



FCC RADIO TEST REPORT

FCC ID : 2AQ68W6RT2230
Equipment : Outdoor Wireless Gateway
Brand Name : Hon Lin
Model Name : W6R-T223-001,W6B-T223-001,W6S-T223-001
Applicant : Hon Lin Technology Co., Ltd.
11F, No.32, Jihu Rd., Neihu Dist.,Taipei City Taiwan
Manufacturer : Hon Lin Technology Co., Ltd.
11F, No.32, Jihu Rd., Neihu Dist.,Taipei City Taiwan
Standard : 47 CFR FCC Part 15.247

The product was received on Dec. 31, 2020, and testing was started from Jan. 11, 2021 and completed on Jan. 27, 2021. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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


Approved by: Cliff Chang

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



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History of this test report

TEL : 886-3-656-9065
FAX : 886-3-656-9085
Report Template No.: CB-A10_10 Ver1.2

Page Number : 3 of 34
Issued Date : Feb. 09, 2021
Report Version : 01



Summary of Test Result

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

Declaration of Conformity:

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

Comments and Explanations:

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

Reviewed by: Sam Chen

Report Producer: Sandy Chuang



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	2TX
2.4-2.4835GHz	802.11g	20	2TX
2.4-2.4835GHz	802.11n HT20	20	2TX
2.4-2.4835GHz	VHT20	20	2TX
2.4-2.4835GHz	VHT20-BF	20	2TX
2.4-2.4835GHz	802.11ax HEW20	20	2TX
2.4-2.4835GHz	802.11ax HEW20-BF	20	2TX
2.4-2.4835GHz	802.11n HT40	40	2TX
2.4-2.4835GHz	VHT40	40	2TX
2.4-2.4835GHz	VHT40-BF	40	2TX
2.4-2.4835GHz	802.11ax HEW40	40	2TX
2.4-2.4835GHz	802.11ax HEW40-BF	40	2TX

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 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.	Port			Brand	Model Name	Antenna Type	Connector	Gain (dBi)
		2.4GHz	5GHz (Band 1)	5GHz (Band 4)					
1	1	1	1	-	Shenzhen AotianChuangke	AMXF-2458-5	Omnidirectional	N Type	Note 1
	2	2	2	-	Shenzhen AotianChuangke	AMXF-2458-5	Omnidirectional	N Type	
2	3	-	-	1	Shenzhen AotianChuangke	ATCK-5800-8	Omnidirectional	N Type	
	4	-	-	2	Shenzhen AotianChuangke	ATCK-5800-8	Omnidirectional	N Type	
	5	-	-	3	Shenzhen AotianChuangke	ATCK-5800-8	Omnidirectional	N Type	
3	1	1	1	-	M.gear	C407-690902-A	Omnidirectional	N Type	
	2	2	2	-	M.gear	C407-690902-A	Omnidirectional	N Type	
4	3	-	-	1	M.gear	C407-690851-A	Omnidirectional	N Type	
	4	-	-	2	M.gear	C407-690851-A	Omnidirectional	N Type	
	5	-	-	3	M.gear	C407-690851-A	Omnidirectional	N Type	

Note 1

Set	Ant.	Gain (dBi)			Cable Loss	Gain (dBi)		
		2.4GHz	5GHz (Band 1)	5GHz (Band 4)		2.4GHz	5GHz (Band 1)	5GHz (Band 4)
1	1	6	6	-	0.5	5.5	5.5	-
	2	6	6	-	0.5	5.5	5.5	-
2	3	-	-	8	0.5	-	-	7.5
	4	-	-	8	0.5	-	-	7.5
	5	-	-	8	0.5	-	-	7.5
3	1	3.5	6	-	0.5	3	5.5	-
	2	3.5	6	-	0.5	3	5.5	-
4	3	-	-	7	0.5	-	-	6.5
	4	-	-	7	0.5	-	-	6.5
	5	-	-	7	0.5	-	-	6.5

Note 1: The above information was declared by manufacturer.

Note 2: Antenna set 1 and set 3 are the same type of antennas, antenna set 1 has the higher gain than set 2, so antenna set 1 is chosen to test.

Antenna set 2 and set 4 are the same type of antennas, antenna set 2 has the higher gain than set 4, so antenna set 2 is chosen to test.

**For 2.4GHz function:****For IEEE 802.11b/g/n/VHT/ax (2TX/2RX):**

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

Port 1 and Port 2 could transmit/receive simultaneously.

For 5GHz function:**Band 1****For IEEE 802.11a/n/ac/ax (2TX/2RX):**

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

Port 1 and Port 2 could transmit/receive simultaneously.

Band 4**For IEEE 802.11a/n/ac/ax (3TX/3RX):**

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

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

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11b	0.949	0.23	12.425m	100
802.11g	0.953	0.21	2.075m	1k
802.11ax HEW20	0.978	0.1	1.489m	1k
802.11ax HEW40	0.964	0.16	781.25u	3k

Note:

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

1.1.4 EUT Operational Condition

EUT Power Type	From PoE			
Beamforming Function	☒	With beamforming	☐	Without beamforming
	The product has beamforming function for VHT/ax in 2.4GHz and ac/ax in 5GHz.			
Function	☒	Point-to-multipoint	☐	Point-to-point
Test Software Version	Mtool V3.2.1.2			

Note: The above information was declared by manufacturer.



1.1.5 Table for Multiple Listing

The difference for each model name is shown as below:

Model Name	Support Function
W6R-T223-001	AP
W6B-T223-001	Mesh AP
W6S-T223-001	Mesh AP-satelite

Note 1: From the above models, model: W6R-T223-001 was selected as representative model for the test and its data was recorded in this report.

Note 2: The above information was declared by manufacturer.

1.1.6 EUT Supports Type

The EUT supports AP, Mesh AP, Mesh AP-satelite functions, only the AP was performed for all the tests.



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				
☐	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)	TEL : 886-3-327-3456	FAX : 886-3-327-0973
☒	JHUBEI	ADD : No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302, Taiwan (R.O.C.)	TEL : 886-3-656-9065	FAX : 886-3-656-9085

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted	TH01-CB	Owen Hsu	13.6-14.5 / 59-62	Jan. 14, 2021~ Jan. 15, 2021
Radiated (Co-location)	03CH06-CB	JN Tu	22.7-23.2 / 56-58	Jan. 11, 2021~ Jan. 13, 2021
Radiated (Below 1GHz)	03CH06-CB	Stim Sung	22.7-23.2 / 56-58	Jan. 22, 2021
Radiated (Above 1GHz)	03CH03-CB	JN Tu	21.5-22.5 / 54-57	Jan. 11, 2021~ Jan. 13, 2021
	03CH06-CB		22.7-23.2 / 56-58	
AC Conduction	CO01-CB	Peter Wu	20~21 / 59~60	Jan. 27, 2021

Test site Designation No. TW0006 with FCC.

Test site registered number IC 4086D with Industry Canada.

1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	2.0 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	3.8 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.6 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

<Non-beamforming mode>

Mode	Power Setting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	99
2437MHz	106
2462MHz	106
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	80
2417MHz	83
2437MHz	102
2457MHz	86
2462MHz	80
802.11ax HEW20_Nss1,(MCS0)_2TX	-
2412MHz	71
2417MHz	79
2437MHz	98
2457MHz	75
2462MHz	72
802.11ax HEW40_Nss1,(MCS0)_2TX	-
2422MHz	69
2427MHz	72
2437MHz	83
2452MHz	73

**<beamforming mode>**

Mode	Power Setting
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
2412MHz	71
2417MHz	79
2437MHz	94
2457MHz	75
2462MHz	72
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
2422MHz	69
2427MHz	72
2437MHz	83
2452MHz	73

Note:

- ♦ HEW20/HEW40 covers HT20/HT40/VHT20/VHT40, due to similar modulation. The power setting for 802.11n HT20/VHT20 and HT40/VHT40 are the same or lower than HEW20 and HEW40.
- ♦ The EUT supports non-beamforming and beamforming modes, after evaluating, the non-beamforming mode has been evaluated to be the worst case, so it was selected to test. The beamforming mode evaluates the output power only.

2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	Normal Link
1	EUT + AP with PoE 1

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
1	WLAN 2.4GHz + Antenna Set 1

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	Normal Link
1	EUT + AP with PoE 2
Operating Mode > 1GHz	CTX
1	WLAN 2.4GHz + Antenna Set 1

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
1	WLAN 2.4GHz + WLAN 5GHz Band 1 + Antenna Set 1
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 (Antenna Set 1) + WLAN 5GHz Band 1 (Antenna Set 1) + WLAN 5GHz Band 4 (Antenna Set 2)
Refer to Sporton Test Report No.: FA0D3031 for Co-location RF Exposure Evaluation.	

Note 1: The EUT can only be used in Y-axis position.

Note 2: The PoE below is for measurement only, would not be marketed.

The PoE information as below:

Support Unit	Brand	Model Number
PoE 1	Cisco	MA-INJ4
PoE 2	T-STONE	TSD-PSE25

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

Sealing Collar*1



2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	PoE 1	Cisco	MA-INJ-4	N/A
B	LAN NB	DELL	E6430	N/A
C	2.4G NB	DELL	E6430	N/A
D	5G-L NB	DELL	E6430	N/A
E	5G-H NB	DELL	E6430	N/A

For Radiated (below 1GHz):

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	PoE 2	T-STONE	TSD-PSE25	N/A
B	LAN NB	DELL	E4300	N/A
C	2.4G NB	DELL	E4300	N/A
D	5G-L NB	DELL	E4300	N/A
E	5G-H NB	DELL	E4300	N/A

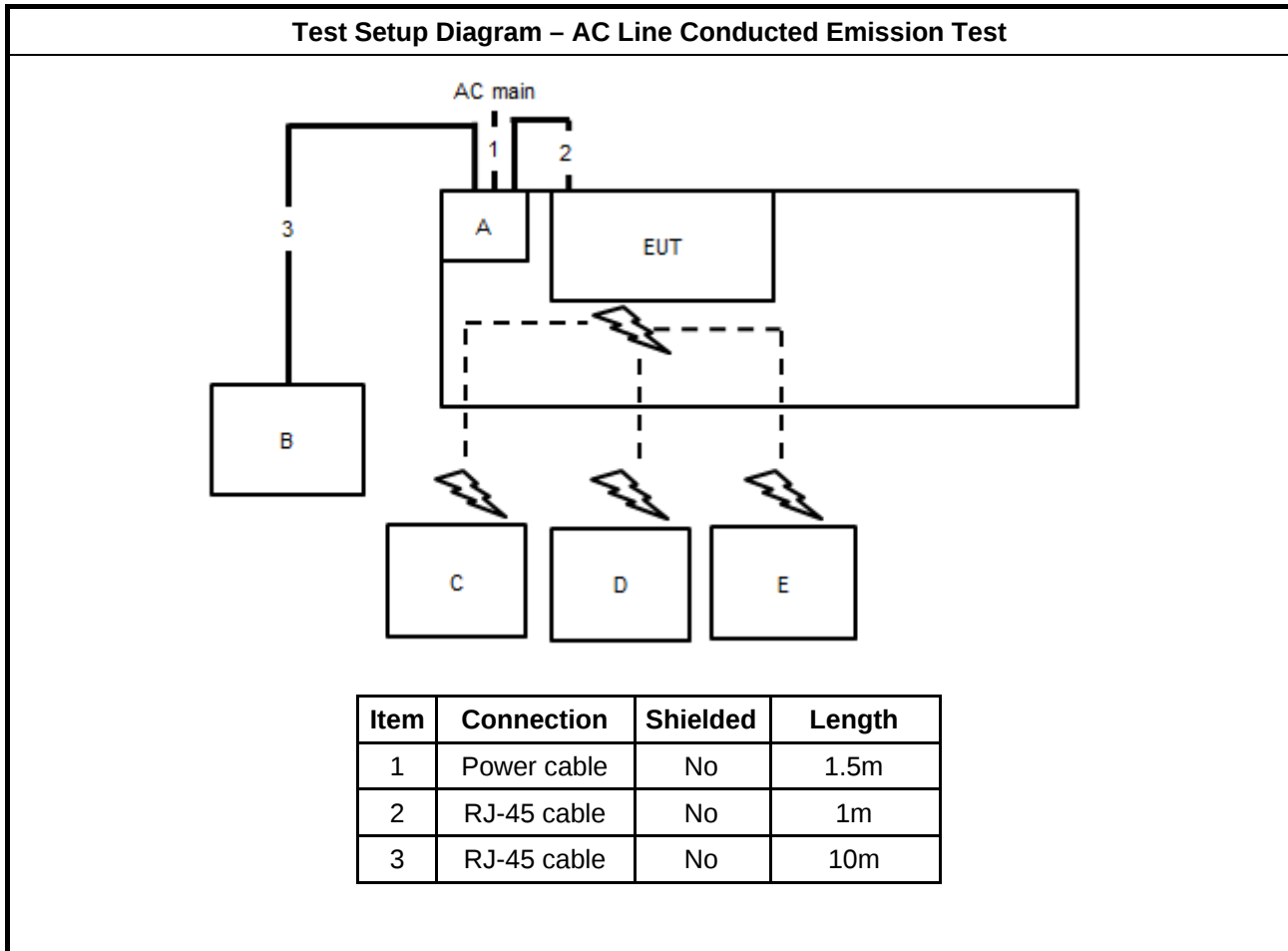
For Radiated (above 1GHz):

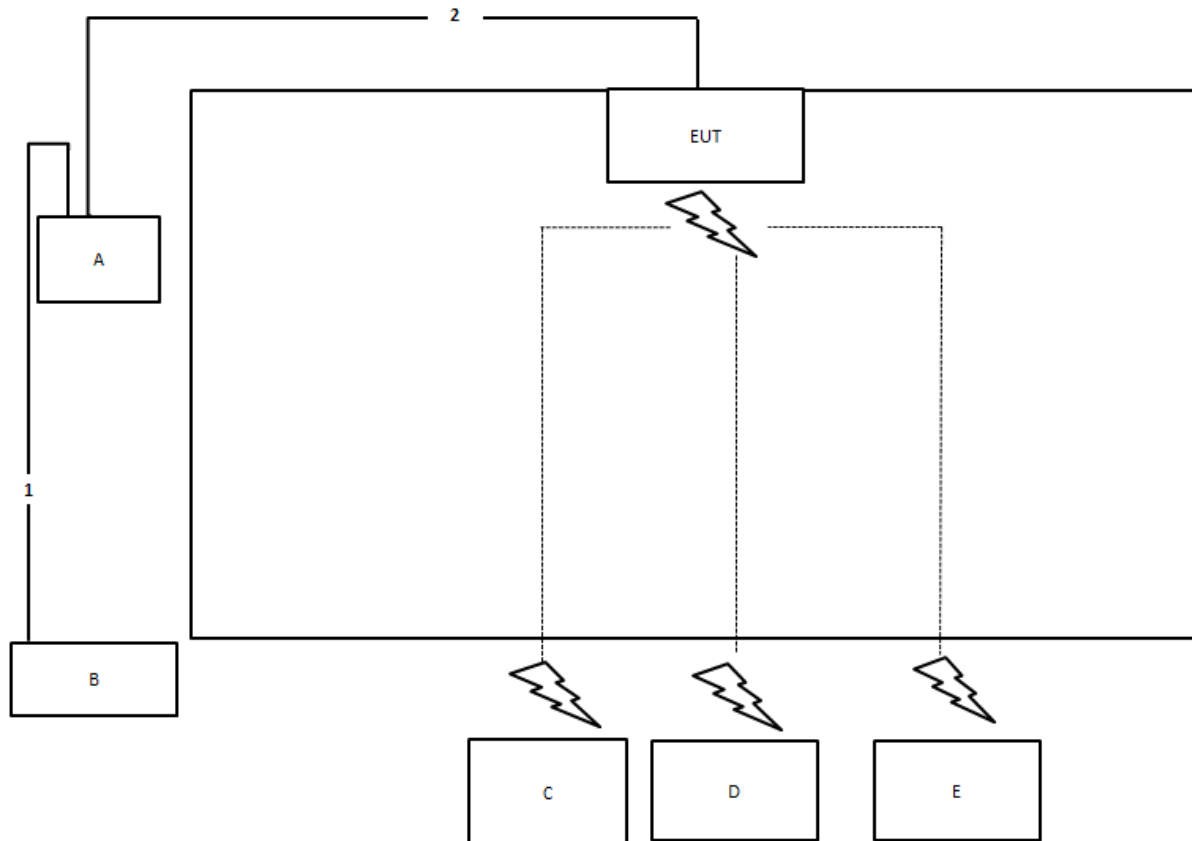
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A
B	PoE 2	T-STONE	TSD-PSE25	N/A

For RF Conducted:

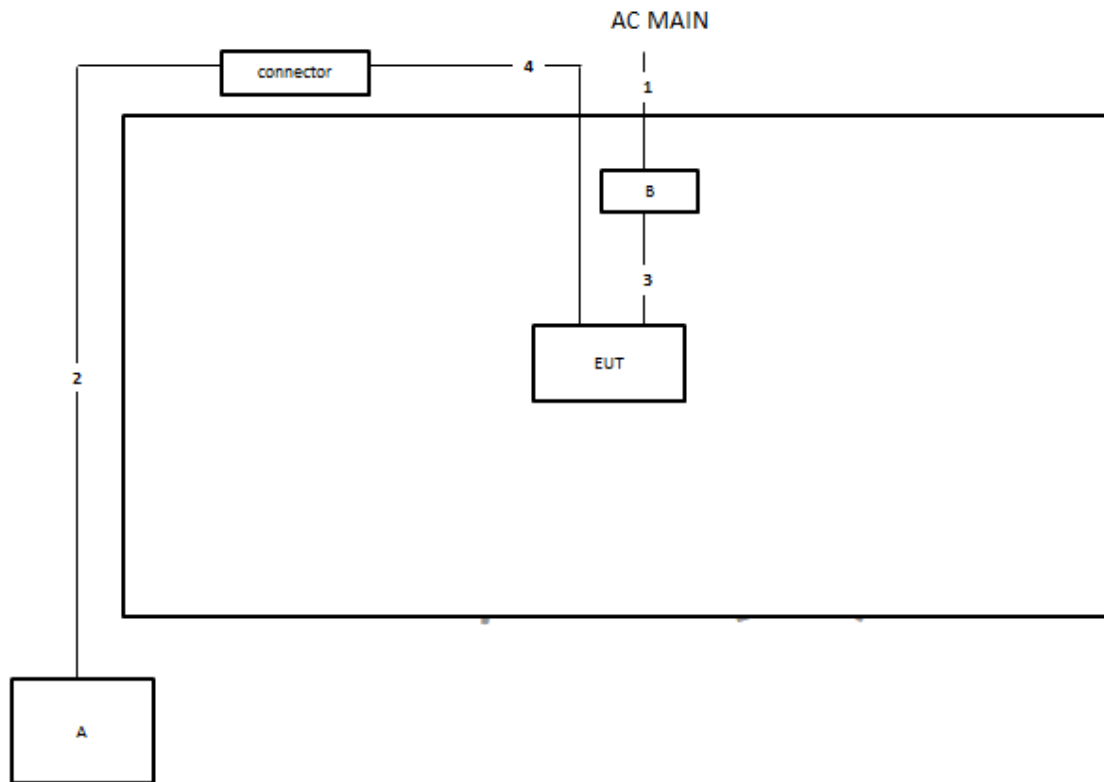
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A
B	PoE 2	T-STONE	TSD-PSE25	N/A

2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test < 1GHz


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

Test Setup Diagram - Radiated Test > 1GHz


Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable	No	10m
3	RJ-45 cable	No	1.5m
4	RJ-45 cable	No	1.85m



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.

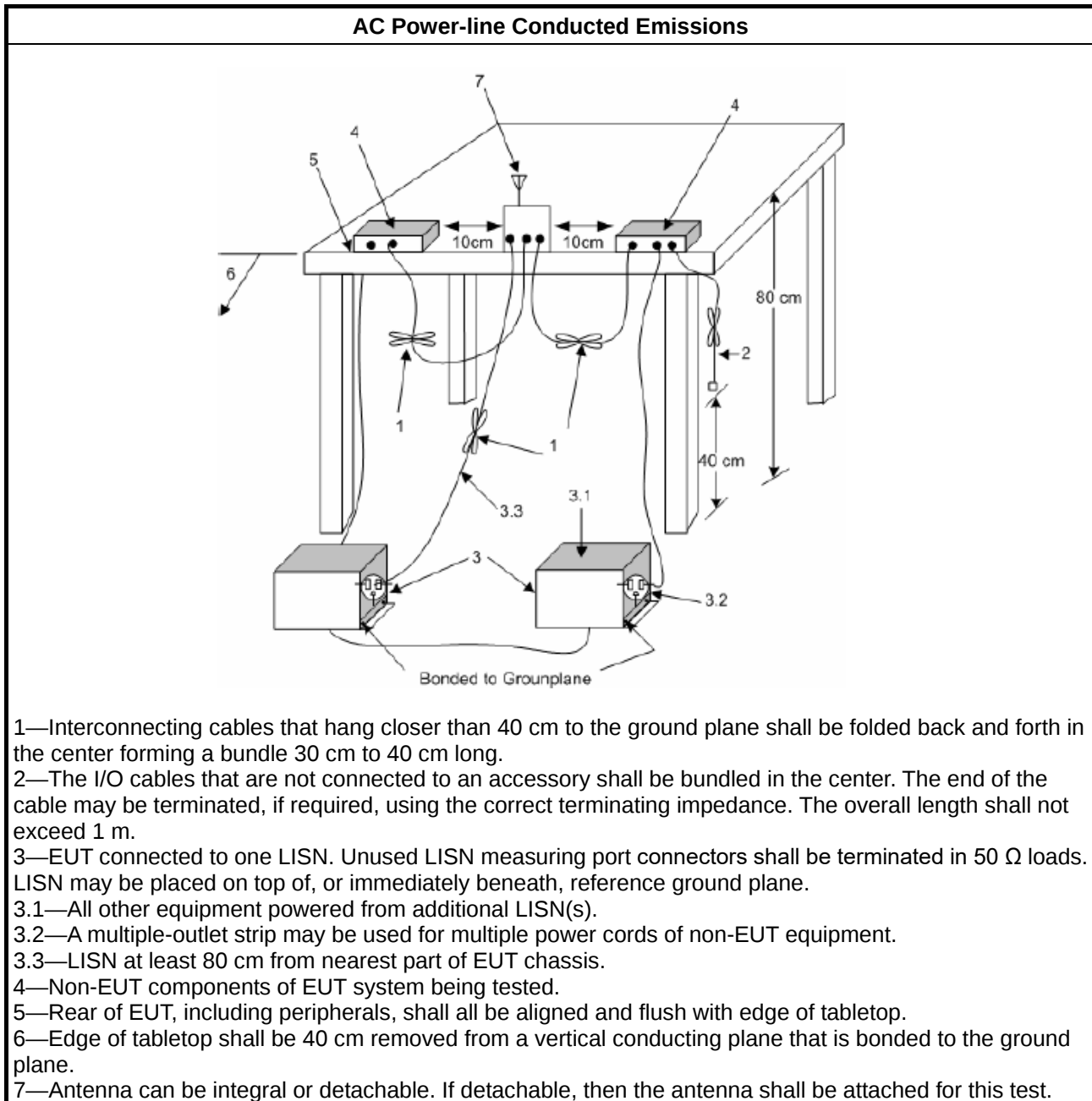
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

Test Method
☒ 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:	
▪	6 dB bandwidth $\geq$ 500 kHz.

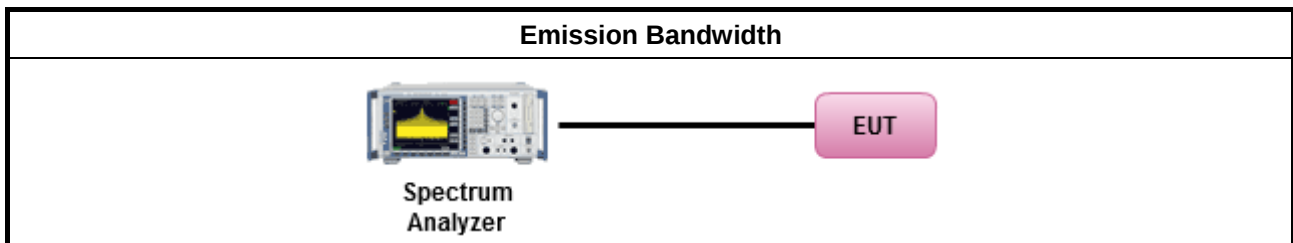
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
▪	For the emission bandwidth shall be measured using one of the options below:
☒	Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.1 Option 1 for 6 dB bandwidth measurement.
☐	Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.2 Option 2 for 6 dB bandwidth measurement.
☐	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	
	▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)
	▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm
	▪ Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	▪ Smart antenna system (SAS):
	- Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	- Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	- 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

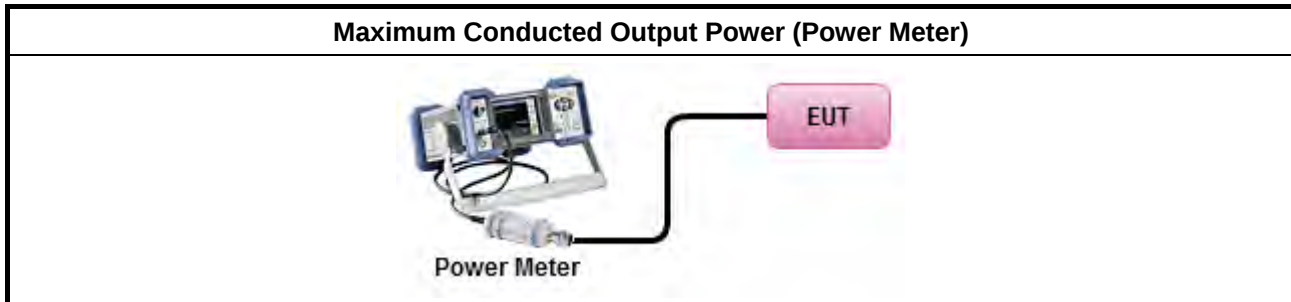
Refer a test equipment and calibration data table in this test report.



3.3.3 Test Procedures

Test Method	
▪ Maximum Peak Conducted Output Power	
☐	Refer as FCC KDB 558074, clause 8.3.1.1 & C63.10 clause 11.9.1.1 (RBW ≥ EBW method).
☐	Refer as FCC KDB 558074, clause 8.3.1.3 & C63.10 clause 11.9.1.3 (peak power meter).
▪ Maximum Conducted Output Power	
[duty cycle ≥ 98% or external video / power trigger]	
☐	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.2 Method AVGSA-1.
☐	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	
☐	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.4 Method AVGSA-2.
☐	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.5 Method AVGSA-2A (alternative)
☐	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.6 Method AVGSA-3
☐	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)	
☐	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).
☒	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).
▪ For conducted measurement.	
▪ 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.	
▪ 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	
▪	Power Spectral Density (PSD) ≤ 8 dBm/3kHz

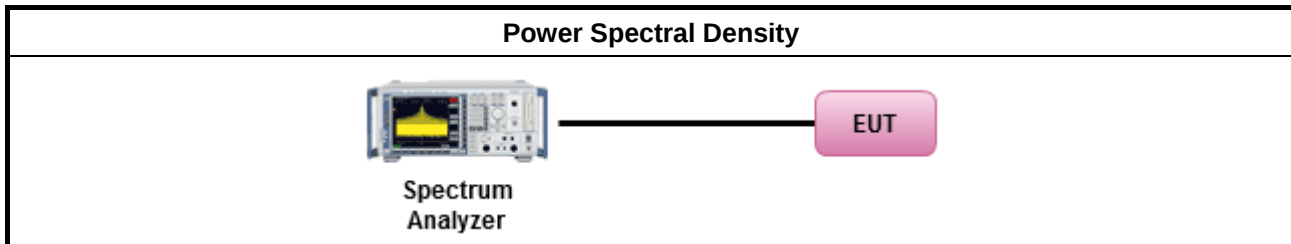
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method	
▪	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).
☒	Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10 Method Max. PSD.
▪	For conducted measurement.
▪	If The EUT supports multiple transmit chains using options given below:
☒	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.
☐	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,
☐	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.	

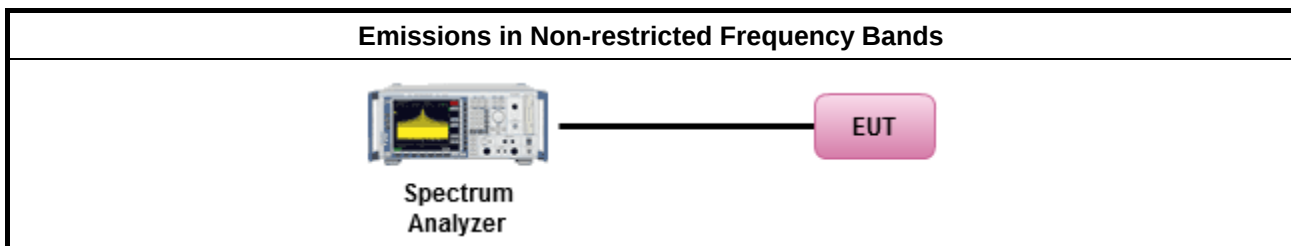
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method
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.

