

Test report No: 6238587.51

TEST REPORT

Radio Spectrum Matters (RF)

Identification of item tested	SPEED AND CADENCE SENSORS
Trademark	DECATHLON
Model and /or type reference	KIT202
Model Code	4494949
Features	Battery: 3 Vdc
FCC ID	2A8UO-KIT202
Applicant's name / address	DECATHLON AMERICA LLC 275 Battery Street, Suite 480, San Francisco, California 94111, United States
Test method requested, standard	FCC CFR Title 47 Part 15 Subpart C Section 15.247 ANSI C63.10-2020+COR 1-2023-2020
Verdict Summary	IN COMPLIANCE
Prepared by (name / position & signature)	Adrian Shi Technical Supervisor 
Approved by (name / position & signature)	Lei Chen Senior Project Manager 
Date of issue	2026-03-25
Report template No	TRF_Part15C_247_RF03 V1.0

INDEX

	page
Competences and Guarantees.....	4
General conditions	4
Uncertainty.....	4
Environmental conditions.....	5
Possible test case verdicts	5
Definition of symbols used in this test report	5
Abbreviations	5
Document History	6
Remarks and Comments	6
1 General Information.....	7
1.1 General Description of the Item(s)	7
1.2 Test date	8
2 Description of Test Setup	9
2.1 Operating mode(s) used for tests.....	9
2.2 Support / Auxiliary equipment / unit / software for the EUT	9
2.3 Test Configuration / Block diagram used for tests	9
3 Verdict summary section	10
3.1 Standards	10
3.2 Deviation(s) from the Standard(s) / Test Specification(s)	10
3.3 Overview of results	10
3.4 Test Facility	11
3.5 Measurement procedure	11
4 Test Results.....	12
4.1 AC Power Line Conducted Emission	12
4.2 Emissions in restricted frequency bands	14
4.3 Emissions in non-restricted frequency band	24
4.4 Duty Cycle	28
4.5 Radiated Emission Band Edge	29
4.6 DTS Bandwidth & Occupied Bandwidth.....	32
4.7 Fundamental emission output power	35
4.8 Power Spectral Density	37
4.9 Antenna Requirement	39
5 Identification of the Equipment Under Test	40
Annex 1 – Measurement Uncertainty.....	41



Annex 2 – Used Equipment 42

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
HCP	: Horizontal Coupling Plane
VCP	: Vertical Coupling Plane
U_N	: Nominal voltage
Tx	: Transmitter
Rx	: Receiver
N/A	: Not Applicable
N/M	: Not Measured

DOCUMENT HISTORY

Report nr.	Date	Description
6238587.51	2026-03-25	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	SPEED AND CADENCE SENSORS
Model / Type number	KIT202
Model Code.....	4494949
S/N	367025170002
Trademark.....	DECATHLON
FCC ID	2A8UO-KIT202
Test Sample Number	6238587-1
Hardware Version	V1.0
Software Version	0.104
Manufacturer.....	DECATHLON SE 4 boulevard de Mons 59650 Villeneuve D'Ascq FRANCE

Mode of Operation	SRD
Operating frequency range(s).....	2457 MHz
Type of Modulation	FSK
Number of Channel.....	1
Antenna Type	PCB Antenna
Antenna Gain	0 dBi
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:	☐	☐	☐	☐	☐
	☐	DC:					
	☒	Battery: 3 Vdc					
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 product is SPEED AND CADENCE SENSORS which supports bluetooth and 2.4G ANT+ function.

1.2 **Test date**

Test Location	DEKRA Testing and Certification (Shanghai) Ltd. No.250, Jiangchangsan Road, Jing'an District, Shanghai, China
Date of receipt of test item	2025-07-21
Date (s) of performance of tests	2025-07-28~2026-03-25

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 methos	
		Conducted	Radiated
1	Transmitting	☒	☒
2	--	☐	☐
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	S/N	Manufacturer	Supplied by
nrfgostudio	win-64_v2.4.0	N/A	Nordic	Applicant
Laptop	Latitude 5488	5CD242FLCF	DELL	DEKRA
Supplemental information: ---				

2.3 Test Configuration / Block diagram used for tests

Refer to Annex 3.

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	2022	Operation within the bands 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz.
ANSI C63.10-2020+COR 1-2023	2023	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

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	N/A	See 1)
Emissions in restricted frequency bands	FCC 15.247(d), 15.209, 15.205	PASS	---
Duty cycle	ANSI C63.10-2020+COR 1-2023-2020	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:			
The EUT is battery-powered, so this test item is not applicable			

3.4 Test Facility

FCC Designation Number	:	CN1358
-------------------------------	---	--------

3.5 Measurement procedure

The EUT was controlled by USB Cable provided by applicant which connected to laptop. After connected, run the software “nrfgostudio” supplied by manufacturer to control the EUT work in required test mode as below table.

Mode	Channel Number	Frequency (MHz)	Power Setting
ANT	1	2457	1

4 TEST RESULTS

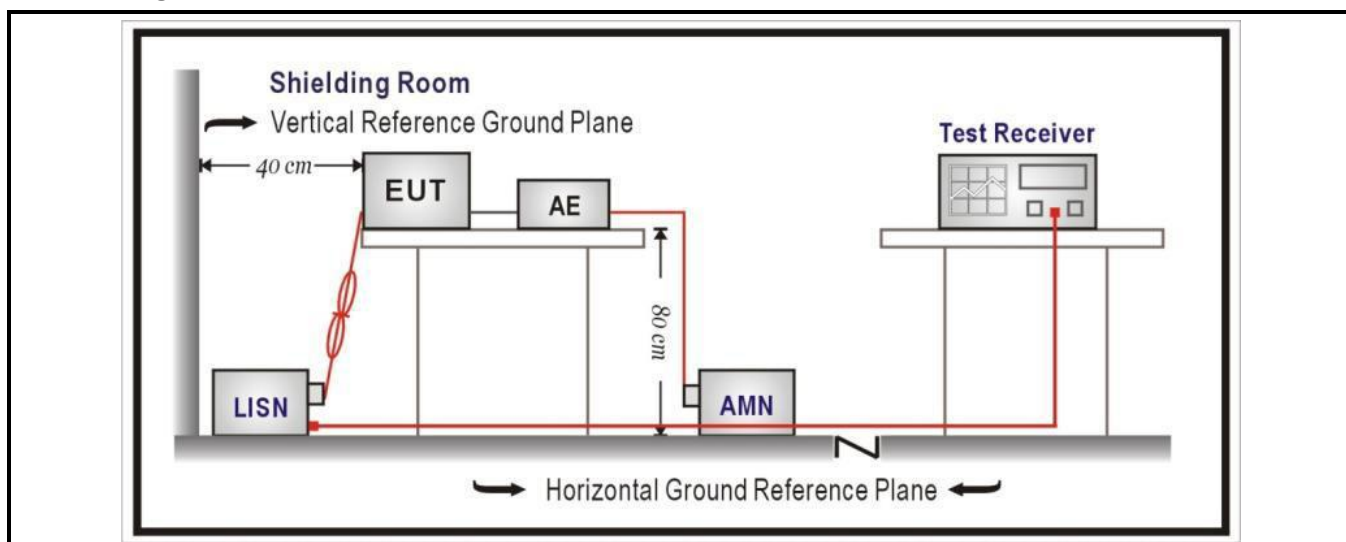
4.1	AC Power Line Conducted Emission	VERDICT: N/A
-----	----------------------------------	--------------

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		---							
Remark		---							

See next page.

Measurement data	Port under test	---
Operating mode / voltage / frequency used during the test		---
The EUT is battery-powered, so this test item is not applicable		
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	
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	--	--	--

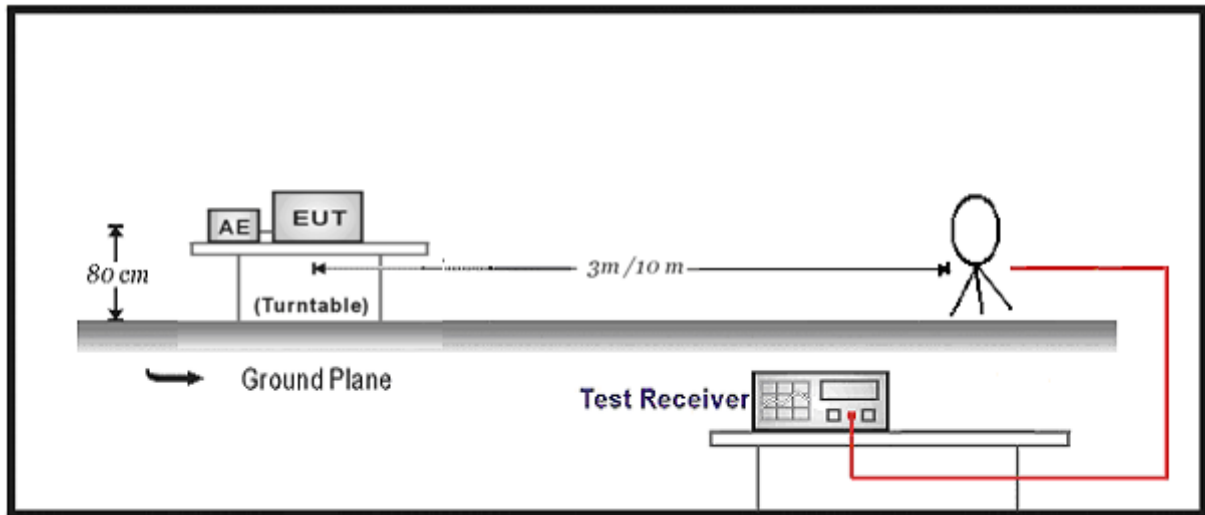
Restricted Band Emissions Limit for FCC			
Frequency (MHz)	Field strength ($\mu\text{V/m}$)	Field strength (dB $\mu\text{V/m}$)	Measurement distance (m)
0.009 - 0.49	2400/F(kHz)	48.5 - 13.8	300 _(Note 1)
0.49 - 1.705	24000/F(kHz)	33.8 - 23	30 _(Note 1)
1.705 - 30	30	29.5	30 _(Note 1)
30 - 88	100	40	3 _(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).

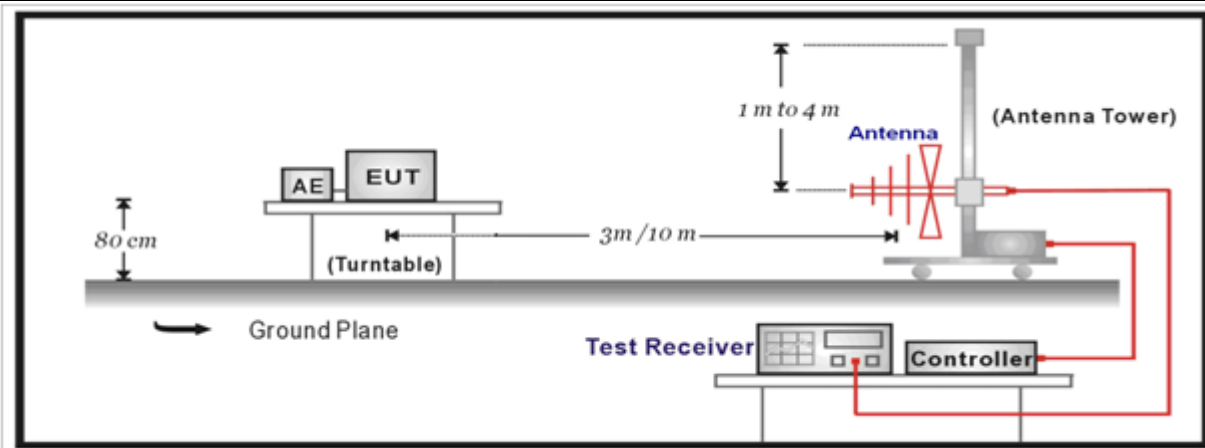
Note 2: At frequencies at or above 30 MHz, measurements may be performed at a distance other than what is specified provided: measurements are not made in the near field except where it can be shown that near field measurements are appropriate due to the characteristics of the device; and it can be demonstrated 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).

