FCC Test Report

FCC ID	:	**MXF-XR1710G**
Equipment	:	**Wi-Fi 7 Router**
Model No.	:	**XR1710G**
Brand Name	:	**Brightspeed**
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	:	**Jan. 10, 2024**
Tested Date	:	**Jan. 10 ~ Feb. 26, 2024**

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
FR411201AC	Rev. 01	Initial issue	Apr. 02, 2024

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	AC Power Line Conducted Emission	[dBuV]: 0.532MHz 39.47 (Margin -6.53dB) - AV	Pass
15.247(d) 15.209	Unwanted Emissions	[dBuV/m at 3m]: 2390.00MHz 53.76 (Margin -0.24dB) - AV	Pass
15.247(b)(3)	Conducted Output Power	Max Power [dBm]: ***Non-beamforming mode*** 29.42 ***Beamforming mode*** 29.04	Pass
15.247(a)(2)	6dB Bandwidth	Meet the requirement of limit	Pass
15.247(e)	Power Spectral Density	Meet the requirement of limit	Pass
15.203	Antenna Requirement	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

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: 802.11n/ax/be supports beamforming function.

1.1.2 Antenna Details

Ant. No.	Brand / Model	Type	Connector	Operating Frequencies (MHz) / Gain (dBi)		
				2400~2483.5	**5150~5250**	**5725~5850**
1	Gemtek / XR1710G_Dual_Ant1	PIFA	UFL	1.02	3.3	2.89
2	Gemtek / XR1710G_Dual_Ant2	PIFA	UFL	1.03	3.75	2.09
3	Gemtek / XR1710G_Dual_Ant3	PIFA	UFL	1.18	4.57	3.78
4	Gemtek / XR1710G_Dual_Ant4	PIFA	UFL	2.01	4.87	4.99

1.1.3 Configuration of Equipment under Test (EUT)

Power Supply Type	12Vdc from adapter	
RU Configuration	☒ Full RU	☐ Partial RU

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: 12.0V⎓5.0A, 60.0W Power Line: 1.8m non-shielded without core
2	AC adapter	Brand: LEI Model: ML60-4120500-A1 I/P: 120V~ 60Hz, 1.5A O/P: 12.0V⎓ 5.0A Power Line: 1.8m non-shielded without core
3	Fan (Vendor 1)	Brand: SUNON Model: MF70151V1-1C010-S99
4	Fan (Vendor 2)	Brand: Yingfan Model: DB701512HMS4B01F43
5	X'FMR (Vendor 1)	Brand: QUICTRON Model: KM24SG0A1G
6	X'FMR (Vendor 2)	Brand: U&T Model: UTTG24P05
7	RJ45 (Vendor 1)	Brand: Tung Li 1.8m non-shielded without core
8	RJ45 (Vendor 2)	Brand: RAPID CONN 1.8m non-shielded without core

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, version: 0.0.2.99		
Duty Cycle and Duty Factor	**Mode**	**Duty Cycle (%)**	**Duty Factor (dB)**
	11b	100.00%	0.00
	11g	98.55%	0.06
	be EHT20-OFDMA	99.64%	0.02
	be EHT40-OFDMA	98.60%	0.06

1.1.7 Power Index of Test Tool

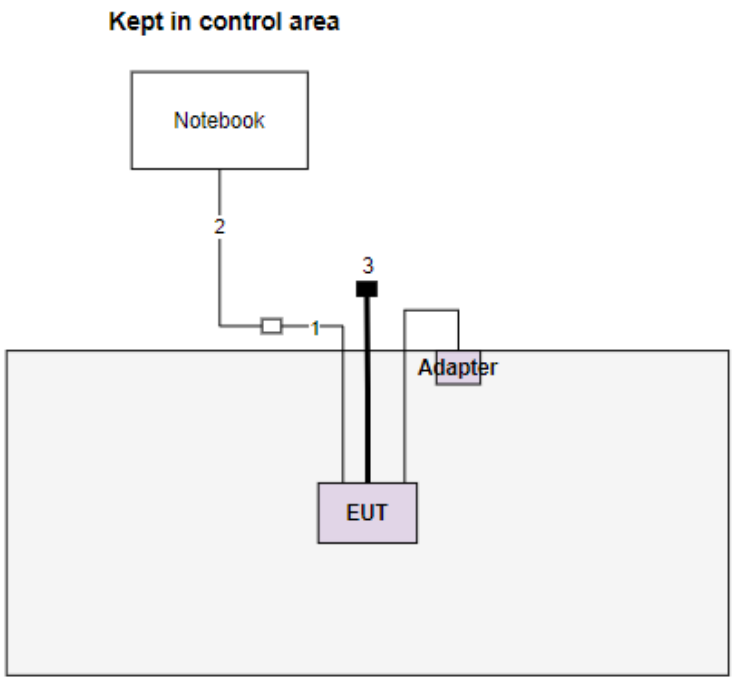
Modulation Mode	Test Frequency (MHz)	Power Index	
		Non-beamforming	Beamforming
11b	2412	23.5	---
11b	2437	23.5	---
11b	2462	23.5	---
11g	2412	20	---
11g	2437	23.5	---
11g	2462	20	---
be EHT20-OFDMA	2412	19	38
be EHT20-OFDMA	2437	23.5	47
be EHT20-OFDMA	2462	20	40
be EHT40-OFDMA	2422	17	33
be EHT40-OFDMA	2437	21.5	43
be EHT40-OFDMA	2452	19.5	39

1.2 Local Support Equipment List

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

1.3 Test Setup Chart

Test Setup Diagram



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

1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Tested Date	Feb. 22, 2024				
Instrument	**Brand**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Receiver	R&S	ESR3	101657	Mar. 03, 2023	Mar. 02, 2024
LISN	R&S	ENV216	101579	May 09, 2023	May 08, 2024
LISN (Support Unit)	SCHWARZBECK	Schwarzbeck 8127	8127-666	Feb. 24, 2023	Feb. 23, 2024
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Oct. 11, 2023	Oct. 10, 2024
50 ohm terminal	NA	50	03	Aug. 08, 2023	Aug. 07, 2024
Measurement Software	AUDIX	e3	6.120210k	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emission				
Test Site	966 chamber1 / (03CH01-WS)				
Tested Date	Jan. 10 ~ Jan. 25, 2024				
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. 23, 2023	Nov. 22, 2024
Loop Antenna	R&S	HFH2-Z2	100330	Oct. 31, 2023	Oct. 30, 2024
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. 27, 2023	Nov. 26, 2024
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Oct. 30, 2023	Oct. 29, 2024
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
HIGHPASS FILTER 3.1-18G	WHK	WHK3.1/18G-10SS	39	Oct. 05, 2023	Oct. 04, 2024
Attenuator	Pasternack	PE7005-10	10-1	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	Feb. 19 ~ Feb. 26, 2024				
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. 21, 2023	Nov. 20, 2024
Power Sensor	Anritsu	MA2411B	1207366	Nov. 21, 2023	Nov. 20, 2024
Attenuator	Pasternack	PE7005-10	10-2	Oct. 05, 2023	Oct. 04, 2024
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	CO01-WS, 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

The EUT have 4 SKUs options that listed as table below:

SKU 1	Fan (Yingfan) / LAN X'FMR (QUICTRON)
SKU 2	**Fan (Yingfan) / LAN X'FMR (U&T)**
SKU 3	Fan (SUNON) / LAN X'FMR (QUICTRON)
SKU 4	Fan (SUNON) / LAN X'FMR (U&T)

Note: SKU 2 was the worst case for final test.

Test item	Modulation Mode	Test Frequency (MHz)	Data Rate	Test Configuration
Non-beamforming mode				
AC Power Line Conducted Emission	11b	2412	1 Mbps	---
Unwanted Emissions ≤ 1GHz	11b	2412	1 Mbps	---
Unwanted Emissions >1GHz Conducted Output Power 6dB bandwidth 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 & LEI) had been covered during the pretest and found that **LUCENT** adapter was the worst case for radiated emission test and **LEI** adapter was the worst case for conducted emission test.
3. Two RJ45 cables (Tung Li & RAPID CONN) had been covered during the pretest and found that **Tung Li** RJ45 cable was the worst case and was selected for final testing.
4. 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 6dB and Occupied Bandwidth

3.1.1 Limit of 6dB Bandwidth

The minimum 6dB bandwidth shall be at least 500 kHz.

3.1.2 Test Procedures

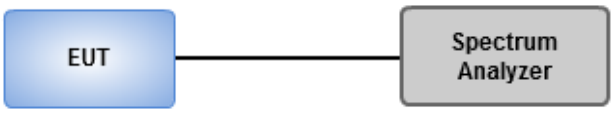
6dB Bandwidth

1. Set resolution bandwidth (RBW) = 100 kHz, Video bandwidth = 300 kHz.
2. Detector = Peak, Trace mode = max hold.
3. Sweep = auto couple, Allow the trace to stabilize.
4. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6dB relative to the maximum level measured in the fundamental emission.

Occupied Bandwidth

1. Set resolution bandwidth (RBW) = 1% ~ 5 % of OBW, Video bandwidth = 3 x RBW
2. Detector = Sample, Trace mode = max hold.
3 Sweep = auto couple, Allow the trace to stabilize.
4. Use the OBW measurement function of spectrum analyzer to measure the occupied bandwidth.

3.1.3 Test Setup



3.1.4 Test Results

Ambient Condition	23-24°C / 62-63%	**Tested By**	Brad Wu

Refer to Appendix A.

3.2 Conducted Output Power

3.2.1 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.

3.2.2 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.

3.2.3 Test Setup

3.2.4 Test Results

Ambient Condition	23-24°C / 62-63%	**Tested By**	Brad Wu

Refer to Appendix B.

3.3 Power Spectral Density

3.3.1 Limit of Power Spectral Density

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

3.3.2 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.

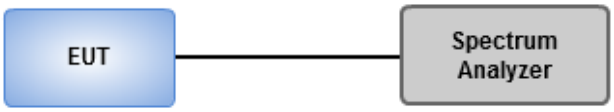
Average PSD, duty cycle ≥ 98%

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.

3.3.3 Test Setup



3.3.4 Test Results

Ambient Condition	23-24°C / 62-63%	**Tested By**	Brad Wu

Refer to Appendix C.

3.4 Unwanted Emissions into Restricted Frequency Bands

3.4.1 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.

3.4.2 Test Procedures

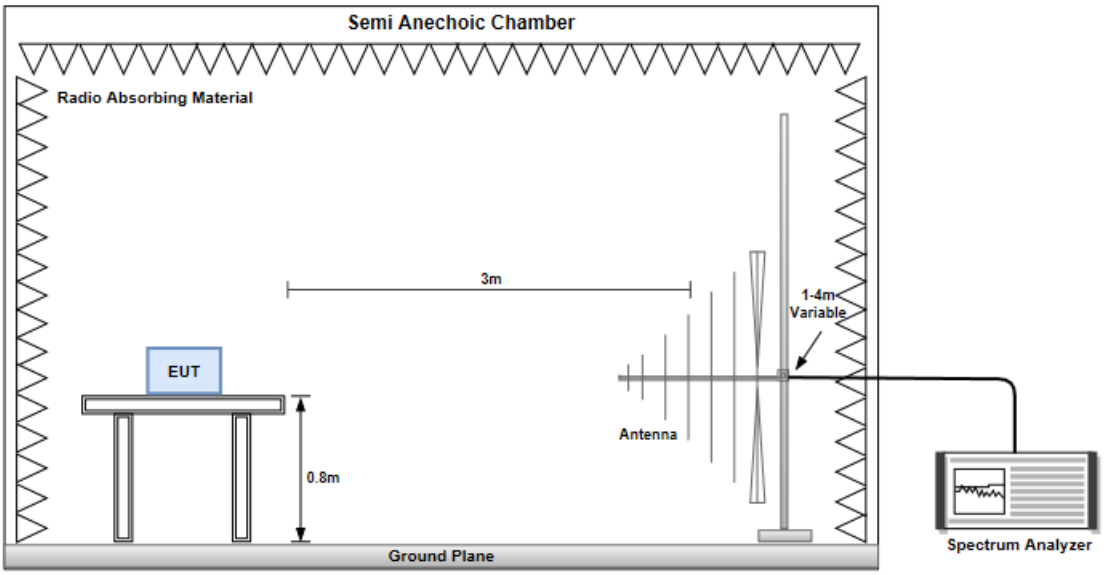
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission 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:

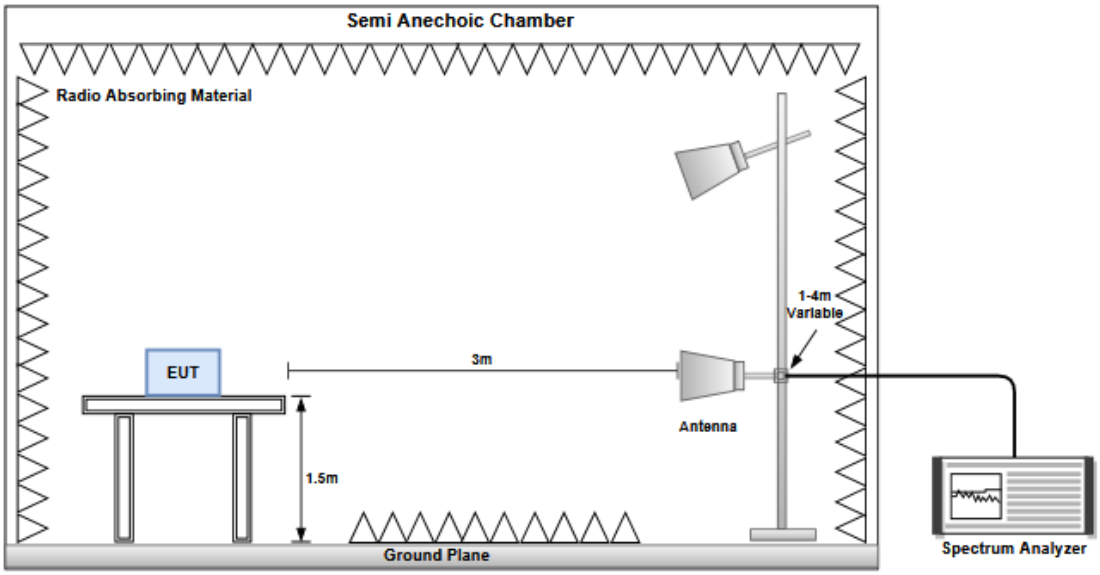
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.4.3 Test Setup

Radiated Emissions below 1 GHz



Radiated Emissions above 1 GHz



3.4.4 Test Results

Refer to Appendix D.

3.5 Emissions in Non-Restricted Frequency Bands

3.5.1 Emissions in Non-Restricted Frequency Bands Limit

Peak power in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum in-band peak PSD level in 100 kHz.

3.5.2 Test Procedures

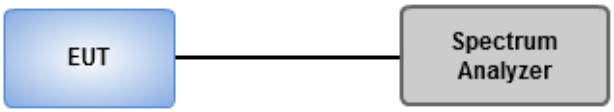
Reference level measurement

1. Set RBW=100kHz, VBW = 300kHz , Detector = Peak, Sweep time = Auto
2. Trace = max hold , Allow Trace to fully stabilize
3. Use the peak marker function to determine the maximum PSD level

Emission level measurement

1. Set RBW=100kHz, VBW = 300kHz , Detector = Peak, Sweep time = Auto
2. Trace = max hold , Allow Trace to fully stabilize
3. Scan Frequency range is up to 25GHz
4. Use the peak marker function to determine the maximum amplitude level

3.5.3 Test Setup



3.5.4 Test Results

Ambient Condition	23-24°C / 62-63%	**Tested By**	Brad Wu

Refer to Appendix E.

3.6 AC Power Line Conducted Emissions

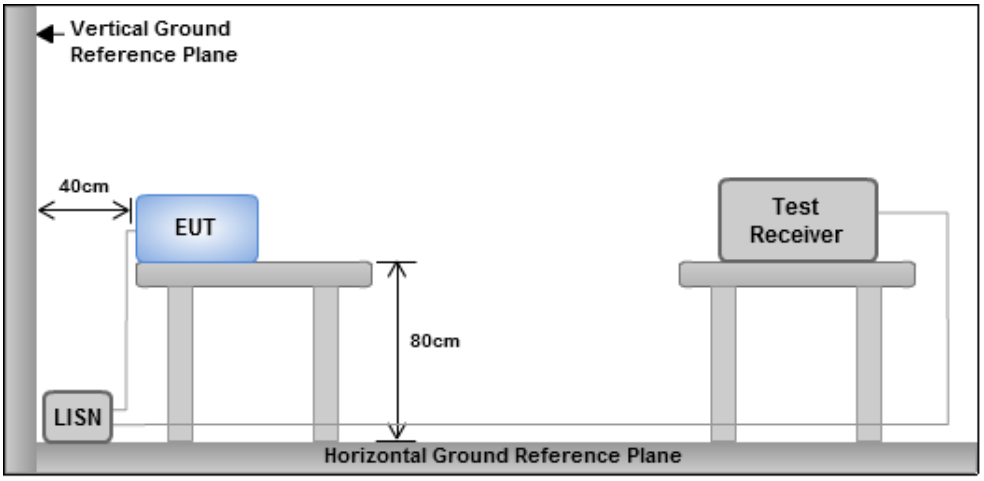
3.6.1 Limit of AC Power Line Conducted Emissions

Conducted Emissions Limit		
Frequency Emission (MHz)	**Quasi-Peak**	**Average**
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50
Note 1: * Decreases with the logarithm of the frequency.		

3.6.2 Test Procedures

1. The device is placed on a test table, raised 80 cm above the reference ground plane. The vertical conducting plane is located 40 cm to the rear of the device.
2. The device is connected to line impedance stabilization network (LISN) and other accessories are connected to other LISN. Measured levels of AC power line conducted emission are across the 50 Ω LISN port.
3. AC conducted emission measurements is made over frequency range from 150 kHz to 30 MHz.
4. This measurement was performed with AC 120V / 60Hz.

3.6.3 Test Setup



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.6.4 Test Results

Refer to Appendix F.

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.

