



FCC Test Report

Equipment : Set top box
Brand Name : DIRECTV
Model No. : C71KW-200
FCC ID : A3LC71KW-200
Standard : 47 CFR FCC Part 15.247
Operating Band : 2400 MHz – 2483.5 MHz
Function : Point-to-multipoint; Point-to-point
Applicant : Samsung Electronics Co Ltd
19 Chapin Rd., Building D Pine Brook, NJ 07058
Manufacturer : Calcomp public company limited
(Branch 00002) 138 MOO 4, PETCHKASEM ROAD,
SAPANG, KOAW-YOI, PETCHBURI, Thailand 76140

The product sample received on Jul. 19, 2017 and completely tested on Oct. 12, 2017. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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


Cliff Chang
SPORTON INTERNATIONAL INC.





Table of Contents

- 1 GENERAL DESCRIPTION5**
- 1.1 Information.....5
- 1.2 Testing Applied Standards8
- 1.3 Testing Location Information8
- 1.4 Measurement Uncertainty8
- 2 TEST CONFIGURATION OF EUT9**
- 2.1 Test Channel Mode9
- 2.2 The Worst Case Measurement Configuration10
- 2.3 EUT Operation during Test12
- 2.4 Accessories13
- 2.5 Support Equipment.....13
- 2.6 Test Setup Diagram15
- 3 TRANSMITTER TEST RESULT18**
- 3.1 AC Power-line Conducted Emissions18
- 3.2 DTS Bandwidth20
- 3.3 Maximum Conducted Output Power21
- 3.4 Power Spectral Density23
- 3.5 Emissions in Non-restricted Frequency Bands25
- 3.6 Emissions in Restricted Frequency Bands.....26
- 4 TEST EQUIPMENT AND CALIBRATION DATA30**

APPENDIX A. TEST RESULTS OF AC POWER-LINE CONDUCTED EMISSIONS

APPENDIX B. TEST RESULTS OF DTS BANDWIDTH

APPENDIX C. TEST RESULTS OF MAXIMUM CONDUCTED OUTPUT POWER

APPENDIX D. TEST RESULTS OF POWER SPECTRAL DENSITY

APPENDIX E. TEST RESULTS OF EMISSIONS IN NON-RESTRICTED FREQUENCY BANDS

APPENDIX F. TEST RESULTS OF EMISSIONS IN RESTRICTED FREQUENCY BANDS

APPENDIX G. TEST PHOTOS

PHOTOGRAPHS OF EUT V01



Summary of Test Result

Conformance Test Specifications				
Report Clause	Ref. Std. Clause	Description	Limit	Result
1.1.2	15.203	Antenna Requirement	FCC 15.203	Complied
3.1	15.207	AC Power-line Conducted Emissions	FCC 15.207	Complied
3.2	15.247(a)	DTS Bandwidth	≥500kHz	Complied
3.3	15.247(b)	Maximum Conducted Output Power	Power [dBm]:30	Complied
3.4	15.247(e)	Power Spectral Density	PSD [dBm/3kHz]:8	Complied
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	Non-Restricted Bands: > 30 dBc	Complied
3.6	15.247(d)	Emissions in Restricted Frequency Bands	Restricted Bands: FCC 15.209	Complied



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), ac (VHT20)	2412-2462	1-11 [11]
2400-2483.5	n (HT40), ac (VHT40)	2422-2452	3-9 [7]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	4TX
2.4-2.4835GHz	802.11g	20	4TX
2.4-2.4835GHz	802.11n HT20	20	4TX
2.4-2.4835GHz	802.11ac VHT20	20	4TX
2.4-2.4835GHz	802.11ac VHT20-BF	20	4TX
2.4-2.4835GHz	802.11n HT40	40	4TX
2.4-2.4835GHz	802.11ac VHT40	40	4TX
2.4-2.4835GHz	802.11ac VHT40-BF	40	4TX

Note:

- 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- 11g, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- VHT20, VHT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- BWch is the nominal channel bandwidth.
- Nss-Min is the minimum number of spatial streams.
- Nant is the number of outputs. e.g., 2(2,3) means have 2 outputs for port 2 and port 3. 2 means have 2 outputs for port 1 and port 2.



1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	Airgain	N2425DSA7	PCB Antenna	I-PEX	Note 1
2	Airgain	N2425DSB6	PCB Antenna	I-PEX	
3	Airgain	N2425DSC6	PCB Antenna	I-PEX	
4	Airgain	N2425DSD7	PCB Antenna	I-PEX	

Note 1:

Frequency	Max Gain (dBi)				Max DG (dBi)			
	Ant. 1	Ant. 2	Ant. 3	Ant. 4	4T1S	4T2S	4T3S	4T4S
2410 MHz	2.34	2.40	4.19	3.18	6.75	3.78	2.31	0.93
2440 MHz	2.77	2.23	3.78	3.04	7.04	4.05	2.67	1.15
2460 MHz	3.03	2.21	3.75	3.22	7.11	4.10	2.81	1.11

Frequency	Max Gain (dBi)				Max DG (dBi)			
	Ant. 1	Ant. 2	Ant. 3	Ant. 4	4T1S	4T2S	4T3S	4T4S
5200 MHz	4.22	2.27	4.05	3.26	7.72	4.83	4.04	1.87
5600 MHz	4.91	3.56	3.23	3.49	7.92	4.92	3.91	2.06
5800 MHz	4.88	3.31	3.36	3.01	7.38	4.50	3.76	1.71

Note 2:

Ant. 1(Port 1), Ant. 2(Port 2), Ant. 3(Port 3) and Ant. 4(Port 4) can be used as transmitting/receiving antenna.
 Ant. 1(Port 1), Ant. 2(Port 2), Ant. 3(Port 3) and Ant. 4(Port 4) could transmit/receive simultaneously.



1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	1	0	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11g	0.985	0.066	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ac VHT20	0.984	0.07	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ac VHT40	0.948	0.232	929.375u	3k
802.11ac VHT20-BF	0.92	0.362	3.839m	300
802.11ac VHT40-BF	0.837	0.773	3.686m	300

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter		
Beamforming Function	<input checked="" type="checkbox"/>	With beamforming for for IEEE802.11ac in 2.4GHz/5GHz	<input type="checkbox"/> Without beamforming

1.2 Testing Applied 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
- ◆ FCC KDB 558074 D01 v04
- ◆ FCC KDB 662911 D01 v02r01
- ◆ FCC KDB 644545 D01 v01r02
- ◆ FCC KDB 412172 D01 v01r01

1.3 Testing Location Information

Testing Location		
<input type="checkbox"/>	HWA YA	ADD : No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL : 886-3-327-3456 FAX : 886-3-318-0055
<input checked="" type="checkbox"/>	JHUBEI	ADD : No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C. TEL : 886-3-656-9065 FAX : 886-3-656-9085

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Serway Li	26°C / 62%	Sep. 09, 2017~Oct. 12, 2017
Radiated	03CH01-CB	Mason Chen / Paul Chen Jay Luo / Justin Lin	25°C / 49%	Jul. 19, 2017~Sep. 21, 2017
AC Conduction	CO01-CB	Peter Wu	26°C / 61%	Sep. 25, 2017

Test site Designation No. TW0006 with FCC.

Test site registered number IC 4086D with Industry Canada.

1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.2 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.7 dB	Confidence levels of 95%
Output Power Measurement	1.33 dB	Confidence levels of 95%
Power Density Measurement	1.27 dB	Confidence levels of 95%
Bandwidth Measurement	9.74 x10 ⁻⁸	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
802.11b_Nss1,(1Mbps)_4TX	-
2412MHz	82
2437MHz	95
2462MHz	84
802.11g_Nss1,(6Mbps)_4TX	-
2412MHz	72
2437MHz	92
2462MHz	74
802.11ac VHT20_Nss1,(MCS0)_4TX	-
2412MHz	71
2437MHz	94
2462MHz	73
802.11ac VHT40_Nss1,(MCS0)_4TX	-
2422MHz	59
2437MHz	74
2452MHz	68
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-
2412MHz	69
2437MHz	91
2462MHz	68
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-
2422MHz	50
2437MHz	70
2452MHz	67

Note:

- ♦ VHT20/VHT40 covers HT20/HT40, due to same modulation. The power setting for 802.11n HT20 and HT40 are the same or lower than 802.11ac VHT20 and VHT40.
- ♦ There are two modes of EUT for 802.11ac in 2.4GHz/5GHz. One is beamforming mode, and the other is non-beamforming mode. Both modes have 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	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	CTX
1	CTX - 2.4GHz
2	CTX - 5GHz
For operating mode 2 is the worst case and it was record in this test report.	

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

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	CTX
1	CTX - 2.4GHz - in Z axis
2	CTX - 2.4GHz - in Y axis
Mode 2 has been evaluated to be the worst case among Mode 1~2, thus measurement for Mode 3 will follow this same test mode.	
3	CTX - 5GHz - in Y axis
For operating mode 2 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
The EUT was performed in Z axis and Y axis position. The worst case was found in Z axis, so it was selected to perform test and its test result was written in the report.	
1	CTX - EUT in Z axis



The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	Bluetooth + WLAN 2.4GHz
2	Bluetooth + WLAN 5GHz
Refer to Sporton Test Report No.: FA772025 for Co-location RF Exposure Evaluation.	

Note: The EUT was powered by Adapter, and the Adapter was for measurement only, would not be marked.
Adapter information as below:

Support Unit	Brand Name	Model Name
Adapter	DIRECTV	EPS10R4-08



2.3 EUT Operation during Test

For CTX Mode:

non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

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 ttermpro.
3. Executed "iperf" 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

N/A

2.5 Support Equipment

For Test Site No: CO01-CB

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E6430	DoC
2	Flash disk3.0	Transcend	JetFlash-700	DoC
3	Test Fixture	NA	NA	NA
4	Adapter	DIRECTV	EPS10R4-08	NA

For Test Site No: 03CH01-CB (below 1GHz)

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC
2	Test Fixture	NA	NA	NA
3	Adapter	DIRECTV	EPS10R4-08	NA

For Test Site No: 03CH01-CB (Above 1GHz)

For Non-Beamforming Mode

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC
2	Test Fixture	NA	NA	NA
3	Adapter	DIRECTV	EPS10R4-08	NA

For Test Site No: 03CH01-CB (above 1GHz)

For Beamforming Mode

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB*2	DELL	E4300	DoC
2	RX Device	ASUS	RT-AC88U	MSQ-RTGW00
3	Test Fixture	NA	NA	NA
4	Adapter	DIRECTV	EPS10R4-08	NA



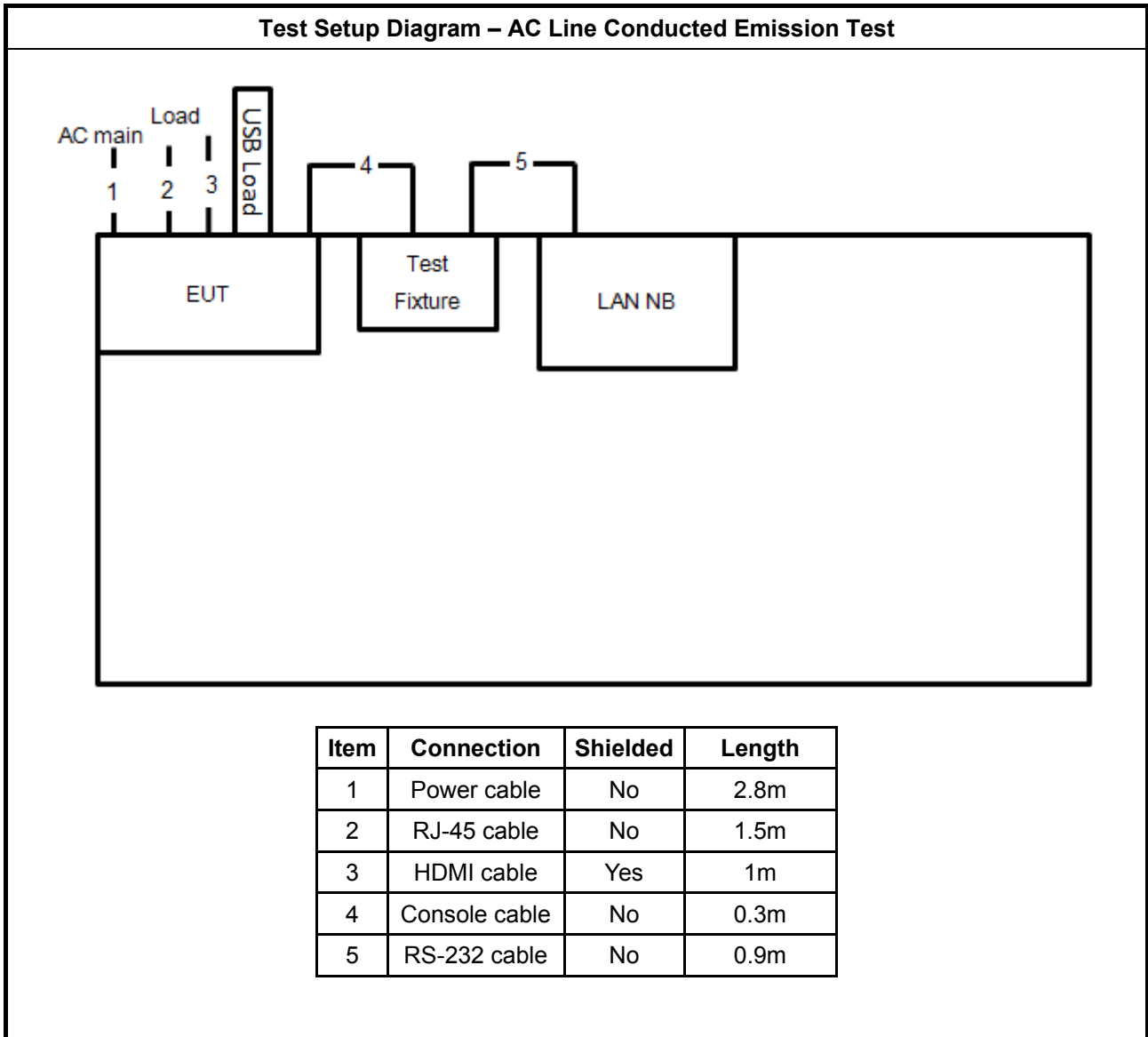
For Test Site No: TH01-CB
For Non-Beamforming Mode

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC
2	Test Fixture	NA	NA	NA
3	Adapter	DIRECTV	EPS10R4-08	NA

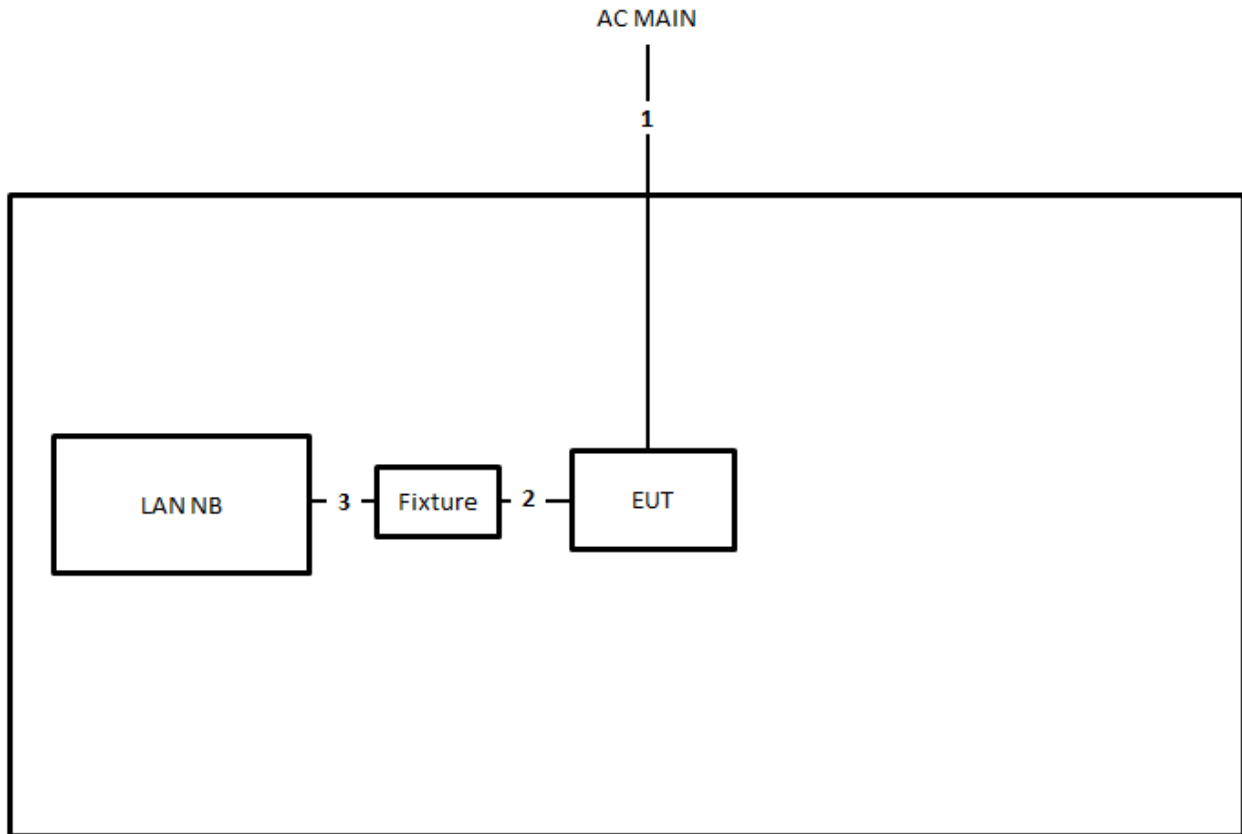
For Test Site No: TH01-CB
For Beamforming Mode

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC
2	RX Device	ASUS	PCE-AC88	MSQ-PCIE0U00
3	PC	DELL	T3400	DoC
4	Test Fixture	NA	NA	NA
5	Adapter	DIRECTV	EPS10R4-08	NA

2.6 Test Setup Diagram

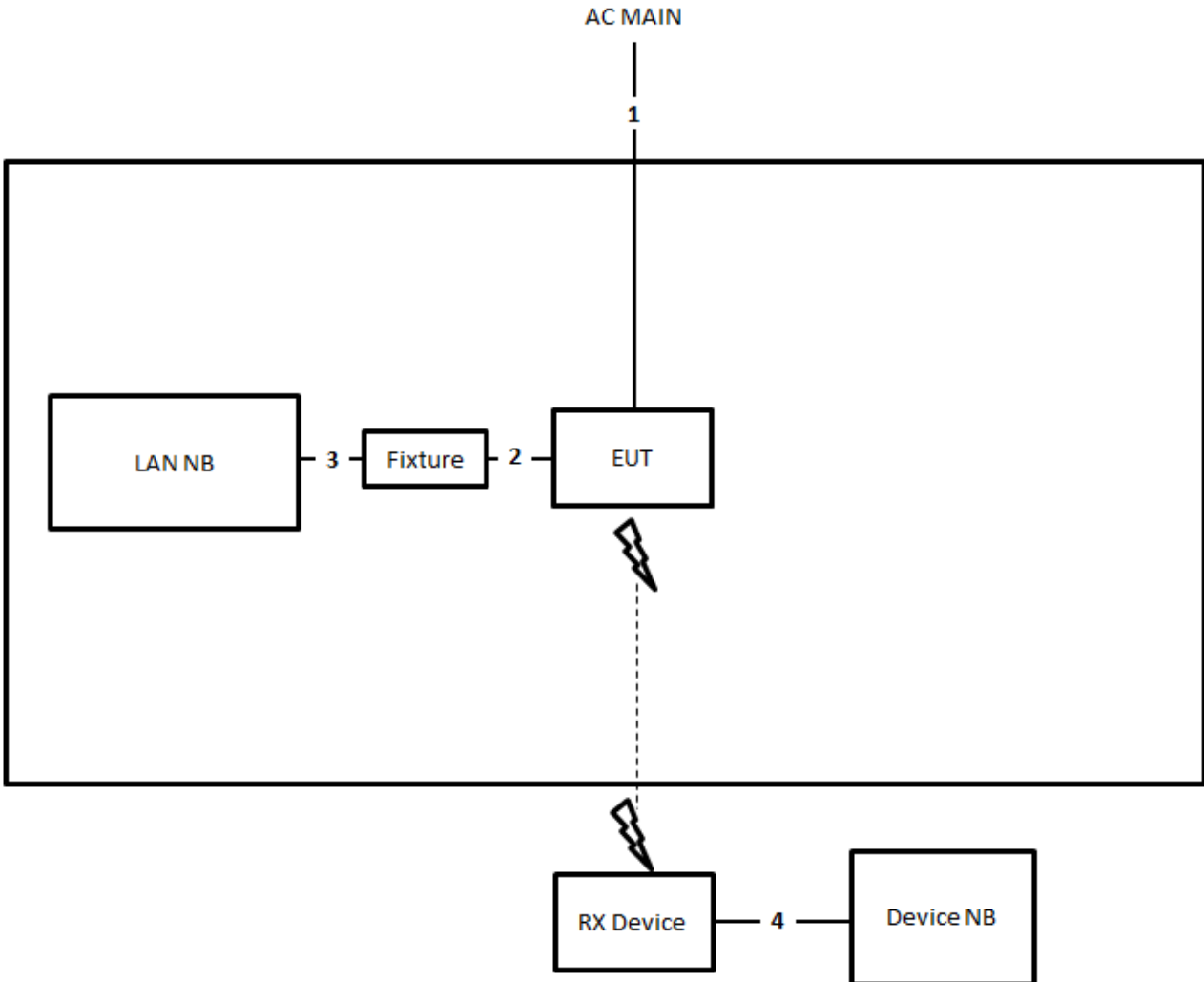


Test Setup Diagram - Radiated Test (1 GHz and Above 1GHz Non-beamforming Mode)



Item	Connection	Shielded	Length
1	Power cable	No	2.8m
2	Console cable	No	0.3m
3	RS-232 cable	No	1.8m

Test Setup Diagram - Radiated Test > 1GHz
(Beamforming Mode)



Item	Connection	Shielded	Length
1	Power cable	No	2.8m
2	Console cable	No	0.3m
3	RS-232 cable	No	1.8m
4	RJ-45 Cable	No	1.5m

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

Note 1: * Decreases with the logarithm of the frequency.

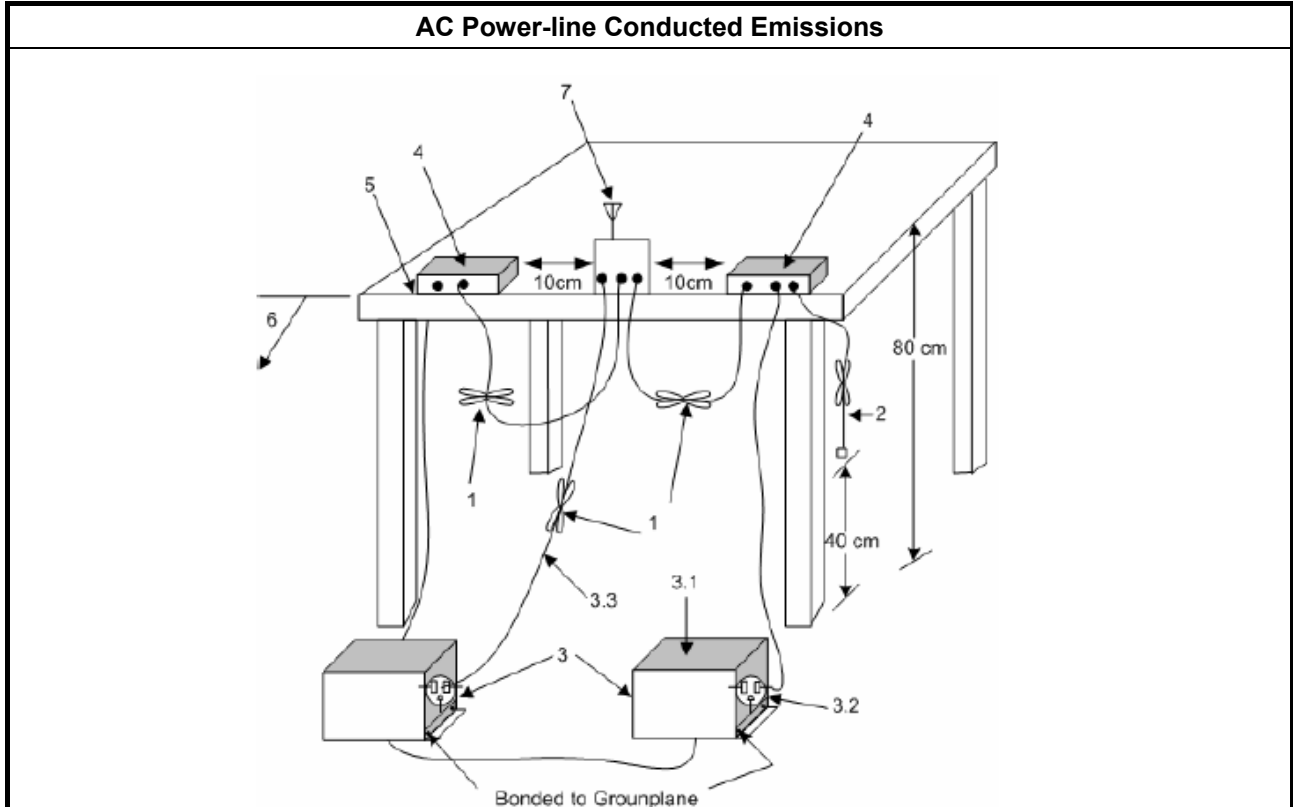
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

3.1.4 Test Setup





3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

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

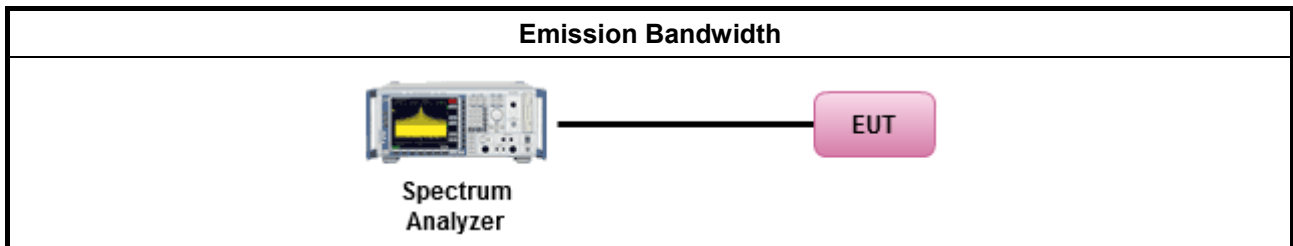
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method
<ul style="list-style-type: none"> ▪ For the emission bandwidth shall be measured using one of the options below:
<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.1 Option 1 for 6 dB bandwidth measurement.
<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.2 Option 2 for 6 dB bandwidth measurement.
<input type="checkbox"/> Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
	▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)
	▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm
	▪ Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	▪ Smart antenna system (SAS):
	- Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	- Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	- Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$ dB dBm
P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.	

