FCC RF Test Report

APPLICANT	:	Immedia Semiconductor LLC.
EQUIPMENT	:	Outdoor camera
BRAND NAME	:	blink
MODEL NAME	:	BCM00900U
FCC ID	:	2AF77-H2511940
STANDARD	:	FCC Part 15 Subpart C §15.247
CLASSIFICATION	:	(DSS) Spread Spectrum Transmitter
TEST DATE(S)	:	Sep. 06, 2025 ~ Sep. 21, 2025

We, Sporton International Inc. (Kunshan), 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 of Sporton International Inc. (Kunshan), the test report shall not be reproduced except in full.

Jason Jia

Approved by: Jason Jia

ACCREDITED Cert #5145.02

Sporton International Inc. (Kunshan)
No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300
People's Republic of China

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR571402-01B	Rev. 01	Initial issue of report	Sep. 23, 2025

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	15.247(a)(1)(i)	Number of Channels	≥ 50Chs	Pass	-
3.2	15.247(a)(1)	Hopping Channel Separation	≥ 20dB Bandwidth	Pass	-
3.3	15.247(a)(1)(i)	Dwell Time of Each Channel	≤ 0.4sec in 20sec period	Pass	-
3.4	15.247(a)(1)(i)	20dB Bandwidth	≤ 500 kHz	Pass	-
3.4	-	99% Bandwidth	-	Report Only	-
3.5	15.247(b)(2)	Peak Output Power	≤ 1 W	Pass	-
3.6	15.247(d)	Conducted Band Edges	≤ 20dBc	Pass	-
3.7	15.247(d)	Conducted Spurious Emission	≤ 20dBc	Pass	-
3.8	15.247(d)	Radiated Band Edges and Radiated Spurious Emission	15.209(a) & 15.247(d)	Pass	Under limit 3.84 dB at 951.99 MHz
3.9	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 18.68 dB at 0.644 MHz
3.10	15.203 & 15.247(b)	Antenna Requirement	N/A	Pass	-

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section “Measurement Uncertainty”

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

1 General Description

1.1 Applicant

Immedia Semiconductor LLC.
100 Riverpark Drive Suite 125, North Reading, MA, United States 01864

1.2 Product Feature of Equipment Under Test

Product Feature	
Equipment	Outdoor camera
Brand Name	blink
Model Name	BCM00900U
FCC ID	2AF77-H2511940
SN	Conducted: 4KSA03LC58090074 Conduction: YNMD5BMF250809000131 Radiation: YNMD5BMI250703000245

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.3 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Frequency Range	902 MHz ~ 928 MHz
Number of Channels	64
Maximum Output Power to Antenna	12.01 dBm (0.0159 W)
99% Occupied Bandwidth	0.0999 MHz
Antenna Type / Gain	Inverted F Antenna with gain 0.28 dBi
Type of Modulation	GFSK

1.4 Modification of EUT

No modifications are made to the EUT during all test items.

1.5 Testing Location

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	CO01-KS 03CH06-KS TH01-KS	CN1257	314309

1.6 Test Software

Item	Site	Manufacturer	Name	Version
1.	TH01-KS	SPORTON	FCC 15C-15E Test Tools Ver10.0_210607	10.0
2.	03CH06-KS	AUDIX	E3	210616
3.	CO01-KS	AUDIX	E3	6.2009-8-24

1.7 Applicable Standards

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

- 47 CFR Part 15 Subpart C §15.247
- FCC KDB 558074 D01 15.247 Meas Guidance v05r02
- ANSI C63.10-2020

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. 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)
902-928 MHz	1	902.4	28	913.2	55	924
	2	902.8	29	913.6	56	924.4
	3	903.2	30	914	57	924.8
	4	903.6	31	914.4	58	925.2
	5	904	32	914.8	59	925.6
	6	904.4	33	915.2	60	926
	7	904.8	34	915.6	61	926.4
	8	905.2	35	916	62	926.8
	9	905.6	36	916.4	63	927.2
	10	906	37	916.8	64	927.6
	11	906.4	38	917.2		
	12	906.8	39	917.6		
	13	907.2	40	918		
	14	907.6	41	918.4		
	15	908	42	918.8		
	16	908.4	43	919.2		
	17	908.8	44	919.6		
	18	909.2	45	920		
	19	909.6	46	920.4		
	20	910	47	920.8		
	21	910.4	48	921.2		
	22	910.8	49	921.6		
	23	911.2	50	922		
	24	911.6	51	922.4		
	25	912	52	922.8		
	26	912.4	53	923.2		
	27	912.8	54	923.6		

Note: The above EUT's information was declared by manufacturer.

2.2 Test Mode

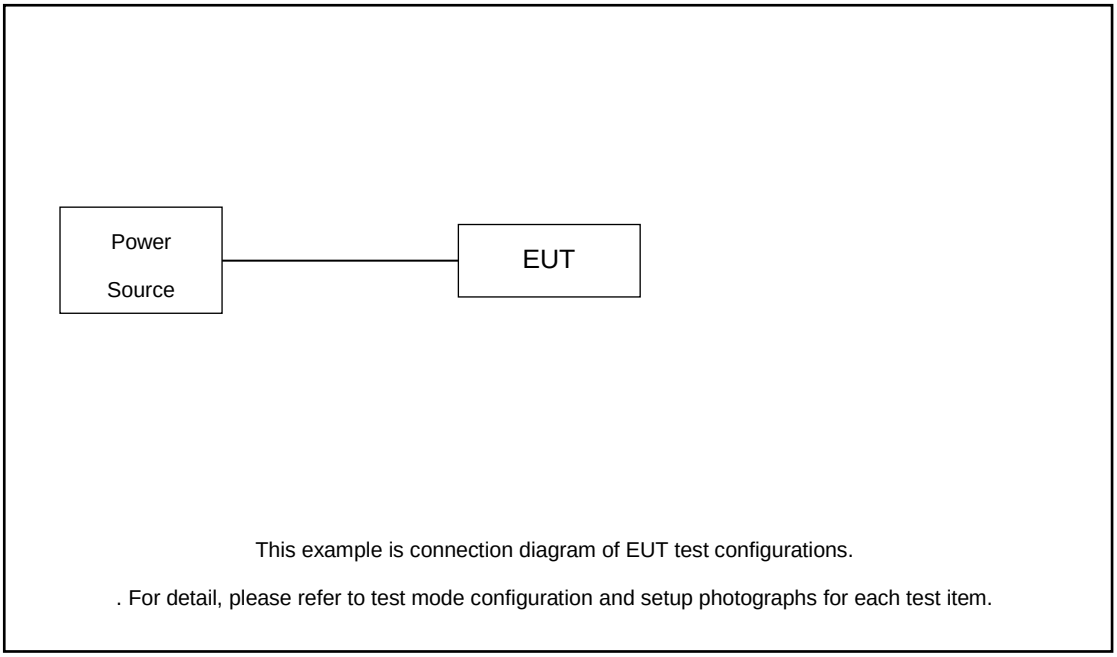
a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Y plane) were recorded in this report.

b. AC power line Conducted Emission was tested under maximum output power.

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

Summary table of Test Cases	
Test Item	**Modulation**
	GFSK
Conducted Test Cases	Mode 1: 902.4 MHz Mode 2: 915.2 MHz Mode 3: 927.6MHz
Radiated Test Cases	Mode 1: 902.4 MHz Mode 2: 915.2 MHz Mode 3: 927.6MHz
AC Conducted Emission	WLAN Link

2.3 Connection Diagram of Test System



This example is connection diagram of EUT test configurations.

. For detail, please refer to test mode configuration and setup photographs for each test item.

2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	WLAN AP	D-link	DIR-655	KA21R655B1	N/A	Unshielded,1.8m
2.	Notebook	Lenovo	G480	QDS-BRCM1050I	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m

2.5 EUT Operation Test Setup

For LFR function, the engineering test program was provided and enabled to make EUT continuous transmit.

For AC power line conducted emissions, the EUT was set to connect with the WLAN AP under large package sizes transmission.

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 0.8 dB and 10dB attenuator.

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

= 0.8 + 10 = 10.8 (dB)

3 Test Result

3.1 Number of Channel Measurement

3.1.1 Limits of Number of Hopping Frequency

For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period

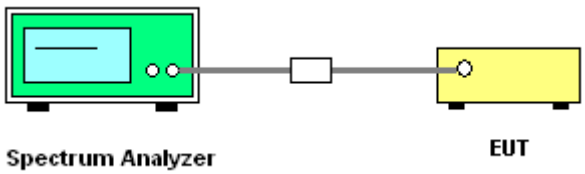
3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.1.3 Test Procedure

1. The testing follows ANSI C63.10-2020 clause 7.8.3.
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. Enable the EUT hopping function.
5. Use the following spectrum analyzer settings: Span = the frequency band of operation; RBW = 100kHz; VBW = 300KHz; 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.

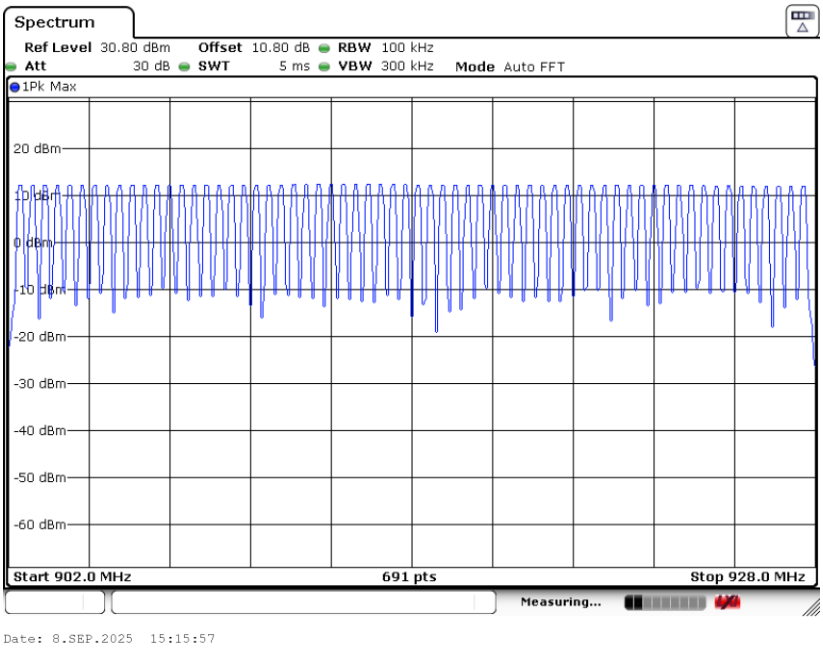
3.1.4 Test Setup



3.1.5 Test Result of Number of Hopping Frequency

Please refer to Appendix A.

Number of Hopping Channel Plot



3.2 Hopping Channel Separation Measurement

3.2.1 Limit of Hopping Channel Separation

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

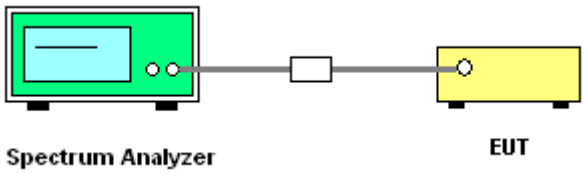
3.2.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.2.3 Test Procedures

1. The testing follows ANSI C63.10-2020 clause 7.8.2.
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. Enable the EUT hopping function.
5. Use the following spectrum analyzer settings:
   Span = wide enough to capture the peaks of two adjacent channels;
   RBW = 10kHz; VBW = 300KHz; Sweep = auto; Detector function = peak; Trace = max hold.
6. Measure and record the results in the test report.

