

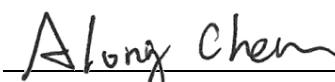
FCC Test Report

FCC ID : I88EE6601-00
Equipment : Tri-Band Wireless BE19000 10G Ethernet VoIP Gateway with SFP+
Model No. : EE6601-00
Multiple Listing : Refer to item 1.1.1 for more details
Brand Name : ZYXEL
Applicant : Zyxel Communications Corporation
Address : No.2 Industry East RD. IX, Hsinchu Science Park, Hsinchu 30075, Taiwan
Standard : 47 CFR FCC Part 15.247
Received Date : Apr. 08, 2024
Tested Date : Apr. 25 ~ May 15, 2024

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

Reviewed by:

Approved by:


Along Chen / Assistant Manager

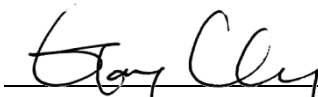

Gary Chang / Manager

Table of Contents

1	GENERAL DESCRIPTION	5
1.1	Information.....	5
1.2	Local Support Equipment List	11
1.3	Test Setup Chart	11
1.4	The Equipment List	12
1.5	Test Standards	13
1.6	Reference Guidance	13
1.7	Deviation from Test Standard and Measurement Procedure.....	13
1.8	Measurement Uncertainty	13
2	TEST CONFIGURATION.....	14
2.1	Testing Facility	14
2.2	The Worst Test Modes and Channel Details	14
3	TRANSMITTER TEST RESULTS	15
3.1	6dB and Occupied Bandwidth.....	15
3.2	Conducted Output Power	16
3.3	Power Spectral Density	17
3.4	Unwanted Emissions into Restricted Frequency Bands	18
3.5	Emissions in Non-Restricted Frequency Bands.....	20
3.6	AC Power Line Conducted Emissions	21
4	TEST LABORATORY INFORMATION	22
Appendix A. 6dB and Occupied Bandwidth		
Appendix B. Conducted Output Power		
Appendix C. Power Spectral Density		
Appendix D. Unwanted Emissions into Restricted Frequency Bands		
Appendix E. Emissions in Non-Restricted Frequency Bands		
Appendix F. AC Power Line Conducted Emissions		

Release Record

Report No.	Version	Description	Issued Date
FR440801AC	Rev. 01	Initial issue	Jul. 02, 2024

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	AC Power Line Conducted Emission	[dBuV]: 0.348MHz 31.22 (Margin -17.78dB) - AV	Pass
15.247(d) 15.209	Unwanted Emissions	[dBuV/m at 3m]: 2390.00MHz 53.88 (Margin -0.12dB) - AV [dBuV/m at 3m]: 2483.50MHz 73.88 (Margin -0.12dB) - PK	Pass
15.247(b)(3)	Conducted Output Power	Non-beamforming mode Max Power [dBm]: 29.70 Beamforming mode Max Power [dBm]: 24.40	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 Product Details

The following models are provided to this EUT.

Model Name	Product Name	VOIP	SFP+ cage
EE6601-00	Tri-Band Wireless BE19000 10G Ethernet VoIP Gateway with SFP+	V	V
EE6601-01	Tri-Band Wireless BE19000 10G Ethernet VoIP Gateway	V	X
EE6600-00	Tri-Band Wireless BE19000 10G Ethernet Gateway with SFP+	X	V
EE6600-01	Tri-Band Wireless BE19000 10G Ethernet Gateway	X	X
† The above models, model EE6601-00 was selected as a representative one for the final test and only its data was recorded in this report.			

1.1.2 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	ac (VHT20)	2412-2462	1-11 [11]	4	MCS 0-9
2400-2483.5	ac (VHT40)	2422-2452	3-9 [7]	4	MCS 0-9
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: DBPSK, DQPSK, CCK modulation BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM and 4096QAM modulation.					

1.1.3 Configuration of Equipment under Test (EUT)

Power Supply Type	12Vdc from adapter	
Beamforming	☒ Support	☐ Not support
RU Configuration	☒ Full RU	☐ Partial RU

1.1.4 Chip and Firmware Version

CPU	Model: BCM4916
Wi-Fi 2.4GHz Chip	Model: BCM6726
Wi-Fi 5GHz Chip	Model: BCM6726
Wi-Fi 6GHz Chip	Model: BCM67263
FW Version	V5.19(ACKR.0)b4_20240523

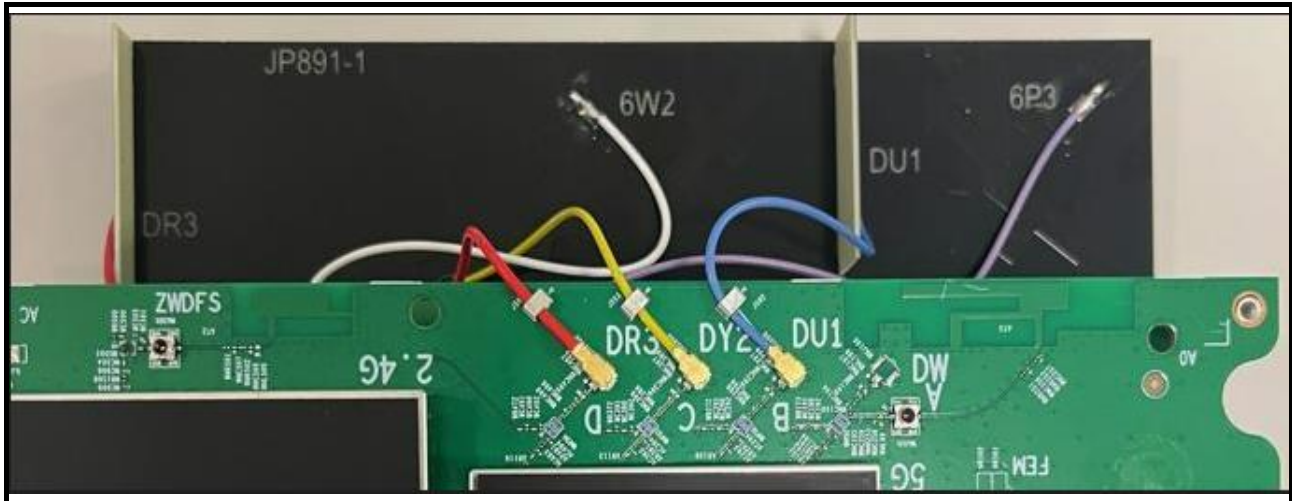
1.1.5 Accessories

Accessories		
No.	Equipment	Description
1	AC adapter	Brand: FRECOM Model: F42L1-120350SPA Power Rating: I/P: 100-240Vac, 50/60Hz, 1.4A O/P: 12.0Vdc, 3.5A, 42.0W Power line: 1.5m non-shielded without core
2	RJ45 cable	1.5m non-shielded without core

1.1.6 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
DW	Aristotle	56-001-000553Z	Dipole	Micro Coaxial Switch	2.24	3.69	3.42	4.29	3.68
DU1				UFL	2.33	4.17	3.35	4.86	3.58
DY2				UFL	2.21	2.87	2.27	4.18	2.91
DR3				UFL	2.08	4.15	3.46	4.89	4.15

1.1.7 Antenna Location

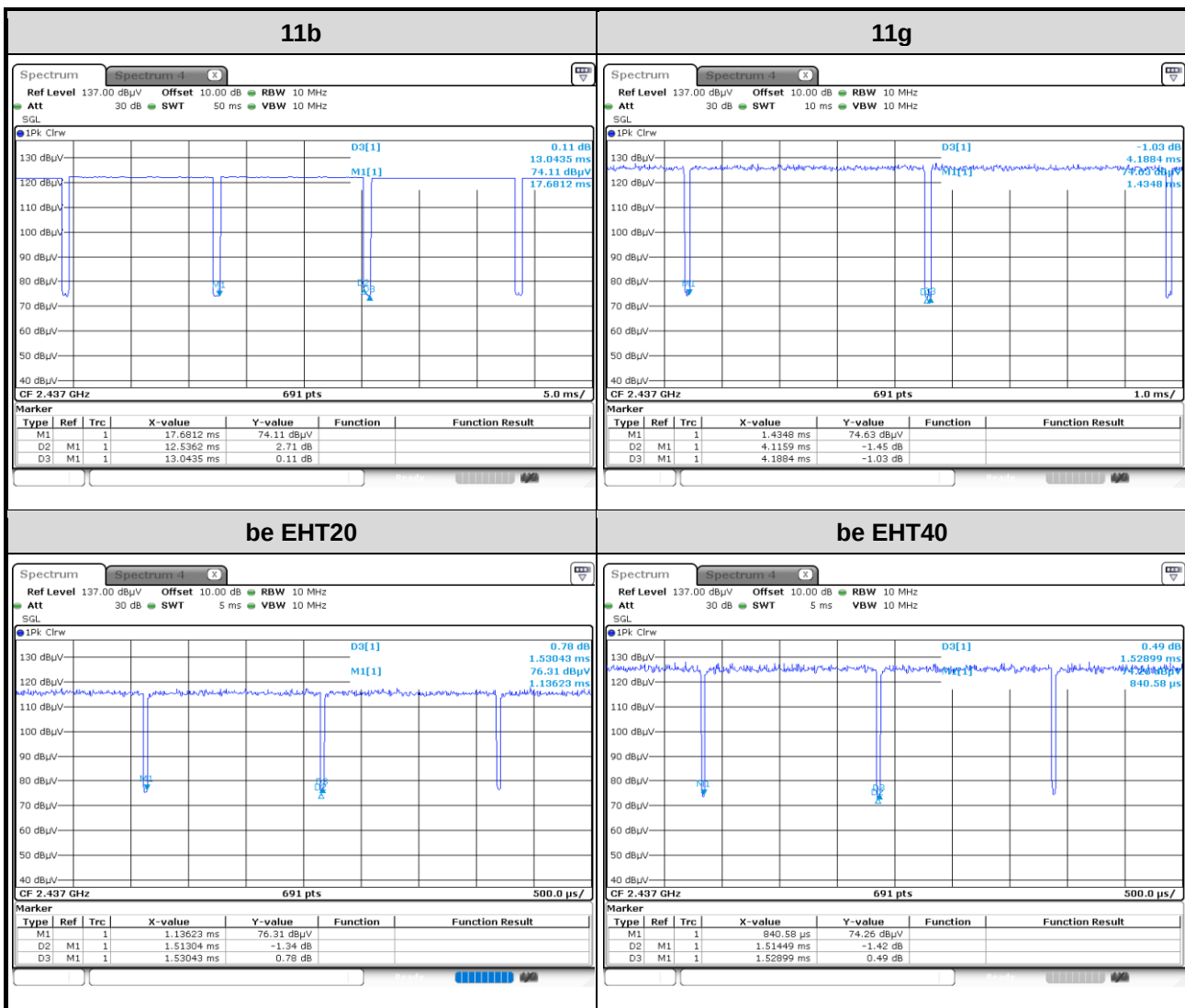


1.1.8 Channel List

Frequency band (MHz)		2400~2483.5	
802.11 b / g / n HT20 / ac VHT20 / ax HE20 / be EHT20		802.11n HT40 / ac VHT40 / 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	---	---

1.1.9 Test Tool and Duty Cycle

Test Tool	accessMtool, V3.3.0.6		
Duty Cycle and Duty Factor	Mode	Duty Cycle (%)	Duty Factor (dB)
	11b	96.11%	0.17
	11g	98.27%	0.08
	be EHT20	98.86%	0.05
	be EHT40	99.05%	0.04



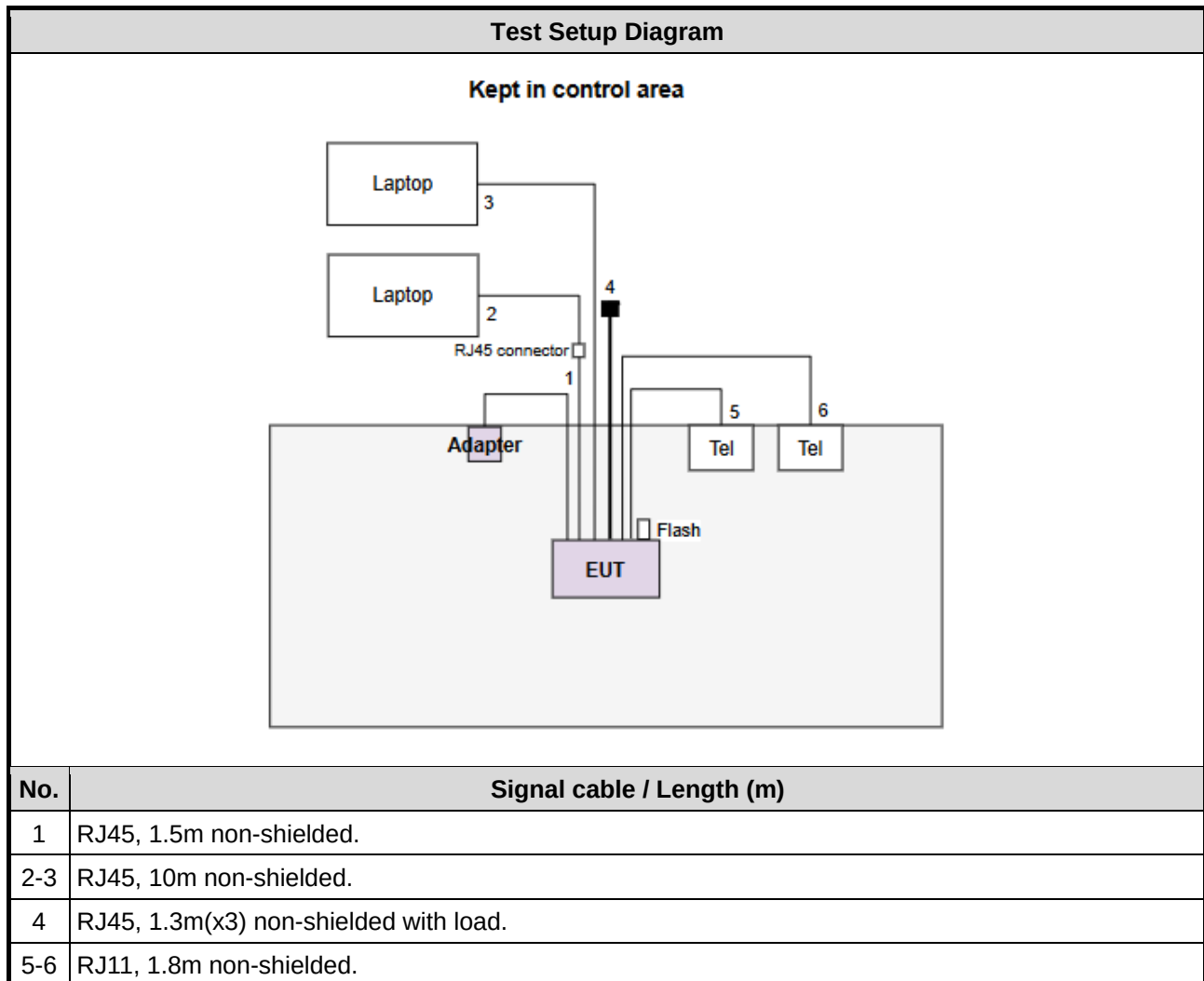
1.1.10 Power Index of Test Tool

Modulation Mode	Test Frequency (MHz)	Power Index
11b	2412	88
11b	2437	94
11b	2462	92
11g	2412	86
11g	2437	94
11g	2462	78
be EHT20	2412	78
be EHT20	2437	92
be EHT20	2462	76
be EHT40	2422	74
be EHT40	2437	74
be EHT40	2452	70

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 3440	DoC	---
3	USB 3.0 flash	Transcend	JetFlash 700	---	---
4	Telephone	HTT	HTT-806	---	---
5	Telephone	ISITO	IS-333	---	---
6	RJ45 Load	ICC	---	---	---