Test Configuration

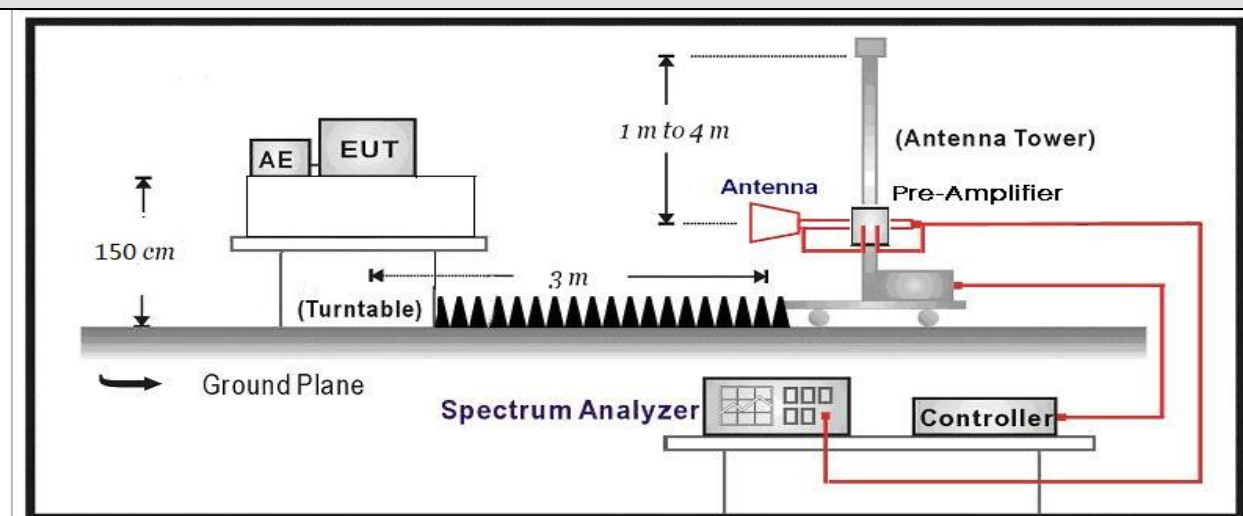
Below 30MHz Test Setup:



30MHz-1GHz Test Setup:



Above 1GHz Test Setup:



Performed measurements

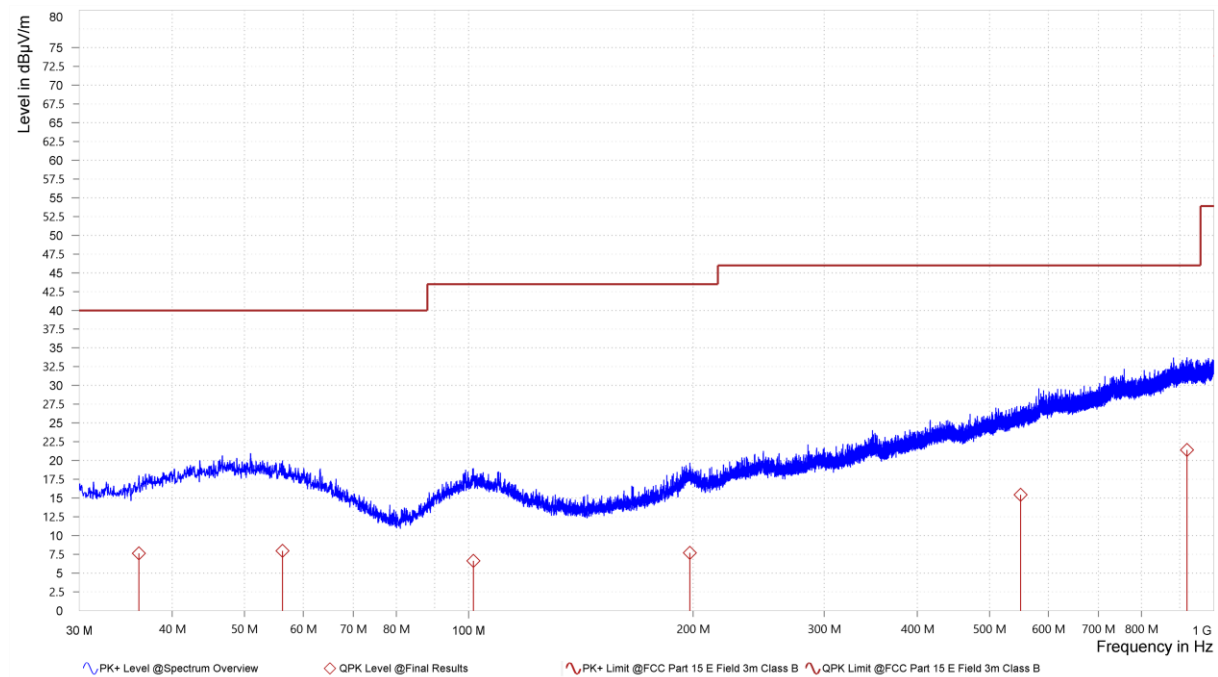
Port under test	Enclosure port	
Test method applied	☐	Conducted measurement
	☒	Radiated measurement
Test setup	Refer to the Annex 3 for test setup photo(s).	
Operating mode(s) used	Mode 1	
Remark	1. The test frequency range, 9kHz~30MHz, 18GHz~26GHz, both of the worst case are at least 20dB below the 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.	

See next page.

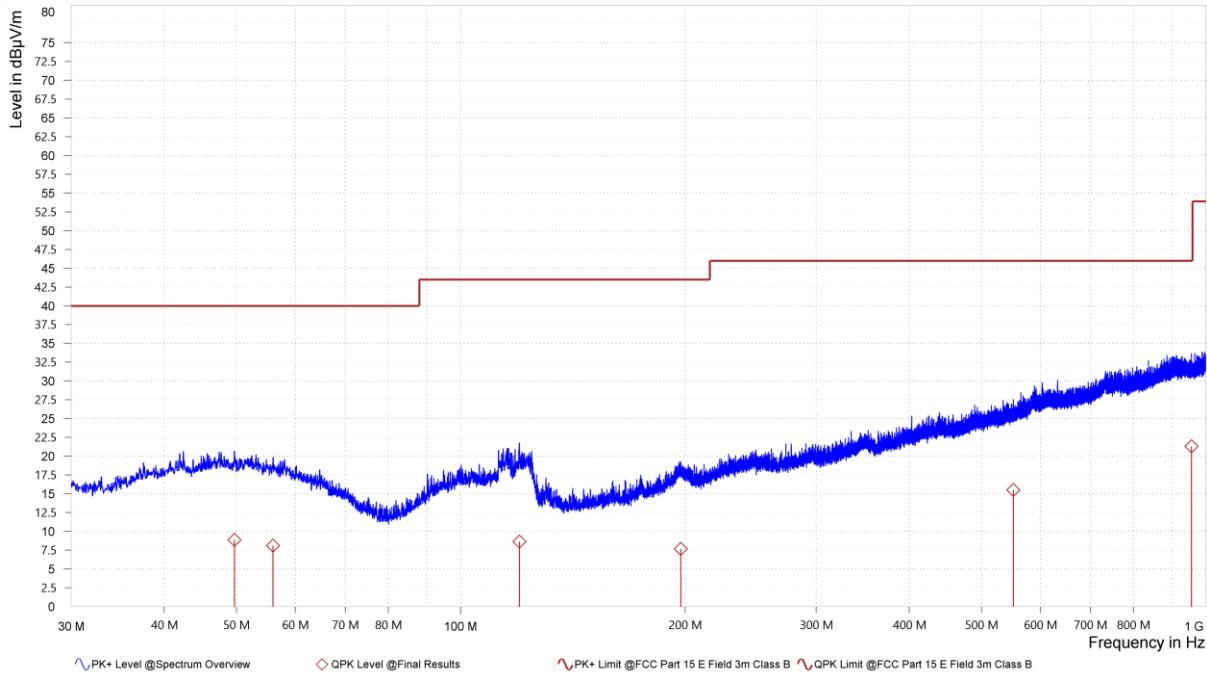
Results

Emissions in restricted frequency bands

30MHz – 1GHz, Normal Mode, H



Rg	Frequency [MHz]	QPK Level [dBμV/m]	QPK Limit [dBμV/m]	QPK Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	36.090	7.63	40.00	32.37	17.72	H	0	2
1	56.250	7.98	40.00	32.02	20.05	H	105.8	1
1	101.460	6.62	43.50	36.88	18.68	H	47.8	1
1	198.060	7.72	43.50	35.78	19.15	H	64.5	1
1	550.530	15.44	46.00	30.56	26.31	H	271.5	1
1	920.790	21.42	46.00	24.58	31.72	H	155.5	1

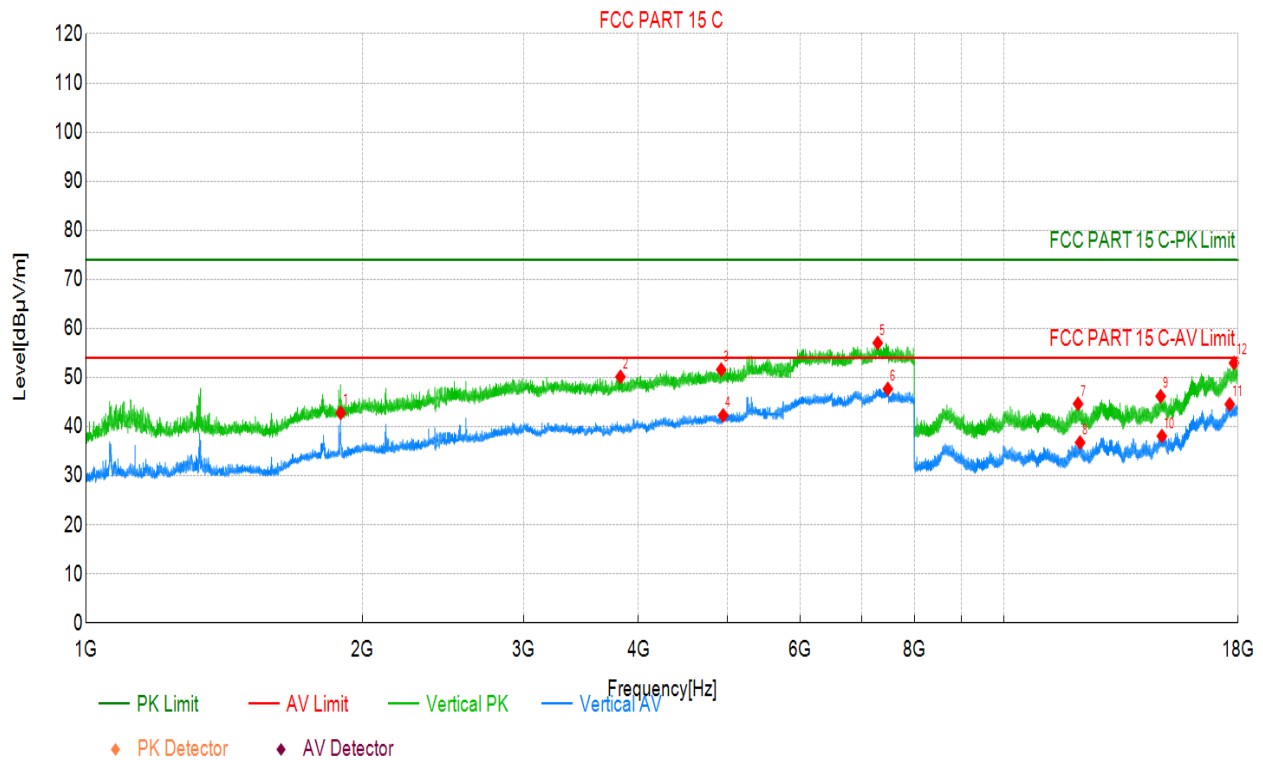


DEKRA

Rg	Frequency [MHz]	QPK Level [dBµV/m]	QPK Limit [dBµV/m]	QPK Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	49.710	8.87	40.00	31.13	20.54	V	0	1.5
1	56.010	8.10	40.00	31.90	20.09	V	63.3	1.5
1	119.880	8.63	43.50	34.87	16.55	V	105.3	1.5
1	197.400	7.67	43.50	35.83	19.16	V	360	1.5
1	551.580	15.49	46.00	30.51	26.31	V	360	1.5
1	957.180	21.32	46.00	24.68	31.48	V	71.6	1.5

