FCC RADIO TEST REPORT

FCC ID	:	**J9CQCARD7280N2**
Equipment	:	**QCARD7280**
Brand Name	:	**Qualcomm**
Model Name	:	**QCARD7280N2**
Applicant	:	**Qualcomm Technologies, Inc. 5775 Morehouse Drive, San Diego, California 92121, United State**
Manufacturer	:	**Qualcomm Semiconductor Limited No. 16-1 Zhanye 2nd Rd. East District Hsinchu City, 300091 (Taiwan)**
Standard	:	**FCC Part 15 Subpart C §15.247**

The product was received on Feb. 16, 2022 and testing was performed from Feb. 25, 2022 to Aug. 11, 2022. We, Sporton International Inc. Wensan Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval from Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

Sporton International Inc. Wensan Laboratory
No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)

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History of this test report

Report No.	Version	Description	Issue Date
FR1N1011A	01	Initial issue of report	Sep. 12, 2022

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.247(a)(1)	Number of Channels	Pass	-
3.2	15.247(a)(1)	Hopping Channel Separation	Pass	-
3.3	15.247(a)(1)	Dwell Time of Each Channel	Pass	-
3.4	15.247(a)(1)	20dB Bandwidth	Pass	-
3.4	2.1049	99% Occupied Bandwidth	Reporting only	-
3.5	15.247(b)(1)	Peak Output Power	Pass	-
3.6	15.247(d)	Conducted Band Edges	Pass	-
3.7	15.247(d)	Conducted Spurious Emission	Pass	-
3.8	15.247(d)	Radiated Band Edges and Radiated Spurious Emission	Pass	7.86 dB under the limit at 57.160 MHz
-	15.207	AC Conducted Emission	Not Required	
3.9	15.203 & 15.247(b)	Antenna Requirement	Pass	-

Note: Not required means after assessing, test items are not necessary to carry out.

Declaration of Conformity:
1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers. It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results. 2. The measurement uncertainty please refer to report "Uncertainty of Evaluation".
Comments and Explanations:
The product specifications of the EUT presented in the report are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Avis Chuang

Report Producer: Dewi Huang

1 General Description

1.1 Product Feature of Equipment Under Test

WCDMA/LTE/5G NR, Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n/ac/ax, Wi-Fi 5GHz 802.11a/n/ac/ax, and Wi-Fi 6GHz 802.11a/n/ac/ax.

Antenna Information								
Antenna Set	RF Chain No.	Brand	Model	Antenna Net Gain (dBi)	Frequency Range (MHz)	Ant. Type	Connector Type	Cable Length (mm)
A	Chain0/1	HONG BO	260-25094	3.53	2.4~2.4835 GHz	PIFA	i-pex (MHF 4L)	300mm
				3.06	5.15~5.25 GHz			
				3.07	5.25~5.35 GHz			
				4.81	5.47~5.725 GHz			
				4.2	5.725~5.850 GHz			
B	Chain0/1	HONG BO	260-25083	5.09	5.850~5.895 GHz	PIFA	i-pex (MHF 4L)	300mm
				5.14	5.925~6.425 GHz			
				5.09	6.425~6.525 GHz			
				5.16	6.525~6.875 GHz			
				5.12	6.875~7.125 GHz			
C	Chain0/1	HONG BO	260-25084	3.22	2.4~2.4835 GHz	Monopole	i-pex (MHF 4L)	200mm
				3.35	5.15~5.25 GHz			
				3.42	5.25~5.35 GHz			
				4.77	5.47~5.725 GHz			
				4.72	5.725~5.850 GHz			
				4.71	5.850~5.895 GHz			
				4.75	5.925~6.425 GHz			
				4.29	6.425~6.525 GHz			
				4.81	6.525~6.875 GHz			
				4.74	6.875~7.125 GHz			

Remark: .

1. Ant. 5 means Chain 0 and Ant. 4 means Chain 1.
2. The maximum gain was chosen for test.
3. The EUT's information above is declared by manufacturer. Please refer to Comments and Explanations in report summary.

1.2 Modification of EUT

No modifications made to the EUT during the testing.

1.3 Testing Location

Test Site	Sporton International Inc. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	**Sporton Site No.**
	TH05-HY, 03CH15-HY

Note: The test site complies with ANSI C63.4 2014 requirement.

FCC designation No.: TW3786

1.4 Applicable Standards

According to the specifications declared by the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15 Subpart C §15.247
- FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v05r02
- FCC KDB 414788 D01 Radiated Test Site v01r01
- ANSI C63.10-2013

Remark:

1. All the test items were validated and recorded in accordance with the standards without any modification during the testing.
2. The TAF code is not including all the FCC KDB listed without accreditation.
3. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

2 Test Configuration of Equipment Under Test

2.1 Carrier Frequency Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)
2400-2483.5 MHz	0	2402	27	2429	54	2456
	1	2403	28	2430	55	2457
	2	2404	29	2431	56	2458
	3	2405	30	2432	57	2459
	4	2406	31	2433	58	2460
	5	2407	32	2434	59	2461
	6	2408	33	2435	60	2462
	7	2409	34	2436	61	2463
	8	2410	35	2437	62	2464
	9	2411	36	2438	63	2465
	10	2412	37	2439	64	2466
	11	2413	38	2440	65	2467
	12	2414	39	2441	66	2468
	13	2415	40	2442	67	2469
	14	2416	41	2443	68	2470
	15	2417	42	2444	69	2471
	16	2418	43	2445	70	2472
	17	2419	44	2446	71	2473
	18	2420	45	2447	72	2474
	19	2421	46	2448	73	2475
	20	2422	47	2449	74	2476
	21	2423	48	2450	75	2477
	22	2424	49	2451	76	2478
	23	2425	50	2452	77	2479
	24	2426	51	2453	78	2480
	25	2427	52	2454	-	-
	26	2428	53	2455	-	-

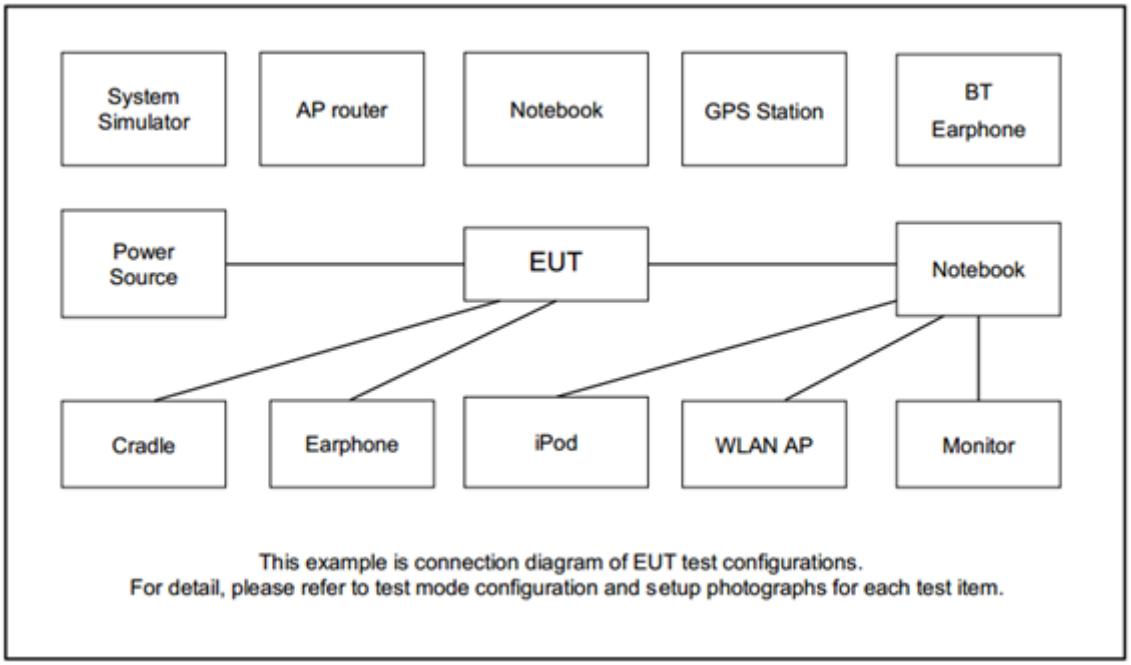
2.2 Test Mode

a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

The following summary table is showing all test modes to demonstrate in compliance with the standard.

Summary table of Test Cases			
Test Item	**Data Rate / Modulation**		
Conducted Test Cases	**Bluetooth BR 1Mbps GFSK**	**Bluetooth EDR 2Mbps π/4-DQPSK**	**Bluetooth EDR 3Mbps 8-DPSK**
	Mode 1: CH00_2402 MHz	Mode 4: CH00_2402 MHz	Mode 7: CH00_2402 MHz
	Mode 2: CH39_2441 MHz	Mode 5: CH39_2441 MHz	Mode 8: CH39_2441 MHz
	Mode 3: CH78_2480 MHz	Mode 6: CH78_2480 MHz	Mode 9: CH78_2480 MHz
Radiated Test Cases	**Bluetooth EDR 3Mbps 8-DPSK**		
	Mode 1: CH00_2402 MHz		
	Mode 2: CH39_2441 MHz		
	Mode 3: CH78_2480 MHz		

2.3 Connection Diagram of Test System



2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Notebook	Dell	Latitude 3400	N/A	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
2.	Power Supply	GW Instek	GPE-2323	N/A	N/A	Unshielded, 1.8 m
3.	Bluetooth Base Station	R&S	CBT	N/A	N/A	Unshielded, 1.8 m
4.	Fixture	Qualcomm	20-33568-H1	N/A	N/A	N/A

2.5 EUT Operation Test Setup

The RF test items, utility “QRCT Ver.4.0.00175.0” was installed in Notebook which was programmed in order to make the EUT get into the engineering modes to contact with base station to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.

2.6 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example:
The spectrum analyzer offset is derived from RF cable loss and attenuator factor.
Offset = RF cable loss + attenuator factor.
Following shows an offset computation example with cable loss 4.2 dB and 10 dB attenuator.

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).
= 4.2 + 10 = 14.2 (dB)

3 Test Result

3.1 Number of Channel Measurement

3.1.1 Limits of Number of Hopping Frequency

Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels.

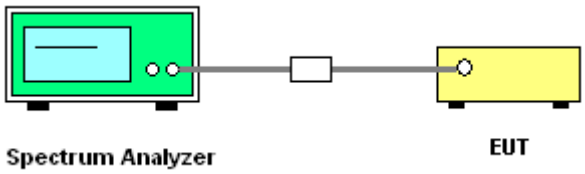
3.1.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.1.3 Test Procedure

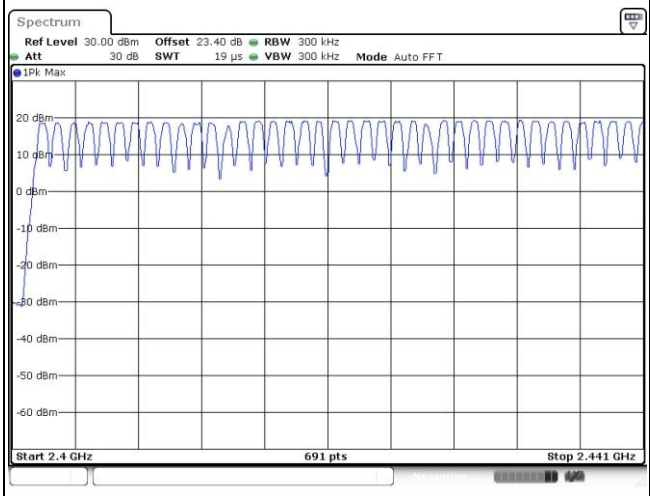
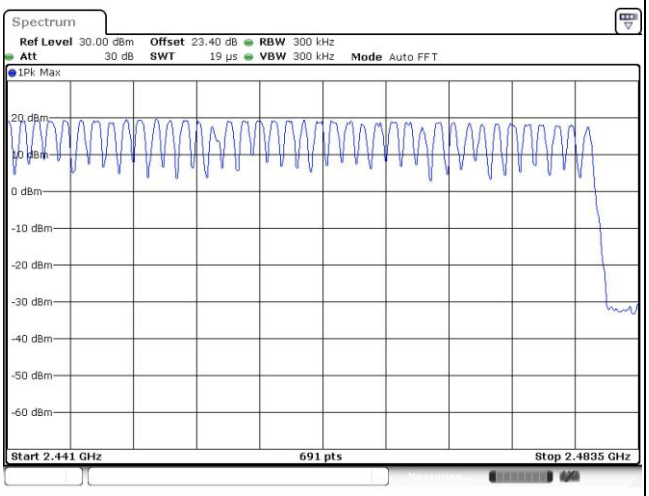
1. The testing follows ANSI C63.10-2013 clause 7.8.3.
2. The RF output of EUT is connected to the spectrum analyzer by RF cable and attenuator. The path loss is compensated to the results for each measurement.
3. Set the maximum power setting and enable the EUT to transmit continuously.
4. Enable the EUT hopping function.
5. Use the following spectrum analyzer settings: Span = the frequency band of operation; RBW = 300 kHz; VBW ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold.
6. The number of hopping frequency used is defined as the number of total channel.
7. Record the measurement data derived from spectrum analyzer.

