FCC C2PC Test Report

FCC ID	:	**MXF-W1700K**
Equipment	:	**Wi-Fi 7 Router**
Model No.	:	**W1700K**
Brand Name	:	**Q Fiber**
Applicant	:	**Gemtek Technology Co., Ltd.**
Address	:	**No. 15-1 Zhonghua Road, Hsinchu Industrial Park, Hukou, Hsinchu, Taiwan, 30352.**
Standard	:	**47 CFR FCC Part 15.247**
Received Date	:	**Jun. 27, 2023**
Tested Date	:	**Aug. 01 ~ Oct. 30, 2023**

We, International Certification Corporation, would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by:	**Approved by:**
Along Chen / Assistant Manager	**Gary Chang / Manager**

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Release Record

Report No.	Version	Description	Issued Date
FR362704-01AC	Rev. 01	Initial issue	Mar. 18, 2024

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.247(d) 15.209	Unwanted Emissions	[dBuV/m at 3m]: 2390.00MHz 73.55 (Margin -0.45dB) - PK	Pass
15.247(b)(3)	Conducted Output Power	Max Power [dBm]: ***Non-beamforming mode*** 29.50 ***Beamforming mode*** 29.10	Pass
15.247(e)	Power Spectral Density	Meet the requirement of limit	Pass

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

1 General Description

1.1 Information

This report is issued as a Class II Permissive Change. The modification is only concerned with

1. adding absorber.
2. Adding type of material (Stainless Steel) of antenna

Therefore, related test items had been performed and presented in the following sections.

1.1.1 Specification of the Equipment under Test (EUT)

RF General Information					
Frequency Range (MHz)	**IEEE Std. 802.11**	**Ch. Freq. (MHz)**	**Channel Number**	**Transmit Chains (N_{TX})**	**Data Rate / MCS**
2400-2483.5	b	2412-2462	1-11 [11]	4	1-11 Mbps
2400-2483.5	g	2412-2462	1-11 [11]	4	6-54 Mbps
2400-2483.5	n (HT20)	2412-2462	1-11 [11]	4	MCS 0-31
2400-2483.5	n (HT40)	2422-2452	3-9 [7]	4	MCS 0-31
2400-2483.5	ax (HE20)	2412-2462	1-11 [11]	4	MCS 0-11
2400-2483.5	ax (HE40)	2422-2452	3-9 [7]	4	MCS 0-11
2400-2483.5	be (EHT20)	2412-2462	1-11 [11]	4	MCS 0-13
2400-2483.5	be (EHT40)	2422-2452	3-9 [7]	4	MCS 0-13
Note 1: RF output power specifies that Maximum Conducted (Average) Output Power. Note 2: DSSS-DBPSK, DQPSK, CCK modulation OFDM/OFDMA- BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM and 4096QAM modulation. Note 3: 802.11be supports beamforming function.					

1.1.2 Antenna Details

Antenna 1 ~ 4 has 2 types of material. One type is Tin Plate(Original), the other is Stainless Steel(New).
Antenna gain for type of Tin Plate

Ant. No.	Brand	Model	Type	Connector	Gain (dBi)
1	Gemtek	WAPE-269BE_Dual_Ant1	PIFA	UFL	1.13
2	Gemtek	WAPE-269BE_Dual_Ant2	PIFA	UFL	1.49
3	Gemtek	WAPE-269BE_Dual_Ant3	PIFA	UFL	1.67
4	Gemtek	WAPE-269BE_Dual_Ant4	PIFA	UFL	1.69

Antenna gain for type of Stainless Steel

Ant. No.	Brand	Model	Type	Connector	Gain (dBi)
1	Gemtek	WAPE-269BE_Dual_Ant1	PIFA	UFL	2.06
2	Gemtek	WAPE-269BE_Dual_Ant2	PIFA	UFL	1.82
3	Gemtek	WAPE-269BE_Dual_Ant3	PIFA	UFL	1.11
4	Gemtek	WAPE-269BE_Dual_Ant4	PIFA	UFL	3.1

1.1.3 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	12Vdc from AC adapter

1.1.4 Accessories

Accessories		
No.	**Equipment**	**Description**
1	AC adapter	Brand: LUCENT TRANS ELECTRONICS CO., LTD. Model: 1A98-LJHL I/P: 100-120V~1.6A, 50-60Hz O/P: 12V⎓5.0A, 60.0W Power Line: 1.8m non-shielded without core
2	AC adapter	Brand: LEI Model: ML60-4120500-A1 I/P: 1120V~60Hz, 1.5A O/P: 12V⎓5.0A Power Line: 1.8m non-shielded without core
3	RJ45	Brand: Tung Li Line: 1.8m non-shielded without core
4	RJ45	Brand: RAPID CONN Line: 1.8m non-shielded without core
5	Fan	Brand: SUNONWEALTH ELECTRIC MACHINE INDUSTRY CO LTD Model: MF70151V1-1C010-S99
6	Fan	Brand: Yingfan Model: DB701512HMS4B01F25

1.1.5 Channel List

Frequency band (MHz)		2400~2483.5	
802.11 b / g / n HT20 / ax HE20 / be EHT20		802.11n HT40 / ax HE40 / be EHT40	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
1	2412	3	2422
2	2417	4	2427
3	2422	5	2432
4	2427	6	2437
5	2432	7	2442
6	2437	8	2447
7	2442	9	2452
8	2447	---	---
9	2452	---	---
10	2457	---	---
11	2462	---	---

1.1.6 Test Tool and Duty Cycle

Test Tool	QATool, V0.0.2.99		
Duty Cycle and Duty Factor	Mode	Duty Cycle (%)	Duty Factor (dB)
	11b	99.43%	0.02
	11g	99.31%	0.03
	be EHT20-OFDMA	99.21%	0.03
	be EHT40-OFDMA	96.84%	0.14

1.1.7 Power Index of Test Tool

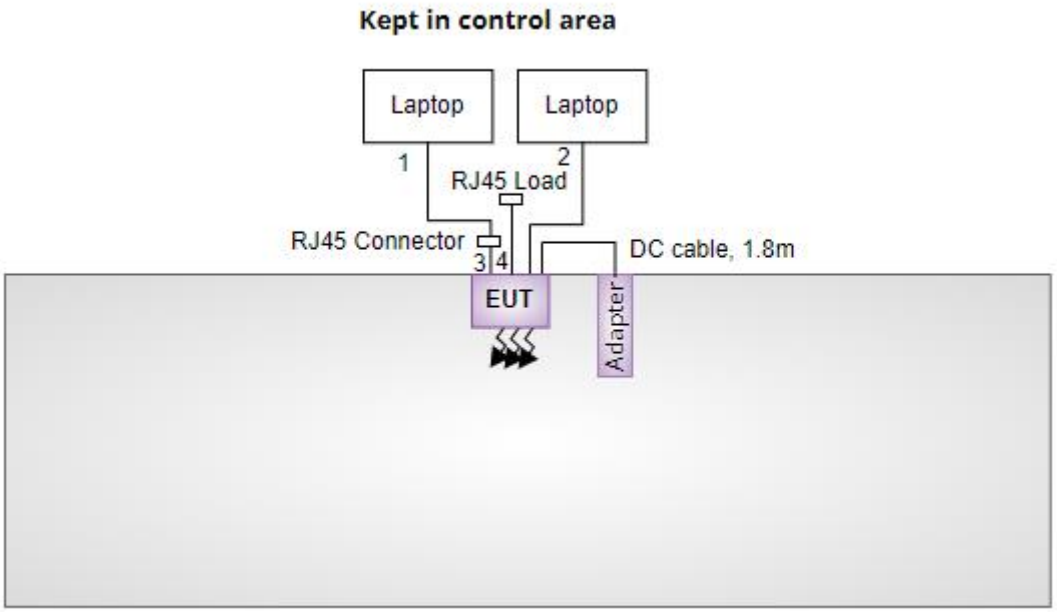
Modulation Mode	Test Frequency (MHz)	Power Index
11b	2412	23.5
11b	2437	23.5
11b	2462	23.5
11g	2412	20.5
11g	2437	23.5
11g	2462	20
be EHT20-OFDMA	2412	19.5
be EHT20-OFDMA	2437	23.5
be EHT20-OFDMA	2462	19.5
be EHT40-OFDMA	2422	18
be EHT40-OFDMA	2437	21
be EHT40-OFDMA	2452	18.5

1.2 Local Support Equipment List

Support Equipment List					
No.	**Equipment**	**Brand**	**Model**	**FCC ID**	**Remarks**
1	RJ45 Load	ICC	--	--	---
2	RJ45 Connector	ICC	RJ45 Connector	--	---
3	Laptop	DELL	Latitude 5400	DoC	---
4	Laptop	DELL	Latitude E5470	DoC	---

1.3 Test Setup Chart

Test Setup Diagram



No.	Signal cable / Length (m)
1-2	RJ45, 10m non-shielded.
3	RJ45, 1.8m non-shielded.
4	RJ45, 1.3m(x2) non-shielded with load.

1.4 The Equipment List

Test Item	Radiated Emission				
Test Site	966 chamber1 / (03CH01-WS)				
Tested Date	Oct. 26 ~ Oct. 30, 2023				
Instrument	**Brand**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Receiver	R&S	ESR3	101657	Mar. 03, 2023	Mar. 02, 2024
Spectrum Analyzer	R&S	FSV40	101498	Nov. 21, 2022	Nov. 20, 2023
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 01, 2022	Oct. 31, 2023
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Jul. 31, 2023	Jul. 30, 2024
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1096	Nov. 25, 2022	Nov. 24, 2023
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170508	Dec. 30, 2022	Dec. 29, 2023
Preamplifier	EMC	EMC02325	980225	Jun. 28, 2023	Jun. 27, 2024
Preamplifier	EMC	EMC118A45SE	980898	Jul. 14, 2023	Jul. 13, 2024
Preamplifier	EMC	EMC184045SE	980903	Jul. 17, 2023	Jul. 16, 2024
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Oct. 03, 2023	Oct. 02, 2024
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-001	Oct. 03, 2023	Oct. 02, 2024
LF cable 11M	EMC	EMCCFD400-NW-NW-11000	200801	Oct. 03, 2023	Oct. 02, 2024
LF cable 1M	EMC	EMCCFD400-NM-NM-1000	160502	Oct. 03, 2023	Oct. 02, 2024
RF Cable	EMC	EMC104-35M-35M-8000	210920	Oct. 03, 2023	Oct. 02, 2024
RF Cable	EMC	EMC104-35M-35M-3000	210922	Oct. 03, 2023	Oct. 02, 2024
Attenuator	Pasternack	PE7005-10	10-1	Oct. 05, 2023	Oct. 04, 2024
HIGHPASS FILTER 3.1-18G	WHK	WHK3.1/18G-10SS	39	Oct. 05, 2023	Oct. 04, 2024
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Tested Date	Aug. 01 ~ Aug. 11, 2023				
Instrument	**Brand**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV40	101910	Apr. 14, 2023	Apr. 13, 2024
Power Meter	Anritsu	ML2495A	1241002	Nov. 23, 2022	Nov. 22, 2023
Power Sensor	Anritsu	MA2411B	1207366	Nov. 23, 2022	Nov. 22, 2023
Attenuator	Pasternack	PE7005-10	10-2	Oct. 06, 2022	Oct. 05, 2023
Measurement Software	Sporton	SENSE-15247_DTS	V5.11	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

1.5 Test Standards

47 CFR FCC Part 15.247
ANSI C63.10-2013

1.6 Reference Guidance

FCC KDB 558074 D01 15.247 Meas Guidance v05r02
FCC KDB 662911 D01 Multiple Transmitter Output v02r01

1.7 Deviation from Test Standard and Measurement Procedure

None

1.8 Measurement Uncertainty

The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)).

Measurement Uncertainty	
Parameters	**Uncertainty**
Bandwidth	±34.130 Hz
Conducted power	±0.808 dB
Power density	±0.583 dB
Conducted emission	±2.715 dB
AC conducted emission	±2.92 dB
Unwanted Emission ≤ 1GHz	±3.41 dB
Unwanted Emission > 1GHz	±4.59 dB

2 Test Configuration

2.1 Testing Facility

Test Laboratory	International Certification Corporation
Test Site	03CH01-WS, TH01-WS
Address of Test Site	No.3-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

- FCC Designation No.: TW2732
- FCC site registration No.: 181692
- ISED#: 10807A
- CAB identifier: TW2732

2.2 The Worst Test Modes and Channel Details

Test item	Modulation Mode	Test Frequency (MHz)	Data Rate	Test Configuration
Non-beamforming mode				
Unwanted Emissions ≤ 1GHz	be EHT20-OFDMA	2437	MCS 0	---
Unwanted Emissions >1GHz Conducted Output Power Power spectral density	11b 11g be EHT20-OFDMA be EHT40-OFDMA	2412 / 2437 / 2462 2412 / 2437 / 2462 2412 / 2437 / 2462 2422 / 2437 / 2452	1 Mbps 6 Mbps MCS 0 MCS 0	---
Beamforming mode				
Conducted Output Power	be EHT20-OFDMA be EHT40-OFDMA	2412 / 2437 / 2462 2422 / 2437 / 2452	MCS 0 MCS 0	---

NOTE:

1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The **Z-plane** results were found as the worst case and were shown in this report.
2. Two adapters (LUCENT TRANS ELECTRONICS CO., LTD and LEI) had been covered during the pretest, and found that LUCENT TRANS ELECTRONICS CO., LTD was the worst case and was selected for final test.
3. Two RJ45 cable (Tung Li and RAPID CONN) had been covered during the pretest, and found that **Tung Li** was the worst case and was selected for final test.
4. Two Fan (SUNONWEALTH ELECTRIC MACHINE INDUSTRY CO LTD and Yingfan) had been covered during the pretest, and found that **Yingfan** was the worst case and was selected for final test.
5. Non-beamforming and beamforming mode had been covered during the pretest. The worst mode is Non-beamforming thus Non-beamforming is tested for all test items.

