RF TEST REPORT

Report No.: 20250317G05164X-W3

Product Name: 5G Mobile Phone

Model No.: VTL-202402

FCC ID: 2BGHD-VTL202402

IC: 32468-VTL202402

Applicant: Chengdu Xiaochen Technology Co., Ltd

Address: 3rd Floor, Building B15, Ganzhizhongguo Chengdu Center, No. 777 HuafuAvenue Shuangliu County, Chengdu City, Sichuan province, China

Dates of Testing: 03/18/2025 - 05/20/2025

Issued by: CCIC Southern Testing Co., Ltd.

Lab Location: Electronic Testing Building, No.43, Shahe Road, Xili Street, Nanshan District, Shenzhen, Guangdong, China.

Query E-Mail: manager@ccic-set.com

Feedback E-Mail: integrity@ccic-set.com

Report Query Tel: 0755-26627338

Feedback Tel: 0755-86185963

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Test Report

Product.....:	5G Mobile Phone
Brand Name.....:	Vertu
Applicant.....:	Chengdu Xiaochen Technology Co., Ltd
Applicant Address.....:	3rd Floor, Building B15, Ganzhizhongguo Chengdu Center, No. 777 HuafuAvenue Shuangliu County, Chengdu City, Sichuan province, China
Manufacturer.....:	VERTU INTERNATIONAL CORPORATION LIMITED
Manufacturer Address.....:	Chase Business Centre 39-41 Chase Side London England N14 5BP
Test Standards.....:	47 CFR Part 15 Subpart C 15.247 ANSI C63.10-2020 RSS-Gen Issue 5, Feb 2021 RSS-247 Issue 3, Aug 2023
Test Result.....:	Pass
Tested by .....:	Chuiwang Zhang 2025.05.20 Chuiwang Zhang, Test Engineer
Reviewed by.....:	Sun Jiaohui 2025.05.20 Sun Jiaohui, Senior Engineer
Approved by.....:	Chris You 2025.05.20 Chris You, Manager

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Change History		
Issue	Date	Reason for change
1.0	2025.05.20	First edition

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	5G Mobile Phone	
Model No.	VTL-202402	
Hardware Version	P10	
Software Version	15.0.0_4.02.02.01	
EUT supports Radios application	2.4GHz WLAN 802.11b/g/n/ax/be	
Frequency Range	802.11b/g/n/ax/be-20MHz: 2.412GHz - 2.462GHz 802.11n/ax/be-40MHz: 2.422GHz - 2.452GHz	
Channel Number	802.11b/g/n/ax/be-20MHz: 11 802.11n/ax/be-40MHz: 7	
Transfer Rate	802.11b: 11/5.5/2/1 Mbps 802.11g: 54/48/36/24/18/12/9/6 Mbps 802.11n: up to 300Mbps (2×2MIMO) 802.11ax: up to 573.529Mbps (2×2MIMO) 802.11be: up to 688.24 Mbps (2x2MIMO)	
Modulation Type	DSSS (802.11b), OFDM (802.11g/n/ax/be), OFDMA (802.11ax/be)	
Test Control Software	QRCT 4.0	
Antenna Type	Internal Antenna	
Antenna Gain	Antenna 4: -2.0dBi Antenna 7: -3.9dBi	
Power supply	Upper:	Rechargeable Li-ion Polymer Battery DC3.93V/3370mAh
	Bottom:	Rechargeable Li-ion Polymer Battery DC3.93V/885mAh

Note 1: The information of antenna gain and cable loss is provided by the manufacturer and our lab is not responsible for the accuracy of the antenna gain and cable loss information.

1.2. Test Standards and Results

The purpose of the report is to conduct testing according to the following FCC/IC certification standards:

No.	Identity	Document Title
1	47 CFR Part 15 Subpart C	Radio Frequency Devices
2	KDB 558074 D01 15.247 Meas Guidance v05r02	Cuidance for Compliance Measurement on Digital Transmission Systems, Frequency Hopping Spread Spectrum Systems, and Hybrid System Devices Operating under Section 15.247 of the FCC Rules
3	KDB 662911 D01 Multiple Transmitter Output v02r01	Emissions Testing of Transmitters with Multiple Outputs in the Same Band
4	ANSI C63.10-2020	American National Standard for Testing Unlicensed Wireless Devices
5	RSS-Gen Issue 5, Feb 2021	General Requirements for Compliance of Radio Apparatus
6	RSS-247 Issue 3, Aug 2023	Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices

Test detailed items/section required by FCC/IC rules and results are as below:

No.	Section in CFR 47	IC Rules	Description	Result
1	15.203 15.247(c)	RSS-GEN, 6.8 RSS-247, 5.4(f)	Antenna Requirement	PASS
2	15.247(b)(3)	RSS-247, 5.4(d)	Peak Conducted Output Power	PASS
3	15.247(a)(2)	RSS-GEN, 6.7 RSS-247, 5.2(a)	6dB and 99% Bandwidth	PASS
4	15.247(d)	RSS-GEN, 6.13 RSS-247, 5.5	Conducted Band Edges and Spurious Emission	PASS
5	15.247(e)	RSS-247, 5.2(b)	Power spectral density (PSD)	PASS
6	15.207	RSS-GEN, 8.8	AC Power Line Conducted Emission	PASS
7	15.209 15.205 15.247(d)	RSS-GEN, 8.9 RSS-GEN, 8.10 RSS-247, 5.5	Radiated Band Edges and Spurious Emission	PASS

Note 1: The tests of Conducted Emission and Radiated Emission were performed according to the method of measurements prescribed in ANSI C63.10-2020.

Note 2: These RF tests were performed according to the method of measurements prescribed in KDB 558074 D01 15.247 Meas Guidance v05r02.

Note 3: 802.11ax and 802.11be full RU and partial RU patterns were tested, but only the worst case (full RU) was reported.

1.3. Channel List

For 20MHz bandwidth systems, use Channel 1~ Channel 11.

Channel No.	Frequency	Channel No.	Frequency	Channel No.	Frequency
1	2412MHz	5	2432MHz	9	2452MHz
2	2417MHz	6	2437MHz	10	2457MHz
3	2422MHz	7	2442MHz	11	2462MHz
4	2427MHz	8	2447MHz		

Note: Channel 1, 6 & 11 selected for 802.11b/g/n-HT20/ax-HE20/be-EHT20 as Lowest, Middle and Highest channel. Channel 3, 6 & 9 selected for 802.11n-HT40/ax-HE40/be-EHT40 as Lowest, Middle and Highest Channel.

1.4. Test environment and mode

During the measurement, the environmental conditions were within the listed ranges:

Operating Environment	
Temperature	15°C - 35°C
Humidity	30% -60%
Atmospheric Pressure	86kPa-106kPa
Test mode:	
Continuously transmitting mode	Keep the EUT in continuous transmitting with modulation

Preliminary tests were performed in different data rate to find the worst radiated emission. The data rate shown in the table below is the worst-case rate with respect to the specific test item. Investigation has been done on all the possible configurations for searching the worst cases. The following table is a list of the test modes shown in this test report.

Test Items	Mode	Data Rate	Channel
Peak Conducted Output Power Power Spectral Density 6dB and 99% Bandwidth Conducted Spurious Emission Radiated Spurious Emission	802.11b	1 Mbps	1/6/11
	802.11g	6 Mbps	1/6/11
	802.11n-HT20/ax-HE20/be-EHT20	MCS 0	1/6/11
	802.11n-HT40/ax-HE40/be-EHT20	MCS 0	3/6/9
Band Edge	802.11b	1 Mbps	1/11
	802.11g	6 Mbps	1/11
	802.11n-HT20/ax-HE20/be-EHT20	MCS 0	1/11
	802.11n-HT40/ax-HE40/be-EHT20	MCS 0	3/9

1.5. Table for Supporting Units

No.	Equipment	Brand Name	Model Name	Manufacturer	Serial No.	Note
1	Laptop	HP	TPN-Q221	HP	5CD14347QB	FCC DOC

1.6. EUT Operation Test Setup

For RF test items, an engineering test program was provided and enable to make EUT transmitting.

1.7. Laboratory Facilities and Accreditation Certificate

☒**CCIC-SET Lab 1**

Address: Electronic Testing Building, No.43, Shahe Road, Xili Street, Nanshan District, Shenzhen, Guangdong, China

FCC-Registration No.: CN1283

CCIC Southern Testing Co., Ltd EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Designation Number: CN1283, valid time is until Jun. 30th, 2025.

ISED Registration: 11185A, CAB number: CN0064

CCIC Southern Testing Co., Ltd. EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 11185A on Aug. 04, 2016, valid time is until Jun. 30th, 2025.

A2LA Code: 5721.01

CCIC-SET is a third party testing organization accredited by A2LA according to ISO/IEC 17025. The accreditation certificate number is 5721.01.

CNAS L1659

CCIC Southern Testing Co., Ltd. CCIC is a third party testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L1659.

☐**CCIC-SET Lab 4**

Address: No.125, Hongmei Section, Wangsha Road, Hongmei Town, Dongguan City, Guangdong Province, China

CNAS L1659

CCIC Southern Testing Co., Ltd. CCIC is a third party testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L1659.

2. Test Requirements

2.1. Antenna requirement

2.1.1. Applicable Standard

According to FCC 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

And according to FCC 47 CFR Section 15.247(c), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

According to RSSGEN 6.8, The applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. for transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. The test report shall demonstrate the compliance of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list.

2.1.2. Antenna Information

Antenna Category: Internal Antenna

A internal Antenna was soldered to the antenna port of EUT via an adaptor cable, can't be removed.

Antenna General Information:

For SISO, there is only one transmitter output therefore the directional gain is equal to the antenna gain.

For MIMO, since the EUT is uncorrelated with each other across all Tx chains. The directional gains are as follows:

Operating frequency range	Ant4 Antenna Gain (dBi)	Ant7 Antenna Gain (dBi)	Uncorrelated Chains Directional gain (dBi)
2412-2462MHz	-2.0	-3.9	-2.85

Note 1: Uncorrelated directional gain = $10 \log[(10^{Ant4/10} + 10^{Ant7/10}) / N_{ANT}]$ dBi.

2.1.3. Result: comply

The EUT has two permanently and irreplaceable attached antenna. Please refer to the EUT internal photos.

2.2. Maximum Conducted Output Power

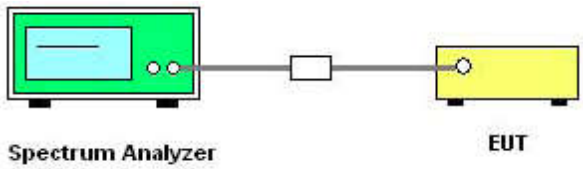
2.2.1. Limit of Maximum Conducted Output Power

For DTSs employing digital modulation techniques operating in the bands 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1W. The e.i.r.p. shall not exceed 4 W.

2.2.2. Measuring Instruments

The measuring equipment is listed in the section 3 of this test report.

2.2.3. Test Setup



2.2.4. Test Procedures

1. The testing follows the Measurement Procedure of ANSI C63.10-2020 Section 11.9.2.2.4.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Use the following spectrum analyzer settings:
   Set instrument center frequency to DTS channel center frequency / Set span to at least 1.5 times the OBW / RBW = 1% to 5% of the OBW, not to exceed 1 MHz. / Set VBW ≥ [3 × RBW]. / Detector: RMS / Sweep time: Auto / Trace mode: Average / Trace average at least 100 traces in power averaging (rms) mode.
5. Compute power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function with band limits set equal to the OBW band edges.
6. Add [10 log (1 / D)], where D is the duty cycle), to the measured PSD to compute the average PSD during the actual transmission time.
7. Record the measurement results in the test report.

2.2.5. Test Result of Maximum Conducted Output Power

Please refer to Appendix A for detail.

2.3. 6dB and 99% Bandwidth

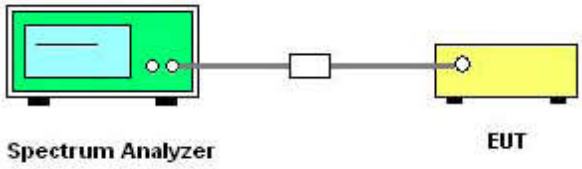
2.3.1. Limit of 6dB Bandwidth

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

2.3.2. Measuring Instruments

The measuring equipment is listed in the section 3 of this test report.

2.3.3. Test Setup



2.3.4. Test Procedures

1. The testing follows the Measurement Procedure of ANSI C63.10-2020 Section 11.8.1 and 6.9.3.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Use the spectrum analyzer “Channel Bandwidth” function to easurement the 6dB EBW and 99% OBW.
5. For 6 dB EBW Use the following spectrum analyzer settings:
   Set Span = 1.5 times to 5.0 times the OBW/ RBW = Within 1% to 5% of OBW/VBW ≥ 3 × RBW
   Set Detector = Peak/Trace mode = max hold/ Sweep time = auto couple.
6. For 99% OBW Use the following spectrum analyzer settings:
   Set Span = 1.5 times to 5.0 times the OBW/ RBW = Within 1% to 5% of OBW/VBW ≥ 3 × RBW
   Set Detector = Peak/Trace mode = max hold/ Sweep time = auto couple.
7. Record the measurement results in the test report.

2.3.5. Test Results of 6dB and 99% Bandwidth

Please refer to Appendix A for detail.

2.4. Power spectral density (PSD)

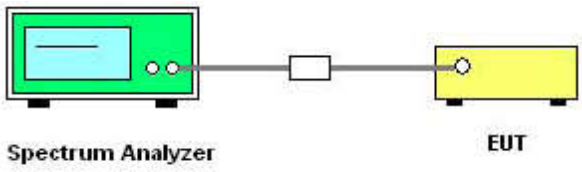
2.4.1. Limit of Power Spectral Density

The peak power spectral density shall not be greater than 8dBm in any 3kHz band at any time interval of continuous transmission.

2.4.2. Measuring Instruments

The measuring equipment is listed in the section 3 of this test report.

2.4.3. Test Setup



2.4.4. Test Procedures

1. The testing follows the Measurement Procedure of ANSI C63.10-2020 Section 11.10.5.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Use the following spectrum analyzer settings:
   Set instrument center frequency to DTS channel center frequency / Set the span to 1.5 times the DTS bandwidth / RBW: 3kHz / VBW: 10kHz / Detector: RMS / Sweep time: Auto couple / Trace mode: Average / Employ trace averaging (rms) mode over a minimum of 100 traces / Use the peak marker function to determine the maximum power level.
5. Add [10 log (1 / D)], where D is the duty cycle), to the measured PSD to compute the average PSD during the actual transmission time.
6. Record the measurement results in the test report.

2.4.5. Test Results of Power Spectral Density

Please refer to Appendix A for detail.

2.5. Conducted Band Edges and Spurious Emissions

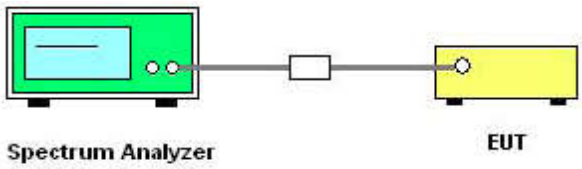
2.5.1. Limit of Conducted Band Edges and Spurious Emissions

In any 100 kHz bandwidth outside the frequency band in which the intentional radiator is perating, 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. 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.

2.5.2. Measuring Instruments

The measuring equipment is listed in the section 3 of this test report.

2.5.3. Test Setup



2.5.4. Test Procedure

1. The testing follows the Measurement Procedure of ANSI C63.10-2020 Section 11.11 and 11.12.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Use the following spectrum analyzer settings:

   Reference level measurement: Set spectrum analyzer center frequency to DTS channel center frequency / Set the span to ≥1.5 times the DTS bandwidth / RBW: 100kHz / VBW: 300kHz / Detector: Peak / Sweep time: Auto couple / Trace mode: Max hold / Allow trace to fully stabilize / Use the peak marker function to determine the maximum PSD level and attenuate it by 30dB.

   Emission level measurement: Set the center frequency and span to encompass frequency range to be measured / RBW: 100kHz / VBW: 300kHz / Detector: Peak / Sweep time: Auto couple / Trace mode: Max hold / Allow trace to fully stabilize / Use the peak marker function to determine the maximum amplitude level.
5. Record the measurement results in the test report.

2.5.5. Test Results of Conducted Band Edges and Spurious Emissions

Please refer to Appendix A for detail.

2.6. Radiated Band Edge and Spurious Emission

2.6.1. Limit of Radiated Band Edges and Spurious Emission

In any 100 kHz bandwidth outside the frequency band in which the 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. If the transmitter uses an RMS average conducted power limit, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. In addition, radiated emissions which fall in the estricted bands, as defi ned in §15.205(a), must also comply with the radiated emission limits specifi ed in §15.209(a).

§15.209(a) Radiated emission limits:

Frequency (MHz)	Field Strength (μV/m)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

Restricted bands of operation refer to §15.205 (a):

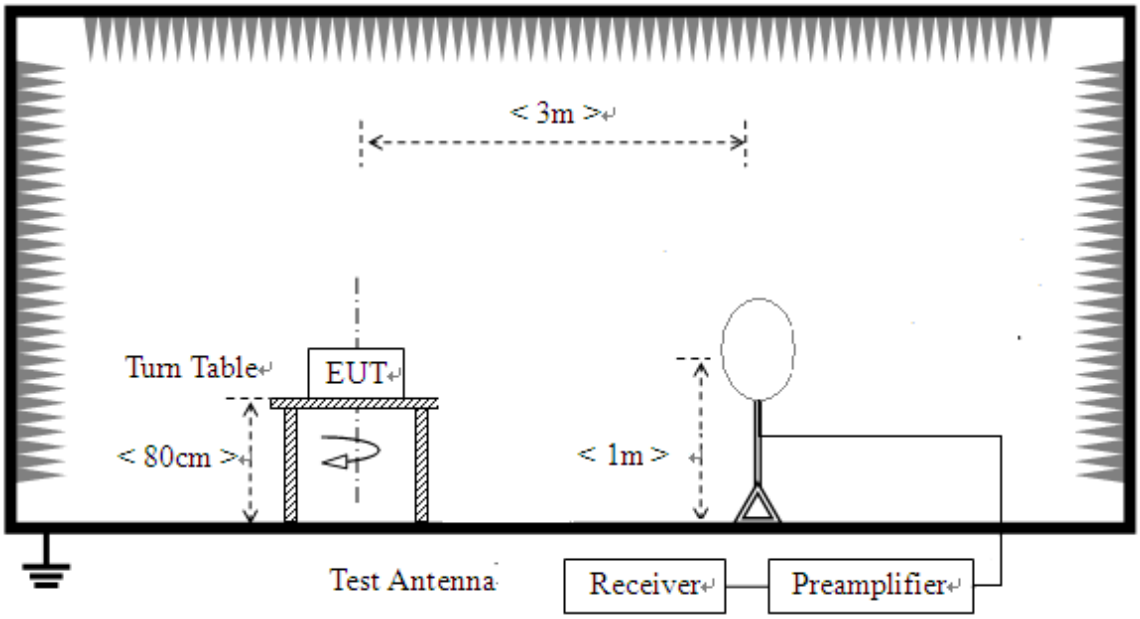
MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
[1]0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	([2])
13.36-13.41	/	/	/
Note: [1]Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz. [2]Above 38.6.			

2.6.2. Measuring Instruments

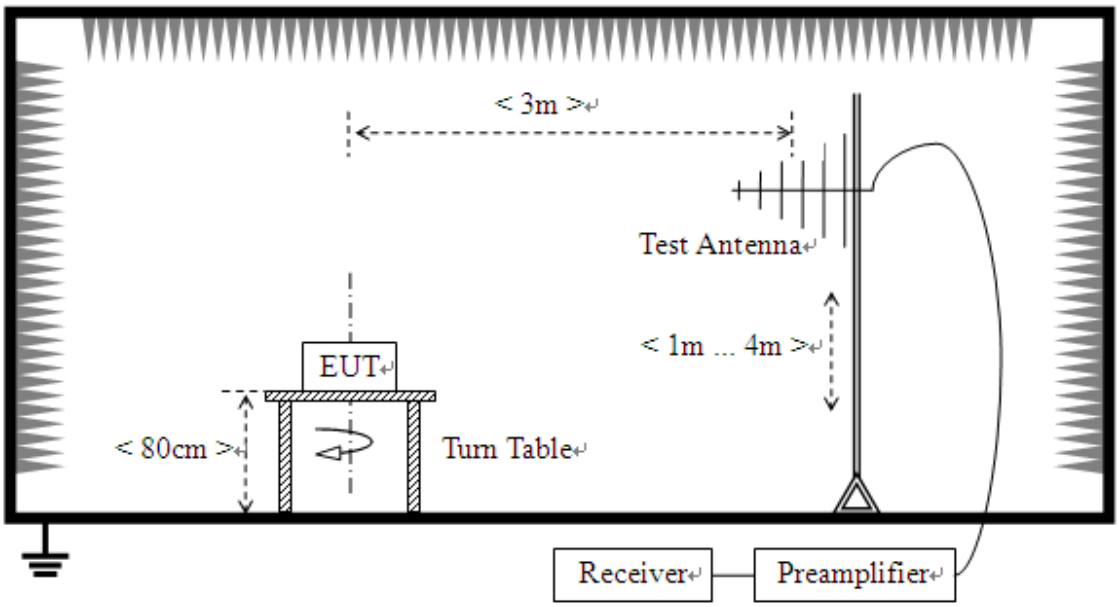
The measuring equipment is listed in the section 3 of this test report.

