FCC Test Report

Product Name	:	Tablet
Brand Name	:	MiTAC
Model No.	:	Cappuccino-Tablet
FCC ID	:	2ADL6-CAPPUCCINO
Applicant	:	MITAC COMPUTING TECHNOLOGY CORPORATION
Address	:	No. 200, Wen Hwa 2nd Rd., Kuei Shan Dist., TAOYUAN, 33383 Taiwan
Date of Receipt	:	Apr. 06, 2020
Issued Date	:	Mar. 17, 2022
Report No.	:	2040094R-E3032110113
Report Version	:	V2.0

The test results relate only to the samples tested.
The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.
This report must not be used to claim product endorsement by TAF or any agency of the government.
Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Test Report Certification

Product Name	：	Tablet
Applicant	：	MITAC COMPUTING TECHNOLOGY CORPORATION
Address	：	No. 200, Wen Hwa 2nd Rd., Kuei Shan Dist., TAOYUAN, 33383 Taiwan
Manufacturer	：	MITAC COMPUTING TECHNOLOGY CORPORATION
Address	：	No. 200, Wen Hwa 2nd Rd., Kuei Shan Dist., TAOYUAN, 33383 Taiwan
Brand Name	：	MiTAC
Model No.	：	Cappuccino-Tablet
FCC ID	：	2ADL6-CAPPUCCINO
EUT Voltage	：	AC 120 ~ 240V, 50-60Hz (Adapter) DC 7.6V (Battery)
Testing Voltage	：	AC 120V/60Hz
Applicable Standard	：	FCC CFR Title 47 Part 15 Subpart C Section 15.247 ANSI C63.10: 2013
Laboratory Name	：	Hsin Chu Laboratory
Address	：	No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 310, Taiwan, R.O.C. TEL: +886-3-582-8001 / FAX: +886-3-582-8958
Test Result	：	Complied

Documented By ： Amelia Wu

(Amelia Wu / Project Specialist)

Approved By ： Louis Hsu

(Louis Hsu / Deputy Manager)

The test results relate only to the samples tested.
The test report shall not be reproduced except in full without the written approval of DEKRA Testing and Certification Co., Ltd.

Revision History

Version	Description	Issued Date
V1.0	Initial issue of report	Jul. 07, 2020
V2.0	1. Revising the antenna information. 2. Adding the power adapter and power cord (for docking station or extension cover). After evaluating, it was re-test for AC Power Line Conducted Emission and Radiated Emission Below 1 GHz.	Mar. 17, 2022

TABLE OF CONTENTS

1. General Information

1.1. EUT Description

Product Name	Tablet	
Brand Name	MiTAC	
Model No.	Cappuccino-Tablet	
Frequency Range / Channel Number	IEEE 802.11b/g	2412 ~ 2462 MHz / 11 Channels
	IEEE 802.11n (20 MHz)	2412 ~ 2462 MHz / 11 Channels
	IEEE 802.11n (40 MHz)	2422 ~ 2452 MHz / 7 Channels
Type of Modulation	IEEE 802.11b	DSSS
	IEEE 802.11g/n	OFDM
Data Rate	IEEE 802.11b	1, 2, 5.5, 11 Mbps
	IEEE 802.11g	6, 9, 12, 18, 24, 36, 48, 54 Mbps
	IEEE 802.11n	Support a subset of the combination of GI, MCS 0 ~ MCS 15 and bandwidth defined in 802.11n

Accessories Information				
No.	Equipment Name	Brand Name	Model No.	Rating
1	Power Adapter with power cord (for EUT)	APD	NB65B19	INPUT: 100 ~ 240V,50/60Hz, 1.6A OUTPUT: 19V, 3.42A Cable In: Non-Shielded, 0.9 m Cable Out: Non-Shielded, 1.7m
2	Power Adapter (for Docking Station or Extension Cover)	DELTA	DPS-180AB-21	INPUT: 100 ~ 240V,50/60Hz, 3-1.5A OUTPUT: 24V, 7.5A Cable Out: Non-Shielded, 1.2m with 2 ferrite cores
3	Power cord (for Docking Station or Extension Cover)	DELTA	CCBL-0317	Cable In: Non-Shielded, 1.7 m
4	Battery	Getac	BP-CAP-21/2570 VKB	7.6V, 2570mAh, 19.532Wh
No.	Equipment Name	Brand Name		Model No.
5	Docking Station	Cappuccino		Cappuccino-Docking Station
6	Extension Cover	Cappuccino		Cappuccino-Extension Cover
7	Charging Cradle	Cappuccino		Cappuccino-Charging Cradle
No.	Equipment Name	Remark		
8	Strap	1Pcs		

Antenna Information				
Ant.	Brand Name	Model No.	Type	Antenna Gain (dBi)
1	ARISTOTLE	RFA-25-AP957-AUX	PIFA Antenna	4.63

Antenna Information						
Ant.	Brand Name	Model No.	Type	Antenna Gain (dBi)	Maximum Antenna Gain (dBi)	Directional Gain (dBi)
0	ARISTOTLE	RFA-25-AP957-MAIN	PIFA Antenna	2.27	4.63	6.54
1	ARISTOTLE	RFA-25-AP957-AUX	PIFA Antenna	4.63		

For IEEE 802.11b/g/n/ac/ax Mode: (2TX, 2RX)

Both Ant. 0 and Ant. 1 can be used as transmitting/receiving antennas, and them can transmit/receive signal simultaneously.

IEEE 802.11b/g & IEEE 802.11n (20 MHz)

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
01	2412 MHz	02	2417 MHz	03	2422 MHz	04	2427 MHz
05	2432 MHz	06	2437 MHz	07	2442 MHz	08	2447 MHz
09	2452 MHz	10	2457 MHz	11	2462 MHz	-	-

IEEE 802.11n (40 MHz)

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
03	2422 MHz	04	2427 MHz	05	2432 MHz	06	2437 MHz
07	2442 MHz	08	2447 MHz	09	2452 MHz	-	-

Note:

1. Regards to the frequency band operation; the lowest、middle and highest frequency of channel were selected to perform the test, and then shown on this report.
2. The above EUT information is declared by the manufacturer.

1.2. Test Mode

DEKRA has verified the construction and function in typical operation. The preliminary tests were performed in different data rate, and to find the worst condition, which was shown in this test report. The following table is the final test mode.

Test Mode	Mode 1: Transmit_ Adapter Mode 2: Transmit_ Docking Station Mode 3: Transmit_ Extension Cover

Test Items	Test Mode	Modulation	Channel	Antenna	Result
AC Power Line Conducted Emission	Mode 1 Mode 2 Mode 3	11b	6	0+1	Pass
Maximum Conducted Output Power	Mode 1	11b	1/6/11	0+1	Pass
		11g	1/6/11	0+1	Pass
		11n (20 MHz)	1/6/11	0+1	Pass
		11n (40 MHz)	3/6/9	0+1	Pass
Radiated Emission Below 1 GHz	Mode 1 Mode 2 Mode 3	11b	6	0+1	Pass
Radiated Emission Above 1 GHz	Mode 3	11b	1/6/11	0+1	Pass
		11g	1/6/11	0+1	Pass
		11n (20 MHz)	1/6/11	0+1	Pass
		11n (40 MHz)	3/6/9	0+1	Pass
Antenna Port Conducted Emission	Mode 1	11b	1/6/11	0+1	Pass
		11g	1/6/11	0+1	Pass
		11n (20 MHz)	1/6/11	0+1	Pass
		11n (40 MHz)	3/6/9	0+1	Pass
Radiated Emission Band Edge	Mode 3	11b	1/6/11	0+1	Pass
		11g	1/6/11	0+1	Pass
		11n (20 MHz)	1/6/11	0+1	Pass
		11n (40 MHz)	3/6/9	0+1	Pass
Occupied Bandwidth & DTS Bandwidth	Mode 1	11b	1/6/11	0+1	Pass
		11g	1/6/11	0+1	Pass
		11n (20 MHz)	1/6/11	0+1	Pass
		11n (40 MHz)	3/6/9	0+1	Pass
Maximum Power Spectral Density	Mode 1	11b	1/6/11	0+1	Pass
		11g	1/6/11	0+1	Pass
		11n (20 MHz)	1/6/11	0+1	Pass
		11n (40 MHz)	3/6/9	0+1	Pass

Note:

1. Determining compliance shall be based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. The worst case of data rate for 802.11b is 1 Mbps, for 802.11g is 6 Mbps, for 802.11n (20 MHz)/802.11n (40 MHz) are MCS 0, Nss1.
3. For radiated emission below 1 GHz and AC power line conducted emission have performed all modes of operation were investigated and the worst-case emissions are reported.
4. The EUT was investigated in five modes X axis, Y axis, Z axis, docking station, and extension cover. Pre-scan radiated emission and radiated emission band edge has been determined by the extension cover mode (the worst-case).

1.3. Comments and Remarks

The product specification and testing instructions for the EUT declared in the report are provided by the manufacturer who will take all responsibilities for the accuracy.

1.4. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system.

For Mode 1: Transmit_ Adapter

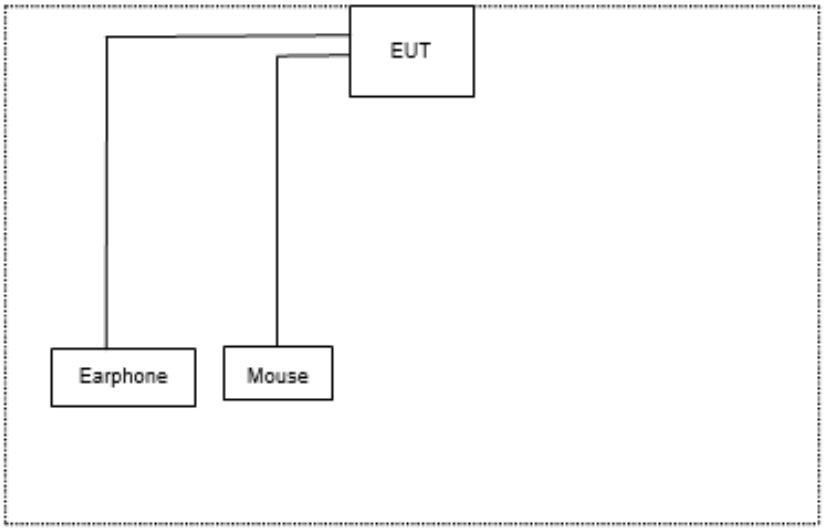
Product		Manufacturer	Model No.	Serial No.
1	Mouse	HP	M150	B1M150210802968
2	Earphone	ASUS	3.5mm	N/A

For Mode 2: Transmit_ Docking Station / Mode 3: Transmit_ Extension Cover

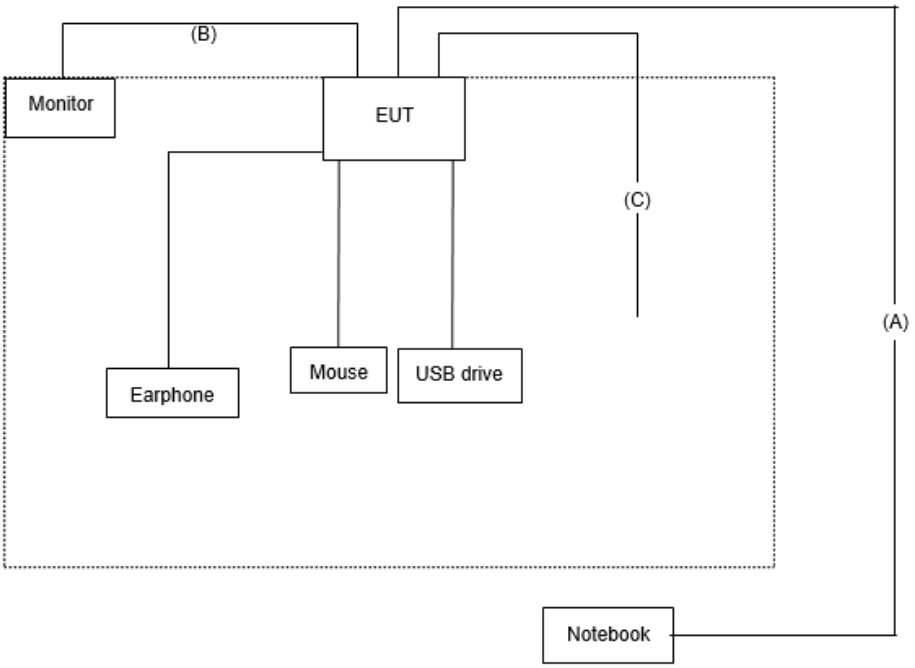
Product		Manufacturer	Model No.	Serial No.
1	Mouse	HP	M150	B1M150210802968
2	Monitor	Philps	223V5LHSB2	QMZ081201587
3	USB drive	Verbatim	OTG Tiny	N/A
4	Earphone	ASUS	3.5mm	N/A
5	Notebook	DELL	Latitude E6320	8208580717

1.5. Configuration of Tested System

Connection Diagram for Mode 1: Transmit_ Adapter



Connection Diagram for Mode 2: Transmit_ Docking Station / Mode 3: Transmit_ Extension Cover



Signal Cable Type		Signal cable Description
A	Ethernet cable	Non-Shielded, 2m
B	HDMI cable	Shielded, 2m
C	RS232 cable	Shielded, 2m

1.6. EUT Operation of during Test

1	Set the EUT as shown.
2	Execute control command by software “QRCT v3.0.169.0”.
3	Configure test mode, test channel and data rate.
4	Let the EUT start to transmit signal continuously.
5	Verify that device is working properly

1.7. Test Facility

Ambient conditions in the laboratory:

Items	Test Item	Actually	Tested by	Test Date	Test Site
Temperature (°C)	AC Power Line Conducted Emission	19.4	Ling Chen	2022/02/21	SR2-H
Humidity (%RH)		59			
Temperature (°C)	Maximum Conducted Output Power	24	Clemens Fang	2020/05/13	SR12-H
Humidity (%RH)		55			
Temperature (°C)	Radiated Emission Below 1GHz	22.3	Ling Chen	2022/02/17	CB4-H
Humidity (%RH)		53			
Temperature (°C)	Radiated Emission Above 1GHz	22 ~ 25	Lion Wang	2020/04/22 ~ 2020/04/23	CB4-H
Humidity (%RH)		51 ~ 55			
Temperature (°C)	Antenna Port Conducted Emission	24	Clemens Fang	2020/05/13 ~ 2020/05/15	SR12-H
Humidity (%RH)		55 ~ 62			
Temperature (°C)	Radiated Emission Band Edge	24	Lion Wang	2020/04/21	CB4-H
Humidity (%RH)		53			
Temperature (°C)	Occupied Bandwidth & DTS Bandwidth	24	Clemens Fang	2020/05/15	SR12-H
Humidity (%RH)		62			
Temperature (°C)	Maximum Power Spectral Density	24	Clemens Fang	2020/05/15	SR12-H
Humidity (%RH)		62			

Note: Test site information refers to Laboratory Information.

USA	**:**	**FCC Registration Number: TW3024**
Canada	**:**	**CAB identifier : TW3024**

The address and introduction of DEKRA Testing and Certification Co., Ltd. laboratories can be founded in our Web site: http://www.dekra.com.tw

If you have any comments, please don't hesitate to contact us. Our test sites as below:

Test Laboratory	DEKRA Testing and Certification Co., Ltd.
Address	1. No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C. 2. No.372, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C.
Phone number	1. +886-3-582-8001 2. +886-3-582-8001
Fax number	1. +886-3-582-8958 2. +886-3-582-8958
E mail address	info.tw@dekra.com
Website	http://www.dekra.com.tw
Note: Test site number for address 1 includes SR2-H. Test site number for address 2 includes CB2-H, CB3-H, CB4-H, SR10-H and SR12-H.	

1.8. List of Test Equipment

SR2-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Artificial Mains Network	R&S	ENV4200	848411/010	2021/12/27	2022/12/26
EMI Test Receiver	R&S	ESR3	102608	2021/06/03	2022/06/02
LISN	R&S	ENV216	100092	2021/06/08	2022/06/07
Coaxial Cable(9 m)	Harbour	RG-400	SR2-H	2021/08/15	2022/08/14
DEKRA Testing System	DEKRA	Version 2.0	SR2-H	N/A	N/A

SR12-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Temperature & Humidity Test Chamber	KSON	THS-B4T-150	A0401	2020/01/06	2021/01/06
USB Power Sensor	Keysight	U2021XA	MY54110016	N/A	N/A
USB Power Sensor	Keysight	U2021XA	MY54070005	N/A	N/A
USB Power Sensor	Keysight	U2021XA	MY54080017	N/A	N/A
USB Power Sensor	Keysight	U2021XA	MY54120005	N/A	N/A
MIMO Power Switch Box	Pallas	4PS6A-1	TW5451093	N/A	N/A
Spectrum Analyzer	Agilent	N9010A	US47140172	2019/06/28	2020/06/27
EXA Signal Analyzer	Keysight	N9010A	MY51440132	2020/02/21	2021/02/20
Signal & Spectrum Analyzer	R&S	FSV40	101049	2020/03/30	2021/03/29
Signal Analyzer	R&S	FSV7	101650	2020/03/23	2021/03/22
Signal Analyzer	R&S	FSVA40	101455	2019/10/21	2020/10/20
Spectrum Analyzer	Keysight	N9030B	MY57140404	2019/06/18	2020/06/17

CB4-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Signal Analyzer	R&S	FSVA40	101455	2019/10/21	2020/10/20
Signal Analyzer	R&S	FSVA40	101455	2021/10/22	2022/10/21
Signal & Spectrum Analyzer	R&S	FSV40	101049	2020/03/30	2021/03/29
Signal & Spectrum Analyzer	R&S	FSV40	101049	2021/03/31	2022/03/30
Signal Analyzer	R&S	FSV40	101435	2019/07/08	2020/07/07
Signal Analyzer	R&S	FSVA40	101435	2021/06/04	2022/06/03
EXA Signal Analyzer	Keysight	N9010A	MY51440132	2020/02/21	2021/02/20
EXA Signal Analyzer	Keysight	N9010A	MY51440132	2022/01/07	2023/01/06
Trilog Broadband Antenna	Schwarzbeck	VULB 9168	1209	2021/05/28	2022/05/27
Horn Antenna	Schwarzbeck	BBHA 9120D	639	2019/05/28	2020/05/27
Horn Antenna	Schwarzbeck	BBHA 9170	202	2019/12/27	2020/12/26
Pre-Amplifier	DEKRA	AP-025C	12183122	2019/09/24	2020/09/23
Pre-Amplifier	EMCI	EMC01820I	980364	2021/08/27	2022/08/26
Pre-Amplifier	EMCI	EMC11830I	980366	2019/12/03	2020/12/02
Pre-Amplifier	EMEC	EM01G18GA	060835	2021/07/12	2022/07/11
Pre-Amplifier	DEKRA	AP-400C	201801231	2019/12/03	2020/12/02
Pre-Amplifier	DEKRA	AP-400C	201801231	2021/12/24	2022/12/23
Horn Antenna	Schwarzbeck	BBHA 9120D	01656	2019/10/25	2020/10/24
Band Reject Filter	Micro-Tronics	BRM50702	G192	2020/03/09	2021/03/08
Coaxial Cable(19m)	Suhner	SF102_SF104_SF106	CB4_2	2019/07/25	2020/07/24
Coaxial Cable(10m)	Suhner	SF102_SF104	CB4-H	2021/08/09	2022/08/08
EMI system	DEKRA	Version 1.0	CB4-H	N/A	N/A
EMI Test Receiver	R&S	ESR7	102260	2021/12/22	2022/12/21
Magnetic Loop Antenna	Teseq	HLA 6121	44287	2021/09/06	2022/09/05
DEKRA Testing System	DEKRA	Version 2.0	CB4-H	N/A	N/A

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

1.9. Measurement Uncertainty

Uncertainties have been calculated according to the DEKRA internal document with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2).