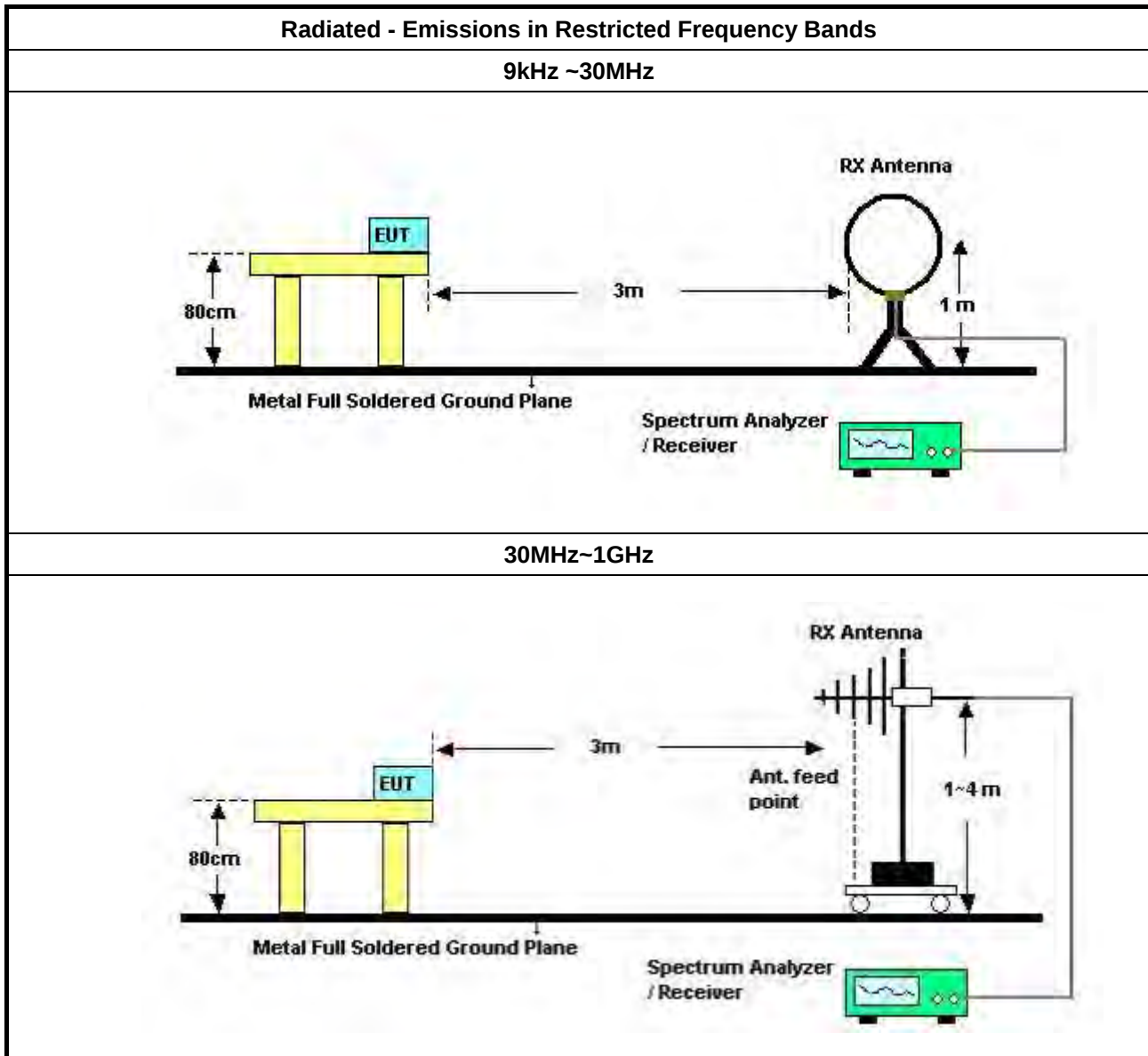
3.6.2 Measuring Instruments

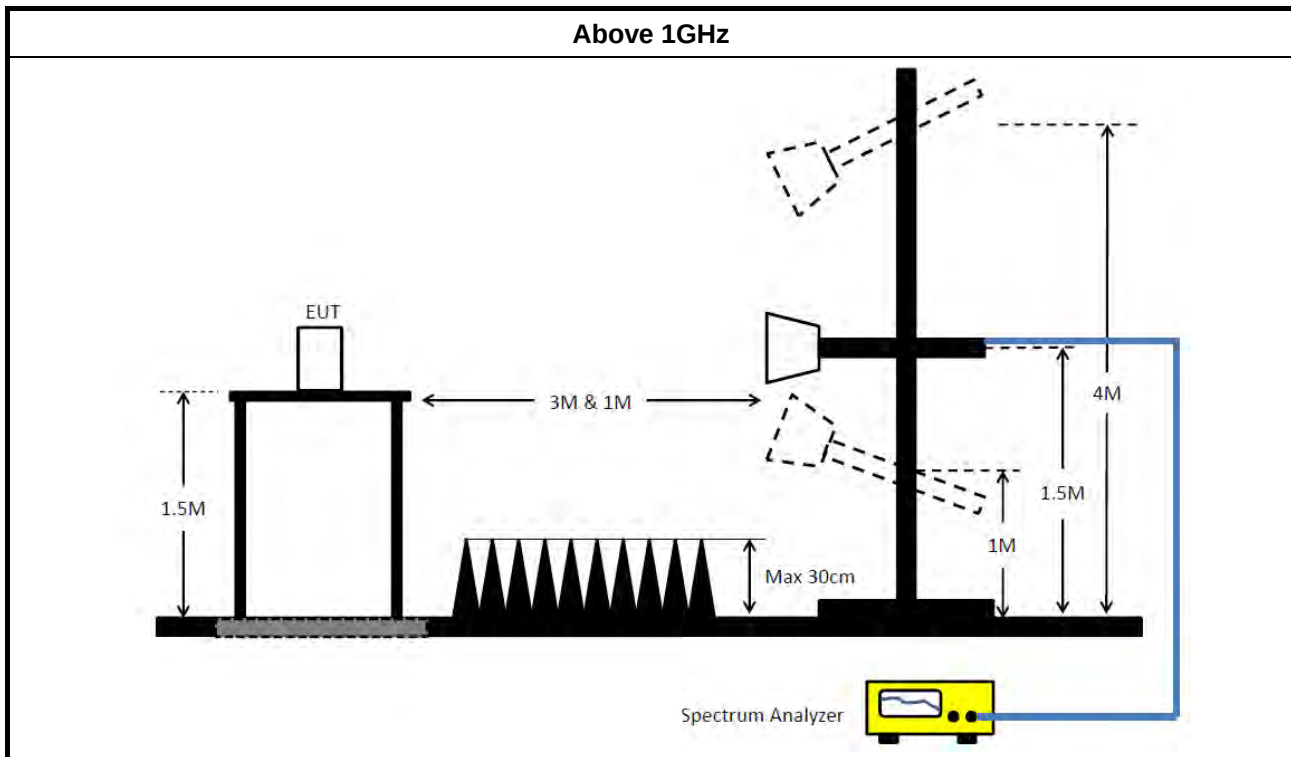
Refer a test equipment and calibration data table in this test report.

**3.6.3 Test Procedures**

Test Method	
▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].	
▪ 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.	
▪ For the transmitter unwanted emissions shall be measured using following options below:	
	▪ Refer as FCC KDB 558074, clause 8.6 for unwanted emissions into restricted bands.
	☐ Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.1(trace averaging for duty cycle $\geq 98\%$).
	☐ Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.2(trace averaging + duty factor).
	☒ Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.3(Reduced VBW $\geq 1/T$).
	☐ Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW $\geq 1/T$, where T is pulse time.
	☐ Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
	☒ Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.4 measurement procedure peak limit.
▪ For the transmitter band-edge emissions shall be measured using following options below:	
	▪ 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.
	▪ Refer as FCC KDB 558074, clause 8.7 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.
	▪ 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).
	▪ 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
	▪ 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	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Nov. 20, 2020	Nov. 19, 2021	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. 13, 2020	Apr. 12, 2021	Radiation (03CH06-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH06-CB	30 MHz ~ 1 GHz	Aug. 10, 2020	Aug. 09, 2021	Radiation (03CH06-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH06-CB	1GHz ~18GHz 3m	Oct. 02, 2020	Oct. 01, 2021	Radiation (03CH06-CB)
Bilog Antenna with 6 dB attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37878 & AT-N0606	20MHz ~ 2GHz	Aug. 02, 2020	Aug. 01, 2021	Radiation (03CH06-CB)
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA 9120D-1292	1GHz~18GHz	Jul. 22, 2020	Jul. 21, 2021	Radiation (03CH06-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 21, 2020	Jul. 20, 2021	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	310N	187290	0.1MHz ~ 1GHz	Nov. 05, 2020	Nov. 04, 2021	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	83017A	MY53270064	0.5GHz ~ 26.5GHz	May 07, 2020	May 06, 2021	Radiation (03CH06-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 08, 2020	Jul. 07, 2021	Radiation (03CH06-CB)
Spectrum analyzer	R&S	FSP40	100080	9kHz~40GHz	Dec. 15, 2020	Dec. 14, 2021	Radiation (03CH06-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	May 13, 2020	May 12, 2021	Radiation (03CH06-CB)
RF Cable-low	Woken	RG402	Low Cable-05+24	30MHz~1GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH06-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-05	1GHz~18GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-05+24	1GHz~18GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH06-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH06-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH03-CB	1GHz ~18GHz 3m	May 28, 2020	May 27, 2021	Radiation (03CH03-CB)
Horn Antenna	COM-POWER	AH-118	071028	1GHz ~ 18GHz	Jun. 09, 2020	Jun. 08, 2021	Radiation (03CH03-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 21, 2020	Jul. 20, 2021	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8449B	3008A02097	1GHz ~ 26.5GHz	Jul. 03, 2020	Jun. 02, 2021	Radiation (03CH03-CB)
Pre-Amplifier	MITEQ	TTA1840-35-H G	1864479	18GHz ~ 40GHz	Jul. 08, 2020	Jul. 07, 2021	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100019	9kHz ~ 40GHz	Jun. 09, 2020	Jun. 08, 2021	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-20+29	1GHz ~ 18GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-29	1GHz ~ 18GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH03-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	May 05, 2020	May 04, 2021	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz ~ 26.5 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz ~26.5 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz ~26.5 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH01-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-09	1 GHz –26.5 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-30	1 GHz –26.5 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH01-CB)
Power Sensor	Agilent	E9327A	US40442088	50MHz~18GHz	Feb. 07, 2020	Feb. 06, 2021	Conducted (TH01-CB)
Power Meter	Agilent	E4416A	GB41291199	50MHz~18GHz	Feb. 07, 2020	Feb. 06, 2021	Conducted (TH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH01-CB)

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

NCR means Non-Calibration required.



Conducted Emissions at Powerline

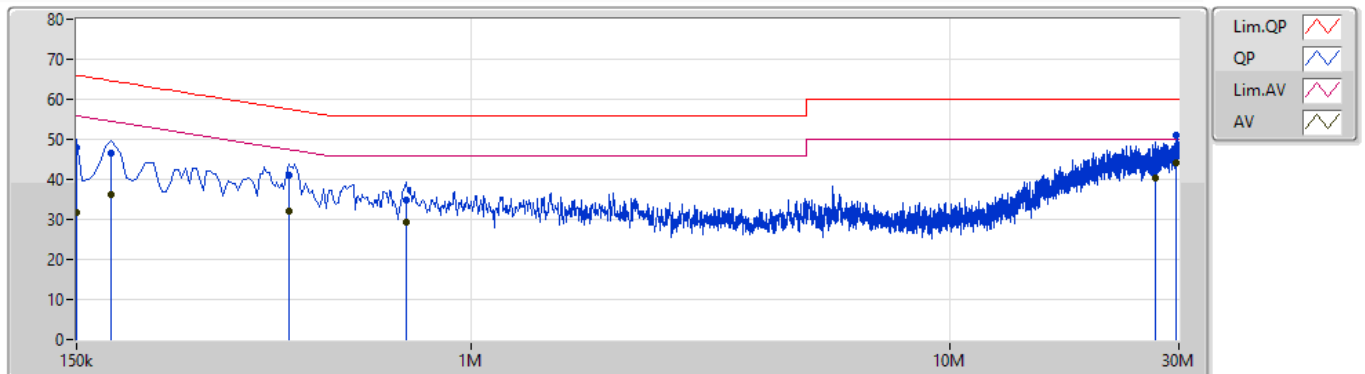
Appendix A

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	29.571M	44.29	50.00	-5.71	Line

Mode 1

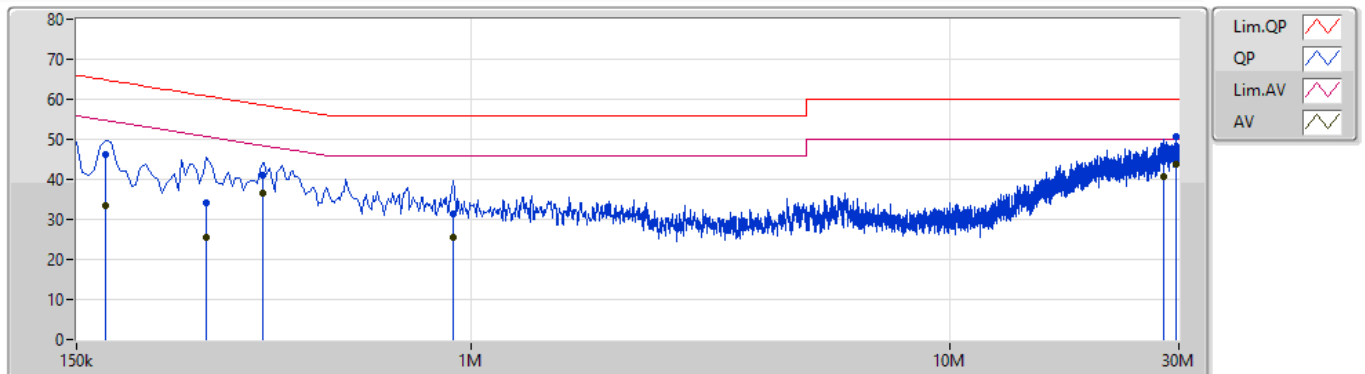
27/01/2021



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	150k	48.00	66.00	-18.00	9.89	Line	-	38.11	0.05	0.03	9.81			
AV	150k	31.64	56.00	-24.36	9.89	Line	-	21.75	0.05	0.03	9.81			
QP	177k	46.57	64.62	-18.05	9.89	Line	-	36.68	0.04	0.03	9.82			
AV	177k	36.13	54.62	-18.49	9.89	Line	-	26.24	0.04	0.03	9.82			
QP	415.5k	41.13	57.53	-16.40	9.90	Line	-	31.23	0.04	0.03	9.83			
AV	415.5k	31.94	47.53	-15.59	9.90	Line	-	22.04	0.04	0.03	9.83			
QP	730.5k	34.78	56.00	-21.22	9.92	Line	-	24.86	0.05	0.04	9.83			
AV	730.5k	29.45	46.00	-16.55	9.92	Line	-	19.53	0.05	0.04	9.83			
QP	26.849M	46.82	60.00	-13.18	10.63	Line	-	36.19	0.28	0.32	10.03			
AV	26.849M	40.18	50.00	-9.82	10.63	Line	-	29.55	0.28	0.32	10.03			
QP	29.571M	51.01	60.00	-8.99	10.64	Line	-	40.37	0.30	0.30	10.04			
AV	29.571M	44.29	50.00	-5.71	10.64	Line	"Worst"	33.65	0.30	0.30	10.04			

Mode 1

27/01/2021



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	172.5k	46.14	64.83	-18.69	9.89	Neutral	-	36.25	0.04	0.03	9.82			
AV	172.5k	33.44	54.83	-21.39	9.89	Neutral	-	23.55	0.04	0.03	9.82			
QP	280.5k	34.03	60.80	-26.77	9.89	Neutral	-	24.14	0.04	0.03	9.82			
AV	280.5k	25.54	50.80	-25.26	9.89	Neutral	-	15.65	0.04	0.03	9.82			
QP	366k	41.07	58.60	-17.53	9.90	Neutral	-	31.17	0.04	0.03	9.83			
AV	366k	36.58	48.60	-12.02	9.90	Neutral	-	26.68	0.04	0.03	9.83			
QP	919.5k	31.45	56.00	-24.55	9.93	Neutral	-	21.52	0.06	0.04	9.83			
AV	919.5k	25.35	46.00	-20.65	9.93	Neutral	-	15.42	0.06	0.04	9.83			
QP	27.969M	47.24	60.00	-12.76	10.65	Neutral	-	36.59	0.31	0.31	10.03			
AV	27.969M	40.67	50.00	-9.33	10.65	Neutral	-	30.02	0.31	0.31	10.03			
QP	29.571M	50.75	60.00	-9.25	10.67	Neutral	-	40.08	0.33	0.30	10.04			
AV	29.571M	43.95	50.00	-6.05	10.67	Neutral	"Worst"	33.28	0.33	0.30	10.04			

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	7.05M	10.295M	10M3G1D	6.55M	10.22M
802.11g_Nss1,(6Mbps)_2TX	16.35M	16.817M	16M8D1D	16.325M	16.642M
802.11ax HEW20_Nss1,(MCS0)_2TX	19M	19.065M	19M1D1D	18.95M	18.991M
802.11ax HEW40_Nss1,(MCS0)_2TX	37.55M	37.531M	37M5D1D	36.5M	37.481M

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;

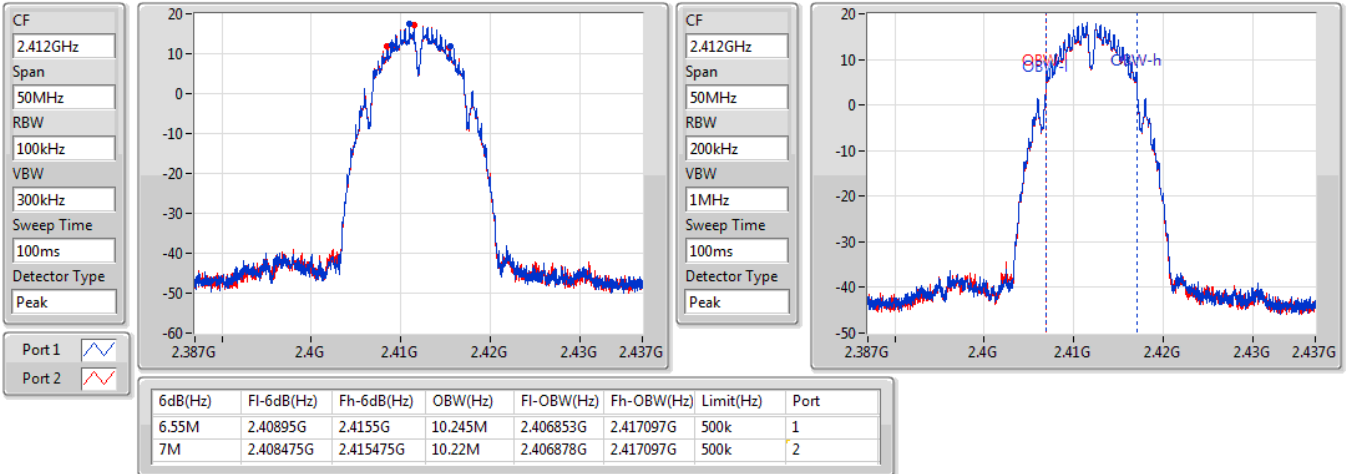
Result

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	6.55M	10.245M	7M	10.22M
2437MHz	Pass	500k	7.05M	10.295M	7.05M	10.295M
2462MHz	Pass	500k	7.025M	10.27M	7.025M	10.27M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.325M	16.742M	16.35M	16.642M
2437MHz	Pass	500k	16.325M	16.817M	16.325M	16.792M
2462MHz	Pass	500k	16.35M	16.742M	16.35M	16.667M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	18.975M	18.991M	19M	19.065M
2437MHz	Pass	500k	18.95M	19.015M	18.95M	19.065M
2462MHz	Pass	500k	18.95M	18.991M	18.95M	19.065M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	37.55M	37.481M	36.6M	37.481M
2437MHz	Pass	500k	37.45M	37.481M	36.5M	37.481M
2452MHz	Pass	500k	37.5M	37.531M	36.55M	37.481M

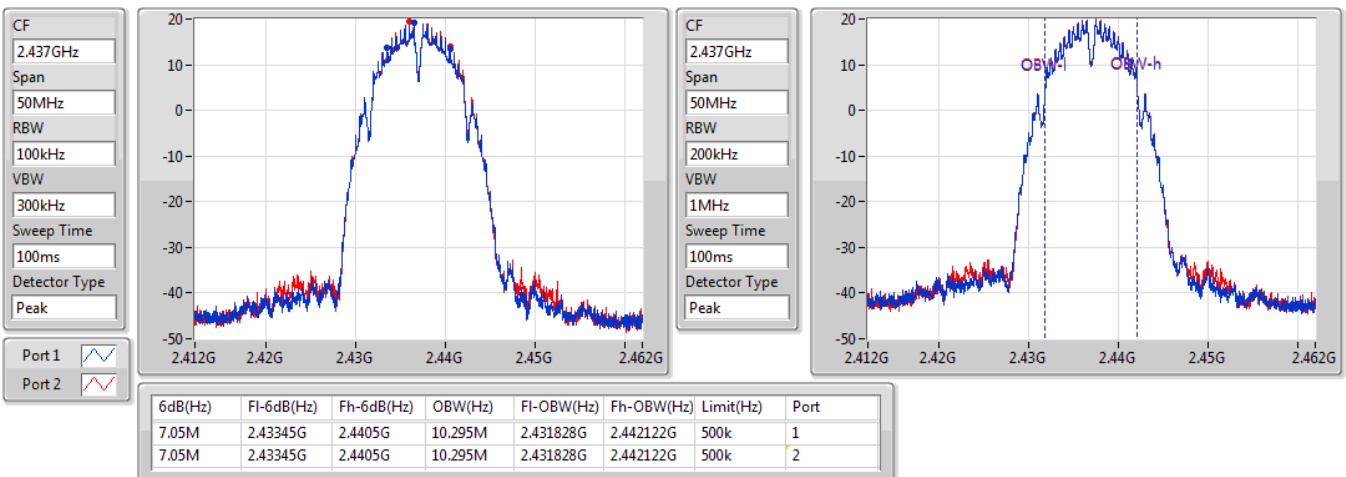
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

802.11b_Nss1,(1Mbps)_2TX
EBW
2412MHz

14/01/2021


802.11b_Nss1,(1Mbps)_2TX
EBW
2437MHz

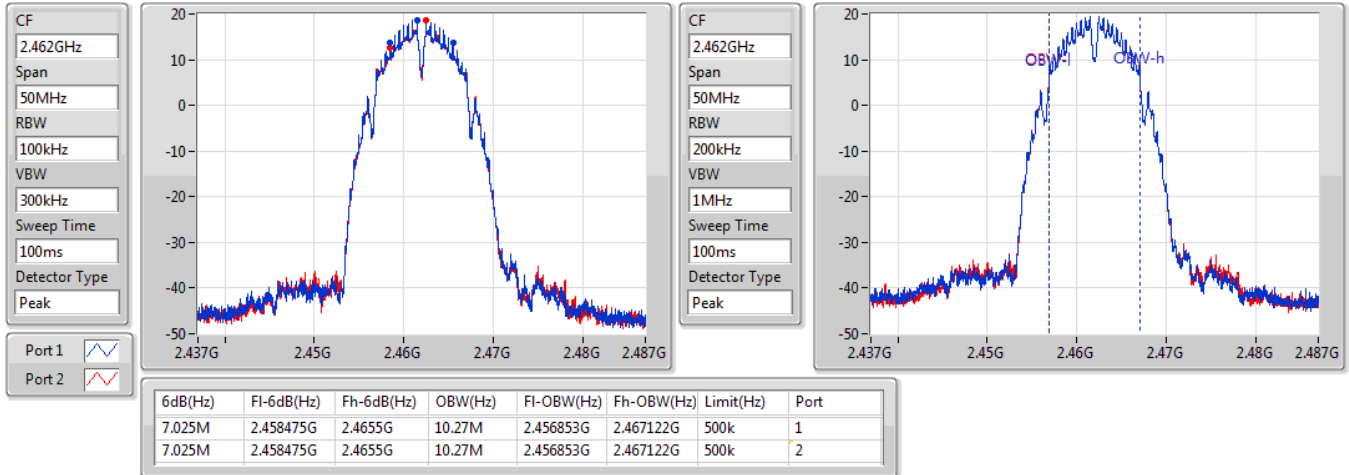
15/01/2021



802.11b_Nss1,(1Mbps)_2TX

EBW
2462MHz

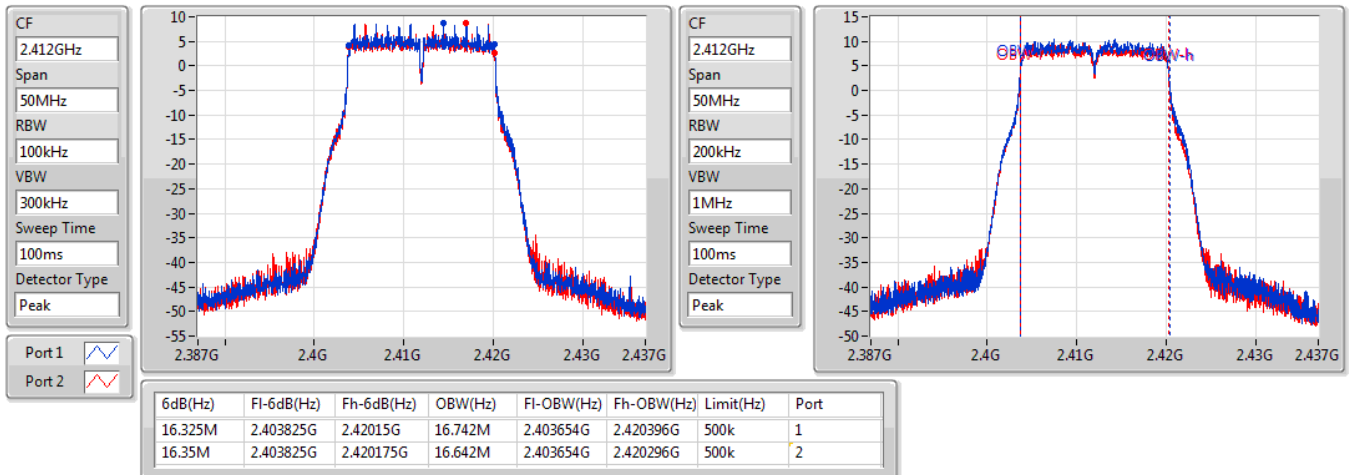
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802.11g_Nss1,(6Mbps)_2TX