2.6.3. Test Setup

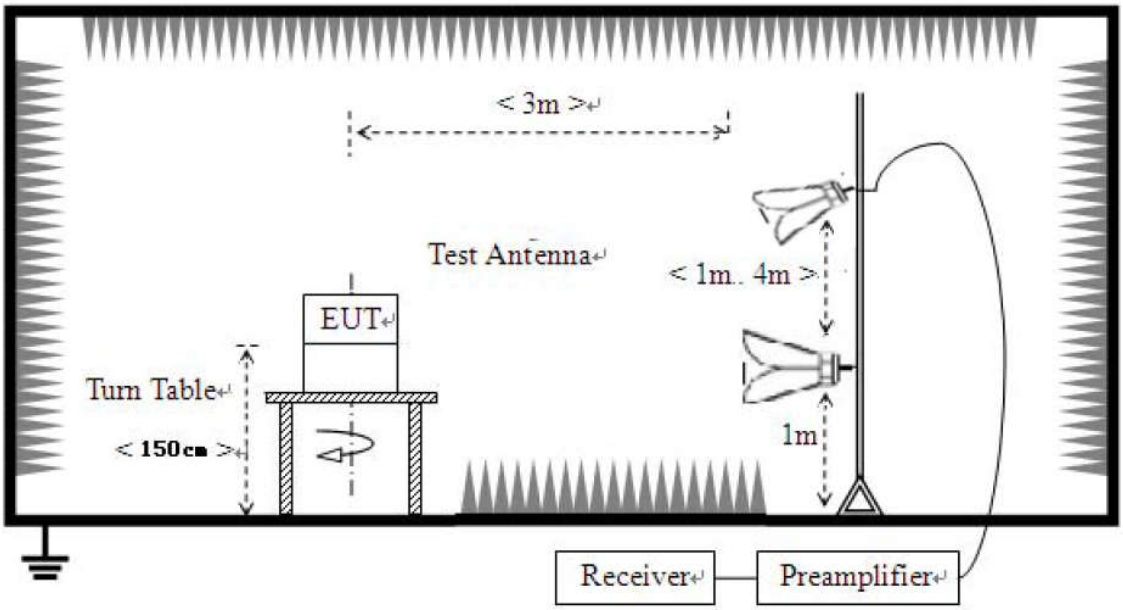
For radiated emissions from 9 kHz to 30 MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



2.6.4. Test Procedures

1. The EUT was placed on the top of a rotating table 0.8m for below 1GHz and 1.5m for above 1GHz above the ground at a 3 meters semi-anechoic chamber.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on thetop of a variable height antenna tower.
3. Height of receiving antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported.Otherwise the emissions would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
7. For the radiated emission test above 1GHz:
   Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at

the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.

NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is ≥ 1/T(Duty cycle < 98%) or 10Hz(Duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.
4. All radiated emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

2.6.5. Test Results of Radiated Band Edge and Spurious Emission

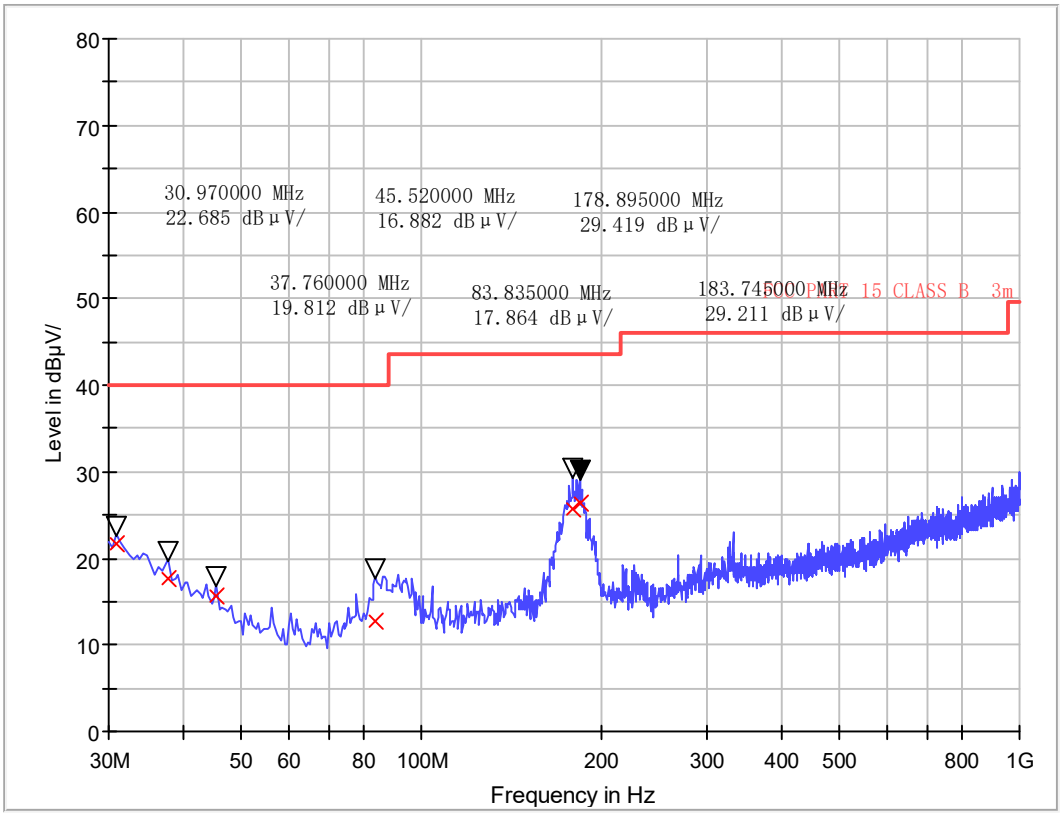
For 9 kHz to 30MHz, The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

For 30MHz to 1GHz, All of the EUT Configure mode were tested and found 802.11b_2412MHz (Ant4) channel is the worst mode, the worst case is recorded in this report.

For 1GHz to 25GHz, Only worst-case data is reported.

For 30MHz to 1000MHz

Test site:	3M anechoic chamber	Environment:	Temp: 23℃; Humi:48%;101kPa
Operator:	Huang Chaoming	Test Date:	2025.03.28
Test Mode:	WIFI - TX	Test Result:	Pass

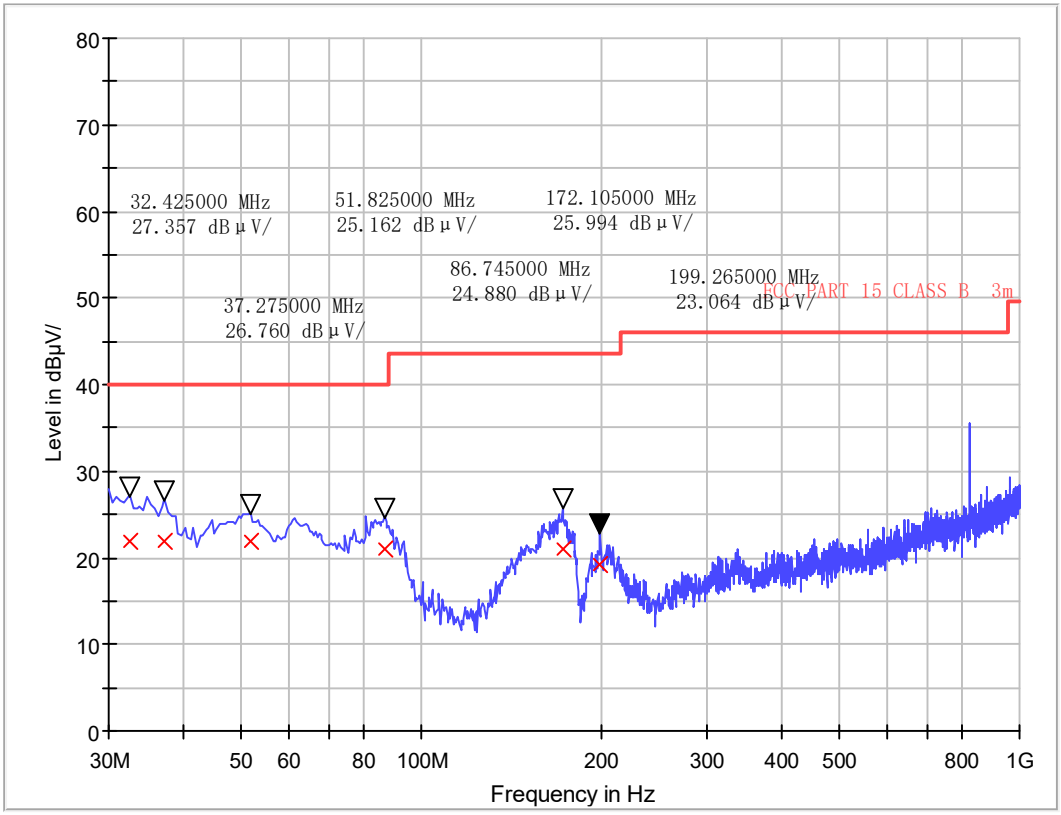


Frequency (MHz)	QuasiPeak (dBμV/m)	Bandwidth (kHz)	Height (cm)	Polarity	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBμV/m)
30.970000	21.69	120.000	100.0	H	18.8	18.31	40.0
37.760000	17.57	120.000	100.0	H	15.3	22.43	40.0
45.520000	15.57	120.000	100.0	H	11.2	24.43	40.0
83.835000	12.80	120.000	100.0	H	8.3	27.20	40.0
178.895000	25.70	120.000	100.0	H	11.9	17.80	43.5
183.745000	26.35	120.000	100.0	H	11.8	17.15	43.5

Remark:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB).
3. Margin value = Limit value – Emission Level.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. Only the antenna height (from 1m to 4m) at maximum reading are recorded.

Test site:	3M anechoic chamber	Environment:	Temp: 23℃; Humi:48%;101kPa
Operator:	Huang Chaoming	Test Date:	2025.03.28
Test Mode:	WIFI - TX	Test Result:	Pass



Frequency (MHz)	QuasiPeak (dBμV/m)	Bandwidth (kHz)	Height (cm)	Polarity	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBμV/m)
32.425000	21.97	120.000	100.0	V	18.0	18.03	40.0
37.275000	21.93	120.000	100.0	V	15.6	18.07	40.0
51.825000	22.01	120.000	100.0	V	8.2	17.99	40.0
86.745000	20.92	120.000	100.0	V	8.6	19.08	40.0
172.105000	21.00	120.000	100.0	V	11.9	22.50	43.5
199.265000	19.15	120.000	100.0	V	11.7	24.35	43.5

Remark:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB).
3. Margin value = Limit value – Emission Level.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. Only the antenna height (from 1m to 4m) at maximum reading are recorded.

For 1GHz to 25GHz

2.4G Wi-Fi 802.11b_2412MHz									
Frequency (MHz)	Emssion Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)	Polarity	Detector
2390.00	52.87	74.00	-21.13	1.50	250	55.96	-3.09	Horizontal	Peak
2390.00	43.72	54.00	-10.28	1.50	250	46.81	-3.09	Horizontal	Average
4824.00	46.72	74.00	-27.28	1.50	250	45.55	1.17	Horizontal	Peak
4824.00	37.17	54.00	-16.83	1.50	250	36.00	1.17	Horizontal	Average
7236.00	50.72	74.00	-23.28	1.50	250	44.77	5.95	Horizontal	Peak
7236.00	40.81	54.00	-13.19	1.50	250	34.86	5.95	Horizontal	Average
2390.00	52.80	74.00	-21.20	1.50	140	55.89	-3.09	Vertical	Peak
2390.00	43.60	54.00	-10.40	1.50	140	46.69	-3.09	Vertical	Average
4824.00	46.64	74.00	-27.36	1.50	140	45.47	1.17	Vertical	Peak
4824.00	37.21	54.00	-16.79	1.50	140	36.04	1.17	Vertical	Average
7236.00	50.53	74.00	-23.47	1.50	140	44.58	5.95	Vertical	Peak
7236.00	41.17	54.00	-12.83	1.50	140	35.22	5.95	Vertical	Average
2.4G Wi-Fi 802.11b_2437MHz									
Frequency (MHz)	Emssion Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)	Polarity	Detector
4874.00	46.48	74.00	-27.52	1.50	250	45.52	0.96	Horizontal	Peak
4874.00	36.83	54.00	-17.17	1.50	250	35.87	0.96	Horizontal	Average
7311.00	50.84	74.00	-23.16	1.50	250	45.30	5.54	Horizontal	Peak
7311.00	41.18	54.00	-12.82	1.50	250	35.64	5.54	Horizontal	Average
4874.00	46.51	74.00	-27.49	1.50	140	45.55	0.96	Vertical	Peak
4874.00	36.85	54.00	-17.15	1.50	140	35.89	0.96	Vertical	Average
7311.00	50.65	74.00	-23.35	1.50	140	45.11	5.54	Vertical	Peak
7311.00	41.17	54.00	-12.83	1.50	140	35.63	5.54	Vertical	Average

Remark:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)

2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) - Pre-Amplifier Factor(dB)

3. Margin value = Emission Level – Limit value

4.The emission levels of other frequencies are very lower than the limit and not show in test report.

5.Tnly the antenna height (from 1m to 4m) and turntable angle (from 0 degrees to 360 degrees) at maximum reading are recorded.

2.4G Wi-Fi 802.11b_2462MHz									
Frequency (MHz)	Emssion Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)	Polarity	Detector
2483.50	54.26	74.00	-19.74	1.50	250	59.01	-4.75	Horizontal	Peak
2483.50	44.69	54.00	-9.31	1.50	250	49.44	-4.75	Horizontal	Average
4924.00	45.71	74.00	-28.29	1.50	250	45.11	0.60	Horizontal	Peak
4924.00	36.44	54.00	-17.56	1.50	250	35.84	0.60	Horizontal	Average
7386.00	50.04	74.00	-23.96	1.50	250	44.11	5.93	Horizontal	Peak
7386.00	40.61	54.00	-13.39	1.50	250	34.68	5.93	Horizontal	Average
2483.50	53.70	74.00	-20.30	1.50	140	58.45	-4.75	Vertical	Peak
2483.50	44.40	54.00	-9.60	1.50	140	49.15	-4.75	Vertical	Average
4924.00	45.89	74.00	-28.11	1.50	140	45.29	0.60	Vertical	Peak
4924.00	36.53	54.00	-17.47	1.50	140	35.93	0.60	Vertical	Average
7386.00	50.73	74.00	-23.27	1.50	140	44.80	5.93	Vertical	Peak
7386.00	40.41	54.00	-13.59	1.50	140	34.48	5.93	Vertical	Average

Remark:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)

2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) - Pre-Amplifier Factor(dB)

3. Margin value = Emission Level – Limit value

4.The emission levels of other frequencies are very lower than the limit and not show in test report.

5.Tnly the antenna height (from 1m to 4m) and turntable angle (from 0 degrees to 360 degrees) at maximum reading are recorded.

2.4G Wi-Fi 802.11ax-HE40_2422MHz									
Frequency (MHz)	Emssion Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)	Polarity	Detector
2390.00	53.51	74.00	-20.49	1.50	250	56.60	-3.09	Horizontal	Peak
2390.00	44.25	54.00	-9.75	1.50	250	47.34	-3.09	Horizontal	Average
4844.00	46.13	74.00	-27.87	1.50	250	45.05	1.08	Horizontal	Peak
4844.00	36.90	54.00	-17.10	1.50	250	35.82	1.08	Horizontal	Average
7266.00	51.71	74.00	-22.29	1.50	250	45.99	5.72	Horizontal	Peak
7266.00	41.10	54.00	-12.90	1.50	250	35.38	5.72	Horizontal	Average
2390.00	53.42	74.00	-20.58	1.50	140	56.51	-3.09	Vertical	Peak
2390.00	43.86	54.00	-10.14	1.50	140	46.95	-3.09	Vertical	Average
4844.00	48.09	74.00	-25.91	1.50	140	47.01	1.08	Vertical	Peak
4844.00	37.87	54.00	-16.13	1.50	140	36.79	1.08	Vertical	Average
7266.00	51.38	74.00	-22.62	1.50	140	45.66	5.72	Vertical	Peak
7266.00	41.58	54.00	-12.42	1.50	140	35.86	5.72	Vertical	Average
2.4G Wi-Fi 802.11ax-HE40_2437MHz									
Frequency (MHz)	Emssion Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)	Polarity	Detector
4874.00	46.78	74.00	-27.22	1.50	250	45.82	0.96	Horizontal	Peak
4874.00	36.86	54.00	-17.14	1.50	250	35.90	0.96	Horizontal	Average
7311.00	50.25	74.00	-23.75	1.50	250	44.71	5.54	Horizontal	Peak
7311.00	41.02	54.00	-12.98	1.50	250	35.48	5.54	Horizontal	Average
4874.00	46.16	74.00	-27.84	1.50	140	45.20	0.96	Vertical	Peak
4874.00	36.91	54.00	-17.09	1.50	140	35.95	0.96	Vertical	Average
7311.00	50.38	74.00	-23.62	1.50	140	44.84	5.54	Vertical	Peak
7311.00	40.02	54.00	-13.98	1.50	140	34.48	5.54	Vertical	Average

Remark:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)

2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) - Pre-Amplifier Factor(dB)

3. Margin value = Emission Level – Limit value

4.The emission levels of other frequencies are very lower than the limit and not show in test report.

5.Tnly the antenna height (from 1m to 4m) and turntable angle (from 0 degrees to 360 degrees) at maximum reading are recorded.

2.4G Wi-Fi 802.11ax-HE40_2452MHz									
Frequency (MHz)	Emssion Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)	Polarity	Detector
2483.50	53.93	74.00	-20.07	1.50	250	58.68	-4.75	Horizontal	Peak
2483.50	44.17	54.00	-9.83	1.50	250	48.92	-4.75	Horizontal	Average
4904.00	46.84	74.00	-27.16	1.50	250	46.03	0.81	Horizontal	Peak
4904.00	37.16	54.00	-16.84	1.50	250	36.35	0.81	Horizontal	Average
7356.00	48.14	74.00	-25.86	1.50	250	42.36	5.78	Horizontal	Peak
7356.00	40.57	54.00	-13.43	1.50	250	34.79	5.78	Horizontal	Average
2483.50	53.00	74.00	-21.00	1.50	140	57.75	-4.75	Vertical	Peak
2483.50	45.71	54.00	-8.29	1.50	140	50.46	-4.75	Vertical	Average
4904.00	45.15	74.00	-28.85	1.50	140	44.34	0.81	Vertical	Peak
4904.00	36.42	54.00	-17.58	1.50	140	35.61	0.81	Vertical	Average
7356.00	50.41	74.00	-23.59	1.50	140	44.63	5.78	Vertical	Peak
7356.00	38.82	54.00	-15.18	1.50	140	33.04	5.78	Vertical	Average

Remark:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)

2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) - Pre-Amplifier Factor(dB)

3. Margin value = Emission Level – Limit value

4.The emission levels of other frequencies are very lower than the limit and not show in test report.

5.Tnly the antenna height (from 1m to 4m) and turntable angle (from 0 degrees to 360 degrees) at maximum reading are recorded.

2.7. AC Power Line Conducted Emission

2.7.1. Limit of AC Power Line Conducted Emission

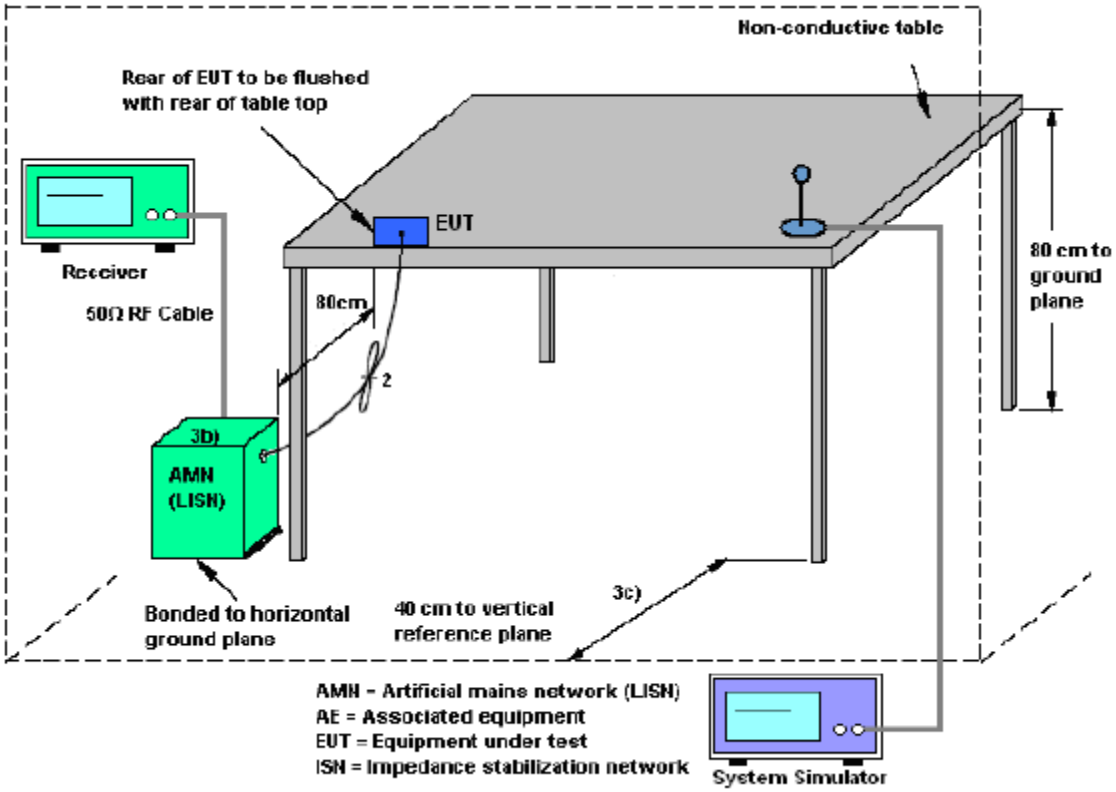
For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency range (MHz)	Conducted Limit (dBμV)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

2.7.2. Measuring Instruments

The measuring equipment is listed in the section 3 of this test report.

