FCC RADIO TEST REPORT

FCC ID	:	MSQ-RTAXI600
Equipment	:	Wireless-AX5700 Dual-band Gigabit Router
Brand Name	:	ASUS
Model Name	:	RT-AX86U/RT-AX5700
Applicant	:	ASUSTeK COMPUTER INC. 1F., No. 15, Lide Rd., Beitou Dist., Taipei City 112, Taiwan
Manufacturer (1)	:	Compal Networking(KunShan) CO., LTD. No.520,Nan Bang RD., Economic & Technical Development Zone, KunShan,JiangSu,China
Manufacturer (2)	:	ARCADYAN TECHNOLOGY (VIETNAM) CO., LTD. Ba Thien Industrial Park, Ba Hien commune, Binh Xuyen district, Vinh Phuc Province
Standard	:	47 CFR FCC Part 15.247

The product was received on Mar. 18, 2020, and testing was started from Mar. 18, 2020 and completed on Sep.08, 2020. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

Approved by: Sam Chen

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

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Photographs of EUT v01

History of this test report

Report No.	Version	Description	Issued Date
FR9D0510-02AA	01	Initial issue of report	Oct. 12, 2020

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.247(a)	DTS Bandwidth	PASS	-
3.2	15.247(b)	Maximum Conducted Output Power	PASS	-
3.3	15.247(e)	Power Spectral Density	PASS	-
3.4	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	-
3.5	15.247(d)	Emissions in Restricted Frequency Bands	PASS	-
Reference to Sporton Project No.: 9D0510-01.				

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
1. The test configuration, test mode and test software were written in this test report are declared by the manufacturer. 2. The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Sam Chen
Report Producer: Cindy Peng

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	3TX
2.4-2.4835GHz	802.11g	20	3TX
2.4-2.4835GHz	802.11n HT20	20	3TX
2.4-2.4835GHz	802.11n HT20-BF	20	3TX
2.4-2.4835GHz	VHT20	20	3TX
2.4-2.4835GHz	VHT20-BF	20	3TX
2.4-2.4835GHz	802.11ax HEW20	20	3TX
2.4-2.4835GHz	802.11ax HEW20-BF	20	3TX
2.4-2.4835GHz	802.11n HT40	40	3TX
2.4-2.4835GHz	802.11n HT40-BF	40	3TX
2.4-2.4835GHz	VHT40	40	3TX
2.4-2.4835GHz	VHT40-BF	40	3TX
2.4-2.4835GHz	802.11ax HEW40	40	3TX
2.4-2.4835GHz	802.11ax HEW40-BF	40	3TX

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

1.1.2 Antenna Information

Set	Ant.	Port 2.4 GHz	Port 5 GHz	Brand	P/N	Type	Connector	Antenna Gain (dBi) 2.4GHz	5GHz Band 1	5GHz Band 2	5GHz Band 3	5GHz Band 4
1	1	1	1	WHA YU	C660-510490-A	Dipole	Reversed-SMA	1.66	1.86	1.86	1.90	1.84
	2	2	3									
	3	3	4									
	4	-	2	WHA YU	C660-510390-A	PCB	I-PEX	-	2.90	2.90	3.00	2.52
2	1	-	-	WHA YU	C660-510492-A	Dipole	Reversed-SMA	1.52	1.41	1.45	1.72	1.74
	2	-	-									
	3	-	-									
	4	-	-	WHA YU	C660-510390-A	PCB	I-PEX	-	2.90	2.90	3.00	2.52
3	1	-	-	WHLSIN	RFDPA141500 SBLB802	Dipole	Reversed-SMA	1.52	1.66	1.76	1.82	1.65
	2	-	-									
	3	-	-									
	4	-	-	WHLSIN	RFPCA302603I M5B301	PCB	I-PEX	-	2.17	2.30	2.20	2.49

Set	Directional Gain (dBi) 2.4GHz	5GHz Band 1	5GHz Band 2	5GHz Band 3	5GHz Band 4	
	Nss1	Nss1	Nss1	Nss1	Nss1	Nss2
1	6.43	6.63	6.63	6.67	6.61	4.85

Note1: The above information was declared by manufacturer.
Note2: The EUT has three sets of antenna, and each set contains four antennas.
For 2.4GHz function (3TX/3RX):
Only the higher gain antenna “Set 1” was tested.
Port 1, Port 2 and Port 3 could transmit/receive simultaneously.
For 5GHz function (4TX/4RX):
Only the higher gain antenna “Set 1” was tested.
Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.
Note3: 5GHz Band with four antennas and device designed the three dipole antennas are used in the vertical position, the other one PCB antenna is used in the horizontal position.
So array gain only calculation 10log(3).

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	0.949	0.23	12.419m	100
802.11g	0.947	0.24	2.065m	1k
802.11ax HEW20-BF	0.941	0.26	2.926m	1k
802.11ax HEW40-BF	0.915	0.39	4.358m	300

Note:
- DC is Duty Cycle.
- DCF is Duty Cycle Factor.

1.1.4 EUT Operational Condition

EUT Power Type	From power adapter			
Beamforming Function	☒	With beamforming	☐	Without beamforming
	The product has beamforming function for n/VHT/ax in 2.4GHz and n/ac/ax in 5GHz.			
Function	☒	Point-to-multipoint	☐	Point-to-point
Test Software Version	Mtool V3.2.0.0			

Note: The above information was declared by manufacturer.

1.1.5 Table for EUT Supports Functions

Function	Support Type
AP Router	Master
Bridge	Client without radar detection
Repeater	Master
Mesh	Master

After evaluating, for “AP Router” and “Mesh” were performed for AC power-line conducted emissions test and recorded in this report.

1.1.6 Table for Multiple Listing

The model names in the following table are all refer to the identical product.

Model Name	Description
RT-AX86U	There is nothing different of two model names, just for different marketing use.
RT-AX5700	

From the above models, model: RT-AX86U was selected as representative model for the test and its data was recorded in this report.

1.1.7 Table for SKU Information

EUT	2.4G FEM	
	Brand Name	Model Name
SKU 1	Qorvo	QPF4216B
SKU 2	SKYWORKS	SKY85331-11

Note: The SKU 2 is same as SKU 1 except for the 2.4G FEM.

1.1.8 Table for Class II Change

This product is an extension of original one reported under Sporton project number: FR9D0510-0AA

Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
1. Adding LED Light PCB Board for the SKU 1.	Emissions in Restricted Frequency Bands Below 1GHz.
2. Adding SKU 2 (The SKU 2 is same as SKU 1 except for the 2.4G FEM)	1. DTS Bandwidth. 2. Maximum Conducted Output Power. 3. Power Spectral Density. 4. Emissions in Non-restricted Frequency Bands. 5. Emissions in Restricted Frequency Bands.
3. Changing the applicant address to “1F., No. 15, Lide Rd., Beitou Dist., Taipei City 112, Taiwan” from “4F, No. 150, Li-Te Rd., Peitou, Taipei 112, Taiwan”. 4. Updating adapter 3 label (Adding BSMI Labeling information)	Do not affect the test results.

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, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C.
		TEL :	886-3-656-9065 FAX : 886-3-656-9085

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH02-CB	Lance Wu	24.1~25.2°C / 53~58%	Aug. 27, 2020-Sep. 01, 2020
Radiated Below 1GHz for mode 1	03CH04-CB	Eason Chen	21.1~22.5°C / 46~49%	Mar. 18, 2020
Radiated Below 1GHz for mode 2	03CH05-CB	Stim Sung	24.7~25.7°C / 55~58%	Aug. 26, 2020~Sep.08, 2020
Radiated Above 1GHz	03CH06-CB	Stim Sung	24.4~25.3°C / 53~57%	Aug. 26, 2020~Sep.08, 2020

Test site Designation No. TW0006 with FCC.
Test site registered number IC 4086D with Industry Canada.

1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Radiated Emission (30MHz ~ 1,000MHz) for mode 1	4.3 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz) for mode 2	5.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.9 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.6 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	0.39%	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
802.11b_Nss1,(1Mbps)_3TX	-
2412MHz	95
2437MHz	100
2462MHz	100
802.11g_Nss1,(6Mbps)_3TX	-
2412MHz	76
2417MHz	83
2437MHz	100
2457MHz	84
2462MHz	78
802.11ax HEW20-BF_Nss1,(MCS0)_3TX	-
2412MHz	71
2417MHz	83
2437MHz	100
2457MHz	83
2462MHz	71
802.11ax HEW40-BF_Nss1,(MCS0)_3TX	-
2422MHz	67
2427MHz	72
2437MHz	83
2447MHz	76
2452MHz	71

Note:
- There are two modes of EUT, one is beamforming mode, and the other is non-beamforming mode for n/VHT/ax in 2.4GHz and n/ac/ax in 5GHz. Only beamforming mode has been tested and recorded in this test report.

2.2 The Worst Case Measurement Configuration

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
Test Mode	SKU 2 - 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	CTX
The EUT was performed at Adapter 1 ~ Adapter 3, the worst case was found at Adapter 3. So the measurement will follow this same test configuration. The EUT has two operate mode as below: 1. WLAN 2.4GHz 2. WLAN 5GHz And, from above the worst case was found at WLAN 2.4GHz. So the measurement will follow this same test configuration.	
1	SKU 1 - WLAN 2.4GHz + Adapter 3 + Antenna Set 1
2	SKU 2 - WLAN 2.4GHz + Adapter 3 + Antenna Set 1
For operating mode 1 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
Test Mode	SKU 2 - Antenna Set 1

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz + WLAN 5GHz + Antenna Set 1
Refer to Sporton Test Report No.: FA9D0510-02 for Co-location RF Exposure Evaluation.	

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

2.3 EUT Operation during Test

For non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

For beamforming mode:

For Conducted Mode:

The EUT was programmed to be in continuously transmitting mode.

For Radiated Mode:

During the test, the following programs under WIN 7 were executed.
The program was executed as follows:
1. During the test, the EUT operation to normal function.
2. Executed command fixed test channel under Telnet.
3. Executed "Lantest.exe" to link with the remote workstation to transmit and receive packet by RX Device and transmit duty cycle no less than 98%.

2.4 Accessories

Accessories					
No.	**Equipment Name**	**Brand Name**	**Model Name**	**Rating**	**Remark**
1	Adapter 1	DELTA	ADP-45ZE B	INPUT: 100-240V ~ 50-60Hz, 1.2A OUTPUT: 19V, 2.37A	With the DC cable: Non-shielded, 1.8m
2	Adapter 2	DELTA	ADP-45FE F	INPUT: 100-240V ~1.2A, 50-60Hz OUTPUT: 19V, 2.37A	With the DC cable: Non-shielded, 1.5m
3	Adapter 3	AcBel	ADH011	INPUT: 100-240V ~1.4A, 50-60Hz OUTPUT: 19.5V, 2.31A, 45W MAX	With the DC cable: Non-shielded, 1.5m
No.	**Others**				
4	Power cable*1: Non-shielded, 0.9m				
5	RJ-45 cable*1: Non-shielded, 1.5m				

2.5 Support Equipment

For RF Conducted and Radiated (below 1GHz):

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

For Radiated (above 1GHz):

For non-beamforming mode:

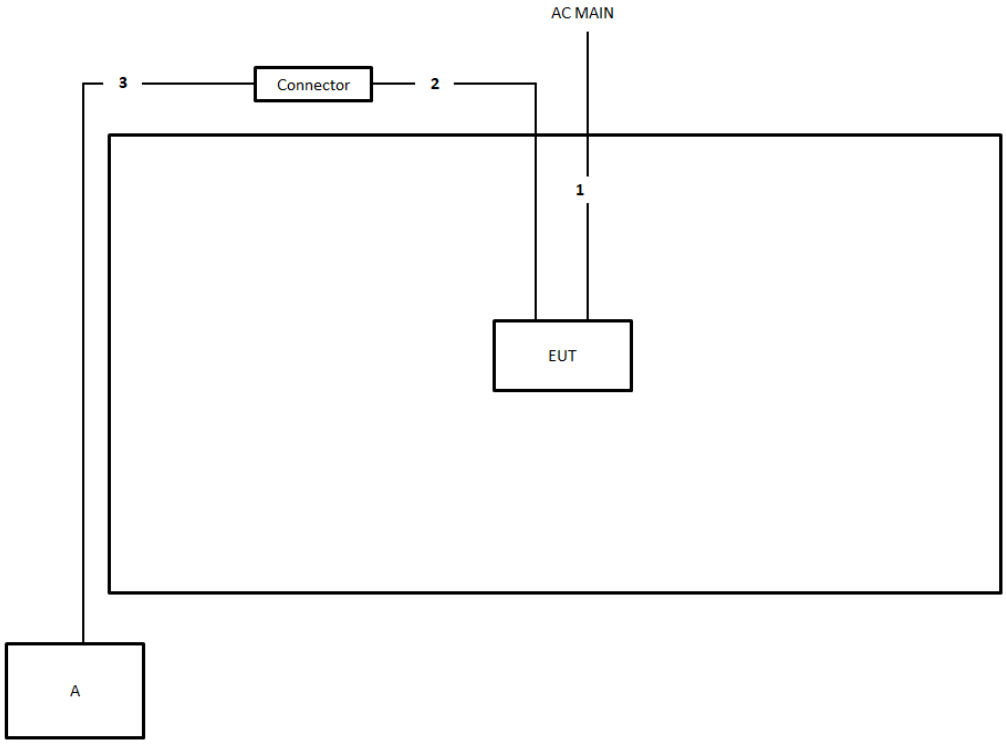
Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	NB	DELL	E4300	N/A

For beamforming mode:

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	NB	DELL	E4300	N/A
B	NB	DELL	E4300	N/A
C	RX Device	ASUS	RT-AX86U	MSQ-RTAXI600

2.6 Test Setup Diagram

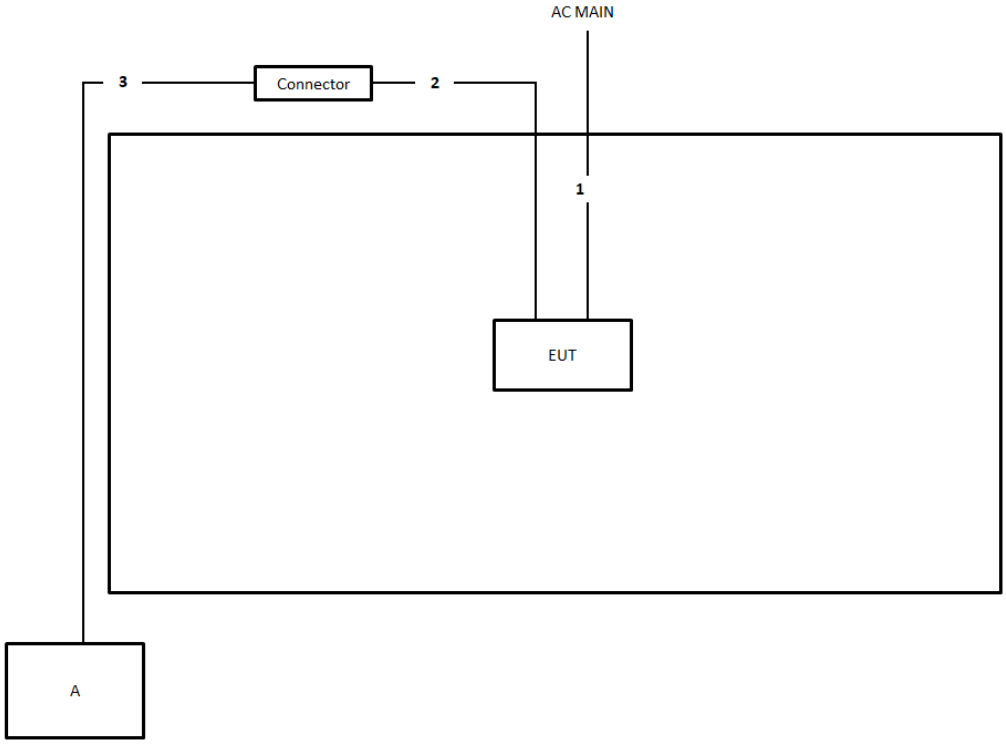
Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	2.4m
2	RJ-45 cable	No	1.5m
3	RJ-45 cable	No	10m

Test Setup Diagram - Radiated Test > 1GHz

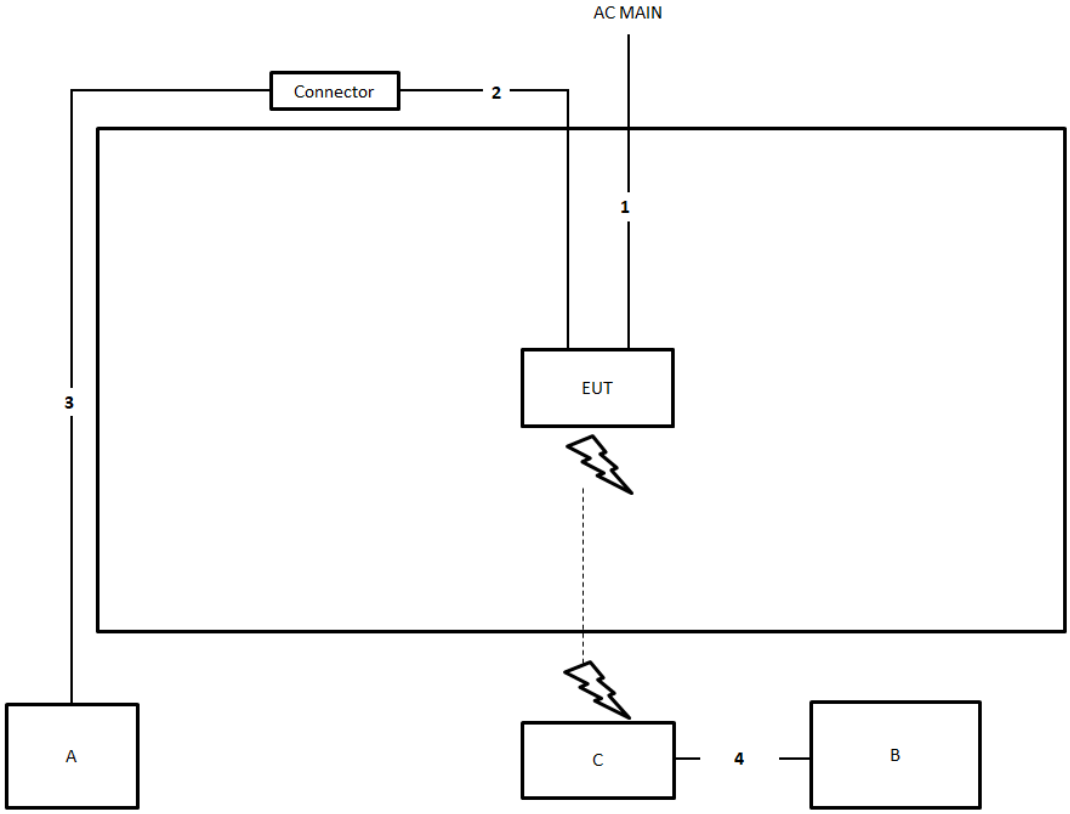
For non-beamforming mode:



Item	Connection	Shielded	Length
1	Power cable	No	2.4m
2	RJ-45 cable	No	1.5m
3	RJ-45 cable	No	10m

Test Setup Diagram - Radiated Test > 1GHz

For beamforming mode:



Item	Connection	Shielded	Length
1	Power cable	No	2.4m
2	RJ-45 cable	No	1.5m
3	RJ-45 cable	No	10m
4	RJ-45 cable	No	10m

3 Transmitter Test Result

3.1 DTS Bandwidth

3.1.1 6dB Bandwidth Limit

6dB Bandwidth Limit
Systems using digital modulation techniques:
▪ 6 dB bandwidth ≥ 500 kHz.

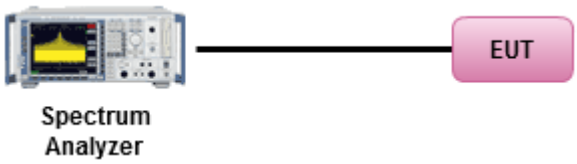
3.1.2 Measuring Instruments

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

3.1.3 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.

3.1.4 Test Setup

Emission Bandwidth


3.1.5 Test Result of Emission Bandwidth

Refer as Appendix A

3.2 Maximum Conducted Output Power

3.2.1 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.		

3.2.2 Measuring Instruments

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

3.2.3 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: $P_{total} = P_1 + P_2 + \ldots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.2.4 Test Setup

Maximum Conducted Output Power (Power Meter)

3.2.5 Test Result of Maximum Conducted Output Power

Refer as Appendix B

3.3 Power Spectral Density

3.3.1 Power Spectral Density Limit

Power Spectral Density Limit
▪ Power Spectral Density (PSD) ≤ 8 dBm/3kHz

3.3.2 Measuring Instruments

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

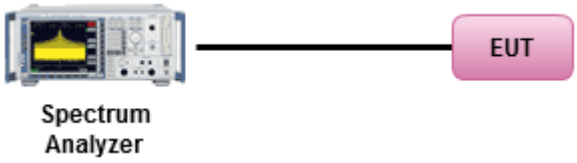
3.3.3 Test Procedures

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 11.10.2 Method PKPSD.
	[duty cycle ≥ 98% or external video / power trigger]	
	☐	Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.3 Method AVGPSD-1.
	☐	Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.5 Method AVGPSD-2.
	☐	Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.7 Method AVGPSD-3.
	duty cycle < 98% and average over on/off periods with duty factor	
	☐	Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.4 Method AVGPSD-1A. (alternative).
	☐	Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.6 Method AVGPSD-2A. (alternative)
	☐	Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.8 Method AVGPSD-3A. (alternative)
▪ 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.

3.3.4 Test Setup

Power Spectral Density



3.3.5 Test Result of Power Spectral Density

Refer as Appendix C

3.4 Emissions in Non-restricted Frequency Bands

3.4.1 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.

3.4.2 Measuring Instruments

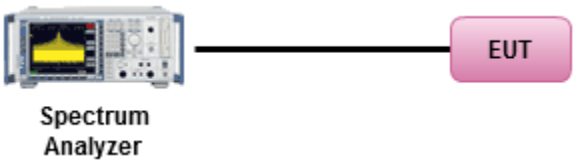
Refer a test equipment and calibration data table in this test report.

3.4.3 Test Procedures

Test Method
▪ Refer as FCC KDB 558074, clause 8.5 for unwanted emissions into non-restricted bands.

3.4.4 Test Setup

Emissions in Non-restricted Frequency Bands



3.4.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix D

3.5 Emissions in Restricted Frequency Bands

3.5.1 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.

3.5.2 Measuring Instruments

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

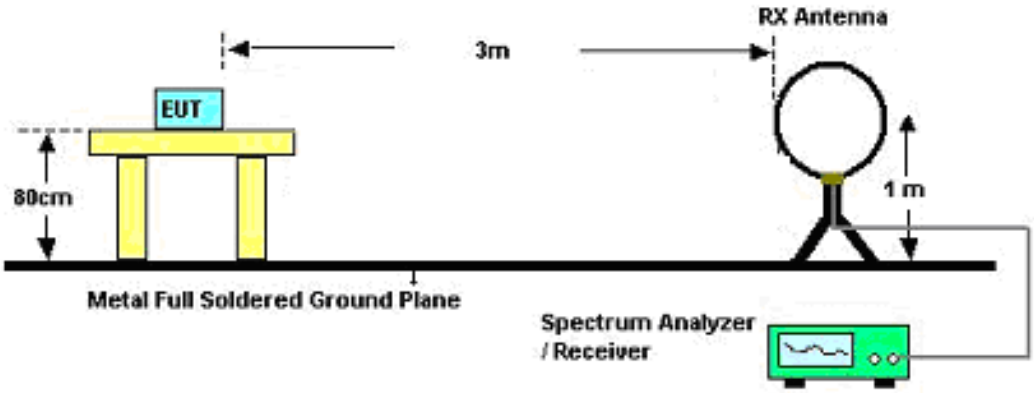
3.5.3 Test Procedures

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 ≥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≥1/T).
		☐	Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 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.		

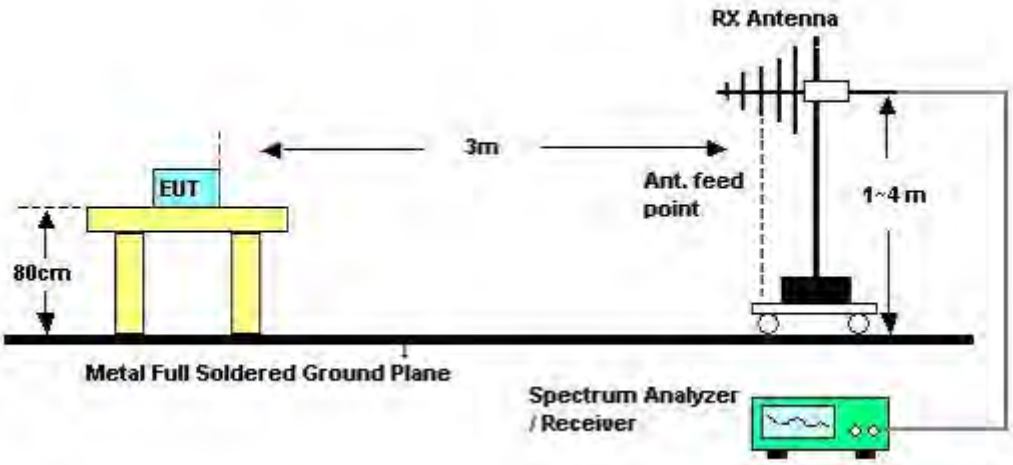
3.5.4 Test Setup

Radiated - Emissions in Restricted Frequency Bands

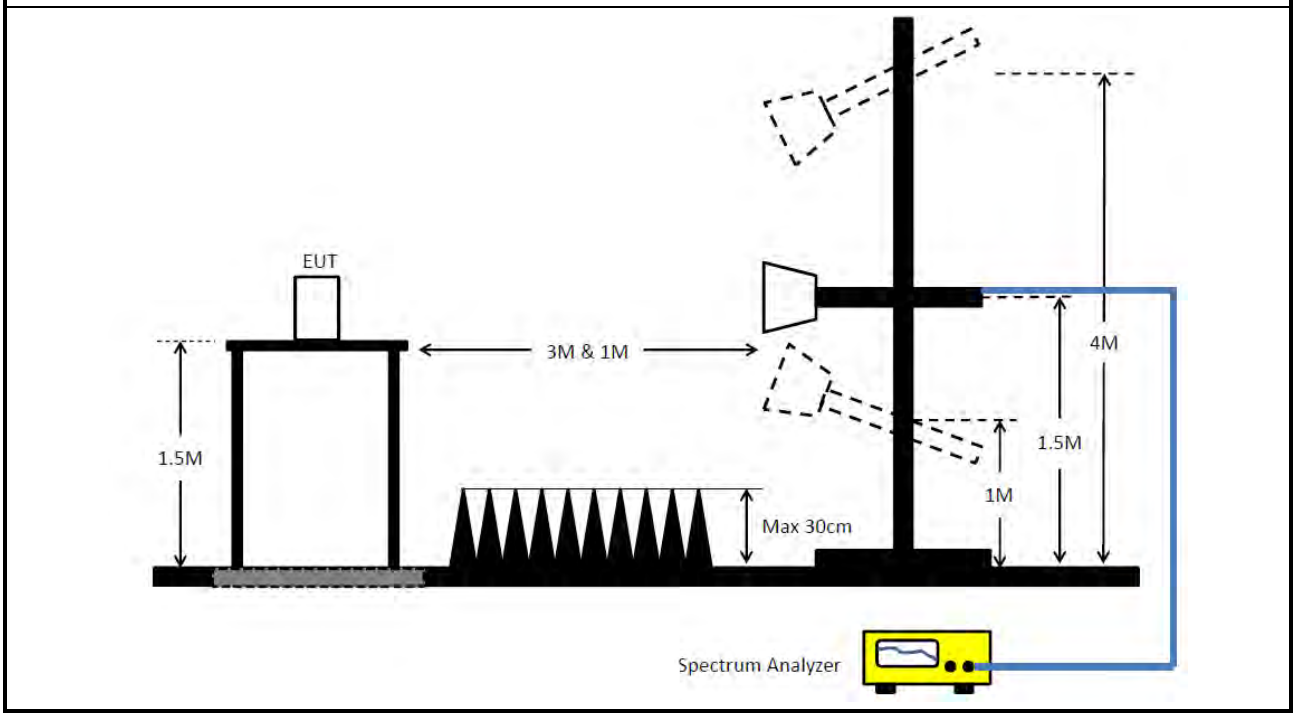
9kHz ~30MHz



30MHz~1GHz



Above 1GHz



3.5.5 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.