1.3 Test Setup Chart



1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Tested Date	May 06, 2024				
Instrument	Brand	Model No.	Serial No.	Calibration Date	Calibration Until
Receiver	R&S	ESR3	101658	Feb. 23, 2024	Feb. 22, 2025
LISN	R&S	ENV216	101579	May 09, 2023	May 08, 2024
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Oct. 11, 2023	Oct. 10, 2024
LISN (Support Unit)	SCHWARZBECK	Schwarzbeck 8127	8127667	Jan. 10, 2024	Jan. 09, 2025
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 chamber3 / (03CH03-WS)				
Tested Date	Apr. 25 ~ May 02, 2024				
Instrument	Brand	Model No.	Serial No.	Calibration Date	Calibration Until
Receiver	R&S	ESR3	101657	Mar. 05, 2024	Mar. 04, 2025
Spectrum Analyzer	R&S	FSV40	101499	Apr. 02, 2024	Apr. 01, 2025
Loop Antenna	R&S	HFH2-Z2	100330	Oct. 31, 2023	Oct. 30, 2024
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-685	Jul. 04, 2023	Jul. 03, 2024
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1206	Dec. 14, 2023	Dec. 13, 2024
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Oct. 30, 2023	Oct. 29, 2024
Preamplifier	EMC	EMC02325	980187	Jul. 10, 2023	Jul. 09, 2024
Preamplifier	EMC	EMC118A45SE	980897	Aug. 01, 2023	Jul. 31, 2024
Preamplifier	EMC	EMC184045SE	980903	Jul. 17, 2023	Jul. 16, 2024
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Oct. 03, 2023	Oct. 02, 2024
LF cable-0.8M	EMC	EMC8D-NM-NM-800	EMC8D-NM-NM-800-001	Sep. 22, 2023	Sep. 21, 2024
LF cable-3M	EMC	EMC8D-NM-NM-3000	131103	Sep. 22, 2023	Sep. 21, 2024
LF cable-13M	EMC	EMC8D-NM-NM-13000	131104	Sep. 22, 2023	Sep. 21, 2024
RF cable-3M	HUBER+SUHNER	SUCOFLEX104	MY22620/4	Sep. 22, 2023	Sep. 21, 2024
RF cable-8M	EMC	EMC104-SM-SM-8000	181107	Sep. 22, 2023	Sep. 21, 2024
HIGHPASS FILTER	WI	WHK3.1-18G-10SS	43	Sep. 27, 2023	Sep. 26, 2024
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Attenuator	Pasternack	PE7005-10	10-3	Sep. 27, 2023	Sep. 26, 2024
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Tested Date	May 02 ~ May 15, 2024				
Instrument	Brand	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101910	Apr. 18, 2024	Apr. 17, 2025
Spectrum Analyzer	R&S	FSV3044	101516	Jun. 27, 2023	Jun. 26, 2024
Power Meter	Anritsu	ML2495A	1241002	Nov. 21, 2023	Nov. 20, 2024
Power Sensor	Anritsu	MA2411B	1207366	Nov. 21, 2023	Nov. 20, 2024
Attenuator	Pasternack	PE7005-10	10-2	Oct. 05, 2023	Oct. 04, 2024
Measurement Software	Sporton	SENSE-15247_DTS	V5.11	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

1.5 Test Standards

47 CFR FCC Part 15.247
ANSI C63.10-2013

1.6 Reference Guidance

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

1.7 Deviation from Test Standard and Measurement Procedure

None

1.8 Measurement Uncertainty

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

Measurement Uncertainty	
Parameters	Uncertainty
Bandwidth	± 34.130 Hz
Conducted power	± 0.808 dB
Power density	± 0.583 dB
Conducted emission	± 2.715 dB
AC conducted emission	± 2.92 dB
Unwanted Emission ≤ 1 GHz	± 3.96 dB
Unwanted Emission > 1 GHz	± 4.51 dB

2 Test Configuration

2.1 Testing Facility

Test Laboratory	International Certification Corporation
Test Site	CO01-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.)
Test Site	03CH03-WS
Address of Test Site	No.14-1, Lane 19, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

- FCC Designation No.: TW0009
- FCC site registration No.: 207696
- ISSED#: 10807C
- 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	1 Mbps	---
Unwanted Emissions ≤ 1GHz	11b	2437	1 Mbps	---
Unwanted Emissions >1GHz	11b 11g be EHT20 be EHT40	2412 / 2437 / 2462	1 Mbps	---
Conducted Output Power		2412 / 2437 / 2462	6 Mbps	
6dB bandwidth		2412 / 2437 / 2462	MCS 0	
Power spectral density		2422 / 2437 / 2452	MCS 0	
Beamforming mode				
Conducted Output Power	be EHT20 be EHT40	2412 / 2437 / 2462 2422 / 2437 / 2452	MCS 0 MCS 0	---
NOTE:				
1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The Z-plane results were found as the worst case and were shown in this report.				
2. Beamforming mode is calculated not measured. The calculation method is conducted power of non-beamforming – (Directional gain - max gain of single antenna).				

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

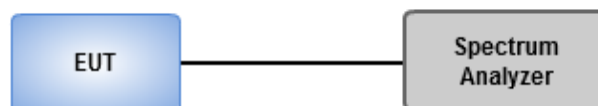
6dB Bandwidth

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	24-25°C / 64-66%	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 $\leq 6\text{dBi}$, 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	24-25°C / 64-66%	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.

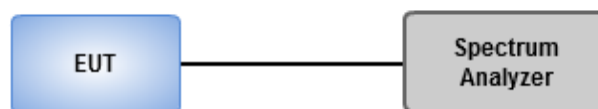
Average PSD, duty cycle $\geq 98\%$

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	24-25°C / 64-66%	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:
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

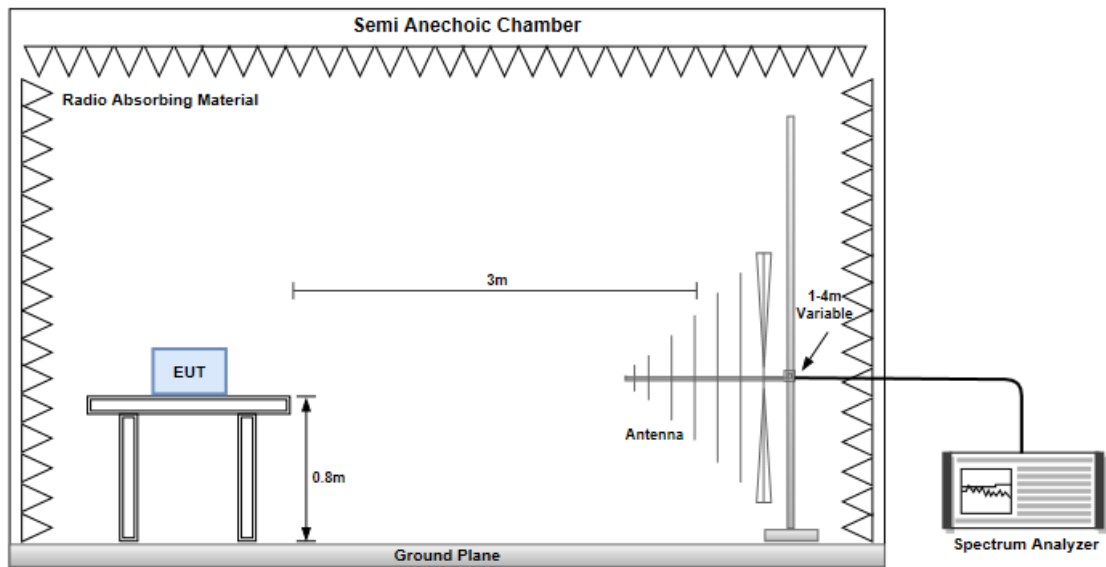
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

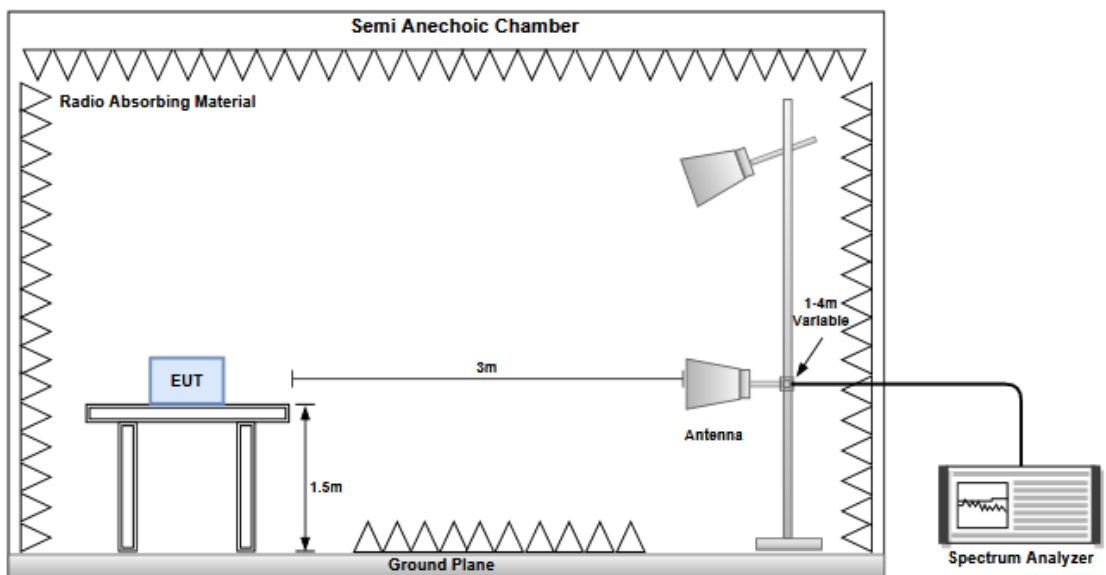
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

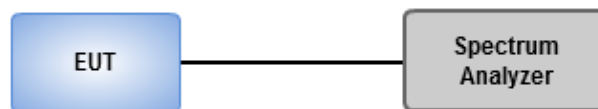
Reference level measurement

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	24-25°C / 64-66%	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

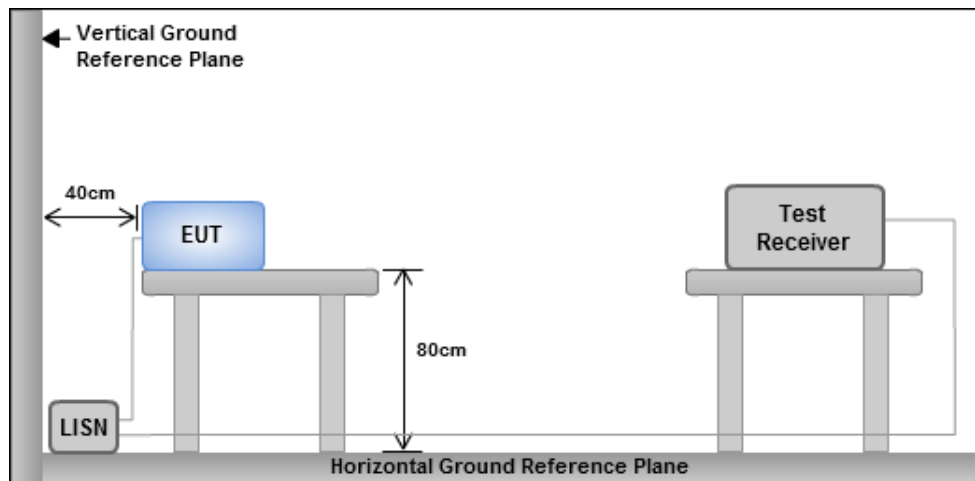
Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

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==

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	7.525M	10.244M	10M2G1D	7.025M	10.148M
802.11g_Nss1,(6Mbps)_4TX	16.35M	17.24M	17M2D1D	16.3M	16.962M
802.11be EHT20_Nss1,(MCS0)_4TX	18.975M	19.179M	19M2D1D	18.85M	19.101M
802.11be EHT40_Nss1,(MCS0)_4TX	37.95M	37.862M	37M9D1D	37.65M	37.752M

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

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

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11b_Nss1,(1Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	7.05M	10.227M	7.05M	10.216M	7.025M	10.231M	7.05M	10.205M
2437MHz	Pass	500k	7.05M	10.173M	7.025M	10.148M	7.025M	10.188M	7.05M	10.168M
2462MHz	Pass	500k	7.05M	10.204M	7.525M	10.23M	7.475M	10.244M	7.05M	10.197M
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	16.35M	17.194M	16.325M	17.143M	16.3M	17.131M	16.35M	17.108M
2437MHz	Pass	500k	16.325M	16.98M	16.325M	16.975M	16.325M	16.962M	16.35M	16.987M
2462MHz	Pass	500k	16.325M	17.24M	16.35M	17.194M	16.3M	17.18M	16.35M	17.146M
802.11be EHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	18.975M	19.147M	18.85M	19.166M	18.85M	19.163M	18.95M	19.137M
2437MHz	Pass	500k	18.925M	19.113M	18.85M	19.126M	18.875M	19.114M	18.9M	19.101M
2462MHz	Pass	500k	18.925M	19.179M	18.925M	19.173M	18.9M	19.167M	18.9M	19.177M
802.11be EHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	37.85M	37.831M	37.65M	37.837M	37.75M	37.862M	37.65M	37.831M
2437MHz	Pass	500k	37.75M	37.752M	37.75M	37.779M	37.9M	37.782M	37.8M	37.759M
2452MHz	Pass	500k	37.95M	37.842M	37.65M	37.814M	37.7M	37.825M	37.8M	37.832M

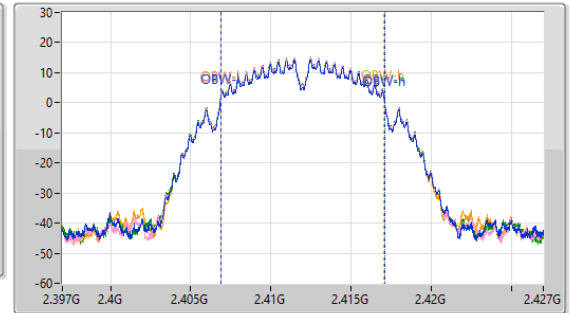
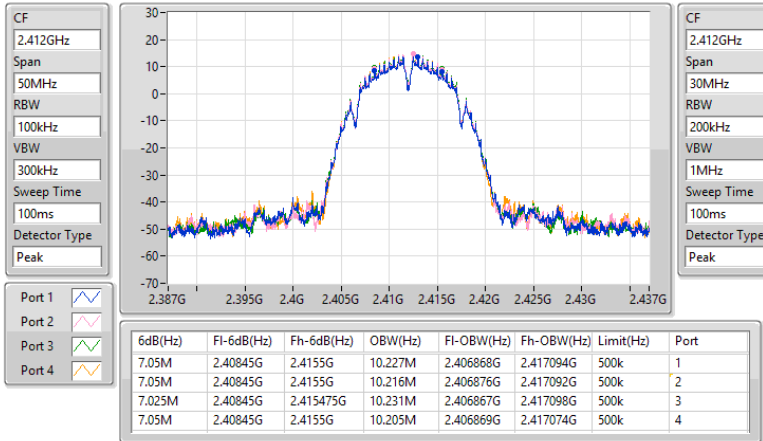
Port X-N dB = Port X 6dB down bandwidth;

