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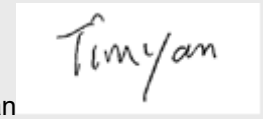
Test report No: 4958171.56

TEST REPORT
Radio Spectrum Matters (RF)

Identification of item tested	LED Strip T2
Trademark	Aqara
Model and /or type reference	LS-L05E, LS-L06E, LS-L07E, LS-L05D, LS-L06D, LS-L07D
FCC ID	2AKIT-LSL07
IC	22635-LSL07
Features	LED drivers: XY24SR-240100VQ-UW 100-240 V, 50/60 Hz, 0.6A Max, Class 2 output Output: 24 Vdc, 1,0 A, 24 W
Applicant´s name / address	Lumi United Technology Co., Ltd. B1, Chongwen Park, Nanshan iPark, Liuxian Avenue, Taoyuan Residential District, Nanshan District, Shenzhen, China.
Test method requested, standard	FCC CFR Title 47 Part15 Subpart C Section 15.247; KDB558074 D01v05r02; RSS-Gen Issue 5; RSS-247 Issue 4
Verdict Summary	COMPLIANCE
Tested by (name & signature)	Jazz Liang
Approved by (name & signature)	Tim Yan 
Date of issue	2026-07-22
Report template No	TRF_EMC 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
*T*x	:	Transmitter
*R*x	:	Receiver
N/A	:	Not Applicable
N/M	:	Not Measured

DOCUMENT HISTORY

Report nr.	Date	Description
4958171.56	2026-07-03	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 .....:	LED Strip T2
Trademark.....:	Aqara
Model / Type number .....:	LS-L05E, LS-L06E, LS-L07E, LS-L05D, LS-L06D, LS-L07D
FCC ID .....:	2AKIT-LSL07
IC .....:	22635-LSL07
Hardware .....:	N/A
Software.....:	N/A
Firmware .....:	N/A
Ratings.....:	LED drivers: XY24SR-240100VQ-UW 100-240 V, 50/60 Hz, 0.6A Max, Class 2 output Output: 24 Vdc, 1,0 A, 24 W
Manufacturer.....:	Same as Applicant
Factory1 .....:	Dongguan ZOYO Electronics Technology Co., LTD. Building 1, No. 6, Songshan Lake Section, Kehai Road, Songshan Lake Hi-Tech Industrial Development Zone, Dongguan City, Guangdong Province, China.
Factory2.....:	SILVER AGE VIETNAM TECHNOLOGY COMPANY LIMITED. Lot A4, GiaLe Industrial Zone, Nam Dong Hung Commune, Hung Yen province, Vietnam.

Rated power supply :	Voltage and Frequency		Reference poles				
			L1	L2	L3	N	PE
	☒	AC: 100 – 240 V, 50/60 Hz	☒	☐	☐	☒	☐
	☐	AC:	☐	☐	☐	☐	☐
	☐	DC:					
	☐	Battery for remote:					
Mounting position :	☐	Table top equipment					
	☒	Wall/Ceiling mounted equipment					
	☐	Floor standing equipment					
	☐	Hand-held equipment					
	☐	Other:					

According to customer description, the characteristics of wireless module:

Operating frequency range(s) :	BLE: 2402 MHz – 2480 MHz Thread/Zigbee: 2405 MHz – 2480 MHz
Type of Modulation :	BLE: GFSK Thread/Zigbee: O-QPSK
Antenna type :	FPC-Antenna
Operating Temperature Range:	-20– 40 ℃
Antenna gain :	-1.34 dBi
Adaptive/ non-adaptive equipment	Adaptive

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	-1.34				
		☐	Ant2	-				

The radio module operating channels are---
BLE:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	14	2430	28	2458
1	2404	15	2432	29	2460
2	2406	16	2434	30	2462
3	2408	17	2436	31	2464
4	2410	18	2438	32	2466
5	2412	19	2440	33	2468
6	2414	20	2442	34	2470
7	2416	21	2444	35	2472
8	2418	22	2446	36	2474
9	2420	23	2448	37	2476
10	2422	24	2450	38	2478
11	2424	25	2452	39	2480
12	2426	26	2454	-	-
13	2428	27	2456	-	-

Zigbee/Thread:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2405	8	2445
1	2410	9	2450
2	2415	10	2455
3	2420	11	2460
4	2425	12	2465
5	2430	13	2470
6	2435	14	2475
7	2440	15	2480

Intended use of the Equipment Under Test (EUT)

The apparatus as supplied for the test is LED Strip T2 which intended for residential use, the product contains electronic control circuitry and without earth connection. It contains the same Wireless module, so it would be controlled by other wireless devices through APPs.

As the client's declaration, The products covered in this report are Class III LED fixed luminaires for indoor use. All models have same construction, circuit diagram and PCB layout but the length are different.

The models difference list below table, powered by approved SELV LED drivers.

Model list

Model no.	Power (W)	Length of LED strip (m)
LS-L05E	24	3
LS-L06E	24	5
LS-L07E	24	10
LS-L05D	24	3
LS-L06D	24	5
LS-L07D	24	10

Remark:

E-suffix and D-suffix models are identical, differing only in sales channels.

After technical evaluation, model LS-L07E were chosen for full testing.

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: LS-L07E(Lab no.4958171-01), RF conducted sample: LS-L07E(Lab no.4958171-02), RF radiated sample: LS-L07E(Lab no.4958171-03)

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 methos	
		Conducted	Radiated
1	Transmitting	☒	☒
2	On mode (lighting in 4000K/R/G/B Supply power 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
Sofeware	QCOM_V1.0	-	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 “QCOM_V1.0” supplied by manufacturer to control the EUT work in required test mode as below table.

RF Mode	Set_channel(MHz)	Set_power in software
BLE_1M/2M	2402	80
	2440	80
	2480	80
Thread/Zigbee	2405	80
	2440	80
	2480	80

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
RSS-Gen Issue 5 Amendment 1	2019	General Requirements for Compliance of Radio Apparatus
RSS-247 Issue 4	2025	Digital Transmission Systems (DTSs),Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices
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: ---			

ISED measurement			
Requirement – Test case	**Basic standard(s)**	**Verdict**	**Remark**
AC Power Line Conducted Emission	RSS-Gen Issue 5 Section 8.8	PASS	---
Emissions in restricted frequency bands	RSS-Gen Issue 5 Section 8.9&8.10	PASS	---
Emissions in non-restricted frequency bands	RSS-247 Issue 4 Section 5.5 RSS-Gen Issue 5 Section 8.9	PASS	---
Duty cycle	ANSI C63.10:2020	PASS	---
Band Edge	RSS-Gen Issue 5 Section 8.10	PASS	---
Fundamental emission output power	RSS-247 Issue 4 Section 5.4(d)	PASS	---
DTS Bandwidth	RSS-Gen Issue 5 Section 6.7 RSS-247 Issue 4 section 5.2 a)	PASS	---
Power Spectral Density	RSS-247 Issue 4 Section 5.2(b)	PASS	---
Antenna Requirement	RSS-Gen Issue 5 Section 6.8	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

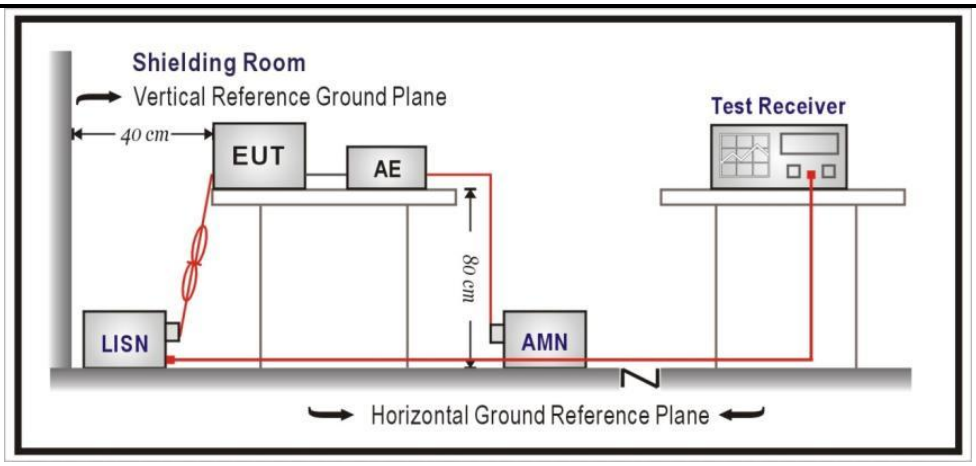
4.1 AC Power Line Conducted Emission	VERDICT: PASS

Limits

FCC Part 15 Subpart C Paragraph 15.207 RSS-Gen Issue 5 Section 8.8				
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



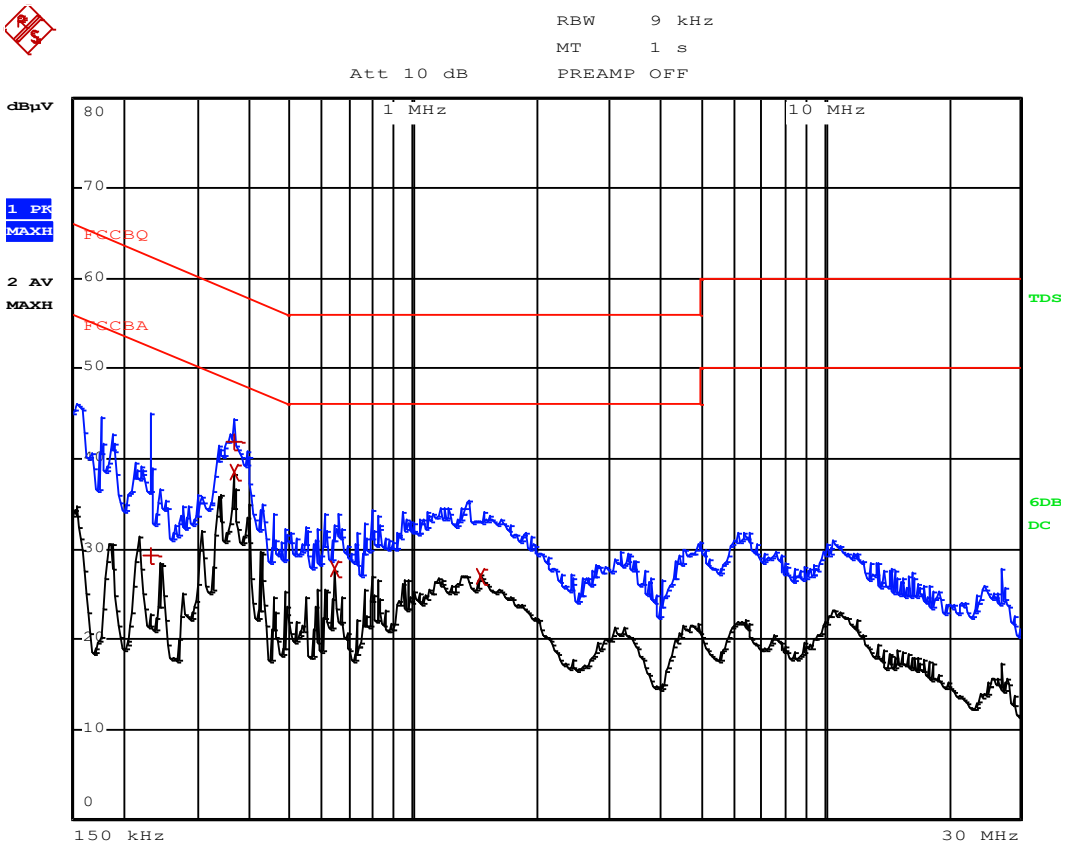
Performed measurements

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	LS-L07E
Operation Mode (max power is worst case)	Mode 2 (BLE mode)
Test voltage	120 Vac, 60 Hz

Results
Live



EDIT PEAK LIST (Final Measurement Results)

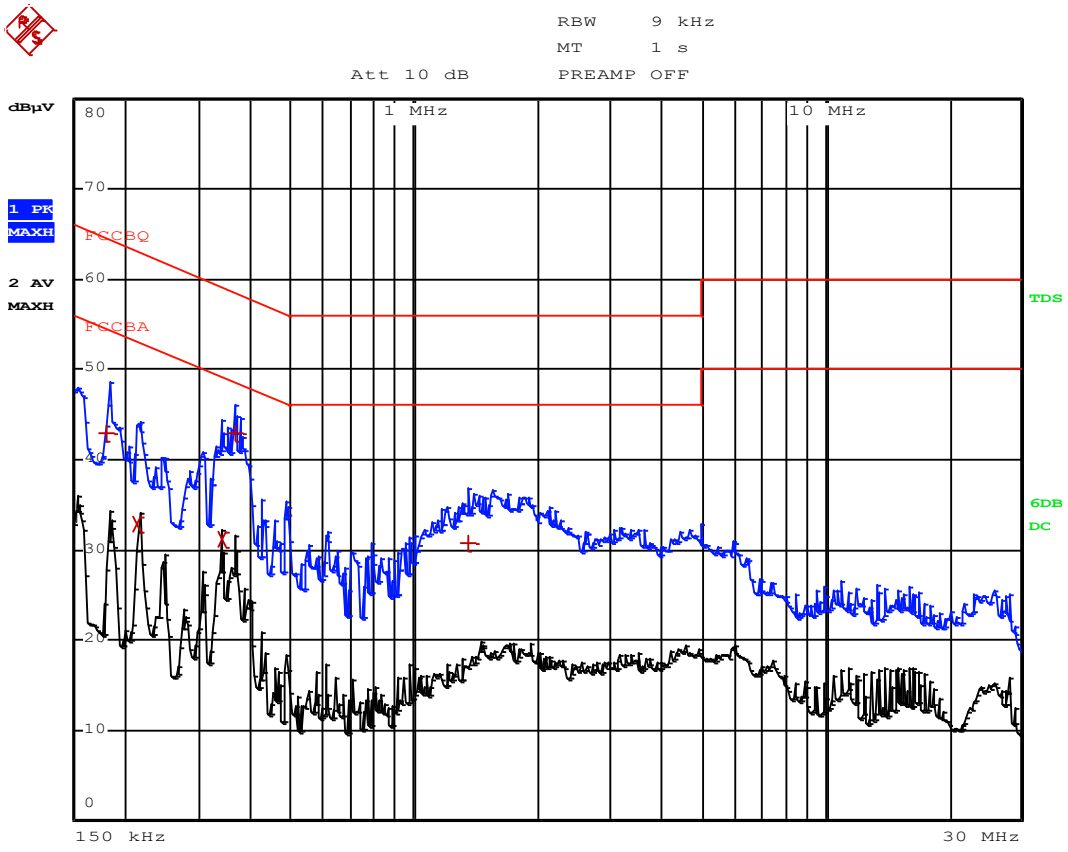
Trace1:	FCCBQ
Trace2:	FCCBA
Trace3:	---

TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
2 Average	366 kHz	38.45	-10.14
1 Quasi Peak	366 kHz	41.98	-16.60
2 Average	642 kHz	27.89	-18.10
2 Average	1.466 MHz	26.96	-19.03
1 Quasi Peak	230 kHz	29.26	-33.19
2 Average	1.142 MHz	30.95	-15.04
1 Quasi Peak	4.95 MHz	40.60	-15.39
1 Quasi Peak	1.19 MHz	40.34	-15.65
2 Average	1.582 MHz	29.82	-16.17
2 Average	15.914 MHz	33.13	-16.87

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



EDIT PEAK LIST (Final Measurement Results)

Trace1:	FCCBQ
Trace2:	FCCBA
Trace3:	---

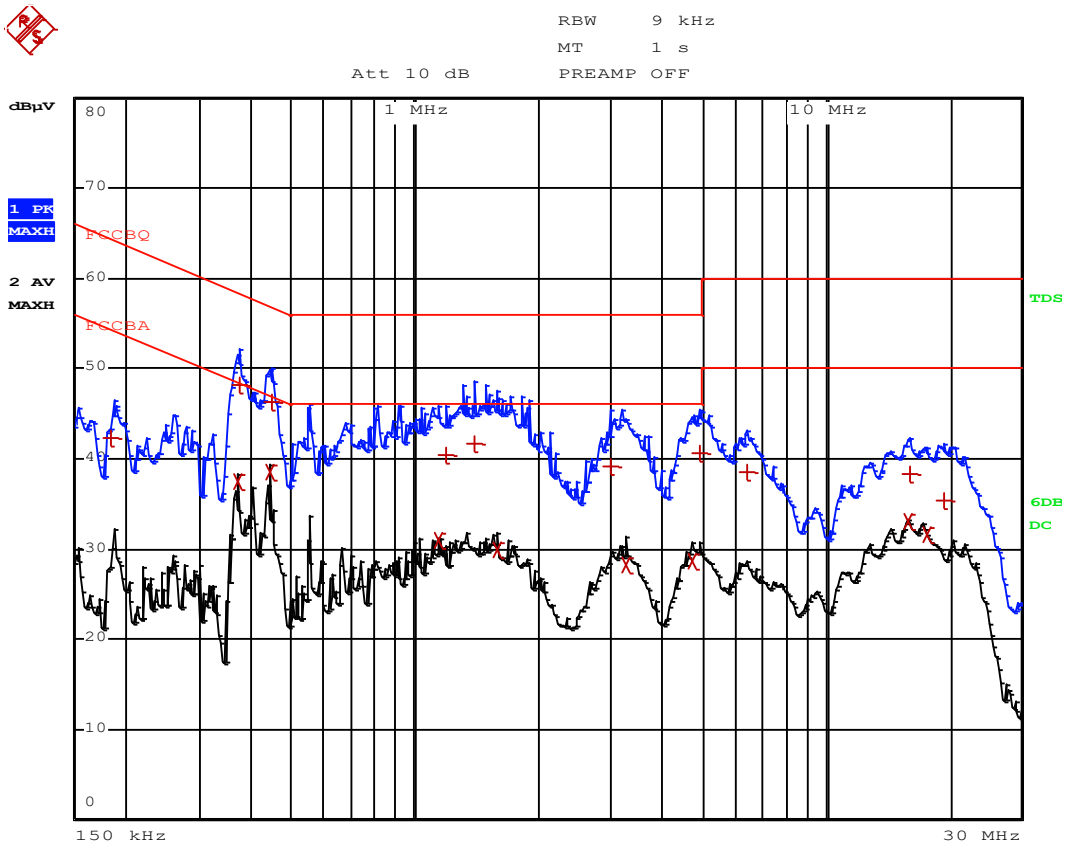
TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1 Quasi Peak	366 kHz	42.84	-15.74
2 Average	338 kHz	31.25	-17.99
2 Average	214 kHz	32.86	-20.18
1 Quasi Peak	182 kHz	42.98	-21.41
1 Quasi Peak	1.354 MHz	30.85	-25.14
2 Average	1.466 MHz	26.96	-19.03
1 Quasi Peak	230 kHz	29.26	-33.19

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.

Model	LS-L07E
Operation Mode (max power is worst case)	Mode 2(thread/zigbee mode)
Test voltage	120 Vac, 60 Hz

Results
Live



EDIT PEAK LIST (Final Measurement Results)

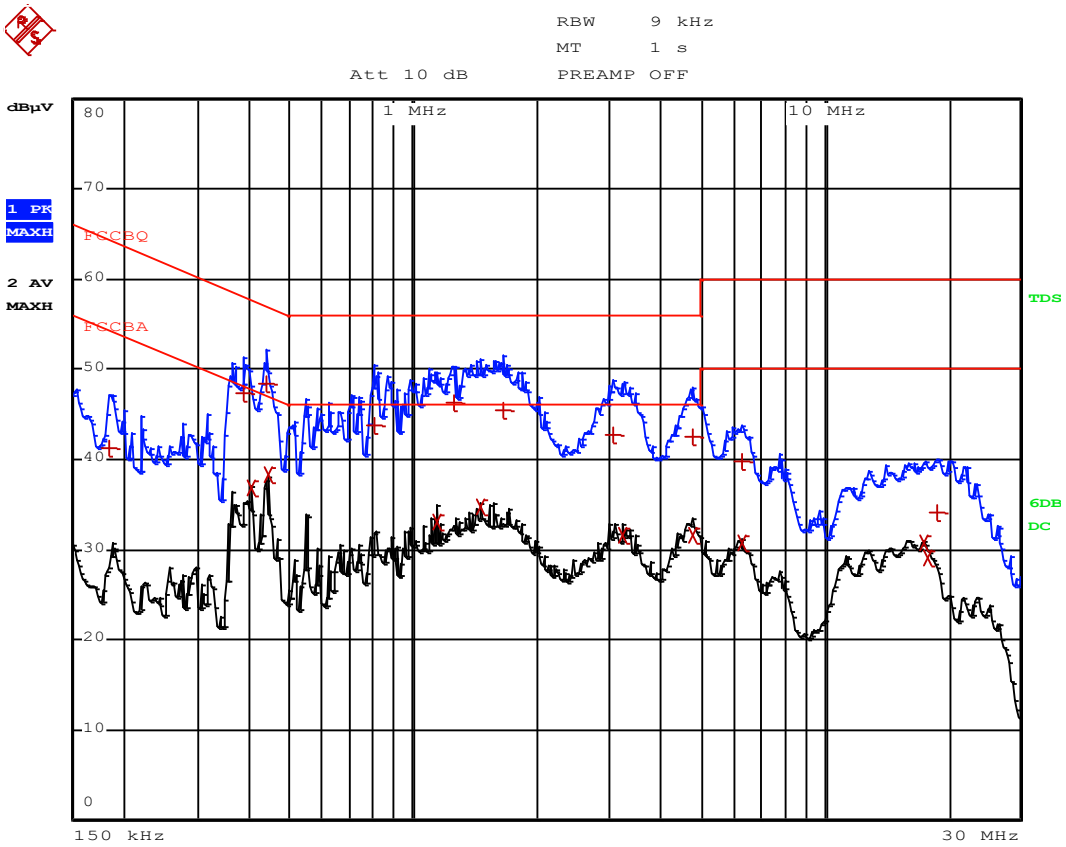
Trace1:	FCCBQ
Trace2:	FCCBA
Trace3:	---

TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
2 Average	442 kHz	38.60	-8.42
1 Quasi Peak	374 kHz	48.21	-10.20
1 Quasi Peak	446 kHz	46.38	-10.56
2 Average	370 kHz	37.39	-11.11
1 Quasi Peak	1.402 MHz	41.60	-14.39
2 Average	1.142 MHz	30.95	-15.04
1 Quasi Peak	4.95 MHz	40.60	-15.39
1 Quasi Peak	1.19 MHz	40.34	-15.65
2 Average	1.582 MHz	29.82	-16.17
2 Average	15.914 MHz	33.13	-16.87

Remarks:
3) Level (final measurement) = received value + transducer (Lisn+cable)
4) Delta = Level – Limit

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

Neutral



EDIT PEAK LIST (Final Measurement Results)

Trace1:	FCCBQ
Trace2:	FCCBA
Trace3:	---

TRACE		FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1	Quasi Peak	438 kHz	48.42	-8.67
2	Average	442 kHz	38.31	-8.70
1	Quasi Peak	1.258 MHz	46.32	-9.67
1	Quasi Peak	1.658 MHz	45.53	-10.46
1	Quasi Peak	386 kHz	47.36	-10.78
2	Average	402 kHz	36.90	-10.90
2	Average	1.466 MHz	34.76	-11.23
1	Quasi Peak	806 kHz	43.87	-12.12
2	Average	1.142 MHz	33.04	-12.95
1	Quasi Peak	3.082 MHz	42.65	-13.34
1	Quasi Peak	4.802 MHz	42.52	-13.47

Remarks:
3) Level (final measurement) = received value + transducer (Lisn+cable)
4) 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

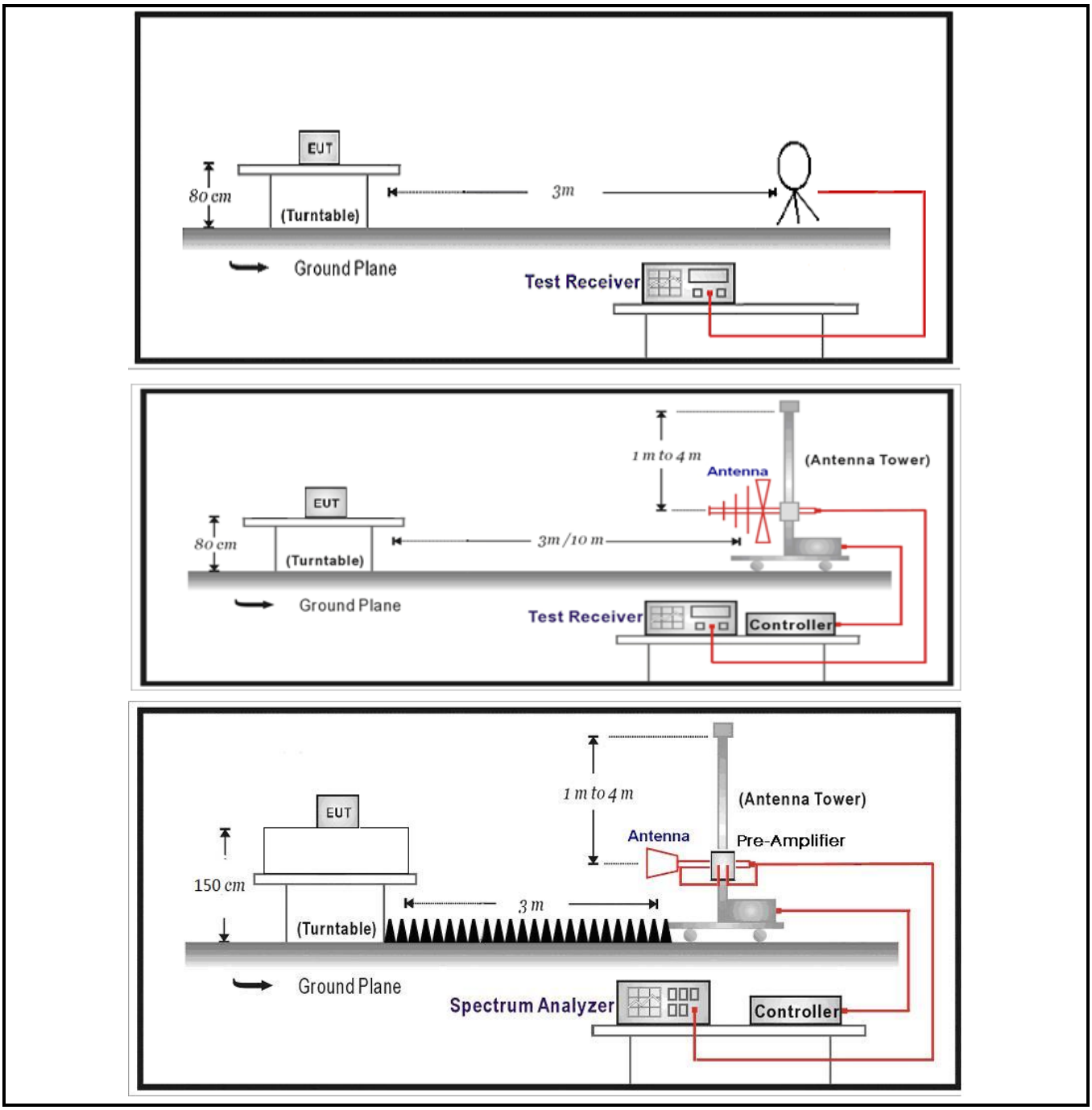
Emissions Limit 15.209(a)
Emissions Limit: RSS-Gen Issue 5 Section 8.9

Frequency (MHz)	Field strength (μV/m)	Field strength (dBμV/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



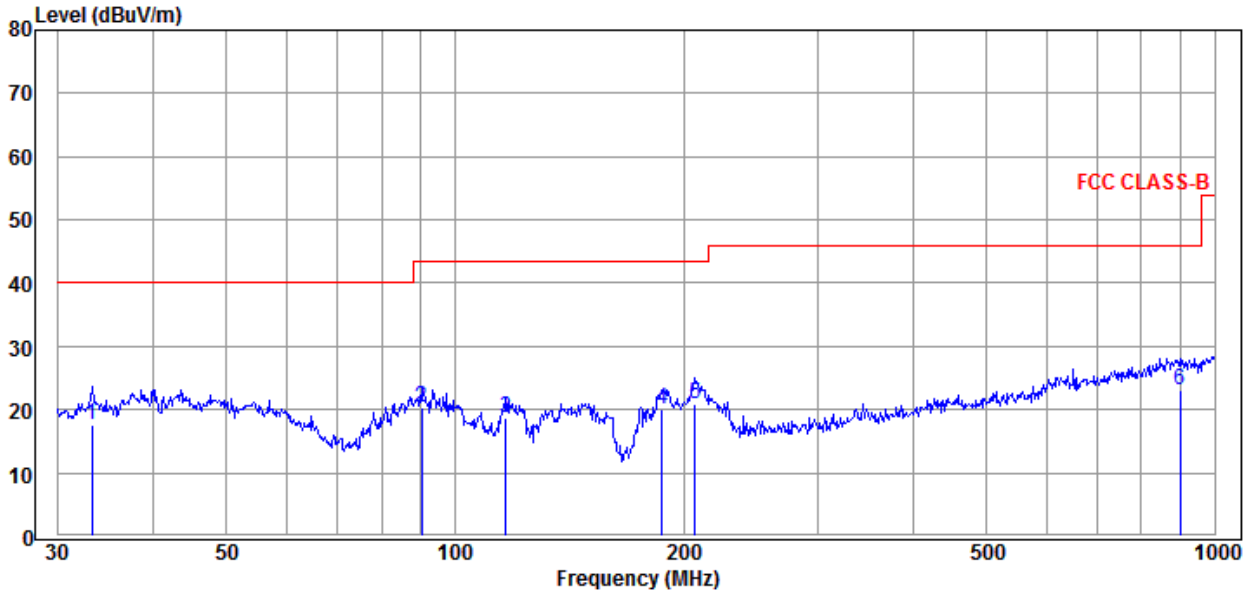
Performed measurements

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	
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	LS-L07E
Operation Mode	Mode 1 (BLE mode)
Test voltage	3.3 Vdc

Results
Horizontal



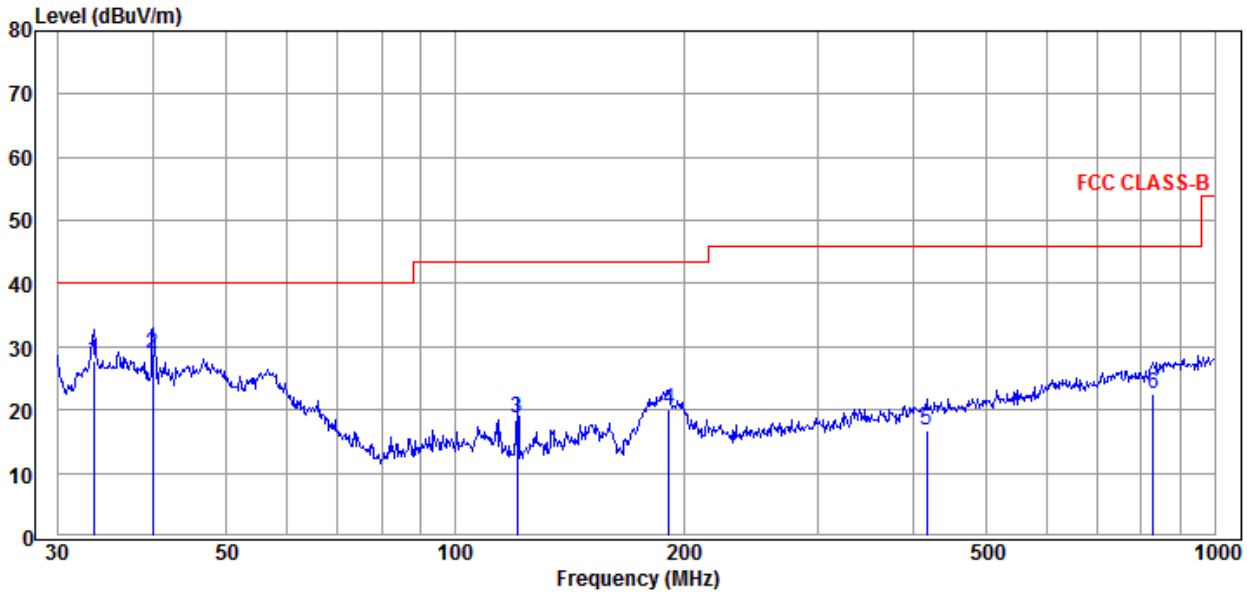
Freq (MHz)	Reading (dBuV)	C.F (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin=limit-result (dB)
33.21	17.78	-0.17	17.61	40.00	22.39
90.22	25.40	-5.06	20.34	43.50	23.16
116.54	23.96	-5.16	18.80	43.50	24.70
187.10	24.84	-4.88	19.96	43.50	23.54
207.12	25.54	-4.62	20.92	43.50	22.58
900.15	13.97	9.18	23.15	46.00	22.85

