



FCC RADIO TEST REPORT

FCC ID : G95-CGA4236
Equipment : Cable Modem DOCSIS 3.1
Trade Name : technicolor
Model Number : CGA4236
Product Code : CGA4236VGW-TCH3;CGA4236DGW-TCH3;
CGA4236-TCH2
(Refer to section 1.1.5 for detail information)
Applicant : Technicolor Connected Home USA LLC
5030 Sugarloaf Parkway, Building 6,
Lawrenceville, Georgia, United States
Manufacturer : Technicolor Connected Home USA LLC
5030 Sugarloaf Parkway, Building 6,
Lawrenceville, Georgia, United States
Standard : 47 CFR FCC Part 15.247

The product was received on Apr. 09, 2020, and testing was started from Apr. 09, 2020 and completed on Jun. 08, 2020. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



Table of Contents

History of this test report.....3

Summary of Test Result.....4

1 General Description5

1.1 Information.....5

1.2 Applicable Standards8

1.3 Testing Location Information.....8

1.4 Measurement Uncertainty8

2 Test Configuration of EUT9

2.1 Test Channel Mode9

2.2 The Worst Case Measurement Configuration.....10

2.3 EUT Operation during Test11

2.4 Accessories11

2.5 Support Equipment.....11

2.6 Test Setup Diagram12

3 Transmitter Test Result15

3.1 AC Power-line Conducted Emissions15

3.2 DTS Bandwidth17

3.3 Maximum Conducted Output Power18

3.4 Power Spectral Density21

3.5 Emissions in Non-restricted Frequency Bands23

3.6 Emissions in Restricted Frequency Bands.....24

4 Test Equipment and Calibration Data28

Appendix A. Test Results of AC Power-line Conducted Emissions

Appendix B. Test Results of DTS Bandwidth

Appendix C. Test Results of Maximum Conducted Output Power

Appendix D. Test Results of Power Spectral Density

Appendix E. Test Results of Emissions in Non-restricted Frequency Bands

Appendix F. Test Results of Emissions in Restricted Frequency Bands

Appendix G. Test Photos

Photographs of EUT v01



History of this test report

Report No.	Version	Description	Issued Date
FR041508AA	01	Initial issue of report	Jun. 18, 2020



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.247(a)	DTS Bandwidth	PASS	-
3.3	15.247(b)	Maximum Conducted Output Power	PASS	-
3.4	15.247(e)	Power Spectral Density	PASS	-
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	-
3.6	15.247(d)	Emissions in Restricted Frequency Bands	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.

Reviewed by: **Sam Chen**

Report Producer: **Viola Huang**



1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
2400-2483.5	b, g, n (HT20), VHT20, ax (HEW20)	2412-2462	1-11 [11]
2400-2483.5	n (HT40), VHT40, ax (HEW40)	2422-2452	3-9 [7]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	11b	20	3
2.4-2.4835GHz	11g	20	3
2.4-2.4835GHz	n (HT20)	20	3
2.4-2.4835GHz	n (HT40)	40	3
2.4-2.4835GHz	VHT20	20	3
2.4-2.4835GHz	VHT40	40	3
2.4-2.4835GHz	ax (HEW20)	20	3
2.4-2.4835GHz	ax (HEW40)	40	3

Note:

- 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- 11g, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- VHT20, VHT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- HEW20, HEW40 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- BWch is the nominal channel bandwidth.



1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	TCH	1415-07JS0V8	Dipole Antenna	N/A	Note 1
2	2	TCH	1415-07JT0V8	Dipole Antenna	N/A	
3	3	TCH	1415-07JR0V8	Dipole Antenna	N/A	
4	1	TCH	1415-07JV0V8	Dipole Antenna	N/A	
5	2	TCH	1415-07JU0V8	Dipole Antenna	N/A	
6	3	TCH	1415-07JV0V8	Dipole Antenna	N/A	
7	4	TCH	1415-07JU0V8	Dipole Antenna	N/A	

Note 1:

Ant.	Uncorrelated Gain (dBi)		
	2.4GHz	5GHz Band 1	5GHz Band 4
1	2.35	-	-
2	3.32	-	-
3	2.87	-	-
4	-	2.90	4.64
5	-	3.42	2.20
6	-	2.92	2.48
7	-	2.68	3.51
Correlated Gain (dBi)	6.01	6.63	7.30

Note 2: The above information was declared by manufacturer.

For 2.4GHz function:

For IEEE 802.11b/g/n/VHT/ax mode (3TX/3RX)

Ant.1, Ant. 2 and Ant. 3 can be used as transmitting/receiving antenna.

Ant.1, Ant. 2 and Ant. 3 could transmit/receive simultaneously.

For 5GHz function:

For IEEE 802.11a/n/ac/ax mode (4TX/4RX)

Ant. 4, Ant. 5, Ant. 6 and Ant. 7 can be used as transmitting/receiving antenna.

Ant. 4, Ant. 5, Ant. 6 and Ant. 7 could transmit/receive simultaneously.



1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	0.94	0.27	12.424m	100
802.11g	0.952	0.21	2.072m	1k
802.11ax HEW20	0.981	0.08	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ax HEW40	0.964	0.16	780.625u	3k

Note:

- ◆ DC is Duty Cycle.
- ◆ DCF is Duty Cycle Factor.

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter			
Beamforming Function	<input type="checkbox"/> With beamforming	<input checked="" type="checkbox"/>	Without beamforming	
Function	<input checked="" type="checkbox"/> Point-to-multipoint	<input type="checkbox"/>	Point-to-point	
Test Software Version	accessMTool			
Firmware Version	Broadcom BCA: 17.10 RC121.11 wl0: Feb 19 2020 10:51:50 version 17.10.121.11 (r783116 WLTEST)			

Note: The above information was declared by manufacturer.

1.1.5 Table for Multiple Listing

Porduct Code	Description
CGA4236VGW-TCH3	All the porduct code are identical, the difference porduct code as marketing strategy.
CGA4236DGW-TCH3	
CGA4236-TCH2	

From the above list, Porduct Code: CGA4236VGW-TCH3 was selected as representative model for the test and its data was recorded in this report.



1.2 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ◆ 47 CFR FCC Part 15
- ◆ ANSI C63.10-2013

The following reference test guidance is not within the scope of accreditation of TAF.

- ◆ FCC KDB 558074 D01 v05r02
- ◆ FCC KDB 662911 D01 v02r01
- ◆ FCC KDB 414788 D01 v01r01

1.3 Testing Location Information

Testing Location		
<input type="checkbox"/>	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL : 886-3-327-3456 FAX : 886-3-327-0973
<input checked="" type="checkbox"/>	JHUBEI	ADD : No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C. TEL : 886-3-656-9065 FAX : 886-3-656-9085

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Paul Chen	21.5~23.1°C / 56~58%	May 06, 2020 ~ Jun. 04, 2020
Radiated below 1GHz	03CH04-CB	Paul Chen	21.5~24.6°C / 56~60%	Jun. 06, 2020
Radiated above 1GHz	03CH05-CB	Paul Chen	21.4~23.5°C / 57~59%	Apr. 09, 2020 ~ Jun. 06, 2020
AC Conduction	CO02-CB	GN Hou	21~23°C / 62~65%	Jun. 08, 2020

Test site Designation No. TW0006 with FCC.

Test site registered number IC 4086D with Industry Canada.

1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	2.0 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	5.1 dB	Confidence levels of 95%
Conducted Emission	2.4 dB	Confidence levels of 95%
Output Power Measurement	1.5 dB	Confidence levels of 95%
Power Density Measurement	2.4 dB	Confidence levels of 95%
Bandwidth Measurement	2%	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
802.11b_Nss1,(1Mbps)_3TX	-
2412MHz	96
2437MHz	96
2462MHz	96
802.11g_Nss1,(6Mbps)_3TX	-
2412MHz	78
2417MHz	88
2437MHz	96
2457MHz	87
2462MHz	79
802.11ax HEW20_Nss1,(MCS0)_3TX	-
2412MHz	74
2417MHz	86
2437MHz	96
2457MHz	84
2462MHz	71
802.11ax HEW40_Nss1,(MCS0)_3TX	-
2422MHz	76
2437MHz	80
2452MHz	71

Note:

- ♦ VHT20/VHT40 covers HT20/HT40, due to same modulation. The power setting for 802.11n HT20 and HT40 are the same or lower than 802.11ac VHT20 and VHT40.



2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	CTX
1	EUT_2.4GHz + Adapter 1
2	EUT_2.4GHz + Adapter 2
Mode 1 has been evaluated to be the worst case among Mode 1~2, thus measurement for Mode 3 will follow this same test mode.	
3	EUT_5GHz + Adapter 1
For operating mode 1 is the worst case and it was record in this test report.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	DTS Bandwidth Maximum Conducted Output Power Power Spectral Density Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	CTX
1	EUT_2.4GHz + Adapter 1
2	EUT_2.4GHz + Adapter 2
Mode 2 has been evaluated to be the worst case among Mode 1~2, thus measurement for Mode 3 will follow this same test mode.	
3	EUT_5GHz + Adapter 2
For operating mode 3 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX



The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz + WLAN 5GHz
Refer to Sporton Test Report No.: FA041508 for Co-location RF Exposure Evaluation.	

Note: The EUT can be used at Y axis position.

2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

2.4 Accessories

Accessories			
Equipment Name	Brand Name	Model Name	Rating
Adapter 1	HOIOTO	ADS-36FKJ-12 12036EPCU	INPUT: 100-240V, 50/60Hz, Max.1.0A OUTPUT: 12V, 3.0A
Adapter 2	AcBel	ADG009 AD:AD0G2	INPUT: 100-240V, 50/60Hz, MAX.1.5A OUTPUT: 12V, 4.5A
Others			
Power cord*1, Non-shielded, 1.8m (For adapter 2 use)			

2.5 Support Equipment

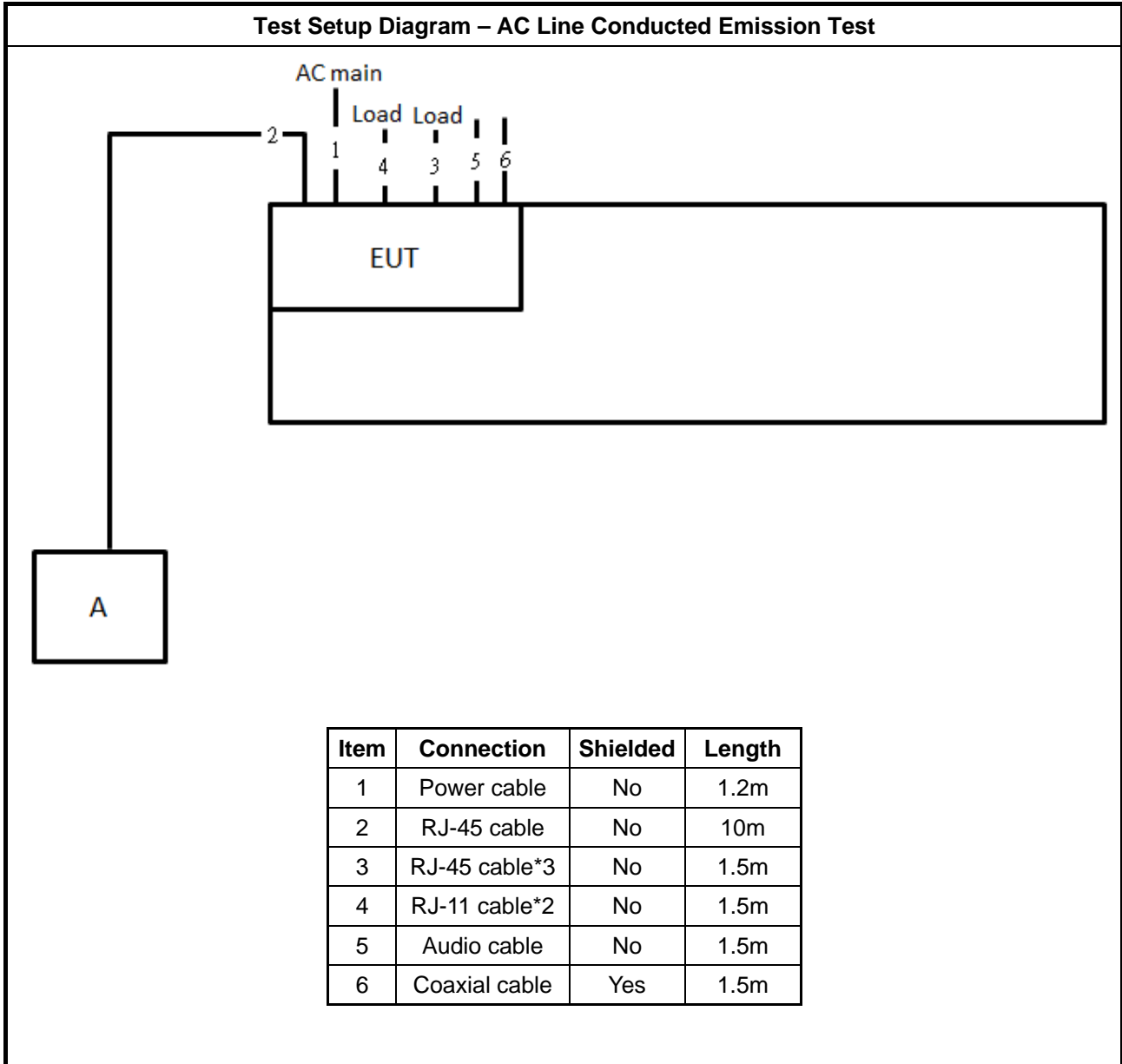
For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	LAN NB	DELL	E6430	N/A

For Radiated and RF Conducted:

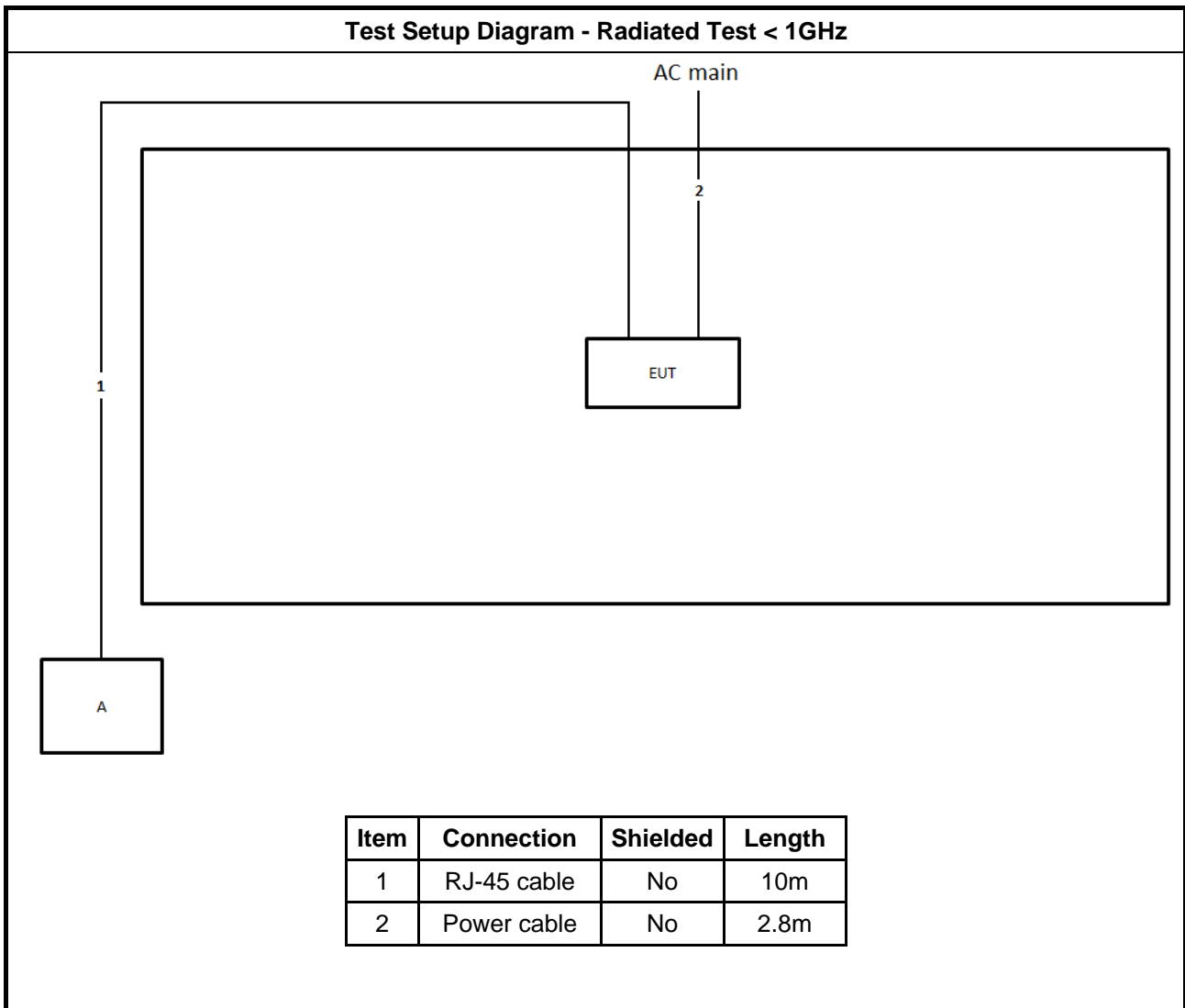
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A

2.6 Test Setup Diagram





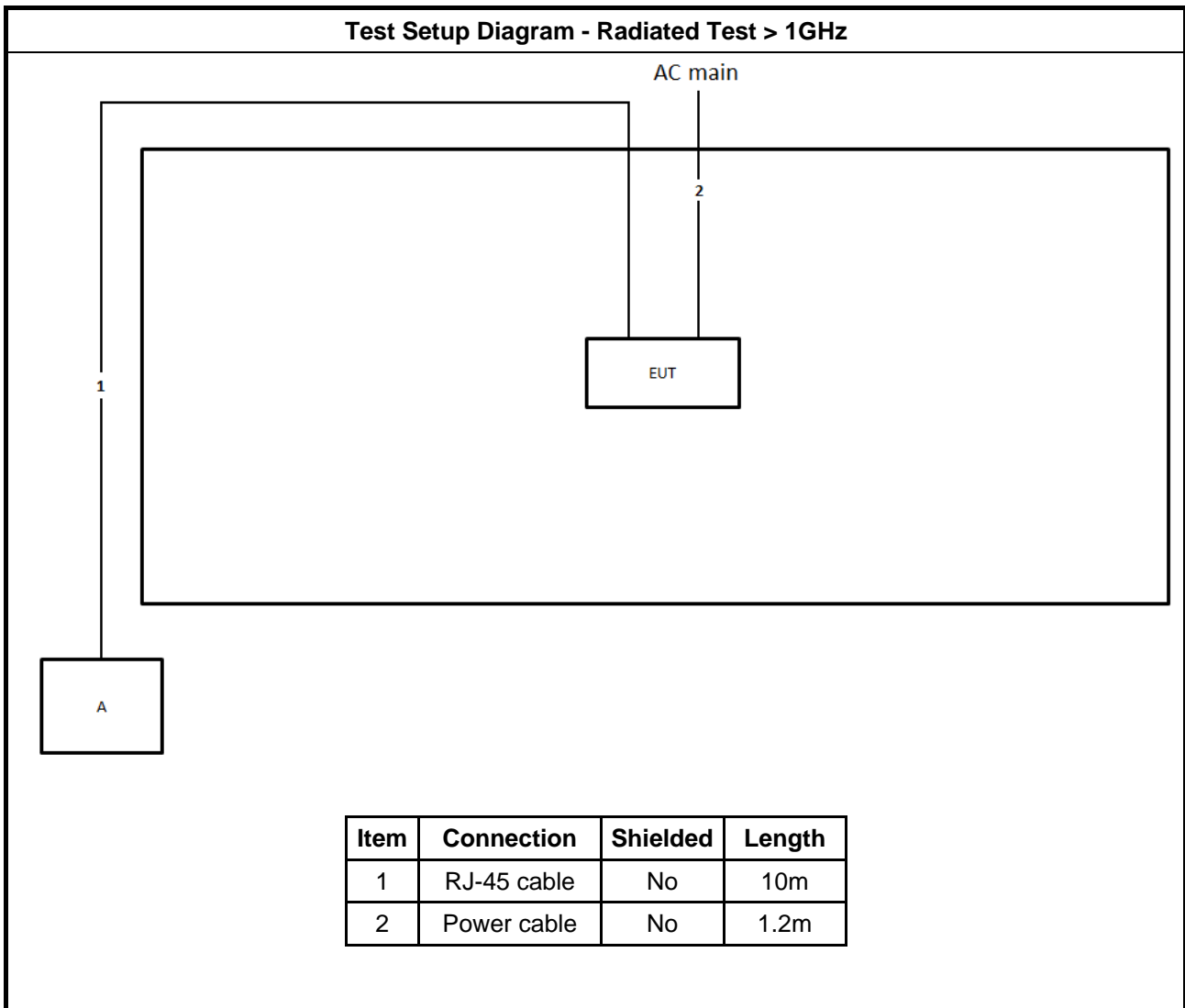
Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m
2	Power cable	No	2.8m



Test Setup Diagram - Radiated Test > 1GHz



Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m
2	Power cable	No	1.2m



3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line 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.

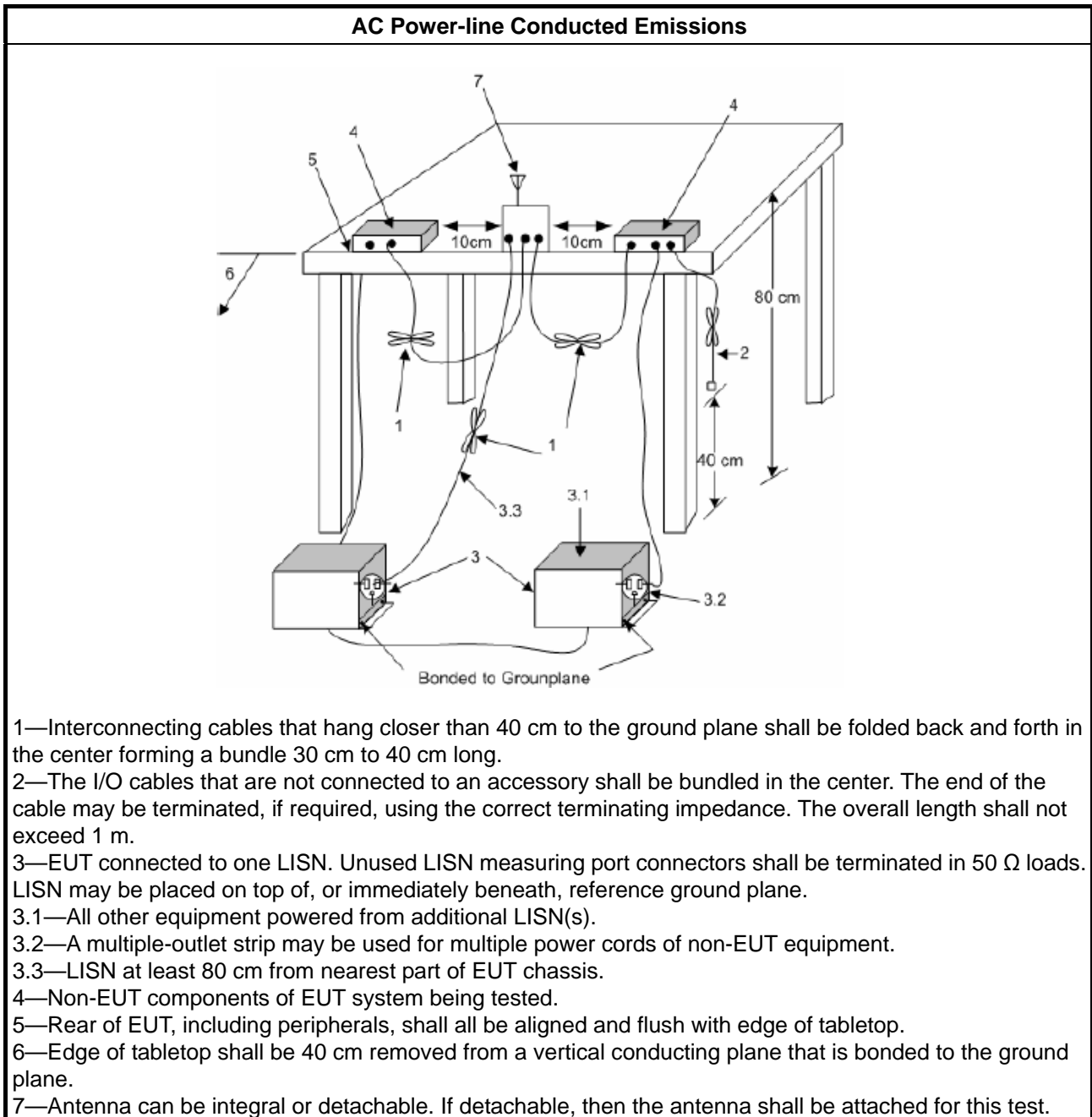
3.1.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

Test Method
<input checked="" type="checkbox"/> Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Test Setup



3.1.5 Measurement Results Calculation

The measured Level is calculated using:

- a. Corrected Reading (dBuV) = LISN Factor + Cable Loss + Read Level = Level
- b. Margin = - Limit + (Read Level + LISN Factor + Cable Loss)

3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit
Systems using digital modulation techniques:
<ul style="list-style-type: none"> ▪ 6 dB bandwidth \geq 500 kHz.

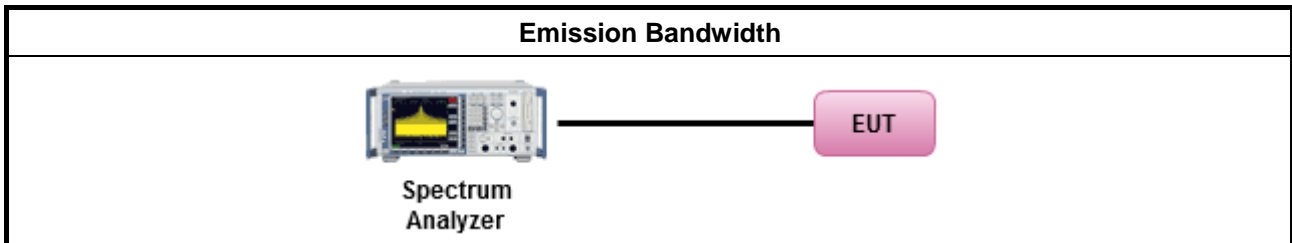
3.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

Test Method
<ul style="list-style-type: none"> ▪ For the emission bandwidth shall be measured using one of the options below:
<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.1 Option 1 for 6 dB bandwidth measurement.
<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.2 Option 2 for 6 dB bandwidth measurement.
<input type="checkbox"/> Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B



3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
	<ul style="list-style-type: none"> ▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)
	<ul style="list-style-type: none"> ▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm
	<ul style="list-style-type: none"> ▪ Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> ▪ Smart antenna system (SAS):
	<ul style="list-style-type: none"> - Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> - Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> - Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$ dB dBm
<p>P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.</p>	

3.3.2 Measuring Instruments

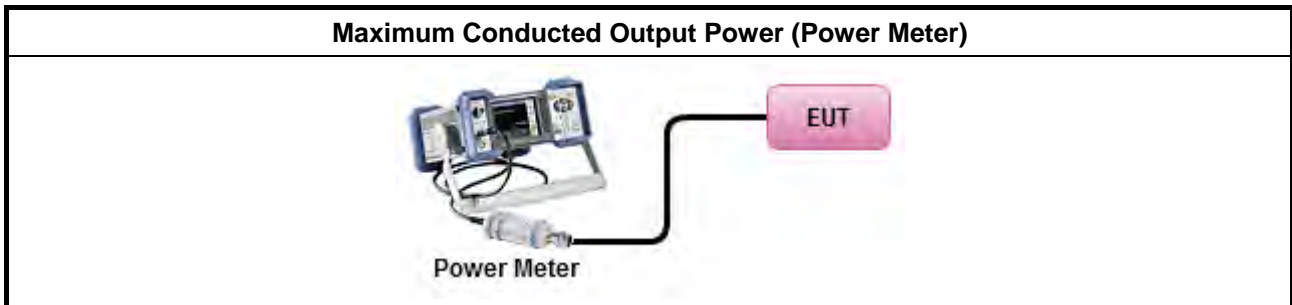
Refer a test equipment and calibration data table in this test report.



3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ Maximum Peak Conducted Output Power 	
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 8.3.1.1 & C63.10 clause 11.9.1.1 (RBW ≥ EBW method).
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 8.3.1.3 & C63.10 clause 11.9.1.3 (peak power meter).
<ul style="list-style-type: none"> ▪ Maximum Conducted Output Power 	
[duty cycle ≥ 98% or external video / power trigger]	
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.2 Method AVGSA-1.
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.3 Method AVGSA-1A. (alternative)
duty cycle < 98% and average over on/off periods with duty factor	
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.4 Method AVGSA-2.
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.5 Method AVGSA-2A (alternative)
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.6 Method AVGSA-3
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.7 Method AVGSA-3A (alternative)
Measurement using a power meter (PM)	
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.1 Method AVGPM (using an RF average power meter).
<input checked="" type="checkbox"/>	Refer as FCC KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.2 Method AVGPM-G (using an gate RF average power meter).
<ul style="list-style-type: none"> ▪ For conducted measurement. 	
<ul style="list-style-type: none"> ▪ If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them. 	
<ul style="list-style-type: none"> ▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$ 	

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C



3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

Power Spectral Density Limit
<ul style="list-style-type: none"> Power Spectral Density (PSD) \leq 8 dBm/3kHz

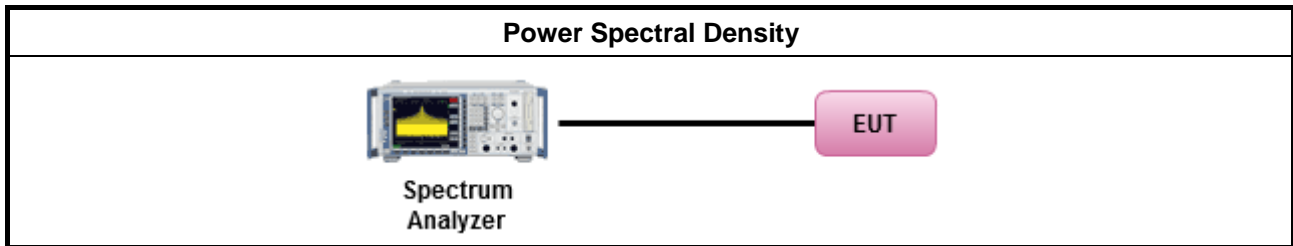
3.4.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.4.3 Test Procedures

Test Method			
<ul style="list-style-type: none"> Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option). 			
<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10 Method Max. PSD.			
<ul style="list-style-type: none"> For conducted measurement. <ul style="list-style-type: none"> If The EUT supports multiple transmit chains using options given below: <table border="1"> <tbody> <tr> <td> <input checked="" type="checkbox"/> Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace. </td> </tr> <tr> <td> <input type="checkbox"/> Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits, </td> </tr> <tr> <td> <input type="checkbox"/> Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit. </td> </tr> </tbody> </table> 	<input checked="" type="checkbox"/> Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.	<input type="checkbox"/> Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,	<input type="checkbox"/> Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.
<input checked="" type="checkbox"/> Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.			
<input type="checkbox"/> Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,			
<input type="checkbox"/> Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.			

3.4.4 Test Setup



3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	Limit (dBc)
Peak output power procedure	20
Average output power procedure	30

Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level.

Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average PSD level.

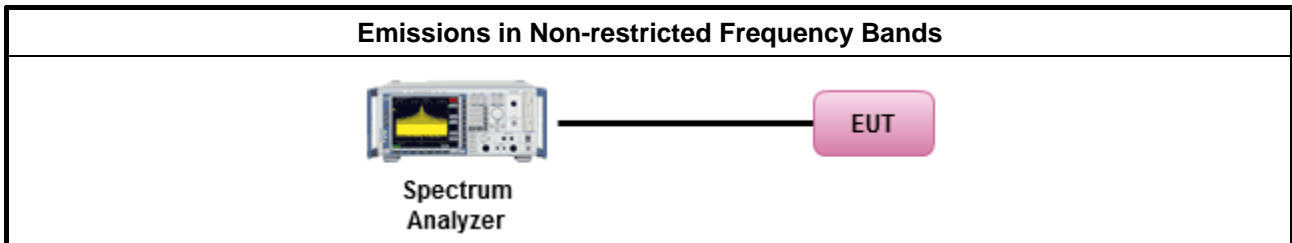
3.5.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method
<ul style="list-style-type: none"> Refer as FCC KDB 558074, clause 8.5 for unwanted emissions into non-restricted bands.