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Email: ICC_Service@icertifi.com.tw

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Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_4TX	8.05M	12.422M	12M4G1D	7.05M	12.277M
802.11g_Nss1,(6Mbps)_4TX	15.1M	16.304M	16M3D1D	14.95M	16.19M
802.11be EHT20_Nss1,(MCS0)_4TX-OFDMA	17.6M	18.792M	18M8D1D	15.55M	18.661M
802.11be EHT40_Nss1,(MCS0)_4TX-OFDMA	35M	37.375M	37M4D1D	30.95M	37.162M

Max-N dB = Maximum 6dB down bandwidth; Max-OBW = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth; Min-OBW = Minimum 99% occupied bandwidth

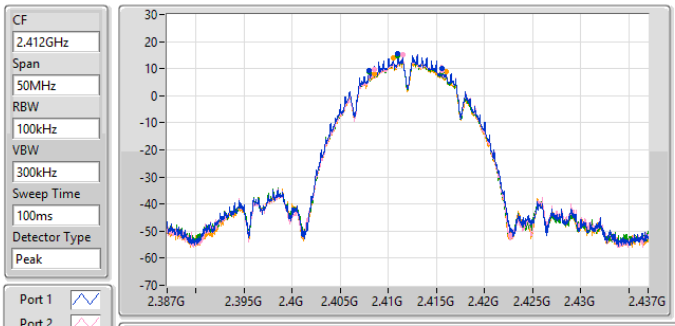
Result

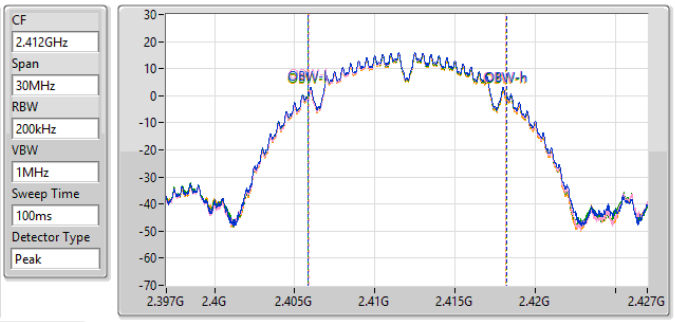
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11b_Nss1,(1Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	7.55M	12.409M	7.05M	12.277M	7.575M	12.385M	7.525M	12.302M
2437MHz	Pass	500k	8.05M	12.303M	7.55M	12.349M	8.05M	12.396M	7.6M	12.355M
2462MHz	Pass	500k	8.05M	12.409M	7.55M	12.371M	7.575M	12.422M	7.525M	12.407M
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	15.1M	16.19M	15.05M	16.222M	15.05M	16.236M	15.05M	16.219M
2437MHz	Pass	500k	15.025M	16.279M	15.05M	16.271M	15.05M	16.304M	15.05M	16.274M
2462MHz	Pass	500k	14.95M	16.215M	15.05M	16.211M	15.025M	16.218M	15.025M	16.231M
802.11be EHT20_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	16.925M	18.661M	15.55M	18.683M	16.775M	18.702M	16.6M	18.672M
2437MHz	Pass	500k	15.75M	18.745M	17M	18.749M	15.8M	18.792M	15.75M	18.733M
2462MHz	Pass	500k	15.825M	18.69M	17.025M	18.68M	17.6M	18.667M	16.4M	18.672M
802.11be EHT40_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	32.85M	37.375M	32.45M	37.321M	34.5M	37.288M	34M	37.34M
2437MHz	Pass	500k	35M	37.293M	30.95M	37.253M	33.75M	37.256M	34M	37.241M
2452MHz	Pass	500k	33.8M	37.217M	33.8M	37.22M	35M	37.162M	31.25M	37.217M

Port X-N dB = Port X 6dB down bandwidth;
Port X-OBW = Port X 99% occupied bandwidth

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

2412MHz

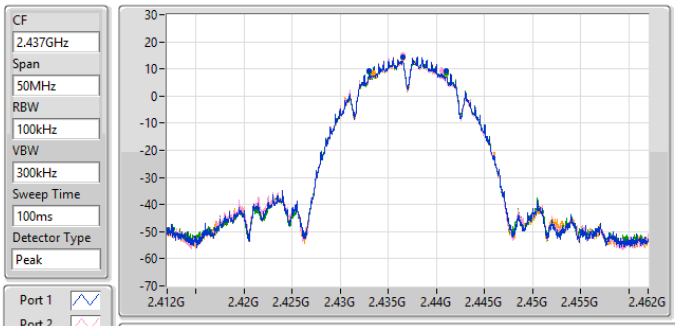


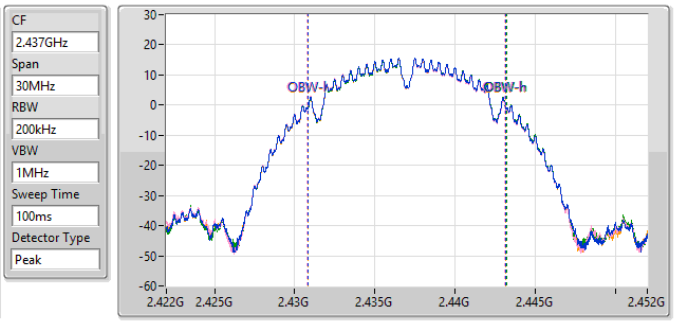


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.55M	2.407975G	2.415525G	12.409M	2.405803G	2.418211G	500k	1
7.05M	2.4085G	2.41555G	12.277M	2.405916G	2.418194G	500k	2
7.575M	2.407975G	2.41555G	12.385M	2.405821G	2.418205G	500k	3
7.525M	2.4085G	2.416025G	12.302M	2.405853G	2.418154G	500k	4

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

2437MHz

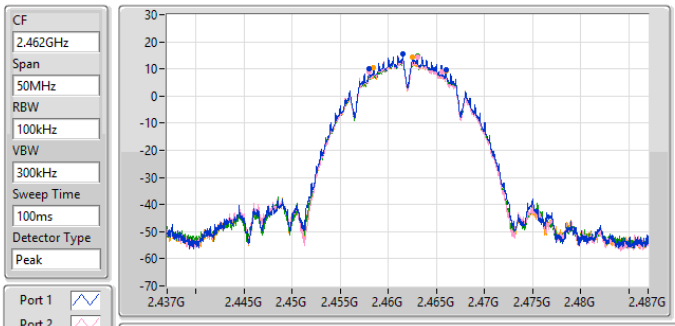


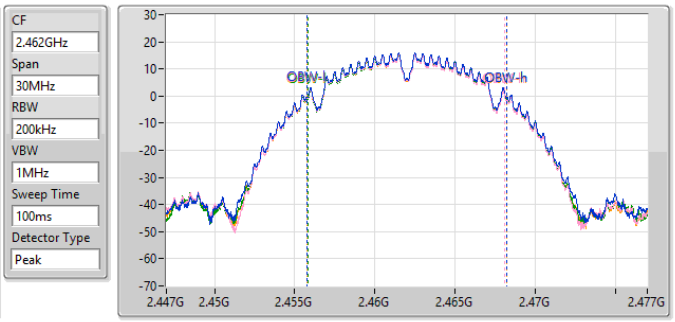


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.05M	2.432975G	2.441025G	12.303M	2.430848G	2.44315G	500k	1
7.55M	2.433G	2.44055G	12.349M	2.430772G	2.443121G	500k	2
8.05M	2.432975G	2.441025G	12.396M	2.430827G	2.443224G	500k	3
7.6M	2.43345G	2.44105G	12.355M	2.430823G	2.443178G	500k	4

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

2462MHz

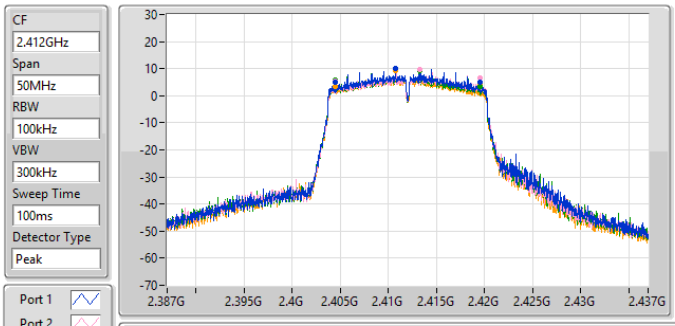


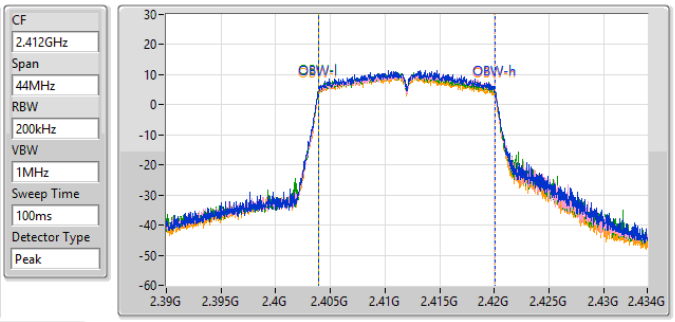


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.05M	2.457975G	2.466025G	12.409M	2.455796G	2.468205G	500k	1
7.55M	2.457975G	2.465525G	12.371M	2.455754G	2.468125G	500k	2
7.575M	2.457975G	2.46555G	12.422M	2.455811G	2.468233G	500k	3
7.525M	2.458475G	2.466G	12.407M	2.455796G	2.468203G	500k	4

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

2412MHz

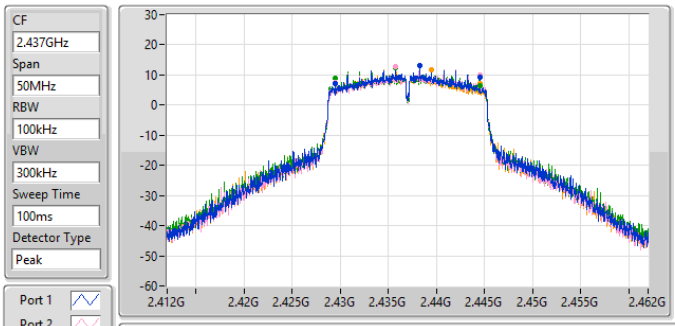


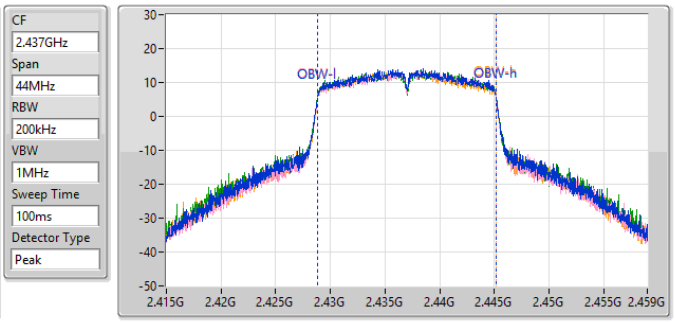


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.1M	2.40445G	2.41955G	16.19M	2.403901G	2.420091G	500k	1
15.05M	2.404475G	2.419525G	16.222M	2.403894G	2.420117G	500k	2
15.05M	2.404475G	2.419525G	16.236M	2.40388G	2.420115G	500k	3
15.05M	2.4045G	2.41955G	16.219M	2.403883G	2.420102G	500k	4

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

2437MHz

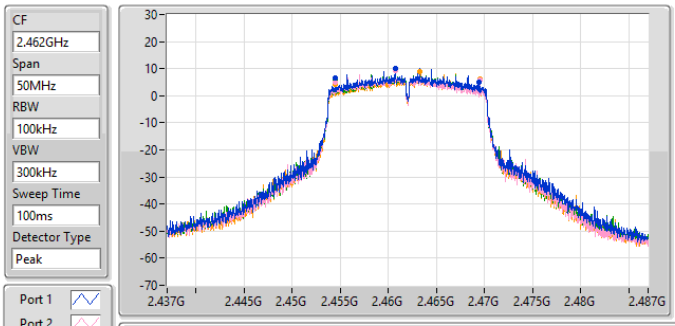


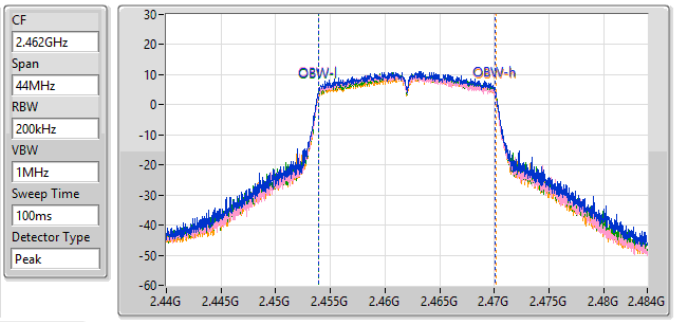


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.025M	2.42945G	2.444475G	16.279M	2.428861G	2.445141G	500k	1
15.05M	2.42945G	2.4445G	16.271M	2.428874G	2.445145G	500k	2
15.05M	2.429475G	2.444525G	16.304M	2.428847G	2.445151G	500k	3
15.05M	2.429475G	2.444525G	16.274M	2.42886G	2.445133G	500k	4

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

2462MHz

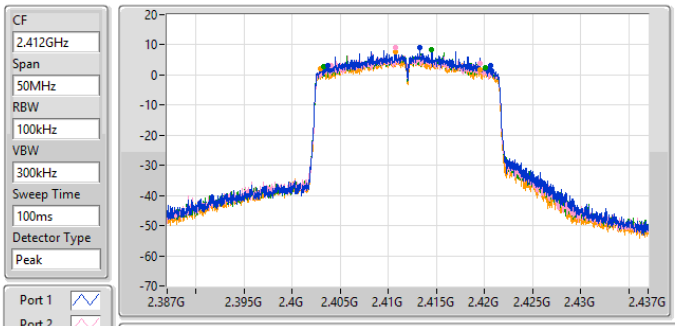


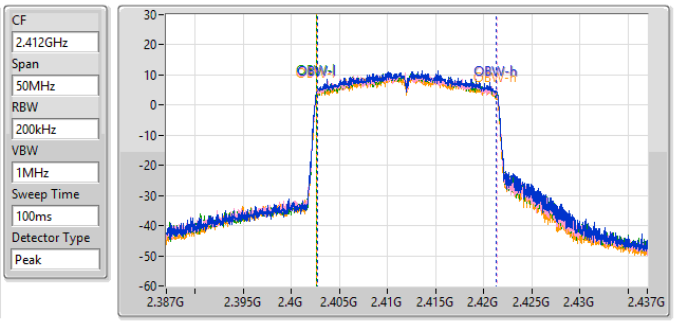


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
14.95M	2.4545G	2.46945G	16.215M	2.453892G	2.470107G	500k	1
15.05M	2.454475G	2.469525G	16.211M	2.453888G	2.470098G	500k	2
15.025M	2.4545G	2.469525G	16.218M	2.453901G	2.470119G	500k	3
15.025M	2.454475G	2.4695G	16.231M	2.453896G	2.470128G	500k	4

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

2412MHz

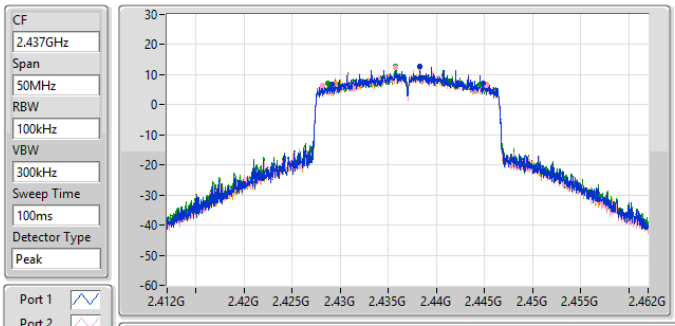


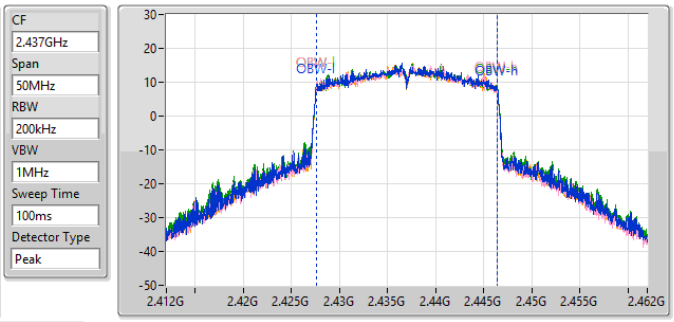


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.925M	2.403725G	2.42065G	18.661M	2.402664G	2.421324G	500k	1
15.55M	2.404G	2.41955G	18.683M	2.402669G	2.421352G	500k	2
16.775M	2.4033G	2.420075G	18.702M	2.402643G	2.421345G	500k	3
16.6M	2.40295G	2.41955G	18.672M	2.40264G	2.421312G	500k	4

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

2437MHz

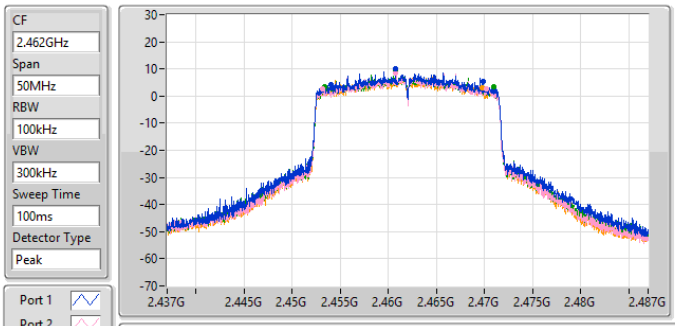


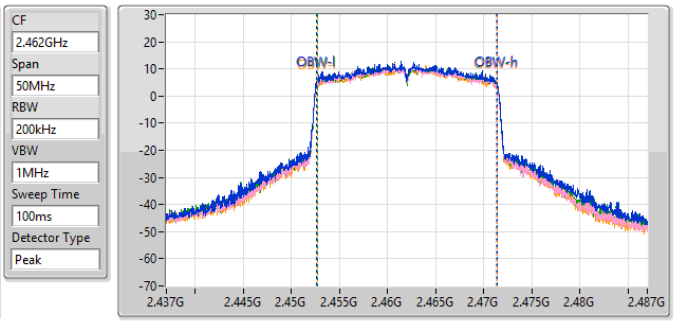


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.75M	2.4291G	2.44485G	18.745M	2.427616G	2.446361G	500k	1
17M	2.42815G	2.44515G	18.749M	2.427613G	2.446362G	500k	2
15.8M	2.428725G	2.444525G	18.792M	2.427592G	2.446384G	500k	3
15.75M	2.429425G	2.445175G	18.733M	2.42762G	2.446353G	500k	4

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

2462MHz

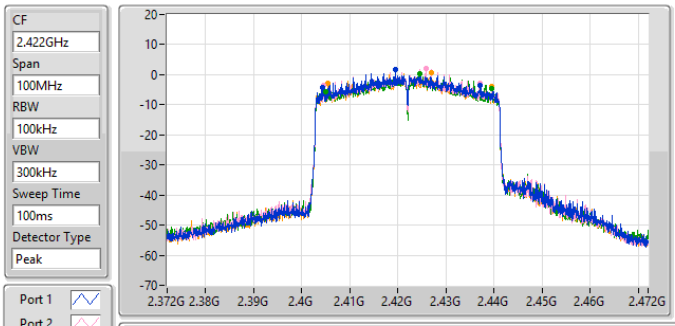


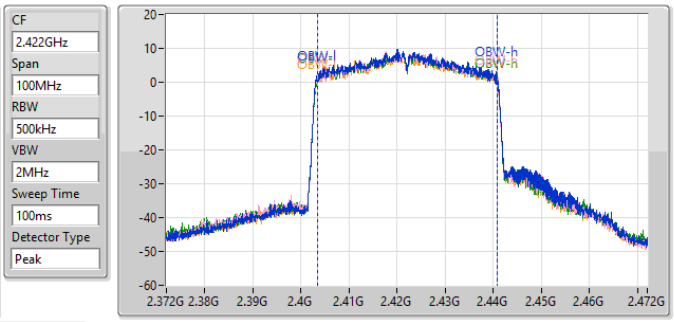


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.825M	2.45405G	2.469875G	18.69M	2.452654G	2.471344G	500k	1
17.025M	2.45315G	2.470175G	18.68M	2.452647G	2.471327G	500k	2
17.6M	2.453325G	2.470925G	18.667M	2.452672G	2.471339G	500k	3
16.4M	2.4533G	2.4697G	18.672M	2.452678G	2.47135G	500k	4

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

2422MHz

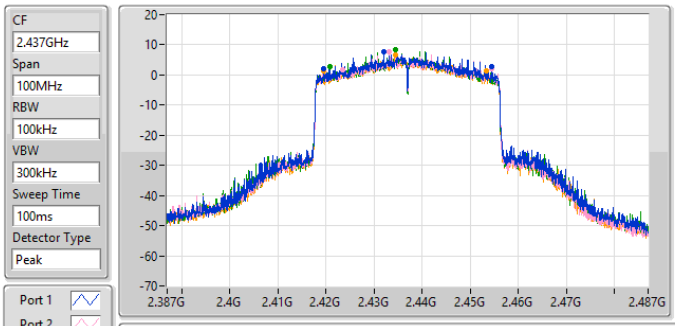


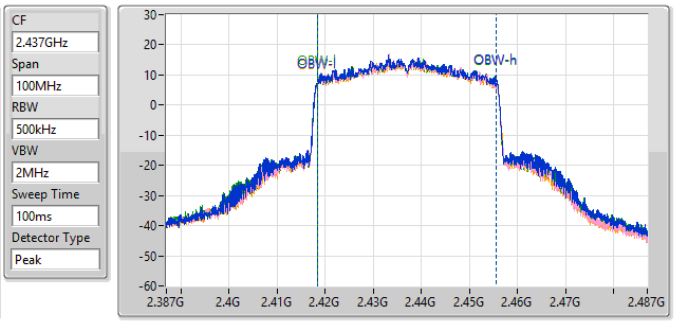


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
32.85M	2.4042G	2.43705G	37.375M	2.403336G	2.440711G	500k	1
32.45M	2.40455G	2.437G	37.321M	2.403394G	2.440715G	500k	2
34.5M	2.40505G	2.43955G	37.288M	2.403422G	2.44071G	500k	3
34M	2.4055G	2.4395G	37.34M	2.403366G	2.440706G	500k	4

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

2437MHz

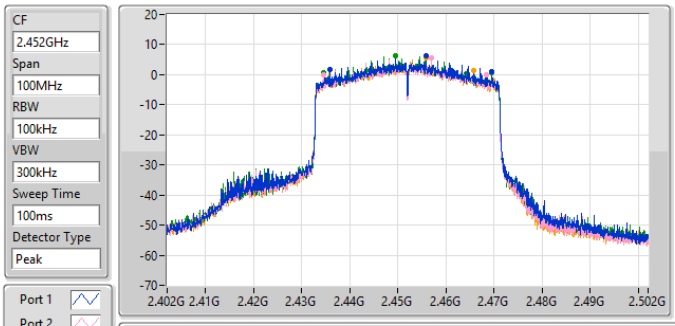


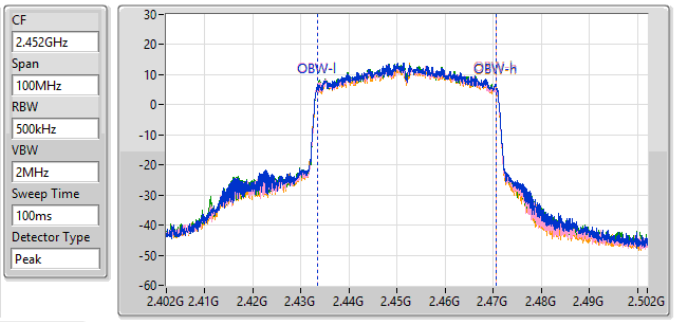


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35M	2.41955G	2.45455G	37.293M	2.418382G	2.455675G	500k	1
30.95M	2.4235G	2.45445G	37.253M	2.418423G	2.455677G	500k	2
33.75M	2.42075G	2.4545G	37.256M	2.4184G	2.455655G	500k	3
34M	2.41945G	2.45345G	37.241M	2.418411G	2.455652G	500k	4

