FCC Test Report

FCC ID	:	**HDC-17600073**
Equipment	:	**WiFi 6E Mesh AP**
Model No.	:	**SDG-8632**
Brand Name	:	**Adtran**
Applicant	:	**Adtran**
Address	:	**901 Explorer Boulevard, Huntsville, Alabama, United States, 35806-2807**
Standard	:	**47 CFR FCC Part 15.247**
Received Date	:	**Jul. 19, 2023**
Tested Date	:	**Aug. 08 ~ Sep. 08, 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**

Table of Contents

Release Record

Report No.	Version	Description	Issued Date
FR371902AC	Rev. 01	Initial issue	Dec. 22, 2023

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	AC Power Line Conducted Emission	[dBuV]: 0.437MHz 38.67 (Margin -8.44dB) - AV	Pass
15.247(d) 15.209	Unwanted Emissions	[dBuV/m at 3m]: 2390.00MHz 73.89 (Margin -0.11dB) – PK 2483.50MHz 53.89 (Margin -0.11dB) - AV	Pass
15.247(b)(3)	Conducted Output Power	Max Power [dBm]: ***Non-beamforming mode*** 27.40 ***Beamforming mode*** 26.05	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
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 and 1024QAM modulation. Note 3: 802.11ax supports beamforming function.					

1.1.2 Antenna Details

Ant. No.	Brand	Model	Type	Connector	Operating Frequencies (MHz) / Antenna Gain (dBi)				
					2400~2483.5	**5150~5250**	**5250~5350**	**5470~5725**	**5725 ~ 5850**
1	Galtronics USA, Inc	Antenna_6DB1	Dipole	UFL	3.990	--	--	--	--
2	Galtronics USA, Inc	Antenna_6DB2	Dipole	UFL	2.964	--	--	--	--
3	Galtronics USA, Inc	Antenna_6DB3	Dipole	UFL	3.680	--	--	--	--
4	Galtronics USA, Inc	Antenna_6DB4	Dipole	UFL	3.471	--	--	--	--
5	Galtronics USA, Inc	Antenna_5G1	Dipole	UFL	--	2.894	2.729	3.984	3.437
6	Galtronics USA, Inc	Antenna_5G2	Dipole	UFL	--	3.193	3.314	3.512	3.464
7	Galtronics USA, Inc	Antenna_5G3	Dipole	UFL	--	2.683	3.289	3.524	4.705
8	Galtronics USA, Inc	Antenna_5G4	Dipole	UFL	--	3.121	3.121	3.305	3.224
9	Galtronics USA, Inc	Zero wait DFS	PIFA	NA	--	--	4.783	4.386	--

1.1.3 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	15Vdc from adapter

1.1.4 Accessories

Accessories		
No.	**Equipment**	**Description**
1	AC Adapter	Brand: LUCENT TRANS Model: 1A78 I/P: 100-240Vac, 50/60Hz, 1.2A O/P: 15V⎓3.0A, 45.0W Power Line: USB 1.8m non-shielded without core
	RJ45 cable	2m non-shielded without core

1.1.5 Channel List

Frequency band (MHz)		**2400~2483.5**	
802.11 b / g / n HT20 / ax HE20		**802.11n HT40 / ax HE40**	
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	Non-beamforming: QATool, Version: UIv2.88_DLLv6.93_ap_2022.01.04(V14)c Beamforming: PuTTY, Version: 0.60			
Duty Cycle and Duty Factor	**Mode**	**Non-beamforming**		**Beamforming**	
		Duty cycle (%)	**Duty factor (dB)**	**Duty cycle (%)**	**Duty factor (dB)**
	11b	100.00%	0.00	---	---
	11g	98.97%	0.04	---	---
	ax HE20	98.03%	0.09	93.59%	0.29
	ax HE40	95.98%	0.18	96.48%	0.16

1.1.7 Power Index of Test Tool

Modulation Mode	Test Frequency (MHz)	Power Index	
		Non-beamforming	Beamforming
11b	2412	18.5	---
11b	2437	19	---
11b	2462	18.5	---
11g	2412	18	---
11g	2437	19	---
11g	2462	17	---
ax HE20	2412	16	23
ax HE20	2437	19	36
ax HE20	2462	14	20
ax HE40	2422	14	25
ax HE40	2437	17	34
ax HE40	2452	12	23

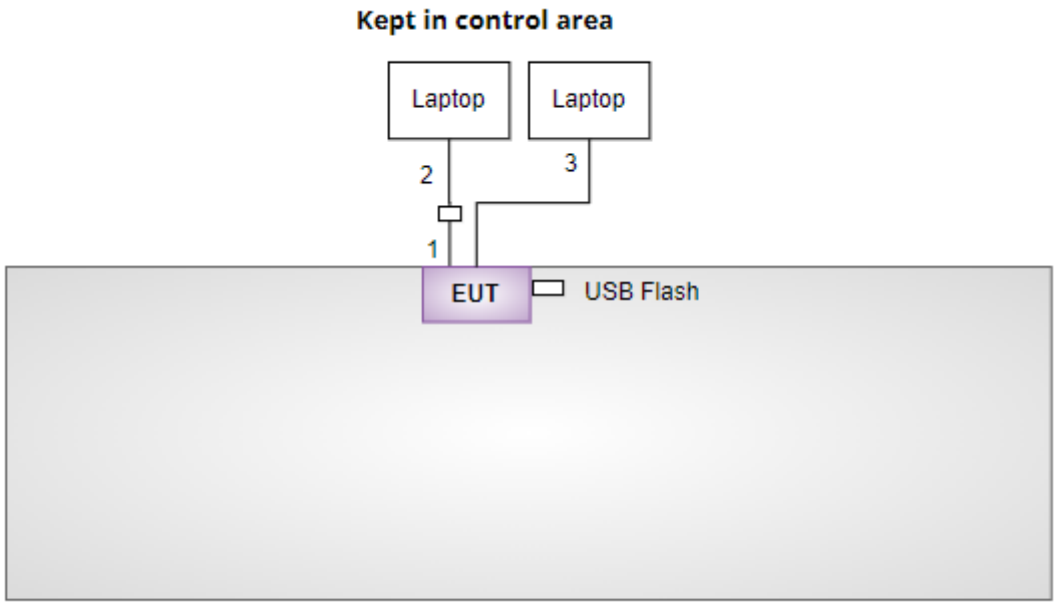
1.2 Local Support Equipment List

Support Equipment List					
No.	**Equipment**	**Brand**	**Model**	**FCC ID**	**Remarks**
1	Laptop	DELL	Latitude 5400	DoC	---
2	Laptop	DELL	Latitude E5470	DoC	---
3	USB Flash	Transcend(USB 3.0)	JetFlash 700	---	---
4	Laptop	DELL	Latitude E5470	DoC	For Beamforming mode only.
5	WiFi 6E Mesh AP	Adtran	SDG-8632	---	For Beamforming mode only. (Provided by applicant.)

1.3 Test Setup Chart

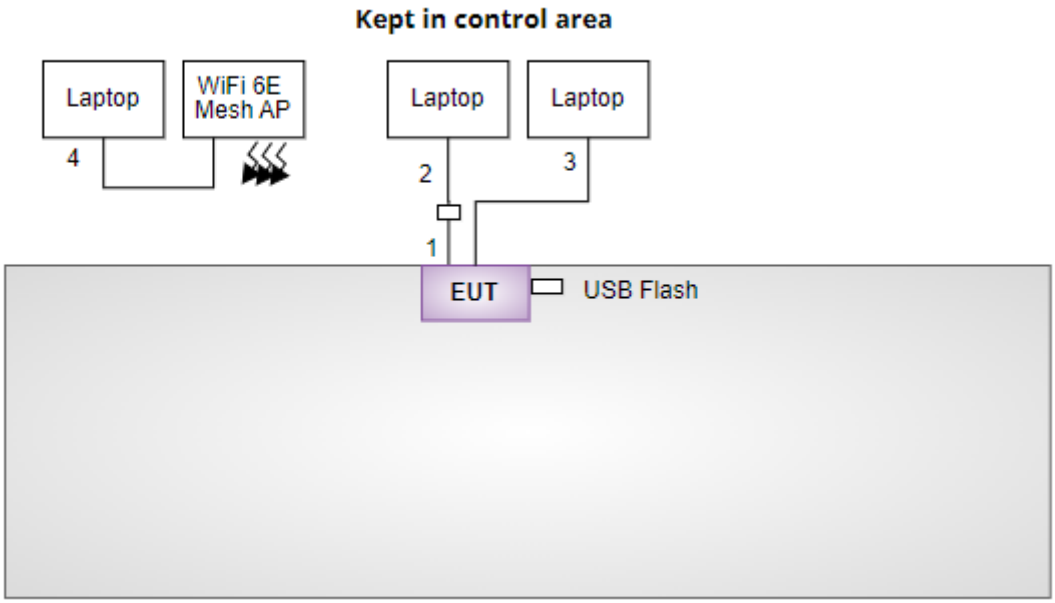
Non-beamforming mode

Test Setup Diagram



No.	Signal cable / Length (m)
1	RJ45, 2m non-shielded.
2-3	RJ45, 10m non-shielded.

Beamforming mode

Test Setup Diagram


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

1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Tested Date	Sep. 06, 2023				
Instrument	**Brand**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Receiver	R&S	ESR3	101658	Feb. 17, 2023	Feb. 16, 2024
LISN	R&S	ENV216	101579	May 09, 2023	May 08, 2024
LISN (Support Unit)	SCHWARZBECK	Schwarzbeck 8127	8127667	Jan. 03, 2023	Jan. 02, 2024
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Oct. 17, 2022	Oct. 16, 2023
50 ohm terminal (Support Unit)	NA	50	01	Jun. 14, 2023	Jun. 13, 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	Aug. 08 ~ Aug. 25, 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 9170517	Oct. 27, 2022	Oct. 26, 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. 04, 2022	Oct. 03, 2023
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-001	Oct. 04, 2022	Oct. 03, 2023
LF cable 11M	EMC	EMCCFD400-NW-NW-11000	200801	Oct. 04, 2022	Oct. 03, 2023
LF cable 1M	EMC	EMCCFD400-NM-NM-1000	160502	Oct. 04, 2022	Oct. 03, 2023
RF Cable	EMC	EMC104-35M-35M-8000	210920	Oct. 04, 2022	Oct. 03, 2023
RF Cable	EMC	EMC104-35M-35M-3000	210922	Oct. 04, 2022	Oct. 03, 2023
HIGHPASS FILTER 3.1-18G	WHK	WHK3.1/18G-10SS	39	Oct. 06, 2022	Oct. 05, 2023
Attenuator	Pasternack	PE7005-10	10-1	Oct. 06, 2022	Oct. 05, 2023
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	Sep. 05 ~ Sep. 08, 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	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

Test item	Modulation Mode	Test Frequency (MHz)	Data Rate	Test Configuration
Non-beamforming mode				
AC Power Line Conducted Emission	11b	2437	6 Mbps	---
Unwanted Emissions ≤ 1GHz	11b	2437	6 Mbps	---
Unwanted Emissions >1GHz Conducted Output Power 6dB bandwidth Power spectral density	11b 11g ax HE20 ax HE40	2412 / 2437 / 2462 2412 / 2437 / 2462 2412 / 2437 / 2462 2422 / 2437 / 2452	1 Mbps 6 Mbps MCS 0 MCS 0	---
Beamforming mode				
AC Power Line Conducted Emission	ax HE20	2437	MCS 0	---
Unwanted Emissions ≤1GHz	ax HE20	2437	MCS 0	---
Unwanted Emissions >1GHz Conducted Output Power 6dB bandwidth Power spectral density	ax HE20 ax HE40	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.

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

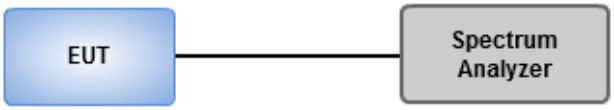
6dB Bandwidth

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	25-26°C / 65-66%	**Tested By**	Akun Chung

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	25-26°C / 65-66%	**Tested By**	Akun Chung

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.

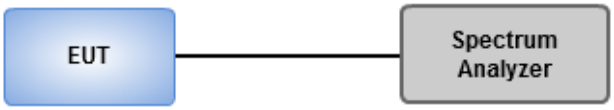
3 Sweep time = auto couple.

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	25-26°C / 65-66%	**Tested By**	Akun Chung

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

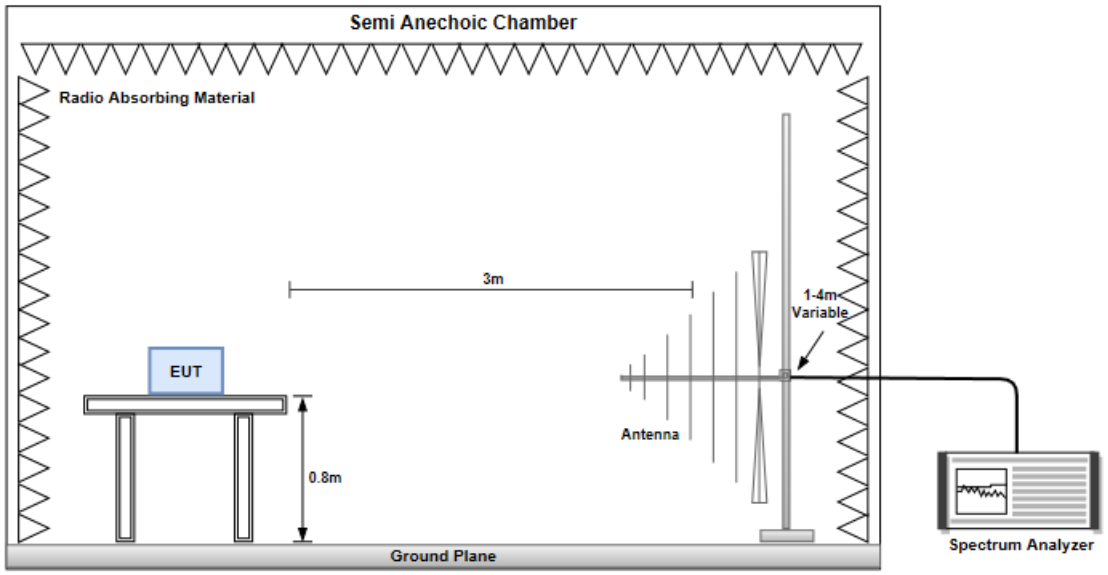
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

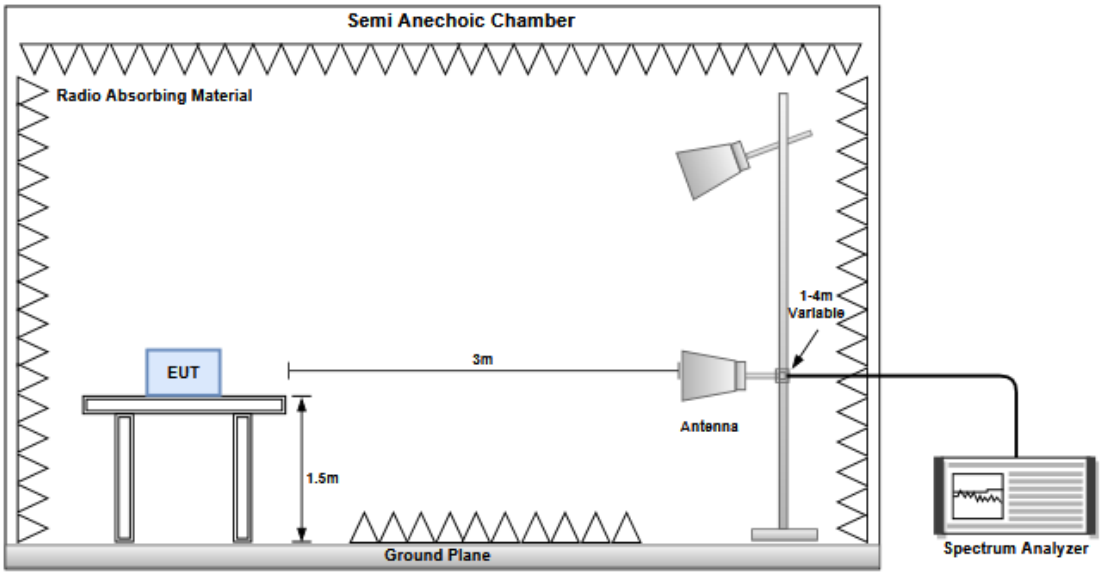
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above 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 20 dB relative to the maximum in-band peak PSD level in 100 kHz.

3.5.2 Test Procedures

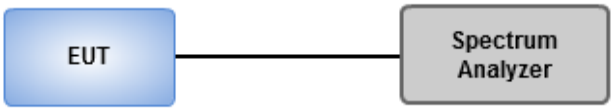
Reference level measurement

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	25-26°C / 65-66%	**Tested By**	Akun Chung

Refer to Appendix E.

3.6 AC Power Line Conducted Emissions

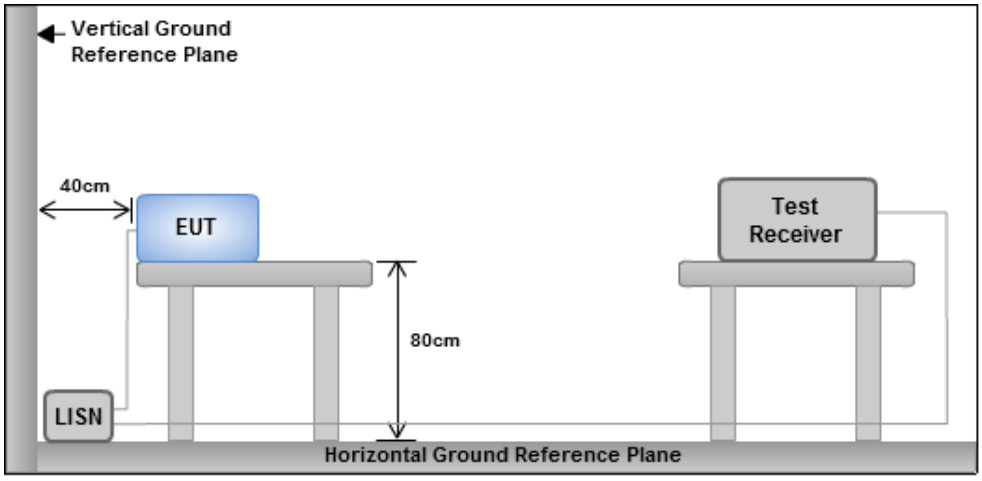
3.6.1 Limit of AC Power Line Conducted Emissions

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.

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

==END==

Non-beamforming mode

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	12.409M	12M4G1D	7.05M	12.172M
802.11g_Nss1,(6Mbps)_4TX	16.275M	16.429M	16M4D1D	13.725M	16.268M
802.11ax HEW20_Nss1,(MCS0)_4TX	17.375M	18.834M	18M8D1D	14.825M	18.706M
802.11ax HEW40_Nss1,(MCS0)_4TX	37.3M	37.522M	37M5D1D	33.75M	37.328M

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

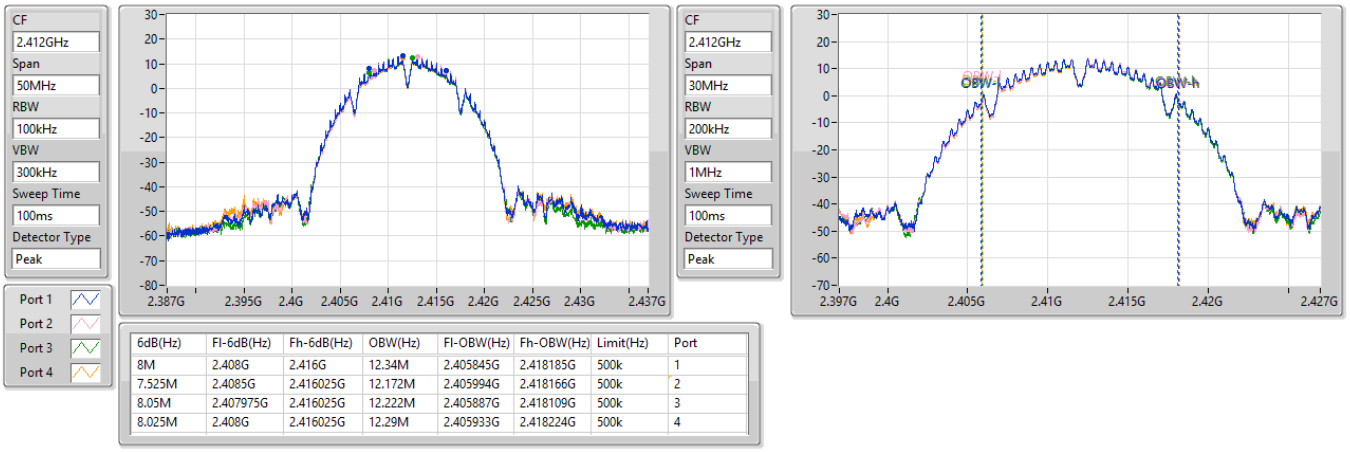
Result

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	8M	12.34M	7.525M	12.172M	8.05M	12.222M	8.025M	12.29M
2437MHz	Pass	500k	8.05M	12.348M	7.55M	12.231M	7.05M	12.287M	7.075M	12.298M
2462MHz	Pass	500k	8.025M	12.409M	7.525M	12.203M	8M	12.356M	7.975M	12.199M
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	16.275M	16.419M	15.425M	16.429M	15.075M	16.326M	15.675M	16.394M
2437MHz	Pass	500k	15.325M	16.356M	15.075M	16.302M	15.05M	16.376M	14.975M	16.343M
2462MHz	Pass	500k	15M	16.376M	13.8M	16.292M	15.65M	16.363M	13.725M	16.268M
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	15.05M	18.724M	16.275M	18.723M	15.4M	18.706M	16.2M	18.713M
2437MHz	Pass	500k	16.55M	18.795M	14.825M	18.808M	16.9M	18.834M	16.025M	18.813M
2462MHz	Pass	500k	17.375M	18.8M	16.025M	18.798M	16.5M	18.81M	15.4M	18.787M
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	35.05M	37.444M	33.75M	37.353M	35M	37.429M	33.85M	37.411M
2437MHz	Pass	500k	35.65M	37.456M	35.05M	37.418M	37.3M	37.522M	35M	37.415M
2452MHz	Pass	500k	35.45M	37.394M	36.1M	37.493M	33.75M	37.328M	33.85M	37.433M

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**

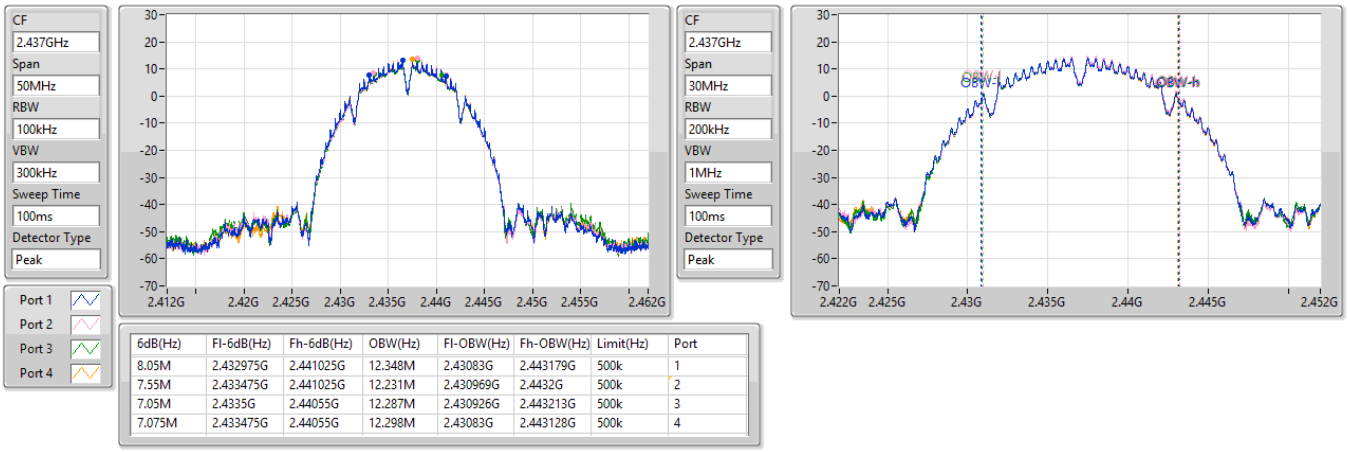
2412MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8M	2.408G	2.416G	12.34M	2.405845G	2.418185G	500k	1
7.525M	2.4085G	2.416025G	12.172M	2.405994G	2.418166G	500k	2
8.05M	2.407975G	2.416025G	12.222M	2.405887G	2.418109G	500k	3
8.025M	2.408G	2.416025G	12.29M	2.405933G	2.418224G	500k	4

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

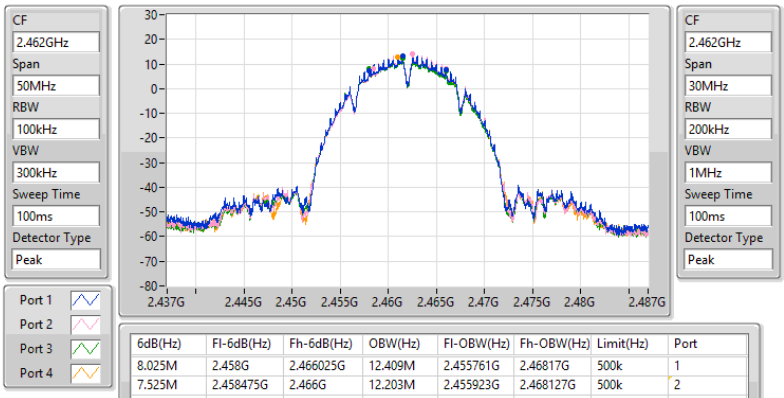
2437MHz

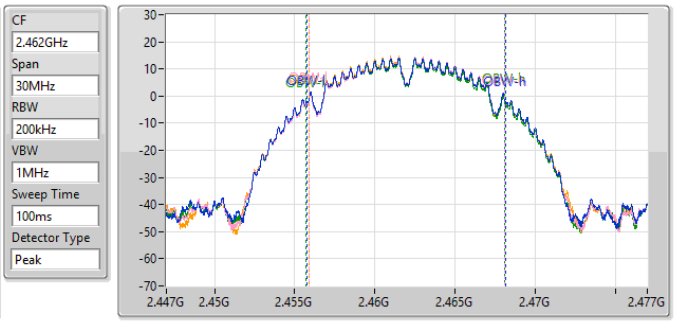


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.05M	2.432975G	2.441025G	12.348M	2.43083G	2.443179G	500k	1
7.55M	2.433475G	2.441025G	12.231M	2.430969G	2.4432G	500k	2
7.05M	2.4335G	2.44055G	12.287M	2.430926G	2.443213G	500k	3
7.075M	2.433475G	2.44055G	12.298M	2.43083G	2.443128G	500k	4

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

2462MHz

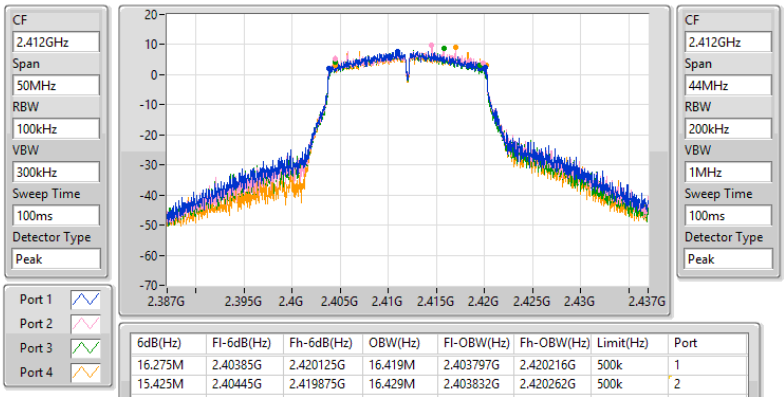


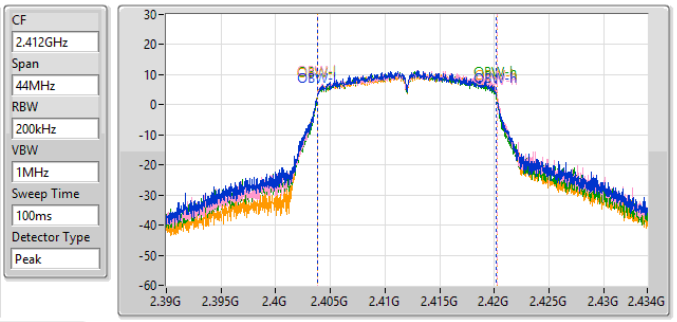


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.025M	2.458G	2.466025G	12.409M	2.455761G	2.46817G	500k	1
7.525M	2.458475G	2.466G	12.203M	2.455923G	2.468127G	500k	2
8M	2.458G	2.466G	12.356M	2.45572G	2.468076G	500k	3
7.975M	2.458025G	2.466G	12.199M	2.455886G	2.468085G	500k	4

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

2412MHz

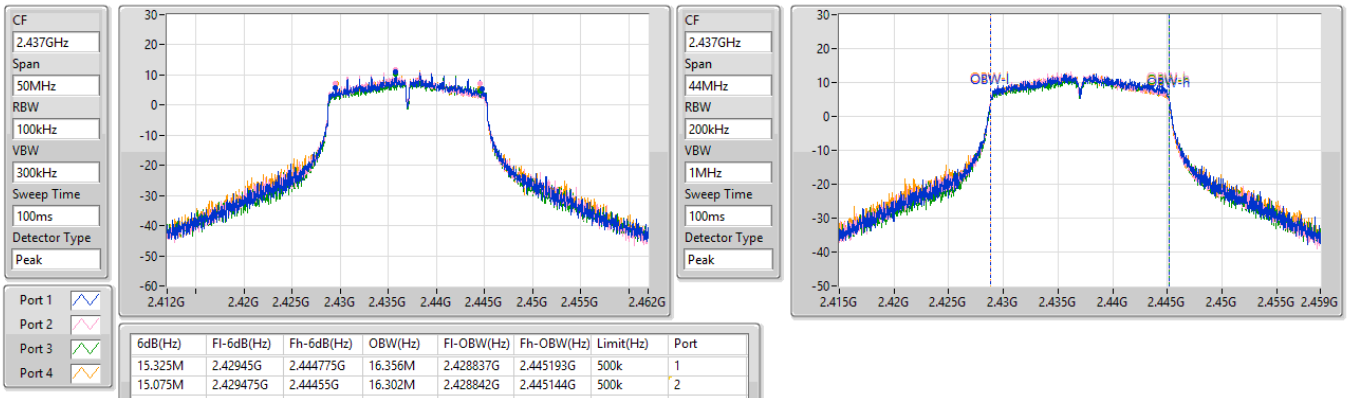




6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.275M	2.40385G	2.420125G	16.419M	2.403797G	2.420216G	500k	1
15.425M	2.40445G	2.419875G	16.429M	2.403832G	2.420262G	500k	2
15.075M	2.40445G	2.419525G	16.326M	2.40384G	2.420166G	500k	3
15.675M	2.404475G	2.42015G	16.394M	2.403827G	2.420222G	500k	4