3 Transmitter Test Results

3.1 Conducted Output Power

3.1.1 Limit of Conducted Output Power

Conducted power shall not exceed 1Watt.

Antenna gain <= 6dBi, no any corresponding reduction is in output power limit.

Antenna gain > 6dBi

Non Fixed, point to point operations.
The conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dB

Fixed, point to point operations
Systems operating in the 2400–2483.5 MHz band that are used exclusively for fixed, point-to-point Operations, maximum peak output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

3.1.2 Test Procedures

A broadband RF power meter is used for output power measurement. The video bandwidth of power meter is greater than DTS bandwidth of EUT. If duty cycle of test signal is not 100 %, trigger and gating function of power meter will be enabled to capture transmission burst for measuring output power.

3.1.3 Test Setup

3.1.4 Test Results

Ambient Condition	23-24°C / 66-67%	**Tested By**	Roger Lu

Refer to Appendix A.

3.2 Power Spectral Density

3.2.1 Limit of Power Spectral Density

Power spectral density shall not be greater than 8 dBm in any 3 kHz band.

3.2.2 Test Procedures

Peak PSD

1. Set the RBW = 3 kHz, VBW = 10 kHz.
2. Detector = Peak, Sweep time = auto couple.
3. Trace mode = max hold, allow trace to fully stabilize.
4. Use the peak marker function to determine the maximum amplitude level.

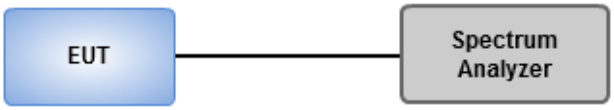
Average PSD, duty cycle ≥ 98%

1. Set the RBW = 3 kHz, VBW = 10 kHz.
2. Detector = RMS, Sweep time = auto couple.
3. Sweep time = auto couple.
4. Employ trace averaging (RMS) mode over a minimum of 100 traces.
5. Use the peak marker function to determine the maximum amplitude level.

Average PSD, duty cycle < 98%

1 Set the RBW = 3 kHz, VBW = 10 kHz
2 Detector = RMS, Sweep time = auto couple.
3 Sweep time = auto couple.
4 Employ trace averaging (RMS) mode over a minimum of 100 traces.
5 Use the peak marker function to determine the maximum amplitude level.
6 Add 10 log (1/x), where x is the duty cycle.

3.2.3 Test Setup



3.2.4 Test Results

Ambient Condition	23-24°C / 66-67%	**Tested By**	Roger Lu

Refer to Appendix B.

3.3 Unwanted Emissions into Restricted Frequency Bands

3.3.1 Limit of Unwanted Emissions into Restricted Frequency Bands

Restricted Band Emissions Limit			
Frequency Range (MHz)	**Field Strength (uV/m)**	**Field Strength (dBuV/m)**	**Measure Distance (m)**
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1:
Qusai-Peak value is measured for frequency below 1GHz except for 9–90 kHz, 110–490 kHz frequency band. Peak and average value are measured for frequency above 1GHz. The limit on average radio frequency emission is as above table. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit
Note 2:
Measurements may be performed at a distance other than what is specified provided. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor as below, Frequency at or above 30 MHz: 20 dB/decade Frequency below 30 MHz: 40 dB/decade.

3.3.2 Test Procedures

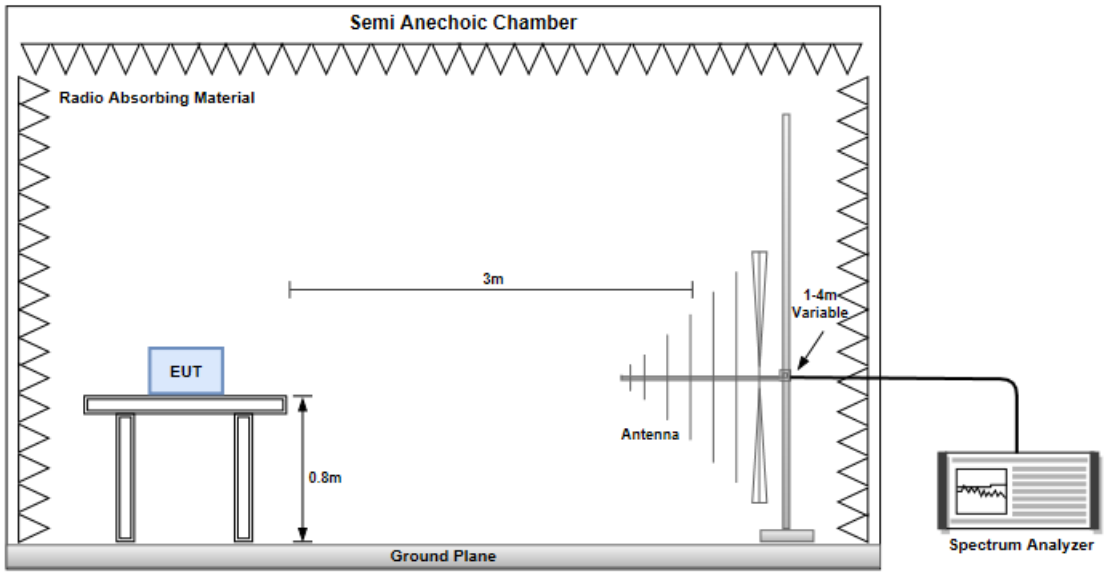
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. The EUT is placed at test table. For emissions testing at or below 1 GHz, the table height is 80 cm above the reference ground plane. For emission measurements above 1 GHz, the table height is 1.5 m
2. Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m ~ 4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3 m.
3. This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

Note:

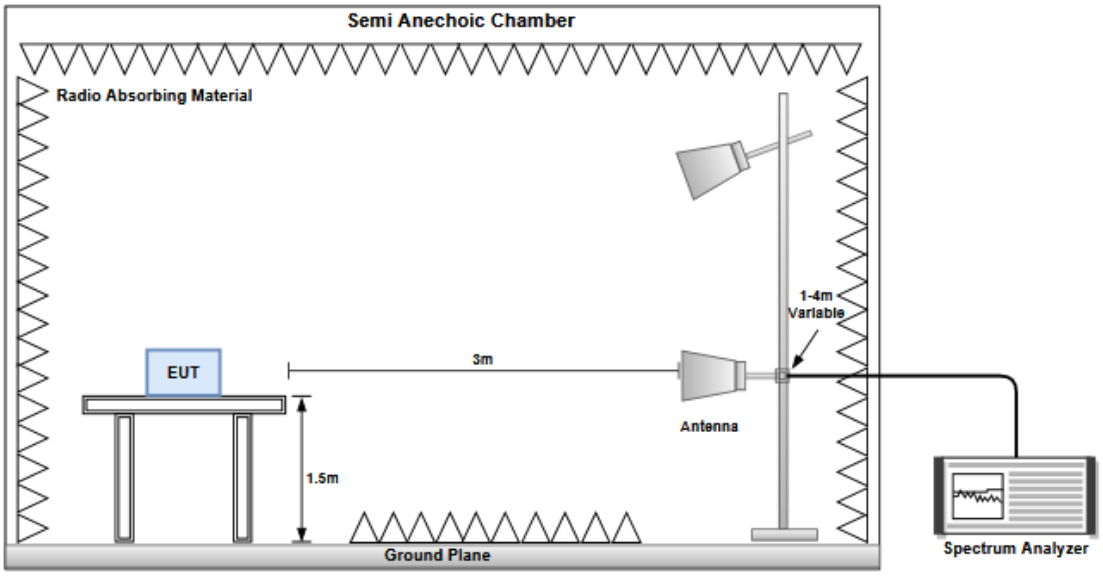
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above 1GHz.

3.3.3 Test Setup

Radiated Emissions below 1 GHz



Radiated Emissions above 1 GHz



3.3.4 Test Results

Refer to Appendix C.

4 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corporation (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website http://www.icertifi.com.tw.

Linkou

Tel: 886-2-2601-1640

No.30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City, Taiwan (R.O.C.)

Kwei Shan

Tel: 886-3-271-8666

No.3-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

No.2-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

Kwei Shan Site II

Tel: 886-3-271-8640

No.14-1, Lane 19, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

If you have any suggestion, please feel free to contact us as below information.

Tel: 886-3-271-8666
Fax: 886-3-318-0345
Email: ICC_Service@icertifi.com.tw

==END==

Non-beamforming mode

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_4TX	29.01	0.79616
802.11g_Nss1,(6Mbps)_4TX	29.38	0.86696
802.11be EHT20_Nss1,(MCS0)_4TX-OFDMA	29.50	0.89125
802.11be EHT40_Nss1,(MCS0)_4TX-OFDMA	27.36	0.54450

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11b_Nss1,(1Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	3.10	22.92	22.82	23.04	23.15	29.00	30.00	32.10	36.00
2437MHz	Pass	3.10	23.01	22.85	23.05	23.03	29.01	30.00	32.11	36.00
2462MHz	Pass	3.10	22.93	22.98	23.03	23.01	29.01	30.00	32.11	36.00
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	3.10	20.85	20.46	20.81	20.76	26.74	30.00	29.84	36.00
2437MHz	Pass	3.10	23.42	23.25	23.38	23.37	29.38	30.00	32.48	36.00
2462MHz	Pass	3.10	20.13	19.92	20.24	20.16	26.13	30.00	29.23	36.00
802.11be EHT20_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	3.10	19.91	19.82	20.03	20.01	25.96	30.00	29.06	36.00
2437MHz	Pass	3.10	23.43	23.38	23.56	23.53	29.50	30.00	32.60	36.00
2462MHz	Pass	3.10	19.82	19.56	19.83	19.82	25.78	30.00	28.88	36.00
802.11be EHT40_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	3.10	18.25	18.22	18.51	18.46	24.38	30.00	27.48	36.00
2437MHz	Pass	3.10	21.39	21.13	21.49	21.33	27.36	30.00	30.46	36.00
2452MHz	Pass	3.10	18.71	18.55	18.92	18.87	24.79	30.00	27.89	36.00

DG = Directional Gain; Port X = Port X output power

Note : Conducted average output power is for reference

Beamforming mode

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11be EHT20-BF_Nss1,(MCS0)_4TX-OFDMA	29.10	0.81283
802.11be EHT40-BF_Nss1,(MCS0)_4TX-OFDMA	27.19	0.52360

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11be EHT20-BF_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	5.52	19.55	19.53	19.37	19.95	25.63	30.00	31.15	36.00
2437MHz	Pass	5.52	23.06	22.86	22.97	23.42	29.10	30.00	34.62	36.00
2462MHz	Pass	5.52	19.13	19.02	19.25	19.73	25.31	30.00	30.83	36.00
802.11be EHT40-BF_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	5.52	18.34	18.27	18.14	18.03	24.22	30.00	29.74	36.00
2437MHz	Pass	5.52	21.07	21.12	21.11	21.39	27.19	30.00	32.71	36.00
2452MHz	Pass	5.52	18.26	18.17	18.42	18.65	24.40	30.00	29.92	36.00

DG = Directional Gain ; Port X = Port X output power

DG Gain is measured. Please refer to antenna test report.

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_4TX	0.17
802.11g_Nss1,(6Mbps)_4TX	-3.09
802.11be EHT20_Nss1,(MCS0)_4TX-OFDMA	-2.63
802.11be EHT40_Nss1,(MCS0)_4TX-OFDMA	-5.55

RBW = 3kHz;

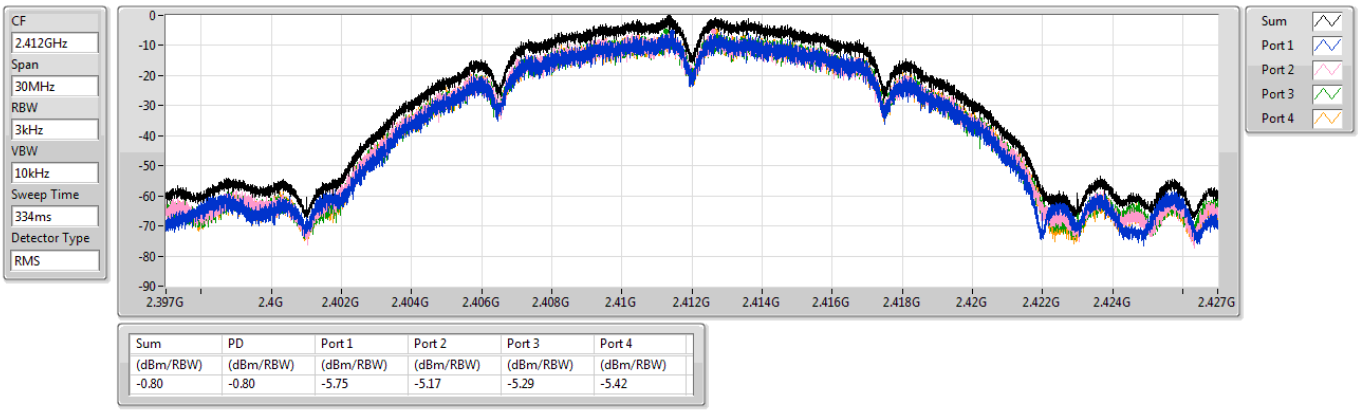
Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	5.52	-5.75	-5.17	-5.29	-5.42	-0.80	8.00
2437MHz	Pass	5.52	-4.43	-5.02	-5.04	-5.31	-0.43	8.00
2462MHz	Pass	5.52	-4.29	-5.59	-4.79	-5.14	0.17	8.00
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	5.52	-10.41	-11.09	-11.19	-10.47	-6.16	8.00
2437MHz	Pass	5.52	-8.22	-7.78	-7.38	-8.35	-3.09	8.00
2462MHz	Pass	5.52	-12.12	-10.91	-11.90	-11.45	-6.67	8.00
802.11be EHT20_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-
2412MHz	Pass	5.52	-12.34	-12.01	-11.92	-11.91	-6.58	8.00
2437MHz	Pass	5.52	-7.95	-8.37	-8.13	-7.65	-2.63	8.00
2462MHz	Pass	5.52	-11.34	-11.33	-11.81	-11.18	-6.17	8.00
802.11be EHT40_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-
2422MHz	Pass	5.52	-15.22	-14.71	-14.69	-14.23	-9.12	8.00
2437MHz	Pass	5.52	-11.78	-11.14	-11.25	-11.34	-5.55	8.00
2452MHz	Pass	5.52	-14.90	-14.45	-14.33	-14.04	-8.74	8.00

DG = Directional Gain; RBW = 3kHz;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;
DG Gain is measured. Please refer to antenna test report.

