FCC RADIO TEST REPORT

FCC ID	**:**	**2AF77-H2521550**
Equipment	**:**	**Sync Module**
Model Name	**:**	**BSM00600U**
Applicant	**:**	**Immedia Semiconductor LLC.** **100 Riverpark Drive Suite 125, North Reading, MA, United States 01864**
Standard	**:**	**FCC Part 15 Subpart C §15.247**

The product was received on Dec. 14, 2024 and testing was performed from Dec. 14, 2024 to Mar. 25, 2025. 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

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History of this test report

Report No.	Version	Description	Issue Date
FR512514C	01	Initial issue of report	Mar. 31, 2025

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	Pass	-
3.5	15.247(b)(2)	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	-
3.9	15.207	AC Conducted Emission	Pass	-
3.10	15.203 15.247(b)	Antenna Requirement	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.

Reviewed by: Keven Cheng

Report Producer: Lucy Wu

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature
General Specs Bluetooth LE (1M, 2M, 125k and 500k), Wi-Fi 2.4GHz 802. b/g/n and LFR **Antenna Type** LFR: Monopole Antenna

Antenna information		
902 MHz ~ 928 MHz	Peak Gain (dBi)	0

1.2 Modification of EUT

No modifications made to the EUT during the testing.

1.3 Testing Location

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	**Sporton Site No.**
	CO05-HY (TAF Code: 1190)
Remark	The AC Conducted Emission test item subcontracted to Sporton International Inc. EMC & Wireless Communications Laboratory.

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

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, 03CH13-HY

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

FCC designation No.: TW1190 and 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 15.247 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)
902 – 928 MHz	1	902.4	28	913.2	55	924.0
	2	902.8	29	913.6	56	924.4
	3	903.2	30	914.0	57	924.8
	4	903.6	31	914.4	58	925.2
	5	904.0	32	914.8	59	925.6
	6	904.4	33	915.2	60	926.0
	7	904.8	34	915.6	61	926.4
	8	905.2	35	916.0	62	926.8
	9	905.6	36	916.4	63	927.2
	10	906.0	37	916.8	64	927.6
	11	906.4	38	917.2		
	12	906.8	39	917.6		
	13	907.2	40	918.0		
	14	907.6	41	918.4		
	15	908.0	42	918.8		
	16	908.4	43	919.2		
	17	908.8	44	919.6		
	18	909.2	45	920.0		
	19	909.6	46	920.4		
	20	910.0	47	920.8		
	21	910.4	48	921.2		
	22	910.8	49	921.6		
	23	911.2	50	922.0		
	24	911.6	51	922.4		
	25	912.0	52	922.8		
	26	912.4	53	923.2		
	27	912.8	54	923.6		

2.2 Test Mode

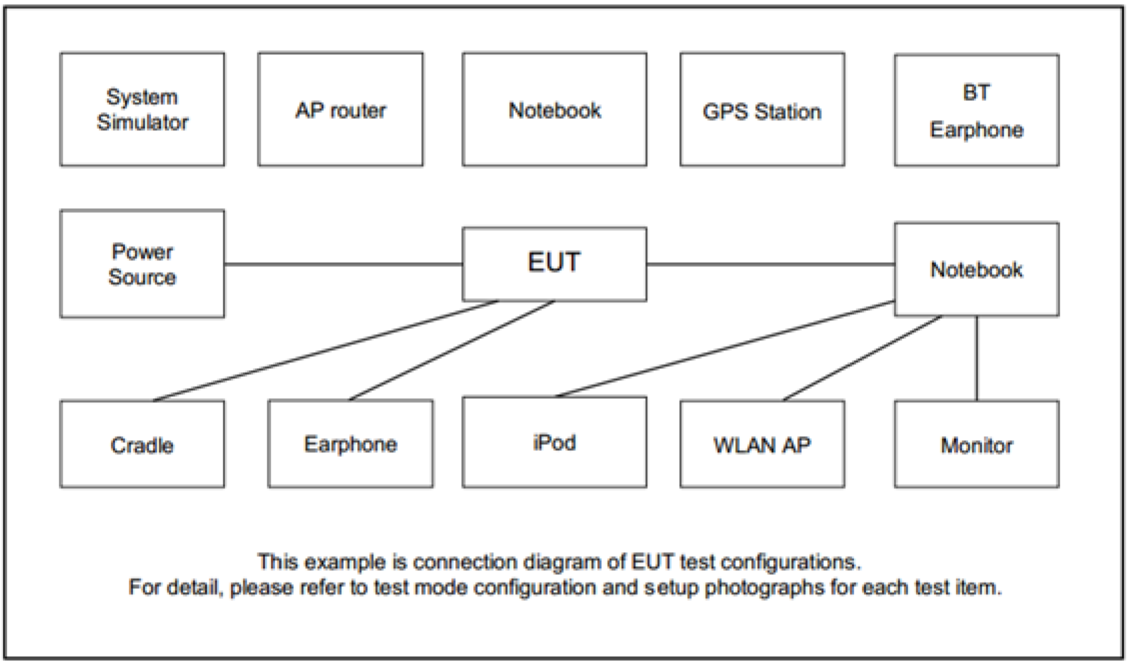
a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, the measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in three orthogonal axis (X: flat, Y: portrait, Z: landscape), and adjusting the measurement antenna orientation, following C63.10 exploratory test procedures and only the worst case emissions were reported 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	**LoRa/FSK**
Conducted Test Cases	Mode 1: 902.40 MHz Mode 2: 915.20 MHz Mode 3: 927.60 MHz
AC Conducted Emission	Mode 1: WLAN (2.4GHz) Link + LFR Link + USB Cable (Charging from AC Adapter)
Remark: The detailed Radiated test modes are shown in Appendix C.	

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.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded,1.8m
2.	Notebook	Dell	Latitude 3420	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
3.	Mobile Phone	SAMSUNG	SM-A217F/DSN	N/A	N/A	N/A
4.	Camera	Amanon	Sedona	N/A	N/A	N/A

2.5 EUT Operation Test Setup

The RF test items, utility “Compliance 1.0.1.49” was installed in Notebook which was programmed in order to make the EUT get into the engineering modes 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

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; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies.

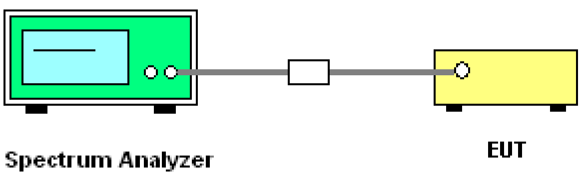
3.1.2 Measuring Instruments

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 = 100kHz; 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

Please refer to Appendix A.

3.2 Hopping Channel Separation Measurement

3.2.1 Limit of Hopping Channel Separation

Frequency hopping systems operating in the 902 – 928 MHz band 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.

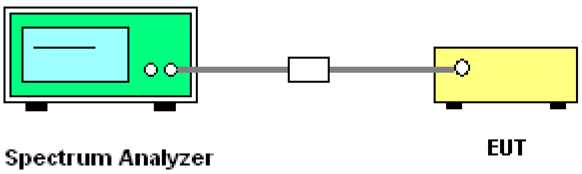
3.2.2 Measuring Instruments

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 = 200kHz for; 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.

3.3 Dwell Time Measurement

3.3.1 Limit of Dwell Time

If the 20 dB bandwidth of the hopping channel is less than 250 kHz, the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period.

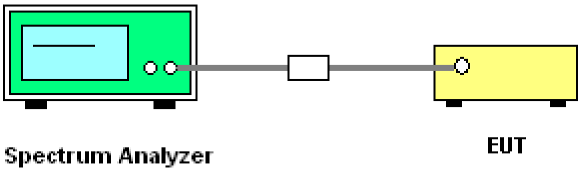
3.3.2 Measuring Instruments

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 = 100 kHz; 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.

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.

99% Bandwidth is reporting only.

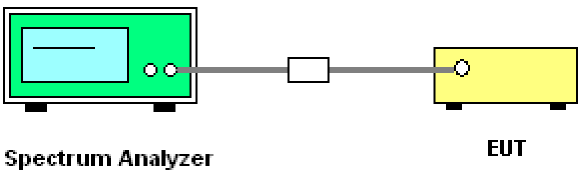
3.4.2 Measuring Instruments

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.

3.4.6 Test Result of 99% Occupied Bandwidth

Please refer to Appendix A.

3.5 Output Power Measurement

3.5.1 Limit of Output Power

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.

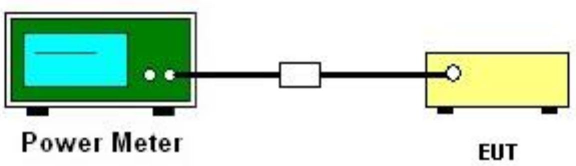
3.5.2 Measuring Instruments

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.

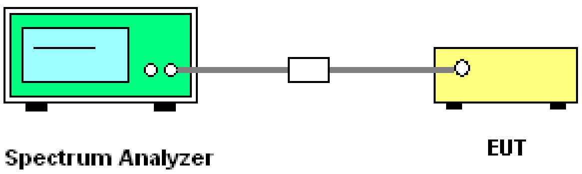
3.6.2 Measuring Instruments

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

Please refer to Appendix A.

3.6.6 Test Result of Conducted Hopping Mode Band Edges

Please refer to Appendix A.

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.

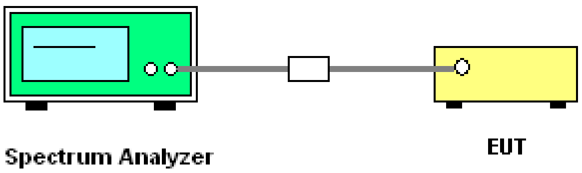
3.7.2 Measuring Instruments

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

Please refer to Appendix A.

