Test Report No:
2490323R-RFUSV01S-A

TEST REPORT
FCC Rules&Regulations

Product Name	Wireless Keyboard
Brand Name	msi
Model No.	MS-8ZA5
FCC ID	I4L-MS-8ZA5
Applicant´s Name / Address	MICRO-STAR INT'L Co., LTD. No.69, Lide St., Zhonghe Dist., New Taipei City 235, Taiwan (R.O.C.)
Manufacturer's Name / Address	MICRO-STAR INT'L Co., LTD. No.69, Lide St., Zhonghe Dist., New Taipei City 235, Taiwan (R.O.C.)
Test Method Requested, Standard	FCC CFR Title 47 Part 15 Subpart C Section 15.247 ANSI C63.10-2013
Verdict Summary	IN COMPLIANCE
Documented By	Jennie She Jennie She
Approved By	Allen Lin Allen Lin
Date of Receipt	Sep. 10, 2024
Date of Issue	Dec. 11, 2024
Report Version	V1.0

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Competences and Guarantees

DEKRA is a testing laboratory competent to carry out the tests described in this report.
In order to assure the traceability to other national and international laboratories, DEKRA has a calibration and maintenance program for its measurement equipment.

DEKRA guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated in the report and it is based on the knowledge and technical facilities available at DEKRA at the time of performance of the test.

DEKRA is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

General Conditions

1. The test results relate only to the samples tested.
2. The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.
3. This report must not be used to claim product endorsement by TAF or any agency of the government.
4. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.
5. Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Revision History

Version	Description	Issued Date
V1.0	Initial issue of report	Dec. 11, 2024

Summary of Test Result

Report Clause	Test Items	Result (PASS/FAIL)	Remark
3	AC Power Line Conducted Emission	PASS	-
4	Occupied Bandwidth & DTS Bandwidth	PASS	-
5	Maximum Conducted Output Power	PASS	-
6	Maximum Power Spectral Density	PASS	-
7	Antenna Port Conducted Emission	PASS	-
8	Transmitter Radiated Spurious Emission	PASS	-

Comments and Explanations
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Comments and Remarks

The product specification and testing instructions for the EUT declared in the report are provided by the manufacturer who will take all responsibilities for the accuracy.

1. General Information

1.1. EUT Description

Frequency Range	2400 ~ 2483.5 MHz
Operating Frequency	2403 ~ 2473 MHz
Channel Number	5 Channels
Type of Modulation	GFSK

Accessories Information				
No.	Equipment Name	Brand Name	Model No.	Description
1	USB Type-C to USB-A Cable	msi	Strike Pro USB cable	Shielded, 2.1m
2	USB Type-C Connector	msi	STRIKE PRO Type C	-
3	Wireless Dongle Receiver Extender	msi	STRIKE PRO Extender	-
4	Wireless USB Dongle	msi	GM31WD	DC 5V / 30mA

Antenna Information				
Ant.	Brand Name	Model No.	Type	Antenna Gain (dBi)
1	Chuand Technology	STRIKE PRO	PCB	2

Working Frequency of Each Channel					
Channel	Frequency	Channel	Frequency	Channel	Frequency
01	2403 MHz	02	2461 MHz	03	2425 MHz
04	2473 MHz	05	2440 MHz	-	-

1.2. EUT Information

EUT Power Type	From Host system / Battery			
EUT Function	☒	Point-to-multipoint	☐	Point-to-point

1.3. Testing Applied Standards

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

- 47 CFR FCC Part 15
- ANSI C63.10-2013

The following reference test guidance is not within the scope of accreditation of TAF:

- KDB 558074 D01 v05r02
- KDB 414788 D01 v01r01

1.4. Testing Location Information

Testing Location Information		
Test Laboratory：DEKRA Testing and Certification Co., Ltd.		
	1 (TAF: 3024)	ADD: No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C. TEL: +886-3-582-8001 FAX: +886-3-582-8958 Test site Designation No. TW3024 with FCC. Conformity Assessment Body Identifier (CABID) TW3024 with ISED.
	2 (TAF: 3024)	ADD: No.372, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C. TEL: +886-3-582-8001 FAX: +886-3-582-8958 Test site Designation No. TW3024 with FCC. Conformity Assessment Body Identifier (CABID) TW3024 with ISED.
Test site number for address 1 includes HC-SR02. Test site number for address 2 includes HC-CB02, HC-CB03, HC-CB04, HC-SR10 and HC-SR12.		

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
AC Conduction Emission	HC-SR02	Gary Liao	23.5 / 63	2024/10/29
RF Conducted Emission	HC-SR12	Igor Tseng	22.1 / 50	2024/10/08
Radiated Emission	HC-CB02	Scott Chang	22.1~23.5 / 50~64	2024/10/25~2024/10/26

1.5. Measurement Uncertainty

Uncertainties have been calculated according to the DEKRA internal document with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2).

Test Item	Uncertainty
AC Power Line Conducted Emission	± 2.34 dB
Occupied Bandwidth & DTS Bandwidth	± 282.55 Hz
Maximum Conducted Output Power	± 1.16 dB
Maximum Power Spectral Density	± 2.47 dB
Antenna Port Conducted Emission	± 2.47 dB
Transmitter Radiated Spurious Emission	± 3.52 dB below 1 GHz ± 3.56 dB above 1 GHz

1.6. List of Test Equipment

HC-SR02

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Cal. Date	Next Cal. Date
Artificial Mains Network	R&S	ENV4200	848411/010	9kHz-30MHz, 4line/100A	2023/12/15	2024/12/14
EMI Test Receiver	R&S	ESR3	102608	9 kHz - 3.6 GHz	2024/09/11	2025/09/10
Two-Line V-Network	R&S	ENV216	100096	9kHz-30MHz	2024/06/03	2025/06/02
Coaxial Cable(9 m)	Harbour	RG-400	HC-SR02	9 kHz–2500 MHz	2024/08/15	2025/08/14
EMI Testing System	Audix	e3 210616 dekra V9	HC-SR02	N/A	N/A	N/A

HC-SR12

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Cal. Date	Next Cal. Date
High Speed Peak Power Meter Dual Input	Anritsu	ML2496A	1602004	0.3-40 GHz	2023/10/25	2024/10/24
Pulse Power Sensor	Anritsu	MA2411B	1531043	0.3-40 GHz	2023/10/25	2024/10/24
Pulse Power Sensor	Anritsu	MA2411B	1531044	0.3-40 GHz	2023/10/25	2024/10/24
Signal & Spectrum Analyzer	R&S	FSV40	101869	10Hz-40GHz	2024/06/20	2025/06/19

HC-CB02

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Cal. Date	Next Cal. Date
Signal and Spectrum Analyzer	R&S	FSVA40	101435	10 Hz-40 GHz	2024/05/17	2025/05/16
Trilog Broadband Antenna	Schwarzbeck	VULB 9168	1272	30 MHz-2 GHz	2024/04/29	2025/04/28
Double Ridged Horn Antenna	RF SPIN	DRH18-E	211211A18EN	1G-18GHz	2023/11/09	2024/11/08
Horn Antenna	Schwarzbeck	BBHA 9170	203	18G-40GHz	2024/02/02	2025/02/01
Pre-Amplifier	EMCI	EMC01820I	980365	30M-8 GHz,20 dB	2024/04/02	2025/04/01
Pre-Amplifier	EMEC	EM01G18GA	060741	1G-18 GHz,50 dB	2024/04/23	2025/04/22
Pre-Amplifier	DEKRA	AP-400C	201801231	18G-40 GHz,48 dB	2024/10/15	2025/10/14
EMI Test Receiver	R&S	ESR7	102260	10 Hz-7 GHz	2023/11/27	2024/11/26
Magnetic Loop Antenna	Teseq	HLA 6121	44287	0.01-30 MHz	2024/10/17	2025/10/16
Coaxial Cable	Huber+Suhner	SF104	HC-CB02	30 MHz-18 GHz, 13m	2024/08/13	2025/08/12
Coaxial Cable	Huber+Suhner, Rosnol	SF102_UP0264	HC-CB02-1	18-40 GHz, 3 m	2024/08/13	2025/08/12
Radiated Software	Audix	e3 V9	HC-CB02_1	N/A	N/A	N/A

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

2. Test Configuration of EUT

2.1. Test Condition

EUT Operational Condition	
Testing Voltage	AC 120V/60Hz

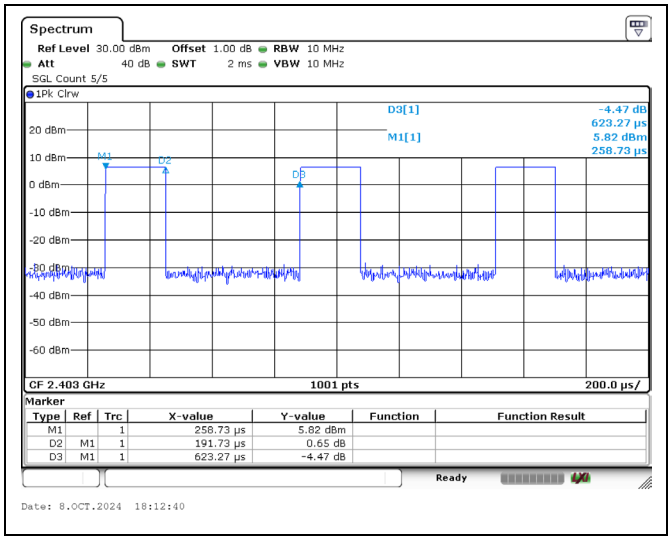
2.2. Test Frequency Mode

Test Software Version	Bus_Hound_v6.01

Frequency (MHz)	Power Setting
2403	8
2440	8
2473	8

2.3. Duty Cycle

On Times (ms)	On+Off Times (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
0.191	0.623	30.66%	5.13	5.236



2.4. The Worst Case Measurement Configuration

Tests Item	AC Power Line Conducted Emission
Test Condition	AC power line conducted measurement for line and neutral
Operating Mode	Transmit

Tests Item	Occupied Bandwidth & DTS Bandwidth Maximum Conducted Output Power Maximum Power Spectral Density Antenna Port Conducted Emission
Test Condition	Conducted measurement at transmit chains

Tests Item	Transmitter Radiated Spurious Emission
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode	Transmit
The EUT was performed at Z axis position for radiated spurious emission test. The worst case was found at Z axis, so the measurement will follow this same test configuration.	