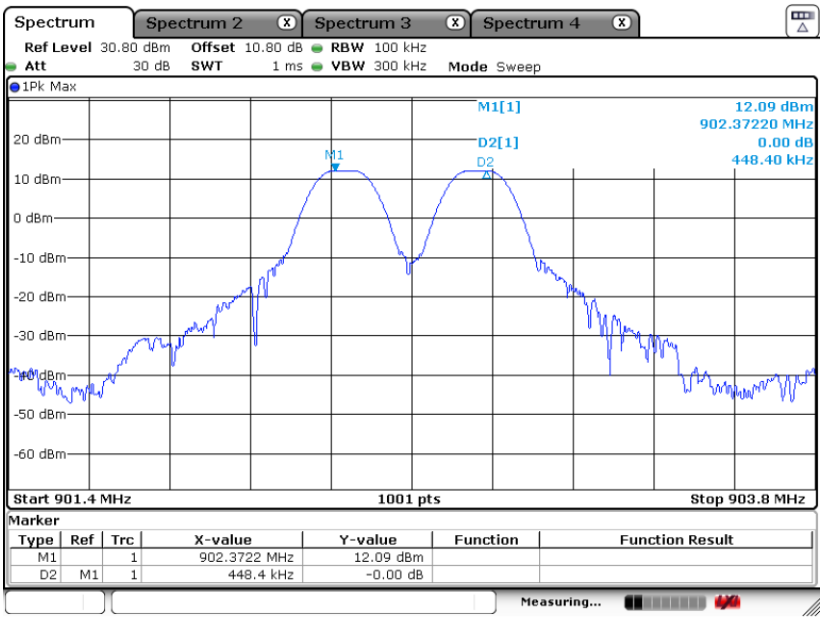
3.2.4 Test Setup



3.2.5 Test Result of Hopping Channel Separation

Please refer to Appendix A.

Channel Separation Plot on 902.4MHz



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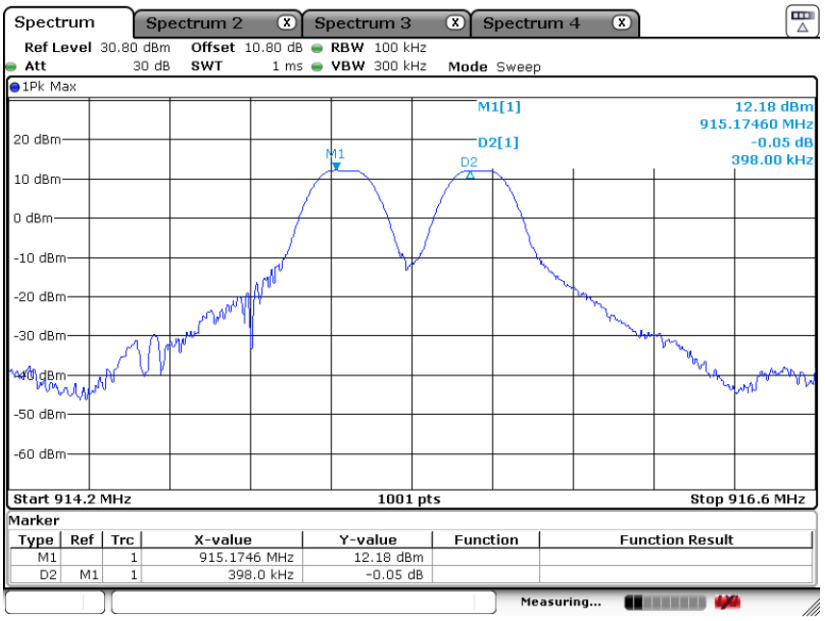
Channel Separation Plot on 915.2MHz



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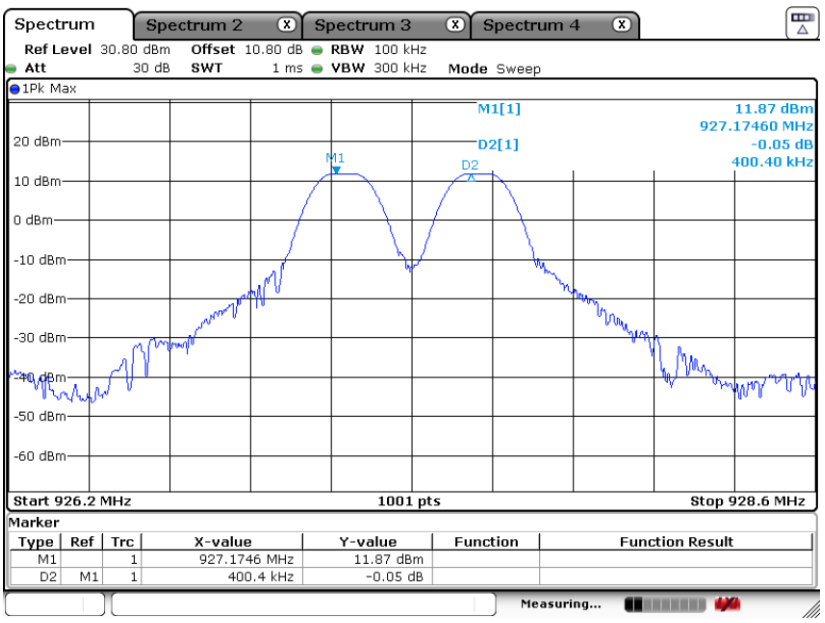
Channel Separation Plot on 927.6MHz



3.3 Dwell Time Measurement

3.3.1 Limit of Dwell Time

For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period.

3.3.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.3.3 Test Procedures

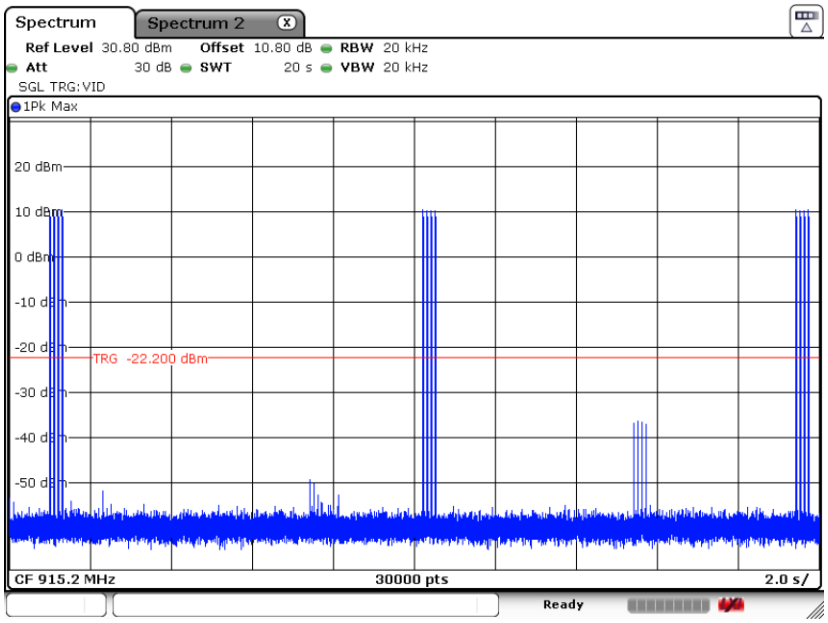
1. The testing follows ANSI C63.10-2020 clause 7.8.4.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Enable the EUT hopping function.
5. Use the following spectrum analyzer settings: Span = zero span, centered on a hopping channel; RBW = 20 KHz; VBW = 20KHz; 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.

DT on-time and Hops over 20 sec period



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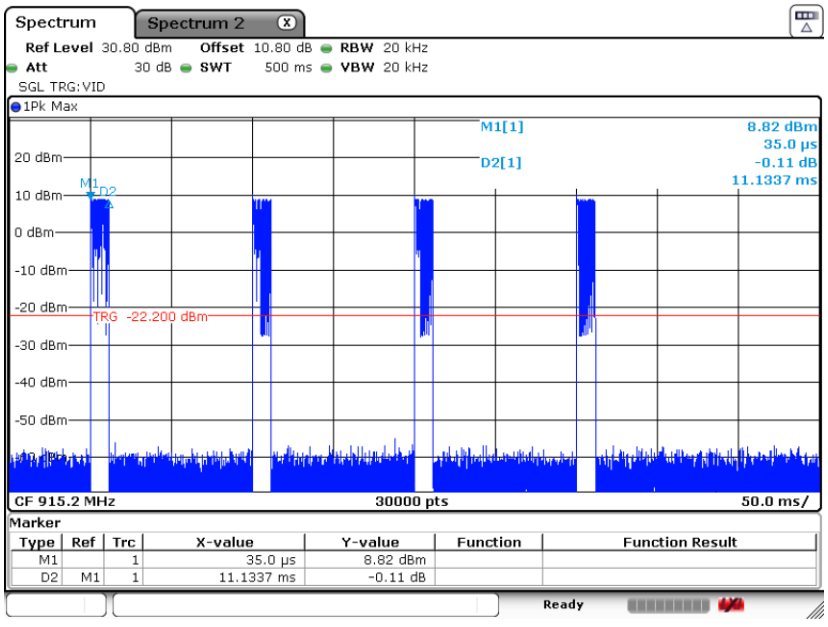

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Remark:

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

= 12 (hop) x 11.1337 (ms)

= 0.1336 (sec)

3.4 20dB and 99% Bandwidth Measurement

3.4.1 Limit of 20dB and 99% Bandwidth

The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.

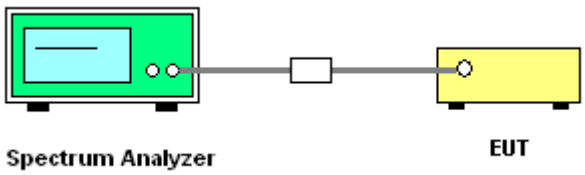
3.4.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.4.3 Test Procedures

1. The testing follows ANSI C63.10-2020 clause 6.9.2 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 following spectrum analyzer settings for 20dB Bandwidth measurement.
   Span = approximately 2 to 5 times the 20 dB bandwidth, centered on a hopping channel;
   The RBW is set to 1% to 5% of the 99% OBW, the VBW is set to 3 times the RBW;
   Sweep = auto; Detector function = peak/sample;
   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;
   The RBW is set to 1% to 5% of the 99% OBW, the VBW is set to 3 times the RBW;
   Sweep = auto; Detector function = sample;
   Trace = max hold.
6. Measure and record the results in the test report.

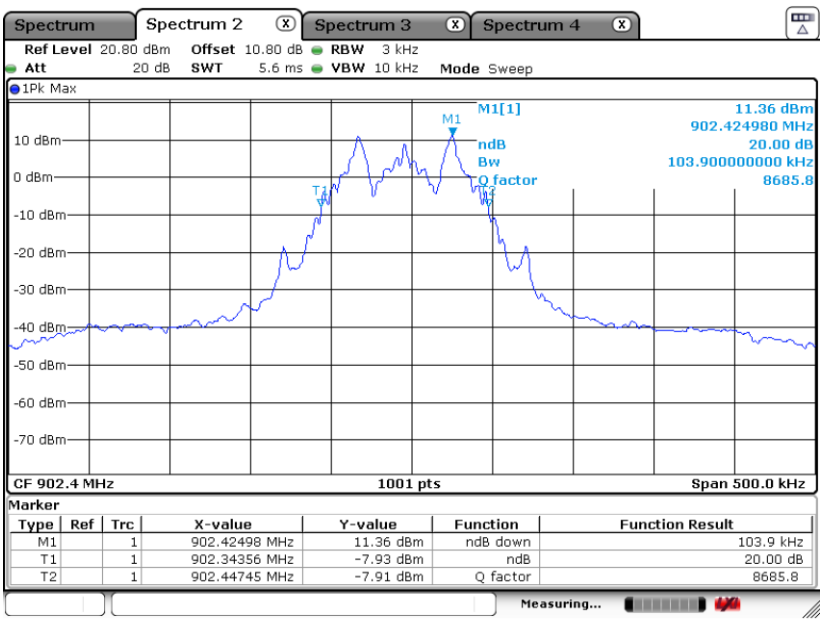
3.4.4 Test Setup



3.4.5 Test Result of 20dB Bandwidth

Please refer to Appendix A.

