

Test report No: 6260436.50

TEST REPORT

Radio Spectrum Matters (RF)

Identification of item tested	Multiple Spot Cleaner
Trademark	UWANT
Model and /or type reference	B400
Features	120 V/60 Hz, 1650 W
FCC ID	2A87I-B400
Applicant's name / address	Suzhou Jiandan Youwei Technology Co.,Ltd Room 1518,Building B Kaiping Business Center,No.11666 East Taihu Avenue, East Taihu Lake Eco-tourism Resort Wujiang District 215000 Suzhou City,Jiangsu Province, China.
Test method requested, standard	FCC CFR Title 47 Part 15 Subpart C Section 15.247 ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024
Verdict Summary	IN COMPLIANCE
Prepared by (name / position & signature)	Vincent GAO Project Manager 
Approved by (name / position & signature)	Wency YANG Manager 
Date of issue	2026-05-22
Report template No	TRF_Part15C_247_RF03 V1.2

INDEX

	page
General conditions	3
Uncertainty	3
Environmental conditions	4
Possible test case verdicts	4
Definition of symbols used in this test report	4
Abbreviations	4
Document History	5
Remarks and Comments	5
1 General Information	6
1.1 General Description of the Item(s)	6
1.2 Test date	7
2 Description of Test Setup	8
2.1 Operating mode(s) used for tests	8
2.2 Support / Auxiliary equipment / unit / software for the EUT	8
2.3 Test Configuration / Block diagram used for tests	8
3 Verdict summary section	9
3.1 Standards	9
3.2 Deviation(s) from the Standard(s) / Test Specification(s)	9
3.3 Overview of results	10
3.4 Test Facility	10
3.5 Measurement procedure	10
4 Test Results	11
4.1 AC Power Line Conducted Emission	11
4.2 Emissions in restricted frequency bands	14
4.3 Emissions in non-restricted frequency band	25
4.4 Duty Cycle	31
4.5 Radiated Emission Band Edge	32
4.6 DTS Bandwidth & Occupied Bandwidth	37
4.7 Fundamental emission output power	42
4.8 Power Spectral Density	45
4.9 Antenna Requirement	48
5 Identification of the Equipment Under Test	49
Annex 1 – Measurement Uncertainty	50
Annex 2 – Used Equipment	51

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.

IMPORTANT: No parts of this report may be reproduced or quoted out of context, in any form or by any means, except in full, without the previous written permission of DEKRA.

GENERAL CONDITIONS

1. This report is only referred to the item that has undergone the test.
2. This report does not constitute or imply on its own an approval of the product by the Certification Bodies or Competent Authorities.
3. This document is only valid if complete; no partial reproduction can be made without previous written permission of DEKRA.
4. This test report cannot be used partially or in full for publicity and/or promotional purposes without previous written permission of DEKRA.
5. The information provided by the customer in this report may affect the validity of the results, the test lab is not responsible for it.
6. This report will not be used for social proof function in China market.

UNCERTAINTY

For all measurements where guidance for the calculation of the instrumentation uncertainty of a measurement is specified in the product standard, the measurement instrumentation uncertainty has been calculated and applied in accordance with these standards.

Uncertainties have been calculated according to the DEKRA internal document. The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%. Refer to the Annex 1 for further information.

The measurement result is considered in conformance with the requirement if it is within the prescribed limit, It is not necessary to calculate the uncertainty associated with the measurement result, unless the specification, standard or customer have special requirements.

ENVIRONMENTAL CONDITIONS

The climatic conditions during the tests are within the limits specified by the manufacturer for the operation of the EUT and the test equipment. The climatic conditions during the tests were within the following limits:

Ambient temperature	15 °C – 35 °C
Relative Humidity air	30% - 60%
Atmospheric pressure	86 kPa – 106 kPa

If explicitly required in the basic standard or applied product / product family standard the climatic values are recorded and documented separately in this test report.

POSSIBLE TEST CASE VERDICTS

Test case does not apply to test object	N/A
Test object does meet requirement	P (Pass) / PASS
Test object does not meet requirement	F (Fail) / FAIL
Not measured	N/M

DEFINITION OF SYMBOLS USED IN THIS TEST REPORT

☒ Indicates that the listed condition, standard or equipment is applicable for this report/test/EUT.			
☐ Indicates that the listed condition, standard or equipment is not applicable for this report/test/EUT.			
Decimal separator used in this report	☒	Comma (,)	☐ Point (.)

ABBREVIATIONS

For the purposes of the present document, the following abbreviations apply:

EUT	: Equipment Under Test
QP	: Quasi-Peak
CAV	: CISPR Average
AV	: Average
CDN	: Coupling Decoupling Network
SAC	: Semi-Anechoic Chamber
OATS	: Open Area Test Site
BW	: Bandwidth
AM	: Amplitude Modulation
PM	: Pulse Modulation
U_N	: Nominal voltage
Tx	: Transmitter
Rx	: Receiver
N/A	: Not Applicable
N/M	: Not Measured

DOCUMENT HISTORY

Report nr.	Date	Description
6260436.50	2026-05-22	First release.

REMARKS AND COMMENTS

The equipment under test (EUT) does meet the essential requirements of the stated standard(s)/test(s).

The test results relate only to the samples tested.

This report shall not be reproduced, except in full, without the written approval.

1 GENERAL INFORMATION

1.1 General Description of the Item(s)

Description of the item	Multiple Spot Cleaner
Model / Type number	B400
Trademark.....	UWANT
FCC ID	2A87I-B400
Test Sample Number	6260436-1
Manufacturer	Suzhou Jiandan Youwei Technology Co.,Ltd Room 1518,Building B Kaiping Business Center,No.11666 East Taihu Avenue, East Taihu Lake Eco-tourism Resort Wujiang District 215000 Suzhou City,Jiangsu Province, China.

Mode of Operation	SRD
Operating frequency range(s) – Tx.:	2400~2483 MHz
Operating frequency range(s) – Rx :	2400~2483 MHz
Type of Modulation	GFSK
Antenna type.....	PCB Antenna
Antenna gain.....	3.02 dBi
Number of channel	4 (2402 MHz, 2419 MHz, 2458 MHz, 2473 MHz)
Operating Temperature Range.....	-10~40 °C

Note: Antenna information was provided from applicant.

Rated power supply	Voltage and Frequency		Reference poles				
			L1	L2	L3	N	PE
	☒	AC: 120 V/ 60 Hz	☒	☐	☐	☒	☒
	☐	DC:					
	☐	Battery:					
Mounting position.....	☒	Table top equipment					
	☐	Wall/Ceiling mounted equipment					
	☐	Floor standing equipment					
	☐	Hand-held equipment					
	☐	Other:					

Intended use of the Equipment Under Test (EUT)
The apparatus as supplied for the test is a Multiple Spot Cleaner, intended for residential use. These products have electronic control unit.

1.2 **Test date**

Test Location	DEKRA Testing and Certification (Shanghai) Ltd. No. 1050, Xingxian Road, Jiading District, Shanghai, China.
Date of receipt of test item	2026-04-14
Date (s) of performance of tests	2026-04-14~2026-05-18

2 DESCRIPTION OF TEST SETUP

2.1 Operating mode(s) used for tests

During the tests the following operating mode(s) has(have) been used.

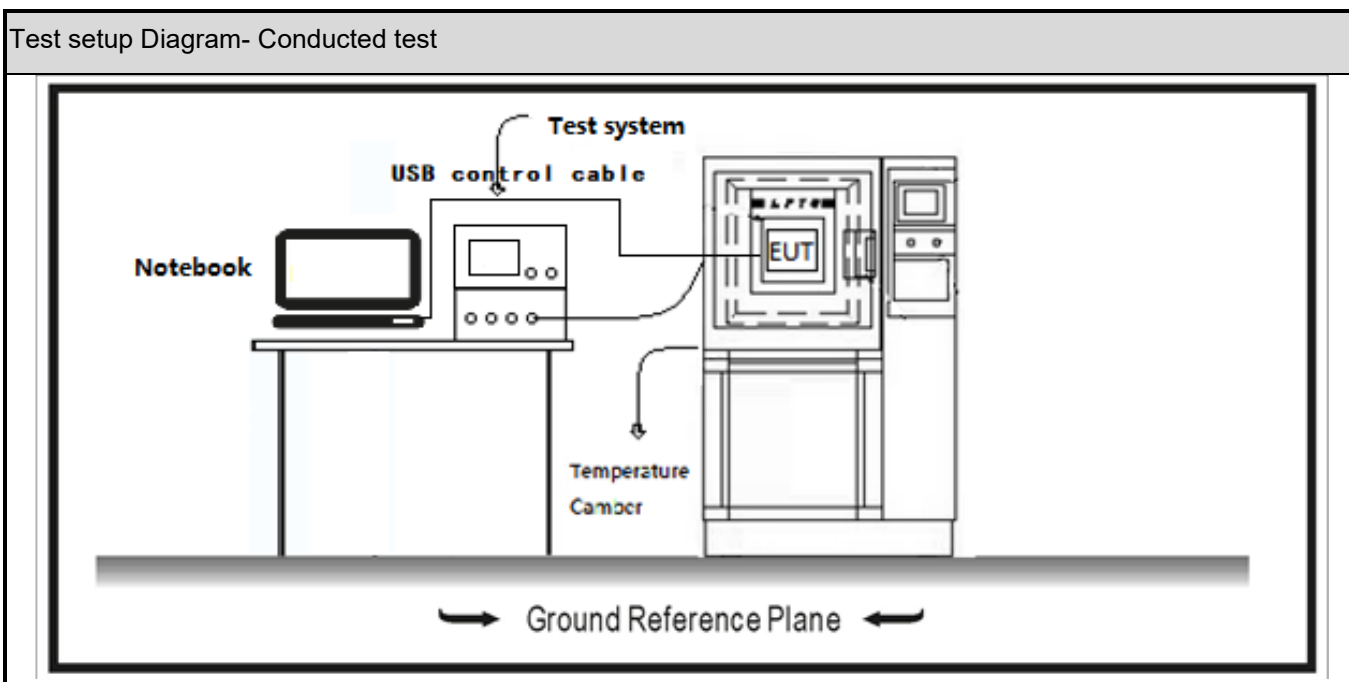
Operating mode	Operating mode description	Used for methods	
		Conducted	Radiated
1	Transmitting	☒	☒
2	Normal mode	☒	☒
Supplemental information: ---			

2.2 Support / Auxiliary equipment / unit / software for the EUT

The EUT has been tested with the following auxiliary equipment / unit / software:

Auxiliary equipment / unit / software	Type / Version	Serial number	Manufacturer	Supplied by
Supplemental information: ---				

2.3 Test Configuration / Block diagram used for tests



3 VERDICT SUMMARY SECTION

This chapter presents an overview of standards and results. Refer to the next chapters for details of measured test results and applied test levels.

3.1 Standards

Standard	Year	Description
FCC CFR Title 47 Part 15 Subpart C Section 15.247	2024	Operation within the bands 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz.
ANSI C63.10	2020	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
Corrigendum 1	2023	
Amendment 1	2024	
Errata to Amendment 1	2024	

3.2 Deviation(s) from the Standard(s) / Test Specification(s)

The following deviation(s) was / were made from the published requirements of the listed standards: N/A.

3.3 Overview of results

FCC measurement			
Requirement – Test case	Basic standard(s)	Verdict	Remark
AC Power Line Conducted Emission	FCC 15.207	PASS	---
Emissions in restricted frequency bands	FCC 15.247(d), 15.209, 15.205	PASS	---
Duty cycle	ANSI C63.10:2020	PASS	---
Emissions in non-restricted frequency bands	FCC 15.247(d)	PASS	---
Radiated Emission Band Edge	FCC 15.247(d), 15.209, 15.205	PASS	---
Fundamental emission output power	FCC 15.247(b)(3)	PASS	---
DTS Bandwidth	FCC 15.247(a)(2)	PASS	---
Power Spectral Density	FCC 15.247(e)	PASS	---
Antenna Requirement	FCC 15.203	PASS	---
Supplementary information:			

3.4 Test Facility

FCC Designation Number	:	CN1358
ISED CAB identifier Number	:	CN0155

3.5 Measurement procedure

Press and hold start button to control the EUT work in required test modes as below table.

Mode	Modulation	Frequency (MHz)	Power Setting
1	GFSK	2402	Module default
1		2419	Module default
1		2473	Module default

4 TEST RESULTS

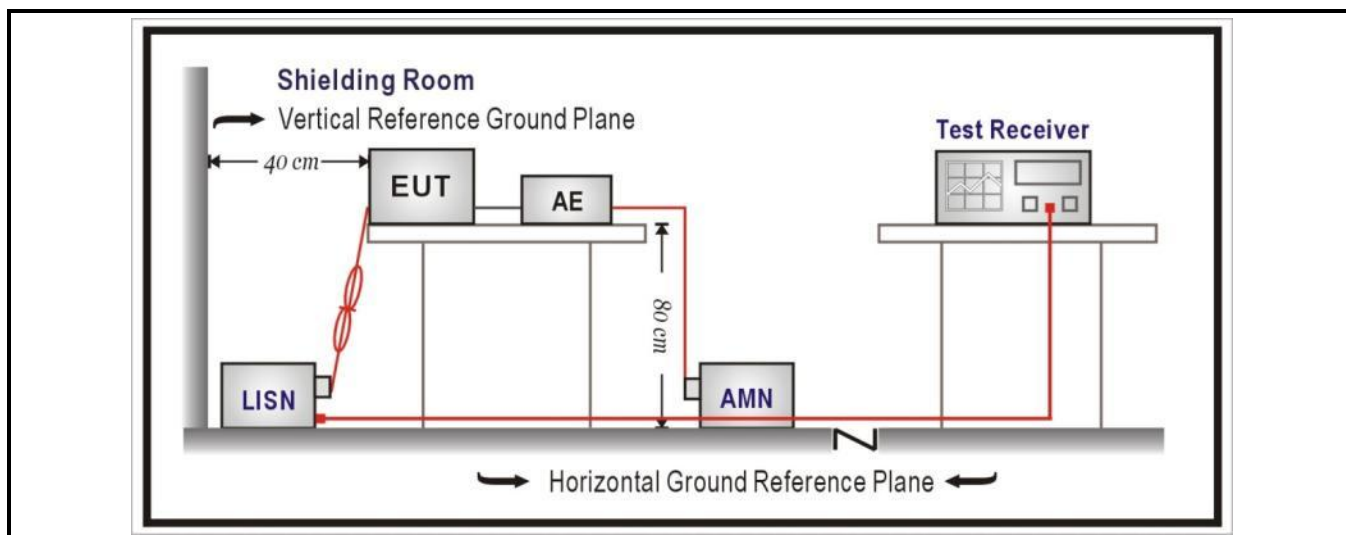
4.1	AC Power Line Conducted Emission	VERDICT: PASS
-----	----------------------------------	---------------

Limit

FCC Part 15 Subpart C Paragraph 15.207				
Frequency range [MHz]	Limit: QP [dB(μV) ¹⁾	Limit: AV [dB(μV) ¹⁾	IF BW	Detector(s)
0,15 - 0,50	66 - 56 ²⁾	56 - 46 ²⁾	9 KHz	QP, AV
0,50 - 5,0	56	46	9 KHz	QP, AV
5,0 - 30	60	50	9 KHz	QP, AV

¹⁾ At the transition frequency, the lower limit applies.
²⁾ The limit decreases linearly with the logarithm of the frequency.