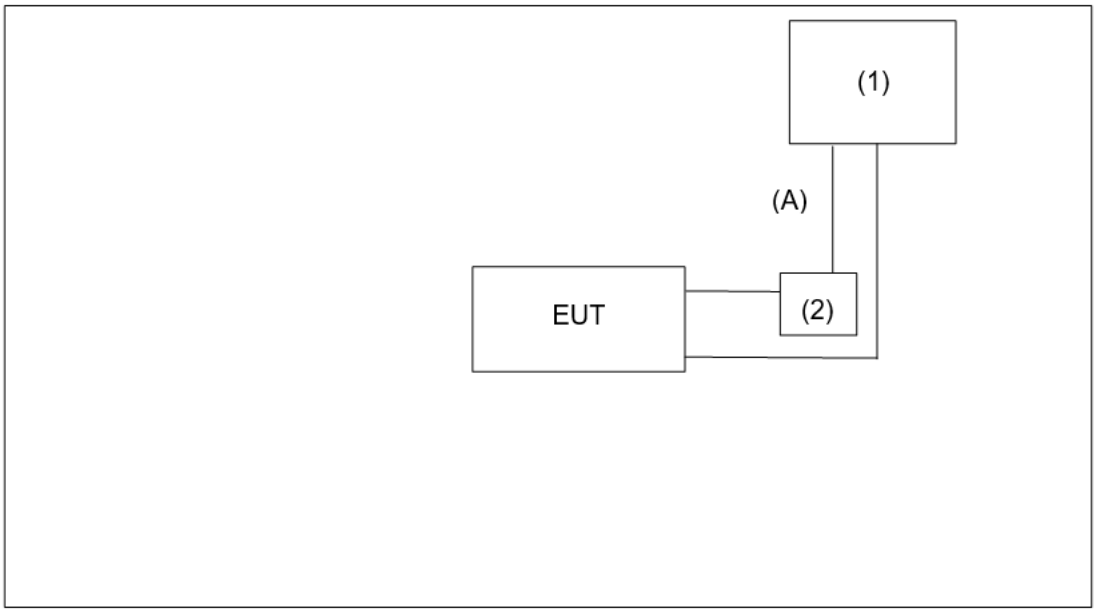
Note:
1. Determining compliance shall be based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. For radiated spurious emission below 1 GHz and AC power line conducted emission have performed all modes of operation were investigated and the worst-case emissions are reported.

2.5. Tested System Details

No.	Equipment	Brand Name	Model No.	Serial No.
1	Notebook	ASUS	BX310U	J5N0CV04S32319B
2	USB to TTL signal converter	Chuand	BusHound	N/A

2.6. Configuration of Tested System

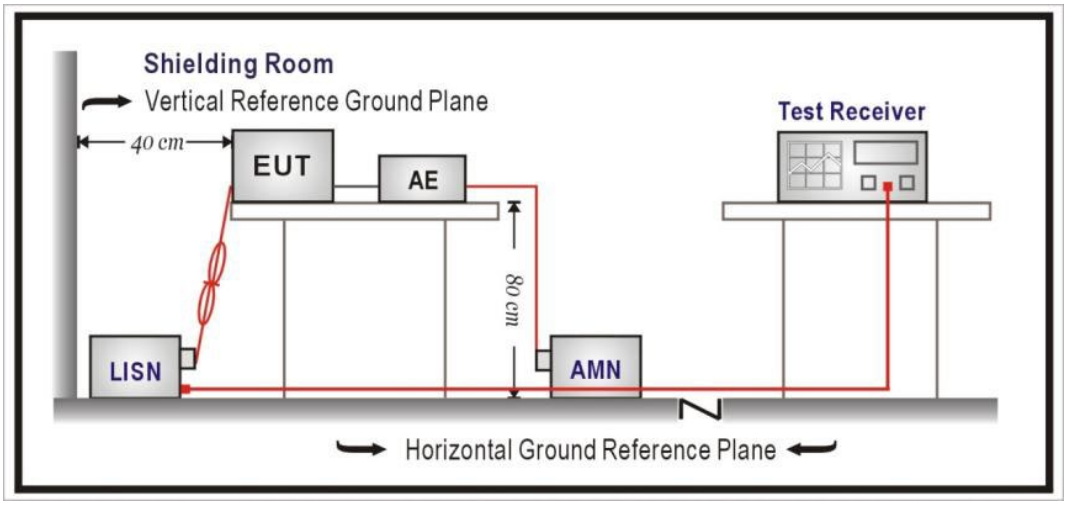
Connection Diagram



Signal Cable Type		Signal cable Description
A	USB Cable	Non-Shielded, 1.8m

3. AC Power Line Conducted Emission

3.1. Test Setup



3.2. Test Limit

Frequency (MHz)	QP (dBuV)	AV (dBuV)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Remarks: In the above table, the tighter limit applies at the band edges.

3.3. Test Procedure

The EUT was setup according to ANSI C63.10: 2013. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs.)

Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

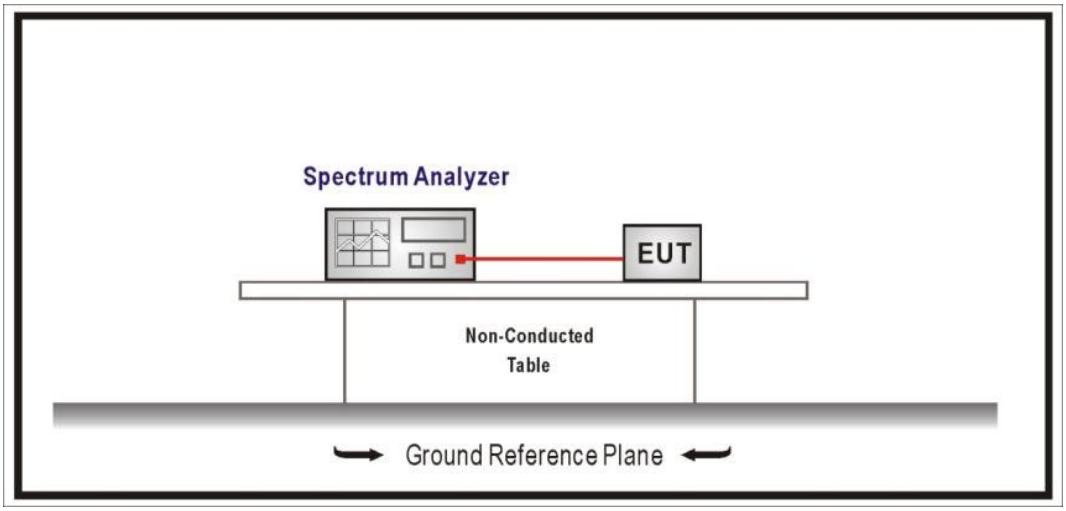
Conducted emissions were investigated over the frequency range from 0.15 MHz to 30 MHz using a receiver bandwidth of 9 kHz.

3.4. Test Result of AC Power Line Conducted Emission

Refer as Appendix A

4. Occupied Bandwidth & DTS Bandwidth

4.1. Test Setup



4.2. Test Limit

The 6 dB bandwidth: ≧ 0.50 MHz.

Occupied Bandwidth: N/A

4.3. Test Procedures

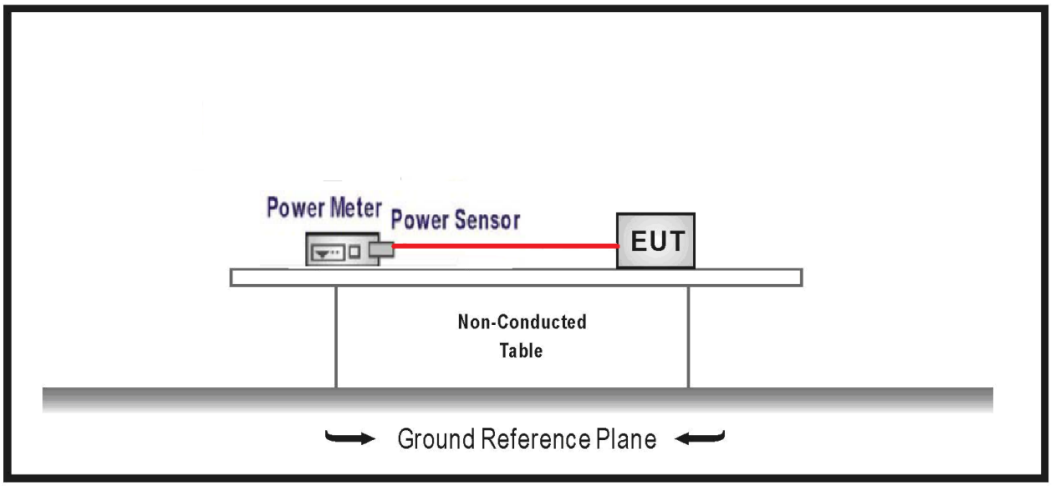
The EUT was setup according to ANSI C63.10: 2013; tested according to DTS test procedure of KDB 558074.