Test Item	Uncertainty
AC Power Line Conducted Emission	± 2.10 dB
Maximum Conducted Output Power	± 1.27 dB
Radiated Emission	± 3.25 dB below 1 GHz ±3.65 dB above 1 GHz
Antenna Port Conducted Emission	± 1.27 dB
Radiated Emission Band Edge	± 3.9 dB
DTS Bandwidth	± 50 Hz
Occupied Bandwidth	± 50 Hz
Maximum Power Spectral Density	±1.27 dB

1.10. Duty Cycle

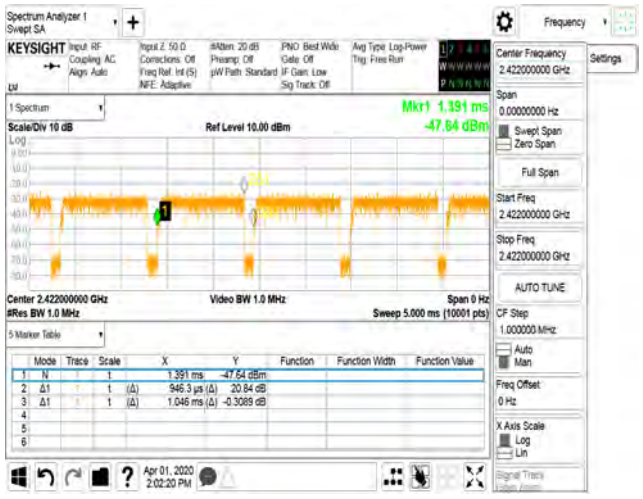
Modulation	On Times (ms)	On+Off Times (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11b	12.430	12.530	99.20	0.03	0.010
802.11g	2.055	2.170	94.70	0.24	0.487
802.11n (20 MHz)	1.915	2.024	94.61	0.24	0.522
802.11n (40 MHz)	0.946	1.046	90.47	0.44	1.057

802.11b

802.11g

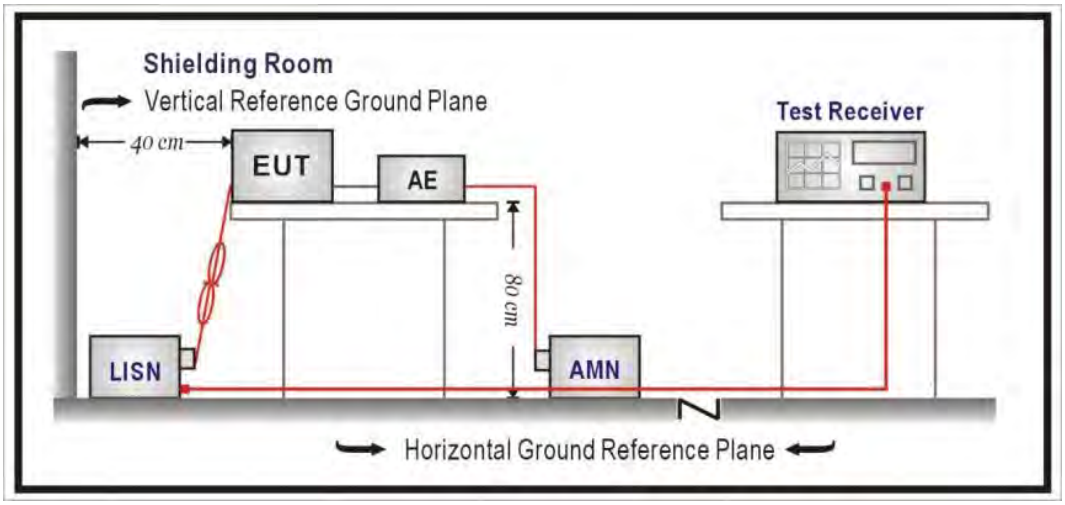
802.11n (20 MHz)

802.11n (40 MHz)



2. AC Power Line Conducted Emission

2.1. Test Setup



2.2. Test Limit

Frequency (MHz)	QP (dBuV)	AV (dBuV)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Remarks: In the above table, the tighter limit applies at the band edges.

2.3. Test Procedure

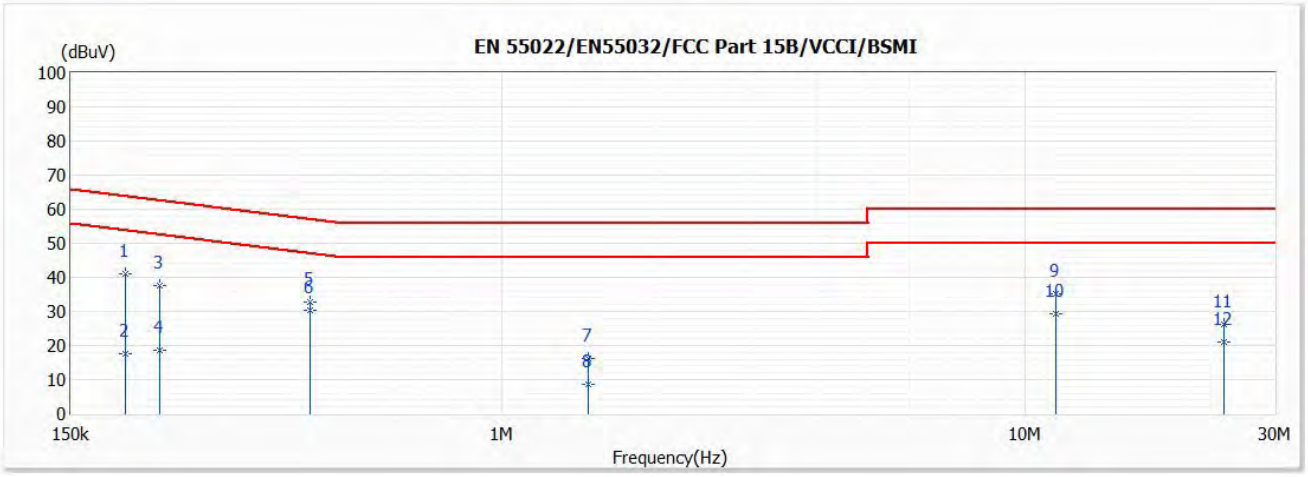
The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50 uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50 ohm/50 uH coupling impedance with 50 ohm termination. (Please refer to the block diagram of the test setup and photographs.)
Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10: 2013 on conducted measurement.
AC Power Line Conducted Emissions were invested over the frequency range from 0.15 MHz to 30 MHz using a receiver bandwidth of 9 kHz.

2.4. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247.

2.5. Test Result of AC Power Line Conducted Emission

Test Mode	Mode 1: Transmit_ Adapter	Phase	Line
Test Condition	802.11b / Ant. 0 + Ant. 1 / 2437 MHz		

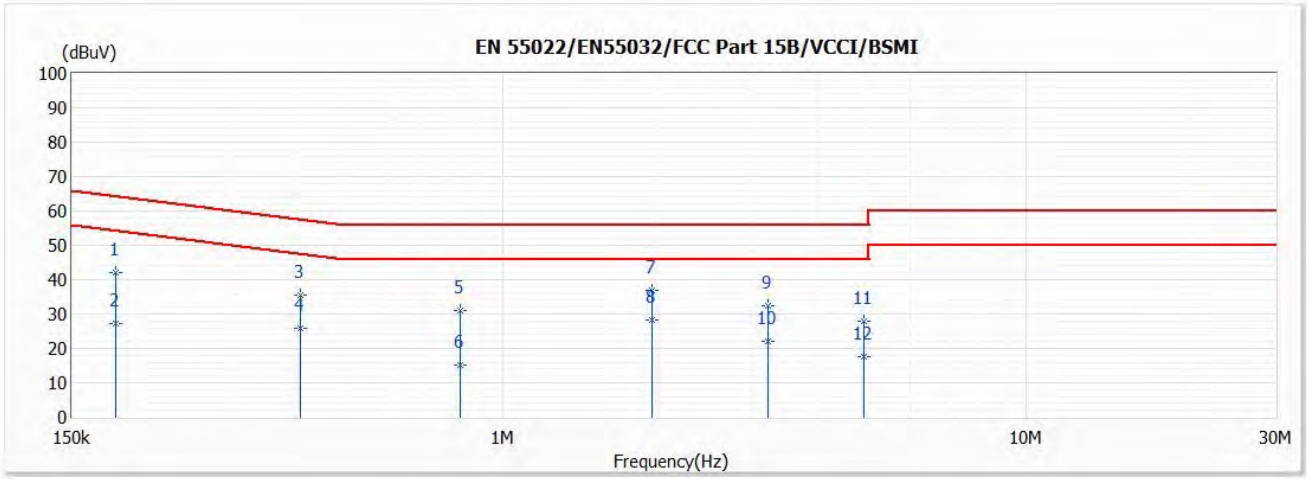


No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.191	40.93	64.00	-23.07	31.30	9.63	QP
2	0.191	17.69	54.00	-36.31	8.06	9.63	AV
3	0.222	37.42	62.74	-25.32	27.78	9.64	QP
4	0.222	18.46	52.74	-34.28	8.82	9.64	AV
5	0.429	32.87	57.27	-24.40	23.21	9.66	QP
*6	0.429	30.40	47.27	-16.87	20.74	9.66	AV
7	1.460	16.31	56.00	-39.69	6.57	9.74	QP
8	1.460	8.50	46.00	-37.50	-1.24	9.74	AV
9	11.424	35.28	60.00	-24.72	25.14	10.14	QP
10	11.424	29.44	50.00	-20.56	19.30	10.14	AV
11	23.961	26.35	60.00	-33.65	15.93	10.42	QP
12	23.961	21.12	50.00	-28.88	10.70	10.42	AV

Remark:

1. "*" means this data is the worst emission level.
2. Emission Level = Reading Level + Correct Factor (Correct Factor = LISN Insertion Loss + Cable Loss).
3. Margin = Emission Level - Limit.

Test Mode	Mode 1: Transmit_ Adapter	Phase	Neutral
Test Condition	802.11b / Ant. 0 + Ant. 1 / 2437 MHz		



No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.182	42.04	64.39	-22.35	32.42	9.62	QP
2	0.182	27.39	54.39	-27.00	17.77	9.62	AV
3	0.411	35.61	57.63	-22.02	25.95	9.66	QP
4	0.411	25.79	47.63	-21.84	16.13	9.66	AV
5	0.829	30.89	56.00	-25.11	21.18	9.71	QP
6	0.829	15.02	46.00	-30.98	5.31	9.71	AV
7	1.923	36.96	56.00	-19.04	27.18	9.78	QP
*8	1.923	28.18	46.00	-17.82	18.40	9.78	AV
9	3.205	32.45	56.00	-23.55	22.61	9.84	QP
10	3.205	22.15	46.00	-23.85	12.31	9.84	AV
11	4.897	27.96	56.00	-28.04	18.03	9.93	QP
12	4.897	17.57	46.00	-28.43	7.64	9.93	AV

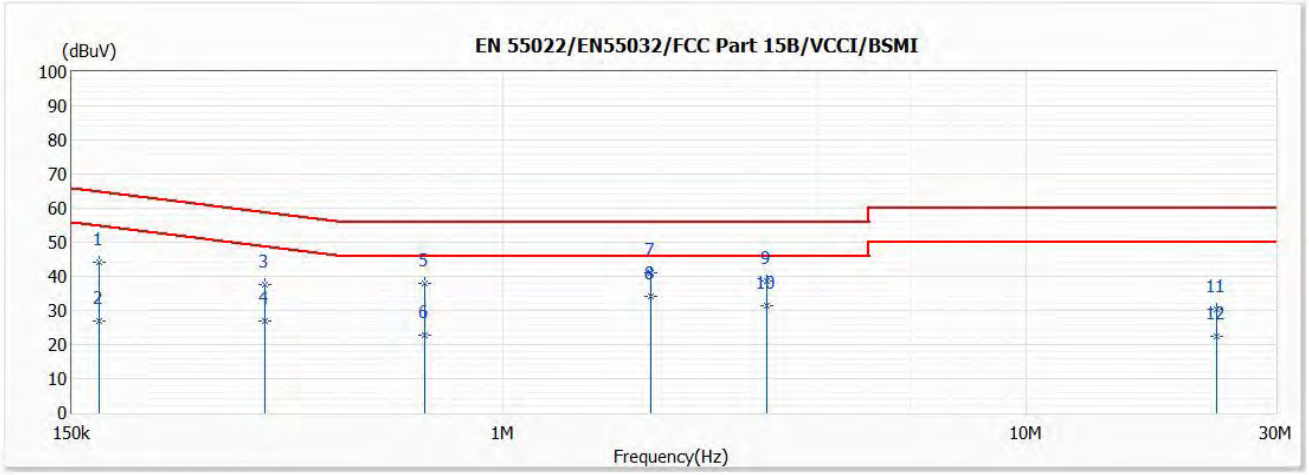
Remark:

1. "*" means this data is the worst emission level.

2. Emission Level = Reading Level + Correct Factor (Correct Factor = LISN Insertion Loss + Cable Loss).

3. Margin = Emission Level - Limit.

Test Mode	Mode 2: Transmit_ Docking Station	Phase	Line
Test Condition	802.11b / Ant. 0 + Ant. 1 / 2437 MHz		



No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.169	44.11	64.99	-20.88	34.48	9.63	QP
2	0.169	26.99	54.99	-28.00	17.36	9.63	AV
3	0.351	37.63	58.95	-21.32	27.98	9.65	QP
4	0.351	26.76	48.95	-22.19	17.11	9.65	AV
5	0.708	37.88	56.00	-18.12	28.18	9.70	QP
6	0.708	22.64	46.00	-23.36	12.94	9.70	AV
7	1.913	41.18	56.00	-14.82	31.40	9.78	QP
*8	1.913	34.27	46.00	-11.73	24.49	9.78	AV
9	3.189	38.50	56.00	-17.50	28.66	9.84	QP
10	3.189	31.24	46.00	-14.76	21.40	9.84	AV
11	23.169	30.29	60.00	-29.71	19.88	10.41	QP
12	23.169	22.36	50.00	-27.64	11.95	10.41	AV

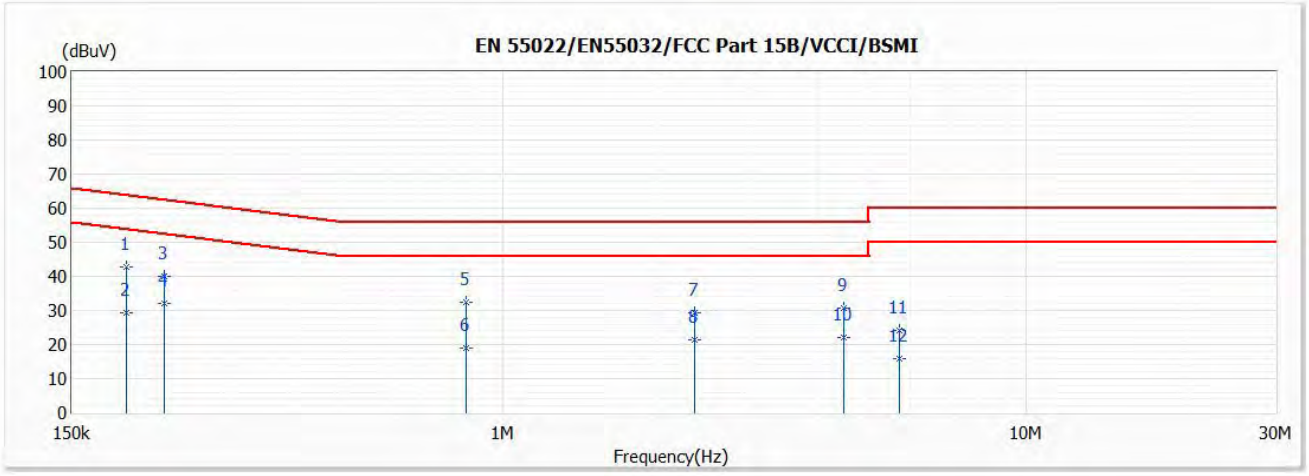
Remark:

1. "*" means this data is the worst emission level.

2. Emission Level = Reading Level + Correct Factor (Correct Factor = LISN Insertion Loss + Cable Loss).

3. Margin = Emission Level - Limit.

Test Mode	Mode 2: Transmit_ Docking Station	Phase	Neutral
Test Condition	802.11b / Ant. 0 + Ant. 1 / 2437 MHz		



No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.190	42.88	64.03	-21.15	33.26	9.62	QP
2	0.190	29.39	54.03	-24.64	19.77	9.62	AV
3	0.225	39.94	62.63	-22.69	30.31	9.63	QP
*4	0.225	31.96	52.63	-20.67	22.33	9.63	AV
5	0.851	32.57	56.00	-23.43	22.86	9.71	QP
6	0.851	19.07	46.00	-26.93	9.36	9.71	AV
7	2.329	29.34	56.00	-26.66	19.55	9.79	QP
8	2.329	21.40	46.00	-24.60	11.61	9.79	AV
9	4.471	30.55	56.00	-25.45	20.64	9.91	QP
10	4.471	22.17	46.00	-23.83	12.26	9.91	AV
11	5.736	24.17	60.00	-35.83	14.20	9.97	QP
12	5.736	15.72	50.00	-34.28	5.75	9.97	AV

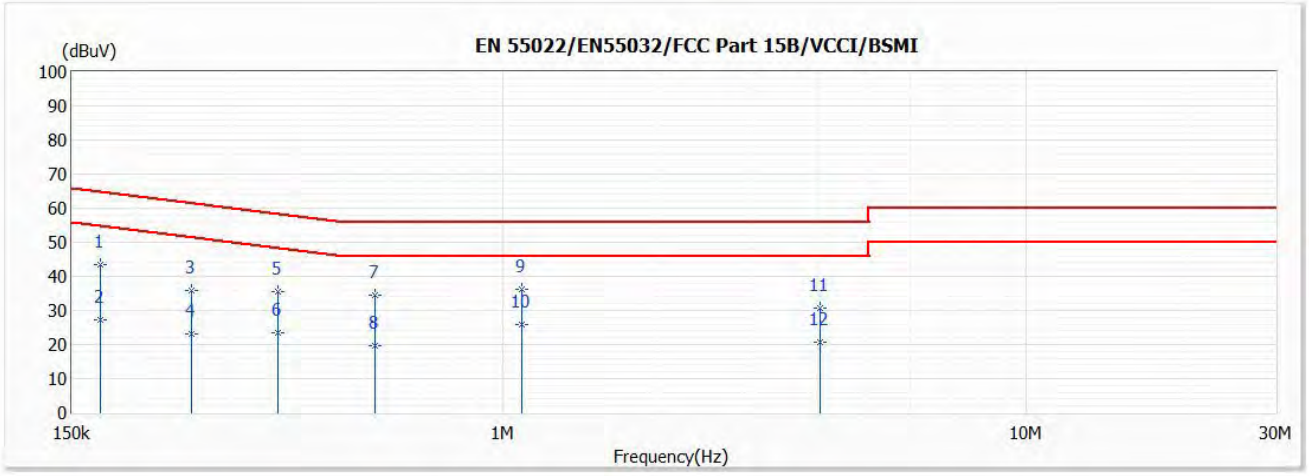
Remark:

1. "*" means this data is the worst emission level.

2. Emission Level = Reading Level + Correct Factor (Correct Factor = LISN Insertion Loss + Cable Loss).

3. Margin = Emission Level - Limit.

Test Mode	Mode 3: Transmit_ Extension Cover	Phase	Line
Test Condition	802.11b / Ant. 0 + Ant. 1 / 2437 MHz		

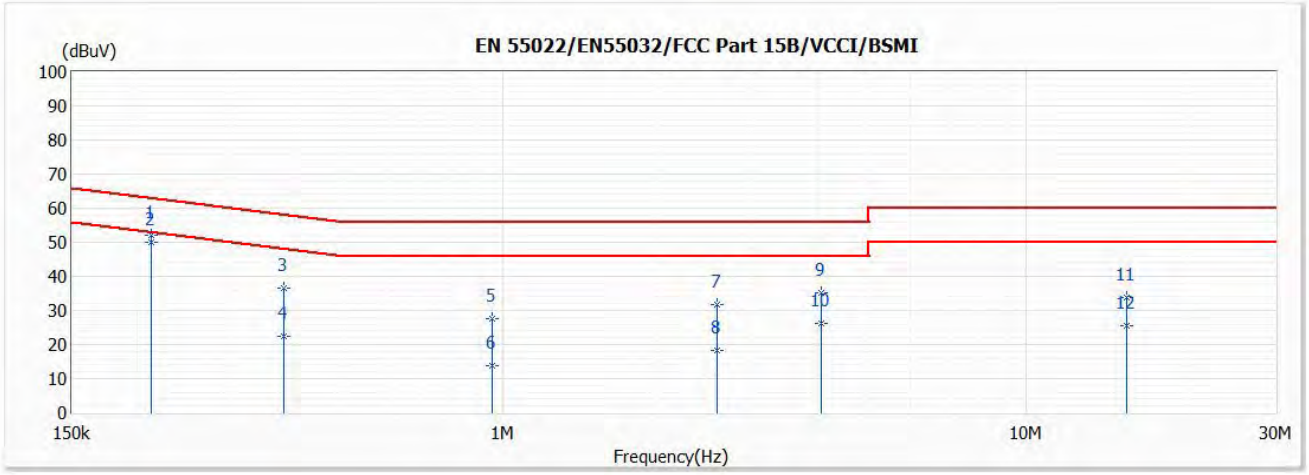


No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.170	43.37	64.97	-21.60	33.74	9.63	QP
2	0.170	27.17	54.97	-27.80	17.54	9.63	AV
3	0.254	35.98	61.63	-25.65	26.34	9.64	QP
4	0.254	22.97	51.63	-28.66	13.33	9.64	AV
5	0.370	35.36	58.49	-23.13	25.70	9.66	QP
6	0.370	23.62	48.49	-24.87	13.96	9.66	AV
7	0.568	34.51	56.00	-21.49	24.83	9.68	QP
8	0.568	19.60	46.00	-26.40	9.92	9.68	AV
*9	1.088	36.09	56.00	-19.91	26.37	9.72	QP
10	1.088	25.75	46.00	-20.25	16.03	9.72	AV
11	4.041	30.55	56.00	-25.45	20.67	9.88	QP
12	4.041	20.64	46.00	-25.36	10.76	9.88	AV

Remark:

1. "*" means this data is the worst emission level.
2. Emission Level = Reading Level + Correct Factor (Correct Factor = LISN Insertion Loss + Cable Loss).
3. Margin = Emission Level - Limit.