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

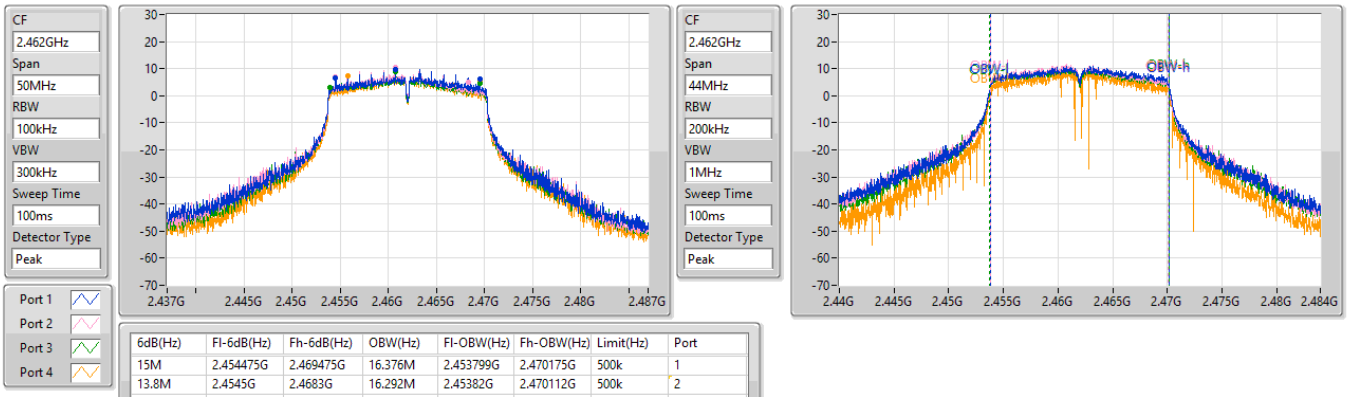
2437MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.325M	2.42945G	2.444775G	16.356M	2.428837G	2.445193G	500k	1
15.075M	2.429475G	2.44455G	16.302M	2.428842G	2.445144G	500k	2
15.05M	2.4295G	2.44455G	16.376M	2.428834G	2.44521G	500k	3
14.975M	2.42955G	2.444525G	16.343M	2.428822G	2.445165G	500k	4

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

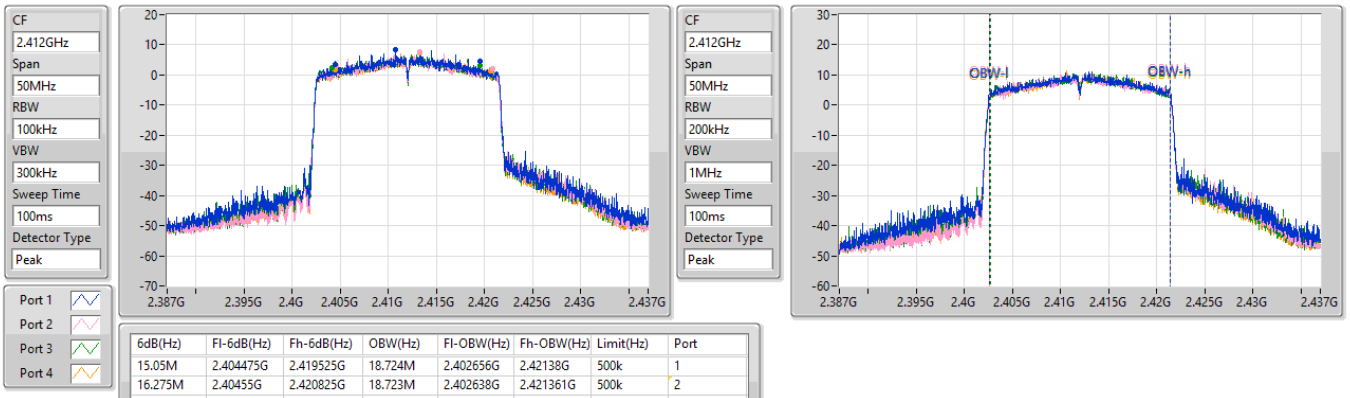
2462MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15M	2.454475G	2.469475G	16.376M	2.453799G	2.470175G	500k	1
13.8M	2.4545G	2.4683G	16.292M	2.45382G	2.470112G	500k	2
15.65M	2.453875G	2.469525G	16.363M	2.453775G	2.470138G	500k	3
13.725M	2.45575G	2.469475G	16.268M	2.453868G	2.470136G	500k	4

2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_4TX **EBW**

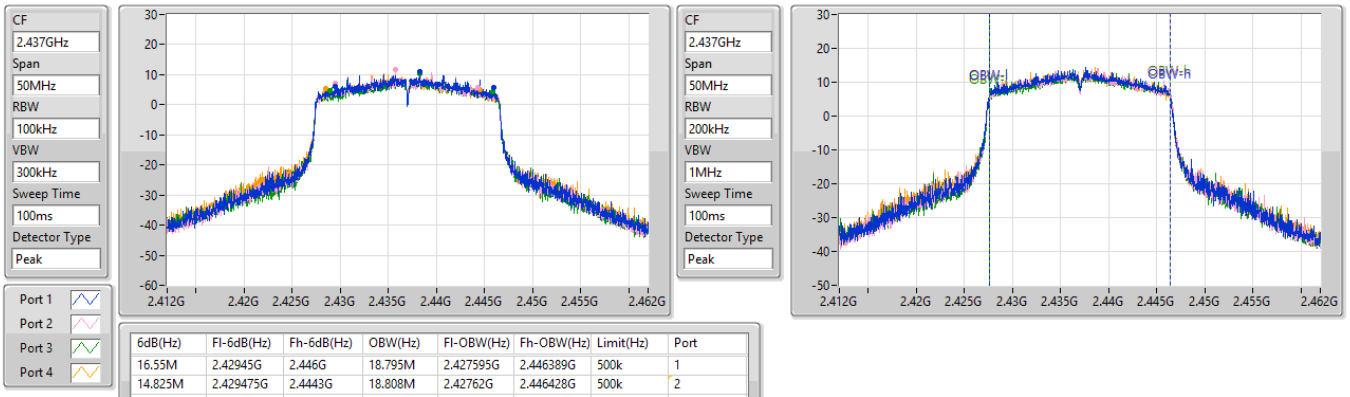
2412MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.05M	2.404475G	2.419525G	18.724M	2.402656G	2.42138G	500k	1
16.275M	2.40455G	2.420825G	18.723M	2.402638G	2.421361G	500k	2
15.4M	2.40415G	2.41955G	18.706M	2.402661G	2.421367G	500k	3
16.2M	2.404425G	2.420625G	18.713M	2.402659G	2.421373G	500k	4

2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_4TX **EBW**

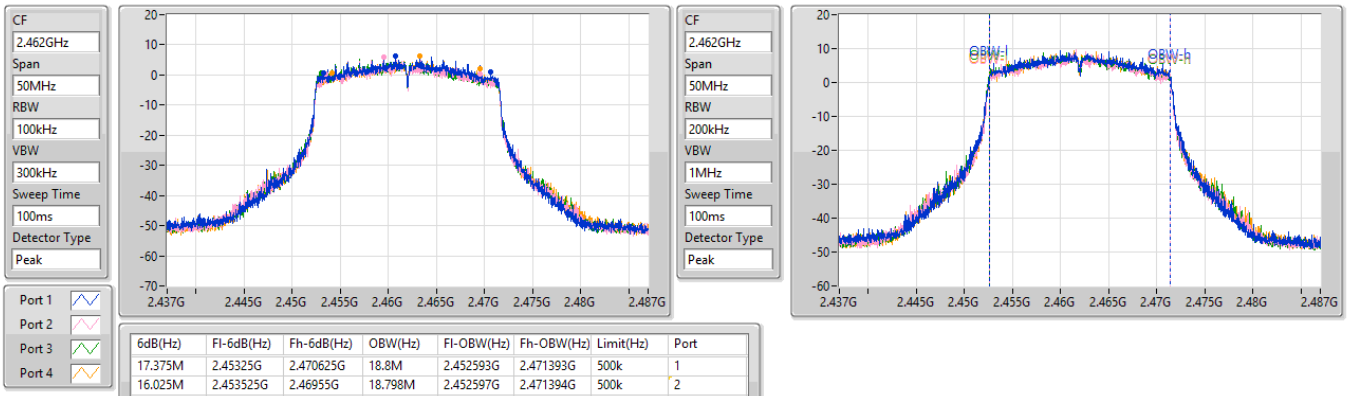
2437MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.55M	2.42945G	2.446G	18.795M	2.427595G	2.446389G	500k	1
14.825M	2.429475G	2.4443G	18.808M	2.42762G	2.446428G	500k	2
16.9M	2.428975G	2.445875G	18.834M	2.427607G	2.446441G	500k	3
16.025M	2.428525G	2.44455G	18.813M	2.427592G	2.446405G	500k	4

2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_4TX **EBW**

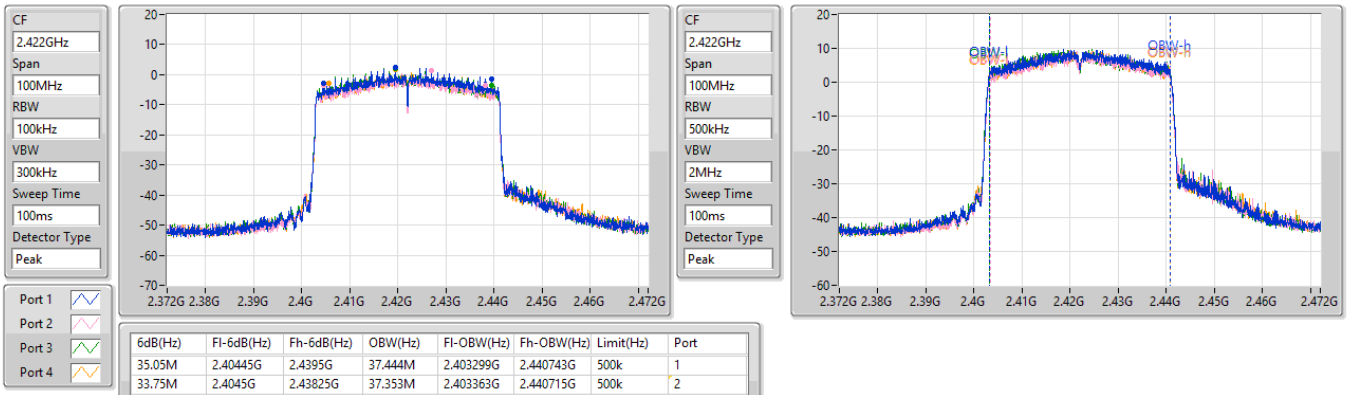
2462MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.375M	2.45325G	2.470625G	18.8M	2.452593G	2.471393G	500k	1
16.025M	2.453525G	2.46955G	18.798M	2.452597G	2.471394G	500k	2
16.5M	2.45305G	2.46955G	18.81M	2.45256G	2.471369G	500k	3
15.4M	2.454125G	2.469525G	18.787M	2.452607G	2.471394G	500k	4

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_4TX **EBW**

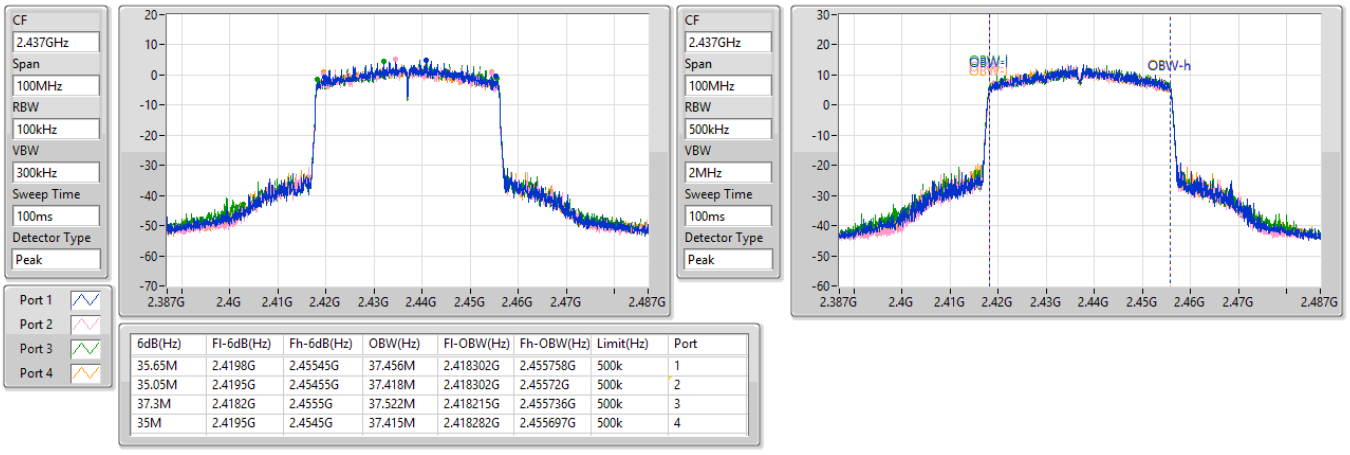
2422MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.05M	2.40445G	2.4395G	37.444M	2.403299G	2.440743G	500k	1
33.75M	2.4045G	2.43825G	37.353M	2.403363G	2.440715G	500k	2
35M	2.40455G	2.43955G	37.429M	2.403296G	2.440725G	500k	3
33.85M	2.4057G	2.43955G	37.411M	2.40331G	2.440721G	500k	4

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_4TX **EBW**

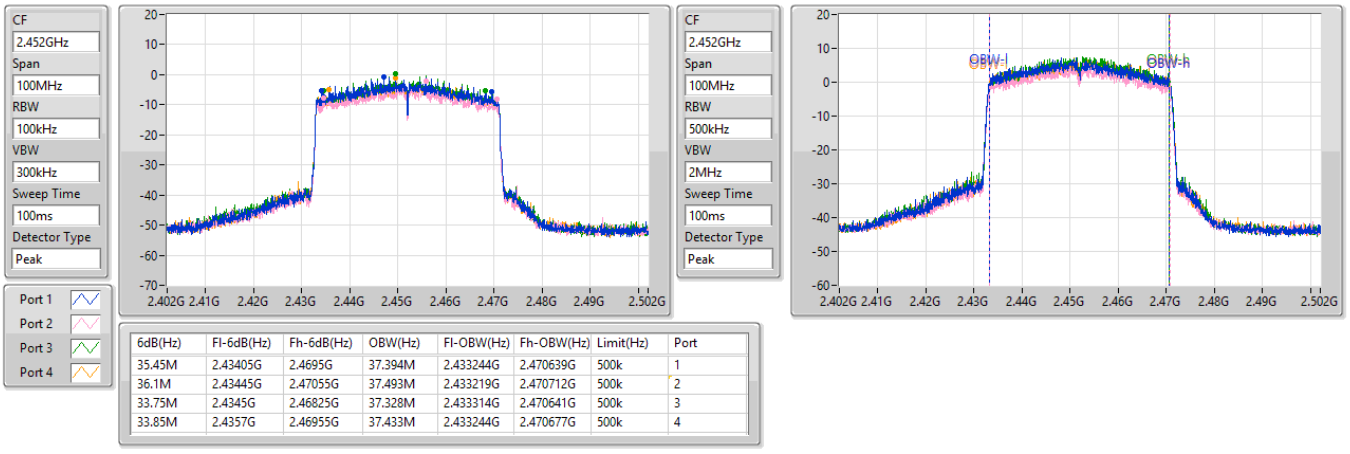
2437MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.65M	2.4198G	2.45545G	37.456M	2.418302G	2.455758G	500k	1
35.05M	2.4195G	2.45455G	37.418M	2.418302G	2.45572G	500k	2
37.3M	2.4182G	2.4555G	37.522M	2.418215G	2.455736G	500k	3
35M	2.4195G	2.4545G	37.415M	2.418282G	2.455697G	500k	4

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_4TX **EBW**

2452MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.45M	2.43405G	2.4695G	37.394M	2.433244G	2.470639G	500k	1
36.1M	2.43445G	2.47055G	37.493M	2.433219G	2.470712G	500k	2
33.75M	2.4345G	2.46825G	37.328M	2.433314G	2.470641G	500k	3
33.85M	2.4357G	2.46955G	37.433M	2.433244G	2.470677G	500k	4

Beamforming mode

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	18.525M	18.847M	18M8D1D	15.125M	18.72M
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	36.3M	37.532M	37M5D1D	31.65M	37.306M

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

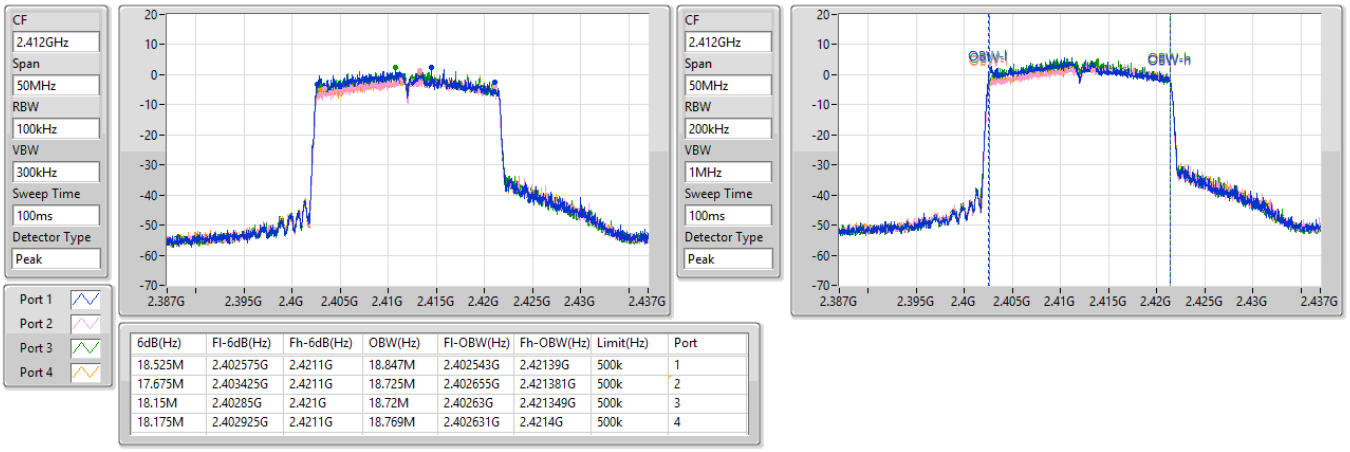
Result

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)
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	18.525M	18.847M	17.675M	18.725M	18.15M	18.72M	18.175M	18.769M
2437MHz	Pass	500k	15.575M	18.798M	16.825M	18.796M	15.775M	18.811M	17.525M	18.787M
2462MHz	Pass	500k	17.7M	18.81M	15.125M	18.785M	17.05M	18.78M	17.5M	18.755M
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	34.85M	37.469M	33.75M	37.306M	32.25M	37.464M	31.65M	37.415M
2437MHz	Pass	500k	35.05M	37.436M	33.75M	37.408M	36.3M	37.457M	35.7M	37.532M
2452MHz	Pass	500k	35.35M	37.464M	35M	37.319M	35M	37.347M	35M	37.394M

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

2.4-2.4835GHz_802.11ax HEW20-BF_Nss1,(MCS0)_4TX **EBW**

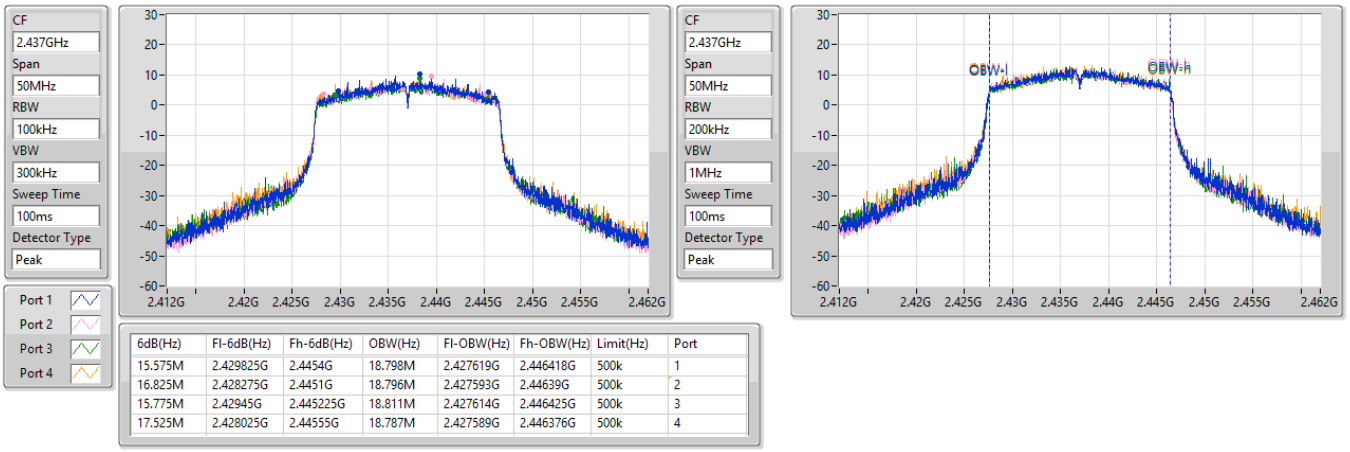
2412MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.525M	2.402575G	2.4211G	18.847M	2.402543G	2.42139G	500k	1
17.675M	2.403425G	2.4211G	18.725M	2.402655G	2.421381G	500k	2
18.15M	2.40285G	2.421G	18.72M	2.40263G	2.421349G	500k	3
18.175M	2.402925G	2.4211G	18.769M	2.402631G	2.4214G	500k	4

2.4-2.4835GHz_802.11ax HEW20-BF_Nss1,(MCS0)_4TX **EBW**

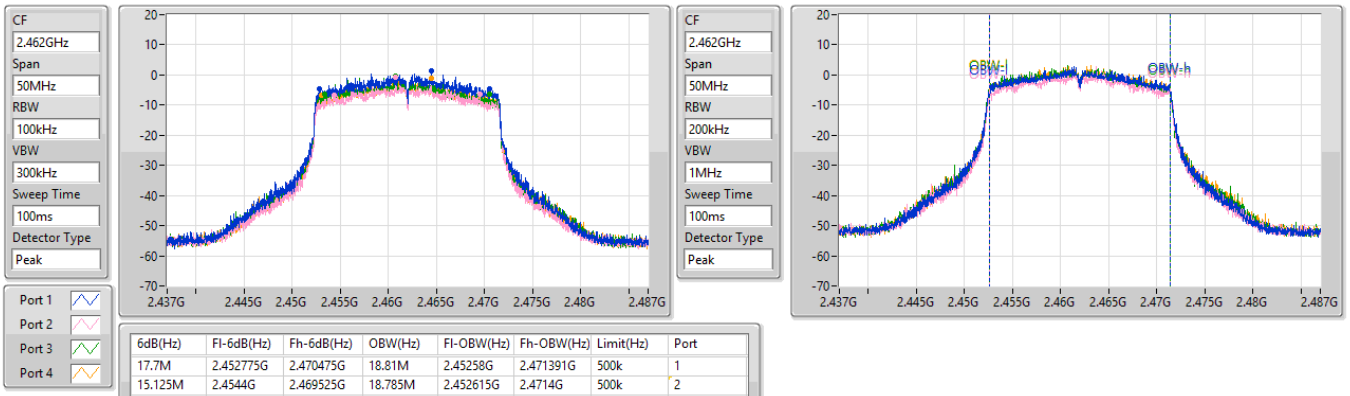
2437MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.575M	2.429825G	2.4454G	18.798M	2.427619G	2.446418G	500k	1
16.825M	2.428275G	2.4451G	18.796M	2.427593G	2.44639G	500k	2
15.775M	2.42945G	2.445225G	18.811M	2.427614G	2.446425G	500k	3
17.525M	2.428025G	2.44555G	18.787M	2.427589G	2.446376G	500k	4

2.4-2.4835GHz_802.11ax HEW20-BF_Nss1,(MCS0)_4TX **EBW**

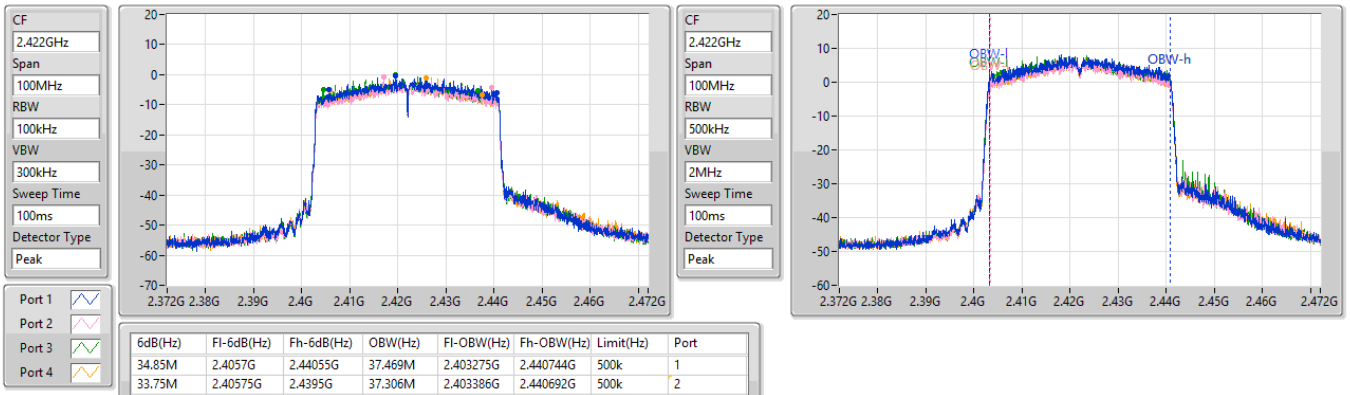
2462MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.7M	2.452775G	2.470475G	18.81M	2.45258G	2.471391G	500k	1
15.125M	2.4544G	2.469525G	18.785M	2.452615G	2.4714G	500k	2
17.05M	2.453425G	2.470475G	18.78M	2.452572G	2.471353G	500k	3
17.5M	2.453G	2.4705G	18.755M	2.452609G	2.471364G	500k	4

2.4-2.4835GHz_802.11ax HEW40-BF_Nss1,(MCS0)_4TX **EBW**

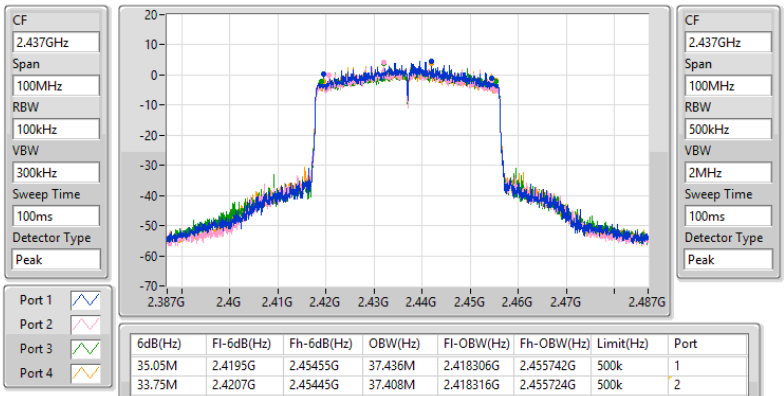
2422MHz

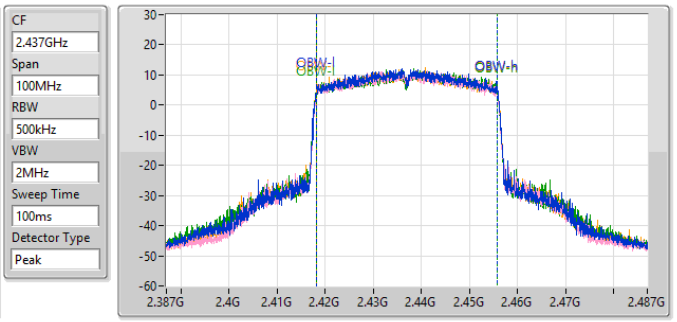


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
34.85M	2.4057G	2.44055G	37.469M	2.403275G	2.440744G	500k	1
33.75M	2.40575G	2.4395G	37.306M	2.403386G	2.440692G	500k	2
32.25M	2.40445G	2.4367G	37.464M	2.403257G	2.44072G	500k	3
31.65M	2.40575G	2.4374G	37.415M	2.40333G	2.440746G	500k	4

2.4-2.4835GHz_802.11ax HEW40-BF_Nss1,(MCS0)_4TX **EBW**

2437MHz

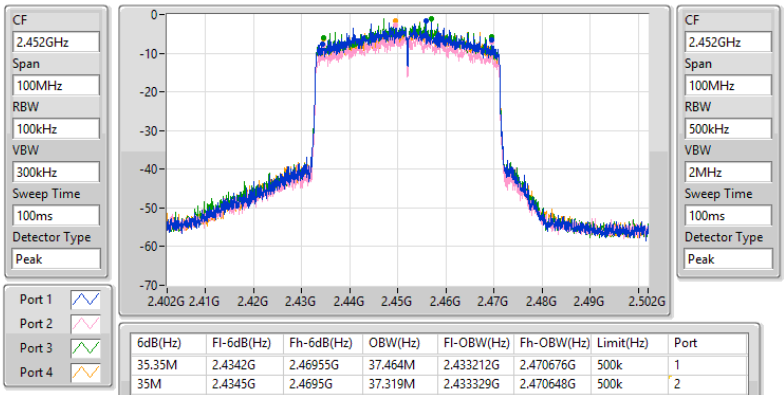


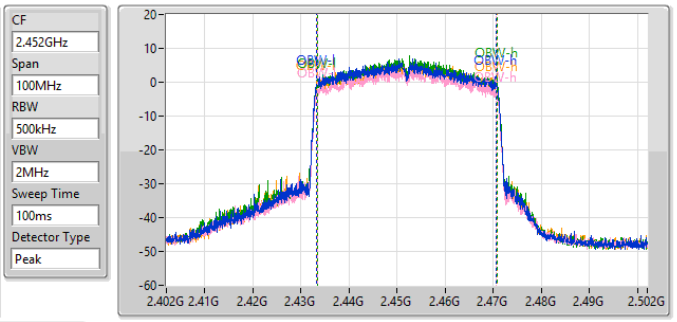


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.05M	2.4195G	2.45455G	37.436M	2.418306G	2.455742G	500k	1
33.75M	2.4207G	2.45445G	37.408M	2.418316G	2.455724G	500k	2
36.3M	2.4191G	2.4554G	37.457M	2.418245G	2.455703G	500k	3
35.7M	2.41955G	2.45525G	37.532M	2.418225G	2.455757G	500k	4

2.4-2.4835GHz_802.11ax HEW40-BF_Nss1,(MCS0)_4TX **EBW**

2452MHz





6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.35M	2.4342G	2.46955G	37.464M	2.433212G	2.470676G	500k	1
35M	2.4345G	2.4695G	37.319M	2.433329G	2.470648G	500k	2
35M	2.4345G	2.4695G	37.347M	2.433343G	2.47069G	500k	3
35M	2.4345G	2.4695G	37.394M	2.433309G	2.470703G	500k	4

Non-beamforming mode

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_4TX	27.40	0.54954
802.11g_Nss1,(6Mbps)_4TX	27.26	0.53211
802.11ax HEW20_Nss1,(MCS0)_4TX	27.12	0.51523
802.11ax HEW40_Nss1,(MCS0)_4TX	24.39	0.27479

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	3.990	21.08	21.07	20.96	20.86	27.01	30.00	31.00	36.00
2437MHz	Pass	3.990	21.52	21.43	21.23	21.33	27.40	30.00	31.39	36.00
2462MHz	Pass	3.990	21.58	21.29	21.02	21.43	27.36	30.00	31.35	36.00
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	3.990	20.57	20.65	20.54	20.38	26.56	30.00	30.55	36.00
2437MHz	Pass	3.990	21.45	21.02	20.97	21.51	27.26	30.00	31.25	36.00
2462MHz	Pass	3.990	20.12	20.16	19.82	19.84	26.01	30.00	30.00	36.00
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	3.990	18.84	18.23	18.75	18.26	24.55	30.00	28.54	36.00
2437MHz	Pass	3.990	21.21	21.07	20.92	21.21	27.12	30.00	31.11	36.00
2462MHz	Pass	3.990	17.18	16.43	16.83	16.75	22.83	30.00	26.82	36.00
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	3.990	15.67	14.66	15.43	15.04	21.24	30.00	25.23	36.00
2437MHz	Pass	3.990	18.54	18.02	18.53	18.37	24.39	30.00	28.38	36.00
2452MHz	Pass	3.990	12.75	11.35	13.13	12.33	18.46	30.00	22.45	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	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	26.05	0.40272
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	24.34	0.27164

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)
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	9.555	13.88	13.7	12.61	13.86	19.56	26.45	29.11	36.00
2437MHz	Pass	9.555	20.37	19.59	20.2	19.91	26.05	26.45	35.61	36.00
2462MHz	Pass	9.555	12.46	12.18	11.52	12.95	18.33	26.45	27.88	36.00
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	9.555	13.11	12.95	12.06	13.72	19.02	26.45	28.57	36.00
2437MHz	Pass	9.555	18.73	17.72	18.05	18.68	24.34	26.45	33.89	36.00
2452MHz	Pass	9.555	11.91	10.79	12.25	12.01	17.80	26.45	27.36	36.00

