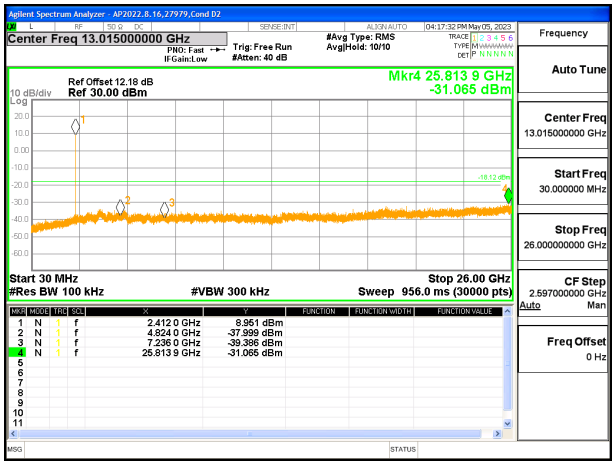
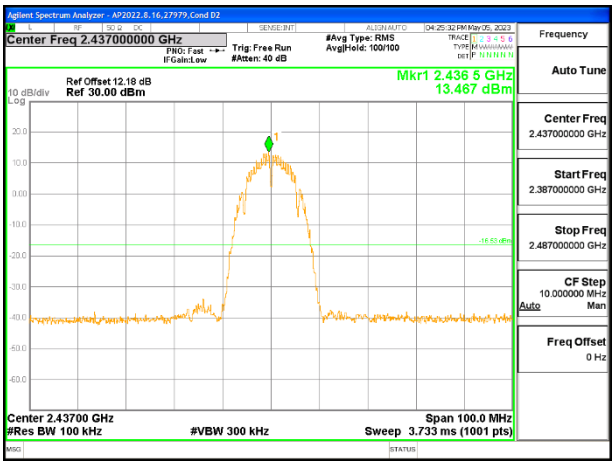
1TX ANT 3 MODE



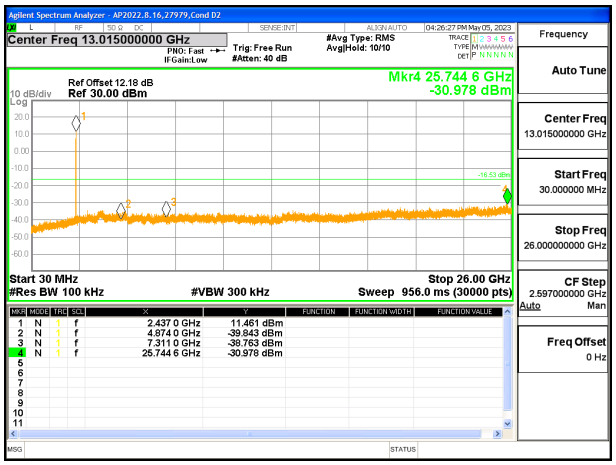
LOW CHANNEL 1 BANDEDGE



OUT-OF-BAND LOW CHANNEL 1



IN-BAND REFERNCE LEVEL



OUT-OF-BAND MID CHANNEL

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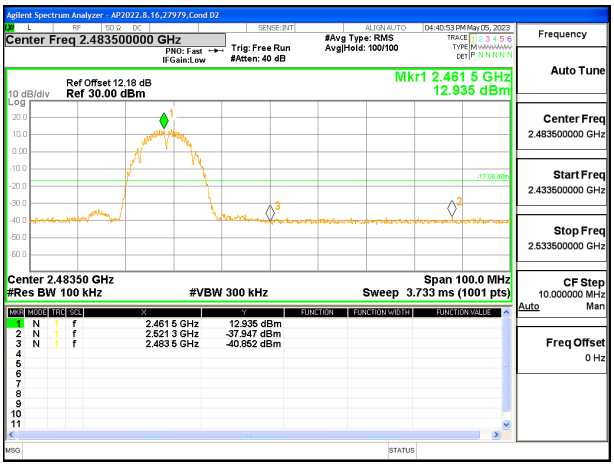
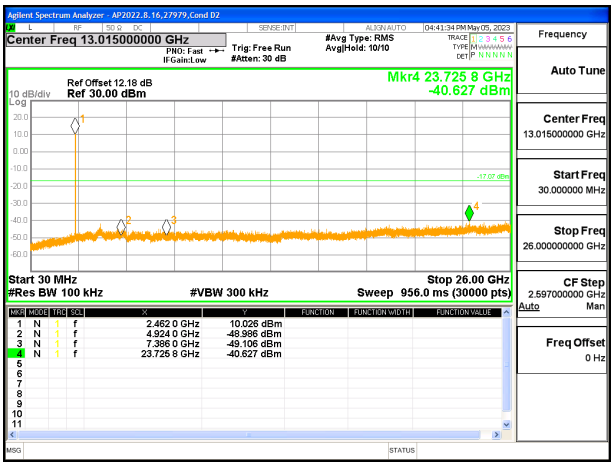
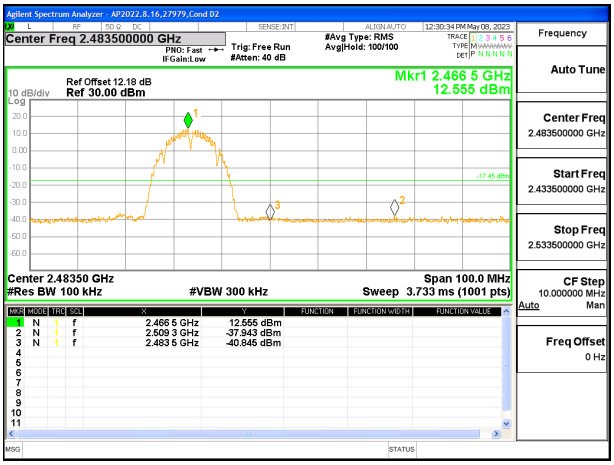