Test Mode	Mode 3: Transmit_ Extension Cover	Phase	Neutral
Test Condition	802.11b / Ant. 0 + Ant. 1 / 2437 MHz		



No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.213	52.16	63.08	-10.92	42.53	9.63	QP
*2	0.213	50.13	53.08	-2.95	40.50	9.63	AV
3	0.381	36.45	58.25	-21.80	26.79	9.66	QP
4	0.381	22.25	48.25	-26.00	12.59	9.66	AV
5	0.956	27.69	56.00	-28.31	17.97	9.72	QP
6	0.956	13.94	46.00	-32.06	4.22	9.72	AV
7	2.564	31.59	56.00	-24.41	21.78	9.81	QP
8	2.564	18.43	46.00	-27.57	8.62	9.81	AV
9	4.049	35.15	56.00	-20.85	25.27	9.88	QP
10	4.049	26.12	46.00	-19.88	16.24	9.88	AV
11	15.545	33.78	60.00	-26.22	23.41	10.37	QP
12	15.545	25.50	50.00	-24.50	15.13	10.37	AV

Remark:

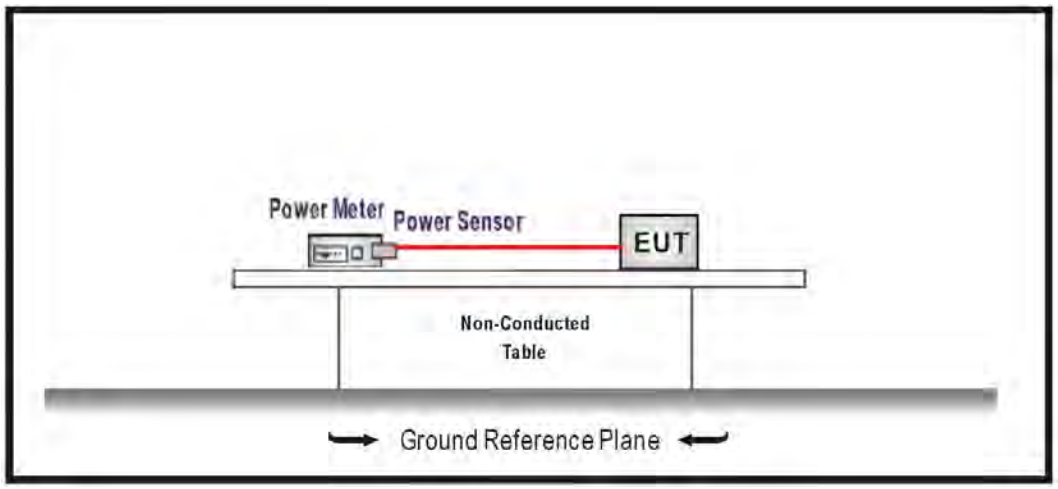
1. "*" means this data is the worst emission level.

2. Emission Level = Reading Level + Correct Factor (Correct Factor = LISN Insertion Loss + Cable Loss).

3. Margin = Emission Level - Limit.

3. Maximum Conducted Output Power

3.1. Test Setup



3.2. Test Limit

The maximum conducted output power shall be less 30 dBm (1 Watt).

3.3. Test Procedures

The EUT was setup according to ANSI C63.10: 2013; tested according to DTS test procedure of KDB 558074 D01 v05r02 for compliance to FCC 47CFR 15.247 requirements.

3.4. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247.

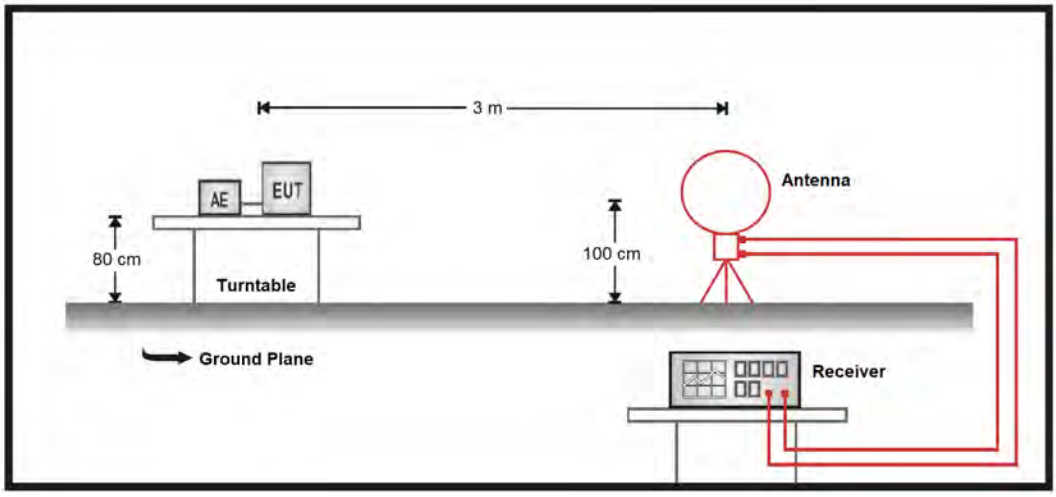
3.5. Test Result of Maximum Conducted Output Power

Modulation	Channel	Frequency (MHz)	Maximum Conducted Output Power (dBm)			Limit (dBm)	Result
			Ant. 0	Ant. 1	Total		
802.11b	1	2412	15.470	14.480	18.013	≦30.00	Pass
	6	2437	15.420	14.810	18.136	≦30.00	Pass
	11	2462	15.370	15.460	18.426	≦30.00	Pass
802.11g	1	2412	15.290	14.080	17.737	≦30.00	Pass
	6	2437	15.400	14.810	18.125	≦30.00	Pass
	11	2462	15.050	14.940	18.006	≦30.00	Pass
802.11n (20 MHz)	1	2412	15.430	14.440	17.973	≦30.00	Pass
	6	2437	15.330	14.670	18.023	≦30.00	Pass
	11	2462	13.910	13.970	16.950	≦30.00	Pass
802.11n (40 MHz)	3	2422	12.530	11.950	15.260	≦30.00	Pass
	6	2437	15.260	15.580	18.433	≦30.00	Pass
	9	2452	11.050	10.910	13.991	≦30.00	Pass

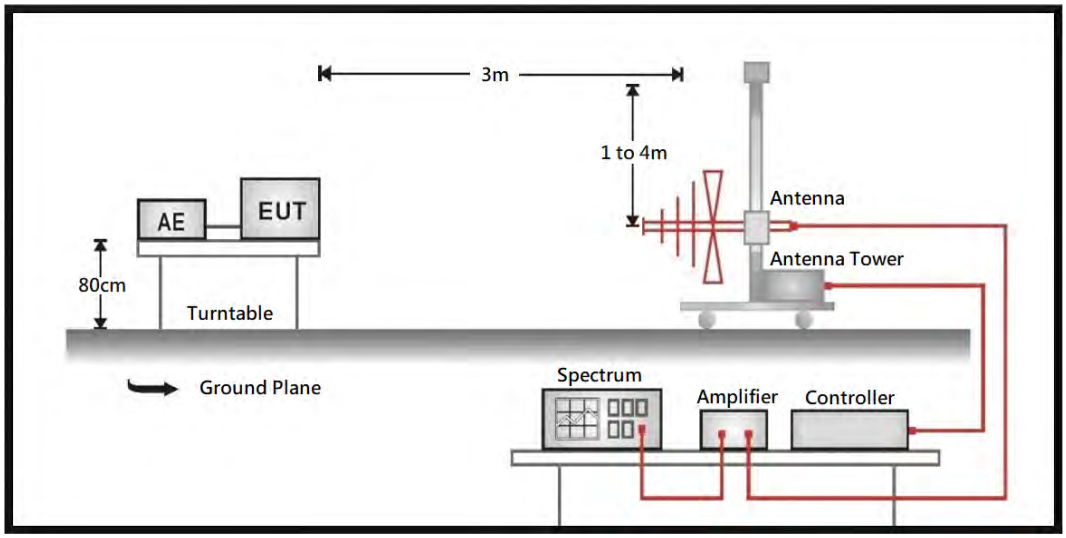
4. Radiated Emission

4.1. Test Setup

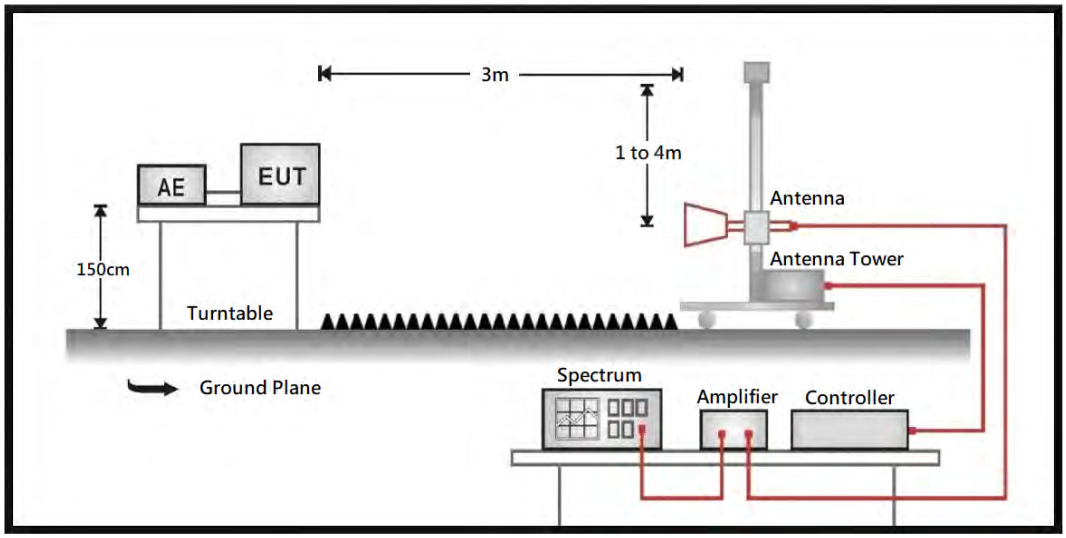
9 kHz ~ 30 MHz



30 MHz ~ 1 GHz



Above 1 GHz



4.2. Test Limit

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 30dB below the level of the fundamental or to the general radiated emission limit in paragraph 15.209, whichever is the lesser attenuation.

Frequency (MHz)	Field strength (uV/m)	Field strength (dBuV/m)	Measurement distance (m)
0.009 – 0.490	2400/F(kHz)	20 log (2400/F(kHz))	300
0.490 – 1.705	24000/F(kHz)	20 log (24000/F(kHz))	30
1.705 - 30	30	29.5	30
30 - 88	100	40	3
88 - 216	150	43.5	3
216 - 960	200	46	3
Above 960	500	54	3

Remarks:

1. Field strength (dBuV/m) = 20 log Field strength (uV/m)
2. In the Above Table, the tighter limit applies at the band edges.
3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system

4.3. Test Procedure

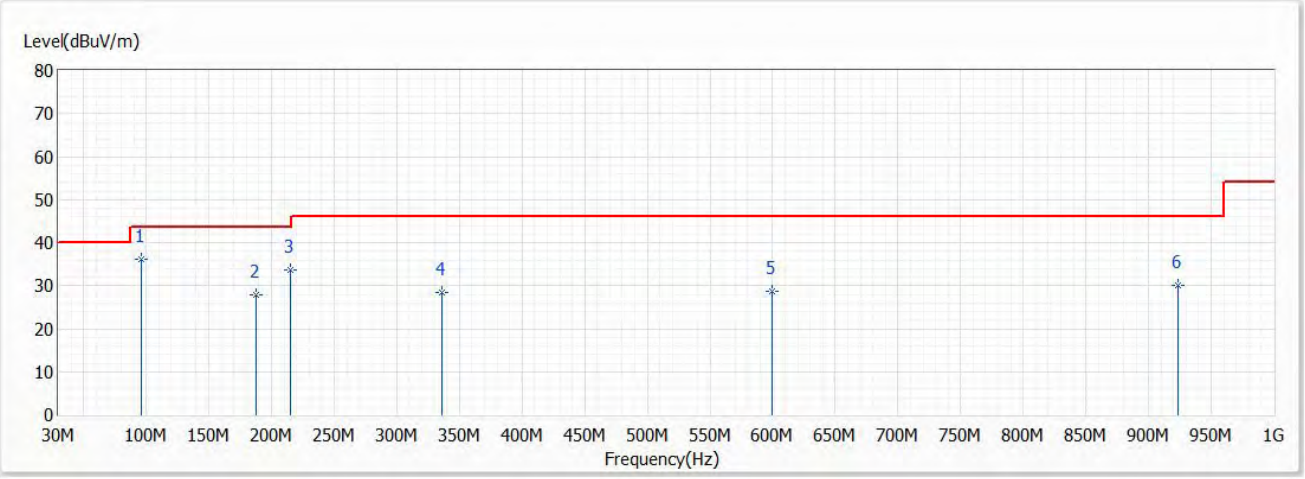
The EUT was setup according to ANSI C63.10: 2013 and tested according to DTS test procedure of KDB 558074 D01V05r02 for compliance to FCC 47CFR 15.247 requirements.
The EUT and its simulators are placed on a turn table which is 0.8 or 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level.
The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10: 2013 on radiated measurement.
On any frequency or frequencies form 9 kHz(inculde The the lowest oscillator frequency generated within the device up to the 10th harmonic) to 1000 MHz, the limit shown are based on measuring equipment employing a quasi-peak detector function and on any frequency or frequencies above 1000 MHz the radiated limit shown are based upon the use of measurement instrumentation employing an average detector function. When average radiated emission measurement are included emission measurement below 1000 MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit.
The bandwidth below 1 GHz setting on the field strength meter is 120 kHz and above 1 GHz is 1 MHz.

4.4. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247.

4.5. Test Result of Radiated Emissions (30 MHz ~ 1 GHz)

Test Mode	Mode 1: Transmit_ Adapter	Polarity	Horizontal
Test Condition	802.11b / Ant. 0 + Ant. 1 / 2437 MHz		

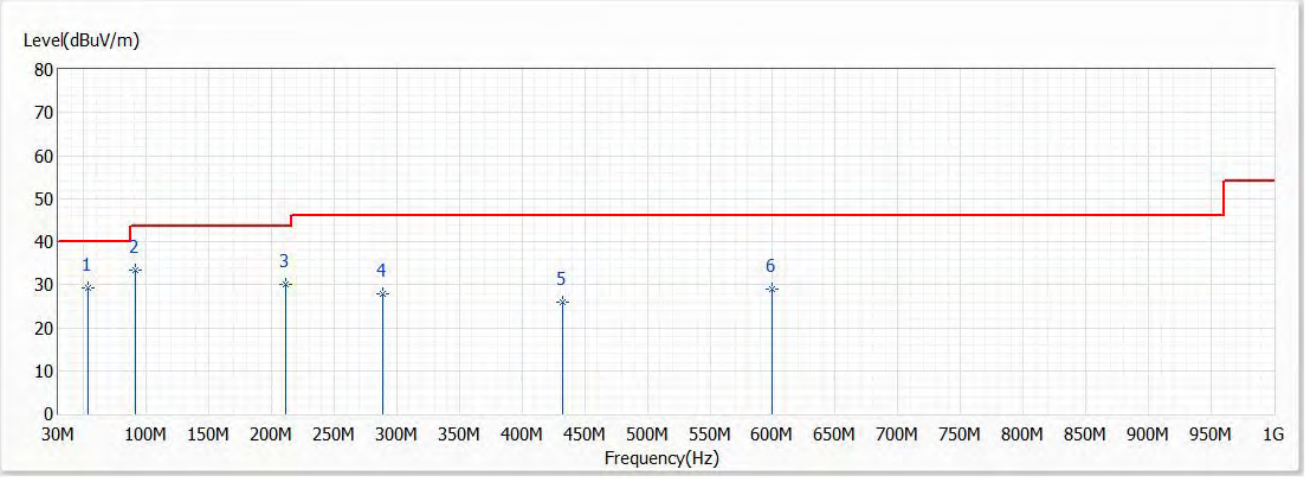


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	95.839	36.06	43.50	-7.44	44.51	-8.45	QP
2	187.989	27.88	43.50	-15.62	33.26	-5.38	QP
3	214.785	33.68	43.50	-9.82	40.17	-6.49	QP
4	336.156	28.34	46.00	-17.66	29.76	-1.42	QP
5	599.996	28.61	46.00	-17.39	23.45	5.16	QP
6	923.128	30.10	46.00	-15.90	20.58	9.52	QP

Note:

1. All Reading Levels is Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. The Emission under 30MHz were not included is because their levels are too low.

Test Mode	Mode 1: Transmit_ Adapter	Polarity	Vertical
Test Condition	802.11b / Ant. 0 + Ant. 1 / 2437 MHz		

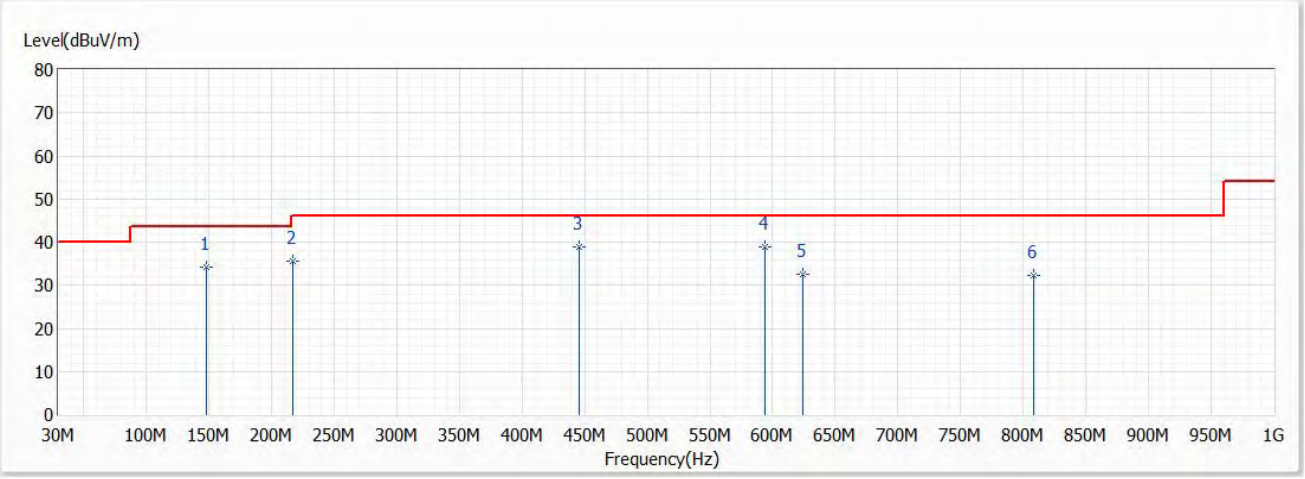


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	53.644	29.19	40.00	-10.81	31.97	-2.78	QP
* 2	91.231	33.46	43.50	-10.04	42.19	-8.73	QP
3	211.390	30.06	43.50	-13.44	36.57	-6.51	QP
4	289.111	27.82	46.00	-18.18	30.34	-2.52	QP
5	432.186	26.04	46.00	-19.96	24.88	1.16	QP
6	599.996	29.02	46.00	-16.98	23.86	5.16	QP

Note:

1. All Reading Levels is Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. The Emission under 30MHz were not included is because their levels are too low.