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

2452MHz





6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
33.8M	2.43575G	2.46955G	37.217M	2.433379G	2.470596G	500k	1
33.8M	2.4345G	2.4683G	37.22M	2.43333G	2.47055G	500k	2
35M	2.4345G	2.4695G	37.162M	2.433389G	2.470552G	500k	3
31.25M	2.4345G	2.46575G	37.217M	2.433347G	2.470563G	500k	4

Non-beamforming mode

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_4TX	29.42	0.87498
802.11g_Nss1,(6Mbps)_4TX	29.21	0.83368
802.11be EHT20_Nss1,(MCS0)_4TX-OFDMA	29.23	0.83753
802.11be EHT40_Nss1,(MCS0)_4TX-OFDMA	27.25	0.53088

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	2.01	23.8	23.45	23.19	23.11	29.42	30.00	31.43	36.00
2437MHz	Pass	2.01	23.19	22.92	23.21	22.85	29.07	30.00	31.08	36.00
2462MHz	Pass	2.01	23.56	23.05	23.23	22.92	29.22	30.00	31.23	36.00
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.01	20.78	20.59	20.25	19.75	26.38	30.00	28.39	36.00
2437MHz	Pass	2.01	23.34	23.15	23.22	23.04	29.21	30.00	31.22	36.00
2462MHz	Pass	2.01	20.56	19.76	20.02	19.55	26.01	30.00	28.02	36.00
802.11be EHT20_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.01	19.98	19.41	19.25	18.69	25.38	30.00	27.39	36.00
2437MHz	Pass	2.01	23.37	23.05	23.34	23.06	29.23	30.00	31.24	36.00
2462MHz	Pass	2.01	20.71	19.85	20.11	19.55	26.10	30.00	28.11	36.00
802.11be EHT40_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.01	17.46	16.68	16.51	15.69	22.65	30.00	24.66	36.00
2437MHz	Pass	2.01	21.41	21.08	21.42	21.01	27.25	30.00	29.26	36.00
2452MHz	Pass	2.01	19.53	19.2	19.48	18.95	25.32	30.00	27.33	36.00

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

Beamforming mode

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11be EHT20-BF_Nss1,(MCS0)_4TX-OFDMA	29.04	0.80168
802.11be EHT40-BF_Nss1,(MCS0)_4TX-OFDMA	27.17	0.52119

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	3.34	19.74	19.45	19.22	18.31	25.23	30.00	28.57	36.00
2437MHz	Pass	3.34	22.89	22.68	23.51	22.95	29.04	30.00	32.38	36.00
2462MHz	Pass	3.34	21.05	19.32	20.08	19.55	26.07	30.00	29.41	36.00
802.11be EHT40-BF_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	3.34	17.25	16.05	16.04	15.52	22.28	30.00	25.62	36.00
2437MHz	Pass	3.34	21.27	20.89	21.48	20.95	27.17	30.00	30.51	36.00
2452MHz	Pass	3.34	19.38	18.83	19.75	18.64	25.19	30.00	28.53	36.00

DG = Directional Gain; Port X = Port X output power
DG gain is measured. Please refer to antenna test report, report number AP411518.

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_4TX	-0.64
802.11g_Nss1,(6Mbps)_4TX	-3.75
802.11be EHT20_Nss1,(MCS0)_4TX-OFDMA	-2.86
802.11be EHT40_Nss1,(MCS0)_4TX-OFDMA	-6.66

RBW = 3kHz;

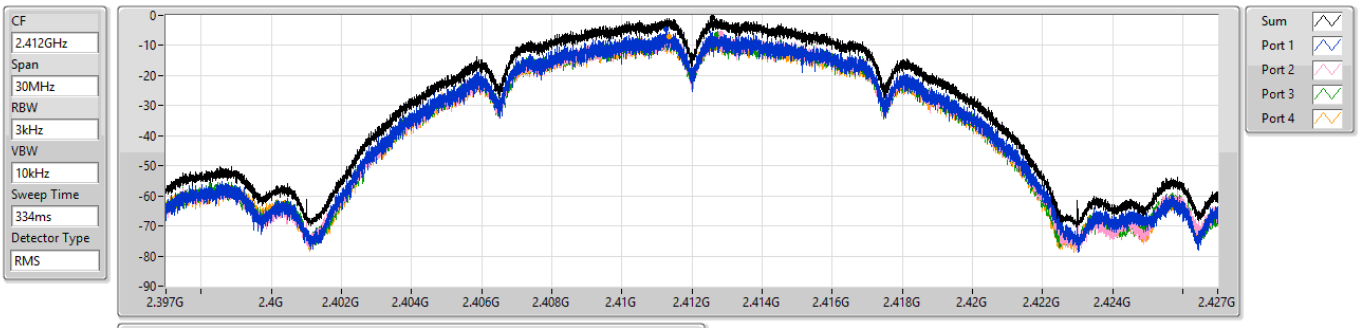
Result

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	3.34	-4.72	-5.96	-6.24	-7.11	-0.84	8.00
2437MHz	Pass	3.34	-6.44	-5.08	-6.20	-5.97	-0.82	8.00
2462MHz	Pass	3.34	-5.21	-5.31	-6.00	-6.36	-0.64	8.00
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	3.34	-11.47	-10.89	-11.59	-12.12	-6.46	8.00
2437MHz	Pass	3.34	-8.71	-8.09	-8.72	-8.47	-3.75	8.00
2462MHz	Pass	3.34	-11.26	-11.67	-11.52	-12.35	-6.88	8.00
802.11be EHT20_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-
2412MHz	Pass	3.34	-12.08	-12.19	-12.07	-13.25	-7.22	8.00
2437MHz	Pass	3.34	-8.69	-8.47	-8.07	-8.51	-2.86	8.00
2462MHz	Pass	3.34	-10.92	-11.99	-11.80	-12.13	-6.14	8.00
802.11be EHT40_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-
2422MHz	Pass	3.34	-19.42	-19.05	-19.19	-19.56	-13.61	8.00
2437MHz	Pass	3.34	-11.50	-9.53	-11.92	-11.93	-6.66	8.00
2452MHz	Pass	3.34	-13.34	-13.24	-13.73	-14.55	-8.55	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, report number AP411518.

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

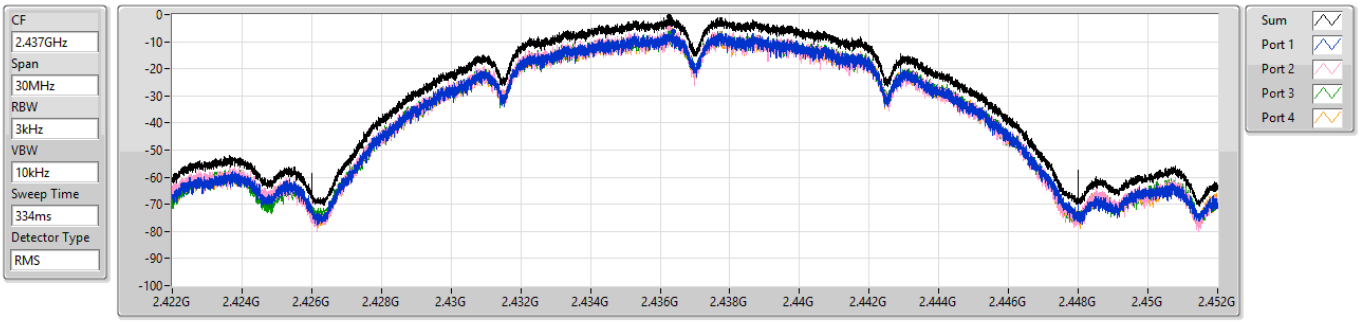
2412MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.84	-0.84	-4.72	-5.96	-6.24	-7.11

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

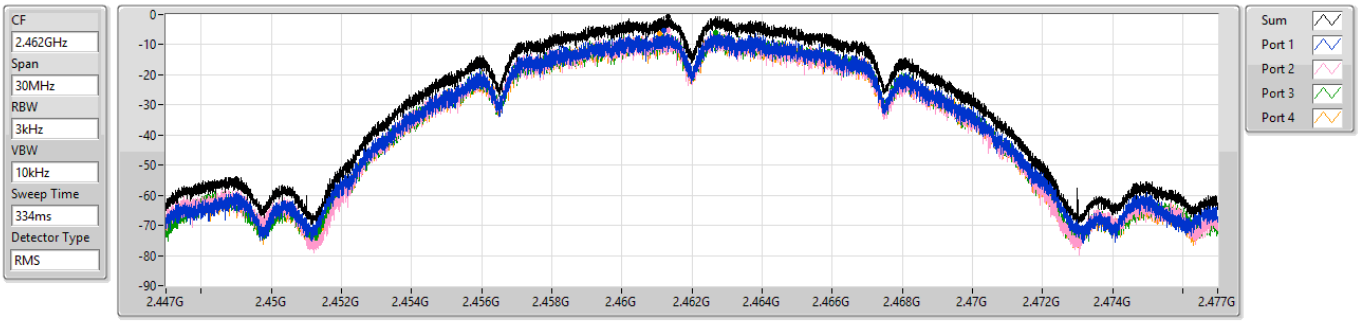
2437MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.82	-0.82	-6.44	-5.08	-6.20	-5.97

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

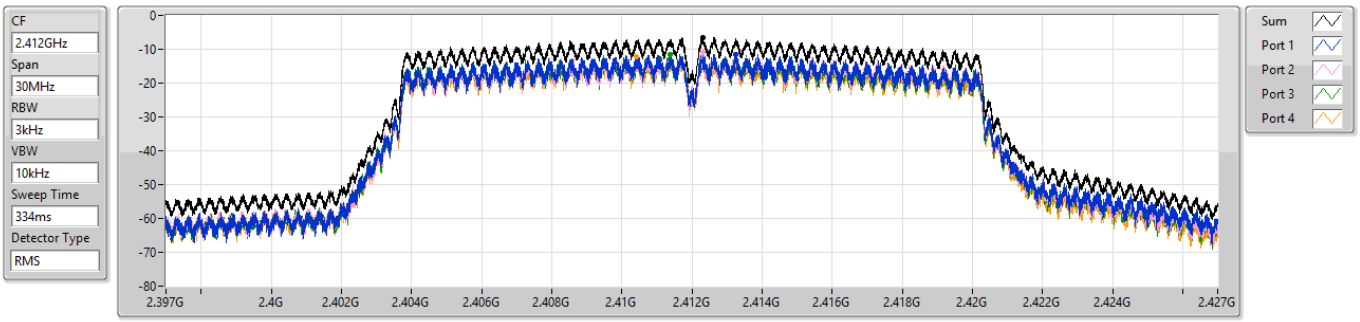
2462MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.64	-0.64	-5.21	-5.31	-6.00	-6.36

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

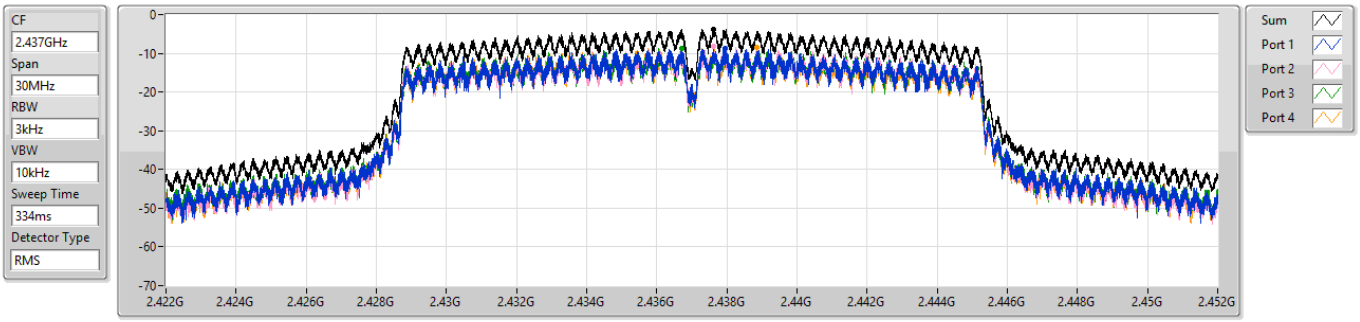
2412MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.46	-6.46	-11.47	-10.89	-11.59	-12.12

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

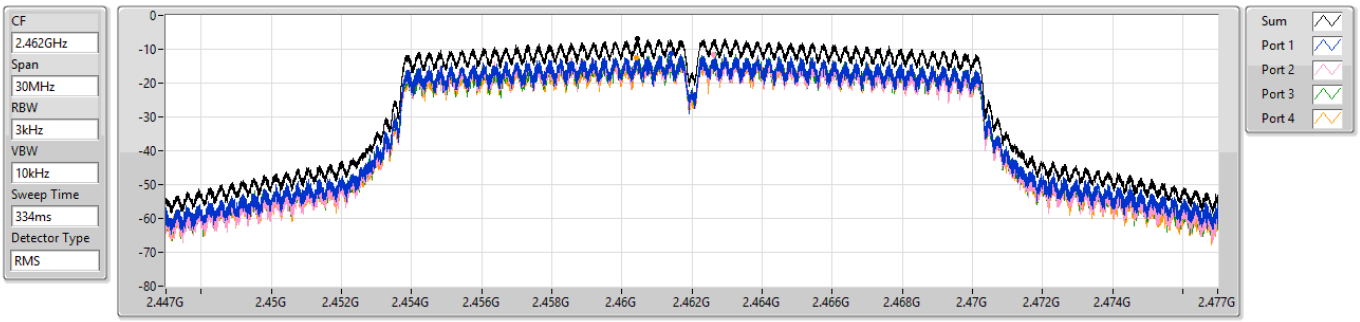
2437MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.75	-3.75	-8.71	-8.09	-8.72	-8.47

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

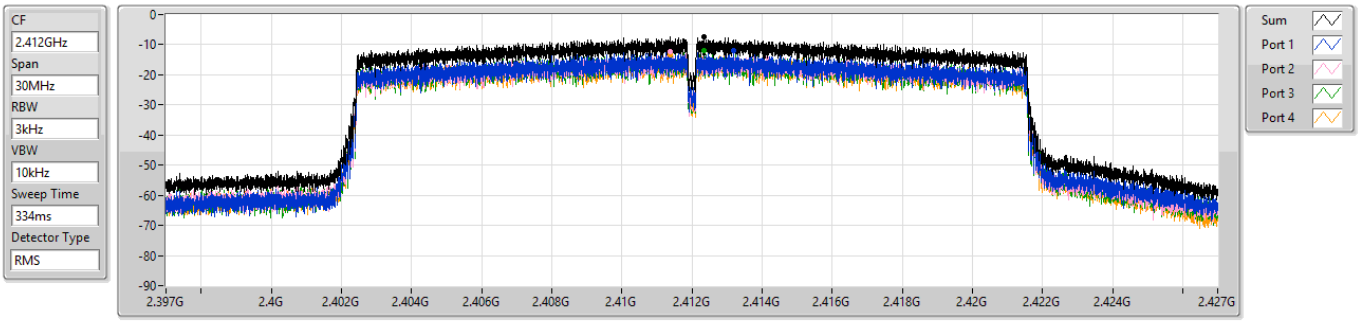
2462MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.88	-6.88	-11.26	-11.67	-11.52	-12.35

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

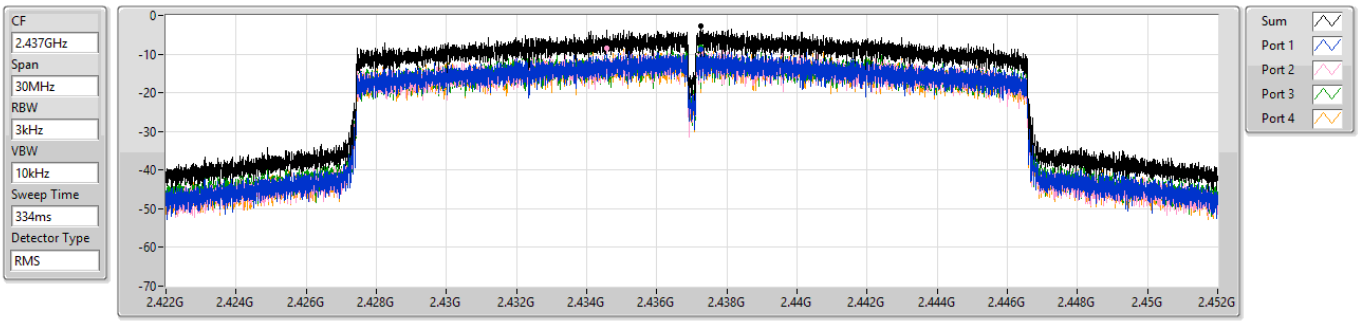
2412MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.22	-7.22	-12.08	-12.19	-12.07	-13.25

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

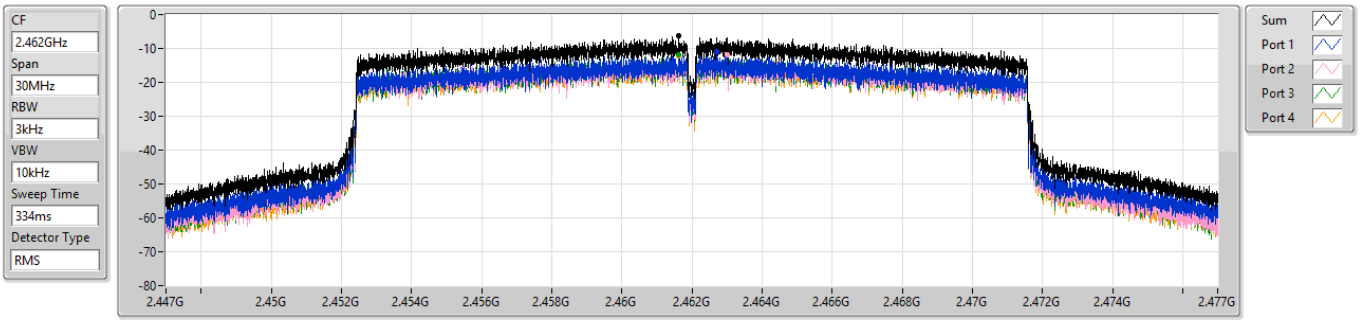
2437MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.86	-2.86	-8.69	-8.47	-8.07	-8.51

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

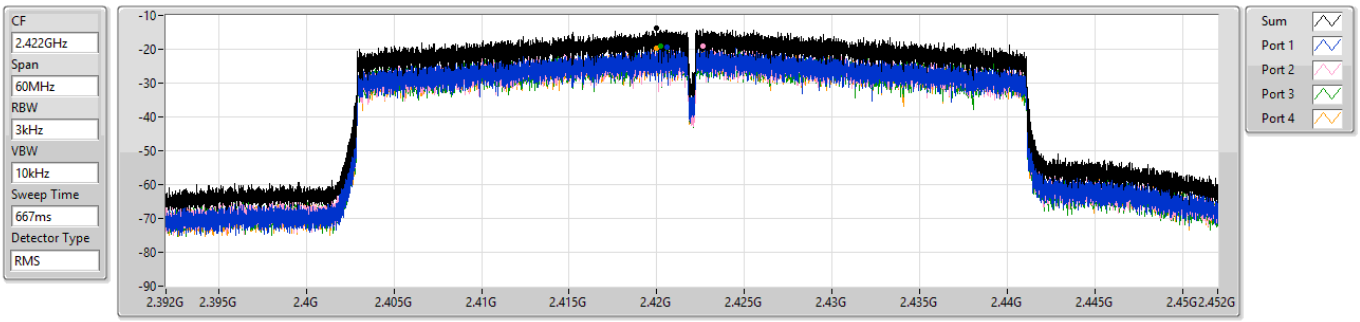
2462MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.14	-6.14	-10.92	-11.99	-11.80	-12.13