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)
33.45	27.78	-0.14	27.64	40.00	12.36
39.99	27.94	0.92	28.86	40.00	11.14
120.70	24.68	-5.90	18.78	43.50	24.72
191.07	24.46	-4.35	20.11	43.50	23.39
417.64	15.30	1.43	16.73	46.00	29.27
830.40	14.32	8.17	22.49	46.00	23.51

Remarks:

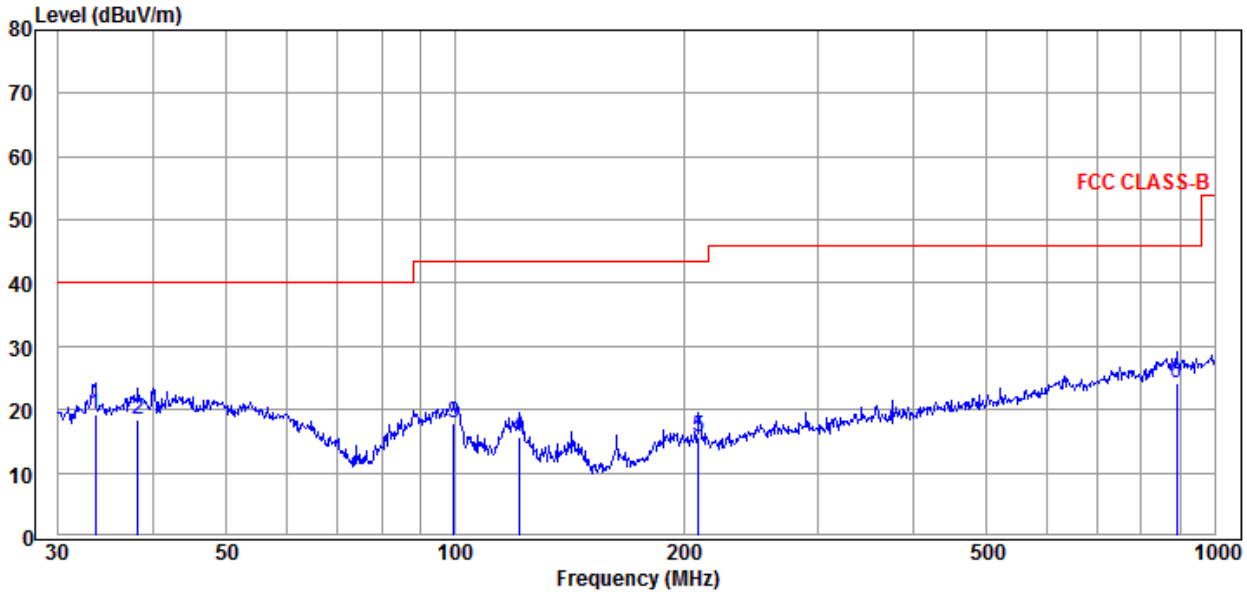
1) C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain
2) Result = Reading + C.F (Correction Factor)

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

Results of 30 – 1000 MHz

Model	LS-L07E
Operation Mode	Mode 1 (thread/zigbee mode)
Test voltage	3.3 Vdc

Results
Horizontal



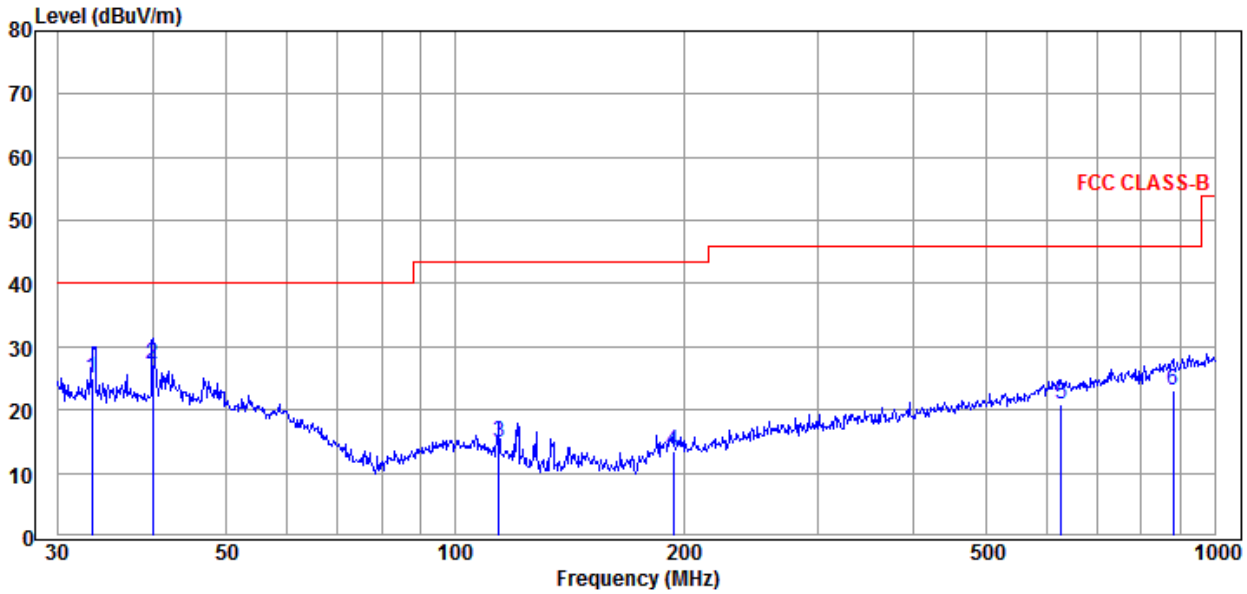
Freq (MHz)	Reading (dBuV)	C.F (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin=limit-result (dB)
33.56	19.36	-0.12	19.24	40.00	20.76
38.21	17.72	0.69	18.41	40.00	21.59
99.53	21.65	-3.69	17.96	43.50	25.54
121.12	21.57	-5.97	15.60	43.50	27.90
209.31	20.16	-4.56	15.60	43.50	27.90
890.73	15.04	9.11	24.15	46.00	21.85

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)
33.21	25.17	-0.17	25.00	40.00	15.00
39.99	26.36	0.92	27.28	40.00	12.72
114.11	19.67	-4.72	14.95	43.50	28.55
193.77	17.68	-4.28	13.40	43.50	30.10
627.27	14.85	5.92	20.77	46.00	25.23
881.41	14.12	9.05	23.17	46.00	22.83

Remarks:

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

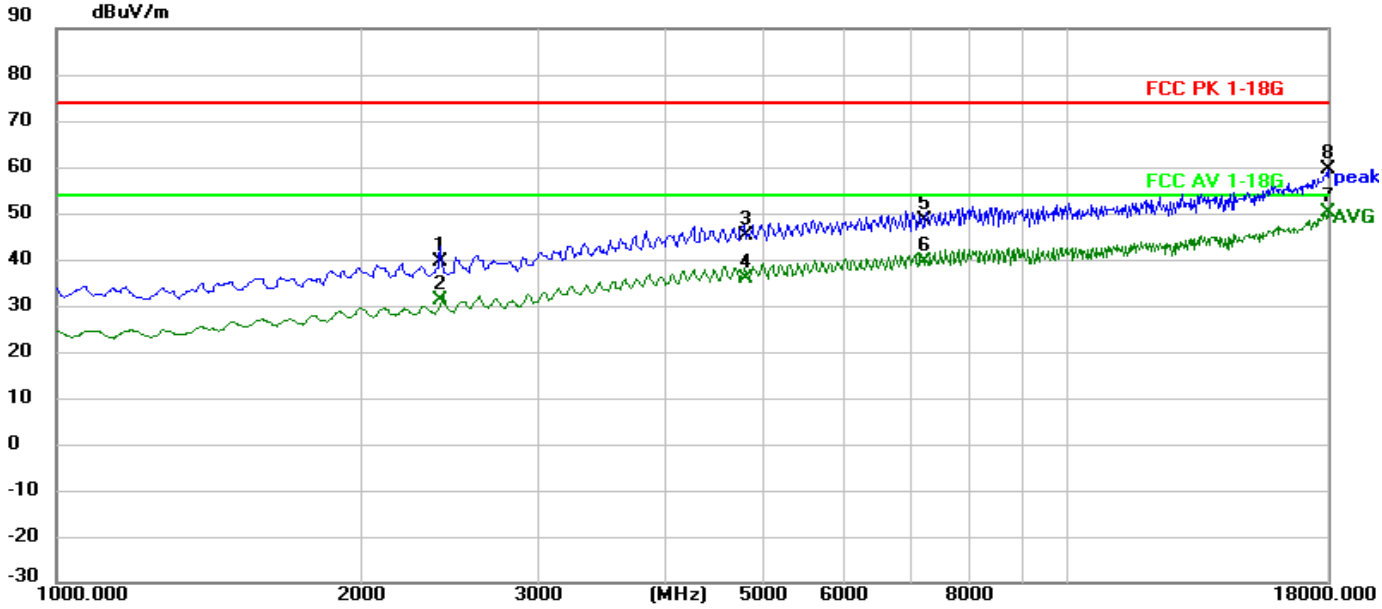
No other significant emissions were measured at the frequency range of interest employing the QP detectors.

Results of 1 – 18 GHz

Model	LS-L07E
Operation Mode	Mode 1 @2402 MHz BLE 1M
Test voltage	3.3 Vdc

Results

Horizontal

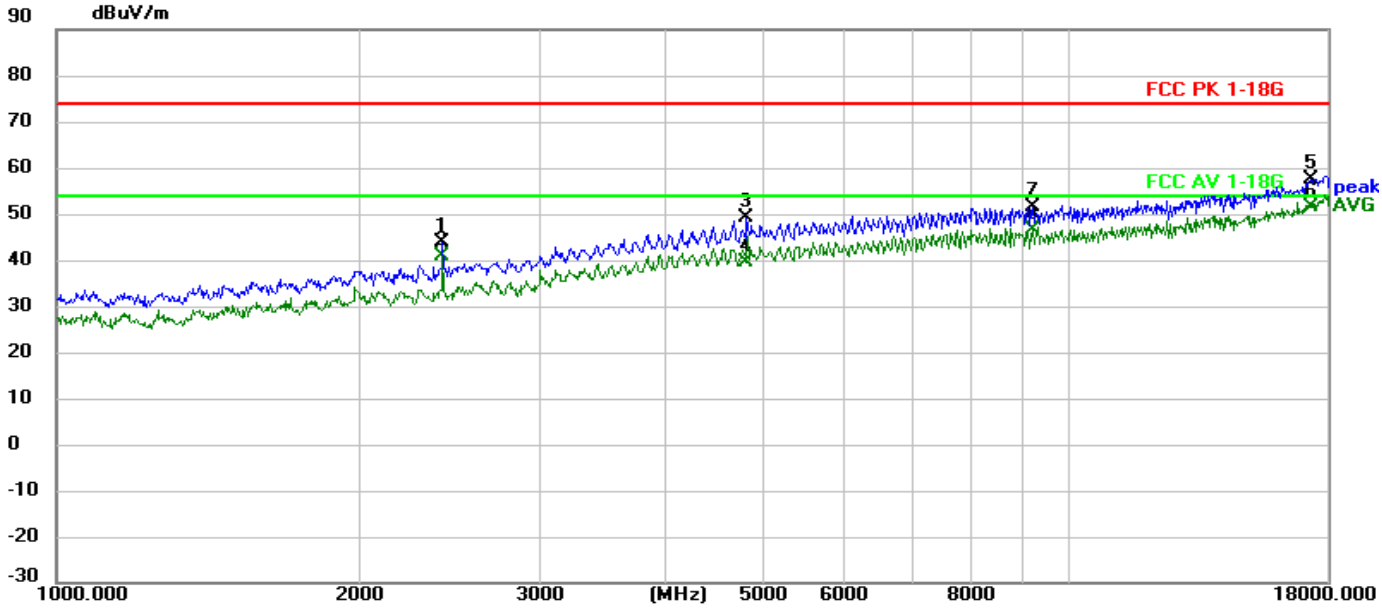


No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	2402.0000	58.90	-19.52	39.38	74.00	-34.62	peak	Pass
2	2402.0000	50.59	-19.52	31.07	54.00	-22.93	AVG	Pass
3	4804.0000	54.13	-9.01	45.12	74.00	-28.88	peak	Pass
4	4804.0000	44.92	-9.01	35.91	54.00	-18.09	AVG	Pass
5	7206.0000	54.06	-5.68	48.38	74.00	-25.62	peak	Pass
6	7206.0000	45.17	-5.68	39.49	54.00	-14.51	AVG	Pass
7 *	17948.9489	40.14	9.95	50.09	54.00	-3.91	AVG	Pass
8	17948.9489	49.40	9.95	59.35	74.00	-14.65	peak	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	2402.6403	63.52	-19.52	44.00	74.00	-30.00	peak	Pass
2	2402.6403	60.37	-19.52	40.85	54.00	-13.15	AVG	Pass
3	4799.8800	58.31	-9.01	49.30	74.00	-24.70	peak	Pass
4	4799.8800	48.57	-9.01	39.56	54.00	-14.44	AVG	Pass
5	17330.1330	49.29	8.25	57.54	74.00	-16.46	peak	Pass
6 *	17330.1330	43.30	8.25	51.55	54.00	-2.45	AVG	Pass
7	9191.4191	54.14	-2.75	51.39	74.00	-22.61	peak	Pass
8	9191.4191	49.25	-2.75	46.50	54.00	-7.50	AVG	Pass

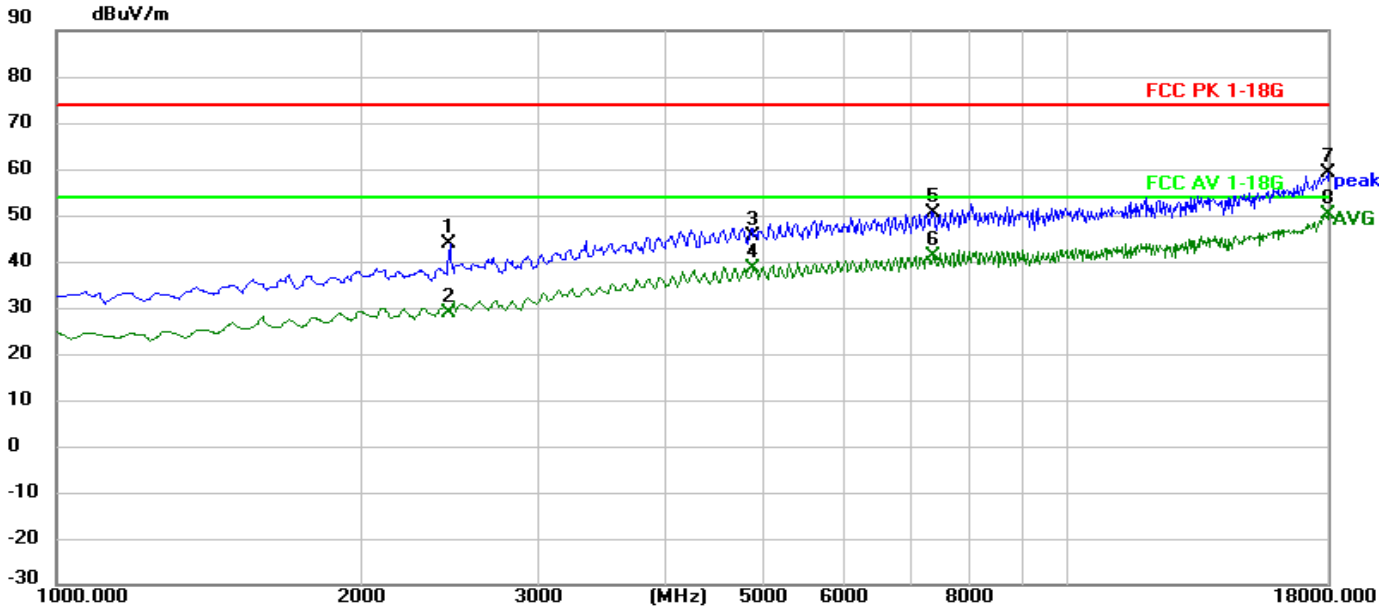
Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

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

Model	LS-L07E
Operation Mode (worst case)	Mode 1 @2440 MHz BLE 1M
Test voltage	3.3 Vdc

Results

Horizontal

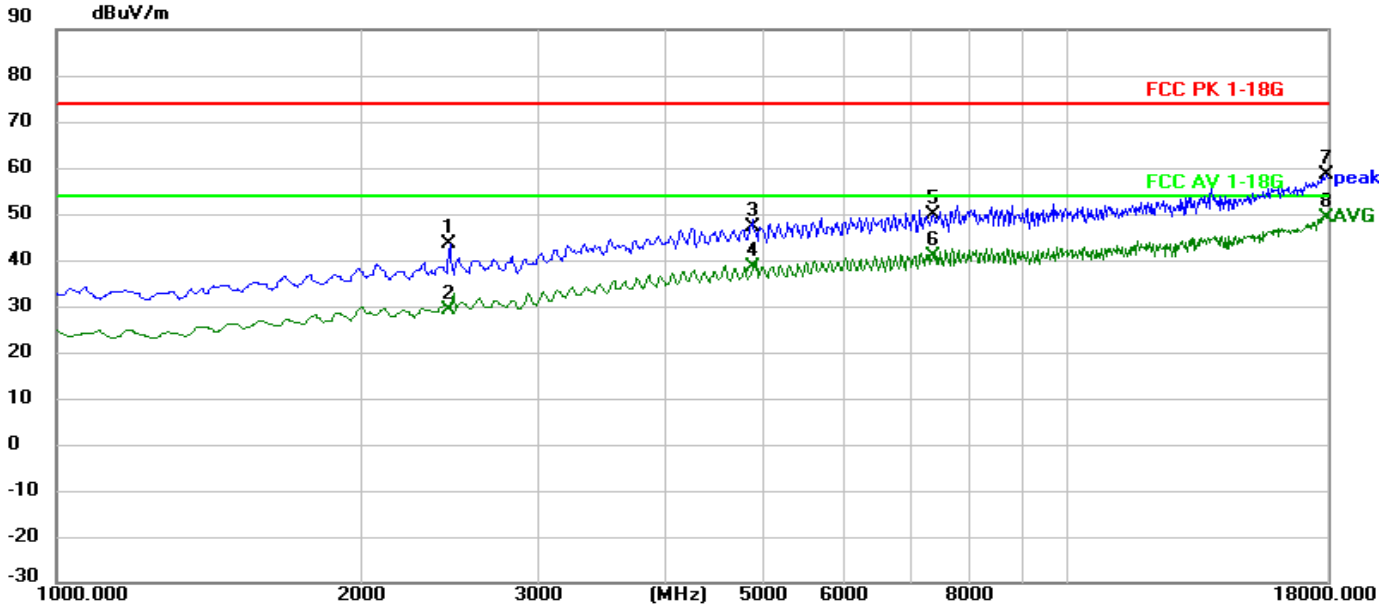


No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	2440.0000	63.17	-19.33	43.84	74.00	-30.16	peak	Pass
2	2440.0000	48.21	-19.33	28.88	54.00	-25.12	AVG	Pass
3	4880.0000	54.39	-8.85	45.54	74.00	-28.46	peak	Pass
4	4880.0000	47.37	-8.85	38.52	54.00	-15.48	AVG	Pass
5	7320.0000	56.03	-5.42	50.61	74.00	-23.39	peak	Pass
6	7320.0000	46.45	-5.42	41.03	54.00	-12.97	AVG	Pass
7	17965.9660	49.13	9.97	59.10	74.00	-14.90	peak	Pass
8 *	17965.9660	40.15	9.97	50.12	54.00	-3.88	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	2440.0000	62.99	-19.33	43.66	74.00	-30.34	peak	Pass
2	2440.0000	48.60	-19.33	29.27	54.00	-24.73	AVG	Pass
3	4880.0000	56.16	-8.85	47.31	74.00	-26.69	peak	Pass
4	4880.0000	47.49	-8.85	38.64	54.00	-15.36	AVG	Pass
5	7320.0000	55.15	-5.42	49.73	74.00	-24.27	peak	Pass
6	7320.0000	46.26	-5.42	40.84	54.00	-13.16	AVG	Pass
7	17931.9319	48.75	9.89	58.64	74.00	-15.36	peak	Pass
8 *	17931.9319	39.24	9.89	49.13	54.00	-4.87	AVG	Pass

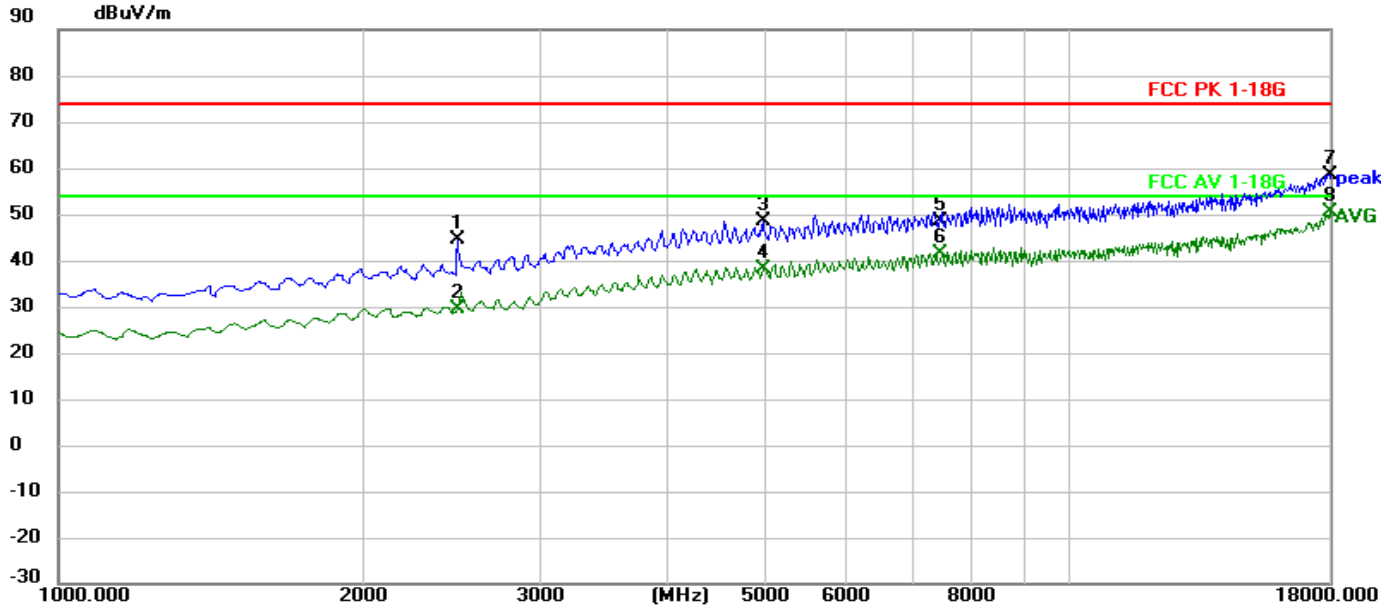
Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

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

Model	LS-L07E
Operation Mode (worst case)	Mode 1 @2480 MHz BLE 1M
Test voltage	3.3 Vdc

Results

Horizontal

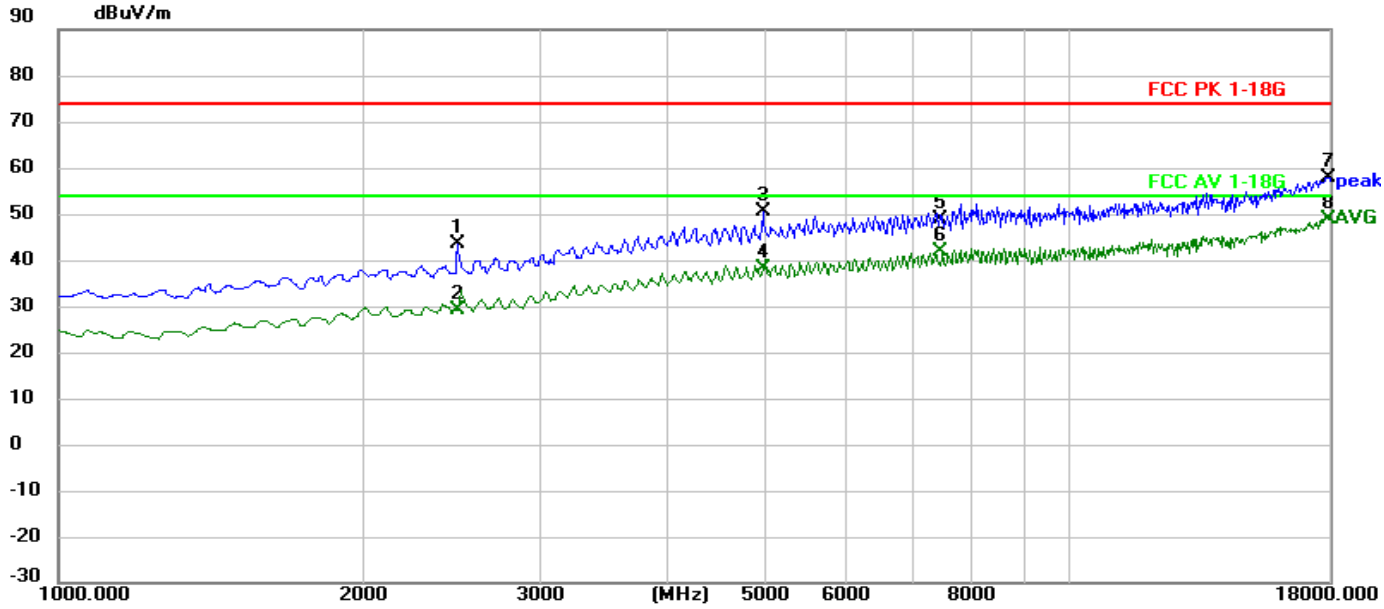


No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	2480.0000	63.61	-19.07	44.54	74.00	-29.46	peak	Pass
2	2480.0000	48.53	-19.07	29.46	54.00	-24.54	AVG	Pass
3	4960.0000	57.06	-8.69	48.37	74.00	-25.63	peak	Pass
4	4960.0000	46.88	-8.69	38.19	54.00	-15.81	AVG	Pass
5	7440.0000	53.62	-5.15	48.47	74.00	-25.53	peak	Pass
6	7440.0000	46.79	-5.15	41.64	54.00	-12.36	AVG	Pass
7	17948.9489	48.54	9.95	58.49	74.00	-15.51	peak	Pass
8 *	17948.9489	40.40	9.95	50.35	54.00	-3.65	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	2480.0000	62.62	-19.07	43.55	74.00	-30.45	peak	Pass
2	2480.0000	48.13	-19.07	29.06	54.00	-24.94	AVG	Pass
3	4960.0000	59.23	-8.69	50.54	74.00	-23.46	peak	Pass
4	4960.0000	46.97	-8.69	38.28	54.00	-15.72	AVG	Pass
5	7440.0000	54.11	-5.15	48.96	74.00	-25.04	peak	Pass
6	7440.0000	46.84	-5.15	41.69	54.00	-12.31	AVG	Pass
7	17931.9319	48.10	9.89	57.99	74.00	-16.01	peak	Pass
8 *	17931.9319	38.99	9.89	48.88	54.00	-5.12	AVG	Pass

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

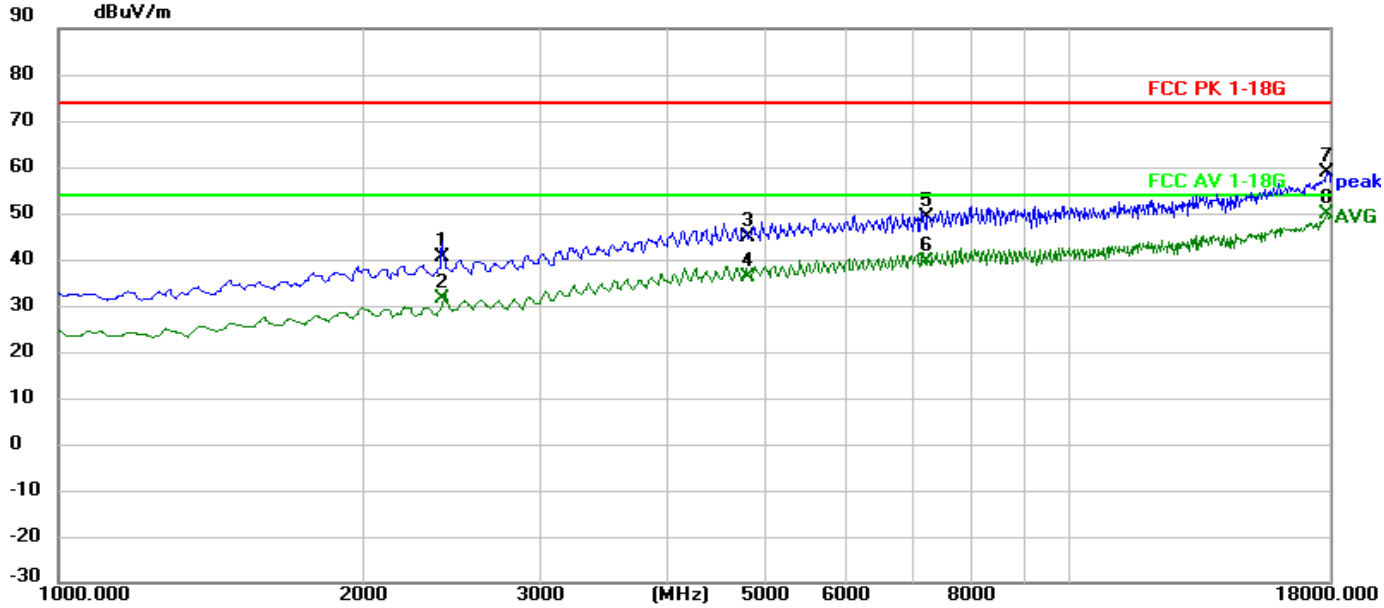
No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Results of 1 – 18 GHz

