



RADIO TEST REPORT

FCC ID : 2AMQU-QN-I-470
Equipment : Dual-Band Wi-Fi 6 indoor Access Point (802.11 ax 4X4)
Brand Name : Quantum Networks
Model Name : QN-I-470
Applicant : QUANTUM NETWORKS (SG) PTE.LTD.
8 UBI ROAD 2 #08-10 ZERVEX
SINGAPORE(408538), SINGAPORE, Singapore
Manufacturer : QUANTUM NETWORKS (SG) PTE.LTD.
8 UBI ROAD 2 #08-10 ZERVEX
SINGAPORE(408538), SINGAPORE, Singapore
Standard : 47 CFR FCC Part 15.247

The product was received on Dec. 01, 2020, and testing was started from Dec. 04, 2020 and completed on Sep. 13, 2021. We, Sporton International Inc. Hsinchu 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 test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.

Approved by: Cliff Chang

Sporton International Inc. Hsinchu Laboratory

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Photographs of EUT v01



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	-

Note: From Sporton Project No.: 0N2725, 0N2725-06.

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:

1. The test configuration, test mode and test software were written in this test report are declared by the manufacturer.
2. 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: Wendy Pan



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	802.11b	20	2
2.4-2.4835GHz	802.11g	20	2
2.4-2.4835GHz	11 n HT 20	20	2
2.4-2.4835GHz	11 n HT 20-BF	20	2
2.4-2.4835GHz	VHT 20	20	2
2.4-2.4835GHz	VHT 20-BF	20	2
2.4-2.4835GHz	802.11ax HEW20	20	2
2.4-2.4835GHz	802.11ax HEW20-BF	20	2
2.4-2.4835GHz	11 n HT 40	40	2
2.4-2.4835GHz	11 n HT 40-BF	40	2
2.4-2.4835GHz	VHT 40	40	2
2.4-2.4835GHz	VHT 40-BF	40	2
2.4-2.4835GHz	802.11ax HEW40	40	2
2.4-2.4835GHz	802.11ax HEW40-BF	40	2

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

Set.	Ant.	2.4G Port	5G Port	Bluetooth Port	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1	1	1	1	-	MAG. LAYERS	MSA-1313-25 GC4-A2-TN	PIFA Antenna	I-PEX	Note 1
	2	2	2	-			PIFA Antenna	I-PEX	
	3	3	3	-			PIFA Antenna	I-PEX	
	4	4	4	1			PIFA Antenna	I-PEX	

Note 1:

Set.	Ant.	Gain (dBi)		
		2.4GHz	5GHz	Bluetooth
1	1	5.43	7.54	-
	2	5.36	6.92	-
	3	5.24	6.80	-
	4	5.19	6.76	5.19

Note 2: The above information was declared by manufacturer.

Note 3: The EUT has one set of antenna.

For 2.4GHz function:

For IEEE 802.11b/g/n/VHT/ax mode (2TX/2RX)

The EUT supports all antennas with TX/RX diversity functions.

At once time there are only two antenna port can transmitting/receiving RF signal.

Port 1 and Port 2 generated the worst case than Port 3 and Port 4, so it is tested and recorded in the report.

For 5GHz function:

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

Port 1, Port 2, Port 3 and Port 4 can be used as transmitting/receiving antenna.

Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.

For Bluetooth function:

Only Port 1 can be used as transmitting/receiving functions.



1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	0.96	0.18	11.831m	100
802.11g	0.935	0.29	1.98m	1k
802.11ax HEW20	0.948	0.23	5.448m	300
802.11ax HEW20-BF	0.948	0.23	5.448m	300
802.11ax HEW40	0.947	0.24	5.448m	300
802.11ax HEW40-BF	0.947	0.24	5.448m	300

Note:

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

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter or PoE			
Beamforming Function	<input checked="" type="checkbox"/>	With beamforming	<input type="checkbox"/>	Without beamforming
	The product has beamforming function for n/VHT/ax in 2.4GHz and n/ac/ax in 5GHz			
Function	<input checked="" type="checkbox"/>	Point-to-multipoint	<input type="checkbox"/>	Point-to-point
Test Software Version	QRCT Version:4.0.00134.0			

Note: The above information was declared by manufacturer.



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 Information	
Test Lab. : Sporton International Inc. Hsinchu Laboratory	
Hsinchu	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)
(TAF: 3787)	TEL: 886-3-656-9065 FAX: 886-3-656-9085
	Test site Designation No. TW3787 with FCC.
	Conformity Assessment Body Identifier (CABID) TW3787 with ISED.

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted	TH03-CB	Nyle Chang	20.2~21.2°C / 53~57%	Dec. 21, 2020
Radiated below 1GHz	03CH03-CB	Ken Yeh	24.6-25.7 / 55-58	Sep. 13, 2021
Radiated above 1GHz (For other tests)	03CH04-CB	Lance Wu	23.4~24.2°C / 56~58%	Dec. 07, 2020~Dec. 22, 2020
Radiated above 1GHz (For co-location test)	03CH05-CB	Lance Wu	24~24.7°C / 57~59%	Dec. 04, 2020
AC Conduction	CO01-CB	Peter Wu	23~24°C / 62~63%	Dec. 07, 2020~Dec. 08, 2020

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 (9kHz ~ 30MHz)	4.2 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.5 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	5.0 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.9 dB	Confidence levels of 95%
Conducted Emission	2.8 dB	Confidence levels of 95%
Output Power Measurement	1.4 dB	Confidence levels of 95%
Power Density Measurement	2.8 dB	Confidence levels of 95%
Bandwidth Measurement	0.4%	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	26
2437MHz	26
2462MHz	25
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	21.5
2417MHz	22.5
2437MHz	25.5
2457MHz	22.5
2462MHz	21
802.11ax HEW20_Nss1,(MCS0)_2TX	-
2412MHz	21.5
2417MHz	22
2437MHz	25
2457MHz	21
2462MHz	20
802.11ax HEW40_Nss1,(MCS0)_2TX	-
2422MHz	20
2437MHz	21
2452MHz	19
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
2412MHz	21.5
2417MHz	22
2437MHz	25
2457MHz	21
2462MHz	20
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
2422MHz	20
2437MHz	21
2452MHz	19

Note:

- ♦ Evaluated HEW20/HEW40 mode only, due to similar modulation. The power setting of HT20/HT40/VHT20/VHT40 mode are the same or lower than HEW20/HEW40.
- ♦ The EUT supports beamforming and CDD modes, and the CDD mode is the worst case. Therefore, all test items are evaluated in the report. The beamforming mode only evaluates the output power.



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 Test Voltage: 120Vac / 60Hz
Operating Mode	Normal Link
1	Normal Link - EUT + Adapter + Uplink (PoE): 2.5Gbps + LAN: 2.5Gbps
2	Normal Link - EUT + PoE + Uplink (PoE): 2.5Gbps + LAN: 2.5Gbps
For operating mode 2 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	1. The EUT was performed at Y axis and Z axis position, and the worst case was found at Z axis. So the measurement will follow this same test configuration.
	2. The EUT has two power supplies, one is PoE and the other is adapter. The PoE has been evaluated to be the worst case and recorded in the test report.
	Normal Link
1	EUT in Z axis + PoE + Uplink (PoE): 2.5Gbps + LAN: 2.5Gbps
Operating Mode > 1GHz	CTX
	The EUT was performed at Y axis and Z axis position for Emissions in Restricted Frequency Bands above 1GHz test, and the worst case was found at Y axis. So the measurement will follow this same test configuration.
1	EUT in Y axis



The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location
Test Condition	Radiated measurement
Operating Mode	Normal Link
	The EUT was performed at Y axis and Z axis position for Emissions in Restricted Frequency Bands below 1GHz test, and the worst case was found at Z axis. So the measurement will follow this same test configuration.
1	EUT in Z axis - WLAN 2.4GHz + WLAN 5GHz + Bluetooth
Refer to Appendix G for Radiated Emission Co-location.	

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 + Bluetooth
Refer to Sporton Test Report No.: FA0N2725-07 for Co-location RF Exposure Evaluation.	

Note1: The console port is professional usage by manufacturer declaration, and it was performed the test at the load.

Note2: The USB port was performed the test at the load by manufacturer requirement.

Note3: The PoE is for measurement only, would not be marketed.

PoE information as below:

Power	Brand	Model
PoE	GME	GME40B-480135FDA

2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link:

During the test, the EUT operation to normal function.



2.4 Accessories

Accessories			
Equipment Name	Brand Name	Model Name	Rating
Adapter	APD	WB-24J12R	Input: 100-240V~50-60Hz 0.7A Max. Output: 12.0V, 2.0A, 24.0W
Others			
Plug*1			
Console cable*1: Non-shielded, 1.5m			
Wall bracket*1			

2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	2.5G LAN PC	DELL	T3400	N/A
B	2.5G PoE LAN PC	DELL	T3400	N/A
C	2.4G NB	DELL	E6430	N/A
D	5G NB	DELL	E6430	N/A
E	Smart phone	Samsung	Galaxy J2	A3LSMJ200F
F	Flash disk3.0	Transcend	JetFlash-700	N/A
G	Flash disk3.0	Transcend	JetFlash-700	N/A
H	PoE	GME	GME40B-480135FDA	N/A

For Radiated (below 1GHz):

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	PoE	GME	GME40B-480135FDA	N/A
B	Notebook	DELL	E4300	N/A
C	Notebook	DELL	E4300	N/A
D	Notebook	DELL	E4300	N/A
E	Flash disk3.0	Silicon Power	B06	N/A
F	Flash disk3.0	Silicon Power	B06	N/A
G	Phone	SAMSUNG	Galaxy J2	N/A
H	Notebook	DELL	E4300	N/A



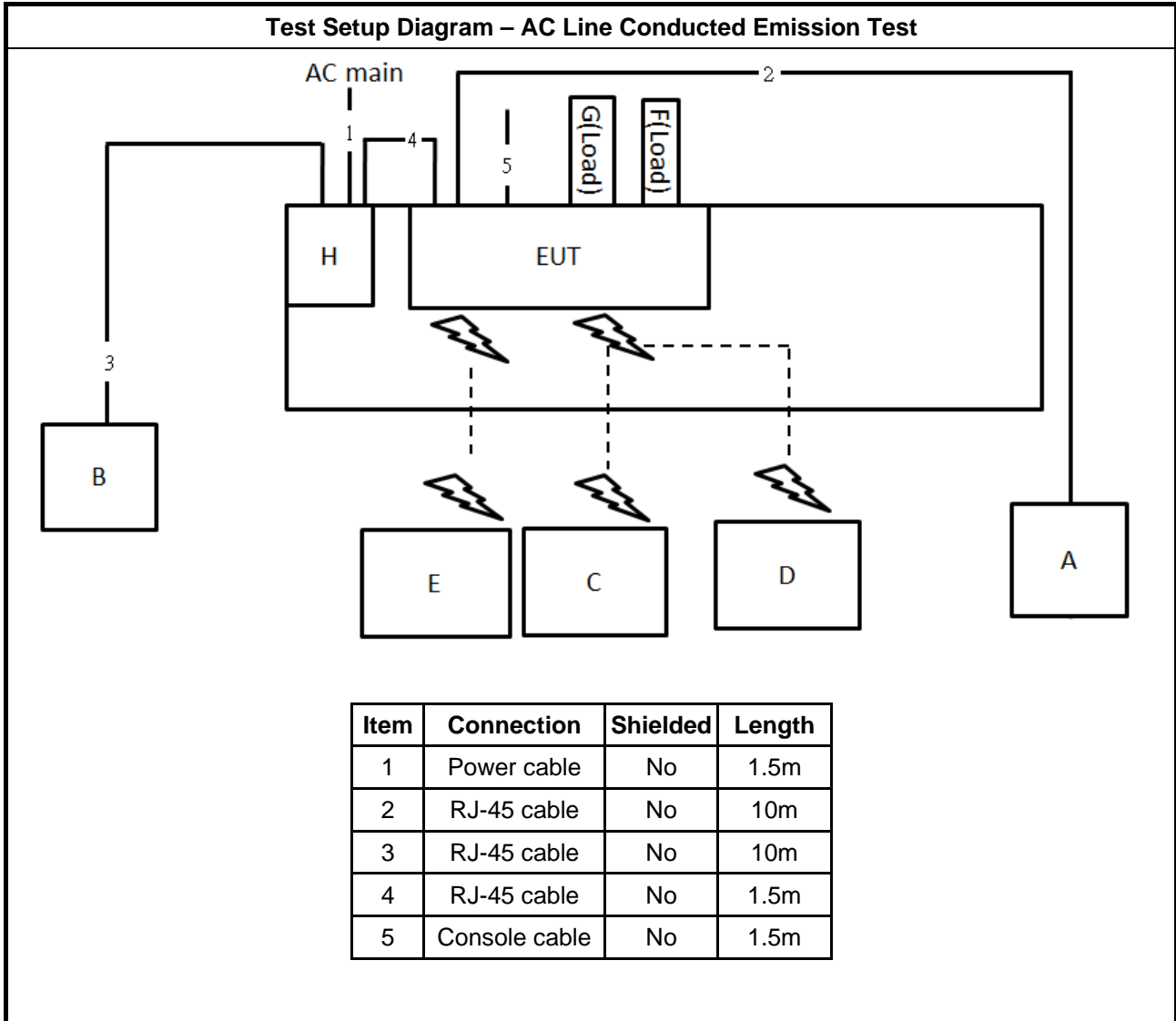
For Radiated (above 1GHz):

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
C	PoE	GME	GME40B-480135FDA	N/A

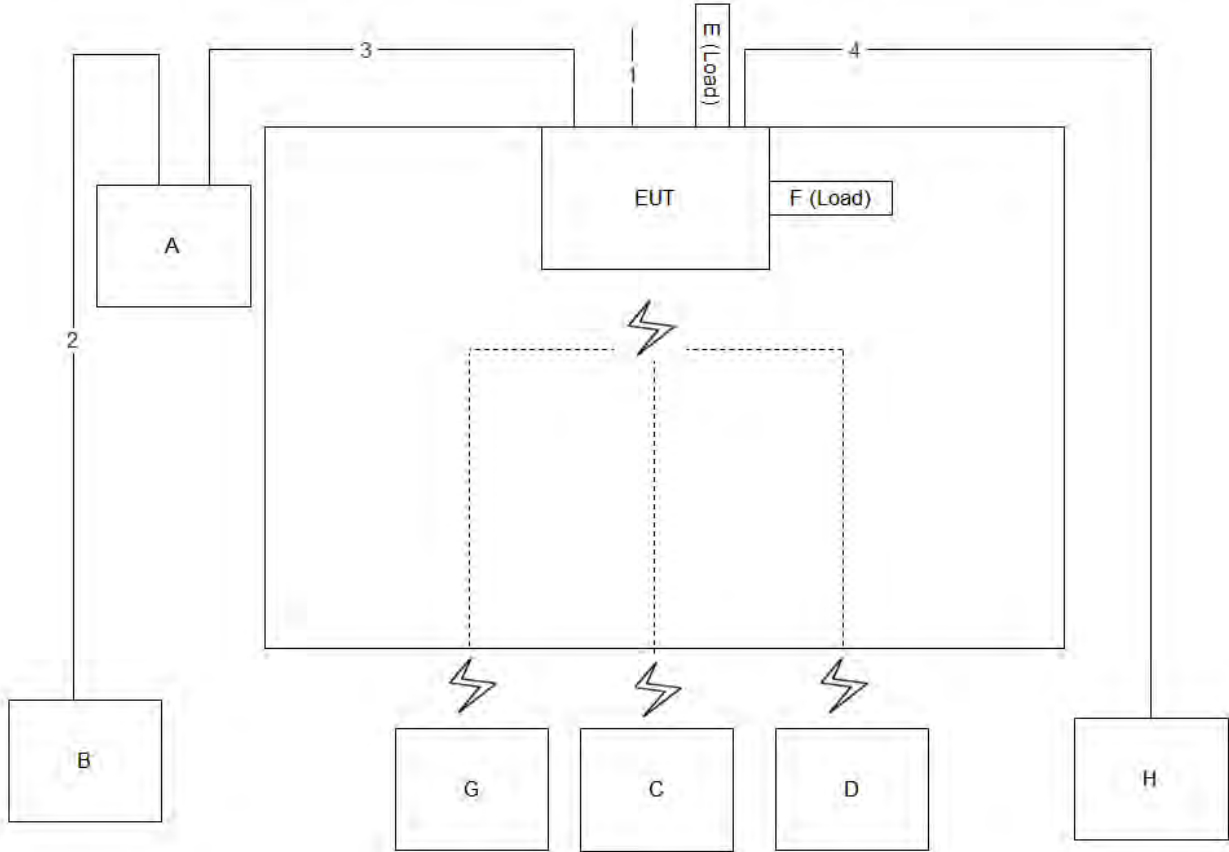
For RF Conducted:

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

2.6 Test Setup Diagram

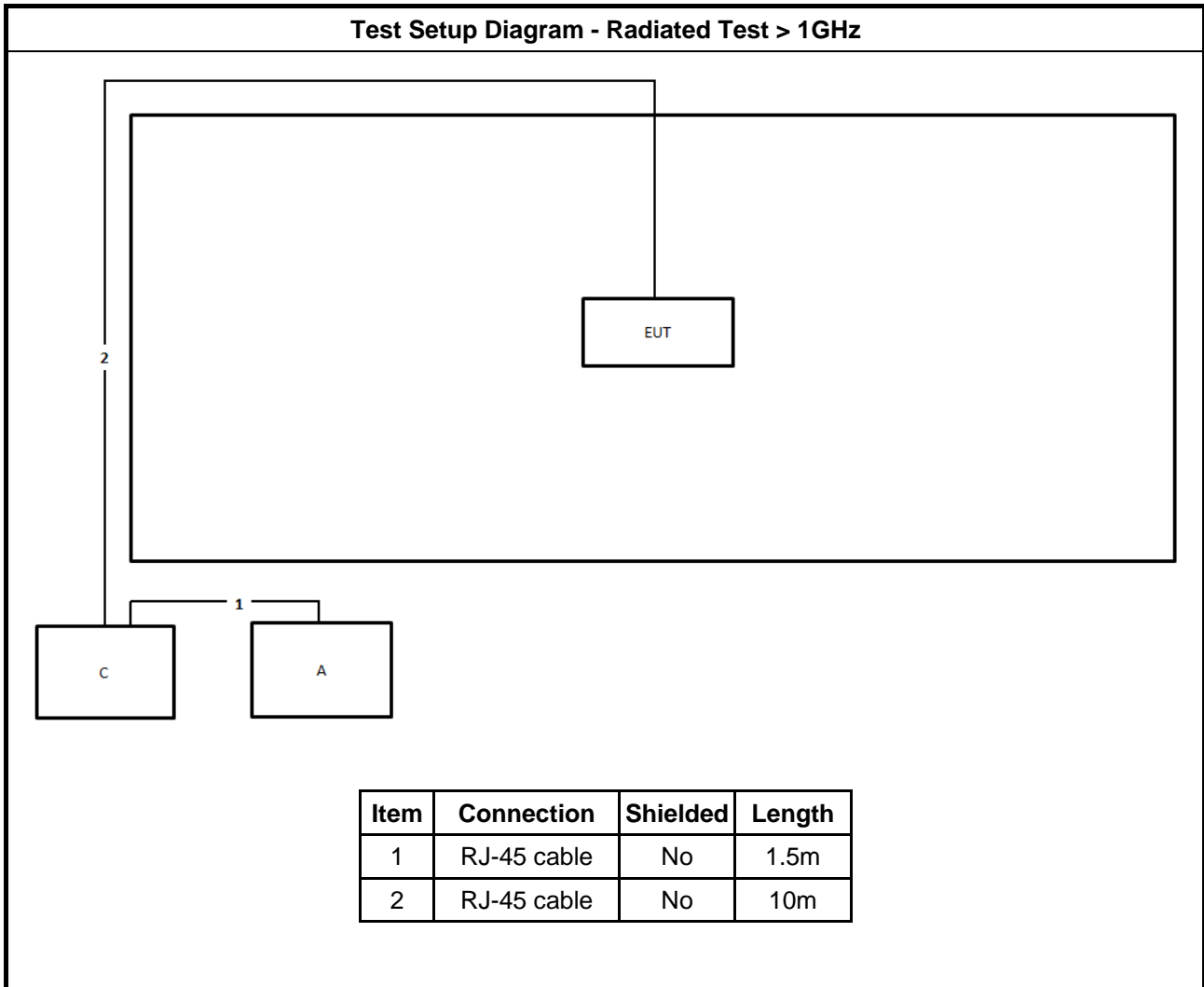


Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	Console cable	No	1.5m
2	RJ-45 cable	No	1.5m
3	RJ-45 cable	No	10m
4	RJ-45 cable	No	10m

Test Setup Diagram - Radiated Test > 1GHz



Item	Connection	Shielded	Length
1	RJ-45 cable	No	1.5m
2	RJ-45 cable	No	10m



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.

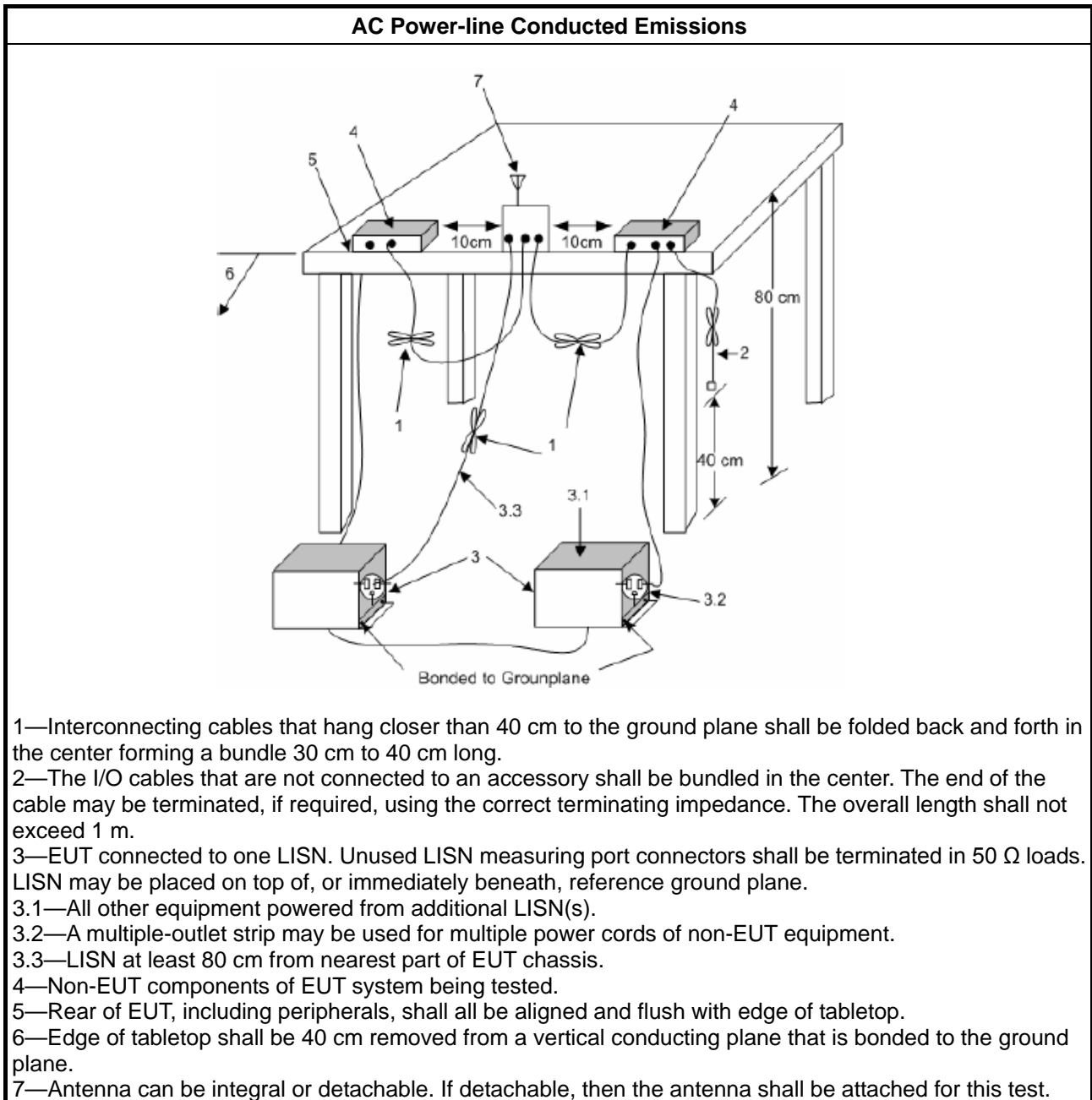
3.1.2 Measuring Instruments

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: LISN Factor (LISN) + Attenuator (AT/AUX) + Cable Loss (CL) + Read Level (Raw) = Level
- b. Margin = -Limit + Level

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.

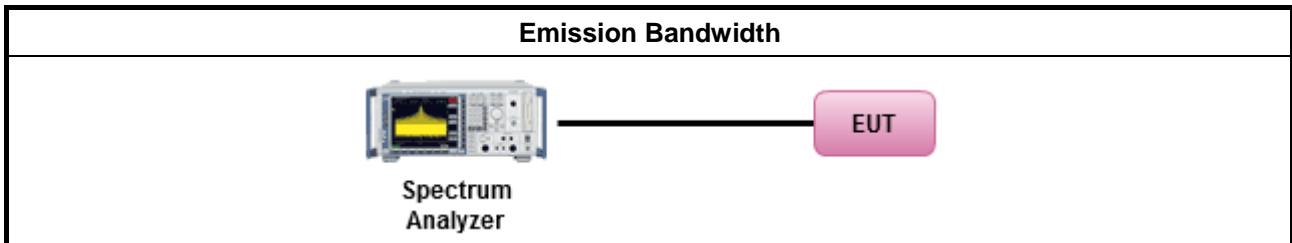
3.2.2 Measuring Instruments

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_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.	

3.3.2 Measuring Instruments

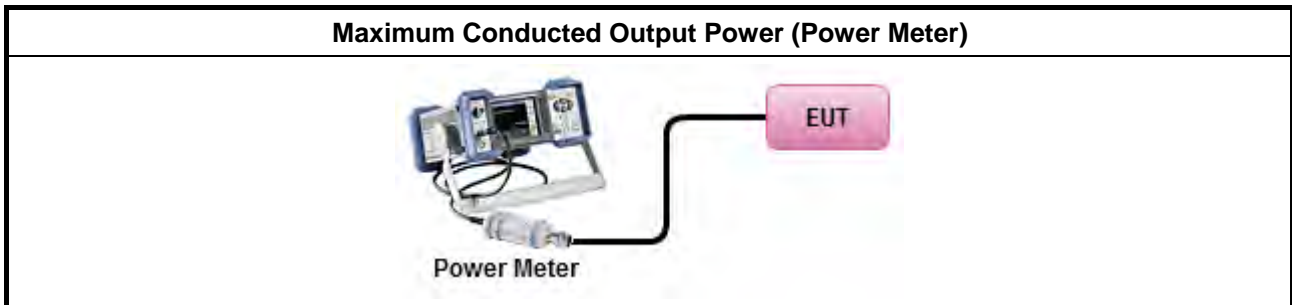
Refer a test equipment and calibration data table in this test report.



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

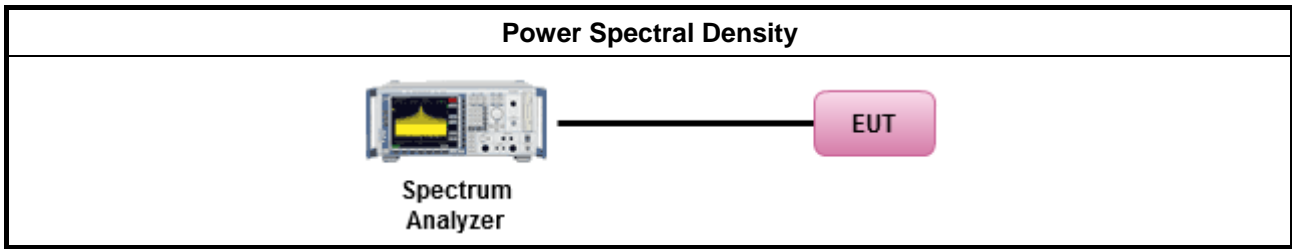
3.4.2 Measuring Instruments

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.

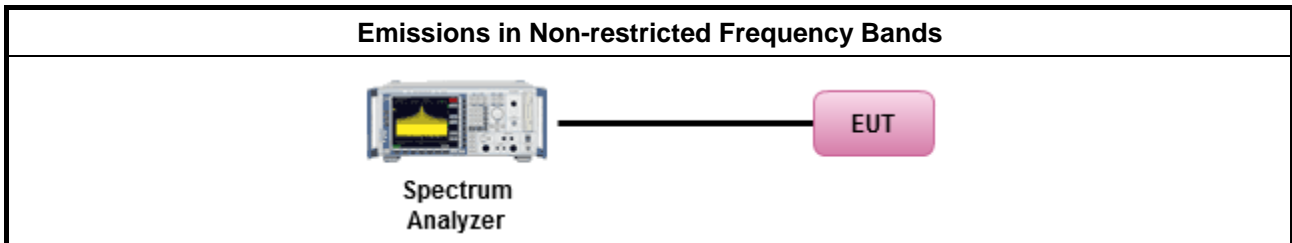
3.5.2 Measuring Instruments

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

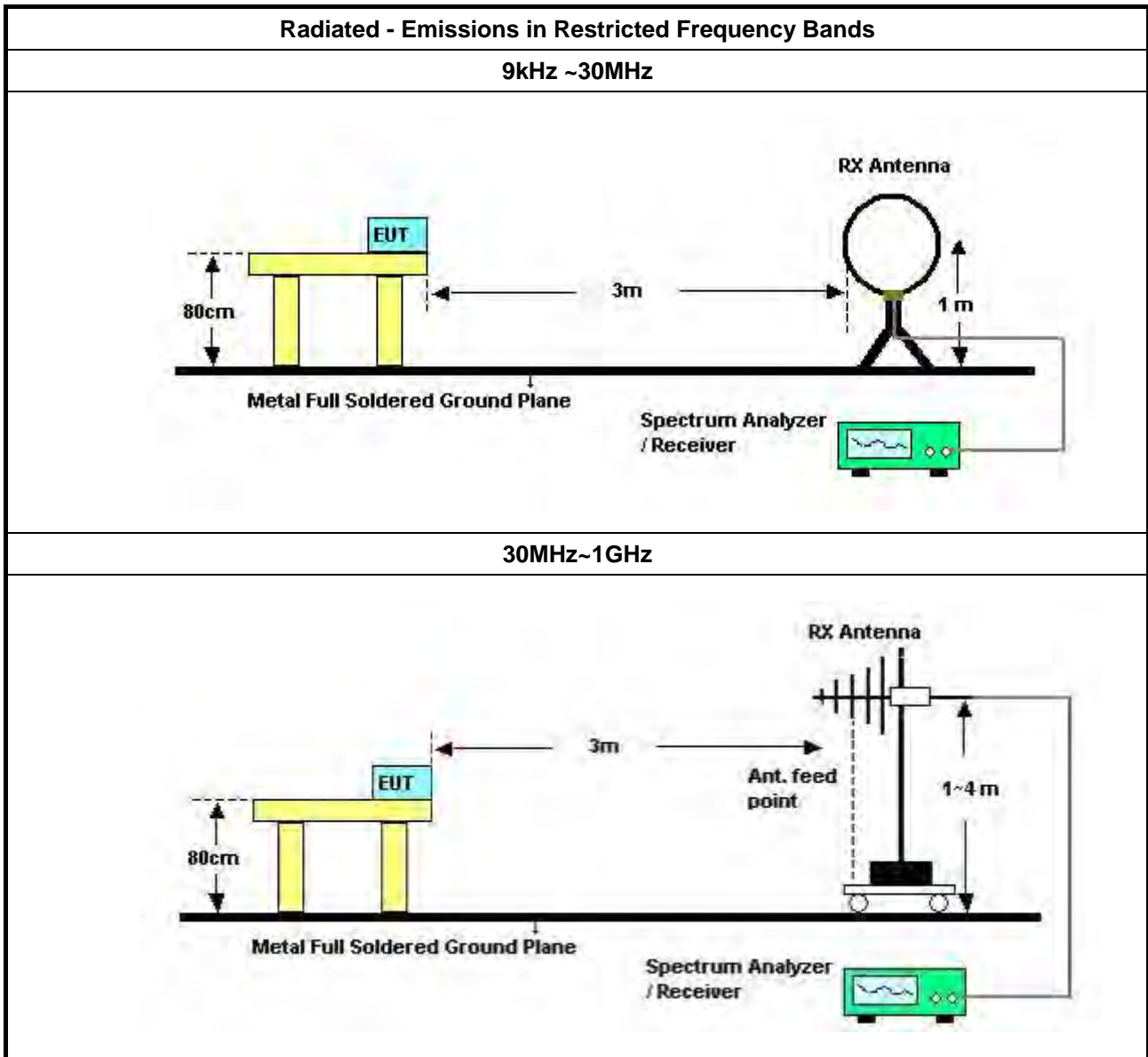
Refer a test equipment and calibration data table in this test report.

