

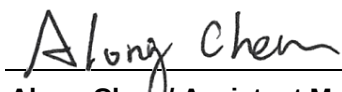
FCC Test Report

FCC ID : MXF-W1701K
Equipment : Tri-Band AP
Model No. : W1701K
Brand Name : Q Fiber
Applicant : Gemtek Technology Co., Ltd.
Address : No. 15-1 Zhonghua Road, Hsinchu Industrial
Park, Hukou, Hsinchu, Taiwan, 30352.
Standard : 47 CFR FCC Part 15.247
Received Date : Jun. 27, 2023
Tested Date : Aug. 14 ~ Aug. 24, 2023

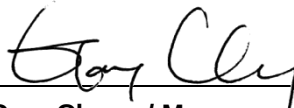
We, International Certification Corporation, would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It shall not be reproduced except in full without the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

Reviewed by:

Approved by:



Along Chen / Assistant Manager



Gary Chang / Manager

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Release Record

Report No.	Version	Description	Issued Date
FR362701AC	Rev. 01	Initial issue	Sep. 25, 2023

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	AC Power Line Conducted Emission	[dBuV]: 0.771MHz 50.82 (Margin -5.18dB) - QP	Pass
15.247(d) 15.209	Unwanted Emissions	[dBuV/m at 3m]: 4874.00MHz 53.86 (Margin -0.14dB) - AV	Pass
15.247(b)(3)	Conducted Output Power	Max Power [dBm]: Non-beamforming mode 28.20 Beamforming mode 27.83	Pass
15.247(a)(2)	6dB Bandwidth	Meet the requirement of limit	Pass
15.247(e)	Power Spectral Density	Meet the requirement of limit	Pass
15.203	Antenna Requirement	Meet the requirement of limit	Pass

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

1 General Description

1.1 Information

1.1.1 Specification of the Equipment under Test (EUT)

RF General Information					
Frequency Range (MHz)	IEEE Std. 802.11	Ch. Freq. (MHz)	Channel Number	Transmit Chains (N _{TX})	Data Rate / MCS
2400-2483.5	b	2412-2462	1-11 [11]	4	1-11 Mbps
2400-2483.5	g	2412-2462	1-11 [11]	4	6-54 Mbps
2400-2483.5	n (HT20)	2412-2462	1-11 [11]	4	MCS 0-31
2400-2483.5	n (HT40)	2422-2452	3-9 [7]	4	MCS 0-31
2400-2483.5	ax (HE20)	2412-2462	1-11 [11]	4	MCS 0-11
2400-2483.5	ax (HE40)	2422-2452	3-9 [7]	4	MCS 0-11
2400-2483.5	be (EHT20)	2412-2462	1-11 [11]	4	MCS 0-13
2400-2483.5	be (EHT40)	2422-2452	3-9 [7]	4	MCS 0-13

Note 1: RF output power specifies that Maximum Conducted (Average) Output Power.
 Note 2: DSSS-DBPSK, DQPSK, CCK modulation
 OFDM/OFDMA- BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM and 4096QAM modulation.
 Note 3: 802.11be supports beamforming function.

1.1.2 Antenna Details

Ant. No.	Brand	Model	Type	Connector	Gain (dBi)
1	Gemtek	WREM-129AX_Dual_Ant1	PIFA	NA	1.01
2	Gemtek	WREM-129AX_Dual_Ant2	PIFA	UFL	1.06
3	Gemtek	WREM-129AX_Dual_Ant3	PIFA	UFL	1.09
4	Gemtek	WREM-129AX_Dual_Ant4	PIFA	UFL	1.03

1.1.3 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	12Vdc from Internal Power source
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1.1.4 Accessories

Accessories		
No.	Equipment	Description
1	Internal Power source	Brand: LUCENT TRANS ELECTRONICS CO., LTD. Model: 1A106-US1240 I/P: 100-120Vac, 50/60Hz, 1.4A max O/P: 12V=4.0A, 48.0W
2	Internal Power source	Brand: LEADER ELECTRONICS INC. Model: SL42-1120350-3C I/P: 100-120Vac, 50-60Hz, 1.5A O/P: 12V=3.5A
3	Fan	Brand: SUNONWEALTH ELECTRIC MACHINE INDUSTRY CO LTD Model: EG75070S1-C395-S99
4	Fan	Brand: Yingfan Model: NB801005HHT4B10001

1.1.5 Channel List

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

1.1.6 Test Tool and Duty Cycle

Test Tool	QATool, Version: 0.0.2.99		
Duty Cycle and Duty Factor	Mode	Duty Cycle (%)	Duty Factor (dB)
	11b	99.79%	0.01
	11g	98.95%	0.05
	be EHT20-OFDMA	99.50%	0.02
	be EHT40-OFDMA	98.25%	0.08

1.1.7 Power Index of Test Tool

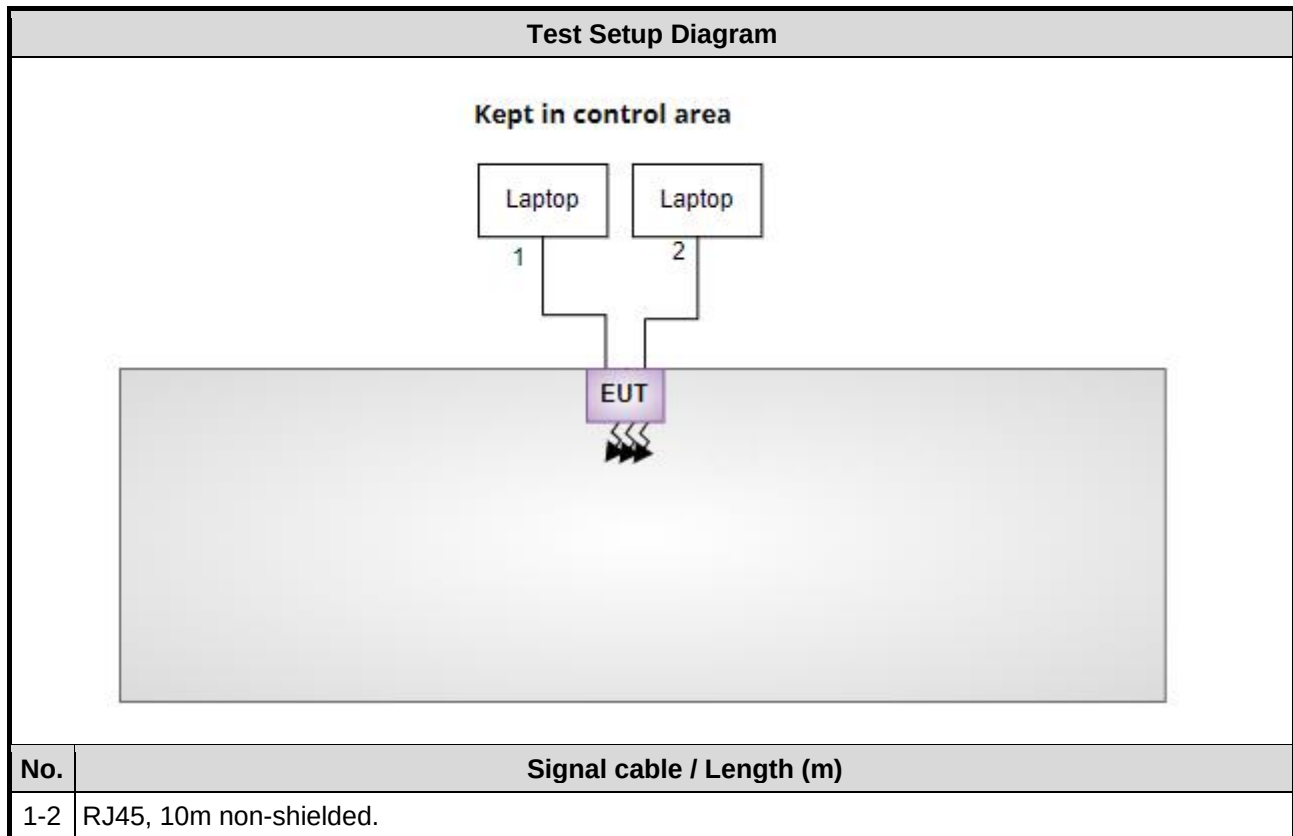
Modulation Mode	Test Frequency (MHz)	Power Index	
		Non-beamforming	Beamforming
11b	2412	19.5	---
11b	2437	21	---
11b	2462	18.5	---
11g	2412	18	---
11g	2437	22	---
11g	2462	17.5	---
be EHT20-OFDMA	2412	17.5	35
be EHT20-OFDMA	2437	21.5	44
be EHT20-OFDMA	2462	17	34
be EHT40-OFDMA	2422	17	34
be EHT40-OFDMA	2437	18	36
be EHT40-OFDMA	2452	16.5	35

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	Fixture	---	---	---	---
4	Laptop	DELL	Latitude E5470	---	---

Note: The fixture and laptop are disconnected from EUT and removed from test table when EUT is set to transmit continuously.

1.3 Test Setup Chart



1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Tested Date	Aug. 17, 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	RF Conducted				
Test Site	(TH01-WS)				
Tested Date	Aug. 22, 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.					

Test Item	Radiated Emission				
Test Site	966 chamber1 / (03CH01-WS)				
Tested Date	Aug. 14 ~ Aug. 24, 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-N W-11000	200801	Oct. 04, 2022	Oct. 03, 2023
LF cable 1M	EMC	EMCCFD400-NM-N M-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.					

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 ≤ 1 GHz	± 3.41 dB
Unwanted Emission > 1 GHz	± 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	11g	2437	6 Mbps	---
Unwanted Emissions ≤ 1GHz	11g	2437	6 Mbps	---
Unwanted Emissions >1GHz	11b	2412 / 2437 / 2462	1 Mbps	---
Conducted Output Power	11g	2412 / 2437 / 2462	6 Mbps	
6dB bandwidth	be EHT20-OFDMA	2412 / 2437 / 2462	MCS 0	
Power spectral density	be EHT40-OFDMA	2422 / 2437 / 2452	MCS 0	
Beamforming mode				
Conducted Output Power	be EHT20-OFDMA be EHT40-OFDMA	2412 / 2437 / 2462 2422 / 2437 / 2452	MCS 0 MCS 0	---

NOTE:

- The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The **Y-plane** results were found as the worst case and were shown in this report.
- Two Internal Power source (LUCENT TRANS ELECTRONICS CO., LTD., LEADER ELECTRONICS INC.) had been covered during the pretest, and found that **LUCENT TRANS ELECTRONICS CO.** worst case and was selected for final test.
- Two Fans (SUNONWEALTH ELECTRIC MACHINE INDUSTRY CO LTD and Yingfan) had been covered during the pretest, and found that **SUNONWEALTH ELECTRIC MACHINE INDUSTRY CO LTD** was the worst case and was selected for final test.
- Non-beamforming and beamforming mode had been covered during the pretest. The worst mode is Non-beamforming thus Non-beamforming is tested for all test items.

3 Transmitter Test Results

3.1 6dB and Occupied Bandwidth

3.1.1 Limit of 6dB Bandwidth

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

3.1.2 Test Procedures

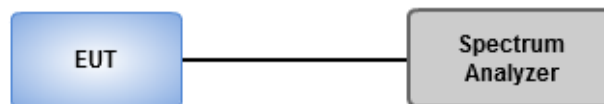
6dB Bandwidth

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

Occupied Bandwidth

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

3.1.3 Test Setup



3.1.4 Test Results

Ambient Condition	23°C / 65%	Tested By	Brad Wu
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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 $\leq 6\text{dBi}$, no any corresponding reduction is in output power limit.

Antenna gain $> 6\text{dBi}$

Non Fixed, point to point operations.

The conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dB

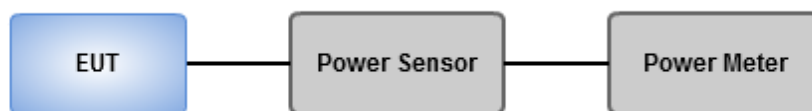
Fixed, point to point operations

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

3.2.2 Test Procedures

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

3.2.3 Test Setup



3.2.4 Test Results

Ambient Condition	23°C / 65%	Tested By	Brad Wu
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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.

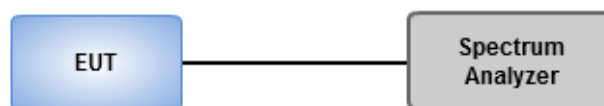
Average PSD, duty cycle $\geq 98\%$

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

Average PSD, duty cycle $< 98\%$

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

3.3.3 Test Setup



3.3.4 Test Results

Ambient Condition	23°C / 65%	Tested By	Brad Wu
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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:
Quasi-Peak value is measured for frequency below 1GHz except for 9–90 kHz, 110–490 kHz frequency band. Peak and average value are measured for frequency above 1GHz. The limit on average radio frequency emission is as above table. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit

Note 2:
Measurements may be performed at a distance other than what is specified provided. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor as below, Frequency at or above 30 MHz: 20 dB/decade Frequency below 30 MHz: 40 dB/decade.

3.4.2 Test Procedures

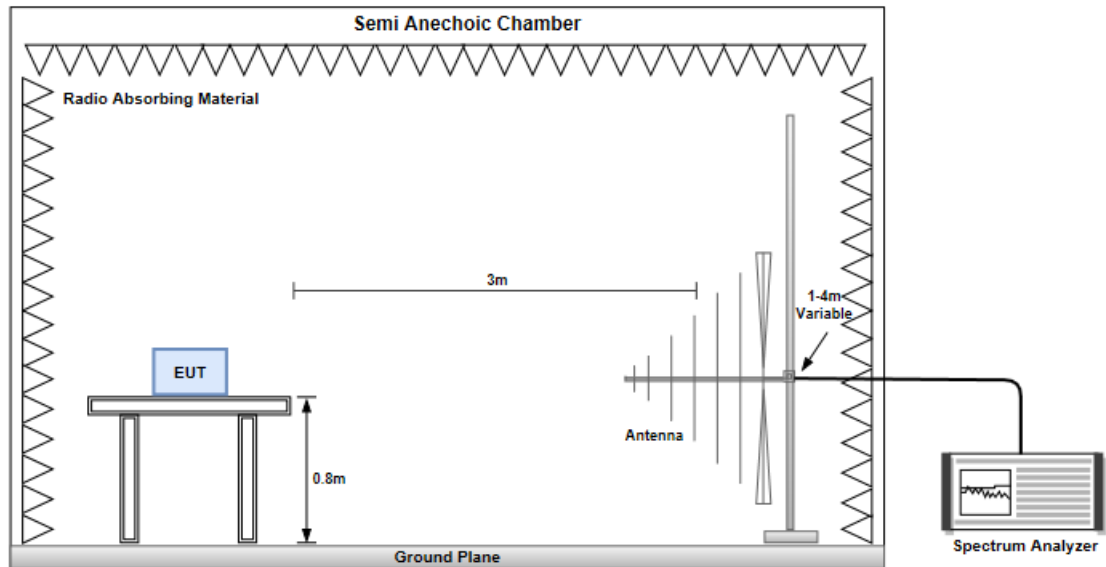
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

Note:

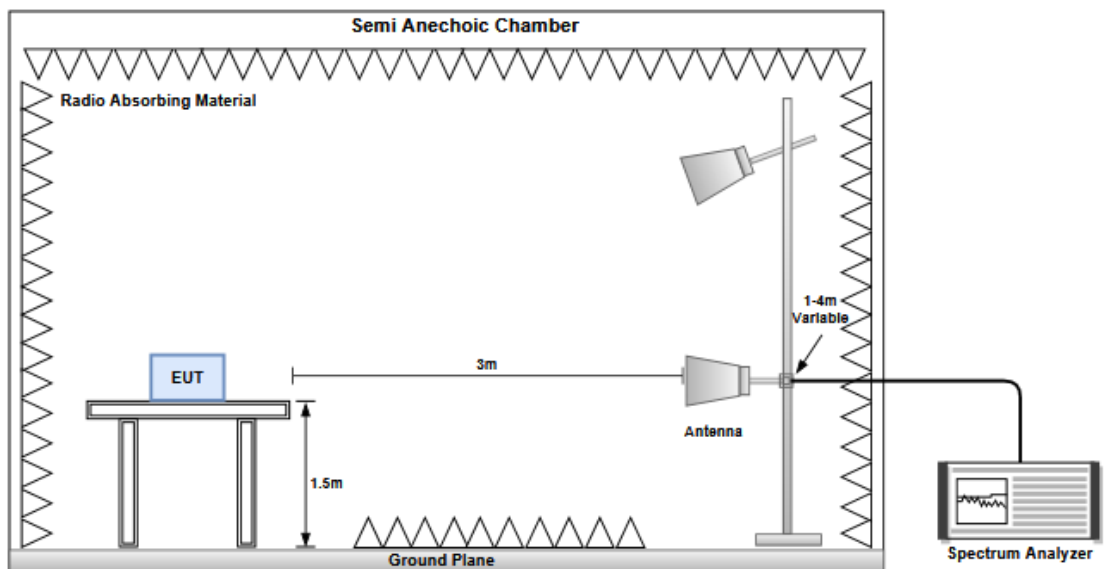
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.4.3 Test Setup

Radiated Emissions below 1 GHz



Radiated Emissions above 1 GHz



3.4.4 Test Results

Refer to Appendix D.