Test Configuration

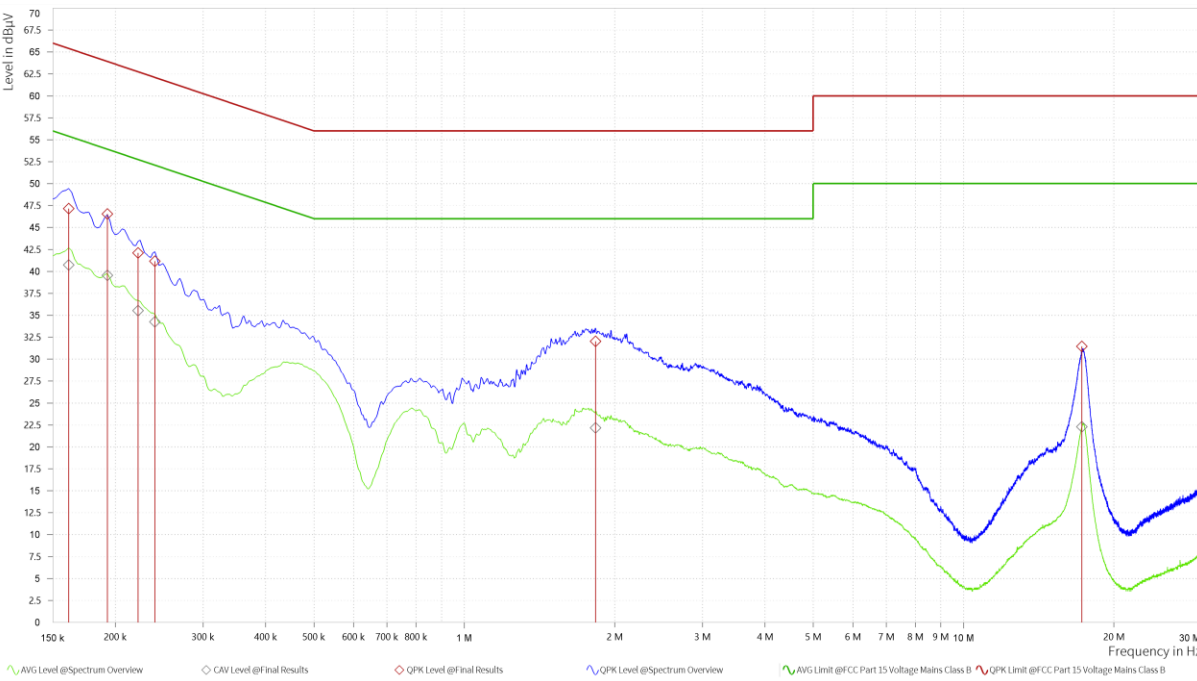


Performed measurements

Port under test			Terminal							
☒	AC mains input power		☒	N	☒	L1	☐	L2	☐	L3
☐	DC input power		☐	Positive (+)			☐	Negative (-)		
Test method applied			☒	Artificial mains network						
			☐	Voltage probe						
Test setup			☒	Table top	☐	Artificial hand applied				
			☐	Floor standing	☐	Other:				
			Refer to the Annex 2 for test setup photo(s).							
Operating mode(s) used			Mode 2							
Remark			---							

See next page.

Measurement data	Port under test	☒	Line	☐	Neutral																																																															
Operating mode / voltage / frequency used during the test			Mode 2 / 120 Vac / 60 Hz																																																																	
EMI Final Results <table border="1" style="width:100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Frequency [MHz]</th> <th>QPK Level [dBµV]</th> <th>QPK Limit [dBµV]</th> <th>QPK Margin [dB]</th> <th>CAV Level [dBµV]</th> <th>CAV: AVG Limit [dBµV]</th> <th>CAV Margin [dB]</th> <th>Correction [dB]</th> <th>Line</th> </tr> </thead> <tbody> <tr> <td>0.168</td> <td>45.80</td> <td>65.06</td> <td>19.26</td> <td>39.75</td> <td>55.06</td> <td>15.31</td> <td>9.64</td> <td>L1</td> </tr> <tr> <td>0.195</td> <td>42.98</td> <td>63.82</td> <td>20.85</td> <td>37.54</td> <td>53.82</td> <td>16.28</td> <td>9.66</td> <td>L1</td> </tr> <tr> <td>0.215</td> <td>41.88</td> <td>63.00</td> <td>21.12</td> <td>36.28</td> <td>53.00</td> <td>16.72</td> <td>9.66</td> <td>L1</td> </tr> <tr> <td>0.240</td> <td>41.15</td> <td>62.10</td> <td>20.95</td> <td>34.51</td> <td>52.10</td> <td>17.59</td> <td>9.67</td> <td>L1</td> </tr> <tr> <td>1.849</td> <td>31.19</td> <td>56.00</td> <td>24.81</td> <td>20.37</td> <td>46.00</td> <td>25.63</td> <td>9.70</td> <td>L1</td> </tr> <tr> <td>17.345</td> <td>31.81</td> <td>60.00</td> <td>28.19</td> <td>22.51</td> <td>50.00</td> <td>27.49</td> <td>9.91</td> <td>L1</td> </tr> </tbody> </table> 1. QPK Level [dBµV]=Reading QPK Level [dBµV] + Correction [dB] 2. CAV Level [dBµV]=Reading CAV Level [dBµV] + Correction [dB] 3. Correction [dB]= AMN VDF [dB] + Cable Loss [dB]						Frequency [MHz]	QPK Level [dBµV]	QPK Limit [dBµV]	QPK Margin [dB]	CAV Level [dBµV]	CAV: AVG Limit [dBµV]	CAV Margin [dB]	Correction [dB]	Line	0.168	45.80	65.06	19.26	39.75	55.06	15.31	9.64	L1	0.195	42.98	63.82	20.85	37.54	53.82	16.28	9.66	L1	0.215	41.88	63.00	21.12	36.28	53.00	16.72	9.66	L1	0.240	41.15	62.10	20.95	34.51	52.10	17.59	9.67	L1	1.849	31.19	56.00	24.81	20.37	46.00	25.63	9.70	L1	17.345	31.81	60.00	28.19	22.51	50.00	27.49	9.91	L1
Frequency [MHz]	QPK Level [dBµV]	QPK Limit [dBµV]	QPK Margin [dB]	CAV Level [dBµV]	CAV: AVG Limit [dBµV]	CAV Margin [dB]	Correction [dB]	Line																																																												
0.168	45.80	65.06	19.26	39.75	55.06	15.31	9.64	L1																																																												
0.195	42.98	63.82	20.85	37.54	53.82	16.28	9.66	L1																																																												
0.215	41.88	63.00	21.12	36.28	53.00	16.72	9.66	L1																																																												
0.240	41.15	62.10	20.95	34.51	52.10	17.59	9.67	L1																																																												
1.849	31.19	56.00	24.81	20.37	46.00	25.63	9.70	L1																																																												
17.345	31.81	60.00	28.19	22.51	50.00	27.49	9.91	L1																																																												
Remark		---																																																																		

Measurement data		Port under test	☐ Line	☒ Neutral																																																															
Operating mode / voltage / frequency used during the test			Mode 2 / 120 Vac / 60 Hz																																																																
																																																																			
EMI Final Results <table><tr><th>Frequency [MHz]</th><th>QPK Level [dBµV]</th><th>QPK Limit [dBµV]</th><th>QPK Margin [dB]</th><th>CAV Level [dBµV]</th><th>CAV: AVG Limit [dBµV]</th><th>CAV Margin [dB]</th><th>Correction [dB]</th><th>Line</th></tr><tr><td>0.161</td><td>47.15</td><td>65.40</td><td>18.25</td><td>40.73</td><td>55.40</td><td>14.67</td><td>9.63</td><td>N</td></tr><tr><td>0.193</td><td>46.55</td><td>63.92</td><td>17.37</td><td>39.54</td><td>53.92</td><td>14.37</td><td>9.68</td><td>N</td></tr><tr><td>0.222</td><td>42.10</td><td>62.74</td><td>20.64</td><td>35.51</td><td>52.74</td><td>17.23</td><td>9.70</td><td>N</td></tr><tr><td>0.240</td><td>41.14</td><td>62.10</td><td>20.95</td><td>34.25</td><td>52.10</td><td>17.85</td><td>9.70</td><td>N</td></tr><tr><td>1.831</td><td>32.03</td><td>56.00</td><td>23.97</td><td>22.16</td><td>46.00</td><td>23.84</td><td>9.64</td><td>N</td></tr><tr><td>17.257</td><td>31.43</td><td>60.00</td><td>28.57</td><td>22.29</td><td>50.00</td><td>27.71</td><td>9.93</td><td>N</td></tr></table> 1. QPK Level [dBµV]=Reading QPK Level [dBµV] + Correction [dB] 2. CAV Level [dBµV]=Reading CAV Level [dBµV] + Correction [dB] 3. Correction [dB]= AMN VDF [dB] + Cable Loss [dB]					Frequency [MHz]	QPK Level [dBµV]	QPK Limit [dBµV]	QPK Margin [dB]	CAV Level [dBµV]	CAV: AVG Limit [dBµV]	CAV Margin [dB]	Correction [dB]	Line	0.161	47.15	65.40	18.25	40.73	55.40	14.67	9.63	N	0.193	46.55	63.92	17.37	39.54	53.92	14.37	9.68	N	0.222	42.10	62.74	20.64	35.51	52.74	17.23	9.70	N	0.240	41.14	62.10	20.95	34.25	52.10	17.85	9.70	N	1.831	32.03	56.00	23.97	22.16	46.00	23.84	9.64	N	17.257	31.43	60.00	28.57	22.29	50.00	27.71	9.93	N
Frequency [MHz]	QPK Level [dBµV]	QPK Limit [dBµV]	QPK Margin [dB]	CAV Level [dBµV]	CAV: AVG Limit [dBµV]	CAV Margin [dB]	Correction [dB]	Line																																																											
0.161	47.15	65.40	18.25	40.73	55.40	14.67	9.63	N																																																											
0.193	46.55	63.92	17.37	39.54	53.92	14.37	9.68	N																																																											
0.222	42.10	62.74	20.64	35.51	52.74	17.23	9.70	N																																																											
0.240	41.14	62.10	20.95	34.25	52.10	17.85	9.70	N																																																											
1.831	32.03	56.00	23.97	22.16	46.00	23.84	9.64	N																																																											
17.257	31.43	60.00	28.57	22.29	50.00	27.71	9.93	N																																																											
Remark		---																																																																	

4.2	Emissions in restricted frequency bands	VERDICT: PASS
------------	--	----------------------

Limit

Standard		FCC Part 15 Subpart C Paragraph 15.247(d), 15.205, 15.209 & RSS-Gen Issue 5 Section 8.9 & 8.10	
Restricted Bands of operation for FCC			
Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.81425 - 8.81475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	Above 38.6
13.36 - 13.41	--	--	--

See next page.

Restricted Band Emissions Limit			
Frequency (MHz)	Field strength (μ V/m)	Field strength (dB μ V/m)	Measurement distance (m)
0.009 - 0.49	2400/F(kHz)	48.5 - 13.8	300 _(Note 1)
0.49 - 1.705	24000/F(kHz)	33.8 - 23	30 _(Note 1)
1.705 - 30	30	29.5	30 _(Note 1)
30 - 88	100	40	3 _(Note 2)
88 - 216	150	43.5	3 _(Note 2)
216 - 960	200	46	3 _(Note 2)
Above 960	500	54	3 _(Note 2)

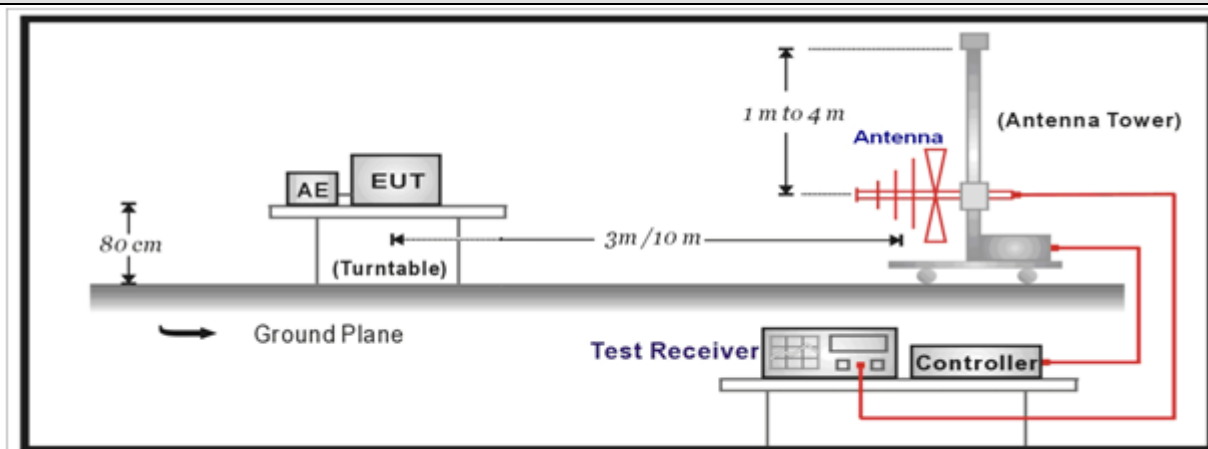
Note 1: At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed below 30 MHz, when performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade).

Note 2: At frequencies at or above 30 MHz, measurements may be performed at a distance other than what is specified provided: measurements are not made in the near field except where it can be shown that near field measurements are appropriate due to the characteristics of the device; and it can be demonstrated that the signal levels needed to be measured at the distance employed can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 meters unless it can be further demonstrated that measurements at a distance of 30 meters or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse linear-distance for field strength measurements; inverse-linear-distance-squared for power density measurements).

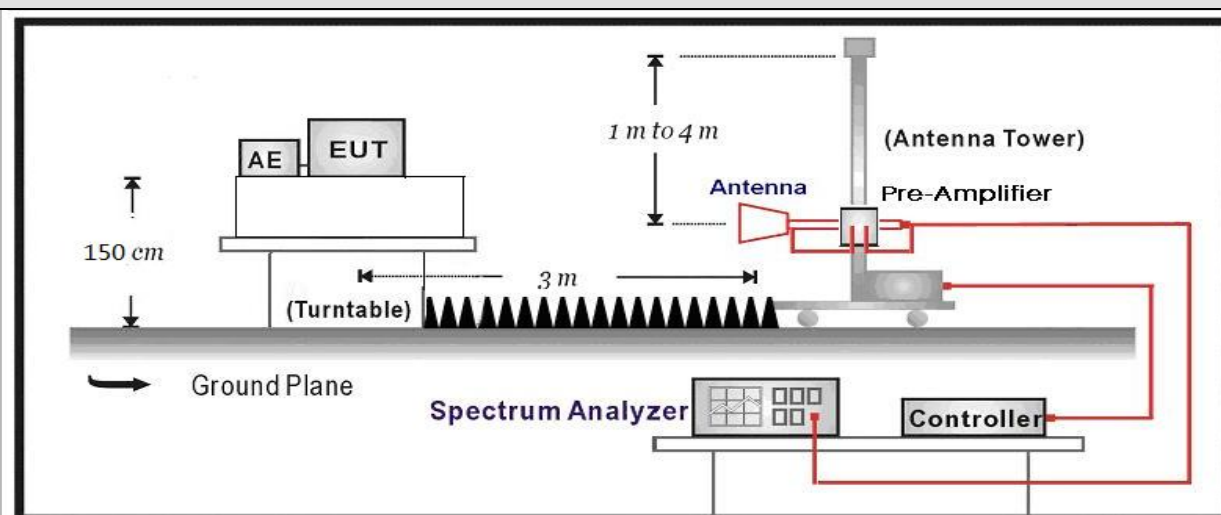
See next page.