20 dB Bandwidth Plot on 902.4MHz



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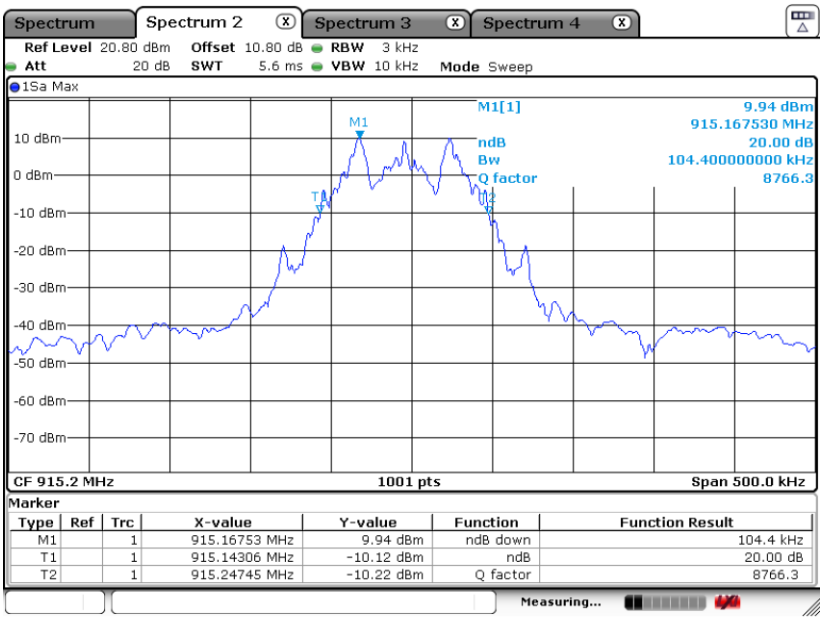
20 dB Bandwidth Plot on 915.2MHz



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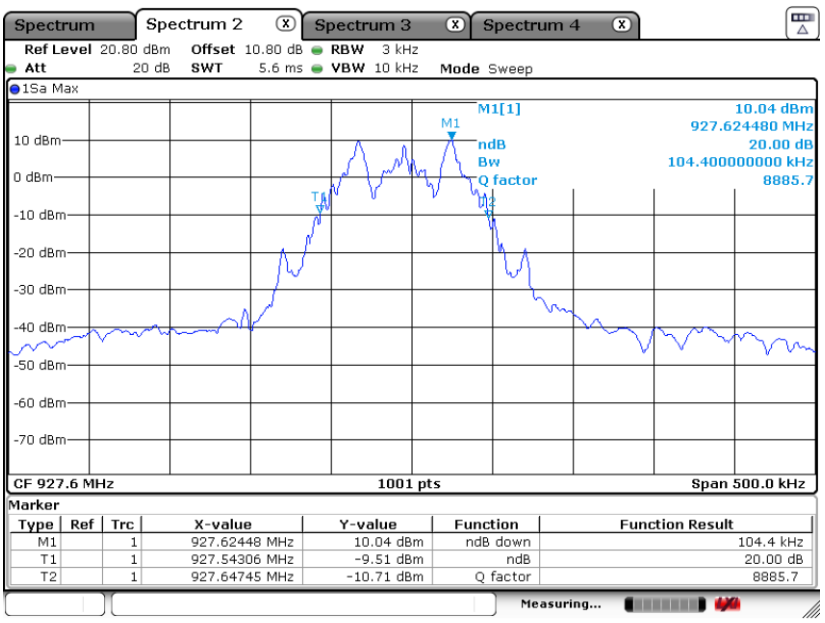
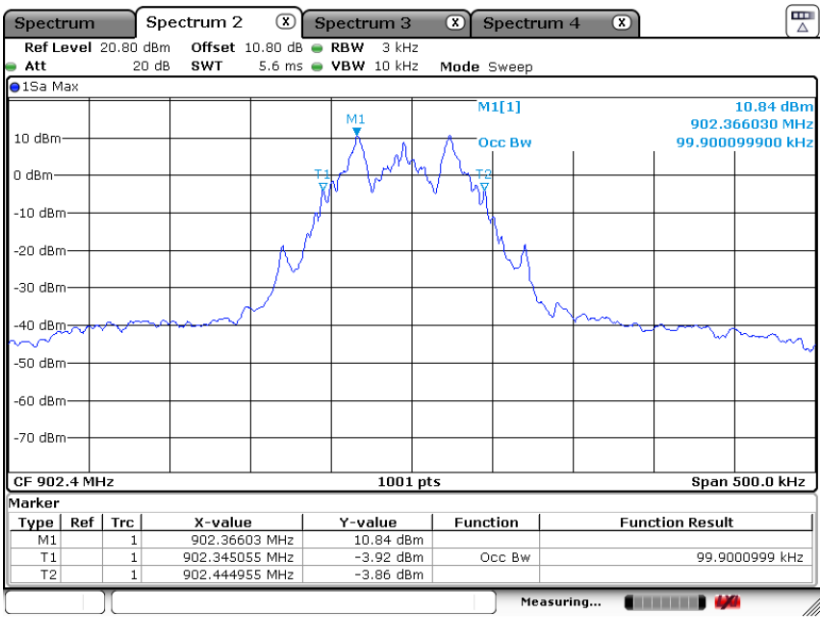
20 dB Bandwidth Plot on 927.6MHz



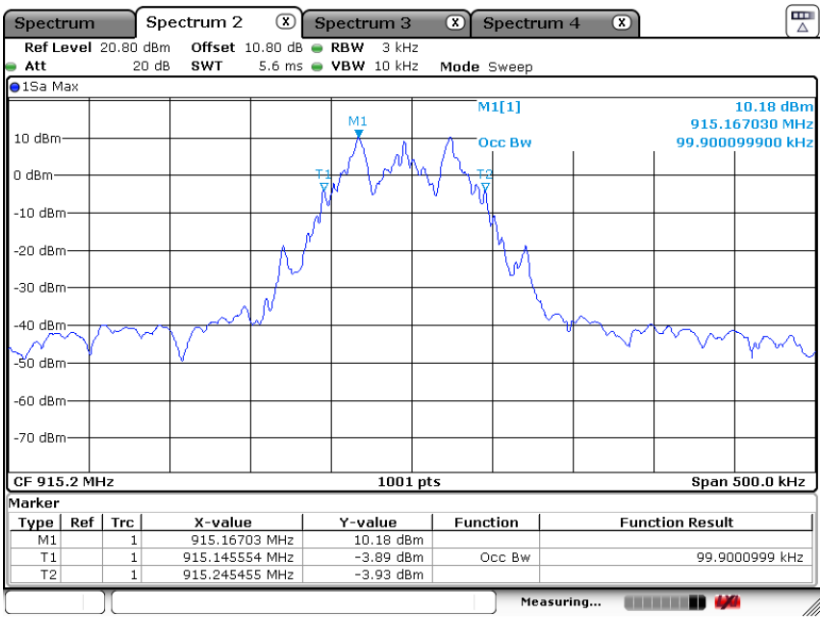
3.4.6 Test Result of 99% Occupied Bandwidth

Please refer to Appendix A.

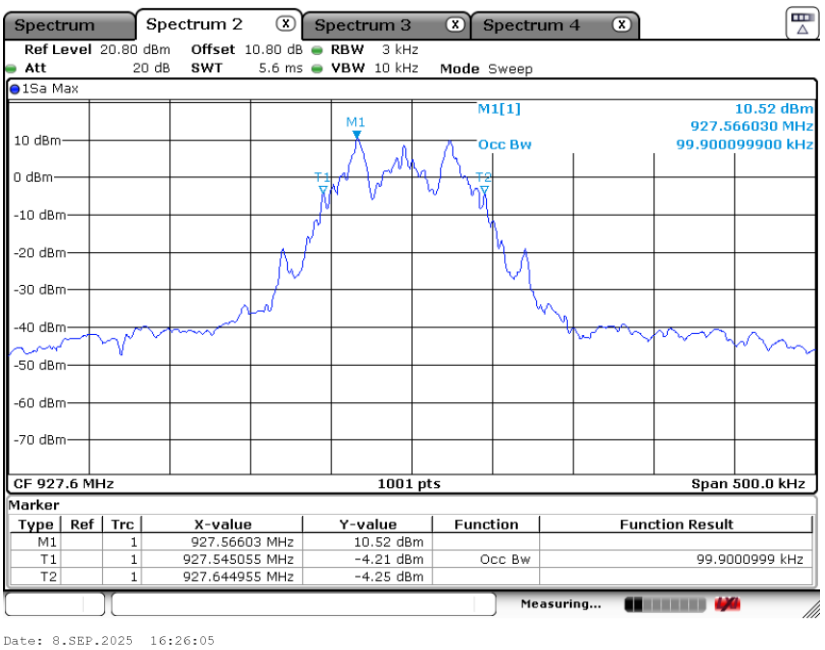
99% Occupied Bandwidth Plot on 902.4MHz



99% Occupied Bandwidth Plot on 915.2MHz



99% Occupied Bandwidth Plot on 927.6MHz



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 902-928 MHz band: 1 watt for systems employing at least 50 hopping channels; and, 0.25 watts for systems employing less than 50 hopping channels, but at least 25 hopping channels, as permitted under paragraph (a)(1)(i) of this section.

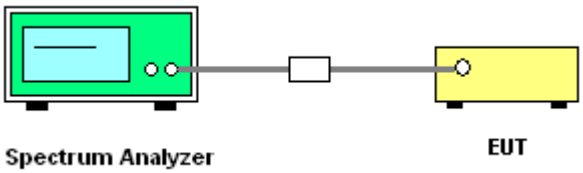
3.5.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.5.3 Test Procedures

1. The testing follows ANSI C63.10-2020 clause 7.8.5.
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. Span: approximately five times the 20 dB bandwidth, centered on a hopping channel;
   The RBW > 20 dB bandwidth of the emission, VBW ≥ RBW;
   Sweep = auto; Detector function = peak;
4. Trace = max hold
5. Measure and record the results in the test report.

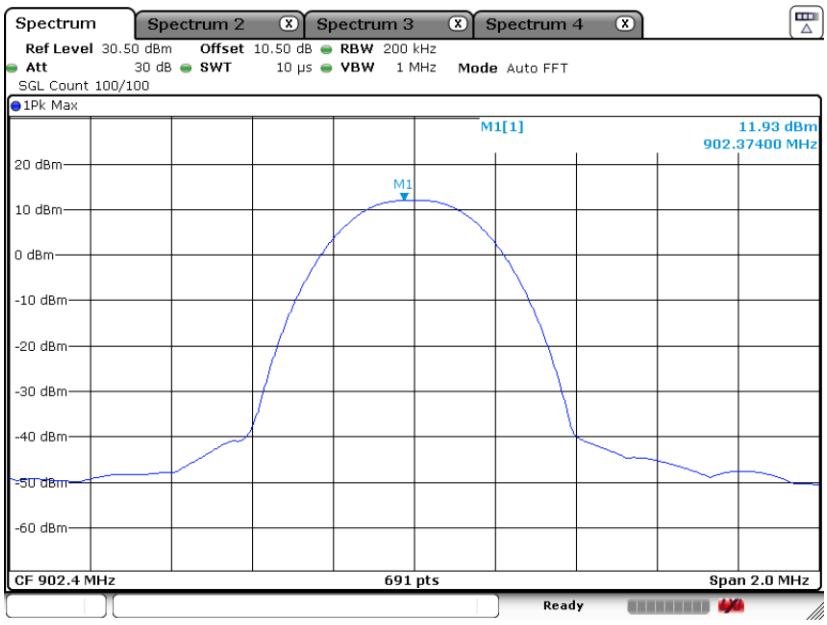
3.5.4 Test Setup



3.5.5 Test Result of Peak Output Power

Please refer to Appendix A.