Model	LS-L07E
Operation Mode	Mode 1 @2402 MHz BLE 2M
Test voltage	3.3 Vdc

Results

Horizontal

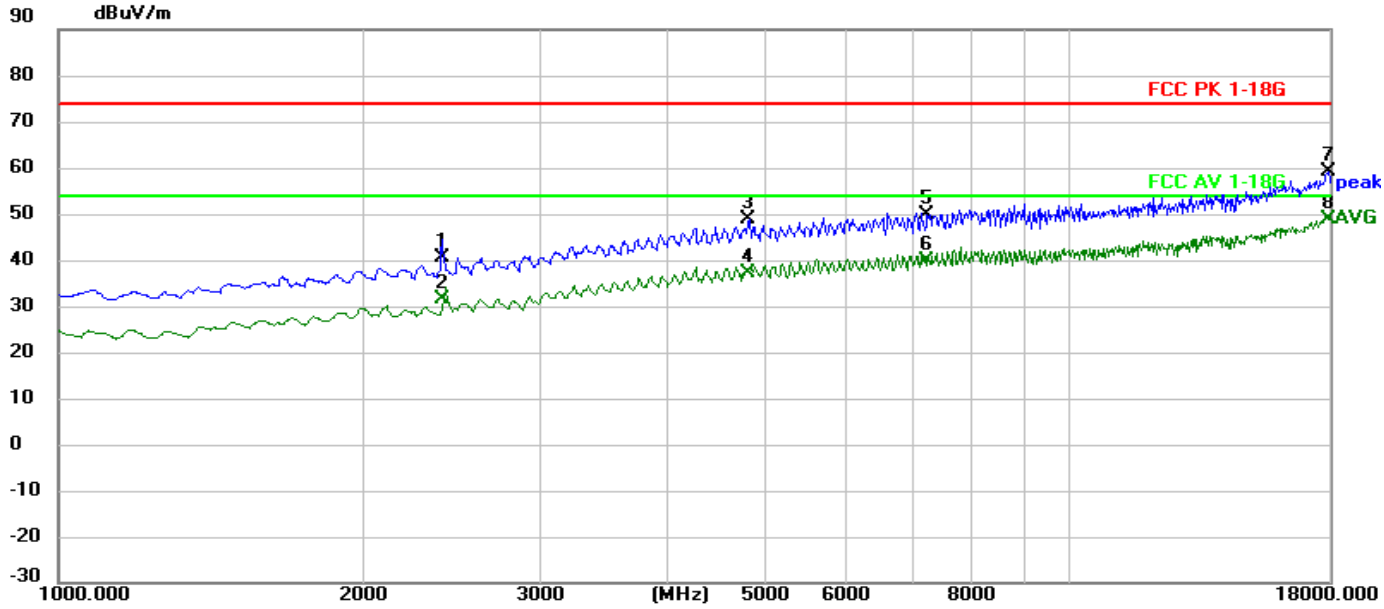


No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	2402.0000	59.99	-19.52	40.47	74.00	-33.53	peak	Pass
2	2402.0000	51.09	-19.52	31.57	54.00	-22.43	AVG	Pass
3	4804.0000	53.89	-9.01	44.88	74.00	-29.12	peak	Pass
4	4804.0000	45.10	-9.01	36.09	54.00	-17.91	AVG	Pass
5	7206.0000	54.82	-5.68	49.14	74.00	-24.86	peak	Pass
6	7206.0000	45.21	-5.68	39.53	54.00	-14.47	AVG	Pass
7	17880.8809	49.05	9.73	58.78	74.00	-15.22	peak	Pass
8 *	17880.8809	39.97	9.73	49.70	54.00	-4.30	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	2402.0000	59.99	-19.52	40.47	74.00	-33.53	peak	Pass
2	2402.0000	51.06	-19.52	31.54	54.00	-22.46	AVG	Pass
3	4804.0000	57.87	-9.01	48.86	74.00	-25.14	peak	Pass
4	4804.0000	46.17	-9.01	37.16	54.00	-16.84	AVG	Pass
5	7206.0000	55.41	-5.68	49.73	74.00	-24.27	peak	Pass
6	7206.0000	45.68	-5.68	40.00	54.00	-14.00	AVG	Pass
7	17931.9319	49.27	9.89	59.16	74.00	-14.84	peak	Pass
8 *	17931.9319	38.97	9.89	48.86	54.00	-5.14	AVG	Pass

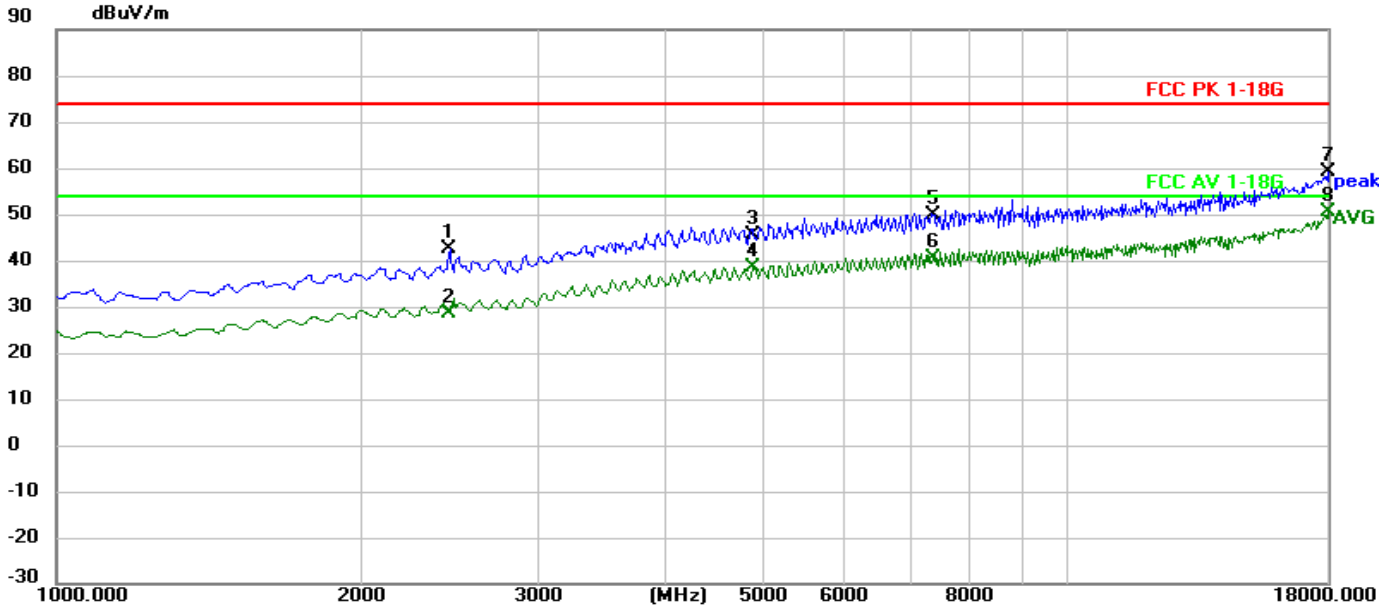
Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

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

Model	LS-L07E
Operation Mode (worst case)	Mode 1 @2440 MHz BLE 2M
Test voltage	3.3 Vdc

Results

Horizontal

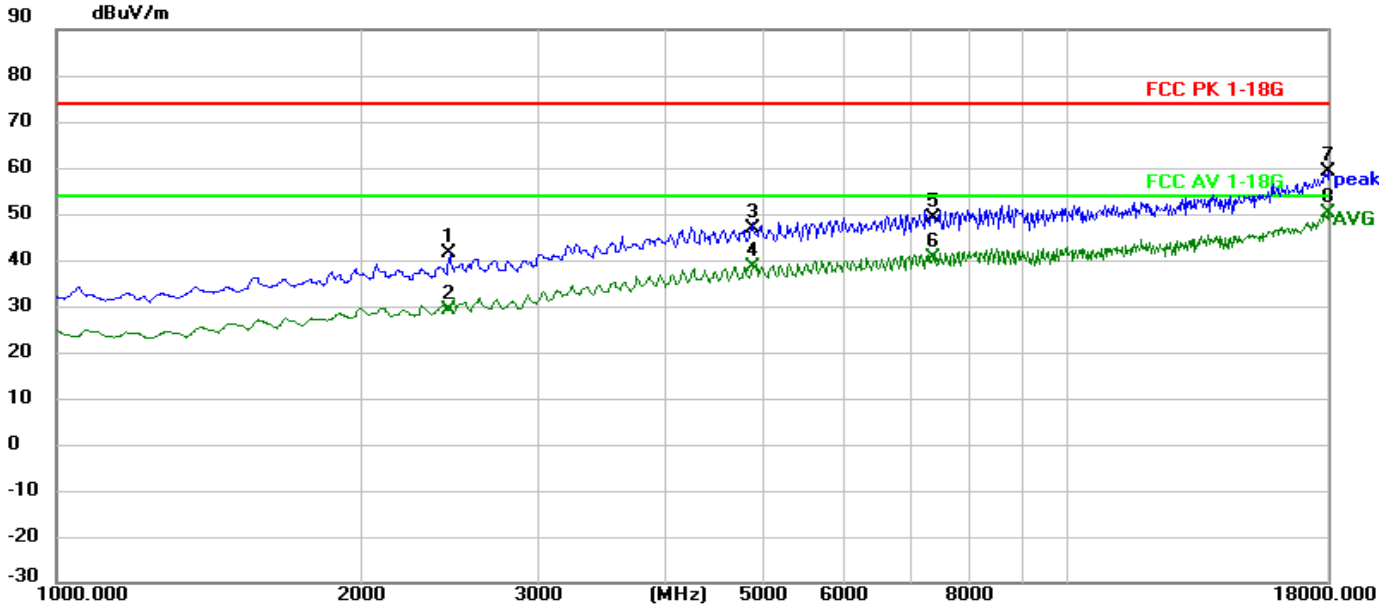


No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	2440.0000	61.96	-19.33	42.63	74.00	-31.37	peak	Pass
2	2440.0000	47.98	-19.33	28.65	54.00	-25.35	AVG	Pass
3	4880.0000	54.21	-8.85	45.36	74.00	-28.64	peak	Pass
4	4880.0000	47.22	-8.85	38.37	54.00	-15.63	AVG	Pass
5	7320.0000	55.38	-5.42	49.96	74.00	-24.04	peak	Pass
6	7320.0000	45.84	-5.42	40.42	54.00	-13.58	AVG	Pass
7	17948.9489	49.17	9.95	59.12	74.00	-14.88	peak	Pass
8 *	17948.9489	40.41	9.95	50.36	54.00	-3.64	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	2440.0000	60.83	-19.33	41.50	74.00	-32.50	peak	Pass
2	2440.0000	48.35	-19.33	29.02	54.00	-24.98	AVG	Pass
3	4880.0000	55.77	-8.85	46.92	74.00	-27.08	peak	Pass
4	4880.0000	47.40	-8.85	38.55	54.00	-15.45	AVG	Pass
5	7320.0000	54.74	-5.42	49.32	74.00	-24.68	peak	Pass
6	7320.0000	45.98	-5.42	40.56	54.00	-13.44	AVG	Pass
7	17948.9489	49.15	9.95	59.10	74.00	-14.90	peak	Pass
8 *	17948.9489	40.17	9.95	50.12	54.00	-3.88	AVG	Pass

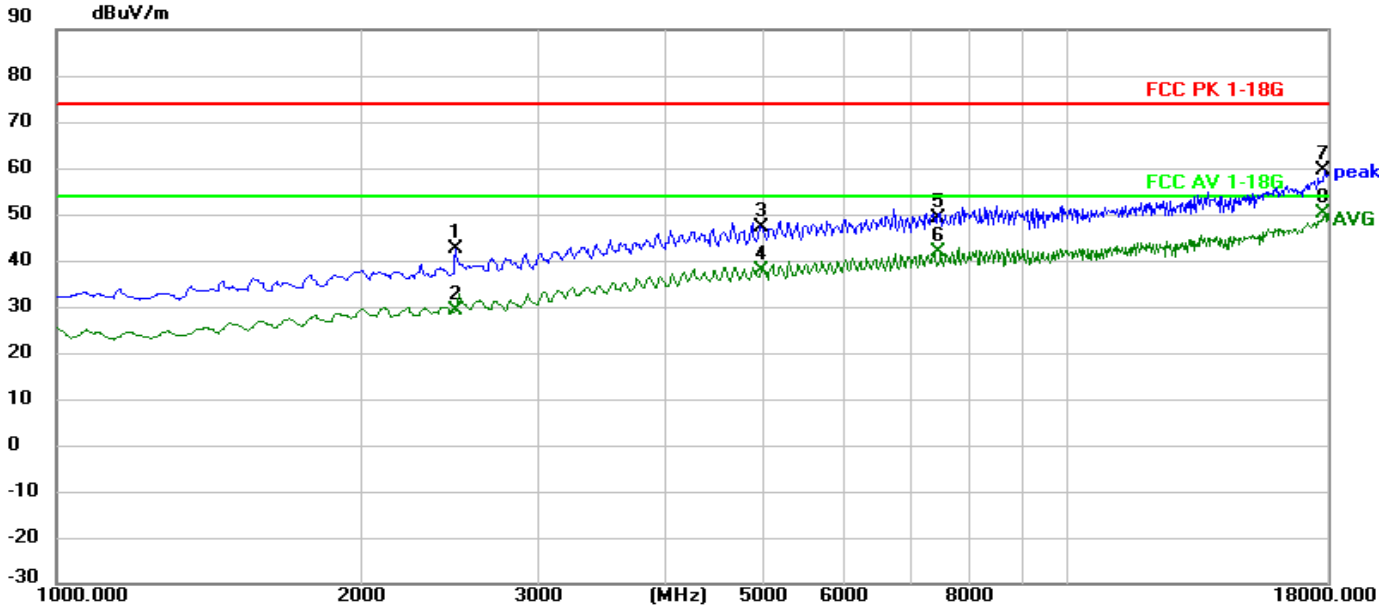
Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

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

Model	LS-L07E
Operation Mode (worst case)	Mode 1 @2480 MHz BLE 2M
Test voltage	3.3 Vdc

Results

Horizontal

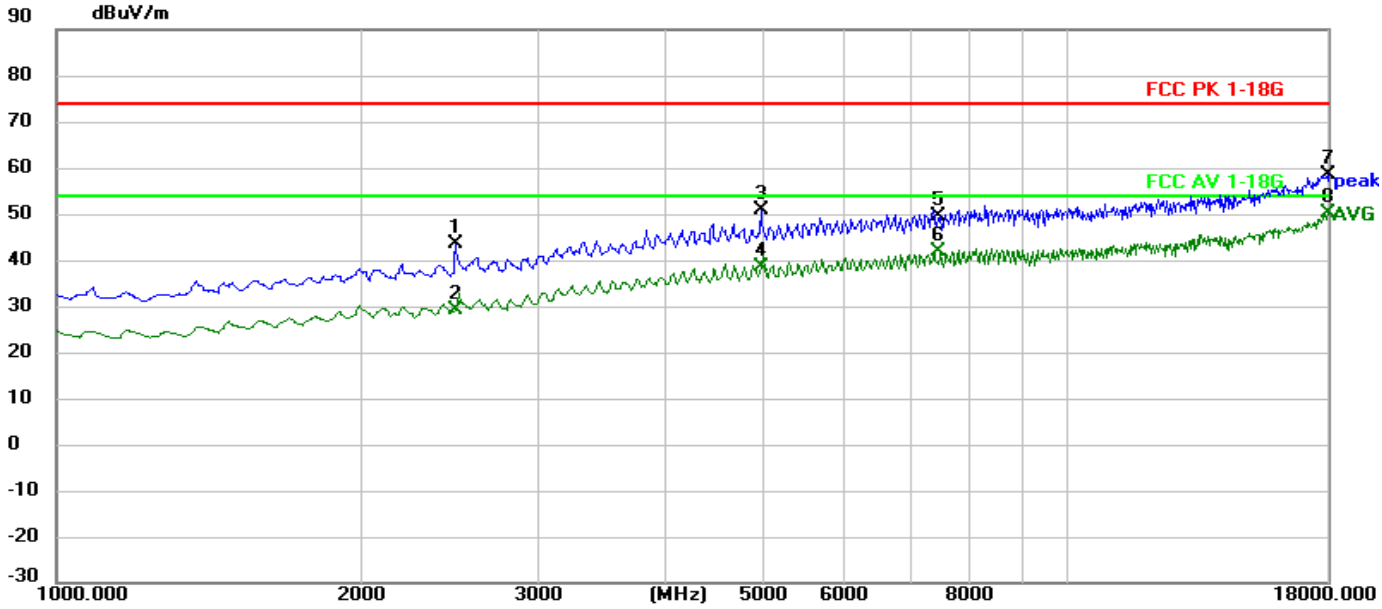


No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	2480.0000	61.59	-19.07	42.52	74.00	-31.48	peak	Pass
2	2480.0000	48.22	-19.07	29.15	54.00	-24.85	AVG	Pass
3	4960.0000	56.02	-8.69	47.33	74.00	-26.67	peak	Pass
4	4960.0000	46.64	-8.69	37.95	54.00	-16.05	AVG	Pass
5	7440.0000	54.32	-5.15	49.17	74.00	-24.83	peak	Pass
6	7440.0000	46.90	-5.15	41.75	54.00	-12.25	AVG	Pass
7	17880.8809	49.61	9.73	59.34	74.00	-14.66	peak	Pass
8 *	17880.8809	40.28	9.73	50.01	54.00	-3.99	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	2480.0000	62.52	-19.07	43.45	74.00	-30.55	peak	Pass
2	2480.0000	48.36	-19.07	29.29	54.00	-24.71	AVG	Pass
3	4960.0000	59.57	-8.69	50.88	74.00	-23.12	peak	Pass
4	4960.0000	47.20	-8.69	38.51	54.00	-15.49	AVG	Pass
5	7440.0000	54.55	-5.15	49.40	74.00	-24.60	peak	Pass
6	7440.0000	47.01	-5.15	41.86	54.00	-12.14	AVG	Pass
7	17948.9489	48.63	9.95	58.58	74.00	-15.42	peak	Pass
8 *	17948.9489	40.32	9.95	50.27	54.00	-3.73	AVG	Pass

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

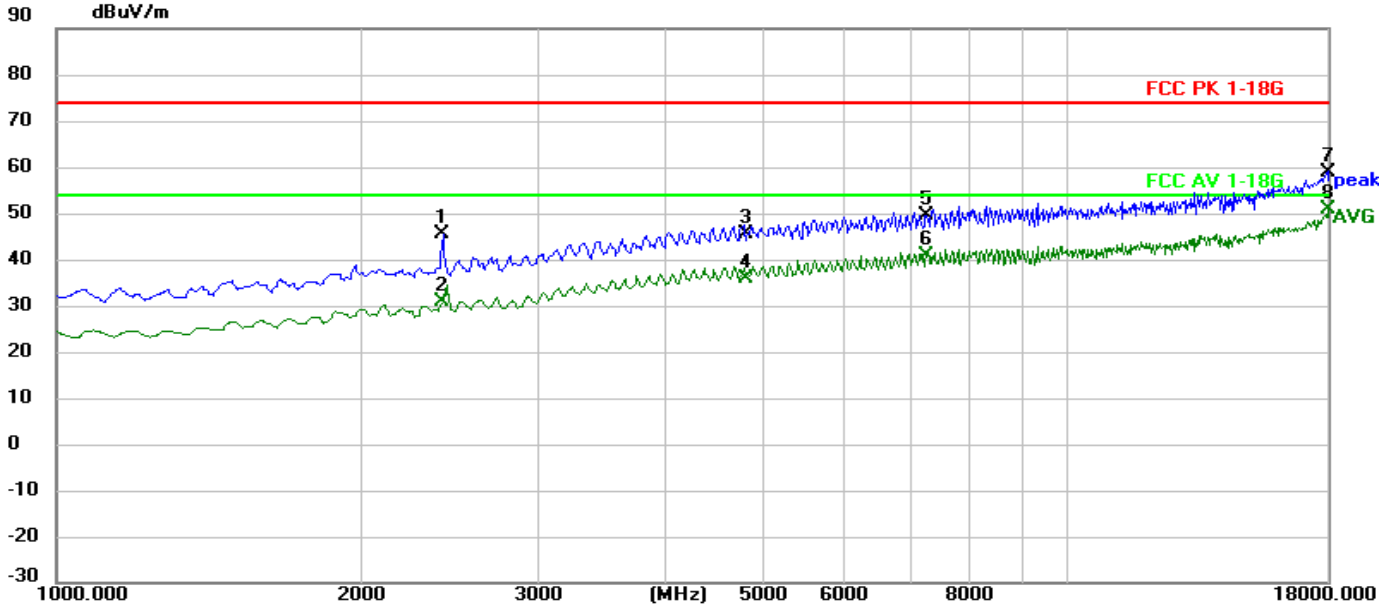
No other significant emissions were measured at the frequency range of interest employing the PK and AV detectors.

Results of 1 – 18 GHz

Model	LS-L07E
Operation Mode	Mode 1 @2405 MHz thread/zigbee
Test voltage	3.3 Vdc

Results

Horizontal

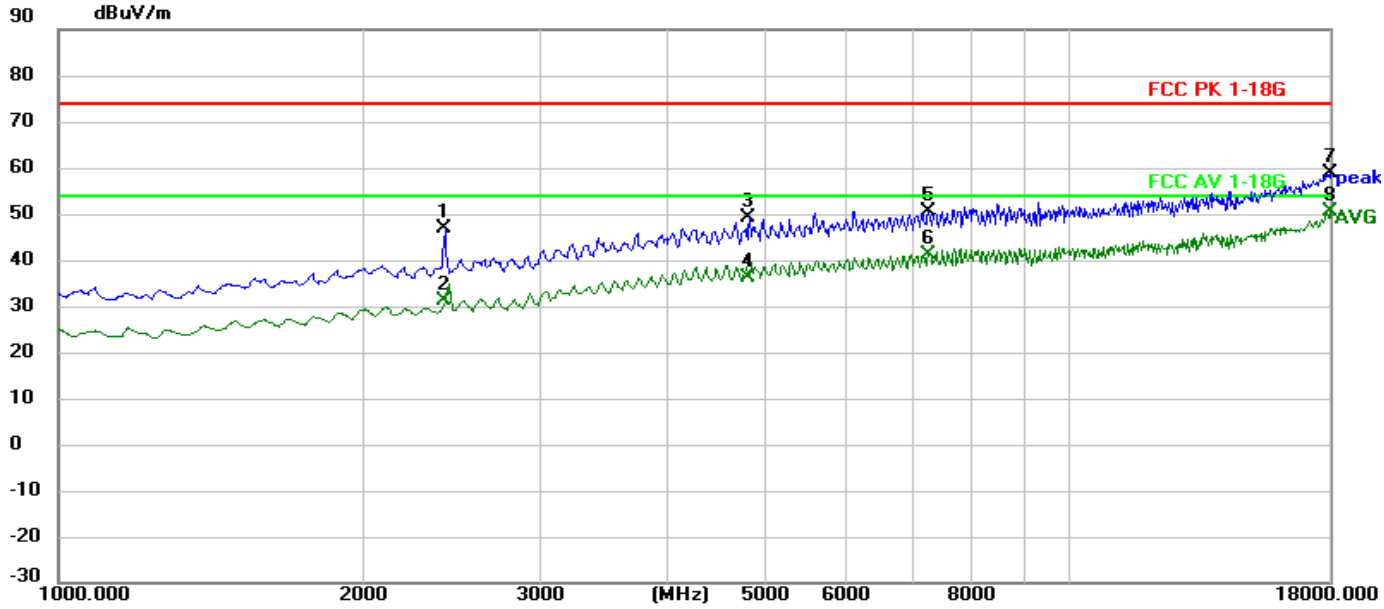


No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	2405.0000	65.17	-19.51	45.66	74.00	-28.34	peak	Pass
2	2405.0000	50.25	-19.51	30.74	54.00	-23.26	AVG	Pass
3	4810.0000	54.47	-9.00	45.47	74.00	-28.53	peak	Pass
4	4810.0000	44.99	-9.00	35.99	54.00	-18.01	AVG	Pass
5	7215.0000	55.25	-5.66	49.59	74.00	-24.41	peak	Pass
6	7215.0000	46.39	-5.66	40.73	54.00	-13.27	AVG	Pass
7	17948.9489	49.05	9.95	59.00	74.00	-15.00	peak	Pass
8 *	17948.9489	40.74	9.95	50.69	54.00	-3.31	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	2405.0000	66.20	-19.51	46.69	74.00	-27.31	peak	Pass
2	2405.0000	50.64	-19.51	31.13	54.00	-22.87	AVG	Pass
3	4810.0000	58.19	-9.00	49.19	74.00	-24.81	peak	Pass
4	4810.0000	45.03	-9.00	36.03	54.00	-17.97	AVG	Pass
5	7215.0000	56.06	-5.66	50.40	74.00	-23.60	peak	Pass
6	7215.0000	46.87	-5.66	41.21	54.00	-12.79	AVG	Pass
7	17948.9489	48.89	9.95	58.84	74.00	-15.16	peak	Pass
8 *	17948.9489	40.53	9.95	50.48	54.00	-3.52	AVG	Pass

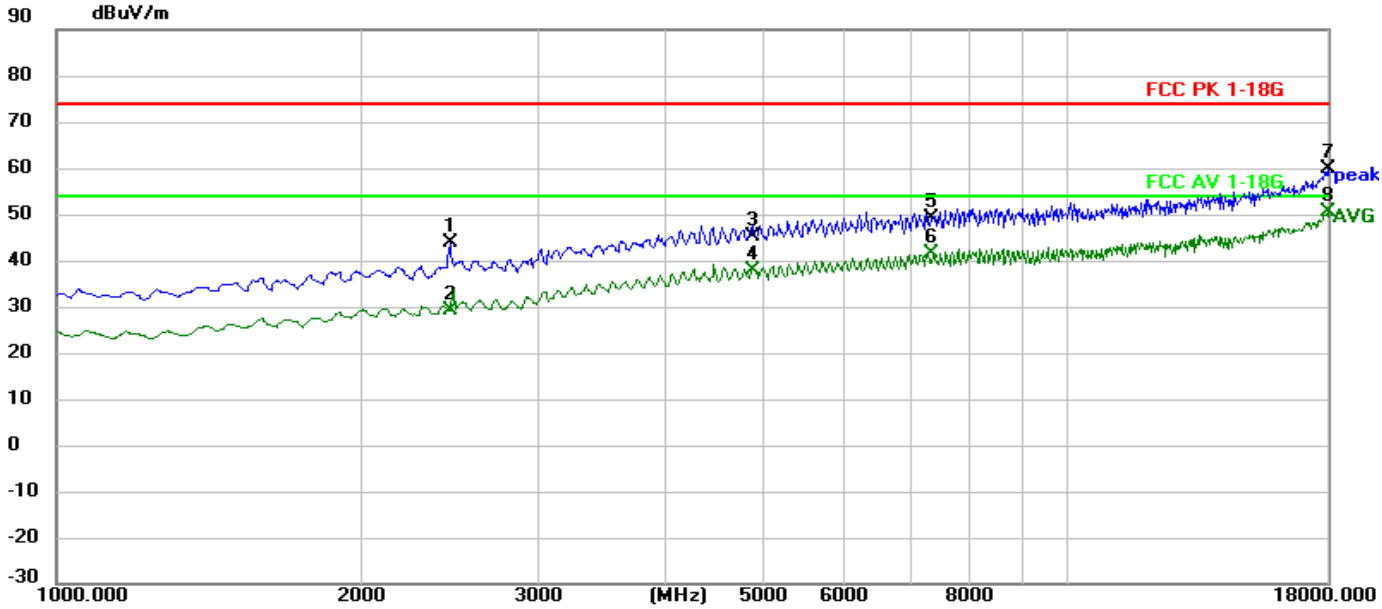
Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

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

Model	LS-L07E
Operation Mode (worst case)	Mode 1 @2440 MHz thread/zigbee
Test voltage	3.3 Vdc

Results

Horizontal

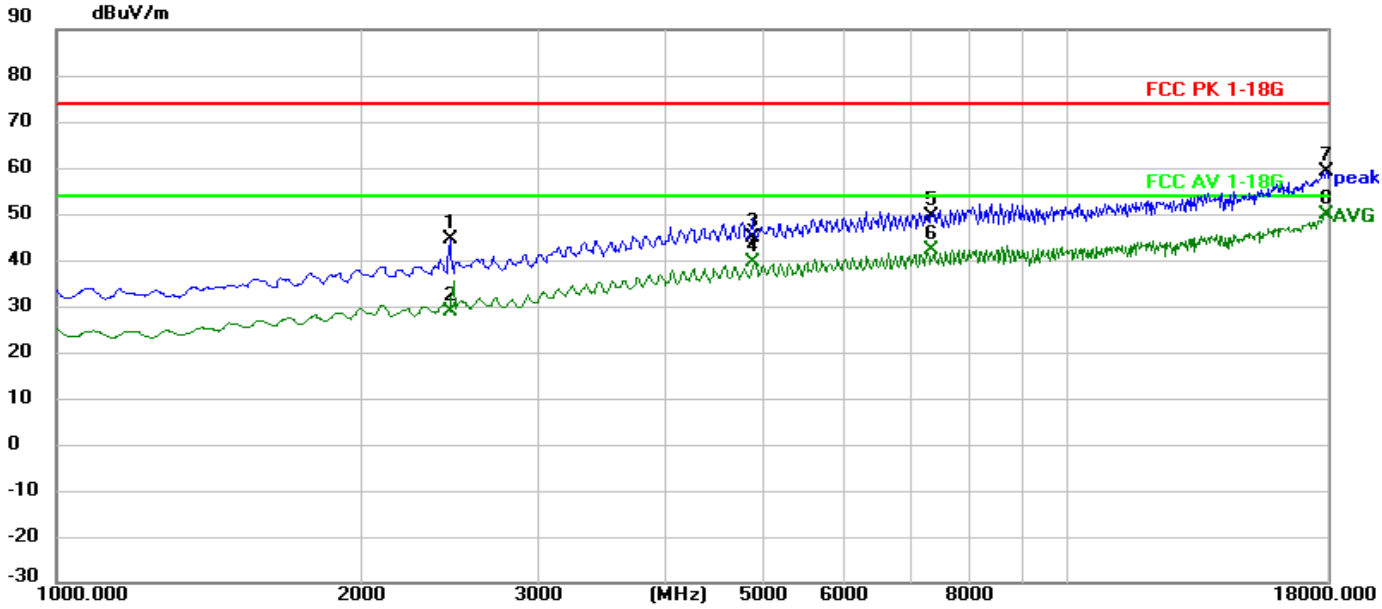


No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	2445.0000	63.21	-19.30	43.91	74.00	-30.09	peak	Pass
2	2445.0000	48.35	-19.30	29.05	54.00	-24.95	AVG	Pass
3	4890.0000	53.94	-8.84	45.10	74.00	-28.90	peak	Pass
4	4890.0000	46.84	-8.84	38.00	54.00	-16.00	AVG	Pass
5	7335.0000	54.63	-5.39	49.24	74.00	-24.76	peak	Pass
6	7335.0000	46.82	-5.39	41.43	54.00	-12.57	AVG	Pass
7	17948.9489	49.74	9.95	59.69	74.00	-14.31	peak	Pass
8 *	17948.9489	40.39	9.95	50.34	54.00	-3.66	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	2445.0000	63.86	-19.30	44.56	74.00	-29.44	peak	Pass
2	2445.0000	48.30	-19.30	29.00	54.00	-25.00	AVG	Pass
3	4890.0000	53.77	-8.84	44.93	74.00	-29.07	peak	Pass
4	4890.0000	48.36	-8.84	39.52	54.00	-14.48	AVG	Pass
5	7335.0000	54.79	-5.39	49.40	74.00	-24.60	peak	Pass
6	7335.0000	47.48	-5.39	42.09	54.00	-11.91	AVG	Pass
7	17931.9319	49.20	9.89	59.09	74.00	-14.91	peak	Pass
8 *	17931.9319	39.79	9.89	49.68	54.00	-4.32	AVG	Pass