3.5.4 Test Setup



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E



3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

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: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

3.6.2 Measuring Instruments

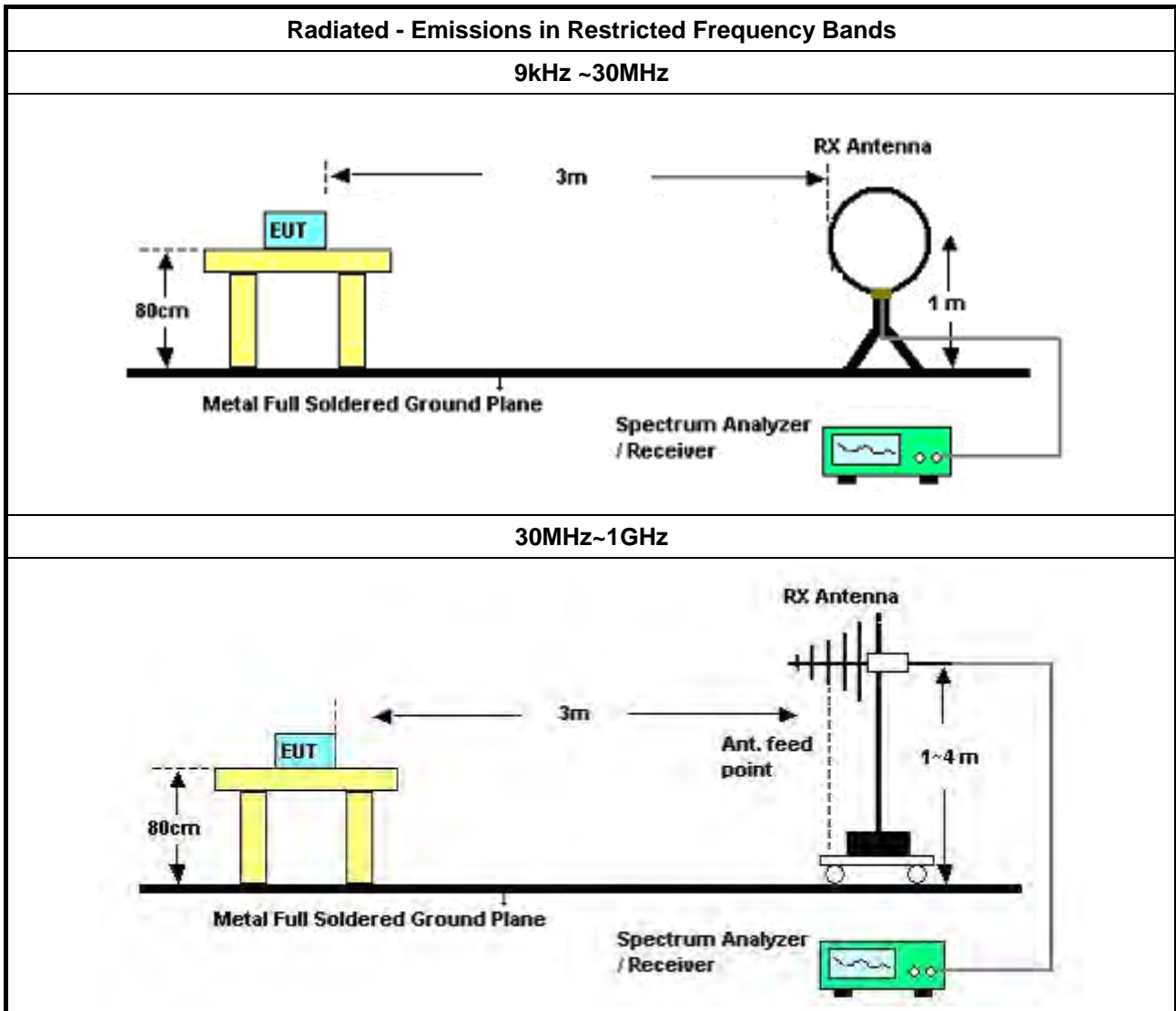
Refer a test equipment and calibration data table in this test report.

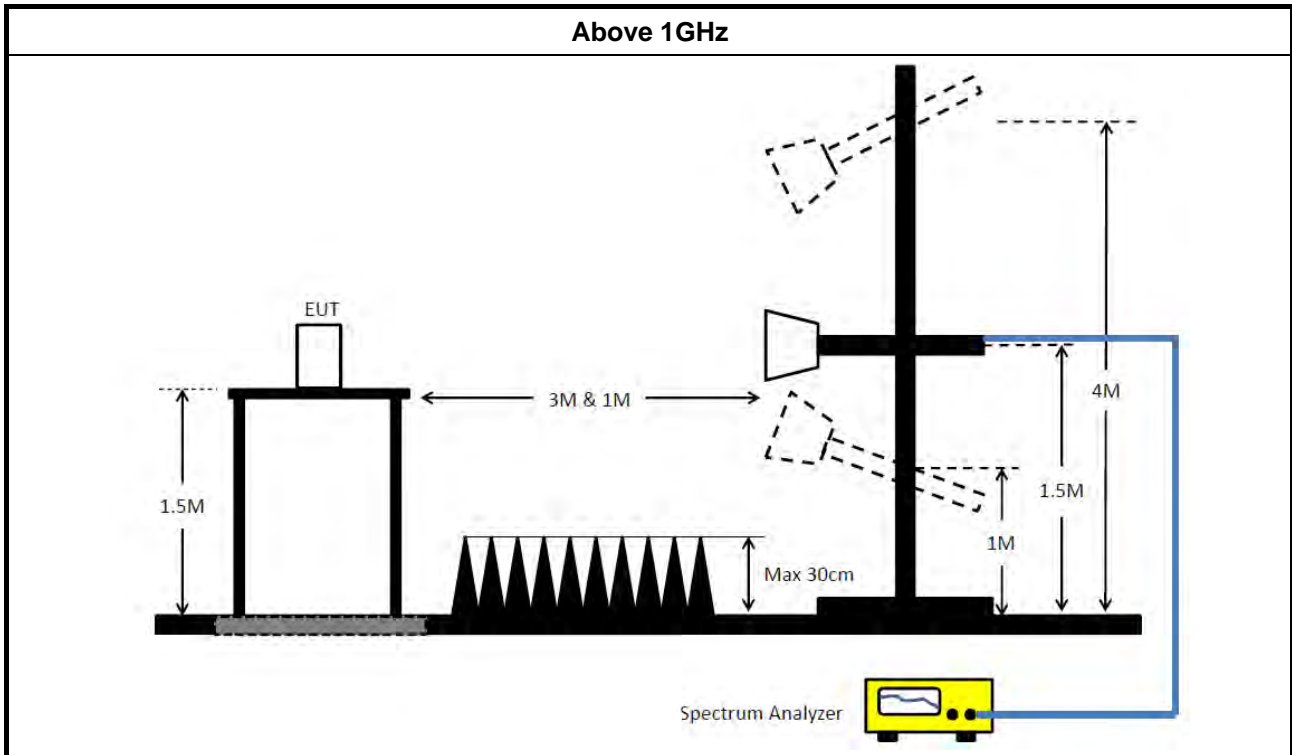


3.6.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ The average emission levels shall be measured in [duty cycle \geq 98 or duty factor]. 	
<ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band. 	
<ul style="list-style-type: none"> ▪ For the transmitter unwanted emissions shall be measured using following options below: 	
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 558074, clause 8.6 for unwanted emissions into restricted bands.
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.1(trace averaging for duty cycle \geq 98%).
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.2(trace averaging + duty factor).
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.3(Reduced VBW \geq 1/T).
	<input type="checkbox"/> Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW \geq 1/T, where T is pulse time.
	<input type="checkbox"/> Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.4 measurement procedure peak limit.
<ul style="list-style-type: none"> ▪ For the transmitter band-edge emissions shall be measured using following options below: 	
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 558074 clause 8.7 & C63.10 clause 11.13.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 558074, clause 8.7 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 558074, clause 8.7 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).
	<ul style="list-style-type: none"> ▪ For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB
	<ul style="list-style-type: none"> ▪ For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.

3.6.4 Test Setup





3.6.5 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor (if applicable) = Level.

3.6.6 Emissions in Restricted Frequency Bands (Below 30MHz)

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to KDB414788 Radiated Test Site, and the result came out very similar.

All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10 harmonic or 40 GHz, whichever is appropriate.

3.6.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F



4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
LISN	Schwarzbeck	NSLK 8127	8127650	9kHz ~ 30MHz	Nov. 21, 2019	Nov. 20, 2020	Conduction (CO02-CB)
LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Oct. 30, 2019	Oct. 29, 2020	Conduction (CO02-CB)
EMI Receiver	Agilent	N9038A	MY52260140	9kHz ~ 8.4GHz	Mar. 10, 2020	Mar. 09, 2021	Conduction (CO02-CB)
COND Cable	Woken	Cable	2	0.15MHz ~ 30MHz	Oct. 21, 2019	Oct. 20, 2020	Conduction (CO02-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO02-CB)
BILOG ANTENNA with 6 dB attenuator	Schaffner & EMCI	CBL6112B & N-6-06	22021&AT-N06 07	30MHz ~ 1GHz	Oct. 12, 2019	Oct. 11, 2020	Radiation (03CH04-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Apr. 13, 2020	Apr. 12, 2021	Radiation (03CH04-CB)
Pre-Amplifier	Agilent	310N	187291	0.1MHz ~ 1GHz	Mar. 19, 2020	Mar. 18, 2021	Radiation (03CH04-CB)
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Dec. 18, 2019	Dec. 17, 2020	Radiation (03CH04-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	May 13, 2020	May 12, 2021	Radiation (03CH04-CB)
RF Cable-low	Woken	RG402	Low Cable-03+22	30MHz ~ 1GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH04-CB)
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA 9120D-1291	1GHz~18GHz	Oct. 05, 2019	Oct. 04, 2020	Radiation (03CH05-CB)
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170507	15GHz ~ 40GHz	Jun. 12, 2019	Jun. 11, 2020	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC12630SE	980287	1GHz ~ 26.5GHz	Apr. 16, 2019	Apr. 15, 2020	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC12630SE	980287	1GHz ~ 26.5GHz	Apr. 15, 2020	Apr. 14, 2021	Radiation (03CH05-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 03, 2019	Jul. 02, 2020	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Aug. 15, 2019	Aug. 14, 2020	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-28	1GHz~18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-04+28	1GHz~18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH05-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	May 05, 2020	May 04, 2021	Conducted (TH01-CB)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-06	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz –26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz –26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz –26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-28	1 GHz –26.5 GHz	Nov. 18, 2019	Nov. 17, 2020	Conducted (TH01-CB)
Power Sensor	Agilent	E9327A	US40442088	50MHz~18GHz	Feb. 07, 2020	Feb. 06, 2021	Conducted (TH01-CB)
Power Meter	Agilent	E4416A	GB41291199	50MHz~18GHz	Feb. 07, 2020	Feb. 06, 2021	Conducted (TH01-CB)

Note: Calibration Interval of instruments listed above is one year.

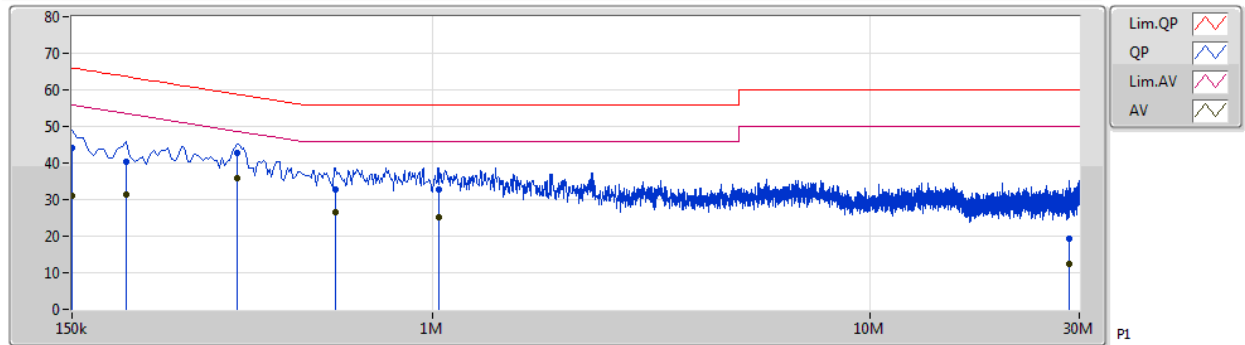
N.C.R. means Non-Calibration required.



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition
Mode 1	Pass	AV	357k	35.69	48.79	-13.10	10.23	Line

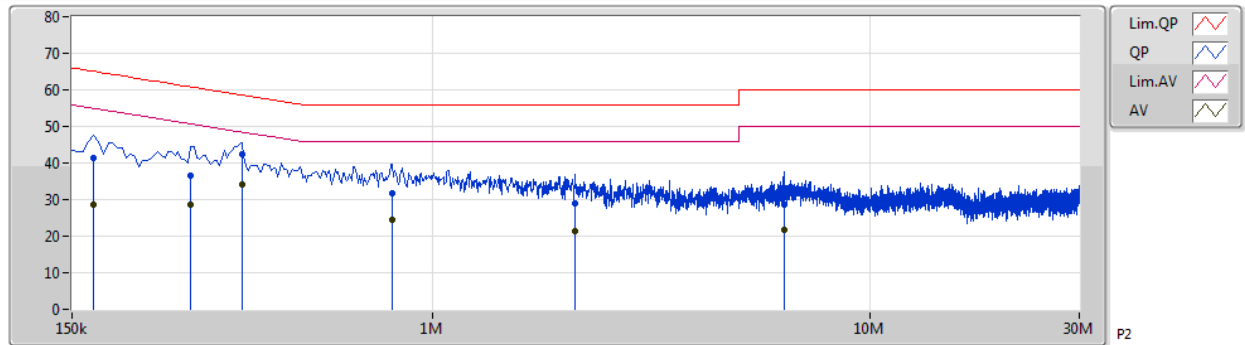
Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	AF (dB)	CL (dB)	AT (dB)
QP	150k	43.98	66.00	-22.02	10.20	Line	-	33.78	0.05	0.05	10.10
AV	150k	31.04	56.00	-24.96	10.20	Line	-	20.84	0.05	0.05	10.10
QP	199.5k	40.44	63.63	-23.19	10.22	Line	-	30.22	0.05	0.07	10.10
AV	199.5k	31.35	53.63	-22.28	10.22	Line	-	21.13	0.05	0.07	10.10
QP	357k	42.92	58.79	-15.87	10.23	Line	-	32.69	0.05	0.08	10.10
AV	357k	35.69	48.79	-13.10	10.23	Line	"Worst"	25.46	0.05	0.08	10.10
QP	600k	32.82	56.00	-23.18	10.25	Line	-	22.57	0.05	0.10	10.10
AV	600k	26.39	46.00	-19.61	10.25	Line	-	16.14	0.05	0.10	10.10
QP	1.032M	32.89	56.00	-23.11	10.28	Line	-	22.61	0.06	0.12	10.10
AV	1.032M	25.27	46.00	-20.73	10.28	Line	-	14.99	0.06	0.12	10.10
QP	28.518M	19.41	60.00	-40.59	10.97	Line	-	8.44	0.60	0.24	10.13
AV	28.518M	12.54	50.00	-37.46	10.97	Line	-	1.57	0.60	0.24	10.13



Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	AF (dB)	CL (dB)	AT (dB)
QP	168k	41.54	65.06	-23.52	10.21	Neutral	-	31.33	0.05	0.06	10.10
AV	168k	28.60	55.06	-26.46	10.21	Neutral	-	18.39	0.05	0.06	10.10
QP	280.5k	36.48	60.80	-24.32	10.22	Neutral	-	26.26	0.05	0.07	10.10
AV	280.5k	28.68	50.80	-22.12	10.22	Neutral	-	18.46	0.05	0.07	10.10
QP	366k	42.37	58.60	-16.23	10.23	Neutral	-	32.14	0.05	0.08	10.10
AV	366k	34.24	48.60	-14.36	10.23	Neutral	"Worst"	24.01	0.05	0.08	10.10
QP	807k	31.89	56.00	-24.11	10.27	Neutral	-	21.62	0.06	0.11	10.10
AV	807k	24.52	46.00	-21.48	10.27	Neutral	-	14.25	0.06	0.11	10.10
QP	2.112M	28.93	56.00	-27.07	10.34	Neutral	-	18.59	0.08	0.16	10.10
AV	2.112M	21.32	46.00	-24.68	10.34	Neutral	-	10.98	0.08	0.16	10.10
QP	6.338M	28.61	60.00	-31.39	10.42	Neutral	-	18.19	0.15	0.16	10.11
AV	6.338M	21.81	50.00	-28.19	10.42	Neutral	-	11.39	0.15	0.16	10.11



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)_3TX	7.525M	10.42M	10M4G1D	6.525M	10.32M
802.11g_Nss1,(6Mbps)_3TX	16.35M	16.842M	16M8D1D	16.3M	16.617M
802.11ax HEW20_Nss1,(MCS0)_3TX	18.95M	19.165M	19M2D1D	18.825M	18.991M
802.11ax HEW40_Nss1,(MCS0)_3TX	37.65M	37.531M	37M5D1D	36.05M	36.282M

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)
802.11b_Nss1,(1Mbps)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	7.05M	10.395M	7M	10.345M	7.05M	10.32M
2437MHz	Pass	500k	7.05M	10.395M	6.575M	10.37M	7.075M	10.32M
2462MHz	Pass	500k	6.55M	10.42M	7.525M	10.345M	6.525M	10.32M
802.11g_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	16.35M	16.742M	16.325M	16.717M	16.325M	16.617M
2437MHz	Pass	500k	16.325M	16.817M	16.35M	16.842M	16.3M	16.767M
2462MHz	Pass	500k	16.325M	16.717M	16.35M	16.717M	16.325M	16.617M
802.11ax HEW20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	18.95M	18.991M	18.925M	19.04M	18.9M	19.065M
2437MHz	Pass	500k	18.85M	19.115M	18.825M	19.09M	18.875M	19.165M
2462MHz	Pass	500k	18.925M	18.991M	18.95M	19.04M	18.925M	19.065M
802.11ax HEW40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	37.65M	37.531M	37.3M	37.531M	36.95M	37.481M
2437MHz	Pass	500k	36.05M	36.482M	36.35M	36.332M	36.35M	36.282M
2452MHz	Pass	500k	37.05M	37.431M	37.35M	37.481M	37.05M	37.481M

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

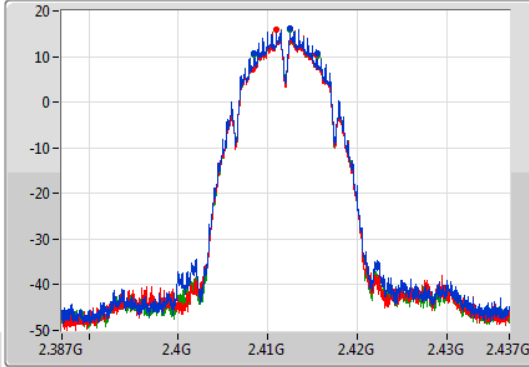
802.11b_Nss1,(1Mbps)_3TX

EBW

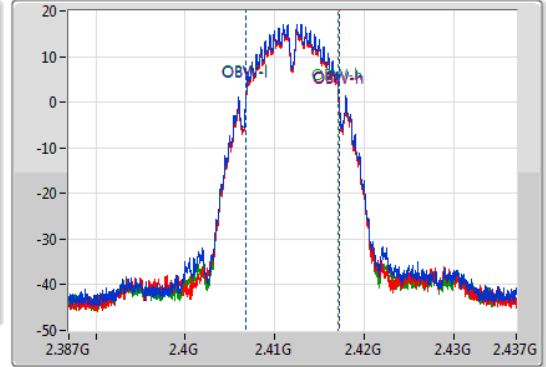
2412MHz

06/05/2020

CF
2.412GHz
Span
50MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
2.412GHz
Span
50MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.05M	2.40845G	2.4155G	10.395M	2.406803G	2.417197G	500k	1
7M	2.40845G	2.41545G	10.345M	2.406828G	2.417172G	500k	2
7.05M	2.40845G	2.4155G	10.32M	2.406828G	2.417147G	500k	3

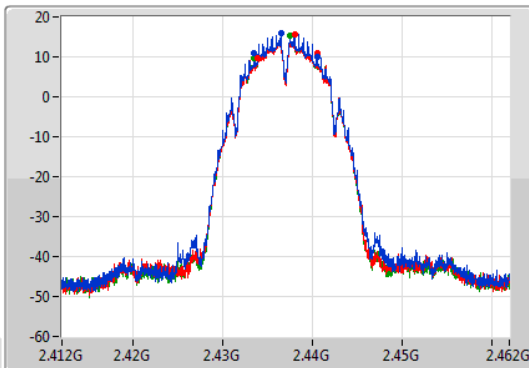
802.11b_Nss1,(1Mbps)_3TX

EBW

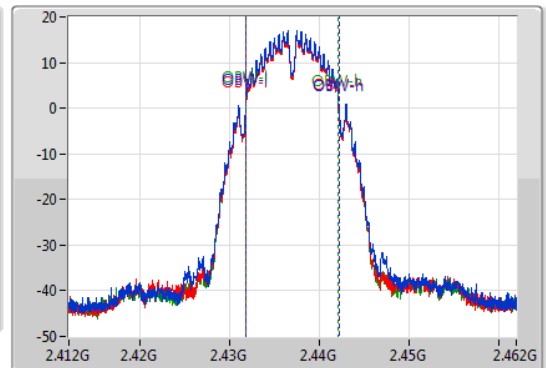
2437MHz

06/05/2020

CF
2.437GHz
Span
50MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
2.437GHz
Span
50MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.05M	2.43345G	2.4405G	10.395M	2.431803G	2.442197G	500k	1
6.575M	2.433925G	2.4405G	10.37M	2.431803G	2.442172G	500k	2
7.075M	2.433425G	2.4405G	10.32M	2.431828G	2.442147G	500k	3

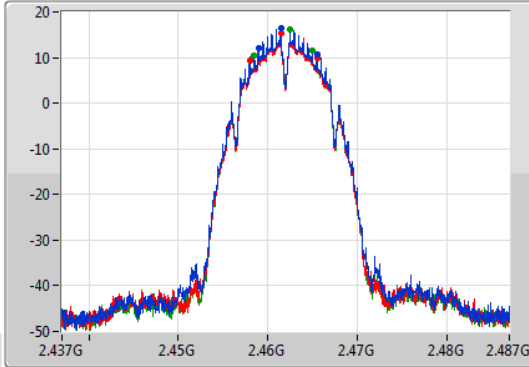
802.11b_Nss1,(1Mbps)_3TX

EBW

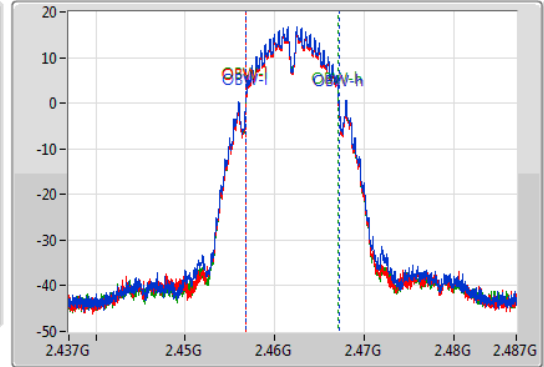
2462MHz

06/05/2020

CF
2.462GHz
Span
50MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
2.462GHz
Span
50MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
6.55M	2.45895G	2.4655G	10.42M	2.456778G	2.467197G	500k	1
7.525M	2.457975G	2.4655G	10.345M	2.456828G	2.467172G	500k	2
6.525M	2.458475G	2.465G	10.32M	2.456828G	2.467147G	500k	3

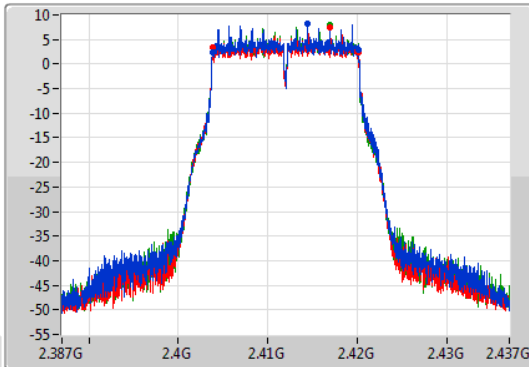
802.11g_Nss1,(6Mbps)_3TX

EBW

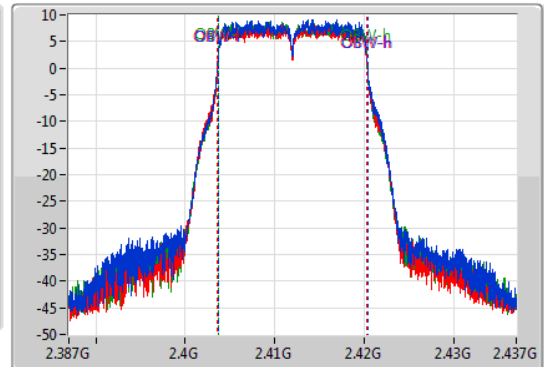
2412MHz

06/05/2020

CF
2.412GHz
Span
50MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
2.412GHz
Span
50MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	2.4038G	2.42015G	16.742M	2.403654G	2.420396G	500k	1
16.325M	2.403825G	2.42015G	16.717M	2.403629G	2.420346G	500k	2
16.325M	2.403825G	2.42015G	16.617M	2.403679G	2.420296G	500k	3

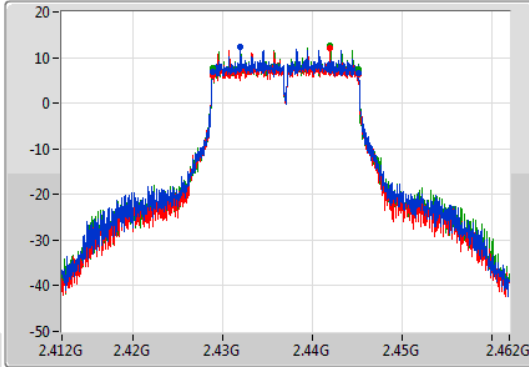
802.11g_Nss1,(6Mbps)_3TX

EBW

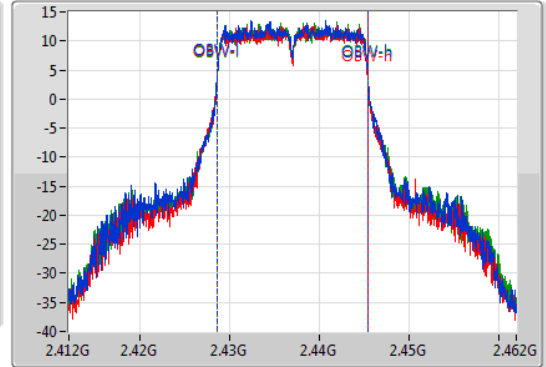
2437MHz

06/05/2020

CF
2.437GHz
Span
50MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
2.437GHz
Span
50MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.428825G	2.44515G	16.817M	2.428604G	2.445421G	500k	1
16.35M	2.4288G	2.44515G	16.842M	2.428579G	2.445421G	500k	2
16.3M	2.428825G	2.445125G	16.767M	2.428604G	2.445371G	500k	3

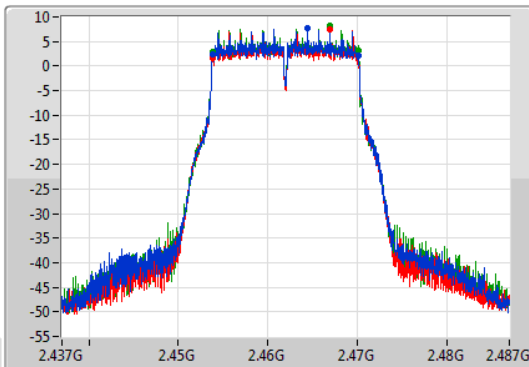
802.11g_Nss1,(6Mbps)_3TX

EBW

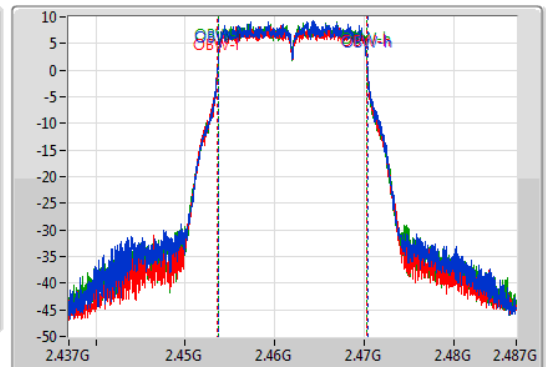
2462MHz

06/05/2020

CF
2.462GHz
Span
50MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
2.462GHz
Span
50MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.453825G	2.47015G	16.717M	2.453654G	2.470371G	500k	1
16.35M	2.4538G	2.47015G	16.717M	2.453629G	2.470346G	500k	2
16.325M	2.453825G	2.47015G	16.617M	2.453679G	2.470296G	500k	3

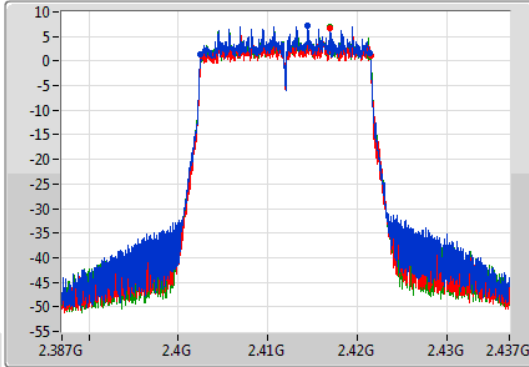
802.11ax HEW20_Nss1,(MCS0)_3TX

EBW

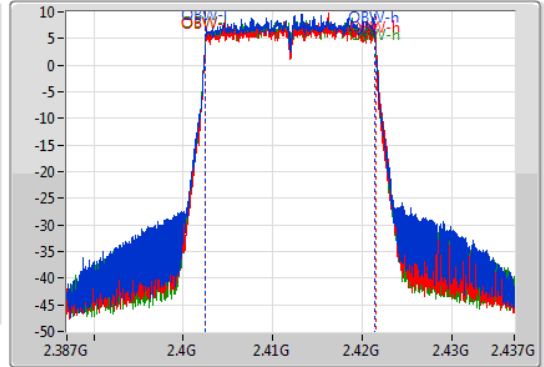
2412MHz

06/05/2020

CF
2.412GHz
Span
50MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
2.412GHz
Span
50MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.95M	2.4025G	2.42145G	18.991M	2.40248G	2.42147G	500k	1
18.925M	2.40255G	2.421475G	19.04M	2.40248G	2.42152G	500k	2
18.9M	2.40255G	2.42145G	19.065M	2.40248G	2.421545G	500k	3

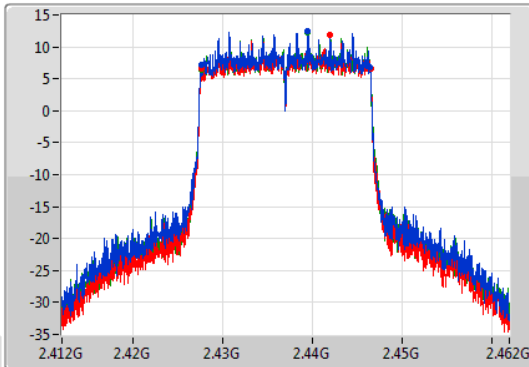
802.11ax HEW20_Nss1,(MCS0)_3TX

EBW

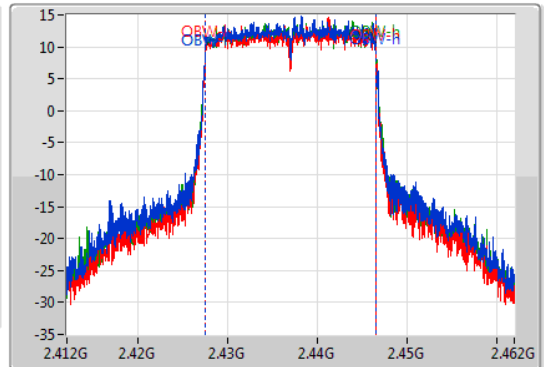
2437MHz

06/05/2020

CF
2.437GHz
Span
50MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
2.437GHz
Span
50MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.85M	2.427575G	2.446425G	19.115M	2.42743G	2.446545G	500k	1
18.825M	2.42765G	2.446475G	19.09M	2.42748G	2.44657G	500k	2
18.875M	2.427575G	2.44645G	19.165M	2.42743G	2.446595G	500k	3

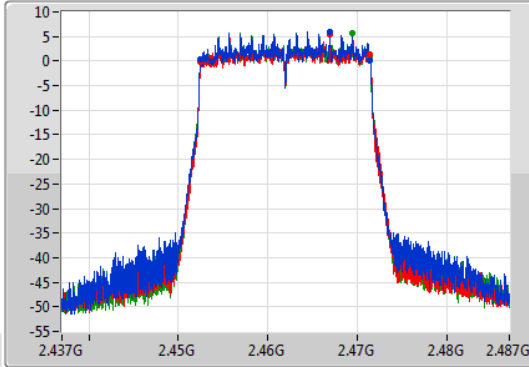
802.11ax HEW20_Nss1,(MCS0)_3TX

EBW

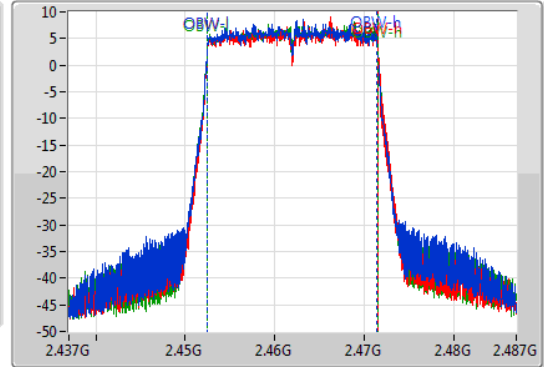
2462MHz

06/05/2020

CF
2.462GHz
Span
50MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
2.462GHz
Span
50MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.925M	2.4525G	2.471425G	18.991M	2.45248G	2.47147G	500k	1
18.95M	2.4525G	2.47145G	19.04M	2.452505G	2.471545G	500k	2
18.925M	2.452525G	2.47145G	19.065M	2.45248G	2.471545G	500k	3