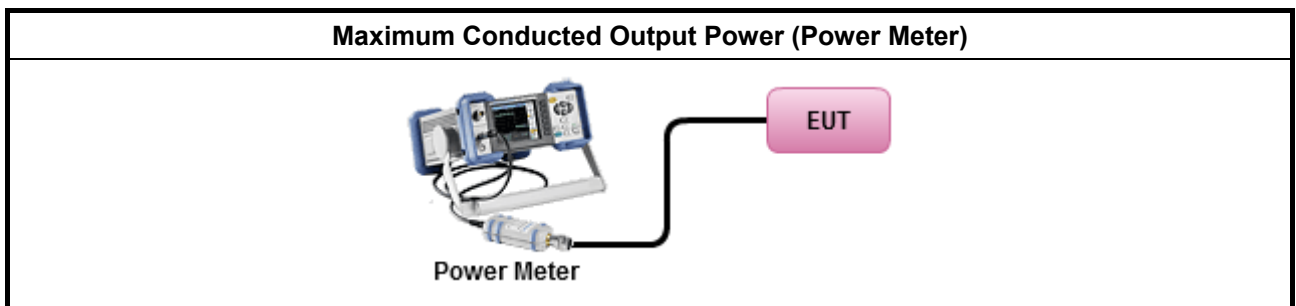
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> Maximum Peak Conducted Output Power 	
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 9.1.1 Option 1 (RBW ≥ EBW method).
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 9.1.2 Option 2 (peak power meter for VBW ≥ DTS BW)
<ul style="list-style-type: none"> Maximum Conducted Output Power 	
[duty cycle ≥ 98% or external video / power trigger]	
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 9.2.2.2 Method AVGSA-1 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 9.2.2.3 Method AVGSA-1 Alt. (slow sweep speed)
duty cycle < 98% and average over on/off periods with duty factor	
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 9.2.2.4 Method AVGSA-2 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 9.2.2.5 Method AVGSA-2 Alt. (slow sweep speed)
RF power meter and average over on/off periods with duty factor or gated trigger	
<input checked="" type="checkbox"/>	Refer as FCC KDB 558074, clause 9.2.3 Method AVGPM-G (using an RF average power meter).
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 9.1.2 PKPM1 Peak power meter method.
<ul style="list-style-type: none"> For conducted measurement. 	
<ul style="list-style-type: none"> If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them. 	
<ul style="list-style-type: none"> If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$ 	

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

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

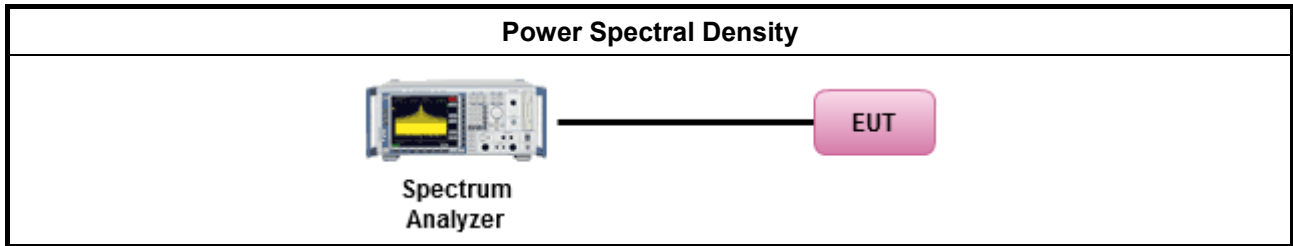
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method
<ul style="list-style-type: none"> ▪ Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).
<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 10.2 Method PKPSD (RBW=3-100kHz; Detector=peak). [duty cycle \geq 98% or external video / power trigger]
<input type="checkbox"/> Refer as FCC KDB 558074, clause 10.3 Method AVGPSD-1 (spectral trace averaging).
<input type="checkbox"/> Refer as FCC KDB 558074, clause 10.4 Method AVGPSD-2 (slow sweep speed) duty cycle < 98% and average over on/off periods with duty factor
<input type="checkbox"/> Refer as FCC KDB 558074, clause 10.5 Method AVGPSD-1 Alt (spectral trace averaging).
<input type="checkbox"/> Refer as FCC KDB 558074, clause 10.6 Method AVGPSD-2 Alt. (slow sweep speed)
<ul style="list-style-type: none"> ▪ For conducted measurement.
<ul style="list-style-type: none"> ▪ If The EUT supports multiple transmit chains using options given below: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace. <input type="checkbox"/> Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits, <input type="checkbox"/> Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.

3.4.4 Test Setup



3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

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

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

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

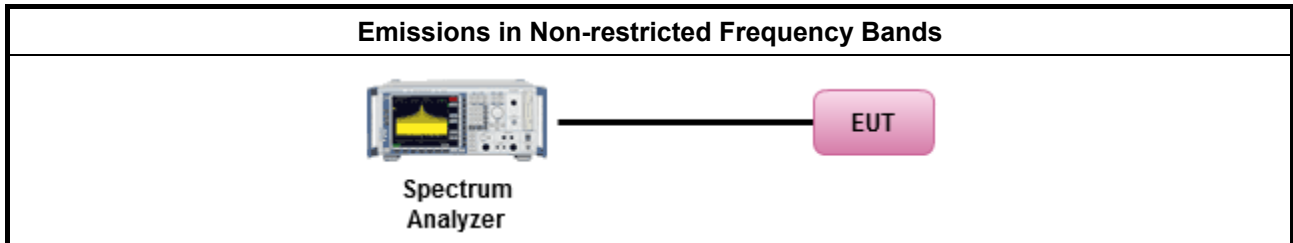
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method
<ul style="list-style-type: none"> Refer as FCC KDB 558074, clause 11 for unwanted emissions into non-restricted bands.

3.5.4 Test Setup



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

Restricted Band Emissions Limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

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

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

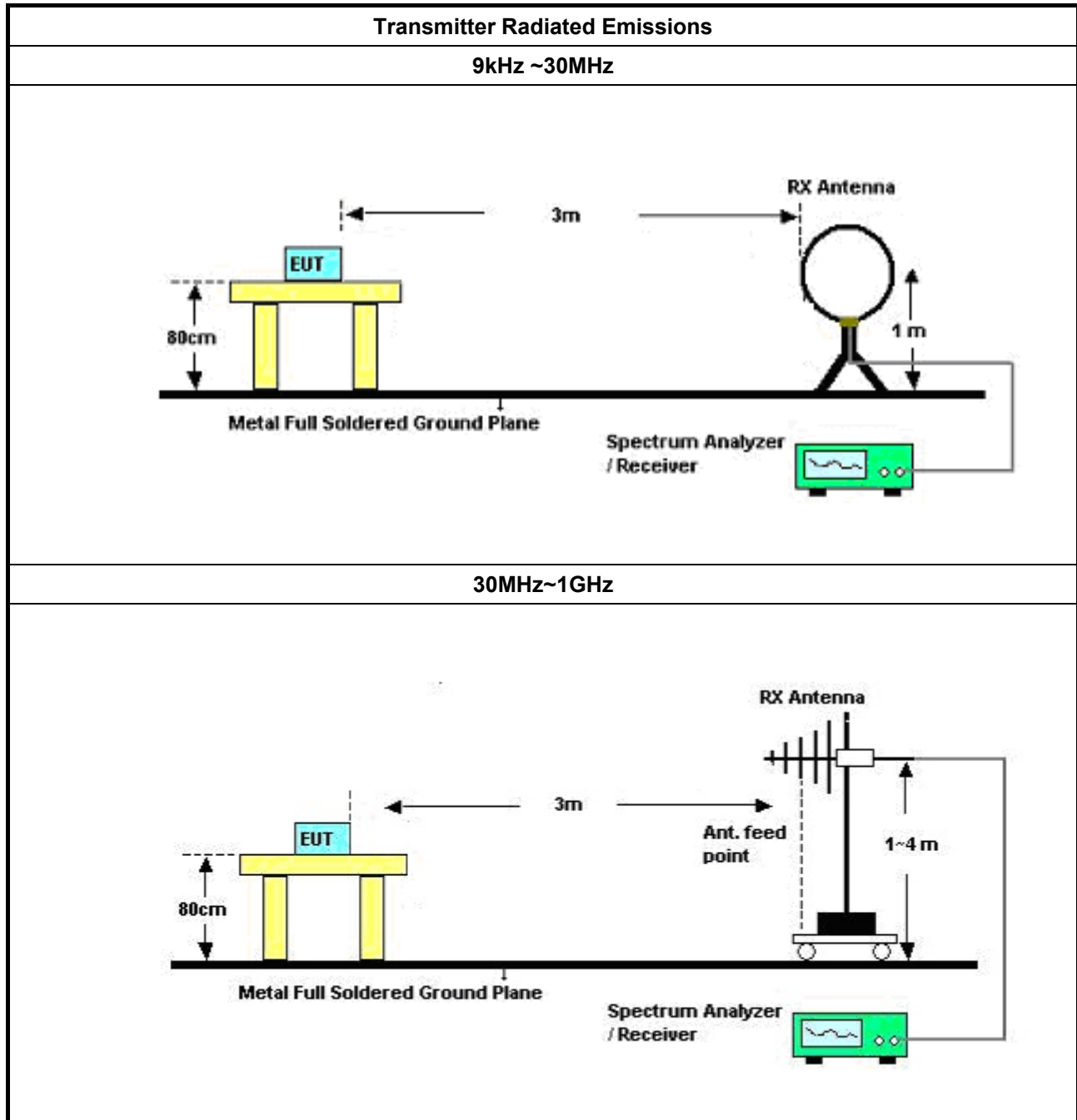
3.6.2 Measuring Instruments

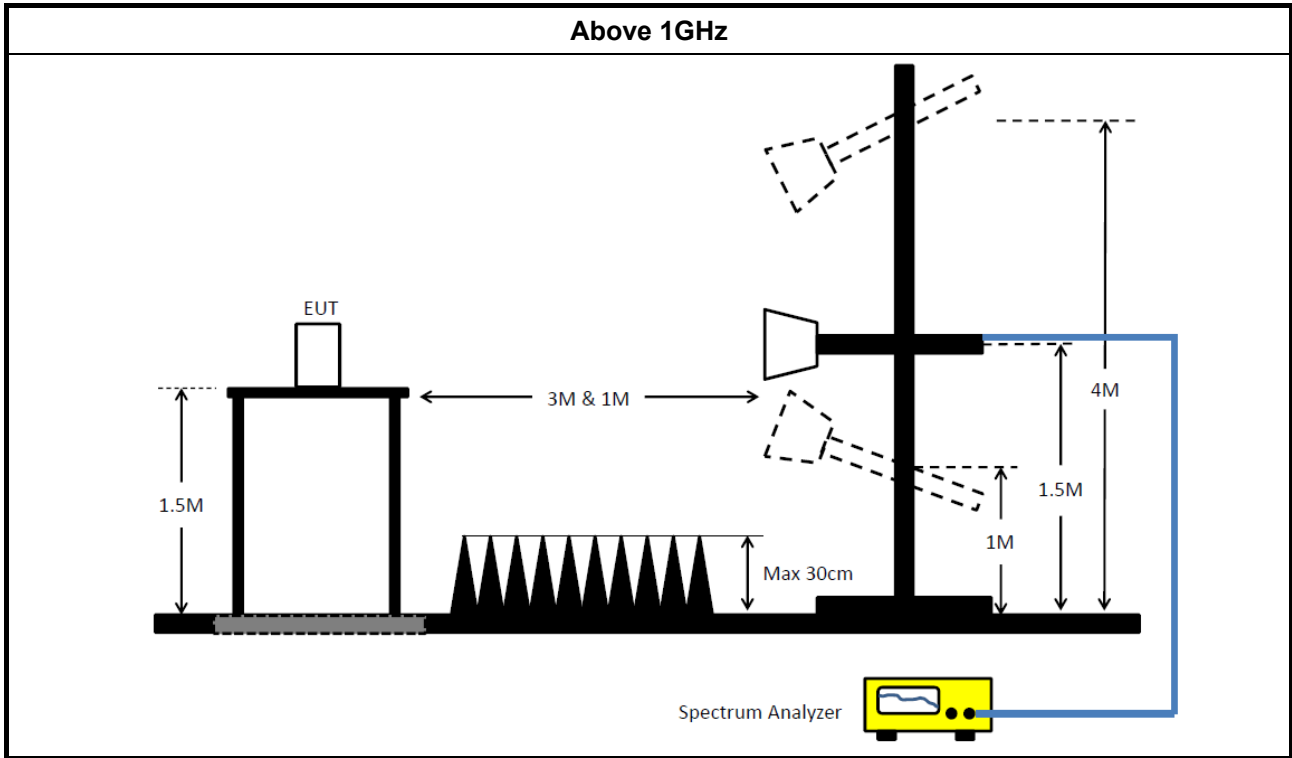
Refer a test equipment and calibration data table in this test report.

3.6.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ The average emission levels shall be measured in [duty cycle \geq 98 or duty factor]. 	
<ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 6.9.2.2 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band. 	
<ul style="list-style-type: none"> ▪ For the transmitter unwanted emissions shall be measured using following options below: 	
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 558074, clause 12 for unwanted emissions into restricted bands.
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 12.2.5.1 Option 1 (trace averaging for duty cycle \geq 98%)
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 12.2.5.2 Option 2 (trace averaging + duty factor).
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 12.2.5.3 Option 3 (Reduced VBW \geq 1/T).
	<input type="checkbox"/> Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW \geq 1/T, where T is pulse time.
	<input type="checkbox"/> Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions.
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 12.2.4 measurement procedure peak limit.
<ul style="list-style-type: none"> ▪ For the transmitter band-edge emissions shall be measured using following options below: 	
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 558074 clause 13.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 558074, clause 13.2 (ANSI C63.10, clause 6.9.3) for marker-delta method for band-edge measurements.
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 558074, clause 13.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).
<ul style="list-style-type: none"> ▪ For conducted and cabinet radiation measurement, refer as FCC KDB 558074, clause 12.2.2. 	
	<ul style="list-style-type: none"> ▪ For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB
	<ul style="list-style-type: none"> ▪ For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.

3.6.4 Test Setup





3.6.5 Transmitter Radiated Unwanted Emissions (Below 30MHz)

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

3.6.6 Test Result of Transmitter Radiated Unwanted Emissions

Refer as Appendix F



4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Jan. 23, 2017	Jan. 22, 2018	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-5 0-16-2	04083	150kHz ~ 100MHz	Dec. 14, 2016	Dec. 13, 2017	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Dec. 21, 2016	Dec. 20, 2017	Conduction (CO01-CB)
COND Cable	Woken	Cable	01	150kHz ~ 30MHz	May 23, 2017	May 22, 2018	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2016*	Mar. 15, 2018*	Radiation (03CH01-CB)
BILOG ANTENNA with 6dB Attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37880 & AT-N0609	20MHz ~ 2GHz	Aug. 30, 2016	Aug. 29, 2017	Radiation (03CH01-CB)
BILOG ANTENNA with 6dB Attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37880 & AT-N0609	20MHz ~ 2GHz	Aug. 30, 2017	Aug. 29, 2018	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Nov. 10, 2016	Nov. 09, 2017	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 05, 2017	Jul. 04, 2018	Radiation (03CH01-CB)
Pre-Amplifier	EMCI	EMC330N	980332	20MHz ~ 3GHz	May 02, 2017	May 01, 2018	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 16, 2017	Jan. 15, 2018	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 22, 2016	Nov. 21, 2017	Radiation (03CH01-CB)
EMI Test	R&S	ESCS	100355	9kHz ~ 2.75GHz	May 06, 2017	May 05, 2018	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-16+17	N/A	30 MHz ~ 1 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#1	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
Test Software	Audix	E3	6.2009-10-7	N/A	N/A	N/A	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 26, 2016	Dec. 25, 2017	Conducted (TH01-CB)



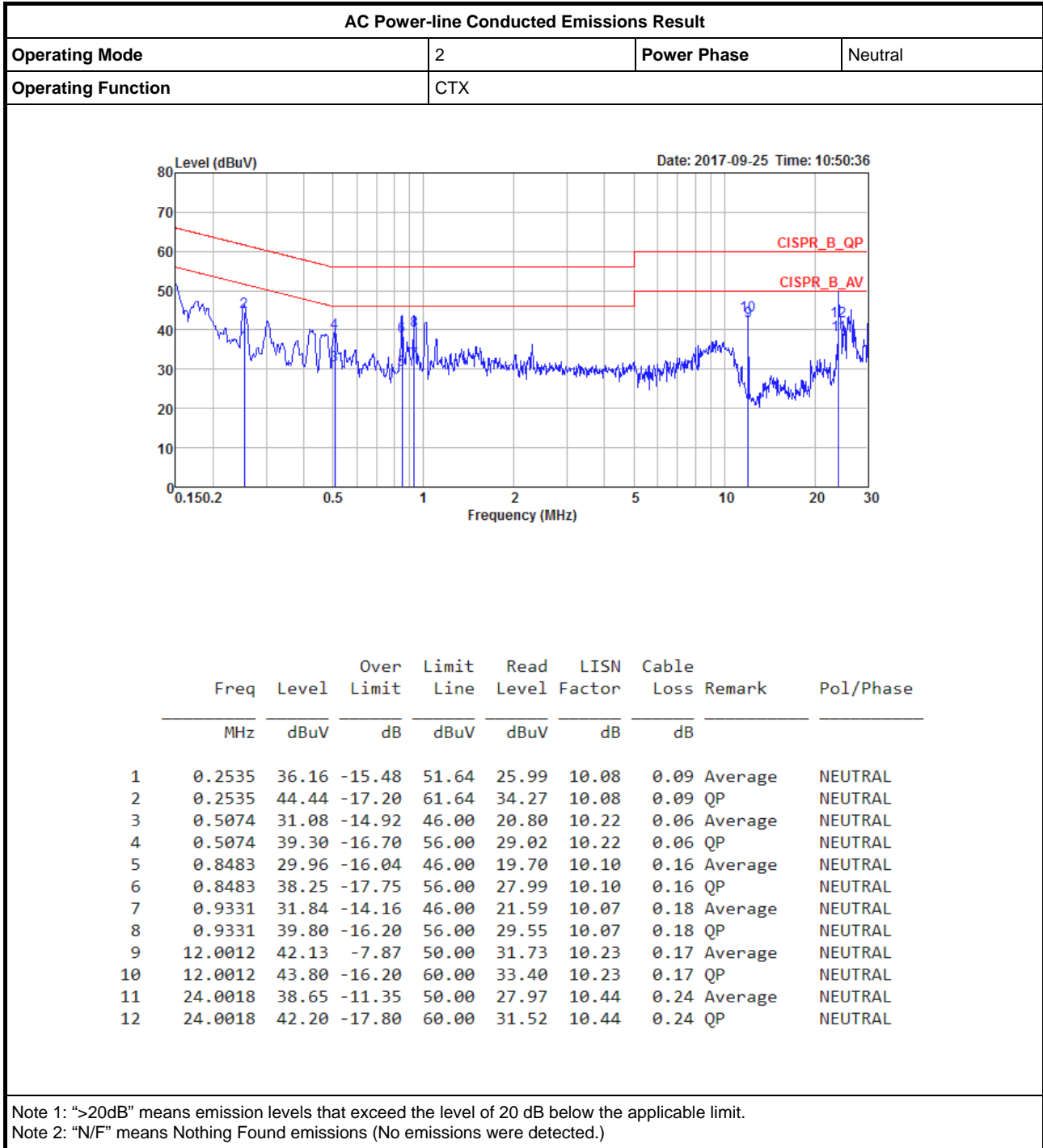
Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-6	1 GHz – 26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-7	1 GHz –26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-8	1 GHz –26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-9	1 GHz –26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 22, 2016	Nov. 21, 2017	Conducted (TH01-CB)

Note: Calibration Interval of instruments listed above is one year.
“*” Calibration Interval of instruments listed above is two years.
N.C.R. means Non-Calibration required.



AC Power-line Conducted Emissions Result

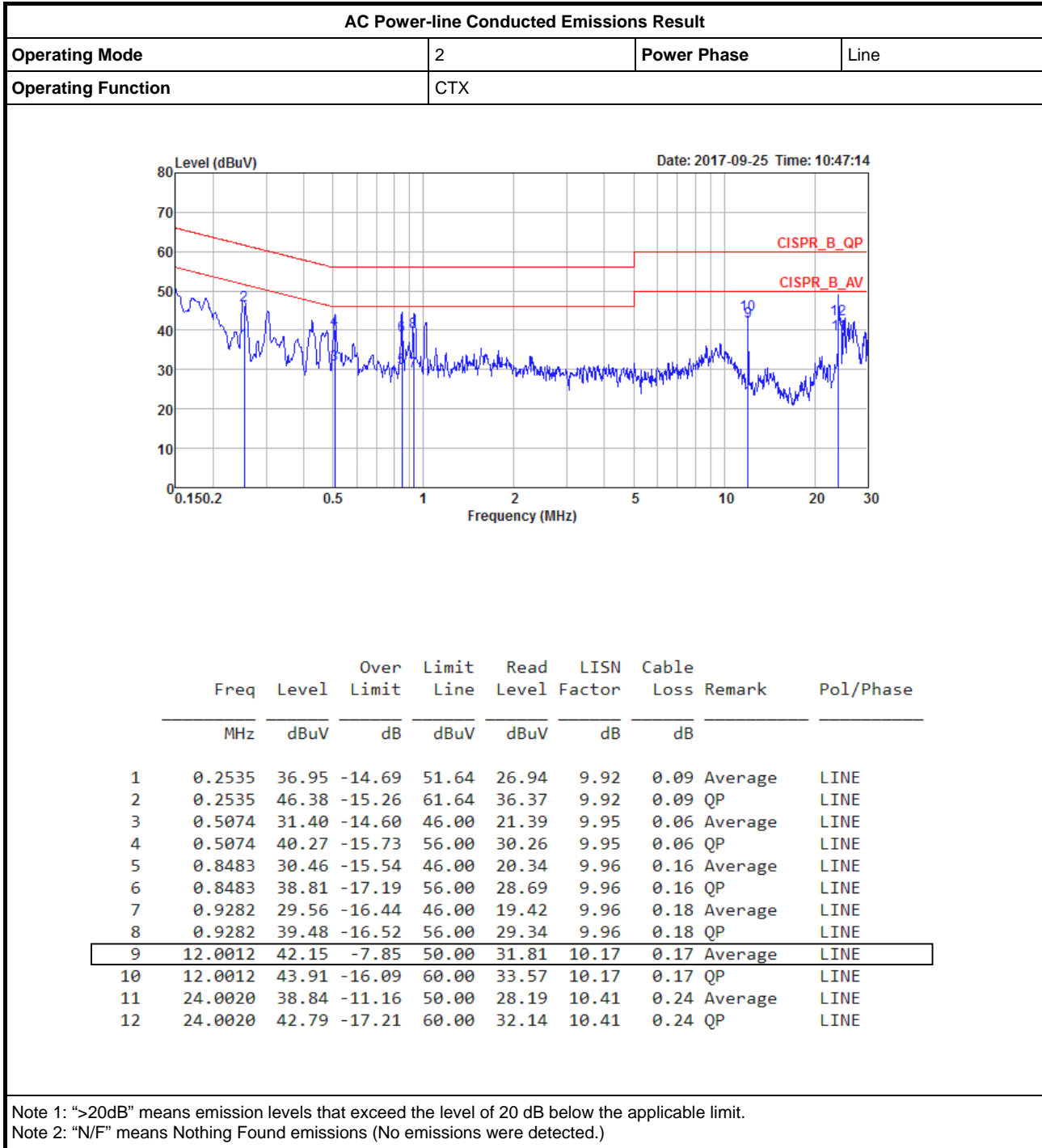
Appendix A





AC Power-line Conducted Emissions Result

Appendix A





Summary

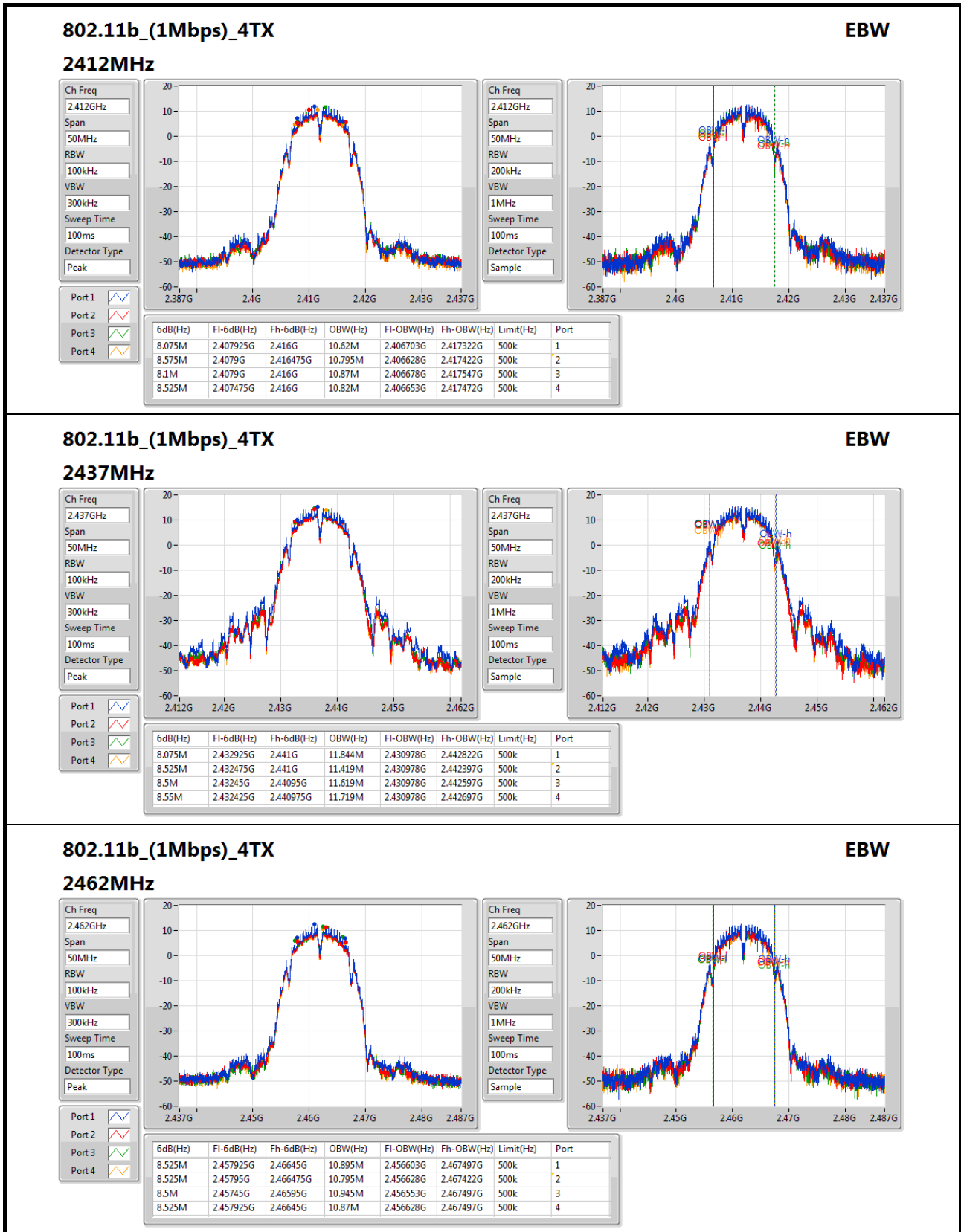
Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_4TX	8.575M	11.844M	11M8G1D	8.075M	10.62M
802.11g_Nss1,(6Mbps)_4TX	16.375M	16.667M	16M7D1D	16.3M	16.517M
802.11ac VHT20_Nss1,(MCSO)_4TX	17.575M	17.966M	18M0D1D	16.525M	17.691M
802.11ac VHT40_Nss1,(MCSO)_4TX	36.3M	36.232M	36M2D1D	33.8M	35.932M
802.11ac VHT20-BF_Nss1,(MCSO)_4TX	17.575M	17.866M	17M9D1D	16.05M	17.291M
802.11ac VHT40-BF_Nss1,(MCSO)_4TX	36.45M	36.482M	36M5D1D	32.3M	35.182M