3.5.6 Emissions in Restricted Frequency Bands (Below 30MHz)

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to KDB414788 Radiated Test Site, and the result came out very similar.
All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.
The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10 harmonic or 40 GHz, whichever is appropriate.

3.5.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix E

4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 29, 2019	Mar. 28, 2020	Radiation (03CH04-CB)
BILOG ANTENNA with 6 dB attenuator	SCHAFFNER / EMCI	22021 / AT-N0607	CBL 6112B / N-6-06	30MHz~1GHz	Oct. 12, 2019	Oct. 11, 2020	Radiation (03CH04-CB)
Pre-Amplifier	Agilent	310N	187291	30MHz~1GHz	Mar. 20, 2019	Mar. 19, 2020	Radiation (03CH04-CB)
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Dec. 18, 2019	Dec. 17, 2020	Radiation (03CH04-CB
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	May 15, 2019	May 14, 2020	Radiation (03CH04-CB)
Low Cable	WOKEN	RG402	Low Cable-03+22	30MHz~1GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH04-CB)
Test Software	Audix	E3	6.120210d	-	N.C.R.	N.C.R.	Radiation (03CH04-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Apr. 13, 2020	Apr. 12, 2021	Radiation (03CH05-CB)
BILOG ANTENNA with 6 dB attenuator	Teseq / EMCI	CBL 6112D / N-6-06	35236 / AT-N0610	30MHz~1GHz	Mar. 27, 2020	Mar. 26, 2021	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC330N	980331	30MHz~1GHz	Apr. 28, 2020	Apr. 27, 2021	Radiation (03CH05-CB)
Signal Analyzer	R&S	FSV40	101904	9kHz ~ 40GHz	May 12, 2020	May 11, 2021	Radiation (03CH05-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	May 13, 2020	May 12, 2021	Radiation (03CH05-CB)
Low Cable	WOKEN	RG402	Low Cable-04+23	30MHz~1GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH05-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH05-CB)
Horn Antenna	SCHWAEZBECK	BBHA 9120 D	BBHA 9120 D-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	83017A	MY53270064	1GHz~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	Oct. 21, 2019	Oct. 20, 2020	Radiation (03CH06-CB)
High Cable	WOKEN	RG402	High Cable-05	1GHz~18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH06-CB)
High Cable	WOKEN	RG402	High Cable-05+24	1GHz~18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH06-CB)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
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)
Spectrum analyzer	R&S	FSV40	101027	9kHz~40GHz	Jul. 27, 2020	Jul. 26, 2021	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-01	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-02	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-3	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-04	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-05	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
Power Sensor	Anritsu	MA2411B	1126203	300MHz~40GHz	Sep. 11, 2019	Sep. 10, 2020	Conducted (TH02-CB)
Power Meter	Anritsu	ML2495A	1210004	300MHz~40GHz	Sep. 11, 2019	Sep. 10, 2020	Conducted (TH02-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH02-CB)

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

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_3TX	7.55M	10.47M	10M5G1D	6.55M	10.22M
802.11g_Nss1,(6Mbps)_3TX	16.425M	16.917M	16M9D1D	15.7M	16.692M
802.11ax HEW20-BF_Nss1,(MCS0)_3TX	19M	19.115M	19M1D1D	16.975M	19.04M
802.11ax HEW40-BF_Nss1,(MCS0)_3TX	37.6M	37.631M	37M6D1D	35.4M	37.231M

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

Result

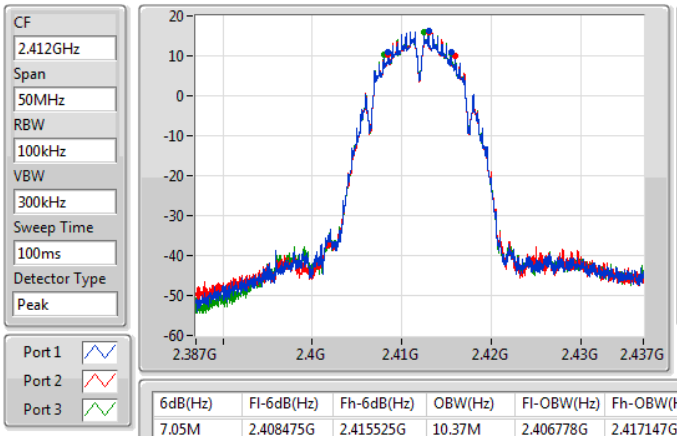
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)
802.11b_Nss1,(1Mbps)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	7.05M	10.37M	7.55M	10.345M	7.525M	10.345M
2437MHz	Pass	500k	6.55M	10.27M	7M	10.22M	7.025M	10.445M
2462MHz	Pass	500k	7M	10.395M	7.05M	10.445M	7.05M	10.47M
802.11g_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	16.325M	16.742M	16.35M	16.767M	16.325M	16.692M
2437MHz	Pass	500k	16.075M	16.917M	16.275M	16.742M	15.7M	16.767M
2462MHz	Pass	500k	16.425M	16.817M	16.375M	16.892M	16.35M	16.692M
802.11ax HEW20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	18.975M	19.04M	18.975M	19.04M	18.95M	19.09M
2437MHz	Pass	500k	18.2M	19.09M	18.7M	19.04M	16.975M	19.09M
2462MHz	Pass	500k	18.975M	19.04M	19M	19.115M	18.85M	19.115M
802.11ax HEW40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	37.6M	37.581M	36.75M	37.481M	36.9M	37.631M
2437MHz	Pass	500k	35.45M	37.281M	35.5M	37.281M	35.4M	37.231M
2452MHz	Pass	500k	36.7M	37.431M	36.35M	37.481M	36.25M	37.231M

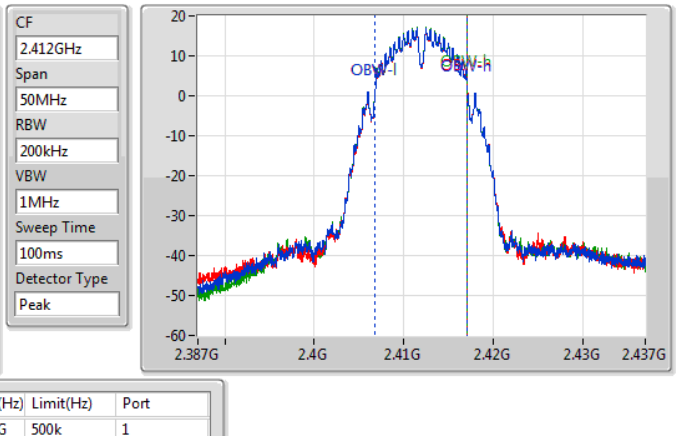
Port X-N dB = Port **X** 6dB down bandwidth; **Port X-OBW** = Port **X** 99% occupied bandwidth;

802.11b_Nss1,(1Mbps)_3TX — EBW

2412MHz

27/08/2020



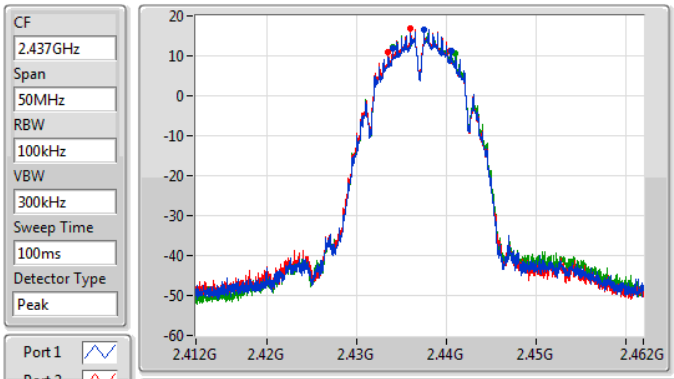


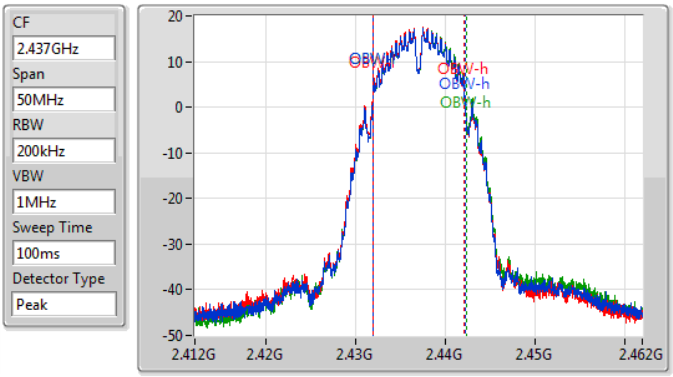
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.05M	2.408475G	2.415525G	10.37M	2.406778G	2.417147G	500k	1
7.55M	2.40845G	2.416G	10.345M	2.406803G	2.417147G	500k	2
7.525M	2.408G	2.415525G	10.345M	2.406778G	2.417122G	500k	3

802.11b_Nss1,(1Mbps)_3TX — EBW

2437MHz

27/08/2020





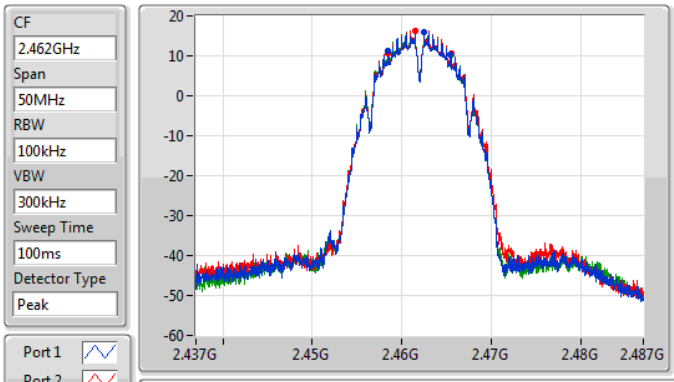
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
6.55M	2.433975G	2.440525G	10.27M	2.431953G	2.442222G	500k	1
7M	2.433475G	2.440475G	10.22M	2.431903G	2.442122G	500k	2
7.025M	2.433975G	2.441G	10.445M	2.431953G	2.442397G	500k	3

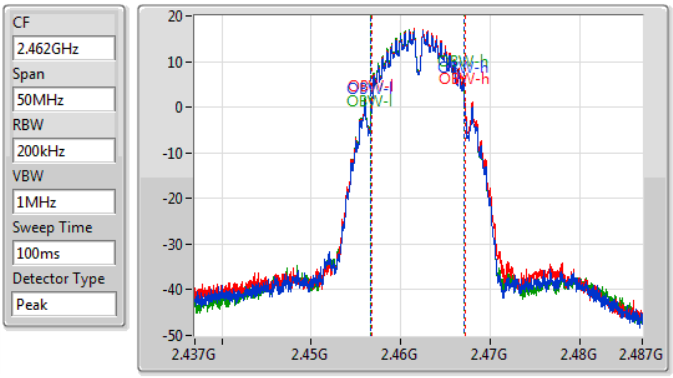
802.11b_Nss1,(1Mbps)_3TX

EBW

2462MHz

27/08/2020





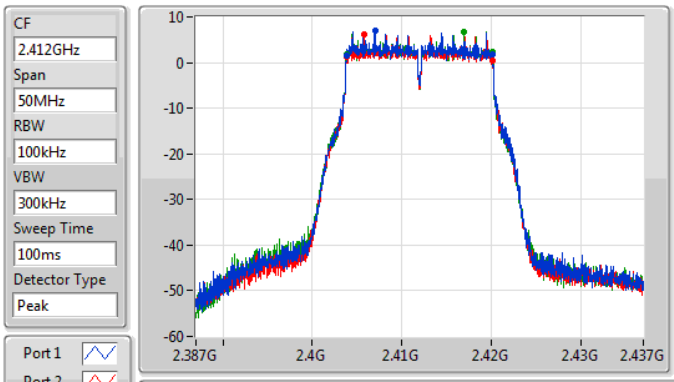
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7M	2.458475G	2.465475G	10.395M	2.456703G	2.467097G	500k	1
7.05M	2.45845G	2.4655G	10.445M	2.456728G	2.467172G	500k	2
7.05M	2.45845G	2.4655G	10.47M	2.456603G	2.467072G	500k	3

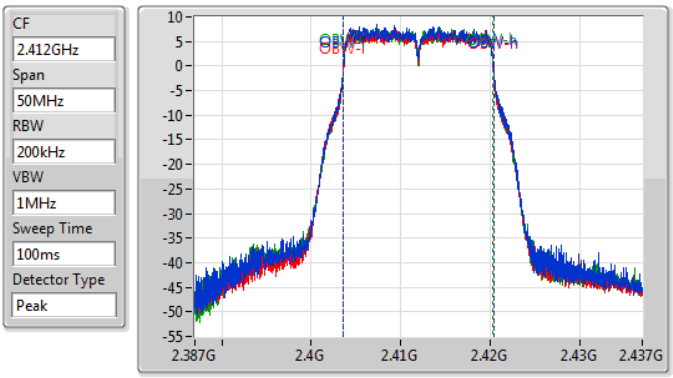
802.11g_Nss1,(6Mbps)_3TX

EBW

2412MHz

27/08/2020





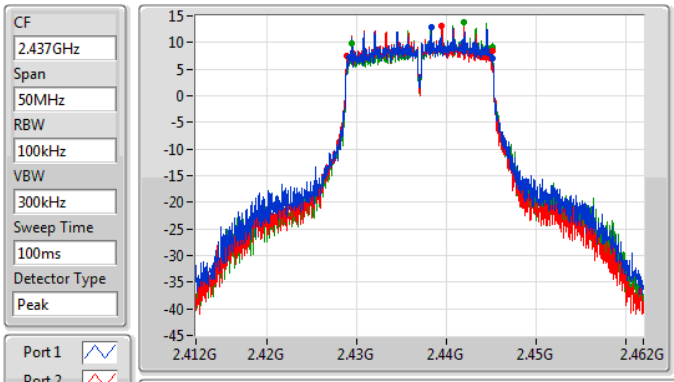
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.403825G	2.42015G	16.742M	2.403629G	2.420371G	500k	1
16.35M	2.403825G	2.420175G	16.767M	2.403604G	2.420371G	500k	2
16.325M	2.403825G	2.42015G	16.692M	2.403629G	2.420321G	500k	3

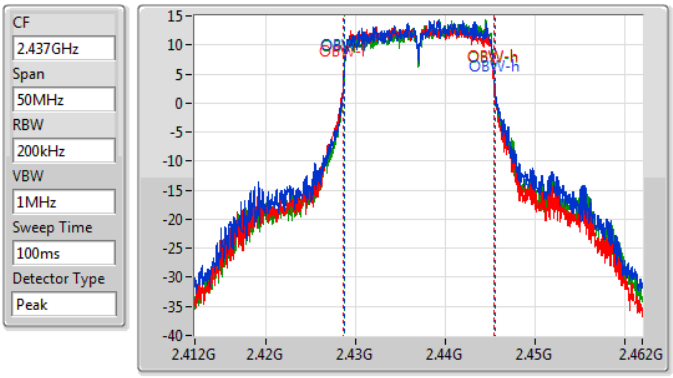
802.11g_Nss1,(6Mbps)_3TX

EBW

2437MHz

27/08/2020





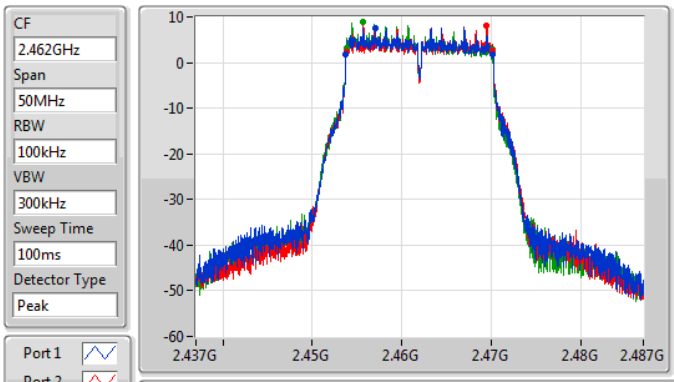
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.075M	2.4291G	2.445175G	16.917M	2.428679G	2.445596G	500k	1
16.275M	2.42885G	2.445125G	16.742M	2.428629G	2.445371G	500k	2
15.7M	2.42945G	2.44515G	16.767M	2.428729G	2.445496G	500k	3

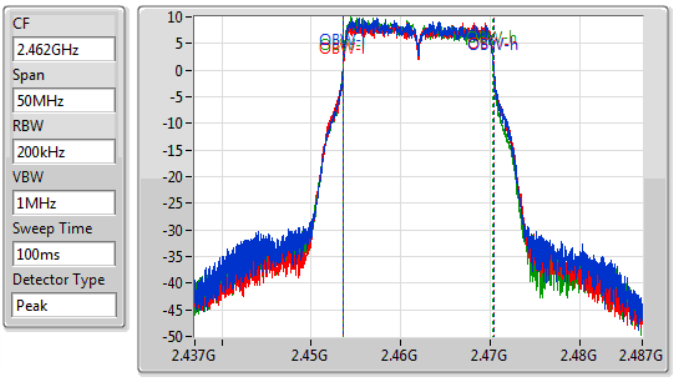
802.11g_Nss1,(6Mbps)_3TX

EBW

2462MHz

27/08/2020



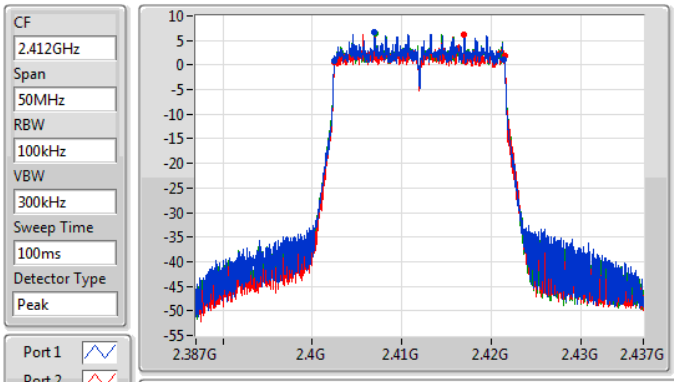


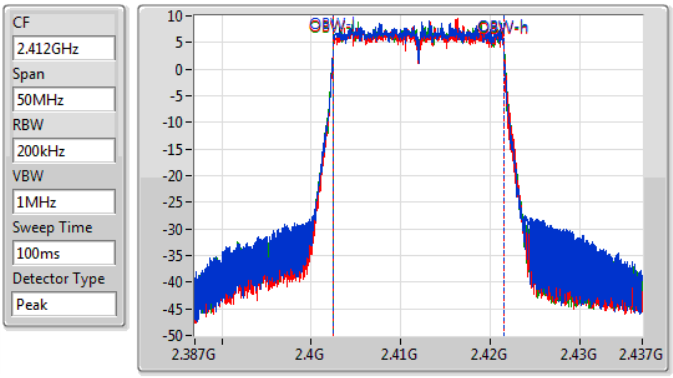
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.425M	2.45375G	2.470175G	16.817M	2.453579G	2.470396G	500k	1
16.375M	2.4538G	2.470175G	16.892M	2.453529G	2.470421G	500k	2
16.35M	2.4538G	2.47015G	16.692M	2.453554G	2.470246G	500k	3

802.11ax HEW20-BF_Nss1,(MCS0)_3TX EBW

2412MHz

27/08/2020



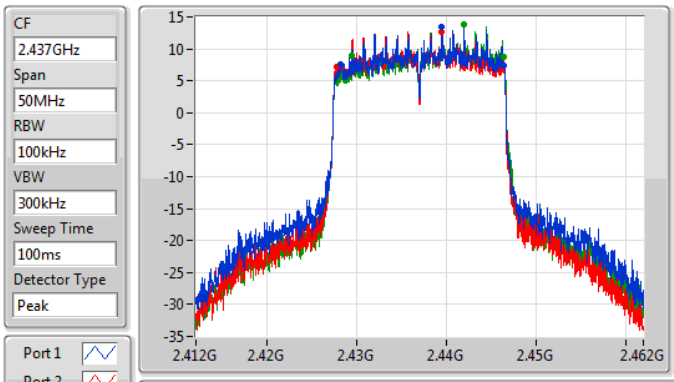


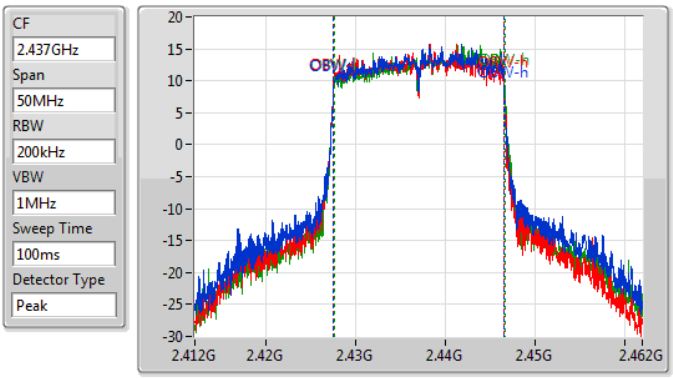
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.975M	2.402475G	2.42145G	19.04M	2.402455G	2.421495G	500k	1
18.975M	2.4025G	2.421475G	19.04M	2.40248G	2.42152G	500k	2
18.95M	2.4025G	2.42145G	19.09M	2.402455G	2.421545G	500k	3

802.11ax HEW20-BF_Nss1,(MCS0)_3TX EBW

2437MHz

27/08/2020



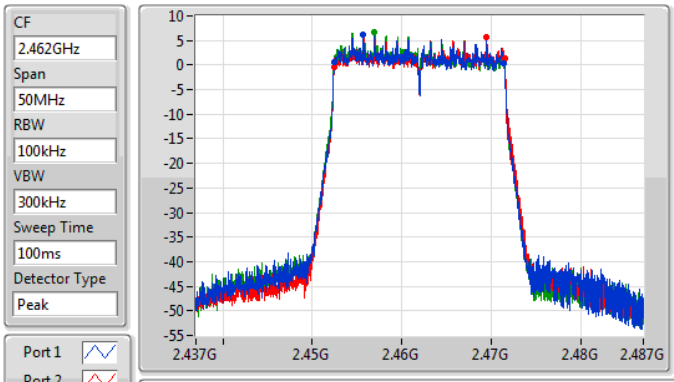


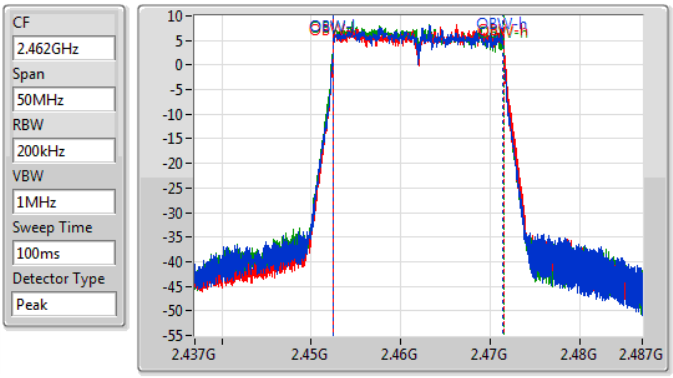
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.2M	2.428225G	2.446425G	19.09M	2.42748G	2.44657G	500k	1
18.7M	2.42775G	2.44645G	19.04M	2.42748G	2.44652G	500k	2
16.975M	2.42945G	2.446425G	19.09M	2.42753G	2.44662G	500k	3

802.11ax HEW20-BF_Nss1,(MCS0)_3TX EBW

2462MHz

27/08/2020



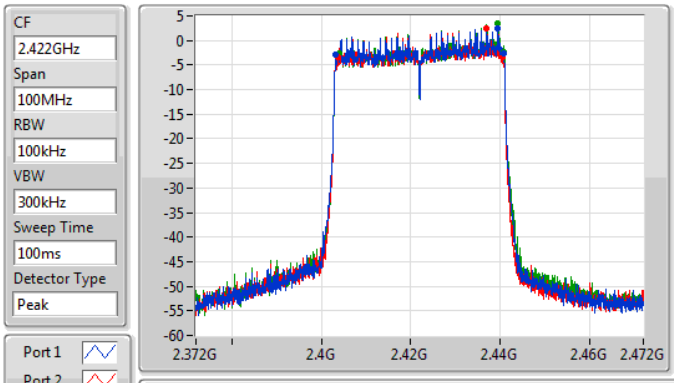


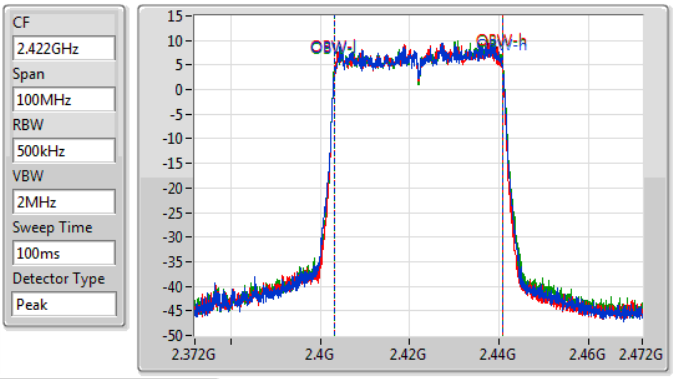
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.975M	2.452475G	2.47145G	19.04M	2.45243G	2.47147G	500k	1
19M	2.452475G	2.471475G	19.115M	2.452455G	2.47157G	500k	2
18.85M	2.4525G	2.47135G	19.115M	2.452405G	2.47152G	500k	3