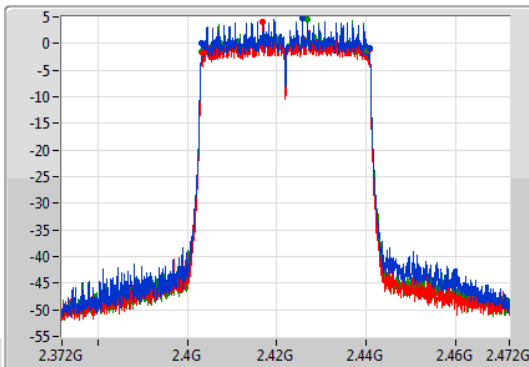
802.11ax HEW40_Nss1,(MCS0)_3TX

EBW

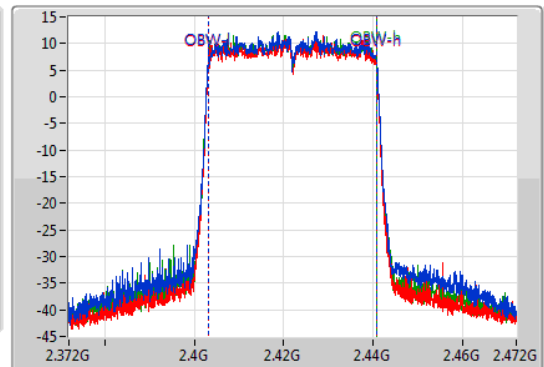
2422MHz

06/05/2020

CF
2.422GHz
Span
100MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
2.422GHz
Span
100MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



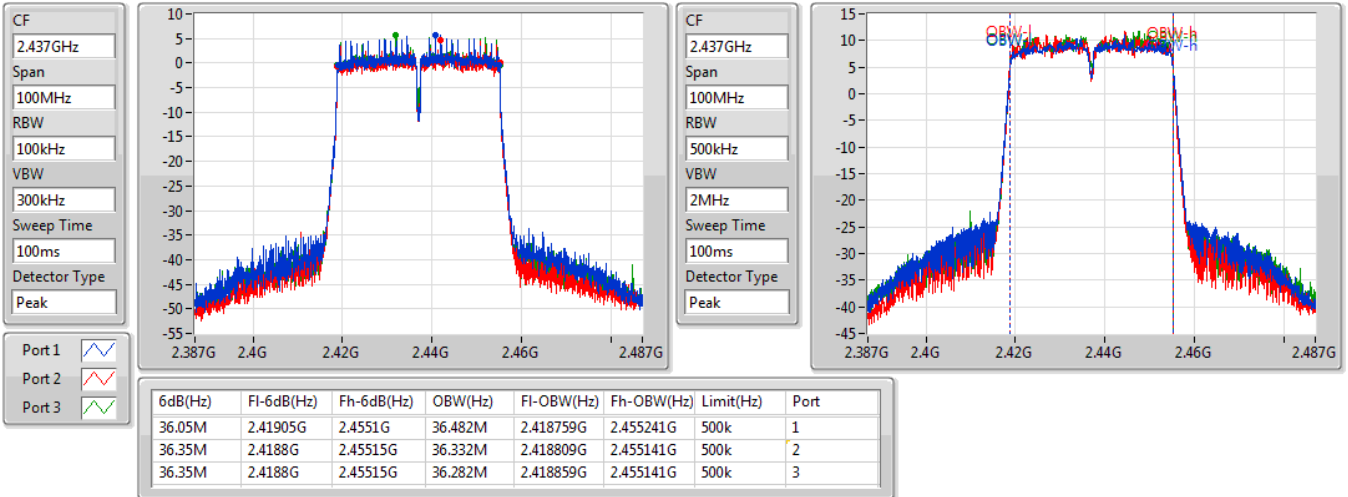
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.65M	2.4032G	2.44085G	37.531M	2.403209G	2.440741G	500k	1
37.3M	2.40345G	2.44075G	37.531M	2.403209G	2.440741G	500k	2
36.95M	2.4033G	2.44025G	37.481M	2.403259G	2.440741G	500k	3

802.11ax HEW40_Nss1,(MCS0)_3TX

EBW

2437MHz

06/05/2020

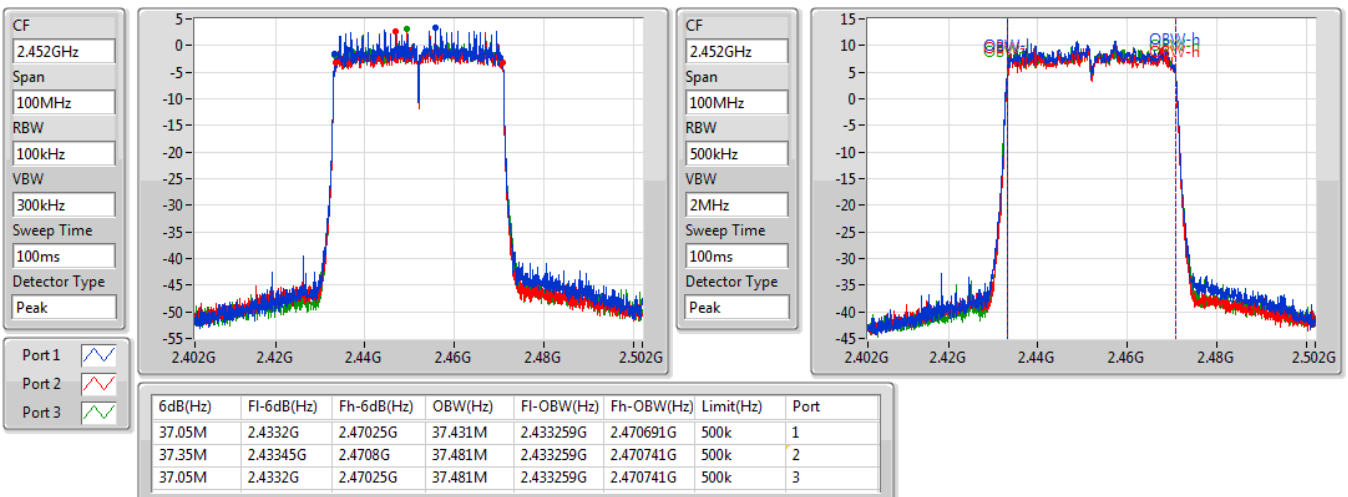


802.11ax HEW40_Nss1,(MCS0)_3TX

EBW

2452MHz

06/05/2020





Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_3TX	28.69	0.73961
802.11g_Nss1,(6Mbps)_3TX	28.46	0.70146
802.11ax HEW20_Nss1,(MCS0)_3TX	28.67	0.73621
802.11ax HEW40_Nss1,(MCS0)_3TX	24.76	0.29923



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	3.32	24.07	23.73	23.96	28.69	30.00
2437MHz	Pass	3.32	24.02	23.54	23.77	28.55	30.00
2462MHz	Pass	3.32	23.93	23.56	23.63	28.48	30.00
802.11g_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	3.32	19.61	19.19	19.48	24.20	30.00
2417MHz	Pass	3.32	22.19	21.73	22.13	26.79	30.00
2437MHz	Pass	3.32	24.01	23.25	23.78	28.46	30.00
2457MHz	Pass	3.32	21.47	21.21	21.58	26.19	30.00
2462MHz	Pass	3.32	19.25	19.24	19.62	24.14	30.00
802.11ax HEW20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	3.32	19.01	18.54	18.91	23.60	30.00
2417MHz	Pass	3.32	21.69	21.13	21.83	26.33	30.00
2437MHz	Pass	3.32	24.11	23.62	23.94	28.67	30.00
2457MHz	Pass	3.32	20.55	20.51	20.69	25.36	30.00
2462MHz	Pass	3.32	17.79	17.59	17.73	22.48	30.00
802.11ax HEW40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2422MHz	Pass	3.32	19.43	19.07	19.1	23.97	30.00
2437MHz	Pass	3.32	20.16	19.53	20.23	24.76	30.00
2452MHz	Pass	3.32	17.58	17.43	17.84	22.39	30.00

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



Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_3TX	4.12
802.11g_Nss1,(6Mbps)_3TX	3.52
802.11ax HEW20_Nss1,(MCS0)_3TX	3.32
802.11ax HEW40_Nss1,(MCS0)_3TX	-4.88

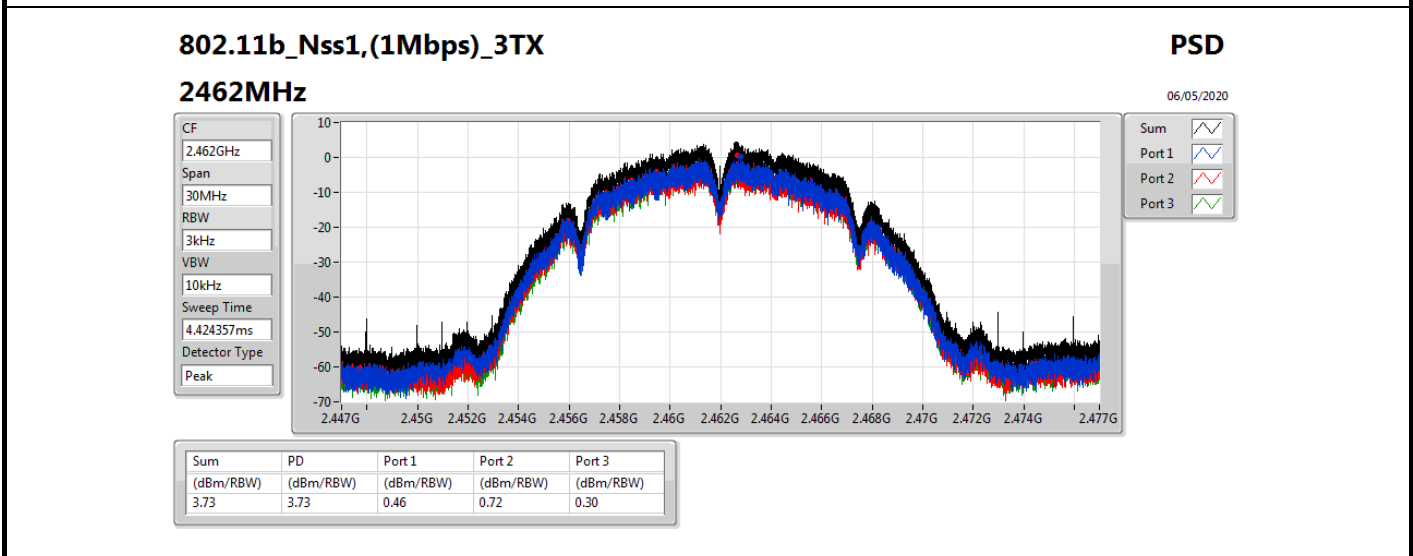
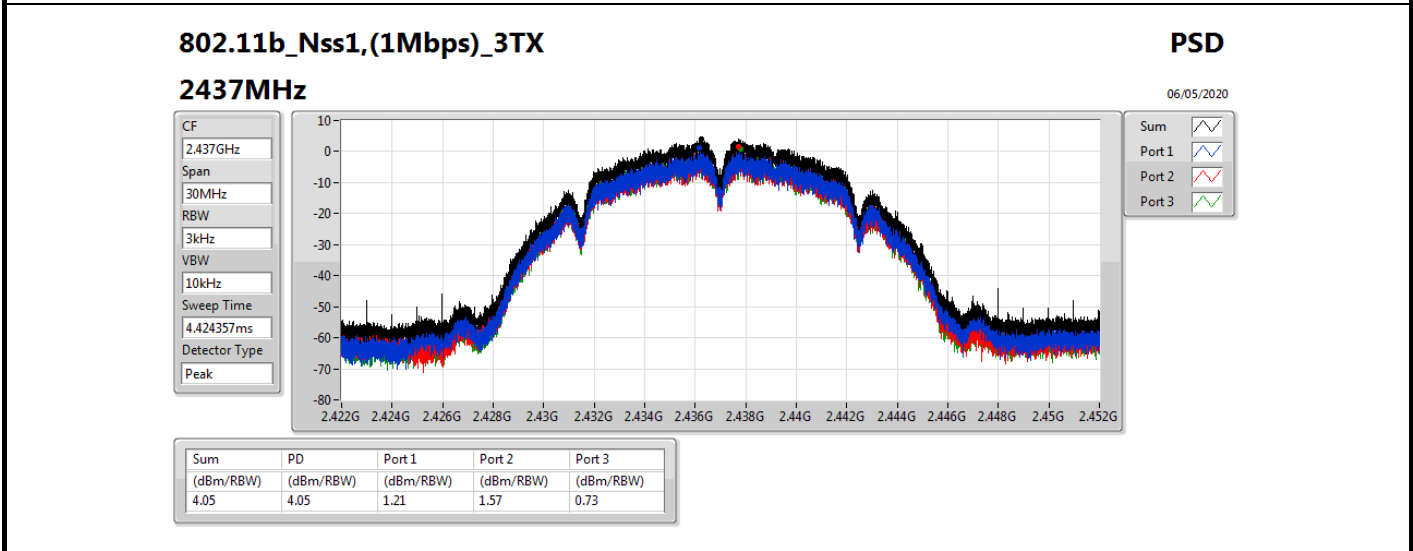
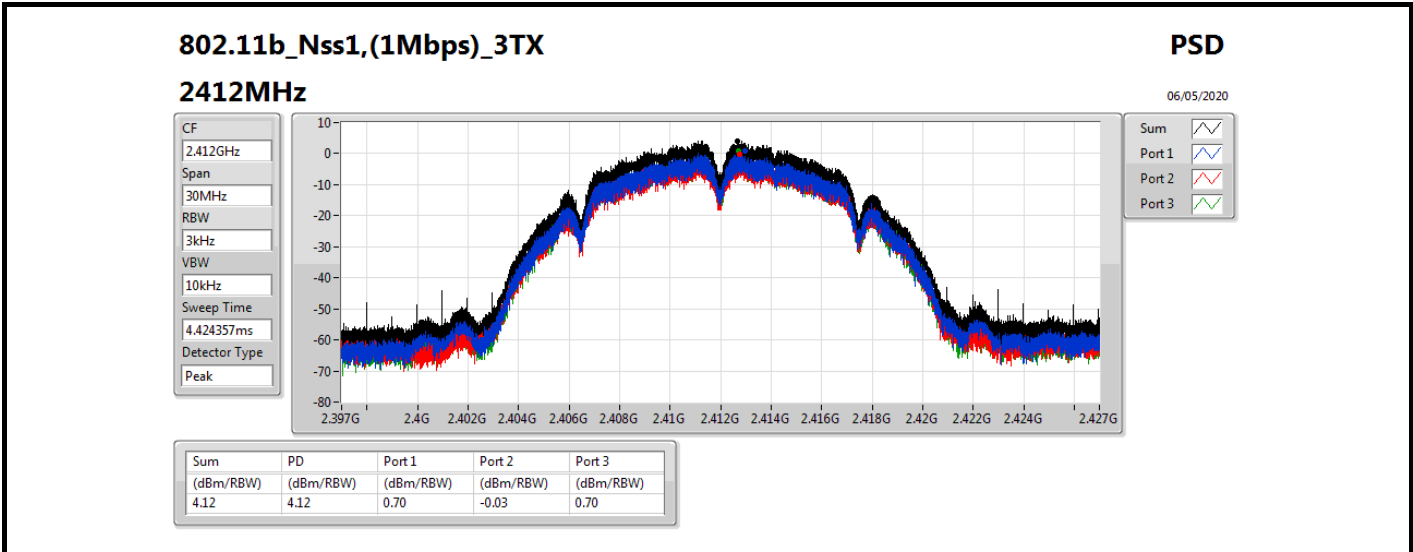
RBW = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;

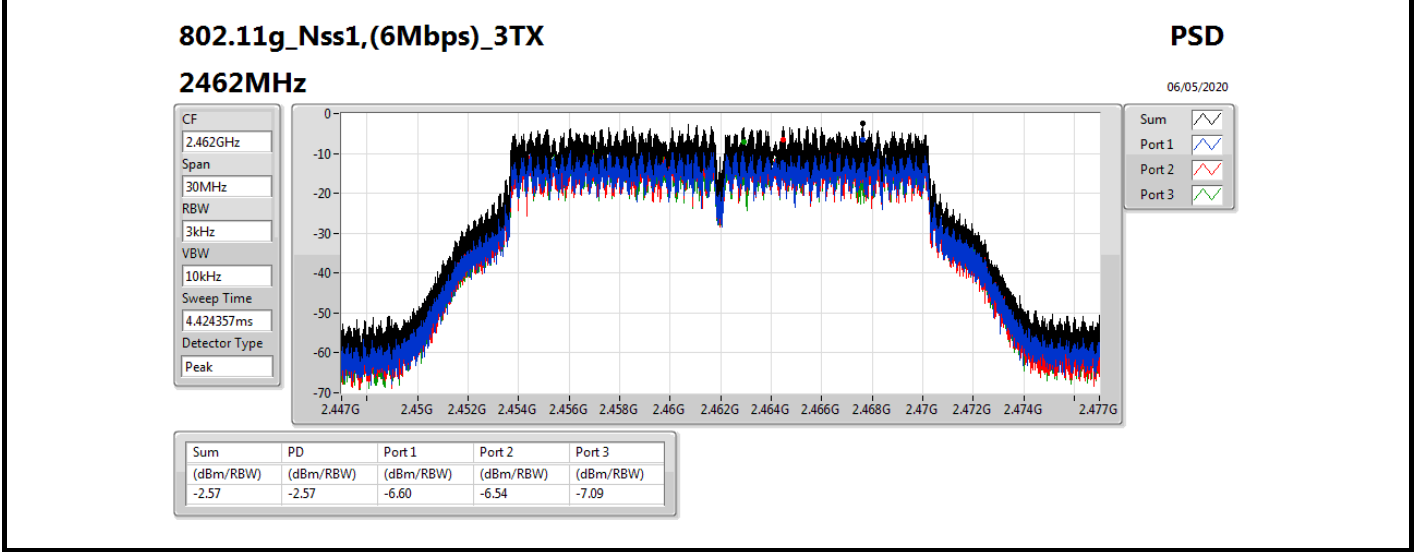
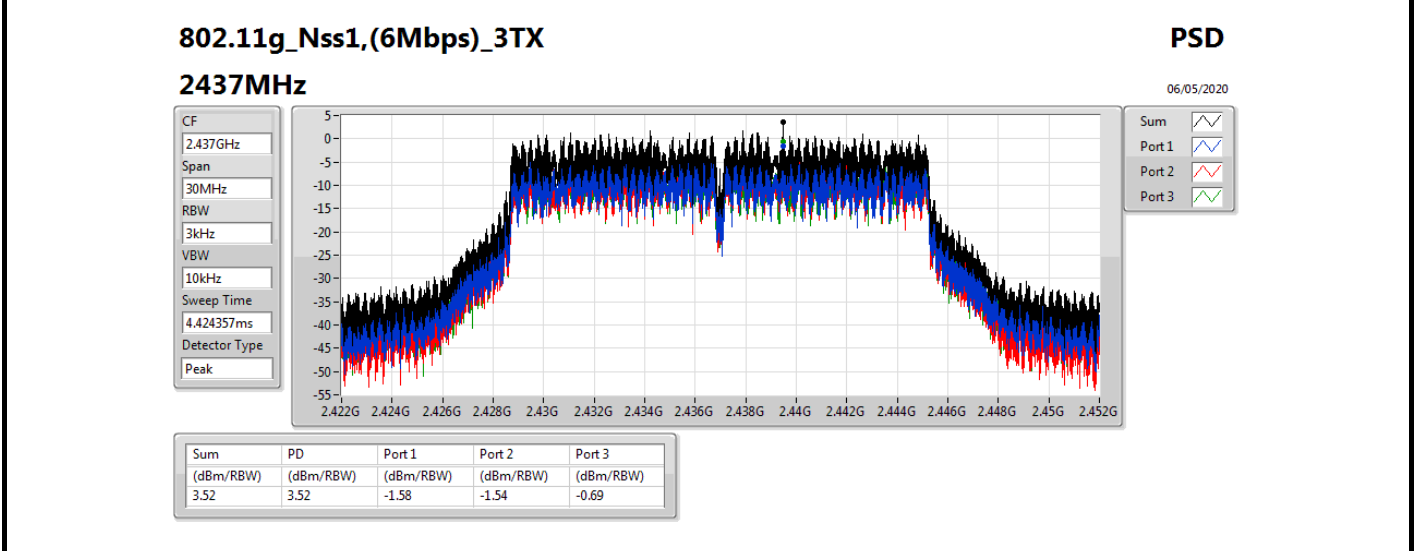
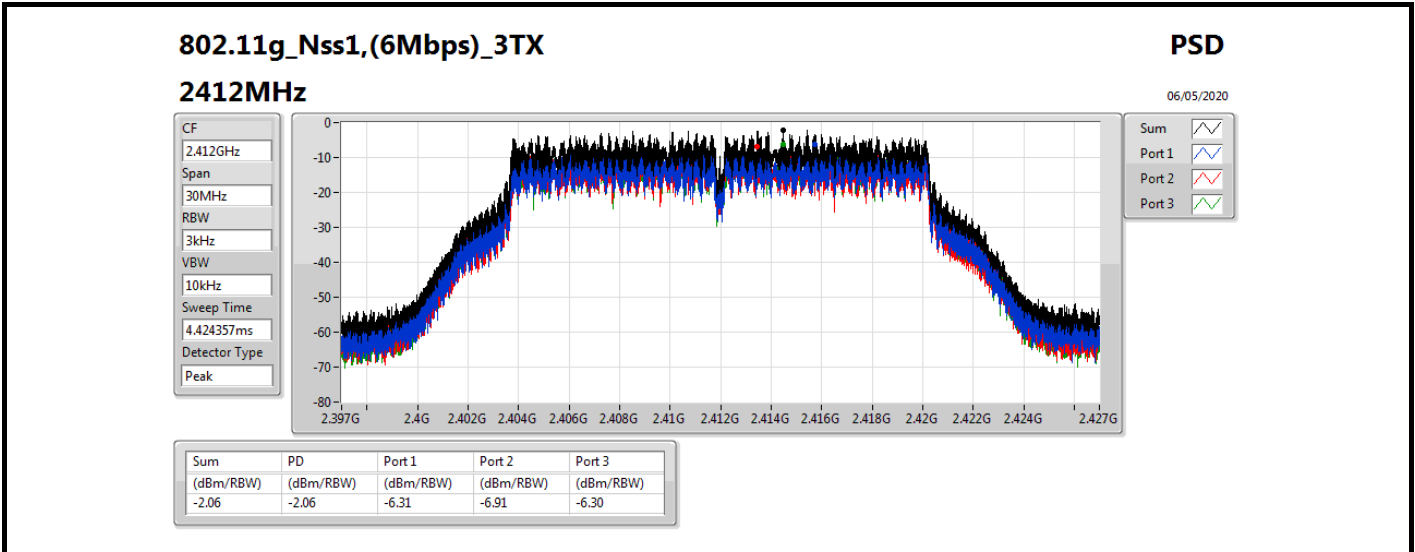
Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	6.01	0.70	-0.03	0.70	4.12	7.99
2437MHz	Pass	6.01	1.21	1.57	0.73	4.05	7.99
2462MHz	Pass	6.01	0.46	0.72	0.30	3.73	7.99
802.11g_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	6.01	-6.31	-6.91	-6.30	-2.06	7.99
2437MHz	Pass	6.01	-1.58	-1.54	-0.69	3.52	7.99
2462MHz	Pass	6.01	-6.60	-6.54	-7.09	-2.57	7.99
802.11ax HEW20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	6.01	-6.95	-7.32	-6.51	-2.14	7.99
2437MHz	Pass	6.01	-1.45	-1.55	-1.35	3.32	7.99
2462MHz	Pass	6.01	-7.35	-7.81	-7.05	-2.62	7.99
802.11ax HEW40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2422MHz	Pass	6.01	-10.14	-11.22	-9.79	-5.95	7.99
2437MHz	Pass	6.01	-8.41	-9.40	-9.15	-4.88	7.99
2452MHz	Pass	6.01	-11.65	-11.79	-10.57	-6.94	7.99

DG = Directional Gain; **RBW** = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;

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





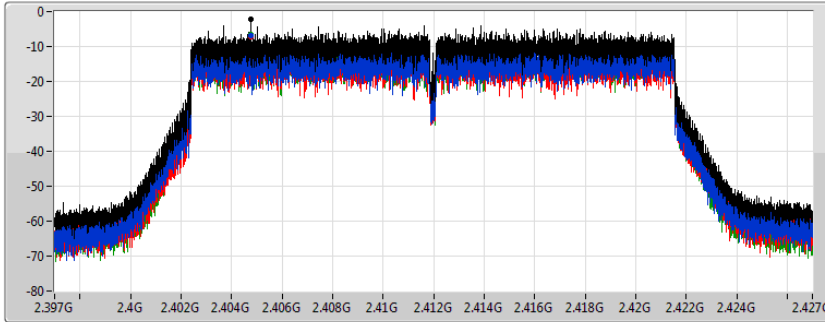
802.11ax HEW20_Nss1,(MCS0)_3TX

PSD

2412MHz

06/05/2020

CF
2.412GHz
Span
30MHz
RBW
3kHz
VBW
10kHz
Sweep Time
4.424357ms
Detector Type
Peak



Sum
Port 1
Port 2
Port 3

Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.14	-2.14	-6.95	-7.32	-6.51

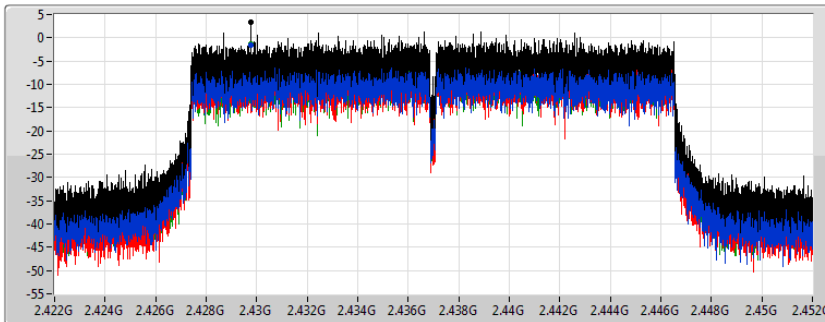
802.11ax HEW20_Nss1,(MCS0)_3TX

PSD

2437MHz

06/05/2020

CF
2.437GHz
Span
30MHz
RBW
3kHz
VBW
10kHz
Sweep Time
4.424357ms
Detector Type
Peak



Sum
Port 1
Port 2
Port 3

Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.32	3.32	-1.45	-1.55	-1.35

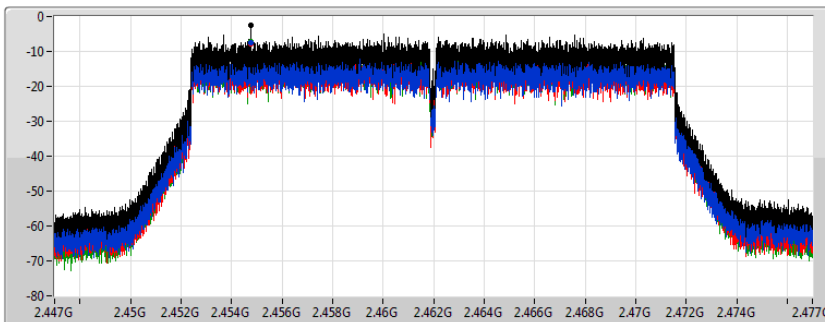
802.11ax HEW20_Nss1,(MCS0)_3TX

PSD

2462MHz

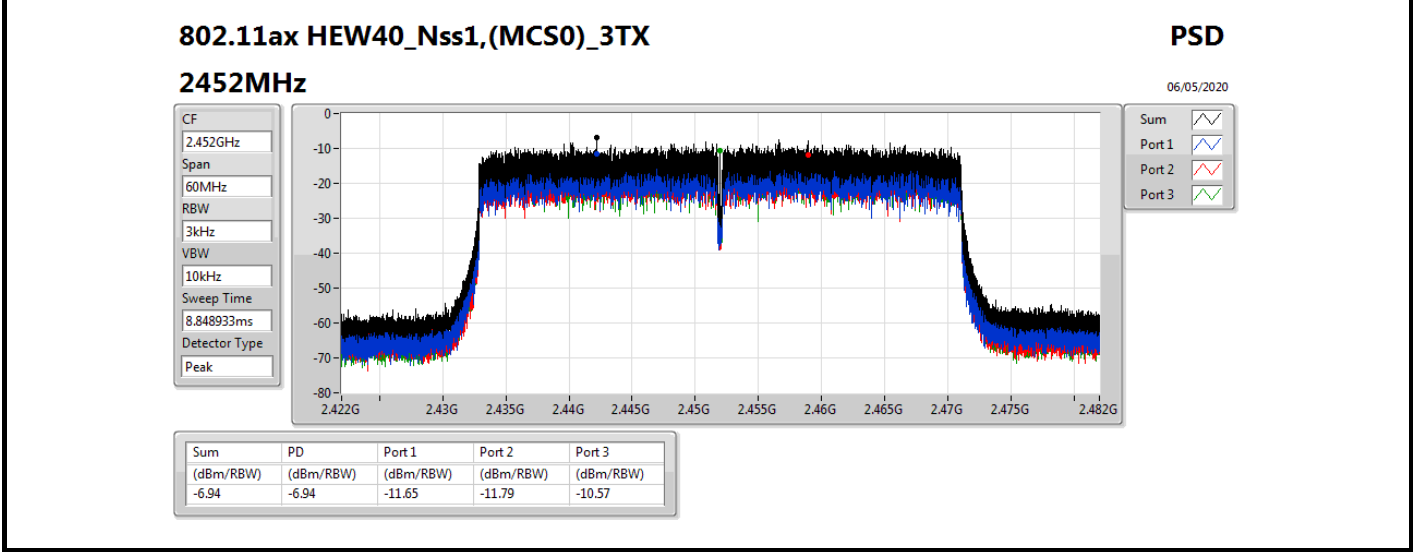
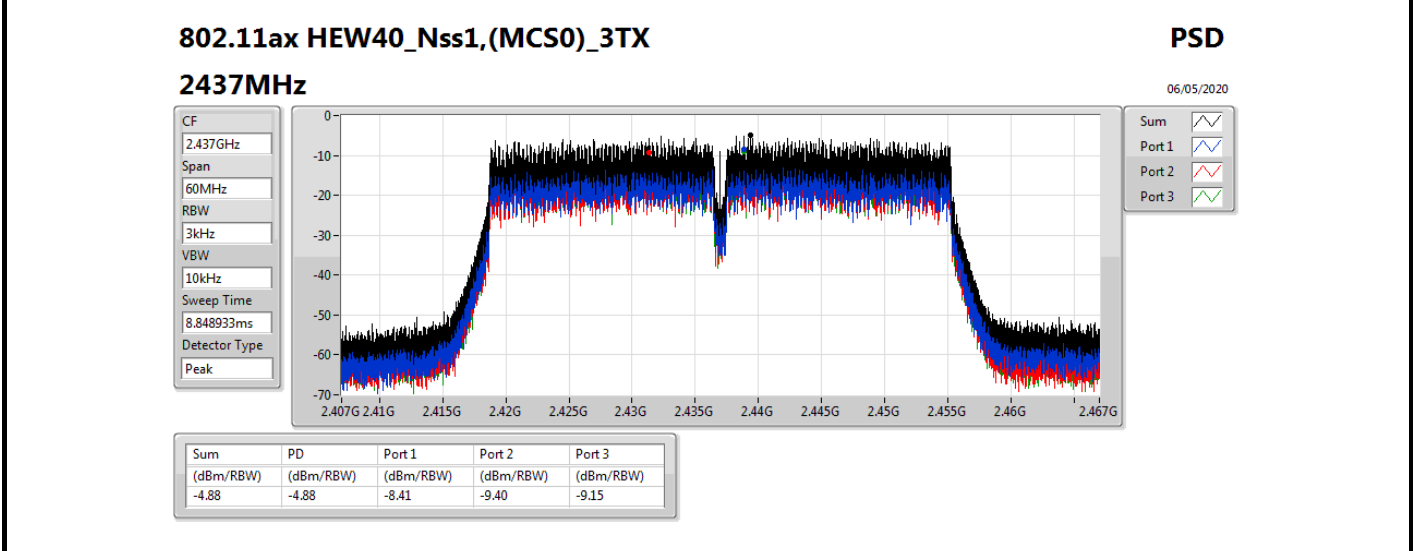
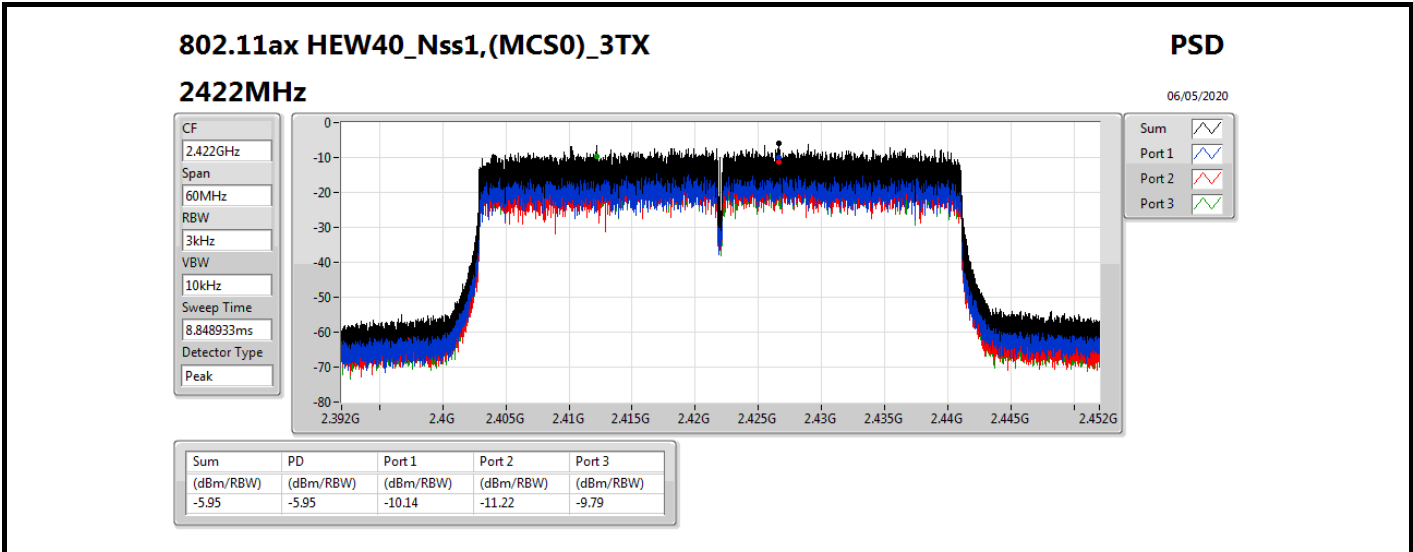
06/05/2020