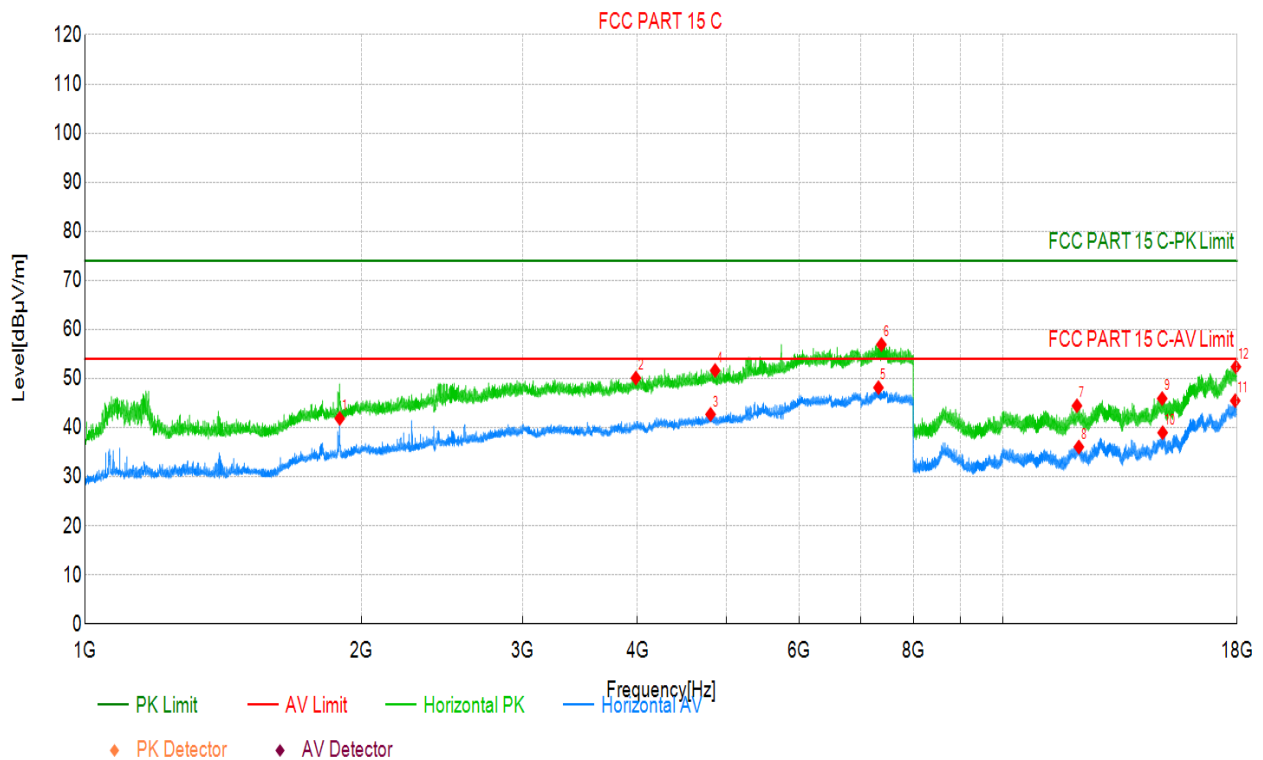
1GHz – 18GHz Harmonic

2457MHz, V



Suspected Data List									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	1895.00	38.1	42.81	4.720	54.00	11.19	AV	Verti	PASS
2	3822.50	39.4	50.15	10.790	74.00	23.85	PK	Verti	PASS
3	4922.50	39.9	51.61	11.730	74.00	22.39	PK	Verti	PASS
4	4946.25	30.4	42.29	11.920	54.00	11.71	AV	Verti	PASS
5	7289.38	39.5	57.04	17.540	74.00	16.96	PK	Verti	PASS
6	7476.25	30.4	47.69	17.340	54.00	6.31	AV	Verti	PASS
7	12048.00	33.1	44.65	11.580	74.00	29.35	PK	Verti	PASS
8	12110.67	25.1	36.77	11.680	54.00	17.23	AV	Verti	PASS
9	14823.33	32.8	46.19	13.350	74.00	27.81	PK	Verti	PASS
10	14868.00	24.6	38.09	13.480	54.00	15.91	AV	Verti	PASS
11	17628.00	25.7	44.56	18.830	54.00	9.44	AV	Verti	PASS
12	17816.67	34.0	52.96	18.920	74.00	21.04	PK	Verti	PASS

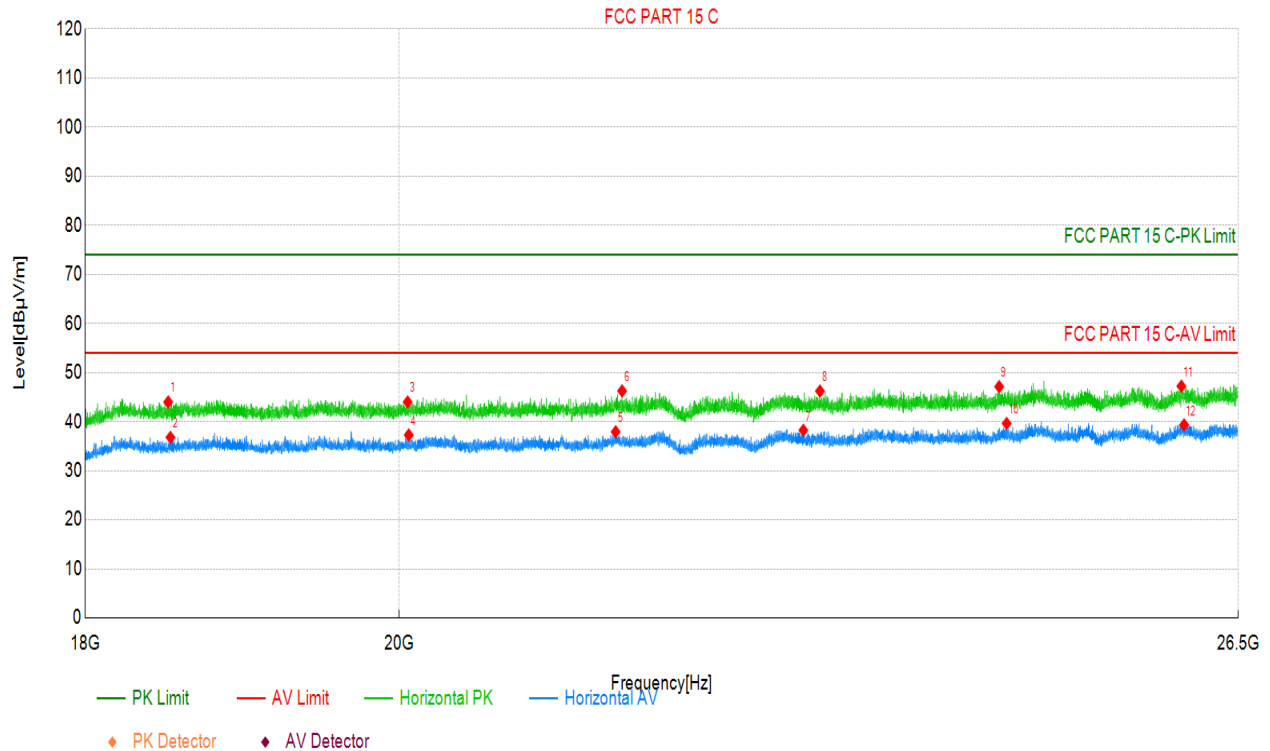
2457MHz, H



Suspected Data List									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	1895.00	37.2	41.88	4.720	54.00	12.12	AV	Hori	PASS
2	3983.13	38.9	50.10	11.160	74.00	23.90	PK	Hori	PASS
3	4804.38	30.7	42.71	12.040	54.00	11.29	AV	Hori	PASS
4	4860.00	39.9	51.64	11.760	74.00	22.36	PK	Hori	PASS
5	7321.25	30.6	48.15	17.560	54.00	5.85	AV	Hori	PASS
6	7376.25	39.5	56.93	17.400	74.00	17.07	PK	Hori	PASS
7	12045.33	32.9	44.46	11.570	74.00	29.54	PK	Hori	PASS
8	12102.67	24.3	36.06	11.760	54.00	17.94	AV	Hori	PASS
9	14916.00	32.3	45.93	13.670	74.00	28.07	PK	Hori	PASS
10	14934.00	25.2	38.98	13.780	54.00	15.02	AV	Hori	PASS
11	17916.67	26.9	45.49	18.610	54.00	8.51	AV	Hori	PASS
12	17950.00	33.8	52.40	18.600	74.00	21.60	PK	Hori	PASS