802.11ax HEW40-BF_Nss1,(MCS0)_3TX EBW

2422MHz

27/08/2020



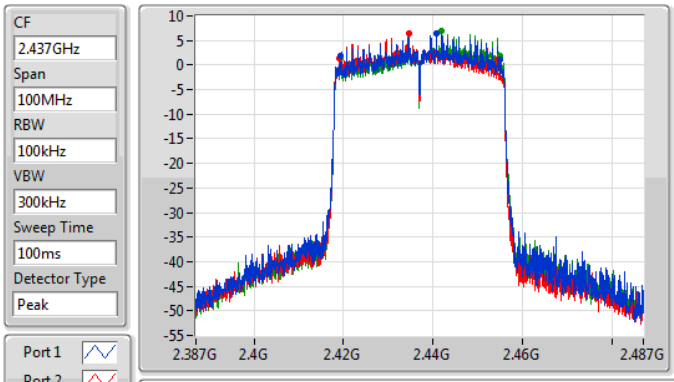


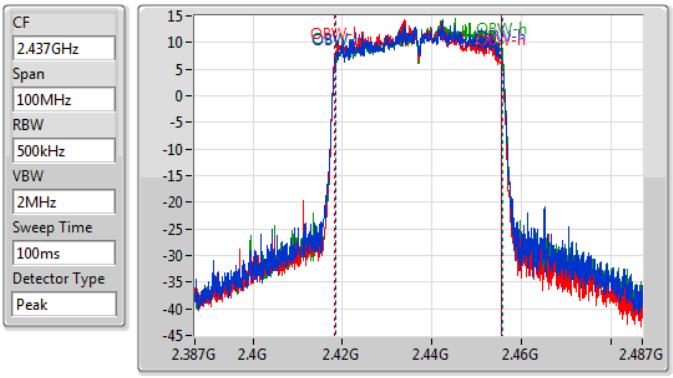
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.6M	2.4032G	2.4408G	37.581M	2.403259G	2.440841G	500k	1
36.75M	2.40385G	2.4406G	37.481M	2.403259G	2.440741G	500k	2
36.9M	2.40395G	2.44085G	37.631M	2.403259G	2.440891G	500k	3

802.11ax HEW40-BF_Nss1,(MCS0)_3TX EBW

2437MHz

27/08/2020



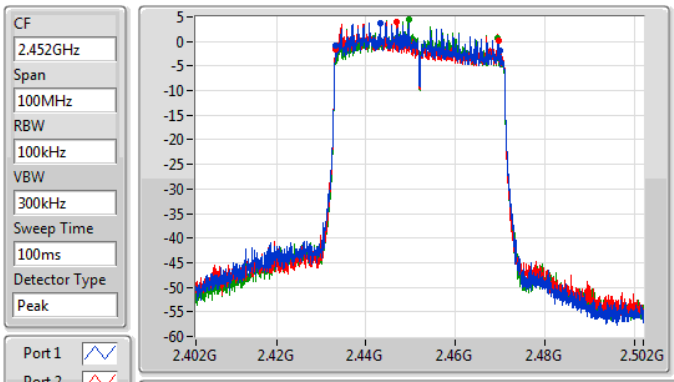


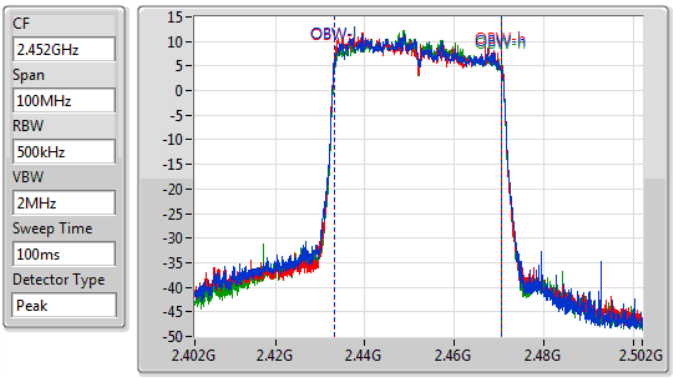
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.45M	2.41945G	2.4549G	37.281M	2.418359G	2.455641G	500k	1
35.5M	2.41895G	2.45445G	37.281M	2.418309G	2.455591G	500k	2
35.4M	2.41945G	2.45485G	37.231M	2.418509G	2.455741G	500k	3

802.11ax HEW40-BF_Nss1,(MCS0)_3TX EBW

2452MHz

27/08/2020





6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.7M	2.4332G	2.4699G	37.431M	2.433159G	2.470591G	500k	1
36.35M	2.4332G	2.46955G	37.481M	2.433159G	2.470641G	500k	2
36.25M	2.43325G	2.4695G	37.231M	2.433309G	2.470541G	500k	3

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_3TX	29.66	0.92470
802.11g_Nss1,(6Mbps)_3TX	29.66	0.92470
802.11ax HEW20-BF_Nss1,(MCS0)_3TX	29.51	0.89331
802.11ax HEW40-BF_Nss1,(MCS0)_3TX	25.44	0.34995

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	1.66	23.80	23.48	23.57	28.39	30.00
2437MHz	Pass	1.66	24.79	24.90	24.97	29.66	30.00
2462MHz	Pass	1.66	24.35	24.59	24.88	29.38	30.00
802.11g_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	1.66	18.95	18.40	18.69	23.46	30.00
2417MHz	Pass	1.66	20.66	20.18	20.55	25.24	30.00
2437MHz	Pass	1.66	24.86	24.95	24.85	29.66	30.00
2457MHz	Pass	1.66	20.36	20.28	20.95	25.31	30.00
2462MHz	Pass	1.66	18.83	18.74	19.31	23.74	30.00
802.11ax HEW20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	6.43	17.78	17.61	17.73	22.48	29.57
2417MHz	Pass	6.43	20.90	20.50	20.57	25.43	29.57
2437MHz	Pass	6.43	24.69	24.71	24.83	29.51	29.57
2457MHz	Pass	6.43	20.64	20.38	20.83	25.39	29.57
2462MHz	Pass	6.43	17.35	17.48	17.49	22.21	29.57
802.11ax HEW40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2422MHz	Pass	6.43	16.93	16.85	17.10	21.73	29.57
2427MHz	Pass	6.43	18.00	17.75	18.08	22.72	29.57
2437MHz	Pass	6.43	20.46	20.60	20.92	25.44	29.57
2447MHz	Pass	6.43	18.84	18.55	18.99	23.57	29.57
2452MHz	Pass	6.43	17.42	17.51	17.63	22.29	29.57

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

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_3TX	5.30
802.11g_Nss1,(6Mbps)_3TX	4.57
802.11ax HEW20-BF_Nss1,(MCS0)_3TX	2.48
802.11ax HEW40-BF_Nss1,(MCS0)_3TX	-3.35

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

Result

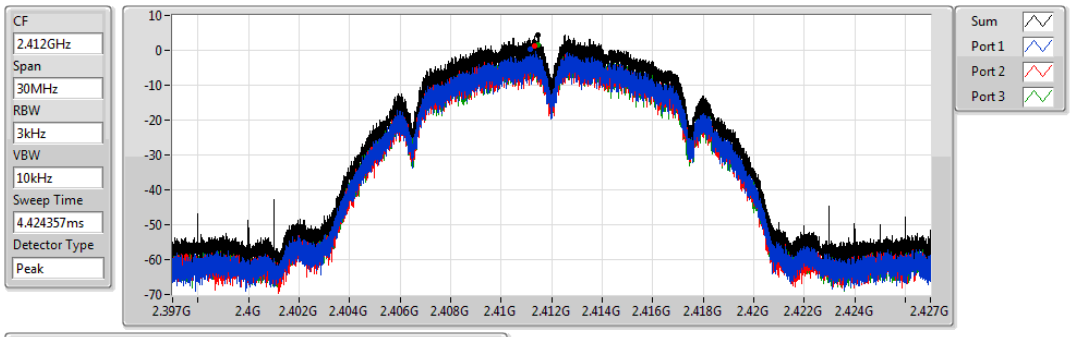
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	6.43	0.21	1.36	1.51	4.25	7.57
2437MHz	Pass	6.43	2.20	1.43	3.13	5.17	7.57
2462MHz	Pass	6.43	0.16	2.32	2.74	5.30	7.57
802.11g_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	6.43	-7.05	-8.12	-6.77	-2.69	7.57
2437MHz	Pass	6.43	-0.97	-0.30	0.53	4.57	7.57
2462MHz	Pass	6.43	-7.17	-7.86	-6.29	-2.65	7.57
802.11ax HEW20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	6.43	-8.56	-7.20	-7.95	-3.10	7.57
2437MHz	Pass	6.43	-1.97	-0.55	-2.22	2.48	7.57
2462MHz	Pass	6.43	-8.17	-6.70	-11.20	-4.10	7.57
802.11ax HEW40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2422MHz	Pass	6.43	-12.59	-13.16	-12.47	-8.29	7.57
2437MHz	Pass	6.43	-8.15	-8.60	-7.31	-3.35	7.57
2452MHz	Pass	6.43	-10.91	-10.36	-10.67	-5.87	7.57

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)_3TX PSD

2412MHz

31/08/2020

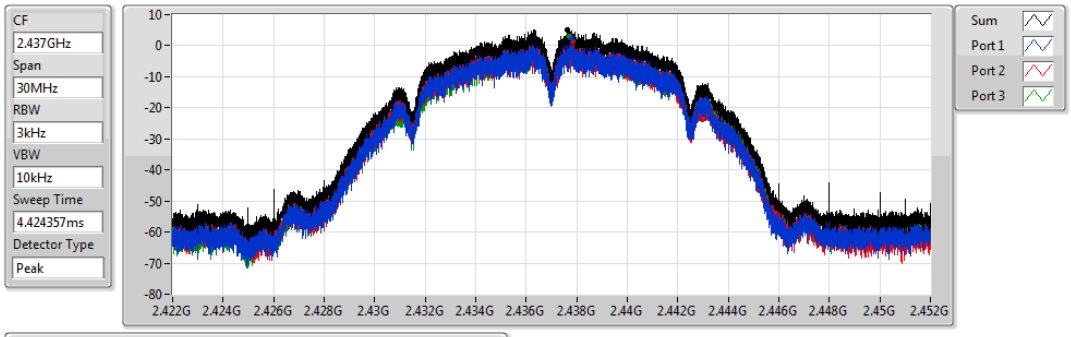


Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.25	4.25	0.21	1.36	1.51

802.11b_Nss1,(1Mbps)_3TX PSD

2437MHz

27/08/2020

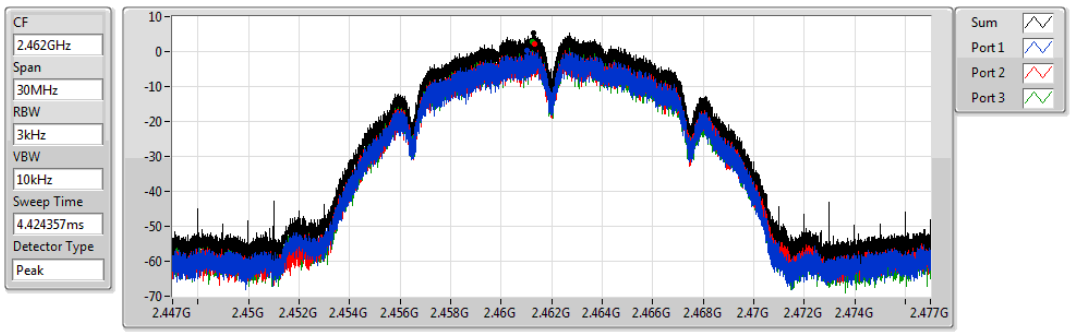


Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.17	5.17	2.20	1.43	3.13

802.11b_Nss1,(1Mbps)_3TX PSD

2462MHz

27/08/2020

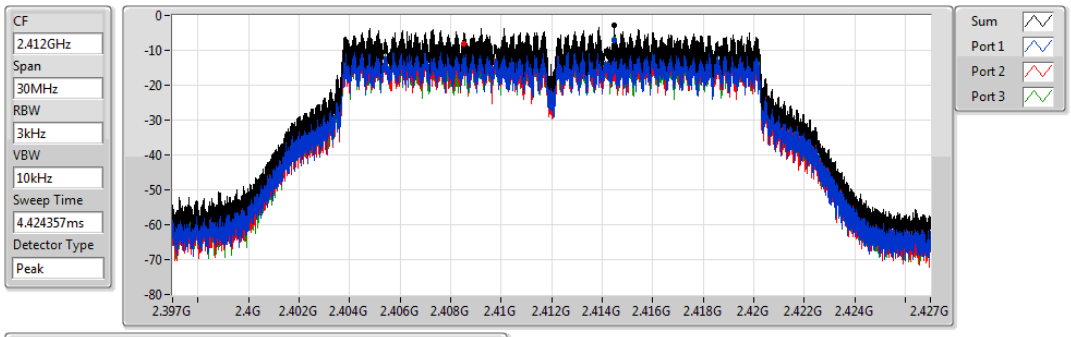


Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.30	5.30	0.16	2.32	2.74

802.11g_Nss1,(6Mbps)_3TX PSD

2412MHz

27/08/2020

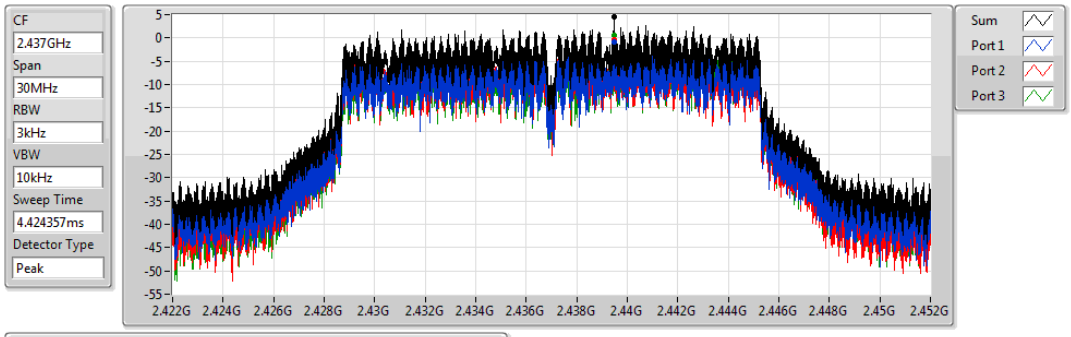


Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.69	-2.69	-7.05	-8.12	-6.77

802.11g_Nss1,(6Mbps)_3TX PSD

2437MHz

27/08/2020

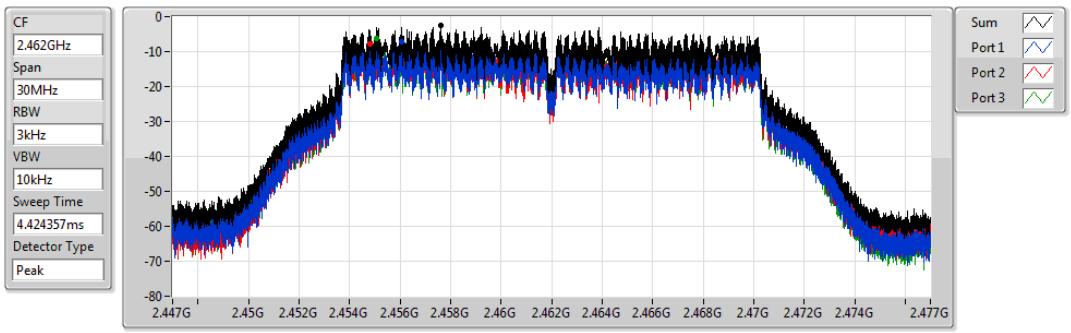


Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.57	4.57	-0.97	-0.30	0.53

802.11g_Nss1,(6Mbps)_3TX PSD

2462MHz

31/08/2020

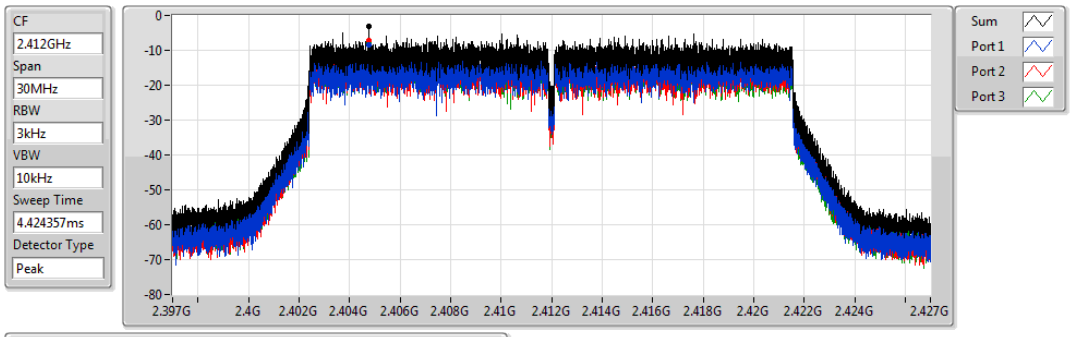


Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.65	-2.65	-7.17	-7.86	-6.29

802.11ax HEW20-BF_Nss1,(MCS0)_3TX PSD

2412MHz

31/08/2020

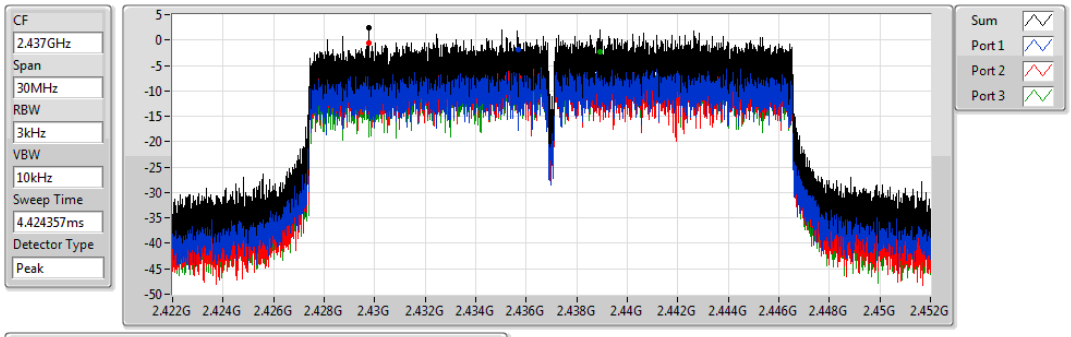


Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.10	-3.10	-8.56	-7.20	-7.95

802.11ax HEW20-BF_Nss1,(MCS0)_3TX PSD

2437MHz

27/08/2020

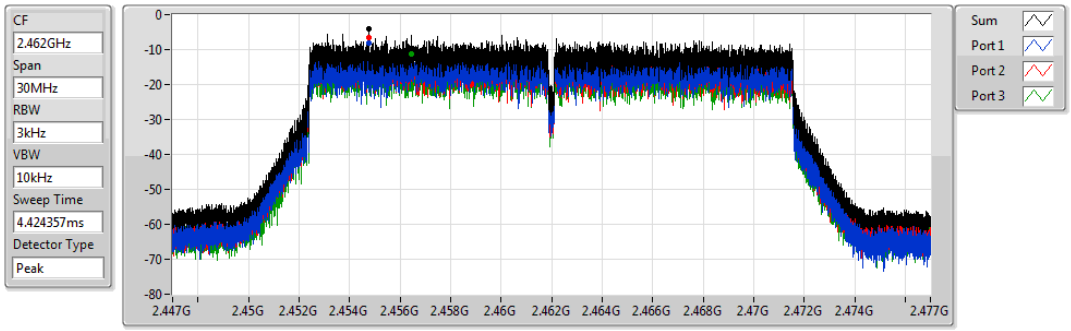


Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.48	2.48	-1.97	-0.55	-2.22

802.11ax HEW20-BF_Nss1,(MCS0)_3TX PSD

2462MHz

31/08/2020

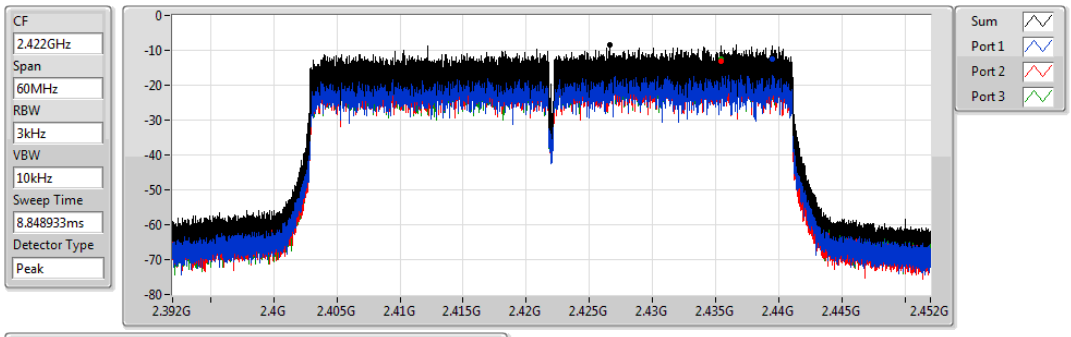


Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.10	-4.10	-8.17	-6.70	-11.20

802.11ax HEW40-BF_Nss1,(MCS0)_3TX PSD

2422MHz

27/08/2020

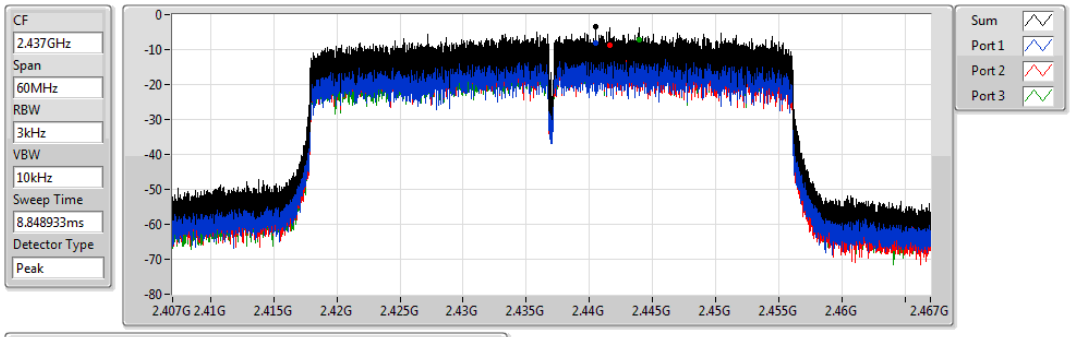


Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.29	-8.29	-12.59	-13.16	-12.47

802.11ax HEW40-BF_Nss1,(MCS0)_3TX PSD

2437MHz

27/08/2020

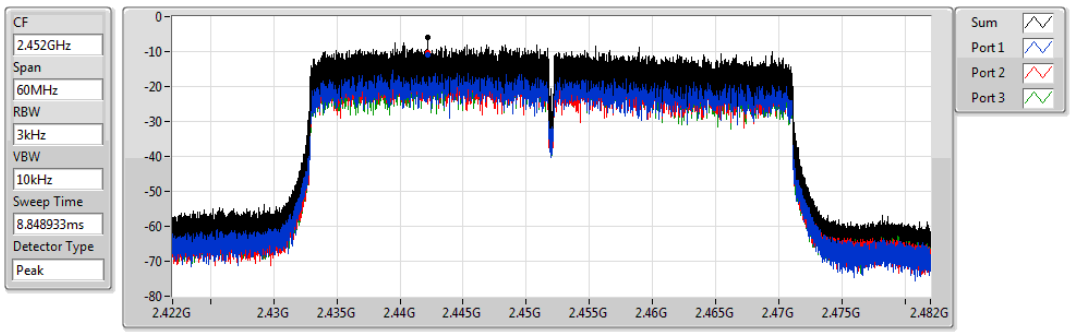


Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.35	-3.35	-8.15	-8.60	-7.31

802.11ax HEW40-BF_Nss1,(MCS0)_3TX PSD

2452MHz

31/08/2020



Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.87	-5.87	-10.91	-10.36	-10.67