Port X-OBW = Port X 99% occupied bandwidth

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

EBW

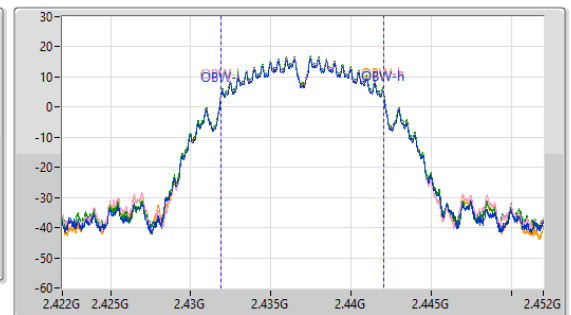
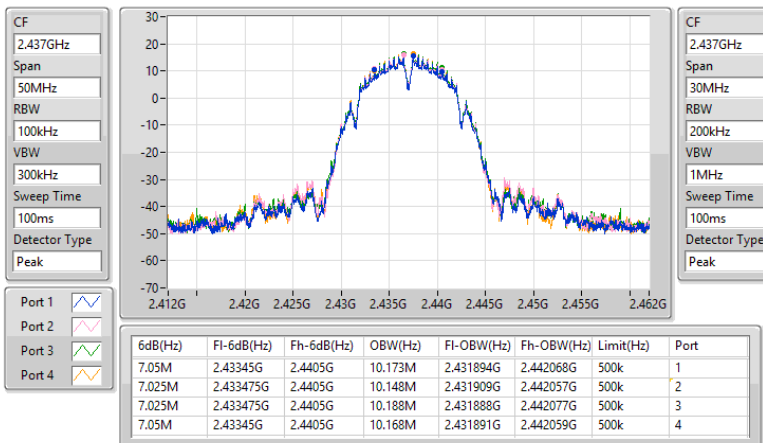
2412MHz



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

EBW

2437MHz

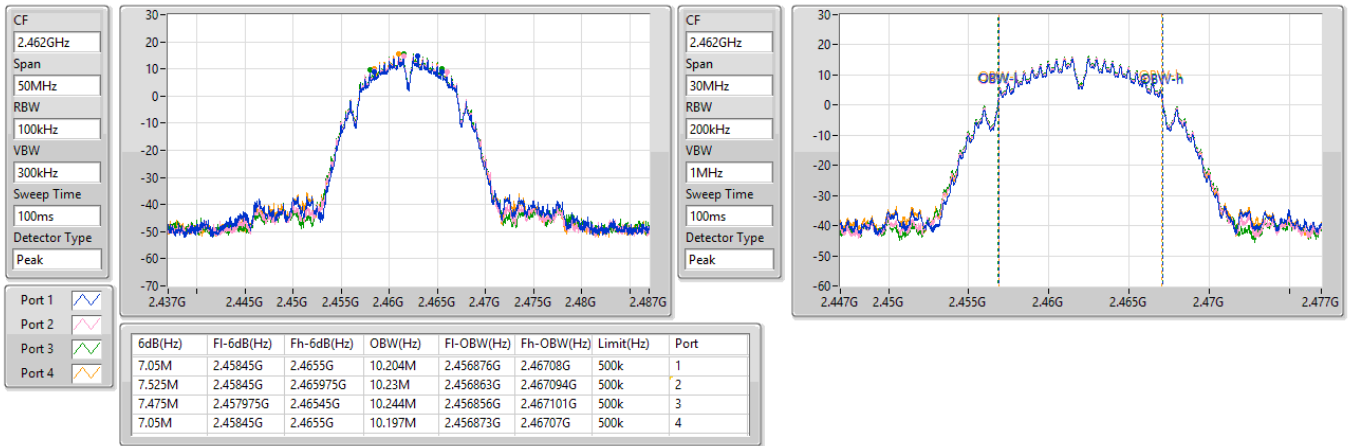




2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_4TX

EBW

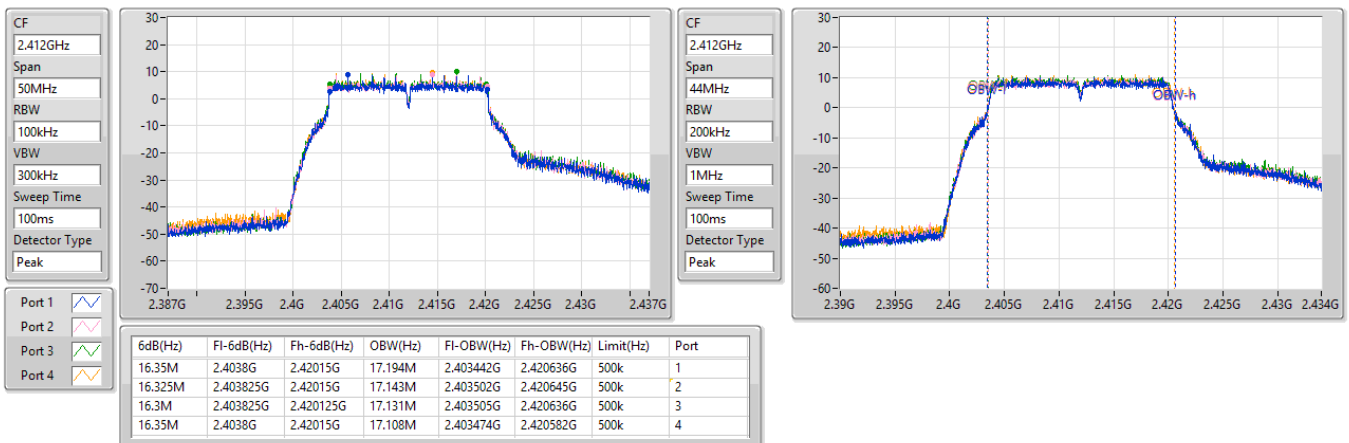
2462MHz



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

EBW

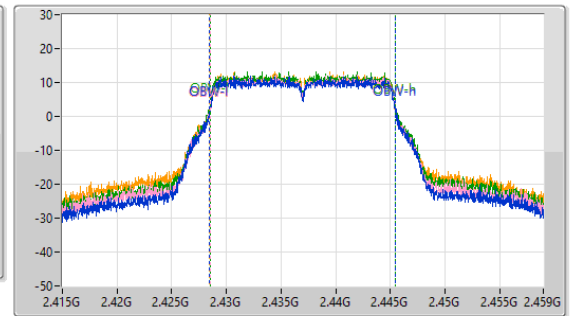
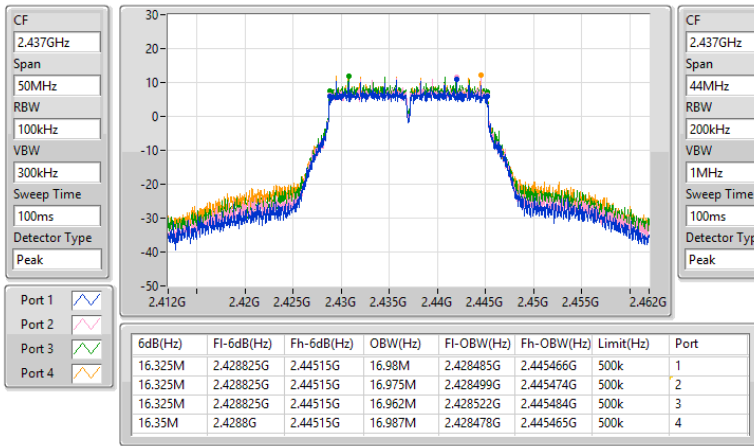
2412MHz



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

EBW

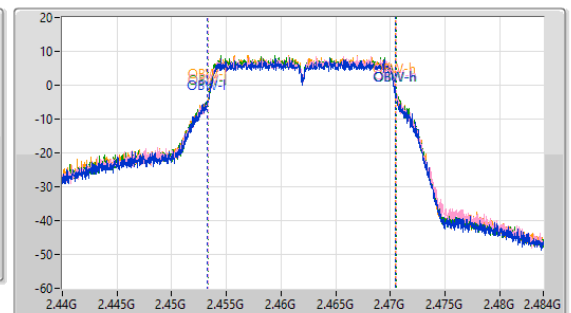
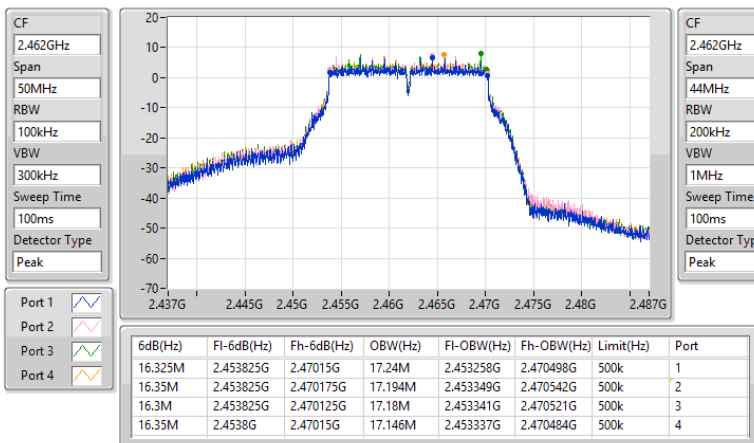
2437MHz



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

EBW

2462MHz

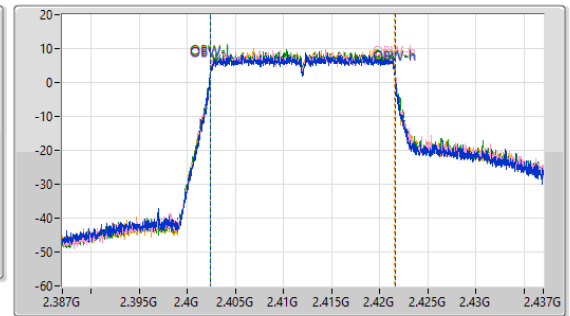
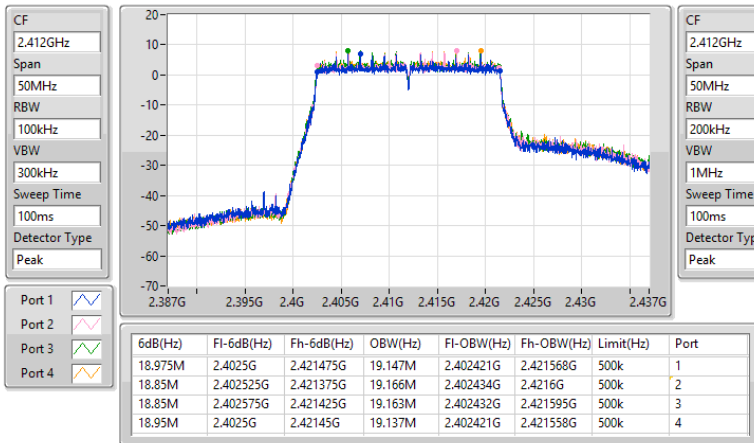




2.4-2.4835GHz_802.11be EHT20_Nss1,(MCS0)_4TX

EBW

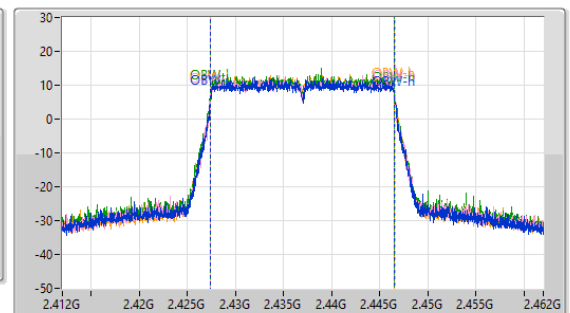
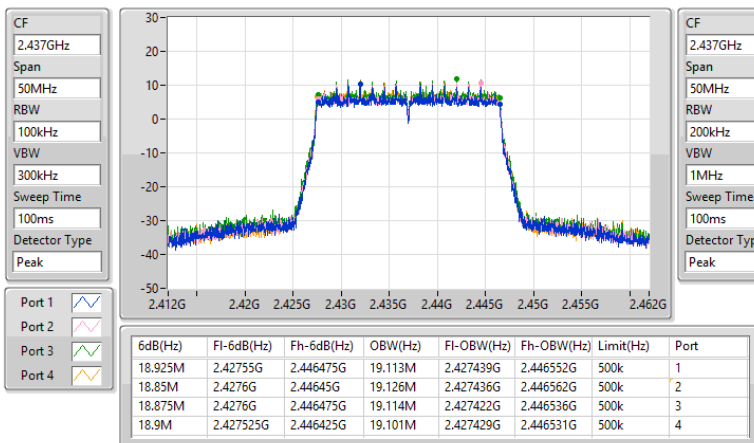
2412MHz