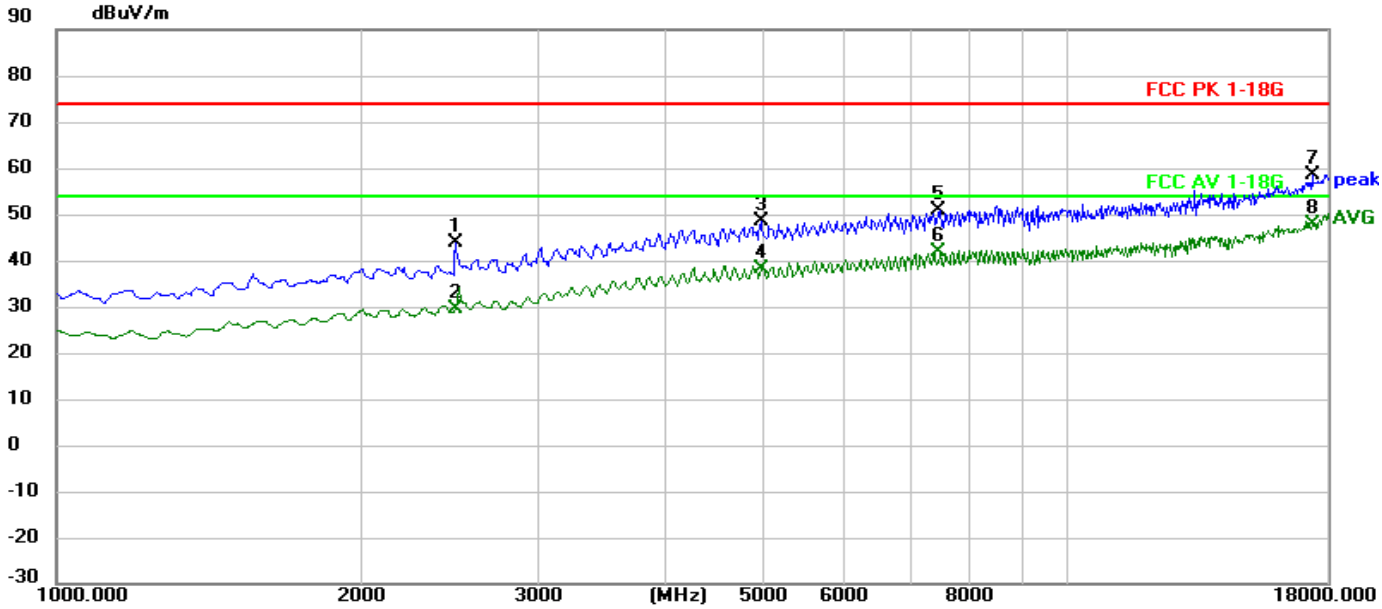
Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

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

Model	LS-L07E
Operation Mode (worst case)	Mode 1 @2480 MHz thread/zigbee
Test voltage	3.3 Vdc

Results

Horizontal

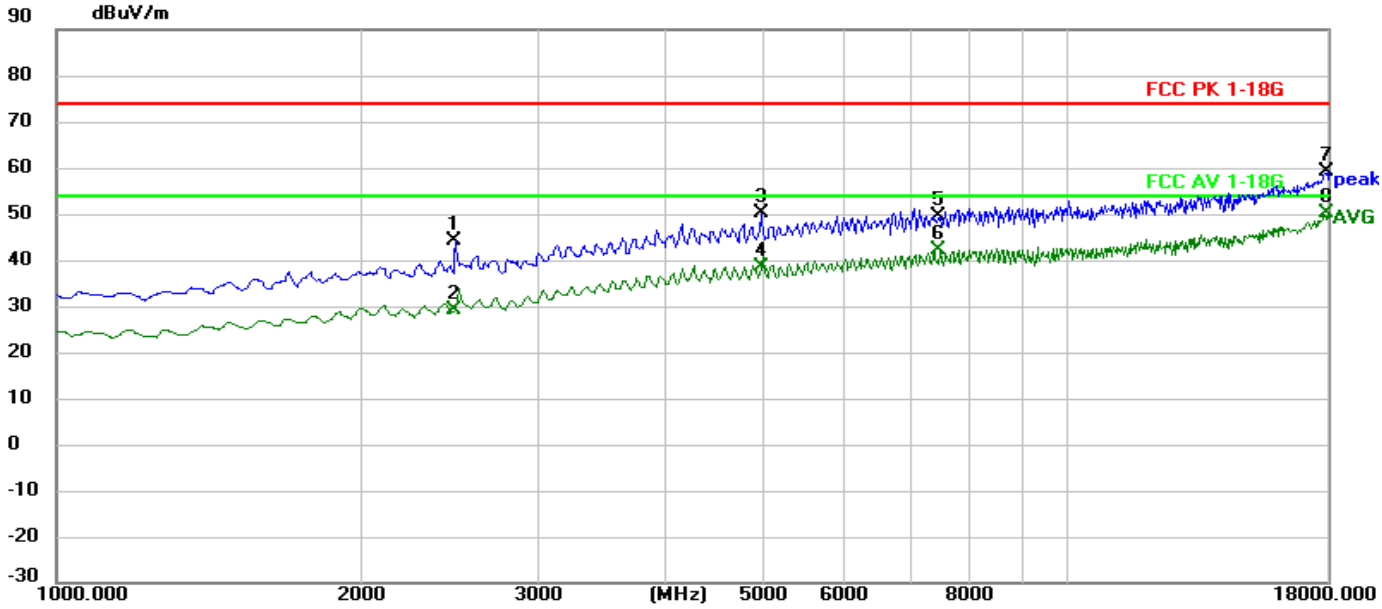


No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Pass/Fail
1	2480.0000	62.92	-19.07	43.85	74.00	-30.15	peak	Pass
2	2480.0000	48.50	-19.07	29.43	54.00	-24.57	AVG	Pass
3	4960.0000	57.16	-8.69	48.47	74.00	-25.53	peak	Pass
4	4960.0000	46.92	-8.69	38.23	54.00	-15.77	AVG	Pass
5	7440.0000	55.98	-5.15	50.83	74.00	-23.17	peak	Pass
6	7440.0000	46.94	-5.15	41.79	54.00	-12.21	AVG	Pass
7	17353.3534	50.27	8.31	58.58	74.00	-15.42	peak	Pass
8 *	17353.3534	39.52	8.31	47.83	54.00	-6.17	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	2480.4805	63.33	-19.07	44.26	74.00	-29.74	peak	Pass
2	2480.4805	48.11	-19.07	29.04	54.00	-24.96	AVG	Pass
3	4960.0000	58.76	-8.69	50.07	74.00	-23.93	peak	Pass
4	4960.0000	47.15	-8.69	38.46	54.00	-15.54	AVG	Pass
5	7440.0000	54.60	-5.15	49.45	74.00	-24.55	peak	Pass
6	7440.0000	47.19	-5.15	42.04	54.00	-11.96	AVG	Pass
7	17965.9660	49.31	9.97	59.28	74.00	-14.72	peak	Pass
8 *	17965.9660	40.34	9.97	50.31	54.00	-3.69	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

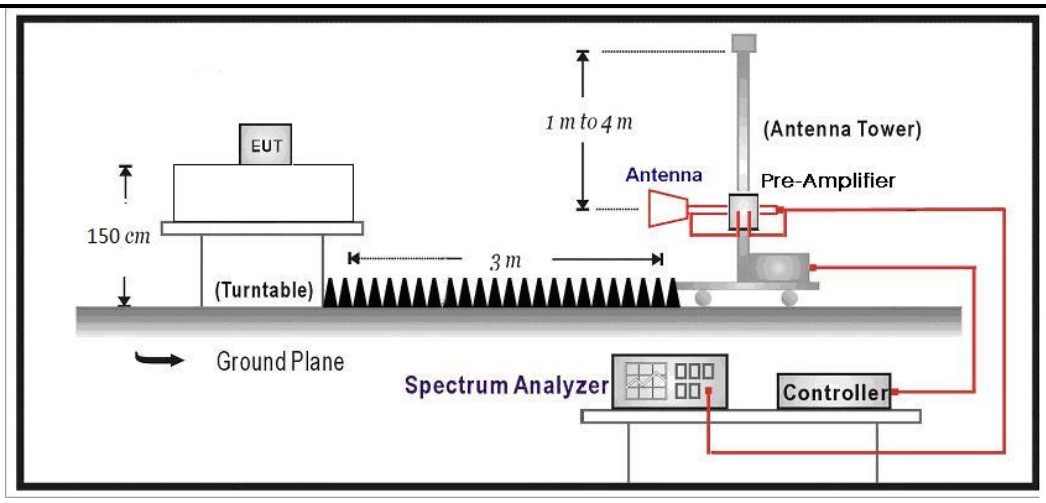
Restricted Bands of operation of FCC			
Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 – 0.110	16.42 – 16.423	399.9 – 410	4.5 – 5.15
0.495 – 0.505	16.69475 –16.69525	608 – 614	5.35 – 5.46
2.1735 – 2.1905	16.80425 – 16.80475	960 – 1240	7.25 – 7.75
4.125 – 4.128	25.5 – 25.67	1300 – 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 (μV/m)	Field strength (dBμV/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



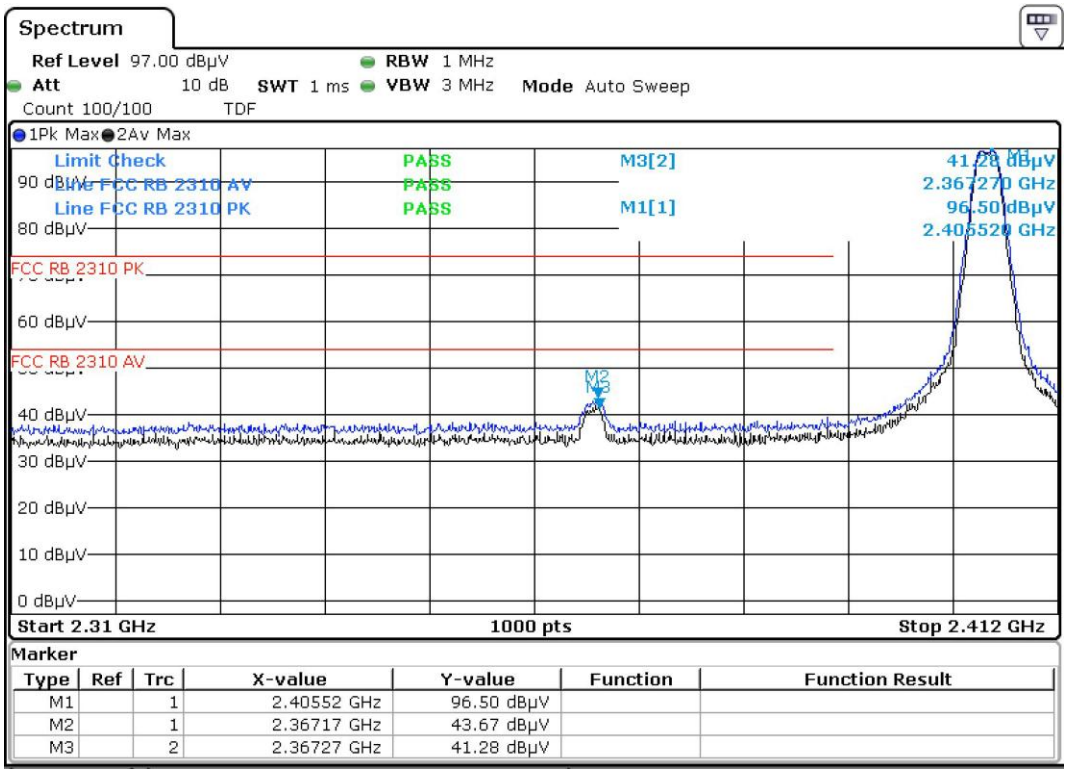
Performed measurements

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	
Remark	---	

Model	LS-L07E
Operation Mode (worst case)	Mode 1 @2402 MHz BLE 1M
Test voltage	3.3 Vdc

Results

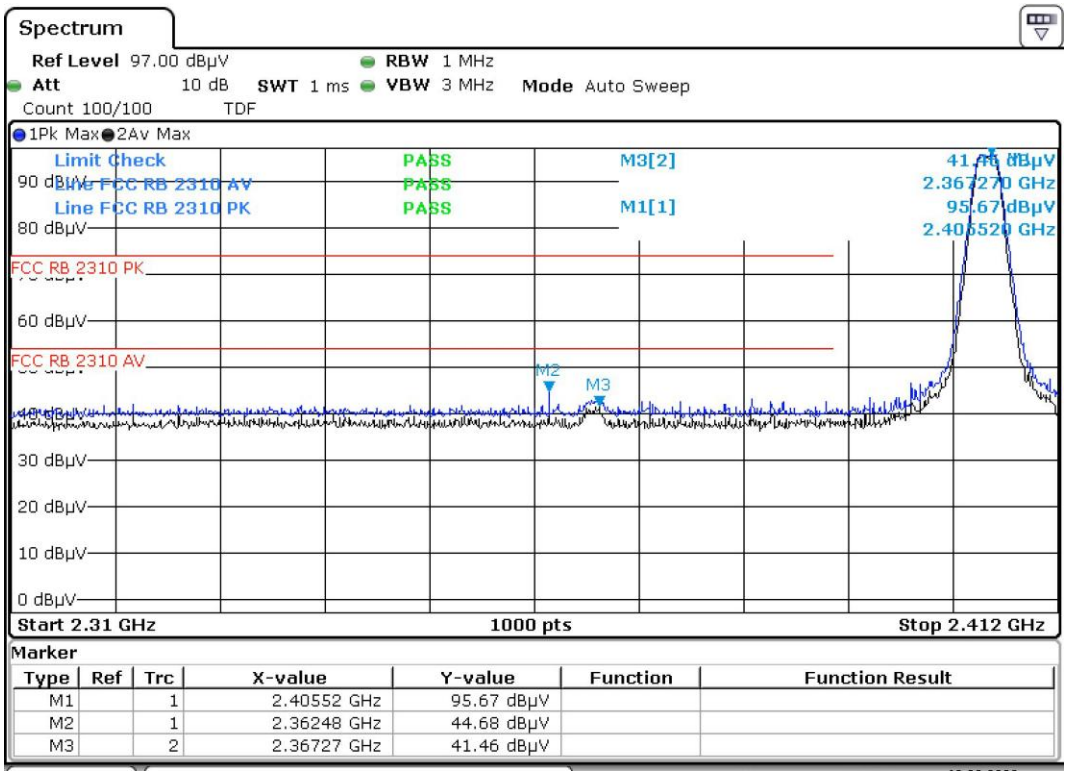
Horizontal



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



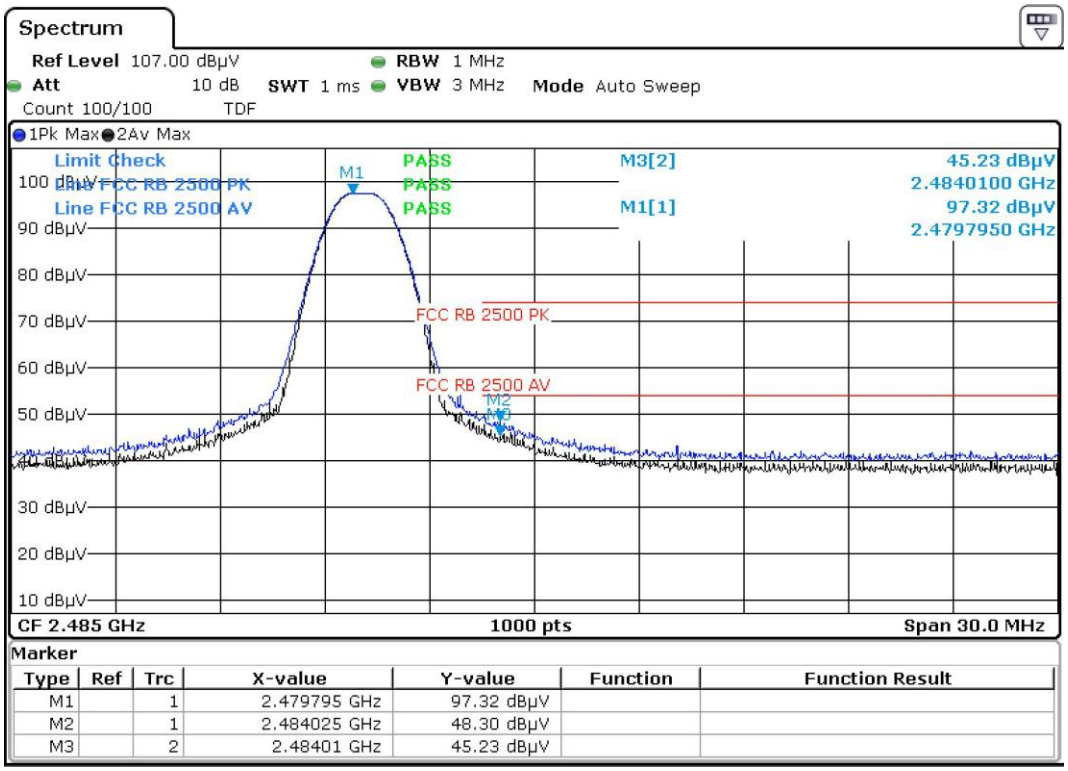
Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

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

Model	LS-L07E
Operation Mode (worst case)	Mode 1 @2480 MHz BLE 1M
Test voltage	3.3 Vdc

Results

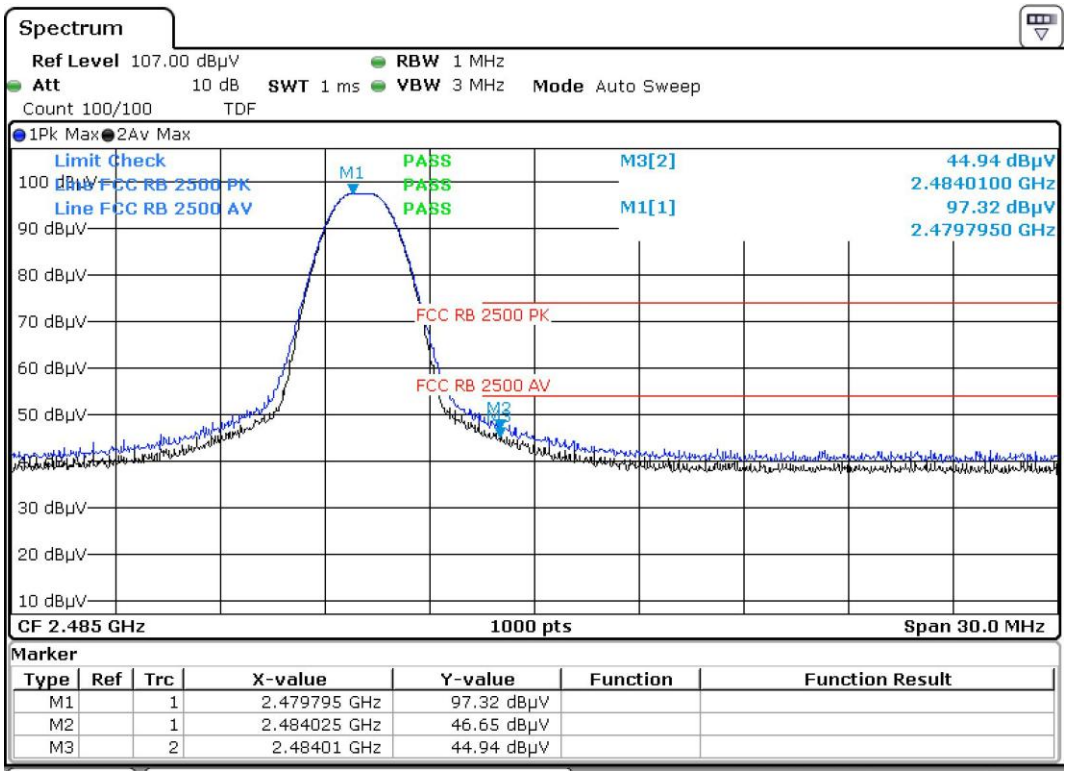
Horizontal



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



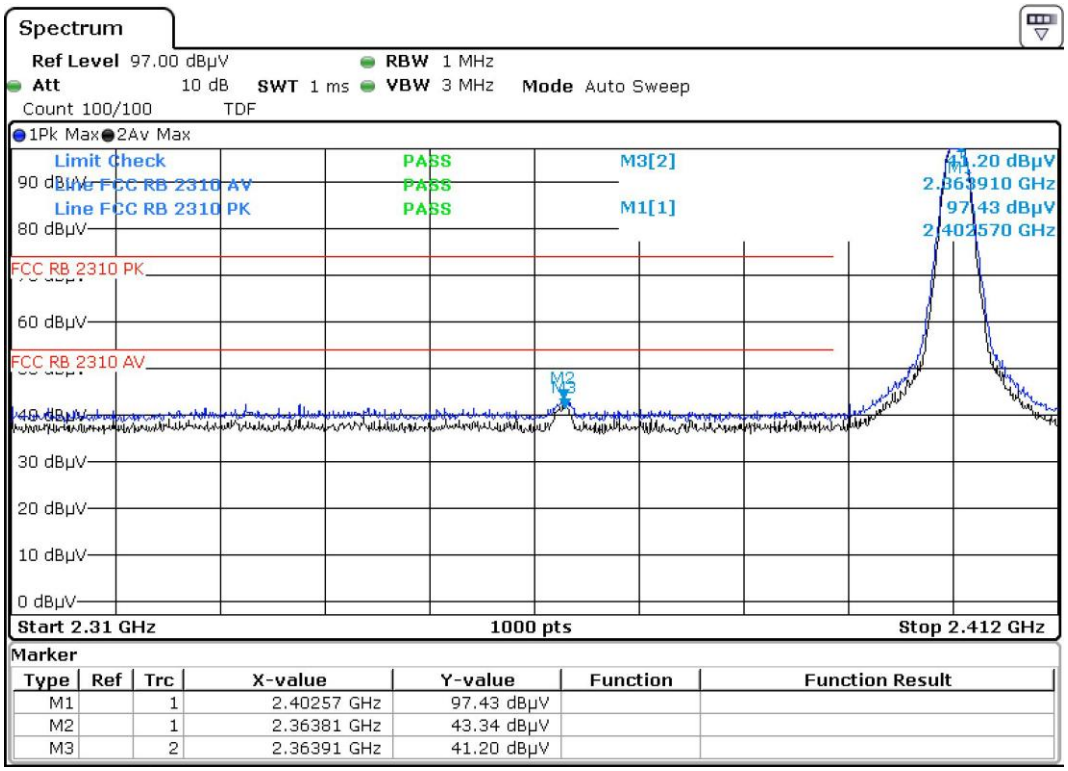
Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

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

Model	LS-L07E
Operation Mode (worst case)	Mode 1 @2402 MHz BLE 2M
Test voltage	3.3 Vdc

Results

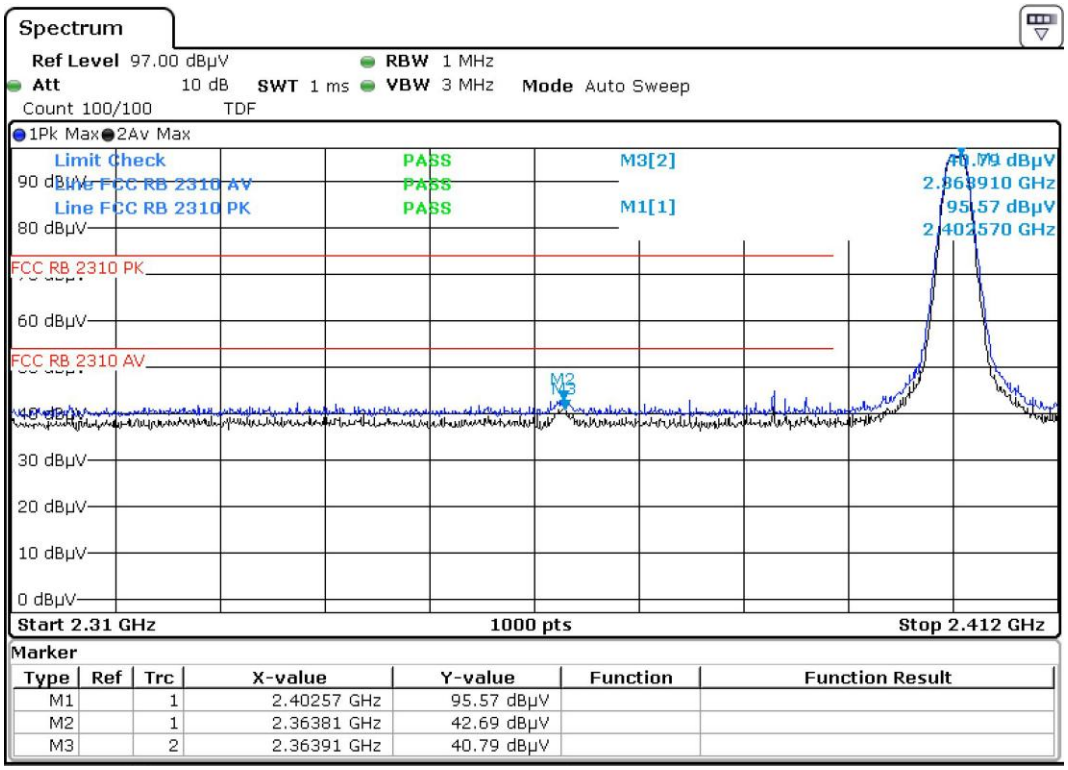
Horizontal



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



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40257 GHz	95.57 dBµV		
M2		1	2.36381 GHz	42.69 dBµV		
M3		2	2.36391 GHz	40.79 dBµV		

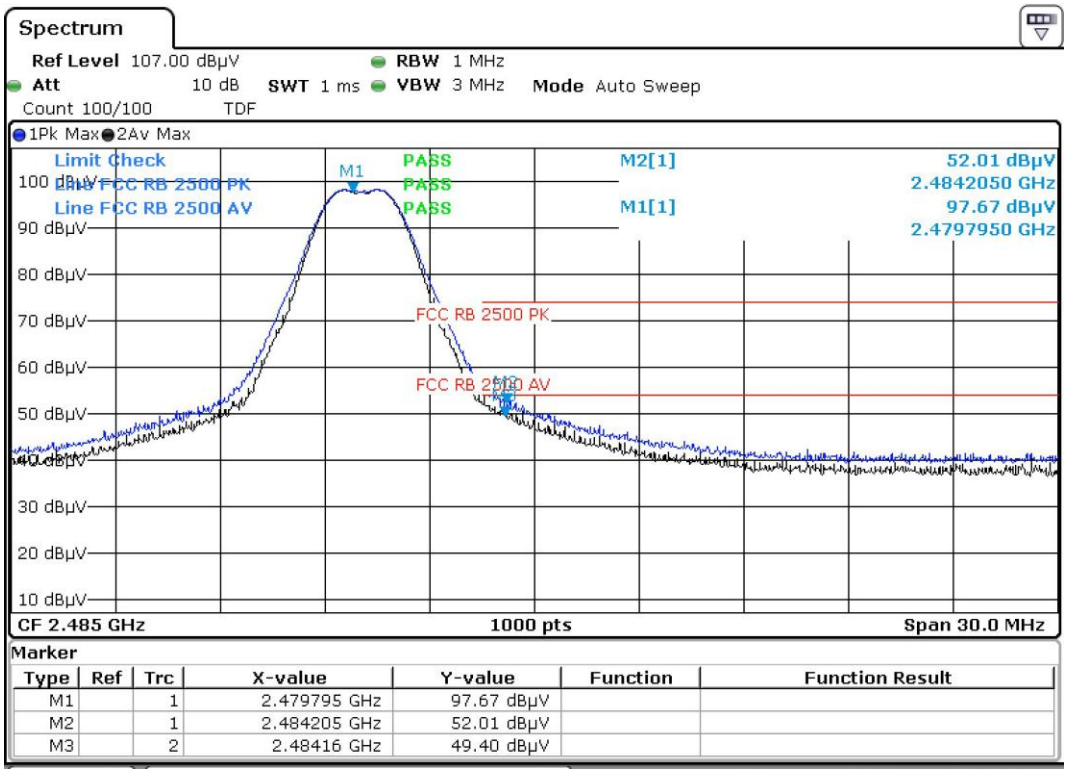
Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

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

Model	LS-L07E
Operation Mode (worst case)	Mode 1 @2480 MHz BLE 2M
Test voltage	3.3 Vdc

Results

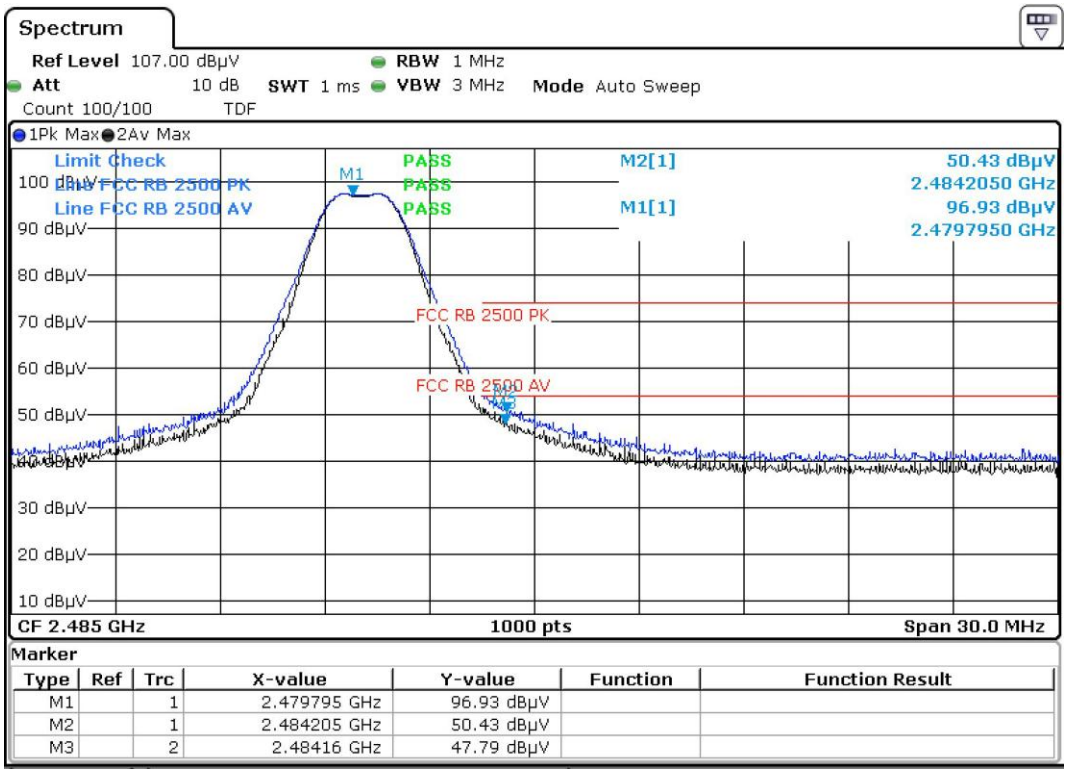
Horizontal



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



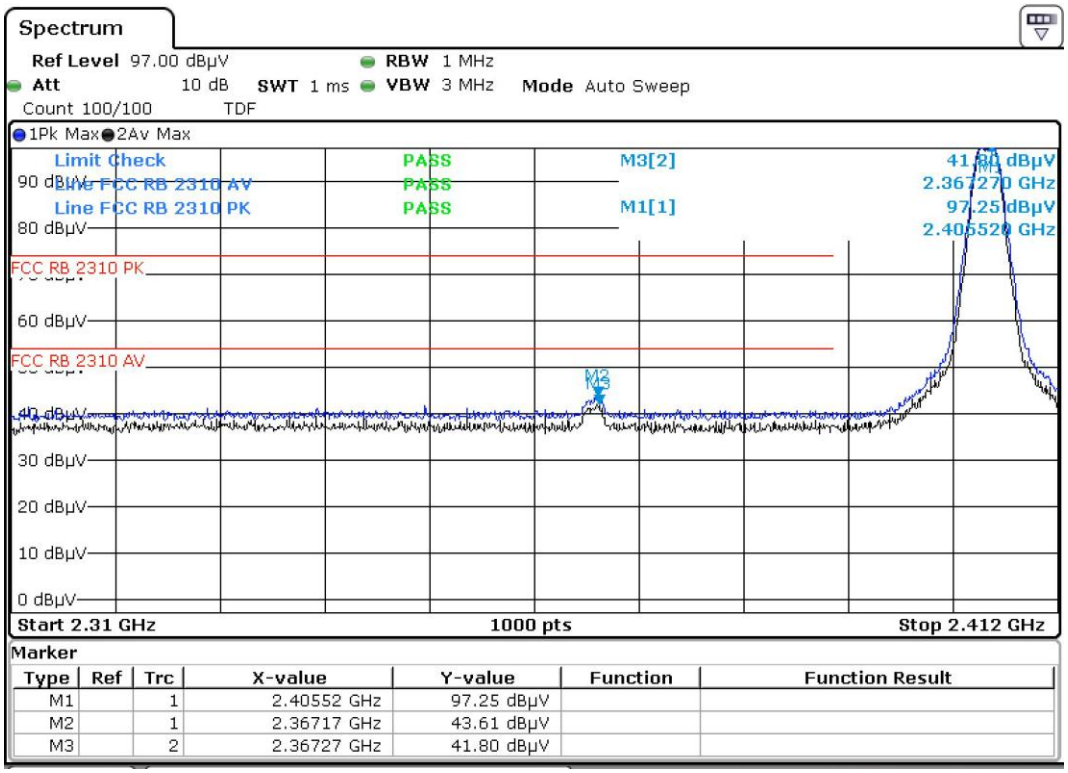
Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