Test Configuration

30MHz-1GHz Test Setup:



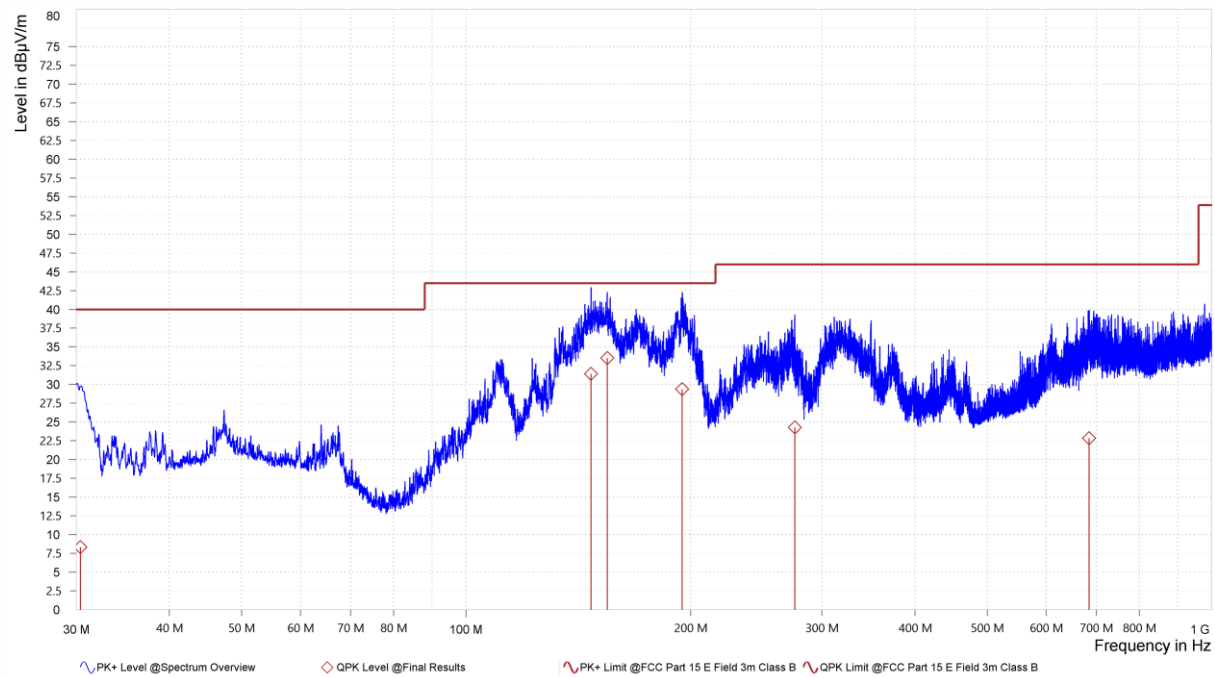
Above 1GHz Test Setup:



Performed measurements

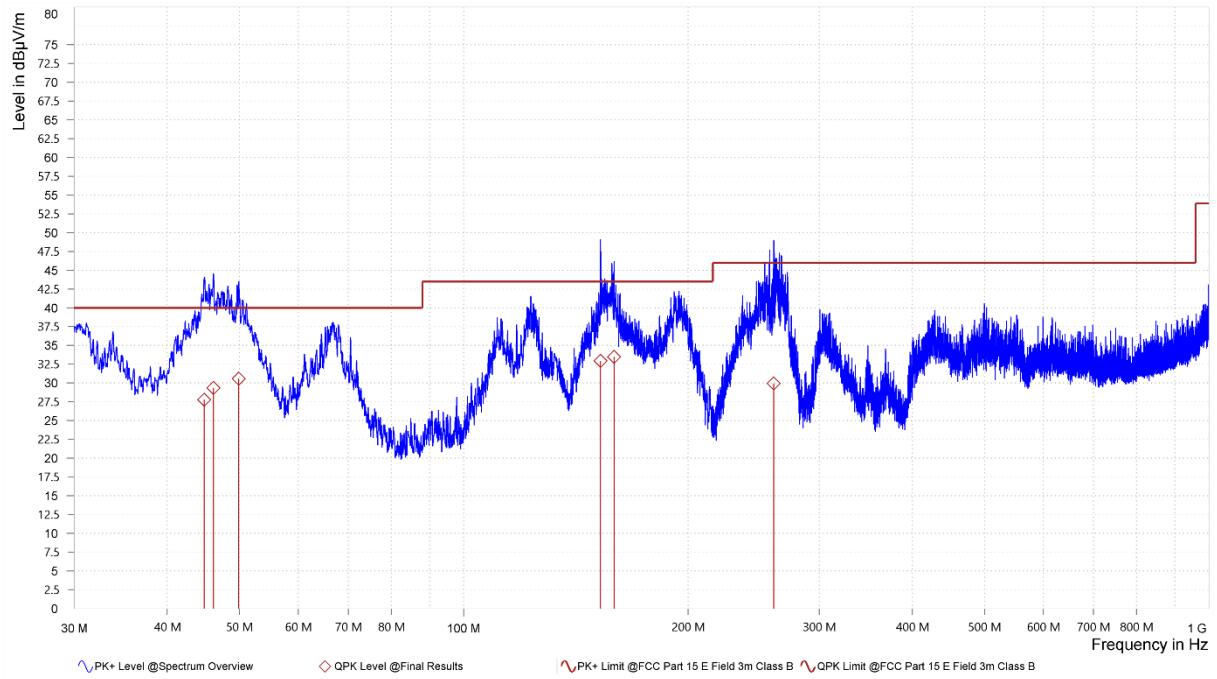
Port under test	Enclosure port	
Test method applied	☐	Conducted measurement
	☒	Radiated measurement
Test setup	Refer to the Annex 3 for test setup photo(s).	
Operating mode(s) used	Mode 1 , 2	
Remark	1. The test frequency range, 9 kHz~30 MHz, 18 GHz~26 GHz, both of the worst case are at least 20dB below the limits, therefore no data appear in the report. 2. The EUT is working in the Normal link mode below 1 GHz. As the radiated emission was performed, so conducted emission was not tested.	

Results
Emissions in restricted frequency bands
30MHz – 1GHz, Mode 2,
Antenna polarization-Horizontal



Frequency [MHz]	QPK Level [dBµV/m]	QPK Limit [dBµV/m]	QPK Margin [dB]	Correction [dB]	Polarization
30.390	8.34	40.00	31.66	17.32	H
147.120	31.40	43.50	12.10	15.62	H
154.620	33.53	43.50	9.97	16.01	H
194.940	29.37	43.50	14.13	19.43	H
275.910	24.28	46.00	21.72	20.78	H
684.570	22.83	46.00	23.17	28.75	H

Results
Emissions in restricted frequency bands
30MHz – 1GHz, Mode 2,
Antenna polarization-Vertical



Frequency [MHz]	QPK Level [dBμV/m]	QPK Limit [dBμV/m]	QPK Margin [dB]	Correction [dB]	Polarization
44.850	27.77	40.00	12.23	20.80	V
46.140	29.33	40.00	10.67	20.95	V
49.890	30.59	40.00	9.41	21.05	V
152.640	32.96	43.50	10.54	15.90	V
159.120	33.49	43.50	10.01	16.27	V
260.730	29.96	46.00	16.04	20.48	V

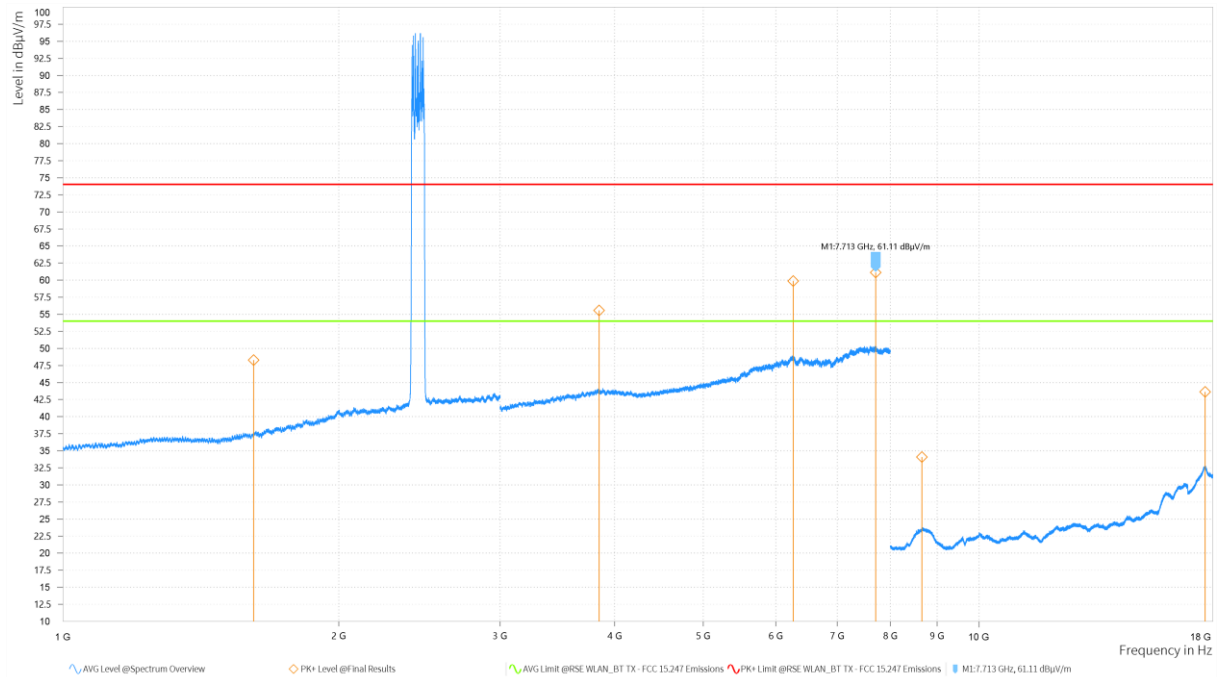
Results

Emissions in restricted frequency bands

1GHz – 10th Harmonic

2402 MHz, mode 1

Antenna polarization-Horizontal



Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization
1,615.100	48.28	74.00	25.72	1.71	H
3,848.000	55.53	74.00	18.47	9.05	H
6,268.000	59.83	74.00	14.17	15.06	H
7,712.500	61.11	74.00	12.89	15.96	H
8,660.500	34.08	74.00	39.92	5.50	H
17,652.000	43.61	74.00	30.39	17.01	H

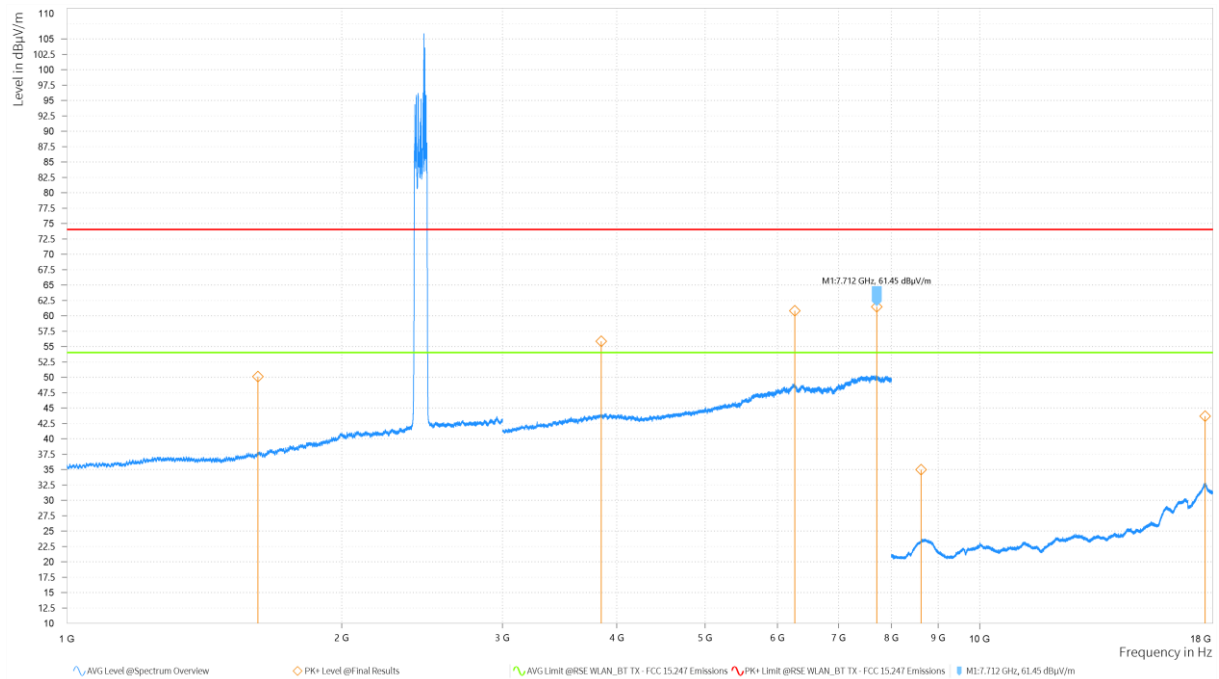
Results

Emissions in restricted frequency bands

1GHz – 10th Harmonic

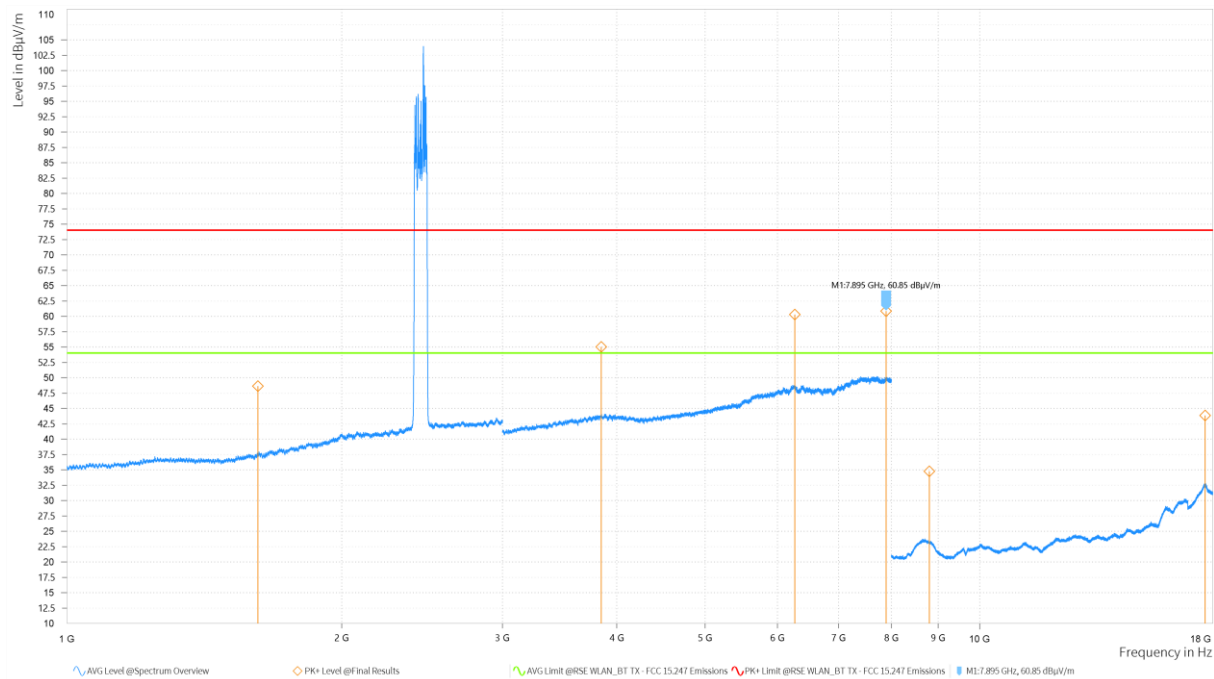
2402 MHz, mode 1

Antenna polarization-Vertical



Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization
1,618.100	49.76	74.00	24.24	1.73	V
3,880.750	55.97	74.00	18.03	9.05	V
6,259.500	60.15	74.00	13.85	15.04	V
7,735.750	61.86	74.00	12.14	15.95	V
8,826.000	33.79	74.00	40.21	5.70	V
17,657.500	43.19	74.00	30.81	16.98	V

Results
Emissions in restricted frequency bands
1GHz – 10th Harmonic
2419 MHz, mode 1
Antenna polarization-Horizontal



Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization
1,618.800	48.61	74.00	25.39	1.74	H
3,847.500	55.01	74.00	18.99	9.04	H
6,270.500	60.26	74.00	13.74	15.07	H
7,894.750	60.85	74.00	13.15	15.80	H
8,802.500	34.72	74.00	39.28	5.62	H
17,647.000	43.83	74.00	30.17	17.01	H

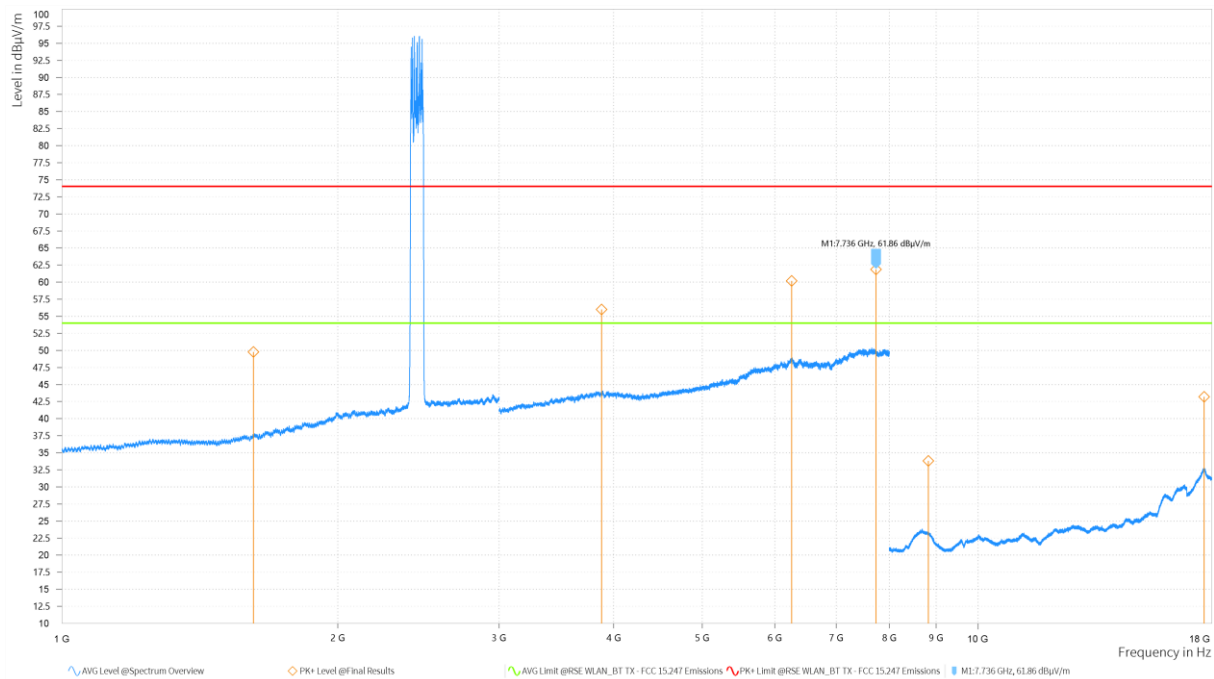
Results

Emissions in restricted frequency bands

1GHz – 10th Harmonic

2419 MHz, mode 1

Antenna polarization-Vertical



Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization
1,618.100	49.76	74.00	24.24	1.73	V
3,880.750	55.97	74.00	18.03	9.05	V
6,259.500	60.15	74.00	13.85	15.04	V
7,735.750	61.86	74.00	12.14	15.95	V
8,826.000	33.79	74.00	40.21	5.70	V
17,657.500	43.19	74.00	30.81	16.98	V