4.4. Test Result of Occupied Bandwidth & DTS Bandwidth

Refer as Appendix B

5. Maximum Conducted Output Power

5.1. Test Setup



5.2. Test Limit

The maximum conducted output power shall be less 30 dBm (1 Watt).

5.3. Test Procedures

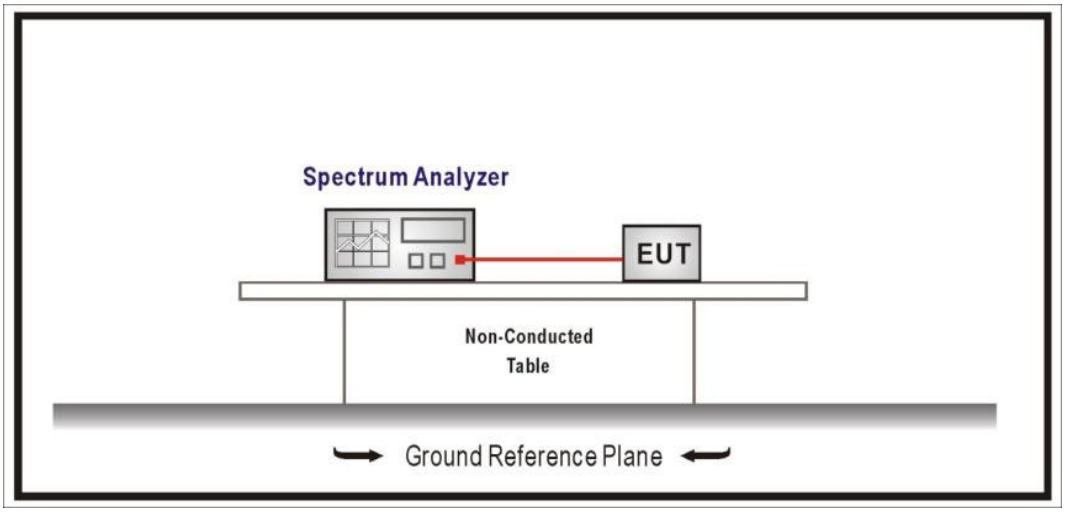
The EUT was setup according to ANSI C63.10: 2013; tested according to DTS test procedure of KDB 558074.

5.4. Test Result of Maximum Conducted Output Power

Refer as Appendix C

6. Maximum Power Spectral Density

6.1. Test Setup



6.2. Test Limit

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

6.3. Test Procedures

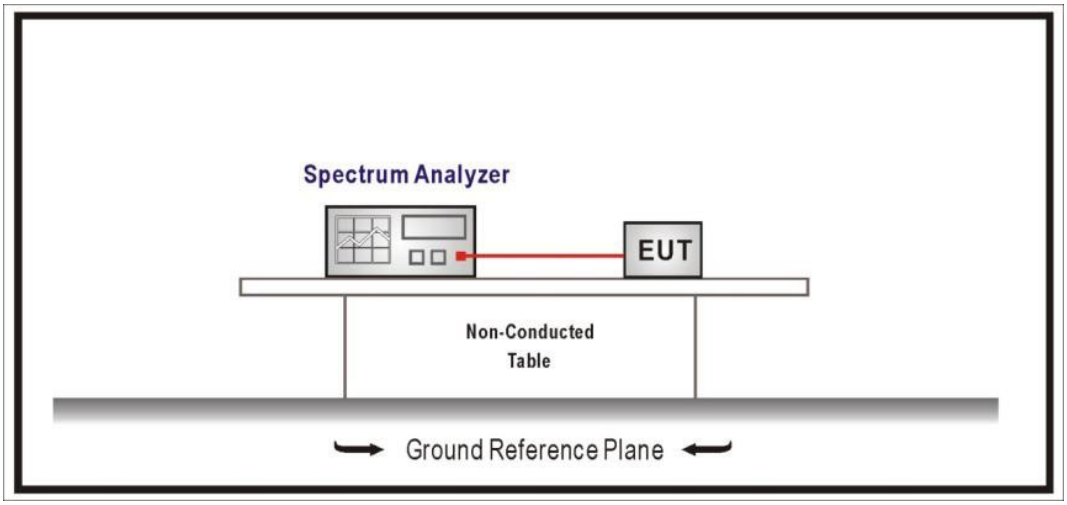
The EUT was setup according to ANSI C63.10: 2013; tested according to DTS test procedure of KDB 558074.

6.4. Test Result of Maximum Power Spectral Density

Refer as Appendix D

7. Antenna Port Conducted Emission

7.1. Test Setup



7.2. Test Limit

RF output power procedure	Limit (dBc)
Peak output power procedure	20
Average output power procedure	30

Remarks:

1. In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limit.
2. If the transmitter complies with the conducted power limit based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

7.3. Test Procedure

The EUT was setup according to ANSI C63.10: 2013 and tested according to DTS test procedure of KDB 558074.

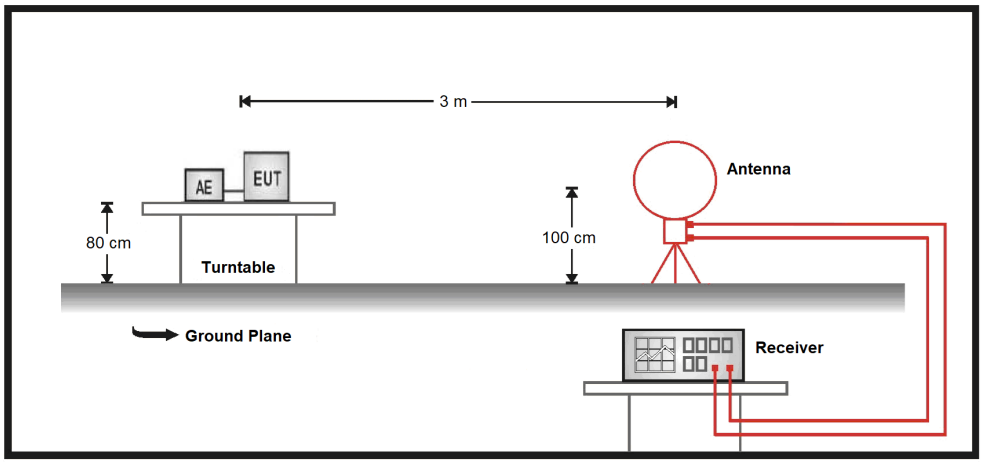
7.4. Test Result of Antenna Port Conducted Emission

Refer as Appendix E

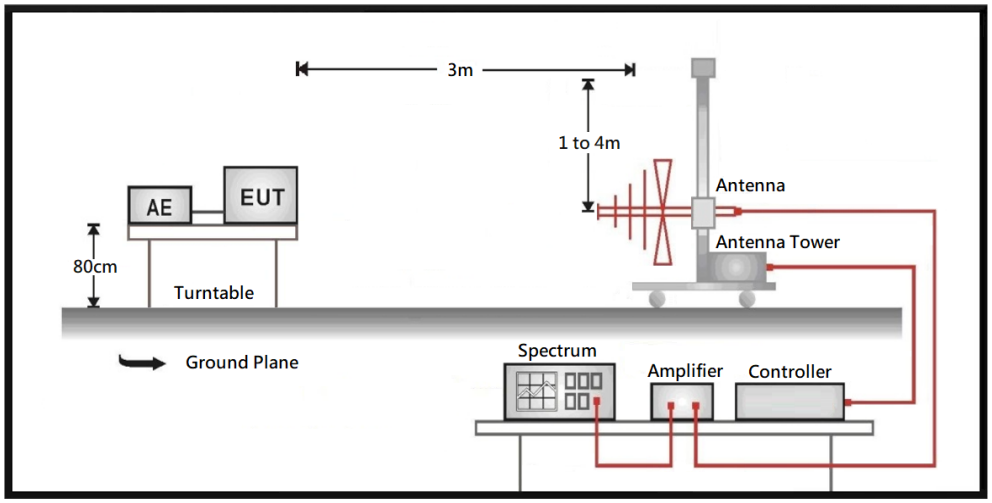
8. Transmitter Radiated Spurious Emission