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

EBW

2437MHz

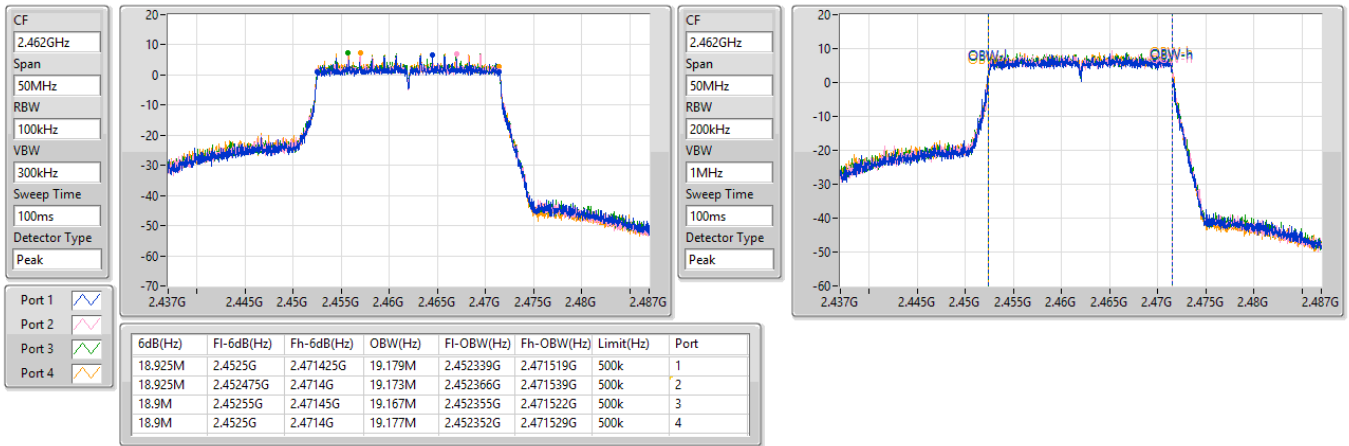




2.4-2.4835GHz_802.11be EHT20_Nss1,(MCS0)_4TX

EBW

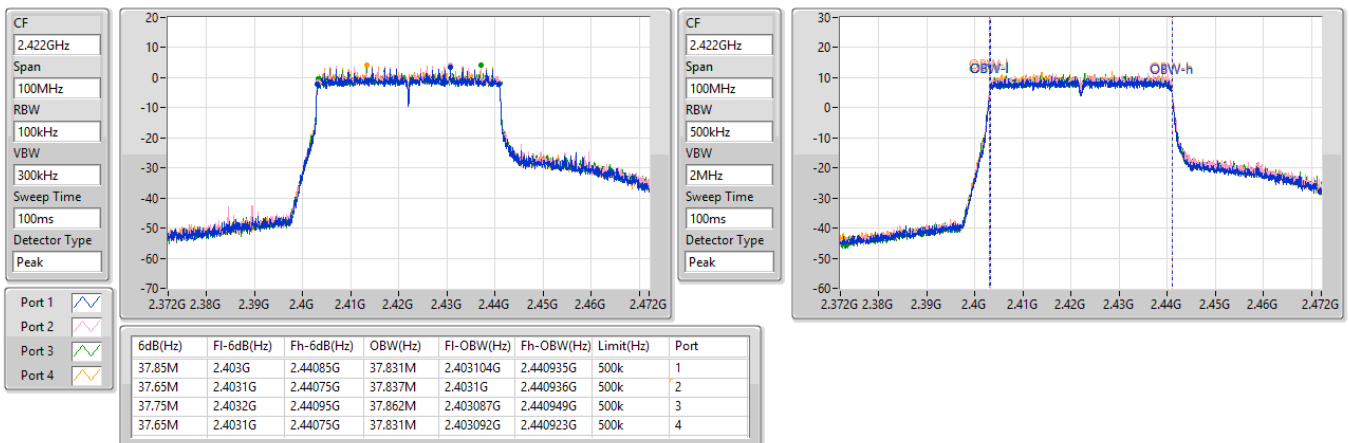
2462MHz



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

EBW

2422MHz

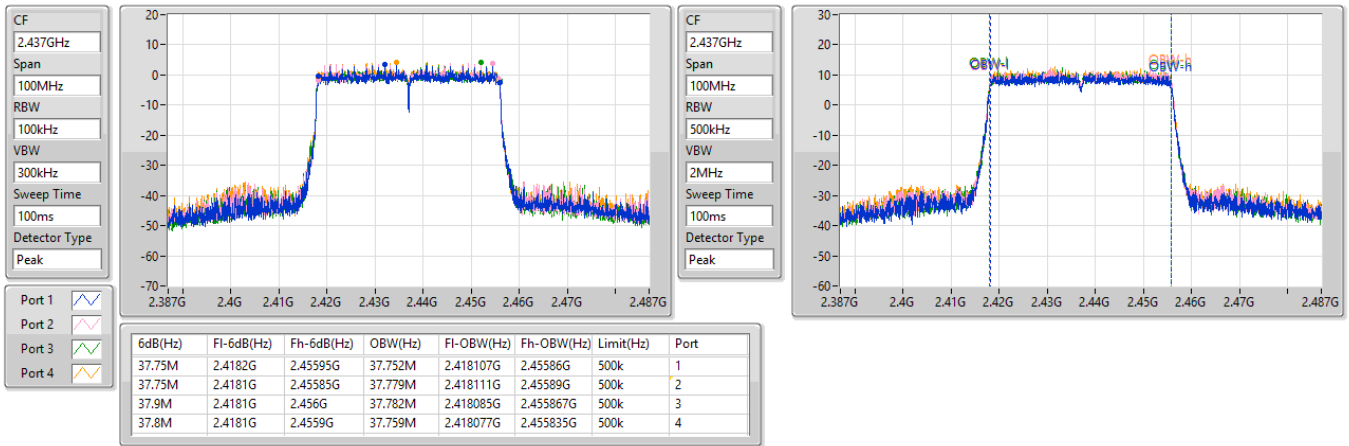




2.4-2.4835GHz_802.11be EHT40_Nss1,(MCS0)_4TX

EBW

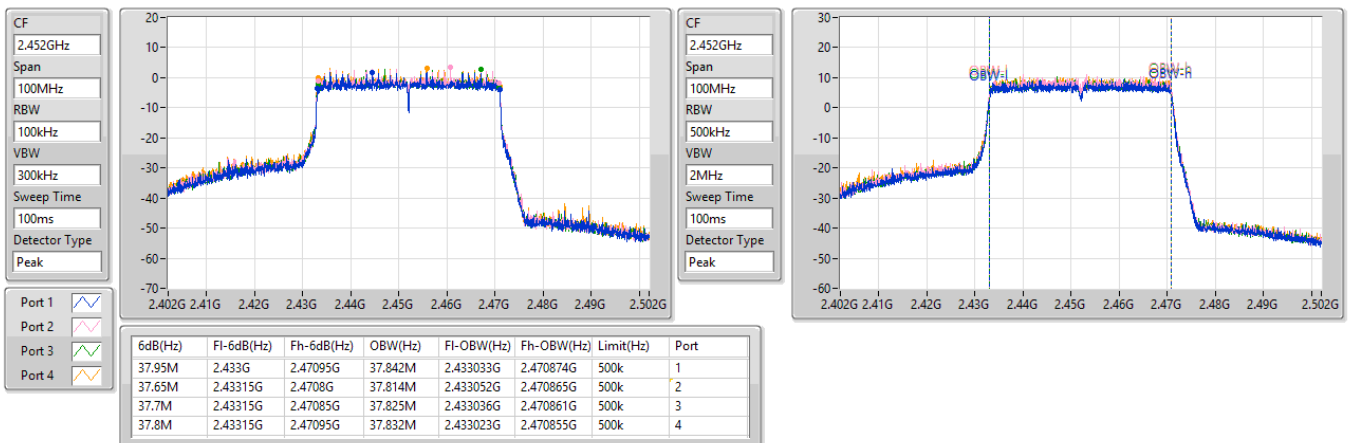
2437MHz



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

EBW

2452MHz



Non-beamforming mode
Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_4TX	29.70	0.93325
802.11g_Nss1,(6Mbps)_4TX	28.64	0.73114
802.11be EHT20_Nss1,(MCS0)_4TX	28.05	0.63826
802.11be EHT40_Nss1,(MCS0)_4TX	24.65	0.29174

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11b_Nss1,(1Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.33	21.71	22.38	22.36	22.35	28.23	30.00	30.56	36.00
2437MHz	Pass	2.33	23.22	23.75	23.92	23.81	29.70	30.00	32.03	36.00
2462MHz	Pass	2.33	22.52	22.96	23.37	23.23	29.05	30.00	31.38	36.00
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.33	20.38	20.52	20.81	21.02	26.71	30.00	29.04	36.00
2437MHz	Pass	2.33	22.04	22.26	23.15	22.92	28.64	30.00	30.97	36.00
2462MHz	Pass	2.33	18.06	18.38	18.62	18.77	24.49	30.00	26.82	36.00
802.11be EHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.33	18.35	18.72	18.91	18.98	24.77	30.00	27.10	36.00
2437MHz	Pass	2.33	21.59	21.69	22.48	22.29	28.05	30.00	30.38	36.00
2462MHz	Pass	2.33	17.43	17.98	18.02	18.12	23.92	30.00	26.25	36.00
802.11be EHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.33	17.84	18.42	18.11	18.49	24.24	30.00	26.57	36.00
2437MHz	Pass	2.33	18.22	18.75	18.45	19.04	24.65	30.00	26.98	36.00
2452MHz	Pass	2.33	16.42	17.35	17.05	17.41	23.10	30.00	25.43	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	24.40	0.27542
802.11be EHT40-BF_Nss1,(MCS0)_4TX	21.00	0.12589

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	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	5.98	14.7	15.07	15.26	15.33	21.12	30.00	27.10	36.00
2437MHz	Pass	5.98	17.94	18.04	18.83	18.64	24.40	30.00	30.38	36.00
2462MHz	Pass	5.98	13.78	14.33	14.37	14.47	20.27	30.00	26.25	36.00
802.11be EHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	5.98	14.19	14.77	14.46	14.84	20.59	30.00	26.57	36.00
2437MHz	Pass	5.98	14.57	15.1	14.8	15.39	21.00	30.00	26.98	36.00
2452MHz	Pass	5.98	12.77	13.7	13.4	13.76	19.45	30.00	25.43	36.00

DG = Directional Gain; Port X = Port X output power
Refers to antenna test report for DG gain.

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_4TX	0.38
802.11g_Nss1,(6Mbps)_4TX	-5.26
802.11be EHT20_Nss1,(MCS0)_4TX	-5.55
802.11be EHT40_Nss1,(MCS0)_4TX	-11.57

RBW = 3kHz;

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	5.98	-6.81	-7.01	-6.34	-6.16	-1.83	8.00
2437MHz	Pass	5.98	-5.30	-5.39	-4.11	-4.60	0.38	8.00
2462MHz	Pass	5.98	-5.78	-5.54	-6.26	-6.30	-0.72	8.00
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	5.98	-12.71	-12.73	-12.15	-11.96	-7.26	8.00
2437MHz	Pass	5.98	-10.69	-10.29	-8.69	-8.98	-5.26	8.00
2462MHz	Pass	5.98	-14.98	-14.68	-13.57	-14.34	-9.45	8.00
802.11be EHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	5.98	-15.19	-15.11	-14.73	-13.75	-9.18	8.00
2437MHz	Pass	5.98	-11.96	-12.04	-10.85	-11.29	-5.55	8.00
2462MHz	Pass	5.98	-16.72	-14.96	-15.27	-15.19	-9.66	8.00
802.11be EHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2422MHz	Pass	5.98	-18.34	-17.61	-18.09	-16.31	-11.57	8.00
2437MHz	Pass	5.98	-18.57	-17.74	-18.48	-16.62	-12.39	8.00
2452MHz	Pass	5.98	-19.25	-18.04	-19.49	-19.63	-14.07	8.00

DG = Directional Gain; RBW = 3kHz;

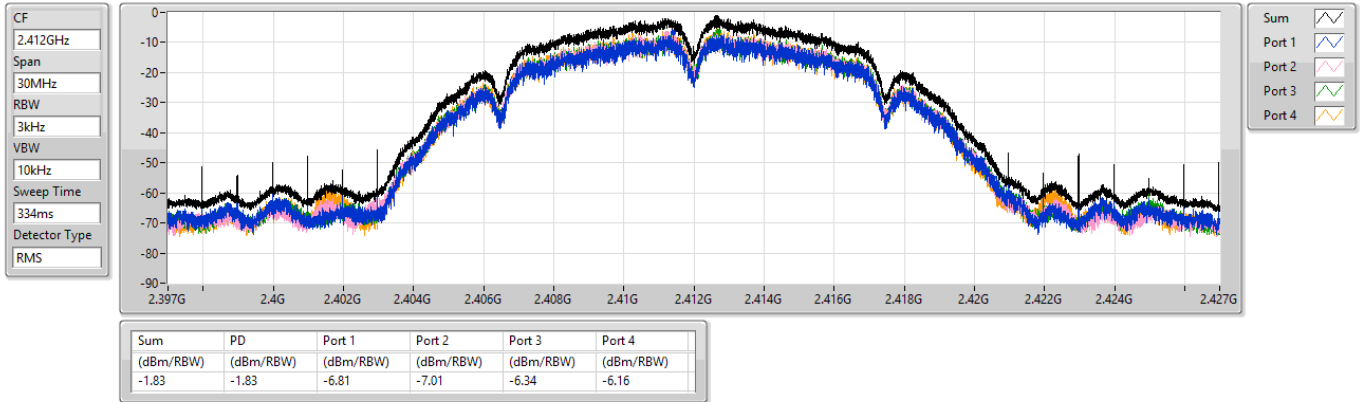
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

Refers to antenna test report for DG gain.