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

Note : Conducted average output power is for reference

Directional gain = 10 x log(($10^{3.99/20}$+$10^{2.964/20}$+$10^{3.68/20}$+$10^{3.471/20}$)^2/4) = 9.555 dBi > 6 dBi, limit shall be reduced to 30 dBm – (9.555 dBi – 6 dBi) = 26.45dBm

Non-beamforming mode

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_4TX	-2.92
802.11g_Nss1,(6Mbps)_4TX	-5.27
802.11ax HEW20_Nss1,(MCS0)_4TX	-5.74
802.11ax HEW40_Nss1,(MCS0)_4TX	-11.42

RBW = 3kHz;

Result

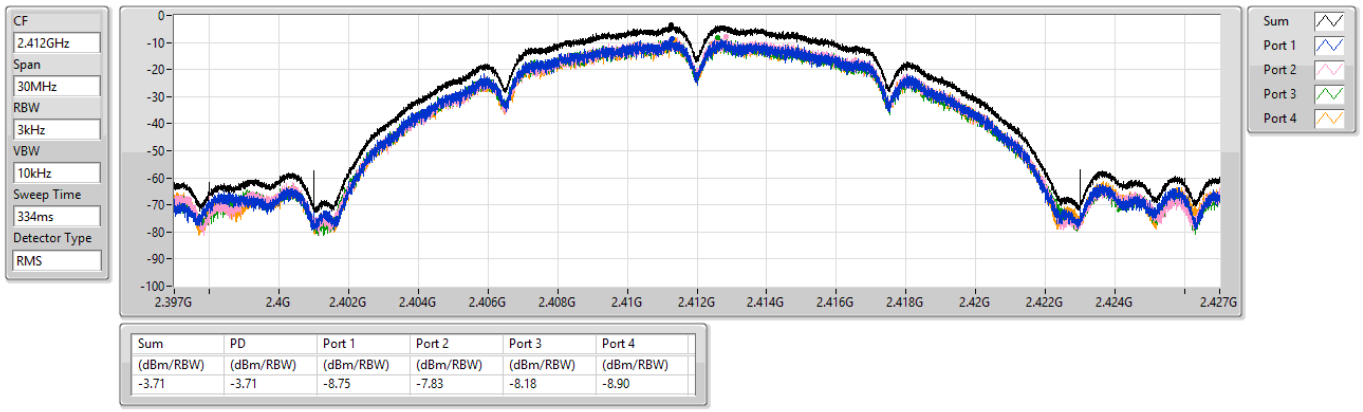
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	9.555	-8.75	-7.83	-8.18	-8.90	-3.71	4.45
2437MHz	Pass	9.555	-7.78	-7.50	-8.71	-8.21	-3.01	4.45
2462MHz	Pass	9.555	-7.02	-7.25	-8.69	-8.12	-2.92	4.45
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	9.555	-10.68	-10.66	-10.94	-11.49	-6.45	4.45
2437MHz	Pass	9.555	-9.88	-9.58	-10.80	-9.49	-5.27	4.45
2462MHz	Pass	9.555	-11.29	-10.98	-10.94	-11.21	-6.38	4.45
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	9.555	-13.65	-13.45	-14.27	-14.14	-7.95	4.45
2437MHz	Pass	9.555	-11.06	-11.06	-11.63	-10.30	-5.74	4.45
2462MHz	Pass	9.555	-14.68	-15.50	-15.17	-15.46	-9.66	4.45
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2422MHz	Pass	9.555	-19.08	-20.02	-19.95	-19.96	-14.43	4.45
2437MHz	Pass	9.555	-16.53	-16.96	-17.10	-16.97	-11.42	4.45
2452MHz	Pass	9.555	-22.46	-23.33	-20.74	-23.13	-16.84	4.45

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;

Directional gain = 10 x log($(10^{3.99/20}+10^{2.964/20}+10^{3.68/20}+10^{3.471/20})^2/4$) = 9.555 dBi > 6 dBi, limit shall be reduced to 8 dBm – (9.555 dBi – 6 dBi) = 4.45dBm

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

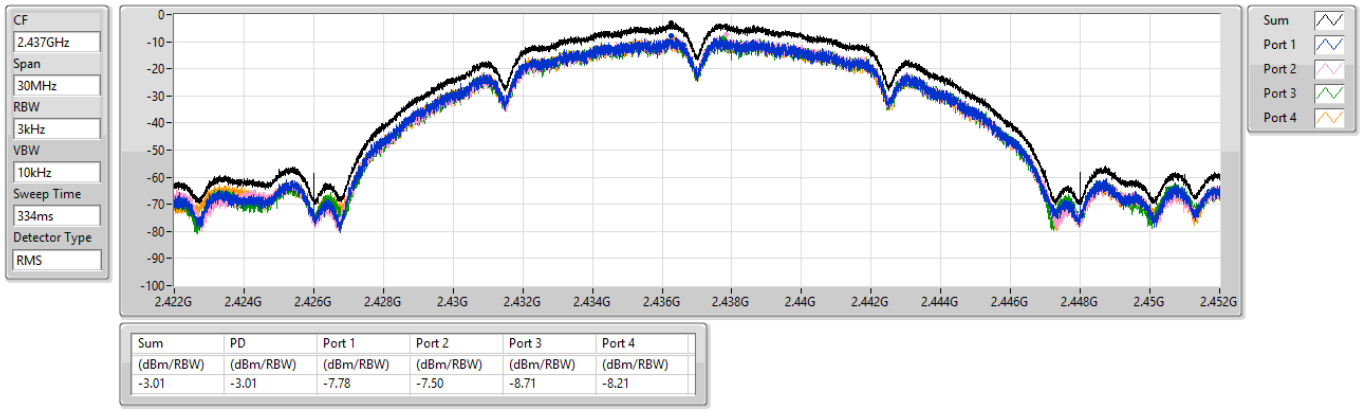
2412MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.71	-3.71	-8.75	-7.83	-8.18	-8.90

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

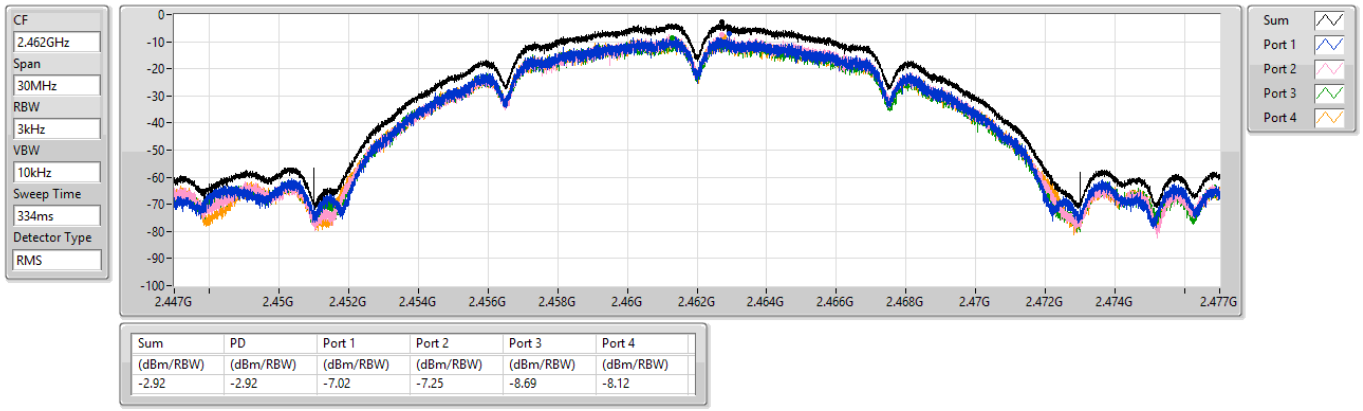
2437MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.01	-3.01	-7.78	-7.50	-8.71	-8.21

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

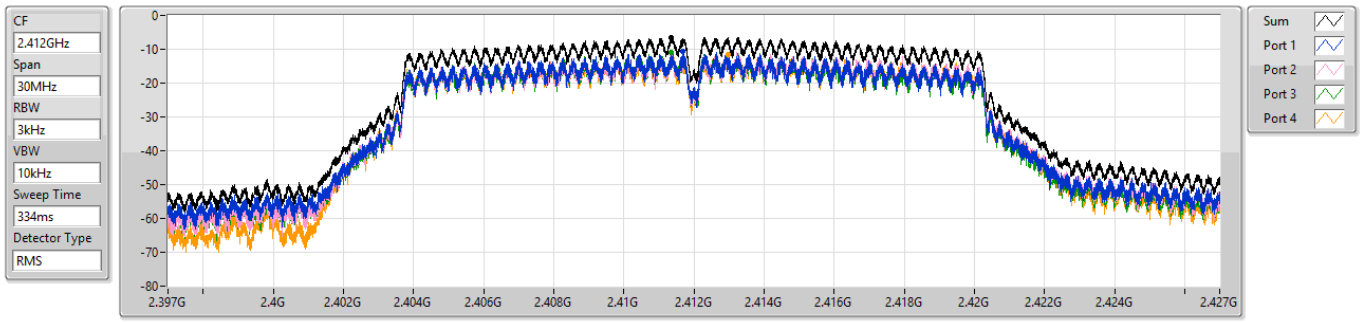
2462MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.92	-2.92	-7.02	-7.25	-8.69	-8.12

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

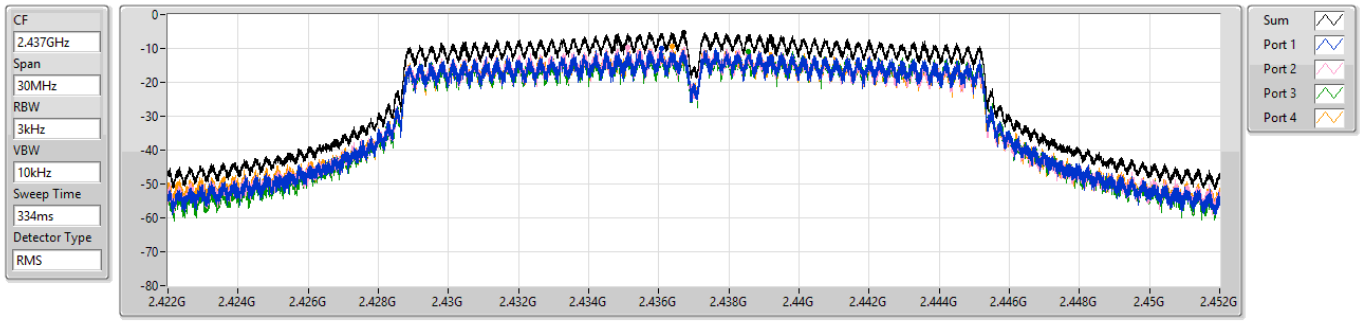
2412MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.45	-6.45	-10.68	-10.66	-10.94	-11.49

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

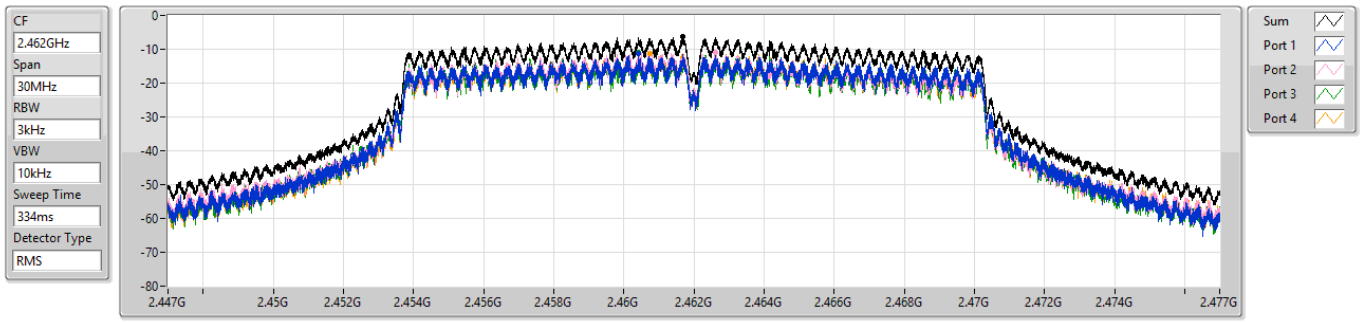
2437MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.27	-5.27	-9.88	-9.58	-10.80	-9.49

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

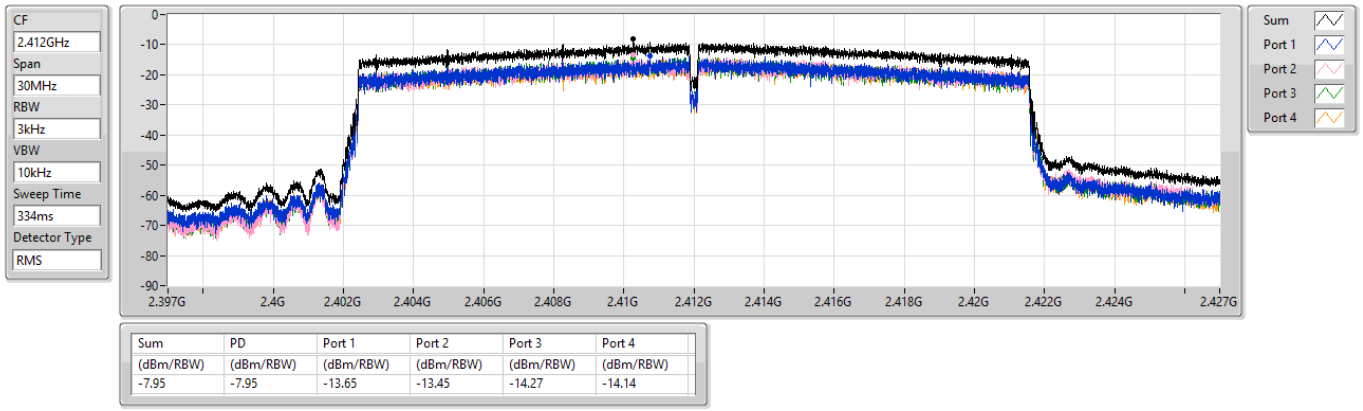
2462MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.38	-6.38	-11.29	-10.98	-10.94	-11.21

2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_4TX **PSD**

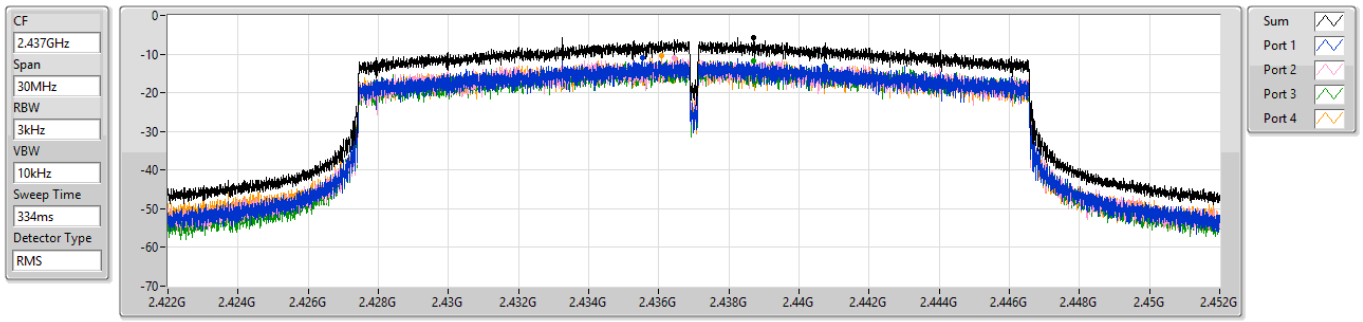
2412MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.95	-7.95	-13.65	-13.45	-14.27	-14.14

2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_4TX **PSD**

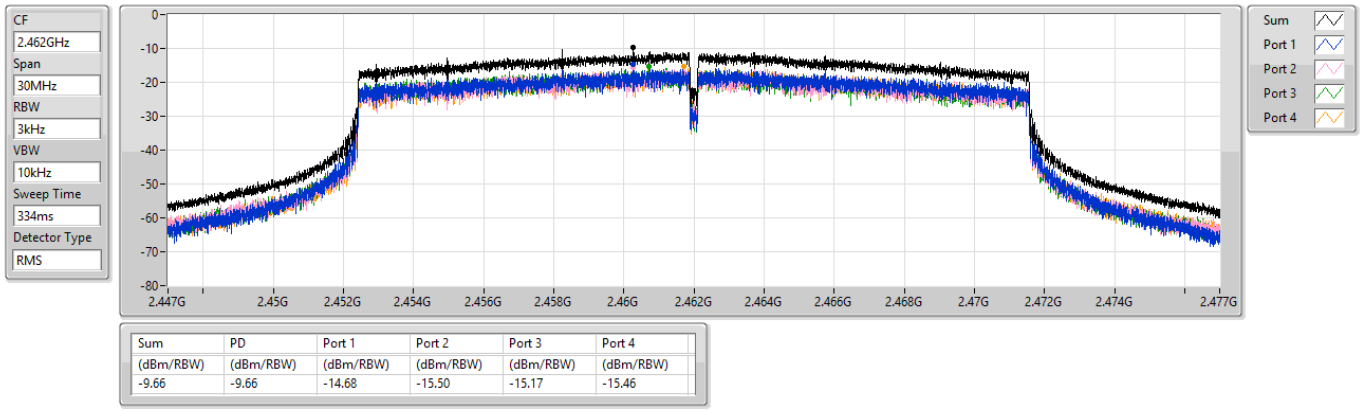
2437MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.74	-5.74	-11.06	-11.06	-11.63	-10.30

2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_4TX **PSD**

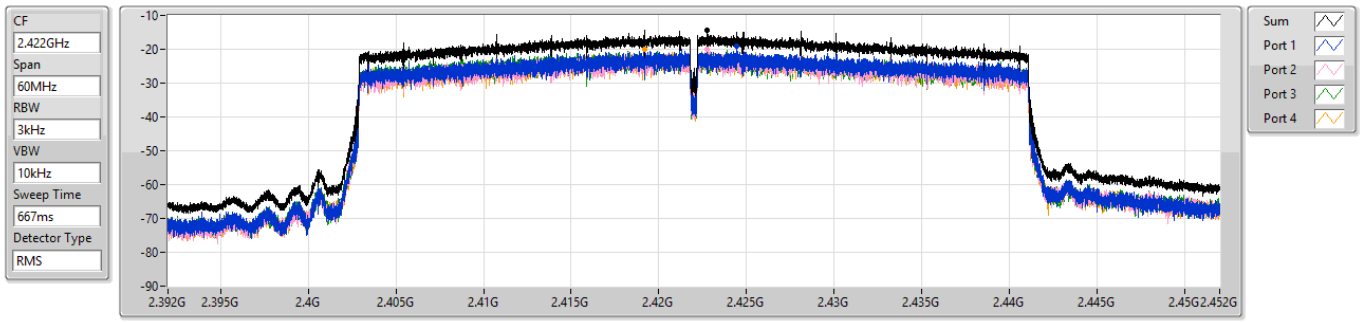
2462MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.66	-9.66	-14.68	-15.50	-15.17	-15.46

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_4TX **PSD**

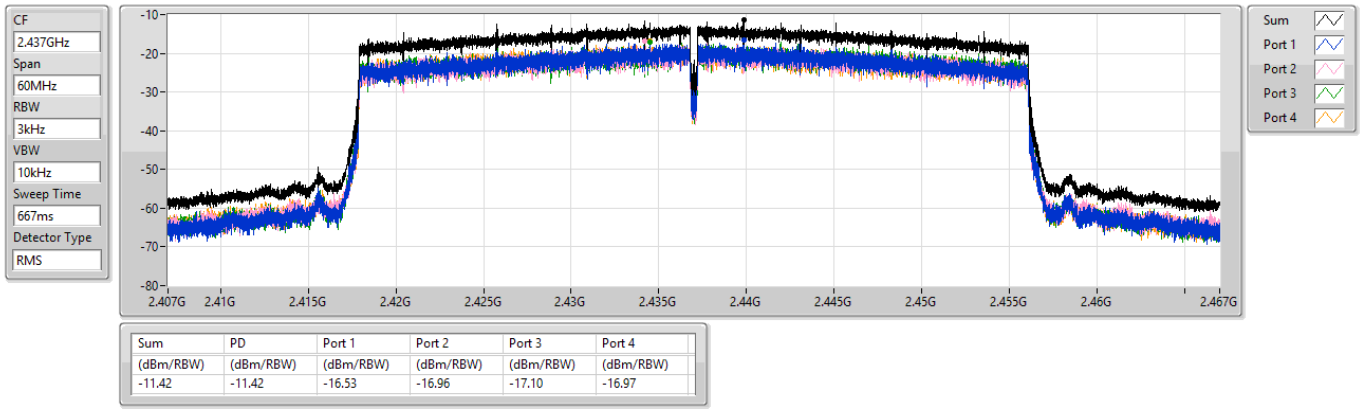
2422MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-14.43	-14.43	-19.08	-20.02	-19.95	-19.96

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_4TX **PSD**

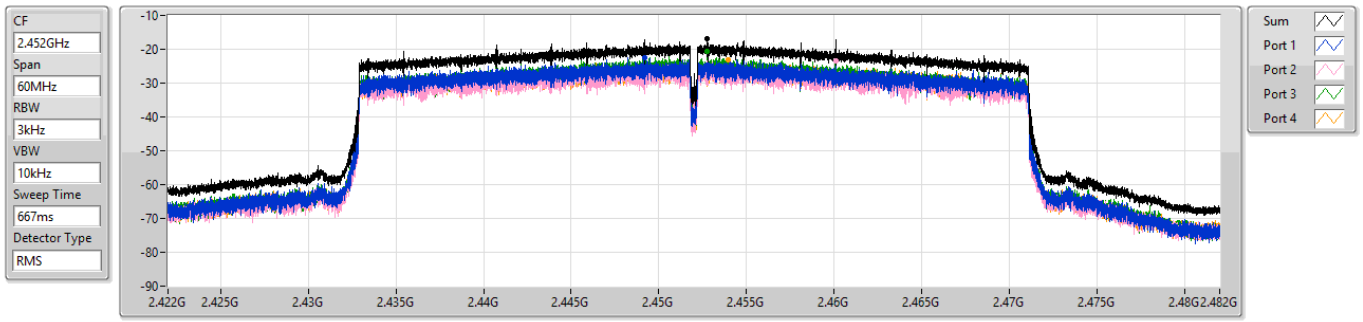
2437MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-11.42	-11.42	-16.53	-16.96	-17.10	-16.97

2.4-2.4835GHz_802.11ax HEW40_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)
-16.84	-16.84	-22.46	-23.33	-20.74	-23.13

Beamforming mode

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-7.00
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-13.54

RBW = 3kHz;

Result

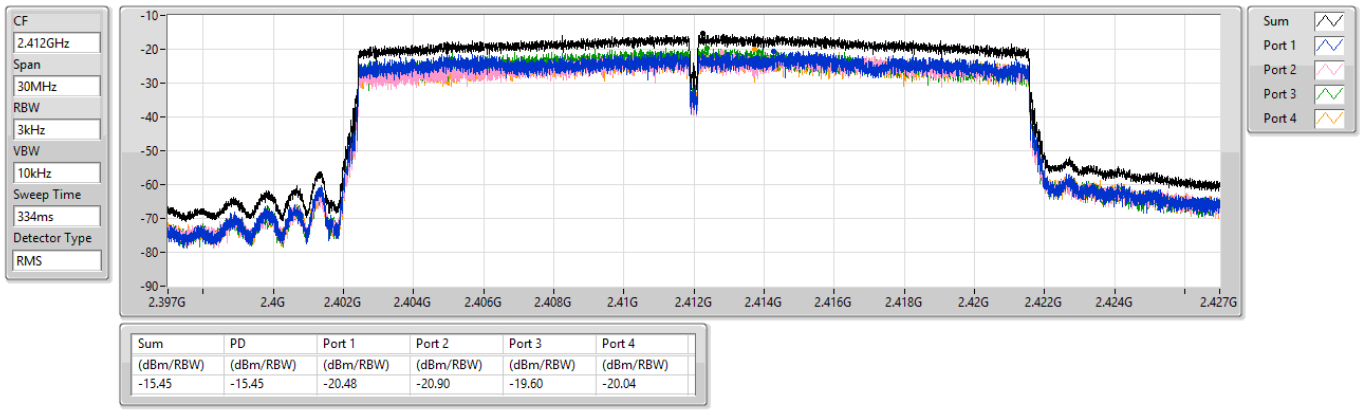
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	9.555	-20.48	-20.90	-19.60	-20.04	-15.45	4.45
2437MHz	Pass	9.555	-11.04	-11.93	-12.83	-12.18	-7.00	4.45
2462MHz	Pass	9.555	-20.55	-22.05	-20.81	-20.76	-16.17	4.45
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2422MHz	Pass	9.555	-22.53	-22.85	-22.23	-22.34	-17.44	4.45
2437MHz	Pass	9.555	-17.36	-18.64	-18.86	-17.42	-13.54	4.45
2452MHz	Pass	9.555	-23.11	-25.47	-23.15	-24.35	-18.68	4.45

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;

Directional gain = 10 x log($(10^{3.99/20}+10^{2.964/20}+10^{3.68/20}+10^{3.471/20})^2/4$) = 9.555 dBi > 6 dBi, limit shall be reduced to 8 dBm – (9.555dBi – 6dBi) = 4.45 dBm

2.4-2.4835GHz_802.11ax HEW20-BF_Nss1,(MCS0)_4TX **PSD**

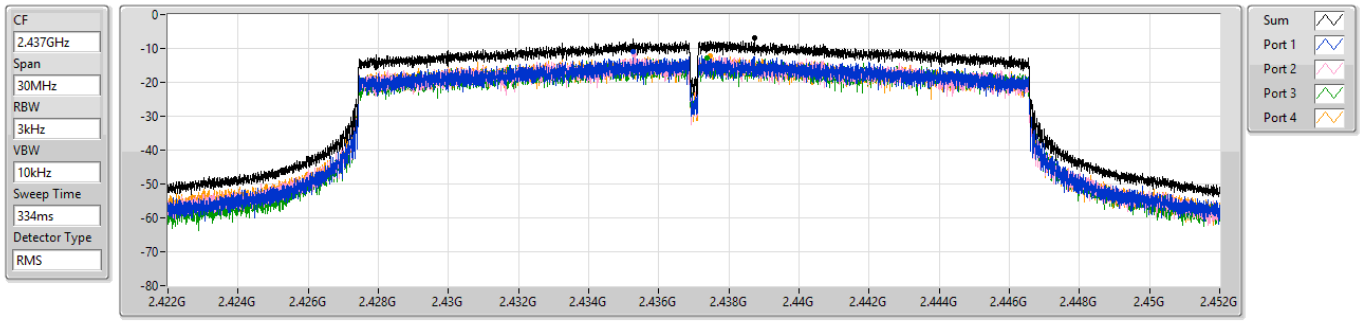
2412MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-15.45	-15.45	-20.48	-20.90	-19.60	-20.04

2.4-2.4835GHz_802.11ax HEW20-BF_Nss1,(MCS0)_4TX **PSD**

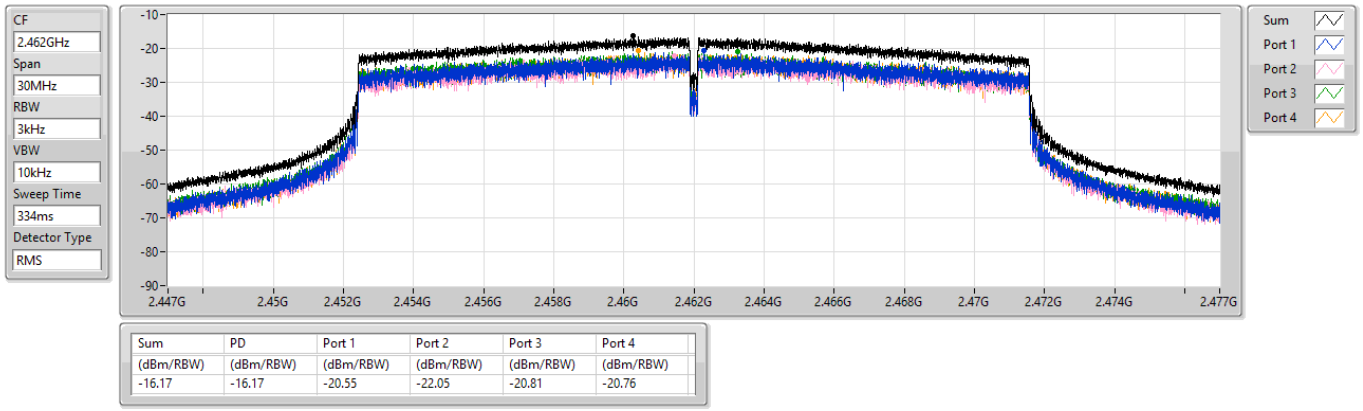
2437MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.00	-7.00	-11.04	-11.93	-12.83	-12.18

2.4-2.4835GHz_802.11ax HEW20-BF_Nss1,(MCS0)_4TX **PSD**

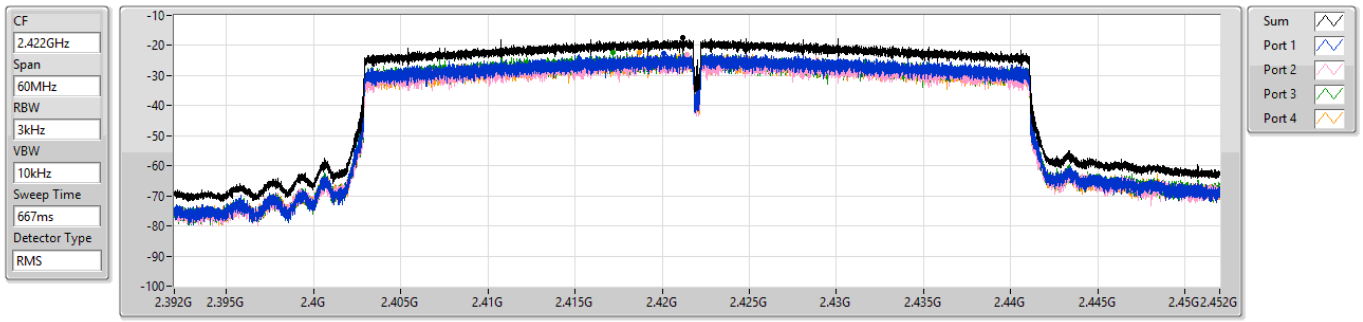
2462MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-16.17	-16.17	-20.55	-22.05	-20.81	-20.76

2.4-2.4835GHz_802.11ax HEW40-BF_Nss1,(MCS0)_4TX **PSD**

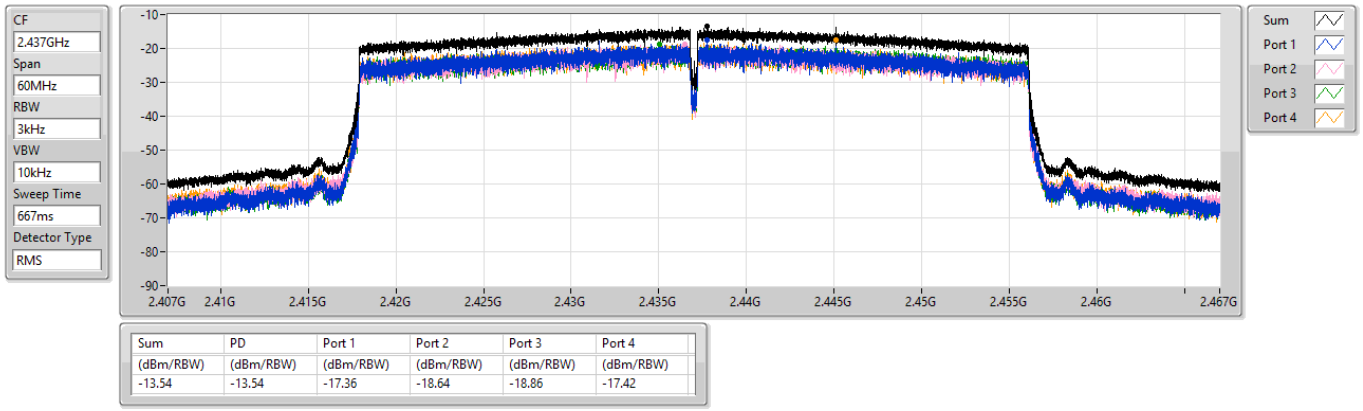
2422MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-17.44	-17.44	-22.53	-22.85	-22.23	-22.34