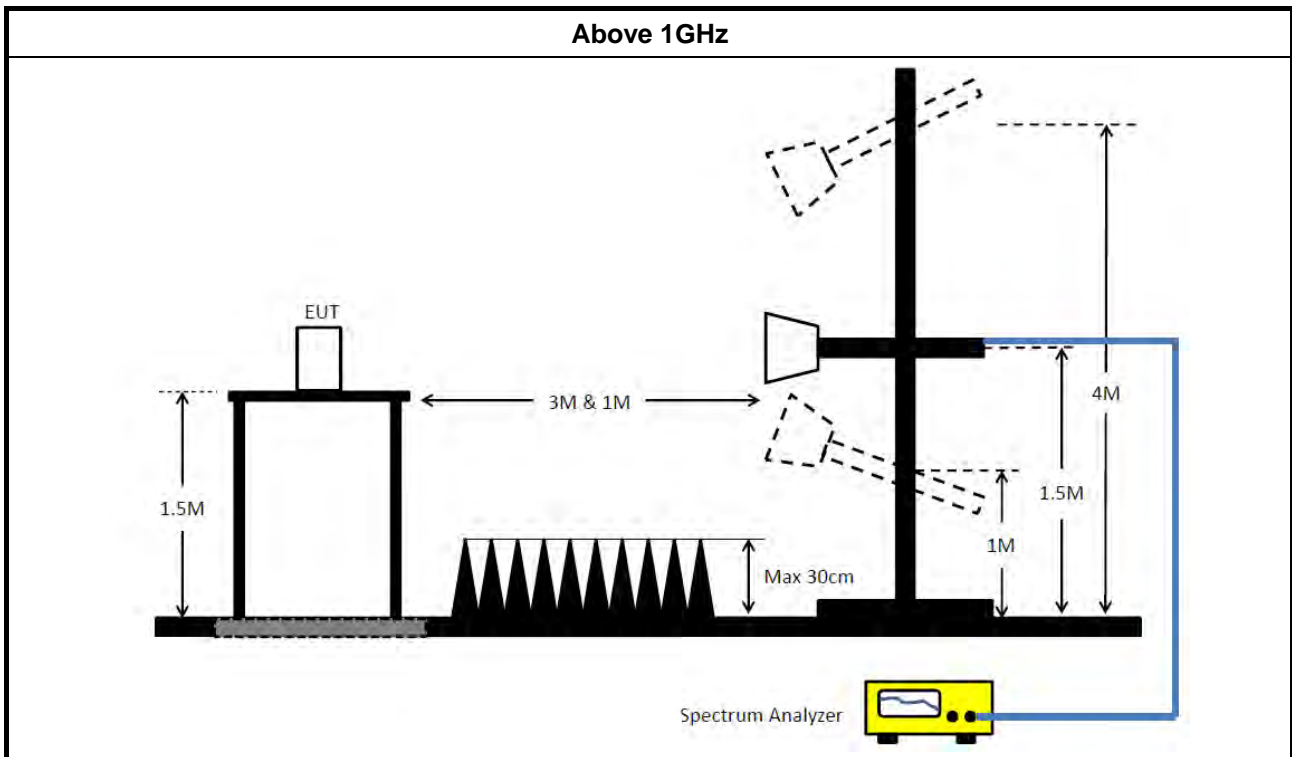


3.6.3 Test Procedures

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 (AF) + Cable loss (CL) + Read level (Raw) - Preamp factor (PA)(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 10th 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	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.4GHz	Feb. 26, 2020	Feb. 25, 2021	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 25, 2019	Dec. 24, 2020	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Feb. 25, 2020	Feb. 24, 2021	Conduction (CO01-CB)
Pulse Limiter	Rohde&Schwarz	ESH3-Z2	100430	9kHz ~ 30MHz	Jan. 31, 2020	Jan. 30, 2021	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	May 20, 2020	May 19, 2021	Conduction (CO01-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Apr. 14, 2021	Apr. 13, 2022	Radiation (03CH03-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH03-CB	30 MHz ~ 1 GHz	Jan. 27, 2021	Jan. 26, 2022	Radiation (03CH03-CB)
Bilog Antenna with 6 dB attenuator	Schaffner & EMC1	CBL6112B & N-6-06	2928 & AT-N0608	20MHz ~ 2GHz	Feb. 22, 2021	Feb. 21, 2022	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8447D	2944A10259	9kHz ~ 1.3GHz	Jan. 11, 2021	Jan. 10, 2022	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100019	9kHz ~ 40GHz	Jun. 04, 2021	Jun. 03, 2022	Radiation (03CH03-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 21, 2021	Jun. 20, 2022	Radiation (03CH03-CB)
RF Cable-low	Woken	RG402	Low Cable-02+29	30MHz ~ 1GHz	Aug. 20, 2021	Aug. 19, 2022	Radiation (03CH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH03-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH04-CB	1GHz ~18GHz 3m	Feb. 26, 2020	Feb. 25, 2021	Radiation (03CH04-CB)
Horn Antenna	ETS • Lindgren	3115	00143147	750MHz~18GHz	Oct. 23, 2020	Oct. 22, 2021	Radiation (03CH04-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 21, 2020	Jul. 20, 2021	Radiation (03CH04-CB)
Pre-Amplifier	Agilent	83017A	MY53270063	0.5GHz~26.5GHz	Jul. 14, 2020	Jul. 13, 2021	Radiation (03CH04-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 08, 2020	Jul. 07, 2021	Radiation (03CH04-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Dec. 18, 2019	Dec. 17, 2020	Radiation (03CH04-CB)
Signal Analyzer	R&S	FSV40	101904	9kHz ~ 40GHz	May 12, 2020	May 11, 2021	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21	1GHz - 18GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21+67	1GHz - 18GHz	Nov. 05, 2020	Nov. 04, 2021	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH04-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH04-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH05-CB	1GHz ~18GHz 3m	Nov. 08, 2020	Nov. 07, 2021	Radiation (03CH05-CB)
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA 9120 D-1291	1GHz~18GHz	Sep. 05, 2020	Sep. 04, 2021	Radiation (03CH05-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 21, 2020	Jul. 20, 2021	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC12630S E	980287	1GHz – 26.5GHz	Jul. 03, 2020	Jul. 02, 2021	Radiation (03CH05-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 08, 2020	Jul. 07, 2021	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Nov. 10, 2020	Nov. 09, 2021	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-28	1GHz~18GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-04+28	1GHz~18GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH05-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH05-CB)
Signal Analyzer	R&S	FSV40	101903	9kHz ~ 40GHz	May 14, 2020	May 13, 2021	Conducted (TH03-CB)
Power Sensor	Anritsu	MA2411B	1726195	300MHz~40GHz	Aug. 17, 2020	Aug. 16, 2021	Conducted (TH03-CB)
Power Meter	Anritsu	ML2495A	1035008	300MHz~40GHz	Aug. 17, 2020	Aug. 16, 2021	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-11	1 GHz –18 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH03-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-12	1 GHz –18 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-13	1 GHz –18 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-14	1 GHz –18 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-15	1 GHz –18 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH03-CB)

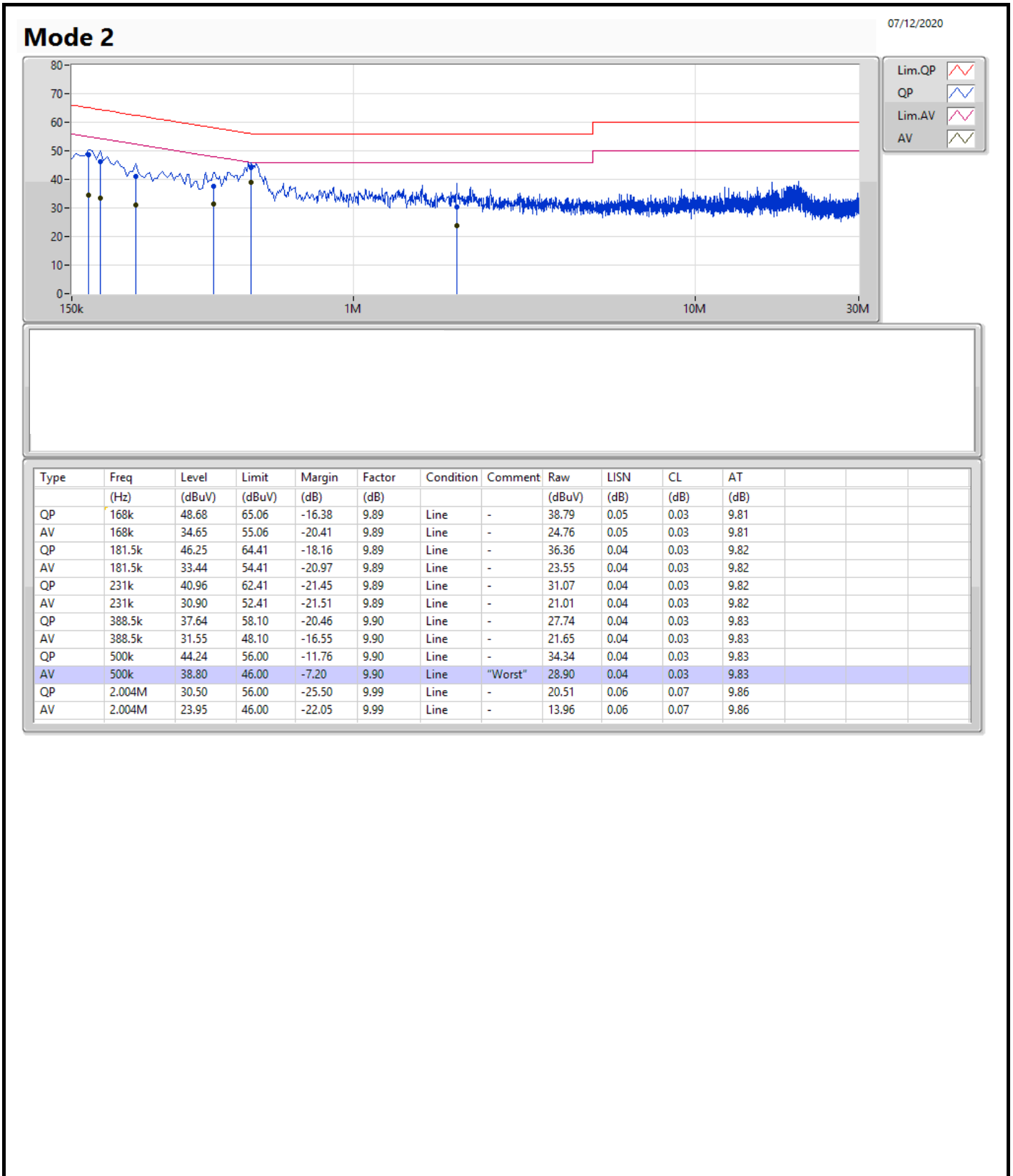
Note: Calibration Interval of instruments listed above is one year.

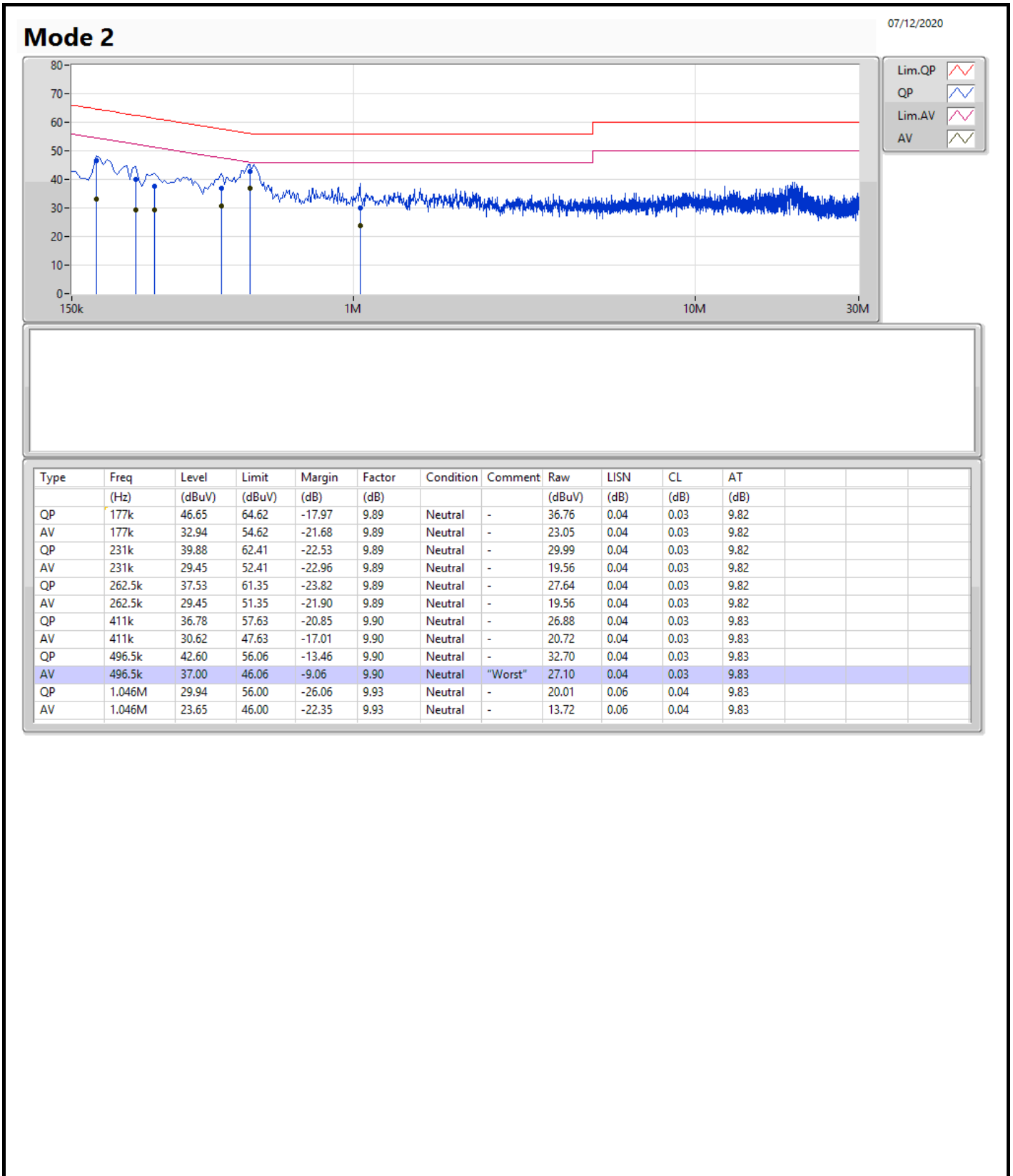
N.C.R. means Non-Calibration required.



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 2	Pass	AV	500k	38.80	46.00	-7.20	Line





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)_2TX	9.075M	15.342M	15M3G1D	7.575M	13.943M
802.11g_Nss1,(6Mbps)_2TX	16.325M	24.788M	24M8D1D	16.025M	16.367M
802.11ax HEW20_Nss1,(MCS0)_2TX	18.9M	20.765M	20M8D1D	18.5M	18.916M
802.11ax HEW40_Nss1,(MCS0)_2TX	37.9M	37.781M	37M8D1D	37.3M	37.681M

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)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	8.475M	14.143M	9.025M	14.343M
2437MHz	Pass	500k	9.075M	14.893M	9.075M	15.342M
2462MHz	Pass	500k	7.575M	13.943M	8.575M	14.343M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.3M	16.392M	16.325M	16.392M
2437MHz	Pass	500k	16.025M	24.313M	16.275M	24.788M
2462MHz	Pass	500k	16.3M	16.367M	16.325M	16.392M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	18.625M	18.916M	18.75M	18.941M
2437MHz	Pass	500k	18.675M	19.99M	18.5M	20.765M
2462MHz	Pass	500k	18.9M	18.941M	18.7M	18.916M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	37.9M	37.731M	37.75M	37.781M
2437MHz	Pass	500k	37.8M	37.731M	37.3M	37.731M
2452MHz	Pass	500k	37.85M	37.681M	37.75M	37.781M

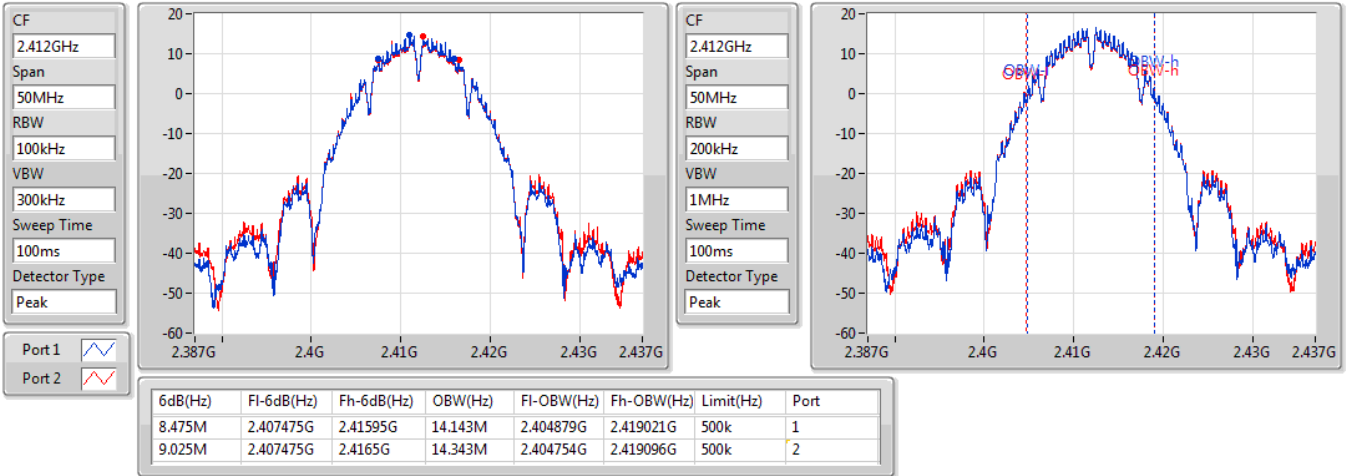
Port X-N dB = Port X 6dB down bandwidth; Port X-OBW = Port X 99% occupied bandwidth;

802.11b_Nss1,(1Mbps)_2TX

EBW

2412MHz

21/12/2020

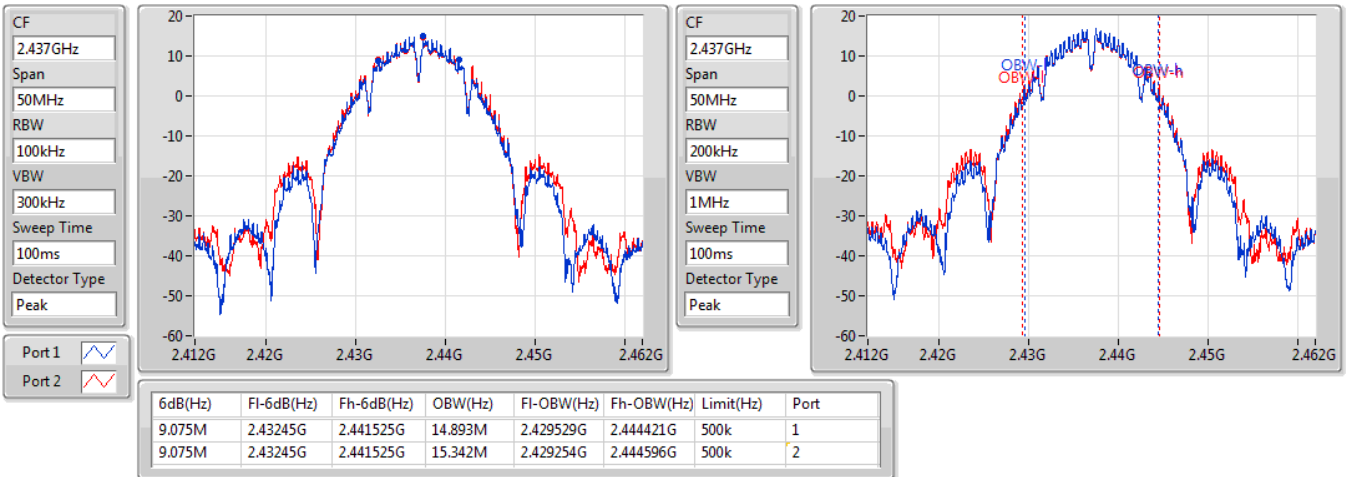


802.11b_Nss1,(1Mbps)_2TX

EBW

2437MHz

21/12/2020



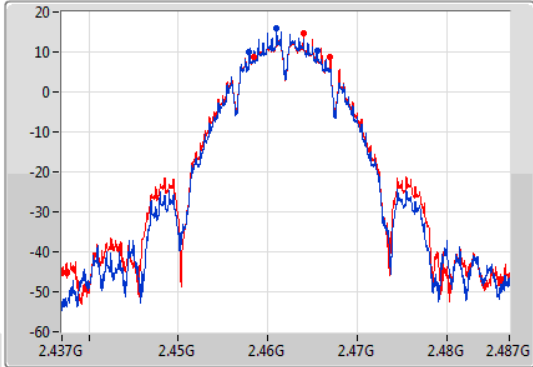
802.11b_Nss1,(1Mbps)_2TX

EBW

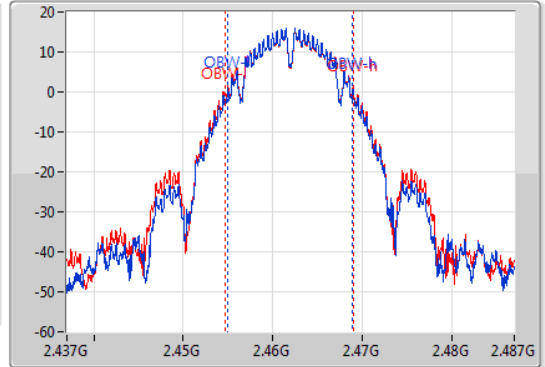
2462MHz

21/12/2020

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
7.575M	2.45795G	2.465525G	13.943M	2.455003G	2.468947G	500k	1
8.575M	2.458425G	2.467G	14.343M	2.454729G	2.469071G	500k	2

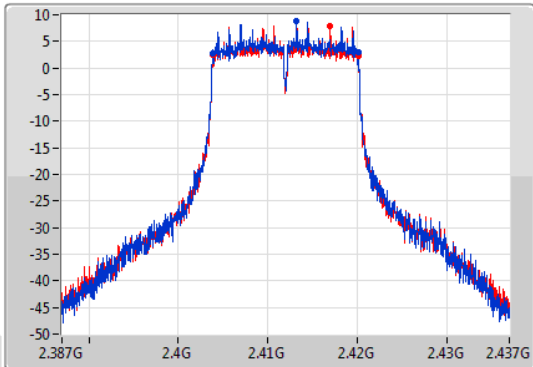
802.11g_Nss1,(6Mbps)_2TX

EBW

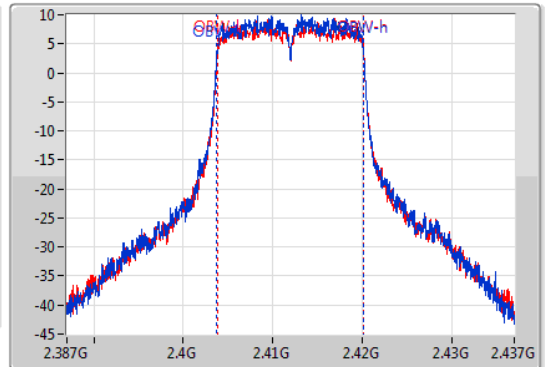
2412MHz

21/12/2020

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



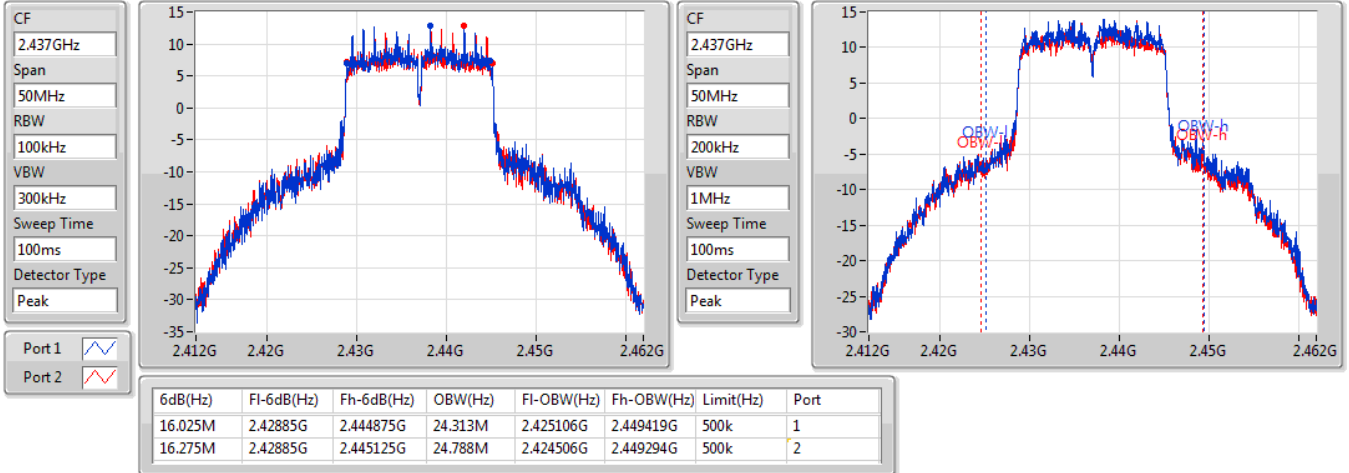
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.3M	2.403825G	2.420125G	16.392M	2.403779G	2.420171G	500k	1
16.325M	2.403825G	2.42015G	16.392M	2.403804G	2.420196G	500k	2

802.11g_Nss1,(6Mbps)_2TX

EBW

2437MHz

21/12/2020

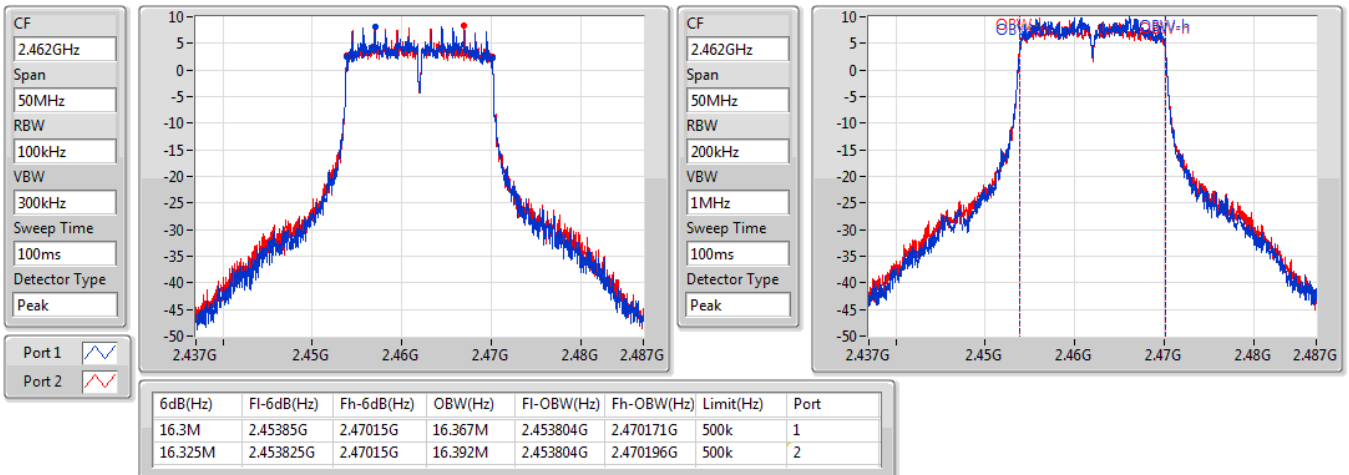


802.11g_Nss1,(6Mbps)_2TX

EBW

2462MHz

21/12/2020



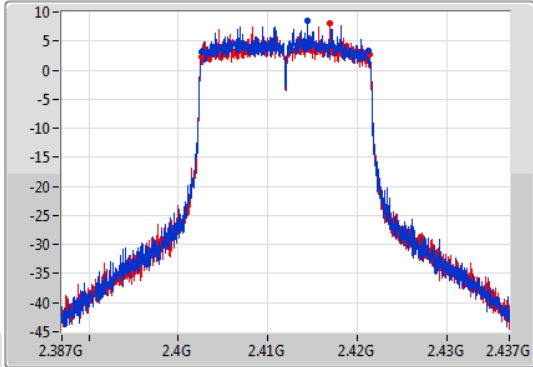
802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

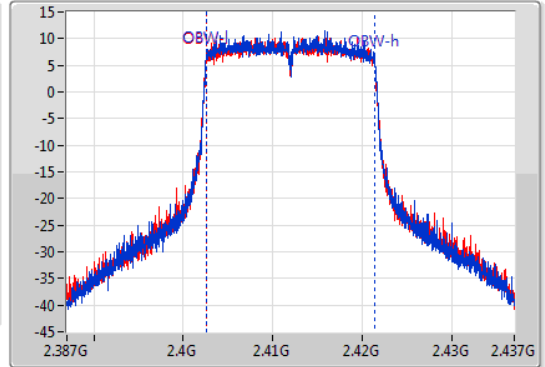
2412MHz

21/12/2020

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
18.625M	2.402575G	2.4212G	18.916M	2.40253G	2.421445G	500k	1
18.75M	2.4026G	2.42135G	18.941M	2.40253G	2.42147G	500k	2

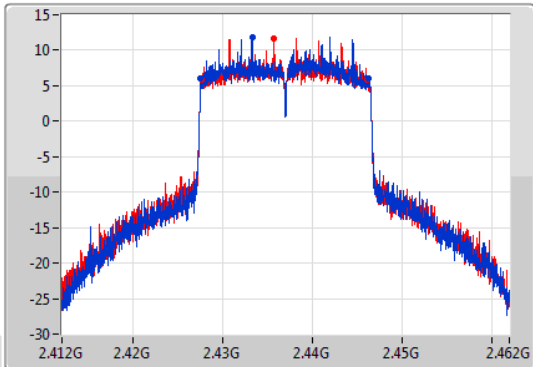
802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

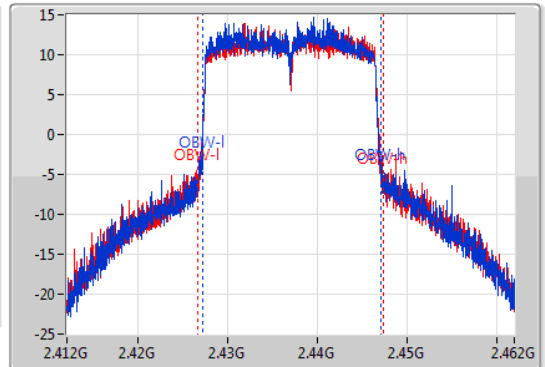
2437MHz

21/12/2020

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
18.675M	2.427525G	2.4462G	19.99M	2.42713G	2.44712G	500k	1
18.5M	2.42765G	2.44615G	20.765M	2.426655G	2.44742G	500k	2

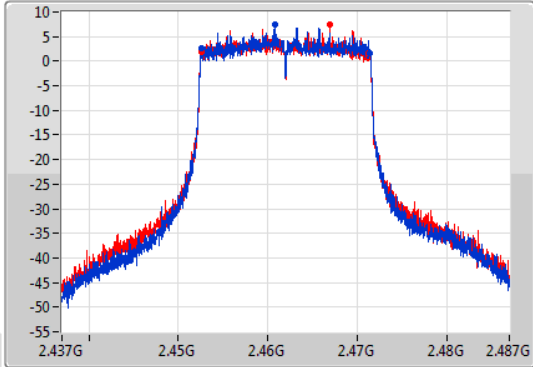
802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