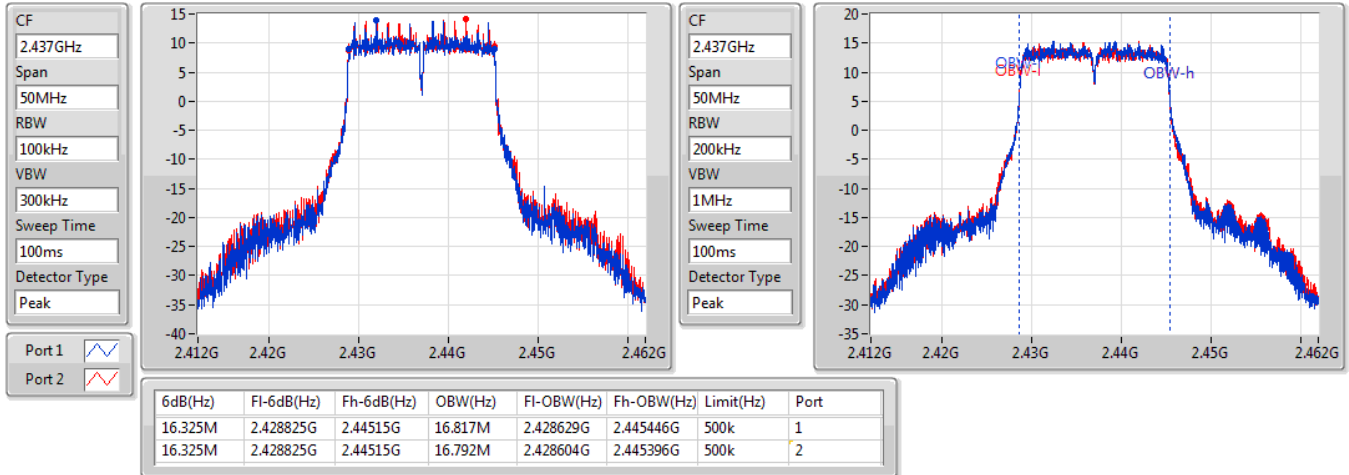
EBW
2412MHz

14/01/2021

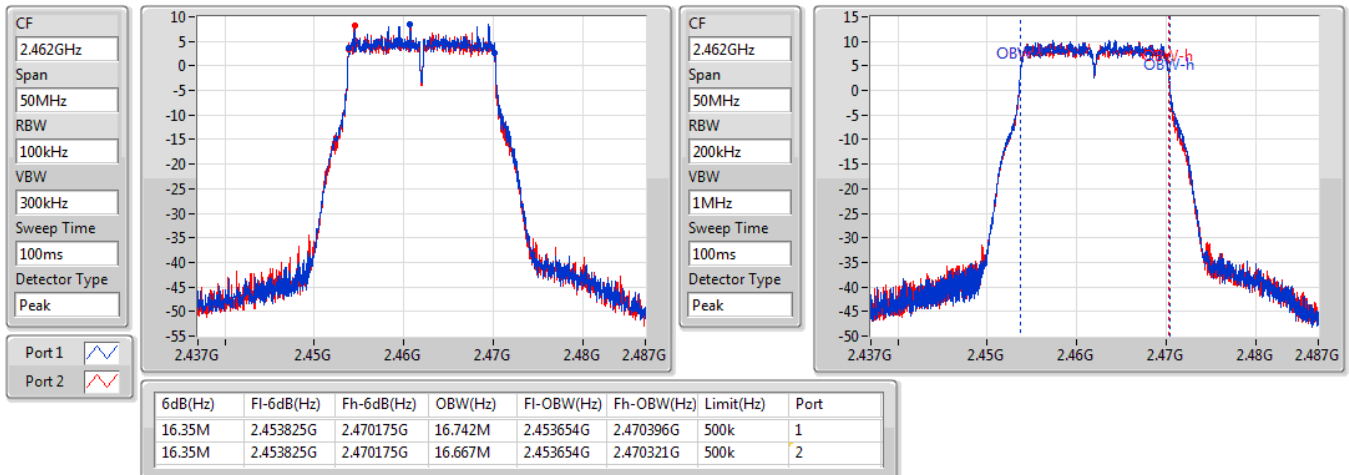


802.11g_Nss1,(6Mbps)_2TX
EBW
2437MHz

14/01/2021

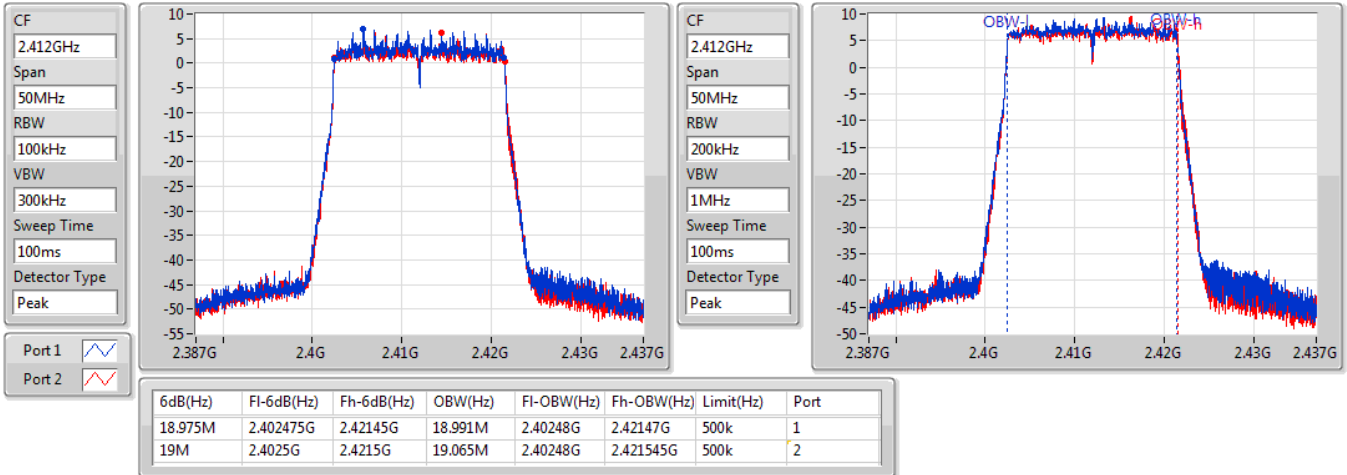

802.11g_Nss1,(6Mbps)_2TX
EBW
2462MHz

14/01/2021

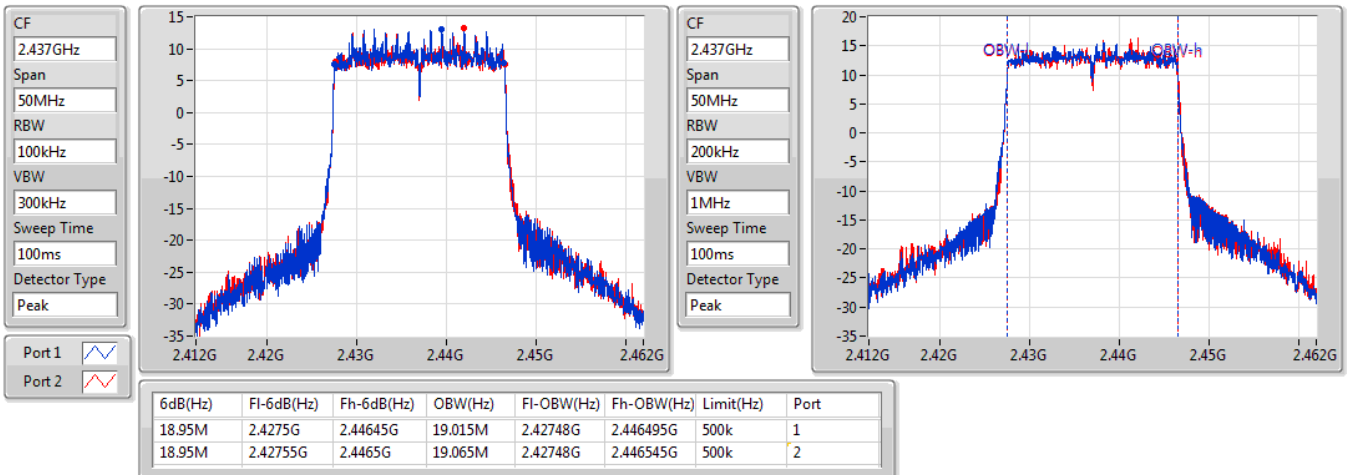


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
2412MHz

14/01/2021

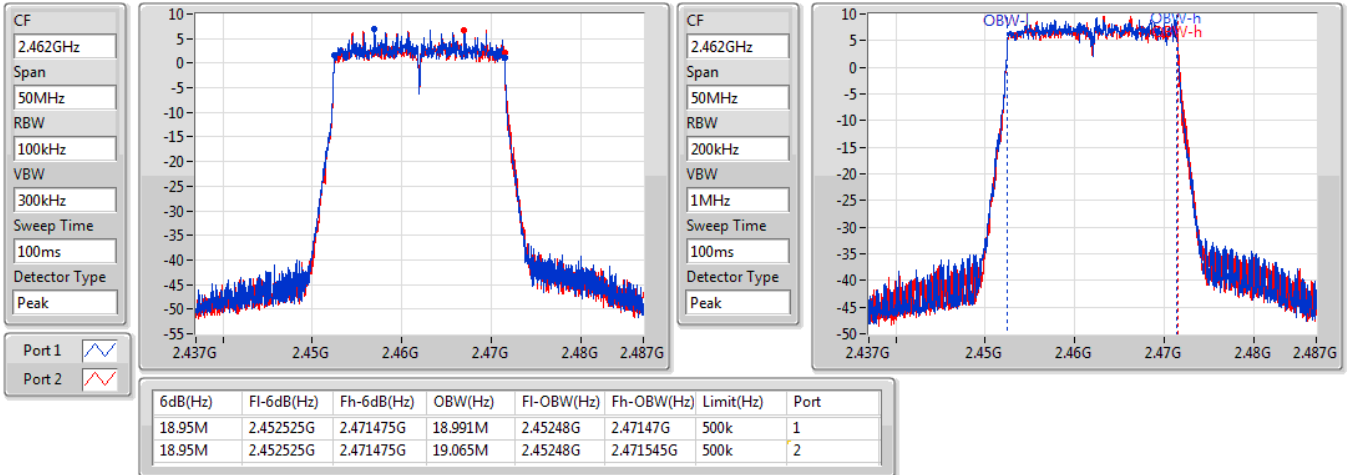

802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
2437MHz

14/01/2021

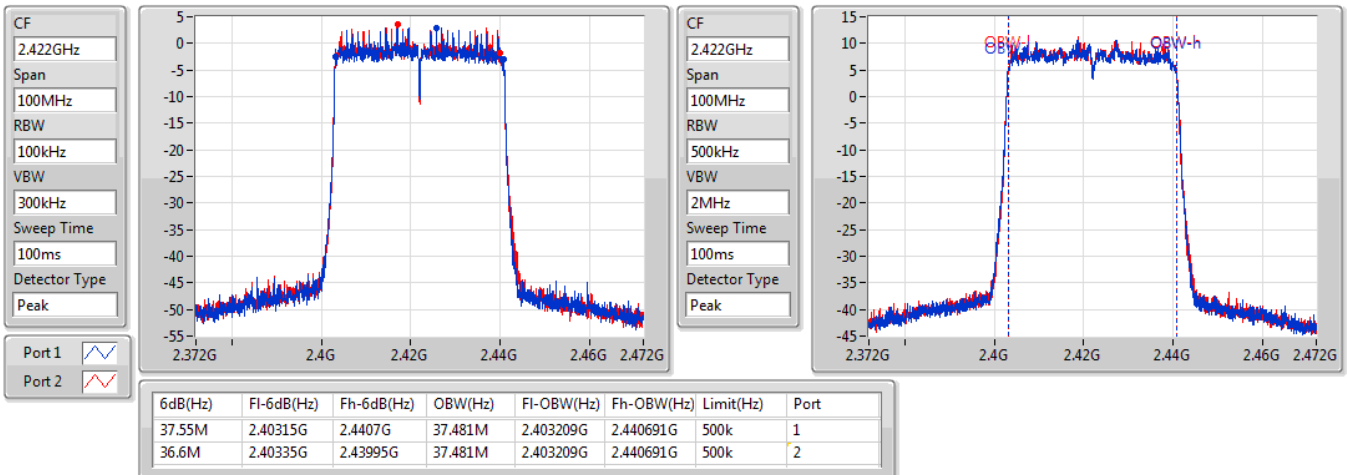


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
2462MHz

14/01/2021

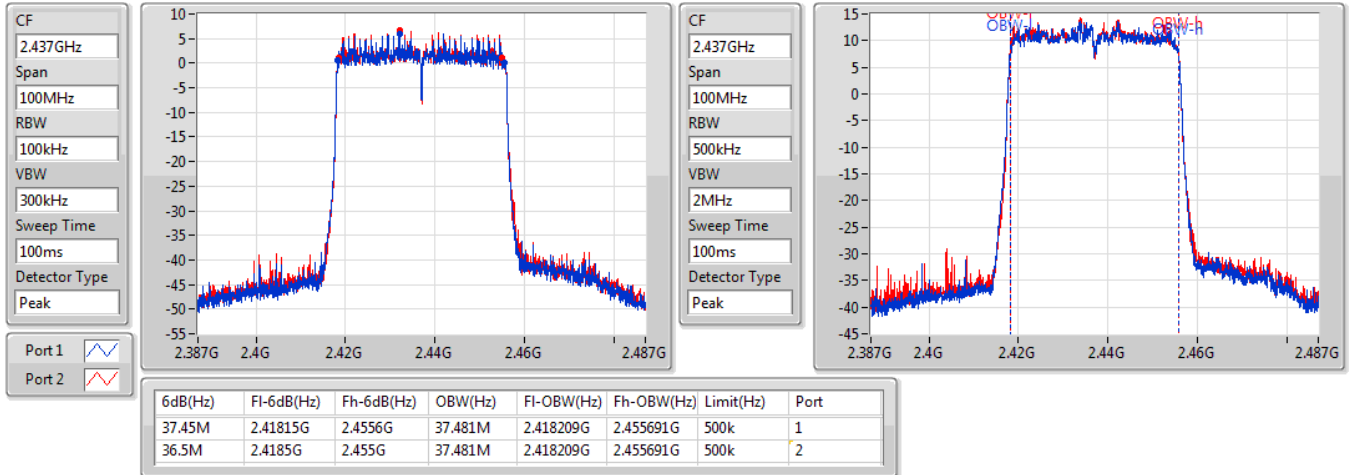

802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
2422MHz

14/01/2021

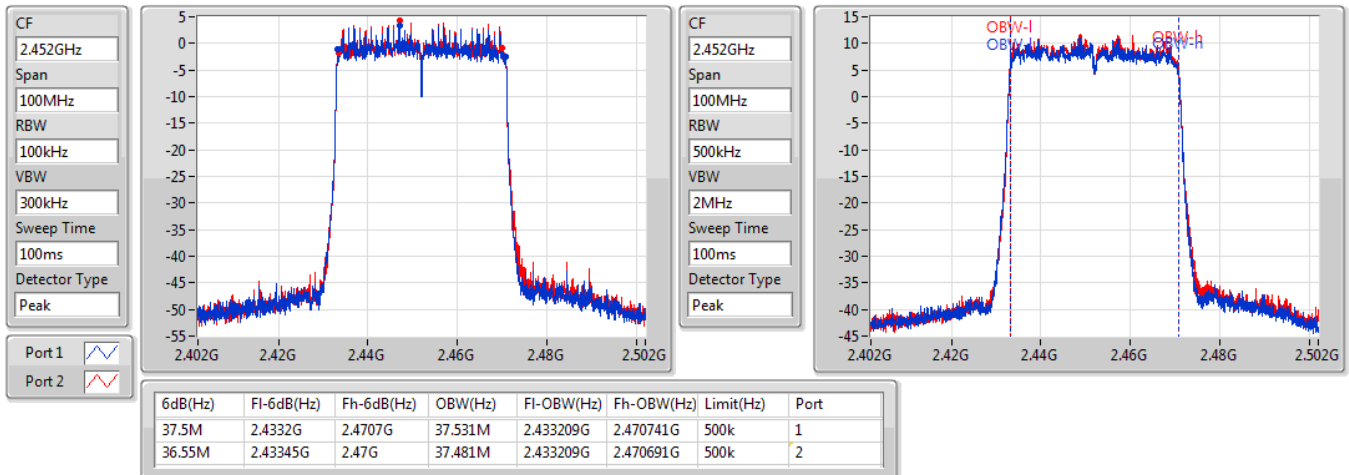


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
2437MHz

14/01/2021


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
2452MHz

14/01/2021





Average Power_Non-beamforming mode

Appendix C.1

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_2TX	29.89	0.97499
802.11g_Nss1,(6Mbps)_2TX	28.85	0.76736
802.11ax HEW20_Nss1,(MCS0)_2TX	28.32	0.67920
802.11ax HEW40_Nss1,(MCS0)_2TX	24.14	0.25942



Average Power_Non-beamforming mode

Appendix C.1

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.50	25.08	25.16	28.13	30.00
2437MHz	Pass	5.50	26.85	26.91	29.89	30.00
2462MHz	Pass	5.50	26.85	26.74	29.81	30.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.50	20.98	20.61	23.81	30.00
2417MHz	Pass	5.50	21.74	21.30	24.54	30.00
2437MHz	Pass	5.50	25.81	25.87	28.85	30.00
2457MHz	Pass	5.50	22.18	22.27	25.24	30.00
2462MHz	Pass	5.50	20.75	20.75	23.76	30.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.50	19.15	18.77	21.97	30.00
2417MHz	Pass	5.50	21.08	20.72	23.91	30.00
2437MHz	Pass	5.50	25.21	25.40	28.32	30.00
2457MHz	Pass	5.50	19.77	19.64	22.72	30.00
2462MHz	Pass	5.50	19.29	19.08	22.20	30.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	5.50	17.58	17.83	20.72	30.00
2427MHz	Pass	5.50	18.23	18.69	21.48	30.00
2437MHz	Pass	5.50	20.88	21.36	24.14	30.00
2452MHz	Pass	5.50	18.40	18.93	21.68	30.00

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



Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	27.32	0.53951
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	24.14	0.25942



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	8.51	19.15	18.77	21.97	27.49
2417MHz	Pass	8.51	21.08	20.72	23.91	27.49
2437MHz	Pass	8.51	24.21	24.40	27.32	27.49
2457MHz	Pass	8.51	19.77	19.64	22.72	27.49
2462MHz	Pass	8.51	19.29	19.08	22.20	27.49
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	8.51	17.58	17.83	20.72	27.49
2427MHz	Pass	8.51	18.23	18.69	21.48	27.49
2437MHz	Pass	8.51	20.88	21.36	24.14	27.49
2452MHz	Pass	8.51	18.40	18.93	21.68	27.49

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

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_2TX	-0.69
802.11g_Nss1,(6Mbps)_2TX	3.48
802.11ax HEW20_Nss1,(MCS0)_2TX	3.25
802.11ax HEW40_Nss1,(MCS0)_2TX	-5.53

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	8.51	-5.12	-4.79	-2.24	5.49
2437MHz	Pass	8.51	-3.43	-3.20	-0.69	5.49
2462MHz	Pass	8.51	-3.76	-3.48	-0.80	5.49
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	8.51	-4.75	-5.20	-2.70	5.49
2437MHz	Pass	8.51	-0.13	1.23	3.48	5.49
2462MHz	Pass	8.51	-5.15	-5.52	-2.72	5.49
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	8.51	-6.16	-5.37	-2.74	5.49
2437MHz	Pass	8.51	0.05	0.43	3.25	5.49
2462MHz	Pass	8.51	-5.93	-5.80	-2.85	5.49
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	8.51	-11.47	-12.00	-9.19	5.49
2437MHz	Pass	8.51	-8.53	-7.91	-5.53	5.49
2452MHz	Pass	8.51	-11.09	-10.60	-8.30	5.49

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

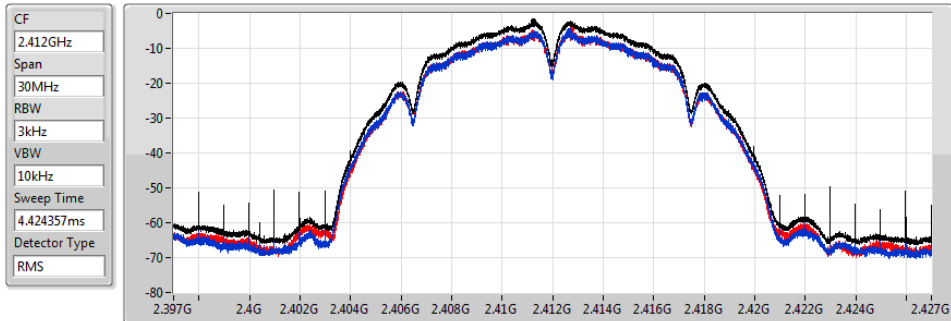
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

802.11b_Nss1,(1Mbps)_2TX

PSD

2412MHz

15/01/2021

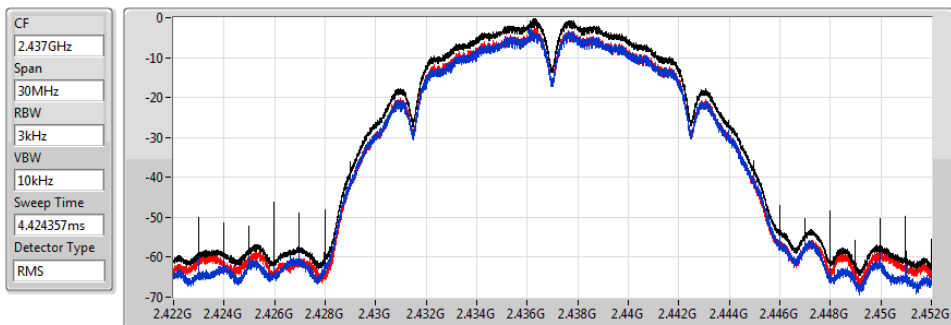


802.11b_Nss1,(1Mbps)_2TX

PSD

2437MHz

15/01/2021

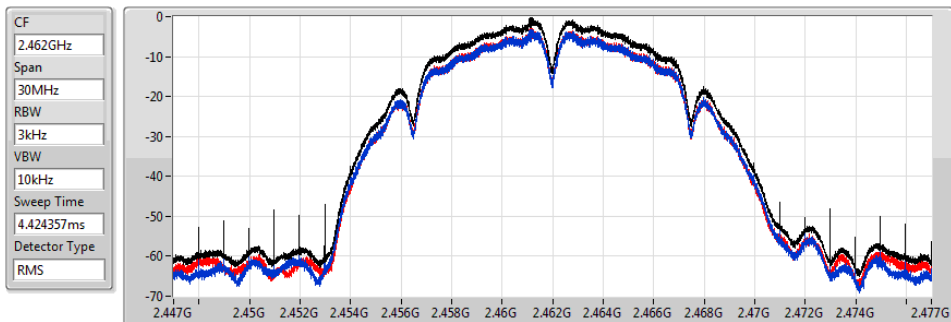


802.11b_Nss1,(1Mbps)_2TX

PSD

2462MHz

15/01/2021

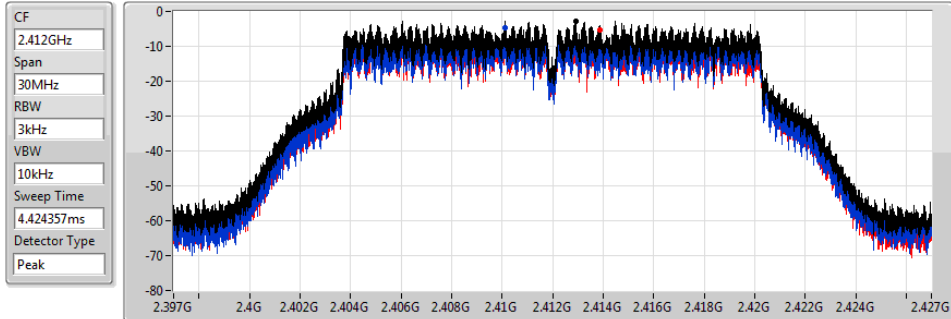


802.11g_Nss1,(6Mbps)_2TX

PSD

2412MHz

14/01/2021



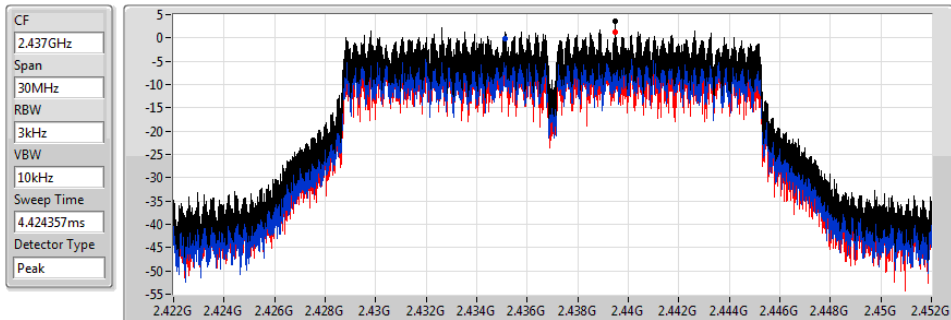
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-2.70	-2.70	-4.75	-5.20

802.11g_Nss1,(6Mbps)_2TX

PSD

2437MHz

14/01/2021



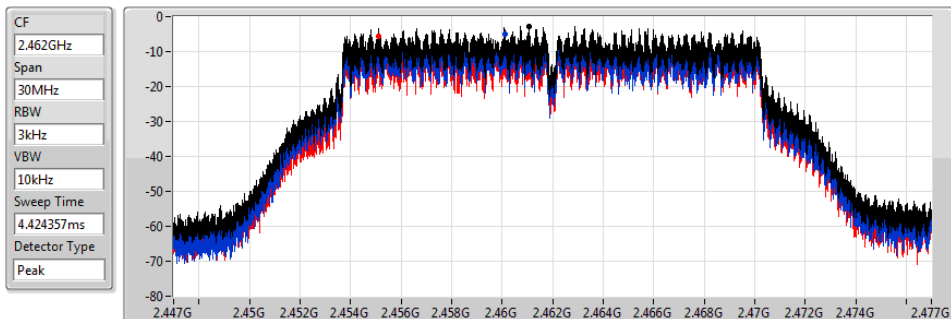
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
3.48	3.48	-0.13	1.23

802.11g_Nss1,(6Mbps)_2TX

PSD

2462MHz

14/01/2021



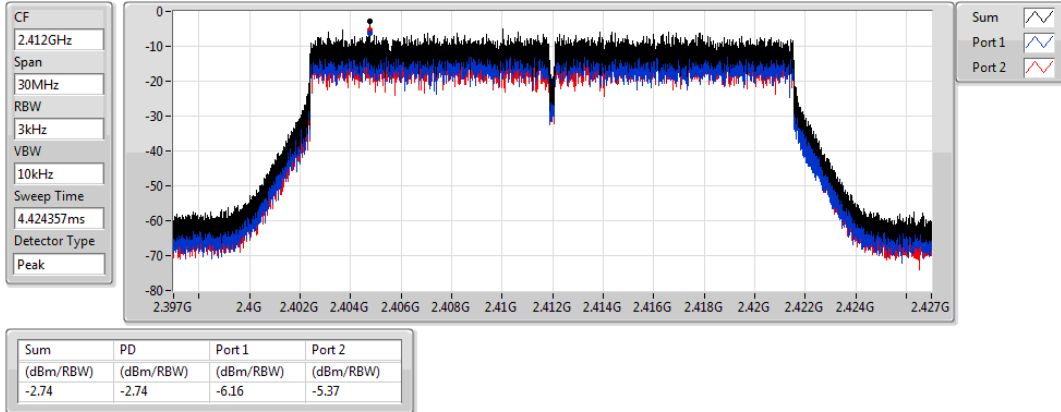
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-2.72	-2.72	-5.15	-5.52

802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

2412MHz

14/01/2021

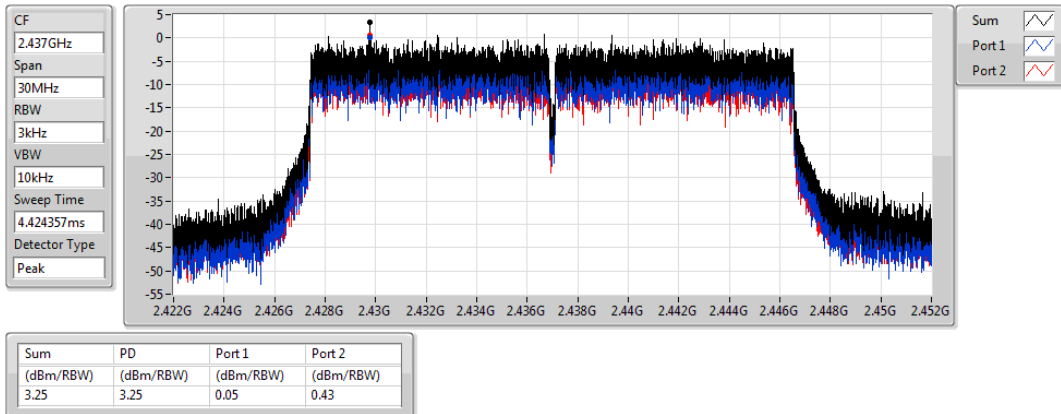


802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

2437MHz

14/01/2021

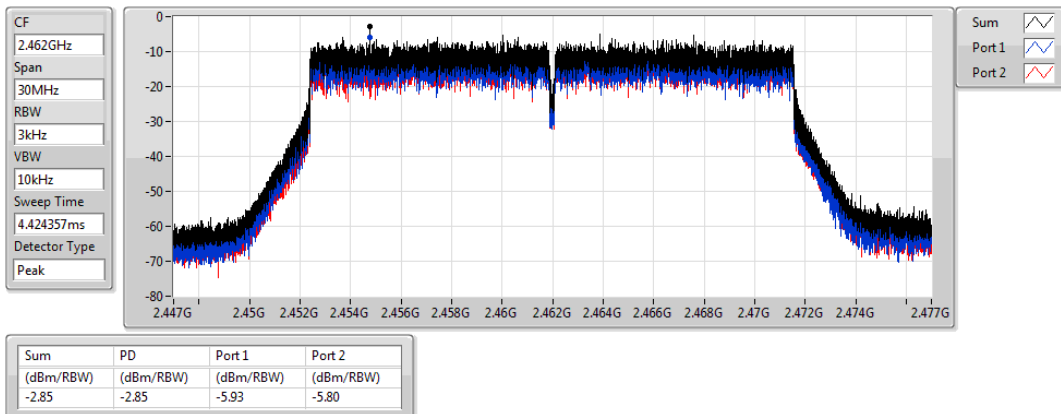


802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

2462MHz

14/01/2021

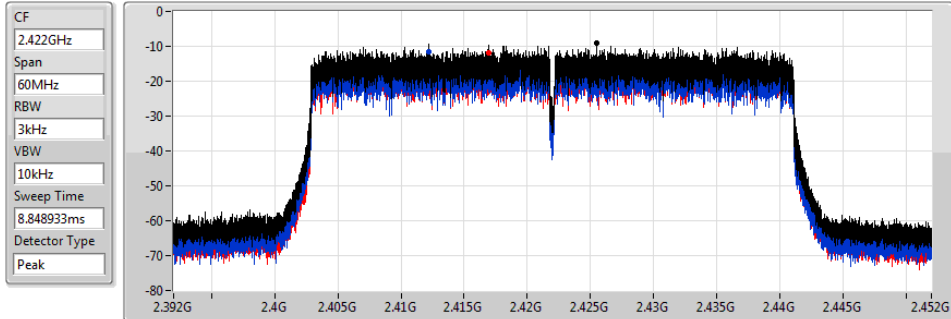


802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

2422MHz

14/01/2021



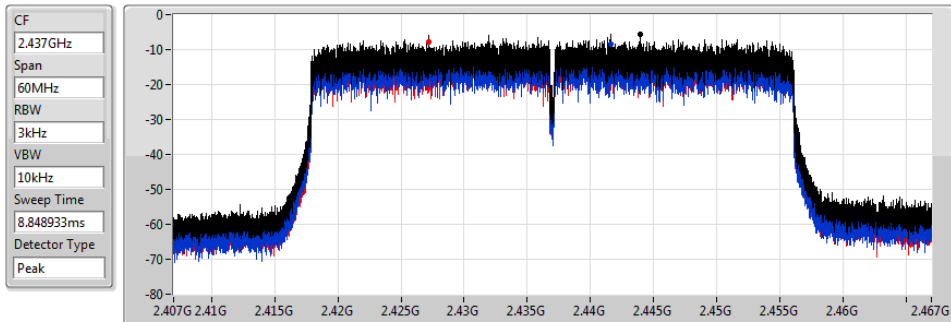
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.19	-9.19	-11.47	-12.00

802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

2437MHz

14/01/2021



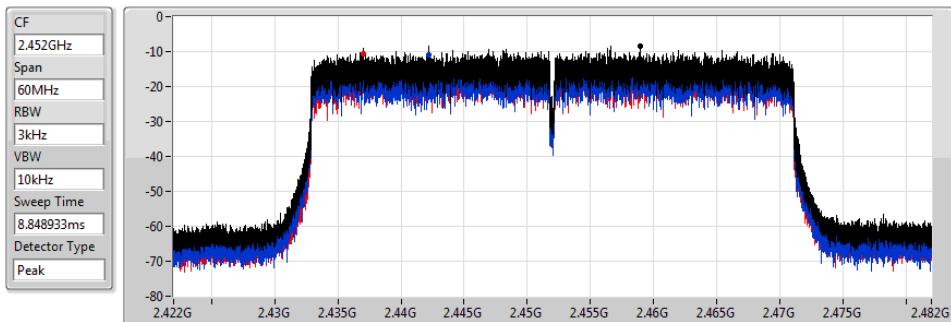
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.53	-5.53	-8.53	-7.91

802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

2452MHz

14/01/2021



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.30	-8.30	-11.09	-10.60

**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	19.33	-10.67	2.30059G	-50.08	2.398G	-38.94	2.4G	-44.66	2.48372G	-48.84	7.23514G	-43.88	2
802.11g_Nss1,(6Mbps)_2TX	Pass	2.44196G	14.11	-15.89	2.30641G	-51.36	2.4G	-35.08	2.4G	-37.68	2.4877G	-50.12	17.61647G	-46.34	2
802.11ax HEW20_Nss1,(MCS0)_2TX	Pass	2.43945G	13.60	-16.40	2.30525G	-52.19	2.39998G	-37.49	2.4G	-38.60	2.48932G	-49.94	16.45893G	-46.48	1
802.11ax HEW40_Nss1,(MCS0)_2TX	Pass	2.43198G	7.02	-22.98	2.30197G	-49.38	2.39952G	-40.47	2.4G	-45.12	2.48566G	-44.45	16.49657G	-46.23	2

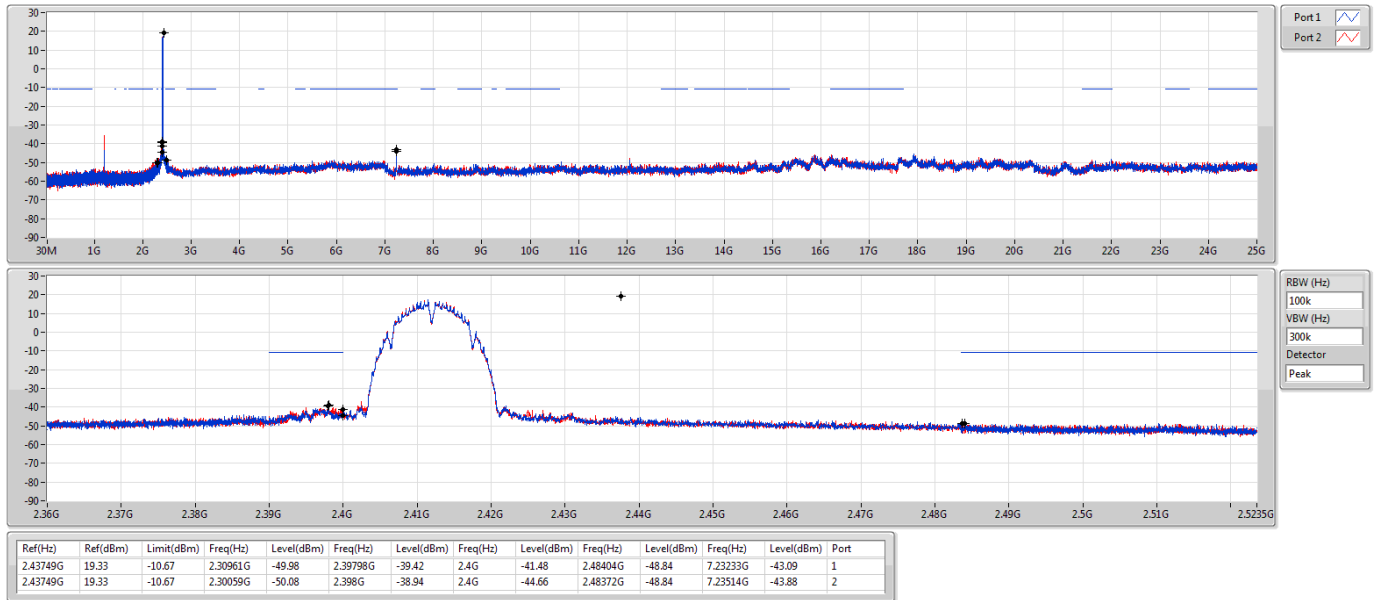
Result

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	19.33	-10.67	2.30961G	-49.98	2.39798G	-39.42	2.4G	-41.48	2.48404G	-48.84	7.23233G	-43.09	1
2412MHz	Pass	2.43749G	19.33	-10.67	2.30059G	-50.08	2.398G	-38.94	2.4G	-44.66	2.48372G	-48.84	7.23514G	-43.88	2
2437MHz	Pass	2.43749G	19.33	-10.67	2.30525G	-48.72	2.39432G	-44.14	2.4G	-46.62	2.49746G	-45.83	17.61366G	-46.83	1
2437MHz	Pass	2.43749G	19.33	-10.67	2.30845G	-50.63	2.39926G	-43.74	2.4G	-46.80	2.4858G	-44.44	17.63333G	-46.64	2
2462MHz	Pass	2.43749G	19.33	-10.67	2.30292G	-50.15	2.39822G	-45.75	2.4G	-47.98	2.48904G	-43.76	17.62209G	-46.29	1
2462MHz	Pass	2.43749G	19.33	-10.67	1.64149G	-42.81	2.39704G	-46.09	2.4835G	-47.22	2.48394G	-44.11	3.28208G	-36.51	2
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.44196G	14.11	-15.89	2.30845G	-50.83	2.39996G	-37.02	2.4G	-36.89	2.48388G	-49.44	16.67246G	-46.24	1
2412MHz	Pass	2.44196G	14.11	-15.89	2.30641G	-51.36	2.4G	-35.08	2.4G	-37.68	2.4877G	-50.12	17.61647G	-46.34	2
2437MHz	Pass	2.44196G	14.11	-15.89	2.30495G	-50.33	2.395G	-39.34	2.4G	-44.29	2.48452G	-45.15	16.24821G	-46.33	1
2437MHz	Pass	2.44196G	14.11	-15.89	2.18001G	-50.60	2.39822G	-36.16	2.4G	-39.75	2.48632G	-44.02	16.29878G	-46.62	2
2462MHz	Pass	2.44196G	14.11	-15.89	2.30088G	-53.42	2.3958G	-48.38	2.4835G	-44.34	2.4841G	-44.66	17.62771G	-46.70	1
2462MHz	Pass	2.44196G	14.11	-15.89	2.30641G	-51.82	2.39418G	-49.42	2.4835G	-47.18	2.4842G	-42.84	3.28208G	-33.98	2
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43945G	13.60	-16.40	2.30525G	-52.19	2.39998G	-37.49	2.4G	-38.60	2.48932G	-49.94	16.45893G	-46.48	1
2412MHz	Pass	2.43945G	13.60	-16.40	2.30029G	-51.32	2.39996G	-39.33	2.4G	-39.85	2.4975G	-49.76	17.62209G	-45.37	2
2437MHz	Pass	2.43945G	13.60	-16.40	2.30466G	-49.77	2.39448G	-40.80	2.4G	-43.22	2.48384G	-41.59	17.67828G	-46.70	1
2437MHz	Pass	2.43945G	13.60	-16.40	2.30816G	-49.43	2.39978G	-39.04	2.4G	-39.78	2.48384G	-43.17	16.2145G	-46.29	2
2462MHz	Pass	2.43945G	13.60	-16.40	2.30612G	-53.31	2.39976G	-49.08	2.4835G	-46.86	2.48382G	-42.68	17.61647G	-46.74	1
2462MHz	Pass	2.43945G	13.60	-16.40	2.30204G	-52.60	2.3962G	-49.84	2.4835G	-47.22	2.4838G	-43.03	3.28208G	-34.23	2
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.43198G	7.02	-22.98	2.30168G	-50.58	2.3958G	-44.19	2.4G	-46.11	2.48798G	-49.97	17.63802G	-46.45	1
2422MHz	Pass	2.43198G	7.02	-22.98	2.30798G	-51.09	2.39824G	-42.34	2.4G	-45.35	2.49738G	-49.82	17.60156G	-46.68	2
2437MHz	Pass	2.43198G	7.02	-22.98	2.30741G	-50.28	2.39952G	-42.02	2.4G	-44.87	2.48562G	-45.76	16.46572G	-46.65	1
2437MHz	Pass	2.43198G	7.02	-22.98	2.30197G	-49.38	2.39952G	-40.47	2.4G	-45.12	2.48566G	-44.45	16.49657G	-46.23	2
2452MHz	Pass	2.43198G	7.02	-22.98	2.30197G	-52.49	2.39504G	-48.94	2.4835G	-46.03	2.48794G	-44.91	17.66887G	-46.23	1
2452MHz	Pass	2.43198G	7.02	-22.98	2.30054G	-50.60	2.39108G	-48.09	2.4835G	-45.73	2.48946G	-42.33	3.26745G	-33.31	2