3.5 Emissions in Non-Restricted Frequency Bands

3.5.1 Emissions in Non-Restricted Frequency Bands Limit

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

3.5.2 Test Procedures

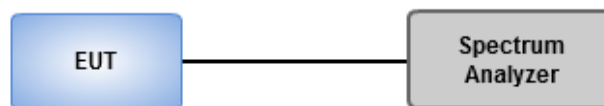
Reference level measurement

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

Emission level measurement

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

3.5.3 Test Setup



3.5.4 Test Results

Ambient Condition	23°C / 65%	Tested By	Brad Wu
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Refer to Appendix E.

3.6 AC Power Line Conducted Emissions

3.6.1 Limit of AC Power Line Conducted Emissions

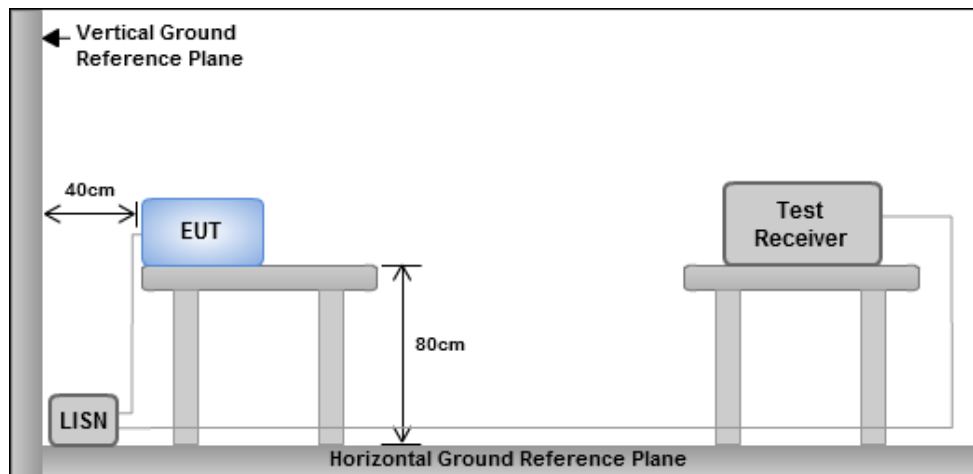
Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

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==

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	9.025M	13.673M	13M7G1D	7.55M	12.489M
802.11g_Nss1,(6Mbps)_4TX	16.3M	22.957M	23M0D1D	15.375M	16.316M
802.11be EHT20_Nss1,(MCS0)_4TX-OFDMA	18.625M	19.14M	19M1D1D	18M	18.791M
802.11be EHT40_Nss1,(MCS0)_4TX-OFDMA	36.8M	37.581M	37M6D1D	33.75M	37.531M

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	8.025M	12.594M	8.025M	12.639M	8.075M	12.564M	8.025M	12.534M
2437MHz	Pass	500k	9.025M	13.673M	7.55M	12.744M	8M	12.759M	7.55M	12.834M
2462MHz	Pass	500k	8M	12.534M	8.025M	12.579M	8.05M	12.564M	8.025M	12.489M
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	16M	16.316M	16.275M	16.338M	16.3M	16.338M	16.3M	16.338M
2437MHz	Pass	500k	15.375M	22.957M	16.05M	17.107M	16.275M	17.217M	15.925M	19.02M
2462MHz	Pass	500k	15.85M	16.36M	16.025M	16.338M	16.275M	16.338M	16.3M	16.338M
802.11be EHT20_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	18.625M	18.791M	18.325M	18.791M	18M	18.816M	18.35M	18.816M
2437MHz	Pass	500k	18.325M	18.991M	18.325M	18.991M	18.1M	19.015M	18.4M	19.14M
2462MHz	Pass	500k	18.125M	18.791M	18M	18.816M	18.125M	18.791M	18.3M	18.791M
802.11be EHT40_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	36.25M	37.531M	35.7M	37.531M	35M	37.581M	35.1M	37.581M
2437MHz	Pass	500k	34.95M	37.531M	33.75M	37.581M	35M	37.581M	35.5M	37.581M
2452MHz	Pass	500k	35.4M	37.581M	36.8M	37.581M	33.8M	37.581M	35.65M	37.581M

Port X-N dB = Port X 6dB down bandwidth;

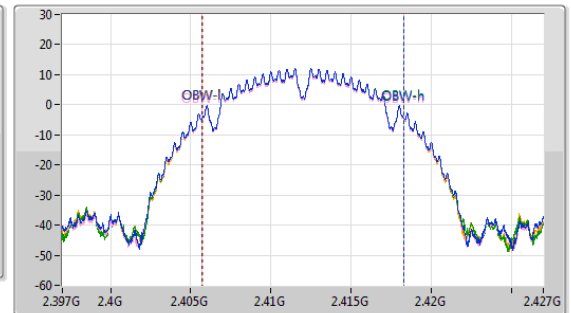
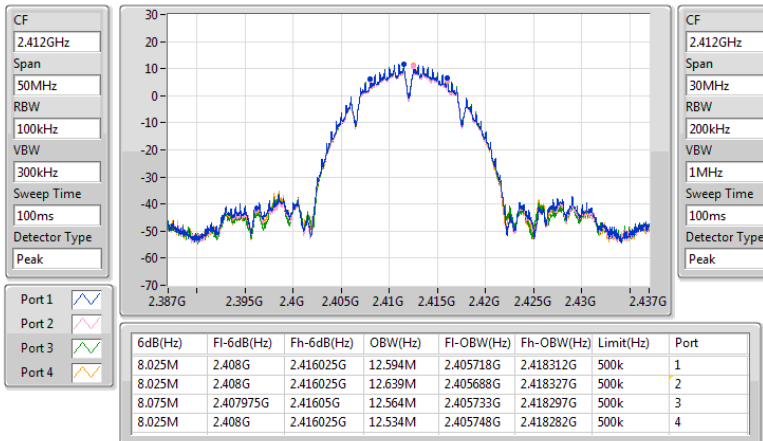
Port X-OBW = Port X 99% occupied bandwidth



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

EBW

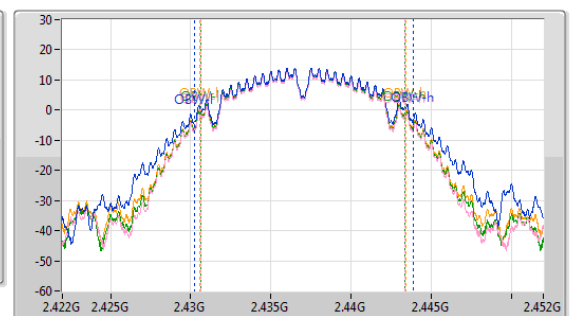
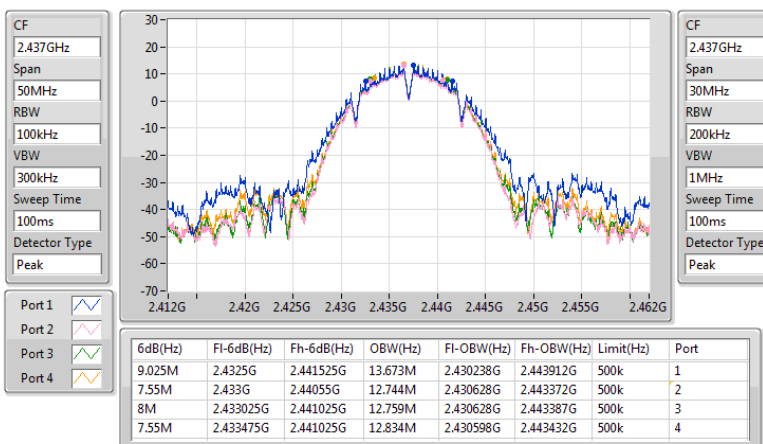
2412MHz



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

EBW

2437MHz

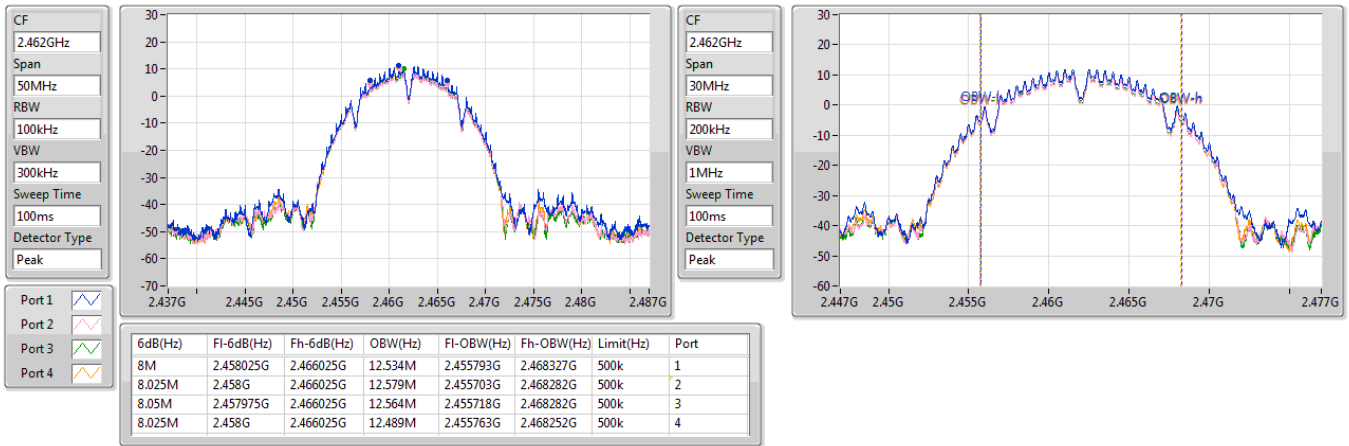




2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_4TX

EBW

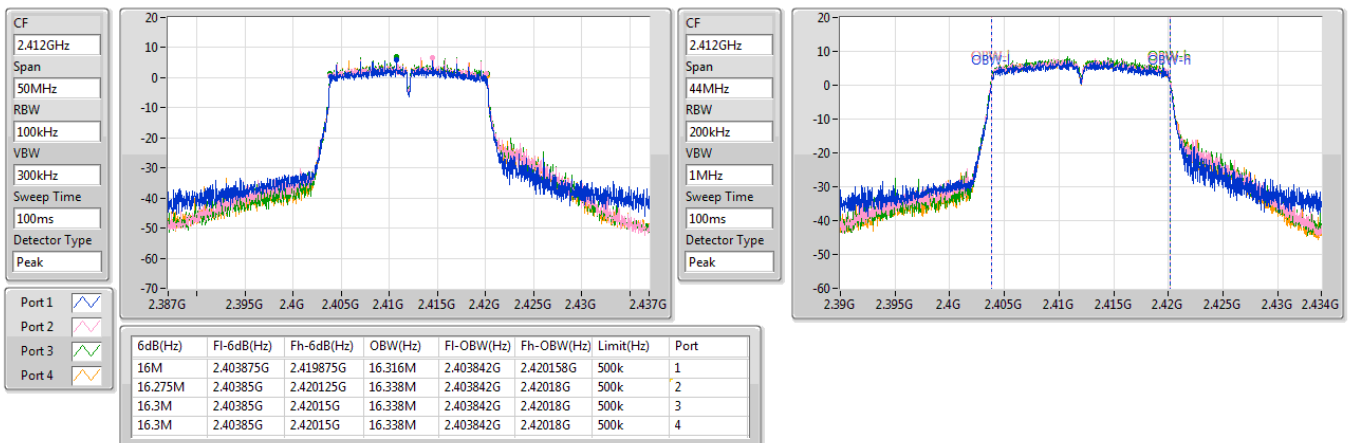
2462MHz



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

EBW

2412MHz

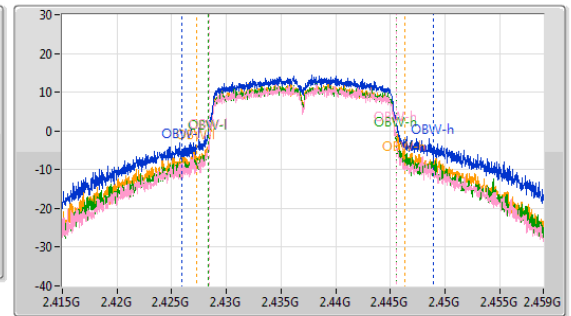
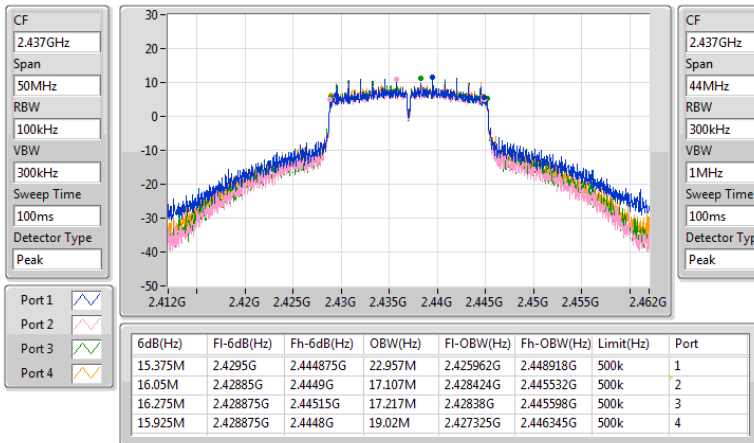