Summary

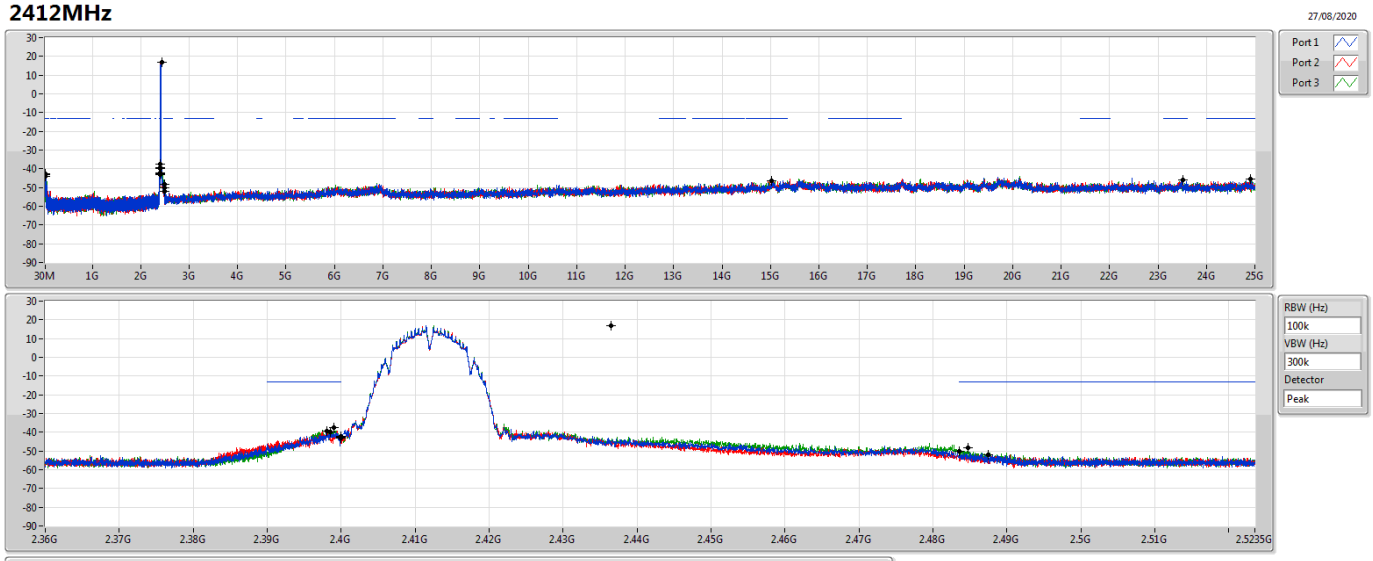
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_3TX	Pass	2.43649G	16.71	-13.29	30.29M	-42.78	2.39904G	-37.56	2.4G	-42.33	2.48468G	-48.41	23.51093G	-46.01	3
802.11g_Nss1,(6Mbps)_3TX	Pass	2.44451G	13.47	-16.53	30M	-42.12	2.39974G	-36.31	2.4G	-36.78	2.4839G	-51.81	15.06539G	-44.97	1
802.11ax HEW20-BF_Nss1,(MCS0)_3TX	Pass	2.442G	13.25	-16.75	2.10079G	-52.91	2.39986G	-33.77	2.4G	-37.11	2.48404G	-51.75	23.4126G	-46.14	1
802.11ax HEW40-BF_Nss1,(MCS0)_3TX	Pass	2.44196G	6.96	-23.04	38.3M	-52.63	2.39948G	-38.69	2.4G	-41.76	2.48658G	-46.80	24.44189G	-46.43	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)_3TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43649G	16.71	-13.29	31.75M	-43.27	2.39848G	-39.71	2.4G	-42.62	2.48358G	-50.26	15.01481G	-46.25	1
2412MHz	Pass	2.43649G	16.71	-13.29	32.62M	-44.22	2.39802G	-39.27	2.4G	-42.98	2.4875G	-51.83	24.90167G	-45.61	2
2412MHz	Pass	2.43649G	16.71	-13.29	30.29M	-42.78	2.39904G	-37.56	2.4G	-42.33	2.48468G	-48.41	23.51093G	-46.01	3
2437MHz	Pass	2.43649G	16.71	-13.29	38.45M	-45.32	2.39858G	-46.76	2.4G	-47.25	2.485G	-50.40	15.05977G	-45.68	1
2437MHz	Pass	2.43649G	16.71	-13.29	31.17M	-43.31	2.39964G	-45.98	2.4G	-49.52	2.4835G	-48.94	15.34915G	-46.22	2
2437MHz	Pass	2.43649G	16.71	-13.29	33.2M	-44.20	2.3987G	-49.05	2.4G	-48.32	2.48394G	-49.42	16.28755G	-45.78	3
2462MHz	Pass	2.43649G	16.71	-13.29	32.33M	-43.18	2.39772G	-47.13	2.4835G	-47.02	2.48374G	-46.00	24.50271G	-45.93	1
2462MHz	Pass	2.43649G	16.71	-13.29	30.29M	-42.40	2.39592G	-46.49	2.4835G	-47.35	2.4845G	-45.43	15.05415G	-44.40	2
2462MHz	Pass	2.43649G	16.71	-13.29	30.29M	-40.95	2.39916G	-47.58	2.4835G	-45.14	2.48398G	-44.84	24.57295G	-46.28	3
802.11g_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.44451G	13.47	-16.53	30M	-42.12	2.39974G	-36.31	2.4G	-36.78	2.4839G	-51.81	15.06539G	-44.97	1
2412MHz	Pass	2.44451G	13.47	-16.53	31.17M	-44.33	2.39988G	-36.72	2.4G	-38.84	2.48554G	-52.30	15.04853G	-44.42	2
2412MHz	Pass	2.44451G	13.47	-16.53	38.45M	-44.49	2.3998G	-37.50	2.4G	-37.63	2.4842G	-51.61	21.45995G	-46.24	3
2417MHz															
2437MHz	Pass	2.44451G	13.47	-16.53	31.75M	-42.09	2.39762G	-39.32	2.4G	-44.24	2.48368G	-46.96	16.84665G	-45.00	1
2437MHz	Pass	2.44451G	13.47	-16.53	32.04M	-41.91	2.39764G	-43.74	2.4G	-45.61	2.4851G	-49.71	16.34936G	-45.91	2
2437MHz	Pass	2.44451G	13.47	-16.53	30M	-41.10	2.3986G	-40.85	2.4G	-43.57	2.48538G	-48.19	24.50271G	-45.80	3
2457MHz															
2462MHz	Pass	2.44451G	13.47	-16.53	30.58M	-44.44	2.39698G	-49.60	2.4835G	-45.94	2.48402G	-41.81	15.33511G	-45.35	1
2462MHz	Pass	2.44451G	13.47	-16.53	49.81M	-45.31	2.3951G	-49.29	2.4835G	-46.42	2.48386G	-44.15	23.1485G	-45.77	2
2462MHz	Pass	2.44451G	13.47	-16.53	39.03M	-43.75	2.39884G	-50.54	2.4835G	-46.47	2.48358G	-43.00	24.87076G	-45.38	3
802.11ax HEW20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.442G	13.25	-16.75	2.10079G	-52.91	2.39986G	-33.77	2.4G	-37.11	2.48404G	-51.75	23.4126G	-46.14	1
2412MHz	Pass	2.442G	13.25	-16.75	31.75M	-52.01	2.3999G	-36.86	2.4G	-36.55	2.5034G	-51.08	24.82581G	-45.59	2
2412MHz	Pass	2.442G	13.25	-16.75	37.28M	-52.99	2.39988G	-35.10	2.4G	-35.25	2.48354G	-51.73	24.89886G	-44.85	3
2417MHz															
2437MHz	Pass	2.442G	13.25	-16.75	49.81M	-45.46	2.39996G	-38.58	2.4G	-39.54	2.48374G	-42.71	15.07663G	-45.63	1
2437MHz	Pass	2.442G	13.25	-16.75	38.45M	-45.71	2.39796G	-43.29	2.4G	-44.38	2.48456G	-48.04	17.68952G	-45.88	2
2437MHz	Pass	2.442G	13.25	-16.75	32.62M	-52.81	2.39954G	-42.45	2.4G	-44.74	2.48468G	-46.21	16.6865G	-44.88	3
2457MHz															
2462MHz	Pass	2.442G	13.25	-16.75	38.74M	-53.57	2.39716G	-49.58	2.4835G	-51.31	2.48376G	-44.17	24.84828G	-46.10	1
2462MHz	Pass	2.442G	13.25	-16.75	30.58M	-52.67	2.398G	-49.46	2.4835G	-45.26	2.48368G	-44.11	15.03729G	-45.68	2
2462MHz	Pass	2.442G	13.25	-16.75	30.58M	-51.41	2.39736G	-50.26	2.4835G	-47.19	2.4836G	-44.27	15.01201G	-45.17	3
802.11ax HEW40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.44196G	6.96	-23.04	30M	-48.93	2.39824G	-44.25	2.4G	-45.74	2.48682G	-51.99	24.94671G	-46.11	1
2422MHz	Pass	2.44196G	6.96	-23.04	33.44M	-52.73	2.39992G	-41.50	2.4G	-44.58	2.48358G	-52.71	15.05502G	-46.08	2
2422MHz	Pass	2.44196G	6.96	-23.04	31.72M	-51.47	2.3988G	-42.52	2.4G	-44.79	2.48426G	-52.29	15.2906G	-45.86	3
2427MHz															
2437MHz	Pass	2.44196G	6.96	-23.04	31.15M	-53.25	2.3996G	-38.78	2.4G	-42.10	2.48418G	-45.04	16.93408G	-45.94	1
2437MHz	Pass	2.44196G	6.96	-23.04	38.3M	-52.63	2.39948G	-38.69	2.4G	-41.76	2.48658G	-46.80	24.44189G	-46.43	2
2437MHz	Pass	2.44196G	6.96	-23.04	2.17373G	-53.12	2.39956G	-39.45	2.4G	-43.02	2.48702G	-44.56	24.88501G	-45.94	3
2447MHz															
2452MHz	Pass	2.44196G	6.96	-23.04	33.44M	-51.42	2.39988G	-50.11	2.4G	-50.56	2.48354G	-47.79	24.52603G	-46.01	1
2452MHz	Pass	2.44196G	6.96	-23.04	32M	-51.47	2.39988G	-49.84	2.4G	-48.34	2.48386G	-48.18	17.69692G	-45.72	2
2452MHz	Pass	2.44196G	6.96	-23.04	32M	-47.95	2.39676G	-50.46	2.4835G	-49.78	2.4851G	-47.02	15.05502G	-46.03	3

802.11b_Nss1,(1Mbps)_3TX **CSE NdB**

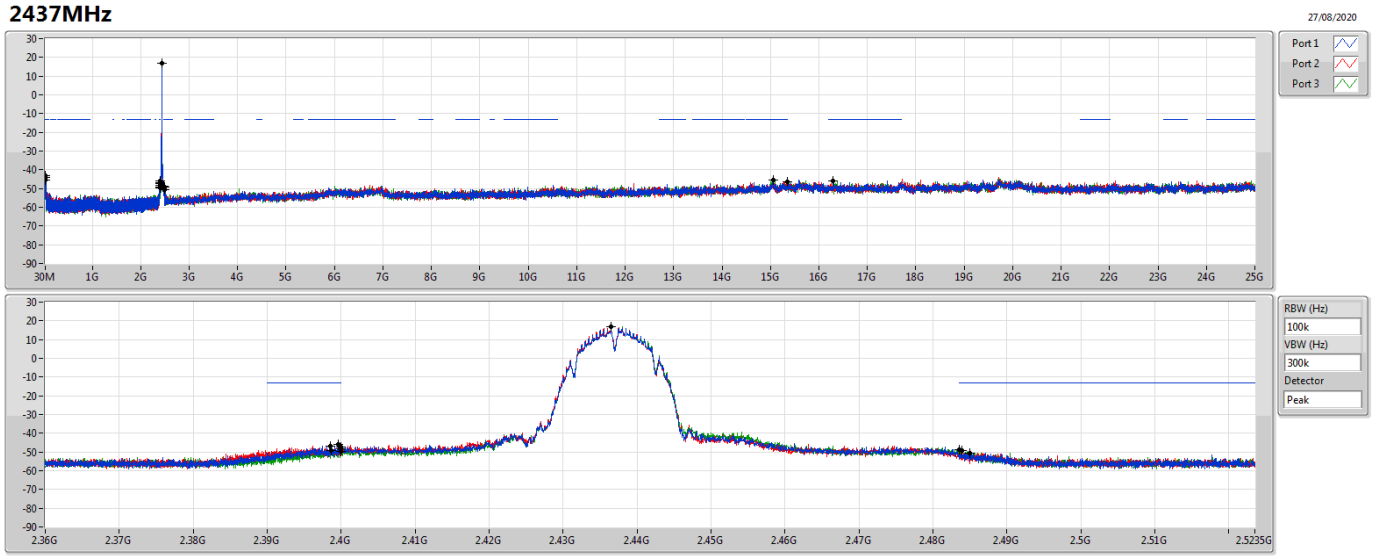
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43649G	16.71	-13.29	31.75M	-43.27	2.39848G	-39.71	2.4G	-42.62	2.48358G	-50.26	15.01481G	-46.25	1
2.43649G	16.71	-13.29	32.62M	-44.22	2.39802G	-39.27	2.4G	-42.98	2.4875G	-51.83	24.90167G	-45.61	2
2.43649G	16.71	-13.29	30.29M	-42.78	2.39904G	-37.56	2.4G	-42.33	2.48468G	-48.41	23.51093G	-46.01	3

802.11b_Nss1,(1Mbps)_3TX **CSE NdB**

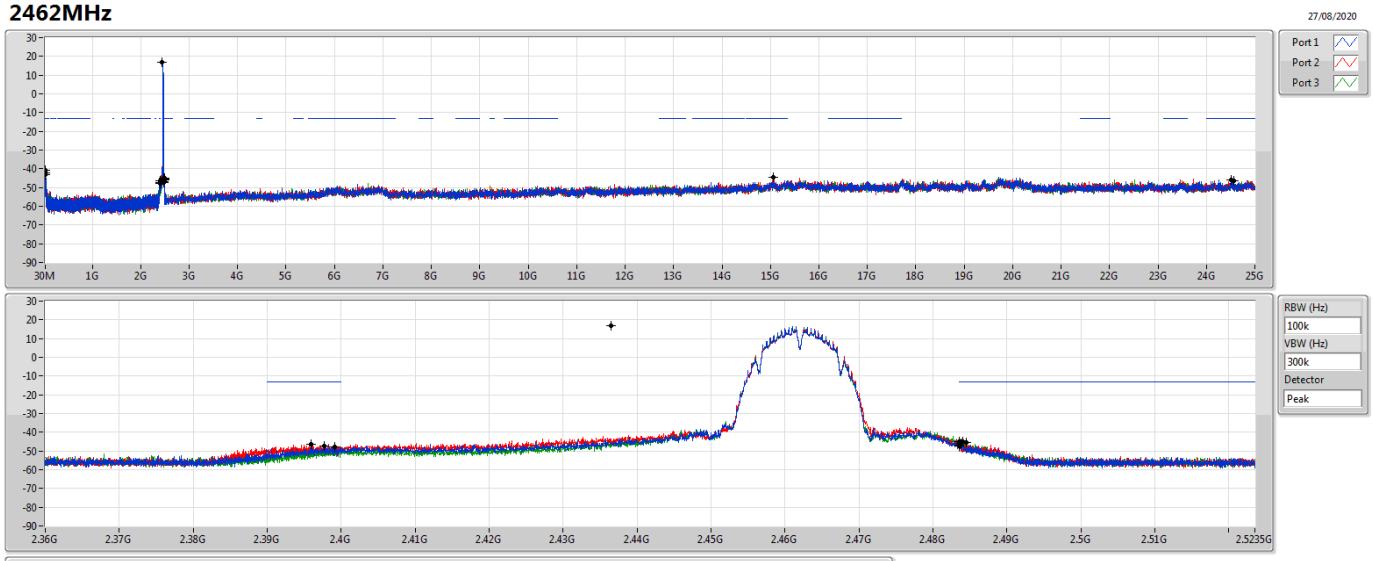
2437MHz



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
2.43649G	16.71	-13.29	38.45M	-45.32	2.39858G	-46.76	2.4G	-47.25	2.485G	-50.40	15.05977G	-45.68	1
2.43649G	16.71	-13.29	31.17M	-43.31	2.39964G	-45.98	2.4G	-49.52	2.4835G	-48.94	15.34915G	-46.22	2
2.43649G	16.71	-13.29	33.2M	-44.20	2.3987G	-49.05	2.4G	-48.32	2.48394G	-49.42	16.28755G	-45.78	3

802.11b_Nss1,(1Mbps)_3TX **CSE NdB**

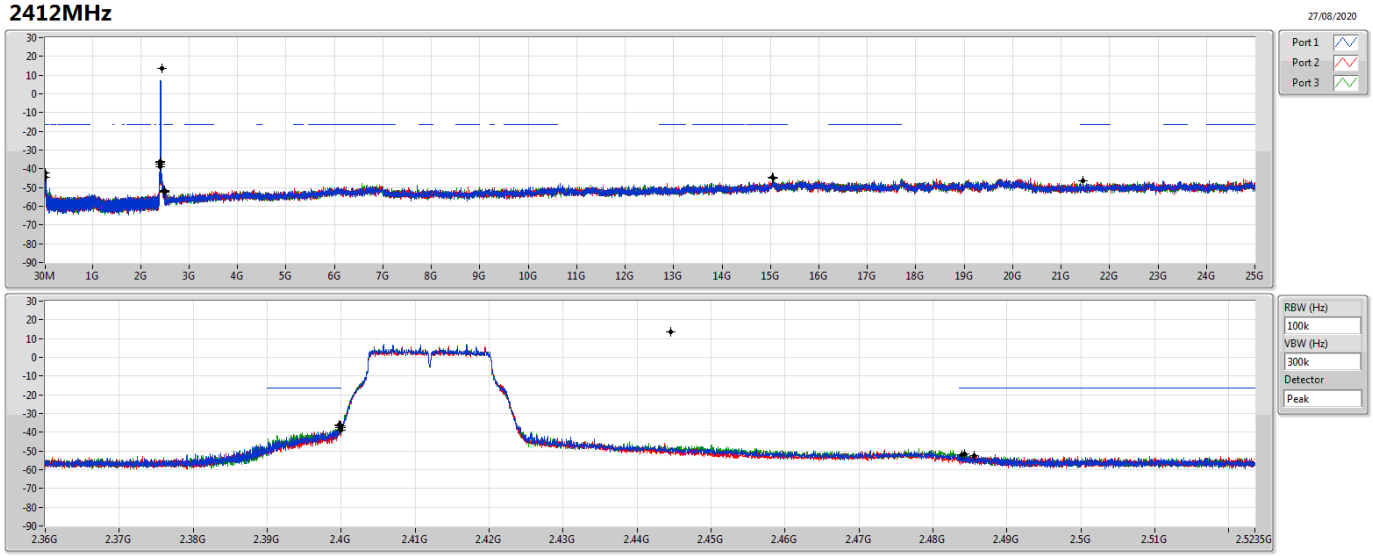
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43649G	16.71	-13.29	32.33M	-43.18	2.39772G	-47.13	2.4835G	-47.02	2.48374G	-46.00	24.50271G	-45.93	1
2.43649G	16.71	-13.29	30.29M	-42.40	2.39592G	-46.49	2.4835G	-47.35	2.4845G	-45.43	15.05415G	-44.40	2
2.43649G	16.71	-13.29	30.29M	-40.95	2.39916G	-47.58	2.4835G	-45.14	2.48398G	-44.84	24.57295G	-46.28	3

802.11g_Nss1,(6Mbps)_3TX **CSE NdB**

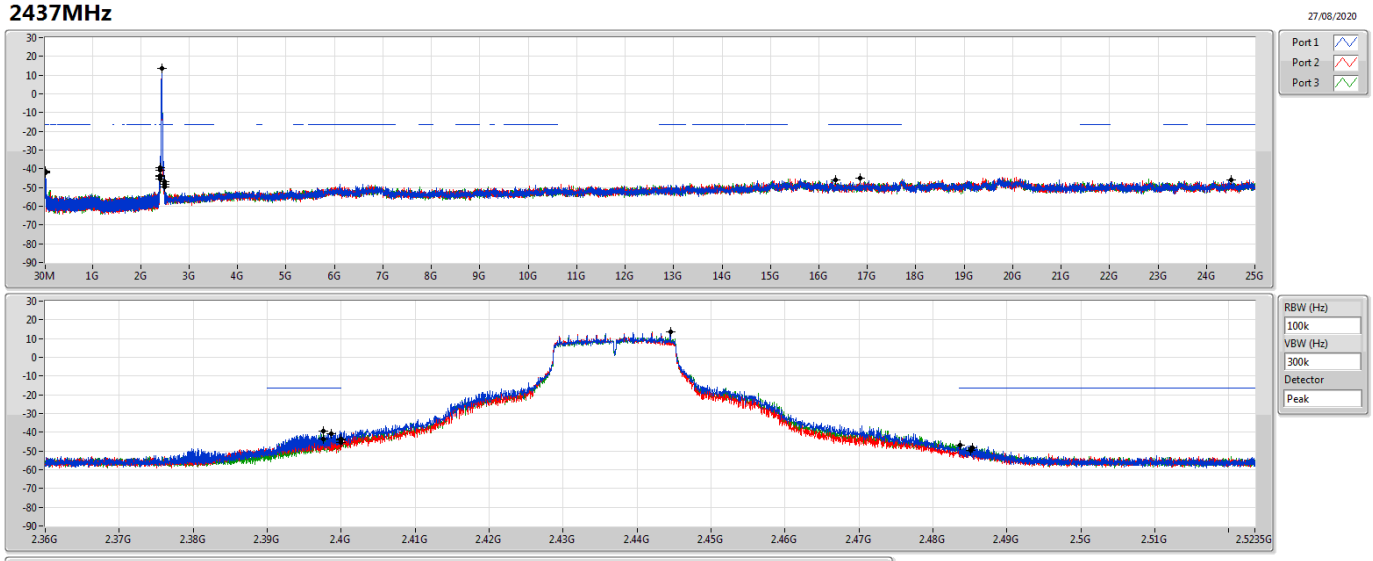
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44451G	13.47	-16.53	30M	-42.12	2.39974G	-36.31	2.4G	-36.78	2.4839G	-51.81	15.06539G	-44.97	1
2.44451G	13.47	-16.53	31.17M	-44.33	2.39988G	-36.72	2.4G	-38.84	2.48554G	-52.30	15.04853G	-44.42	2
2.44451G	13.47	-16.53	38.45M	-44.49	2.3998G	-37.50	2.4G	-37.63	2.4842G	-51.61	21.45995G	-46.24	3

802.11g_Nss1,(6Mbps)_3TX **CSE NdB**

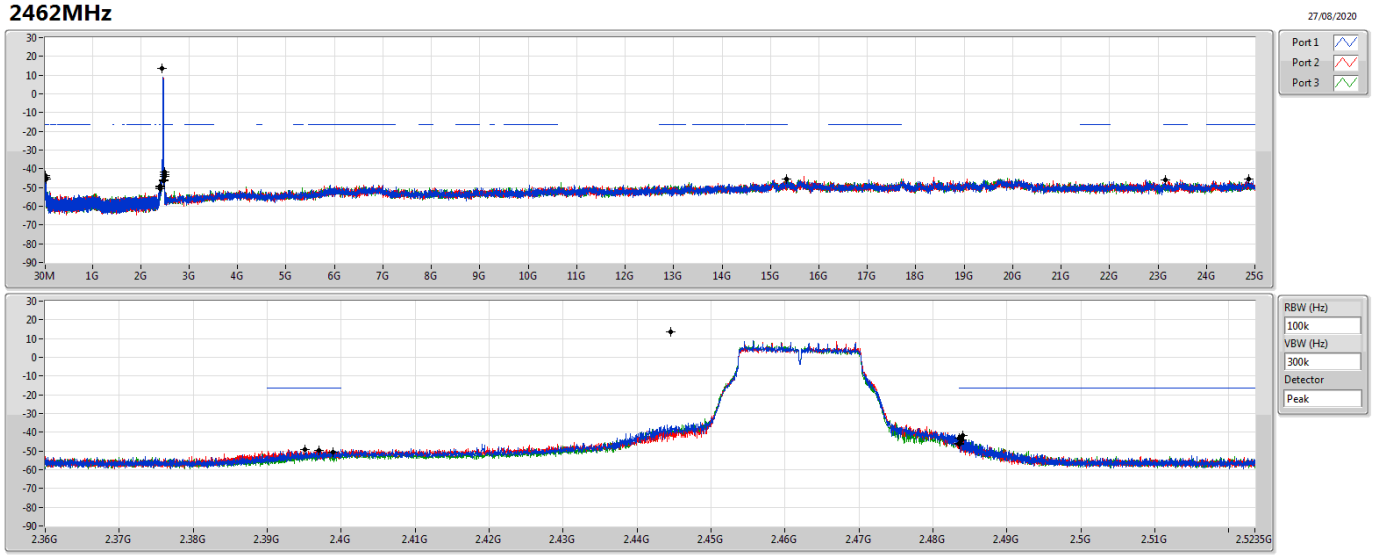
2437MHz



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
2.44451G	13.47	-16.53	31.75M	-42.09	2.39762G	-39.32	2.4G	-44.24	2.48368G	-46.96	16.84665G	-45.00	1
2.44451G	13.47	-16.53	32.04M	-41.91	2.39764G	-43.74	2.4G	-45.61	2.4851G	-49.71	16.34936G	-45.91	2
2.44451G	13.47	-16.53	30M	-41.10	2.3986G	-40.85	2.4G	-43.57	2.48538G	-48.19	24.50271G	-45.80	3

802.11g_Nss1,(6Mbps)_3TX **CSE NdB**

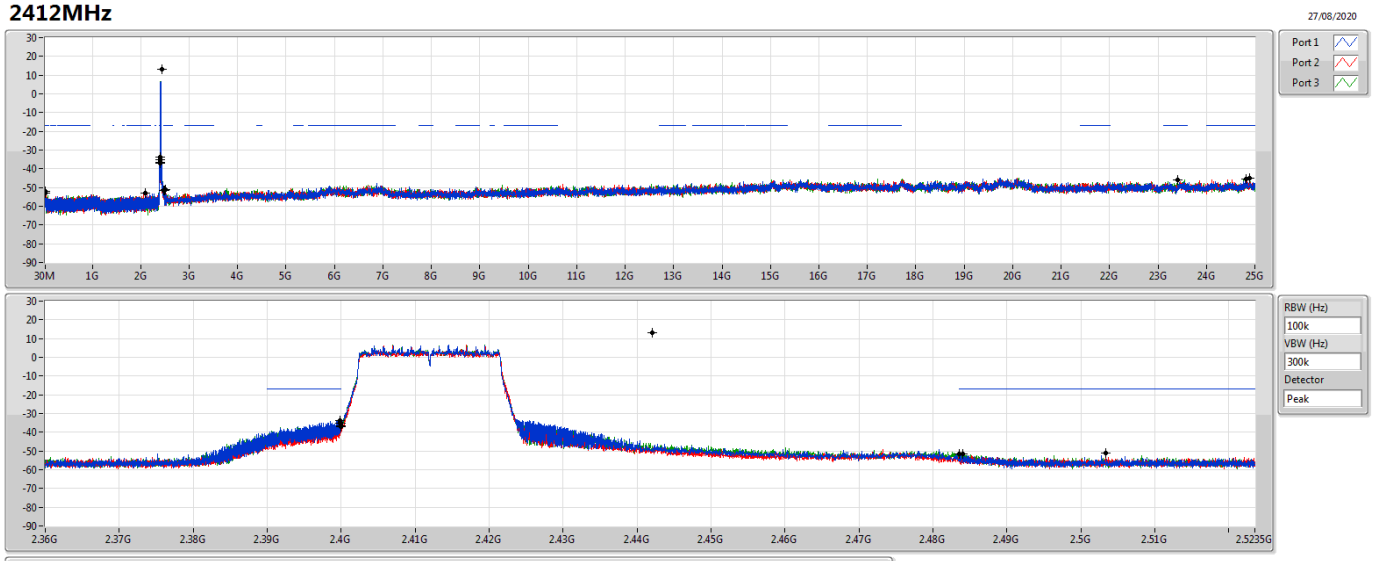
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44451G	13.47	-16.53	30.58M	-44.44	2.39698G	-49.60	2.4835G	-45.94	2.48402G	-41.81	15.33511G	-45.35	1
2.44451G	13.47	-16.53	49.81M	-45.31	2.3951G	-49.29	2.4835G	-46.42	2.48386G	-44.15	23.1485G	-45.77	2
2.44451G	13.47	-16.53	39.03M	-43.75	2.39884G	-50.54	2.4835G	-46.47	2.48358G	-43.00	24.87076G	-45.38	3