802.11b_Nss1,(1Mbps)_2TX

CSE NdB

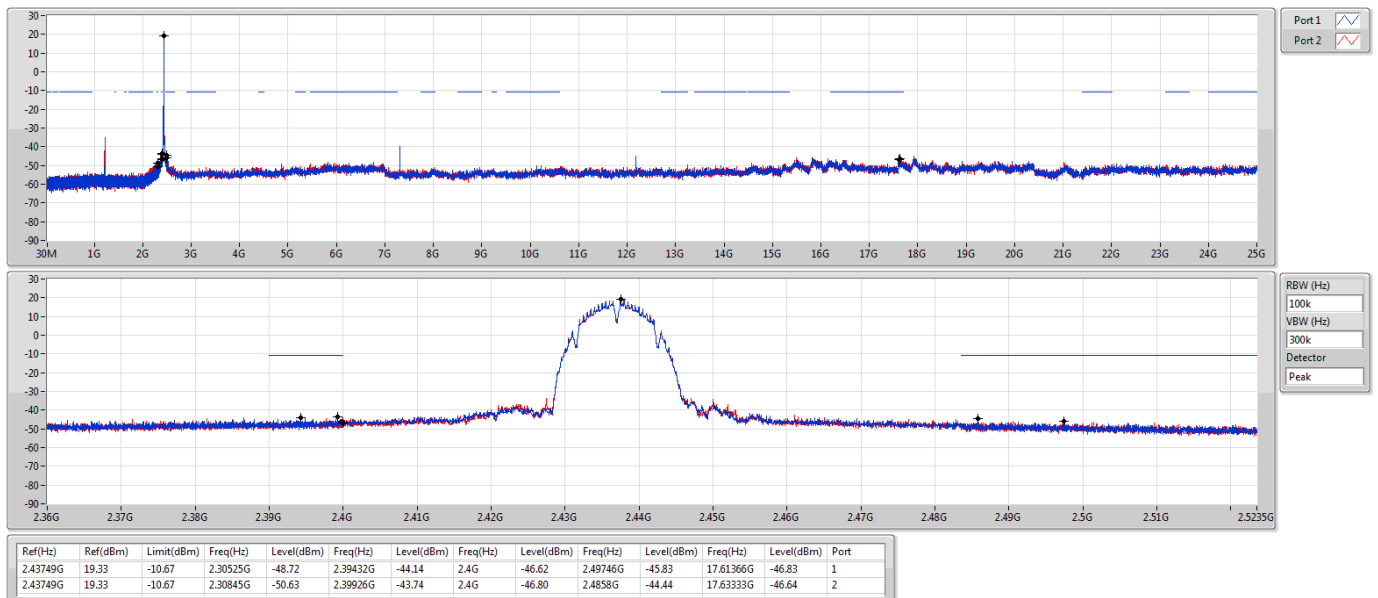
2412MHz



802.11b_Nss1,(1Mbps)_2TX

CSE NdB

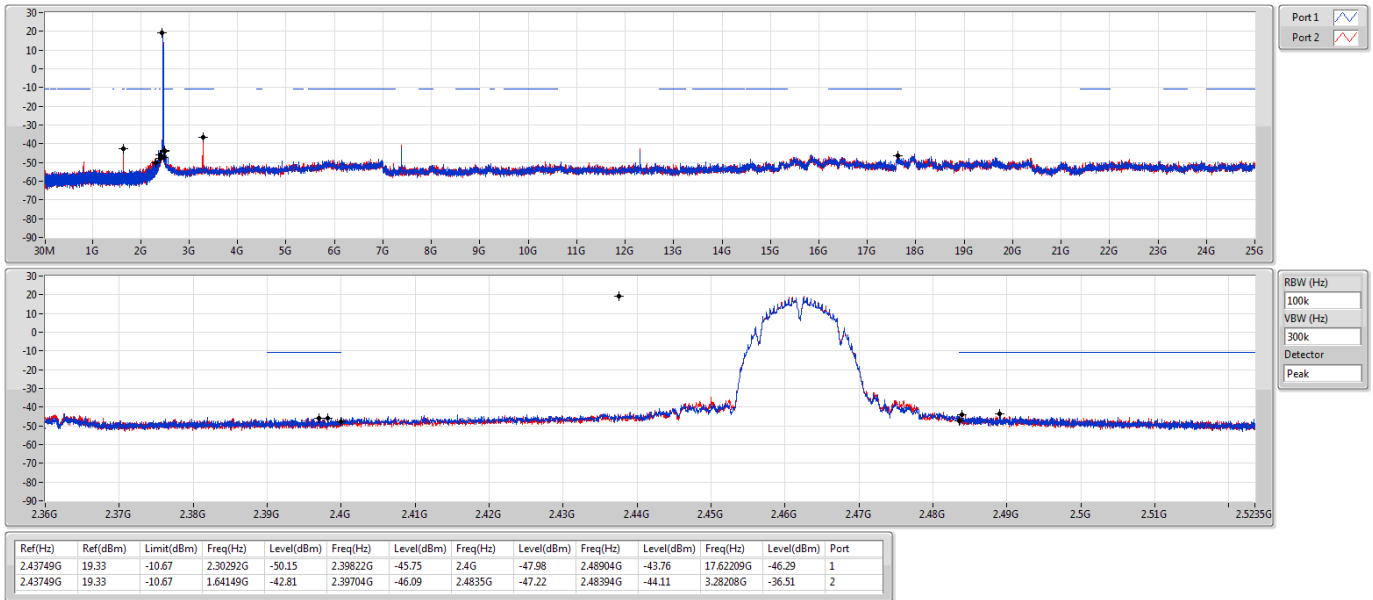
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802.11b_Nss1,(1Mbps)_2TX

2462MHz

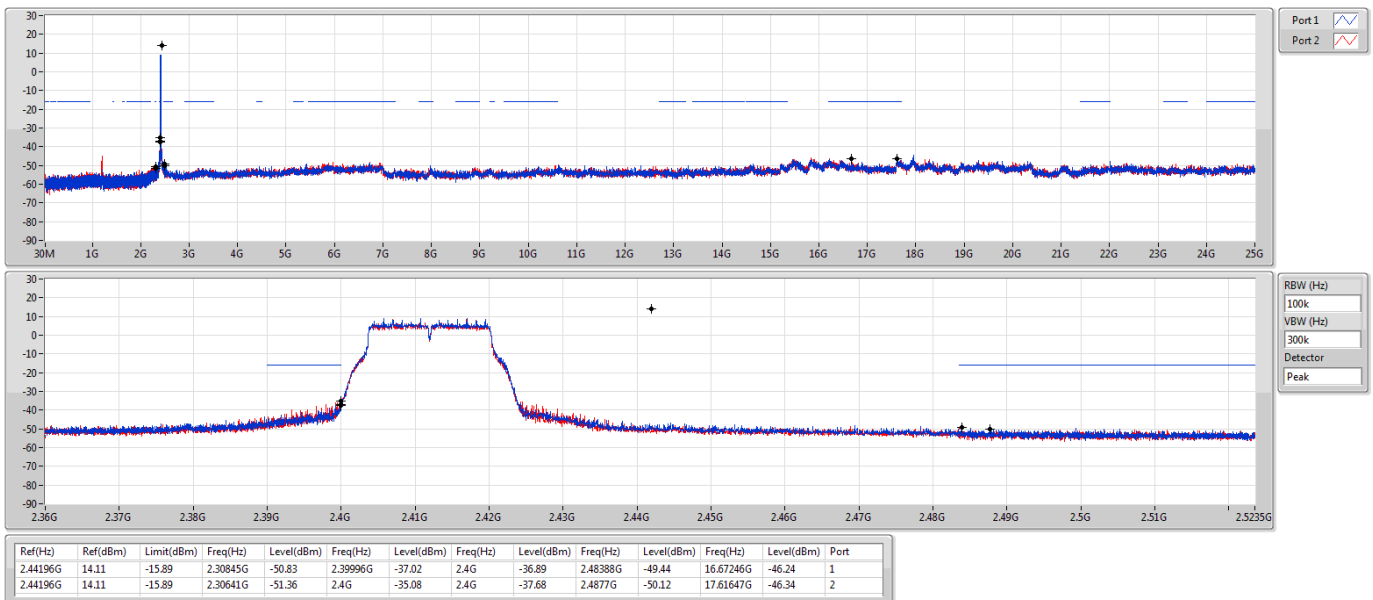
CSE NdB



802.11g_Nss1,(6Mbps)_2TX

2412MHz

CSE NdB

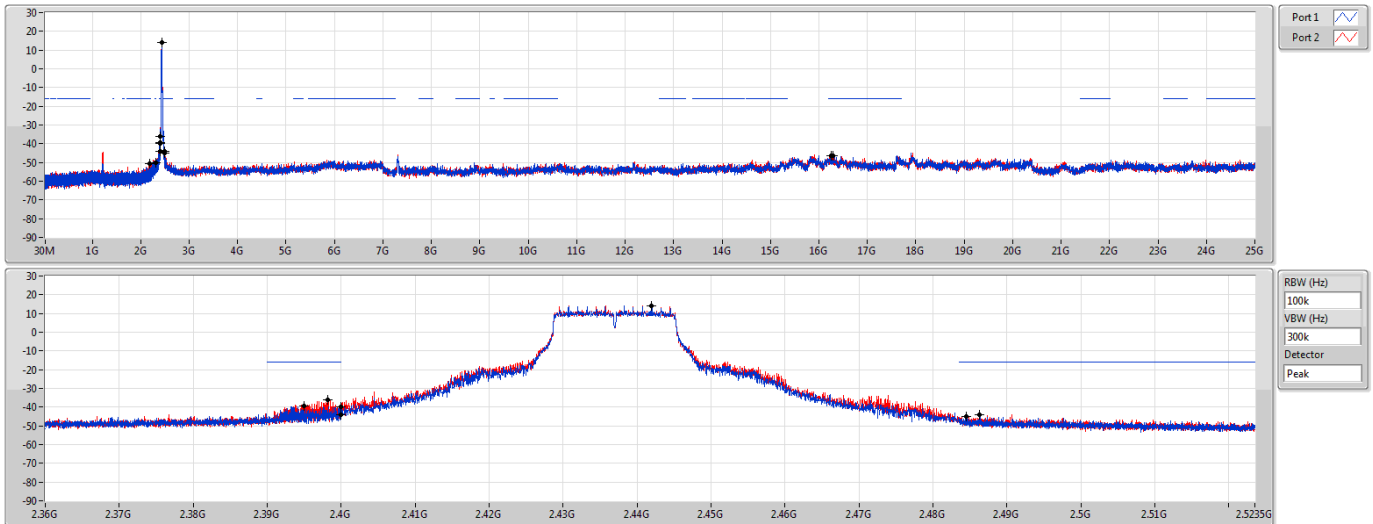


802.11g_Nss1,(6Mbps)_2TX

2437MHz

CSE NdB

14/01/2021

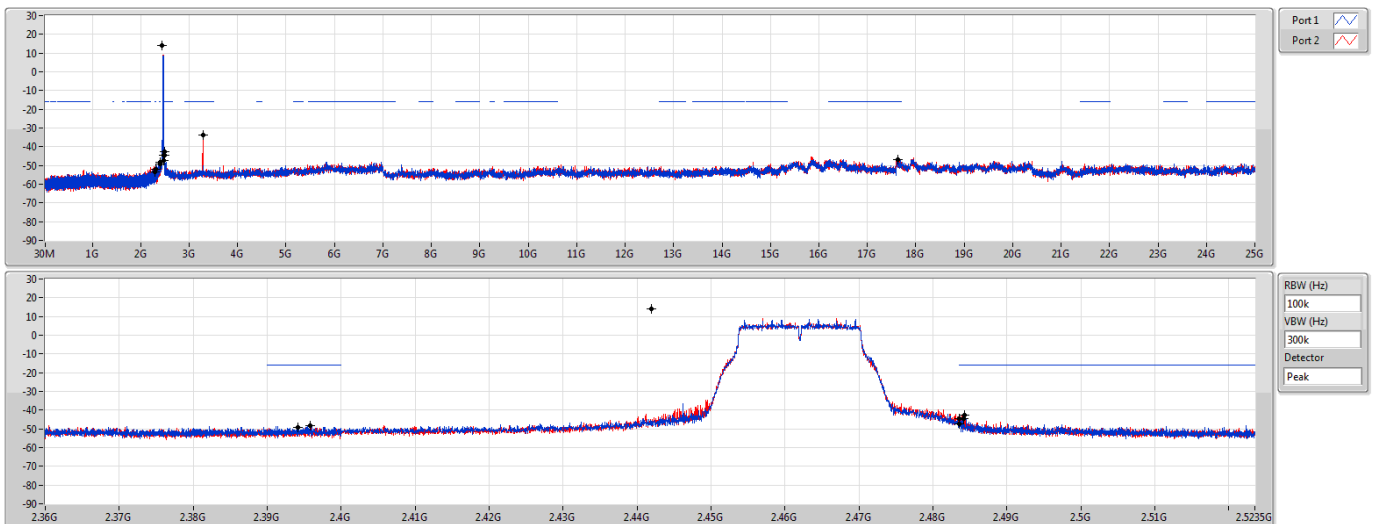


802.11g_Nss1,(6Mbps)_2TX

2462MHz

CSE NdB

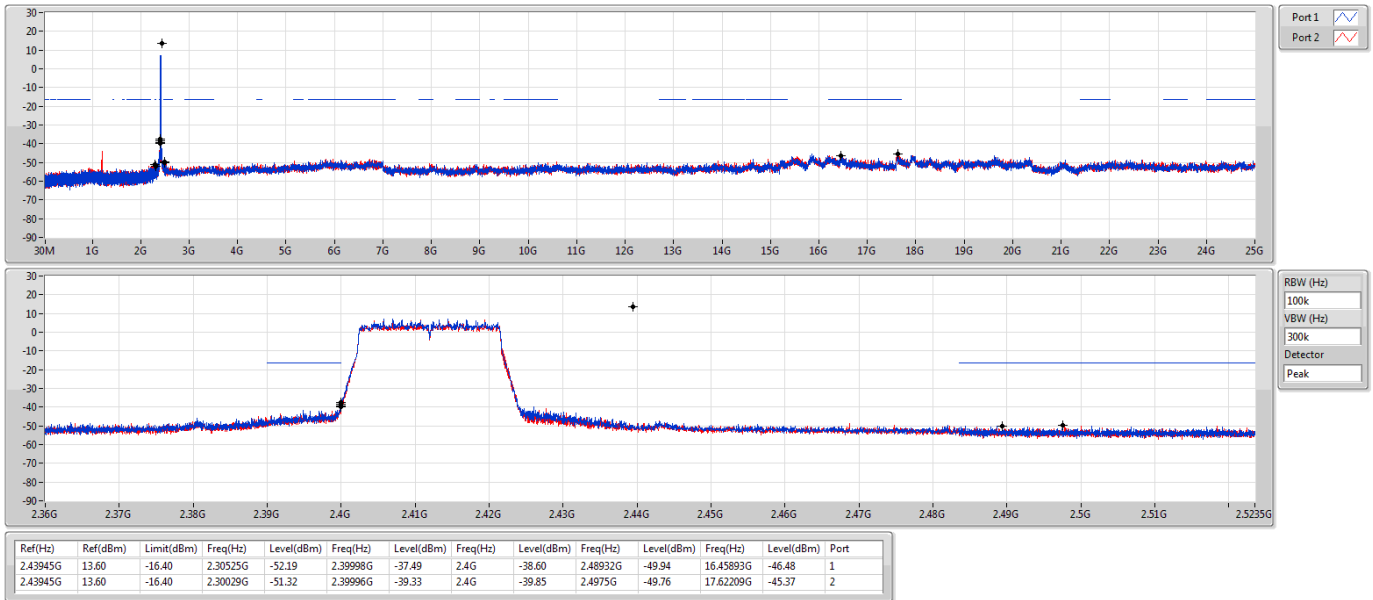
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802.11ax HEW20_Nss1,(MCS0)_2TX

CSE NdB

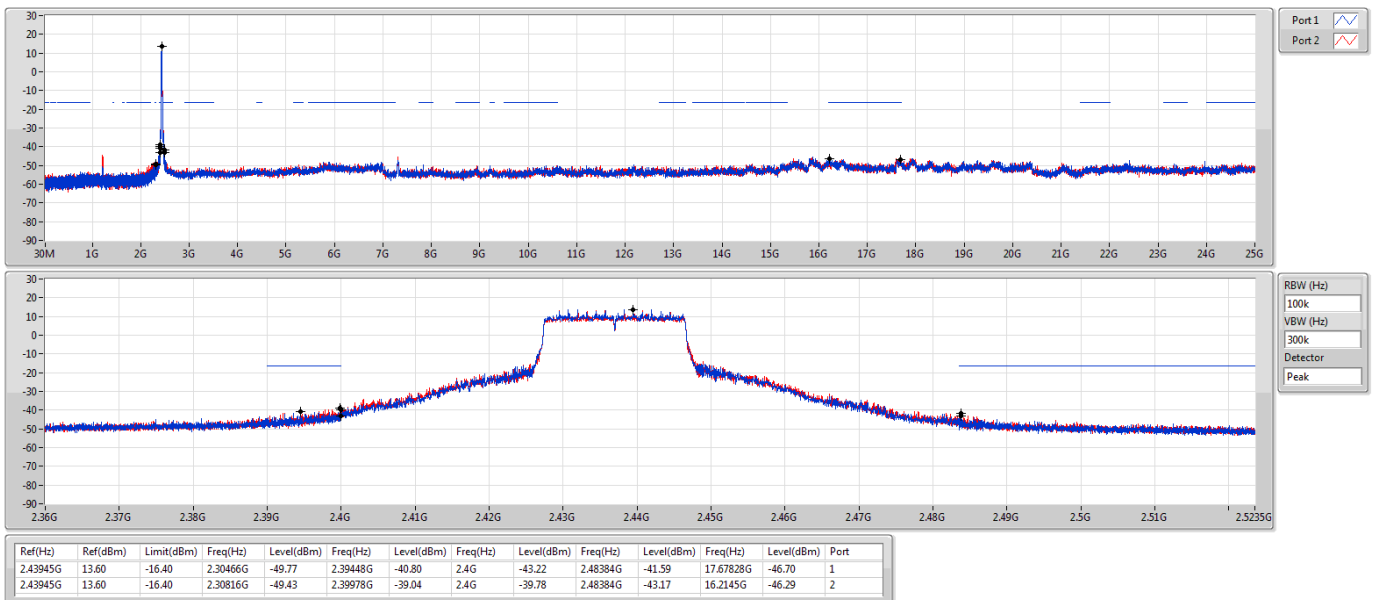
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802.11ax HEW20_Nss1,(MCS0)_2TX

CSE NdB

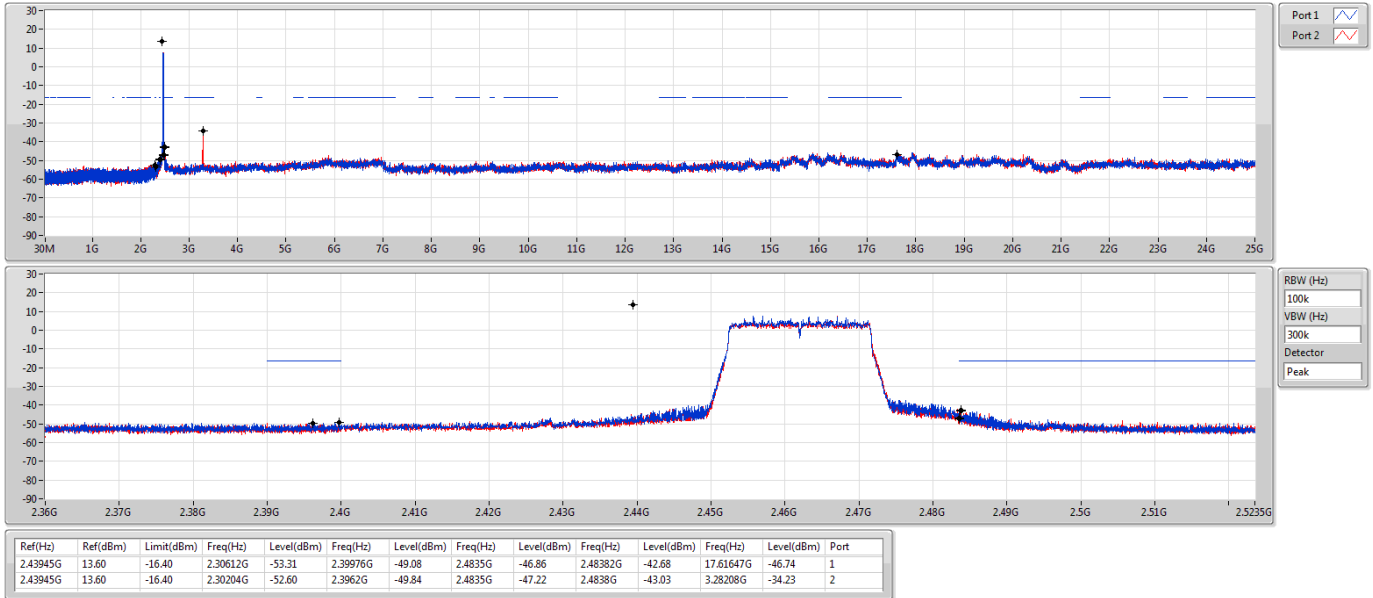
2437MHz



802.11ax HEW20_Nss1,(MCS0)_2TX

2462MHz

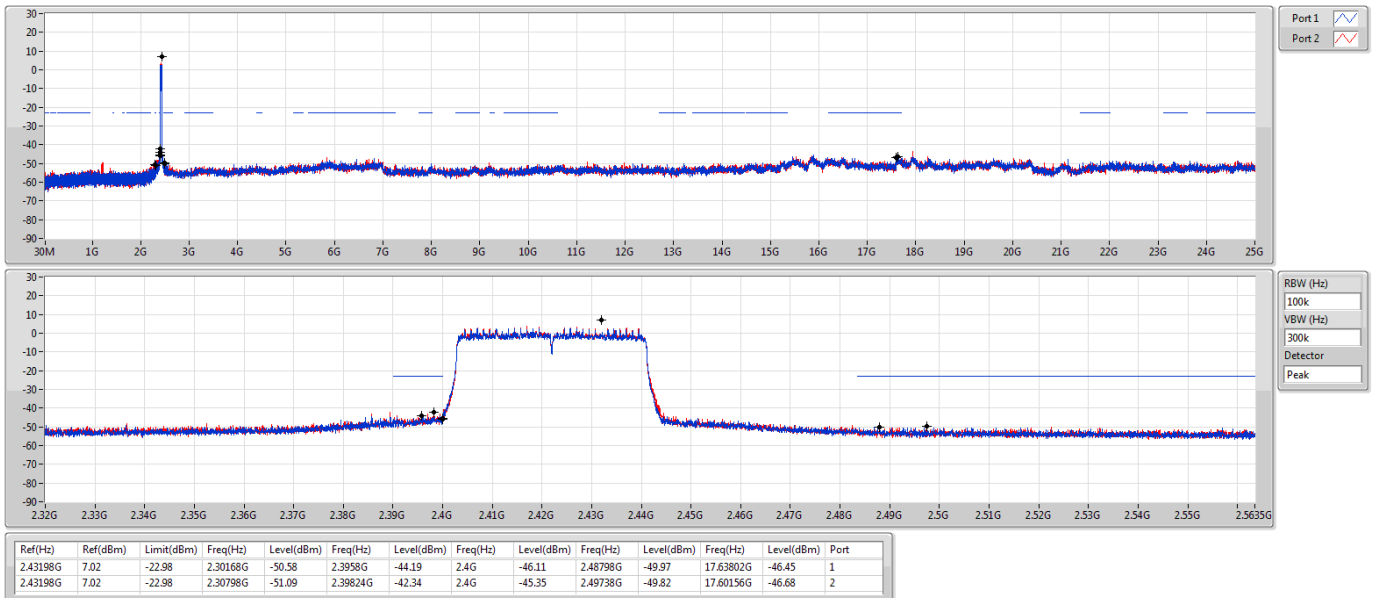
CSE NdB



802.11ax HEW40_Nss1,(MCS0)_2TX

2422MHz

CSE NdB

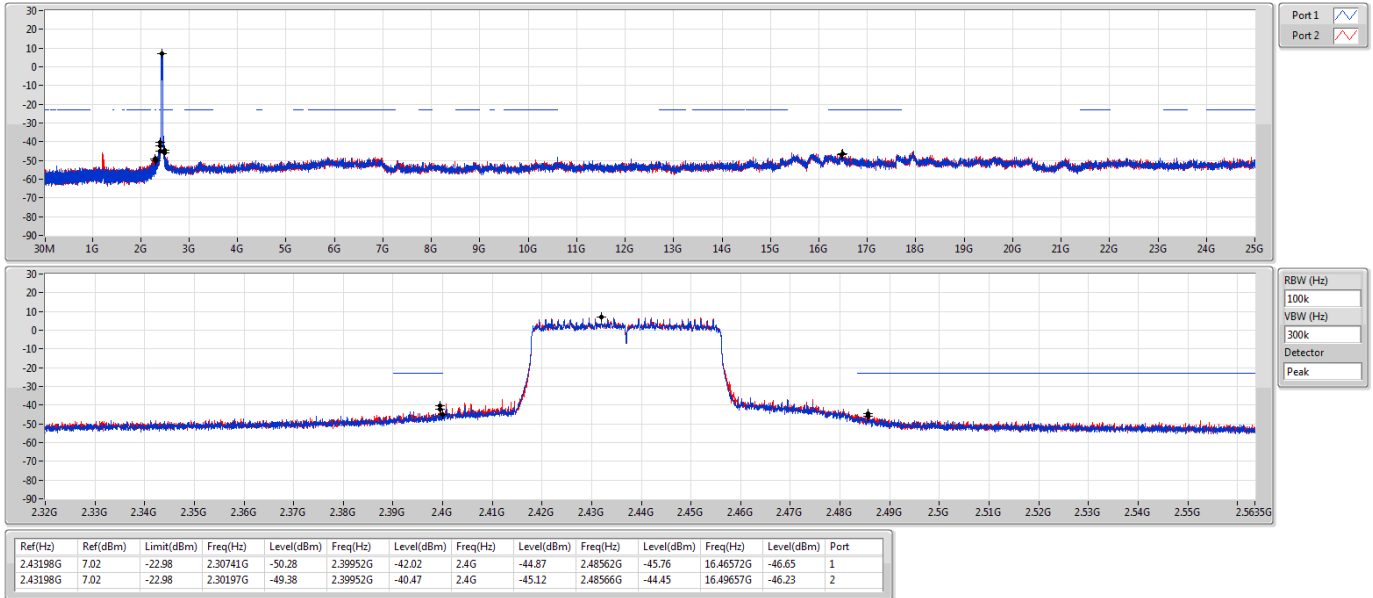


802.11ax HEW40_Nss1,(MCS0)_2TX

2437MHz

CSE NdB

14/01/2021

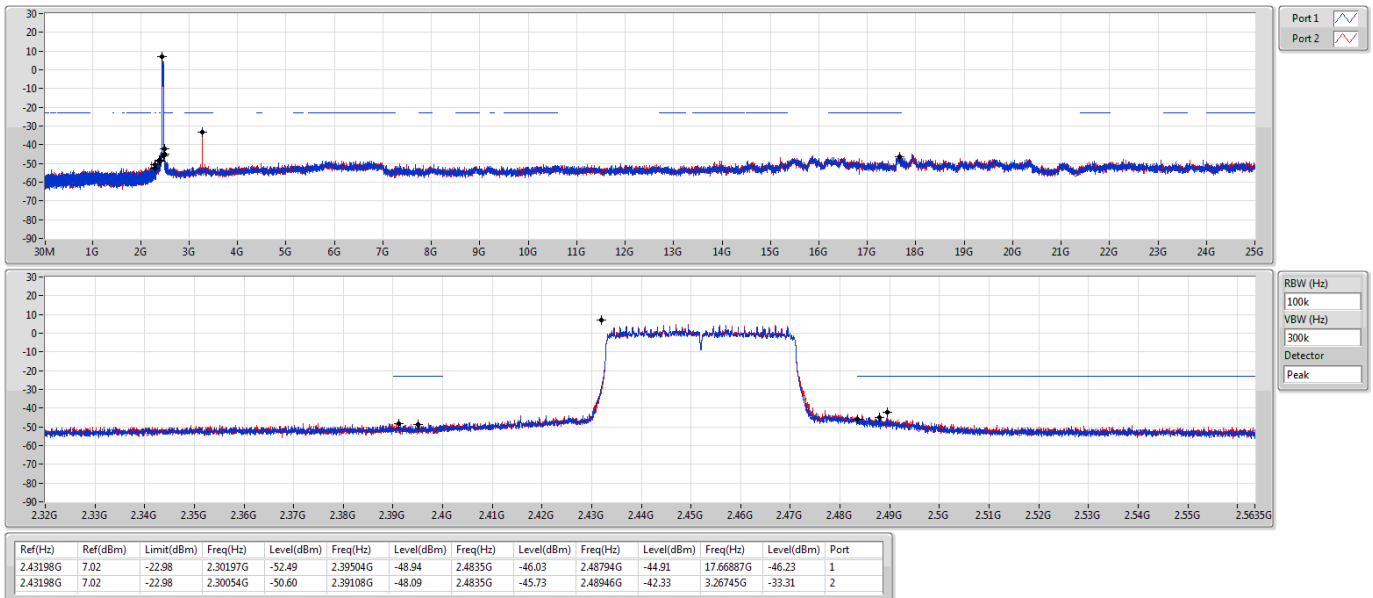


802.11ax HEW40_Nss1,(MCS0)_2TX

2452MHz

CSE NdB

14/01/2021





Radiated Emissions below 1GHz

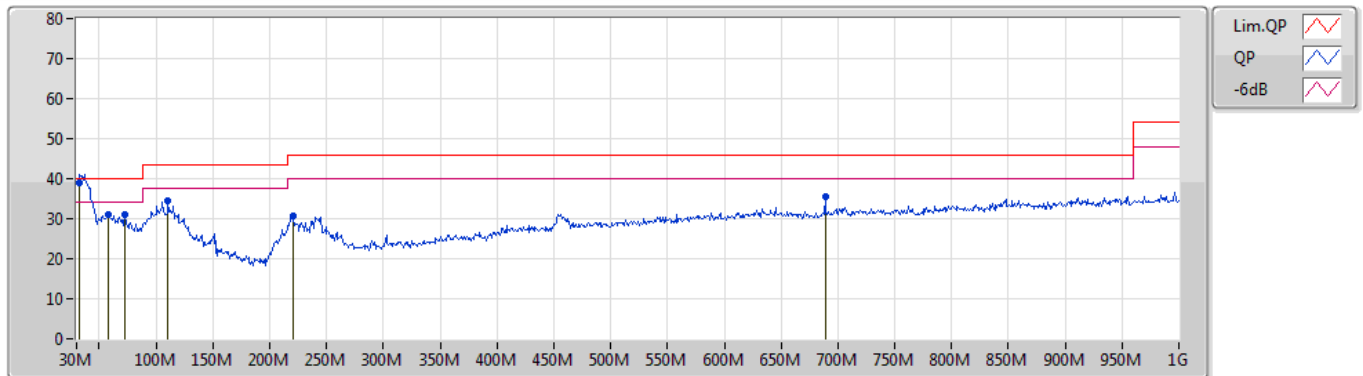
Appendix F.1

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	QP	32.91M	38.95	40.00	-1.05	Vertical