2.7.3. Test Setup



2.7.4. Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 micrometry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

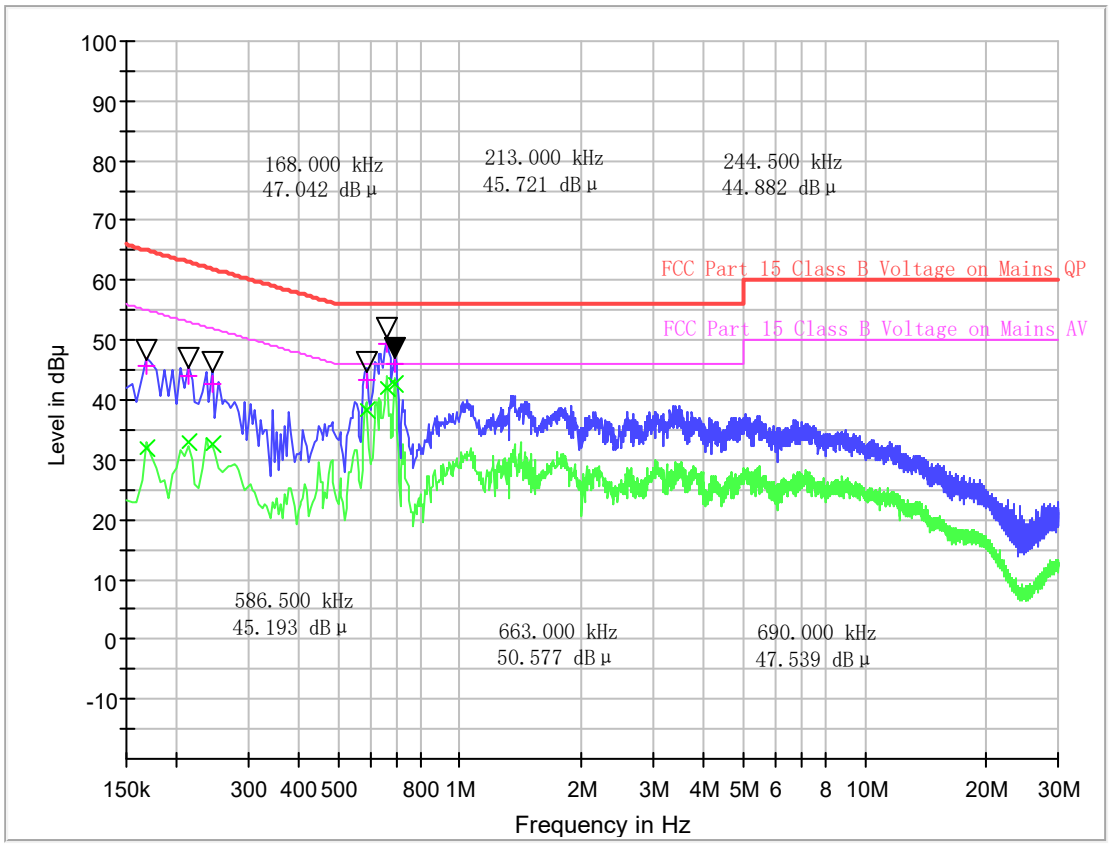
2.7.5. Test Results of Conducted Emission

The EUT configuration of the emission tests is 2.4G WLAN Link + USB Cable (Charging from Adapter).

All of the EUT Configure mode were tested and found 802.11b_2462MHz (Ant4) channel is the worst mode, the worst case is recorded in this report.

Project Information

Test site:	Shield ROOM 2	Environment:	Temp: 23℃; Humi:53%;101kPa
Operator:	HUANG CHUTING	Test Date:	2025.03.14
Test Mode:	2.4G WIFI - TX	Test Part:	L

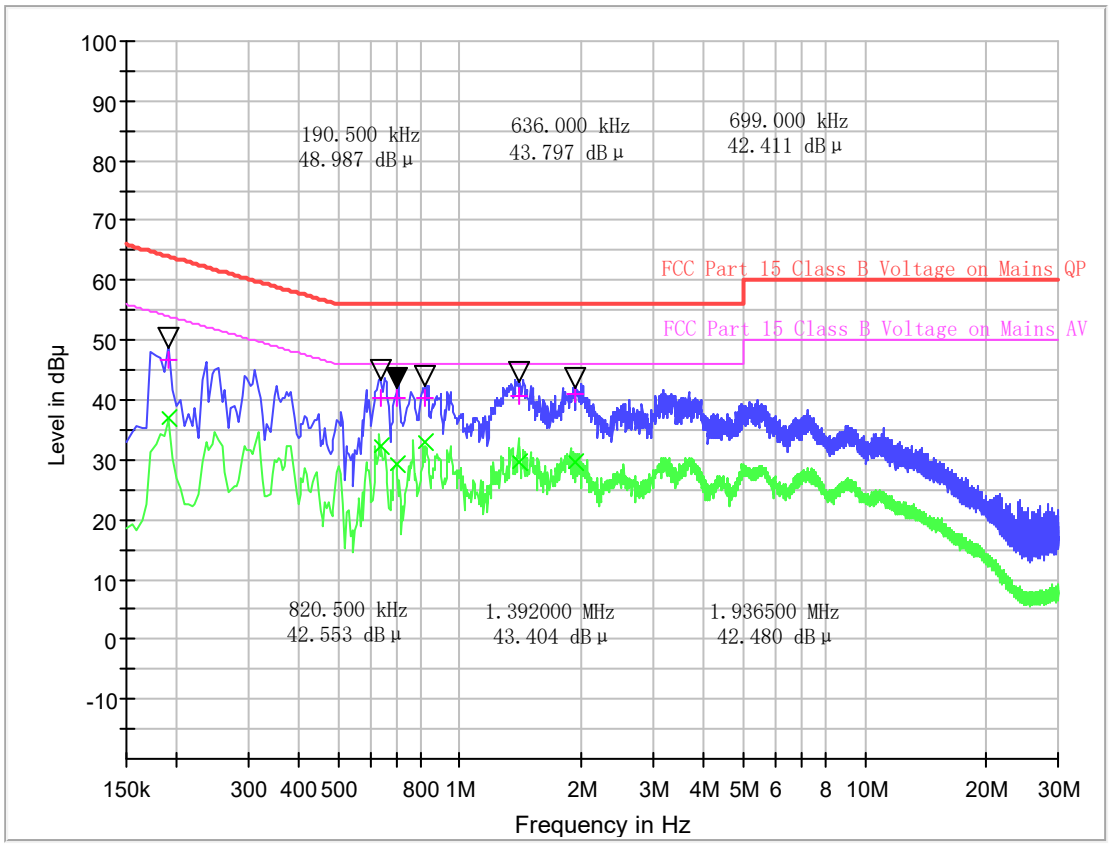


Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Corr.Factor (dB)	Margin - QPK	Limit - QPK (dBμV)	Margin - AV (dB)	Limit - AV (dBμV)
0.168000	45.83	31.94	10.3	19.23	65.06	23.12	55.06
0.213000	43.93	32.82	10.6	19.16	63.09	20.27	53.09
0.244500	42.69	32.64	10.7	19.25	61.94	19.30	51.94
0.586500	43.48	38.34	10.6	12.52	56.00	7.66	46.00
0.663000	49.23	42.03	10.3	6.77	56.00	3.97	46.00
0.690000	45.91	42.57	10.2	10.09	56.00	3.43	46.00

Test Result : Pass

Note: Final Level = Receiver Read level + Correction factor.

Project Information			
Test site:	Shield ROOM 2	Environment:	Temp: 23℃; Humi:53%;101kPa
Operator:	HUANG CHUTING	Test Date:	2025.03.14
Test Mode:	2.4G WIFI - TX	Test Part:	N



Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Corr.Factor (dB)	Margin - QPK	Limit - QPK (dBμV)	Margin - AV (dB)	Limit - AV (dBμV)
0.190500	46.73	36.87	10.8	17.28	64.01	17.14	54.01
0.636000	40.36	32.22	10.6	15.64	56.00	13.78	46.00
0.699000	40.23	29.30	10.7	15.77	56.00	16.70	46.00
0.820500	40.21	32.87	10.3	15.79	56.00	13.13	46.00
1.392000	40.74	29.55	10.6	15.26	56.00	16.45	46.00
1.936500	40.95	29.67	10.4	15.05	56.00	16.33	46.00

Test Result : Pass

Note: Final Level = Receiver Read level + Correction factor.

3. List of measuring equipment

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	5M Anechoic Chamber	Albatross	SAC-5MAC 12.8x6.8x6.4m	A0304210	2023.08.01	2026.07.31
2	EMI Test Receiver	ROHDE&SCHWARZ	ESW26	A180502935	2024.05.23	2025.05.22
3	Loop Antenna	SCHWARZBECK	FMZB 1519-60 C	A240204134	2023.12.13	2026.12.12
4	Broadband antenna (30MHz~1GHz)	R&S	HL562	A0304224	2023.06.08	2026.06.07
5	EMI Horn Ant. (1-18G)	ETC	MCTD-1209	A150402241	2023.05.16	2026.05.15
6	Horn antenna (18GHz~26.5GHz)	AR	AT4510	A0804450	2023.06.01	2026.05.31
7	Amplifier 30M~1GHz	TESEQ	CBA1G-600B	A190503534	2024.09.05	2025.09.04
8	Amplifier 1G~18GHz	MILMEGA	AS0104R-800/400	A160302517	2024.05.25	2025.05.24
9	Spectrum Analyzer	KEYSIGHT	N9030A	A160702554	2024.12.31	2025.12.30
10	Test Receiver	R&S	ESIB7	A0501375	2025.01.13	2026.01.12
11	Broadband Ant.	ETC	MCTD 2786	A150402240	2023.05.22	2026.05.21
12	3M Anechoic Chamber	Albatross	SAC-3MAC 9*6*6m	A0412375	2024.02.27	2027.02.26
13	Test Receiver	KEYSIGHT	N9038A	A141202036	2024.06.05	2025.06.04
14	LISN	ROHDE&SCHWARZ	ENV216	A140701847	2024.05.23	2025.05.22
15	Cable(9kHz~30MHz)	/	/	C230800587	2023.08.21	2026.08.20
16	Cable(30MHz~18GHz)	/	XSMJA750-SMNM(RA)-12M	C230800588	2023.08.21	2026.08.20
17	Cable(18GHz~40GHz)	/	SUCOFLEX102	C230800590	2023.08.21	2026.08.20

4. Uncertainty of Evaluation

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.10-2020. All the measurement uncertainty value were shown with a coverage K=2 to indicate 95% level of confidence . The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

Uncertainty of AC Power Line Conducted Emission Measurement (150kHz~30MHz)

Measuring Uncertainty for a level of confidence of 95%(U=2Uc(y))	2.8dB

Uncertainty of Radiated Emission Measurement (9kHz~30MHz)

Measuring Uncertainty for a level of confidence of 95%(U=2Uc(y))	3.5dB

Uncertainty of Radiated Emission Measurement (30MHz~1GHz)

Measuring Uncertainty for a level of confidence of 95%(U=2Uc(y))	3.91dB

Uncertainty of Radiated Emission Measurement (1GHz~18GHz)

Measuring Uncertainty for a level of confidence of 95%(U=2Uc(y))	4.5dB

Uncertainty of Radiated Emission Measurement (18GHz~40GHz)

Measuring Uncertainty for a level of confidence of 95%(U=2Uc(y))	4.9dB

Uncertainty of RF Conducted Measurement (9kHz~40GHz)

Measuring Uncertainty for a level of confidence of 95%(U=2Uc(y))	1.2dB

Uncertainty of Occupied Bandwidth Measurement

Measuring Uncertainty for a level of confidence of 95%(U=2Uc(y))	1.2%

Appendix A

Duty Cycle

Test Result and Data

TestMode	Antenna	Frequency[MHz]	ON Time[ms]	Period[ms]	Duty Cycle[%]	DC Factor
11B	Ant7	2412	20.00	20.00	100.00	0.00
11B	Ant4	2412	20.00	20.00	100.00	0.00
11G	Ant4	2412	2.09	2.11	99.05	0.04
11G	Ant7	2412	2.09	2.11	99.05	0.04
11N20SISO	Ant7	2412	5.42	5.44	99.63	0.02
11N20SISO	Ant4	2412	5.42	5.44	99.63	0.02
11N20MIMO	Ant4	2412	5.43	5.44	99.82	0.01
11N20MIMO	Ant7	2412	5.42	5.45	99.45	0.02
11N40SISO	Ant4	2422	5.43	5.45	99.63	0.02
11N40SISO	Ant7	2422	5.41	5.44	99.45	0.02
11N40MIMO	Ant4	2422	5.43	5.45	99.63	0.02
11N40MIMO	Ant7	2422	5.43	5.44	99.82	0.01
11AX20SISO	Ant4	2412	5.44	5.46	99.63	0.02
11AX20SISO	Ant7	2412	5.44	5.46	99.63	0.02
11AX20MIMO	Ant4	2412	5.44	5.47	99.45	0.02
11AX20MIMO	Ant7	2412	5.45	5.46	99.82	0.01
11AX40SISO	Ant4	2422	5.44	5.46	99.63	0.02
11AX40SISO	Ant7	2422	5.44	5.46	99.63	0.02
11AX40MIMO	Ant4	2422	5.44	5.46	99.63	0.02
11AX40MIMO	Ant7	2422	5.45	5.47	99.63	0.02
11BE20SISO	Ant4	2412	5.45	5.47	99.63	0.02
11BE20SISO	Ant7	2412	5.45	5.47	99.63	0.02
11BE20MIMO	Ant4	2412	19.00	19.00	100.00	0.00
11BE20MIMO	Ant7	2412	5.46	5.47	99.82	0.01
11BE40SISO	Ant4	2422	20.00	20.00	100.00	0.00
11BE40SISO	Ant7	2422	20.00	20.00	100.00	0.00
11BE40MIMO	Ant4	2422	5.46	5.47	99.82	0.01
11BE40MIMO	Ant7	2422	5.45	5.47	99.63	0.02

Maximum Conducted Output Power

Test Result and Data

Test Mode	Antenna	Frequency [MHz]	Power [dBm]	DC Factor [dBm]	Result [dBm]	Gain [dBi]	Power Limit [dBm]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
11B	Ant4	2412	18.26	0.00	18.26	-2.00	≤30.00	16.26	≤36.00	PASS
11B	Ant7	2412	17.52	0.00	17.52	-3.90	≤30.00	13.62	≤36.00	PASS
11B	Ant4	2437	18.72	0.00	18.72	-2.00	≤30.00	16.72	≤36.00	PASS
11B	Ant7	2437	17.26	0.00	17.26	-3.90	≤30.00	13.36	≤36.00	PASS
11B	Ant4	2462	19.12	0.00	19.12	-2.00	≤30.00	17.12	≤36.00	PASS
11B	Ant7	2462	17.52	0.00	17.52	-3.90	≤30.00	13.62	≤36.00	PASS
11G	Ant4	2412	17.53	0.04	17.57	-2.00	≤30.00	15.57	≤36.00	PASS
11G	Ant7	2412	16.52	0.04	16.56	-3.90	≤30.00	12.66	≤36.00	PASS
11G	Ant4	2437	17.61	0.04	17.65	-2.00	≤30.00	15.65	≤36.00	PASS
11G	Ant7	2437	16.72	0.04	16.76	-3.90	≤30.00	12.86	≤36.00	PASS
11G	Ant4	2462	17.84	0.04	17.88	-2.00	≤30.00	15.88	≤36.00	PASS
11G	Ant7	2462	16.93	0.04	16.97	-3.90	≤30.00	13.07	≤36.00	PASS
11N20SISO	Ant4	2412	15.86	0.02	15.88	-2.00	≤30.00	13.88	≤36.00	PASS
11N20SISO	Ant7	2412	16.53	0.02	16.55	-3.90	≤30.00	12.65	≤36.00	PASS
11N20SISO	Ant4	2437	16.29	0.00	16.29	-2.00	≤30.00	14.29	≤36.00	PASS
11N20SISO	Ant7	2437	16.64	0.02	16.66	-3.90	≤30.00	12.76	≤36.00	PASS
11N20SISO	Ant4	2462	16.52	0.00	16.52	-2.00	≤30.00	14.52	≤36.00	PASS
11N20SISO	Ant7	2462	16.86	0.02	16.88	-3.90	≤30.00	12.98	≤36.00	PASS
11N40SISO	Ant4	2422	15.37	0.02	15.39	-2.00	≤30.00	13.39	≤36.00	PASS
11N40SISO	Ant7	2422	16.66	0.02	16.68	-3.90	≤30.00	12.78	≤36.00	PASS
11N40SISO	Ant4	2437	15.21	0.02	15.23	-2.00	≤30.00	13.23	≤36.00	PASS
11N40SISO	Ant7	2437	16.85	0.02	16.87	-3.90	≤30.00	12.97	≤36.00	PASS
11N40SISO	Ant4	2452	15.87	0.02	15.89	-2.00	≤30.00	13.89	≤36.00	PASS
11N40SISO	Ant7	2452	17.18	0.02	17.20	-3.90	≤30.00	13.30	≤36.00	PASS
11AX20SISO	Ant4	2412	16.16	0.02	16.18	-2.00	≤30.00	14.18	≤36.00	PASS
11AX20SISO	Ant7	2412	16.51	0.02	16.53	-3.90	≤30.00	12.63	≤36.00	PASS
11AX20SISO	Ant4	2437	16.28	0.02	16.30	-2.00	≤30.00	14.30	≤36.00	PASS
11AX20SISO	Ant7	2437	16.67	0.02	16.69	-3.90	≤30.00	12.79	≤36.00	PASS
11AX20SISO	Ant4	2462	16.45	0.02	16.47	-2.00	≤30.00	14.47	≤36.00	PASS
11AX20SISO	Ant7	2462	16.86	0.02	16.88	-3.90	≤30.00	12.98	≤36.00	PASS
11AX40SISO	Ant4	2422	15.27	0.02	15.29	-2.00	≤30.00	13.29	≤36.00	PASS
11AX40SISO	Ant7	2422	16.56	0.02	16.58	-3.90	≤30.00	12.68	≤36.00	PASS
11AX40SISO	Ant4	2437	15.54	0.02	15.56	-2.00	≤30.00	13.56	≤36.00	PASS
11AX40SISO	Ant7	2437	16.78	0.02	16.80	-3.90	≤30.00	12.90	≤36.00	PASS
11AX40SISO	Ant4	2452	15.83	0.02	15.85	-2.00	≤30.00	13.85	≤36.00	PASS
11AX40SISO	Ant7	2452	17.12	0.02	17.14	-3.90	≤30.00	13.24	≤36.00	PASS

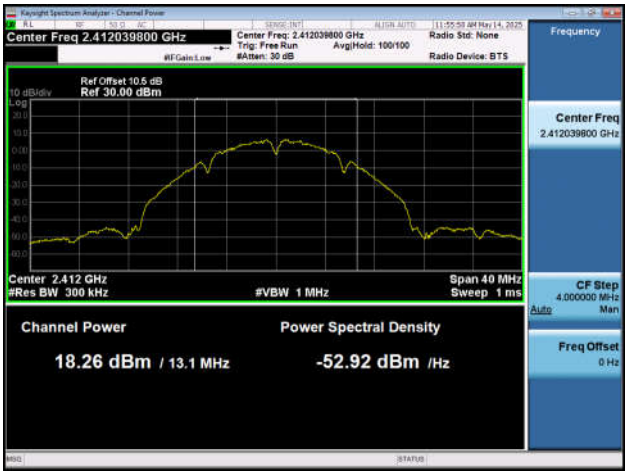
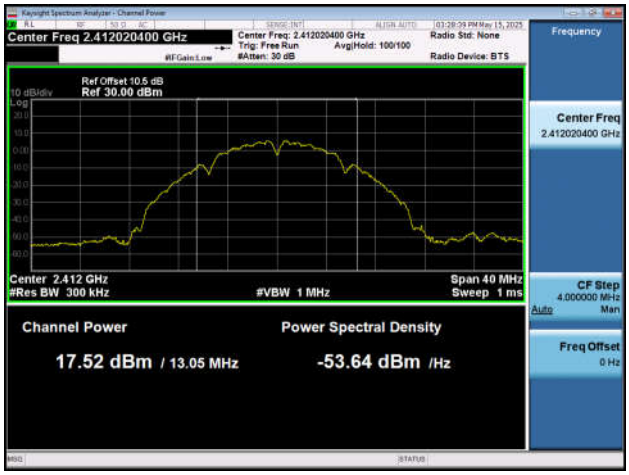
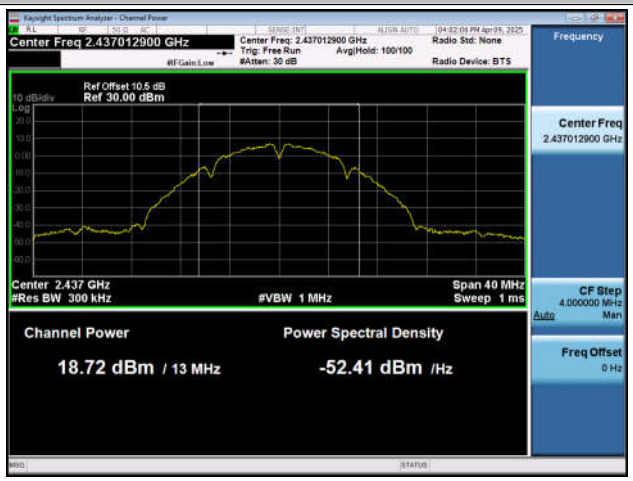
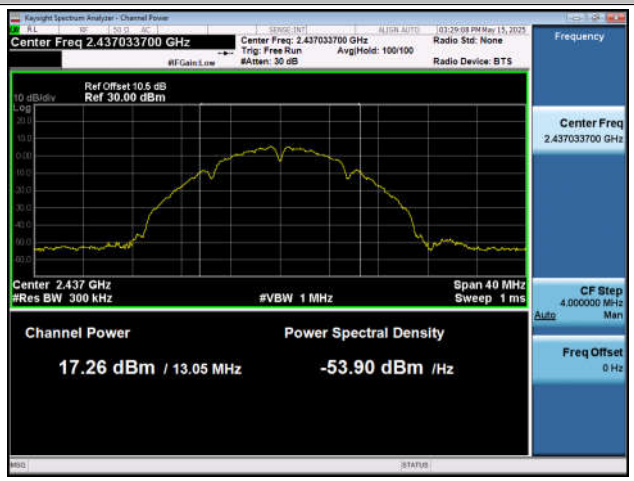
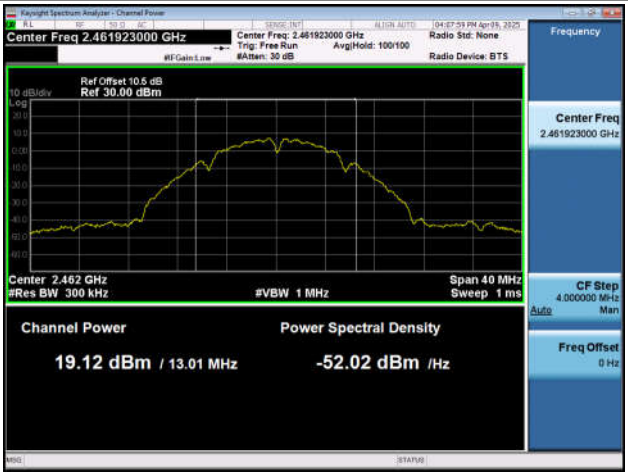
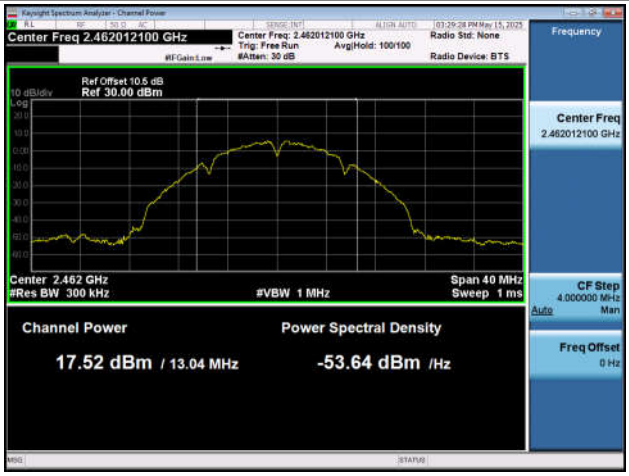
11BE20SISO	Ant4	2412	16.12	0.02	16.14	-2.00	≤30.00	14.14	≤36.00	PASS
11BE20SISO	Ant7	2412	16.56	0.02	16.58	-3.90	≤30.00	12.68	≤36.00	PASS
11BE20SISO	Ant4	2437	16.26	0.02	16.28	-2.00	≤30.00	14.28	≤36.00	PASS
11BE20SISO	Ant7	2437	16.68	0.02	16.70	-3.90	≤30.00	12.80	≤36.00	PASS
11BE20SISO	Ant4	2462	16.43	0.02	16.45	-2.00	≤30.00	14.45	≤36.00	PASS
11BE20SISO	Ant7	2462	16.85	0.02	16.87	-3.90	≤30.00	12.97	≤36.00	PASS
11BE40SISO	Ant4	2422	15.29	0.00	15.29	-2.00	≤30.00	13.29	≤36.00	PASS
11BE40SISO	Ant7	2422	16.62	0.00	16.62	-3.90	≤30.00	12.72	≤36.00	PASS
11BE40SISO	Ant4	2437	15.65	0.00	15.65	-2.00	≤30.00	13.65	≤36.00	PASS
11BE40SISO	Ant7	2437	16.81	0.00	16.81	-3.90	≤30.00	12.91	≤36.00	PASS
11BE40SISO	Ant4	2452	15.91	0.00	15.91	-2.00	≤30.00	13.91	≤36.00	PASS
11BE40SISO	Ant7	2452	17.16	0.00	17.16	-3.90	≤30.00	13.26	≤36.00	PASS