CF
2.462GHz
Span
30MHz
RBW
3kHz
VBW
10kHz
Sweep Time
4.424357ms
Detector Type
Peak



Sum
Port 1
Port 2
Port 3

Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.62	-2.62	-7.35	-7.81	-7.05





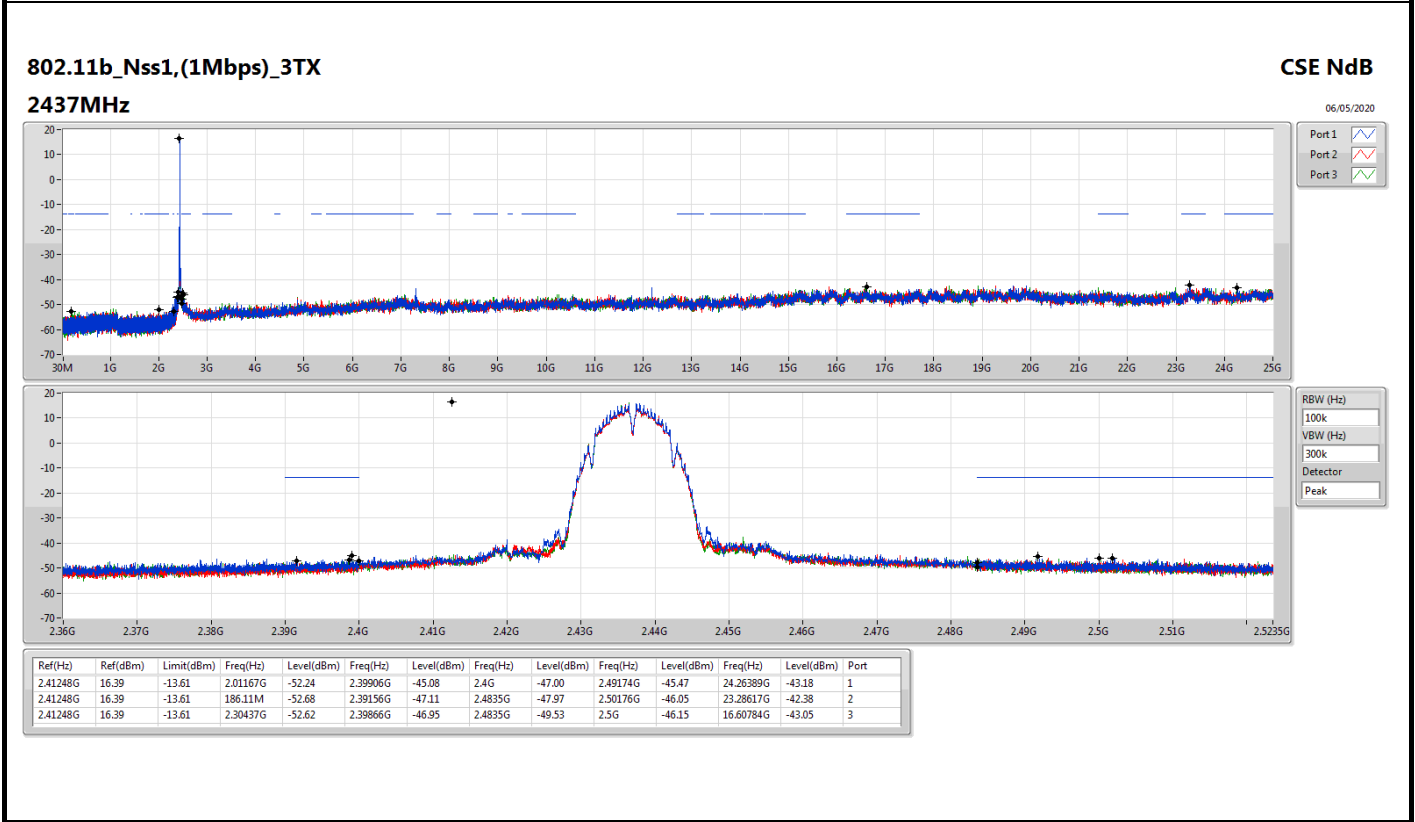
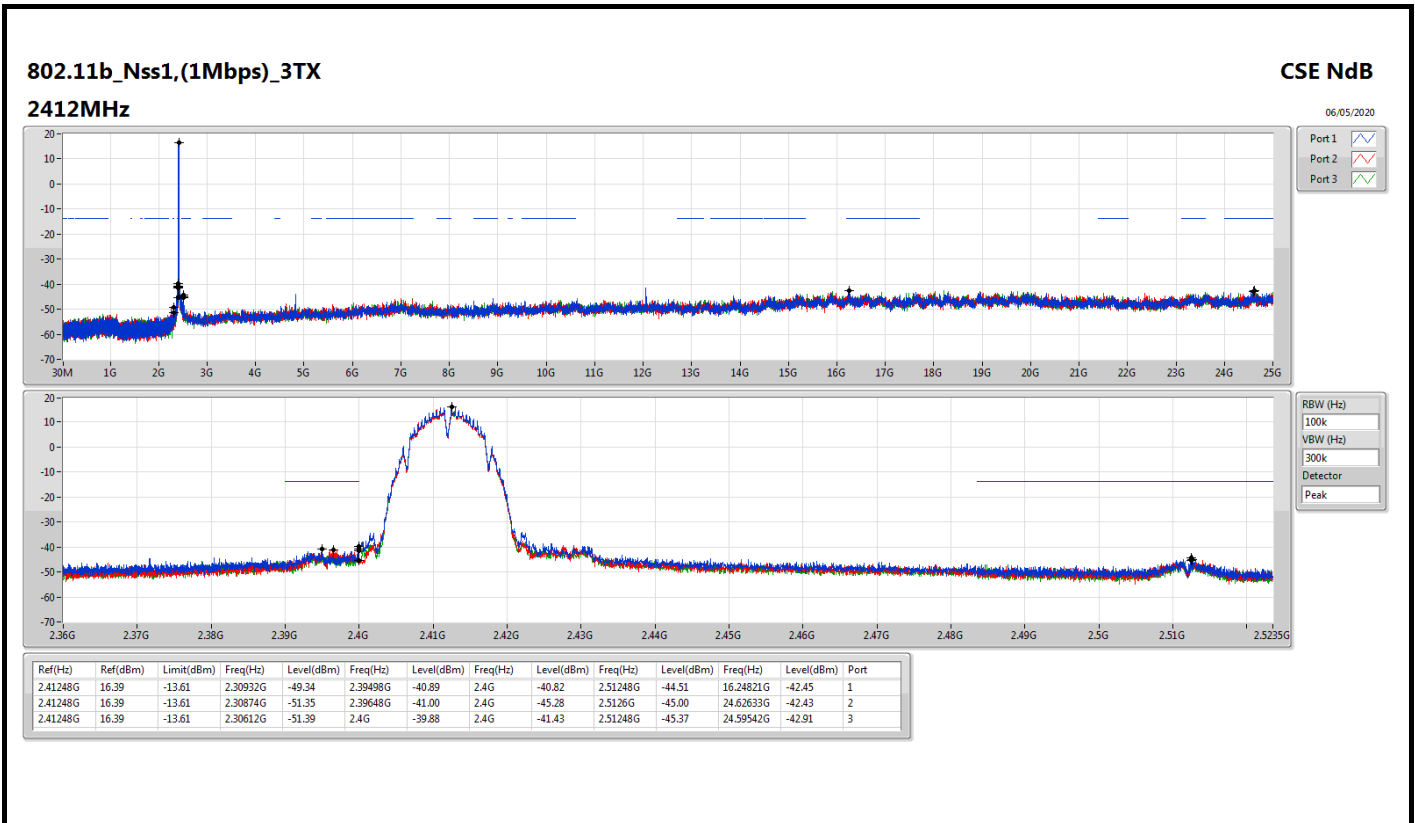
Summary

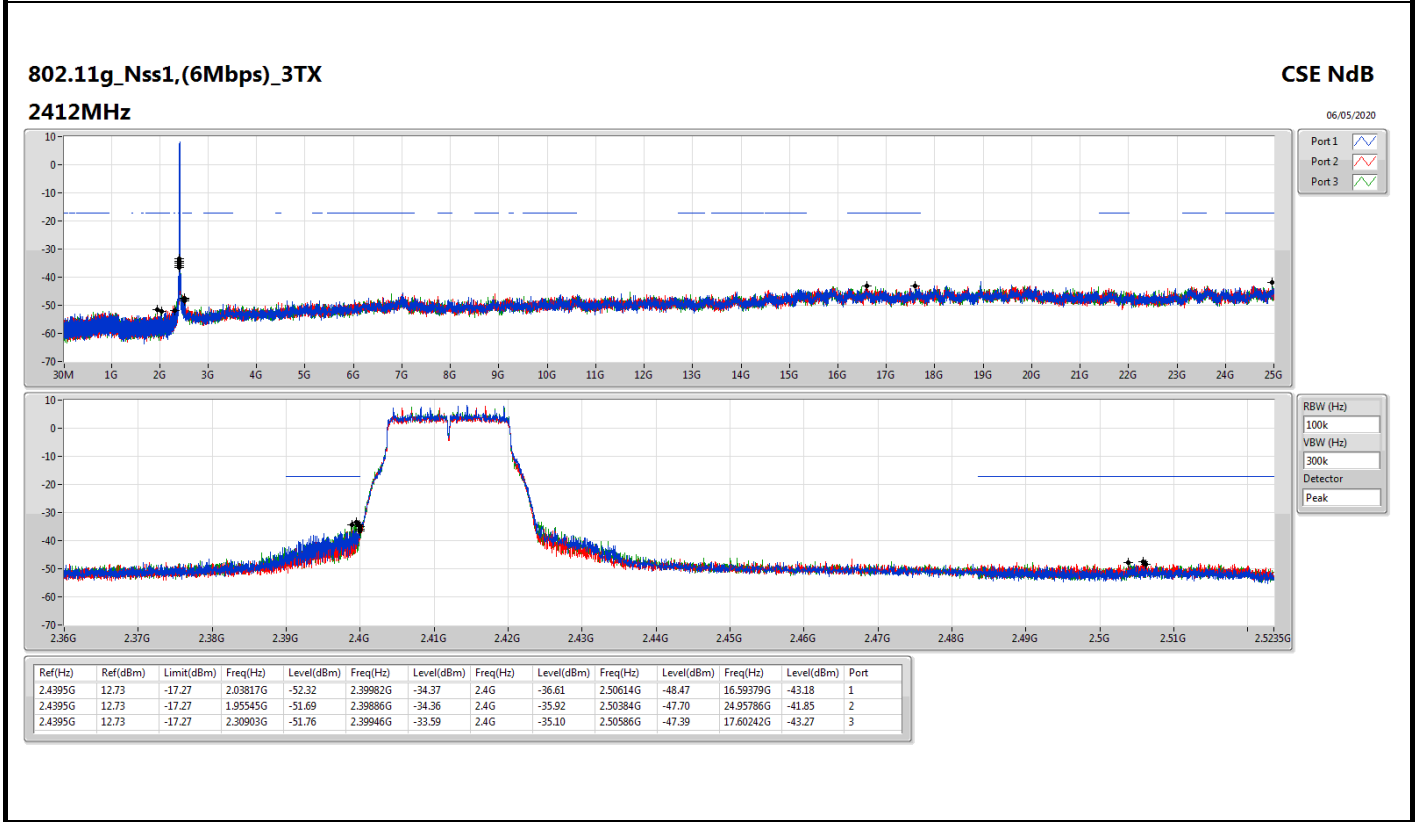
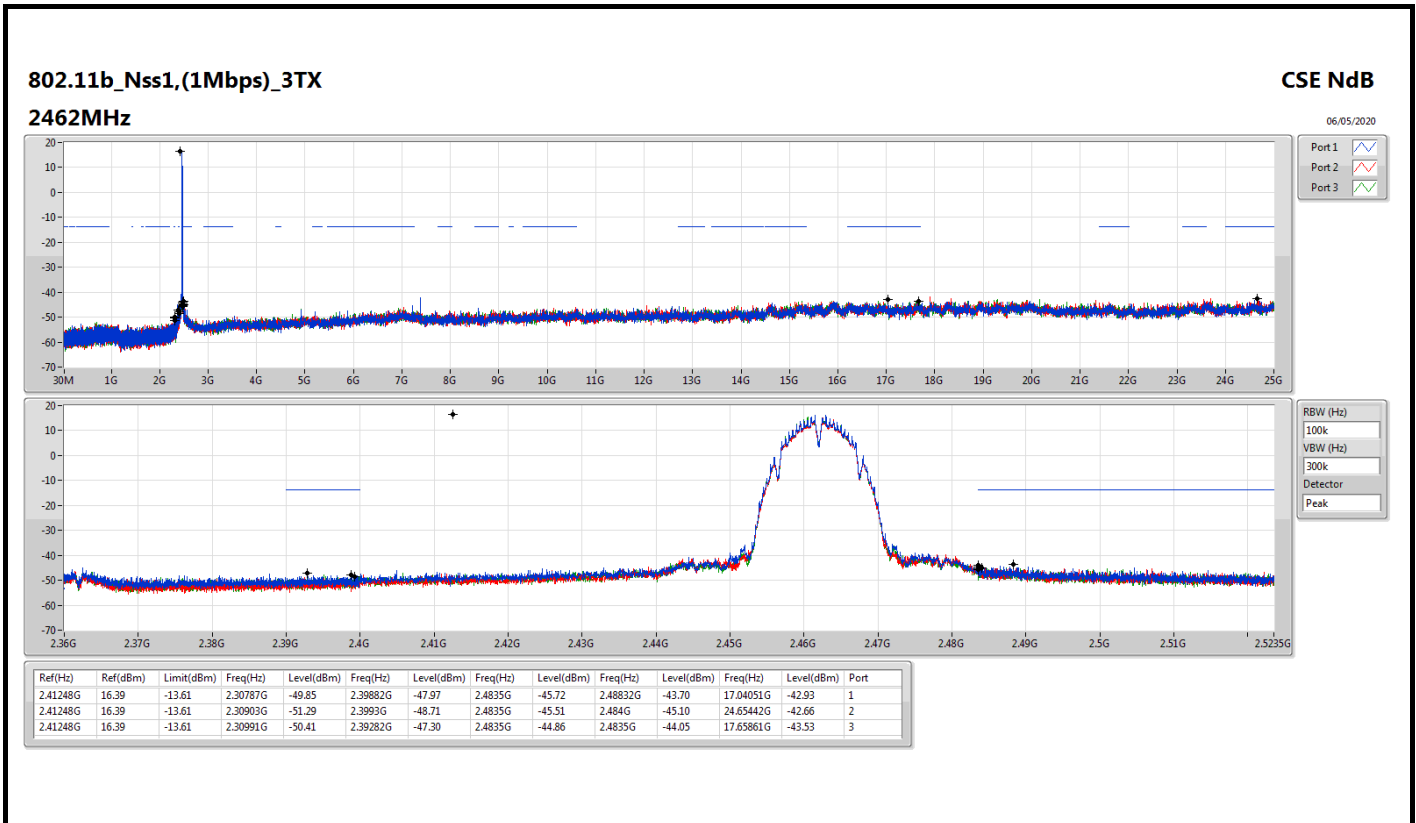
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_3TX	Pass	2.41248G	16.39	-13.61	2.30612G	-51.39	2.4G	-39.88	2.4G	-41.43	2.51248G	-45.37	24.59542G	-42.91	3
802.11g_Nss1,(6Mbps)_3TX	Pass	2.4395G	12.73	-17.27	2.30903G	-51.76	2.39946G	-33.59	2.4G	-35.10	2.50586G	-47.39	17.60242G	-43.27	3
802.11ax HEW20_Nss1,(MCS0)_3TX	Pass	2.442G	12.70	-17.30	2.30379G	-50.59	2.39914G	-33.17	2.4G	-33.31	2.48444G	-47.83	16.55726G	-43.73	1
802.11ax HEW40_Nss1,(MCS0)_3TX	Pass	2.43198G	5.68	-24.32	2.30855G	-51.33	2.39984G	-38.80	2.4G	-43.39	2.50134G	-48.44	16.86396G	-42.98	1

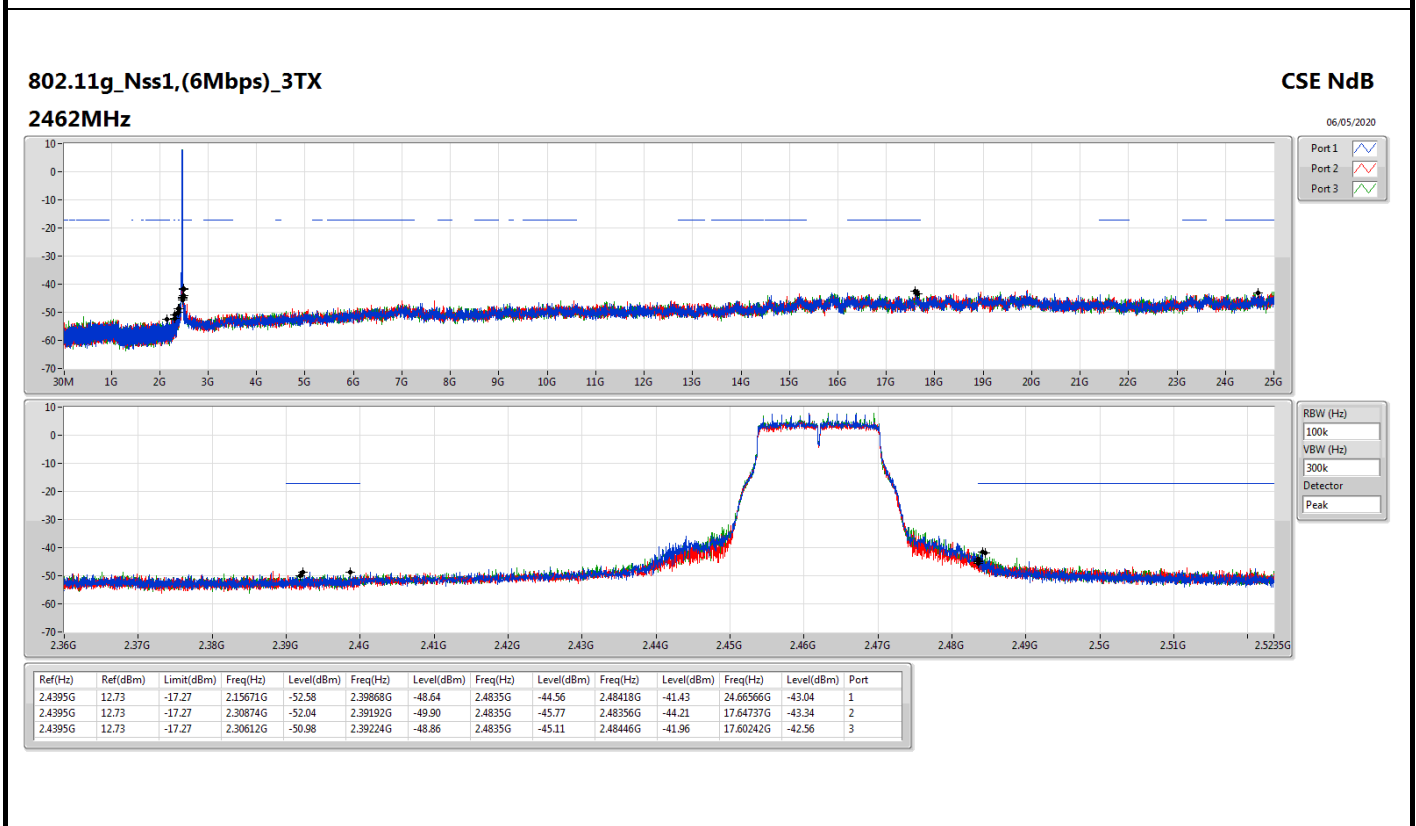
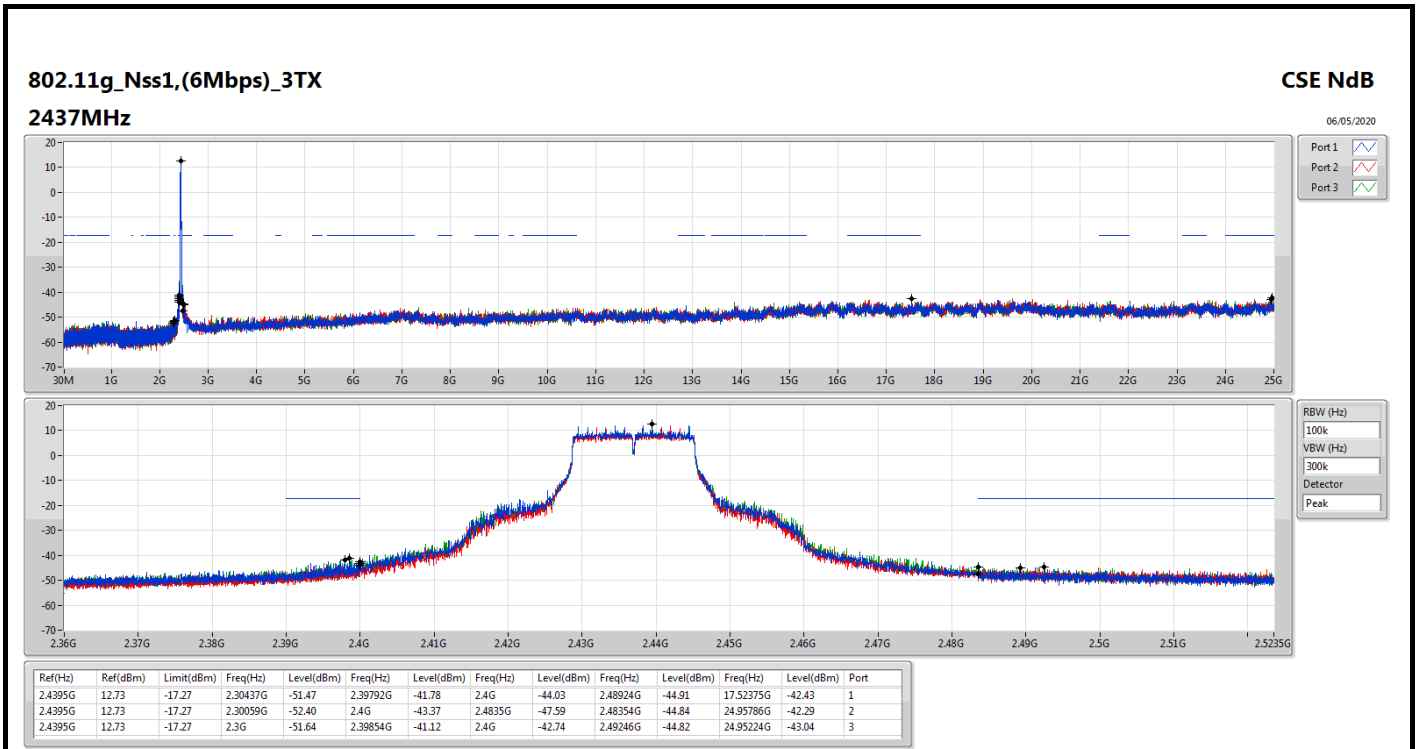


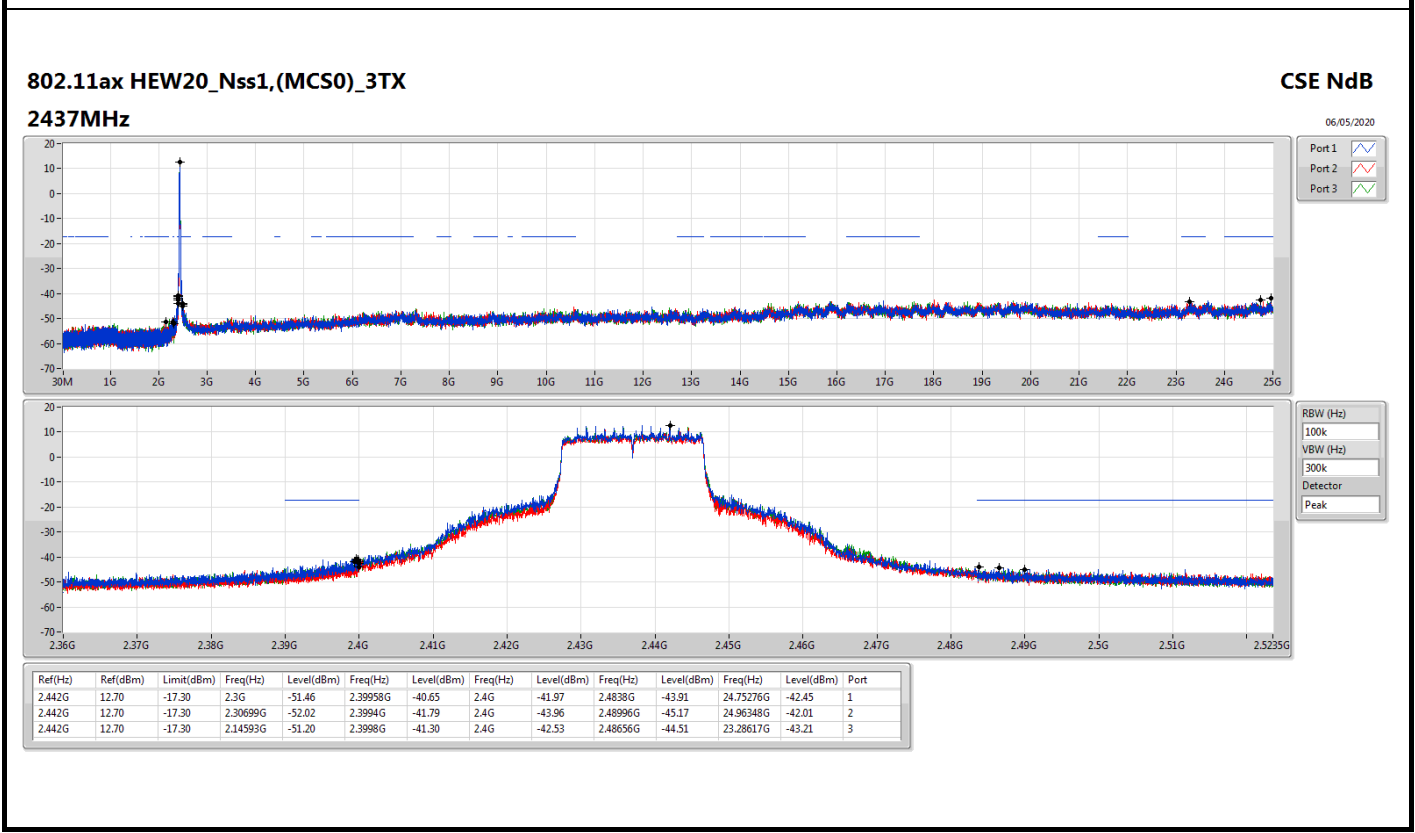
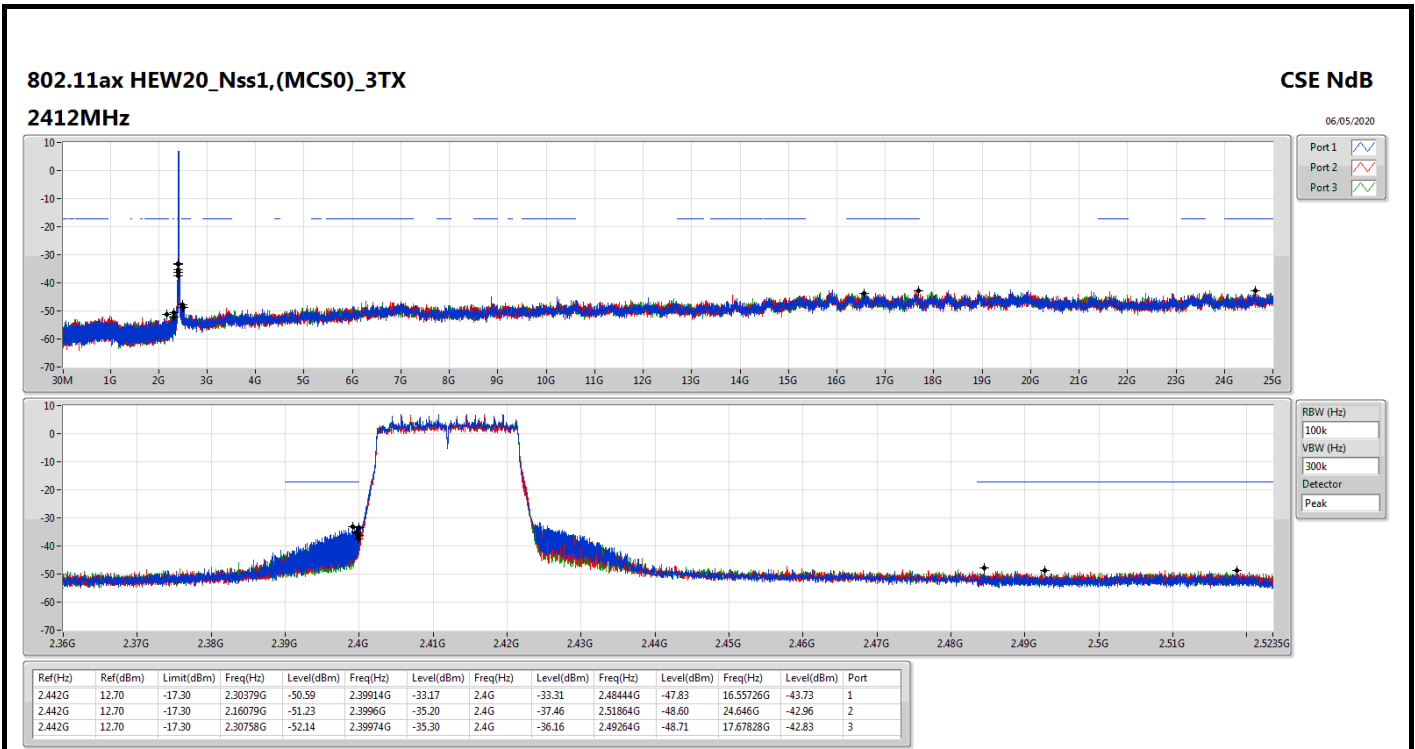
Result