2.4-2.4835GHz_802.11ax HEW40-BF_Nss1,(MCS0)_4TX **PSD**

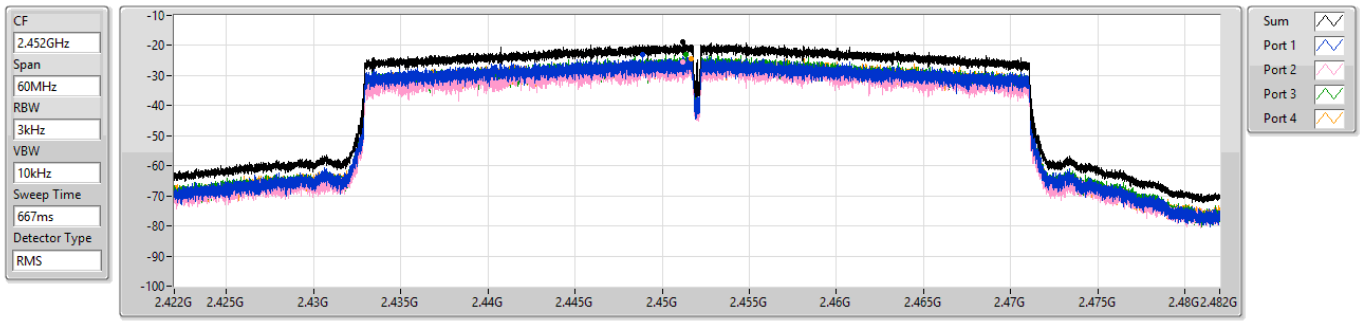
2437MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-13.54	-13.54	-17.36	-18.64	-18.86	-17.42

2.4-2.4835GHz_802.11ax HEW40-BF_Nss1,(MCS0)_4TX **PSD**

2452MHz



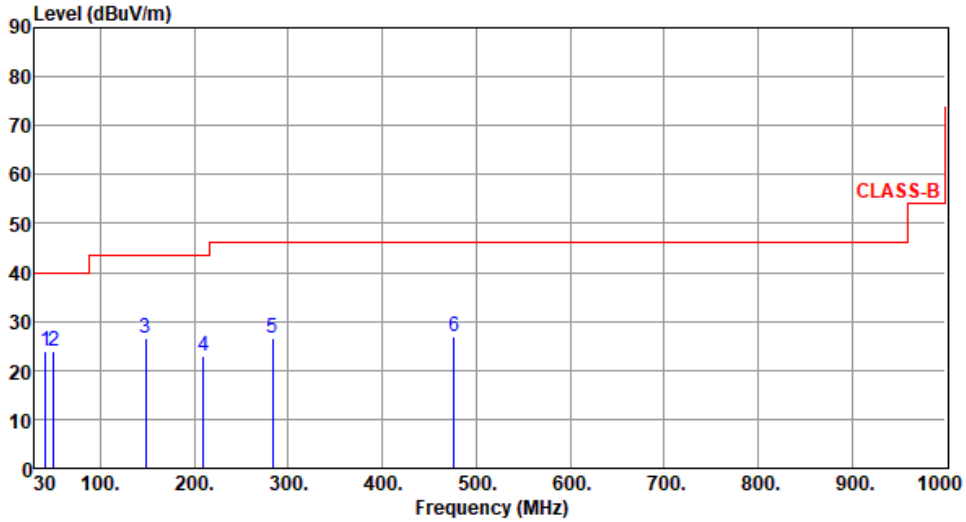
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-18.68	-18.68	-23.11	-25.47	-23.15	-24.35

Non-beamforming mode

Unwanted Emissions (Below 1GHz)

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

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

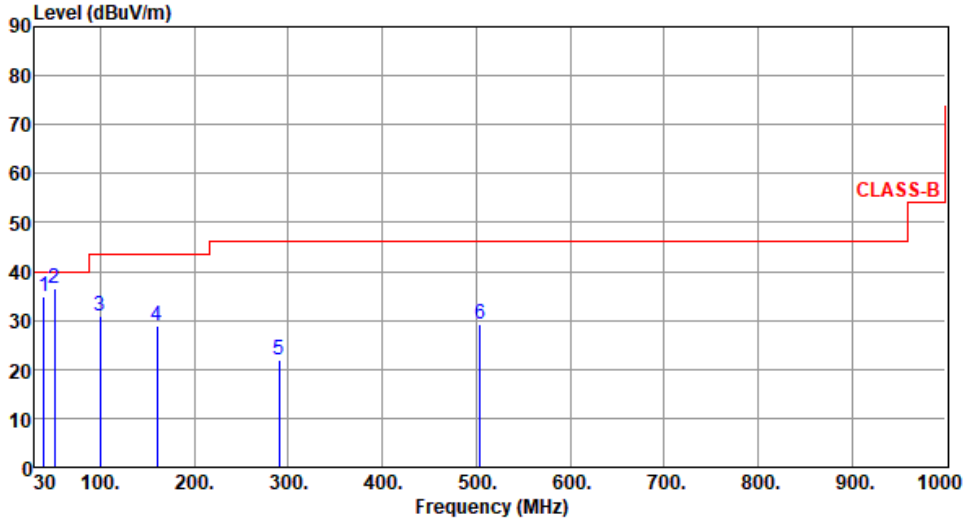


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	41.64	23.83	40.00	-16.17	32.34	-8.51	Peak	---	---
2	50.37	23.84	40.00	-16.16	31.66	-7.82	Peak	---	---
3	148.34	26.51	43.50	-16.99	35.45	-8.94	Peak	---	---
4	209.45	23.06	43.50	-20.44	35.04	-11.98	Peak	---	---
5	283.17	26.48	46.00	-19.52	34.98	-8.50	Peak	---	---
6	476.20	26.84	46.00	-19.16	30.52	-3.68	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)**	2437
Polarization	Vertical		

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



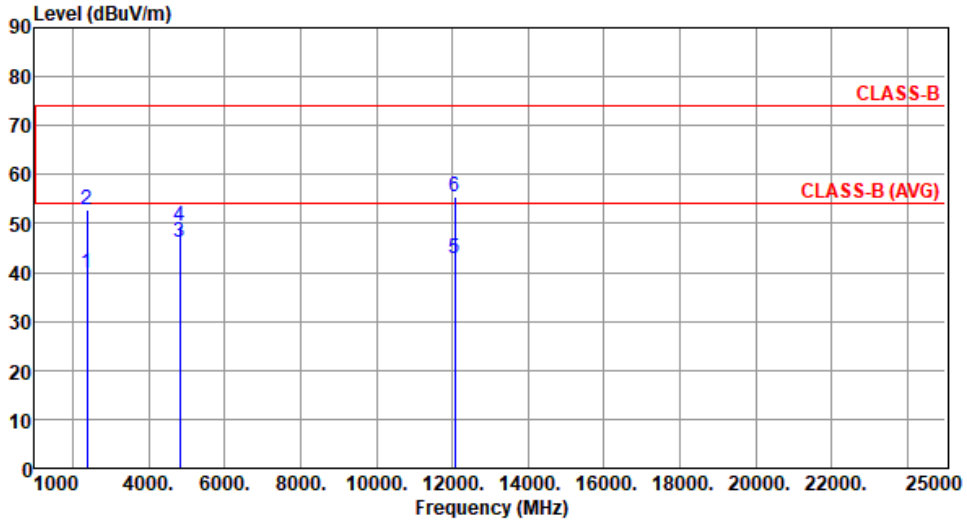
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	39.70	34.79	40.00	-5.21	43.62	-8.83	Peak	---	---
2	51.39	36.42	40.00	-3.58	44.22	-7.80	Peak	---	---
3	99.84	30.96	43.50	-12.54	44.25	-13.29	Peak	---	---
4	159.98	28.78	43.50	-14.72	37.59	-8.81	Peak	---	---
5	289.96	21.82	46.00	-24.18	30.18	-8.36	Peak	---	---
6	504.33	29.28	46.00	-16.72	32.31	-3.03	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(℃):26 Humidity(%):61

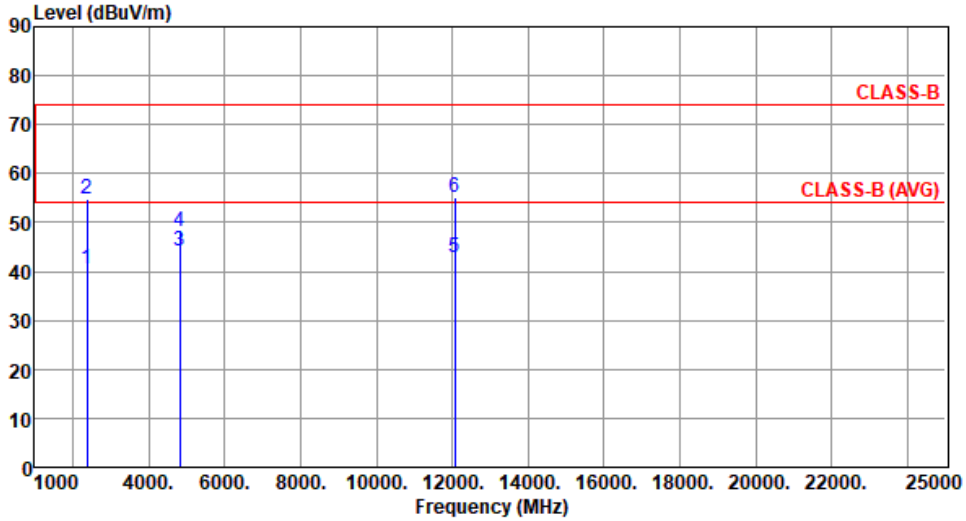


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	39.78	54.00	-14.22	44.32	-4.54	Average	100	156
2	2390.00	52.65	74.00	-21.35	57.19	-4.54	Peak	100	156
3	4824.00	46.27	54.00	-7.73	46.68	-0.41	Average	268	251
4	4824.00	49.41	74.00	-24.59	49.82	-0.41	Peak	268	251
5	12060.00	42.68	54.00	-11.32	36.23	6.45	Average	100	181
6	12060.00	55.47	74.00	-18.53	49.02	6.45	Peak	100	181

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(℃):26 Humidity(%):61

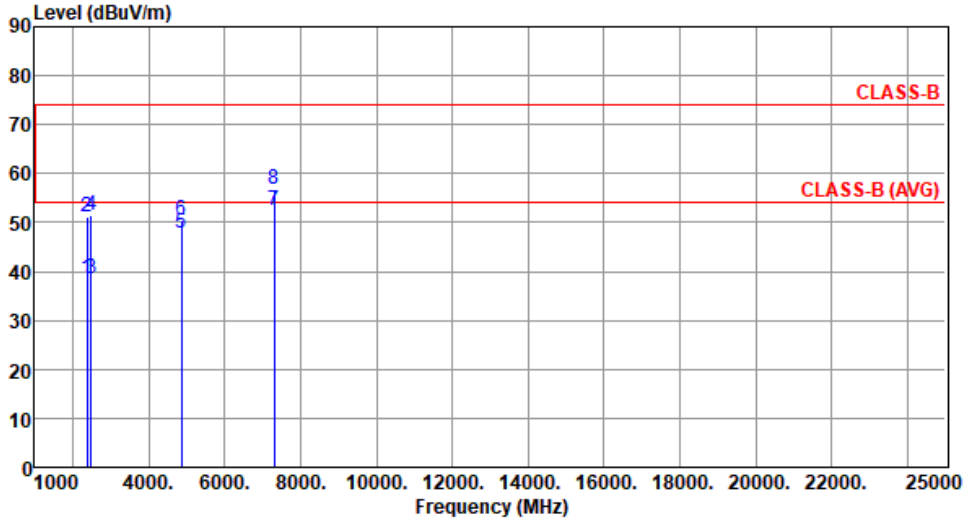


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	40.67	54.00	-13.33	45.21	-4.54	Average	137	136
2	2390.00	54.81	74.00	-19.19	59.35	-4.54	Peak	137	136
3	4824.00	44.28	54.00	-9.72	44.69	-0.41	Average	231	233
4	4824.00	48.27	74.00	-25.73	48.68	-0.41	Peak	231	233
5	12060.00	42.86	54.00	-11.14	36.41	6.45	Average	100	157
6	12060.00	55.26	74.00	-18.74	48.81	6.45	Peak	100	157

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(℃):26 Humidity(%):61

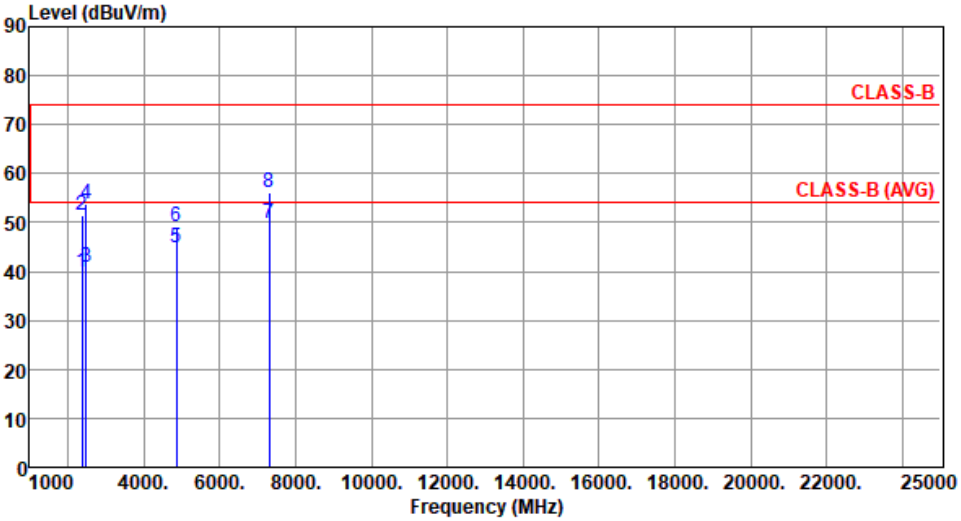


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	38.48	54.00	-15.52	43.02	-4.54	Average	100	158
2	2390.00	51.24	74.00	-22.76	55.78	-4.54	Peak	100	158
3	2483.50	38.67	54.00	-15.33	43.45	-4.78	Average	100	158
4	2483.50	51.48	74.00	-22.52	56.26	-4.78	Peak	100	158
5	4874.00	47.66	54.00	-6.34	48.09	-0.43	Average	265	150
6	4874.00	50.43	74.00	-23.57	50.86	-0.43	Peak	265	250
7	7311.00	52.34	54.00	-1.66	47.08	5.26	Average	147	322
8	7311.00	56.86	74.00	-17.14	51.60	5.26	Peak	147	322

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(℃):26 Humidity(%):61

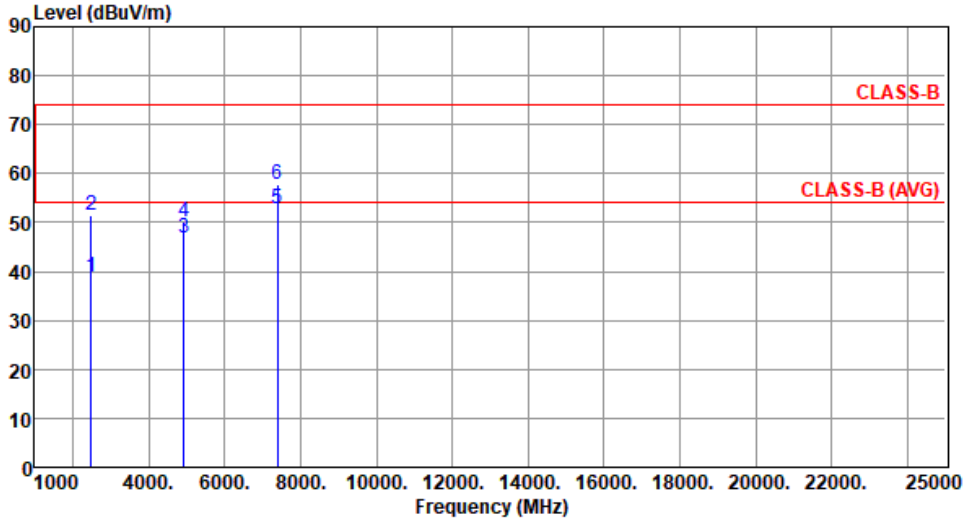


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	39.75	54.00	-14.25	44.29	-4.54	Average	120	134
2	2390.00	51.48	74.00	-22.52	56.02	-4.54	Peak	120	134
3	2483.50	40.84	54.00	-13.16	45.62	-4.78	Average	120	134
4	2483.50	53.74	74.00	-20.26	58.52	-4.78	Peak	120	134
5	4874.00	44.67	54.00	-9.33	45.10	-0.43	Average	203	233
6	4874.00	49.23	74.00	-24.77	49.66	-0.43	Peak	203	233
7	7311.00	49.76	54.00	-4.24	44.50	5.26	Average	100	281
8	7311.00	56.21	74.00	-17.79	50.95	5.26	Peak	100	281

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(℃):26 Humidity(%):61

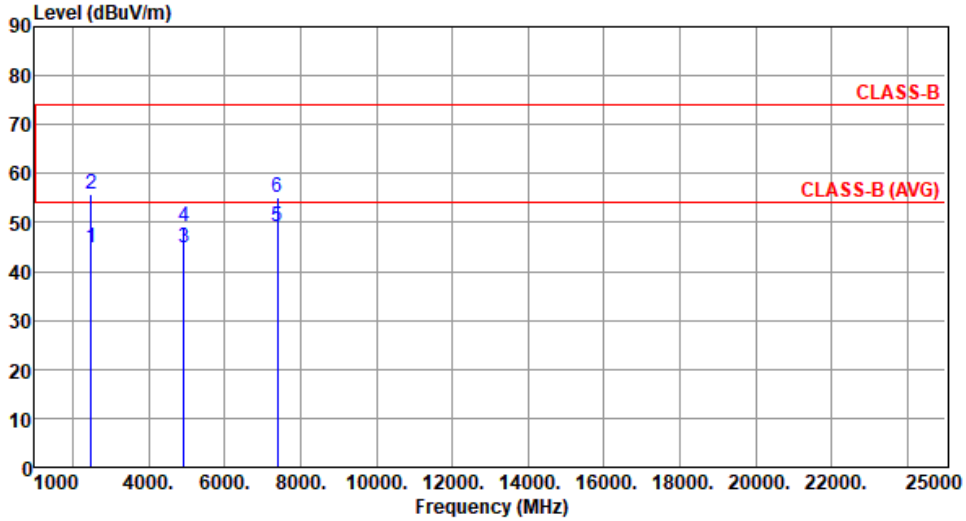


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	38.86	54.00	-15.14	43.64	-4.78	Average	100	148
2	2483.50	51.64	74.00	-22.36	56.42	-4.78	Peak	100	148
3	4924.00	46.79	54.00	-7.21	47.19	-0.40	Average	265	254
4	4924.00	50.31	74.00	-23.69	50.71	-0.40	Peak	265	254
5	7386.00	52.79	54.00	-1.21	47.68	5.11	Average	146	312
6	7386.00	57.68	74.00	-16.32	52.57	5.11	Peak	146	312

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(℃):26 Humidity(%):61



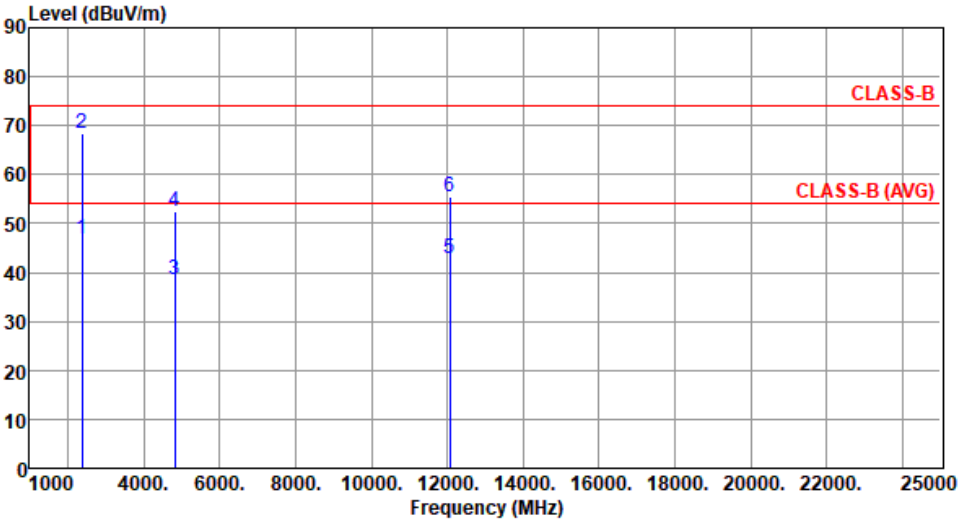
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	44.84	54.00	-9.16	49.62	-4.78	Average	224	142
2	2483.50	55.94	74.00	-18.06	60.72	-4.78	Peak	224	142
3	4924.00	44.76	54.00	-9.24	45.16	-0.40	Average	200	231
4	4924.00	49.27	74.00	-24.73	49.67	-0.40	Peak	200	231
5	7386.00	49.21	54.00	-4.79	44.10	5.11	Average	100	281
6	7386.00	55.23	74.00	-18.77	50.12	5.11	Peak	100	281

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 :Brad Wu Temperature(℃):25 Humidity(%):62

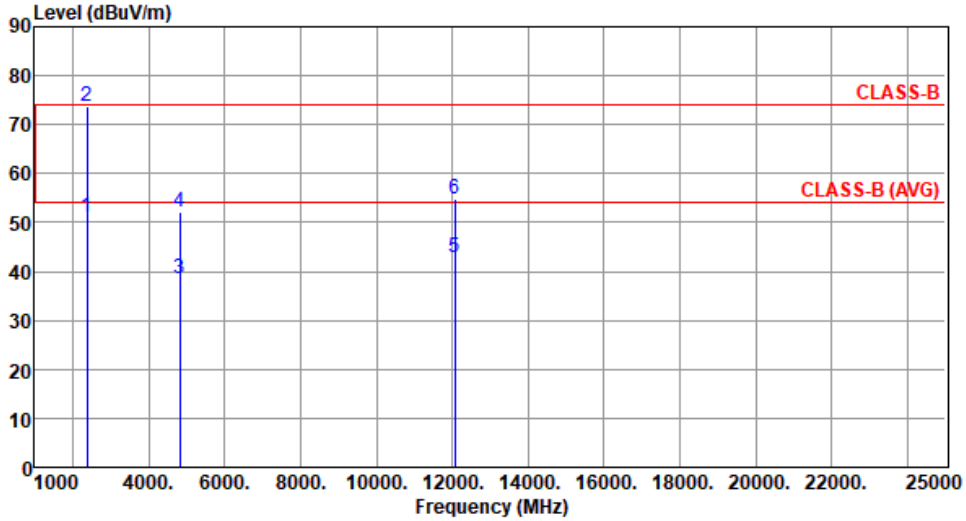


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	46.85	54.00	-7.15	51.39	-4.54	Average	137	225
2	2390.00	68.49	74.00	-5.51	73.03	-4.54	Peak	137	225
3	4824.00	38.64	54.00	-15.36	39.05	-0.41	Average	220	252
4	4824.00	52.42	74.00	-21.58	52.83	-0.41	Peak	220	252
5	12060.00	42.71	54.00	-11.29	36.26	6.45	Average	100	179
6	12060.00	55.32	74.00	-18.68	48.87	6.45	Peak	100	179

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 :Brad Wu Temperature(℃):25 Humidity(%):62

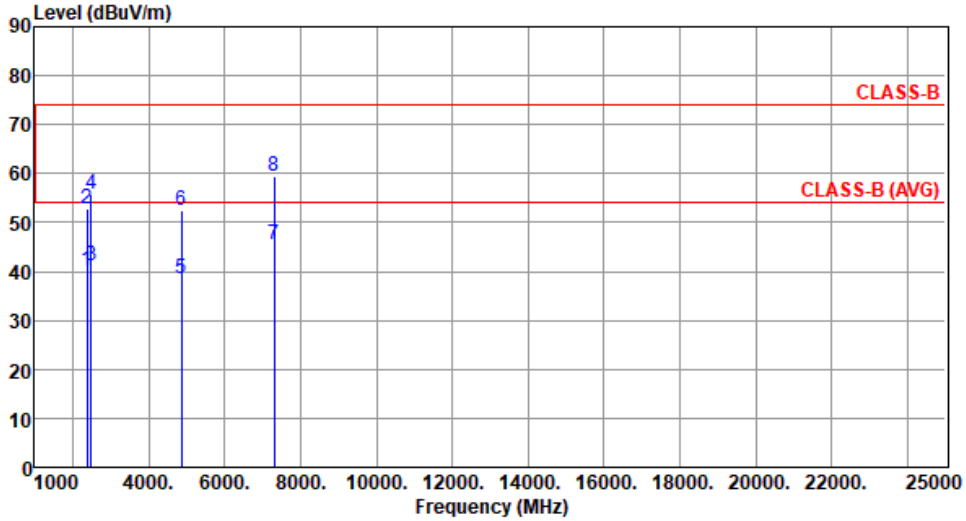


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	51.23	54.00	-2.77	55.77	-4.54	Average	108	249
2	2390.00	73.89	74.00	-0.11	78.43	-4.54	Peak	108	249
3	4824.00	38.46	54.00	-15.54	38.87	-0.41	Average	216	255
4	4824.00	52.13	74.00	-21.87	52.54	-0.41	Peak	216	255
5	12060.00	42.81	54.00	-11.19	36.36	6.45	Average	100	149
6	12060.00	54.75	74.00	-19.25	48.30	6.45	Peak	100	149

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(℃):26 Humidity(%):61

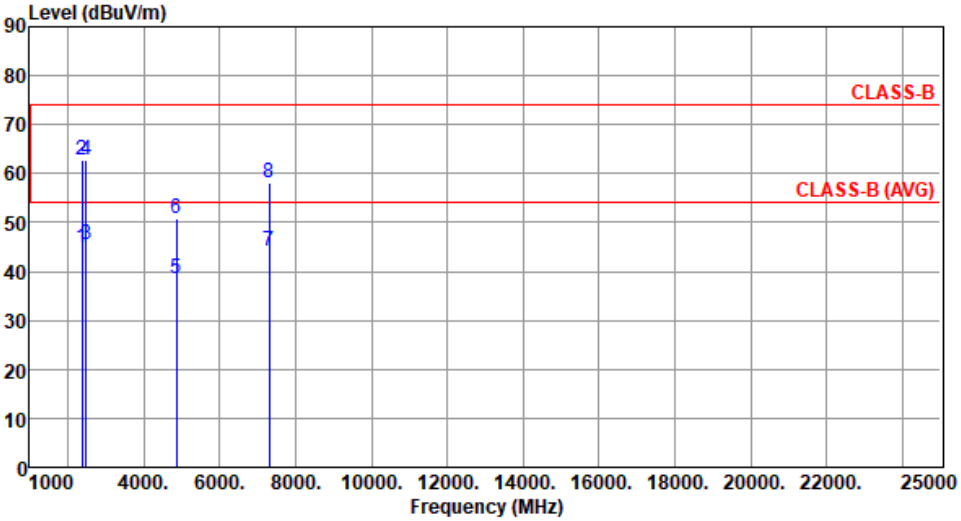


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	40.13	54.00	-13.87	44.67	-4.54	Average	141	226
2	2390.00	52.84	74.00	-21.16	57.38	-4.54	Peak	141	226
3	2483.50	41.26	54.00	-12.74	46.04	-4.78	Average	140	228
4	2483.50	55.64	74.00	-18.36	60.42	-4.78	Peak	140	228
5	4874.00	38.56	54.00	-15.44	38.99	-0.43	Average	217	258
6	4874.00	52.34	74.00	-21.66	52.77	-0.43	Peak	217	258
7	7311.00	45.64	54.00	-8.36	40.38	5.26	Average	147	333
8	7311.00	59.47	74.00	-14.53	54.21	5.26	Peak	147	333

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(℃):26 Humidity(%):61

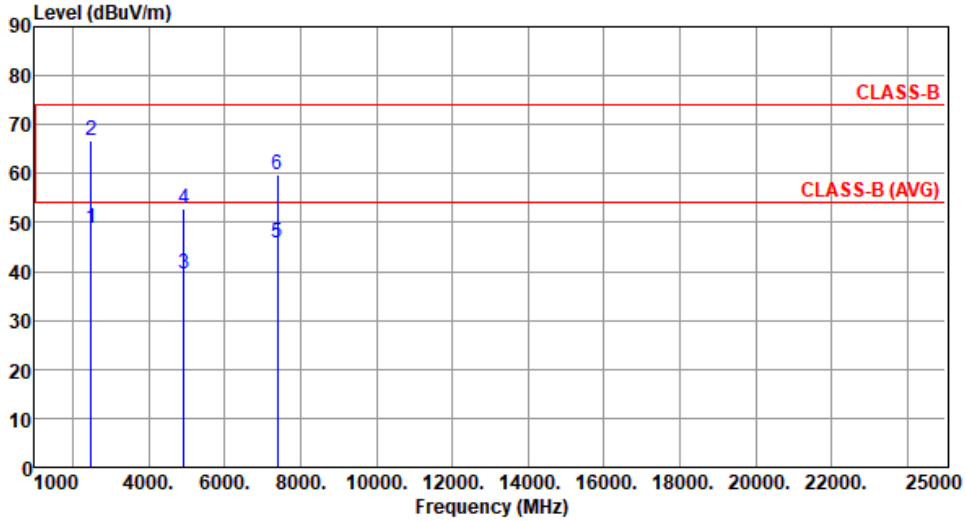


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	44.67	54.00	-9.33	49.21	-4.54	Average	108	330
2	2390.00	62.76	74.00	-11.24	67.30	-4.54	Peak	108	330
3	2483.50	45.48	54.00	-8.52	50.26	-4.78	Average	108	294
4	2483.50	62.73	74.00	-11.27	67.51	-4.78	Peak	108	294
5	4874.00	38.54	54.00	-15.46	38.97	-0.43	Average	196	229
6	4874.00	50.86	74.00	-23.14	51.29	-0.43	Peak	196	229
7	7311.00	44.23	54.00	-9.77	38.97	5.26	Average	100	281
8	7311.00	58.23	74.00	-15.77	52.97	5.26	Peak	100	281

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 :Brad Wu Temperature(℃):25 Humidity(%):62

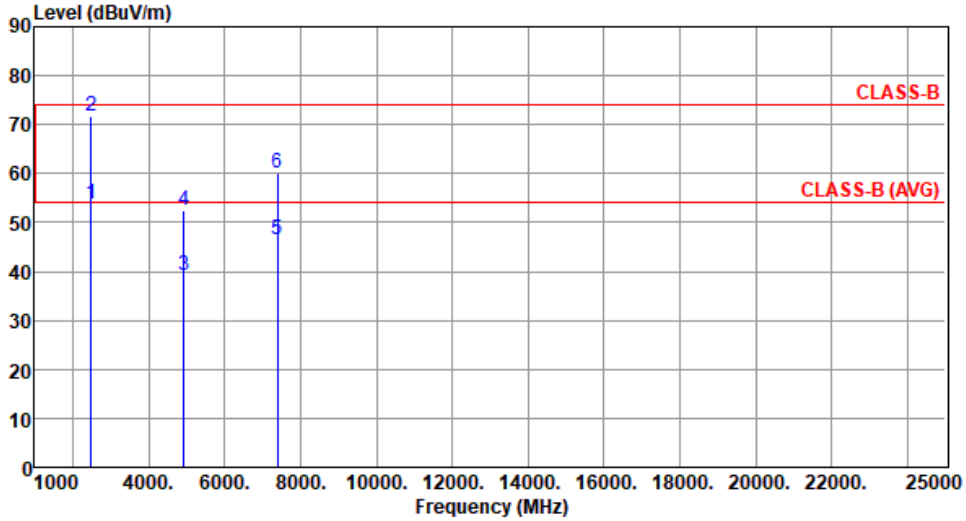


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	48.82	54.00	-5.18	53.60	-4.78	Average	113	229
2	2483.50	66.79	74.00	-7.21	71.57	-4.78	Peak	113	229
3	4924.00	39.37	54.00	-14.63	39.77	-0.40	Average	213	254
4	4924.00	52.76	74.00	-21.24	53.16	-0.40	Peak	213	254
5	7386.00	45.79	54.00	-8.21	40.68	5.11	Average	147	316
6	7386.00	59.66	74.00	-14.34	54.55	5.11	Peak	147	316