Mode 1

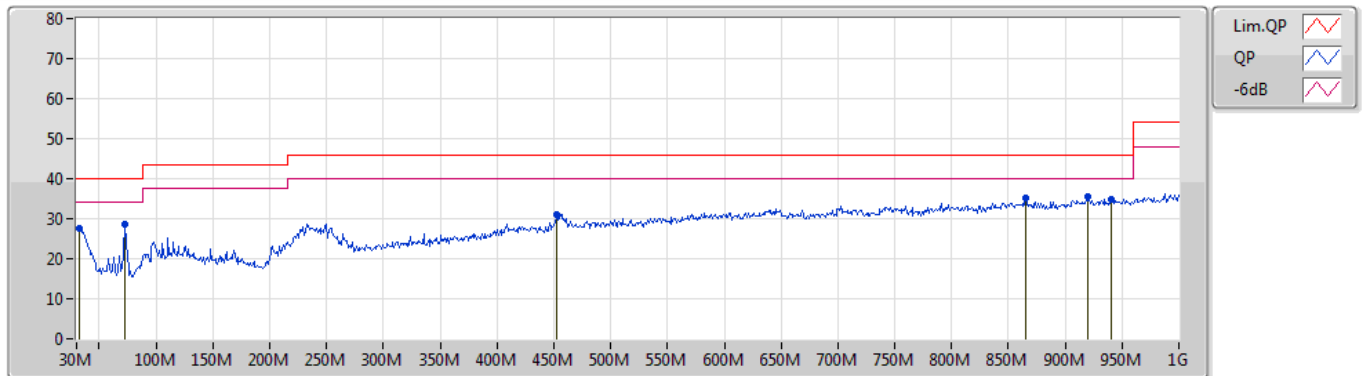
22/01/2021



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
QP	32.91M	38.95	40.00	-1.05	-9.15	3	Vertical	222	1.25	"Worst"	48.10	22.23	1.00	32.38
PK	58.13M	31.18	40.00	-8.82	-18.57	3	Vertical	38	1.00	-	49.75	12.45	1.36	32.38
PK	72.68M	30.87	40.00	-9.13	-18.69	3	Vertical	106	1.00	-	49.56	12.16	1.50	32.35
PK	110.51M	34.33	43.50	-9.17	-12.41	3	Vertical	227	1.00	-	46.74	17.99	1.91	32.31
PK	220.12M	30.60	46.00	-15.40	-14.28	3	Vertical	142	1.00	-	44.88	15.21	2.72	32.21
PK	688.63M	35.40	46.00	-10.60	-1.98	3	Vertical	172	1.00	-	37.38	24.99	5.05	32.02

Mode 1

22/01/2021



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
PK	31.94M	27.63	40.00	-12.37	-8.56	3	Horizontal	232	1.50	-	36.19	22.81	1.00	32.37
PK	72.68M	28.47	40.00	-11.53	-18.69	3	Horizontal	94	2.00	-	47.16	12.16	1.50	32.35
PK	452.92M	31.18	46.00	-14.82	-5.13	3	Horizontal	360	2.00	-	36.31	22.90	4.02	32.05
PK	865.17M	35.06	46.00	-10.94	0.52	3	Horizontal	346	1.25	-	34.54	26.20	5.76	31.44
PK	919.49M	35.60	46.00	-10.40	1.50	3	Horizontal	359	1.00	"Worst"	34.10	26.66	5.98	31.14
PK	940.83M	34.80	46.00	-11.20	1.80	3	Horizontal	349	2.00	-	33.00	26.69	6.06	30.95



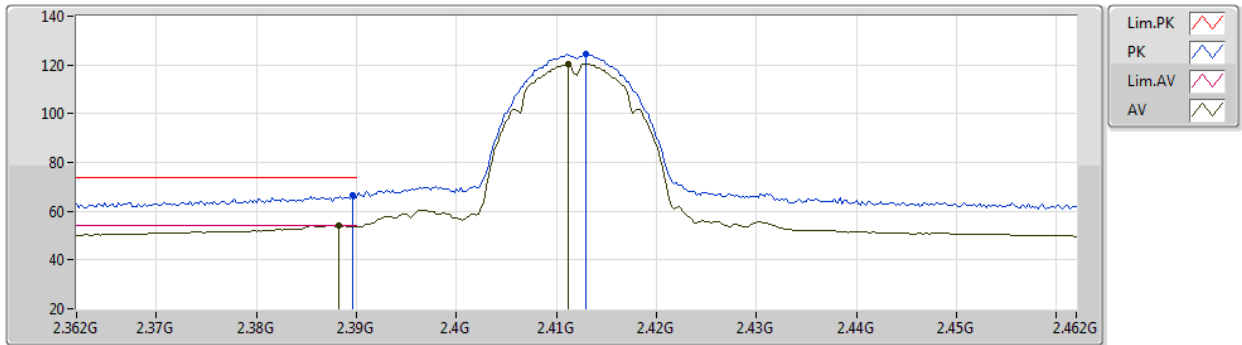
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11g_Nss1.(6Mbps)_2TX	Pass	PK	2.389G	73.99	74.00	-0.01	3	Vertical	180	1.95	-

802.11b_Nss1,(1Mbps)_2TX

11/01/2021

2412MHz_TX



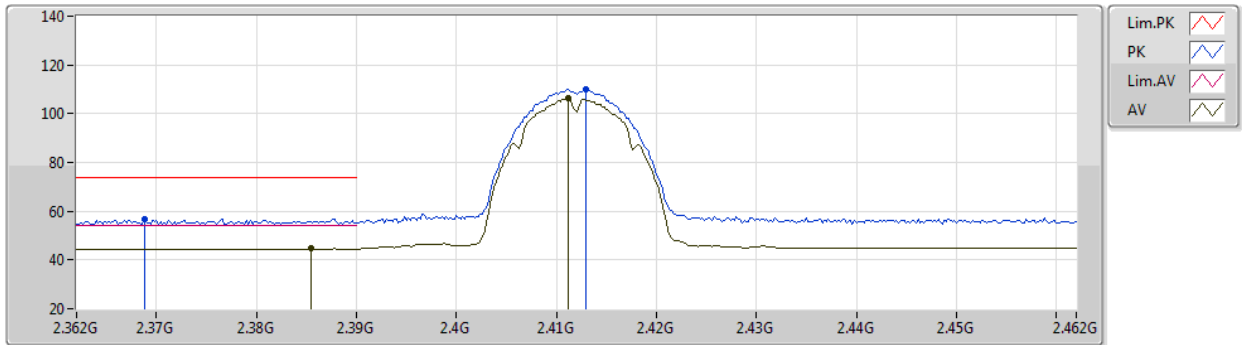
EUT Y_2TX
Setting 99
03-L-R-5

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	66.40	74.00	-7.60	34.81	3	Vertical	183	1.86	-	28.10	3.49	-
AV	2.3882G	53.94	54.00	-0.06	22.35	3	Vertical	183	1.86	-	28.10	3.49	-
PK	2.413G	124.55	Inf	-Inf	92.91	3	Vertical	183	1.86	-	28.13	3.51	-
AV	2.4112G	120.41	Inf	-Inf	88.78	3	Vertical	183	1.86	-	28.12	3.51	-

802.11b_Nss1,(1Mbps)_2TX

11/01/2021

2412MHz_TX



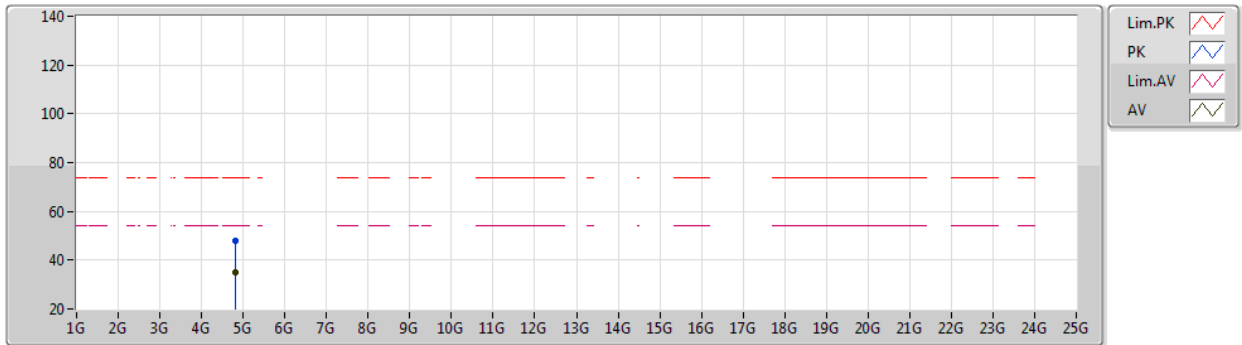
EUT Y_2TX
Setting 99
03-L-R-5

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	2.3688G	56.71	74.00	-17.29	25.14	3	Horizontal	198	1.00	-	28.10	3.47	-
AV	2.3854G	44.61	54.00	-9.39	13.02	3	Horizontal	198	1.00	-	28.10	3.49	-
PK	2.413G	109.93	Inf	-Inf	78.29	3	Horizontal	198	1.00	-	28.13	3.51	-
AV	2.4112G	106.21	Inf	-Inf	74.58	3	Horizontal	198	1.00	-	28.12	3.51	-

802.11b_Nss1,(1Mbps)_2TX

11/01/2021

2412MHz_TX



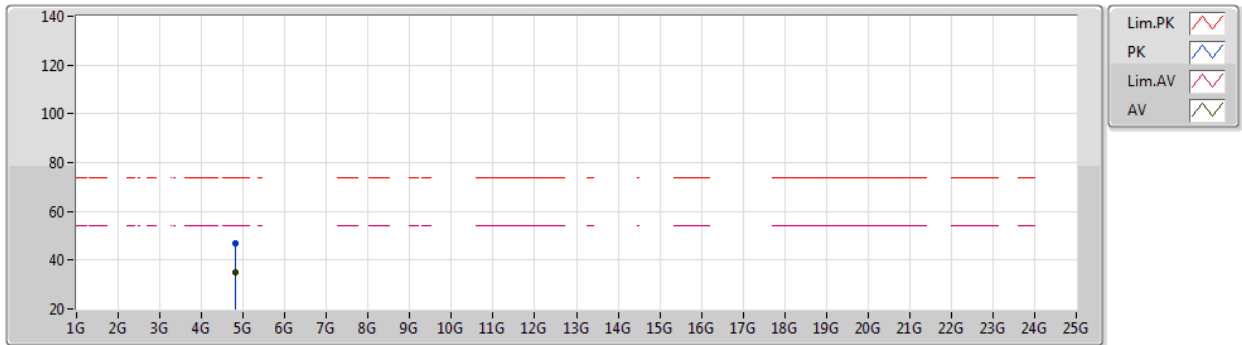
EUT Y_2TX
Setting 99
03-L-J-7

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	4.8241G	47.93	74.00	-26.07	43.69	3	Vertical	338	2.97	-	33.30	6.24	35.30
AV	4.8239G	35.20	54.00	-18.80	30.96	3	Vertical	338	2.97	-	33.30	6.24	35.30

802.11b_Nss1,(1Mbps)_2TX

11/01/2021

2412MHz_TX



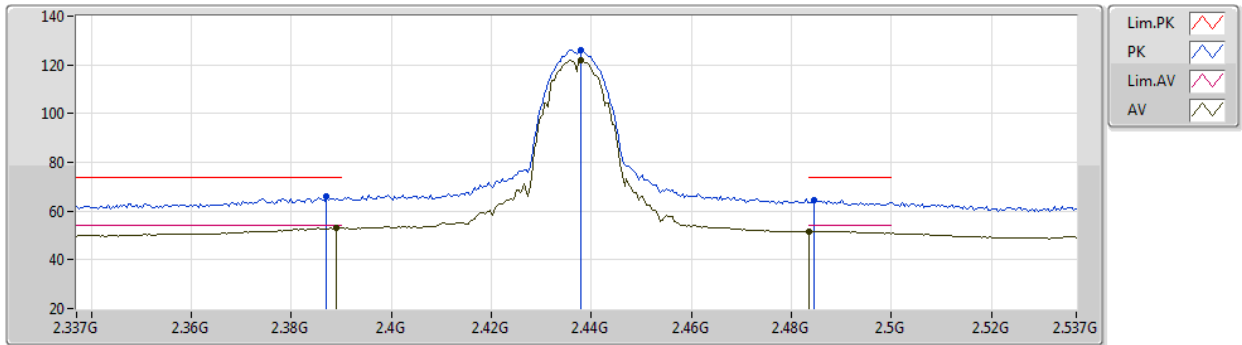
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Setting 99
03-L-J-7

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	4.8242G	46.97	74.00	-27.03	42.73	3	Horizontal	334	1.81	-	33.30	6.24	35.30
AV	4.824G	35.02	54.00	-18.98	30.78	3	Horizontal	334	1.81	-	33.30	6.24	35.30

802.11b_Nss1,(1Mbps)_2TX

11/01/2021

2437MHz_TX



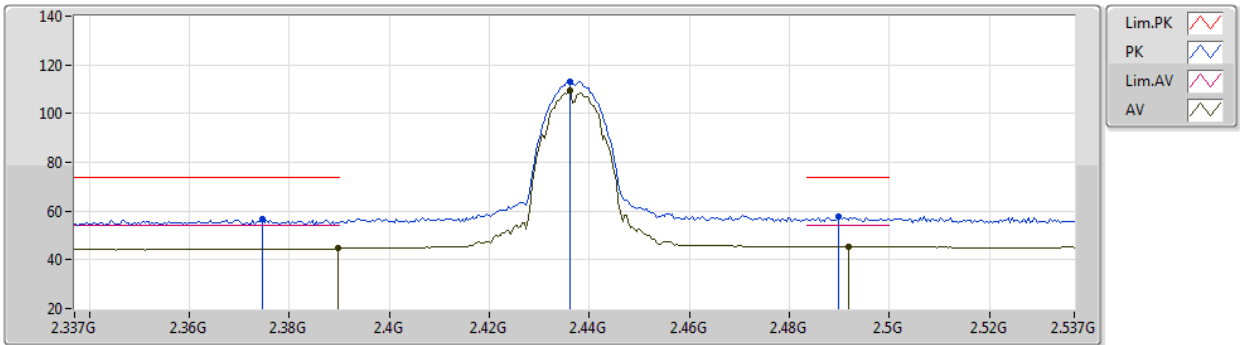
EUT Y_2TX
Setting 108
03-L-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.387G	66.01	74.00	-7.99	34.42	3	Vertical	6	1.80	-	28.10	3.49	-
AV	2.389G	53.04	54.00	-0.96	21.45	3	Vertical	6	1.80	-	28.10	3.49	-
PK	2.4378G	126.05	Inf	-Inf	94.33	3	Vertical	6	1.80	-	28.18	3.54	-
AV	2.4378G	121.90	Inf	-Inf	90.18	3	Vertical	6	1.80	-	28.18	3.54	-
PK	2.4846G	64.60	74.00	-9.40	32.61	3	Vertical	6	1.80	-	28.41	3.58	-
AV	2.4835G	51.65	54.00	-2.35	19.67	3	Vertical	6	1.80	-	28.40	3.58	-

802.11b_Nss1,(1Mbps)_2TX

11/01/2021

2437MHz_TX



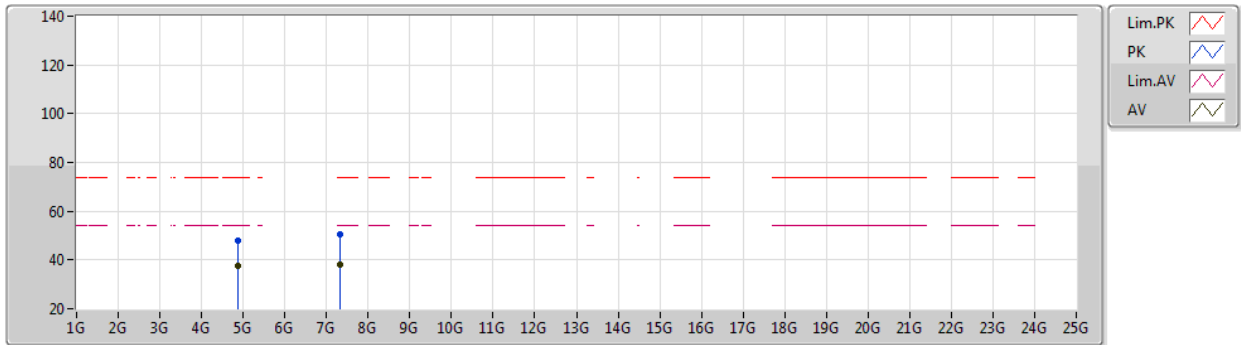
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Setting 108
03-L-R-5

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	2.3746G	56.49	74.00	-17.51	24.92	3	Horizontal	200	1.08	-	28.10	3.47	-
AV	2.3898G	44.58	54.00	-9.42	12.99	3	Horizontal	200	1.08	-	28.10	3.49	-
PK	2.4362G	113.11	Inf	-Inf	81.40	3	Horizontal	200	1.08	-	28.17	3.54	-
AV	2.4362G	109.31	Inf	-Inf	77.60	3	Horizontal	200	1.08	-	28.17	3.54	-
PK	2.4898G	57.57	74.00	-16.43	25.54	3	Horizontal	200	1.08	-	28.44	3.59	-
AV	2.4918G	45.53	54.00	-8.47	13.49	3	Horizontal	200	1.08	-	28.45	3.59	-

802.11b_Nss1,(1Mbps)_2TX

11/01/2021

2437MHz_TX



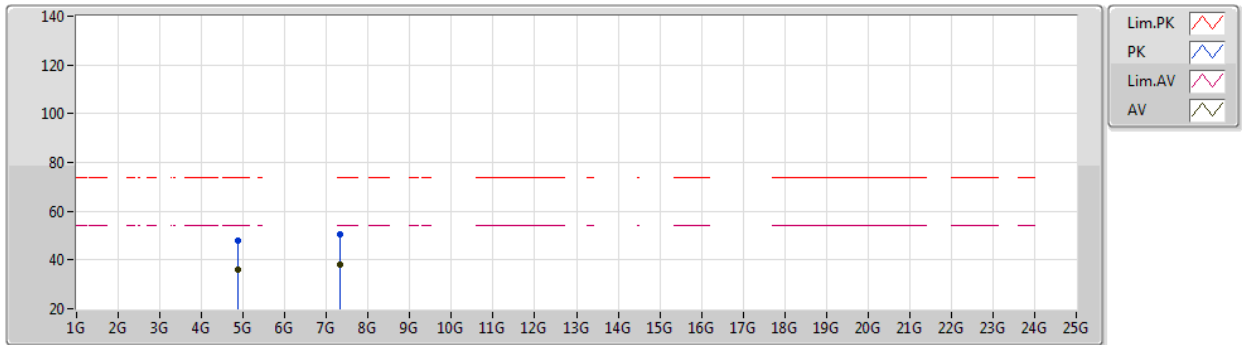
EUT Y_2TX
Setting 108
03-L-J-7

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	4.87396G	48.15	74.00	-25.85	43.70	3	Vertical	288	1.72	-	33.50	6.31	35.36
AV	4.8739G	37.81	54.00	-16.19	33.36	3	Vertical	288	1.72	-	33.50	6.31	35.36
PK	7.31376G	50.41	74.00	-23.59	41.18	3	Vertical	324	2.47	-	36.76	7.87	35.40
AV	7.31528G	38.03	54.00	-15.97	28.80	3	Vertical	324	2.47	-	36.76	7.87	35.40

802.11b_Nss1,(1Mbps)_2TX

11/01/2021

2437MHz_TX



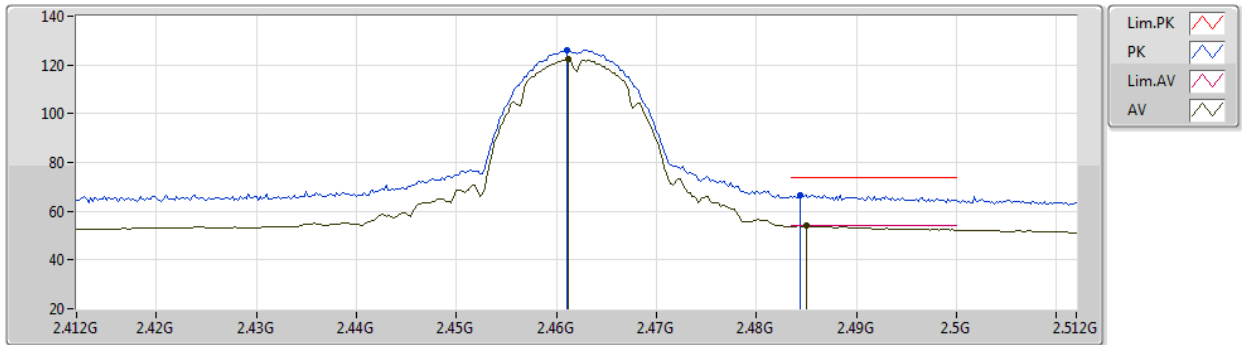
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Setting 108
03-L-J-7

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	4.87401G	47.83	74.00	-26.17	43.38	3	Horizontal	27	1.89	-	33.50	6.31	35.36
AV	4.87393G	36.22	54.00	-17.78	31.77	3	Horizontal	27	1.89	-	33.50	6.31	35.36
PK	7.31073G	50.60	74.00	-23.40	41.38	3	Horizontal	134	1.72	-	36.74	7.87	35.39
AV	7.31034G	37.99	54.00	-16.01	28.77	3	Horizontal	134	1.72	-	36.74	7.87	35.39

802.11b_Nss1,(1Mbps)_2TX

11/01/2021

2462MHz_TX



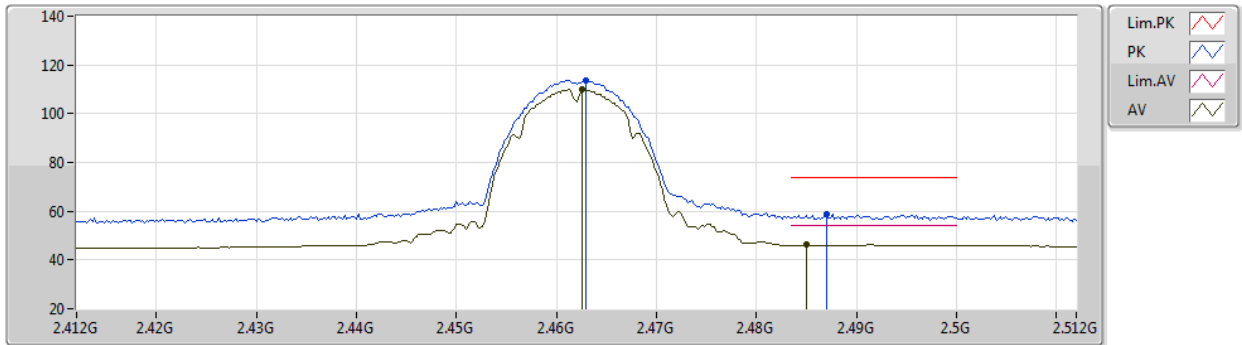
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Setting 108
03-L-R-5

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	126.20	Inf	-Inf	94.37	3	Vertical	8	1.78	-	28.27	3.56	-
AV	2.4612G	122.39	Inf	-Inf	90.56	3	Vertical	8	1.78	-	28.27	3.56	-
PK	2.4844G	66.79	74.00	-7.21	34.80	3	Vertical	8	1.78	-	28.41	3.58	-
AV	2.485G	53.97	54.00	-0.03	21.97	3	Vertical	8	1.78	-	28.41	3.59	-

802.11b_Nss1,(1Mbps)_2TX

11/01/2021

2462MHz_TX



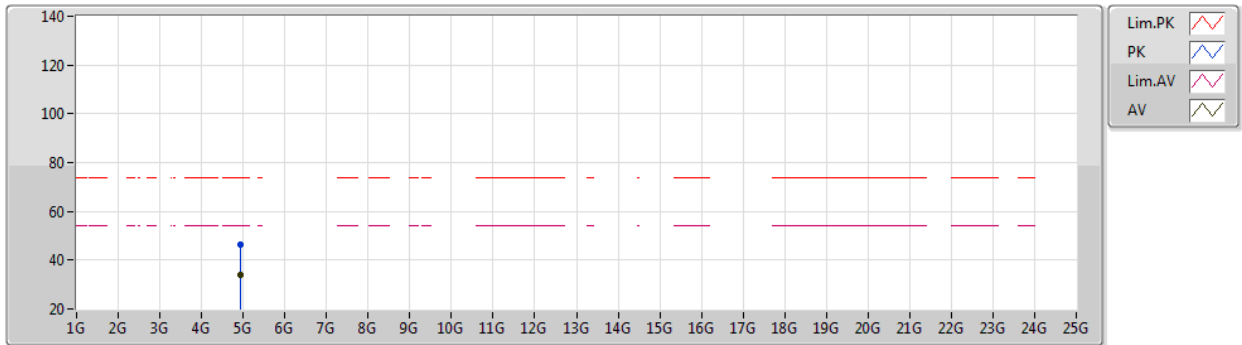
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Setting 108
03-L-R-5

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	113.86	Inf	-Inf	82.02	3	Horizontal	200	1.05	-	28.28	3.56	-
AV	2.4626G	109.86	Inf	-Inf	78.02	3	Horizontal	200	1.05	-	28.28	3.56	-
PK	2.487G	58.75	74.00	-15.25	26.74	3	Horizontal	200	1.05	-	28.42	3.59	-
AV	2.485G	46.22	54.00	-7.78	14.22	3	Horizontal	200	1.05	-	28.41	3.59	-

802.11b_Nss1,(1Mbps)_2TX

11/01/2021

2462MHz_TX



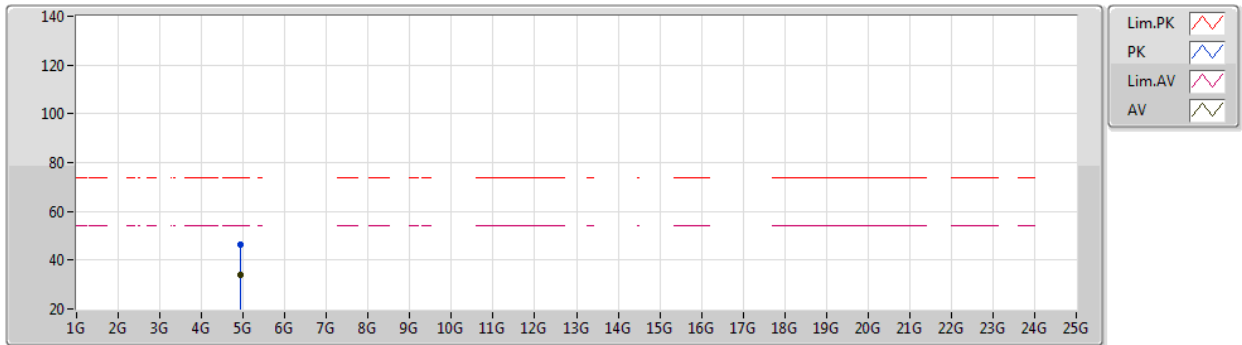
EUT Y_2TX
Setting 108
03-L-J-7

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	46.21	74.00	-27.79	41.73	3	Vertical	224	1.84	-	33.50	6.39	35.41	
AV	4.92384G	34.09	54.00	-19.91	29.61	3	Vertical	224	1.84	-	33.50	6.39	35.41	

802.11b_Nss1,(1Mbps)_2TX

11/01/2021

2462MHz_TX



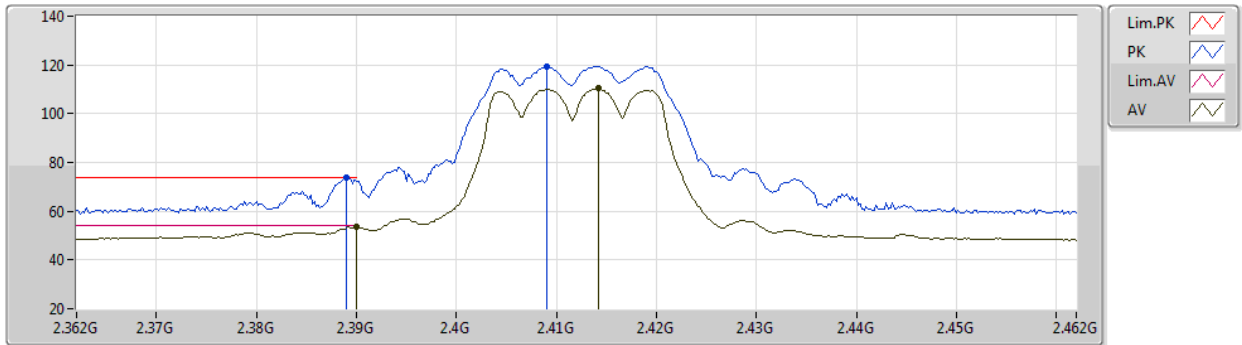
EUT Y_2TX
Setting 108
03-L-J-7

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	4.9237G	46.63	74.00	-27.37	42.14	3	Horizontal	201	1.78	-	33.51	6.39	35.41	
AV	4.9241G	34.09	54.00	-19.91	29.61	3	Horizontal	201	1.78	-	33.50	6.39	35.41	