18GHz – 26GHz Harmonic

2457MHz, H

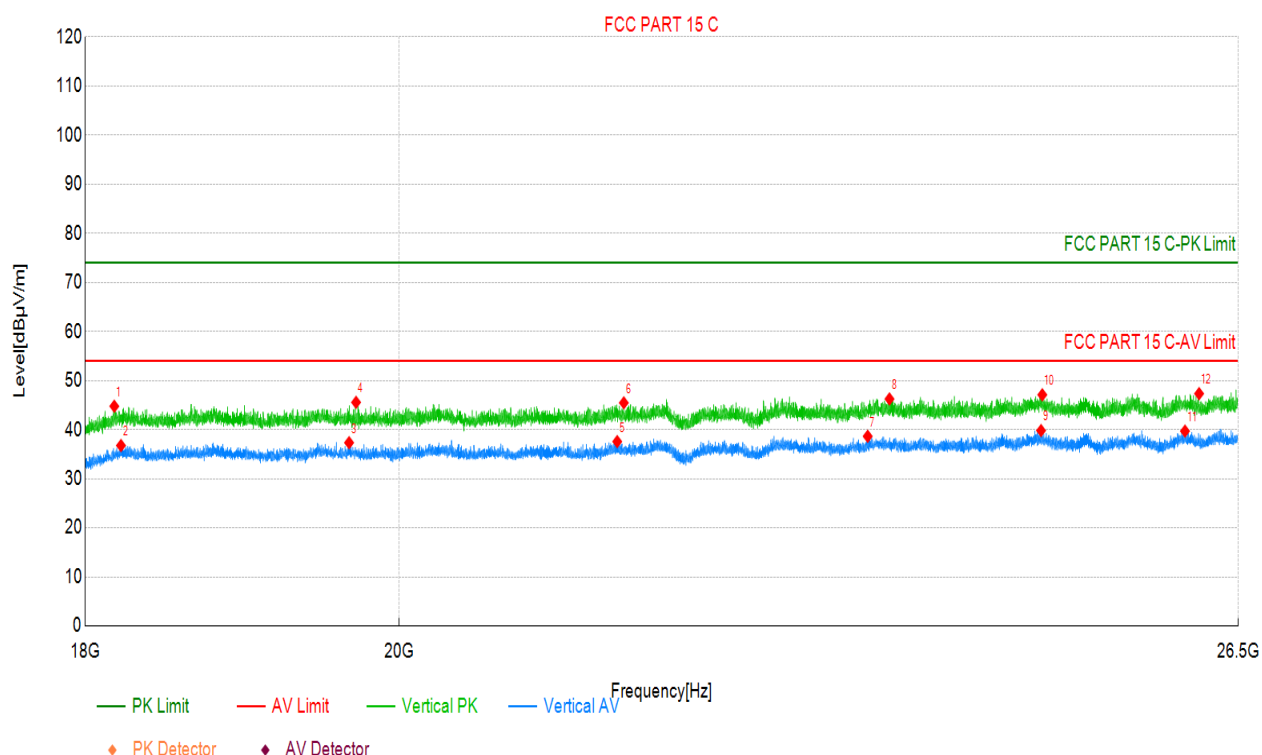


Suspected Data List									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	18509.43	55.0	44.01	-11.010	74.00	29.99	PK	Hori	PASS
2	18523.60	47.8	36.80	-10.950	54.00	17.20	AV	Hori	PASS
3	20057.57	54.3	44.00	-10.320	74.00	30.00	PK	Hori	PASS
4	20064.93	47.6	37.28	-10.290	54.00	16.72	AV	Hori	PASS
5	21507.10	46.3	37.94	-8.400	54.00	16.06	AV	Hori	PASS
6	21553.57	54.8	46.26	-8.550	74.00	27.74	PK	Hori	PASS
7	22904.50	44.9	38.25	-6.680	54.00	15.75	AV	Hori	PASS
8	23032.57	53.4	46.23	-7.180	74.00	27.77	PK	Hori	PASS
9	24459.43	52.5	47.13	-5.330	74.00	26.87	PK	Hori	PASS
10	24521.20	44.6	39.64	-4.970	54.00	14.36	AV	Hori	PASS
11	26000.77	50.9	47.22	-3.690	74.00	26.78	PK	Hori	PASS
12	26024.57	43.1	39.34	-3.750	54.00	14.66	AV	Hori	PASS

Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level

2457MHz, V



Suspected Data List									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	18177.93	55.7	44.77	-10.880	74.00	29.23	PK	Verti	PASS
2	18218.73	47.5	36.77	-10.730	54.00	17.23	AV	Verti	PASS
3	19667.70	47.7	37.34	-10.360	54.00	16.66	AV	Verti	PASS
4	19713.60	55.7	45.57	-10.130	74.00	28.43	PK	Verti	PASS
5	21518.43	46.0	37.57	-8.430	54.00	16.43	AV	Verti	PASS
6	21566.03	54.1	45.46	-8.590	74.00	28.54	PK	Verti	PASS
7	23404.30	45.3	38.64	-6.610	54.00	15.36	AV	Verti	PASS
8	23576.00	52.1	46.25	-5.880	74.00	27.75	PK	Verti	PASS
9	24805.67	44.2	39.81	-4.370	54.00	14.19	AV	Verti	PASS
10	24815.87	51.5	47.10	-4.410	74.00	26.90	PK	Verti	PASS
11	26032.50	43.5	39.70	-3.770	54.00	14.30	AV	Verti	PASS
12	26156.03	51.7	47.33	-4.410	74.00	26.67	PK	Verti	PASS

Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level

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

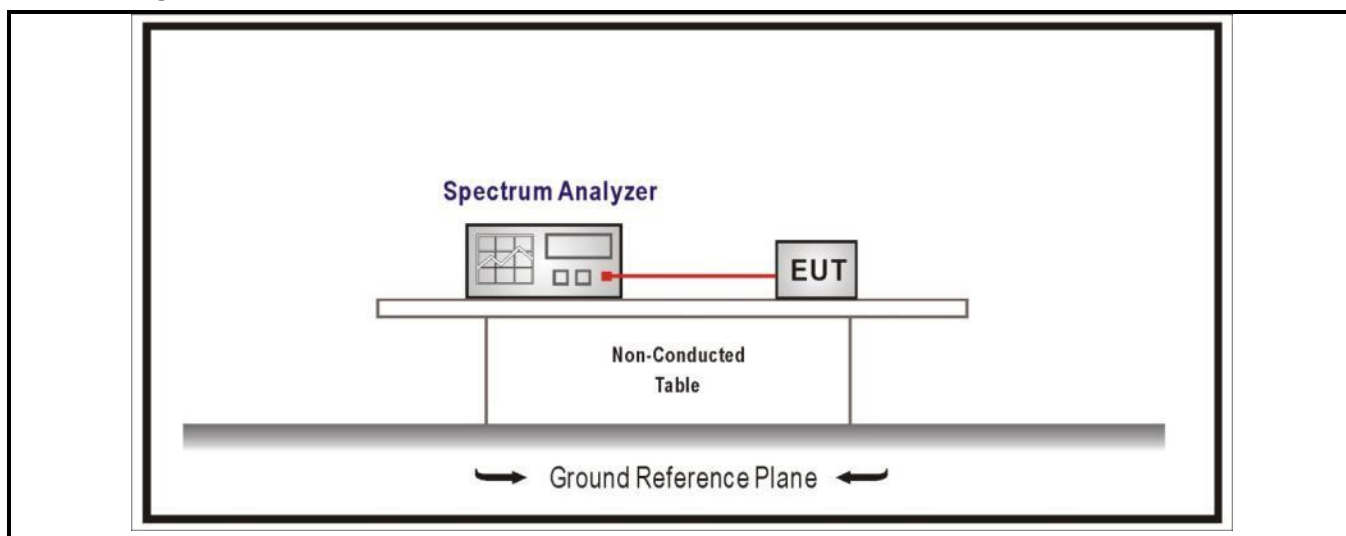
Limit

Standard	FCC Part 15 Subpart C Paragraph 15.247(d)
RF Output power (Detection methods)	Limit(dB)
RF Output power(Average detector)	30dBc(Note1)
RF Output power(PK detector)	20dBc(Note2)

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

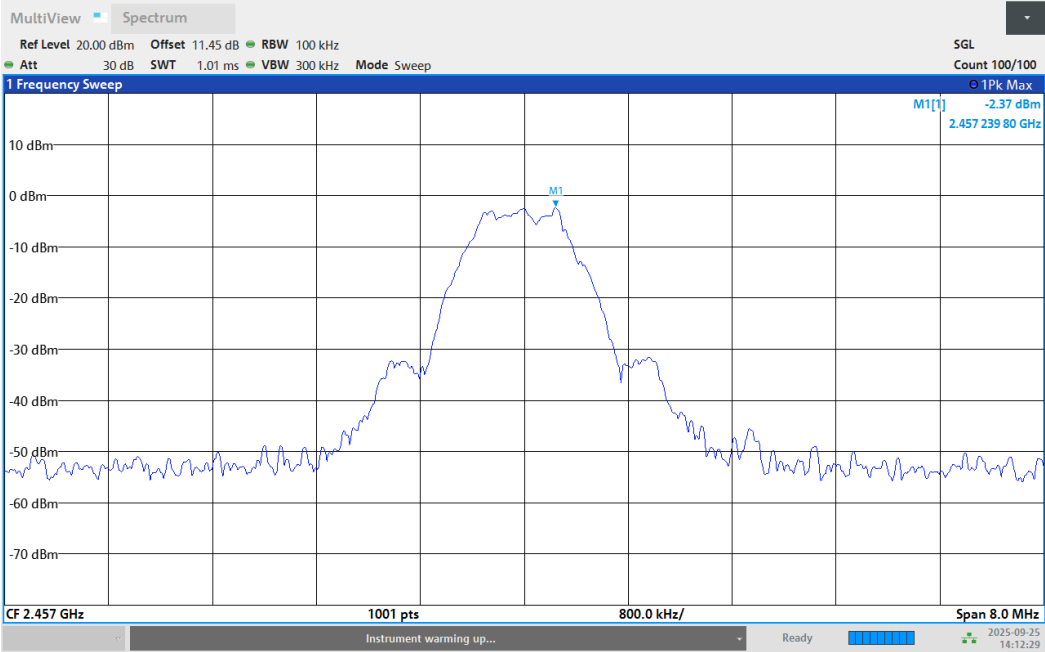


Performed measurements

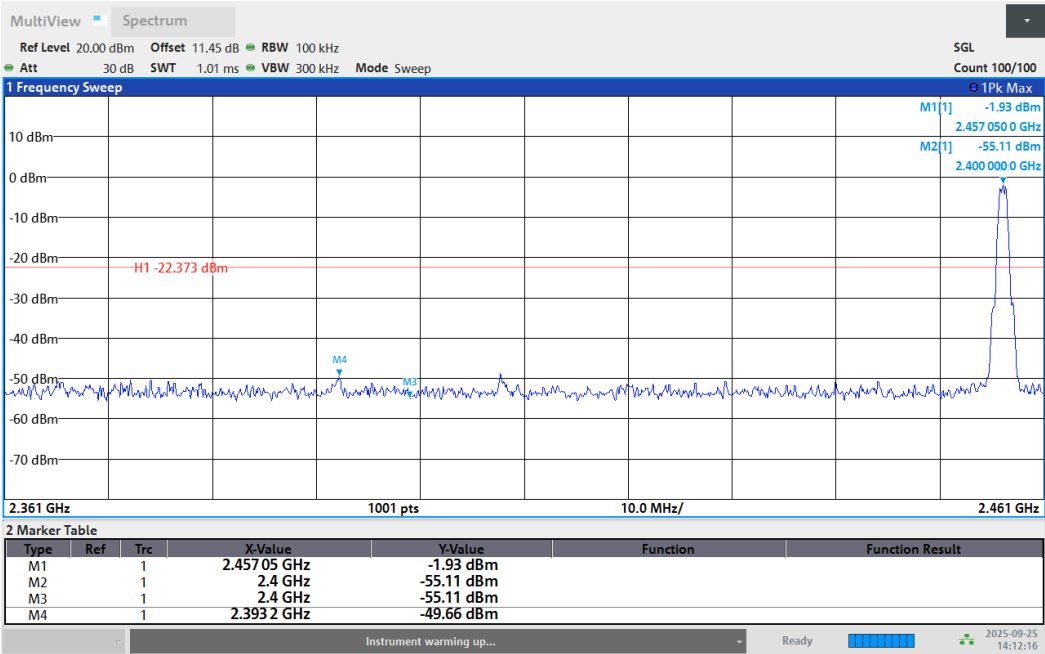
Port under test	Antenna port	
Test method applied	☒	Conducted measurement
	☐	Radiated measurement
Test setup	Refer to the Annex 3 for test setup photo(s).	
Operating mode(s) used	Mode 1	
Remark	---	