Test Mode	Mode 2: Transmit_ Docking Station	Polarity	Horizontal
Test Condition	802.11b / Ant. 0 + Ant. 1 / 2437 MHz		

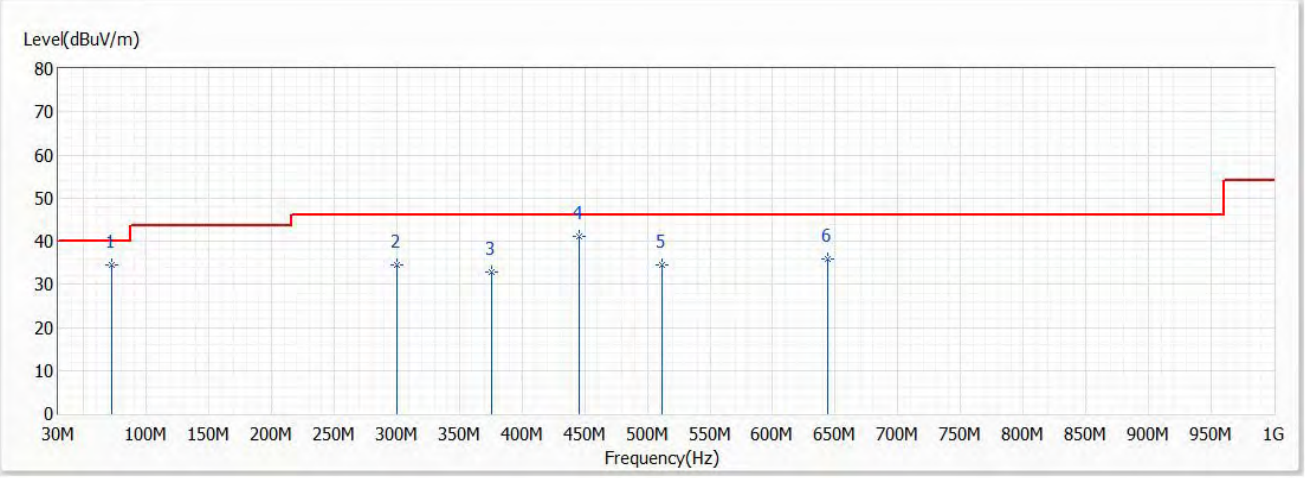


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	148.461	34.23	43.50	-9.27	37.45	-3.22	QP
2	216.968	35.53	46.00	-10.47	41.97	-6.44	QP
3	445.524	38.87	46.00	-7.13	37.34	1.53	QP
* 4	594.055	39.01	46.00	-6.99	34.12	4.89	QP
5	624.368	32.57	46.00	-13.43	27.23	5.34	QP
6	808.425	32.20	46.00	-13.80	24.25	7.95	QP

Note:

1. All Reading Levels is Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. The Emission under 30MHz were not included is because their levels are too low.

Test Mode	Mode 2: Transmit_ Docking Station	Polarity	Vertical
Test Condition	802.11b / Ant. 0 + Ant. 1 / 2437 MHz		

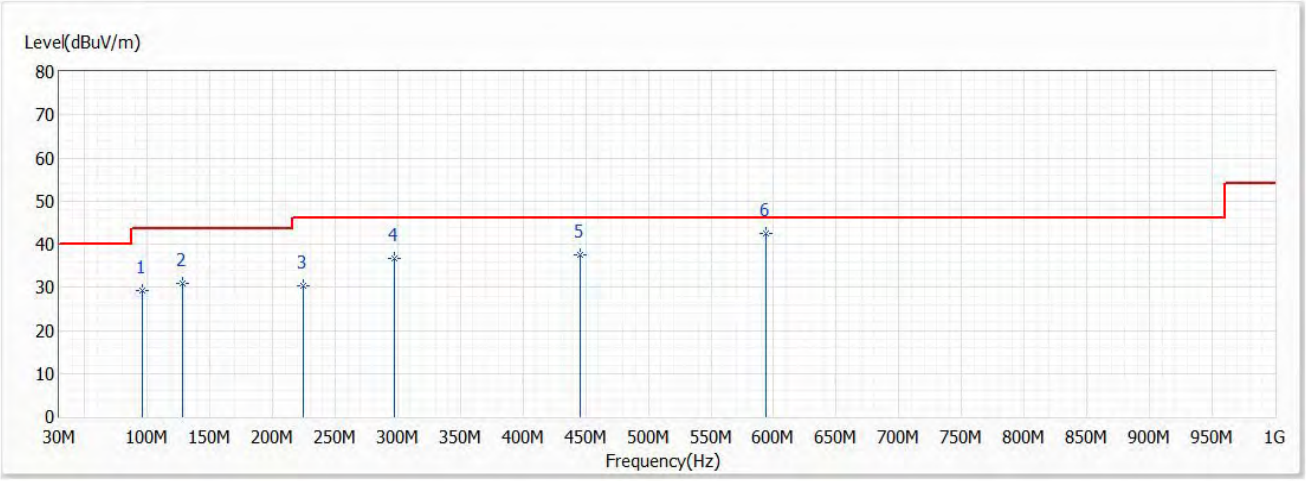


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	72.438	34.43	40.00	-5.57	39.43	-5.00	QP
2	300.266	34.46	46.00	-11.54	36.92	-2.46	QP
3	375.441	32.81	46.00	-13.19	33.26	-0.45	QP
* 4	445.524	41.07	46.00	-4.93	39.54	1.53	QP
5	511.605	34.38	46.00	-11.62	31.44	2.94	QP
6	643.525	35.76	46.00	-10.24	29.88	5.88	QP

Note:

1. All Reading Levels is Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. The Emission under 30MHz were not included is because their levels are too low.

Test Mode	Mode 3: Transmit_ Extension Cover	Polarity	Horizontal
Test Condition	802.11b / Ant. 0 + Ant. 1 / 2437 MHz		

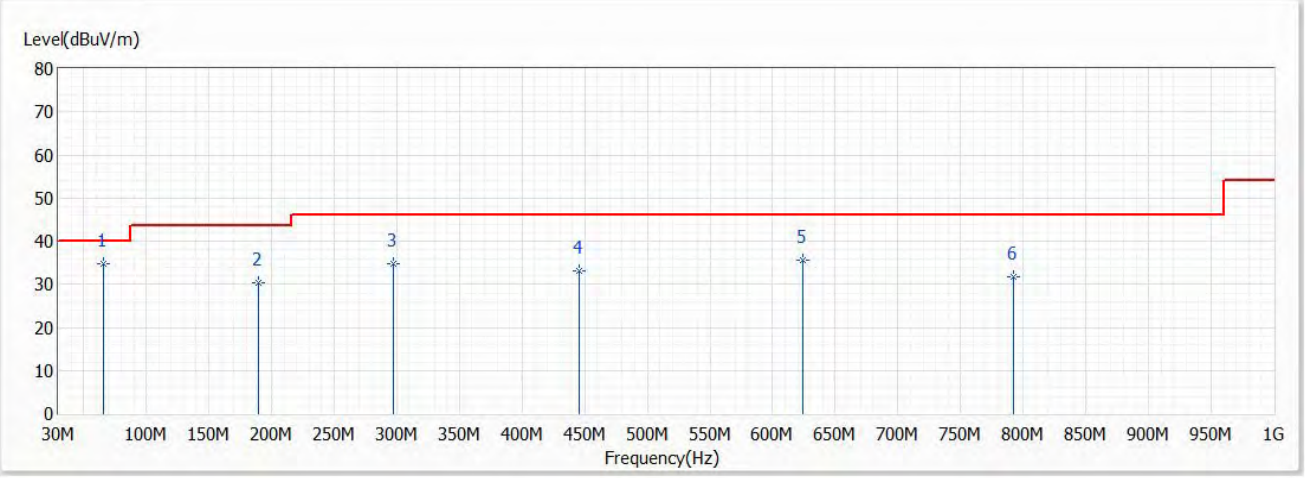


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	96.081	29.30	43.50	-14.20	37.70	-8.40	QP
2	128.334	30.76	43.50	-12.74	35.16	-4.40	QP
3	224.485	30.23	46.00	-15.77	36.40	-6.17	QP
4	297.114	36.80	46.00	-9.20	39.28	-2.48	QP
5	445.403	37.44	46.00	-8.56	35.91	1.53	QP
* 6	593.934	42.48	46.00	-3.52	37.59	4.89	QP

Note:

1. All Reading Levels is Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. The Emission under 30MHz were not included is because their levels are too low.

Test Mode	Mode 3: Transmit_ Extension Cover	Polarity	Vertical
Test Condition	802.11b / Ant. 0 + Ant. 1 / 2437 MHz		



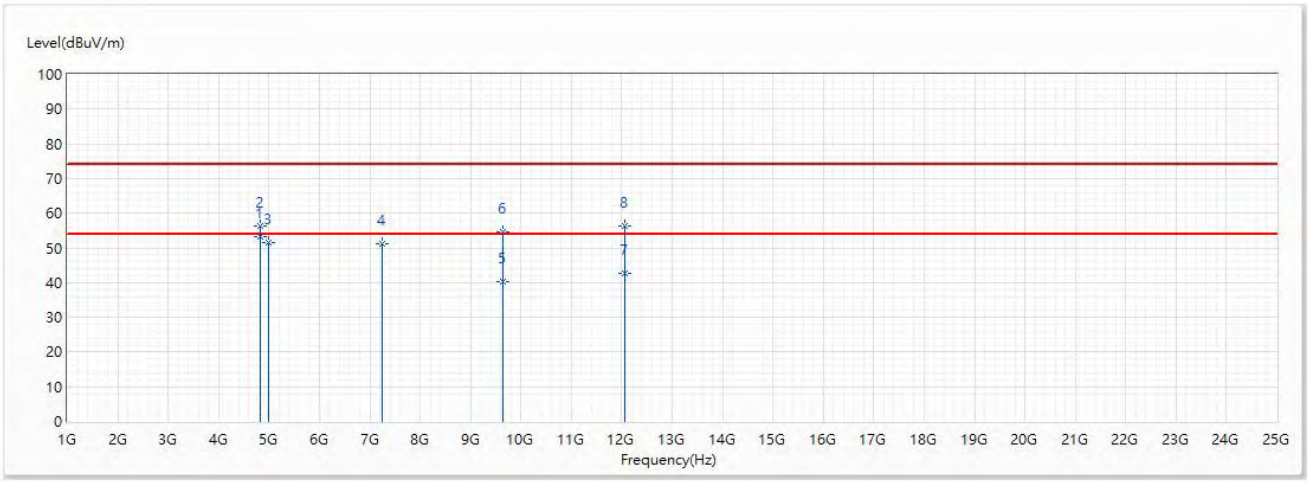
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	65.890	34.76	40.00	-5.24	38.84	-4.08	QP
2	189.808	30.33	43.50	-13.17	35.88	-5.55	QP
3	297.114	34.64	46.00	-11.36	37.12	-2.48	QP
4	445.524	32.98	46.00	-13.02	31.45	1.53	QP
5	624.368	35.66	46.00	-10.34	30.32	5.34	QP
6	792.056	31.66	46.00	-14.34	23.76	7.90	QP

Note:

1. All Reading Levels is Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. The Emission under 30MHz were not included is because their levels are too low.

4.6. Test Result of Radiated Emissions (1 GHz ~ 10th Harmonic)

Test Mode	Mode 3: Transmit_ Extension Cover	Polarity	Horizontal
Test Condition	CDD / 802.11b / Ant. 0 + Ant. 1 / 2412 MHz		



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	4824	53.20	54.00	-0.80	54.73	-1.53	AV
2	4824	56.36	74.00	-17.64	57.89	-1.53	PK
3	4988	51.57	74.00	-22.43	52.44	-0.87	PK
4	7236	51.27	74.00	-22.73	45.10	6.17	PK
5	9648	40.40	54.00	-13.60	29.03	11.37	AV
6	9648	54.66	74.00	-19.34	43.29	11.37	PK
7	12060	42.58	54.00	-11.42	29.09	13.49	AV
8	12060	56.40	74.00	-17.60	42.91	13.49	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

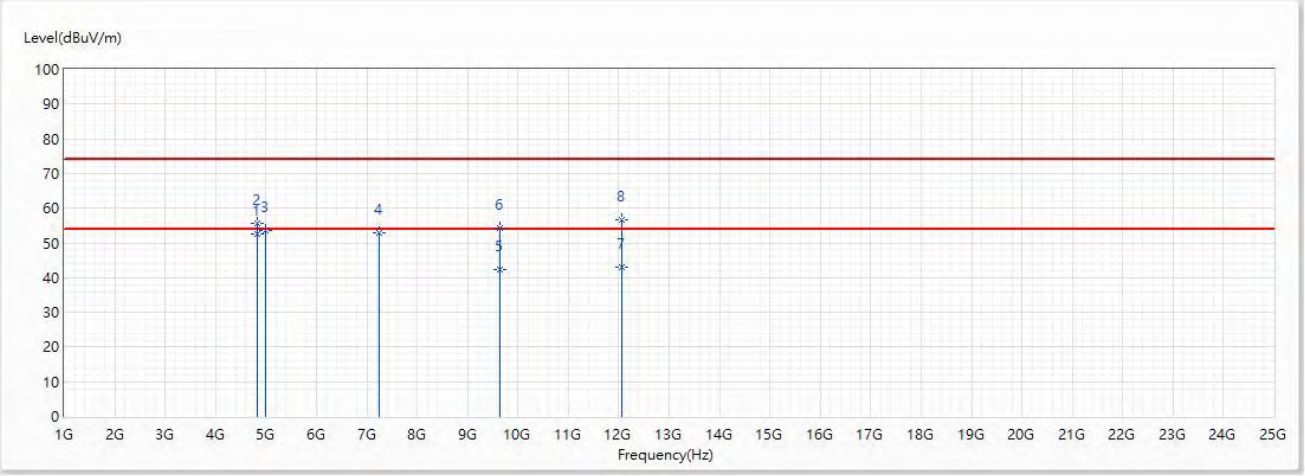
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Test Mode	Mode 3: Transmit_ Extension Cover	Polarity	Vertical
Test Condition	CDD / 802.11b / Ant. 0 + Ant. 1 / 2412 MHz		



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	4824	52.48	54.00	-1.52	54.01	-1.53	AV
2	4824	55.64	74.00	-18.36	57.17	-1.53	PK
3	4988	53.66	74.00	-20.34	54.53	-0.87	PK
4	7236	53.05	74.00	-20.95	46.88	6.17	PK
5	9648	42.43	54.00	-11.57	31.06	11.37	AV
6	9648	54.42	74.00	-19.58	43.05	11.37	PK
7	12060	43.14	54.00	-10.86	29.65	13.49	AV
8	12060	56.80	74.00	-17.20	43.31	13.49	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

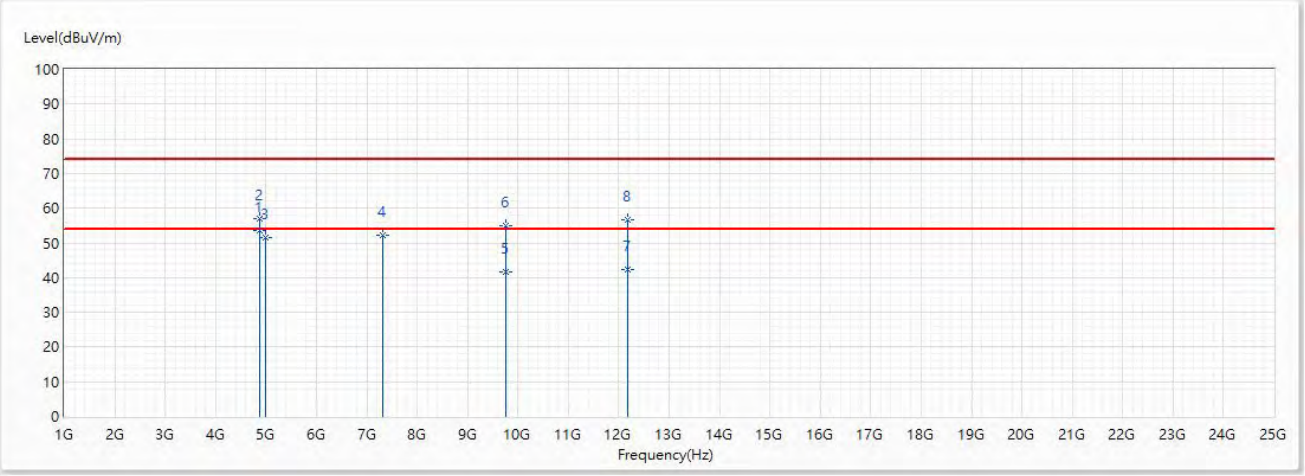
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Test Mode	Mode 3: Transmit_ Extension Cover	Polarity	Horizontal
Test Condition	CDD / 11b / Ant. 0 + Ant. 1 / 2437 MHz		



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	4874	53.74	54.00	-0.26	55.07	-1.33	AV
2	4874	57.01	74.00	-16.99	58.34	-1.33	PK
3	4988	51.42	74.00	-22.58	52.29	-0.87	PK
4	7311	52.10	74.00	-21.90	45.68	6.42	PK
5	9748	41.78	54.00	-12.22	30.29	11.49	AV
6	9748	55.07	74.00	-18.93	43.58	11.49	PK
7	12185	42.22	54.00	-11.78	28.94	13.28	AV
8	12185	56.78	74.00	-17.22	43.50	13.28	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

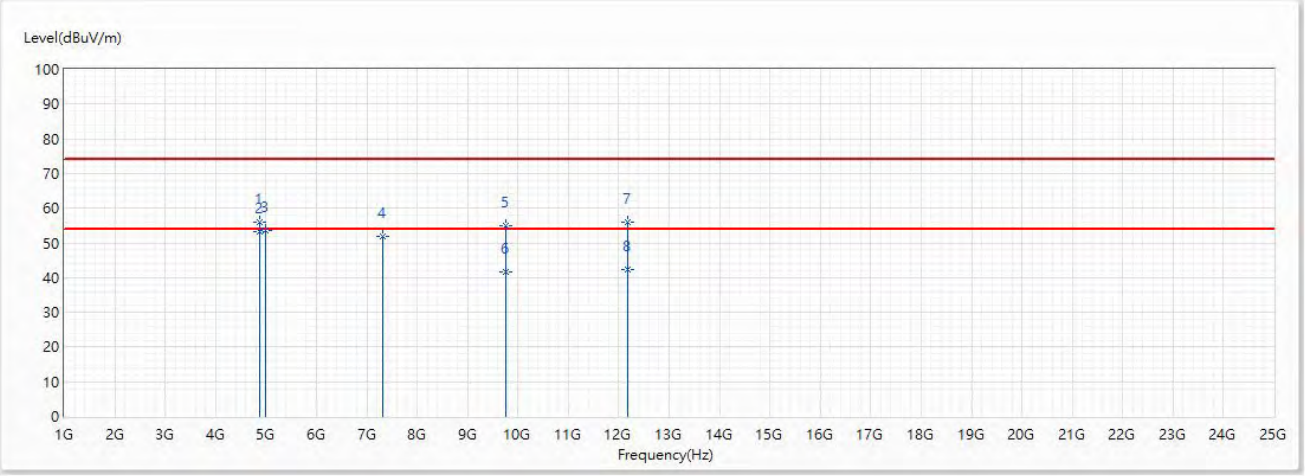
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Test Mode	Mode 3: Transmit_ Extension Cover	Polarity	Vertical
Test Condition	CDD / 11b / Ant. 0 + Ant. 1 / 2437 MHz		



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4874	56.01	74.00	-17.99	57.34	-1.33	PK
* 2	4874	53.12	54.00	-0.88	54.45	-1.33	AV
3	4988	53.43	74.00	-20.57	54.30	-0.87	PK
4	7311	51.98	74.00	-22.02	45.56	6.42	PK
5	9748	55.03	74.00	-18.97	43.54	11.49	PK
6	9748	41.76	54.00	-12.24	30.27	11.49	AV
7	12185	55.90	74.00	-18.10	42.62	13.28	PK
8	12185	42.19	54.00	-11.81	28.91	13.28	AV

