

TEST REPORT

Applicant : Oley Company Limited

Address : 3F, 2nd Building B District, Honggao Industrial Park, Songbai Road,
ShiYan Steet, Shenzhen City, Guangdong Province, China

Manufacturer : Oley Company Limited

Address : 3F, 2nd Building B District, Honggao Industrial Park, Songbai Road,
ShiYan Steet, Shenzhen City, Guangdong Province, China

Product Name : Projector

Model Number : M8

Trademark : N/A

FCC ID : 2BXP9-M8

Test Date : Aug. 10, 2026 - Sep. 08, 2026

Date of Report : Sep. 08, 2026

Test Result : This device described above has been tested by BKC, and the test results show that the equipment under test (EUT) is in compliance with the Standard requirements. And it is applicable only to the tested sample identified in the report.

Test Procedure Used:

Standards : FCC CFR Title 47 Part 15 Subpart C Section 15.247
ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024

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Reviewer(Supervisor):
Casey Wang



Approved(Manager):
Jerry Liao



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Revision History of This Test Report

[illegible]

1. General Information

1.1. Customer basic information

Contacts : /
E-Mail : /
Telephone : /

1.2. Description of Device (EUT)

EUT Name : Projector
Model No. : M8
Model Difference : N/A
Power supply : Rating(s): 22V === 2.18A
Adapter : Input: 100-240V~, 50/60Hz, 1.5A Max
Output: 22V === 2.18A, 48W
Operation frequency : 2.412-2.462GHz
Max. RF output power: : 12.26dBm
Modulation : 802.11b: Direct Sequence Spread Spectrum(DSSS)
802.11g/802.11n(H20)/802.11n(H40):
Orthogonal Frequency Division Multiplexing(OFDM)
Antenna Type : FPC Antenna, Maximum Gain is 4.14dBi
Hardware Version : V1.0
Software Version : V1.0
Intend use environment : Residential, commercial and light industrial environment

1.3. Channel List

Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
1	2412	2	2417	3	2422	4	2427
5	2432	6	2437	7	2442	8	2447
9	2452	10	2457	11	2462	/	/
/	/						

1.4. Summary of test result

RF PART		
Test Items	Test Requirement	Result
Antenna requirement	FCC part 15.203/15.247(b)(4)	PASS
AC Power Line Conducted Emission	FCC part 15.207	PASS
Conducted Peak Output Power	FCC part 15.247 (b)(3)	PASS
Channel Bandwidth& 99% OCB	FCC part 15.247 (a)(2)	PASS
Power Spectral Density	FCC part 15.247 (e)	PASS
Band Edge	FCC part 15.247(d) FCC part 15.205/15.209	PASS
Spurious Emission	FCC part 15.247(d) FCC part 15.205/15.209	PASS
Remark: N/A is an abbreviation for Not Applicable. Measurement Uncertainty is not taken into account for conformity statement		

1.5. Special Accessories and Auxiliary Equipment

Description	Manufacturer	Model No.	Hardware Version	Software Version
Serial port board	-	USB-TTL-01	-	-
PC	-	DELL	-	-

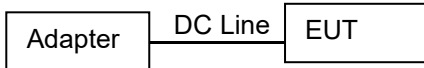
1.6. Test mode

The special RF test software was used to control EUT work in Continuous WIFI TX mode, and select test channel, wireless mode.

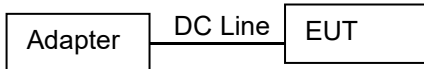
Test mode	Description	Low channel	Middle channel	High channel
TM1	802.11b	2412MHz	2437MHz	2462MHz
TM2	802.11g	2412MHz	2437MHz	2462MHz
TM3	802.11n20	2412MHz	2437MHz	2462MHz
TM4	802.11n40	2422MHz	2437MHz	2452MHz
Note: N/A				

1.7. Block Diagram

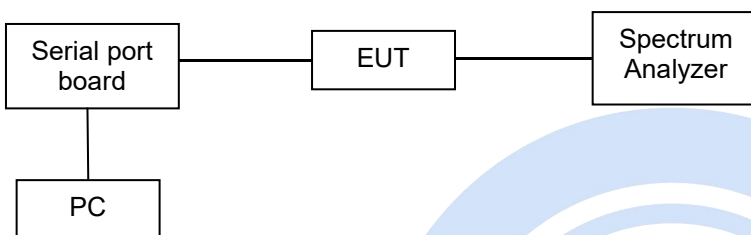
Conducted Emission



Radiated Emission



RF Conducted Test



1.8. Test configuration

Test Software Version	rtl8731bu.exe		
Frequency (MHz)	2412	2437	2462
802.11b	default power	default power	default power
802.11g	default power	default power	default power
802.11n20	default power	default power	default power
Frequency (MHz)	2422	2437	2452
802.11n40	default power	default power	default power

1.9. Test Conditions

Category	Normal Conditions	Extreme Conditions
Temperature range	15-35°C	N/A
Humidity range	20-75%	N/A
Pressure range	86-106kPa	N/A
Power supply	AC 120V/60Hz	N/A
Note: N/A is an abbreviation for Not Applicable.		

1.10.Measurement Uncertainty (95% confidence levels, k=2)

Item	MU	Remark
Uncertainty for radio frequency	$\pm 7 \times 10^{-8}$	
Conducted Emissions (150kHz~30MHz)	$\pm 2.54\text{dB}$	
Radiated Emission(9KHz~30MHz)	$\pm 1.6\text{ dB}$	
Radiated Emission(30MHz~1GHz)	Vertical: $\pm 4.14\text{dB}$ Horizontal: $\pm 4.25\text{dB}$	
Radiated Emission(1GHz~6GHz)	$\pm 3.9\text{dB}$	
Radiated Emission(6GHz~18GHz)	$\pm 4.3\text{dB}$	
Radiated Emission(18GHz~40GHz)	$\pm 3.38\text{dB}$	
Uncertainty for conducted RF Power	$\pm 0.20\text{dB}$	
Conducted spurious emissions	$\pm 0.24\text{dB}$	
Power Spectral Density	$\pm 0.21\text{dB}$	
Uncertainty for temperature	0.6°C	
Uncertainty for humidity	1%	
Bandwidth	$\pm 1.5 \times 10^{-6}$	
Time	$\pm 2\%$	
Duty Cycle	$\pm 2\%$	
Remark: The coverage Factor (k=2), and measurement Uncertainty for a level of Confidence of 95%		

1.11.Test Facility

Site Description	
Name of Firm	: Shenzhen BKC Testing Co., Ltd.
Site Location	: Room 103, 1/F, Huaya Building, Huaya Industrial Park, Longhua Community, Longhua District, Shenzhen, Guangdong, China.
ISED CAB identifier	: CN0188
ISED Company Number	: 34333
FCC Designation Number	: CN1416
FCC Test Firm Registration Number	: 701543

1.12.Test Equipment

Conducted Test Site

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	LISN	R&S	ENV216	102762	Mar. 11, 2026	Mar. 10, 2027
2	EMI Test Receiver	R&S	ESCI	101424	Mar. 11, 2026	Mar. 10, 2027
3	Rf cables	HTEC	HCE 2M-CE	N/A	Mar. 11, 2026	Mar. 10, 2027
4	Coupling/ Decoupling Network	Diamond	CX210	N/A	Mar. 11, 2026	Mar. 10, 2027
5	CE Testing software	EZ	EZ-EMC	/	/	/

Radiated Test Site(Below 1G and Above 1G)

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	Antenna	Schwarzbeck	VULB 9168	01321	Mar. 20, 2025	Mar. 19, 2028
2	EMI Test Receiver	R&S	ESRP	101478	Mar. 11, 2026	Mar. 10, 2027
3	Preamplifier	HP	8447D	2727A05345	Mar. 11, 2026	Mar. 10, 2027
4	Double Ridged Broadband	SCHWARZBECK	BBHA 9120D	02621	Mar. 20, 2025	Mar. 19, 2028
5	Preamplifier	Schwarzbeck	BBV 9718D	00041	Mar. 11, 2026	Mar. 10, 2027
6	Rf cables	HUBER+SUHNER	8M-RE	N/A	Mar. 11, 2026	Mar. 10, 2027
7	Rf cables	HUBER+SUHNER	1.5M-RE	N/A	Mar. 11, 2026	Mar. 10, 2027
8	Rf cables	HUBER+SUHNER	1.5M-AP-RE	N/A	Mar. 11, 2026	Mar. 10, 2027
9	Loop antenna	ANRF	ANRF-6603	091802	Mar. 13, 2026	Mar. 12, 2027
10	Spectrum analyzer	R&S	FSP40	200061	Mar. 11, 2026	Mar. 10, 2027
11	Double Ridged Broadband Horn Antenna	COM-POWER	AH-1840	10100009	Mar. 11, 2026	Mar. 10, 2027
12	Spectrum	Agilent	N9020A	MY50510311	Mar. 11, 2026	Mar. 10, 2027
13	Band Stop Filter	Bafang	BSF5G	2024052610	Mar. 11, 2026	Mar. 10, 2027
14	RE Testing software	EZ	EZ-EMC	/	/	/

RF Test Site

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	Spectrum	Agilent	N9020A	MY50510311	Mar. 11, 2026	Mar. 10, 2027
2	Vector source	Agilent	N5182A	MY47420223	Mar. 11, 2026	Mar. 10, 2027
3	All instrument	Rohde & Schwarz	CMW 500	101131	Mar. 11, 2026	Mar. 10, 2027
4	control unit	MW	MW100-RFCB	MW200411BK-34	Mar. 11, 2026	Mar. 10, 2027
5	RF Testing software	MW	MTS 8310	/	/	/
6	Spectrum analyzer	R&S	FSP40	200061	Mar. 11, 2026	Mar. 10, 2027

Test software

Software name	RF Testing software
Software version	2.0.0.0
Software name	RE Testing software
Software version	EMEC-03A2 RE+
Software name	CE Testing software
Software version	EMEC-3A1+