802.11ax HEW20-BF_Nss1,(MCS0)_3TX **CSE NdB**

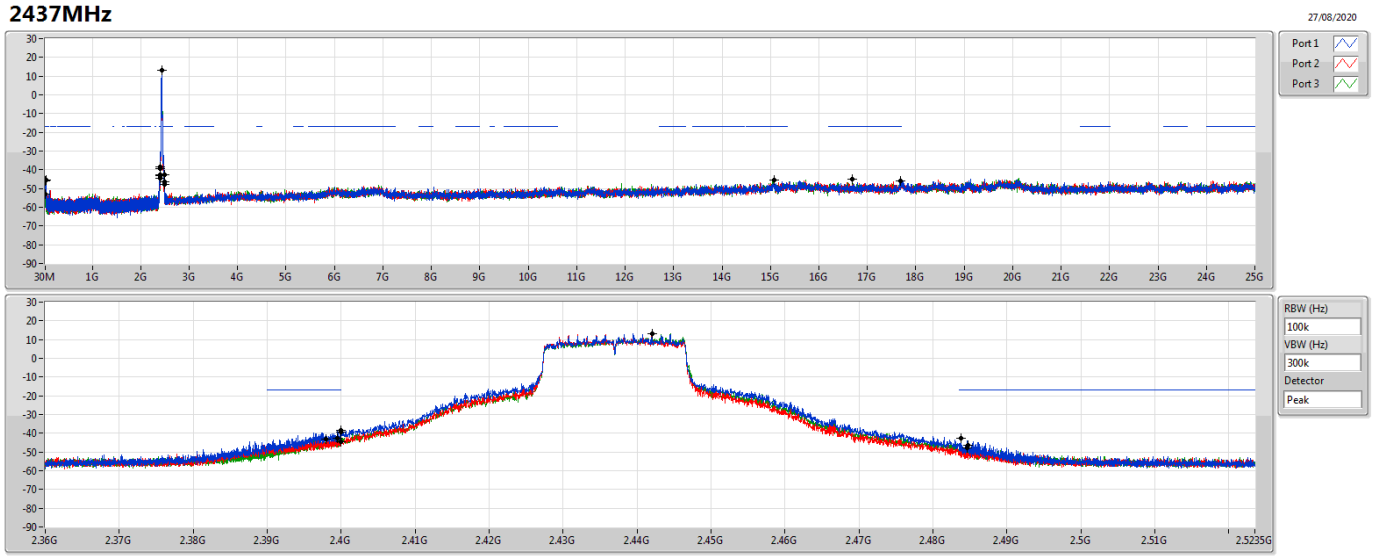
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.442G	13.25	-16.75	2.10079G	-52.91	2.39986G	-33.77	2.4G	-37.11	2.48404G	-51.75	23.4126G	-46.14	1
2.442G	13.25	-16.75	31.75M	-52.01	2.3999G	-36.86	2.4G	-36.55	2.5034G	-51.08	24.82581G	-45.59	2
2.442G	13.25	-16.75	37.28M	-52.99	2.39988G	-35.10	2.4G	-35.25	2.48354G	-51.73	24.89886G	-44.85	3

802.11ax HEW20-BF_Nss1,(MCS0)_3TX **CSE NdB**

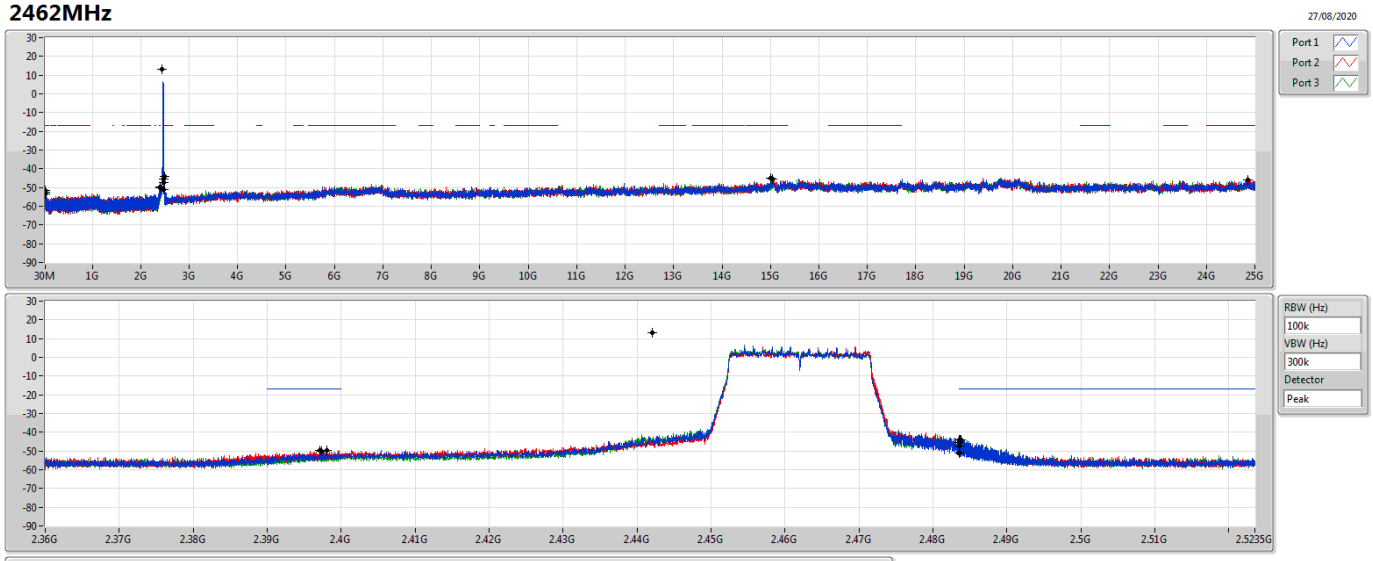
2437MHz



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
2.442G	13.25	-16.75	49.81M	-45.46	2.39996G	-38.58	2.4G	-39.54	2.48374G	-42.71	15.07663G	-45.63	1
2.442G	13.25	-16.75	38.45M	-45.71	2.39796G	-43.29	2.4G	-44.38	2.48456G	-48.04	17.68952G	-45.88	2
2.442G	13.25	-16.75	32.62M	-52.81	2.39954G	-42.45	2.4G	-44.74	2.48468G	-46.21	16.6865G	-44.88	3

802.11ax HEW20-BF_Nss1,(MCS0)_3TX **CSE NdB**

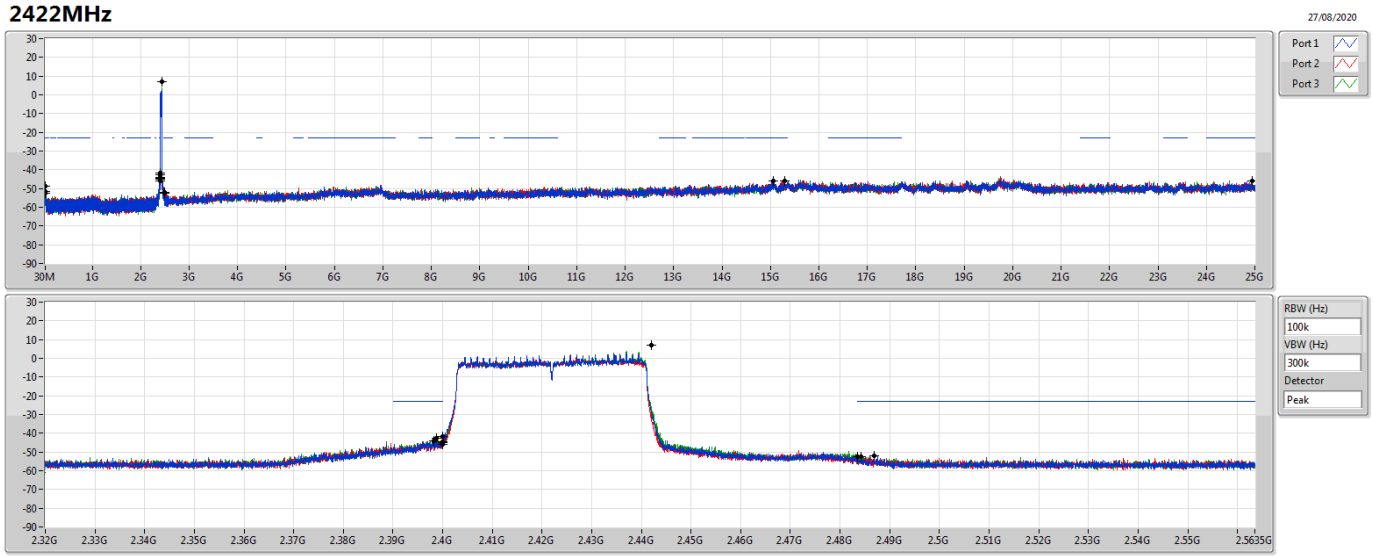
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.442G	13.25	-16.75	38.74M	-53.57	2.39716G	-49.58	2.4835G	-51.31	2.48376G	-44.17	24.84828G	-46.10	1
2.442G	13.25	-16.75	30.58M	-52.67	2.398G	-49.46	2.4835G	-45.26	2.48368G	-44.11	15.03729G	-45.68	2
2.442G	13.25	-16.75	30.58M	-51.41	2.39736G	-50.26	2.4835G	-47.19	2.4836G	-44.27	15.01201G	-45.17	3

802.11ax HEW40-BF_Nss1,(MCS0)_3TX **CSE NdB**

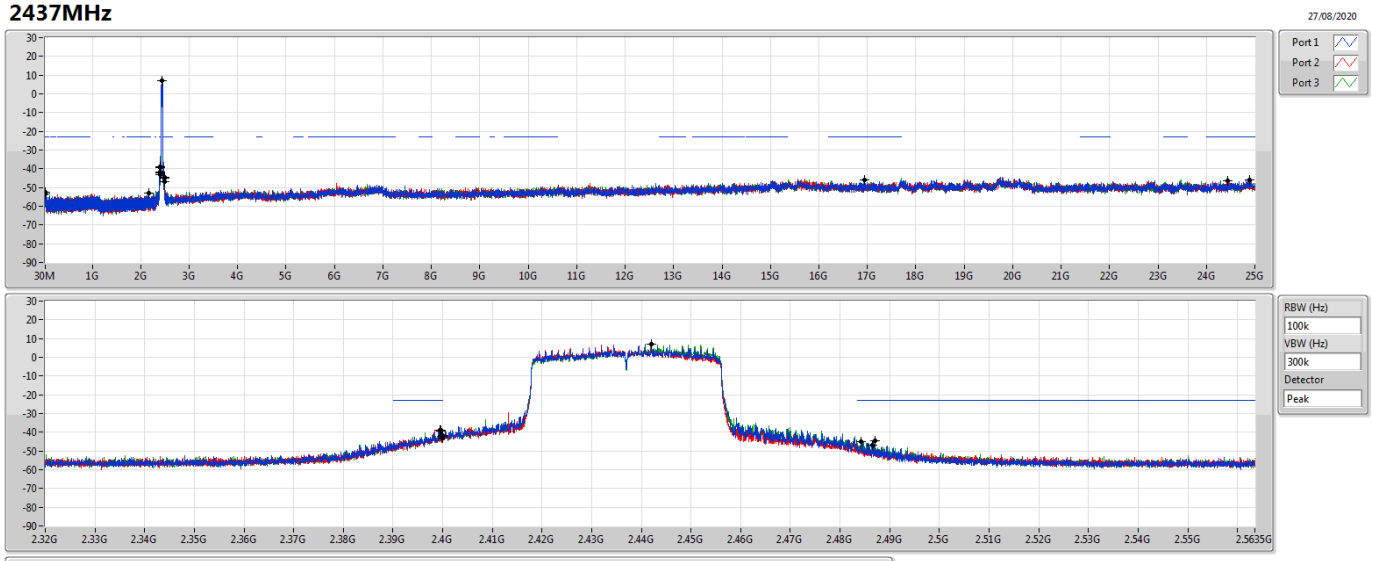
2422MHz



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
2.44196G	6.96	-23.04	30M	-48.93	2.39824G	-44.25	2.4G	-45.74	2.48682G	-51.99	24.94671G	-46.11	1
2.44196G	6.96	-23.04	33.44M	-52.73	2.39992G	-41.50	2.4G	-44.58	2.48358G	-52.71	15.05502G	-46.08	2
2.44196G	6.96	-23.04	31.72M	-51.47	2.3988G	-42.52	2.4G	-44.79	2.48426G	-52.29	15.2906G	-45.86	3

802.11ax HEW40-BF_Nss1,(MCS0)_3TX **CSE NdB**

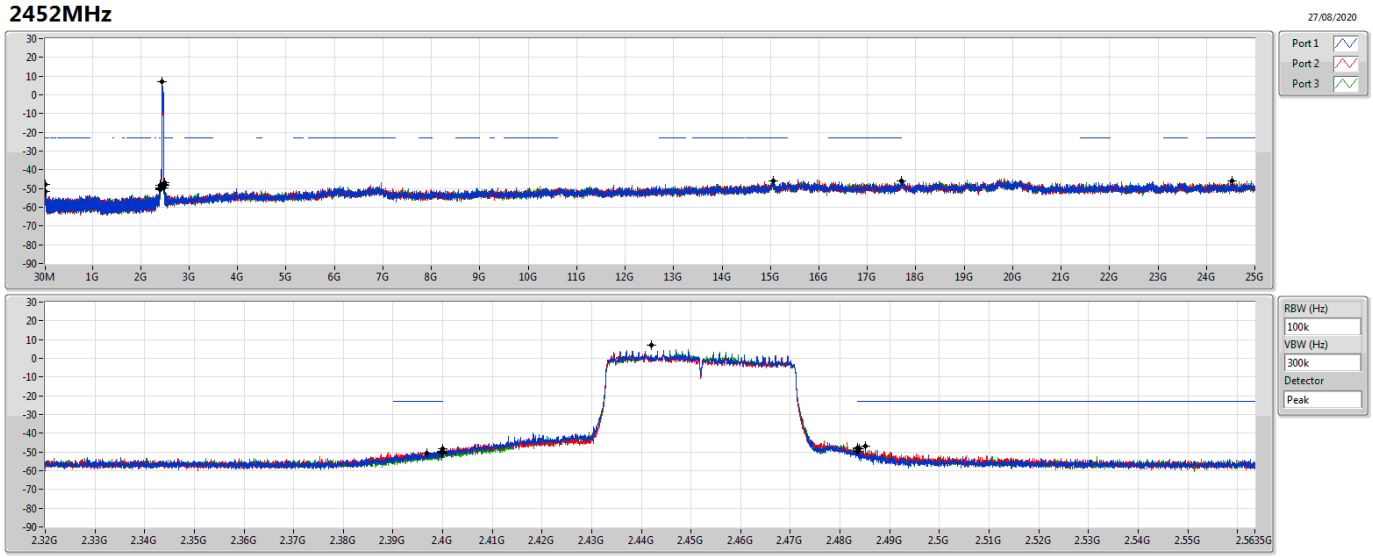
2437MHz



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
2.44196G	6.96	-23.04	31.15M	-53.25	2.39996G	-38.78	2.4G	-42.10	2.48418G	-45.04	16.93408G	-45.94	1
2.44196G	6.96	-23.04	38.3M	-52.63	2.39948G	-38.69	2.4G	-41.76	2.48658G	-46.80	24.44189G	-46.43	2
2.44196G	6.96	-23.04	2.17373G	-53.12	2.39956G	-39.45	2.4G	-43.02	2.48702G	-44.56	24.88501G	-45.94	3

802.11ax HEW40-BF_Nss1,(MCS0)_3TX **CSE NdB**

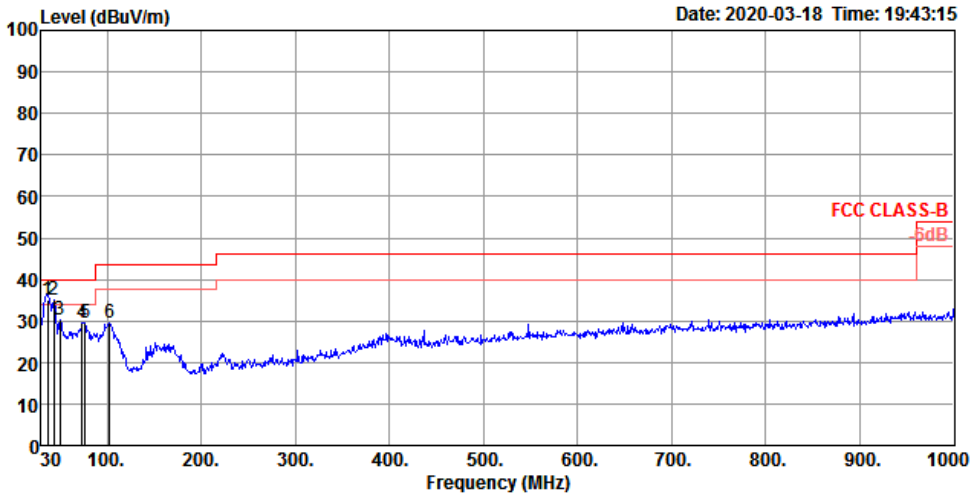
2452MHz



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
2.44196G	6.96	-23.04	33.44M	-51.42	2.39988G	-50.11	2.4G	-50.56	2.48354G	-47.79	24.52603G	-46.01	1
2.44196G	6.96	-23.04	32M	-51.47	2.39988G	-49.84	2.4G	-48.34	2.48386G	-48.18	17.69692G	-45.72	2
2.44196G	6.96	-23.04	32M	-47.95	2.39676G	-50.46	2.4835G	-49.78	2.4851G	-47.02	15.05502G	-46.03	3

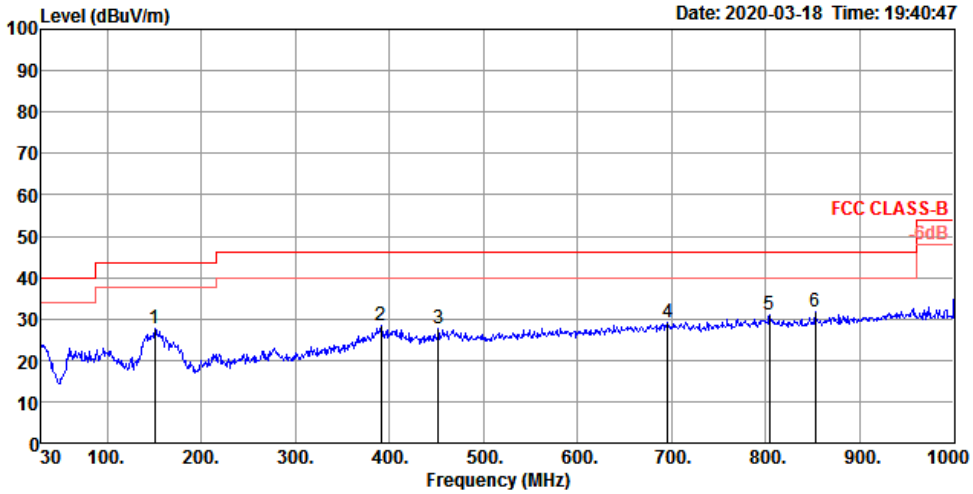
Test Mode	Mode 1	Frequency Range	30 MHz to 1,000 MHz

Vertical 30 MHz to 1,000 MHz



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	36.79	35.04	40.00	-4.96	46.20	0.74	20.31	32.21	100	113	QP	VERTICAL
2	43.58	35.09	40.00	-4.91	49.96	0.80	16.54	32.21	125	291	Peak	VERTICAL
3	49.40	30.21	40.00	-9.79	47.54	0.89	13.96	32.18	100	180	Peak	VERTICAL
4	73.65	29.61	40.00	-10.39	48.52	1.00	12.22	32.13	150	175	Peak	VERTICAL
5	76.56	29.45	40.00	-10.55	48.22	1.00	12.36	32.13	150	64	Peak	VERTICAL
6	102.75	29.66	43.50	-13.84	43.53	1.22	16.98	32.07	300	204	Peak	VERTICAL

Horizontal 30 MHz to 1,000 MHz



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	150.28	27.57	43.50	-15.93	41.71	1.46	16.54	32.14	200	253	Peak	HORIZONTAL
2	390.84	28.34	46.00	-17.66	36.48	2.36	21.55	32.05	125	150	Peak	HORIZONTAL
3	451.95	27.69	46.00	-18.31	34.16	2.51	22.87	31.85	100	14	Peak	HORIZONTAL
4	695.42	29.07	46.00	-16.93	32.30	3.18	25.50	31.91	200	181	Peak	HORIZONTAL
5	804.06	31.12	46.00	-14.88	33.43	3.32	26.02	31.65	150	51	Peak	HORIZONTAL
6	852.56	31.63	46.00	-14.37	33.40	3.51	26.32	31.60	300	232	Peak	HORIZONTAL

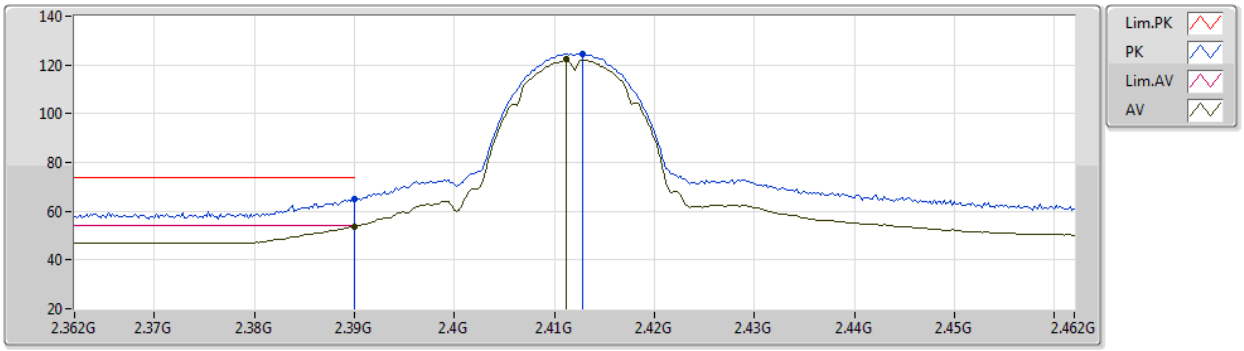
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11ax HEW40-BF_Nss1,(MCS0)_3TX	Pass	AV	2.39G	53.90	54.00	-0.10	3	Vertical	360	1.61	-

802.11b_Nss1,(1Mbps)_3TX

2412MHz_TX

26/08/2020



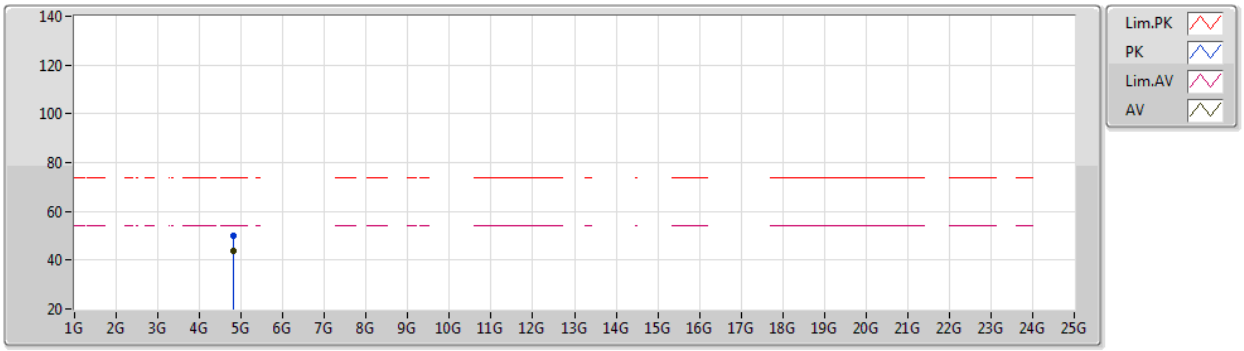
EUT Y_3TX
Setting 99
06-H-S-5

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	2.39G	65.16	74.00	-8.84	33.56	3	Vertical	0	1.65	-	27.60	4.00	-
AV	2.39G	53.79	54.00	-0.21	22.19	3	Vertical	0	1.65	-	27.60	4.00	-
PK	2.4128G	124.56	Inf	-Inf	93.00	3	Vertical	0	1.65	-	27.55	4.01	-
AV	2.4112G	122.16	Inf	-Inf	90.59	3	Vertical	0	1.65	-	27.56	4.01	-

802.11b_Nss1,(1Mbps)_3TX

2412MHz_TX

26/08/2020



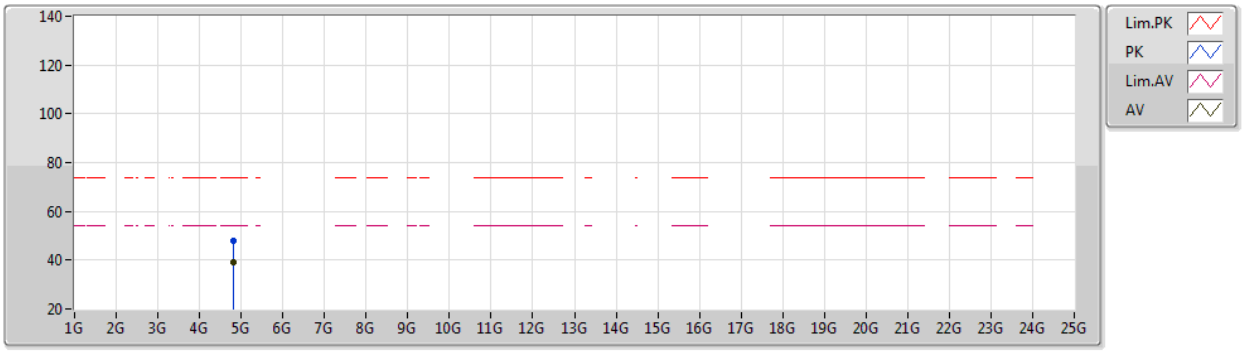
EUT Y_3TX
Setting 99
06-H-S-5

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	4.82404G	50.24	74.00	-23.76	45.54	3	Vertical	339	1.80	-	31.10	5.34	31.74
AV	4.82402G	43.67	54.00	-10.33	38.97	3	Vertical	339	1.80	-	31.10	5.34	31.74