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

PSD

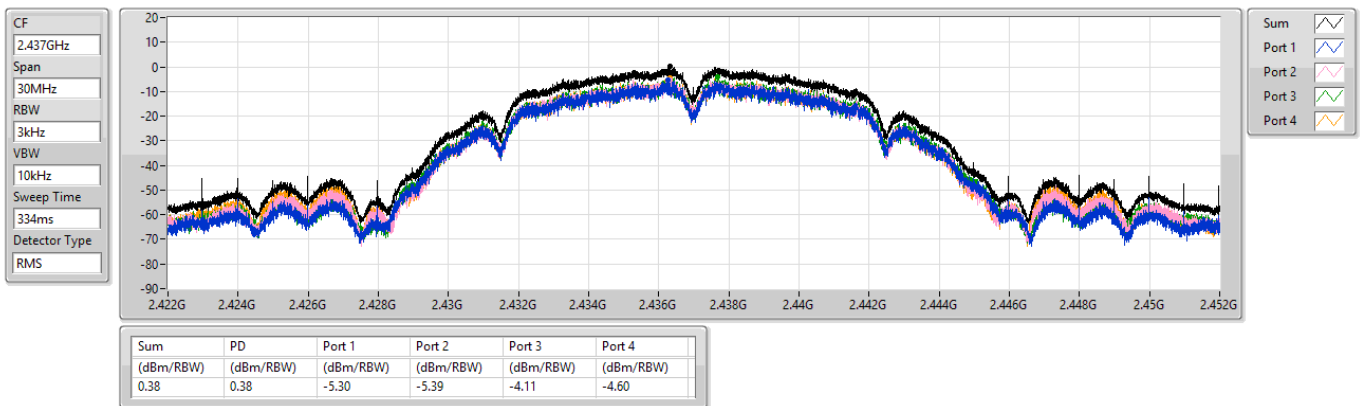
2412MHz



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

PSD

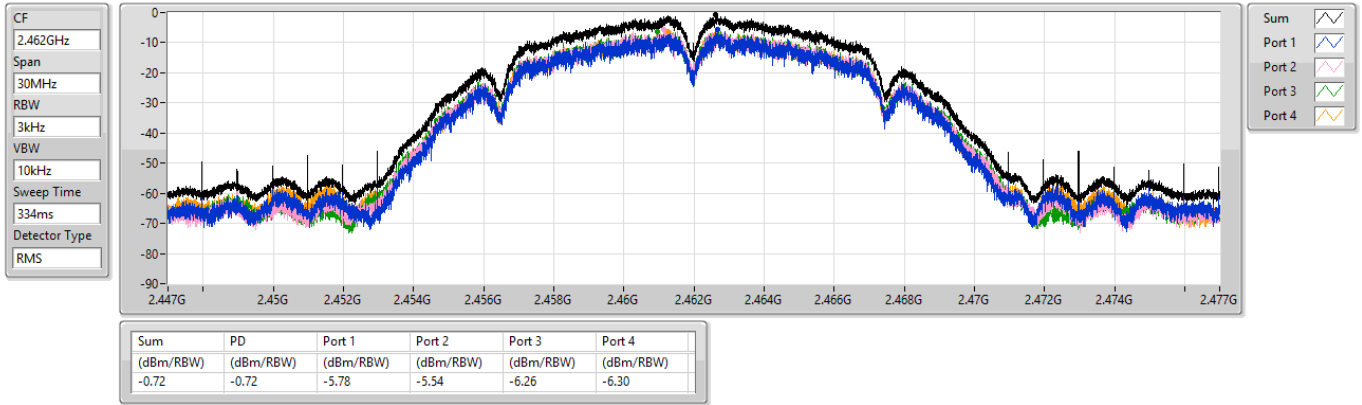
2437MHz



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

PSD

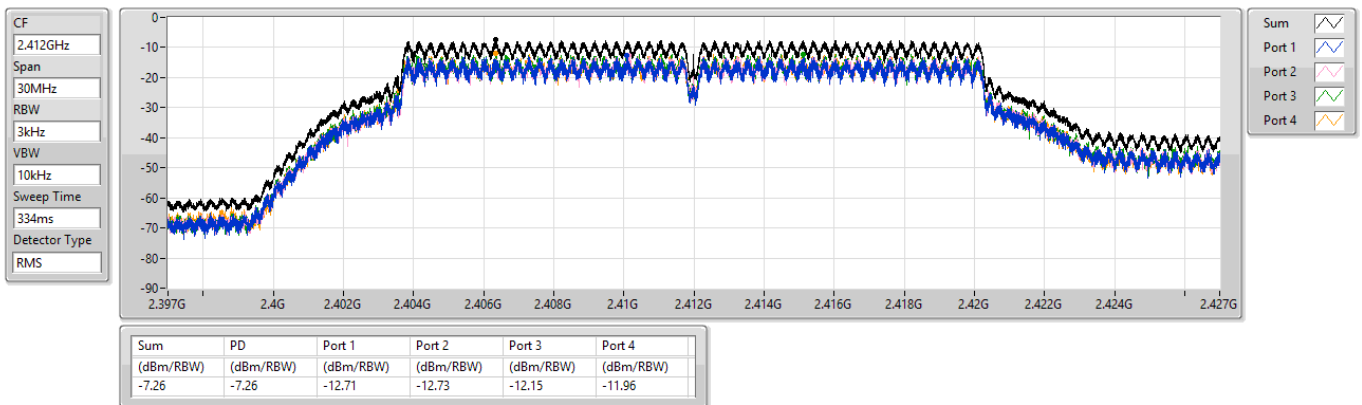
2462MHz



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

PSD

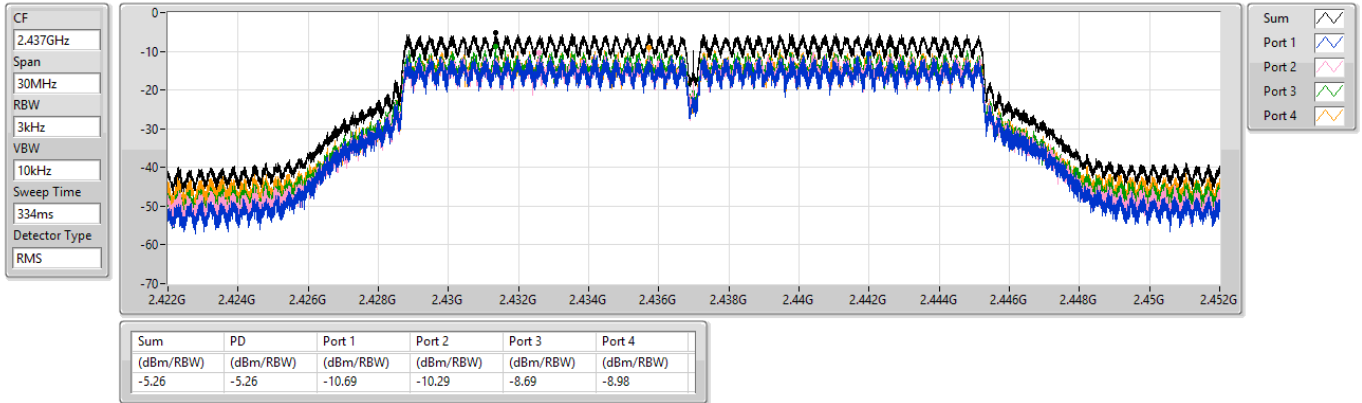
2412MHz



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

PSD

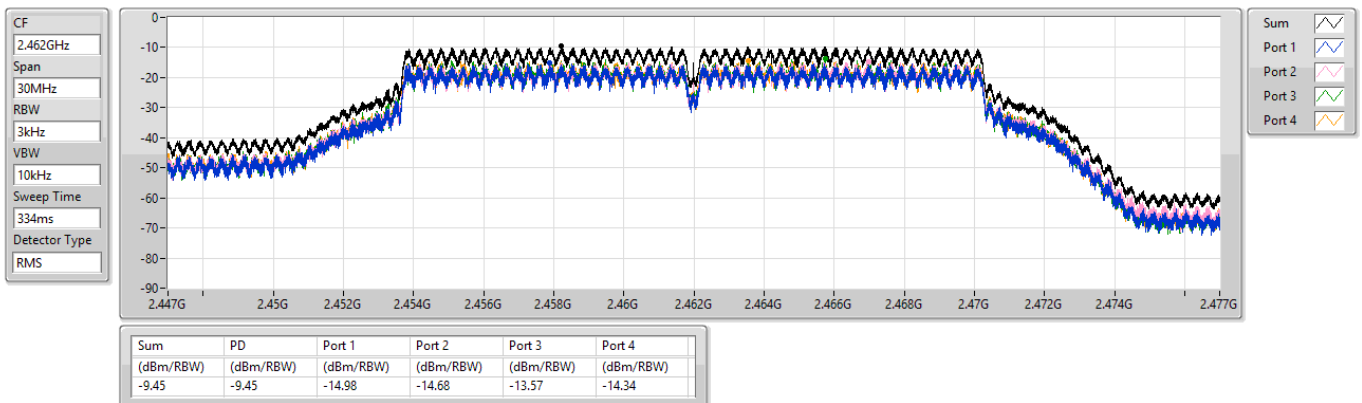
2437MHz



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

PSD

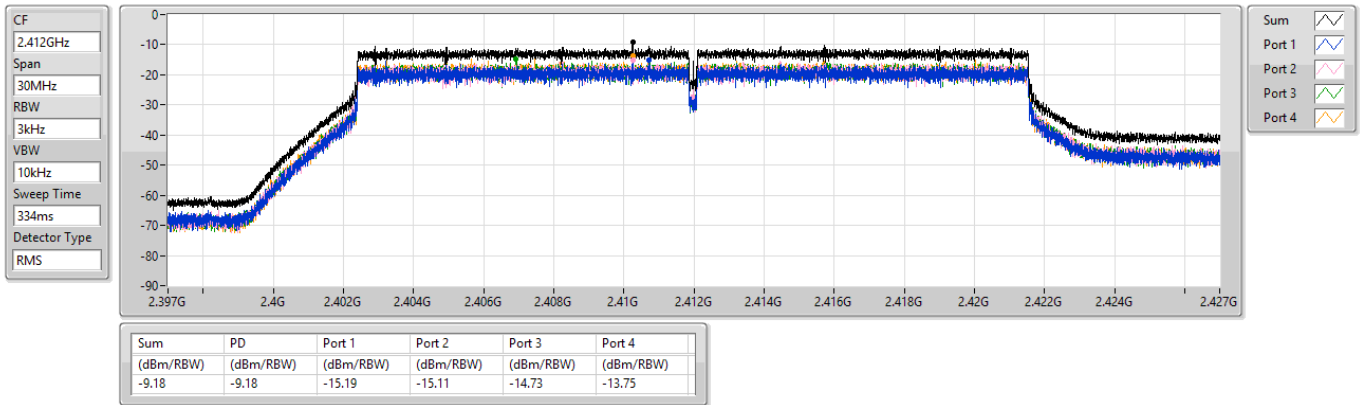
2462MHz



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

PSD

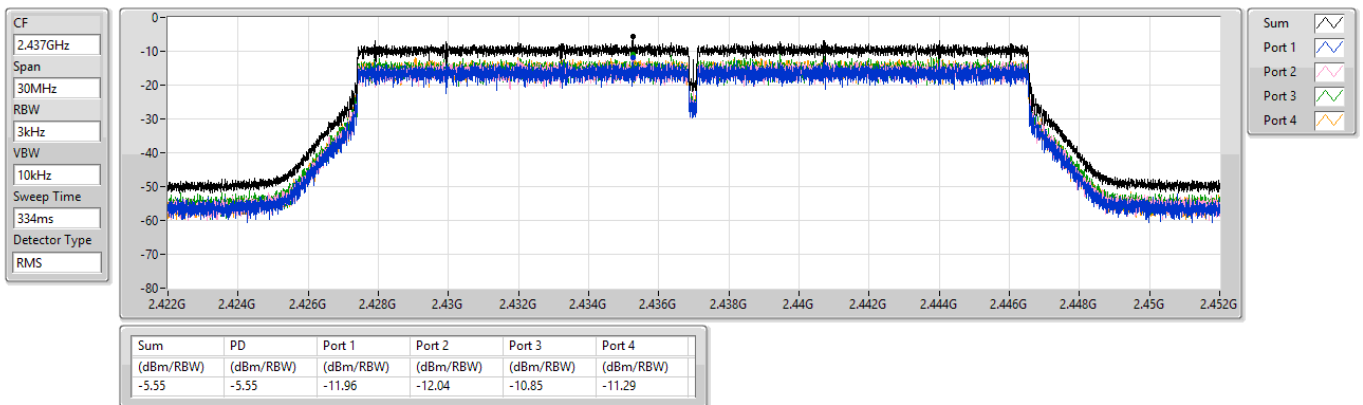
2412MHz



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

PSD

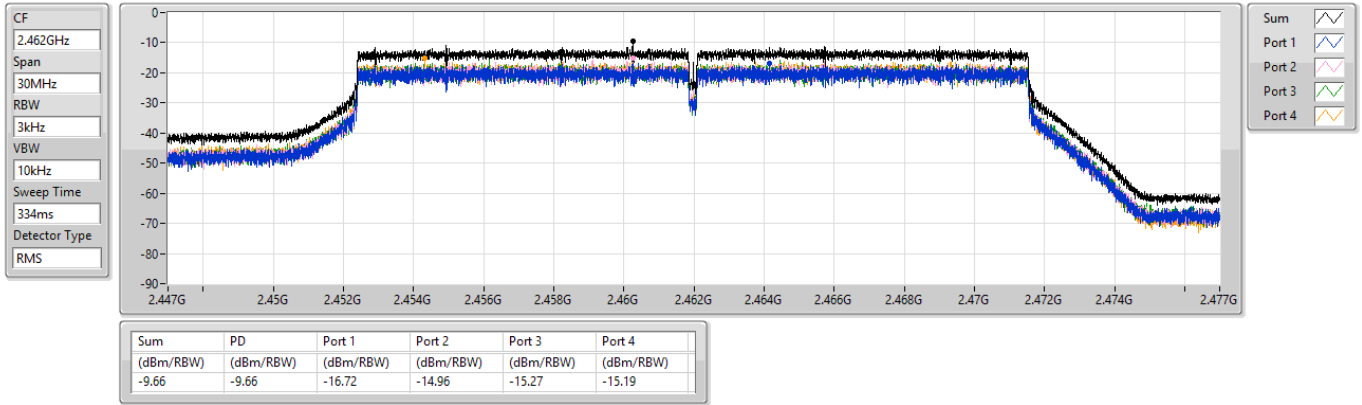
2437MHz



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

PSD

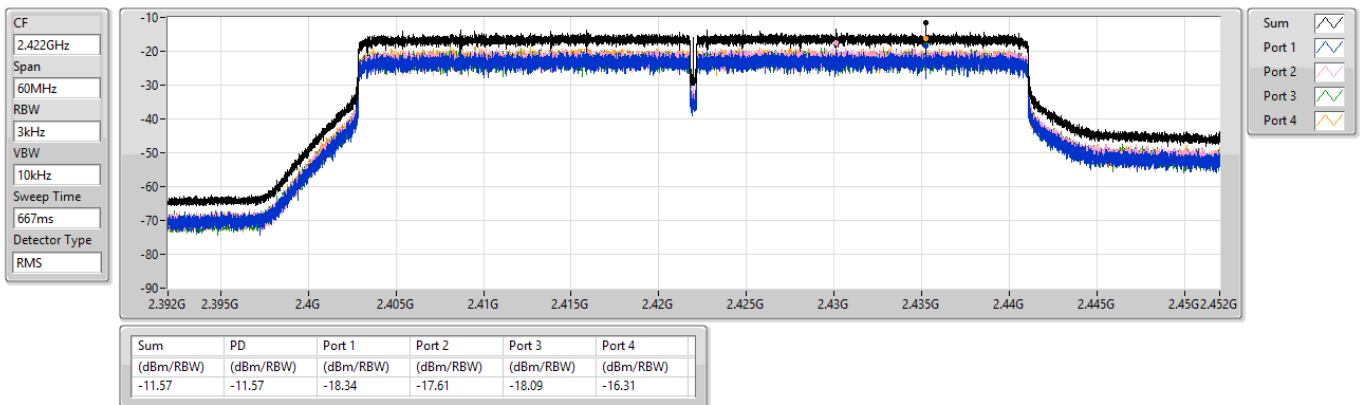
2462MHz



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

PSD

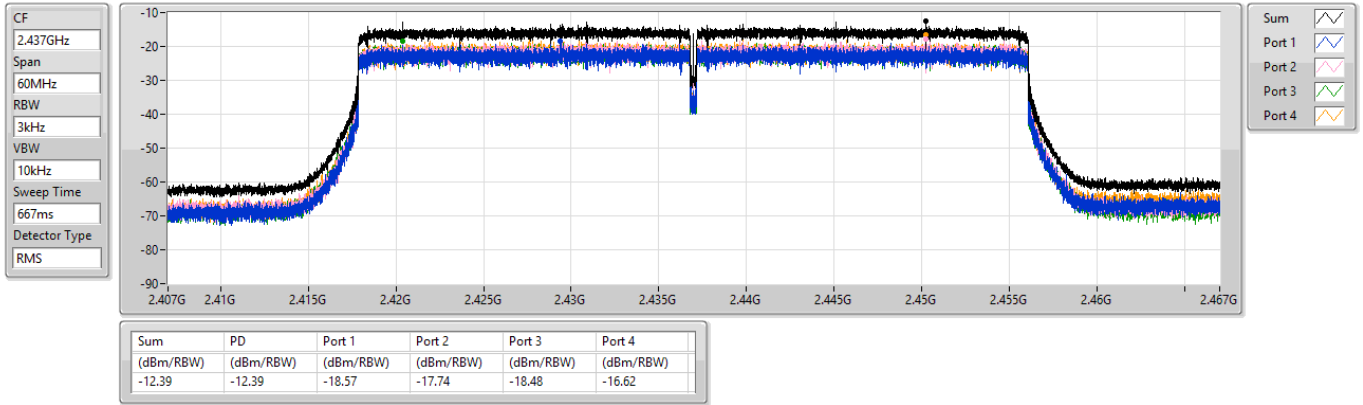
2422MHz



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

PSD

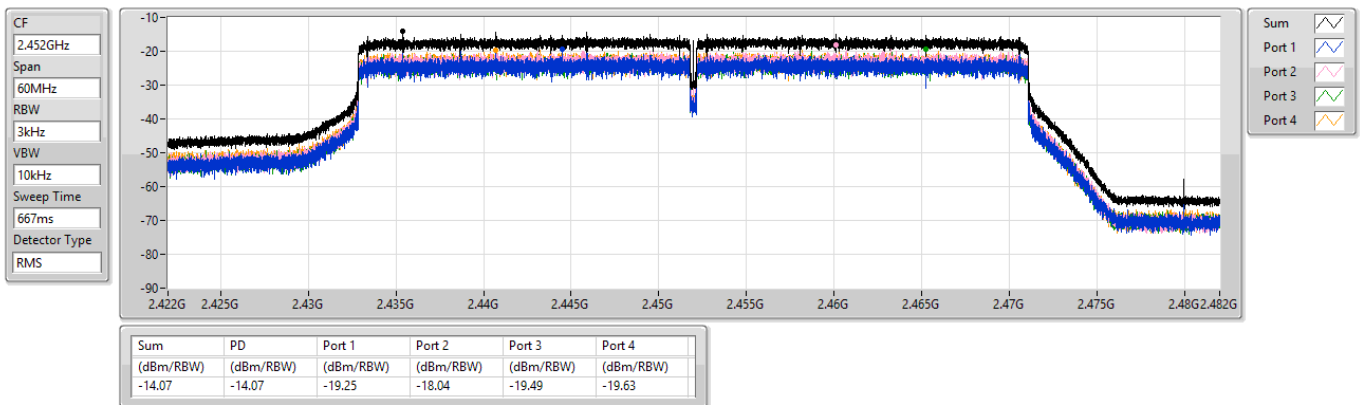
2437MHz



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(%):66																																																																									
Level (dBuV/m) CLASS-B Frequency (MHz) <table><thead><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></thead><tbody><tr><td>1</td><td>49.40</td><td>24.63</td><td>40.00</td><td>-15.37</td><td>32.74</td><td>-8.11</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>2</td><td>102.75</td><td>27.20</td><td>43.50</td><td>-16.30</td><td>39.66</td><td>-12.46</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>3</td><td>140.58</td><td>25.45</td><td>43.50</td><td>-18.05</td><td>34.45</td><td>-9.00</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>4</td><td>166.77</td><td>25.12</td><td>43.50</td><td>-18.38</td><td>33.96</td><td>-8.84</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>5</td><td>283.17</td><td>27.71</td><td>46.00</td><td>-18.29</td><td>36.10</td><td>-8.39</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>6</td><td>330.70</td><td>27.18</td><td>46.00</td><td>-18.82</td><td>33.98</td><td>-6.80</td><td>Peak</td><td>---</td><td>---</td></tr></tbody></table> 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.					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	49.40	24.63	40.00	-15.37	32.74	-8.11	Peak	---	---	2	102.75	27.20	43.50	-16.30	39.66	-12.46	Peak	---	---	3	140.58	25.45	43.50	-18.05	34.45	-9.00	Peak	---	---	4	166.77	25.12	43.50	-18.38	33.96	-8.84	Peak	---	---	5	283.17	27.71	46.00	-18.29	36.10	-8.39	Peak	---	---	6	330.70	27.18	46.00	-18.82	33.98	-6.80	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	49.40	24.63	40.00	-15.37	32.74	-8.11	Peak	---	---																																																																
2	102.75	27.20	43.50	-16.30	39.66	-12.46	Peak	---	---																																																																
3	140.58	25.45	43.50	-18.05	34.45	-9.00	Peak	---	---																																																																
4	166.77	25.12	43.50	-18.38	33.96	-8.84	Peak	---	---																																																																
5	283.17	27.71	46.00	-18.29	36.10	-8.39	Peak	---	---																																																																
6	330.70	27.18	46.00	-18.82	33.98	-6.80	Peak	---	---																																																																