802.11g_Nss1,(6Mbps)_2TX

11/01/2021

2412MHz_TX



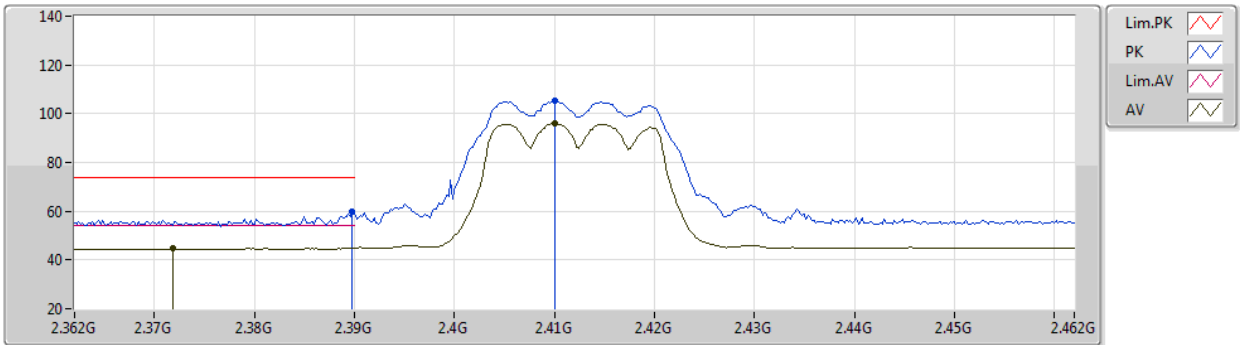
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Setting 80
03-L-R-5

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	73.99	74.00	-0.01	42.40	3	Vertical	180	1.95	-	28.10	3.49	-
AV	2.39G	53.51	54.00	-0.49	21.92	3	Vertical	180	1.95	-	28.10	3.49	-
PK	2.409G	119.22	Inf	-Inf	87.59	3	Vertical	180	1.95	-	28.12	3.51	-
AV	2.4142G	110.28	Inf	-Inf	78.64	3	Vertical	180	1.95	-	28.13	3.51	-

802.11g_Nss1,(6Mbps)_2TX

11/01/2021

2412MHz_TX



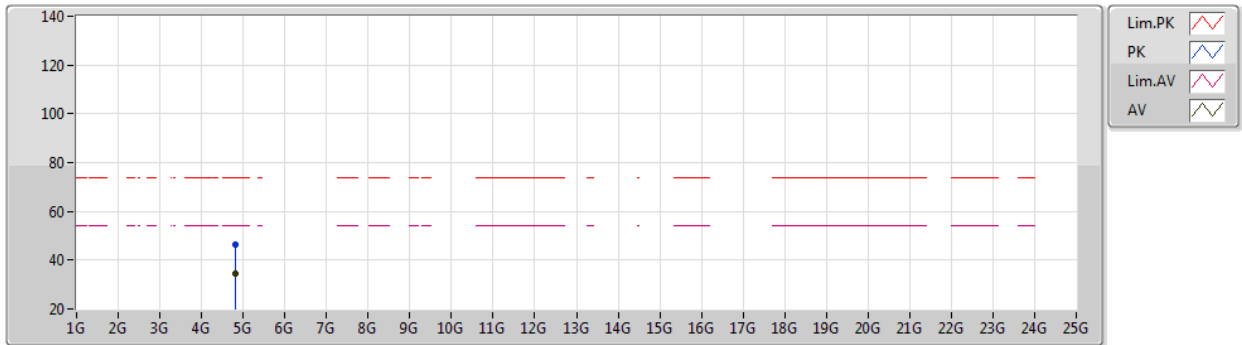
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Setting 80
03-L-R-5

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	60.03	74.00	-13.97	28.44	3	Horizontal	198	1.00	-	28.10	3.49	-
AV	2.3718G	44.81	54.00	-9.19	13.24	3	Horizontal	198	1.00	-	28.10	3.47	-
PK	2.41G	105.25	Inf	-Inf	73.62	3	Horizontal	198	1.00	-	28.12	3.51	-
AV	2.41G	96.03	Inf	-Inf	64.40	3	Horizontal	198	1.00	-	28.12	3.51	-

802.11g_Nss1,(6Mbps)_2TX

11/01/2021

2412MHz_TX



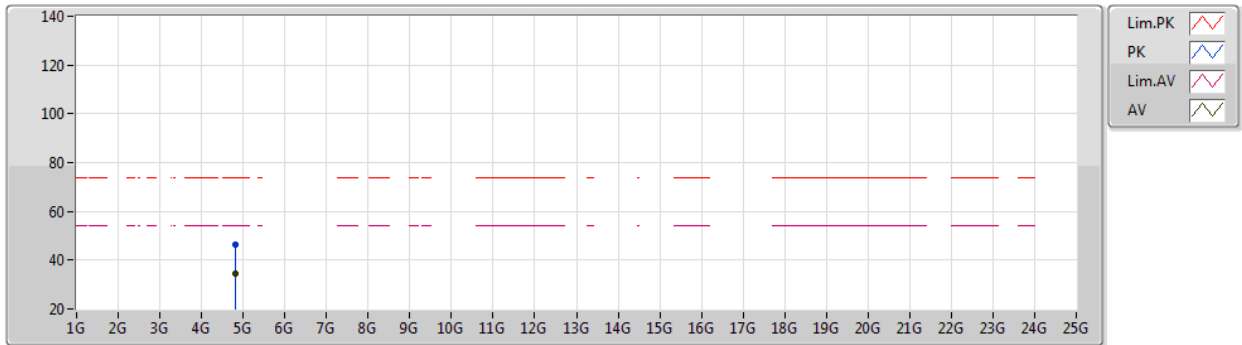
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Setting 80
03-L-J-7

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	4.82384G	46.47	74.00	-27.53	42.23	3	Vertical	245	1.80	-	33.30	6.24	35.30	
AV	4.82467G	34.38	54.00	-19.62	30.14	3	Vertical	245	1.80	-	33.30	6.24	35.30	

802.11g_Nss1,(6Mbps)_2TX

11/01/2021

2412MHz_TX



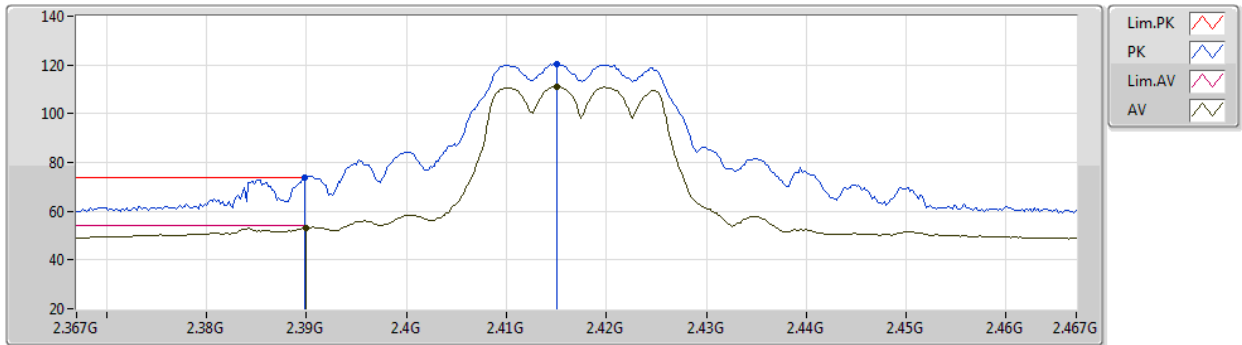
EUT Y_2TX
Setting 80
03-L-J-7

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	4.82306G	46.36	74.00	-27.64	42.14	3	Horizontal	7	2.73	-	33.29	6.23	35.30
AV	4.82423G	34.31	54.00	-19.69	30.07	3	Horizontal	7	2.73	-	33.30	6.24	35.30

802.11g_Nss1,(6Mbps)_2TX

11/01/2021

2417MHz_TX



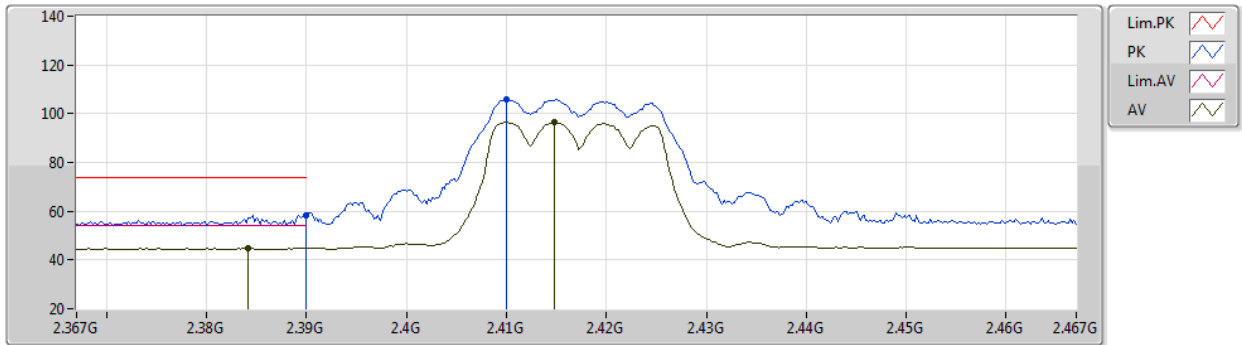
EUT Y_2TX
Setting 83
03-L-R-5

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	73.79	74.00	-0.21	42.20	3	Vertical	184	1.80	-	28.10	3.49	-
AV	2.39G	53.25	54.00	-0.75	21.66	3	Vertical	184	1.80	-	28.10	3.49	-
PK	2.415G	120.53	Inf	-Inf	88.89	3	Vertical	184	1.80	-	28.13	3.51	-
AV	2.415G	111.14	Inf	-Inf	79.50	3	Vertical	184	1.80	-	28.13	3.51	-

802.11g_Nss1,(6Mbps)_2TX

11/01/2021

2417MHz_TX



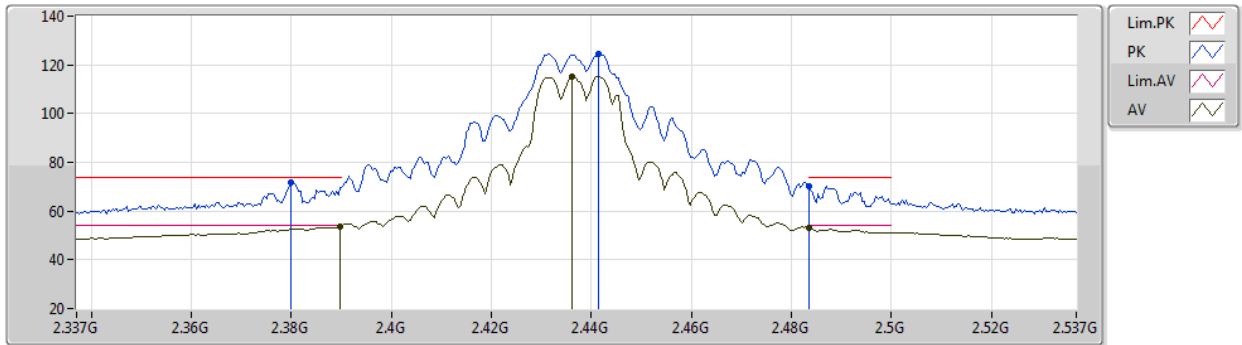
EUT Y_2TX
Setting 83
03-L-R-5

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	58.28	74.00	-15.72	26.69	3	Horizontal	197	1.00	-	28.10	3.49	-
AV	2.3842G	44.88	54.00	-9.12	13.30	3	Horizontal	197	1.00	-	28.10	3.48	-
PK	2.41G	105.93	Inf	-Inf	74.30	3	Horizontal	197	1.00	-	28.12	3.51	-
AV	2.4148G	96.44	Inf	-Inf	64.80	3	Horizontal	197	1.00	-	28.13	3.51	-

802.11g_Nss1,(6Mbps)_2TX

11/01/2021

2437MHz_TX



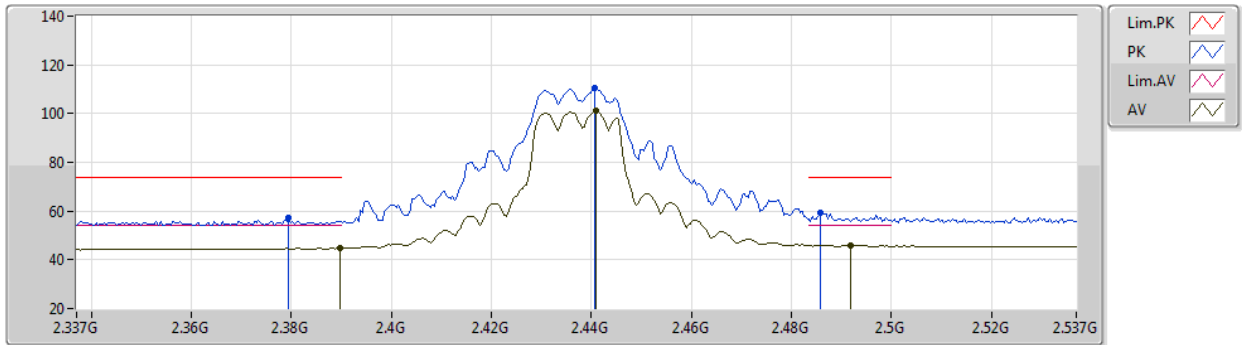
EUT Y_2TX
Setting 102
03-L-R-5

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	2.3798G	71.50	74.00	-2.50	39.92	3	Vertical	13	2.18	-	28.10	3.48	-
AV	2.3898G	53.86	54.00	-0.14	22.27	3	Vertical	13	2.18	-	28.10	3.49	-
PK	2.4414G	124.58	Inf	-Inf	92.86	3	Vertical	13	2.18	-	28.18	3.54	-
AV	2.4362G	115.05	Inf	-Inf	83.34	3	Vertical	13	2.18	-	28.17	3.54	-
PK	2.4835G	70.36	74.00	-3.64	38.38	3	Vertical	13	2.18	-	28.40	3.58	-
AV	2.4835G	53.32	54.00	-0.68	21.34	3	Vertical	13	2.18	-	28.40	3.58	-

802.11g_Nss1,(6Mbps)_2TX

11/01/2021

2437MHz_TX



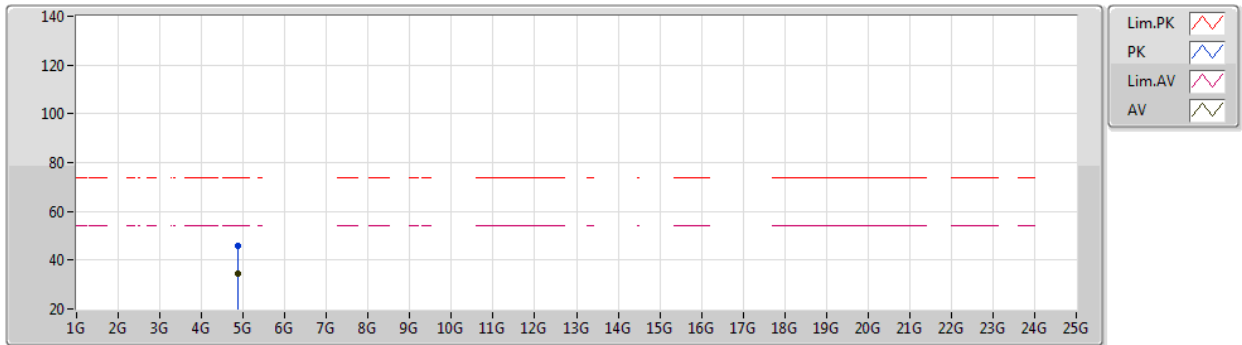
EUT Y_2TX
Setting 102
03-L-R-5

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	2.3794G	57.09	74.00	-16.91	25.51	3	Horizontal	193	1.79	-	28.10	3.48	-
AV	2.3898G	44.81	54.00	-9.19	13.22	3	Horizontal	193	1.79	-	28.10	3.49	-
PK	2.4406G	110.27	Inf	-Inf	78.55	3	Horizontal	193	1.79	-	28.18	3.54	-
AV	2.441G	101.11	Inf	-Inf	69.39	3	Horizontal	193	1.79	-	28.18	3.54	-
PK	2.4858G	59.15	74.00	-14.85	27.15	3	Horizontal	193	1.79	-	28.41	3.59	-
AV	2.4918G	45.93	54.00	-8.07	13.89	3	Horizontal	193	1.79	-	28.45	3.59	-

802.11g_Nss1,(6Mbps)_2TX

11/01/2021

2437MHz_TX



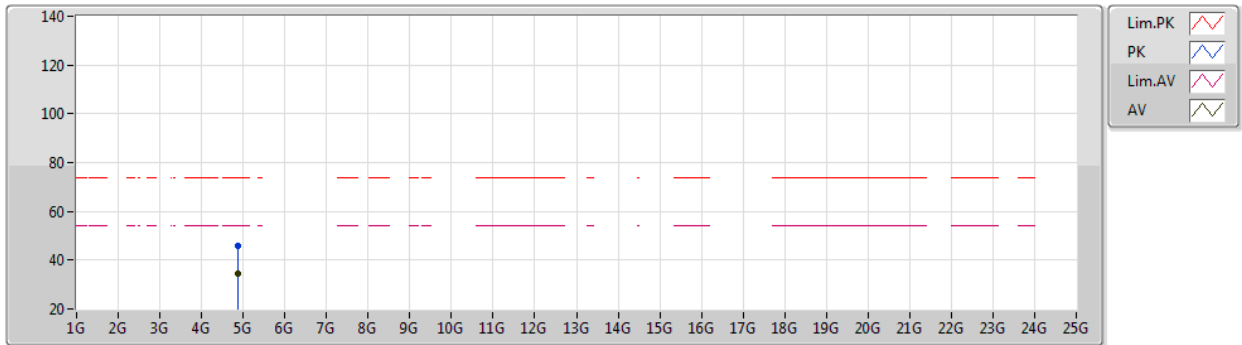
EUT Y_2TX
Setting 102
03-L-J-7

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	4.87381G	46.02	74.00	-27.98	41.57	3	Vertical	161	2.79	-	33.50	6.31	35.36	
AV	4.87462G	34.55	54.00	-19.45	30.10	3	Vertical	161	2.79	-	33.50	6.31	35.36	

802.11g_Nss1,(6Mbps)_2TX

11/01/2021

2437MHz_TX



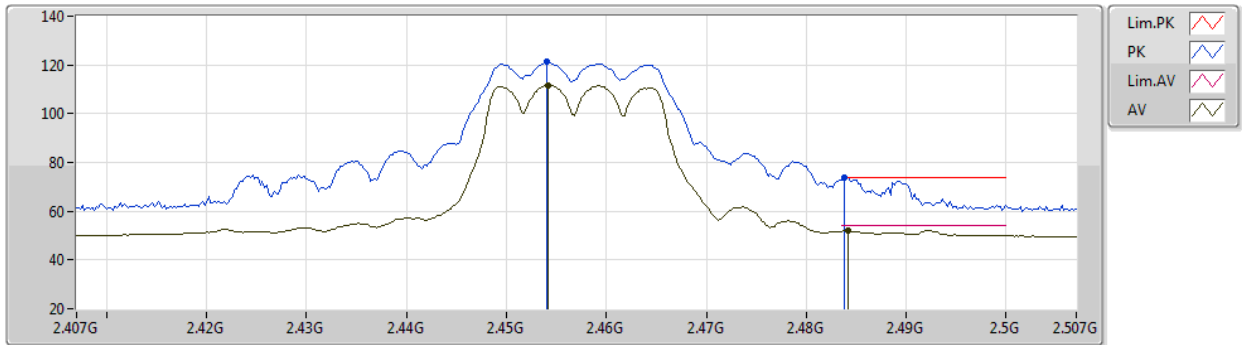
EUT Y_2TX
Setting 102
03-L-J-7

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	4.87425G	46.00	74.00	-28.00	41.55	3	Horizontal	205	2.59	-	33.50	6.31	35.36
AV	4.87391G	34.41	54.00	-19.59	29.96	3	Horizontal	205	2.59	-	33.50	6.31	35.36

802.11g_Nss1,(6Mbps)_2TX

11/01/2021

2457MHz_TX



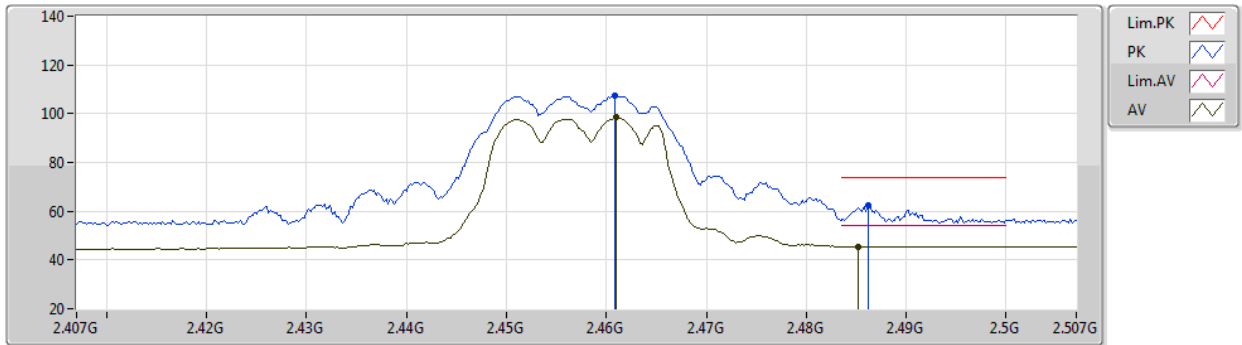
EUT Y_2TX
Setting 86
03-L-R-5

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	2.454G	121.14	Inf	-Inf	89.37	3	Vertical	6	1.80	-	28.22	3.55	-
AV	2.4542G	111.70	Inf	-Inf	79.92	3	Vertical	6	1.80	-	28.23	3.55	-
PK	2.4838G	73.77	74.00	-0.23	41.79	3	Vertical	6	1.80	-	28.40	3.58	-
AV	2.4842G	52.11	54.00	-1.89	20.12	3	Vertical	6	1.80	-	28.41	3.58	-

802.11g_Nss1,(6Mbps)_2TX

11/01/2021

2457MHz_TX



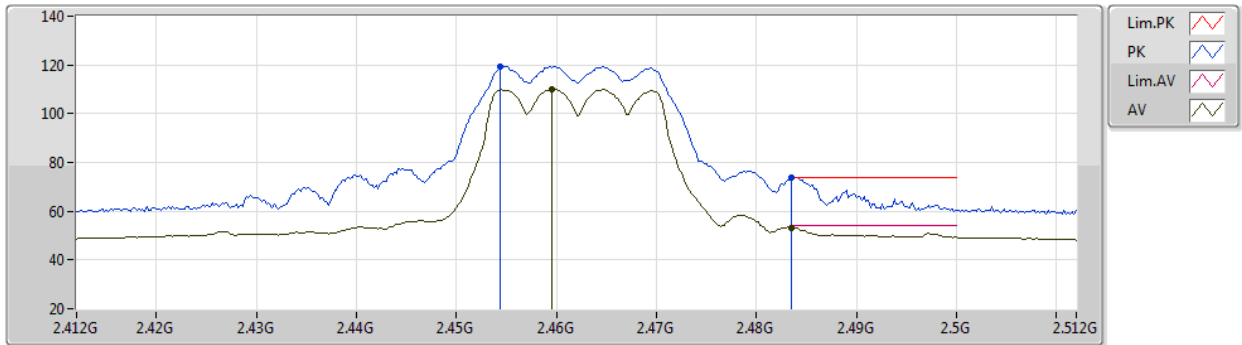
EUT Y_2TX
Setting 86
03-L-R-5

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	2.4608G	107.45	Inf	-Inf	75.63	3	Horizontal	195	1.75	-	28.26	3.56	-
AV	2.461G	98.42	Inf	-Inf	66.59	3	Horizontal	195	1.75	-	28.27	3.56	-
PK	2.4862G	62.54	74.00	-11.46	30.53	3	Horizontal	195	1.75	-	28.42	3.59	-
AV	2.4852G	45.56	54.00	-8.44	13.56	3	Horizontal	195	1.75	-	28.41	3.59	-

802.11g_Nss1,(6Mbps)_2TX

11/01/2021

2462MHz_TX



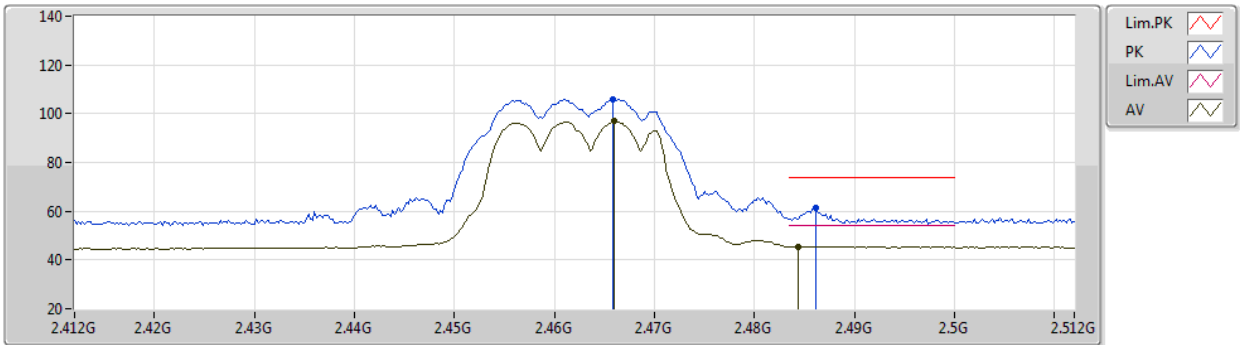
EUT Y_2TX
Setting 80
03-L-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4544G	119.19	Inf	-Inf	87.41	3	Vertical	13	2.11	-	28.23	3.55	-
AV	2.4596G	109.94	Inf	-Inf	78.12	3	Vertical	13	2.11	-	28.26	3.56	-
PK	2.4835G	73.97	74.00	-0.03	41.99	3	Vertical	13	2.11	-	28.40	3.58	-
AV	2.4835G	53.31	54.00	-0.69	21.33	3	Vertical	13	2.11	-	28.40	3.58	-

802.11g_Nss1,(6Mbps)_2TX

11/01/2021

2462MHz_TX



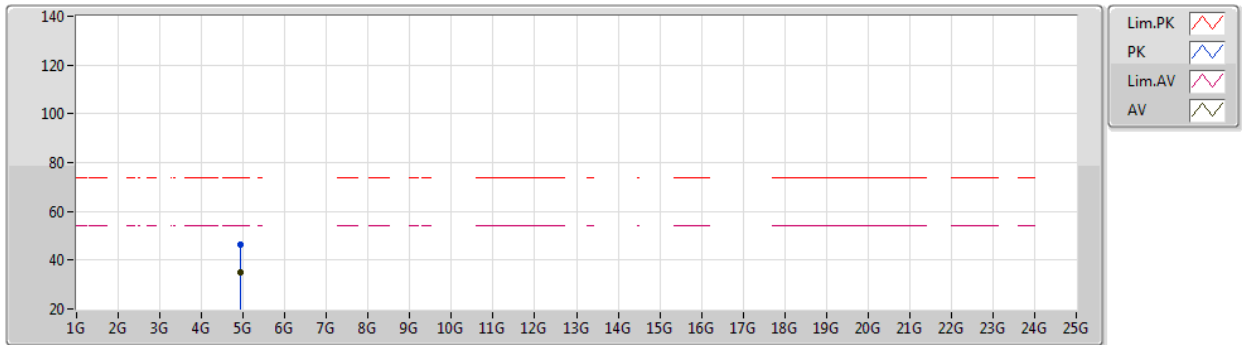
EUT Y_2TX
Setting 80
03-L-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4658G	105.93	Inf	-Inf	74.07	3	Horizontal	197	1.24	-	28.29	3.57	-
AV	2.466G	96.97	Inf	-Inf	65.10	3	Horizontal	197	1.24	-	28.30	3.57	-
PK	2.4862G	61.37	74.00	-12.63	29.36	3	Horizontal	197	1.24	-	28.42	3.59	-
AV	2.4844G	45.60	54.00	-8.40	13.61	3	Horizontal	197	1.24	-	28.41	3.58	-

802.11g_Nss1,(6Mbps)_2TX

11/01/2021

2462MHz_TX



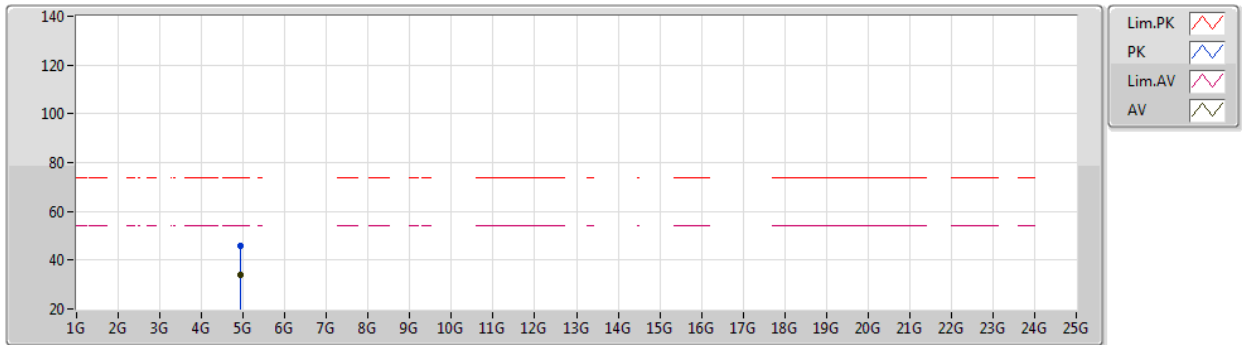
EUT Y_2TX
Setting 80
03-L-J-7

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	4.92342G	46.15	74.00	-27.85	41.66	3	Vertical	340	2.17	-	33.51	6.39	35.41	
AV	4.92398G	34.79	54.00	-19.21	30.31	3	Vertical	340	2.17	-	33.50	6.39	35.41	

802.11g_Nss1,(6Mbps)_2TX

11/01/2021

2462MHz_TX



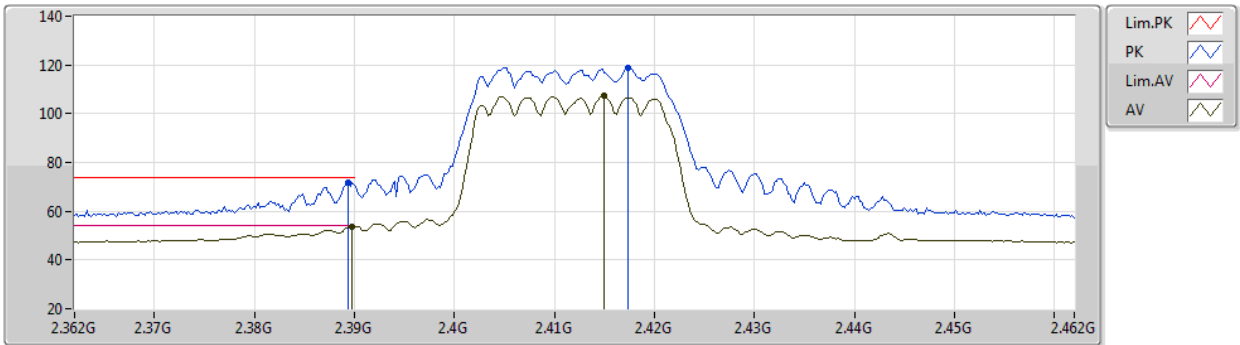
EUT Y_2TX
Setting 80
03-L-J-7

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	4.92322G	45.99	74.00	-28.01	41.51	3	Horizontal	103	2.19	-	33.51	6.38	35.41
AV	4.92364G	34.18	54.00	-19.82	29.69	3	Horizontal	103	2.19	-	33.51	6.39	35.41