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

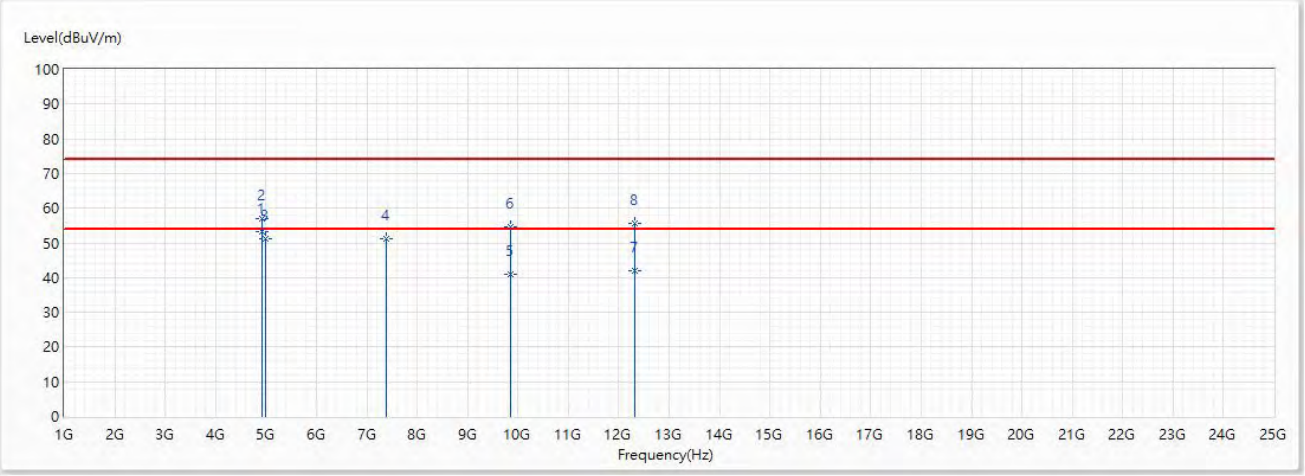
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Test Mode	Mode 3: Transmit_ Extension Cover	Polarity	Horizontal
Test Condition	CDD / 802.11b / Ant. 0 + Ant. 1 / 2462 MHz		



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	4924	53.39	54.00	-0.61	54.52	-1.13	AV
2	4924	56.85	74.00	-17.15	57.98	-1.13	PK
3	4988	51.35	74.00	-22.65	52.22	-0.87	PK
4	7386	51.23	74.00	-22.77	44.57	6.66	PK
5	9848	40.89	54.00	-13.11	29.34	11.55	AV
6	9848	54.56	74.00	-19.44	43.01	11.55	PK
7	12310	41.88	54.00	-12.12	28.83	13.05	AV
8	12310	55.77	74.00	-18.23	42.72	13.05	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

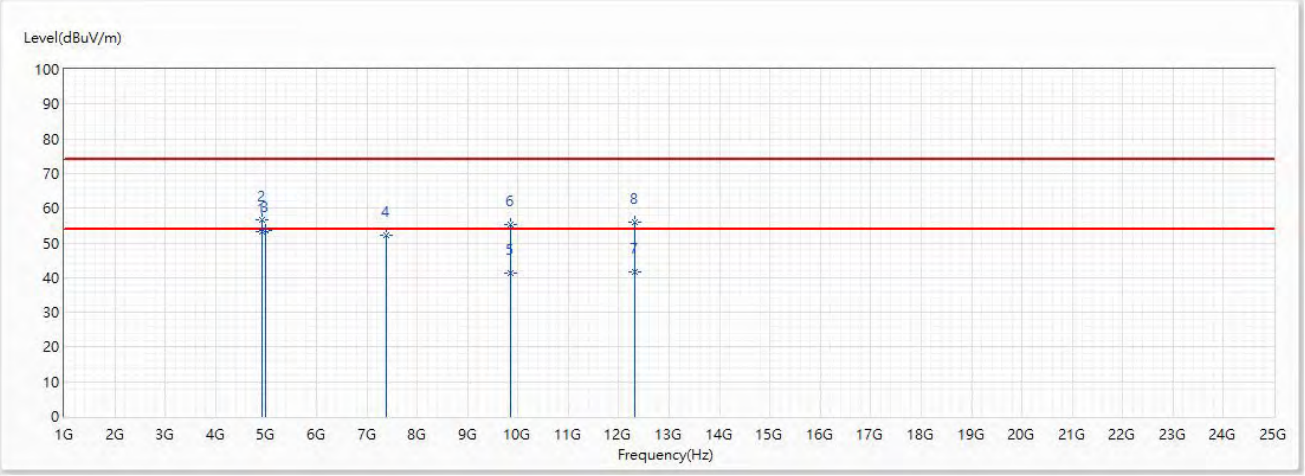
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Test Mode	Mode 3: Transmit_ Extension Cover	Polarity	Vertical
Test Condition	CDD / 802.11b / Ant. 0 + Ant. 1 / 2462 MHz		



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	4924	53.41	54.00	-0.59	54.54	-1.13	AV
2	4924	56.82	74.00	-17.18	57.95	-1.13	PK
3	4988	53.51	74.00	-20.49	54.38	-0.87	PK
4	7386	52.18	74.00	-21.82	45.52	6.66	PK
5	9848	41.27	54.00	-12.73	29.72	11.55	AV
6	9848	55.23	74.00	-18.77	43.68	11.55	PK
7	12310	41.79	54.00	-12.21	28.74	13.05	AV
8	12310	55.95	74.00	-18.05	42.90	13.05	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

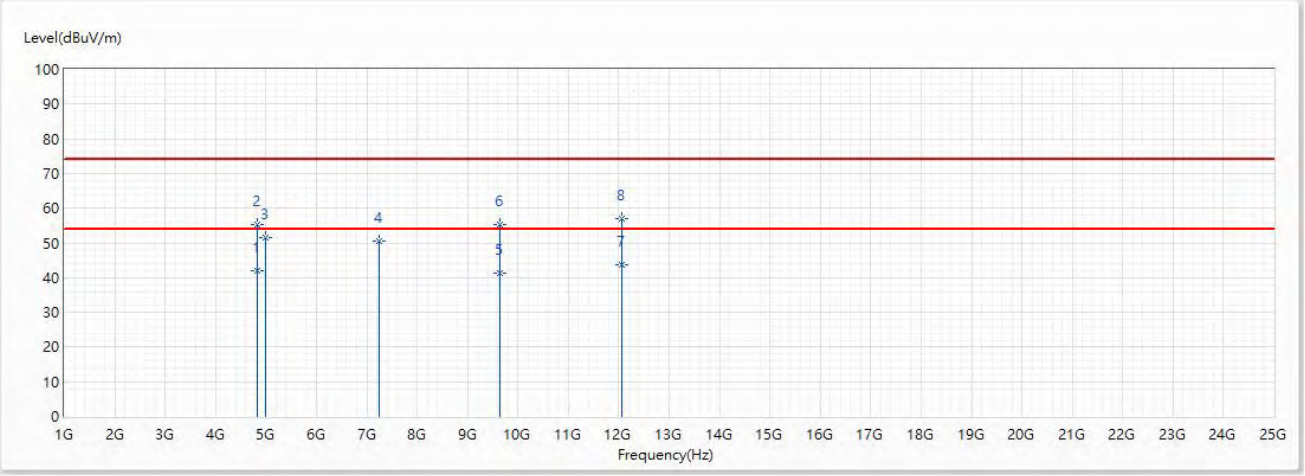
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Test Mode	Mode 3: Transmit_ Extension Cover	Polarity	Horizontal
Test Condition	CDD / 802.11g / Ant. 0 + Ant. 1 / 2412 MHz		



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4824	42.08	54.00	-11.92	43.61	-1.53	AV
2	4824	55.41	74.00	-18.59	56.94	-1.53	PK
3	4988	51.57	74.00	-22.43	52.44	-0.87	PK
4	7236	50.59	74.00	-23.41	44.42	6.17	PK
5	9648	41.16	54.00	-12.84	29.79	11.37	AV
6	9648	55.20	74.00	-18.80	43.83	11.37	PK
* 7	12060	43.55	54.00	-10.45	30.06	13.49	AV
8	12060	57.01	74.00	-16.99	43.52	13.49	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

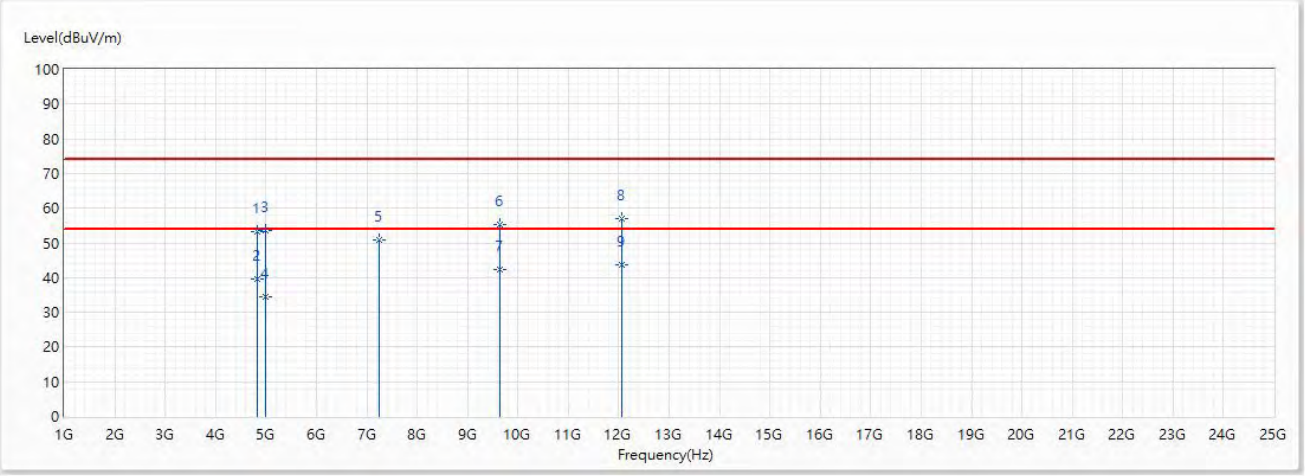
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Test Mode	Mode 3: Transmit_ Extension Cover	Polarity	Vertical
Test Condition	CDD / 802.11g / Ant. 0 + Ant. 1 / 2412 MHz		



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4824	53.36	74.00	-20.64	54.89	-1.53	PK
2	4824	39.72	54.00	-14.28	41.25	-1.53	AV
3	4988	53.50	74.00	-20.50	54.37	-0.87	PK
4	4988	34.52	54.00	-19.48	35.39	-0.87	AV
5	7236	51.00	74.00	-23.00	44.83	6.17	PK
6	9648	55.20	74.00	-18.80	43.83	11.37	PK
7	9648	42.43	54.00	-11.57	31.06	11.37	AV
8	12060	57.03	74.00	-16.97	43.54	13.49	PK
* 9	12060	43.57	54.00	-10.43	30.08	13.49	AV

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

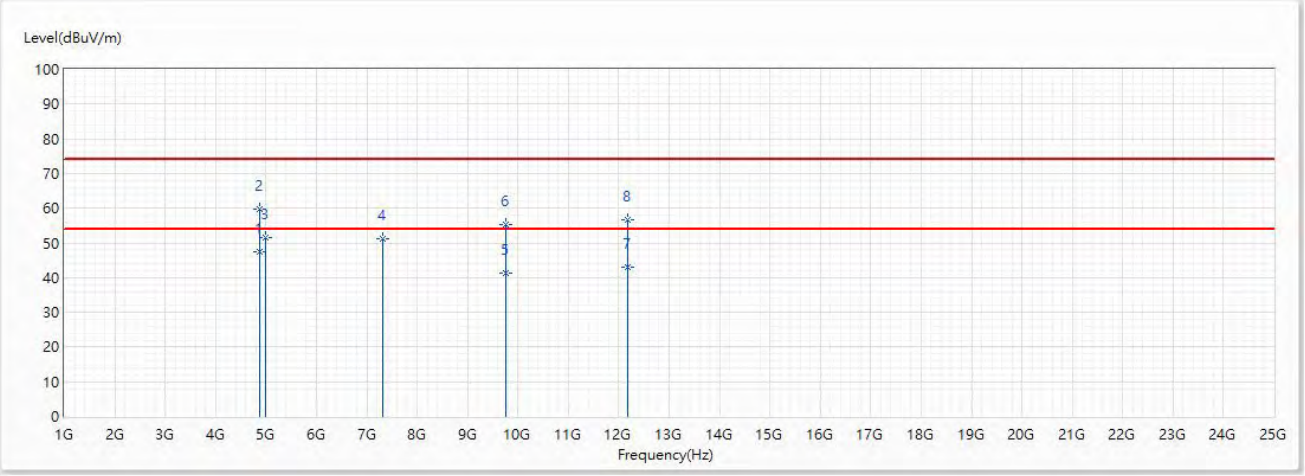
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Test Mode	Mode 3: Transmit_ Extension Cover	Polarity	Horizontal
Test Condition	CDD / 802.11g / Ant. 0 + Ant. 1 / 2437 MHz		



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	4874	47.52	54.00	-6.48	48.85	-1.33	AV
2	4874	59.73	74.00	-14.27	61.06	-1.33	PK
3	4988	51.46	74.00	-22.54	52.33	-0.87	PK
4	7311	51.35	74.00	-22.65	44.93	6.42	PK
5	9748	41.39	54.00	-12.61	29.90	11.49	AV
6	9748	55.30	74.00	-18.70	43.81	11.49	PK
7	12185	43.12	54.00	-10.88	29.84	13.28	AV
8	12185	56.71	74.00	-17.29	43.43	13.28	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

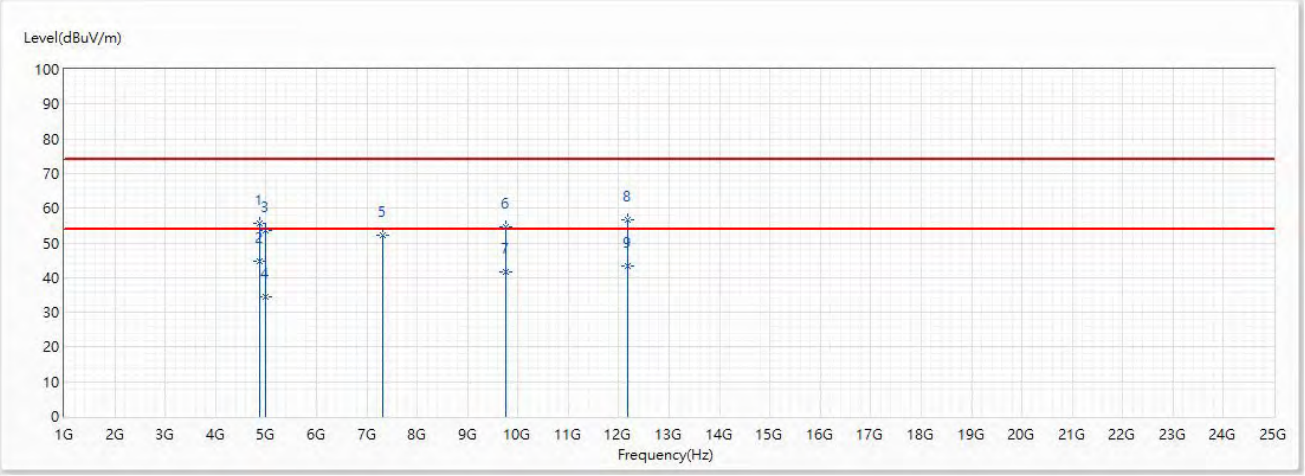
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Test Mode	Mode 3: Transmit_ Extension Cover	Polarity	Vertical
Test Condition	CDD / 802.11g / Ant. 0 + Ant. 1 / 2437 MHz		



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4874	55.76	74.00	-18.24	57.09	-1.33	PK
* 2	4874	44.57	54.00	-9.43	45.90	-1.33	AV
3	4988	53.52	74.00	-20.48	54.39	-0.87	PK
4	4988	34.52	54.00	-19.48	35.39	-0.87	AV
5	7311	52.10	74.00	-21.90	45.68	6.42	PK
6	9748	54.74	74.00	-19.26	43.25	11.49	PK
7	9748	41.61	54.00	-12.39	30.12	11.49	AV
8	12185	56.49	74.00	-17.51	43.21	13.28	PK
9	12185	43.21	54.00	-10.79	29.93	13.28	AV

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

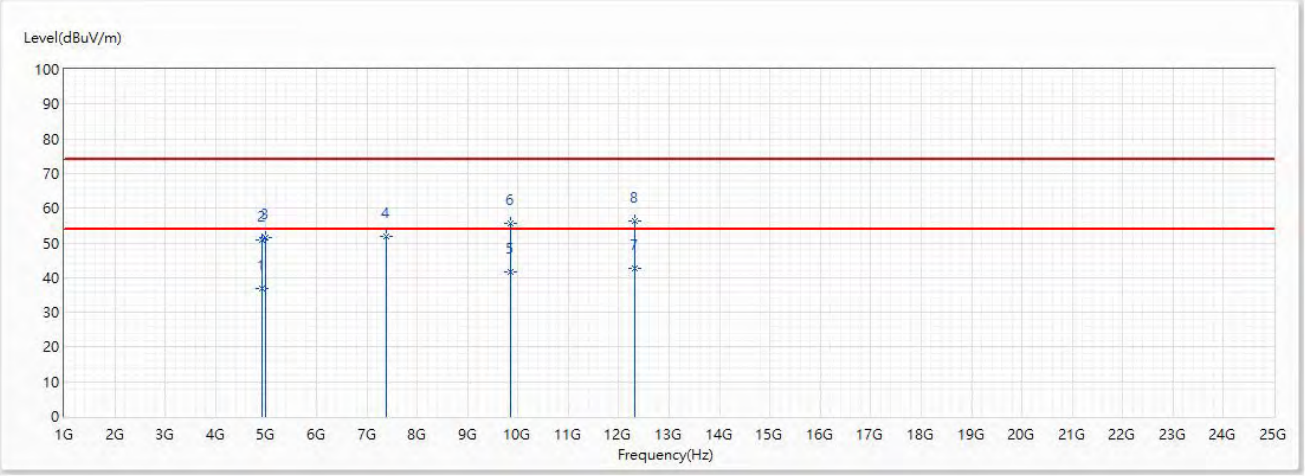
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Test Mode	Mode 3: Transmit_ Extension Cover	Polarity	Horizontal
Test Condition	CDD / 802.11g / Ant. 0 + Ant. 1 / 2462 MHz		



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4924	36.89	54.00	-17.11	38.02	-1.13	AV
2	4924	50.84	74.00	-23.16	51.97	-1.13	PK
3	4988	51.46	74.00	-22.54	52.33	-0.87	PK
4	7386	51.73	74.00	-22.27	45.07	6.66	PK
5	9848	41.57	54.00	-12.43	30.02	11.55	AV
6	9848	55.55	74.00	-18.45	44.00	11.55	PK
* 7	12310	42.66	54.00	-11.34	29.61	13.05	AV
8	12310	56.28	74.00	-17.72	43.23	13.05	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

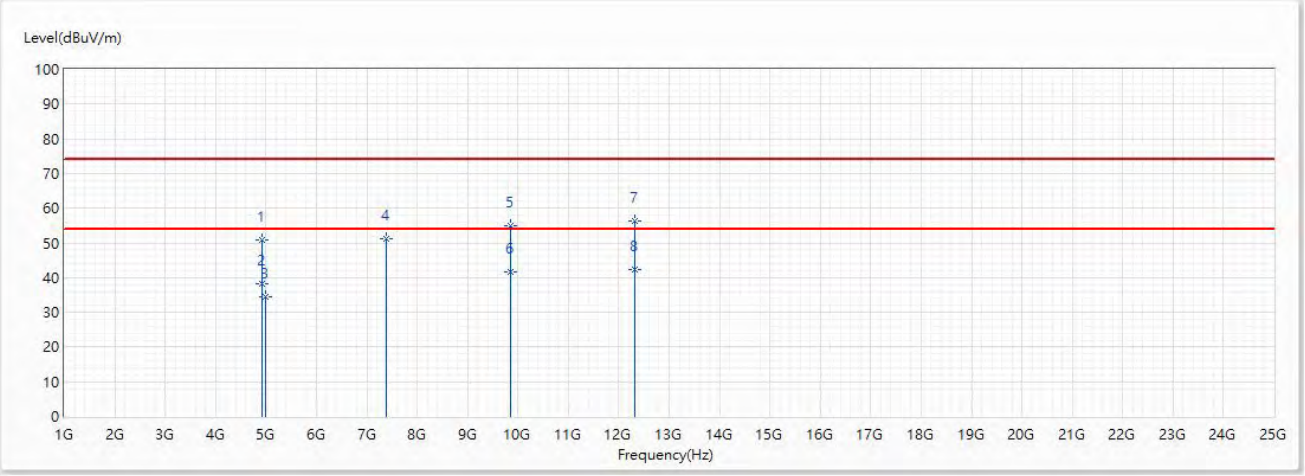
2. " * ", means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Test Mode	Mode 3: Transmit_ Extension Cover	Polarity	Vertical
Test Condition	CDD / 802.11g / Ant. 0 + Ant. 1 / 2462 MHz		



