

Test report No: 4959890.50

TEST REPORT

Radio Spectrum Matters (RF)

Identification of item tested	Projector Video Camera
Trademark	Canal Toys
Model and /or type reference	CLK 039
FCC ID	2BAOZ-CLK039
Features	Input: USB Type-C for charging: DC 4.5-5.5V, 2A Battery: 7.4V 2000mAh
Applicant's name / address	Canal Toys USA Ltd. 1700 West Park Drive, Suite 120 Westborough, MA 01581 USA
Test method requested, standard	FCC CFR Title 47 Part15 Subpart C Section 15.247; KDB558074 D01v05r02;
Verdict Summary	COMPLIANCE
Tested by (name & signature)	 Jazz Liang
Approved by (name & signature)	 Tim Yan
Date of issue	2026-08-27
Report template No	TRF_EMG 2017-06- other

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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. 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 EN 55016-4-2 (CISPR 16-4-2), EN/IEC 61000-4 series or a 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%.

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 tested	N/T

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
4959890.50	2026-08-27	First release.

REMARKS AND COMMENTS

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

1 GENERAL INFORMATION

1.1 General Description of the Item(s)

Description of the item	Projector Video Camera
Trademark.....	Canal Toys
Model / Type number	CLK 039
FCC ID	2BAOZ-CLK039
Hardware	N/A
Software.....	N/A
Firmware	N/A
Ratings.....	Input: USB Type-C for charging: DC 4.5-5.5V, 2A Battery: 7.4V 2000mAh
Manufacturer.....	Same as Applicant
Factory	Shenzhen Pano Technology Co.,Ltd Room 201-1, No.50, Baonan Road, Nanlian Community, Longgang street, Longgang, Shenzhen, Guangdong, China

Rated power supply :	Voltage and Frequency		Reference poles				
			L1	L2	L3	N	PE
	☐	AC:	☐	☐	☐	☐	☐
	☐	AC:	☐	☐	☐	☐	☐
	☒	DC: 5V(for charging)					
	☒	Battery: 3.7V					
	☒	Table top equipment					
Mounting position :	☐	Wall/Ceiling mounted equipment					
	☐	Floor standing equipment					
	☐	Hand-held equipment					
	☐	Other:					

According to customer description:

The WIFI module operating channels are:

Operating frequency range(s) – Tx.:	2412 – 2462 MHz
Operating frequency range(s) – Rx :	2412 – 2462 MHz
Type of Modulation	IEEE 802.11b: DSSS (CCK, QPSK, BPSK); IEEE 802.11g: OFDM (BPSK, QPSK, 16QAM, 64QAM); IEEE 802.11n HT20: OFDM (BPSK, QPSK, 16QAM, 64QAM)
Number of channel	11
Antenna type.....	FPC-antenna
Antenna gain.....	-0.15 dBi
Operation temperature range	-20 – 80 °C

Antenna List

Antenna Model No.		N/A								
Antenna Manufacturer		N/A								
Antenna Delivery		☒	1*TX+1*RX		☐	2*TX+2*RX		☐	3*TX+3*RX	
Antenna Technology		☒	SISO							
		☐	MIMO	☐	Basic methodology					
				☐	Sectorized antenna systems					
				☐	Cross-polarized antennas					
				☐	Unequal antenna gains, with equal transmit powers					
				☐	Spatial Multiplexing					
				☐	Cyclic Delay Diversity (CDD)					
Antenna Type		FPC-antenna								
Antenna Gain										
Antenna Technology		Ant Gain(eth1) (dBi)								
☒	SISO	☒	Ant1	-0.15						
☐		Ant2	-							

The radio module operating channels are---

Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2412	7	2447
1	2417	8	2452
2	2422	9	2457
3	2427	10	2462
4	2432	-	-
5	2437	-	-
6	2442	-	-

Intended use of the Equipment Under Test (EUT)

The apparatus as supplied for the test is Projector Video Camera, intended for residential use, the product contains electronic control circuit and powered by battery.

Hence, model CLK 039 was chosen for full test.

Copy of marking plate:

Refer to document label.

1.2 Test data

Test Location	DEKRA Testing and Certification (Shanghai) Ltd. Block 5, No.3, Qiyun Road, Huangpu District, Guangzhou, Guangdong, China FCC Designation Number: CN1324; ISED CAB identifier: CN0130
Date of receipt of test item	2026-05-27
Date (s) of performance of tests	2026-05-27 to 2026-07-01
Test sample	Normal sample: CLK 039(Lab no.4959890-01), RF conducted sample: CLK 039(Lab no.4959890-02), RF radiated sample: CLK 039(Lab no.4959890-02)

1.3 The environment(s) in which the EUT is intended to be used

The equipment under test (EUT) is intended to be used in the following environment(s):

☒	Residential (domestic) environment.
☒	Commercial and light-industrial environment.
☐	Industrial environment.

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	On mode (projection powered by AC/DC adaptor)	☒	☒
3			
4			
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	Manufacturer	Supplied by
Laptop	Latitude 5488	DELL	DEKRA
Software	rtwpriv_tool	-	Client
Supplemental information: ---			

2.3 Test Configuration / Block diagram used for tests

Refer to Annex 3.

2.4 Measurement procedure

The EUT was controlled by a serial PCB (Serial port tool) which provided by manufacturer which connected to laptop through the com port. After connected, run the software "rtwpriv_tool" supplied by manufacturer to control the EUT work in required test mode as below table.

RF Mode	Set_channel(MHz)	Set_power in software
DSSS (CCK, QPSK, BPSK); OFDM (BPSK, QPSK, 16QAM, 64QAM);	2412	35
	2437	35
	2462	35

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.
KDB 558074 D01 v05r02	2019	Guidance for performing compliance measurements on Digital Transmission System (DTS) operating under section 15.247
ANSI C63.10	2020	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	PASS	---
Emissions in non-restricted frequency bands	FCC 15.247(d), FCC 15.209	PASS	---
Emissions in restricted frequency bands	FCC 15.247(d)	PASS	---
Duty cycle	ANSI C63.10:2020	PASS	---
Band Edge	FCC 15.247(d)	PASS	---
Fundamental emission output power	FCC 15.247(b)	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 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.

4 TRANSMITTER TEST RESULTS

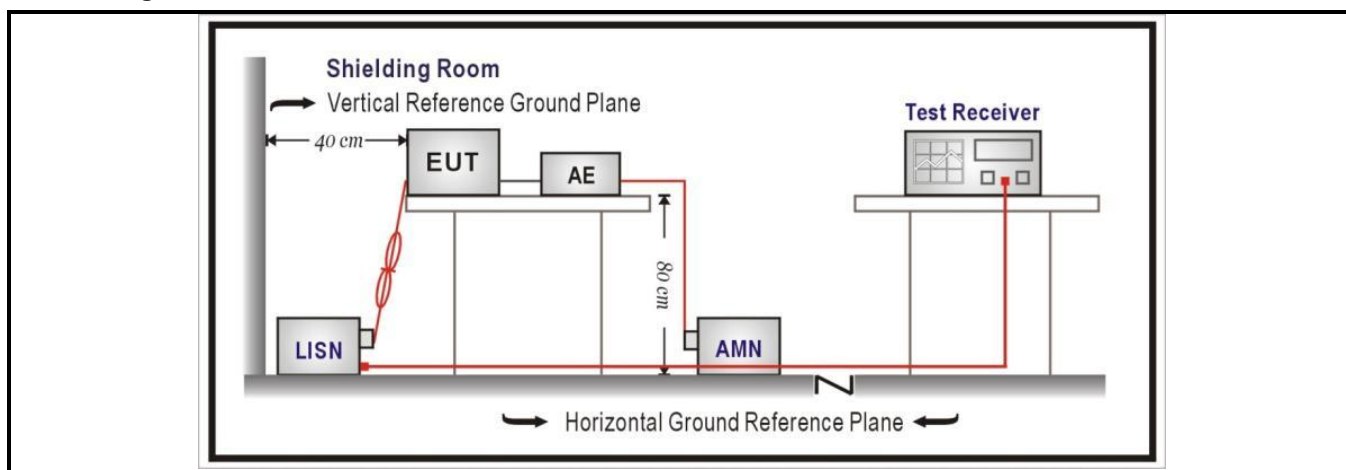
4.1 AC Power Line Conducted Emission	VERDICT: PASS
---	----------------------

Limits

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



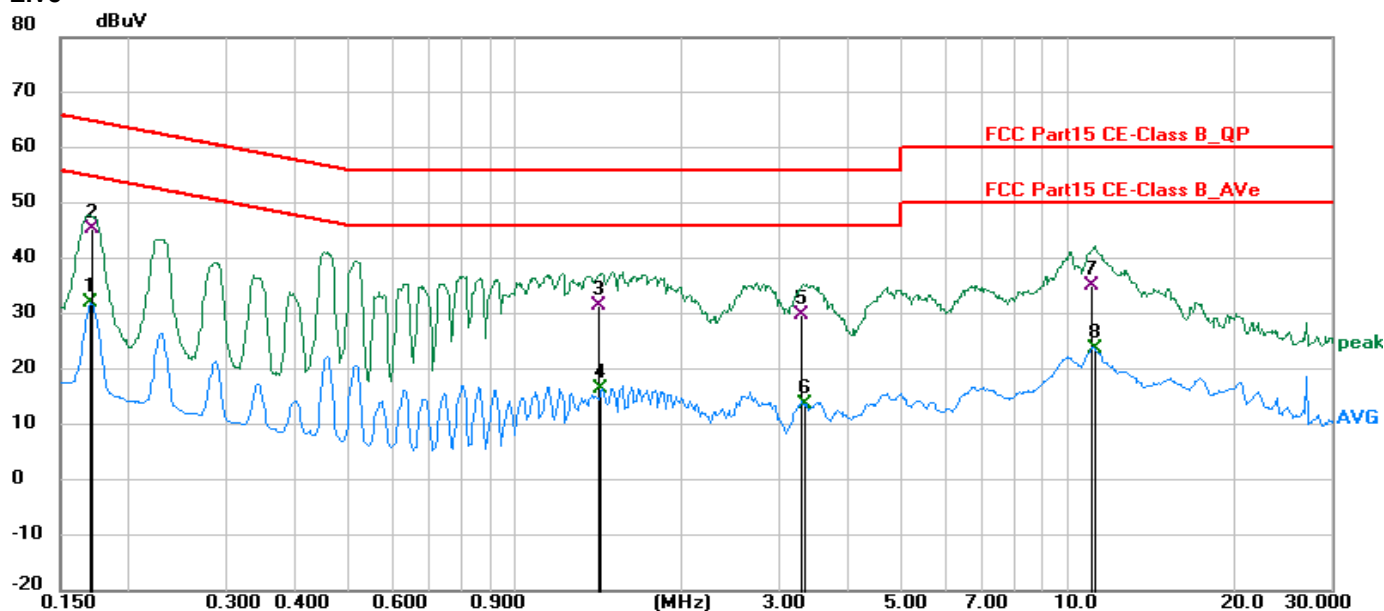
Performed measurements

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							
Envirment condition (temperature; humidiry)		23,0 °C; 45,0 %							
Remark		---							

Model	CLK 039
Operation Mode	Mode 2
Test voltage	120 Vac, 60 Hz

Results

Live



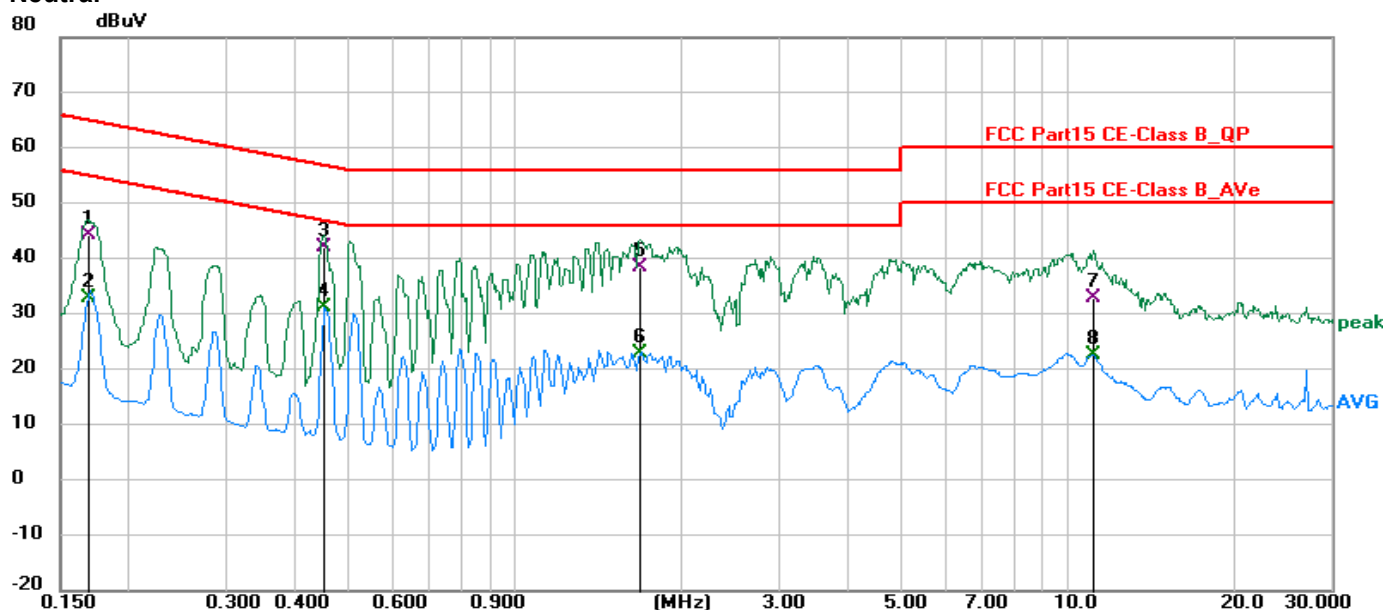
No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Pass/Fail
1	0.1703	22.45	9.59	32.04	54.95	-22.91	AVG	Pass
2 *	0.1713	35.92	9.59	45.51	64.90	-19.39	QP	Pass
3	1.4149	22.04	9.60	31.64	56.00	-24.36	QP	Pass
4	1.4258	6.91	9.60	16.51	46.00	-29.49	AVG	Pass
5	3.3015	20.12	9.63	29.75	56.00	-26.25	QP	Pass
6	3.3473	4.05	9.64	13.69	46.00	-32.31	AVG	Pass
7	11.1227	25.37	9.83	35.20	60.00	-24.80	QP	Pass
8	11.1390	13.79	9.83	23.62	50.00	-26.38	AVG	Pass

Remarks:

- 1) Level (final measurement) = received value + transducer (Lisn+cable)
- 2) Delta = Level – Limit

No other significant emissions were measured at the frequency range of interest employing both the QP and AV detectors.

Neutral



No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Pass/Fail
1	0.1680	34.59	9.58	44.17	65.06	-20.89	QP	Pass
2	0.1680	23.32	9.58	32.90	55.06	-22.16	AVG	Pass
3 *	0.4515	32.44	9.57	42.01	56.85	-14.84	QP	Pass
4	0.4515	21.63	9.57	31.20	46.85	-15.65	AVG	Pass
5	1.6732	28.99	9.59	38.58	56.00	-17.42	QP	Pass
6	1.6733	13.36	9.59	22.95	46.00	-23.05	AVG	Pass
7	11.1165	23.02	9.86	32.88	60.00	-27.12	QP	Pass
8	11.1165	12.87	9.86	22.73	50.00	-27.27	AVG	Pass

Remarks:

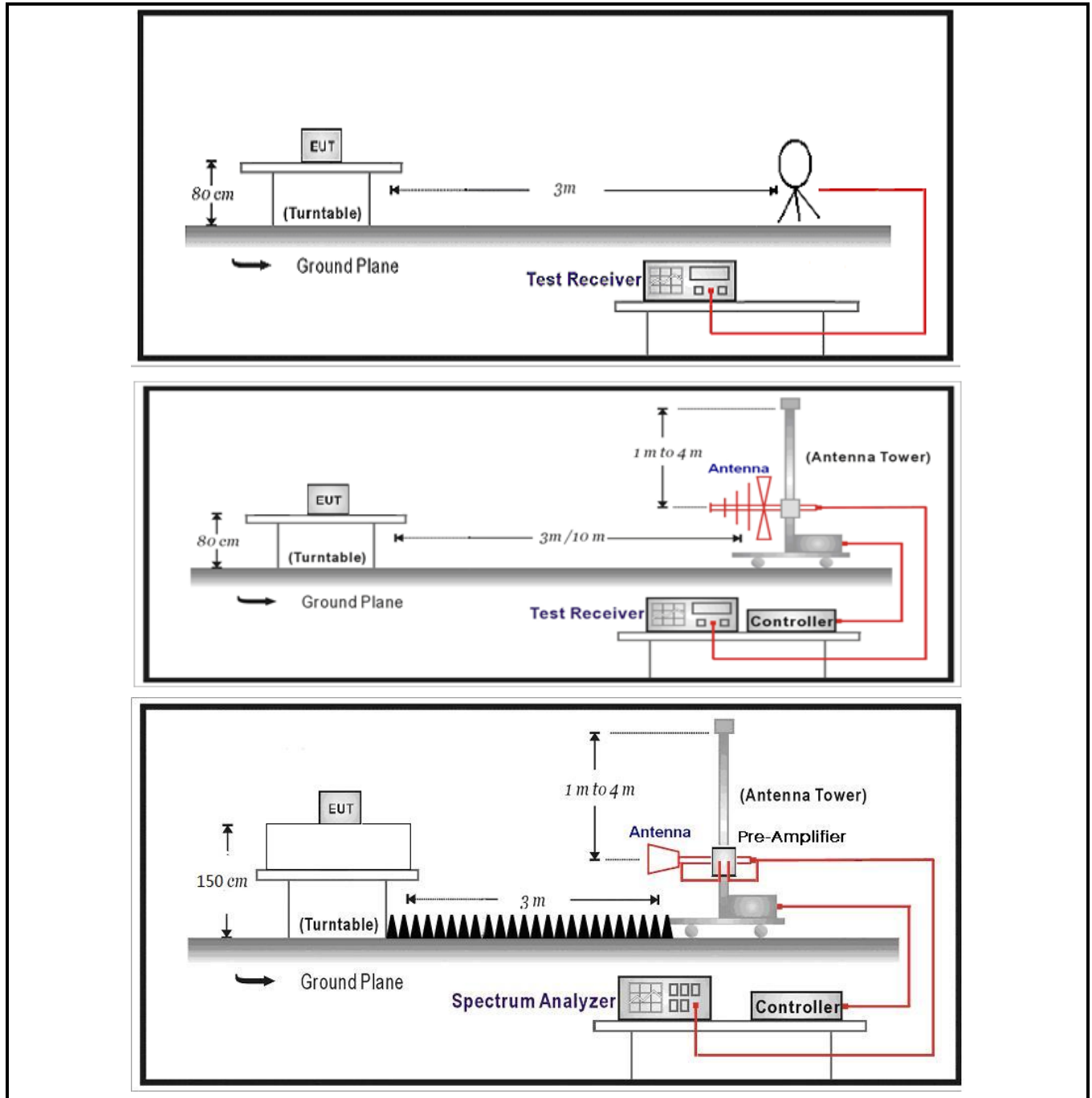
- 1) Level (final measurement) = received value + transducer (Lisn+cable)
- 2) Delta = Level – Limit

No other significant emissions were measured at the frequency range of interest employing both the QP and AV detectors.

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

Emissions Limit 15.209(a)			
Emissions Limit: RSS-Gen Issue 5 Section 8.9			
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



Performed measurements

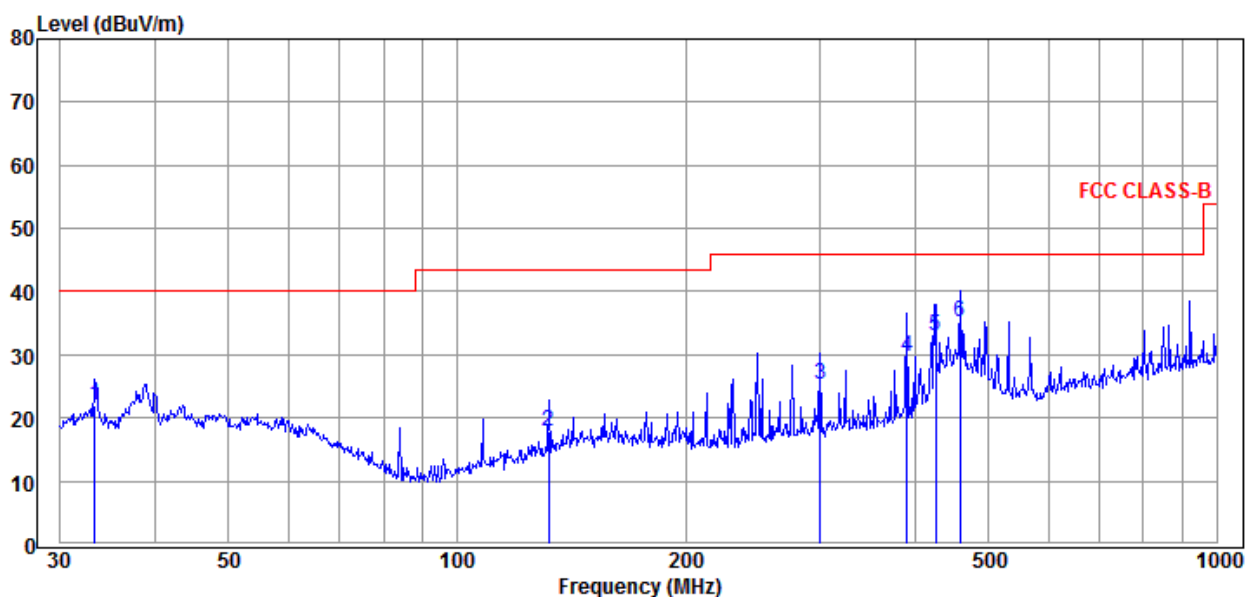
Port under test	Enclosure port	
Test method applied	☐	Conducted measurement
	☒	Radiated measurement
Test setup	Refer to the Annex 3 for test setup photo(s).	
Operating mode(s) used	Mode 1-2	
Remark	1)The test frequency range, 9kHz~30MHz, 18GHz~26GHz, both of the worst case are at least 20dB below the limits, therefore no data appear in the report. 2)The EUT are tested in three orientations. The record is the worst orientation which refer to the Annex 3 for test setup photo(s).	

Results of 30 – 1000 MHz

Model	CLK 039
Operation Mode	Mode 2
Test voltage (worst case)	120V 60Hz

Results

Horizontal



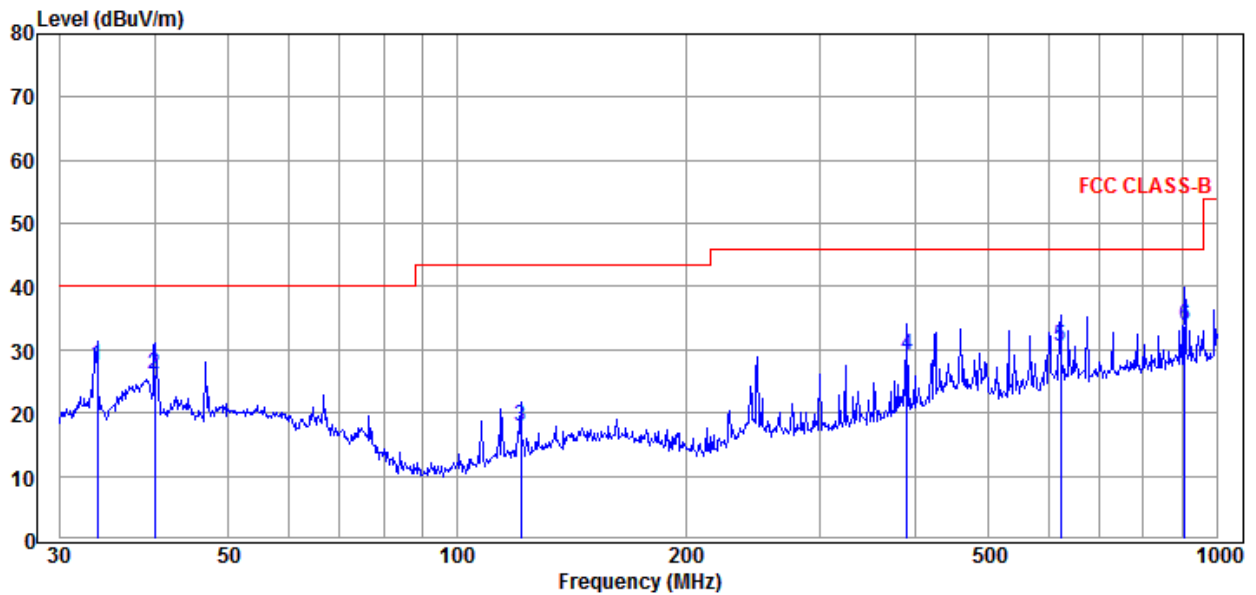
Freq (MHz)	Reading (dBuV)	C.F (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin=limit-result (dB)
33.33	21.82	0.23	22.05	40.00	17.95
131.76	21.40	-3.55	17.85	43.50	25.65
300.37	26.86	-1.49	25.37	46.00	20.63
390.72	28.75	0.87	29.62	46.00	16.38
426.52	31.07	1.96	33.03	46.00	12.97
459.11	32.38	2.80	35.18	46.00	10.82

Remarks:

- 1) C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain
- 2) Result = Reading + C.F (Correction Factor)

No other significant emissions were measured at the frequency range of interest employing the QP detectors.

Vertical



Freq (MHz)	Reading (dBuV)	C.F (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin=limit-result (dB)
33.56	27.15	0.23	27.38	40.00	12.62
39.99	25.47	0.51	25.98	40.00	14.02
121.12	22.50	-4.65	17.85	43.50	25.65
390.72	28.17	0.87	29.04	46.00	16.96
622.89	23.96	6.62	30.58	46.00	15.42
906.48	23.79	10.09	33.88	46.00	12.12

Remarks:

- 1) C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain
- 2) Result = Reading + C.F (Correction Factor)

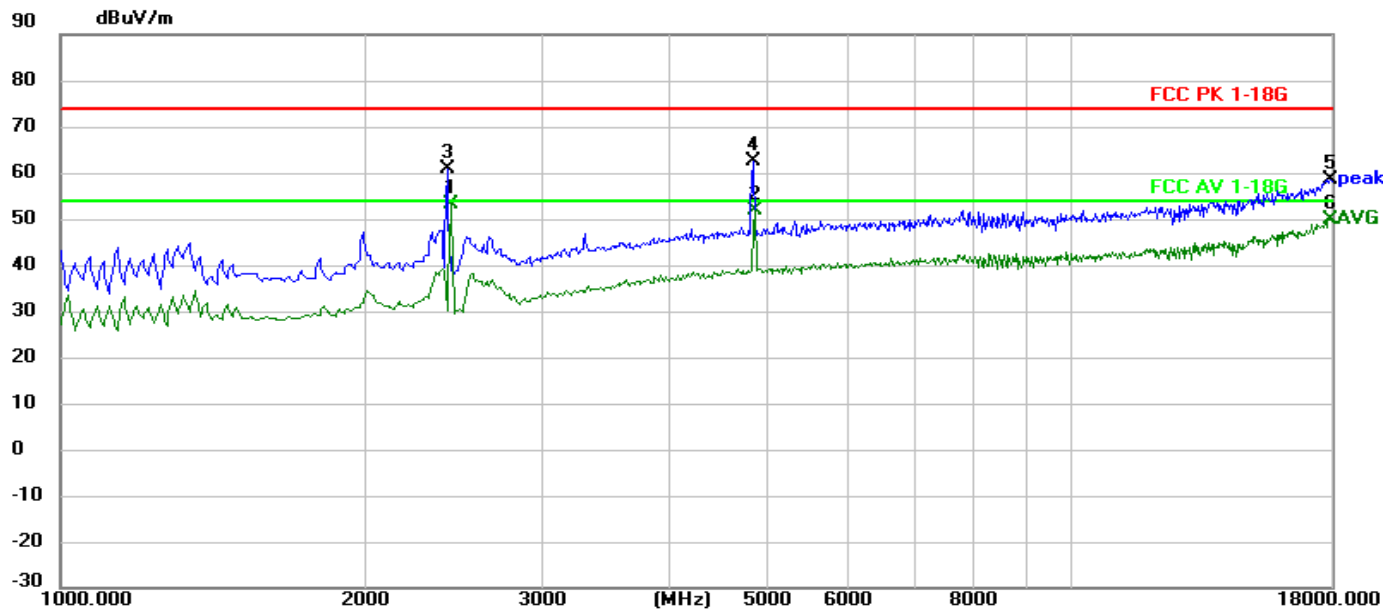
No other significant emissions were measured at the frequency range of interest employing the QP detectors.