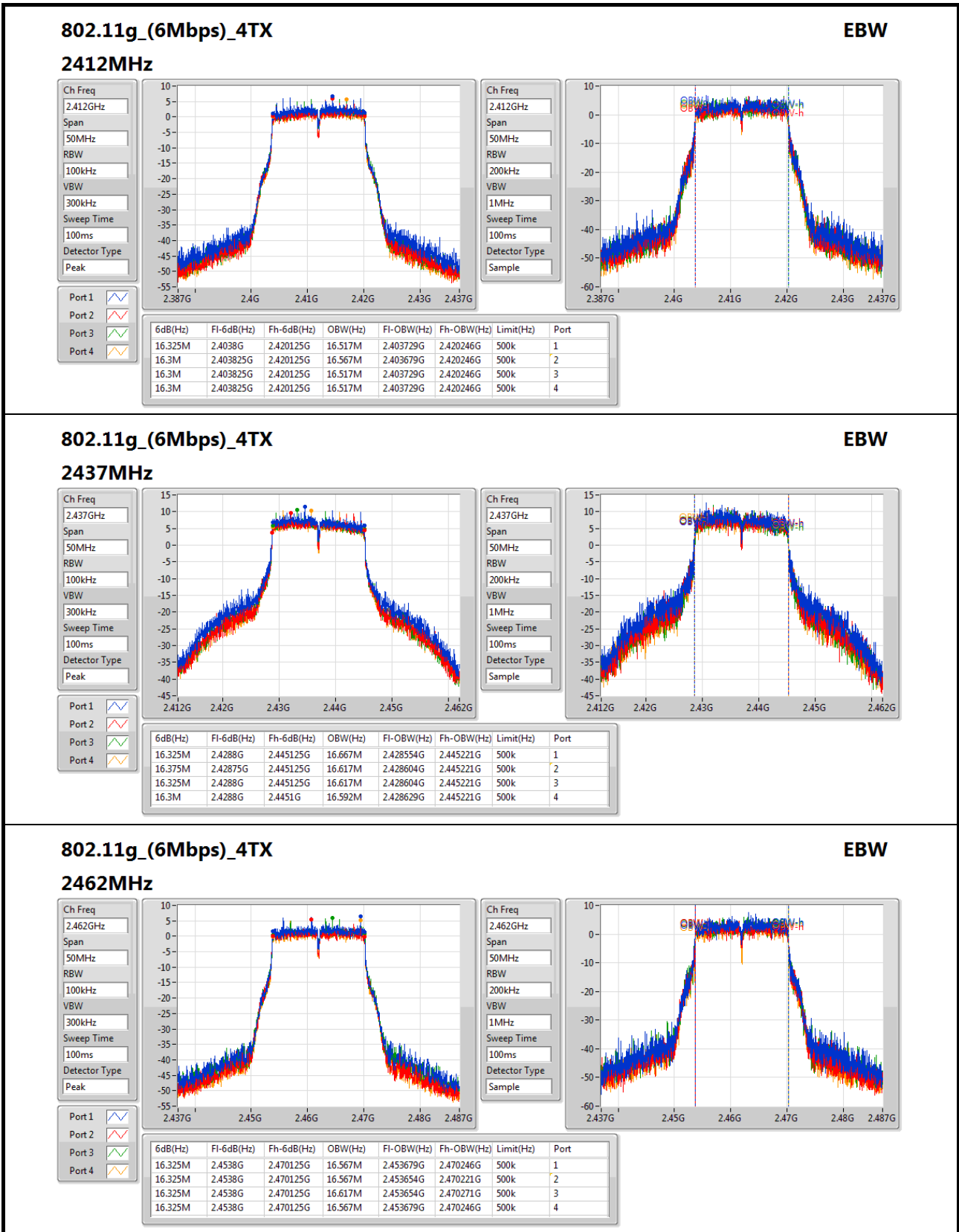
Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

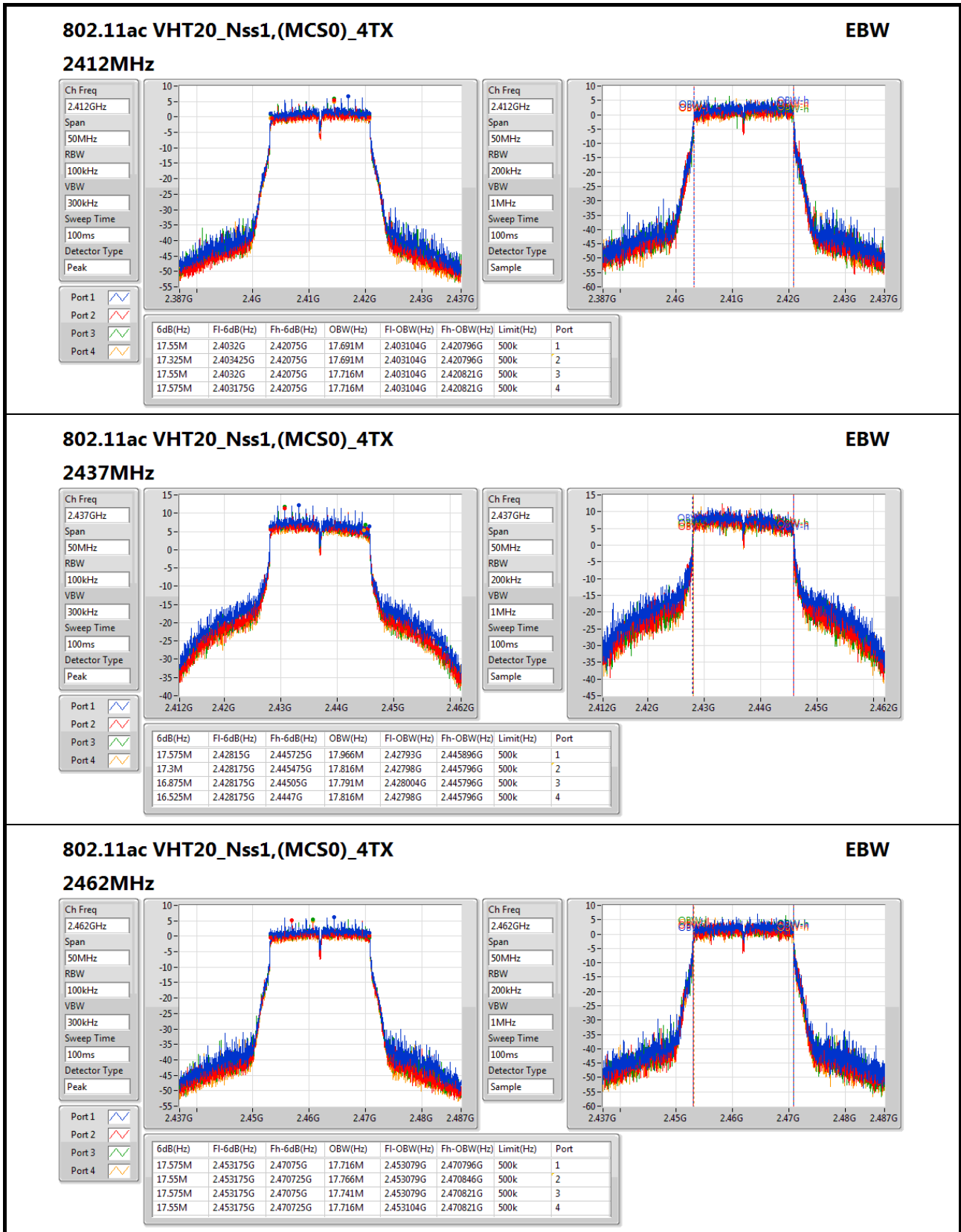
Result

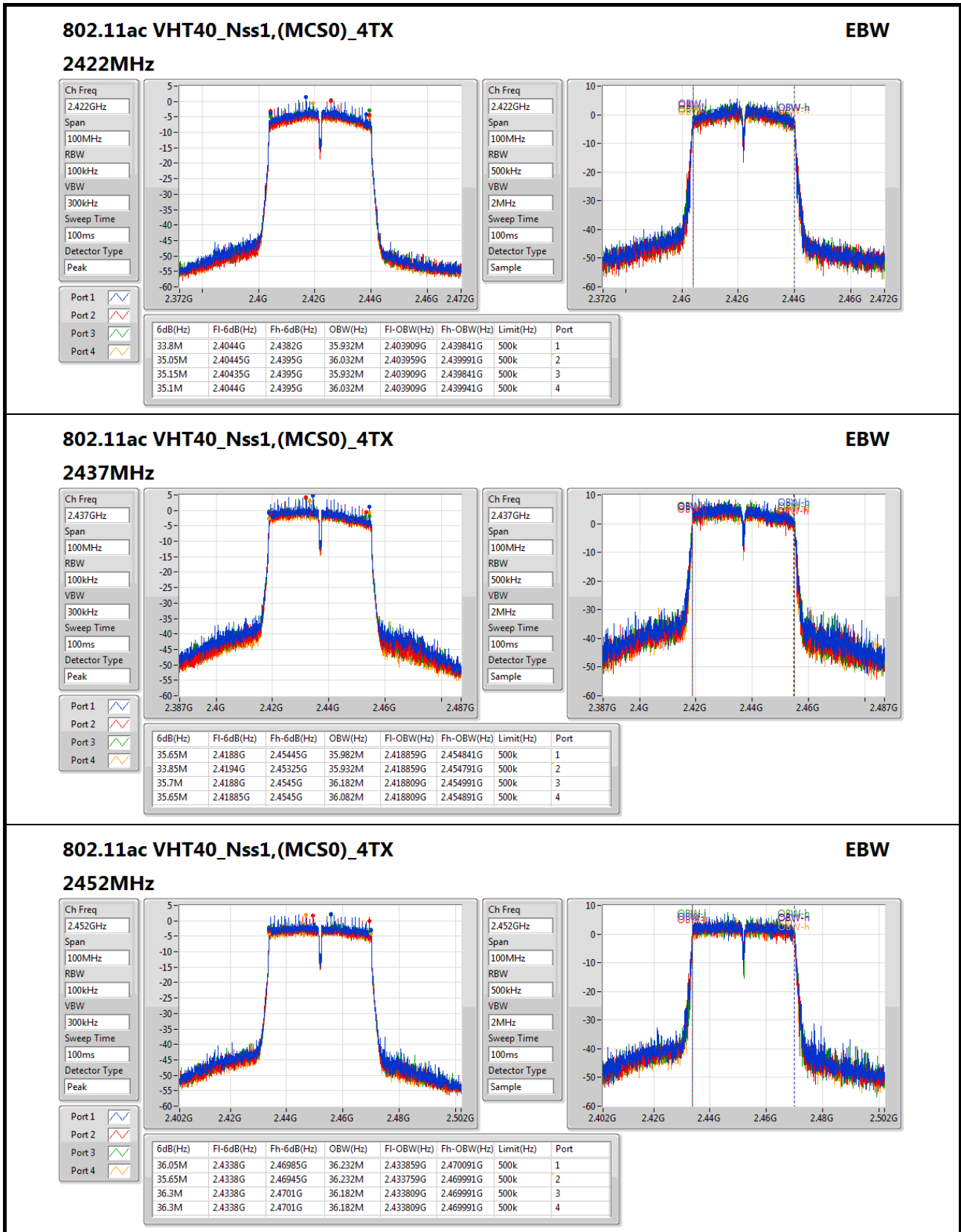
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11b_Nss1,(1Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	8.075M	10.62M	8.575M	10.795M	8.1M	10.87M	8.525M	10.82M
2437MHz	Pass	500k	8.075M	11.844M	8.525M	11.419M	8.5M	11.619M	8.55M	11.719M
2462MHz	Pass	500k	8.525M	10.895M	8.525M	10.795M	8.5M	10.945M	8.525M	10.87M
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	16.325M	16.517M	16.3M	16.567M	16.3M	16.517M	16.3M	16.517M
2437MHz	Pass	500k	16.325M	16.667M	16.375M	16.617M	16.325M	16.617M	16.3M	16.592M
2462MHz	Pass	500k	16.325M	16.567M	16.325M	16.567M	16.325M	16.617M	16.325M	16.567M
802.11ac VHT20_Nss1,(MCSO)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	17.55M	17.691M	17.325M	17.691M	17.55M	17.716M	17.575M	17.716M
2437MHz	Pass	500k	17.575M	17.966M	17.3M	17.816M	16.875M	17.791M	16.525M	17.816M
2462MHz	Pass	500k	17.575M	17.716M	17.55M	17.766M	17.575M	17.741M	17.55M	17.716M
802.11ac VHT40_Nss1,(MCSO)_4TX	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	33.8M	35.932M	35.05M	36.032M	35.15M	35.932M	35.1M	36.032M
2437MHz	Pass	500k	35.65M	35.982M	33.85M	35.932M	35.7M	36.182M	35.65M	36.082M
2452MHz	Pass	500k	36.05M	36.232M	35.65M	36.232M	36.3M	36.182M	36.3M	36.182M
802.11ac VHT20-BF_Nss1,(MCSO)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	17.55M	17.716M	16.325M	17.666M	16.7M	17.441M	17.425M	17.816M
2437MHz	Pass	500k	17.325M	17.866M	16.25M	17.866M	16.875M	17.741M	17.275M	17.866M
2462MHz	Pass	500k	17.55M	17.691M	16.975M	17.616M	16.05M	17.291M	17.575M	17.791M
802.11ac VHT40-BF_Nss1,(MCSO)_4TX	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	35.35M	35.932M	32.3M	35.682M	36.45M	36.482M	33.45M	35.582M
2437MHz	Pass	500k	35.25M	36.082M	34.45M	35.932M	35.7M	35.282M	34.1M	36.032M
2452MHz	Pass	500k	34.4M	36.132M	36.05M	36.382M	35.65M	35.182M	34.85M	36.082M

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





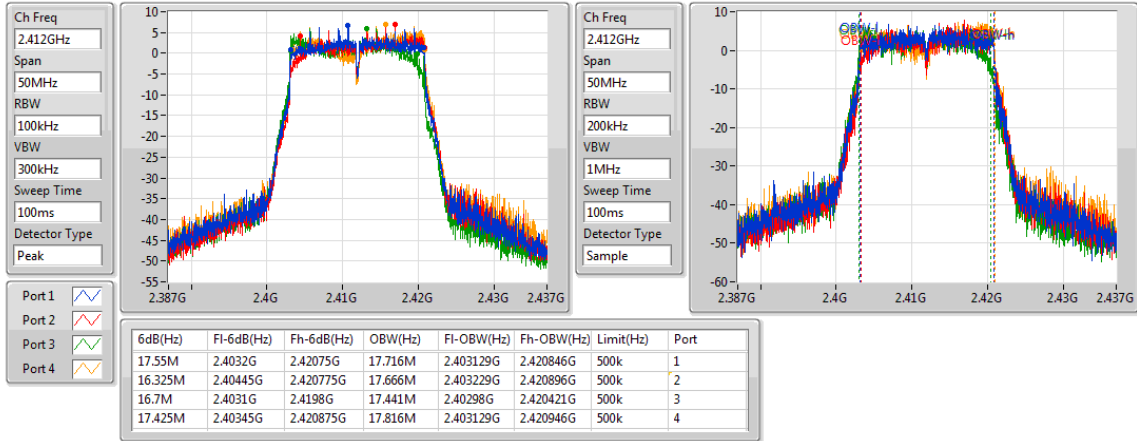




802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

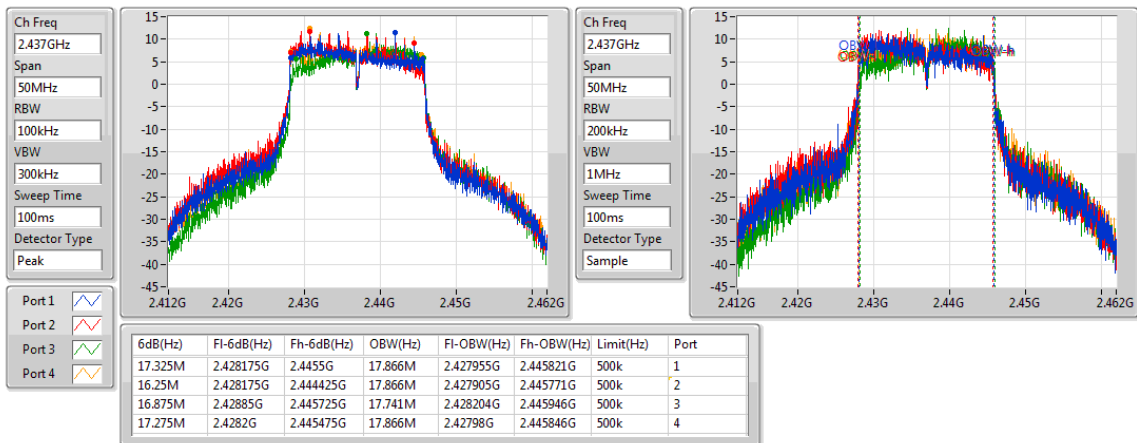
2412MHz



802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

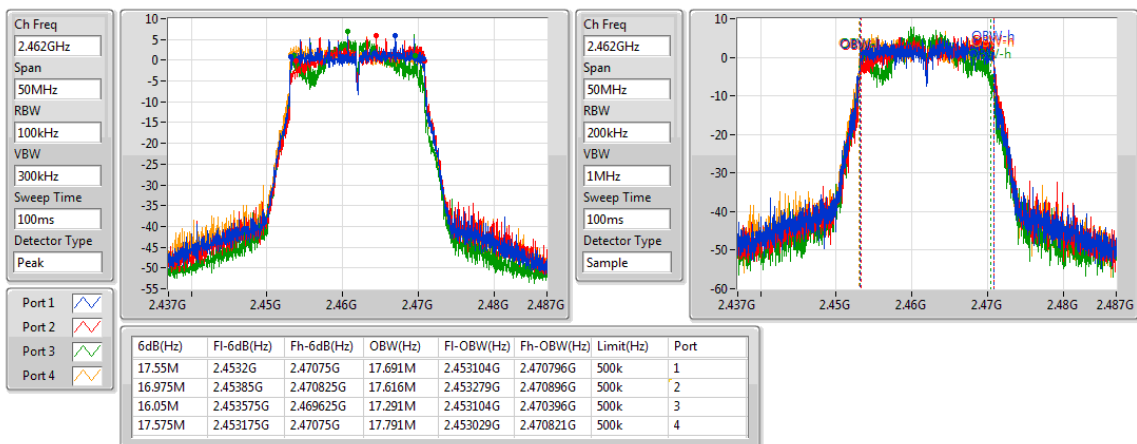
2437MHz

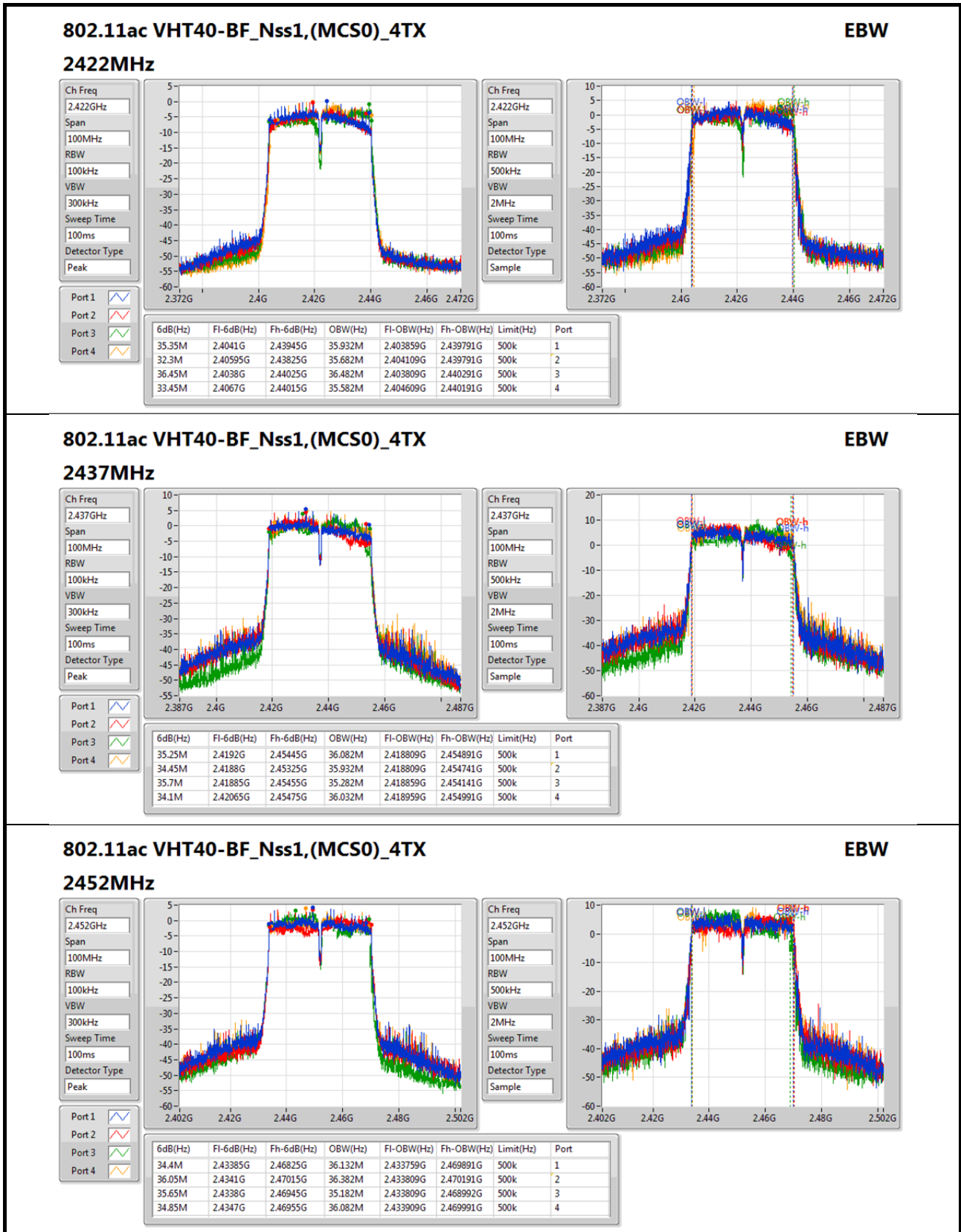


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

2462MHz







Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_4TX	29.80	0.95499
802.11g_Nss1,(6Mbps)_4TX	28.87	0.77090
802.11ac VHT20_Nss1,(MCS0)_4TX	29.18	0.82794
802.11ac VHT40_Nss1,(MCS0)_4TX	24.19	0.26242
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	28.73	0.74645
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	24.25	0.26607

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	4.19	21.23	20.34	20.86	20.02	26.66	30.00
2437MHz	Pass	3.78	24.27	23.52	23.84	23.43	29.80	30.00
2462MHz	Pass	3.75	21.38	20.31	20.82	20.16	26.71	30.00
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	4.19	18.65	17.76	17.91	17.42	23.98	30.00
2437MHz	Pass	3.78	23.34	22.75	22.71	22.54	28.87	30.00
2462MHz	Pass	3.75	18.68	17.78	18.05	17.72	24.10	30.00
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	4.19	18.27	17.46	17.79	17.32	23.75	30.00
2437MHz	Pass	3.78	23.73	23.04	23.01	22.78	29.18	30.00
2462MHz	Pass	3.75	18.26	17.5	17.83	17.45	23.79	30.00
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2422MHz	Pass	4.19	15.11	14.58	14.65	14.36	20.70	30.00
2437MHz	Pass	3.78	18.66	18.05	18.12	17.78	24.19	30.00
2452MHz	Pass	3.75	17.09	16.52	16.73	16.29	22.69	30.00
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	6.75	18.07	17.72	17.51	18.02	23.86	29.25
2437MHz	Pass	7.04	22.73	23.02	22.38	22.67	28.73	28.96
2462MHz	Pass	7.11	17.18	17.04	16.94	17.27	23.13	28.89
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2422MHz	Pass	6.75	13.97	13.82	13.05	13.78	19.69	29.25
2437MHz	Pass	7.04	18.25	18.39	17.72	18.53	24.25	28.96
2452MHz	Pass	7.11	17.65	17.43	17.26	17.91	23.59	28.89

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



Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_4TX	4.64
802.11g_Nss1,(6Mbps)_4TX	2.83
802.11ac VHT20_Nss1,(MCS0)_4TX	2.43
802.11ac VHT40_Nss1,(MCS0)_4TX	-6.31
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	2.47
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-5.04

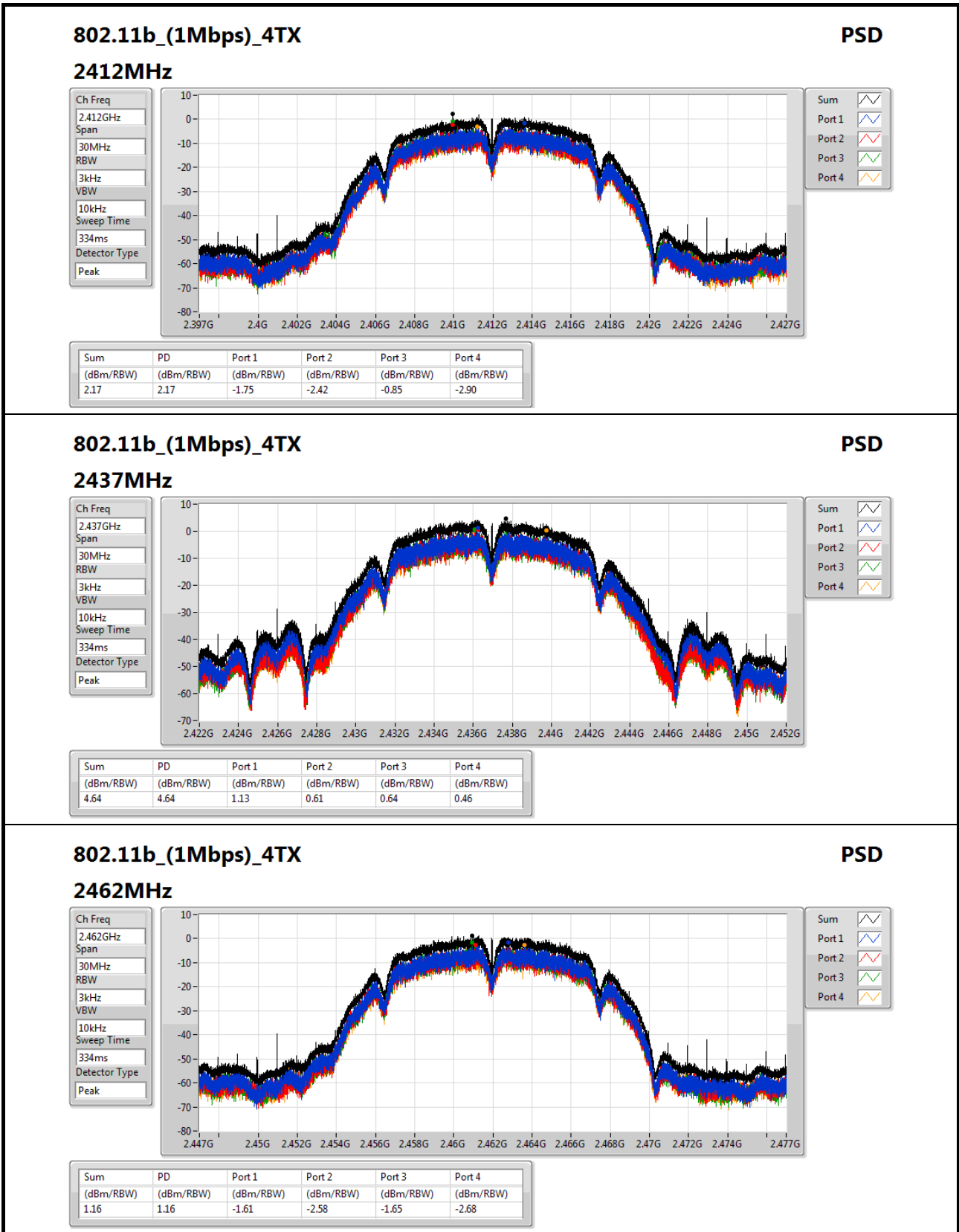
RBW=3kHz.