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4924	51.00	74.00	-23.00	52.13	-1.13	PK
2	4924	38.08	54.00	-15.92	39.21	-1.13	AV
3	4988	34.61	54.00	-19.39	35.48	-0.87	AV
4	7386	51.17	74.00	-22.83	44.51	6.66	PK
5	9848	54.93	74.00	-19.07	43.38	11.55	PK
6	9848	41.70	54.00	-12.30	30.15	11.55	AV
7	12310	56.19	74.00	-17.81	43.14	13.05	PK
* 8	12310	42.35	54.00	-11.65	29.30	13.05	AV

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

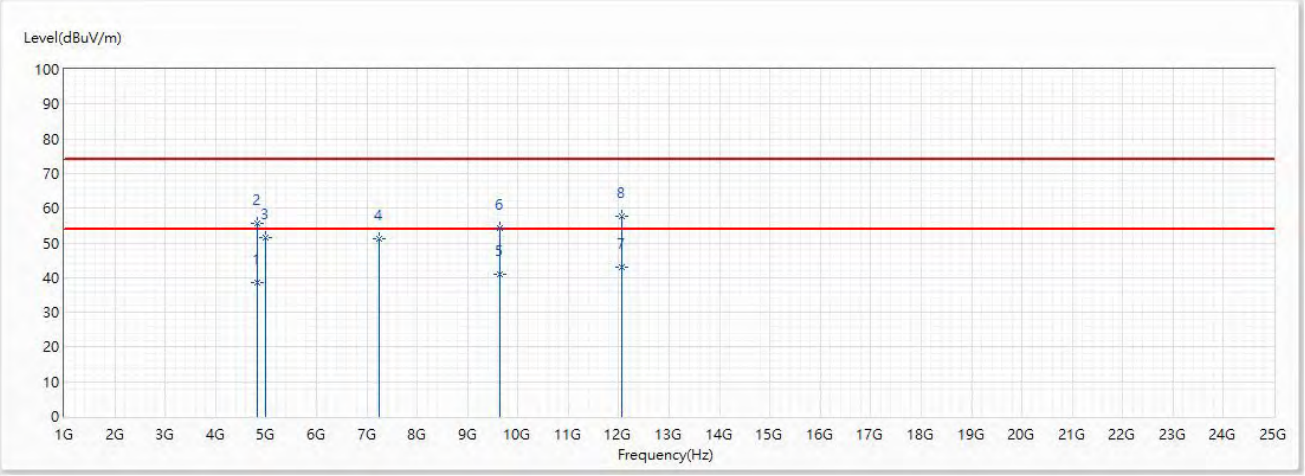
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Test Mode	Mode 3: Transmit_ Extension Cover	Polarity	Horizontal
Test Condition	CDD / 802.11n (20 MHz) / Ant. 0 + Ant. 1 / 2412 MHz		



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4824	38.63	54.00	-15.37	40.16	-1.53	AV
2	4824	55.65	74.00	-18.35	57.18	-1.53	PK
3	4988	51.49	74.00	-22.51	52.36	-0.87	PK
4	7236	51.27	74.00	-22.73	45.10	6.17	PK
5	9648	40.86	54.00	-13.14	29.49	11.37	AV
6	9648	54.30	74.00	-19.70	42.93	11.37	PK
* 7	12060	43.15	54.00	-10.85	29.66	13.49	AV
8	12060	57.51	74.00	-16.49	44.02	13.49	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

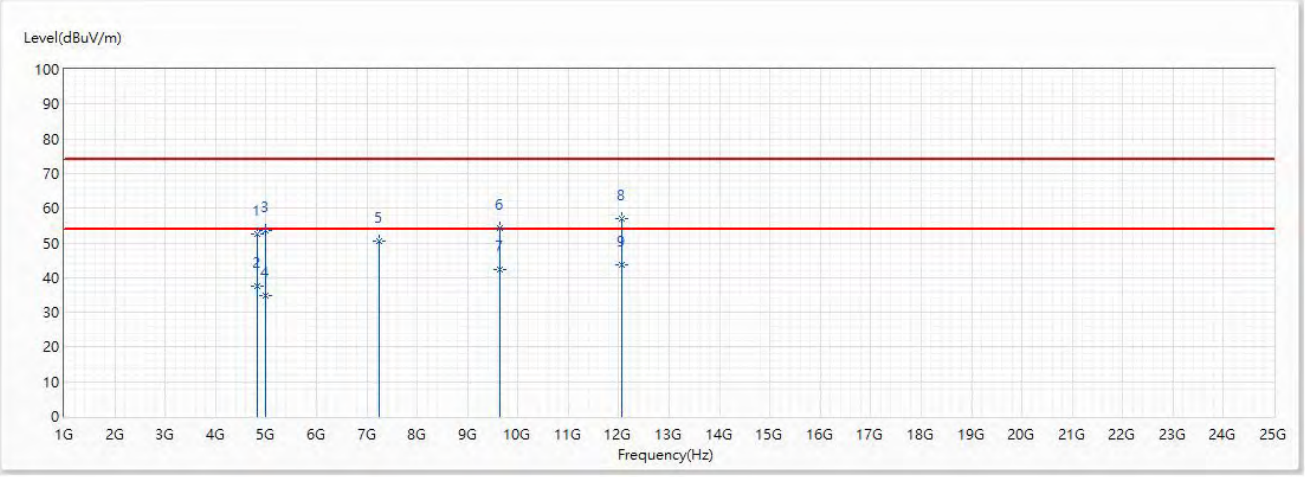
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Test Mode	Mode 3: Transmit_ Extension Cover	Polarity	Vertical
Test Condition	CDD / 802.11n (20 MHz) / Ant. 0 + Ant. 1 / 2412 MHz		



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4824	52.49	74.00	-21.51	54.02	-1.53	PK
2	4824	37.42	54.00	-16.58	38.95	-1.53	AV
3	4988	53.56	74.00	-20.44	54.43	-0.87	PK
4	4988	34.69	54.00	-19.31	35.56	-0.87	AV
5	7236	50.52	74.00	-23.48	44.35	6.17	PK
6	9648	54.26	74.00	-19.74	42.89	11.37	PK
7	9648	42.18	54.00	-11.82	30.81	11.37	AV
8	12060	56.91	74.00	-17.09	43.42	13.49	PK
* 9	12060	43.68	54.00	-10.32	30.19	13.49	AV

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

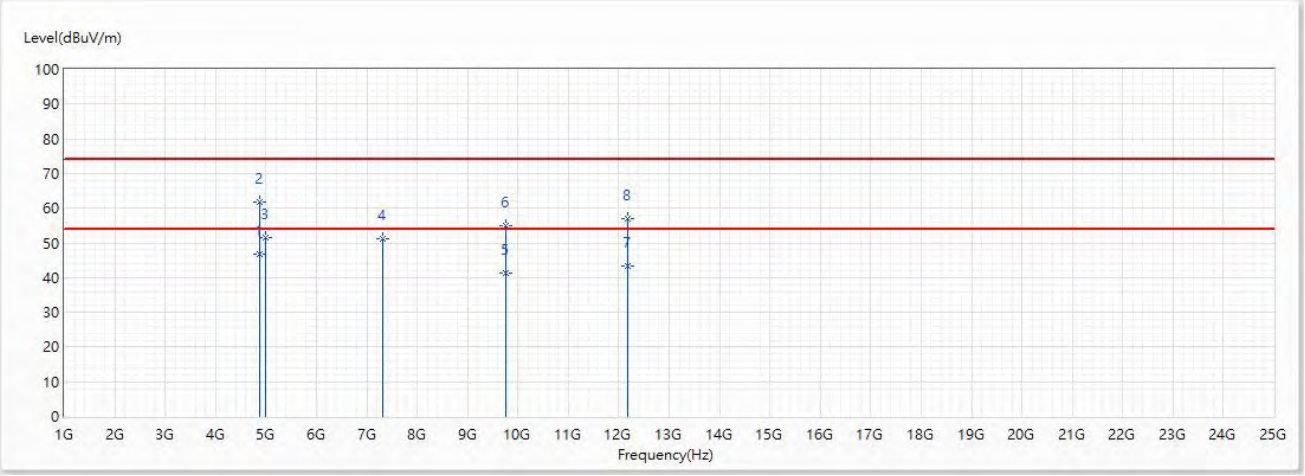
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Test Mode	Mode 3: Transmit_ Extension Cover	Polarity	Horizontal
Test Condition	CDD / 802.11n (20 MHz) / Ant. 0 + Ant. 1 / 2437 MHz		



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	4874	46.77	54.00	-7.23	48.10	-1.33	AV
2	4874	61.76	74.00	-12.24	63.09	-1.33	PK
3	4988	51.41	74.00	-22.59	52.28	-0.87	PK
4	7311	51.10	74.00	-22.90	44.68	6.42	PK
5	9748	41.44	54.00	-12.56	29.95	11.49	AV
6	9748	54.86	74.00	-19.14	43.37	11.49	PK
7	12185	43.32	54.00	-10.68	30.04	13.28	AV
8	12185	57.10	74.00	-16.90	43.82	13.28	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

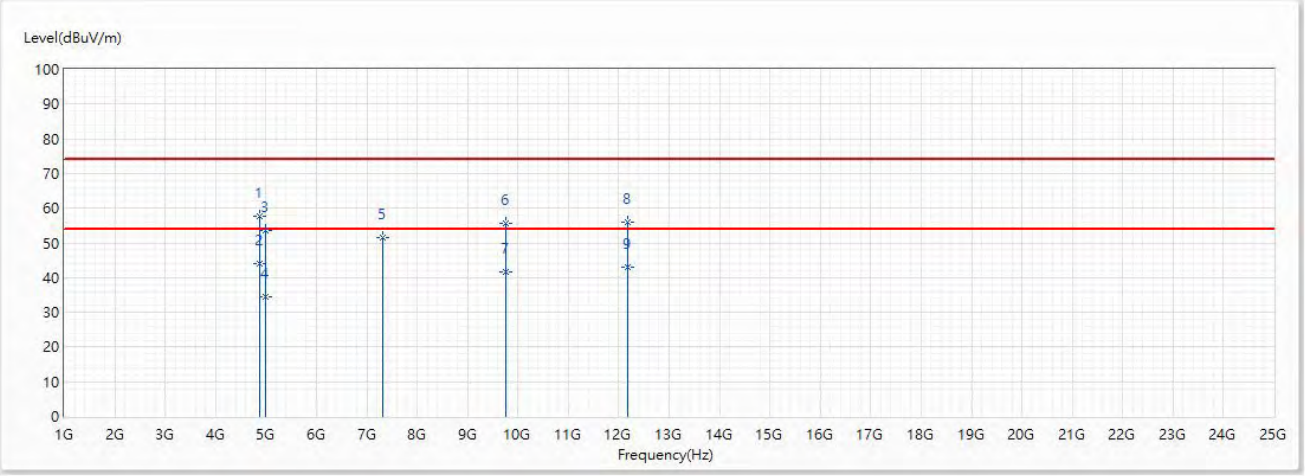
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Test Mode	Mode 3: Transmit_ Extension Cover	Polarity	Vertical
Test Condition	CDD / 802.11n (20 MHz) / Ant. 0 + Ant. 1 / 2437 MHz		



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4874	57.73	74.00	-16.27	59.06	-1.33	PK
* 2	4874	43.98	54.00	-10.02	45.31	-1.33	AV
3	4988	53.45	74.00	-20.55	54.32	-0.87	PK
4	4988	34.62	54.00	-19.38	35.49	-0.87	AV
5	7311	51.60	74.00	-22.40	45.18	6.42	PK
6	9748	55.60	74.00	-18.40	44.11	11.49	PK
7	9748	41.58	54.00	-12.42	30.09	11.49	AV
8	12185	56.10	74.00	-17.90	42.82	13.28	PK
9	12185	43.15	54.00	-10.85	29.87	13.28	AV

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

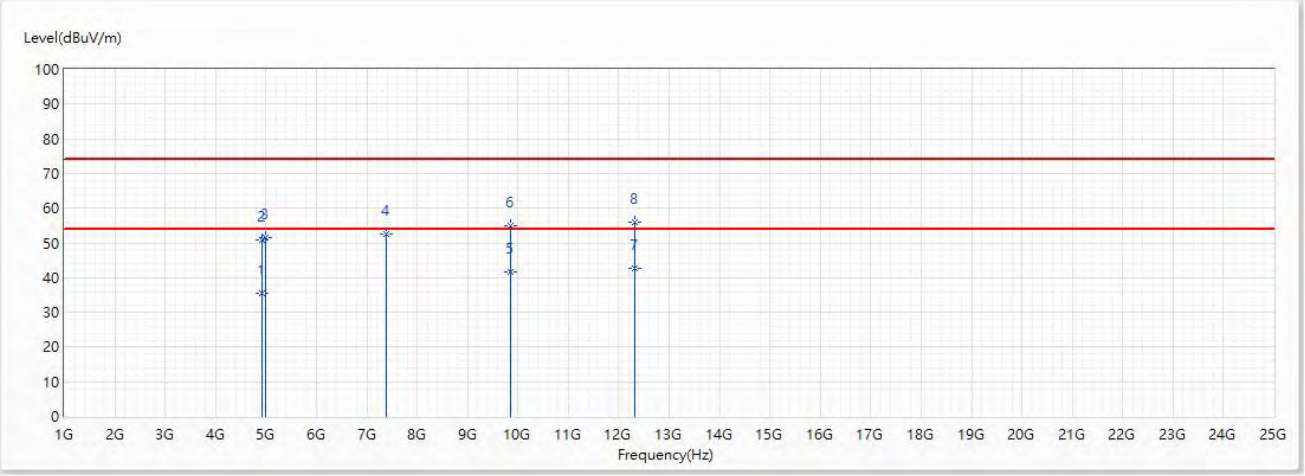
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Test Mode	Mode 3: Transmit_ Extension Cover	Polarity	Horizontal
Test Condition	CDD / 802.11n (20 MHz) / Ant. 0 + Ant. 1 / 2462 MHz		



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4924	35.33	54.00	-18.67	36.46	-1.13	AV
2	4924	50.83	74.00	-23.17	51.96	-1.13	PK
3	4988	51.42	74.00	-22.58	52.29	-0.87	PK
4	7386	52.44	74.00	-21.56	45.78	6.66	PK
5	9848	41.71	54.00	-12.29	30.16	11.55	AV
6	9848	54.92	74.00	-19.08	43.37	11.55	PK
* 7	12310	42.75	54.00	-11.25	29.70	13.05	AV
8	12310	56.03	74.00	-17.97	42.98	13.05	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

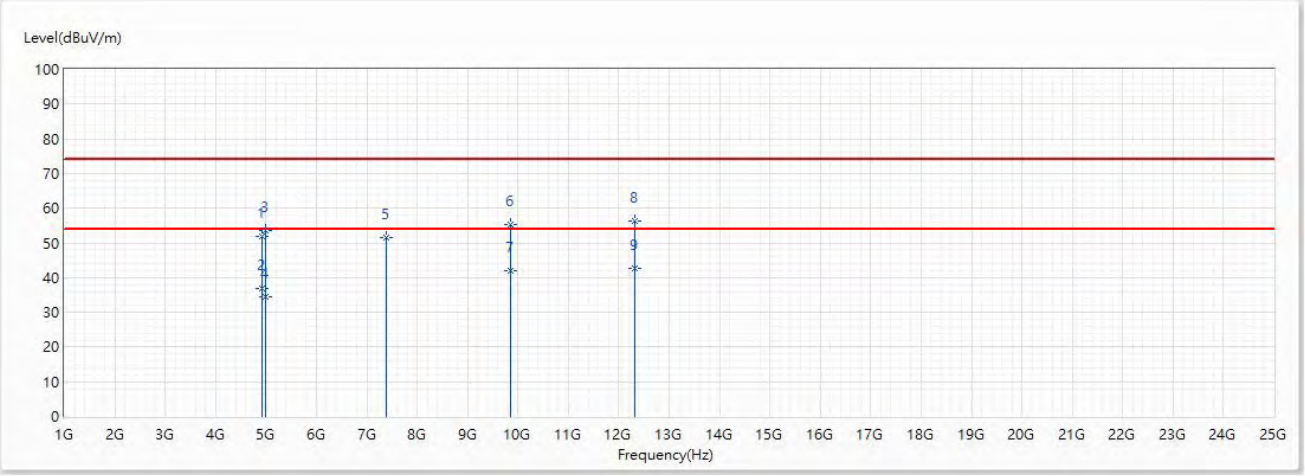
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit

Test Mode	Mode 3: Transmit_ Extension Cover	Polarity	Vertical
Test Condition	CDD / 802.11n (20 MHz) / Ant. 0 + Ant. 1 / 2462 MHz		



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4924	51.91	74.00	-22.09	53.04	-1.13	PK
2	4924	37.00	54.00	-17.00	38.13	-1.13	AV
3	4988	53.66	74.00	-20.34	54.53	-0.87	PK
4	4988	34.58	54.00	-19.42	35.45	-0.87	AV
5	7386	51.50	74.00	-22.50	44.84	6.66	PK
6	9848	55.19	74.00	-18.81	43.64	11.55	PK
7	9848	41.86	54.00	-12.14	30.31	11.55	AV
8	12310	56.24	74.00	-17.76	43.19	13.05	PK
9	12310	42.73	54.00	-11.27	29.68	13.05	AV

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

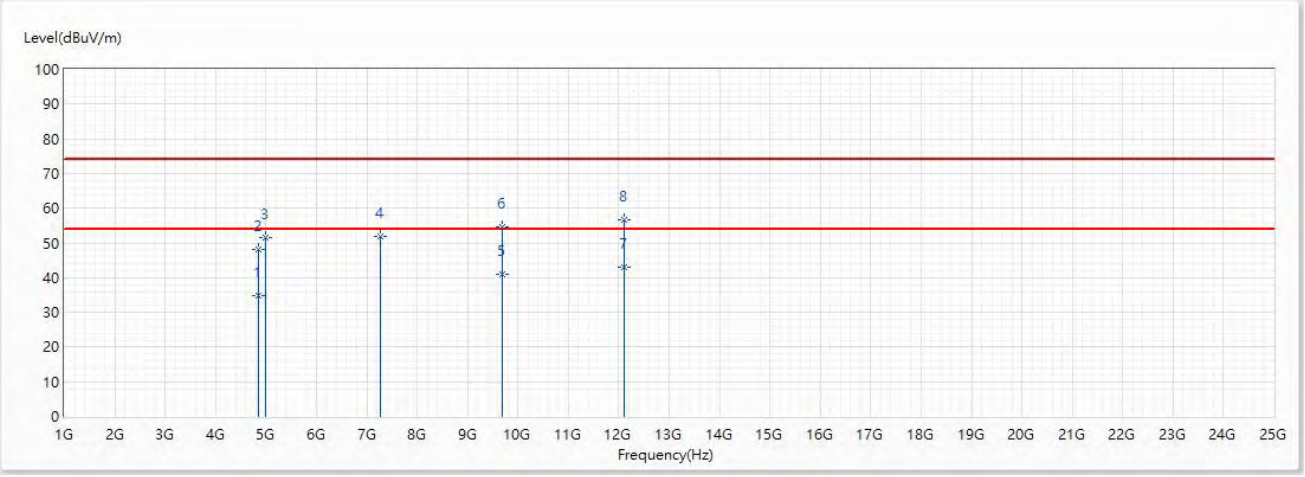
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Test Mode	Mode 3: Transmit_ Extension Cover	Polarity	Horizontal
Test Condition	CDD / 802.11n (40 MHz) / Ant. 0 + Ant. 1 / 2422 MHz		



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4844	34.68	54.00	-19.32	36.12	-1.44	AV
2	4844	48.04	74.00	-25.96	49.48	-1.44	PK
3	4988	51.44	74.00	-22.56	52.31	-0.87	PK
4	7266	51.86	74.00	-22.14	45.59	6.27	PK
5	9688	40.88	54.00	-13.12	29.47	11.41	AV
6	9688	54.63	74.00	-19.37	43.22	11.41	PK
* 7	12110	42.94	54.00	-11.06	29.53	13.41	AV
8	12110	56.62	74.00	-17.38	43.21	13.41	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