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 :Brad Wu Temperature(℃):25 Humidity(%):62



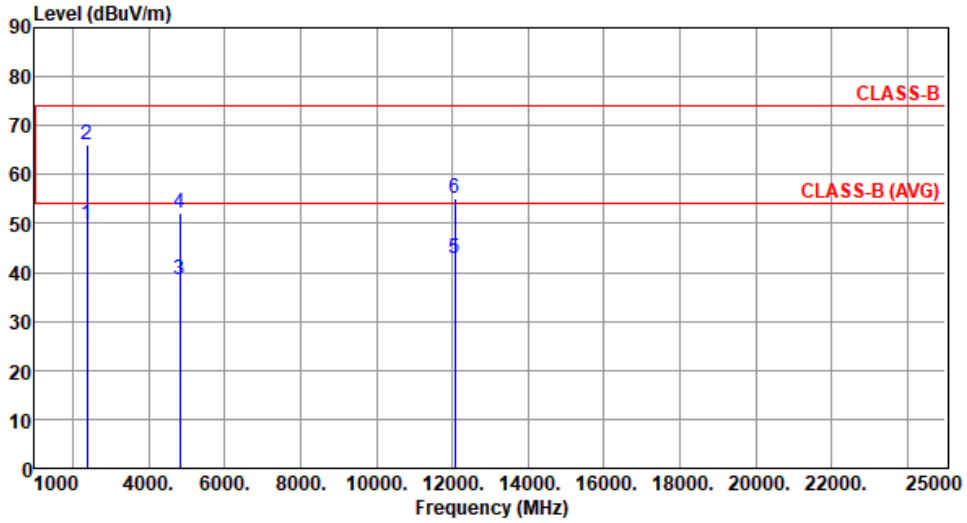
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	53.84	54.00	-0.16	58.62	-4.78	Average	118	303
2	2483.50	71.81	74.00	-2.19	76.59	-4.78	Peak	118	303
3	4924.00	39.17	54.00	-14.83	39.57	-0.40	Average	197	238
4	4924.00	52.49	74.00	-21.51	52.89	-0.40	Peak	197	238
5	7386.00	46.35	54.00	-7.65	41.24	5.11	Average	100	280
6	7386.00	60.21	74.00	-13.79	55.10	5.11	Peak	100	280

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 ax HE20

Modulation	ax HE20	**Test Freq. (MHz)**	2412
Polarization	Horizontal		

Test By :Brad Wu Temperature(℃):25 Humidity(%):62

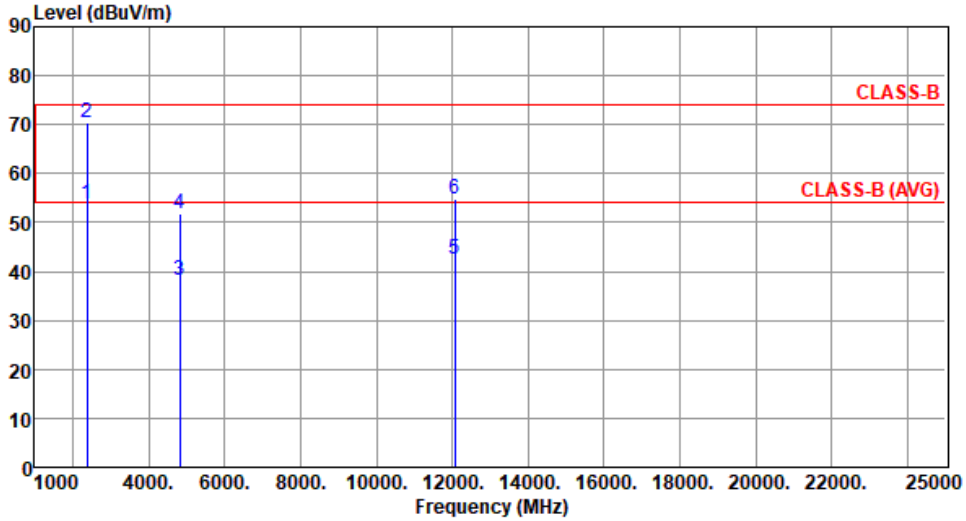


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	49.67	54.00	-4.33	54.21	-4.54	Average	218	255
2	2390.00	66.21	74.00	-7.79	70.75	-4.54	Peak	218	255
3	4824.00	38.51	54.00	-15.49	38.92	-0.41	Average	223	248
4	4824.00	52.19	74.00	-21.81	52.60	-0.41	Peak	223	248
5	12060.00	42.68	54.00	-11.32	36.23	6.45	Average	100	186
6	12060.00	55.11	74.00	-18.89	48.66	6.45	Peak	100	186

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	ax HE20	**Test Freq. (MHz)**	2412
Polarization	Vertical		

Test By :Brad Wu Temperature(℃):25 Humidity(%):62

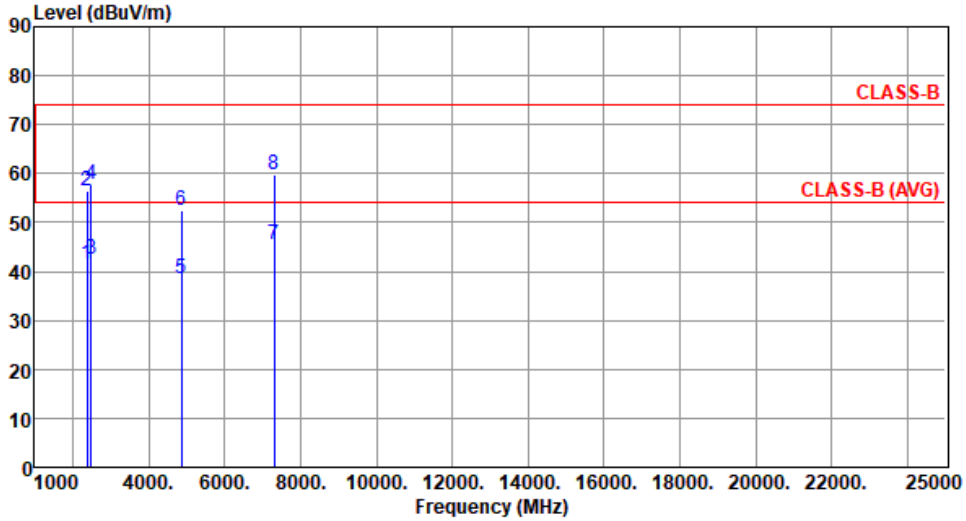


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	53.84	54.00	-0.16	58.38	-4.54	Average	106	271
2	2390.00	70.45	74.00	-3.55	74.99	-4.54	Peak	106	271
3	4824.00	38.27	54.00	-15.73	38.68	-0.41	Average	199	236
4	4824.00	51.97	74.00	-22.03	52.38	-0.41	Peak	199	236
5	12060.00	42.58	54.00	-11.42	36.13	6.45	Average	100	277
6	12060.00	54.93	74.00	-19.07	48.48	6.45	Peak	100	277

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	ax HE20	**Test Freq. (MHz)**	2437
Polarization	Horizontal		

Test By :Sean Yu Temperature(℃):26 Humidity(%):61

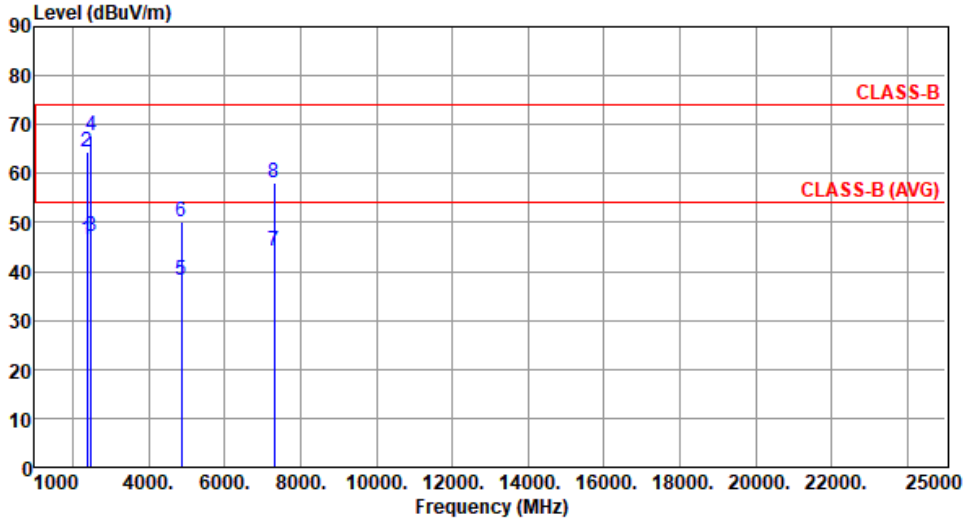


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	41.48	54.00	-12.52	46.02	-4.54	Average	198	217
2	2390.00	56.33	74.00	-17.67	60.87	-4.54	Peak	198	217
3	2483.50	42.57	54.00	-11.43	47.35	-4.78	Average	198	217
4	2483.50	57.64	74.00	-16.36	62.42	-4.78	Peak	198	217
5	4874.00	38.68	54.00	-15.32	39.11	-0.43	Average	215	251
6	4874.00	52.37	74.00	-21.63	52.80	-0.43	Peak	215	251
7	7311.00	45.59	54.00	-8.41	40.33	5.26	Average	149	322
8	7311.00	59.85	74.00	-14.15	54.59	5.26	Peak	149	322

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	ax HE20	**Test Freq. (MHz)**	2437
Polarization	Vertical		

Test By :Sean Yu Temperature(℃):26 Humidity(%):61

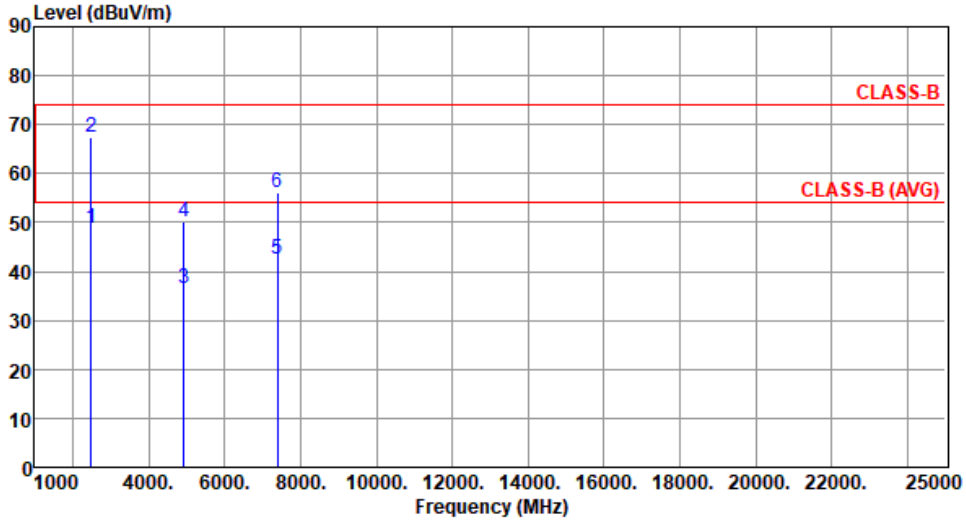


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	46.38	54.00	-7.62	50.92	-4.54	Average	208	244
2	2390.00	64.58	74.00	-9.42	69.12	-4.54	Peak	208	244
3	2483.50	47.26	54.00	-6.74	52.04	-4.78	Average	236	244
4	2483.50	67.83	74.00	-6.17	72.61	-4.78	Peak	236	243
5	4874.00	38.31	54.00	-15.69	38.74	-0.43	Average	205	241
6	4874.00	50.00	74.00	-24.00	50.43	-0.43	Peak	205	241
7	7311.00	44.28	54.00	-9.72	39.02	5.26	Average	100	271
8	7311.00	58.18	74.00	-15.82	52.92	5.26	Peak	100	271

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	ax HE20	**Test Freq. (MHz)**	2462
Polarization	Horizontal		

Test By :Brad Wu Temperature(℃):25 Humidity(%):62

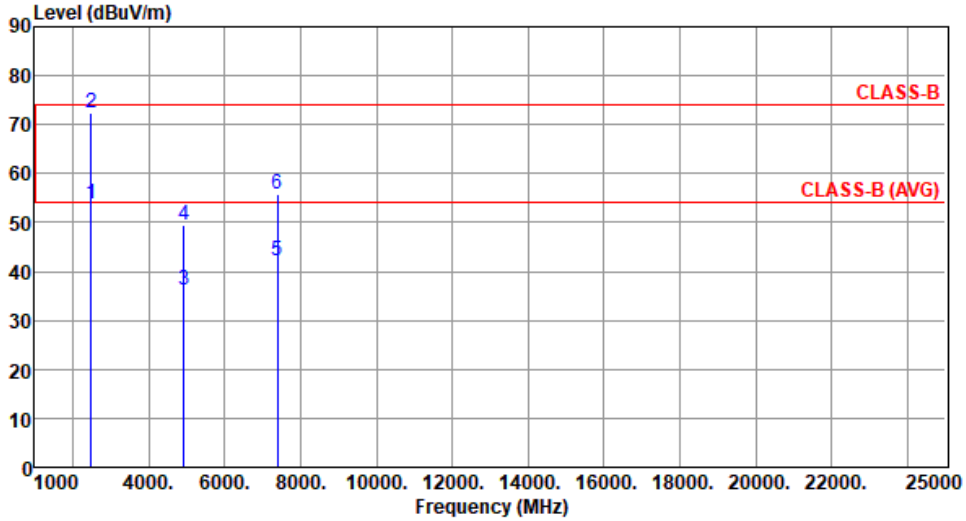


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	48.72	54.00	-5.28	53.50	-4.78	Average	194	220
2	2483.50	67.35	74.00	-6.65	72.13	-4.78	Peak	194	220
3	4924.00	36.37	54.00	-17.63	36.77	-0.40	Average	210	255
4	4924.00	50.18	74.00	-23.82	50.58	-0.40	Peak	210	255
5	7386.00	42.36	54.00	-11.64	37.25	5.11	Average	100	28
6	7386.00	56.19	74.00	-17.81	51.08	5.11	Peak	100	28

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	ax HE20	**Test Freq. (MHz)**	2462
Polarization	Vertical		

Test By :Brad Wu Temperature(℃):25 Humidity(%):62



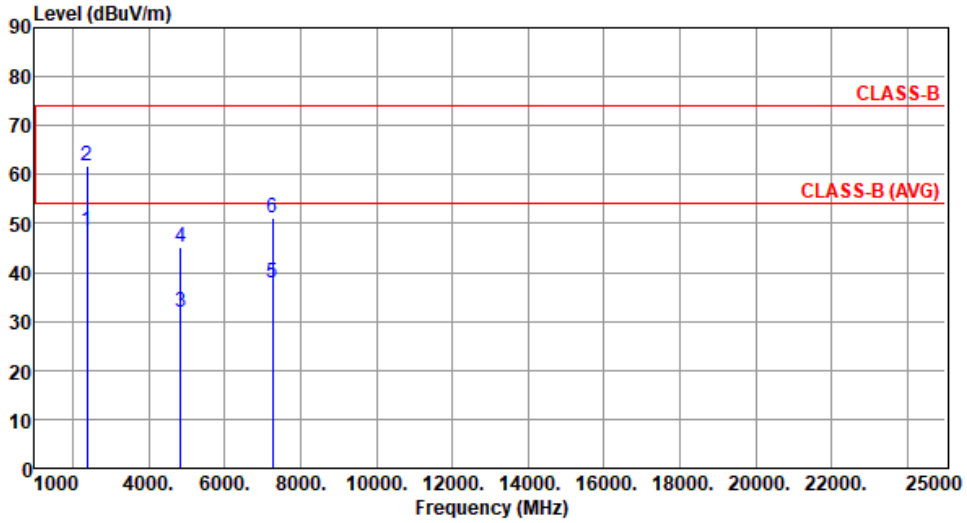
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	53.89	54.00	-0.11	58.67	-4.78	Average	118	300
2	2483.50	72.44	74.00	-1.56	77.22	-4.78	Peak	118	300
3	4924.00	36.11	54.00	-17.89	36.51	-0.40	Average	191	230
4	4924.00	49.38	74.00	-24.62	49.78	-0.40	Peak	191	230
5	7386.00	42.24	54.00	-11.76	37.13	5.11	Average	100	145
6	7386.00	55.79	74.00	-18.21	50.68	5.11	Peak	100	145

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 ax HE40

Modulation	ax HE40	**Test Freq. (MHz)**	2422
Polarization	Horizontal		

Test By :Brad Wu Temperature(℃):25 Humidity(%):62

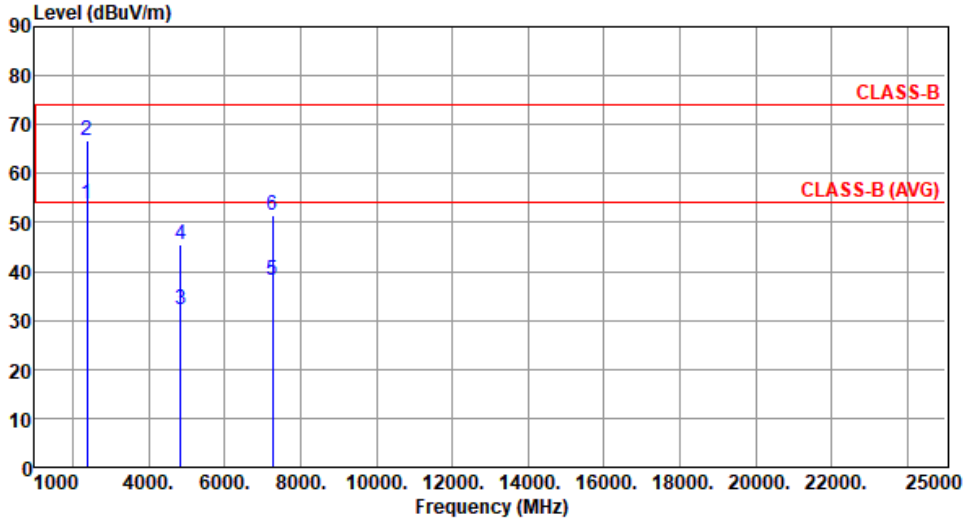


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	48.58	54.00	-5.42	53.12	-4.54	Average	217	260
2	2390.00	61.72	74.00	-12.28	66.26	-4.54	Peak	217	260
3	4844.00	31.75	54.00	-22.25	32.17	-0.42	Average	100	104
4	4844.00	45.09	74.00	-28.91	45.51	-0.42	Peak	100	104
5	7266.00	37.89	54.00	-16.11	32.70	5.19	Average	100	125
6	7266.00	51.17	74.00	-22.83	45.98	5.19	Peak	100	125

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	ax HE40	**Test Freq. (MHz)**	2422
Polarization	Vertical		

Test By :Brad Wu Temperature(℃):25 Humidity(%):62

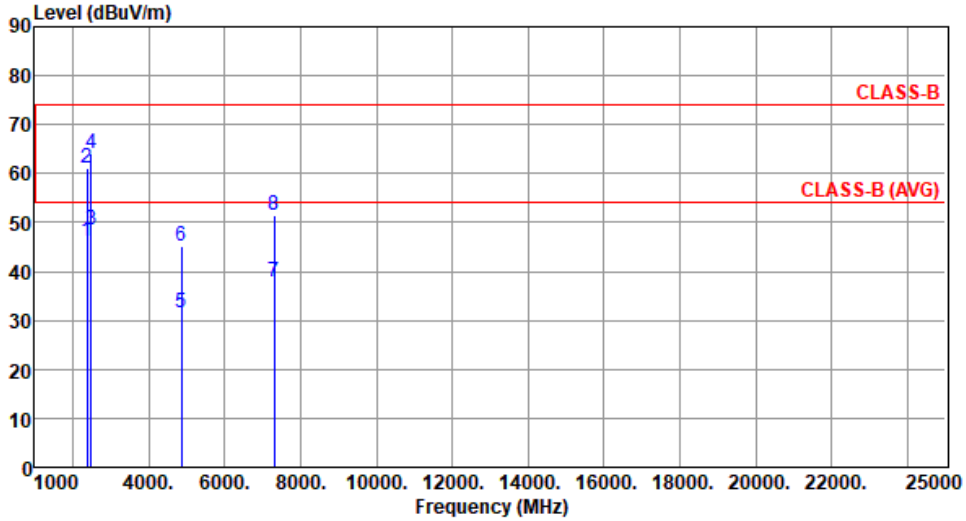


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	53.88	54.00	-0.12	58.42	-4.54	Average	107	287
2	2390.00	66.91	74.00	-7.09	71.45	-4.54	Peak	107	287
3	4844.00	32.28	54.00	-21.72	32.70	-0.42	Average	100	162
4	4844.00	45.48	74.00	-28.52	45.90	-0.42	Peak	100	162
5	7266.00	38.25	54.00	-15.75	33.06	5.19	Average	100	75
6	7266.00	51.41	74.00	-22.59	46.22	5.19	Peak	100	75

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	ax HE40	**Test Freq. (MHz)**	2437
Polarization	Horizontal		

Test By :Brad Wu Temperature(℃):25 Humidity(%):62

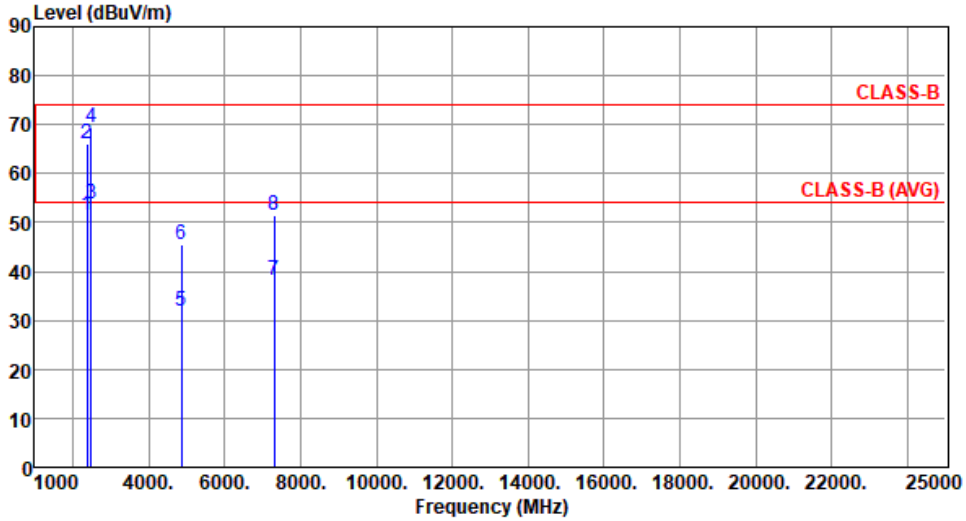


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	46.22	54.00	-7.78	50.76	-4.54	Average	210	249
2	2390.00	60.95	74.00	-13.05	65.49	-4.54	Peak	210	249
3	2483.50	48.53	54.00	-5.47	53.31	-4.78	Average	210	249
4	2483.50	63.97	74.00	-10.03	68.75	-4.78	Peak	210	249
5	4874.00	31.66	54.00	-22.34	32.09	-0.43	Average	100	126
6	4874.00	45.06	74.00	-28.94	45.49	-0.43	Peak	100	126
7	7311.00	37.95	54.00	-16.05	32.69	5.26	Average	100	188
8	7311.00	51.35	74.00	-22.65	46.09	5.26	Peak	100	188

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	ax HE40	**Test Freq. (MHz)**	2437
Polarization	Vertical		

Test By :Brad Wu Temperature(℃):25 Humidity(%):62

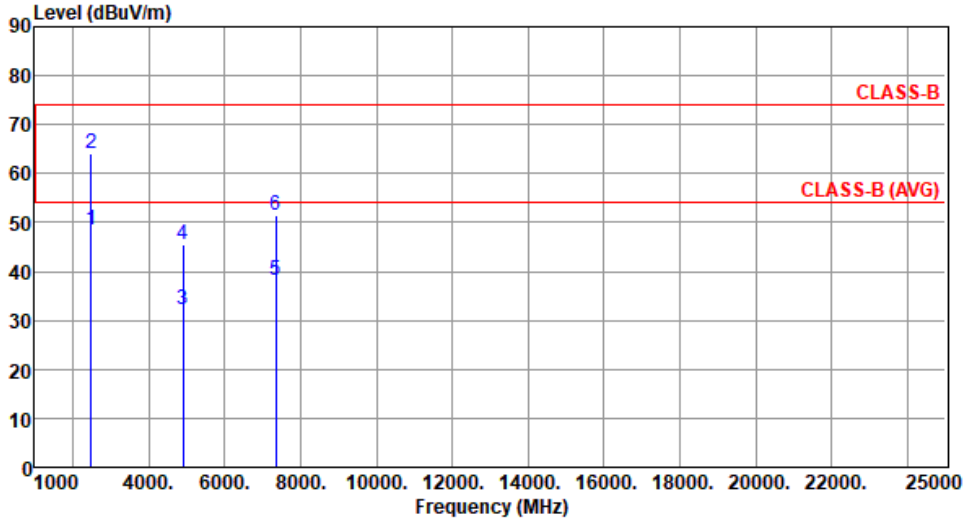


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	51.39	54.00	-2.61	55.93	-4.54	Average	124	291
2	2390.00	66.14	74.00	-7.86	70.68	-4.54	Peak	124	291
3	2483.50	53.85	54.00	-0.15	58.63	-4.78	Average	121	301
4	2483.50	69.32	74.00	-4.68	74.10	-4.78	Peak	121	301
5	4874.00	31.86	54.00	-22.14	32.29	-0.43	Average	100	139
6	4874.00	45.49	74.00	-28.51	45.92	-0.43	Peak	100	139
7	7311.00	38.19	54.00	-15.81	32.93	5.26	Average	100	114
8	7311.00	51.49	74.00	-22.51	46.23	5.26	Peak	100	114

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	ax HE40	**Test Freq. (MHz)**	2452
Polarization	Horizontal		

Test By :Brad Wu Temperature(℃):25 Humidity(%):62

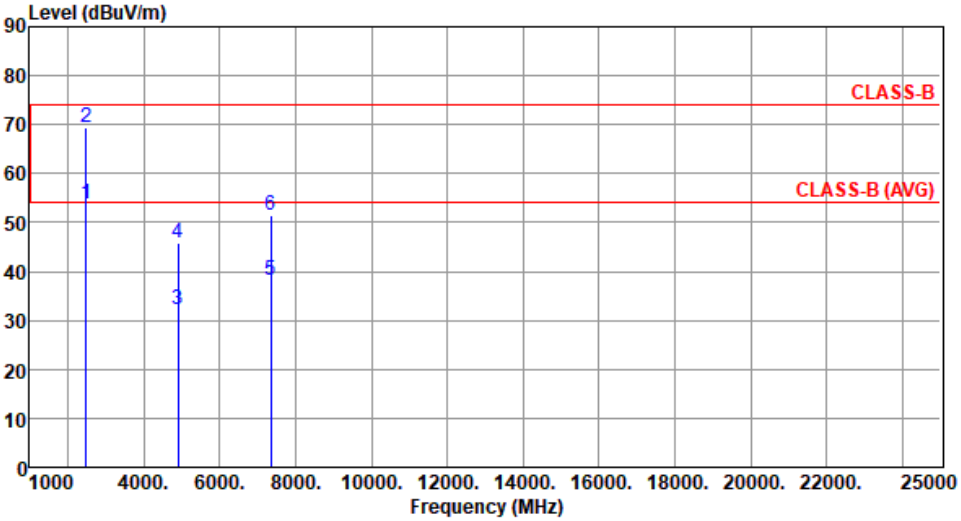


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	48.49	54.00	-5.51	53.27	-4.78	Average	216	248
2	2483.50	64.22	74.00	-9.78	69.00	-4.78	Peak	216	248
3	4904.00	32.08	54.00	-21.92	32.51	-0.43	Average	100	63
4	4904.00	45.37	74.00	-28.63	45.80	-0.43	Peak	100	63
5	7356.00	38.09	54.00	-15.91	32.95	5.14	Average	100	77
6	7356.00	51.49	74.00	-22.51	46.35	5.14	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	ax HE40	**Test Freq. (MHz)**	2452
Polarization	Vertical		

Test By :Brad Wu Temperature(℃):25 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	53.68	54.00	-0.32	58.46	-4.78	Average	120	301
2	2483.50	69.43	74.00	-4.57	74.21	-4.78	Peak	120	301
3	4904.00	32.35	54.00	-21.65	32.78	-0.43	Average	100	96
4	4904.00	45.78	74.00	-28.22	46.21	-0.43	Peak	100	96
5	7356.00	38.22	54.00	-15.78	33.08	5.14	Average	100	134
6	7356.00	51.42	74.00	-22.58	46.28	5.14	Peak	100	134

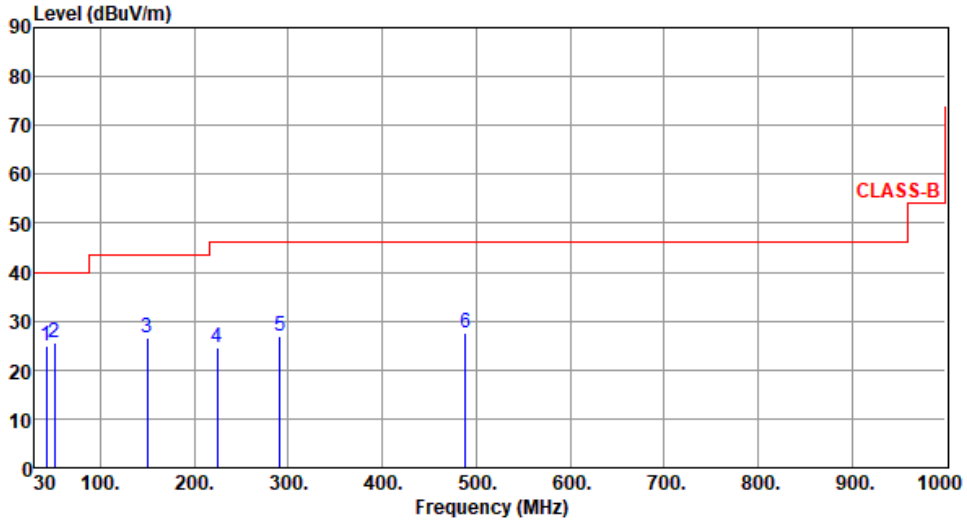
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Beamforming mode

Unwanted Emissions (Below 1GHz)