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

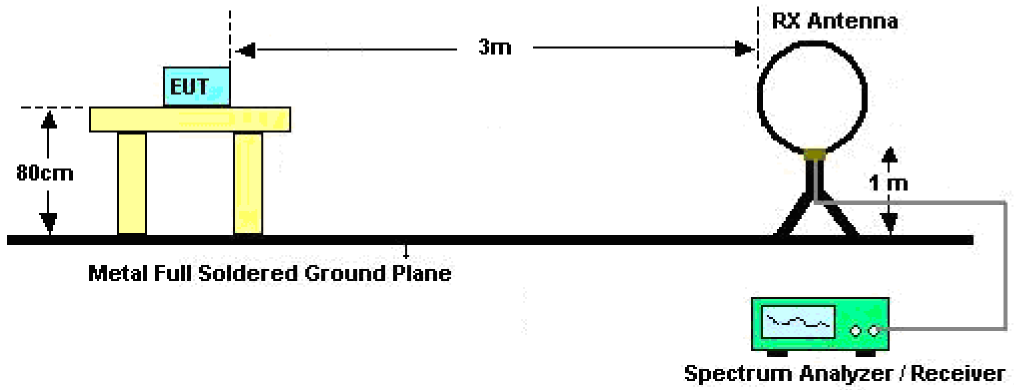
Please refer to the measuring equipment list in this test report.

3.8.3 Test Procedures

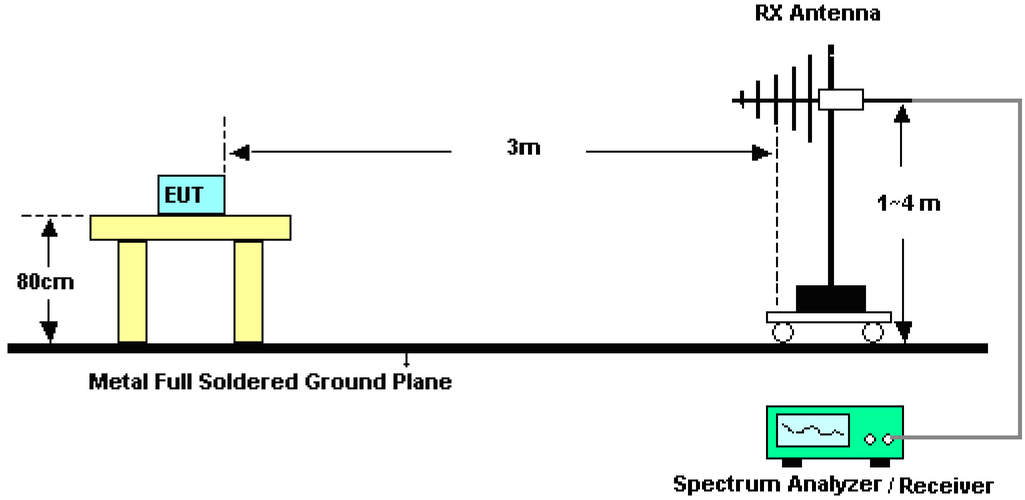
1. The EUT is placed on a turntable with 0.8 meter for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz respectively above ground.
2. The EUT is set 3 meters away from the receiving antenna, which is mounted on the top of a variable height antenna tower.
3. For each suspected emission, the EUT is 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 the maximum power setting and enable the EUT to 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 = 1 MHz for f>1 GHz ; VBW ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold for peak
   (3) For average measurement: use duty cycle correction factor method per 15.35(c).
   Duty cycle = On time/100 milliseconds
   On time = $N_1*L_1+N_2*L_2+...+N_{n-1}*LN_{n-1}+N_n*L_n$
   Where N_1 is number of type 1 pulses, L_1 is length of type 1 pulses, etc.
   Average Emission Level = Peak Emission Level + 20*log (Duty cycle)
6. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
7. Radiated testing below 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading. When there is no suspected emission found and the emission level is with at least 6 dB margin against QP limit line, the position is marked as “-“.
8. Radiated testing above 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading for scanning all frequencies. When there is no suspected emission found and the harmonic emission level is with at least 6 dB margin against average limit line, the position is marked as “-“.

3.8.4 Test Setup

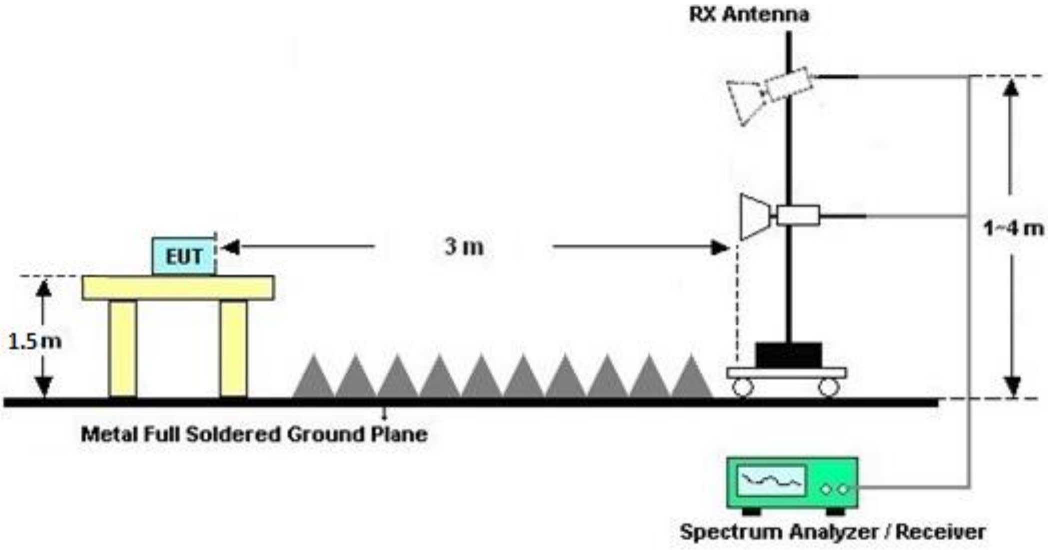
For radiated test below 30MHz



For radiated test from 30MHz to 1GHz



For radiated test above 1GHz



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

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

There is adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result comes out very similar.

3.8.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C.

3.8.7 Duty Cycle

Please refer to Appendix D.

3.8.8 Test Result of Radiated Spurious Emission (30MHz ~ 10^{th} Harmonic)

Please refer to Appendix C.

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.

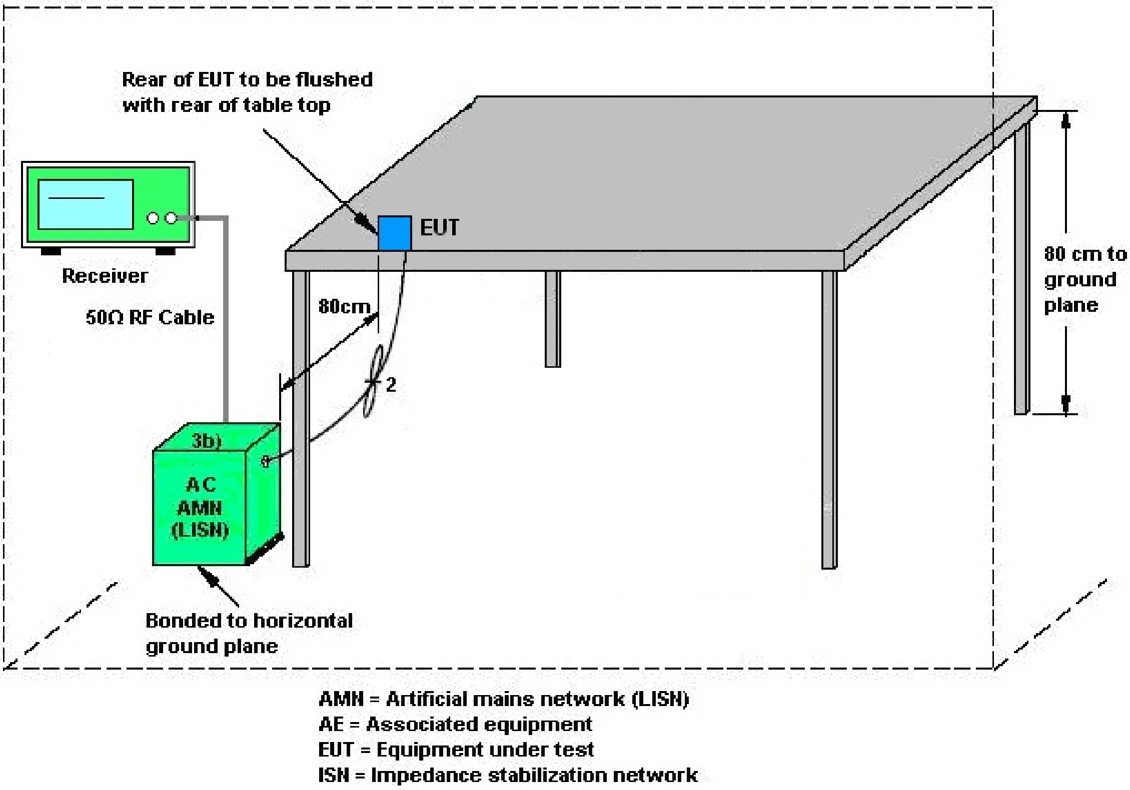
3.9.2 Measuring Instruments

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

3.9.3 Test Procedures

1. The EUT is placed 0.4 meter away from the conducting wall of the shielding room, and is 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 shall be used.
6. Both Line and Neutral shall be tested in order to find out the maximum conducted emission.
7. The frequency range from 150 kHz to 30 MHz is scanned.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9 kHz) 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

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of § 15.211, 15.213, 15.217, 15.219, 15.221, or § 15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

3.10.2 Antenna Anti-Replacement Construction

Antenna permanently attached.