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	6.75	-1.75	-2.42	-0.85	-2.9	2.17	7.25
2437MHz	Pass	7.04	1.13	0.61	0.64	0.46	4.64	6.96
2462MHz	Pass	7.11	-1.61	-2.58	-1.65	-2.68	1.16	6.89
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	6.75	-5.34	-8.07	-7.66	-9.07	-2.78	7.25
2437MHz	Pass	7.04	-0.47	-2.58	-3.16	-3.43	2.83	6.96
2462MHz	Pass	7.11	-5.85	-8.4	-7.33	-8.32	-2.78	6.89
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	6.75	-6.47	-9.34	-7	-10.03	-3.86	7.25
2437MHz	Pass	7.04	-0.02	-1.96	-2.52	-2.69	2.43	6.96
2462MHz	Pass	7.11	-5.11	-8.72	-7.02	-9.12	-3.15	6.89
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2422MHz	Pass	6.75	-13.44	-13.33	-13.92	-14.79	-9.59	7.25
2437MHz	Pass	7.04	-10.54	-9.43	-9.83	-9.27	-6.31	6.96
2452MHz	Pass	7.11	-11.77	-11.94	-11.86	-11.47	-7.96	6.89
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	6.75	-6.98	-6.69	-7.09	-5.14	-2.90	7.25
2437MHz	Pass	7.04	-1.94	-1.03	-0.87	-1.81	2.47	6.96
2462MHz	Pass	7.11	-8.22	-7.67	-7.23	-7.67	-3.13	6.89
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2422MHz	Pass	6.75	-14.01	-13.05	-12.93	-11.77	-9.21	7.25
2437MHz	Pass	7.04	-9.37	-8.06	-7.91	-9.39	-5.04	6.96
2452MHz	Pass	7.11	-10.64	-10.07	-8.38	-10.11	-5.75	6.89

DG = Directional Gain; RBW=3kHz;

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


802.11b_(1Mbps)_4TX
PSD
2462MHz

Ch Freq
2.462GHz

Span
30MHz

RBW
3kHz

VBW
10kHz

Sweep Time
334ms

Detector Type
Peak

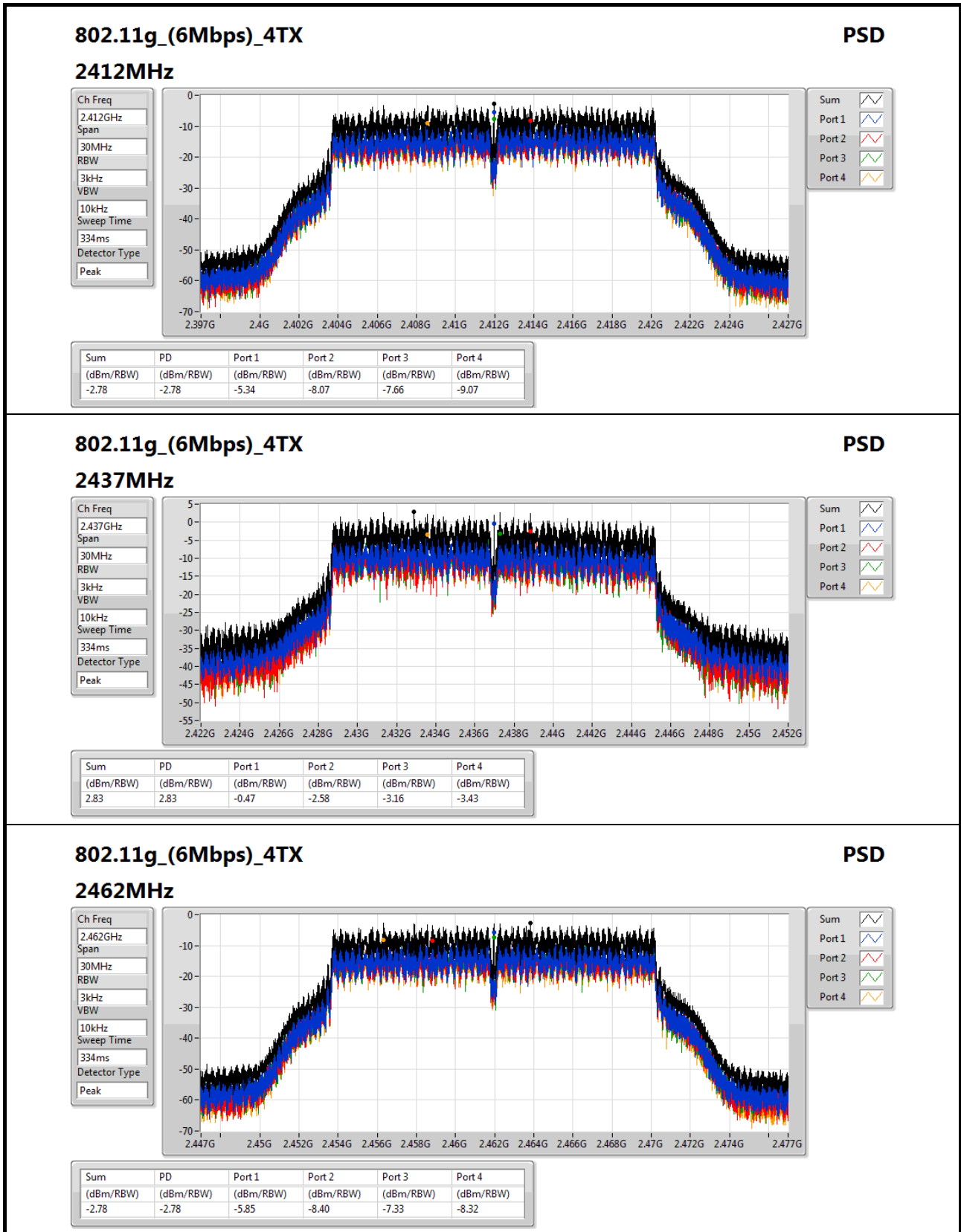
Sum

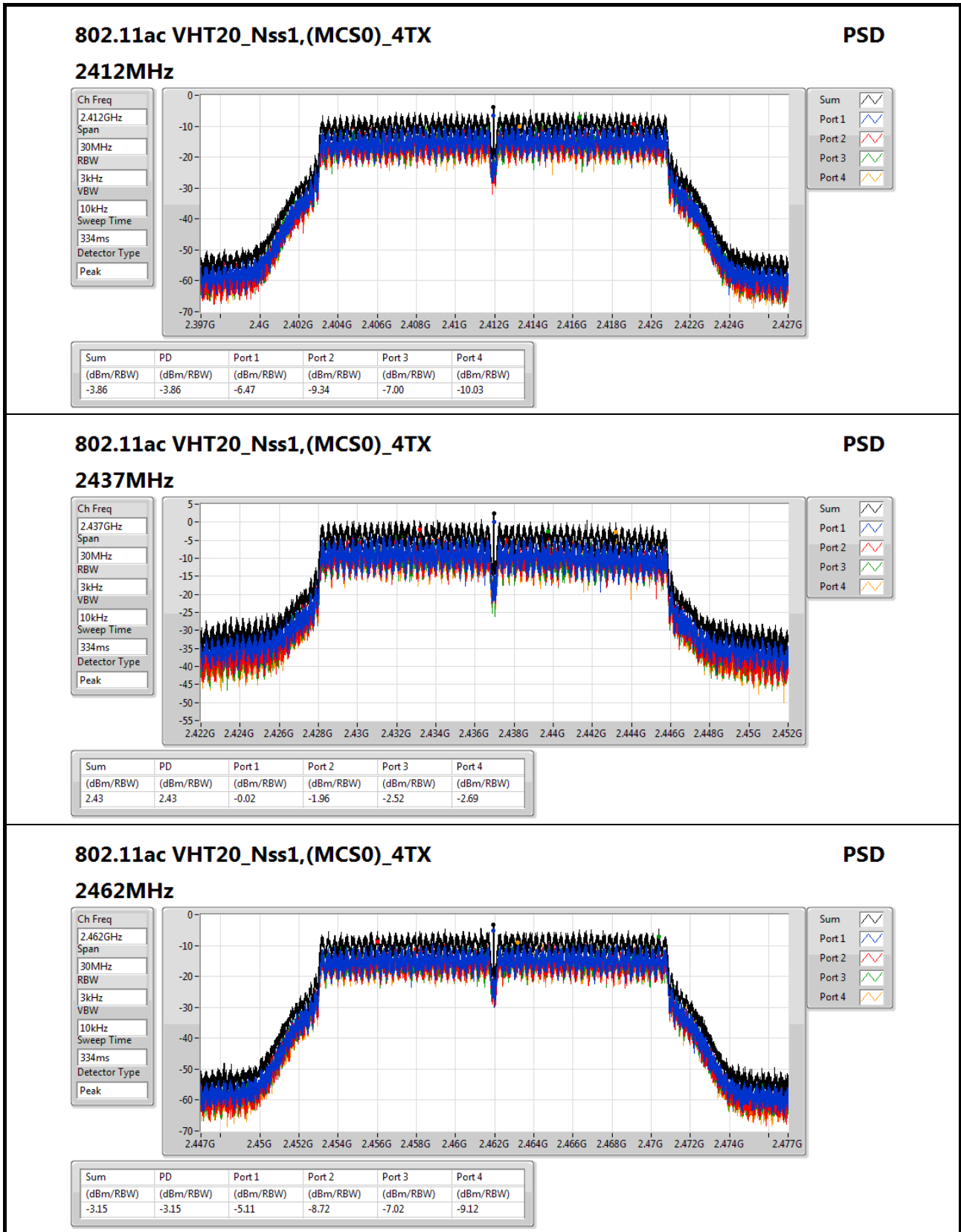
Port 1

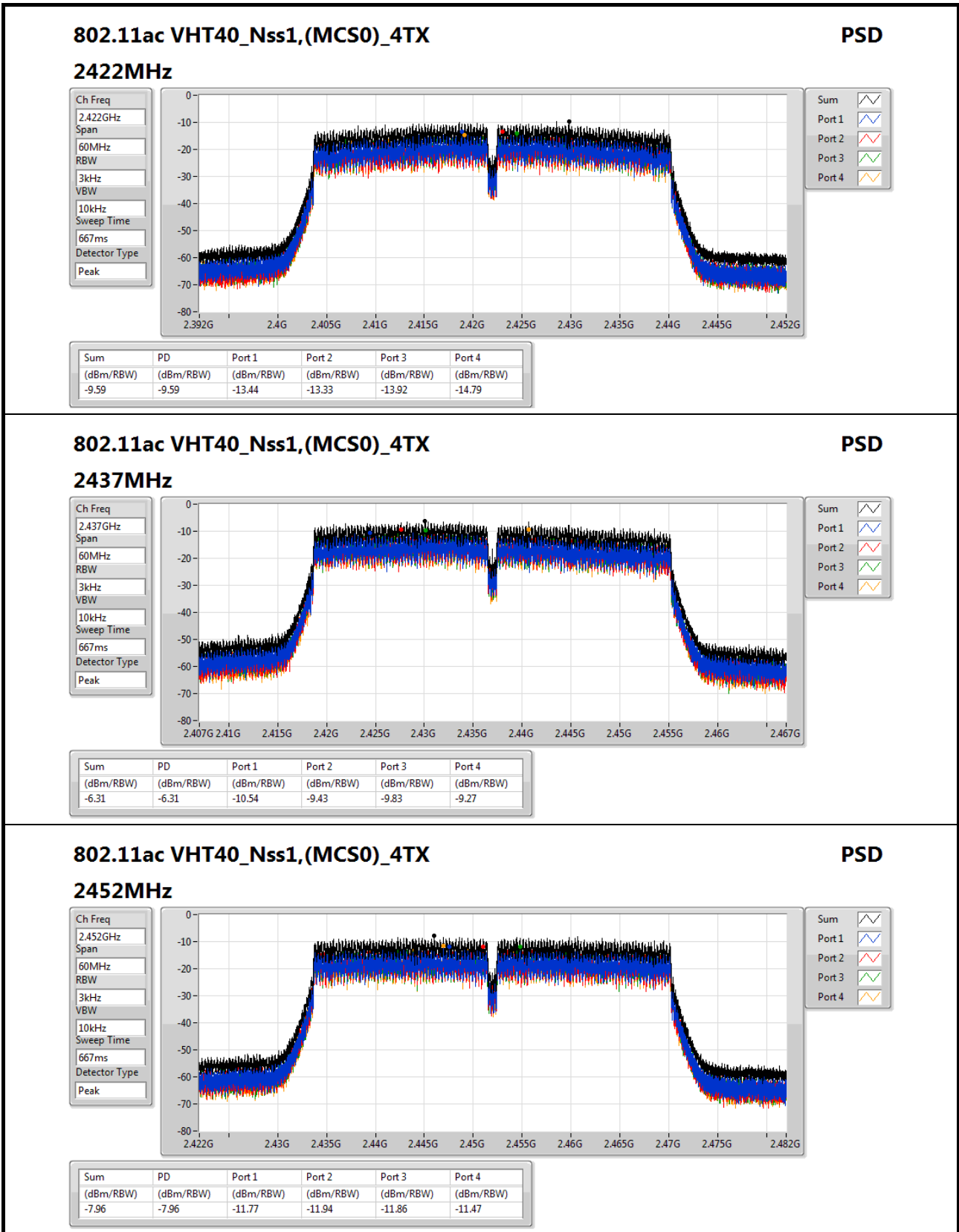
Port 2

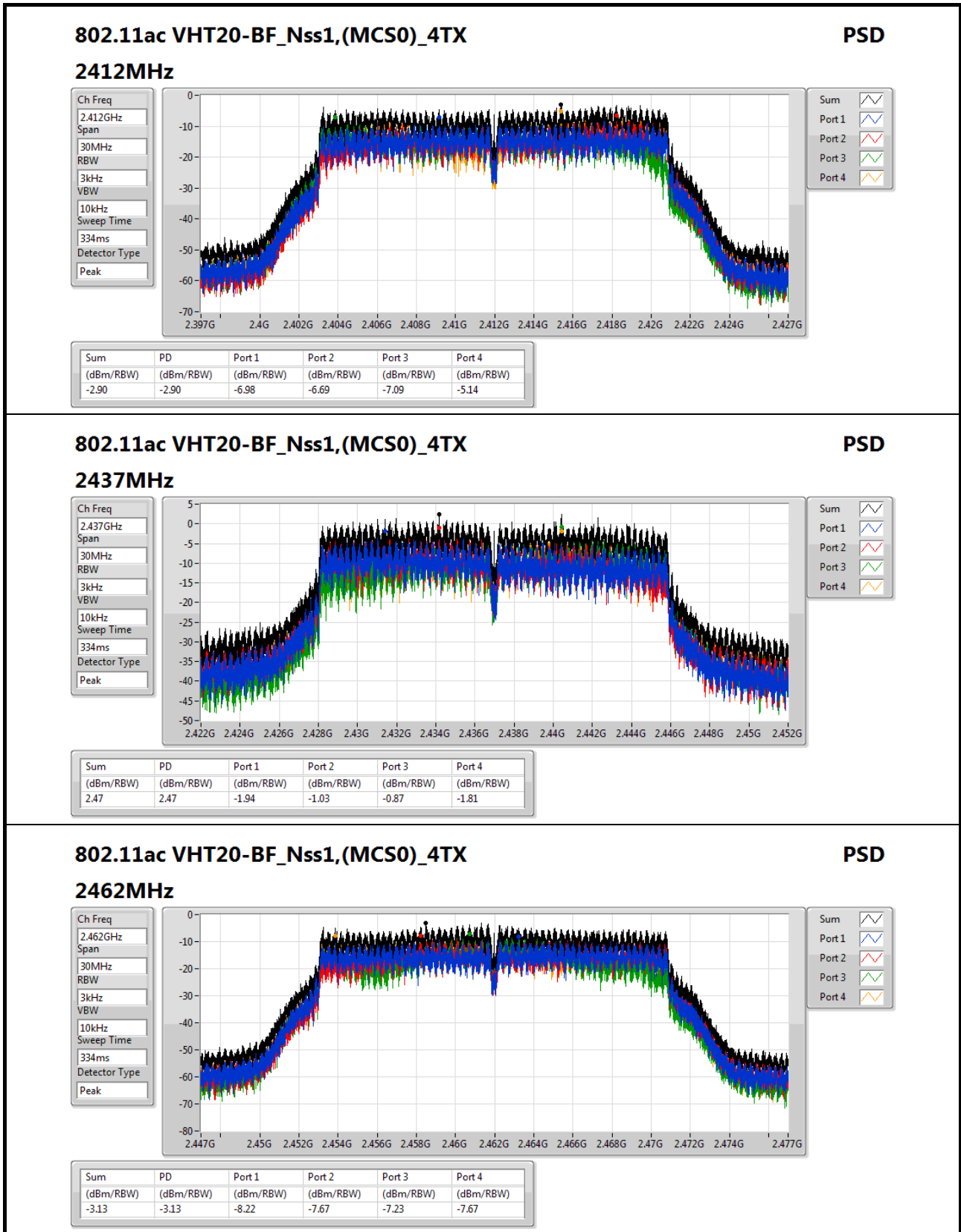
Port 3

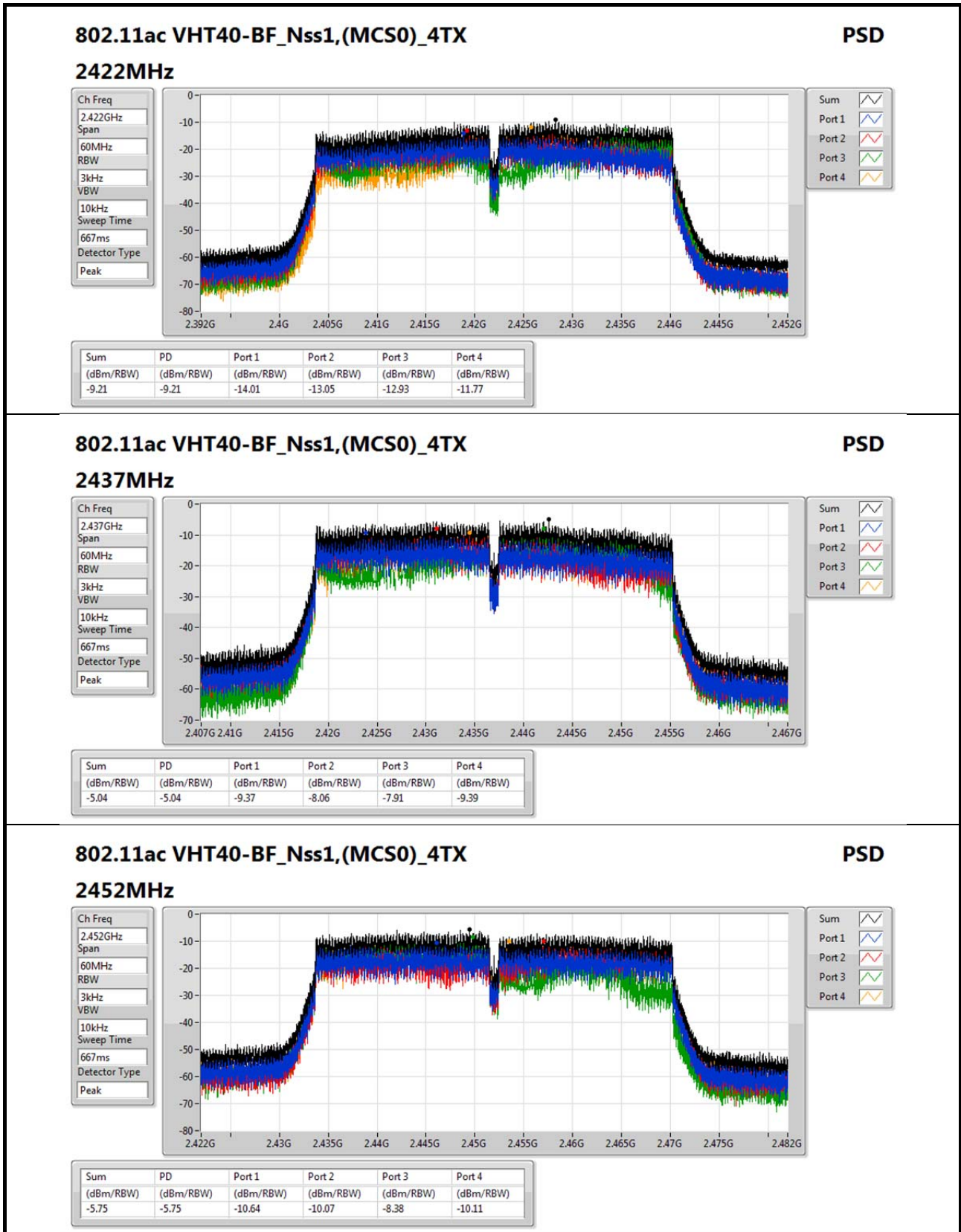
Port 4













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)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_4TX	Pass	2.437408G	14.54	-15.46	2.300585G	-57.98	2.39896G	-40.17	2.48398G	-51.46	7.235136G	-46.98	2
802.11g_Nss1,(6Mbps)_4TX	Pass	2.430728G	12.08	-17.92	935.205M	-59.06	2.39976G	-32.43	2.48566G	-54.41	6.732225G	-52.08	1
802.11ac VHT20_Nss1,(MCS0)_4TX	Pass	2.431897G	12.59	-17.41	2.12001G	-57.46	2.39512G	-31.67	2.48574G	-55.6	6.979466G	-52.45	1
802.11ac VHT40_Nss1,(MCS0)_4TX	Pass	2.431897G	4.76	-25.24	2.302825G	-58.76	2.39952G	-37.55	2.48654G	-46.59	6.787171G	-51.82	1
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	Pass	2.431897G	12.39	-17.61	712.69M	-53.08	2.3996G	-32.56	2.50174G	-57.29	21.622906G	-55.33	2
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	Pass	2.421877G	4.38	-25.62	2.300535G	-61.71	2.39952G	-34.68	2.4843G	-46.24	24.856967G	-54.76	4