2. Conducted emission at the mains terminals test

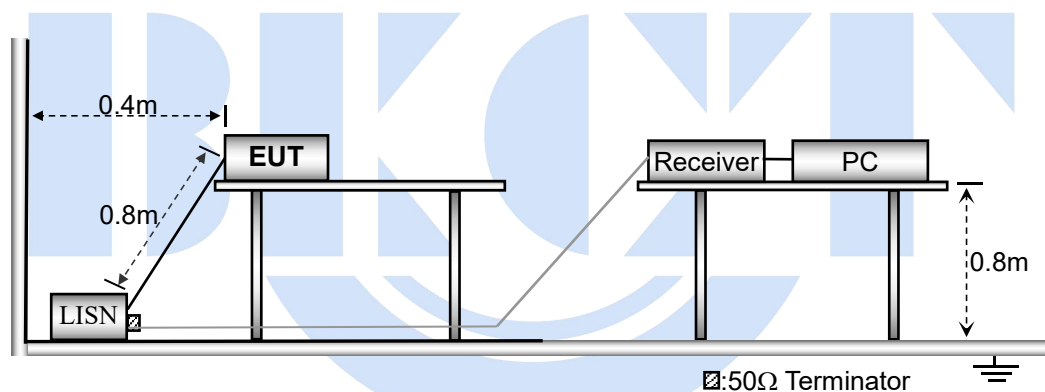
2.1.Limit

Test Requirement:	FCC Part15 C Section 15.207
Test Method:	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024
Test Frequency Range:	150KHz to 30MHz
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto

Frequency MHz	Limits dB(μ V)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66 ~ 56*	56 ~ 46*
0.50 ~ 5.00	56	46
5.00 ~ 30.00	60	50

Notes: 1. *Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

2.2.Test Setup

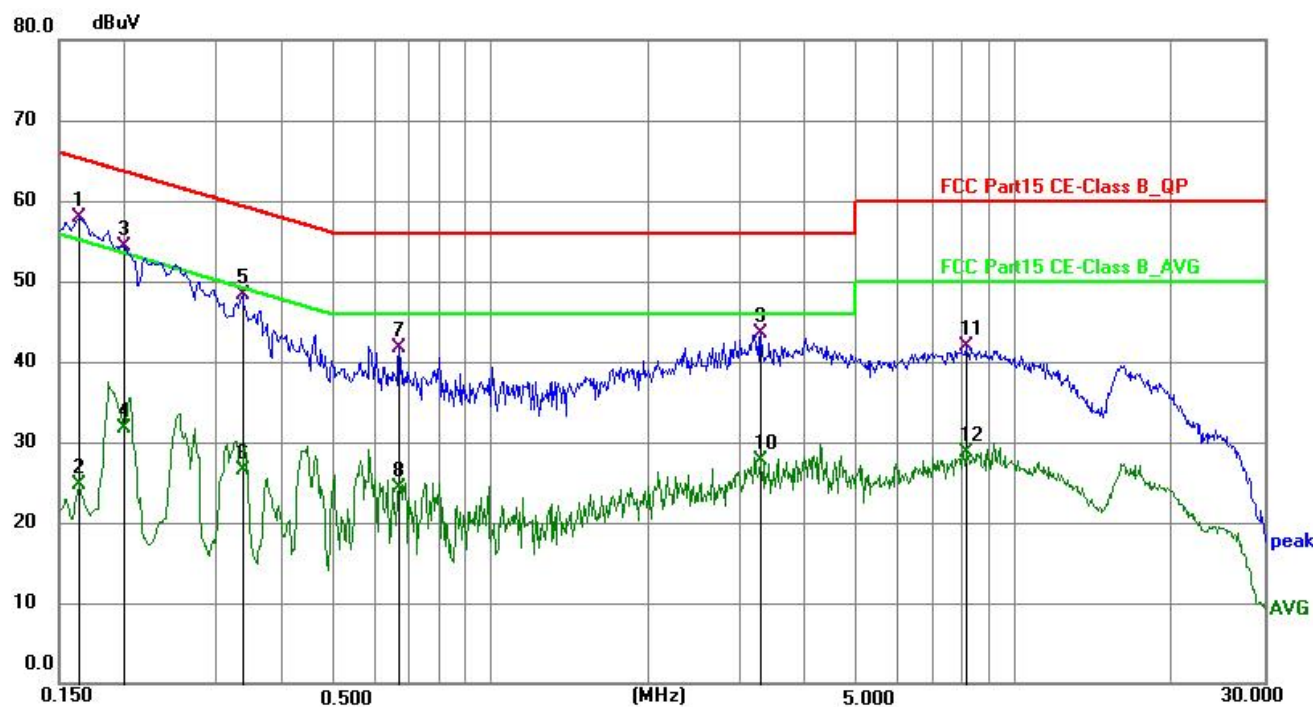


2.3.Test Procedure

1. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
2. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
3. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
4. LISN at least 80 cm from nearest part of EUT chassis.
5. For the actual test configuration, please refer to the related Item – EUT Test Photos.

2.4.Test Result

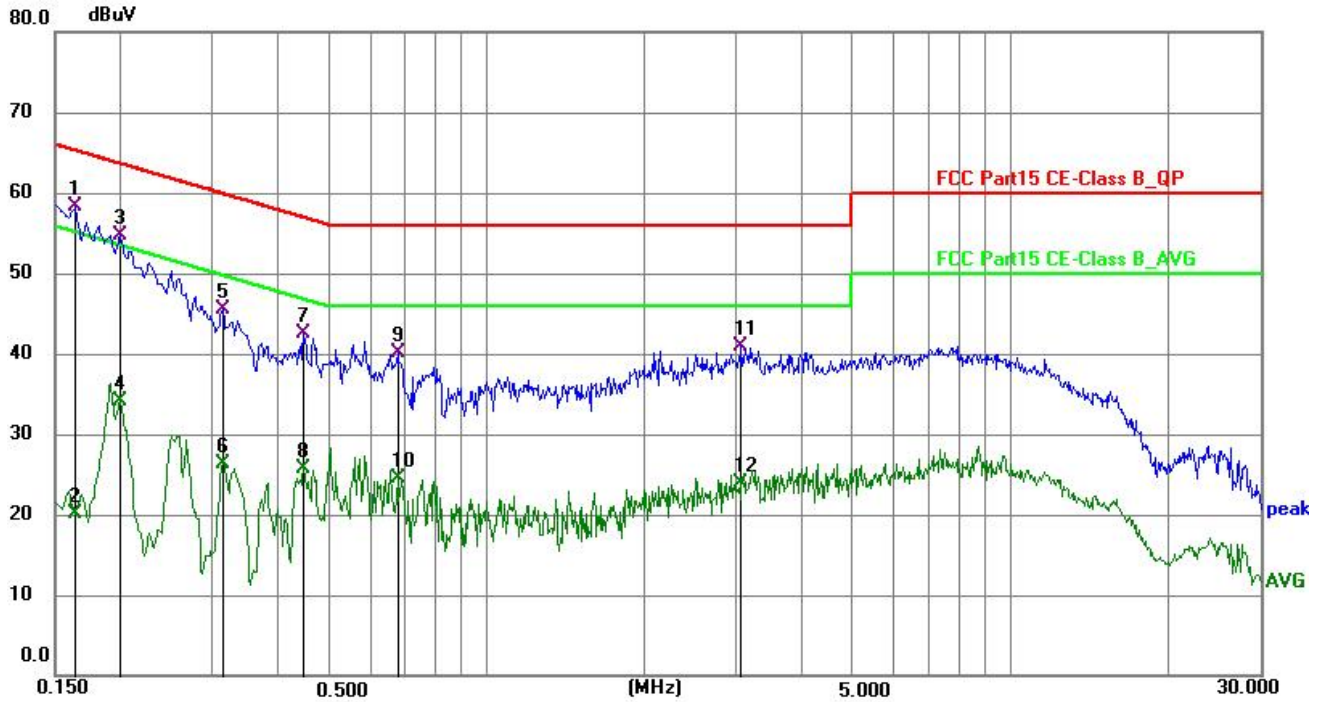
Conducted Emission At The Mains Terminals Test Data			
Temperature:	25.1℃	Relative Humidity:	56%
Pressure:	1008hPa	Phase :	Line
Test Voltage :	AC 120V/60Hz	Test Mode:	TM4



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1 *	0.1635	48.21	9.78	57.99	65.28	-7.29	QP	P
2	0.1635	14.84	9.78	24.62	55.28	-30.66	AVG	P
3	0.1995	44.55	9.81	54.36	63.63	-9.27	QP	P
4	0.1995	21.91	9.81	31.72	53.63	-21.91	AVG	P
5	0.3345	38.53	9.77	48.30	59.34	-11.04	QP	P
6	0.3345	16.80	9.77	26.57	49.34	-22.77	AVG	P
7	0.6673	31.94	9.77	41.71	56.00	-14.29	QP	P
8	0.6673	14.48	9.77	24.25	46.00	-21.75	AVG	P
9	3.2820	33.79	9.79	43.58	56.00	-12.42	QP	P
10	3.2820	18.00	9.79	27.79	46.00	-18.21	AVG	P
11	8.0967	32.04	9.77	41.81	60.00	-18.19	QP	P
12	8.0967	19.02	9.77	28.79	50.00	-21.21	AVG	P

Conducted Emission At The Mains Terminals Test Data

Temperature:	25.1℃	Relative Humidity:	56%
Pressure:	1008hPa	Phase :	Neutral
Test Voltage :	AC 120V/60Hz	Test Mode:	TM4



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1 *	0.1635	48.58	9.69	58.27	65.28	-7.01	QP	P
2	0.1635	10.35	9.69	20.04	55.28	-35.24	AVG	P
3	0.1995	45.00	9.71	54.71	63.63	-8.92	QP	P
4	0.1995	24.45	9.71	34.16	53.63	-19.47	AVG	P
5	0.3119	35.81	9.70	45.51	59.92	-14.41	QP	P
6	0.3119	16.63	9.70	26.33	49.92	-23.59	AVG	P
7	0.4470	32.90	9.70	42.60	56.93	-14.33	QP	P
8	0.4470	15.97	9.70	25.67	46.93	-21.26	AVG	P
9	0.6764	30.49	9.69	40.18	56.00	-15.82	QP	P
10	0.6764	14.72	9.69	24.41	46.00	-21.59	AVG	P
11	3.0615	31.25	9.71	40.96	56.00	-15.04	QP	P
12	3.0615	14.11	9.71	23.82	46.00	-22.18	AVG	P