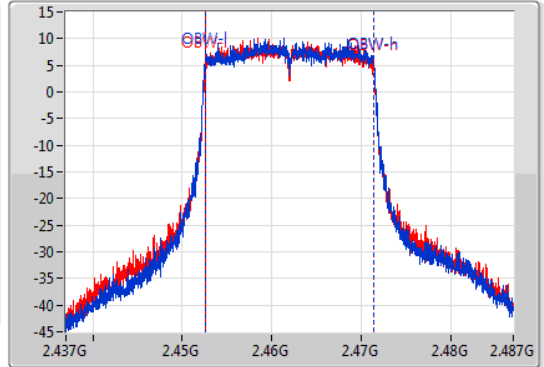
2462MHz

21/12/2020

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
18.9M	2.45255G	2.47145G	18.941M	2.45253G	2.47147G	500k	1
18.7M	2.4526G	2.4713G	18.916M	2.45253G	2.471445G	500k	2

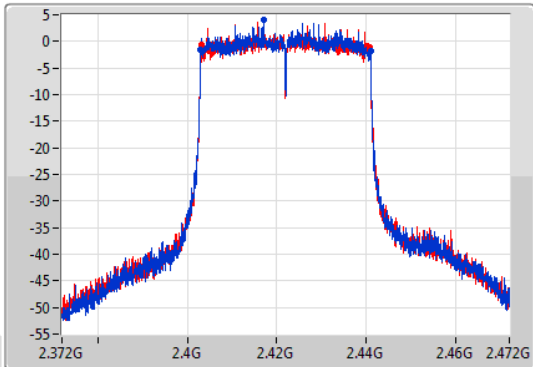
802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

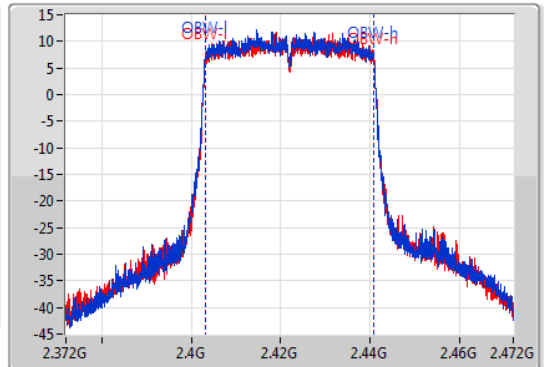
2422MHz

21/12/2020

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



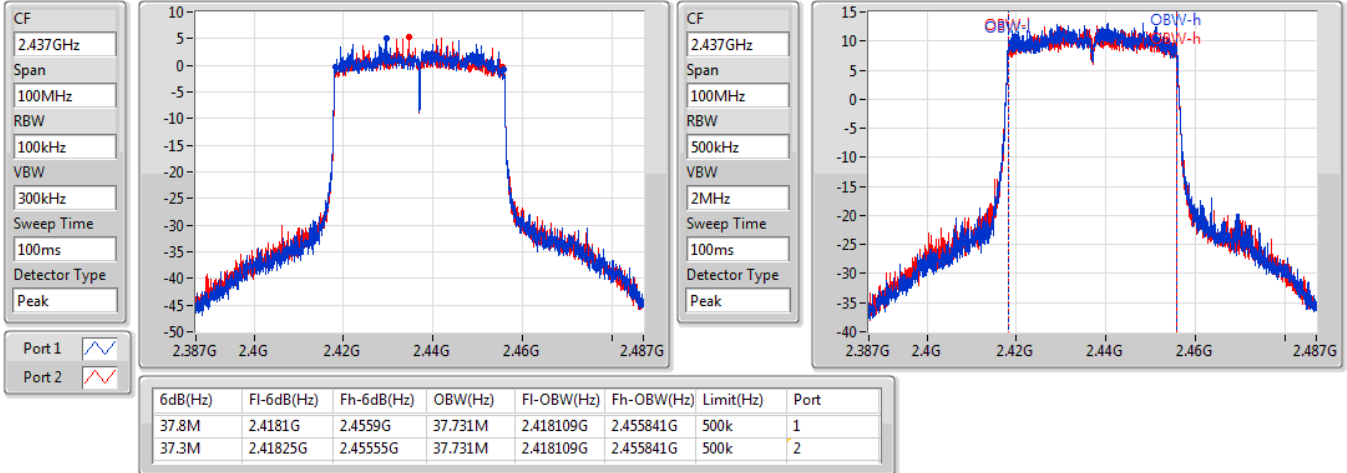
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.9M	2.40305G	2.44095G	37.731M	2.403109G	2.440841G	500k	1
37.75M	2.4031G	2.44085G	37.781M	2.403109G	2.440891G	500k	2

802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

2437MHz

21/12/2020

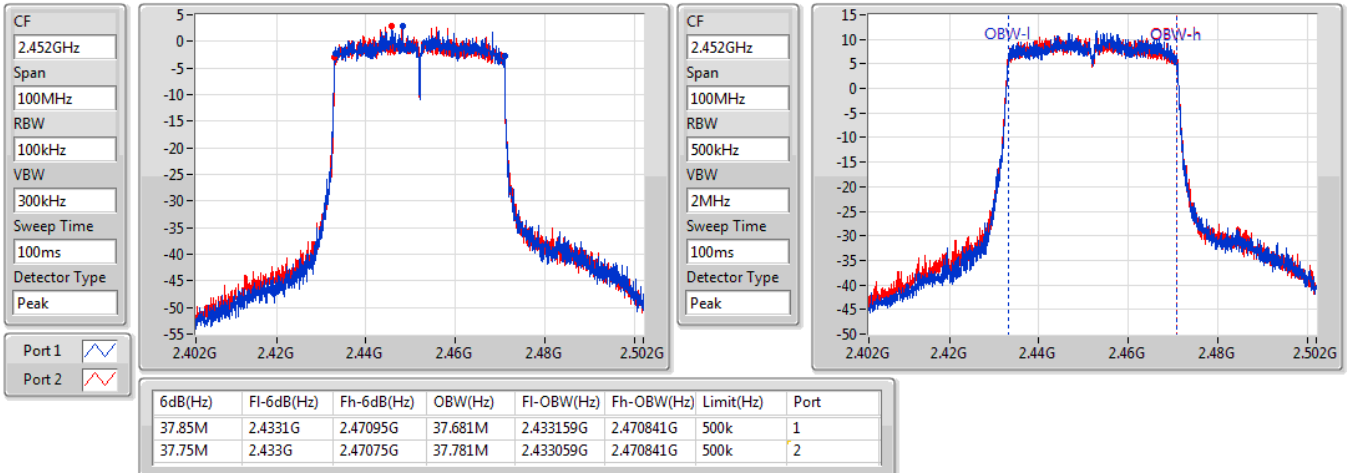


802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

2452MHz

21/12/2020





**For non-beamforming function:
Summary**

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_2TX	27.67	0.58479
802.11g_Nss1,(6Mbps)_2TX	26.39	0.43551
802.11ax HEW20_Nss1,(MCS0)_2TX	26.00	0.39811
802.11ax HEW40_Nss1,(MCS0)_2TX	22.77	0.18923



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.43	24.47	24.14	27.32	30.00
2437MHz	Pass	5.43	24.74	24.58	27.67	30.00
2462MHz	Pass	5.43	23.78	23.76	26.78	30.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.43	19.92	19.37	22.66	30.00
2417MHz	Pass	5.43	20.68	20.33	23.52	30.00
2437MHz	Pass	5.43	23.53	23.23	26.39	30.00
2457MHz	Pass	5.43	20.82	20.79	23.82	30.00
2462MHz	Pass	5.43	19.83	19.49	22.67	30.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.43	19.99	19.48	22.75	30.00
2417MHz	Pass	5.43	20.35	20.00	23.19	30.00
2437MHz	Pass	5.43	23.15	22.83	26.00	30.00
2457MHz	Pass	5.43	19.56	19.48	22.53	30.00
2462MHz	Pass	5.43	18.82	18.65	21.75	30.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	5.43	18.64	18.31	21.49	30.00
2437MHz	Pass	5.43	19.85	19.67	22.77	30.00
2452MHz	Pass	5.43	17.71	17.69	20.71	30.00

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



**For beamforming function:
Summary**

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	26.00	0.39811
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	22.77	0.18923



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	8.41	19.99	19.48	22.75	27.59
2417MHz	Pass	8.41	20.35	20.00	23.19	27.59
2437MHz	Pass	8.41	23.15	22.83	26.00	27.59
2457MHz	Pass	8.41	19.56	19.48	22.53	27.59
2462MHz	Pass	8.41	18.82	18.65	21.75	27.59
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	8.41	18.64	18.31	21.49	27.59
2437MHz	Pass	8.41	19.85	19.67	22.77	27.59
2452MHz	Pass	8.41	17.71	17.69	20.71	27.59

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

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_2TX	-0.82
802.11g_Nss1,(6Mbps)_2TX	-2.50
802.11ax HEW20_Nss1,(MCS0)_2TX	-2.09
802.11ax HEW40_Nss1,(MCS0)_2TX	-7.36

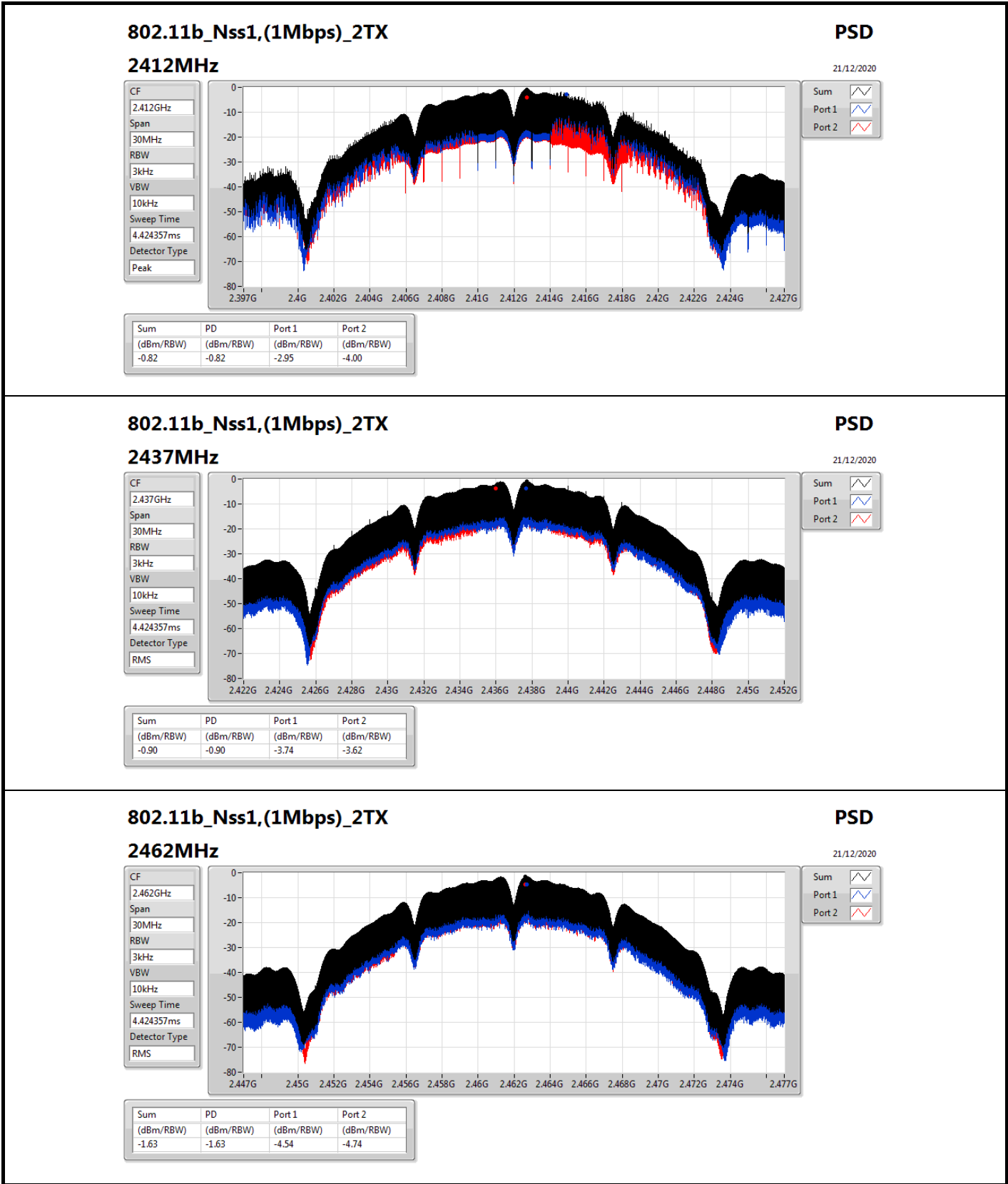
RBW = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;

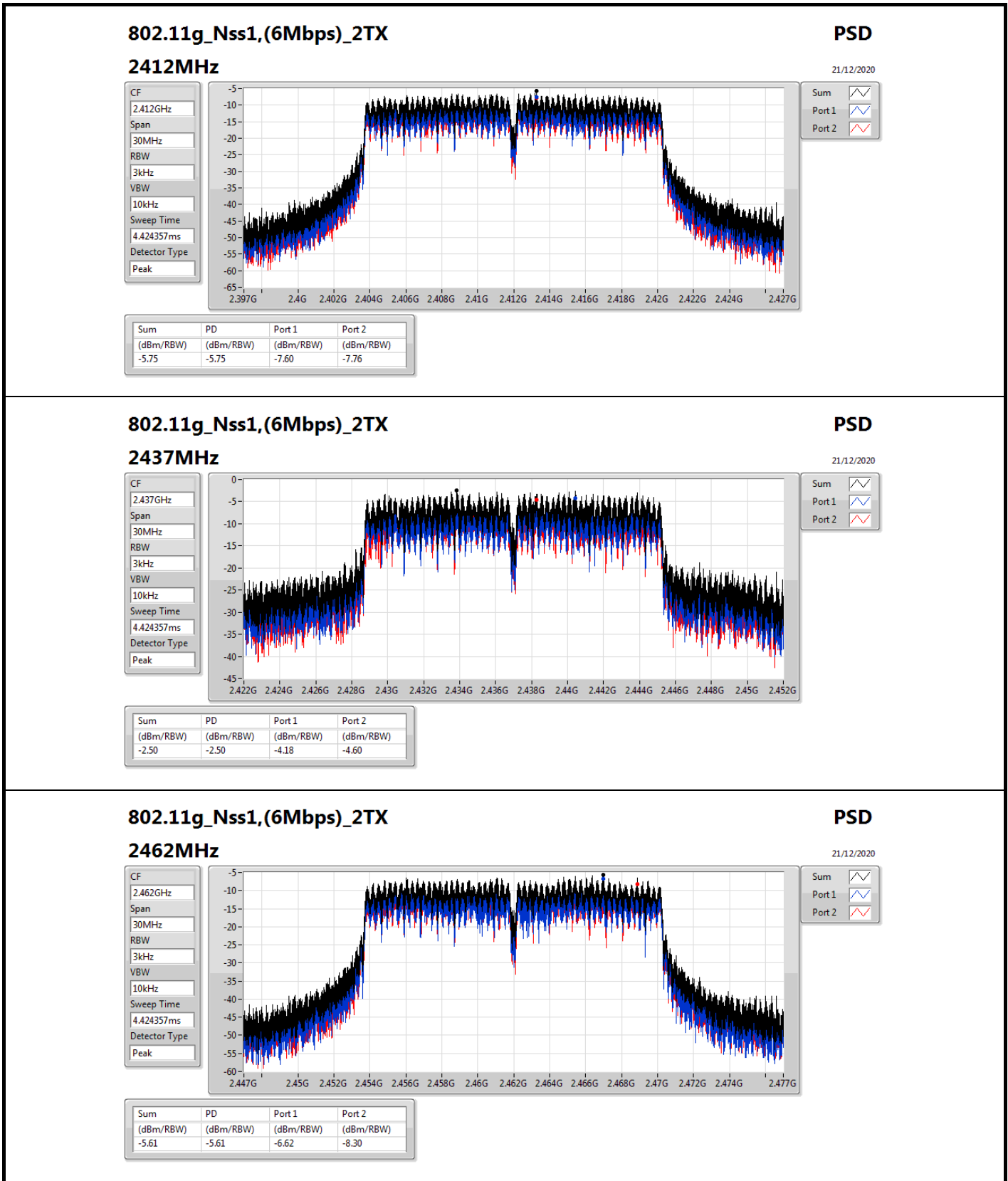
Result

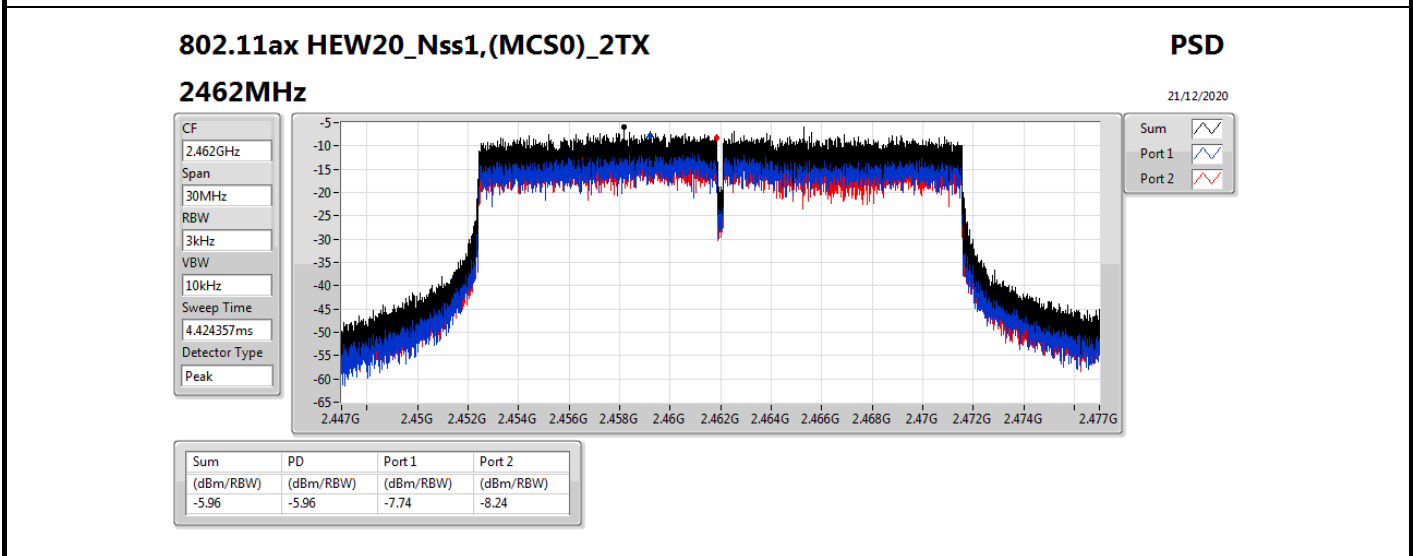
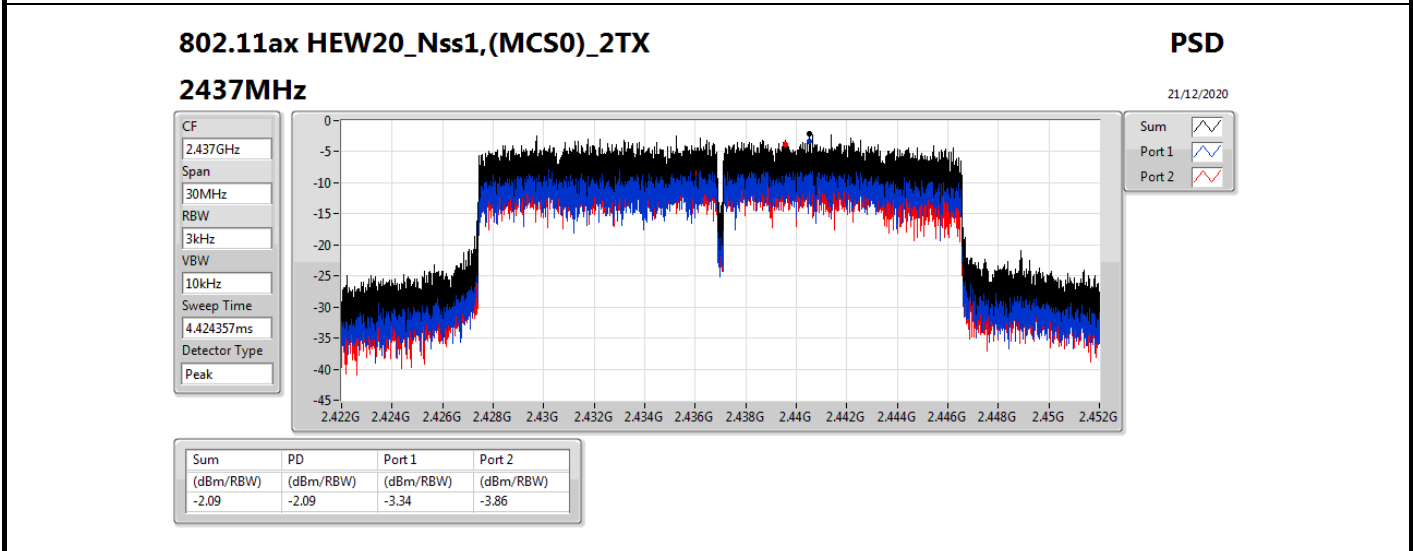
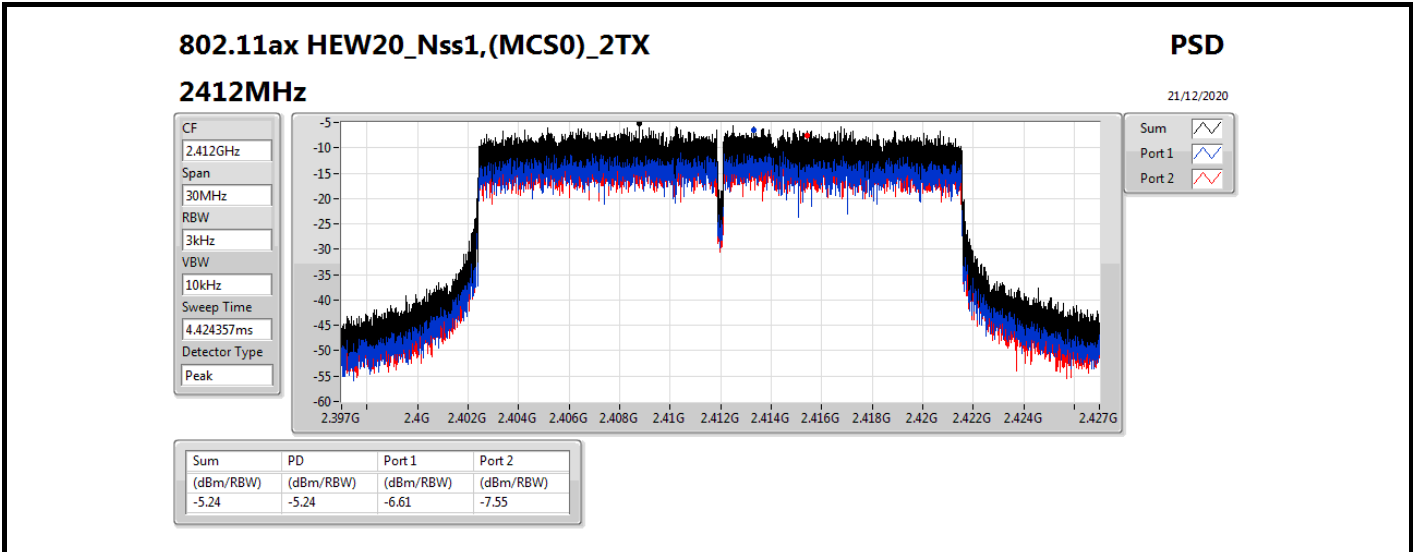
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	8.41	-2.95	-4.00	-0.82	5.59
2437MHz	Pass	8.41	-3.74	-3.62	-0.90	5.59
2462MHz	Pass	8.41	-4.54	-4.74	-1.63	5.59
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	8.41	-7.60	-7.76	-5.75	5.59
2437MHz	Pass	8.41	-4.18	-4.60	-2.50	5.59
2462MHz	Pass	8.41	-6.62	-8.30	-5.61	5.59
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	8.41	-6.61	-7.55	-5.24	5.59
2437MHz	Pass	8.41	-3.34	-3.86	-2.09	5.59
2462MHz	Pass	8.41	-7.74	-8.24	-5.96	5.59
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	8.41	-10.76	-11.10	-8.59	5.59
2437MHz	Pass	8.41	-8.31	-9.53	-7.36	5.59
2452MHz	Pass	8.41	-12.33	-11.66	-9.87	5.59

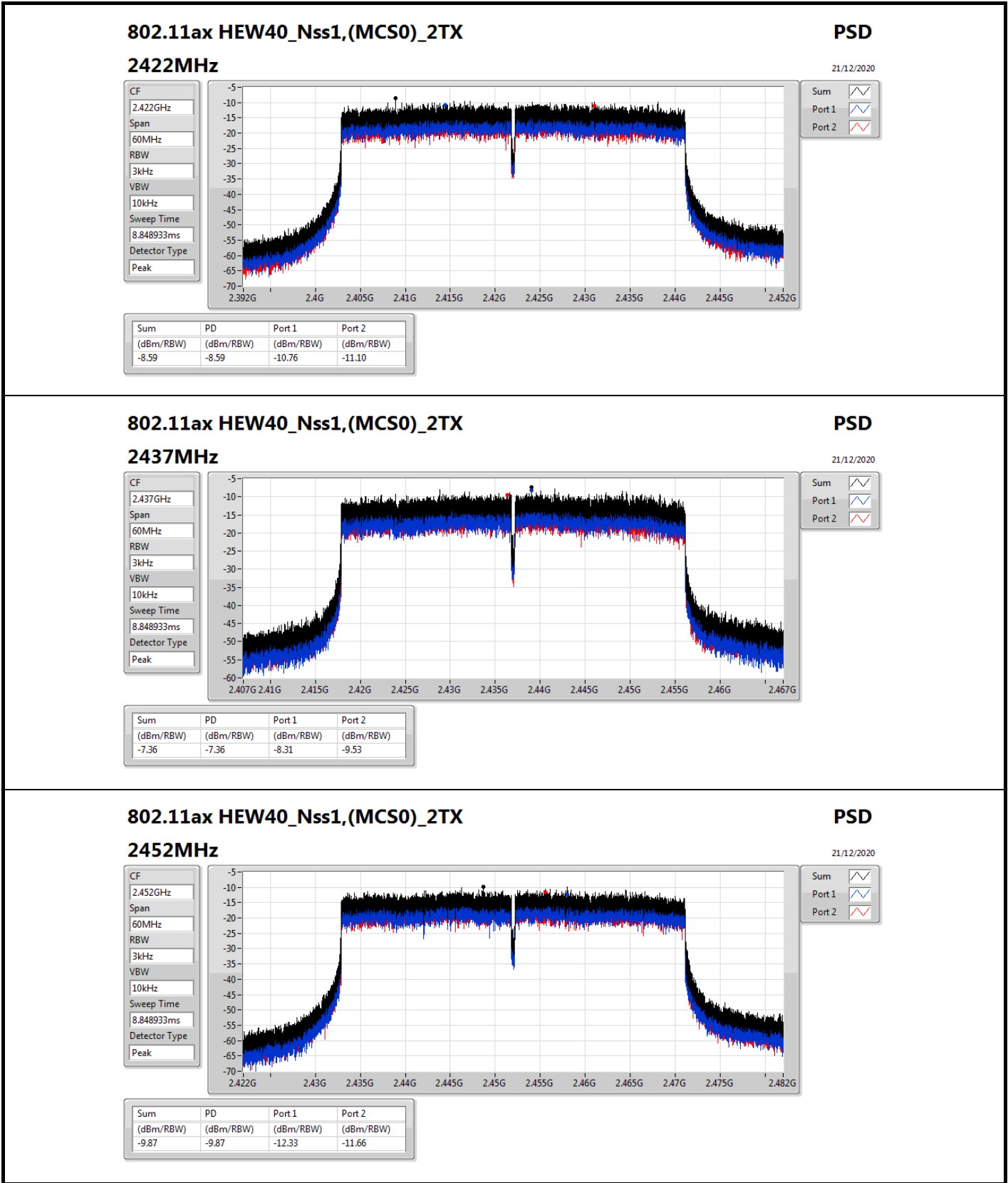
DG = Directional Gain; **RBW** = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;