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

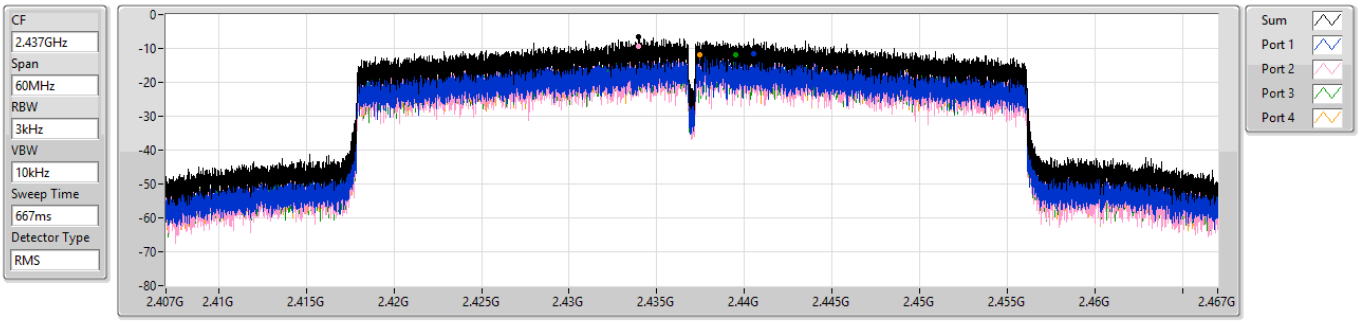
2422MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-13.61	-13.61	-19.42	-19.05	-19.19	-19.56

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

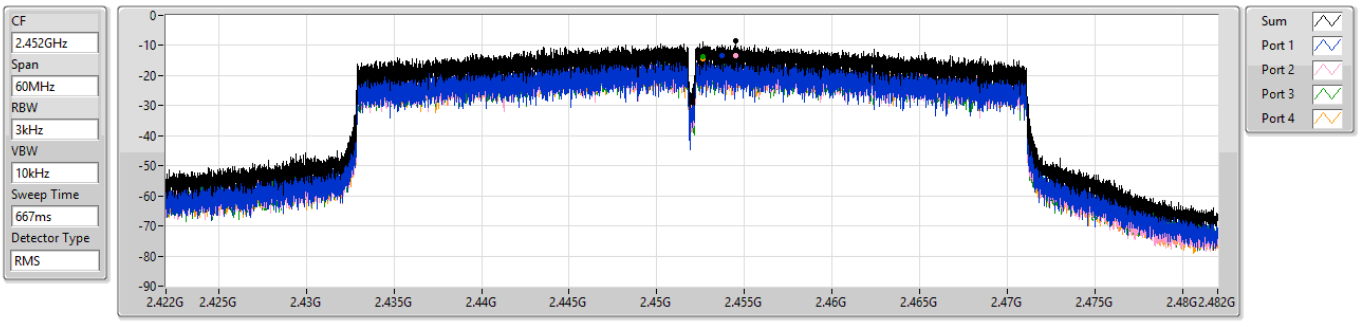
2437MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.66	-6.66	-11.50	-9.53	-11.92	-11.93

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

2452MHz

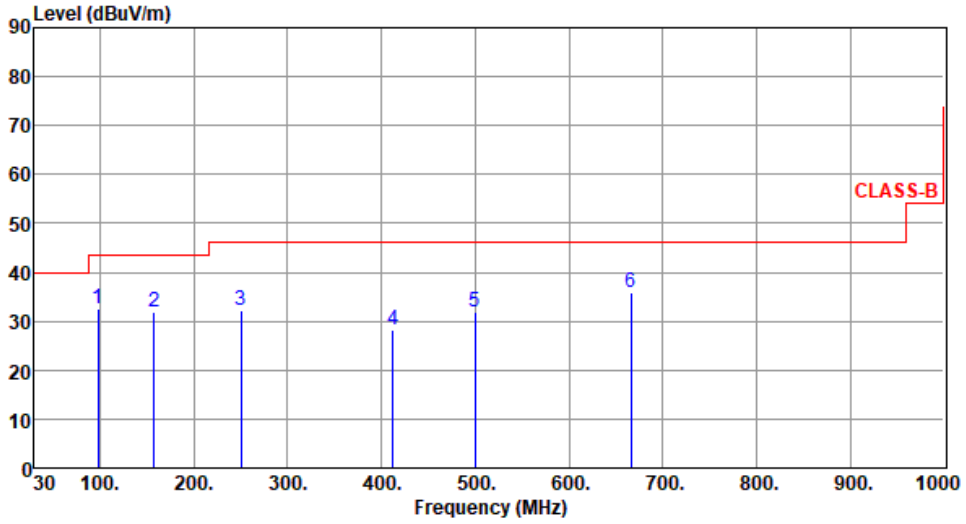


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.55	-8.55	-13.34	-13.24	-13.73	-14.55

Unwanted Emissions (Below 1GHz)

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

Test By :Sean Yu- Temperature(℃):23 Humidity(%):64

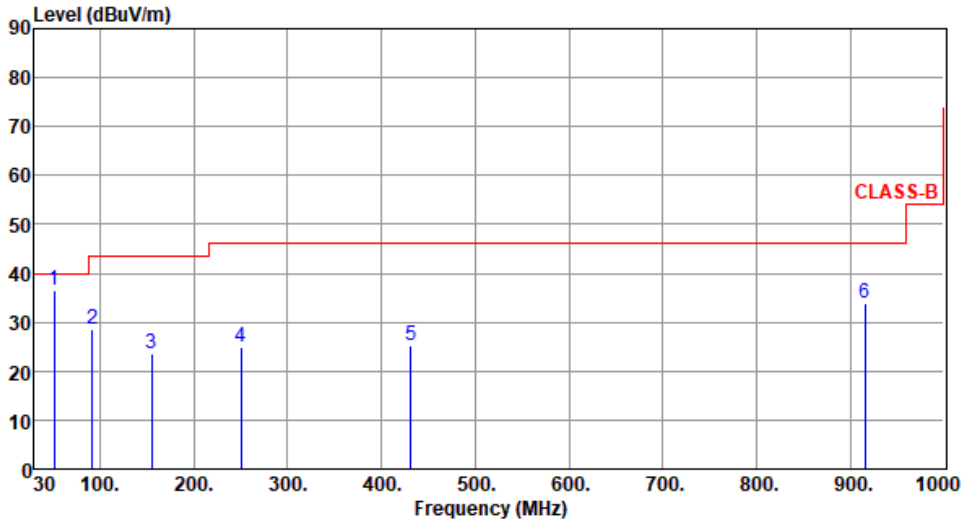


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	97.90	32.48	43.50	-11.02	46.02	-13.54	Peak	---	---
2	158.04	31.81	43.50	-11.69	40.45	-8.64	Peak	---	---
3	250.19	32.34	46.00	-13.66	42.29	-9.95	Peak	---	---
4	412.18	28.17	46.00	-17.83	33.17	-5.00	Peak	---	---
5	499.48	32.04	46.00	-13.96	35.12	-3.08	Peak	---	---
6	666.32	36.02	46.00	-9.98	35.68	0.34	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	11b	**Test Freq. (MHz)**	2412
Polarization	Vertical		

Test By :Sean Yu- Temperature(℃):23 Humidity(%):64



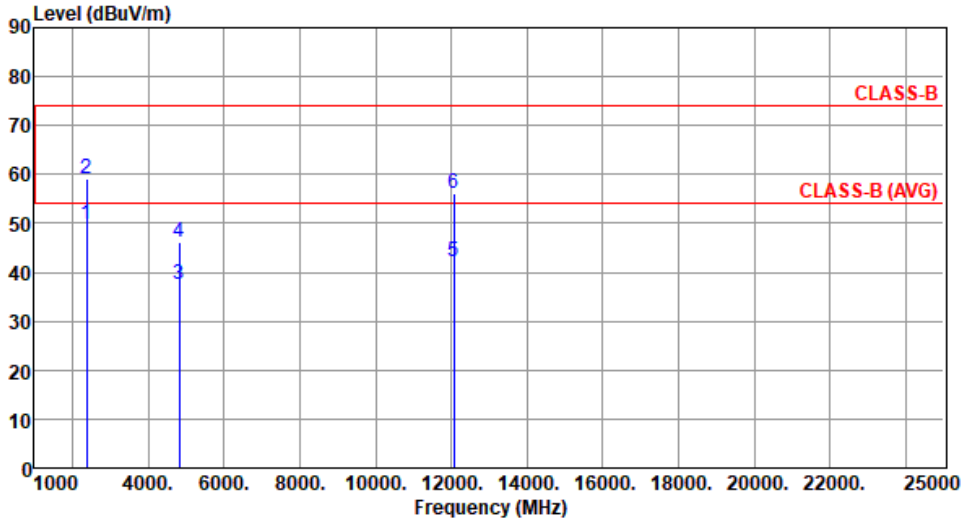
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	51.34	36.65	40.00	-3.35	44.52	-7.87	QP	100	151
2	92.08	28.40	43.50	-15.10	42.71	-14.31	Peak	---	---
3	155.13	23.66	43.50	-19.84	32.22	-8.56	Peak	---	---
4	250.19	24.96	46.00	-21.04	34.91	-9.95	Peak	---	---
5	431.58	25.13	46.00	-20.87	29.63	-4.50	Peak	---	---
6	915.61	33.98	46.00	-12.02	29.29	4.69	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 :Sean Yu- Temperature(℃):22 Humidity(%):63

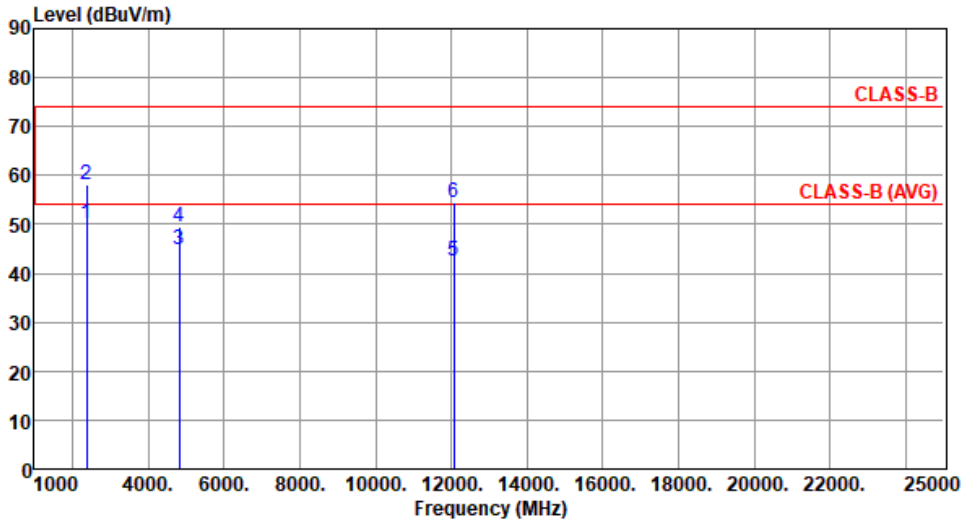


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	49.72	54.00	-4.28	54.10	-4.38	Average	100	339
2	2390.00	59.23	74.00	-14.77	63.61	-4.38	Peak	100	339
3	4824.00	37.59	54.00	-16.41	38.00	-0.41	Average	100	341
4	4824.00	46.06	74.00	-27.94	46.47	-0.41	Peak	100	341
5	12060.00	42.32	54.00	-11.68	36.06	6.26	Average	100	56
6	12060.00	55.97	74.00	-18.03	49.71	6.26	Peak	100	56

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 :Sean Yu- Temperature(℃):22 Humidity(%):63

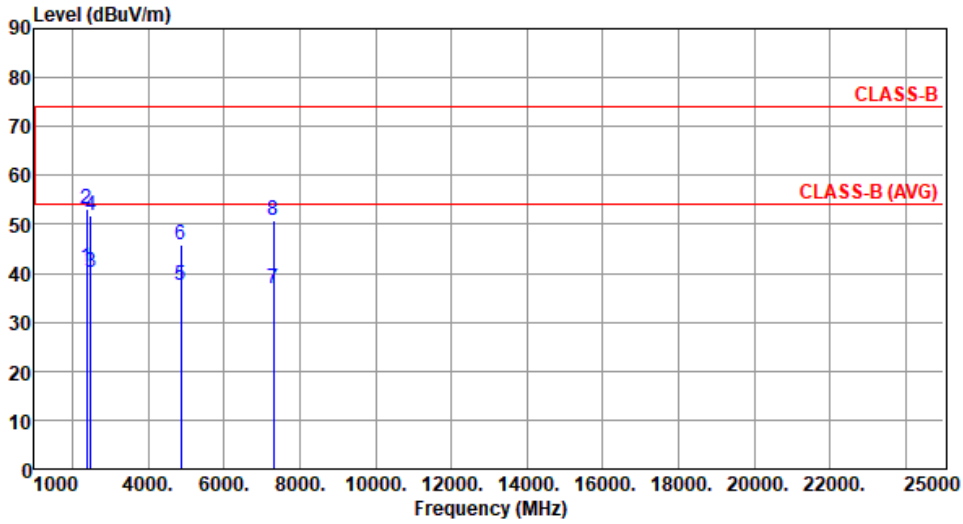


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	50.01	54.00	-3.99	54.39	-4.38	Average	100	343
2	2390.00	58.03	74.00	-15.97	62.41	-4.38	Peak	100	343
3	4824.00	44.68	54.00	-9.32	45.09	-0.41	Average	211	28
4	4824.00	49.58	74.00	-24.42	49.99	-0.41	Peak	211	28
5	12060.00	42.44	54.00	-11.56	36.18	6.26	Average	100	105
6	12060.00	54.40	74.00	-19.60	48.14	6.26	Peak	100	105

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 :Sean Yu- Temperature(℃):22 Humidity(%):63

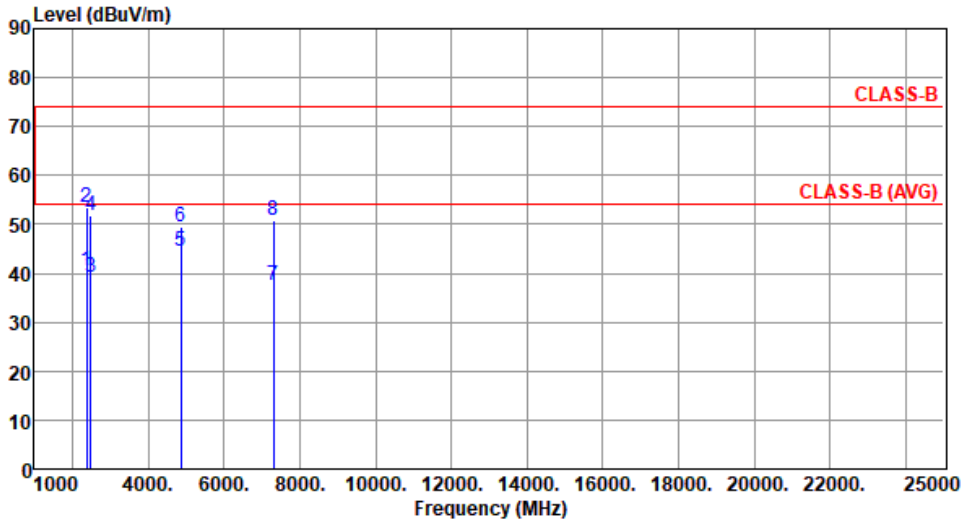


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	41.25	54.00	-12.75	45.63	-4.38	Average	127	65
2	2390.00	53.05	74.00	-20.95	57.43	-4.38	Peak	127	65
3	2483.50	40.06	54.00	-13.94	44.81	-4.75	Average	127	65
4	2483.50	51.77	74.00	-22.23	56.52	-4.75	Peak	127	65
5	4874.00	37.41	54.00	-16.59	37.91	-0.50	Average	100	337
6	4874.00	45.87	74.00	-28.13	46.37	-0.50	Peak	100	337
7	7311.00	36.72	54.00	-17.28	31.56	5.16	Average	100	12
8	7311.00	50.68	74.00	-23.32	45.52	5.16	Peak	100	12

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 :Sean Yu- Temperature(℃):22 Humidity(%):63

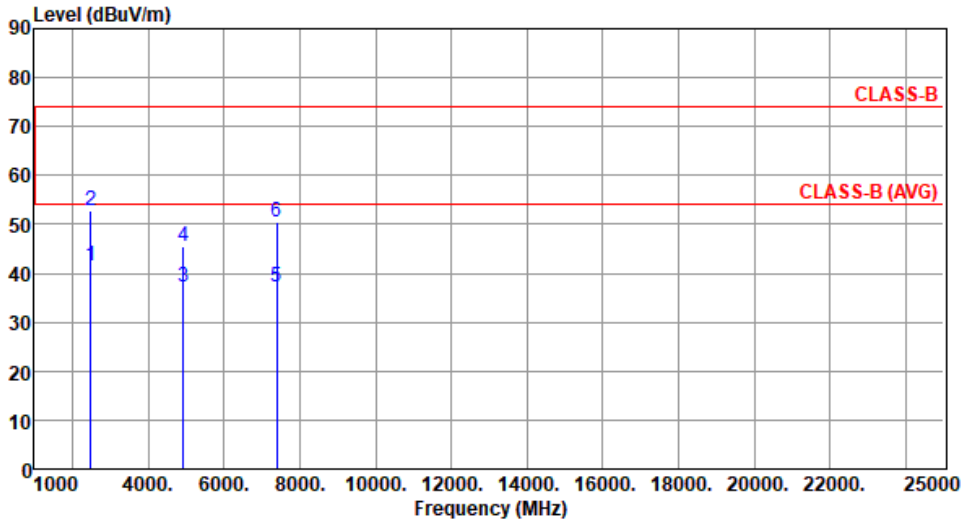


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	40.49	54.00	-13.51	44.87	-4.38	Average	100	11
2	2390.00	53.49	74.00	-20.51	57.87	-4.38	Peak	100	11
3	2483.50	39.19	54.00	-14.81	43.94	-4.75	Average	100	11
4	2483.50	51.95	74.00	-22.05	56.70	-4.75	Peak	100	11
5	4874.00	44.55	54.00	-9.45	45.05	-0.50	Average	210	25
6	4874.00	49.32	74.00	-24.68	49.82	-0.50	Peak	210	25
7	7311.00	37.69	54.00	-16.31	32.53	5.16	Average	100	177
8	7311.00	50.78	74.00	-23.22	45.62	5.16	Peak	100	177

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 :Sean Yu- Temperature(℃):22 Humidity(%):63

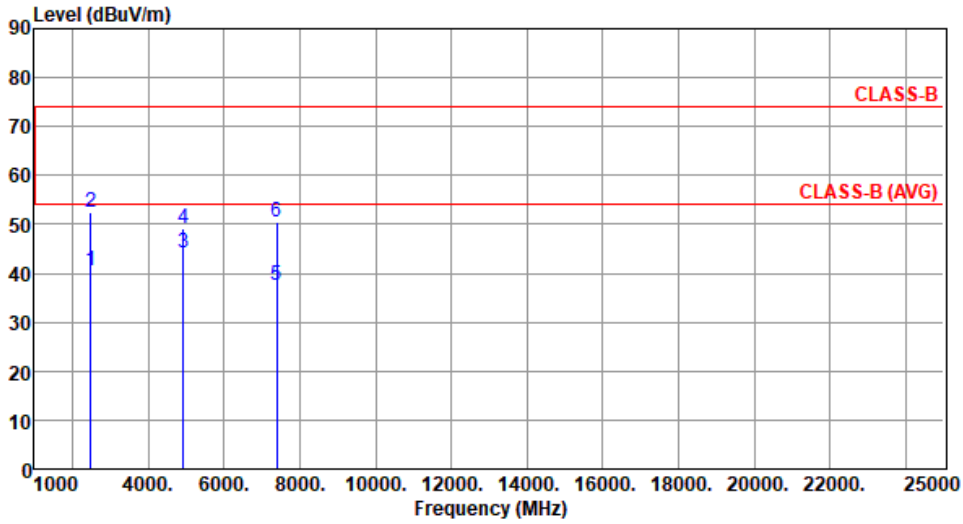


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	41.65	54.00	-12.35	46.40	-4.75	Average	177	287
2	2483.50	52.82	74.00	-21.18	57.57	-4.75	Peak	177	287
3	4924.00	37.24	54.00	-16.76	37.68	-0.44	Average	100	335
4	4924.00	45.56	74.00	-28.44	46.00	-0.44	Peak	100	335
5	7386.00	37.36	54.00	-16.64	32.33	5.03	Average	100	77
6	7386.00	50.60	74.00	-23.40	45.57	5.03	Peak	100	77

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 :Sean Yu- Temperature(℃):22 Humidity(%):63