2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_4TX

EBW

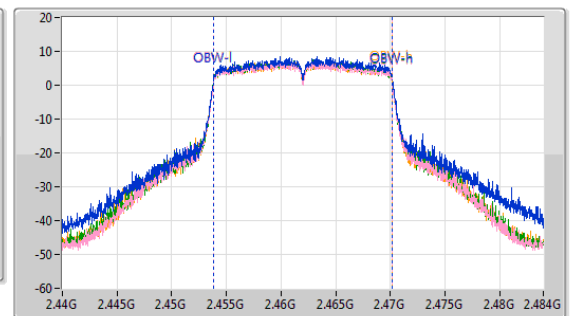
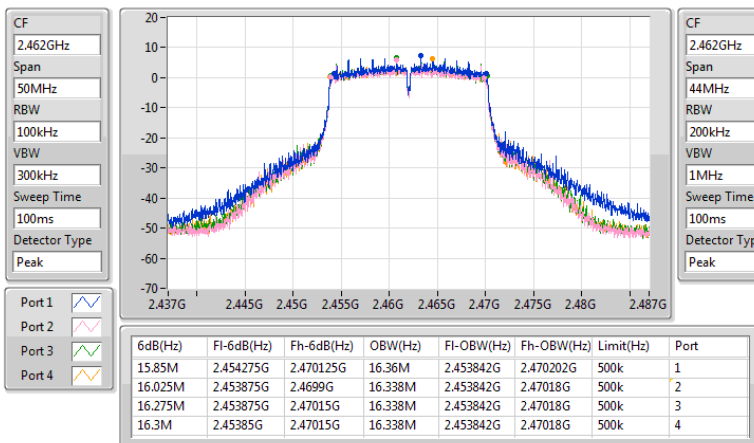
2437MHz



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

EBW

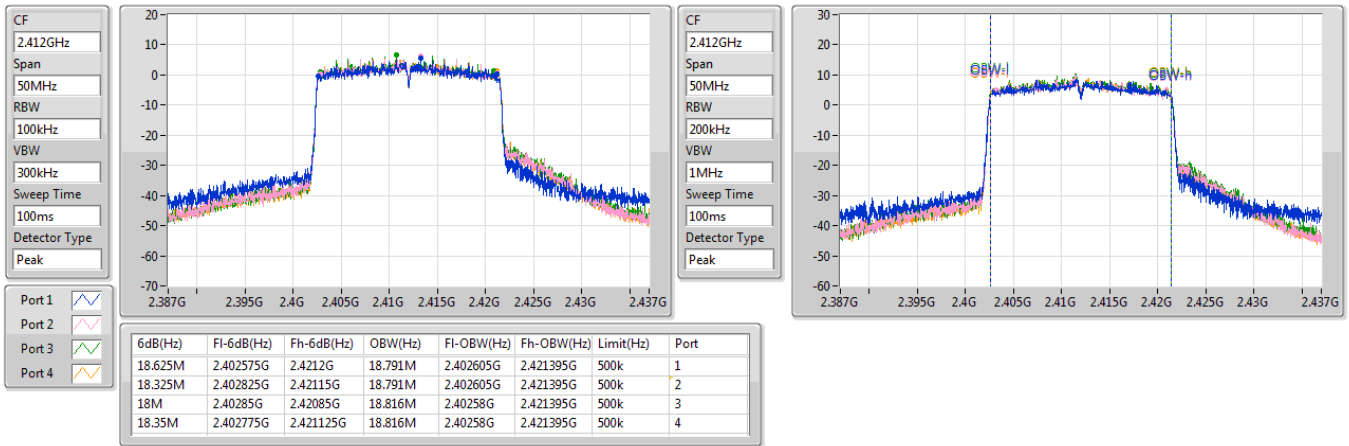
2462MHz



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

EBW

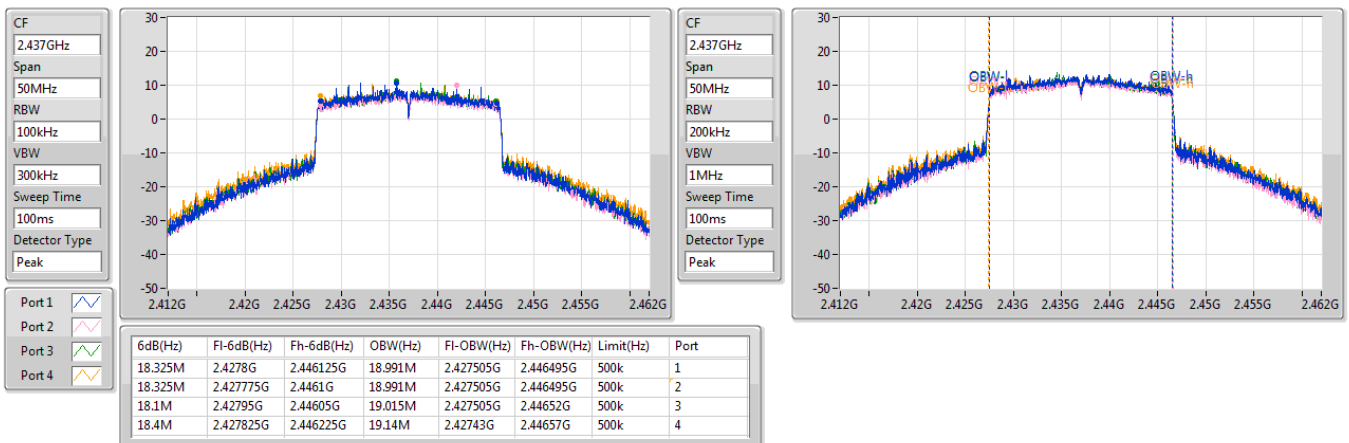
2412MHz



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

EBW

2437MHz

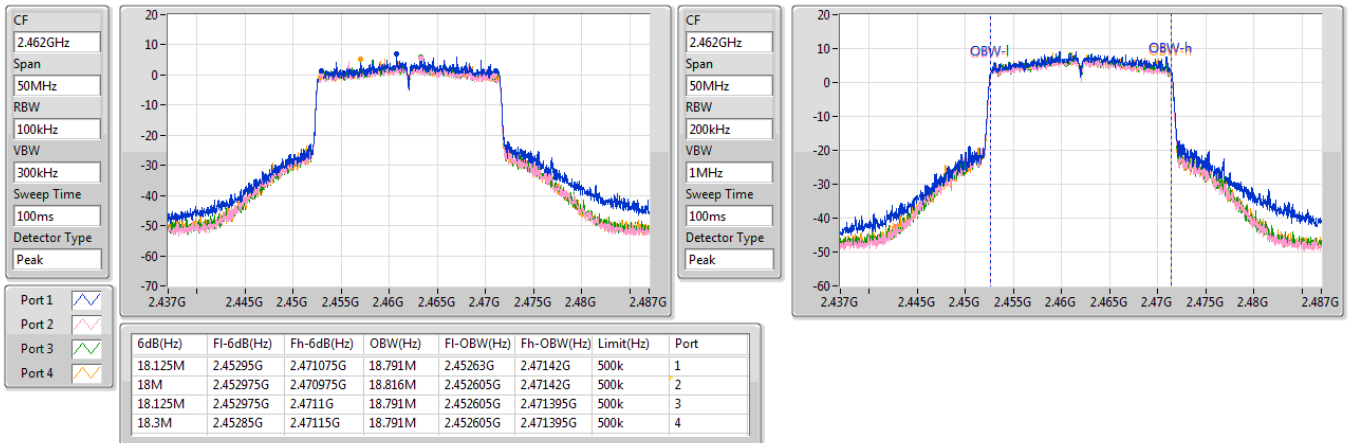




2.4-2.4835GHz_802.11be EHT20_Nss1,(MCS0)_4TX

EBW

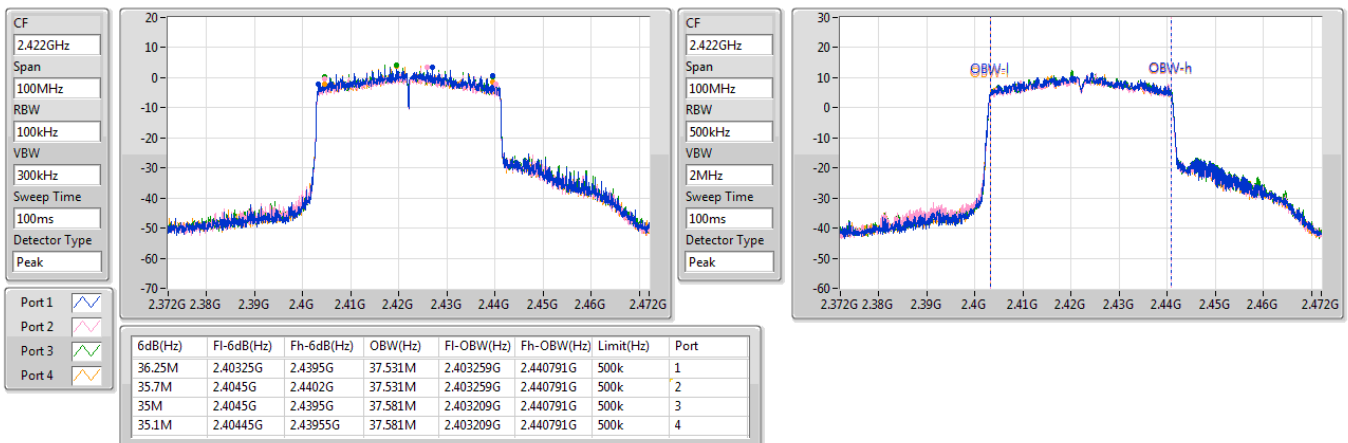
2462MHz



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

EBW

2422MHz

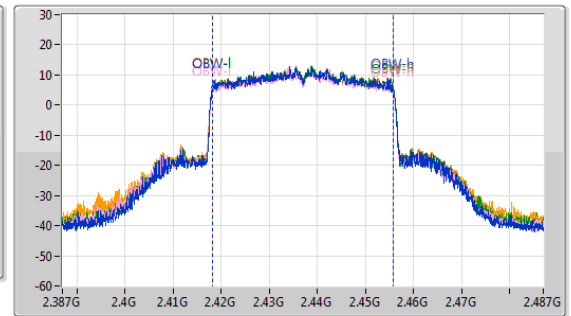
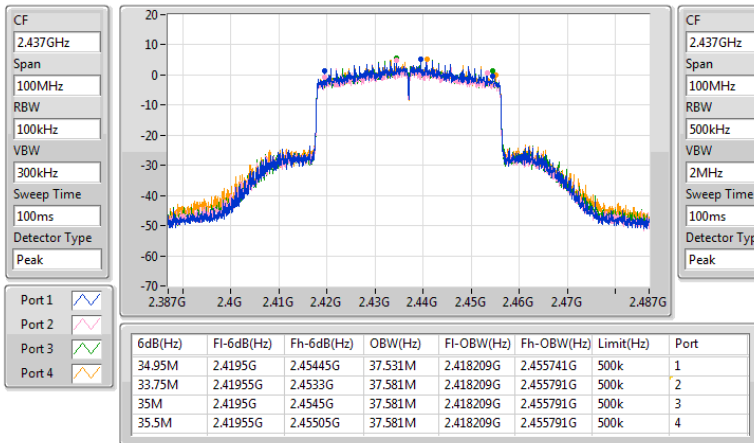




2.4-2.4835GHz_802.11be EHT40_Nss1,(MCS0)_4TX

EBW

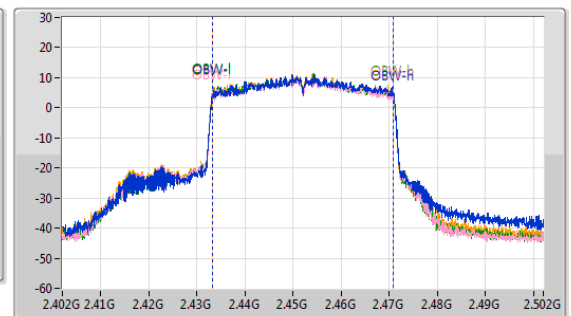
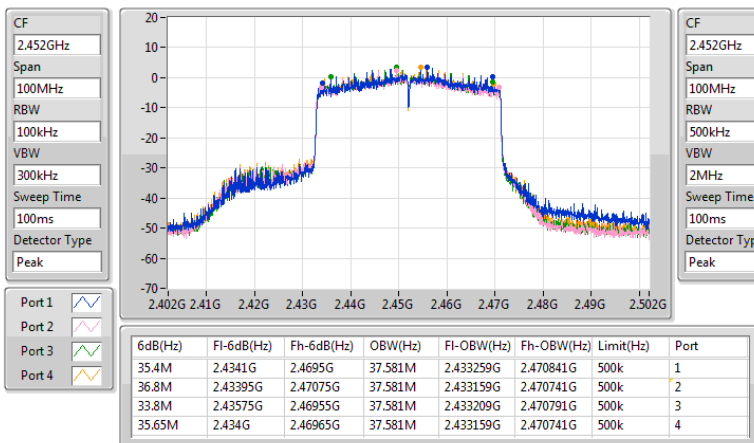
2437MHz



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

EBW

2452MHz





Conducted Output Power(Average)

Appendix B

Non-beamforming mode

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_4TX	27.25	0.53088
802.11g_Nss1,(6Mbps)_4TX	28.20	0.66069
802.11be EHT20_Nss1,(MCS0)_4TX-OFDMA	27.85	0.60954
802.11be EHT40_Nss1,(MCS0)_4TX-OFDMA	24.63	0.29040

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	1.09	19.55	19.58	20.02	19.45	25.68	30.00	26.77	36.00
2437MHz	Pass	1.09	21.35	21.02	21.06	21.47	27.25	30.00	28.34	36.00
2462MHz	Pass	1.09	18.15	18.11	18.47	18.23	24.26	30.00	25.35	36.00
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	1.09	17.95	18.02	18.47	18.01	24.14	30.00	25.23	36.00
2437MHz	Pass	1.09	22.36	22.18	22.01	22.15	28.20	30.00	29.29	36.00
2462MHz	Pass	1.09	17.55	17.62	17.53	17.62	23.60	30.00	24.69	36.00
802.11be EHT20_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	1.09	17.54	17.72	18.01	17.65	23.75	30.00	24.84	36.00
2437MHz	Pass	1.09	21.96	21.82	21.71	21.82	27.85	30.00	28.94	36.00
2462MHz	Pass	1.09	17.16	17.33	17.19	17.45	23.30	30.00	24.39	36.00
802.11be EHT40_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	1.09	17.13	17.21	17.75	16.93	23.29	30.00	24.38	36.00
2437MHz	Pass	1.09	18.65	18.66	18.62	18.51	24.63	30.00	25.72	36.00
2452MHz	Pass	1.09	17.04	17.02	16.91	17.16	23.05	30.00	24.14	36.00

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

**Beamforming mode****Summary**

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11be EHT20-BF_Nss1,(MCS0)_4TX-OFDMA	27.83	0.60674
802.11be EHT40-BF_Nss1,(MCS0)_4TX-OFDMA	24.25	0.26607