8.1. Test Setup

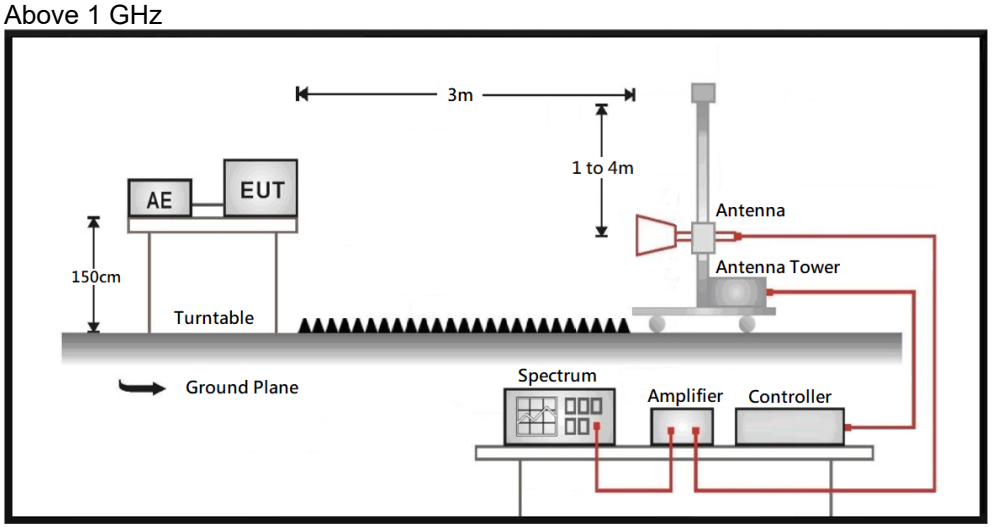
9 kHz ~ 30 MHz



30 MHz ~ 1 GHz



Above 1 GHz



8.2. Test Limit

Frequency (MHz)	Field strength (uV/m)	Field strength (dBuV/m)	Measurement distance (m)
0.009 – 0.490	2400/F(kHz)	20 log (2400/F(kHz))	300
0.490 – 1.705	24000/F(kHz)	20 log (24000/F(kHz))	30
1.705 - 30	30	29.5	30
30 - 88	100	40	3
88 - 216	150	43.5	3
216 - 960	200	46	3
Above 960	500	54	3

Remarks:

1. Field strength (dBuV/m) = 20 log Field strength (uV/m)
2. In the Above Table, the tighter limit applies at the band edges.
3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

8.3. Test Procedure

The EUT was setup according to ANSI C63.10: 2013 and tested according to DTS test procedure of KDB 558074.

The EUT and its simulators are placed on a turn table which is 0.8 or 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10: 2013 on radiated measurement.

On any frequency or frequencies form 9 kHz(inculde The the lowest oscillator frequency generated within the device up to the 10th harmonic) to 1000 MHz, the limit shown are based on measuring equipment employing a quasi-peak detector function and on any frequency or frequencies above 1000 MHz the radiated limit shown are based upon the use of measurement instrumentation employing an average detector function. When average radiated emission measurement are included emission measurement below 1000 MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit.

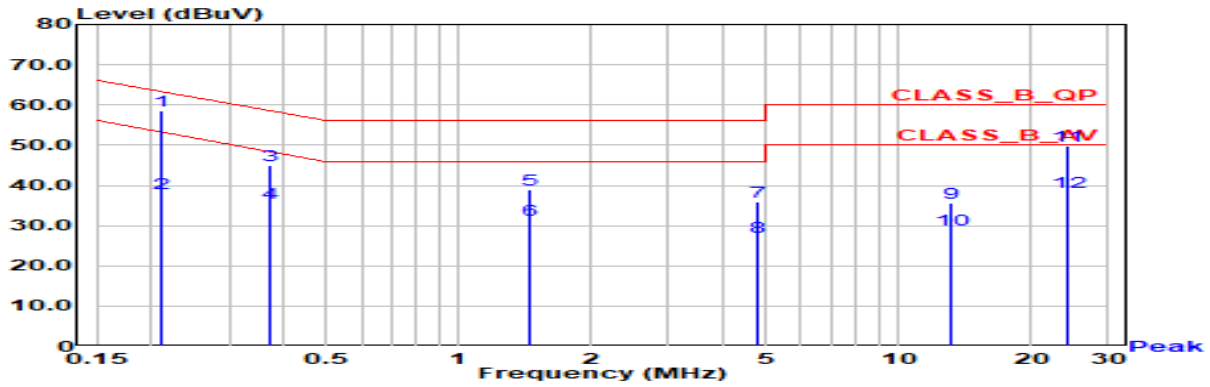
The bandwidth below 1 GHz setting on the field strength meter is 120 kHz and above 1 GHz is 1 MHz.

8.4. Test Result of Transmitter Radiated Spurious Emission

Refer as Appendix F

Appendix A. Test Result of AC Power Line Conducted Emission

Test Mode	Transmit	Phase	Line
Test Condition	GFSK / 2440 MHz		

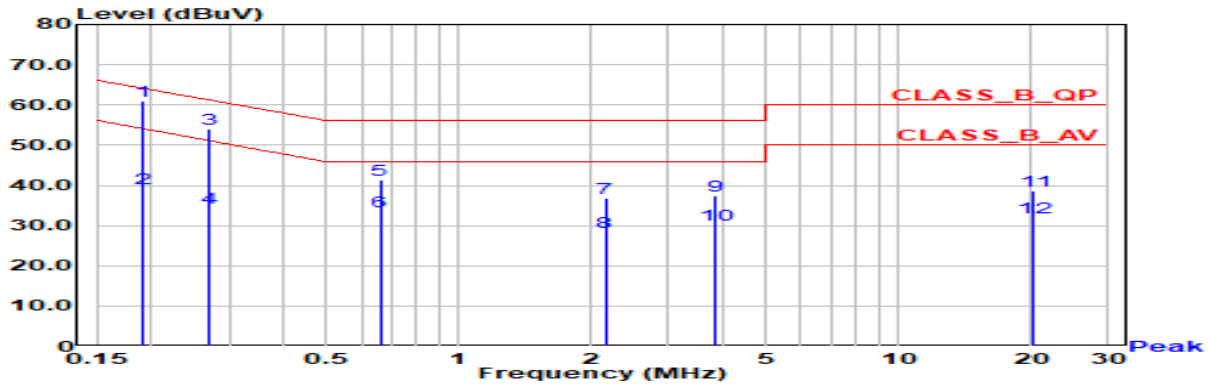


No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
*1	0.210	58.54	63.21	-4.67	48.87	9.67	QP
2	0.210	38.09	53.21	-15.12	28.42	9.67	AV
3	0.374	44.98	58.42	-13.44	35.31	9.67	QP
4	0.374	35.61	48.42	-12.81	25.94	9.67	AV
5	1.452	38.93	56.00	-17.07	29.14	9.79	QP
6	1.452	31.53	46.00	-14.47	21.74	9.79	AV
7	4.756	35.89	56.00	-20.11	25.93	9.97	QP
8	4.756	27.04	46.00	-18.96	17.07	9.97	AV
9	13.102	35.70	60.00	-24.30	25.45	10.25	QP
10	13.102	28.94	50.00	-21.06	18.69	10.25	AV
11	24.110	49.84	60.00	-10.16	39.29	10.56	QP
12	24.110	38.28	50.00	-11.72	27.72	10.56	AV

Note:

1. "*" means this data is the worst emission level.
2. Emission Level = Reading Level + Correct Factor (Correct Factor = LISN Insertion Loss + Cable Loss).
3. Margin = Emission Level - Limit.

Test Mode	Transmit	Phase	Neutral
Test Condition	GFSK / 2440 MHz		



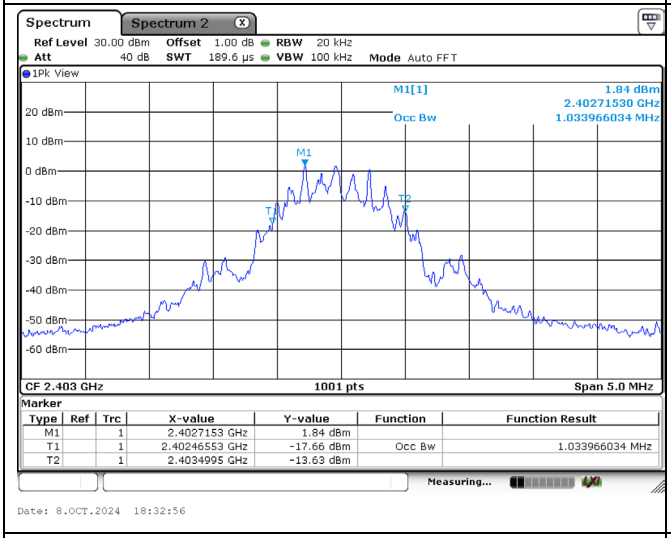
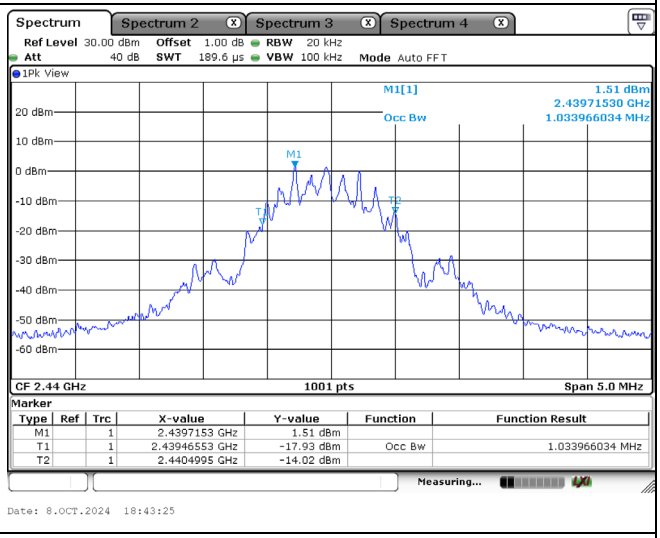
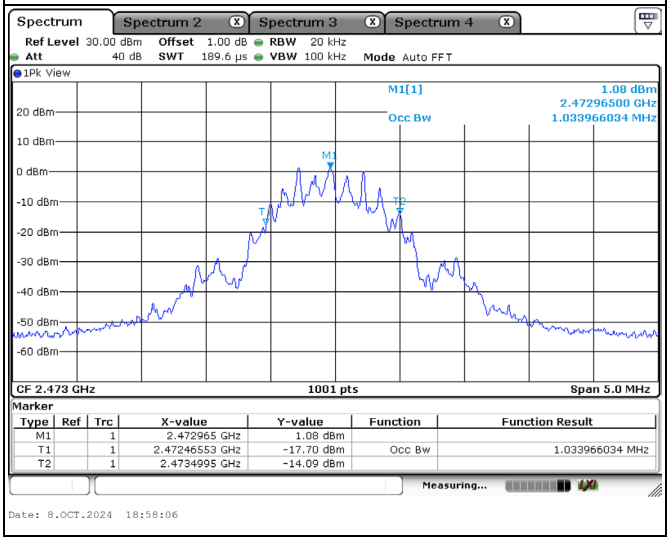
No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
*1	0.190	60.98	64.05	-3.07	51.31	9.67	QP
2	0.190	39.38	54.05	-14.67	29.71	9.67	AV
3	0.271	53.90	61.09	-7.19	44.23	9.67	QP
4	0.271	34.50	51.09	-16.59	24.83	9.67	AV
5	0.661	41.43	56.00	-14.57	31.75	9.69	QP
6	0.661	33.57	46.00	-12.43	23.88	9.69	AV
7	2.151	36.91	56.00	-19.09	27.03	9.88	QP
8	2.151	28.49	46.00	-17.51	18.61	9.88	AV
9	3.835	37.33	56.00	-18.67	27.39	9.94	QP
10	3.835	30.05	46.00	-15.95	20.11	9.94	AV
11	20.365	38.54	60.00	-21.46	28.09	10.45	QP
12	20.365	32.04	50.00	-17.96	21.59	10.45	AV