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

Model	LS-L07E
Operation Mode (worst case)	Mode 1 @2405 MHz thread/zigbee
Test voltage	3.3 Vdc

Results

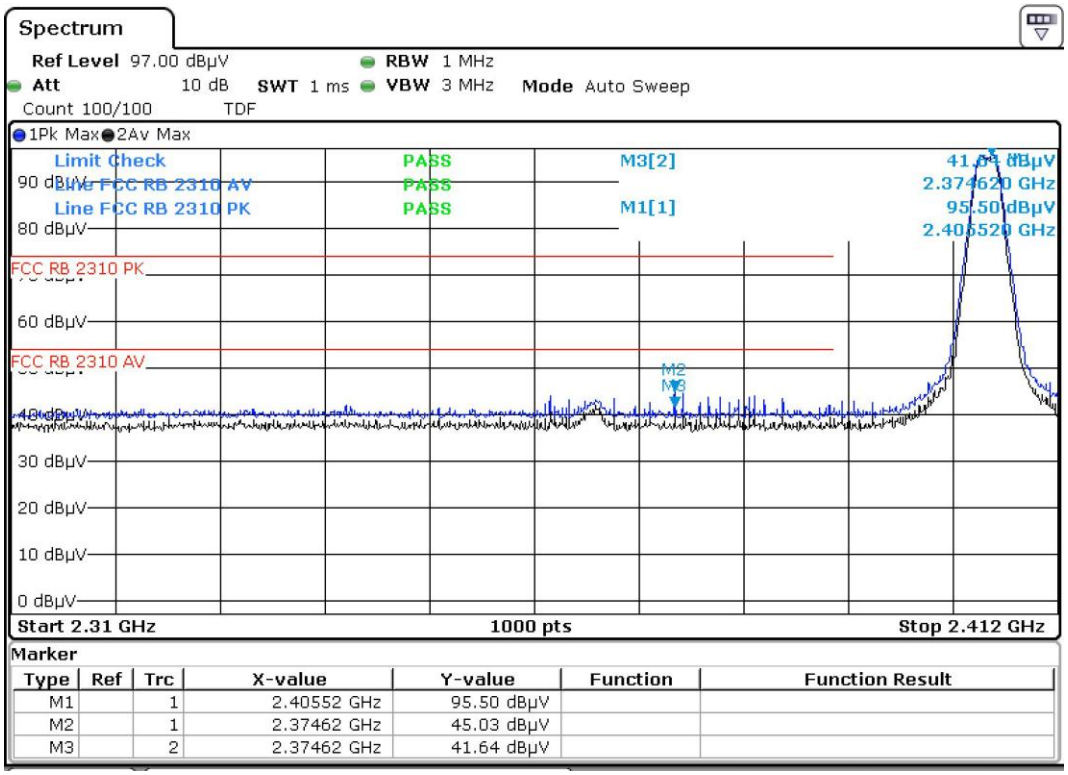
Horizontal



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



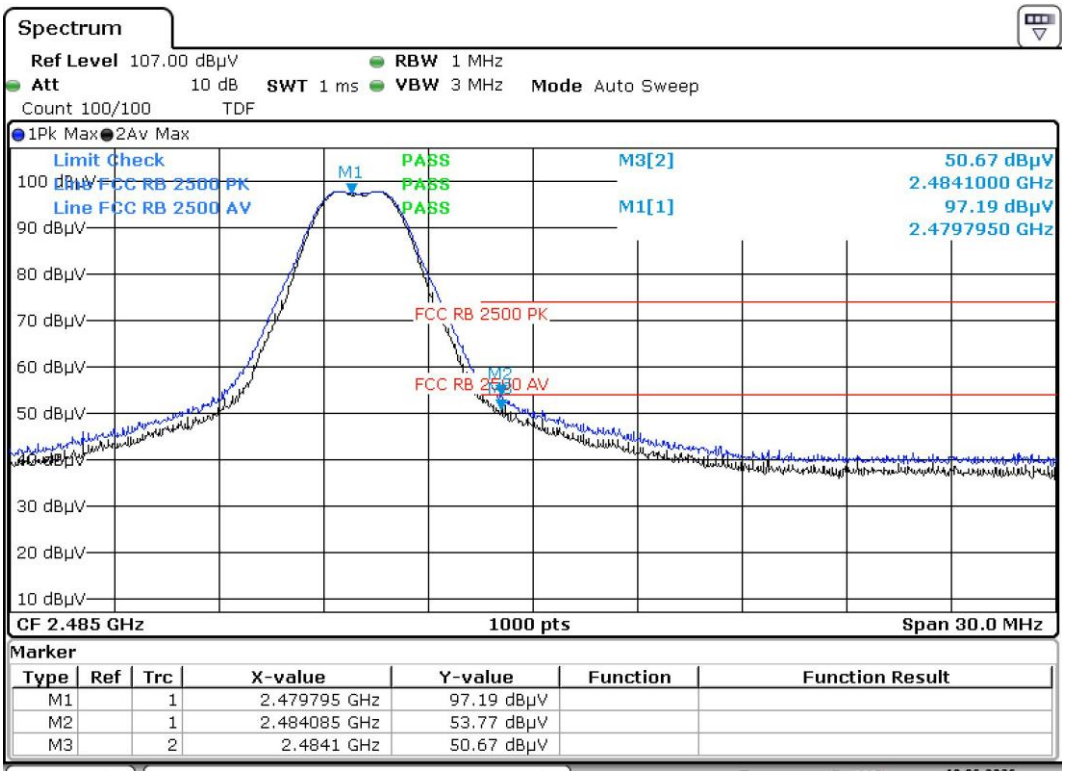
Remarks: Y-Value = received value + Correction Factor (Antenna factor + Cable loss - Preamp gain)

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

Model	LS-L07E
Operation Mode (worst case)	Mode 1 @2480 MHz thread/zigbee
Test voltage	3.3 Vdc

Results

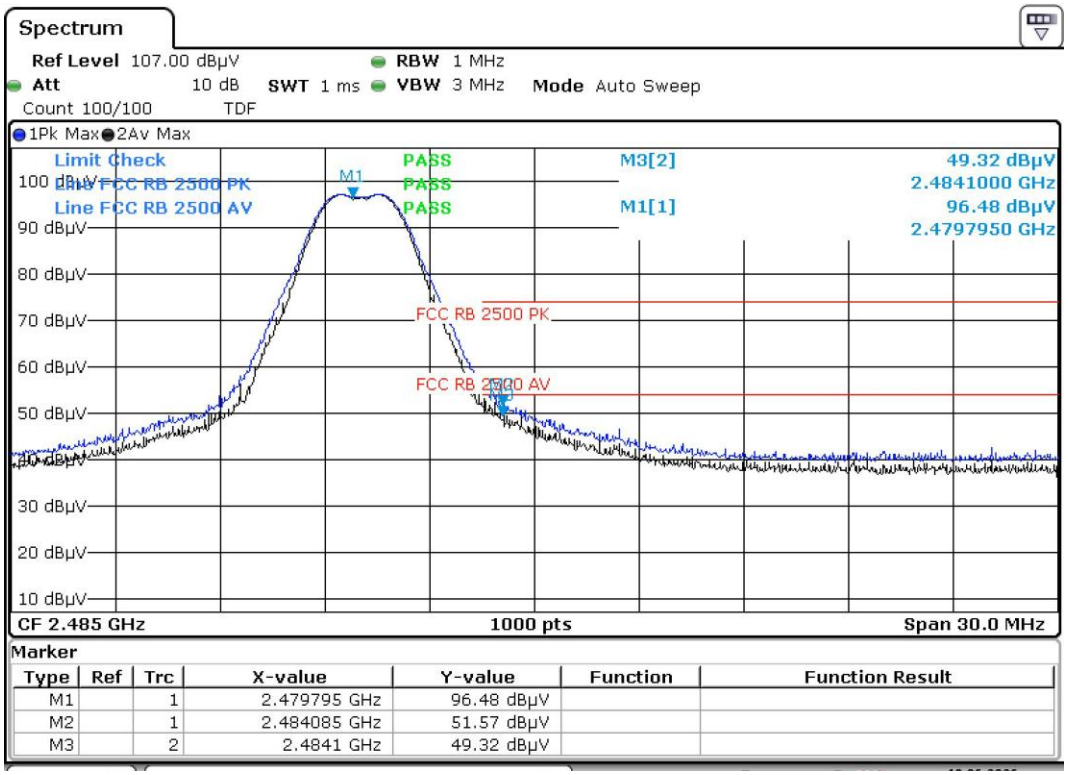
Horizontal



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



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.

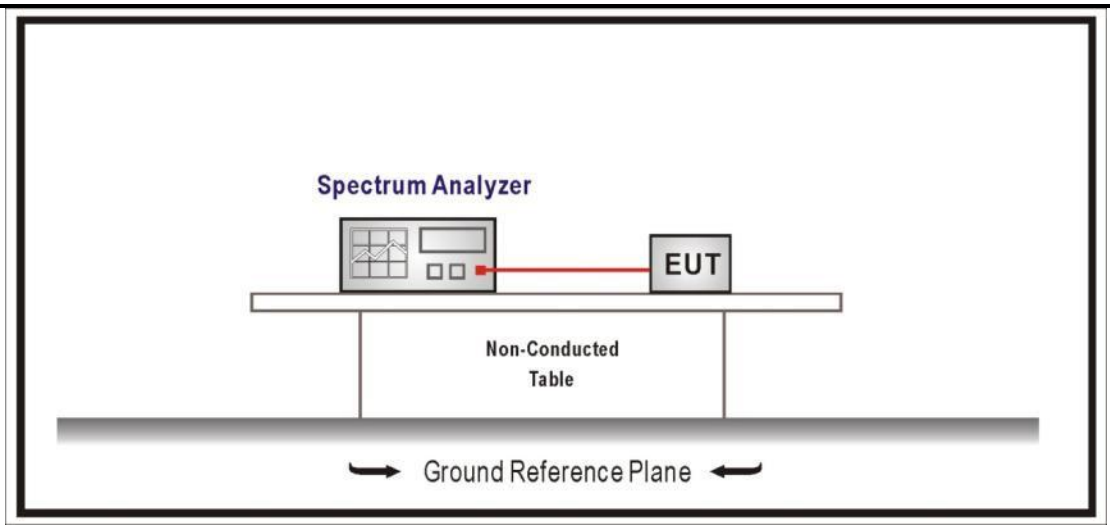
4.4 Band Edge — VERDICT: PASS

Standard	FCC Part 15 Subpart C Paragraph 15.247(d) RSS-Gen Issue 5 Section 8.10
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 by 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 by least 20 dB relative to the maximum in-band peak PSD by level in 100 kHz (i.e., 20 dBc).

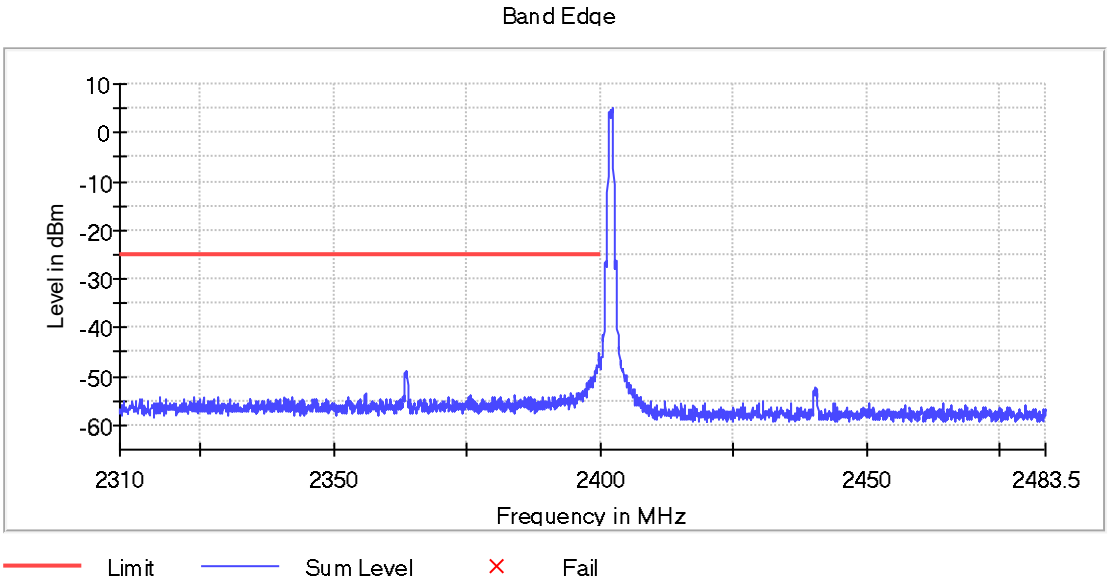
Test Configuration



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 @2402 MHz BLE 1M



Inband Peak

Frequency (MHz)	Level (dBm)
2402.0000	5.1

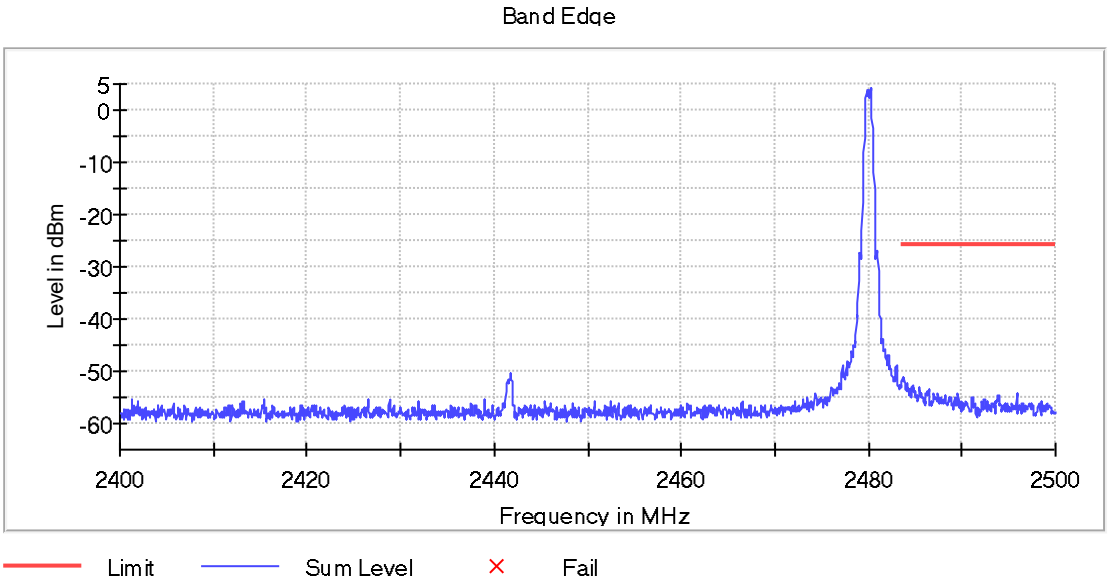
Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2399.825000	-45.1	20.2	-24.9	PASS
2399.875000	-45.4	20.5	-24.9	PASS
2399.975000	-46.3	21.3	-24.9	PASS
2399.925000	-46.3	21.4	-24.9	PASS
2399.675000	-46.5	21.5	-24.9	PASS
2399.725000	-46.5	21.5	-24.9	PASS
2399.775000	-47.0	22.1	-24.9	PASS
2399.625000	-47.4	22.5	-24.9	PASS
2399.475000	-47.6	22.7	-24.9	PASS
2399.525000	-47.6	22.7	-24.9	PASS
2399.575000	-48.0	23.1	-24.9	PASS
2399.425000	-48.1	23.2	-24.9	PASS
2399.325000	-48.1	23.2	-24.9	PASS
2399.275000	-48.2	23.3	-24.9	PASS
2399.225000	-48.4	23.5	-24.9	PASS

Remark：

RBW	**100.000 kHz**
VBW	**300.000 kHz**
Detector	**MaxPeak**

Results of mode 1 @2480 MHz BLE 1M



Inband Peak

Frequency (MHz)	Level (dBm)
2480.0000	4.2

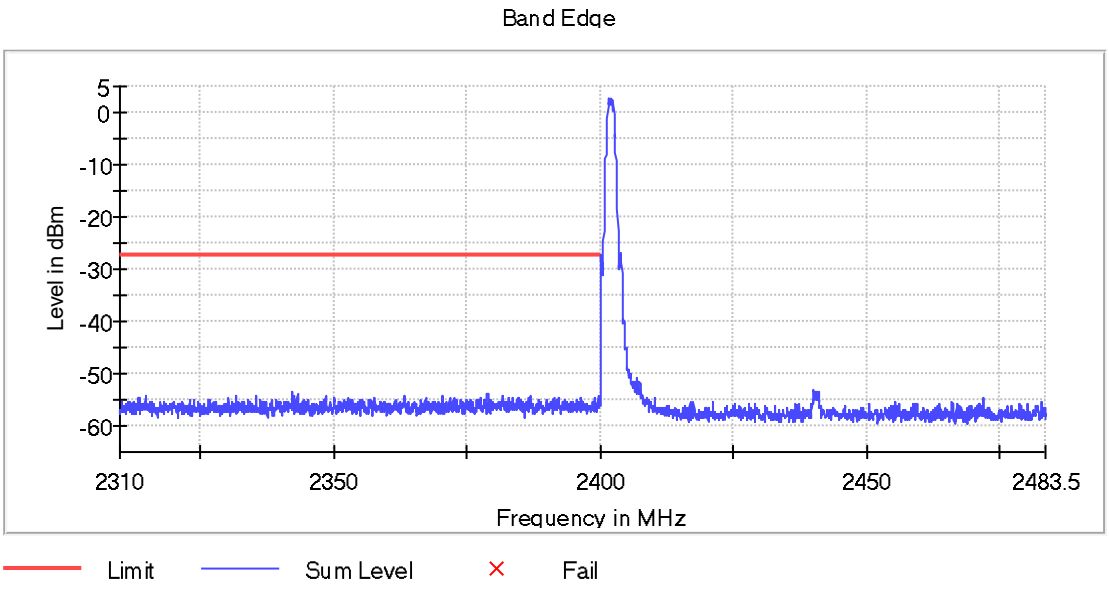
Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2483.825000	-51.2	25.4	-25.8	PASS
2483.625000	-51.2	25.4	-25.8	PASS
2483.675000	-51.3	25.4	-25.8	PASS
2483.775000	-51.3	25.4	-25.8	PASS
2483.725000	-51.9	26.1	-25.8	PASS
2483.575000	-52.0	26.1	-25.8	PASS
2483.875000	-52.2	26.4	-25.8	PASS
2483.525000	-52.3	26.5	-25.8	PASS
2484.175000	-52.4	26.5	-25.8	PASS
2484.775000	-52.7	26.9	-25.8	PASS
2484.725000	-52.8	26.9	-25.8	PASS
2484.225000	-53.0	27.2	-25.8	PASS
2485.475000	-53.1	27.3	-25.8	PASS
2484.875000	-53.1	27.3	-25.8	PASS
2484.675000	-53.2	27.4	-25.8	PASS

Remark：

RBW	**100.000 kHz**
VBW	**300.000 kHz**
Detector	**MaxPeak**

Results of mode 1 @2402 MHz BLE 2M



Inband Peak

Frequency (MHz)	Level (dBm)
2402.0000	2.6

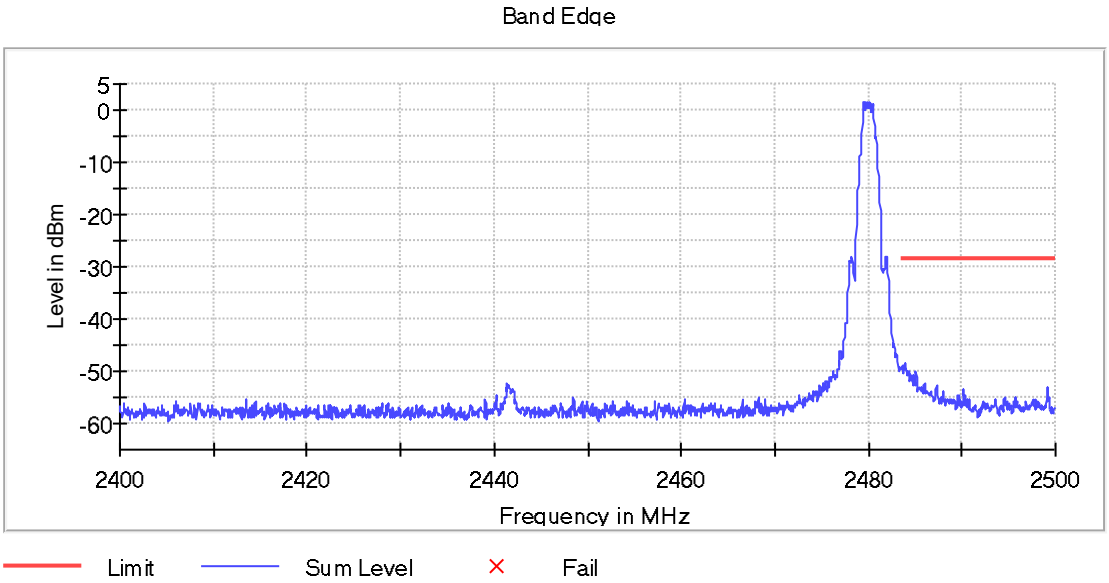
Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2342.275000	-53.6	26.2	-27.4	PASS
2343.275000	-53.8	26.4	-27.4	PASS
2342.325000	-53.9	26.5	-27.4	PASS
2378.875000	-54.0	26.6	-27.4	PASS
2378.925000	-54.0	26.6	-27.4	PASS
2342.525000	-54.2	26.8	-27.4	PASS
2343.325000	-54.2	26.8	-27.4	PASS
2314.775000	-54.2	26.9	-27.4	PASS
2335.525000	-54.3	26.9	-27.4	PASS
2381.825000	-54.3	27.0	-27.4	PASS
2363.225000	-54.3	27.0	-27.4	PASS
2399.575000	-54.4	27.0	-27.4	PASS
2331.675000	-54.4	27.0	-27.4	PASS
2348.525000	-54.4	27.0	-27.4	PASS
2370.375000	-54.4	27.0	-27.4	PASS

Remark：

RBW	**100.000 kHz**
VBW	**300.000 kHz**
Detector	**MaxPeak**

Results of mode 1 @2480 MHz BLE 2M



Inband Peak

Frequency (MHz)	Level (dBm)
2480.0000	1.7

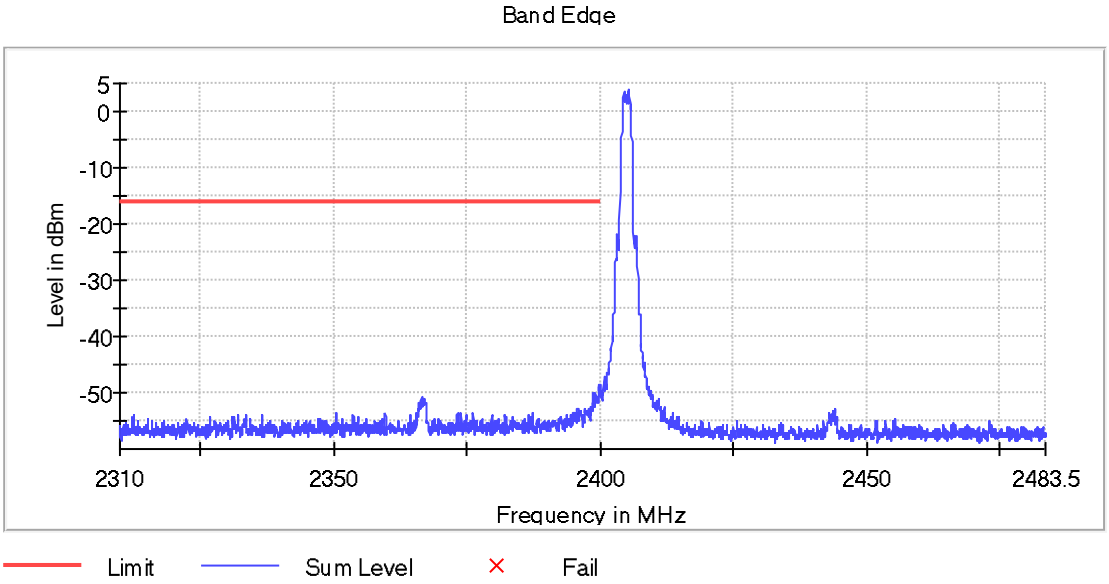
Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2483.975000	-48.6	20.3	-28.3	PASS
2483.625000	-48.7	20.4	-28.3	PASS
2483.575000	-49.0	20.7	-28.3	PASS
2483.675000	-49.2	20.9	-28.3	PASS
2483.775000	-49.3	21.0	-28.3	PASS
2484.025000	-49.3	21.0	-28.3	PASS
2483.925000	-49.4	21.0	-28.3	PASS
2483.525000	-49.4	21.1	-28.3	PASS
2483.825000	-49.6	21.2	-28.3	PASS
2483.875000	-49.6	21.3	-28.3	PASS
2485.075000	-50.2	21.8	-28.3	PASS
2484.275000	-50.2	21.8	-28.3	PASS
2484.225000	-50.2	21.9	-28.3	PASS
2483.725000	-50.3	22.0	-28.3	PASS
2484.375000	-50.3	22.0	-28.3	PASS

Remark：

RBW	**100.000 kHz**
VBW	**300.000 kHz**
Detector	**MaxPeak**

Results of mode 1 @2405 MHz thread/zigbee



Inband Peak

Frequency (MHz)	Level (dBm)
2402.0000	3.8

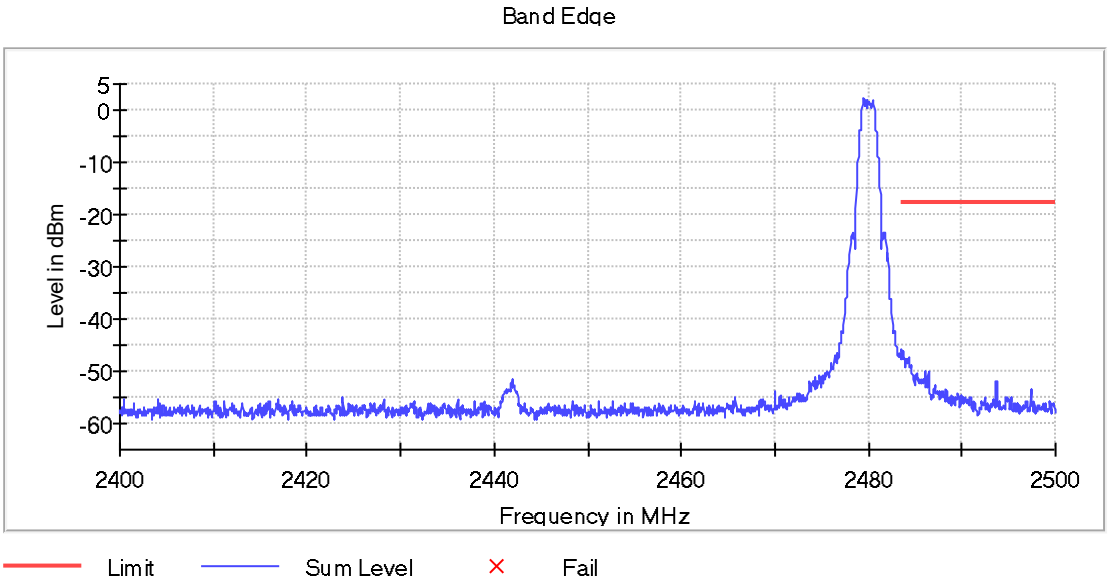
Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2399.925000	-48.4	32.2	-16.2	PASS
2399.975000	-48.7	32.5	-16.2	PASS
2399.825000	-49.0	32.9	-16.2	PASS
2399.775000	-49.1	32.9	-16.2	PASS
2399.875000	-49.7	33.6	-16.2	PASS
2398.775000	-49.9	33.7	-16.2	PASS
2399.175000	-50.1	33.9	-16.2	PASS
2399.725000	-50.3	34.1	-16.2	PASS
2398.825000	-50.4	34.3	-16.2	PASS
2399.225000	-50.5	34.4	-16.2	PASS
2398.875000	-50.6	34.5	-16.2	PASS
2398.725000	-50.7	34.5	-16.2	PASS
2399.325000	-50.8	34.6	-16.2	PASS
2366.525000	-50.9	34.7	-16.2	PASS
2398.925000	-51.0	34.8	-16.2	PASS

Remark：

RBW	**100.000 kHz**
VBW	**300.000 kHz**
Detector	**MaxPeak**

Results of mode 1 @2480 MHz thread/zigbee



Inband Peak

Frequency (MHz)	Level (dBm)
2480.0000	2.2

Measurements

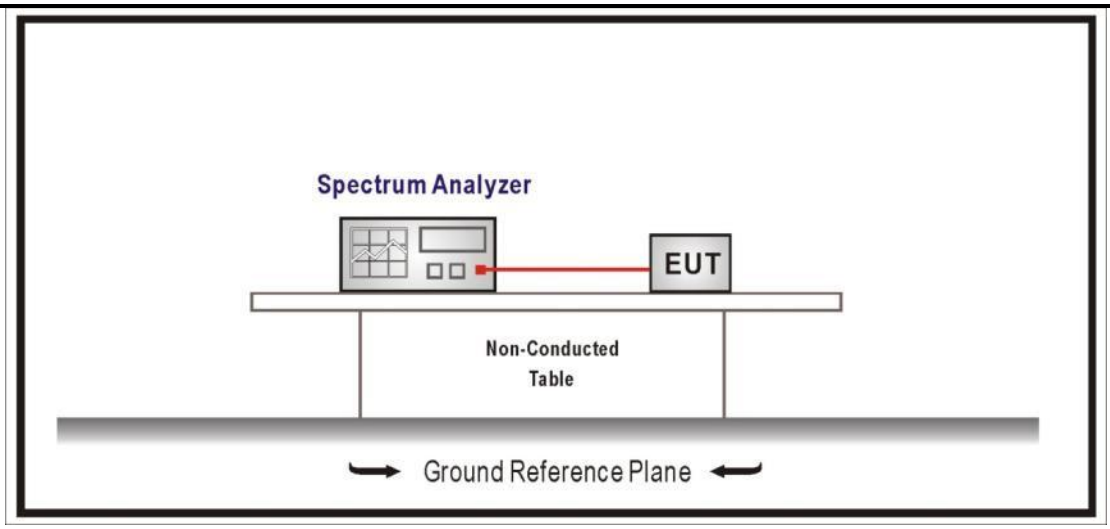
Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2483.525000	-45.7	27.9	-17.8	PASS
2483.575000	-45.8	28.0	-17.8	PASS
2483.775000	-46.2	28.4	-17.8	PASS
2483.725000	-46.6	28.8	-17.8	PASS
2484.275000	-47.2	29.4	-17.8	PASS
2483.825000	-47.3	29.5	-17.8	PASS
2483.625000	-47.5	29.7	-17.8	PASS
2484.075000	-47.5	29.8	-17.8	PASS
2483.875000	-47.7	29.9	-17.8	PASS
2484.025000	-47.7	29.9	-17.8	PASS
2484.325000	-47.8	30.0	-17.8	PASS
2484.175000	-47.8	30.0	-17.8	PASS
2483.675000	-47.8	30.0	-17.8	PASS
2484.225000	-47.9	30.1	-17.8	PASS
2484.125000	-48.4	30.6	-17.8	PASS

Remark：

RBW	**100.000 kHz**
VBW	**300.000 kHz**
Detector	**MaxPeak**

4.5 Duty cycle	VERDICT: PASS

Test Configuration



Performed measurements

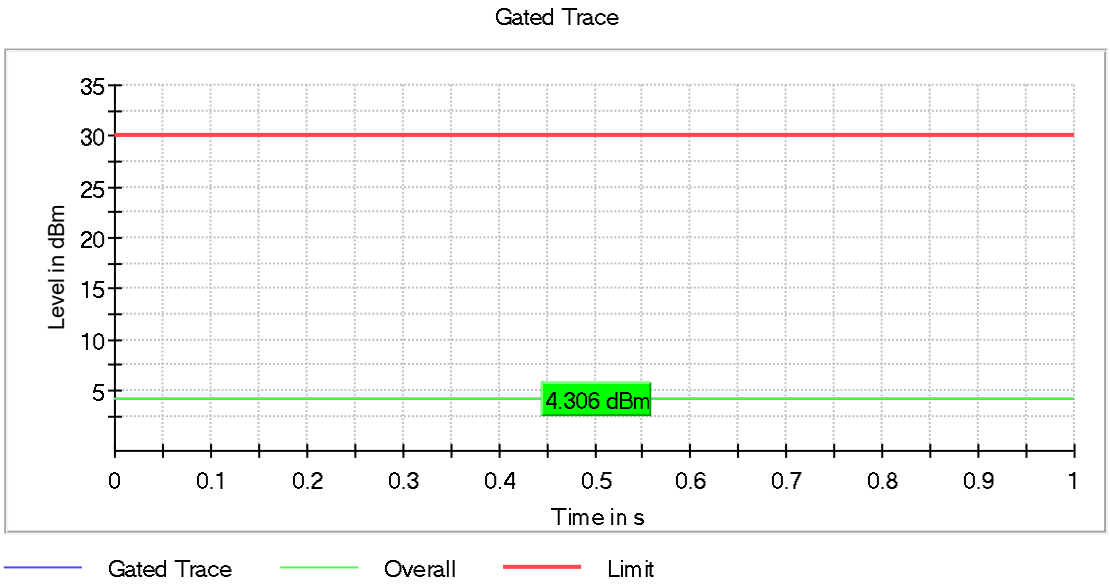
Port under test	Antenna port	
Test method applied	☒	Conducted measurement
	☐	Radiated measurement
Test setup	Refer to the Annex 3 for test setup photo(s).	
Operating mode(s) used	Mode 1	
Remark	---	

Results of BLE 1M

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.