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_4TX **PSD**

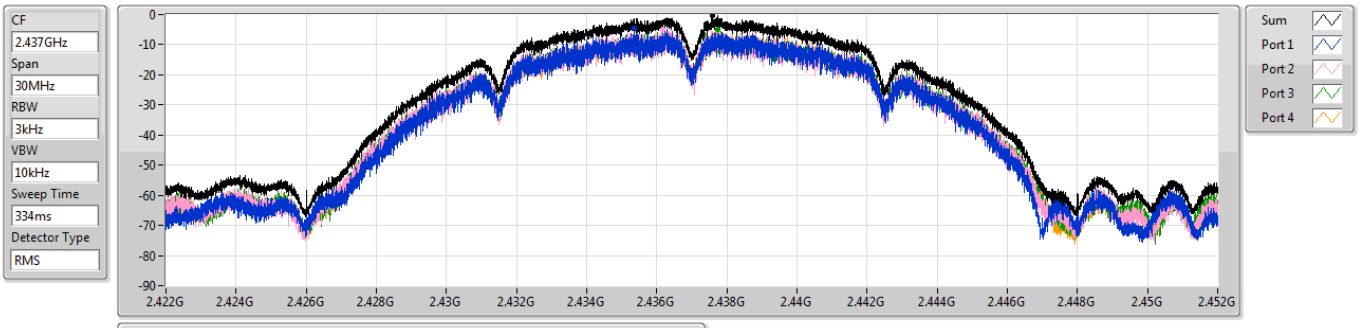
2412MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.80	-0.80	-5.75	-5.17	-5.29	-5.42

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_4TX **PSD**

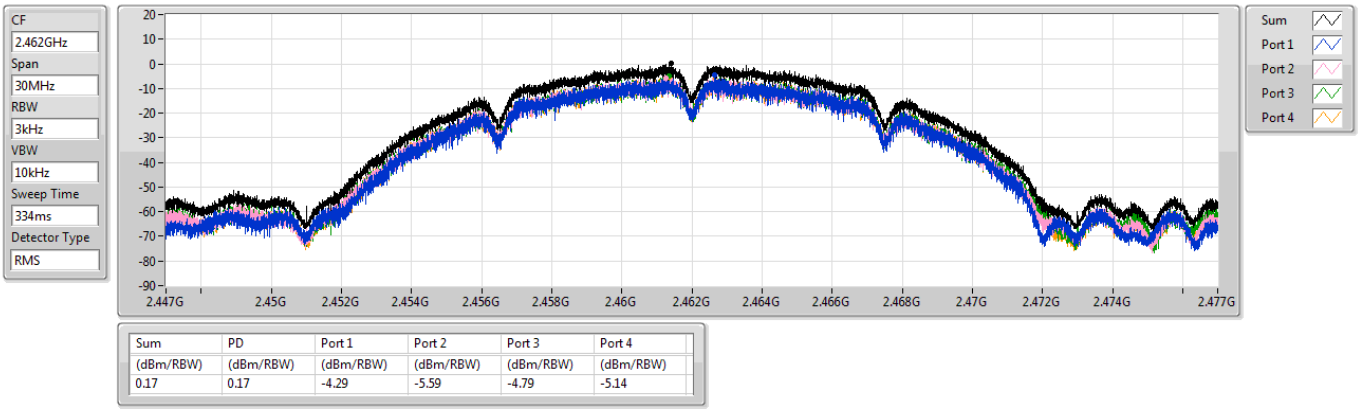
2437MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.43	-0.43	-4.43	-5.02	-5.04	-5.31

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_4TX **PSD**

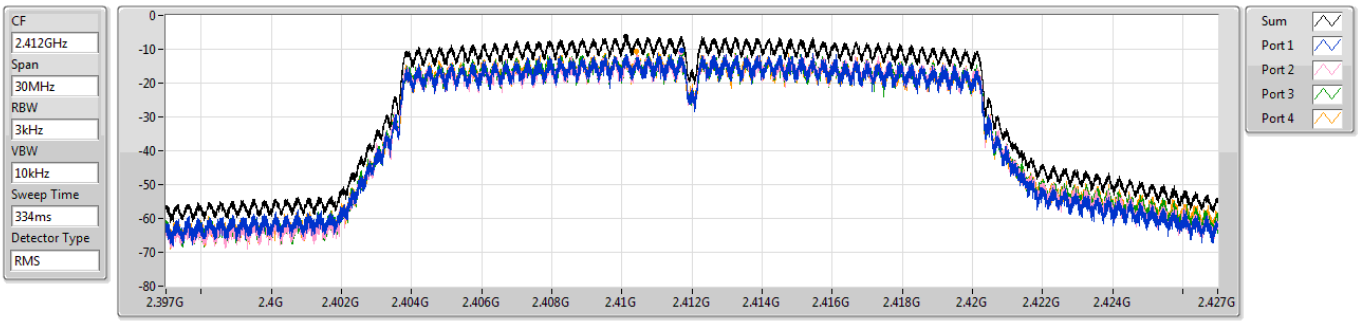
2462MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.17	0.17	-4.29	-5.59	-4.79	-5.14

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_4TX **PSD**

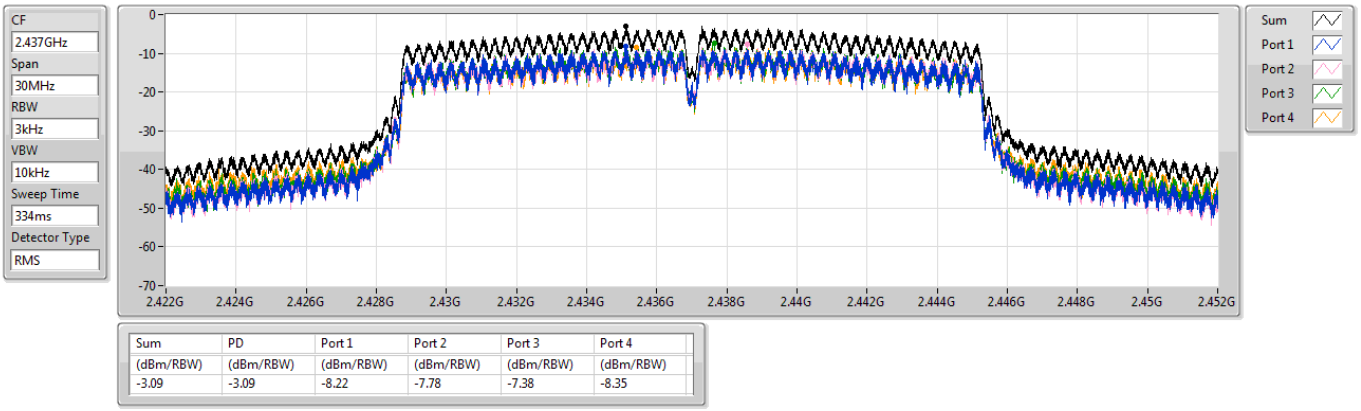
2412MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.16	-6.16	-10.41	-11.09	-11.19	-10.47

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_4TX **PSD**

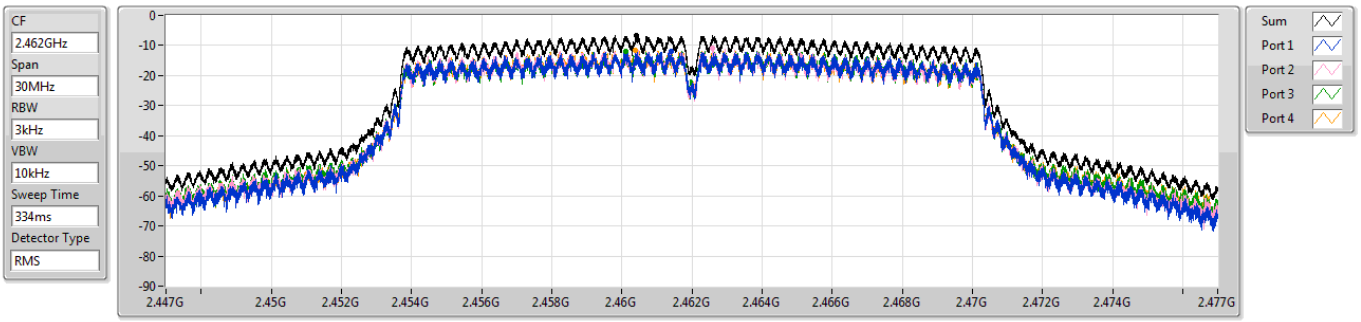
2437MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.09	-3.09	-8.22	-7.78	-7.38	-8.35

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_4TX **PSD**

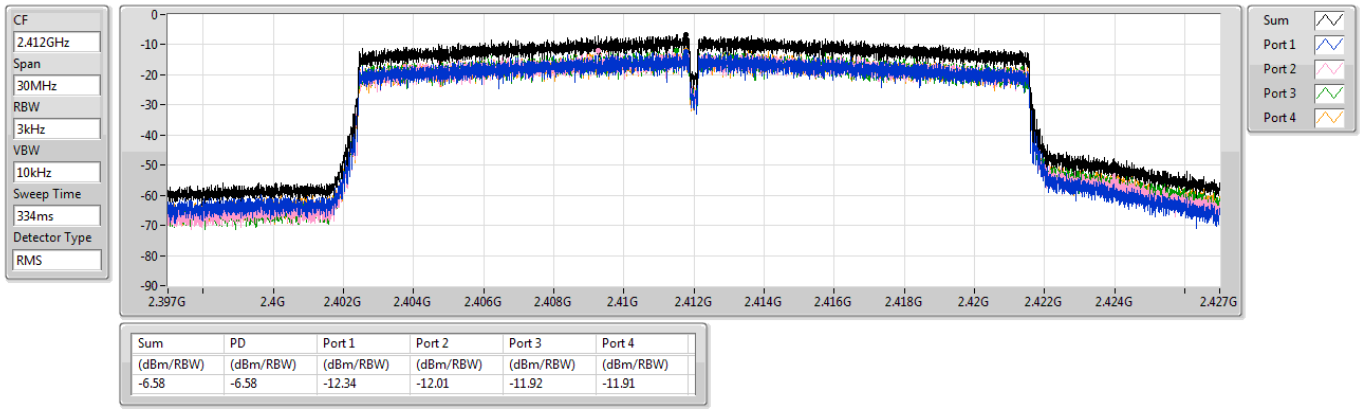
2462MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.67	-6.67	-12.12	-10.91	-11.90	-11.45

2.4-2.4835GHz_802.11be EHT20_Nss1,(MCS0)_4TX **PSD**

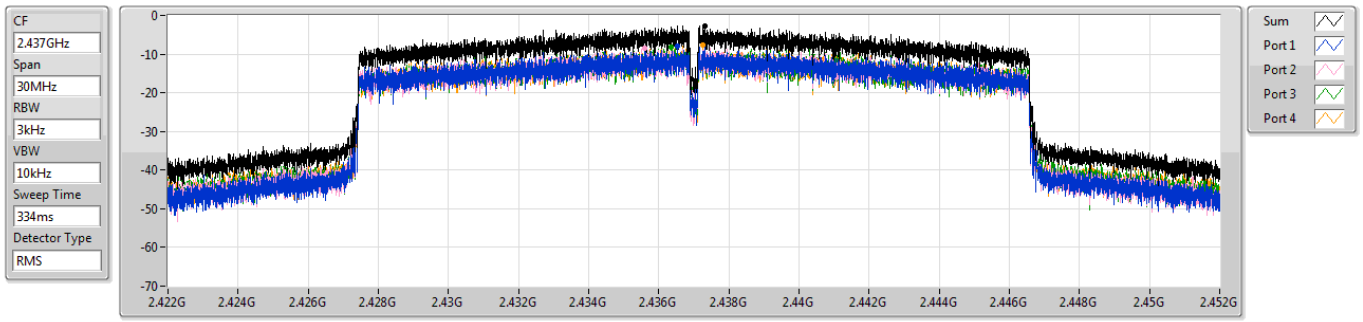
2412MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.58	-6.58	-12.34	-12.01	-11.92	-11.91