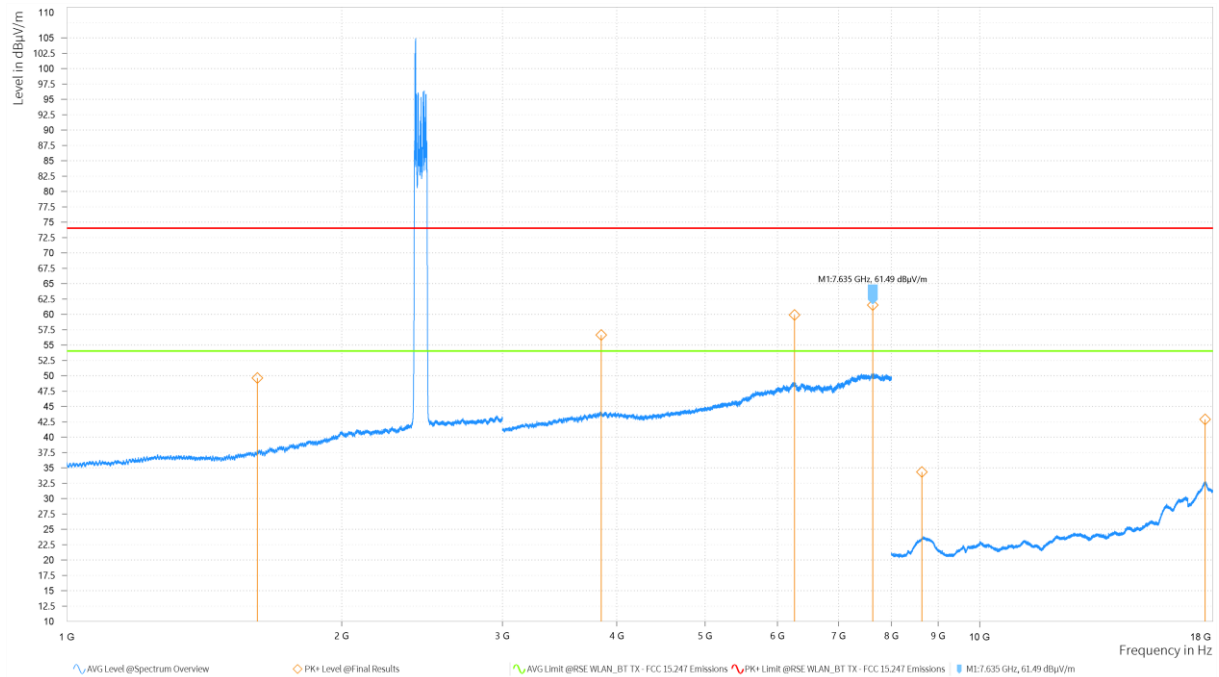
Results

Emissions in restricted frequency bands

1GHz – 10th Harmonic

2473 MHz, mode 1

Antenna polarization-Horizontal



Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization
1,615.800	49.61	74.00	24.39	1.71	H
3,848.500	56.63	74.00	17.37	9.05	H
6,265.500	59.86	74.00	14.14	15.06	H
7,635.000	61.49	74.00	12.51	16.05	H
8,639.000	34.32	74.00	39.68	5.54	H
17,647.500	42.85	74.00	31.15	17.01	H

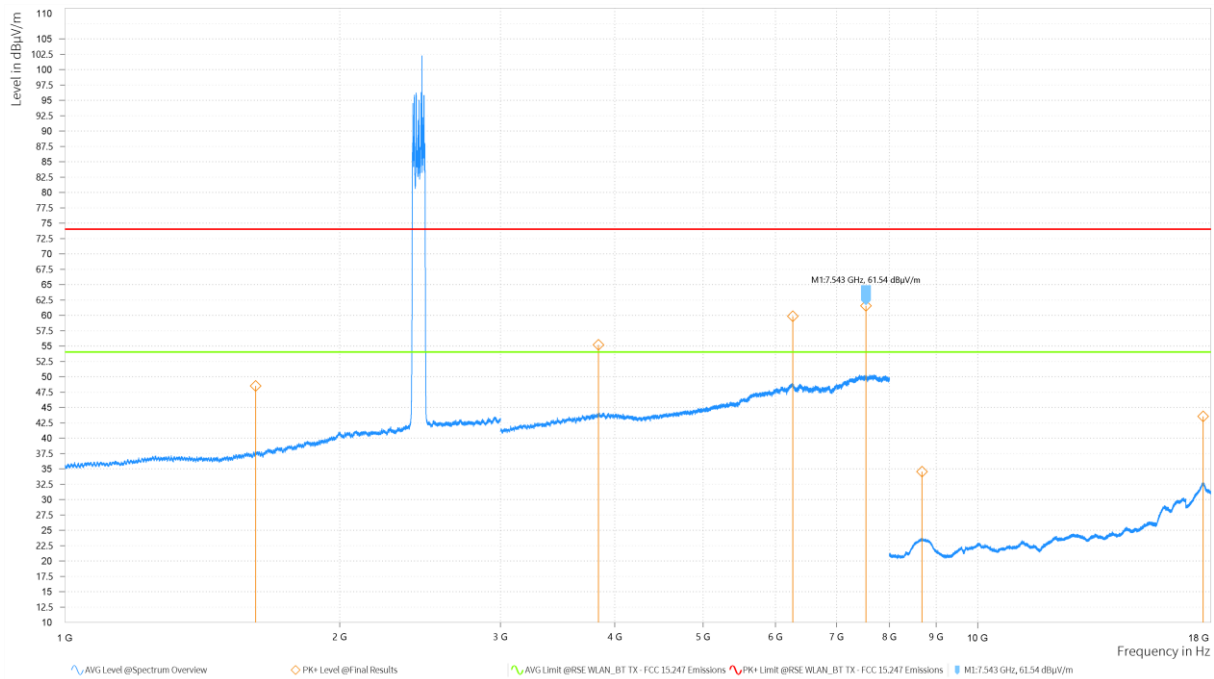
Results

Emissions in restricted frequency bands

1GHz – 10th Harmonic

2473 MHz, mode 1

Antenna polarization-Vertical



Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization
1,617.100	48.47	74.00	25.53	1.72	V
3,840.250	55.16	74.00	18.84	9.02	V
6,268.250	59.84	74.00	14.16	15.06	V
7,543.000	61.54	74.00	12.46	16.00	V
8,685.500	34.52	74.00	39.48	5.47	V
17,657.000	43.52	74.00	30.48	16.98	V

4.3 Emissions in non-restricted frequency band	VERDICT: PASS
---	----------------------

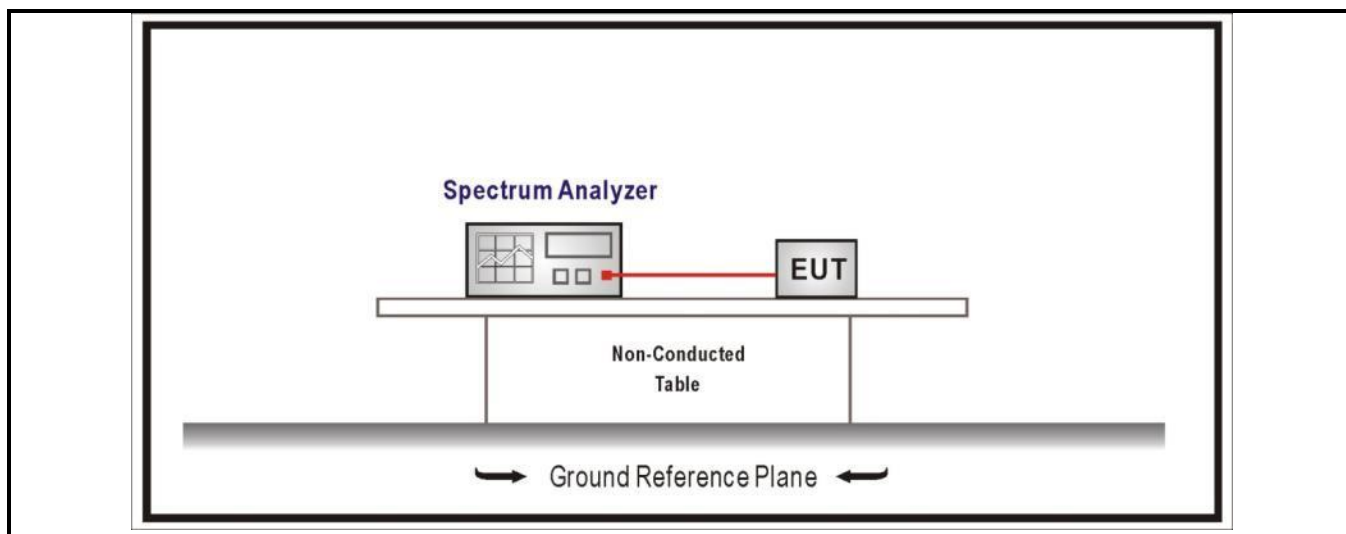
Limit

Standard	FCC Part 15 Subpart C Paragraph 15.247(d) & RSS-247 Issue 3 Section 5.5 RSS-247 Issue 4 Section 6.6
RF Output power (Detection methods)	Limit(dB)
RF Output power(Average detector)	30dBc (Note 1)
RF Output power(PK detector)	20dBc (Note 2)

Note 1: If maximum conducted (average) output power was used to demonstrate compliance as described in 9.2, then the peak power in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum in-band peak PSD by Level in 100 kHz (i.e., 30 dBc).

Note 2: If the maximum peak conducted output power procedure was used, then the peak output power measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD by Level in 100 kHz (i.e., 20 dBc).

Test Configuration



Performed measurements

Port under test	Antenna port
Test method applied	☒ Conducted measurement
	☐ Radiated measurement
Test setup	Refer to the Annex 3 for test setup photo(s).
Operating mode(s) used	Mode 1
Remark	---

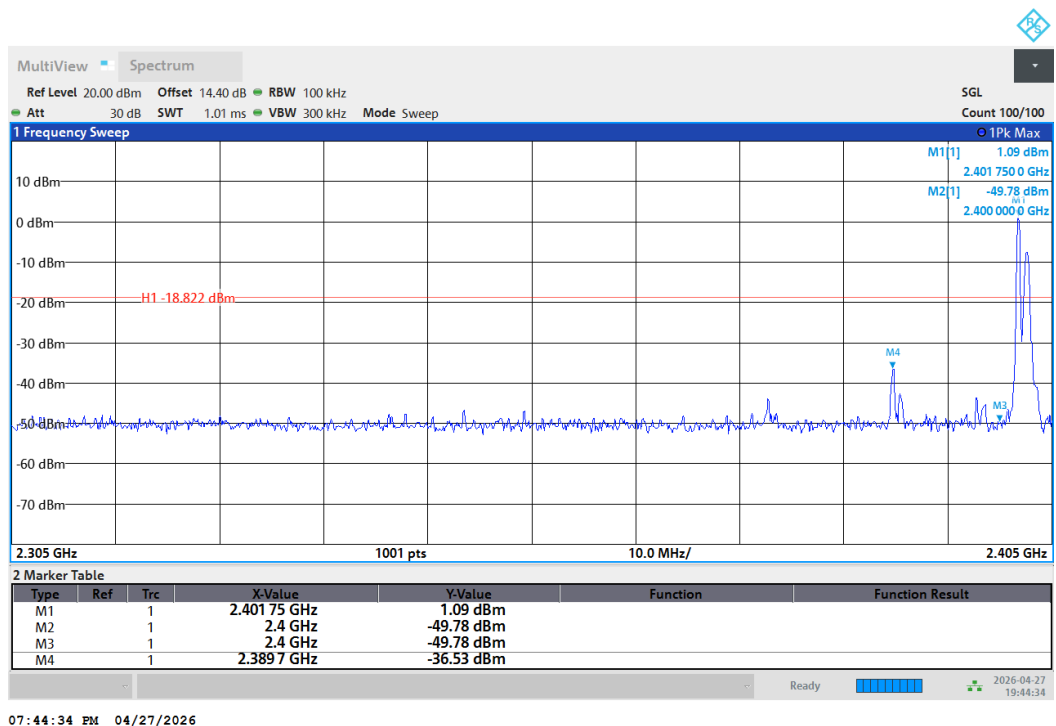
See next page

Results

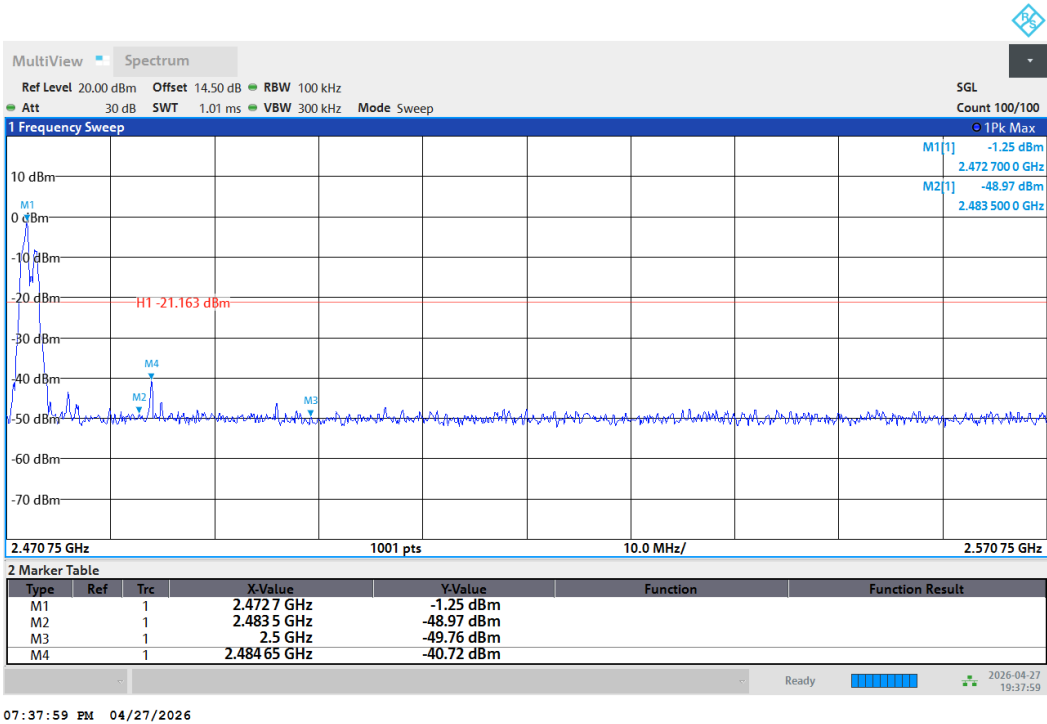
Emissions in non-restricted frequency band

Mode	Frequency (MHz)	Max Value (dBc)	Limit (dBc)	Verdict
1	2402	-37.70	-20	Pass
1	2473	-39.55	-20	Pass