Results of 1 – 18 GHz

Model	CLK 039
Operation Mode	Mode 1 @2412 MHz IEEE 802.11 B
Test voltage	3.3 Vdc

Results

Horizontal

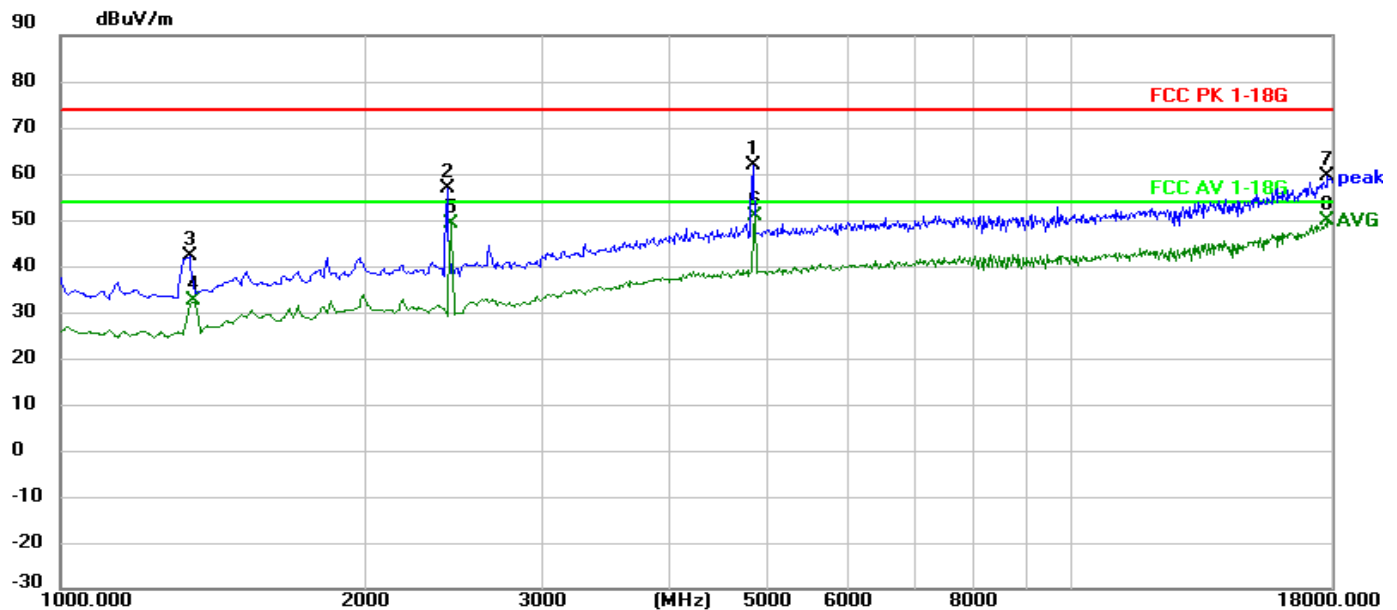


No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1 *	2429.4294	72.52	-19.39	53.13	54.00	-0.87	AVG	Pass
2	4845.8458	60.81	-8.93	51.88	54.00	-2.12	AVG	Pass
3	2412.4124	80.20	-19.46	60.74	74.00	-13.26	peak	Pass
4	4828.8288	71.53	-8.96	62.57	74.00	-11.43	peak	Pass
5	17931.9319	48.68	9.89	58.57	74.00	-15.43	peak	Pass
6	17931.9319	39.91	9.89	49.80	54.00	-4.20	AVG	Pass

Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Vertical



No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	4828.8288	70.86	-8.96	61.90	74.00	-12.10	peak	Pass
2	2412.4124	76.30	-19.46	56.84	74.00	-17.16	peak	Pass
3	1340.3403	67.48	-25.37	42.11	74.00	-31.89	peak	Pass
4	1357.3574	57.60	-25.21	32.39	54.00	-21.61	AVG	Pass
5	2429.4294	68.67	-19.39	49.28	54.00	-4.72	AVG	Pass
6 *	4845.8458	59.81	-8.93	50.88	54.00	-3.12	AVG	Pass
7	17812.8128	49.89	9.50	59.39	74.00	-14.61	peak	Pass
8	17812.8128	40.36	9.50	49.86	54.00	-4.14	AVG	Pass

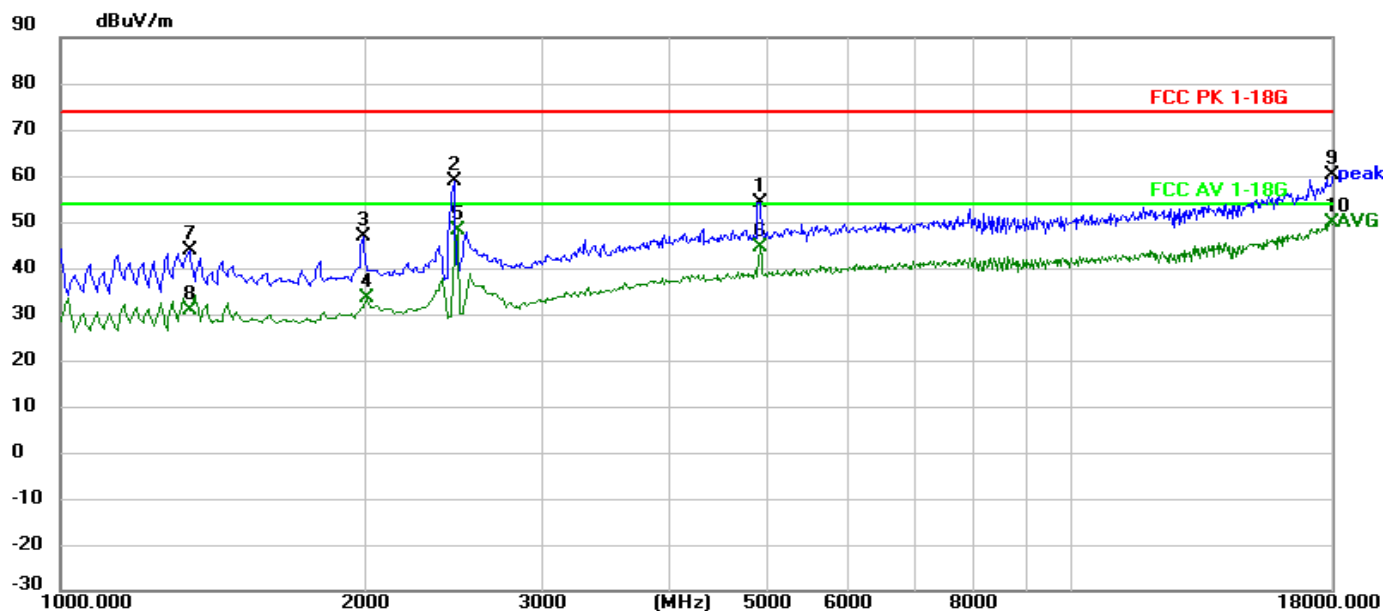
Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Model	CLK 039
Operation Mode	Mode 1 @2422 MHz IEEE 802.11 B
Test voltage	3.3 Vdc

Results

Horizontal

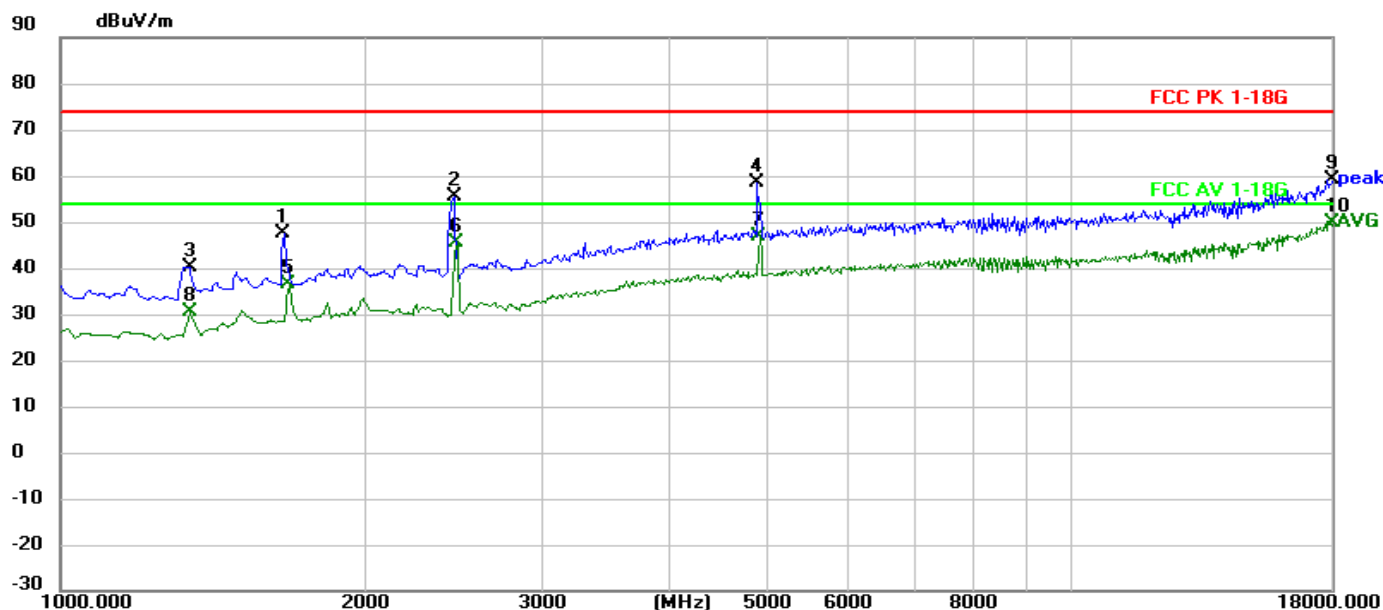


No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	4896.8969	63.01	-8.82	54.19	74.00	-19.81	peak	Pass
2	2446.4464	78.06	-19.29	58.77	74.00	-15.23	peak	Pass
3	1986.9870	67.64	-20.65	46.99	74.00	-27.01	peak	Pass
4	2004.0040	53.98	-20.55	33.43	54.00	-20.57	AVG	Pass
5	2463.4635	67.25	-19.18	48.07	54.00	-5.93	AVG	Pass
6	4896.8969	53.39	-8.82	44.57	54.00	-9.43	AVG	Pass
7	1340.3403	69.31	-25.37	43.94	74.00	-30.06	peak	Pass
8	1340.3403	56.11	-25.37	30.74	54.00	-23.26	AVG	Pass
9	18000.0000	50.00	10.01	60.01	74.00	-13.99	peak	Pass
10 *	18000.0000	39.83	10.01	49.84	54.00	-4.16	AVG	Pass

Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Vertical



No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	1663.6637	70.72	-23.08	47.64	74.00	-26.36	peak	Pass
2	2446.4464	74.69	-19.29	55.40	74.00	-18.60	peak	Pass
3	1340.3403	65.42	-25.37	40.05	74.00	-33.95	peak	Pass
4	4879.8799	67.27	-8.85	58.42	74.00	-15.58	peak	Pass
5	1680.6807	59.65	-23.00	36.65	54.00	-17.35	AVG	Pass
6	2463.4635	64.57	-19.18	45.39	54.00	-8.61	AVG	Pass
7	4896.8969	55.52	-8.82	46.70	54.00	-7.30	AVG	Pass
8	1340.3403	55.72	-25.37	30.35	54.00	-23.65	AVG	Pass
9	18000.0000	49.24	10.01	59.25	74.00	-14.75	peak	Pass
10 *	18000.0000	39.86	10.01	49.87	54.00	-4.13	AVG	Pass

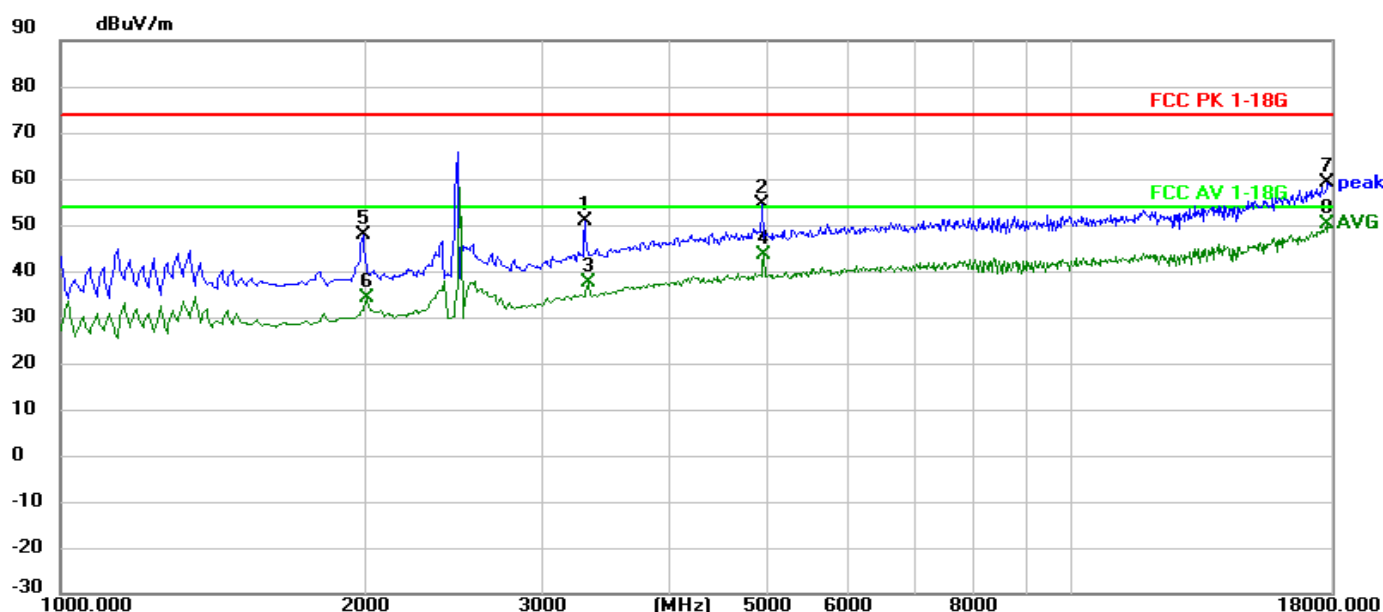
Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Model	CLK 039
Operation Mode	Mode 1 @2462 MHz IEEE 802.11 B
Test voltage	3.3 Vdc

Results

Horizontal

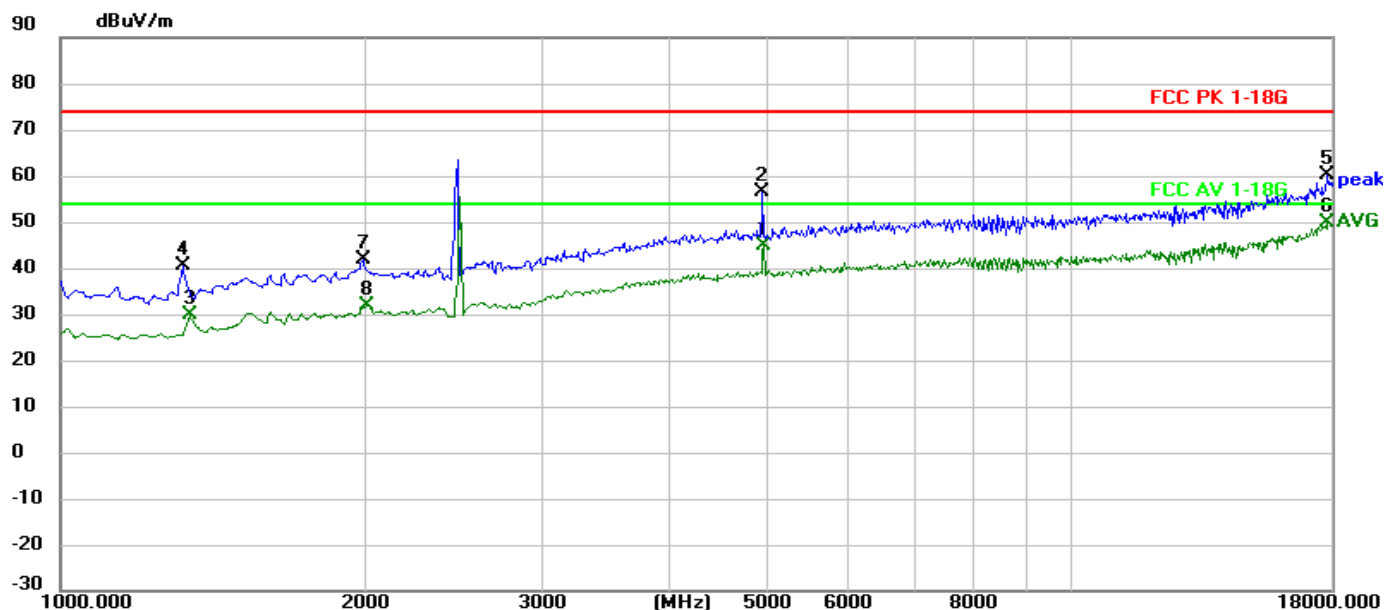


No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	3297.2973	65.34	-14.55	50.79	74.00	-23.21	peak	Pass
2	4930.9309	63.35	-8.74	54.61	74.00	-19.39	peak	Pass
3	3314.3143	51.91	-14.49	37.42	54.00	-16.58	AVG	Pass
4	4947.9479	52.14	-8.72	43.42	54.00	-10.58	AVG	Pass
5	1986.9870	68.34	-20.65	47.69	74.00	-26.31	peak	Pass
6	2004.0040	54.68	-20.55	34.13	54.00	-19.87	AVG	Pass
7	17812.8128	49.80	9.50	59.30	74.00	-14.70	peak	Pass
8 *	17812.8128	40.78	9.50	50.28	54.00	-3.72	AVG	Pass

Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Vertical



No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	4947.9479	53.53	-8.72	44.81	54.00	-9.19	AVG	Pass
2	4930.9309	65.22	-8.74	56.48	74.00	-17.52	peak	Pass
3	1340.3403	55.31	-25.37	29.94	54.00	-24.06	AVG	Pass
4	1323.3233	66.08	-25.52	40.56	74.00	-33.44	peak	Pass
5	17812.8128	50.63	9.50	60.13	74.00	-13.87	peak	Pass
6 *	17812.8128	40.35	9.50	49.85	54.00	-4.15	AVG	Pass
7	1986.9870	62.36	-20.65	41.71	74.00	-32.29	peak	Pass
8	2004.0040	52.35	-20.55	31.80	54.00	-22.20	AVG	Pass

Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

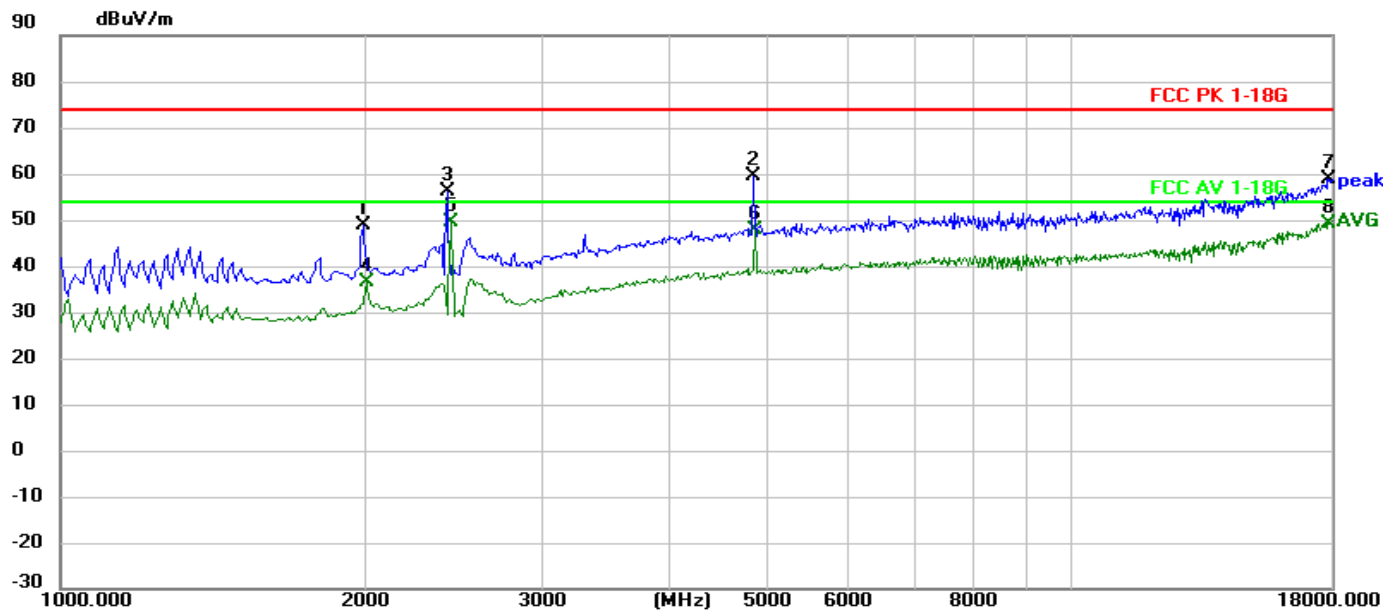
No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Results of 1 – 18 GHz

Model	CLK 039
Operation Mode	Mode 1 @2412 MHz IEEE 802.11 G
Test voltage	3.3 Vdc

Results

Horizontal

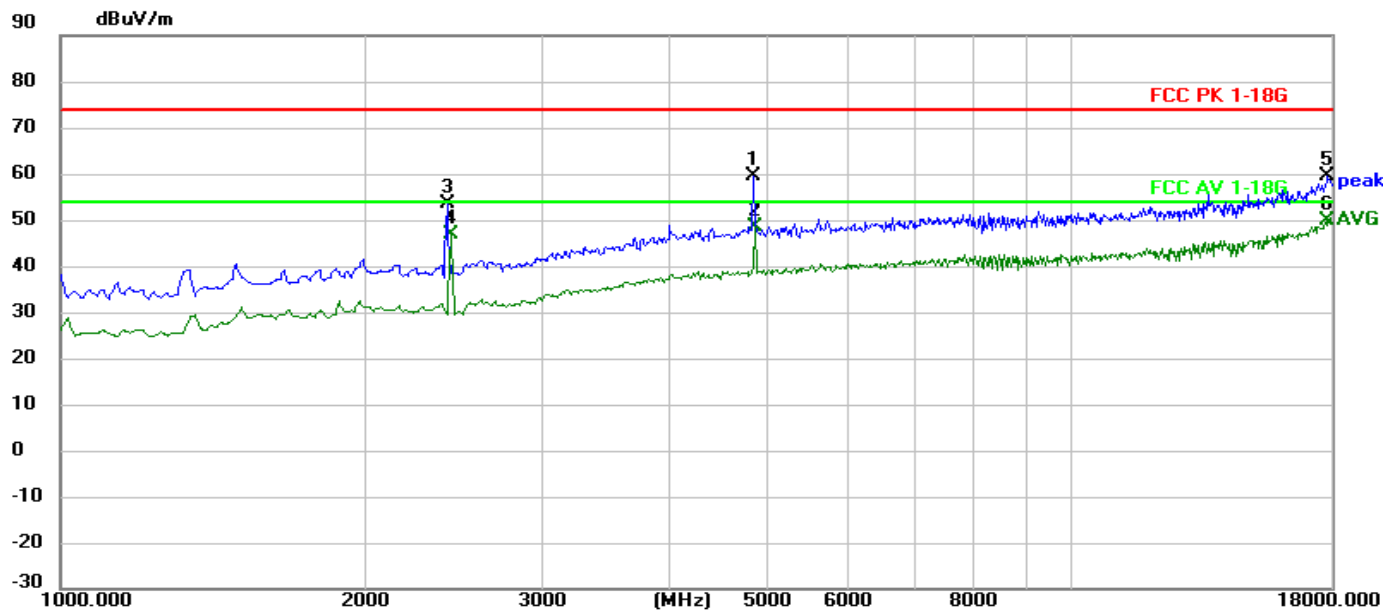


No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	1986.9870	69.42	-20.65	48.77	74.00	-25.23	peak	Pass
2	4828.8288	68.31	-8.96	59.35	74.00	-14.65	peak	Pass
3	2412.4124	75.50	-19.46	56.04	74.00	-17.96	peak	Pass
4	2004.0040	57.01	-20.55	36.46	54.00	-17.54	AVG	Pass
5 *	2429.4294	68.89	-19.39	49.50	54.00	-4.50	AVG	Pass
6	4845.8458	56.85	-8.93	47.92	54.00	-6.08	AVG	Pass
7	17880.8809	49.24	9.73	58.97	74.00	-15.03	peak	Pass
8	17880.8809	39.50	9.73	49.23	54.00	-4.77	AVG	Pass

Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Vertical



No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	4828.8288	68.52	-8.96	59.56	74.00	-14.44	peak	Pass
2	4845.8458	57.41	-8.93	48.48	54.00	-5.52	AVG	Pass
3	2412.4124	73.06	-19.46	53.60	74.00	-20.40	peak	Pass
4	2429.4294	66.24	-19.39	46.85	54.00	-7.15	AVG	Pass
5	17812.8128	49.99	9.50	59.49	74.00	-14.51	peak	Pass
6 *	17812.8128	40.38	9.50	49.88	54.00	-4.12	AVG	Pass

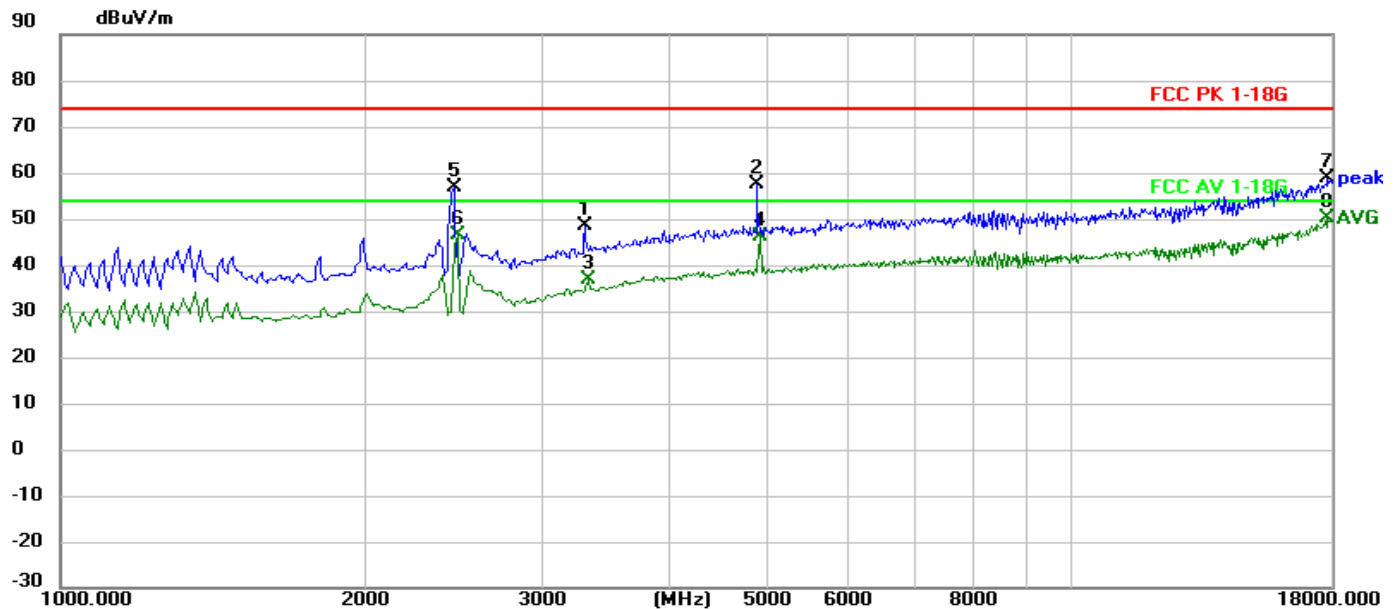
Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Model	CLK 039
Operation Mode	Mode 1 @2437 MHz IEEE 802.11 G
Test voltage	3.3 Vdc

Results

Horizontal

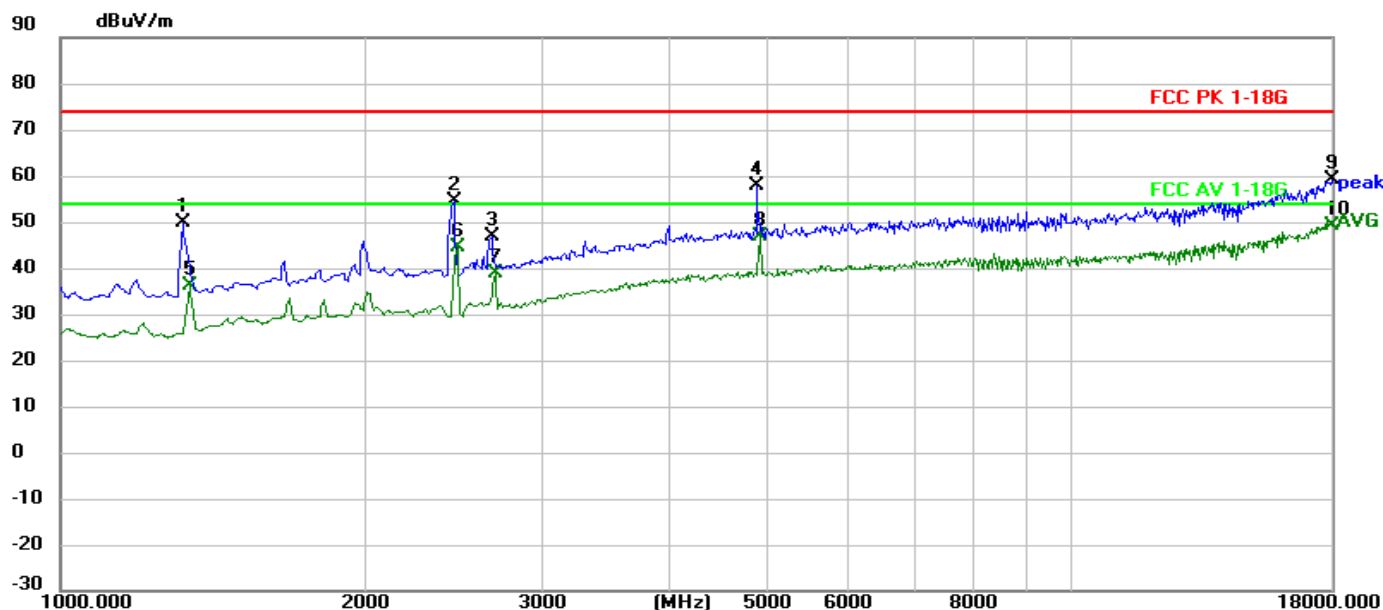


No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	3297.2973	63.02	-14.55	48.47	74.00	-25.53	peak	Pass
2	4879.8799	66.48	-8.85	57.63	74.00	-16.37	peak	Pass
3	3314.3143	51.28	-14.49	36.79	54.00	-17.21	AVG	Pass
4	4896.8969	54.93	-8.82	46.11	54.00	-7.89	AVG	Pass
5	2446.4464	76.02	-19.29	56.73	74.00	-17.27	peak	Pass
6	2463.4635	65.55	-19.18	46.37	54.00	-7.63	AVG	Pass
7	17812.8128	49.41	9.50	58.91	74.00	-15.09	peak	Pass
8 *	17812.8128	40.68	9.50	50.18	54.00	-3.82	AVG	Pass

Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Vertical



No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	1323.3233	75.46	-25.52	49.94	74.00	-24.06	peak	Pass
2	2446.4464	73.71	-19.29	54.42	74.00	-19.58	peak	Pass
3	2667.6677	65.11	-18.15	46.96	74.00	-27.04	peak	Pass
4	4879.8799	66.55	-8.85	57.70	74.00	-16.30	peak	Pass
5	1340.3403	61.70	-25.37	36.33	54.00	-17.67	AVG	Pass
6	2463.4635	63.76	-19.18	44.58	54.00	-9.42	AVG	Pass
7	2684.6847	57.08	-18.13	38.95	54.00	-15.05	AVG	Pass
8	4896.8969	55.71	-8.82	46.89	54.00	-7.11	AVG	Pass
9	17948.9489	49.30	9.95	59.25	74.00	-14.75	peak	Pass
10 *	17948.9489	39.26	9.95	49.21	54.00	-4.79	AVG	Pass

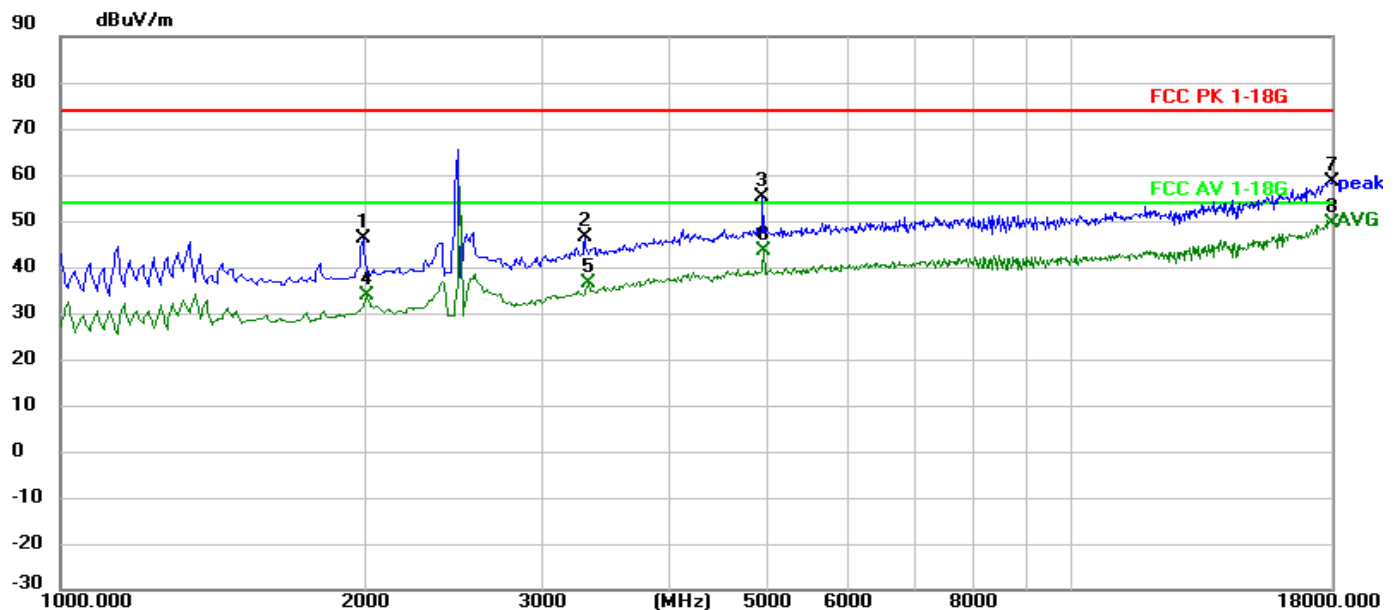
Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Model	CLK 039
Operation Mode	Mode 1 @2462 MHz IEEE 802.11 G
Test voltage	3.3 Vdc