Result

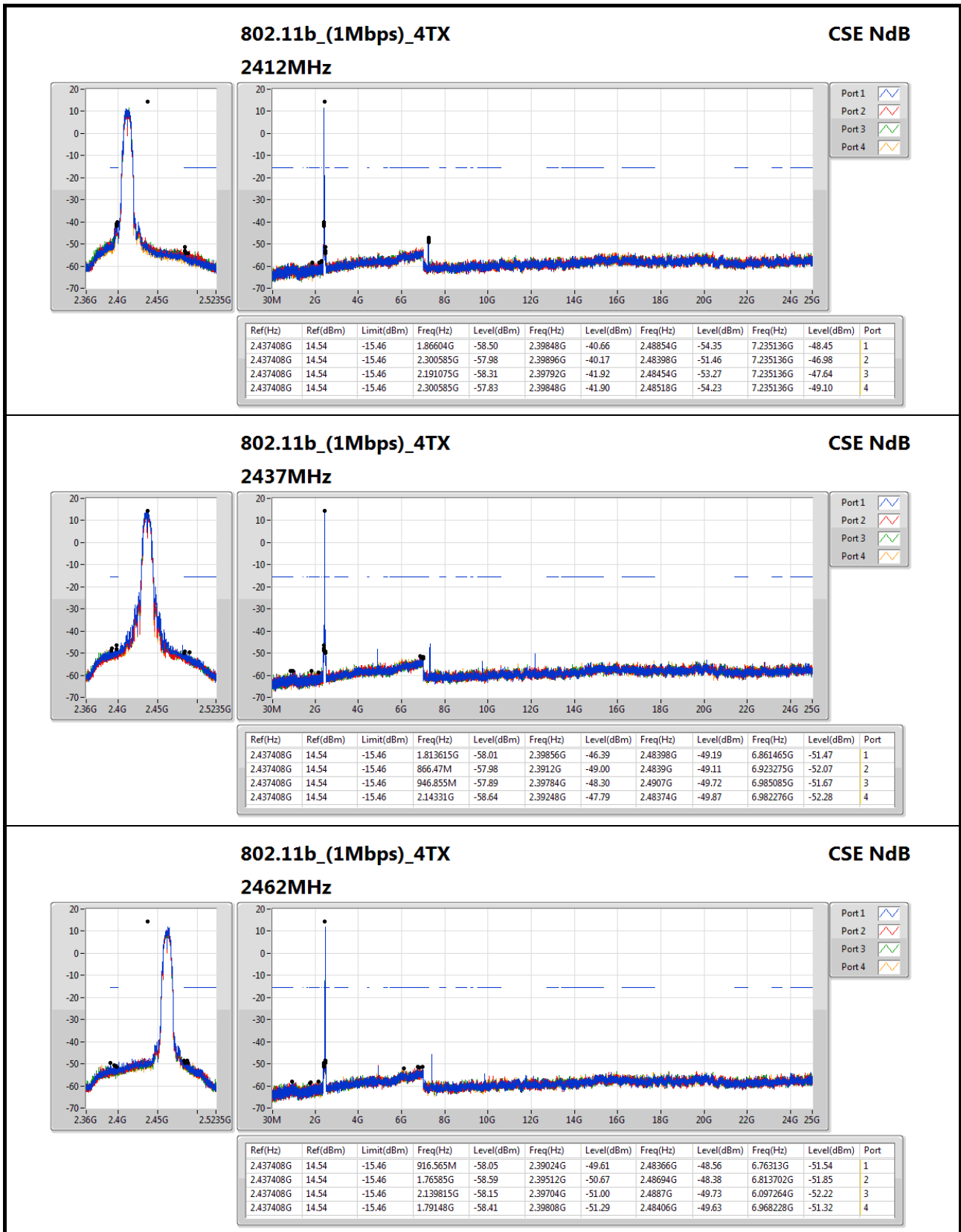
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_4TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.437408G	14.54	-15.46	1.86604G	-58.5	2.39848G	-40.66	2.48854G	-54.35	7.235136G	-48.45	1
2412MHz	Pass	2.437408G	14.54	-15.46	2.300585G	-57.98	2.39896G	-40.17	2.48398G	-51.46	7.235136G	-46.98	2
2412MHz	Pass	2.437408G	14.54	-15.46	2.191075G	-58.31	2.39792G	-41.92	2.48454G	-53.27	7.235136G	-47.64	3
2412MHz	Pass	2.437408G	14.54	-15.46	2.300585G	-57.83	2.39848G	-41.9	2.48518G	-54.23	7.235136G	-49.1	4
2437MHz	Pass	2.437408G	14.54	-15.46	1.813615G	-58.01	2.39856G	-46.39	2.48398G	-49.19	6.861465G	-51.47	1
2437MHz	Pass	2.437408G	14.54	-15.46	866.47M	-57.98	2.3912G	-49	2.4839G	-49.11	6.923275G	-52.07	2
2437MHz	Pass	2.437408G	14.54	-15.46	946.855M	-57.89	2.39784G	-48.3	2.4907G	-49.72	6.985085G	-51.67	3
2437MHz	Pass	2.437408G	14.54	-15.46	2.14331G	-58.64	2.39248G	-47.79	2.48374G	-49.87	6.982276G	-52.28	4
2462MHz	Pass	2.437408G	14.54	-15.46	916.565M	-58.05	2.39024G	-49.61	2.48366G	-48.56	6.76313G	-51.54	1
2462MHz	Pass	2.437408G	14.54	-15.46	1.76585G	-58.59	2.39512G	-50.67	2.48694G	-48.38	6.813702G	-51.85	2
2462MHz	Pass	2.437408G	14.54	-15.46	2.139815G	-58.15	2.39704G	-51	2.4887G	-49.73	6.097264G	-52.22	3
2462MHz	Pass	2.437408G	14.54	-15.46	1.79148G	-58.41	2.39808G	-51.29	2.48406G	-49.63	6.968228G	-51.32	4
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.430728G	12.08	-17.92	935.205M	-59.06	2.39976G	-32.43	2.48566G	-54.41	6.732225G	-52.08	1
2412MHz	Pass	2.430728G	12.08	-17.92	833.85M	-58.52	2.39864G	-36.34	2.4839G	-54.52	6.971037G	-52.05	2
2412MHz	Pass	2.430728G	12.08	-17.92	1.7775G	-58.19	2.39872G	-36.15	2.48782G	-54.43	6.726606G	-51.13	3
2412MHz	Pass	2.430728G	12.08	-17.92	920.06M	-57.74	2.3984G	-37.58	2.48718G	-55.5	6.771559G	-51.15	4
2437MHz	Pass	2.430728G	12.08	-17.92	907.245M	-58.56	2.39888G	-40.47	2.48406G	-47.69	6.971037G	-52.01	1
2437MHz	Pass	2.430728G	12.08	-17.92	943.36M	-57.72	2.39984G	-43.68	2.48398G	-49.4	6.712558G	-51.85	2
2437MHz	Pass	2.430728G	12.08	-17.92	2.09205G	-58.59	2.39736G	-43.33	2.48766G	-48.85	6.779987G	-51.77	3
2437MHz	Pass	2.430728G	12.08	-17.92	1.62139G	-58.13	2.39984G	-43.41	2.48542G	-49.62	6.791225G	-50.5	4
2462MHz	Pass	2.430728G	12.08	-17.92	915.4M	-58.78	2.39928G	-53.53	2.48574G	-42.16	6.912037G	-52.29	1
2462MHz	Pass	2.430728G	12.08	-17.92	687.06M	-57.83	2.39896G	-54.6	2.4851G	-45.19	6.959799G	-52.61	2
2462MHz	Pass	2.430728G	12.08	-17.92	2.300585G	-58.74	2.39248G	-51.43	2.4839G	-43.44	6.816512G	-52.68	3
2462MHz	Pass	2.430728G	12.08	-17.92	2.020985G	-57.82	2.39136G	-53.09	2.48358G	-46.01	6.052311G	-51.93	4
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.431897G	12.59	-17.41	2.12001G	-57.46	2.39512G	-31.67	2.48574G	-55.6	6.979466G	-52.45	1
2412MHz	Pass	2.431897G	12.59	-17.41	937.535M	-58.57	2.3992G	-36.23	2.48414G	-53.63	6.858655G	-51.82	2
2412MHz	Pass	2.431897G	12.59	-17.41	2.193405G	-57.91	2.39768G	-31.85	2.49494G	-55.27	6.985085G	-51.45	3
2412MHz	Pass	2.431897G	12.59	-17.41	1.944095G	-57.12	2.39992G	-38.35	2.48382G	-55.6	6.816512G	-52.19	4
2437MHz	Pass	2.431897G	12.59	-17.41	2.01982G	-57.33	2.39976G	-38.45	2.48374G	-44.22	6.844607G	-50.9	1
2437MHz	Pass	2.431897G	12.59	-17.41	932.875M	-57.86	2.39712G	-41.76	2.48398G	-47.45	6.881131G	-52.41	2
2437MHz	Pass	2.431897G	12.59	-17.41	1.94992G	-58.57	2.39848G	-40.57	2.4847G	-47.54	6.869893G	-52.04	3
2437MHz	Pass	2.431897G	12.59	-17.41	362.025M	-57.66	2.3992G	-41.71	2.48374G	-48.08	6.976657G	-51.64	4
2462MHz	Pass	2.431897G	12.59	-17.41	2.01283G	-58.02	2.39408G	-53.32	2.48374G	-40.4	6.926084G	-51.55	1
2462MHz	Pass	2.431897G	12.59	-17.41	1.76585G	-58.67	2.39424G	-53.62	2.48374G	-47.24	6.973847G	-51.55	2

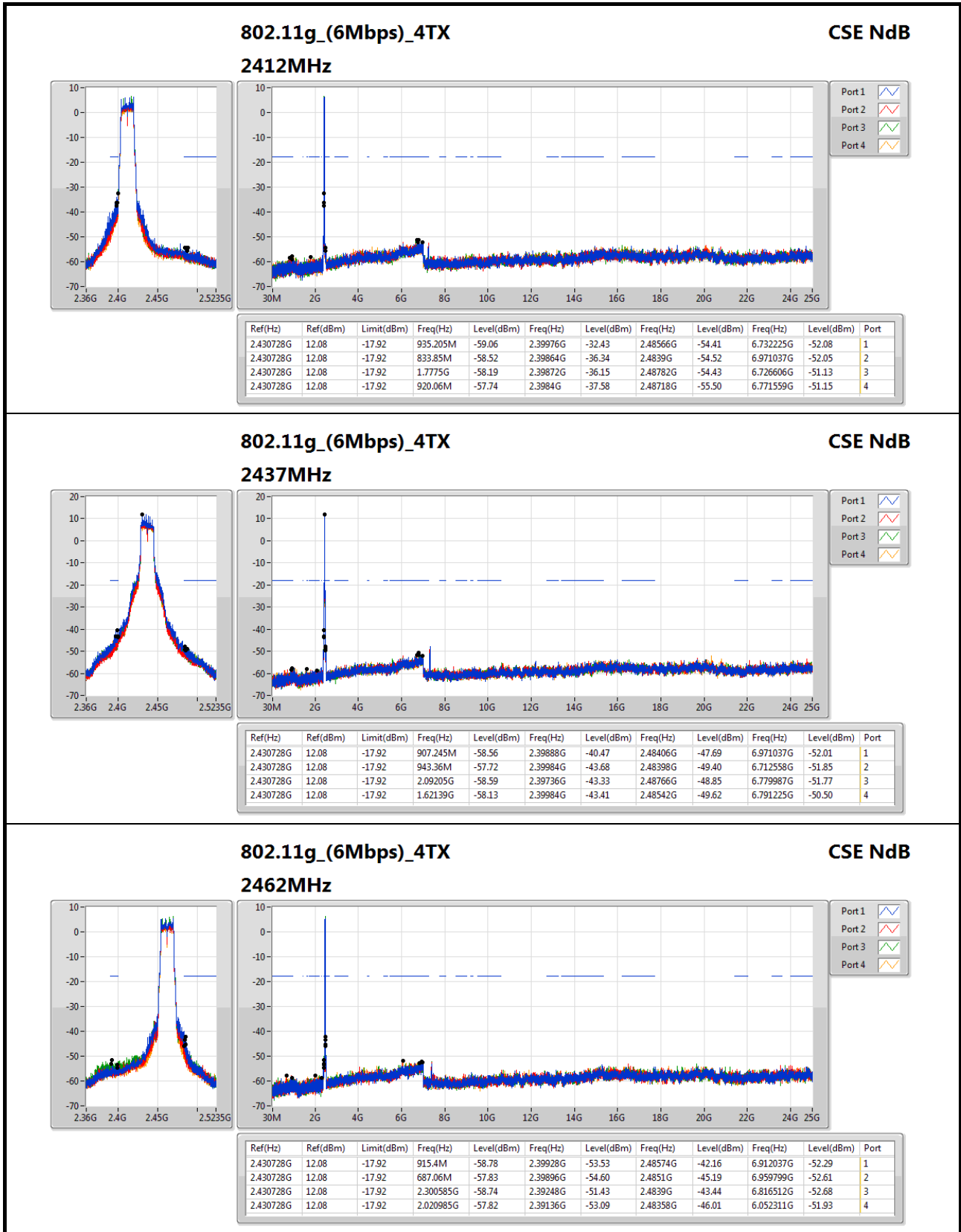


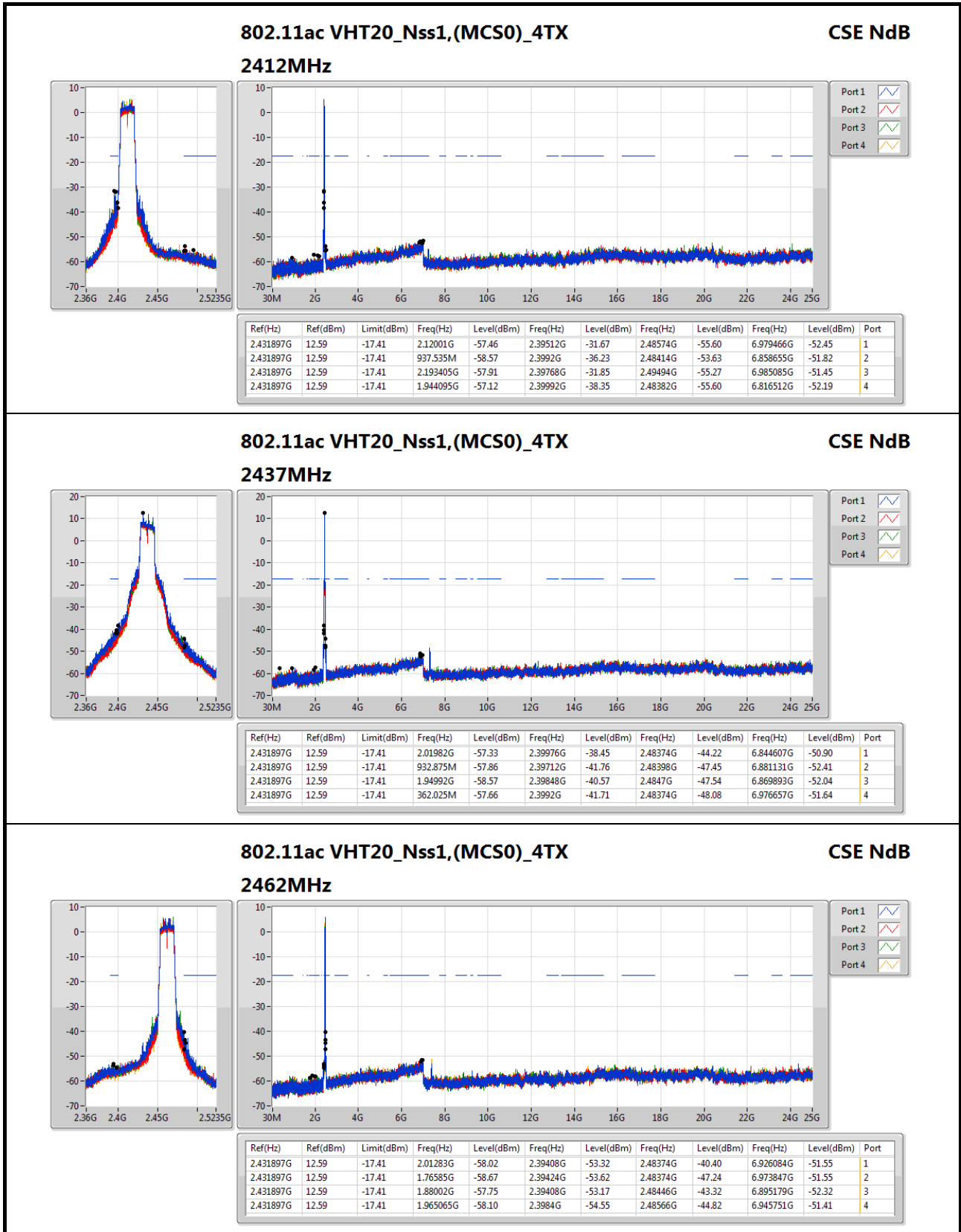
CSE Non-restricted Band Result

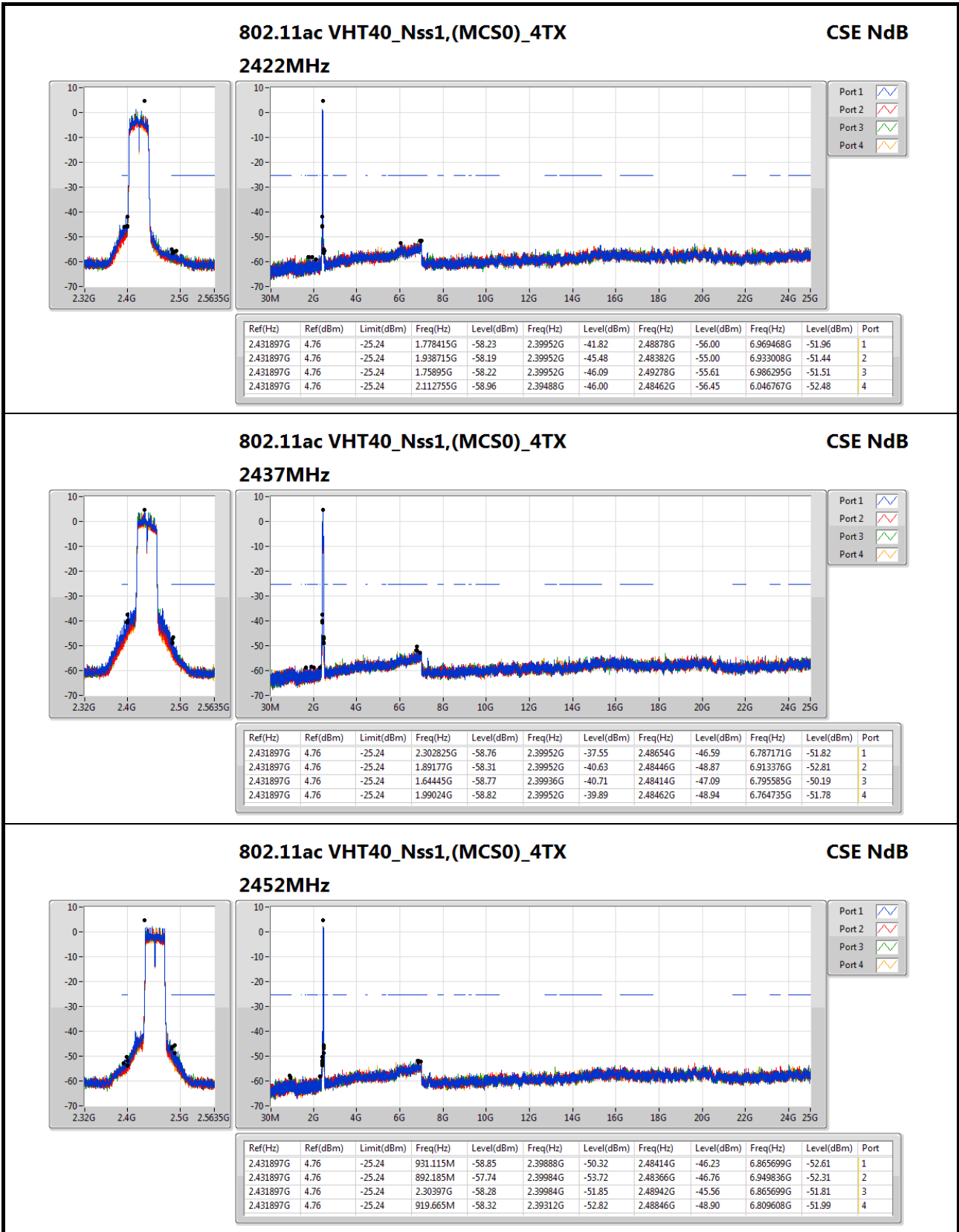
Appendix E

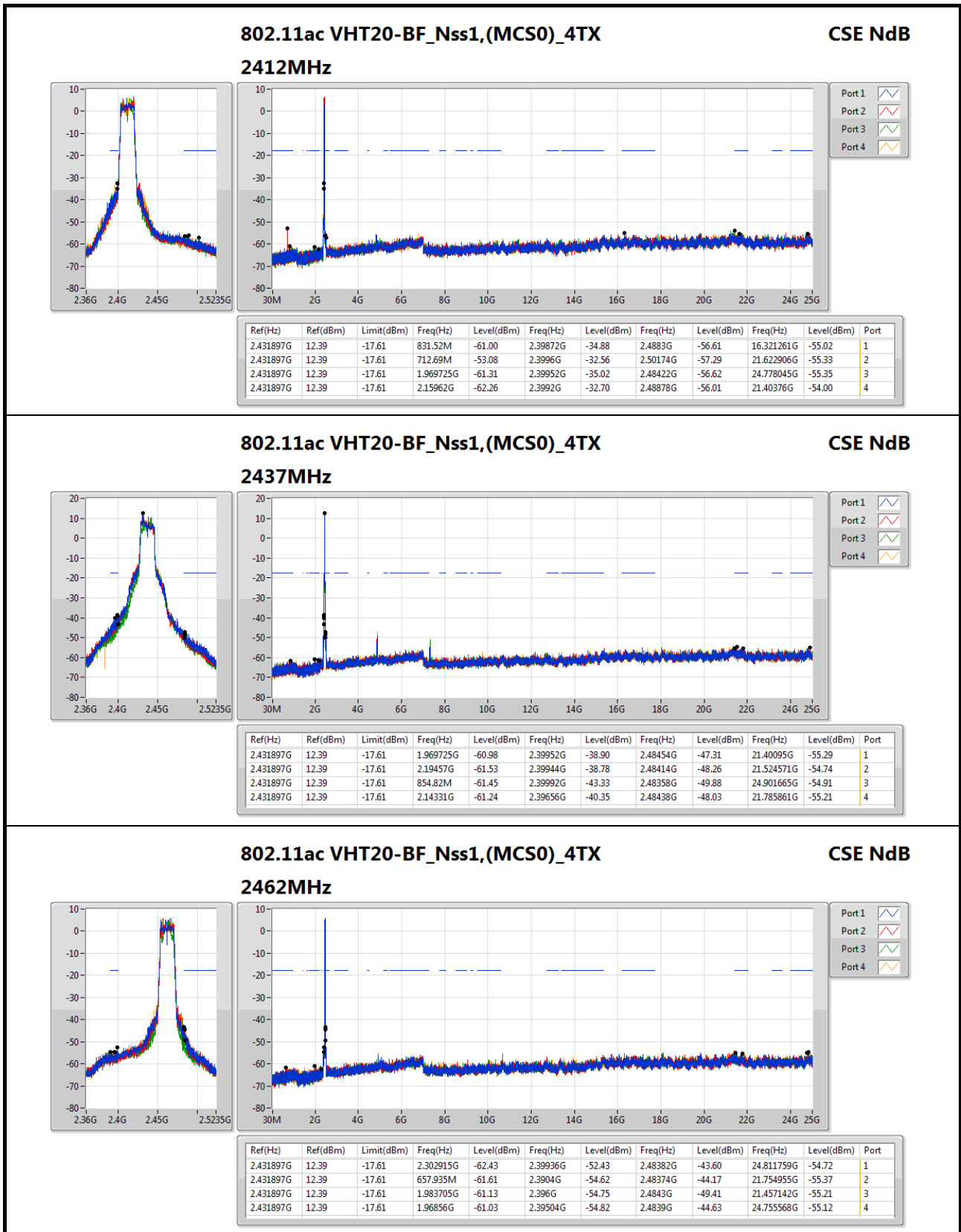
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2462MHz	Pass	2.431897G	12.59	-17.41	1.88002G	-57.75	2.39408G	-53.17	2.48446G	-43.32	6.895179G	-52.32	3
2462MHz	Pass	2.431897G	12.59	-17.41	1.965065G	-58.1	2.3984G	-54.55	2.48566G	-44.82	6.945751G	-51.41	4
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.431897G	4.76	-25.24	1.778415G	-58.23	2.39952G	-41.82	2.48878G	-56	6.969468G	-51.96	1
2422MHz	Pass	2.431897G	4.76	-25.24	1.938715G	-58.19	2.39952G	-45.48	2.48382G	-55	6.933008G	-51.44	2
2422MHz	Pass	2.431897G	4.76	-25.24	1.75895G	-58.22	2.39952G	-46.09	2.49278G	-55.61	6.986295G	-51.51	3
2422MHz	Pass	2.431897G	4.76	-25.24	2.112755G	-58.96	2.39488G	-46	2.48462G	-56.45	6.046767G	-52.48	4
2437MHz	Pass	2.431897G	4.76	-25.24	2.302825G	-58.76	2.39952G	-37.55	2.48654G	-46.59	6.787171G	-51.82	1
2437MHz	Pass	2.431897G	4.76	-25.24	1.89177G	-58.31	2.39952G	-40.63	2.48446G	-48.87	6.913376G	-52.81	2
2437MHz	Pass	2.431897G	4.76	-25.24	1.64445G	-58.77	2.39936G	-40.71	2.48414G	-47.09	6.795585G	-50.19	3
2437MHz	Pass	2.431897G	4.76	-25.24	1.99024G	-58.82	2.39952G	-39.89	2.48462G	-48.94	6.764735G	-51.78	4
2452MHz	Pass	2.431897G	4.76	-25.24	931.115M	-58.85	2.39888G	-50.32	2.48414G	-46.23	6.865699G	-52.61	1
2452MHz	Pass	2.431897G	4.76	-25.24	892.185M	-57.74	2.39984G	-53.72	2.48366G	-46.76	6.949836G	-52.31	2
2452MHz	Pass	2.431897G	4.76	-25.24	2.30397G	-58.28	2.39984G	-51.85	2.48942G	-45.56	6.865699G	-51.81	3
2452MHz	Pass	2.431897G	4.76	-25.24	919.665M	-58.32	2.39312G	-52.82	2.48846G	-48.9	6.809608G	-51.99	4
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.431897G	12.39	-17.61	831.52M	-61	2.39872G	-34.88	2.4883G	-56.61	16.321261G	-55.02	1
2412MHz	Pass	2.431897G	12.39	-17.61	712.69M	-53.08	2.3996G	-32.56	2.50174G	-57.29	21.622906G	-55.33	2
2412MHz	Pass	2.431897G	12.39	-17.61	1.969725G	-61.31	2.39952G	-35.02	2.48422G	-56.62	24.778045G	-55.35	3
2412MHz	Pass	2.431897G	12.39	-17.61	2.15962G	-62.26	2.3992G	-32.7	2.48878G	-56.01	21.40376G	-54	4
2437MHz	Pass	2.431897G	12.39	-17.61	1.969725G	-60.98	2.39952G	-38.9	2.48454G	-47.31	21.40095G	-55.29	1
2437MHz	Pass	2.431897G	12.39	-17.61	2.19457G	-61.53	2.39944G	-38.78	2.48414G	-48.26	21.524571G	-54.74	2
2437MHz	Pass	2.431897G	12.39	-17.61	854.82M	-61.45	2.39992G	-43.33	2.48358G	-49.88	24.901665G	-54.91	3
2437MHz	Pass	2.431897G	12.39	-17.61	2.14331G	-61.24	2.39656G	-40.35	2.48438G	-48.03	21.785861G	-55.21	4
2462MHz	Pass	2.431897G	12.39	-17.61	2.302915G	-62.43	2.39936G	-52.43	2.48382G	-43.6	24.811759G	-54.72	1
2462MHz	Pass	2.431897G	12.39	-17.61	657.935M	-61.61	2.3904G	-54.62	2.48374G	-44.17	21.754955G	-55.37	2
2462MHz	Pass	2.431897G	12.39	-17.61	1.983705G	-61.13	2.396G	-54.75	2.4843G	-49.41	21.457142G	-55.21	3
2462MHz	Pass	2.431897G	12.39	-17.61	1.96856G	-61.03	2.39504G	-54.82	2.4839G	-44.63	24.755568G	-55.12	4
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.421877G	4.38	-25.62	872.72M	-61.37	2.39952G	-42.2	2.49246G	-59	16.718127G	-55.55	1
2422MHz	Pass	2.421877G	4.38	-25.62	2.151685G	-61.54	2.39696G	-45.39	2.48878G	-58.37	16.771414G	-54.5	2
2422MHz	Pass	2.421877G	4.38	-25.62	2.05894G	-61.65	2.39456G	-46.06	2.48926G	-58.89	21.690616G	-55.84	3
2422MHz	Pass	2.421877G	4.38	-25.62	2.172295G	-61.04	2.392G	-43.5	2.48446G	-58.84	6.865699G	-54.76	4
2437MHz	Pass	2.421877G	4.38	-25.62	2.030315G	-61.92	2.39872G	-38.02	2.48494G	-47.85	24.677475G	-55.02	1
2437MHz	Pass	2.421877G	4.38	-25.62	715.855M	-61.44	2.3992G	-37.87	2.48654G	-49.2	21.816822G	-55.28	2
2437MHz	Pass	2.421877G	4.38	-25.62	2.17802G	-61.27	2.39936G	-38.57	2.48558G	-50.19	21.47186G	-54.89	3
2437MHz	Pass	2.421877G	4.38	-25.62	2.300535G	-61.71	2.39952G	-34.68	2.4843G	-46.24	24.856967G	-54.76	4
2452MHz	Pass	2.421877G	4.38	-25.62	2.305115G	-61.32	2.3928G	-48.77	2.48734G	-41.68	21.741098G	-54.89	1
2452MHz	Pass	2.421877G	4.38	-25.62	2.16199G	-60.73	2.39952G	-47.46	2.48654G	-38.97	24.756003G	-55.12	2
2452MHz	Pass	2.421877G	4.38	-25.62	1.936425G	-61.37	2.39856G	-45.38	2.48654G	-38.52	16.768609G	-54.68	3
2452MHz	Pass	2.421877G	4.38	-25.62	1.98337G	-61.81	2.39728G	-47.53	2.48526G	-37.89	24.167045G	-55.54	4