2.4-2.4835GHz_802.11be EHT20_Nss1,(MCS0)_4TX **PSD**

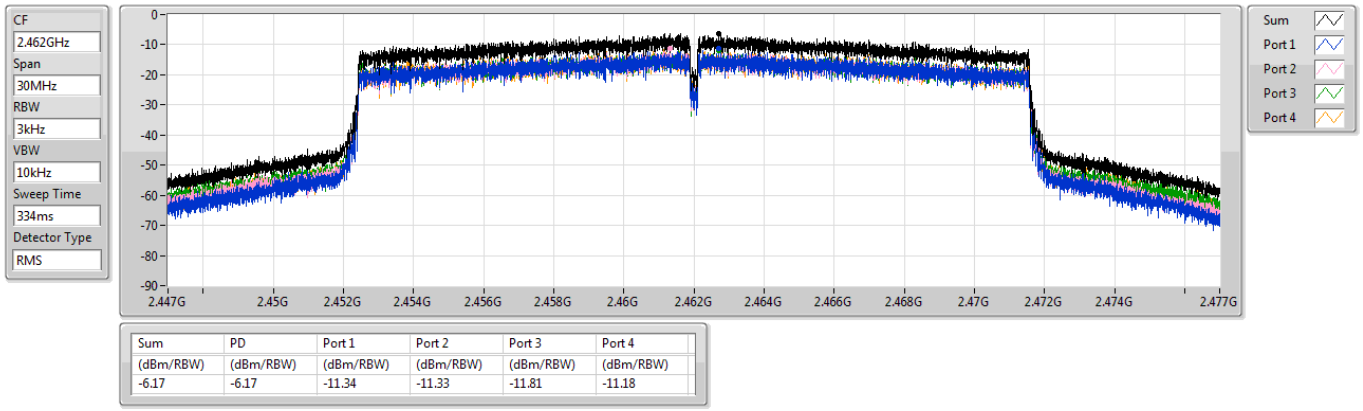
2437MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.63	-2.63	-7.95	-8.37	-8.13	-7.65

2.4-2.4835GHz_802.11be EHT20_Nss1,(MCS0)_4TX **PSD**

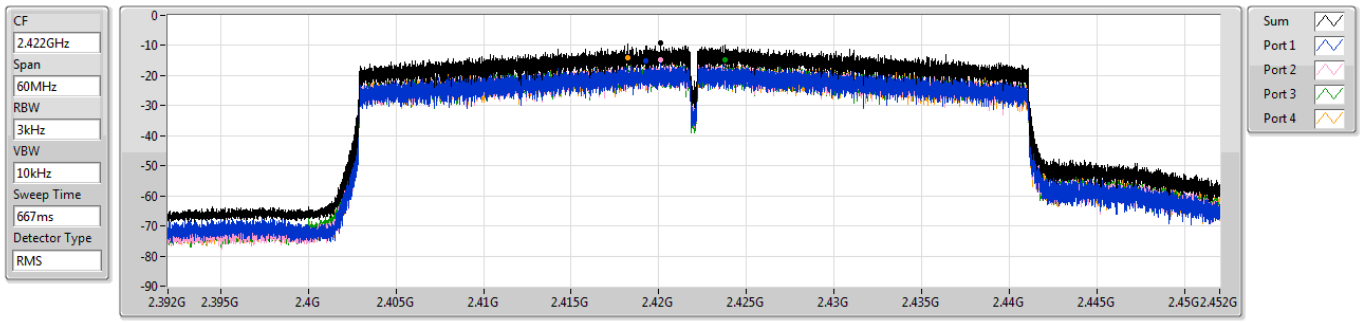
2462MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.17	-6.17	-11.34	-11.33	-11.81	-11.18

2.4-2.4835GHz_802.11be EHT40_Nss1,(MCS0)_4TX **PSD**

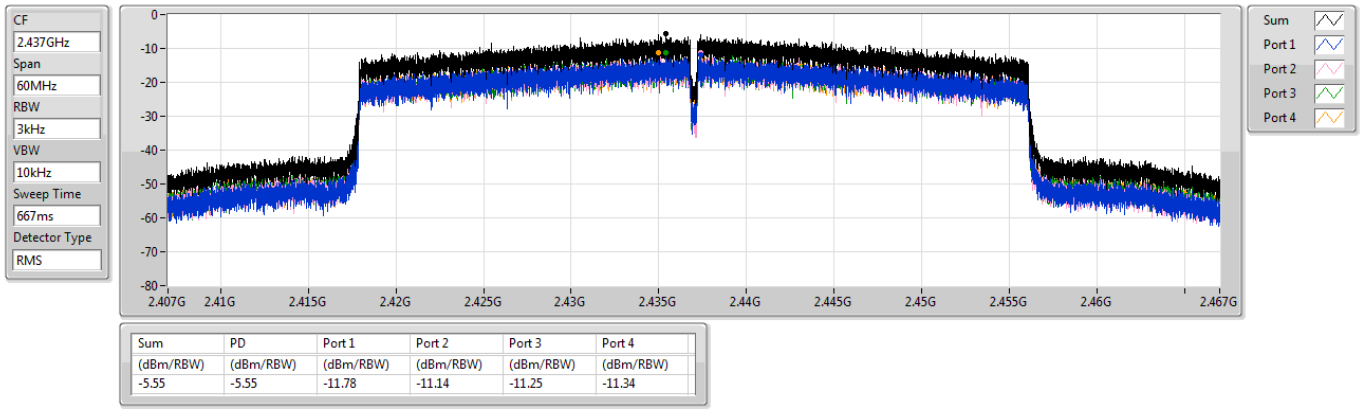
2422MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.12	-9.12	-15.22	-14.71	-14.69	-14.23

2.4-2.4835GHz_802.11be EHT40_Nss1,(MCS0)_4TX **PSD**

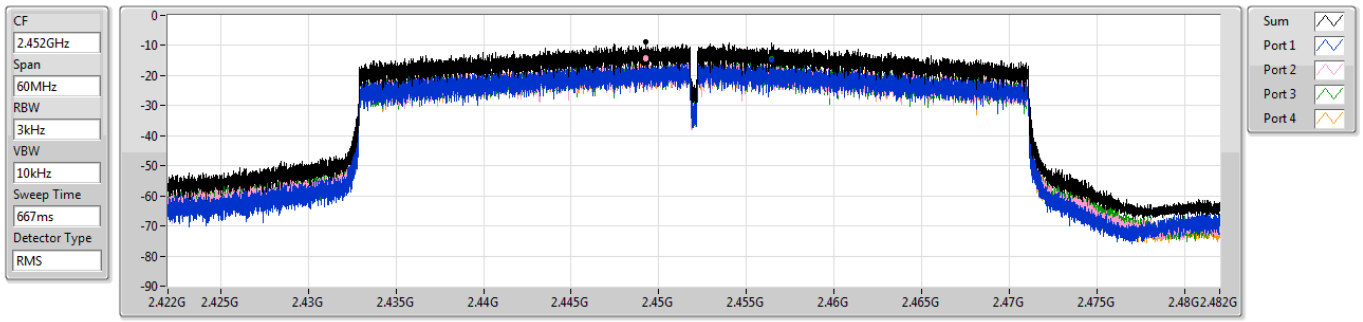
2437MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.55	-5.55	-11.78	-11.14	-11.25	-11.34

2.4-2.4835GHz_802.11be EHT40_Nss1,(MCS0)_4TX **PSD**

2452MHz

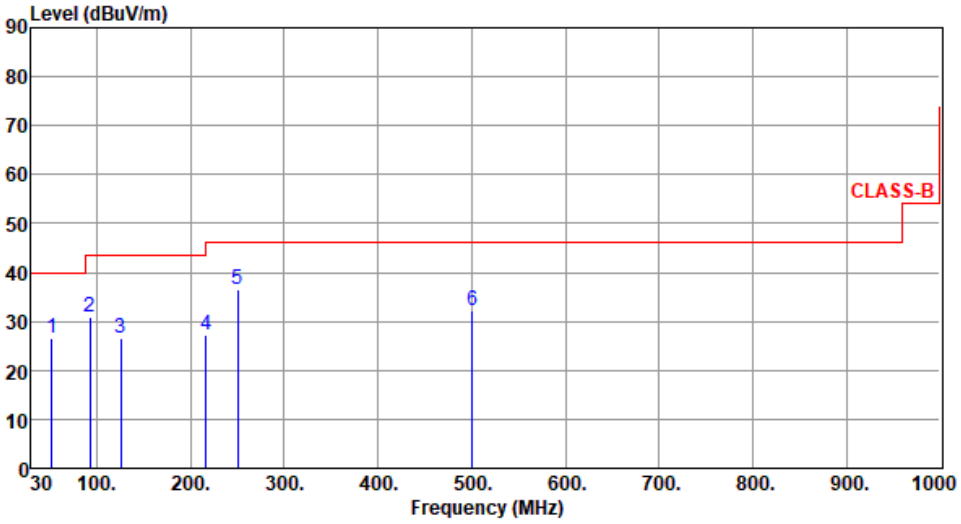


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.74	-8.74	-14.90	-14.45	-14.33	-14.04

Unwanted Emissions (Below 1GHz)

Modulation	be EHT20-OFDMA	**Test Freq. (MHz)**	2437
Polarization	Horizontal		

Test By :Paul Lin Temperature(℃):25 Humidity(%):64

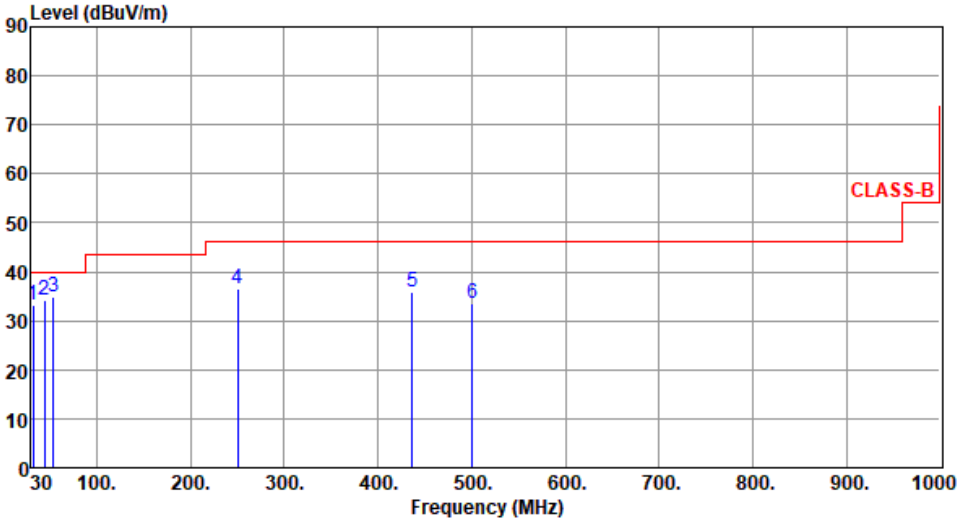


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	52.28	26.41	40.00	-13.59	34.35	-7.94	Peak	---	---
2	92.48	31.05	43.50	-12.45	45.24	-14.19	Peak	---	---
3	125.35	26.71	43.50	-16.79	37.23	-10.52	Peak	---	---
4	216.85	27.35	46.00	-18.65	39.27	-11.92	Peak	---	---
5	250.18	36.57	46.00	-9.43	46.52	-9.95	Peak	---	---
6	500.37	32.37	46.00	-13.63	35.43	-3.06	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

Modulation	be EHT20-OFDMA	**Test Freq. (MHz)**	2437
Polarization	Vertical		

Test By :Paul Lin Temperature(℃):25 Humidity(%):64



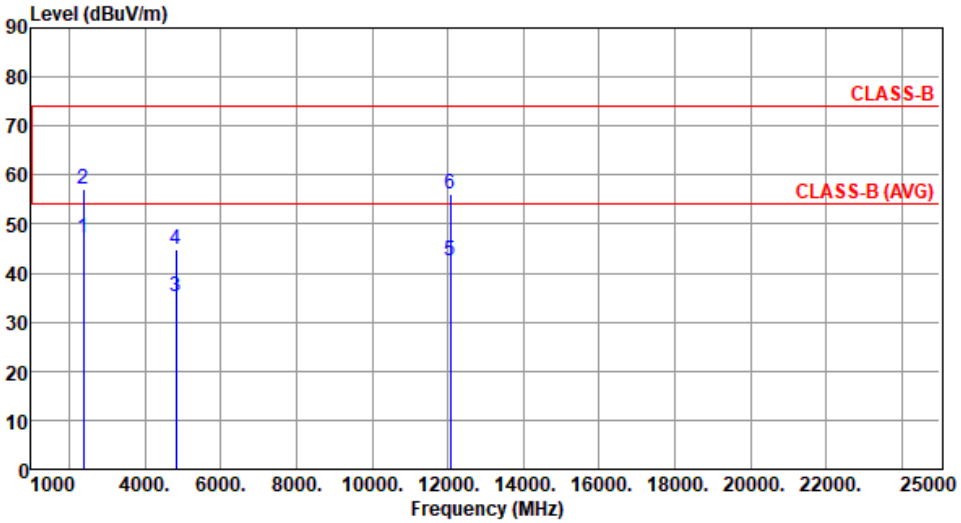
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	32.11	33.26	40.00	-6.74	42.95	-9.69	Peak	---	---
2	44.51	34.05	40.00	-5.95	42.35	-8.30	Peak	---	---
3	54.15	35.01	40.00	-4.99	43.08	-8.07	Peak	---	---
4	250.58	36.44	46.00	-9.56	46.38	-9.94	Peak	---	---
5	436.71	35.91	46.00	-10.09	40.23	-4.32	Peak	---	---
6	500.29	33.47	46.00	-12.53	36.53	-3.06	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