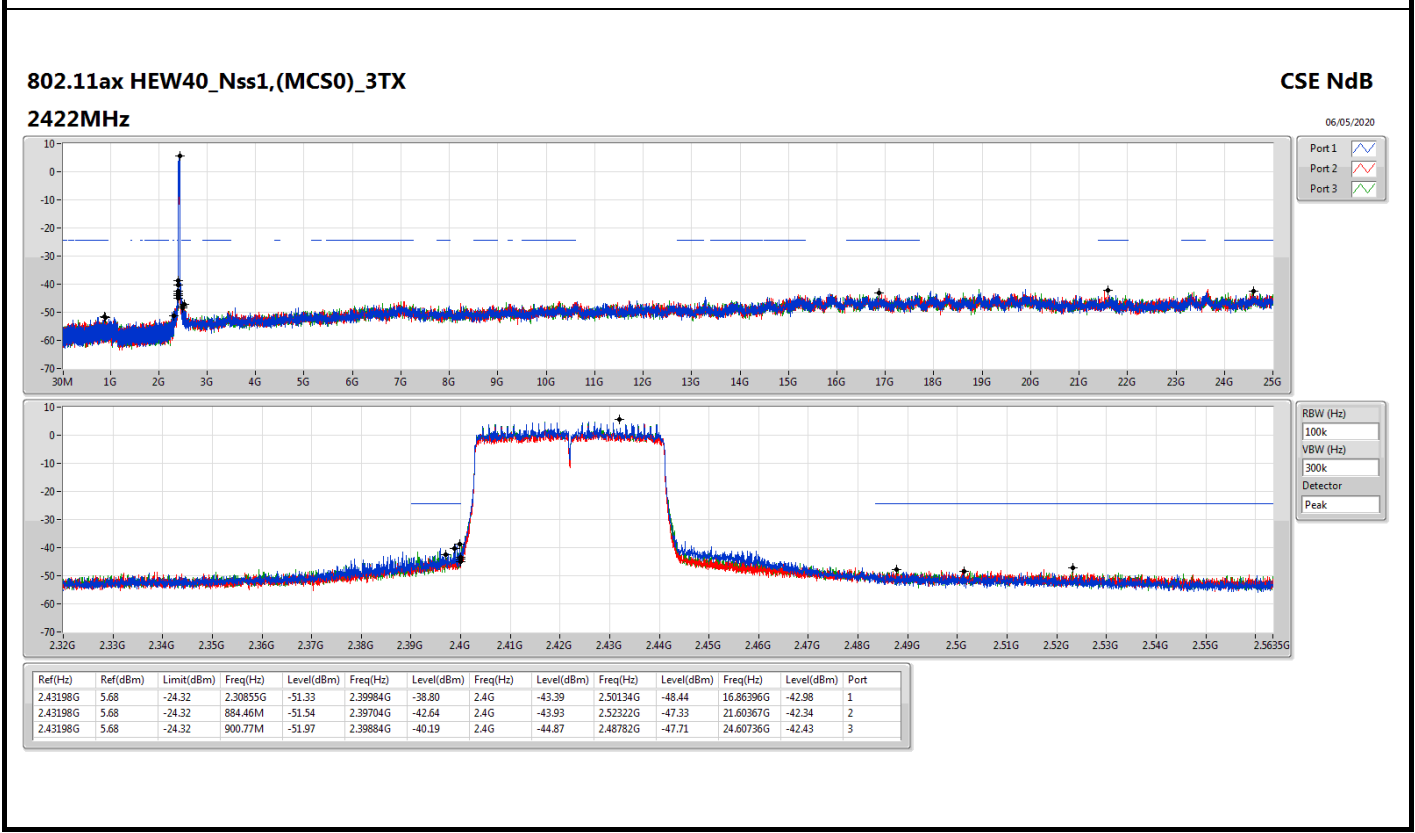
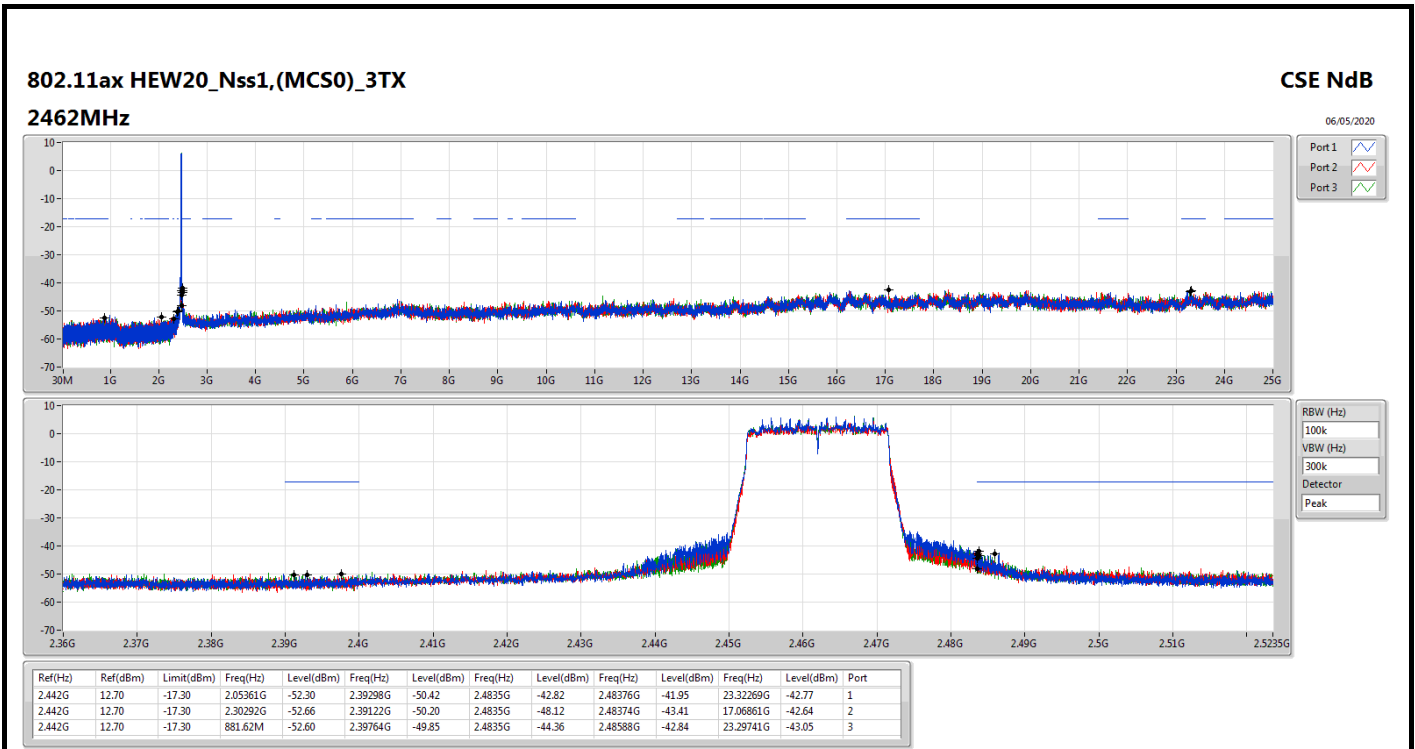
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_3TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.41248G	16.39	-13.61	2.30932G	-49.34	2.39498G	-40.89	2.4G	-40.82	2.51248G	-44.51	16.24821G	-42.45	1
2412MHz	Pass	2.41248G	16.39	-13.61	2.30874G	-51.35	2.39648G	-41.00	2.4G	-45.28	2.5126G	-45.00	24.62633G	-42.43	2
2412MHz	Pass	2.41248G	16.39	-13.61	2.30612G	-51.39	2.4G	-39.88	2.4G	-41.43	2.51248G	-45.37	24.59542G	-42.91	3
2437MHz	Pass	2.41248G	16.39	-13.61	2.01167G	-52.24	2.39906G	-45.08	2.4G	-47.00	2.49174G	-45.47	24.26389G	-43.18	1
2437MHz	Pass	2.41248G	16.39	-13.61	186.11M	-52.68	2.39156G	-47.11	2.4835G	-47.97	2.50176G	-46.05	23.28617G	-42.38	2
2437MHz	Pass	2.41248G	16.39	-13.61	2.30437G	-52.62	2.39866G	-46.95	2.4835G	-49.53	2.5G	-46.15	16.60784G	-43.05	3
2462MHz	Pass	2.41248G	16.39	-13.61	2.30787G	-49.85	2.39882G	-47.97	2.4835G	-45.72	2.48832G	-43.70	17.04051G	-42.93	1
2462MHz	Pass	2.41248G	16.39	-13.61	2.30903G	-51.29	2.3993G	-48.71	2.4835G	-45.51	2.484G	-45.10	24.65442G	-42.66	2
2462MHz	Pass	2.41248G	16.39	-13.61	2.30991G	-50.41	2.39282G	-47.30	2.4835G	-44.86	2.4835G	-44.05	17.65861G	-43.53	3
802.11g_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.4395G	12.73	-17.27	2.03817G	-52.32	2.39982G	-34.37	2.4G	-36.61	2.50614G	-48.47	16.59379G	-43.18	1
2412MHz	Pass	2.4395G	12.73	-17.27	1.95545G	-51.69	2.39886G	-34.36	2.4G	-35.92	2.50384G	-47.70	24.95786G	-41.85	2
2412MHz	Pass	2.4395G	12.73	-17.27	2.30903G	-51.76	2.39946G	-33.59	2.4G	-35.10	2.50586G	-47.39	17.60242G	-43.27	3
2437MHz	Pass	2.4395G	12.73	-17.27	2.30437G	-51.47	2.39792G	-41.78	2.4G	-44.03	2.48924G	-44.91	17.52375G	-42.43	1
2437MHz	Pass	2.4395G	12.73	-17.27	2.30059G	-52.40	2.4G	-43.37	2.4835G	-47.59	2.48354G	-44.84	24.95786G	-42.29	2
2437MHz	Pass	2.4395G	12.73	-17.27	2.3G	-51.64	2.39854G	-41.12	2.4G	-42.74	2.49246G	-44.82	24.95224G	-43.04	3
2462MHz	Pass	2.4395G	12.73	-17.27	2.15671G	-52.58	2.39868G	-48.64	2.4835G	-44.56	2.48418G	-41.43	24.66566G	-43.04	1
2462MHz	Pass	2.4395G	12.73	-17.27	2.30874G	-52.04	2.39192G	-49.90	2.4835G	-45.77	2.48356G	-44.21	17.64737G	-43.34	2
2462MHz	Pass	2.4395G	12.73	-17.27	2.30612G	-50.98	2.39224G	-48.86	2.4835G	-45.11	2.48446G	-41.96	17.60242G	-42.56	3
802.11ax HEW20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.442G	12.70	-17.30	2.30379G	-50.59	2.39914G	-33.17	2.4G	-33.31	2.48444G	-47.83	16.55726G	-43.73	1
2412MHz	Pass	2.442G	12.70	-17.30	2.16079G	-51.23	2.3996G	-35.20	2.4G	-37.46	2.51864G	-48.60	24.646G	-42.96	2
2412MHz	Pass	2.442G	12.70	-17.30	2.30758G	-52.14	2.39974G	-35.30	2.4G	-36.16	2.49264G	-48.71	17.67828G	-42.83	3
2437MHz	Pass	2.442G	12.70	-17.30	2.3G	-51.46	2.39958G	-40.65	2.4G	-41.97	2.4838G	-43.91	24.75276G	-42.45	1
2437MHz	Pass	2.442G	12.70	-17.30	2.30699G	-52.02	2.3994G	-41.79	2.4G	-43.96	2.48996G	-45.17	24.96348G	-42.01	2
2437MHz	Pass	2.442G	12.70	-17.30	2.14593G	-51.20	2.3998G	-41.30	2.4G	-42.53	2.48656G	-44.51	23.28617G	-43.21	3
2462MHz	Pass	2.442G	12.70	-17.30	2.05361G	-52.30	2.39298G	-50.42	2.4835G	-42.82	2.48376G	-41.95	23.32269G	-42.77	1
2462MHz	Pass	2.442G	12.70	-17.30	2.30292G	-52.66	2.39122G	-50.20	2.4835G	-48.12	2.48374G	-43.41	17.06861G	-42.64	2
2462MHz	Pass	2.442G	12.70	-17.30	881.62M	-52.60	2.39764G	-49.85	2.4835G	-44.36	2.48588G	-42.84	23.29741G	-43.05	3
802.11ax HEW40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.43198G	5.68	-24.32	2.30855G	-51.33	2.39984G	-38.80	2.4G	-43.39	2.50134G	-48.44	16.86396G	-42.98	1
2422MHz	Pass	2.43198G	5.68	-24.32	884.46M	-51.54	2.39704G	-42.64	2.4G	-43.93	2.52322G	-47.33	21.60367G	-42.34	2
2422MHz	Pass	2.43198G	5.68	-24.32	900.77M	-51.97	2.39884G	-40.19	2.4G	-44.87	2.48782G	-47.71	24.60736G	-42.43	3
2437MHz	Pass	2.43198G	5.68	-24.32	2.30082G	-50.63	2.39948G	-39.89	2.4G	-41.64	2.48382G	-45.28	16.22733G	-42.54	1
2437MHz	Pass	2.43198G	5.68	-24.32	2.30426G	-52.55	2.39948G	-41.88	2.4G	-42.85	2.48754G	-46.00	23.30044G	-43.14	2
2437MHz	Pass	2.43198G	5.68	-24.32	2.30025G	-51.99	2.39948G	-40.88	2.4G	-42.00	2.48506G	-44.45	24.59614G	-43.28	3
2452MHz	Pass	2.43198G	5.68	-24.32	2.30884G	-51.81	2.39912G	-47.54	2.4835G	-45.23	2.48818G	-41.71	16.62277G	-41.48	1
2452MHz	Pass	2.43198G	5.68	-24.32	810.89M	-51.52	2.39908G	-49.78	2.4835G	-47.75	2.48442G	-44.90	24.88501G	-42.73	2
2452MHz	Pass	2.43198G	5.68	-24.32	875.87M	-51.99	2.39996G	-49.43	2.4835G	-47.87	2.48446G	-43.20	24.6298G	-42.41	3

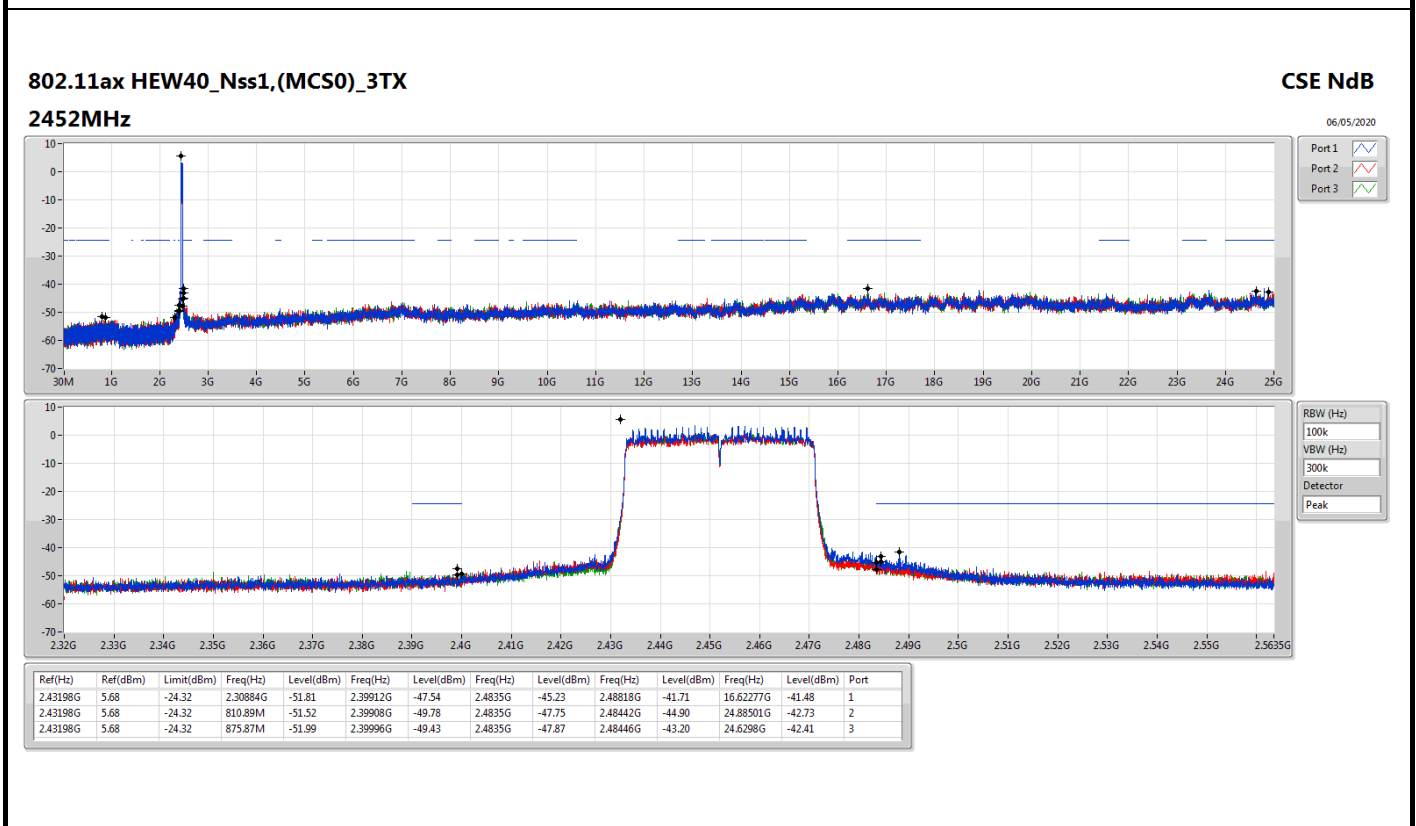
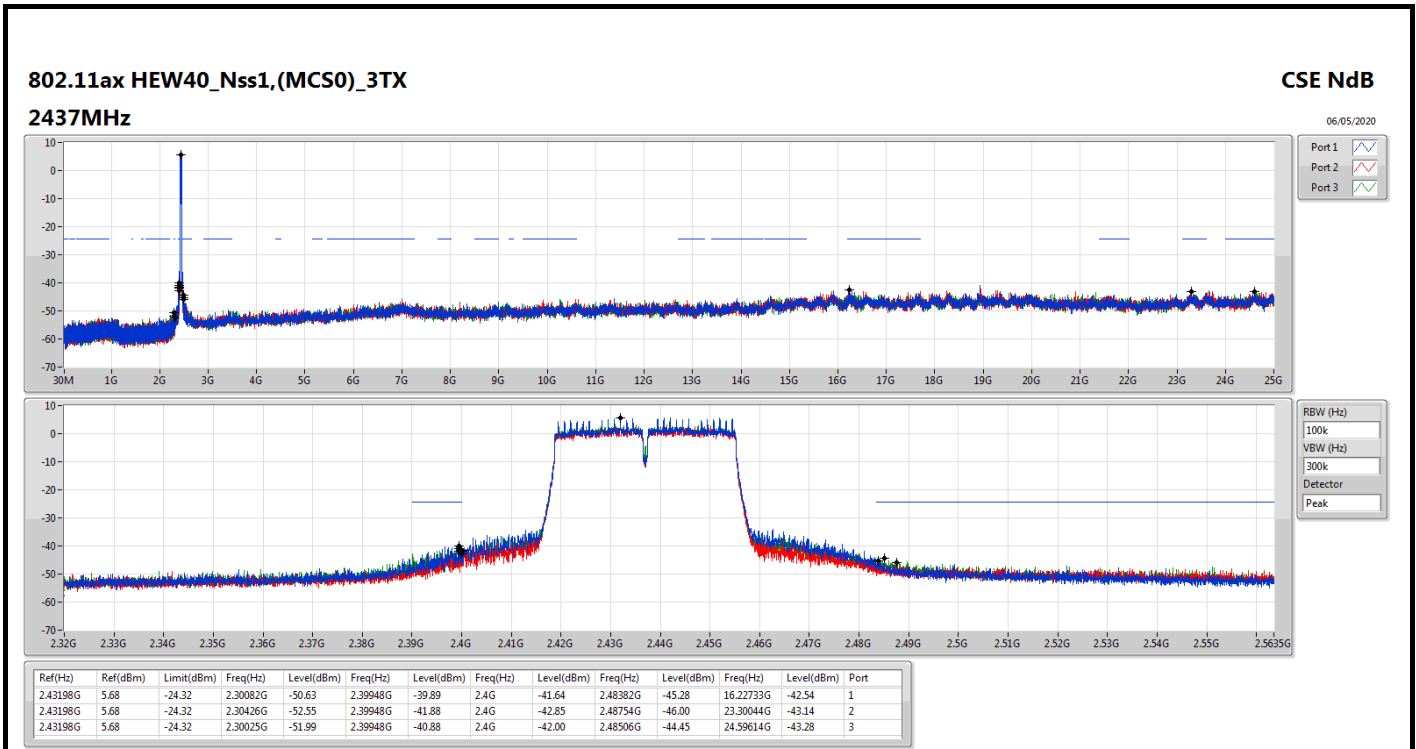










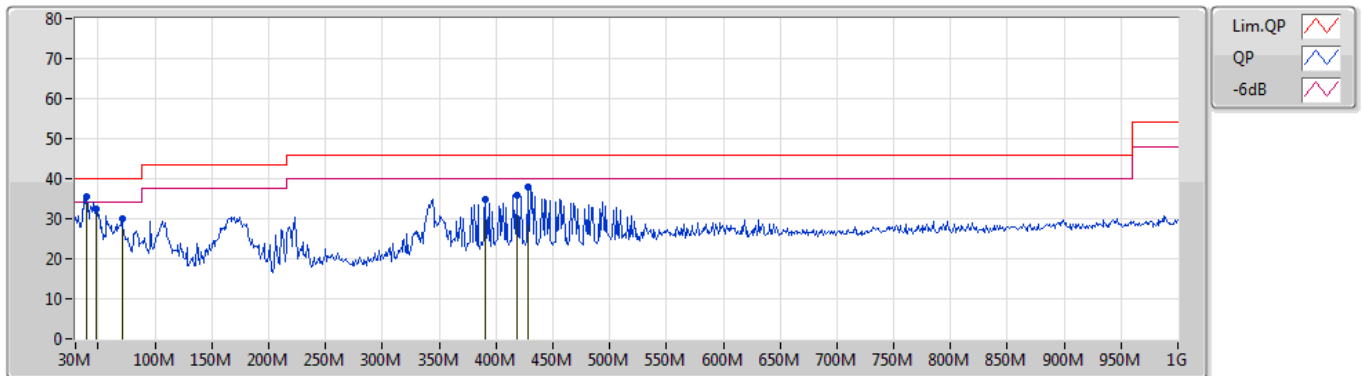




Summary

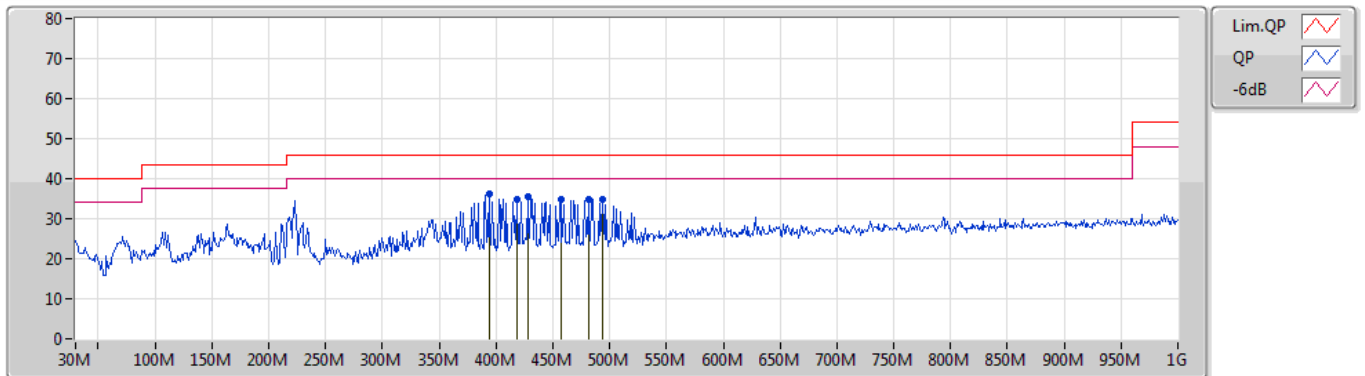
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 3	Pass	PK	39.7M	35.38	40.00	-4.62	Vertical

Mode 3



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
PK	39.7M	35.38	40.00	-4.62	-10.89	3	Vertical	280	1.00	"Worst"	46.27	19.23	1.39	31.51
PK	48.43M	32.36	40.00	-7.64	-15.34	3	Vertical	349	1.00	-	47.70	15.15	1.20	31.69
PK	70.74M	30.16	40.00	-9.84	-18.04	3	Vertical	245	1.50	-	48.20	12.54	1.30	31.88
PK	390.84M	34.75	46.00	-11.25	-8.60	3	Vertical	180	1.00	-	43.35	20.73	2.85	32.18
PK	418.97M	35.97	46.00	-10.03	-7.35	3	Vertical	188	1.00	-	43.32	21.98	2.90	32.23
PK	427.7M	37.94	46.00	-8.06	-7.34	3	Vertical	197	1.00	-	45.28	22.01	2.90	32.25

Mode 3



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
PK	393.75M	36.07	46.00	-9.93	-8.46	3	Horizontal	136	1.00	"Worst"	44.53	20.86	2.86	32.18
PK	418M	34.86	46.00	-11.14	-7.39	3	Horizontal	136	2.00	-	42.25	21.94	2.90	32.23
PK	427.7M	35.55	46.00	-10.45	-7.34	3	Horizontal	136	2.00	-	42.89	22.01	2.90	32.25
PK	456.8M	34.92	46.00	-11.08	-6.97	3	Horizontal	240	2.00	-	41.89	22.42	2.93	32.32
PK	481.05M	34.99	46.00	-11.01	-6.58	3	Horizontal	154	1.50	-	41.57	22.80	3.03	32.41
PK	493.66M	34.81	46.00	-11.19	-6.47	3	Horizontal	154	1.50	-	41.28	22.91	3.08	32.46



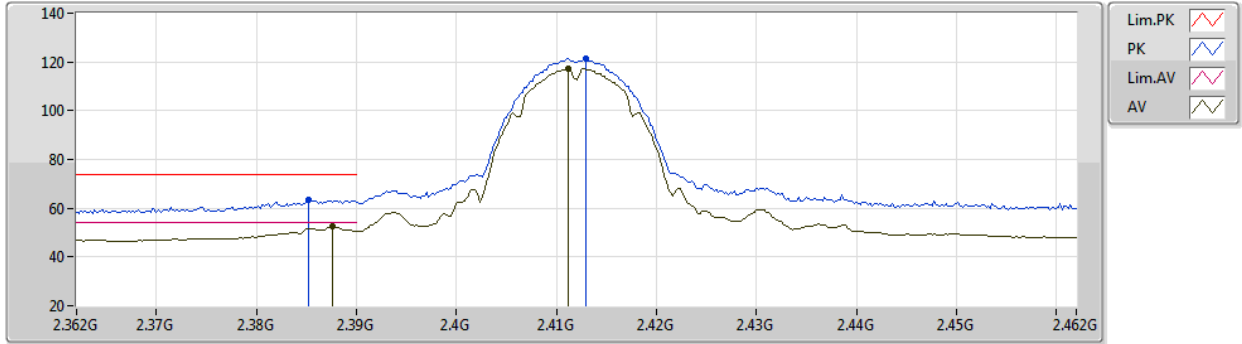
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11g_Nss1,(6Mbps)_3TX	Pass	AV	2.4835G	53.92	54.00	-0.08	3	Horizontal	186	1.77	-

802.11b_Nss1,(1Mbps)_3TX

09/04/2020

2412MHz_TX



EUT Y_3TX
Setting 96
04-C-K-3

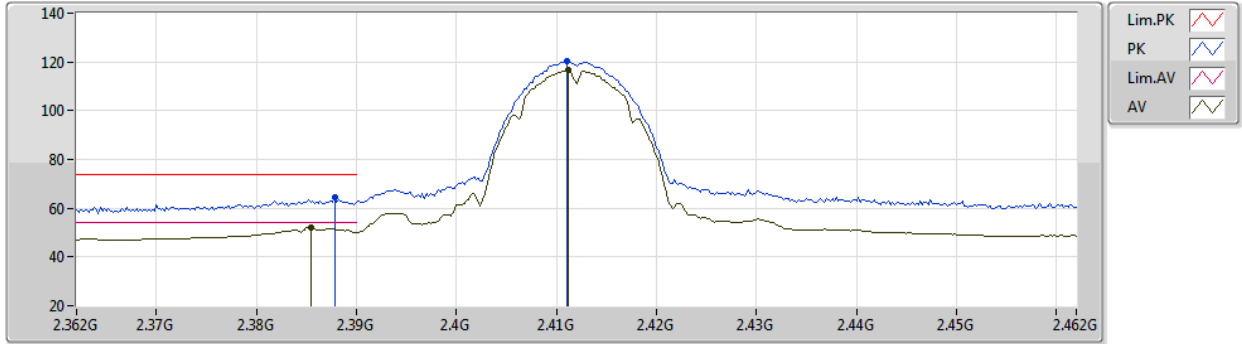
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3852G	63.35	74.00	-10.65	32.99	3	Vertical	85	2.13	-	27.51	2.85	-
AV	2.3876G	52.42	54.00	-1.58	22.06	3	Vertical	85	2.13	-	27.51	2.85	-
PK	2.413G	121.27	Inf	-Inf	90.85	3	Vertical	85	2.13	-	27.55	2.87	-
AV	2.4112G	117.35	Inf	-Inf	86.94	3	Vertical	85	2.13	-	27.54	2.87	-



802.11b_Nss1,(1Mbps)_3TX

09/04/2020

2412MHz_TX



EUT Y_3TX
Setting 96
04-C-K-3

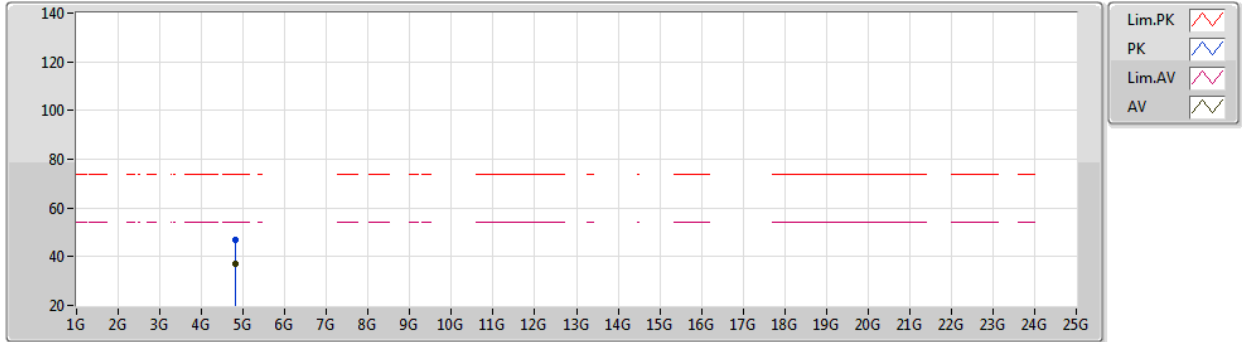
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3878G	64.50	74.00	-9.50	34.14	3	Horizontal	18	1.17	-	27.51	2.85	-
AV	2.3854G	52.23	54.00	-1.77	21.87	3	Horizontal	18	1.17	-	27.51	2.85	-
PK	2.411G	120.42	Inf	-Inf	90.01	3	Horizontal	18	1.17	-	27.54	2.87	-
AV	2.4112G	116.49	Inf	-Inf	86.08	3	Horizontal	18	1.17	-	27.54	2.87	-



802.11b_Nss1,(1Mbps)_3TX

09/04/2020

2412MHz_TX



EUT Y_3TX
Setting 96
04-C-K-3

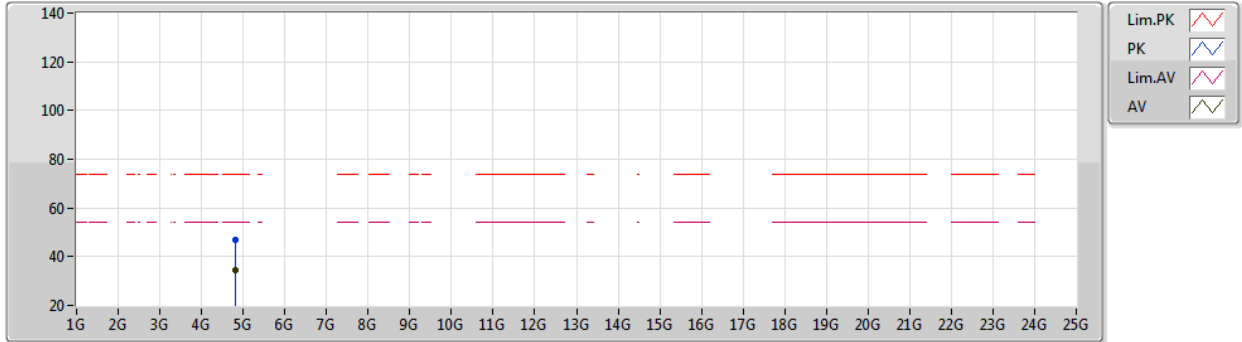
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PK	4.8237G	46.88	74.00	-27.12	42.84	3	Vertical	308	1.67	-	32.59	4.93	33.48
AV	4.824G	36.86	54.00	-17.14	32.81	3	Vertical	308	1.67	-	32.60	4.93	33.48



802.11b_Nss1,(1Mbps)_3TX

09/04/2020

2412MHz_TX



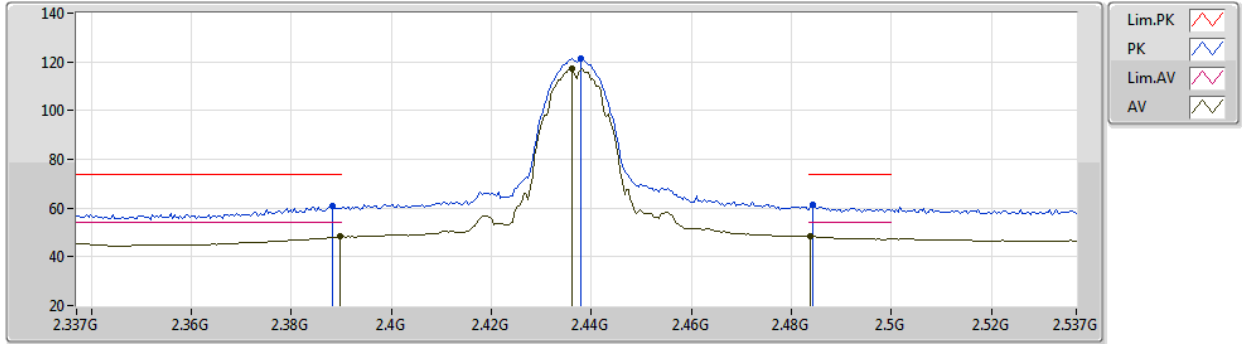
EUT Y_3TX
Setting 96
04-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.82388G	46.74	74.00	-27.26	42.69	3	Horizontal	176	1.97	-	32.60	4.93	33.48
AV	4.82394G	34.48	54.00	-19.52	30.43	3	Horizontal	176	1.97	-	32.60	4.93	33.48

802.11b_Nss1,(1Mbps)_3TX

13/04/2020

2437MHz_TX



EUT Y_3TX
Setting 96
04-C-K-3

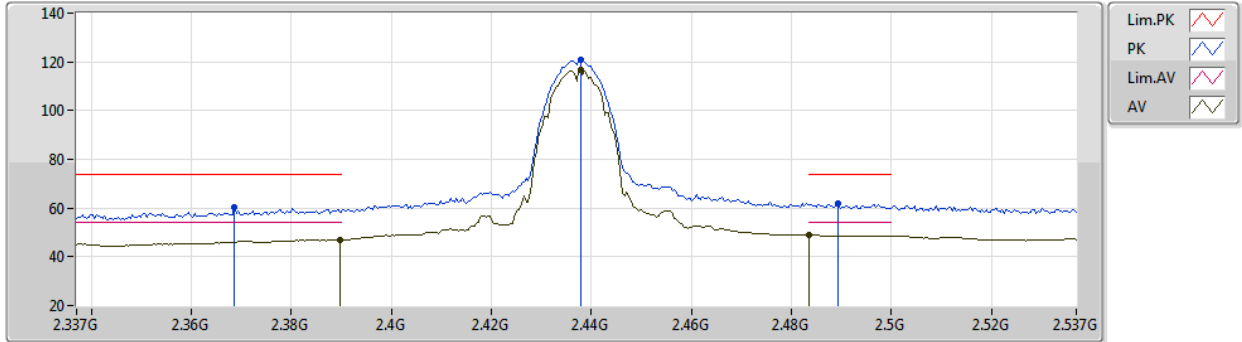
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PK	2.3882G	60.89	74.00	-13.11	30.53	3	Vertical	279	2.32	-	27.51	2.85	-
AV	2.3898G	48.20	54.00	-5.80	17.84	3	Vertical	279	2.32	-	27.51	2.85	-
PK	2.4378G	121.35	Inf	-Inf	90.82	3	Vertical	279	2.32	-	27.65	2.88	-
AV	2.4362G	117.29	Inf	-Inf	86.77	3	Vertical	279	2.32	-	27.64	2.88	-
PK	2.4842G	61.16	74.00	-12.84	30.41	3	Vertical	279	2.32	-	27.84	2.91	-
AV	2.4838G	48.22	54.00	-5.78	17.47	3	Vertical	279	2.32	-	27.84	2.91	-