802.11b_Nss1,(1Mbps)_3TX

2412MHz_TX

26/08/2020



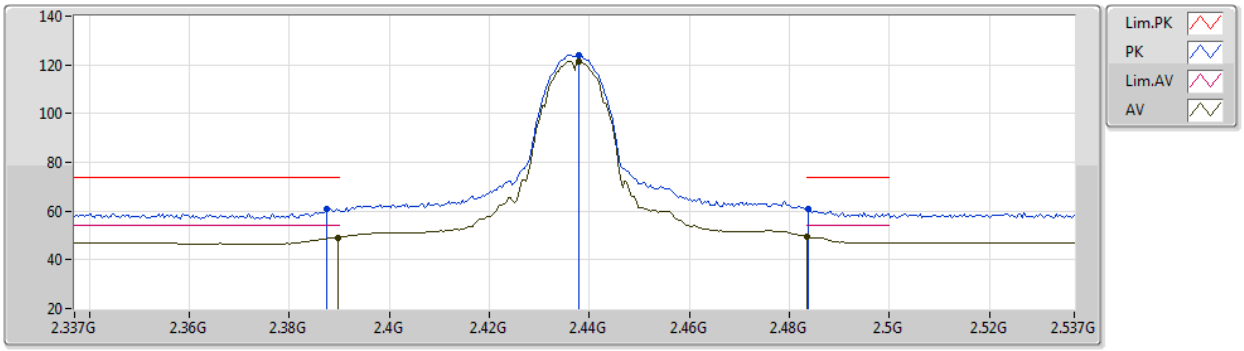
EUT Y_3TX
Setting 99
06-H-S-5

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	4.82376G	47.96	74.00	-26.04	43.27	3	Horizontal	56	2.01	-	31.10	5.34	31.75
AV	4.824G	39.27	54.00	-14.73	34.57	3	Horizontal	56	2.01	-	31.10	5.34	31.74

802.11b_Nss1,(1Mbps)_3TX

2437MHz_TX

26/08/2020



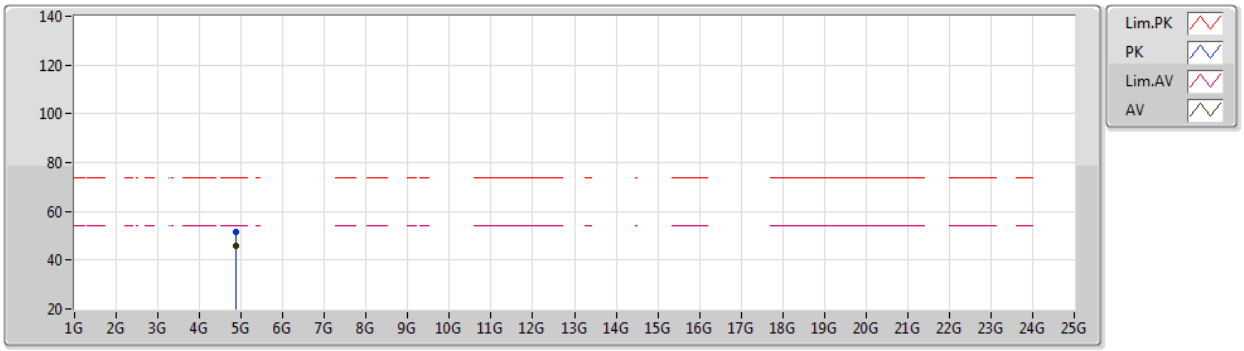
EUT Y_3TX
Setting 104
06-H-S-5

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	60.93	74.00	-13.07	29.34	3	Vertical	41	1.80	-	27.60	3.99	-
AV	2.3898G	49.15	54.00	-4.85	17.56	3	Vertical	41	1.80	-	27.60	3.99	-
PK	2.4378G	124.02	Inf	-Inf	92.55	3	Vertical	41	1.80	-	27.45	4.02	-
AV	2.4378G	121.63	Inf	-Inf	90.16	3	Vertical	41	1.80	-	27.45	4.02	-
PK	2.4838G	60.94	74.00	-13.06	29.50	3	Vertical	41	1.80	-	27.40	4.04	-
AV	2.4835G	49.60	54.00	-4.40	18.16	3	Vertical	41	1.80	-	27.40	4.04	-

802.11b_Nss1,(1Mbps)_3TX

2437MHz_TX

26/08/2020



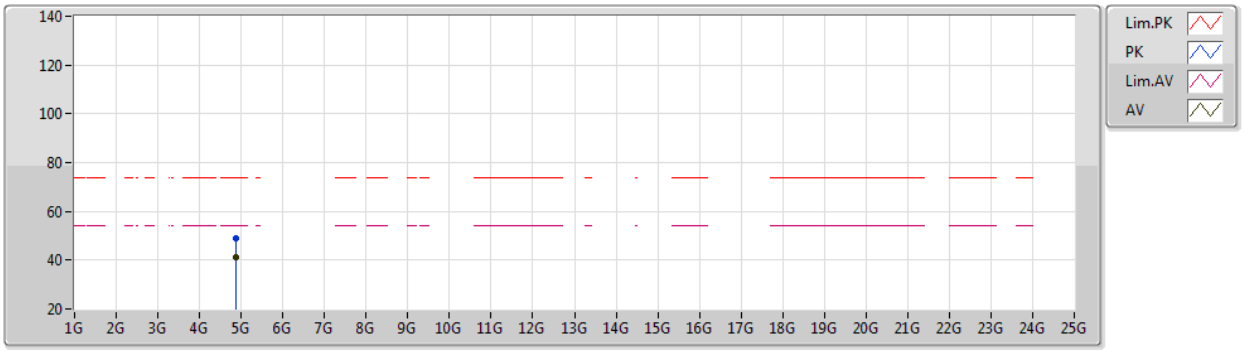
EUT Y_3TX
Setting 104
06-H-S-5

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	4.87396G	51.59	74.00	-22.41	46.71	3	Vertical	332	2.08	-	31.15	5.41	31.68
AV	4.87396G	46.01	54.00	-7.99	41.13	3	Vertical	332	2.08	-	31.15	5.41	31.68

802.11b_Nss1,(1Mbps)_3TX

2437MHz_TX

26/08/2020



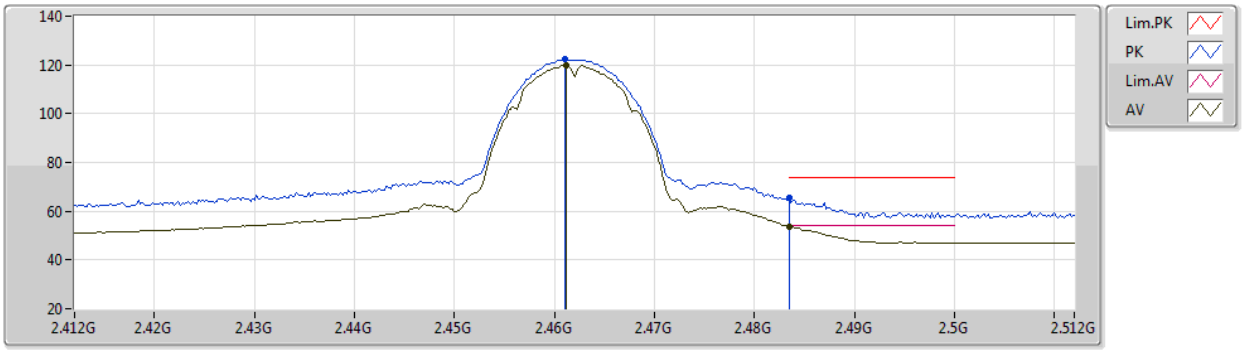
EUT Y_3TX
Setting 104
06-H-S-5

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	4.87406G	48.88	74.00	-25.12	44.00	3	Horizontal	299	1.00	-	31.15	5.41	31.68
AV	4.87396G	41.12	54.00	-12.88	36.24	3	Horizontal	299	1.00	-	31.15	5.41	31.68

802.11b_Nss1,(1Mbps)_3TX

2462MHz_TX

26/08/2020



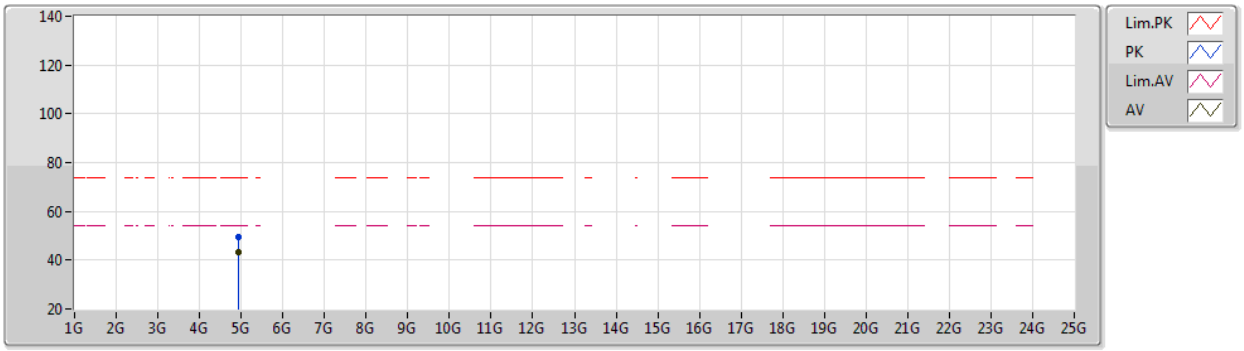
EUT Y_3TX
Setting 100
06-H-S-5

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	2.461G	122.41	Inf	-Inf	90.98	3	Vertical	268	1.80	-	27.40	4.03	-
AV	2.4612G	119.98	Inf	-Inf	88.55	3	Vertical	268	1.80	-	27.40	4.03	-
PK	2.4835G	65.48	74.00	-8.52	34.04	3	Vertical	268	1.80	-	27.40	4.04	-
AV	2.4835G	53.51	54.00	-0.49	22.07	3	Vertical	268	1.80	-	27.40	4.04	-

802.11b_Nss1,(1Mbps)_3TX

2462MHz_TX

26/08/2020



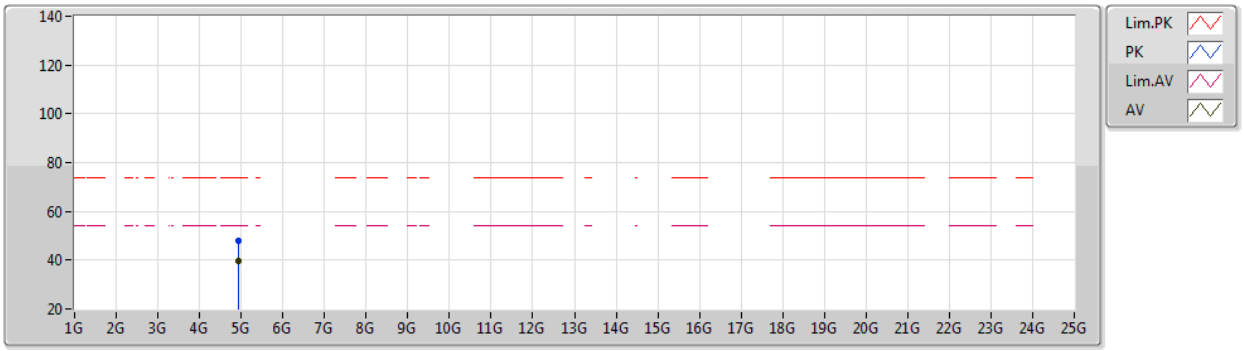
EUT Y_3TX
Setting 100
06-H-S-5

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	4.92412G	49.26	74.00	-24.74	44.19	3	Vertical	2	1.86	-	31.20	5.49	31.62
AV	4.924G	43.25	54.00	-10.75	38.18	3	Vertical	2	1.86	-	31.20	5.49	31.62

802.11b_Nss1,(1Mbps)_3TX

2462MHz_TX

26/08/2020



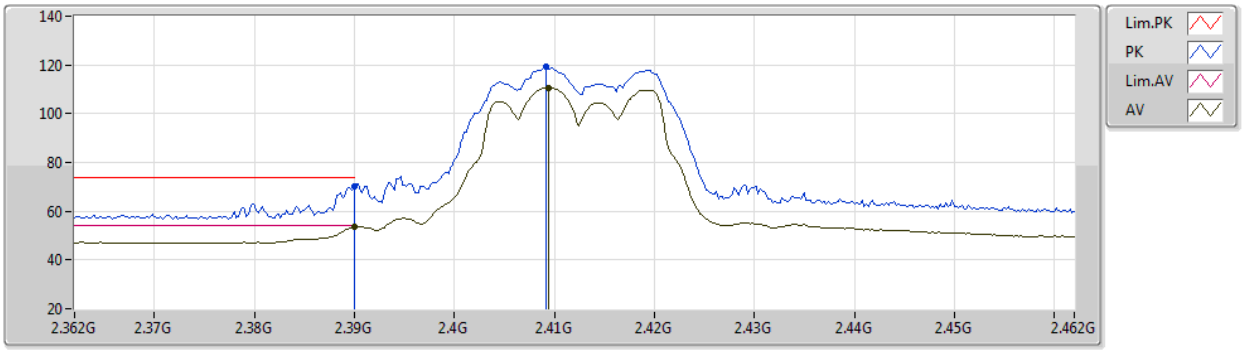
EUT Y_3TX
Setting 100
06-H-S-5

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	4.92396G	48.07	74.00	-25.93	43.00	3	Horizontal	48	2.04	-	31.20	5.49	31.62
AV	4.92402G	39.74	54.00	-14.26	34.67	3	Horizontal	48	2.04	-	31.20	5.49	31.62

802.11g_Nss1,(6Mbps)_3TX

2412MHz_TX

26/08/2020



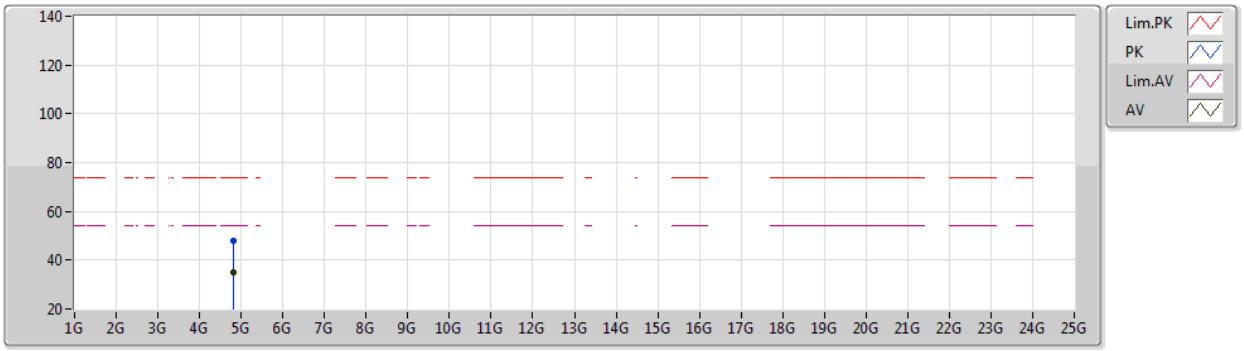
EUT Y_3TX
Setting 76
06-H-S-5

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	2.39G	70.26	74.00	-3.74	38.66	3	Vertical	352	1.66	-	27.60	4.00	-
AV	2.39G	53.67	54.00	-0.33	22.07	3	Vertical	352	1.66	-	27.60	4.00	-
PK	2.4092G	119.34	Inf	-Inf	87.78	3	Vertical	352	1.66	-	27.56	4.00	-
AV	2.4094G	110.66	Inf	-Inf	79.10	3	Vertical	352	1.66	-	27.56	4.00	-

802.11g_Nss1,(6Mbps)_3TX

2412MHz_TX

26/08/2020



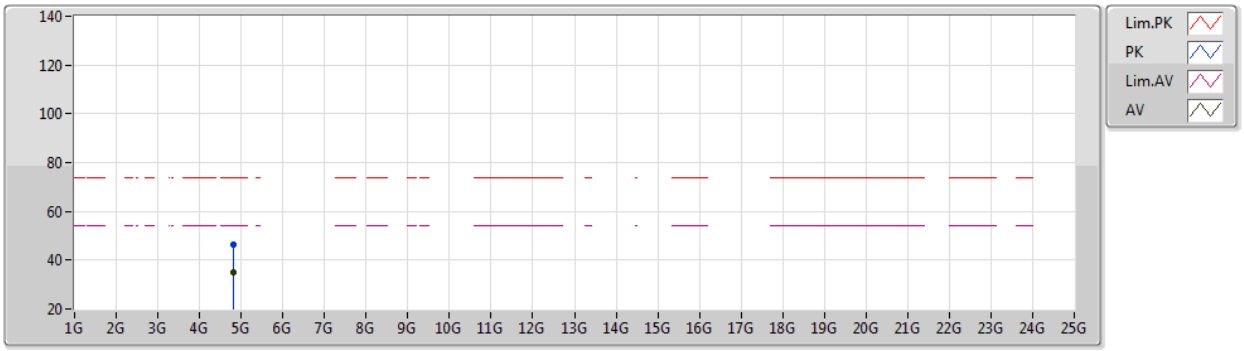
EUT Y_3TX
Setting 76
06-H-L-3

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	4.81806G	47.87	74.00	-26.13	43.22	3	Vertical	135	2.29	-	31.07	5.33	31.75
AV	4.82364G	34.81	54.00	-19.19	30.13	3	Vertical	135	2.29	-	31.09	5.34	31.75

802.11g_Nss1,(6Mbps)_3TX

2412MHz_TX

26/08/2020



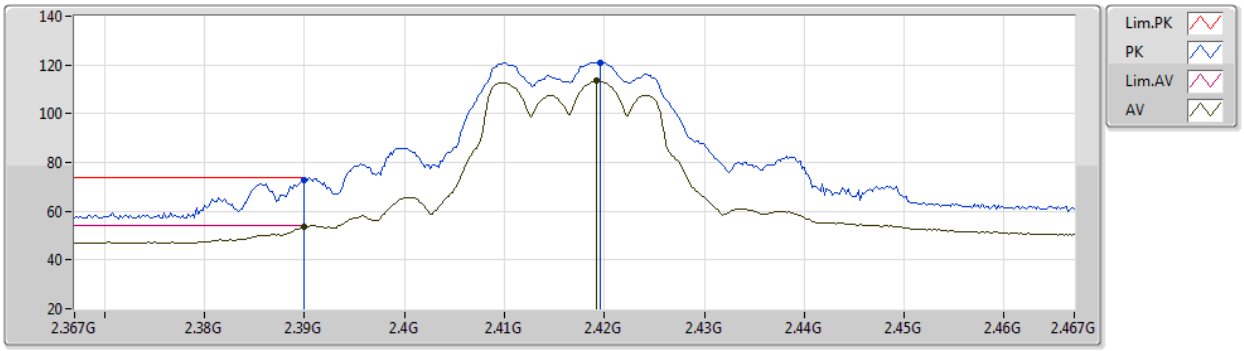
EUT Y_3TX
Setting 76
06-H-L-3

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	4.82694G	46.63	74.00	-27.37	41.92	3	Horizontal	206	1.97	-	31.11	5.34	31.74
AV	4.82154G	34.94	54.00	-19.06	30.27	3	Horizontal	206	1.97	-	31.09	5.33	31.75

802.11g_Nss1,(6Mbps)_3TX

2417MHz_TX

26/08/2020



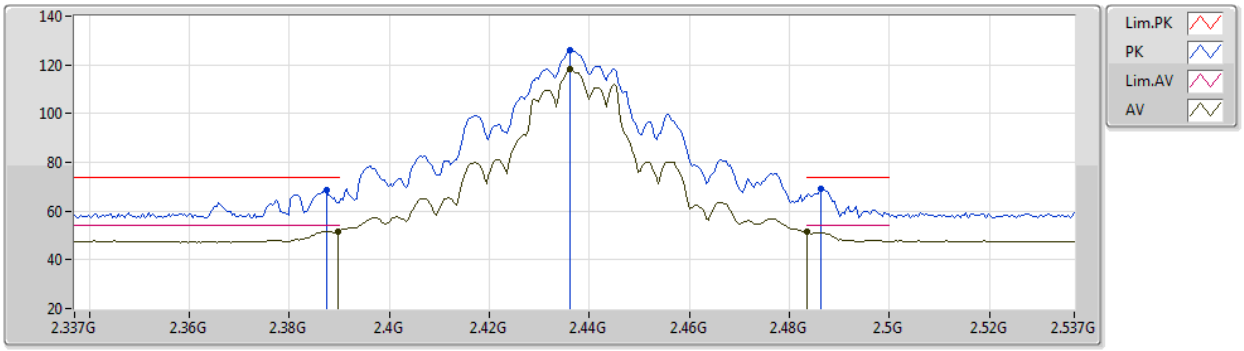
EUT Y_3TX
Setting 85
06-H-S-5

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	2.39G	72.75	74.00	-1.25	41.15	3	Vertical	353	1.59	-	27.60	4.00	-
AV	2.39G	53.55	54.00	-0.45	21.95	3	Vertical	353	1.59	-	27.60	4.00	-
PK	2.4196G	121.11	Inf	-Inf	89.58	3	Vertical	353	1.59	-	27.52	4.01	-
AV	2.4192G	113.38	Inf	-Inf	81.85	3	Vertical	353	1.59	-	27.52	4.01	-

802.11g_Nss1,(6Mbps)_3TX

2437MHz_TX

26/08/2020



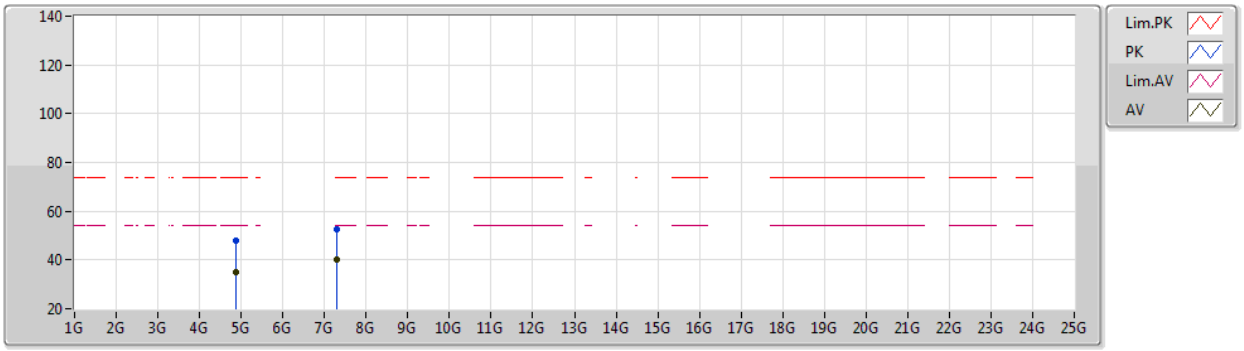
EUT Y_3TX
Setting 104
06-H-S-5

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	68.43	74.00	-5.57	36.84	3	Vertical	0	1.42	-	27.60	3.99	-
AV	2.3898G	51.55	54.00	-2.45	19.96	3	Vertical	0	1.42	-	27.60	3.99	-
PK	2.4362G	126.23	Inf	-Inf	94.75	3	Vertical	0	1.42	-	27.46	4.02	-
AV	2.4362G	118.19	Inf	-Inf	86.71	3	Vertical	0	1.42	-	27.46	4.02	-
PK	2.4862G	69.25	74.00	-4.75	37.81	3	Vertical	0	1.42	-	27.40	4.04	-
AV	2.4835G	51.38	54.00	-2.62	19.94	3	Vertical	0	1.42	-	27.40	4.04	-

802.11g_Nss1,(6Mbps)_3TX

2437MHz_TX

26/08/2020



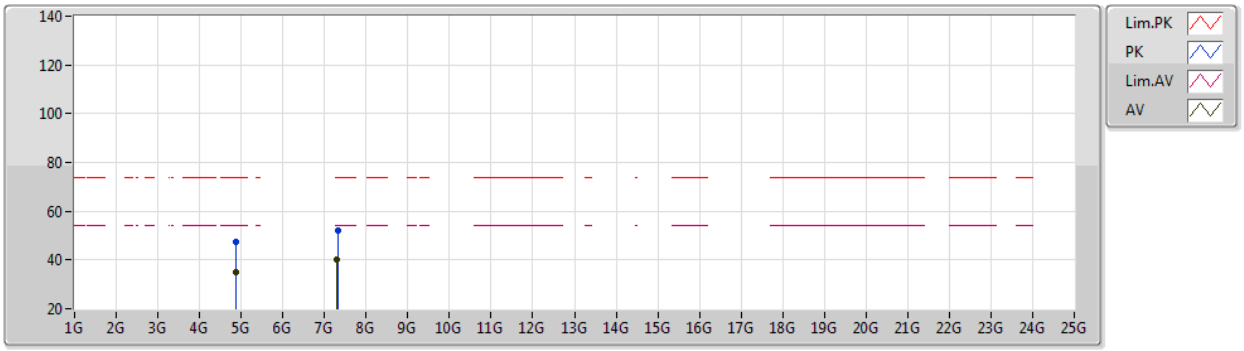
EUT Y_3TX
Setting 104
06-H-L-3

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	4.87788G	47.80	74.00	-26.20	42.92	3	Vertical	63	1.00	-	31.14	5.42	31.68
AV	4.87742G	35.20	54.00	-18.80	30.31	3	Vertical	63	1.00	-	31.15	5.42	31.68
PK	7.30892G	52.44	74.00	-21.56	42.29	3	Vertical	329	1.80	-	36.36	6.95	33.16
AV	7.30408G	40.11	54.00	-13.89	29.94	3	Vertical	329	1.80	-	36.38	6.95	33.16