Peak Power Plot on 902.4MHz



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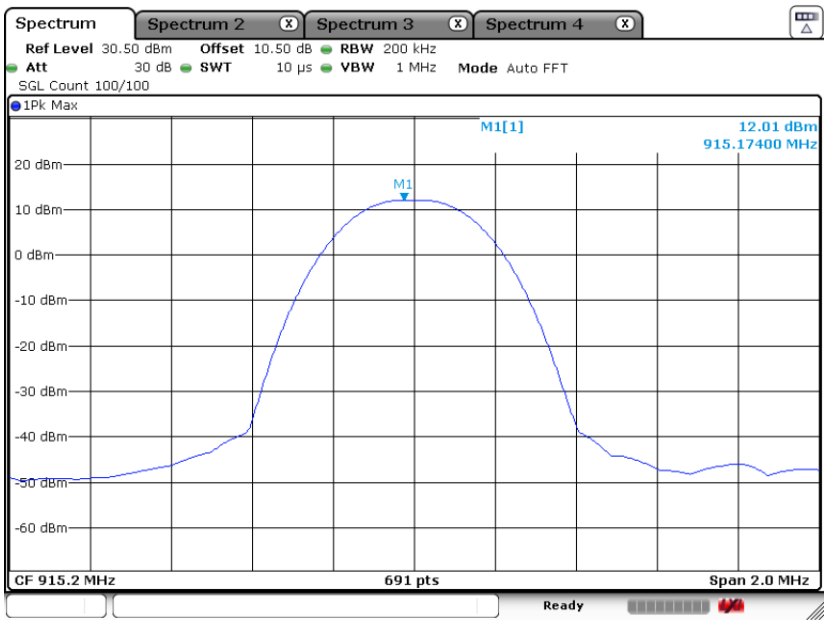
Peak Power Plot on 915.2MHz



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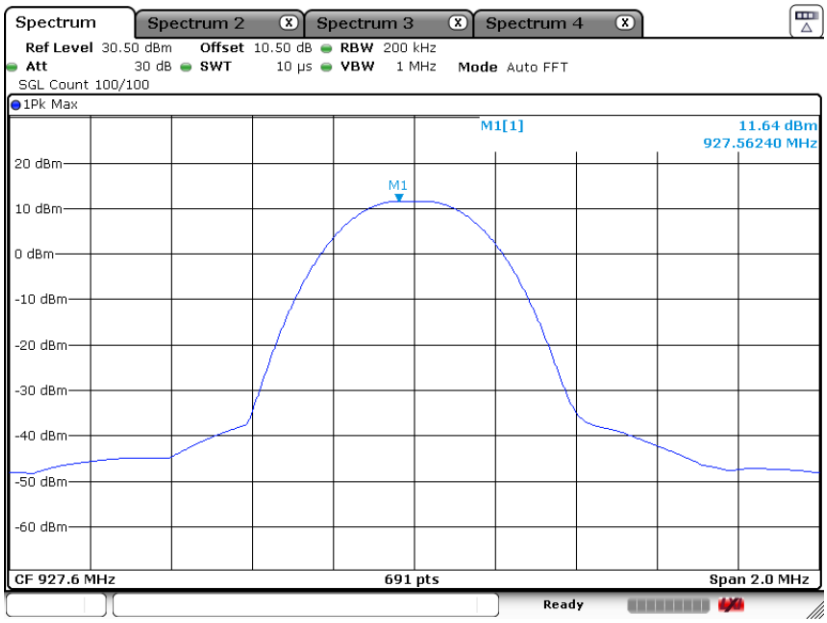
Peak Power Plot on 927.6MHz



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.

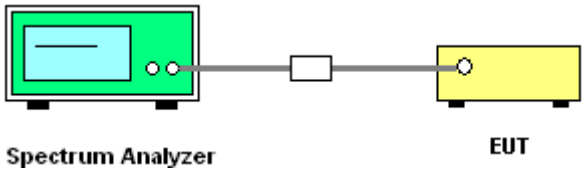
3.6.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.6.3 Test Procedures

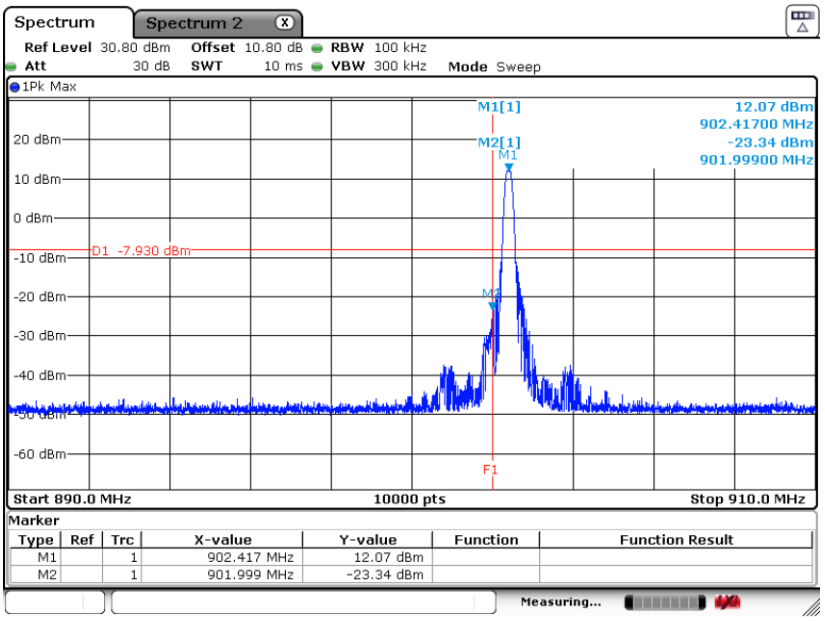
1. The testing follows ANSI C63.10-2020 clause 7.8.7.
2. Set to the maximum power setting and enable the EUT transmit continuously.
3. Set RBW = 100kHz, VBW = 300kHz. Band edge emissions must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100kHz RBW. 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

Low Band Edge Plot on 902.4MHz



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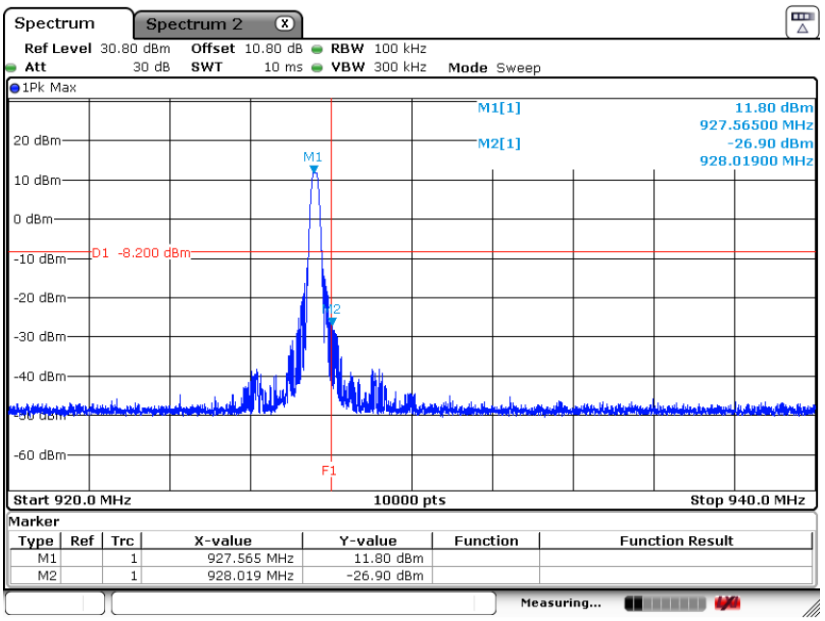
High Band Edge Plot on 927.6MHz



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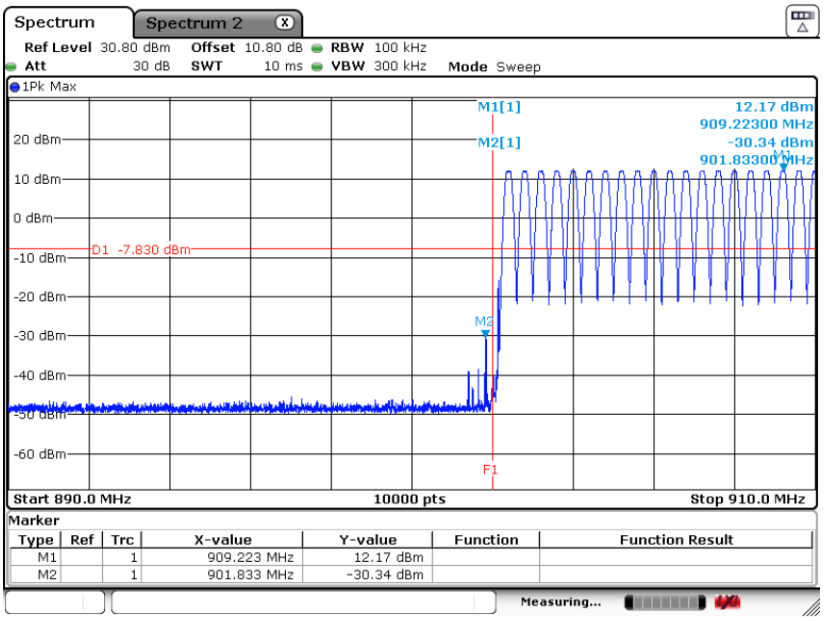
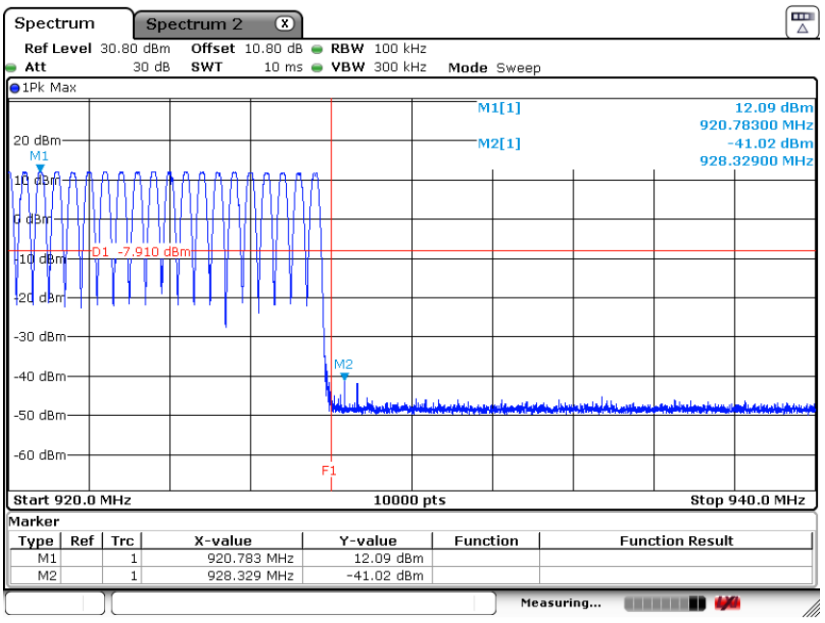
3.6.6 Test Result of Conducted Hopping Mode Band Edges

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.