3.1.4 Test Setup

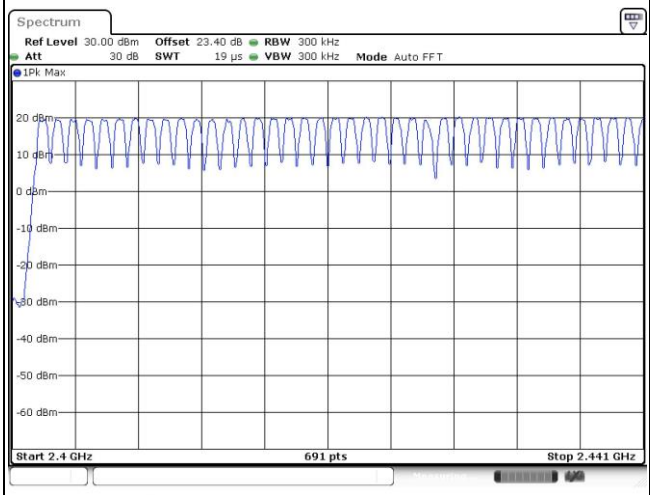
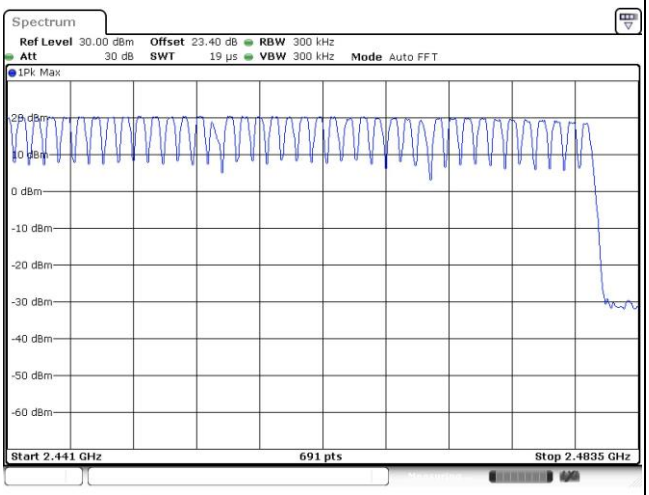


3.1.5 Test Result of Number of Hopping Frequency

<for Ant.4>

Number of Hopping Channel Plot on Channel 00 – 39	Number of Hopping Channel Plot on Channel 39 – 78
	

<for Ant.5>

Number of Hopping Channel Plot on Channel 00 – 39	Number of Hopping Channel Plot on Channel 39 – 78
	

3.2 Hopping Channel Separation Measurement

3.2.1 Limit of Hopping Channel Separation

Frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater.

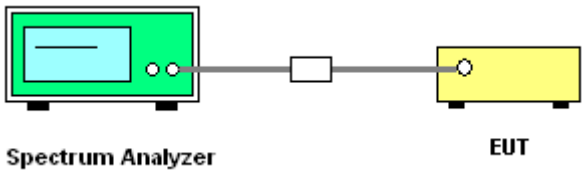
3.2.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.2.3 Test Procedures

1. The testing follows ANSI C63.10-2013 clause 7.8.2.
2. The RF output of EUT is connected to the spectrum analyzer by RF cable and attenuator. The path loss is compensated to the results for each measurement.
3. Set the maximum power setting and enable the EUT to transmit continuously.
4. Enable the EUT hopping function.
5. Use the following spectrum analyzer settings:
   Span = wide enough to capture the peaks of two adjacent channels;
   RBW = 300 kHz; VBW ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold.
6. Measure and record the results in the test report.

3.2.4 Test Setup

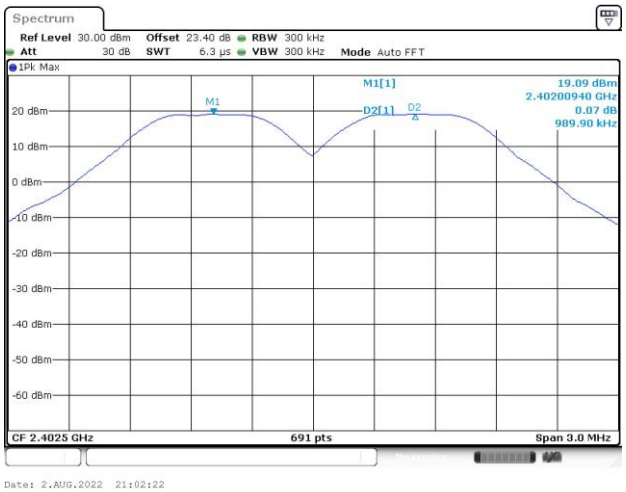
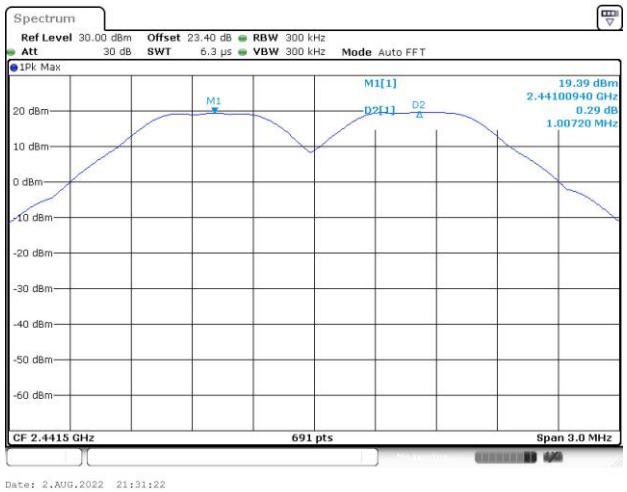
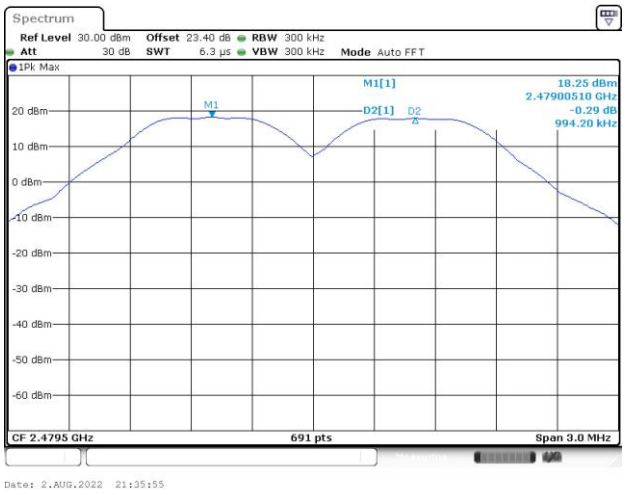


3.2.5 Test Result of Hopping Channel Separation

Please refer to Appendix A.

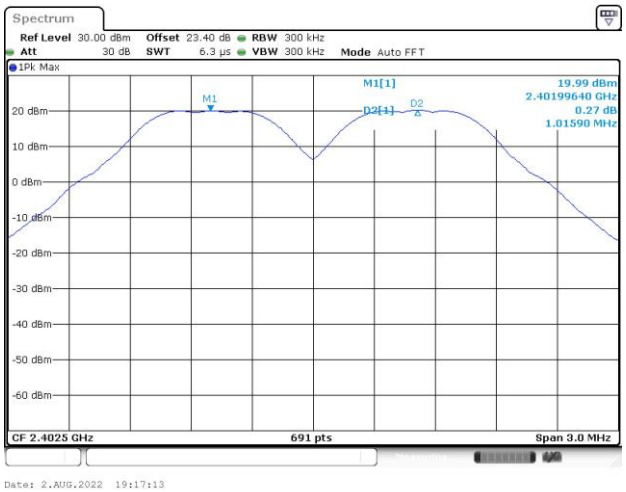
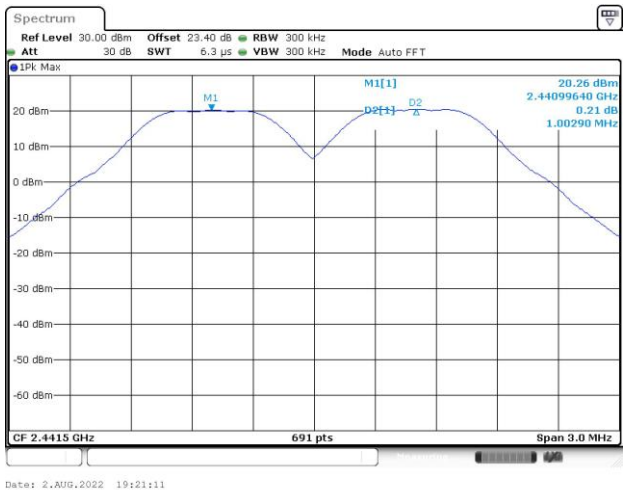
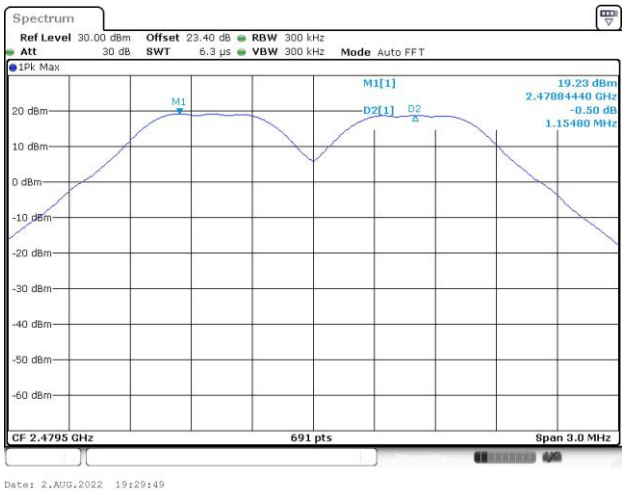
<for Ant.4>

<1Mbps>

Channel Separation Plot on Channel 00 - 01	Channel Separation Plot on Channel 39 - 40
	
Channel Separation Plot on Channel 77 - 78	**N/A**
	

<for Ant.5>

<1Mbps>

Channel Separation Plot on Channel 00 - 01	Channel Separation Plot on Channel 39 - 40
	
Channel Separation Plot on Channel 77 - 78	**N/A**
	

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<2Mbps>

Channel Separation Plot on Channel 00 - 01	Channel Separation Plot on Channel 39 - 40
	
Channel Separation Plot on Channel 77 - 78	**N/A**
	

<for Ant.5>

<2Mbps>

Channel Separation Plot on Channel 00 - 01	Channel Separation Plot on Channel 39 - 40
	
Channel Separation Plot on Channel 77 - 78	**N/A**
	

<for Ant.4>

<3Mbps>

Channel Separation Plot on Channel 00 - 01	Channel Separation Plot on Channel 39 - 40
	
Channel Separation Plot on Channel 77 - 78	**N/A**
	

<for Ant.5>

<3Mbps>

Channel Separation Plot on Channel 00 - 01	Channel Separation Plot on Channel 39 - 40
	
Channel Separation Plot on Channel 77 - 78	**N/A**
	

3.3 Dwell Time Measurement

3.3.1 Limit of Dwell Time

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

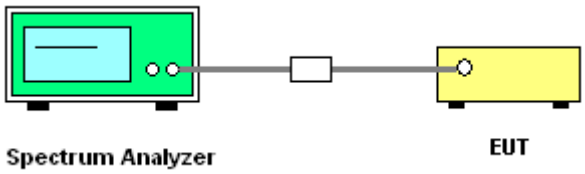
3.3.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.3.3 Test Procedures

1. The testing follows ANSI C63.10-2013 clause 7.8.4.
2. The RF output of EUT is connected to the spectrum analyzer by RF cable and attenuator. The path loss is compensated to the results for each measurement.
3. Set the maximum power setting and enable the EUT to transmit continuously.
4. Enable the EUT hopping function.
5. Use the following spectrum analyzer settings: Span = zero span, centered on a hopping channel; RBW = 1 MHz; VBW ≥ RBW; Sweep = as necessary to capture the entire dwell time per hopping channel; Detector function = peak; Trace = max hold.
6. Measure and record the results in the test report.

3.3.4 Test Setup

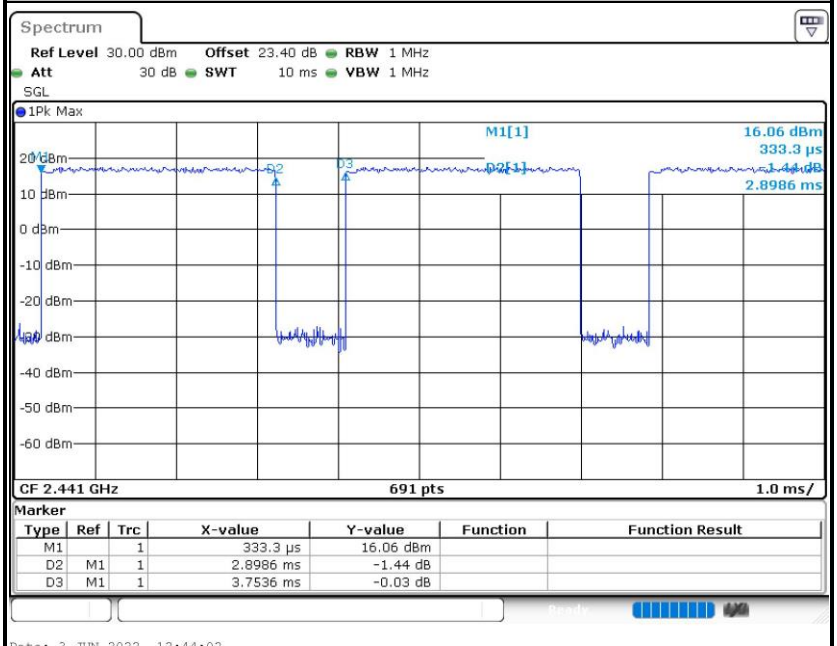


3.3.5 Test Result of Dwell Time

Please refer to Appendix A.