Results

Horizontal

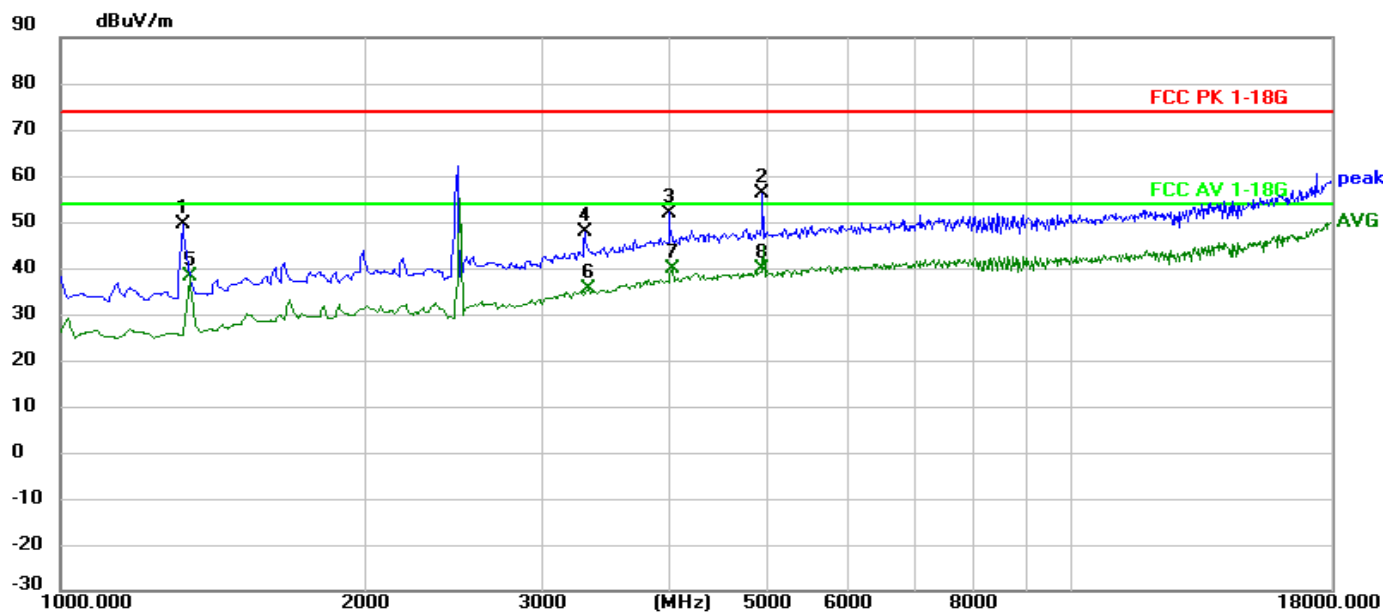


No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	1986.9870	66.97	-20.65	46.32	74.00	-27.68	peak	Pass
2	3297.2973	60.99	-14.55	46.44	74.00	-27.56	peak	Pass
3	4930.9309	64.02	-8.74	55.28	74.00	-18.72	peak	Pass
4	2004.0040	54.52	-20.55	33.97	54.00	-20.03	AVG	Pass
5	3314.3143	50.85	-14.49	36.36	54.00	-17.64	AVG	Pass
6	4947.9479	52.30	-8.72	43.58	54.00	-10.42	AVG	Pass
7	17948.9489	48.70	9.95	58.65	74.00	-15.35	peak	Pass
8 *	17948.9489	39.57	9.95	49.52	54.00	-4.48	AVG	Pass

Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Vertical



No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	1323.3233	75.08	-25.52	49.56	74.00	-24.44	peak	Pass
2	4930.9309	65.01	-8.74	56.27	74.00	-17.73	peak	Pass
3	3994.9950	62.98	-10.98	52.00	74.00	-22.00	peak	Pass
4	3297.2973	62.32	-14.55	47.77	74.00	-26.23	peak	Pass
5	1340.3403	63.60	-25.37	38.23	54.00	-15.77	AVG	Pass
6	3314.3143	49.93	-14.49	35.44	54.00	-18.56	AVG	Pass
7 *	4012.0120	50.92	-10.93	39.99	54.00	-14.01	AVG	Pass
8	4930.9309	48.73	-8.74	39.99	54.00	-14.01	AVG	Pass

Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

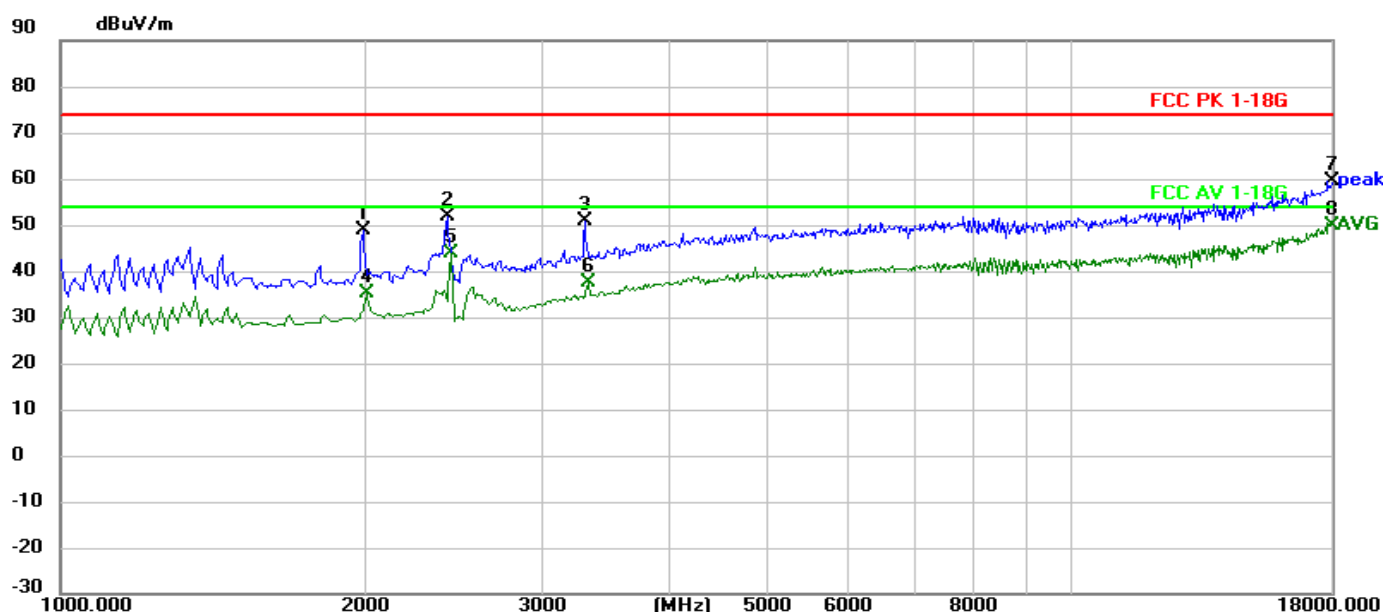
No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Results of 1 – 18 GHz

Model	CLK 039
Operation Mode	Mode 1 @2412 MHz IEEE 802.11 N20
Test voltage	3.3 Vdc

Results

Horizontal

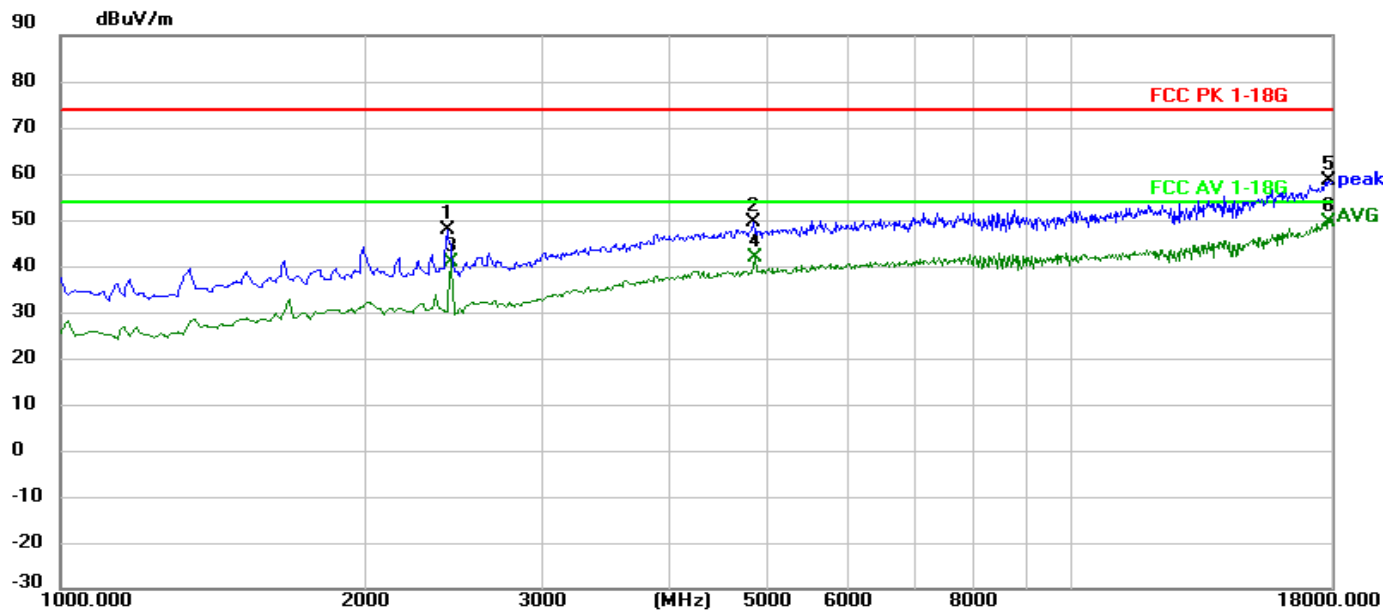


No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	1986.9870	69.49	-20.65	48.84	74.00	-25.16	peak	Pass
2	2412.4124	71.18	-19.46	51.72	74.00	-22.28	peak	Pass
3	3297.2973	65.34	-14.55	50.79	74.00	-23.21	peak	Pass
4	2004.0040	55.61	-20.55	35.06	54.00	-18.94	AVG	Pass
5	2429.4294	63.32	-19.39	43.93	54.00	-10.07	AVG	Pass
6	3314.3143	51.93	-14.49	37.44	54.00	-16.56	AVG	Pass
7	18000.0000	49.35	10.01	59.36	74.00	-14.64	peak	Pass
8 *	18000.0000	39.83	10.01	49.84	54.00	-4.16	AVG	Pass

Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Vertical



No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	2412.4124	67.45	-19.46	47.99	74.00	-26.01	peak	Pass
2	4828.8288	58.59	-8.96	49.63	74.00	-24.37	peak	Pass
3	2429.4294	60.23	-19.39	40.84	54.00	-13.16	AVG	Pass
4	4845.8458	50.81	-8.93	41.88	54.00	-12.12	AVG	Pass
5	17880.8809	48.82	9.73	58.55	74.00	-15.45	peak	Pass
6 *	17880.8809	39.66	9.73	49.39	54.00	-4.61	AVG	Pass

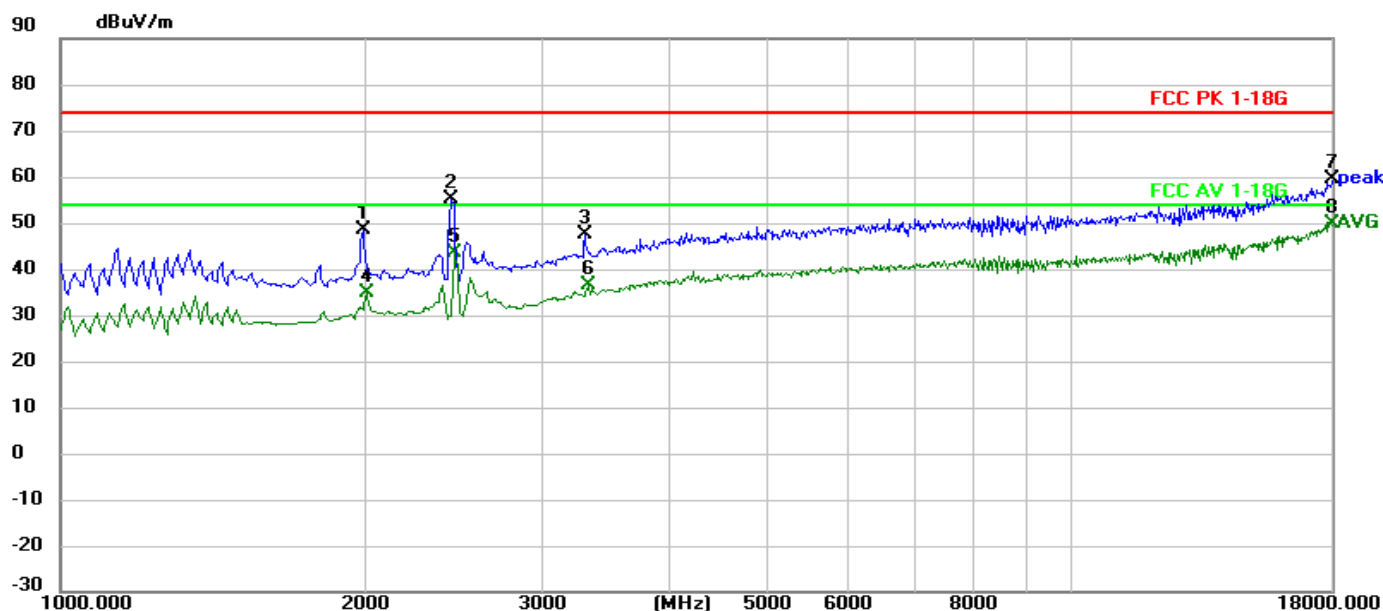
Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Model	CLK 039
Operation Mode	Mode 1 @2437 MHz IEEE 802.11 N20
Test voltage	3.3 Vdc

Results

Horizontal

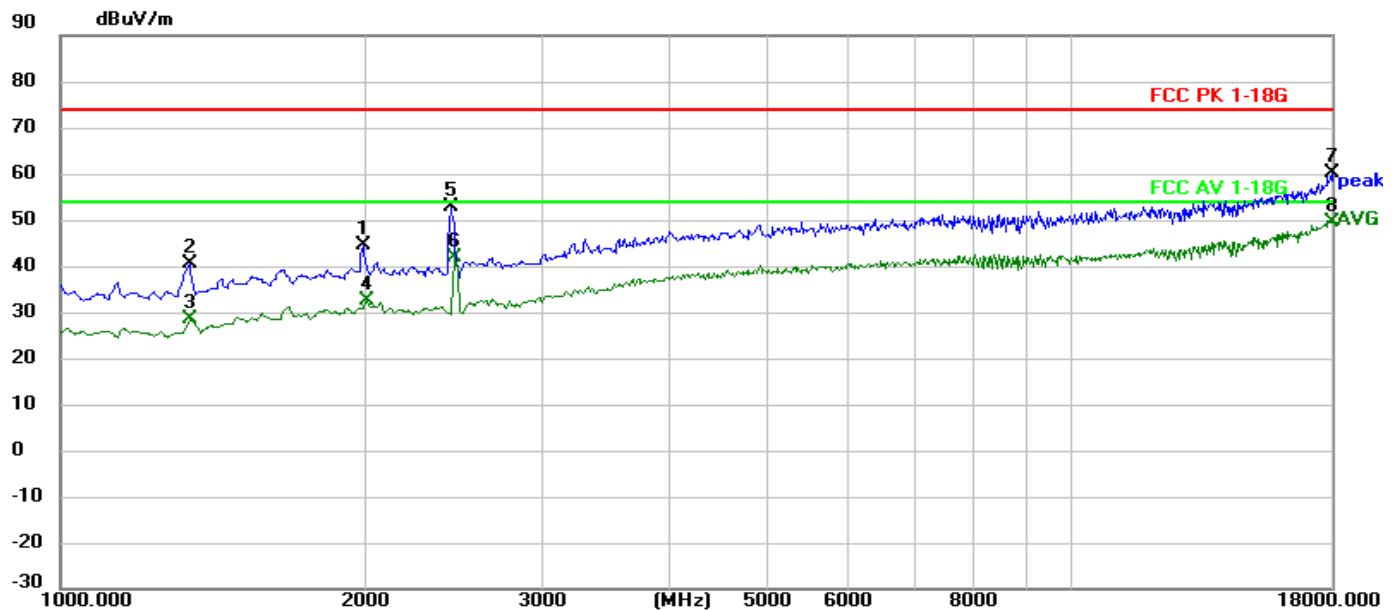


No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	1986.9870	69.17	-20.65	48.52	74.00	-25.48	peak	Pass
2	2429.4294	74.51	-19.39	55.12	74.00	-18.88	peak	Pass
3	3297.2973	62.14	-14.55	47.59	74.00	-26.41	peak	Pass
4	2004.0040	55.47	-20.55	34.92	54.00	-19.08	AVG	Pass
5	2446.4464	62.75	-19.29	43.46	54.00	-10.54	AVG	Pass
6	3314.3143	50.92	-14.49	36.43	54.00	-17.57	AVG	Pass
7	18000.0000	49.41	10.01	59.42	74.00	-14.58	peak	Pass
8 *	18000.0000	39.96	10.01	49.97	54.00	-4.03	AVG	Pass

Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Vertical



No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	1986.9870	65.16	-20.65	44.51	74.00	-29.49	peak	Pass
2	1340.3403	65.84	-25.37	40.47	74.00	-33.53	peak	Pass
3	1340.3403	53.94	-25.37	28.57	54.00	-25.43	AVG	Pass
4	2004.0040	53.12	-20.55	32.57	54.00	-21.43	AVG	Pass
5	2429.4294	72.18	-19.39	52.79	74.00	-21.21	peak	Pass
6	2446.4464	61.14	-19.29	41.85	54.00	-12.15	AVG	Pass
7	17948.9489	50.26	9.95	60.21	74.00	-13.79	peak	Pass
8 *	17948.9489	39.51	9.95	49.46	54.00	-4.54	AVG	Pass

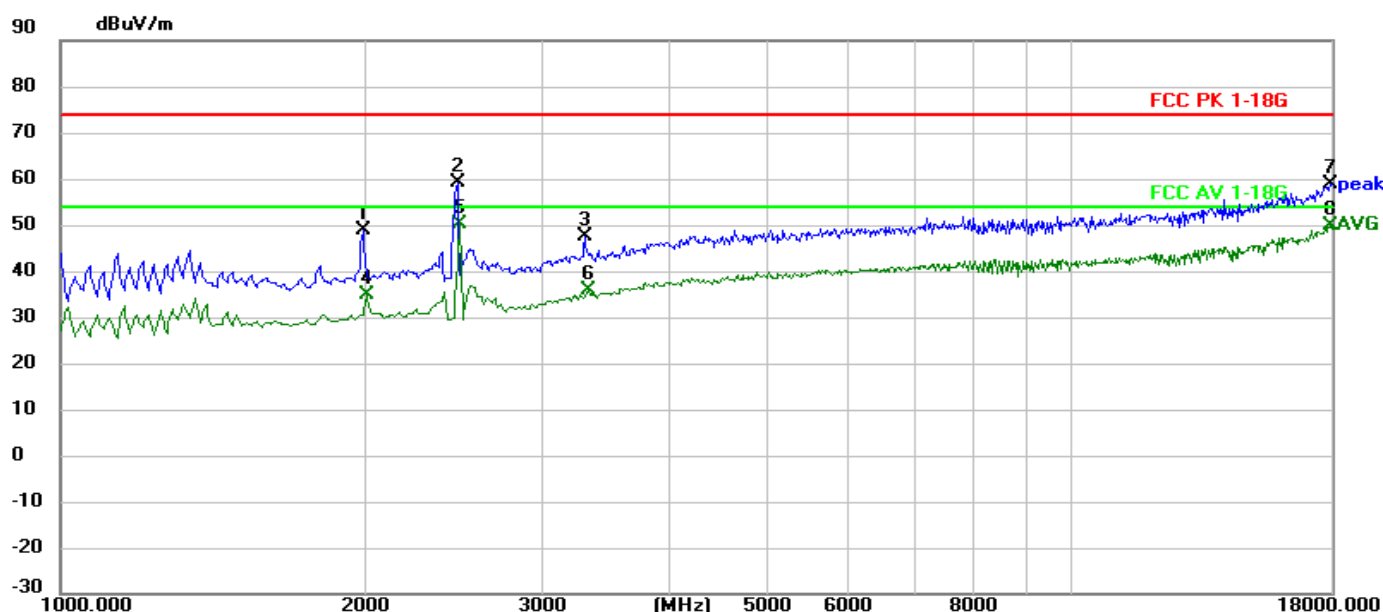
Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Model	CLK 039
Operation Mode	Mode 1 @2462 MHz IEEE 802.11 N20
Test voltage	3.3 Vdc

Results

Horizontal

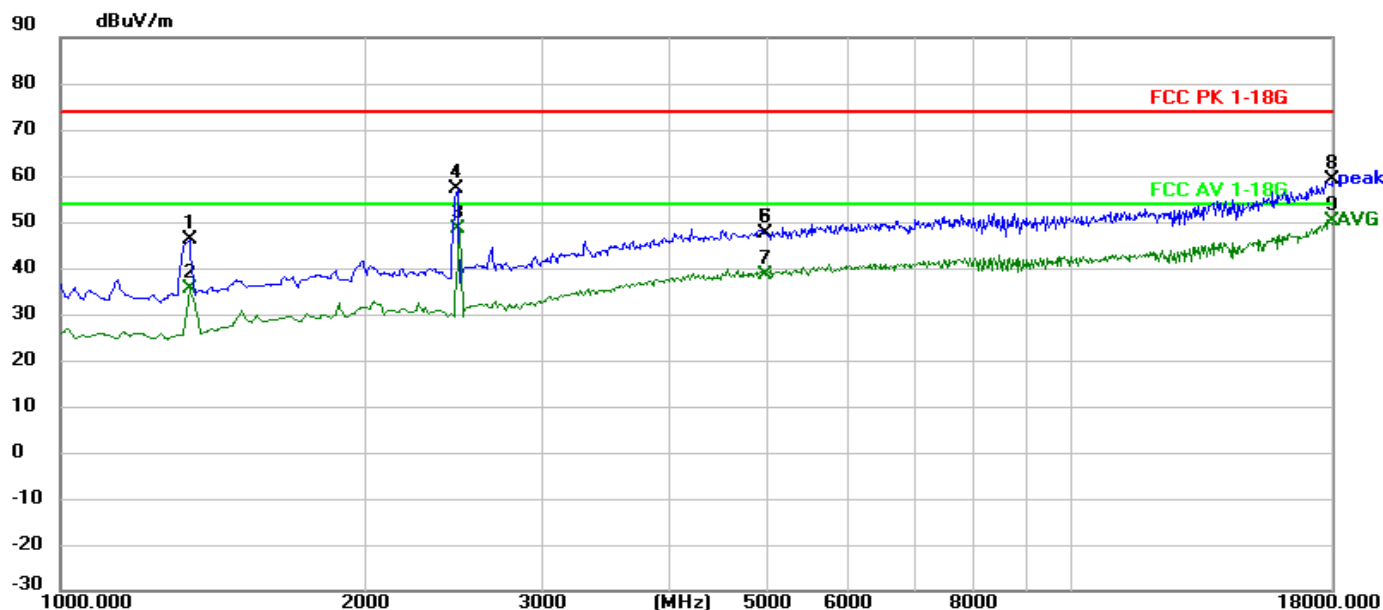


No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	1986.9870	69.43	-20.65	48.78	74.00	-25.22	peak	Pass
2	2463.4635	78.33	-19.18	59.15	74.00	-14.85	peak	Pass
3	3297.2973	61.92	-14.55	47.37	74.00	-26.63	peak	Pass
4	2004.0040	55.51	-20.55	34.96	54.00	-19.04	AVG	Pass
5 *	2480.4805	69.28	-19.07	50.21	54.00	-3.79	AVG	Pass
6	3314.3143	50.27	-14.49	35.78	54.00	-18.22	AVG	Pass
7	17931.9319	48.91	9.89	58.80	74.00	-15.20	peak	Pass
8	17931.9319	39.88	9.89	49.77	54.00	-4.23	AVG	Pass

Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Vertical



No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	1340.3403	71.52	-25.37	46.15	74.00	-27.85	peak	Pass
2	1340.3403	60.93	-25.37	35.56	54.00	-18.44	AVG	Pass
3	2480.4805	67.48	-19.07	48.41	54.00	-5.59	AVG	Pass
4	2463.4635	76.32	-19.18	57.14	74.00	-16.86	peak	Pass
5	4960.0000	56.35	-8.69	47.66	74.00	-26.34	peak	Pass
6	4960.0000	47.29	-8.69	38.60	54.00	-15.40	AVG	Pass
8	18000.0000	49.00	10.01	59.01	74.00	-14.99	peak	Pass
9 *	18000.0000	40.03	10.01	50.04	54.00	-3.96	AVG	Pass

Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

4.3	Emissions in restricted frequency bands	VERDICT: PASS
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Restricted Bands of operation of 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	
156 – 13.41			
Restricted Bands of operation for IC			
0.090 - 0.110	156 - 13.41	960 - 1427	9.0 - 9.2
0.495 - 0.505	16.42 - 16.423	1435 - 1626.5	9.3 - 9.5
2.1735 - 2.1905	16.69475 - 16.69525	1645.5 - 1646.5	10.6 - 12.7
3.020 - 3.026	16.80425 - 16.80475	1660 - 1710	13.25 - 13.4
4.125 - 4.128	25.5 - 25.67	1718.8 - 1722.2	14.47 - 14.5
4.17725 - 4.17775	37.5 - 38.25	2200 - 2300	15.35 - 16.2
4.20725 - 4.20775	73 - 74.6	2310 - 2390	17.7 - 21.4
5.677 - 5.683	74.8 - 75.2	2483.5 - 2500	22.01 - 23.12
6.215 - 6.218	108 - 138	2655 - 2900	23.6 - 24.0
6.26775 - 6.26825	149.9 - 150.05	3260 - 3267	31.2 - 31.8
6.31175 - 6.31225	156.52475 - 156.52525	3332 - 3339	36.43 - 36.5
8.291 - 8.294	156.7 - 156.9	3345.8 - 3358	Above 38.6
8.362 - 8.366	162.0125 - 167.17	3500 - 4400	
8.37625 - 8.38675	167.72 - 173.2	4500 - 5150	
8.41425 - 8.41475	240 - 285	5350 - 5460	
12.29 - 12.293	322 - 335.4	7250 - 7750	
12.51975 - 12.52025	399.9 - 410	8025 - 8500	
12.57675 - 12.57725	608 - 614	--	

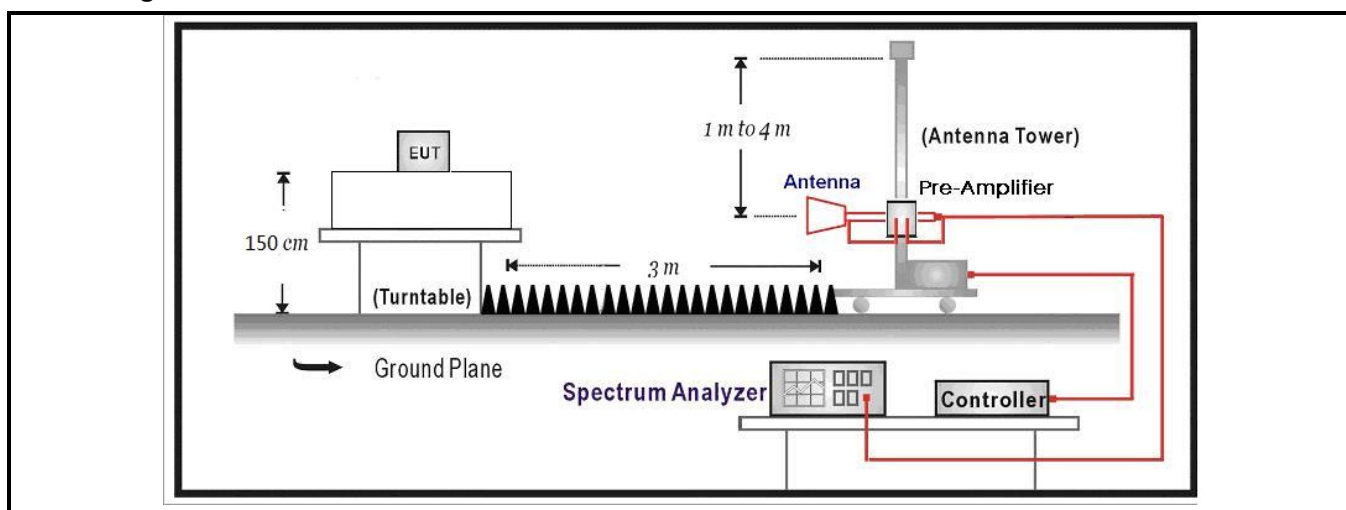
Restricted Band Emissions Limit

Frequency (MHz)	Field strength ($\mu\text{V/m}$)	Field strength ($\text{dB}\mu\text{V/m}$)	Measurement distance (m)
0.009 - 0.49	$2400/F(\text{kHz})$	48.5 – 13.8	300 _(Note 1)
0.49 - 1.705	$24000/F(\text{kHz})$	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