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









802.11ax HEW40_Nss1,(MCS0)_2TX

2452MHz

PSD

21/12/2020

CF
2.452GHz

Span
60MHz

RBW
3kHz

VBW
10kHz

Sweep Time
8.848933ms

Detector Type
Peak



Sum 

Port 1 

Port 2 

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.87	-9.87	-12.33	-11.66

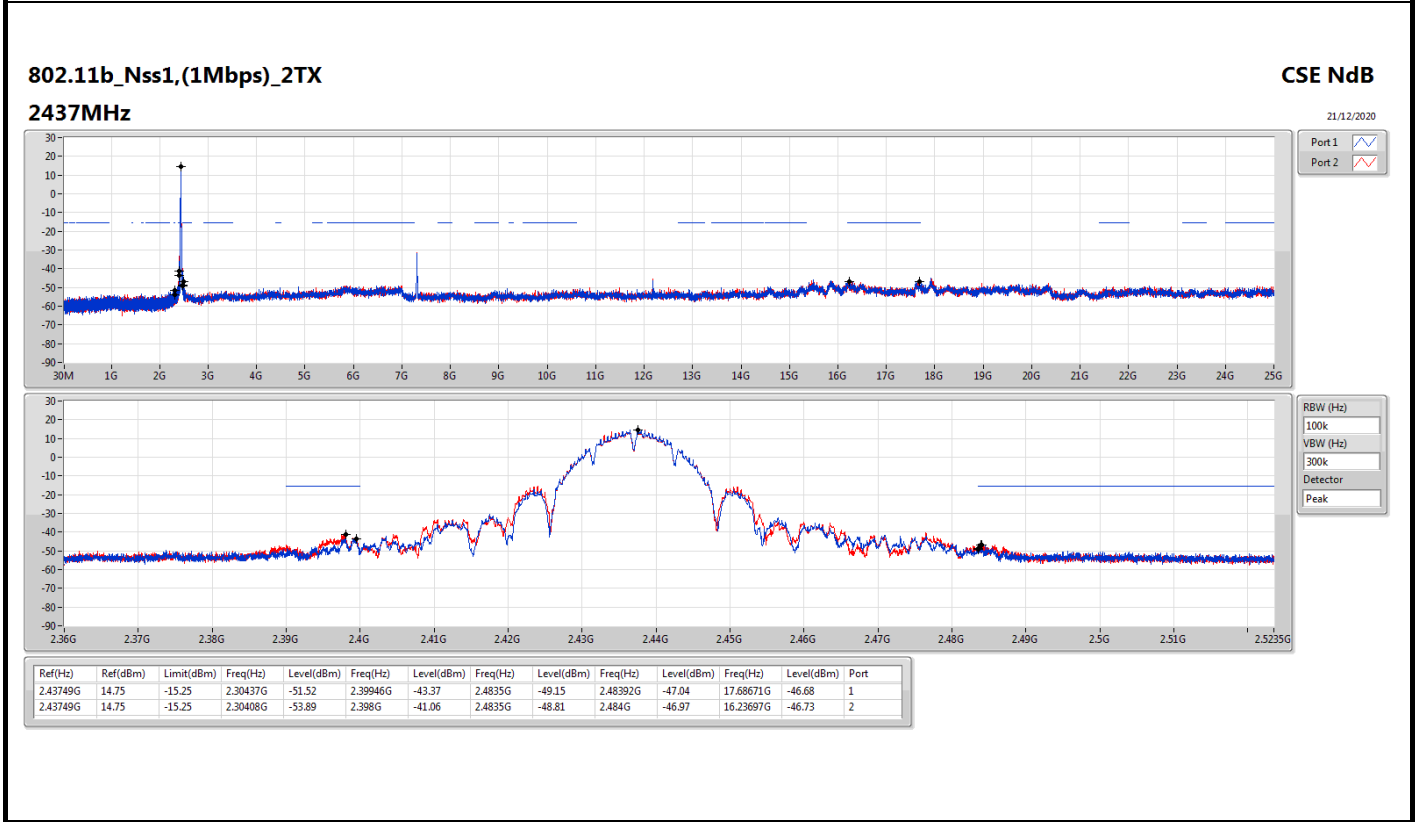
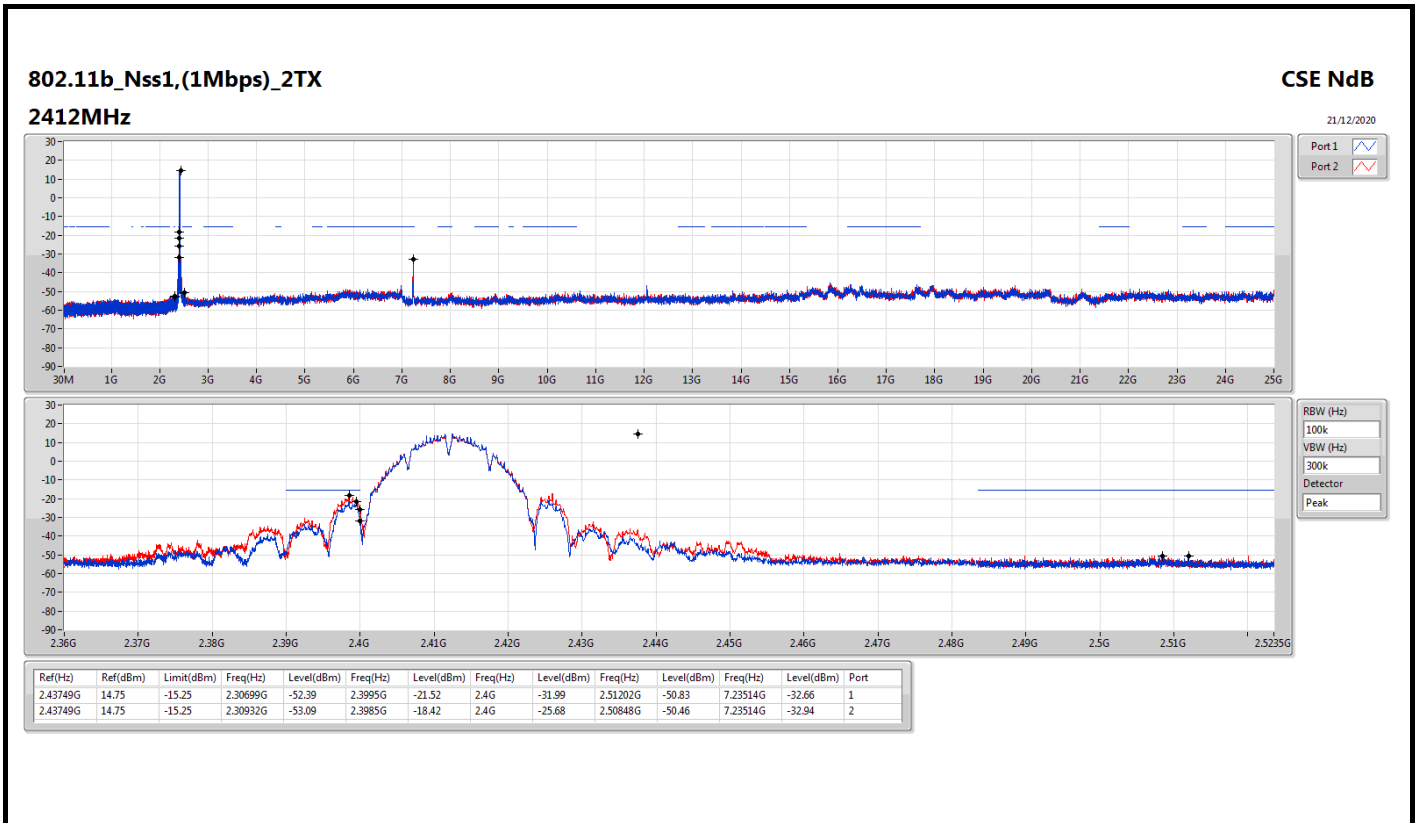


Summary

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)_2TX	Pass	2.43749G	14.75	-15.25	2.30932G	-53.09	2.3985G	-18.42	2.4G	-25.68	2.50848G	-50.46	7.23514G	-32.94	2
802.11g_Nss1,(6Mbps)_2TX	Pass	2.43824G	13.00	-17.00	2.3067G	-53.61	2.39984G	-27.01	2.4G	-25.50	2.48642G	-50.59	7.23795G	-39.53	1
802.11ax HEW20_Nss1,(MCS0)_2TX	Pass	2.442G	12.35	-17.65	2.30408G	-53.11	2.3996G	-24.97	2.4G	-24.61	2.49598G	-50.76	7.24076G	-42.11	1
802.11ax HEW40_Nss1,(MCS0)_2TX	Pass	2.43449G	5.31	-24.69	888.75M	-53.07	2.39948G	-32.50	2.4G	-34.82	2.5039G	-51.81	16.46011G	-46.70	2

Result

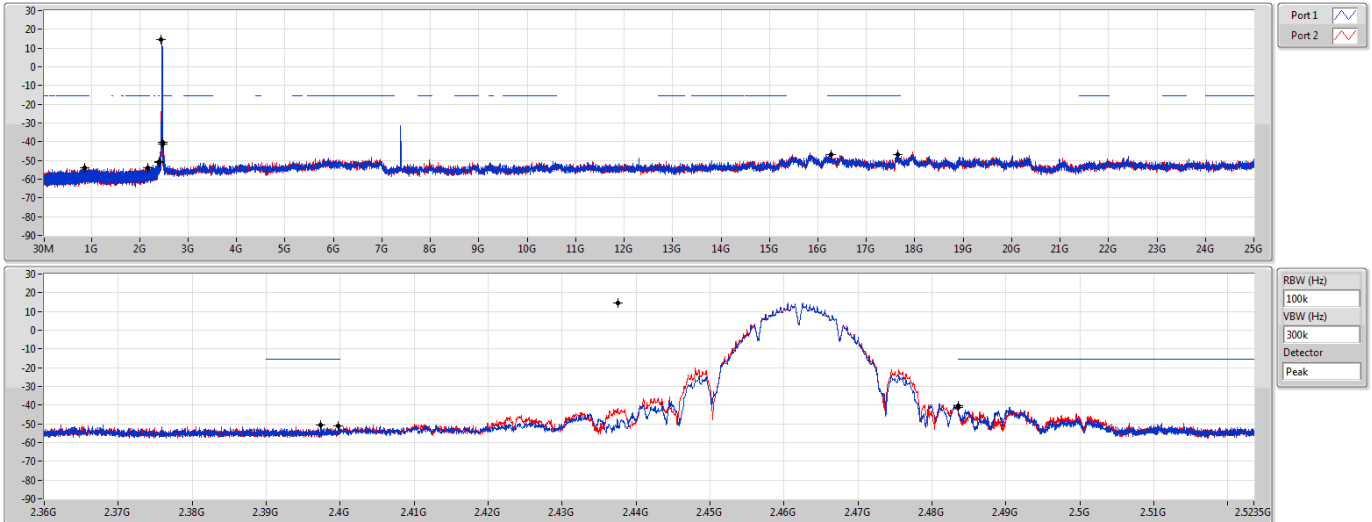
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43749G	14.75	-15.25	2.30699G	-52.39	2.3995G	-21.52	2.4G	-31.99	2.51202G	-50.83	7.23514G	-32.66	1
2412MHz	Pass	2.43749G	14.75	-15.25	2.30932G	-53.09	2.3985G	-18.42	2.4G	-25.68	2.50848G	-50.46	7.23514G	-32.94	2
2437MHz	Pass	2.43749G	14.75	-15.25	2.30437G	-51.52	2.39946G	-43.37	2.4835G	-49.15	2.48392G	-47.04	17.68671G	-46.68	1
2437MHz	Pass	2.43749G	14.75	-15.25	2.30408G	-53.89	2.398G	-41.06	2.4835G	-48.81	2.484G	-46.97	16.23697G	-46.73	2
2462MHz	Pass	2.43749G	14.75	-15.25	854.24M	-54.10	2.3974G	-50.72	2.4835G	-40.50	2.4835G	-40.23	16.2735G	-46.84	1
2462MHz	Pass	2.43749G	14.75	-15.25	2.15846G	-53.77	2.39972G	-50.87	2.4835G	-40.30	2.48352G	-41.04	17.64176G	-46.74	2
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43824G	13.00	-17.00	2.3067G	-53.61	2.39984G	-27.01	2.4G	-25.50	2.48642G	-50.59	7.23795G	-39.53	1
2412MHz	Pass	2.43824G	13.00	-17.00	2.19166G	-53.50	2.39976G	-26.45	2.4G	-26.55	2.48822G	-51.68	7.23795G	-40.50	2
2437MHz	Pass	2.43824G	13.00	-17.00	2.30961G	-52.12	2.3998G	-33.19	2.4G	-37.32	2.48388G	-40.41	17.66985G	-46.66	1
2437MHz	Pass	2.43824G	13.00	-17.00	2.17069G	-53.48	2.39696G	-32.82	2.4G	-36.94	2.48384G	-41.22	17.6249G	-47.52	2
2462MHz	Pass	2.43824G	13.00	-17.00	2.18816G	-54.13	2.3962G	-51.45	2.4835G	-40.14	2.48358G	-38.46	17.60523G	-46.76	1
2462MHz	Pass	2.43824G	13.00	-17.00	2.11885G	-52.19	2.39642G	-51.78	2.4835G	-39.31	2.48354G	-37.65	5.89778G	-47.67	2
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.442G	12.35	-17.65	2.30408G	-53.11	2.3996G	-24.97	2.4G	-24.61	2.49598G	-50.76	7.24076G	-42.11	1
2412MHz	Pass	2.442G	12.35	-17.65	2.30641G	-52.55	2.3991G	-24.72	2.4G	-25.75	2.52144G	-51.41	7.22952G	-41.85	2
2437MHz	Pass	2.442G	12.35	-17.65	2.30204G	-52.87	2.39794G	-34.10	2.4G	-38.03	2.48436G	-41.47	16.47579G	-45.55	1
2437MHz	Pass	2.442G	12.35	-17.65	2.30204G	-51.14	2.39796G	-34.30	2.4G	-36.71	2.48364G	-41.52	16.21731G	-46.59	2
2462MHz	Pass	2.442G	12.35	-17.65	1.95895G	-53.87	2.39754G	-52.64	2.4835G	-39.36	2.48404G	-37.83	17.60523G	-46.10	1
2462MHz	Pass	2.442G	12.35	-17.65	952.68M	-53.85	2.39726G	-52.26	2.4835G	-36.09	2.48374G	-36.47	17.61928G	-47.04	2
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.43449G	5.31	-24.69	2.13365G	-53.92	2.39964G	-33.72	2.4G	-34.56	2.48702G	-51.37	16.33671G	-46.42	1
2422MHz	Pass	2.43449G	5.31	-24.69	888.75M	-53.07	2.39948G	-32.50	2.4G	-34.82	2.5039G	-51.81	16.46011G	-46.70	2
2437MHz	Pass	2.43449G	5.31	-24.69	2.30426G	-51.48	2.39888G	-35.67	2.4G	-38.39	2.48378G	-40.13	16.46572G	-47.04	1
2437MHz	Pass	2.43449G	5.31	-24.69	2.30626G	-52.51	2.39924G	-34.01	2.4G	-36.41	2.48382G	-40.45	17.63522G	-46.74	2
2452MHz	Pass	2.43449G	5.31	-24.69	2.30426G	-52.77	2.39824G	-51.29	2.4835G	-39.13	2.48638G	-36.62	16.20209G	-45.73	1
2452MHz	Pass	2.43449G	5.31	-24.69	2.30741G	-52.64	2.3988G	-51.10	2.4835G	-39.36	2.48414G	-36.54	17.65766G	-46.53	2



802.11b_Nss1,(1Mbps)_2TX

CSE NdB

2462MHz

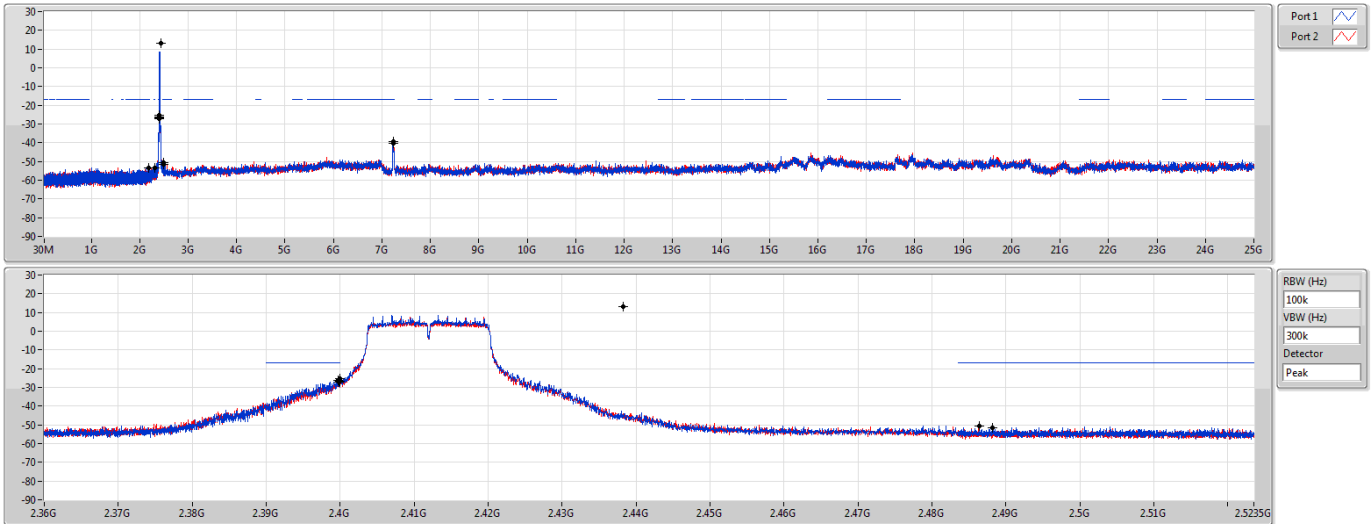


Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43749G	14.75	-15.25	854.24M	-54.10	2.3974G	-50.72	2.4835G	-40.50	2.4835G	-40.23	16.2735G	-46.84	1
2.43749G	14.75	-15.25	2.15846G	-53.77	2.39972G	-50.87	2.4835G	-40.30	2.48352G	-41.04	17.64176G	-46.74	2

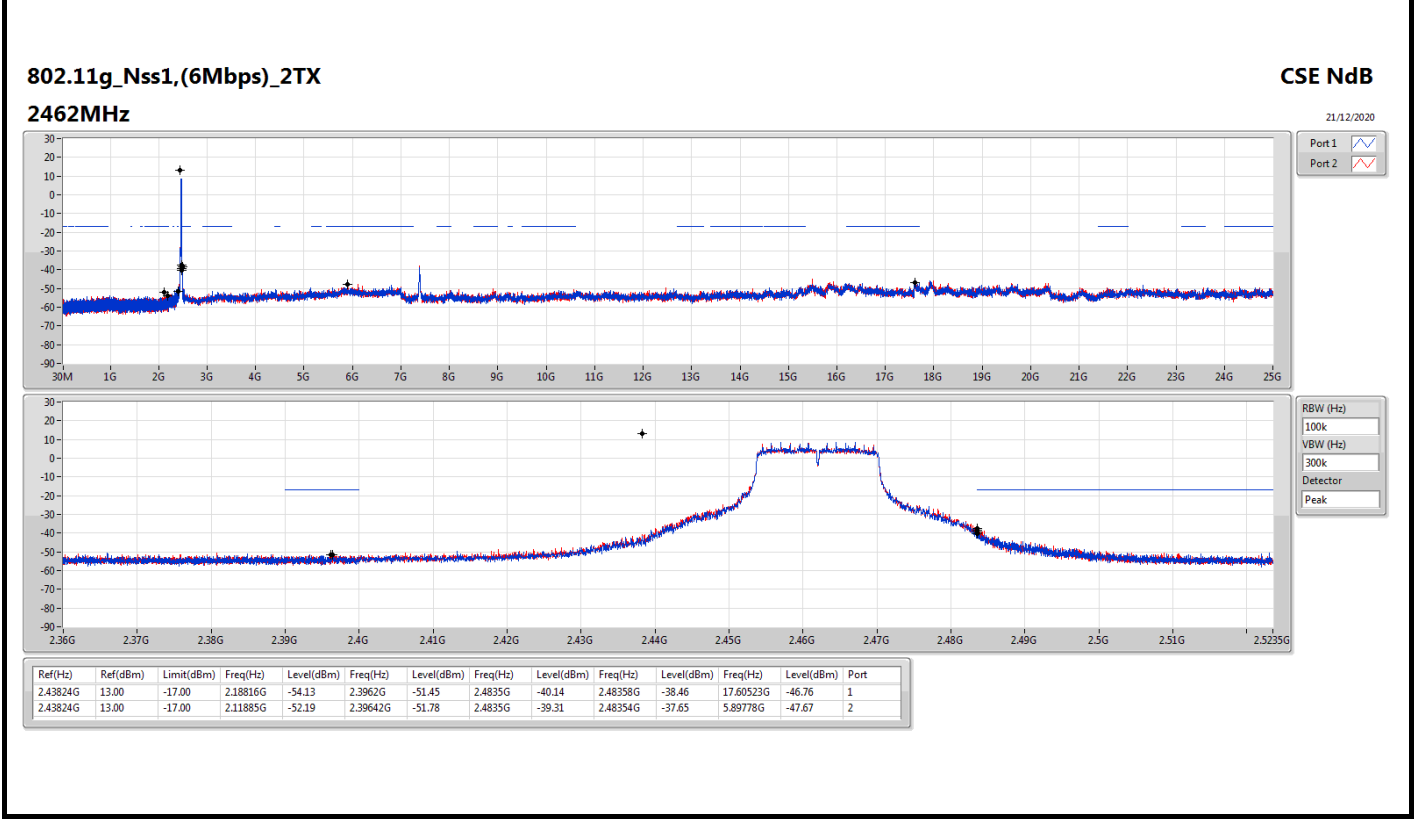
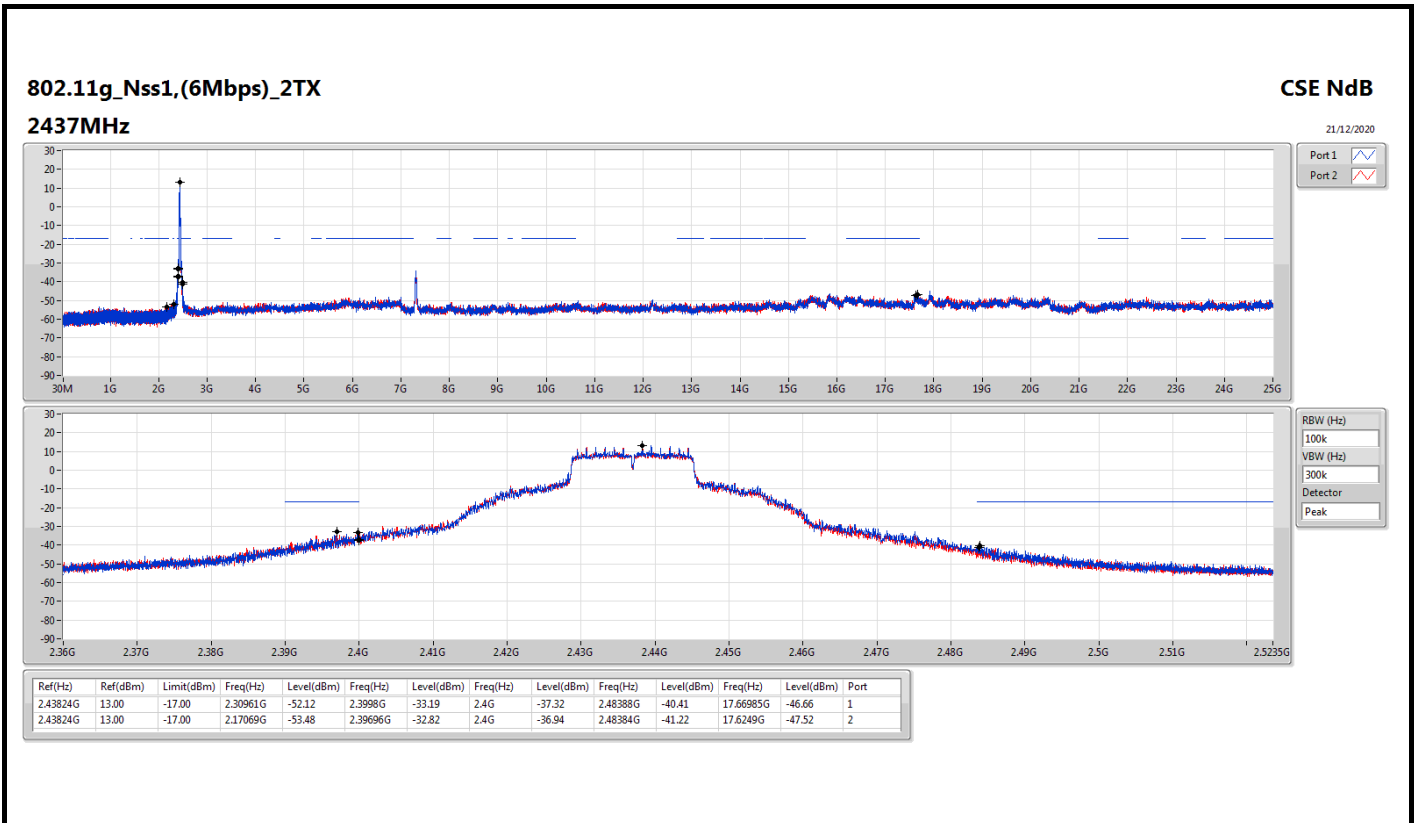
802.11g_Nss1,(6Mbps)_2TX

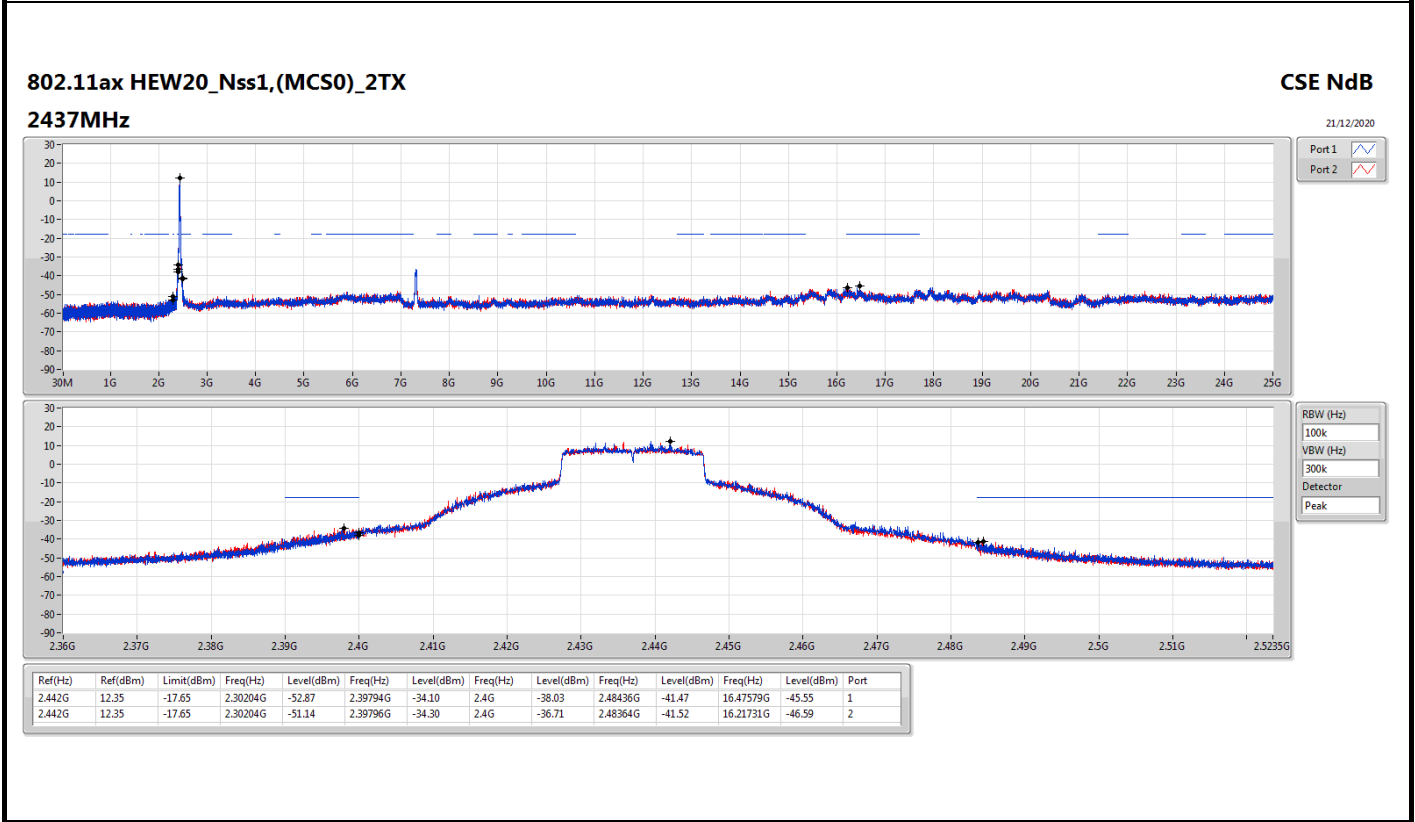
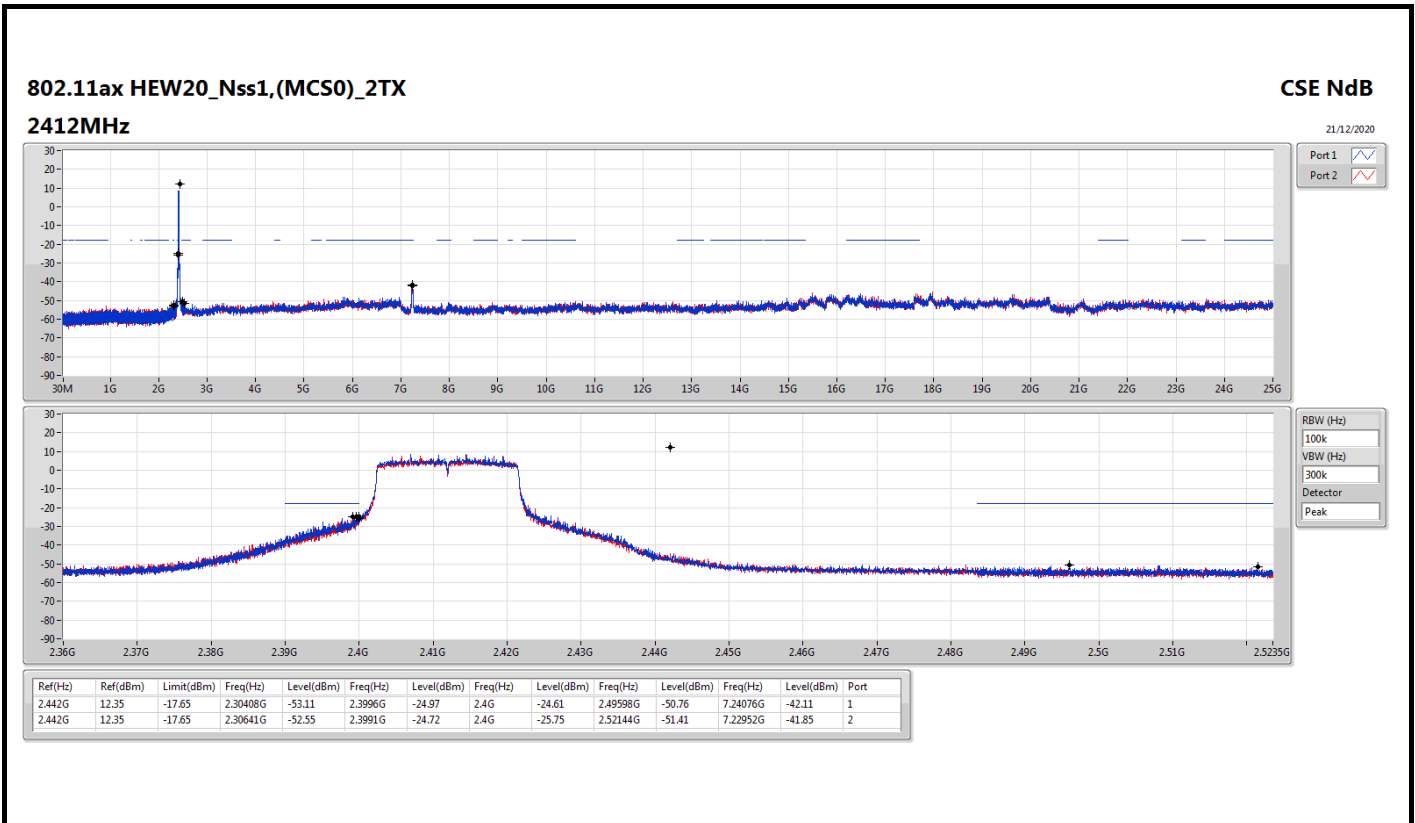
CSE NdB

2412MHz



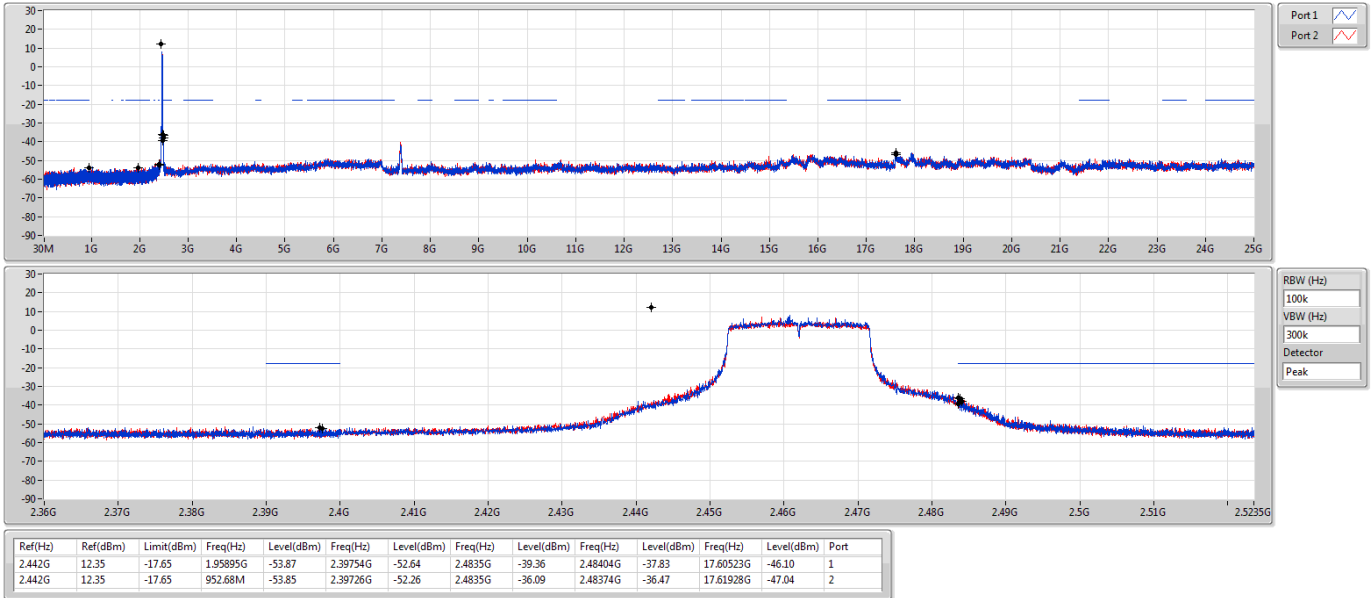
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43824G	13.00	-17.00	2.3067G	-53.61	2.39984G	-27.01	2.4G	-25.50	2.48642G	-50.59	7.23795G	-39.53	1
2.43824G	13.00	-17.00	2.19166G	-53.50	2.39976G	-26.45	2.4G	-26.55	2.48822G	-51.68	7.23795G	-40.50	2