Unwanted Emission (Above 1GHz) for 11b

Modulation	11b	Test Freq. (MHz)	2412
Polarization	Horizontal		

Test By :Paul Lin Temperature(℃):24 Humidity(%):62

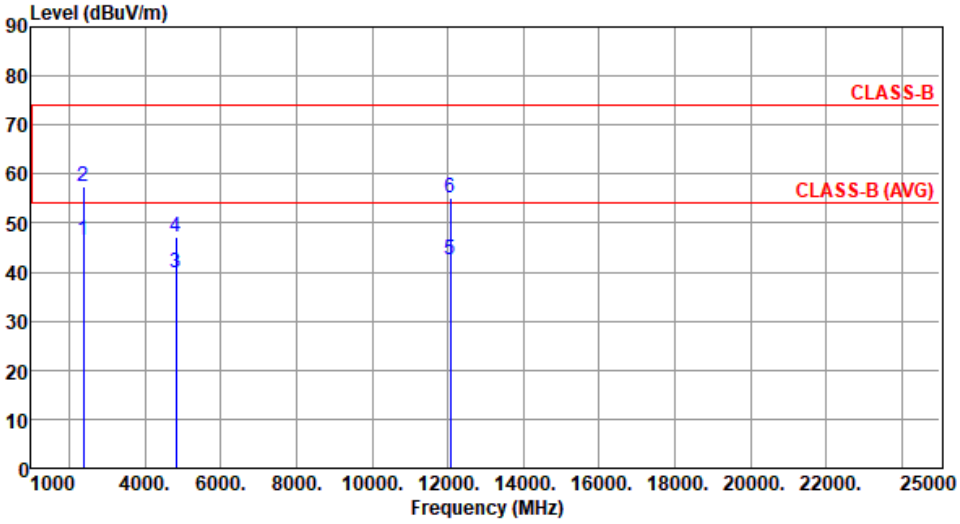


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	47.15	54.00	-6.85	51.41	-4.26	Average	175	68
2	2390.00	57.21	74.00	-16.79	61.47	-4.26	Peak	175	68
3	4824.00	35.23	54.00	-18.77	35.49	-0.26	Average	100	1
4	4824.00	44.99	74.00	-29.01	45.25	-0.26	Peak	100	1
5	12060.00	42.42	54.00	-11.58	35.68	6.74	Average	100	59
6	12060.00	56.15	74.00	-17.85	49.41	6.74	Peak	100	59

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11b	Test Freq. (MHz)	2412
Polarization	Vertical		

Test By :Paul Lin Temperature(℃):24 Humidity(%):62

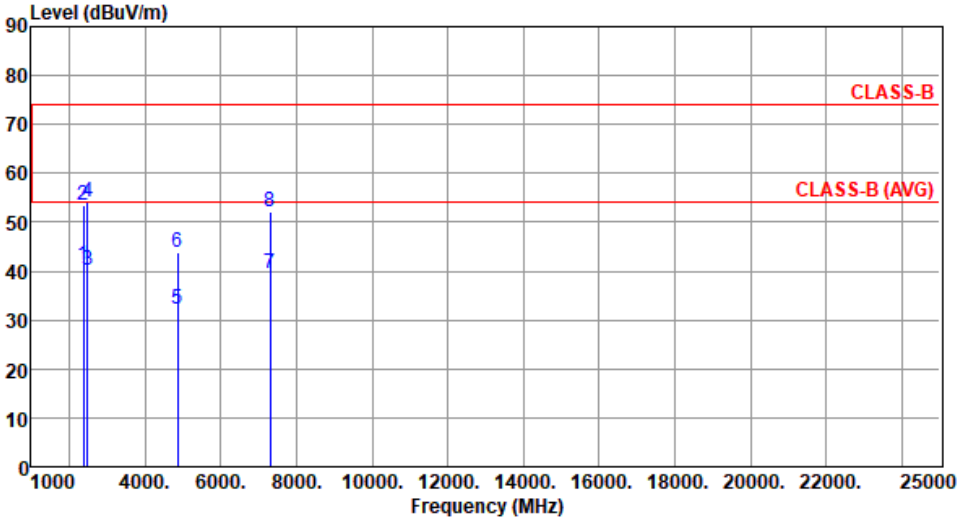


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	46.58	54.00	-7.42	50.84	-4.26	Average	113	29
2	2390.00	57.58	74.00	-16.42	61.84	-4.26	Peak	113	29
3	4824.00	40.01	54.00	-13.99	40.27	-0.26	Average	100	13
4	4824.00	47.22	74.00	-26.78	47.48	-0.26	Peak	100	13
5	12060.00	42.57	54.00	-11.43	35.83	6.74	Average	100	46
6	12060.00	55.18	74.00	-18.82	48.44	6.74	Peak	100	46

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11b	**Test Freq. (MHz)**	2437
Polarization	Horizontal		

Test By :Paul Lin Temperature(℃):24 Humidity(%):62

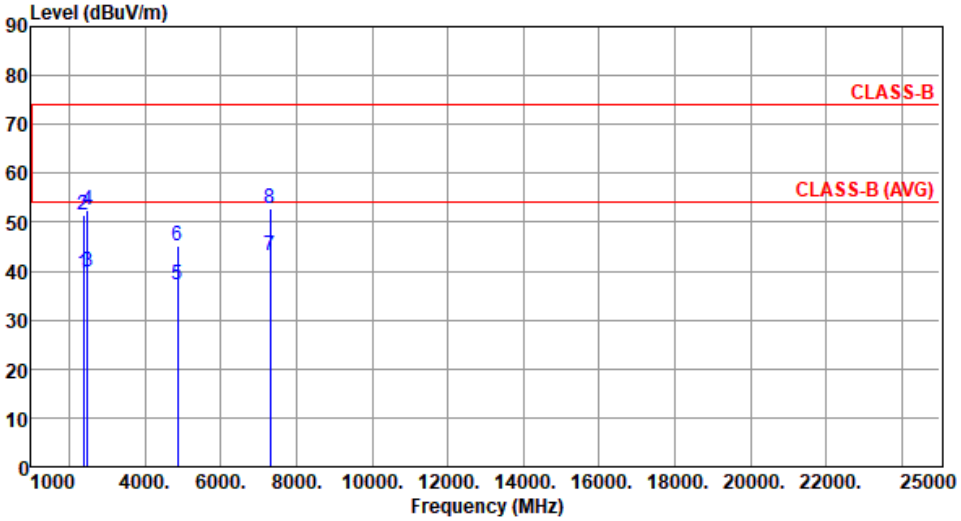


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	41.08	54.00	-12.92	45.34	-4.26	Average	100	139
2	2390.00	53.55	74.00	-20.45	57.81	-4.26	Peak	100	139
3	2483.50	40.21	54.00	-13.79	44.66	-4.45	Average	100	139
4	2483.50	54.23	74.00	-19.77	58.68	-4.45	Peak	100	139
5	4874.00	32.22	54.00	-21.78	32.47	-0.25	Average	100	127
6	4874.00	43.68	74.00	-30.32	43.93	-0.25	Peak	100	127
7	7311.00	39.41	54.00	-14.59	33.95	5.46	Average	100	34
8	7311.00	52.04	74.00	-21.96	46.58	5.46	Peak	100	34

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11b	Test Freq. (MHz)	2437
Polarization	Vertical		

Test By :Paul Lin Temperature(℃):24 Humidity(%):62

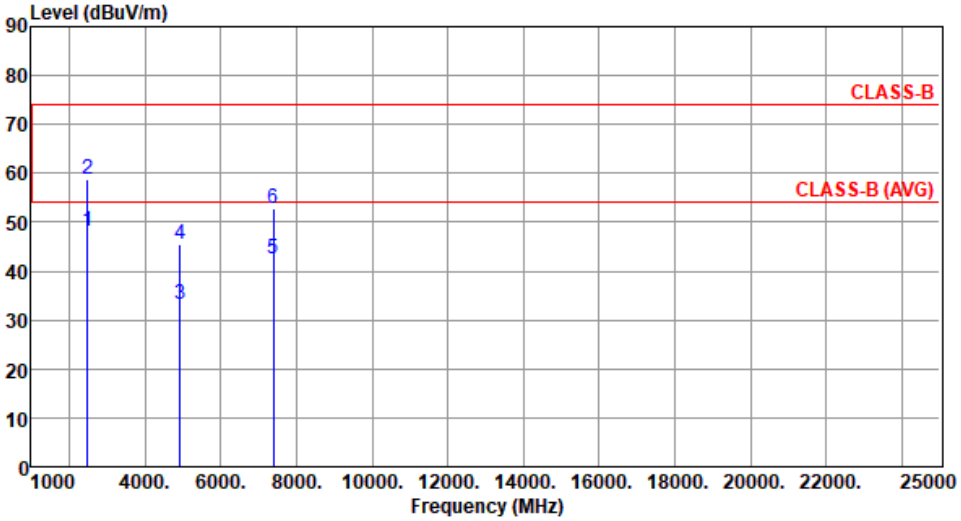


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	39.50	54.00	-14.50	43.76	-4.26	Average	105	206
2	2390.00	51.55	74.00	-22.45	55.81	-4.26	Peak	105	206
3	2483.50	39.86	54.00	-14.14	44.31	-4.45	Average	105	206
4	2483.50	52.51	74.00	-21.49	56.96	-4.45	Peak	105	206
5	4874.00	37.16	54.00	-16.84	37.41	-0.25	Average	117	335
6	4874.00	45.32	74.00	-28.68	45.57	-0.25	Peak	117	335
7	7311.00	43.34	54.00	-10.66	37.88	5.46	Average	122	43
8	7311.00	52.73	74.00	-21.27	47.27	5.46	Peak	122	43

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11b	Test Freq. (MHz)	2462
Polarization	Horizontal		

Test By :Paul Lin Temperature(℃):24 Humidity(%):62

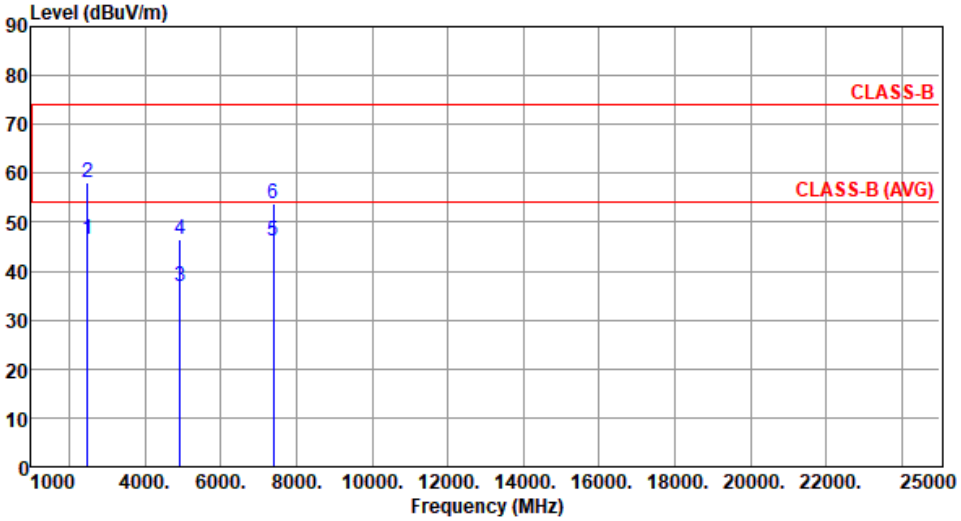


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	48.26	54.00	-5.74	52.71	-4.45	Average	162	54
2	2483.50	58.91	74.00	-15.09	63.36	-4.45	Peak	162	54
3	4924.00	33.22	54.00	-20.78	33.41	-0.19	Average	100	296
4	4924.00	45.37	74.00	-28.63	45.56	-0.19	Peak	100	296
5	7386.00	42.56	54.00	-11.44	37.23	5.33	Average	308	67
6	7386.00	52.75	74.00	-21.25	47.42	5.33	Peak	308	67

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11b	Test Freq. (MHz)	2462
Polarization	Vertical		

Test By :Paul Lin Temperature(℃):24 Humidity(%):62



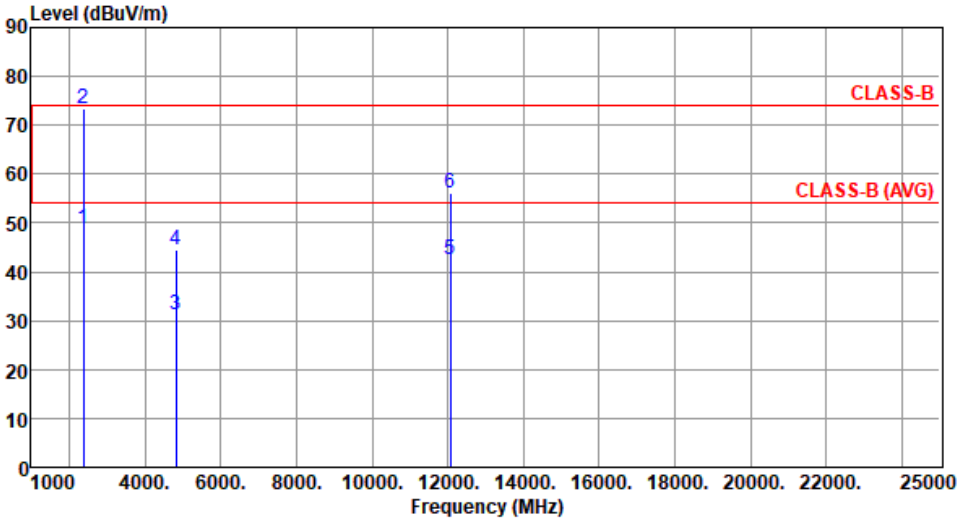
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	46.44	54.00	-7.56	50.89	-4.45	Average	105	347
2	2483.50	58.10	74.00	-15.90	62.55	-4.45	Peak	105	347
3	4924.00	36.95	54.00	-17.05	37.14	-0.19	Average	100	15
4	4924.00	46.36	74.00	-27.64	46.55	-0.19	Peak	100	15
5	7386.00	46.08	54.00	-7.92	40.75	5.33	Average	103	67
6	7386.00	53.75	74.00	-20.25	48.42	5.33	Peak	103	67

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Unwanted Emissions (Above 1GHz) for 11g