Note:

1. "*" means this data is the worst emission level.
2. Emission Level = Reading Level + Correct Factor (Correct Factor = LISN Insertion Loss + Cable Loss).
3. Margin = Emission Level - Limit.

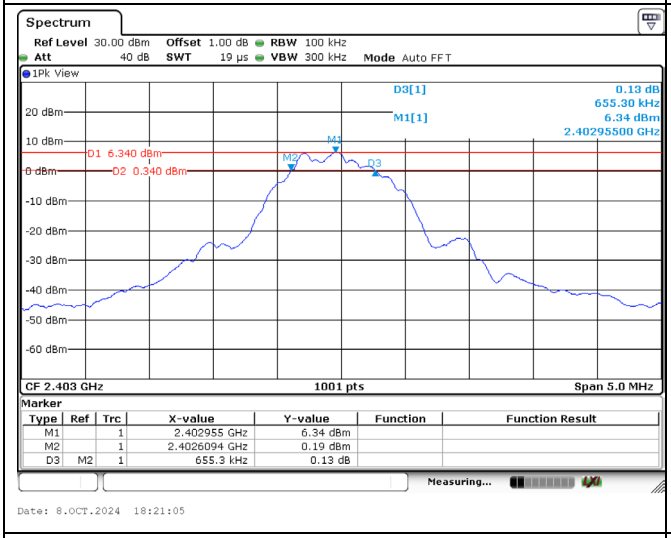
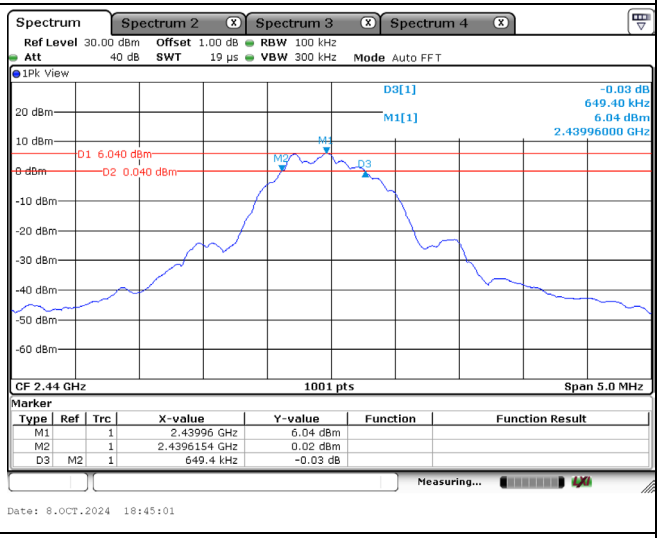
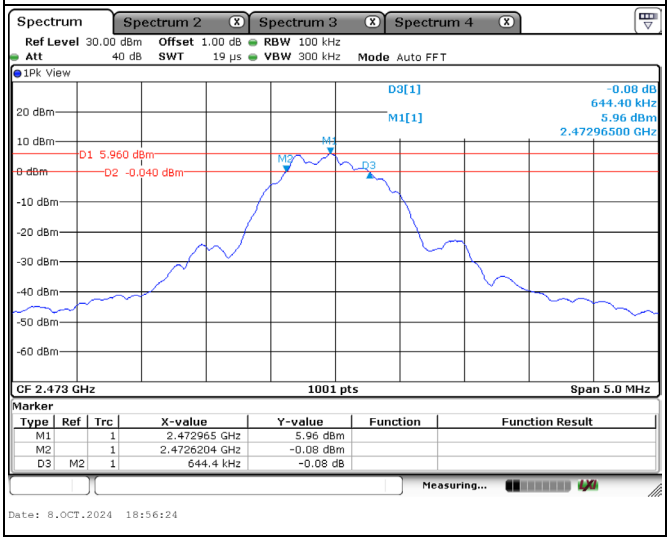
Appendix B.1 Test Result of Occupied Bandwidth

Frequency (MHz)	Occupied Bandwidth (MHz)	Limit (MHz)
2403	1.033	-
2440	1.033	-
2473	1.033	-

2403 MHz	2440 MHz
	
2473 MHz	-
	-

Appendix B.2 Test Result of DTS Bandwidth

Frequency (MHz)	DTS Bandwidth (MHz)	Limit (MHz)	Result
2403	0.655	0.50	Pass
2440	0.649	0.50	Pass
2473	0.644	0.50	Pass

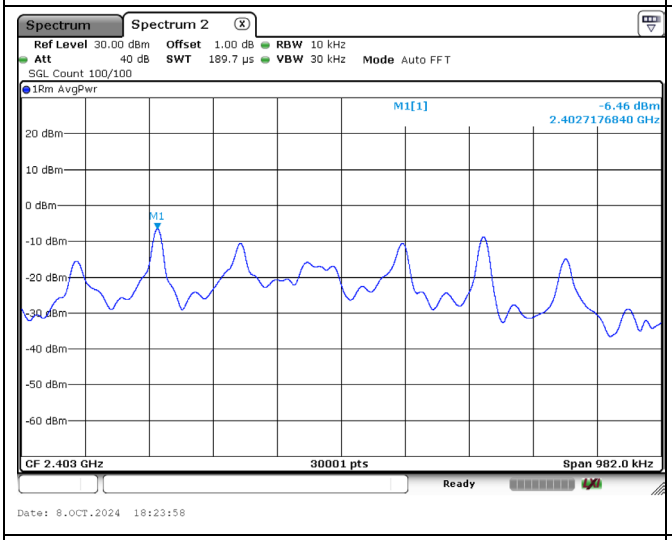
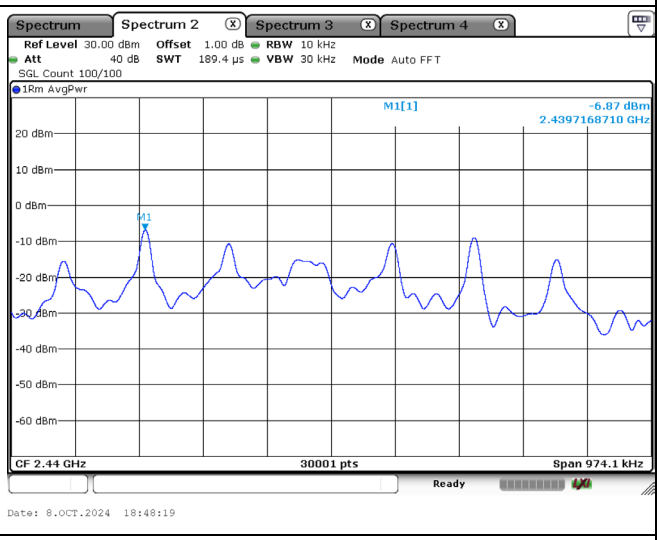
2403 MHz	2440 MHz
	
2473 MHz	-
	-

Appendix C. Test Result of Maximum Conducted Output Power

Frequency (MHz)	Conducted Peak Output Power (dBm)	Limit (dBm)	Result
2403	7.040	30.00	Pass
2440	6.540	30.00	Pass
2473	6.330	30.00	Pass

Appendix D. Test Result of Maximum Power Spectral Density

Frequency (MHz)	Power Spectral Density (dBm/RBW)	Limit (dBm/RBW)	Result
2403	-1.325	8.00	Pass
2440	-6.870	8.00	Pass
2473	-1.865	8.00	Pass