<for Ant.4>

Package Transfer Time Plot



Remark:

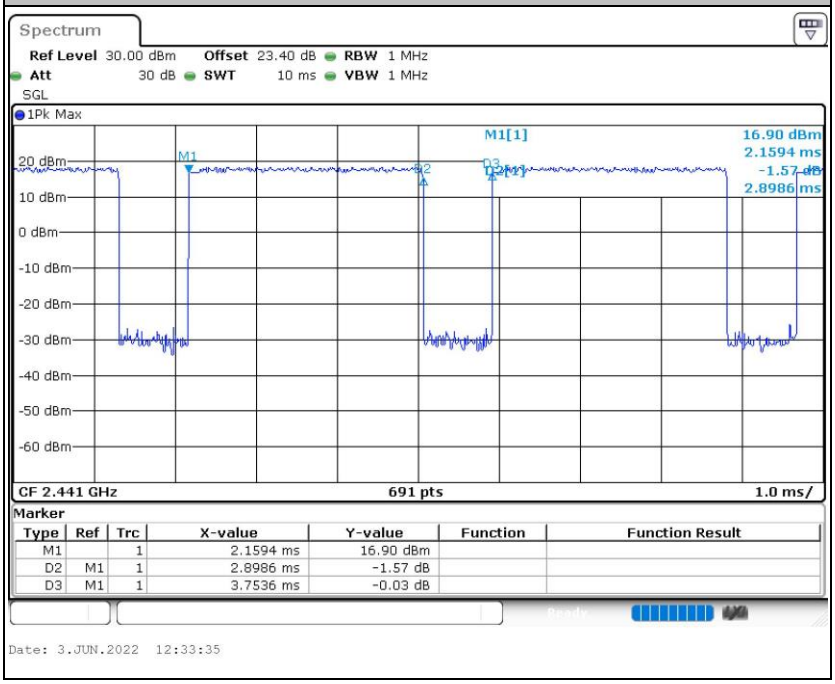
1. In normal mode, hopping rate is 1600 hops/s with 6 slots in 79 hopping channels. With channel hopping rate (1600 / 6 / 79) in Occupancy Time Limit (0.4 x 79) (s),Hops Over Occupancy Time comes to (1600 / 6 / 79) x (0.4 x 79) = 106.67 hops.

2. In AFH mode, hopping rate is 800 hops/s with 6 slots in 20 hopping channels. With channel hopping rate (800 / 6 / 20) in Occupancy Time Limit (0.4 x 20) (s), Hops Over Occupancy Time comes to (800 / 6 / 20) x (0.4 x 20) = 53.33 hops.

3. Dwell Time(s) = Hops Over Occupancy Time (hops) x Package Transfer Time

<for Ant.5>

Package Transfer Time Plot



Remark:

1. In normal mode, hopping rate is 1600 hops/s with 6 slots in 79 hopping channels. With channel hopping rate (1600 / 6 / 79) in Occupancy Time Limit (0.4 x 79) (s),Hops Over Occupancy Time comes to (1600 / 6 / 79) x (0.4 x 79) = 106.67 hops.
2. In AFH mode, hopping rate is 800 hops/s with 6 slots in 20 hopping channels. With channel hopping rate (800 / 6 / 20) in Occupancy Time Limit (0.4 x 20) (s), Hops Over Occupancy Time comes to (800 / 6 / 20) x (0.4 x 20) = 53.33 hops.
3. Dwell Time(s) = Hops Over Occupancy Time (hops) x Package Transfer Time

3.4 20dB and 99% Bandwidth Measurement

3.4.1 Limit of 20dB and 99% Bandwidth

Reporting only

3.4.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.4.3 Test Procedures

1. The testing follows ANSI C63.10-2013 clause 6.9.2 and 6.9.3.
2. The RF output of EUT is connected to the spectrum analyzer by RF cable and attenuator. The path loss is compensated to the results for each measurement.
3. Set the maximum power setting and enable the EUT to transmit continuously.
4. Use the following spectrum analyzer settings for 20 dB Bandwidth measurement.
   Span = approximately 2 to 5 times the 20 dB bandwidth, centered on a hopping channel;
   RBW ≥ 1% of the 20 dB bandwidth; VBW ≥ RBW; Sweep = auto; Detector function = peak;
   Trace = max hold.
5. Use the following spectrum analyzer settings for 99 % Bandwidth measurement.
   Span = approximately 1.5 to 5 times the 99% bandwidth, centered on a hopping channel;
   RBW ≥ 1-5% of the 99% bandwidth; VBW ≥ 3 * RBW; Sweep = auto; Detector function = peak;
   Trace = max hold.
6. Measure and record the results in the test report.

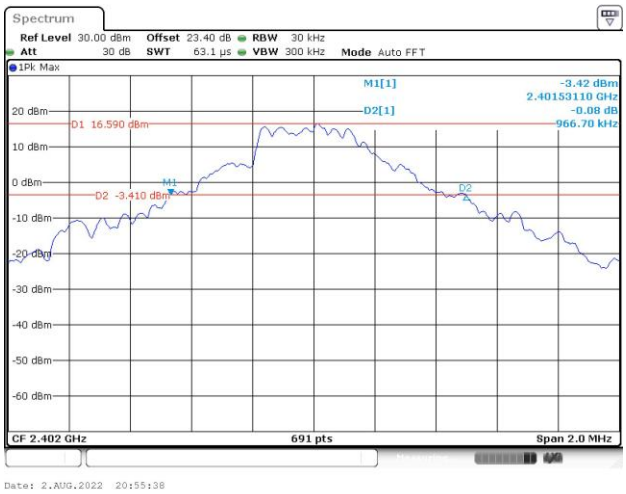
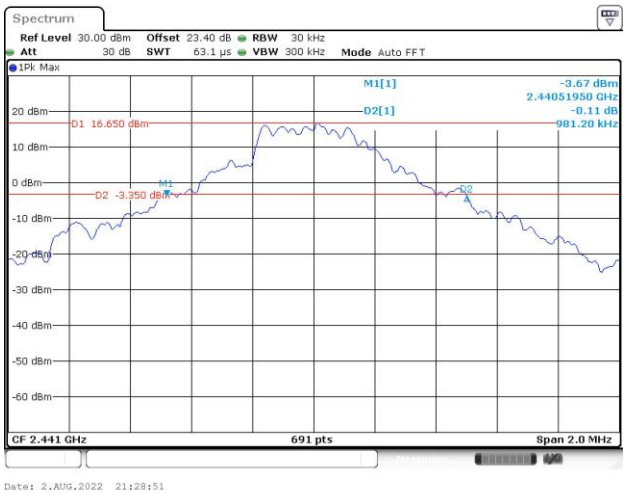
3.4.4 Test Setup

3.4.5 Test Result of 20dB Bandwidth

Please refer to Appendix A.

<for Ant.4>

<1Mbps>

20 dB Bandwidth Plot on Channel 00	20 dB Bandwidth Plot on Channel 39
	
20 dB Bandwidth Plot on Channel 78	**N/A**
	

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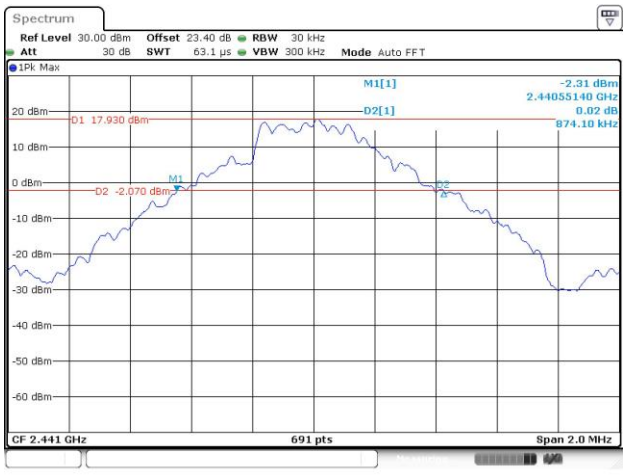
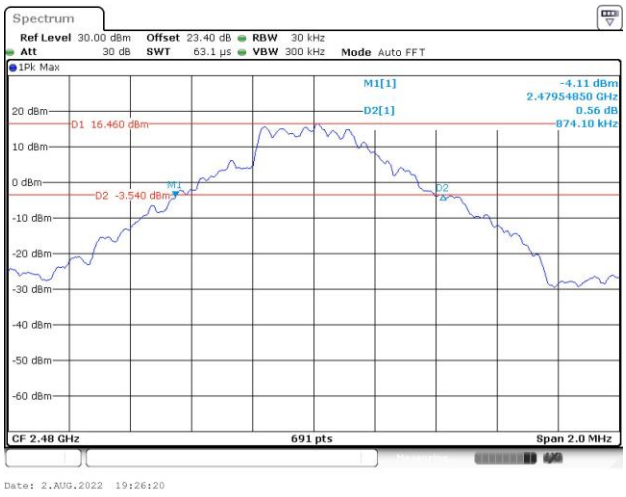
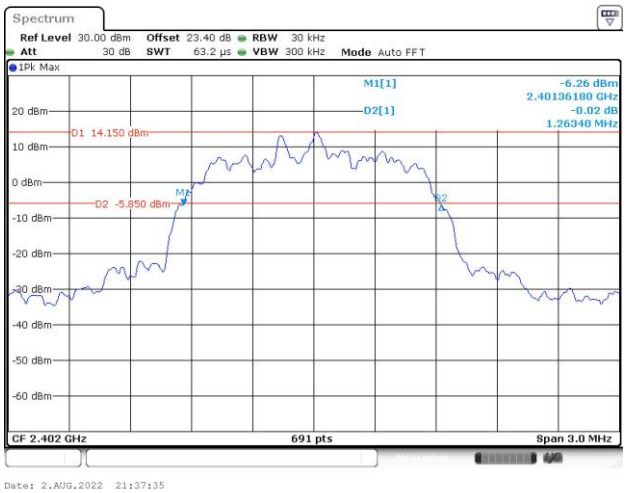
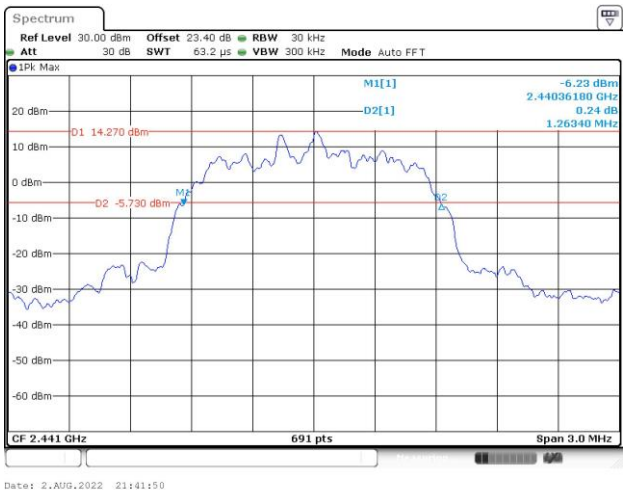
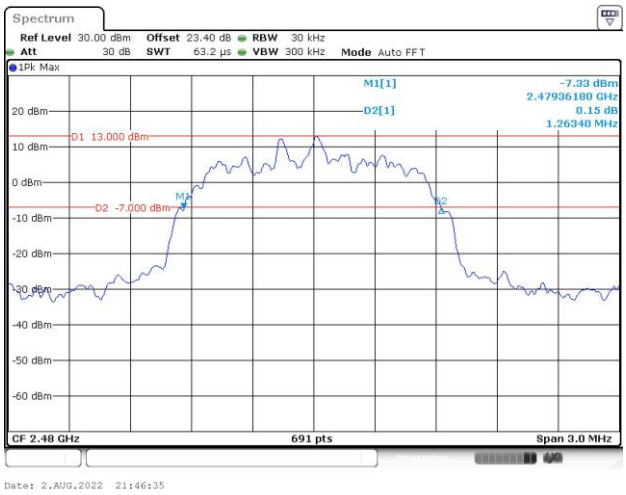
<1Mbps>

20 dB Bandwidth Plot on Channel 00	20 dB Bandwidth Plot on Channel 39
	
20 dB Bandwidth Plot on Channel 78	**N/A**
	

<for Ant.4>

<2Mbps>

20 dB Bandwidth Plot on Channel 00	20 dB Bandwidth Plot on Channel 39
	
20 dB Bandwidth Plot on Channel 78	**N/A**
	

<for Ant.5>

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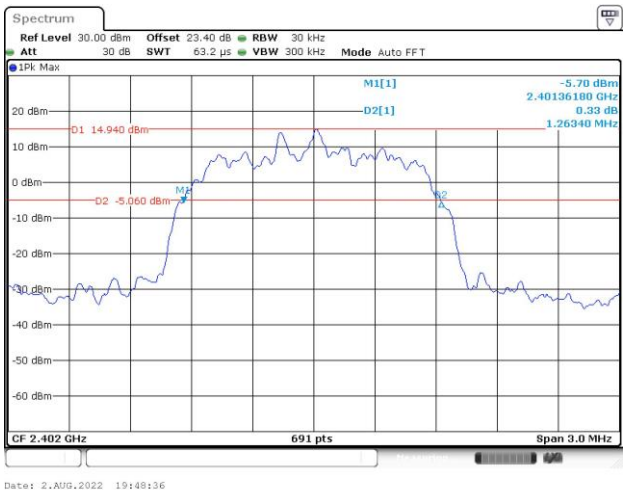
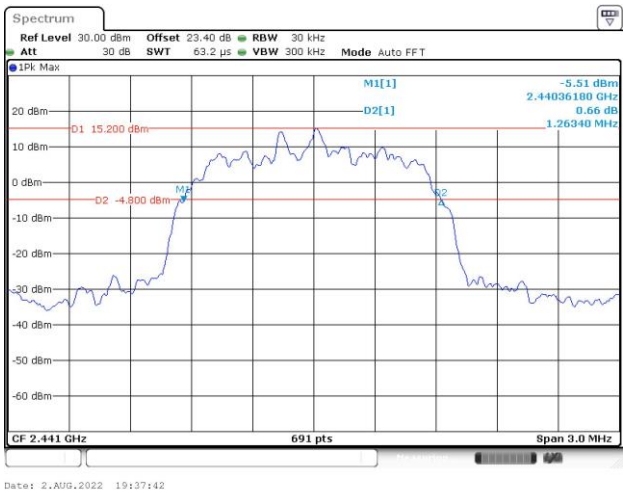
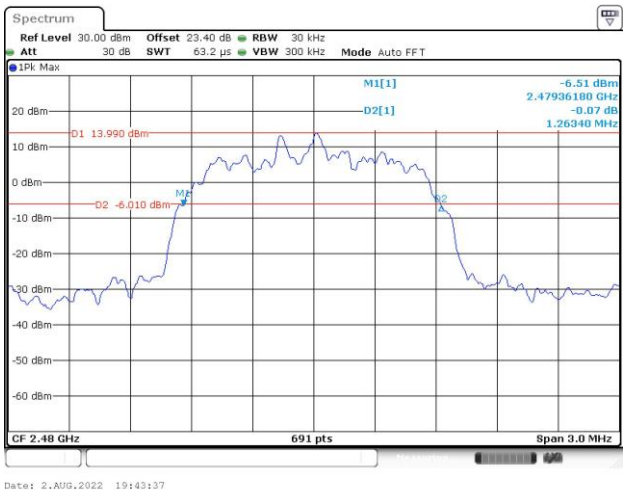
20 dB Bandwidth Plot on Channel 00	20 dB Bandwidth Plot on Channel 39
	