Test Mode	Antenna	Frequency [MHz]	Power [dBm]	DC Factor [dBm]	Result [dBm]	Gain [dBi]	Power Limit [dBm]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
11N20MIMO	Ant7	2412	12.81	0.02	12.83	-3.90	≤30.00	8.93	≤36.00	PASS
11N20MIMO	total	2412	---	---	15.83	-2.85	≤30.00	12.98	≤36.00	PASS
11N20MIMO	Ant4	2412	12.80	0.01	12.81	-2.00	≤30.00	10.81	≤36.00	PASS
11N20MIMO	Ant4	2437	12.57	0.01	12.58	-2.00	≤30.00	10.58	≤36.00	PASS
11N20MIMO	Ant7	2437	13.28	0.02	13.30	-3.90	≤30.00	9.40	≤36.00	PASS
11N20MIMO	total	2437	---	---	15.97	-2.85	≤30.00	13.12	≤36.00	PASS
11N20MIMO	Ant4	2462	12.98	0.01	12.99	-2.00	≤30.00	10.99	≤36.00	PASS
11N20MIMO	Ant7	2462	13.23	0.02	13.25	-3.90	≤30.00	9.35	≤36.00	PASS
11N20MIMO	total	2462	---	---	16.13	-2.85	≤30.00	13.28	≤36.00	PASS
11N40MIMO	Ant4	2422	11.98	0.02	12.00	-2.00	≤30.00	10.00	≤36.00	PASS
11N40MIMO	Ant7	2422	11.93	0.01	11.94	-3.90	≤30.00	8.04	≤36.00	PASS
11N40MIMO	total	2422	---	---	14.98	-2.85	≤30.00	12.13	≤36.00	PASS
11N40MIMO	Ant4	2437	11.80	0.02	11.82	-2.00	≤30.00	9.82	≤36.00	PASS
11N40MIMO	Ant7	2437	12.43	0.01	12.44	-3.90	≤30.00	8.54	≤36.00	PASS
11N40MIMO	total	2437	---	---	15.15	-2.85	≤30.00	12.30	≤36.00	PASS
11N40MIMO	Ant4	2452	12.21	0.02	12.23	-2.00	≤30.00	10.23	≤36.00	PASS
11N40MIMO	Ant7	2452	12.74	0.01	12.75	-3.90	≤30.00	8.85	≤36.00	PASS
11N40MIMO	total	2452	---	---	15.51	-2.85	≤30.00	12.66	≤36.00	PASS
11AX20MIMO	Ant4	2412	12.27	0.02	12.29	-2.00	≤30.00	10.29	≤36.00	PASS
11AX20MIMO	Ant7	2412	12.43	0.01	12.44	-3.90	≤30.00	8.54	≤36.00	PASS
11AX20MIMO	total	2412	---	---	15.38	-2.85	≤30.00	12.53	≤36.00	PASS
11AX20MIMO	Ant4	2437	12.12	0.02	12.14	-2.00	≤30.00	10.14	≤36.00	PASS
11AX20MIMO	Ant7	2437	12.80	0.01	12.81	-3.90	≤30.00	8.91	≤36.00	PASS
11AX20MIMO	total	2437	---	---	15.50	-2.85	≤30.00	12.65	≤36.00	PASS
11AX20MIMO	Ant4	2462	12.38	0.02	12.40	-2.00	≤30.00	10.40	≤36.00	PASS
11AX20MIMO	Ant7	2462	12.85	0.01	12.86	-3.90	≤30.00	8.96	≤36.00	PASS

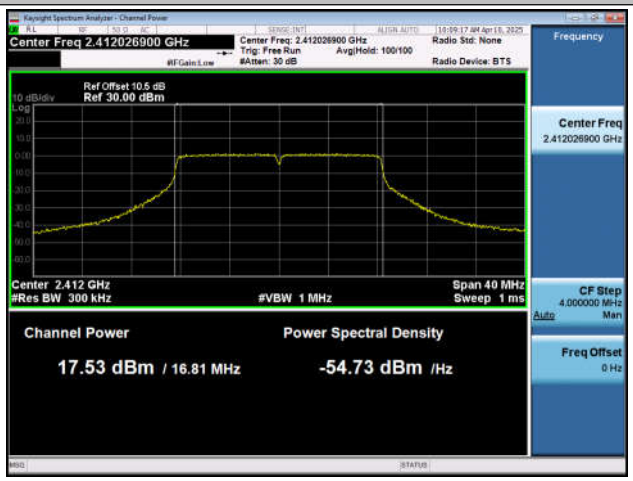
11AX20MIMO	total	2462	---	---	15.65	-2.85	≤30.00	12.80	≤36.00	PASS
11AX40MIMO	Ant4	2422	11.90	0.02	11.92	-2.00	≤30.00	9.92	≤36.00	PASS
11AX40MIMO	Ant7	2422	11.99	0.02	12.01	-3.90	≤30.00	8.11	≤36.00	PASS
11AX40MIMO	total	2422	---	---	14.98	-2.85	≤30.00	12.13	≤36.00	PASS
11AX40MIMO	Ant4	2437	11.79	0.02	11.81	-2.00	≤30.00	9.81	≤36.00	PASS
11AX40MIMO	Ant7	2437	12.37	0.02	12.39	-3.90	≤30.00	8.49	≤36.00	PASS
11AX40MIMO	total	2437	---	---	15.12	-2.85	≤30.00	12.27	≤36.00	PASS
11AX40MIMO	Ant4	2452	12.15	0.02	12.17	-2.00	≤30.00	10.17	≤36.00	PASS
11AX40MIMO	Ant7	2452	12.70	0.02	12.72	-3.90	≤30.00	8.82	≤36.00	PASS
11AX40MIMO	total	2452	---	---	15.46	-2.85	≤30.00	12.61	≤36.00	PASS
11BE20MIMO	Ant4	2412	12.28	0.00	12.28	-2.00	≤30.00	10.28	≤36.00	PASS
11BE20MIMO	Ant7	2412	12.43	0.01	12.44	-3.90	≤30.00	8.54	≤36.00	PASS
11BE20MIMO	total	2412	---	---	15.37	-2.85	≤30.00	12.52	≤36.00	PASS
11BE20MIMO	Ant4	2437	12.16	0.00	12.16	-2.00	≤30.00	10.16	≤36.00	PASS
11BE20MIMO	Ant7	2437	12.83	0.01	12.84	-3.90	≤30.00	8.94	≤36.00	PASS
11BE20MIMO	total	2437	---	---	15.52	-2.85	≤30.00	12.67	≤36.00	PASS
11BE20MIMO	Ant4	2462	12.20	0.00	12.20	-2.00	≤30.00	10.20	≤36.00	PASS
11BE20MIMO	Ant7	2462	12.85	0.01	12.86	-3.90	≤30.00	8.96	≤36.00	PASS
11BE20MIMO	total	2462	---	---	15.55	-2.85	≤30.00	12.70	≤36.00	PASS
11BE40MIMO	Ant4	2422	11.89	0.01	11.90	-2.00	≤30.00	9.90	≤36.00	PASS
11BE40MIMO	Ant7	2422	12.00	0.02	12.02	-3.90	≤30.00	8.12	≤36.00	PASS
11BE40MIMO	total	2422	---	---	14.97	-2.85	≤30.00	12.12	≤36.00	PASS
11BE40MIMO	Ant7	2437	12.37	0.02	12.39	-3.90	≤30.00	8.49	≤36.00	PASS
11BE40MIMO	total	2437	---	---	15.12	-2.85	≤30.00	12.27	≤36.00	PASS
11BE40MIMO	Ant4	2437	11.79	0.01	11.80	-2.00	≤30.00	9.80	≤36.00	PASS
11BE40MIMO	Ant4	2452	12.15	0.01	12.16	-2.00	≤30.00	10.16	≤36.00	PASS
11BE40MIMO	Ant7	2452	12.70	0.02	12.72	-3.90	≤30.00	8.82	≤36.00	PASS
11BE40MIMO	total	2452	---	---	15.46	-2.85	≤30.00	12.61	≤36.00	PASS

Nete: Duty cycle factor added to the result.