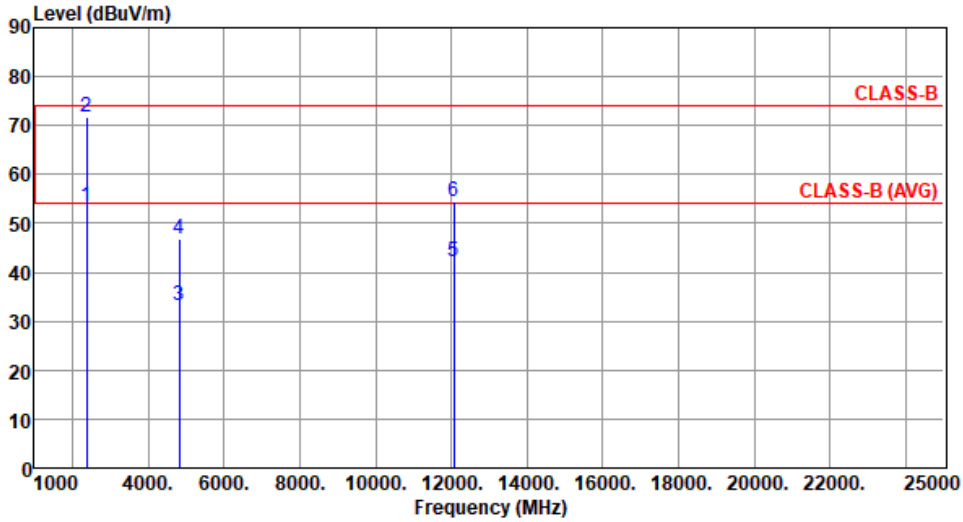
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	40.51	54.00	-13.49	45.26	-4.75	Average	100	8
2	2483.50	52.46	74.00	-21.54	57.21	-4.75	Peak	100	8
3	4924.00	44.16	54.00	-9.84	44.60	-0.44	Average	207	22
4	4924.00	49.08	74.00	-24.92	49.52	-0.44	Peak	207	22
5	7386.00	37.57	54.00	-16.43	32.54	5.03	Average	100	42
6	7386.00	50.34	74.00	-23.66	45.31	5.03	Peak	100	42

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 :Sean Yu- Temperature(℃):22 Humidity(%):63

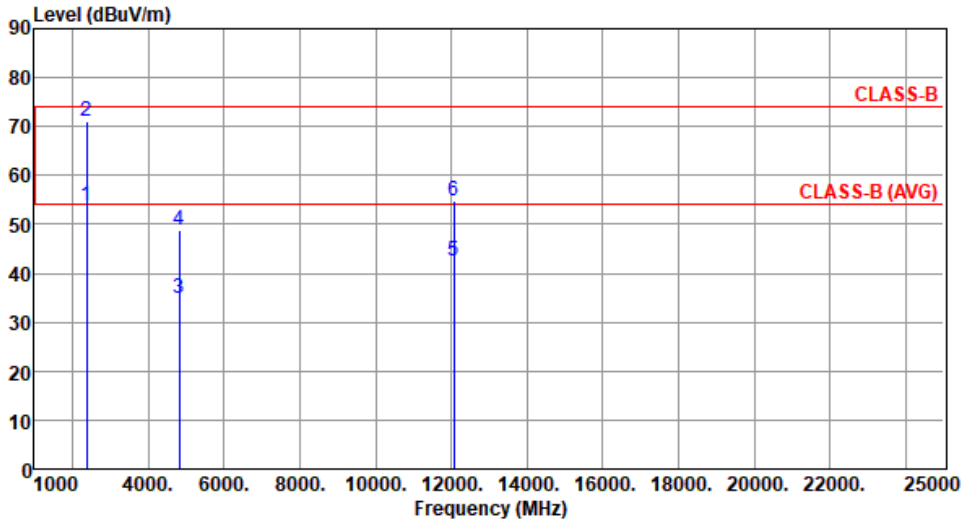


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	53.31	54.00	-0.69	57.69	-4.38	Average	100	334
2	2390.00	71.80	74.00	-2.20	76.18	-4.38	Peak	100	334
3	4824.00	33.06	54.00	-20.94	33.47	-0.41	Average	100	51
4	4824.00	46.80	74.00	-27.20	47.21	-0.41	Peak	100	51
5	12060.00	42.30	54.00	-11.70	36.04	6.26	Average	100	79
6	12060.00	54.48	74.00	-19.52	48.22	6.26	Peak	100	79

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 :Sean Yu- Temperature(℃):22 Humidity(%):63

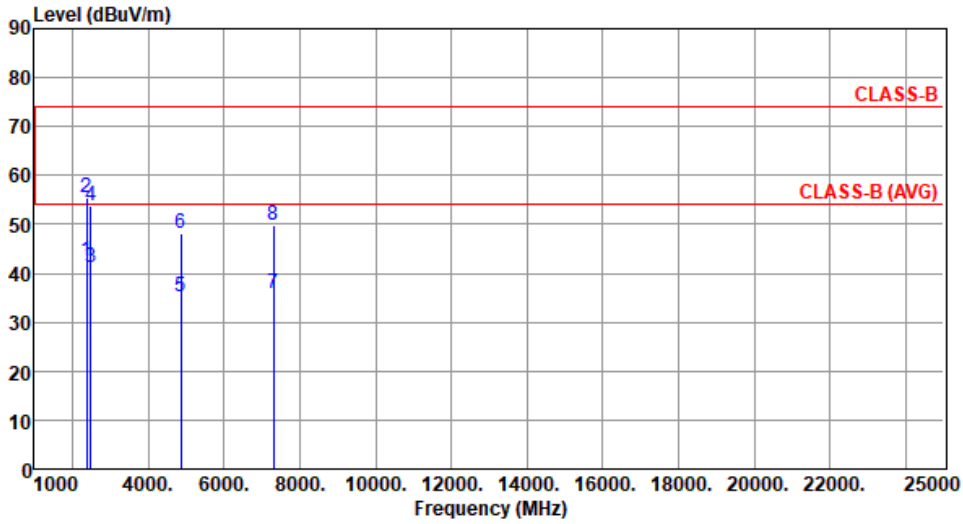


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	53.76	54.00	-0.24	58.14	-4.38	Average	123	353
2	2390.00	70.92	74.00	-3.08	75.30	-4.38	Peak	123	353
3	4824.00	35.01	54.00	-18.99	35.42	-0.41	Average	100	94
4	4824.00	48.72	74.00	-25.28	49.13	-0.41	Peak	100	94
5	12060.00	42.41	54.00	-11.59	36.15	6.26	Average	100	134
6	12060.00	54.83	74.00	-19.17	48.57	6.26	Peak	100	134

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 :Sean Yu- Temperature(℃):22 Humidity(%):63

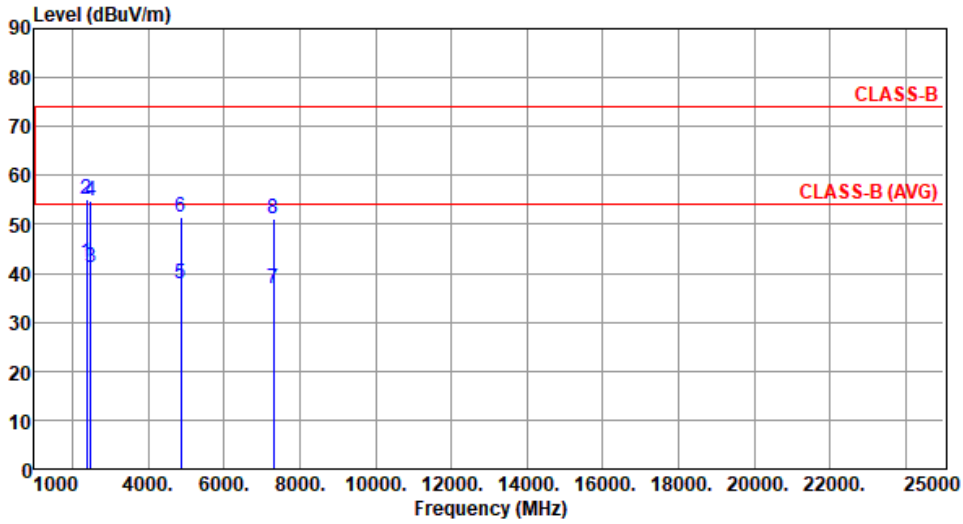


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	42.42	54.00	-11.58	46.80	-4.38	Average	113	355
2	2390.00	55.55	74.00	-18.45	59.93	-4.38	Peak	113	355
3	2483.50	41.25	54.00	-12.75	46.00	-4.75	Average	113	355
4	2483.50	53.90	74.00	-20.10	58.65	-4.75	Peak	113	355
5	4874.00	35.05	54.00	-18.95	35.55	-0.50	Average	172	76
6	4874.00	48.25	74.00	-25.75	48.75	-0.50	Peak	172	76
7	7311.00	35.76	54.00	-18.24	30.60	5.16	Average	100	13
8	7311.00	49.92	74.00	-24.08	44.76	5.16	Peak	100	13

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 :Sean Yu- Temperature(℃):22 Humidity(%):63

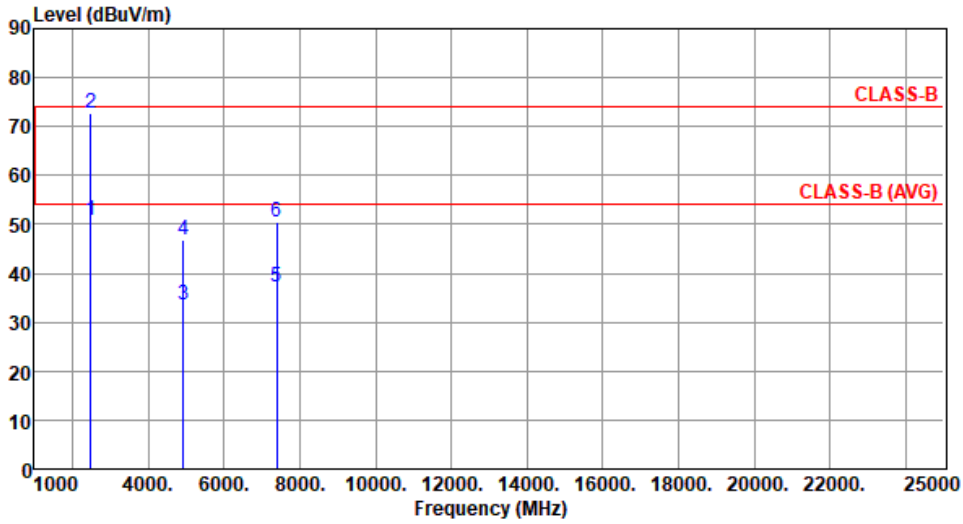


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	42.02	54.00	-11.98	46.40	-4.38	Average	100	16
2	2390.00	55.07	74.00	-18.93	59.45	-4.38	Peak	100	16
3	2483.50	41.15	54.00	-12.85	45.90	-4.75	Average	100	16
4	2483.50	54.70	74.00	-19.30	59.45	-4.75	Peak	100	16
5	4874.00	37.75	54.00	-16.25	38.25	-0.50	Average	137	20
6	4874.00	51.37	74.00	-22.63	51.87	-0.50	Peak	137	20
7	7311.00	36.82	54.00	-17.18	31.66	5.16	Average	100	206
8	7311.00	51.05	74.00	-22.95	45.89	5.16	Peak	100	206

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 :Sean Yu- Temperature(℃):22 Humidity(%):63

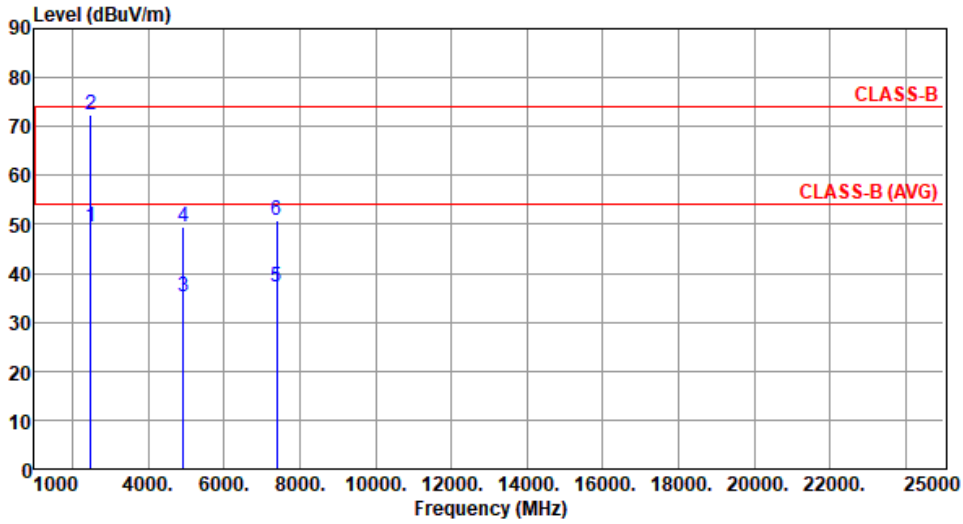


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	50.78	54.00	-3.22	55.53	-4.75	Average	116	294
2	2483.50	72.73	74.00	-1.27	77.48	-4.75	Peak	116	294
3	4924.00	33.45	54.00	-20.55	33.89	-0.44	Average	100	113
4	4924.00	46.78	74.00	-27.22	47.22	-0.44	Peak	100	113
5	7386.00	37.10	54.00	-16.90	32.07	5.03	Average	100	65
6	7386.00	50.55	74.00	-23.45	45.52	5.03	Peak	100	65

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 :Sean Yu- Temperature(℃):22 Humidity(%):63



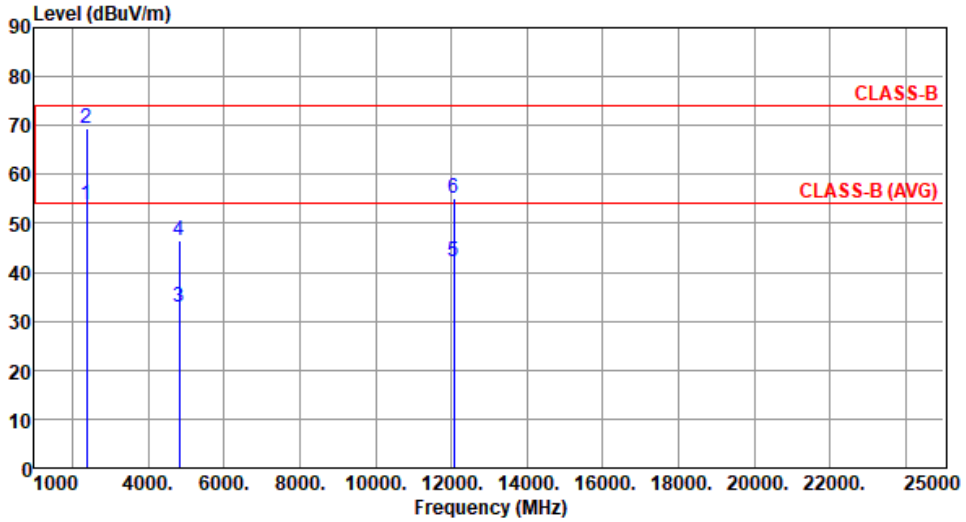
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	49.39	54.00	-4.61	54.14	-4.75	Average	100	326
2	2483.50	72.56	74.00	-1.44	77.31	-4.75	Peak	100	326
3	4924.00	35.29	54.00	-18.71	35.73	-0.44	Average	100	61
4	4924.00	49.45	74.00	-24.55	49.89	-0.44	Peak	100	61
5	7386.00	37.17	54.00	-16.83	32.14	5.03	Average	100	85
6	7386.00	50.75	74.00	-23.25	45.72	5.03	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 EHT20-OFDMA

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

Test By :Sean Yu- Temperature(℃):23 Humidity(%):62

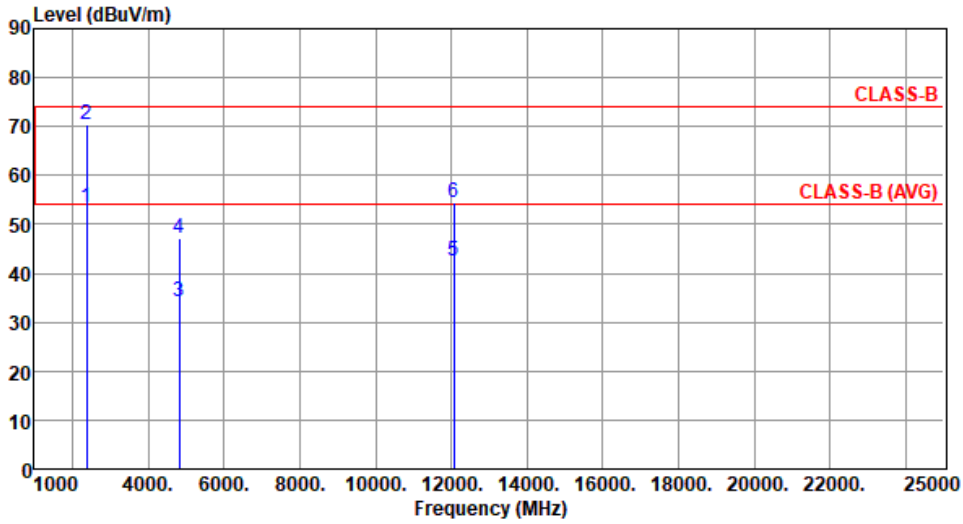


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	53.74	54.00	-0.26	58.12	-4.38	Average	116	359
2	2390.00	69.48	74.00	-4.52	73.86	-4.38	Peak	116	359
3	4824.00	32.98	54.00	-21.02	33.39	-0.41	Average	100	59
4	4824.00	46.45	74.00	-27.55	46.86	-0.41	Peak	100	59
5	12060.00	42.29	54.00	-11.71	36.03	6.26	Average	100	34
6	12060.00	55.00	74.00	-19.00	48.74	6.26	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	be EHT20-OFDMA	**Test Freq. (MHz)**	2412
Polarization	Vertical		

Test By :Sean Yu- Temperature(℃):23 Humidity(%):62

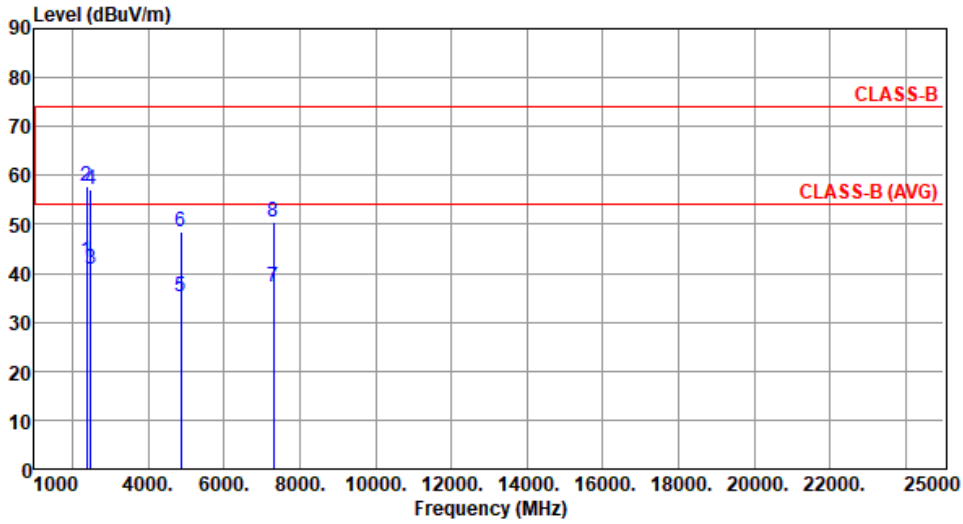


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	53.48	54.00	-0.52	57.86	-4.38	Average	122	346
2	2390.00	70.24	74.00	-3.76	74.62	-4.38	Peak	122	346
3	4824.00	34.16	54.00	-19.84	34.57	-0.41	Average	100	66
4	4824.00	47.17	74.00	-26.83	47.58	-0.41	Peak	100	66
5	12060.00	42.48	54.00	-11.52	36.22	6.26	Average	100	141
6	12060.00	54.59	74.00	-19.41	48.33	6.26	Peak	100	141

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 :Sean Yu- Temperature(℃):23 Humidity(%):62