20 dB Bandwidth Plot on Channel 78	**N/A**
	

<for Ant.4>

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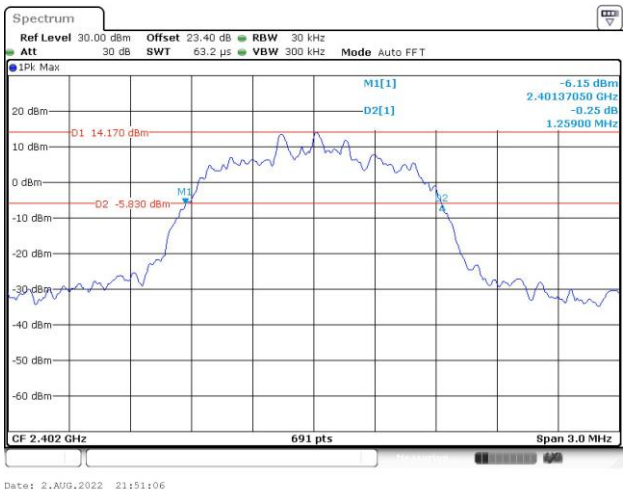
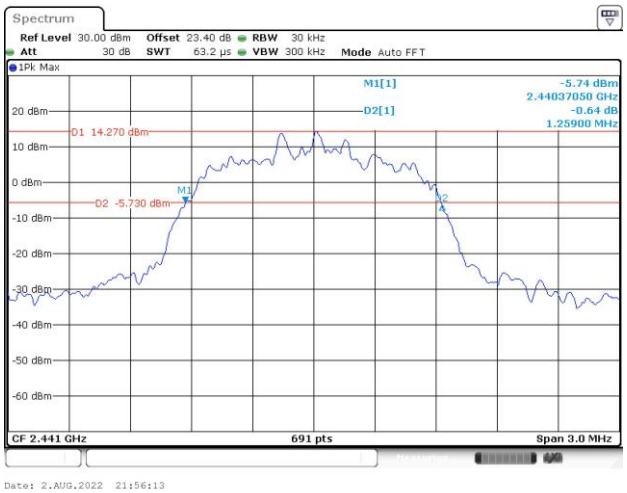
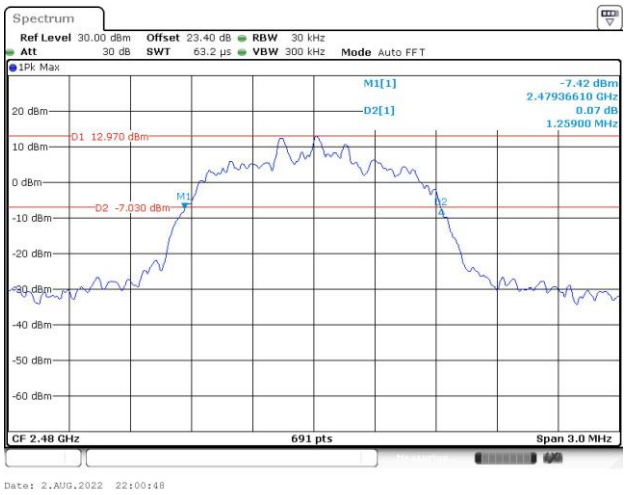
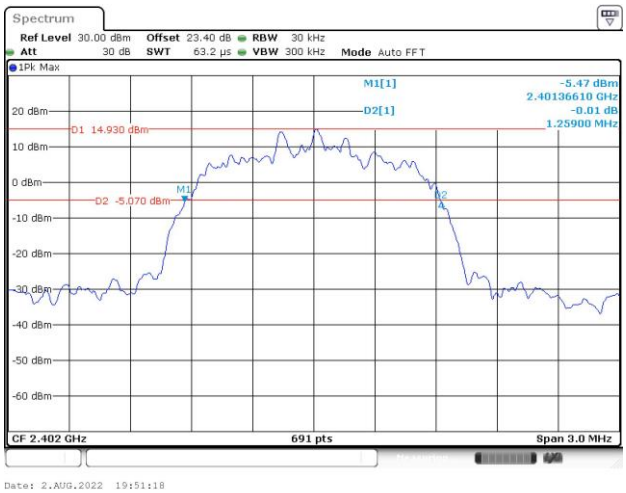
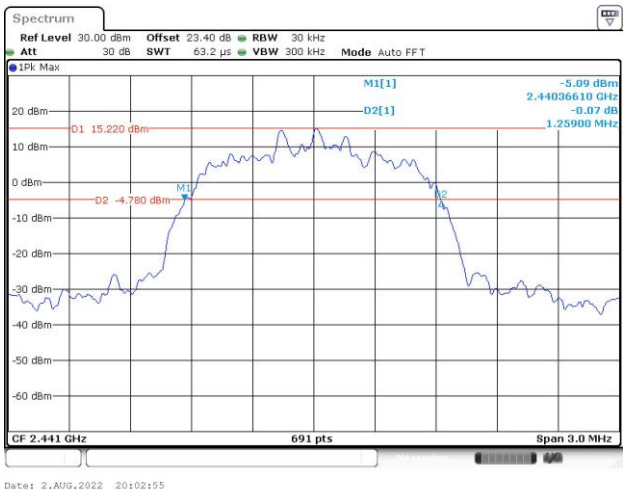
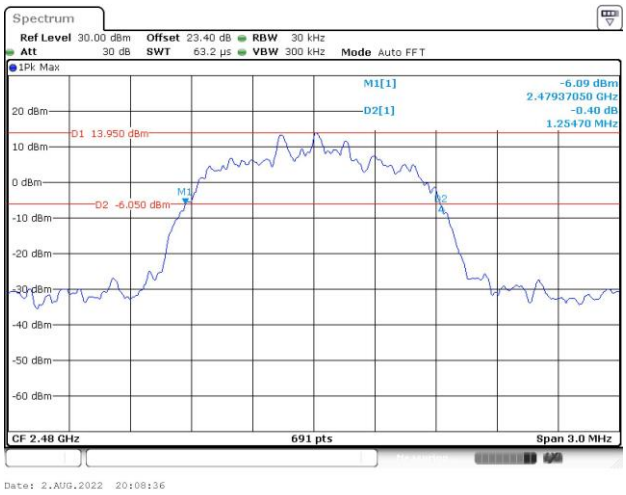
20 dB Bandwidth Plot on Channel 00	20 dB Bandwidth Plot on Channel 39
	
20 dB Bandwidth Plot on Channel 78	**N/A**
	

<for Ant.5>

<3Mbps>

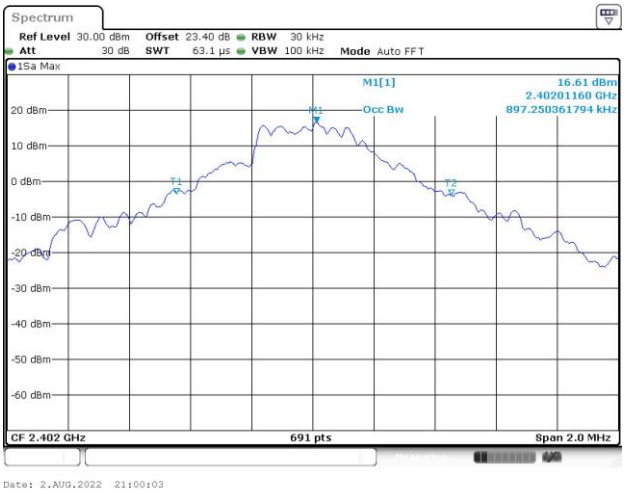
20 dB Bandwidth Plot on Channel 00	20 dB Bandwidth Plot on Channel 39
	
20 dB Bandwidth Plot on Channel 78	**N/A**
	

3.4.6 Test Result of 99% Occupied Bandwidth

Please refer to Appendix A.

<for Ant.4>

<1Mbps>

99% Occupied Bandwidth Plot on Channel 00	99% Occupied Bandwidth Plot on Channel 39
	
99% Occupied Bandwidth Plot on Channel 78	**N/A**
	

Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<for Ant.5>

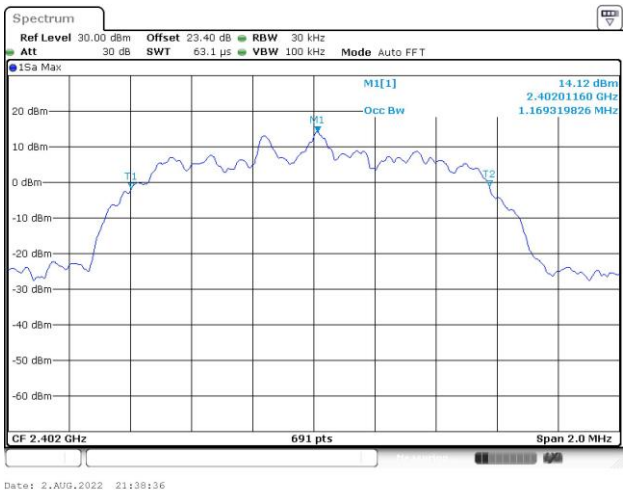
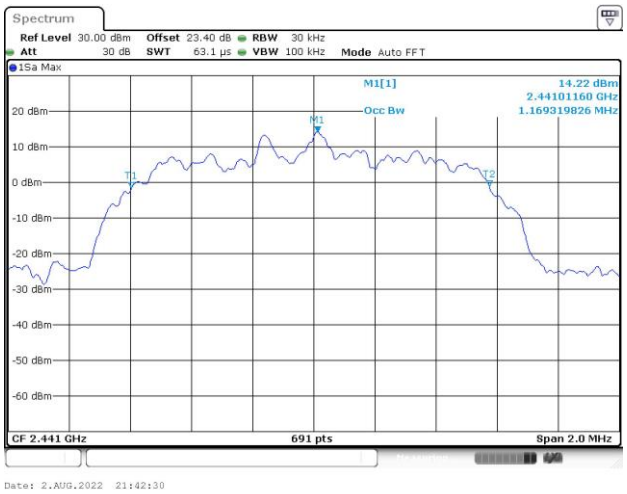
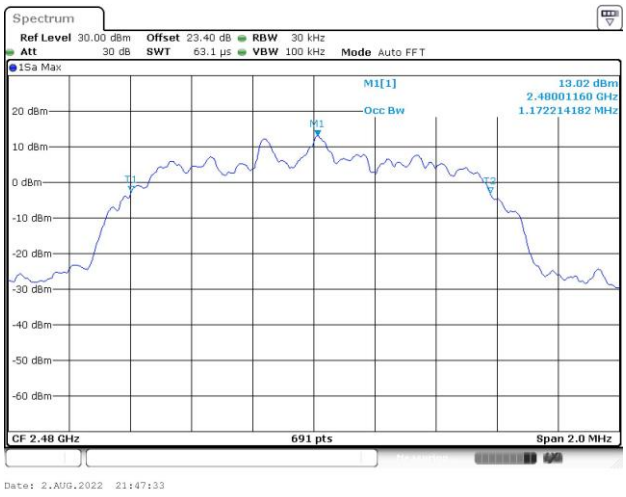
<1Mbps>

99% Occupied Bandwidth Plot on Channel 00	99% Occupied Bandwidth Plot on Channel 39
	