<table>
<tr><td>2403 MHz</td><td>2440 MHz</td></tr>
<tr><td> 
</td><td> 
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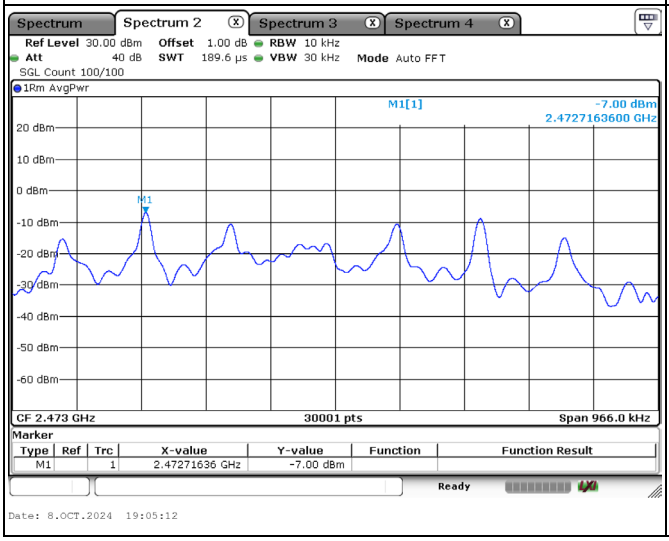
<tr><td>2473 MHz</td><td>-</td></tr>
<tr><td> 
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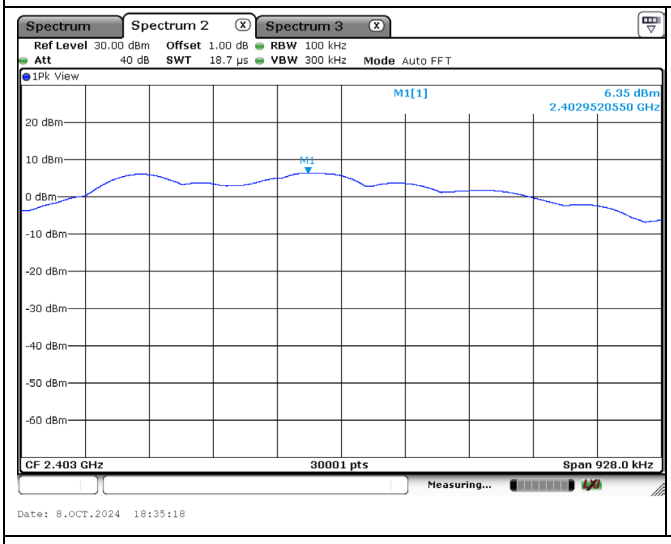
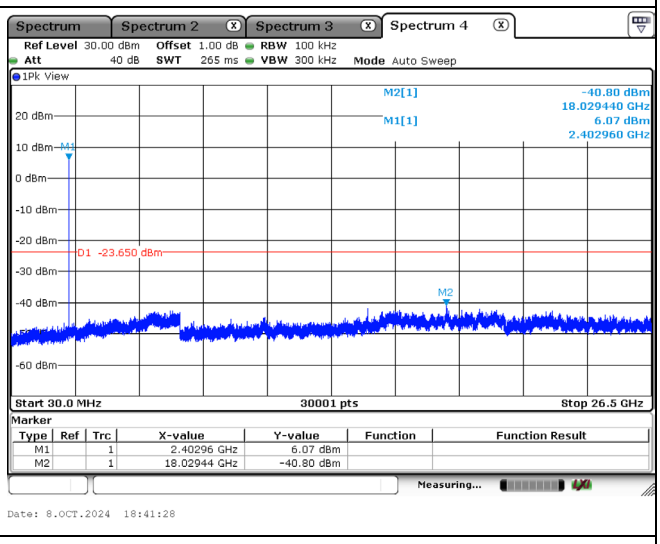
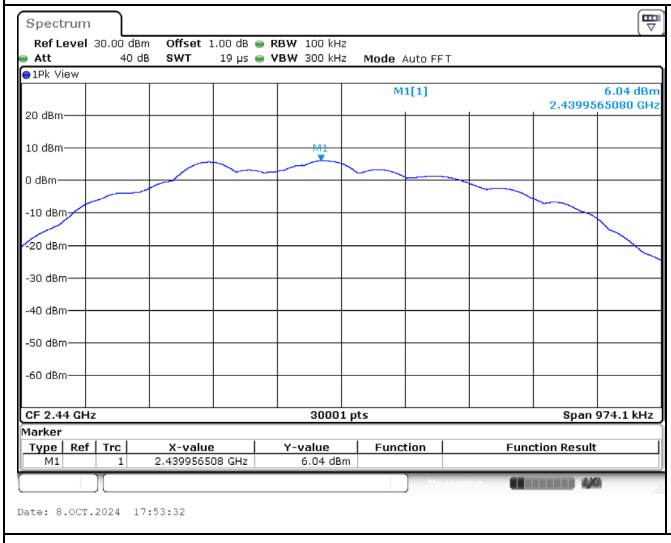
Appendix E. Test Result of Antenna Port Conducted Emission