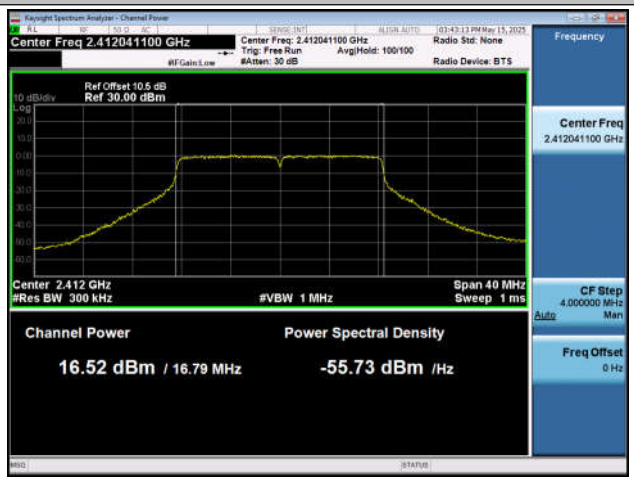
Test Graphs

11B-Ant4-2412-PASS	11B-Ant7-2412-PASS
	
11B-Ant4-2437-PASS	11B-Ant7-2437-PASS
	
11B-Ant4-2462-PASS	11B-Ant7-2462-PASS
	

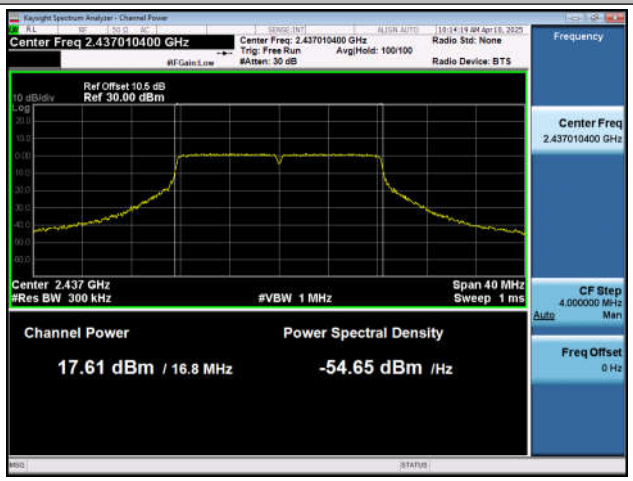
11G-Ant4-2412-PASS



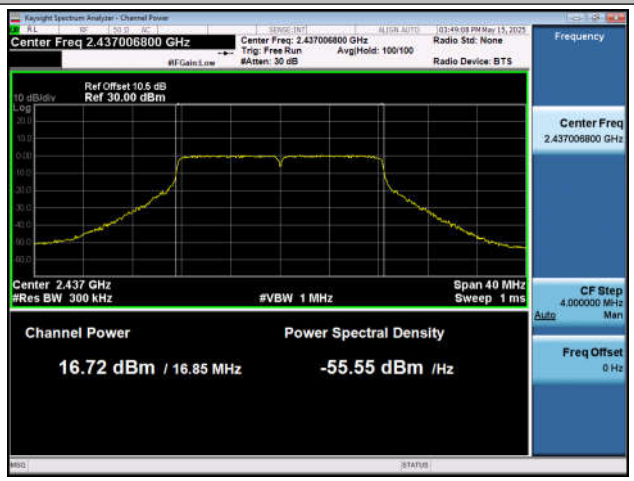
11G-Ant7-2412-PASS



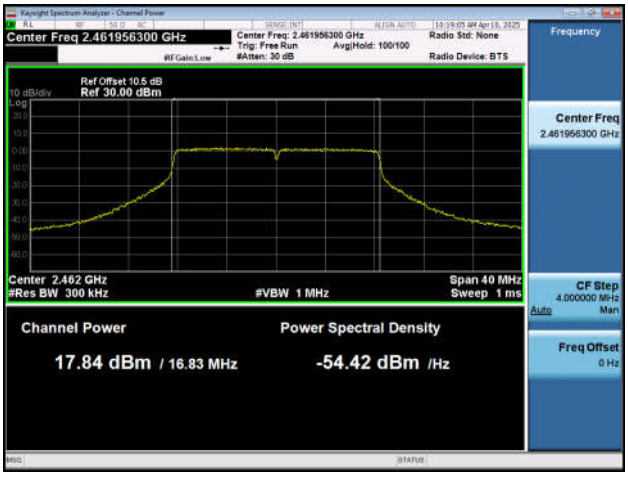
11G-Ant4-2437-PASS



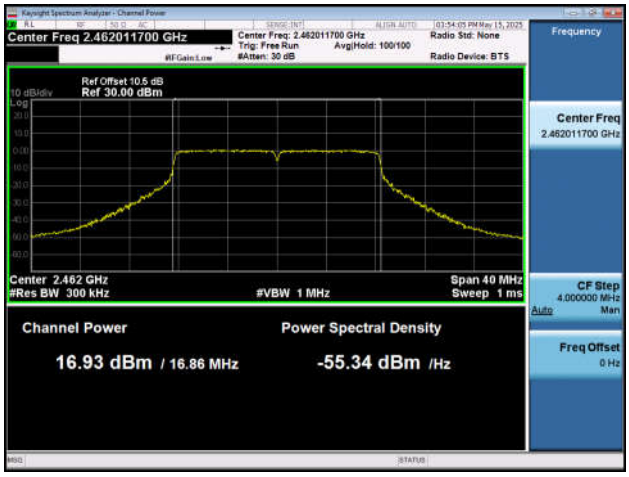
11G-Ant7-2437-PASS



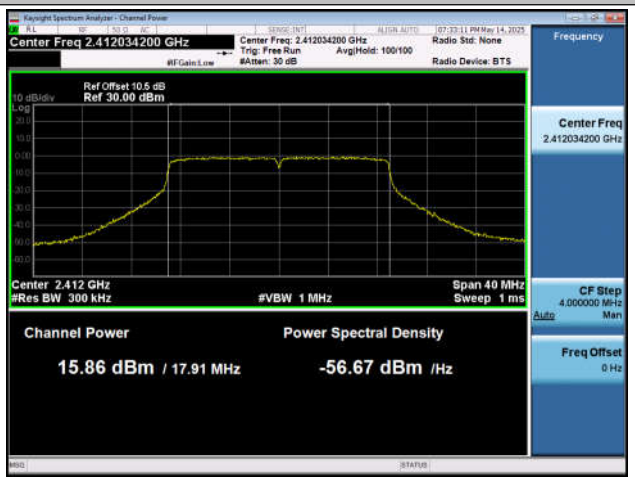
11G-Ant4-2462-PASS



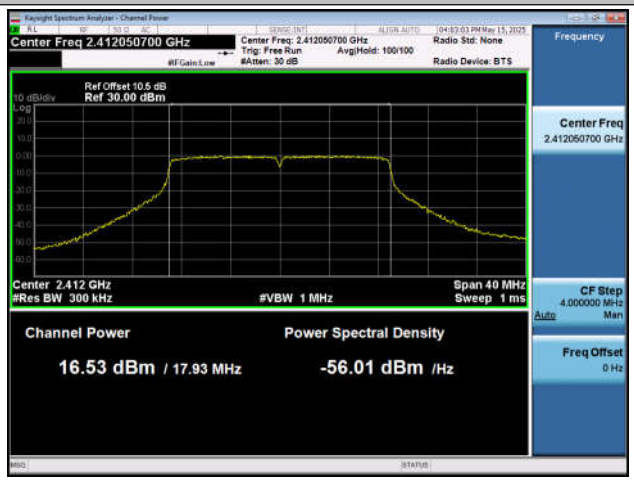
11G-Ant7-2462-PASS



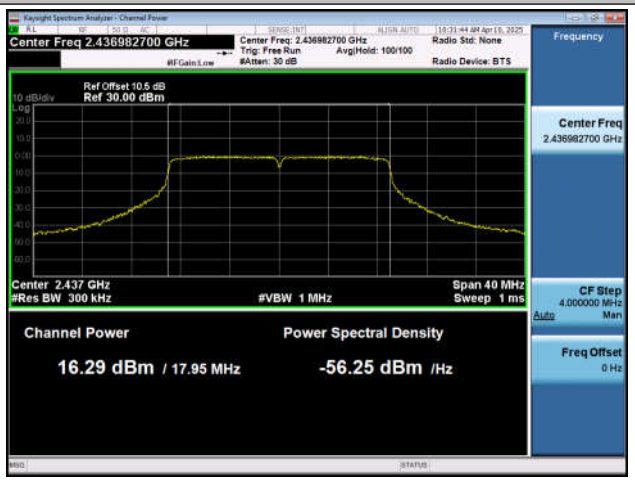
11N20SISO-Ant4-2412-PASS



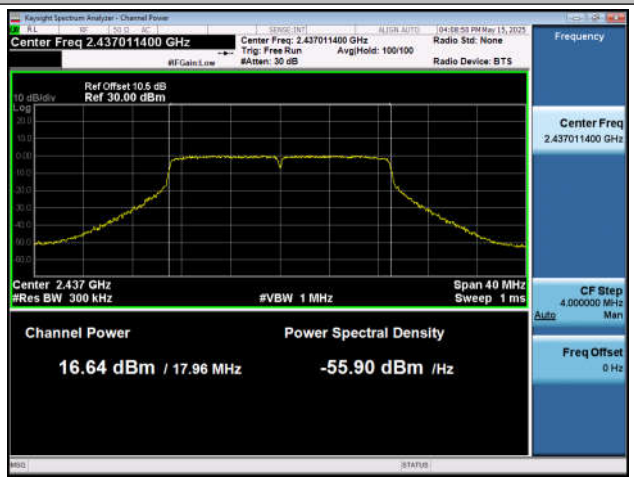
11N20SISO-Ant7-2412-PASS



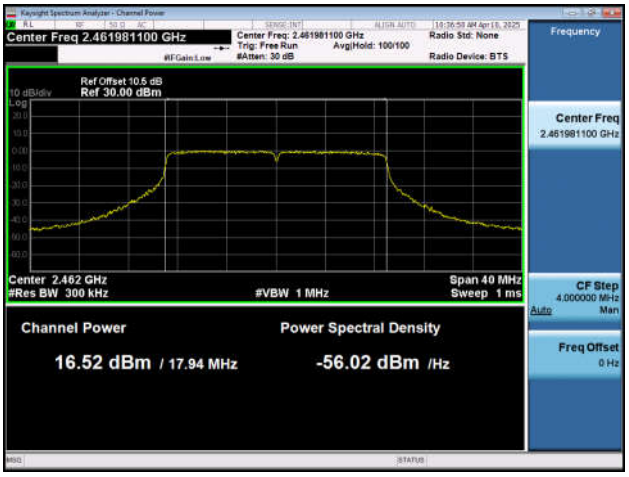
11N20SISO-Ant4-2437-PASS



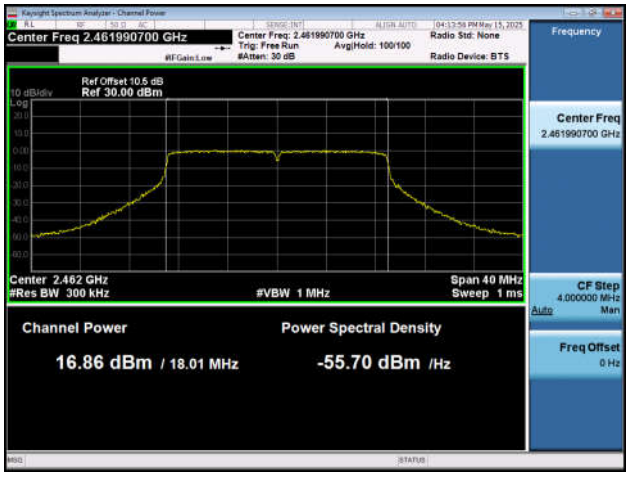
11N20SISO-Ant7-2437-PASS



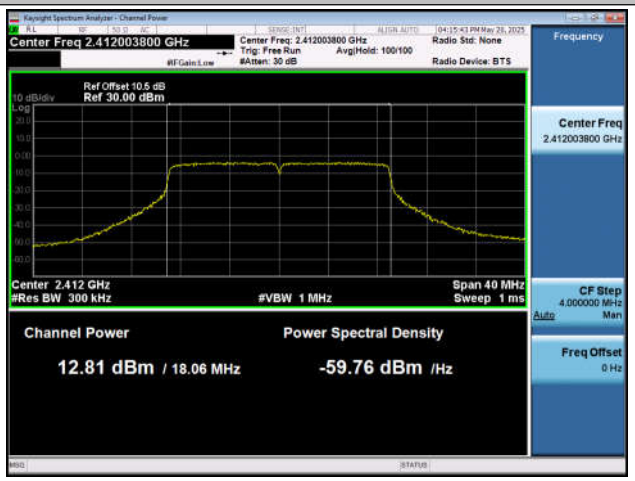
11N20SISO-Ant4-2462-PASS



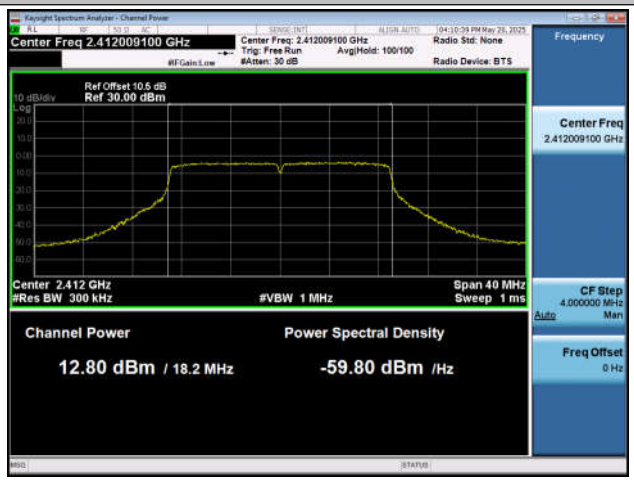
11N20SISO-Ant7-2462-PASS



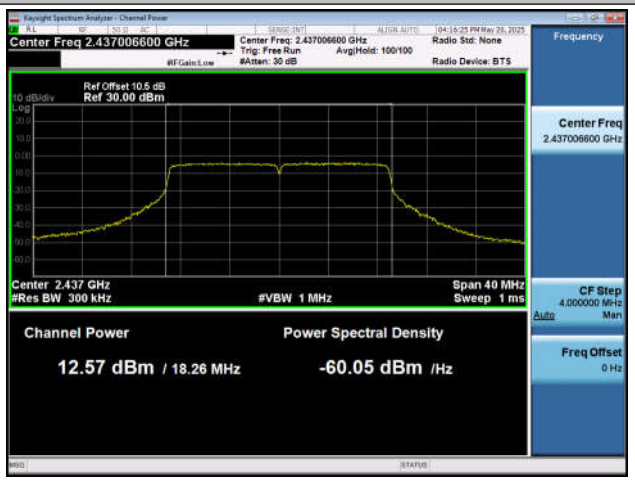
11N20MIMO-Ant7-2412-PASS



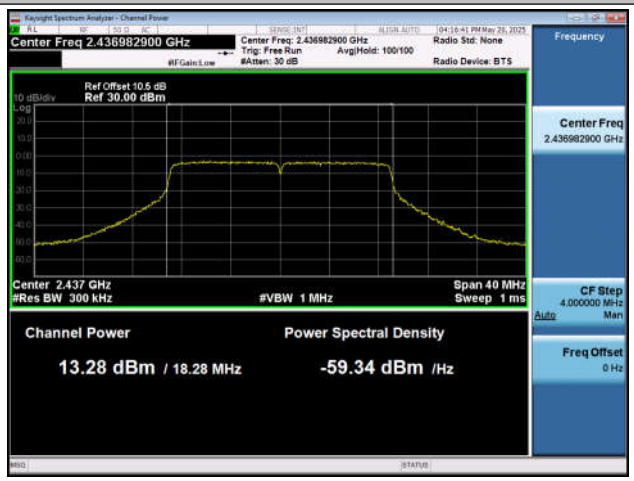
11N20MIMO-Ant4-2412-PASS



11N20MIMO-Ant4-2437-PASS



11N20MIMO-Ant7-2437-PASS



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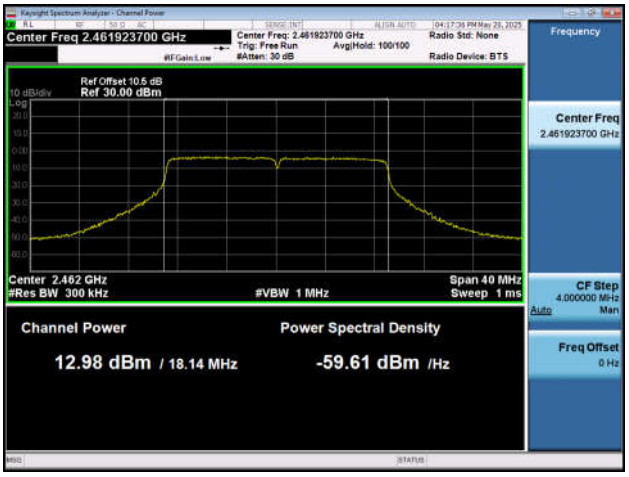

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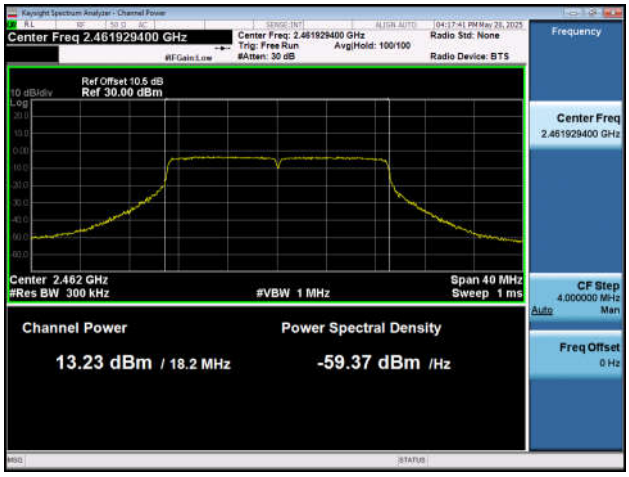

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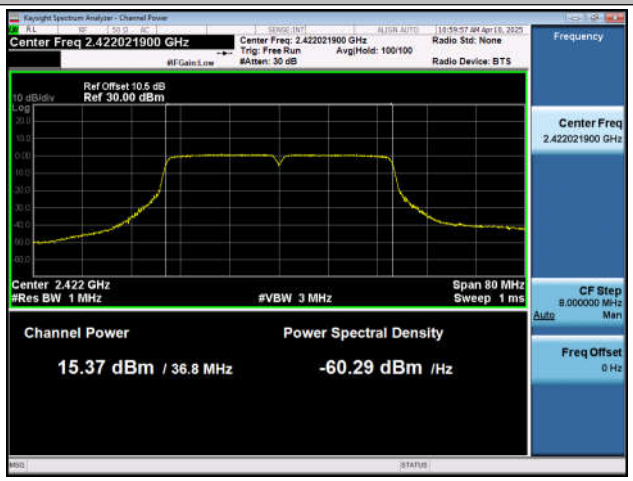

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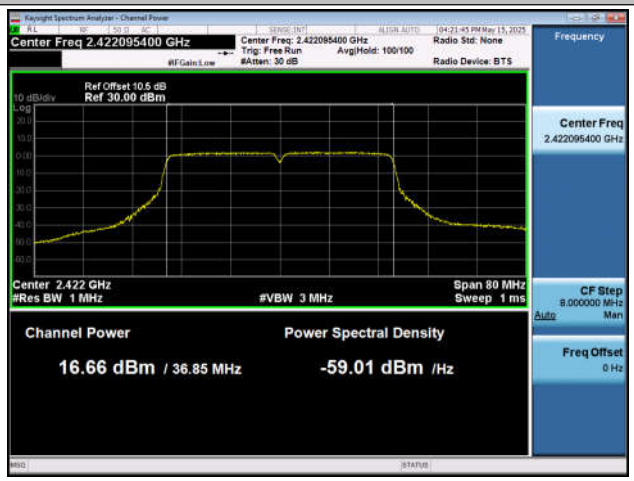

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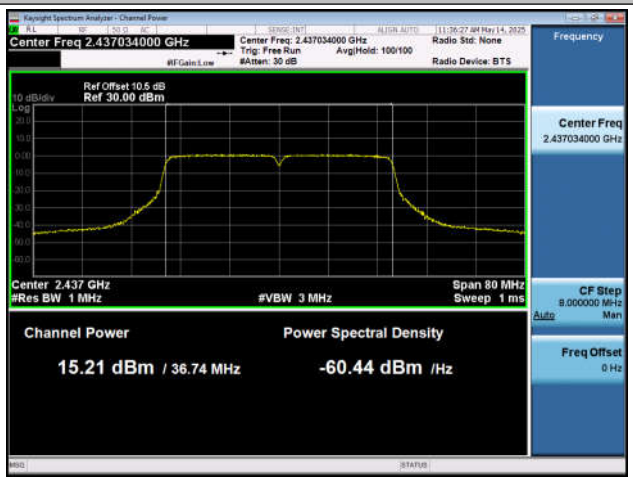

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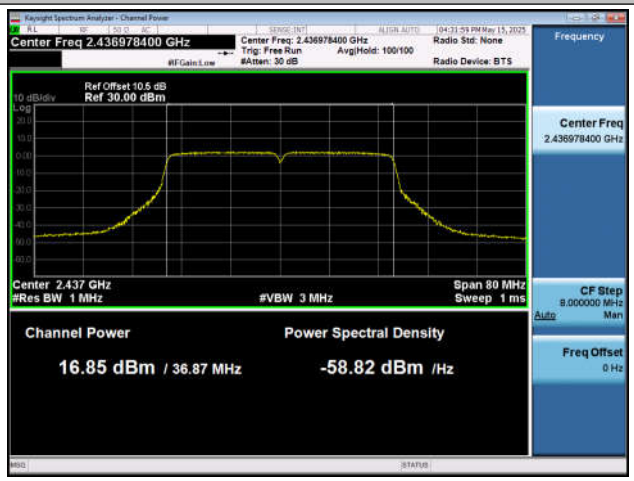

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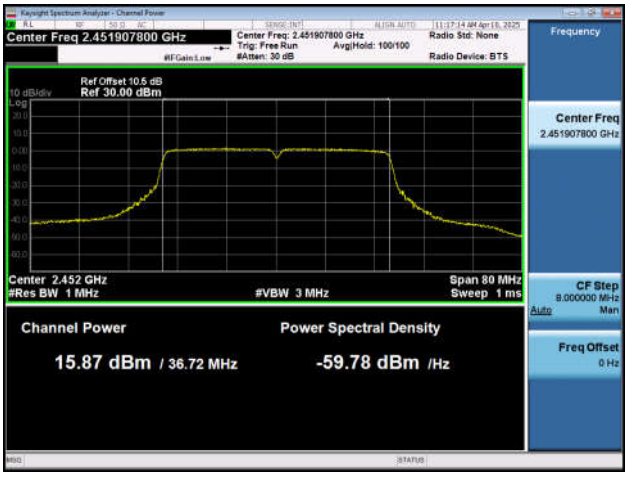

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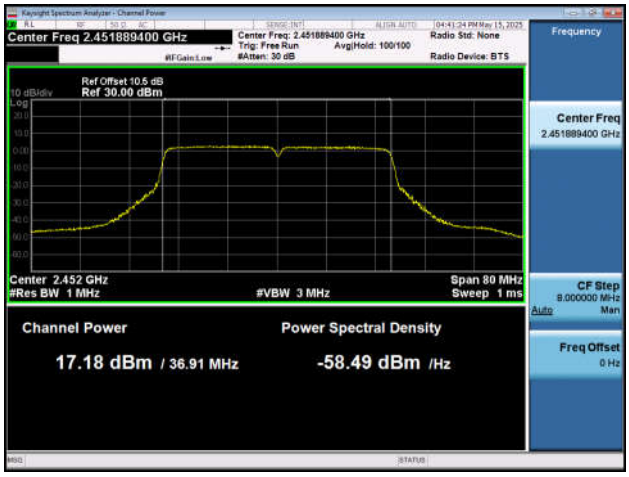

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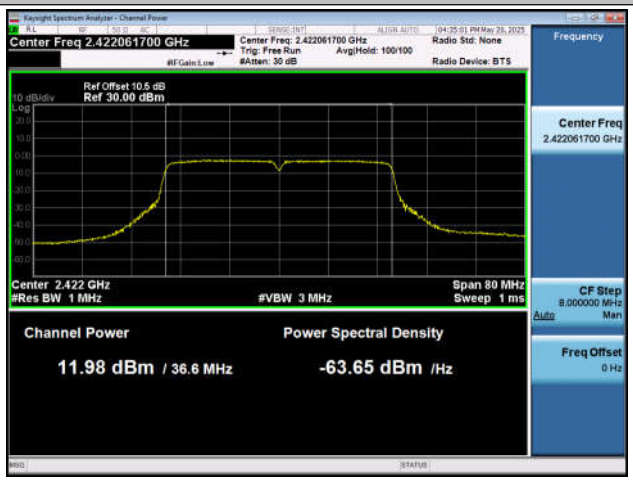

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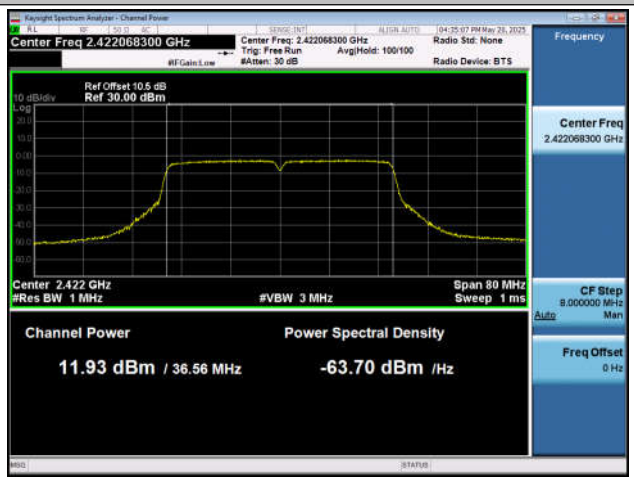

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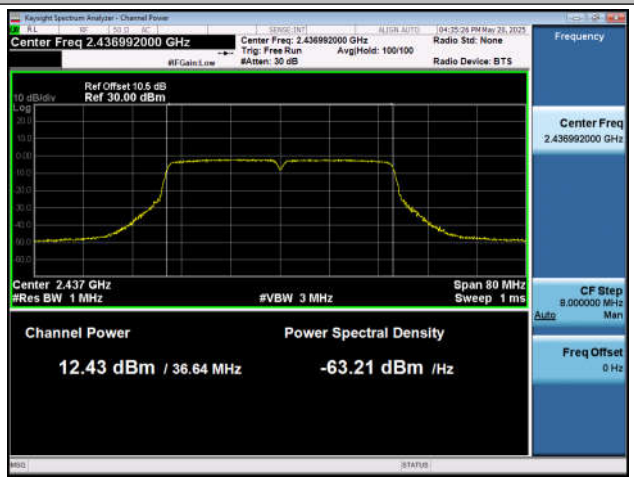

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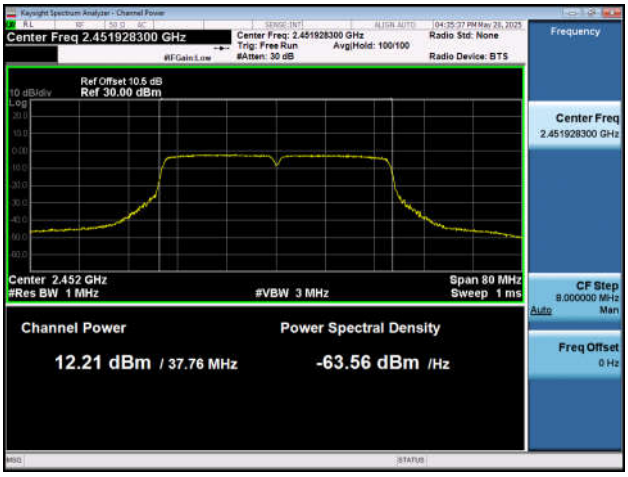

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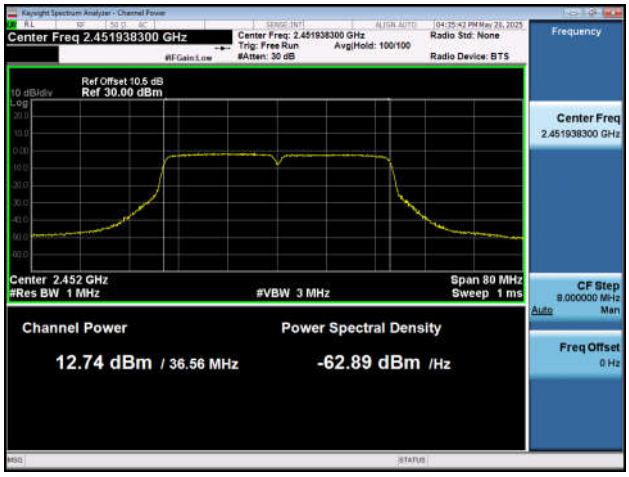

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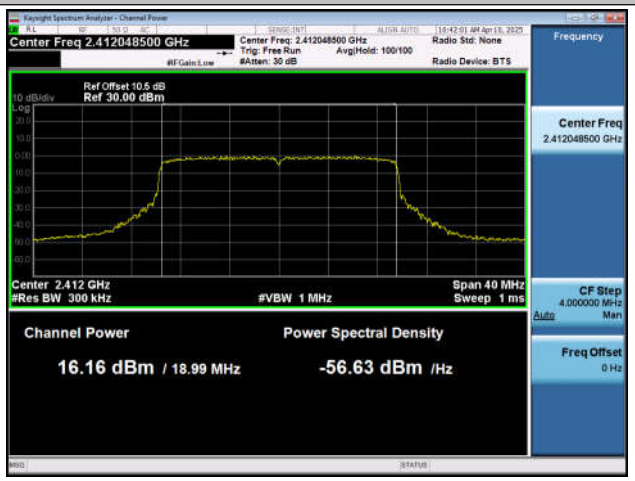

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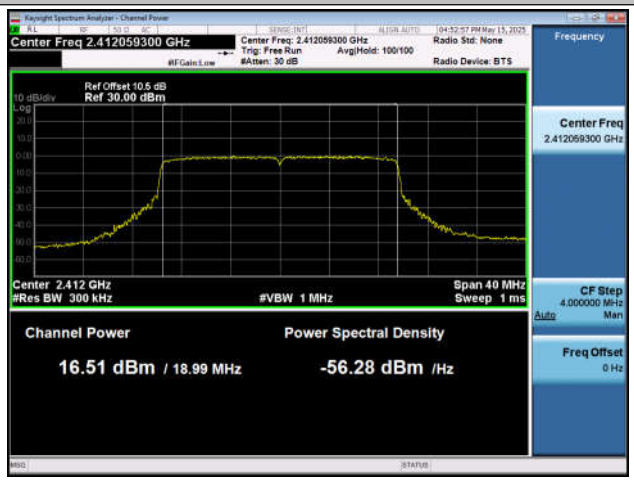

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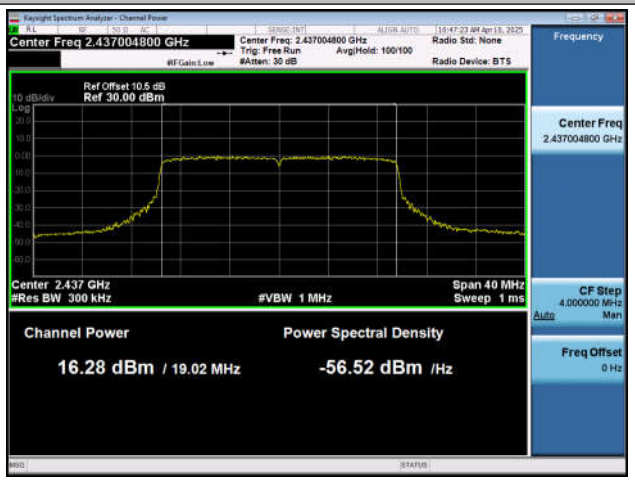

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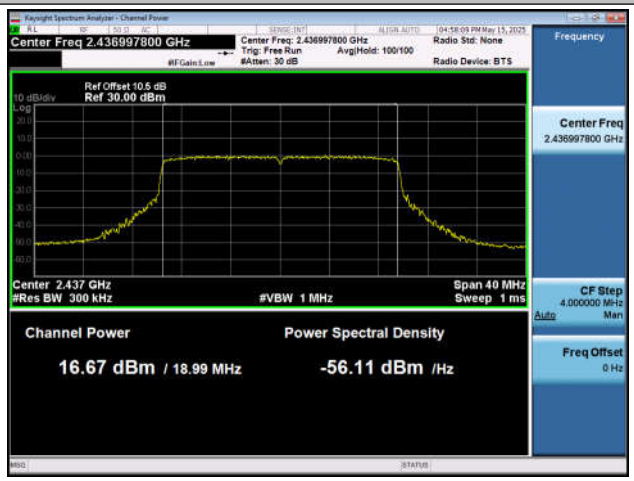

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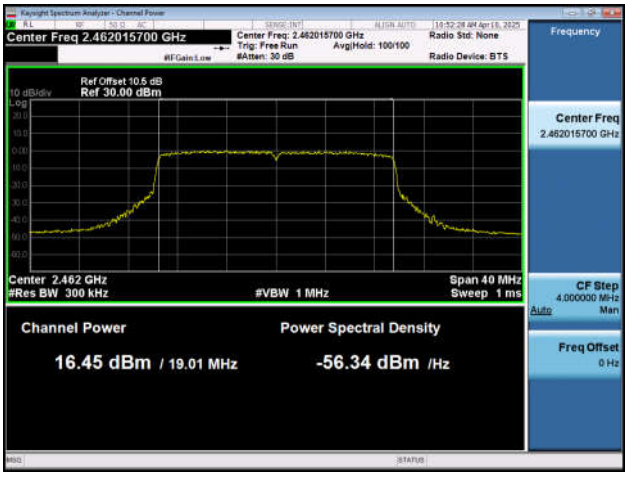

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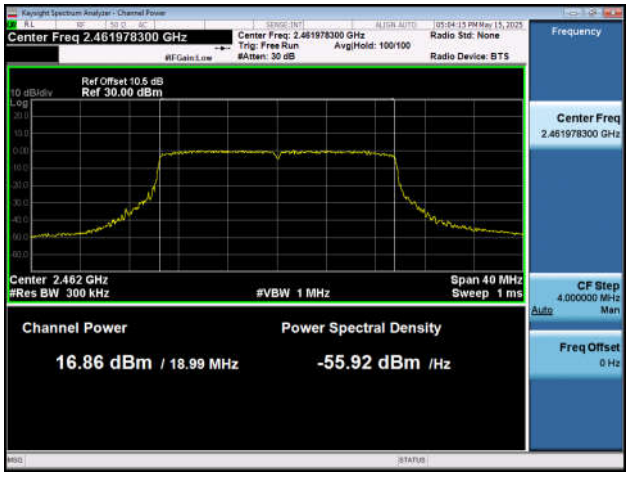