Modulation	11g	Test Freq. (MHz)	2412
Polarization	Horizontal		

Test By :Paul Lin Temperature(℃):24 Humidity(%):62

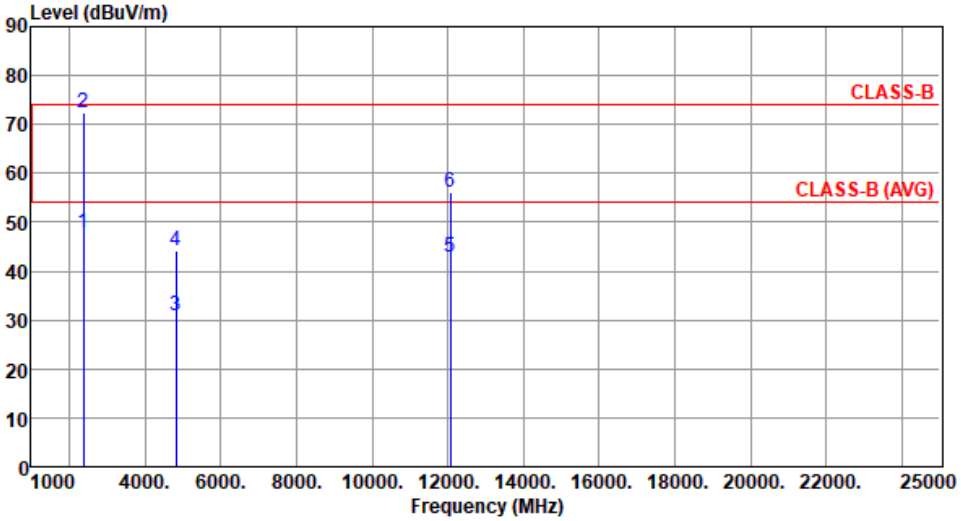


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	48.83	54.00	-5.17	53.09	-4.26	Average	100	136
2	2390.00	73.55	74.00	-0.45	77.81	-4.26	Peak	100	136
3	4824.00	31.07	54.00	-22.93	31.33	-0.26	Average	100	37
4	4824.00	44.52	74.00	-29.48	44.78	-0.26	Peak	100	37
5	12060.00	42.52	54.00	-11.48	35.78	6.74	Average	100	52
6	12060.00	56.13	74.00	-17.87	49.39	6.74	Peak	100	52

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11g	**Test Freq. (MHz)**	2412
Polarization	Vertical		

Test By :Paul Lin Temperature(℃):24 Humidity(%):62

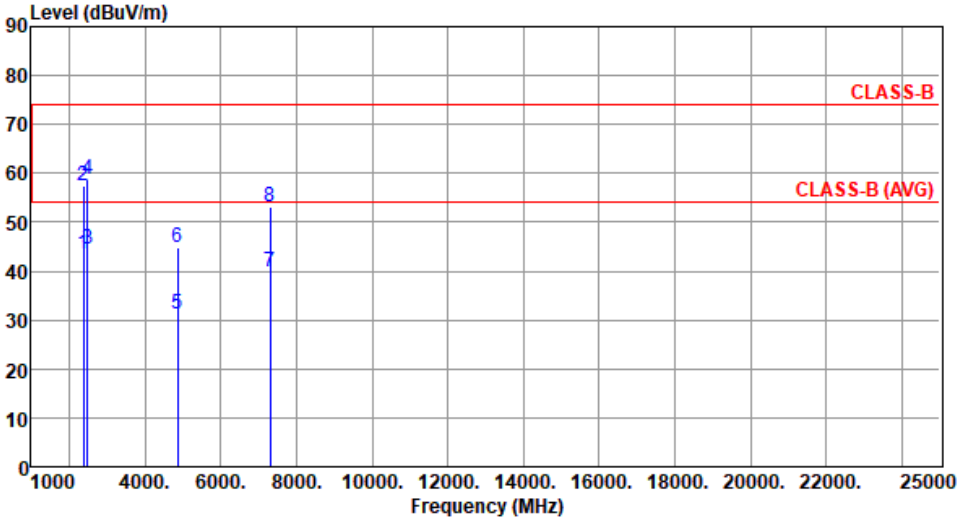


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	47.87	54.00	-6.13	52.13	-4.26	Average	100	20
2	2390.00	72.43	74.00	-1.57	76.69	-4.26	Peak	100	20
3	4824.00	30.93	54.00	-23.07	31.19	-0.26	Average	100	118
4	4824.00	44.20	74.00	-29.80	44.46	-0.26	Peak	100	118
5	12060.00	42.72	54.00	-11.28	35.98	6.74	Average	100	64
6	12060.00	56.16	74.00	-17.84	49.42	6.74	Peak	100	64

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11g	**Test Freq. (MHz)**	2437
Polarization	Horizontal		

Test By :Paul Lin Temperature(℃):24 Humidity(%):62

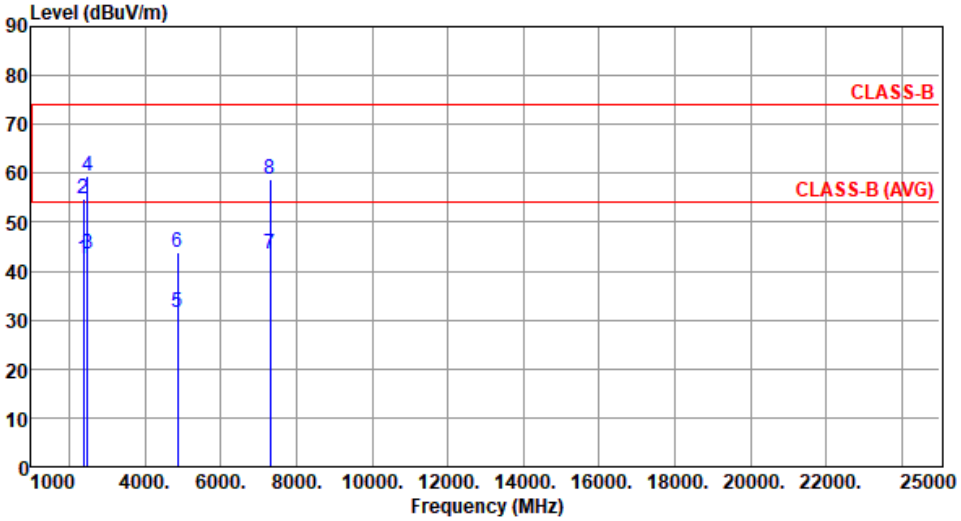


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	43.54	54.00	-10.46	47.80	-4.26	Average	279	33
2	2390.00	57.30	74.00	-16.70	61.56	-4.26	Peak	279	33
3	2483.50	44.48	54.00	-9.52	48.93	-4.45	Average	279	33
4	2483.50	58.62	74.00	-15.38	63.07	-4.45	Peak	279	33
5	4874.00	31.24	54.00	-22.76	31.49	-0.25	Average	100	56
6	4874.00	44.88	74.00	-29.12	45.13	-0.25	Peak	100	56
7	7311.00	39.74	54.00	-14.26	34.28	5.46	Average	103	43
8	7311.00	53.12	74.00	-20.88	47.66	5.46	Peak	103	43

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11g	Test Freq. (MHz)	2437
Polarization	Vertical		

Test By :Paul Lin Temperature(℃):24 Humidity(%):62

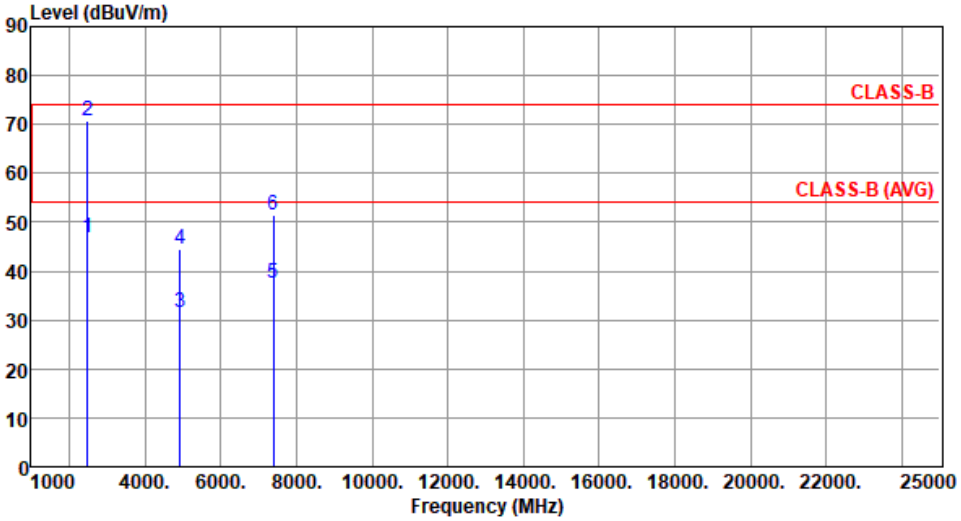


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	42.42	54.00	-11.58	46.68	-4.26	Average	235	346
2	2390.00	54.95	74.00	-19.05	59.21	-4.26	Peak	235	346
3	2483.50	43.53	54.00	-10.47	47.98	-4.45	Average	235	346
4	2483.50	59.45	74.00	-14.55	63.90	-4.45	Peak	235	346
5	4874.00	31.42	54.00	-22.58	31.67	-0.25	Average	100	57
6	4874.00	43.91	74.00	-30.09	44.16	-0.25	Peak	100	57
7	7311.00	43.63	54.00	-10.37	38.17	5.46	Average	175	57
8	7311.00	58.68	74.00	-15.32	53.22	5.46	Peak	175	57

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11g	**Test Freq. (MHz)**	2462
Polarization	Horizontal		

Test By :Paul Lin Temperature(℃):24 Humidity(%):62

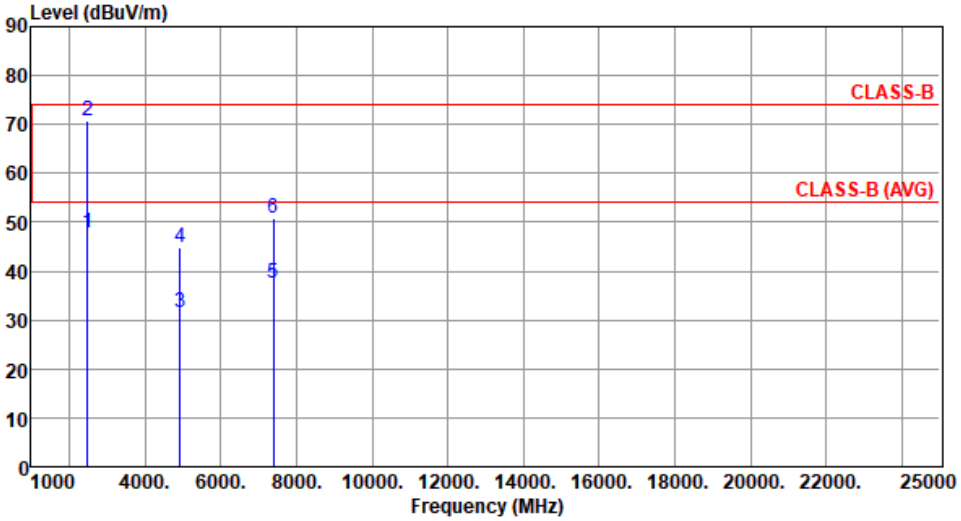


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	46.85	54.00	-7.15	51.30	-4.45	Average	100	139
2	2483.50	70.74	74.00	-3.26	75.19	-4.45	Peak	100	139
3	4924.00	31.61	54.00	-22.39	31.80	-0.19	Average	100	102
4	4924.00	44.45	74.00	-29.55	44.64	-0.19	Peak	100	102
5	7386.00	37.42	54.00	-16.58	32.09	5.33	Average	100	73
6	7386.00	51.31	74.00	-22.69	45.98	5.33	Peak	100	73

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11g	Test Freq. (MHz)	2462
Polarization	Vertical		

Test By :Paul Lin Temperature(℃):24 Humidity(%):62



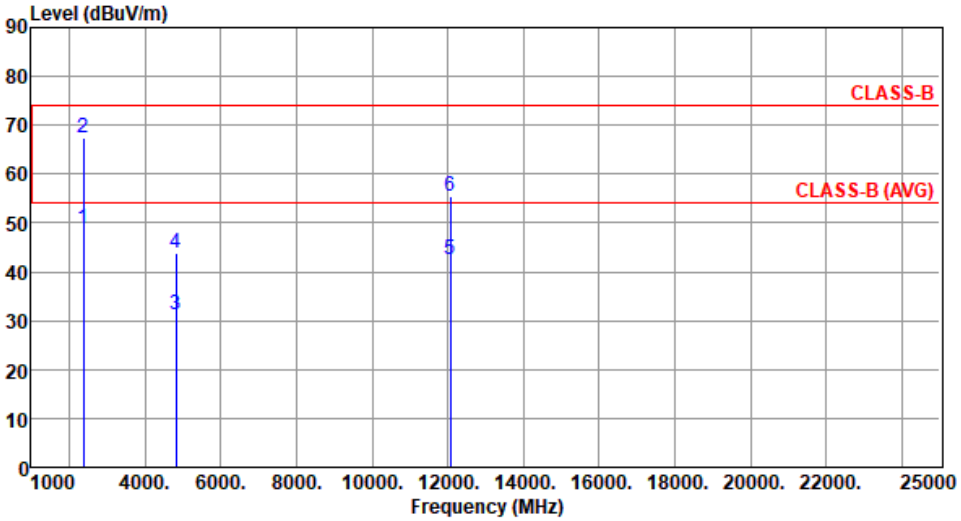
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	47.88	54.00	-6.12	52.33	-4.45	Average	113	10
2	2483.50	70.58	74.00	-3.42	75.03	-4.45	Peak	113	10
3	4924.00	31.45	54.00	-22.55	31.64	-0.19	Average	100	67
4	4924.00	44.75	74.00	-29.25	44.94	-0.19	Peak	100	67
5	7386.00	37.51	54.00	-16.49	32.18	5.33	Average	100	81
6	7386.00	50.79	74.00	-23.21	45.46	5.33	Peak	100	81