802.11ax HEW20_Nss1,(MCS0)_2TX

11/01/2021

2412MHz_TX



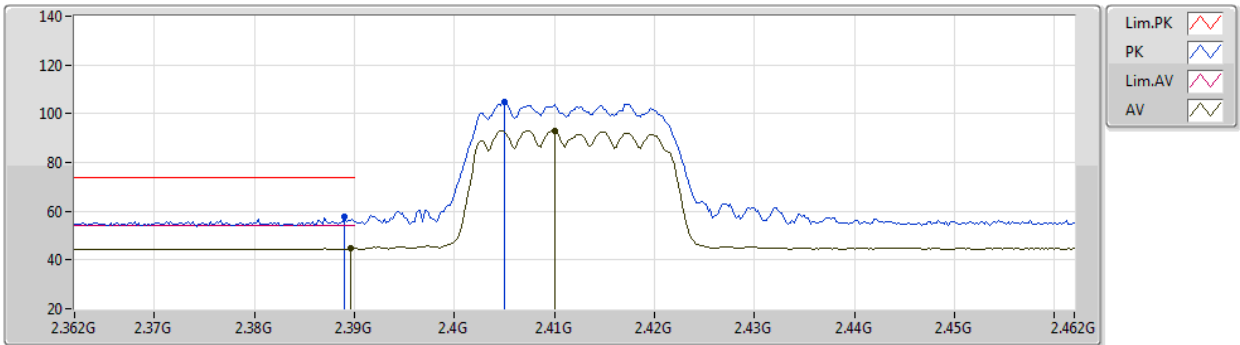
EUT Y_2TX
Setting 71
03-L-R-5

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	71.53	74.00	-2.47	39.94	3	Vertical	181	1.78	-	28.10	3.49	-
AV	2.3898G	53.87	54.00	-0.13	22.28	3	Vertical	181	1.78	-	28.10	3.49	-
PK	2.4174G	119.02	Inf	-Inf	87.37	3	Vertical	181	1.78	-	28.13	3.52	-
AV	2.415G	107.19	Inf	-Inf	75.55	3	Vertical	181	1.78	-	28.13	3.51	-

802.11ax HEW20_Nss1,(MCS0)_2TX

11/01/2021

2412MHz_TX



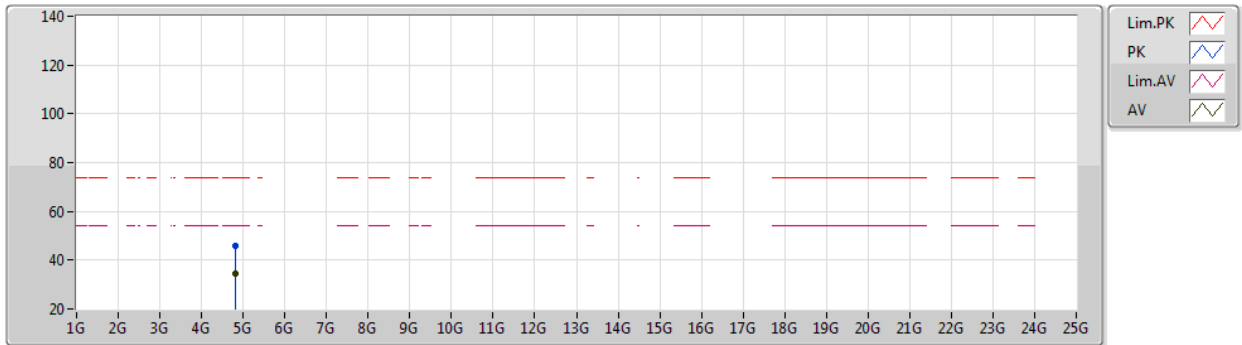
EUT Y_2TX
Setting 71
03-L-R-5

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	57.81	74.00	-16.19	26.22	3	Horizontal	199	1.02	-	28.10	3.49	-
AV	2.3896G	44.73	54.00	-9.27	13.14	3	Horizontal	199	1.02	-	28.10	3.49	-
PK	2.405G	104.59	Inf	-Inf	72.98	3	Horizontal	199	1.02	-	28.11	3.50	-
AV	2.41G	92.82	Inf	-Inf	61.19	3	Horizontal	199	1.02	-	28.12	3.51	-

802.11ax HEW20_Nss1,(MCS0)_2TX

11/01/2021

2412MHz_TX



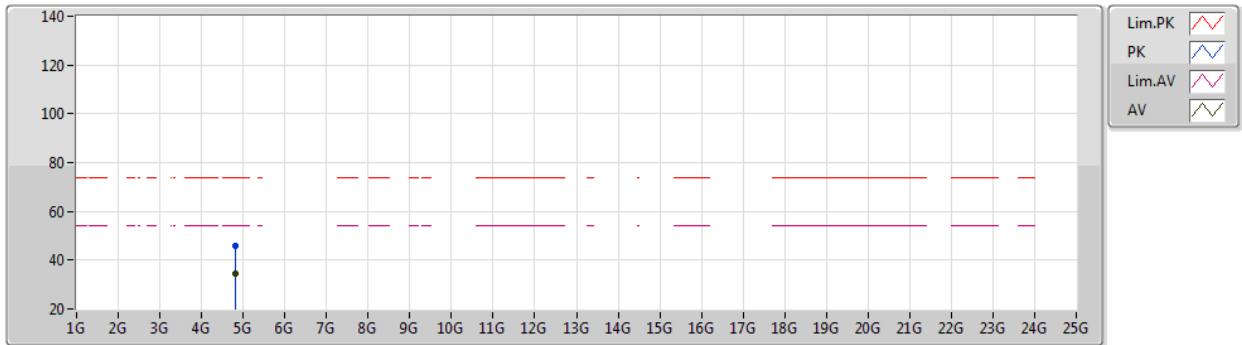
EUT Y_2TX
Setting 71
03-L-J-7

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	4.82374G	45.92	74.00	-28.08	41.69	3	Vertical	125	2.61	-	33.29	6.24	35.30
AV	4.82494G	34.25	54.00	-19.75	30.01	3	Vertical	125	2.61	-	33.30	6.24	35.30

802.11ax HEW20_Nss1,(MCS0)_2TX

11/01/2021

2412MHz_TX



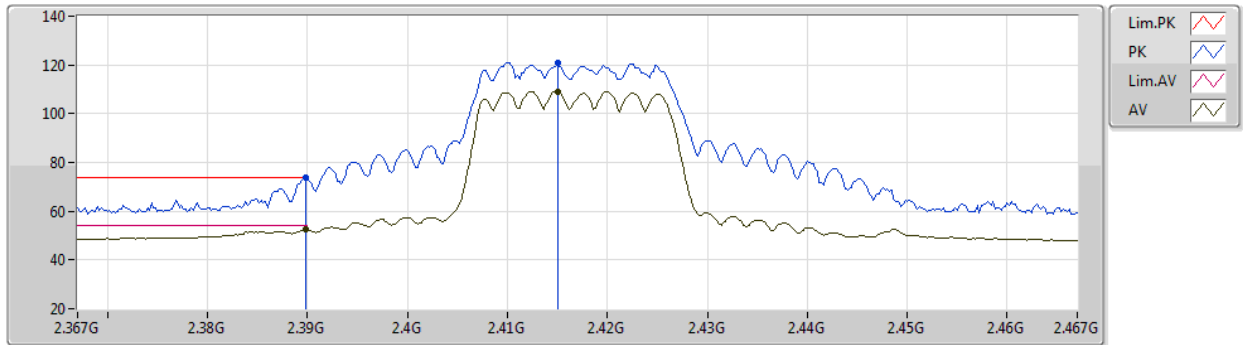
EUT Y_2TX
Setting 71
03-L-J-7

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	4.82492G	45.99	74.00	-28.01	41.75	3	Horizontal	348	1.42	-	33.30	6.24	35.30	
AV	4.8249G	34.45	54.00	-19.55	30.21	3	Horizontal	348	1.42	-	33.30	6.24	35.30	

802.11ax HEW20_Nss1,(MCS0)_2TX

11/01/2021

2417MHz_TX



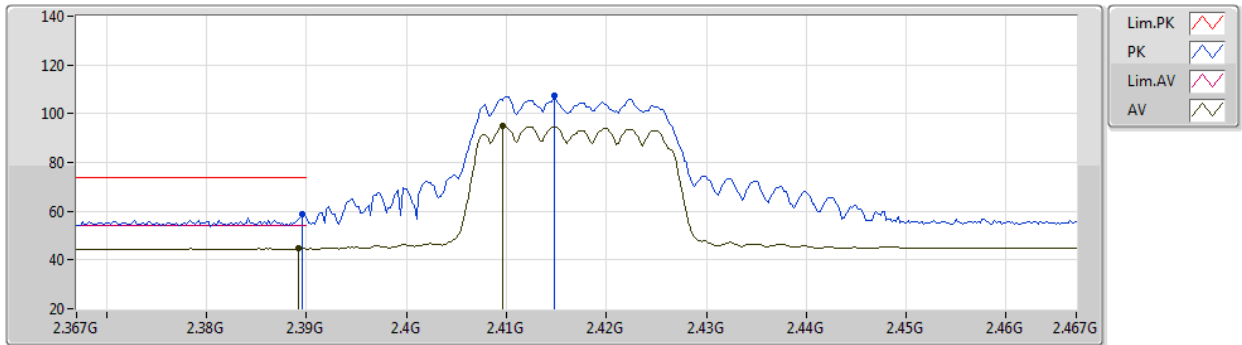
EUT Y_2TX
Setting 79
03-L-R-5

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	73.79	74.00	-0.21	42.20	3	Vertical	182	1.76	-	28.10	3.49	-
AV	2.3898G	52.44	54.00	-1.56	20.85	3	Vertical	182	1.76	-	28.10	3.49	-
PK	2.415G	121.11	Inf	-Inf	89.47	3	Vertical	182	1.76	-	28.13	3.51	-
AV	2.415G	109.17	Inf	-Inf	77.53	3	Vertical	182	1.76	-	28.13	3.51	-

802.11ax HEW20_Nss1,(MCS0)_2TX

11/01/2021

2417MHz_TX



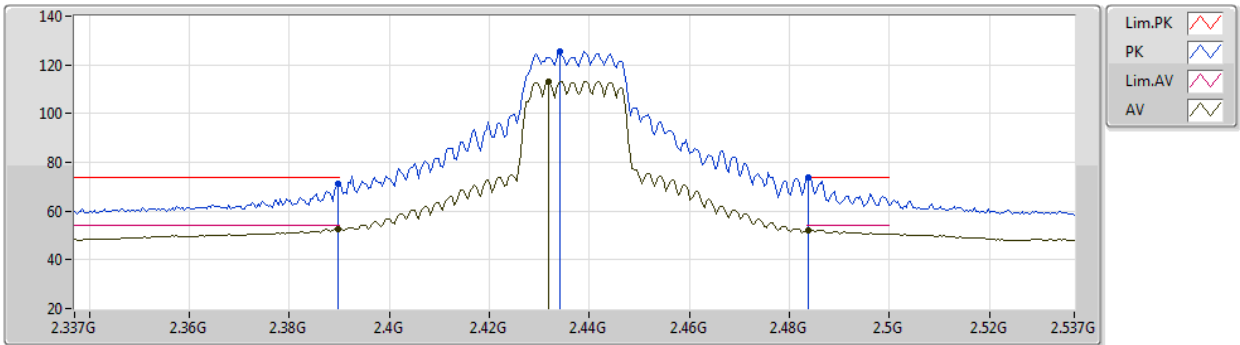
EUT Y_2TX
Setting 79
03-L-R-5

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	58.78	74.00	-15.22	27.19	3	Horizontal	199	1.00	-	28.10	3.49	-
AV	2.3892G	44.73	54.00	-9.27	13.14	3	Horizontal	199	1.00	-	28.10	3.49	-
PK	2.4148G	107.23	Inf	-Inf	75.59	3	Horizontal	199	1.00	-	28.13	3.51	-
AV	2.4096G	94.76	Inf	-Inf	63.13	3	Horizontal	199	1.00	-	28.12	3.51	-

802.11ax HEW20_Nss1,(MCS0)_2TX

11/01/2021

2437MHz_TX



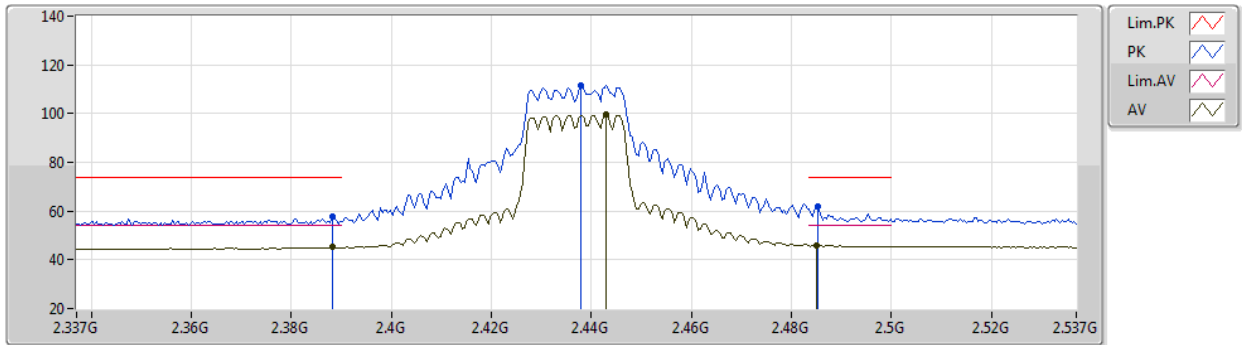
EUT Y_2TX
Setting 98
03-L-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	70.97	74.00	-3.03	39.38	3	Vertical	8	2.21	-	28.10	3.49	-
AV	2.3898G	52.82	54.00	-1.18	21.23	3	Vertical	8	2.21	-	28.10	3.49	-
PK	2.4342G	125.74	Inf	-Inf	94.04	3	Vertical	8	2.21	-	28.17	3.53	-
AV	2.4318G	113.05	Inf	-Inf	81.36	3	Vertical	8	2.21	-	28.16	3.53	-
PK	2.4838G	73.75	74.00	-0.25	41.77	3	Vertical	8	2.21	-	28.40	3.58	-
AV	2.4838G	52.27	54.00	-1.73	20.29	3	Vertical	8	2.21	-	28.40	3.58	-

802.11ax HEW20_Nss1,(MCS0)_2TX

11/01/2021

2437MHz_TX



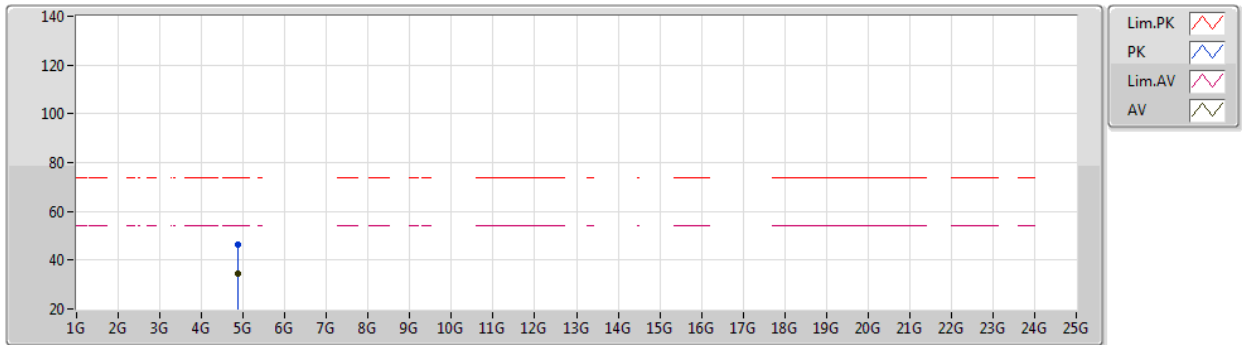
EUT Y_2TX
Setting 98
03-L-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3882G	57.80	74.00	-16.20	26.21	3	Horizontal	201	1.21	-	28.10	3.49	-
AV	2.3882G	45.09	54.00	-8.91	13.50	3	Horizontal	201	1.21	-	28.10	3.49	-
PK	2.4378G	111.58	Inf	-Inf	79.86	3	Horizontal	201	1.21	-	28.18	3.54	-
AV	2.443G	99.48	Inf	-Inf	67.75	3	Horizontal	201	1.21	-	28.19	3.54	-
PK	2.4854G	62.03	74.00	-11.97	30.03	3	Horizontal	201	1.21	-	28.41	3.59	-
AV	2.485G	46.05	54.00	-7.95	14.05	3	Horizontal	201	1.21	-	28.41	3.59	-

802.11ax HEW20_Nss1,(MCS0)_2TX

11/01/2021

2437MHz_TX



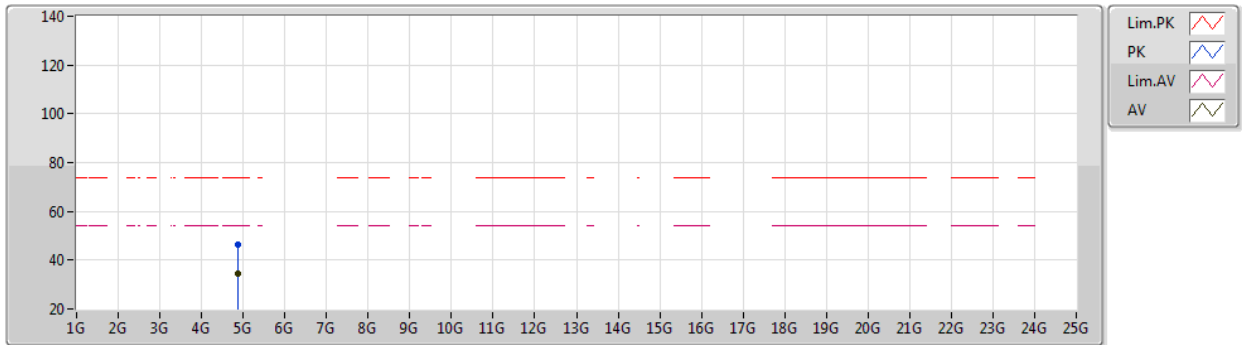
EUT Y_2TX
Setting 98
03-L-J-7

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	4.87419G	46.22	74.00	-27.78	41.77	3	Vertical	152	2.94	-	33.50	6.31	35.36
AV	4.87454G	34.34	54.00	-19.66	29.89	3	Vertical	152	2.94	-	33.50	6.31	35.36

802.11ax HEW20_Nss1,(MCS0)_2TX

11/01/2021

2437MHz_TX



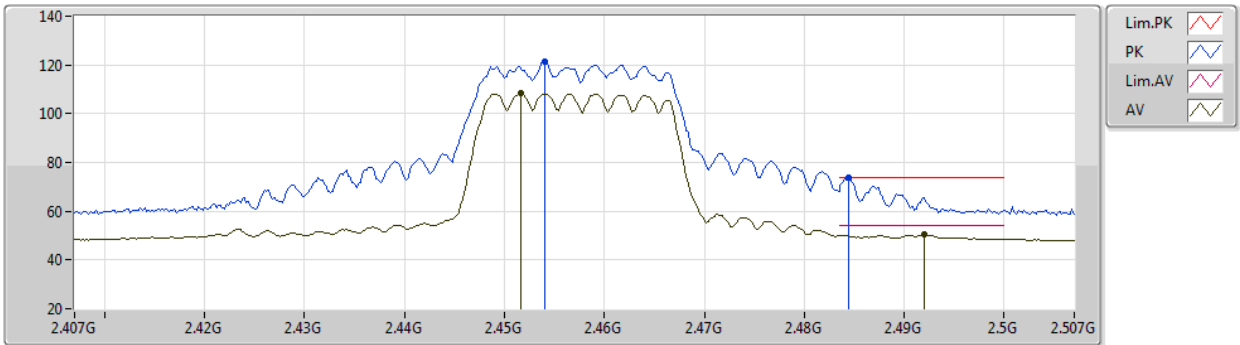
EUT Y_2TX
Setting 98
03-L-J-7

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	4.87378G	46.50	74.00	-27.50	42.05	3	Horizontal	221	1.31	-	33.50	6.31	35.36	
AV	4.87459G	34.48	54.00	-19.52	30.03	3	Horizontal	221	1.31	-	33.50	6.31	35.36	

802.11ax HEW20_Nss1,(MCS0)_2TX

11/01/2021

2457MHz_TX



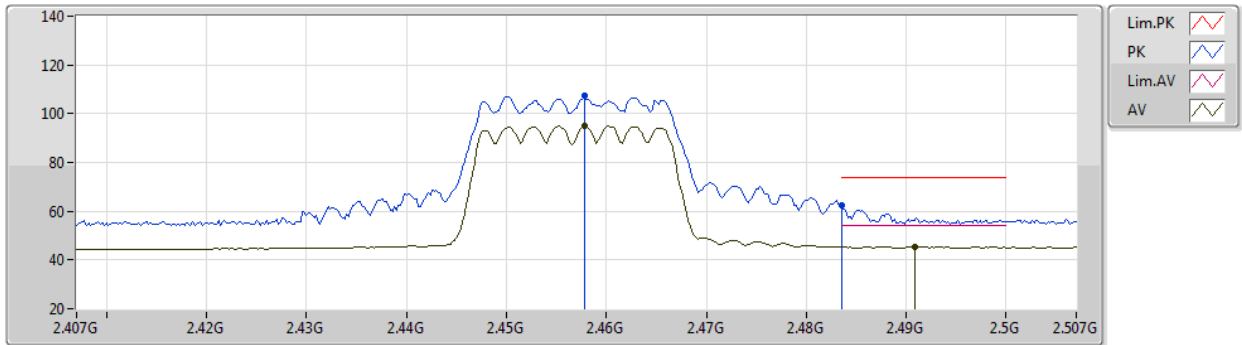
EUT Y_2TX
Setting 75
03-L-R-5

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	2.454G	121.44	Inf	-Inf	89.67	3	Vertical	5	1.89	-	28.22	3.55	-
AV	2.4516G	108.51	Inf	-Inf	76.75	3	Vertical	5	1.89	-	28.21	3.55	-
PK	2.4844G	73.98	74.00	-0.02	41.99	3	Vertical	5	1.89	-	28.41	3.58	-
AV	2.492G	50.30	54.00	-3.70	18.26	3	Vertical	5	1.89	-	28.45	3.59	-

802.11ax HEW20_Nss1,(MCS0)_2TX

11/01/2021

2457MHz_TX



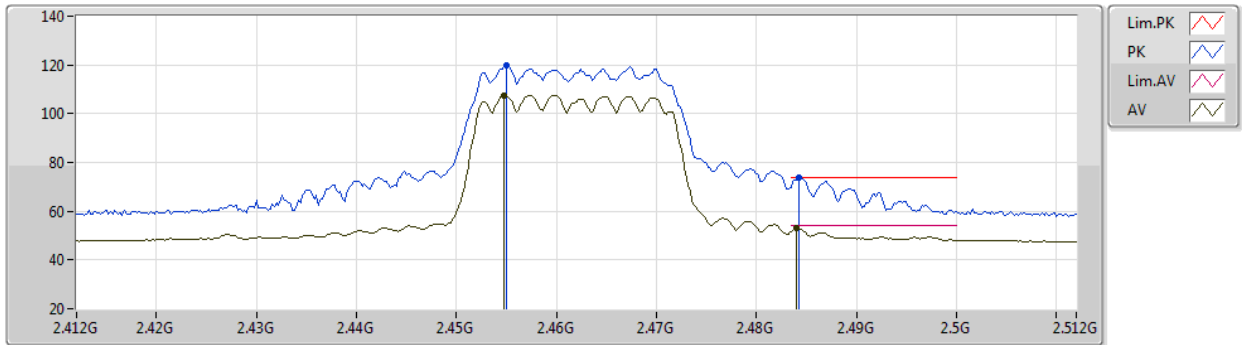
EUT Y_2TX
Setting 75
03-L-R-5

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	2.4578G	107.17	Inf	-Inf	75.36	3	Horizontal	195	1.76	-	28.25	3.56	-
AV	2.4578G	94.79	Inf	-Inf	62.98	3	Horizontal	195	1.76	-	28.25	3.56	-
PK	2.4835G	62.67	74.00	-11.33	30.69	3	Horizontal	195	1.76	-	28.40	3.58	-
AV	2.4908G	45.57	54.00	-8.43	13.54	3	Horizontal	195	1.76	-	28.44	3.59	-

802.11ax HEW20_Nss1,(MCS0)_2TX

11/01/2021

2462MHz_TX



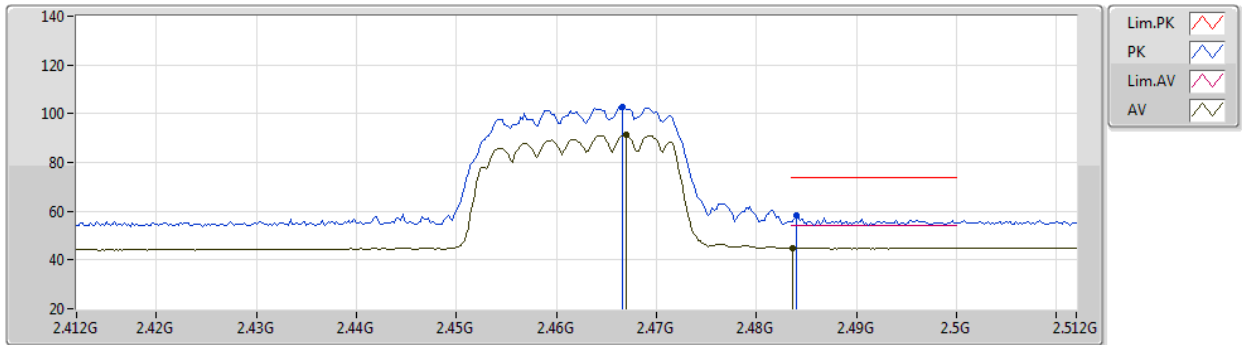
EUT Y_2TX
Setting 72
03-L-R-5

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	2.455G	119.74	Inf	-Inf	87.95	3	Vertical	10	2.07	-	28.23	3.56	-
AV	2.4548G	107.43	Inf	-Inf	75.65	3	Vertical	10	2.07	-	28.23	3.55	-
PK	2.4842G	73.80	74.00	-0.20	41.81	3	Vertical	10	2.07	-	28.41	3.58	-
AV	2.484G	52.90	54.00	-1.10	20.92	3	Vertical	10	2.07	-	28.40	3.58	-

802.11ax HEW20_Nss1,(MCS0)_2TX

11/01/2021

2462MHz_TX



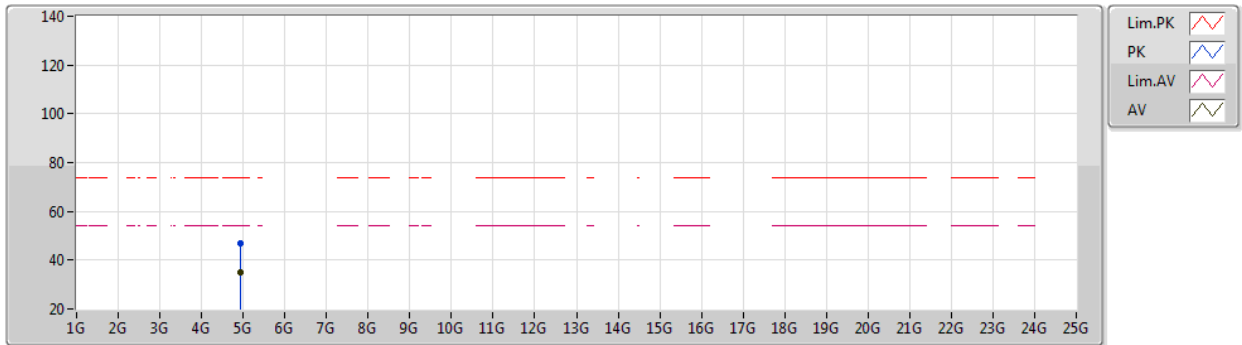
EUT Y_2TX
Setting 72
03-L-R-5

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	2.4666G	102.67	Inf	-Inf	70.80	3	Horizontal	339	1.11	-	28.30	3.57	-
AV	2.467G	91.16	Inf	-Inf	59.29	3	Horizontal	339	1.11	-	28.30	3.57	-
PK	2.484G	58.21	74.00	-15.79	26.23	3	Horizontal	339	1.11	-	28.40	3.58	-
AV	2.4836G	44.93	54.00	-9.07	12.95	3	Horizontal	339	1.11	-	28.40	3.58	-

802.11ax HEW20_Nss1,(MCS0)_2TX

11/01/2021

2462MHz_TX



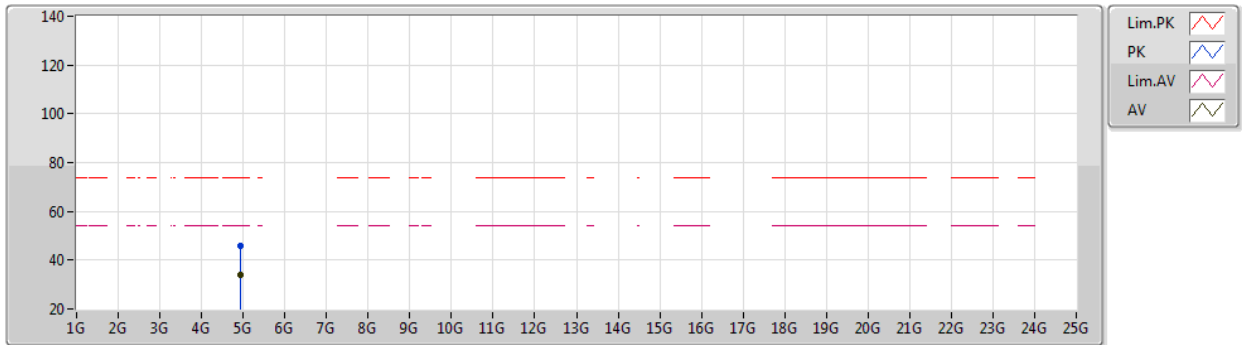
EUT Y_2TX
Setting 72
03-L-J-7

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	4.92407G	46.70	74.00	-27.30	42.22	3	Vertical	179	2.95	-	33.50	6.39	35.41
AV	4.92383G	35.06	54.00	-18.94	30.58	3	Vertical	179	2.95	-	33.50	6.39	35.41

802.11ax HEW20_Nss1,(MCS0)_2TX

11/01/2021

2462MHz_TX



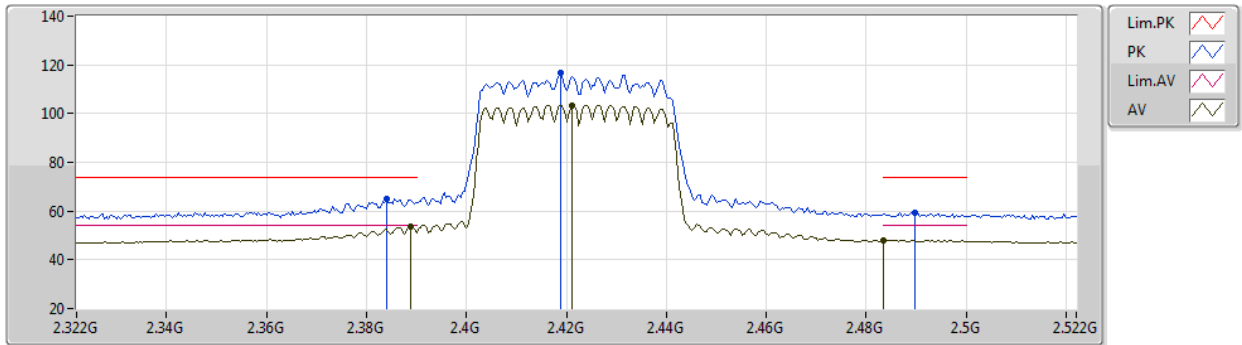
EUT Y_2TX
Setting 72
03-L-J-7

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	4.92325G	46.05	74.00	-27.95	41.57	3	Horizontal	265	2.50	-	33.51	6.38	35.41
AV	4.92464G	34.16	54.00	-19.84	29.68	3	Horizontal	265	2.50	-	33.50	6.39	35.41