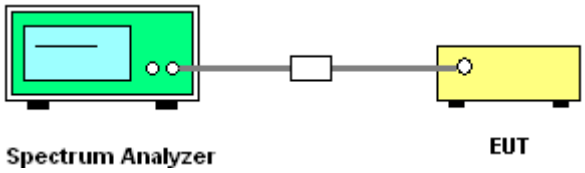
3.7.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.7.3 Test Procedure

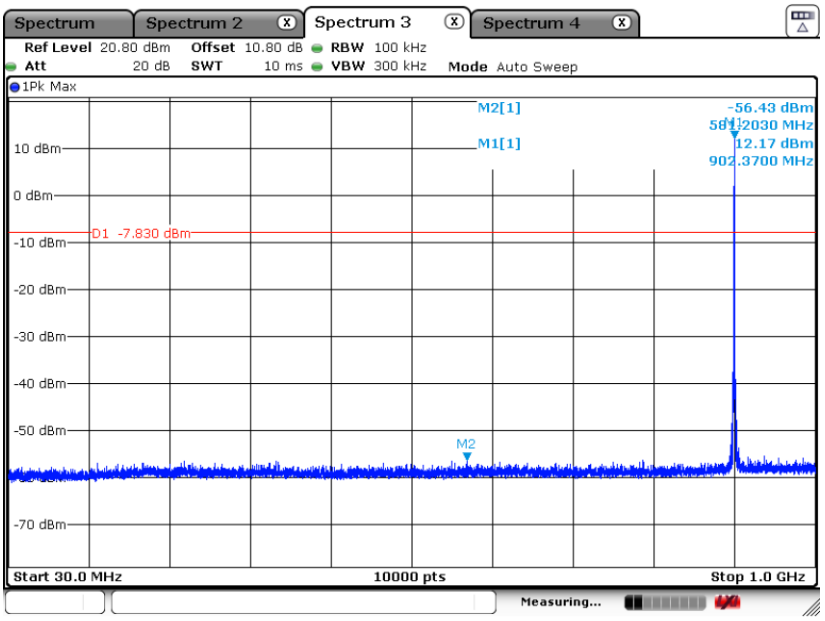
1. The testing follows ANSI C63.10-2020 clause 7.8.7.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Set RBW = 100 kHz, VBW = 300kHz, scan up through 10th harmonic. All harmonics / spurs 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



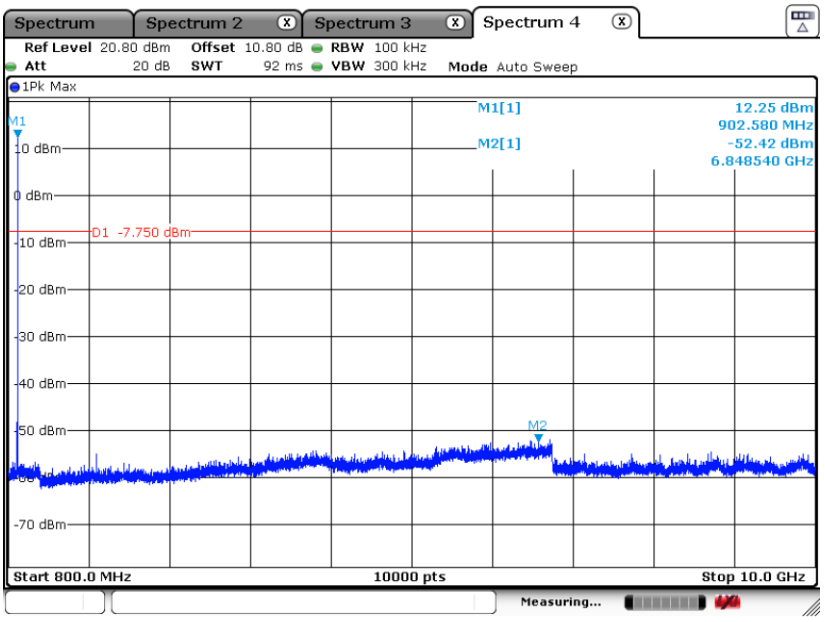
3.7.5 Test Result of Conducted Spurious Emission

CSE Plot on 902.4MHz



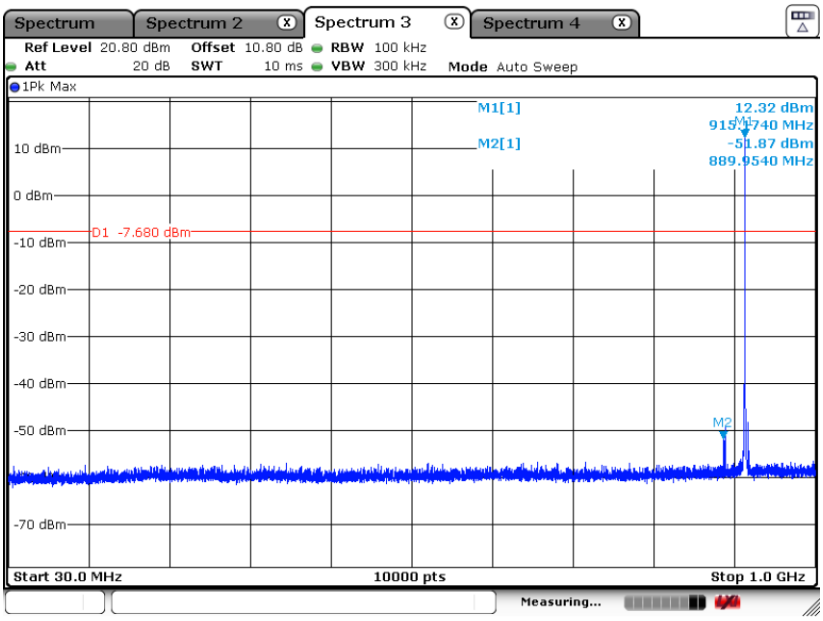
Date: 8.SEP.2025 16:14:52

CSE Plot on 902.4MHz



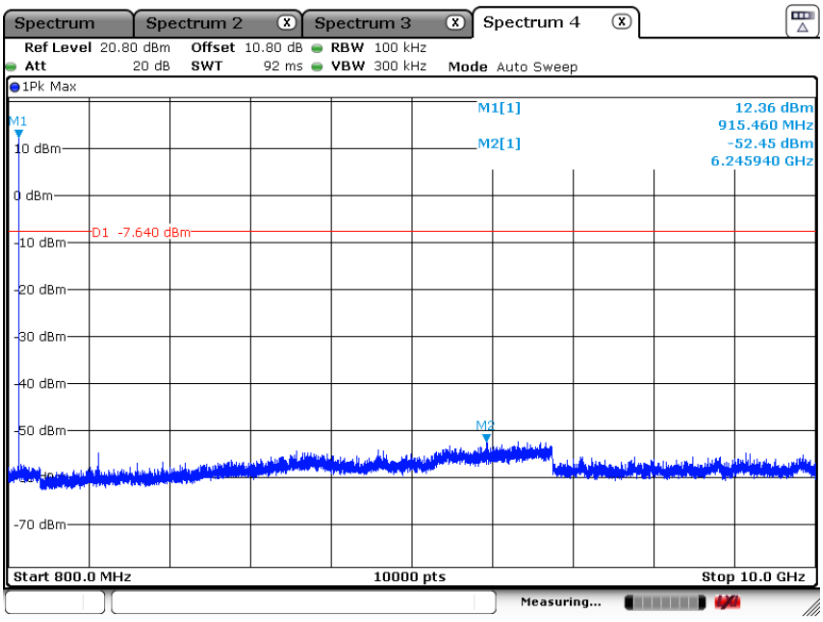
Date: 8.SEP.2025 16:18:17

CSE Plot on 915.2MHz



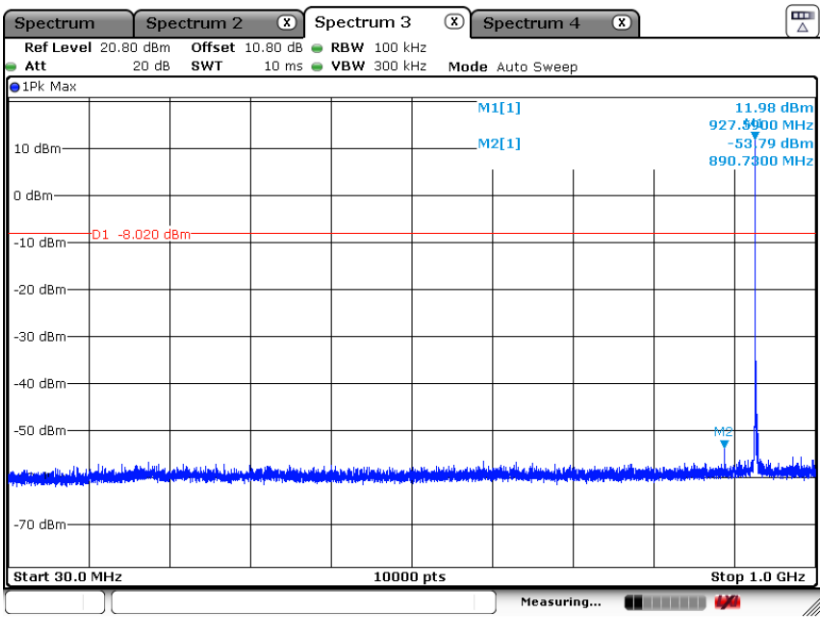
Date: 8.SEP.2025 16:30:51

CSE Plot on 915.2MHz



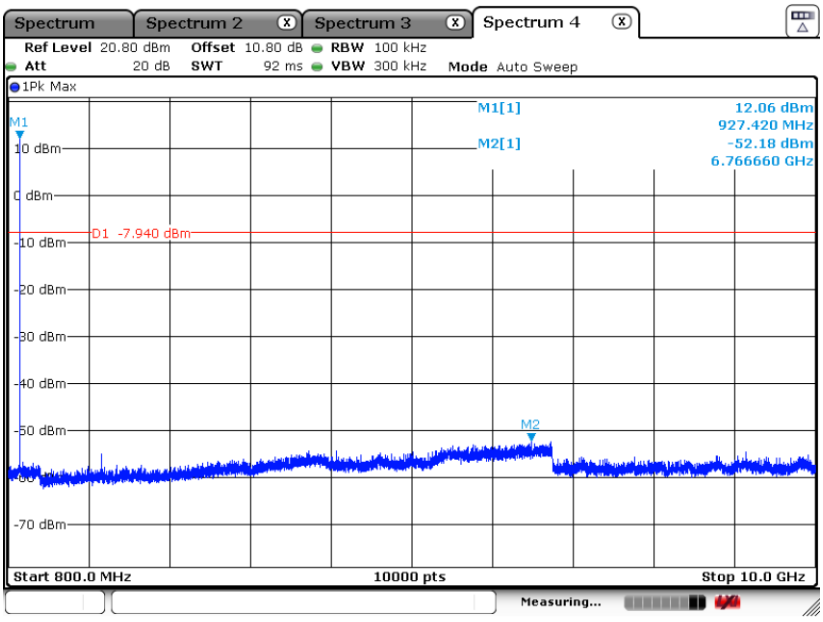
Date: 8.SEP.2025 16:31:28

CSE Plot on 927.6MHz



Date: 8.SEP.2025 16:27:31

CSE Plot on 927.6MHz



Date: 8.SEP.2025 16:28:37

3.8 Radiated Band Edges and Spurious Emission Measurement

3.8.1 Limit of Radiated Band Edges and Spurious Emission

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. In addition, radiated emissions which fall in the restricted bands must also comply with the limits as below.

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
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

3.8.2 Measuring Instruments

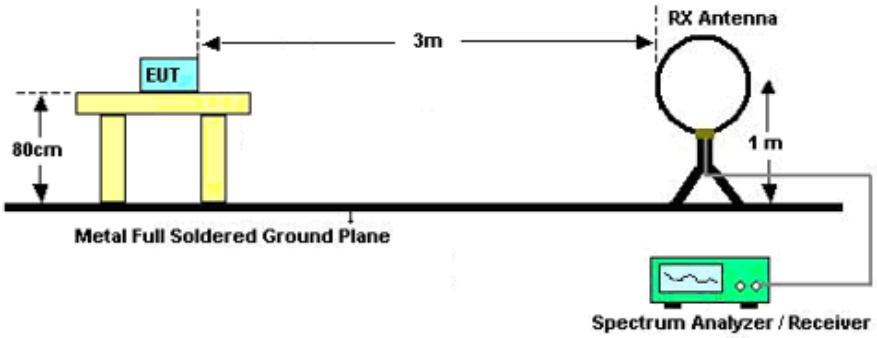
The measuring equipment is listed in the section 4 of this test report.