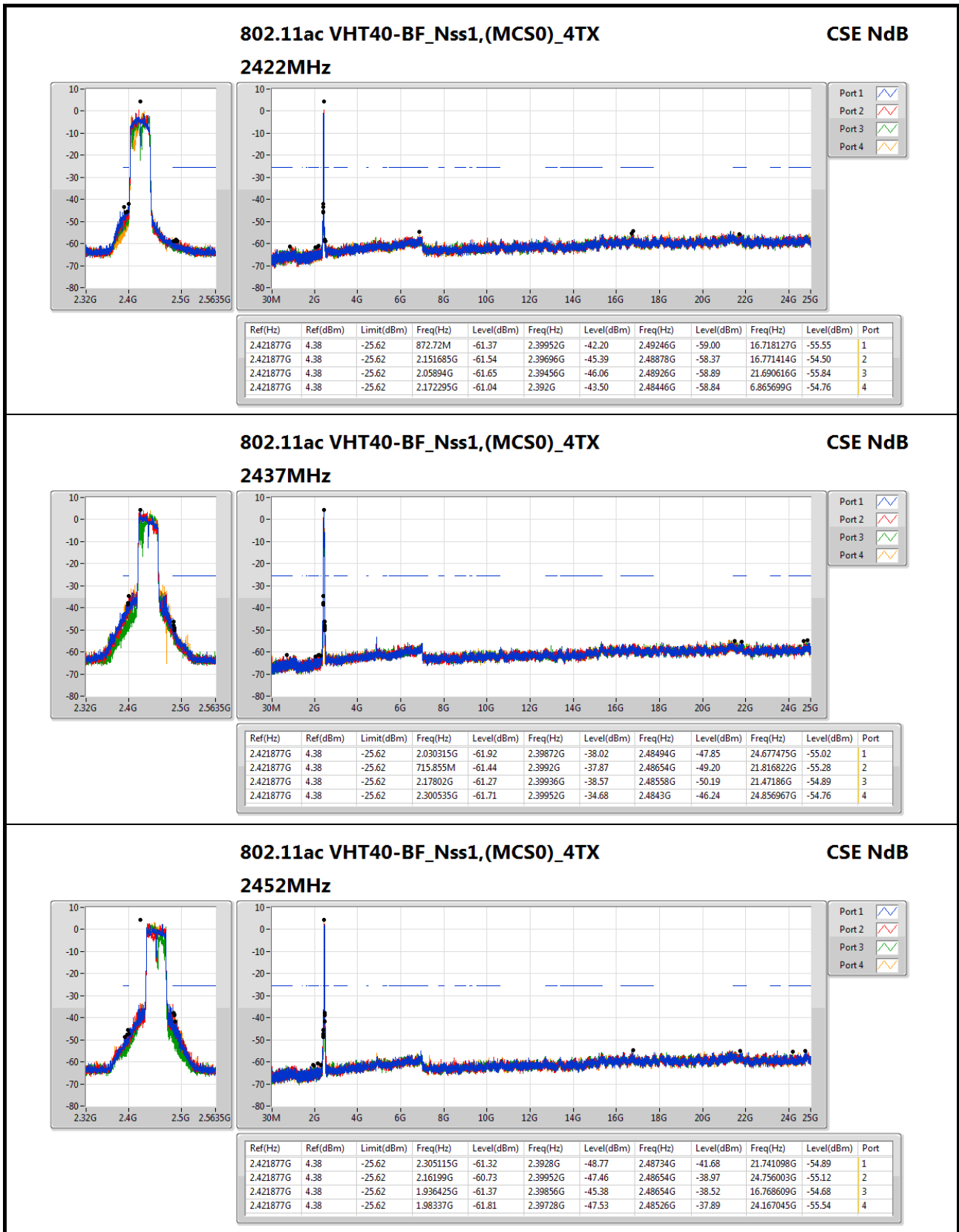








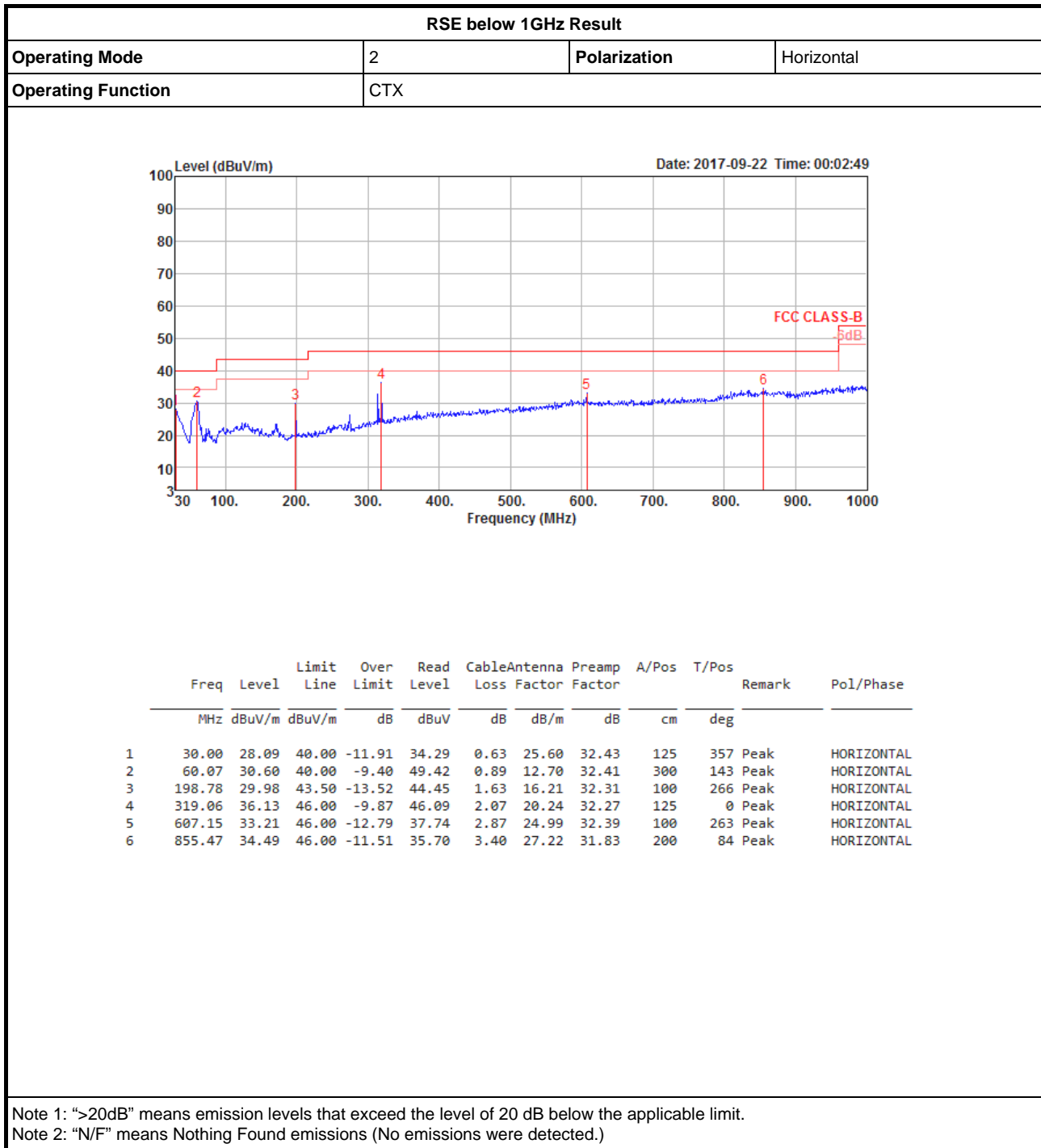






RSE below 1GHz Result

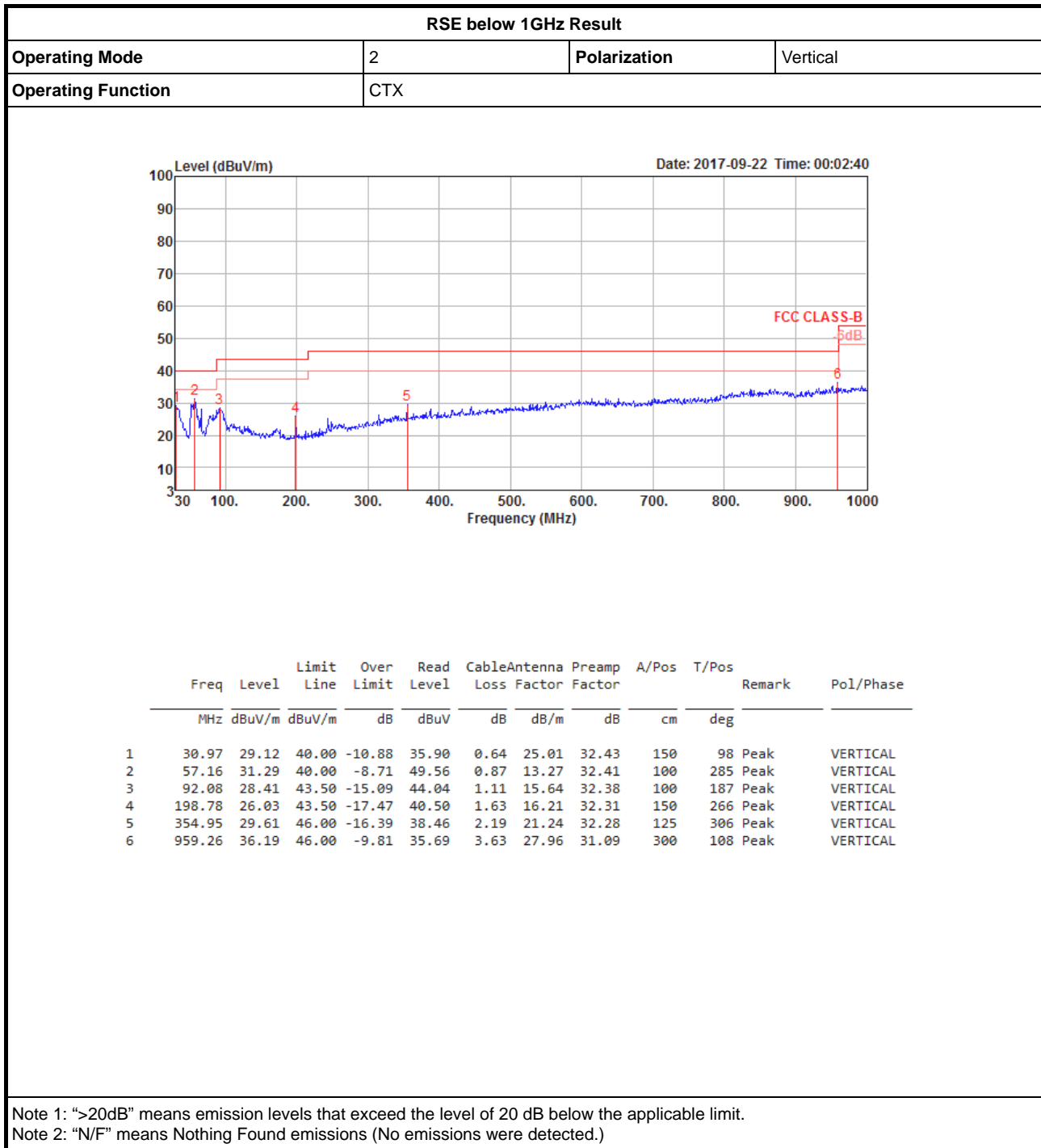
Appendix F.1





RSE below 1GHz Result

Appendix F.1



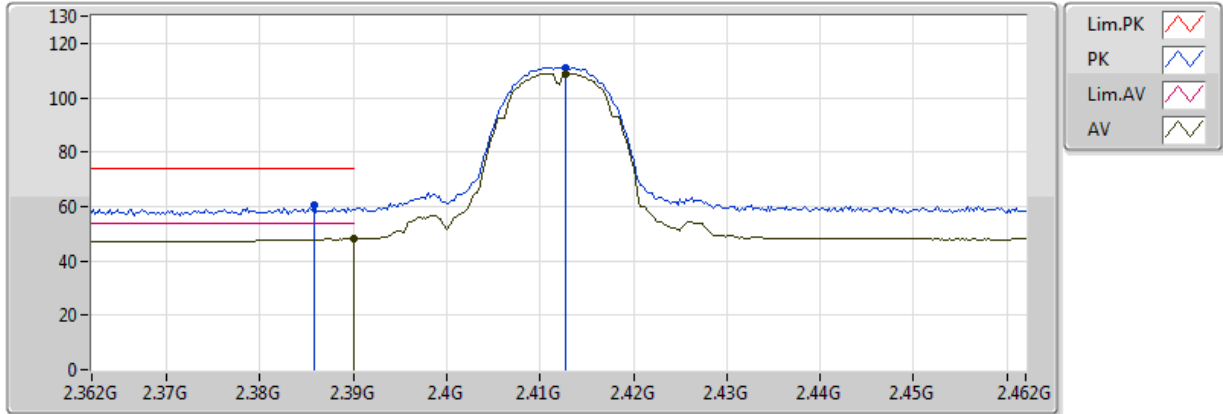


Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
802.11b_(1Mbps)_4TX	-	-	-	-	-	-	-	-	-	-	-	-
2.4-2.4835GHz	Pass	AV	4.87394G	53.97	54.00	-0.03	4.82	3	V	88	1.01	-

802.11b_(1Mbps)_4TX

2412MHz_TX

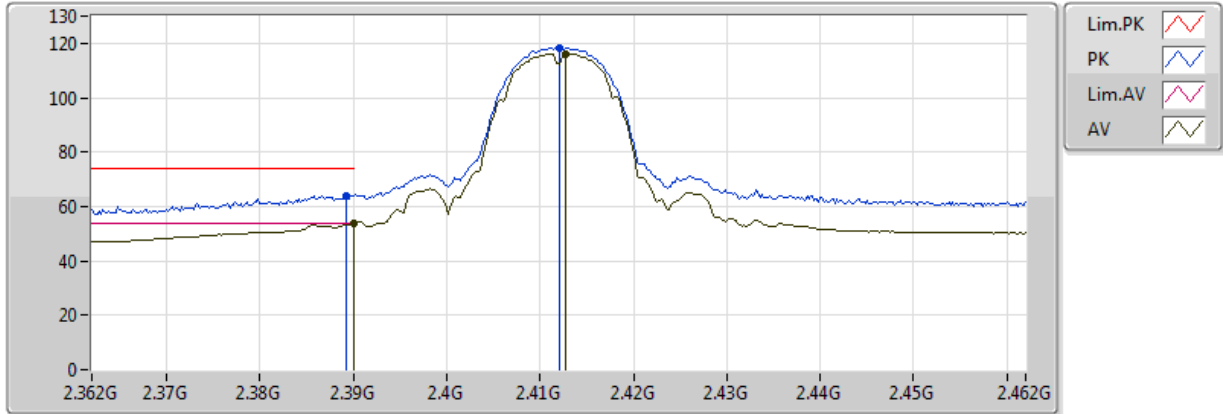


20170719
 EUT_Z_4TX
 Setting 82
 06-M-0
 FSP(100019)
 New sample

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.39G	48.22	54.00	-5.78	32.01	3	V	31	2.18	-
AV	2.4128G	108.96	Inf	-Inf	32.08	3	V	31	2.18	-
PK	2.3858G	60.28	74.00	-13.72	32.00	3	V	31	2.18	-
PK	2.4128G	111.06	Inf	-Inf	32.08	3	V	31	2.18	-

802.11b_(1Mbps)_4TX

2412MHz_TX

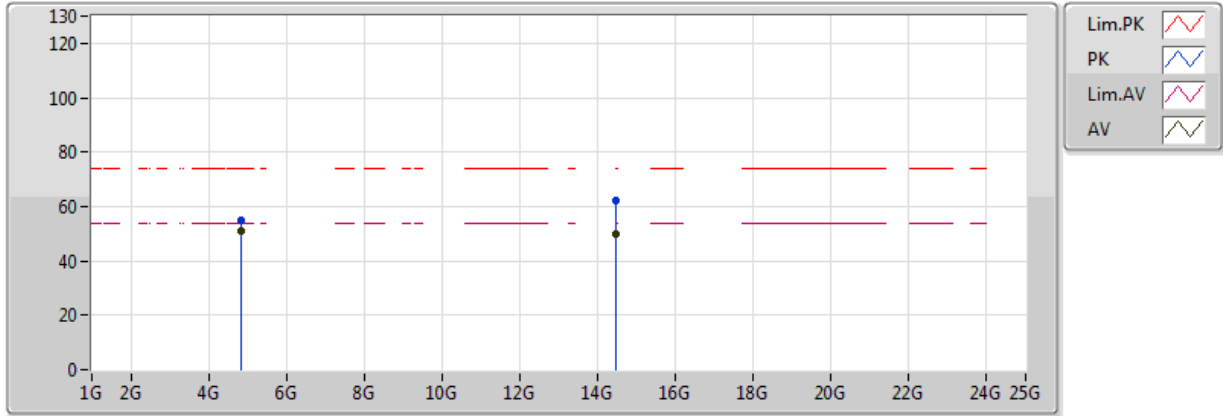


20170719
 EUT_Z_4TX
 Setting 82
 06-M-0
 FSP(100019)
 New sample

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.39G	53.87	54.00	-0.13	32.01	3	H	286	1.09	-
AV	2.4128G	116.10	Inf	-Inf	32.08	3	H	286	1.09	-
PK	2.3892G	64.04	74.00	-9.96	32.01	3	H	286	1.09	-
PK	2.412G	118.27	Inf	-Inf	32.08	3	H	286	1.09	-

802.11b_(1Mbps)_4TX

2412MHz_TX

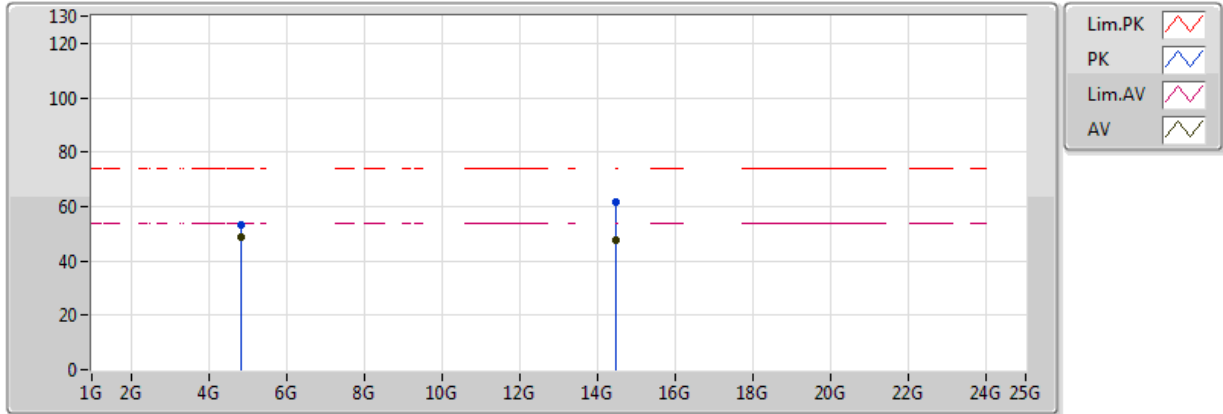


20170719
 EUT_Z_4TX
 Setting 82
 06-M-0
 FSP(100019)
 New sample

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.8239G	50.72	54.00	-3.28	4.72	3	V	90	1.02	-
AV	14.47182G	49.83	54.00	-4.17	18.49	3	V	273	1.11	-
PK	4.82393G	54.73	74.00	-19.27	4.72	3	V	90	1.02	-
PK	14.47186G	61.94	74.00	-12.06	18.49	3	V	273	1.11	-

802.11b_(1Mbps)_4TX

2412MHz_TX

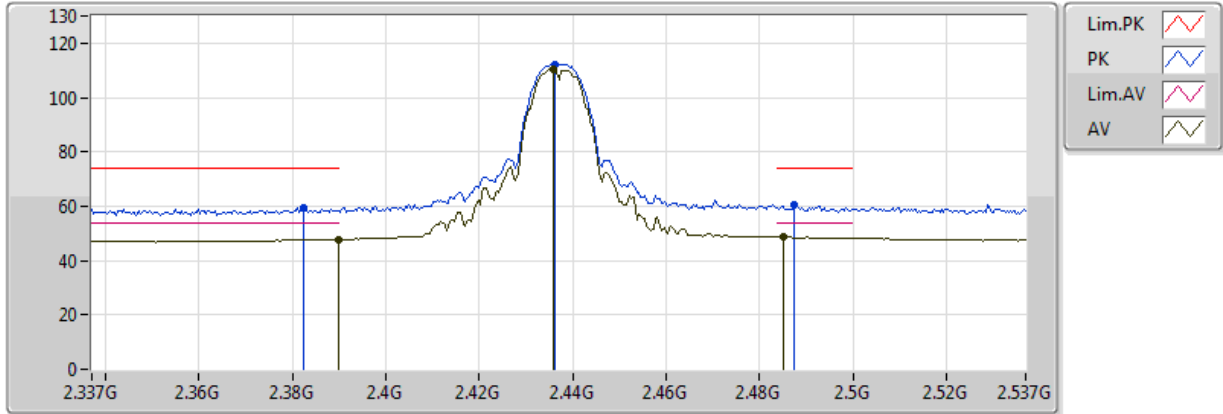


20170719
 EUT_Z_4TX
 Setting 82
 06-M-0
 FSP(100019)
 New sample

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82394G	48.58	54.00	-5.42	4.72	3	H	329	1.09	-
AV	14.47182G	47.53	54.00	-6.47	18.49	3	H	213	2.97	-
PK	4.82377G	53.07	74.00	-20.93	4.72	3	H	329	1.09	-
PK	14.47194G	61.65	74.00	-12.35	18.49	3	H	213	2.97	-

802.11b_(1Mbps)_4TX

2437MHz_TX

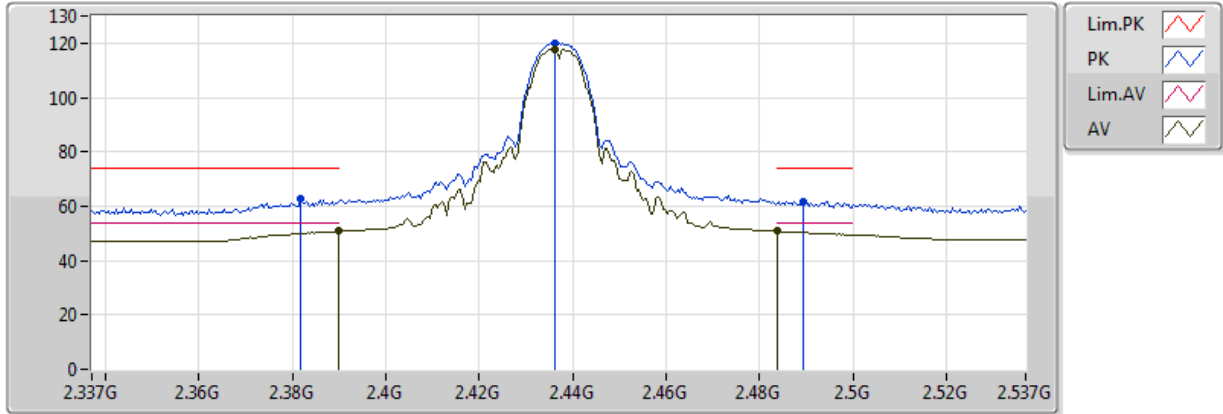


20170719
 EUT_Z_4TX
 Setting 95
 06-M-0
 FSP(100019)
 New sample

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3898G	47.72	54.00	-6.28	32.01	3	V	357	2.14	-
AV	2.4358G	110.18	Inf	-Inf	32.15	3	V	357	2.14	-
AV	2.485G	48.53	54.00	-5.47	32.30	3	V	357	2.14	-
PK	2.3822G	59.44	74.00	-14.56	31.98	3	V	357	2.14	-
PK	2.4362G	112.34	Inf	-Inf	32.15	3	V	357	2.14	-
PK	2.4874G	60.70	74.00	-13.30	32.31	3	V	357	2.14	-

802.11b_(1Mbps)_4TX

2437MHz_TX

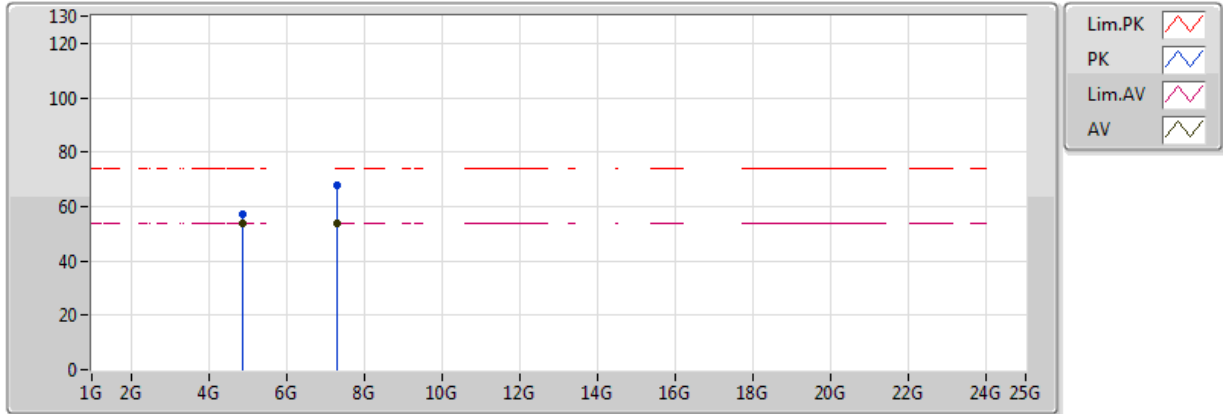


20170719
 EUT_Z_4TX
 Setting 95
 06-M-0
 FSP(100019)
 New sample

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3898G	50.72	54.00	-3.28	32.01	3	H	300	1.00	-
AV	2.4362G	117.70	Inf	-Inf	32.15	3	H	300	1.00	-
AV	2.4838G	50.77	54.00	-3.23	32.30	3	H	300	1.00	-
PK	2.3818G	62.71	74.00	-11.29	31.98	3	H	300	1.00	-
PK	2.4362G	119.84	Inf	-Inf	32.15	3	H	300	1.00	-
PK	2.4894G	61.88	74.00	-12.12	32.32	3	H	300	1.00	-