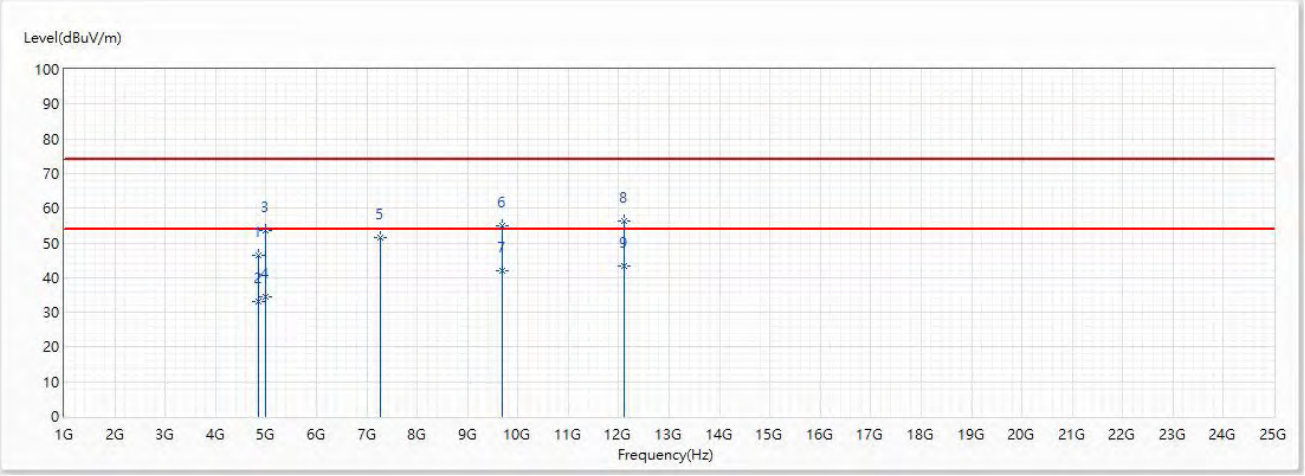
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Test Mode	Mode 3: Transmit_ Extension Cover	Polarity	Vertical
Test Condition	CDD / 802.11n (40 MHz) / Ant. 0 + Ant. 1 / 2422 MHz		



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4844	46.45	74.00	-27.55	47.89	-1.44	PK
2	4844	33.24	54.00	-20.76	34.68	-1.44	AV
3	4988	53.49	74.00	-20.51	54.36	-0.87	PK
4	4988	34.58	54.00	-19.42	35.45	-0.87	AV
5	7266	51.53	74.00	-22.47	45.26	6.27	PK
6	9688	54.88	74.00	-19.12	43.47	11.41	PK
7	9688	42.10	54.00	-11.90	30.69	11.41	AV
8	12110	56.39	74.00	-17.61	42.98	13.41	PK
* 9	12110	43.24	54.00	-10.76	29.83	13.41	AV

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

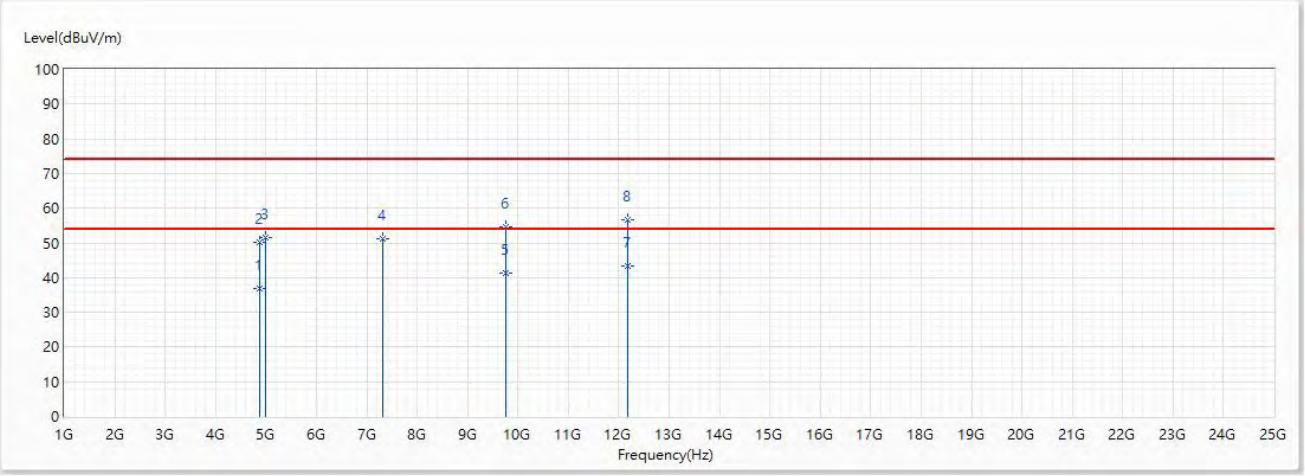
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Test Mode	Mode 3: Transmit_ Extension Cover	Polarity	Horizontal
Test Condition	CDD / 802.11n (40 MHz) / Ant. 0 + Ant. 1 / 2437 MHz		



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4874	36.69	54.00	-17.31	38.02	-1.33	AV
2	4874	50.02	74.00	-23.98	51.35	-1.33	PK
3	4988	51.37	74.00	-22.63	52.24	-0.87	PK
4	7311	51.18	74.00	-22.82	44.76	6.42	PK
5	9748	41.41	54.00	-12.59	29.92	11.49	AV
6	9748	54.60	74.00	-19.40	43.11	11.49	PK
* 7	12185	43.19	54.00	-10.81	29.91	13.28	AV
8	12185	56.53	74.00	-17.47	43.25	13.28	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

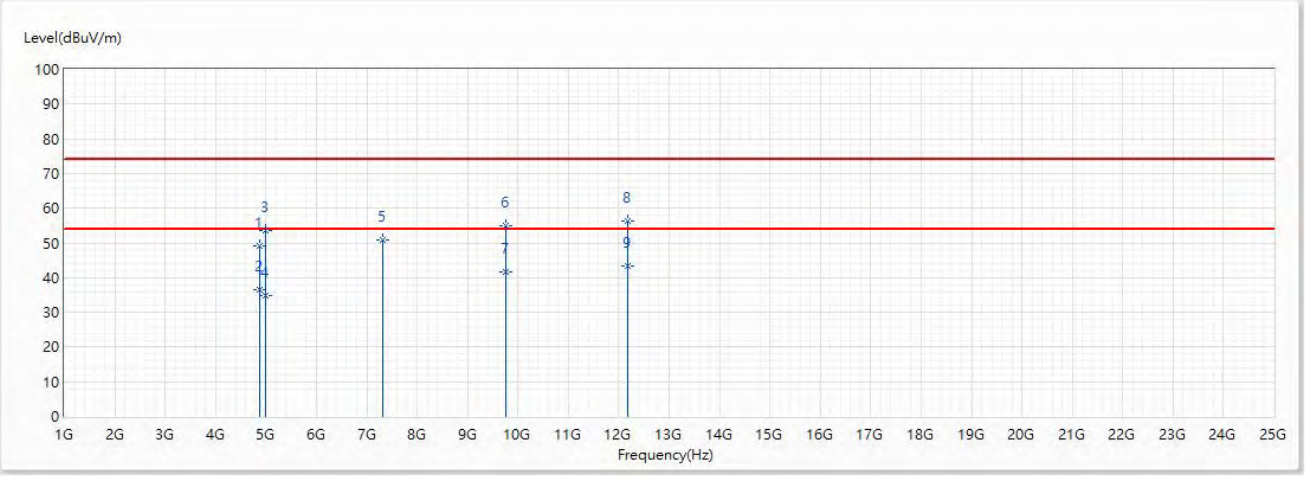
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Test Mode	Mode 3: Transmit_ Extension Cover	Polarity	Vertical
Test Condition	CDD / 802.11n (40 MHz) / Ant. 0 + Ant. 1 / 2437 MHz		



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4874	49.31	74.00	-24.69	50.64	-1.33	PK
2	4874	36.66	54.00	-17.34	37.99	-1.33	AV
3	4988	53.49	74.00	-20.51	54.36	-0.87	PK
4	4988	34.69	54.00	-19.31	35.56	-0.87	AV
5	7311	50.93	74.00	-23.07	44.51	6.42	PK
6	9748	55.11	74.00	-18.89	43.62	11.49	PK
7	9748	41.59	54.00	-12.41	30.10	11.49	AV
8	12185	56.33	74.00	-17.67	43.05	13.28	PK
* 9	12185	43.18	54.00	-10.82	29.90	13.28	AV

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

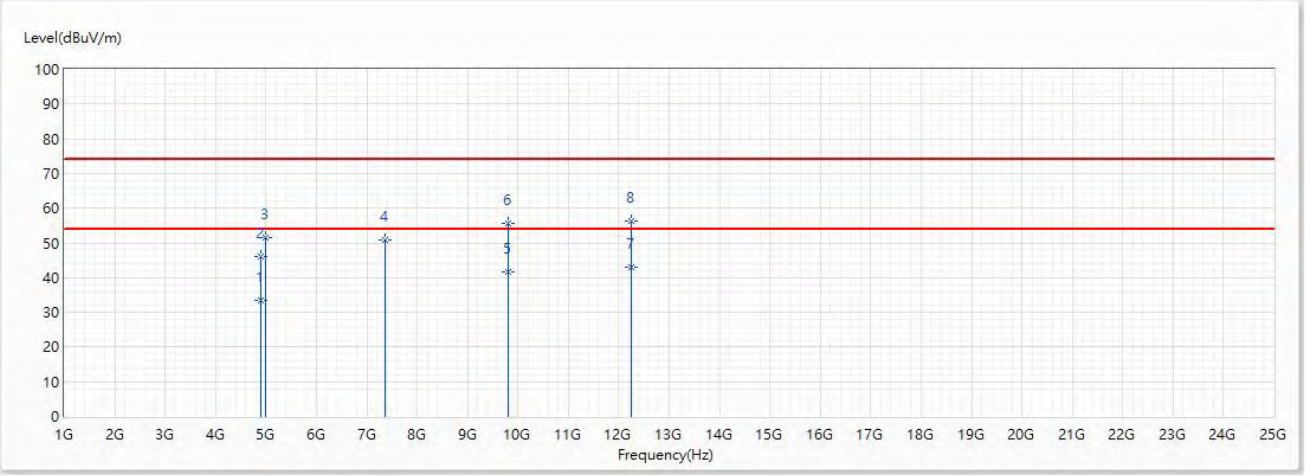
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Test Mode	Mode 3: Transmit_ Extension Cover	Polarity	Horizontal
Test Condition	CDD / 802.11n (40 MHz) / Ant. 0 + Ant. 1 / 2452 MHz		



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4904	33.34	54.00	-20.66	34.55	-1.21	AV
2	4904	46.22	74.00	-27.78	47.43	-1.21	PK
3	4988	51.39	74.00	-22.61	52.26	-0.87	PK
4	7356	50.98	74.00	-23.02	44.42	6.56	PK
5	9808	41.53	54.00	-12.47	30.01	11.52	AV
6	9808	55.53	74.00	-18.47	44.01	11.52	PK
* 7	12260	42.99	54.00	-11.01	29.84	13.15	AV
8	12260	56.44	74.00	-17.56	43.29	13.15	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

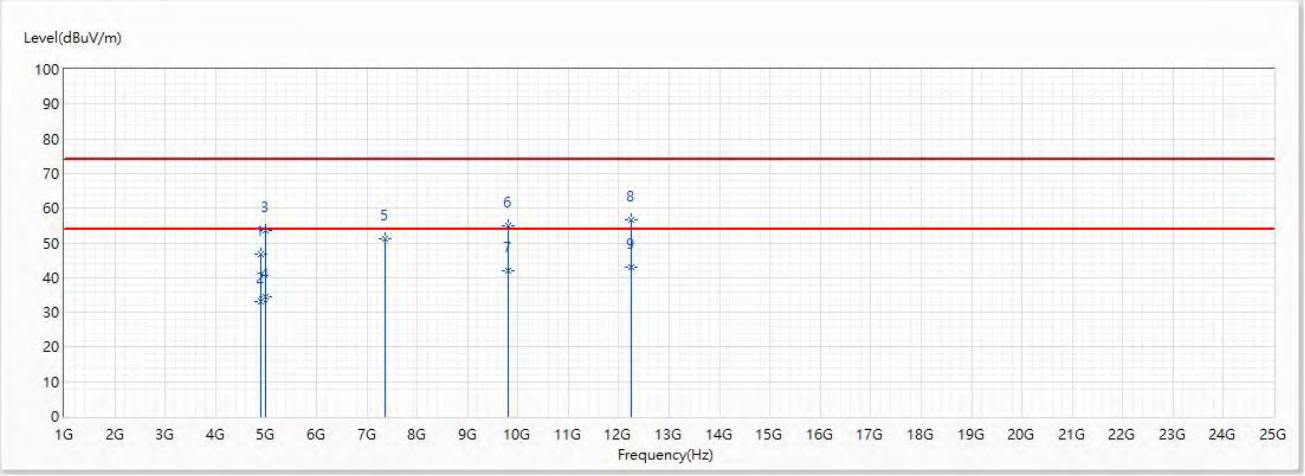
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Test Mode	Mode 3: Transmit_ Extension Cover	Polarity	Vertical
Test Condition	CDD / 802.11n (40 MHz) / Ant. 0 + Ant. 1 / 2452 MHz		



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4904	46.77	74.00	-27.23	47.98	-1.21	PK
2	4904	33.26	54.00	-20.74	34.47	-1.21	AV
3	4988	53.54	74.00	-20.46	54.41	-0.87	PK
4	4988	34.63	54.00	-19.37	35.50	-0.87	AV
5	7356	51.12	74.00	-22.88	44.56	6.56	PK
6	9808	54.88	74.00	-19.12	43.36	11.52	PK
7	9808	41.92	54.00	-12.08	30.40	11.52	AV
8	12260	56.75	74.00	-17.25	43.60	13.15	PK
* 9	12260	43.08	54.00	-10.92	29.93	13.15	AV

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. “ * ”, means this data is the worst value.

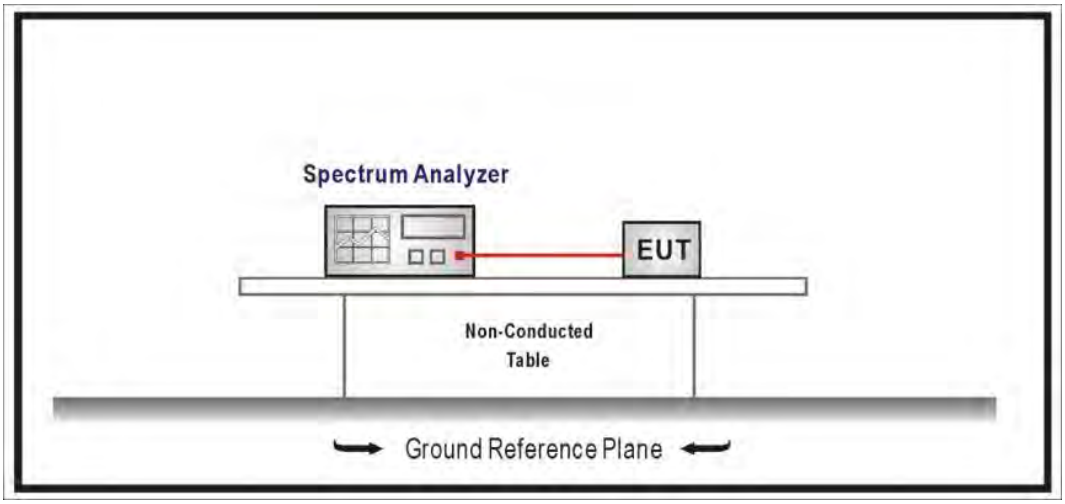
3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

5. Antenna Port Conducted Emission

5.1. Test Setup



5.2. Test 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 limit. If the transmitter complies with the conducted power limit based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limit 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 limit specified in §15.209(a) (see §15.205(c)).

5.3. Test Procedure

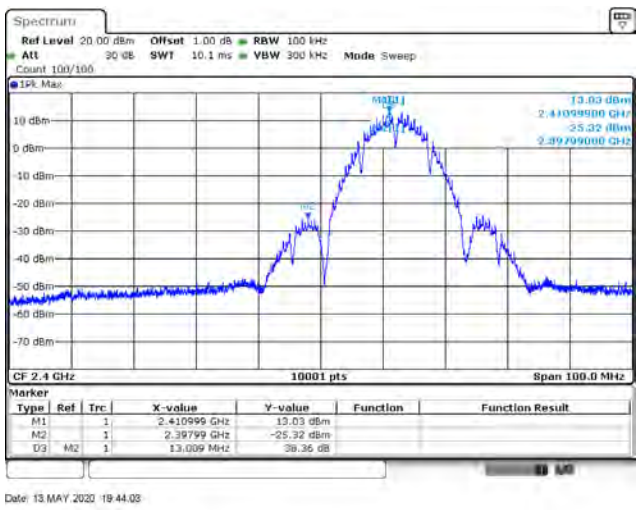
The EUT was setup according to ANSI C63.10: 2013 and tested according to DTS test procedure of KDB 558074 D01 V05r02 for compliance to FCC 47CFR 15.247 requirements.
Set RBW = 100 kHz, Set VBW> RBW, scan up through 10th harmonic.

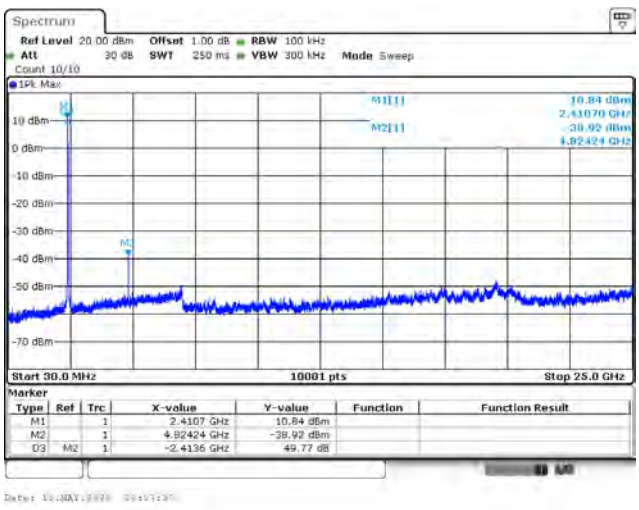
5.4. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247.