3.8.3 Test Procedures

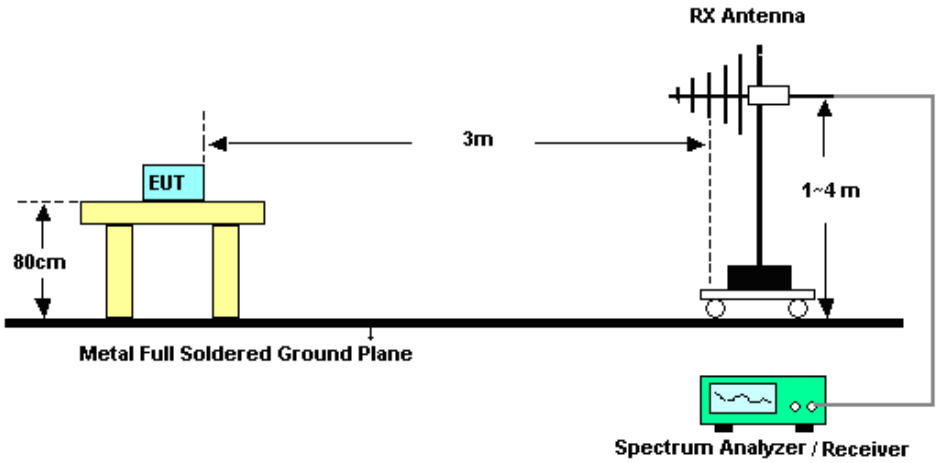
1. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines.
4. Set to the maximum power setting and enable the EUT transmit continuously.
5. Use the following spectrum analyzer settings:
   (1) Span shall wide enough to fully capture the emission being measured;
   (2) Set RBW=100 kHz for f < 1 GHz, RBW=1MHz for f>1GHz ; VBW ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold for peak
6. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
7. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
8. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

3.8.4 Test Setup

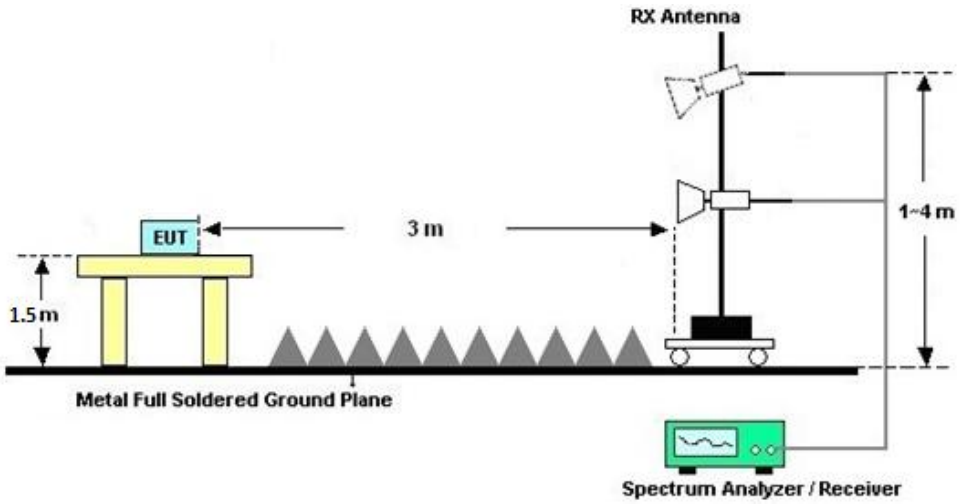
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.8.5 Test Results of Radiated Spurious Emissions (9 kHz ~ 30 MHz)

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

3.8.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C.

3.8.7 Test Result of Radiated Spurious Emission (30MHz ~ 10th Harmonic)

Please refer to Appendix C.

3.8.8 Duty cycle

Please refer to Appendix D.

3.9 AC Conducted Emission Measurement

3.9.1 Limit of AC 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 of emission (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

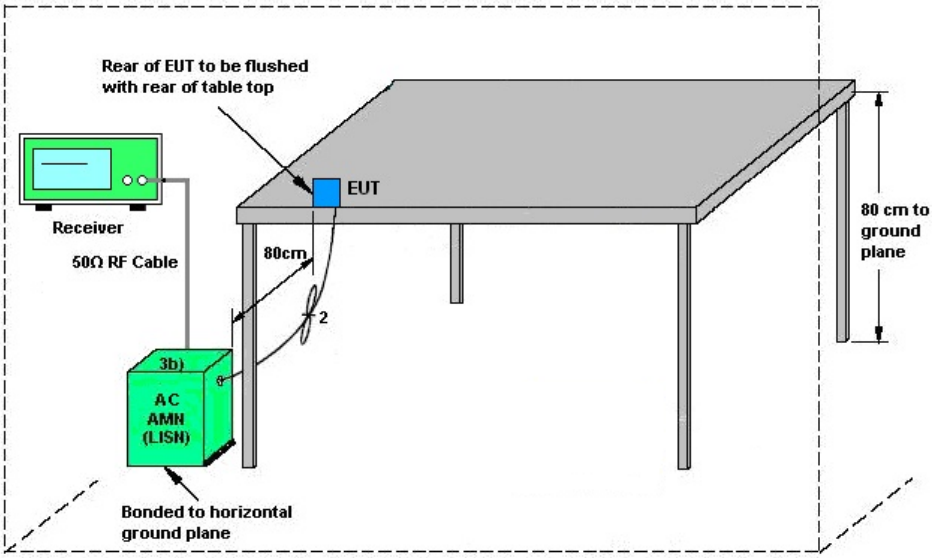
3.9.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.9.3 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 microhenry 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.

3.9.4 Test Setup



3.9.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.10 Antenna Requirements

3.10.1 Standard Applicable

If directional gain of transmitting antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi. 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 rule.

3.10.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.10.3 Antenna Gain

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Oct. 10, 2024	Sep. 08, 2025~ Sep. 09, 2025	Oct. 09, 2025	Conducted (TH01-KS)
EMI Test Receiver	Keysight	N9038A	MY57290157	3Hz~8.5GHz;Max 30dBm	Feb. 22, 2025	Sep. 06, 2025	Feb. 21, 2026	Radiation (03CH06-KS)
EXA Spectrum Analyzer	Keysight	N9010B	MY57471084	10Hz-44GHz	Jul. 03, 2025	Sep. 06, 2025	Jul. 02, 2026	Radiation (03CH06-KS)
Loop Antenna	R&S	HFH2-Z2E	101125	9kHz~30MHz	Sep. 08, 2024	Sep. 06, 2025	Sep. 07, 2025	Radiation (03CH06-KS)
Bilog Antenna	TeseQ	CBL6111D	59913	30MHz-1GHz	Sep. 02, 2025	Sep. 06, 2025	Sep. 01, 2026	Radiation (03CH06-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00251694	1GHz~18GHz	May 15, 2025	Sep. 06, 2025	May 14, 2026	Radiation (03CH06-KS)
SHF-EHF Horn	Com-power	AH-840	101116	18GHz~40GHz	Oct. 22, 2024	Sep. 06, 2025	Oct. 21, 2025	Radiation (03CH06-KS)
Amplifier	SONOMA	310N	380827	9KHz ~1GHZ	Jul. 03, 2025	Sep. 06, 2025	Jul. 02, 2026	Radiation (03CH06-KS)
Amplifier	EM	EM18G40GA	060728	18~40GHz	Jan. 03, 2025	Sep. 06, 2025	Jan. 02, 2026	Radiation (03CH06-KS)
high gain Amplifier	EM	EM01G18GA	060845	1Ghz-18Ghz	Jan. 03, 2025	Sep. 06, 2025	Jan. 02, 2026	Radiation (03CH06-KS)
Amplifier	Keysight	83017A	MY57280119	500MHz~26.5GHz	Oct. 09, 2024	Sep. 06, 2025	Oct. 08, 2025	Radiation (03CH06-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Sep. 06, 2025	NCR	Radiation (03CH06-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Sep. 06, 2025	NCR	Radiation (03CH06-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Sep. 06, 2025	NCR	Radiation (03CH06-KS)
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz;	Apr. 16, 2025	Sep. 21, 2025	Apr. 15, 2026	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060103	9kHz~30MHz	Aug. 19, 2025	Sep. 21, 2025	Aug. 18, 2026	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060105	9kHz~30MHz	Dec. 24, 2024	Sep. 21, 2025	Dec. 23, 2025	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 09, 2024	Sep. 21, 2025	Oct. 08, 2025	Conduction (CO01-KS)

NCR: No Calibration Required.

5 Uncertainty of Evaluation

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.10. 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 Conducted Measurement

Conducted Spurious Emission & Bandedge	**±2.00 dB**
Occupied Channel Bandwidth	**±0.384%**
Conducted Power	**±0.90 dB**
Conducted Power Spectral Density	**±0.90 dB**
Frequency	**±0.38 Hz**

Uncertainty of AC Conducted Emission Measurement (0.15 MHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.84dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.3dB**

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**6.18dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.88dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.36dB**

---------- THE END ----------

Appendix A. Conducted Test Results

Report Number : FR571402-01B

Test Engineer:	Kib Shi	Temperature:	20~26	°C
Test Date:	2025/9/8	Relative Humidity:	40~51	%

TEST RESULTS DATA
20dB and 99% Occupied Bandwidth and Hopping Channel Separation

Mod.	NTX		Freq. (MHz)	20db BW (MHz)	99% Bandwidth (MHz)	Hopping Channel Separation Measurement (MHz)	Hopping Channel Separation Measurement Limit (MHz)	Pass/Fail
LFR	1		902.4	0.104	0.0999	0.448	0.104	Pass
	1		915.2	0.104	0.0999	0.398	0.104	Pass
	1		927.6	0.104	0.0999	0.400	0.104	Pass

TEST RESULTS DATA
Dwell Time

Mod.	Hopping Channel Number Rate	Hops Over Occupancy Time (hops/20sec)	Package Transfer Time (msec)	Dwell Time (sec)	Limits (sec)	Pass/Fail
LFR	64	12	11.13	0.13	0.4	Pass

TEST RESULTS DATA
Peak Power Table

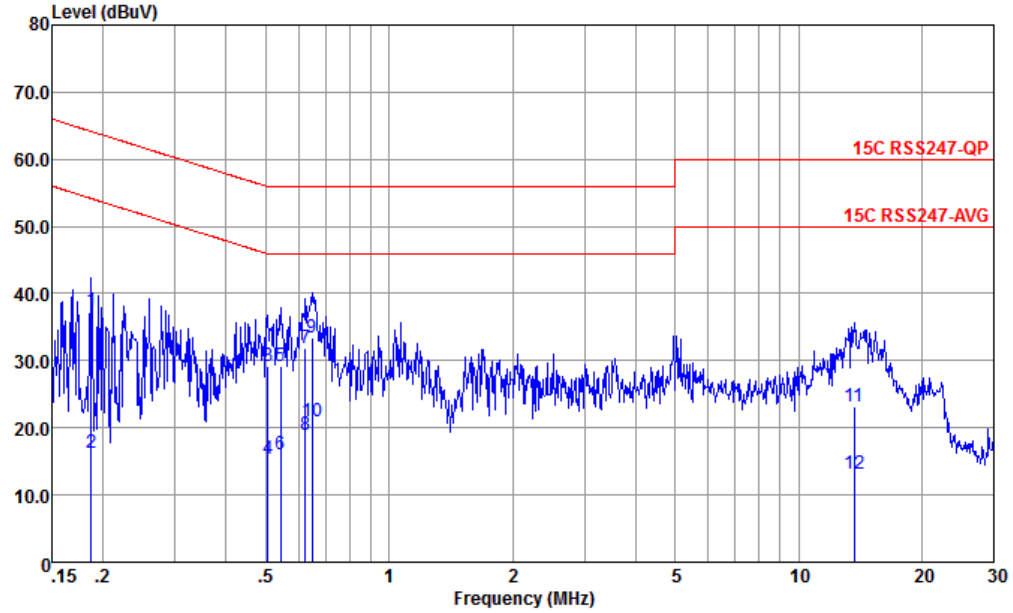
		NTX	Peak Power (dBm)	Power Limit (dBm)	Test Result
LFR		1	11.93	30	Pass
		1	**12.01**	30	Pass
		1	11.64	30	Pass