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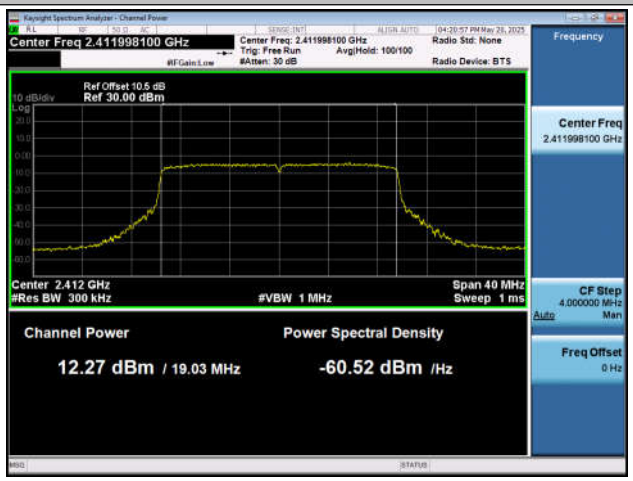	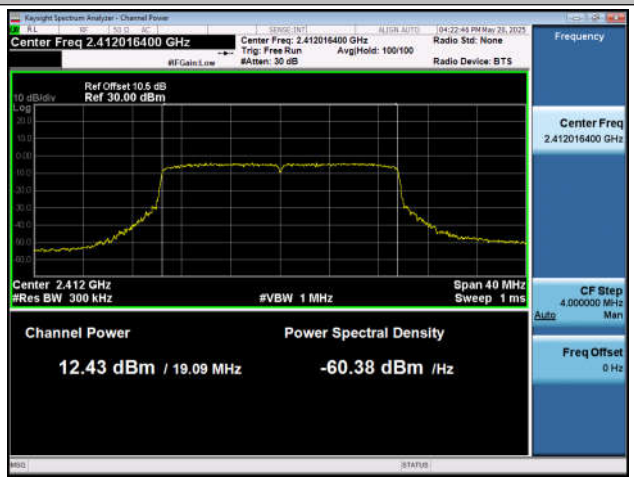
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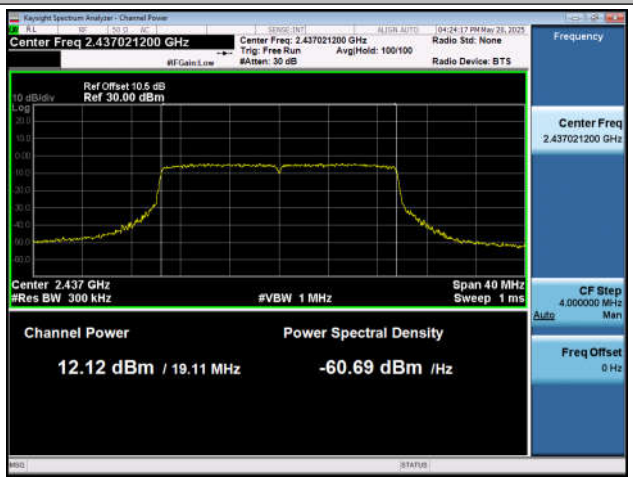	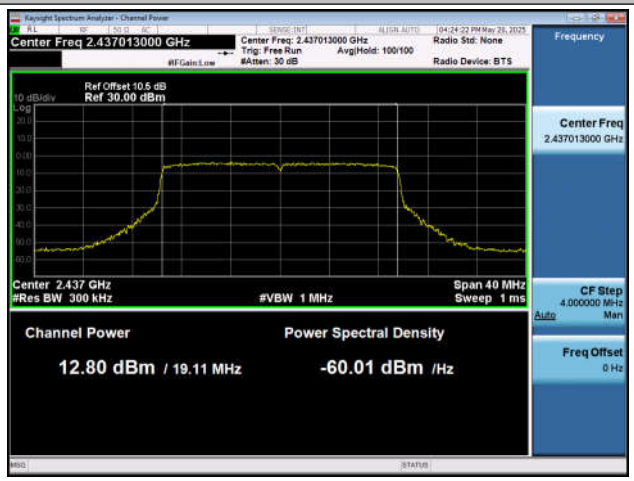
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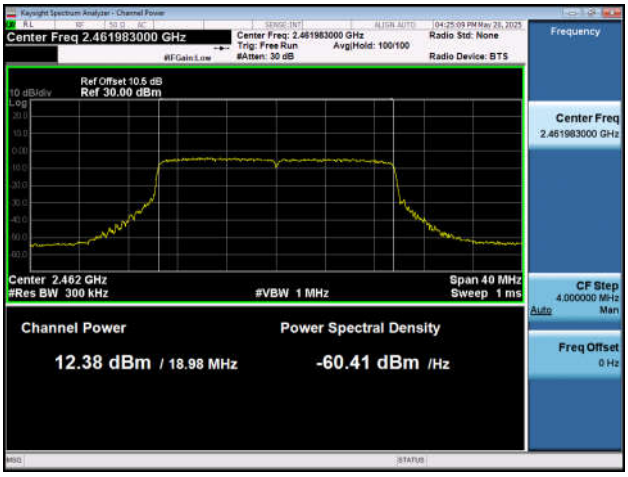	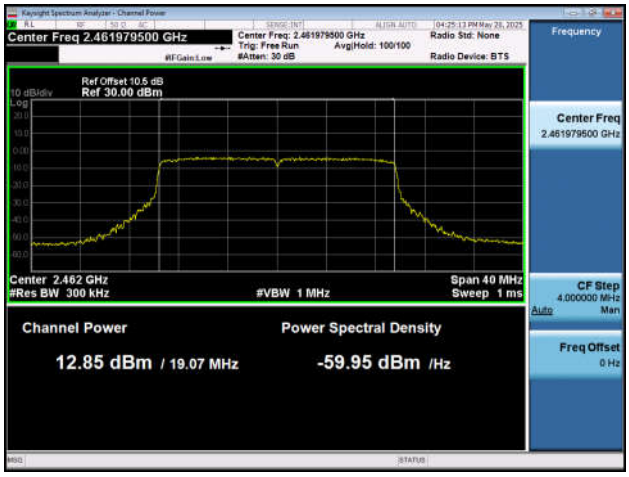

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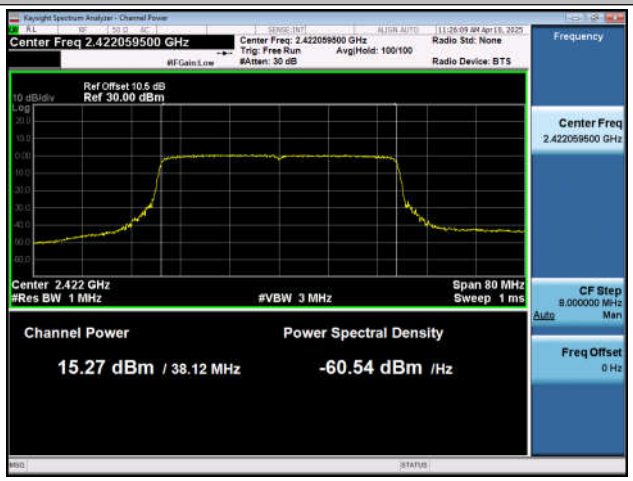	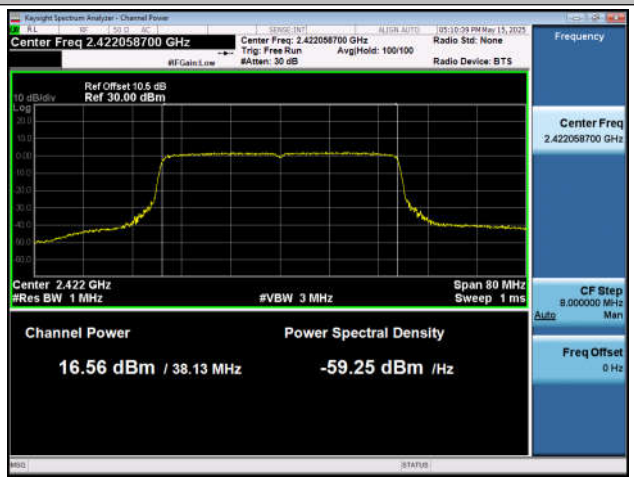
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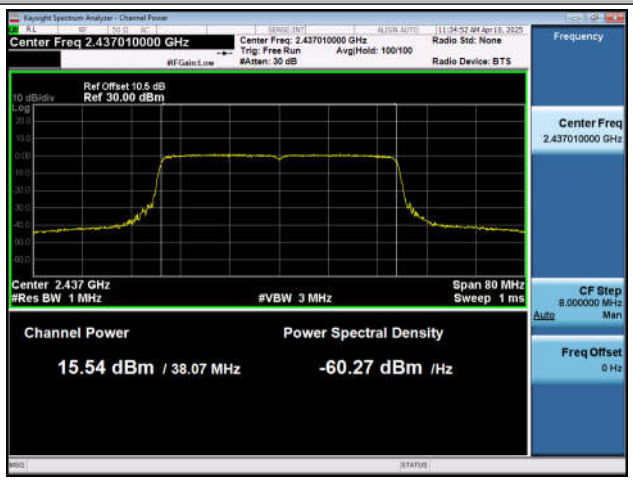	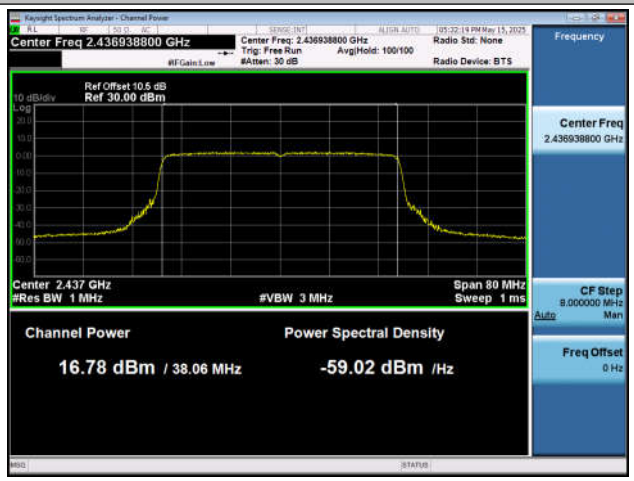
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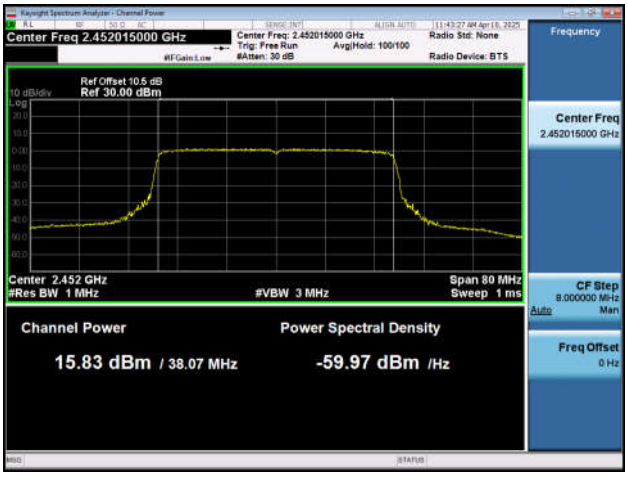	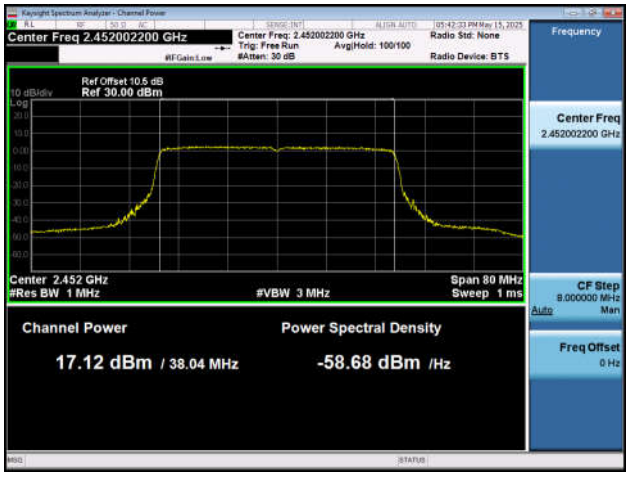

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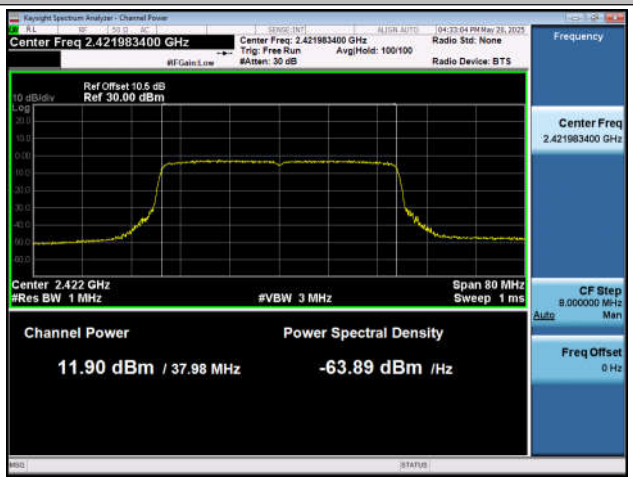	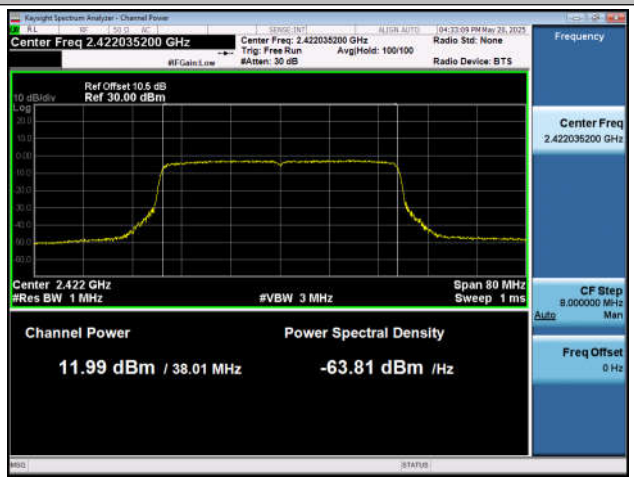
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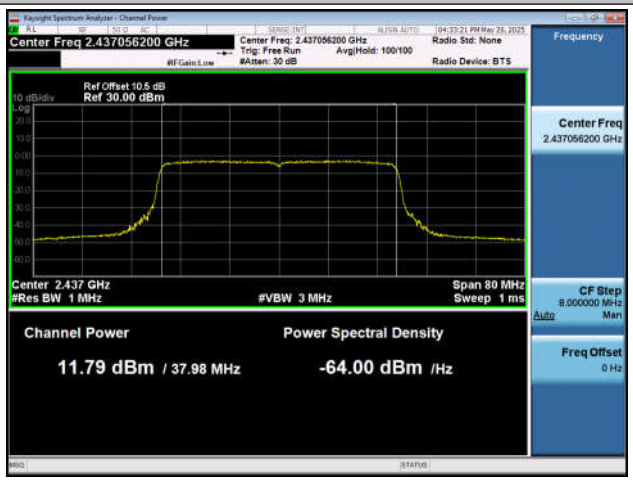	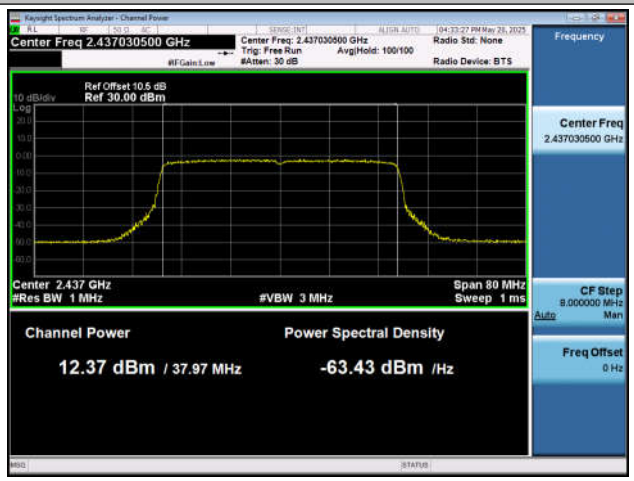
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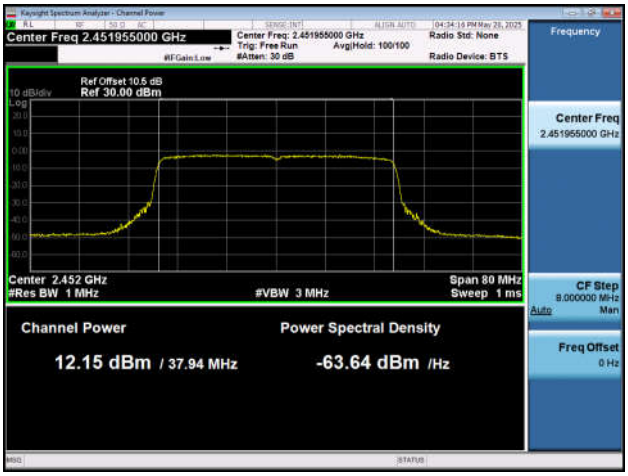	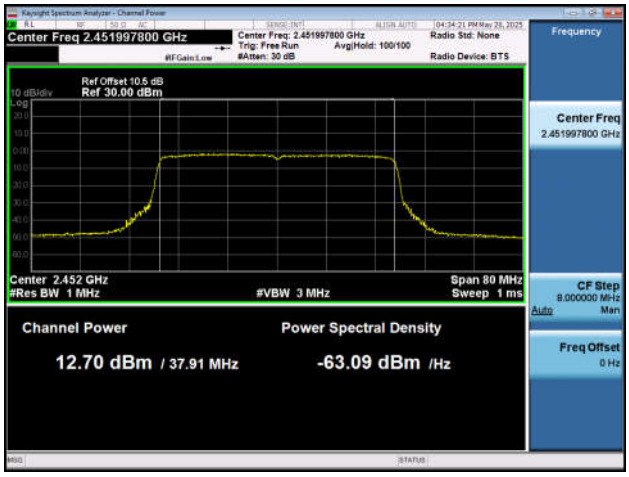

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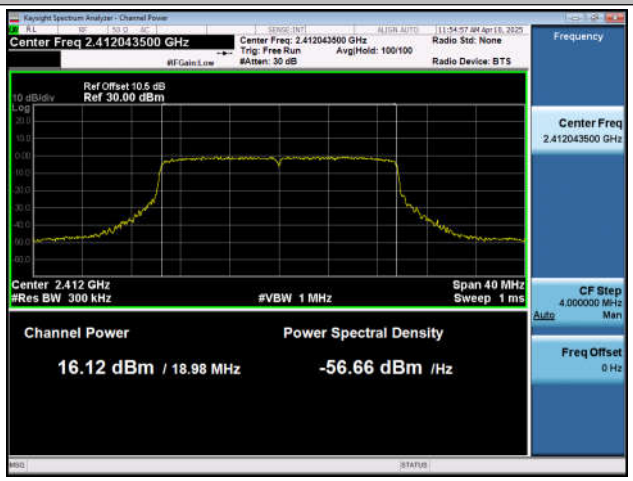

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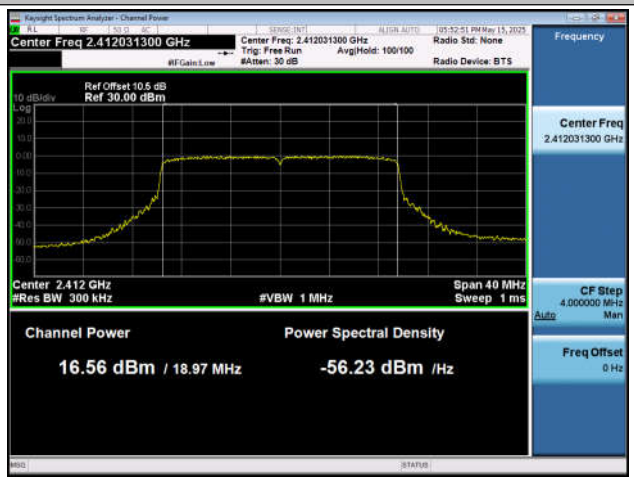

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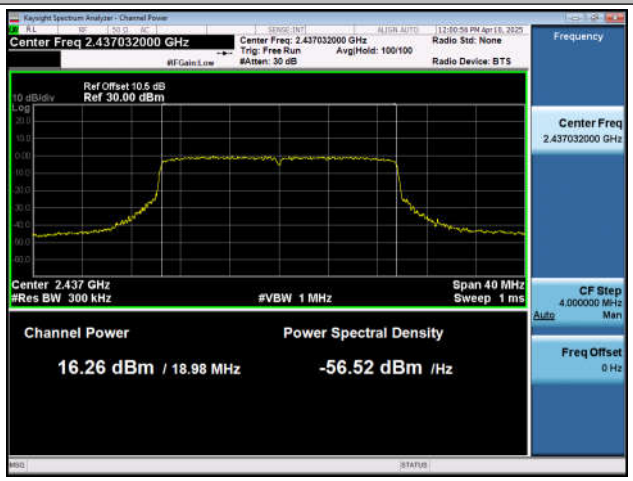

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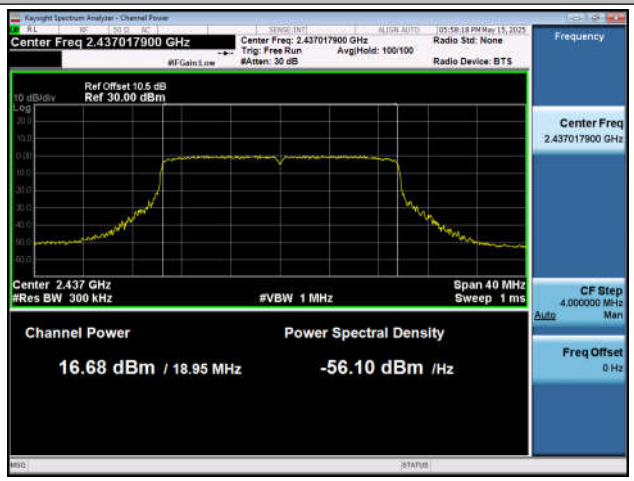