Band Edge
2402MHz,



Results
Emissions in non-restricted frequency band
Band Edge
2473 MHz



Results

Emissions in non-restricted frequency band

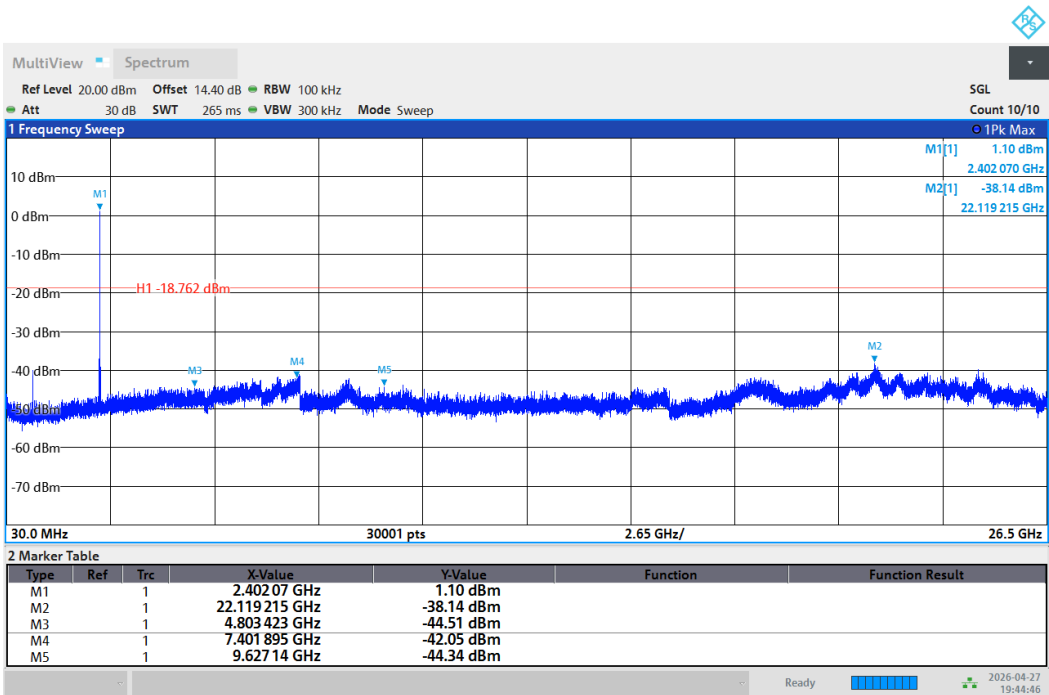
Mode	Frequency (MHz)	Max Value (dBc)	Limit (dBc)	Verdict
1	2402	-39.37	-20	Pass
1	2419	-39.49	-20	Pass
1	2473	-38.05	-20	Pass

Conducted RF Spurious Emission

2402MHz,



07:44:41 PM 04/27/2026

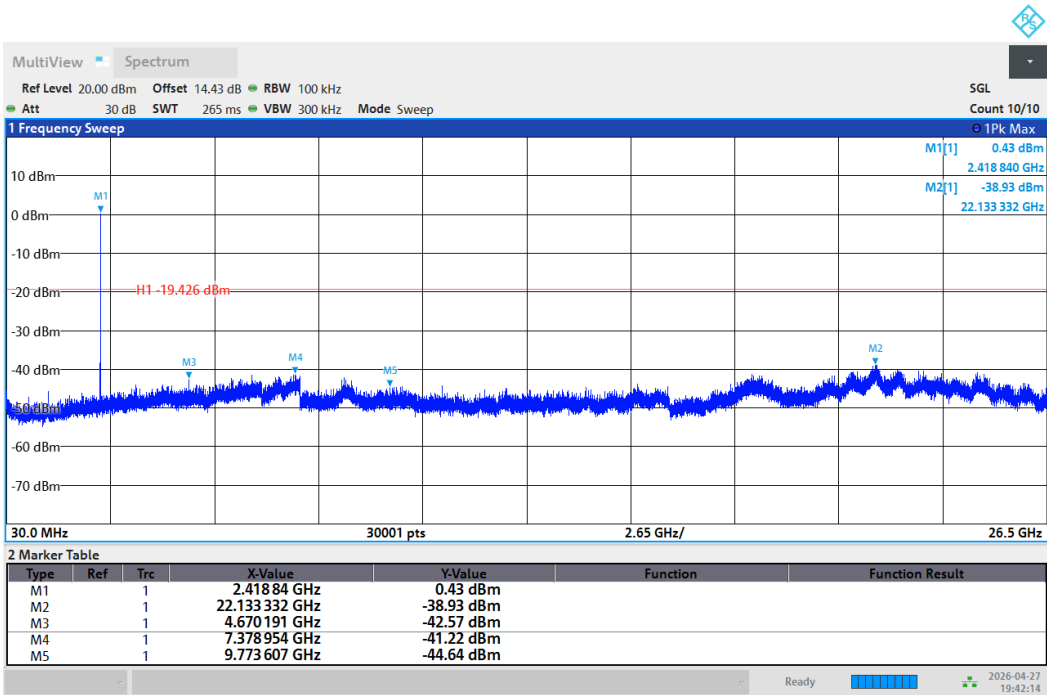


07:44:47 PM 04/27/2026

Results
Conducted RF Spurious Emission
2419MHz,

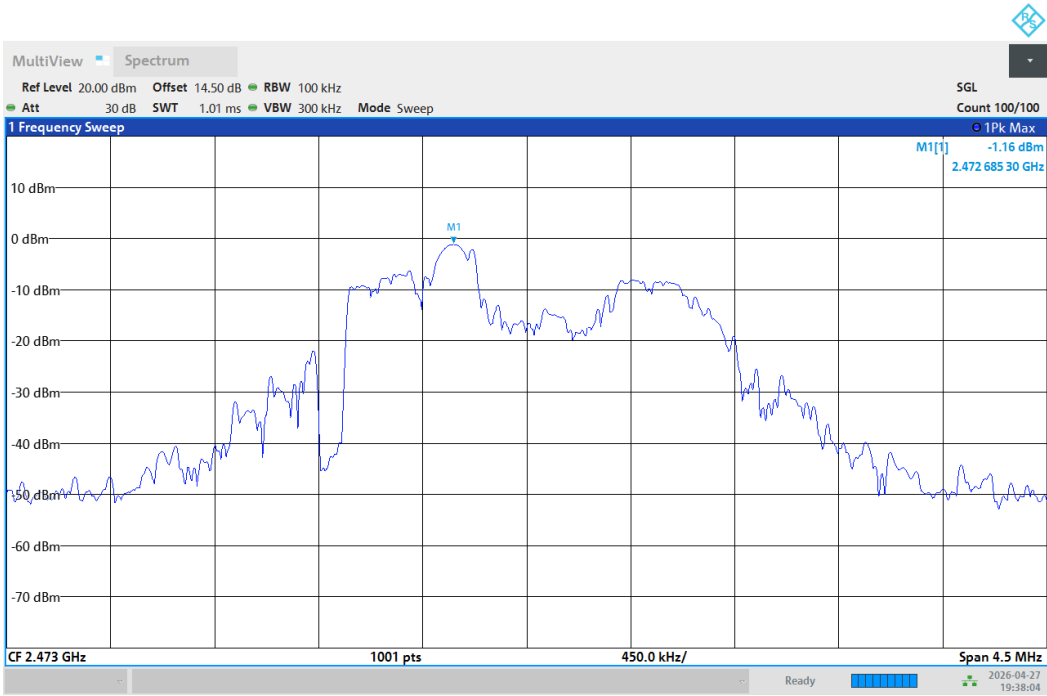


07:42:09 PM 04/27/2026

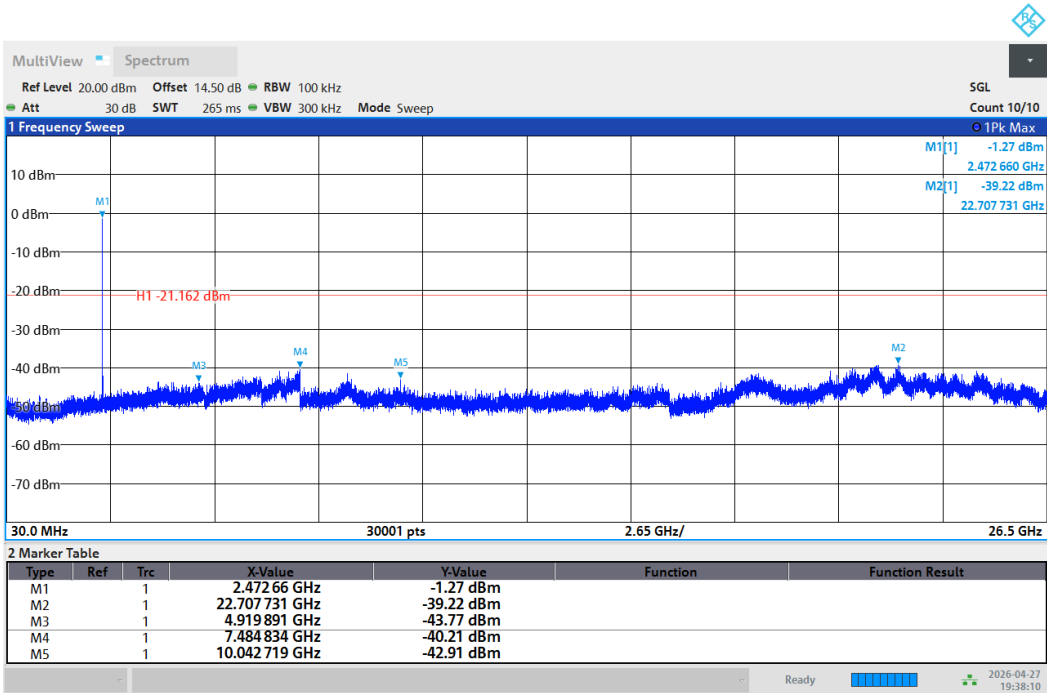


07:42:15 PM 04/27/2026

Results
Conducted RF Spurious Emission
2473MHz,



07:38:05 PM 04/27/2026



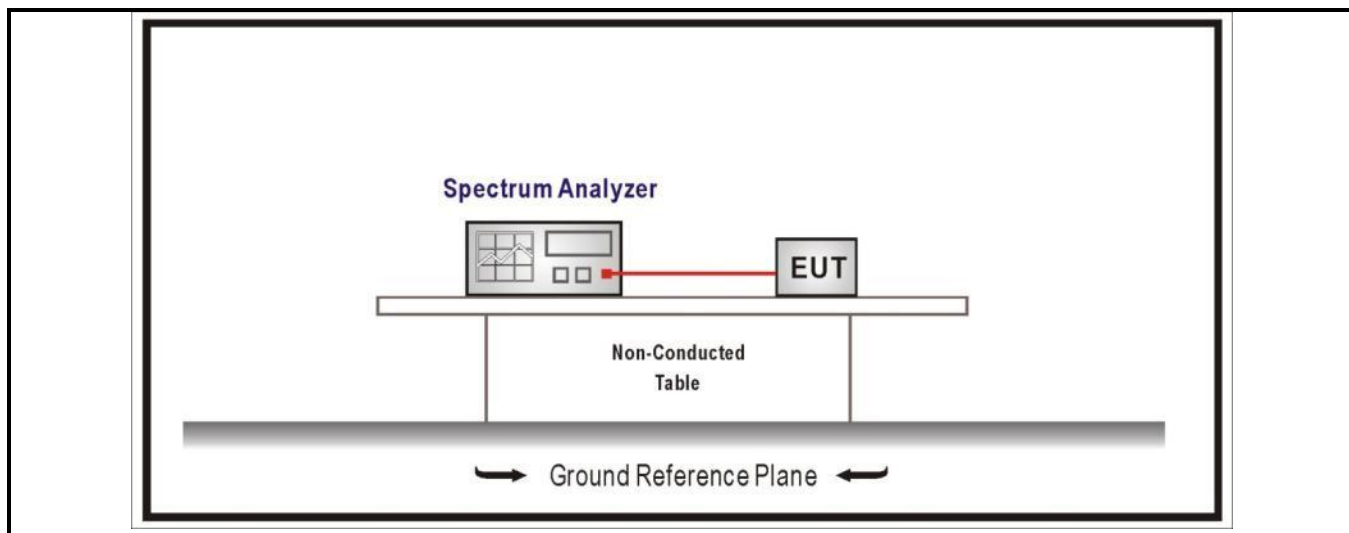
07:38:10 PM 04/27/2026

4.4	Duty Cycle	VERDICT: PASS
-----	------------	---------------

Limit

N/A

Test Configuration



Performed measurements

Port under test	Antenna port	
Test method applied	☒	Conducted measurement
	☐	Radiated measurement
Test setup	Refer to the Annex 3 for test setup photo(s).	
Operating mode(s) used	Mode 1	
Remark	For reporting purpose only	

Results

Mode	Test Freq. (MHz)	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
1	2402	100	0	0
	2419	100	0	0
	2473	100	0	0

Note:

According to KDB 558074, when test for Radiated Emission Band Edge and Radiated Emission, for average detector set: VBW $\geq$ 1/T will be used.

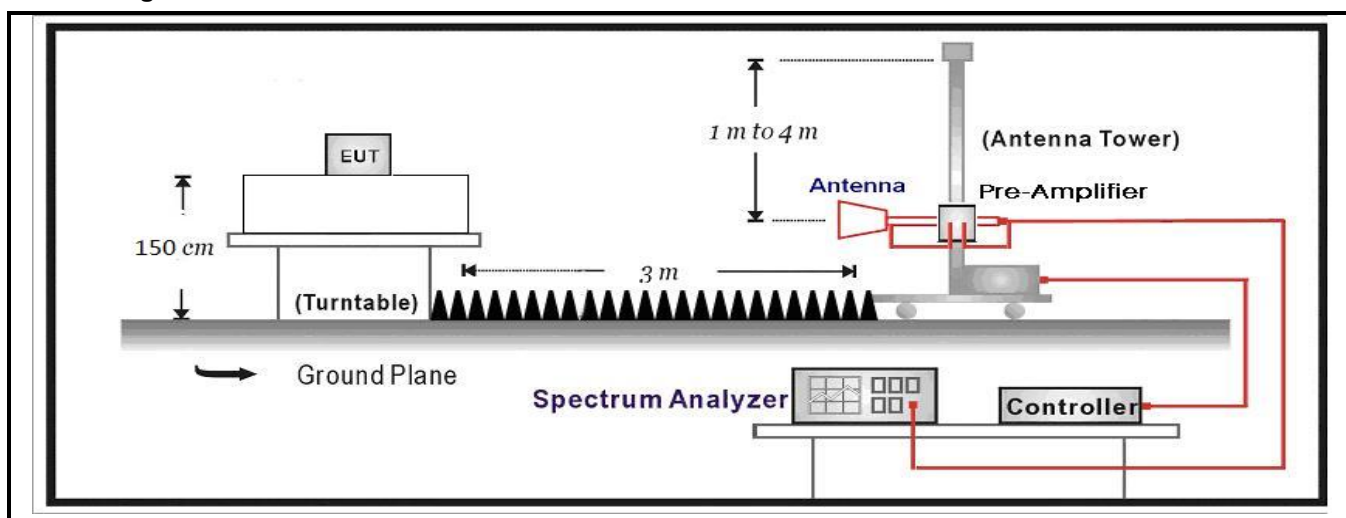
4.5	Radiated Emission Band Edge	VERDICT: PASS
-----	------------------------------------	----------------------

Limit

Standard	FCC Part 15 Subpart C Paragraph 15.247(d), 15.205, 15.209 & RSS-Gen Issue 5 Section 8.9 & 8.10			
Frequency bands (MHz)	Detector	Limit (dB μ V/m)	RBW (MHz)	Distance (m)
2310-2390	PK	74	1	3
2483.5-2500	AV	54	1	3

Note: The field strength of emissions appearing within these frequency bands shall not exceed the limits.