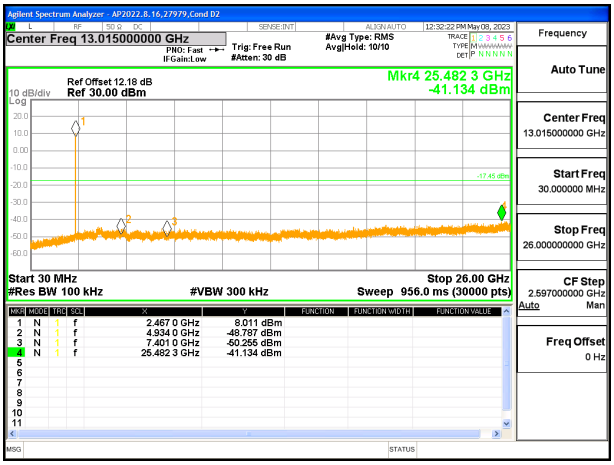
HIGH CHANNEL 11 BANDEDGE



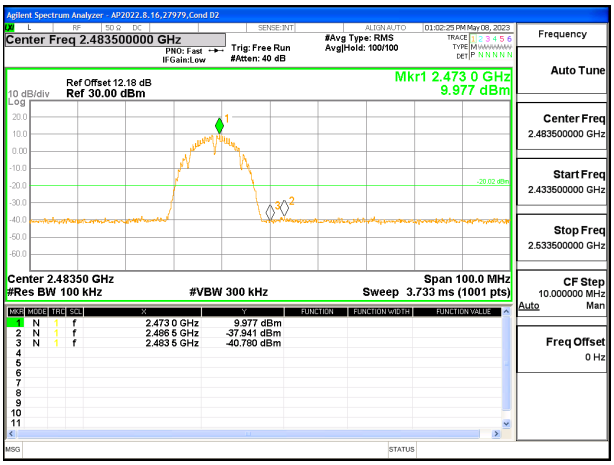
OUT-OF-BAND HIGH CHANNEL 11



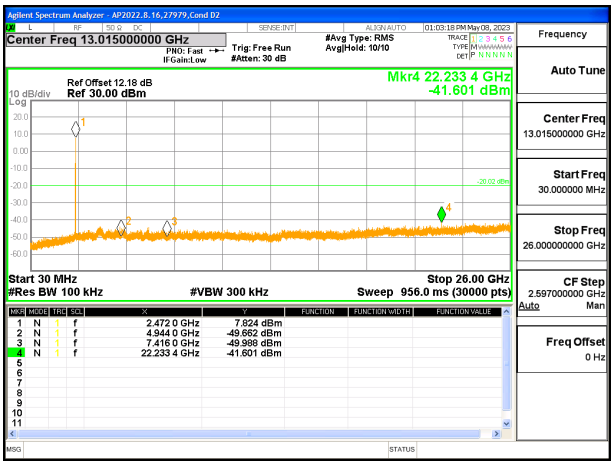
HIGH CHANNEL 12 BANDEDGE



OUT-OF-BAND HIGH CHANNEL 12



HIGH CHANNEL 13 BANDEDGE



OUT-OF-BAND HIGH CHANNEL 13

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