802.11b_Nss1,(1Mbps)_3TX

13/04/2020

2437MHz_TX



EUT Y_3TX
Setting 96
04-C-K-3

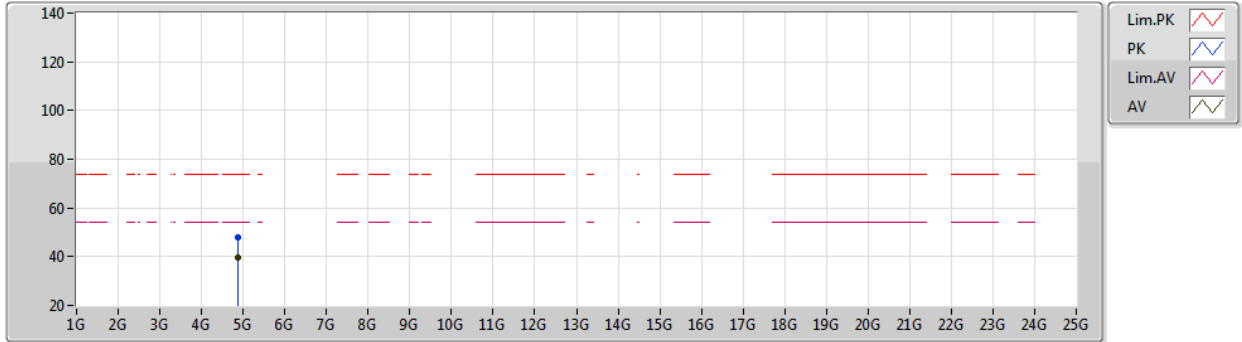
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PK	2.3686G	60.42	74.00	-13.58	30.05	3	Horizontal	190	2.02	-	27.53	2.84	-
AV	2.3898G	46.96	54.00	-7.04	16.60	3	Horizontal	190	2.02	-	27.51	2.85	-
PK	2.4378G	120.65	Inf	-Inf	90.12	3	Horizontal	190	2.02	-	27.65	2.88	-
AV	2.4378G	116.68	Inf	-Inf	86.15	3	Horizontal	190	2.02	-	27.65	2.88	-
PK	2.4894G	61.97	74.00	-12.03	31.20	3	Horizontal	190	2.02	-	27.86	2.91	-
AV	2.4835G	49.01	54.00	-4.99	18.27	3	Horizontal	190	2.02	-	27.83	2.91	-



802.11b_Nss1,(1Mbps)_3TX

13/04/2020

2437MHz_TX



EUT Y_3TX
Setting 96
04-C-K-3

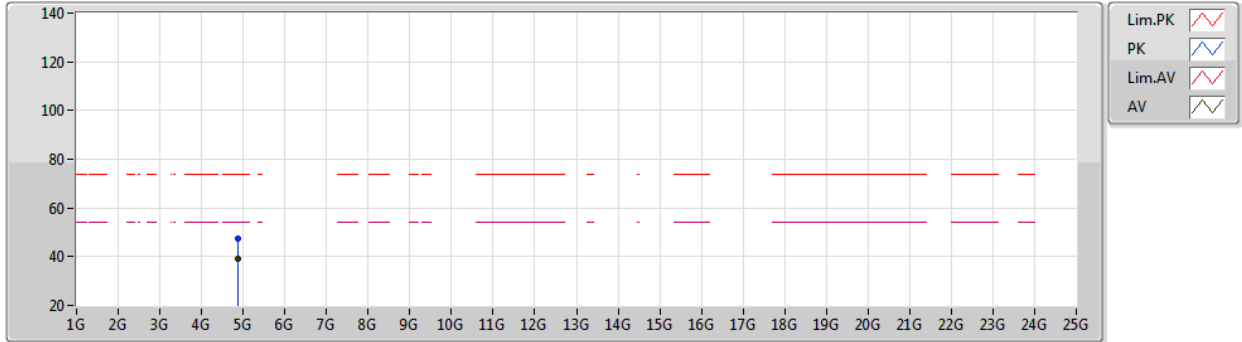
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PK	4.87396G	47.83	74.00	-26.17	43.52	3	Vertical	231	1.78	-	32.80	4.96	33.45
AV	4.87396G	39.43	54.00	-14.57	35.12	3	Vertical	231	1.78	-	32.80	4.96	33.45



802.11b_Nss1,(1Mbps)_3TX

13/04/2020

2437MHz_TX



EUT Y_3TX
Setting 96
04-C-K-3

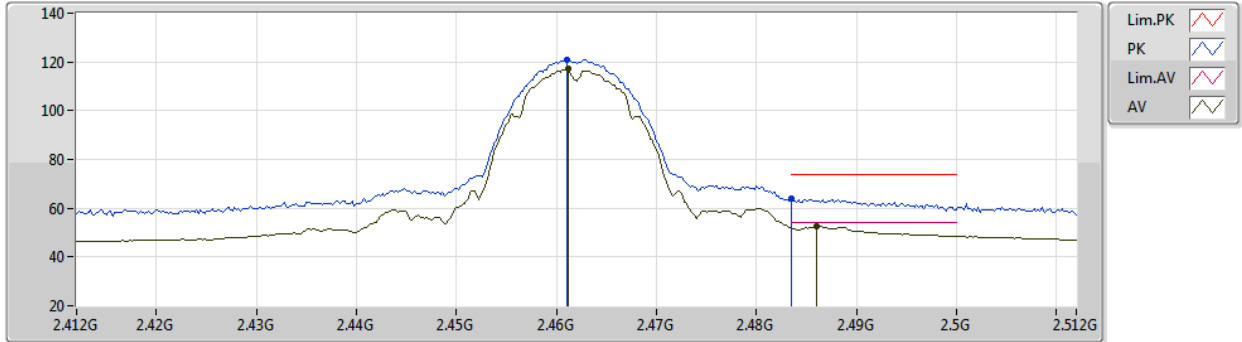
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PK	4.87376G	47.46	74.00	-26.54	43.15	3	Horizontal	231	1.81	-	32.80	4.96	33.45
AV	4.87396G	38.90	54.00	-15.10	34.59	3	Horizontal	231	1.81	-	32.80	4.96	33.45



802.11b_Nss1,(1Mbps)_3TX

09/04/2020

2462MHz_TX



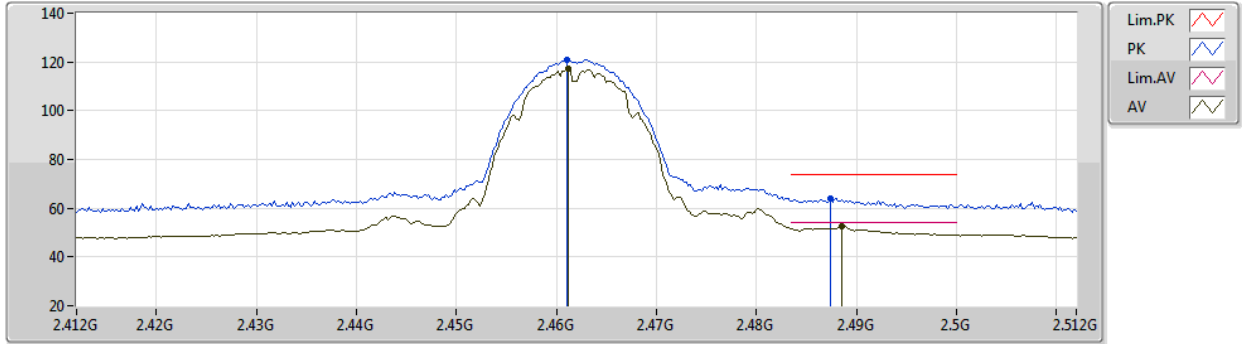
EUT Y_3TX
Setting 96
04-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.461G	121.05	Inf	-Inf	90.41	3	Vertical	84	1.85	-	27.74	2.90	-
AV	2.4612G	117.01	Inf	-Inf	86.37	3	Vertical	84	1.85	-	27.74	2.90	-
PK	2.4835G	63.76	74.00	-10.24	33.02	3	Vertical	84	1.85	-	27.83	2.91	-
AV	2.486G	52.65	54.00	-1.35	21.90	3	Vertical	84	1.85	-	27.84	2.91	-

802.11b_Nss1,(1Mbps)_3TX

09/04/2020

2462MHz_TX



EUT Y_3TX
Setting 96
04-C-K-3

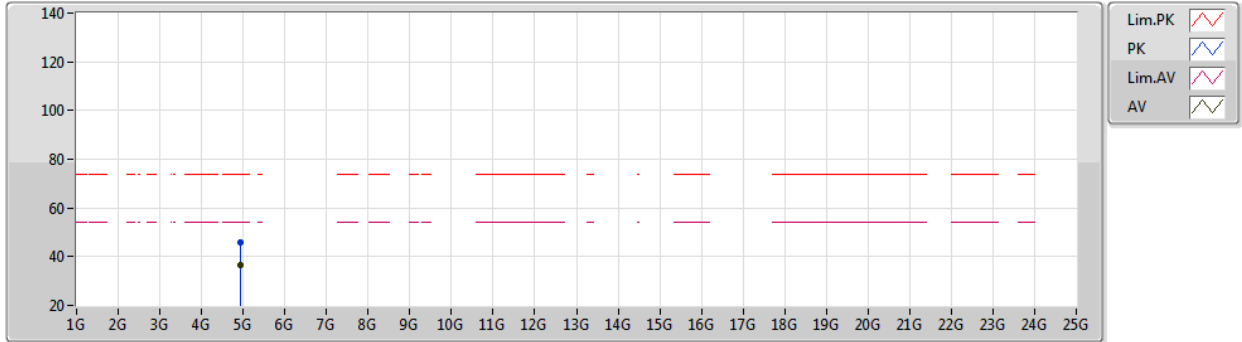
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PK	2.461G	120.91	Inf	-Inf	90.27	3	Horizontal	7	1.39	-	27.74	2.90	-
AV	2.4612G	117.18	Inf	-Inf	86.54	3	Horizontal	7	1.39	-	27.74	2.90	-
PK	2.4874G	64.18	74.00	-9.82	33.42	3	Horizontal	7	1.39	-	27.85	2.91	-
AV	2.4886G	52.59	54.00	-1.41	21.83	3	Horizontal	7	1.39	-	27.85	2.91	-



802.11b_Nss1,(1Mbps)_3TX

09/04/2020

2462MHz_TX



EUT Y_3TX
Setting 96
04-C-K-3

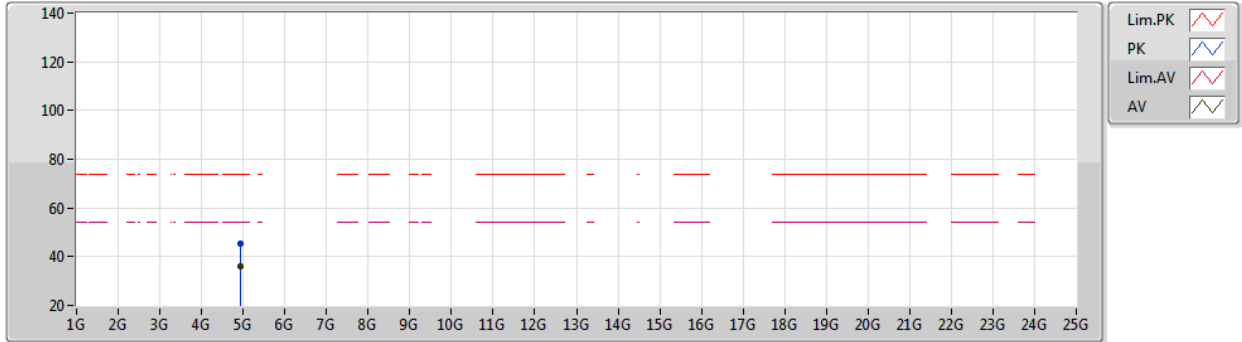
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.924G	46.07	74.00	-27.93	41.56	3	Vertical	305	2.48	-	32.95	4.98	33.42
AV	4.924G	36.48	54.00	-17.52	31.97	3	Vertical	305	2.48	-	32.95	4.98	33.42



802.11b_Nss1,(1Mbps)_3TX

09/04/2020

2462MHz_TX



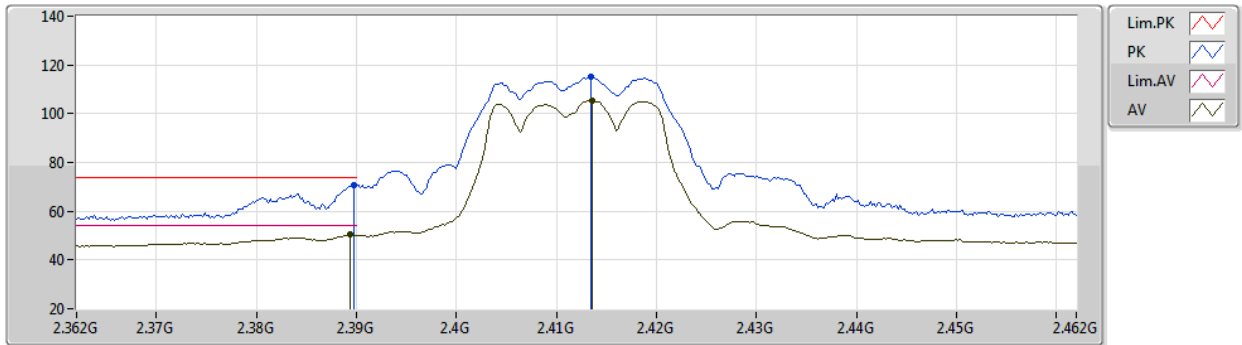
EUT Y_3TX
Setting 96
04-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.92382G	45.27	74.00	-28.73	40.76	3	Horizontal	220	2.28	-	32.95	4.98	33.42
AV	4.92388G	36.13	54.00	-17.87	31.62	3	Horizontal	220	2.28	-	32.95	4.98	33.42

802.11g_Nss1,(6Mbps)_3TX

09/04/2020

2412MHz_TX



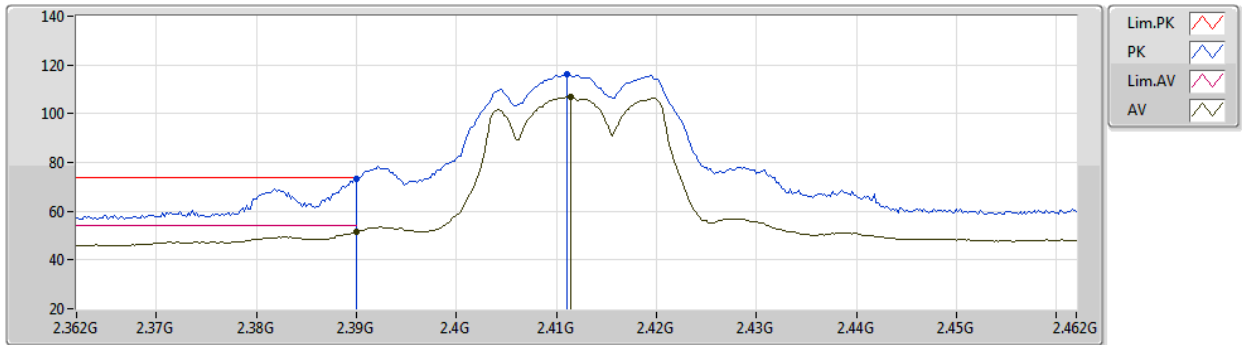
EUT Y_3TX
Setting 78
04-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	70.87	74.00	-3.13	40.51	3	Vertical	74	1.80	-	27.51	2.85	-
AV	2.3894G	50.28	54.00	-3.72	19.92	3	Vertical	74	1.80	-	27.51	2.85	-
PK	2.4134G	115.11	Inf	-Inf	84.69	3	Vertical	74	1.80	-	27.55	2.87	-
AV	2.4136G	105.34	Inf	-Inf	74.92	3	Vertical	74	1.80	-	27.55	2.87	-

802.11g_Nss1,(6Mbps)_3TX

09/04/2020

2412MHz_TX



EUT Y_3TX
Setting 78
04-C-K-3

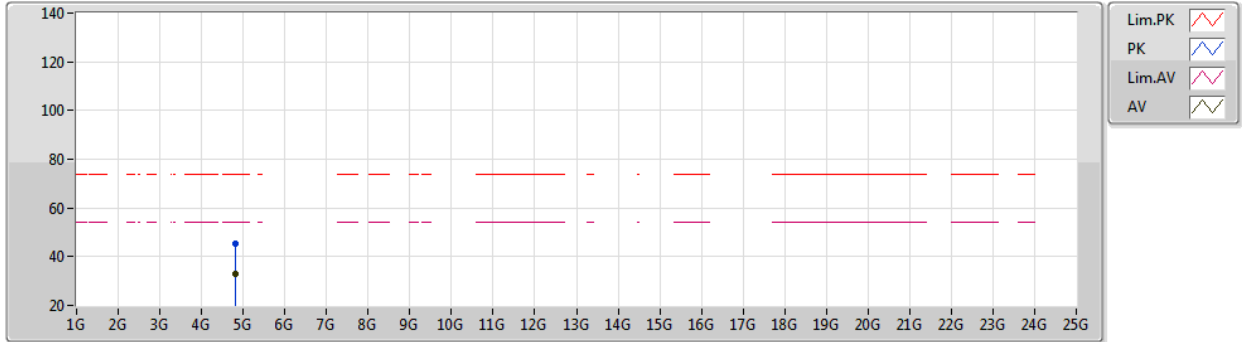
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	73.11	74.00	-0.89	42.75	3	Horizontal	183	1.80	-	27.51	2.85	-
AV	2.39G	51.66	54.00	-2.34	21.30	3	Horizontal	183	1.80	-	27.51	2.85	-
PK	2.411G	116.00	Inf	-Inf	85.59	3	Horizontal	183	1.80	-	27.54	2.87	-
AV	2.4114G	106.94	Inf	-Inf	76.52	3	Horizontal	183	1.80	-	27.55	2.87	-



802.11g_Nss1,(6Mbps)_3TX

09/04/2020

2412MHz_TX



EUT Y_3TX
Setting 78
04-C-K-3

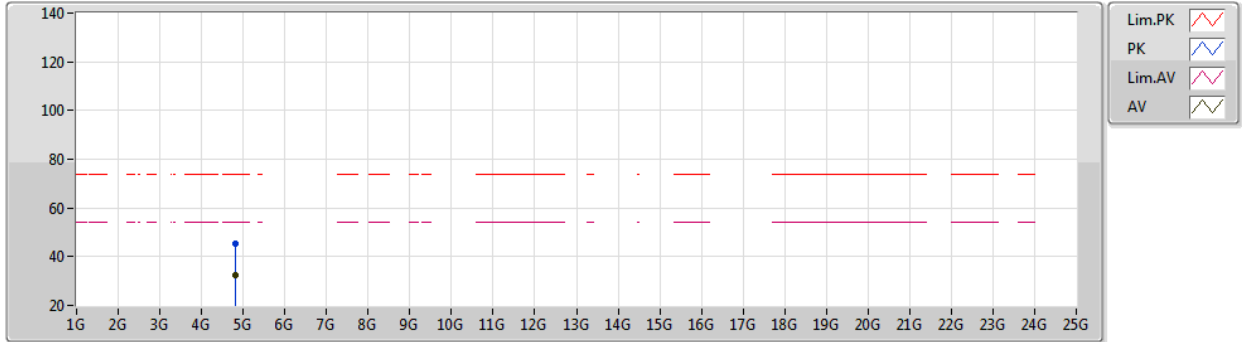
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.82436G	45.24	74.00	-28.76	41.19	3	Vertical	260	2.77	-	32.60	4.93	33.48
AV	4.824G	32.95	54.00	-21.05	28.90	3	Vertical	260	2.77	-	32.60	4.93	33.48



802.11g_Nss1,(6Mbps)_3TX

09/04/2020

2412MHz_TX



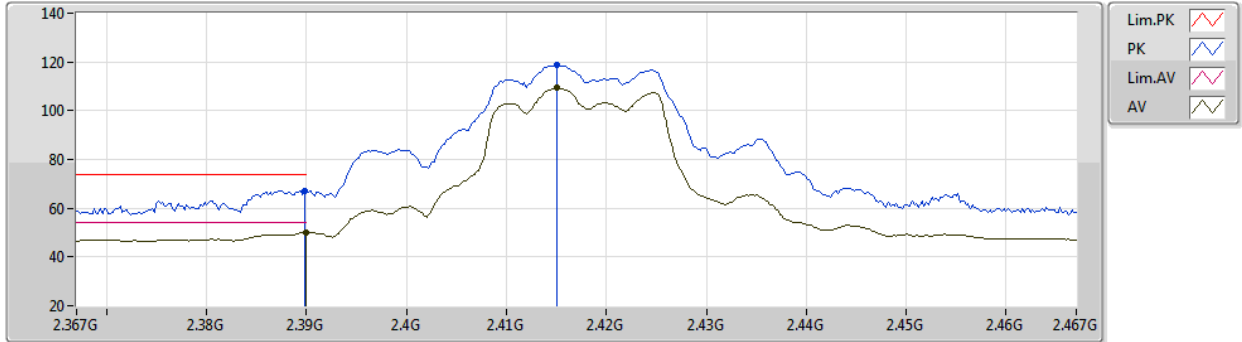
EUT Y_3TX
Setting 78
04-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.8246G	45.36	74.00	-28.64	41.31	3	Horizontal	241	1.02	-	32.60	4.93	33.48
AV	4.82384G	32.30	54.00	-21.70	28.25	3	Horizontal	241	1.02	-	32.60	4.93	33.48

802.11g_Nss1,(6Mbps)_3TX

14/04/2020

2417MHz_TX



EUT Y_3TX
Setting 88
04-F-K-3

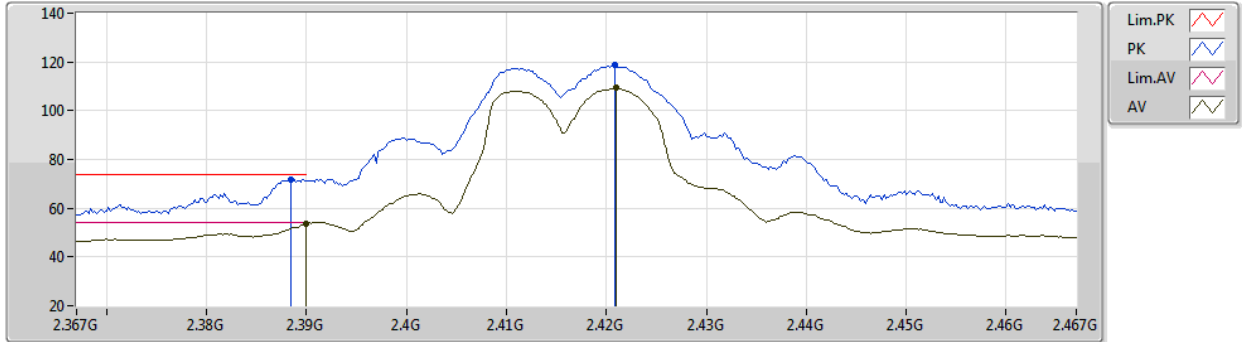
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	67.28	74.00	-6.72	36.92	3	Vertical	58	2.26	-	27.51	2.85	-
AV	2.39G	50.01	54.00	-3.99	19.65	3	Vertical	58	2.26	-	27.51	2.85	-
PK	2.415G	118.84	Inf	-Inf	88.41	3	Vertical	58	2.26	-	27.56	2.87	-
AV	2.415G	109.25	Inf	-Inf	78.82	3	Vertical	58	2.26	-	27.56	2.87	-



802.11g_Nss1,(6Mbps)_3TX

14/04/2020

2417MHz_TX



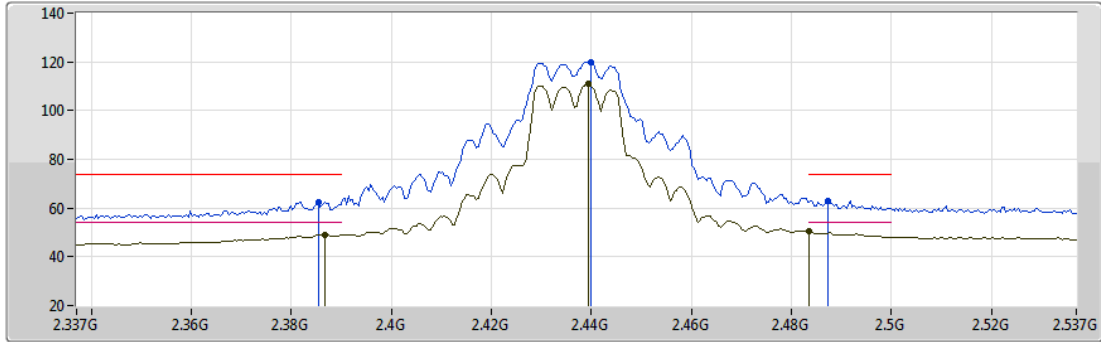
EUT Y_3TX
Setting 88
04-F-K-3




Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3884G	71.70	74.00	-2.30	41.34	3	Horizontal	197	2.22	-	27.51	2.85	-
AV	2.39G	53.72	54.00	-0.28	23.36	3	Horizontal	197	2.22	-	27.51	2.85	-
PK	2.4208G	118.66	Inf	-Inf	88.21	3	Horizontal	197	2.22	-	27.58	2.87	-
AV	2.421G	109.39	Inf	-Inf	78.94	3	Horizontal	197	2.22	-	27.58	2.87	-

802.11g_Nss1,(6Mbps)_3TX

13/04/2020

2437MHz_TX



Lim.PK 
 PK 
 Lim.AV 
 AV 

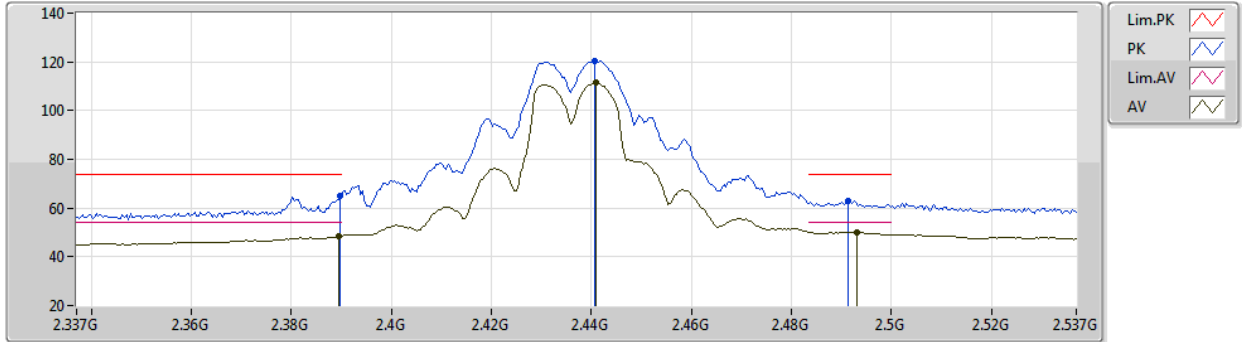
EUT Y_3TX
Setting 96
04-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3854G	62.51	74.00	-11.49	32.15	3	Vertical	278	1.86	-	27.51	2.85	-
AV	2.3866G	48.83	54.00	-5.17	18.47	3	Vertical	278	1.86	-	27.51	2.85	-
PK	2.4398G	119.96	Inf	-Inf	89.42	3	Vertical	278	1.86	-	27.66	2.88	-
AV	2.4394G	111.00	Inf	-Inf	80.46	3	Vertical	278	1.86	-	27.66	2.88	-
PK	2.4874G	62.94	74.00	-11.06	32.18	3	Vertical	278	1.86	-	27.85	2.91	-
AV	2.4835G	50.60	54.00	-3.40	19.86	3	Vertical	278	1.86	-	27.83	2.91	-

802.11g_Nss1,(6Mbps)_3TX

13/04/2020

2437MHz_TX



EUT Y_3TX
Setting 96
04-C-K-3

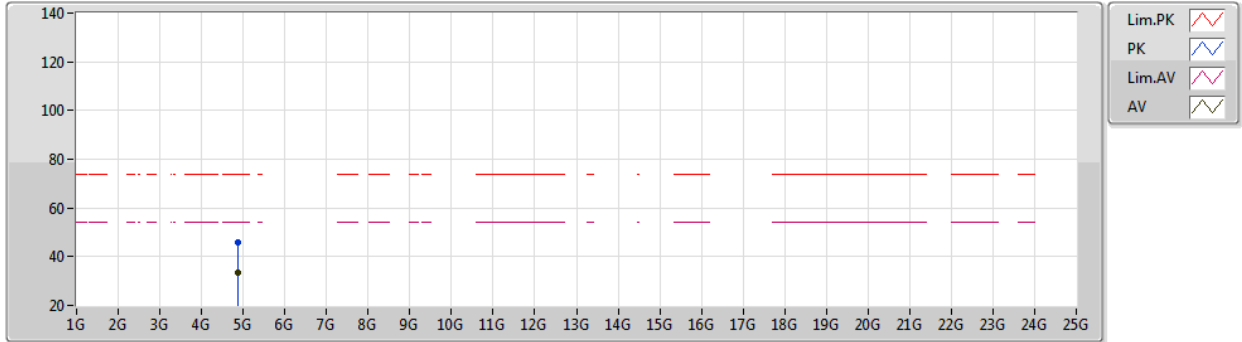
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	65.15	74.00	-8.85	34.79	3	Horizontal	182	1.80	-	27.51	2.85	-
AV	2.3894G	48.53	54.00	-5.47	18.17	3	Horizontal	182	1.80	-	27.51	2.85	-
PK	2.4406G	120.56	Inf	-Inf	90.02	3	Horizontal	182	1.80	-	27.66	2.88	-
AV	2.441G	111.43	Inf	-Inf	80.89	3	Horizontal	182	1.80	-	27.66	2.88	-
PK	2.4914G	62.93	74.00	-11.07	32.15	3	Horizontal	182	1.80	-	27.87	2.91	-
AV	2.493G	50.25	54.00	-3.75	19.46	3	Horizontal	182	1.80	-	27.87	2.92	-



802.11g_Nss1,(6Mbps)_3TX

13/04/2020

2437MHz_TX



EUT Y_3TX
Setting 96
04-C-K-3

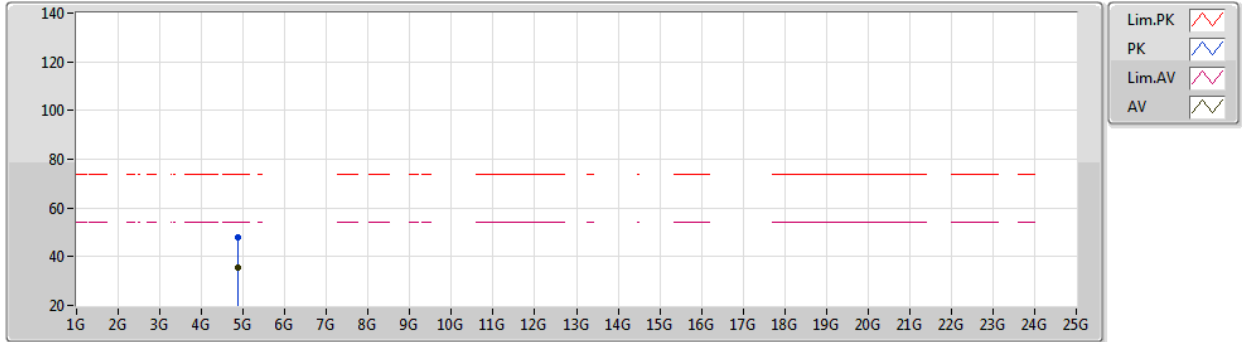
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.8744G	45.85	74.00	-28.15	41.54	3	Vertical	81	1.80	-	32.80	4.96	33.45
AV	4.87468G	33.42	54.00	-20.58	29.11	3	Vertical	81	1.80	-	32.80	4.96	33.45



802.11g_Nss1,(6Mbps)_3TX

13/04/2020

2437MHz_TX



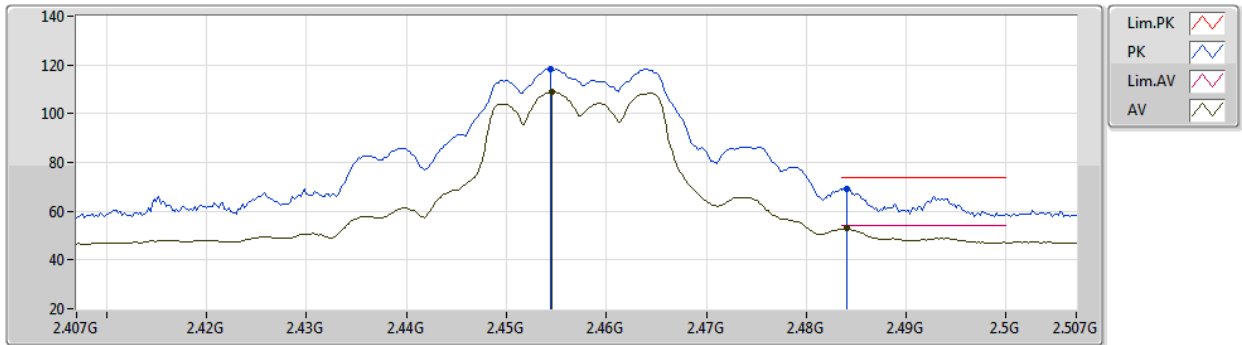
EUT Y_3TX
Setting 96
04-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.8746G	47.72	74.00	-26.28	43.41	3	Horizontal	0	2.48	-	32.80	4.96	33.45
AV	4.87436G	35.40	54.00	-18.60	31.09	3	Horizontal	0	2.48	-	32.80	4.96	33.45