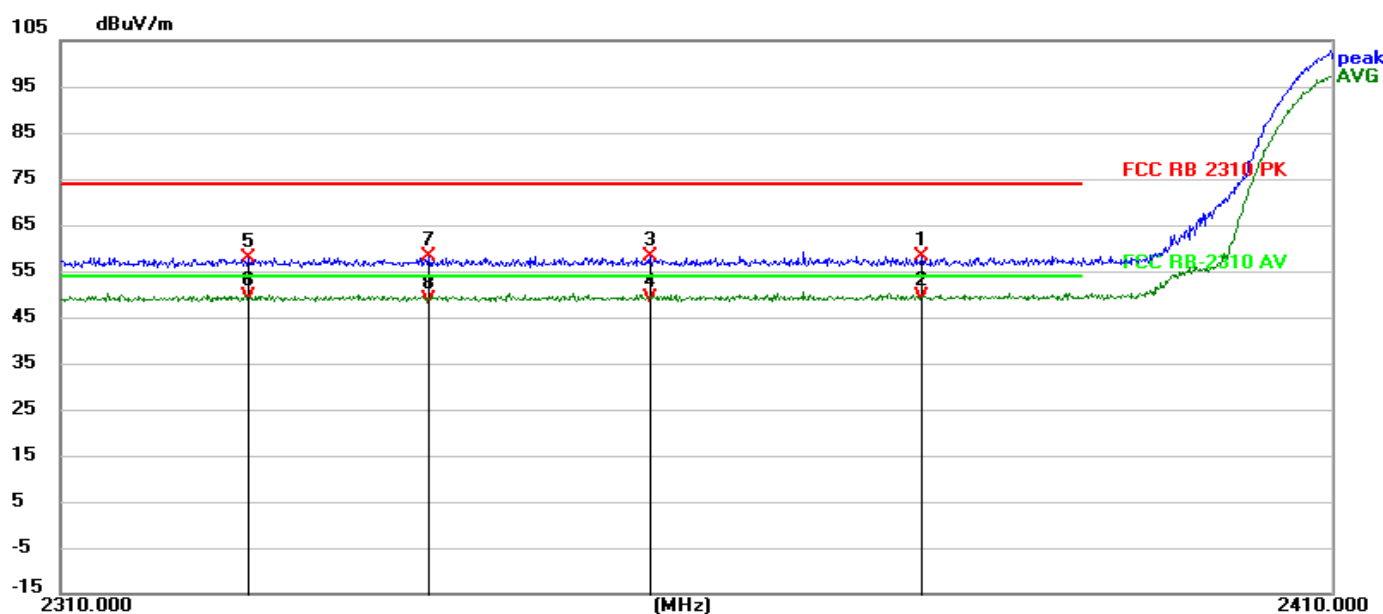
Performed measurements

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	---	

Model	CLK 039
Operation Mode	Mode 1 @2412 MHz IEEE 802.11 B
Test voltage	3.3 Vdc

Results

Horizontal

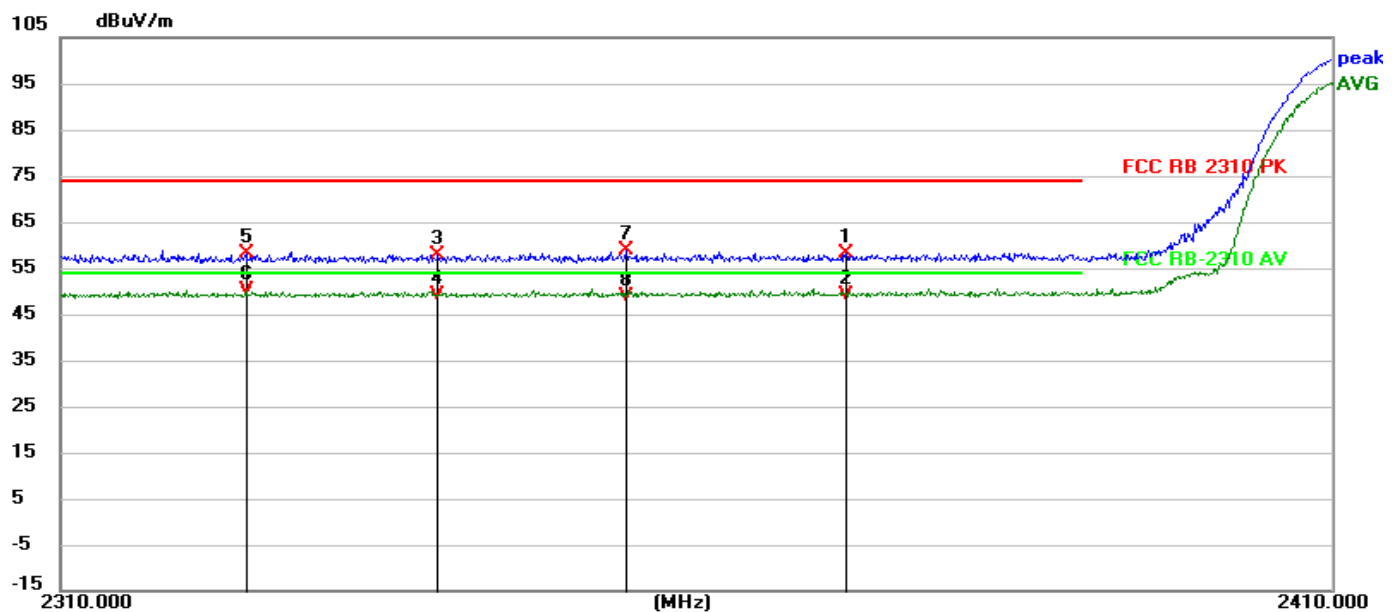


No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	2377.2412	26.42	31.84	58.26	74.00	-15.74	peak	Pass
2	2377.2412	17.55	31.84	49.39	54.00	-4.61	AVG	Pass
3	2355.7764	26.26	31.76	58.02	74.00	-15.98	peak	Pass
4	2355.7764	17.30	31.76	49.06	54.00	-4.94	AVG	Pass
5	2324.4772	26.24	31.70	57.94	74.00	-16.06	peak	Pass
6 *	2324.4772	17.90	31.70	49.60	54.00	-4.40	AVG	Pass
7	2338.5629	26.48	31.73	58.21	74.00	-15.79	peak	Pass
8	2338.5629	17.12	31.73	48.85	54.00	-5.15	AVG	Pass

Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Vertical



No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	2371.2877	26.27	31.82	58.09	74.00	-15.91	peak	Pass
2	2371.2877	17.28	31.82	49.10	54.00	-4.90	AVG	Pass
3	2339.2140	26.16	31.73	57.89	74.00	-16.11	peak	Pass
4	2339.2140	17.55	31.73	49.28	54.00	-4.72	AVG	Pass
5	2324.2432	26.41	31.70	58.11	74.00	-15.89	peak	Pass
6 *	2324.2432	18.31	31.70	50.01	54.00	-3.99	AVG	Pass
7	2353.9380	26.96	31.76	58.72	74.00	-15.28	peak	Pass
8	2353.9380	17.16	31.76	48.92	54.00	-5.08	AVG	Pass

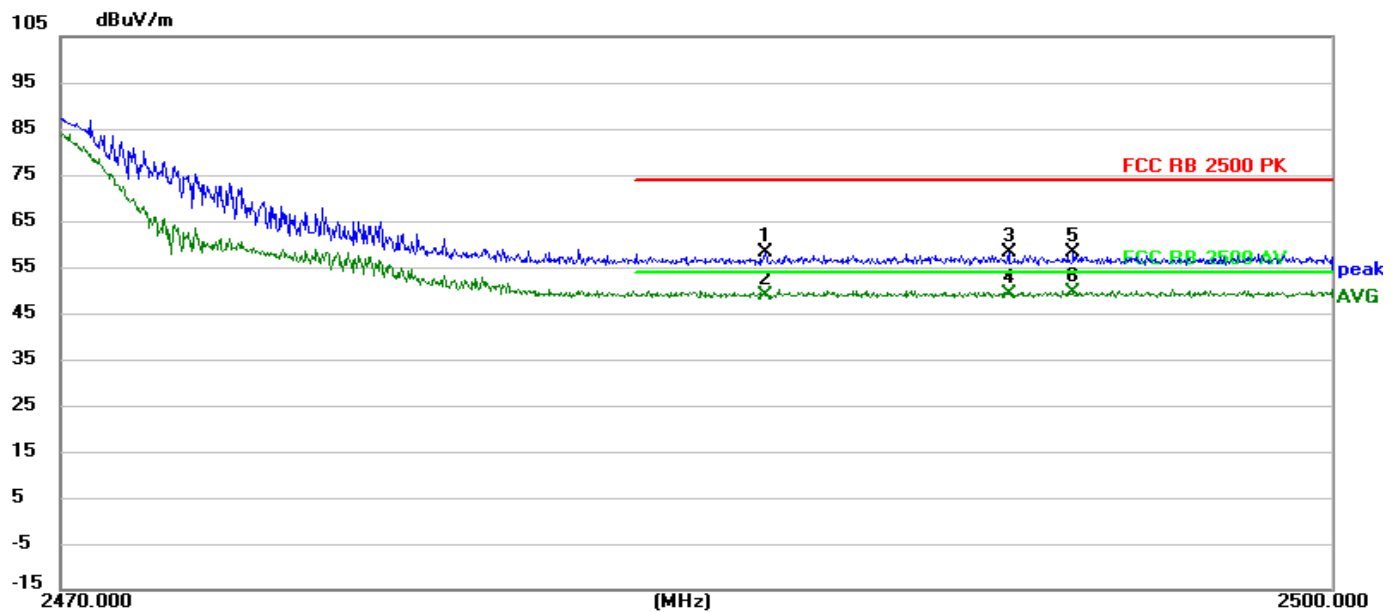
Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Model	CLK 039
Operation Mode	Mode 1 @2462 MHz IEEE 802.11 B
Test voltage	3.3 Vdc

Results

Horizontal

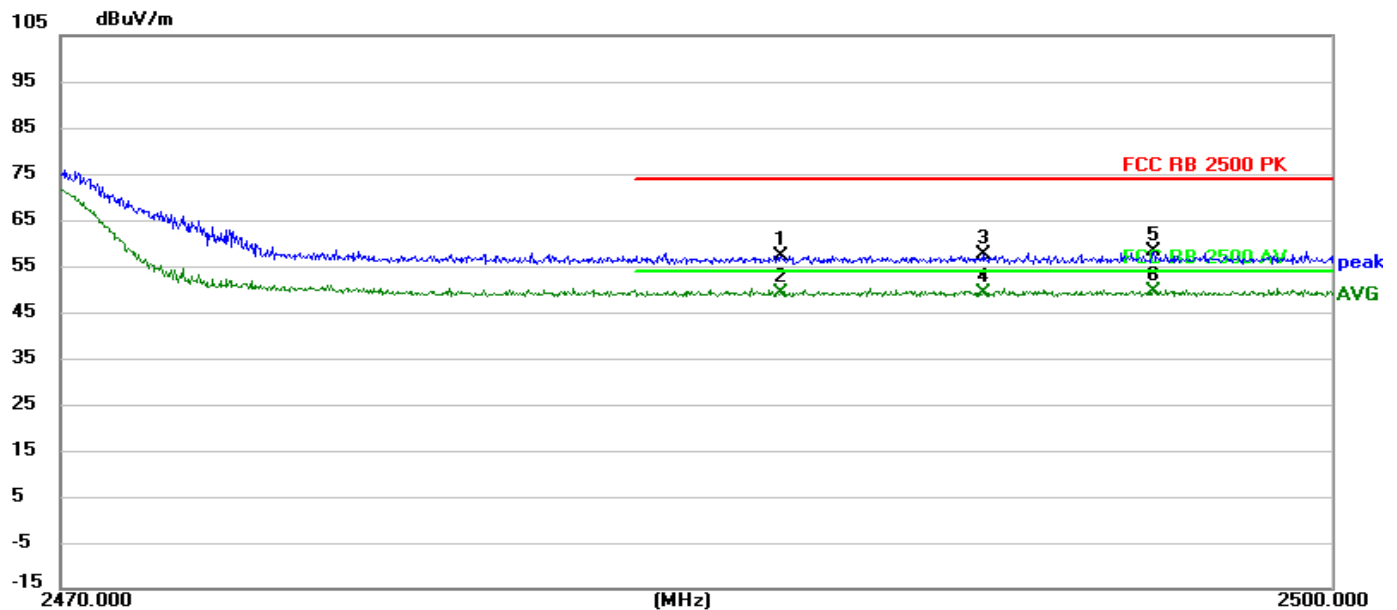


No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	2486.5971	27.05	31.05	58.10	74.00	-15.90	peak	Pass
2	2486.5971	17.77	31.05	48.82	54.00	-5.18	AVG	Pass
3	2492.3216	26.95	31.07	58.02	74.00	-15.98	peak	Pass
4	2492.3216	17.96	31.07	49.03	54.00	-4.97	AVG	Pass
5	2493.8667	27.08	31.08	58.16	74.00	-15.84	peak	Pass
6 *	2493.8667	18.47	31.08	49.55	54.00	-4.45	AVG	Pass

Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Vertical



No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	2486.9571	26.15	31.05	57.20	74.00	-16.80	peak	Pass
2	2486.9571	18.19	31.05	49.24	54.00	-4.76	AVG	Pass
3	2491.7601	26.29	31.07	57.36	74.00	-16.64	peak	Pass
4	2491.7601	18.25	31.07	49.32	54.00	-4.68	AVG	Pass
5	2495.7483	27.15	31.08	58.23	74.00	-15.77	peak	Pass
6 *	2495.7483	18.31	31.08	49.39	54.00	-4.61	AVG	Pass

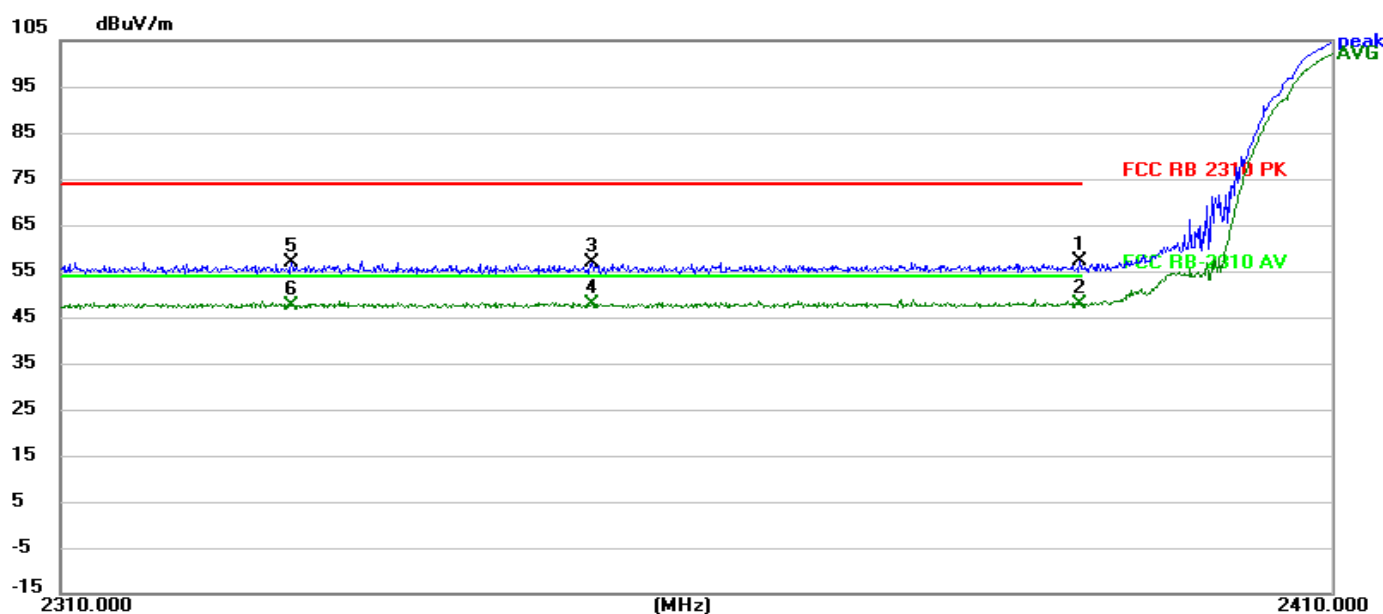
Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Model	CLK 039
Operation Mode	Mode 1 @2412 MHz IEEE 802.11 G
Test voltage	3.3 Vdc

Results

Horizontal

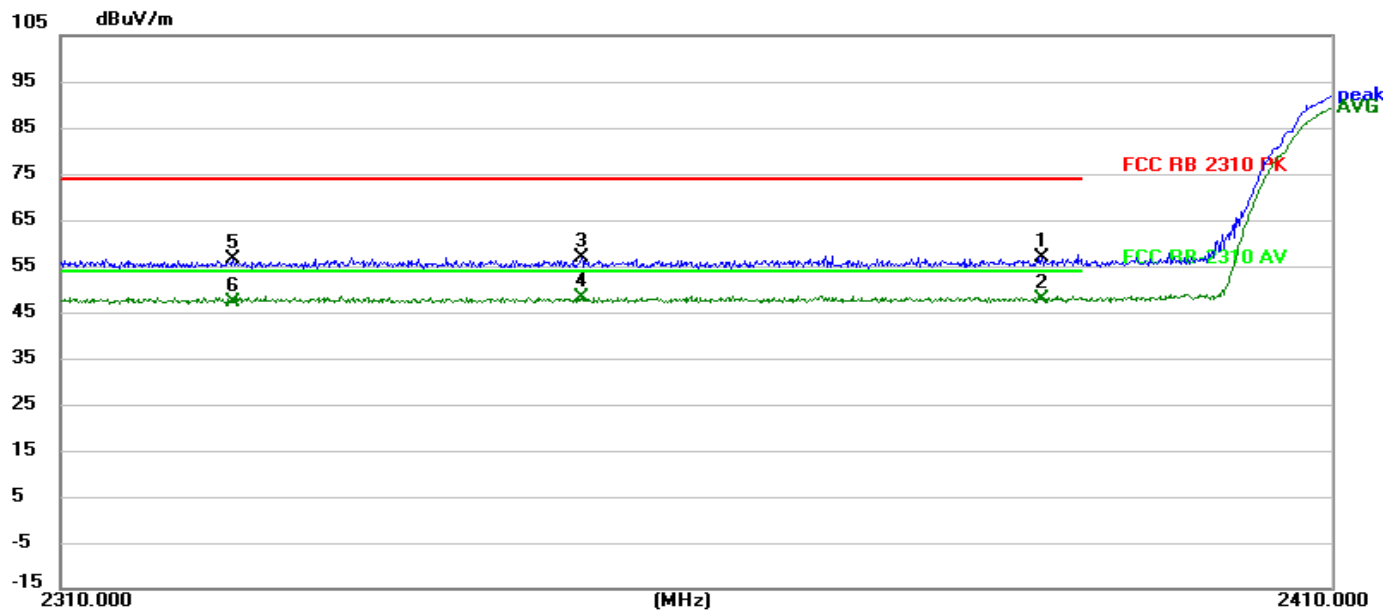


No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	2389.8204	26.44	30.63	57.07	74.00	-16.93	peak	Pass
2 *	2389.8204	17.27	30.63	47.90	54.00	-6.10	AVG	Pass
3	2351.2571	26.20	30.49	56.69	74.00	-17.31	peak	Pass
4	2351.2571	17.23	30.49	47.72	54.00	-6.28	AVG	Pass
5	2327.8391	26.47	30.45	56.92	74.00	-17.08	peak	Pass
6	2327.8391	17.15	30.45	47.60	54.00	-6.40	AVG	Pass

Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Vertical



No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	2386.7522	26.11	30.61	56.72	74.00	-17.28	peak	Pass
2	2386.7522	17.11	30.61	47.72	54.00	-6.28	AVG	Pass
3	2350.4017	26.41	30.49	56.90	74.00	-17.10	peak	Pass
4 *	2350.4017	17.56	30.49	48.05	54.00	-5.95	AVG	Pass
5	2323.3282	25.98	30.45	56.43	74.00	-17.57	peak	Pass
6	2323.3282	16.58	30.45	47.03	54.00	-6.97	AVG	Pass

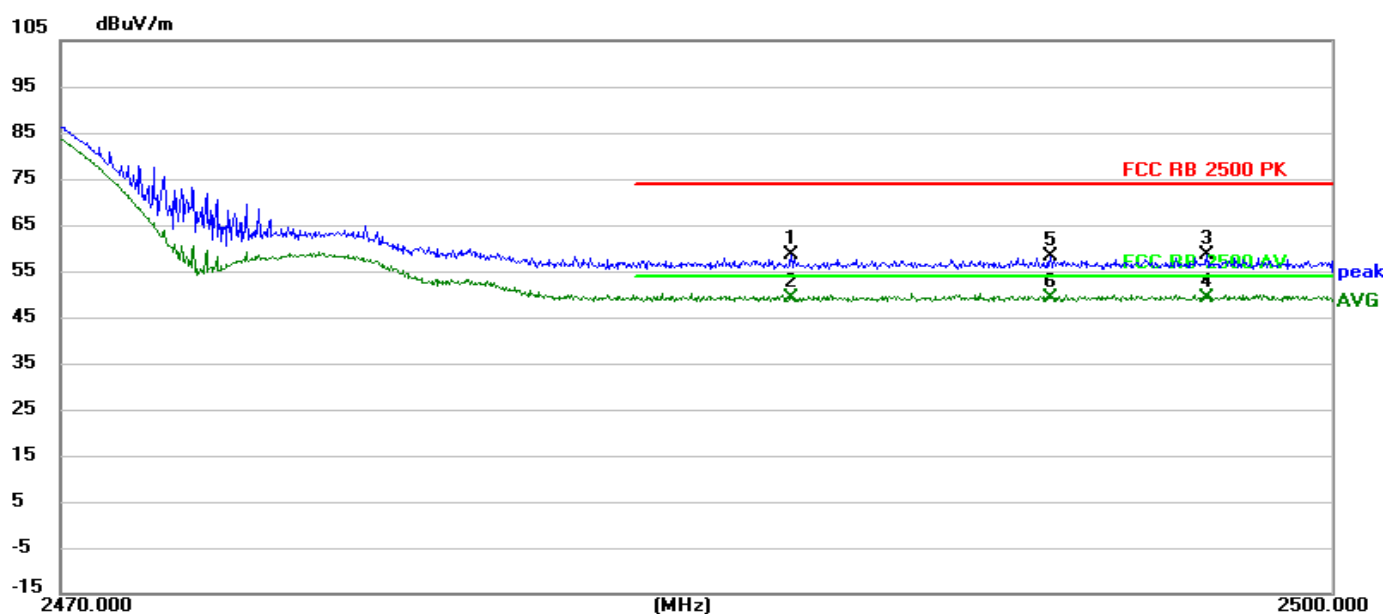
Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Model	CLK 039
Operation Mode	Mode 1 @2462 MHz IEEE 802.11 G
Test voltage	3.3 Vdc

Results

Horizontal

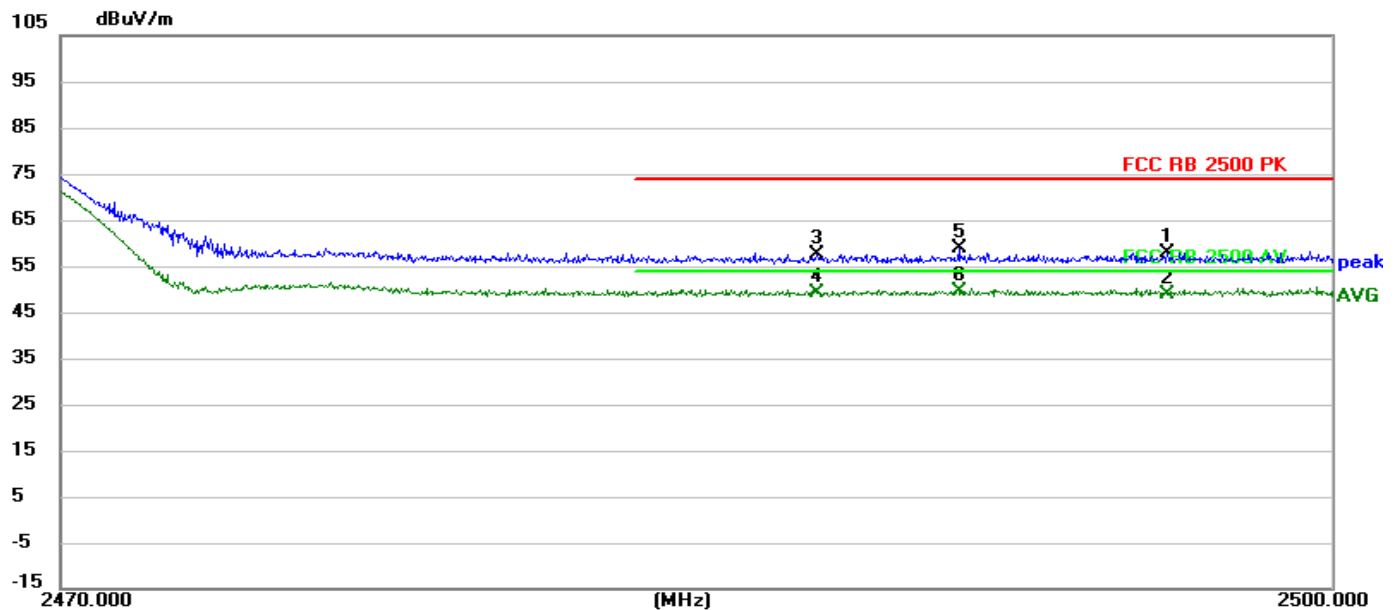


No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	2487.1821	27.55	31.05	58.60	74.00	-15.40	peak	Pass
2	2487.1821	17.97	31.05	49.02	54.00	-4.98	AVG	Pass
3	2497.0243	27.31	31.10	58.41	74.00	-15.59	peak	Pass
4 *	2497.0243	18.20	31.10	49.30	54.00	-4.70	AVG	Pass
5	2493.3229	26.99	31.07	58.06	74.00	-15.94	peak	Pass
6	2493.3229	18.04	31.07	49.11	54.00	-4.89	AVG	Pass

Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamplifier gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Vertical



No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	2496.0924	26.68	31.09	57.77	74.00	-16.23	peak	Pass
2	2496.0924	17.88	31.09	48.97	54.00	-5.03	AVG	Pass
3	2487.7981	26.49	31.05	57.54	74.00	-16.46	peak	Pass
4	2487.7981	18.13	31.05	49.18	54.00	-4.82	AVG	Pass
5	2491.1647	27.73	31.07	58.80	74.00	-15.20	peak	Pass
6 *	2491.1647	18.47	31.07	49.54	54.00	-4.46	AVG	Pass

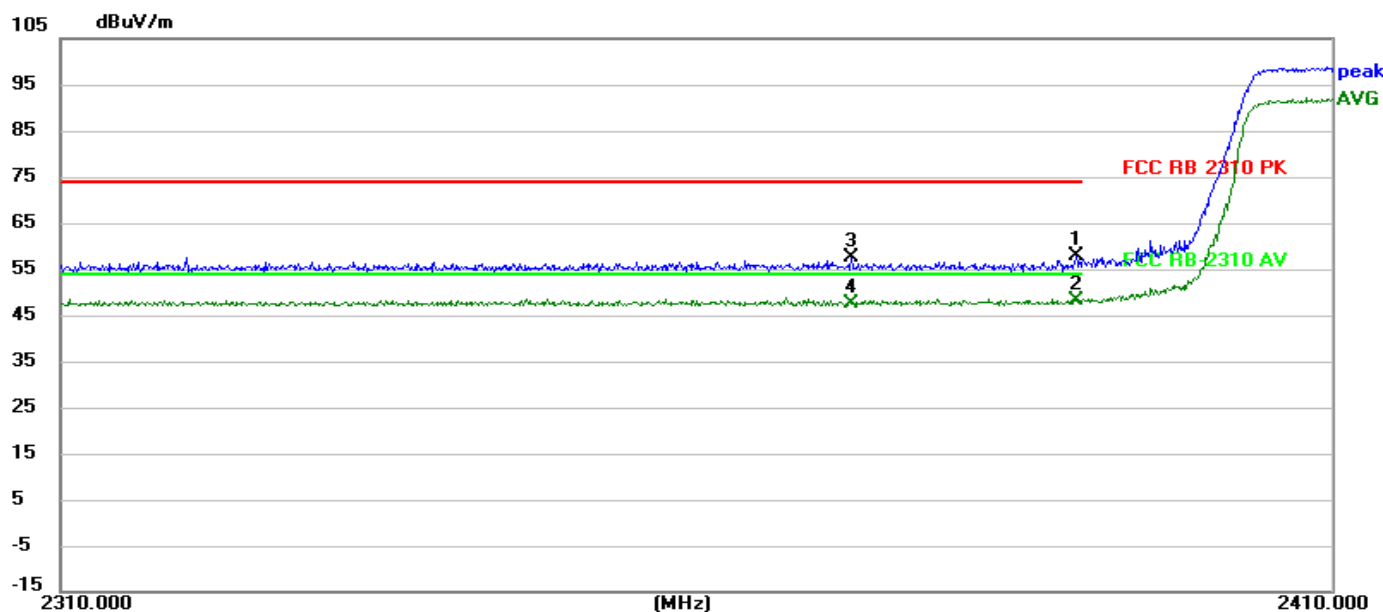
Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Model	CLK 039
Operation Mode	Mode 1 @2412 MHz IEEE 802.11 N20
Test voltage	3.3 Vdc

Results

Horizontal

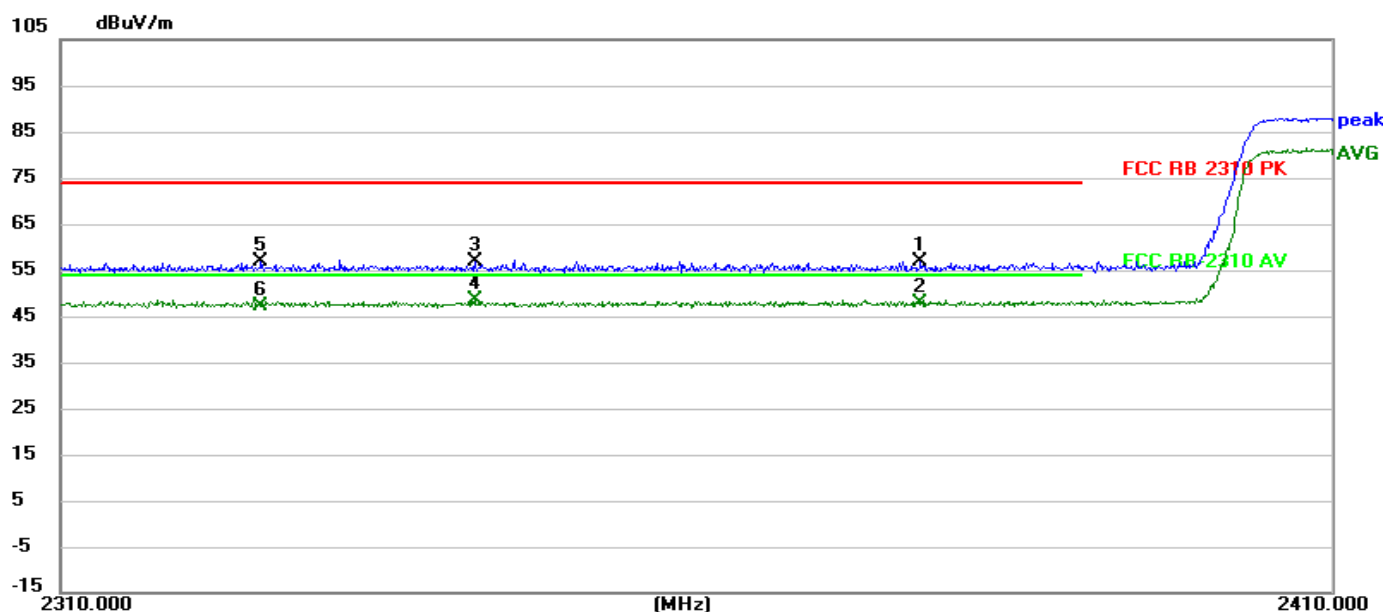


No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	2389.4715	27.11	30.62	57.73	74.00	-16.27	peak	Pass
2 *	2389.4715	17.59	30.62	48.21	54.00	-5.79	AVG	Pass
3	2371.6962	26.93	30.56	57.49	74.00	-16.51	peak	Pass
4	2371.6962	16.85	30.56	47.41	54.00	-6.59	AVG	Pass

Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Vertical



No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	2377.1773	26.26	30.58	56.84	74.00	-17.16	peak	Pass
2	2377.1773	17.38	30.58	47.96	54.00	-6.04	AVG	Pass
3	2342.0567	26.35	30.47	56.82	74.00	-17.18	peak	Pass
4 *	2342.0567	17.97	30.47	48.44	54.00	-5.56	AVG	Pass
5	2325.4815	26.36	30.45	56.81	74.00	-17.19	peak	Pass
6	2325.4815	16.82	30.45	47.27	54.00	-6.73	AVG	Pass

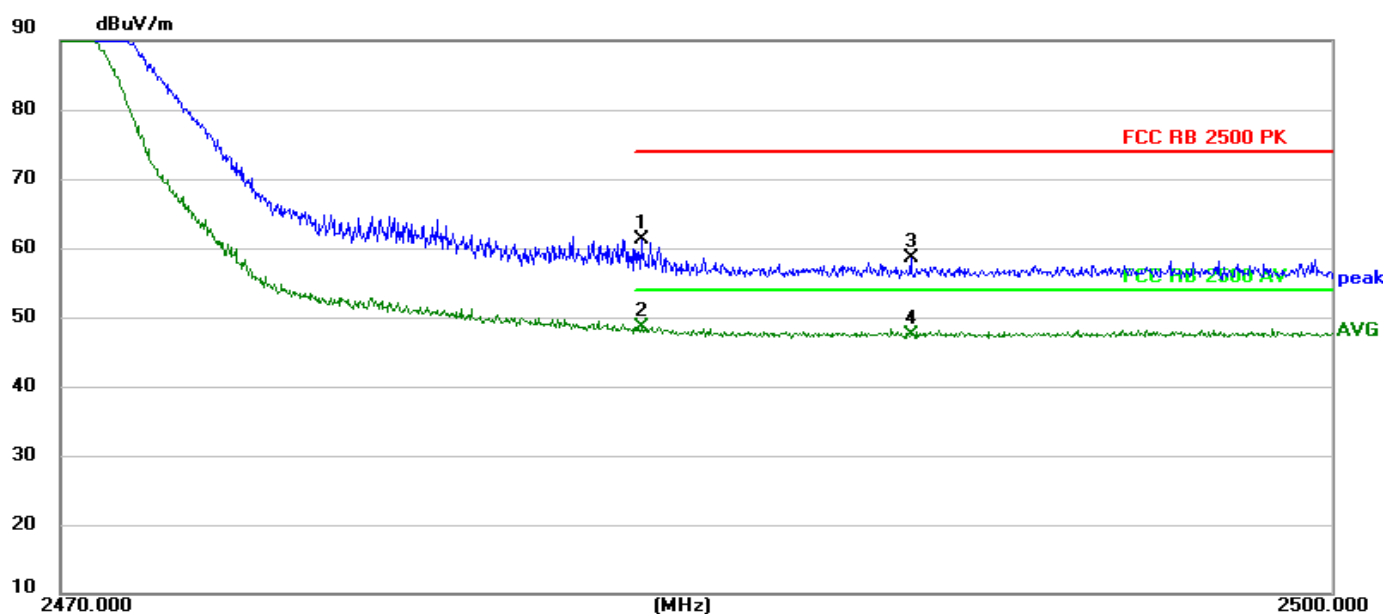
Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Model	CLK 039
Operation Mode	Mode 1 @2462 MHz IEEE 802.11 N20
Test voltage	3.3 Vdc

Results

Horizontal

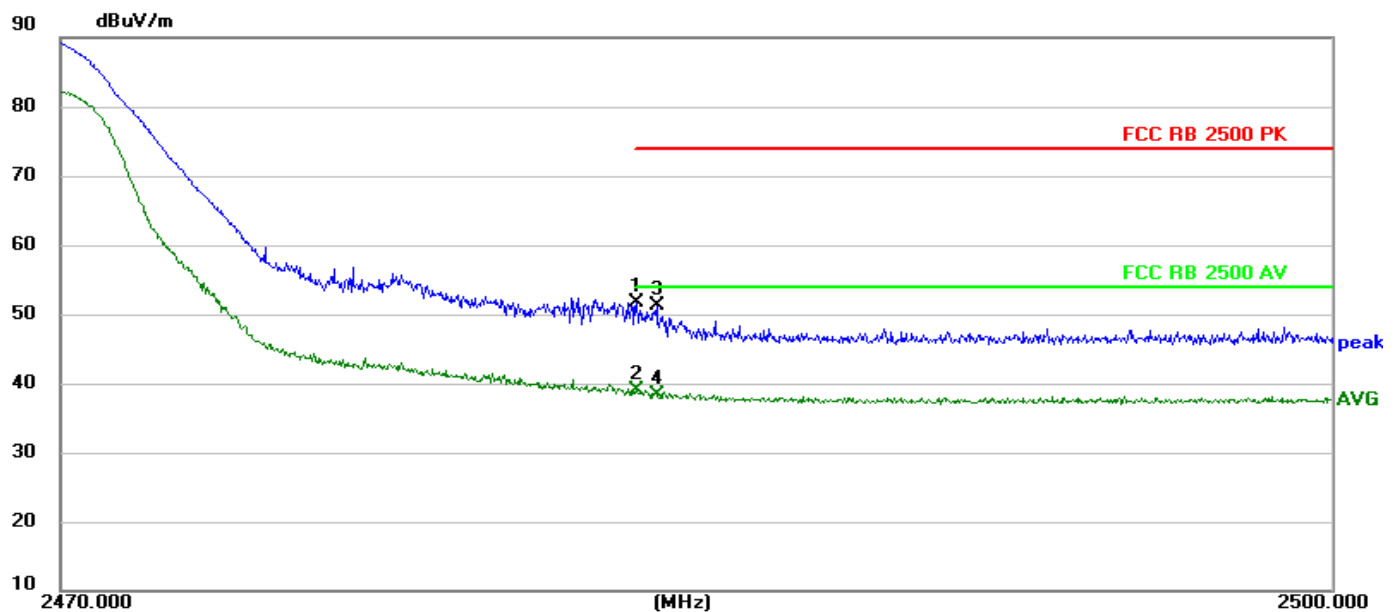


No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	2483.6650	30.09	31.03	61.12	74.00	-12.88	peak	Pass
2 *	2483.6650	17.46	31.03	48.49	54.00	-5.51	AVG	Pass
3	2490.0220	27.52	31.06	58.58	74.00	-15.42	peak	Pass
4	2490.0220	16.47	31.06	47.53	54.00	-6.47	AVG	Pass

Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Vertical



No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	2483.5390	20.69	31.03	51.72	74.00	-22.28	peak	Pass
2 *	2483.5390	8.08	31.03	39.11	54.00	-14.89	AVG	Pass
3	2484.0070	20.26	31.03	51.29	74.00	-22.71	peak	Pass
4	2484.0070	7.26	31.03	38.29	54.00	-15.71	AVG	Pass

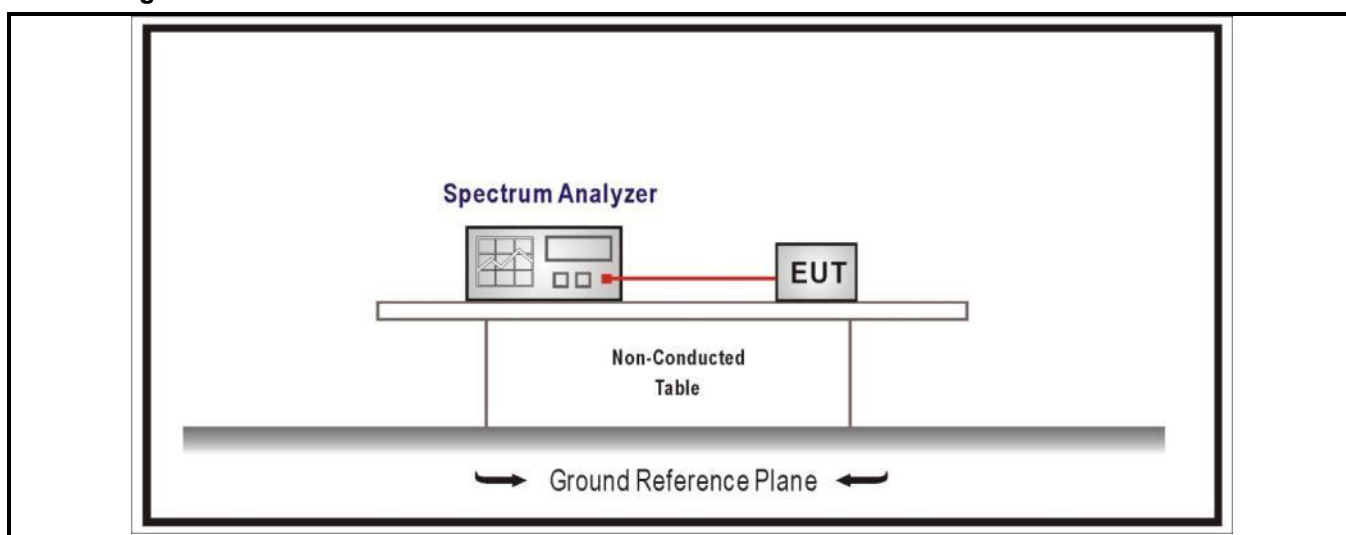
Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

4.4 Band Edge	VERDICT: PASS
----------------------	----------------------

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

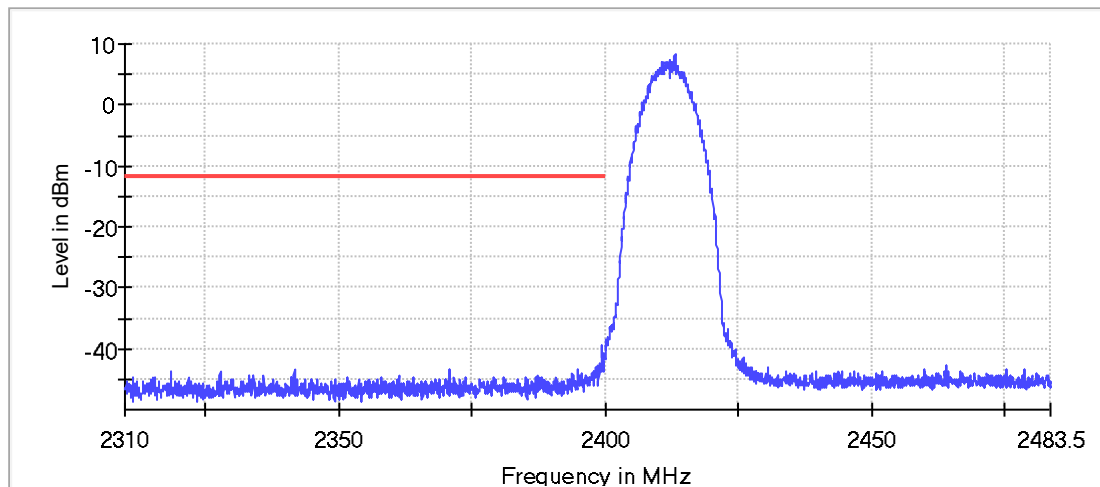


Performed measurements

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	---	

Results of mode 1 @2412 MHz IEEE 802.11 B

Band Edge



— Limit — Sum Level × Fail

Inband Peak

Frequency (MHz)	Level (dBm)
2412.0000	8.2

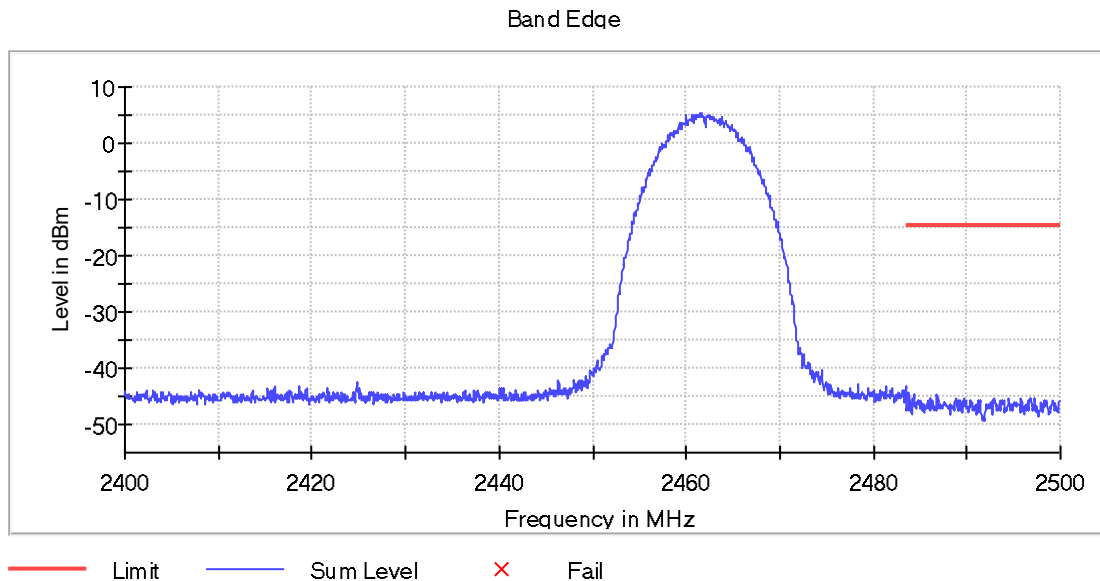
Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2399.475000	-39.6	27.8	-11.8	PASS
2399.425000	-39.6	27.8	-11.8	PASS
2399.725000	-40.9	29.1	-11.8	PASS
2399.775000	-41.0	29.2	-11.8	PASS
2399.875000	-41.0	29.2	-11.8	PASS
2399.925000	-41.1	29.3	-11.8	PASS
2399.525000	-41.3	29.5	-11.8	PASS
2399.825000	-41.4	29.6	-11.8	PASS
2399.675000	-41.6	29.8	-11.8	PASS
2399.375000	-41.9	30.1	-11.8	PASS
2399.975000	-41.9	30.1	-11.8	PASS
2399.575000	-42.3	30.5	-11.8	PASS
2399.025000	-42.3	30.5	-11.8	PASS
2399.075000	-42.5	30.7	-11.8	PASS
2398.975000	-42.7	30.9	-11.8	PASS

Remark:

RBW	100.000 kHz
VBW	300.000 kHz
Detector	MaxPeak

Results of mode 1 @2462 MHz IEEE 802.11 B



Inband Peak

Frequency (MHz)	Level (dBm)
2462.0000	5.3

Measurements

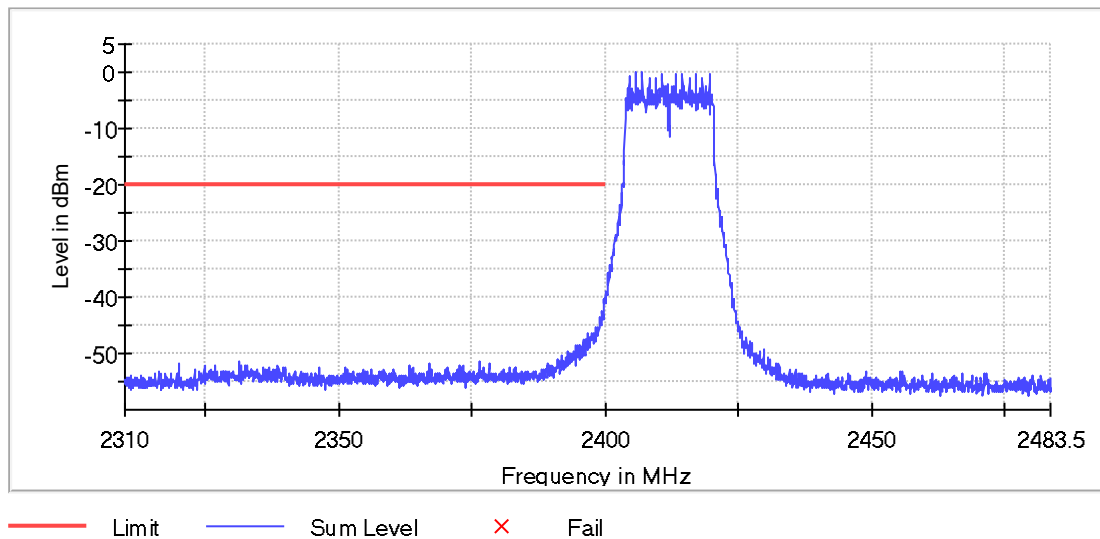
Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2483.775000	-44.3	29.6	-14.7	PASS
2483.825000	-44.3	29.6	-14.7	PASS
2484.375000	-44.7	30.0	-14.7	PASS
2486.825000	-44.8	30.1	-14.7	PASS
2484.325000	-45.1	30.4	-14.7	PASS
2486.775000	-45.2	30.5	-14.7	PASS
2484.225000	-45.2	30.5	-14.7	PASS
2488.775000	-45.2	30.5	-14.7	PASS
2486.125000	-45.2	30.6	-14.7	PASS
2496.725000	-45.3	30.6	-14.7	PASS
2494.475000	-45.4	30.7	-14.7	PASS
2484.275000	-45.4	30.7	-14.7	PASS
2486.875000	-45.4	30.7	-14.7	PASS
2496.775000	-45.4	30.7	-14.7	PASS
2489.625000	-45.5	30.8	-14.7	PASS

Remark:

RBW	100.000 kHz
VBW	300.000 kHz
Detector	MaxPeak

Results of mode 1 @2412 MHz IEEE 802.11 G

Band Edge



Inband Peak

Frequency (MHz)	Level (dBm)
2412.0000	0

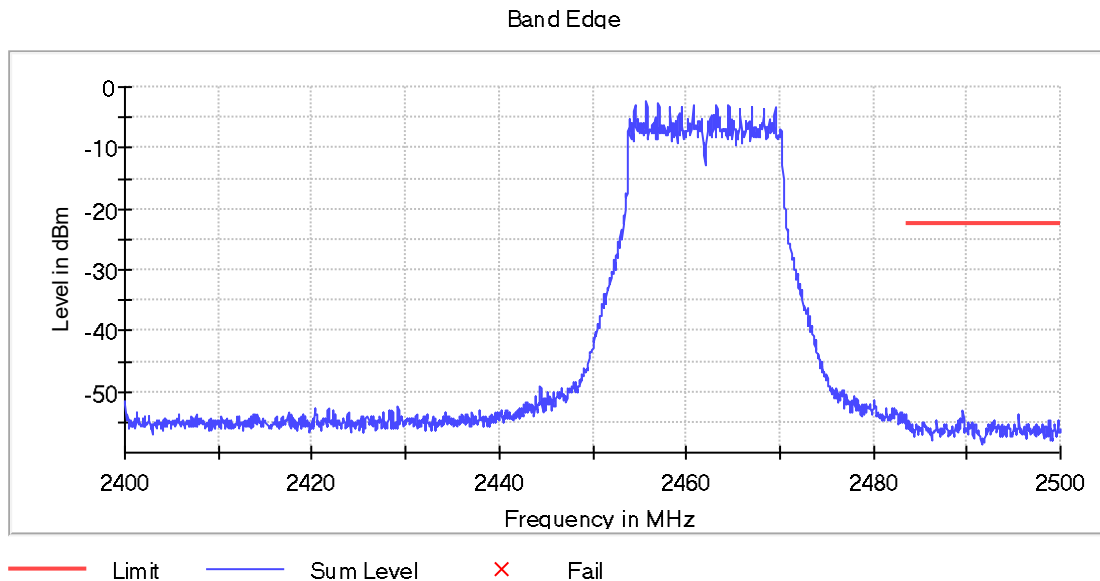
Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2399.975000	-39.9	19.9	-20.0	PASS
2399.825000	-40.4	20.4	-20.0	PASS
2399.925000	-40.4	20.4	-20.0	PASS
2399.775000	-40.5	20.5	-20.0	PASS
2399.875000	-40.9	20.9	-20.0	PASS
2399.725000	-41.2	21.2	-20.0	PASS
2399.475000	-42.4	22.4	-20.0	PASS
2399.525000	-42.7	22.7	-20.0	PASS
2399.425000	-42.8	22.8	-20.0	PASS
2399.575000	-43.2	23.2	-20.0	PASS
2399.325000	-43.4	23.4	-20.0	PASS
2399.075000	-43.6	23.6	-20.0	PASS
2399.675000	-43.6	23.6	-20.0	PASS
2399.625000	-43.8	23.8	-20.0	PASS
2399.375000	-43.8	23.8	-20.0	PASS

Remark:

RBW	100.000 kHz
VBW	300.000 kHz
Detector	MaxPeak

Results of mode 1 @2462 MHz IEEE 802.11 G



Inband Peak

Frequency (MHz)	Level (dBm)
2462.0000	-2.3

Measurements

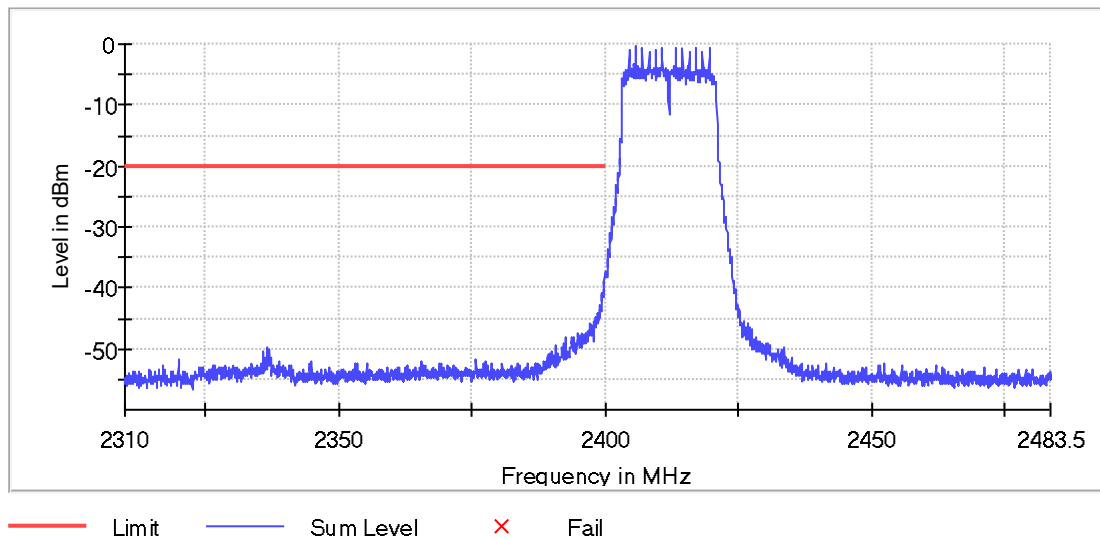
Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2489.575000	-53.1	30.8	-22.3	PASS
2489.525000	-53.2	30.9	-22.3	PASS
2495.525000	-53.8	31.5	-22.3	PASS
2495.575000	-54.3	32.0	-22.3	PASS
2489.325000	-54.4	32.1	-22.3	PASS
2495.475000	-54.5	32.2	-22.3	PASS
2489.675000	-54.5	32.2	-22.3	PASS
2489.625000	-54.5	32.2	-22.3	PASS
2499.775000	-54.6	32.3	-22.3	PASS
2498.775000	-54.6	32.3	-22.3	PASS
2489.375000	-54.6	32.3	-22.3	PASS
2489.075000	-54.7	32.4	-22.3	PASS
2498.825000	-54.7	32.4	-22.3	PASS
2499.825000	-54.8	32.5	-22.3	PASS
2486.675000	-54.8	32.5	-22.3	PASS

Remark:

RBW	100.000 kHz
VBW	300.000 kHz
Detector	MaxPeak

Results of mode 1 @2412 MHz IEEE 802.11 N20

Band Edge



Inband Peak

Frequency (MHz)	Level (dBm)
2412.0000	-0.2

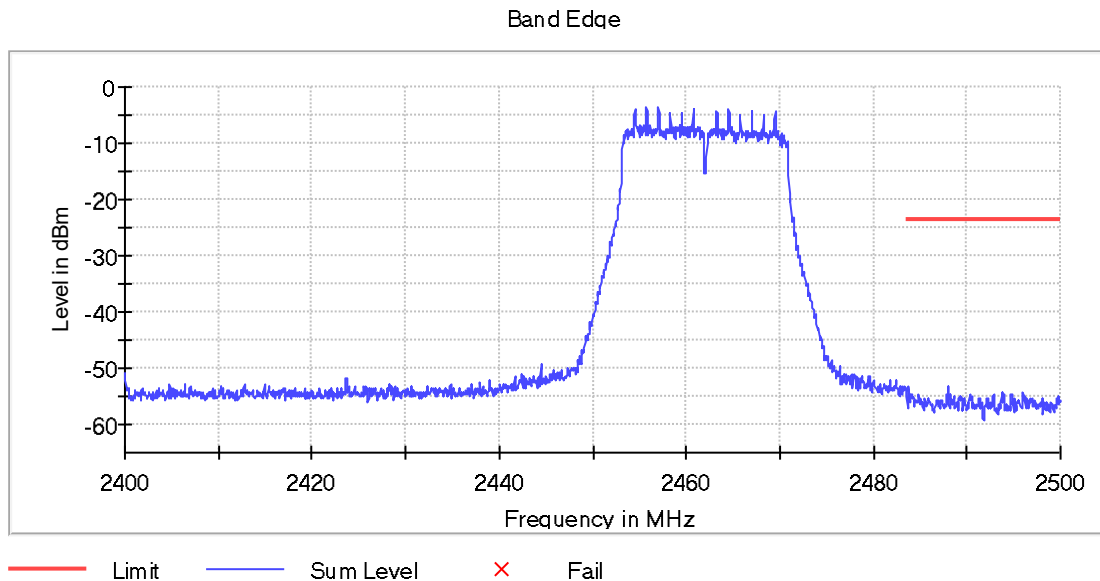
Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2399.975000	-37.1	16.9	-20.2	PASS
2399.925000	-38.8	18.5	-20.2	PASS
2399.775000	-39.0	18.8	-20.2	PASS
2399.875000	-39.2	19.0	-20.2	PASS
2399.825000	-39.7	19.5	-20.2	PASS
2399.725000	-40.1	19.9	-20.2	PASS
2399.625000	-40.3	20.1	-20.2	PASS
2399.475000	-40.8	20.6	-20.2	PASS
2399.675000	-40.9	20.6	-20.2	PASS
2399.525000	-41.1	20.9	-20.2	PASS
2399.325000	-41.1	20.9	-20.2	PASS
2399.425000	-41.4	21.1	-20.2	PASS
2399.575000	-41.4	21.2	-20.2	PASS
2399.375000	-42.0	21.8	-20.2	PASS
2399.275000	-42.1	21.9	-20.2	PASS

Remark:

RBW	100.000 kHz
VBW	300.000 kHz
Detector	MaxPeak

Results of mode 1 @2462 MHz IEEE 802.11 N20



Inband Peak

Frequency (MHz)	Level (dBm)
2462.0000	-3.5

Measurements

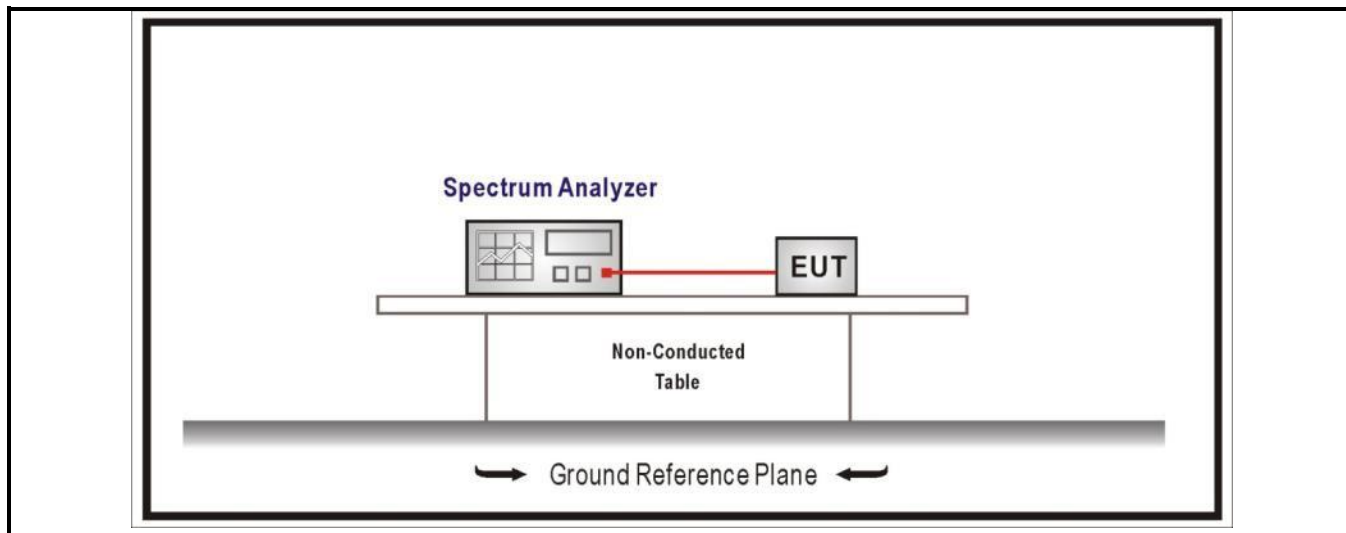
Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2483.775000	-53.1	29.6	-23.5	PASS
2487.975000	-53.1	29.6	-23.5	PASS
2483.825000	-53.1	29.7	-23.5	PASS
2488.025000	-53.3	29.8	-23.5	PASS
2496.025000	-54.4	30.9	-23.5	PASS
2493.775000	-54.5	31.0	-23.5	PASS
2494.775000	-54.5	31.1	-23.5	PASS
2492.875000	-54.6	31.1	-23.5	PASS
2484.075000	-54.6	31.1	-23.5	PASS
2493.725000	-54.7	31.2	-23.5	PASS
2493.925000	-54.7	31.2	-23.5	PASS
2493.875000	-54.7	31.2	-23.5	PASS
2488.225000	-54.7	31.2	-23.5	PASS
2487.875000	-54.7	31.2	-23.5	PASS
2483.525000	-54.7	31.2	-23.5	PASS

Remark:

RBW	100.000 kHz
VBW	300.000 kHz
Detector	MaxPeak

4.5	Duty cycle	VERDICT: PASS
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Test Configuration



Performed measurements

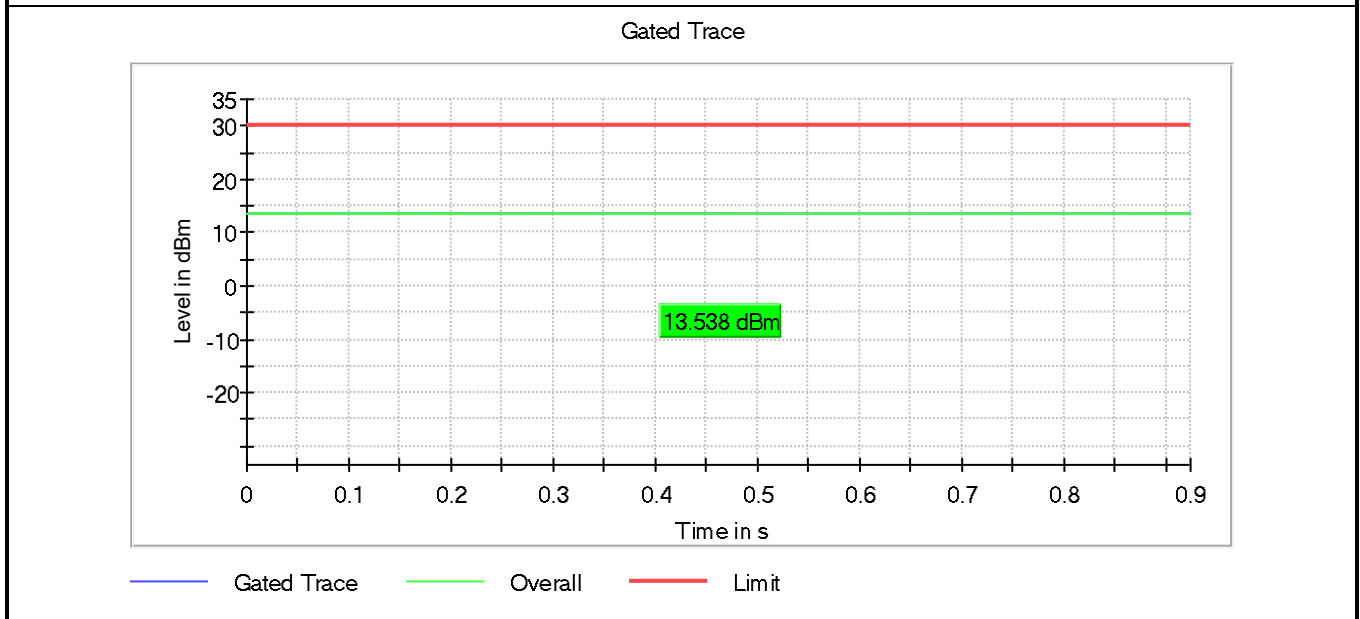
Port under test	Antenna port	
Test method applied	☒	Conducted measurement
	☐	Radiated measurement
Test setup	Refer to the Annex 3 for test setup photo(s).	
Operating mode(s) used	Mode 1	
Remark	---	

Results of IEEE 802.11 B

Test Mode	Tx On (ms)	Tx On + Tx Off (ms)	Duty Cycle
Mode 1	---	---	100%

Note 1: T means the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control Level for the tested mode of operation.