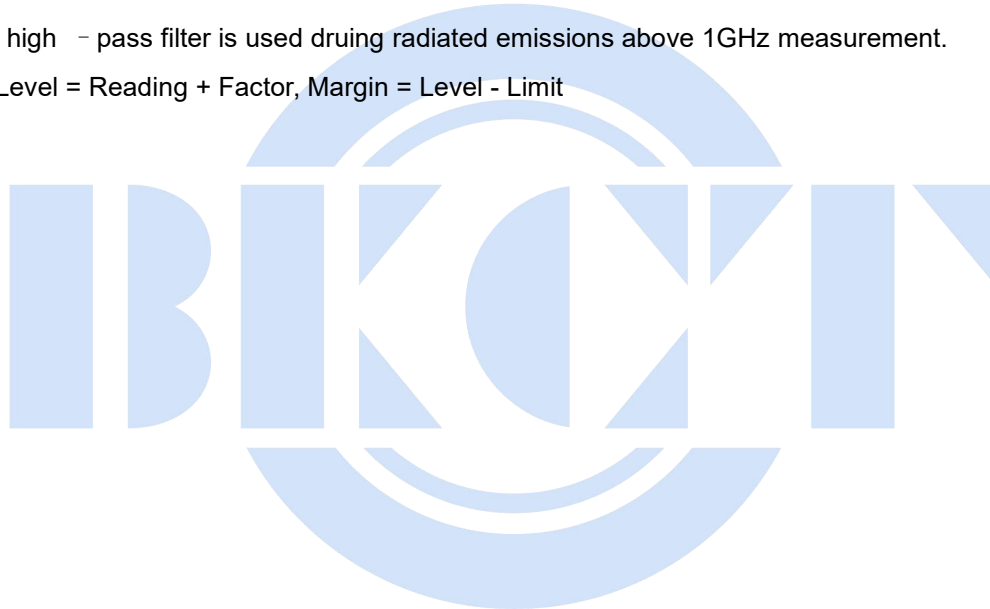
Remark:

- Margin = Limit – Level, Correct Factor = Cable lose + LISN insertion loss, Level= Reading + Correct factor
- Only the worst Data 802.11n40/2422MHz Record in the report.

3. Radiated Spurious Emissions

3.1. Test Procedure

1. The EUT is placed on a turntable, which is 0.8m above ground plane for below 1GHz and 1.5m for above 1GHz.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is moved from 1m to 4m to find out the maximum emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Repeat above procedures until the measurements for all frequencies are complete.
7. The radiation measurements are performed in X,Y and Z axis positioning(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand),the worst condition was tested putting the eut in Z axis,so the worst data were shown as follow.
8. A 2.4GHz high - pass filter is used during radiated emissions above 1GHz measurement.
9. Remark: $\text{Level} = \text{Reading} + \text{Factor}$, $\text{Margin} = \text{Level} - \text{Limit}$



3.2.Limit

Test Requirement: FCC CFR47 Part 15 Section 15.209 & 15.247

Test Method: KDB 558074 D01 15.247 Meas Guidance v05r02;
ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to
C63.10a-2024

Test Result: PASS

Measurement Distance: 3m

Frequency	Detector	RBW	VBW	Value
9KHz-150KHz	Quasi-peak	200Hz	600Hz	Quasi-peak
150KHz-30MHz	Quasi-peak	9KHz	30KHz	Quasi-peak
30MHz-1GHz	Quasi-peak	120KHz	360KHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
	Peak	1MHz	10Hz	Average

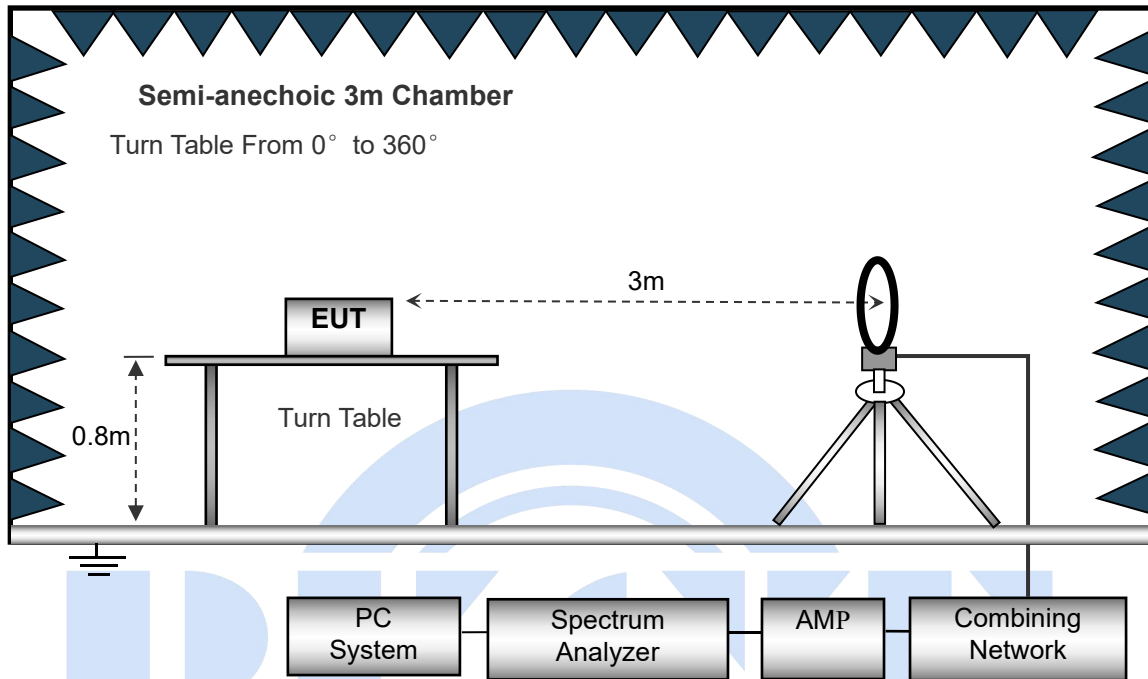
Limit:

Frequency (MHz)	Field Strength		Field Strength Limit at 3m Measurement Dist	
	uV/m	Distance (m)	uV/m	dBuV/m
0.009 ~ 0.490	$2400/F(\text{kHz})$	300	$10000 * 2400/F(\text{kHz})$	$20\log(2400/F(\text{kHz})) + 80$
0.490 ~ 1.705	$24000/F(\text{kHz})$	30	$100 * 24000/F(\text{kHz})$	$20\log(24000/F(\text{kHz})) + 40$
1.705 ~ 30	30	30	$100 * 30$	$20\log(30) + 40$
30 ~ 88	100	3	100	$20\log(100)$
88 ~ 216	150	3	150	$20\log(150)$
216 ~ 960	200	3	200	$20\log(200)$
Above 960	500	3	500	$20\log(500)$

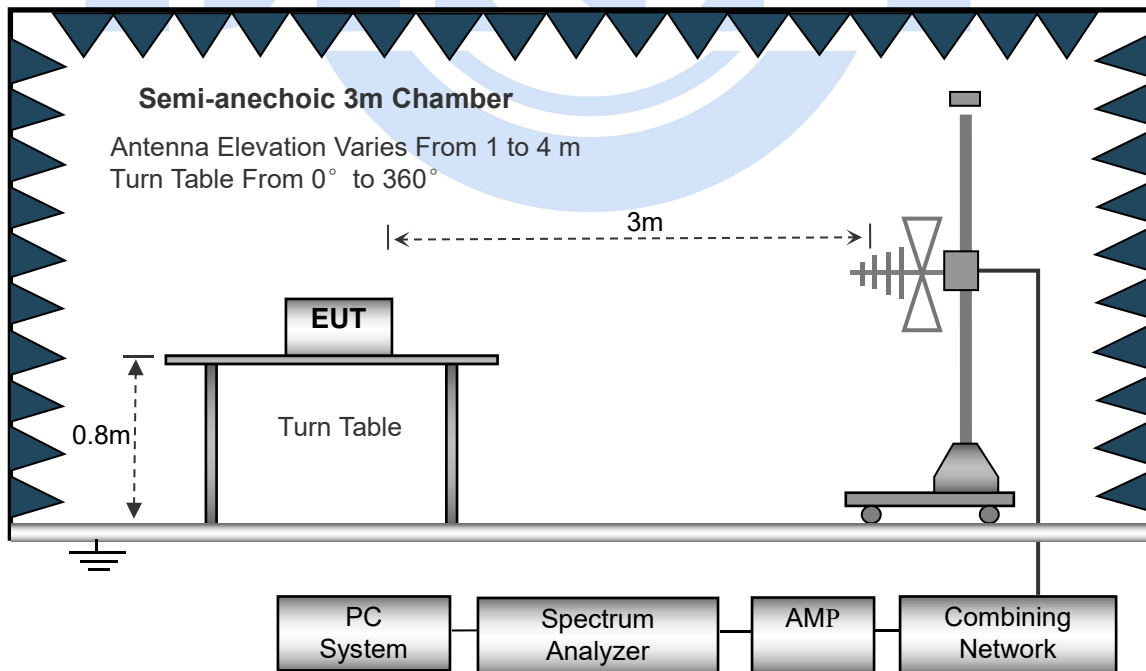
3.3.Test Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site, using the setup accordance with the ANSI C63.10.