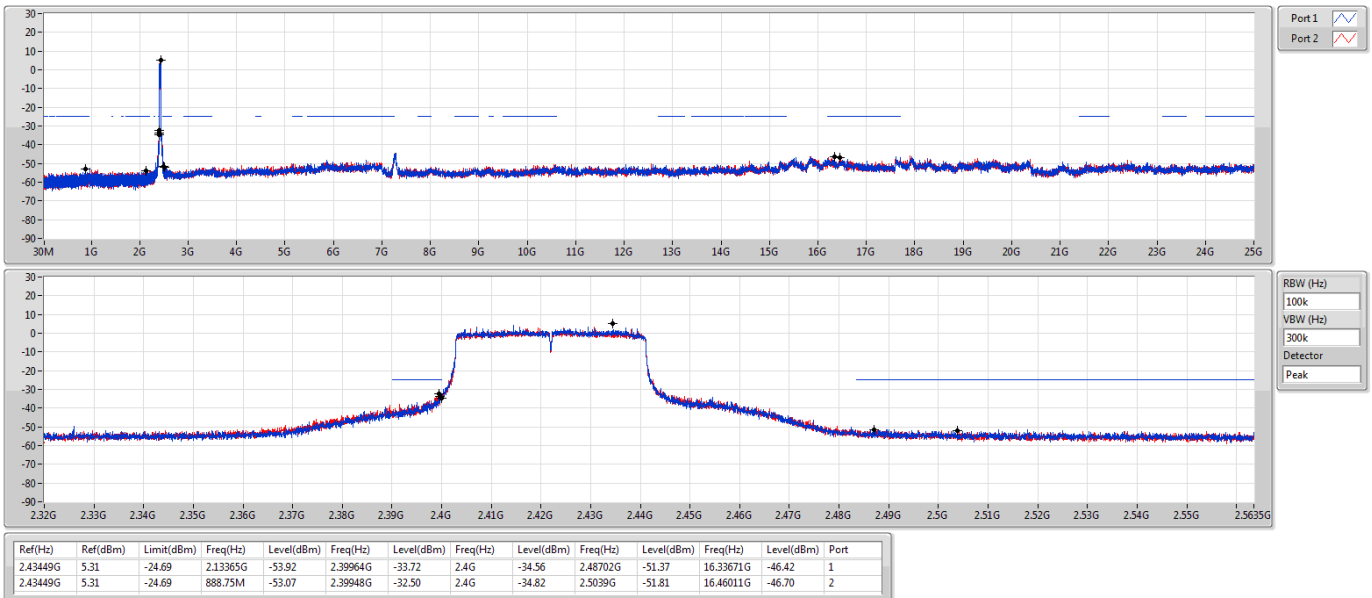
802.11ax HEW20_Nss1,(MCS0)_2TX
2462MHz

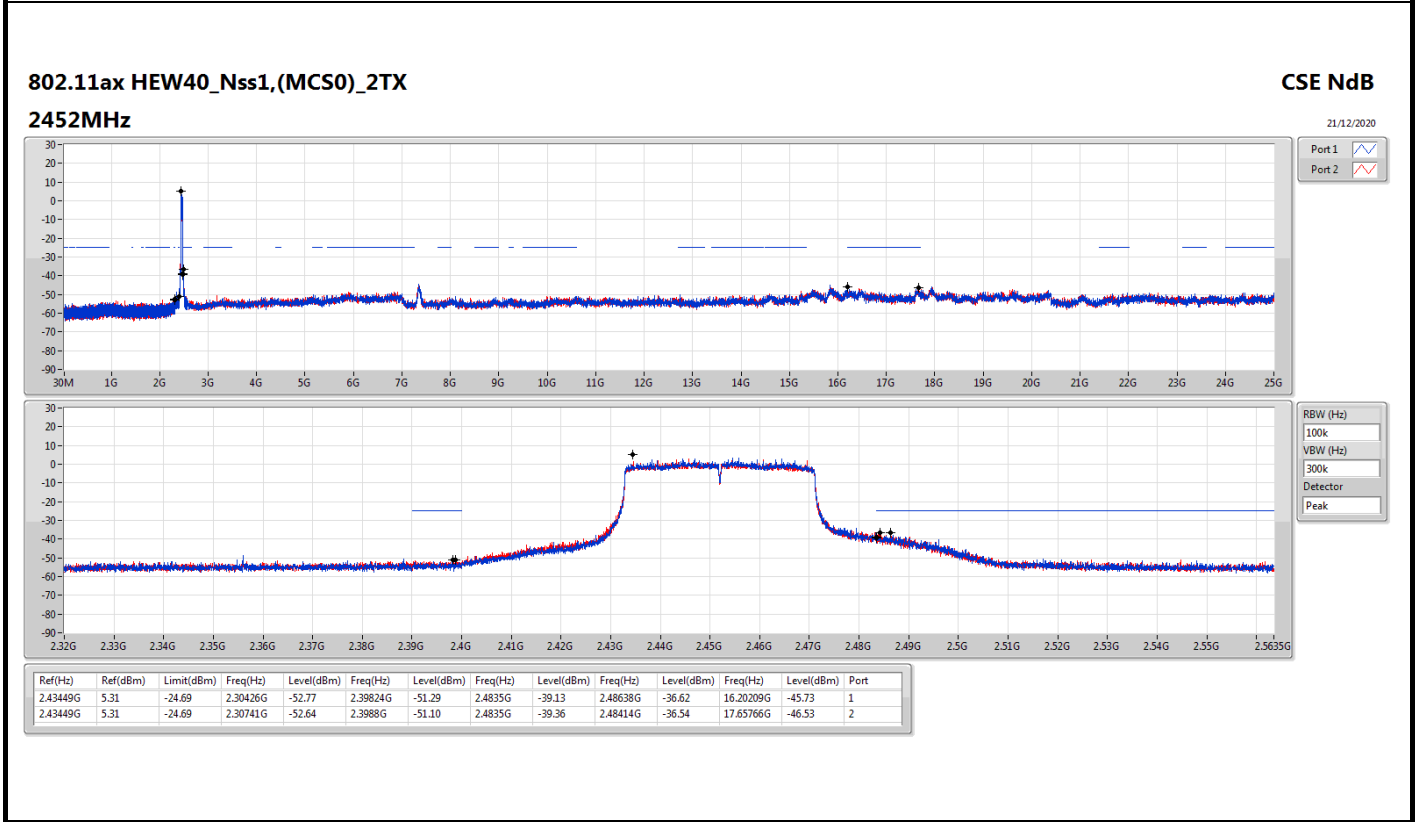
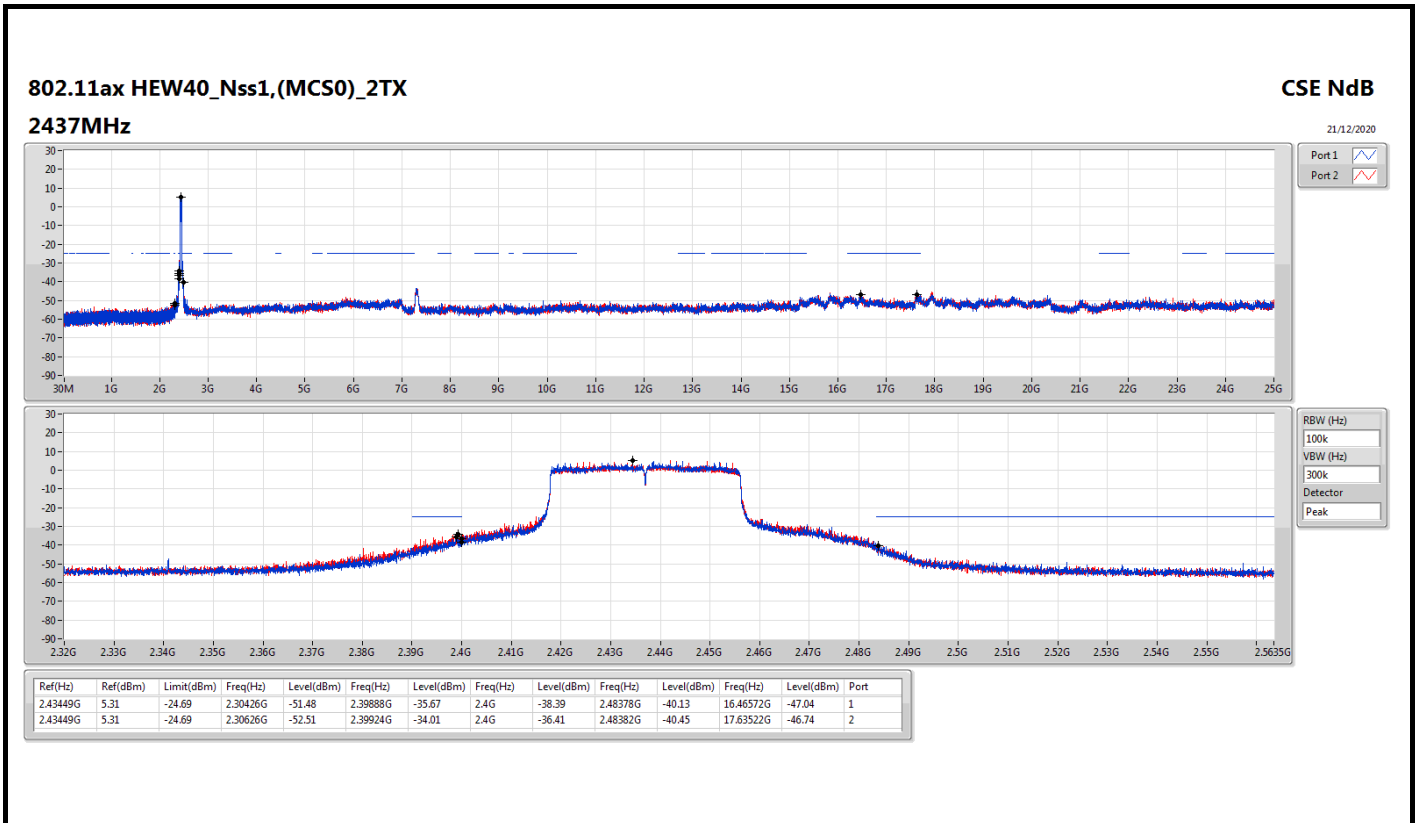
CSE NdB



802.11ax HEW40_Nss1,(MCS0)_2TX
2422MHz

CSE NdB



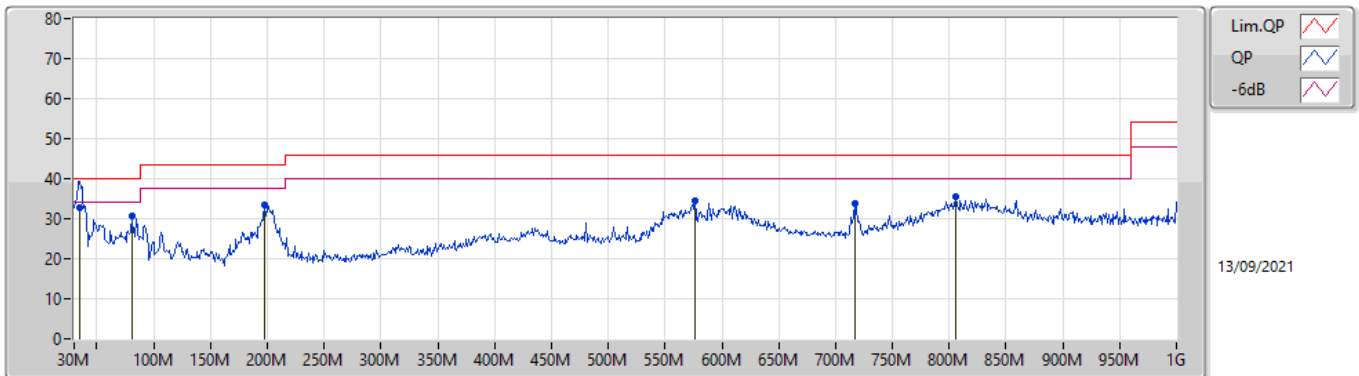




Summary

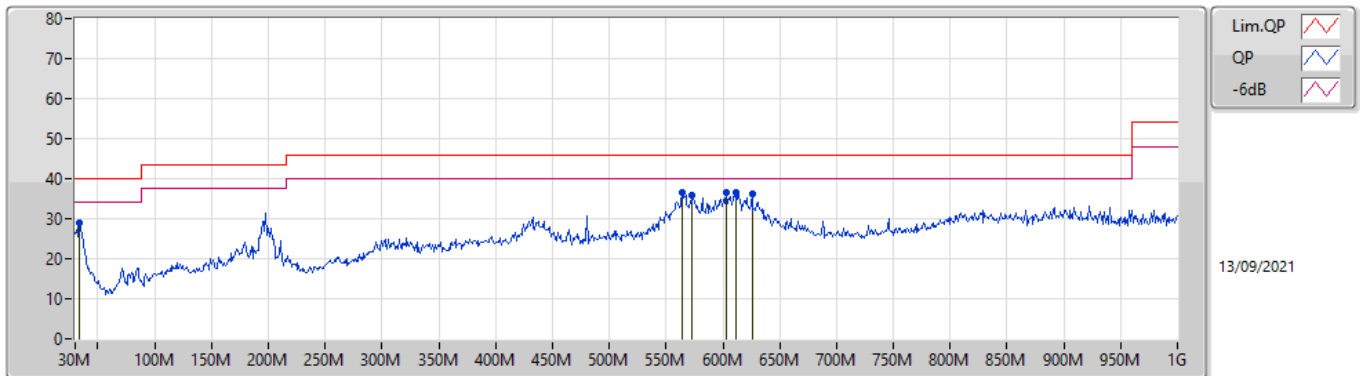
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	QP	34.85M	32.61	40.00	-7.39	Vertical

Mode 1



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
QP	34.85M	32.61	40.00	-7.39	-6.20	3	Vertical	28	1.00	"Worst"	38.81	21.57	0.71	28.48
PK	80.44M	30.66	40.00	-9.34	-14.51	3	Vertical	181	1.25	-	45.17	12.94	1.03	28.48
PK	197.81M	33.45	43.50	-10.05	-11.38	3	Vertical	352	1.25	-	44.83	14.92	1.70	28.00
PK	576.11M	34.44	46.00	-11.56	-2.28	3	Vertical	143	1.00	-	36.72	24.11	2.96	29.35
PK	716.76M	33.83	46.00	-12.17	-1.60	3	Vertical	319	1.50	-	35.43	24.38	3.29	29.27
PK	806M	35.51	46.00	-10.49	-0.41	3	Vertical	292	1.00	-	35.92	25.17	3.46	29.04

Mode 1



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
PK	33.88M	29.13	40.00	-10.87	-5.76	3	Horizontal	59	2.00	-	34.89	22.03	0.69	28.48
PK	564.47M	36.67	46.00	-9.33	-2.43	3	Horizontal	287	1.00	"Worst"	39.10	24.01	2.92	29.36
PK	573.2M	35.72	46.00	-10.28	-2.26	3	Horizontal	278	1.00	-	37.98	24.14	2.95	29.35
PK	603.27M	36.54	46.00	-9.46	-2.25	3	Horizontal	51	2.00	-	38.79	24.01	3.06	29.32
PK	612M	36.45	46.00	-9.55	-2.04	3	Horizontal	62	2.00	-	38.49	24.21	3.08	29.33
PK	625.58M	36.17	46.00	-9.83	-1.86	3	Horizontal	292	2.00	-	38.03	24.37	3.11	29.34



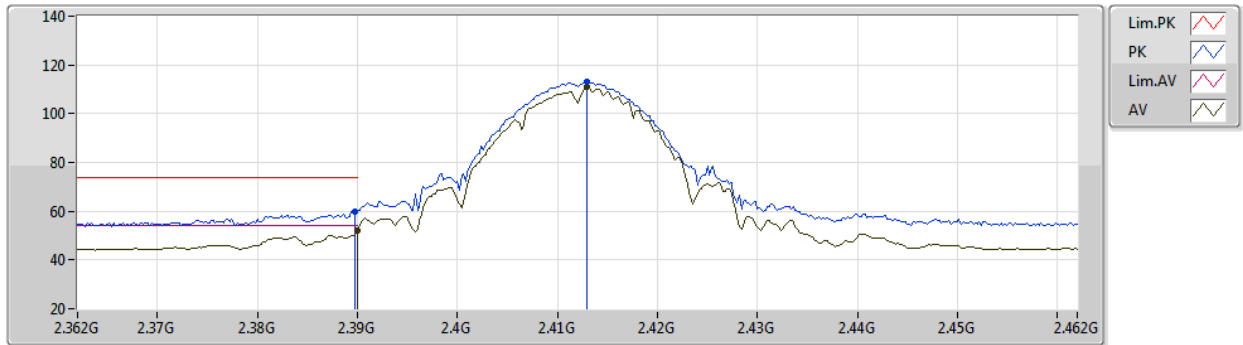
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	Pass	AV	2.4862G	53.93	54.00	-0.07	3	Vertical	0	1.68	-

802.11b_Nss1,(1Mbps)_2TX

07/12/2020

2412MHz_TX

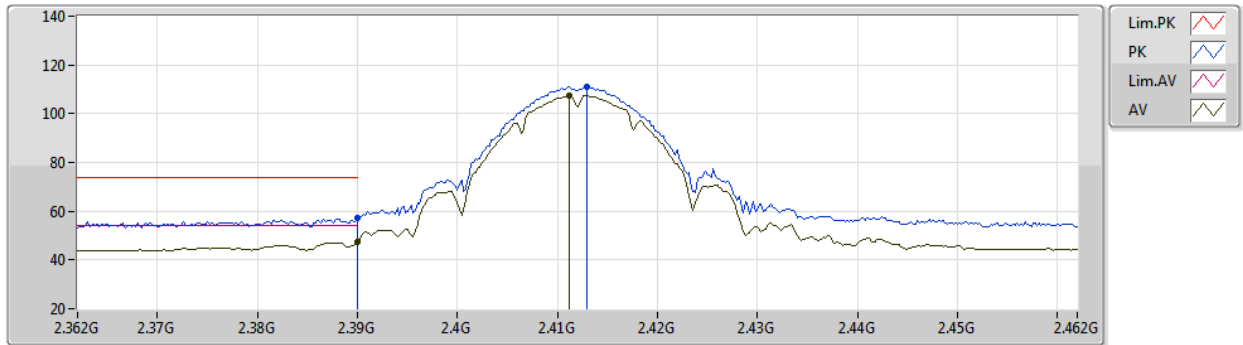


EUT Y_2TX
Setting 26
04-F-E-2

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	59.93	74.00	-14.07	29.25	3	Vertical	0	1.53	-	27.48	3.20	-
AV	2.39G	52.27	54.00	-1.73	21.59	3	Vertical	0	1.53	-	27.48	3.20	-
PK	2.413G	113.27	Inf	-Inf	82.53	3	Vertical	0	1.53	-	27.53	3.21	-
AV	2.413G	111.08	Inf	-Inf	80.34	3	Vertical	0	1.53	-	27.53	3.21	-

802.11b_Nss1,(1Mbps)_2TX
2412MHz_TX

07/12/2020



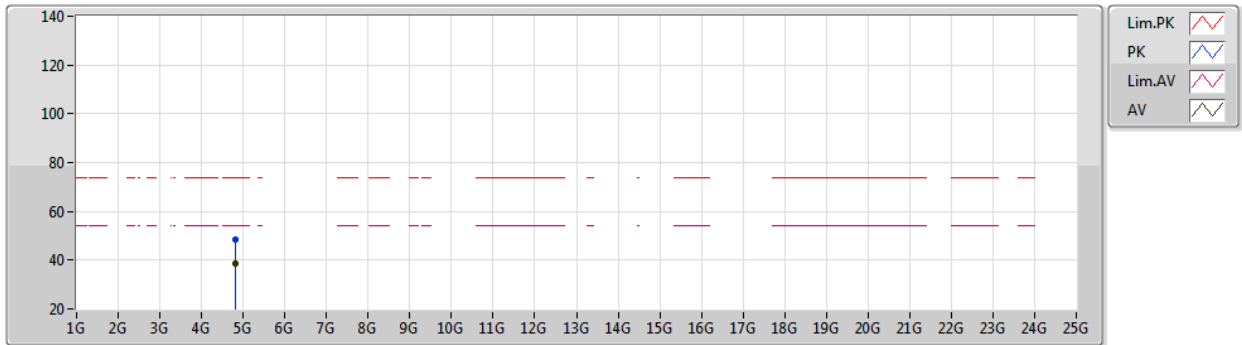
EUT Y_2TX
Setting 26
04-F-E-2

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	57.14	74.00	-16.86	26.46	3	Horizontal	351	1.80	-	27.48	3.20	-
AV	2.39G	47.24	54.00	-6.76	16.56	3	Horizontal	351	1.80	-	27.48	3.20	-
PK	2.413G	111.23	Inf	-Inf	80.49	3	Horizontal	351	1.80	-	27.53	3.21	-
AV	2.4112G	107.50	Inf	-Inf	76.77	3	Horizontal	351	1.80	-	27.52	3.21	-

802.11b_Nss1,(1Mbps)_2TX

07/12/2020

2412MHz_TX



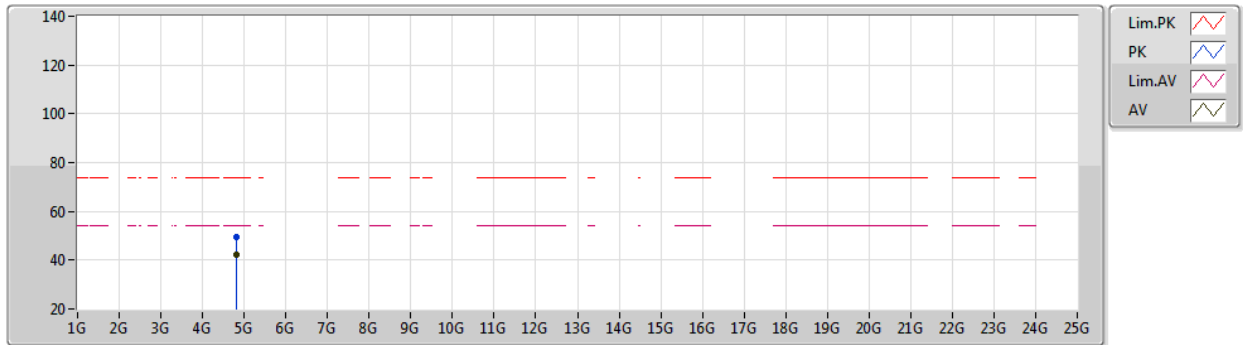
EUT Y_2TX
Setting 26
04-F-E-2

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	4.82398G	48.33	74.00	-25.67	43.26	3	Vertical	356	2.09	-	32.54	5.41	32.88
AV	4.82391G	38.45	54.00	-15.55	33.38	3	Vertical	356	2.09	-	32.54	5.41	32.88

802.11b_Nss1,(1Mbps)_2TX

07/12/2020

2412MHz_TX



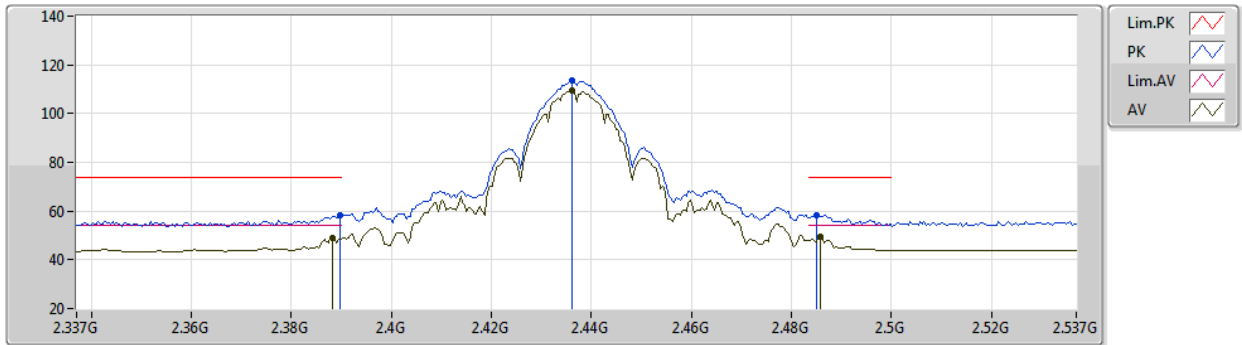
EUT Y_2TX
Setting 26
04-F-E-2

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	4.82386G	49.59	74.00	-24.41	44.52	3	Horizontal	29	2.09	-	32.54	5.41	32.88
AV	4.824G	42.47	54.00	-11.53	37.40	3	Horizontal	29	2.09	-	32.54	5.41	32.88

802.11b_Nss1,(1Mbps)_2TX

07/12/2020

2437MHz_TX



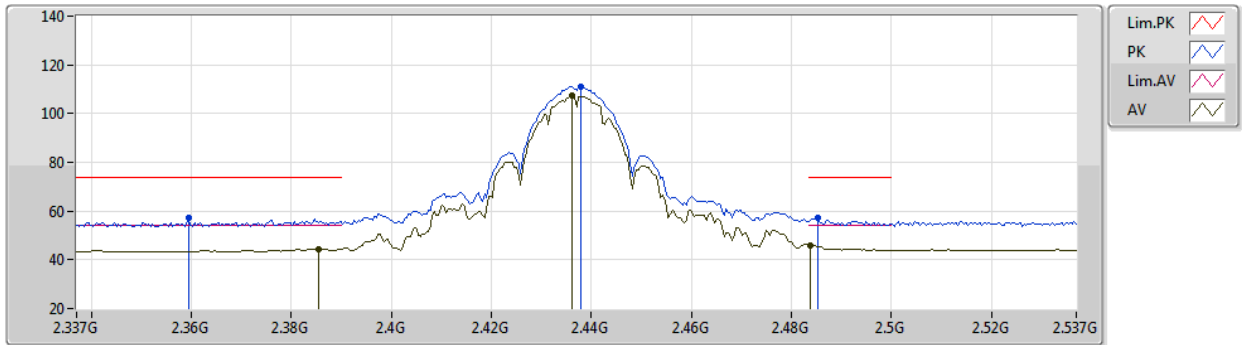
EUT Y_2TX
Setting 26
04-F-E-2

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	58.14	74.00	-15.86	27.46	3	Vertical	0	1.70	-	27.48	3.20	-
AV	2.3882G	49.04	54.00	-4.96	18.36	3	Vertical	0	1.70	-	27.48	3.20	-
PK	2.4362G	113.38	Inf	-Inf	82.57	3	Vertical	0	1.70	-	27.57	3.24	-
AV	2.4362G	109.52	Inf	-Inf	78.71	3	Vertical	0	1.70	-	27.57	3.24	-
PK	2.485G	58.15	74.00	-15.85	27.12	3	Vertical	0	1.70	-	27.74	3.29	-
AV	2.4858G	49.46	54.00	-4.54	18.43	3	Vertical	0	1.70	-	27.74	3.29	-

802.11b_Nss1,(1Mbps)_2TX

07/12/2020

2437MHz_TX



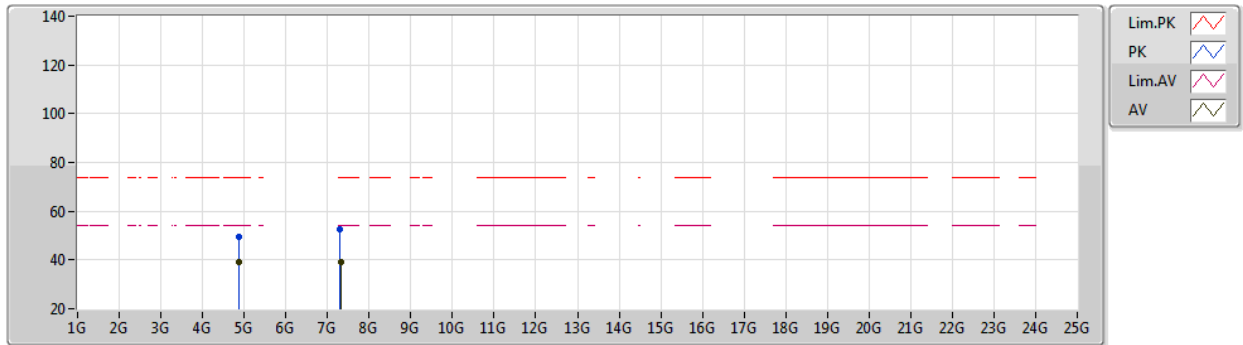
EUT Y_2TX
Setting 26
04-F-E-2

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	2.3594G	57.11	74.00	-16.89	26.49	3	Horizontal	360	1.79	-	27.42	3.20	-
AV	2.3854G	44.41	54.00	-9.59	13.74	3	Horizontal	360	1.79	-	27.47	3.20	-
PK	2.4378G	111.19	Inf	-Inf	80.37	3	Horizontal	360	1.79	-	27.58	3.24	-
AV	2.4362G	107.24	Inf	-Inf	76.43	3	Horizontal	360	1.79	-	27.57	3.24	-
PK	2.4854G	57.01	74.00	-16.99	25.98	3	Horizontal	360	1.79	-	27.74	3.29	-
AV	2.4838G	46.10	54.00	-7.90	15.08	3	Horizontal	360	1.79	-	27.74	3.28	-

802.11b_Nss1,(1Mbps)_2TX

07/12/2020

2437MHz_TX



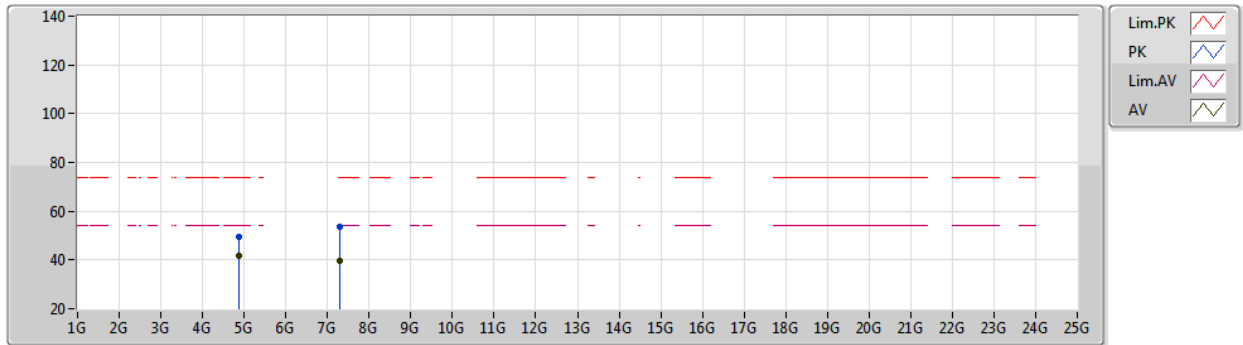
EUT Y_2TX
Setting 26
04-F-E-2

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	4.87393G	49.54	74.00	-24.46	44.22	3	Vertical	14	1.35	-	32.75	5.44	32.87
AV	4.87397G	39.21	54.00	-14.79	33.89	3	Vertical	14	1.35	-	32.75	5.44	32.87
PK	7.305G	52.84	74.00	-21.16	41.93	3	Vertical	121	1.80	-	37.40	6.85	33.34
AV	7.31676G	39.35	54.00	-14.65	28.44	3	Vertical	121	1.80	-	37.40	6.86	33.35