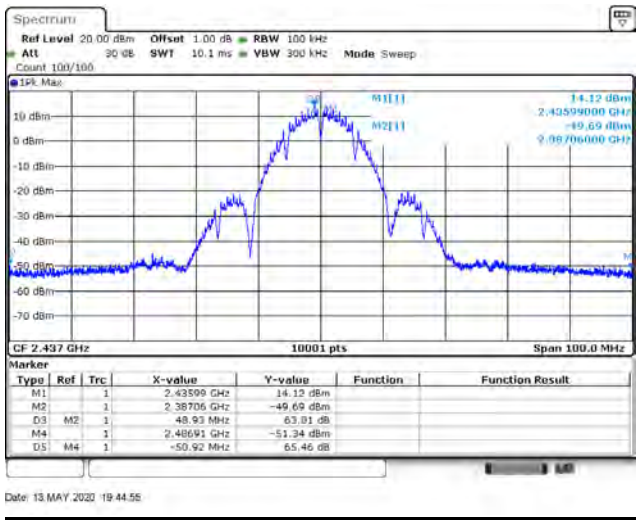
5.5. Test Result of Antenna Port Conducted Emission

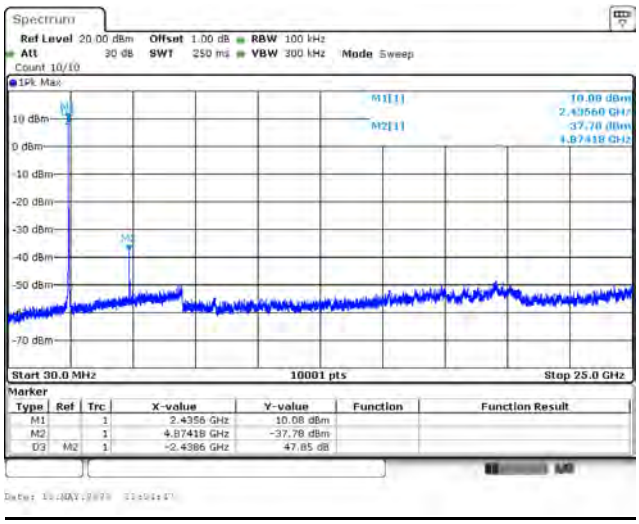
802.11b / 2412 MHz / Ant.0



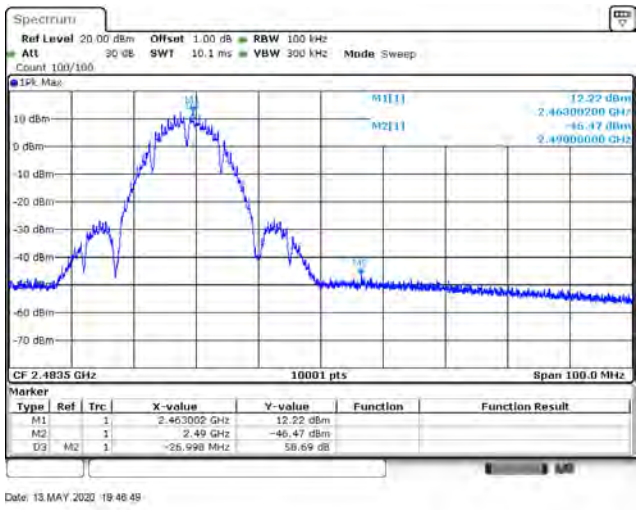


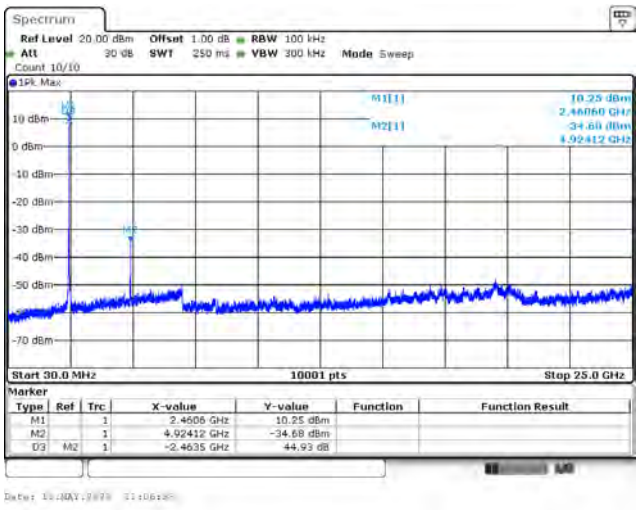
802.11b / 2437 MHz / Ant.0



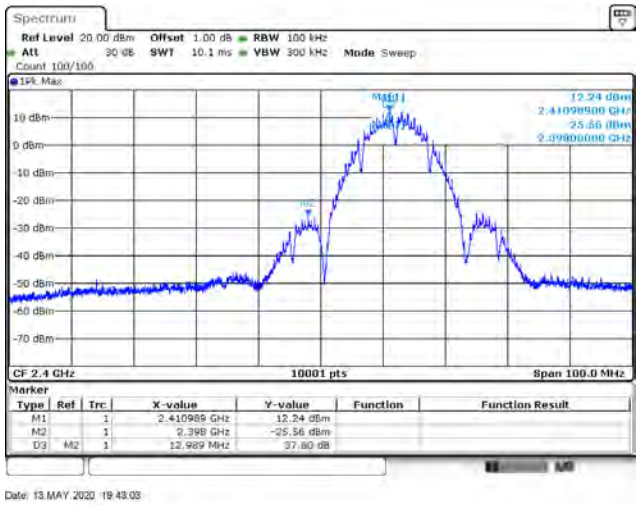


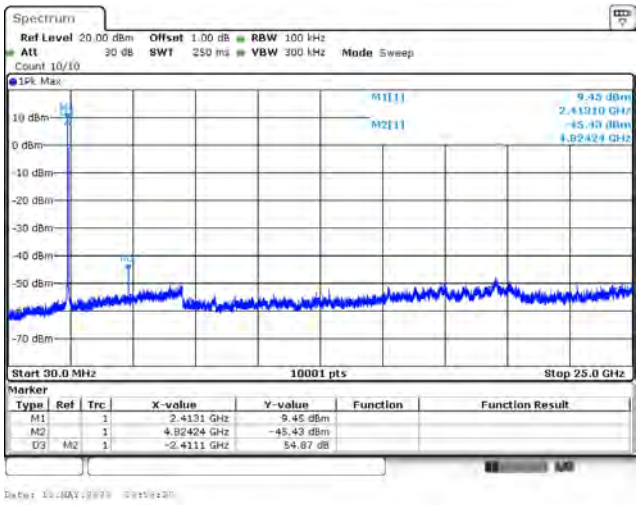
802.11b / 2462 MHz / Ant.0



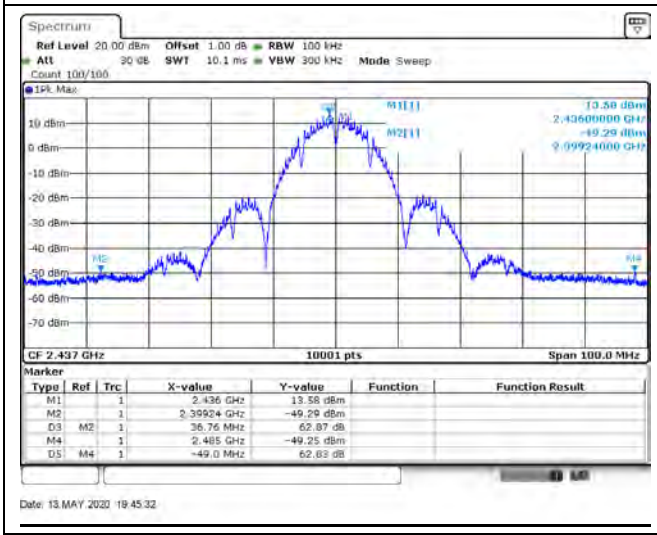


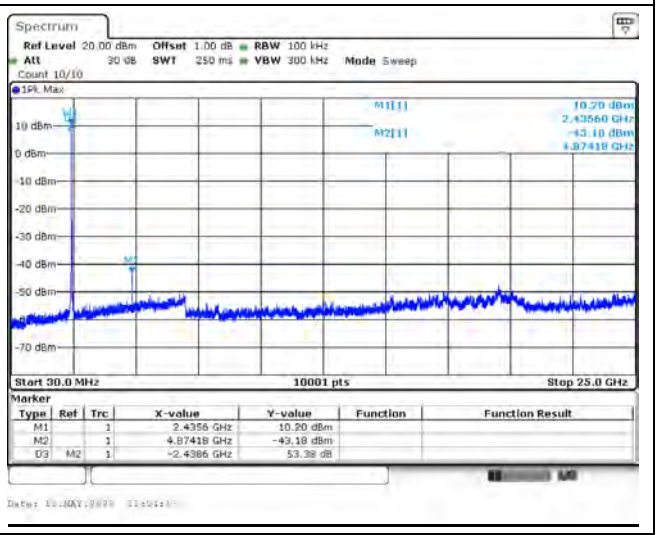
802.11b / 2412 MHz / Ant.1



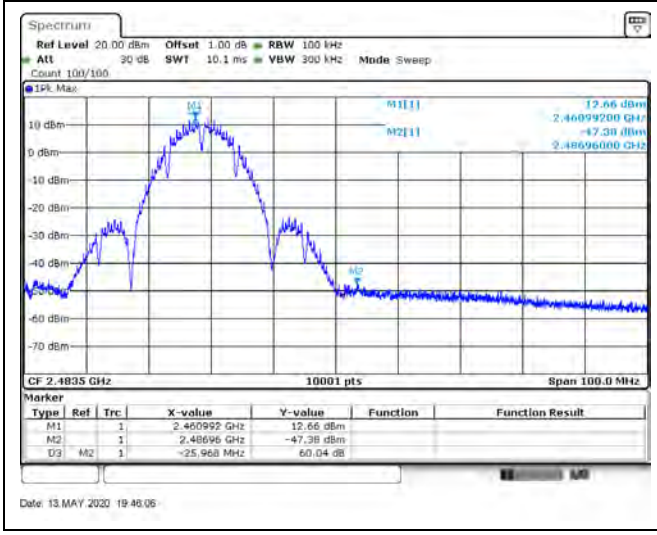


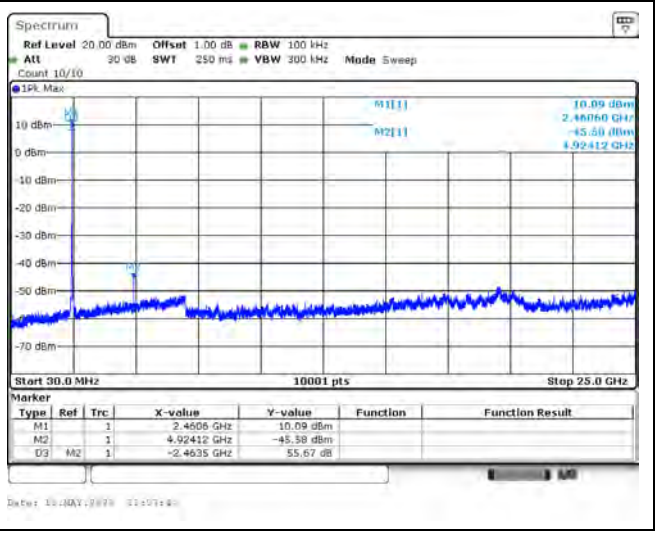
802.11b / 2437 MHz / Ant.1



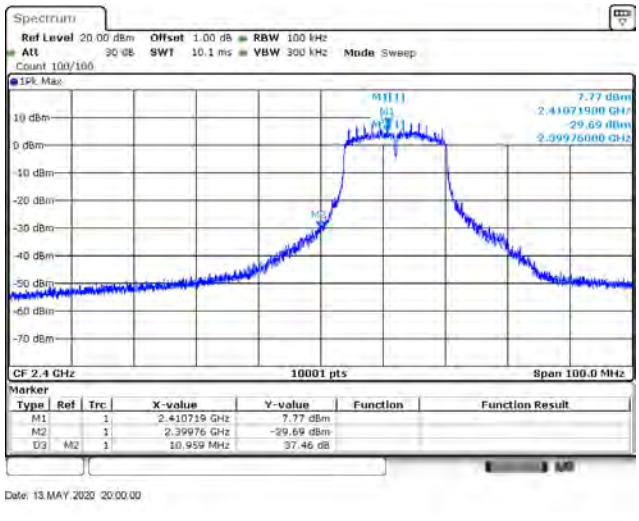


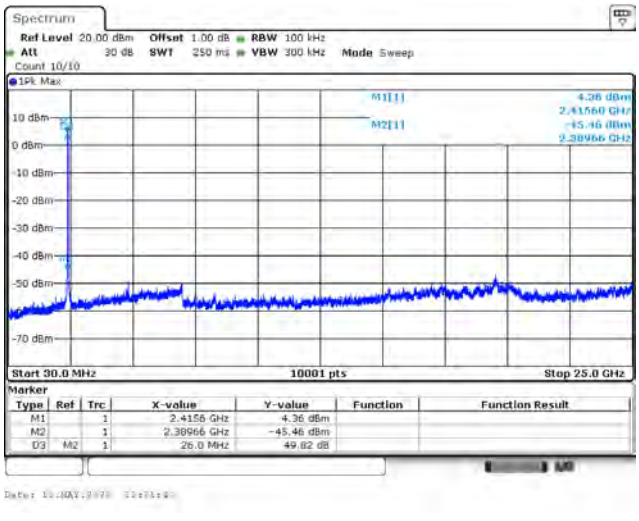
802.11b / 2462 MHz / Ant.1



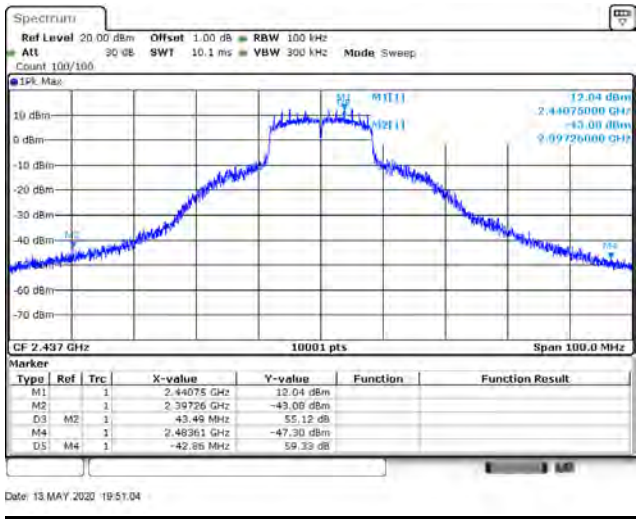


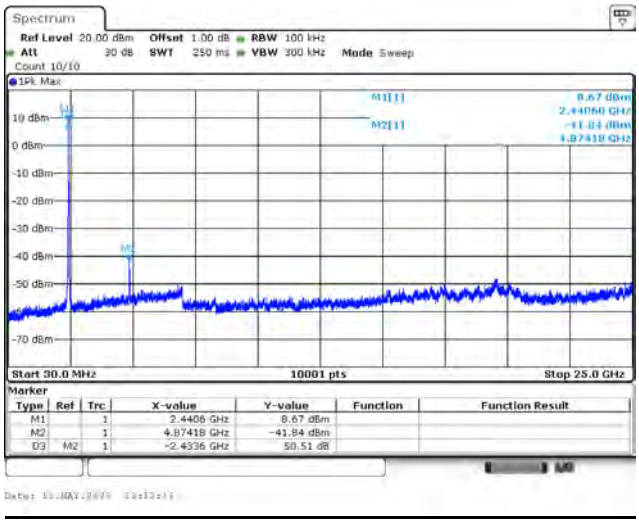
802.11g / 2412 MHz / Ant.0



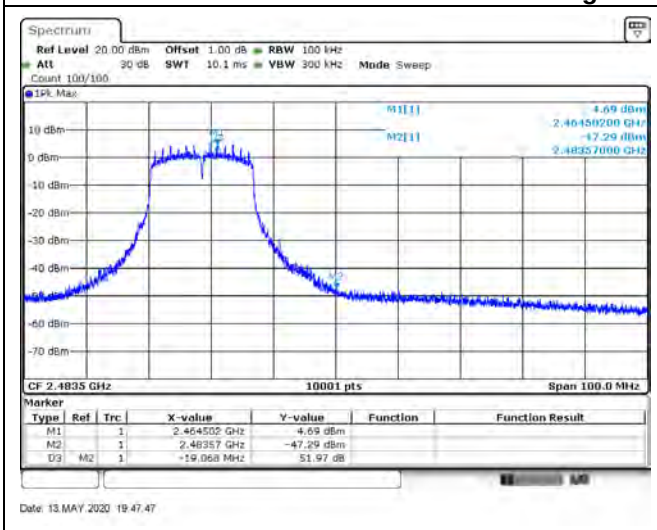


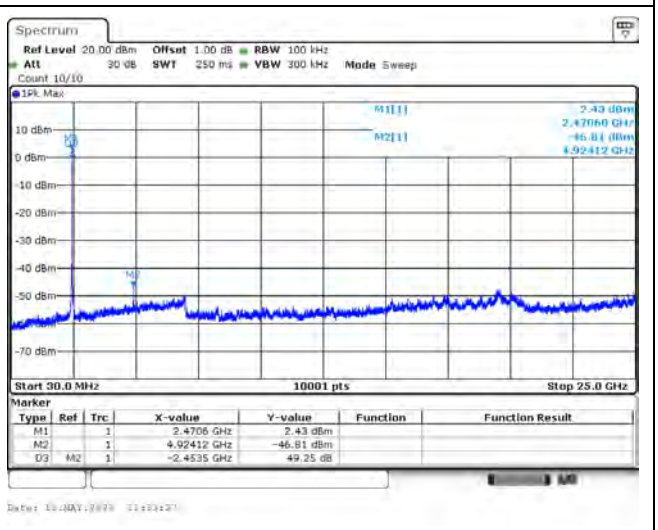
802.11g / 2437 MHz / Ant.0



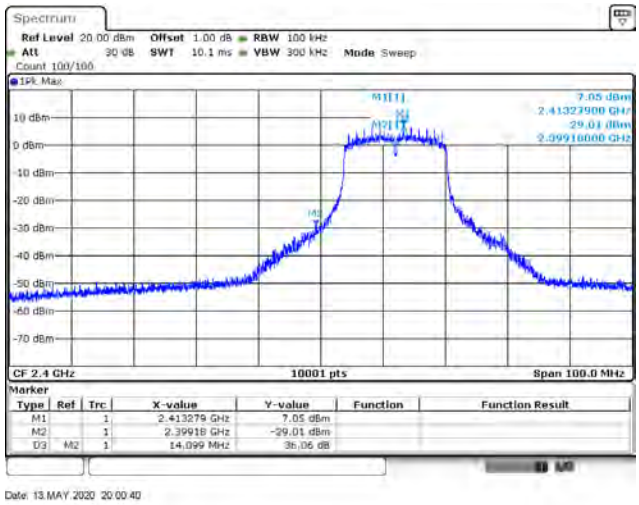


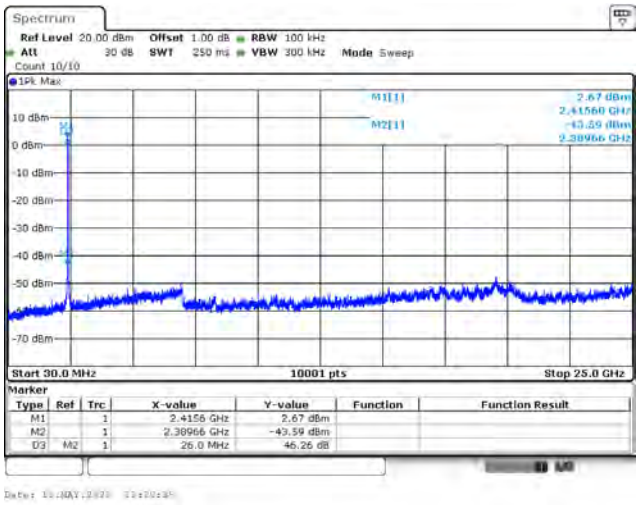
802.11g / 2462 MHz / Ant.0



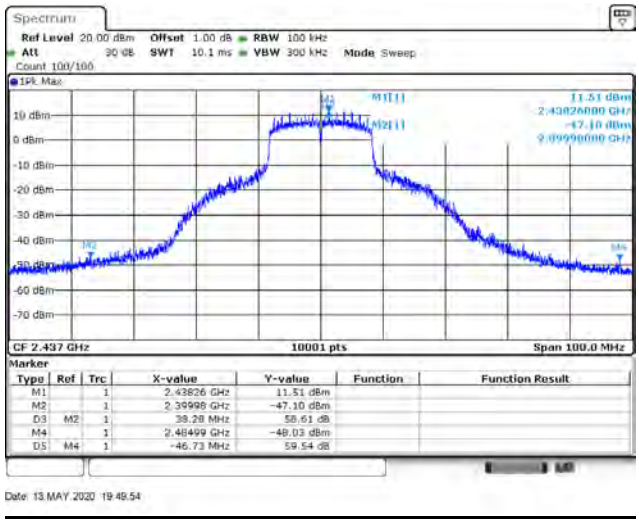


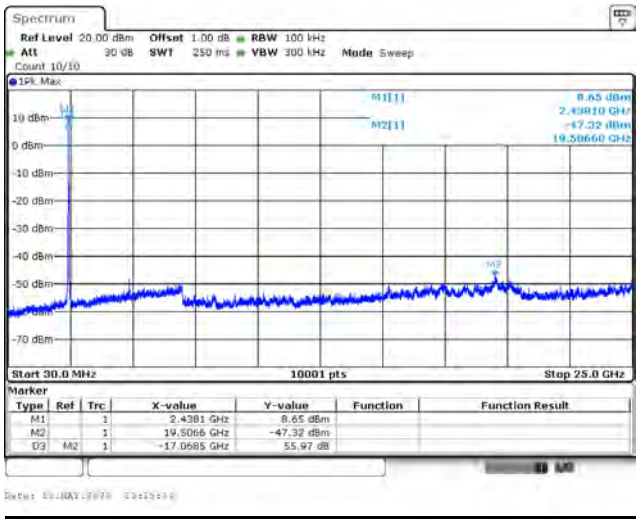
802.11g / 2412 MHz / Ant.1





802.11g / 2437 MHz / Ant.1





802.11g / 2462 MHz / Ant.1