4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Aug. 29, 2024	Jan. 30, 2025~ Mar. 25, 2025	Aug. 28, 2025	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803951/2	9K~30M	Mar. 06, 2024	Jan. 30, 2025~ Mar. 04, 2025	Mar. 05, 2025	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803951/2	9K~30M	Mar. 05, 2025	Mar. 05, 2025~ Mar. 25, 2025	Mar. 04, 2026	Radiation (03CH13-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA9170	00993	18GHz-40GHz	Nov. 18, 2024	Jan. 30, 2025~ Mar. 25, 2025	Nov. 17, 2025	Radiation (03CH13-HY)
Amplifier	SONOMA	310N	187282	9kHz~1GHz	Dec. 12, 2024	Jan. 30, 2025~ Mar. 25, 2025	Dec. 11, 2025	Radiation (03CH13-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N-06	40103 & 07	30MHz~1GHz	Apr. 12, 2024	Jan. 30, 2025~ Mar. 25, 2025	Apr. 11, 2025	Radiation (03CH13-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1326	1GHz~18GHz	Aug. 15, 2024	Jan. 30, 2025~ Mar. 25, 2025	Aug. 14, 2025	Radiation (03CH13-HY)
Hygrometer	TECPEL	DTM-303A	TP215159	N/A	Sep. 10, 2024	Jan. 30, 2025~ Mar. 25, 2025	Sep. 09, 2025	Radiation (03CH13-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1590074	1GHz~18GHz	May 15, 2024	Jan. 30, 2025~ Mar. 25, 2025	May 14, 2025	Radiation (03CH13-HY)
Preamplifier	EM Electronics	EM01G18G	060803	1GHz-18GHz	Jan. 08, 2025	Jan. 30, 2025~ Mar. 25, 2025	Jan. 07, 2026	Radiation (03CH13-HY)
Spectrum Analyzer	Keysight	N9010A	MY55370526	10Hz~44GHz	Jan. 11, 2025	Jan. 30, 2025~ Mar. 25, 2025	Jan. 10, 2026	Radiation (03CH13-HY)
Notch Filter	Wainwright	WLK4-1000-1530-8000-40SS	SN12	1.53GHz Low Pass Filter	Sep. 11, 2024	Jan. 30, 2025~ Mar. 25, 2025	Sep. 10, 2025	Radiation (03CH13-HY)
Notch Filter	Wainwright	WHKX12-2700-3000-18000-60SS	SN2	3GHz High Pass Filter	Jul. 09, 2024	Jan. 30, 2025~ Mar. 25, 2025	Jul. 08, 2025	Radiation (03CH13-HY)
Notch Filter	Wainwright	WHKX12-900-1000-15000-60SS	SN12	1GHz High Pass Filter	Sep. 10, 2024	Jan. 30, 2025~ Mar. 25, 2025	Sep. 09, 2025	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0030/126E	30MHz~18GHz	Feb. 07, 2024	Jan. 30, 2025~ Feb. 05, 2025	Feb. 06, 2025	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0030/126E	30MHz~18GHz	Feb. 06, 2025	Feb. 06, 2025~ Mar. 25, 2025	Feb. 05, 2026	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804616/2	30MHz~40GHz	Jul. 18, 2024	Jan. 30, 2025~ Feb. 05, 2025	Jul. 17, 2025	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804616/2	30MHz~40GHz	Feb. 06, 2025	Feb. 06, 2025~ Mar. 25, 2025	Feb. 05, 2026	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY24961/4	30MHz~18GHz	Feb. 07, 2024	Jan. 30, 2025~ Feb. 05, 2025	Feb. 06, 2025	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY24961/4	30MHz~18GHz	Feb. 06, 2025	Feb. 06, 2025~ Mar. 25, 2025	Feb. 05, 2026	Radiation (03CH13-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	Jan. 30, 2025~ Mar. 25, 2025	N/A	Radiation (03CH13-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Jan. 30, 2025~ Mar. 25, 2025	N/A	Radiation (03CH13-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Jan. 30, 2025~ Mar. 25, 2025	N/A	Radiation (03CH13-HY)
Software	Audix	N/A	RK-001124	N/A	N/A	Jan. 30, 2025~ Mar. 25, 2025	N/A	Radiation (03CH13-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	May 27, 2024	Jan. 30, 2025~ Mar. 25, 2025	May 26, 2025	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804011/2,804012/2	18-40G	Dec. 31, 2024	Jan. 30, 2025~ Mar. 25, 2025	Dec. 30, 2025	Radiation (03CH13-HY)

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Hygrometer	TECPEL	DTM-303A	TP201996	N/A	Nov. 01, 2024	Dec. 14, 2024~ Mar. 12, 2025	Oct. 31, 2025	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	13I00030SNO32 (NO:43)	9kHz~6GHz	Nov. 22, 2024	Dec. 14, 2024~ Mar. 12, 2025	Nov. 21, 2025	Conducted (TH05-HY)
Power Meter	Anritsu	ML2495A	1036004	N/A	Jul. 04, 2024	Dec. 14, 2024~ Mar. 12, 2025	Jul. 03, 2025	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	1027253	300MHz~40GHz	Jul. 04, 2024	Dec. 14, 2024~ Mar. 12, 2025	Jul. 03, 2025	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV3044	101466	10HZ~44GHZ	Aug. 14, 2024	Dec. 14, 2024~ Mar. 12, 2025	Aug. 13, 2025	Conducted (TH05-HY)
Switch Control Mainframe	Burgeon	ETF-058	EC1300484 (BOX3)	N/A	May 20, 2024	Dec. 14, 2024~ Mar. 12, 2025	May 19, 2025	Conducted (TH05-HY)
Software	Sporton	BTWIFI_Final_version_240513	N/A	Conducted Other Test Item	N/A	Dec. 14, 2024~ Mar. 12, 2025	N/A	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Mar. 11, 2025	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Dec. 10, 2024	Mar. 11, 2025	Dec. 09, 2025	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Oct. 14, 2024	Mar. 11, 2025	Oct. 13, 2025	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Nov. 14, 2024	Mar. 11, 2025	Nov. 13, 2025	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32	N/A	N/A	N/A	Mar. 11, 2025	N/A	Conduction (CO05-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561-FN	00691	N/A	Jul. 30, 2024	Mar. 11, 2025	Jul. 29, 2025	Conduction (CO05-HY)
LISN Cable	MVE	RG-400	MQT24082501	N/A	Oct. 15, 2024	Mar. 11, 2025	Oct. 14, 2025	Conduction (CO05-HY)

5 Measurement Uncertainty

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.7 dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**6.3 dB**

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 6000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.5 dB**

Uncertainty of Radiated Emission Measurement (6000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.8 dB**

Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.1 dB**

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Shiming Liu	Temperature:	20~25	°C
Test Date:	2024/12/14~2025/3/12	Relative Humidity:	50~56	%

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

Mod.	Data Rate	NTX	Freq. (MHz)	20db BW (MHz)	99% Bandwidth (MHz)	Hopping Channel Separation Measurement (MHz)	Hopping Channel Separation Measurement Limit (MHz)	Pass/Fail
LFR	50kbps	1	902.4	0.102	0.100	0.457	0.1023	Pass
LFR	50kbps	1	915.2	0.105	0.100	0.457	0.1047	Pass
LFR	50kbps	1	927.6	0.104	0.100	0.338	0.1038	Pass

TEST RESULTS DATA
Dwell Time

Mod.	Hopping Channel Number Rate	Hops Over Occupancy Time(hops)	Package Transfer Time (msec)	Dwell Time (sec)	Limits (sec)	Pass/Fail
GFSK	64	1	0.25	0.25	0.4	Pass

TEST RESULTS DATA
Peak Power Table

DH	Freq. (MHz)	NTX	Peak Power (dBm)	Power Limit (dBm)	Test Result
GFSK	902.4	1	12.50	30.00	Pass
	915.2	1	12.50	30.00	Pass
	927.6	1	12.20	30.00	Pass

TEST RESULTS DATA
Average Power Table
(Reporting Only)

DH	Freq. (MHz)	NTX	Peak Power (dBm)	Power Limit (dBm)	Test Result
GFSK	902.4	1	12.40	30.00	Pass
	915.2	1	12.40	30.00	Pass
	927.6	1	12.10	30.00	Pass

TEST RESULTS DATA
Number of Hopping Frequency

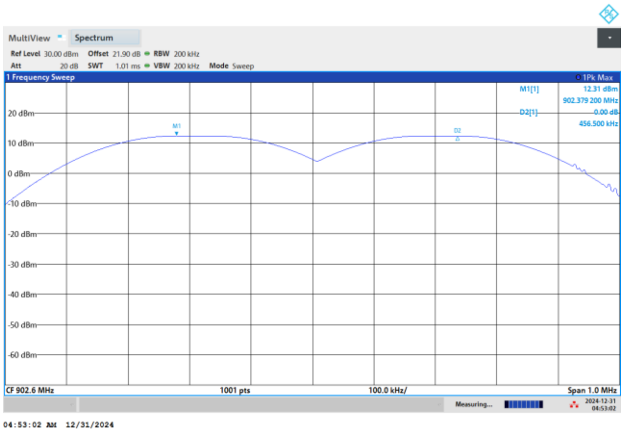
Number of Hopping (Channel)	Limits (Channel)	Pass/Fail
64	> 50	Pass

Number of Hopping Frequency

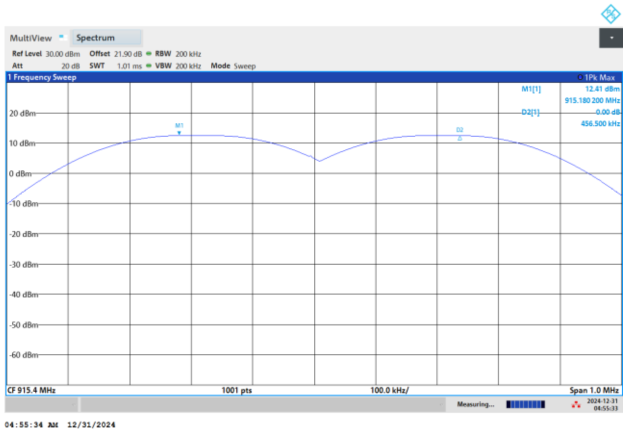
Number of Hopping Channel Plot
902-928MHz