802.11b_Nss1,(1Mbps)_2TX

07/12/2020

2437MHz_TX



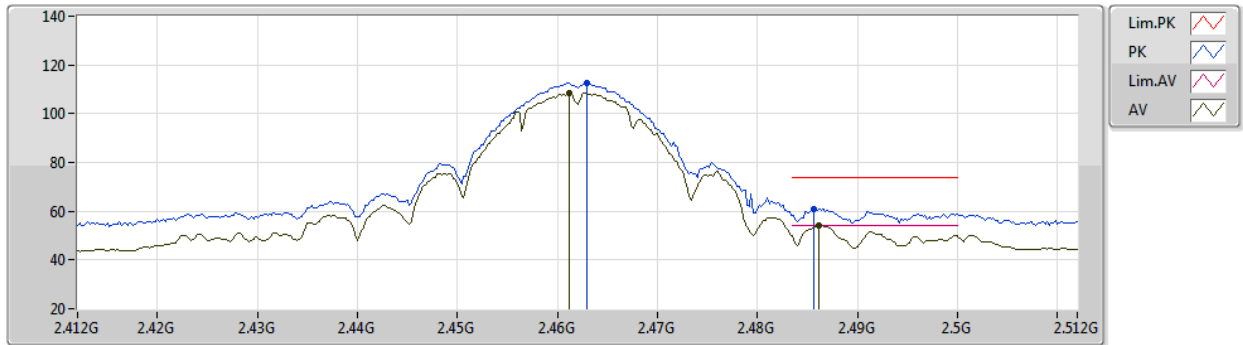
EUT Y_2TX
Setting 26
04-F-E-2

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	4.87398G	49.67	74.00	-24.33	44.35	3	Horizontal	337	2.07	-	32.75	5.44	32.87
AV	4.87397G	41.53	54.00	-12.47	36.21	3	Horizontal	337	2.07	-	32.75	5.44	32.87
PK	7.29756G	53.37	74.00	-20.63	42.47	3	Horizontal	65	2.93	-	37.39	6.85	33.34
AV	7.31004G	39.52	54.00	-14.48	28.61	3	Horizontal	65	2.93	-	37.40	6.86	33.35

802.11b_Nss1,(1Mbps)_2TX

07/12/2020

2462MHz_TX



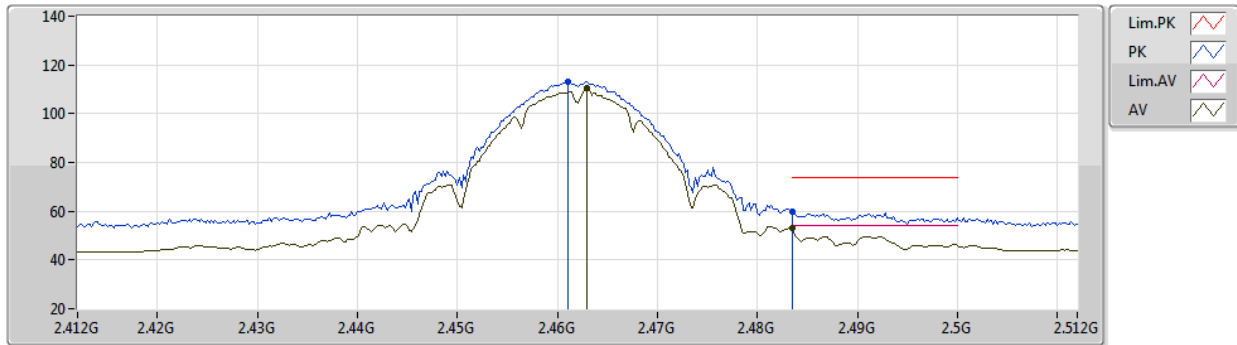
EUT Y_2TX
Setting 25
04-F-E-2

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	2.463G	112.60	Inf	-Inf	81.69	3	Vertical	0	1.68	-	27.65	3.26	-
AV	2.4612G	108.65	Inf	-Inf	77.75	3	Vertical	0	1.68	-	27.64	3.26	-
PK	2.4856G	61.09	74.00	-12.91	30.06	3	Vertical	0	1.68	-	27.74	3.29	-
AV	2.4862G	53.93	54.00	-0.07	22.90	3	Vertical	0	1.68	-	27.74	3.29	-

802.11b_Nss1,(1Mbps)_2TX

07/12/2020

2462MHz_TX



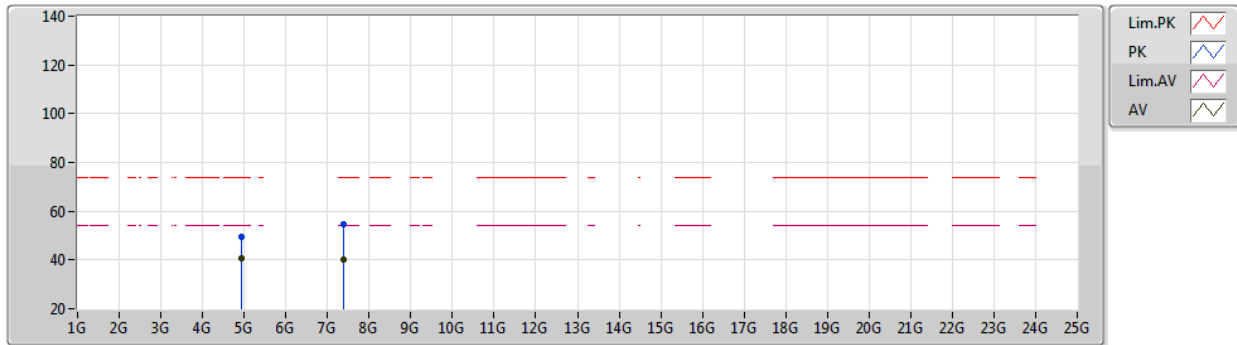
EUT Y_2TX
Setting 25
04-F-E-2

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	113.01	Inf	-Inf	82.11	3	Horizontal	56	2.78	-	27.64	3.26	-
AV	2.463G	110.58	Inf	-Inf	79.67	3	Horizontal	56	2.78	-	27.65	3.26	-
PK	2.4835G	59.99	74.00	-14.01	28.98	3	Horizontal	56	2.78	-	27.73	3.28	-
AV	2.4835G	53.06	54.00	-0.94	22.05	3	Horizontal	56	2.78	-	27.73	3.28	-

802.11b_Nss1,(1Mbps)_2TX

07/12/2020

2462MHz_TX



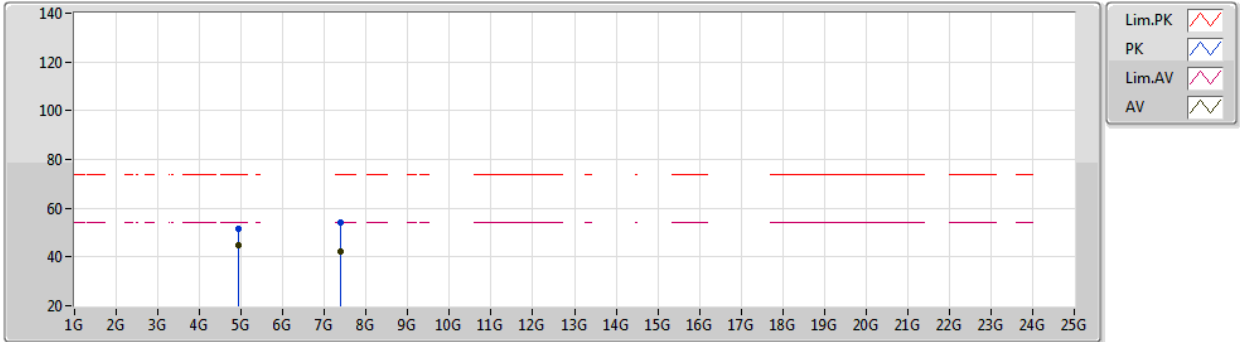
EUT Y_2TX
Setting 25
04-F-E-2

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	4.92405G	49.57	74.00	-24.43	44.08	3	Vertical	353	3.00	-	32.90	5.46	32.87
AV	4.92393G	40.51	54.00	-13.49	35.02	3	Vertical	353	3.00	-	32.90	5.46	32.87
PK	7.39896G	54.59	74.00	-19.41	43.70	3	Vertical	0	1.41	-	37.40	6.90	33.41
AV	7.38666G	40.41	54.00	-13.59	29.52	3	Vertical	0	1.41	-	37.40	6.89	33.40

802.11b_Nss1,(1Mbps)_2TX

07/12/2020

2462MHz_TX



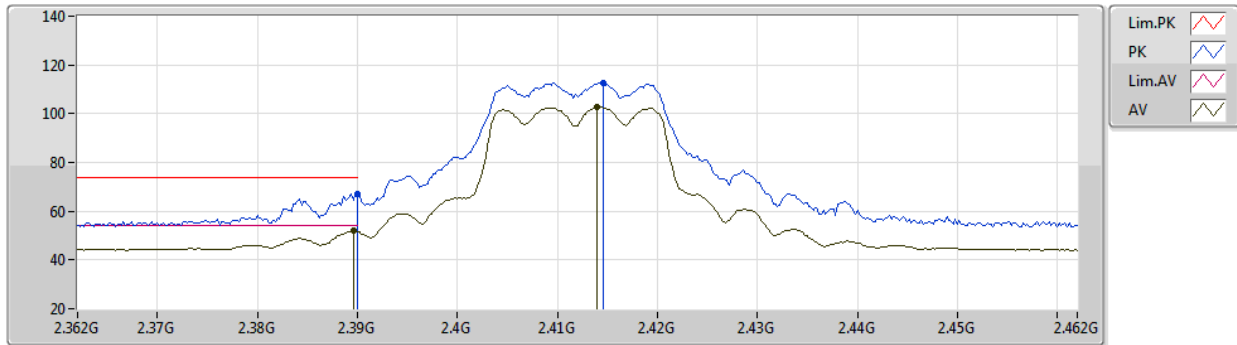
EUT Y_2TX
Setting 25
04-F-E-2

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	4.92402G	51.33	74.00	-22.67	45.84	3	Horizontal	31	2.07	-	32.90	5.46	32.87
AV	4.92399G	45.01	54.00	-8.99	39.52	3	Horizontal	31	2.07	-	32.90	5.46	32.87
PK	7.3875G	54.36	74.00	-19.64	43.47	3	Horizontal	309	2.33	-	37.40	6.89	33.40
AV	7.38672G	42.11	54.00	-11.89	31.22	3	Horizontal	309	2.33	-	37.40	6.89	33.40

802.11g_Nss1,(6Mbps)_2TX

07/12/2020

2412MHz_TX



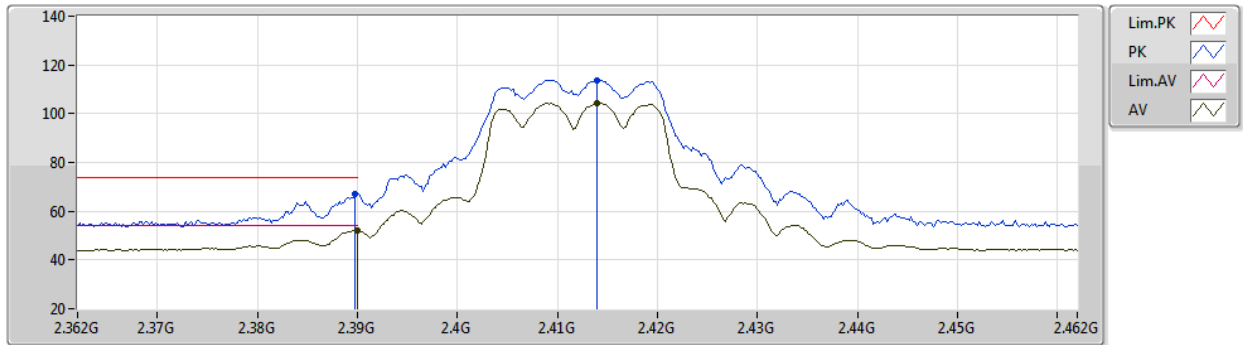
EUT Y_2TX
Setting 21.5
04-F-K-4

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	67.29	74.00	-6.71	36.61	3	Vertical	350	1.00	-	27.48	3.20	-
AV	2.3896G	51.85	54.00	-2.15	21.17	3	Vertical	350	1.00	-	27.48	3.20	-
PK	2.4146G	112.70	Inf	-Inf	81.96	3	Vertical	350	1.00	-	27.53	3.21	-
AV	2.414G	102.66	Inf	-Inf	71.92	3	Vertical	350	1.00	-	27.53	3.21	-

802.11g_Nss1,(6Mbps)_2TX

07/12/2020

2412MHz_TX



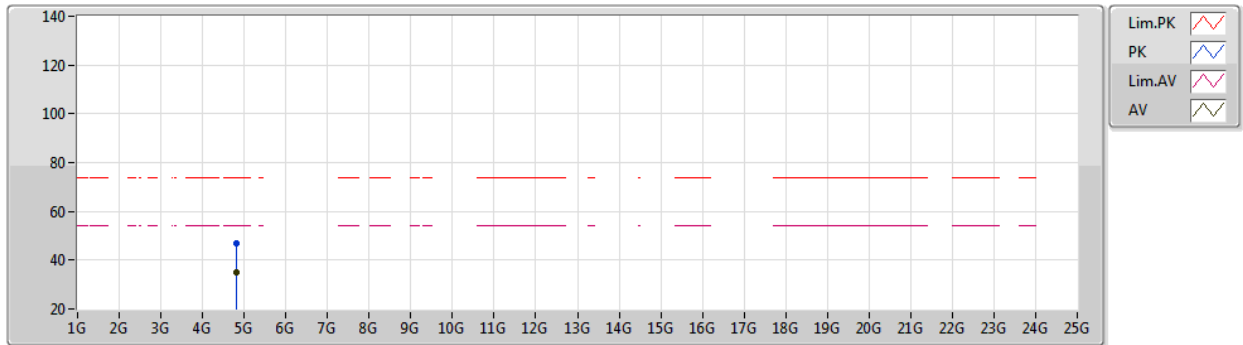
EUT Y_2TX
Setting 21.5
04-F-K-4

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	66.98	74.00	-7.02	36.30	3	Horizontal	61	1.51	-	27.48	3.20	-
AV	2.39G	52.04	54.00	-1.96	21.36	3	Horizontal	61	1.51	-	27.48	3.20	-
PK	2.414G	113.59	Inf	-Inf	82.85	3	Horizontal	61	1.51	-	27.53	3.21	-
AV	2.414G	104.54	Inf	-Inf	73.80	3	Horizontal	61	1.51	-	27.53	3.21	-

802.11g_Nss1,(6Mbps)_2TX

07/12/2020

2412MHz_TX



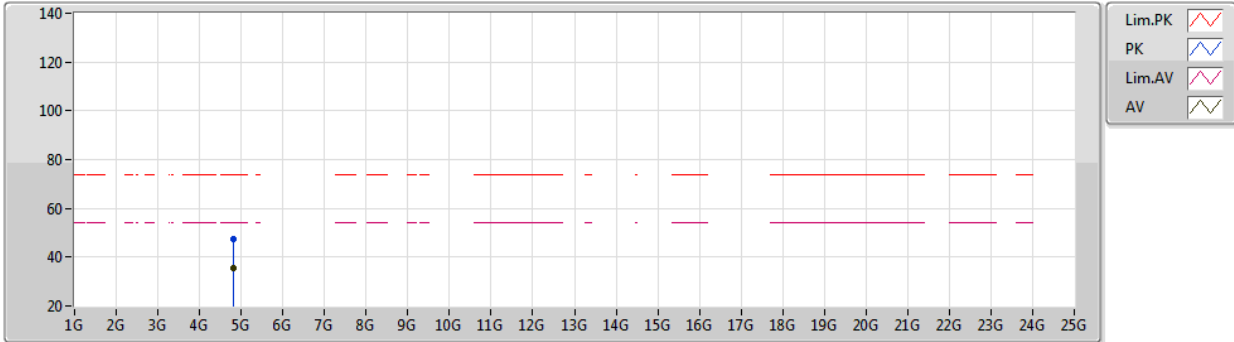
EUT Y_2TX
Setting 21.5
04-F-K-4

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	4.825G	46.92	74.00	-27.08	41.84	3	Vertical	17	1.54	-	32.55	5.41	32.88
AV	4.82402G	34.89	54.00	-19.11	29.82	3	Vertical	17	1.54	-	32.54	5.41	32.88

802.11g_Nss1,(6Mbps)_2TX

07/12/2020

2412MHz_TX



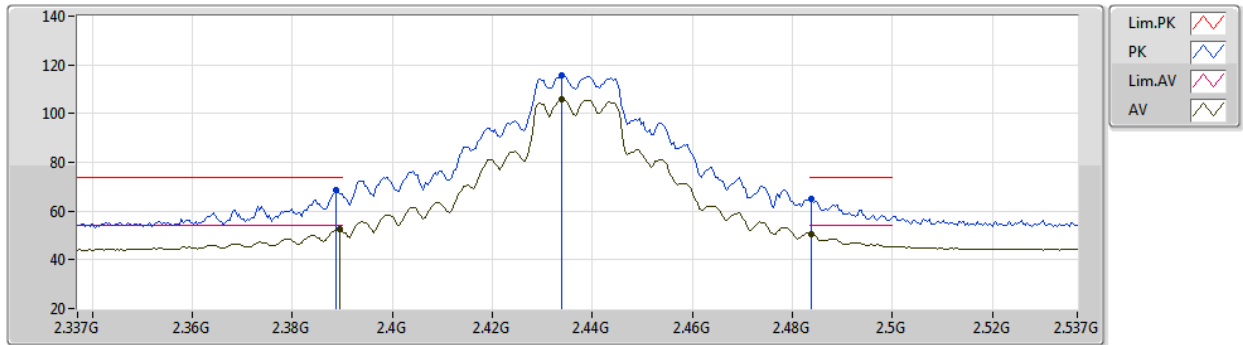
EUT Y_2TX
Setting 21.5
04-F-K-4

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	4.82292G	47.28	74.00	-26.72	42.21	3	Horizontal	31	3.00	-	32.54	5.41	32.88
AV	4.82398G	35.58	54.00	-18.42	30.51	3	Horizontal	31	3.00	-	32.54	5.41	32.88

802.11g_Nss1,(6Mbps)_2TX

07/12/2020

2437MHz_TX



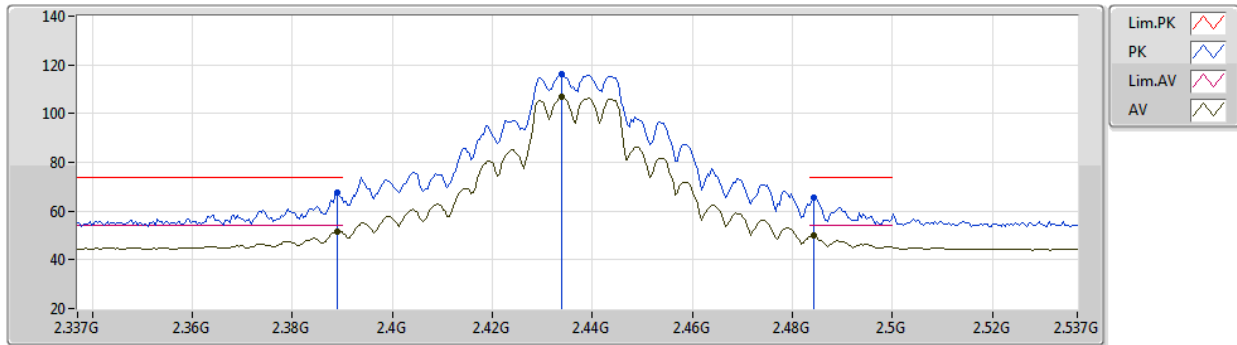
EUT Y_2TX
Setting 25.5
04-F-K-4

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	2.3886G	68.76	74.00	-5.24	38.08	3	Vertical	347	1.11	-	27.48	3.20	-
AV	2.3894G	52.50	54.00	-1.50	21.82	3	Vertical	347	1.11	-	27.48	3.20	-
PK	2.4338G	115.46	Inf	-Inf	84.66	3	Vertical	347	1.11	-	27.57	3.23	-
AV	2.4338G	105.68	Inf	-Inf	74.88	3	Vertical	347	1.11	-	27.57	3.23	-
PK	2.4838G	65.02	74.00	-8.98	34.00	3	Vertical	347	1.11	-	27.74	3.28	-
AV	2.4838G	50.59	54.00	-3.41	19.57	3	Vertical	347	1.11	-	27.74	3.28	-

802.11g_Nss1,(6Mbps)_2TX

07/12/2020

2437MHz_TX



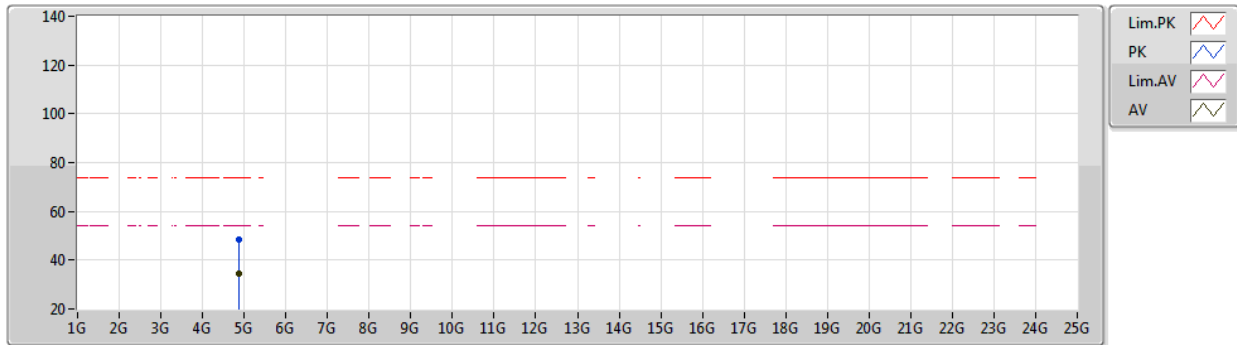
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Setting 25.5
04-F-K-4

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	2.389G	67.48	74.00	-6.52	36.80	3	Horizontal	76	1.72	-	27.48	3.20	-
AV	2.389G	51.67	54.00	-2.33	20.99	3	Horizontal	76	1.72	-	27.48	3.20	-
PK	2.4338G	116.04	Inf	-Inf	85.24	3	Horizontal	76	1.72	-	27.57	3.23	-
AV	2.4338G	106.69	Inf	-Inf	75.89	3	Horizontal	76	1.72	-	27.57	3.23	-
PK	2.4842G	65.27	74.00	-8.73	34.25	3	Horizontal	76	1.72	-	27.74	3.28	-
AV	2.4842G	49.81	54.00	-4.19	18.79	3	Horizontal	76	1.72	-	27.74	3.28	-

802.11g_Nss1,(6Mbps)_2TX

07/12/2020

2437MHz_TX



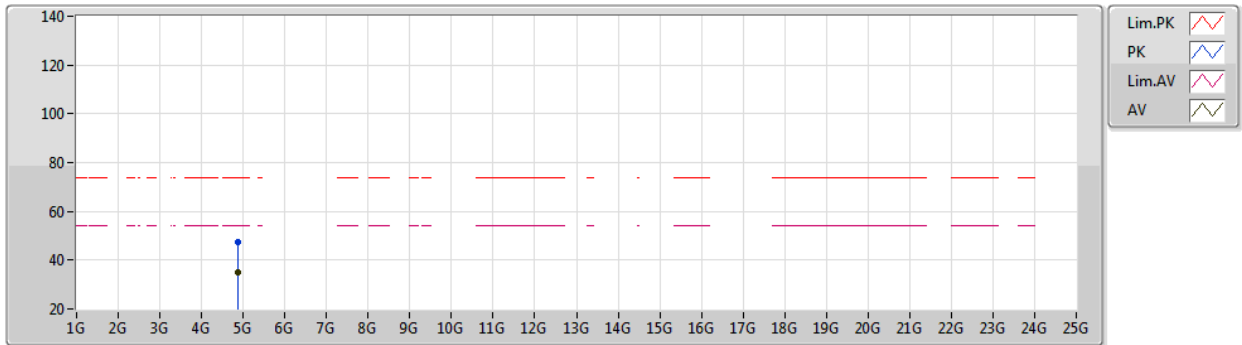
EUT Y_2TX
Setting 25.5
04-F-K-4

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	4.87386G	48.42	74.00	-25.58	43.10	3	Vertical	20	1.08	-	32.75	5.44	32.87
AV	4.87375G	34.54	54.00	-19.46	29.22	3	Vertical	20	1.08	-	32.75	5.44	32.87

802.11g_Nss1,(6Mbps)_2TX

07/12/2020

2437MHz_TX



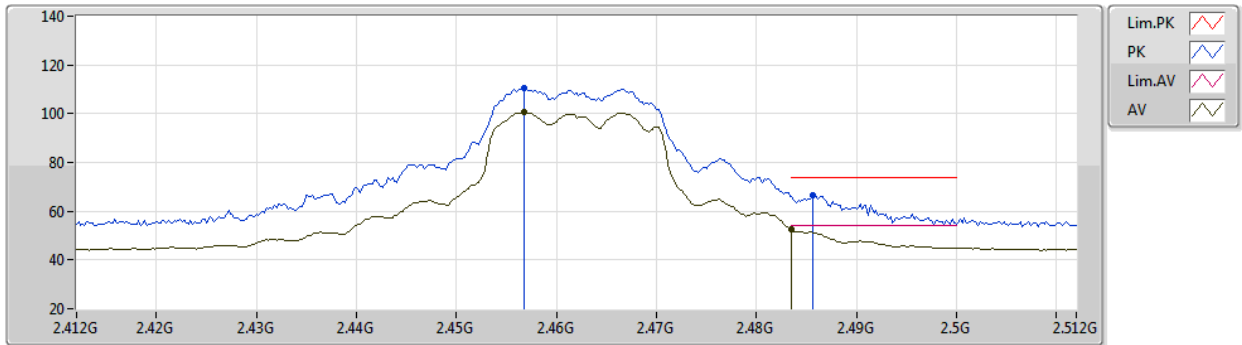
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Setting 25.5
04-F-K-4

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	4.87393G	47.63	74.00	-26.37	42.31	3	Horizontal	37	1.90	-	32.75	5.44	32.87
AV	4.87391G	35.01	54.00	-18.99	29.69	3	Horizontal	37	1.90	-	32.75	5.44	32.87

802.11g_Nss1,(6Mbps)_2TX

07/12/2020

2462MHz_TX



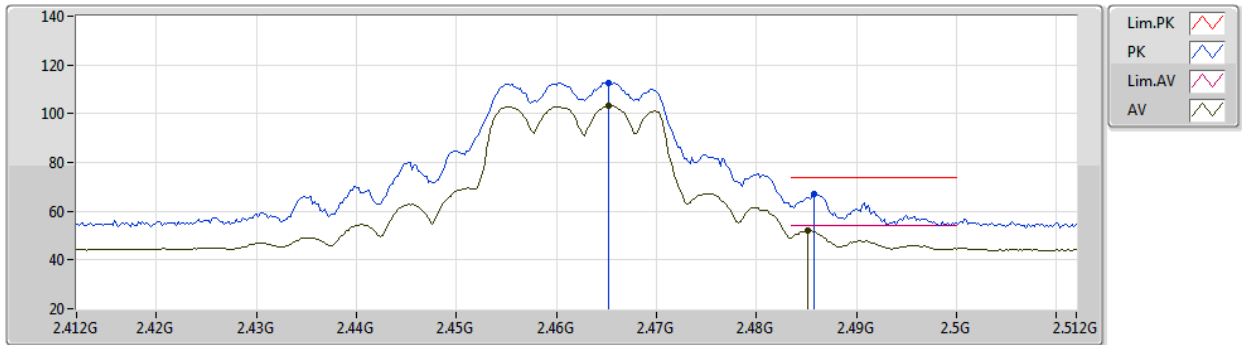
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Setting 21
04-F-K-4

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	2.4568G	110.63	Inf	-Inf	79.74	3	Vertical	348	1.07	-	27.63	3.26	-
AV	2.4568G	100.68	Inf	-Inf	69.79	3	Vertical	348	1.07	-	27.63	3.26	-
PK	2.4856G	66.35	74.00	-7.65	35.32	3	Vertical	348	1.07	-	27.74	3.29	-
AV	2.4835G	52.56	54.00	-1.44	21.55	3	Vertical	348	1.07	-	27.73	3.28	-

802.11g_Nss1,(6Mbps)_2TX

07/12/2020

2462MHz_TX



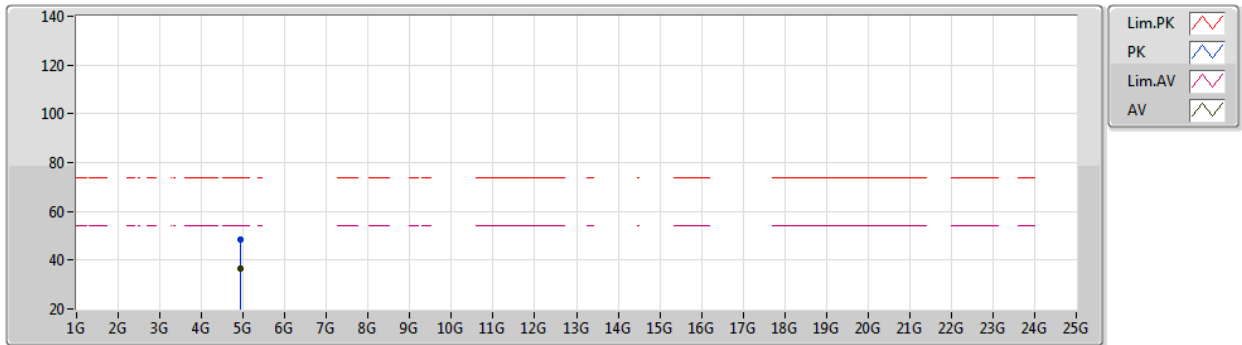
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Setting 21
04-F-K-4

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	2.4652G	112.76	Inf	-Inf	81.83	3	Horizontal	59	2.59	-	27.66	3.27	-
AV	2.4652G	103.43	Inf	-Inf	72.50	3	Horizontal	59	2.59	-	27.66	3.27	-
PK	2.4858G	66.94	74.00	-7.06	35.91	3	Horizontal	59	2.59	-	27.74	3.29	-
AV	2.4852G	51.97	54.00	-2.03	20.94	3	Horizontal	59	2.59	-	27.74	3.29	-

802.11g_Nss1,(6Mbps)_2TX

07/12/2020

2462MHz_TX



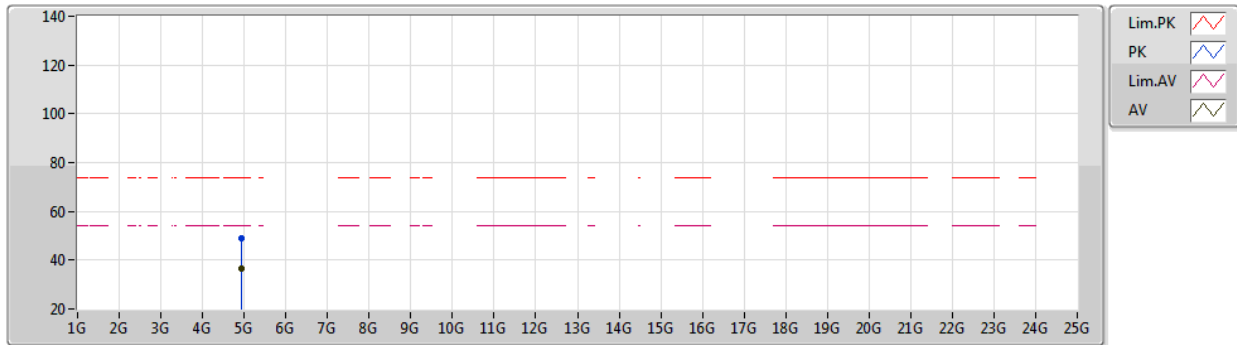
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Setting 21
04-F-K-4

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	4.92396G	48.37	74.00	-25.63	42.88	3	Vertical	16	1.76	-	32.90	5.46	32.87
AV	4.92397G	36.65	54.00	-17.35	31.16	3	Vertical	16	1.76	-	32.90	5.46	32.87

802.11g_Nss1,(6Mbps)_2TX

07/12/2020

2462MHz_TX



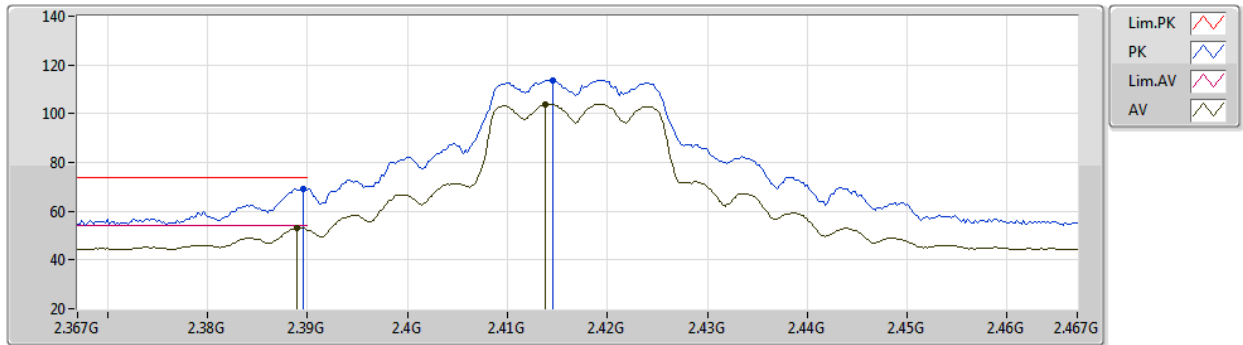
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Setting 21
04-F-K-4