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11be EHT20-BF_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	3.21	16.68	17.55	17.85	17.62	23.47	30.00	26.68	36.00
2437MHz	Pass	3.21	21.71	21.56	21.8	22.16	27.83	30.00	31.04	36.00
2462MHz	Pass	3.21	17.3	16.65	16.92	16.71	22.92	30.00	26.13	36.00
802.11be EHT40-BF_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	3.21	16.49	17.04	17.32	17.11	23.02	30.00	26.23	36.00
2437MHz	Pass	3.21	18.25	17.87	18.18	18.6	24.25	30.00	27.46	36.00
2452MHz	Pass	3.21	16.42	16.39	16.68	17.08	22.67	30.00	25.88	36.00

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

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



Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_4TX	-2.40
802.11g_Nss1,(6Mbps)_4TX	-5.31
802.11be EHT20_Nss1,(MCS0)_4TX-OFDMA	-4.92
802.11be EHT40_Nss1,(MCS0)_4TX-OFDMA	-10.26

RBW = 3kHz;

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	3.21	-9.31	-8.40	-9.29	-10.00	-4.22	8.00
2437MHz	Pass	3.21	-7.78	-8.16	-7.83	-7.19	-2.40	8.00
2462MHz	Pass	3.21	-8.90	-9.87	-10.12	-10.07	-5.27	8.00
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	3.21	-13.71	-13.96	-14.17	-13.82	-9.37	8.00
2437MHz	Pass	3.21	-9.80	-10.91	-10.42	-9.60	-5.31	8.00
2462MHz	Pass	3.21	-13.55	-15.26	-13.93	-14.61	-10.11	8.00
802.11be EHT20_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-
2412MHz	Pass	3.21	-15.17	-15.08	-14.41	-14.76	-9.49	8.00
2437MHz	Pass	3.21	-10.42	-11.26	-10.91	-10.12	-4.92	8.00
2462MHz	Pass	3.21	-14.64	-14.95	-14.35	-15.43	-9.79	8.00
802.11be EHT40_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-
2422MHz	Pass	3.21	-15.98	-17.21	-16.00	-16.44	-10.97	8.00
2437MHz	Pass	3.21	-15.24	-16.13	-15.68	-14.71	-10.26	8.00
2452MHz	Pass	3.21	-17.34	-17.72	-17.15	-16.60	-11.59	8.00

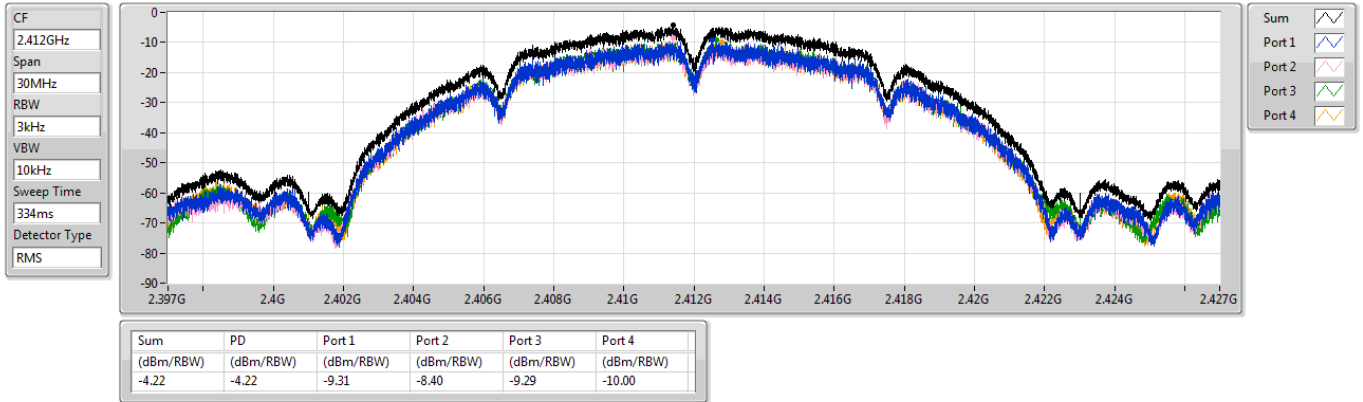
DG = Directional Gain; RBW = 3kHz;