See next page

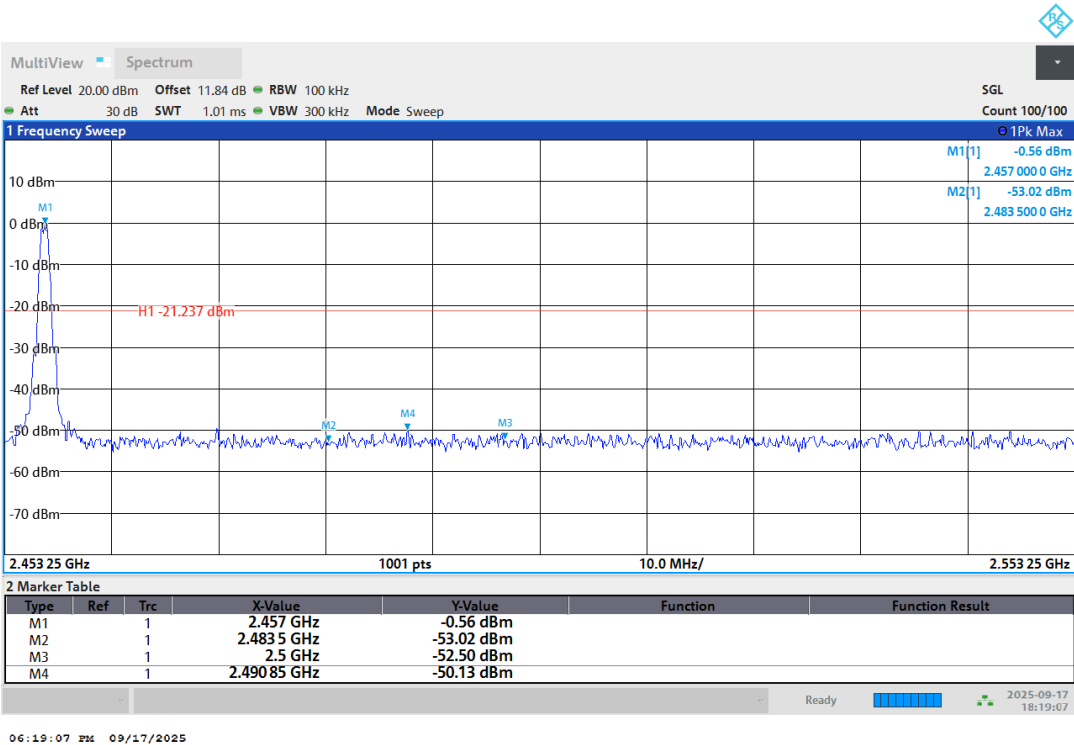
Results
Emissions in non-restricted frequency band
2457MHz



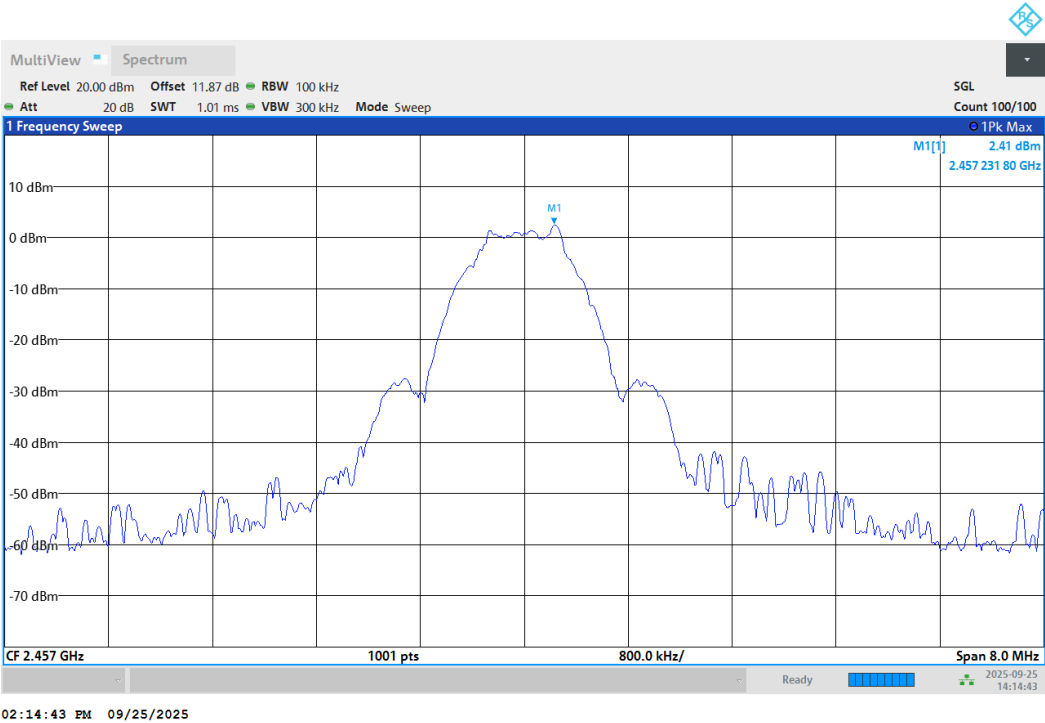
02:12:29 PM 09/25/2025

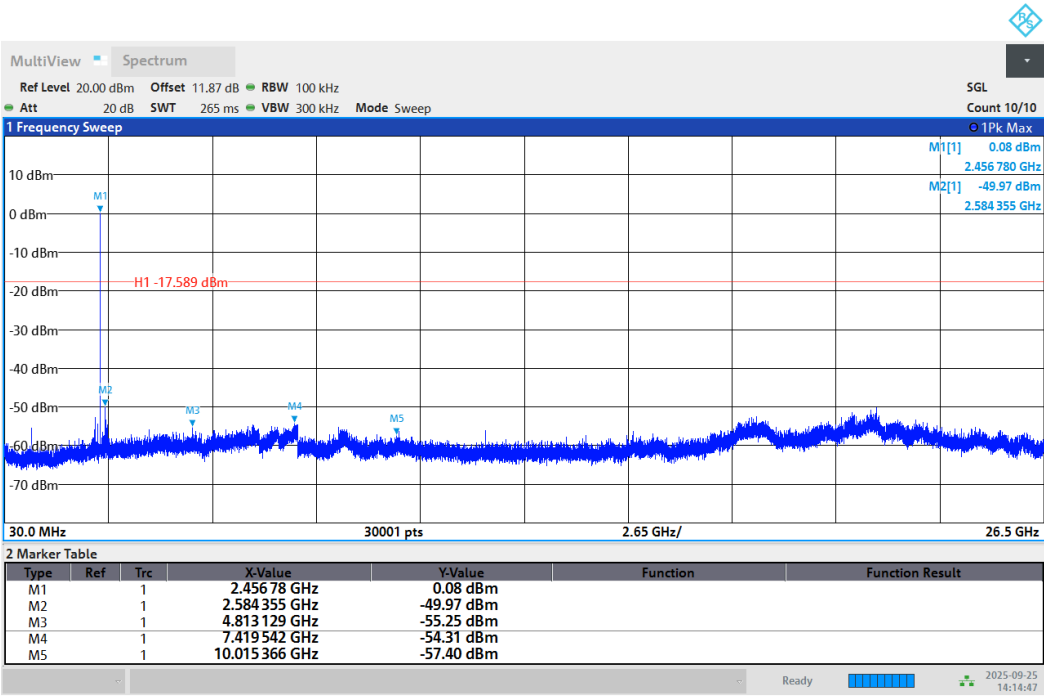


02:12:17 PM 09/25/2025



Conducted out of band emission
2457MHz





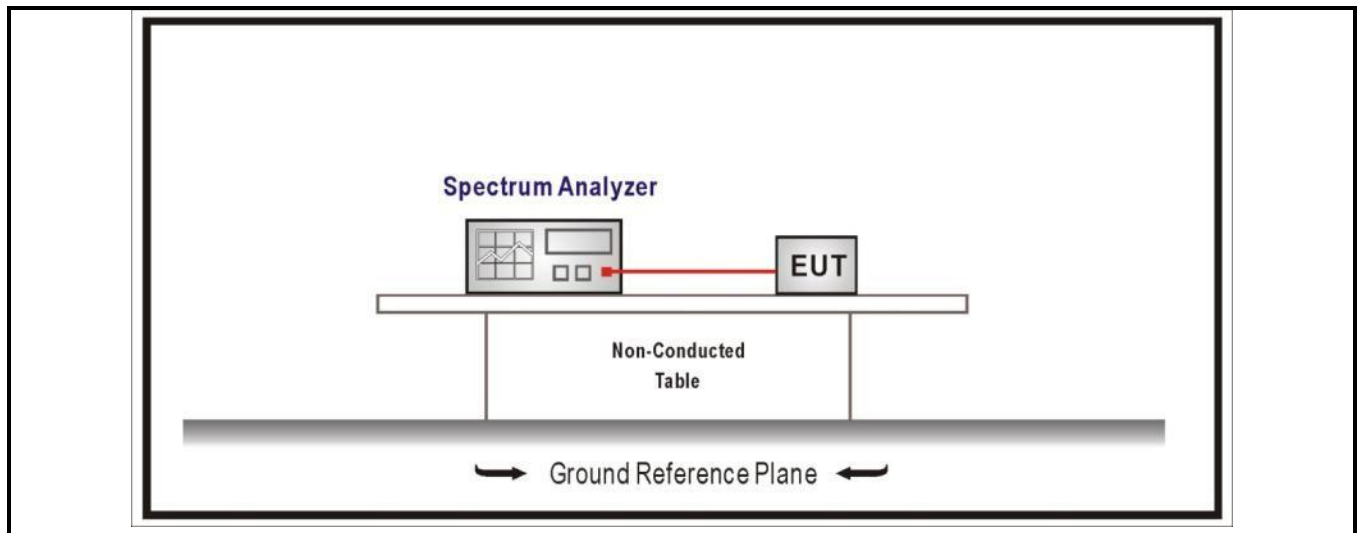
02:14:48 PM 09/25/2025

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)
ANT	2457	85.58	0.68	0.47

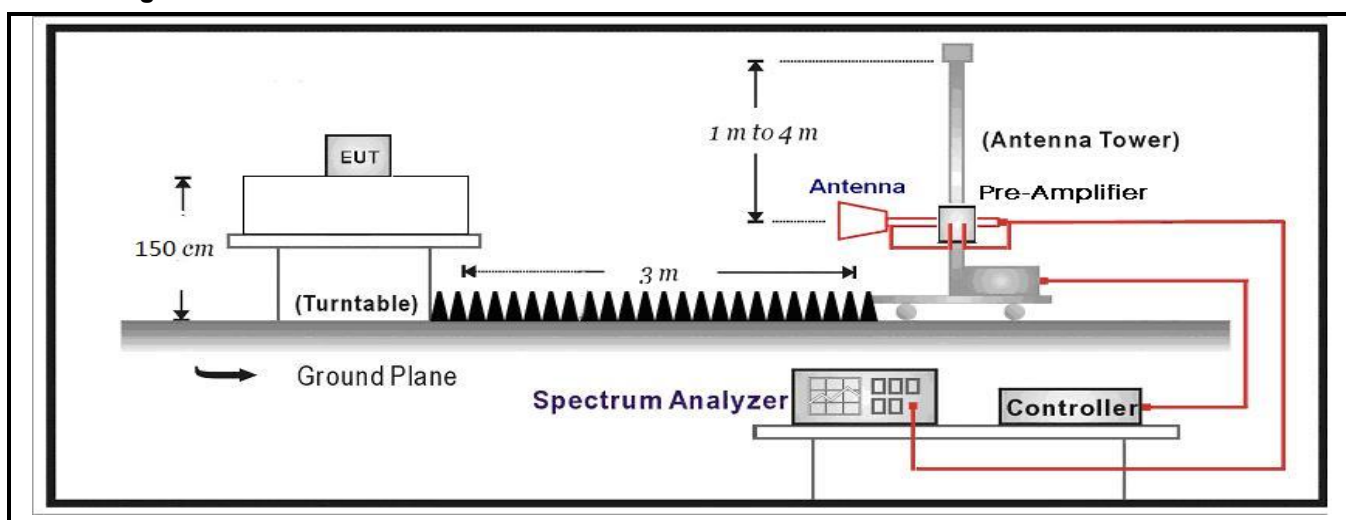
4.5	Radiated Emission Band Edge	VERDICT: PASS
-----	------------------------------------	----------------------