Modulation	ax HE20	**Test Freq. (MHz)**	2437
Polarization	Horizontal		

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

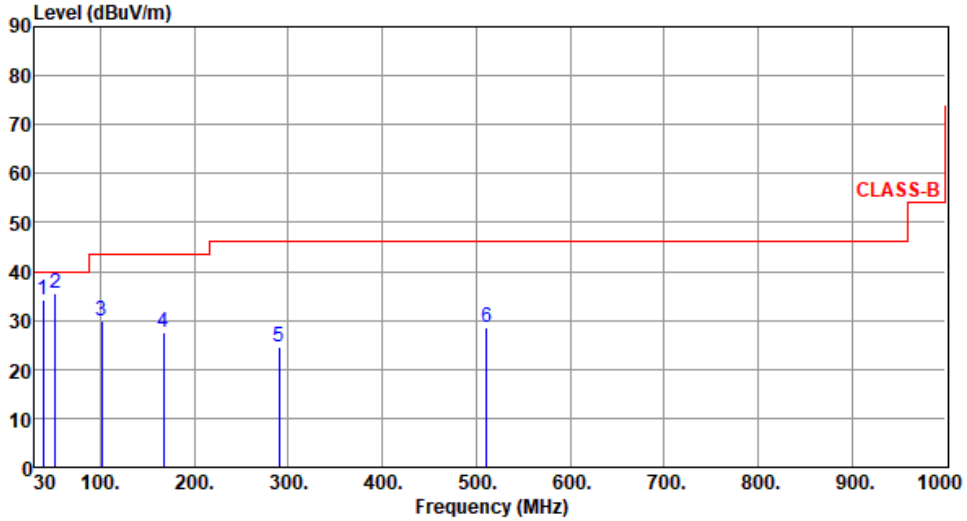


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	42.48	24.88	40.00	-15.12	33.24	-8.36	Peak	---	---
2	51.13	25.59	40.00	-14.41	33.37	-7.78	Peak	---	---
3	150.18	26.71	43.50	-16.79	35.46	-8.75	Peak	---	---
4	224.43	24.49	46.00	-21.51	36.54	-12.05	Peak	---	---
5	291.15	26.74	46.00	-19.26	35.10	-8.36	Peak	---	---
6	488.89	27.44	46.00	-18.56	30.81	-3.37	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	ax HE20	**Test Freq. (MHz)**	2437
Polarization	Vertical		

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



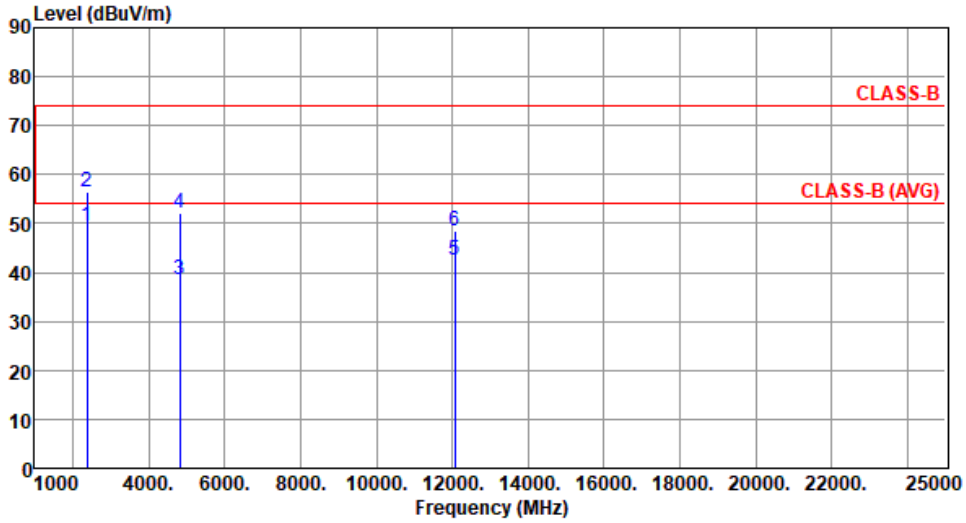
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	38.96	34.12	40.00	-5.88	43.03	-8.91	Peak	---	---
2	51.66	35.67	40.00	-4.33	43.50	-7.83	Peak	---	---
3	101.28	29.75	43.50	-13.75	42.78	-13.03	Peak	---	---
4	167.33	27.44	43.50	-16.06	36.61	-9.17	Peak	---	---
5	289.97	24.46	46.00	-21.54	32.82	-8.36	Peak	---	---
6	511.33	28.47	46.00	-17.53	31.32	-2.85	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 Emissions (Above 1GHz) for ax HE20

Modulation	ax HE20	**Test Freq. (MHz)**	2412
Polarization	Horizontal		

Test By :Sean Yu Temperature(℃):23 Humidity(%):66

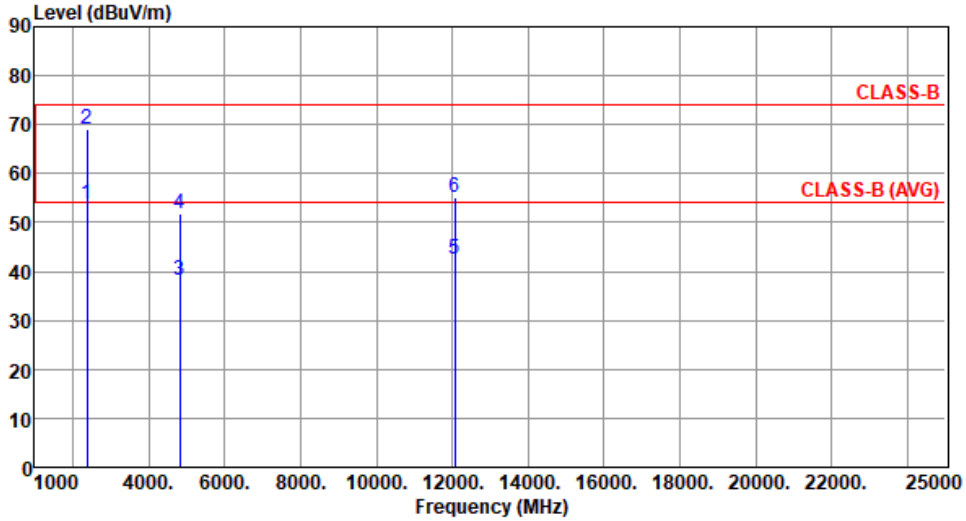


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	49.62	54.00	-4.38	54.16	-4.54	Average	164	301
2	2390.00	56.41	74.00	-17.59	60.95	-4.54	Peak	164	301
3	4824.00	38.44	54.00	-15.56	38.85	-0.41	Average	186	258
4	4824.00	52.27	74.00	-21.73	52.68	-0.41	Peak	186	258
5	12060.00	42.59	54.00	-11.41	36.14	6.45	Average	100	190
6	12060.00	48.53	74.00	-25.47	42.08	6.45	Peak	100	190

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	ax HE20	**Test Freq. (MHz)**	2412
Polarization	Vertical		

Test By :Sean Yu Temperature(℃):23 Humidity(%):66

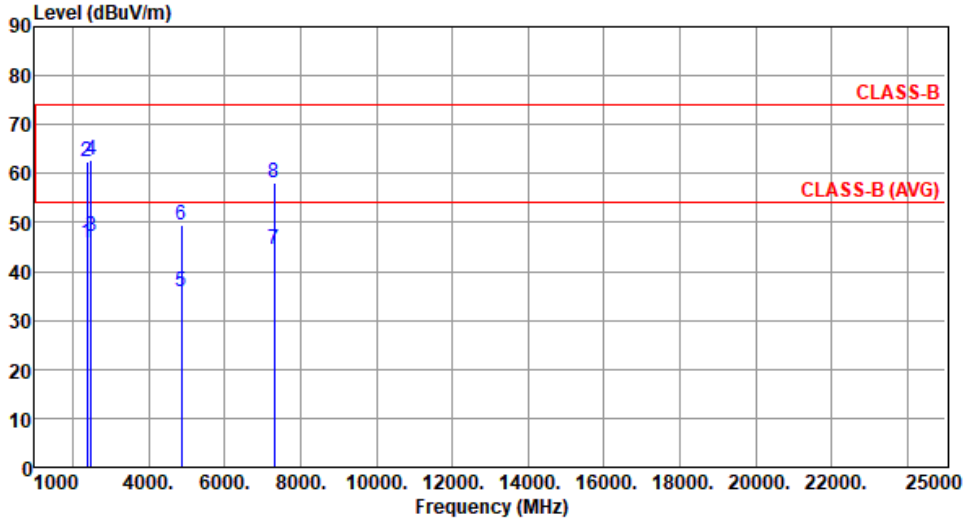


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	53.88	54.00	-0.12	58.42	-4.54	Average	174	283
2	2390.00	69.14	74.00	-4.86	73.68	-4.54	Peak	174	283
3	4824.00	38.11	54.00	-15.89	38.52	-0.41	Average	141	230
4	4824.00	51.89	74.00	-22.11	52.30	-0.41	Peak	141	230
5	12060.00	42.61	54.00	-11.39	36.16	6.45	Average	100	105
6	12060.00	55.17	74.00	-18.83	48.72	6.45	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	ax HE20	**Test Freq. (MHz)**	2437
Polarization	Horizontal		

Test By :Sean Yu Temperature(℃):23 Humidity(%):66

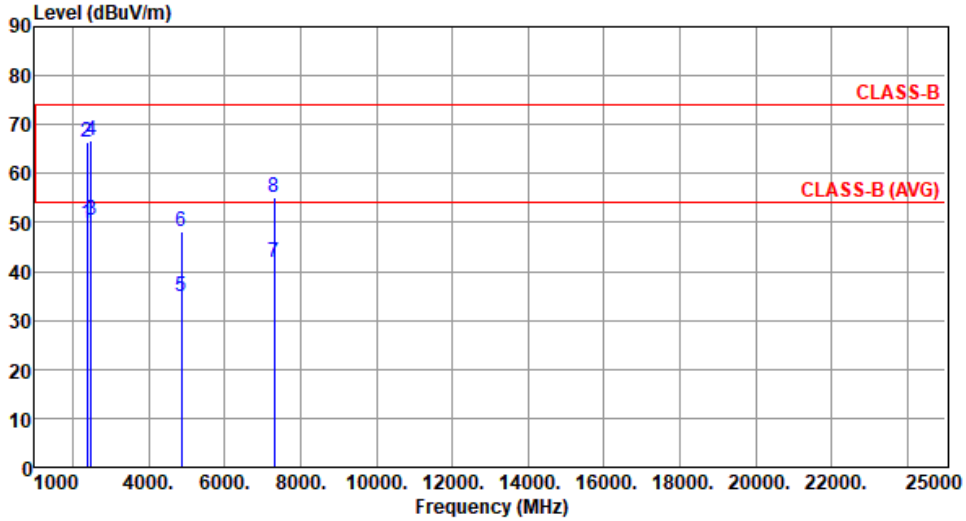


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	45.93	54.00	-8.07	50.47	-4.54	Average	262	315
2	2390.00	62.30	74.00	-11.70	66.84	-4.54	Peak	262	315
3	2483.50	47.01	54.00	-6.99	51.79	-4.78	Average	182	317
4	2483.50	62.89	74.00	-11.11	67.67	-4.78	Peak	182	317
5	4874.00	36.02	54.00	-17.98	36.45	-0.43	Average	185	259
6	4874.00	49.45	74.00	-24.55	49.88	-0.43	Peak	185	259
7	7311.00	44.36	54.00	-9.64	39.10	5.26	Average	142	319
8	7311.00	58.19	74.00	-15.81	52.93	5.26	Peak	142	319

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	ax HE20	**Test Freq. (MHz)**	2437
Polarization	Vertical		

Test By :Sean Yu Temperature(℃):23 Humidity(%):66

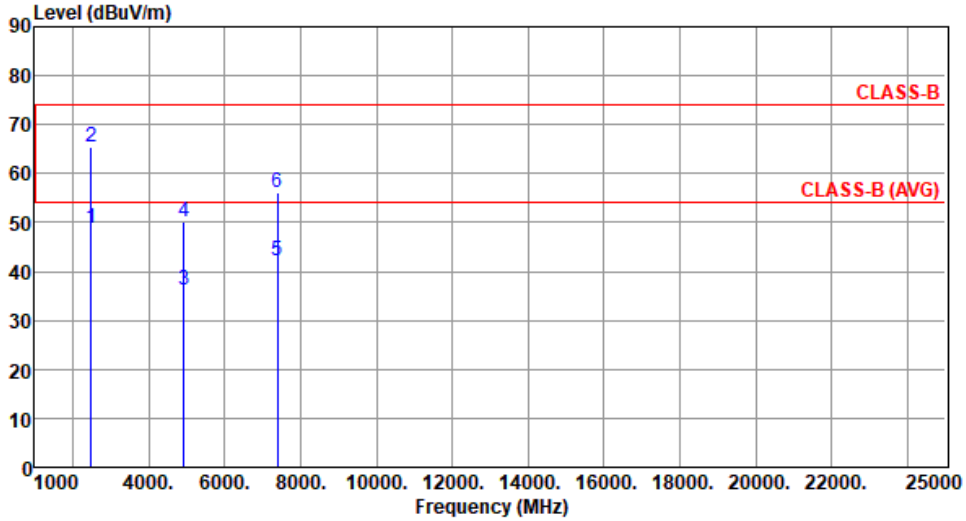


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	49.74	54.00	-4.26	54.28	-4.54	Average	165	302
2	2390.00	66.44	74.00	-7.56	70.98	-4.54	Peak	165	302
3	2483.50	50.63	54.00	-3.37	55.41	-4.78	Average	100	302
4	2483.50	66.60	74.00	-7.40	71.38	-4.78	Peak	100	302
5	4874.00	34.78	54.00	-19.22	35.21	-0.43	Average	140	231
6	4874.00	48.19	74.00	-25.81	48.62	-0.43	Peak	140	231
7	7311.00	42.00	54.00	-12.00	36.74	5.26	Average	100	283
8	7311.00	55.10	74.00	-18.90	49.84	5.26	Peak	100	283

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	ax HE20	**Test Freq. (MHz)**	2462
Polarization	Horizontal		

Test By :Sean Yu Temperature(℃):23 Humidity(%):66

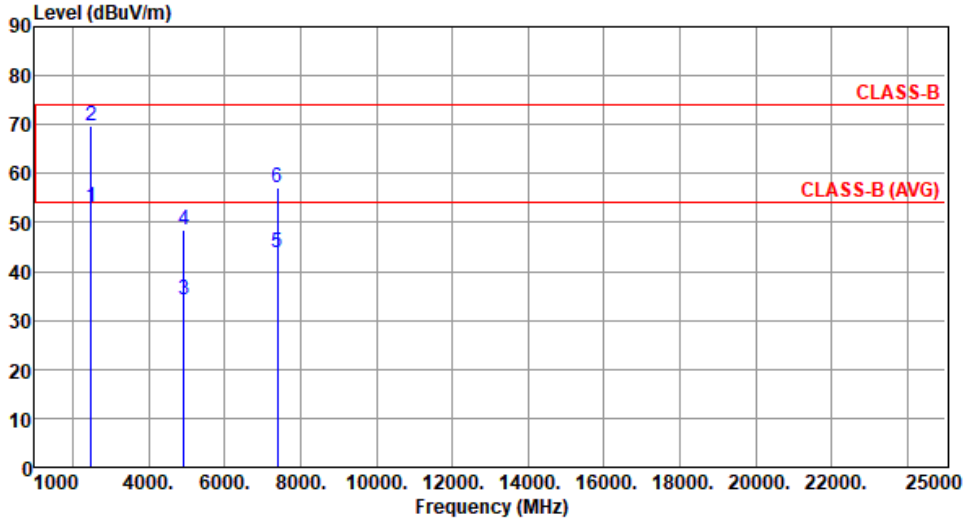


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	48.96	54.00	-5.04	53.74	-4.78	Average	211	251
2	2483.50	65.47	74.00	-8.53	70.25	-4.78	Peak	211	251
3	4924.00	36.11	54.00	-17.89	36.51	-0.40	Average	187	255
4	4924.00	50.28	74.00	-23.72	50.68	-0.40	Peak	187	255
5	7386.00	42.26	54.00	-11.74	37.15	5.11	Average	100	68
6	7386.00	56.24	74.00	-17.76	51.13	5.11	Peak	100	68

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	ax HE20	**Test Freq. (MHz)**	2462
Polarization	Vertical		

Test By :Sean Yu Temperature(℃):23 Humidity(%):66



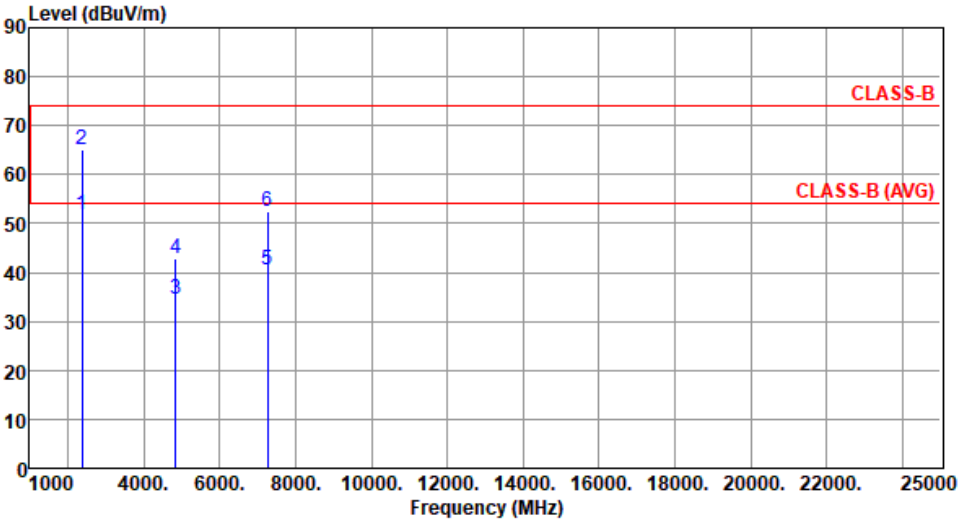
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	53.11	54.00	-0.89	57.89	-4.78	Average	100	291
2	2483.50	69.88	74.00	-4.12	74.66	-4.78	Peak	100	291
3	4924.00	34.25	54.00	-19.75	34.65	-0.40	Average	141	233
4	4924.00	48.51	74.00	-25.49	48.91	-0.40	Peak	141	233
5	7386.00	43.85	54.00	-10.15	38.74	5.11	Average	100	280
6	7386.00	56.96	74.00	-17.04	51.85	5.11	Peak	100	280

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 ax HE40

Modulation	ax HE40	**Test Freq. (MHz)**	2422
Polarization	Horizontal		

Test By :Sean Yu Temperature(℃):23 Humidity(%):66

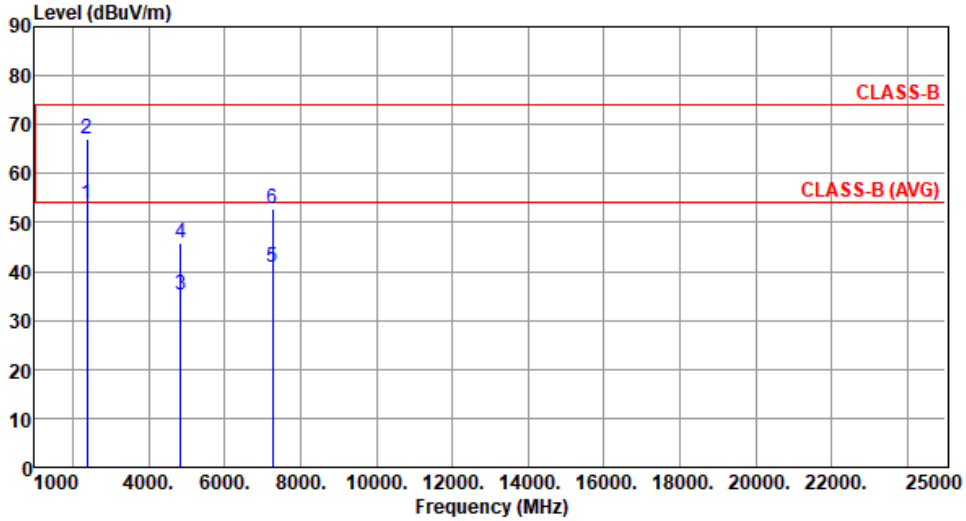


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	51.77	54.00	-2.23	56.31	-4.54	Average	119	155
2	2390.00	64.95	74.00	-9.05	69.49	-4.54	Peak	119	155
3	4844.00	34.57	54.00	-19.43	34.99	-0.42	Average	100	72
4	4844.00	42.83	74.00	-31.17	43.25	-0.42	Peak	100	72
5	7266.00	40.61	54.00	-13.39	35.42	5.19	Average	100	104
6	7266.00	52.45	74.00	-21.55	47.26	5.19	Peak	100	104

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	ax HE40	**Test Freq. (MHz)**	2422
Polarization	Vertical		

Test By :Sean Yu Temperature(℃):23 Humidity(%):66

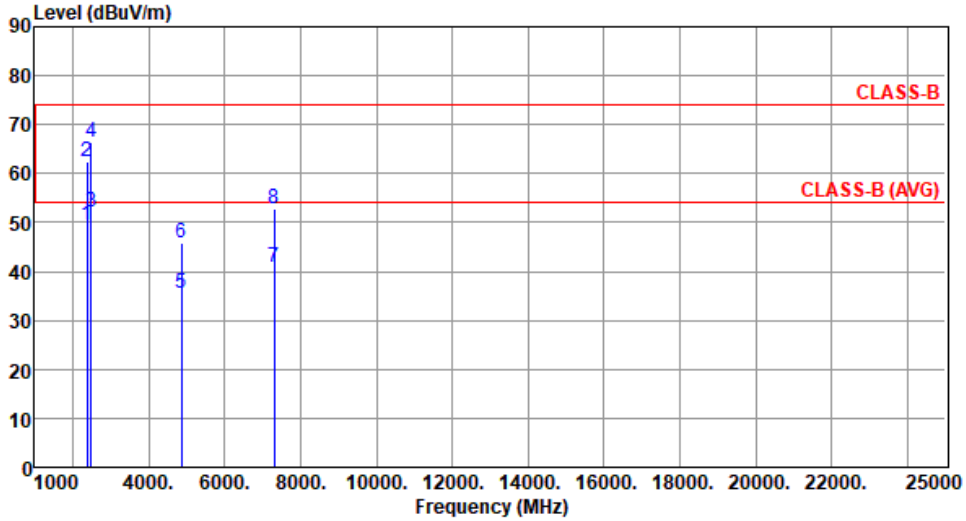


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	53.74	54.00	-0.26	58.28	-4.54	Average	107	288
2	2390.00	67.05	74.00	-6.95	71.59	-4.54	Peak	107	288
3	4844.00	35.12	54.00	-18.88	35.54	-0.42	Average	100	56
4	4844.00	45.98	74.00	-28.02	46.40	-0.42	Peak	100	56
5	7266.00	40.85	54.00	-13.15	35.66	5.19	Average	100	136
6	7266.00	52.79	74.00	-21.21	47.60	5.19	Peak	100	136

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	ax HE40	**Test Freq. (MHz)**	2437
Polarization	Horizontal		

Test By :Sean Yu Temperature(℃):23 Humidity(%):66

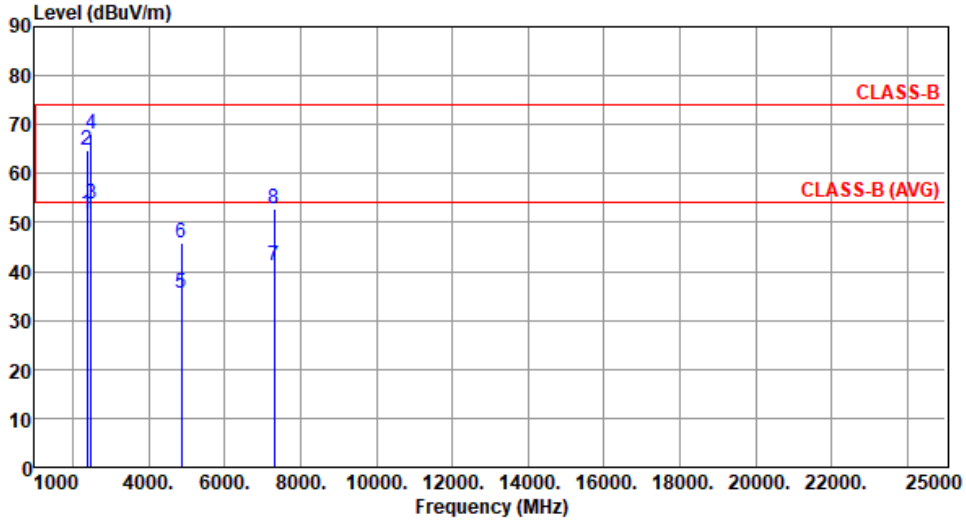


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	49.33	54.00	-4.67	53.87	-4.54	Average	166	48
2	2390.00	62.38	74.00	-11.62	66.92	-4.54	Peak	166	48
3	2483.50	52.25	54.00	-1.75	57.03	-4.78	Average	143	49
4	2483.50	66.38	74.00	-7.62	71.16	-4.78	Peak	166	48
5	4874.00	35.37	54.00	-18.63	35.80	-0.43	Average	100	205
6	4874.00	45.96	74.00	-28.04	46.39	-0.43	Peak	100	205
7	7311.00	40.69	54.00	-13.31	35.43	5.26	Average	100	122
8	7311.00	52.74	74.00	-21.26	47.48	5.26	Peak	100	122

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	ax HE40	**Test Freq. (MHz)**	2437
Polarization	Vertical		

Test By :Sean Yu Temperature(℃):23 Humidity(%):66

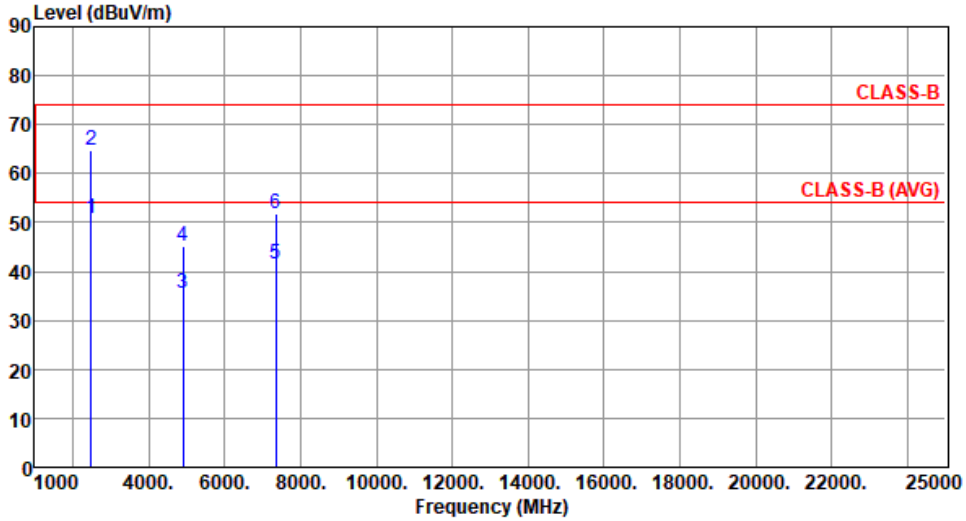


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	51.69	54.00	-2.31	56.23	-4.54	Average	132	268
2	2390.00	64.90	74.00	-9.10	69.44	-4.54	Peak	132	268
3	2483.50	53.75	54.00	-0.25	58.53	-4.78	Average	165	297
4	2483.50	67.98	74.00	-6.02	72.76	-4.78	Peak	165	297
5	4874.00	35.61	54.00	-18.39	36.04	-0.43	Average	100	27
6	4874.00	45.86	74.00	-28.14	46.29	-0.43	Peak	100	27
7	7311.00	41.19	54.00	-12.81	35.93	5.26	Average	100	42
8	7311.00	52.82	74.00	-21.18	47.56	5.26	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).

Modulation	ax HE40	**Test Freq. (MHz)**	2452
Polarization	Horizontal		

Test By :Sean Yu Temperature(℃):23 Humidity(%):66

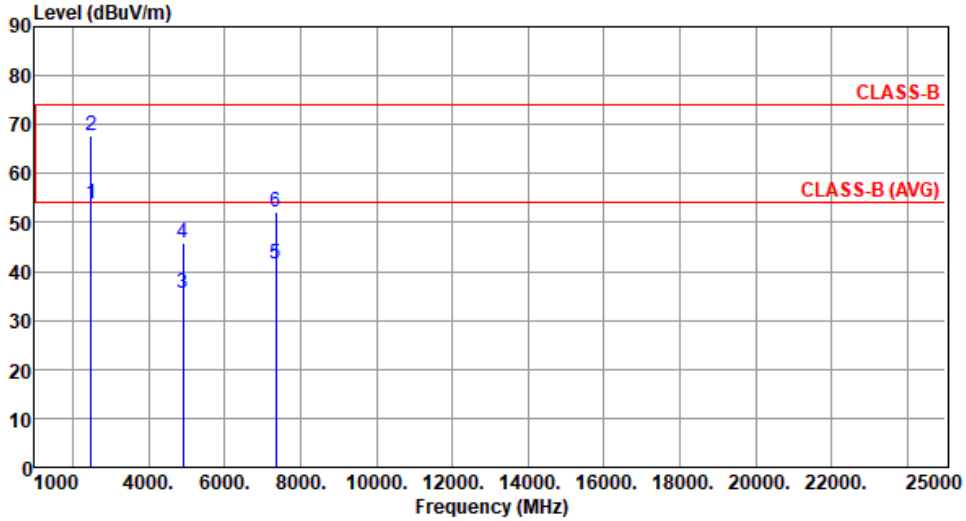


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	50.78	54.00	-3.22	55.56	-4.78	Average	102	254
2	2483.50	64.76	74.00	-9.24	69.54	-4.78	Peak	102	254
3	4904.00	35.44	54.00	-18.56	35.87	-0.43	Average	100	133
4	4904.00	45.26	74.00	-28.74	45.69	-0.43	Peak	100	133
5	7356.00	41.38	54.00	-12.62	36.24	5.14	Average	100	114
6	7356.00	51.92	74.00	-22.08	46.78	5.14	Peak	100	114

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	ax HE40	**Test Freq. (MHz)**	2452
Polarization	Vertical		

Test By :Sean Yu Temperature(℃):23 Humidity(%):66



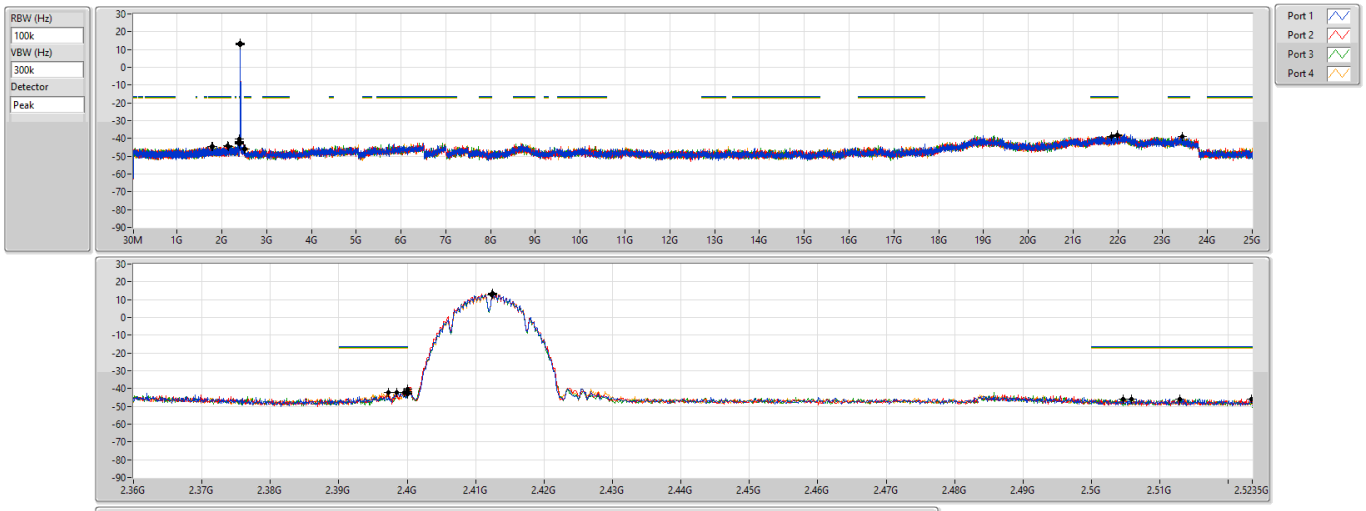
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	53.75	54.00	-0.25	58.53	-4.78	Average	163	285
2	2483.50	67.85	74.00	-6.15	72.63	-4.78	Peak	163	285
3	4904.00	35.62	54.00	-18.38	36.05	-0.43	Average	100	171
4	4904.00	45.72	74.00	-28.28	46.15	-0.43	Peak	100	171
5	7356.00	41.58	54.00	-12.42	36.44	5.14	Average	100	167
6	7356.00	52.27	74.00	-21.73	47.13	5.14	Peak	100	167

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).