Note 2: 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.

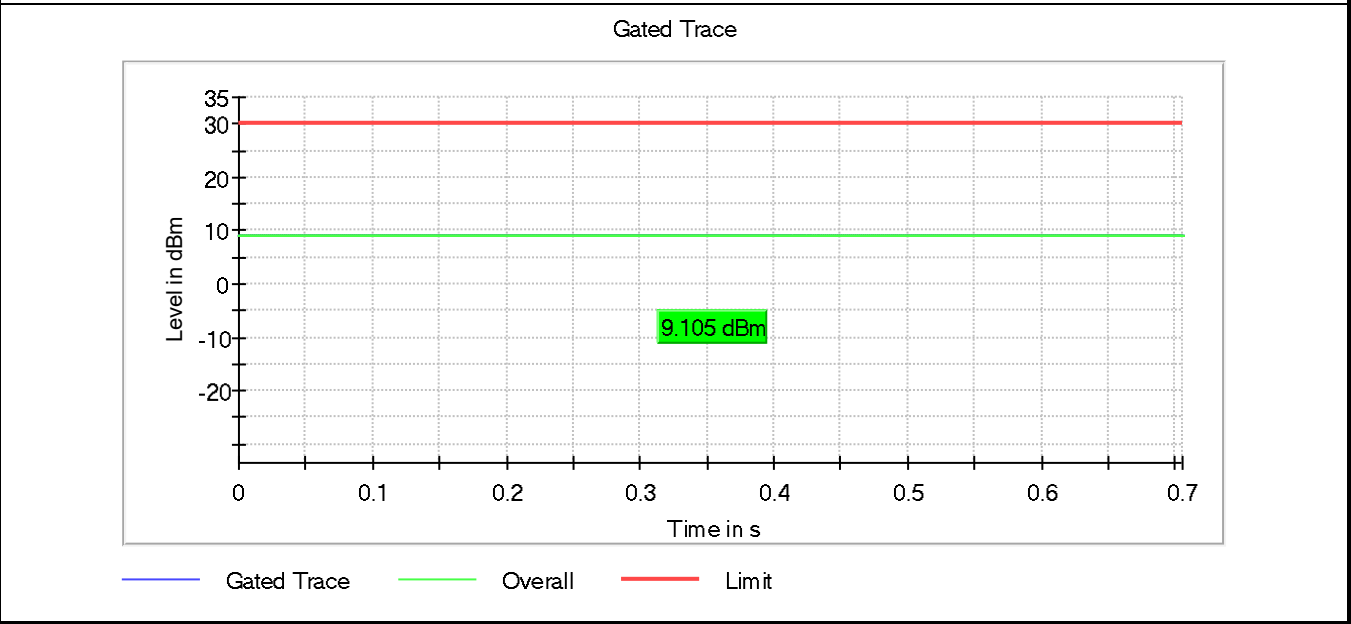


Results of IEEE 802.11 G

Test Mode	Tx On (ms)	Tx On + Tx Off (ms)	Duty Cycle
Mode 1	---	---	100%

Note 1: T means the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control Level for the tested mode of operation.

Note 2: According to KDB 558074, when test for Radiated Emission Band Edge and Radiated Emission, for average detector set: VBW ≥ 1/T will be used.



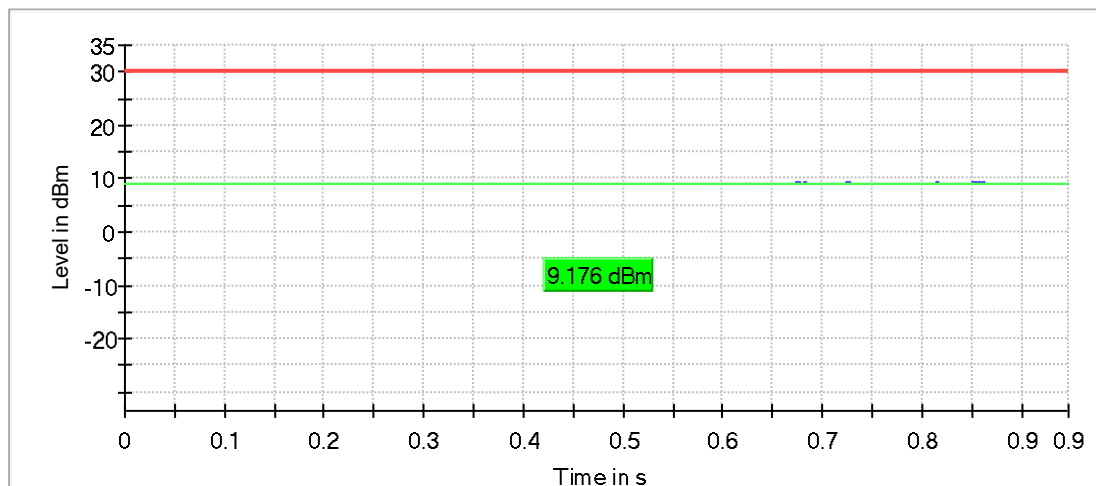
Results of IEEE 802.11 N20

Test Mode	Tx On (ms)	Tx On + Tx Off (ms)	Duty Cycle
Mode 1	---	---	100%

Note 1: T means the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control Level for the tested mode of operation.

Note 2: 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.

Gated Trace

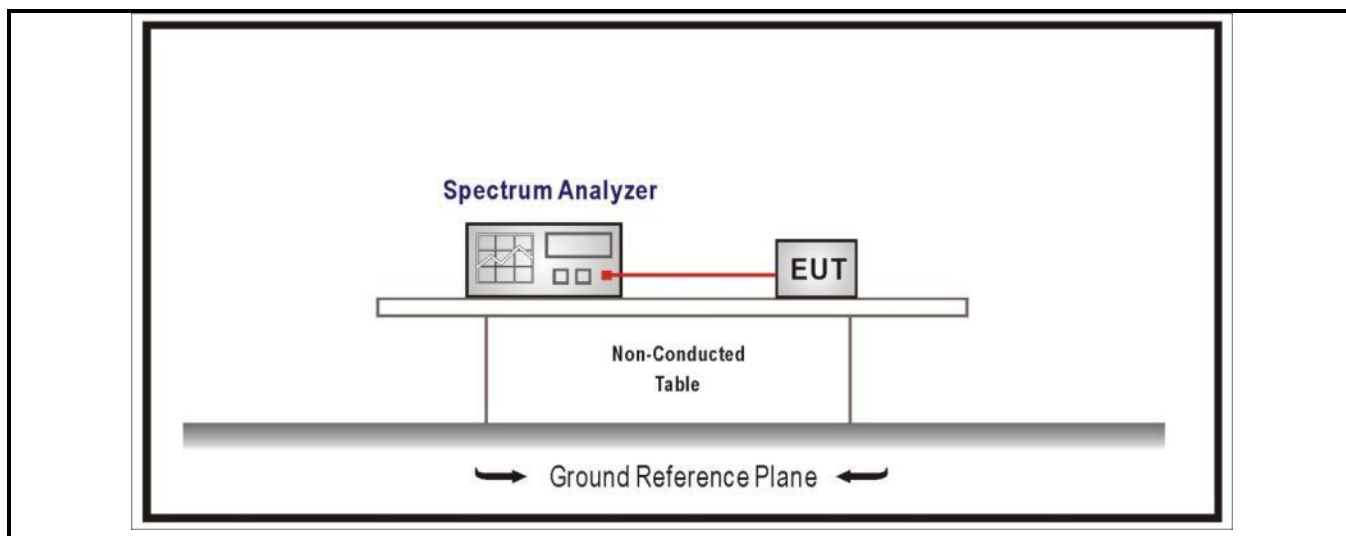


— Gated Trace — Overall — Limit

4.6 DTS Bandwidth	VERDICT: PASS
--------------------------	----------------------

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 by least 500 kHz	

Test Configuration



Performed measurements

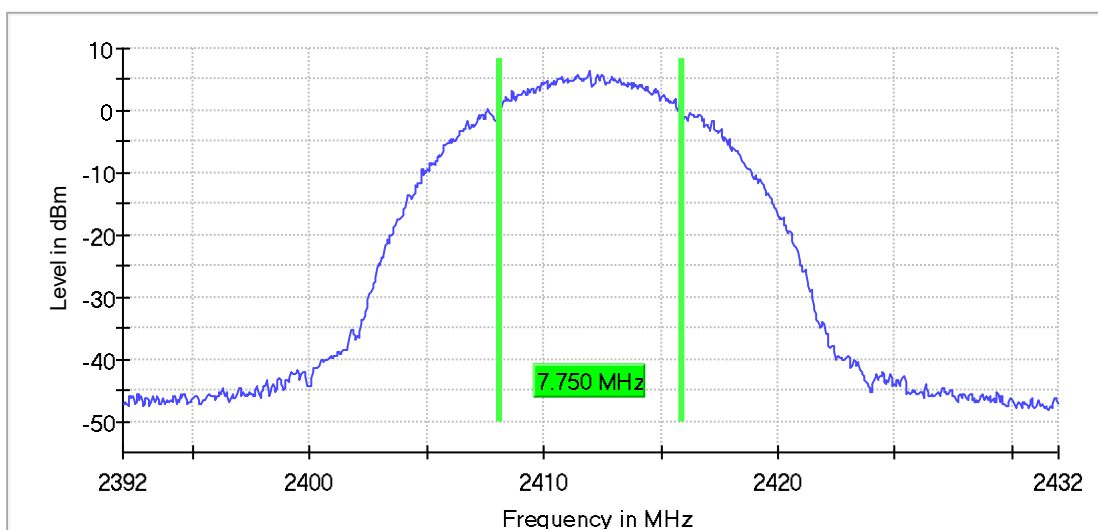
Port under test	Antenna port	
Test method applied	☒	Conducted measurement
	☐	Radiated measurement
Test setup	Refer to the Annex 3 for test setup photo(s).	
Operating mode(s) used	Mode 1	
Remark	---	

Results of IEEE 802.11 B

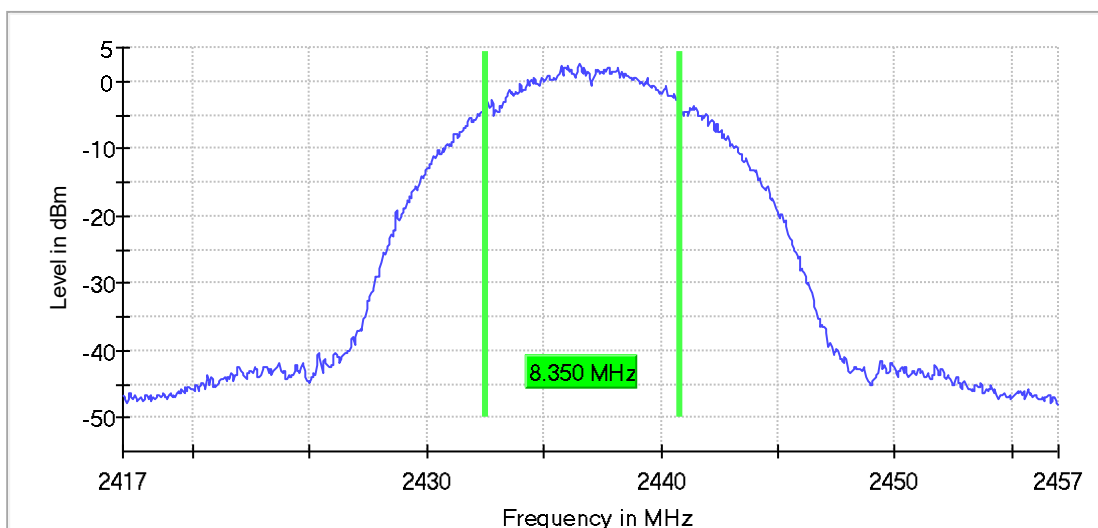
Mode	CH.	Test Freq. (MHz)	6dB Occupied Bandwidth(MHz)	RBW(kHz)/VBW(kHz)	Limit (kHz)	Result
1	0	2412	7.750	200/1000	>500	Pass
	5	2437	8.350		>500	Pass
	11	2462	8.900		>500	Pass

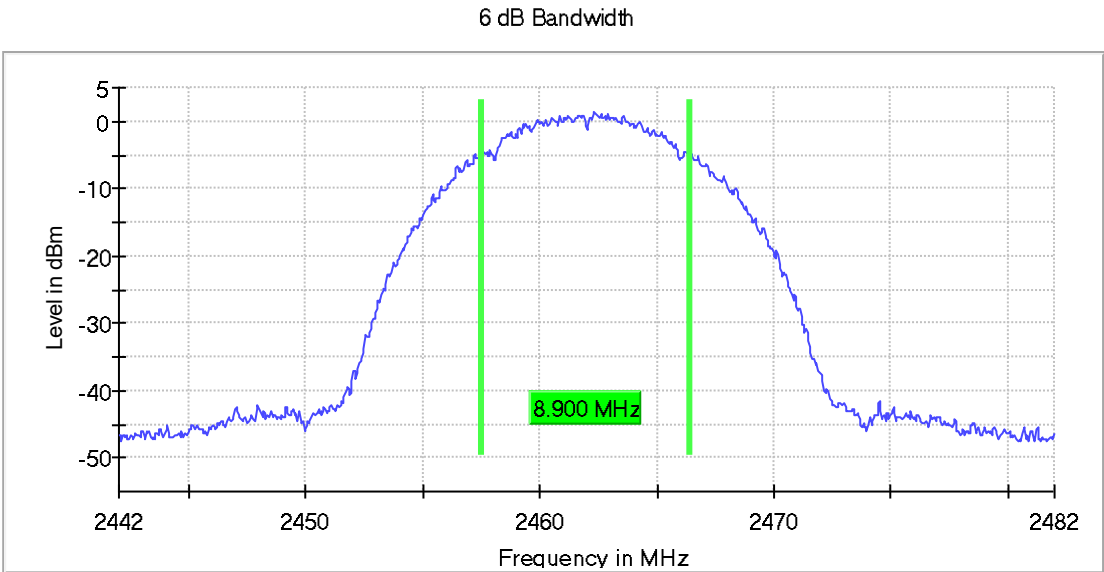
6dB Occupied Bandwidth

6 dB Bandwidth



6 dB Bandwidth

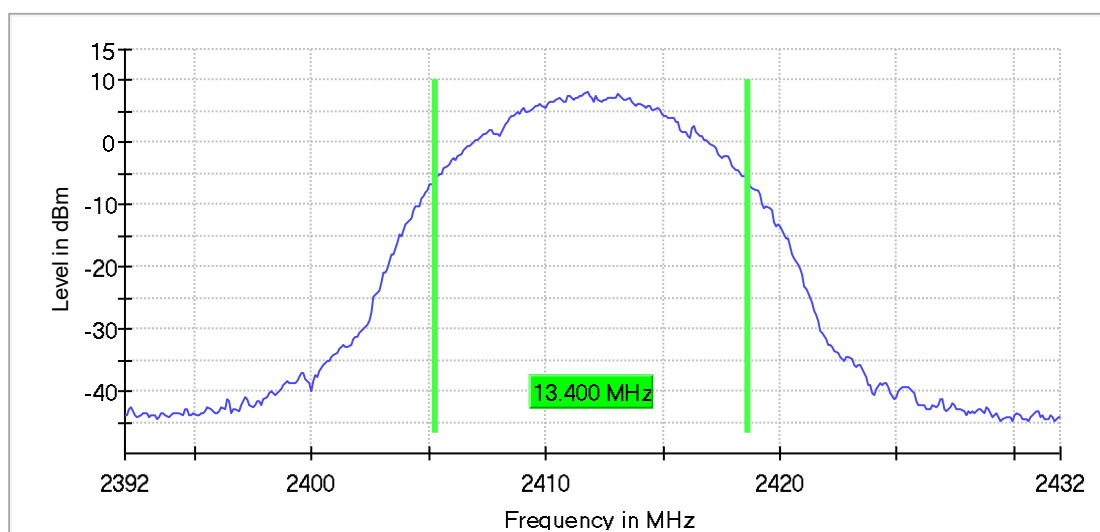




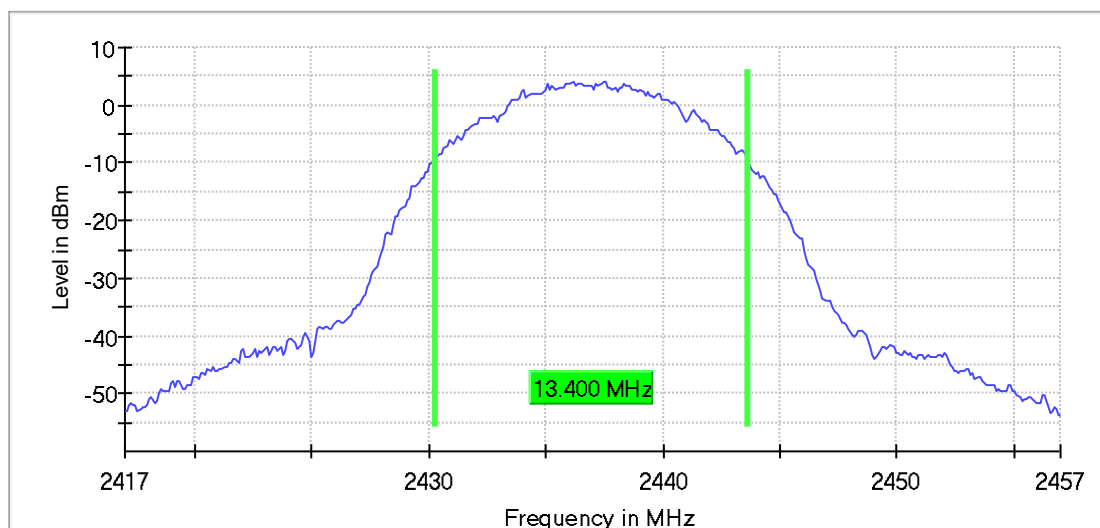
Mode	CH.	Test Freq. (MHz)	99% Occupied Bandwidth (MHz)	RBW(kHz)/VBW(kHz)	Limit	Result
1	0	2412	13.400	200/1000	Within frequency range	Pass
	5	2437	13.400		Within frequency range	Pass
	11	2462	13.300		Within frequency range	Pass

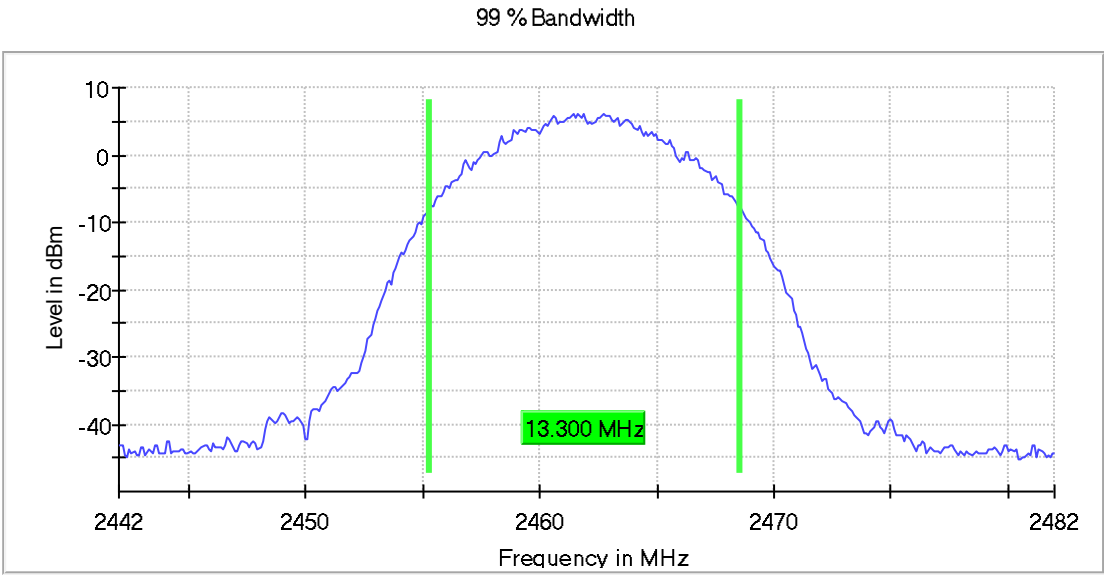
99% Occupied Bandwidth

99 % Bandwidth



99 % Bandwidth



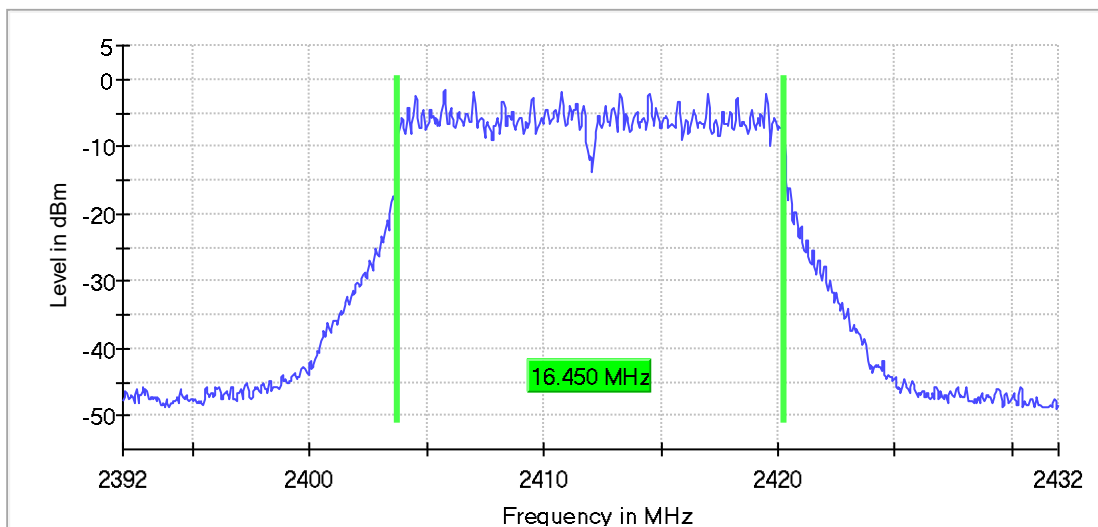


Results of IEEE 802.11 G

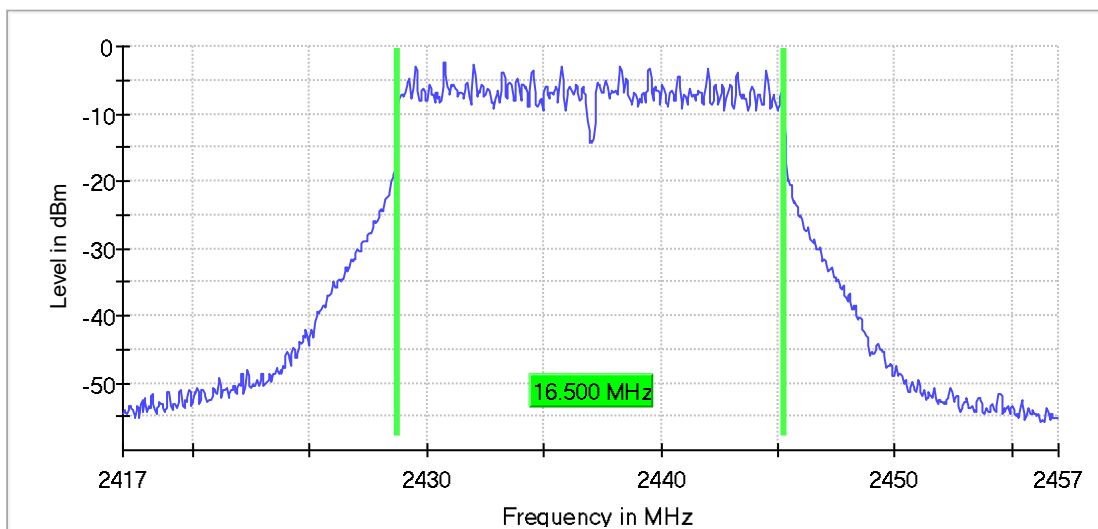
Mode	CH.	Test Freq. (MHz)	6dB Occupied Bandwidth(MHz)	RBW(kHz)/VBW(kHz)	Limit (kHz)	Result
1	0	2412	16.450	200/1000	>500	Pass
	5	2437	16.500		>500	Pass
	11	2462	16.500		>500	Pass

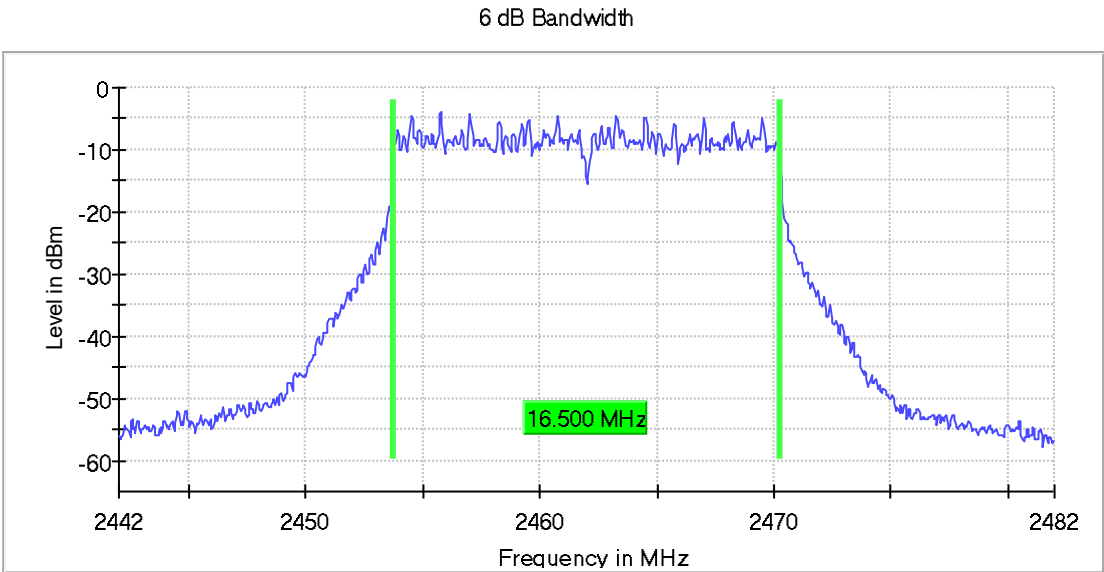
6dB Occupied Bandwidth

6 dB Bandwidth



6 dB Bandwidth

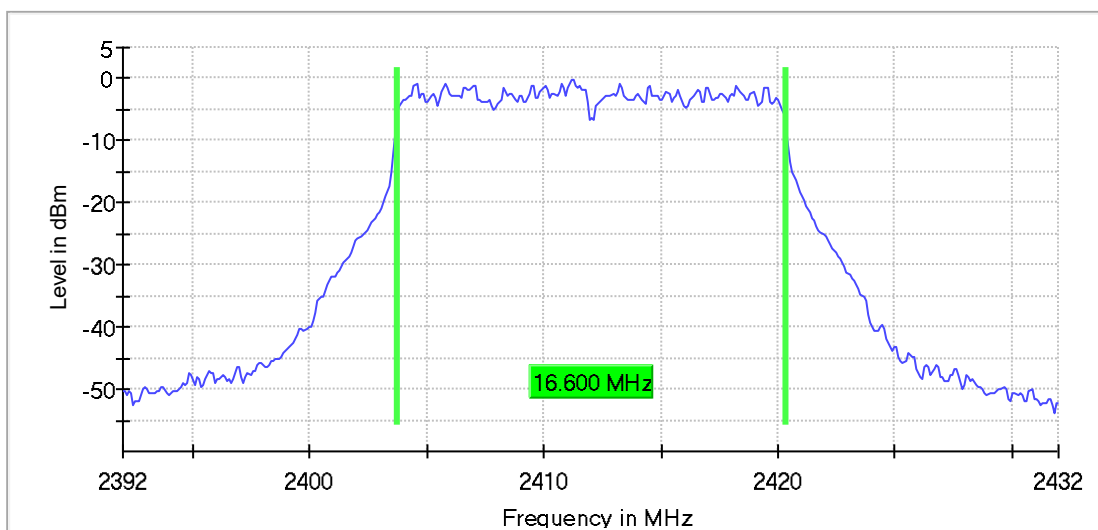




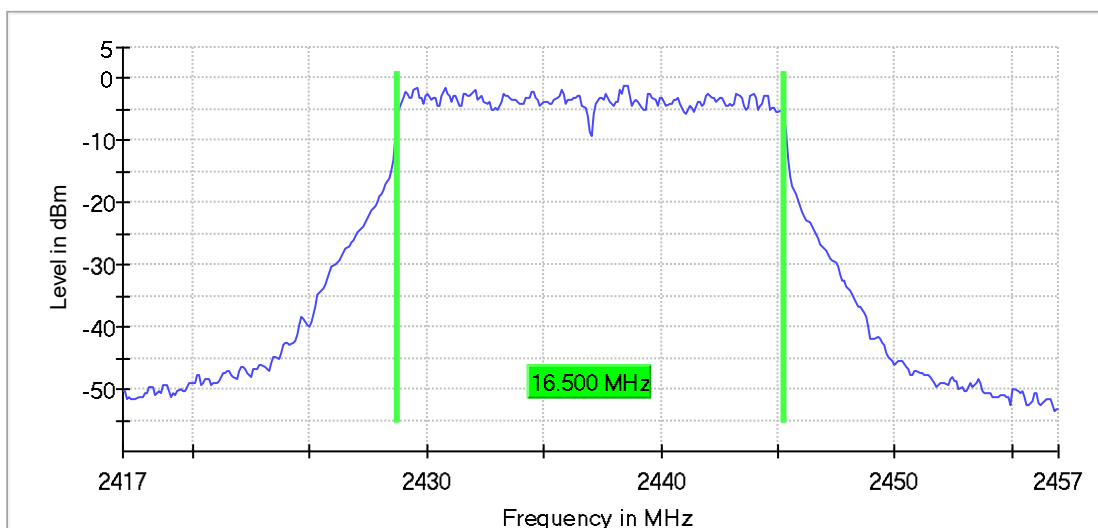
Mode	CH.	Test Freq. (MHz)	99% Occupied Bandwidth (MHz)	RBW(kHz)/VBW(kHz)	Limit	Result
1	0	2412	16.600	200/1000	Within frequency range	Pass
	5	2437	16.500		Within frequency range	Pass
	11	2462	16.600		Within frequency range	Pass