Hopping Channel Separation

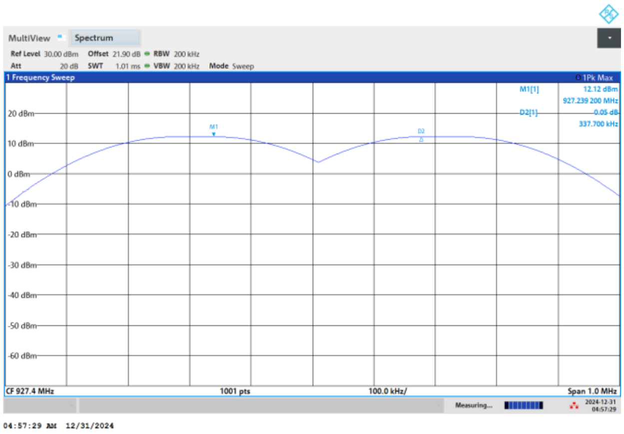
Channel Separation Plot on 902.4MHz



Channel Separation Plot on Channel 915.2MHz

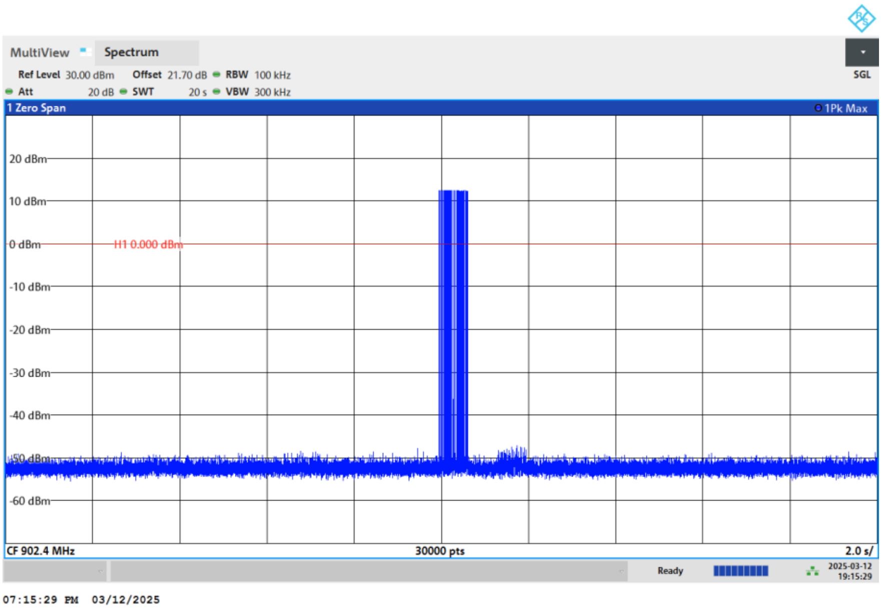


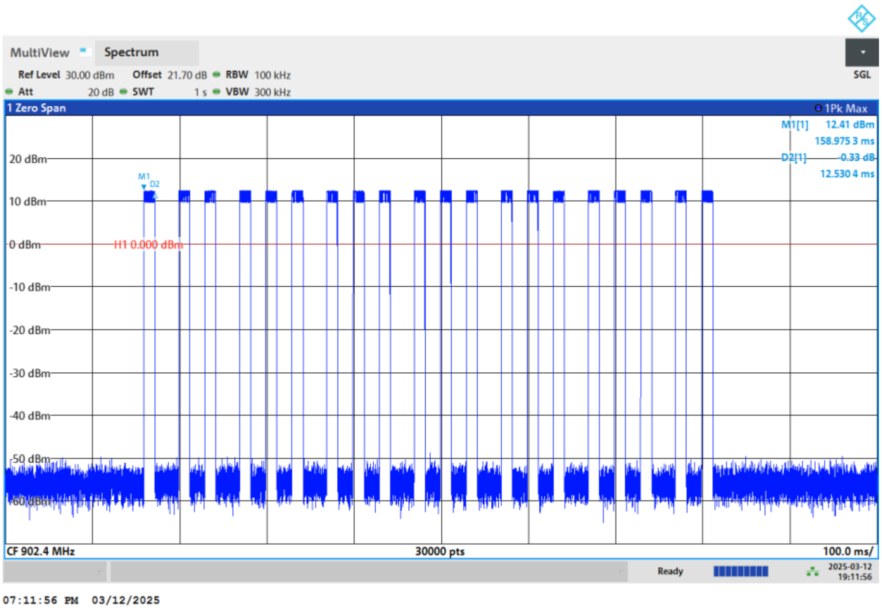
Channel Separation Plot on Channel 927.6MHz



Dwell Time

Package Transfer Time Plot

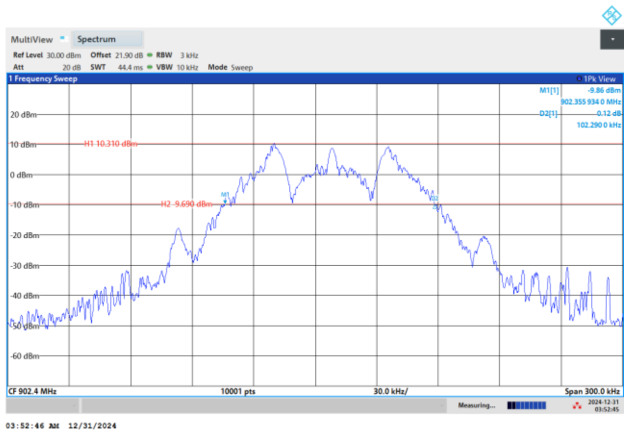
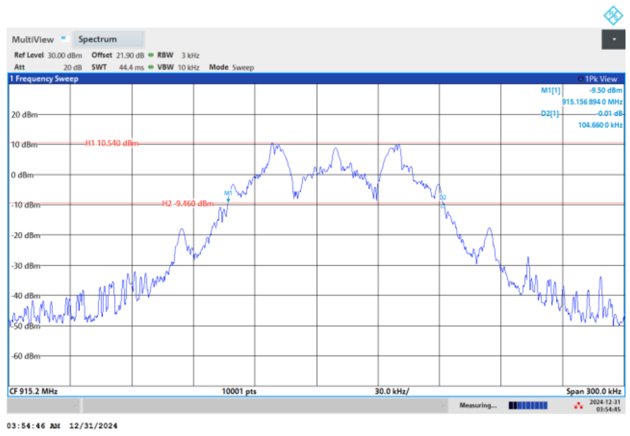
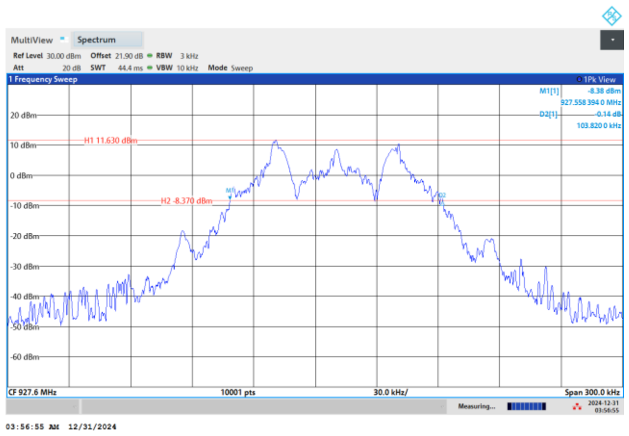




Remark: Dwell Time(s) = Hops Over Occupancy Time (hops) x Package Transfer Time

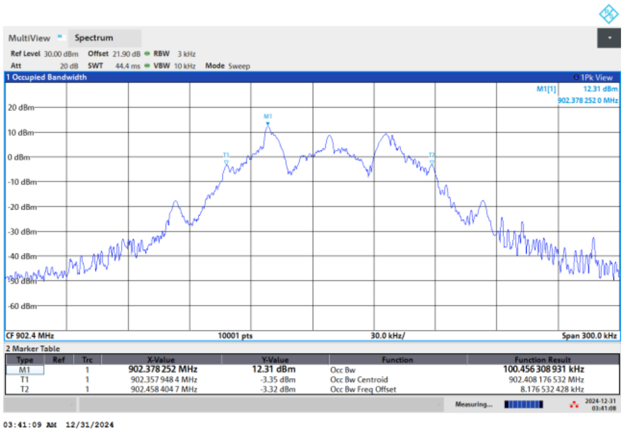
= 1 x0.2506s = 0.2506s

20dB Bandwidth

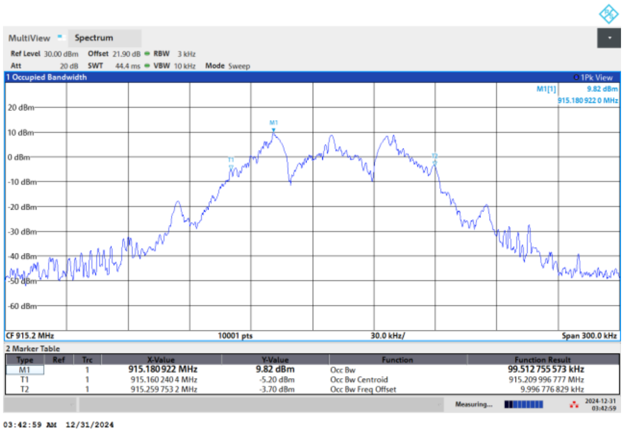
20 dB Bandwidth Plot in 902.4MHz	20 dB Bandwidth Plot in 915.2MHz
	