802.11ax HEW40_Nss1,(MCS0)_2TX

11/01/2021

2422MHz_TX

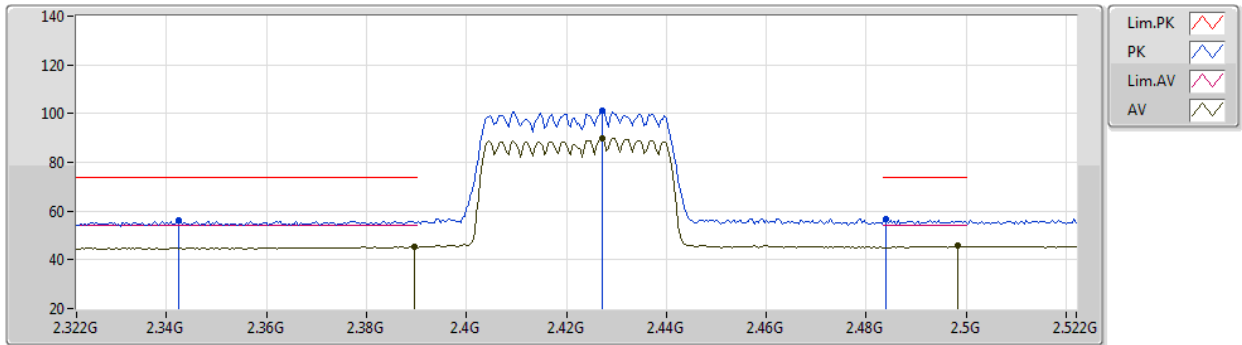

EUT Y_2TX
Setting 69
03-L-R-5

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	2.384G	65.24	74.00	-8.76	33.66	3	Vertical	6	1.96	-	28.10	3.48	-
AV	2.3888G	53.78	54.00	-0.22	22.19	3	Vertical	6	1.96	-	28.10	3.49	-
PK	2.4188G	116.60	Inf	-Inf	84.94	3	Vertical	6	1.96	-	28.14	3.52	-
AV	2.4212G	103.45	Inf	-Inf	71.79	3	Vertical	6	1.96	-	28.14	3.52	-
PK	2.4896G	59.28	74.00	-14.72	27.25	3	Vertical	6	1.96	-	28.44	3.59	-
AV	2.4835G	48.13	54.00	-5.87	16.15	3	Vertical	6	1.96	-	28.40	3.58	-

802.11ax HEW40_Nss1,(MCS0)_2TX

11/01/2021

2422MHz_TX



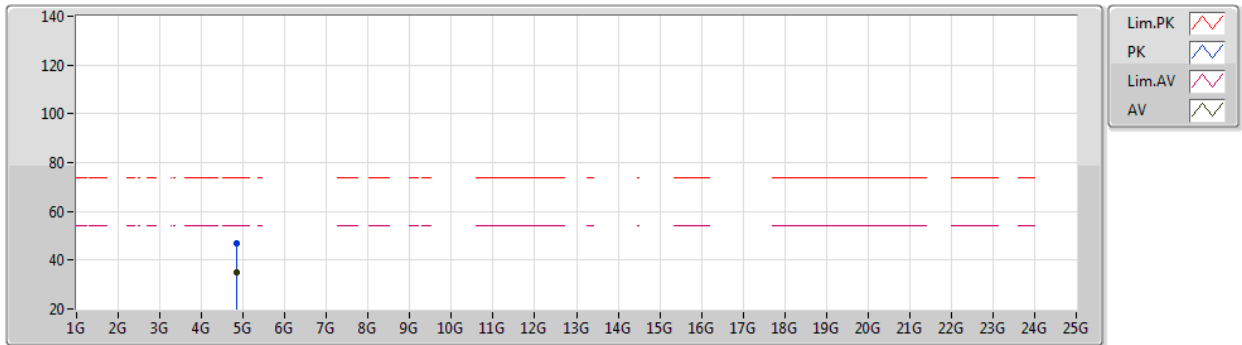
EUT Y_2TX
Setting 69
03-L-R-5

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	2.3424G	55.97	74.00	-18.03	24.46	3	Horizontal	197	1.07	-	28.07	3.44	-
AV	2.3896G	45.40	54.00	-8.60	13.81	3	Horizontal	197	1.07	-	28.10	3.49	-
PK	2.4272G	101.26	Inf	-Inf	69.58	3	Horizontal	197	1.07	-	28.15	3.53	-
AV	2.4272G	89.76	Inf	-Inf	58.08	3	Horizontal	197	1.07	-	28.15	3.53	-
PK	2.484G	56.63	74.00	-17.37	24.65	3	Horizontal	197	1.07	-	28.40	3.58	-
AV	2.4984G	45.61	54.00	-8.39	13.52	3	Horizontal	197	1.07	-	28.49	3.60	-

802.11ax HEW40_Nss1,(MCS0)_2TX

11/01/2021

2422MHz_TX



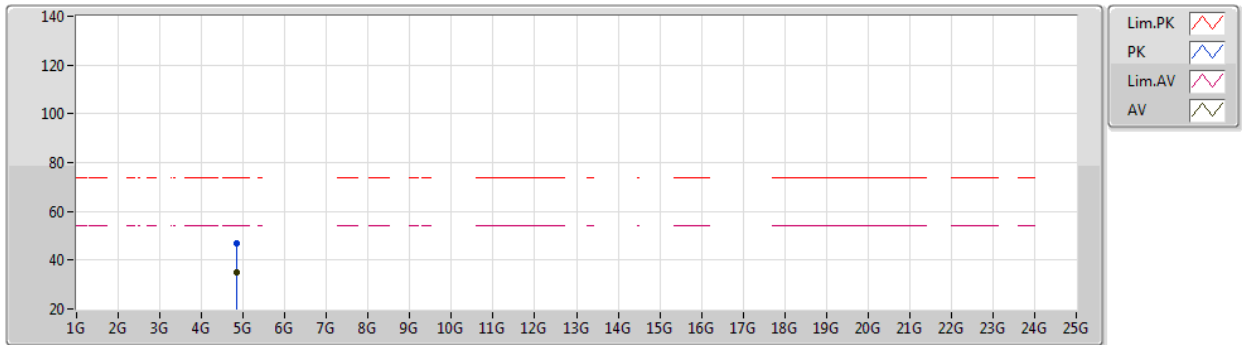
EUT Y_2TX
Setting 69
03-L-J-7

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	4.84333G	47.06	74.00	-26.94	42.61	3	Vertical	179	1.87	-	31.17	5.00	31.72
AV	4.84311G	35.05	54.00	-18.95	30.60	3	Vertical	179	1.87	-	31.17	5.00	31.72

802.11ax HEW40_Nss1,(MCS0)_2TX

11/01/2021

2422MHz_TX



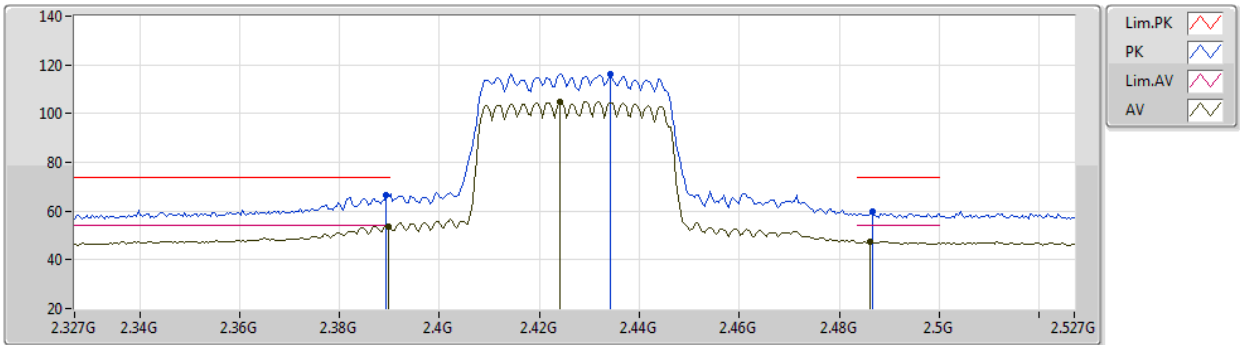
EUT Y_2TX
Setting 69
03-L-J-7

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	4.84478G	47.13	74.00	-26.87	42.67	3	Horizontal	22	1.50	-	31.18	5.00	31.72
AV	4.84493G	35.02	54.00	-18.98	30.56	3	Horizontal	22	1.50	-	31.18	5.00	31.72

802.11ax HEW40_Nss1,(MCS0)_2TX

11/01/2021

2427MHz_TX



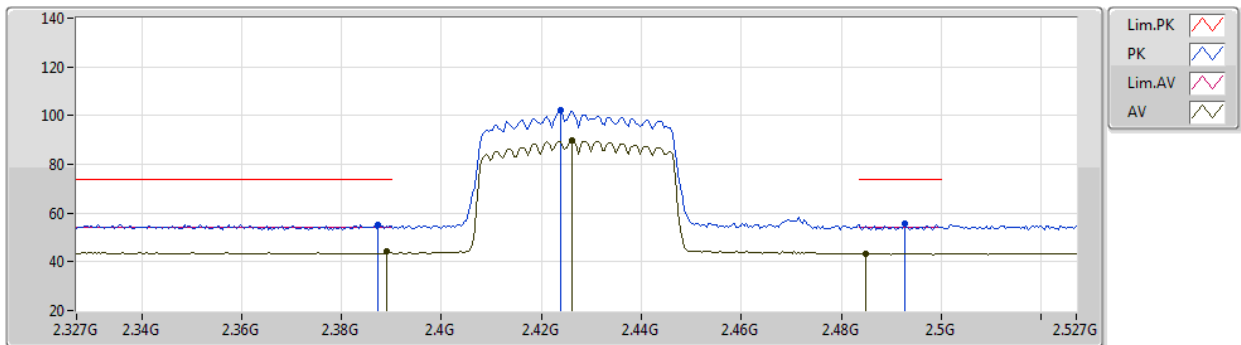
EUT Y_2TX
Setting 72
06-C-J-7

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	66.46	74.00	-7.54	35.78	3	Vertical	177	1.89	-	27.60	3.08	-
AV	2.3898G	53.84	54.00	-0.16	23.16	3	Vertical	177	1.89	-	27.60	3.08	-
PK	2.4342G	116.07	Inf	-Inf	85.48	3	Vertical	177	1.89	-	27.46	3.13	-
AV	2.4242G	104.65	Inf	-Inf	74.03	3	Vertical	177	1.89	-	27.50	3.12	-
PK	2.4866G	59.65	74.00	-14.35	29.06	3	Vertical	177	1.89	-	27.40	3.19	-
AV	2.4862G	47.55	54.00	-6.45	16.96	3	Vertical	177	1.89	-	27.40	3.19	-

802.11ax HEW40_Nss1,(MCS0)_2TX

11/01/2021

2427MHz_TX



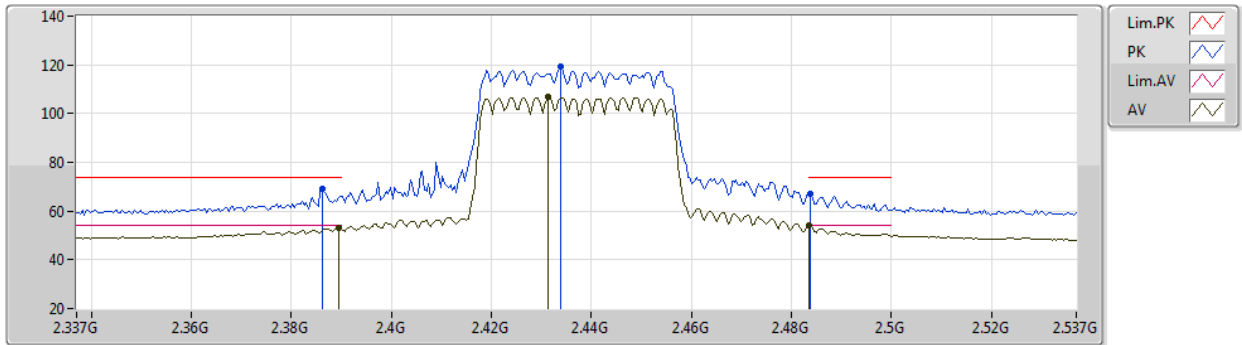
EUT Y_2TX
Setting 72
06-C-J-7

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA	
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)	
PK	2.3874G	55.37	74.00	-18.63	24.70	3	Horizontal	309	1.52	-	27.60	3.07	-	
AV	2.389G	44.06	54.00	-9.94	13.38	3	Horizontal	309	1.52	-	27.60	3.08	-	
PK	2.4238G	102.37	Inf	-Inf	71.75	3	Horizontal	309	1.52	-	27.50	3.12	-	
AV	2.4262G	89.71	Inf	-Inf	59.08	3	Horizontal	309	1.52	-	27.50	3.13	-	
PK	2.4926G	55.84	74.00	-18.16	25.25	3	Horizontal	309	1.52	-	27.40	3.19	-	
AV	2.485G	43.43	54.00	-10.57	12.84	3	Horizontal	309	1.52	-	27.40	3.19	-	

802.11ax HEW40_Nss1,(MCS0)_2TX

11/01/2021

2437MHz_TX



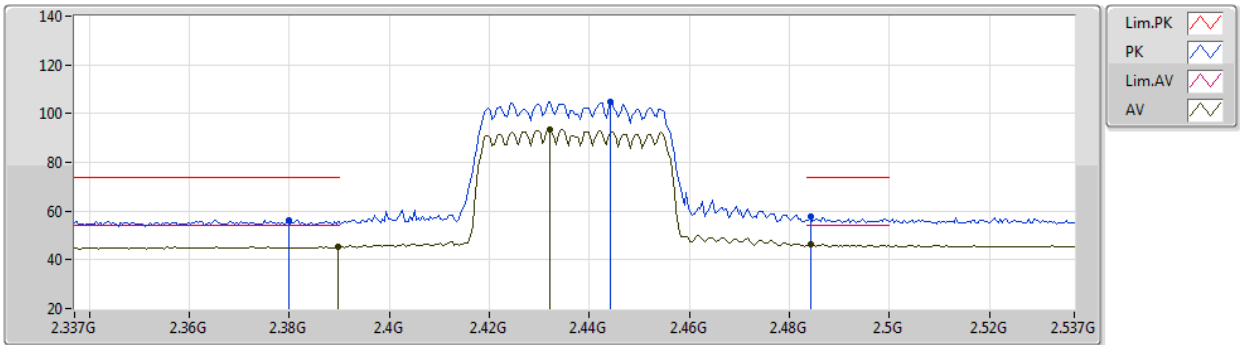
EUT Y_2TX
Setting 83
03-L-R-5

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	2.3862G	69.13	74.00	-4.87	37.54	3	Vertical	6	1.95	-	28.10	3.49	-
AV	2.3894G	53.26	54.00	-0.74	21.67	3	Vertical	6	1.95	-	28.10	3.49	-
PK	2.4338G	119.34	Inf	-Inf	87.64	3	Vertical	6	1.95	-	28.17	3.53	-
AV	2.4314G	106.89	Inf	-Inf	75.20	3	Vertical	6	1.95	-	28.16	3.53	-
PK	2.4838G	67.28	74.00	-6.72	35.30	3	Vertical	6	1.95	-	28.40	3.58	-
AV	2.4835G	53.90	54.00	-0.10	21.92	3	Vertical	6	1.95	-	28.40	3.58	-

802.11ax HEW40_Nss1,(MCS0)_2TX

11/01/2021

2437MHz_TX



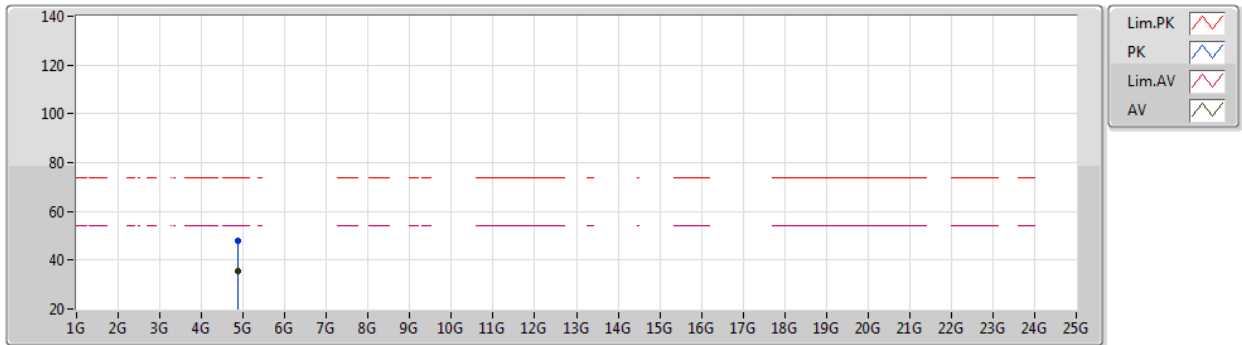
EUT Y_2TX
Setting 83
03-L-R-5

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	2.3798G	56.23	74.00	-17.77	24.65	3	Horizontal	197	1.07	-	28.10	3.48	-
AV	2.3898G	45.47	54.00	-8.53	13.88	3	Horizontal	197	1.07	-	28.10	3.49	-
PK	2.4442G	104.72	Inf	-Inf	72.99	3	Horizontal	197	1.07	-	28.19	3.54	-
AV	2.4322G	93.26	Inf	-Inf	61.57	3	Horizontal	197	1.07	-	28.16	3.53	-
PK	2.4842G	57.74	74.00	-16.26	25.75	3	Horizontal	197	1.07	-	28.41	3.58	-
AV	2.4842G	46.43	54.00	-7.57	14.44	3	Horizontal	197	1.07	-	28.41	3.58	-

802.11ax HEW40_Nss1,(MCS0)_2TX

11/01/2021

2437MHz_TX



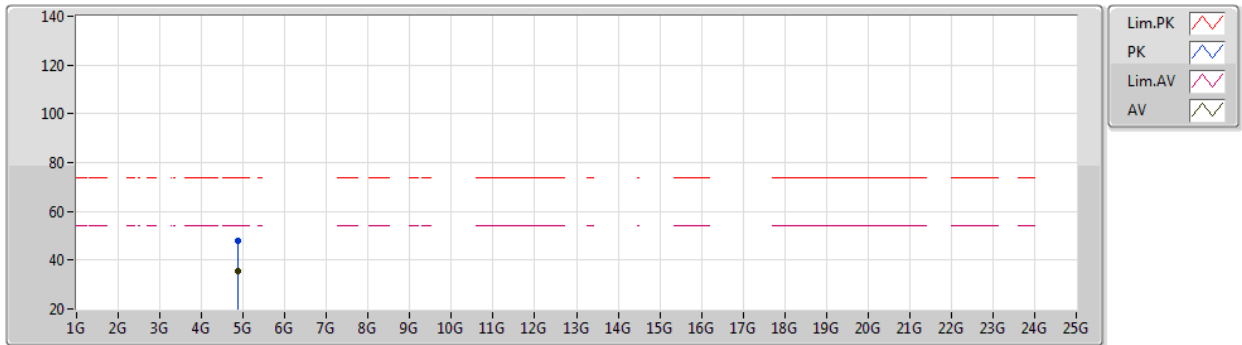
EUT Y_2TX
Setting 83
03-L-J-7

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	4.87369G	47.82	74.00	-26.18	43.35	3	Vertical	330	2.19	-	31.15	5.00	31.68
AV	4.87331G	35.73	54.00	-18.27	31.26	3	Vertical	330	2.19	-	31.15	5.00	31.68

802.11ax HEW40_Nss1,(MCS0)_2TX

11/01/2021

2437MHz_TX



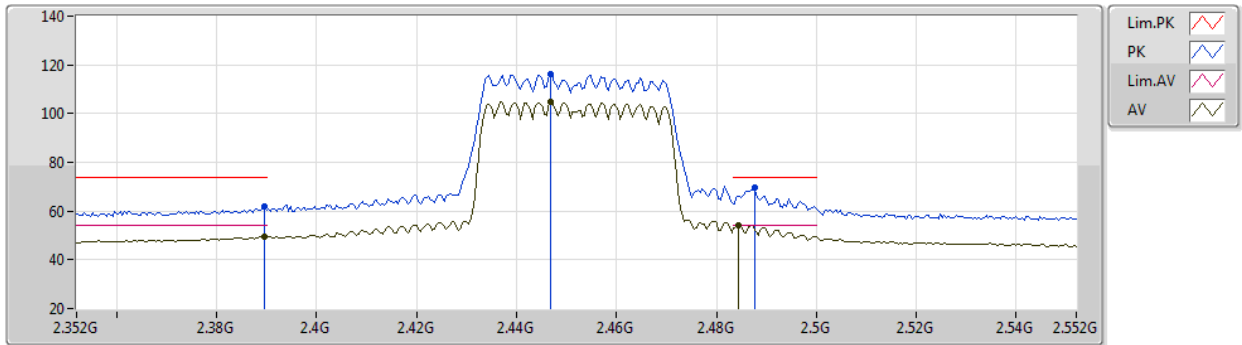
EUT Y_2TX
Setting 83
03-L-J-7

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	4.87476G	47.76	74.00	-26.24	43.29	3	Horizontal	111	1.83	-	31.15	5.00	31.68
AV	4.87307G	35.68	54.00	-18.32	31.21	3	Horizontal	111	1.83	-	31.15	5.00	31.68

802.11ax HEW40_Nss1,(MCS0)_2TX

11/01/2021

2452MHz_TX



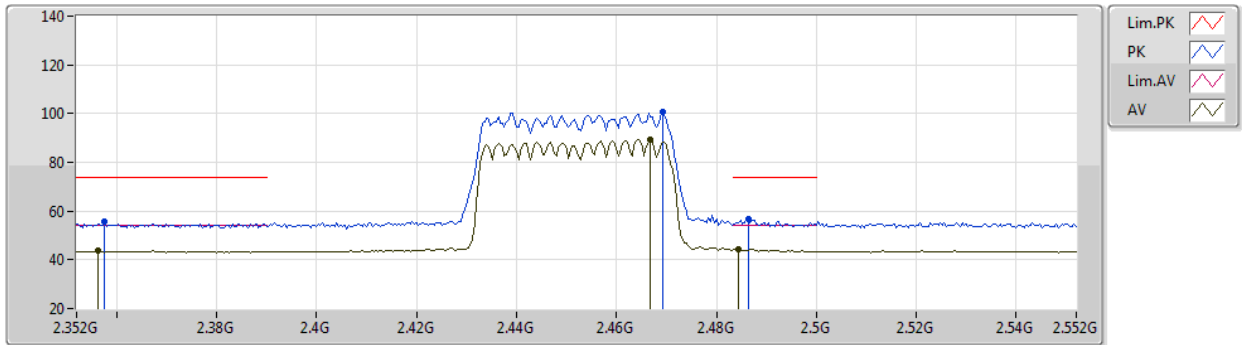
EUT Y_2TX
Setting 73
06-C-J-7

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	61.85	74.00	-12.15	31.17	3	Vertical	173	1.79	-	27.60	3.08	-
AV	2.3896G	49.72	54.00	-4.28	19.04	3	Vertical	173	1.79	-	27.60	3.08	-
PK	2.4468G	116.15	Inf	-Inf	85.59	3	Vertical	173	1.79	-	27.41	3.15	-
AV	2.4468G	104.87	Inf	-Inf	74.31	3	Vertical	173	1.79	-	27.41	3.15	-
PK	2.4876G	69.45	74.00	-4.55	38.86	3	Vertical	173	1.79	-	27.40	3.19	-
AV	2.4844G	53.97	54.00	-0.03	23.39	3	Vertical	173	1.79	-	27.40	3.18	-

802.11ax HEW40_Nss1,(MCS0)_2TX

11/01/2021

2452MHz_TX



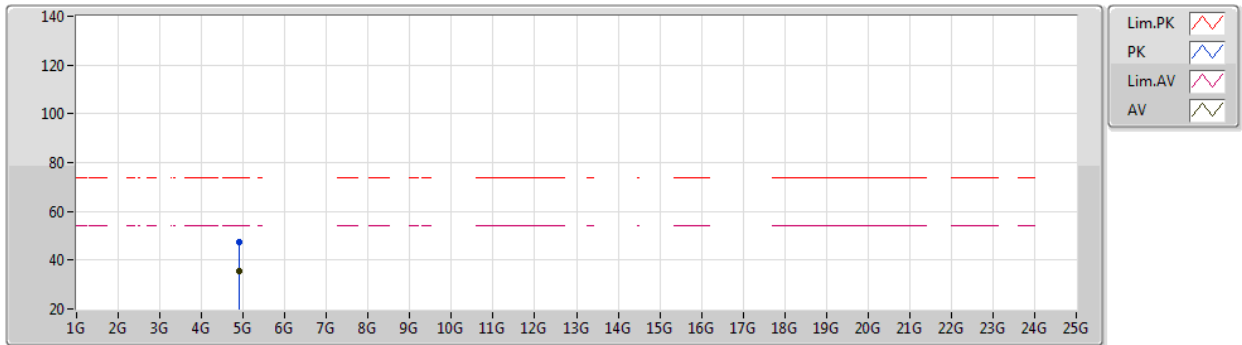
EUT Y_2TX
Setting 73
06-C-J-7

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	2.3576G	55.52	74.00	-18.48	24.90	3	Horizontal	10	2.60	-	27.60	3.02	-
AV	2.3564G	43.72	54.00	-10.28	13.11	3	Horizontal	10	2.60	-	27.60	3.01	-
PK	2.4692G	100.83	Inf	-Inf	70.26	3	Horizontal	10	2.60	-	27.40	3.17	-
AV	2.4668G	89.17	Inf	-Inf	58.60	3	Horizontal	10	2.60	-	27.40	3.17	-
PK	2.4864G	56.65	74.00	-17.35	26.06	3	Horizontal	10	2.60	-	27.40	3.19	-
AV	2.4844G	44.33	54.00	-9.67	13.75	3	Horizontal	10	2.60	-	27.40	3.18	-

802.11ax HEW40_Nss1,(MCS0)_2TX

11/01/2021

2452MHz_TX

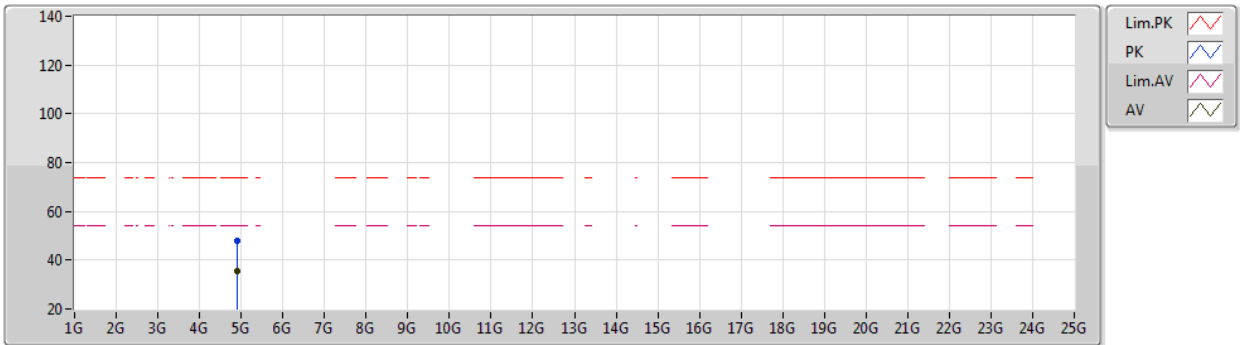

EUT Y_2TX
Setting 73
06-C-J-7

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	4.90338G	47.64	74.00	-26.36	43.18	3	Vertical	145	1.87	-	31.11	5.00	31.65
AV	4.90362G	35.51	54.00	-18.49	31.05	3	Vertical	145	1.87	-	31.11	5.00	31.65

802.11ax HEW40_Nss1,(MCS0)_2TX

11/01/2021

2452MHz_TX



EUT Y_2TX
Setting 73
06-C-J-7

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	4.90339G	47.97	74.00	-26.03	43.51	3	Horizontal	236	1.26	-	31.11	5.00	31.65
AV	4.90338G	35.63	54.00	-18.37	31.17	3	Horizontal	236	1.26	-	31.11	5.00	31.65



Radiated Emissions above 1GHz

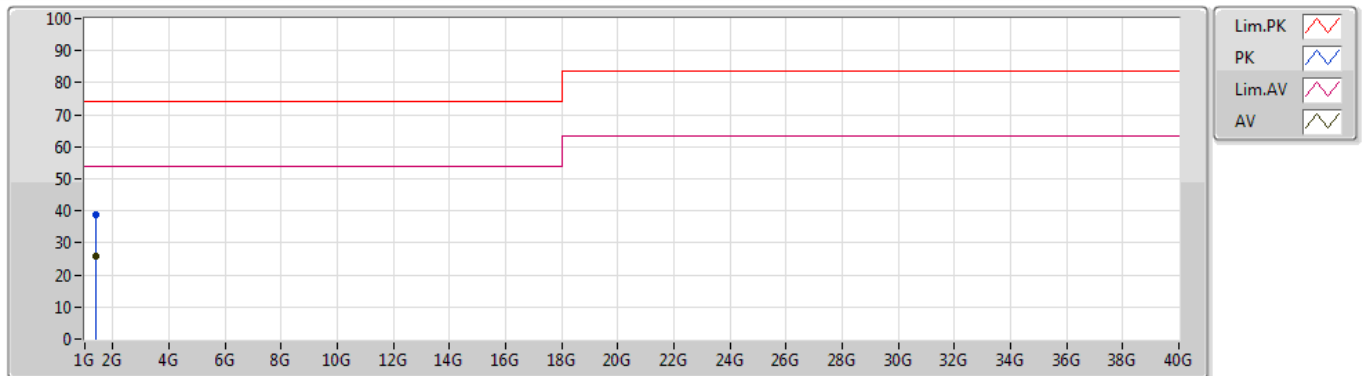
Appendix G

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	AV	1.38075G	29.10	54.00	-24.90	Horizontal

Mode 1

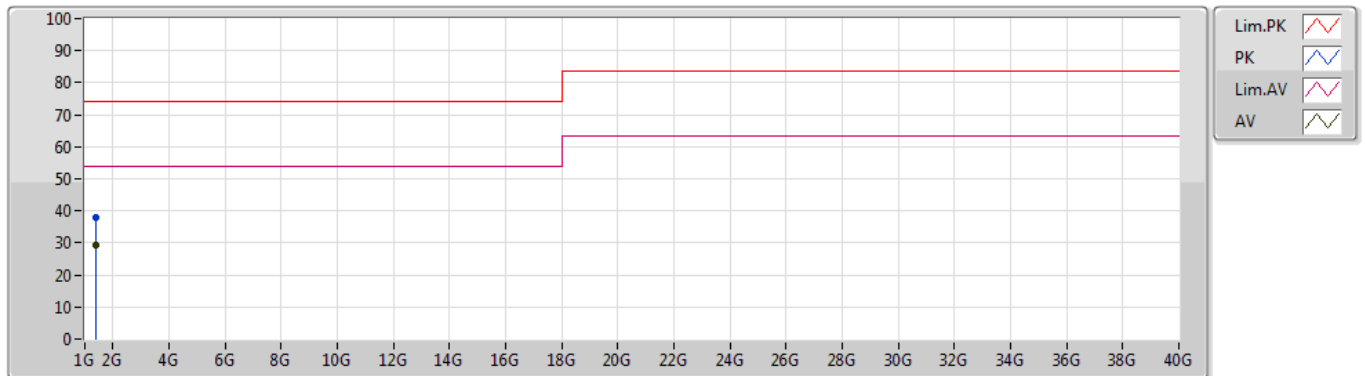
22/01/2021



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	1.38056G	38.85	74.00	-35.15	-6.62	3	Vertical	97	1.27	-	45.47	25.98	2.39	34.99
AV	1.38022G	25.93	54.00	-28.07	-6.62	3	Vertical	97	1.27	"Worst"	32.55	25.98	2.39	34.99

Mode 1

22/01/2021



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	1.38059G	37.92	74.00	-36.08	-6.62	3	Horizontal	207	2.14	-	44.54	25.98	2.39	34.99
AV	1.38075G	29.10	54.00	-24.90	-6.62	3	Horizontal	207	2.14	"Worst"	35.72	25.98	2.39	34.99