Non-beamforming mode

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

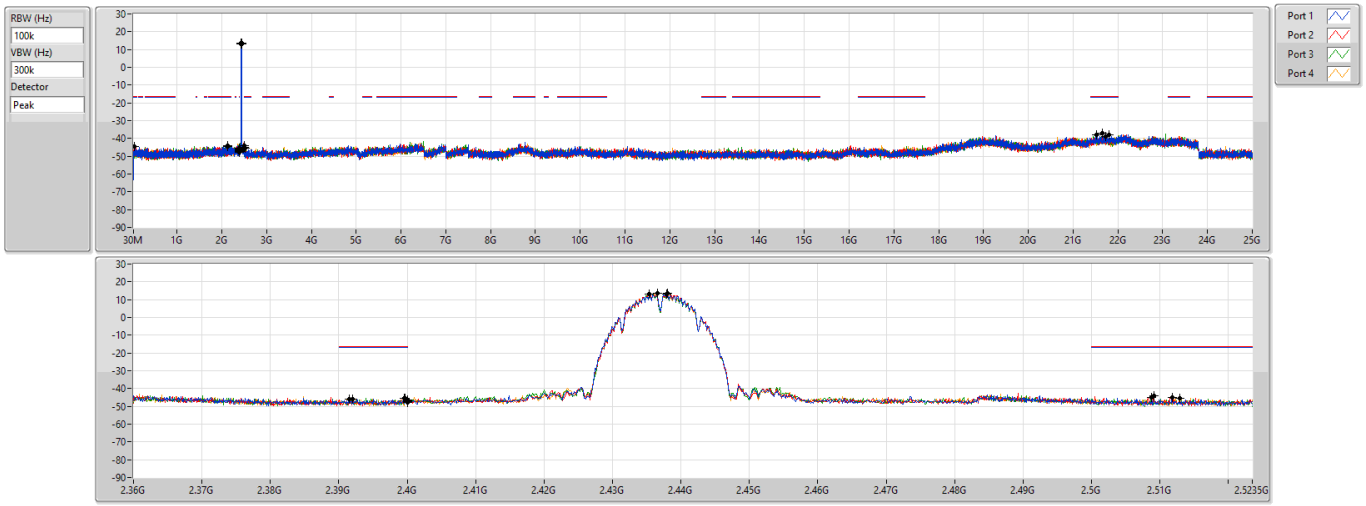
2412MHz



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
2.41253G	13.57	-16.43	1.79148G	-44.46	2.39848G	-42.27	2.4G	-43.03	2.51294G	-45.92	21.98534G	-38.49	1
2.41253G	13.45	-16.55	2.15496G	-44.64	2.4G	-40.37	2.4G	-41.67	2.52334G	-45.74	21.98534G	-37.99	2
2.41253G	12.97	-17.03	1.78682G	-44.59	2.39952G	-42.42	2.4G	-41.91	2.50582G	-45.93	21.85048G	-38.73	3
2.41236G	12.52	-17.48	2.13399G	-44.28	2.39728G	-42.29	2.4G	-42.65	2.50462G	-45.93	23.43788G	-38.74	4

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

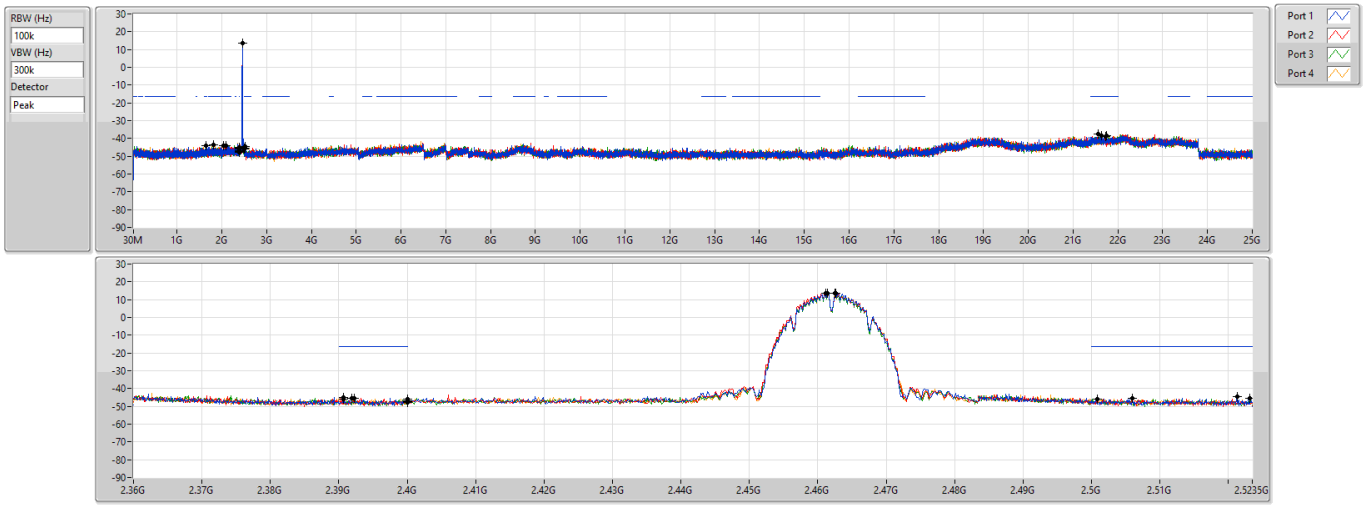
2437MHz



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
2.4354G	13.10	-16.90	46.31M	-44.66	2.39968G	-45.67	2.4G	-46.84	2.51182G	-44.85	21.80272G	-38.13	1
2.43808G	13.75	-16.25	2.12817G	-44.05	2.392G	-45.97	2.4G	-47.28	2.5091G	-44.22	21.51614G	-38.11	2
2.43791G	13.08	-16.92	2.12467G	-44.64	2.39952G	-45.37	2.4G	-46.62	2.50878G	-45.03	21.71843G	-38.70	3
2.43657G	13.78	-16.22	2.13516G	-44.71	2.39152G	-45.78	2.4G	-47.98	2.51286G	-45.42	21.651G	-36.89	4

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

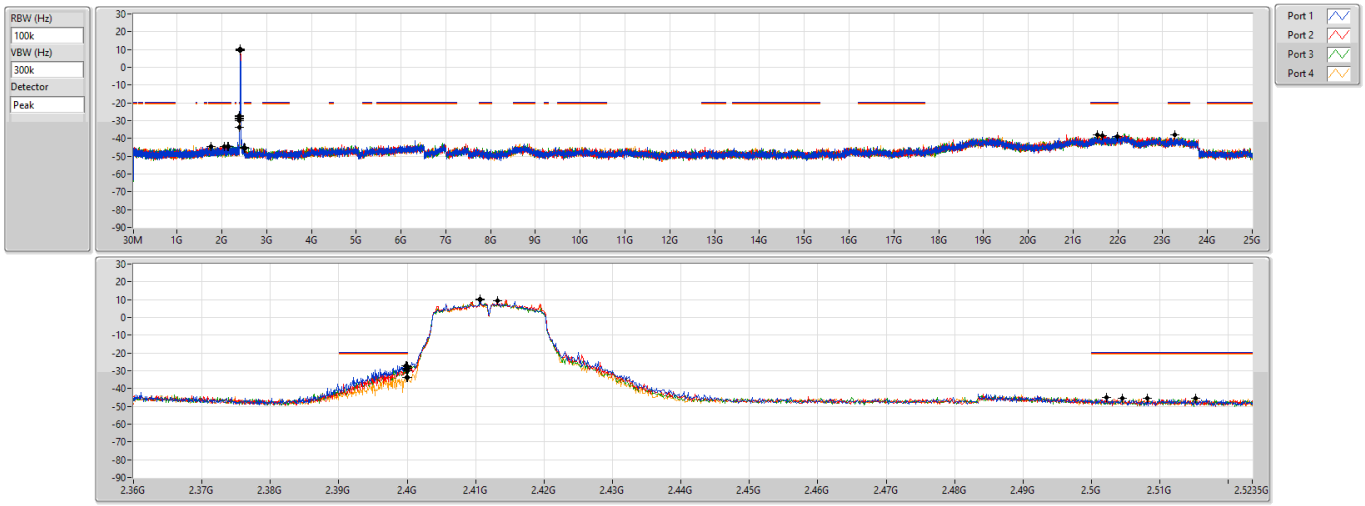
2462MHz



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
2.46263G	13.81	-16.19	1.64819G	-44.17	2.39072G	-45.08	2.4G	-47.51	2.52126G	-44.53	21.74091G	-38.62	1
2.46112G	13.41	-16.59	2.08739G	-44.16	2.39232G	-45.55	2.4G	-48.03	2.50598G	-45.66	21.64257G	-38.35	2
2.46146G	13.37	-16.63	1.81012G	-43.69	2.39064G	-46.12	2.4G	-46.06	2.5231G	-45.70	21.56952G	-37.66	3
2.46246G	13.68	-16.32	2.03031G	-43.97	2.39192G	-45.40	2.4G	-46.92	2.50086G	-45.75	21.72686G	-38.68	4

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

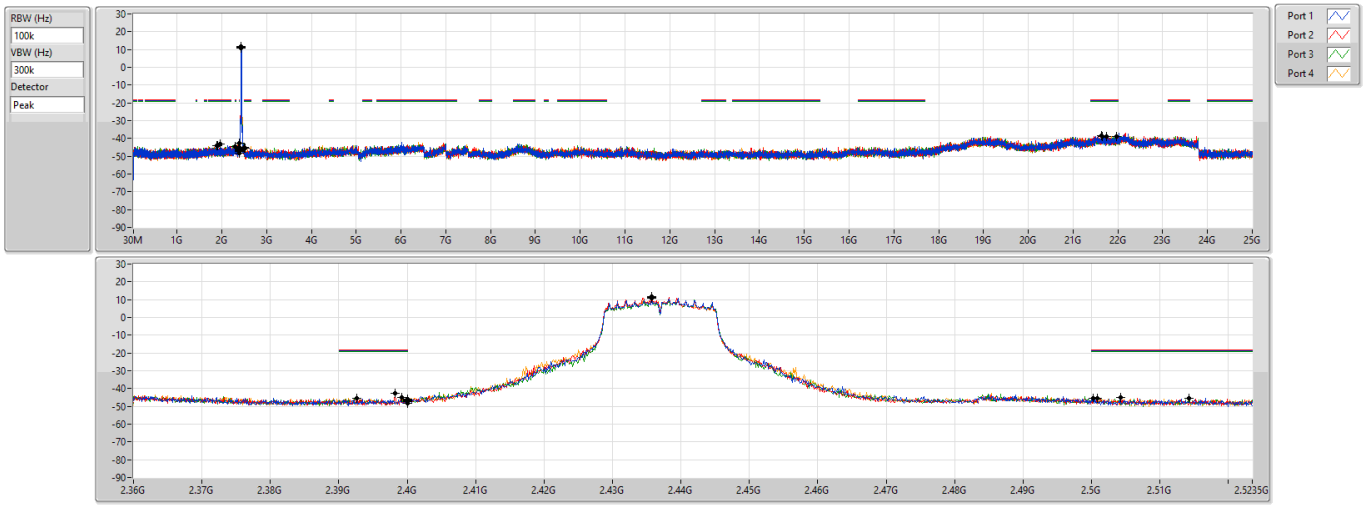
2412MHz



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
2.41069G	10.18	-19.82	2.05594G	-44.37	2.39992G	-27.09	2.4G	-28.71	2.50822G	-45.69	21.54424G	-38.19	1
2.41069G	9.86	-20.14	2.12234G	-44.60	2.39984G	-27.29	2.4G	-29.79	2.50454G	-45.33	23.26931G	-38.02	2
2.41069G	9.88	-20.12	2.14914G	-44.69	2.39976G	-29.08	2.4G	-27.48	2.50222G	-45.05	21.98815G	-38.82	3
2.41319G	9.35	-20.65	1.7577G	-44.51	2.39992G	-33.53	2.4G	-33.67	2.51526G	-45.35	21.65662G	-38.67	4

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

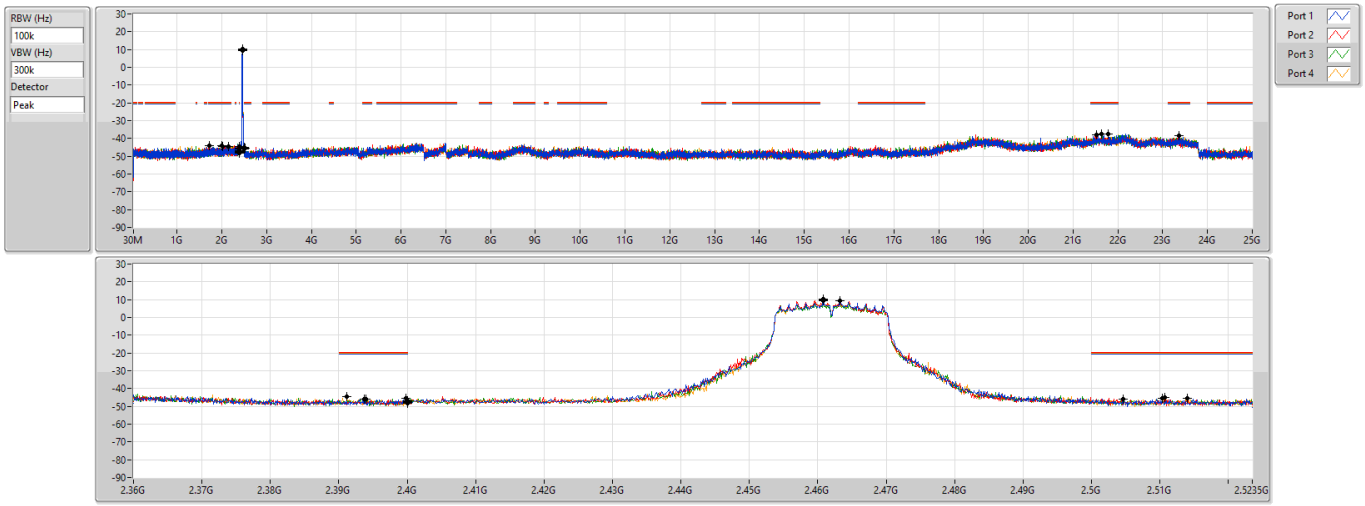
2437MHz



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
2.43574G	11.11	-18.89	1.91381G	-43.98	2.4G	-45.82	2.4G	-46.79	2.50422G	-44.87	21.74653G	-38.97	1
2.43574G	11.91	-18.09	2.30758G	-44.53	2.39824G	-42.82	2.4G	-48.44	2.50086G	-45.30	21.63976G	-38.64	2
2.43574G	10.60	-19.40	1.8975G	-44.00	2.39264G	-45.55	2.4G	-47.41	2.5143G	-45.68	21.97129G	-38.82	3
2.43574G	11.60	-18.40	1.96274G	-43.33	2.3992G	-44.81	2.4G	-46.58	2.50022G	-45.56	21.651G	-39.09	4

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

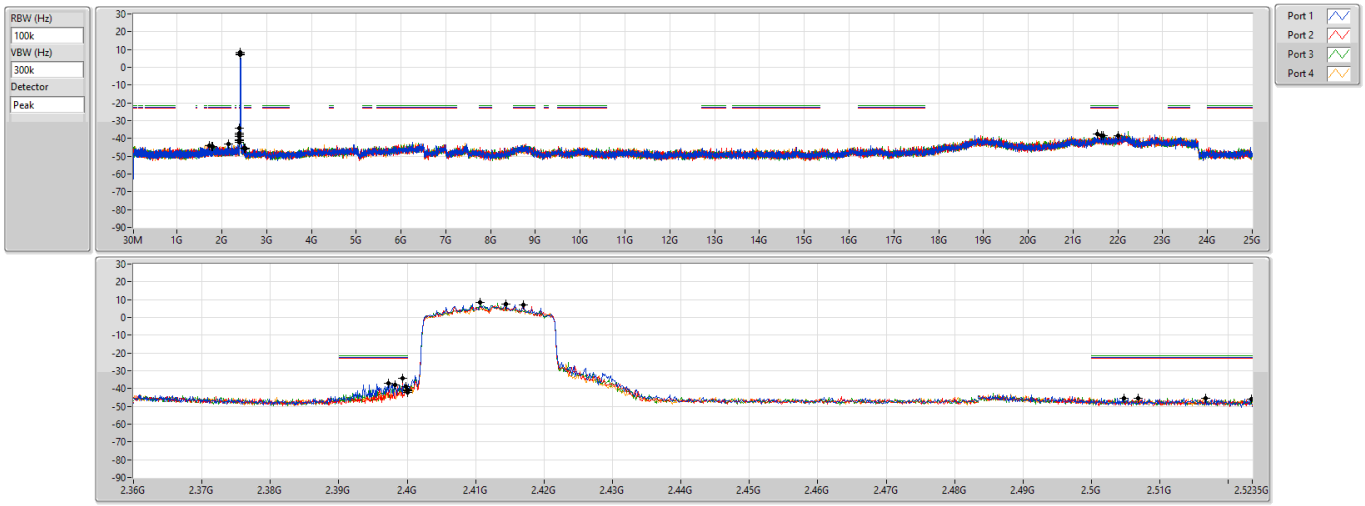
2462MHz



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
2.46329G	9.54	-20.46	1.99419G	-44.12	2.39392G	-46.12	2.4G	-47.14	2.5103G	-45.58	21.52176G	-38.09	1
2.46079G	10.15	-19.85	2.14448G	-44.52	2.39984G	-45.30	2.4G	-46.97	2.5107G	-44.99	21.77743G	-37.68	2
2.46079G	9.34	-20.66	1.72391G	-44.29	2.39368G	-45.89	2.4G	-48.03	2.50462G	-46.13	23.36483G	-38.23	3
2.46079G	9.87	-20.13	2.01167G	-44.74	2.3912G	-44.57	2.4G	-48.18	2.51398G	-45.68	21.62572G	-37.61	4

2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_4TX **CSENdB**

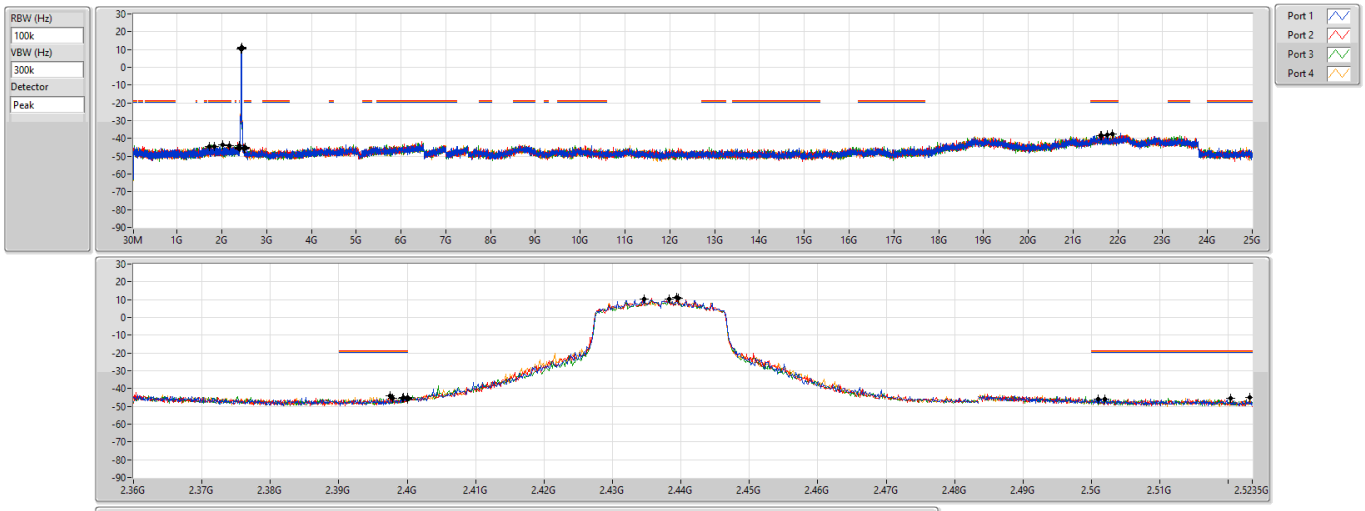
2412MHz



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
2.41436G	7.36	-22.64	1.77168G	-44.41	2.3972G	-37.07	2.4G	-40.97	2.5167G	-45.34	22.00501G	-38.30	1
2.41703G	7.26	-22.74	1.80197G	-44.70	2.39928G	-34.09	2.4G	-41.28	2.52334G	-45.97	21.67348G	-38.53	2
2.41069G	8.43	-21.57	1.72275G	-43.83	2.39824G	-37.80	2.4G	-40.65	2.50478G	-45.29	21.63695G	-38.59	3
2.41703G	6.83	-23.17	2.15263G	-42.94	2.39976G	-38.81	2.4G	-42.39	2.50686G	-45.43	21.53862G	-37.69	4

2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_4TX **CSENdB**

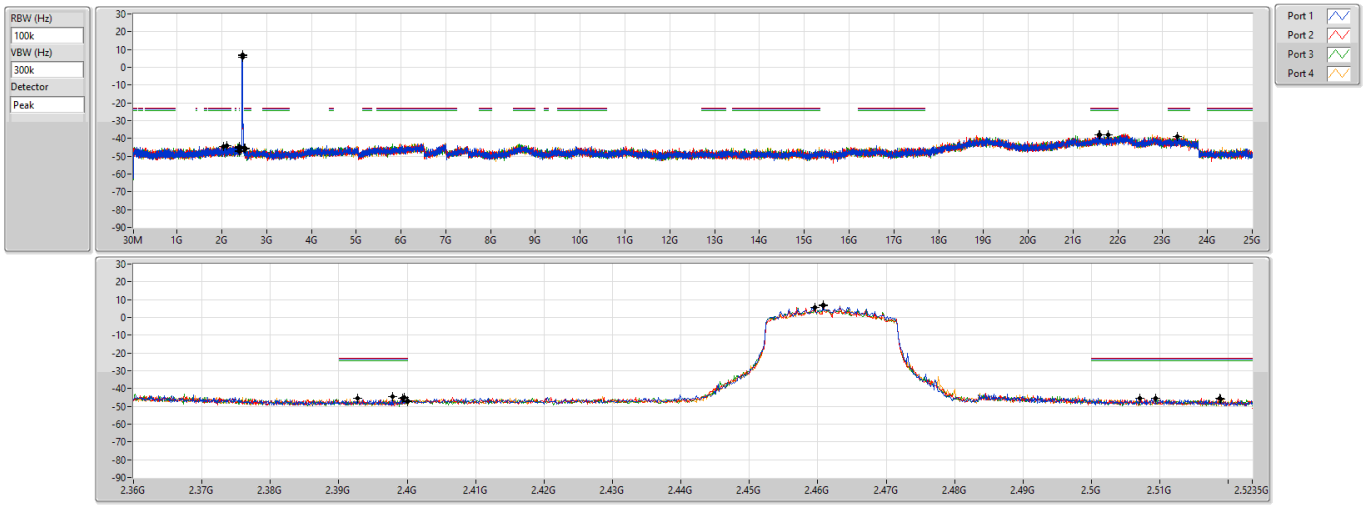
2437MHz



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	10.42	-19.58	1.84158G	-44.33	2.39936G	-45.30	2.4G	-45.27	2.50094G	-45.82	21.63976G	-38.55	1
2.43941G	11.10	-18.90	1.71692G	-44.46	2.39944G	-45.19	2.4G	-45.98	2.50198G	-45.75	21.8842G	-37.66	2
2.43824G	10.40	-19.60	2.0105G	-43.38	2.39792G	-45.55	2.4G	-44.81	2.5203G	-45.45	21.76619G	-38.05	3
2.43958G	10.66	-19.34	2.17244G	-44.21	2.39752G	-44.19	2.4G	-44.88	2.5231G	-45.11	21.60886G	-38.21	4

2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_4TX CSENdB

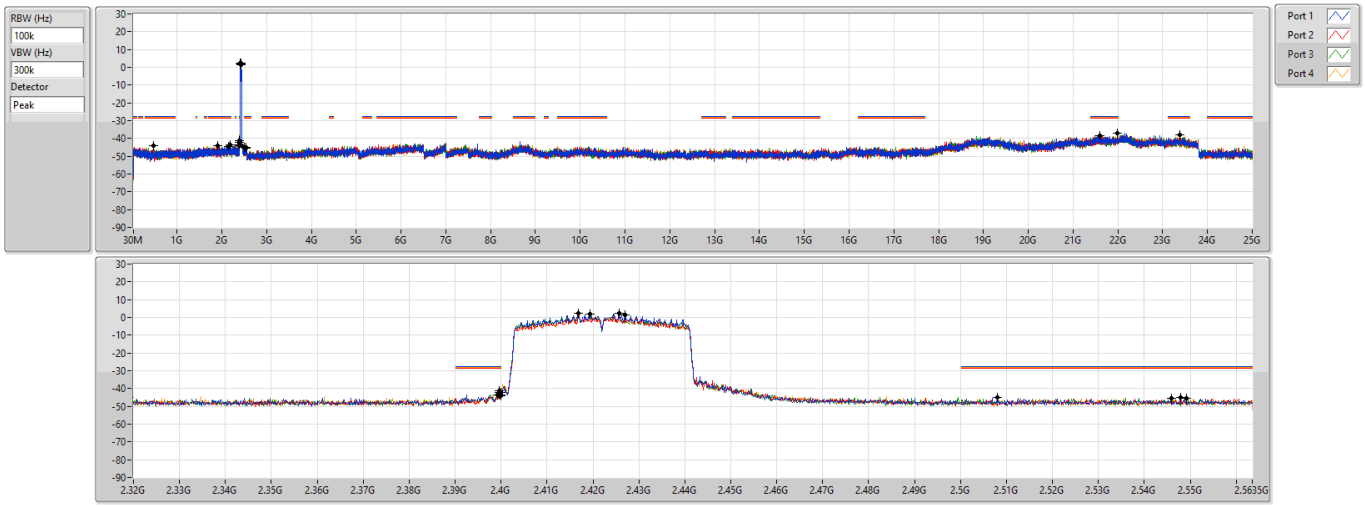
2462MHz



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
2.46079G	6.35	-23.65	2.10953G	-44.09	2.39272G	-45.40	2.4G	-47.10	2.50942G	-45.43	23.31988G	-38.81	1
2.46079G	6.82	-23.18	2.11885G	-43.91	2.39952G	-45.05	2.4G	-47.28	2.51878G	-45.41	21.78867G	-37.81	2
2.45962G	5.60	-24.40	2.04312G	-44.62	2.39928G	-45.55	2.4G	-46.92	2.51886G	-45.91	21.60605G	-38.05	3
2.46079G	6.56	-23.44	2.10487G	-44.06	2.39792G	-44.38	2.4G	-46.71	2.50702G	-45.51	21.57233G	-37.98	4

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_4TX CSENdB

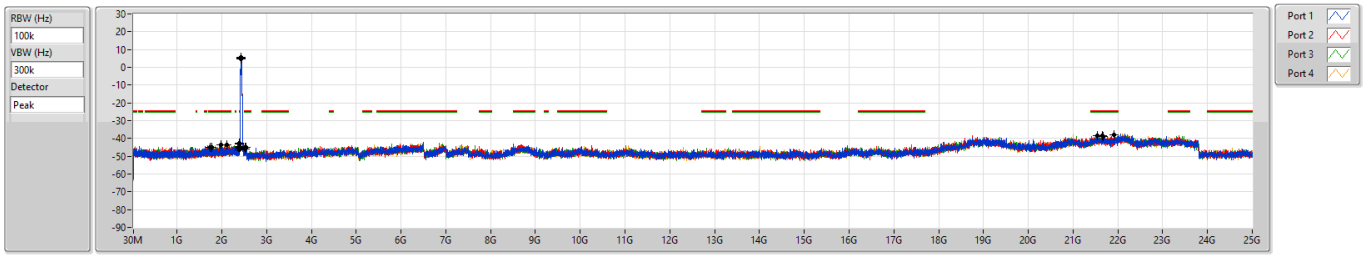
2422MHz

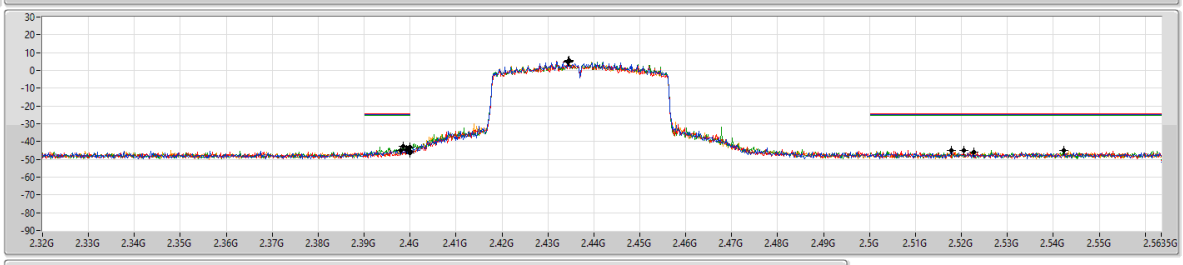


Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.42572G	2.14	-27.86	2.14138G	-44.38	2.39952G	-41.14	2.4G	-43.88	2.54782G	-45.14	21.60648G	-38.50	1
2.42705G	1.39	-28.61	2.18146G	-43.44	2.39952G	-42.26	2.4G	-43.70	2.5459G	-45.59	23.37896G	-38.04	2
2.41687G	2.13	-27.87	468.54M	-43.84	2.39968G	-43.67	2.4G	-41.96	2.50798G	-45.13	21.59807G	-38.44	3
2.41937G	1.71	-28.29	1.89864G	-44.10	2.3992G	-43.55	2.4G	-43.46	2.54926G	-45.36	21.99351G	-36.82	4

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_4TX CSENdB

2437MHz

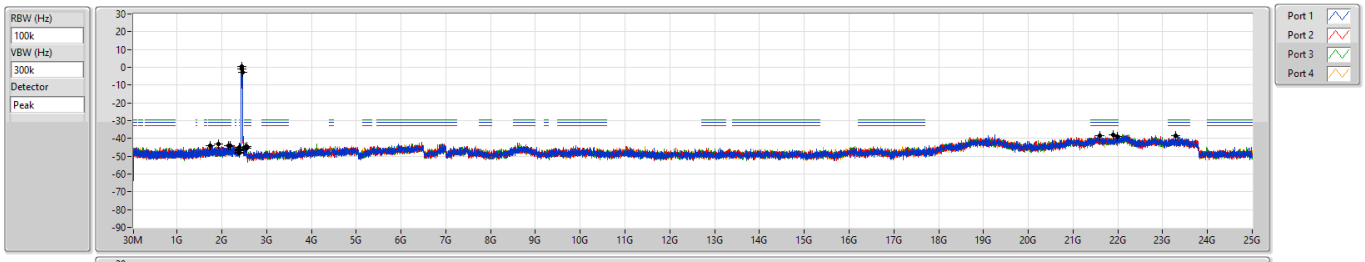


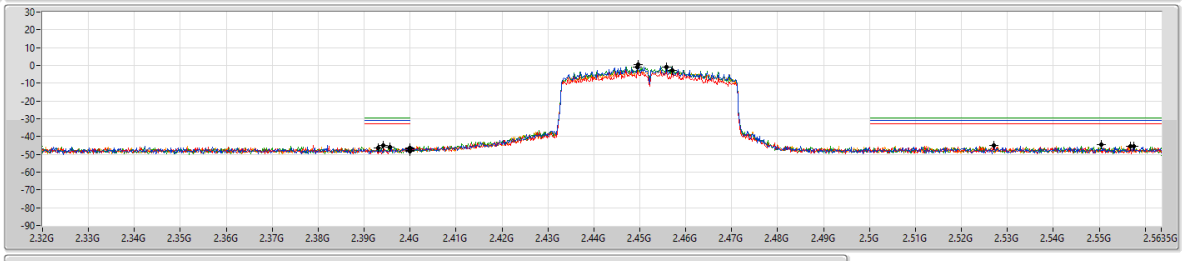


Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4344G	5.18	-24.82	2.11963G	-43.65	2.39792G	-44.78	2.4G	-45.30	2.5227G	-45.78	21.67379G	-38.87	1
2.43457G	5.49	-24.51	1.73376G	-44.89	2.3992G	-44.35	2.4G	-46.25	2.52062G	-45.03	21.90937G	-37.95	2
2.4344G	4.78	-25.22	1.77956G	-44.97	2.39856G	-42.79	2.4G	-42.95	2.54222G	-44.97	21.54478G	-38.36	3
2.43457G	5.14	-24.86	1.97994G	-43.47	2.3992G	-44.54	2.4G	-46.38	2.5179G	-44.90	21.65696G	-38.46	4