20 dB Bandwidth Plot in 927.6MHz	
	

99% Occupied Bandwidth

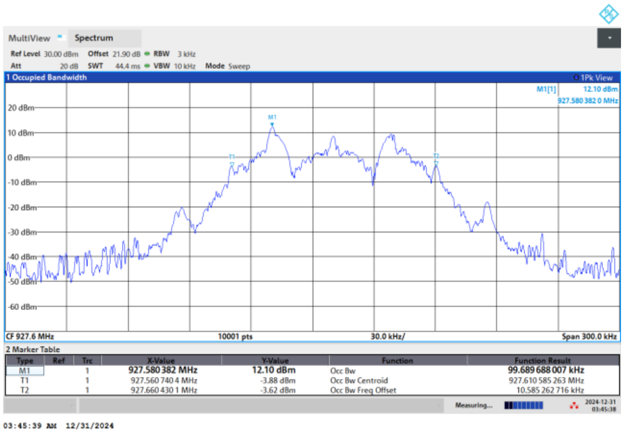
99% Occupied Bandwidth on 902.4MHz



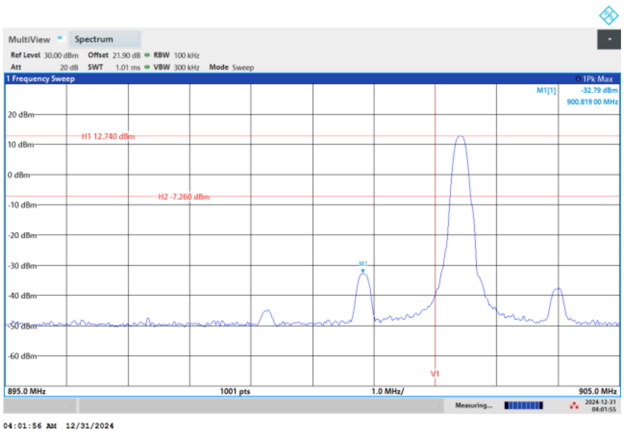
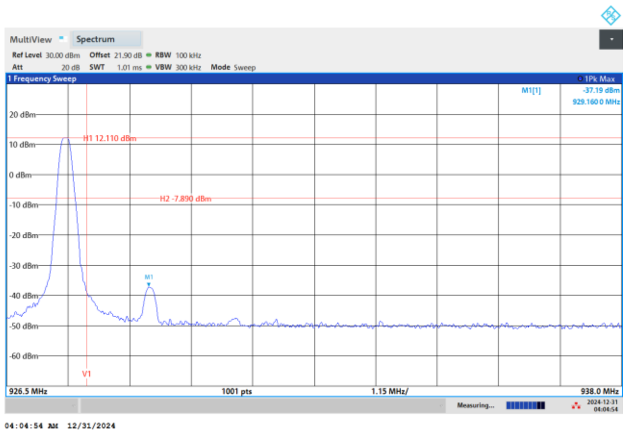
99% Occupied Bandwidth on 915.2MHz



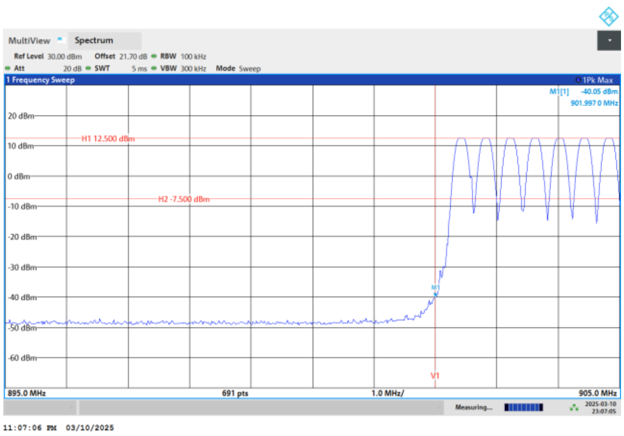
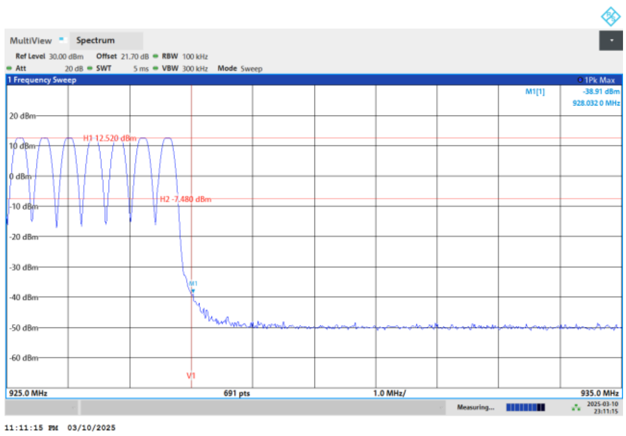
99% Occupied Bandwidth on 927.6MHz



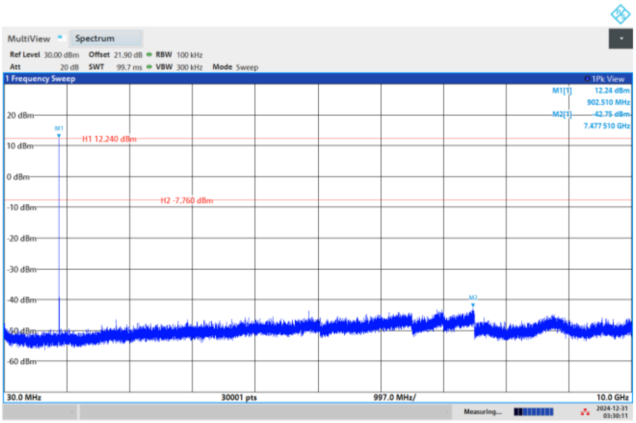
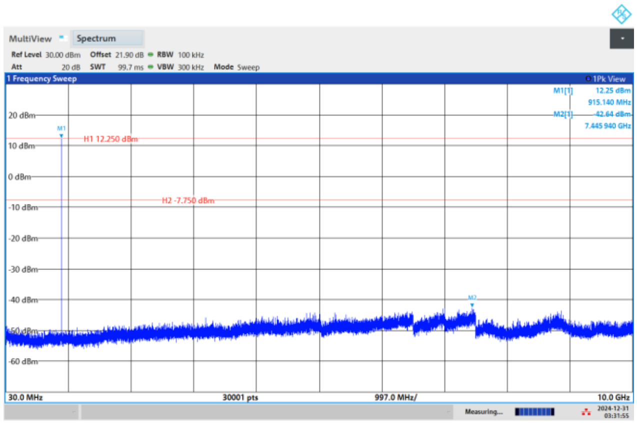
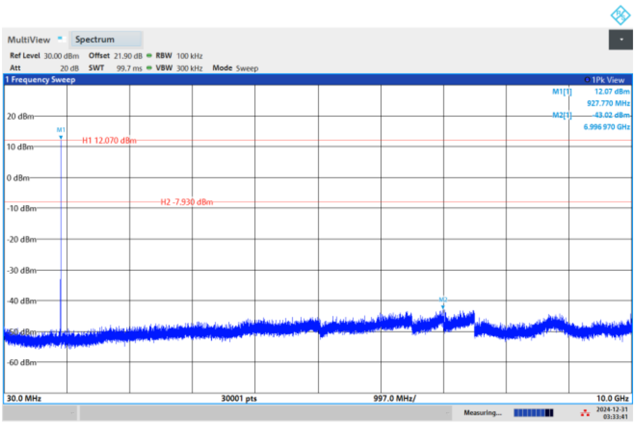
Band Edges

Low Band Edge Plot on 902.4MHz	High Band Edge Plot on 927.6MHz
	

Hopping Mode Band Edges

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

Conducted Spurious Emission

CSE Plot on Low Ch between 902.4MHz	CSE Plot on Low Ch between 915.2MHz
	
CSE Plot on Mid. Ch between 927.6MHz	
	

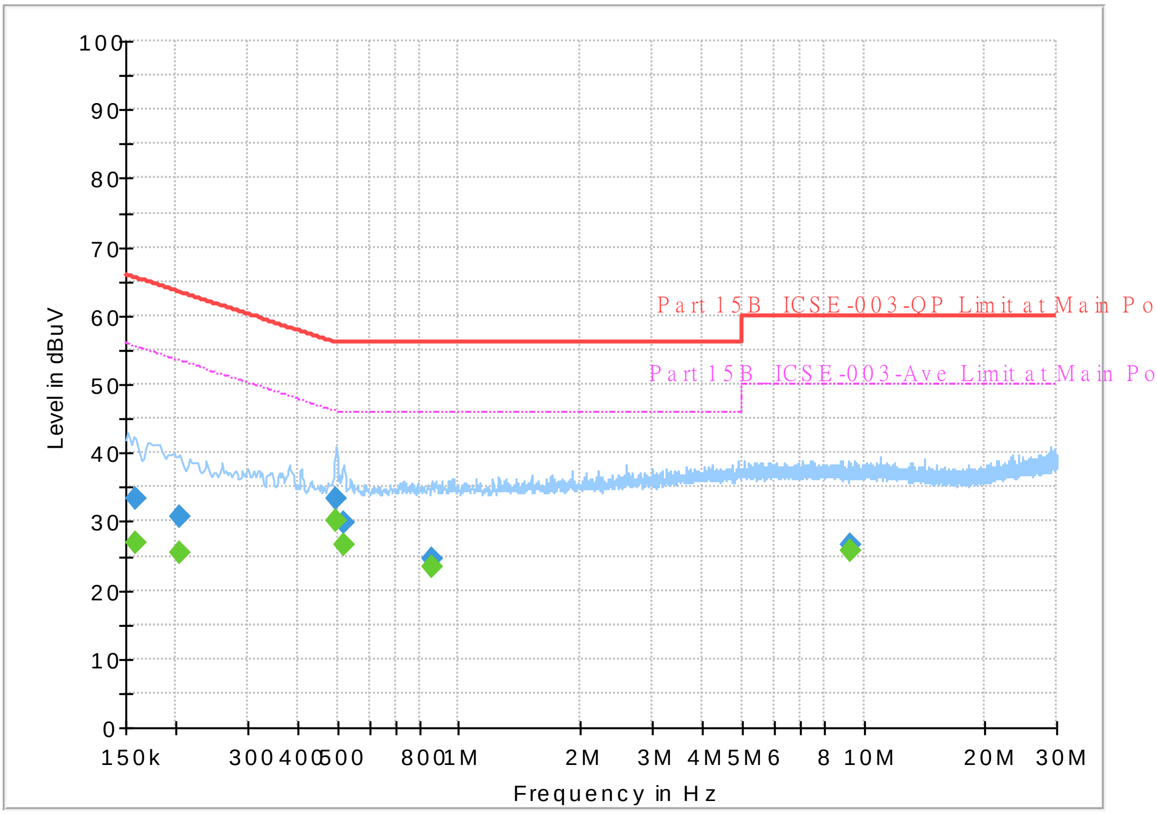
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Calvin Wang	**Temperature :**	23~26℃
		Relative Humidity :	45~55%