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

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

PSD

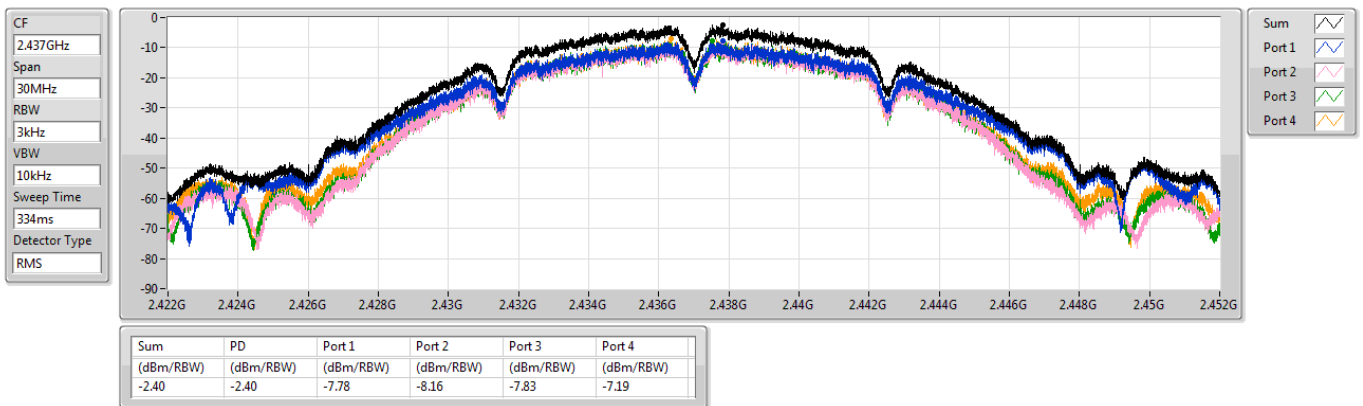
2412MHz



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

PSD

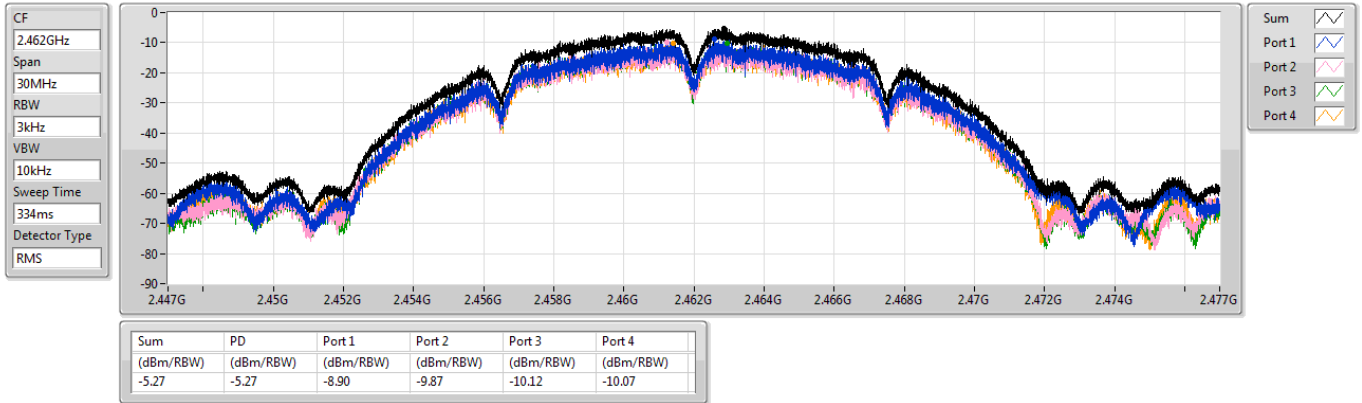
2437MHz



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

PSD

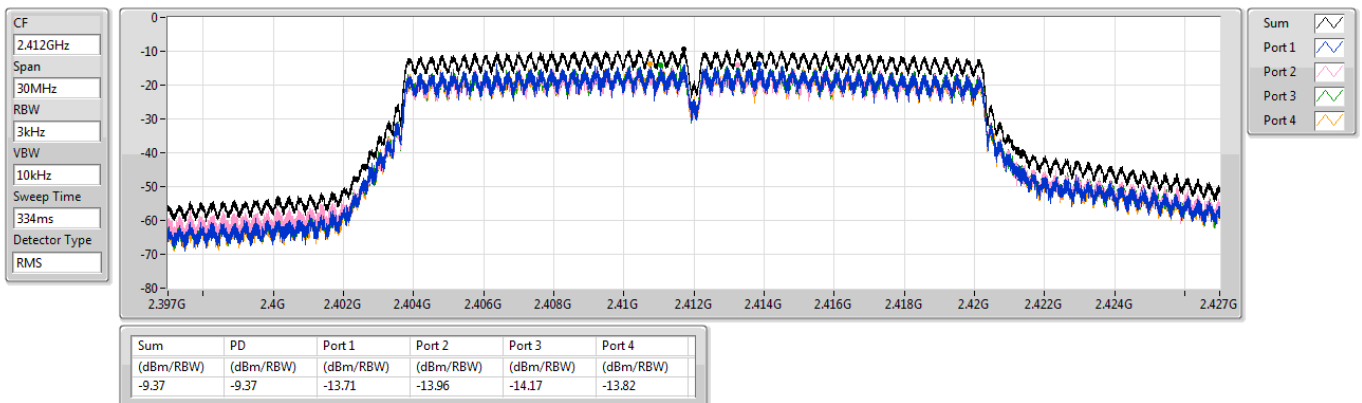
2462MHz



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

PSD

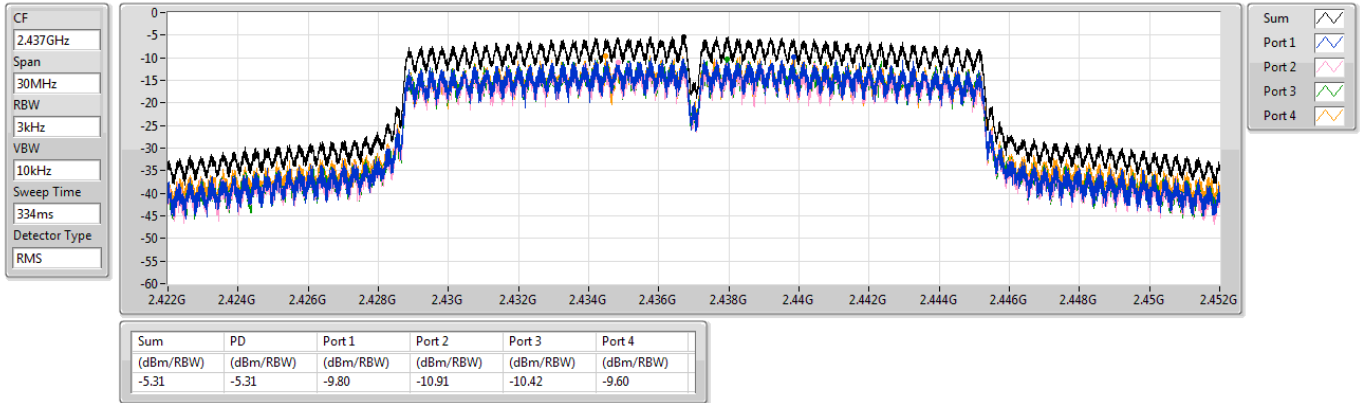
2412MHz



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

PSD

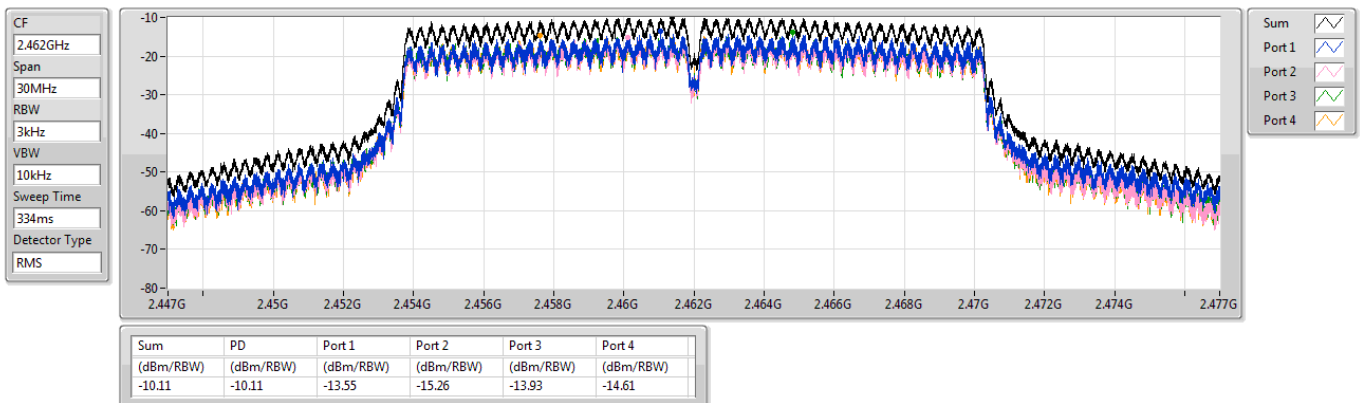
2437MHz



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

PSD

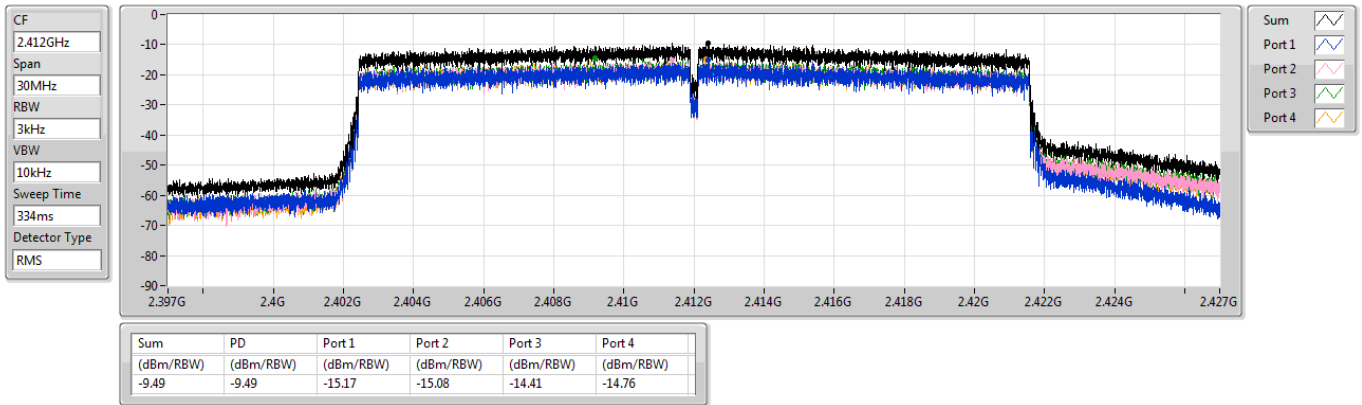
2462MHz



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

PSD

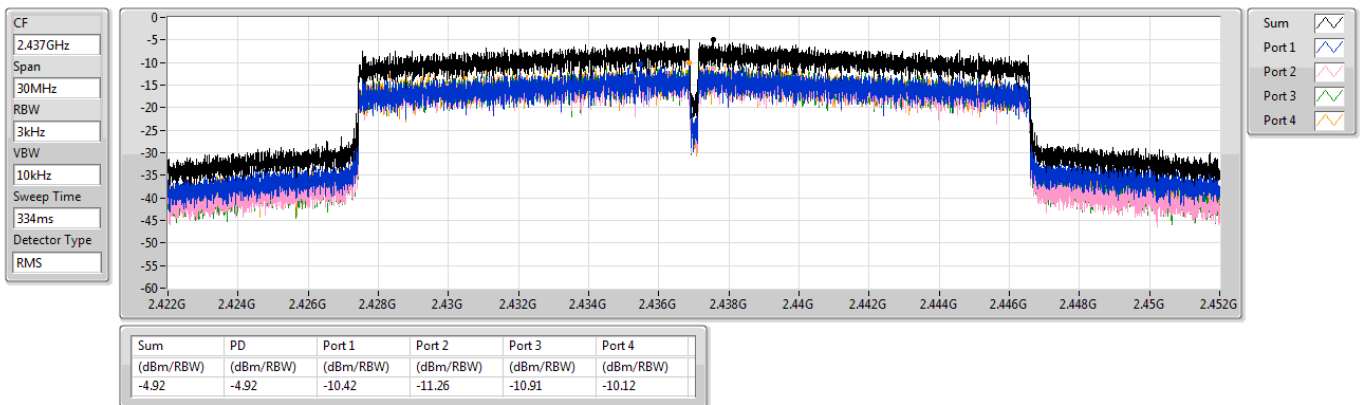
2412MHz



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

PSD

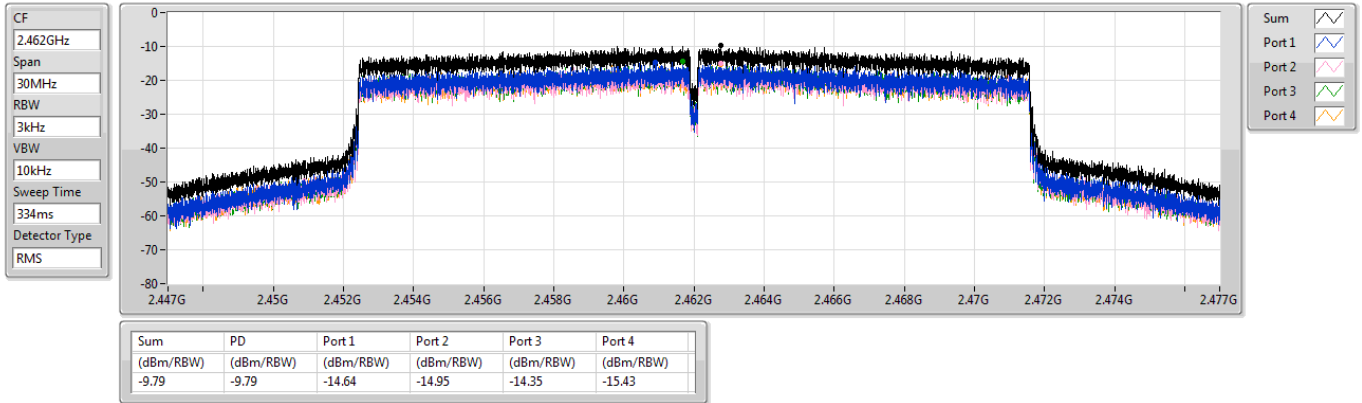
2437MHz



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

PSD

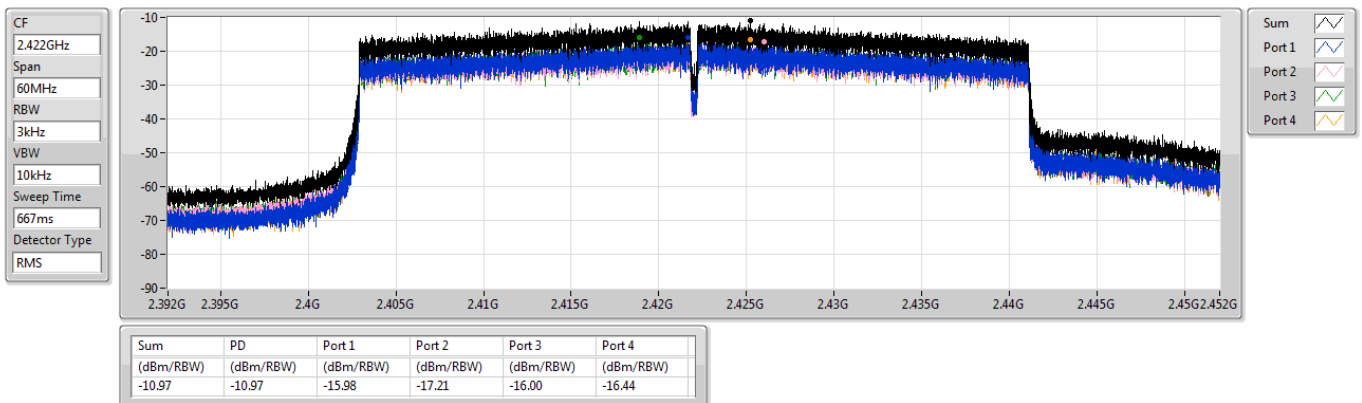
2462MHz



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

PSD

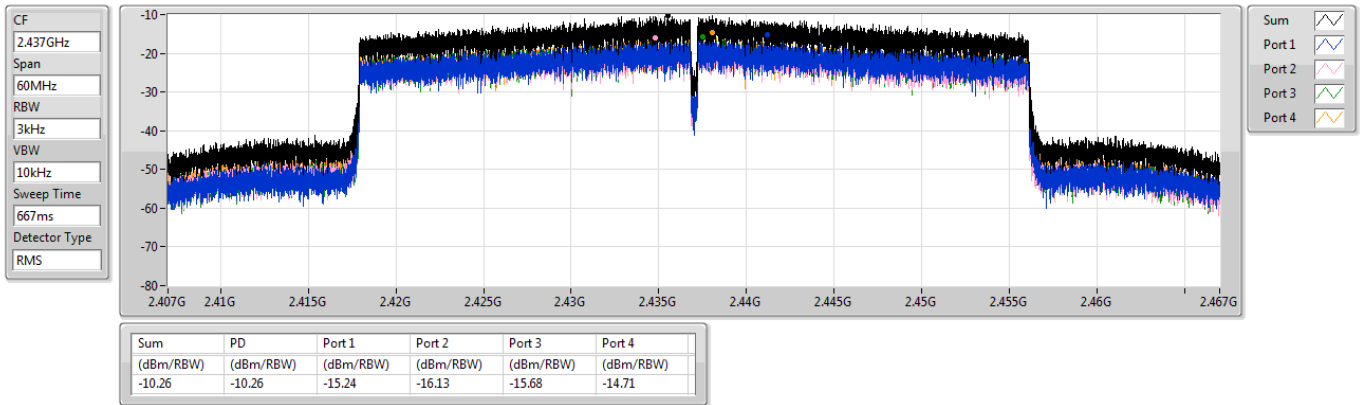
2422MHz



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

PSD

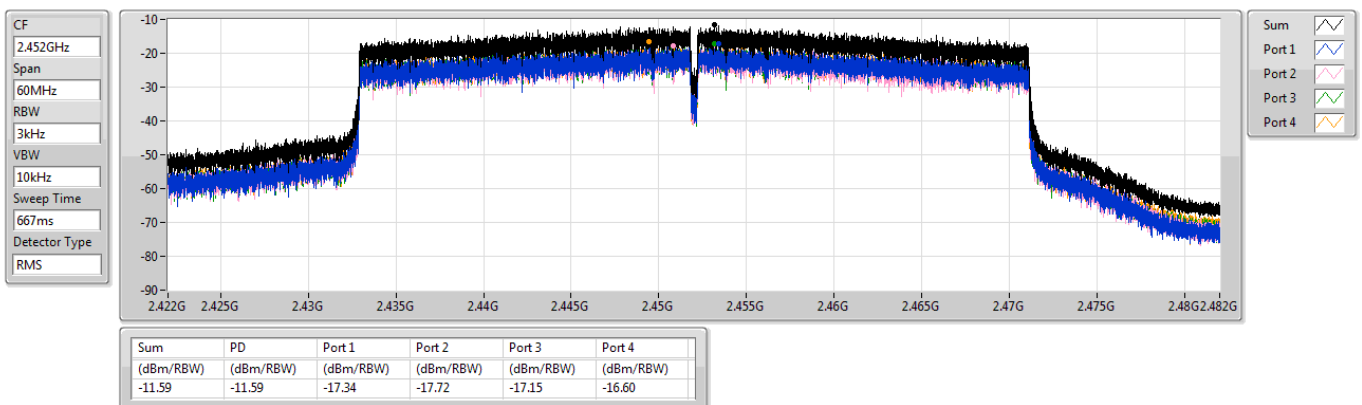
2437MHz



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

PSD

2452MHz





Unwanted Emissions (Below 1GHz)

Modulation	11b	Test Freq. (MHz)	2437																																																																						
Polarization	Horizontal																																																																								
Test By :Brad Wu Temperature(°C):23 Humidity(%):64																																																																									
<table><tr><th></th><th>Freq. MHz</th><th>Emission level dBUV/m</th><th>Limit dBUV/m</th><th>Margin dB</th><th>SA reading dBUV</th><th>Factor dB/m</th><th>Remark</th><th>ANT High cm</th><th>Turn Table deg</th></tr><tr><td>1</td><td>41.25</td><td>25.08</td><td>40.00</td><td>-14.92</td><td>33.70</td><td>-8.62</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>2</td><td>106.34</td><td>27.25</td><td>43.50</td><td>-16.25</td><td>39.59</td><td>-12.34</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>3</td><td>150.38</td><td>28.16</td><td>43.50</td><td>-15.34</td><td>36.93</td><td>-8.77</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>4</td><td>191.36</td><td>28.74</td><td>43.50</td><td>-14.76</td><td>40.13</td><td>-11.39</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>5</td><td>250.12</td><td>31.29</td><td>46.00</td><td>-14.71</td><td>41.30</td><td>-10.01</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>6</td><td>500.47</td><td>36.83</td><td>46.00</td><td>-9.17</td><td>40.02</td><td>-3.19</td><td>Peak</td><td>---</td><td>---</td></tr></table>					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	41.25	25.08	40.00	-14.92	33.70	-8.62	Peak	---	---	2	106.34	27.25	43.50	-16.25	39.59	-12.34	Peak	---	---	3	150.38	28.16	43.50	-15.34	36.93	-8.77	Peak	---	---	4	191.36	28.74	43.50	-14.76	40.13	-11.39	Peak	---	---	5	250.12	31.29	46.00	-14.71	41.30	-10.01	Peak	---	---	6	500.47	36.83	46.00	-9.17	40.02	-3.19	Peak	---	---
	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	41.25	25.08	40.00	-14.92	33.70	-8.62	Peak	---	---																																																																
2	106.34	27.25	43.50	-16.25	39.59	-12.34	Peak	---	---																																																																
3	150.38	28.16	43.50	-15.34	36.93	-8.77	Peak	---	---																																																																
4	191.36	28.74	43.50	-14.76	40.13	-11.39	Peak	---	---																																																																
5	250.12	31.29	46.00	-14.71	41.30	-10.01	Peak	---	---																																																																
6	500.47	36.83	46.00	-9.17	40.02	-3.19	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 into Restricted Frequency Bands

Appendix D

Modulation	11b	Test Freq. (MHz)	2437																																																																						
Polarization	Vertical																																																																								
Test By :Brad Wu Temperature(°C):23 Humidity(%):64																																																																									
<table><tr><th></th><th>Freq. MHz</th><th>Emission level dBUV/m</th><th>Limit dBUV/m</th><th>Margin dB</th><th>SA reading dBUV</th><th>Factor dB/m</th><th>Remark</th><th>ANT High cm</th><th>Turn Table deg</th></tr><tr><td>1</td><td>40.27</td><td>32.91</td><td>40.00</td><td>-7.09</td><td>41.69</td><td>-8.78</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>2</td><td>50.79</td><td>30.69</td><td>40.00</td><td>-9.31</td><td>38.47</td><td>-7.78</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>3</td><td>106.49</td><td>31.22</td><td>43.50</td><td>-12.28</td><td>43.51</td><td>-12.29</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>4</td><td>192.61</td><td>32.85</td><td>43.50</td><td>-10.65</td><td>44.36</td><td>-11.51</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>5</td><td>331.76</td><td>27.42</td><td>46.00</td><td>-18.58</td><td>34.66</td><td>-7.24</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>6</td><td>449.92</td><td>37.56</td><td>46.00</td><td>-8.44</td><td>41.77</td><td>-4.21</td><td>Peak</td><td>---</td><td>---</td></tr></table>					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	40.27	32.91	40.00	-7.09	41.69	-8.78	Peak	---	---	2	50.79	30.69	40.00	-9.31	38.47	-7.78	Peak	---	---	3	106.49	31.22	43.50	-12.28	43.51	-12.29	Peak	---	---	4	192.61	32.85	43.50	-10.65	44.36	-11.51	Peak	---	---	5	331.76	27.42	46.00	-18.58	34.66	-7.24	Peak	---	---	6	449.92	37.56	46.00	-8.44	41.77	-4.21	Peak	---	---
	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	40.27	32.91	40.00	-7.09	41.69	-8.78	Peak	---	---																																																																
2	50.79	30.69	40.00	-9.31	38.47	-7.78	Peak	---	---																																																																
3	106.49	31.22	43.50	-12.28	43.51	-12.29	Peak	---	---																																																																
4	192.61	32.85	43.50	-10.65	44.36	-11.51	Peak	---	---																																																																
5	331.76	27.42	46.00	-18.58	34.66	-7.24	Peak	---	---																																																																
6	449.92	37.56	46.00	-8.44	41.77	-4.21	Peak	---	---																																																																
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV) + Factor* (dB/m) *Factor includes antenna factor , cable loss and amplifier gain Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m). Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.																																																																									

Unwanted Emission (Above 1GHz) for 11b

Modulation	11b	Test Freq. (MHz)	2412
Polarization	Horizontal		
Test By :Paul Lin Temperature(°C):23 Humidity(%):64			
Level (dBUV/m) <			



Modulation	11b	Test Freq. (MHz)	2412
Polarization	Vertical		
Test By :Paul Lin Temperature(°C):23 Humidity(%):64			
Level (dBuV/m) </			



Modulation	11b	Test Freq. (MHz)	2437
Polarization	Horizontal		
Test By :Sean Yu Temperature(°C):23 Humidity(%):64			
Level (dBuV/m)			



Modulation	11b	Test Freq. (MHz)	2437
Polarization	Vertical		
Test By :Sean Yu Temperature(°C):23 Humidity(%):64			
Level (dBuV/m) </			



Modulation	11b	Test Freq. (MHz)	2462
Polarization	Horizontal		
Test By :Paul Lin Temperature(°C):23 Humidity(%):64			
Level (dBuV/m) <			



Modulation	11b	Test Freq. (MHz)	2462
Polarization	Vertical		
Test By :Paul Lin Temperature(°C):23 Humidity(%):64			
Level (dBuV/m) <			

Unwanted Emissions (Above 1GHz) for 11g

Modulation	11g	Test Freq. (MHz)	2412						
Polarization	Horizontal								
Test By :Paul Lin Temperature(°C):23 Humidity(%):64									
Level (dBuV/m) Frequency (MHz)									
	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	48.08	54.00	-5.92	52.62	-4.54	Average	151	61
2	2390.00	71.71	74.00	-2.29	76.25	-4.54	Peak	151	61
3	4824.00	35.34	54.00	-18.66	35.75	-0.41	Average	100	46
4	4824.00	49.85	74.00	-24.15	50.26	-0.41	Peak	100	46
5	12060.00	38.70	54.00	-15.30	32.25	6.45	Average	100	103
6	12060.00	51.18	74.00	-22.82	44.73	6.45	Peak	100	103
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m) *Factor includes antenna factor , cable loss and amplifier gain Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).									