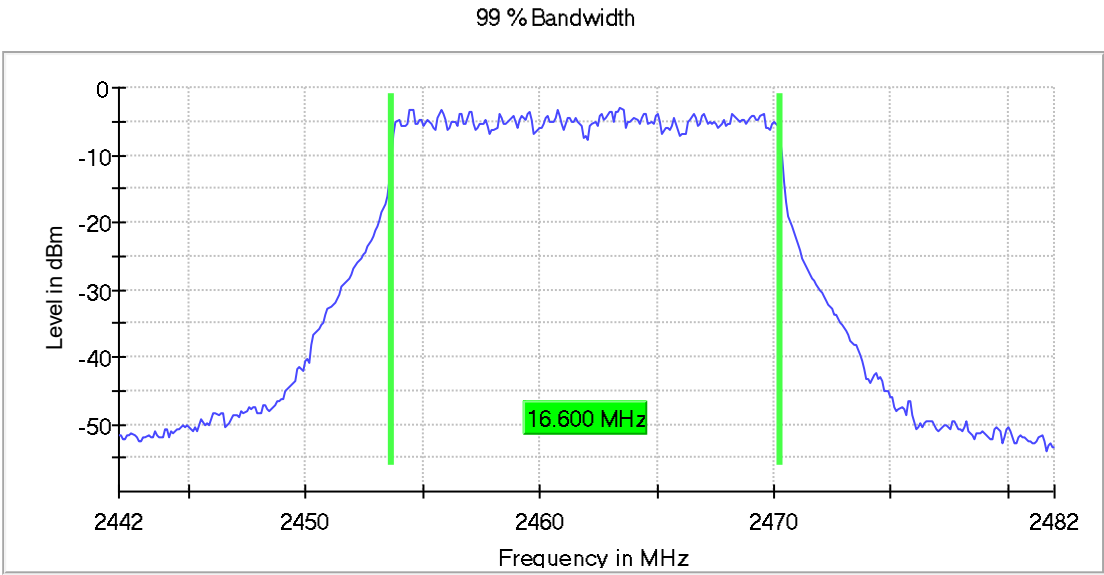
99% Occupied Bandwidth

99 % Bandwidth



99 % Bandwidth



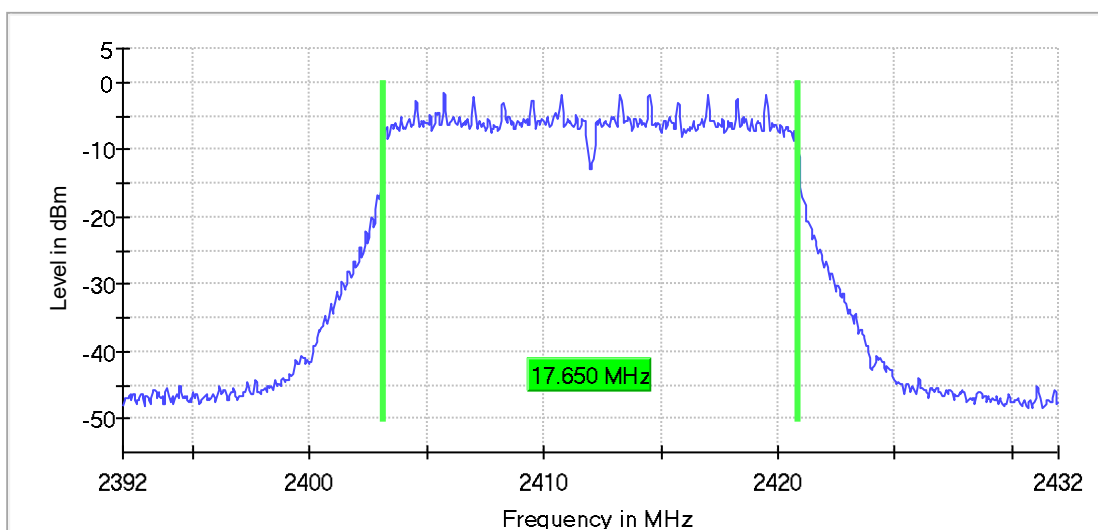


Results of IEEE 802.11 N20

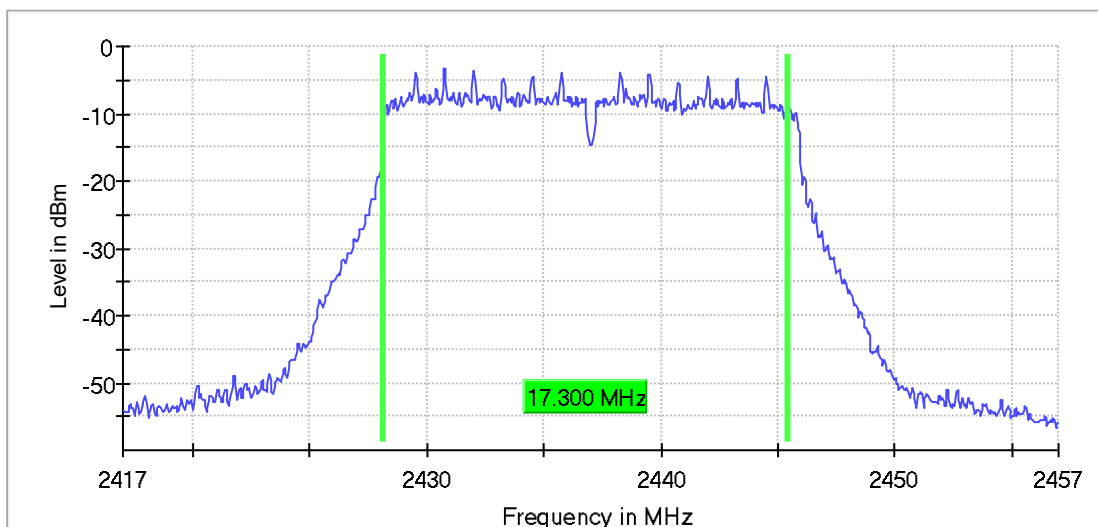
Mode	CH.	Test Freq. (MHz)	6dB Occupied Bandwidth(MHz)	RBW(kHz)/VBW(kHz)	Limit (kHz)	Result
1	0	2412	17.650	200/1000	>500	Pass
	5	2437	17.300		>500	Pass
	11	2462	17.650		>500	Pass

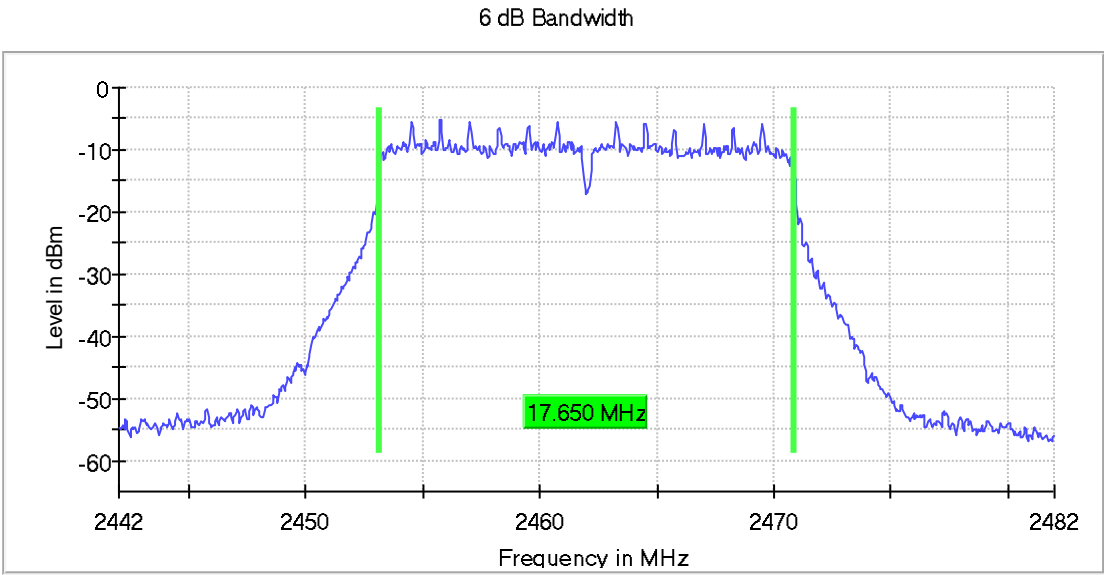
6dB Occupied Bandwidth

6 dB Bandwidth



6 dB Bandwidth

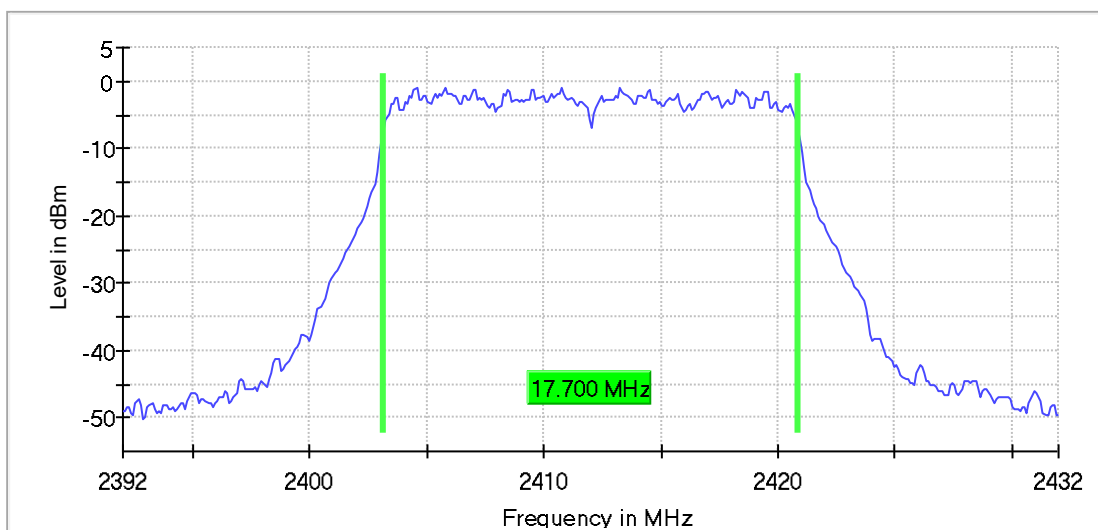




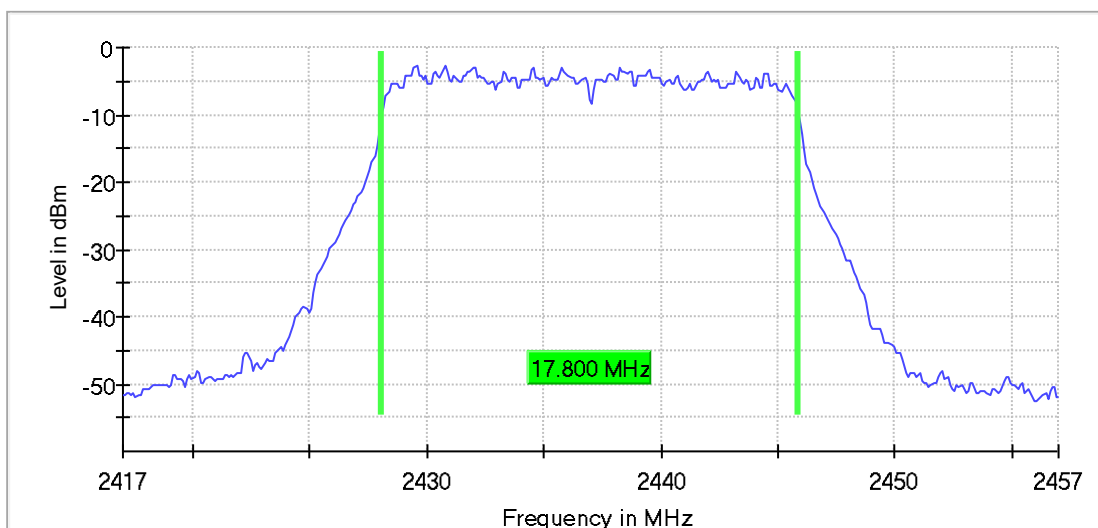
Mode	CH.	Test Freq. (MHz)	99% Occupied Bandwidth (MHz)	RBW(kHz)/VBW(kHz)	Limit	Result
1	0	2412	17.700	200/1000	Within frequency range	Pass
	5	2437	17.800		Within frequency range	Pass
	11	2462	17.700		Within frequency range	Pass

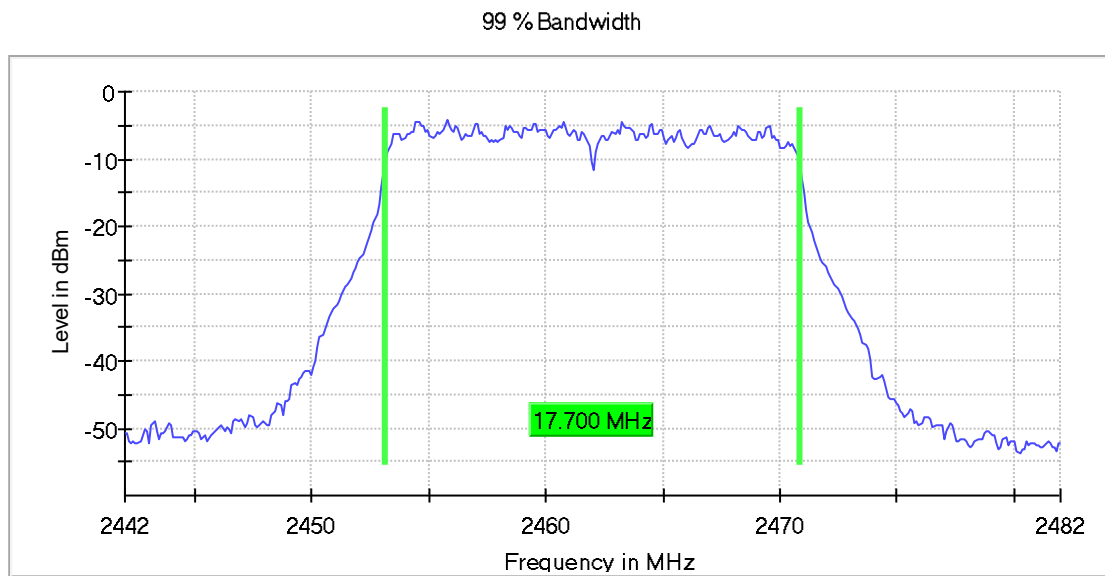
99% Occupied Bandwidth

99 % Bandwidth



99 % Bandwidth

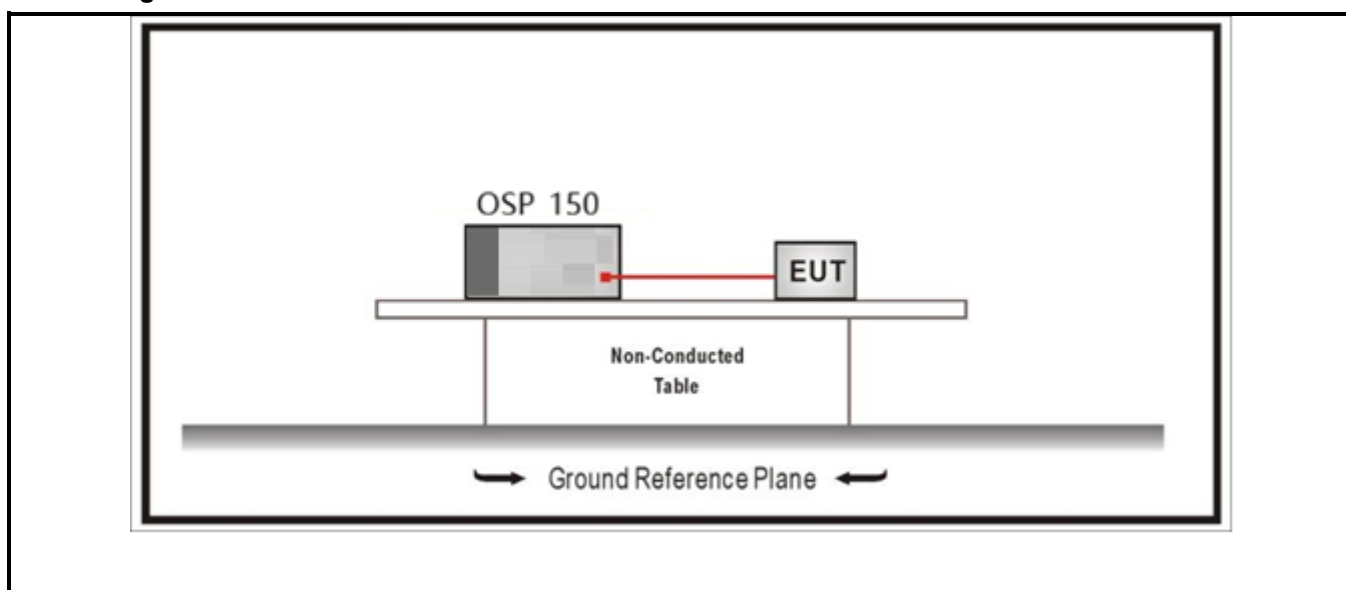




4.7	Fundamental emission output power	VERDICT: PASS
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Standard		FCC Part 15 Subpart C Paragraph 15.247 (b)(3)
☒	GTX <6dBi	Pout≤30dBm
☐	GTX >6dBi	
☐	Non-Fix point-point	Pout≤30-(GTX -6)
☐	Fix point-point	Pout≤30-[(GTX-6)]/3
☐	Point-to-multipoint	Pout≤30-(GTX-6)
☐	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+8dB
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	---	

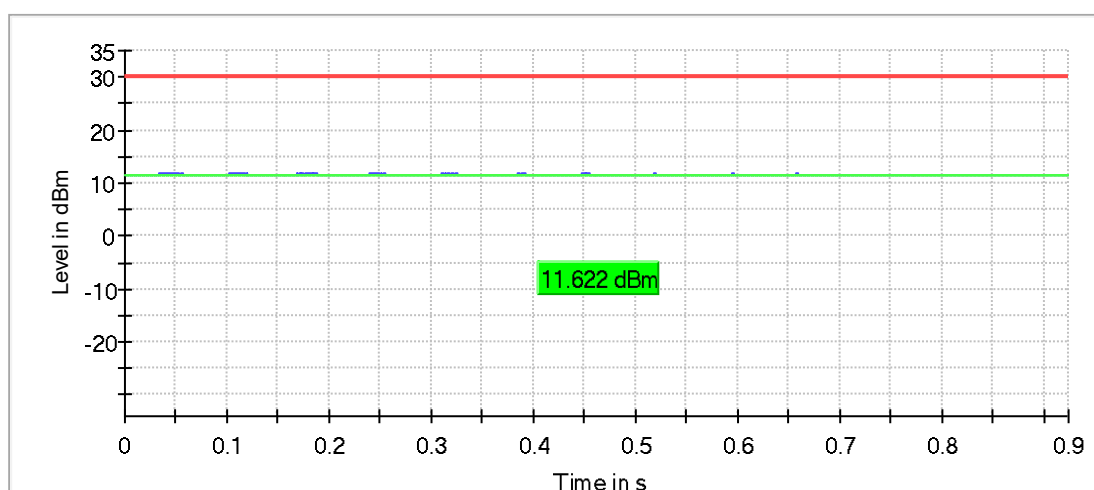
Results

Mode	Channel	Test Frequency (MHz)	Power Output (dBm)	Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)	Result
802.11 B	0	2412	11.6	≤30	11.45	≤36	Pass
	5	2437	11.4	≤30	11.25	≤36	Pass
	11	2462	11.2	≤30	11.05	≤36	Pass
802.11 G	0	2412	9.1	≤30	8.95	≤36	Pass
	5	2437	8.4	≤30	8.25	≤36	Pass
	11	2462	7.0	≤30	6.85	≤36	Pass
802.11 N20	0	2412	9.2	≤30	9.05	≤36	Pass
	5	2437	7.4	≤30	7.25	≤36	Pass
	11	2462	5.9	≤30	5.75	≤36	Pass

Remark: -0.15 dBi

Data of IEEE 802.11 B

Gated Trace

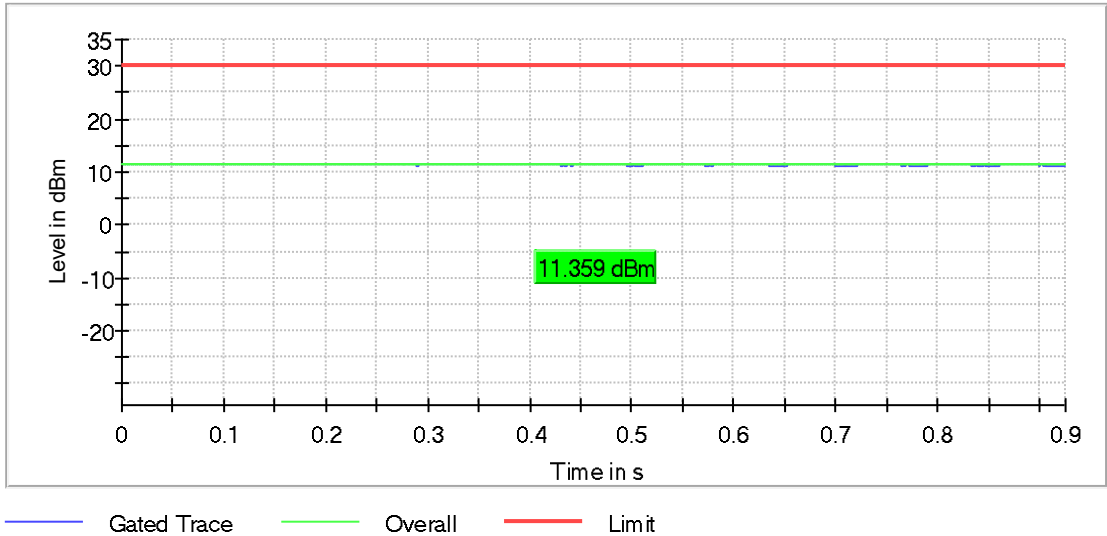


— Gated Trace — Overall — Limit

OSP PowerMeter settings

Setting	Instrument Value	Target Value
Measurement Time	1.000 s	1.000 s
Points	1000000	1000000
Time resolution	1.000μs	1.000μs

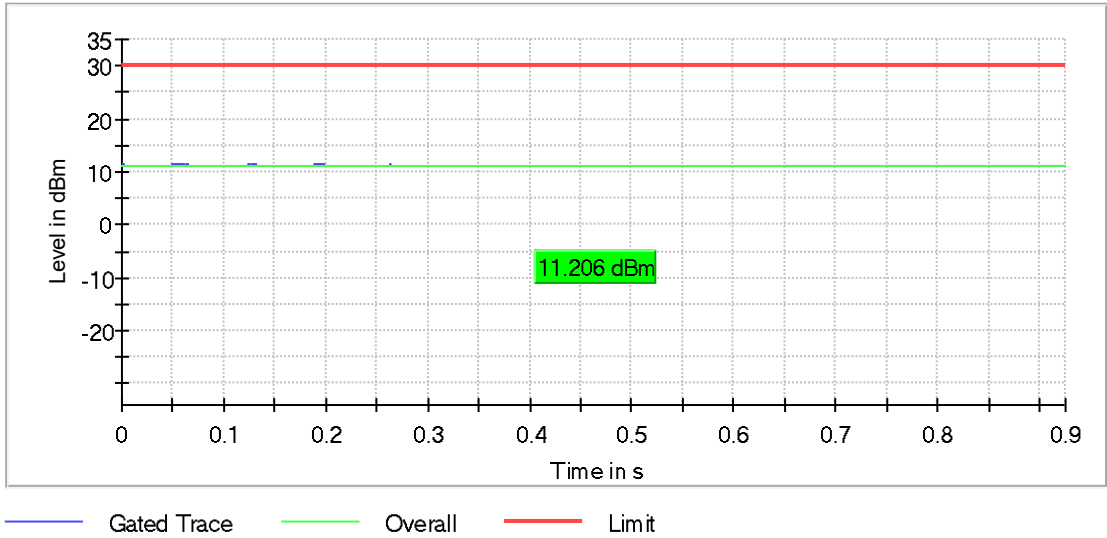
Gated Trace



OSP PowerMeter settings

Setting	Instrument Value	Target Value
Measurement Time	1.000 s	1.000 s
Points	1000000	1000000
Time resolution	1.000µs	1.000µs

Gated Trace

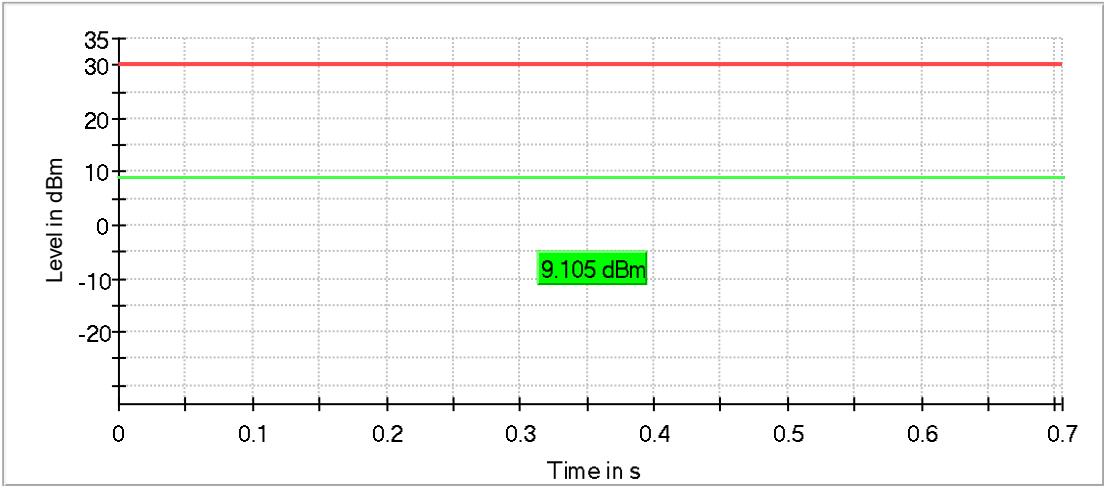


OSP PowerMeter settings

Setting	Instrument Value	Target Value
Measurement Time	1.000 s	1.000 s
Points	1000000	1000000
Time resolution	1.000µs	1.000µs

Data of IEEE 802.11 G

Gated Trace

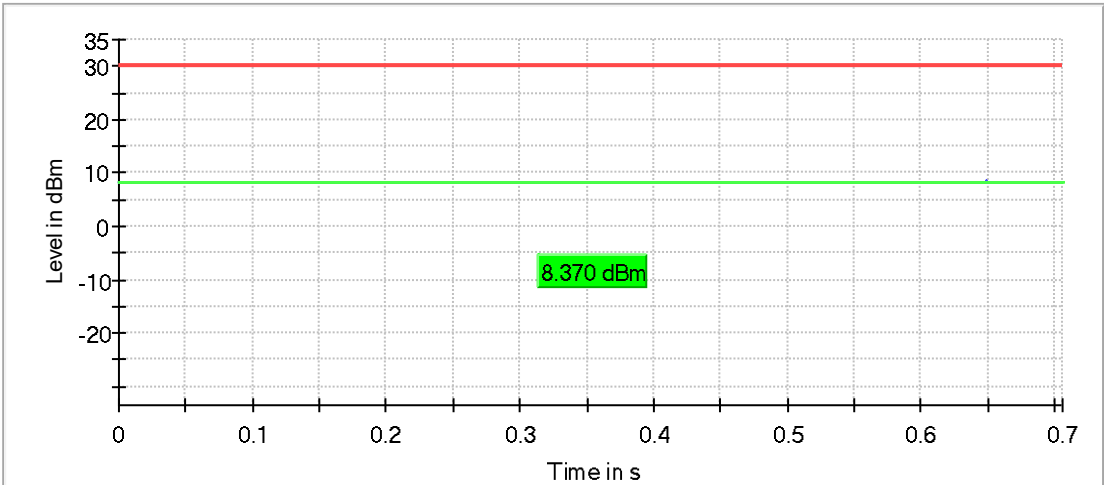


— Gated Trace — Overall — Limit

OSP PowerMeter settings

Setting	Instrument Value	Target Value
Measurement Time	1.000 s	1.000 s
Points	1000000	1000000
Time resolution	1.000µs	1.000µs

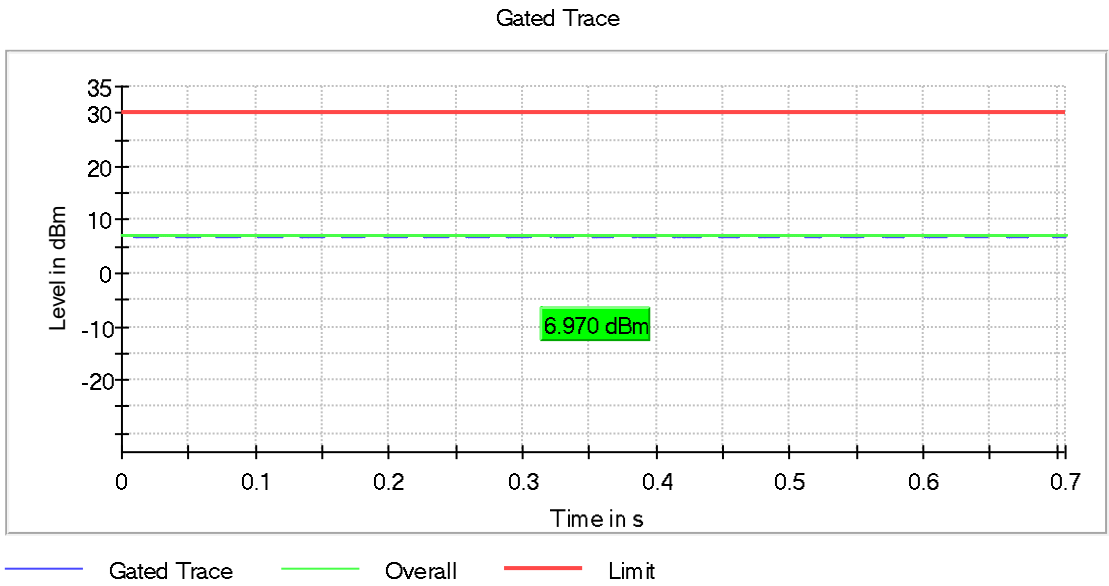
Gated Trace



— Gated Trace — Overall — Limit

OSP PowerMeter settings

Setting	Instrument Value	Target Value
Measurement Time	1.000 s	1.000 s
Points	1000000	1000000
Time resolution	1.000µs	1.000µs