EUT Information

Report NO :	512514
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line

Full Spectrum



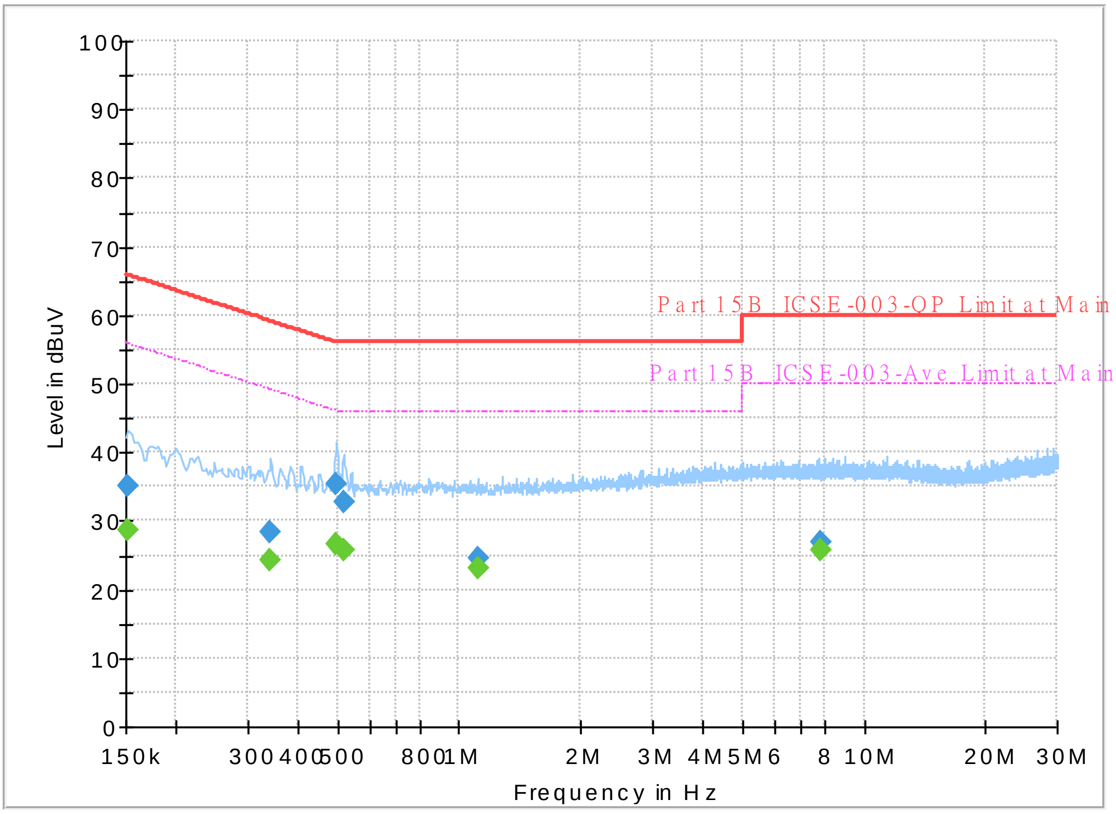
Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.159000	---	27.02	55.52	28.50	L1	OFF	19.8
0.159000	33.33	---	65.52	32.19	L1	OFF	19.8
0.204000	---	25.44	53.45	28.01	L1	OFF	19.8
0.204000	30.68	---	63.45	32.77	L1	OFF	19.8
0.498750	---	30.12	46.02	15.90	L1	OFF	19.8
0.498750	33.34	---	56.02	22.68	L1	OFF	19.8
0.521250	---	26.50	46.00	19.50	L1	OFF	19.8
0.521250	29.81	---	56.00	26.19	L1	OFF	19.8
0.854250	---	23.27	46.00	22.73	L1	OFF	19.8
0.854250	24.65	---	56.00	31.35	L1	OFF	19.8
9.249000	---	25.65	50.00	24.35	L1	OFF	20.2
9.249000	26.73	---	60.00	33.27	L1	OFF	20.2

EUT Information

Report NO :	512514
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	28.68	55.88	27.20	N	OFF	19.8
0.152250	35.08	---	65.88	30.80	N	OFF	19.8
0.341250	---	24.22	49.17	24.95	N	OFF	19.8
0.341250	28.32	---	59.17	30.85	N	OFF	19.8
0.496500	---	26.73	46.06	19.33	N	OFF	19.8
0.496500	35.37	---	56.06	20.69	N	OFF	19.8
0.516750	---	25.67	46.00	20.33	N	OFF	19.8
0.516750	32.69	---	56.00	23.31	N	OFF	19.8
1.108500	---	23.20	46.00	22.80	N	OFF	19.8
1.108500	24.43	---	56.00	31.57	N	OFF	19.8
7.784250	---	25.62	50.00	24.38	N	OFF	20.2
7.784250	26.92	---	60.00	33.08	N	OFF	20.2

Appendix C. Radiated Spurious Emission Test Data

Test Engineer :	Rain Lee, Jacky Hong and White Hou	Temperature :	20~26°C
		Relative Humidity :	40~65%

C1. Radiated Spurious Emission Test Modes

Mode	Band (MHz)	Antenna	Modulation	Channel	Frequency	Data Rate	RU	Remark
Mode 28	902-928	1	LFR(GFSK 50KBps)	902.4MHz	902.4MHz	-	-	-
Mode 29	902-928	1	LFR(GFSK 50KBps)	915.2MHz	915.2MHz	-	-	-
Mode 30	902-928	1	LFR(GFSK 50KBps)	927.6MHz	927.6MHz	-	-	-

C2. Summary of each worse mode

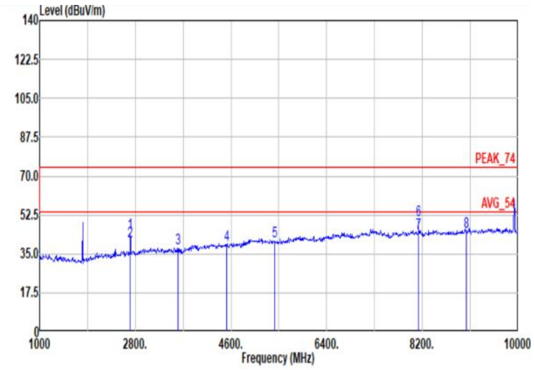
Mode	Modulation	Ch.	Freq. (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol.	Peak Avg.	Result	RU	Remark
28	LFR(GFSK 50KBps)	902.4MHz	72.68	33.88	40.00	-6.12	V	Peak.	Pass	-	LF
	LFR(GFSK 50KBps)	902.4MHz	8121.60	44.41	54.00	-9.59	H	Avg	Pass	-	Harmonic
29	LFR(GFSK 50KBps)	915.2MHz	72.68	33.67	40.00	-6.33	V	Peak.	Pass	-	LF
	LFR(GFSK 50KBps)	915.2MHz	2745.60	38.79	54.00	-15.21	H	Avg.	Pass	-	Harmonic
30	LFR(GFSK 50KBps)	927.6MHz	72.68	33.9	40.00	-6.1	V	Peak.	Pass	-	LF
	LFR(GFSK 50KBps)	927.6MHz	2782.80	40.42	54.00	-13.58	H	Avg.	Pass	-	Harmonic

Mode	28	
	Harmonic	
	LFR_Tx_902.4MHz	
ANT	1	
Pol.	Horizontal	Vertical

Peak

Avg

Horizontal

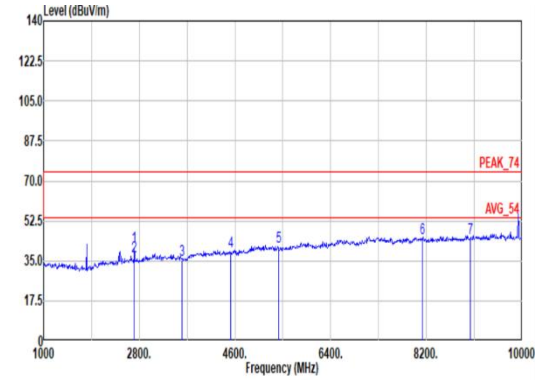


Site : 03CH13-HY

Condition: PEAK_74 3m HORN_9120D_1326 HORIZONTAL

	Freq	Level	Limit Line	Margin	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	2707.20	44.32	74.00	-29.68	65.70	28.20	7.17	57.18	0.43	108	118	PEAK
2	2707.20	40.42	54.00	-13.58	61.80	28.20	7.17	57.18	0.43	108	118	AVERAGE
3	3609.60	37.36	74.00	-36.64	57.26	29.66	8.30	58.32	0.46	--	--	PEAK
4	4512.00	38.99	74.00	-35.01	55.56	31.80	9.34	58.09	0.38	--	--	PEAK
5	5414.40	40.87	74.00	-33.13	53.14	33.10	10.31	56.07	0.39	--	--	PEAK
6	8121.60	50.19	74.00	-23.81	57.02	37.06	12.59	56.99	0.51	100	243	PEAK
7	8121.60	44.41	54.00	-9.59	51.24	37.06	12.59	56.99	0.51	100	243	AVERAGE
8	9024.00	44.64	74.00	-29.36	49.45	38.00	13.30	56.57	0.46	--	--	PEAK