Modulation	11b	Test Freq. (MHz)	2437
Polarization	Vertical		
Test By :Brad Wu Temperature(°C):23 Humidity(%):66			
Level (dBUV/m)			

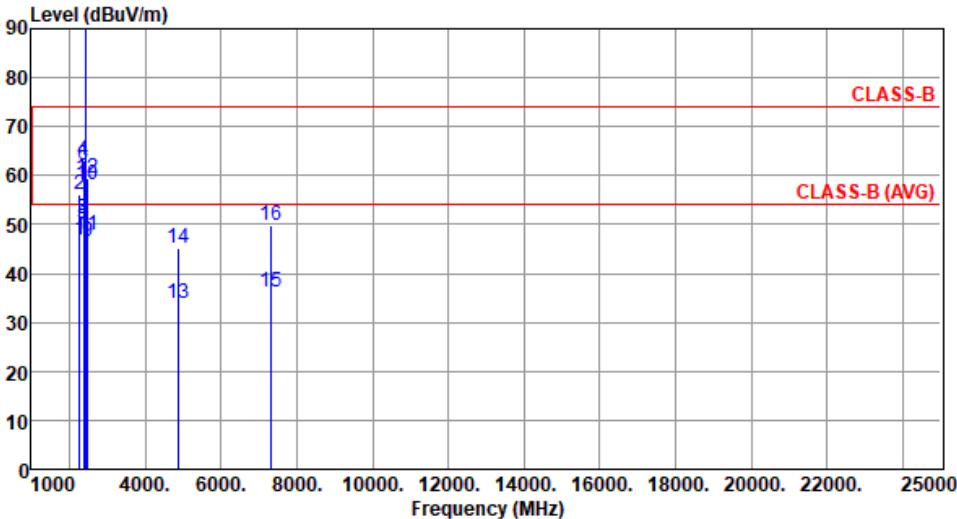
Unwanted Emission (Above 1GHz) for 11b

Modulation	11b	Test Freq. (MHz)	2412
Polarization	Horizontal		
Test By :Brad Wu Temperature(°C):26 Humidity(%):61			
Level (dBuV/m)			



Modulation	11b	Test Freq. (MHz)	2412
Polarization	Vertical		
Test By :Brad Wu Temperature(°C):26 Humidity(%):61			
Level (dBuV/m) <			



Modulation	11b	Test Freq. (MHz)	2437						
Polarization	Horizontal								
Test By :Brad Wu Temperature(°C):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	2276.00	46.81	54.00	-7.19	49.80	-2.99	Average	118	112
2	2276.00	56.23	74.00	-17.77	59.22	-2.99	Peak	118	112
3	2386.00	51.29	54.00	-2.71	54.91	-3.62	Average	226	330
4	2386.00	63.14	74.00	-10.86	66.76	-3.62	Peak	226	330
5	2390.00	50.21	54.00	-3.79	53.84	-3.63	Average	226	330
6	2390.00	62.08	74.00	-11.92	65.71	-3.63	Peak	226	330
7 *	2437.00	116.06			119.82	-3.76	Average	226	224
8 *	2437.00	118.62			122.38	-3.76	Peak	226	224
9	2483.50	46.55	54.00	-7.45	50.47	-3.92	Average	226	224
10	2483.50	58.24	74.00	-15.76	62.16	-3.92	Peak	226	224
11	2488.00	47.69	54.00	-6.31	51.67	-3.98	Average	226	224
12	2488.00	59.38	74.00	-14.62	63.36	-3.98	Peak	226	224
13	4874.00	33.98	54.00	-20.02	33.93	0.05	Average	100	82
14	4874.00	45.26	74.00	-28.74	45.21	0.05	Peak	100	82
15	7311.00	36.27	54.00	-17.73	30.89	5.38	Average	100	14
16	7311.00	49.74	74.00	-24.26	44.36	5.38	Peak	100	14

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: "*" is Peak / Average value of fundamental frequency



Modulation	11b	Test Freq. (MHz)	2437						
Polarization	Vertical								
Test By :Brad Wu Temperature(°C):26 Humidity(%):61									
Level (dBuV/m) CLASS-B CLASS-B (AVG) Frequency (MHz)									
	Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn
	MHz	level			reading			High	Table
		dBuV/m	dBuV/m	dB	dBuV	dB/m		cm	deg
1	2276.00	49.95	54.00	-4.05	52.94	-2.99	Average	225	138
2	2276.00	58.89	74.00	-15.11	61.88	-2.99	Peak	225	138
3	2386.00	51.22	54.00	-2.78	54.84	-3.62	Average	184	289
4	2386.00	62.61	74.00	-11.39	66.23	-3.62	Peak	184	289
5	2390.00	50.14	54.00	-3.86	53.77	-3.63	Average	184	289
6	2390.00	61.58	74.00	-12.42	65.21	-3.63	Peak	184	289
7 *	2437.00	117.91			121.67	-3.76	Average	184	289
8 *	2437.00	120.50			124.26	-3.76	Peak	184	289
9	2483.50	52.69	54.00	-1.31	56.61	-3.92	Average	184	289
10	2483.50	63.84	74.00	-10.16	67.76	-3.92	Peak	184	289
11	2488.00	53.84	54.00	-0.16	57.82	-3.98	Average	184	289
12	2488.00	64.95	74.00	-9.05	68.93	-3.98	Peak	184	289
13	4874.00	38.94	54.00	-15.06	38.89	0.05	Average	134	92
14	4874.00	46.55	74.00	-27.45	46.50	0.05	Peak	134	92
15	7311.00	36.22	54.00	-17.78	30.84	5.38	Average	100	18
16	7311.00	48.94	74.00	-25.06	43.56	5.38	Peak	100	18

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: "*" is Peak / Average value of fundamental frequency



Modulation	11b	Test Freq. (MHz)	2462
Polarization	Horizontal		
Test By :Brad Wu Temperature(°C):26 Humidity(%):61			
Level (dBuV/m) </			



Modulation	11b	Test Freq. (MHz)	2462
Polarization	Vertical		
Test By :Brad Wu Temperature(°C):26 Humidity(%):61			
Level (dBuV/m)			

Unwanted Emissions (Above 1GHz) for 11g

Modulation	11g	Test Freq. (MHz)	2412
Polarization	Horizontal		
Test By :Sean Yu Temperature(°C):26 Humidity(%):61			
Level (dBuV/m)			



Modulation	11g	Test Freq. (MHz)	2412
Polarization	Vertical		
Test By :Sean Yu Temperature(°C):26 Humidity(%):61			
Level (dBuV/m)			



Modulation	11g	Test Freq. (MHz)	2437
Polarization	Horizontal		
Test By :Brad Wu Temperature(°C):26 Humidity(%):61			
Level (dBuV/m) <			



Modulation	11g	Test Freq. (MHz)	2437
Polarization	Vertical		
Test By :Brad Wu Temperature(°C):26 Humidity(%):61			
Level (dBUV/m) </			



Modulation	11g	Test Freq. (MHz)	2462
Polarization	Horizontal		
Test By :Brad Wu Temperature(°C):26 Humidity(%):61			
Level (dBuV/m) </			



Modulation	11g	Test Freq. (MHz)	2462
Polarization	Vertical		
Test By :Brad Wu Temperature(°C):26 Humidity(%):61			
Level (dBUV/m) </			

Unwanted Emissions (Above 1GHz) for be EHT20

Modulation	be EHT20	Test Freq. (MHz)	2412
Polarization	Horizontal		
Test By :Sean Yu Temperature(°C):26 Humidity(%):61			
Level (dBuV/m) <			



Modulation	be EHT20	Test Freq. (MHz)	2412
Polarization	Vertical		
Test By :Sean Yu Temperature(°C):26 Humidity(%):61			
Level (dBuV/m) </			



Modulation	be EHT20	Test Freq. (MHz)	2437
Polarization	Horizontal		
Test By :Sean Yu Temperature(°C):26 Humidity(%):61			
Level (dBUV/m)			

Modulation	be EHT20	Test Freq. (MHz)	2437
Polarization	Vertical		
Test By :Sean Yu Temperature(°C):26 Humidity(%):61			
Level (dBuV/m)			



Modulation	be EHT20	Test Freq. (MHz)	2462
Polarization	Horizontal		
Test By :Sean Yu Temperature(°C):26 Humidity(%):61			
Level (dBuV/m)			



Modulation	be EHT20	Test Freq. (MHz)	2462
Polarization	Vertical		
Test By :Sean Yu Temperature(°C):26 Humidity(%):61			
Level (dBuV/m)			

Unwanted Emissions (Above 1GHz) for be EHT40

Modulation	be EHT40	Test Freq. (MHz)	2422
Polarization	Horizontal		
Test By :Brad Wu Temperature(°C):25 Humidity(%):61			
Level (dBuV/m)			



Modulation	be EHT40	Test Freq. (MHz)	2422
Polarization	Vertical		
Test By :Brad Wu Temperature(°C):25 Humidity(%):61			
Level (dBuV/m) </			



Modulation	be EHT40	Test Freq. (MHz)	2437
Polarization	Horizontal		
Test By :Brad Wu Temperature(°C):25 Humidity(%):61			
Level (dBuV/m) </			



Modulation	be EHT40	Test Freq. (MHz)	2437
Polarization	Vertical		
Test By :Brad Wu Temperature(°C):25 Humidity(%):61			
Level (dBuV/m) </			



Modulation	be EHT40	Test Freq. (MHz)	2452
Polarization	Horizontal		
Test By :Brad Wu Temperature(°C):25 Humidity(%):61			
Level (dBuV/m)			

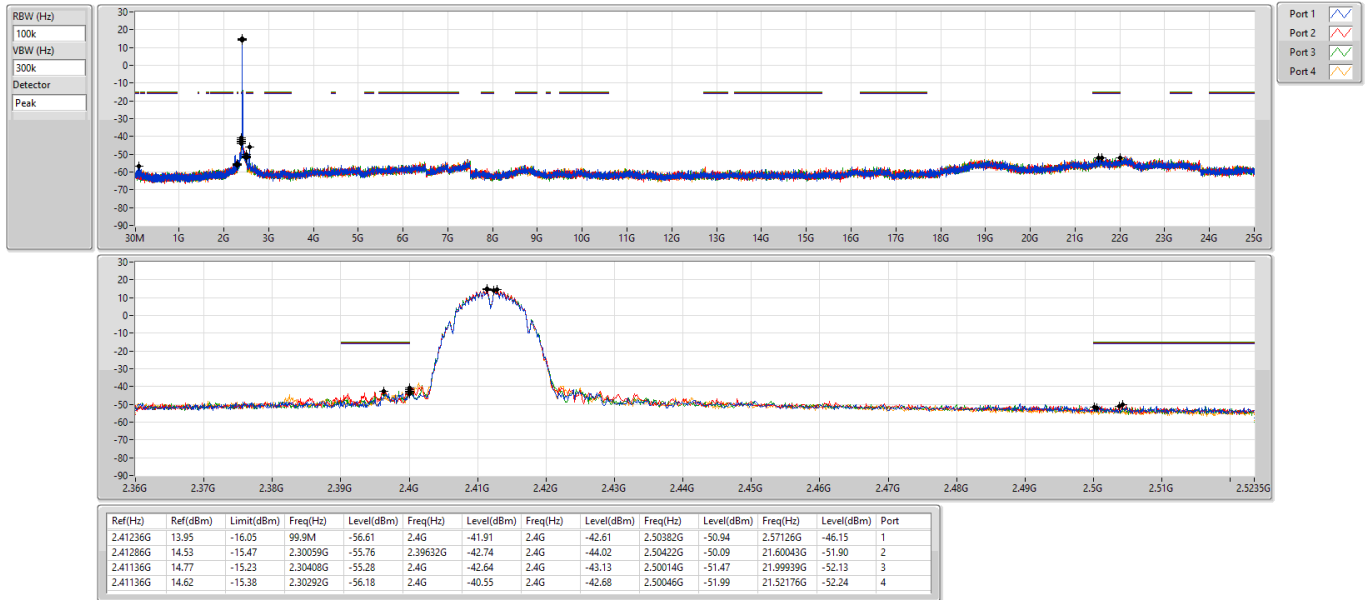


Modulation	be EHT40	Test Freq. (MHz)	2452
Polarization	Vertical		
Test By :Brad Wu Temperature(°C):25 Humidity(%):61			
Level (dBUV/m)			