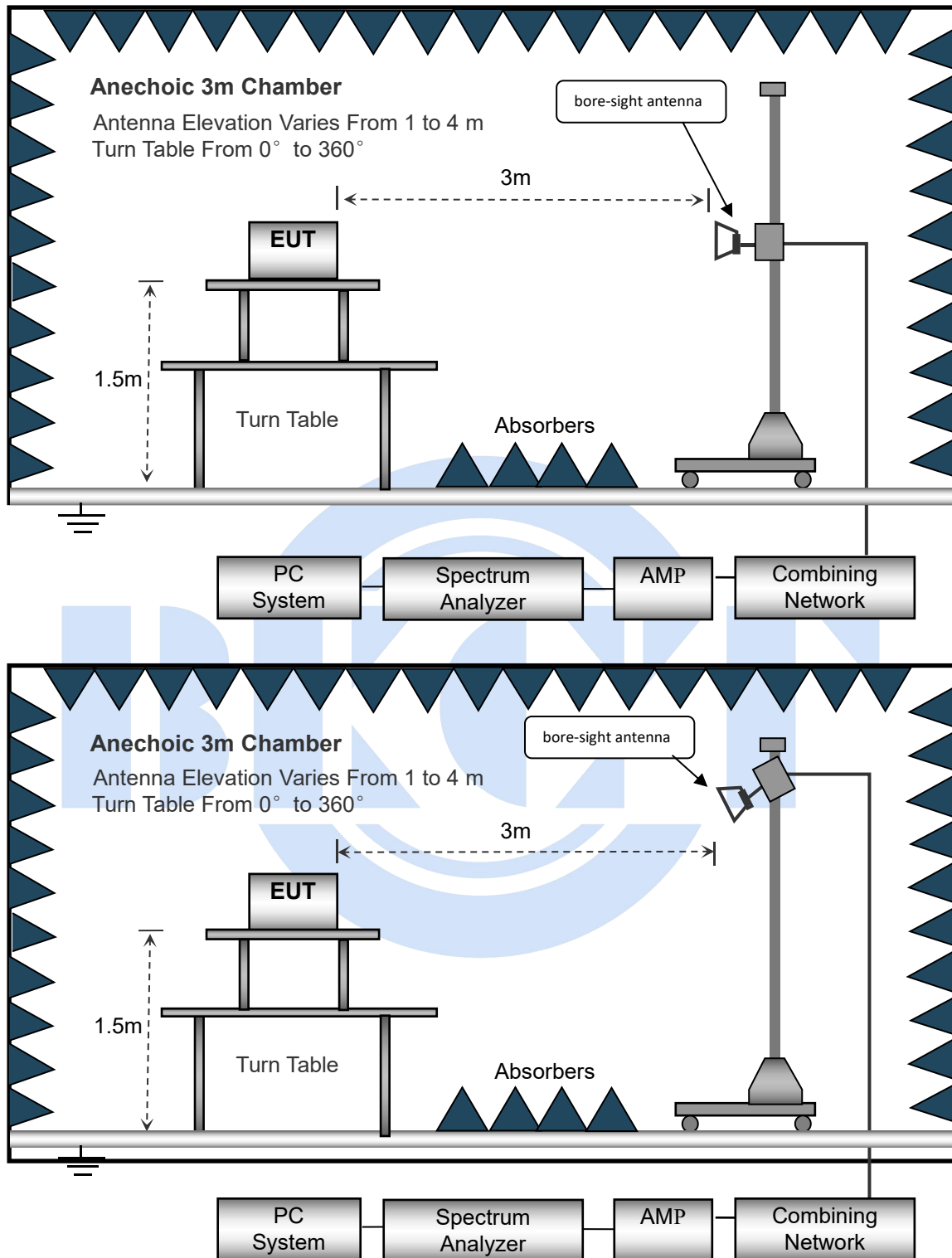
The test setup for emission measurement below 30MHz.



The test setup for emission measurement from 30 MHz to 1 GHz.



The test setup for emission measurement above 1 GHz.



3.4. Test Result

Test Frequency: 9KHz~30MHz

The measurements were more than 20 dB below the limit and not reported.

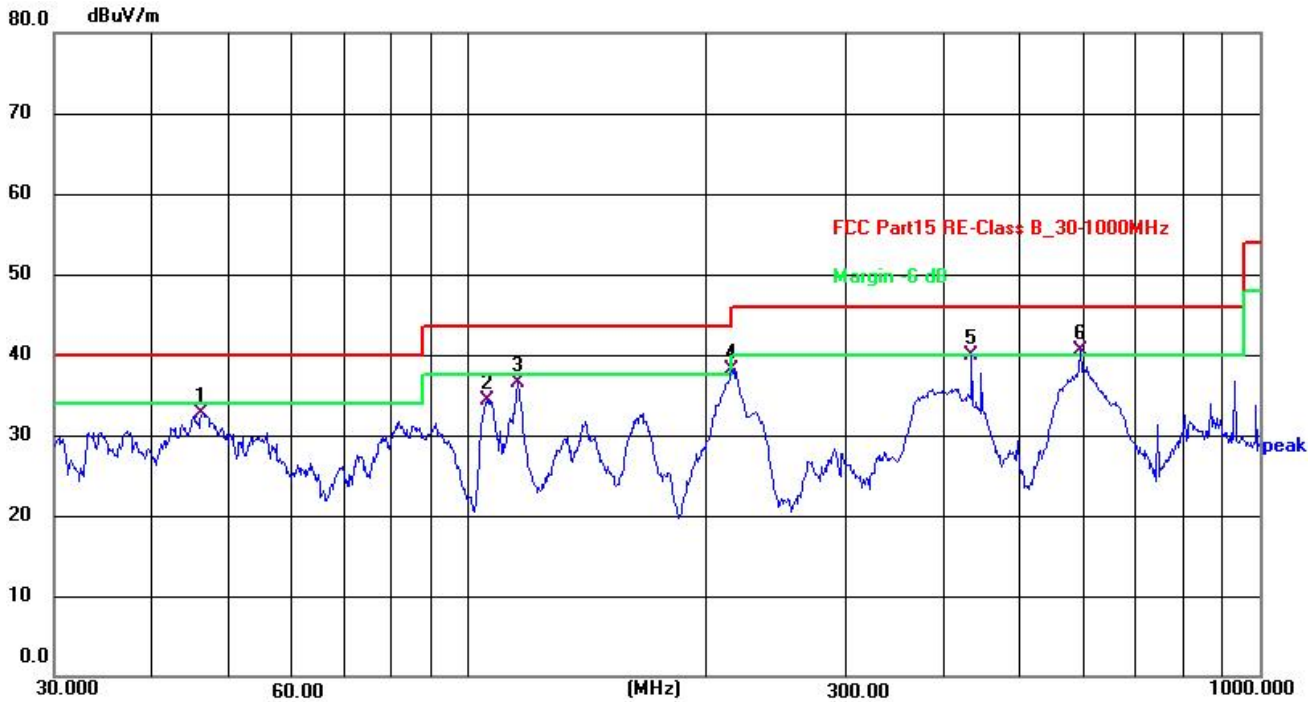
Test Frequency : 30MHz ~ 1GHz

Radiation Emission Test Data			
Temperature:	25.1℃	Relative Humidity:	56%
Pressure:	1008hPa	Phase :	Horizontal
Test Voltage :	AC 120V/60Hz	Test Mode	TM4



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	115.5634	54.57	-17.67	36.90	43.50	-6.60	QP
2 !	156.5672	53.96	-15.09	38.87	43.50	-4.63	QP
3 !	180.7752	55.98	-17.40	38.58	43.50	-4.92	QP
4 !	393.6102	54.88	-13.60	41.28	46.00	-4.72	QP
5 *	433.6086	54.43	-12.79	41.64	46.00	-4.36	QP
6	599.1110	50.24	-10.38	39.86	46.00	-6.14	QP

Radiation Emission Test Data			
Temperature:	25.1°C	Relative Humidity:	56%
Pressure:	1008hPa	Phase :	Vertical
Test Voltage :	AC 120V/60Hz	Test Mode	TM4



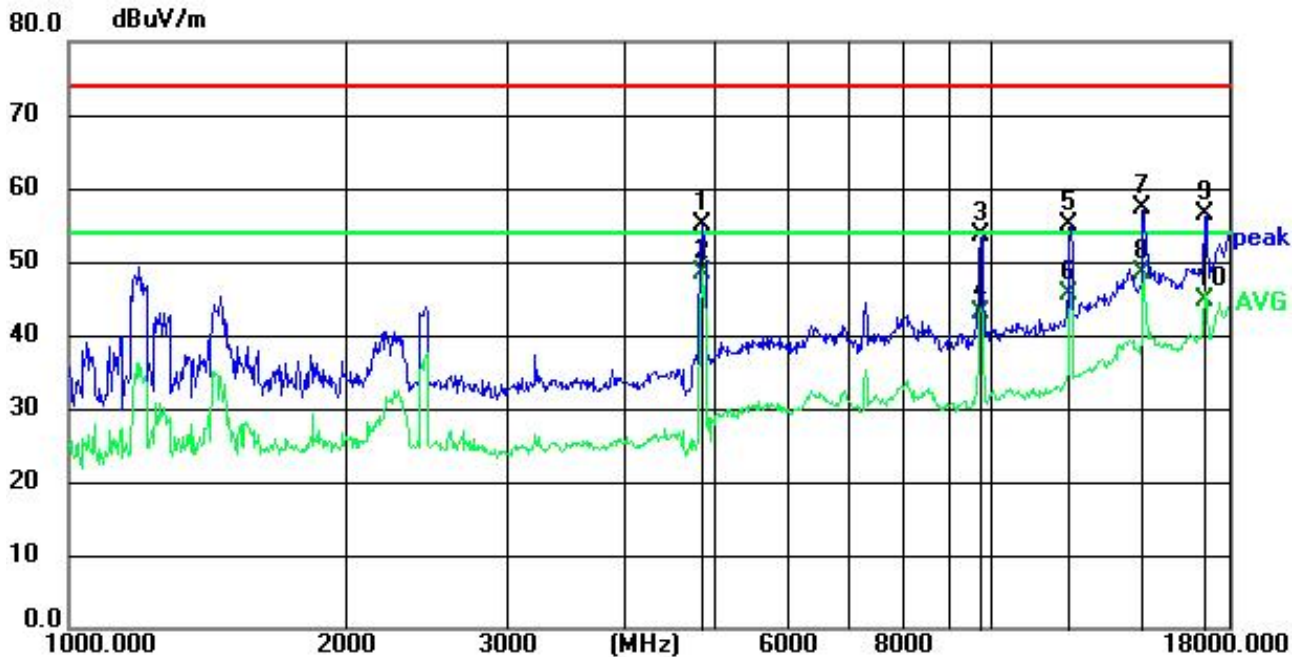
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	46.3075	49.19	-16.44	32.75	40.00	-7.25	QP
2	106.0126	52.95	-18.73	34.22	43.50	-9.28	QP
3	115.9693	54.08	-17.62	36.46	43.50	-7.04	QP
4 *	215.9482	56.46	-18.29	38.17	43.50	-5.33	QP
5	433.6086	52.72	-12.79	39.93	46.00	-6.07	QP
6 !	594.0901	51.06	-10.47	40.59	46.00	-5.41	QP

Remark:

1. Level = Reading + Correct Factor
2. Correct Factor=Antenna Factor + Cable Loss - Preamplifier Factor
3. Only the worst Data 802.11n40/2422MHz Record in the report.