Limit

Standard	FCC Part 15 Subpart C Paragraph 15.247(d), 15.205, 15.209			
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

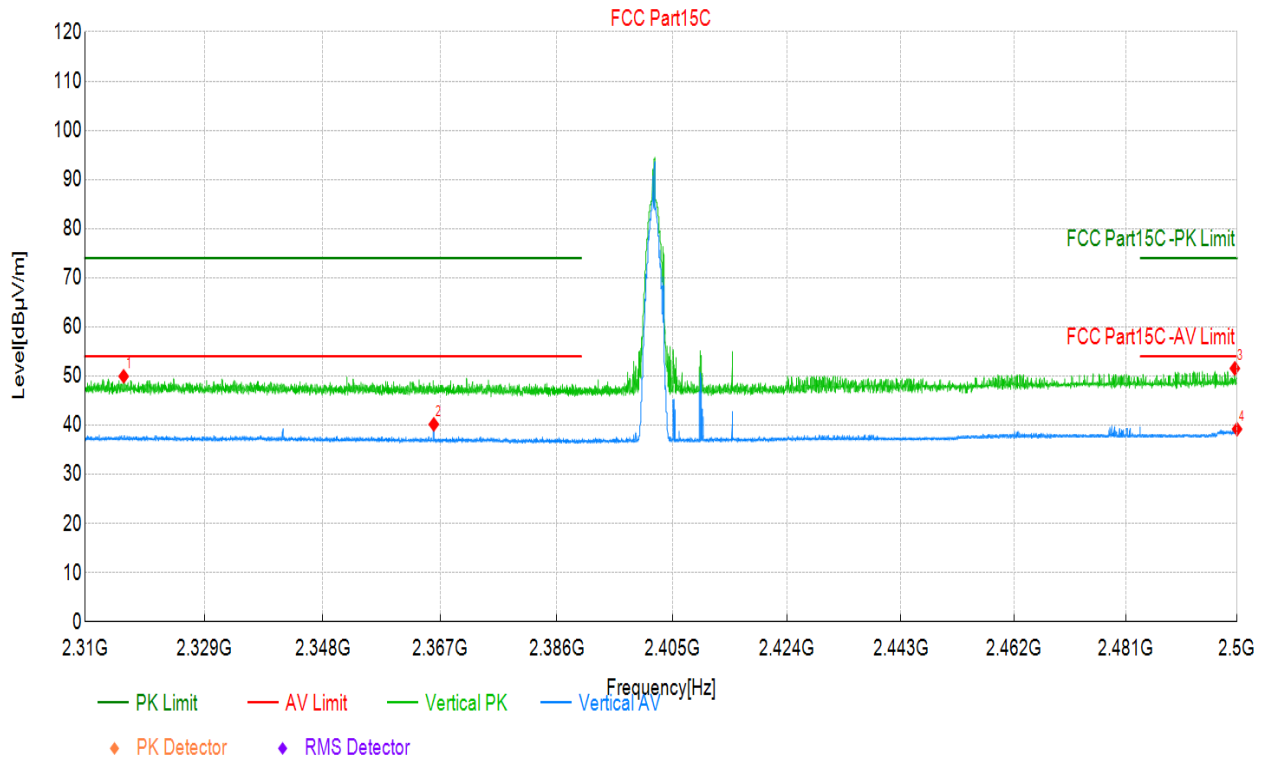
Port under test	Enclosure port	
Test method applied	☐	Conducted measurement
	☒	Radiated measurement
Test setup	Refer to the Annex 3 for test setup photo(s).	
Operating mode(s) used	Mode 1	
Remark	---	

See next page

Results

Radiated Emission Band Edge

2457MHz, V

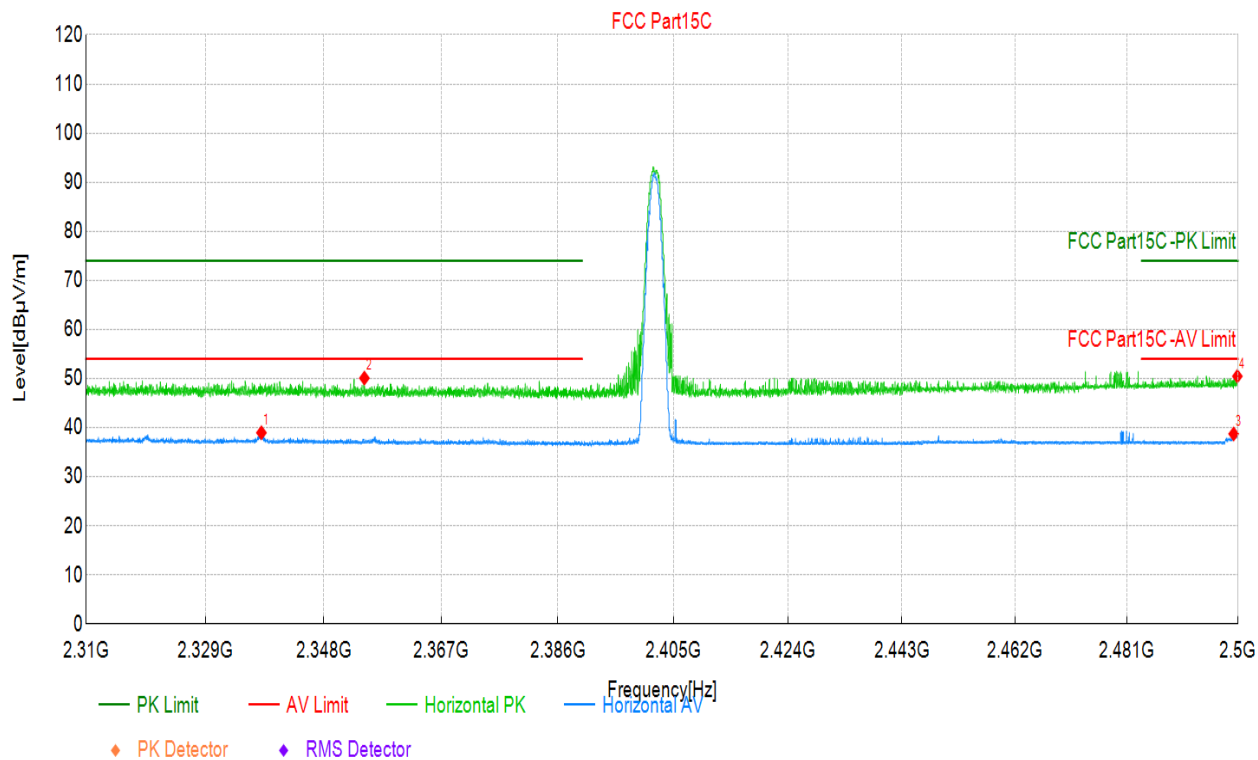


Suspected Data List									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2316.15	44.1	49.95	5.900	74.00	24.05	PK	Verti	PASS
2	2365.96	34.4	40.18	5.750	54.00	13.82	AV	Verti	PASS
3	2499.62	43.8	51.56	7.720	74.00	22.44	PK	Verti	PASS
4	2500.00	31.5	39.20	7.730	54.00	14.80	AV	Verti	PASS

Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level

2457MHz , H



Suspected Data List									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2337.98	33.1	38.97	5.830	54.00	15.03	AV	Hori	PASS
2	2354.56	44.3	50.10	5.780	74.00	23.90	PK	Hori	PASS
3	2499.24	31.0	38.73	7.710	54.00	15.27	AV	Hori	PASS
4	2499.88	42.8	50.48	7.730	74.00	23.52	PK	Hori	PASS

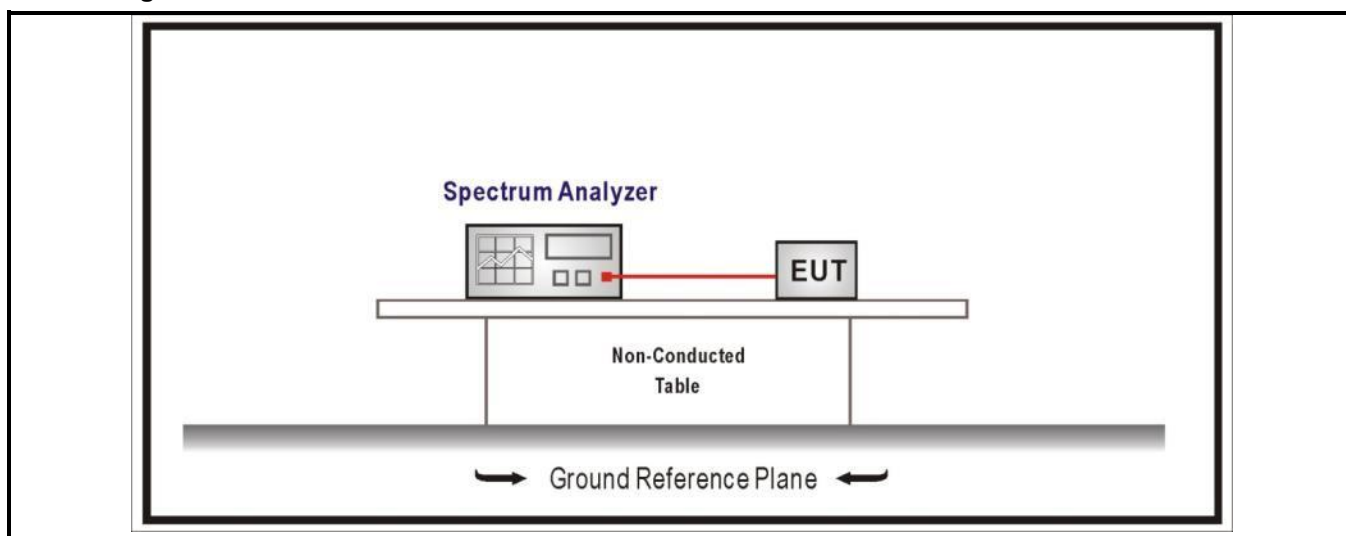
Note:(1)Level=Reading+Factor
(2)Margin=Limit-Level

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

Limit

Standard	FCC Part 15 Subpart C Paragraph 15.247 (a)(2)
Systems using digital modulation techniques operate in the 2400-2483.5 MHz .The minimum 6 dB bandwidth shall be at least 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	---	

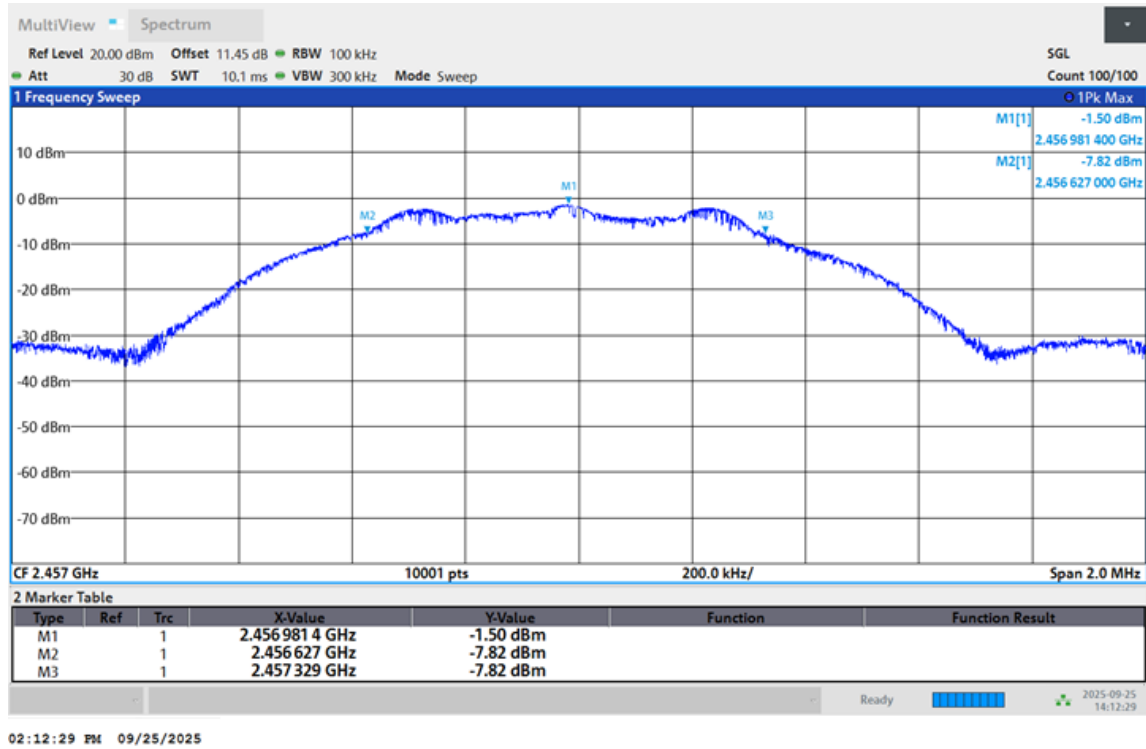
See next page.