99% Occupied Bandwidth Plot on Channel 78	**N/A**
	

Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<for Ant.4>

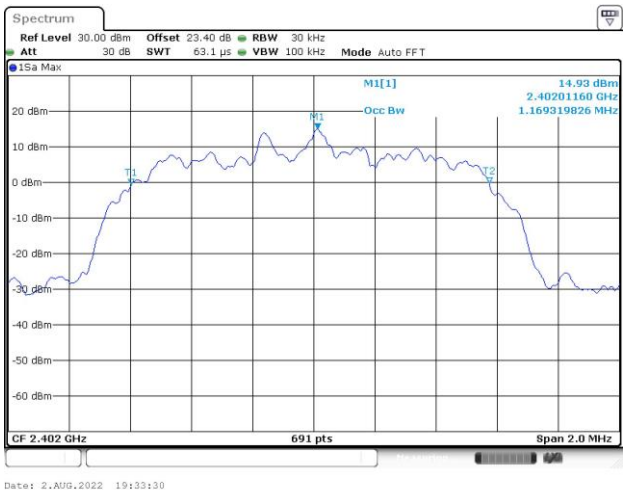
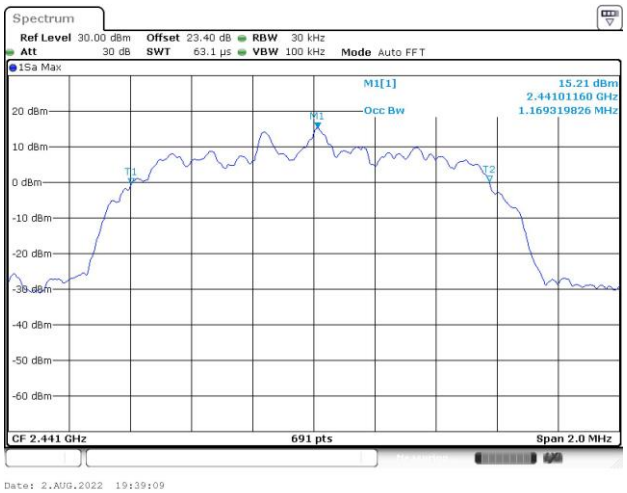
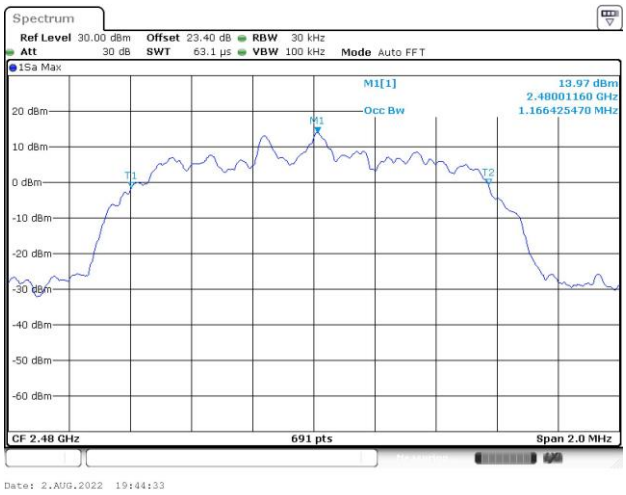
<2Mbps>

99% Occupied Bandwidth Plot on Channel 00	99% Occupied Bandwidth Plot on Channel 39
	
99% Occupied Bandwidth Plot on Channel 78	**N/A**
	

Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<for Ant.5>

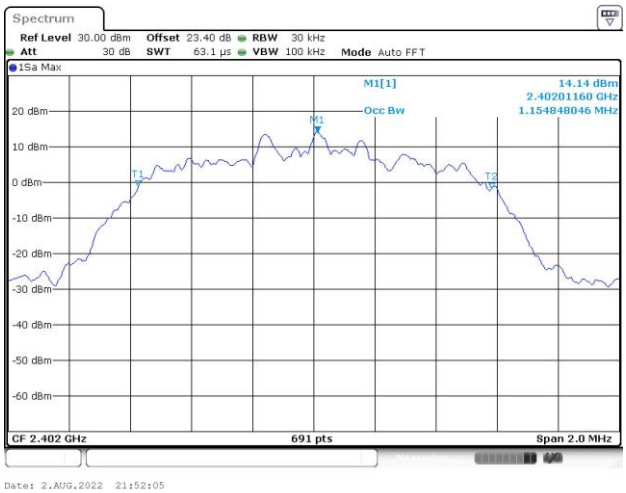
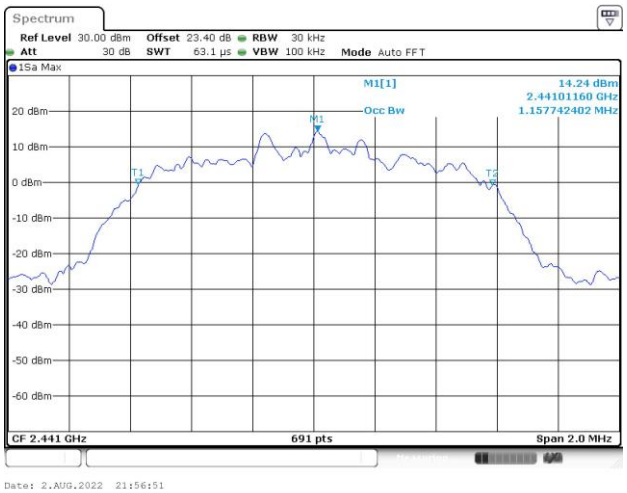
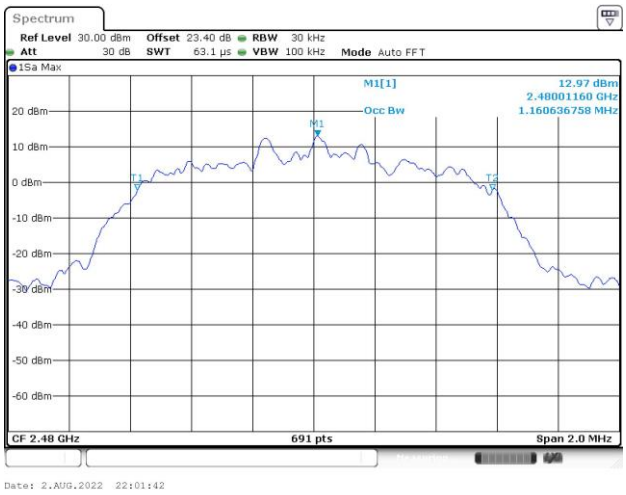
<2Mbps>

99% Occupied Bandwidth Plot on Channel 00	99% Occupied Bandwidth Plot on Channel 39
	
99% Occupied Bandwidth Plot on Channel 78	**N/A**
	

Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<for Ant.4>

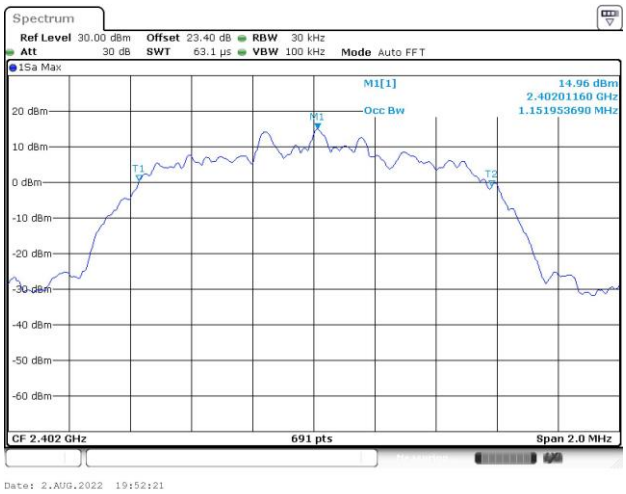
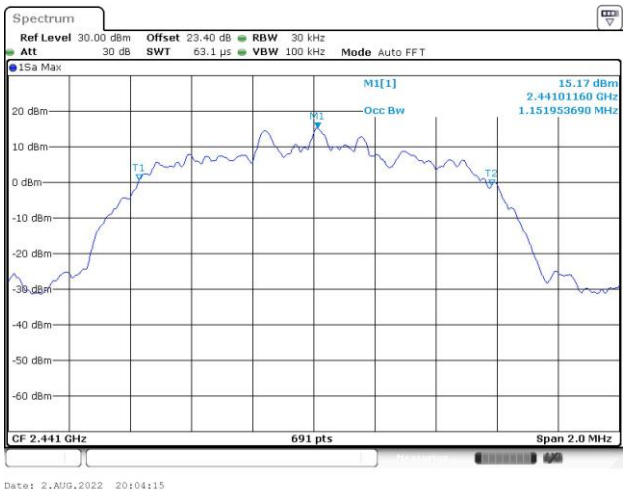
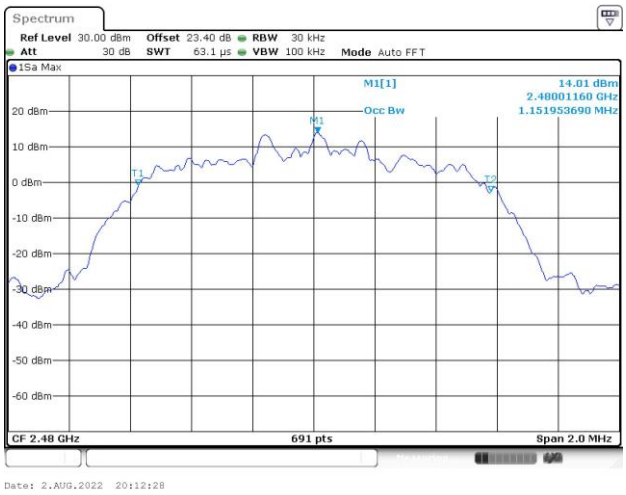
<3Mbps>

99% Occupied Bandwidth Plot on Channel 00	99% Occupied Bandwidth Plot on Channel 39
	
99% Occupied Bandwidth Plot on Channel 78	**N/A**
	

Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<for Ant.5>

<3Mbps>

99% Occupied Bandwidth Plot on Channel 00	99% Occupied Bandwidth Plot on Channel 39
	
99% Occupied Bandwidth Plot on Channel 78	**N/A**
	

Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

3.5 Output Power Measurement

3.5.1 Limit of Output Power

The maximum peak conducted output power of the intentional radiator shall not exceed the following: For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band 0.125 watts.

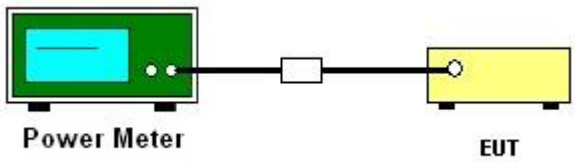
3.5.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.5.3 Test Procedures

1. The testing follows ANSI C63.10-2013 clause 7.8.5.
2. The RF output of EUT is connected to the power meter by RF cable and attenuator. The path loss is compensated to the results for each measurement.
3. Set the maximum power setting and enable the EUT to transmit continuously.
4. Measure the conducted output power with cable loss and record the results in the test report.
5. Measure and record the results in the test report.

3.5.4 Test Setup



3.5.5 Test Result of Peak Output Power

Please refer to Appendix A.

3.5.6 Test Result of Average Output Power (Reporting Only)

Please refer to Appendix A.

3.6 Conducted Band Edges Measurement

3.6.1 Limit of Band Edges

In any 100 kHz bandwidth outside the intentional radiation frequency band, the radio frequency power shall be at least 20 dB below the highest level of the radiated power. In addition, radiated emissions which fall in the restricted bands must also comply with the radiated emission limits.

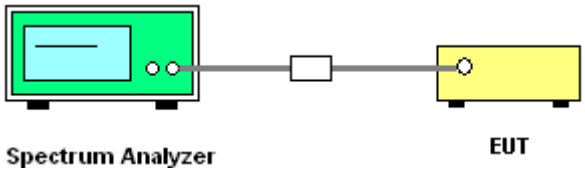
3.6.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.6.3 Test Procedures

1. The testing follows ANSI C63.10-2013 clause 7.8.6.
2. Set the maximum power setting and enable the EUT to transmit continuously.
3. Set RBW = 100 kHz, VBW = 300 kHz. Band edge emissions must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100 kHz RBW. The attenuation shall be 30 dB instead of 20 dB when RMS conducted output power procedure is used.
4. Enable hopping function of the EUT and then repeat step 2 and 3.
5. Measure and record the results in the test report.

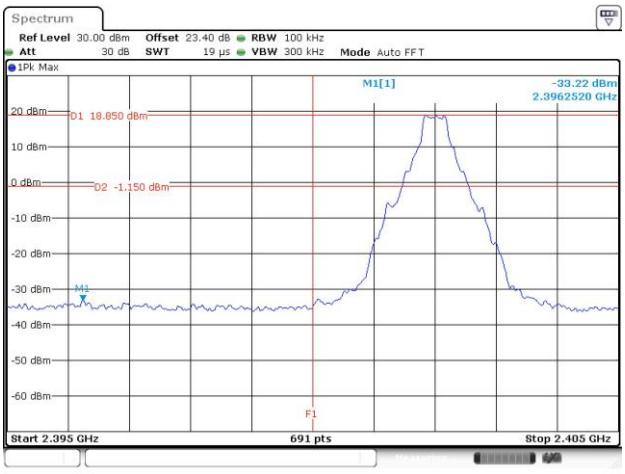
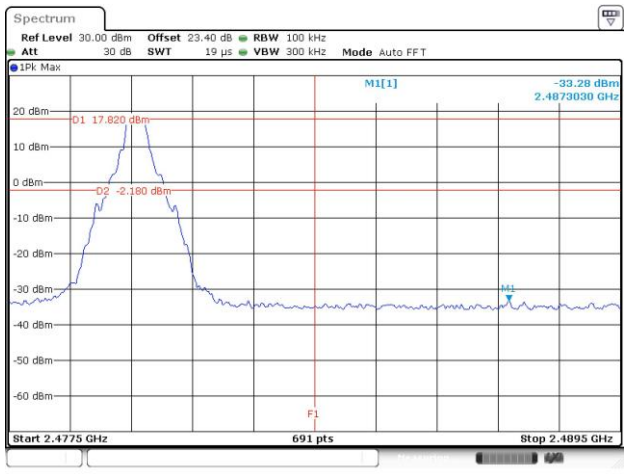
3.6.4 Test Setup