Modulation	11g	Test Freq. (MHz)	2412
Polarization	Vertical		
Test By :Paul Lin Temperature(°C):23 Humidity(%):64			
Level (dBuV/m)			



Modulation	11g	Test Freq. (MHz)	2437
Polarization	Horizontal		
Test By :Paul Lin Temperature(°C):23 Humidity(%):64			
Level (dBuV/m) </			



Modulation	11g	Test Freq. (MHz)	2437
Polarization	Vertical		
Test By :Paul Lin Temperature(°C):23 Humidity(%):64			
Level (dBuV/m) <			



Modulation	11g	Test Freq. (MHz)	2462
Polarization	Horizontal		
Test By :Paul Lin Temperature(°C):23 Humidity(%):64			
Level (dBUV/m)			



Modulation	11g	Test Freq. (MHz)	2462
Polarization	Vertical		
Test By :Paul Lin Temperature(°C):23 Humidity(%):64			
Level (dBUV/m)			

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

Modulation	be EHT20-OFDMA	Test Freq. (MHz)	2412
Polarization	Horizontal		
Test By :Sean Yu Temperature(°C):23 Humidity(%):64			
Level (dBuV/m)			



Modulation	be EHT20-OFDMA	Test Freq. (MHz)	2412
Polarization	Vertical		
Test By :Sean Yu Temperature(°C):23 Humidity(%):64			
Level (dBuV/m)			



Modulation	be EHT20-OFDMA	Test Freq. (MHz)	2437
Polarization	Horizontal		
Test By :Sean Yu Temperature(°C):23 Humidity(%):64			
Level (dBuV/m)			

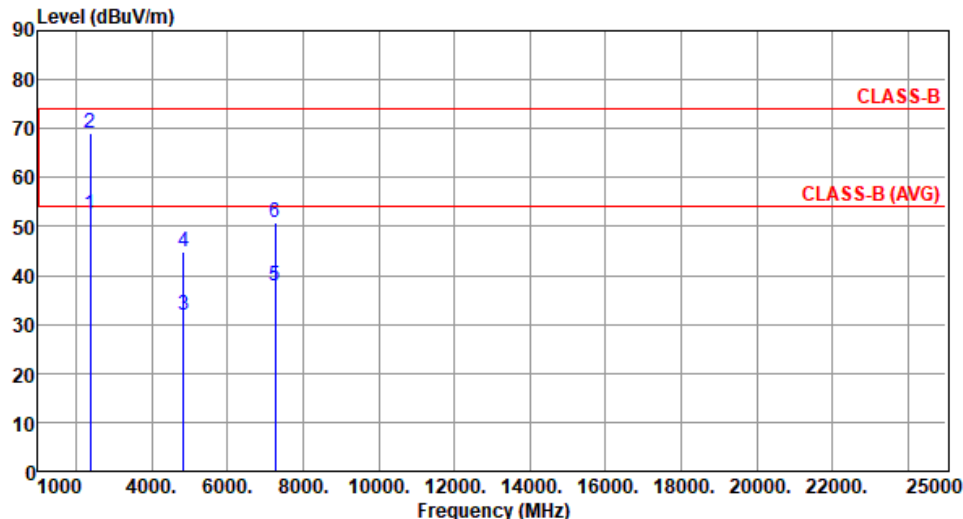
Modulation	be EHT20-OFDMA	Test Freq. (MHz)	2437
Polarization	Vertical		
Test By :Sean Yu Temperature(°C):23 Humidity(%):64			
Level (dBuV/m) <			



Modulation	be EHT20-OFDMA	Test Freq. (MHz)	2462
Polarization	Horizontal		
Test By :Sean Yu Temperature(°C):23 Humidity(%):64			
Level (dBuV/m)			

Modulation	be EHT20-OFDMA	Test Freq. (MHz)	2462
Polarization	Vertical		
Test By :Sean Yu Temperature(°C):23 Humidity(%):64			
Level (dBuV/m) </			

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

Modulation	be EHT40-OFDMA	Test Freq. (MHz)	2422						
Polarization	Horizontal								
Test By :Sean Yu Temperature(°C):23 Humidity(%):64									
Level (dBuV/m)  Frequency (MHz)									
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	52.42	54.00	-1.58	56.96	-4.54	Average	283	49
2	2390.00	69.15	74.00	-4.85	73.69	-4.54	Peak	283	49
3	4844.00	31.72	54.00	-22.28	32.14	-0.42	Average	100	102
4	4844.00	44.96	74.00	-29.04	45.38	-0.42	Peak	100	102
5	7266.00	37.83	54.00	-16.17	32.64	5.19	Average	100	52
6	7266.00	50.97	74.00	-23.03	45.78	5.19	Peak	100	52
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m) *Factor includes antenna factor , cable loss and amplifier gain Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).									



Modulation	be EHT40-OFDMA	Test Freq. (MHz)	2422
Polarization	Vertical		
Test By :Sean Yu Temperature(°C):23 Humidity(%):64			
Level (dBuV/m) </			



Modulation	be EHT40-OFDMA	Test Freq. (MHz)	2437
Polarization	Horizontal		
Test By :Sean Yu Temperature(°C):23 Humidity(%):64			
Level (dBuV/m) </			



Modulation	be EHT40-OFDMA	Test Freq. (MHz)	2437
Polarization	Vertical		
Test By :Sean Yu Temperature(°C):23 Humidity(%):64			
Level (dBuV/m)			



Modulation	be EHT40-OFDMA	Test Freq. (MHz)	2452
Polarization	Horizontal		
Test By :Sean Yu Temperature(°C):23 Humidity(%):64			
Level (dBuV/m) <			



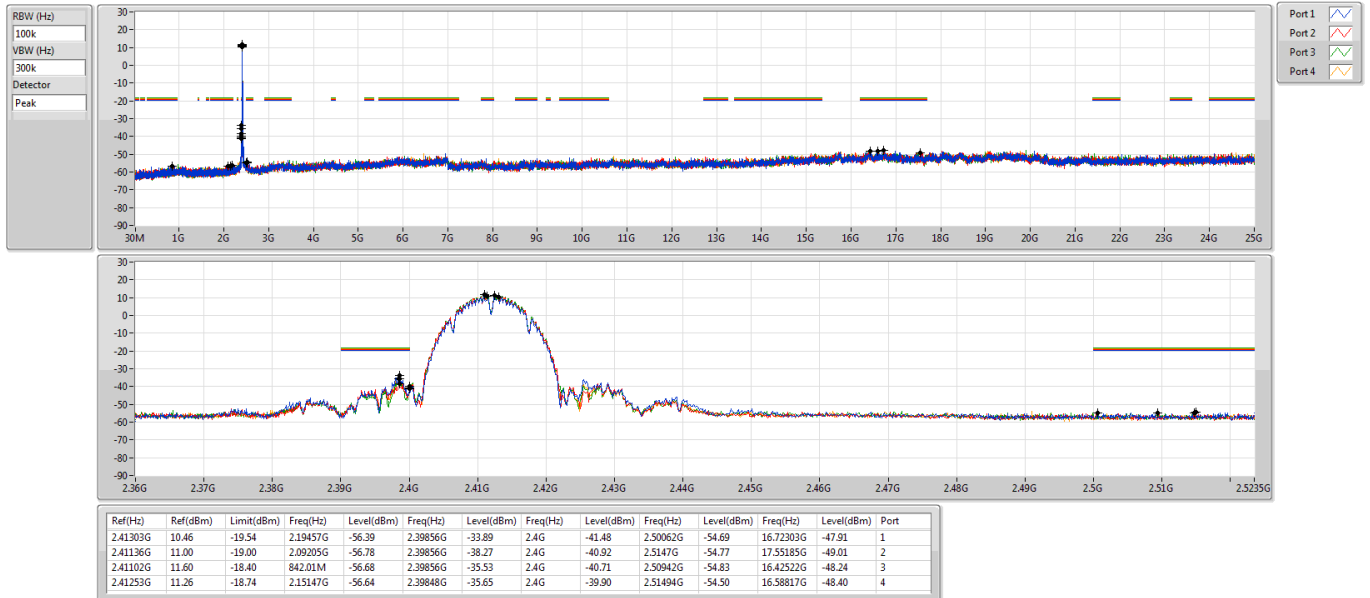
Modulation	be EHT40-OFDMA	Test Freq. (MHz)	2452
Polarization	Vertical		
Test By :Sean Yu Temperature(°C):23 Humidity(%):64			
Level (dBuV/m) <			



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

CSEndB

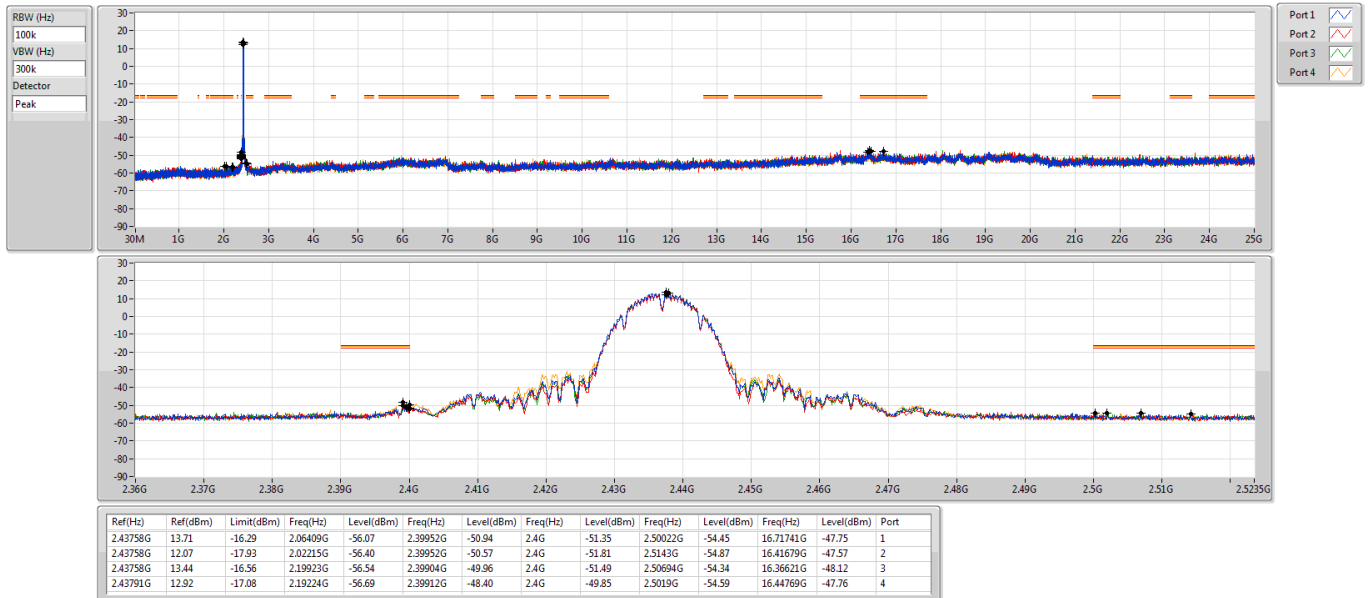
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2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_4TX