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_4TX CSENdB

2452MHz



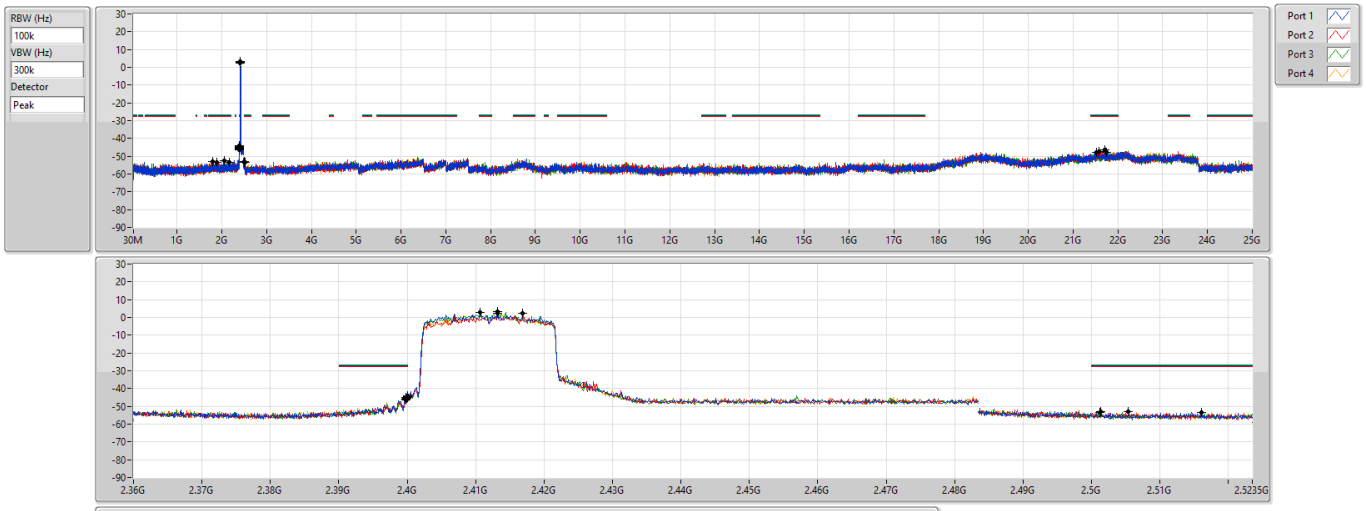


Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.45578G	-0.82	-30.82	1.74865G	-44.22	2.39568G	-45.71	2.4G	-47.10	2.55758G	-45.28	21.97949G	-38.86	1
2.45711G	-2.87	-32.87	2.14253G	-44.17	2.39424G	-44.98	2.4G	-47.93	2.52702G	-45.06	21.59526G	-38.31	2
2.4496G	0.28	-29.72	2.18146G	-43.90	2.39312G	-46.25	2.4G	-48.39	2.55038G	-44.64	23.29763G	-38.35	3
2.44943G	-0.87	-30.87	1.92612G	-43.00	2.39552G	-46.17	2.4G	-46.42	2.55678G	-45.35	21.88694G	-37.77	4

Beamforming mode

2.4-2.4835GHz_802.11ax HEW20-BF_Nss1,(MCS0)_4TX CSENdB

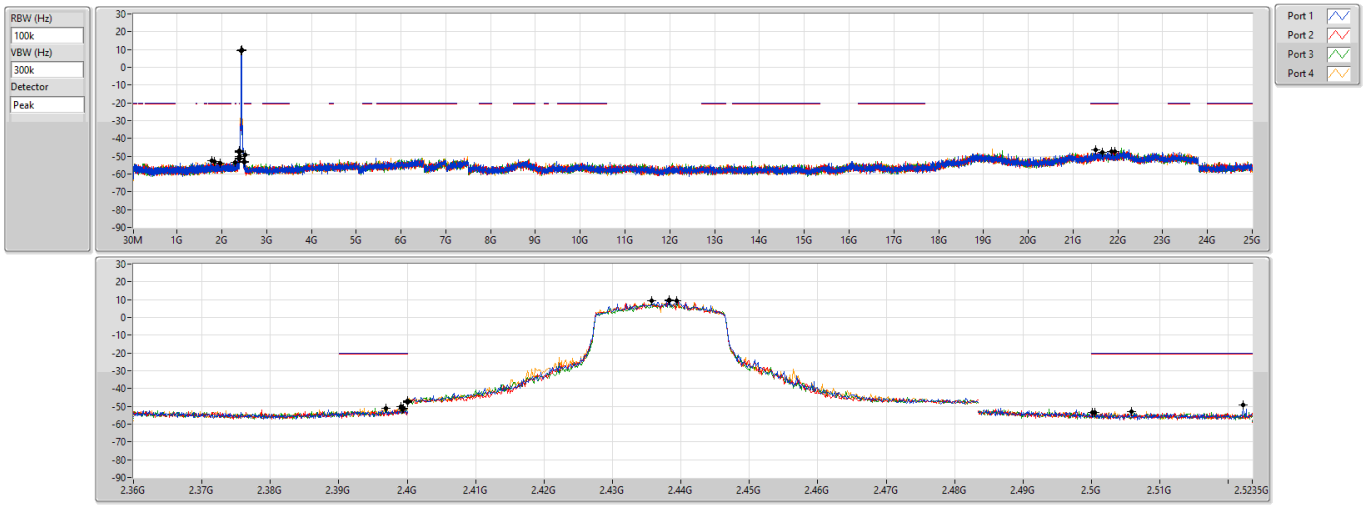
2412MHz



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
2.41069G	2.81	-27.19	1.8008G	-52.97	2.39992G	-45.29	2.4G	-44.05	2.50134G	-53.20	21.7381G	-47.68	1
2.41319G	2.17	-27.83	1.894G	-53.67	2.39984G	-46.31	2.4G	-44.77	2.51606G	-53.34	21.70719G	-46.52	2
2.41319G	3.18	-26.82	2.05361G	-52.47	2.39984G	-45.17	2.4G	-44.54	2.50126G	-53.23	21.51895G	-47.83	3
2.41687G	2.16	-27.84	2.16545G	-53.24	2.39976G	-45.84	2.4G	-44.95	2.50542G	-53.11	21.58638G	-47.15	4

2.4-2.4835GHz_802.11ax HEW20-BF_Nss1,(MCS0)_4TX CSENdB

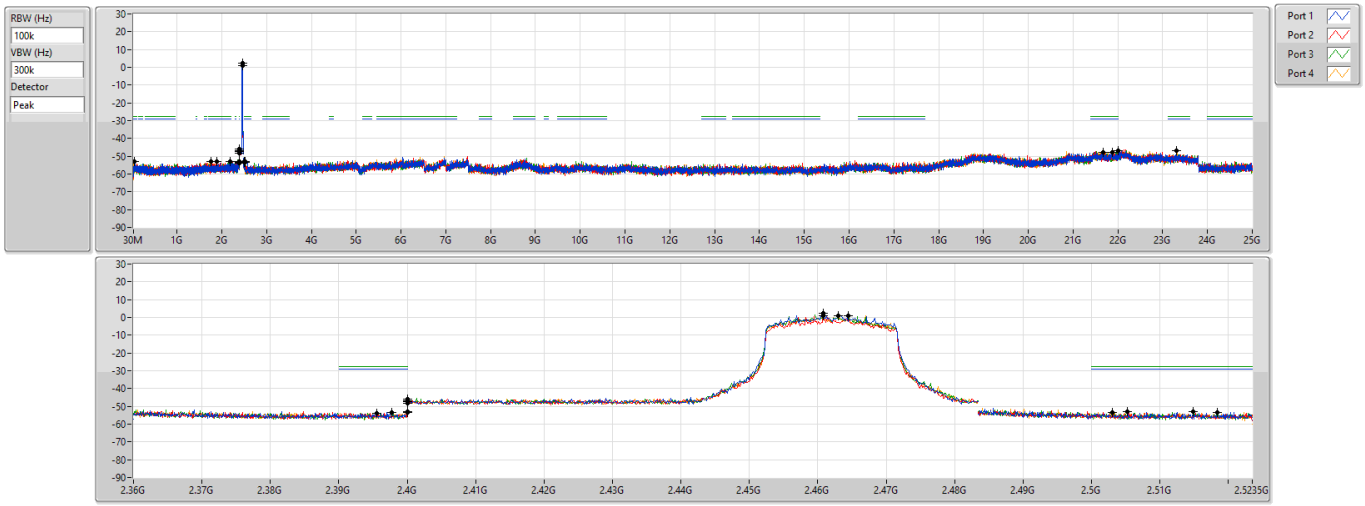
2437MHz



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	9.74	-20.26	2.30059G	-53.67	2.39936G	-51.59	2.4G	-47.24	2.52214G	-49.31	21.86453G	-47.52	1
2.43824G	9.58	-20.42	1.96623G	-53.68	2.39944G	-51.08	2.4G	-47.94	2.50054G	-53.67	21.93196G	-47.26	2
2.43574G	9.36	-20.64	1.83692G	-53.08	2.39688G	-51.21	2.4G	-47.33	2.50014G	-53.29	21.64819G	-47.63	3
2.43941G	9.17	-20.83	1.77168G	-52.62	2.39904G	-50.33	2.4G	-46.97	2.50582G	-52.92	21.50771G	-46.54	4

2.4-2.4835GHz_802.11ax HEW20-BF_Nss1,(MCS0)_4TX **CSENdB**

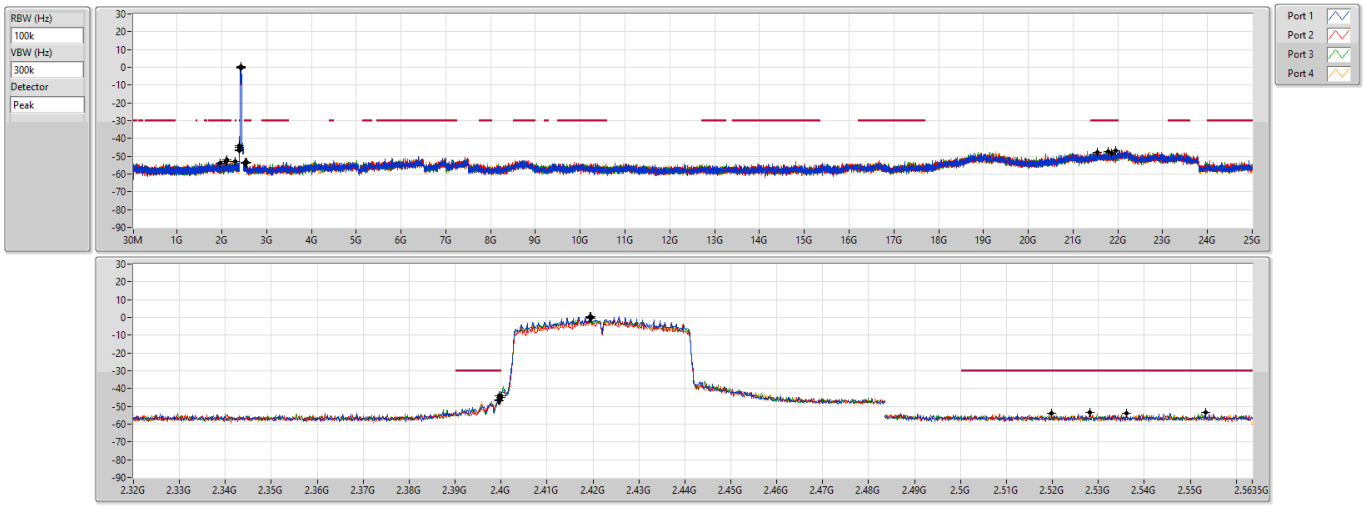
2462MHz



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
2.46296G	0.99	-29.01	2.18409G	-53.20	2.4G	-53.29	2.4G	-46.71	2.51486G	-52.93	21.88139G	-47.75	1
2.46079G	0.85	-29.15	1.76702G	-53.06	2.4G	-53.18	2.4G	-47.33	2.5031G	-53.40	22.00782G	-46.76	2
2.46079G	2.40	-27.60	1.88818G	-53.06	2.39776G	-53.38	2.4G	-48.29	2.51838G	-53.43	23.30864G	-46.81	3
2.46446G	0.95	-29.05	45.15M	-53.18	2.3956G	-53.97	2.4G	-46.06	2.50526G	-53.05	21.67629G	-47.83	4

2.4-2.4835GHz_802.11ax HEW40-BF_Nss1,(MCS0)_4TX **CSENdB**

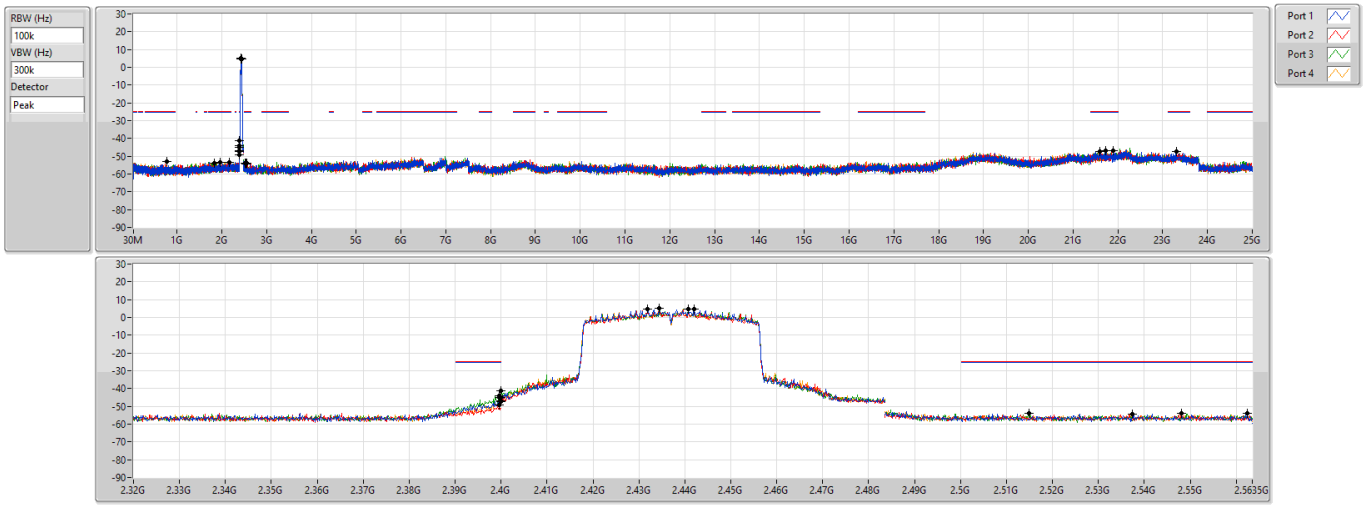
2422MHz



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
2.41937G	0.39	-29.61	2.11734G	-51.95	2.39936G	-46.46	2.4G	-44.24	2.55326G	-53.50	21.85048G	-48.06	1
2.41937G	0.19	-29.81	1.97192G	-53.89	2.39952G	-44.17	2.4G	-45.16	2.53614G	-54.01	21.55039G	-47.91	2
2.41954G	0.28	-29.72	2.30741G	-53.18	2.39968G	-46.79	2.4G	-45.09	2.52814G	-53.48	21.78036G	-47.17	3
2.41954G	-0.43	-30.43	2.10016G	-53.09	2.39952G	-46.83	2.4G	-44.09	2.51982G	-53.97	21.95144G	-47.09	4

2.4-2.4835GHz_802.11ax HEW40-BF_Nss1,(MCS0)_4TX CSENdB

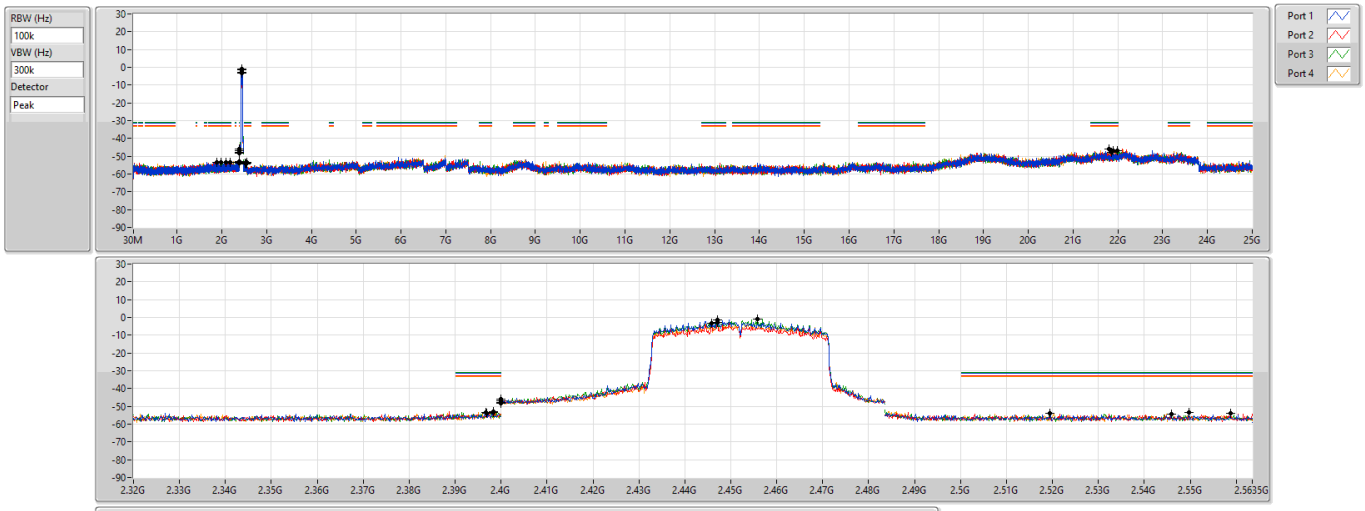
2437MHz



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
2.44208G	4.87	-25.13	1.84254G	-54.12	2.39968G	-44.85	2.4G	-44.91	2.56238G	-54.10	21.60367G	-47.22	1
2.4344G	5.31	-24.69	1.96276G	-53.49	2.39968G	-49.04	2.4G	-47.33	2.54814G	-53.87	23.30604G	-47.51	2
2.44075G	4.77	-25.23	776.54M	-53.02	2.39968G	-44.21	2.4G	-41.22	2.51486G	-54.13	21.89535G	-47.05	3
2.4319G	4.51	-25.49	2.17344G	-53.38	2.4G	-47.02	2.4G	-45.01	2.53742G	-54.26	21.72708G	-47.06	4

2.4-2.4835GHz_802.11ax HEW40-BF_Nss1,(MCS0)_4TX CSENdB

2452MHz

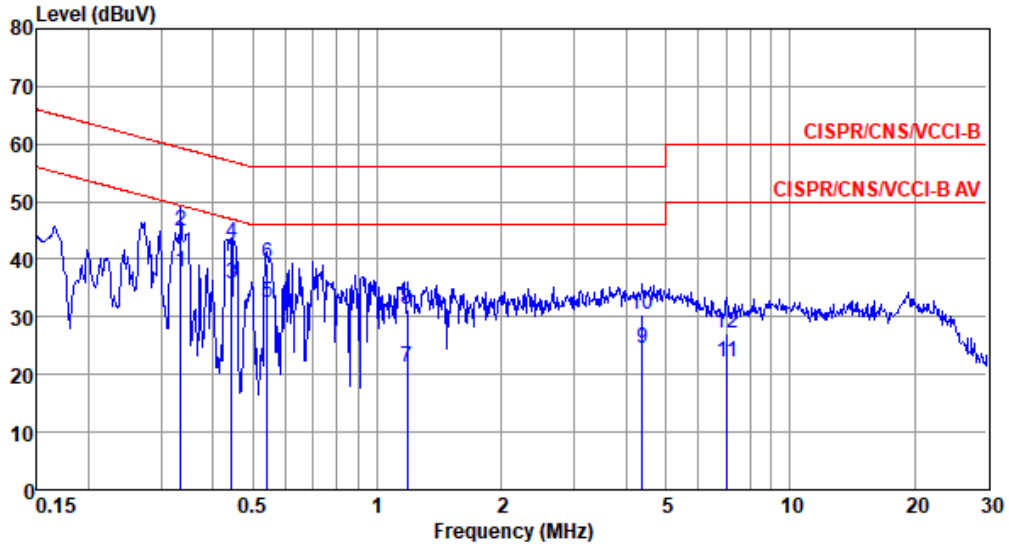


Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44709G	-1.51	-31.51	1.8975G	-53.30	2.39696G	-53.83	2.4G	-46.09	2.54974G	-53.62	21.88694G	-46.96	1
2.44709G	-3.00	-33.00	2.10245G	-53.56	2.3984G	-53.04	2.4G	-47.10	2.55886G	-54.01	21.9879G	-46.80	2
2.45578G	-0.74	-30.74	2.1826G	-53.49	2.39824G	-53.26	2.4G	-48.29	2.5195G	-54.00	21.86169G	-47.78	3
2.44576G	-3.51	-33.51	1.98337G	-53.21	2.39664G	-53.40	2.4G	-48.04	2.5459G	-54.34	21.79719G	-46.05	4

Non-beamforming mode

Modulation Mode	11b	Test Freq. (MHz)	2437
Power Phase	Line		

Test by : Joe Liao Temperature: 24°C Humidity: 62%

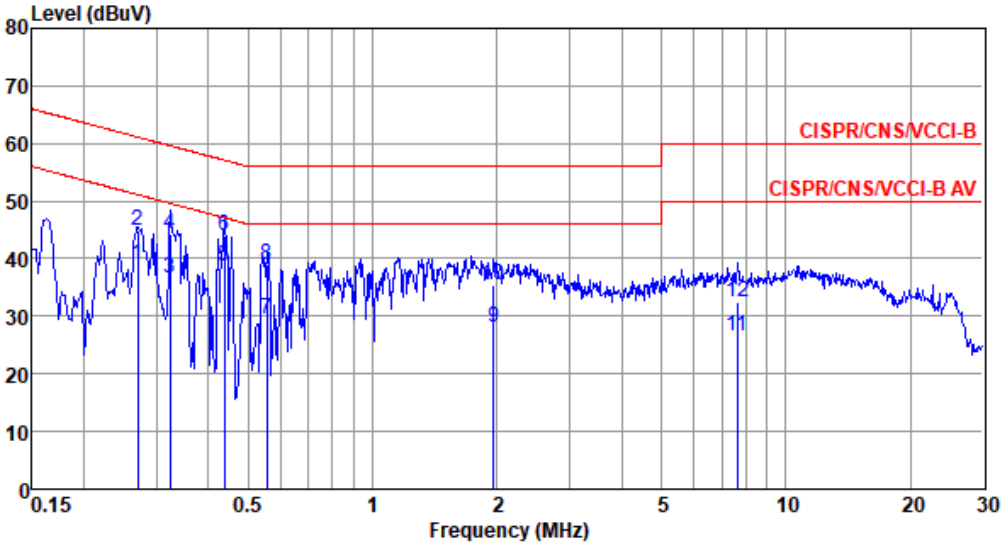


	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Cable loss	Aux	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	dB	
1	0.334	37.65	49.35	-11.70	27.70	9.62	0.06	0.27	Average
2	0.334	44.97	59.35	-14.38	35.02	9.62	0.06	0.27	QP
3*	0.444	35.75	46.98	-11.23	25.76	9.62	0.07	0.30	Average
4	0.444	42.83	56.98	-14.15	32.84	9.62	0.07	0.30	QP
5	0.541	32.56	46.00	-13.44	22.55	9.62	0.08	0.31	Average
6	0.541	39.31	56.00	-16.69	29.30	9.62	0.08	0.31	QP
7	1.184	21.39	46.00	-24.61	11.31	9.63	0.11	0.34	Average
8	1.184	31.32	56.00	-24.68	21.24	9.63	0.11	0.34	QP
9	4.384	24.56	46.00	-21.44	14.29	9.65	0.20	0.42	Average
10	4.384	30.31	56.00	-25.69	20.04	9.65	0.20	0.42	QP
11	7.025	22.08	50.00	-27.92	11.69	9.67	0.29	0.43	Average
12	7.025	27.24	60.00	-32.76	16.85	9.67	0.29	0.43	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)**	2437
Power Phase	Neutral		

Test by : Joe Liao Temperature: 24°C Humidity: 62%



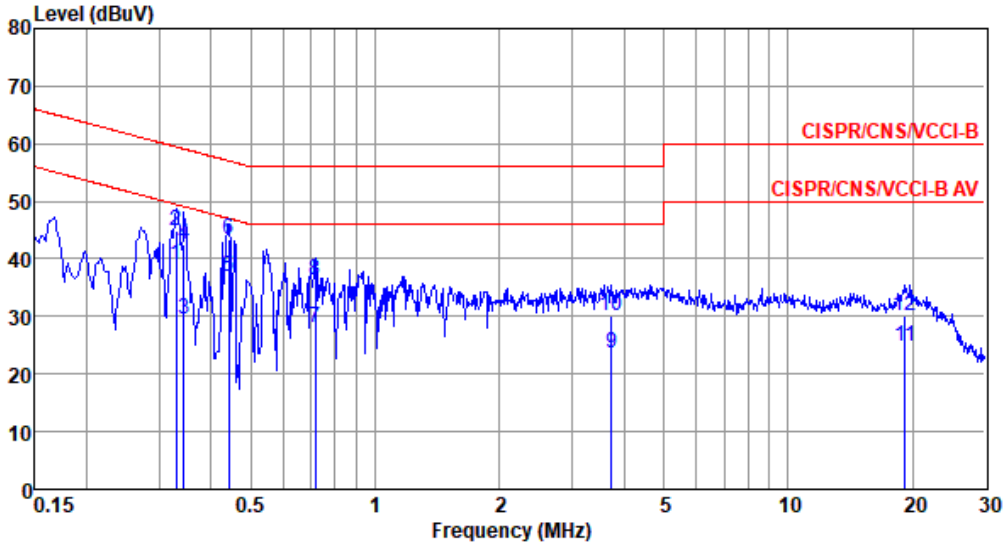
	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Cable loss	Aux	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	dB	
1	0.270	38.92	51.12	-12.20	28.99	9.63	0.06	0.24	Average
2	0.270	44.94	61.12	-16.18	35.01	9.63	0.06	0.24	QP
3	0.323	36.74	49.62	-12.88	26.79	9.62	0.06	0.27	Average
4	0.323	44.27	59.62	-15.35	34.32	9.62	0.06	0.27	QP
5*	0.437	38.67	47.11	-8.44	28.69	9.62	0.06	0.30	Average
6	0.437	44.04	57.11	-13.07	34.06	9.62	0.06	0.30	QP
7	0.555	29.40	46.00	-16.60	19.39	9.62	0.08	0.31	Average
8	0.555	39.05	56.00	-16.95	29.04	9.62	0.08	0.31	QP
9	1.959	27.97	46.00	-18.03	17.84	9.64	0.13	0.36	Average
10	1.959	35.39	56.00	-20.61	25.26	9.64	0.13	0.36	QP
11	7.646	26.65	50.00	-23.35	16.22	9.69	0.31	0.43	Average
12	7.646	32.50	60.00	-27.50	22.07	9.69	0.31	0.43	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).

Beamforming mode

Modulation Mode	ax HE20	Test Freq. (MHz)	2437
Power Phase	Line		

Test by : Joe Liao Temperature: 24°C Humidity: 62%

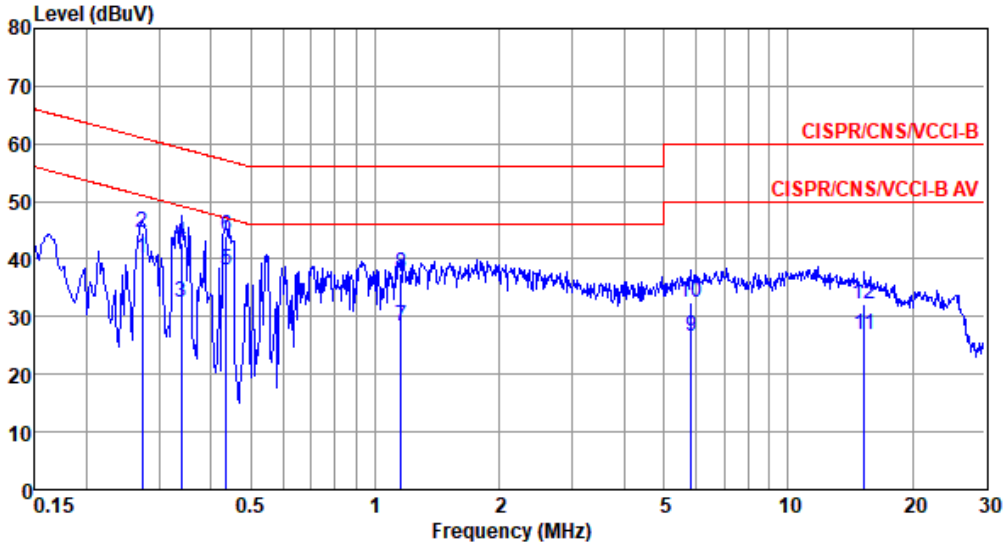


	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Cable loss	Aux	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	dB	
1	0.330	38.88	49.44	-10.56	28.93	9.62	0.06	0.27	Average
2	0.330	44.85	59.44	-14.59	34.90	9.62	0.06	0.27	QP
3	0.345	29.60	49.09	-19.49	19.64	9.62	0.06	0.28	Average
4	0.345	42.62	59.09	-16.47	32.66	9.62	0.06	0.28	QP
5*	0.442	36.82	47.02	-10.20	26.83	9.62	0.07	0.30	Average
6	0.442	43.28	57.02	-13.74	33.29	9.62	0.07	0.30	QP
7	0.716	27.97	46.00	-18.03	17.93	9.63	0.09	0.32	Average
8	0.716	36.32	56.00	-19.68	26.28	9.63	0.09	0.32	QP
9	3.740	23.76	46.00	-22.24	13.52	9.65	0.18	0.41	Average
10	3.740	30.18	56.00	-25.82	19.94	9.65	0.18	0.41	QP
11	19.224	24.94	50.00	-25.06	14.24	9.68	0.50	0.52	Average
12	19.224	30.03	60.00	-29.97	19.33	9.68	0.50	0.52	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	ax HE20	**Test Freq. (MHz)**	2437
Power Phase	Neutral		

Test by : Joe Liao Temperature: 24°C Humidity: 62%



	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Cable loss	Aux	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	dB	
1	0.273	40.01	51.03	-11.02	30.08	9.63	0.06	0.24	Average
2	0.273	44.70	61.03	-16.33	34.77	9.63	0.06	0.24	QP
3	0.339	32.43	49.22	-16.79	22.48	9.62	0.06	0.27	Average
4	0.339	42.92	59.22	-16.30	32.97	9.62	0.06	0.27	QP
5*	0.435	38.14	47.15	-9.01	28.16	9.62	0.06	0.30	Average
6	0.435	43.92	57.15	-13.23	33.94	9.62	0.06	0.30	QP
7	1.153	28.39	46.00	-17.61	18.31	9.63	0.11	0.34	Average
8	1.153	37.41	56.00	-18.59	27.33	9.63	0.11	0.34	QP
9	5.836	26.56	50.00	-23.44	16.21	9.67	0.25	0.43	Average
10	5.836	32.36	60.00	-27.64	22.01	9.67	0.25	0.43	QP
11	15.307	26.98	50.00	-23.02	16.28	9.77	0.44	0.49	Average
12	15.307	32.10	60.00	-27.90	21.40	9.77	0.44	0.49	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).