Test Configuration

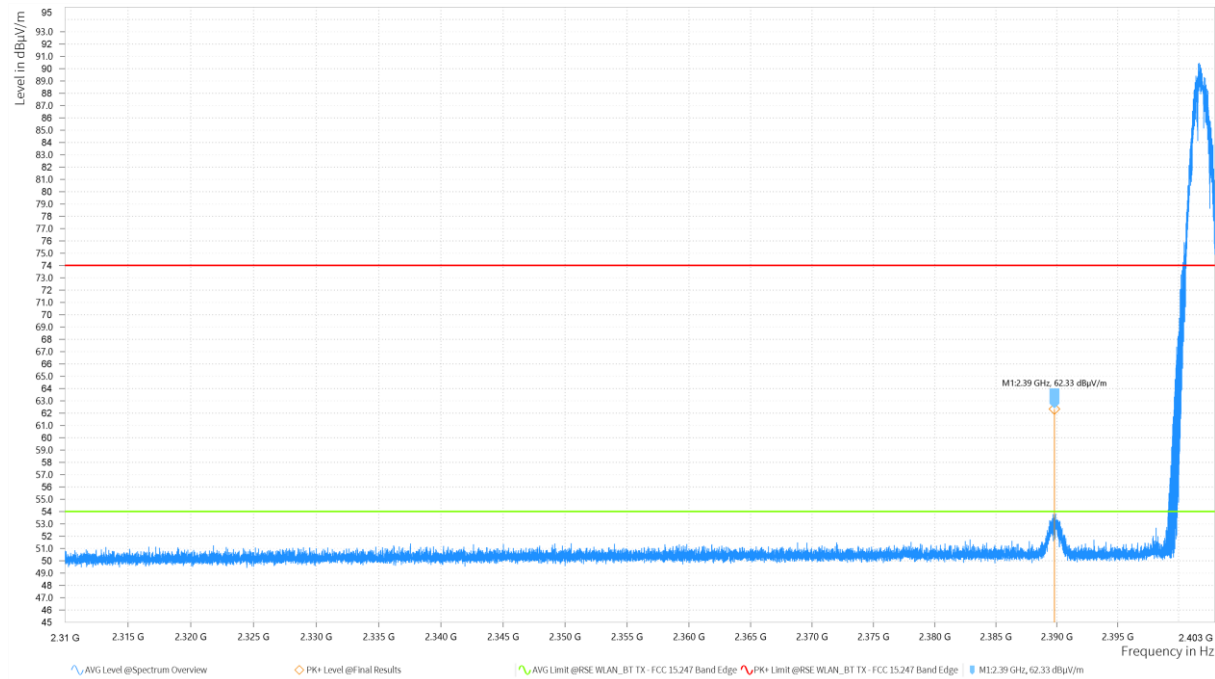


Performed measurements

Port under test	Enclosure port	
Test method applied	☐	Conducted measurement
	☒	Radiated measurement
Test setup	Refer to the Annex 3 for test setup photo(s).	
Operating mode(s) used	Mode 1	
Remark	---	

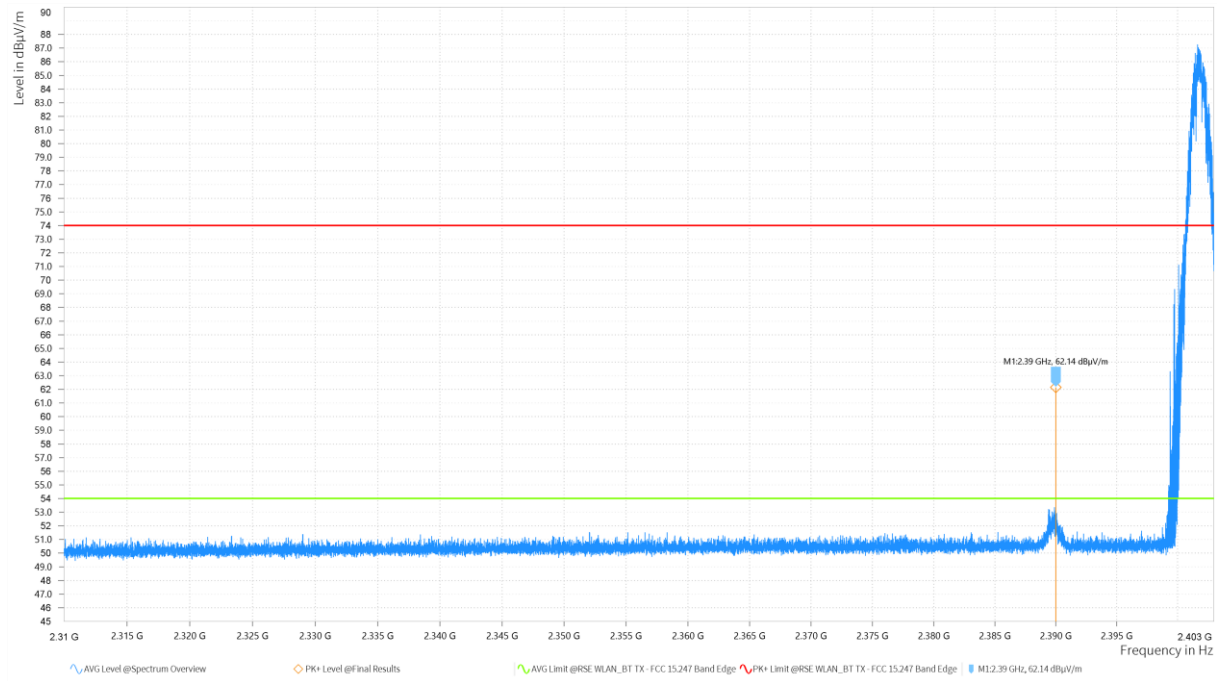
See next page

Results
Radiated Emission Band Edge
2402MHz,
Antenna polarization-Horizontal



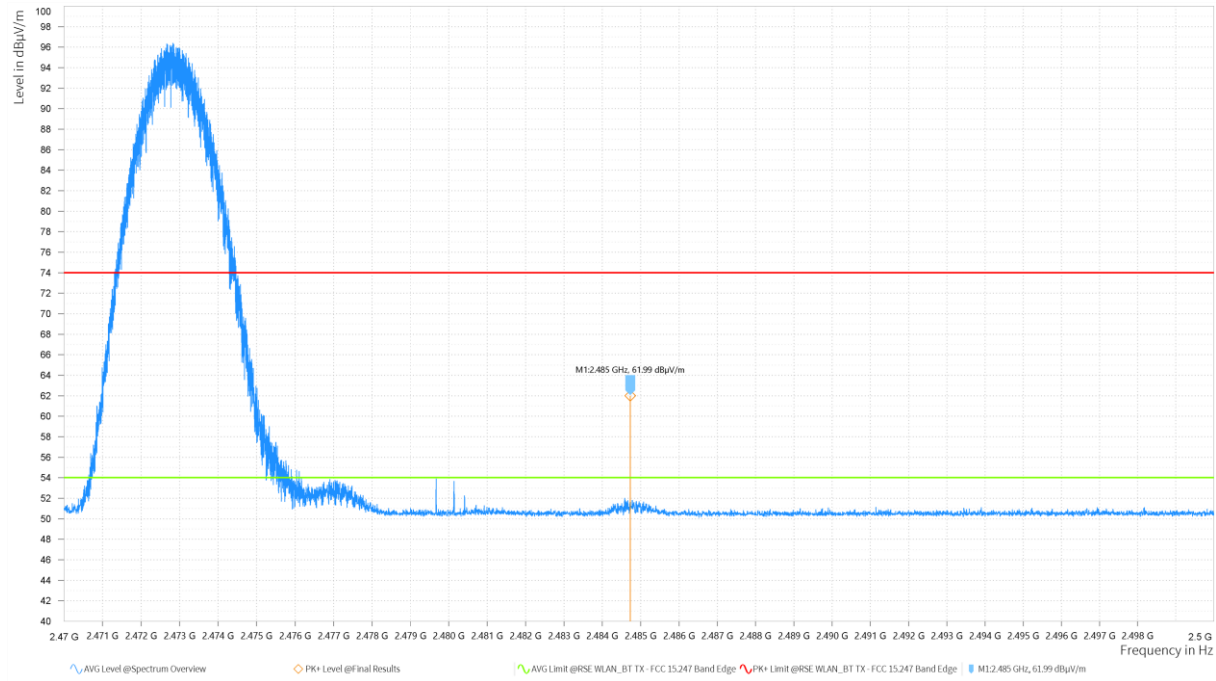
Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization
2,389.799	62.33	74.00	11.67	5.54	H

Results
Radiated Emission Band Edge
2402MHz
Antenna polarization-Vertical



Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization
2,390.000	62.14	74.00	11.86	5.54	V

Results
Radiated Emission Band Edge
2473MHz
Antenna polarization-Horizontal



Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization
2,484.730	61.99	74.00	12.01	5.82	H

Results
Radiated Emission Band Edge
2473MHz
Antenna polarization-Vertical



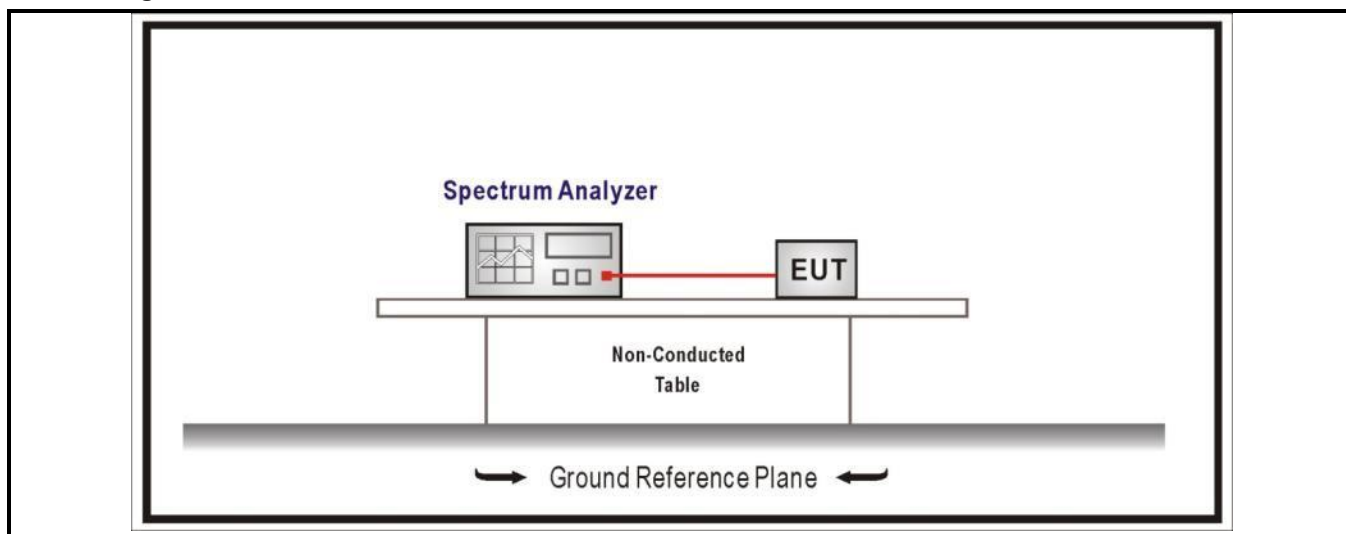
Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization
2,484.610	62.37	74.00	11.63	5.82	V

4.6	DTS Bandwidth & Occupied Bandwidth	VERDICT: PASS
-----	---	----------------------

Limit

Standard	FCC Part 15 Subpart C Paragraph 15.247 (a)(2) RSS-247 Issue 4 Section 6.3.1(a)
Systems using digital modulation techniques operate in the 2400-2483.5 MHz .The minimum 6 dB bandwidth shall be at least 500 kHz	
Standard	RSS-Gen Issue 5 Section 6.7 & RSS-247 Issue 3 Section 5.2(a)
The occupied bandwidth or the “99% emission bandwidth” is defined as the frequency range between two points, one above and the other below the carrier frequency, within which 99% of the total transmitted power of the fundamental transmitted emission is contained. The occupied bandwidth shall be reported for all equipment in addition to the specified bandwidth required in the applicable RSSs. The occupied bandwidth should within the required frequency range.	
The minimum 6 dB bandwidth shall be 500 kHz.	

Test Configuration



Performed measurements

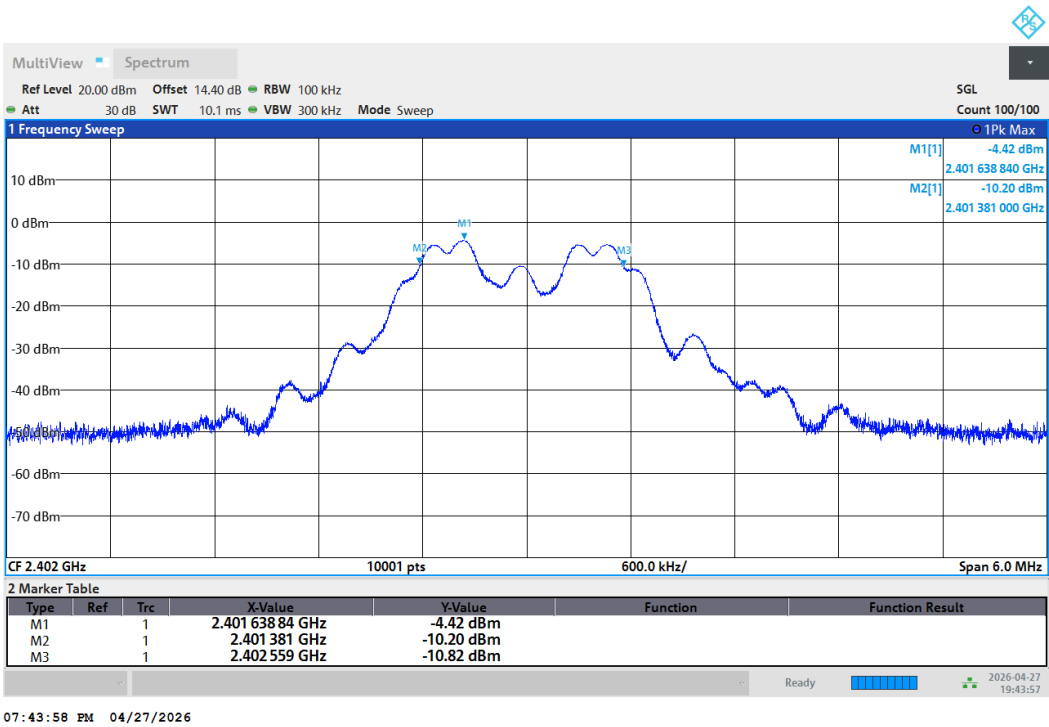
Port under test	Antenna port	
Test method applied	☒	Conducted measurement
	☐	Radiated measurement
Test setup	Refer to the Annex 3 for test setup photo(s).	
Operating mode(s) used	Mode 1	
Remark	---	

Results

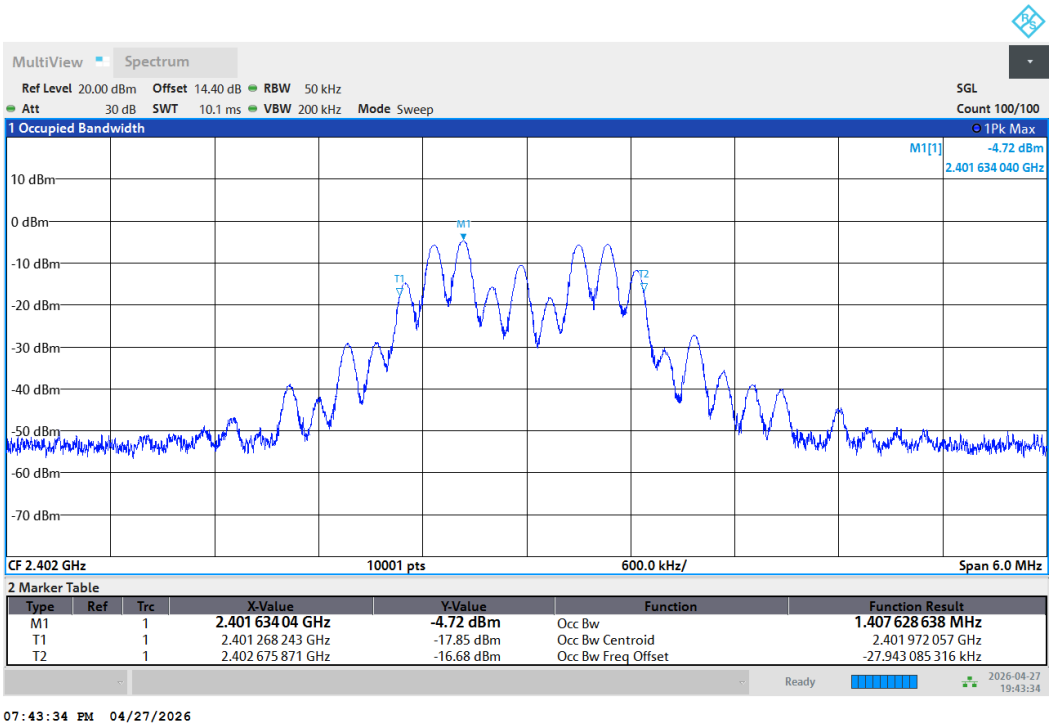
Mode	Test Freq. (MHz)	6dB Occupied Bandwidth (MHz)	Limit (MHz)	Result
1	2402	1.178	>0.5	Pass
	2419	1.096	>0.5	Pass
	2473	1.291	>0.5	Pass

Mode	Test Freq. (MHz)	99% Occupied Bandwidth (MHz)	Limit (MHz)	Result
1	2402	1.408	Within frequency range	Pass
	2419	1.391	Within frequency range	Pass
	2473	1.714	Within frequency range	Pass