CSEndB

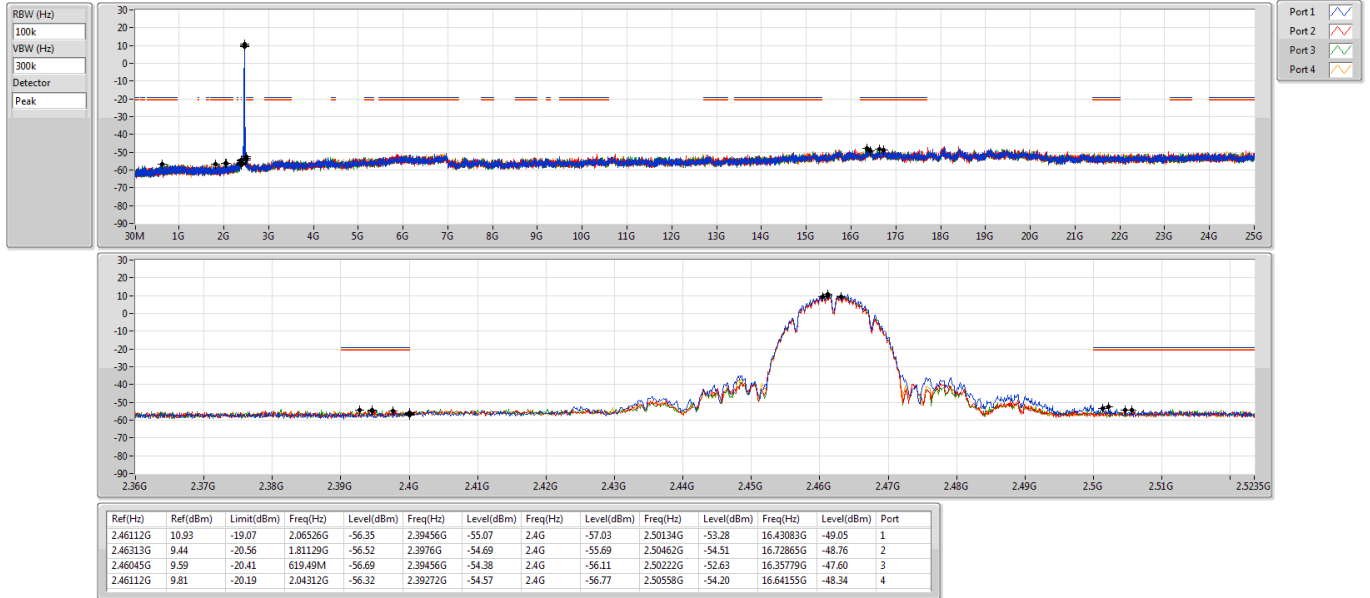
2437MHz



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

CSEndB

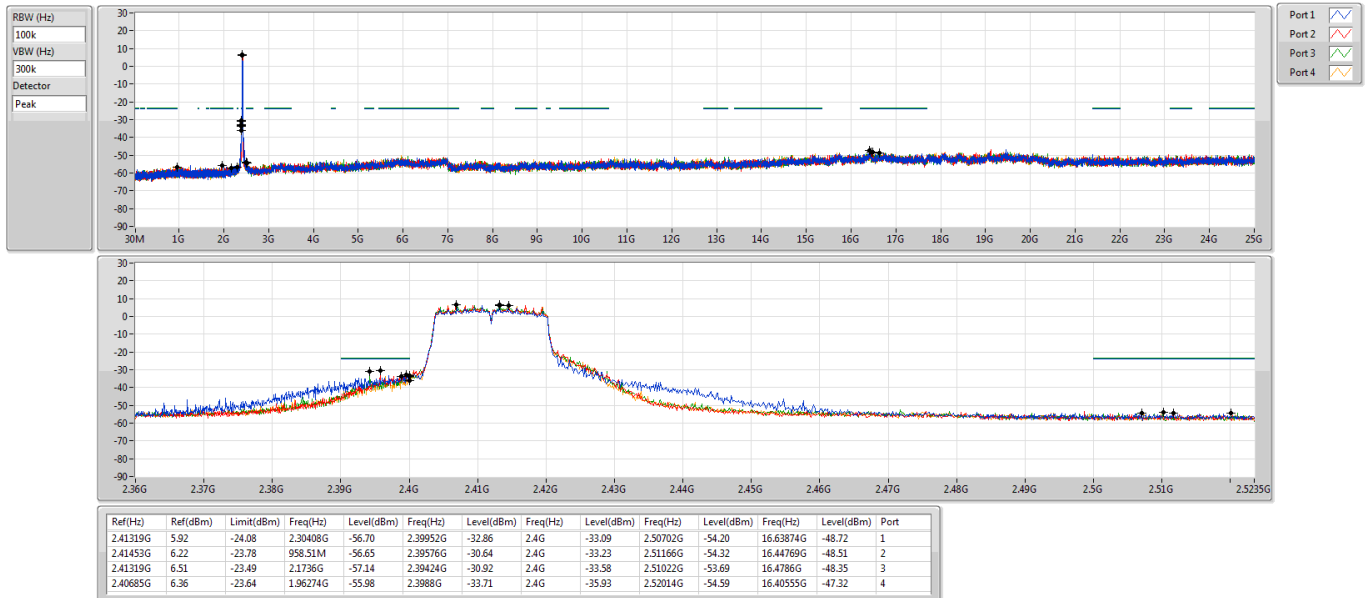
2462MHz



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

CSEndB

2412MHz

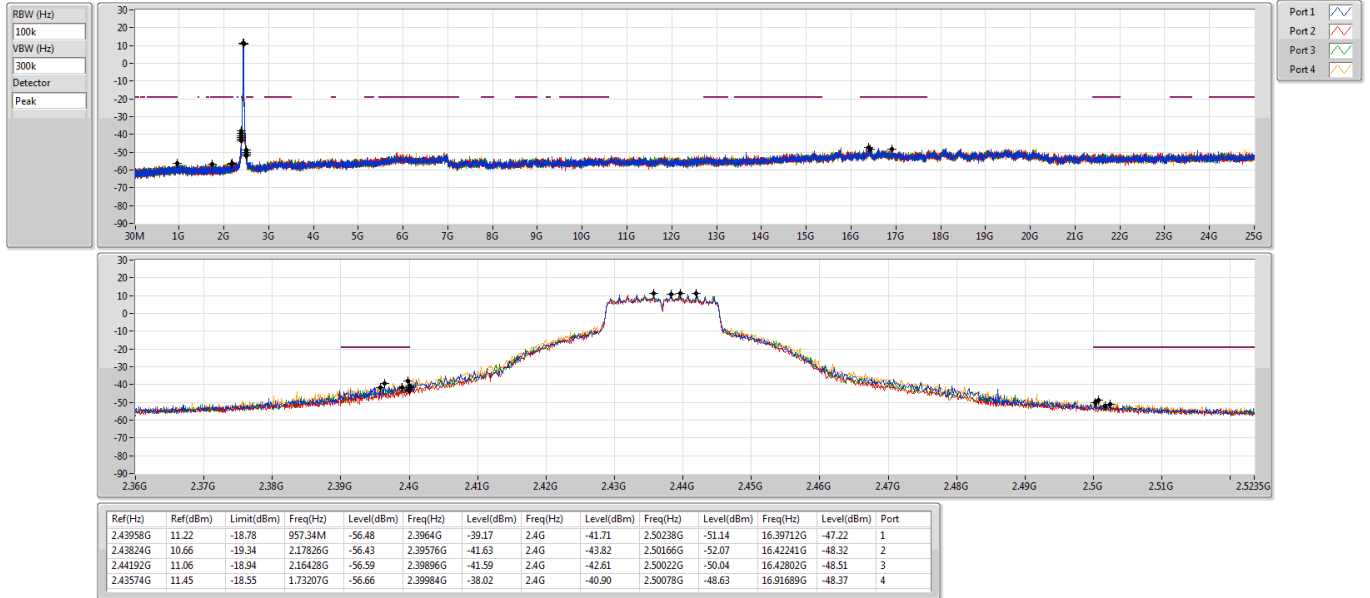




2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_4TX

CSEndB

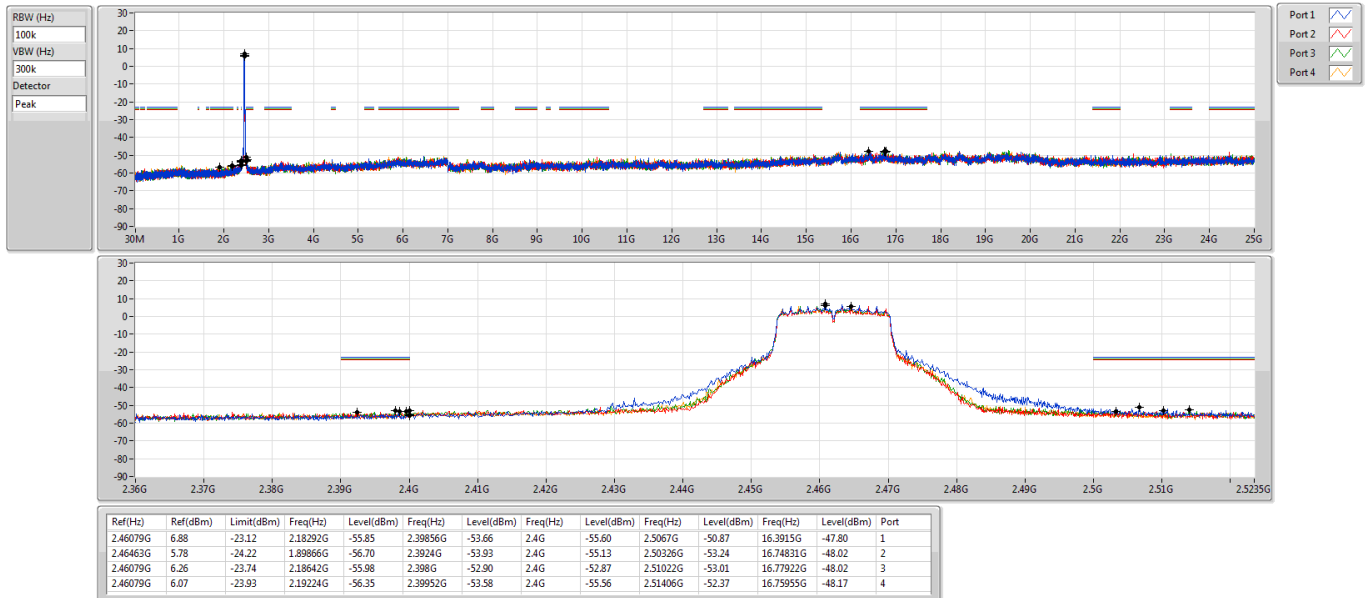
2437MHz



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

CSEndB

2462MHz

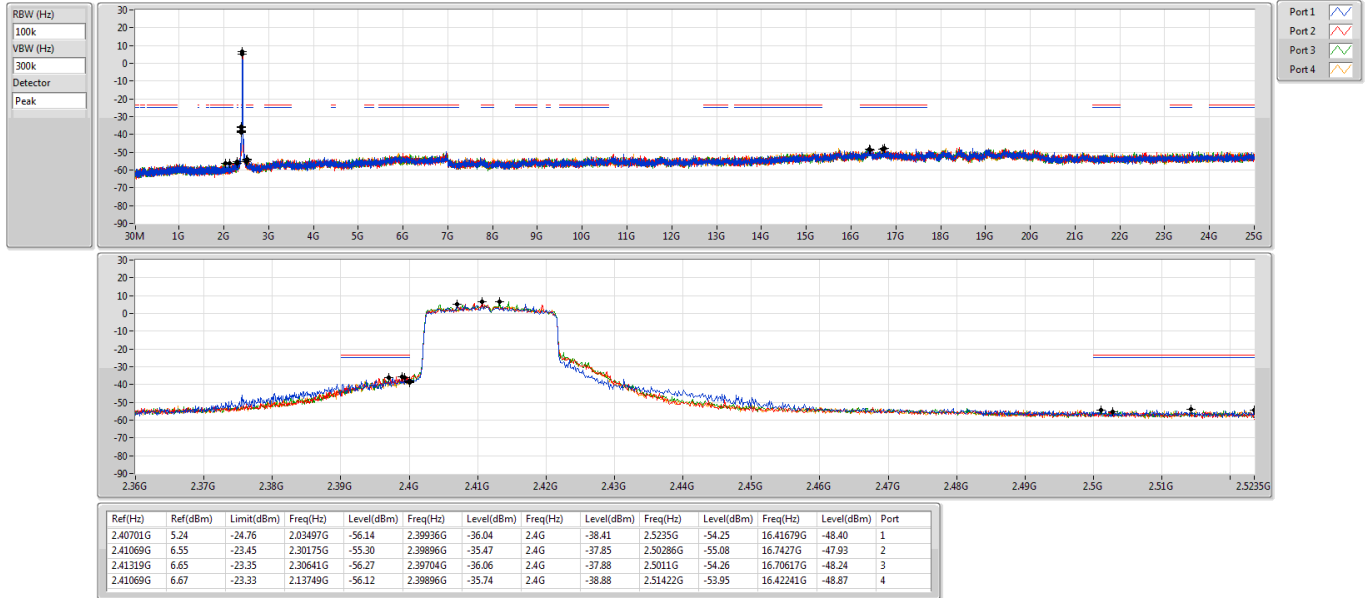




2.4-2.4835GHz_802.11be EHT20_Nss1,(MCS0)_4TX

CSEndB

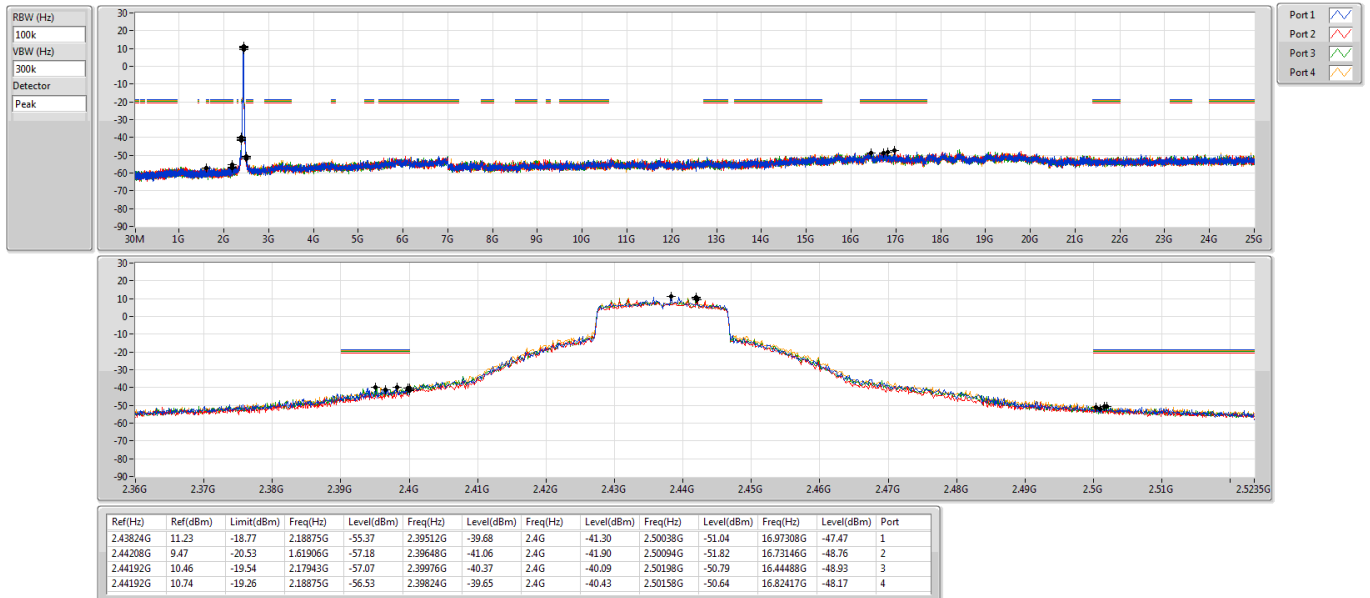
2412MHz



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

CSEndB

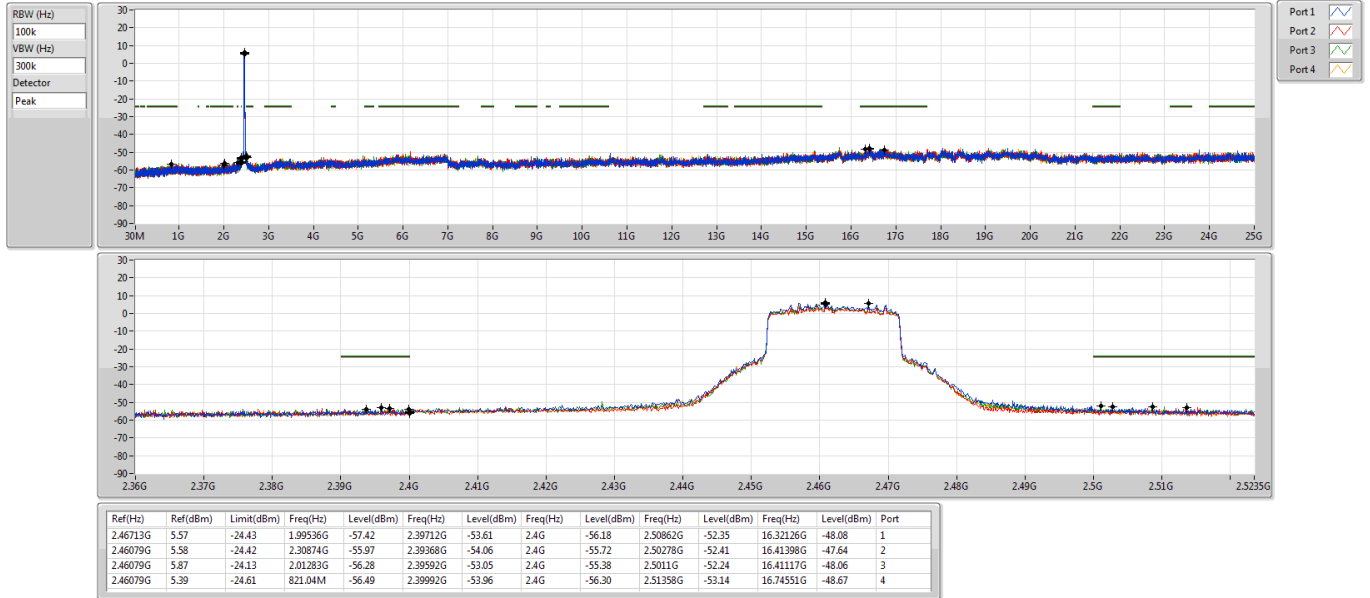
2437MHz



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

CSEndB

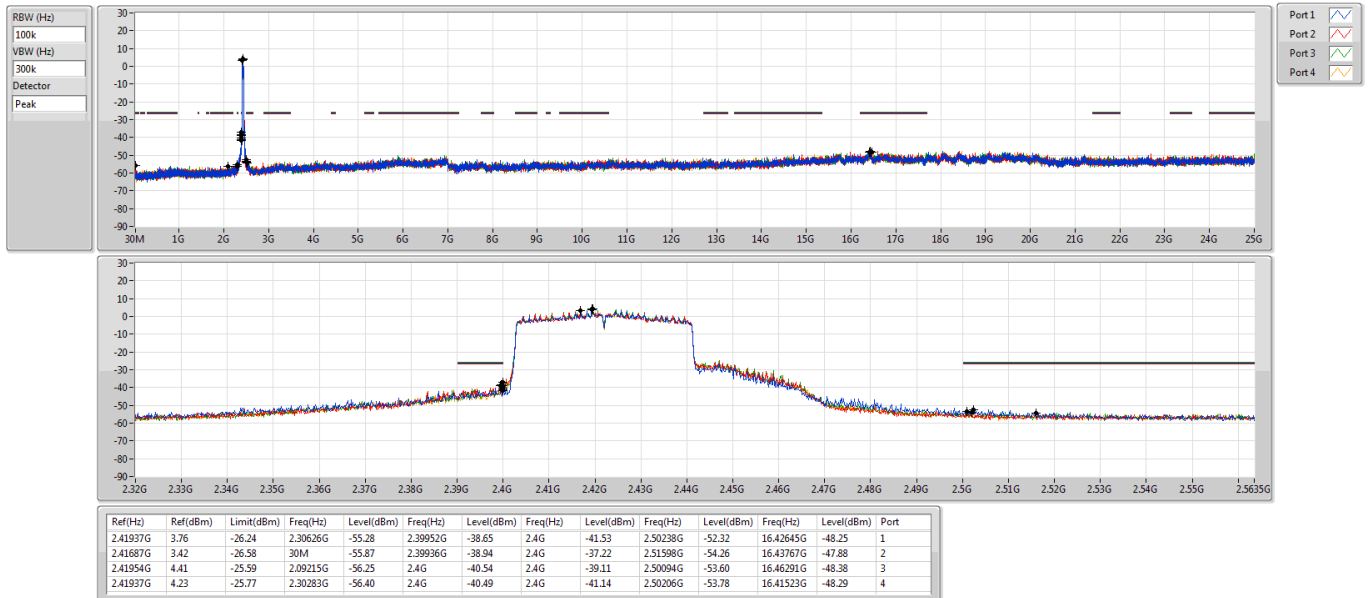
2462MHz



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

CSEndB

2422MHz

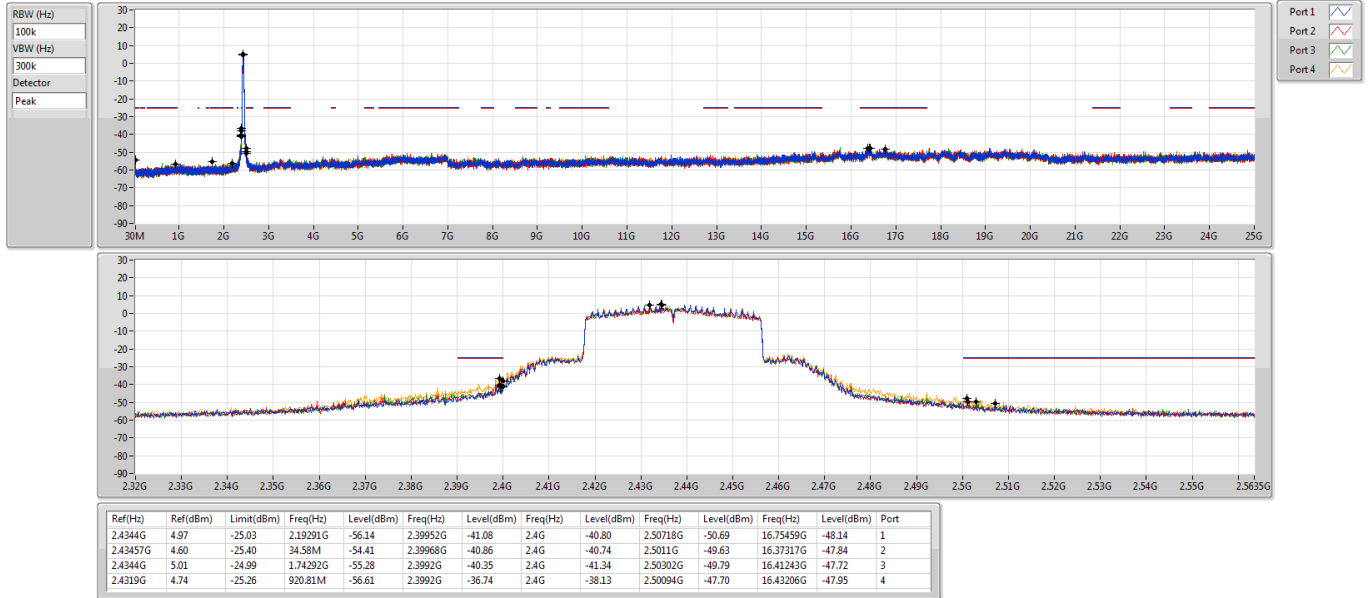




2.4-2.4835GHz_802.11be EHT40_Nss1,(MCS0)_4TX

CSEndB

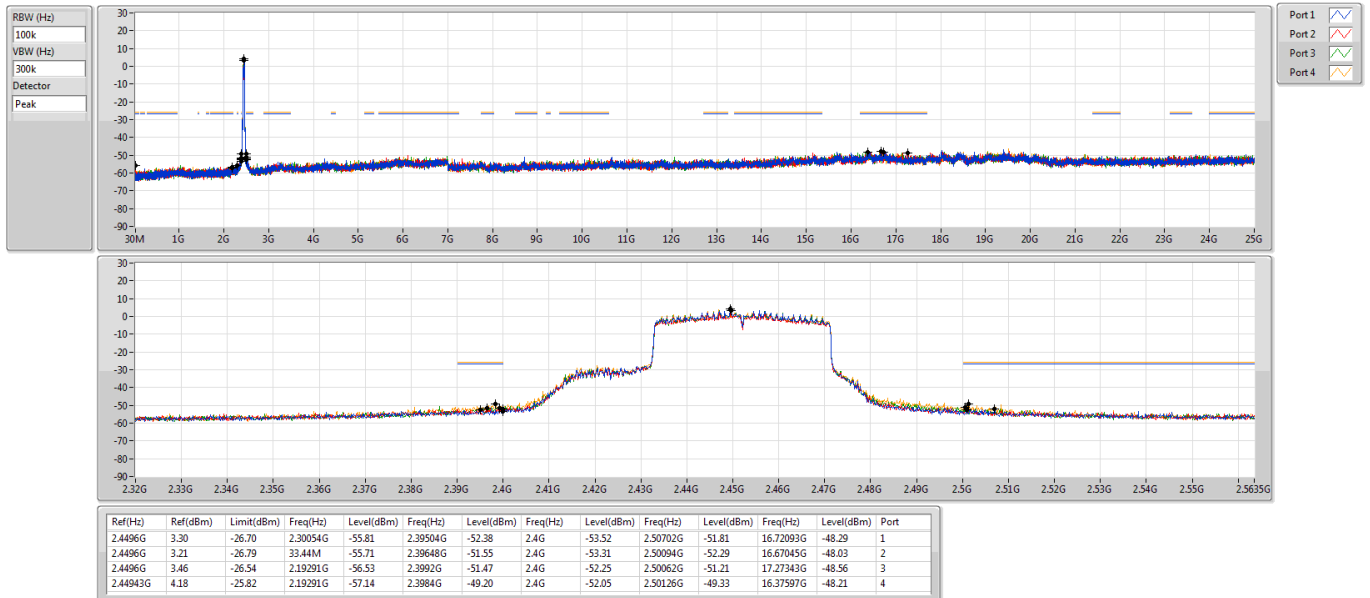
2437MHz



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

CSEndB

2452MHz



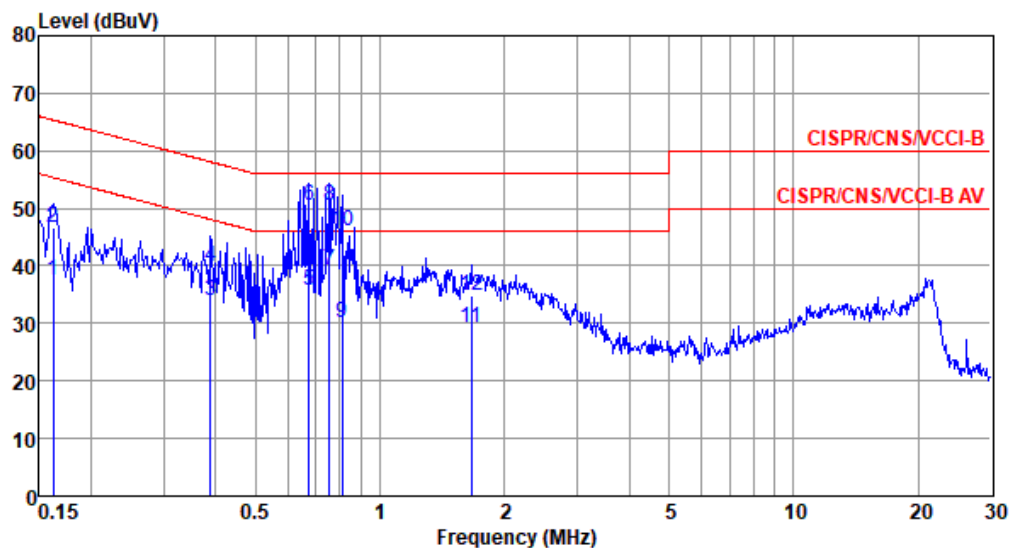


Modulation Mode	11g	Test Freq. (MHz)	2437
Power Phase	Line		

Test by : Joe Liao

Temperature: 24°C

Humidity: 63%



	Freq MHz	Level dBUV	Limit Line dBUV	Over Limit dB	Read Level dBUV	Factor dB	Cable loss dB	Aux dB	Remark
1	0.162	37.42	55.34	-17.92	27.55	9.63	0.06	0.18	Average
2	0.162	46.56	65.34	-18.78	36.69	9.63	0.06	0.18	QP
3	0.389	34.08	48.08	-14.00	24.10	9.62	0.06	0.30	Average
4	0.389	39.87	58.08	-18.21	29.89	9.62	0.06	0.30	QP
5	0.672	35.84	46.00	-10.16	25.80	9.63	0.09	0.32	Average
6	0.672	50.41	56.00	-5.59	40.37	9.63	0.09	0.32	QP
7	0.755	39.24	46.00	-6.76	29.20	9.63	0.09	0.32	Average
8*	0.755	50.52	56.00	-5.48	40.48	9.63	0.09	0.32	QP
9	0.809	30.25	46.00	-15.75	20.20	9.63	0.10	0.32	Average
10	0.809	46.09	56.00	-9.91	36.04	9.63	0.10	0.32	QP
11	1.662	29.25	46.00	-16.75	19.15	9.63	0.12	0.35	Average
12	1.662	34.85	56.00	-21.15	24.75	9.63	0.12	0.35	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	11g	Test Freq. (MHz)	2437																																																																																																																																		
Power Phase	Neutral																																																																																																																																				
Test by : Joe Liao Temperature: 24°C Humidity: 63%																																																																																																																																					