802.11g_Nss1,(6Mbps)_3TX

14/04/2020

2457MHz_TX



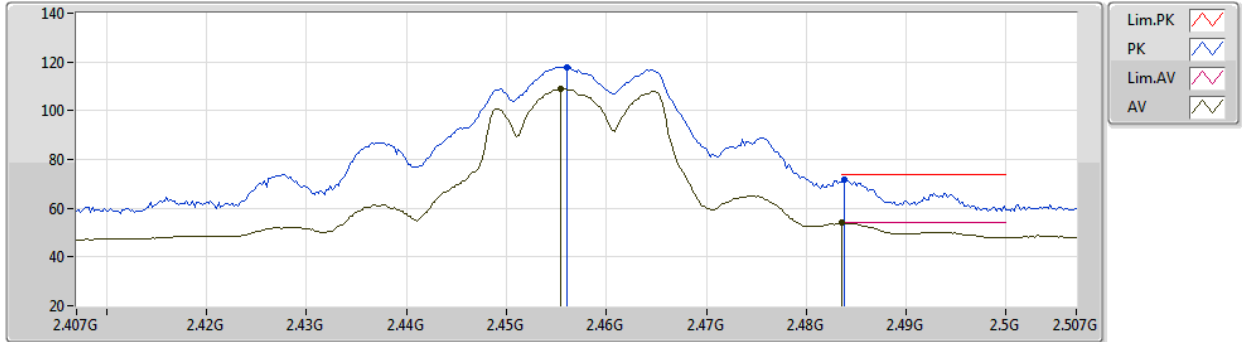
EUT Y_3TX
Setting 87
04-F-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4544G	118.27	Inf	-Inf	87.66	3	Vertical	53	1.80	-	27.72	2.89	-
AV	2.4546G	108.84	Inf	-Inf	78.23	3	Vertical	53	1.80	-	27.72	2.89	-
PK	2.484G	69.33	74.00	-4.67	38.58	3	Vertical	53	1.80	-	27.84	2.91	-
AV	2.484G	53.05	54.00	-0.95	22.30	3	Vertical	53	1.80	-	27.84	2.91	-

802.11g_Nss1,(6Mbps)_3TX

14/04/2020

2457MHz_TX



EUT Y_3TX
Setting 87
04-F-K-3

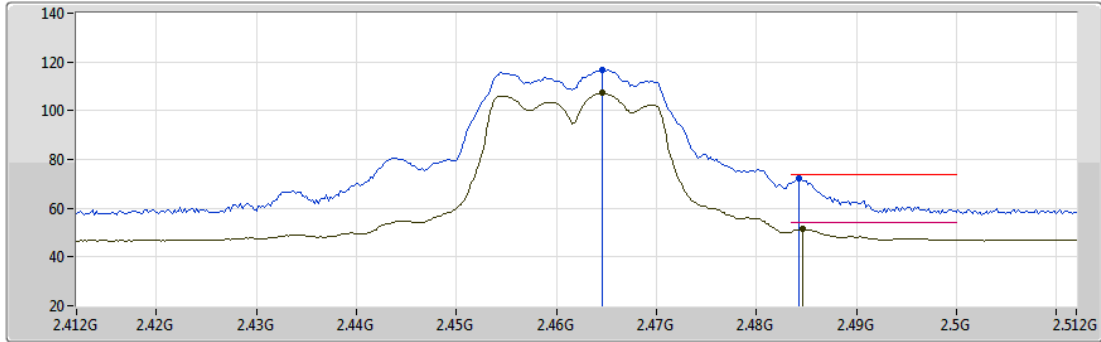
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.456G	117.99	Inf	-Inf	87.38	3	Horizontal	186	1.77	-	27.72	2.89	-
AV	2.4554G	108.74	Inf	-Inf	78.13	3	Horizontal	186	1.77	-	27.72	2.89	-
PK	2.4838G	71.50	74.00	-2.50	40.75	3	Horizontal	186	1.77	-	27.84	2.91	-
AV	2.4835G	53.92	54.00	-0.08	23.18	3	Horizontal	186	1.77	-	27.83	2.91	-



802.11g_Nss1,(6Mbps)_3TX

09/04/2020

2462MHz_TX



Lim.PK
 PK
 Lim.AV
 AV

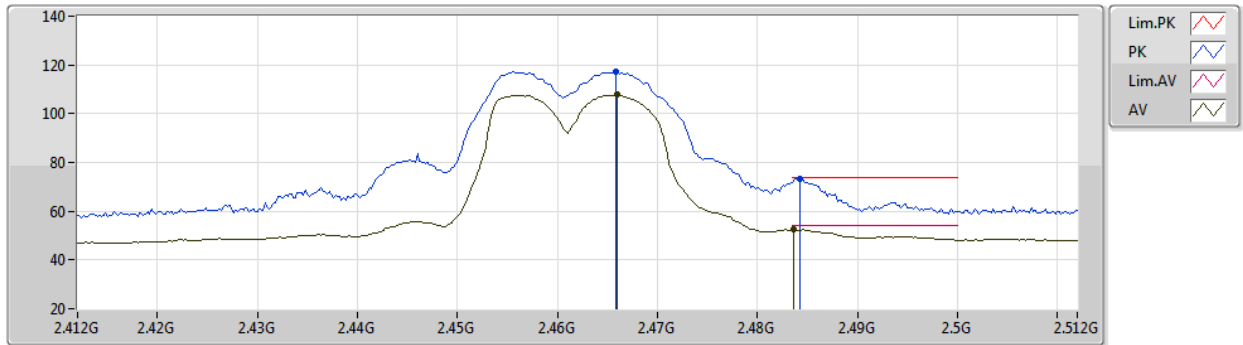
EUT Y_3TX
Setting 79
04-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4646G	116.64	Inf	-Inf	85.98	3	Vertical	51	1.80	-	27.76	2.90	-
AV	2.4646G	107.17	Inf	-Inf	76.51	3	Vertical	51	1.80	-	27.76	2.90	-
PK	2.4842G	72.47	74.00	-1.53	41.72	3	Vertical	51	1.80	-	27.84	2.91	-
AV	2.4846G	51.38	54.00	-2.62	20.63	3	Vertical	51	1.80	-	27.84	2.91	-

802.11g_Nss1,(6Mbps)_3TX

09/04/2020

2462MHz_TX



EUT Y_3TX
Setting 79
04-C-K-3

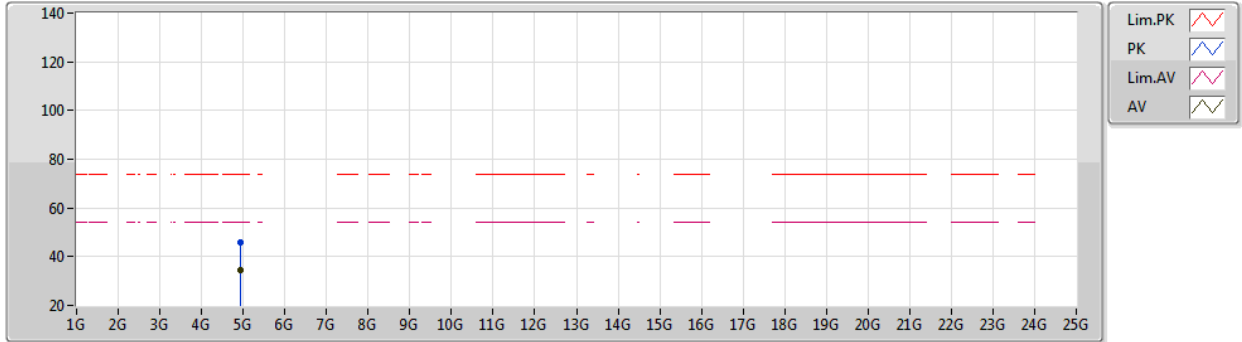
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4658G	117.08	Inf	-Inf	86.42	3	Horizontal	178	1.74	-	27.76	2.90	-
AV	2.466G	107.92	Inf	-Inf	77.26	3	Horizontal	178	1.74	-	27.76	2.90	-
PK	2.4842G	73.32	74.00	-0.68	42.57	3	Horizontal	178	1.74	-	27.84	2.91	-
AV	2.4836G	52.57	54.00	-1.43	21.83	3	Horizontal	178	1.74	-	27.83	2.91	-



802.11g_Nss1,(6Mbps)_3TX

09/04/2020

2462MHz_TX



EUT Y_3TX
Setting 79
04-C-K-3

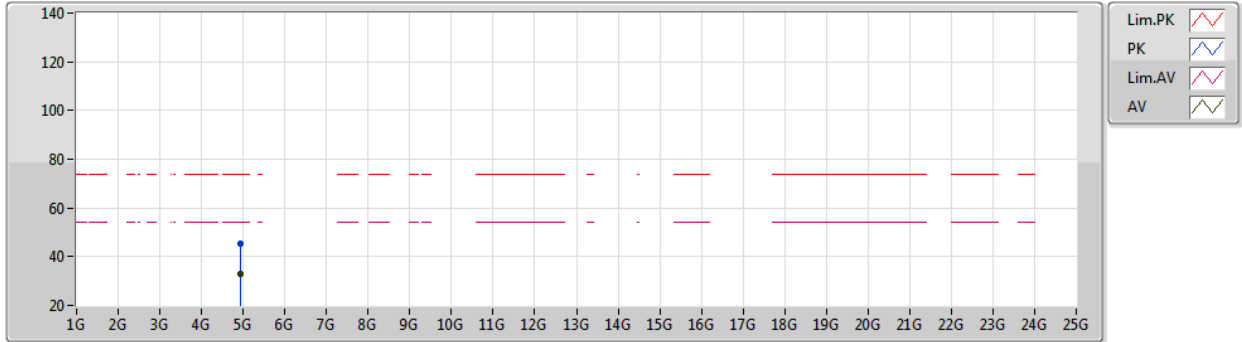
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.9249G	45.73	74.00	-28.27	41.22	3	Vertical	239	2.92	-	32.95	4.98	33.42
AV	4.924G	34.48	54.00	-19.52	29.97	3	Vertical	239	2.92	-	32.95	4.98	33.42



802.11g_Nss1,(6Mbps)_3TX

09/04/2020

2462MHz_TX



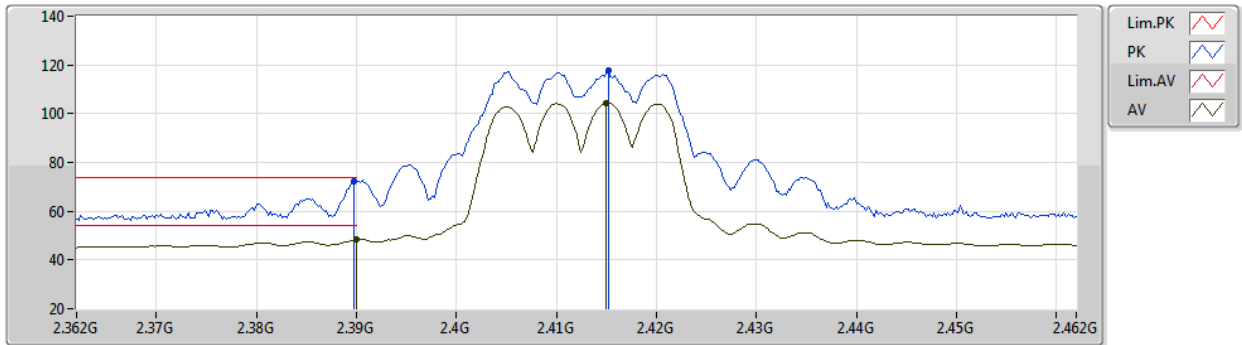
EUT Y_3TX
Setting 79
04-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.92408G	45.37	74.00	-28.63	40.86	3	Horizontal	235	2.16	-	32.95	4.98	33.42
AV	4.92396G	33.08	54.00	-20.92	28.57	3	Horizontal	235	2.16	-	32.95	4.98	33.42

802.11ax HEW20_Nss1,(MCS0)_3TX

09/04/2020

2412MHz_TX



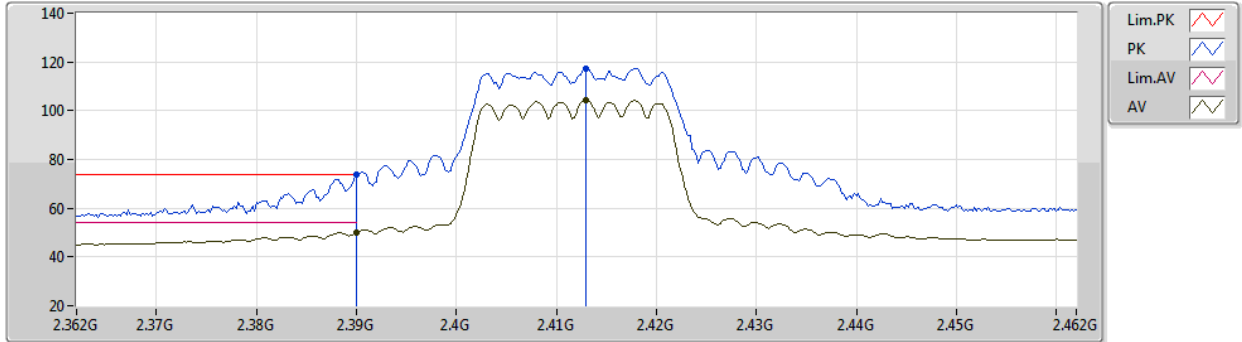
EUT Y_3TX
Setting 74
04-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	72.30	74.00	-1.70	41.94	3	Vertical	60	1.80	-	27.51	2.85	-
AV	2.39G	48.36	54.00	-5.64	18.00	3	Vertical	60	1.80	-	27.51	2.85	-
PK	2.4152G	117.97	Inf	-Inf	87.54	3	Vertical	60	1.80	-	27.56	2.87	-
AV	2.415G	104.45	Inf	-Inf	74.02	3	Vertical	60	1.80	-	27.56	2.87	-

802.11ax HEW20_Nss1,(MCS0)_3TX

09/04/2020

2412MHz_TX



EUT Y_3TX
Setting 74
04-C-K-3

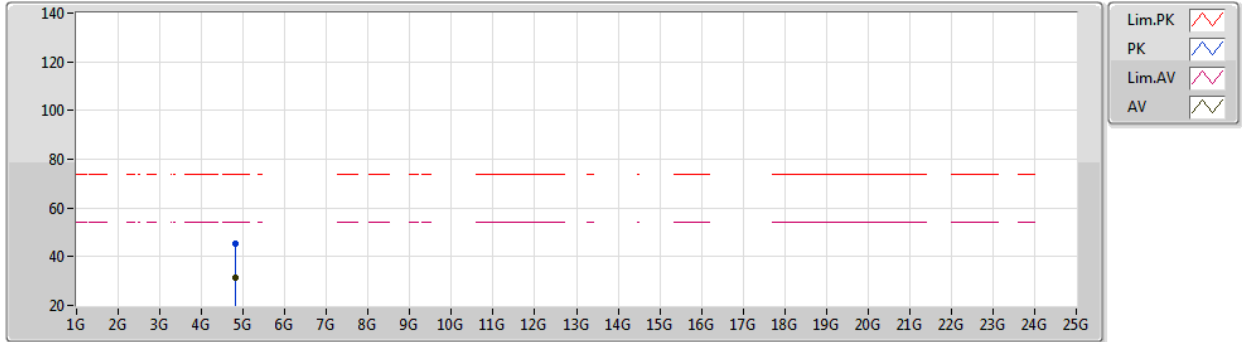
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	73.60	74.00	-0.40	43.24	3	Horizontal	180	1.78	-	27.51	2.85	-
AV	2.39G	49.92	54.00	-4.08	19.56	3	Horizontal	180	1.78	-	27.51	2.85	-
PK	2.413G	117.36	Inf	-Inf	86.94	3	Horizontal	180	1.78	-	27.55	2.87	-
AV	2.413G	104.30	Inf	-Inf	73.88	3	Horizontal	180	1.78	-	27.55	2.87	-



802.11ax HEW20_Nss1,(MCS0)_3TX

09/04/2020

2412MHz_TX



EUT V_3TX
Setting 74
04-C-K-3

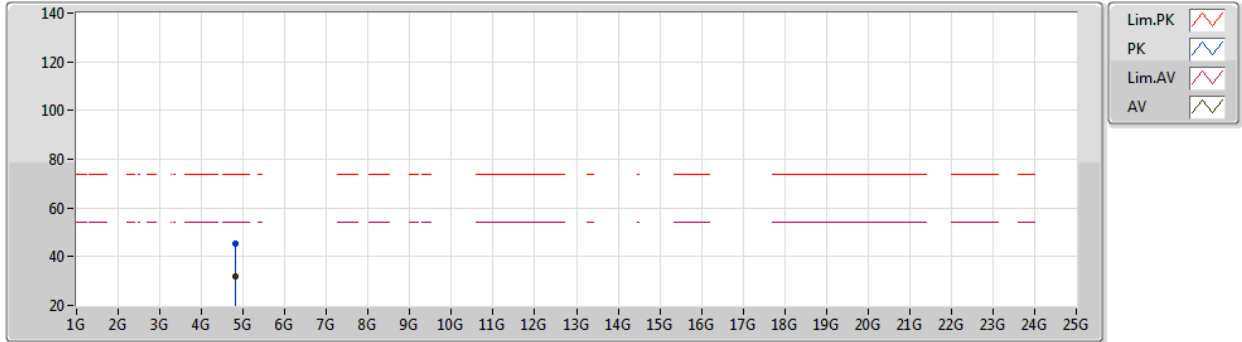
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.82448G	45.11	74.00	-28.89	41.06	3	Vertical	128	2.28	-	32.60	4.93	33.48
AV	4.82412G	31.46	54.00	-22.54	27.41	3	Vertical	128	2.28	-	32.60	4.93	33.48



802.11ax HEW20_Nss1,(MCS0)_3TX

09/04/2020

2412MHz_TX



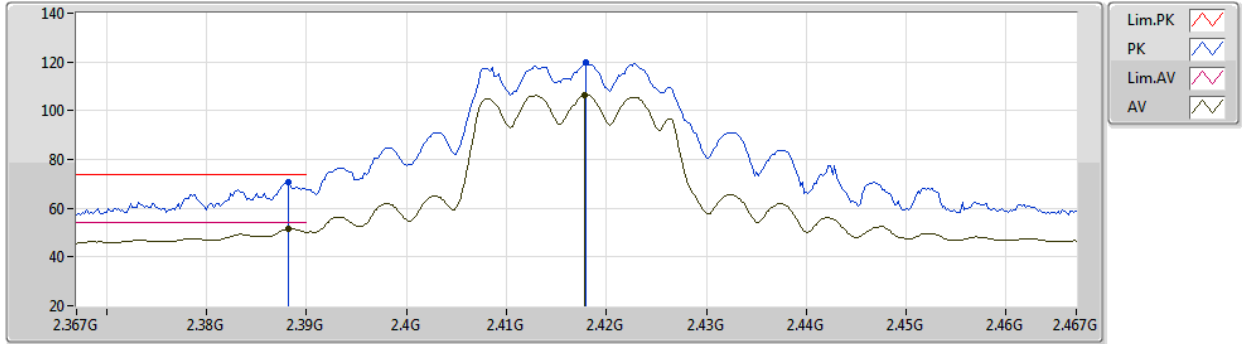
EUT V_3TX
Setting 74
04-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.82484G	45.31	74.00	-28.69	41.26	3	Horizontal	291	2.57	-	32.60	4.93	33.48
AV	4.82384G	31.87	54.00	-22.13	27.82	3	Horizontal	291	2.57	-	32.60	4.93	33.48

802.11ax HEW20_Nss1,(MCS0)_3TX

14/04/2020

2417MHz_TX



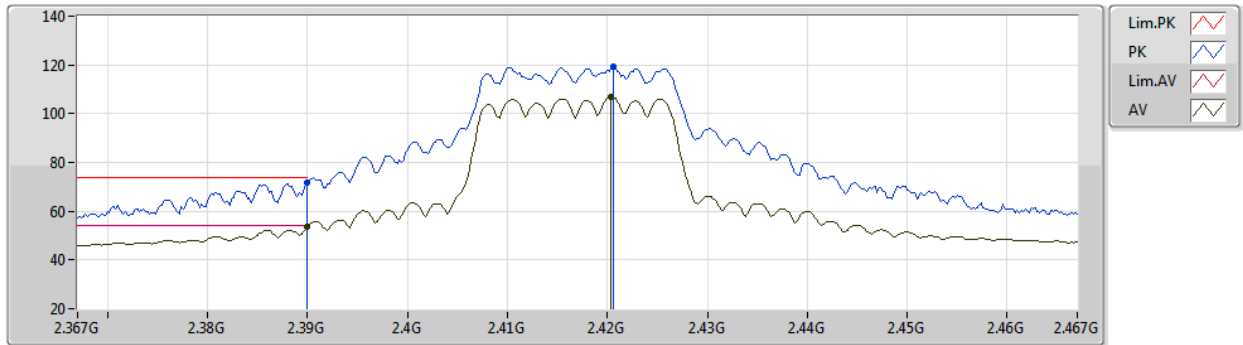
EUT Y_3TX
Setting 86
04-F-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3882G	70.53	74.00	-3.47	40.17	3	Vertical	67	1.85	-	27.51	2.85	-
AV	2.3882G	51.47	54.00	-2.53	21.11	3	Vertical	67	1.85	-	27.51	2.85	-
PK	2.418G	119.59	Inf	-Inf	89.15	3	Vertical	67	1.85	-	27.57	2.87	-
AV	2.4178G	106.62	Inf	-Inf	76.18	3	Vertical	67	1.85	-	27.57	2.87	-

802.11ax HEW20_Nss1,(MCS0)_3TX

14/04/2020

2417MHz_TX



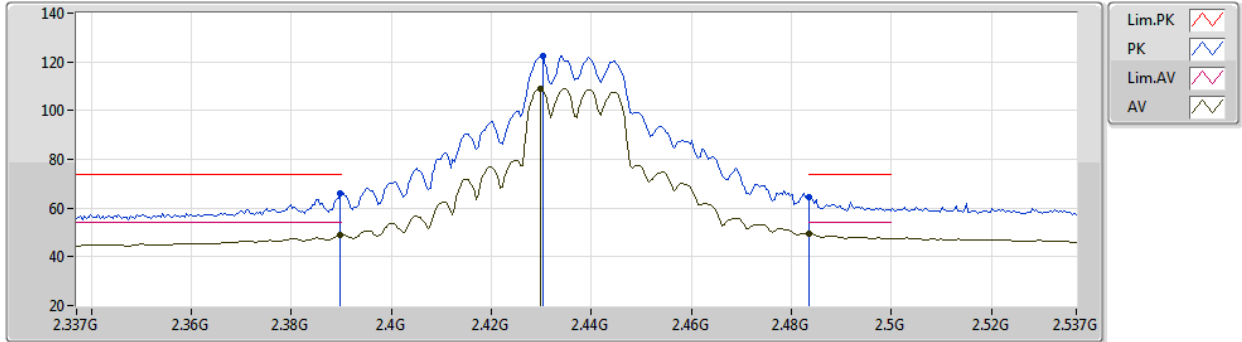
EUT Y_3TX
Setting 86
04-F-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	71.87	74.00	-2.13	41.51	3	Horizontal	17	1.56	-	27.51	2.85	-
AV	2.39G	53.77	54.00	-0.23	23.41	3	Horizontal	17	1.56	-	27.51	2.85	-
PK	2.4206G	119.41	Inf	-Inf	88.96	3	Horizontal	17	1.56	-	27.58	2.87	-
AV	2.4204G	106.91	Inf	-Inf	76.46	3	Horizontal	17	1.56	-	27.58	2.87	-

802.11ax HEW20_Nss1,(MCS0)_3TX

13/04/2020

2437MHz_TX



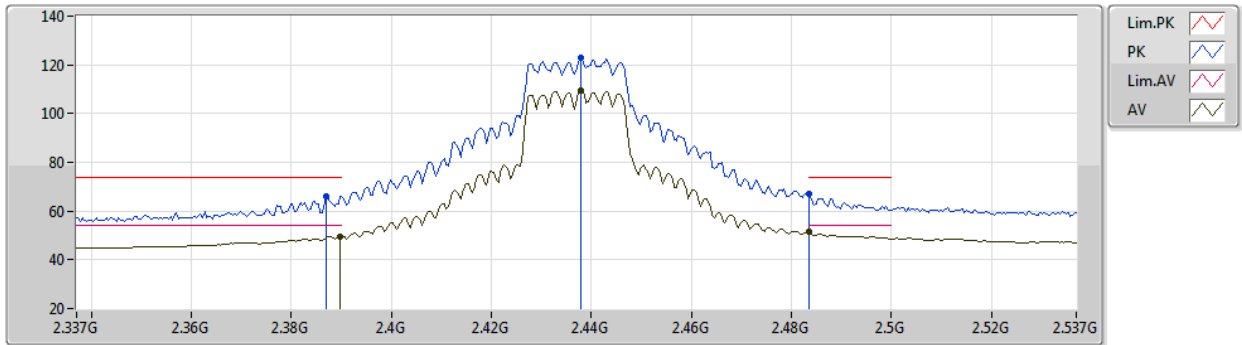
EUT Y_3TX
Setting 96
04-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	65.81	74.00	-8.19	35.45	3	Vertical	279	2.56	-	27.51	2.85	-
AV	2.3898G	49.07	54.00	-4.93	18.71	3	Vertical	279	2.56	-	27.51	2.85	-
PK	2.4302G	122.35	Inf	-Inf	91.85	3	Vertical	279	2.56	-	27.62	2.88	-
AV	2.4298G	109.06	Inf	-Inf	78.56	3	Vertical	279	2.56	-	27.62	2.88	-
PK	2.4835G	64.73	74.00	-9.27	33.99	3	Vertical	279	2.56	-	27.83	2.91	-
AV	2.4835G	49.56	54.00	-4.44	18.82	3	Vertical	279	2.56	-	27.83	2.91	-

802.11ax HEW20_Nss1,(MCS0)_3TX

13/04/2020

2437MHz_TX



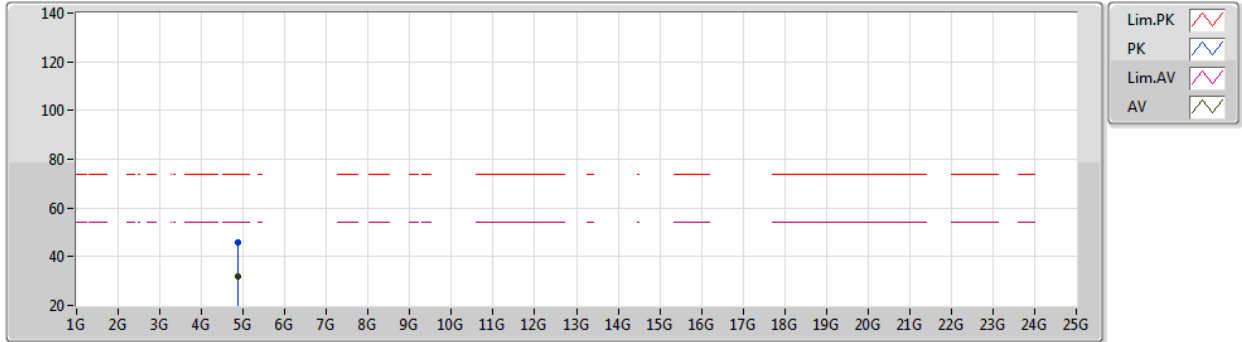
EUT Y_3TX
Setting 96
04-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.387G	66.11	74.00	-7.89	35.75	3	Horizontal	194	2.05	-	27.51	2.85	-
AV	2.3898G	49.61	54.00	-4.39	19.25	3	Horizontal	194	2.05	-	27.51	2.85	-
PK	2.4378G	122.76	Inf	-Inf	92.23	3	Horizontal	194	2.05	-	27.65	2.88	-
AV	2.4378G	109.45	Inf	-Inf	78.92	3	Horizontal	194	2.05	-	27.65	2.88	-
PK	2.4835G	67.09	74.00	-6.91	36.35	3	Horizontal	194	2.05	-	27.83	2.91	-
AV	2.4835G	51.32	54.00	-2.68	20.58	3	Horizontal	194	2.05	-	27.83	2.91	-

802.11ax HEW20_Nss1,(MCS0)_3TX

13/04/2020

2437MHz_TX



EUT Y_3TX
Setting 96
04-C-K-3

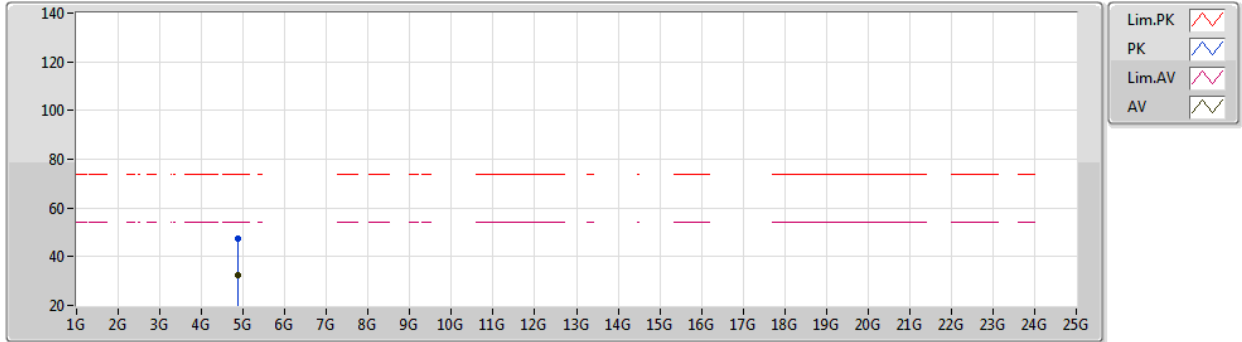
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PK	4.87416G	45.79	74.00	-28.21	41.48	3	Vertical	127	1.80	-	32.80	4.96	33.45
AV	4.87464G	31.81	54.00	-22.19	27.50	3	Vertical	127	1.80	-	32.80	4.96	33.45



802.11ax HEW20_Nss1,(MCS0)_3TX

13/04/2020

2437MHz_TX



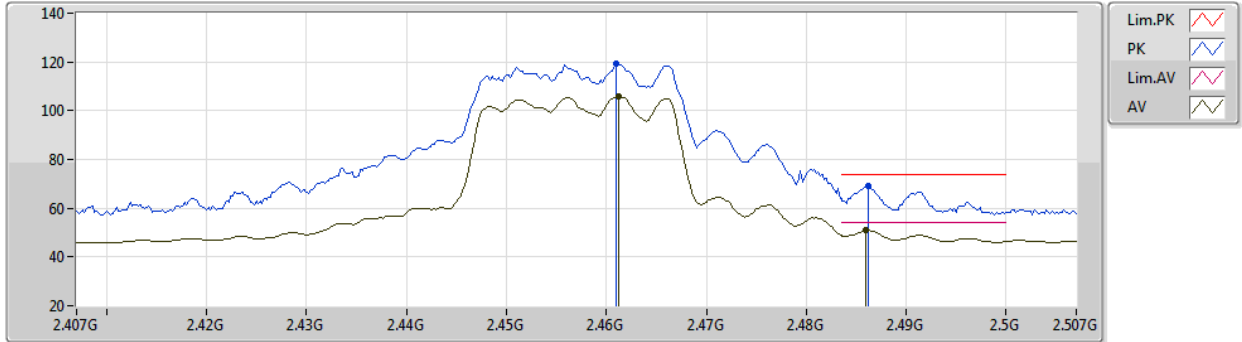
EUT Y_3TX
Setting 96
04-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.87236G	47.40	74.00	-26.60	43.10	3	Horizontal	360	1.63	-	32.79	4.96	33.45
AV	4.87732G	32.58	54.00	-21.42	28.26	3	Horizontal	360	1.63	-	32.81	4.96	33.45

802.11ax HEW20_Nss1,(MCS0)_3TX

14/04/2020

2457MHz_TX



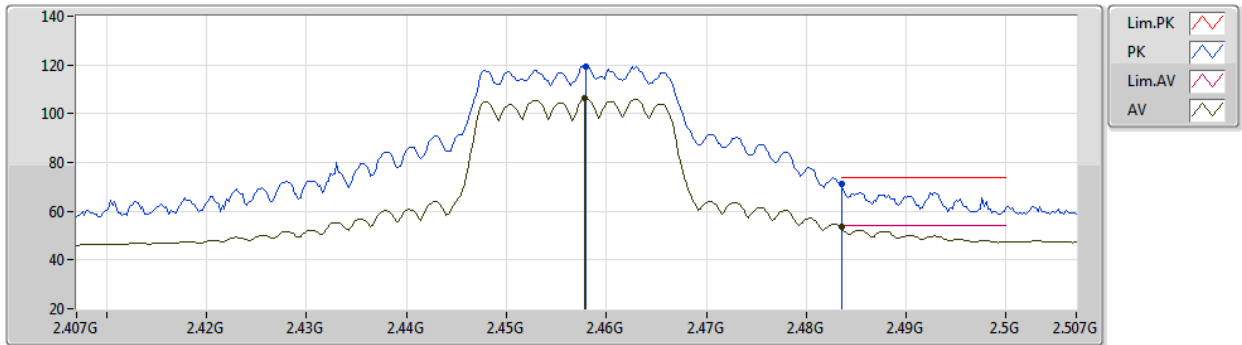
EUT Y_3TX
Setting 84
04-F-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.461G	119.51	Inf	-Inf	88.87	3	Vertical	53	1.80	-	27.74	2.90	-
AV	2.4612G	105.89	Inf	-Inf	75.25	3	Vertical	53	1.80	-	27.74	2.90	-
PK	2.4862G	69.31	74.00	-4.69	38.56	3	Vertical	53	1.80	-	27.84	2.91	-
AV	2.486G	50.79	54.00	-3.21	20.04	3	Vertical	53	1.80	-	27.84	2.91	-