Vertical



Site : 03CH13-HY

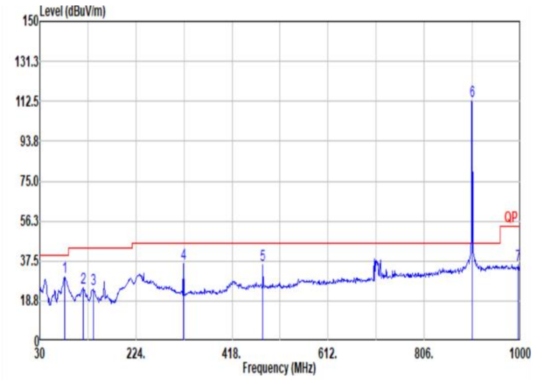
Condition: PEAK_74 3m HORN_9120D_1326 VERTICAL

	Freq	Level	Limit Line	Margin	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	2707.20	41.24	74.00	-32.76	62.62	28.20	7.17	57.18	0.43	341	184	PEAK
2	2707.20	37.20	54.00	-16.80	58.58	28.20	7.17	57.18	0.43	341	184	AVERAGE
3	3609.60	35.52	74.00	-38.48	55.42	29.66	8.30	58.32	0.46	--	--	PEAK
4	4512.00	39.08	74.00	-34.92	55.65	31.80	9.34	58.09	0.38	--	--	PEAK
5	5414.40	41.45	74.00	-32.55	53.72	33.10	10.31	56.07	0.39	--	--	PEAK
6	8121.60	45.11	74.00	-28.89	51.94	37.06	12.59	56.99	0.51	--	--	PEAK
7	9024.00	45.05	74.00	-28.95	49.86	38.00	13.30	56.57	0.46	--	--	PEAK

Mode	28	
	LF	
	LFR_Tx_902.4MHz	
ANT	1	
Pol.	Horizontal	Vertical

QP/ Peak

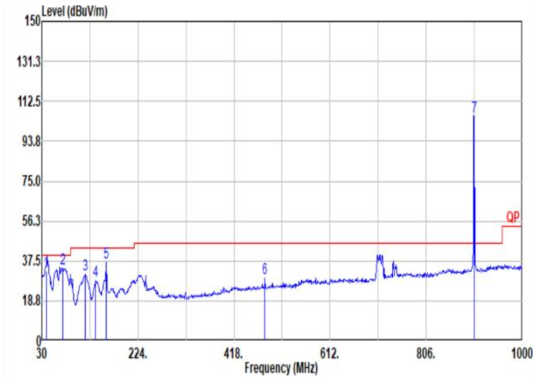
Horizontal



Site : 03CH13-HY
Condition: QP 3m BILOG_40103 HORIZONTAL

	Freq	Level	Limit Line	Margin	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	80.44	30.11	40.00	-9.89	47.21	13.36	1.41	31.93	0.06	--	--	PEAK
2	118.27	24.72	43.50	-18.78	37.53	17.37	1.65	31.91	0.08	--	--	PEAK
3	137.67	24.14	43.50	-19.36	36.73	17.50	1.79	31.94	0.06	--	--	PEAK
4	320.03	36.30	46.00	-9.70	45.88	19.50	2.60	31.81	0.13	--	--	PEAK
5	480.08	35.91	46.00	-10.09	40.82	23.60	3.15	31.77	0.11	--	--	PEAK
6	902.40	112.75	------	------	110.40	29.05	4.18	31.07	0.19	100	8	PEAK
7	995.15	35.47	54.00	-18.53	30.53	30.50	4.40	30.20	0.24	--	--	PEAK

Vertical

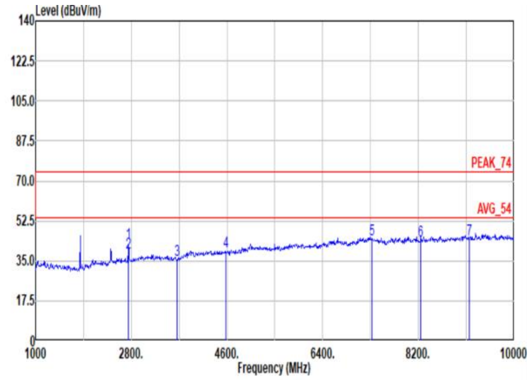


Site : 03CH13-HY
Condition: QP 3m BILOG_40103 VERTICAL

	Freq	Level	Limit Line	Margin	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	38.73	33.09	40.00	-6.91	43.58	20.36	1.01	31.99	0.13	100	209	QP
2	72.68	33.88	40.00	-6.12	51.72	12.63	1.37	31.91	0.07	--	--	PEAK
3	118.27	31.01	43.50	-12.49	43.82	17.37	1.65	31.91	0.08	--	--	PEAK
4	138.64	28.02	43.50	-15.48	40.54	17.56	1.80	31.94	0.06	--	--	PEAK
5	159.98	36.58	43.50	-6.92	49.96	16.50	1.90	31.89	0.11	--	--	PEAK
6	480.08	29.53	46.00	-16.47	34.44	23.60	3.15	31.77	0.11	--	--	PEAK
7	902.40	105.22	------	------	102.87	29.05	4.18	31.07	0.19	197	263	PEAK

Mode	29	
	Harmonic	
	LFR_Tx_915.2MHz	
ANT	1	
Pol.	Horizontal	Vertical
Peak Avg	(Horizontal, below)	(Vertical, below)

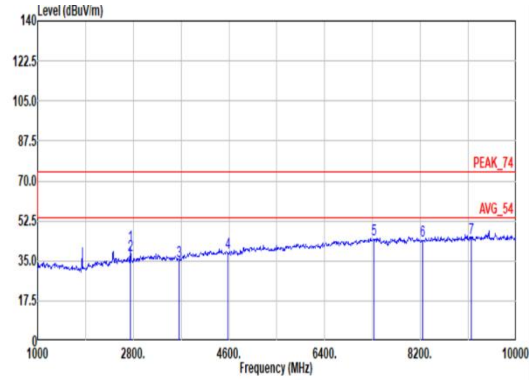
Horizontal



Site : 03CH13-HY
Condition: PEAK_74 3m HORN_9120D_1326 HORIZONTAL

	Freq	Level	Limit Line	Margin	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	2745.60	42.56	74.00	-31.44	63.96	28.20	7.22	57.24	0.42	300	344	PEAK
2	2745.60	38.79	54.00	-15.21	60.19	28.20	7.22	57.24	0.42	300	344	AVERAGE
3	3660.80	35.54	74.00	-38.46	55.18	29.90	8.37	58.40	0.49	--	--	PEAK
4	4576.00	39.11	74.00	-34.89	55.40	31.85	9.43	57.95	0.38	--	--	PEAK
5	7321.60	44.17	74.00	-29.83	52.06	37.07	11.96	57.39	0.47	--	--	PEAK
6	8236.80	43.95	74.00	-30.05	50.62	37.07	12.62	56.85	0.49	--	--	PEAK
7	9152.00	44.38	74.00	-29.62	49.07	38.00	13.43	56.61	0.49	--	--	PEAK

Vertical



Site : 03CH13-HY
Condition: PEAK_74 3m HORN_9120D_1326 VERTICAL

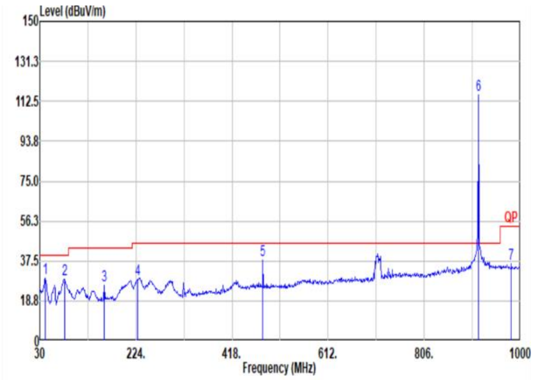
	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	2745.60	41.91	74.00	-32.09	63.31	28.20	7.22	57.24	0.42	299	182	PEAK
2	2745.60	37.29	54.00	-16.71	58.69	28.20	7.22	57.24	0.42	299	182	AVERAGE
3	3660.80	35.03	74.00	-38.97	54.67	29.90	8.37	58.40	0.49	--	--	PEAK
4	4576.00	38.34	74.00	-35.66	54.63	31.85	9.43	57.95	0.38	--	--	PEAK
5	7321.60	44.52	74.00	-29.48	52.41	37.07	11.96	57.39	0.47	--	--	PEAK
6	8236.80	43.64	74.00	-30.36	50.31	37.07	12.62	56.85	0.49	--	--	PEAK
7	9152.00	44.97	74.00	-29.03	49.66	38.00	13.43	56.61	0.49	--	--	PEAK