DTS Bandwidth
2402MHz

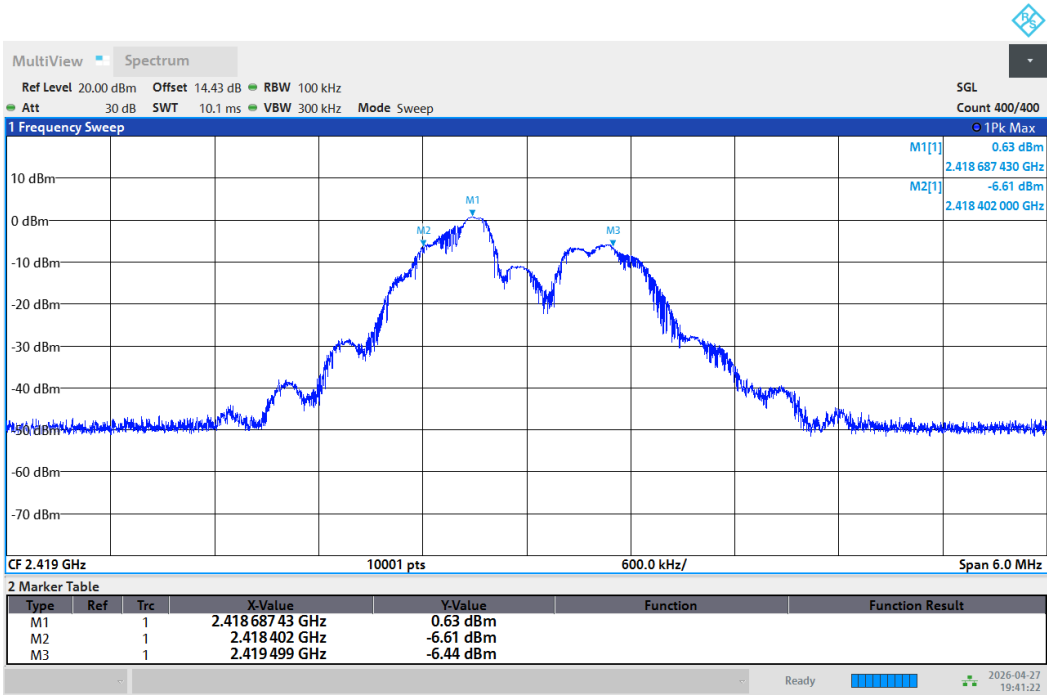


6dB Bandwidth



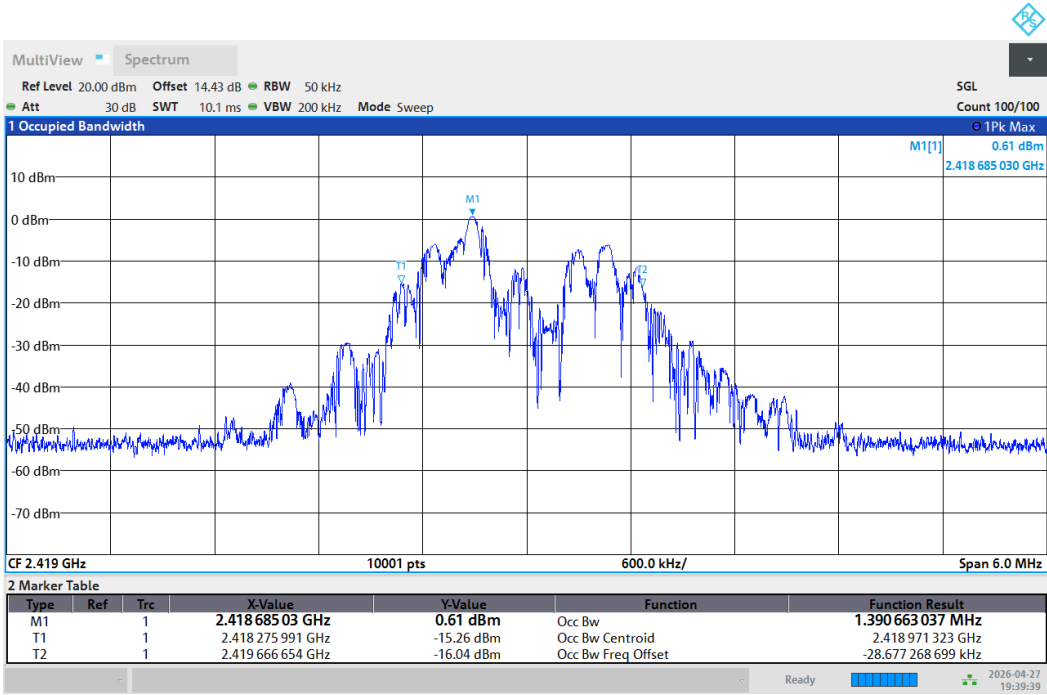
99% Occupied Bandwidth

2419 MHz



07:41:22 PM 04/27/2026

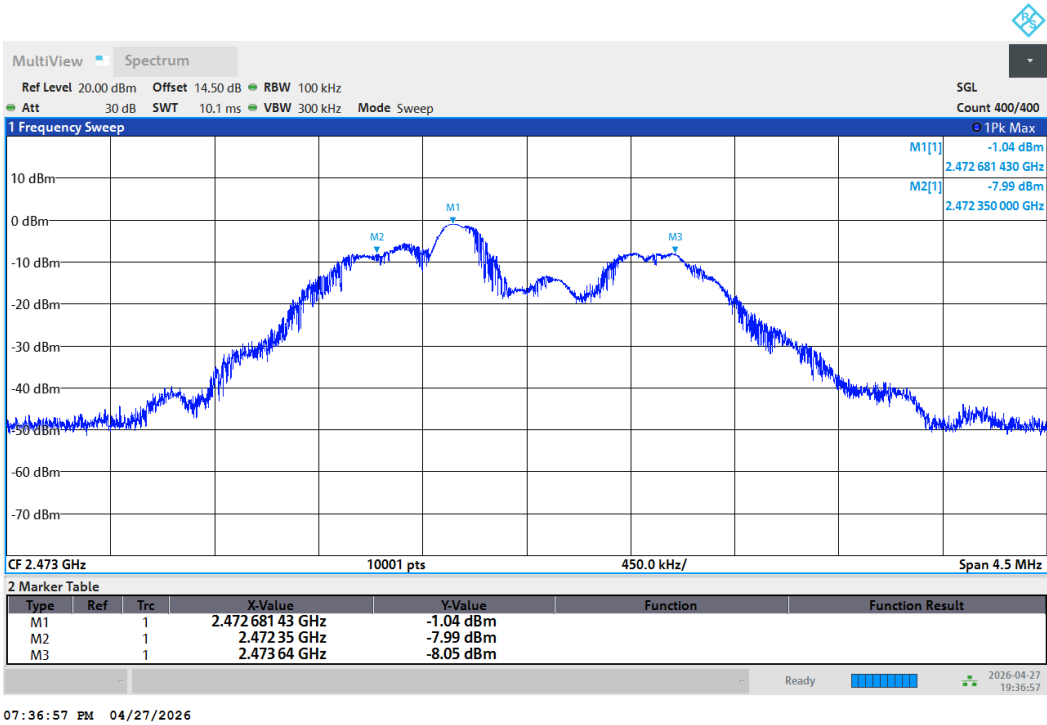
6dB Bandwidth



07:39:39 PM 04/27/2026

99% Occupied Bandwidth

2473MHz



6dB Bandwidth



99% Occupied Bandwidth

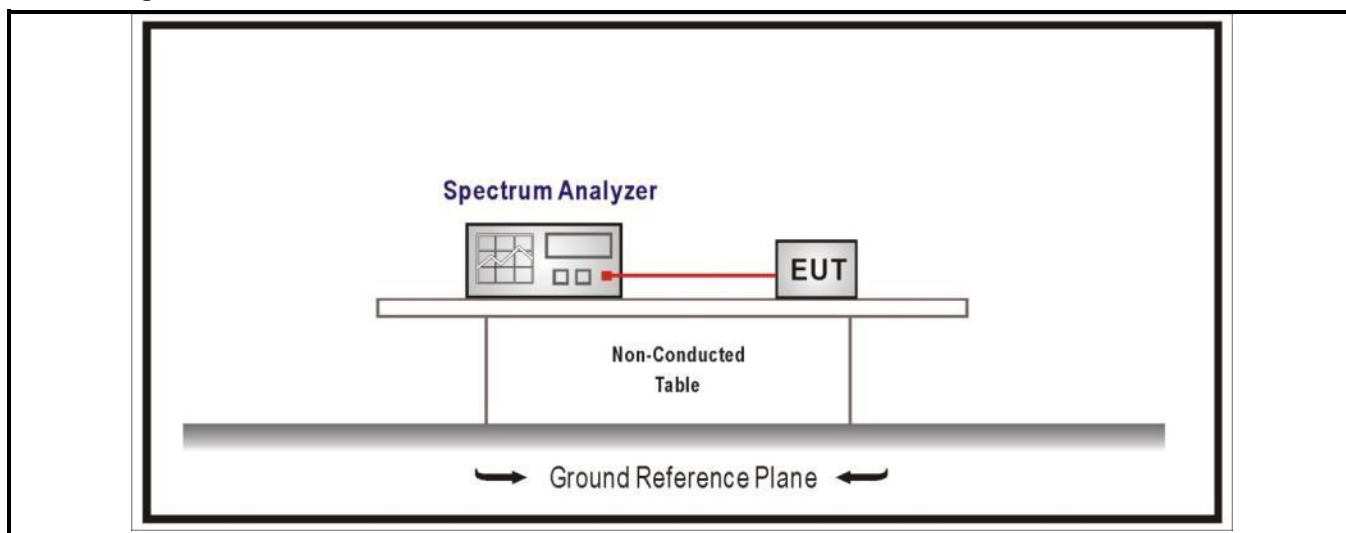
4.7	Fundamental emission output power	VERDICT: PASS
-----	-----------------------------------	---------------

Limit

Standard		FCC Part 15 Subpart C Paragraph 15.247 (b)(3) & RSS-247 Issue 3 Section 5.4(d) RSS-247 Issue 4 Section 6.3.2
☒	GTX < 6dBi	Pout≤30dBm, EIRP≤36dBm
☐	GTX > 6dBi	
☐	Non-Fix point-point	Pout≤30-(GTX -6), EIRP≤36dBm
☐	Fix point-point	Pout≤30-[(GTX-6)]/3, EIRP≤36dBm
☐	Point-to-multipoint	Pout≤30-(GTX-6) , EIRP≤36dBm
☐	Overlap Beams	Pout≤30-[(GTX-6)]/3, EIRP≤36dBm
☐	Aggregate power transmitted simultaneously on all beams	Pout≤30-[(GTX-6)]/3, EIRP≤36dBm
☐	single LE directional beam	Pout≤30-[(GTX-6)]/3+8dB, EIRP≤36dBm

Note 1 : GTX directional gain of transmitting antennas.
Note 2 : Pout is maximum peak conducted output power .
Note 3 : EIRP is equivalent isotropically radiated power.

Test Configuration



Performed measurements

Port under test	Antenna port	
Test method applied	☒	Conducted measurement
	☐	Radiated measurement
Test setup	Refer to the Annex 3 for test setup photo(s).	
Operating mode(s) used	Mode 1	
Remark	---	

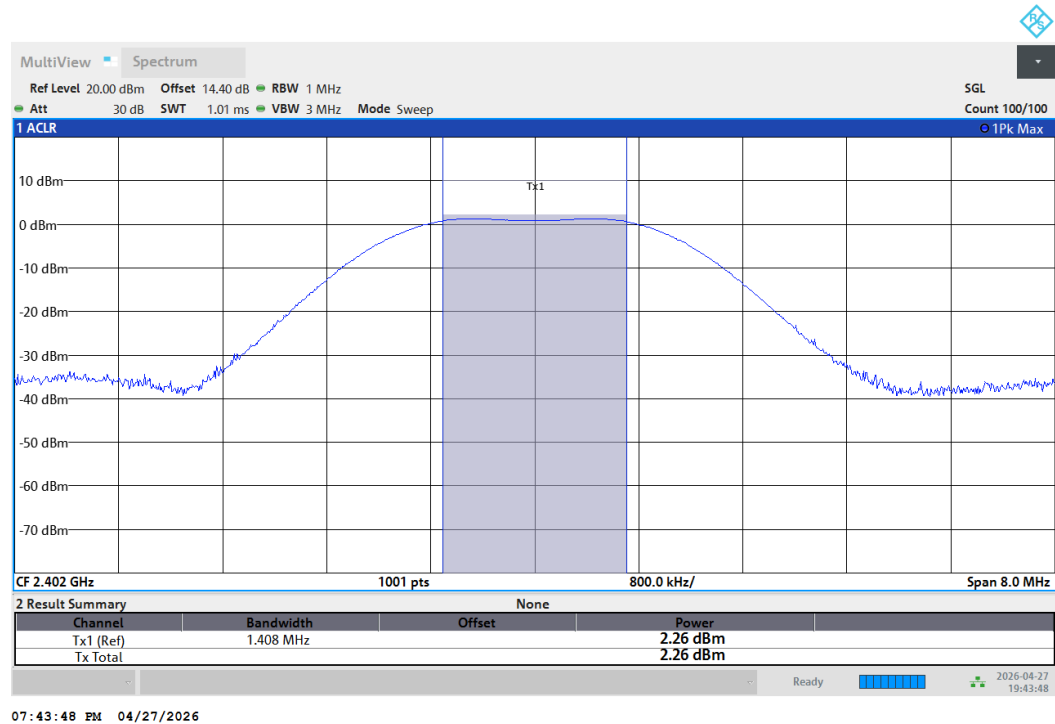
See next page.

Results

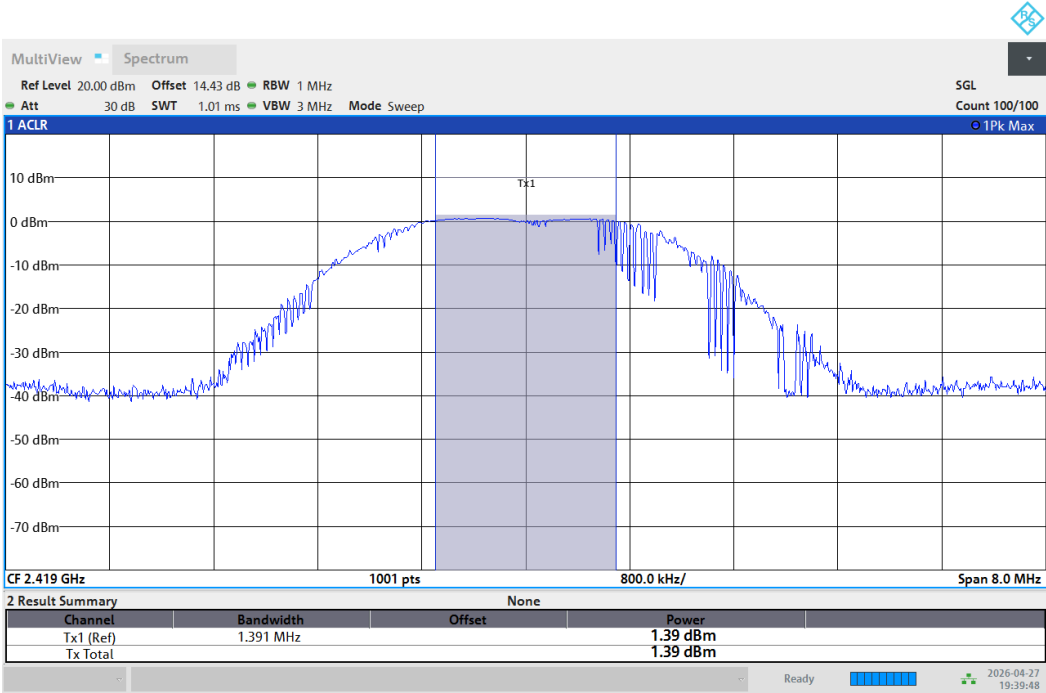
Mode	Test Frequency (MHz)	Output Power (dBm)	Output Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)	Result
BLE 1Mbps	2402	2.26	≤30	5.28	≤36	Pass
	2419	1.39	≤30	4.41	≤36	Pass
	2473	0.62	≤30	3.64	≤36	Pass