802.11b_(1Mbps)_4TX

2437MHz_TX

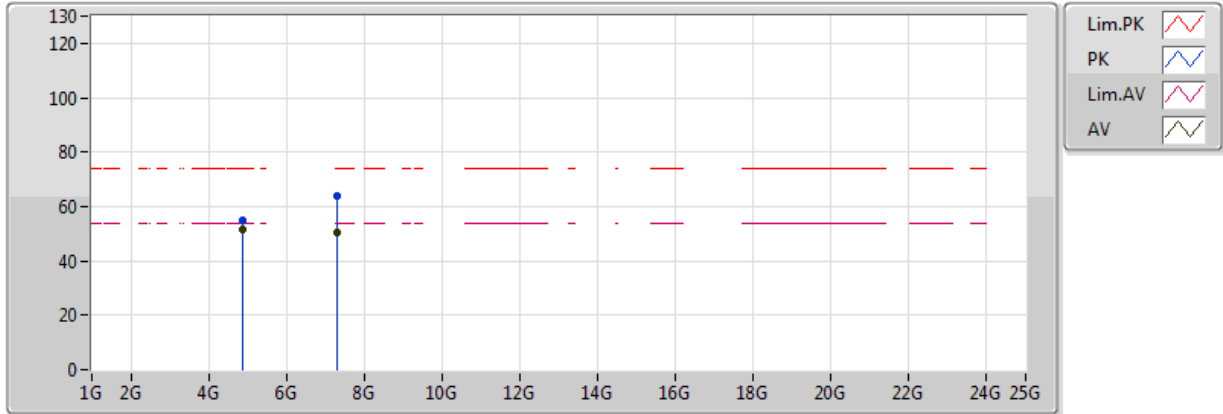


20170719
 EUT_Z_4TX
 Setting 95
 06-M-0
 FSP(100019)
 New sample

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87394G	53.97	54.00	-0.03	4.82	3	V	88	1.01	-
AV	7.3101G	53.93	54.00	-0.07	8.80	3	V	163	1.01	-
PK	4.87384G	56.99	74.00	-17.01	4.82	3	V	88	1.01	-
PK	7.31082G	67.78	74.00	-6.22	8.80	3	V	163	1.01	-

802.11b_(1Mbps)_4TX

2437MHz_TX

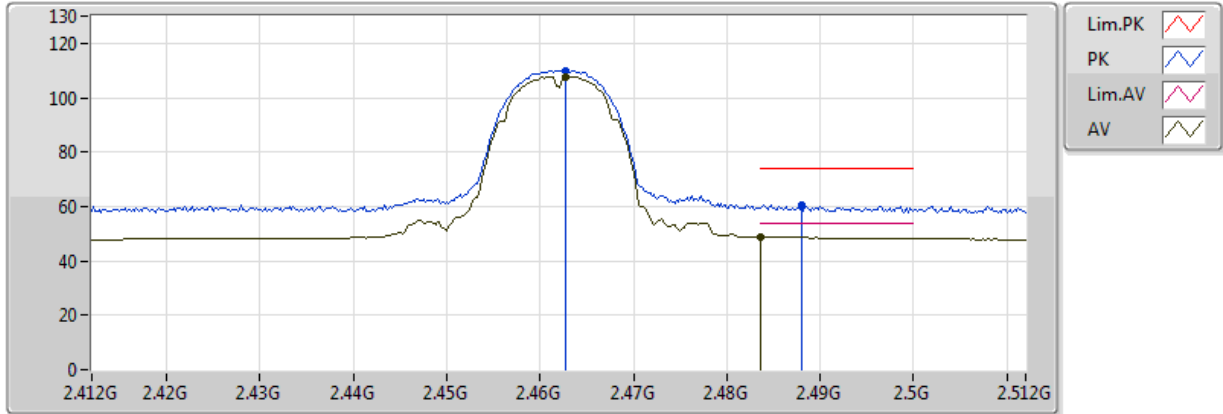


20170719
 EUT_Z_4TX
 Setting 95
 06-M-0
 FSP(100019)
 New sample

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87392G	51.47	54.00	-2.53	4.82	3	H	310	1.01	-
AV	7.31016G	50.60	54.00	-3.40	8.80	3	H	357	1.02	-
PK	4.87384G	55.06	74.00	-18.94	4.82	3	H	310	1.01	-
PK	7.31076G	64.13	74.00	-9.87	8.80	3	H	357	1.02	-

802.11b_(1Mbps)_4TX

2462MHz_TX

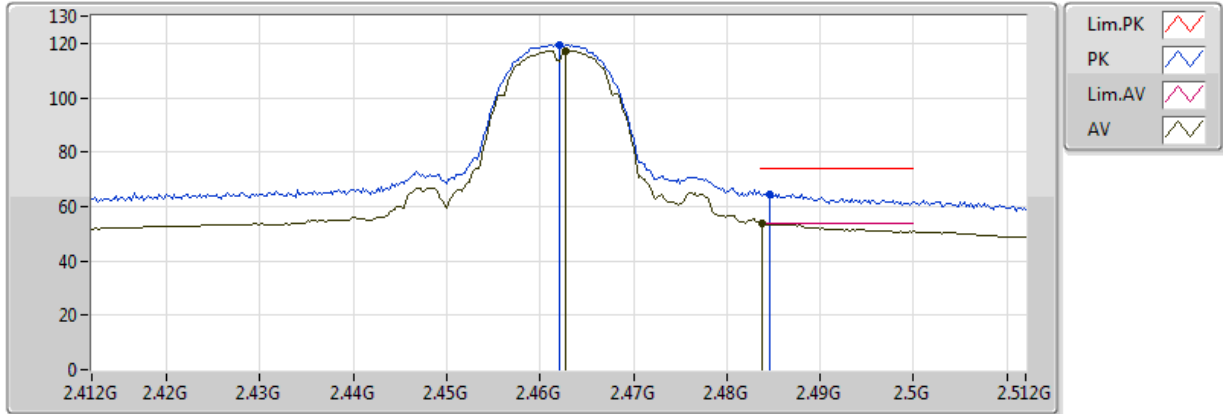


20170719
 EUT_Z_4TX
 Setting 84
 06-M-0
 FSP(100019)
 New sample

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4628G	107.78	Inf	-Inf	32.23	3	V	307	2.61	-
AV	2.4836G	49.02	54.00	-4.98	32.30	3	V	307	2.61	-
PK	2.4628G	109.86	Inf	-Inf	32.23	3	V	307	2.61	-
PK	2.488G	60.64	74.00	-13.36	32.31	3	V	307	2.61	-

802.11b_(1Mbps)_4TX

2462MHz_TX

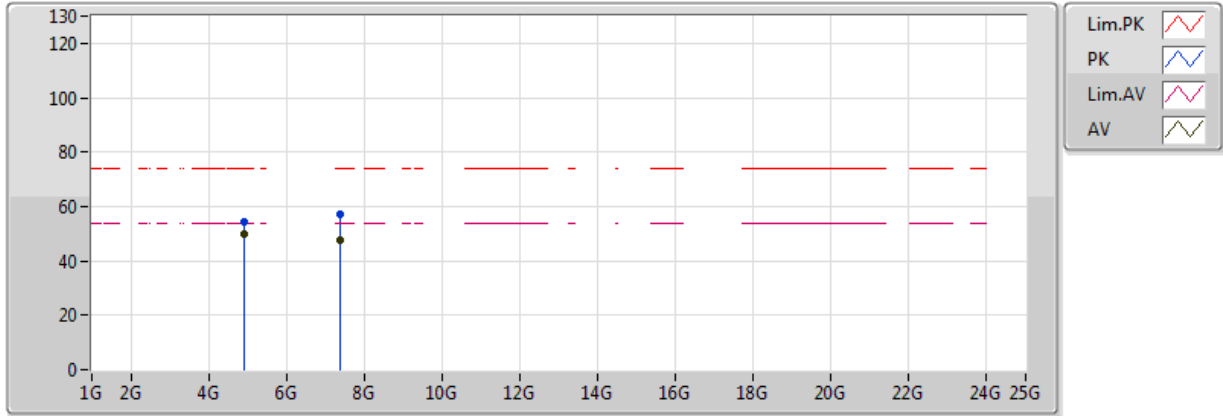


20170719
 EUT_Z_4TX
 Setting 84
 06-M-0
 FSP(100019)
 New sample

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4628G	117.30	Inf	-Inf	32.23	3	H	278	1.08	-
AV	2.4838G	53.96	54.00	-0.04	32.30	3	H	278	1.08	-
PK	2.462G	119.35	Inf	-Inf	32.23	3	H	278	1.08	-
PK	2.4846G	64.56	74.00	-9.44	32.30	3	H	278	1.08	-

802.11b_(1Mbps)_4TX

2462MHz_TX

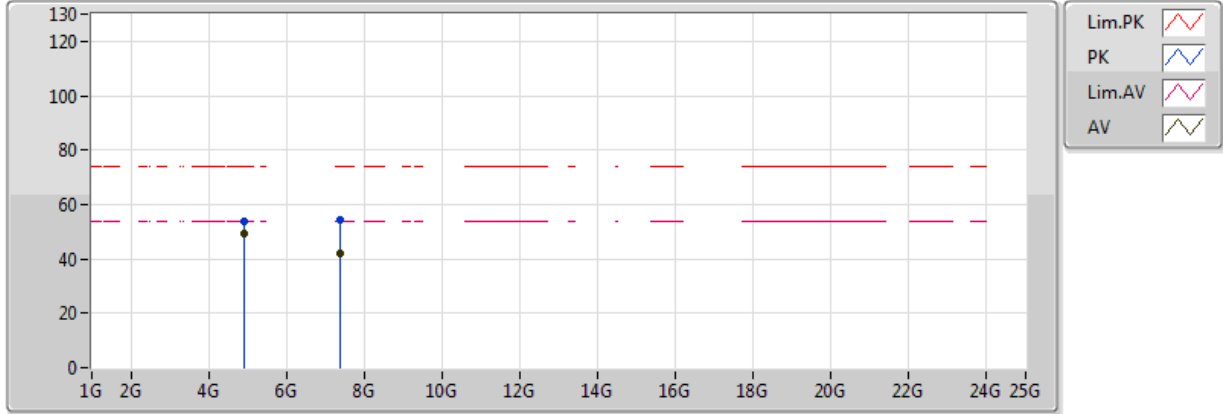


20170719
 EUT_Z_4TX
 Setting 84
 06-M-0
 FSP(100019)
 New sample

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.92393G	49.93	54.00	-4.07	4.92	3	V	308	1.29	-
AV	7.38516G	47.44	54.00	-6.56	8.83	3	V	219	1.04	-
PK	4.92391G	54.60	74.00	-19.40	4.92	3	V	308	1.29	-
PK	7.38544G	57.01	74.00	-16.99	8.83	3	V	219	1.04	-

802.11b_(1Mbps)_4TX

2462MHz_TX

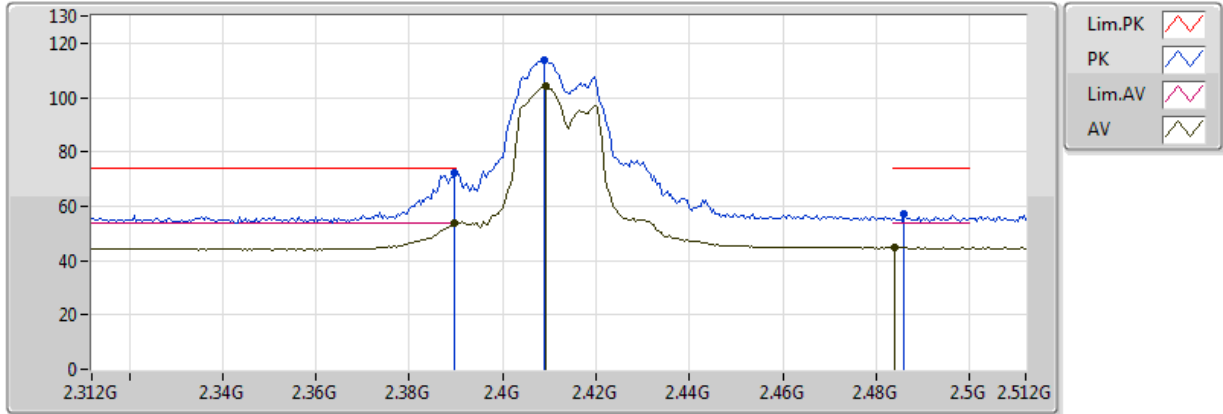


20170719
 EUT_Z_4TX
 Setting 84
 06-M-0
 FSP(100019)
 New sample

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.92391G	49.35	54.00	-4.65	4.92	3	H	311	1.01	-
AV	7.38516G	42.07	54.00	-11.93	8.83	3	H	263	2.59	-
PK	4.92393G	53.54	74.00	-20.46	4.92	3	H	311	1.01	-
PK	7.38592G	54.17	74.00	-19.83	8.83	3	H	263	2.59	-

802.11g_(6Mbps)_4TX

2412MHz_TX

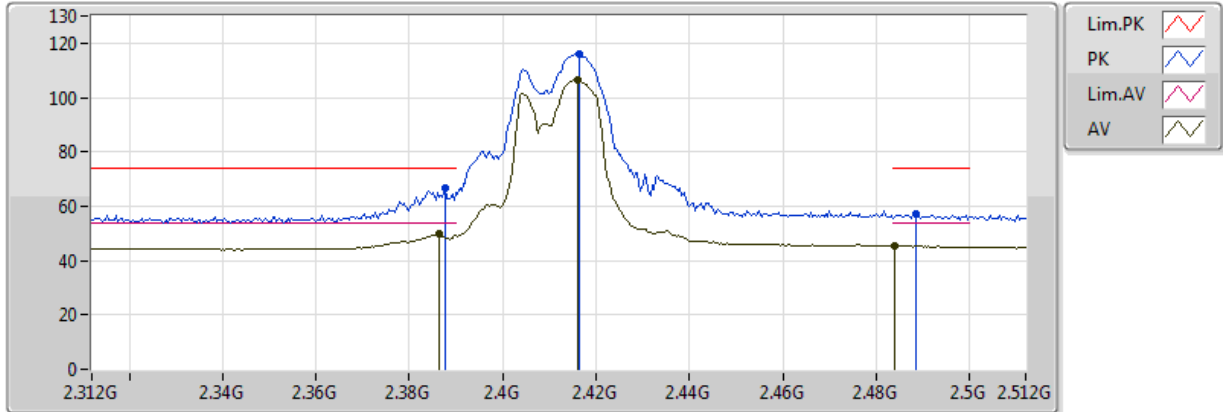


20170721
EUT_Z_4TX
Setting 72
03-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3896G	53.54	54.00	-0.46	31.91	3	V	13	2.99	-
AV	2.4092G	104.06	Inf	-Inf	31.96	3	V	13	2.99	-
AV	2.484G	44.72	54.00	-9.28	32.14	3	V	13	2.99	-
PK	2.3896G	72.06	74.00	-1.94	31.91	3	V	13	2.99	-
PK	2.4088G	113.49	Inf	-Inf	31.96	3	V	13	2.99	-
PK	2.486G	57.12	74.00	-16.88	32.15	3	V	13	2.99	-

802.11g_(6Mbps)_4TX

2412MHz_TX

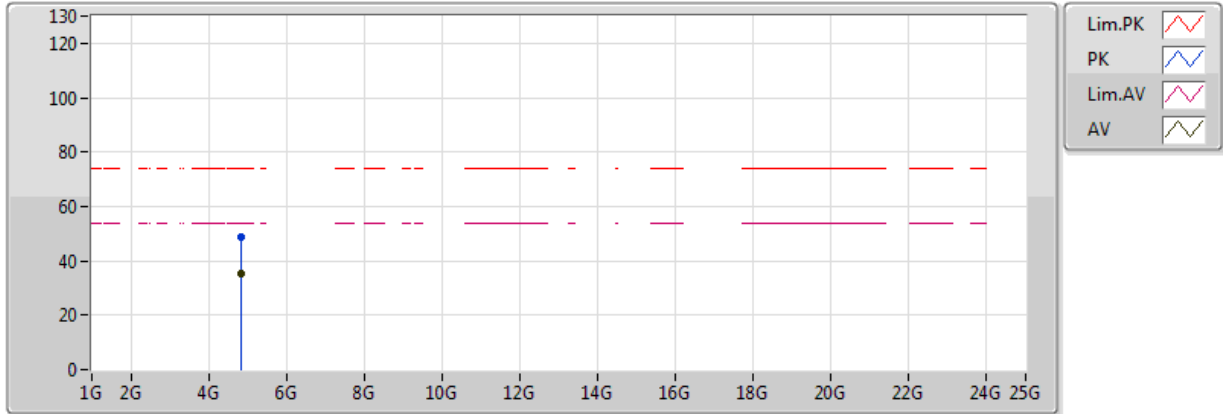


20170721
 EUT_Z_4TX
 Setting 72
 03-M-1
 FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3864G	49.91	54.00	-4.09	31.90	3	H	76	1.01	-
AV	2.416G	106.44	Inf	-Inf	31.98	3	H	76	1.01	-
AV	2.484G	45.46	54.00	-8.54	32.14	3	H	76	1.01	-
PK	2.3876G	66.48	74.00	-7.52	31.91	3	H	76	1.01	-
PK	2.4164G	115.93	Inf	-Inf	31.98	3	H	76	1.01	-
PK	2.4884G	56.98	74.00	-17.02	32.15	3	H	76	1.01	-

802.11g_(6Mbps)_4TX

2412MHz_TX

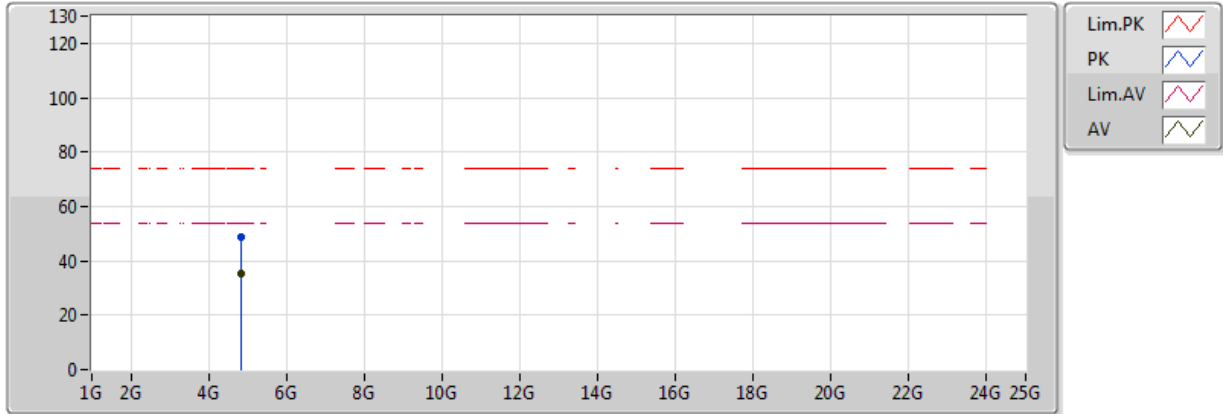


20170721
 EUT_Z_4TX
 Setting 72
 03-P-2
 FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82016G	35.25	54.00	-18.75	4.71	3	V	28	1.03	-
PK	4.81968G	48.55	74.00	-25.45	4.71	3	V	28	1.03	-

802.11g_(6Mbps)_4TX

2412MHz_TX

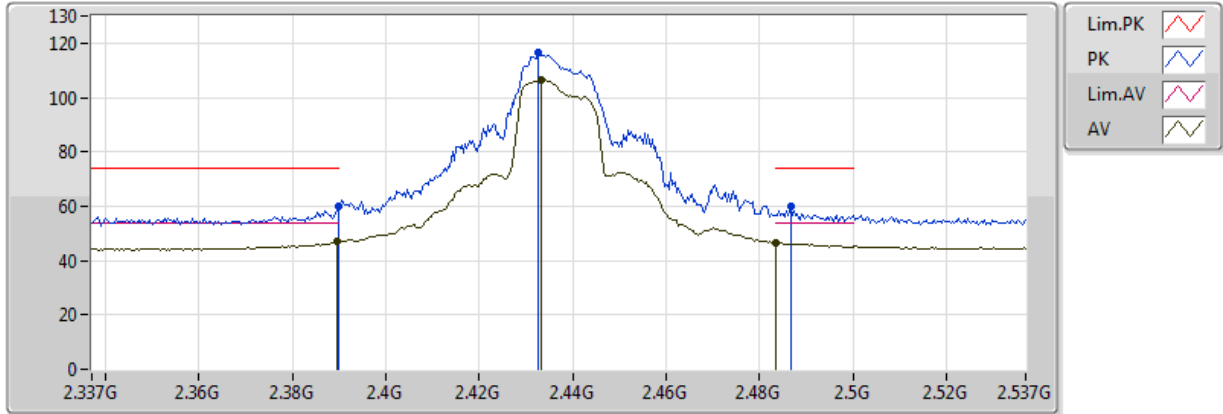


20170721
 EUT_Z_4TX
 Setting 72
 03-P-2
 FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82008G	35.49	54.00	-18.51	4.71	3	H	273	1.01	-
PK	4.81784G	48.81	74.00	-25.19	4.71	3	H	273	1.01	-

802.11g_(6Mbps)_4TX

2437MHz_TX

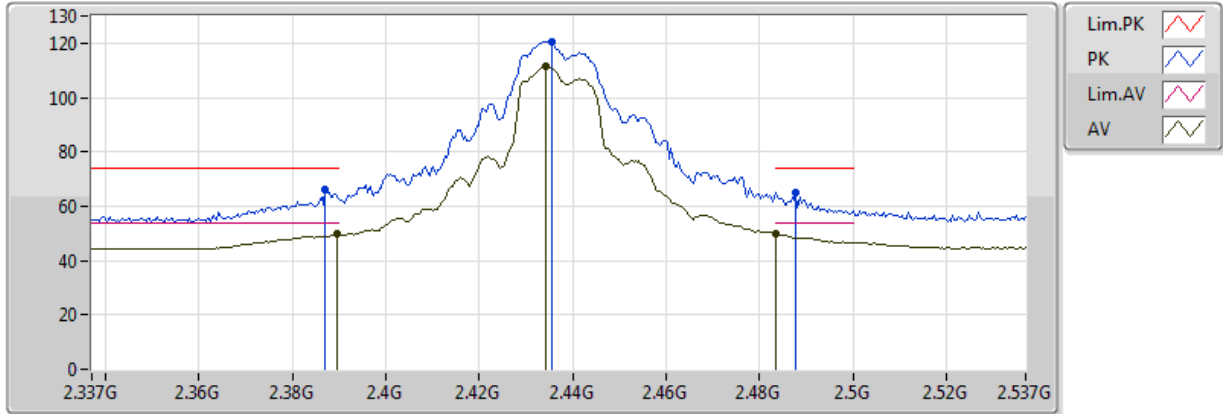


20170721
EUT_Z_4TX
Setting 92
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3894G	46.80	54.00	-7.20	31.91	3	V	206	2.99	-
AV	2.4334G	106.62	Inf	-Inf	32.02	3	V	206	2.99	-
AV	2.483502G	46.55	54.00	-7.45	32.14	3	V	206	2.99	-
PK	2.389998G	59.86	74.00	-14.14	31.91	3	V	206	2.99	-
PK	2.4326G	116.41	Inf	-Inf	32.02	3	V	206	2.99	-
PK	2.4866G	60.08	74.00	-13.92	32.15	3	V	206	2.99	-

802.11g_(6Mbps)_4TX

2437MHz_TX

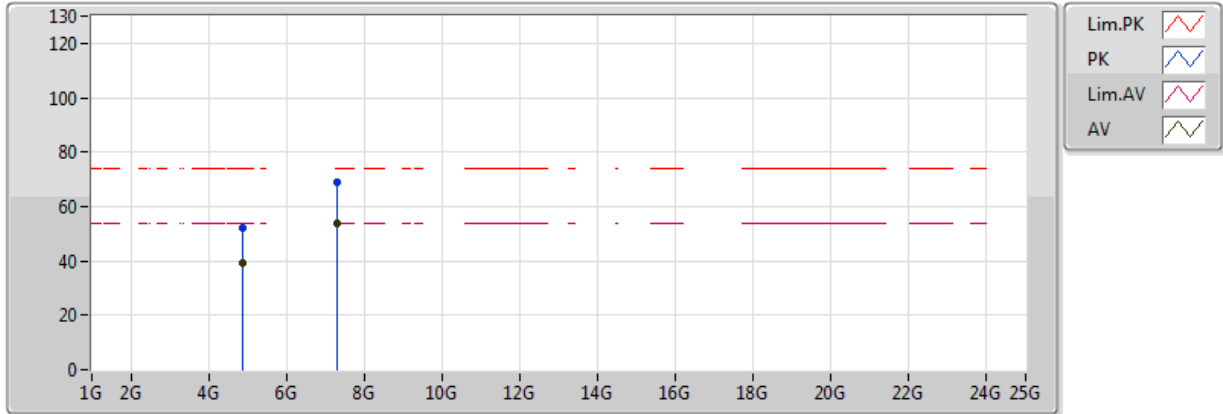


20170721
 EUT_Z_4TX
 Setting 92
 03-P-2
 FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3894G	49.82	54.00	-4.18	31.91	3	H	81	1.17	-
AV	2.4342G	111.26	Inf	-Inf	32.02	3	H	81	1.17	-
AV	2.483502G	50.13	54.00	-3.87	32.14	3	H	81	1.17	-
PK	2.387G	65.93	74.00	-8.07	31.91	3	H	81	1.17	-
PK	2.4354G	120.60	Inf	-Inf	32.02	3	H	81	1.17	-
PK	2.4878G	65.11	74.00	-8.89	32.15	3	H	81	1.17	-