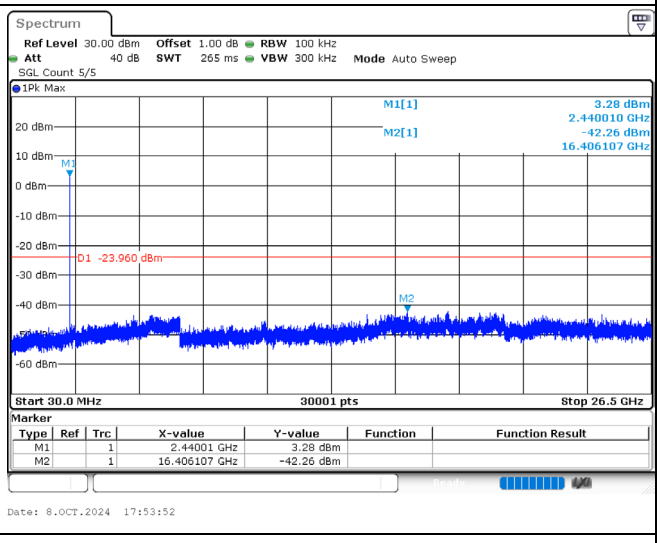
2403 MHz



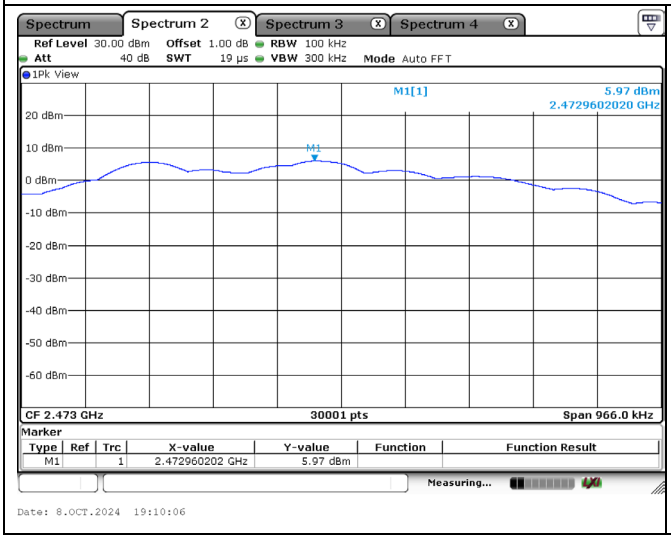


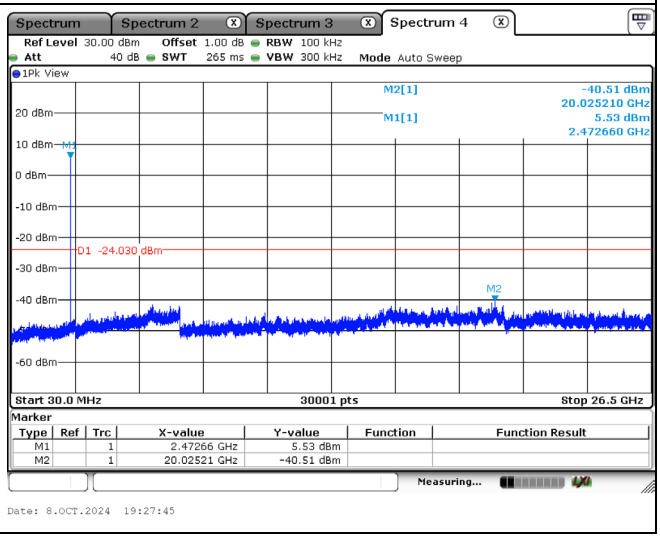
2440 MHz

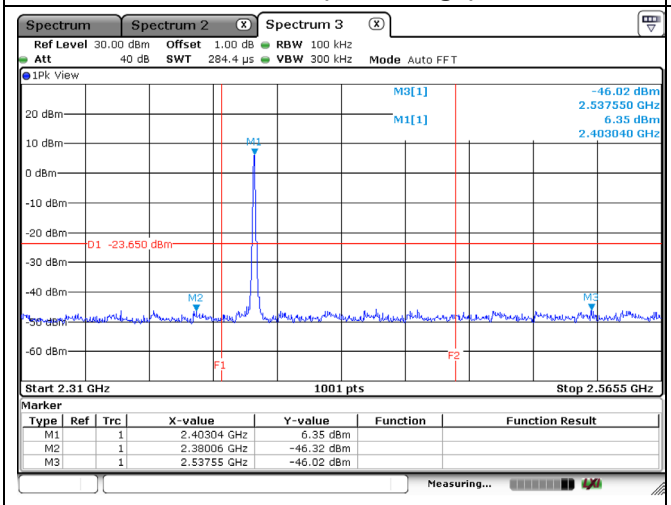
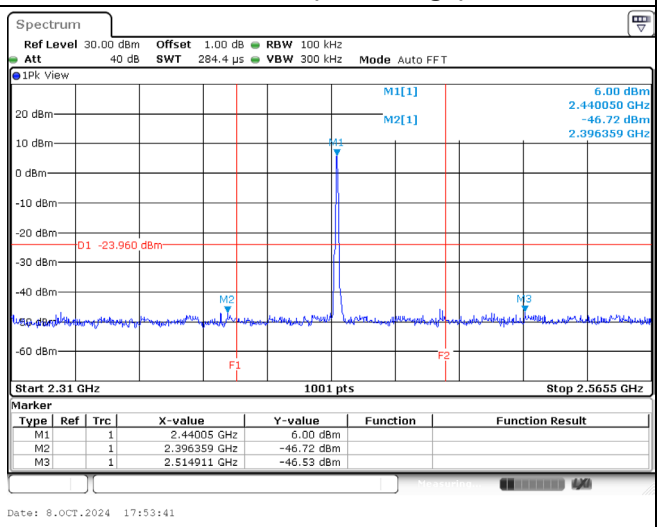
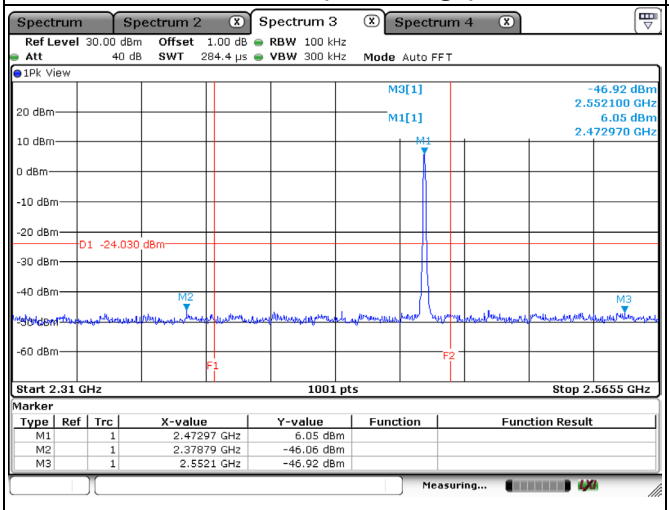




2473 MHz



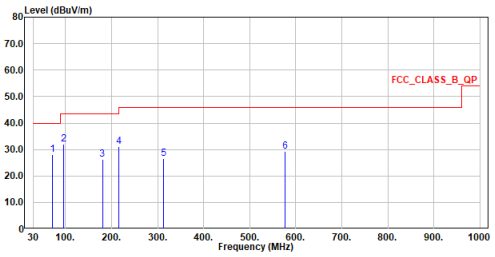


2403 MHz (Band Edge)	2440 MHz (Band Edge)
	
2473 MHz (Band Edge)	-
	-

Appendix F. Test Result of Transmitter Radiated Spurious Emission

30 MHz ~ 1 GHz

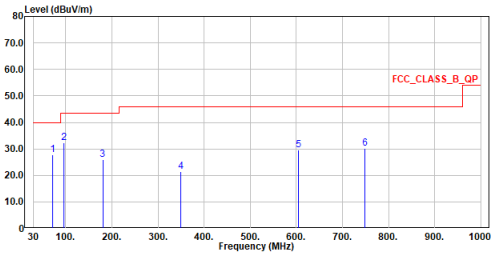
Site :HC-CB02
Condition :3m Horizontal
Mode :LF_SRD_TX_2440MHz
Test by :Scott Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	72.001	28.11	40.00	-11.89	32.92	-4.81	QP
2	95.960	32.06	43.50	-11.44	39.79	-7.73	QP
3	179.962	26.14	43.50	-17.36	30.08	-3.94	QP
4	215.949	31.02	43.50	-12.48	36.97	-5.95	QP
5	311.979	26.48	46.00	-19.52	28.12	-1.64	QP
6	576.013	29.41	46.00	-16.59	24.81	4.60	QP

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.
5. The other emission levels were very low against the limit.

Site :HC-CB02
Condition :3m Vertical
Mode :LF_SRD_TX_2440MHz
Test by :Scott Chang

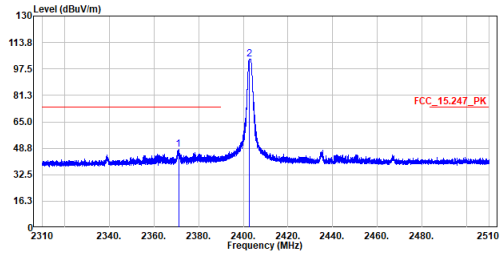


No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	72.001	27.78	40.00	-12.22	32.59	-4.81	QP
2	95.960	32.25	43.50	-11.25	39.98	-7.73	QP
3	179.962	25.89	43.50	-17.61	29.83	-3.94	QP
4	349.421	21.56	46.00	-24.44	22.45	-0.89	QP
5	604.240	29.66	46.00	-16.34	24.04	5.62	QP
6	747.994	30.05	46.00	-15.95	22.11	7.94	QP

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.
5. The other emission levels were very low against the limit.

Above 1 GHz

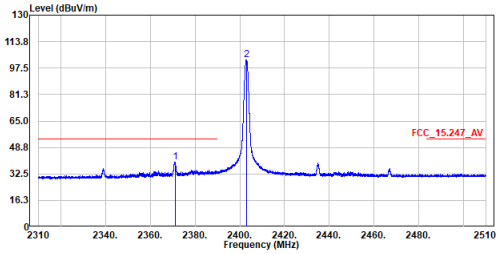
Site :HC-CB02
Condition :3m ,Horizontal
RB/VB(kHz):1000 / 3000
Mode :SRD_TX_2403MHz
Test by :Scott Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2370.980	47.85	74.00	-26.15	36.01	11.84	Peak
2	2402.720	103.51	------	------	91.51	12.00	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.

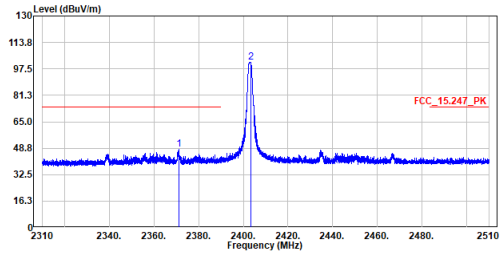
Site :HC-CB02
Condition :3m ,Horizontal
RB/VB(kHz):1000 / 10
Mode :SRD_TX_2403MHz
Test by :Scott Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2371.040	39.87	54.00	-14.13	28.03	11.84	Average
2	2402.900	102.55	------	------	90.55	12.00	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.

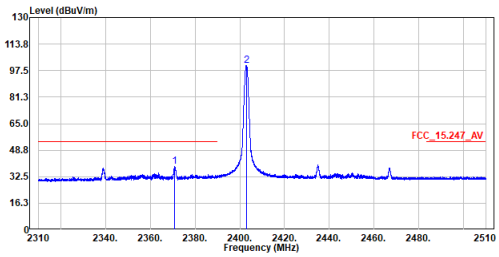
Site :HC-CB02
Condition :3m ,Vertical
RB/VB(kHz):1000 / 3000
Mode :SRD_TX_2403MHz
Test by :Scott Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2371.120	47.91	74.00	-26.09	36.07	11.84	Peak
2	2403.240	101.74	------	------	89.74	12.00	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.

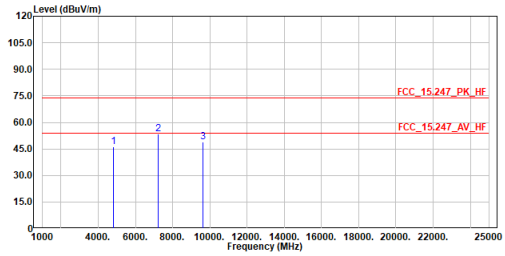
Site :HC-CB02
Condition :3m ,Vertical
RB/VB(kHz):1000 / 10
Mode :SRD_TX_2403MHz
Test by :Scott Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2370.820	38.90	54.00	-15.10	27.06	11.84	Average
2	2402.900	100.80	------	------	88.80	12.00	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.

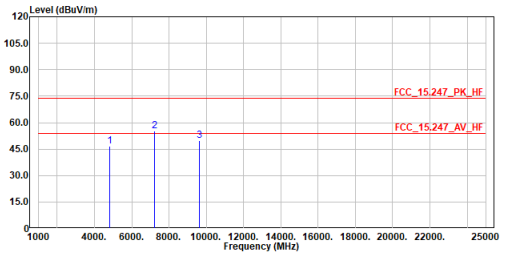
Site :HC-CB02
Condition :3m ,Horizontal
Mode :SRD_TX_2403MHz
Test by :Scott Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4806.000	46.01	74.00	-27.99	60.75	-14.74	Peak
2	7209.000	53.32	74.00	-20.68	61.30	-7.98	Peak
3	9612.000	49.12	74.00	-24.88	53.68	-4.56	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.

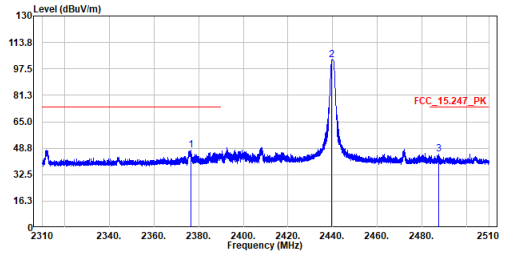
Site :HC-CB02
Condition :3m ,Vertical
Mode :SRD_TX_2403MHz
Test by :Scott Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4806.000	46.70	74.00	-27.30	61.44	-14.74	Peak
2	7210.100	55.26	74.00	-18.74	63.24	-7.98	Peak
3	9612.000	49.73	74.00	-24.27	54.29	-4.56	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.