TEST RESULTS DATA
Number of Hopping Frequency

Number of Hopping (Channel)	Adaptive Frequency Hopping (Channel)	Limits (Channel)	Pass/Fail
64	64	> 50	Pass

Appendix B. AC Conducted Emission Test Results

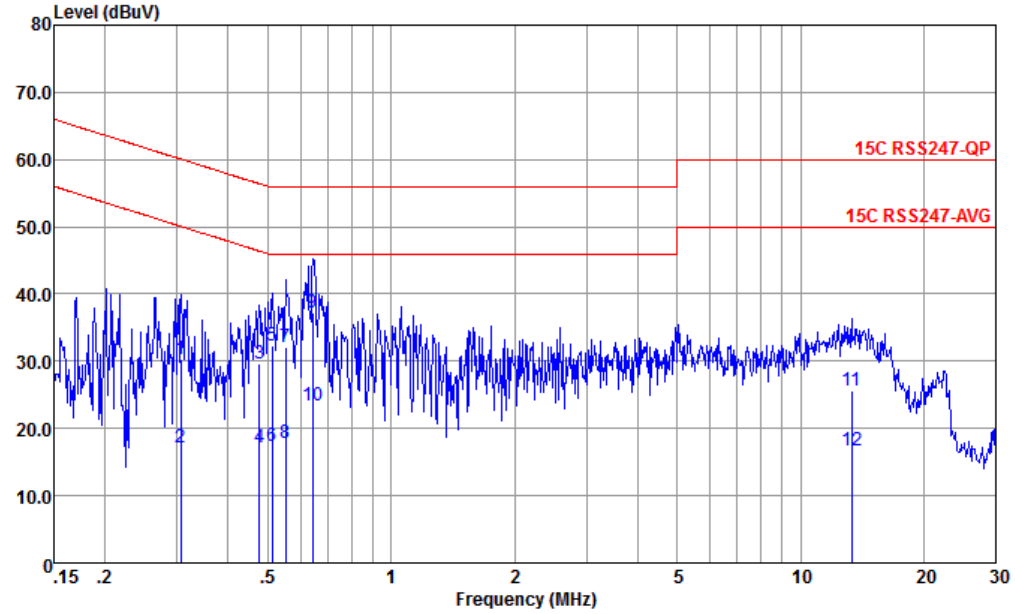
Test Engineer :	Amos Zhang	**Temperature :**	25.3~26.2℃
		Relative Humidity :	38~40%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Site : CO01-KS
Condition : 15C RSS247-QP LISN-060105-L 24+80 LINE

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.187	37.51	-26.64	64.15	26.80	0.25	10.46	QP
2		0.187	16.21	-37.94	54.15	5.50	0.25	10.46	Average
3		0.505	29.27	-26.73	56.00	18.50	0.36	10.41	QP
4		0.505	15.27	-30.73	46.00	4.50	0.36	10.41	Average
5		0.544	29.26	-26.74	56.00	18.51	0.36	10.39	QP
6		0.544	16.06	-29.94	46.00	5.31	0.36	10.39	Average
7		0.624	31.94	-24.06	56.00	21.21	0.37	10.36	QP
8		0.624	19.04	-26.96	46.00	8.31	0.37	10.36	Average
9	*	0.647	33.33	-22.67	56.00	22.61	0.37	10.35	QP
10		0.647	20.93	-25.07	46.00	10.21	0.37	10.35	Average
11		13.695	23.22	-36.78	60.00	12.20	0.75	10.27	QP
12		13.695	13.12	-36.88	50.00	2.10	0.75	10.27	Average

Test Engineer :	Amos Zhang	Temperature :	25.3~26.2℃
		Relative Humidity :	38~40%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Site : CO01-KS
Condition : 15C RSS247-QP LISN-060105-N 24+80 NEUTRAL

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.307	30.37	-29.69	60.06	19.60	0.29	10.48	QP
2		0.307	17.07	-32.99	50.06	6.30	0.29	10.48	Average
3		0.476	29.67	-26.74	56.41	18.90	0.34	10.43	QP
4		0.476	17.07	-29.34	46.41	6.30	0.34	10.43	Average
5		0.513	32.25	-23.75	56.00	21.51	0.34	10.40	QP
6		0.513	17.35	-28.65	46.00	6.61	0.34	10.40	Average
7		0.552	32.04	-23.96	56.00	21.30	0.35	10.39	QP
8		0.552	17.84	-28.16	46.00	7.10	0.35	10.39	Average
9	*	0.644	37.32	-18.68	56.00	26.59	0.37	10.36	QP
10		0.644	23.32	-22.68	46.00	12.59	0.37	10.36	Average
11		13.337	25.57	-34.43	60.00	14.60	0.70	10.27	QP
12		13.337	16.75	-33.25	50.00	5.78	0.70	10.27	Average

Note:

1. Level(dBμV) = Read Level(dBμV) + LISN Factor(dB) + Cable Loss(dB)
2. Over Limit(dB) = Level(dBμV) – Limit Line(dBμV)

Appendix C. Radiated Spurious Emission Test Data

Test Engineer :	Jerry Xu	Relative Humidity :	41 ~ 42 %
		Temperature :	22 ~ 23 ℃

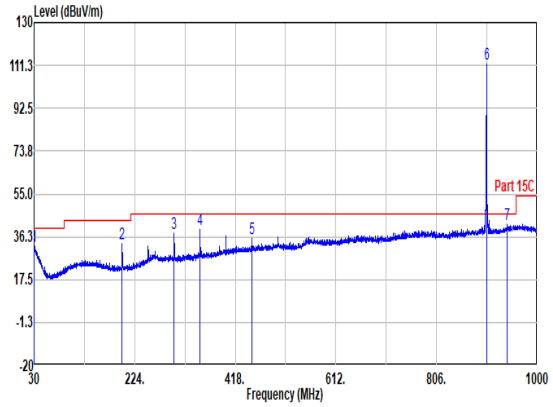
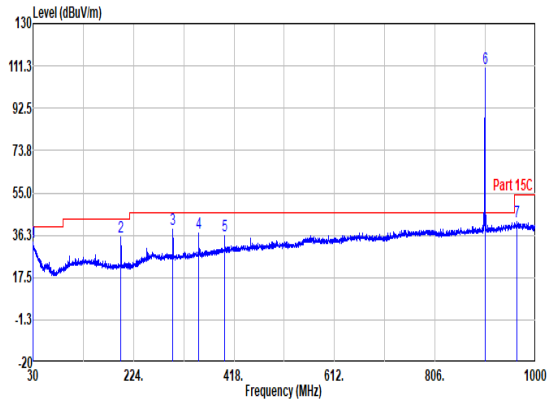
Radiated Spurious Emission Test Modes

Mode	Band (MHz)	Antenna	Modulation	Frequency	Data Rate	RU	Remark
Mode 1	902-928	1	GFSK	902.4	50kbps	-	-
Mode 2	902-928	1	GFSK	915.2	50kbps	-	-
Mode 3	902-928	1	GFSK	927.6	50kbps	-	-

Summary of each worse mode

Mode	Modulation	Ch.	Freq. (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol.	Peak Avg.	Result	Remark
1	LFR	902.4	941.80	41.86	46.00	-4.14	H	PEAK	Pass	Band Edge
	LFR	902.4	1396.9	43.55	74.00	-30.45	H	PEAK	Pass	Harmonic
2	LFR	915.2	299.90	41.36	46.00	-4.64	V	PEAK	Pass	Band Edge
	LFR	915.2	1198.90	40.19	74.00	-33.81	V	PEAK	Pass	Harmonic
3	LFR	927.6	951.99	42.16	46.00	-3.84	V	PEAK	Pass	Band Edge
	LFR	927.6	4791.7	43.73	74.00	-30.27	V	PEAK	Pass	Harmonic

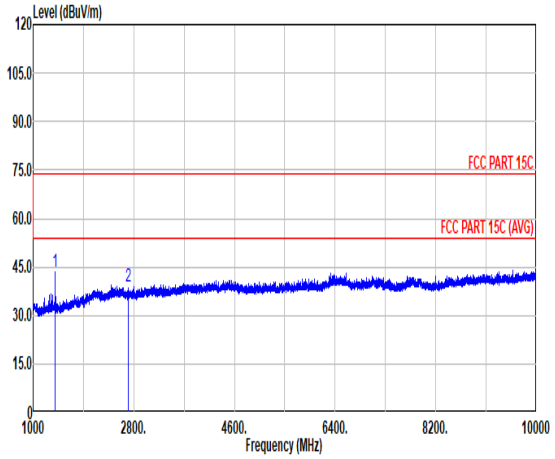
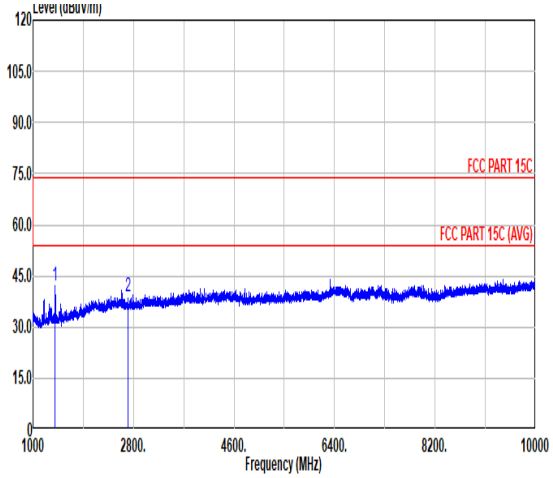
Mode	1
	Band Edge
	902-928_LFR_902.4MHz
ANT	1

Pol.	Horizontal	Vertical
Peak		

	Freq	Level	Limit Line	Over Limit	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	30.24	32.20	40.00	-7.80	29.42	25.23	0.36	32.81	10.00	---	---	Peak
2	199.99	33.09	43.50	-10.41	39.34	15.02	1.49	32.76	10.00	---	---	Peak
3	299.90	37.65	46.00	-8.35	39.22	19.44	1.82	32.83	10.00	---	---	Peak
4	350.10	39.22	46.00	-6.78	39.76	20.34	1.97	32.85	10.00	---	---	Peak
5	450.01	35.63	46.00	-10.37	33.57	22.89	2.23	33.06	10.00	---	---	Peak
6	902.27	111.73	46.00	65.73	101.38	29.53	3.13	32.31	10.00	---	---	Peak
7	941.80	41.86	46.00	-4.14	29.84	30.59	3.21	31.78	10.00	---	---	Peak

	Freq	Level	Limit Line	Over Limit	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	30.00	33.43	40.00	-6.57	30.52	25.36	0.36	32.81	10.00	---	---	Peak
2	199.99	35.64	43.50	-7.86	41.89	15.02	1.49	32.76	10.00	---	---	Peak
3	299.90	38.80	46.00	-7.20	40.37	19.44	1.82	32.83	10.00	---	---	Peak
4	350.10	37.04	46.00	-8.96	37.58	20.34	1.97	32.85	10.00	---	---	Peak
5	400.06	35.98	46.00	-10.02	34.92	21.96	2.13	33.03	10.00	---	---	Peak
6	902.52	110.00	46.00	64.00	99.64	29.54	3.13	32.31	10.00	---	---	Peak
7	963.87	42.11	54.00	-11.89	29.09	31.28	3.26	31.52	10.00	---	---	Peak

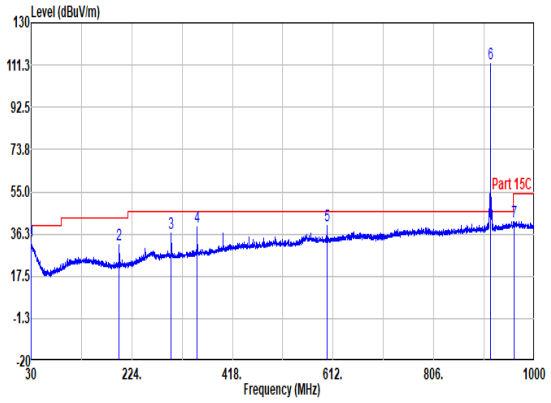
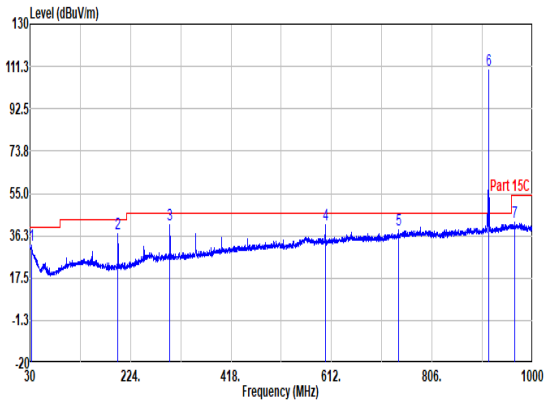
Remark: #6 is LFR RF fundamental signal and can be ignored.