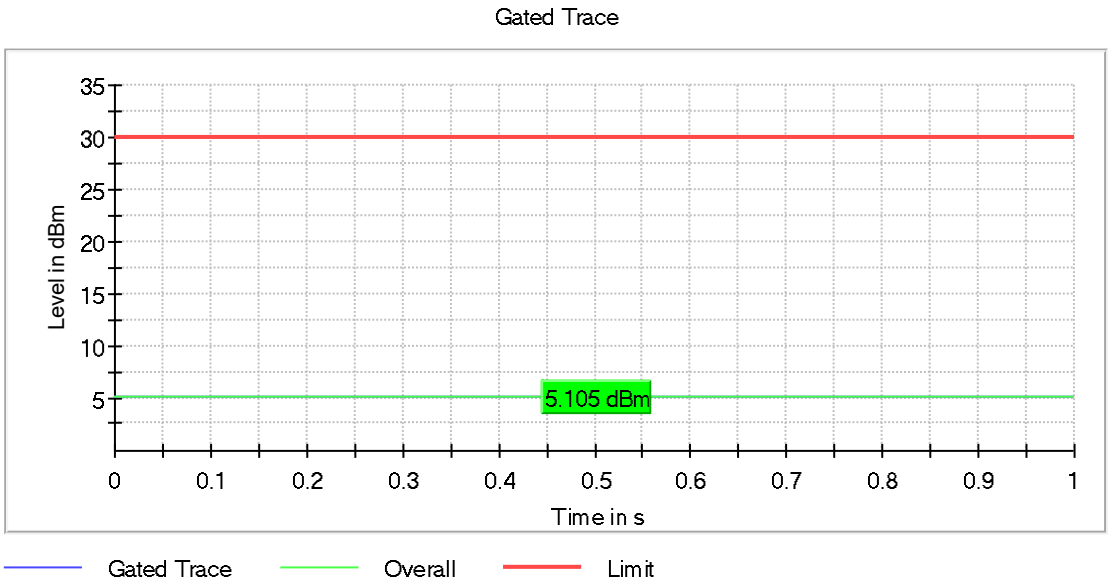


Results of BLE 2M

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.

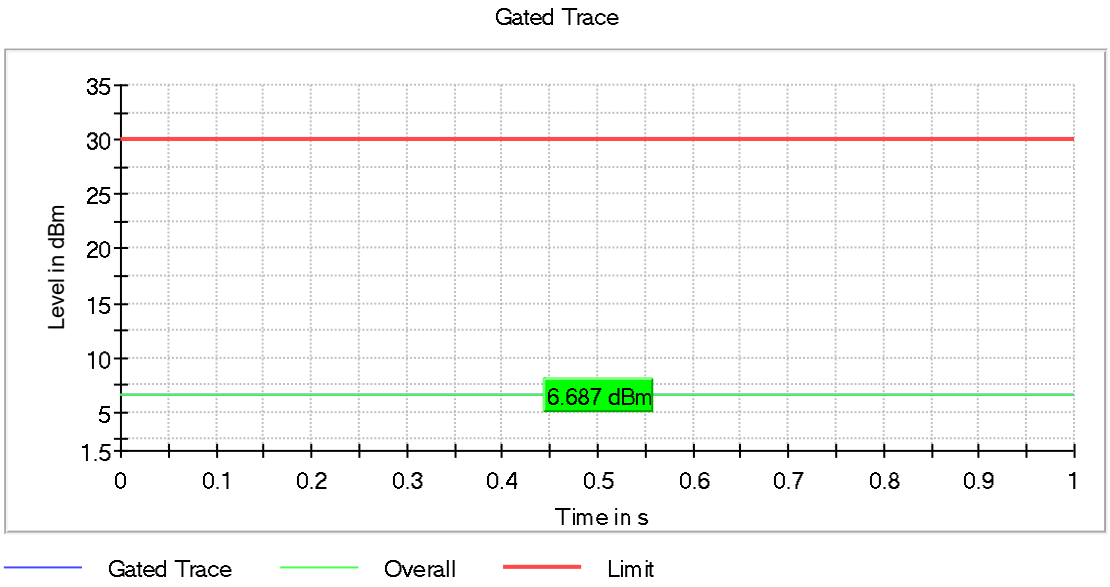


Results of thread/zigbee

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.

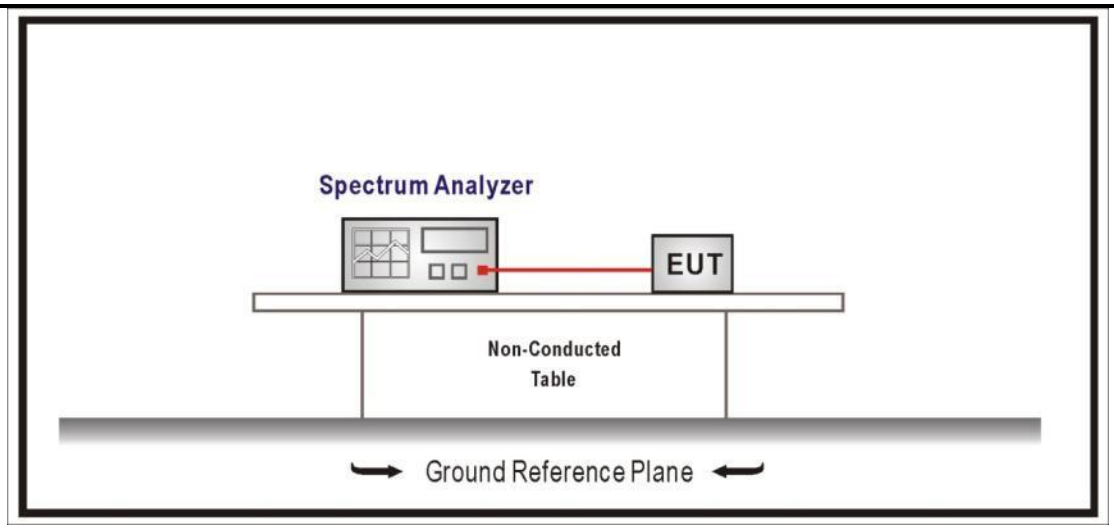
Note 2: According to KDB 558074, when test for Radiated Emission Band Edge and Radiated Emission, for average detector set: VBW ≥ 1/T will be used.



4.6 DTS Bandwidth	VERDICT: PASS

Standard	FCC Part 15 Subpart C Paragraph 15.247 (a)(2) RSS-Gen Issue 5 Section 6.7 RSS-247 Issue 4 section 5.2 a)
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

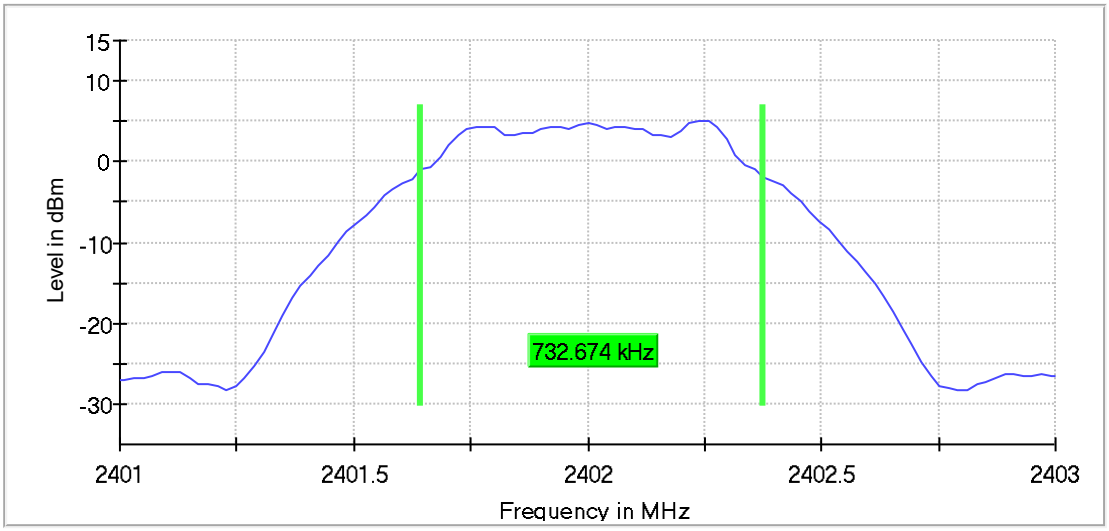
Port under test	Antenna port	
Test method applied	☒	Conducted measurement
	☐	Radiated measurement
Test setup	Refer to the Annex 3 for test setup photo(s).	
Operating mode(s) used	Mode 1	
Remark	---	

Results of BLE 1M

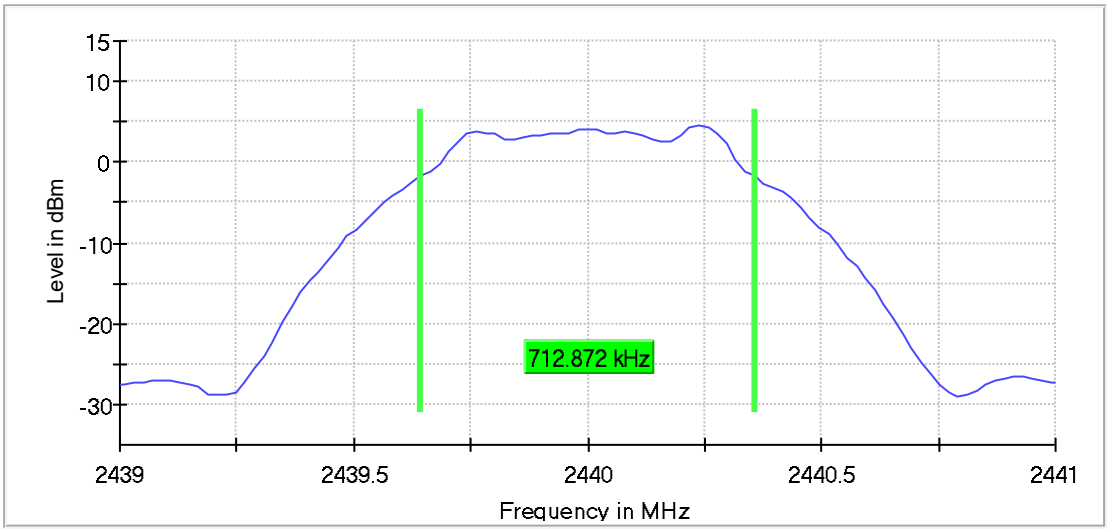
Mode	CH.	Test Freq. (MHz)	6dB Occupied Bandwidth(kHz)	RBW(kHz)/VBW(kHz)	Limit (kHz)	Result
1	0	2402	732.67	100/300	>500	Pass
	19	2440	712.87		>500	Pass
	39	2480	732.67		>500	Pass

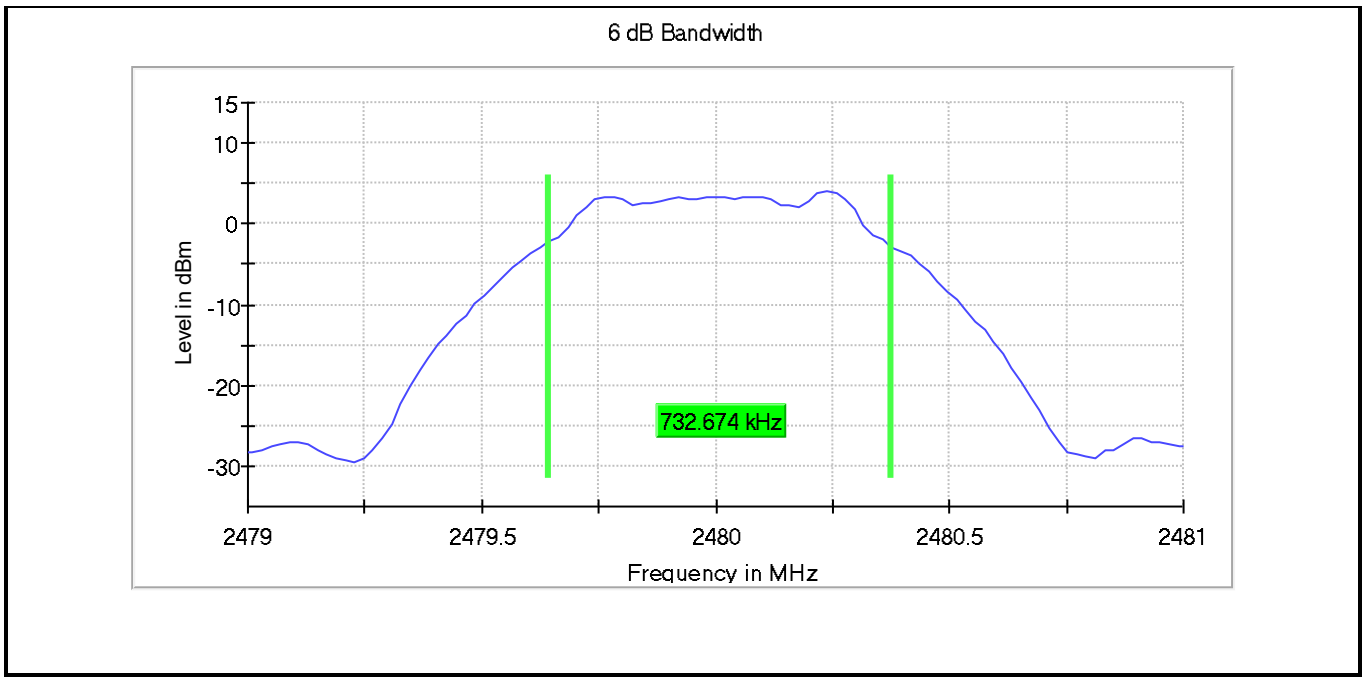
6dB Occupied Bandwidth

6 dB Bandwidth



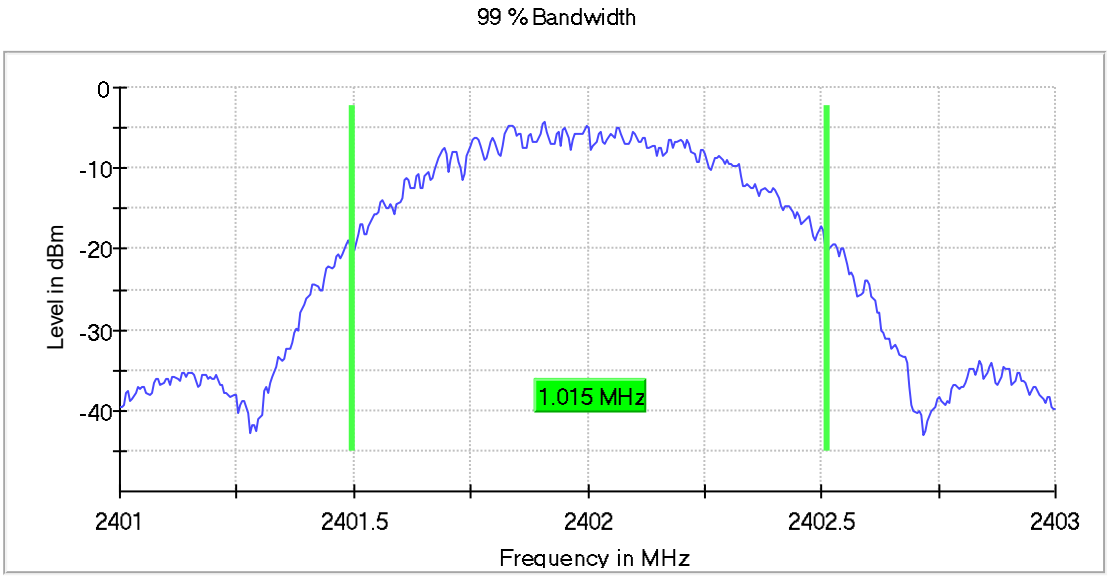
6 dB Bandwidth

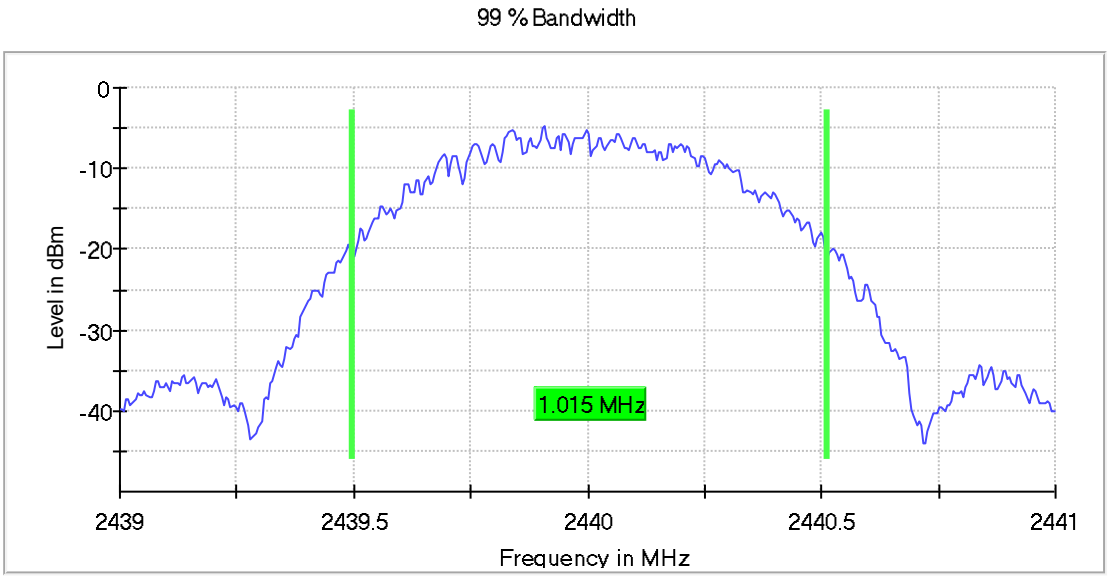


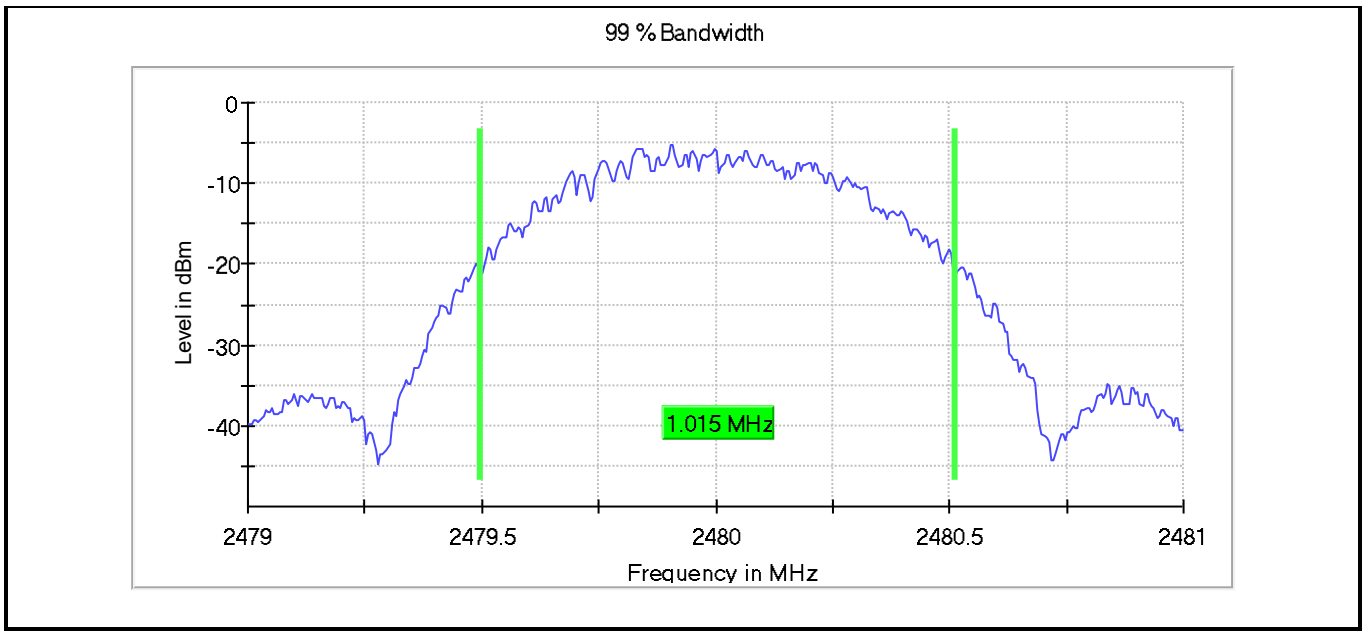

6 dB Bandwidth
15
10
0
-10
-20
-30
Level in dBm
732.674 kHz
2479
2479.5
2480
2480.5
2481
Frequency in MHz

Mode	CH.	Test Freq. (MHz)	99% Occupied Bandwidth (MHz)	RBW(kHz)/VBW(kHz)	Limit	Result
1	0	2402	1.015	10/30	Within frequency range	Pass
	19	2440	1.015		Within frequency range	Pass
	39	2480	1.015		Within frequency range	Pass

99% Occupied Bandwidth





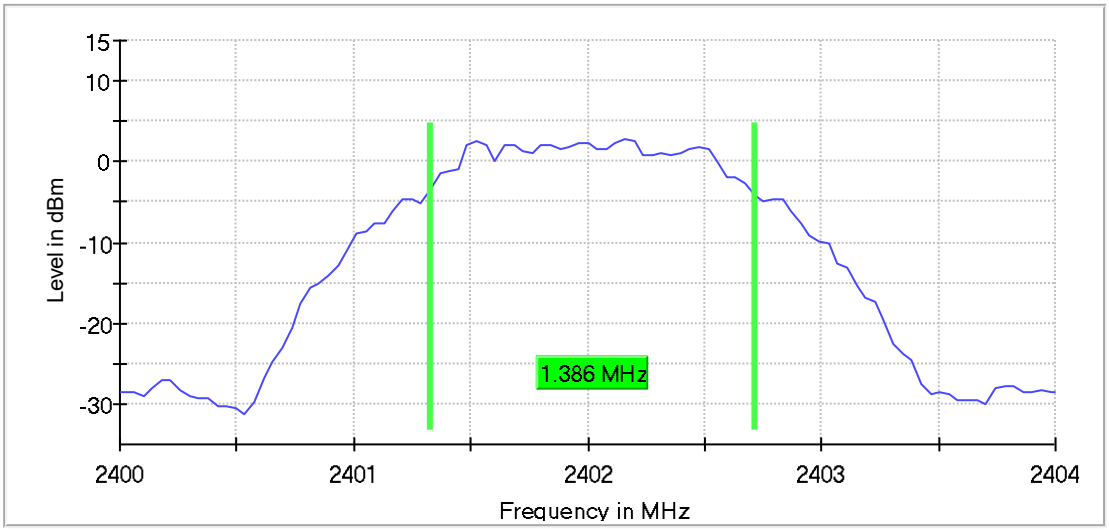

99 % Bandwidth
0
-10
-20
-30
-40
Level in dBm
1.015 MHz
2479
2479.5
2480
2480.5
2481
Frequency in MHz

Results of BLE 2M

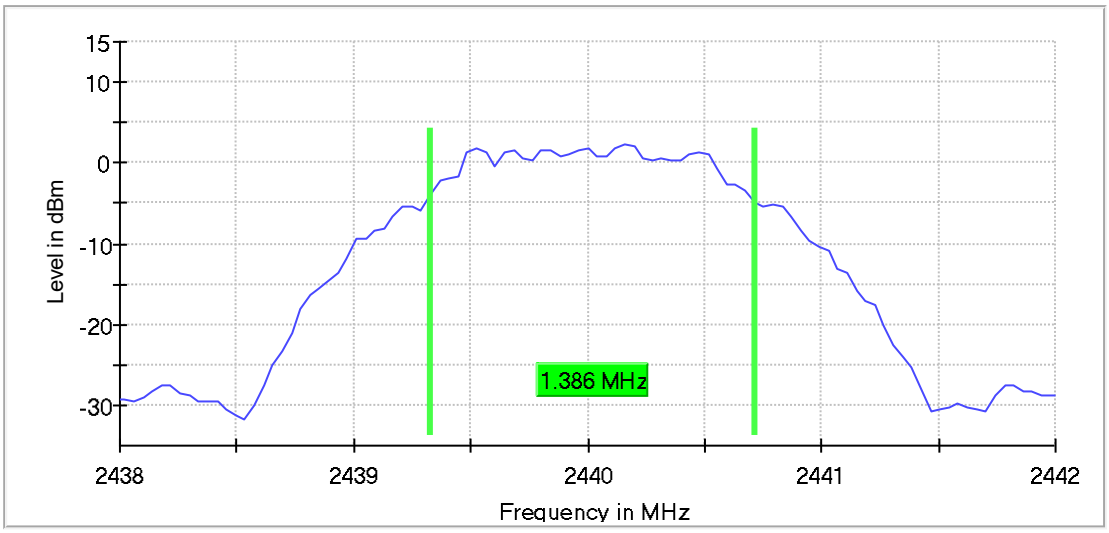
Mode	CH.	Test Freq. (MHz)	6dB Occupied Bandwidth(kHz)	RBW(kHz)/VBW(kHz)	Limit (kHz)	Result
1	0	2402	1386	100/300	>500	Pass
	19	2440	1386		>500	Pass
	39	2480	1386		>500	Pass