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Unwanted Emissions (Above 1GHz) for be EHT20-OFDMA

Modulation	be EHT20-OFDMA	**Test Freq. (MHz)**	2412
Polarization	Horizontal		

Test By :Paul Lin Temperature(℃):24 Humidity(%):62

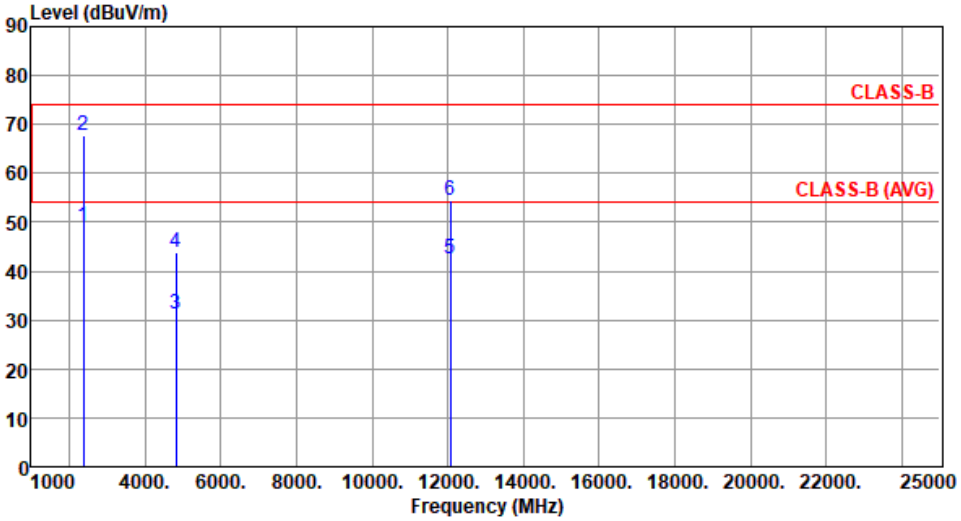


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	48.67	54.00	-5.33	52.93	-4.26	Average	298	289
2	2390.00	67.26	74.00	-6.74	71.52	-4.26	Peak	298	289
3	4824.00	31.09	54.00	-22.91	31.35	-0.26	Average	100	78
4	4824.00	43.84	74.00	-30.16	44.10	-0.26	Peak	100	78
5	12060.00	42.65	54.00	-11.35	35.91	6.74	Average	100	137
6	12060.00	55.58	74.00	-18.42	48.84	6.74	Peak	100	137

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	be EHT20-OFDMA	**Test Freq. (MHz)**	2412
Polarization	Vertical		

Test By :Paul Lin Temperature(℃):24 Humidity(%):62

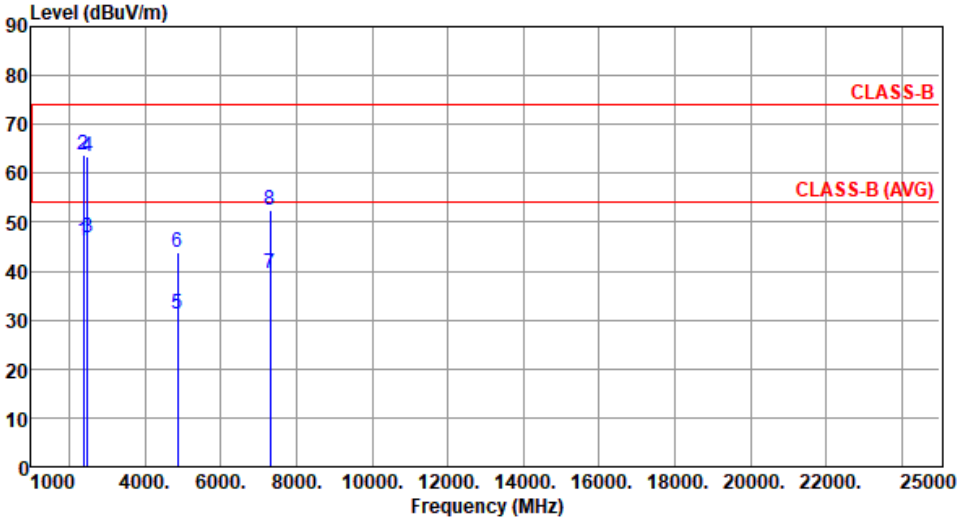


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	49.28	54.00	-4.72	53.54	-4.26	Average	126	39
2	2390.00	67.61	74.00	-6.39	71.87	-4.26	Peak	126	39
3	4824.00	31.11	54.00	-22.89	31.37	-0.26	Average	100	48
4	4824.00	43.90	74.00	-30.10	44.16	-0.26	Peak	100	48
5	12060.00	42.65	54.00	-11.35	35.91	6.74	Average	100	73
6	12060.00	54.53	74.00	-19.47	47.79	6.74	Peak	100	73

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	be EHT20-OFDMA	**Test Freq. (MHz)**	2437
Polarization	Horizontal		

Test By :Paul Lin Temperature(℃):24 Humidity(%):62

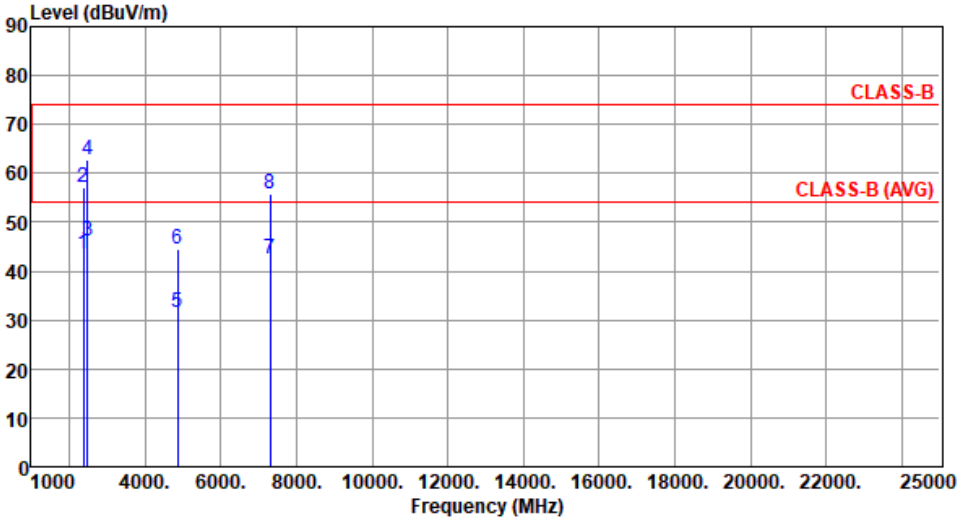


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	46.15	54.00	-7.85	50.41	-4.26	Average	114	3
2	2390.00	63.79	74.00	-10.21	68.05	-4.26	Peak	114	3
3	2483.50	46.94	54.00	-7.06	51.39	-4.45	Average	114	3
4	2483.50	63.47	74.00	-10.53	67.92	-4.45	Peak	114	3
5	4874.00	31.20	54.00	-22.80	31.45	-0.25	Average	100	93
6	4874.00	43.91	74.00	-30.09	44.16	-0.25	Peak	100	93
7	7311.00	39.60	54.00	-14.40	34.14	5.46	Average	100	39
8	7311.00	52.51	74.00	-21.49	47.05	5.46	Peak	100	39

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	be EHT20-OFDMA	**Test Freq. (MHz)**	2437
Polarization	Vertical		

Test By :Paul Lin Temperature(℃):24 Humidity(%):62

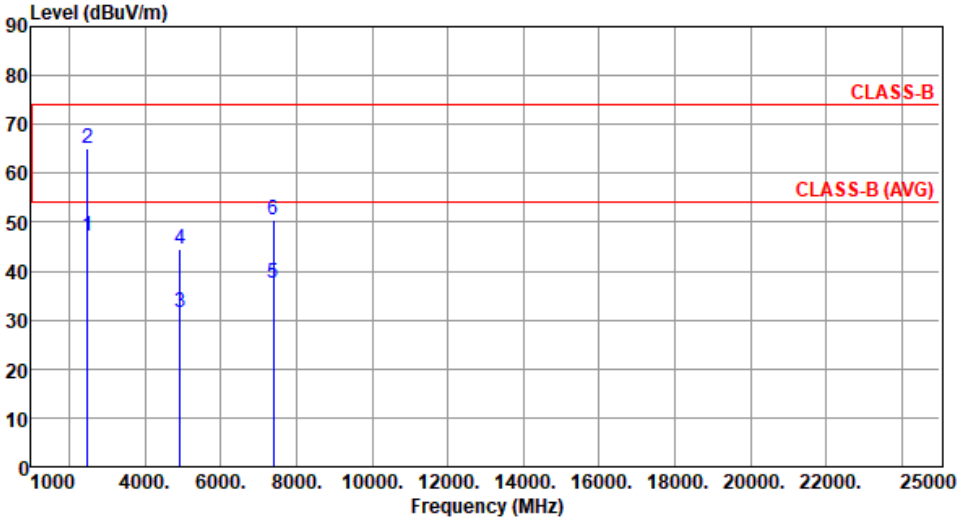


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	43.44	54.00	-10.56	47.70	-4.26	Average	234	345
2	2390.00	57.04	74.00	-16.96	61.30	-4.26	Peak	234	345
3	2483.50	46.14	54.00	-7.86	50.59	-4.45	Average	234	345
4	2483.50	62.66	74.00	-11.34	67.11	-4.45	Peak	234	345
5	4874.00	31.62	54.00	-22.38	31.87	-0.25	Average	100	36
6	4874.00	44.44	74.00	-29.56	44.69	-0.25	Peak	100	36
7	7311.00	42.51	54.00	-11.49	37.05	5.46	Average	186	64
8	7311.00	55.73	74.00	-18.27	50.27	5.46	Peak	186	64

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	be EHT20-OFDMA	**Test Freq. (MHz)**	2462
Polarization	Horizontal		

Test By :Paul Lin Temperature(℃):24 Humidity(%):62

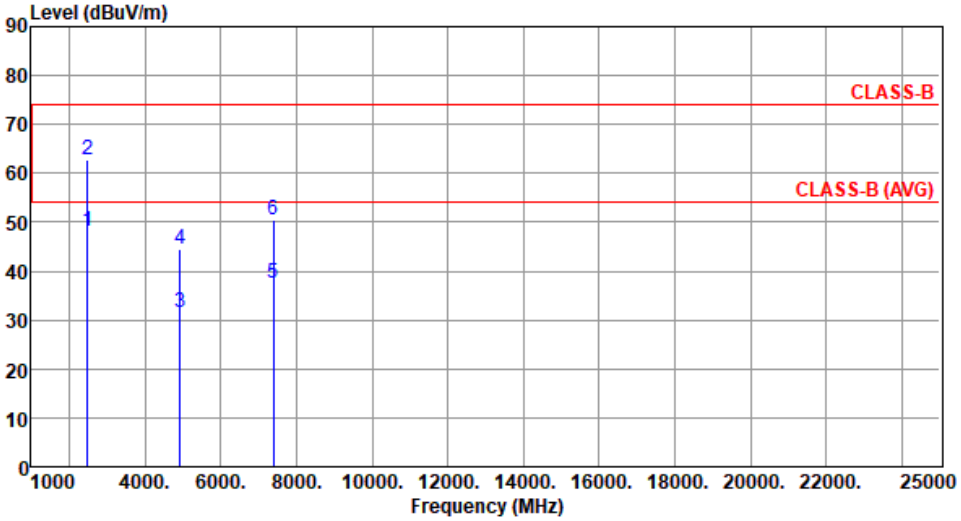


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	47.20	54.00	-6.80	51.65	-4.45	Average	256	286
2	2483.50	65.14	74.00	-8.86	69.59	-4.45	Peak	256	286
3	4924.00	31.56	54.00	-22.44	31.75	-0.19	Average	100	71
4	4924.00	44.48	74.00	-29.52	44.67	-0.19	Peak	100	71
5	7386.00	37.47	54.00	-16.53	32.14	5.33	Average	100	109
6	7386.00	50.59	74.00	-23.41	45.26	5.33	Peak	100	109

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	be EHT20-OFDMA	**Test Freq. (MHz)**	2462
Polarization	Vertical		

Test By :Paul Lin Temperature(℃):24 Humidity(%):62



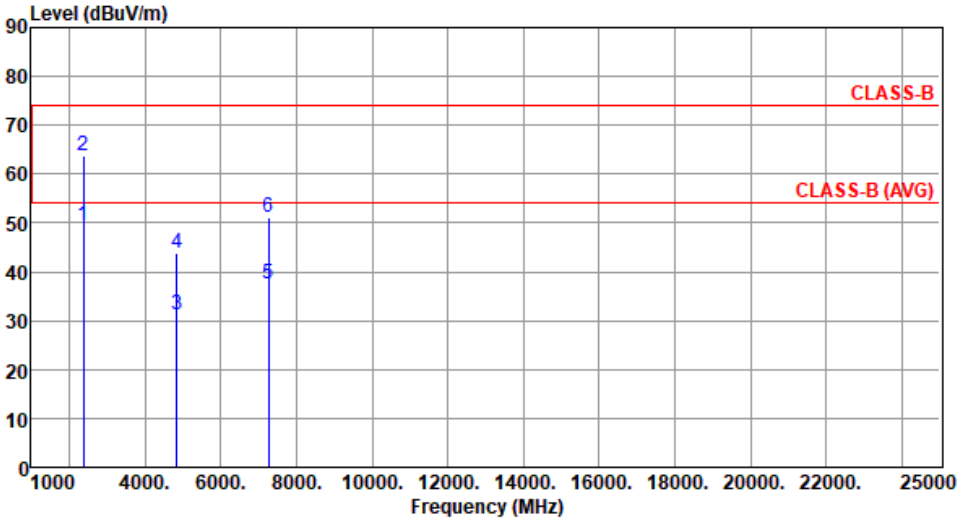
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	48.15	54.00	-5.85	52.60	-4.45	Average	105	355
2	2483.50	62.90	74.00	-11.10	67.35	-4.45	Peak	105	355
3	4924.00	31.48	54.00	-22.52	31.67	-0.19	Average	100	47
4	4924.00	44.36	74.00	-29.64	44.55	-0.19	Peak	100	47
5	7386.00	37.58	54.00	-16.42	32.25	5.33	Average	100	85
6	7386.00	50.46	74.00	-23.54	45.13	5.33	Peak	100	85