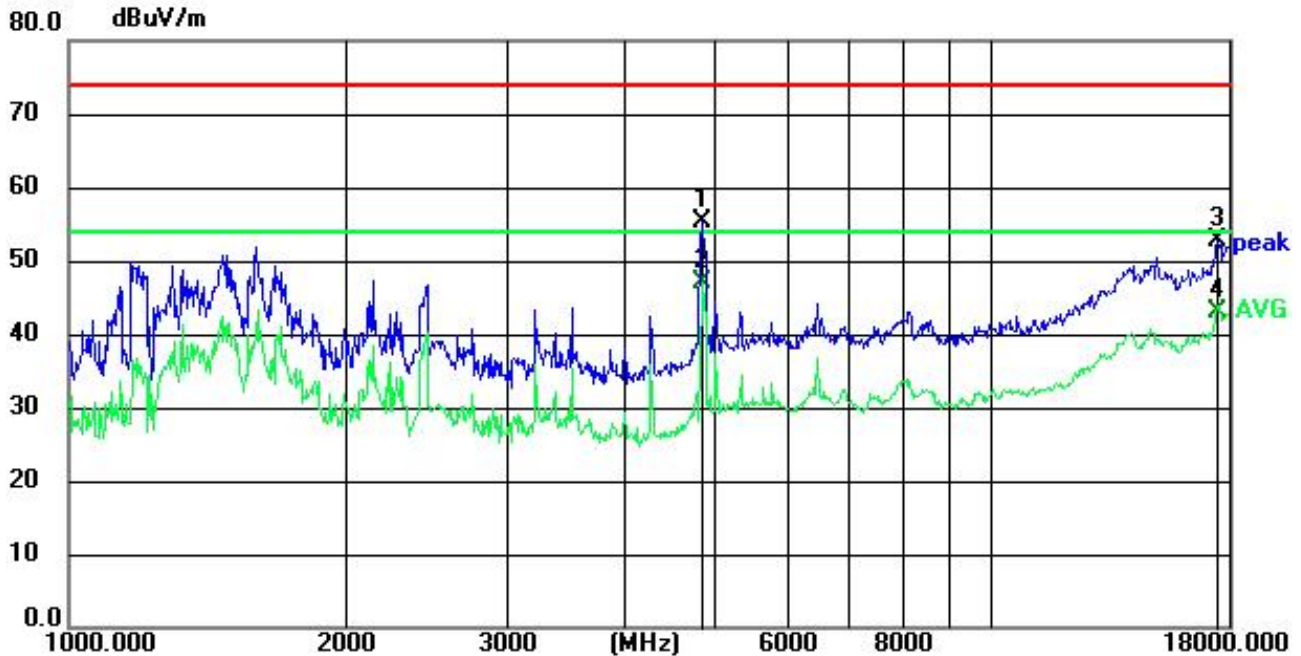
Test Frequency Above 1GHz:

Radiation Emission Test Data			
Temperature:	25.1℃	Relative Humidity:	56%
Pressure:	1008hPa	Phase :	Horizontal
Test Voltage :	AC 120V/60Hz	Test Mode	802.11n40/2422MHz



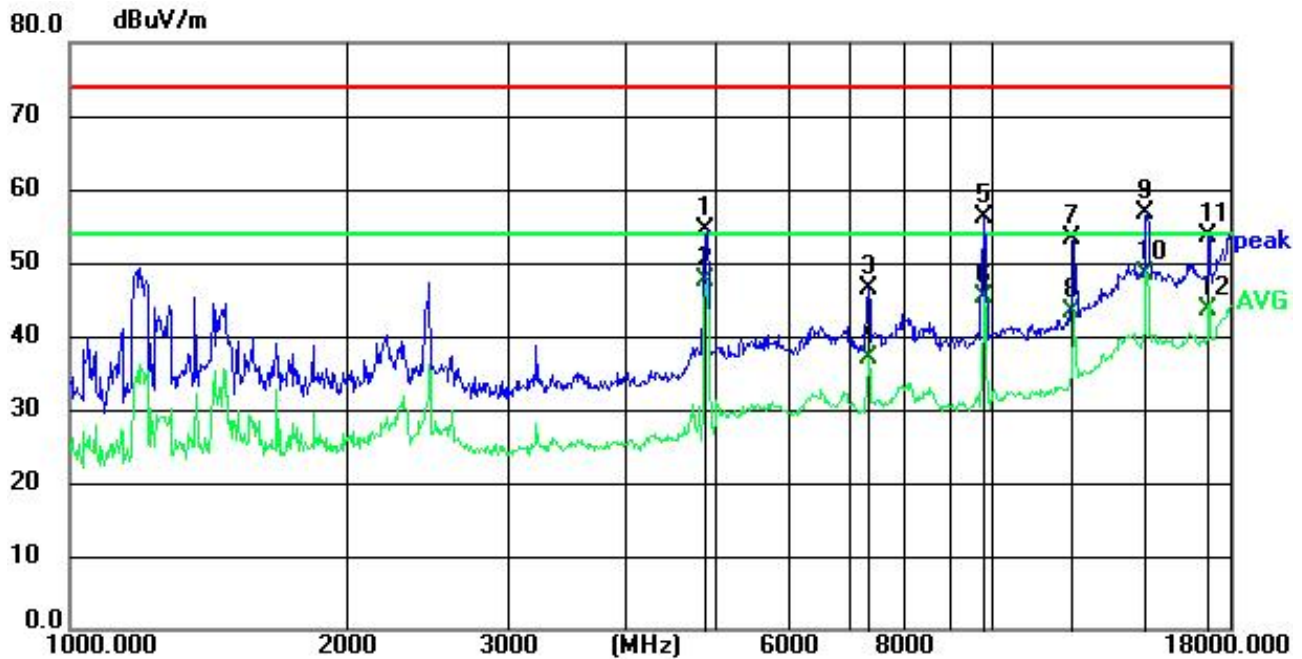
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4847.2000	54.74	0.30	55.04	74.00	-18.96	peak
2 *	4847.2000	48.26	0.30	48.56	54.00	-5.44	AVG
3	9709.6000	46.39	7.23	53.62	74.00	-20.38	peak
4	9709.6000	35.82	7.23	43.05	54.00	-10.95	AVG
5	12097.6000	45.43	9.44	54.87	74.00	-19.13	peak
6	12097.6000	36.14	9.44	45.58	54.00	-8.42	AVG
7	14524.0000	44.03	13.15	57.18	74.00	-16.82	peak
8	14524.0000	35.27	13.15	48.42	54.00	-5.58	AVG
9	16943.2000	43.36	13.03	56.39	74.00	-17.61	peak
10	16943.2000	31.68	13.03	44.71	54.00	-9.29	AVG

Radiation Emission Test Data			
Temperature:	25.1℃	Relative Humidity:	56%
Pressure:	1008hPa	Phase :	Vertical
Test Voltage :	AC 120V/60Hz	Test Mode	802.11n40/2422MHz



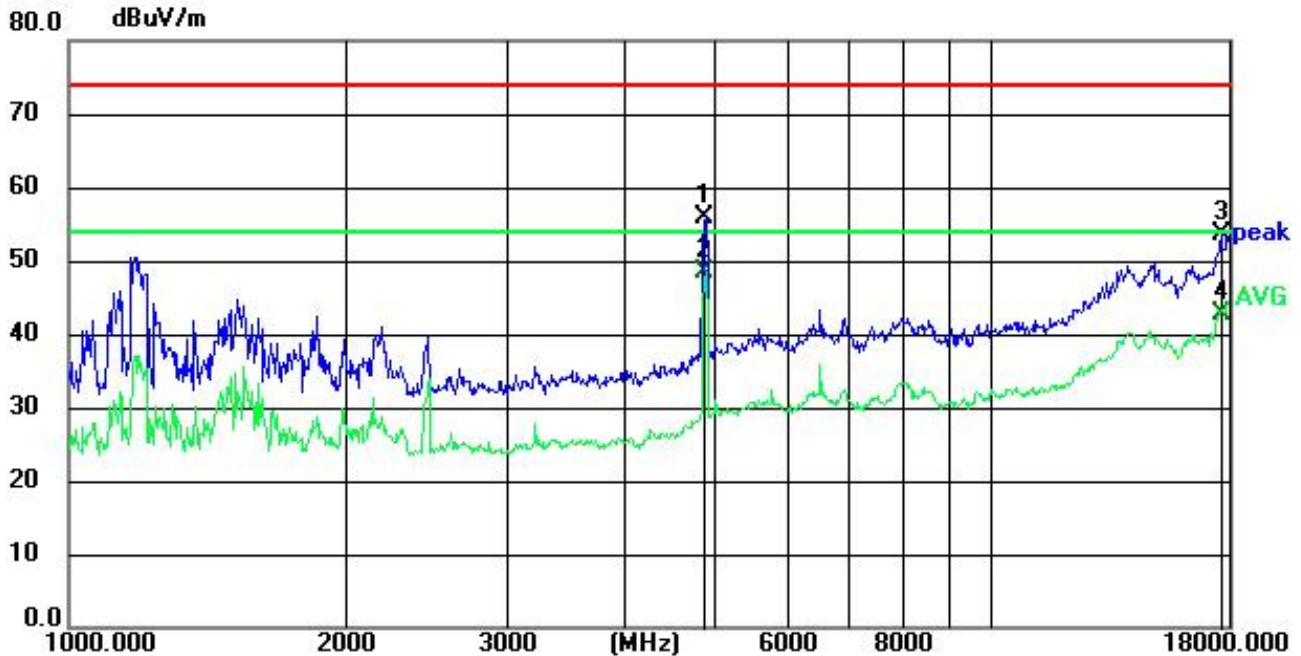
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4847.2000	54.98	0.30	55.28	74.00	-18.72	peak
2 *	4847.2000	46.81	0.30	47.11	54.00	-6.89	AVG
3	17485.4896	36.54	16.28	52.82	74.00	-21.18	peak
4	17485.4896	26.67	16.28	42.95	54.00	-11.05	AVG

Radiation Emission Test Data			
Temperature:	25.1°C	Relative Humidity:	56%
Pressure:	1008hPa	Phase :	Horizontal
Test Voltage :	AC 120V/60Hz	Test Mode	802.11n40/2437MHz