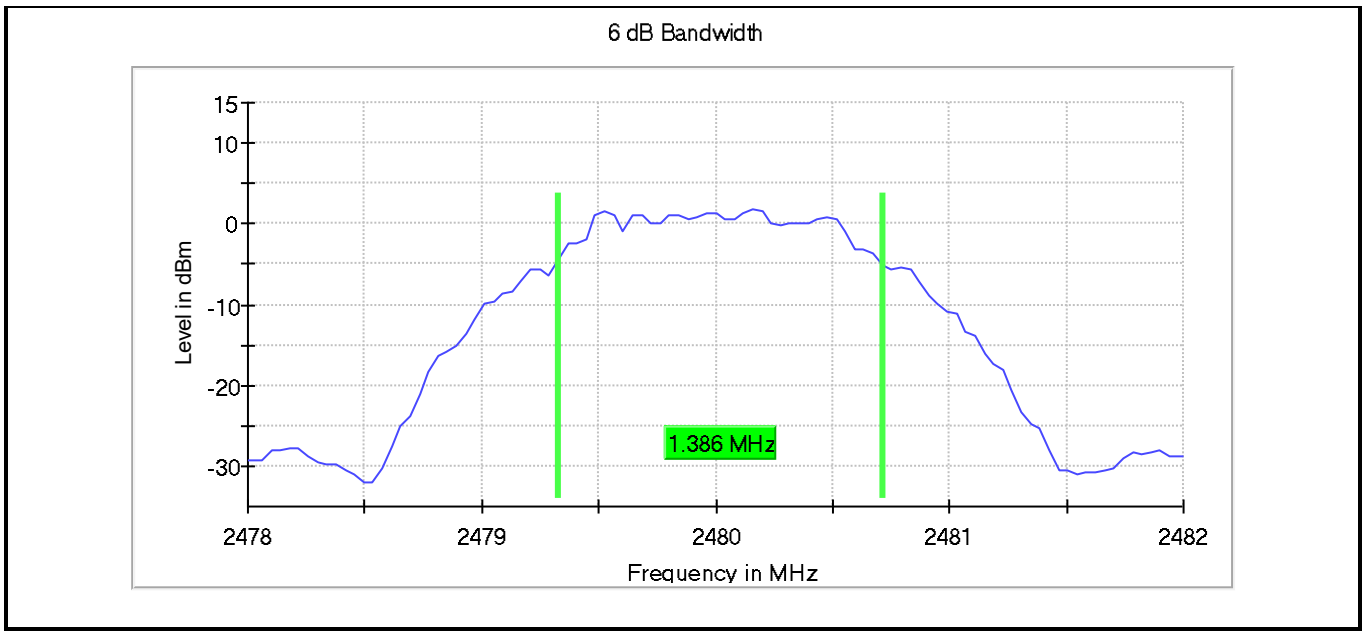
6dB Occupied Bandwidth

6 dB Bandwidth



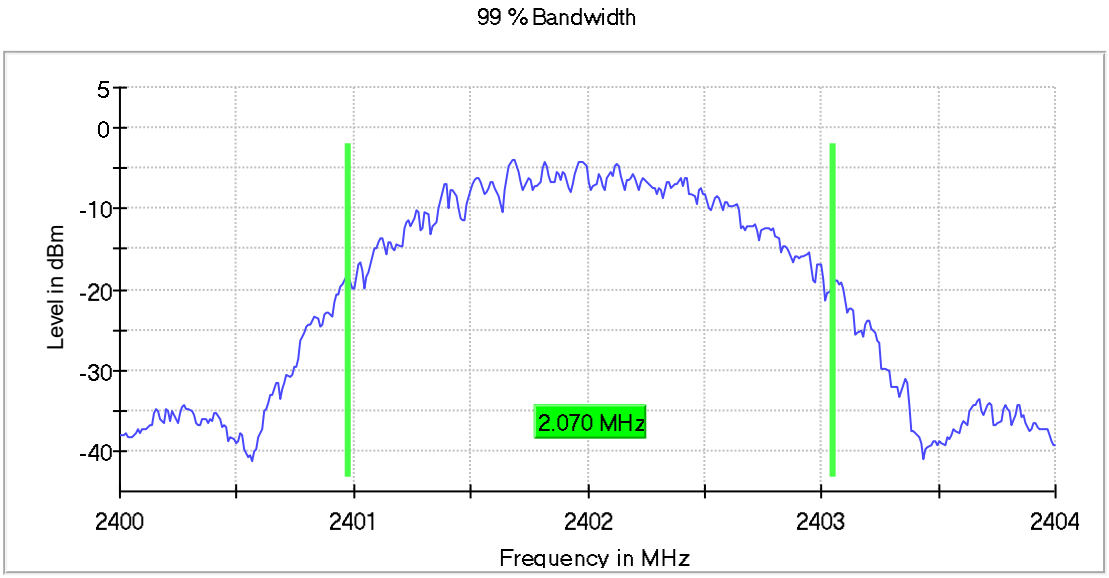
6 dB Bandwidth

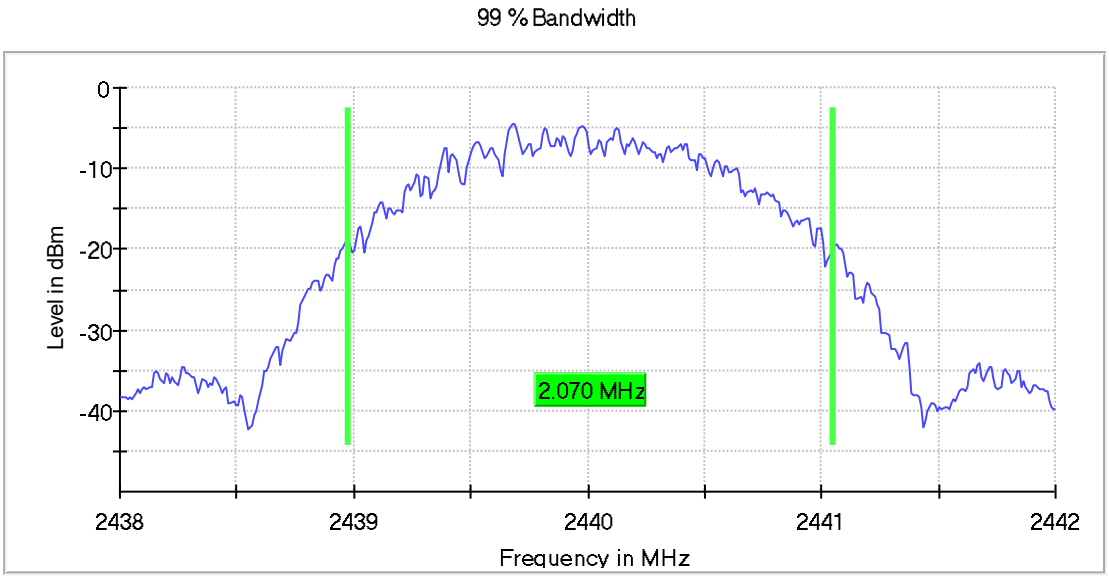


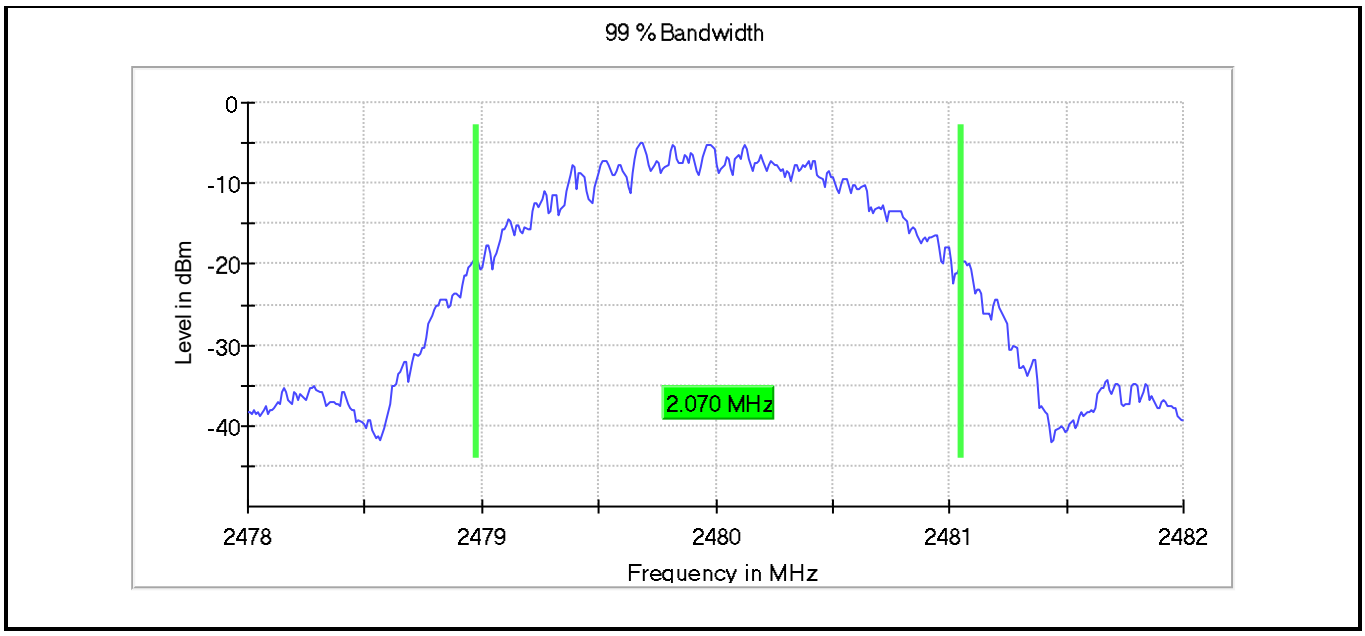

6 dB Bandwidth
15
10
0
-10
-20
-30
Level in dBm
1.386 MHz
2478
2479
2480
2481
2482
Frequency in MHz

Mode	CH.	Test Freq. (MHz)	99% Occupied Bandwidth (MHz)	RBW(kHz)/VBW(kHz)	Limit	Result
1	0	2402	2.070	100/300	Within frequency range	Pass
	19	2440	2.070		Within frequency range	Pass
	39	2480	2.070		Within frequency range	Pass

99% Occupied Bandwidth





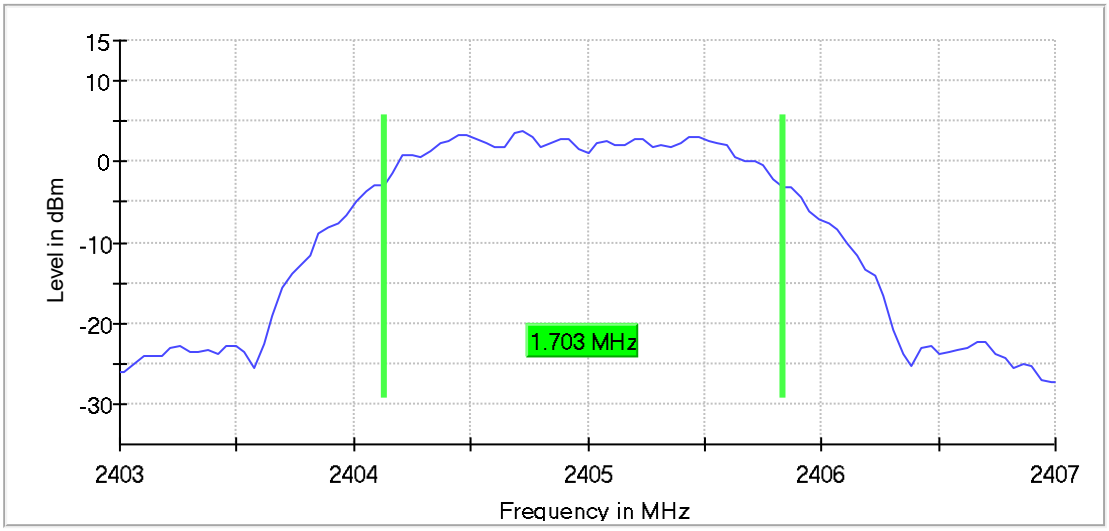

99 % Bandwidth
0
-10
-20
-30
-40
Level in dBm
2.070 MHz
2478
2479
2480
2481
2482
Frequency in MHz

Results of thread/zigbee

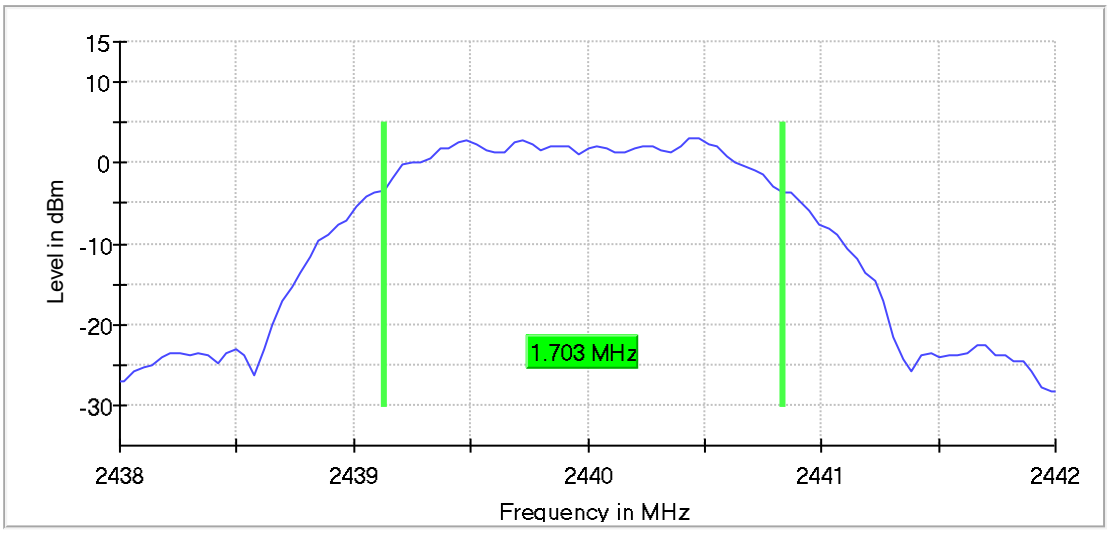
Mode	CH.	Test Freq. (MHz)	6dB Occupied Bandwidth(kHz)	RBW(kHz)/VBW(kHz)	Limit (kHz)	Result
1	0	2405	1703	100/300	>500	Pass
	7	2440	1703		>500	Pass
	15	2480	1703		>500	Pass

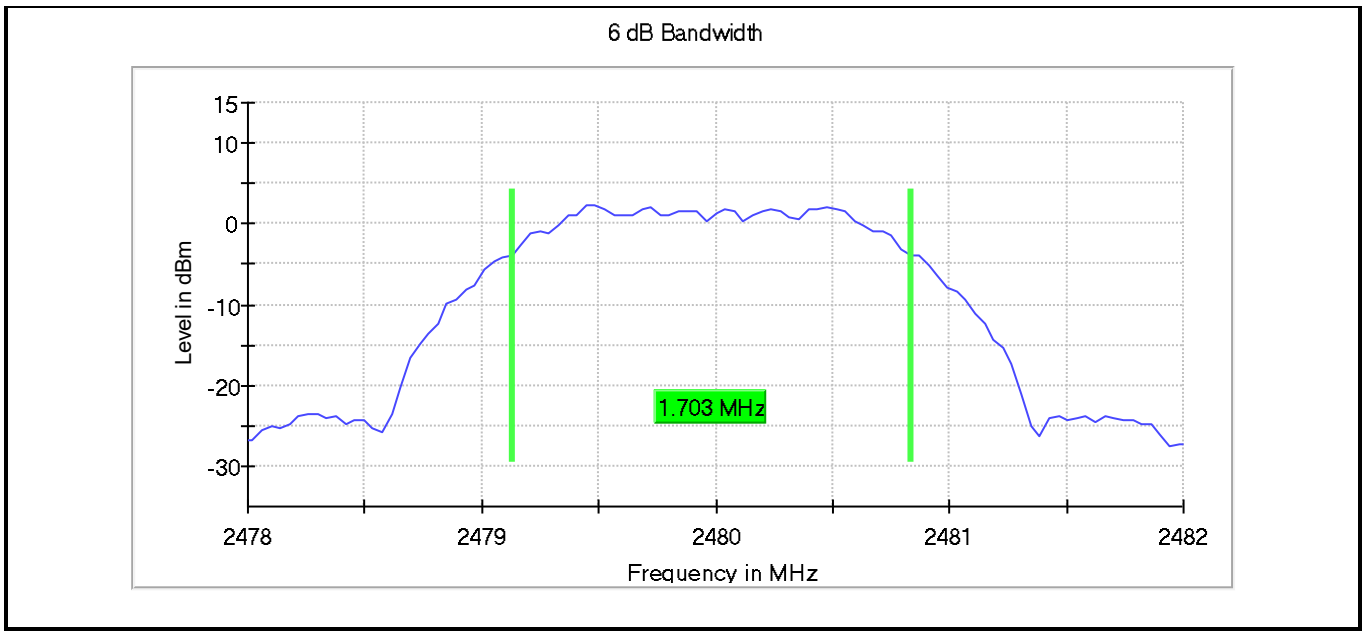
6dB Occupied Bandwidth

6 dB Bandwidth



6 dB Bandwidth

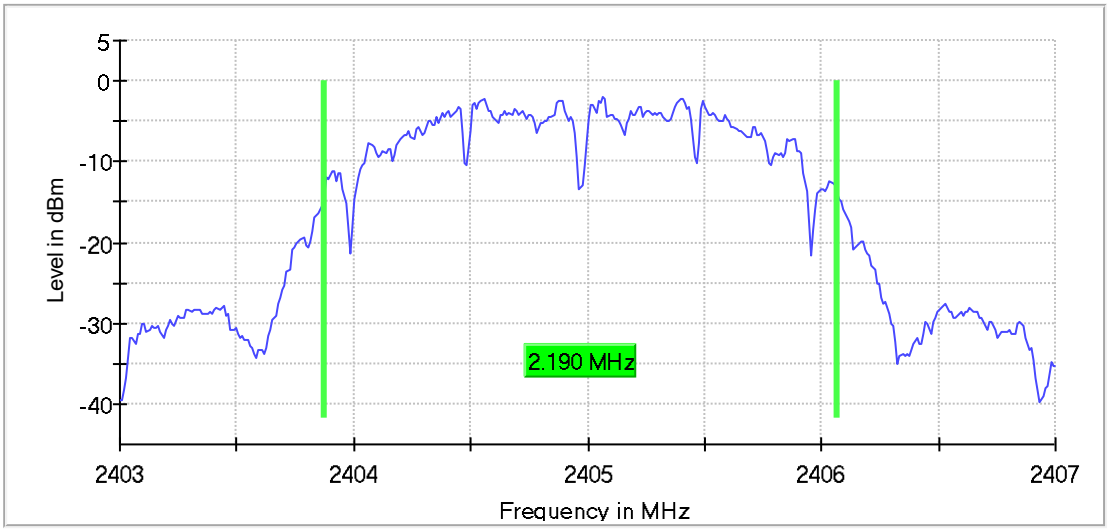



6 dB Bandwidth
15
10
0
-10
-20
-30
Level in dBm
1.703 MHz
2478
2479
2480
2481
2482
Frequency in MHz

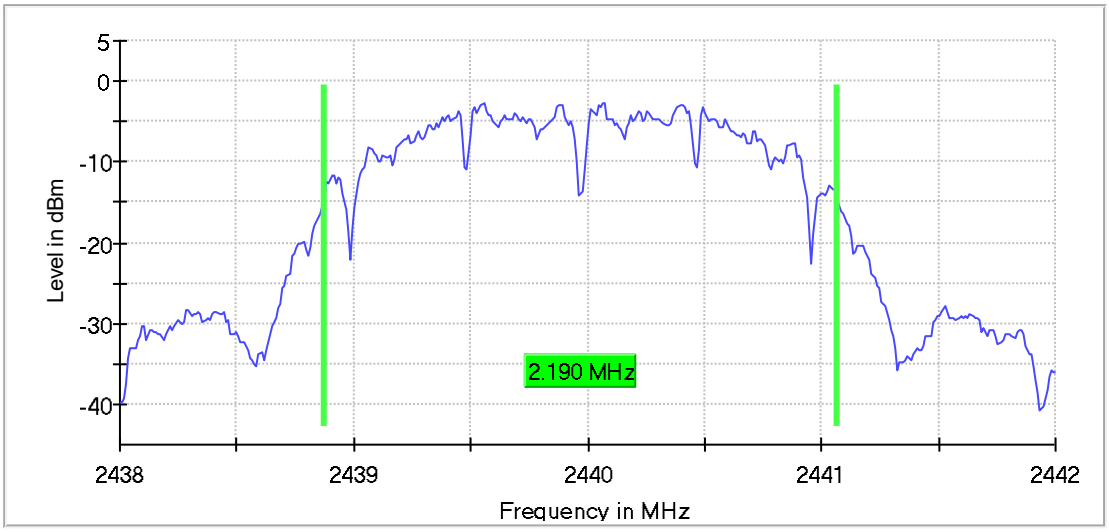
Mode	CH.	Test Freq. (MHz)	99% Occupied Bandwidth (MHz)	RBW(kHz)/VBW(kHz)	Limit	Result
1	0	2405	2.190	100/300	Within frequency range	Pass
	7	2440	2.190		Within frequency range	Pass
	15	2480	2.190		Within frequency range	Pass

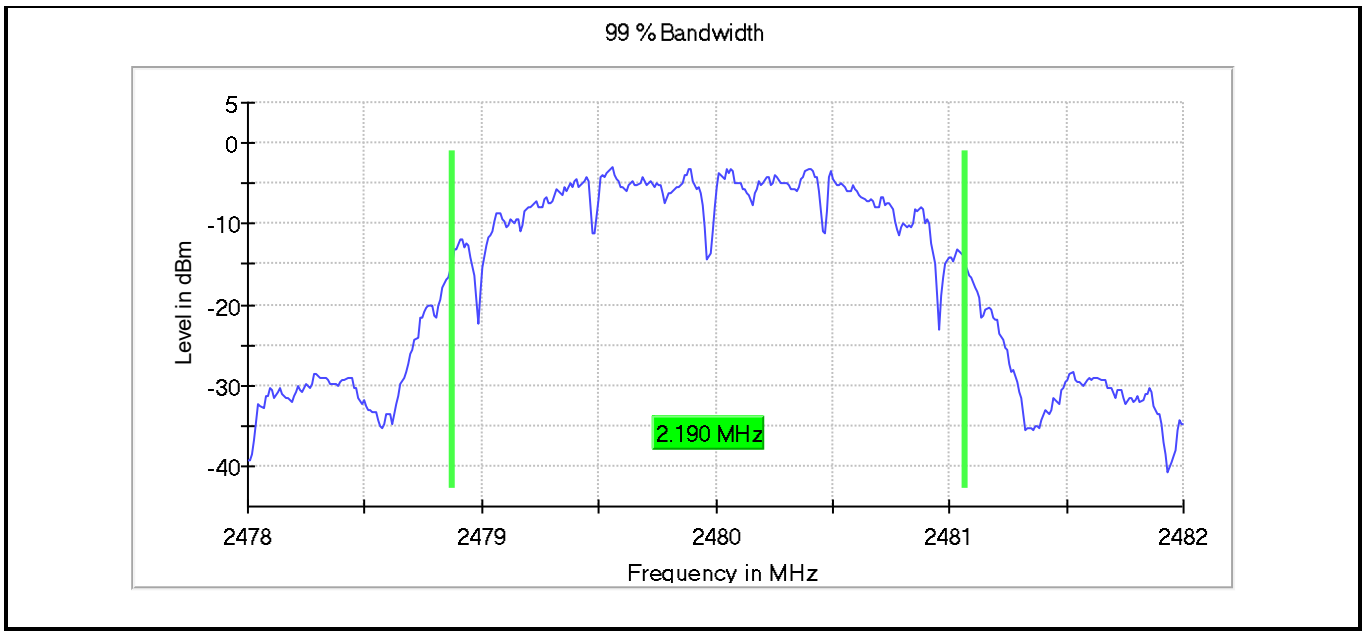
99% Occupied Bandwidth

99 % Bandwidth



99 % Bandwidth



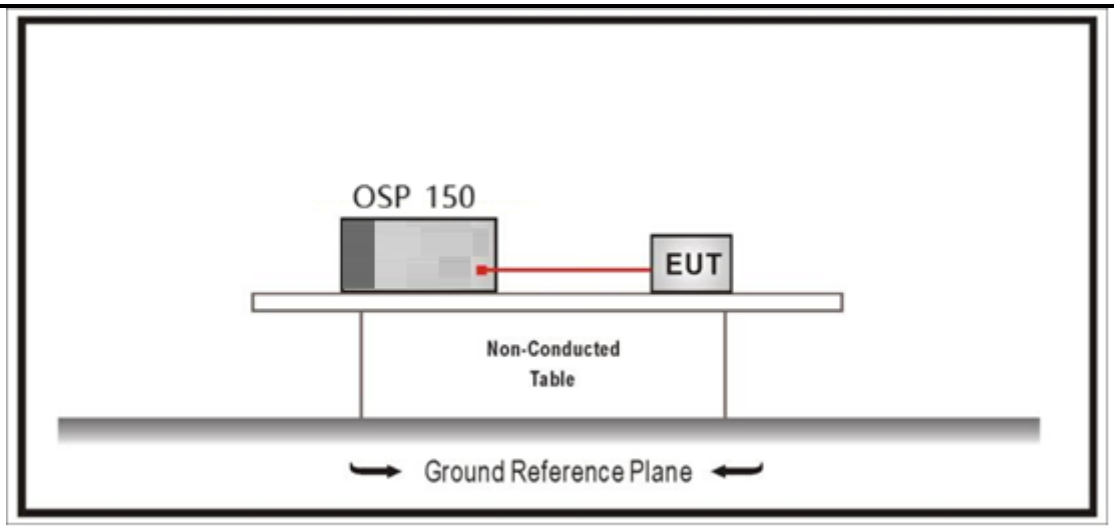

99 % Bandwidth
5
0
-10
-20
-30
-40
Level in dBm
2.190 MHz
2478
2479
2480
2481
2482
Frequency in MHz

4.7 Fundamental emission output power — VERDICT: PASS

Standard			FCC Part 15 Subpart C Paragraph 15.247 (b)(3) RSS-247 Issue 4 Section 5.4(d)
☒	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
	☐	singby 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

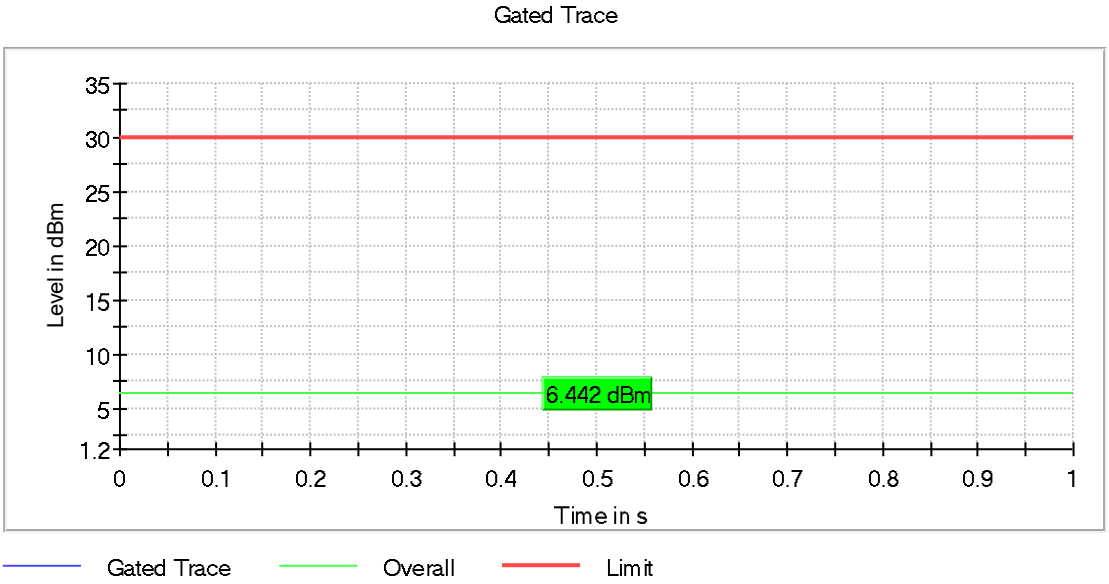
Port under test	Antenna port	
Test method applied	☒	Conducted measurement
	☐	Radiated measurement
Test setup	Refer to the Annex 3 for test setup photo(s).	
Operating mode(s) used	Mode 1	
Remark	---	

Results

Mode	Channel	Test Frequency (MHz)	Power Output (dBm)	Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)	Result
BLE 1M	0	2402	6.442	≤30	5.102	≤36	Pass
	19	2440	6.300	≤30	4.960	≤36	Pass
	39	2480	5.528	≤30	4.188	≤36	Pass
BLE 2M	0	2402	6.471	≤30	5.131	≤36	Pass
	19	2440	6.304	≤30	4.964	≤36	Pass
	39	2480	5.523	≤30	4.183	≤36	Pass
Thread/ zigbee	0	2405	6.425	≤30	5.085	≤36	Pass
	7	2440	6.176	≤30	4.836	≤36	Pass
	15	2480	5.485	≤30	4.145	≤36	Pass