802.11ax HEW20_Nss1,(MCS0)_3TX

14/04/2020

2457MHz_TX



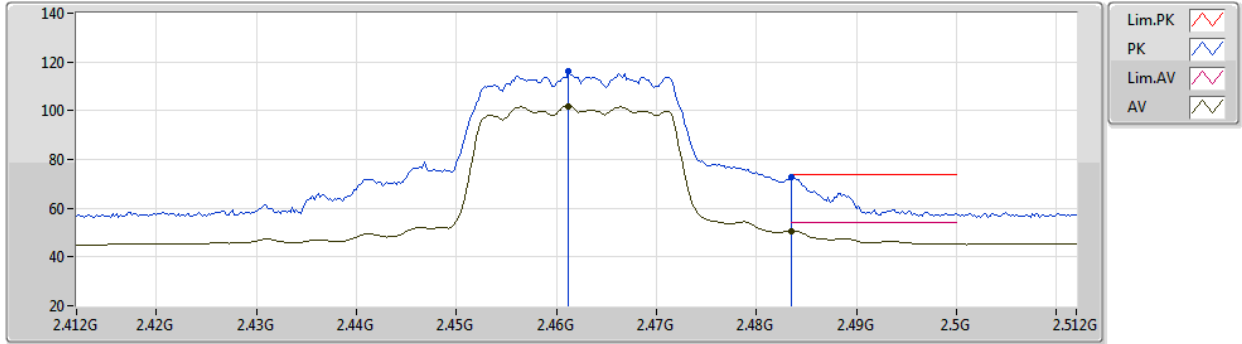
EUT Y_3TX
Setting 84
04-F-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.458G	119.47	Inf	-Inf	88.85	3	Horizontal	193	1.76	-	27.73	2.89	-
AV	2.4578G	106.16	Inf	-Inf	75.54	3	Horizontal	193	1.76	-	27.73	2.89	-
PK	2.4835G	71.10	74.00	-2.90	40.36	3	Horizontal	193	1.76	-	27.83	2.91	-
AV	2.4835G	53.51	54.00	-0.49	22.77	3	Horizontal	193	1.76	-	27.83	2.91	-

802.11ax HEW20_Nss1,(MCS0)_3TX

09/04/2020

2462MHz_TX



EUT Y_3TX
Setting 71
04-C-K-3

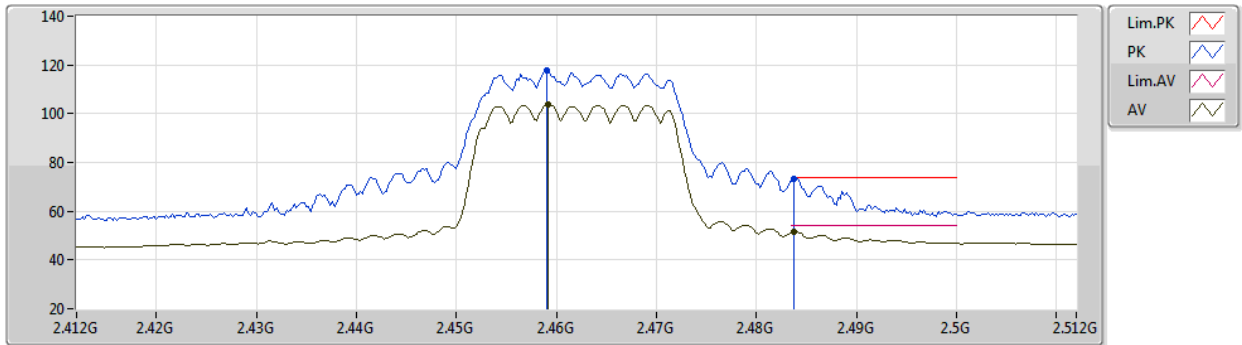
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4612G	115.97	Inf	-Inf	85.33	3	Vertical	57	1.84	-	27.74	2.90	-
AV	2.4612G	101.92	Inf	-Inf	71.28	3	Vertical	57	1.84	-	27.74	2.90	-
PK	2.4835G	72.58	74.00	-1.42	41.84	3	Vertical	57	1.84	-	27.83	2.91	-
AV	2.4835G	50.70	54.00	-3.30	19.96	3	Vertical	57	1.84	-	27.83	2.91	-



802.11ax HEW20_Nss1,(MCS0)_3TX

09/04/2020

2462MHz_TX



EUT Y_3TX
Setting 71
04-C-K-3

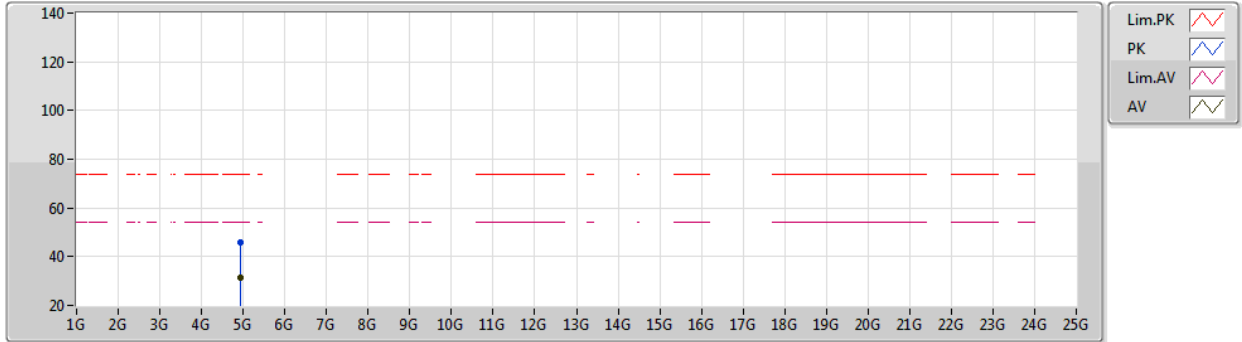
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.459G	117.65	Inf	-Inf	87.01	3	Horizontal	180	1.72	-	27.74	2.90	-
AV	2.4592G	103.94	Inf	-Inf	73.30	3	Horizontal	180	1.72	-	27.74	2.90	-
PK	2.4838G	73.34	74.00	-0.66	42.59	3	Horizontal	180	1.72	-	27.84	2.91	-
AV	2.4838G	51.43	54.00	-2.57	20.68	3	Horizontal	180	1.72	-	27.84	2.91	-



802.11ax HEW20_Nss1,(MCS0)_3TX

09/04/2020

2462MHz_TX



EUT V_3TX
Setting 71
04-C-K-3

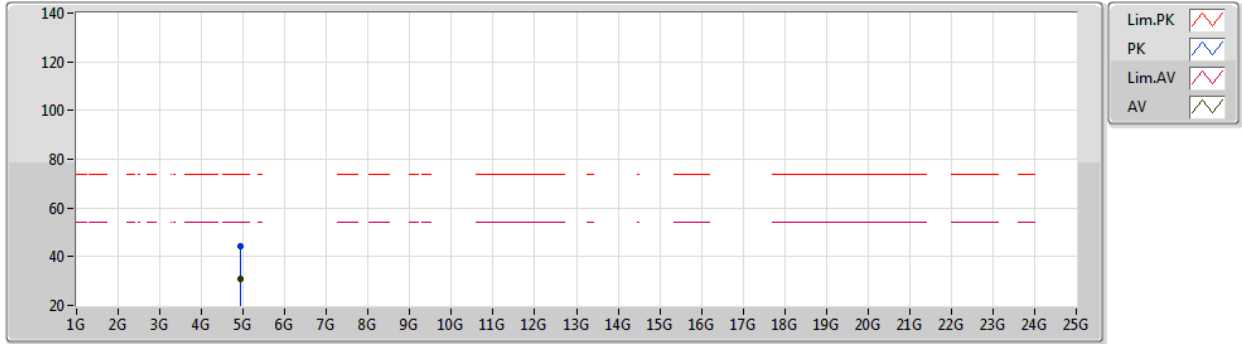
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.92428G	45.85	74.00	-28.15	41.34	3	Vertical	119	2.11	-	32.95	4.98	33.42
AV	4.92416G	31.14	54.00	-22.86	26.63	3	Vertical	119	2.11	-	32.95	4.98	33.42



802.11ax HEW20_Nss1,(MCS0)_3TX

09/04/2020

2462MHz_TX



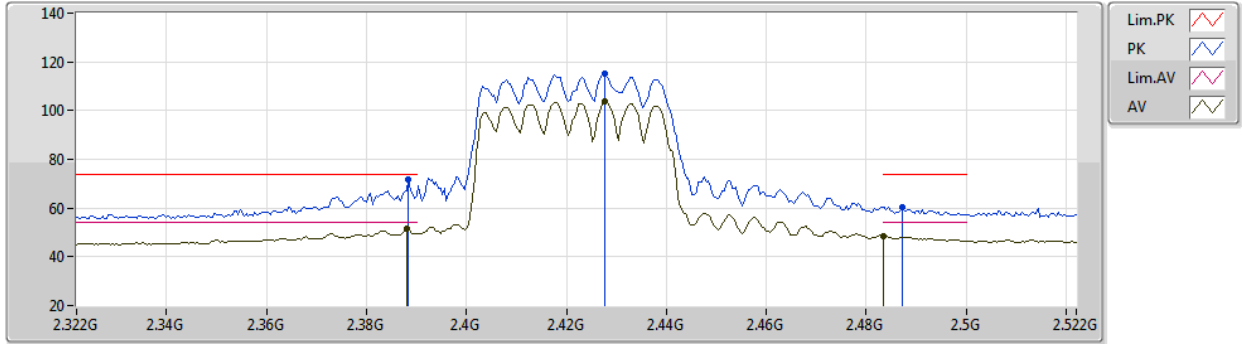
EUT V_3TX
Setting 71
04-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.92416G	44.19	74.00	-29.81	39.68	3	Horizontal	153	2.15	-	32.95	4.98	33.42
AV	4.92396G	31.12	54.00	-22.88	26.61	3	Horizontal	153	2.15	-	32.95	4.98	33.42

802.11ax HEW40_Nss1,(MCS0)_3TX

09/04/2020

2422MHz_TX



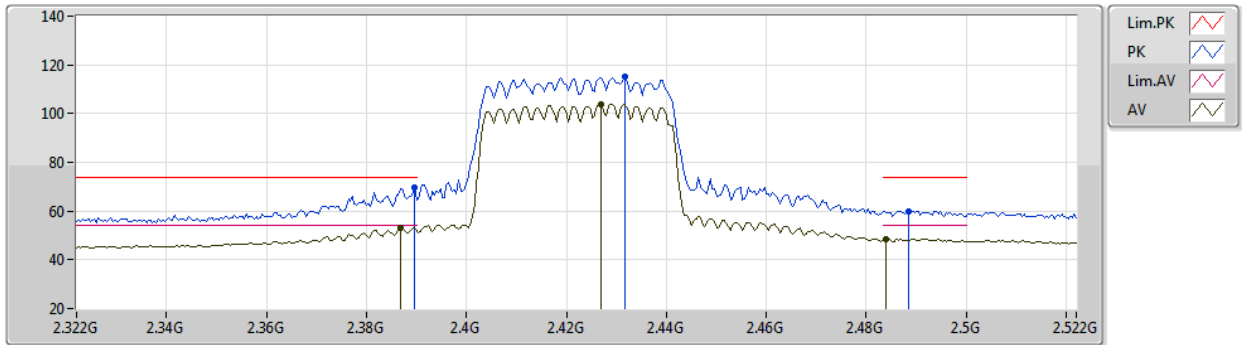
EUT Y_3TX
Setting 76
04-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3884G	71.81	74.00	-2.19	41.45	3	Vertical	67	1.80	-	27.51	2.85	-
AV	2.388G	51.69	54.00	-2.31	21.33	3	Vertical	67	1.80	-	27.51	2.85	-
PK	2.4276G	115.30	Inf	-Inf	84.81	3	Vertical	67	1.80	-	27.61	2.88	-
AV	2.4276G	103.60	Inf	-Inf	73.11	3	Vertical	67	1.80	-	27.61	2.88	-
PK	2.4872G	60.52	74.00	-13.48	29.76	3	Vertical	67	1.80	-	27.85	2.91	-
AV	2.4835G	48.61	54.00	-5.39	17.87	3	Vertical	67	1.80	-	27.83	2.91	-

802.11ax HEW40_Nss1,(MCS0)_3TX

09/04/2020

2422MHz_TX



EUT Y_3TX
Setting 76
04-C-K-3

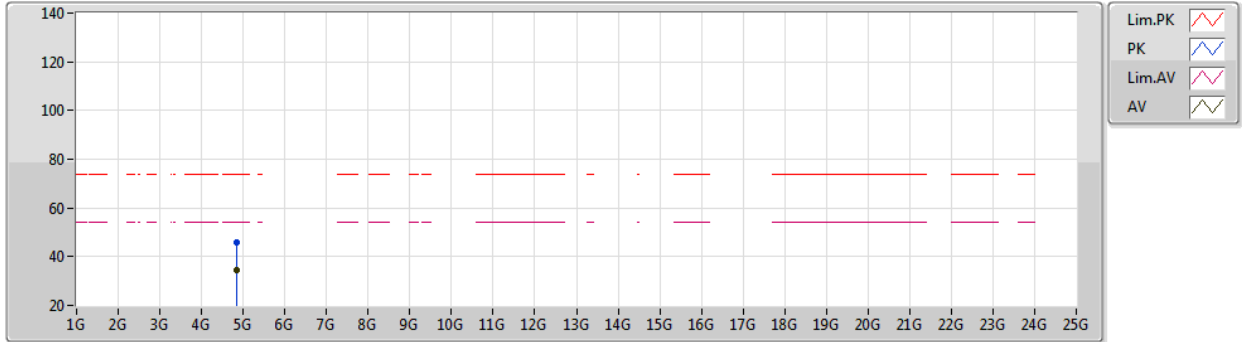
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3896G	69.83	74.00	-4.17	39.47	3	Horizontal	180	1.78	-	27.51	2.85	-
AV	2.3868G	53.18	54.00	-0.82	22.82	3	Horizontal	180	1.78	-	27.51	2.85	-
PK	2.4316G	115.01	Inf	-Inf	84.50	3	Horizontal	180	1.78	-	27.63	2.88	-
AV	2.4268G	103.89	Inf	-Inf	73.40	3	Horizontal	180	1.78	-	27.61	2.88	-
PK	2.4884G	60.07	74.00	-13.93	29.31	3	Horizontal	180	1.78	-	27.85	2.91	-
AV	2.484G	48.60	54.00	-5.40	17.85	3	Horizontal	180	1.78	-	27.84	2.91	-



802.11ax HEW40_Nss1,(MCS0)_3TX

09/04/2020

2422MHz_TX



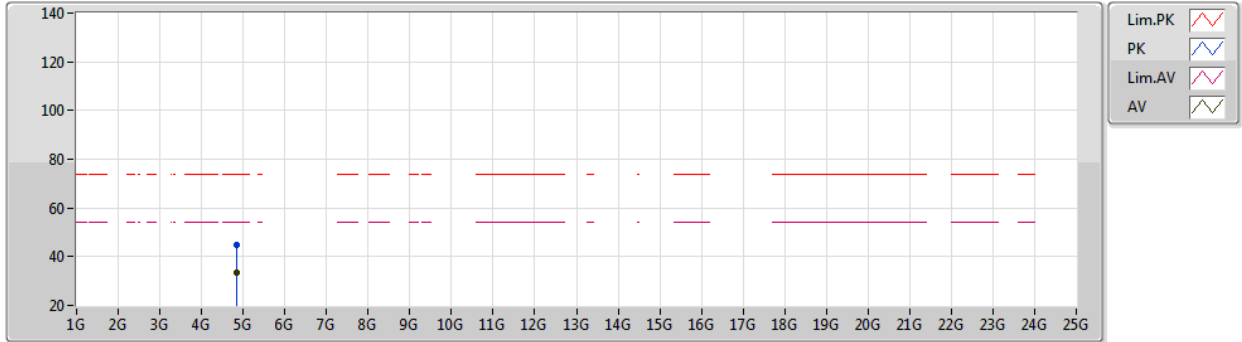
EUT Y_3TX
Setting 76
04-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.8445G	45.70	74.00	-28.30	41.55	3	Vertical	237	2.59	-	32.68	4.94	33.47
AV	4.84382G	34.32	54.00	-19.68	30.17	3	Vertical	237	2.59	-	32.68	4.94	33.47

802.11ax HEW40_Nss1,(MCS0)_3TX

09/04/2020

2422MHz_TX



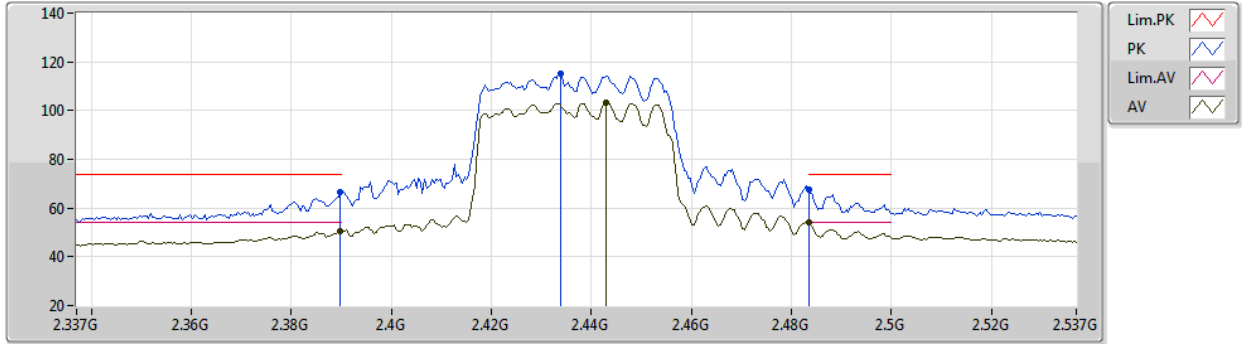
EUT Y_3TX
Setting 76
04-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.844G	44.89	74.00	-29.11	40.74	3	Horizontal	231	1.36	-	32.68	4.94	33.47
AV	4.84394G	33.40	54.00	-20.60	29.25	3	Horizontal	231	1.36	-	32.68	4.94	33.47



802.11ax HEW40_Nss1,(MCS0)_3TX
2437MHz_TX

13/04/2020

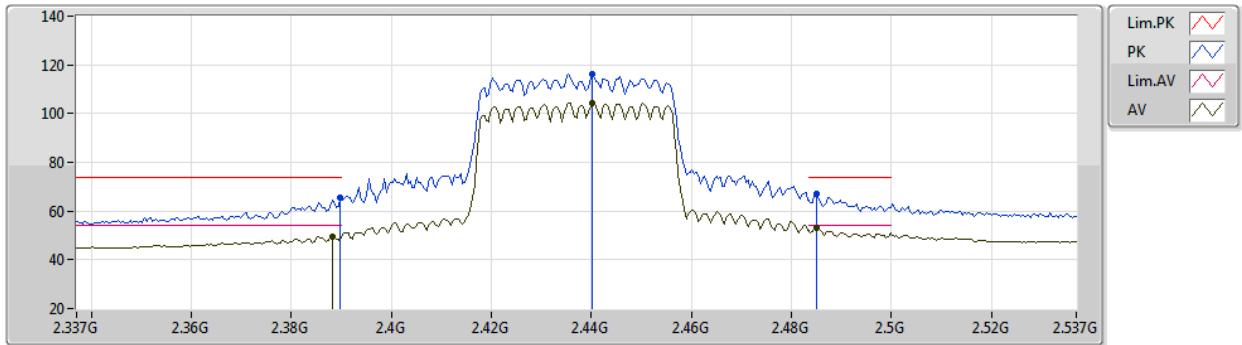


EUT Y_3TX
Setting 80
04-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	66.67	74.00	-7.33	36.31	3	Vertical	77	1.90	-	27.51	2.85	-
AV	2.3898G	50.39	54.00	-3.61	20.03	3	Vertical	77	1.90	-	27.51	2.85	-
PK	2.4338G	115.41	Inf	-Inf	84.89	3	Vertical	77	1.90	-	27.64	2.88	-
AV	2.443G	103.17	Inf	-Inf	72.61	3	Vertical	77	1.90	-	27.67	2.89	-
PK	2.4835G	67.77	74.00	-6.23	37.03	3	Vertical	77	1.90	-	27.83	2.91	-
AV	2.4835G	53.91	54.00	-0.09	23.17	3	Vertical	77	1.90	-	27.83	2.91	-

802.11ax HEW40_Nss1,(MCS0)_3TX
2437MHz_TX

13/04/2020



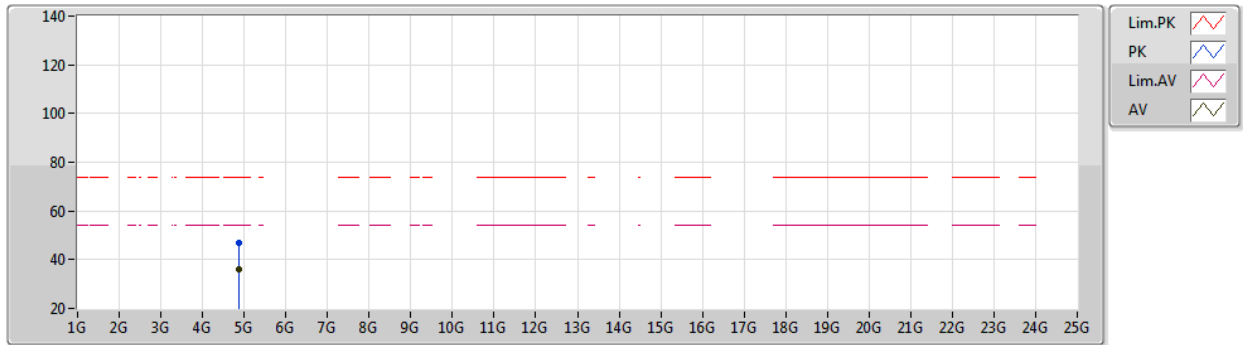
EUT Y_3TX
Setting 80
04-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	65.26	74.00	-8.74	34.90	3	Horizontal	190	2.01	-	27.51	2.85	-
AV	2.3882G	49.66	54.00	-4.34	19.30	3	Horizontal	190	2.01	-	27.51	2.85	-
PK	2.4402G	116.27	Inf	-Inf	85.73	3	Horizontal	190	2.01	-	27.66	2.88	-
AV	2.4402G	104.30	Inf	-Inf	73.76	3	Horizontal	190	2.01	-	27.66	2.88	-
PK	2.485G	67.27	74.00	-6.73	36.52	3	Horizontal	190	2.01	-	27.84	2.91	-
AV	2.485G	53.25	54.00	-0.75	22.50	3	Horizontal	190	2.01	-	27.84	2.91	-

802.11ax HEW40_Nss1,(MCS0)_3TX

13/04/2020

2437MHz_TX



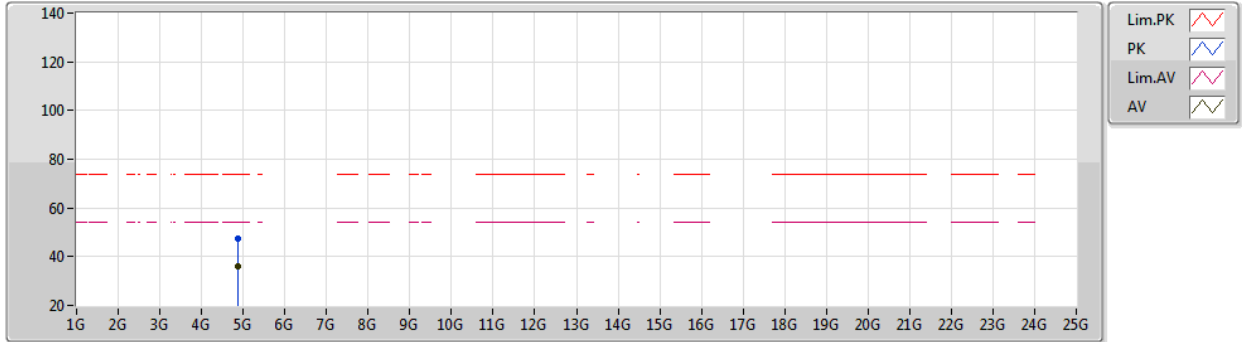
EUT Y_3TX
Setting 80
04-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.87488G	47.09	74.00	-26.91	42.78	3	Vertical	228	1.66	-	32.80	4.96	33.45
AV	4.8742G	35.80	54.00	-18.20	31.49	3	Vertical	228	1.66	-	32.80	4.96	33.45

802.11ax HEW40_Nss1,(MCS0)_3TX

13/04/2020

2437MHz_TX



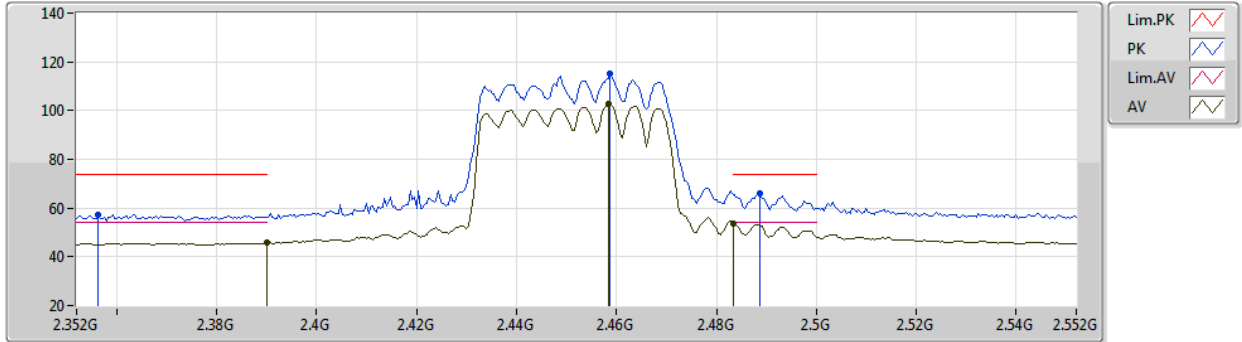
EUT Y_3TX
Setting 80
04-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.87472G	47.55	74.00	-26.45	43.24	3	Horizontal	360	1.45	-	32.80	4.96	33.45
AV	4.87476G	35.83	54.00	-18.17	31.52	3	Horizontal	360	1.45	-	32.80	4.96	33.45

802.11ax HEW40_Nss1,(MCS0)_3TX

09/04/2020

2452MHz_TX



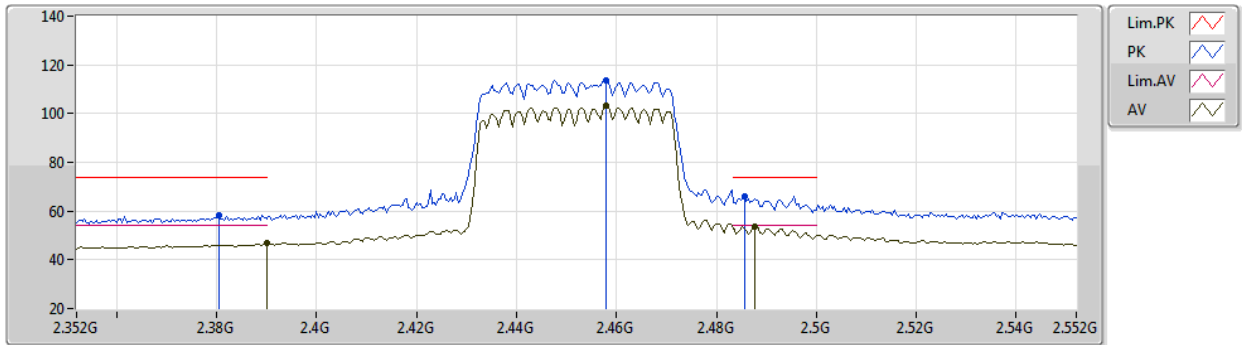
EUT Y_3TX
Setting 71
04-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3564G	57.34	74.00	-16.66	26.97	3	Vertical	39	1.80	-	27.54	2.83	-
AV	2.39G	45.63	54.00	-8.37	15.27	3	Vertical	39	1.80	-	27.51	2.85	-
PK	2.4588G	115.41	Inf	-Inf	84.77	3	Vertical	39	1.80	-	27.74	2.90	-
AV	2.4584G	102.58	Inf	-Inf	71.95	3	Vertical	39	1.80	-	27.73	2.90	-
PK	2.4888G	66.09	74.00	-7.91	35.32	3	Vertical	39	1.80	-	27.86	2.91	-
AV	2.4835G	53.85	54.00	-0.15	23.11	3	Vertical	39	1.80	-	27.83	2.91	-

802.11ax HEW40_Nss1,(MCS0)_3TX

09/04/2020

2452MHz_TX



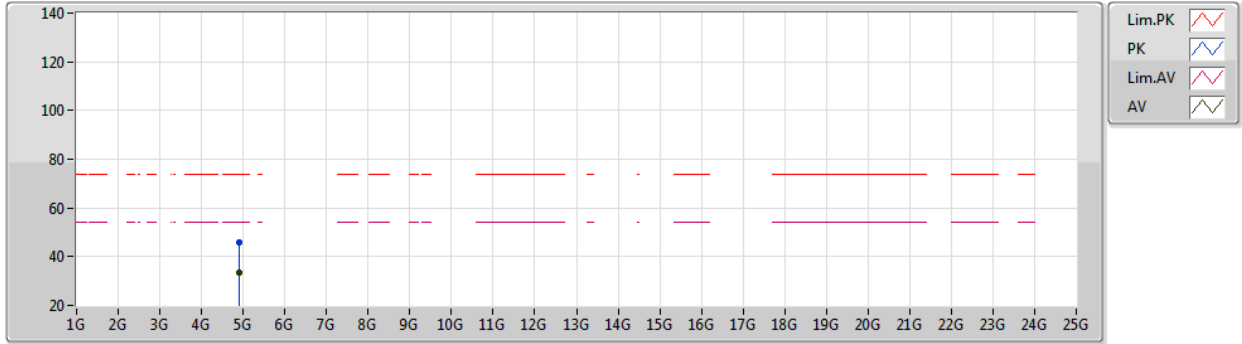
EUT Y_3TX
Setting 71
04-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3804G	58.30	74.00	-15.70	27.93	3	Horizontal	179	1.72	-	27.52	2.85	-
AV	2.39G	46.66	54.00	-7.34	16.30	3	Horizontal	179	1.72	-	27.51	2.85	-
PK	2.458G	113.79	Inf	-Inf	83.17	3	Horizontal	179	1.72	-	27.73	2.89	-
AV	2.458G	103.02	Inf	-Inf	72.40	3	Horizontal	179	1.72	-	27.73	2.89	-
PK	2.4856G	66.11	74.00	-7.89	35.36	3	Horizontal	179	1.72	-	27.84	2.91	-
AV	2.4876G	53.82	54.00	-0.18	23.06	3	Horizontal	179	1.72	-	27.85	2.91	-

802.11ax HEW40_Nss1,(MCS0)_3TX

09/04/2020

2452MHz_TX



EUT Y_3TX
Setting 71
04-C-K-3

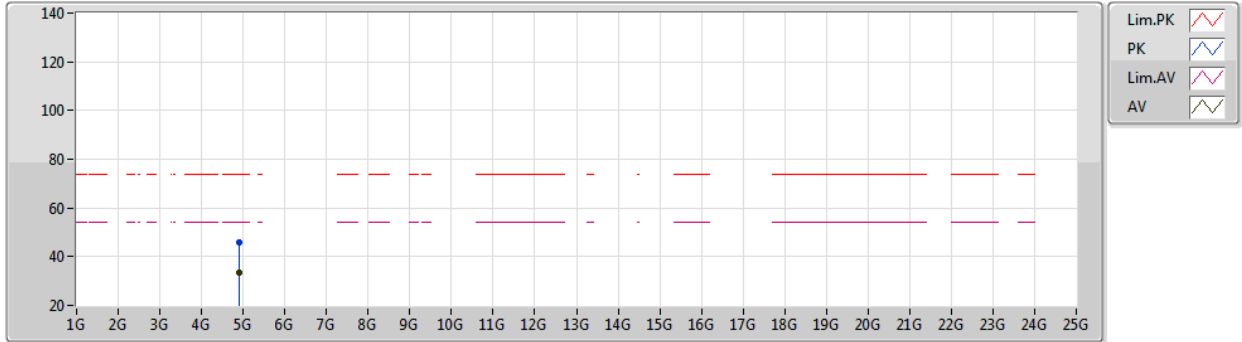
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.9026G	45.91	74.00	-28.09	41.46	3	Vertical	230	1.62	-	32.91	4.97	33.43
AV	4.90496G	33.27	54.00	-20.73	28.82	3	Vertical	230	1.62	-	32.91	4.97	33.43



802.11ax HEW40_Nss1,(MCS0)_3TX

09/04/2020

2452MHz_TX



EUT Y_3TX
Setting 71
04-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.90486G	45.66	74.00	-28.34	41.21	3	Horizontal	112	2.40	-	32.91	4.97	33.43
AV	4.90446G	33.20	54.00	-20.80	28.75	3	Horizontal	112	2.40	-	32.91	4.97	33.43