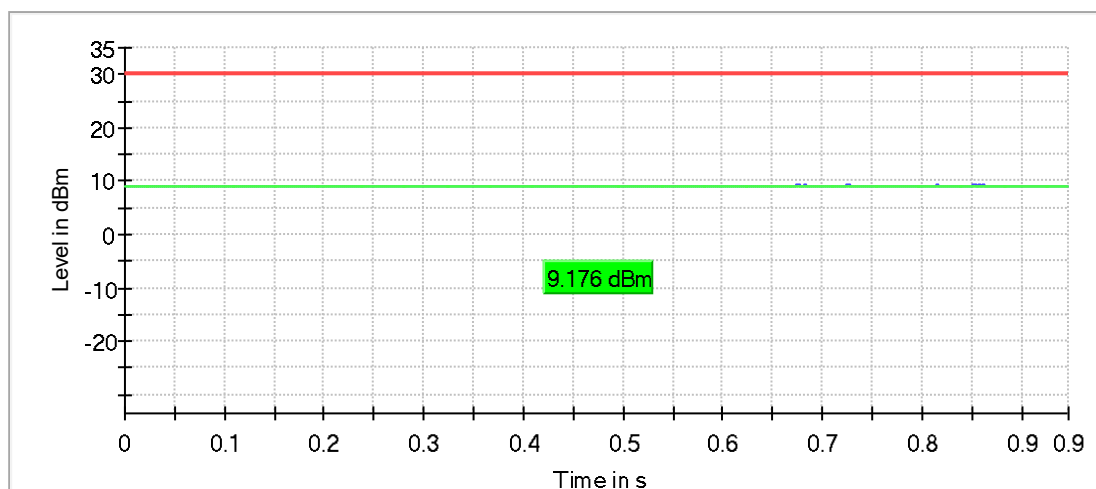


OSP PowerMeter settings

Setting	Instrument Value	Target Value
Measurement Time	1.000 s	1.000 s
Points	1000000	1000000
Time resolution	1.000µs	1.000µs

Data of IEEE 802.11 N20

Gated Trace

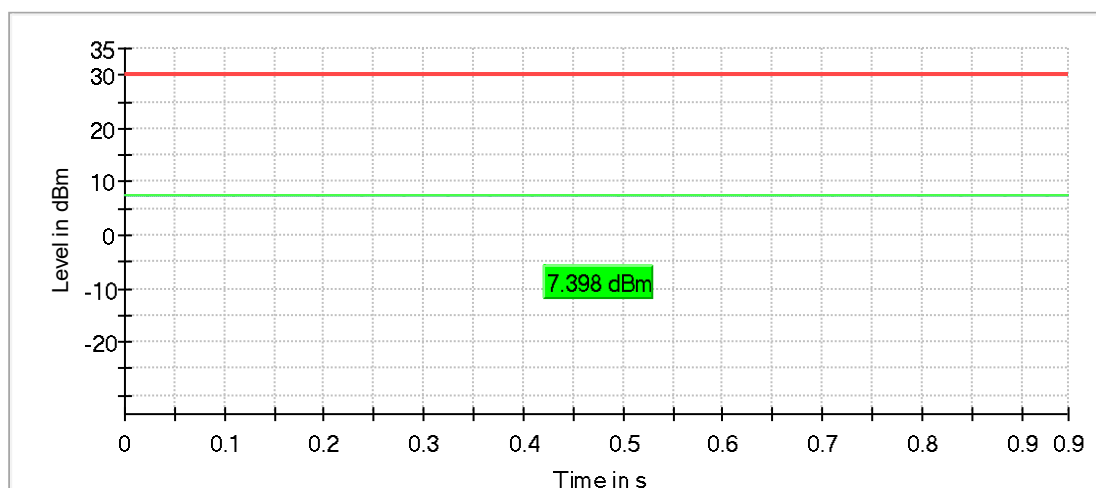


— Gated Trace — Overall — Limit

OSP PowerMeter settings

Setting	Instrument Value	Target Value
Measurement Time	1.000 s	1.000 s
Points	1000000	1000000
Time resolution	1.000µs	1.000µs

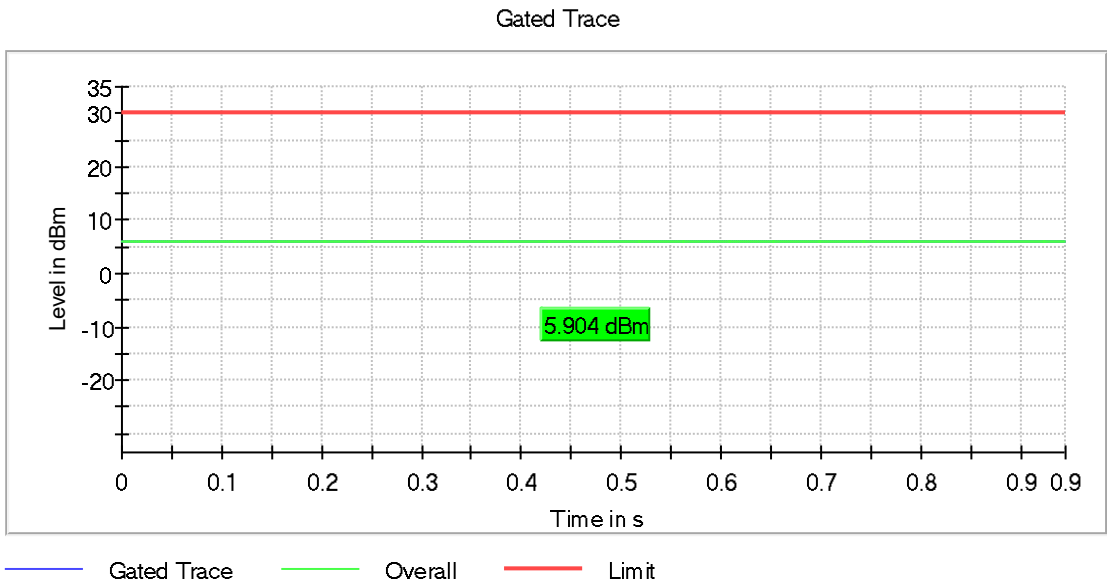
Gated Trace



— Gated Trace — Overall — Limit

OSP PowerMeter settings

Setting	Instrument Value	Target Value
Measurement Time	1.000 s	1.000 s
Points	1000000	1000000
Time resolution	1.000µs	1.000µs



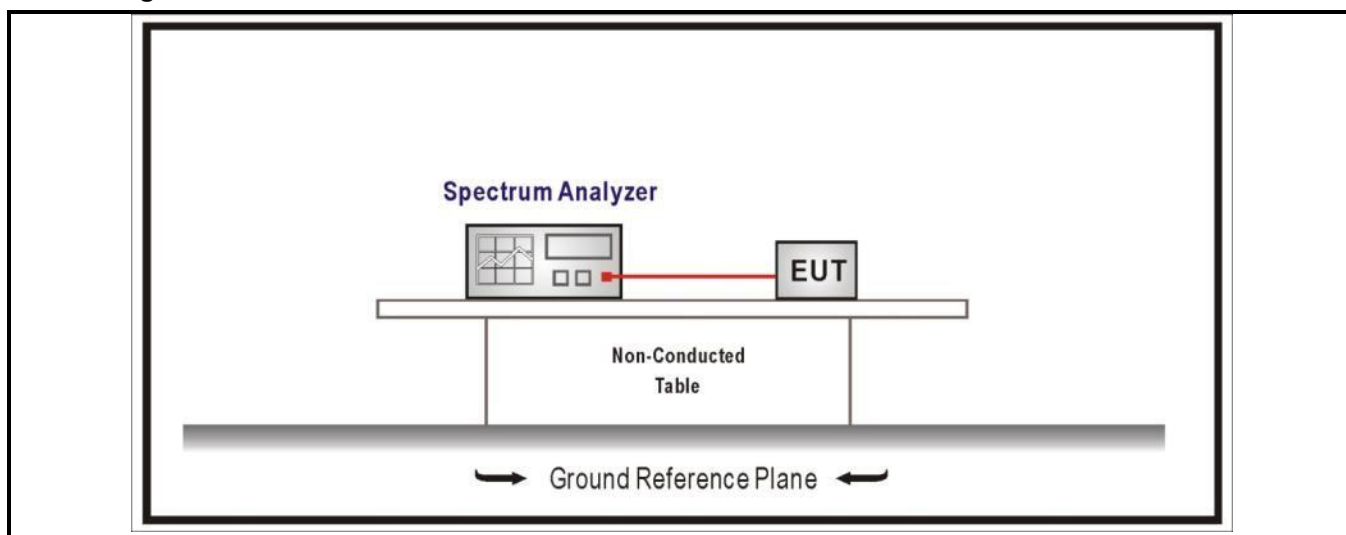
OSP PowerMeter settings

Setting	Instrument Value	Target Value
Measurement Time	1.000 s	1.000 s
Points	1000000	1000000
Time resolution	1.000µs	1.000µs

4.8 Power spectral density	VERDICT: PASS
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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

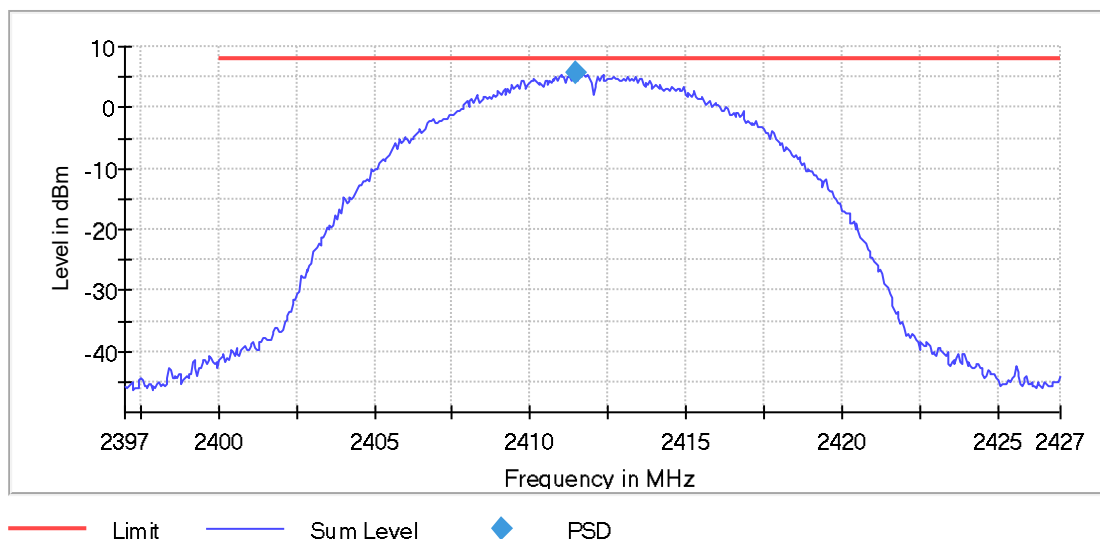
Port under test	Antenna port	
Test method applied	☒	Conducted measurement
	☐	Radiated measurement
Test setup	Refer to the Annex 3 for test setup photo(s).	
Operating mode(s) used	Mode 1	
Remark	---	

Results

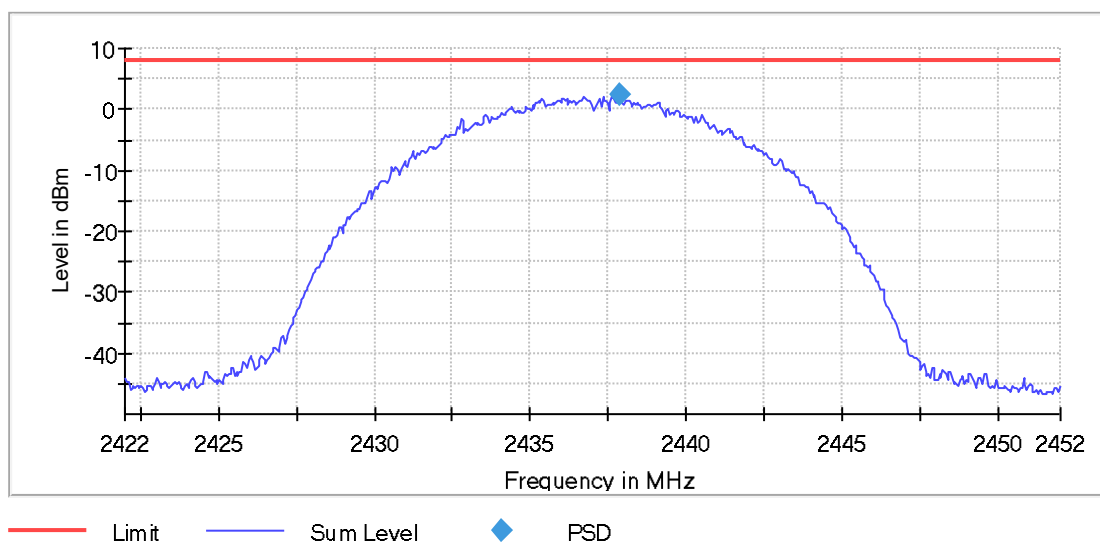
Mode	Channel	Test Frequency (MHz)	Power Output (dBm/3kHz)	Limit (dBm/3kHz)	Result
IEEE 802.11 B	0	2412	5.848	≤ 8	Pass
	5	2437	2.396	≤ 8	Pass
	11	2462	4.072	≤ 8	Pass
IEEE 802.11 G	0	2412	-1.646	≤ 8	Pass
	5	2437	-2.359	≤ 8	Pass
	11	2462	-4.028	≤ 8	Pass
IEEE 802.11 N20	0	2412	-1.690	≤ 8	Pass
	5	2437	-3.461	≤ 8	Pass
	11	2462	-5.071	≤ 8	Pass

Remark: RBW(kHz)/VBW(kHz):100/300

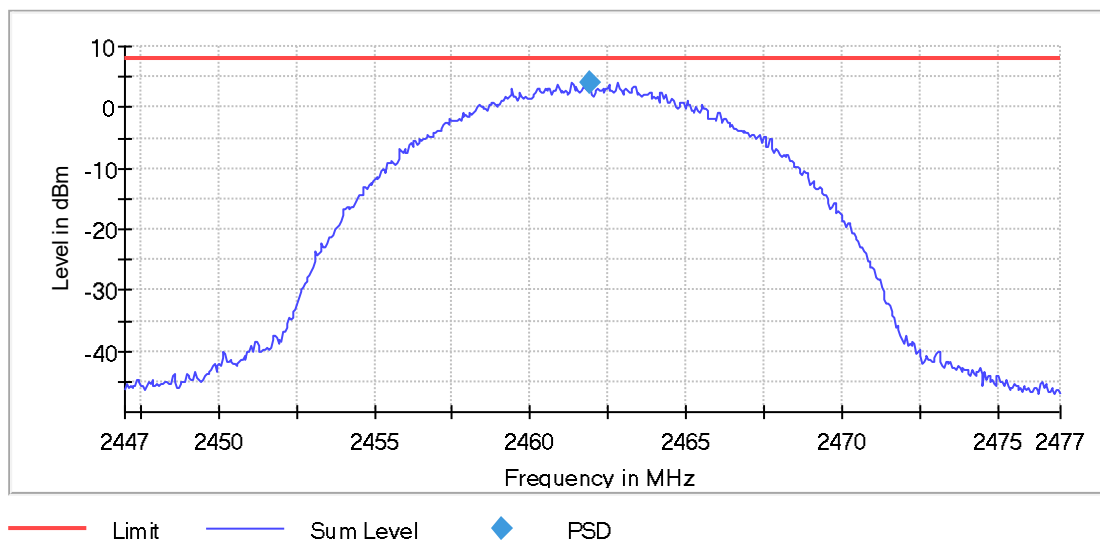
Data of IEEE 802.11 B
 Peak Power Spectral Density



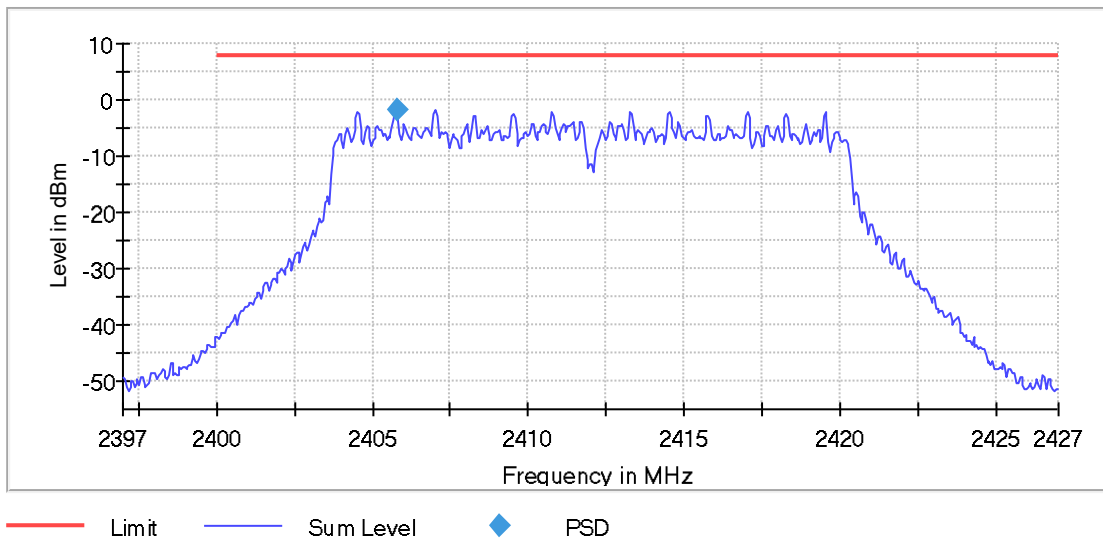
Peak Power Spectral Density



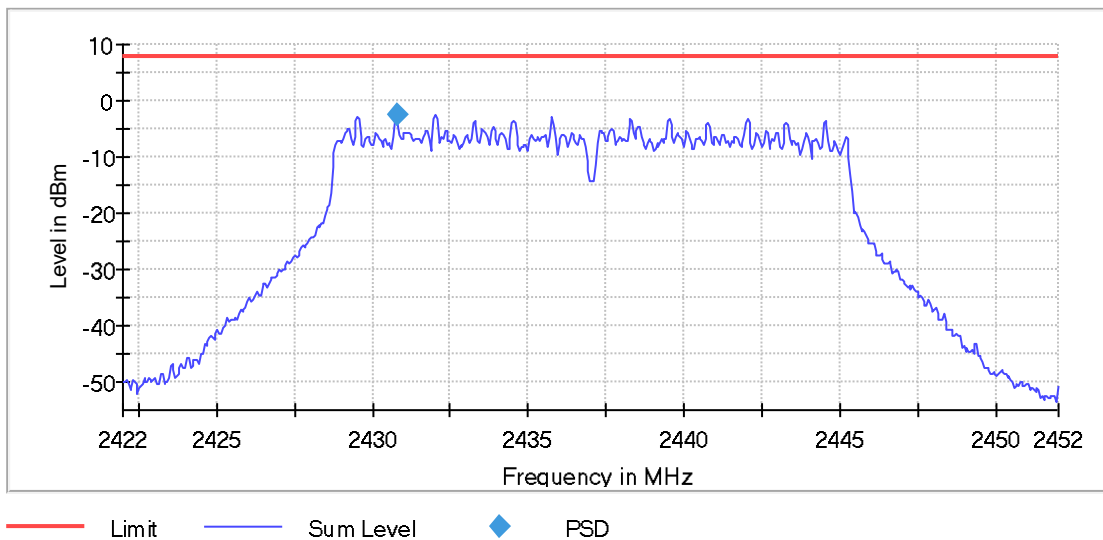
Peak Power Spectral Density



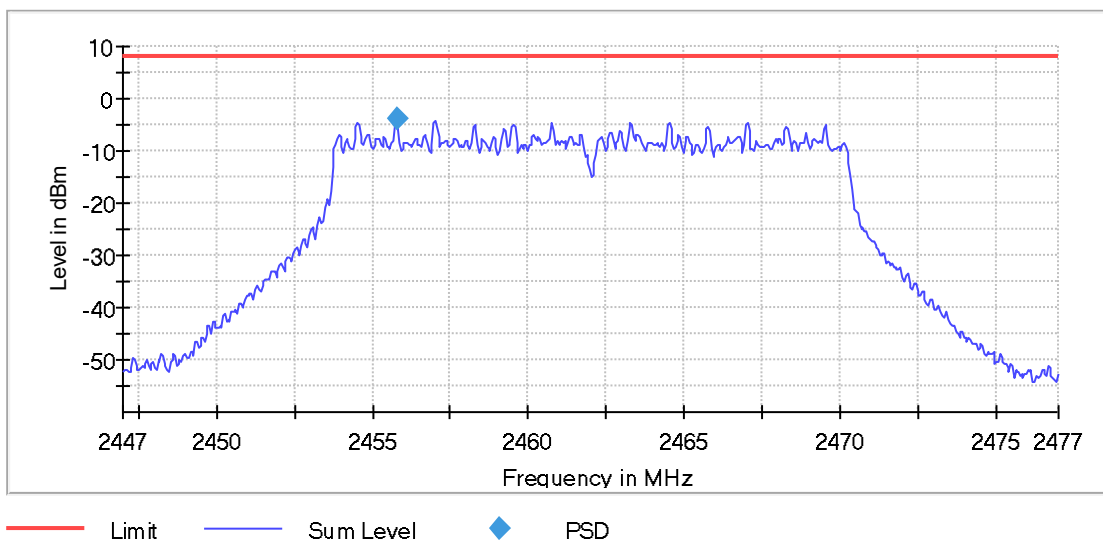
Data of IEEE 802.11 G
 Peak Power Spectral Density



Peak Power Spectral Density

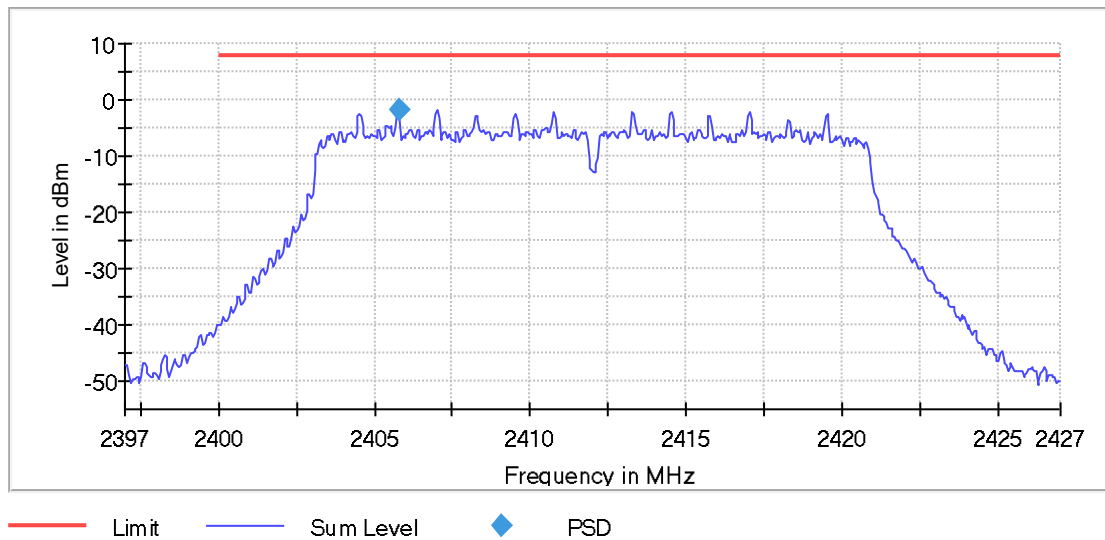


Peak Power Spectral Density

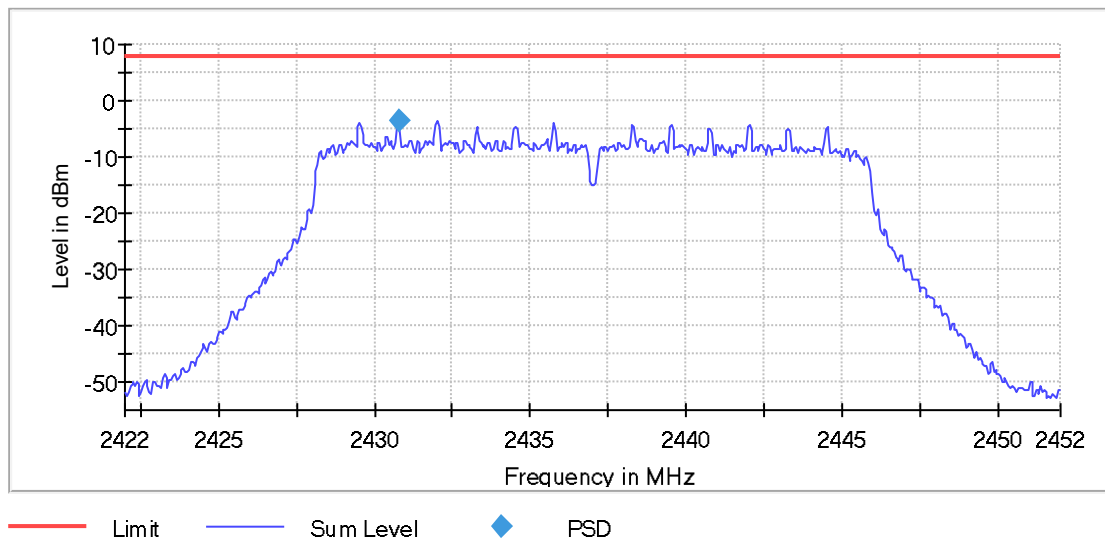


Data of IEEE 802.11 N20

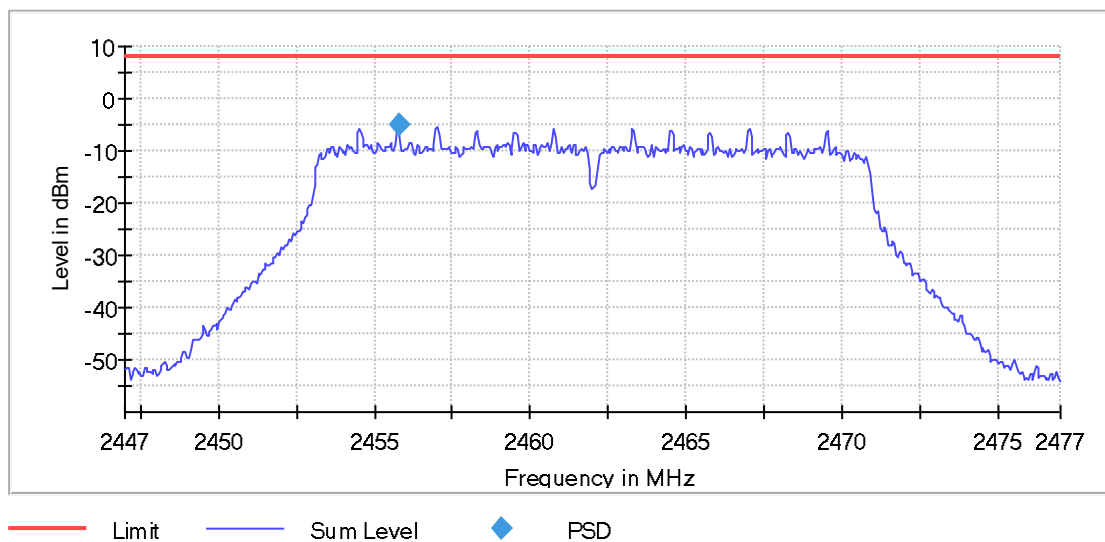
Peak Power Spectral Density



Peak Power Spectral Density



Peak Power Spectral Density



5 IDENTIFICATION OF THE EQUIPMENT UNDER TEST

The photographs show the tested device.

Refer to documents External photo and Internal photo.

ANNEX 1 – MEASUREMENT UNCERTAINTY

Test Item	Uncertainty
Occupied Channel Bandwidth	$\pm 0,7\%$
RF Output power, conducted	$\pm 0,6\text{dB}$
Power Spectral Density, Conducted	$\pm 0,6\text{dB}$
Unwanted Emissions, Conducted	$\pm 0.7\text{dB}$
Spurious (30-1000MHz)	$\pm 4,4\text{dB}$
Spurious (1-18GHz)	$\pm 4,4\text{dB}$

ANNEX 2 - USED EQUIPMENT

For Conducted emission :

Instrumentation	Manufacturer	Model No.	Serial No.	DEKRA No.	Cal. Last date	Cal. Due date
Shielding Room	Changzhou Feite	/	/	G/L861	2024/03/25	2027/03/24
EMI Receiver	R&S	ESCI	101206	G/L857	2026/05/19	2027/05/18
LISN	R&S	ENV216	101337	G/L859	2026/05/13	2027/05/12
High Voltage Probe	SCHWARZBECK	TK9421	9421-170	G/L865	2026/05/13	2027/05/12
Current probe	R&S	CSP9160A	77504	GZ1904	2026/03/09	2027/03/08
Impedance Stabilization Network	TESEQ	INS T800	46672	GZ1760	2025/07/15	2026/07/14

For RF

Instrumentation	Manufacturer	Model	Serial no.	DEKRA No.	Cal. Last date	Cal Due date
Spectrum analyzer	R&S	FSV	SN101012	G/L1235	2025/11/18	2026/11/17
Chamber	ETS	/	/	G/L856	2025/03/12	2027/03/11
Horn antenna (1GHz-18GHz)	R&S	HF907	102306	G/L1236	2026/06/11	2027/06/10
Horn antenna preamplifier	Schwarzbeek	SCU-18	102234	G/L1236-1	2026/01/06	2027/01/05
Horn antenna (18GHz-26.5GHz)	ETS	3160-09	00164643	G/L1237	2026/01/16	2027/01/15
Horn antenna preamplifier	/	SCU-26D	1879064	G/L1237-1	2026/01/12	2027/01/11
EMI receiver	R&S	ESCI	101205	G/L857	2026/05/19	2027/05/18
Antenna (30MHz-2GHz)	SCHWARZBECK	VULB9168	01229	GZ2018	2026/03/11	2027/03/10
OSP	R&S	OSP 150	101907	GZ1893	2026/01/07	2027/01/06
Signal generator	R&S	SMB 100A	181317	GZ1895	2026/01/07	2027/01/06
Vector signal generator	R&S	SMBV100A	263671	GZ1896	2026/01/07	2027/01/06
Wireless connectivity tester	R&S	CMW 270	100990	GZ1894	2026/01/07	2027/01/06
Manual step attenuator (11dB)	Keysight	8494B	TH60074118	GZ2086	2025/09/03	2026/09/02
Manual step attenuator (70dB)	Keysight	8495D	TH60074471	GZ2087	2025/09/03	2026/09/02
Band filter	HX Microwave	HXLBQ-DZA219	23080804-1	GZ2464	2025/07/15	2026/07/14
Test software	R&S	EMC32	Version 11.30.00	---	-	-

For Radiated electromagnetic disturbances (9 kHz to 30 MHz)

Instrumentation	Manufacturer	Model No.	Serial No.	DEKRA No.	Cal. Last date	Cal. Due date
Shielding Room	Changzhou Feite	/	/	G/L861	2024/03/25	2027/03/24
EMI Receiver	R&S	ESCI	101206	G/L857	2026/05/19	2027/05/18
Dimensional Loop ANTENNA	SCHWARZBECK	HXY9170	9170-206	G/L866	2026/05/13	2027/05/12

ANNEX 3 - TEST PHOTOS

Refer to document Test setup.

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