Note: EIRP = Output Power + Antenna Gain
Antenna Gain: 3.02 dBi

Output Power
2402MHz

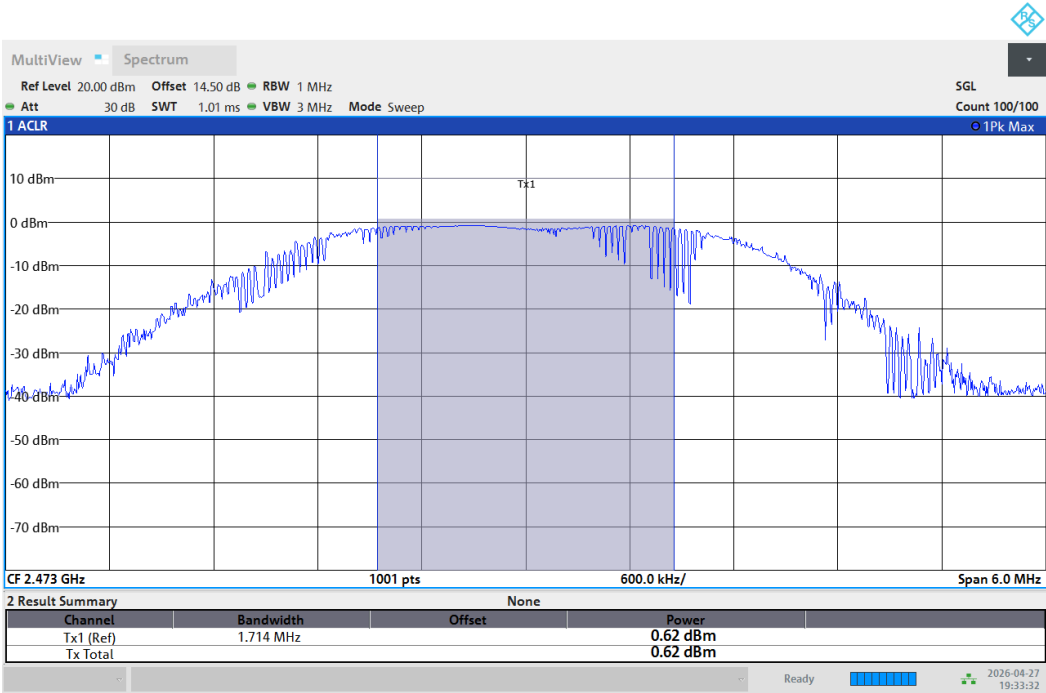


2419 MHz



07:39:48 PM 04/27/2026

2473MHz



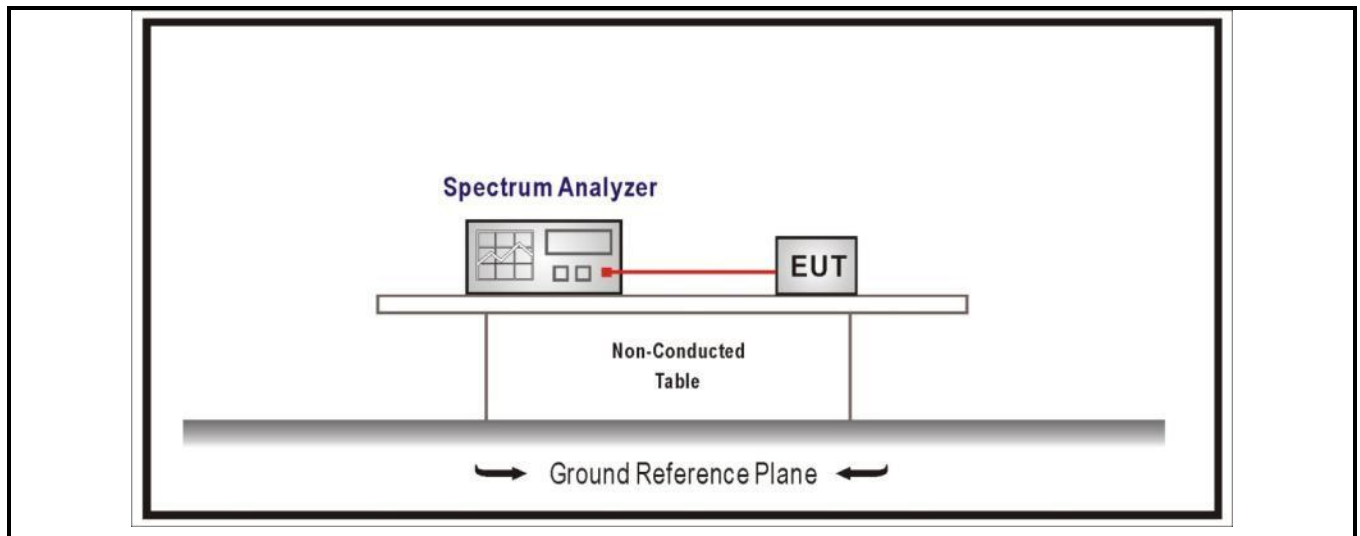
07:33:33 PM 04/27/2026

4.8	Power Spectral Density	VERDICT: PASS
------------	-------------------------------	----------------------

Limit

Standard	FCC Part 15 Subpart C Paragraph 15.247 (e) & RSS-247 Issue 3 Section 5.2(b)
Power Spectral Density $\leq 8\text{dBm}/3\text{kHz}$	

Test Configuration



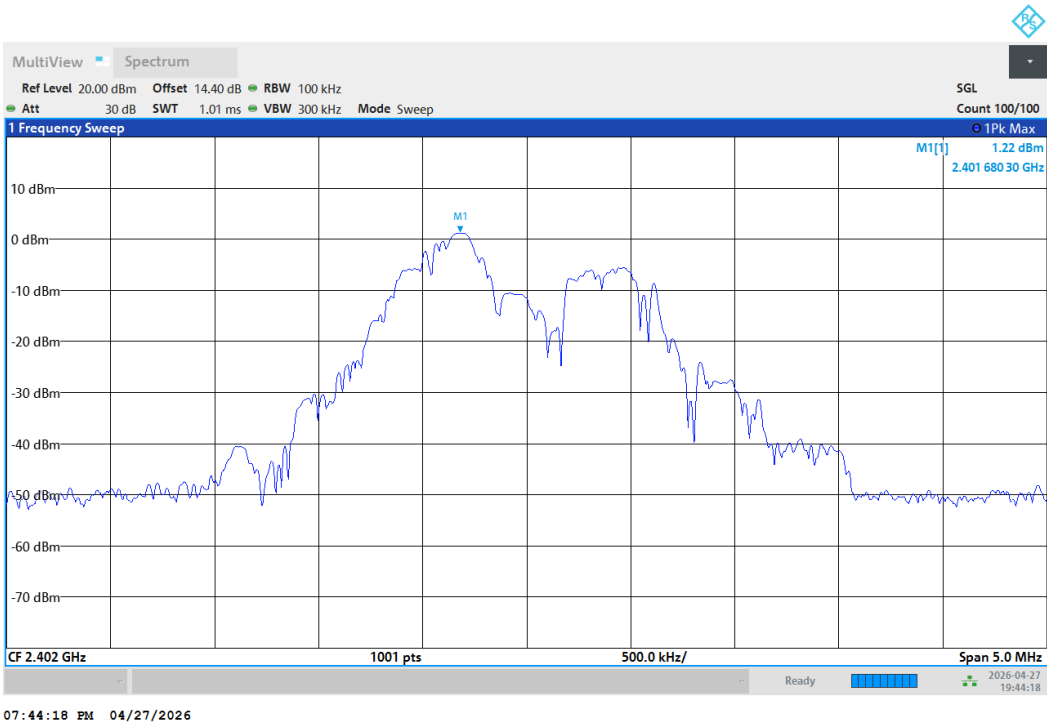
Performed measurements

Port under test	Antenna port	
Test method applied	☒	Conducted measurement
	☐	Radiated measurement
Test setup	Refer to the Annex 3 for test setup photo(s).	
Operating mode(s) used	Mode 1	
Remark	---	

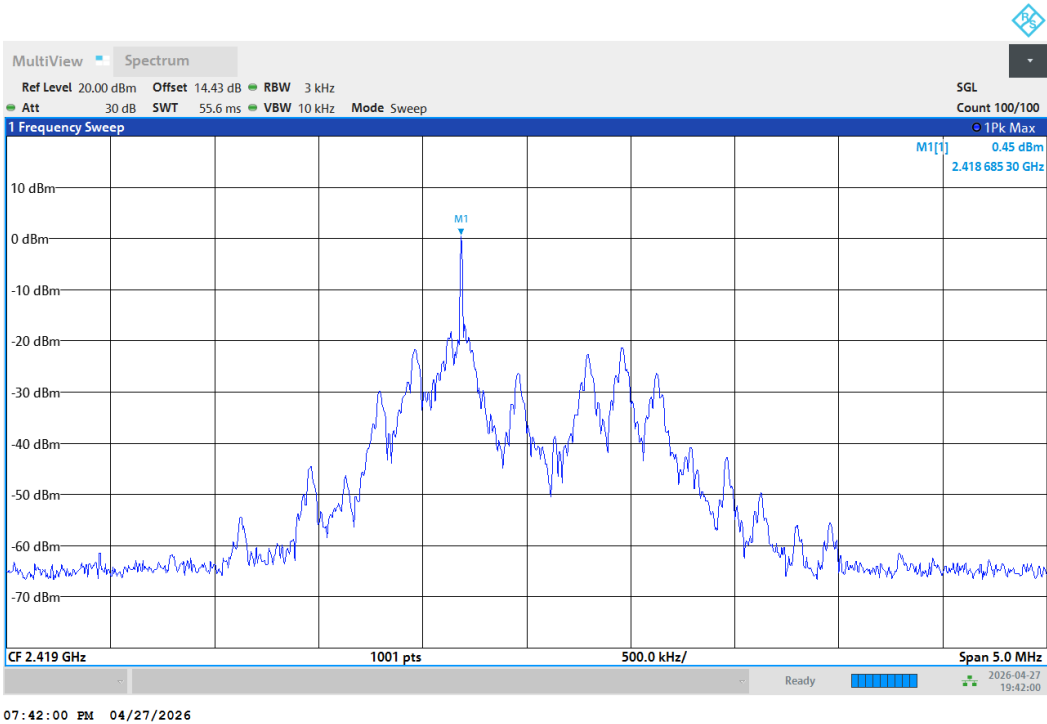
Results

Mode	Channel	Test Frequency (MHz)	Power Spectral Density (dBm)	Limit (dBm/3kHz)	Result
BLE 1Mbps	00	2402	1.22	≤ 8	Pass
	19	2419	0.45	≤ 8	Pass
	39	2473	-1.25	≤ 8	Pass

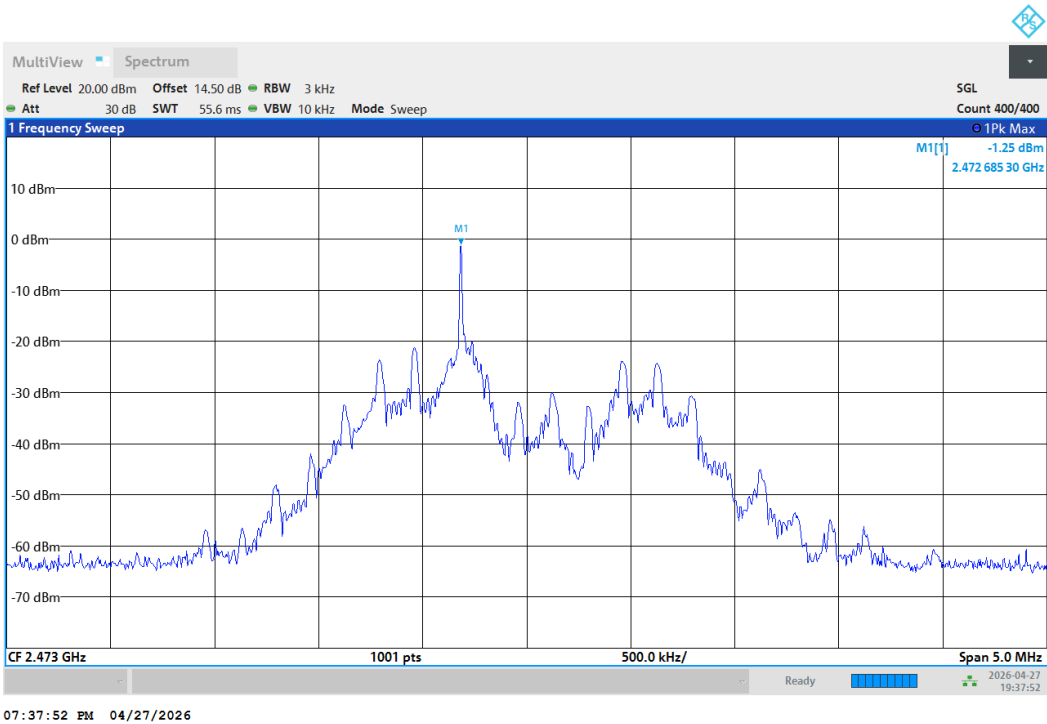
Power Spectral Density
2402MHz,



2419MHz,



2473MHz,



4.9	Antenna Requirement	VERDICT: PASS
-----	----------------------------	----------------------

Limit

Standard	FCC Part 15 Subpart C Paragraph 15.203
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. 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, or § 15.221. 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.	
Standard	RSS-Gen Issue 5 Section 6.8
A transmitter can only be sold or operated with antennas with which it was certified. A transmitter may be certified with multiple antenna types. An antenna type comprises antennas having similar in-band and out-of-band radiation patterns.	

Antenna Connector Construction

☒	The use of a permanently attached antenna
☐	The antenna use of a unique coupling to the intentional radiator
☐	The use of a nonstandard antenna jack or electrical connector
Please refer to the attached document “Internal Photograph” to show the antenna connector.	

5 IDENTIFICATION OF THE EQUIPMENT UNDER TEST

Remark: The test setup photo and EUT Photo please see appendix.

ANNEX 1 – MEASUREMENT UNCERTAINTY

Uncertainties have been calculated according to the DEKRA internal document. The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%.

Test Item		Uncertainty
AC Power Line Conducted Emission		2.7 dB
Radio frequency & Bandwidth		2 ppm
RF power, conducted		0.2 dB
Dwell Time		2.0 ms
Spurious emissions, radiated	(9 KHz~30 MHz)	2.3 dB
	(30 MHz~1 GHz)	Horizontal: 4.7 dB
		Vertical: 4.7 dB
	(1 GHz~8 GHz)	Horizontal: 4.7 dB
		Vertical: 4.8 dB
	(8 GHz~12.75 GHz)	Horizontal: 4.6 dB
		Vertical: 4.7 dB
	(12.75 GHz~18 GHz)	Horizontal: 4.4 dB
		Vertical: 4.8 dB
	(18 GHz~40 GHz)	Horizontal: 4.6 dB
Vertical: 4.7 dB		
Humidity		1.4 %
Temperature		0.5 °C

ANNEX 2 – USED EQUIPMENT

For Spurious Emissions Test

Equipment Name	Manufacturer	Type/Model	Serial Number	Cal Due date
WIDEBAND RADIO COMMUNICATION TESTER	ROHDE & SCHWARZ	CMW500	171082	2026/10/26
Signal & Spectrum Analyzer	ROHDE & SCHWARZ	FSV3044	101286	2026/10/26
Trilog Broadband antenna	Schwarzbeck	VULB9163	01514	2026/11/4
WAVE GUIDE ANTENNA	Schwarzbeck	3117	00240298	2026/11/11
Antenna	Schwarzbeck	QMS-00208	27745	2026/11/11
Antenna	Schwarzbeck	QMS-00880	27646	2026/11/11
Pre-Amplifier	ROHDE & SCHWARZ	SCU08F1	101136	2026/10/31
Pre-Amplifier	ROHDE & SCHWARZ	SCU18F	100971	2026/10/24
Pre-Amplifier	ROHDE & SCHWARZ	SCU18F	100970	2026/10/24
Pre-Amplifier	ROHDE & SCHWARZ	SCU40F1	100631	2026/10/24
Software	Tonscend	TS+	5.0.0	N/A

For other test items

Equipment Name	Manufacturer	Type/Model	Serial Number	Cal Due date
Vector signal generator	ROHDE & SCHWARZ	SMM100A	101780	2026/10/26
Open switch and control platform	ROHDE & SCHWARZ	OSP150	100856	2026/10/26
Signal and Spectrum analyzer	ROHDE & SCHWARZ	FSV3044	101287	2026/10/26
Wireless connectivity tester	ROHDE & SCHWARZ	CMW270	102651	2026/10/26
SIGNAL GENERATOR	ROHDE & SCHWARZ	SMB100A	183222	2026/10/26
Software	MWRFTtest	MTS 8310	2.0.0.0	N/A

--- END ---