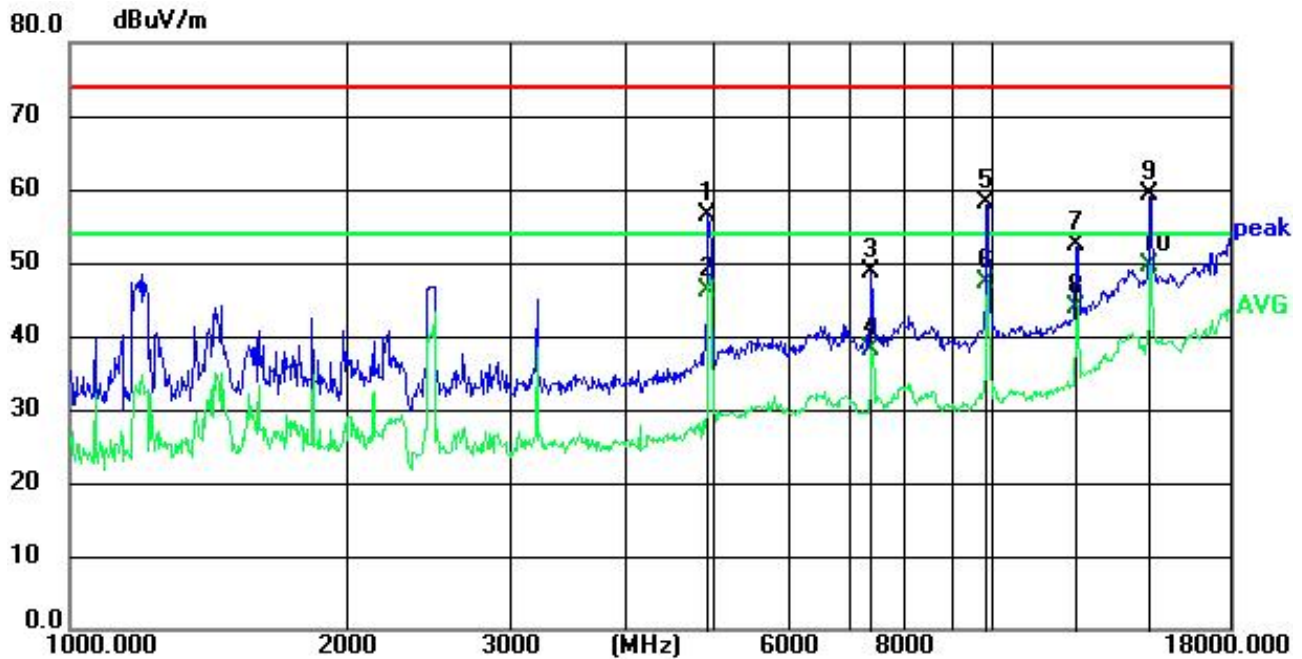
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4880.8000	53.96	0.42	54.38	74.00	-19.62	peak
2	4880.8000	47.18	0.42	47.60	54.00	-6.40	AVG
3	7316.8000	40.65	5.87	46.52	74.00	-27.48	peak
4	7316.8000	31.00	5.87	36.87	54.00	-17.13	AVG
5	9752.8000	48.95	7.28	56.23	74.00	-17.77	peak
6	9752.8000	37.87	7.28	45.15	54.00	-8.85	AVG
7	12172.0000	43.71	9.51	53.22	74.00	-20.78	peak
8	12172.0000	33.79	9.51	43.30	54.00	-10.70	AVG
9	14615.2000	43.75	13.05	56.80	74.00	-17.20	peak
10 *	14615.2000	35.34	13.05	48.39	54.00	-5.61	AVG
11	17044.0000	39.98	13.51	53.49	74.00	-20.51	peak
12	17044.0000	30.08	13.51	43.59	54.00	-10.41	AVG

Radiation Emission Test Data			
Temperature:	25.1℃	Relative Humidity:	56%
Pressure:	1008hPa	Phase :	Vertical
Test Voltage :	AC 120V/60Hz	Test Mode	802.11n40/2437MHz



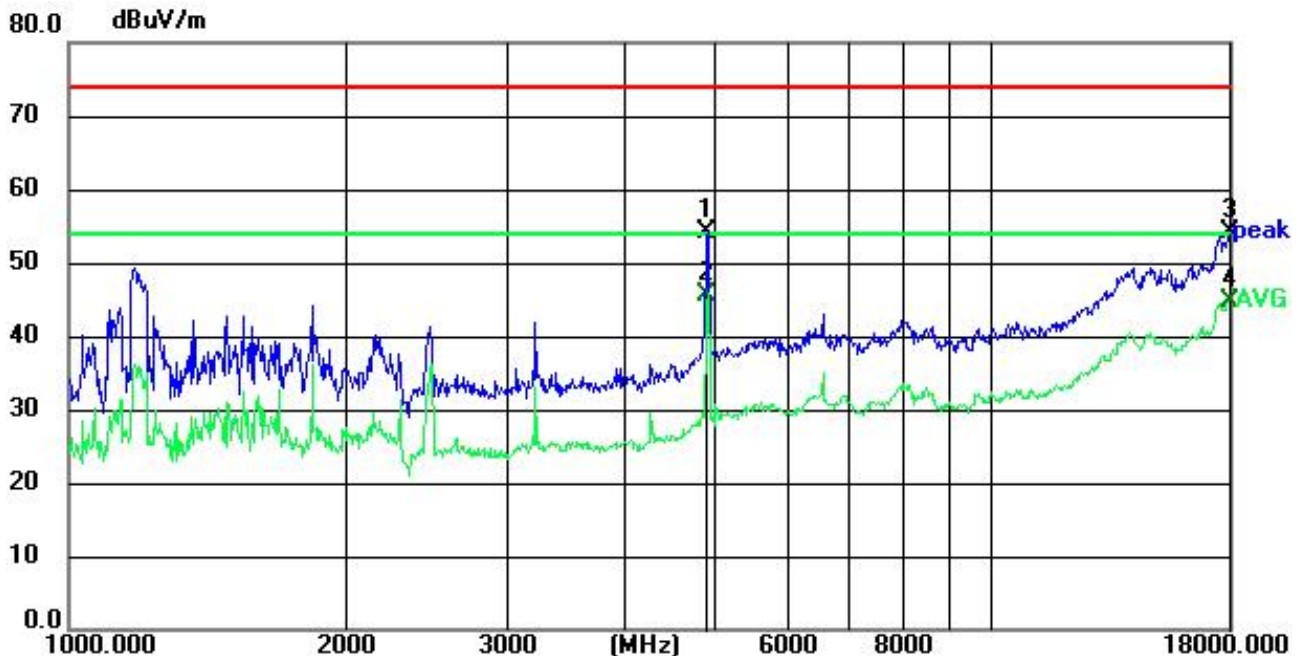
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4878.4000	55.59	0.41	56.00	74.00	-18.00	peak
2 *	4878.4000	48.00	0.41	48.41	54.00	-5.59	AVG
3	17655.3378	36.22	17.35	53.57	74.00	-20.43	peak
4	17655.3378	25.49	17.35	42.84	54.00	-11.16	AVG

Radiation Emission Test Data			
Temperature:	25.1℃	Relative Humidity:	56%
Pressure:	1008hPa	Phase :	Horizontal
Test Voltage :	AC 120V/60Hz	Test Mode	802.11n40/2452MHz



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4895.2000	56.09	0.46	56.55	74.00	-17.45	peak
2	4895.2000	45.62	0.46	46.08	54.00	-7.92	AVG
3	7355.2000	42.77	5.92	48.69	74.00	-25.31	peak
4	7355.2000	32.25	5.92	38.17	54.00	-15.83	AVG
5	9812.8000	50.81	7.35	58.16	74.00	-15.84	peak
6	9812.8000	39.94	7.35	47.29	54.00	-6.71	AVG
7	12263.2000	42.91	9.61	52.52	74.00	-21.48	peak
8	12263.2000	34.39	9.61	44.00	54.00	-10.00	AVG
9	14704.0000	46.18	12.97	59.15	74.00	-14.85	peak
10 *	14704.0000	36.71	12.97	49.68	54.00	-4.32	AVG

Radiation Emission Test Data			
Temperature:	25.1℃	Relative Humidity:	56%
Pressure:	1008hPa	Phase :	Vertical
Test Voltage :	AC 120V/60Hz	Test Mode	802.11n40/2452MHz



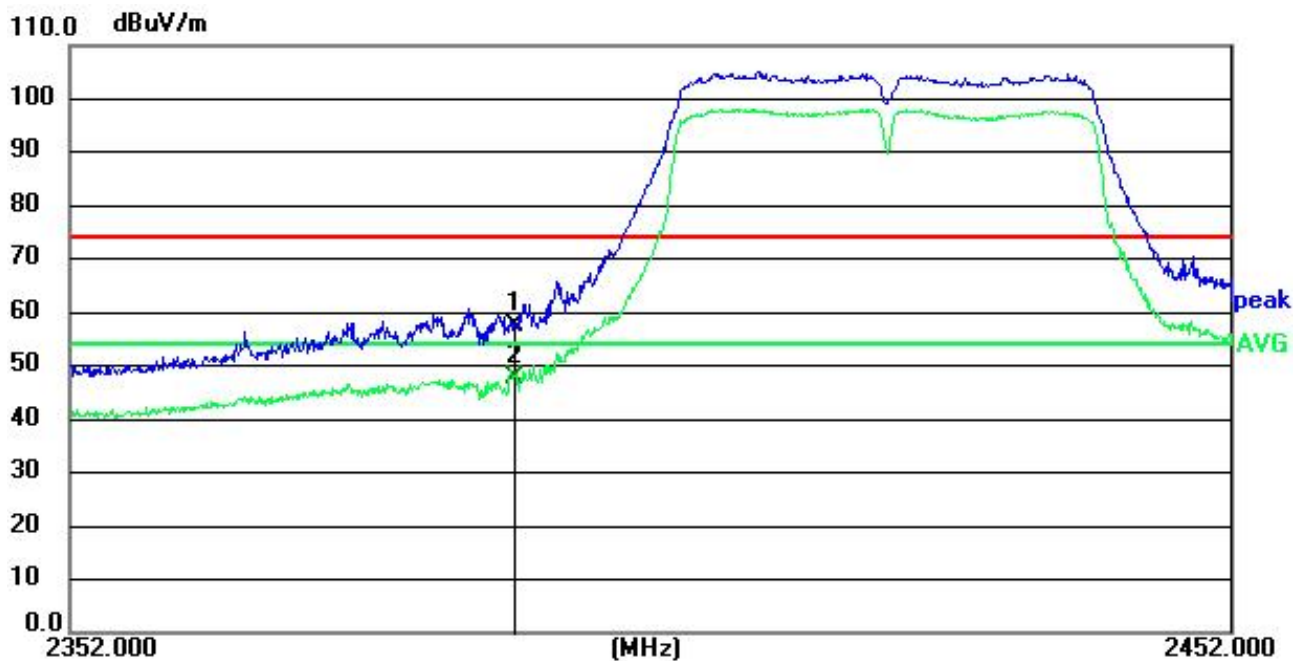
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4904.8000	53.57	0.50	54.07	74.00	-19.93	peak
2 *	4904.8000	45.20	0.50	45.70	54.00	-8.30	AVG
3	18000.0000	34.57	19.51	54.08	74.00	-19.92	peak
4	18000.0000	25.28	19.51	44.79	54.00	-9.21	AVG

Remark:

1. Measurement = Reading + Factor
2. Factor = Antenna Factor + Cable loss - Pre Amplifier gain
3. Margin= Emission Level - Limit.
4. Pre-scan 802.11b, 802.11g and 802.11n (H20), 802.11n (H40) modulation, and found the 802.11n (H40) modulation which it is worse case, so only show the test data for worse case.
5. From 18GHz to 25GHz,the amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

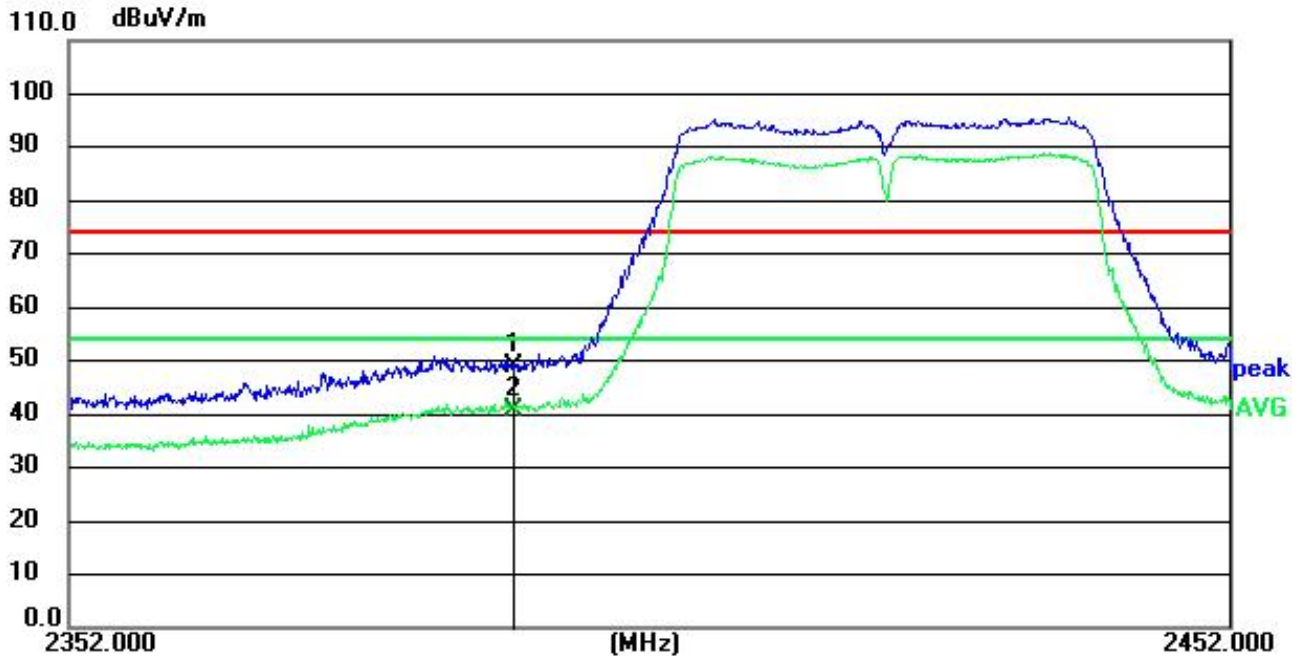
Spurious Emission in Restricted Band

Radiation Emission Test Data			
Temperature:	25.1℃	Relative Humidity:	56%
Pressure:	1008hPa	Phase :	Horizontal
Test Voltage :	AC 120V/60Hz	Test Mode	802.11n40/2422MHz



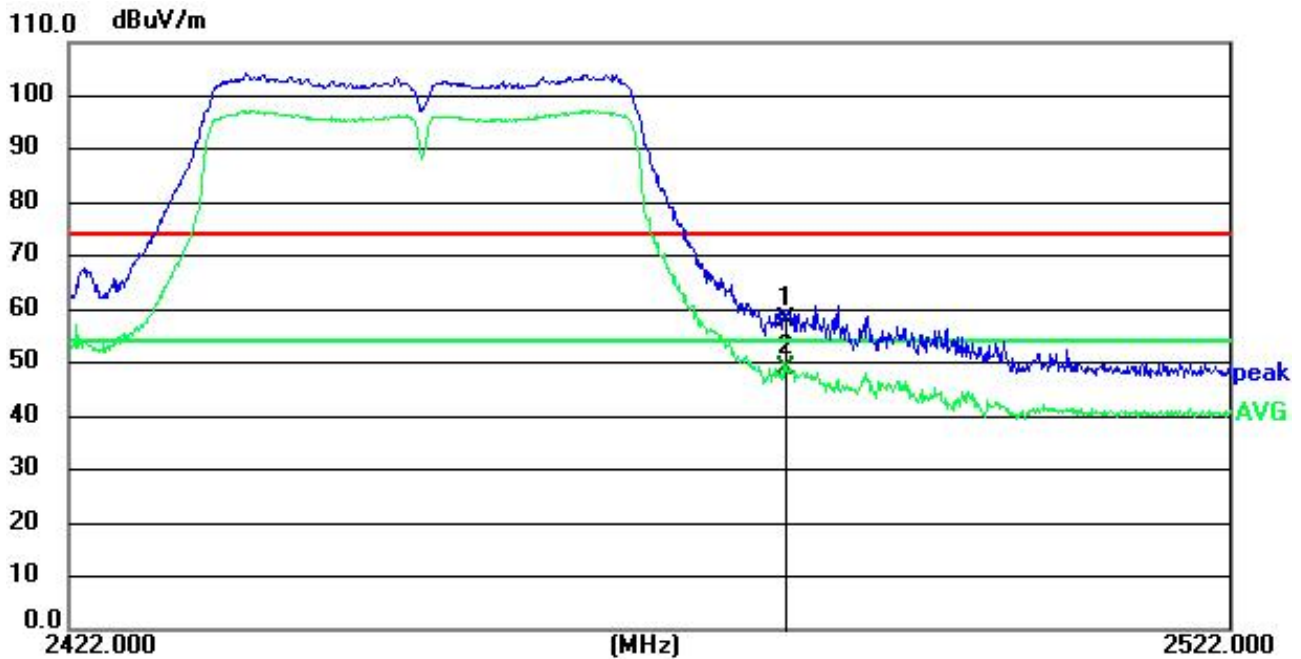
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.0000	59.98	-2.28	57.70	74.00	-16.30	peak
2 *	2390.0000	49.88	-2.28	47.60	54.00	-6.40	AVG

Radiation Emission Test Data			
Temperature:	25.1°C	Relative Humidity:	56%
Pressure:	1008hPa	Phase :	Vertical
Test Voltage :	AC 120V/60Hz	Test Mode	802.11n40/2422MHz



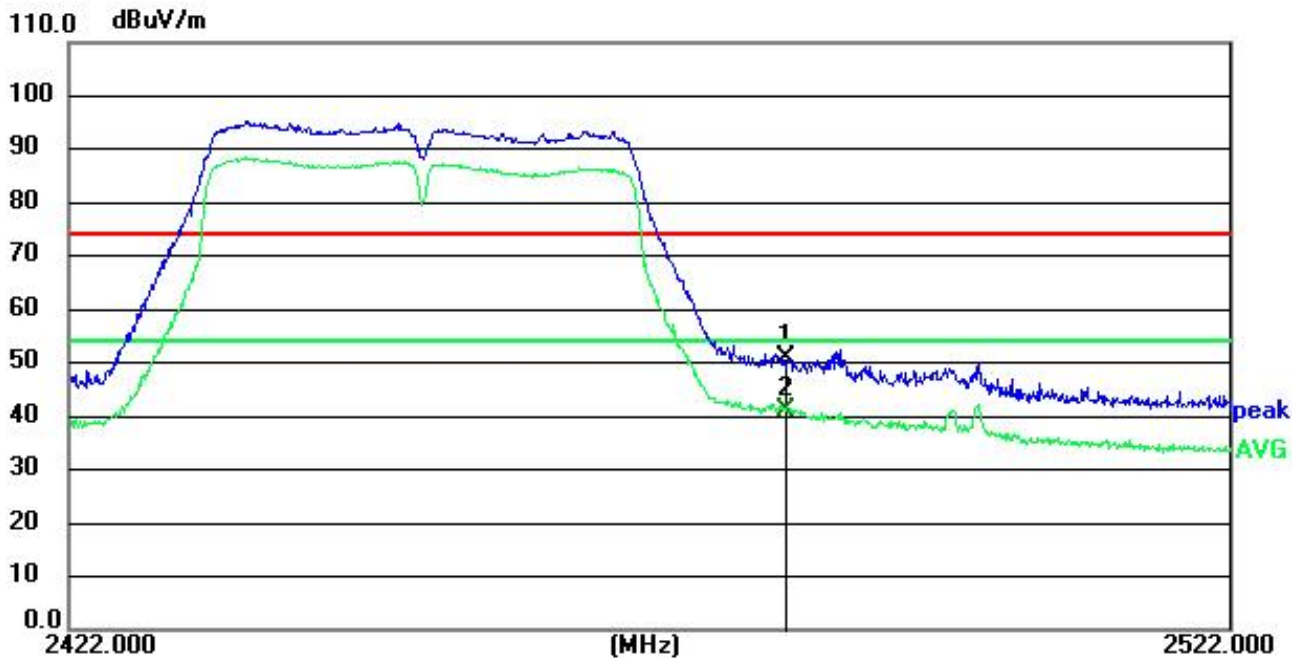
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.0000	51.29	-2.28	49.01	74.00	-24.99	peak
2 *	2390.0000	43.12	-2.28	40.84	54.00	-13.16	AVG

Radiation Emission Test Data			
Temperature:	25.1℃	Relative Humidity:	56%
Pressure:	1008hPa	Phase :	Horizontal
Test Voltage :	AC 120V/60Hz	Test Mode	802.11n40/2452MHz



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2483.5000	59.93	-2.07	57.86	74.00	-16.14	peak
2 *	2483.5000	50.95	-2.07	48.88	54.00	-5.12	AVG

Radiation Emission Test Data			
Temperature:	25.1℃	Relative Humidity:	56%
Pressure:	1008hPa	Phase :	Vertical
Test Voltage :	AC 120V/60Hz	Test Mode	802.11n40/2452MHz



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2483.5000	52.77	-2.07	50.70	74.00	-23.30	peak
2 *	2483.5000	43.10	-2.07	41.03	54.00	-12.97	AVG

Remark:

1. Measurement = Reading + Factor
2. Factor = Antenna Factor + Cable loss - Pre Amplifier gain
3. Margin= Emission Level - Limit.
4. Pre-scan 802.11b, 802.11g and 802.11n (H20), 802.11n (H40) modulation, and found the 802.11n (H40) modulation which it is worse case, so only show the test data for worse case.