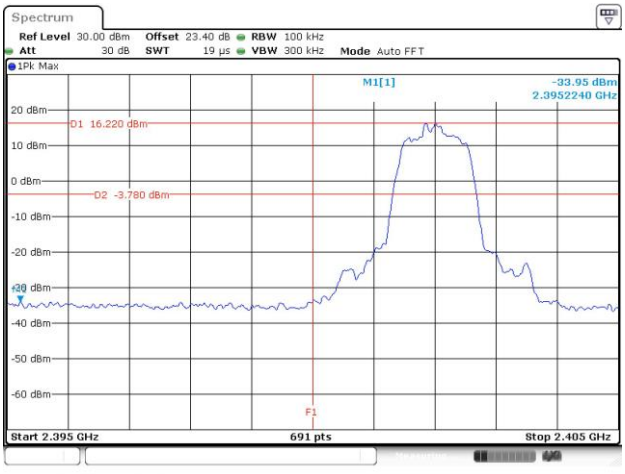
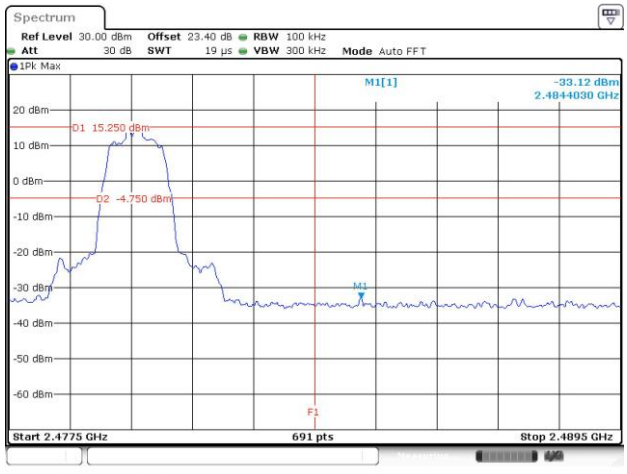
3.6.5 Test Result of Conducted Band Edges

<for Ant.4>

<1Mbps>

Low Band Edge Plot on Channel 00	High Band Edge Plot on Channel 78
	

<2Mbps>

Low Band Edge Plot on Channel 00	High Band Edge Plot on Channel 78
	

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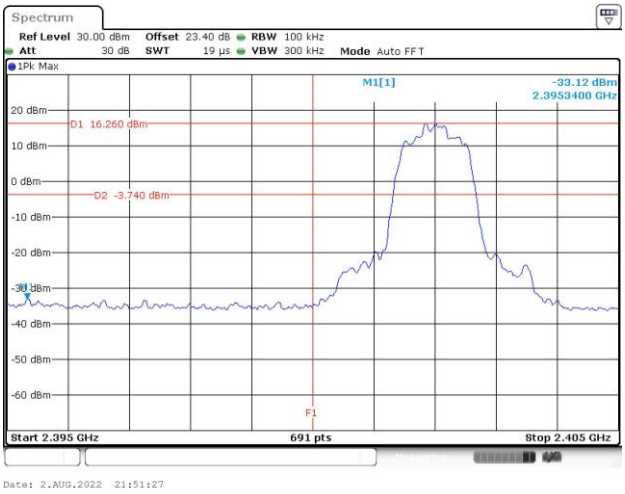
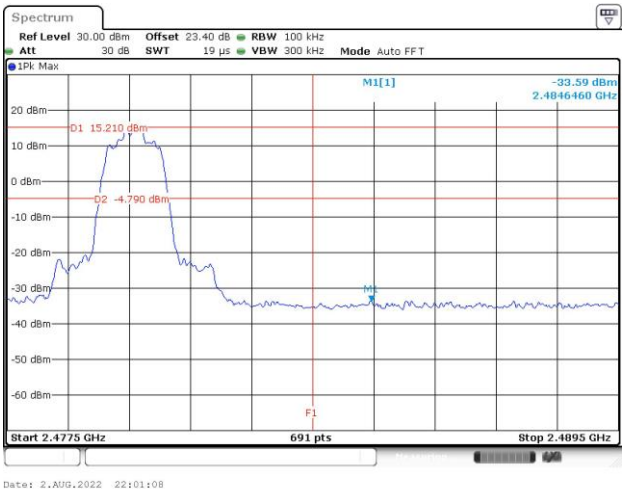
Low Band Edge Plot on Channel 00	High Band Edge Plot on Channel 78
	

<for Ant.5>

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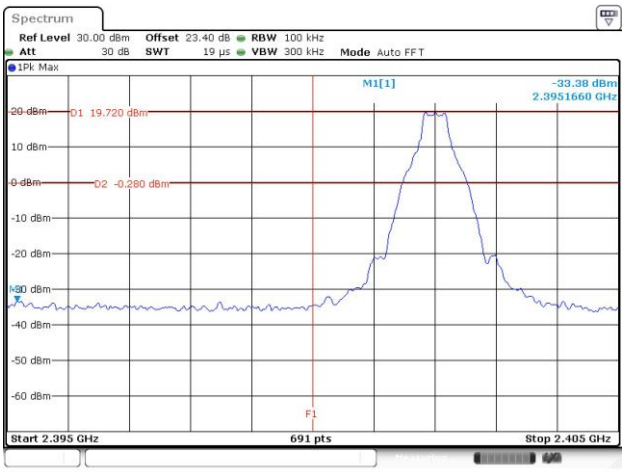
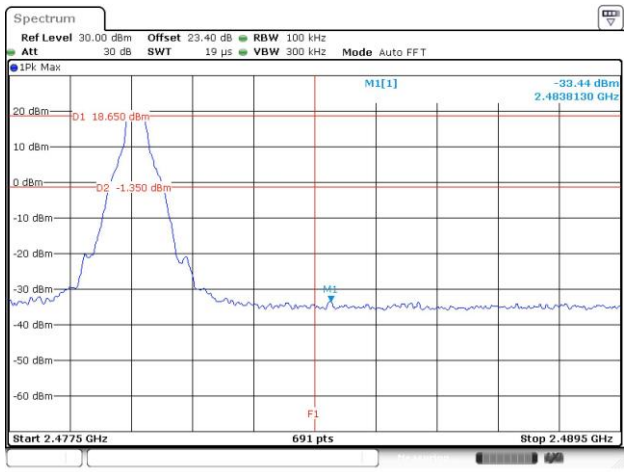
Low Band Edge Plot on Channel 00	High Band Edge Plot on Channel 78
	

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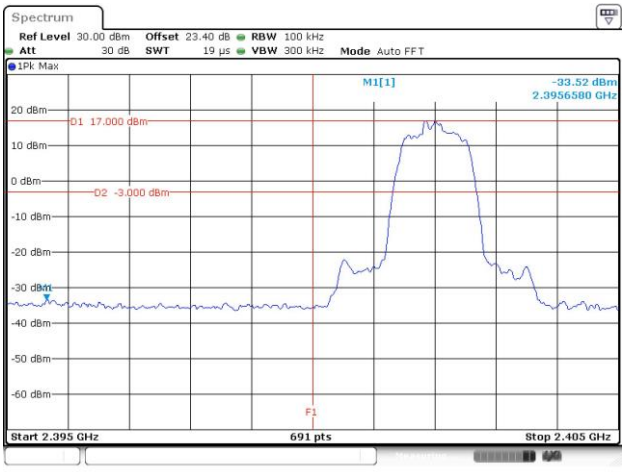
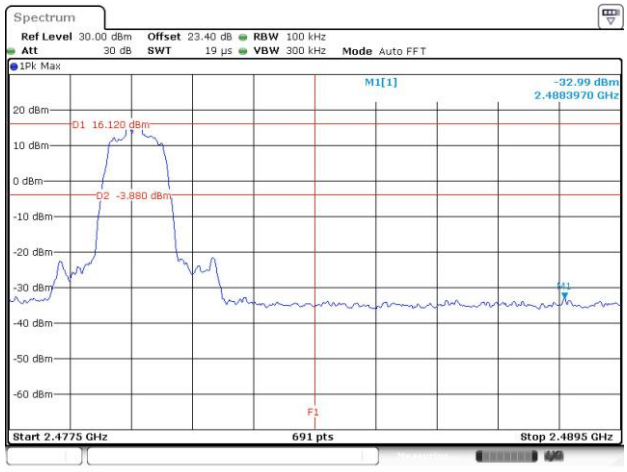
Low Band Edge Plot on Channel 00	High Band Edge Plot on Channel 78
	

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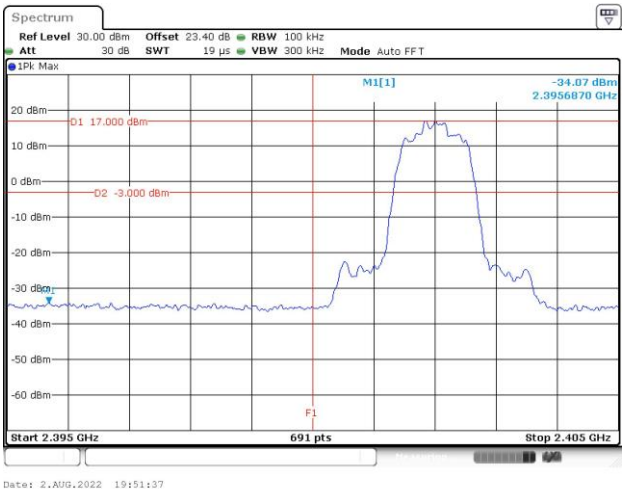
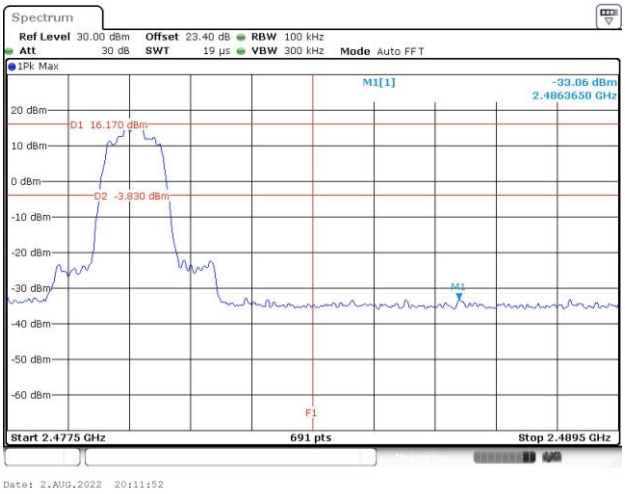
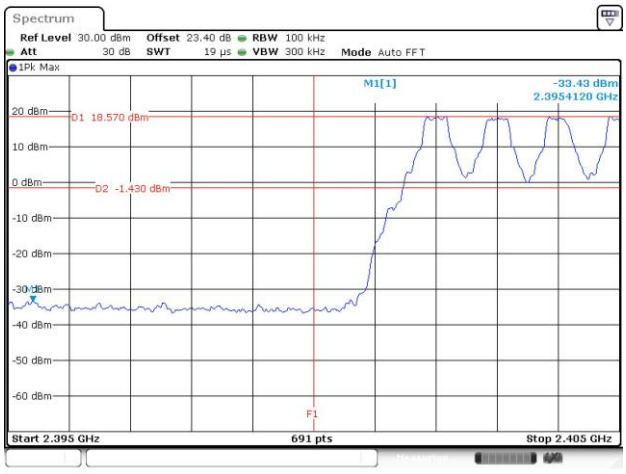
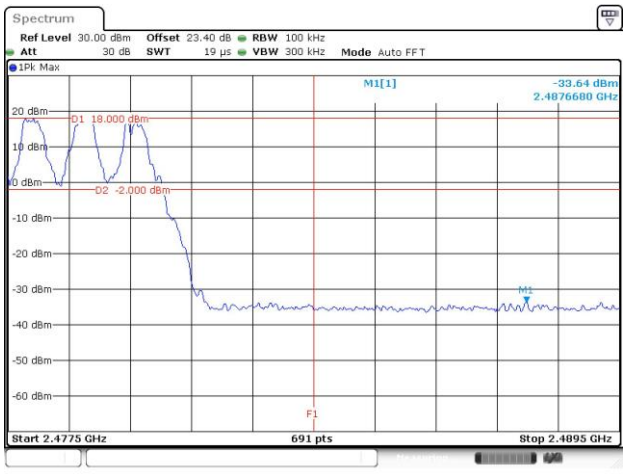
Low Band Edge Plot on Channel 00	High Band Edge Plot on Channel 78
	

3.6.6 Test Result of Conducted Hopping Mode Band Edges

<for Ant.4>

<1Mbps>

Hopping Mode Low Band Edge Plot	Hopping Mode High Band Edge Plot
	

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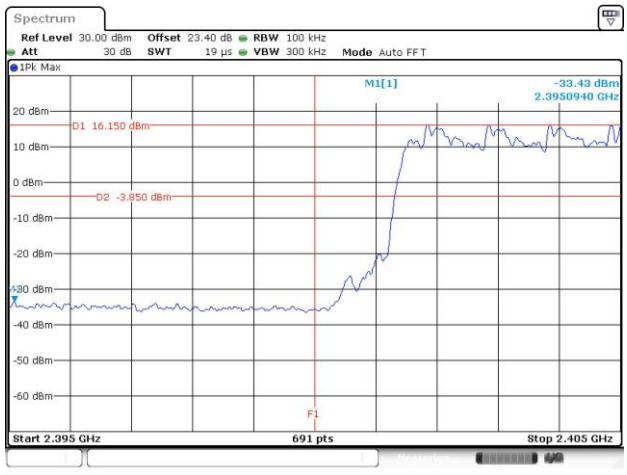
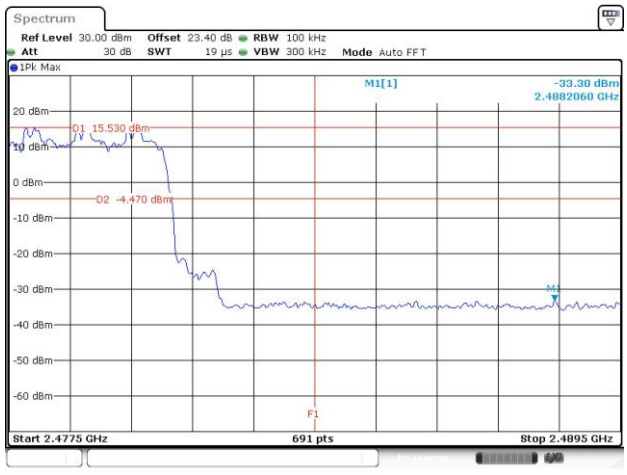
Hopping Mode Low Band Edge Plot	Hopping Mode High Band Edge Plot
	