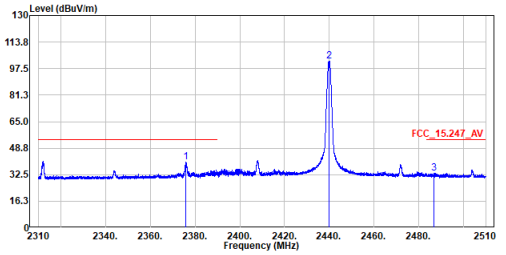
Site :HC-CB02
Condition :3m ,Horizontal
RB/VB(kHz):1000 / 3000
Mode :SRD_TX_2440MHz
Test by :Scott Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2376.460	47.48	74.00	-26.52	35.62	11.86	Peak
2	2439.700	103.17	------	------	90.99	12.18	Peak
3	2487.540	45.03	74.00	-28.97	32.60	12.43	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.

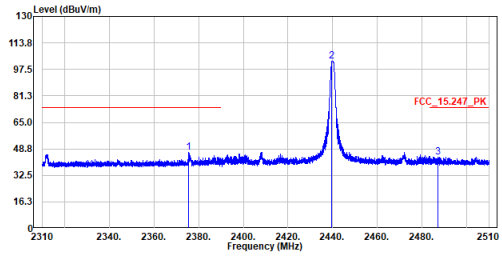
Site :HC-CB02
Condition :3m ,Horizontal
RB/VB(kHz):1000 / 10
Mode :SRD_TX_2440MHz
Test by :Scott Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2375.980	40.00	54.00	-14.00	28.14	11.86	Average
2	2439.900	102.20	------	------	90.02	12.18	Average
3	2486.740	33.60	54.00	-20.40	21.18	12.42	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.

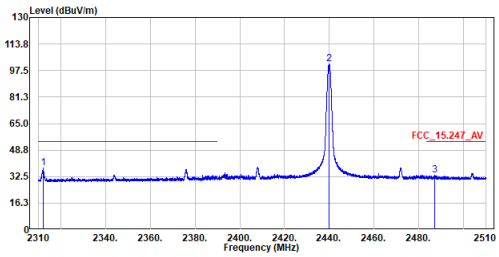
Site :HC-CB02
Condition :3m ,Vertical
RB/VB(kHz):1000 / 3000
Mode :SRD_TX_2440MHz
Test by :Scott Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2375.620	46.63	74.00	-27.37	34.77	11.86	Peak
2	2439.700	102.45	------	------	90.27	12.18	Peak
3	2487.100	43.71	74.00	-30.29	31.29	12.42	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.

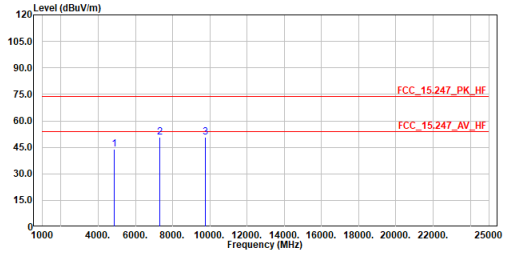
Site :HC-CB02
Condition :3m ,Vertical
RB/VB(kHz):1000 / 10
Mode :SRD_TX_2440MHz
Test by :Scott Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2312.000	37.62	54.00	-16.38	26.08	11.54	Average
2	2439.900	101.48	------	------	89.30	12.18	Average
3	2487.160	33.47	54.00	-20.53	21.05	12.42	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.

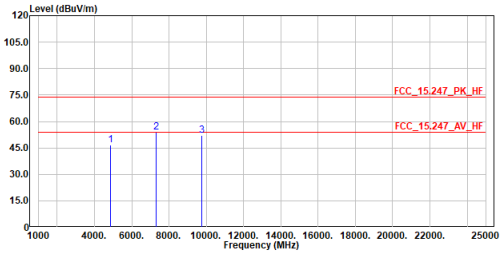
Site :HC-CB02
Condition :3m ,Horizontal
Mode :SRD_TX_2440MHz
Test by :Scott Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4880.000	43.94	74.00	-30.06	58.40	-14.46	Peak
2	7320.000	50.79	74.00	-23.21	58.65	-7.86	Peak
3	9760.000	50.66	74.00	-23.34	54.91	-4.25	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.

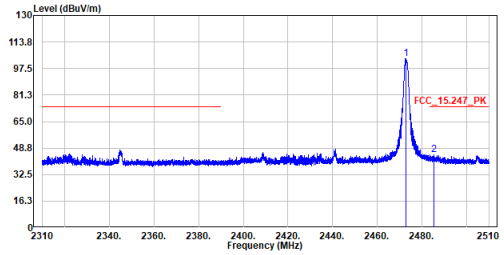
Site :HC-CB02
Condition :3m ,Vertical
Mode :SRD_TX_2440MHz
Test by :Scott Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4880.000	46.46	74.00	-27.54	60.92	-14.46	Peak
2	7320.000	53.77	74.00	-20.23	61.63	-7.86	Peak
3	9760.000	52.16	74.00	-21.84	56.41	-4.25	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.

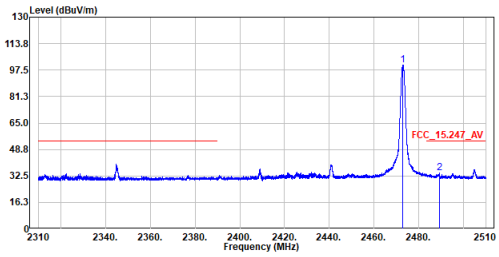
Site :HC-CB02
Condition :3m ,Horizontal
RB/VB(kHz):1000 / 3000
Mode :SRD_TX_2473MHz
Test by :Scott Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2472.720	103.57	------	------	91.22	12.35	Peak
2	2485.360	44.88	74.00	-29.12	32.48	12.40	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.

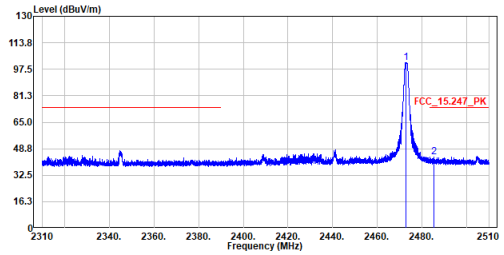
Site :HC-CB02
Condition :3m ,Horizontal
RB/VB(kHz):1000 / 10
Mode :SRD_TX_2473MHz
Test by :Scott Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2472.900	100.61	------	------	88.26	12.35	Average
2	2489.260	34.19	54.00	-19.81	21.76	12.43	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.

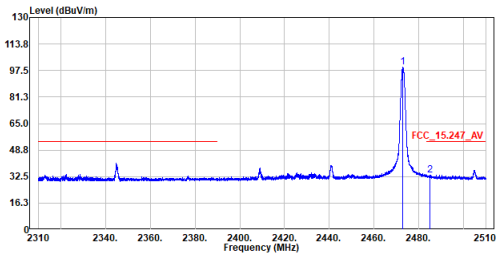
Site :HC-CB02
Condition :3m ,Vertical
RB/VB(kHz):1000 / 3000
Mode :SRD_TX_2473MHz
Test by :Scott Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2472.720	101.57	------	------	89.22	12.35	Peak
2	2485.360	43.88	74.00	-30.12	31.48	12.40	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.

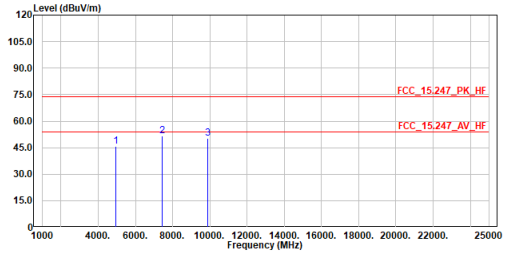
Site :HC-CB02
Condition :3m ,Vertical
RB/VB(kHz):1000 / 10
Mode :SRD_TX_2473MHz
Test by :Scott Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2472.900	99.58	------	------	87.23	12.35	Average
2	2485.040	33.46	54.00	-20.54	21.06	12.40	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.

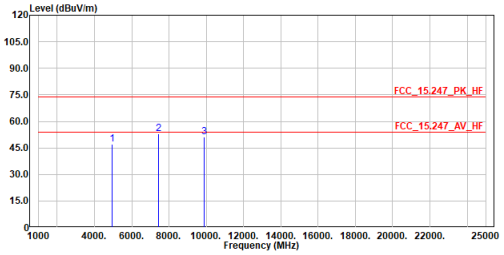
Site :HC-CB02
Condition :3m ,Horizontal
Mode :SRD_TX_2473MHz
Test by :Scott Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4946.000	45.82	74.00	-28.18	60.01	-14.19	Peak
2	7419.000	51.45	74.00	-22.55	59.20	-7.75	Peak
3	9892.000	50.10	74.00	-23.90	54.09	-3.99	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.

Site :HC-CB02
Condition :3m ,Vertical
Mode :SRD_TX_2473MHz
Test by :Scott Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4946.000	47.06	74.00	-26.94	61.25	-14.19	Peak
2	7419.000	52.79	74.00	-21.21	60.54	-7.75	Peak
3	9892.000	51.16	74.00	-22.84	55.15	-3.99	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.