4. Conducted Spurious Emissions

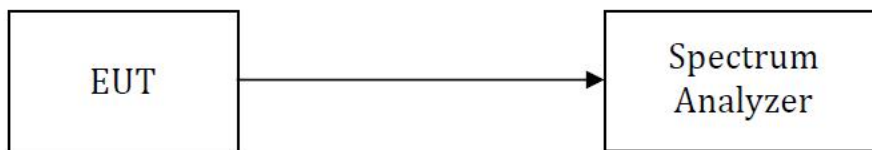
4.1.Limit

Test Requirement: FCC CFR47 Part 15 Section 15.247
Test Method: KDB 558074 D01 15.247 Meas Guidance v05r02;
ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to
C63.10a-2024
Test Result: PASS

Limit:

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

4.2.Test Setup



4.3.Test Procedure

- 1) Remove the antenna from the EUT and connect to the spectrum analyzer via a low loss RF cable.
- 2) Set instrument center frequency to DTS channel center frequency.
- 3) Set the span to 1.5 times the DTS bandwidth.
- 4) Set the RBW = 100 kHz.
- 5) Set the VBW [3 × RBW].
- 6) Detector = peak.
- 7) Sweep time = auto couple.
- 8) Trace mode = max hold.
- 9) Allow trace to fully stabilize.
- 10) Use the peak marker function to determine the maximum PSD level.

Emission level measurement:

- 1) Set the center frequency and span to encompass frequency range to be measured.
- 2) Set the RBW = 100 kHz.
- 3) Set the VBW [3 × RBW].
- 4) Detector = peak.
- 5) Sweep time = auto couple.
- 6) Trace mode = max hold.
- 7) Allow trace to fully stabilize.
- 8) Use the peak marker function to determine the maximum amplitude level.

4.4.Test Result

Please see the attachment for data.

5. Band Edge Measurement

5.1.Limit

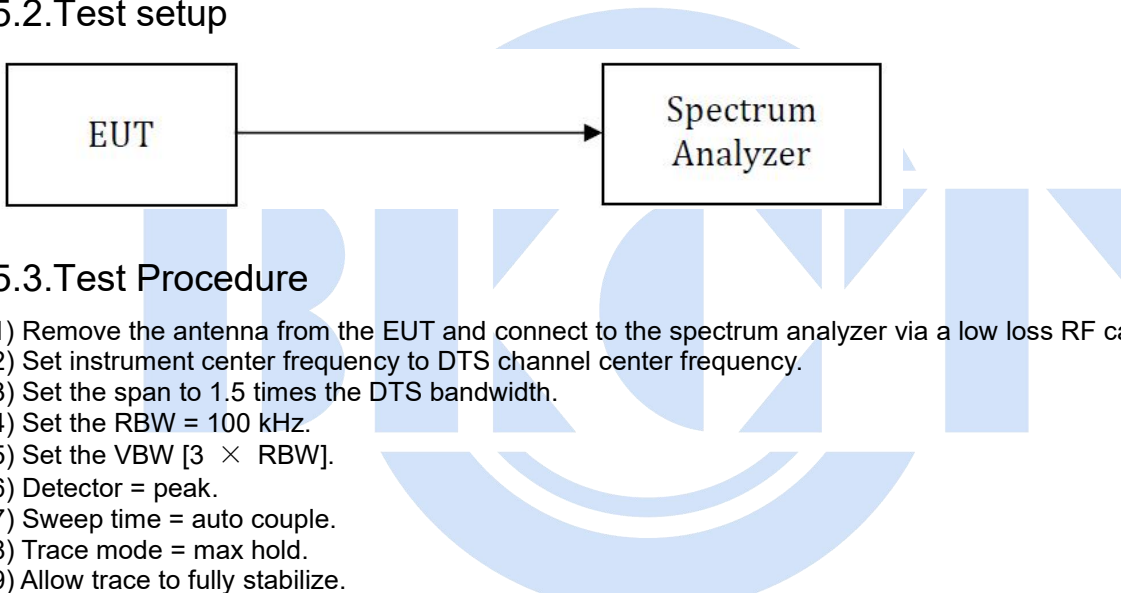
Test Requirement: FCC CFR47 Part 15 Section 15.247

Test Method: KDB 558074 D01 15.247 Meas Guidance v05r02;

ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024

Test Limit: Regulation 15.247 (d), In any 100 kHz bandwidth outside the frequency band which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

5.2.Test setup



5.3.Test Procedure

- 1) Remove the antenna from the EUT and connect to the spectrum analyzer via a low loss RF cable.
- 2) Set instrument center frequency to DTS channel center frequency.
- 3) Set the span to 1.5 times the DTS bandwidth.
- 4) Set the RBW = 100 kHz.
- 5) Set the VBW [3 × RBW].
- 6) Detector = peak.
- 7) Sweep time = auto couple.
- 8) Trace mode = max hold.
- 9) Allow trace to fully stabilize.
- 10) Use the peak marker function to determine the maximum PSD level.

Emission level measurement:

- 1) Set the center frequency and span to encompass frequency range to be measured.
- 2) Set the RBW = 100 kHz.
- 3) Set the VBW [3 × RBW].
- 4) Detector = peak.
- 5) Sweep time = auto couple.
- 6) Trace mode = max hold.
- 7) Allow trace to fully stabilize.
- 8) Use the peak marker function to determine the maximum amplitude level.

5.4.Test Result

Please see the attachment for data.

6. -6 dB Bandwidth and 99% Bandwidth Measurement

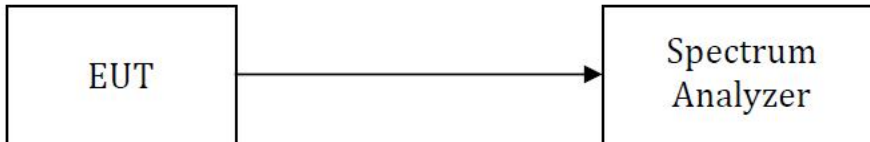
6.1.Limit

Test Requirement: FCC CFR47 Part 15 Section 15.247

Test Method: KDB 558074 D01 15.247 Meas Guidance v05r02;

ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024

6.2.Test Setup



6.3.Test Procedure

DTS Bandwidth

- a) Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;
- b) Set RBW = shall be in the range of 1% to 5% of the OBW but not less than 100 kHz.
- c) Set the VBW $\geq [3 \times \text{RBW}]$.
- d) Detector = peak.
- e) Trace mode = max-hold.
- f) Sweep = No faster than coupled (auto) time.
- g) Allow the trace to stabilize.

Measure the maximum width of the emission by placing two markers, one at the lowest frequency and the other at the highest frequency of the envelope of the spectral display, such that each marker is at or slightly below the “-6 dB down amplitude”. If a marker is below this “-6 dB down amplitude” value, then it shall be as close as possible to this value.

99% Bandwidth

- a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
- b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be at least three times the RBW, unless otherwise specified by the applicable requirement
- c) Detector = peak.
- d) Trace mode = max-hold.
- e) Sweep = No faster than coupled (auto) time.
- f) Allow the trace to stabilize.

Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.

6.4.Test Result

Please see the attachment for data.

7. Maximum Output Power

7.1.Limit

Test Requirement: FCC CFR47 Part 15 Section 15.247

Test Method: KDB 558074 D01 15.247 Meas Guidance v05r02;

ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3)	Output Power	1 watt or 30dBm	2400-2483.5	PASS

7.2.Test Setup



7.3.Test Procedure

KDB 558074 D01 15.247 Meas Guidance v05r02;

section 8.3.1.1 (For BLE)

This procedure shall be used when the measurement instrument has available a resolution bandwidth that is greater than the DTS bandwidth.

- Set the RBW $\geq$ DTS bandwidth.
- Set VBW ≥ 3 RBW.
- Set span $\geq 3 \times$ RBW
- Sweep time = auto couple.
- Detector = peak.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use peak marker function to determine the peak amplitude level.

section 8.3.1.2 (For WIFI)

This procedure may be used when the maximum available RBW of the measurement instrument is less than the DTS bandwidth.

- Set the RBW = 1% to 5% of the OBW, not to exceed 1 MHz..
- Set the VBW $\geq 3 \times$ RBW
- Set the span $\geq 1.5 \times$ OBW.
- Detector = RMS.
- Sweep time = auto couple.
- trigger = free run..
- Number of points in sweep $\geq [2 \times \text{span} / \text{RBW}]$. (This gives bin-to-bin spacing $\geq \text{RBW} / 2$, so that narrowband signals are not lost between frequency bins.)
- Trace average at least 100 traces in power averaging (rms) mode.
- Compute power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function, with band limits set equal to the OBW band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.

7.4.Test Result

Please see the attachment for data.

8. Power Spectral Density

8.1.Limit

Test Requirement: FCC CFR47 Part 15 Section 15.247

Test Method: KDB 558074 D01 15.247 Meas Guidance v05r02;

ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247 (e)	Power Spectral Density	8dBm/3kHz	2400-2483.5	PASS

8.2.Test Setup



8.3.Test Procedure

KDB 558074 D01 15.247 Meas Guidance v05r02;

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
2. Set instrument center frequency to DTS channel center frequency
3. Set span to > 1.5 times the OBW.
4. Set RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$
5. Set VBW $\geq [3 \times \text{RBW}]$
6. Detector = power averaging (rms) or sample detector (when rms not available).
7. Ensure that the number of measurement points in the sweep $\geq [2 \times \text{span} / \text{RBW}]$.
8. Sweep time = auto couple.
9. Employ trace averaging (rms) mode over a minimum of 100 traces.
10. Use the peak marker function to determine the maximum amplitude level.
11. If the measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat(note that this might require zooming in on the emission of interest and reducing the span to meet the minimum measurement point requirement as the RBW is reduced).
12. Allow the trace to stabilize. Use the peak marker function to determine the maximum amplitude level within the RBW. If measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat.

8.4.Test Result

Please see the attachment for data.

9. Antenna Requirement

According to the FCC Part 15 Paragraph 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. This product has an FPC Antenna fulfill the requirement of this section.

Result

The antenna is FPC Antenna, the Max gain of the antennas is 4.14dBi, reference to the attachment for details.



10. Test Photographs

Please see Attachment BKC26084865HE-6.



11. Appendix I: Photos of the EUT

Please see Attachment BKC26084865HE-7 and BKC26084865HE-8.