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

CSEndB

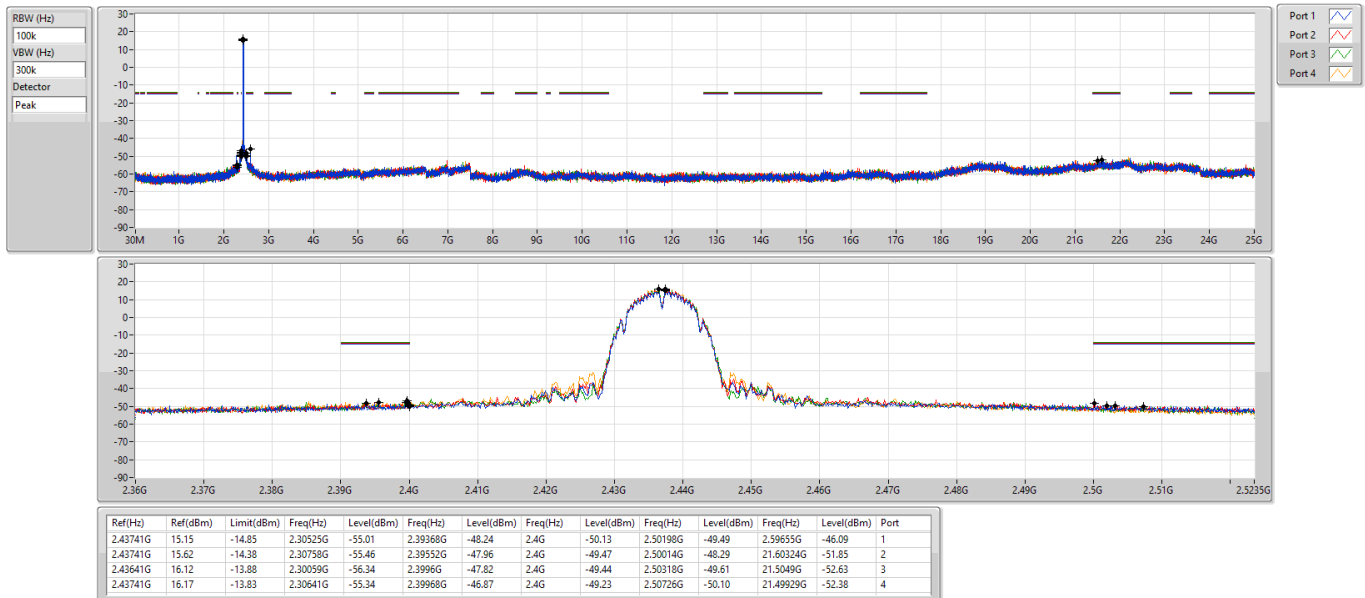
2412MHz



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

CSEndB

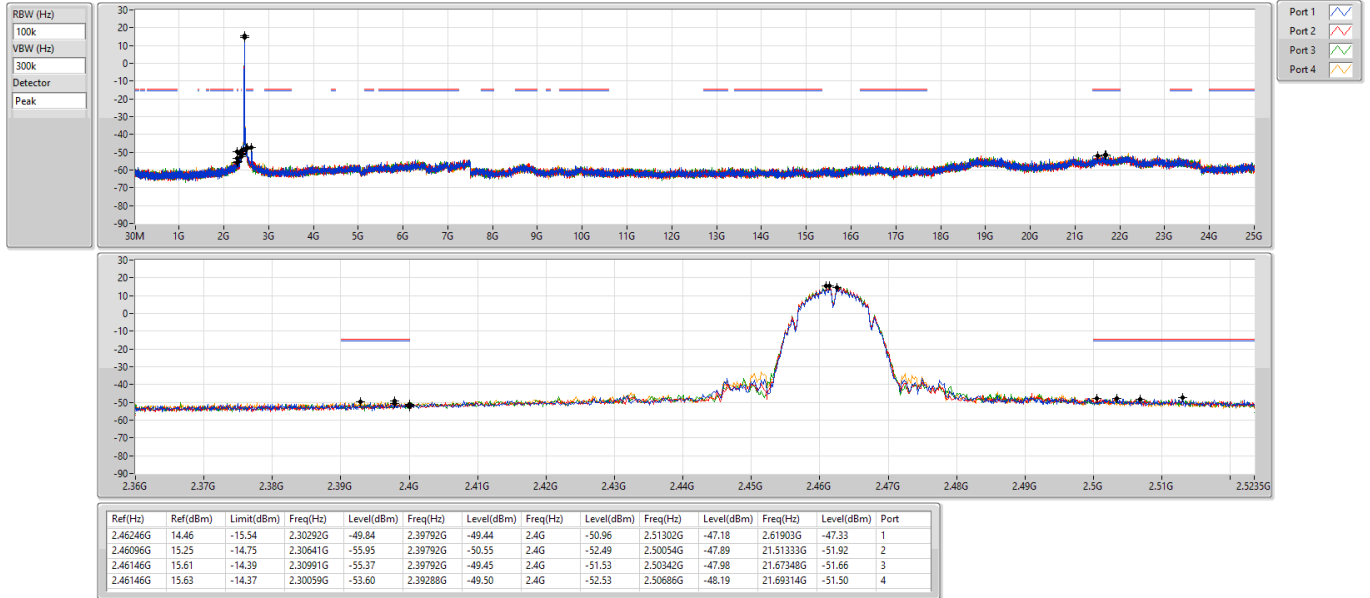
2437MHz



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

CSEndB

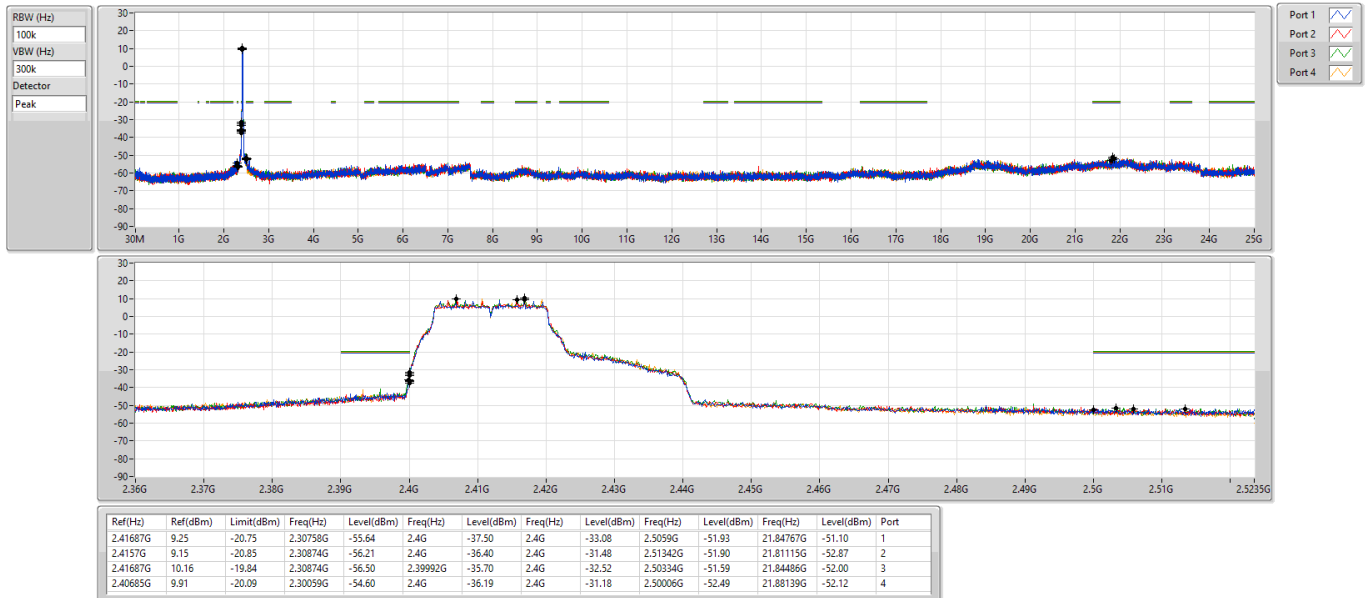
2462MHz



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

CSEndB

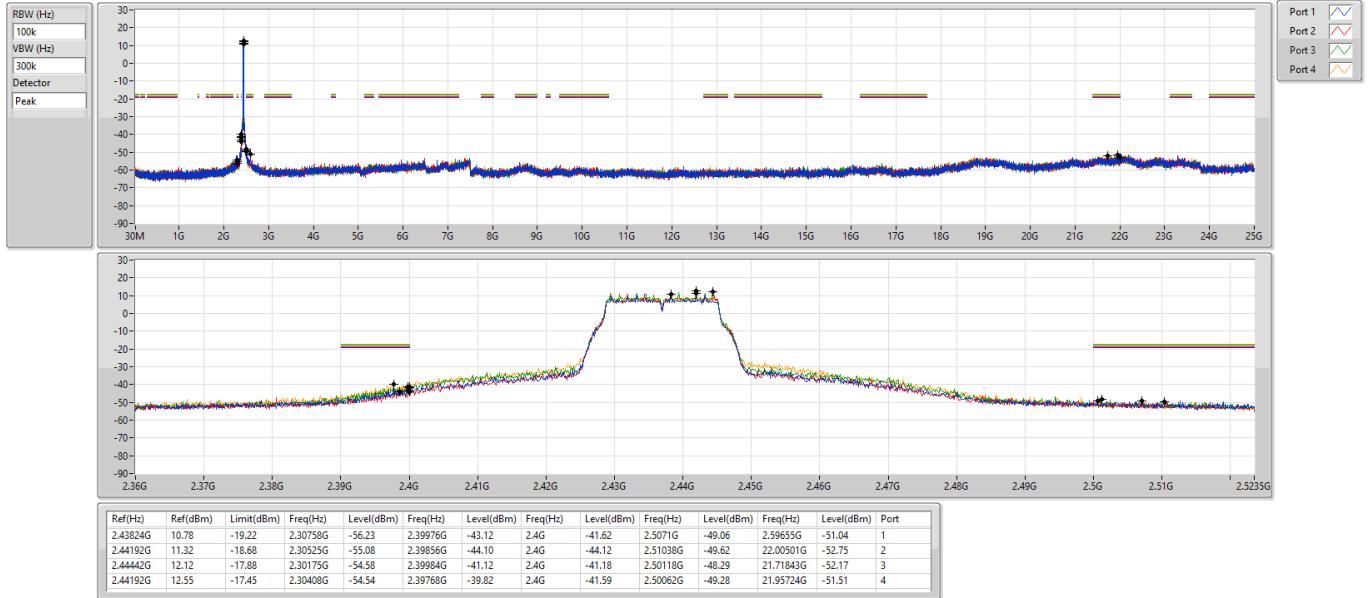
2412MHz



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

CSEndB

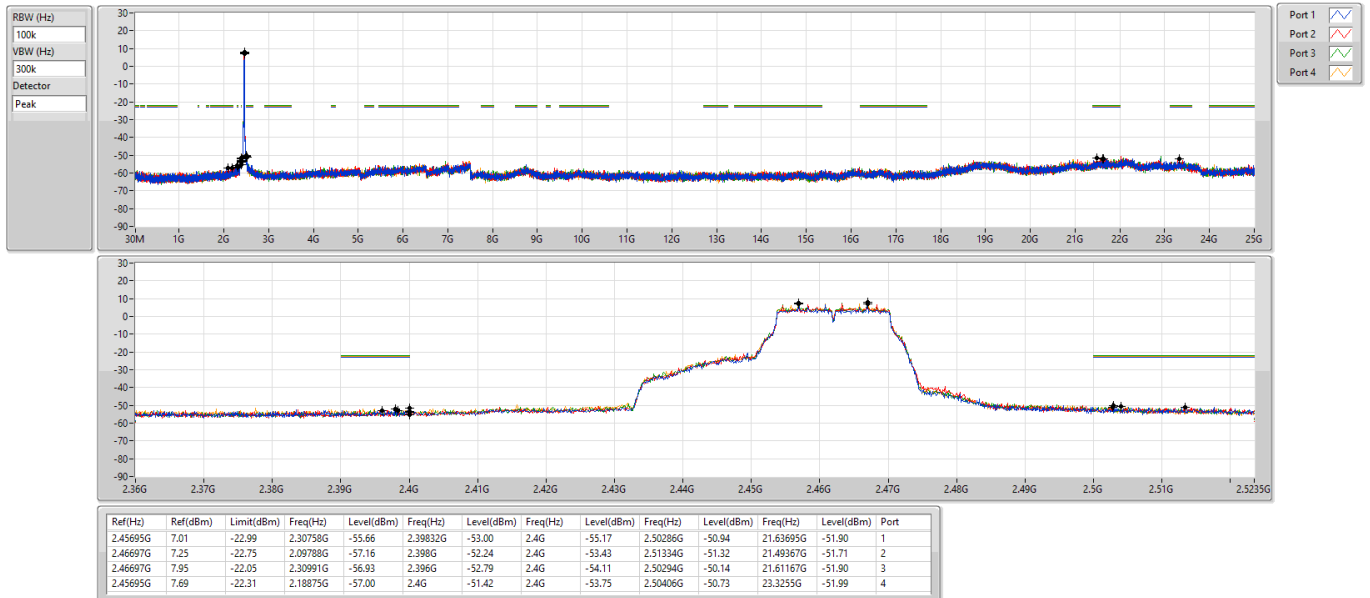
2437MHz



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

CSEndB

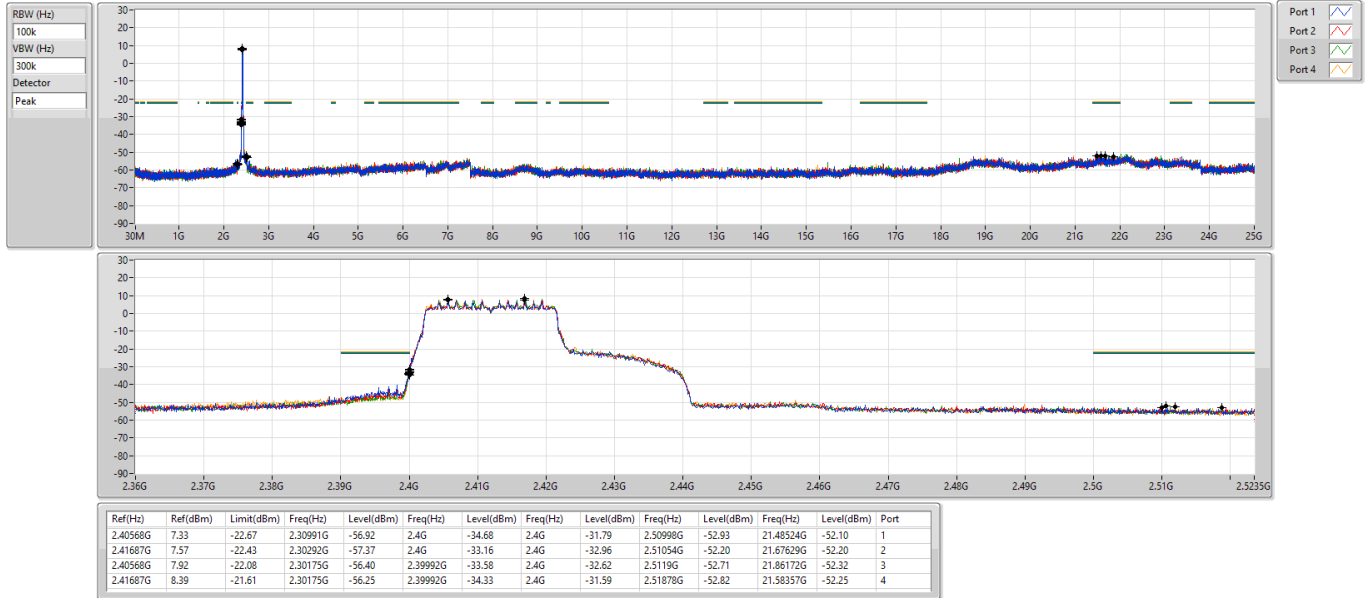
2462MHz



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

CSEndB

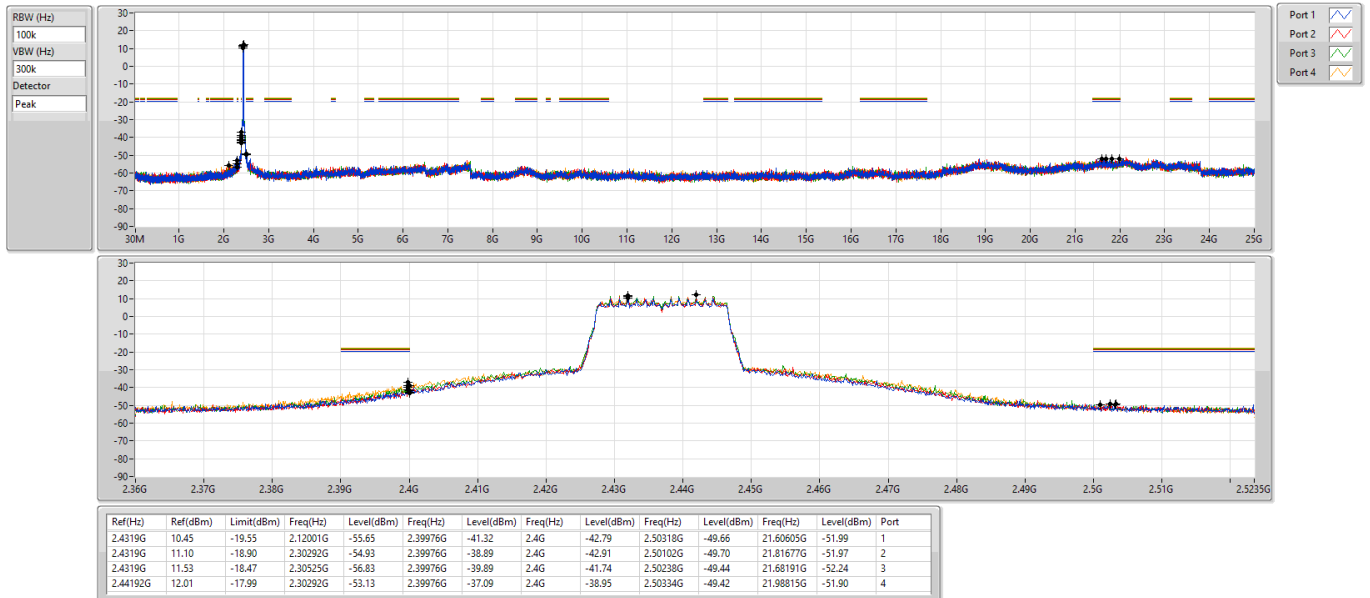
2412MHz



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

CSEndB

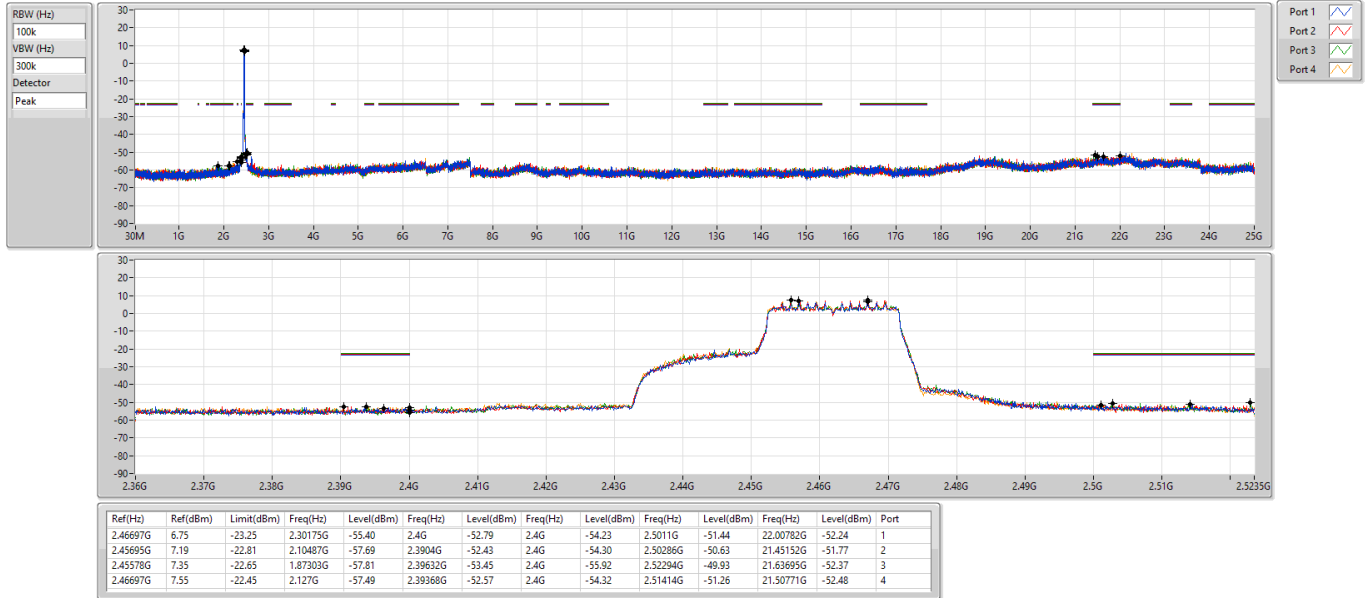
2437MHz



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

CSEndB

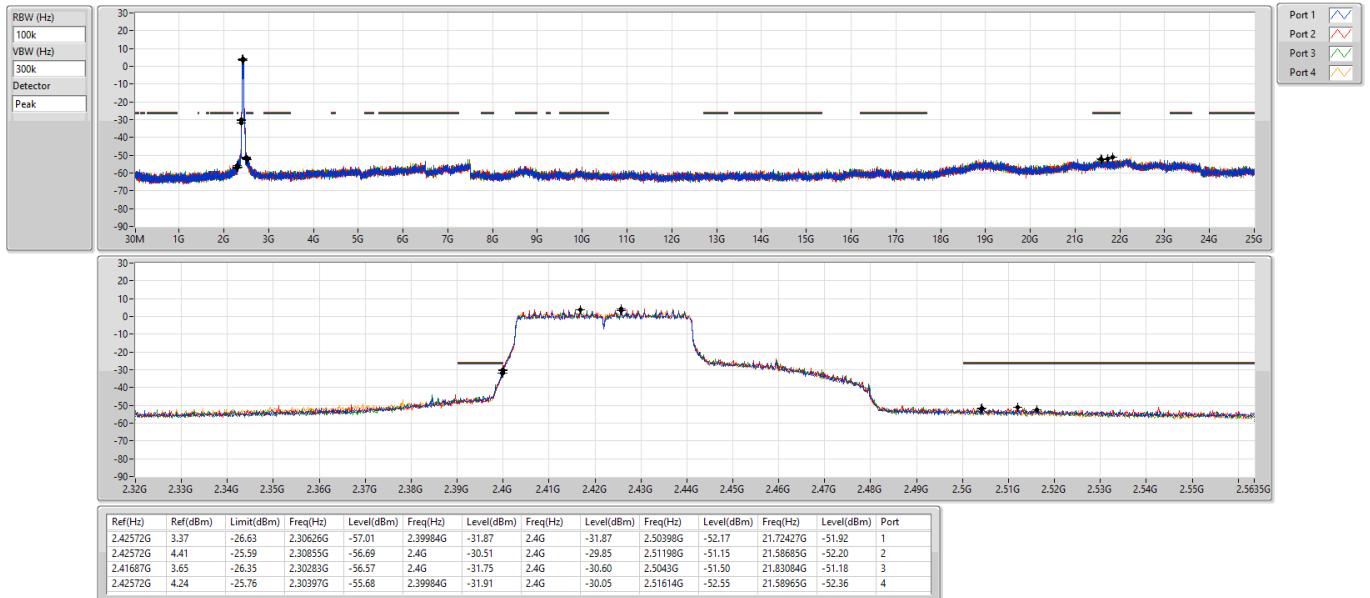
2462MHz



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

CSEndB

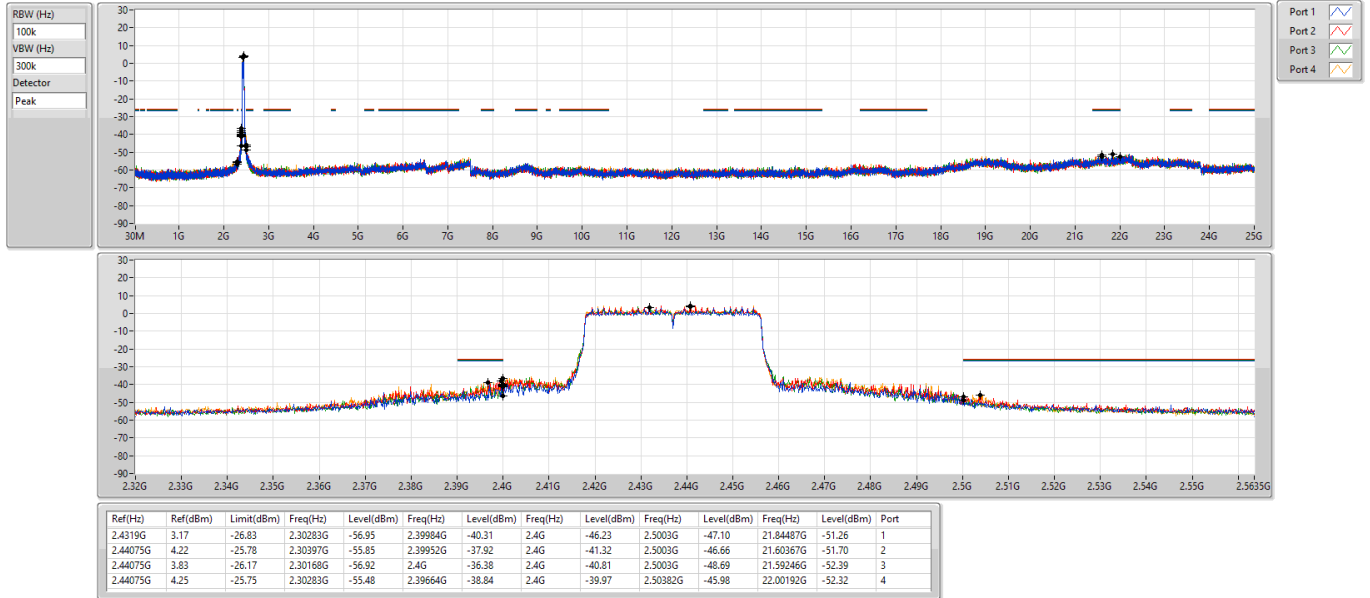
2422MHz



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

CSEndB

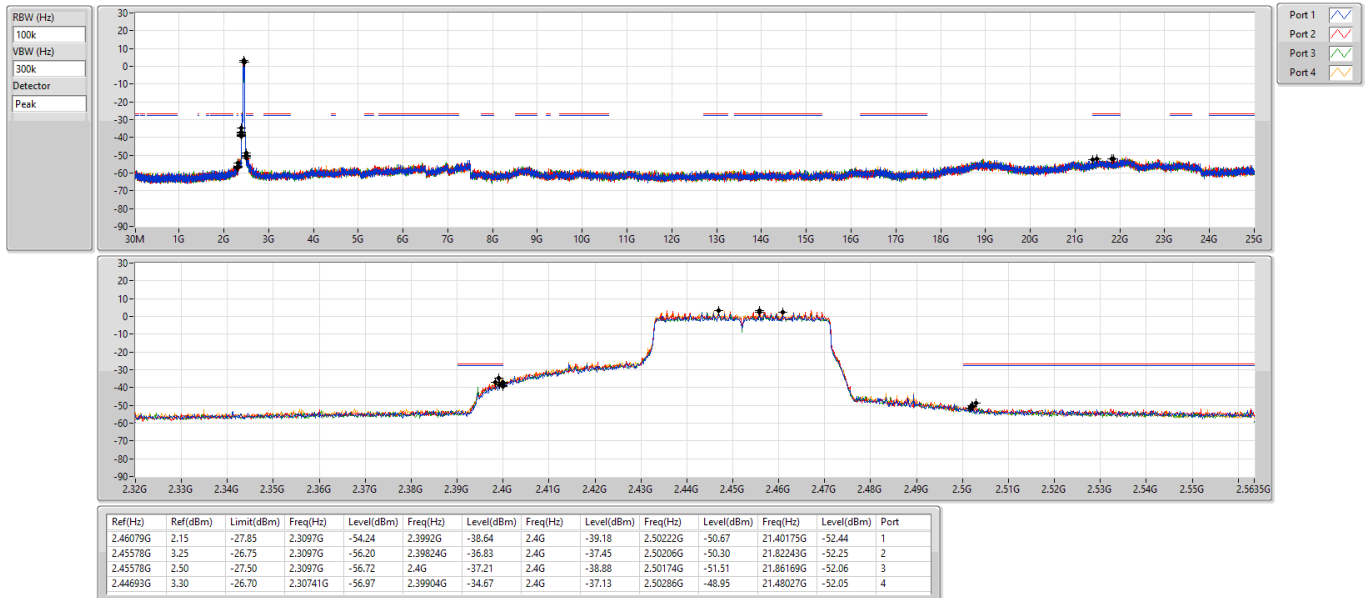
2437MHz



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

CSEndB

2452MHz



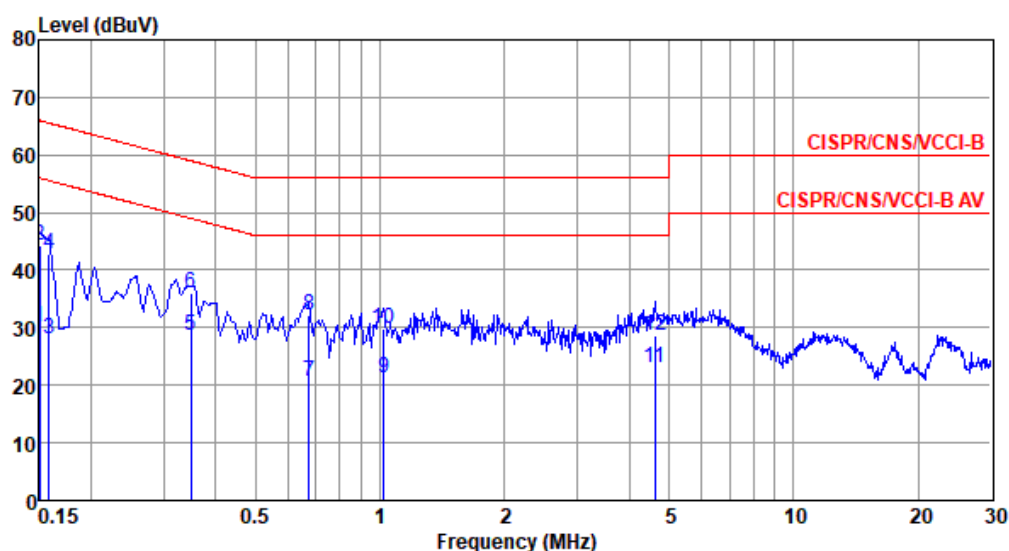


Modulation Mode	11b	Test Freq. (MHz)	2437
Power Phase	Line		

Test by : Joe Liao

Temperature: 23°C

Humidity: 63%



	Freq	Level	Limit	Over	Read	Factor	Cable	Aux	
	MHz	dBuV	Line	Limit	Level		loss		Remark
			dBuV	dB	dBuV	dB	dB	dB	