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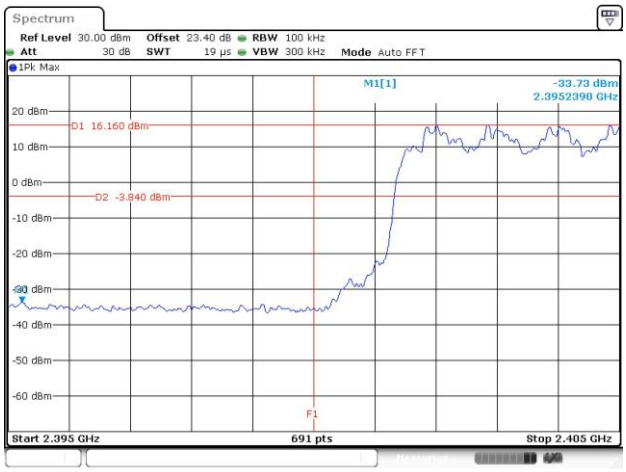
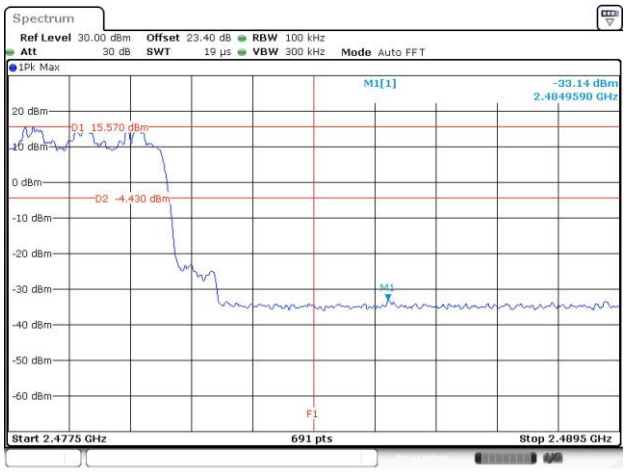
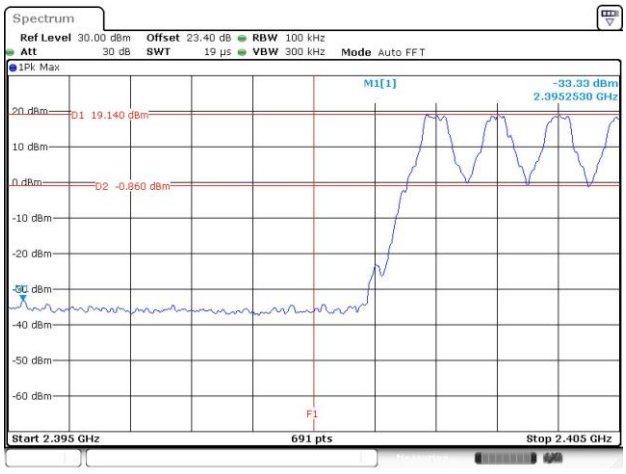
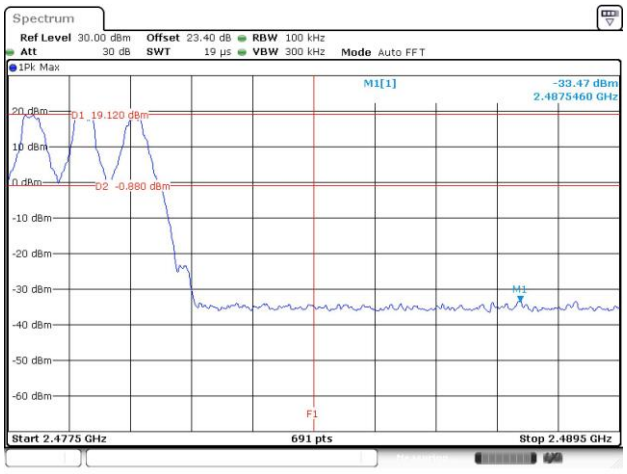
Hopping Mode Low Band Edge Plot	Hopping Mode High Band Edge Plot
	

3.6.7 Test Result of Conducted Hopping Mode Band Edges

<for Ant.5>

<1Mbps>

Hopping Mode Low Band Edge Plot	Hopping Mode High Band Edge Plot
	

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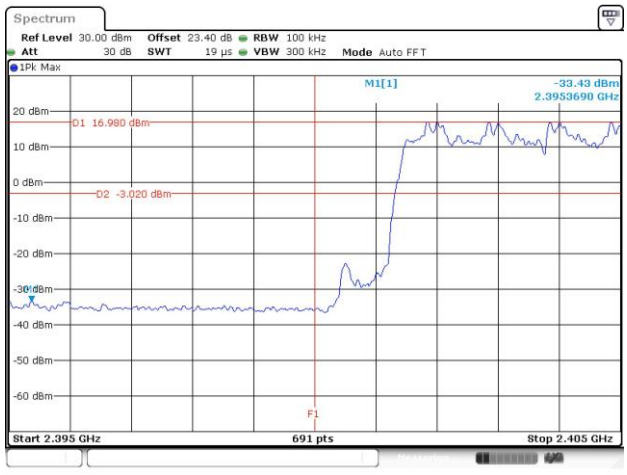
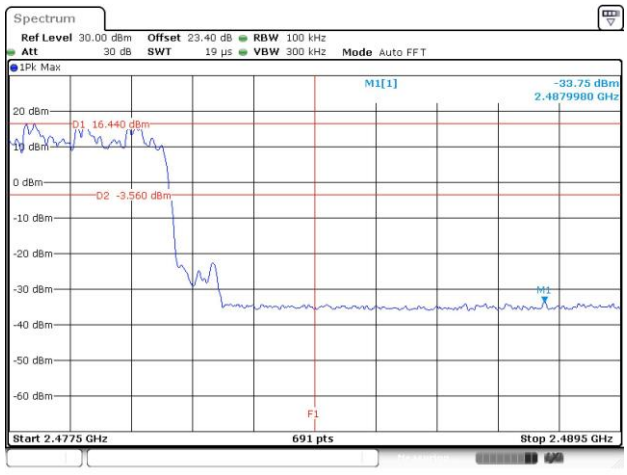
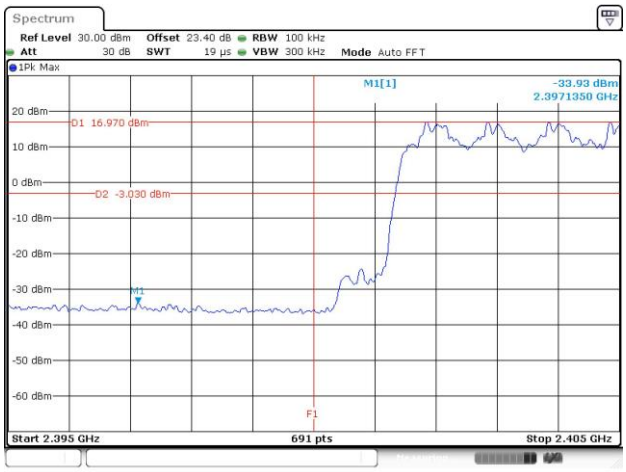
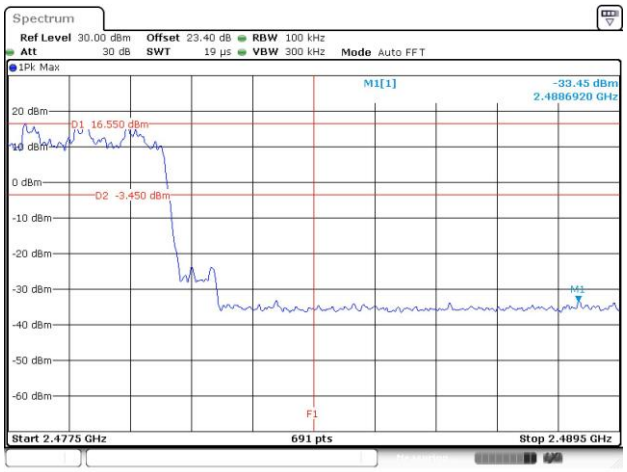
Hopping Mode Low Band Edge Plot	Hopping Mode High Band Edge Plot
	

<3Mbps>

Hopping Mode Low Band Edge Plot	Hopping Mode High Band Edge Plot
	

3.7 Conducted Spurious Emission Measurement

3.7.1 Limit of Spurious Emission Measurement

In any 100 kHz bandwidth outside the intentional radiation frequency band, the radio frequency power shall be at least 20 dB below the highest level of the radiated power. In addition, radiated emissions which fall in the restricted bands must also comply with the radiated emission limits.

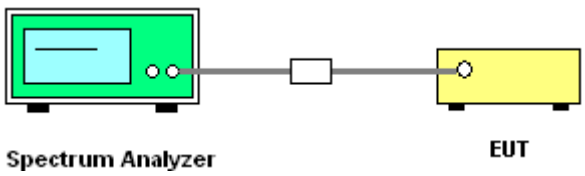
3.7.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.7.3 Test Procedure

1. The testing follows ANSI C63.10-2013 clause 7.8.8.
2. The RF output of EUT is connected to the spectrum analyzer by RF cable and attenuator. The path loss is compensated to the results for each measurement.
3. Set the maximum power setting and enable the EUT to transmit continuously.
4. Set RBW = 100 kHz, VBW = 300 kHz, scan up through 10th harmonic. All harmonics / spurious must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100 kHz RBW.
5. Measure and record the results in the test report.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

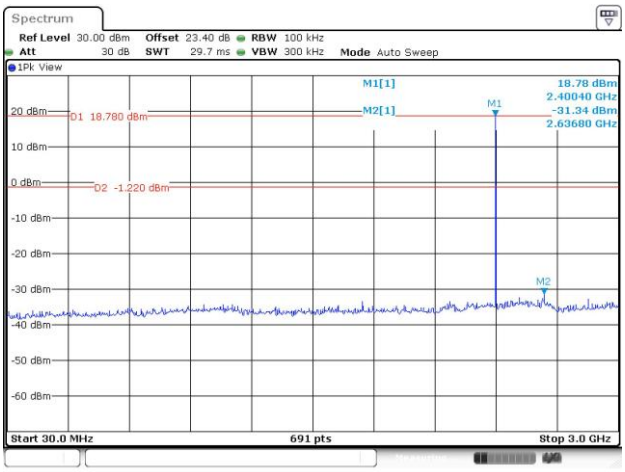
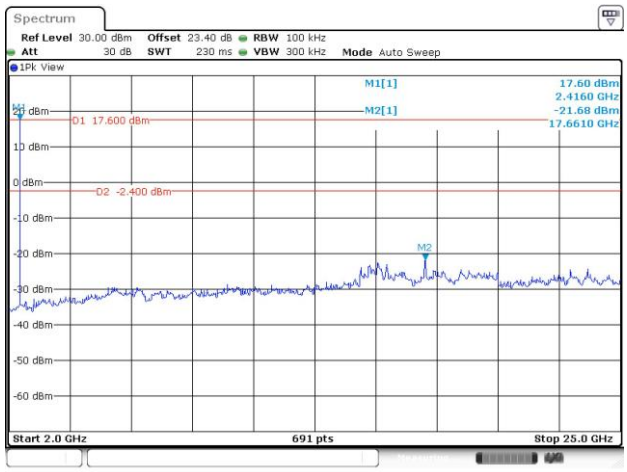
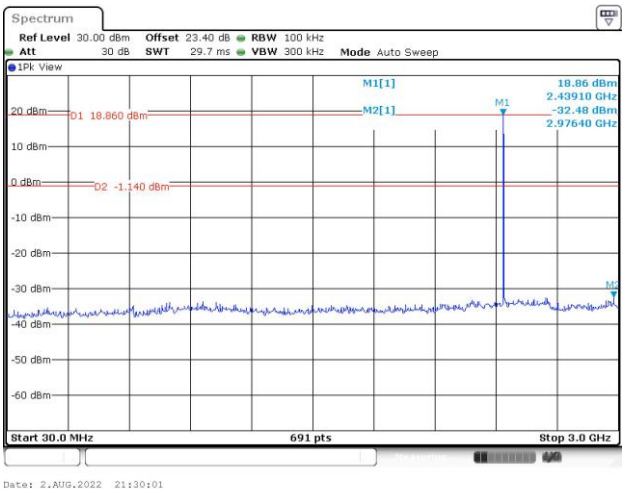
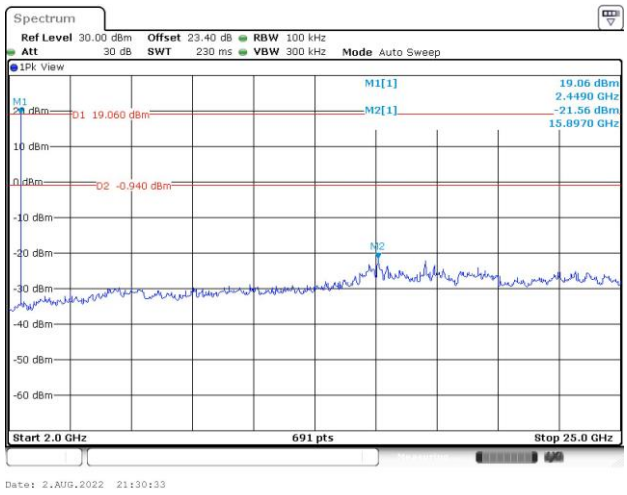
3.7.4 Test Setup