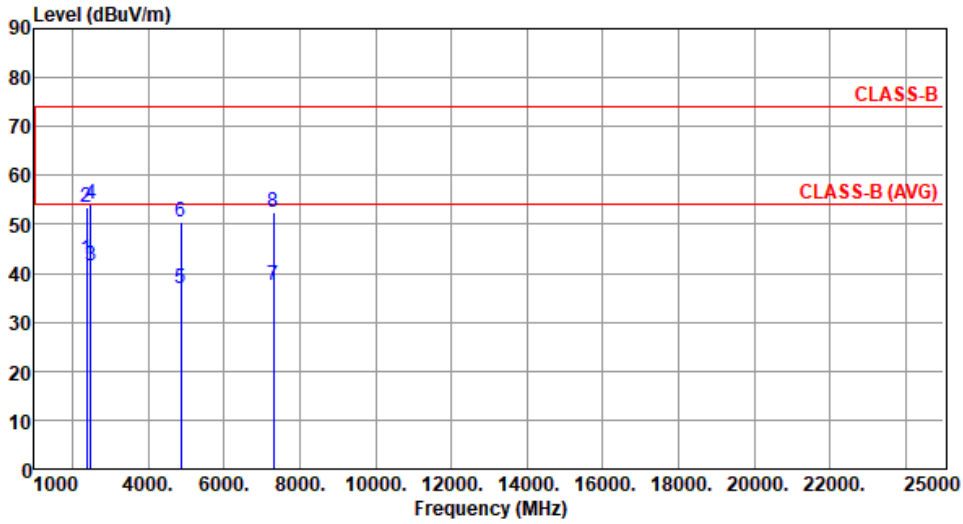


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	42.59	54.00	-11.41	46.97	-4.38	Average	100	358
2	2390.00	57.76	74.00	-16.24	62.14	-4.38	Peak	100	358
3	2483.50	40.96	54.00	-13.04	45.71	-4.75	Average	100	358
4	2483.50	57.10	74.00	-16.90	61.85	-4.75	Peak	100	358
5	4874.00	35.23	54.00	-18.77	35.73	-0.50	Average	100	49
6	4874.00	48.65	74.00	-25.35	49.15	-0.50	Peak	100	49
7	7311.00	37.23	54.00	-16.77	32.07	5.16	Average	100	96
8	7311.00	50.39	74.00	-23.61	45.23	5.16	Peak	100	96

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 :Sean Yu- Temperature(℃):23 Humidity(%):62

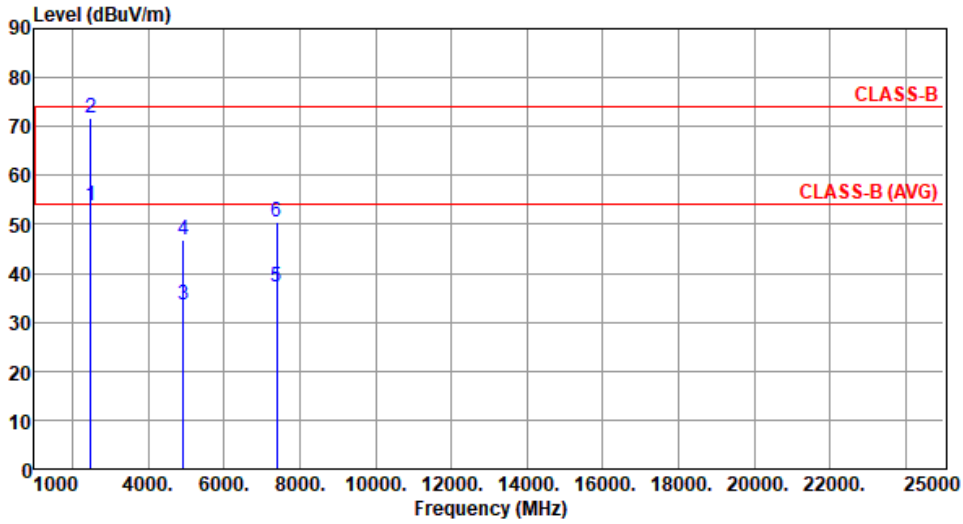


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	43.00	54.00	-11.00	47.38	-4.38	Average	100	48
2	2390.00	53.58	74.00	-20.42	57.96	-4.38	Peak	100	48
3	2483.50	41.54	54.00	-12.46	46.29	-4.75	Average	100	48
4	2483.50	54.10	74.00	-19.90	58.85	-4.75	Peak	100	48
5	4874.00	36.95	54.00	-17.05	37.45	-0.50	Average	133	30
6	4874.00	50.60	74.00	-23.40	51.10	-0.50	Peak	133	30
7	7311.00	37.56	54.00	-16.44	32.40	5.16	Average	100	195
8	7311.00	52.44	74.00	-21.56	47.28	5.16	Peak	100	195

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 :Sean Yu- Temperature(℃):23 Humidity(%):62

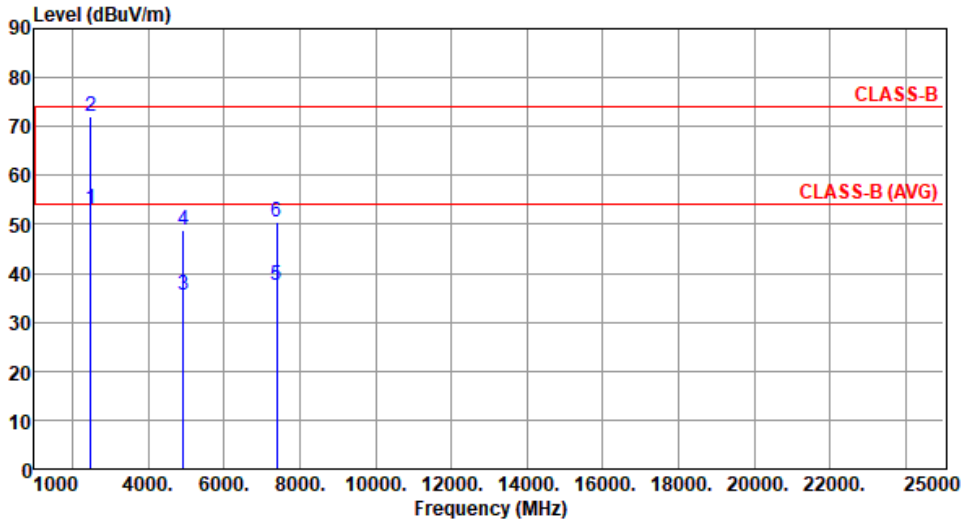


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	53.71	54.00	-0.29	58.46	-4.75	Average	151	58
2	2483.50	71.64	74.00	-2.36	76.39	-4.75	Peak	151	58
3	4924.00	33.58	54.00	-20.42	34.02	-0.44	Average	100	155
4	4924.00	46.68	74.00	-27.32	47.12	-0.44	Peak	100	155
5	7386.00	37.36	54.00	-16.64	32.33	5.03	Average	100	107
6	7386.00	50.54	74.00	-23.46	45.51	5.03	Peak	100	107

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 :Sean Yu- Temperature(℃):23 Humidity(%):62



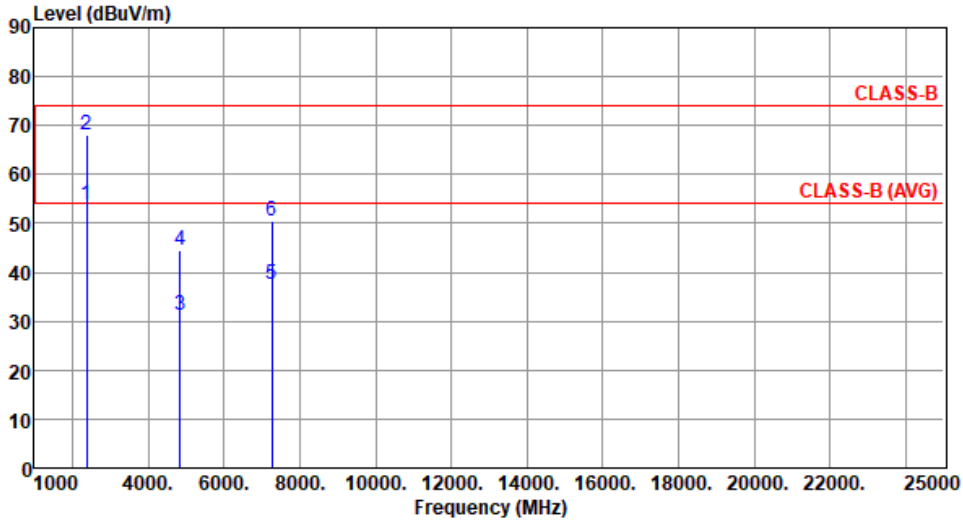
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	53.27	54.00	-0.73	58.02	-4.75	Average	100	4
2	2483.50	71.92	74.00	-2.08	76.67	-4.75	Peak	100	4
3	4924.00	35.44	54.00	-18.56	35.88	-0.44	Average	100	83
4	4924.00	48.78	74.00	-25.22	49.22	-0.44	Peak	100	83
5	7386.00	37.44	54.00	-16.56	32.41	5.03	Average	100	47
6	7386.00	50.49	74.00	-23.51	45.46	5.03	Peak	100	47

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 :Sean Yu- Temperature(℃):23 Humidity(%):62

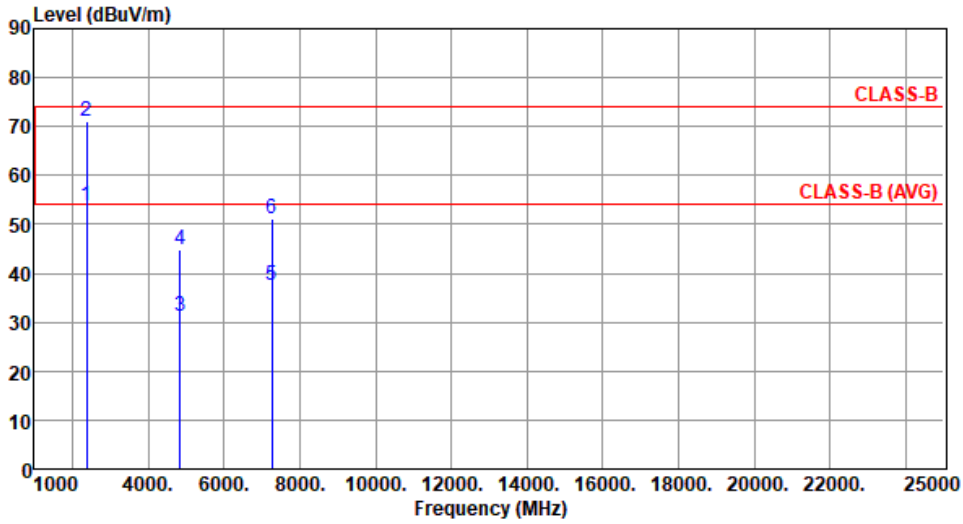


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	53.74	54.00	-0.26	58.12	-4.38	Average	145	2
2	2390.00	68.06	74.00	-5.94	72.44	-4.38	Peak	145	2
3	4844.00	31.13	54.00	-22.87	31.58	-0.45	Average	100	72
4	4844.00	44.34	74.00	-29.66	44.79	-0.45	Peak	100	72
5	7266.00	37.42	54.00	-16.58	32.21	5.21	Average	100	91
6	7266.00	50.40	74.00	-23.60	45.19	5.21	Peak	100	91

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 :Sean Yu- Temperature(℃):23 Humidity(%):62

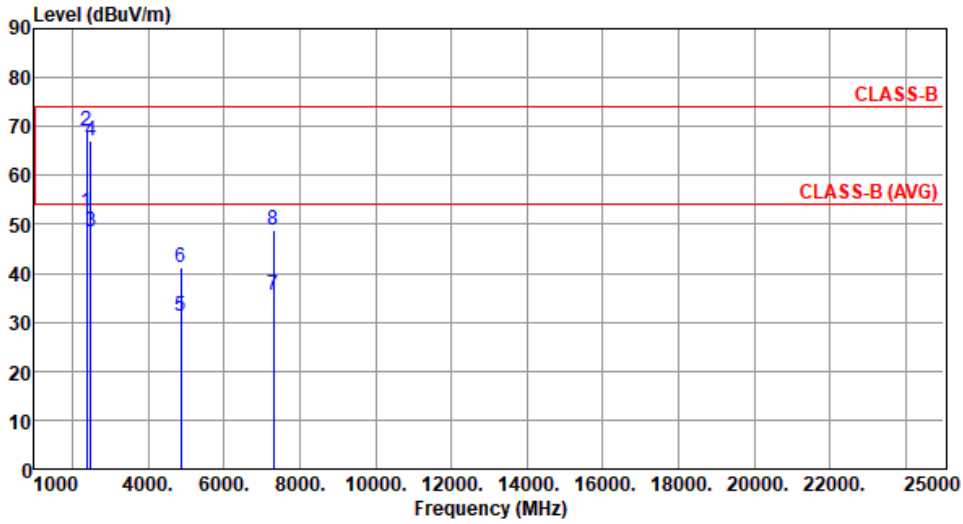


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	53.64	54.00	-0.36	58.02	-4.38	Average	100	336
2	2390.00	70.92	74.00	-3.08	75.30	-4.38	Peak	100	336
3	4844.00	31.19	54.00	-22.81	31.64	-0.45	Average	100	82
4	4844.00	44.69	74.00	-29.31	45.14	-0.45	Peak	100	82
5	7266.00	37.37	54.00	-16.63	32.16	5.21	Average	100	112
6	7266.00	51.14	74.00	-22.86	45.93	5.21	Peak	100	112

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 :Sean Yu- Temperature(℃):23 Humidity(%):62

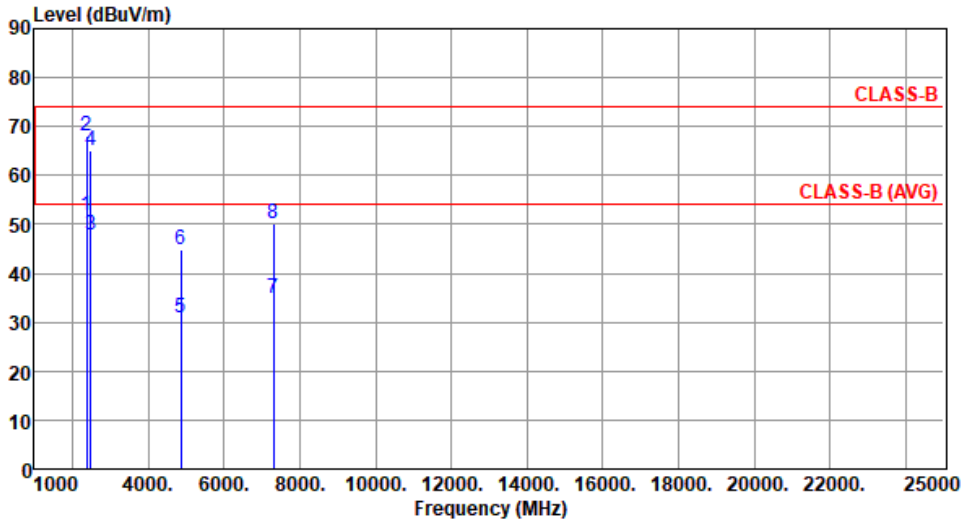


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	52.51	54.00	-1.49	56.89	-4.38	Average	118	2
2	2390.00	68.97	74.00	-5.03	73.35	-4.38	Peak	118	2
3	2483.50	48.36	54.00	-5.64	53.11	-4.75	Average	118	2
4	2483.50	67.09	74.00	-6.91	71.84	-4.75	Peak	118	2
5	4874.00	31.12	54.00	-22.88	31.62	-0.50	Average	100	9
6	4874.00	41.26	74.00	-32.74	41.76	-0.50	Peak	100	9
7	7311.00	35.55	54.00	-18.45	30.39	5.16	Average	100	12
8	7311.00	48.67	74.00	-25.33	43.51	5.16	Peak	100	12

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 :Sean Yu- Temperature(℃):23 Humidity(%):62

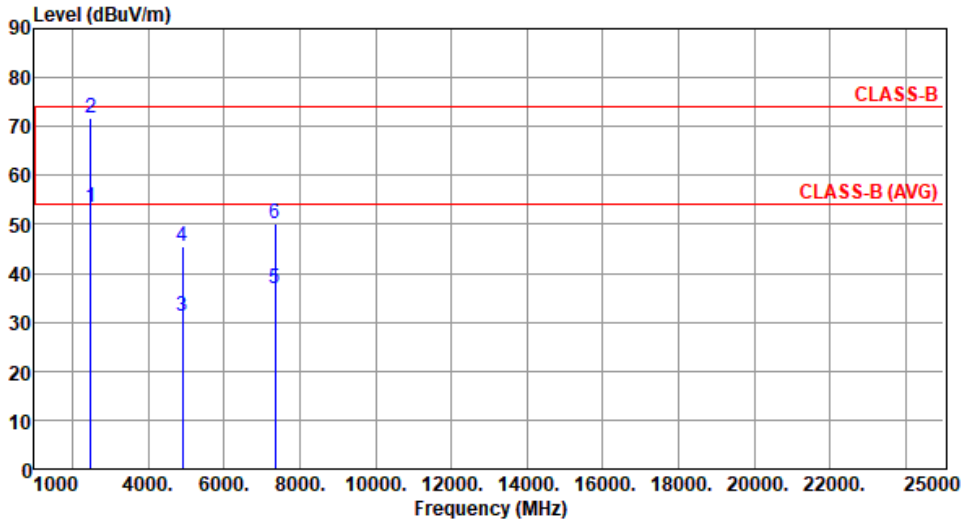


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	51.90	54.00	-2.10	56.28	-4.38	Average	100	22
2	2390.00	67.93	74.00	-6.07	72.31	-4.38	Peak	100	22
3	2483.50	47.98	54.00	-6.02	52.73	-4.75	Average	100	22
4	2483.50	65.23	74.00	-8.77	69.98	-4.75	Peak	100	22
5	4874.00	30.95	54.00	-23.05	31.45	-0.50	Average	100	28
6	4874.00	44.99	74.00	-29.01	45.49	-0.50	Peak	100	28
7	7311.00	34.96	54.00	-19.04	29.80	5.16	Average	100	3
8	7311.00	50.07	74.00	-23.93	44.91	5.16	Peak	100	3

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 :Sean Yu- Temperature(℃):23 Humidity(%):62

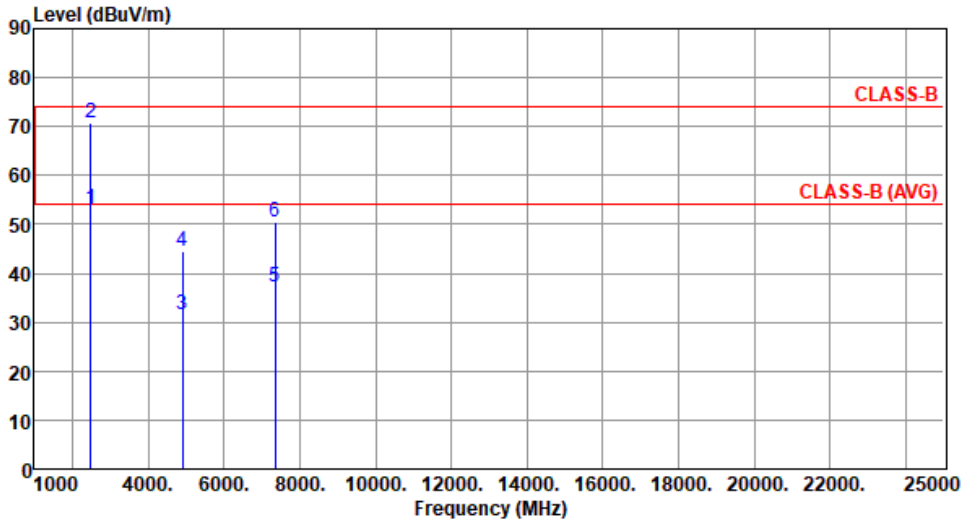


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	53.48	54.00	-0.52	58.23	-4.75	Average	109	348
2	2483.50	71.60	74.00	-2.40	76.35	-4.75	Peak	109	348
3	4904.00	31.36	54.00	-22.64	31.89	-0.53	Average	100	137
4	4904.00	45.35	74.00	-28.65	45.88	-0.53	Peak	100	137
5	7356.00	37.00	54.00	-17.00	31.95	5.05	Average	100	52
6	7356.00	50.23	74.00	-23.77	45.18	5.05	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	be EHT40-OFDMA	**Test Freq. (MHz)**	2452
Polarization	Vertical		

Test By :Sean Yu- Temperature(℃):23 Humidity(%):62

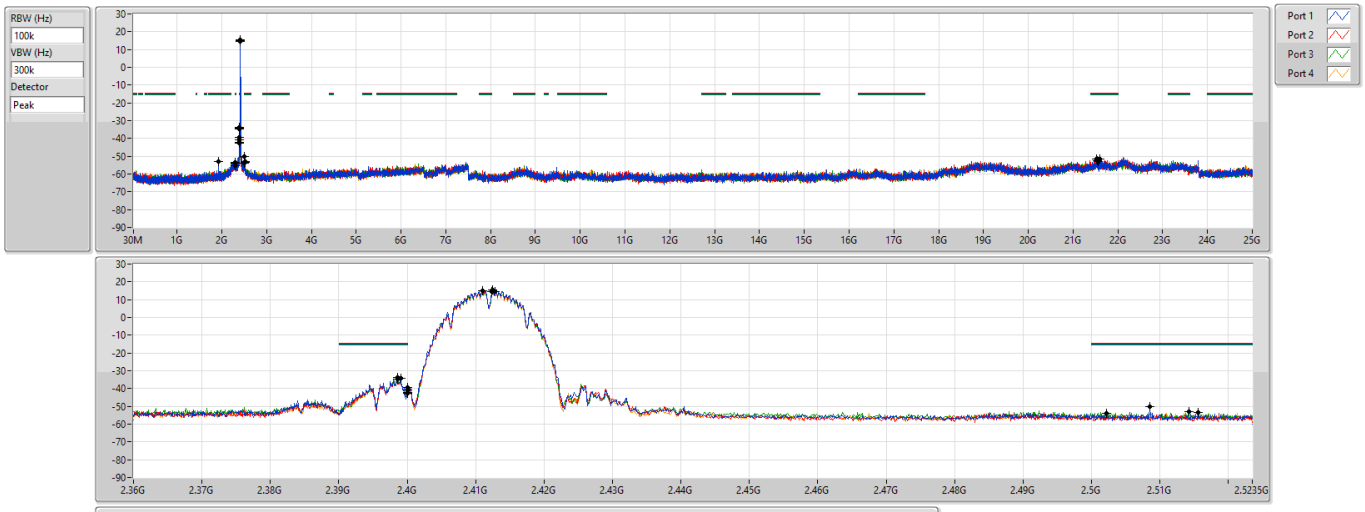


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	52.99	54.00	-1.01	57.74	-4.75	Average	100	94
2	2483.50	70.64	74.00	-3.36	75.39	-4.75	Peak	100	94
3	4904.00	31.39	54.00	-22.61	31.92	-0.53	Average	100	49
4	4904.00	44.40	74.00	-29.60	44.93	-0.53	Peak	100	49
5	7356.00	37.19	54.00	-16.81	32.14	5.05	Average	100	151
6	7356.00	50.42	74.00	-23.58	45.37	5.05	Peak	100	151

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).