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Unwanted Emissions (Above 1GHz) for be EHT40-OFDMA

Modulation	be EHT40-OFDMA	**Test Freq. (MHz)**	2422
Polarization	Horizontal		

Test By :Paul Lin Temperature(℃):24 Humidity(%):62

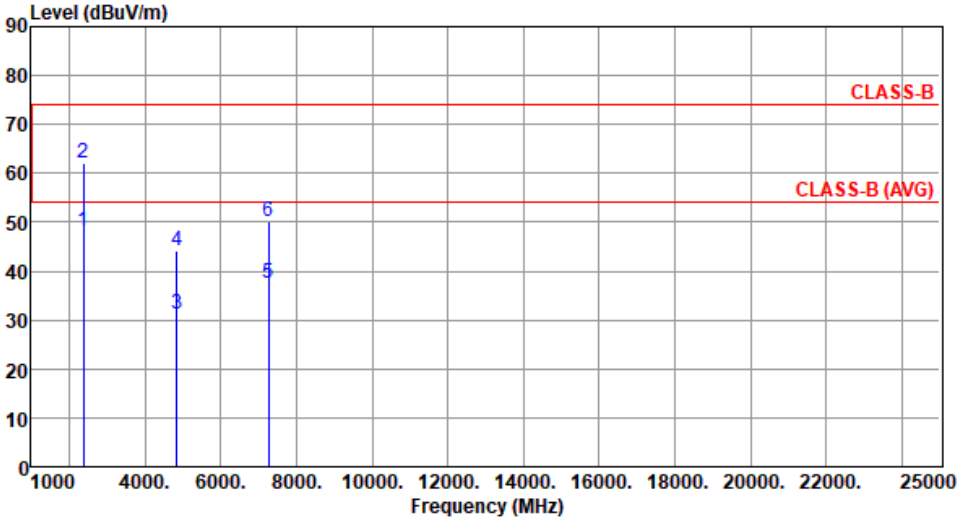


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	49.45	54.00	-4.55	53.71	-4.26	Average	147	14
2	2390.00	63.79	74.00	-10.21	68.05	-4.26	Peak	147	14
3	4844.00	31.05	54.00	-22.95	31.31	-0.26	Average	100	105
4	4844.00	43.92	74.00	-30.08	44.18	-0.26	Peak	100	105
5	7266.00	37.58	54.00	-16.42	32.21	5.37	Average	100	51
6	7266.00	51.14	74.00	-22.86	45.77	5.37	Peak	100	51

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	be EHT40-OFDMA	**Test Freq. (MHz)**	2422
Polarization	Vertical		

Test By :Paul Lin Temperature(℃):24 Humidity(%):62

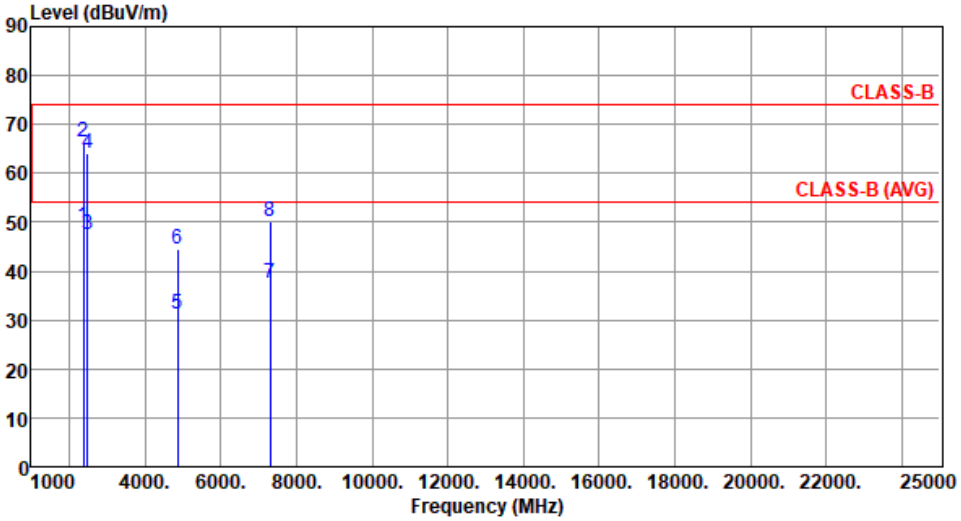


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	48.29	54.00	-5.71	52.55	-4.26	Average	118	341
2	2390.00	62.12	74.00	-11.88	66.38	-4.26	Peak	118	341
3	4844.00	31.18	54.00	-22.82	31.44	-0.26	Average	100	112
4	4844.00	44.23	74.00	-29.77	44.49	-0.26	Peak	100	112
5	7266.00	37.68	54.00	-16.32	32.31	5.37	Average	100	83
6	7266.00	50.04	74.00	-23.96	44.67	5.37	Peak	100	83

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	be EHT40-OFDMA	**Test Freq. (MHz)**	2437
Polarization	Horizontal		

Test By :Paul Lin Temperature(℃):24 Humidity(%):62

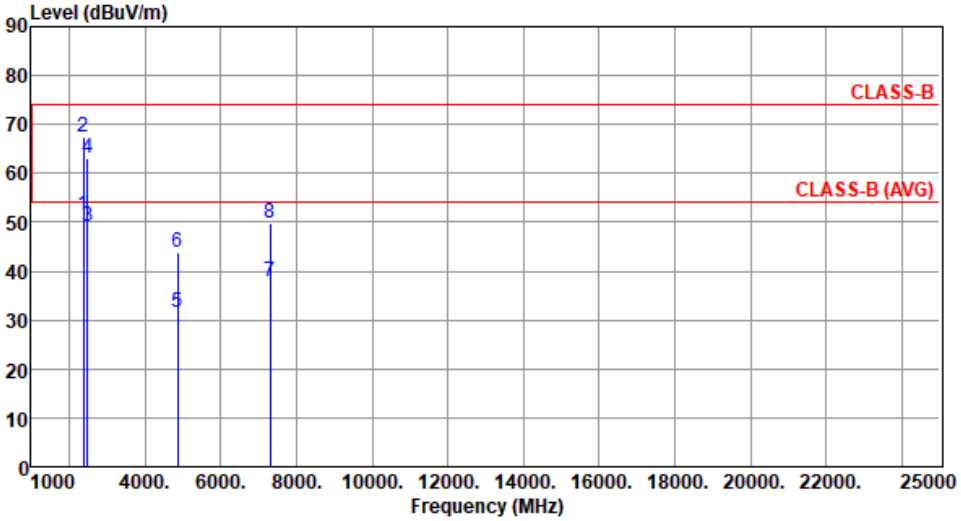


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	49.25	54.00	-4.75	53.51	-4.26	Average	266	294
2	2390.00	66.47	74.00	-7.53	70.73	-4.26	Peak	266	294
3	2483.50	47.44	54.00	-6.56	51.89	-4.45	Average	266	294
4	2483.50	64.00	74.00	-10.00	68.45	-4.45	Peak	266	294
5	4874.00	31.10	54.00	-22.90	31.35	-0.25	Average	100	73
6	4874.00	44.34	74.00	-29.66	44.59	-0.25	Peak	100	73
7	7311.00	37.61	54.00	-16.39	32.15	5.46	Average	100	39
8	7311.00	50.21	74.00	-23.79	44.75	5.46	Peak	100	39

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	be EHT40-OFDMA	**Test Freq. (MHz)**	2437
Polarization	Vertical		

Test By :Paul Lin Temperature(℃):24 Humidity(%):62

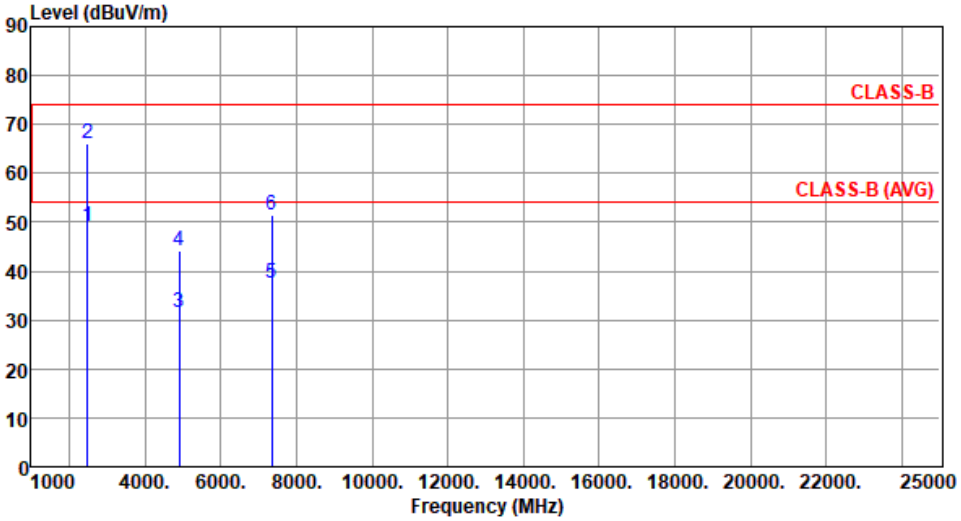


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	51.61	54.00	-2.39	55.87	-4.26	Average	123	17
2	2390.00	67.48	74.00	-6.52	71.74	-4.26	Peak	123	17
3	2483.50	49.08	54.00	-4.92	53.53	-4.45	Average	123	17
4	2483.50	63.00	74.00	-11.00	67.45	-4.45	Peak	123	17
5	4874.00	31.54	54.00	-22.46	31.79	-0.25	Average	100	45
6	4874.00	43.73	74.00	-30.27	43.98	-0.25	Peak	100	45
7	7311.00	37.70	54.00	-16.30	32.24	5.46	Average	100	95
8	7311.00	49.80	74.00	-24.20	44.34	5.46	Peak	100	95

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	be EHT40-OFDMA	**Test Freq. (MHz)**	2452
Polarization	Horizontal		

Test By :Paul Lin Temperature(℃):24 Humidity(%):62

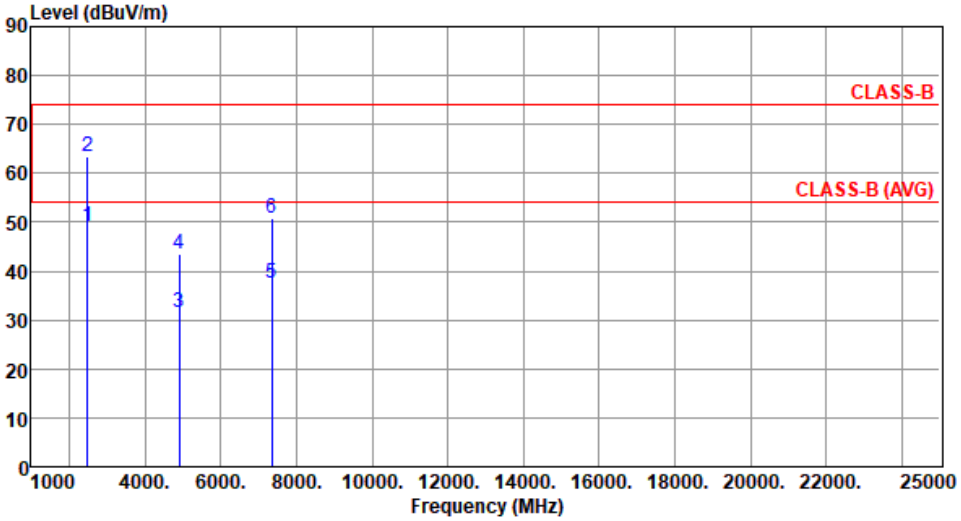


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	49.01	54.00	-4.99	53.46	-4.45	Average	163	8
2	2483.50	65.99	74.00	-8.01	70.44	-4.45	Peak	163	8
3	4904.00	31.49	54.00	-22.51	31.73	-0.24	Average	100	38
4	4904.00	44.15	74.00	-29.85	44.39	-0.24	Peak	100	38
5	7356.00	37.63	54.00	-16.37	32.28	5.35	Average	100	88
6	7356.00	51.40	74.00	-22.60	46.05	5.35	Peak	100	88

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	be EHT40-OFDMA	**Test Freq. (MHz)**	2452
Polarization	Vertical		

Test By :Paul Lin Temperature(℃):24 Humidity(%):62



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	49.13	54.00	-4.87	53.58	-4.45	Average	100	21
2	2483.50	63.37	74.00	-10.63	67.82	-4.45	Peak	100	21
3	4904.00	31.48	54.00	-22.52	31.72	-0.24	Average	100	56
4	4904.00	43.62	74.00	-30.38	43.86	-0.24	Peak	100	56
5	7356.00	37.49	54.00	-16.51	32.14	5.35	Average	100	115
6	7356.00	50.81	74.00	-23.19	45.46	5.35	Peak	100	115

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).