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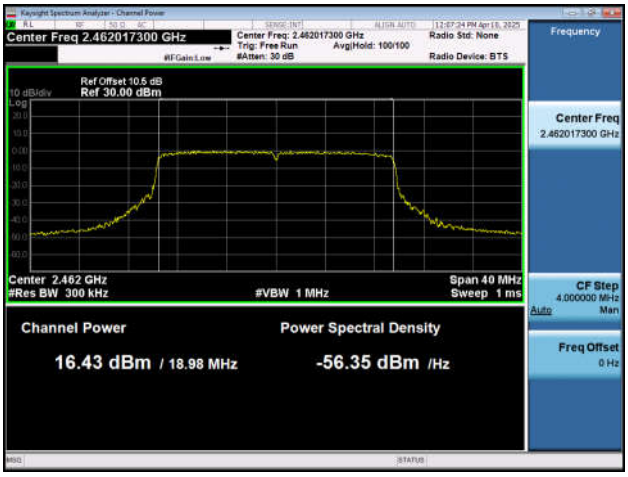

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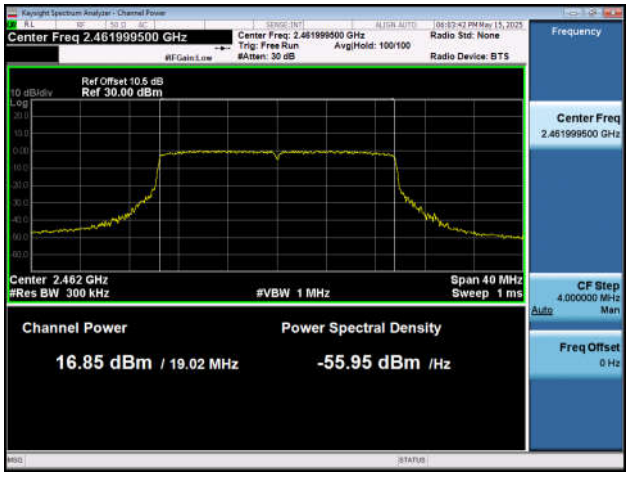

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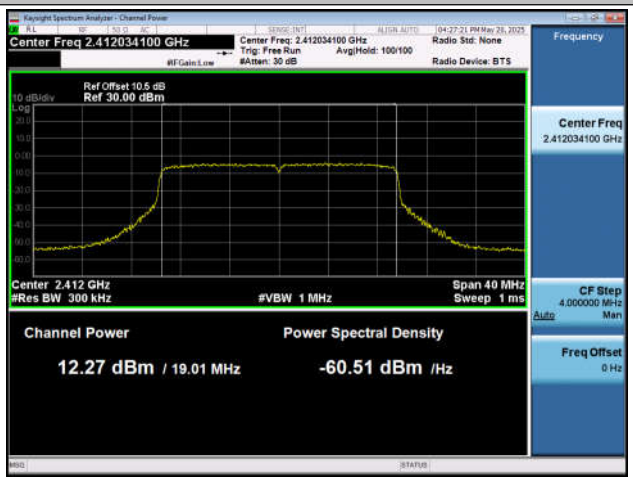	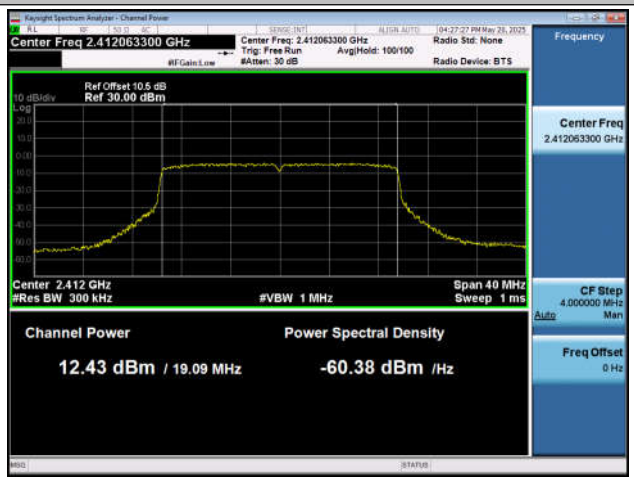
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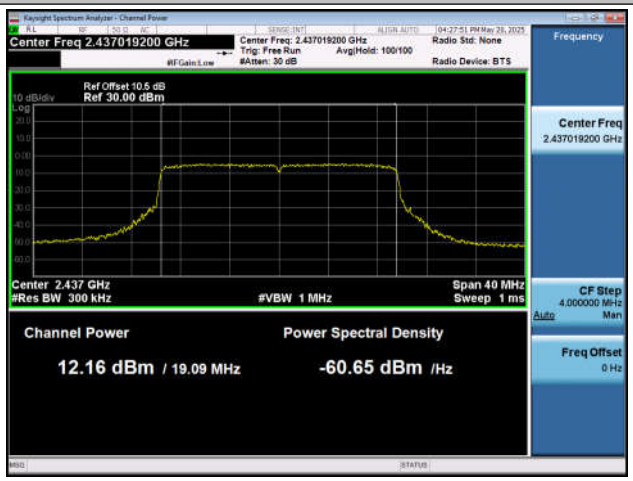	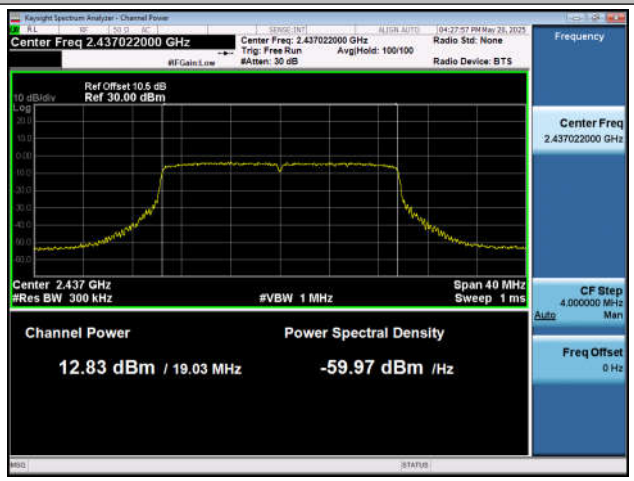
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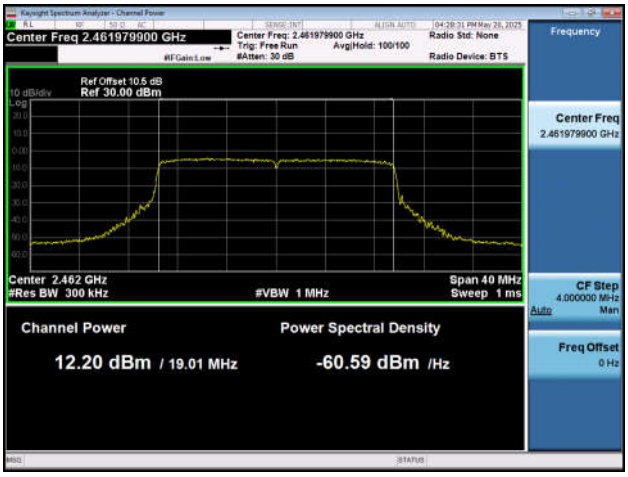
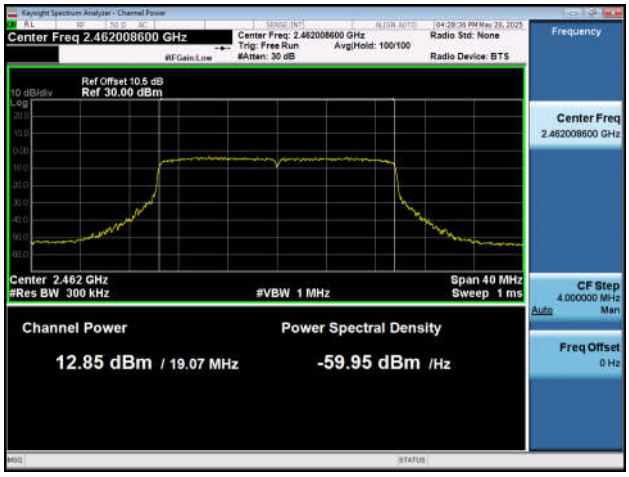
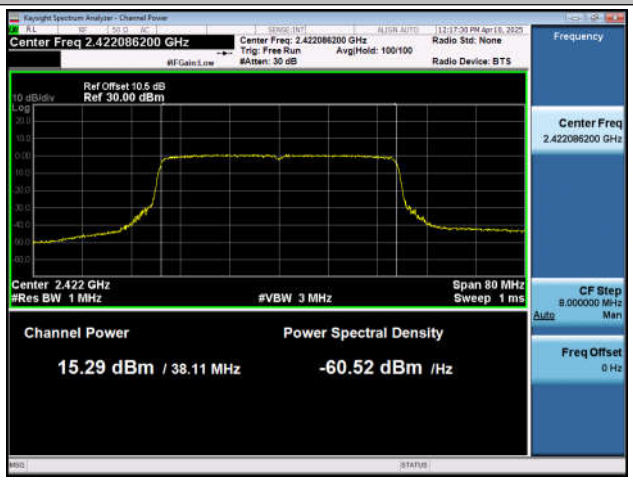
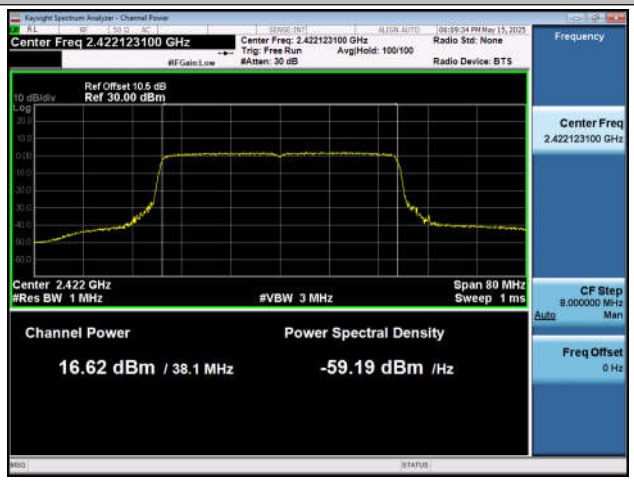
	

11BE40SISO-Ant4-2422-PASS	11BE40SISO-Ant7-2422-PASS
	
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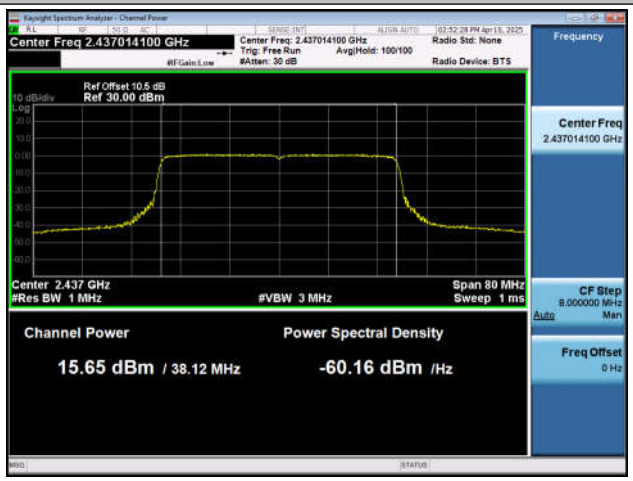
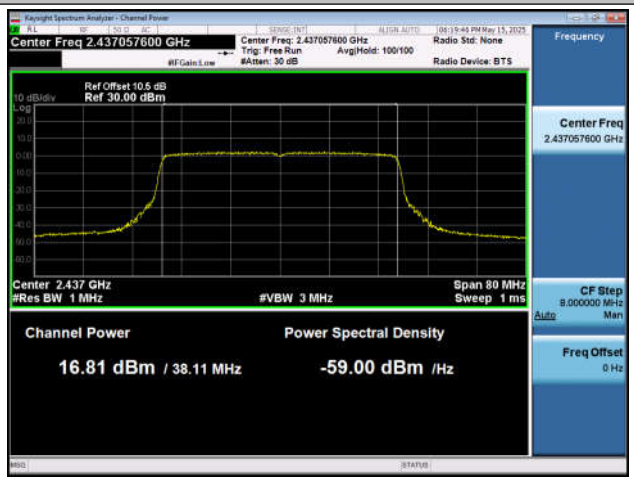
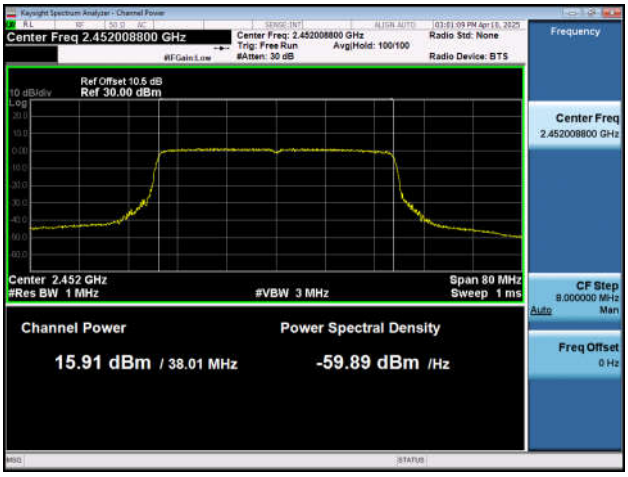
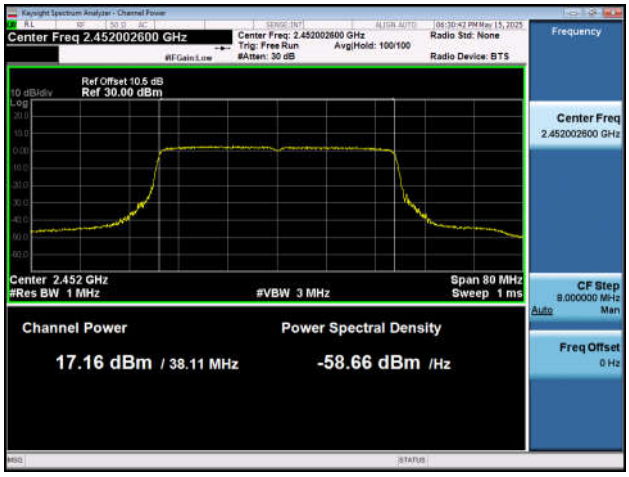
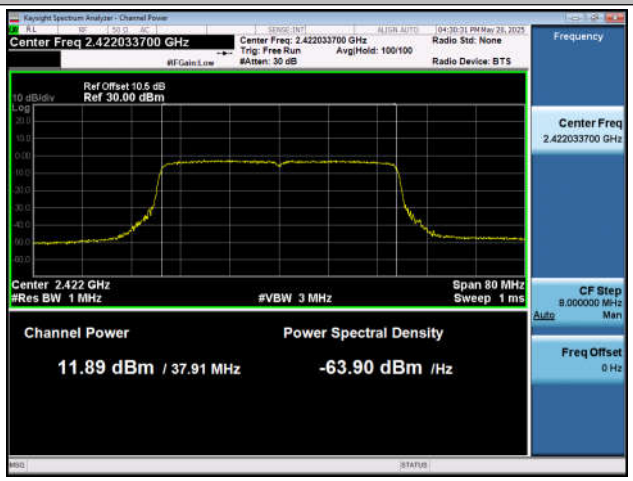
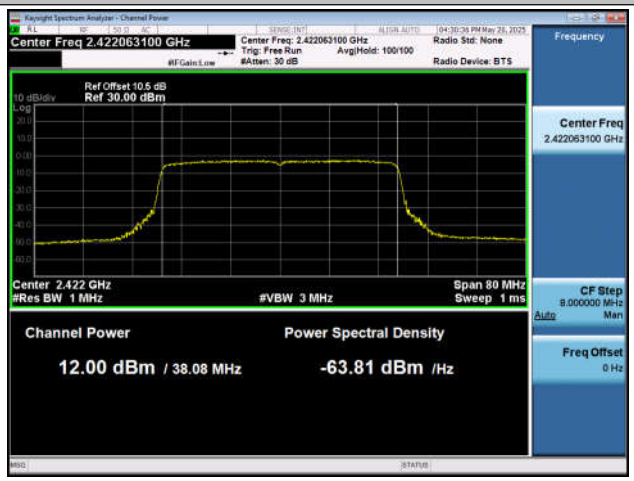
	
11BE40SISO-Ant4-2452-PASS	11BE40SISO-Ant7-2452-PASS
	

11BE40MIMO-Ant4-2422-PASS	11BE40MIMO-Ant7-2422-PASS
	
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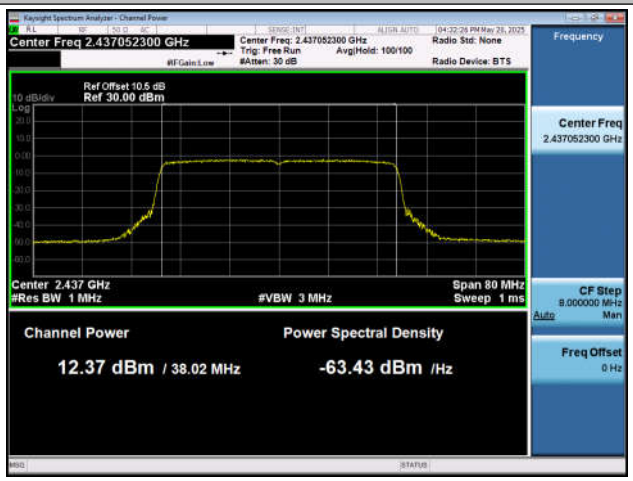	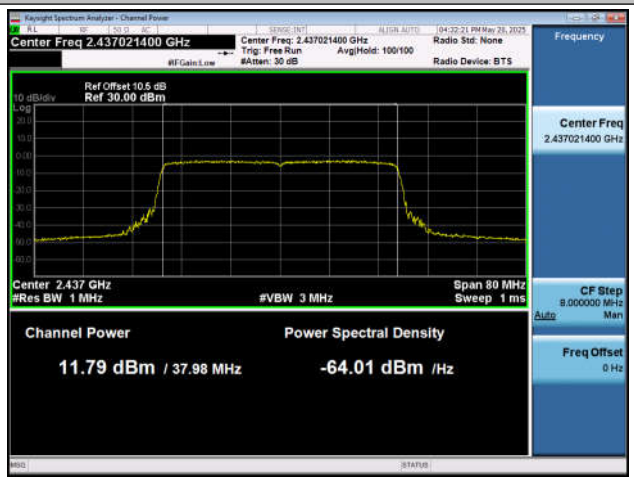
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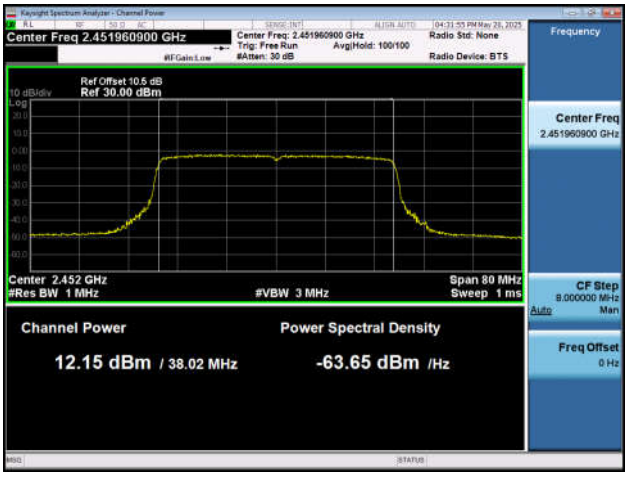
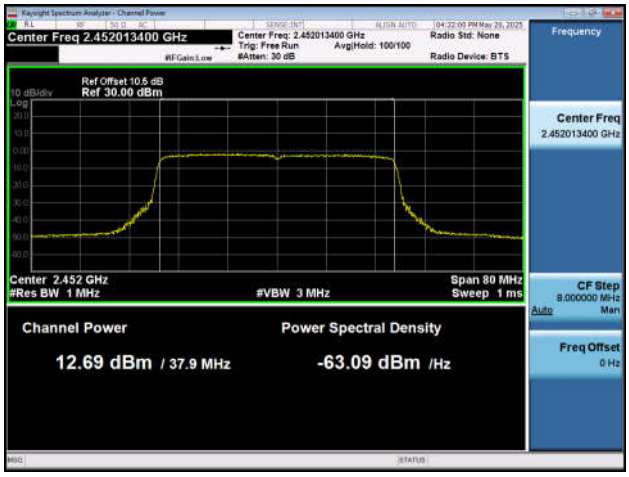
	

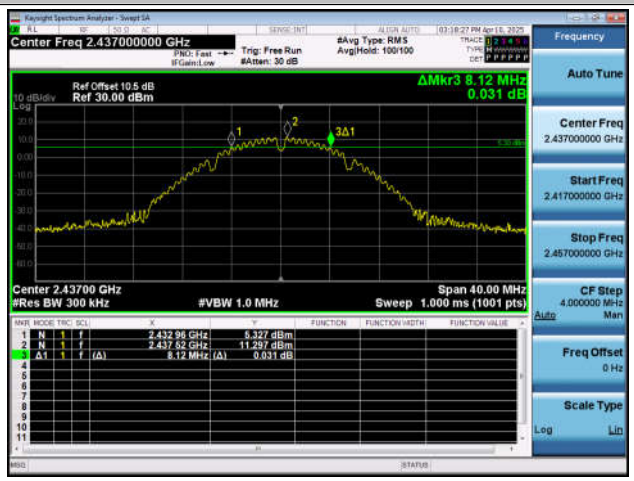
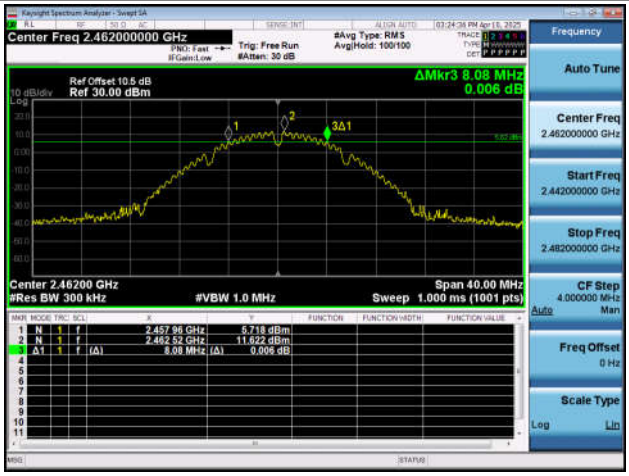
6dB Bandwidth