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

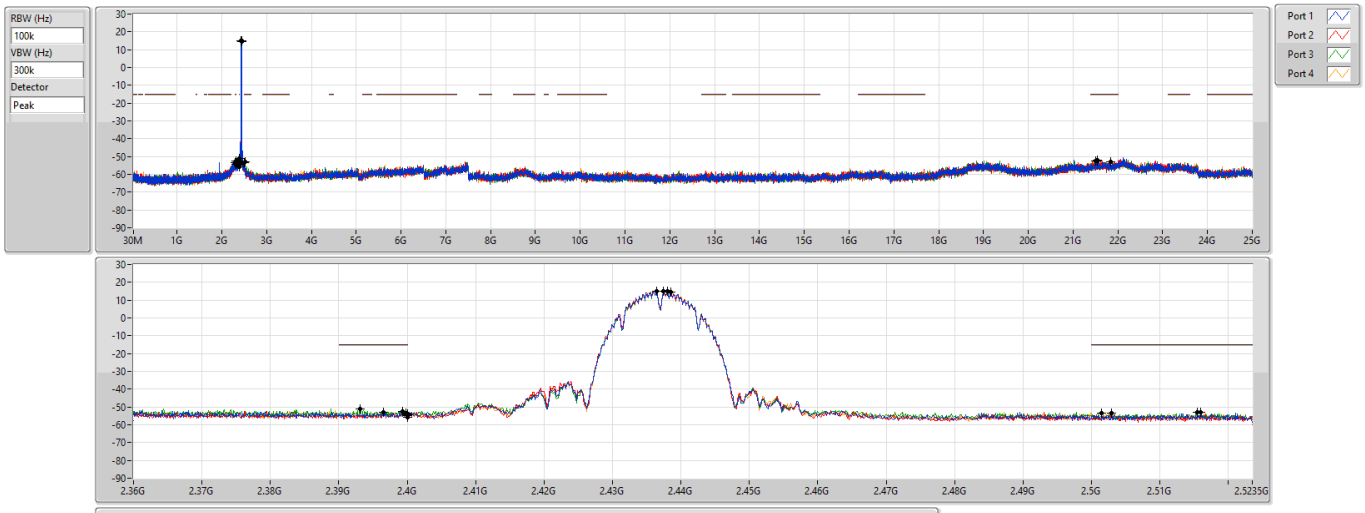
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.41102G	15.17	-14.83	1.93012G	-52.93	2.39904G	-34.15	2.4G	-42.18	2.50854G	-50.36	21.60043G	-51.64	1
2.41253G	15.25	-14.75	2.30758G	-55.44	2.39904G	-34.40	2.4G	-42.82	2.50222G	-54.11	21.54424G	-52.34	2
2.41286G	14.61	-15.39	2.30059G	-53.41	2.39856G	-33.85	2.4G	-40.77	2.51422G	-53.11	21.52457G	-51.69	3
2.41236G	14.65	-15.35	2.30059G	-53.79	2.39856G	-34.68	2.4G	-39.57	2.51558G	-53.50	21.56952G	-52.74	4

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

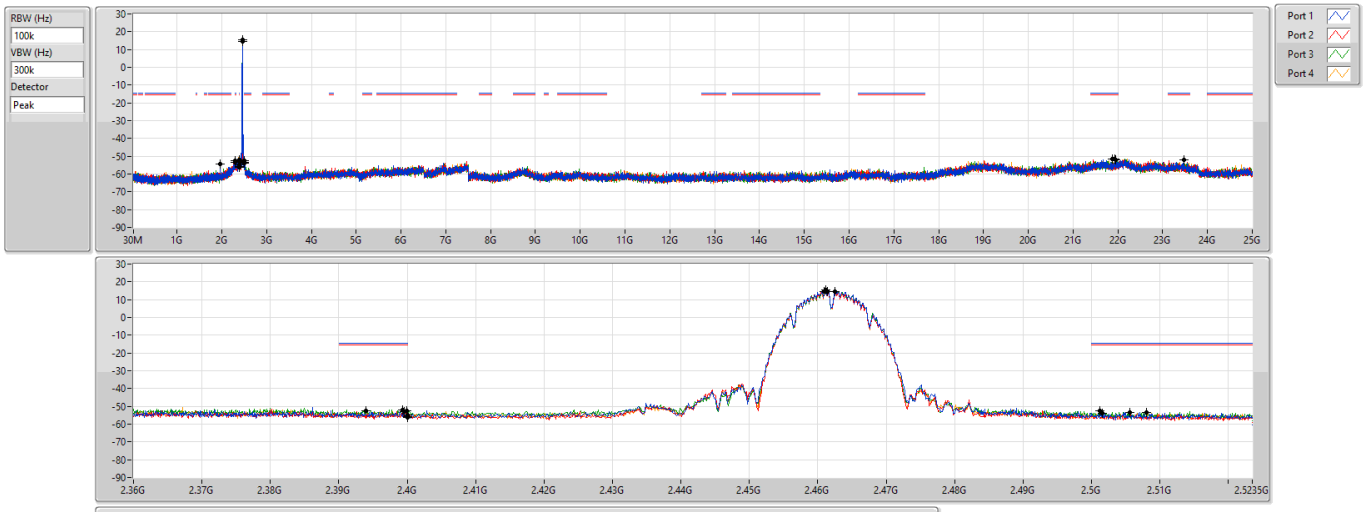
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43641G	14.79	-15.21	2.30874G	-52.61	2.39648G	-53.00	2.4G	-54.84	2.51598G	-53.07	21.54705G	-52.53	1
2.43741G	15.14	-14.86	2.30874G	-54.52	2.39984G	-53.61	2.4G	-54.16	2.50294G	-53.41	21.51052G	-52.51	2
2.43808G	14.81	-15.19	2.30641G	-53.21	2.39312G	-51.03	2.4G	-54.02	2.51542G	-53.15	21.533G	-52.23	3
2.43858G	14.41	-15.59	2.30991G	-54.16	2.39928G	-52.54	2.4G	-55.83	2.5015G	-53.49	21.84205G	-52.93	4

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

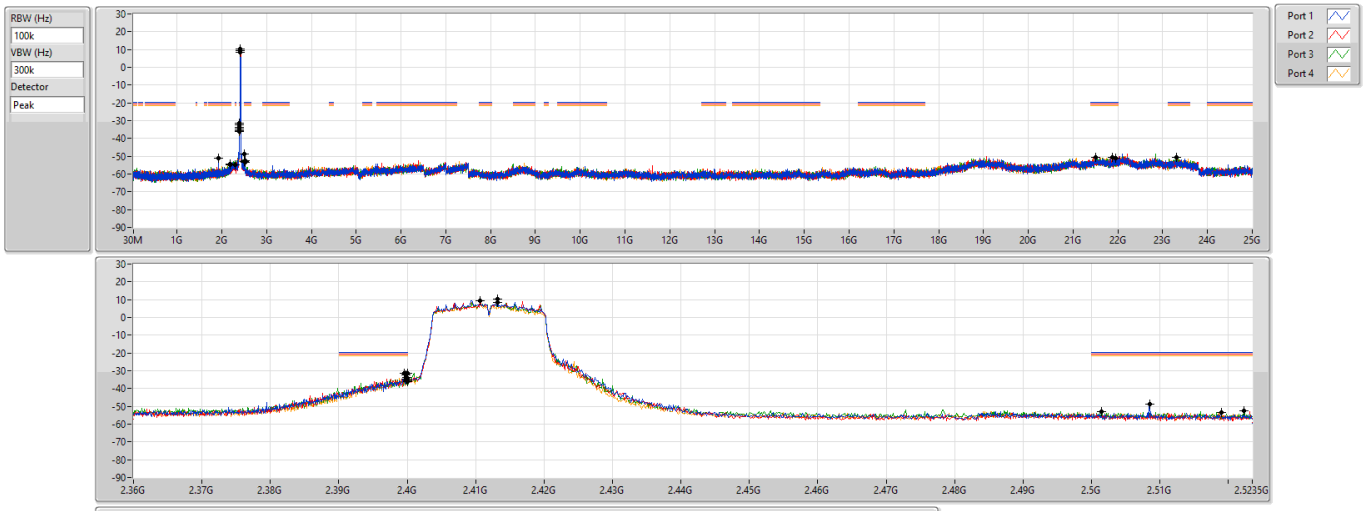
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.46112G	15.30	-14.70	1.96973G	-54.36	2.39952G	-53.19	2.4G	-56.14	2.50806G	-53.36	21.88139G	-51.49	1
2.46246G	14.46	-15.54	2.30408G	-53.54	2.39992G	-52.59	2.4G	-55.66	2.50158G	-54.02	21.92353G	-51.67	2
2.46096G	14.56	-15.44	2.30175G	-53.51	2.39936G	-52.11	2.4G	-54.95	2.50126G	-52.35	23.47722G	-52.00	3
2.46146G	14.59	-15.41	2.30525G	-52.29	2.394G	-52.57	2.4G	-55.74	2.50566G	-53.51	21.95162G	-52.10	4

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

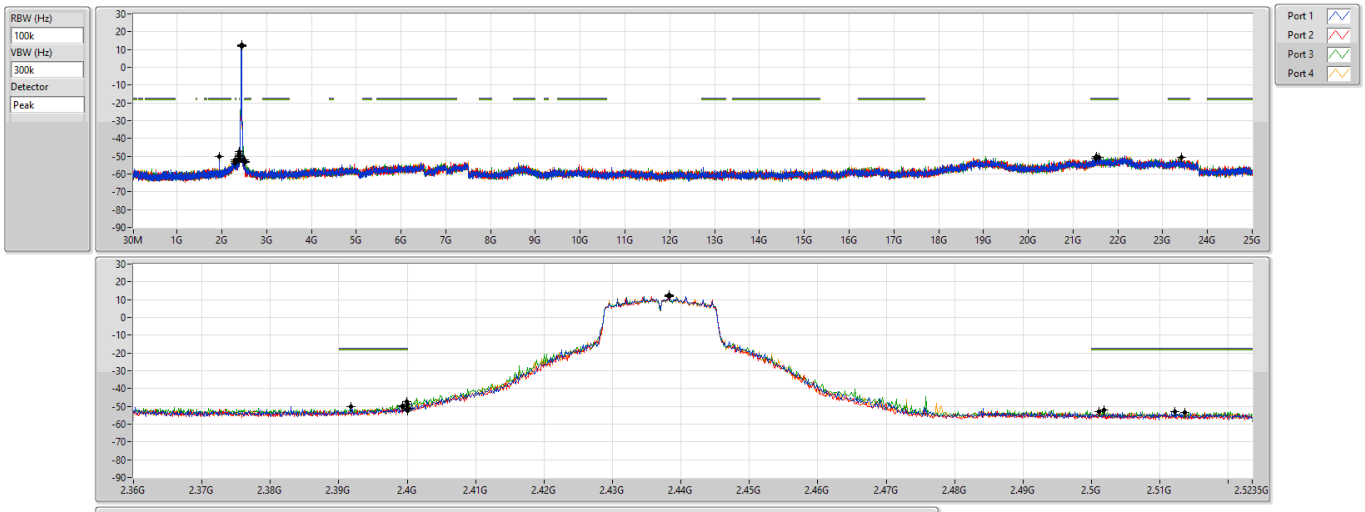
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.41319G	10.15	-19.85	1.93012G	-51.18	2.3996G	-31.30	2.4G	-35.88	2.50854G	-48.78	23.30583G	-50.83	1
2.41069G	9.16	-20.84	2.30175G	-54.77	2.39984G	-34.49	2.4G	-34.53	2.5015G	-52.98	21.87858G	-50.54	2
2.41069G	9.51	-20.49	2.19457G	-54.62	2.39984G	-32.31	2.4G	-31.21	2.5223G	-52.65	21.9432G	-51.03	3
2.41319G	8.53	-21.47	2.18758G	-54.53	2.39992G	-33.74	2.4G	-35.51	2.51902G	-53.57	21.49648G	-50.80	4

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

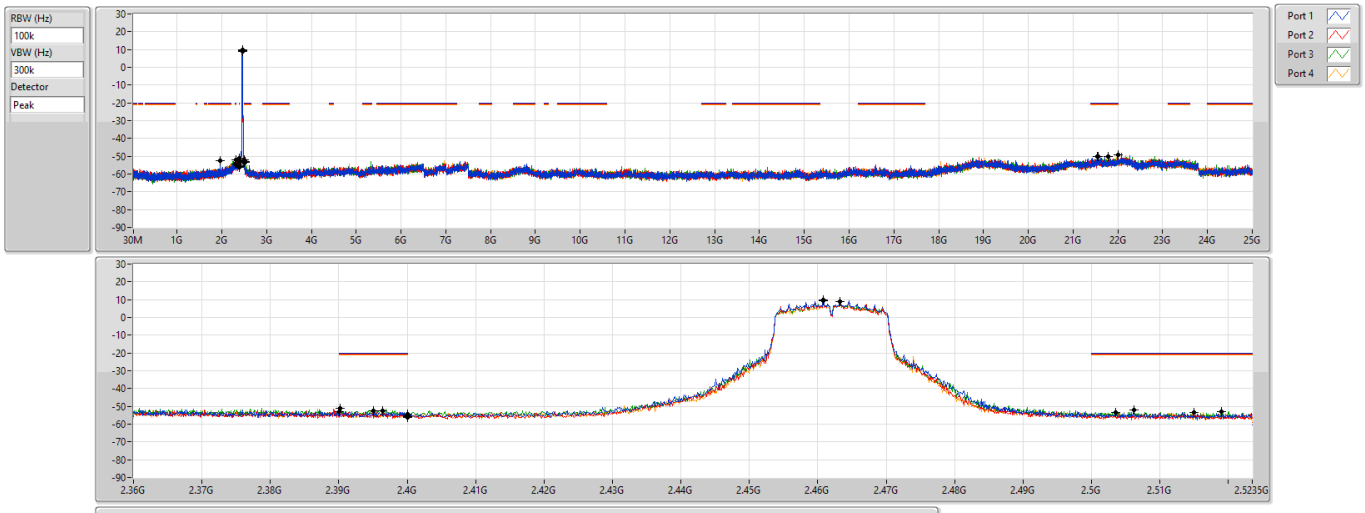
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43824G	12.89	-17.11	1.94992G	-50.27	2.39176G	-50.22	2.4G	-51.59	2.51222G	-53.10	21.58076G	-50.44	1
2.43824G	12.74	-17.26	2.30408G	-53.92	2.39928G	-50.18	2.4G	-51.28	2.51366G	-53.44	21.50209G	-51.15	2
2.43824G	11.92	-18.08	2.30175G	-51.99	2.39992G	-47.37	2.4G	-48.83	2.50182G	-52.22	21.51895G	-50.24	3
2.43824G	12.21	-17.79	2.30758G	-52.83	2.39936G	-49.62	2.4G	-52.61	2.5011G	-53.00	23.42665G	-50.79	4

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

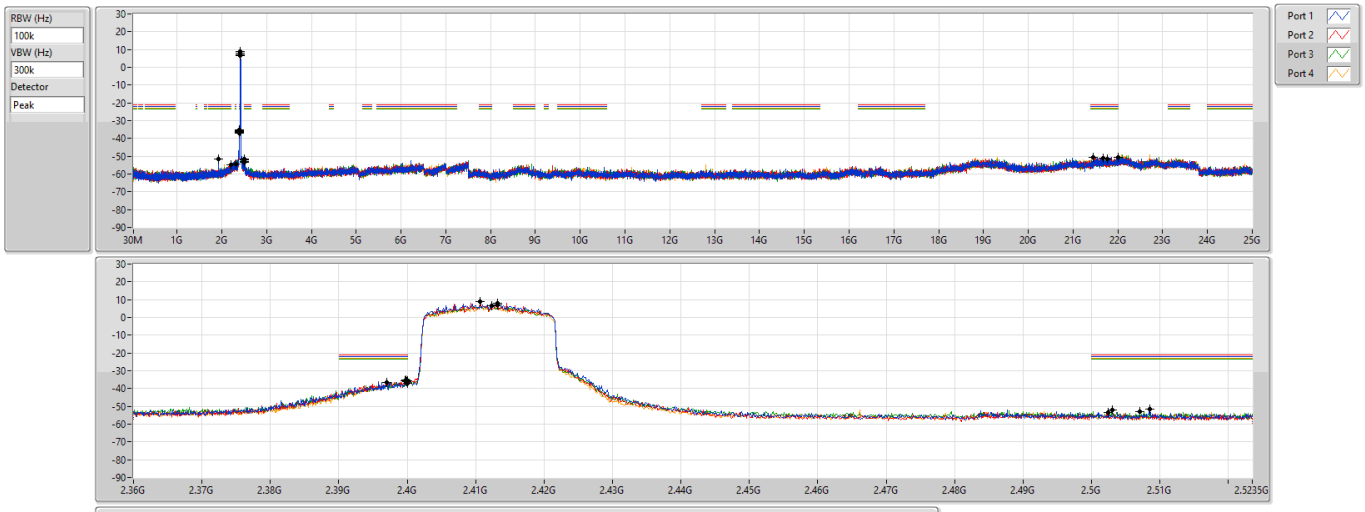
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.46079G	10.01	-19.99	1.96973G	-52.67	2.39008G	-52.87	2.4G	-55.40	2.50622G	-52.09	21.53581G	-50.36	1
2.46079G	9.50	-20.50	2.30758G	-54.18	2.3964G	-52.71	2.4G	-56.25	2.51494G	-53.61	21.79148G	-50.39	2
2.46079G	9.86	-20.14	2.30874G	-52.18	2.39024G	-50.86	2.4G	-54.45	2.51902G	-52.96	21.99939G	-49.07	3
2.46329G	8.87	-21.13	2.30641G	-54.47	2.39512G	-52.32	2.4G	-55.66	2.5035G	-53.41	21.56952G	-50.25	4