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	4.9244G	48.95	74.00	-25.05	43.46	3	Horizontal	34	2.06	-	32.90	5.46	32.87
AV	4.92396G	36.78	54.00	-17.22	31.29	3	Horizontal	34	2.06	-	32.90	5.46	32.87

802.11g_Nss1,(6Mbps)_2TX

07/12/2020

2417MHz_TX



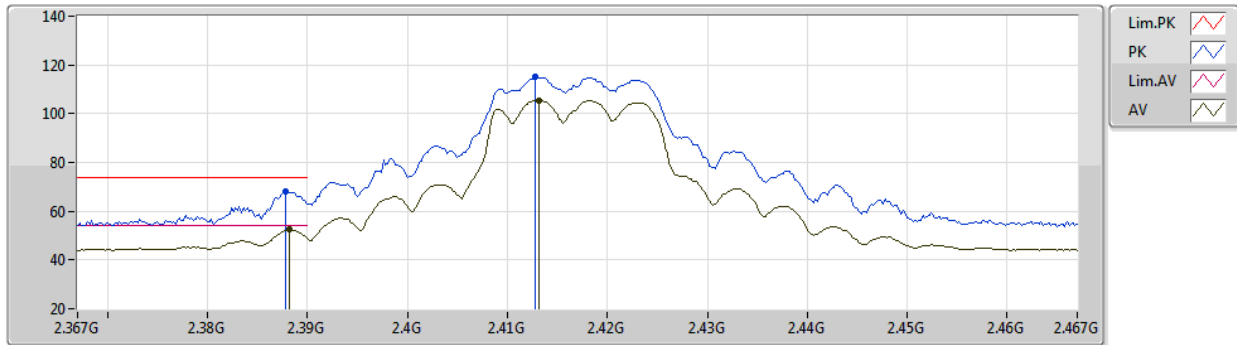
EUT Y_2TX
Setting 22.5
04-F-K-4

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	69.34	74.00	-4.66	38.66	3	Vertical	352	1.00	-	27.48	3.20	-
AV	2.389G	53.16	54.00	-0.84	22.48	3	Vertical	352	1.00	-	27.48	3.20	-
PK	2.4146G	113.79	Inf	-Inf	83.05	3	Vertical	352	1.00	-	27.53	3.21	-
AV	2.4138G	103.86	Inf	-Inf	73.12	3	Vertical	352	1.00	-	27.53	3.21	-

802.11g_Nss1,(6Mbps)_2TX

07/12/2020

2417MHz_TX



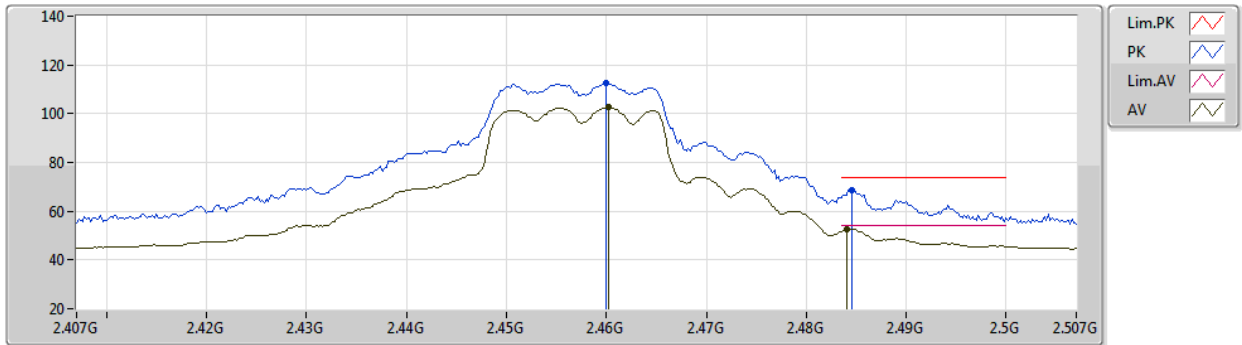
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Setting 22.5
04-F-K-4

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	68.20	74.00	-5.80	37.52	3	Horizontal	59	2.64	-	27.48	3.20	-
AV	2.3882G	52.34	54.00	-1.66	21.66	3	Horizontal	59	2.64	-	27.48	3.20	-
PK	2.4128G	115.00	Inf	-Inf	84.26	3	Horizontal	59	2.64	-	27.53	3.21	-
AV	2.4132G	105.47	Inf	-Inf	74.73	3	Horizontal	59	2.64	-	27.53	3.21	-

802.11g_Nss1,(6Mbps)_2TX

07/12/2020

2457MHz_TX



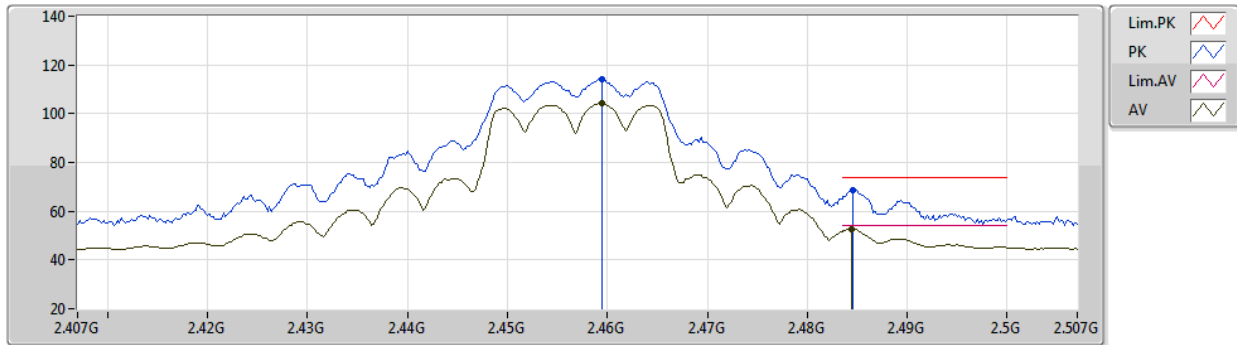
EUT Y_2TX
Setting 22.5
04-F-K-4

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	2.46G	112.62	Inf	-Inf	81.72	3	Vertical	344	2.17	-	27.64	3.26	-
AV	2.4602G	102.79	Inf	-Inf	71.89	3	Vertical	344	2.17	-	27.64	3.26	-
PK	2.4846G	68.77	74.00	-5.23	37.75	3	Vertical	344	2.17	-	27.74	3.28	-
AV	2.484G	52.47	54.00	-1.53	21.45	3	Vertical	344	2.17	-	27.74	3.28	-

802.11g_Nss1,(6Mbps)_2TX

07/12/2020

2457MHz_TX



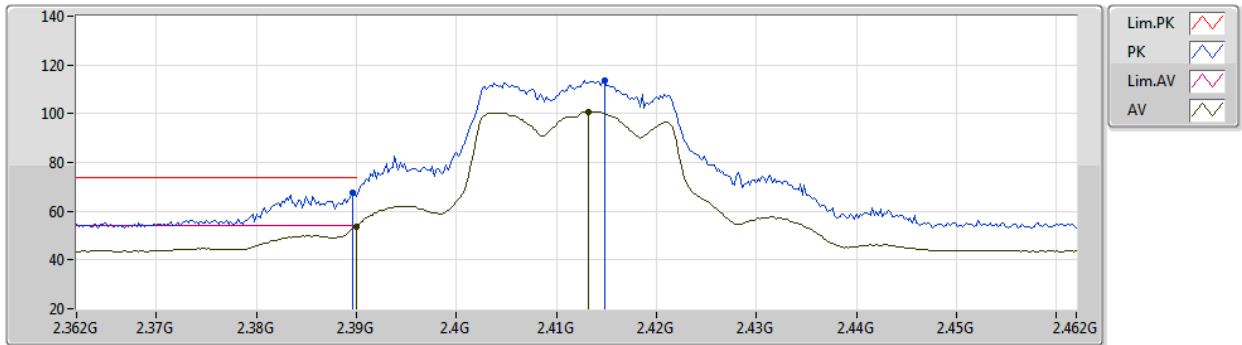
EUT Y_2TX
Setting 22.5
04-F-K-4

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	2.4594G	113.96	Inf	-Inf	83.06	3	Horizontal	61	1.55	-	27.64	3.26	-
AV	2.4594G	104.26	Inf	-Inf	73.36	3	Horizontal	61	1.55	-	27.64	3.26	-
PK	2.4846G	68.78	74.00	-5.22	37.76	3	Horizontal	61	1.55	-	27.74	3.28	-
AV	2.4844G	52.82	54.00	-1.18	21.80	3	Horizontal	61	1.55	-	27.74	3.28	-

802.11ax HEW20_Nss1,(MCS0)_2TX

07/12/2020

2412MHz_TX



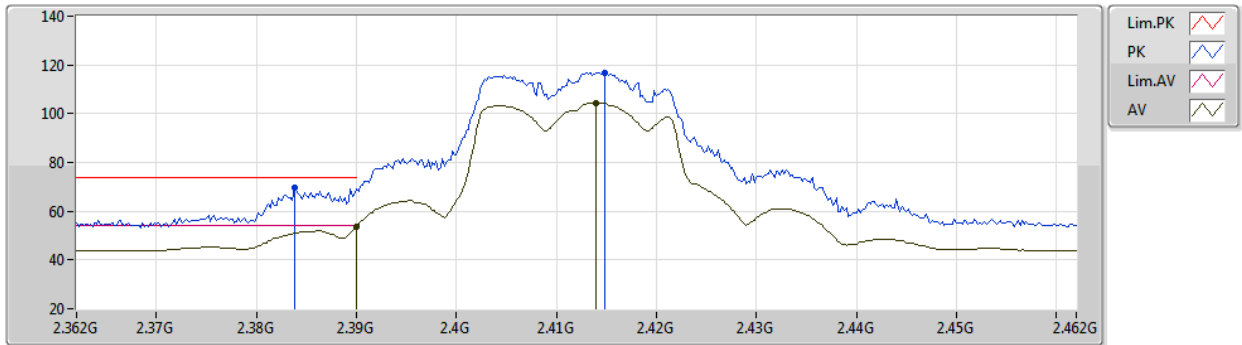
EUT Y_2TX
Setting 21.5
04-F-K-4

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	67.39	74.00	-6.61	36.71	3	Vertical	31	1.80	-	27.48	3.20	-
AV	2.39G	53.84	54.00	-0.16	23.16	3	Vertical	31	1.80	-	27.48	3.20	-
PK	2.4148G	113.59	Inf	-Inf	82.85	3	Vertical	31	1.80	-	27.53	3.21	-
AV	2.4132G	100.90	Inf	-Inf	70.16	3	Vertical	31	1.80	-	27.53	3.21	-

802.11ax HEW20_Nss1,(MCS0)_2TX

07/12/2020

2412MHz_TX



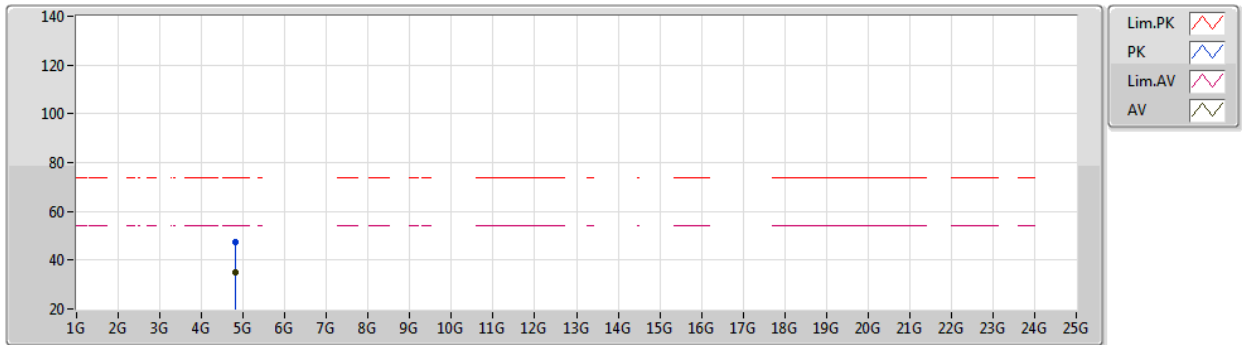
EUT Y_2TX
Setting 21.5
04-F-K-4

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	2.3838G	69.87	74.00	-4.13	39.20	3	Horizontal	59	2.63	-	27.47	3.20	-
AV	2.39G	53.70	54.00	-0.30	23.02	3	Horizontal	59	2.63	-	27.48	3.20	-
PK	2.4148G	116.78	Inf	-Inf	86.04	3	Horizontal	59	2.63	-	27.53	3.21	-
AV	2.414G	104.39	Inf	-Inf	73.65	3	Horizontal	59	2.63	-	27.53	3.21	-

802.11ax HEW20_Nss1,(MCS0)_2TX

07/12/2020

2412MHz_TX



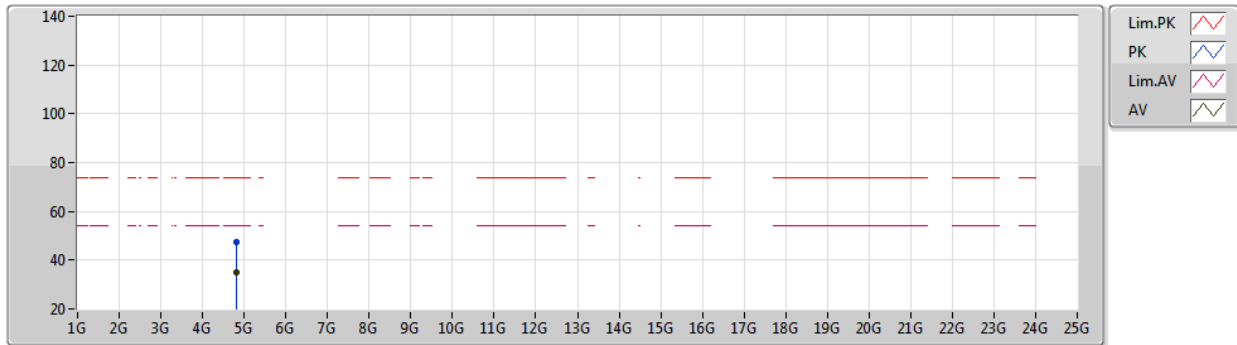
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Setting 21.5
04-F-K-4

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	4.82386G	47.62	74.00	-26.38	42.55	3	Vertical	20	1.52	-	32.54	5.41	32.88
AV	4.824G	34.76	54.00	-19.24	29.69	3	Vertical	20	1.52	-	32.54	5.41	32.88

802.11ax HEW20_Nss1,(MCS0)_2TX

07/12/2020

2412MHz_TX



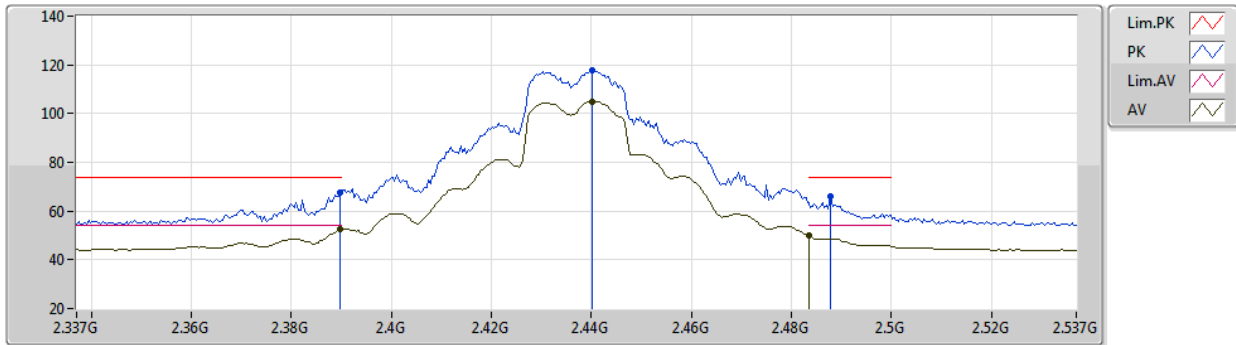
EUT Y_2TX
Setting 21.5
04-F-K-4

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	4.82426G	47.47	74.00	-26.53	42.39	3	Horizontal	31	3.00	-	32.55	5.41	32.88
AV	4.82405G	35.03	54.00	-18.97	29.96	3	Horizontal	31	3.00	-	32.54	5.41	32.88

802.11ax HEW20_Nss1,(MCS0)_2TX

07/12/2020

2437MHz_TX



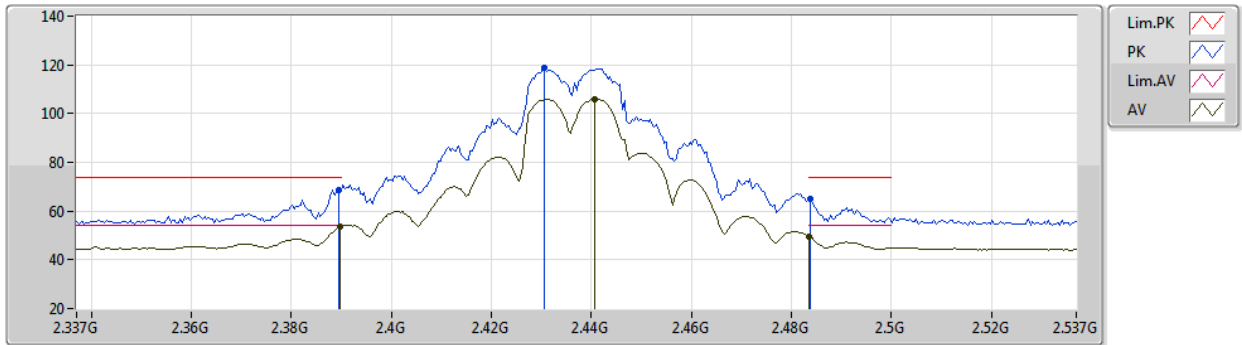
EUT Y_2TX
Setting 25
04-F-K-4

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	67.72	74.00	-6.28	37.04	3	Vertical	351	1.15	-	27.48	3.20	-
AV	2.3898G	52.39	54.00	-1.61	21.71	3	Vertical	351	1.15	-	27.48	3.20	-
PK	2.4402G	117.88	Inf	-Inf	87.06	3	Vertical	351	1.15	-	27.58	3.24	-
AV	2.4402G	105.07	Inf	-Inf	74.25	3	Vertical	351	1.15	-	27.58	3.24	-
PK	2.4878G	66.05	74.00	-7.95	35.01	3	Vertical	351	1.15	-	27.75	3.29	-
AV	2.4835G	49.79	54.00	-4.21	18.78	3	Vertical	351	1.15	-	27.73	3.28	-

802.11ax HEW20_Nss1,(MCS0)_2TX

07/12/2020

2437MHz_TX



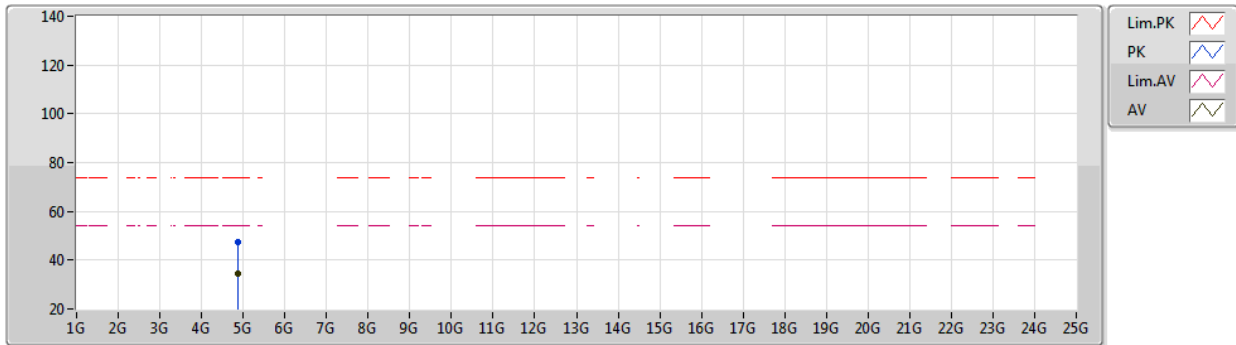
EUT Y_2TX
Setting 25
04-F-K-4

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	2.3894G	68.74	74.00	-5.26	38.06	3	Horizontal	61	1.72	-	27.48	3.20	-
AV	2.3898G	53.57	54.00	-0.43	22.89	3	Horizontal	61	1.72	-	27.48	3.20	-
PK	2.4306G	118.87	Inf	-Inf	88.08	3	Horizontal	61	1.72	-	27.56	3.23	-
AV	2.4406G	105.95	Inf	-Inf	75.13	3	Horizontal	61	1.72	-	27.58	3.24	-
PK	2.4838G	64.86	74.00	-9.14	33.84	3	Horizontal	61	1.72	-	27.74	3.28	-
AV	2.4835G	49.48	54.00	-4.52	18.47	3	Horizontal	61	1.72	-	27.73	3.28	-

802.11ax HEW20_Nss1,(MCS0)_2TX

07/12/2020

2437MHz_TX



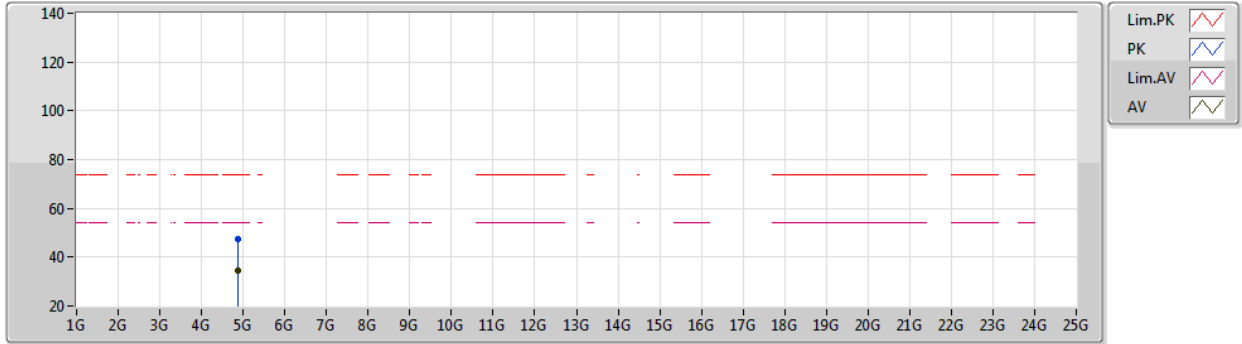
EUT Y_2TX
Setting 25
04-F-K-4

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	4.87329G	47.66	74.00	-26.34	42.34	3	Vertical	16	1.61	-	32.75	5.44	32.87
AV	4.87394G	34.74	54.00	-19.26	29.42	3	Vertical	16	1.61	-	32.75	5.44	32.87

802.11ax HEW20_Nss1,(MCS0)_2TX

07/12/2020

2437MHz_TX



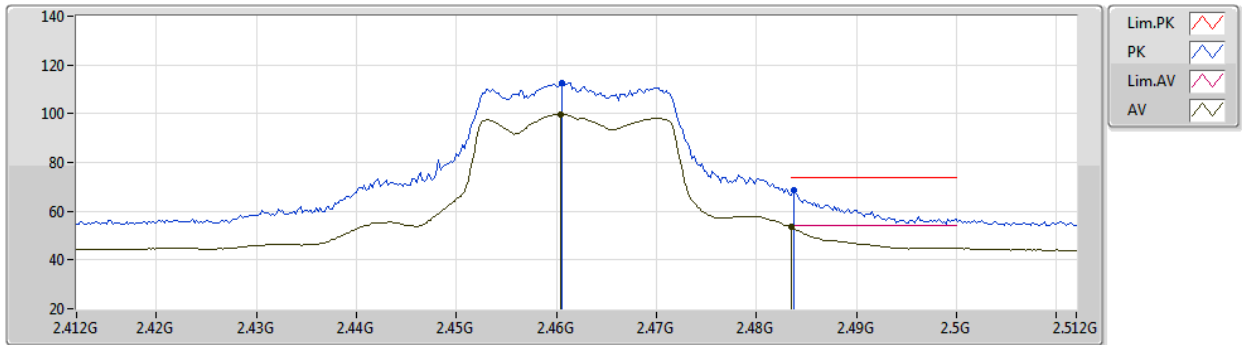
EUT Y_2TX
Setting 25
04-F-K-4

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	4.87392G	47.66	74.00	-26.34	42.34	3	Horizontal	39	2.22	-	32.75	5.44	32.87
AV	4.87397G	34.74	54.00	-19.26	29.42	3	Horizontal	39	2.22	-	32.75	5.44	32.87

802.11ax HEW20_Nss1,(MCS0)_2TX

07/12/2020

2462MHz_TX



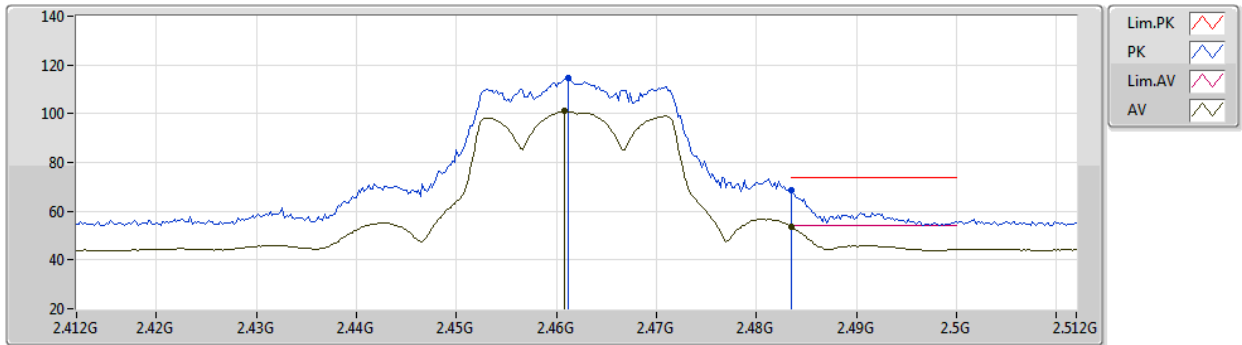
EUT Y_2TX
Setting 20
04-F-K-4

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	2.4606G	112.54	Inf	-Inf	81.64	3	Vertical	352	1.00	-	27.64	3.26	-
AV	2.4604G	99.81	Inf	-Inf	68.91	3	Vertical	352	1.00	-	27.64	3.26	-
PK	2.4838G	68.52	74.00	-5.48	37.50	3	Vertical	352	1.00	-	27.74	3.28	-
AV	2.4835G	53.55	54.00	-0.45	22.54	3	Vertical	352	1.00	-	27.73	3.28	-

802.11ax HEW20_Nss1,(MCS0)_2TX

07/12/2020

2462MHz_TX



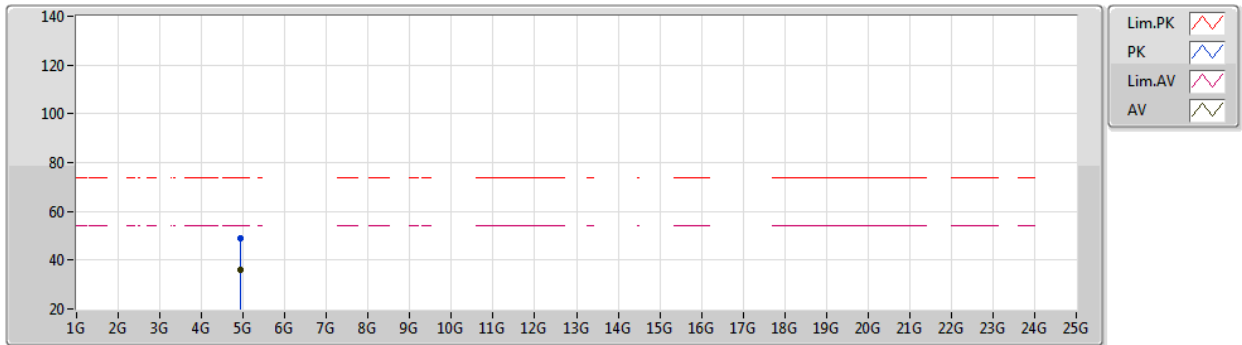
EUT Y_2TX
Setting 20
04-F-K-4

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	114.91	Inf	-Inf	84.01	3	Horizontal	68	1.54	-	27.64	3.26	-
AV	2.4608G	101.01	Inf	-Inf	70.11	3	Horizontal	68	1.54	-	27.64	3.26	-
PK	2.4835G	68.74	74.00	-5.26	37.73	3	Horizontal	68	1.54	-	27.73	3.28	-
AV	2.4835G	53.81	54.00	-0.19	22.80	3	Horizontal	68	1.54	-	27.73	3.28	-

802.11ax HEW20_Nss1,(MCS0)_2TX

07/12/2020

2462MHz_TX



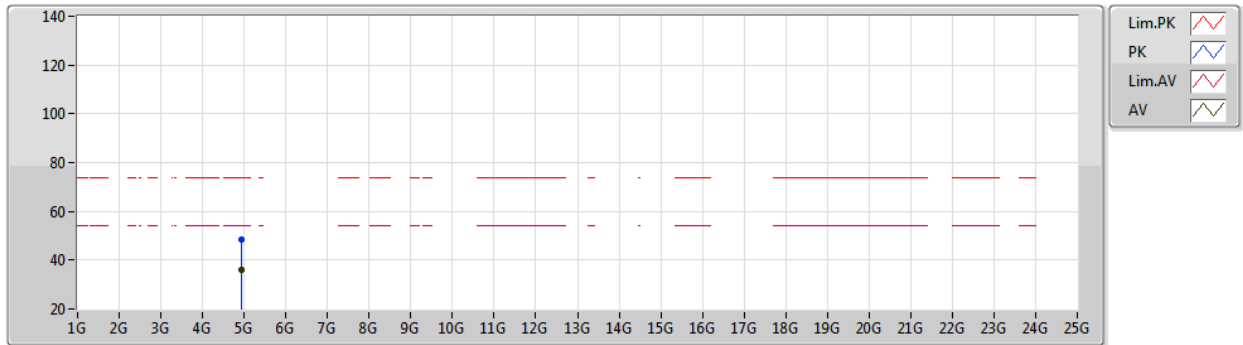
EUT Y_2TX
Setting 20
04-F-K-4

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	4.92398G	48.74	74.00	-25.26	43.25	3	Vertical	16	1.66	-	32.90	5.46	32.87
AV	4.92399G	36.11	54.00	-17.89	30.62	3	Vertical	16	1.66	-	32.90	5.46	32.87

802.11ax HEW20_Nss1,(MCS0)_2TX

07/12/2020

2462MHz_TX



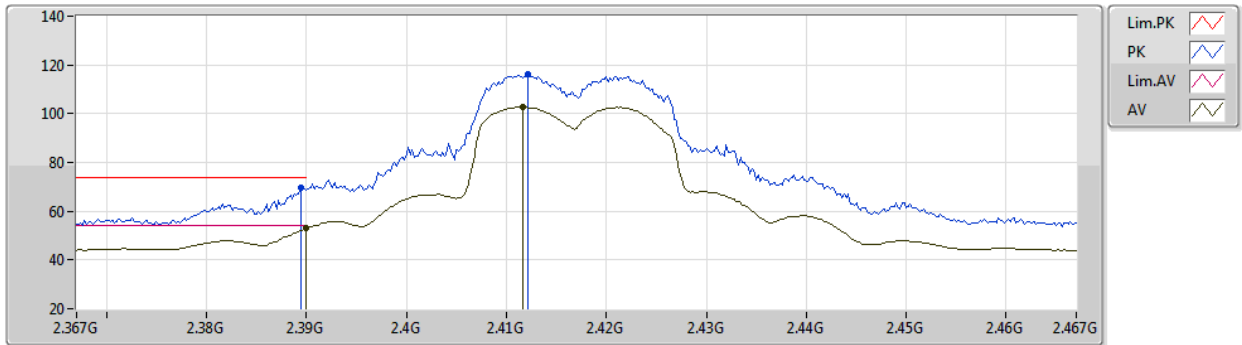
EUT Y_2TX
Setting 20
04-F-K-4

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	4.92392G	48.70	74.00	-25.30	43.21	3	Horizontal	35	1.86	-	32.90	5.46	32.87
AV	4.92398G	35.95	54.00	-18.05	30.46	3	Horizontal	35	1.86	-	32.90	5.46	32.87