Level (dBuV) Frequency (MHz) <table><tr><th></th><th>Freq MHz</th><th>Level dBuV</th><th>Limit Line dBuV</th><th>Over Limit dB</th><th>Read Level dBuV</th><th>Factor dB</th><th>Cable loss dB</th><th>Aux dB</th><th>Remark</th></tr><tr><td>1</td><td>0.162</td><td>33.01</td><td>55.34</td><td>-22.33</td><td>23.14</td><td>9.63</td><td>0.06</td><td>0.18</td><td>Average</td></tr><tr><td>2</td><td>0.162</td><td>46.12</td><td>65.34</td><td>-19.22</td><td>36.25</td><td>9.63</td><td>0.06</td><td>0.18</td><td>QP</td></tr><tr><td>3</td><td>0.668</td><td>38.58</td><td>46.00</td><td>-7.42</td><td>28.54</td><td>9.63</td><td>0.09</td><td>0.32</td><td>Average</td></tr><tr><td>4</td><td>0.668</td><td>49.29</td><td>56.00</td><td>-6.71</td><td>39.25</td><td>9.63</td><td>0.09</td><td>0.32</td><td>QP</td></tr><tr><td>5</td><td>0.724</td><td>38.15</td><td>46.00</td><td>-7.85</td><td>28.11</td><td>9.63</td><td>0.09</td><td>0.32</td><td>Average</td></tr><tr><td>6</td><td>0.724</td><td>49.61</td><td>56.00</td><td>-6.39</td><td>39.57</td><td>9.63</td><td>0.09</td><td>0.32</td><td>QP</td></tr><tr><td>7</td><td>0.771</td><td>35.32</td><td>46.00</td><td>-10.68</td><td>25.27</td><td>9.63</td><td>0.10</td><td>0.32</td><td>Average</td></tr><tr><td>8*</td><td>0.771</td><td>50.82</td><td>56.00</td><td>-5.18</td><td>40.77</td><td>9.63</td><td>0.10</td><td>0.32</td><td>QP</td></tr><tr><td>9</td><td>1.172</td><td>33.26</td><td>46.00</td><td>-12.74</td><td>23.18</td><td>9.63</td><td>0.11</td><td>0.34</td><td>Average</td></tr><tr><td>10</td><td>1.172</td><td>38.48</td><td>56.00</td><td>-17.52</td><td>28.40</td><td>9.63</td><td>0.11</td><td>0.34</td><td>QP</td></tr><tr><td>11</td><td>1.381</td><td>33.25</td><td>46.00</td><td>-12.75</td><td>23.16</td><td>9.63</td><td>0.12</td><td>0.34</td><td>Average</td></tr><tr><td>12</td><td>1.381</td><td>38.30</td><td>56.00</td><td>-17.70</td><td>28.21</td><td>9.63</td><td>0.12</td><td>0.34</td><td>QP</td></tr></table>					Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	Factor dB	Cable loss dB	Aux dB	Remark	1	0.162	33.01	55.34	-22.33	23.14	9.63	0.06	0.18	Average	2	0.162	46.12	65.34	-19.22	36.25	9.63	0.06	0.18	QP	3	0.668	38.58	46.00	-7.42	28.54	9.63	0.09	0.32	Average	4	0.668	49.29	56.00	-6.71	39.25	9.63	0.09	0.32	QP	5	0.724	38.15	46.00	-7.85	28.11	9.63	0.09	0.32	Average	6	0.724	49.61	56.00	-6.39	39.57	9.63	0.09	0.32	QP	7	0.771	35.32	46.00	-10.68	25.27	9.63	0.10	0.32	Average	8*	0.771	50.82	56.00	-5.18	40.77	9.63	0.10	0.32	QP	9	1.172	33.26	46.00	-12.74	23.18	9.63	0.11	0.34	Average	10	1.172	38.48	56.00	-17.52	28.40	9.63	0.11	0.34	QP	11	1.381	33.25	46.00	-12.75	23.16	9.63	0.12	0.34	Average	12	1.381	38.30	56.00	-17.70	28.21	9.63	0.12	0.34	QP
	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	Factor dB	Cable loss dB	Aux dB	Remark																																																																																																																												
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Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB) + Aux (dB). 2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).																																																																																																																																					