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

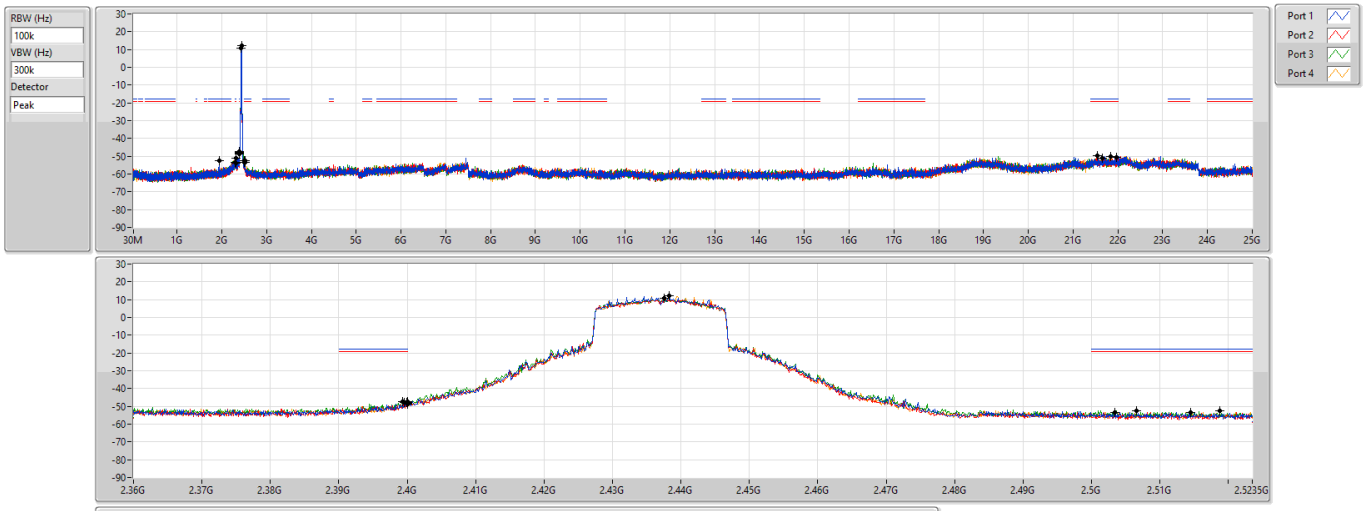
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.41319G	7.78	-22.22	1.93012G	-51.67	2.39704G	-36.47	2.4G	-35.74	2.50854G	-51.34	21.45152G	-50.67	1
2.41069G	9.05	-20.95	2.30874G	-54.20	2.39968G	-35.44	2.4G	-35.67	2.50238G	-53.29	21.67348G	-50.90	2
2.41236G	6.51	-23.49	2.30874G	-54.20	2.39992G	-36.32	2.4G	-37.01	2.50302G	-52.15	21.76057G	-51.47	3
2.41319G	6.92	-23.08	2.19807G	-54.79	2.39976G	-35.17	2.4G	-35.82	2.5071G	-52.78	21.99939G	-50.61	4

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

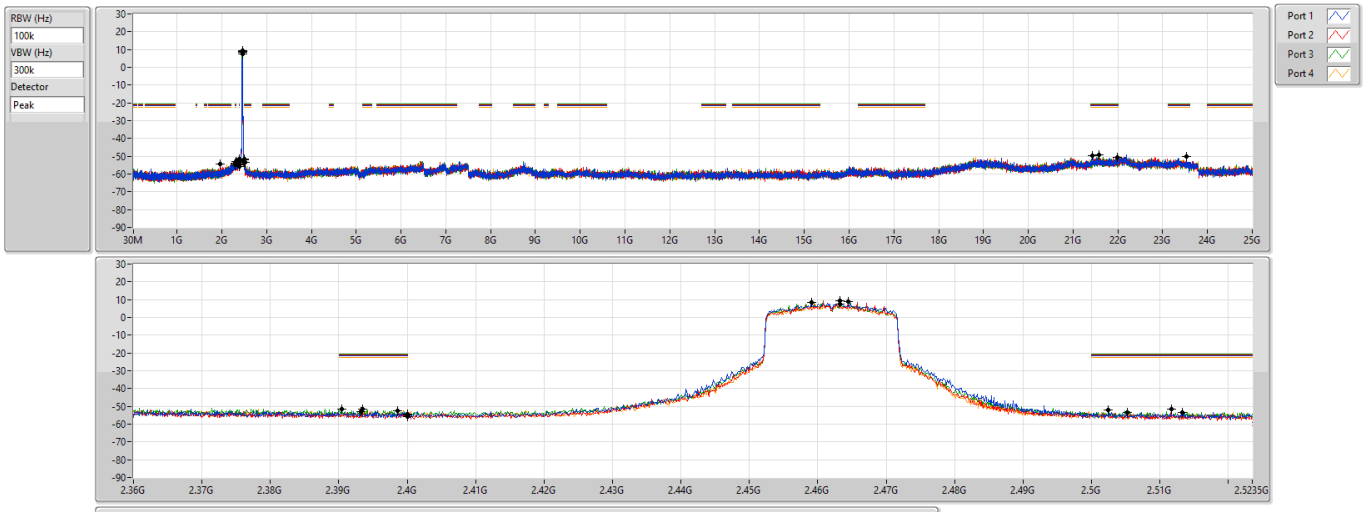
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43824G	12.18	-17.82	1.94992G	-52.72	2.3996G	-47.72	2.4G	-47.64	2.51446G	-53.44	21.83924G	-50.16	1
2.43758G	11.00	-19.00	2.30874G	-53.77	2.4G	-47.22	2.4G	-48.23	2.50342G	-53.26	21.54705G	-49.79	2
2.43758G	10.73	-19.27	2.30525G	-53.43	2.39936G	-47.34	2.4G	-48.33	2.50654G	-52.42	21.64538G	-51.17	3
2.43824G	12.30	-17.70	2.30874G	-51.32	2.39992G	-48.00	2.4G	-48.57	2.5187G	-52.60	21.97691G	-50.73	4

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

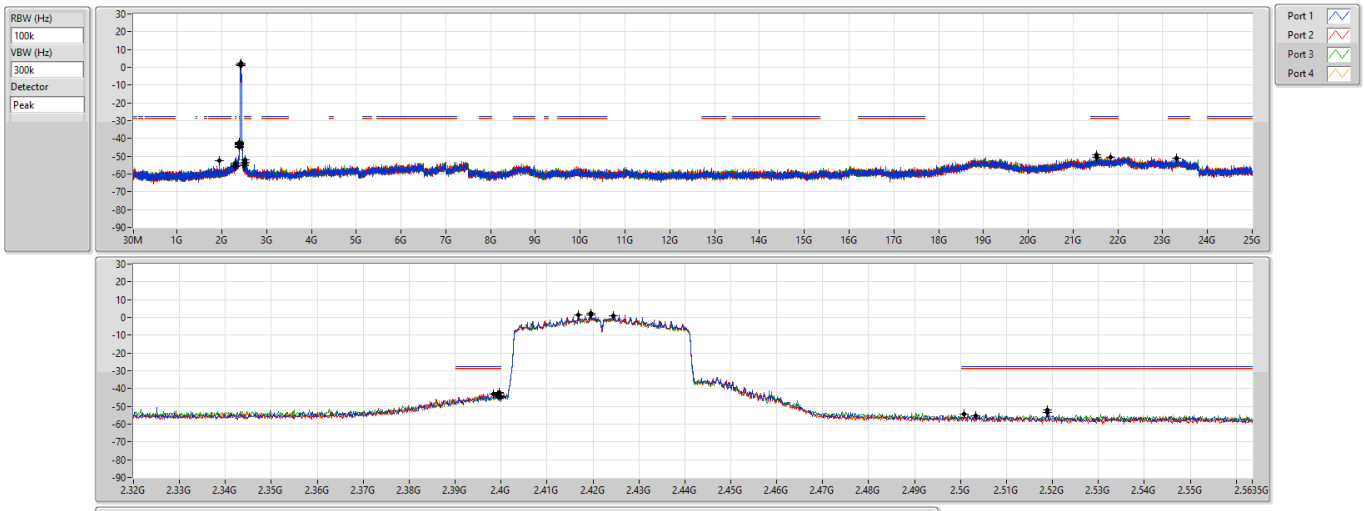
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.45912G	8.52	-21.48	1.96973G	-54.51	2.39856G	-52.40	2.4G	-54.98	2.51326G	-53.24	21.98534G	-50.68	1
2.46446G	8.99	-21.01	2.30175G	-54.11	2.39328G	-52.95	2.4G	-54.71	2.50526G	-53.36	21.58638G	-49.05	2
2.46329G	9.22	-20.78	2.30991G	-52.75	2.3904G	-51.59	2.4G	-54.19	2.51166G	-51.79	23.52498G	-50.07	3
2.46329G	7.69	-22.31	2.30292G	-54.65	2.39352G	-51.77	2.4G	-55.88	2.50246G	-52.20	21.43186G	-49.80	4

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

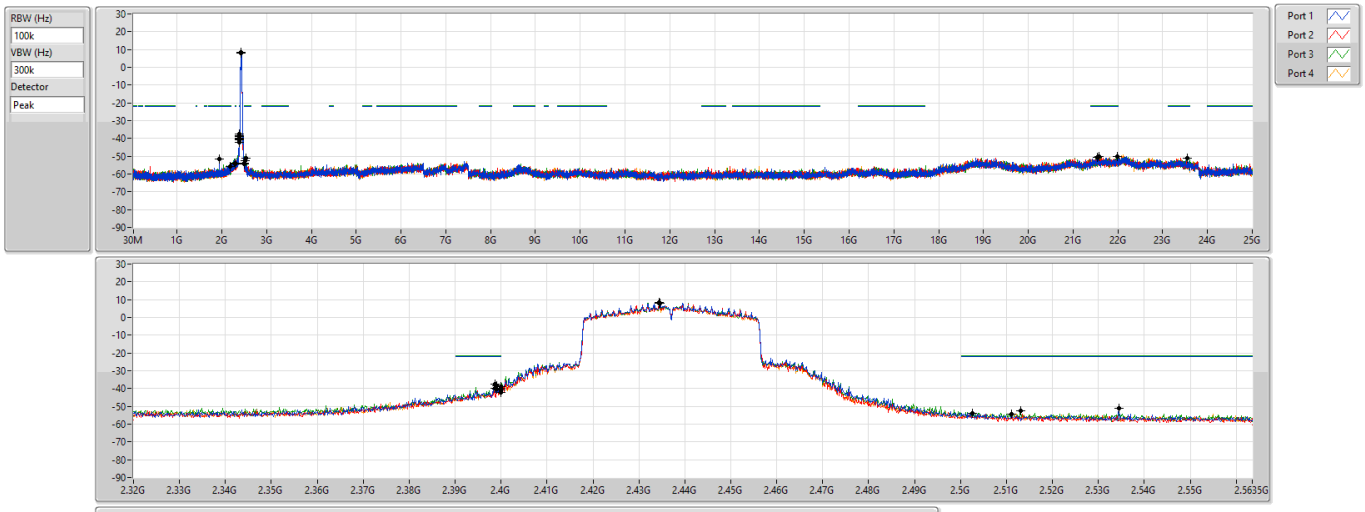
2422MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.41954G	2.13	-27.87	1.93757G	-52.29	2.39952G	-42.54	2.4G	-44.57	2.51886G	-51.83	23.31165G	-51.12	1
2.41954G	1.57	-28.43	2.30054G	-55.68	2.39968G	-42.13	2.4G	-44.89	2.50334G	-55.14	21.51393G	-50.73	2
2.41687G	1.55	-28.45	2.30283G	-53.95	2.3992G	-43.69	2.4G	-44.84	2.51886G	-53.49	21.53076G	-49.45	3
2.42438G	0.99	-29.01	2.30283G	-55.42	2.3984G	-43.17	2.4G	-45.08	2.50078G	-54.28	21.83084G	-50.48	4

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

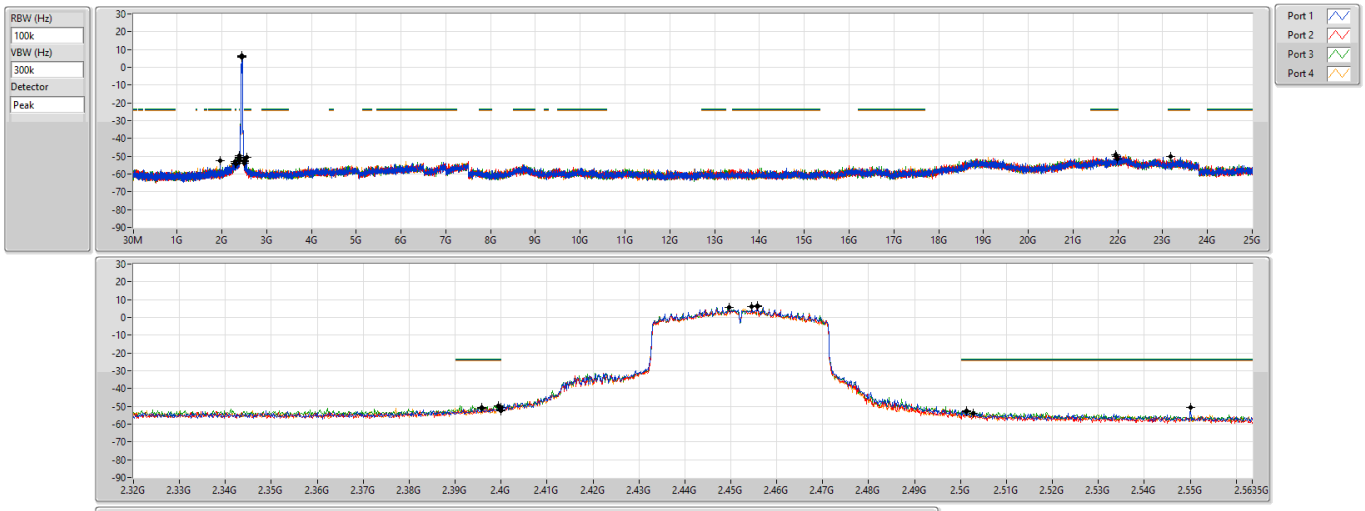
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43457G	8.09	-21.91	1.95017G	-51.61	2.39904G	-38.28	2.4G	-39.69	2.53454G	-50.89	21.9907G	-50.17	1
2.4344G	8.13	-21.87	2.18489G	-55.70	2.39904G	-40.19	2.4G	-40.93	2.51102G	-54.21	23.54163G	-51.01	2
2.4344G	8.42	-21.58	2.30741G	-53.84	2.39872G	-37.36	2.4G	-38.89	2.5131G	-52.59	21.58124G	-50.28	3
2.4344G	8.53	-21.47	2.30397G	-54.58	2.39872G	-39.86	2.4G	-42.08	2.50254G	-54.08	21.55039G	-50.64	4

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

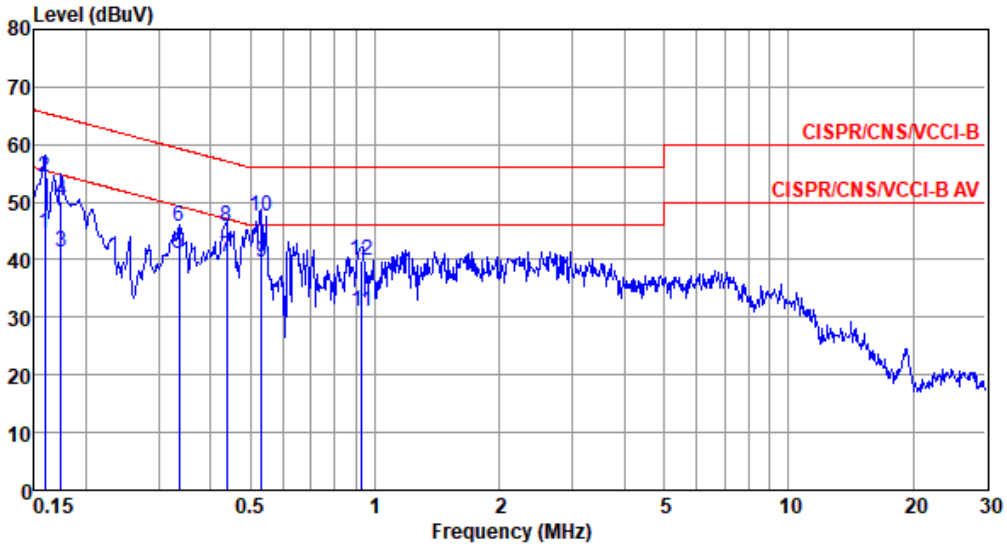
2452MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.45461G	6.16	-23.84	1.96162G	-52.60	2.39584G	-50.40	2.4G	-50.83	2.55006G	-50.78	21.96266G	-49.96	1
2.45578G	6.30	-23.70	2.30855G	-54.20	2.39584G	-50.89	2.4G	-51.94	2.50126G	-52.83	21.95144G	-49.43	2
2.45578G	6.33	-23.67	2.30741G	-52.96	2.39936G	-49.82	2.4G	-50.41	2.50126G	-52.40	21.9879G	-51.49	3
2.4496G	5.63	-24.37	2.30054G	-54.03	2.39584G	-50.56	2.4G	-52.44	2.5027G	-53.74	23.17423G	-50.01	4

Modulation Mode	11b	**Test Freq. (MHz)**	2412
Power Phase	Line		

Test by : Brad Wu Temperature: 22°C Humidity: 64%

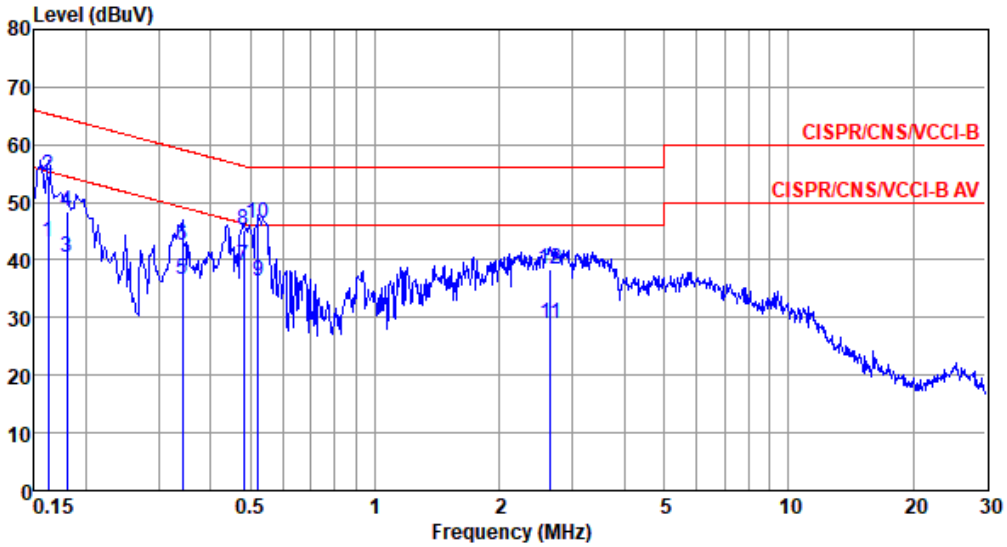


	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	Factor dB	Cable loss dB	Aux dB	Remark
1	0.159	44.61	55.52	-10.91	34.69	9.63	0.08	0.21	Average
2	0.159	54.39	65.52	-11.13	44.47	9.63	0.08	0.21	QP
3	0.174	41.23	54.77	-13.54	31.31	9.62	0.07	0.23	Average
4	0.174	50.08	64.77	-14.69	40.16	9.62	0.07	0.23	QP
5	0.336	41.08	49.31	-8.23	31.08	9.62	0.07	0.31	Average
6	0.336	45.74	59.31	-13.57	35.74	9.62	0.07	0.31	QP
7	0.437	40.31	47.11	-6.80	30.28	9.62	0.08	0.33	Average
8	0.437	45.89	57.11	-11.22	35.86	9.62	0.08	0.33	QP
9*	0.532	39.47	46.00	-6.53	29.43	9.62	0.08	0.34	Average
10	0.532	47.65	56.00	-8.35	37.61	9.62	0.08	0.34	QP
11	0.928	30.97	46.00	-15.03	20.89	9.63	0.09	0.36	Average
12	0.928	39.82	56.00	-16.18	29.74	9.63	0.09	0.36	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB) + Aux (dB).
2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

Modulation Mode	11b	**Test Freq. (MHz)**	2412
Power Phase	Neutral		

Test by : Brad Wu Temperature: 22℃ Humidity: 64%



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	Factor dB	Cable loss dB	Aux dB	Remark
1	0.162	43.05	55.34	-12.29	33.22	9.63	0.07	0.13	Average
2	0.162	54.67	65.34	-10.67	44.84	9.63	0.07	0.13	QP
3	0.180	40.58	54.50	-13.92	30.73	9.63	0.07	0.15	Average
4	0.180	48.47	64.50	-16.03	38.62	9.63	0.07	0.15	QP
5	0.343	36.61	49.13	-12.52	26.68	9.62	0.08	0.23	Average
6	0.343	42.57	59.13	-16.56	32.64	9.62	0.08	0.23	QP
7*	0.481	38.87	46.32	-7.45	28.91	9.62	0.08	0.26	Average
8	0.481	45.20	56.32	-11.12	35.24	9.62	0.08	0.26	QP
9	0.521	36.28	46.00	-9.72	26.32	9.62	0.08	0.26	Average
10	0.521	46.41	56.00	-9.59	36.45	9.62	0.08	0.26	QP
11	2.650	28.84	46.00	-17.16	18.70	9.64	0.14	0.36	Average
12	2.650	38.42	56.00	-17.58	28.28	9.64	0.14	0.36	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB) + Aux (dB).
2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).