802.11ax HEW20_Nss1,(MCS0)_2TX

07/12/2020

2417MHz_TX



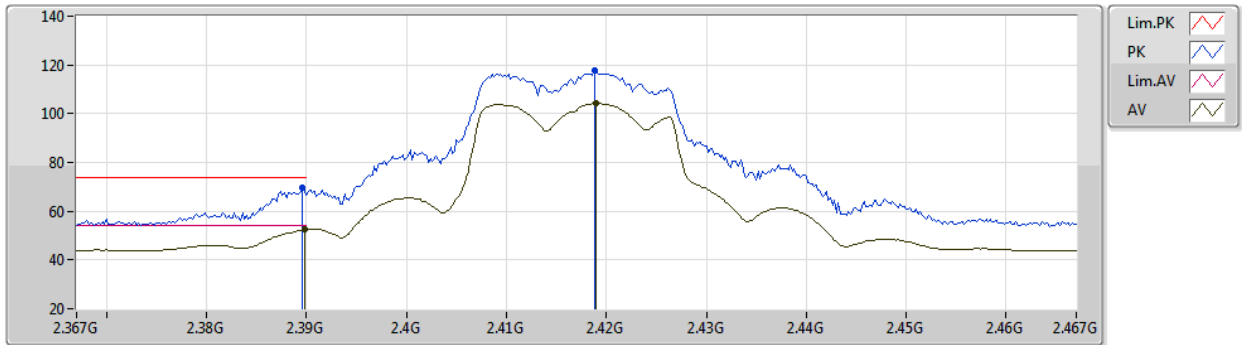
EUT Y_2TX
Setting 22
04-F-K-4

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	2.3894G	69.80	74.00	-4.20	39.12	3	Vertical	352	1.01	-	27.48	3.20	-
AV	2.39G	52.94	54.00	-1.06	22.26	3	Vertical	352	1.01	-	27.48	3.20	-
PK	2.4122G	116.14	Inf	-Inf	85.41	3	Vertical	352	1.01	-	27.52	3.21	-
AV	2.4116G	102.82	Inf	-Inf	72.09	3	Vertical	352	1.01	-	27.52	3.21	-

802.11ax HEW20_Nss1,(MCS0)_2TX

07/12/2020

2417MHz_TX

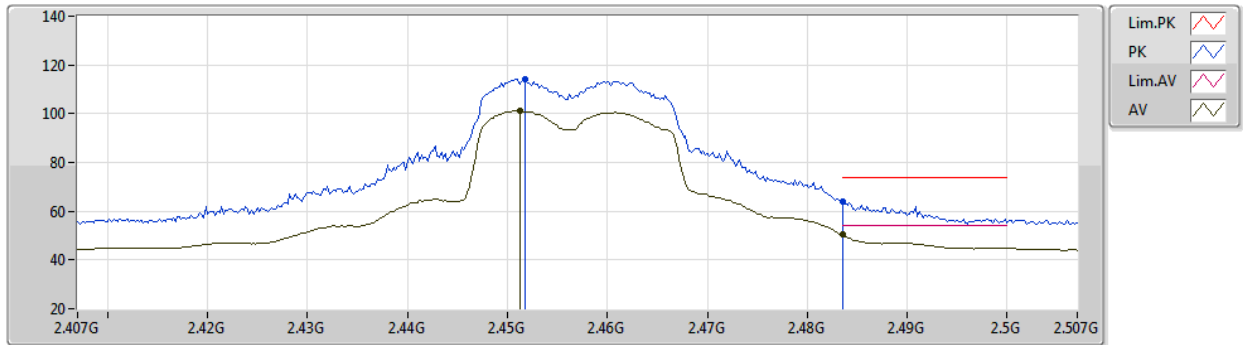


EUT Y_2TX
Setting 22
04-F-K-4

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	69.77	74.00	-4.23	39.09	3	Horizontal	62	2.64	-	27.48	3.20	-
AV	2.3898G	52.38	54.00	-1.62	21.70	3	Horizontal	62	2.64	-	27.48	3.20	-
PK	2.4188G	117.54	Inf	-Inf	86.78	3	Horizontal	62	2.64	-	27.54	3.22	-
AV	2.419G	104.32	Inf	-Inf	73.56	3	Horizontal	62	2.64	-	27.54	3.22	-

802.11ax HEW20_Nss1,(MCS0)_2TX
2457MHz_TX

07/12/2020



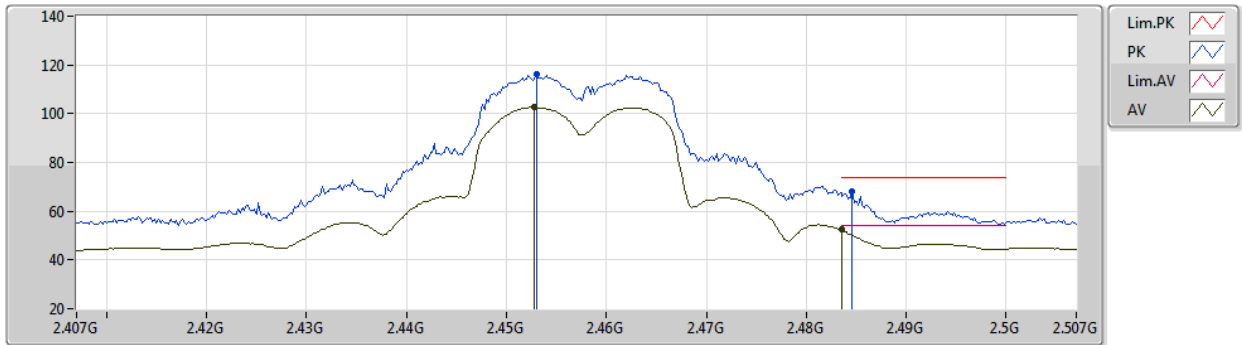
EUT Y_2TX
Setting 21
04-F-K-4

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	2.4518G	114.24	Inf	-Inf	83.38	3	Vertical	352	1.00	-	27.61	3.25	-
AV	2.4512G	101.22	Inf	-Inf	70.37	3	Vertical	352	1.00	-	27.60	3.25	-
PK	2.4835G	64.01	74.00	-9.99	33.00	3	Vertical	352	1.00	-	27.73	3.28	-
AV	2.4835G	50.46	54.00	-3.54	19.45	3	Vertical	352	1.00	-	27.73	3.28	-

802.11ax HEW20_Nss1,(MCS0)_2TX

07/12/2020

2457MHz_TX



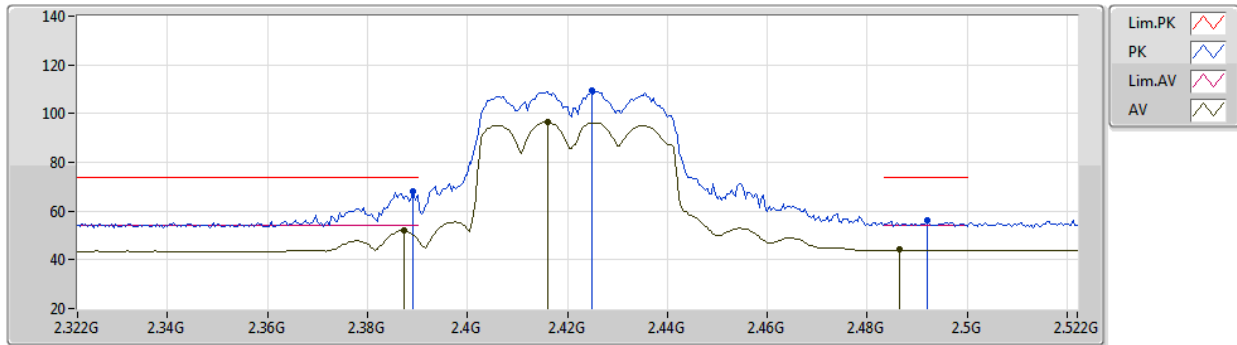
EUT Y_2TX
Setting 21
04-F-K-4

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	2.453G	116.13	Inf	-Inf	85.27	3	Horizontal	51	1.00	-	27.61	3.25	-
AV	2.4528G	102.65	Inf	-Inf	71.79	3	Horizontal	51	1.00	-	27.61	3.25	-
PK	2.4846G	68.06	74.00	-5.94	37.04	3	Horizontal	51	1.00	-	27.74	3.28	-
AV	2.4835G	52.33	54.00	-1.67	21.32	3	Horizontal	51	1.00	-	27.73	3.28	-

802.11ax HEW40_Nss1,(MCS0)_2TX

07/12/2020

2422MHz_TX



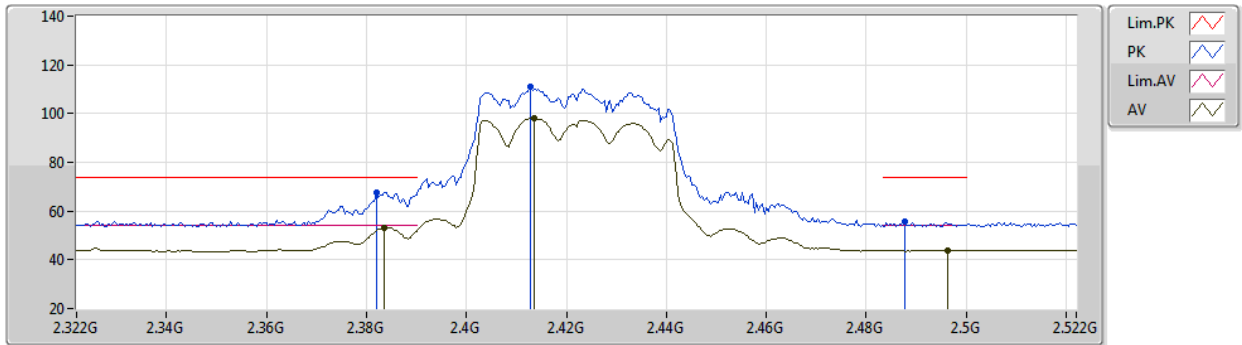
EUT Y_2TX
Setting 20
04-F-K-4

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	2.3892G	68.20	74.00	-5.80	37.52	3	Vertical	0	1.04	-	27.48	3.20	-
AV	2.3872G	51.89	54.00	-2.11	21.22	3	Vertical	0	1.04	-	27.47	3.20	-
PK	2.4248G	109.36	Inf	-Inf	78.59	3	Vertical	0	1.04	-	27.55	3.22	-
AV	2.416G	96.67	Inf	-Inf	65.92	3	Vertical	0	1.04	-	27.53	3.22	-
PK	2.492G	55.97	74.00	-18.03	24.91	3	Vertical	0	1.04	-	27.77	3.29	-
AV	2.4864G	44.14	54.00	-9.86	13.10	3	Vertical	0	1.04	-	27.75	3.29	-

802.11ax HEW40_Nss1,(MCS0)_2TX

07/12/2020

2422MHz_TX



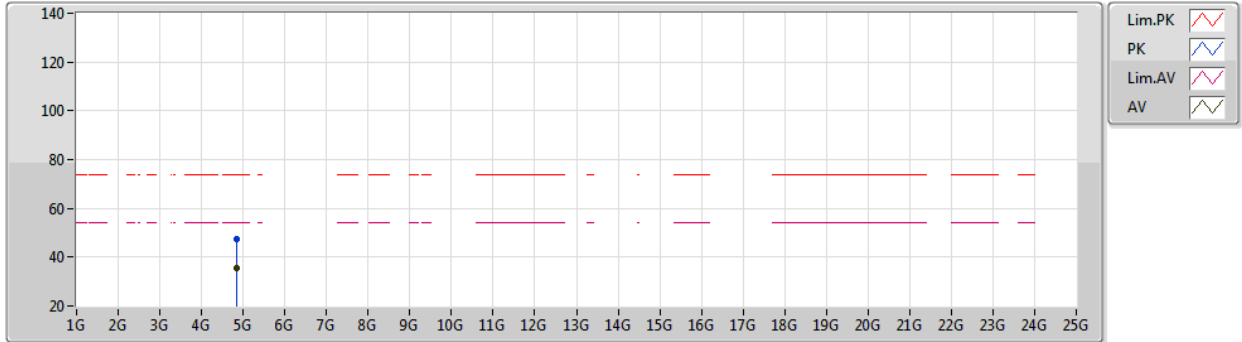
EUT Y_2TX
Setting 20
04-F-K-4

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	2.382G	67.68	74.00	-6.32	37.02	3	Horizontal	52	2.92	-	27.46	3.20	-
AV	2.3836G	53.06	54.00	-0.94	22.39	3	Horizontal	52	2.92	-	27.47	3.20	-
PK	2.4128G	110.82	Inf	-Inf	80.08	3	Horizontal	52	2.92	-	27.53	3.21	-
AV	2.4136G	98.28	Inf	-Inf	67.54	3	Horizontal	52	2.92	-	27.53	3.21	-
PK	2.4876G	55.75	74.00	-18.25	24.71	3	Horizontal	52	2.92	-	27.75	3.29	-
AV	2.4964G	43.84	54.00	-10.16	12.75	3	Horizontal	52	2.92	-	27.79	3.30	-

802.11ax HEW40_Nss1,(MCS0)_2TX

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2422MHz_TX



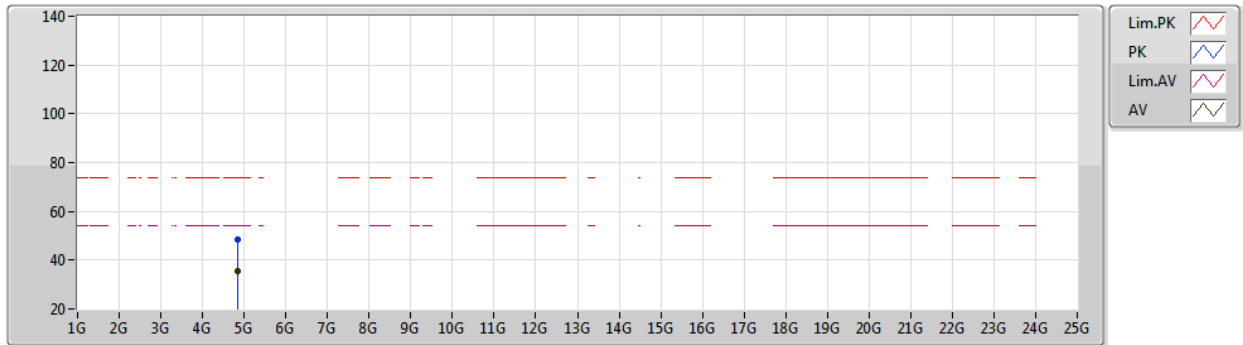
EUT Y_2TX
Setting 20
04-F-K-4

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	4.84385G	47.49	74.00	-26.51	42.29	3	Vertical	4	3.00	-	32.66	5.42	32.88
AV	4.84404G	35.37	54.00	-18.63	30.17	3	Vertical	4	3.00	-	32.66	5.42	32.88

802.11ax HEW40_Nss1,(MCS0)_2TX

07/12/2020

2422MHz_TX



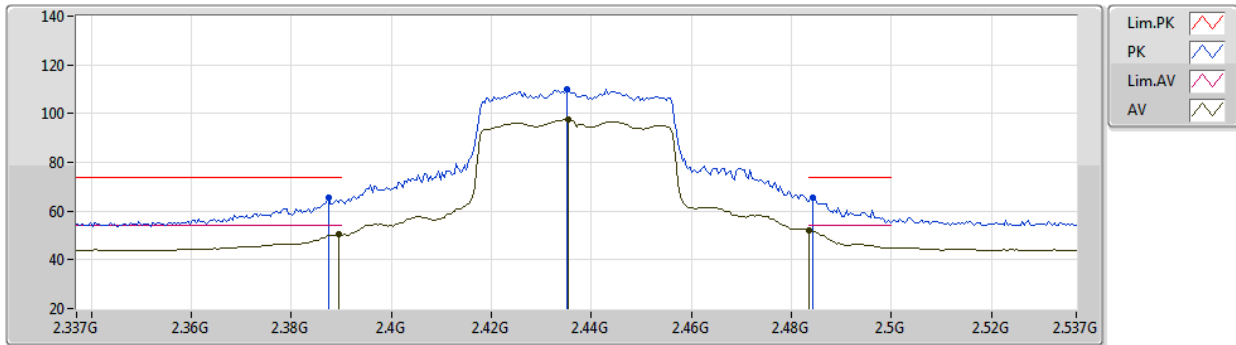
EUT Y_2TX
Setting 20
04-F-K-4

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	4.84368G	48.45	74.00	-25.55	43.25	3	Horizontal	28	1.77	-	32.66	5.42	32.88
AV	4.84398G	35.32	54.00	-18.68	30.12	3	Horizontal	28	1.77	-	32.66	5.42	32.88

802.11ax HEW40_Nss1,(MCS0)_2TX

07/12/2020

2437MHz_TX



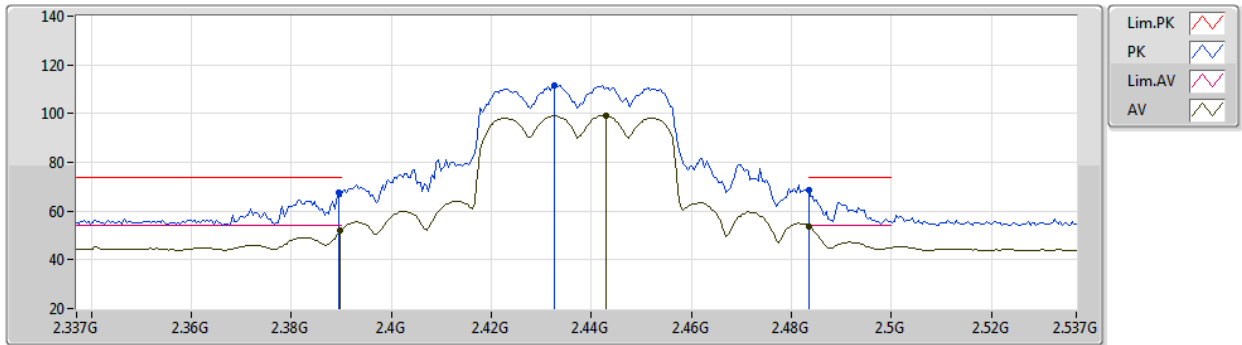
EUT Y_2TX
Setting 21
04-F-K-4

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	2.3874G	65.56	74.00	-8.44	34.89	3	Vertical	0	1.73	-	27.47	3.20	-
AV	2.3894G	50.39	54.00	-3.61	19.71	3	Vertical	0	1.73	-	27.48	3.20	-
PK	2.435G	109.93	Inf	-Inf	79.12	3	Vertical	0	1.73	-	27.57	3.24	-
AV	2.4354G	97.37	Inf	-Inf	66.56	3	Vertical	0	1.73	-	27.57	3.24	-
PK	2.4842G	65.53	74.00	-8.47	34.51	3	Vertical	0	1.73	-	27.74	3.28	-
AV	2.4835G	52.31	54.00	-1.69	21.30	3	Vertical	0	1.73	-	27.73	3.28	-

802.11ax HEW40_Nss1,(MCS0)_2TX

07/12/2020

2437MHz_TX



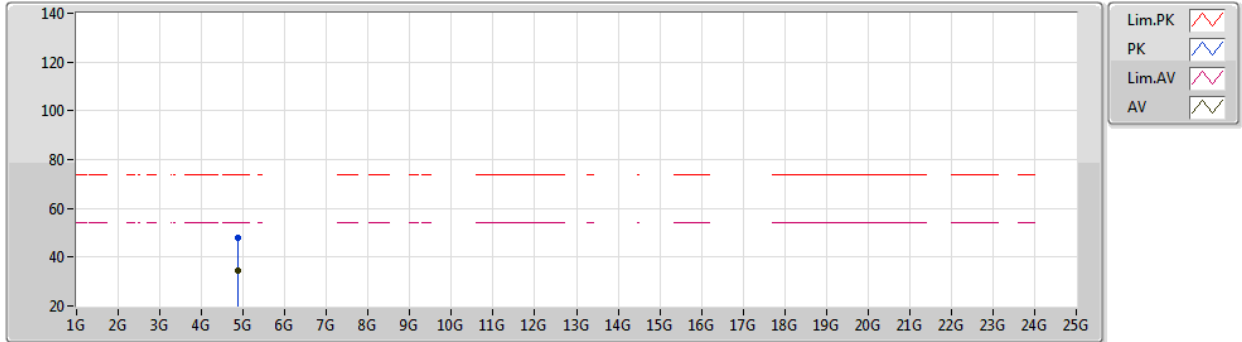
EUT Y_2TX
Setting 21
04-F-K-4

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	2.3894G	67.75	74.00	-6.25	37.07	3	Horizontal	49	1.00	-	27.48	3.20	-
AV	2.3898G	51.96	54.00	-2.04	21.28	3	Horizontal	49	1.00	-	27.48	3.20	-
PK	2.4326G	111.74	Inf	-Inf	80.94	3	Horizontal	49	1.00	-	27.57	3.23	-
AV	2.443G	99.24	Inf	-Inf	68.41	3	Horizontal	49	1.00	-	27.59	3.24	-
PK	2.4835G	68.43	74.00	-5.57	37.42	3	Horizontal	49	1.00	-	27.73	3.28	-
AV	2.4835G	53.85	54.00	-0.15	22.84	3	Horizontal	49	1.00	-	27.73	3.28	-

802.11ax HEW40_Nss1,(MCS0)_2TX

07/12/2020

2437MHz_TX



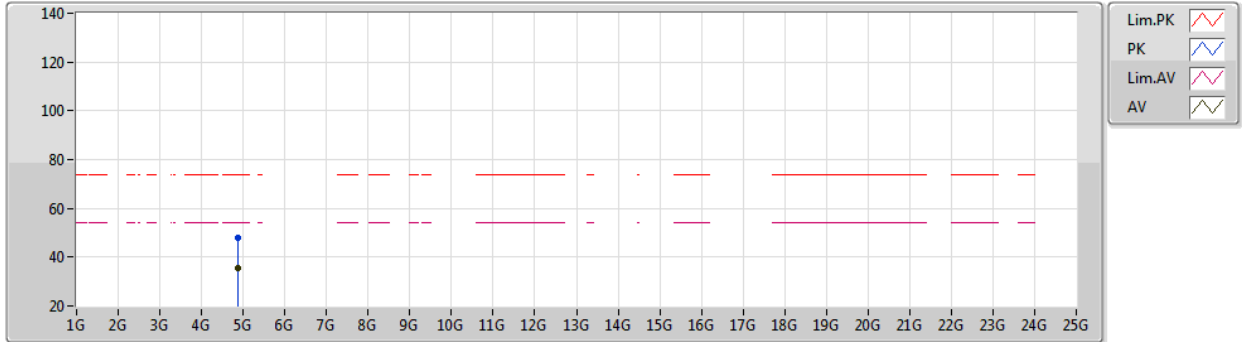
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Setting 21
04-F-K-4

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	4.873777G	47.81	74.00	-26.19	42.49	3	Vertical	0	1.86	-	32.75	5.44	32.87
AV	4.87394G	34.46	54.00	-19.54	29.14	3	Vertical	0	1.86	-	32.75	5.44	32.87

802.11ax HEW40_Nss1,(MCS0)_2TX

07/12/2020

2437MHz_TX



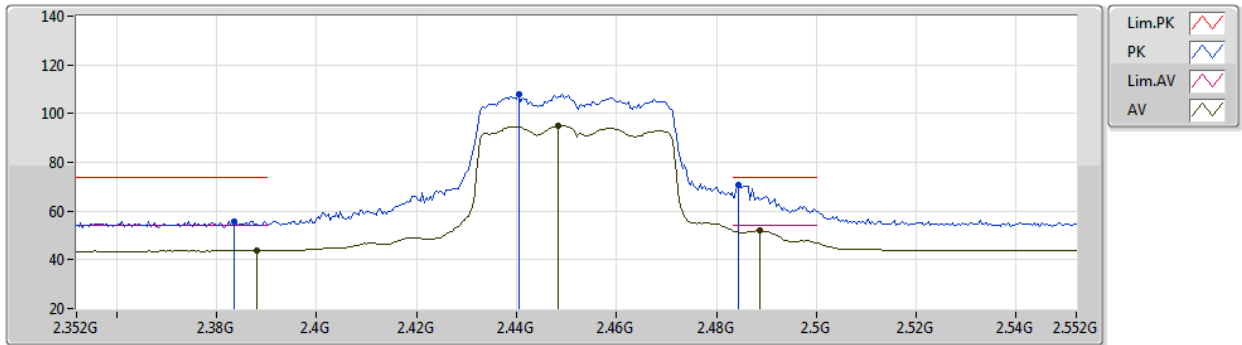
EUT Y_2TX
Setting 21
04-F-K-4

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	4.87384G	47.98	74.00	-26.02	42.66	3	Horizontal	28	1.80	-	32.75	5.44	32.87
AV	4.87402G	35.46	54.00	-18.54	30.14	3	Horizontal	28	1.80	-	32.75	5.44	32.87

802.11ax HEW40_Nss1,(MCS0)_2TX

07/12/2020

2452MHz_TX

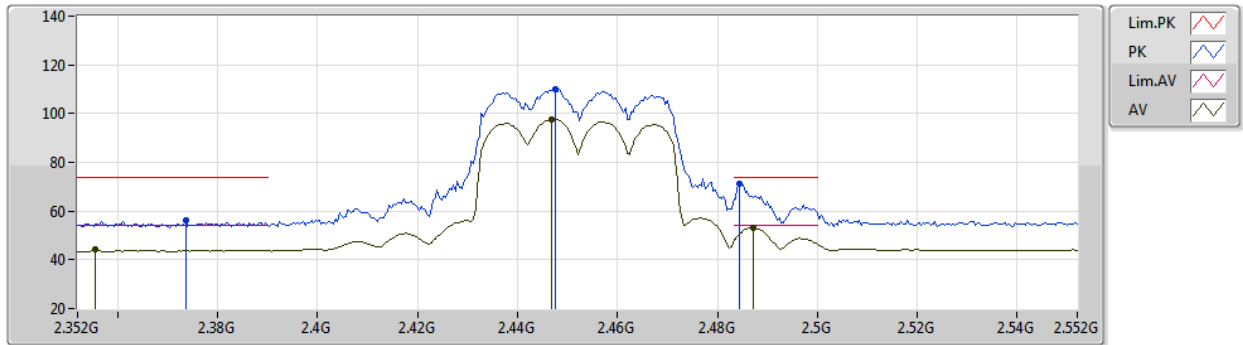


EUT Y_2TX
Setting 19
04-F-K-4

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	2.3836G	55.82	74.00	-18.18	25.15	3	Vertical	355	1.75	-	27.47	3.20	-
AV	2.388G	43.79	54.00	-10.21	13.11	3	Vertical	355	1.75	-	27.48	3.20	-
PK	2.4404G	108.00	Inf	-Inf	77.18	3	Vertical	355	1.75	-	27.58	3.24	-
AV	2.4484G	95.10	Inf	-Inf	64.25	3	Vertical	355	1.75	-	27.60	3.25	-
PK	2.4844G	70.67	74.00	-3.33	39.65	3	Vertical	355	1.75	-	27.74	3.28	-
AV	2.4888G	51.87	54.00	-2.13	20.82	3	Vertical	355	1.75	-	27.76	3.29	-

802.11ax HEW40_Nss1,(MCS0)_2TX
2452MHz_TX

07/12/2020



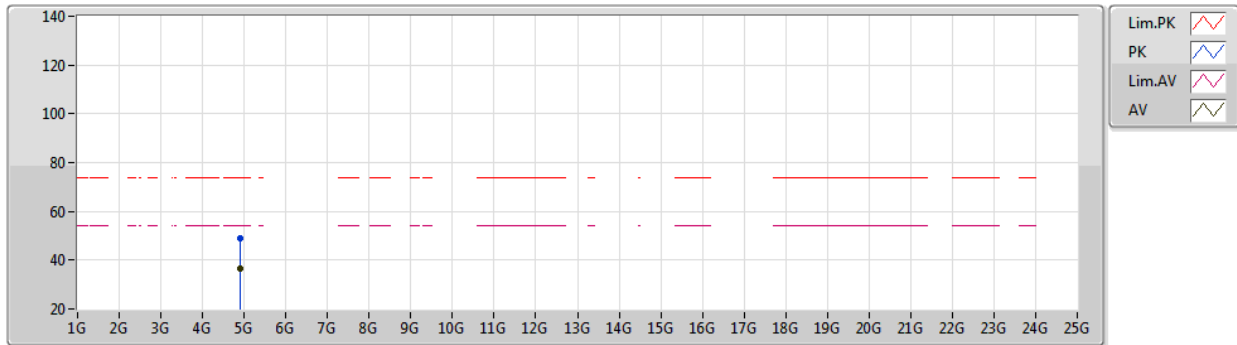
EUT Y_2TX
Setting 19
04-F-K-4

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	2.3736G	56.03	74.00	-17.97	25.38	3	Horizontal	45	1.05	-	27.45	3.20	-
AV	2.3556G	44.08	54.00	-9.92	13.47	3	Horizontal	45	1.05	-	27.41	3.20	-
PK	2.4476G	109.96	Inf	-Inf	79.11	3	Horizontal	45	1.05	-	27.60	3.25	-
AV	2.4468G	97.63	Inf	-Inf	66.79	3	Horizontal	45	1.05	-	27.59	3.25	-
PK	2.4844G	70.97	74.00	-3.03	39.95	3	Horizontal	45	1.05	-	27.74	3.28	-
AV	2.4872G	53.34	54.00	-0.66	22.30	3	Horizontal	45	1.05	-	27.75	3.29	-

802.11ax HEW40_Nss1,(MCS0)_2TX

07/12/2020

2452MHz_TX



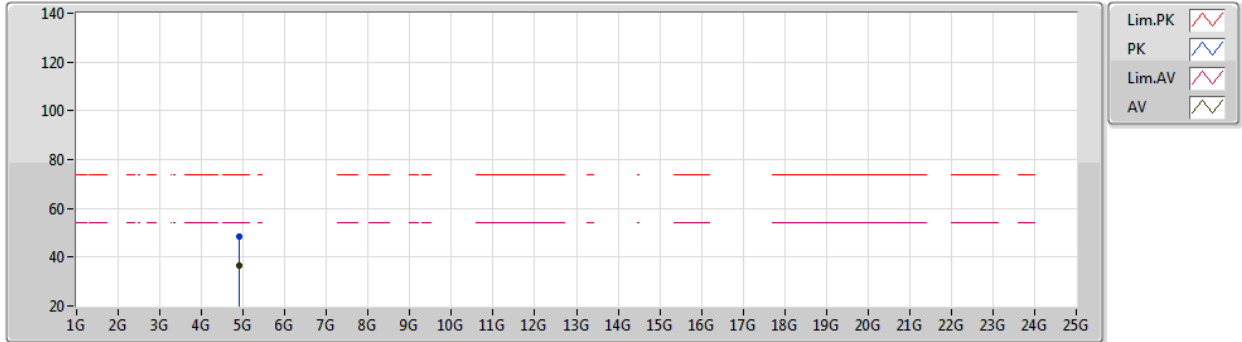
EUT Y_2TX
Setting 19
04-F-K-4

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	4.90407G	49.02	74.00	-24.98	43.62	3	Vertical	40	1.52	-	32.82	5.45	32.87
AV	4.904G	36.80	54.00	-17.20	31.40	3	Vertical	40	1.52	-	32.82	5.45	32.87

802.11ax HEW40_Nss1,(MCS0)_2TX

07/12/2020

2452MHz_TX



EUT Y_2TX
Setting 19
04-F-K-4

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	4.90348G	48.30	74.00	-25.70	42.91	3	Horizontal	27	1.83	-	32.81	5.45	32.87
AV	4.90398G	36.35	54.00	-17.65	30.95	3	Horizontal	27	1.83	-	32.82	5.45	32.87



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	AV	1.4399G	32.31	54.00	-21.69	Vertical