Results

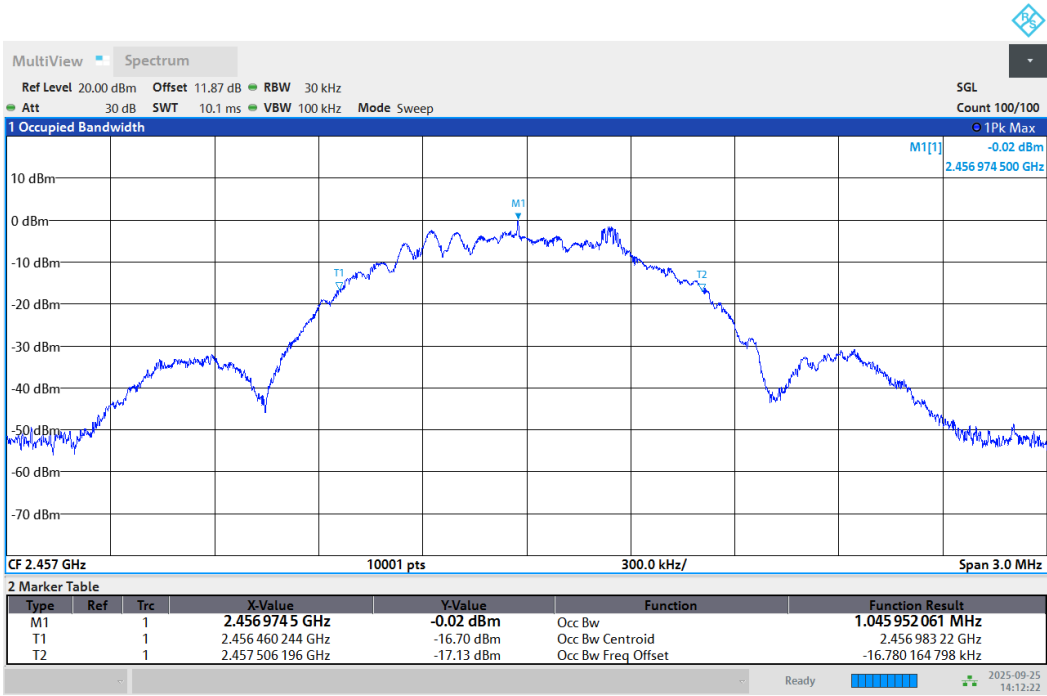
Mode	CH.	Test Freq. (MHz)	6dB Occupied Bandwidth (MHz)	Limit (MHz)	Result
ANT	1	2457	0.701	>0.5	Pass

Mode	CH.	Test Freq. (MHz)	99% Occupied Bandwidth (MHz)	Limit (MHz)	Result
ANT	1	2457	1.046	Within frequency range	Pass

DTS Bandwidth



6dB Occupied Bandwidth



02:12:23 PM 09/25/2025

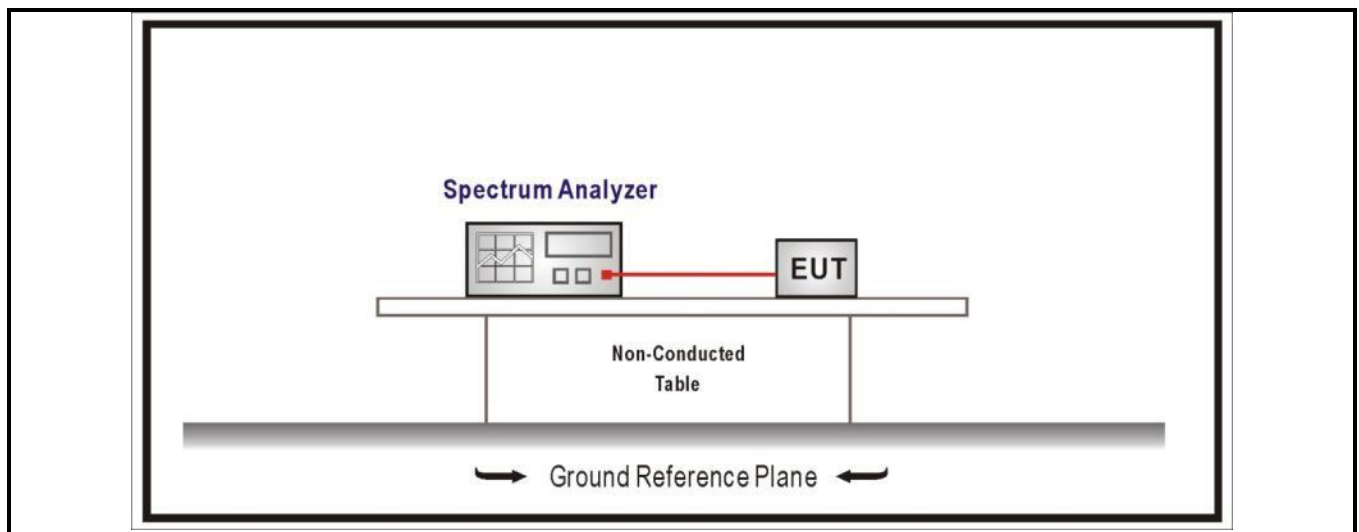
99% Occupied Bandwidth

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

Limit

Standard		FCC Part 15 Subpart C Paragraph 15.247 (b)(3)
☒	GTX < 6dBi	Pout ≤ 30 dBm
☐	GTX > 6dBi	
☐	Non-Fix point-point	Pout ≤ 30 - (GTX - 6)
☐	Fix point-point	Pout ≤ 30 - [(GTX - 6)]/3
☐	Point-to-multipoint	Pout ≤ 30 - (GTX - 6)
☐	Overlap Beams	Pout ≤ 30 - [(GTX - 6)]/3
☐	Aggregate power transmitted simultaneously on all beams	Pout ≤ 30 - [(GTX - 6)]/3
☐	single LE directional beam	Pout ≤ 30 - [(GTX - 6)]/3 + 8 dB
Note 1 : GTX directional gain of transmitting antennas.		
Note 2 : Pout is maximum peak conducted output 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.

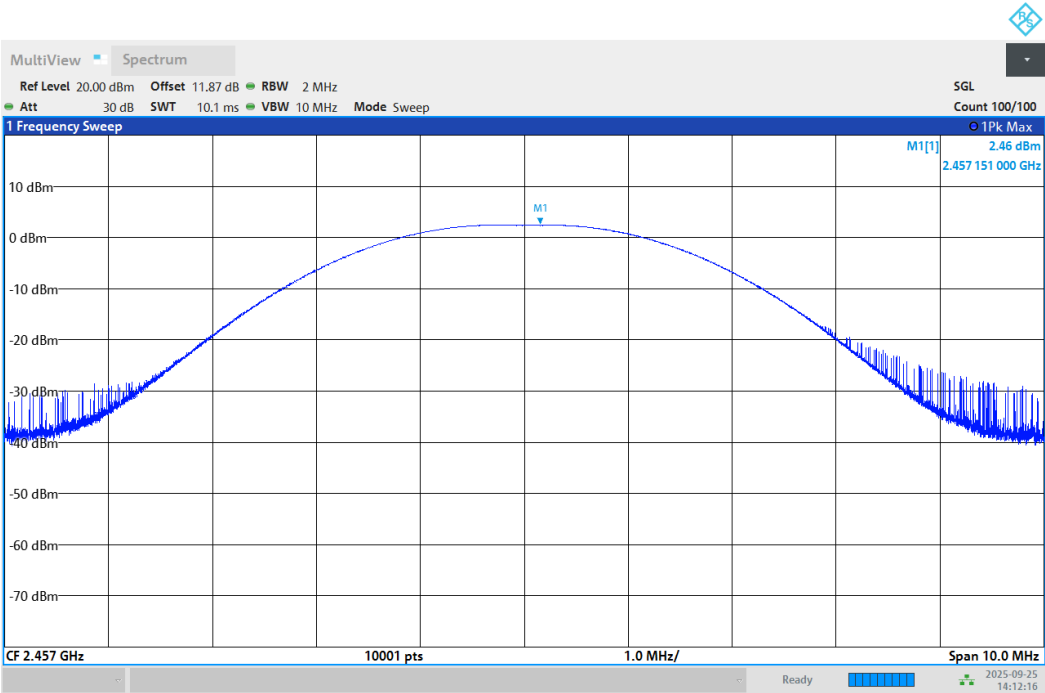
Results

Mode	Channel	Test Frequency (MHz)	Output Power (dBm)	Output Power Limit (dBm)	EIRP (dBm)	Result
ANT	1	2457	2.46	≤30	2.46	Pass

Note: EIRP = Output Power + Antenna Gain

Antenna Gain: 0 dBi

Output Power
2457MHz



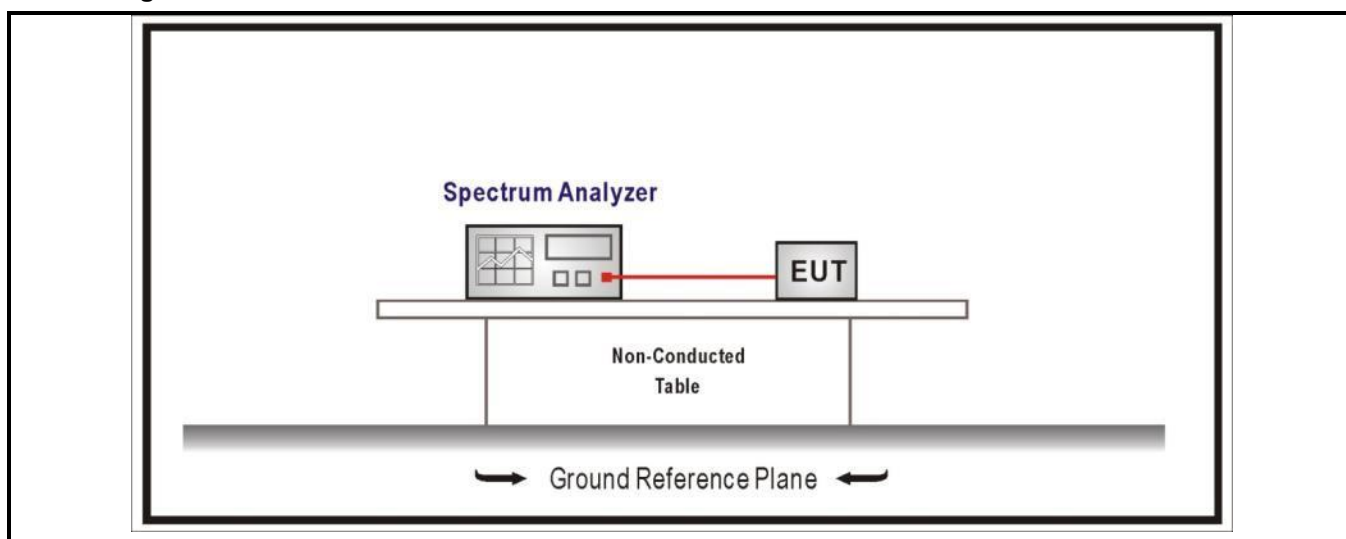
02:12:17 PM 09/25/2025

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

Limit

Standard	FCC Part 15 Subpart C Paragraph 15.247 (b)(3)
Power Spectral Density $\leq 8\text{dBm}/3\text{kHz}$	