1	0.150	30.08	56.00	-25.92	20.17	9.63	0.08	0.20	Average
2	0.150	44.38	66.00	-21.62	34.47	9.63	0.08	0.20	QP
3	0.158	28.10	55.56	-27.46	18.18	9.63	0.08	0.21	Average
4	0.158	42.93	65.56	-22.63	33.01	9.63	0.08	0.21	QP
5*	0.348	28.51	49.00	-20.49	18.50	9.62	0.08	0.31	Average
6	0.348	36.15	59.00	-22.85	26.14	9.62	0.08	0.31	QP
7	0.672	20.65	46.00	-25.35	10.58	9.63	0.09	0.35	Average
8	0.672	32.27	56.00	-23.73	22.20	9.63	0.09	0.35	QP
9	1.021	21.18	46.00	-24.82	11.10	9.63	0.09	0.36	Average
10	1.021	29.96	56.00	-26.04	19.88	9.63	0.09	0.36	QP
11	4.622	22.90	46.00	-23.10	12.61	9.66	0.21	0.42	Average
12	4.622	28.53	56.00	-27.47	18.24	9.66	0.21	0.42	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).

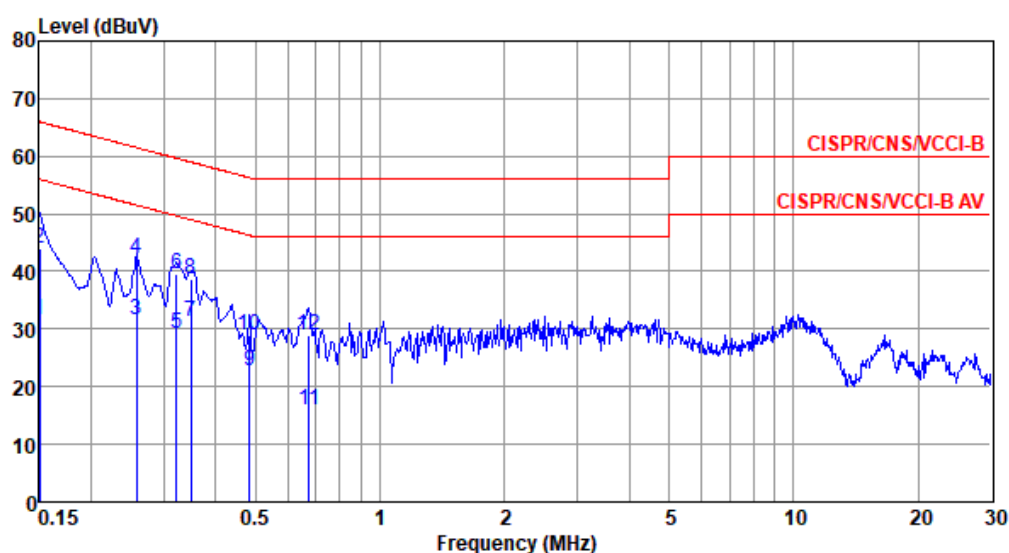


Modulation Mode	11b	Test Freq. (MHz)	2437
Power Phase	Neutral		

Test by : Joe Liao

Temperature: 23°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	0.150	31.55	56.00	-24.45	21.72	9.63	0.08	0.12	Average
2	0.150	44.07	66.00	-21.93	34.24	9.63	0.08	0.12	QP
3	0.258	31.71	51.51	-19.80	21.81	9.63	0.07	0.20	Average
4	0.258	42.16	61.51	-19.35	32.26	9.63	0.07	0.20	QP
5	0.322	29.19	49.66	-20.47	19.28	9.62	0.07	0.22	Average
6	0.322	39.66	59.66	-20.00	29.75	9.62	0.07	0.22	QP
7*	0.348	31.22	49.00	-17.78	21.29	9.62	0.08	0.23	Average
8	0.348	38.78	59.00	-20.22	28.85	9.62	0.08	0.23	QP
9	0.484	22.68	46.27	-23.59	12.72	9.62	0.08	0.26	Average
10	0.484	28.89	56.27	-27.38	18.93	9.62	0.08	0.26	QP
11	0.672	15.94	46.00	-30.06	5.94	9.63	0.09	0.28	Average
12	0.672	28.90	56.00	-27.10	18.90	9.63	0.09	0.28	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).