802.11g_Nss1,(6Mbps)_3TX

2437MHz_TX

26/08/2020



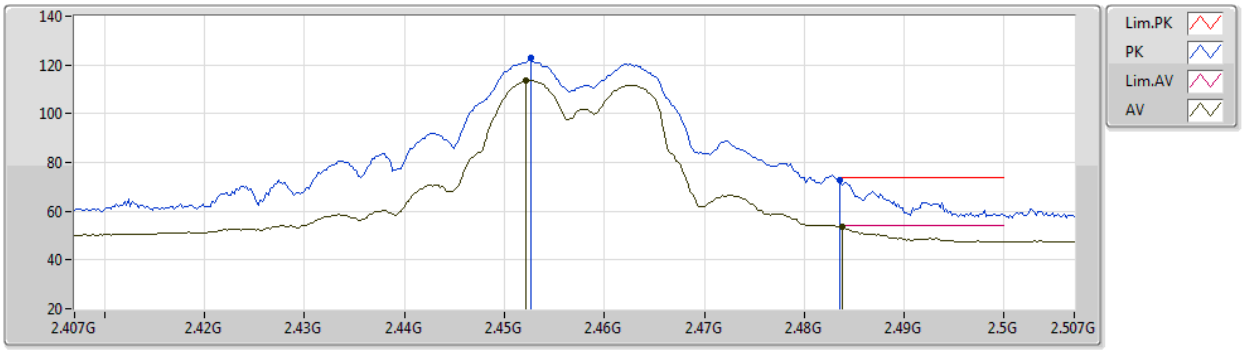
EUT Y_3TX
Setting 104
06-H-L-3

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	4.87176G	47.53	74.00	-26.47	42.65	3	Horizontal	292	1.84	-	31.16	5.41	31.69
AV	4.87074G	35.13	54.00	-18.87	30.25	3	Horizontal	292	1.84	-	31.16	5.41	31.69
PK	7.31896G	51.88	74.00	-22.12	41.76	3	Horizontal	93	1.80	-	36.32	6.96	33.16
AV	7.3056G	39.98	54.00	-14.02	29.81	3	Horizontal	93	1.80	-	36.38	6.95	33.16

802.11g_Nss1,(6Mbps)_3TX

2457MHz_TX

26/08/2020



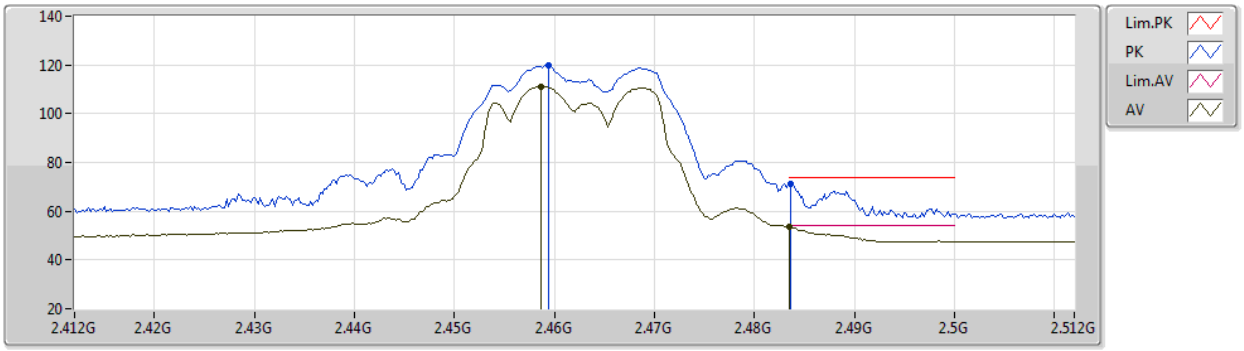
EUT Y_3TX
Setting 89
06-H-S-5

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	2.4526G	122.69	Inf	-Inf	91.26	3	Vertical	268	1.80	-	27.40	4.03	-
AV	2.4522G	113.55	Inf	-Inf	82.12	3	Vertical	268	1.80	-	27.40	4.03	-
PK	2.4835G	72.93	74.00	-1.07	41.49	3	Vertical	268	1.80	-	27.40	4.04	-
AV	2.4838G	53.39	54.00	-0.61	21.95	3	Vertical	268	1.80	-	27.40	4.04	-

802.11g_Nss1,(6Mbps)_3TX

2462MHz_TX

26/08/2020



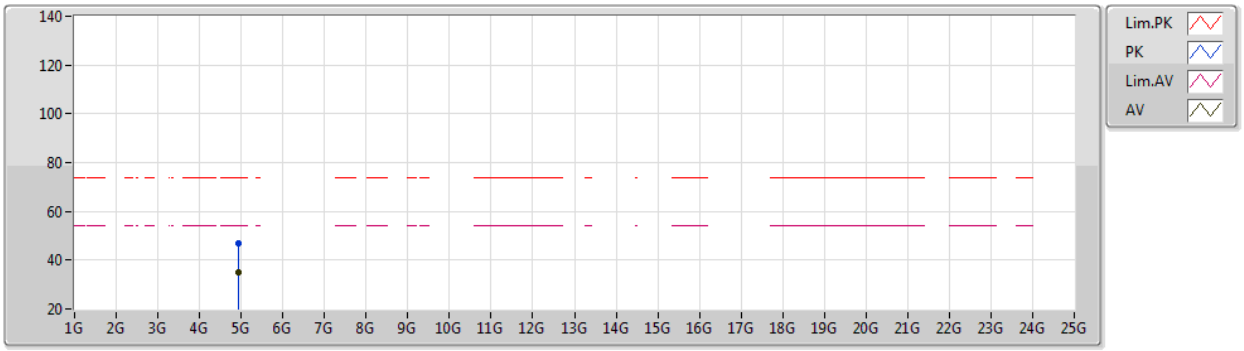
EUT Y_3TX
Setting 82
06-H-S-5

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	2.4594G	120.03	Inf	-Inf	88.60	3	Vertical	330	1.58	-	27.40	4.03	-
AV	2.4586G	111.16	Inf	-Inf	79.73	3	Vertical	330	1.58	-	27.40	4.03	-
PK	2.4836G	71.20	74.00	-2.80	39.76	3	Vertical	330	1.58	-	27.40	4.04	-
AV	2.4835G	53.64	54.00	-0.36	22.20	3	Vertical	330	1.58	-	27.40	4.04	-

802.11g_Nss1,(6Mbps)_3TX

2462MHz_TX

26/08/2020



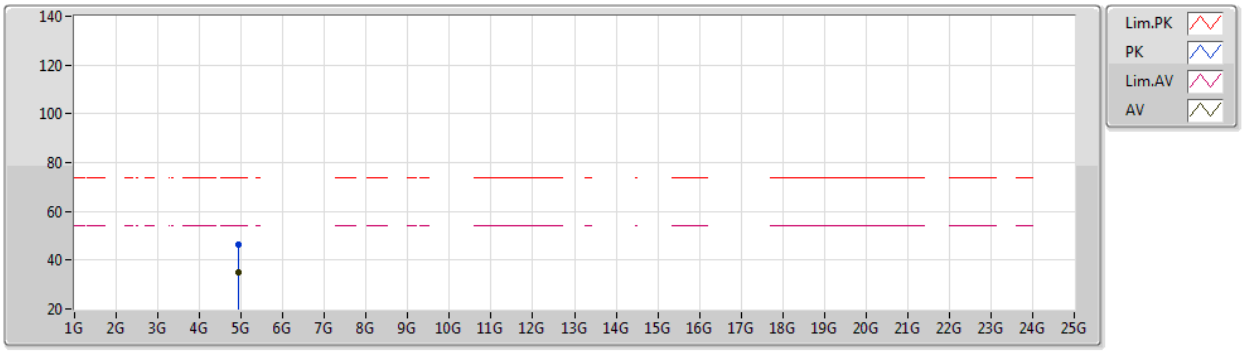
EUT Y_3TX
Setting 82
06-H-L-3

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	4.92132G	46.69	74.00	-27.31	41.65	3	Vertical	96	2.15	-	31.19	5.48	31.63
AV	4.92744G	34.84	54.00	-19.16	29.76	3	Vertical	96	2.15	-	31.21	5.49	31.62

802.11g_Nss1,(6Mbps)_3TX

2462MHz_TX

26/08/2020



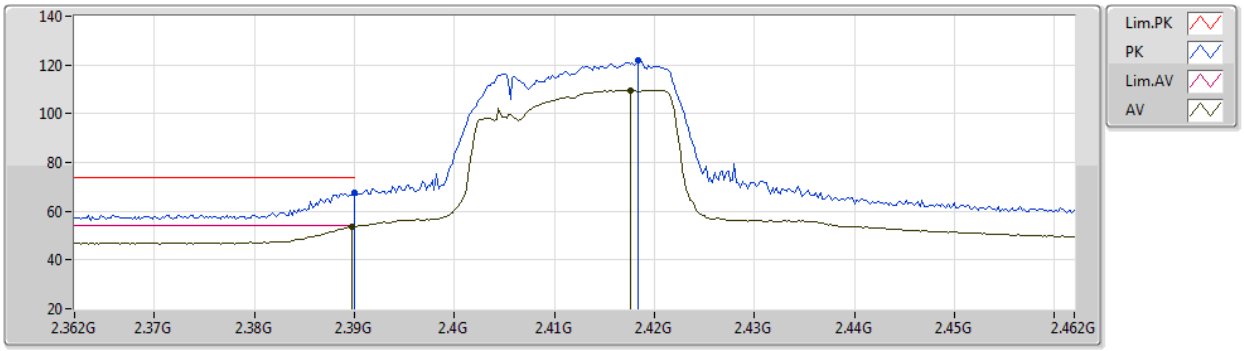
EUT Y_3TX
Setting 82
06-H-L-3

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	4.91956G	46.57	74.00	-27.43	41.54	3	Horizontal	283	1.77	-	31.18	5.48	31.63
AV	4.92834G	35.06	54.00	-18.94	29.98	3	Horizontal	283	1.77	-	31.21	5.49	31.62

802.11ax HEW20-BF_Nss1,(MCS0)_3TX

2412MHz_TX

26/08/2020



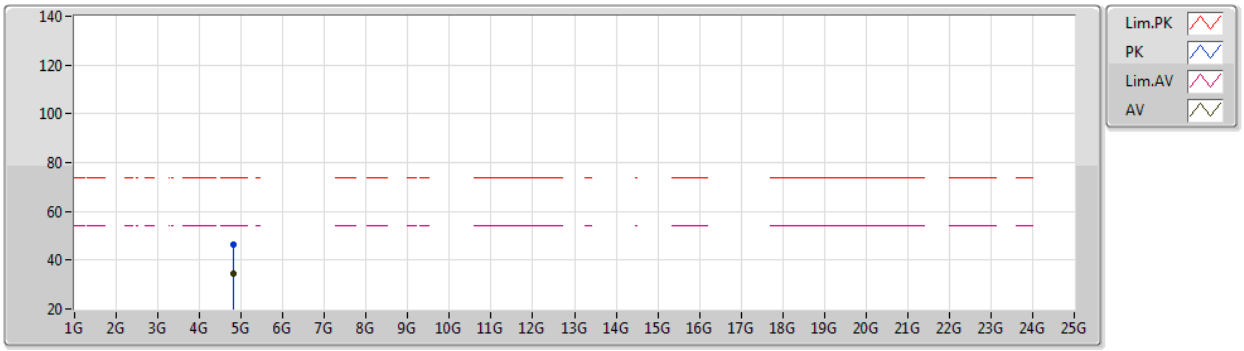
EUT Y_3TX
Setting 75
06-H-S-5

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	2.39G	67.71	74.00	-6.29	36.11	3	Vertical	347	1.80	-	27.60	4.00	-
AV	2.3898G	53.66	54.00	-0.34	22.07	3	Vertical	347	1.80	-	27.60	3.99	-
PK	2.4184G	121.64	Inf	-Inf	90.10	3	Vertical	347	1.80	-	27.53	4.01	-
AV	2.4176G	109.50	Inf	-Inf	77.96	3	Vertical	347	1.80	-	27.53	4.01	-

802.11ax HEW20-BF_Nss1,(MCS0)_3TX

2412MHz_TX

26/08/2020



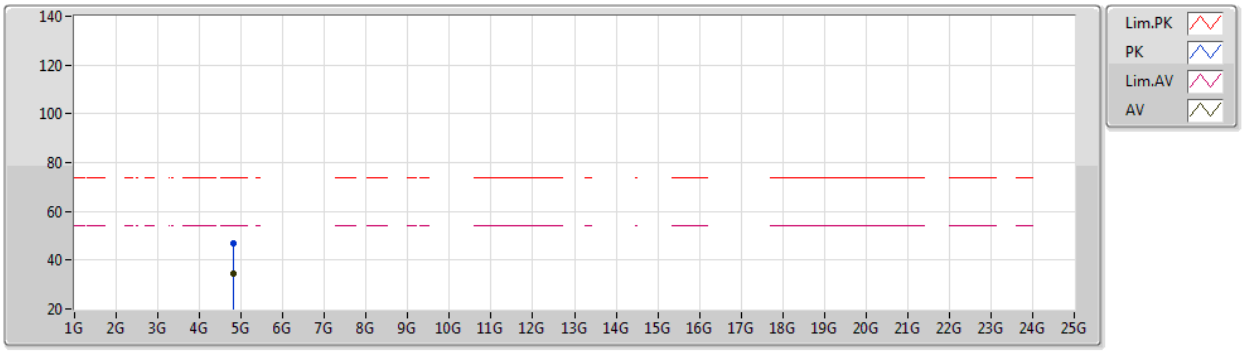
EUT Y_3TX
Setting 75
06-H-L-3

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	4.82226G	46.60	74.00	-27.40	41.93	3	Vertical	55	1.81	-	31.09	5.33	31.75
AV	4.82094G	34.44	54.00	-19.56	29.78	3	Vertical	55	1.81	-	31.08	5.33	31.75

802.11ax HEW20-BF_Nss1,(MCS0)_3TX

2412MHz_TX

26/08/2020



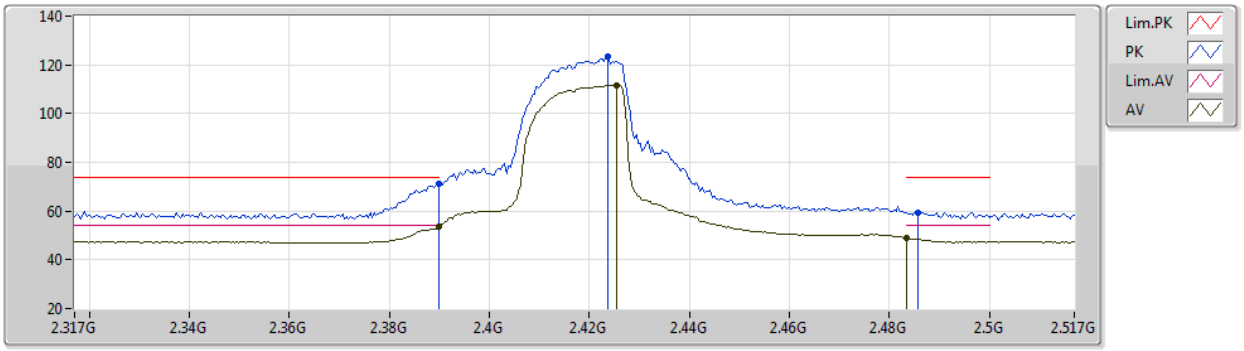
EUT Y_3TX
Setting 75
06-H-L-3

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	4.8234G	46.87	74.00	-27.13	42.19	3	Horizontal	88	1.30	-	31.09	5.34	31.75
AV	4.82694G	34.41	54.00	-19.59	29.70	3	Horizontal	88	1.30	-	31.11	5.34	31.74

802.11ax HEW20-BF_Nss1,(MCS0)_3TX

2417MHz_TX

26/08/2020



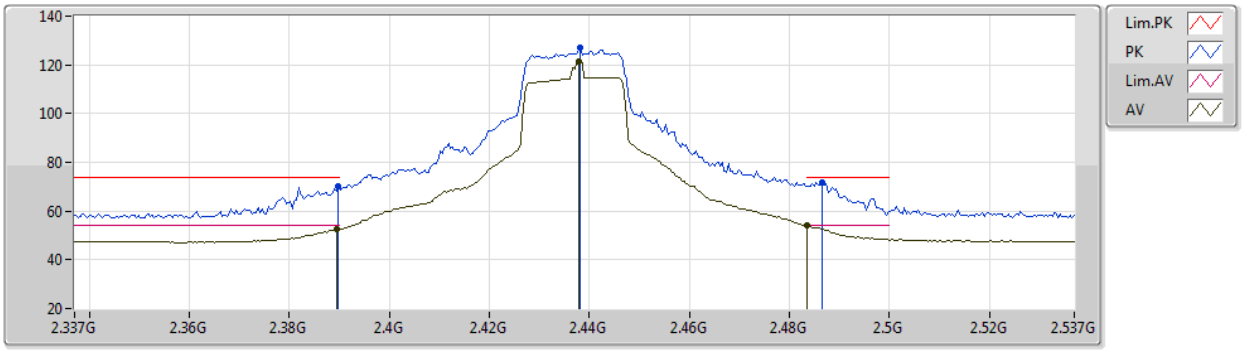
EUT Y_3TX
Setting 84
06-H-S-5

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	2.3898G	71.05	74.00	-2.95	39.46	3	Vertical	348	1.71	-	27.60	3.99	-
AV	2.3898G	53.78	54.00	-0.22	22.19	3	Vertical	348	1.71	-	27.60	3.99	-
PK	2.4238G	123.51	Inf	-Inf	92.00	3	Vertical	348	1.71	-	27.50	4.01	-
AV	2.4254G	111.56	Inf	-Inf	80.05	3	Vertical	348	1.71	-	27.50	4.01	-
PK	2.4858G	59.44	74.00	-14.56	28.00	3	Vertical	348	1.71	-	27.40	4.04	-
AV	2.4835G	48.99	54.00	-5.01	17.55	3	Vertical	348	1.71	-	27.40	4.04	-

802.11ax HEW20-BF_Nss1,(MCS0)_3TX

2437MHz_TX

26/08/2020



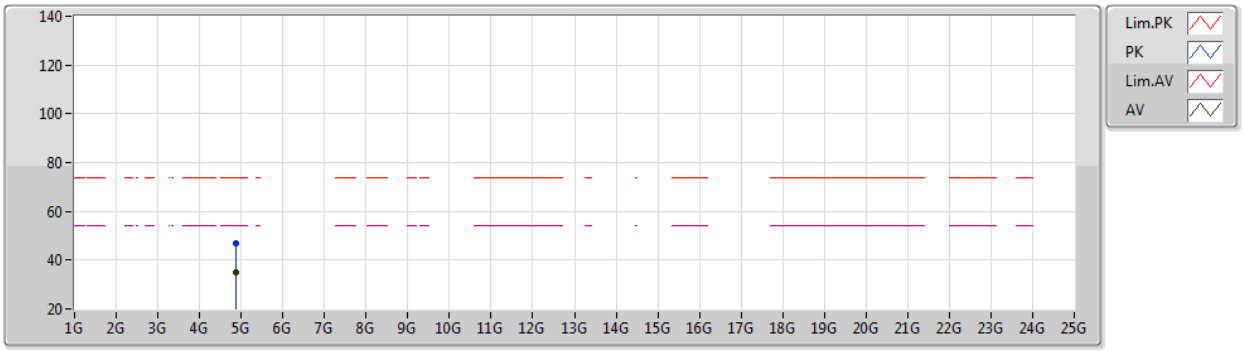
EUT Y_3TX
Setting 103
06-H-S-5

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	2.3898G	70.04	74.00	-3.96	38.45	3	Vertical	313	1.80	-	27.60	3.99	-
AV	2.3894G	52.40	54.00	-1.60	20.81	3	Vertical	313	1.80	-	27.60	3.99	-
PK	2.4382G	127.06	Inf	-Inf	95.59	3	Vertical	313	1.80	-	27.45	4.02	-
AV	2.4378G	121.35	Inf	-Inf	89.88	3	Vertical	313	1.80	-	27.45	4.02	-
PK	2.4866G	71.59	74.00	-2.41	40.15	3	Vertical	313	1.80	-	27.40	4.04	-
AV	2.4835G	53.88	54.00	-0.12	22.44	3	Vertical	313	1.80	-	27.40	4.04	-

802.11ax HEW20-BF_Nss1,(MCS0)_3TX

2437MHz_TX

26/08/2020



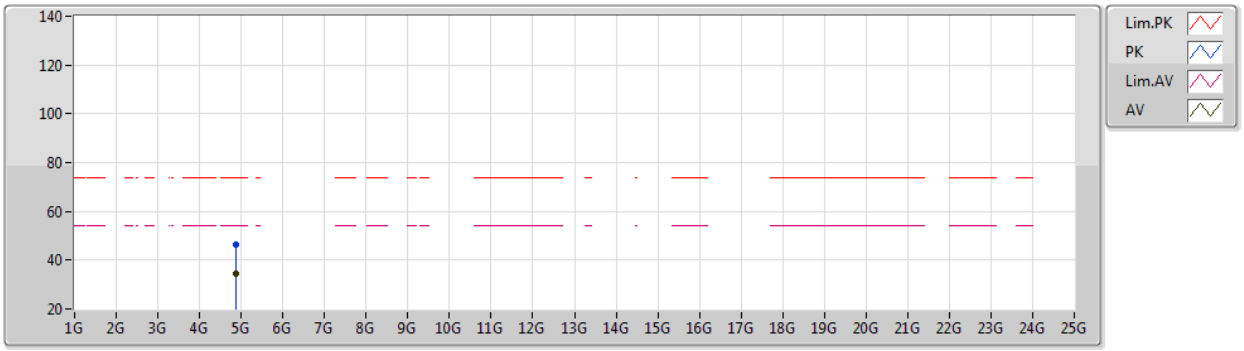
EUT Y_3TX
Setting 103
06-H-L-3

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	4.87148G	46.77	74.00	-27.23	41.89	3	Vertical	43	1.40	-	31.16	5.41	31.69
AV	4.87698G	34.86	54.00	-19.14	29.97	3	Vertical	43	1.40	-	31.15	5.42	31.68

802.11ax HEW20-BF_Nss1,(MCS0)_3TX

2437MHz_TX

26/08/2020



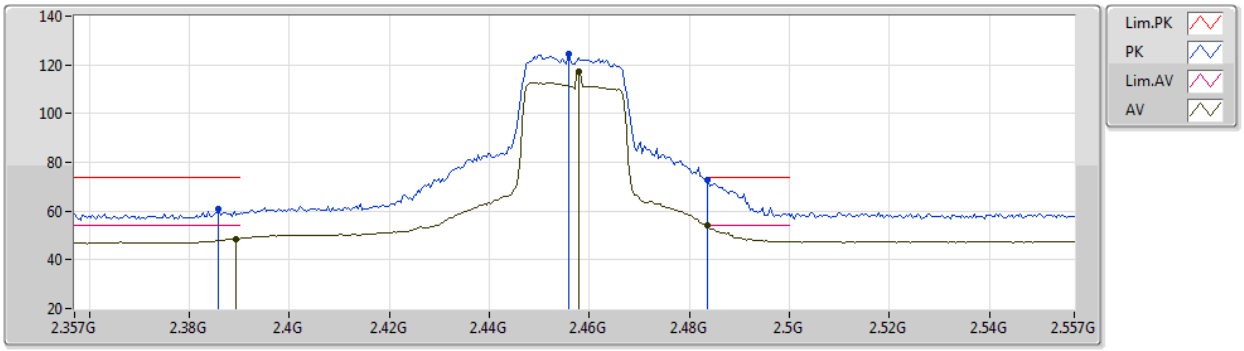
EUT Y_3TX
Setting 103
06-H-L-3

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	4.8704G	46.52	74.00	-27.48	41.64	3	Horizontal	13	1.59	-	31.16	5.41	31.69
AV	4.87316G	34.71	54.00	-19.29	29.83	3	Horizontal	13	1.59	-	31.15	5.41	31.68

802.11ax HEW20-BF_Nss1,(MCS0)_3TX

2457MHz_TX

26/08/2020



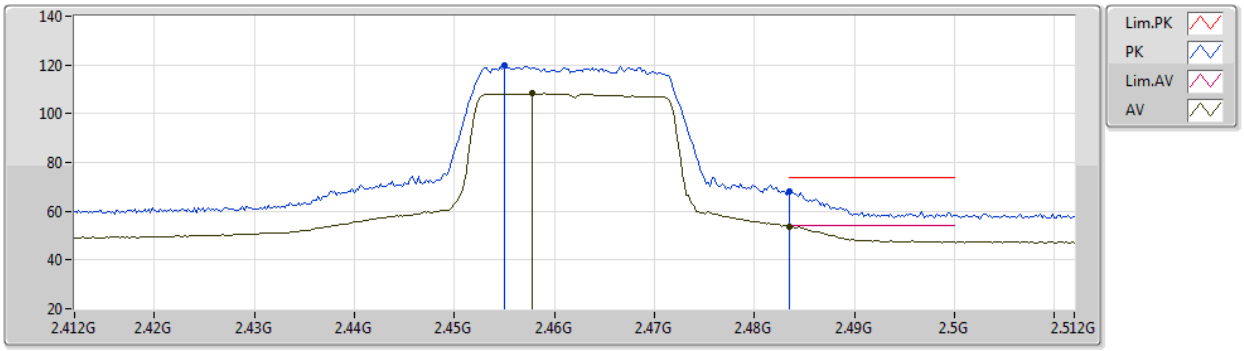
EUT Y_3TX
Setting 84
06-H-S-5

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	2.3858G	60.66	74.00	-13.34	29.07	3	Vertical	284	1.80	-	27.60	3.99	-
AV	2.3894G	48.53	54.00	-5.47	16.94	3	Vertical	284	1.80	-	27.60	3.99	-
PK	2.4558G	124.33	Inf	-Inf	92.90	3	Vertical	284	1.80	-	27.40	4.03	-
AV	2.4578G	116.99	Inf	-Inf	85.56	3	Vertical	284	1.80	-	27.40	4.03	-
PK	2.4835G	72.88	74.00	-1.12	41.44	3	Vertical	284	1.80	-	27.40	4.04	-
AV	2.4835G	53.88	54.00	-0.12	22.44	3	Vertical	284	1.80	-	27.40	4.04	-