Test Result and Data

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	Limit[MHz]	Verdict
11B	Ant4	2412	8.120	0.5	PASS
11B	Ant7	2412	8.120	0.5	PASS
11B	Ant4	2437	8.120	0.5	PASS
11B	Ant7	2437	8.120	0.5	PASS
11B	Ant4	2462	7.640	0.5	PASS
11B	Ant7	2462	8.080	0.5	PASS
11G	Ant4	2412	16.400	0.5	PASS
11G	Ant7	2412	16.400	0.5	PASS
11G	Ant4	2437	16.360	0.5	PASS
11G	Ant7	2437	16.360	0.5	PASS
11G	Ant4	2462	16.440	0.5	PASS
11G	Ant7	2462	16.360	0.5	PASS
11N20SISO	Ant4	2412	17.600	0.5	PASS
11N20SISO	Ant7	2412	17.600	0.5	PASS
11N20SISO	Ant4	2437	17.600	0.5	PASS
11N20SISO	Ant7	2437	17.560	0.5	PASS
11N20SISO	Ant4	2462	17.560	0.5	PASS
11N20SISO	Ant7	2462	17.640	0.5	PASS
11N40SISO	Ant4	2422	36.160	0.5	PASS
11N40SISO	Ant7	2422	36.000	0.5	PASS
11N40SISO	Ant4	2437	36.400	0.5	PASS
11N40SISO	Ant7	2437	36.240	0.5	PASS
11N40SISO	Ant4	2452	36.080	0.5	PASS
11N40SISO	Ant7	2452	36.240	0.5	PASS
11AX20SISO	Ant4	2412	18.760	0.5	PASS
11AX20SISO	Ant7	2412	18.960	0.5	PASS
11AX20SISO	Ant4	2437	19.000	0.5	PASS
11AX20SISO	Ant7	2437	18.800	0.5	PASS
11AX20SISO	Ant4	2462	18.800	0.5	PASS
11AX20SISO	Ant7	2462	18.760	0.5	PASS
11AX40SISO	Ant4	2422	37.680	0.5	PASS
11AX40SISO	Ant7	2422	37.360	0.5	PASS
11AX40SISO	Ant4	2437	38.000	0.5	PASS
11AX40SISO	Ant7	2437	37.760	0.5	PASS
11AX40SISO	Ant4	2452	37.120	0.5	PASS
11AX40SISO	Ant7	2452	37.680	0.5	PASS
11BE20SISO	Ant4	2412	18.920	0.5	PASS
11BE20SISO	Ant7	2412	18.880	0.5	PASS

11BE20SISO	Ant4	2437	18.840	0.5	PASS
11BE20SISO	Ant7	2437	18.680	0.5	PASS
11BE20SISO	Ant4	2462	18.880	0.5	PASS
11BE20SISO	Ant7	2462	19.000	0.5	PASS
11BE40SISO	Ant4	2422	37.920	0.5	PASS
11BE40SISO	Ant7	2422	37.360	0.5	PASS
11BE40SISO	Ant4	2437	37.840	0.5	PASS
11BE40SISO	Ant7	2437	37.680	0.5	PASS
11BE40SISO	Ant4	2452	37.040	0.5	PASS
11BE40SISO	Ant7	2452	37.440	0.5	PASS

Test Graphs

11B-Ant4-2412-PASS	11B-Ant7-2412-PASS
11B-Ant4-2437-PASS	**11B-Ant7-2437-PASS**
	
11B-Ant4-2462-PASS	**11B-Ant7-2462-PASS**
	

11G-Ant4-2412-PASS	11G-Ant7-2412-PASS
11G-Ant4-2437-PASS	11G-Ant7-2437-PASS
11G-Ant4-2462-PASS	11G-Ant7-2462-PASS

11N20SISO-Ant4-2412-PASS

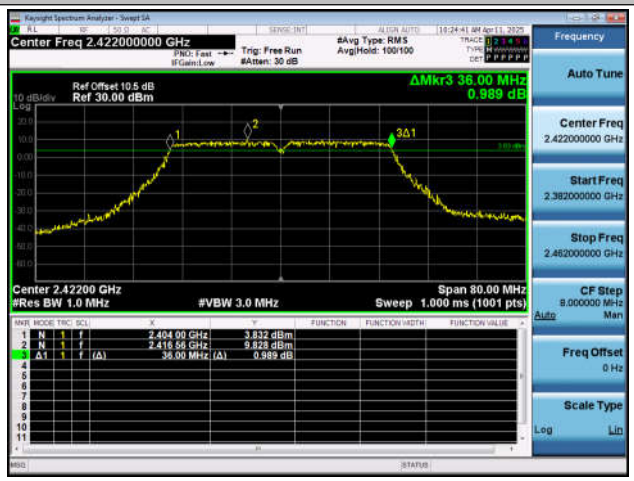
11N20SISO-Ant7-2412-PASS

11N20SISO-Ant4-2437-PASS

11N20SISO-Ant7-2437-PASS

11N20SISO-Ant4-2462-PASS

11N20SISO-Ant7-2462-PASS

11N40SISO-Ant4-2422-PASS	11N40SISO-Ant7-2422-PASS
	
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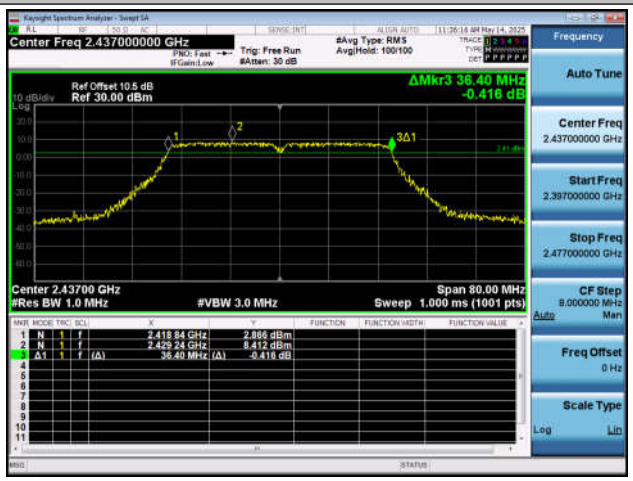	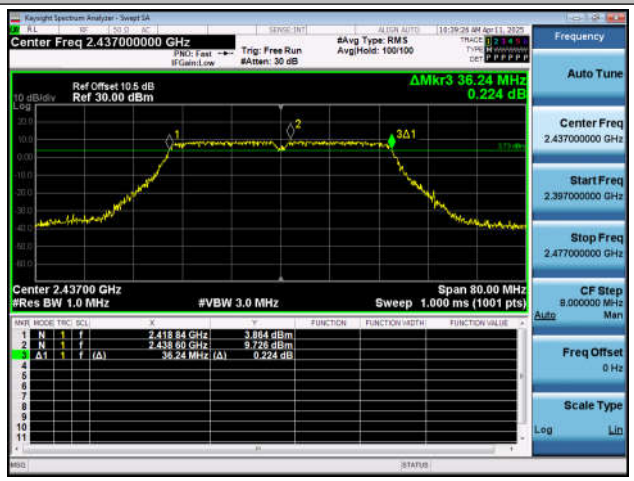
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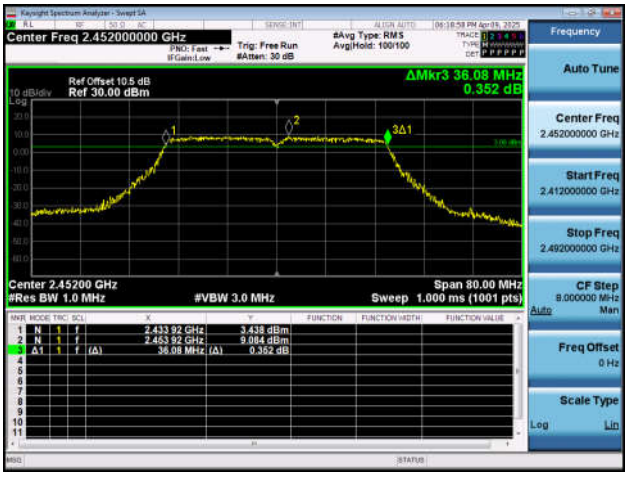
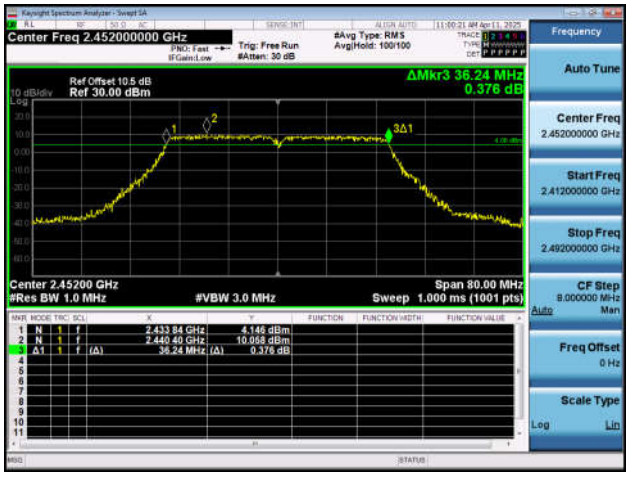
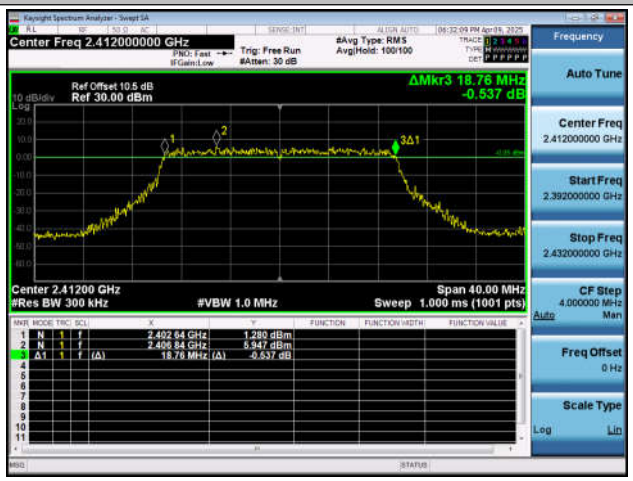
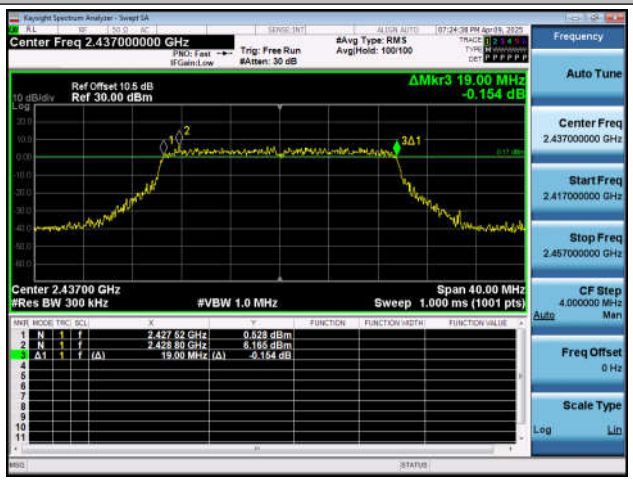
	

11AX20SISO-Ant4-2412-PASS



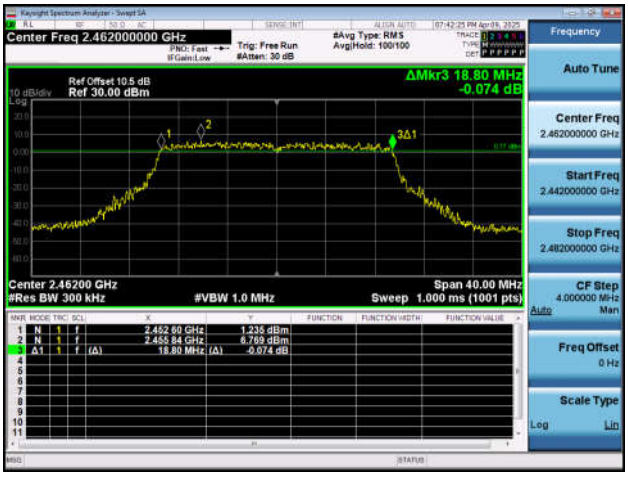
11AX20SISO-Ant7-2412-PASS

11AX20SISO-Ant4-2437-PASS

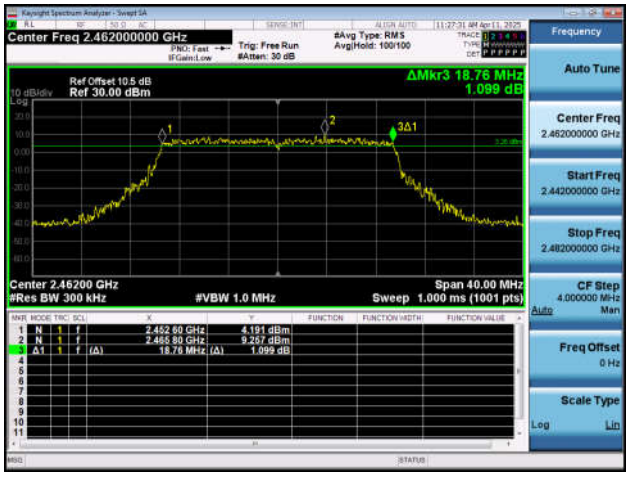


11AX20SISO-Ant7-2437-PASS

11AX20SISO-Ant4-2462-PASS



11AX20SISO-Ant7-2462-PASS



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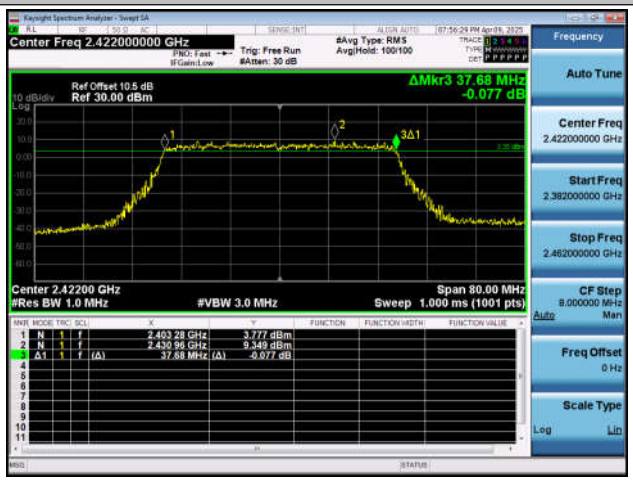	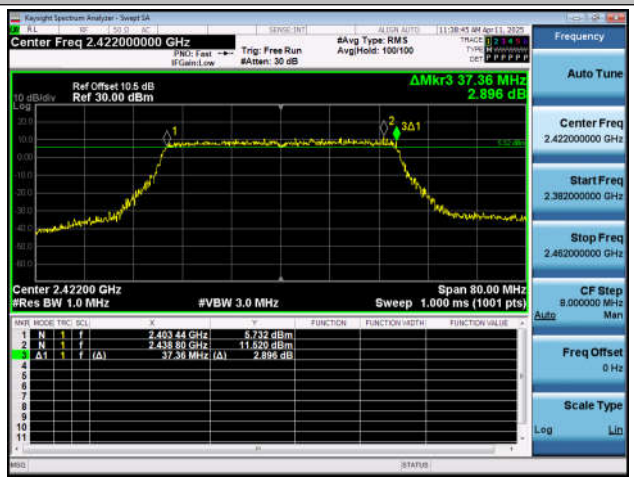
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	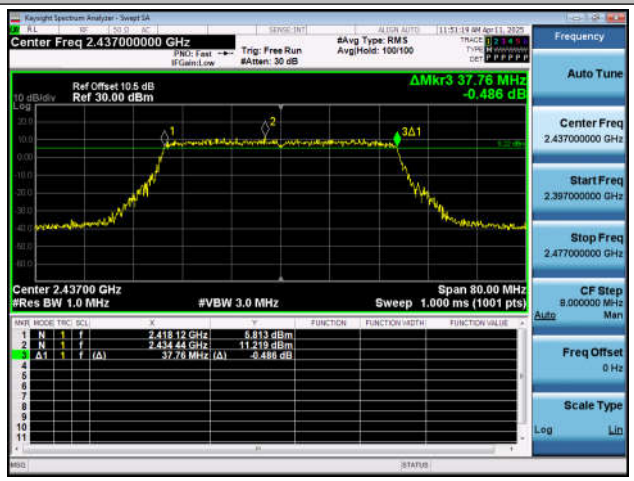
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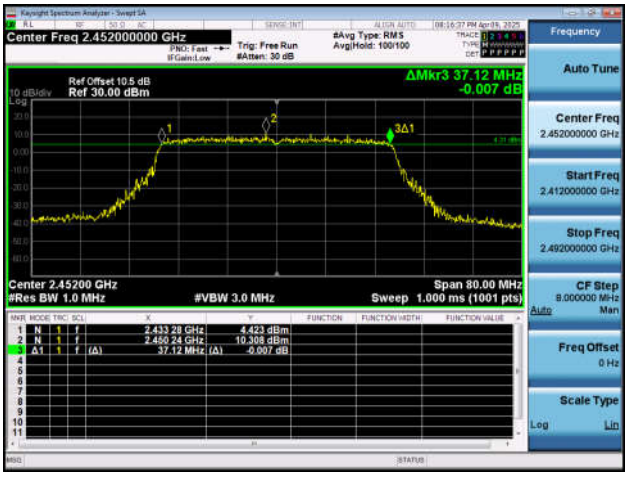	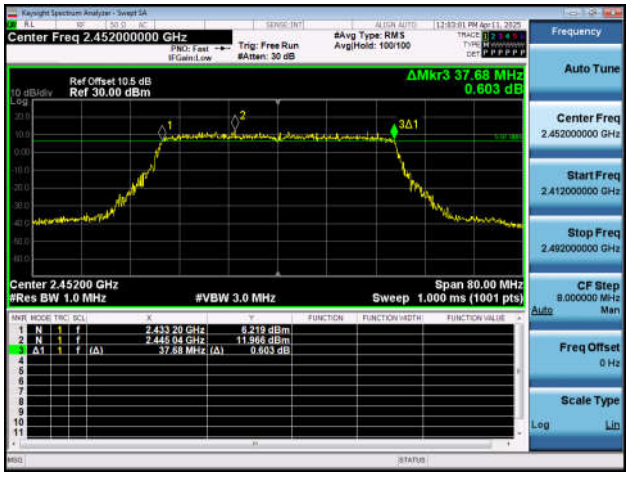

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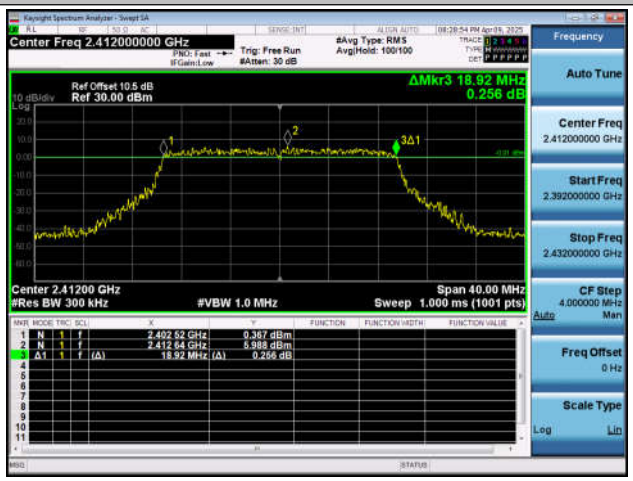	
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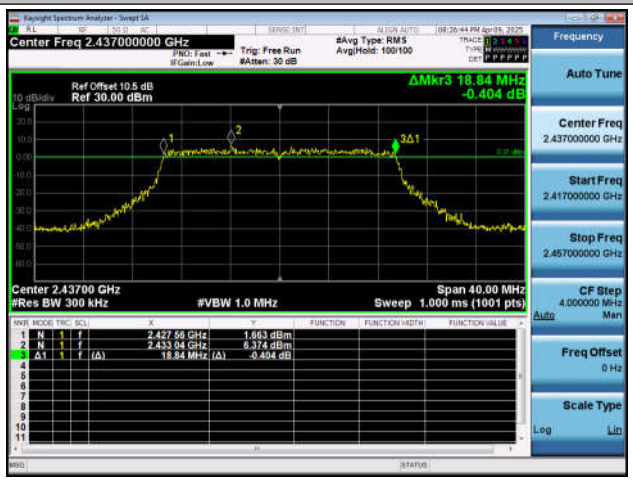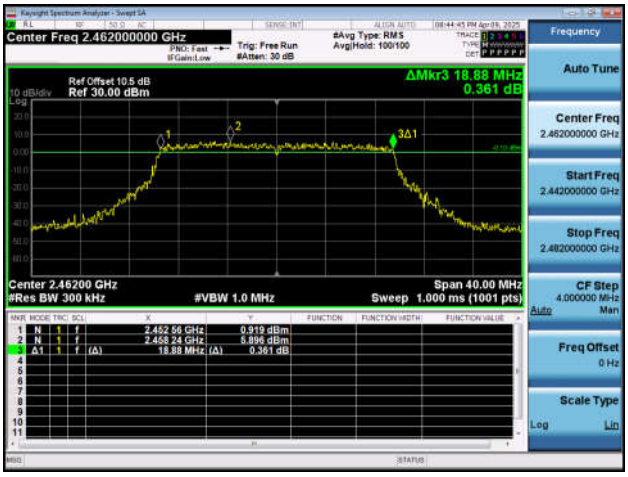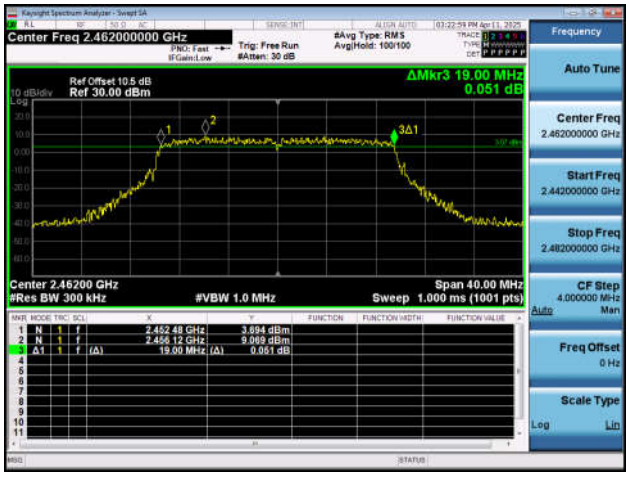	
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