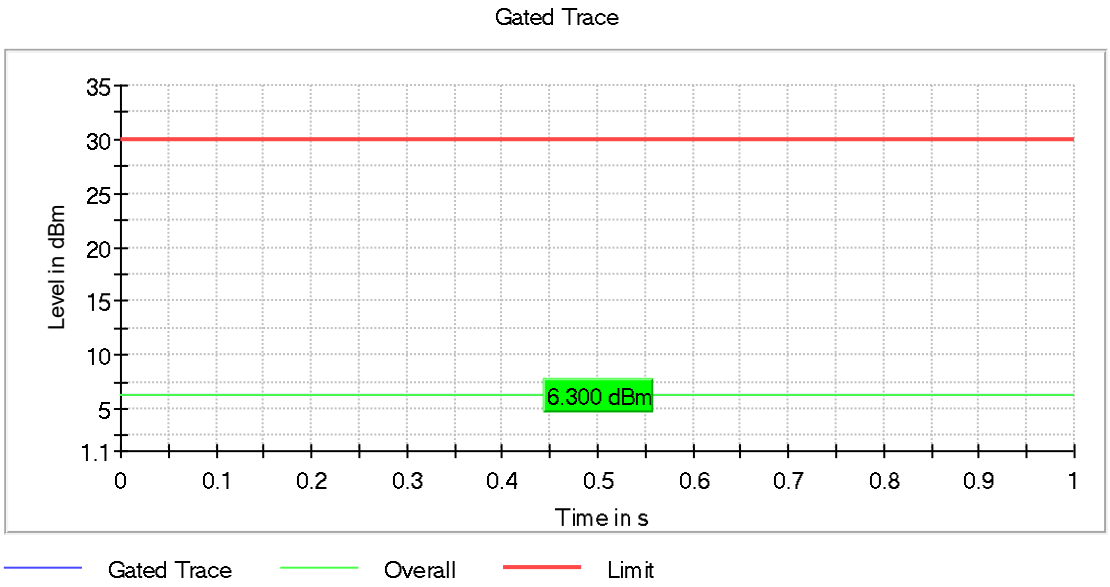
Remark: -1.34 dBi

Data of BLE 1M



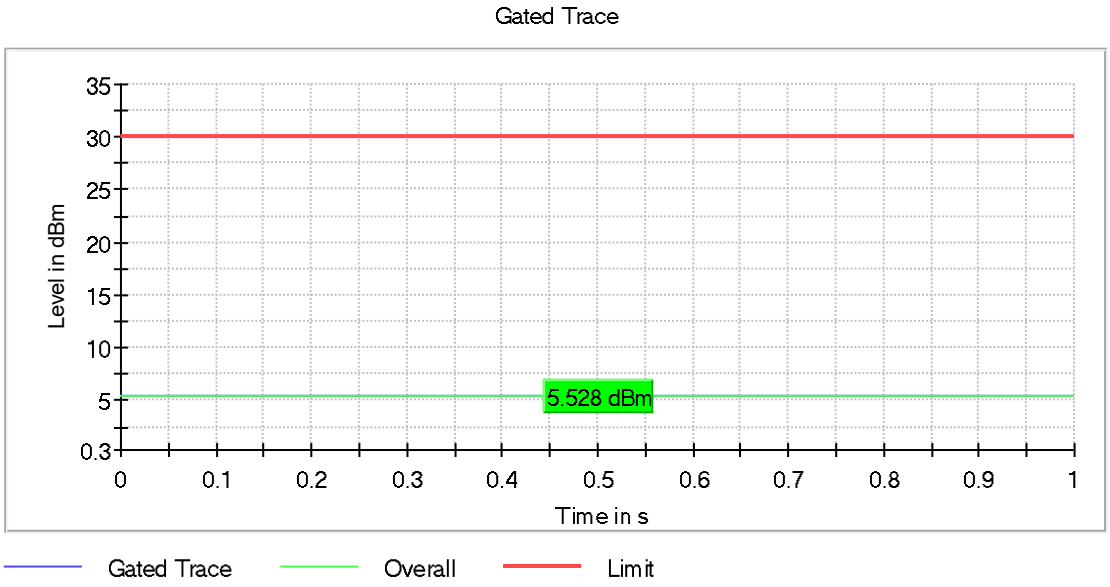
OSP PowerMeter settings

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

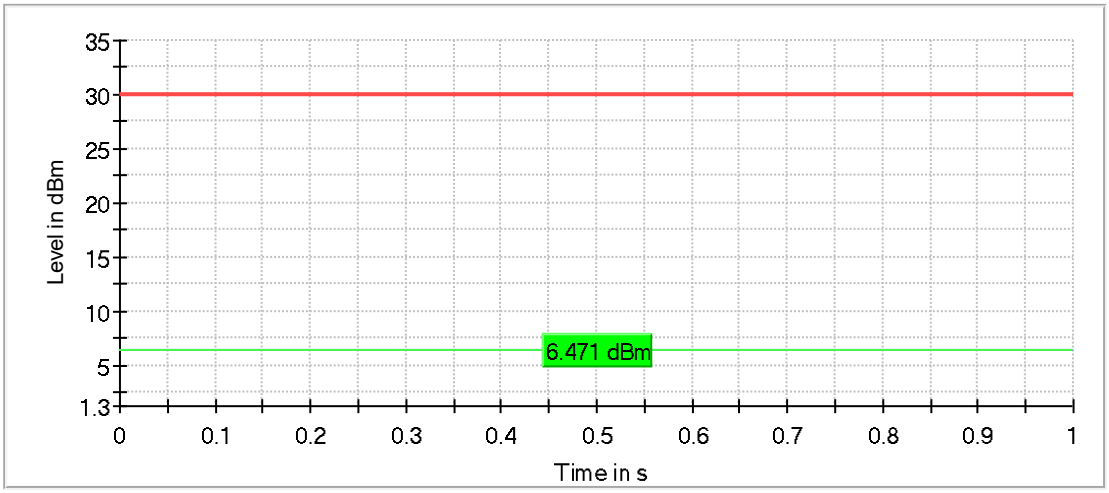


OSP PowerMeter settings

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

Data of BLE 2M

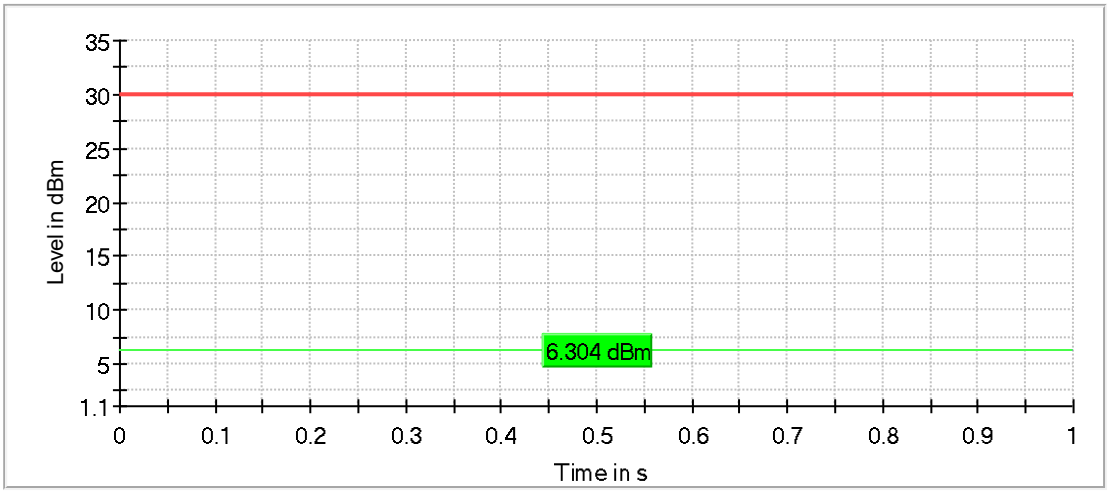
Gated Trace



OSP PowerMeter settings

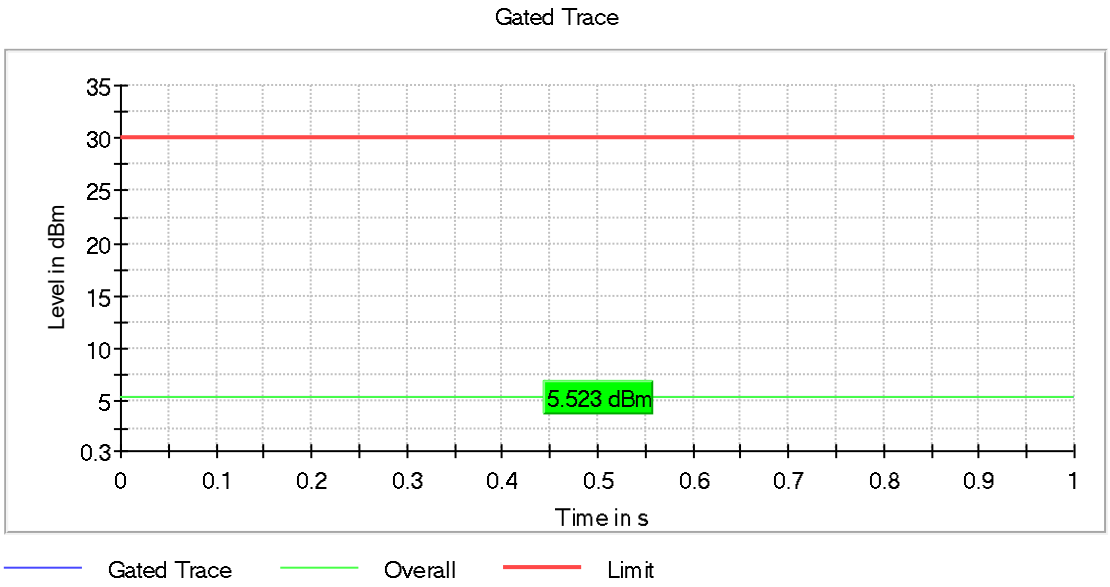
Setting	Instrument Value	Target Value
Measurement Time	1.000 s	1.000 s
Points	1000000	1000000
Time resolution	1.000µs	1.000µs

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

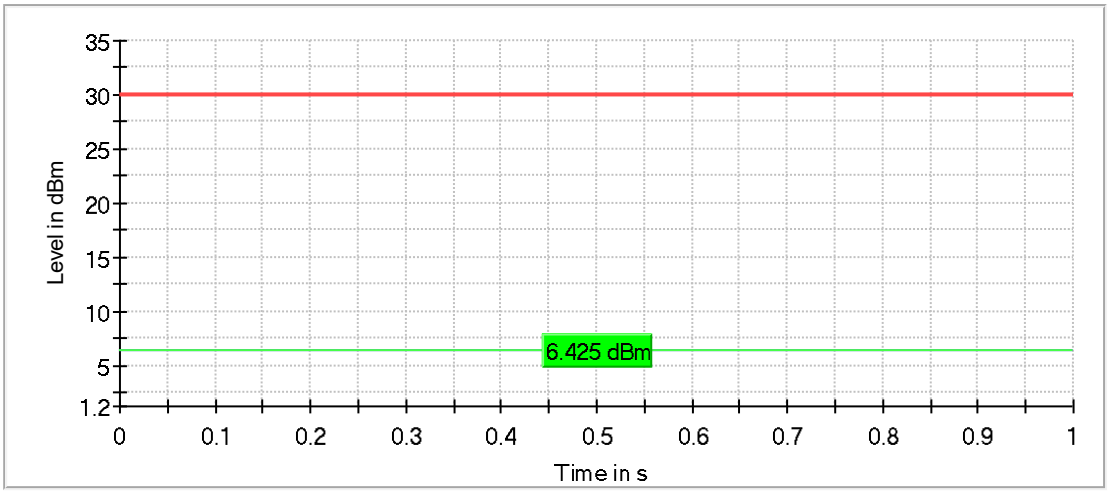


OSP PowerMeter settings

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

Data of Thread/zigbee

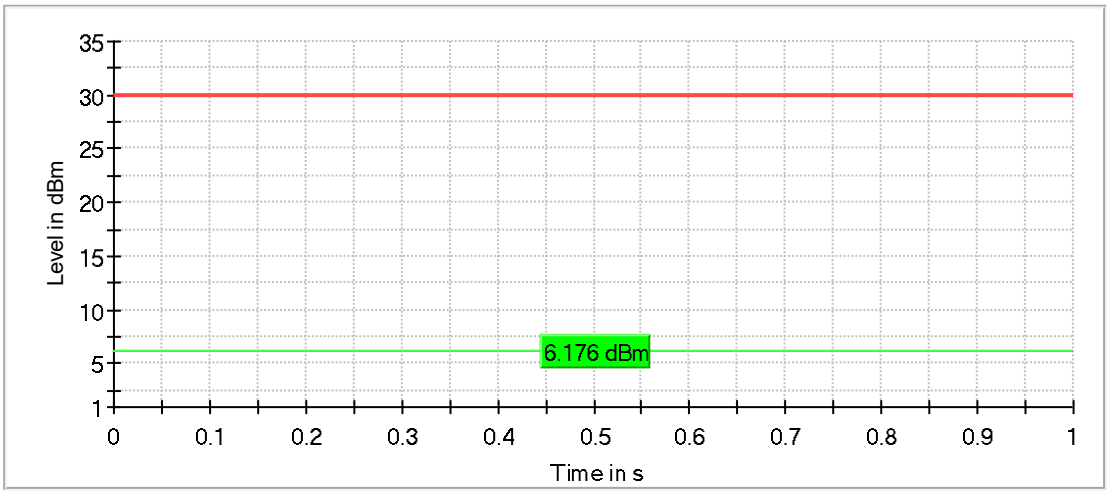
Gated Trace



OSP PowerMeter settings

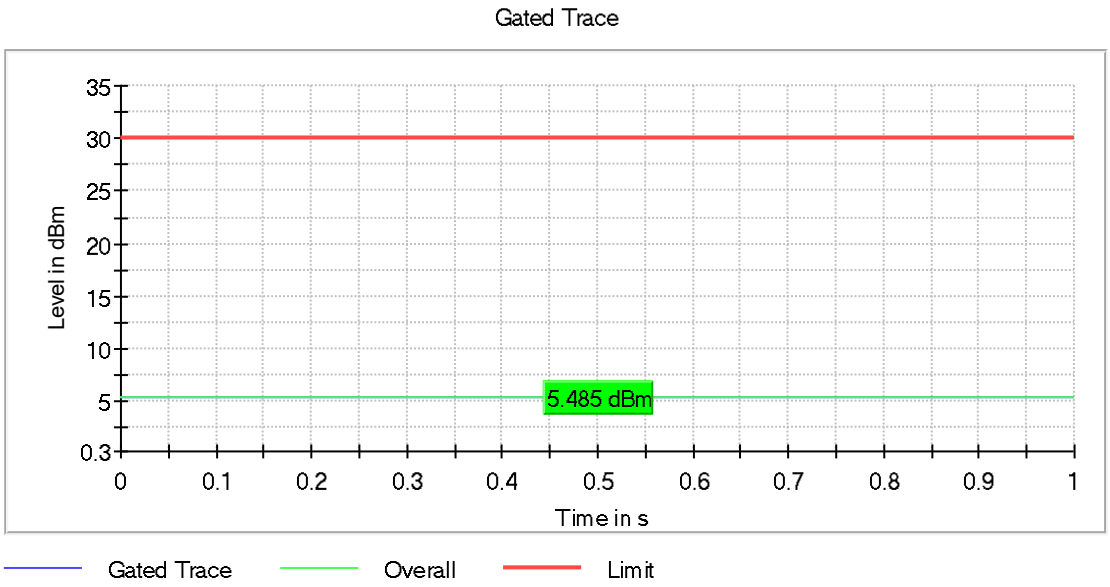
Setting	Instrument Value	Target Value
Measurement Time	1.000 s	1.000 s
Points	1000000	1000000
Time resolution	1.000µs	1.000µs

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



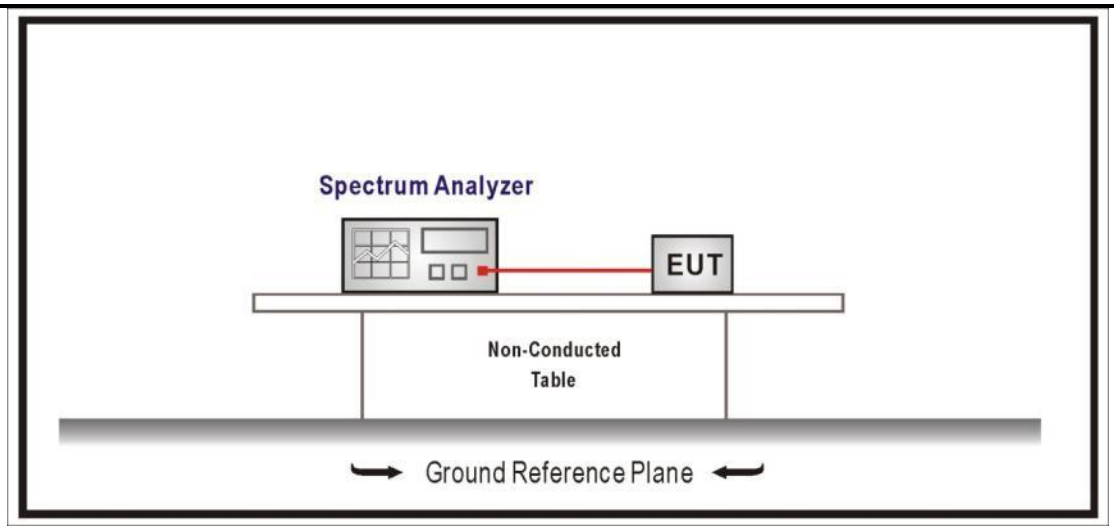
OSP PowerMeter settings

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

Standard	FCC Part 15 Subpart C Paragraph 15.247 (b)(3) RSS-247 Issue 4 Section 5.2(b)
Power Spectral Density≤8dBm/3kHz	

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	---	

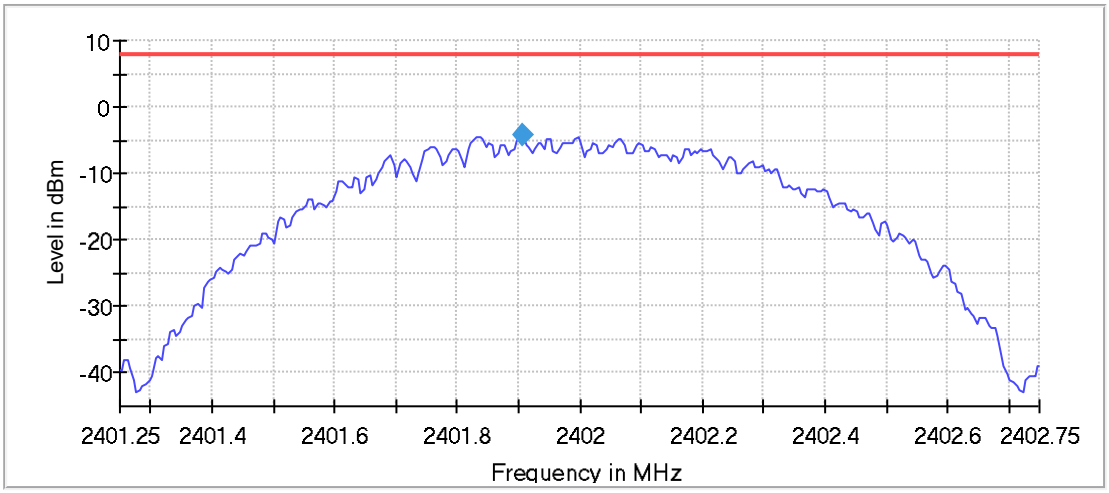
Results

Mode	Channel	Test Frequency (MHz)	Power Output (dBm)	Limit (dBm/3kHz)	Result
BLE 1M	0	2402	-4.168	≤8	Pass
	19	2440	-4.753	≤8	Pass
	39	2480	-5.096	≤8	Pass
BLE 2M	0	2402	-7.337	≤8	Pass
	19	2440	-7.914	≤8	Pass
	39	2480	-8.260	≤8	Pass
Thread/zigbee	0	2405	-3.542	≤8	Pass
	7	2440	-4.162	≤8	Pass
	15	2480	-4.519	≤8	Pass

Remark: RBW(kHz)/VBW(kHz):10/30

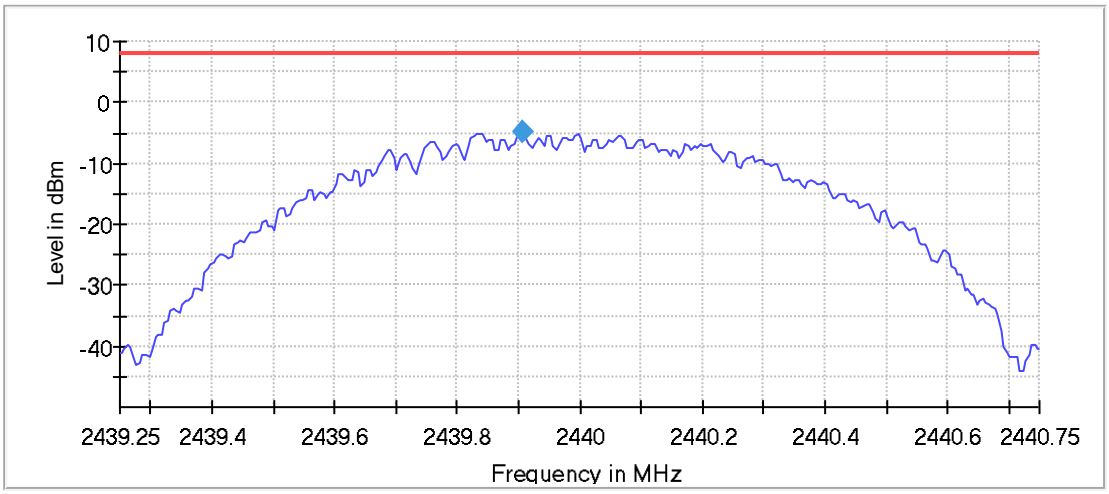
Data of BLE 1M

Peak Power Spectral Density



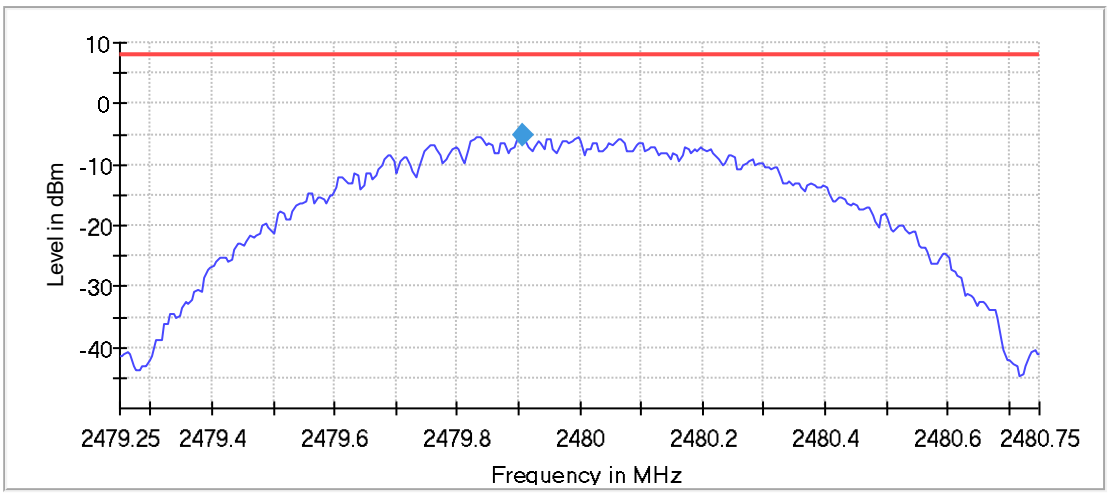
Limit Sum Level PSD

Peak Power Spectral Density



Limit Sum Level PSD

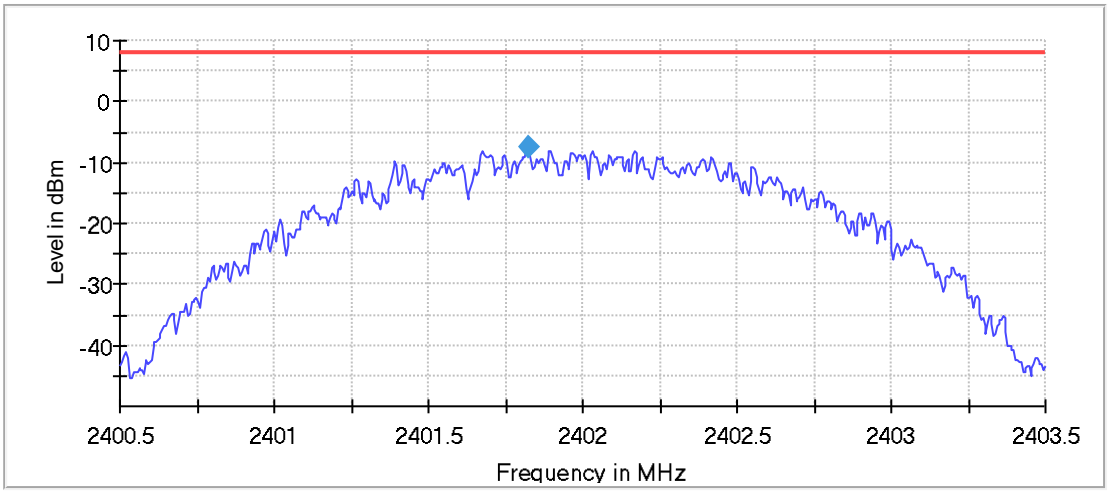
Peak Power Spectral Density



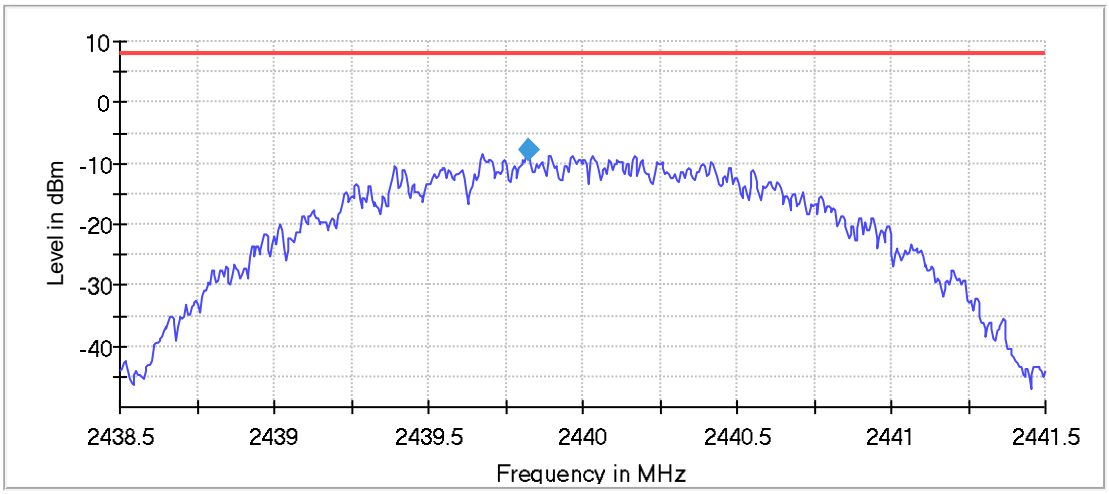
Limit Sum Level PSD

Data of BLE 2M

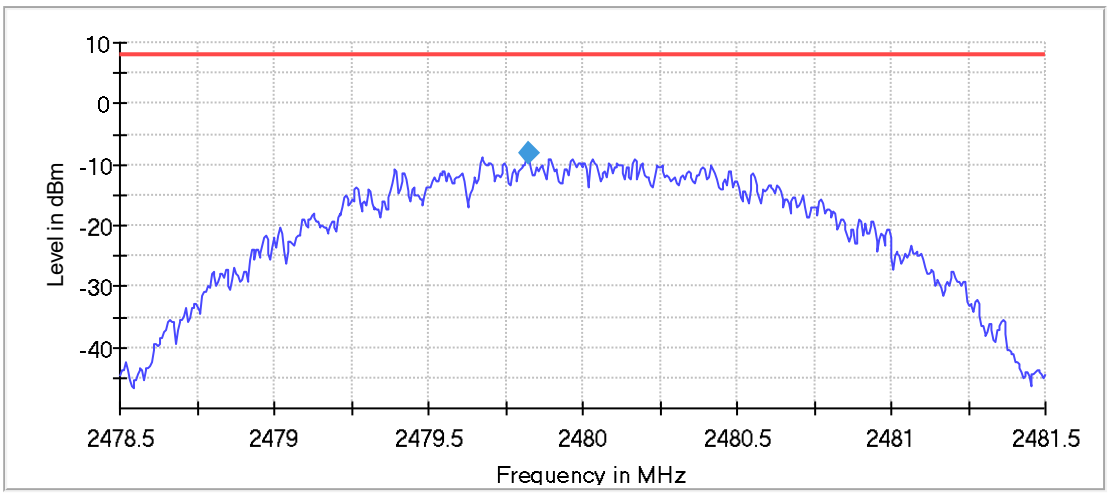
Peak Power Spectral Density



Peak Power Spectral Density

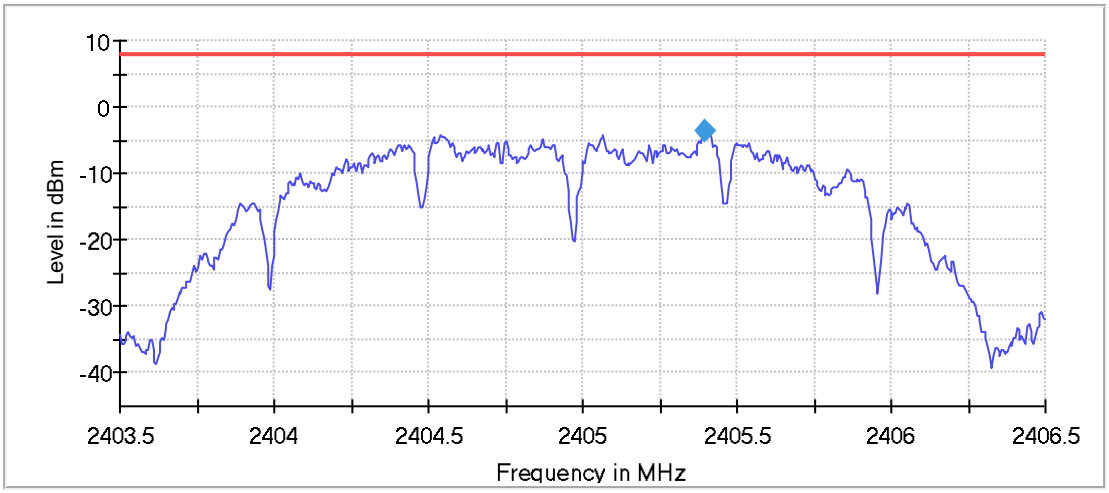


Peak Power Spectral Density

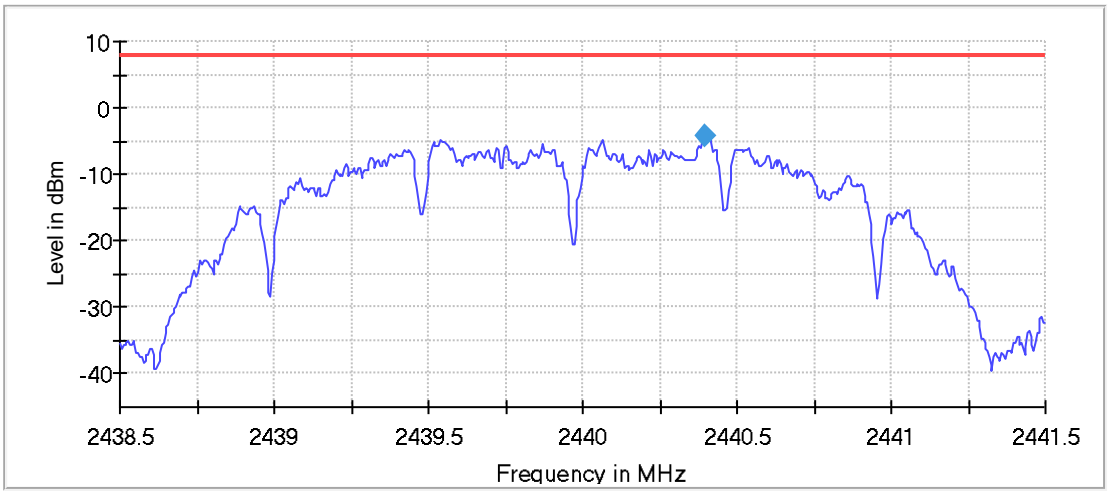


Data of Thread/zigbee

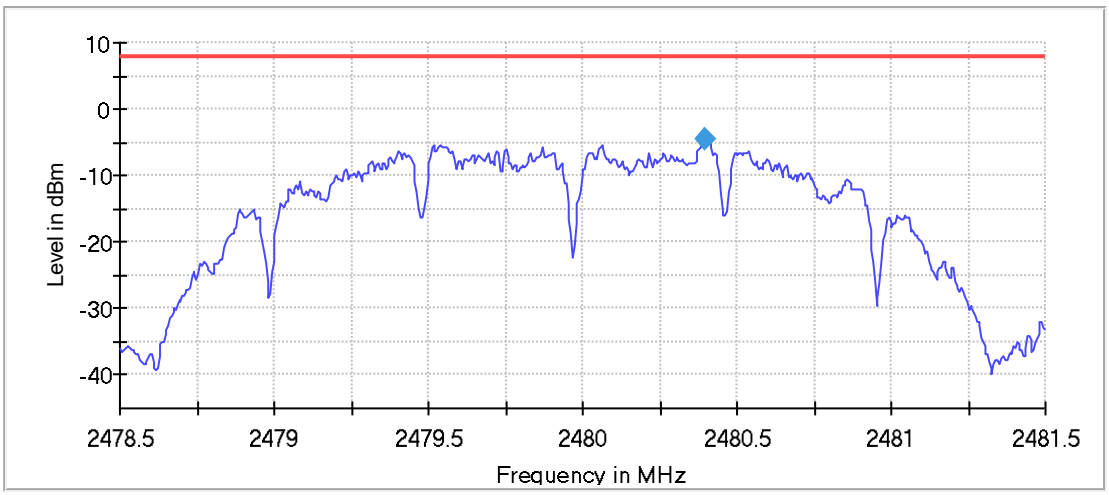
Peak Power Spectral Density



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	±0,7%
RF Output power, conducted	±0,6dB
Power Spectral Density, Conducted	±0,6dB
Unwanted Emissions, Conducted	±0.7dB
Spurious (30-1000MHz)	±4,4dB
Spurious (1-18GHz)	±4,4dB

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	2025/01/08	2026/01/07
					2026/01/06	2027/01/05
Horn antenna (18GHz-26.5GHz)	ETS	3160-09	00164643	G/L1237	2025/01/17	2026/01/16
					2026/01/16	2027/01/15
Horn antenna preamplifier	/	SCU-26D	1879064	G/L1237-1	2025/01/13	2026/01/12
					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	2025/01/08	2026/01/07
					2026/01/07	2027/01/06
Signal generator	R&S	SMB 100A	181317	GZ1895	2025/01/08	2026/01/07
					2026/01/07	2027/01/06
Vector signal generator	R&S	SMBV100A	263671	GZ1896	2025/01/08	2026/01/07
					2026/01/07	2027/01/06
Wireless connectivity tester	R&S	CMW 270	100990	GZ1894	2025/01/08	2026/01/07
					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.

--- END ---