Mode	1	
	Harmonic	
	902-928_LFR_902.4MHz	
ANT	1	
Pol.	Horizontal	Vertical
Peak Avg		

	Freq	Level	Limit Line	Over Limit	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	1396.90	43.55	74.00	-30.45	75.43	28.41	5.10	65.39	0.00	---	---	Peak
2	2707.20	38.86	74.00	-35.14	65.55	31.91	7.13	65.73	0.00	---	---	PEAK

	Freq	Level	Limit Line	Over Limit	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	1398.70	42.06	74.00	-31.94	73.94	28.40	5.11	65.39	0.00	---	---	Peak
2	2707.20	39.12	74.00	-34.88	65.81	31.91	7.13	65.73	0.00	---	---	PEAK

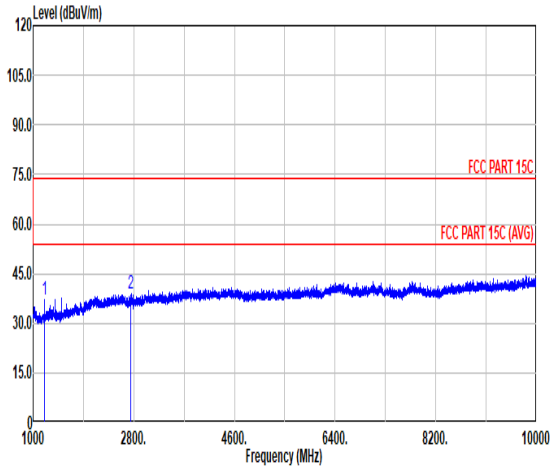
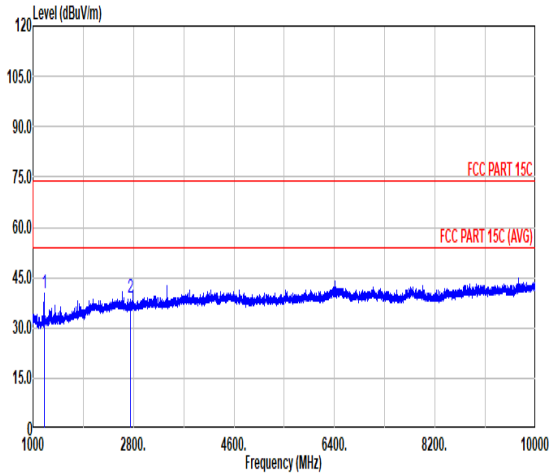
Mode	2
	Band Edge
	902-928_LFR_915.2MHz
ANT	1

Pol.	Horizontal	Vertical
Peak		

	Freq	Level	Limit Line	Over Limit	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	30.24	33.40	40.00	-6.60	30.62	25.23	0.36	32.81	10.00	---	---	Peak
2	199.99	31.36	43.50	-12.14	37.61	15.02	1.49	32.76	10.00	---	---	Peak
3	299.90	36.39	46.00	-9.61	37.96	19.44	1.82	32.83	10.00	---	---	Peak
4	350.10	39.42	46.00	-6.58	39.96	20.34	1.97	32.85	10.00	---	---	Peak
5	600.12	40.14	46.00	-5.86	35.05	25.84	2.56	33.31	10.00	---	---	Peak
6	915.13	111.62	46.00	65.62	100.82	29.78	3.15	32.13	10.00	---	---	Peak
7	960.23	41.94	54.00	-12.06	29.02	31.22	3.26	31.56	10.00	---	---	Peak

	Freq	Level	Limit Line	Over Limit	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	32.91	31.94	40.00	-8.06	30.70	23.67	0.36	32.79	10.00	---	---	Peak
2	199.99	37.19	43.50	-6.31	43.44	15.02	1.49	32.76	10.00	---	---	Peak
3	299.90	41.36	46.00	-4.64	42.93	19.44	1.82	32.83	10.00	---	---	Peak
4	600.12	41.25	46.00	-4.75	36.16	25.84	2.56	33.31	10.00	---	---	Peak
5	741.50	39.00	46.00	-7.00	31.39	27.97	2.86	33.22	10.00	---	---	Peak
6	915.13	109.81	46.00	63.81	99.01	29.78	3.15	32.13	10.00	---	---	Peak
7	965.32	42.00	54.00	-12.00	28.94	31.30	3.26	31.50	10.00	---	---	Peak

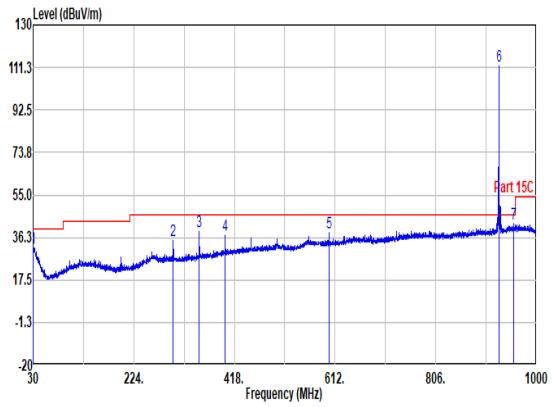
Remark: #6 is LFR RF fundamental signal and can be ignored.

Mode	2	
	Harmonic	
	902-928_LFR_915.2MHz	
ANT	1	
Pol.	Horizontal	Vertical
Peak Avg	 Freq Level Limit Line Over Limit Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 1200.70 37.32 74.00 -36.68 69.87 27.71 4.74 65.00 0.00 --- --- Peak 2 2745.60 38.96 74.00 -35.04 65.53 31.99 7.18 65.74 0.00 --- --- PEAK	 Freq Level Limit Line Over Limit Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 1198.90 40.19 74.00 -33.81 72.76 27.69 4.74 65.00 0.00 --- --- Peak 2 2745.60 38.83 74.00 -35.17 65.40 31.99 7.18 65.74 0.00 --- --- PEAK

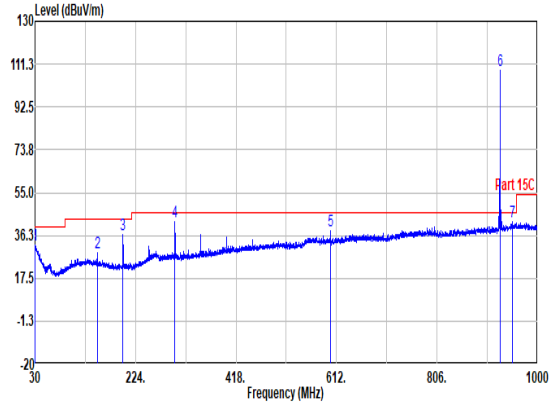
Mode	3
	Band Edge
	902-928_LFR_927.6MHz
ANT	1

Pol.	Horizontal	Vertical

Peak

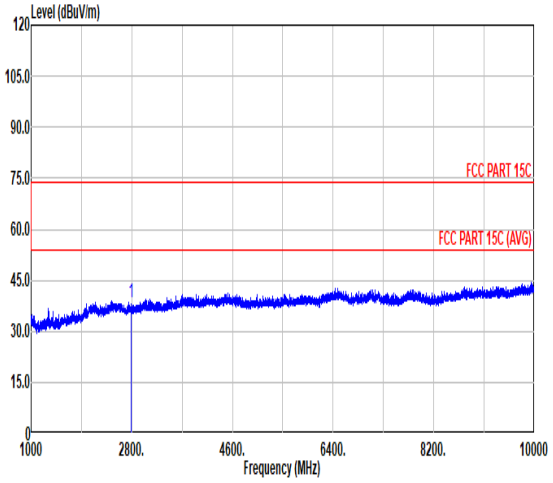
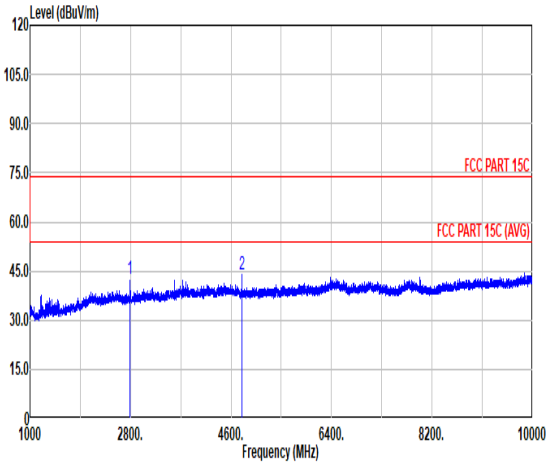


	Freq	Level	Limit Line	Over Limit	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	30.00	31.67	40.00	-8.33	28.76	25.36	0.36	32.81	10.00	---	---	Peak
2	299.90	35.18	46.00	-10.82	36.75	19.44	1.82	32.83	10.00	---	---	Peak
3	350.10	38.95	46.00	-7.05	39.49	20.34	1.97	32.85	10.00	---	---	Peak
4	400.06	37.00	46.00	-9.00	35.94	21.96	2.13	33.03	10.00	---	---	Peak
5	600.12	38.20	46.00	-7.80	33.11	25.84	2.56	33.31	10.00	---	---	Peak
6	927.49	111.77	46.00	65.77	100.57	29.99	3.17	31.96	10.00	---	---	Peak
7	956.35	42.16	46.00	-3.84	29.40	31.12	3.24	31.60	10.00	---	---	Peak



	Freq	Level	Limit Line	Over Limit	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	30.24	31.93	40.00	-8.07	29.15	25.23	0.36	32.81	10.00	---	---	Peak
2	150.04	28.62	43.50	-14.88	33.06	17.00	1.27	32.71	10.00	---	---	Peak
3	199.99	36.56	43.50	-6.94	42.81	15.02	1.49	32.76	10.00	---	---	Peak
4	300.15	42.00	46.00	-4.00	43.57	19.44	1.82	32.83	10.00	---	---	Peak
5	600.12	38.46	46.00	-7.54	33.37	25.84	2.56	33.31	10.00	---	---	Peak
6	927.49	108.24	46.00	62.24	97.04	29.99	3.17	31.96	10.00	---	---	Peak
7	951.99	42.16	46.00	-3.84	29.56	31.03	3.22	31.65	10.00	---	---	Peak

Remark: #6 is LFR RF fundamental signal and can be ignored.

Mode	3	
	Harmonic	
	902-928_LFR_927.6MHz	
ANT	1	
Pol.	Horizontal	Vertical
Peak Avg		

	Freq	Level	Limit Line	Over Limit	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	2782.80	38.71	74.00	-35.29	65.03	32.20	7.23	65.75	0.00	---	---	PEAK

	Freq	Level	Limit Line	Over Limit	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	2782.80	42.78	74.00	-31.22	69.10	32.20	7.23	65.75	0.00	---	---	PEAK
2	4791.70	43.73	74.00	-30.27	66.16	34.12	9.61	66.16	0.00	---	---	Peak

Appendix D. Duty Cycle Plots

Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
LFR	22.13	11.082	0.0902	0.1kHz

LFR