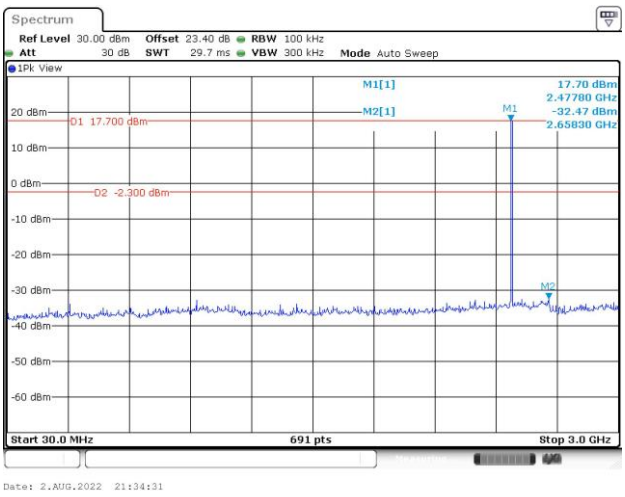
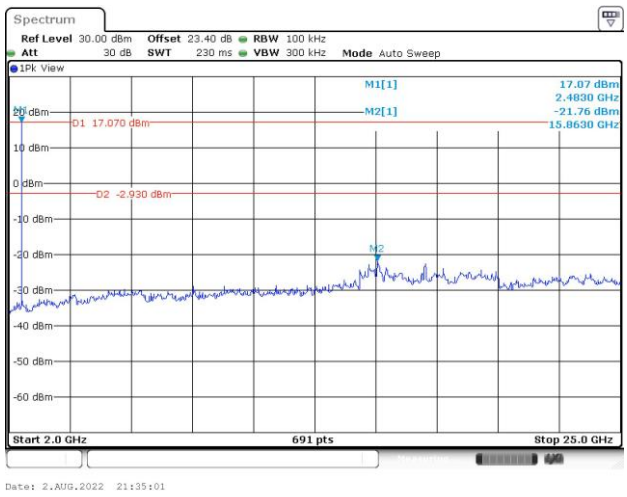


3.7.5 Test Result of Conducted Spurious Emission

<for Ant.4>

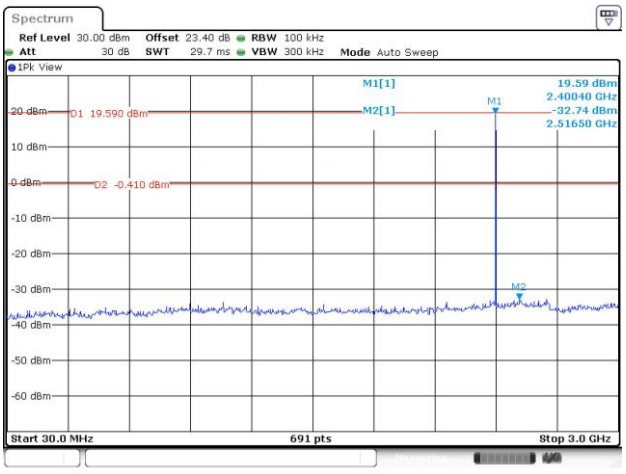
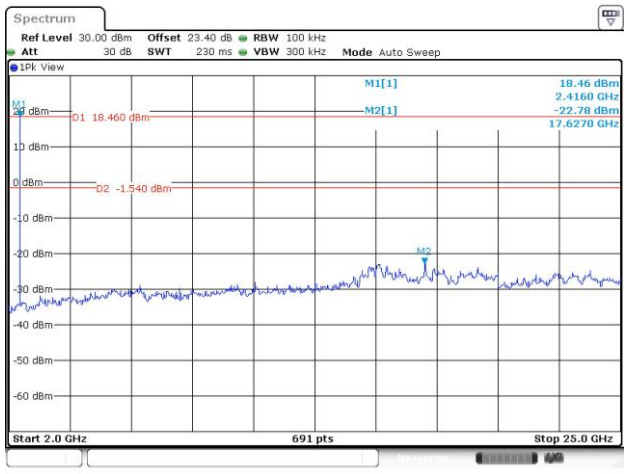
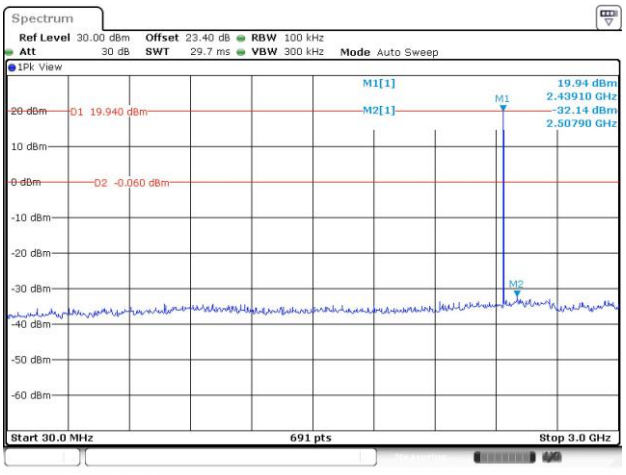
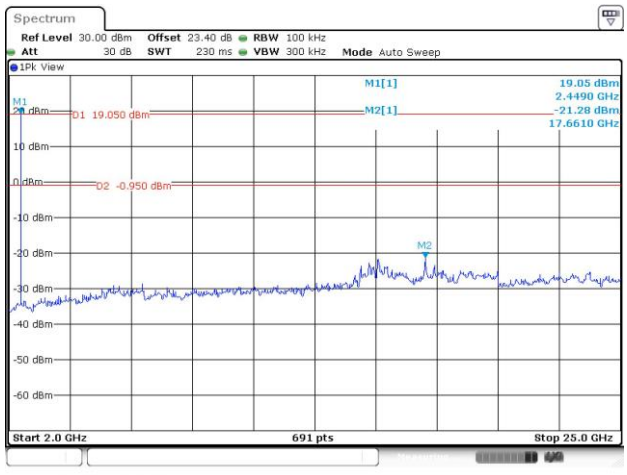
<1Mbps>

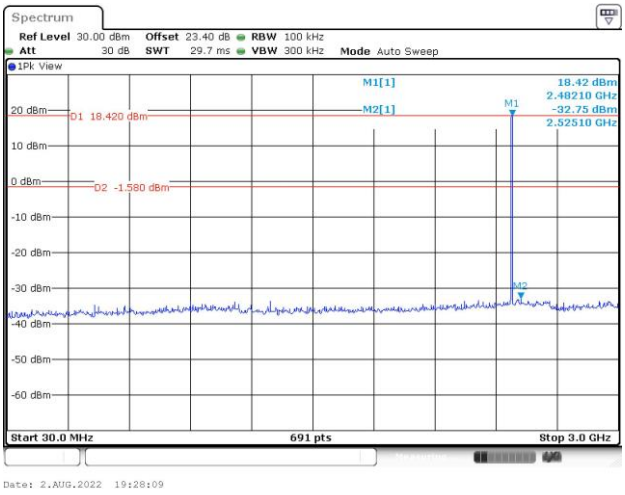
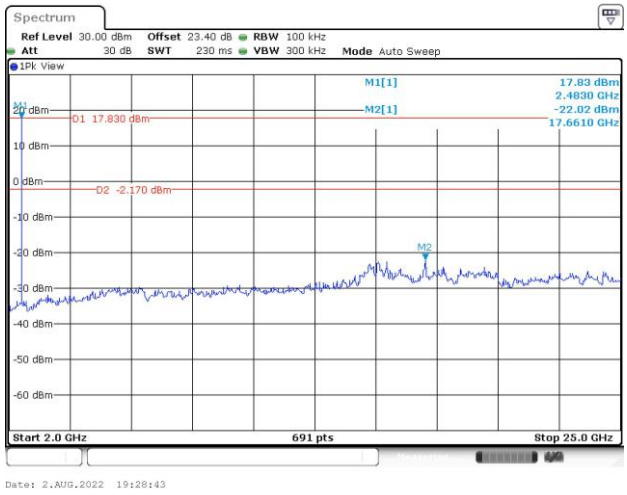
CSE Plot on CH 00 between 30 MHz ~ 3 GHz	CSE Plot on CH 00 between 2 GHz ~ 25 GHz
	
CSE Plot on CH 39 between 30 MHz ~ 3 GHz	**CSE Plot on CH 39 between 2 GHz ~ 25 GHz**
	

CSE Plot on CH 78 between 30 MHz ~ 3 GHz	CSE Plot on CH 78 between 2 GHz ~ 25 GHz
	

<for Ant.5>

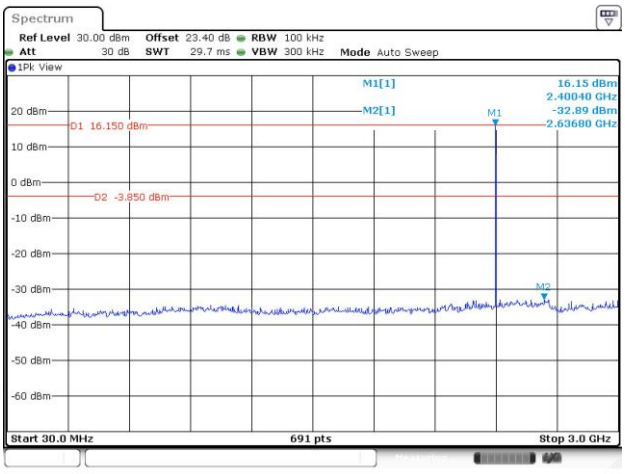
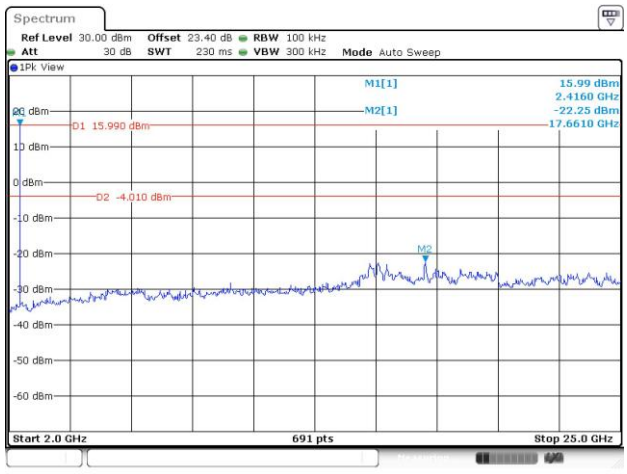
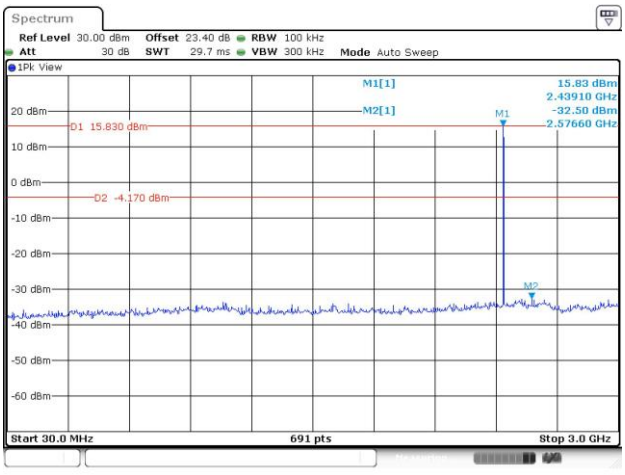
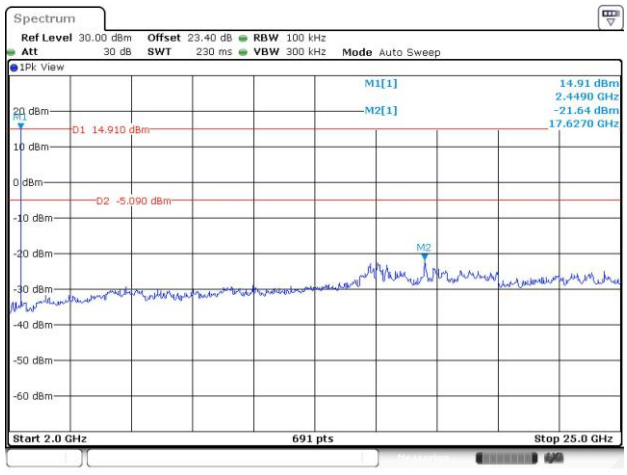
<1Mbps>

CSE Plot on CH 00 between 30 MHz ~ 3 GHz	CSE Plot on CH 00 between 2 GHz ~ 25 GHz
	
CSE Plot on CH 39 between 30 MHz ~ 3 GHz	**CSE Plot on CH 39 between 2 GHz ~ 25 GHz**
	

CSE Plot on CH 78 between 30 MHz ~ 3 GHz	CSE Plot on CH 78 between 2 GHz ~ 25 GHz
	

<for Ant.4>

<2Mbps>

CSE Plot on CH 00 between 30 MHz ~ 3 GHz	CSE Plot on CH 00 between 2 GHz ~ 25 GHz
	
CSE Plot on CH 39 between 30 MHz ~ 3 GHz	**CSE Plot on CH 39 between 2 GHz ~ 25 GHz**
	

CSE Plot on CH 78 between 30 MHz ~ 3 GHz	CSE Plot on CH 78 between 2 GHz ~ 25 GHz