Mode	29	
	LF	
	LFR_Tx_915.2MHz	
ANT	1	
Pol.	Horizontal	Vertical

QP/

Peak

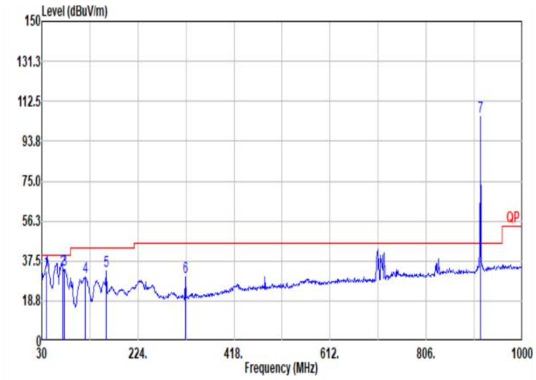
Horizontal



Site : 03CH13-HY
Condition: QP 3m BILOG_40103 HORIZONTAL

	Freq	Level	Limit Line	Margin	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	40.67	29.22	40.00	-10.78	40.88	19.16	1.03	31.98	0.13	--	--	PEAK
2	80.44	28.95	40.00	-11.05	46.05	13.36	1.41	31.93	0.06	--	--	PEAK
3	159.98	26.21	43.50	-17.29	39.59	16.50	1.90	31.89	0.11	--	--	PEAK
4	227.88	28.60	46.00	-17.40	42.01	16.03	2.23	31.76	0.09	--	--	PEAK
5	480.08	37.69	46.00	-8.31	42.60	23.60	3.15	31.77	0.11	--	--	PEAK
6	915.20	115.69	------	------	112.86	29.41	4.20	30.97	0.19	134	349	PEAK
7	981.57	36.16	54.00	-17.84	31.35	30.57	4.36	30.35	0.23	--	--	PEAK

Vertical



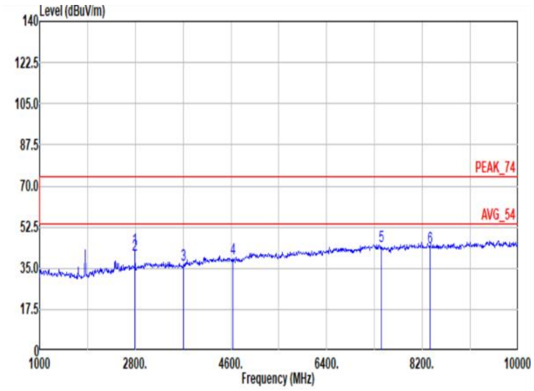
Site : 03CH13-HY
Condition: QP 3m BILOG_40103 VERTICAL

	Freq	Level	Limit Line	Margin	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	38.73	33.05	40.00	-6.95	43.54	20.36	1.01	31.99	0.13	100	208	QP
2	72.68	33.67	40.00	-6.33	51.51	12.63	1.37	31.91	0.07	--	--	PEAK
3	75.59	33.43	40.00	-6.57	50.92	12.96	1.39	31.90	0.06	--	--	PEAK
4	117.30	30.28	43.50	-13.22	43.06	17.40	1.65	31.91	0.08	--	--	PEAK
5	159.98	32.97	43.50	-10.53	46.35	16.50	1.90	31.89	0.11	--	--	PEAK
6	320.03	29.96	46.00	-16.04	39.54	19.50	2.60	31.81	0.13	--	--	PEAK
7	915.20	105.38	------	------	102.55	29.41	4.20	30.97	0.19	201	271	PEAK

Mode	30	
	Harmonic	
	LFR_Tx_927.6MHz	
ANT	1	
Pol.	Horizontal	Vertical

Peak Avg

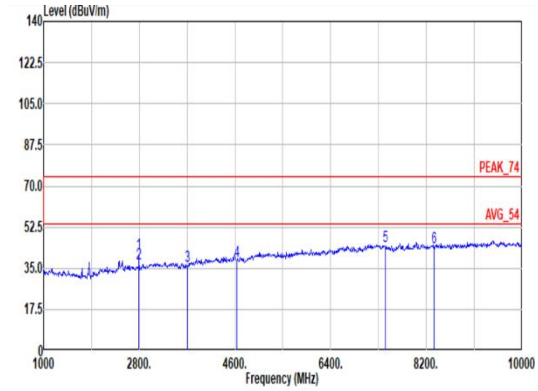
Horizontal



Site : 03CH13-HY
Condition: PEAK_74 3m HORN_9120D_1326 HORIZONTAL

	Freq	Level	Limit Line	Margin	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	43.32	74.00	-30.68	64.53	28.40	7.27	57.29	0.41	112	97	PEAK
2	2782.80	40.42	54.00	-13.58	61.63	28.40	7.27	57.29	0.41	112	97	AVERAGE
3	3710.40	36.61	74.00	-37.39	56.19	29.94	8.43	58.47	0.52	--	--	PEAK
4	4638.00	39.34	74.00	-34.66	55.50	31.90	9.37	57.81	0.38	--	--	PEAK
5	7420.80	44.37	74.00	-29.63	52.85	36.56	12.03	57.58	0.51	--	--	PEAK
6	8348.40	44.04	74.00	-29.96	50.46	37.10	12.73	56.71	0.46	--	--	PEAK

Vertical



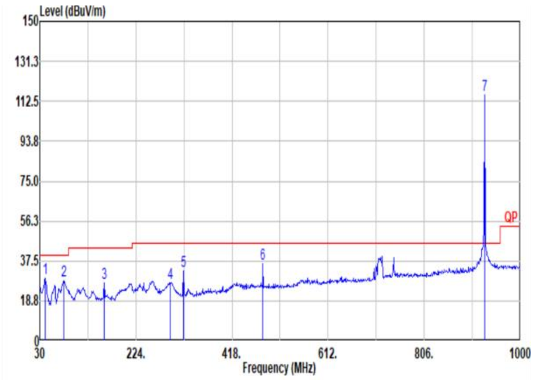
Site : 03CH13-HY
Condition: PEAK_74 3m HORN_9120D_1326 VERTICAL

	Freq	Level	Limit Line	Margin	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	41.21	74.00	-32.79	62.42	28.40	7.27	57.29	0.41	400	178	PEAK
2	2782.80	36.99	54.00	-17.01	58.20	28.40	7.27	57.29	0.41	400	178	AVERAGE
3	3710.40	36.06	74.00	-37.94	55.64	29.94	8.43	58.47	0.52	--	--	PEAK
4	4638.00	38.18	74.00	-35.82	54.34	31.90	9.37	57.81	0.38	--	--	PEAK
5	7420.80	44.32	74.00	-29.68	52.80	36.56	12.03	57.58	0.51	--	--	PEAK
6	8348.40	44.10	74.00	-29.90	50.52	37.10	12.73	56.71	0.46	--	--	PEAK

Mode	**30**	
	LF	
	LFR_Tx_927.6MHz	
ANT	**1**	
Pol.	**Horizontal**	**Vertical**

QP/ Peak

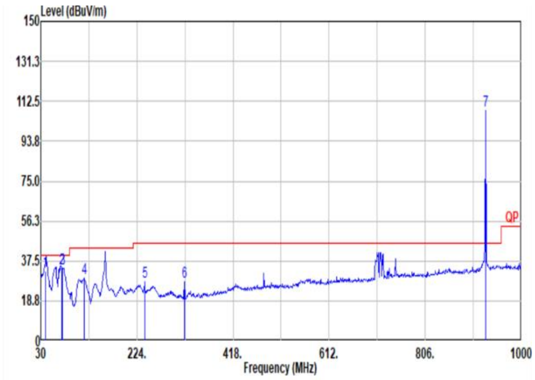
Horizontal



Site : 03CH13-HY
Condition: QP 3m BILOG_40103 HORIZONTAL

	Freq	Level	Limit Line	Margin	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	40.67	29.25	40.00	-10.75	40.91	19.16	1.03	31.98	0.13	--	--	PEAK
2	78.50	28.51	40.00	-11.49	45.77	13.20	1.40	31.92	0.06	--	--	PEAK
3	159.98	27.04	43.50	-16.46	40.42	16.50	1.90	31.89	0.11	--	--	PEAK
4	293.84	27.45	46.00	-18.55	37.44	19.18	2.50	31.80	0.13	--	--	PEAK
5	320.03	33.00	46.00	-13.00	42.58	19.50	2.60	31.81	0.13	--	--	PEAK
6	480.08	36.32	46.00	-9.68	41.23	23.60	3.15	31.77	0.11	--	--	PEAK
7	927.60	115.42	------	------	111.95	29.90	4.23	30.86	0.20	100	14	PEAK

Vertical



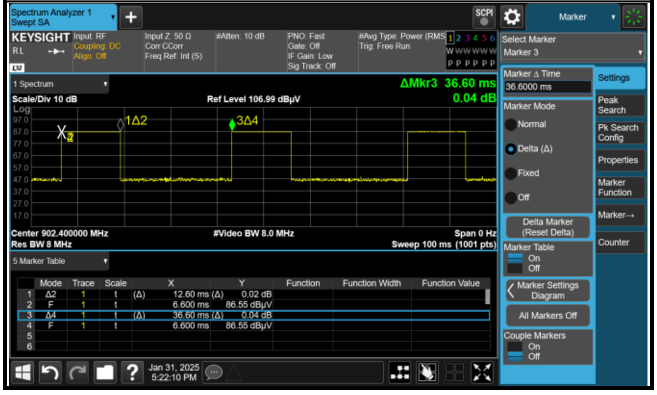
Site : 03CH13-HY
Condition: QP 3m BILOG_40103 VERTICAL

	Freq	Level	Limit Line	Margin	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	38.73	32.80	40.00	-7.20	43.29	20.36	1.01	31.99	0.13	100	205	QP
2	72.68	33.90	40.00	-6.10	51.74	12.63	1.37	31.91	0.07	--	--	PEAK
3	74.62	33.85	40.00	-6.15	51.51	12.79	1.39	31.90	0.06	--	--	PEAK
4	118.27	29.23	43.50	-14.27	42.04	17.37	1.65	31.91	0.08	--	--	PEAK
5	239.52	27.59	46.00	-18.41	39.70	17.24	2.28	31.74	0.11	--	--	PEAK
6	320.03	27.50	46.00	-18.50	37.08	19.50	2.60	31.81	0.13	--	--	PEAK
7	927.60	108.10	------	------	104.65	29.89	4.23	30.87	0.20	208	260	PEAK

Appendix D. Duty Cycle Plots

Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
LFR	34.43	12600	0.08	100Hz

LFR



———THE END———