Test Configuration



Performed measurements

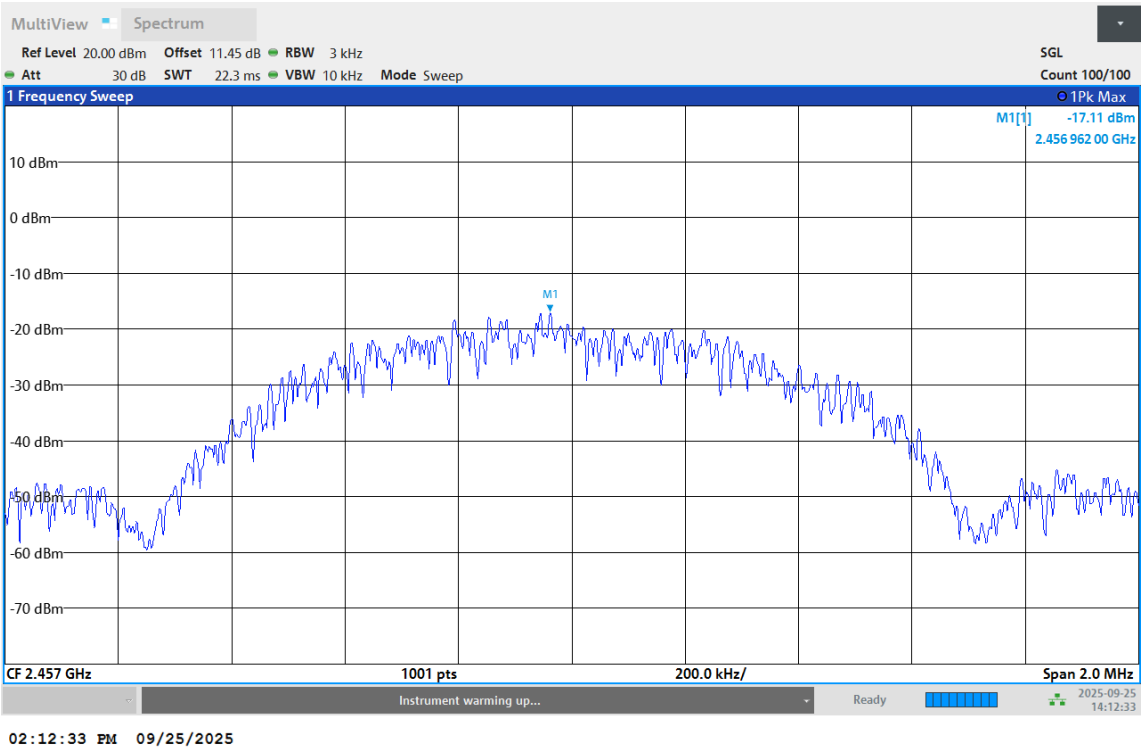
Port under test	Antenna port	
Test method applied	☒	Conducted measurement
	☐	Radiated measurement
Test setup	Refer to the Annex 3 for test setup photo(s).	
Operating mode(s) used	Mode 1	
Remark	---	

Results

Mode	Channel	Test Frequency (MHz)	Power Spectral Density (dBm)	Limit (dBm/3kHz)	Result
ANT	1	2457	-17.11	≤ 8	Pass

Power Spectral Density

2457MHz



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.	

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	0.216 dB	
Dwell Time	2.016 ms	
Spurious emissions, radiated	(9KHz~30MHz)	2.26 dB
	(30MHz~1GHz)	Horizontal: 3.992 dB
		Vertical: 3.986 dB
	(1GHz~8GHz)	Horizontal: 4.382 dB
		Vertical: 4.140 dB
	(8GHz~12.75GHz)	Horizontal: 4.266 dB
		Vertical: 4.186 dB
	(12.75GHz~18GHz)	Horizontal: 4.694 dB
		Vertical: 4.034 dB
	(18GHz~40GHz)	Horizontal: 4.010 dB
		Vertical: 4.024 dB
Humidity	1.4 %	
Temperature	0.5 °C	

ANNEX 2 – USED EQUIPMENT

For AC Power Line Conducted Emission - Shielded Room No.1

Equipment Name	Manufacturer	Type/Model	Serial Number	Last Cal Date	Cal Due date
EMI Test Receiver	ROHDE & SCHWARZ	ESR3	102958	2024/10/29	2025/10/28
				2025/10/27	2026/10/26
Artificial Mains Network	ROHDE & SCHWARZ	ENV216	102772	2024/10/30	2025/10/29
				2025/10/28	2026/10/27
Software	ROHDE & SCHWARZ	ELEKTRA	4.32.0	N/A	N/A

For Conducted Emission (150 kHz to 30 MHz) - Anechoic Chamber No.1

Equipment Name	Manufacturer	Type/Model	Serial Number	Last Cal Date	Cal Due date
EMI test receiver	R&S	ESR3	102958	2024/10/29	2025/10/28
				2025/10/27	2026/10/26
Artificial Mains Network	R&S	ENV216	102772	2024/10/30	2025/10/29
				2025/10/28	2026/10/27
Artificial Mains Network	R&S	ENV216	101620	2024/10/30	2025/10/29
				2025/10/28	2026/10/27
Asymmetric artificial network	SCHWARZBECK	NTFM8131	8131-151	2024/08/24	2025/08/23
				2025/08/22	2026/08/21
Attenuator 26dB	SHANGHAI ESE	20dB+6dB	01	2024/06/14	2025/06/13
				2025/06/12	2026/06/11
8-Wire ISN	TESEQ	ISN ST08	38053	2025/01/20	2026/01/19
				2026/01/18	2027/01/17
High power voltage probe	SCHWARZBECK	TK9421	#308	2024/06/14	2025/06/13
				2025/06/12	2026/06/11
Current probe	ETS.LINDGREN	91550-1L	218473	2024/06/17	2025/06/16
				2025/06/15	2026/06/14
Software	R&S	ELEKTRA	4.32.0	N/A	N/A

For Radiated Emission (9 KHz to 1000 MHz) - Anechoic Chamber No.1

Equipment Name	Manufacturer	Type/Model	Serial Number	Last Cal Date	Cal Due date
EMI Test Receiver	ROHDE & SCHWARZ	ESR7	102433	2024/11/20	2025/11/19
				2025/11/18	2026/11/17
Trilog Broadband Antenna+Attenuator	SCHWARZBECK	VULB9163/6dB	01514	2025/03/31	2026/03/30
Active loop antenna	Schwarzbeck	HFH2-Z2E	101077	2025/04/24	2026/04/23
Open Switch and Control Unit	ROHDE & SCHWARZ	OSP220	102232	N/A	N/A
Software	ROHDE & SCHWARZ	ELEKTRA	4.20.2	N/A	N/A

For Radiated Emission (30 MHz to 1000 MHz)

Equipment Name	Manufacturer	Type/Model	Serial Number	Last Cal Date	Cal Due date
EMI Test Receiver	ROHDE & SCHWARZ	ESR7	102433	2024/10/29	2025/10/28
				2025/10/27	2026/10/26
Trilog Broadband Antenna+Attenuator	SCHWARZBECK	VULB9163/6dB	01514	2025/03/31	2026/03/30
Open Switch and Control Unit	ROHDE & SCHWARZ	OSP220	102232	N/A	N/A
Software	ROHDE & SCHWARZ	ELEKTRA	4.20.2	N/A	N/A

For Spurious Emissions Test

Equipment Name	Manufacturer	Type/Model	Serial Number	Last Cal Date	Cal Due date
Wideband Radio Communication Tester	ROHDE & SCHWARZ	CMW500	171082	2024/10/29	2025/10/28
				2025/10/27	2026/10/26
Signal & Spectrum Analyzer	ROHDE & SCHWARZ	FSV3044	101286	2024/10/29	2025/10/28
				2025/10/27	2026/10/26
FILTERBANK	ROHDE & SCHWARZ	N/A	100778	N/A	N/A
Open Switch and Control Unit	ROHDE & SCHWARZ	OSP220	102454	N/A	N/A
System Controller Interface	ROHDE & SCHWARZ	SCI-200	520020123	N/A	N/A
Trilog Broadband Antenna	Schwarzbeck	VULB9163	01514	2024/11/07	2025/11/06
				2025/11/05	2026/11/04
Wave Guide Antenna	Schwarzbeck	3117	00240298	2024/11/14	2025/11/13
				2025/11/12	2026/11/11
Horn Antenna	Schwarzbeck	QMS-00208	27745	2024/11/14	2025/11/13
				2025/11/12	2026/11/11
Horn Antenna	Schwarzbeck	QMS-00880	27646	2024/11/14	2025/11/13
				2025/11/12	2026/11/11
Pre-Amplifier	ROHDE & SCHWARZ	SCU08F1	101136	2024/11/03	2025/11/02
				2025/11/01	2026/10/31
Pre-Amplifier	ROHDE & SCHWARZ	SCU18F	100971	2024/10/27	2025/10/26
				2025/10/25	2026/10/24
Pre-Amplifier	ROHDE & SCHWARZ	SCU18F	100970	2024/10/27	2025/10/26
				2025/10/25	2026/10/24
Pre-Amplifier	ROHDE & SCHWARZ	SCU40F1	100631	2024/10/27	2025/10/26
				2025/10/25	2026/10/24
Software	Tonscend	TS+	5.0.0	N/A	N/A

For other test items

Equipment Name	Manufacturer	Type/Model	Serial Number	Last Cal Date	Cal Due date
Vector signal generator	ROHDE & SCHWARZ	SMM100A	101780	2024/10/29	2025/10/28
				2025/10/27	2026/10/26
Open switch and control platform	ROHDE & SCHWARZ	OSP150	100856	2024/10/29	2025/10/28
				2025/10/27	2026/10/26
Signal & Spectrum Analyzer	ROHDE & SCHWARZ	FSV3044	101287	2024/10/29	2025/10/28
				2025/10/27	2026/10/26
Wireless Connectivity Tester	ROHDE & SCHWARZ	CMW270	102651	2024/10/29	2025/10/28
				2025/10/27	2026/10/26
Signal Generator	ROHDE & SCHWARZ	SMB100A	183222	2024/10/29	2025/10/28
				2025/10/27	2026/10/26
DC Power Supply	apc	ADC-0800100-15	D222120022	2024/11/22	2025/11/21
				2025/11/20	2026/11/19
AC Power Supply	apc	KDF-11005GS	F322120041	2025/01/21	2026/01/20
				2026/01/19	2026/01/18
Temperature & Humidity Chamber	HESON	HS-225B	CDW230301-01	2024/10/29	2025/10/28
				2025/10/27	2026/10/26
Software	MWRFTtest	MTS 8310	2.0.0.0	N/A	N/A

--- END ---