802.11ax HEW20-BF_Nss1,(MCS0)_3TX

2462MHz_TX

26/08/2020



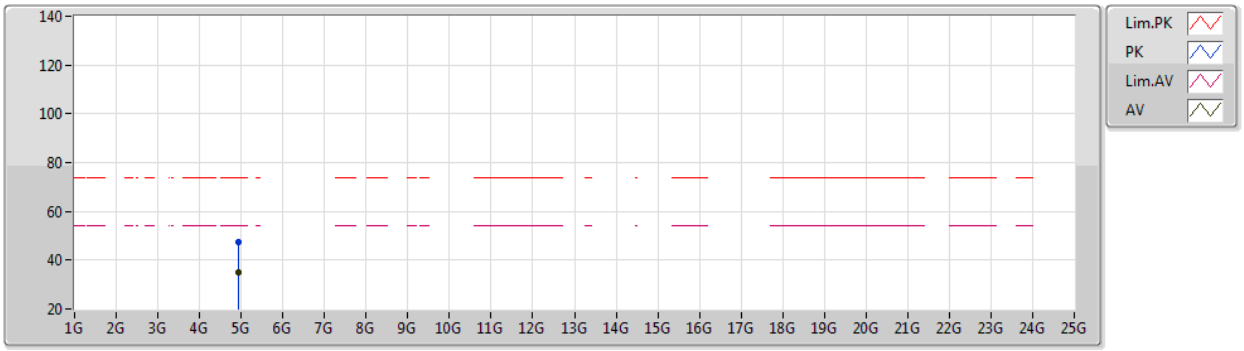
EUT Y_3TX
Setting 73
06-H-S-5

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	2.455G	119.99	Inf	-Inf	88.56	3	Vertical	89	1.39	-	27.40	4.03	-
AV	2.4578G	108.28	Inf	-Inf	76.85	3	Vertical	89	1.39	-	27.40	4.03	-
PK	2.4835G	68.34	74.00	-5.66	36.90	3	Vertical	89	1.39	-	27.40	4.04	-
AV	2.4835G	53.51	54.00	-0.49	22.07	3	Vertical	89	1.39	-	27.40	4.04	-

802.11ax HEW20-BF_Nss1,(MCS0)_3TX

2462MHz_TX

26/08/2020



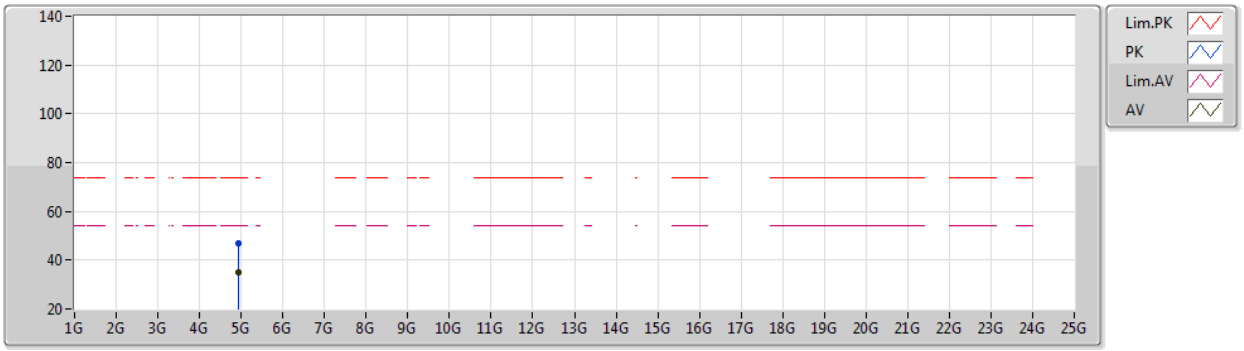
EUT Y_3TX
Setting 73
06-H-L-3

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	4.92464G	47.20	74.00	-26.80	42.13	3	Vertical	120	2.93	-	31.20	5.49	31.62
AV	4.92412G	34.75	54.00	-19.25	29.68	3	Vertical	120	2.93	-	31.20	5.49	31.62

802.11ax HEW20-BF_Nss1,(MCS0)_3TX

2462MHz_TX

26/08/2020



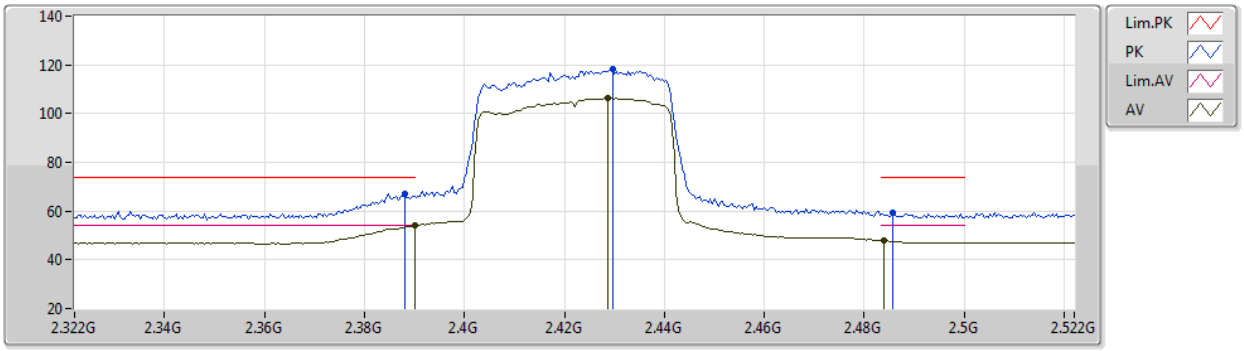
EUT Y_3TX
Setting 73
06-H-L-3

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	4.9266G	46.93	74.00	-27.07	41.85	3	Horizontal	202	1.59	-	31.21	5.49	31.62
AV	4.9261G	34.76	54.00	-19.24	29.69	3	Horizontal	202	1.59	-	31.20	5.49	31.62

802.11ax HEW40-BF_Nss1,(MCS0)_3TX

2422MHz_TX

26/08/2020



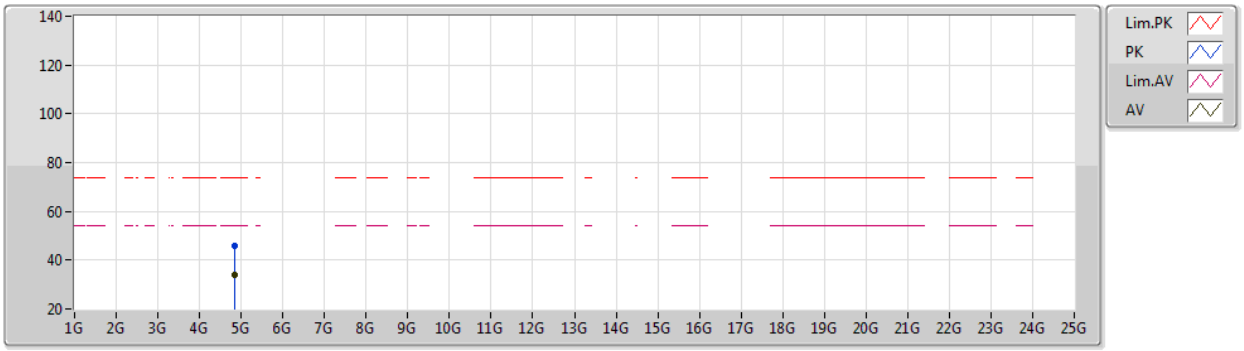
EUT Y_3TX
Setting 67
06-H-S-5

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	2.388G	67.21	74.00	-6.79	35.62	3	Vertical	360	1.61	-	27.60	3.99	-
AV	2.39G	53.90	54.00	-0.10	22.30	3	Vertical	360	1.61	-	27.60	4.00	-
PK	2.4296G	118.10	Inf	-Inf	86.61	3	Vertical	360	1.61	-	27.48	4.01	-
AV	2.4288G	106.49	Inf	-Inf	75.00	3	Vertical	360	1.61	-	27.48	4.01	-
PK	2.4856G	59.11	74.00	-14.89	27.67	3	Vertical	360	1.61	-	27.40	4.04	-
AV	2.484G	47.86	54.00	-6.14	16.42	3	Vertical	360	1.61	-	27.40	4.04	-

802.11ax HEW40-BF_Nss1,(MCS0)_3TX

2422MHz_TX

26/08/2020



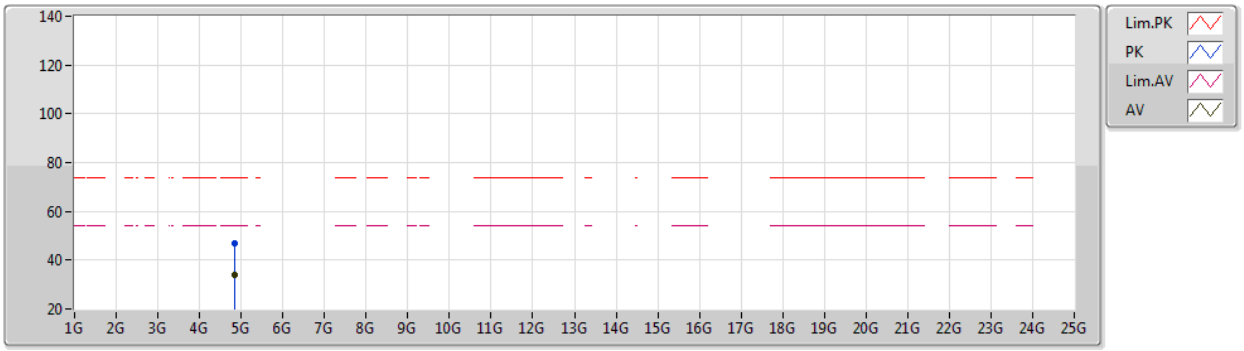
EUT Y_3TX
Setting 67
06-H-L-3

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	4.8454G	45.89	74.00	-28.11	41.06	3	Vertical	124	2.53	-	31.18	5.37	31.72
AV	4.84058G	33.81	54.00	-20.19	29.01	3	Vertical	124	2.53	-	31.16	5.36	31.72

802.11ax HEW40-BF_Nss1,(MCS0)_3TX

2422MHz_TX

26/08/2020



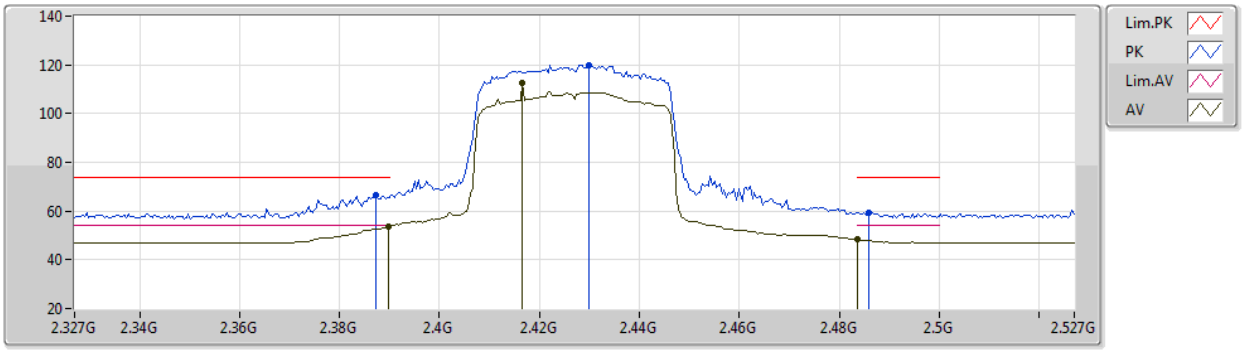
EUT Y_3TX
Setting 67
06-H-L-3

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	4.84698G	46.87	74.00	-27.13	42.03	3	Horizontal	37	2.07	-	31.19	5.37	31.72
AV	4.84298G	33.74	54.00	-20.26	28.93	3	Horizontal	37	2.07	-	31.17	5.36	31.72

802.11ax HEW40-BF_Nss1,(MCS0)_3TX

2427MHz_TX

26/08/2020



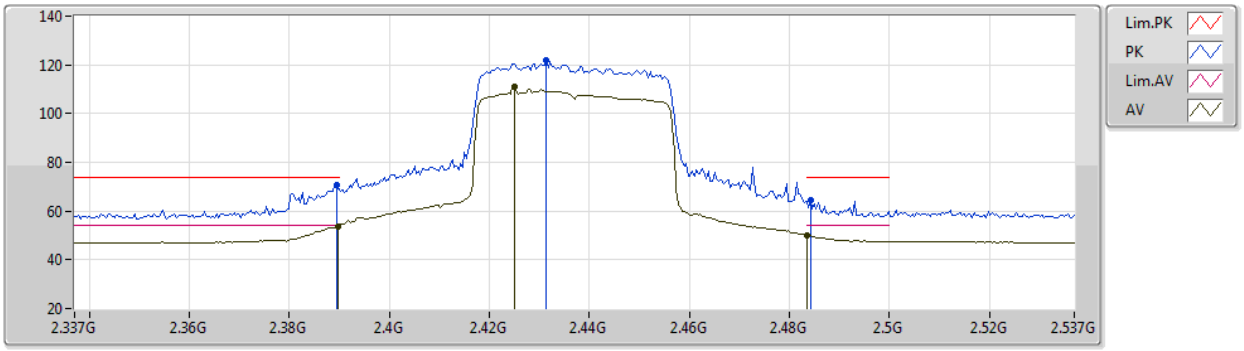
EUT Y_3TX
Setting 75
06-H-S-5

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	66.51	74.00	-7.49	34.92	3	Vertical	0	1.63	-	27.60	3.99	-
AV	2.3898G	53.54	54.00	-0.46	21.95	3	Vertical	0	1.63	-	27.60	3.99	-
PK	2.4298G	119.96	Inf	-Inf	88.47	3	Vertical	0	1.63	-	27.48	4.01	-
AV	2.4166G	112.53	Inf	-Inf	80.99	3	Vertical	0	1.63	-	27.53	4.01	-
PK	2.4858G	59.50	74.00	-14.50	28.06	3	Vertical	0	1.63	-	27.40	4.04	-
AV	2.4835G	48.33	54.00	-5.67	16.89	3	Vertical	0	1.63	-	27.40	4.04	-

802.11ax HEW40-BF_Nss1,(MCS0)_3TX

2437MHz_TX

26/08/2020



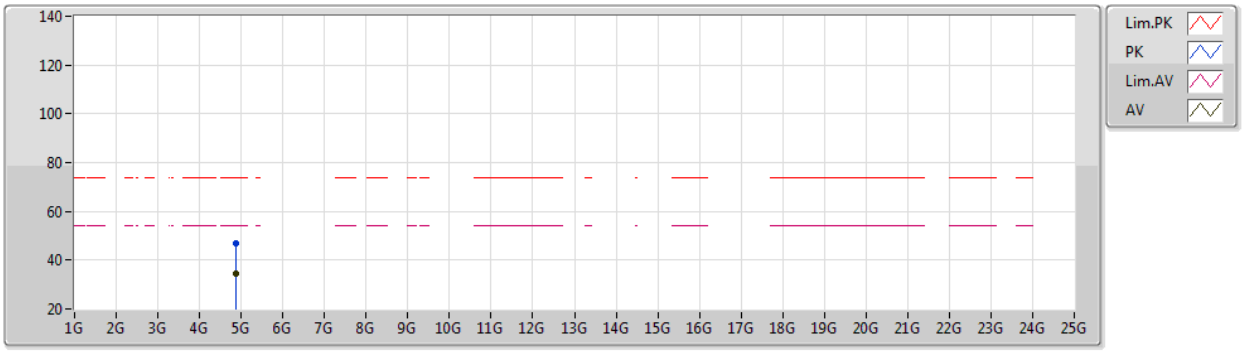
EUT Y_3TX
Setting 83
06-H-S-5

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	2.3894G	70.93	74.00	-3.07	39.34	3	Vertical	357	1.58	-	27.60	3.99	-
AV	2.3898G	53.66	54.00	-0.34	22.07	3	Vertical	357	1.58	-	27.60	3.99	-
PK	2.4314G	121.84	Inf	-Inf	90.35	3	Vertical	357	1.58	-	27.47	4.02	-
AV	2.425G	110.99	Inf	-Inf	79.48	3	Vertical	357	1.58	-	27.50	4.01	-
PK	2.4842G	64.34	74.00	-9.66	32.90	3	Vertical	357	1.58	-	27.40	4.04	-
AV	2.4835G	50.18	54.00	-3.82	18.74	3	Vertical	357	1.58	-	27.40	4.04	-

802.11ax HEW40-BF_Nss1,(MCS0)_3TX

2437MHz_TX

26/08/2020



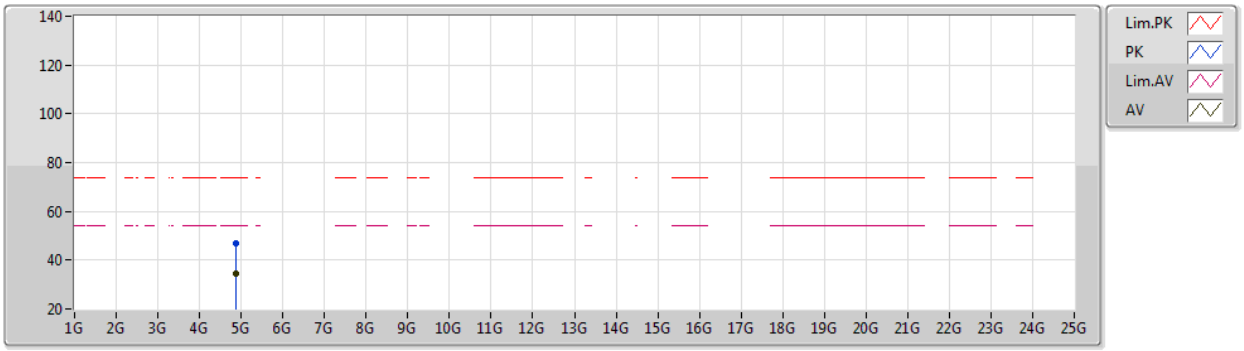
EUT Y_3TX
Setting 83
06-H-L-3

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	4.87406G	46.78	74.00	-27.22	41.90	3	Vertical	195	2.69	-	31.15	5.41	31.68
AV	4.87376G	34.35	54.00	-19.65	29.47	3	Vertical	195	2.69	-	31.15	5.41	31.68

802.11ax HEW40-BF_Nss1,(MCS0)_3TX

2437MHz_TX

26/08/2020



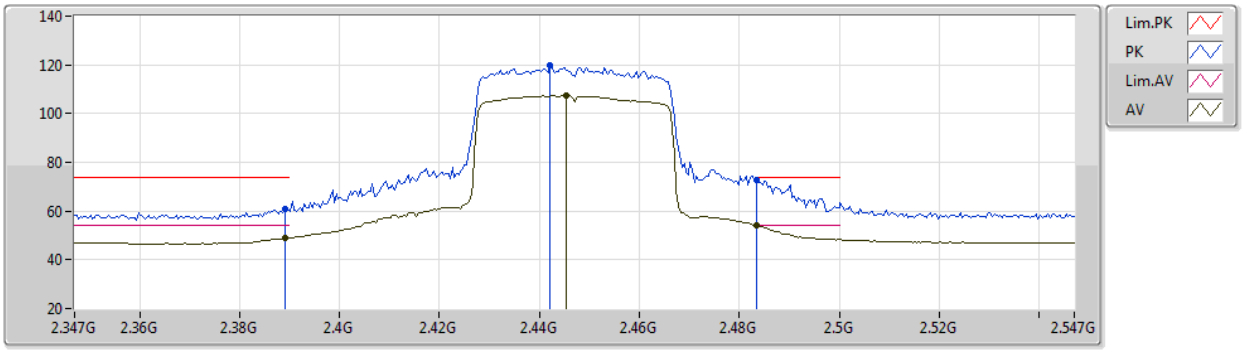
EUT Y_3TX
Setting 83
06-H-L-3

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	4.87522G	46.73	74.00	-27.27	41.85	3	Horizontal	217	1.19	-	31.15	5.41	31.68
AV	4.8732G	34.27	54.00	-19.73	29.39	3	Horizontal	217	1.19	-	31.15	5.41	31.68

802.11ax HEW40-BF_Nss1,(MCS0)_3TX

2447MHz_TX

26/08/2020



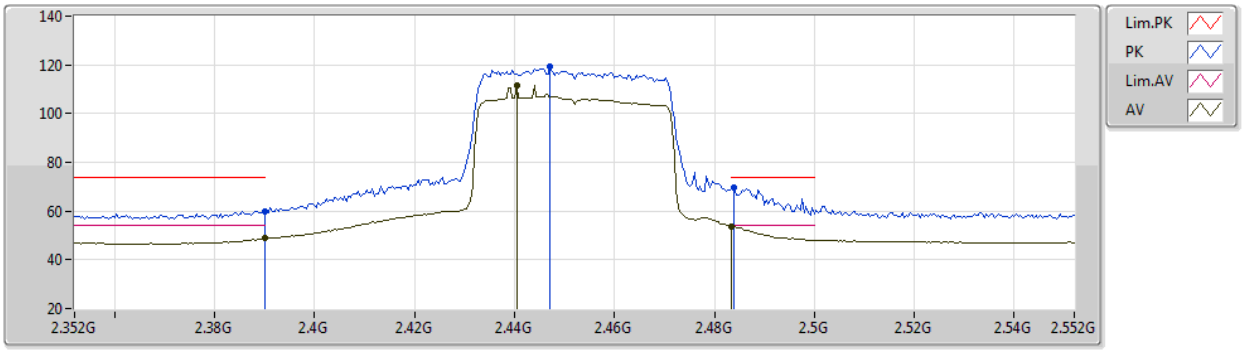
EUT Y_3TX
Setting 78
06-H-S-5

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	2.389G	60.69	74.00	-13.31	29.10	3	Vertical	81	1.77	-	27.60	3.99	-
AV	2.389G	48.74	54.00	-5.26	17.15	3	Vertical	81	1.77	-	27.60	3.99	-
PK	2.4422G	119.74	Inf	-Inf	88.29	3	Vertical	81	1.77	-	27.43	4.02	-
AV	2.4454G	107.27	Inf	-Inf	75.83	3	Vertical	81	1.77	-	27.42	4.02	-
PK	2.4835G	72.74	74.00	-1.26	41.30	3	Vertical	81	1.77	-	27.40	4.04	-
AV	2.4835G	53.88	54.00	-0.12	22.44	3	Vertical	81	1.77	-	27.40	4.04	-

802.11ax HEW40-BF_Nss1,(MCS0)_3TX

2452MHz_TX

26/08/2020



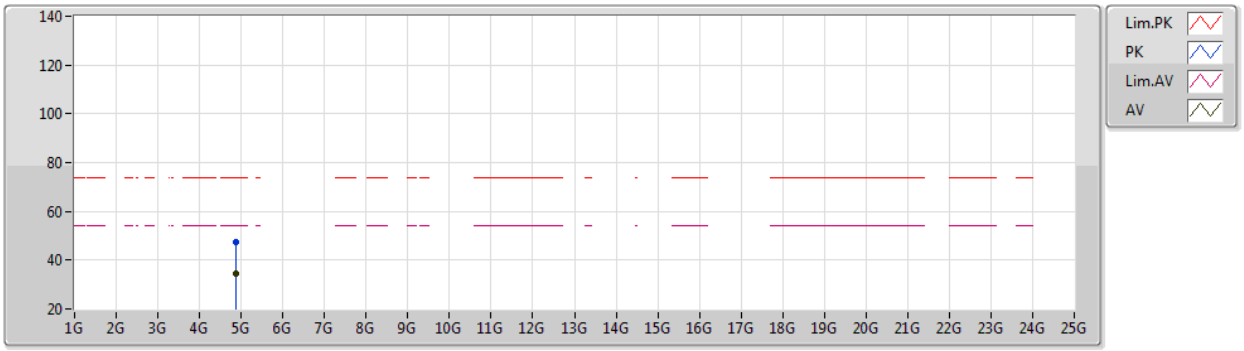
EUT Y_3TX
Setting 74
06-H-S-5

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	2.39G	59.95	74.00	-14.05	28.35	3	Vertical	96	1.79	-	27.60	4.00	-
AV	2.39G	48.75	54.00	-5.25	17.15	3	Vertical	96	1.79	-	27.60	4.00	-
PK	2.4472G	119.32	Inf	-Inf	87.89	3	Vertical	96	1.79	-	27.41	4.02	-
AV	2.4404G	111.58	Inf	-Inf	80.12	3	Vertical	96	1.79	-	27.44	4.02	-
PK	2.484G	69.90	74.00	-4.10	38.46	3	Vertical	96	1.79	-	27.40	4.04	-
AV	2.4835G	53.76	54.00	-0.24	22.32	3	Vertical	96	1.79	-	27.40	4.04	-

802.11ax HEW40-BF_Nss1,(MCS0)_3TX

2452MHz_TX

26/08/2020



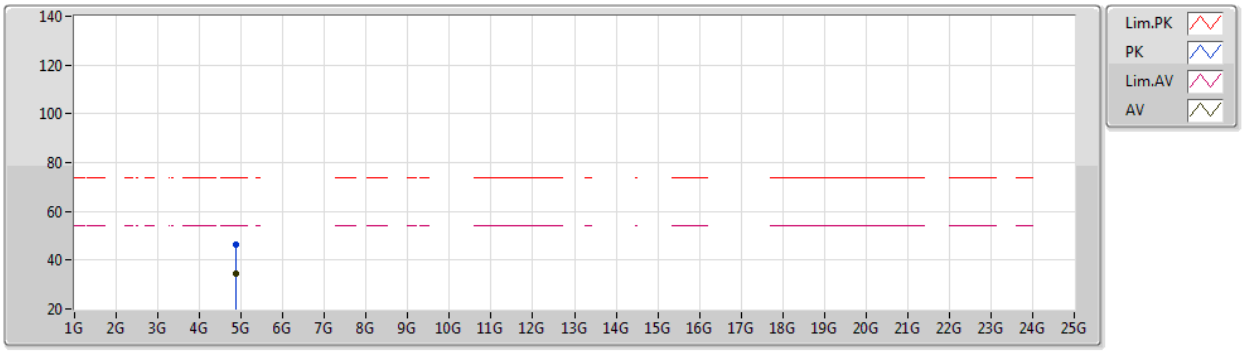
EUT Y_3TX
Setting 74
06-H-L-3

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	4.87312G	47.38	74.00	-26.62	42.50	3	Vertical	276	1.95	-	31.15	5.41	31.68
AV	4.87692G	34.43	54.00	-19.57	29.54	3	Vertical	276	1.95	-	31.15	5.42	31.68

802.11ax HEW40-BF_Nss1,(MCS0)_3TX

2452MHz_TX

26/08/2020



EUT Y_3TX
Setting 74
06-H-L-3

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	4.87674G	46.58	74.00	-27.42	41.69	3	Horizontal	207	2.42	-	31.15	5.42	31.68
AV	4.87346G	34.35	54.00	-19.65	29.47	3	Horizontal	207	2.42	-	31.15	5.41	31.68