802.11g_(6Mbps)_4TX

2437MHz_TX

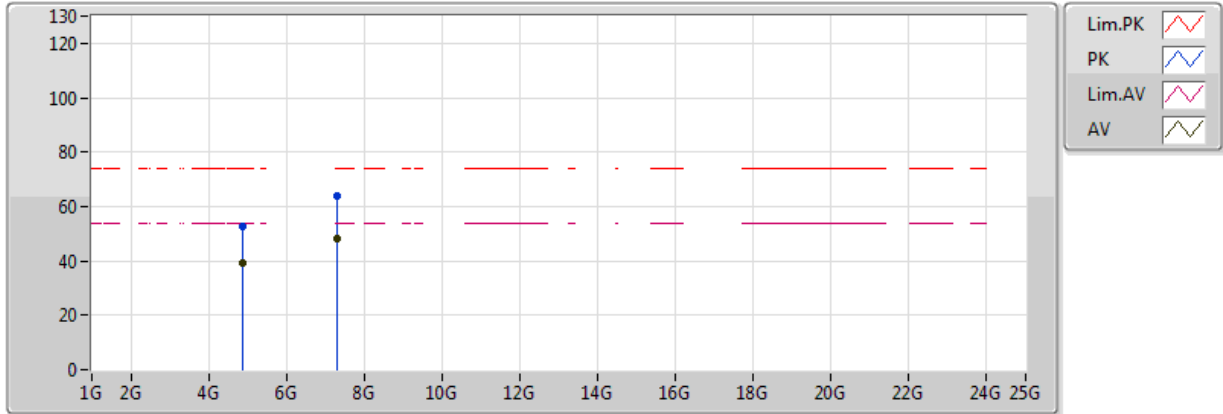


20170721
EUT_Z_4TX
Setting 92
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87024G	39.36	54.00	-14.64	4.81	3	V	28	1.49	-
AV	7.30852G	53.74	54.00	-0.26	8.80	3	V	169	1.11	-
PK	4.86932G	52.13	74.00	-21.87	4.81	3	V	28	1.49	-
PK	7.30512G	69.01	74.00	-4.99	8.80	3	V	169	1.11	-

802.11g_(6Mbps)_4TX

2437MHz_TX

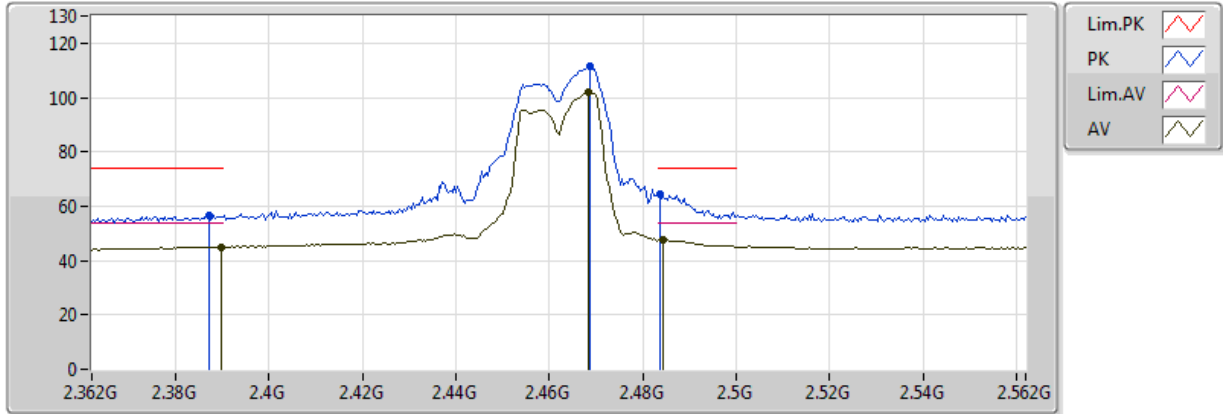


20170721
EUT_Z_4TX
Setting 92
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87008G	39.26	54.00	-14.74	4.81	3	H	268	1.01	-
AV	7.311G	48.31	54.00	-5.69	8.80	3	H	352	2.22	-
PK	4.86984G	52.51	74.00	-21.49	4.81	3	H	268	1.01	-
PK	7.3127G	64.01	74.00	-9.99	8.80	3	H	352	2.22	-

802.11g_(6Mbps)_4TX

2462MHz_TX

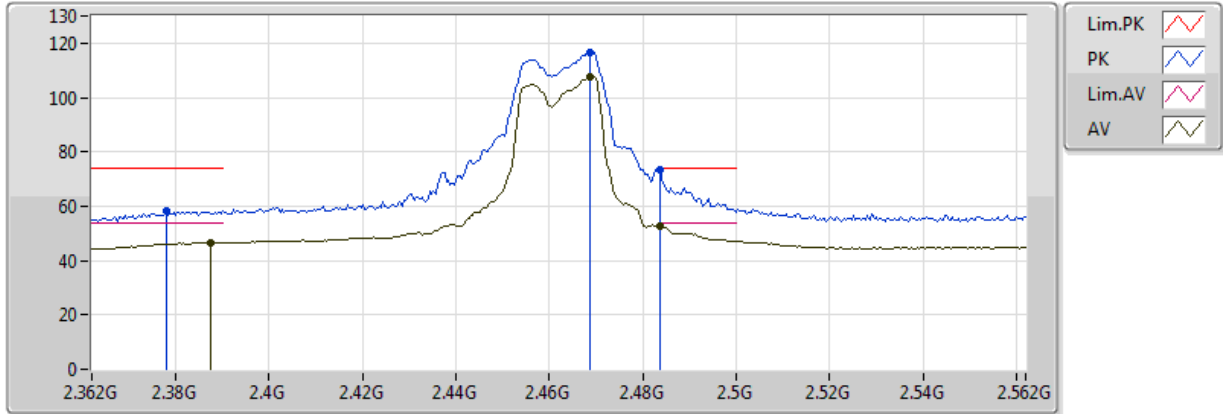


20170721
EUT_Z_4TX
Setting 74
03-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3896G	45.03	54.00	-8.97	31.91	3	V	204	2.99	-
AV	2.4684G	101.75	Inf	-Inf	32.10	3	V	204	2.99	-
AV	2.4844G	47.71	54.00	-6.29	32.14	3	V	204	2.99	-
PK	2.3872G	56.44	74.00	-17.56	31.91	3	V	204	2.99	-
PK	2.4688G	111.23	Inf	-Inf	32.11	3	V	204	2.99	-
PK	2.4836G	64.23	74.00	-9.77	32.14	3	V	204	2.99	-

802.11g_(6Mbps)_4TX

2462MHz_TX

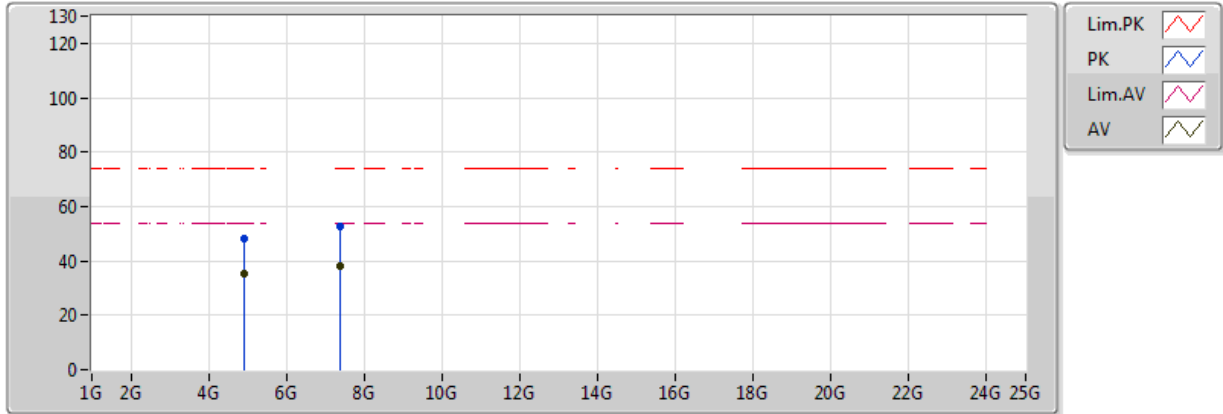


20170721
 EUT_Z_4TX
 Setting 74
 03-M-1
 FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3876G	46.59	54.00	-7.41	31.91	3	H	82	1.11	-
AV	2.4688G	107.66	Inf	-Inf	32.11	3	H	82	1.11	-
AV	2.4836G	52.78	54.00	-1.22	32.14	3	H	82	1.11	-
PK	2.378G	58.52	74.00	-15.48	31.88	3	H	82	1.11	-
PK	2.4688G	116.66	Inf	-Inf	32.11	3	H	82	1.11	-
PK	2.4836G	73.53	74.00	-0.47	32.14	3	H	82	1.11	-

802.11g_(6Mbps)_4TX

2462MHz_TX



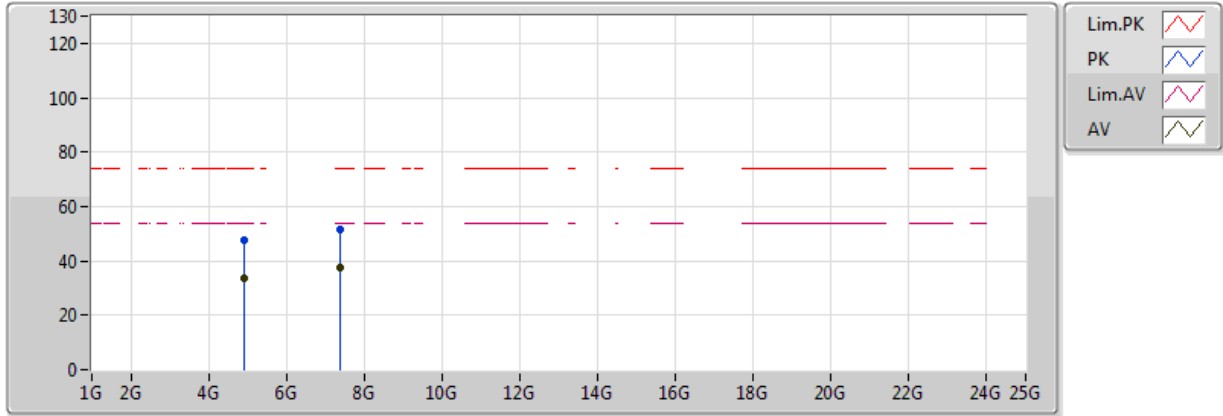
20170721
 EUT_Z_4TX
 Setting 74
 03-P-2
 FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.92336G	35.48	54.00	-18.52	4.92	3	V	228	1.07	-
AV	7.39116G	38.37	54.00	-15.63	8.83	3	V	266	1.01	-
PK	4.92484G	48.29	74.00	-25.71	4.92	3	V	228	1.07	-
PK	7.39084G	52.55	74.00	-21.45	8.83	3	V	266	1.01	-



802.11g_(6Mbps)_4TX

2462MHz_TX

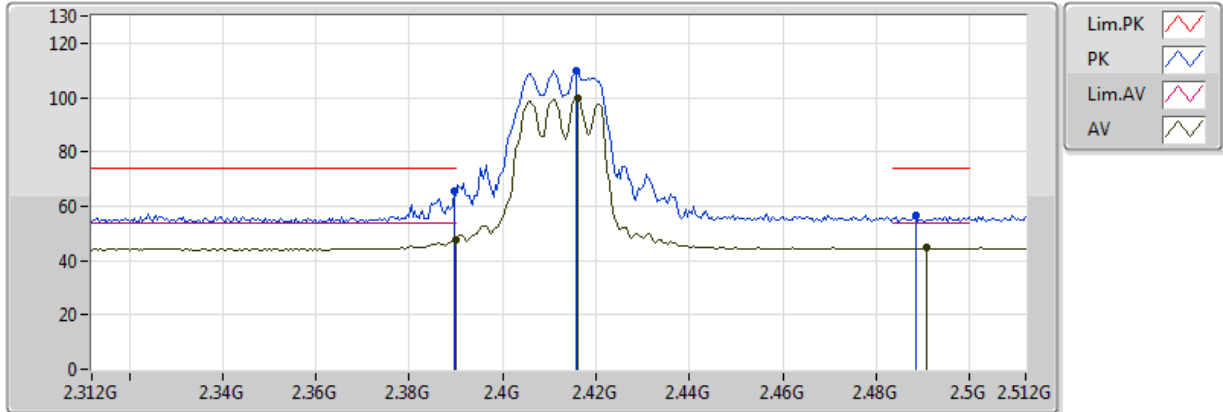


20170721
 EUT_Z_4TX
 Setting 74
 03-P-2
 FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.91988G	33.76	54.00	-20.24	4.91	3	H	0	2.22	-
AV	7.39324G	37.41	54.00	-16.59	8.83	3	H	350	2.62	-
PK	4.93264G	47.43	74.00	-26.57	4.94	3	H	0	2.22	-
PK	7.39388G	51.50	74.00	-22.50	8.83	3	H	350	2.62	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2412MHz_TX

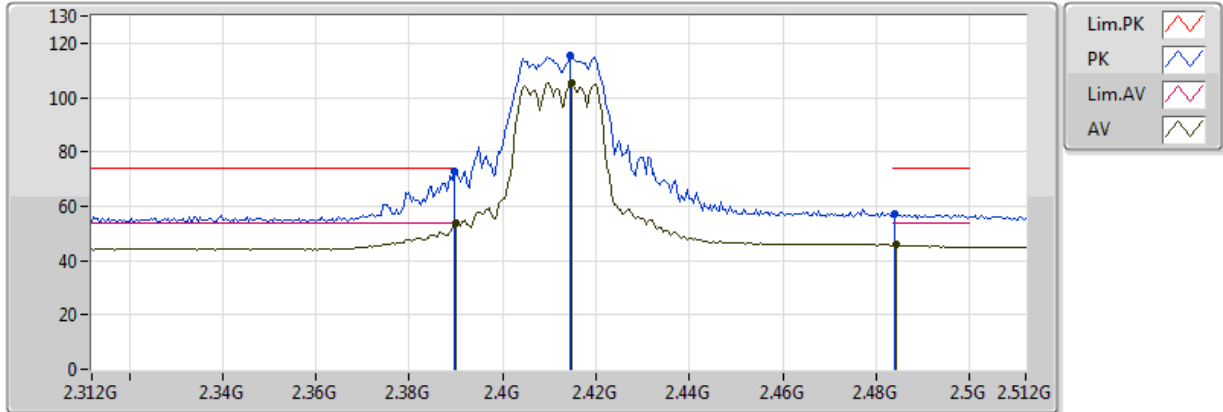


20170721
EUT_Z_4TX
Setting 71
03-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.39G	47.89	54.00	-6.11	31.91	3	V	112	2.73	-
AV	2.416G	99.47	Inf	-Inf	31.98	3	V	112	2.73	-
AV	2.4908G	44.55	54.00	-9.45	32.16	3	V	112	2.73	-
PK	2.3896G	65.51	74.00	-8.49	31.91	3	V	112	2.73	-
PK	2.4156G	109.74	Inf	-Inf	31.98	3	V	112	2.73	-
PK	2.4884G	56.68	74.00	-17.32	32.15	3	V	112	2.73	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2412MHz_TX

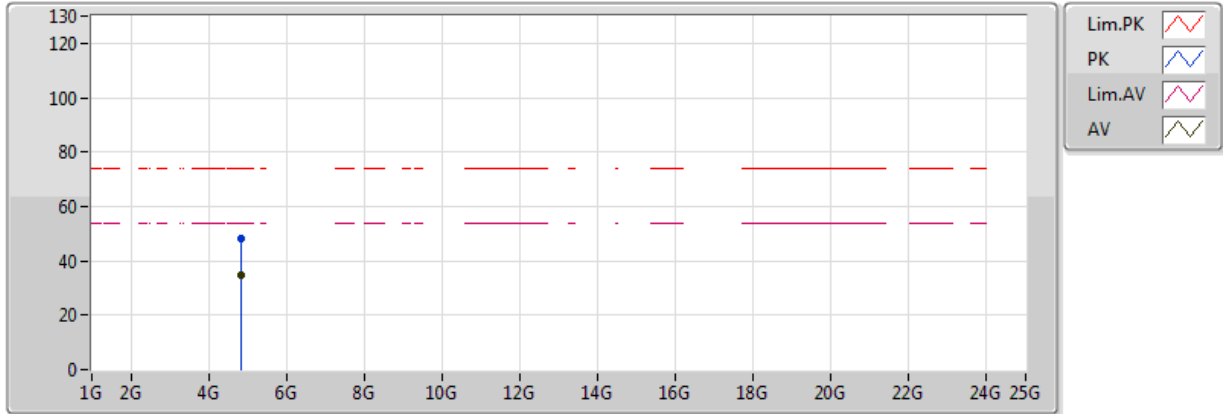


20170721
EUT_Z_4TX
Setting 71
03-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.39G	53.94	54.00	-0.06	31.91	3	H	81	1.55	-
AV	2.4148G	105.39	Inf	-Inf	31.98	3	H	81	1.55	-
AV	2.4844G	45.69	54.00	-8.31	32.14	3	H	81	1.55	-
PK	2.3896G	72.81	74.00	-1.19	31.91	3	H	81	1.55	-
PK	2.4144G	115.22	Inf	-Inf	31.97	3	H	81	1.55	-
PK	2.484G	57.20	74.00	-16.80	32.14	3	H	81	1.55	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2412MHz_TX

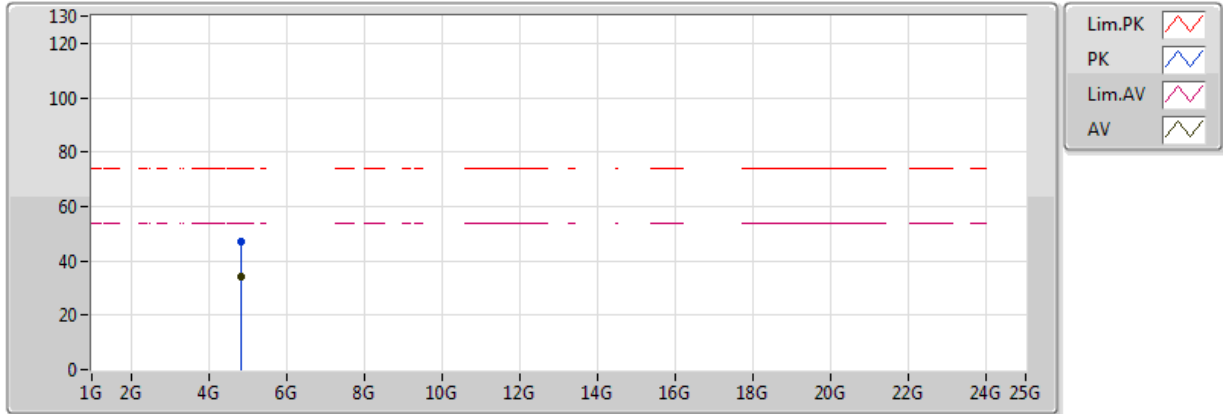


20170721
EUT_Z_4TX
Setting 71
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82236G	34.91	54.00	-19.09	4.71	3	V	228	2.39	-
PK	4.8218G	48.37	74.00	-25.63	4.71	3	V	228	2.39	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2412MHz_TX

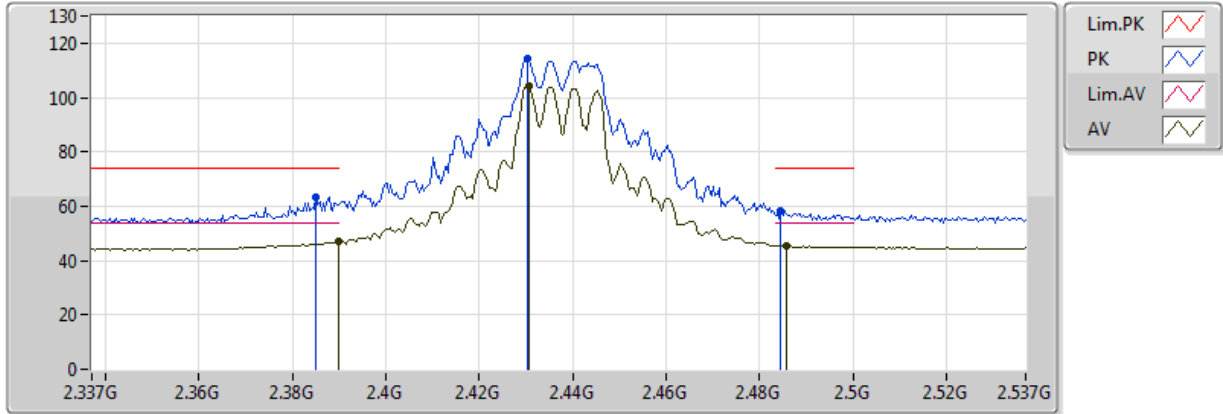


20170721
 EUT_Z_4TX
 Setting 71
 03-P-2
 FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82244G	33.96	54.00	-20.04	4.71	3	H	23	2.55	-
PK	4.82672G	47.28	74.00	-26.72	4.72	3	H	23	2.55	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2437MHz_TX

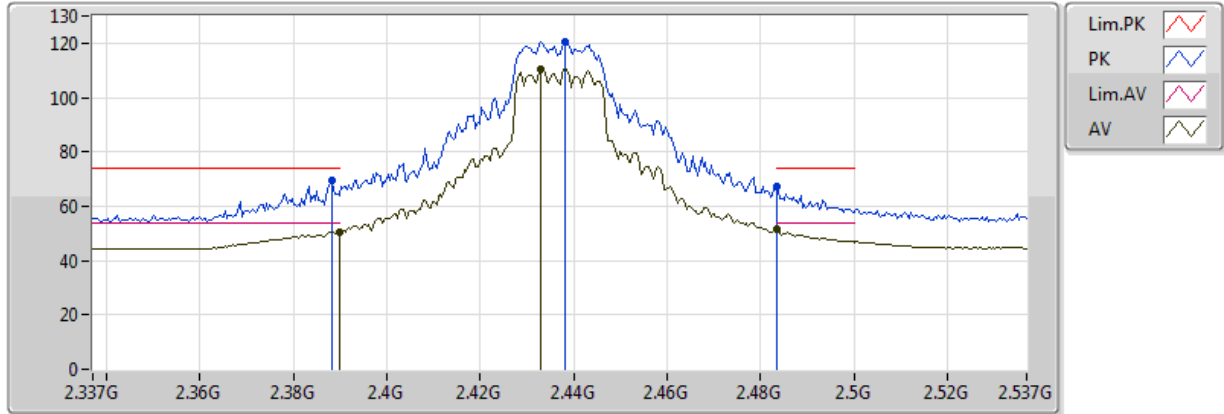


20170721
EUT_Z_4TX
Setting 94
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	47.05	54.00	-6.95	31.91	3	V	152	2.39	-
AV	2.4306G	104.21	Inf	-Inf	32.01	3	V	152	2.39	-
AV	2.4858G	45.62	54.00	-8.38	32.15	3	V	152	2.39	-
PK	2.385G	63.58	74.00	-10.42	31.90	3	V	152	2.39	-
PK	2.4302G	114.19	Inf	-Inf	32.01	3	V	152	2.39	-
PK	2.4846G	58.24	74.00	-15.76	32.14	3	V	152	2.39	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2437MHz_TX

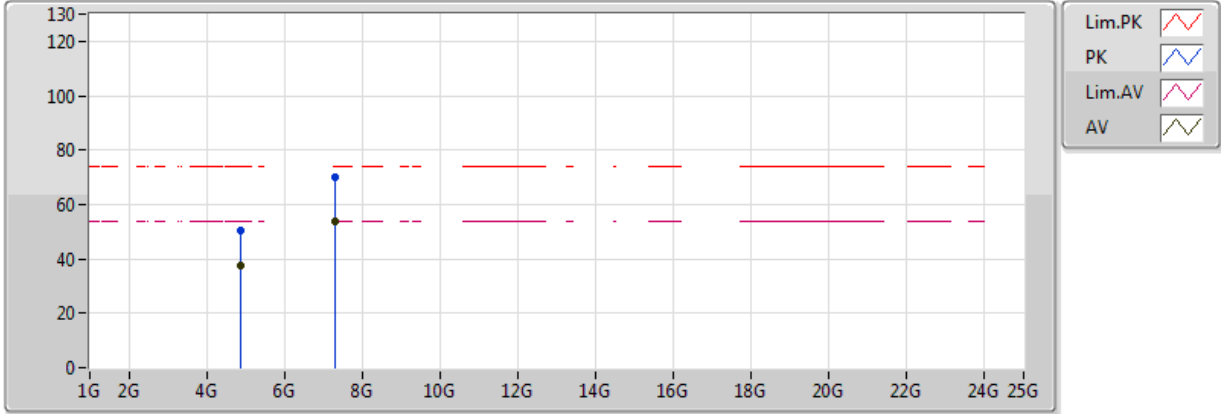


20170721
EUT_Z_4TX
Setting 94
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	50.71	54.00	-3.29	31.91	3	H	81	1.64	-
AV	2.433G	110.60	Inf	-Inf	32.02	3	H	81	1.64	-
AV	2.483502G	51.37	54.00	-2.63	32.14	3	H	81	1.64	-
PK	2.3882G	69.33	74.00	-4.67	31.91	3	H	81	1.64	-
PK	2.4382G	120.59	Inf	-Inf	32.03	3	H	81	1.64	-
PK	2.483502G	67.39	74.00	-6.61	32.14	3	H	81	1.64	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2437MHz_TX

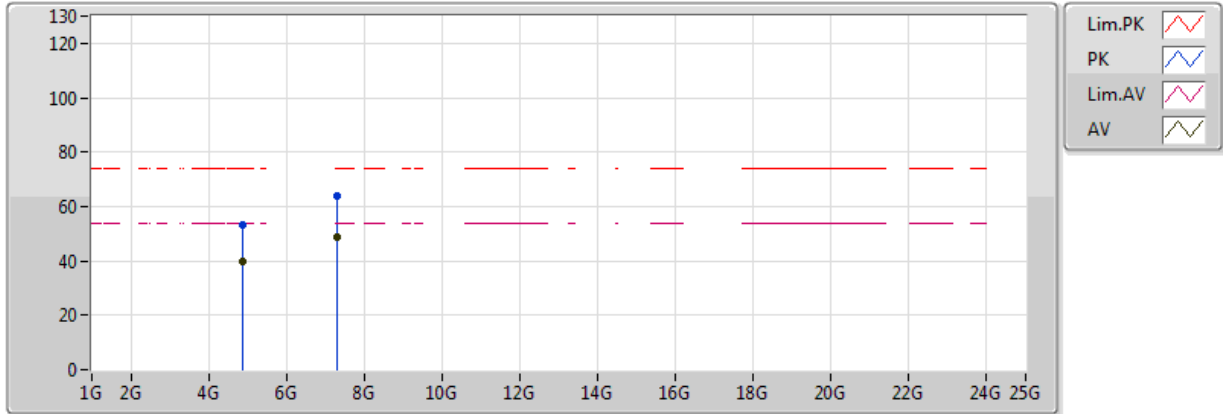


20170721
EUT_Z_4TX
Setting 94
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87218G	37.28	54.00	-16.72	4.81	3	V	202	2.99	-
AV	7.3082G	53.82	54.00	-0.18	8.80	3	V	168	1.05	-
PK	4.87242G	50.71	74.00	-23.29	4.81	3	V	202	2.99	-
PK	7.3085G	70.26	74.00	-3.74	8.80	3	V	168	1.05	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2437MHz_TX

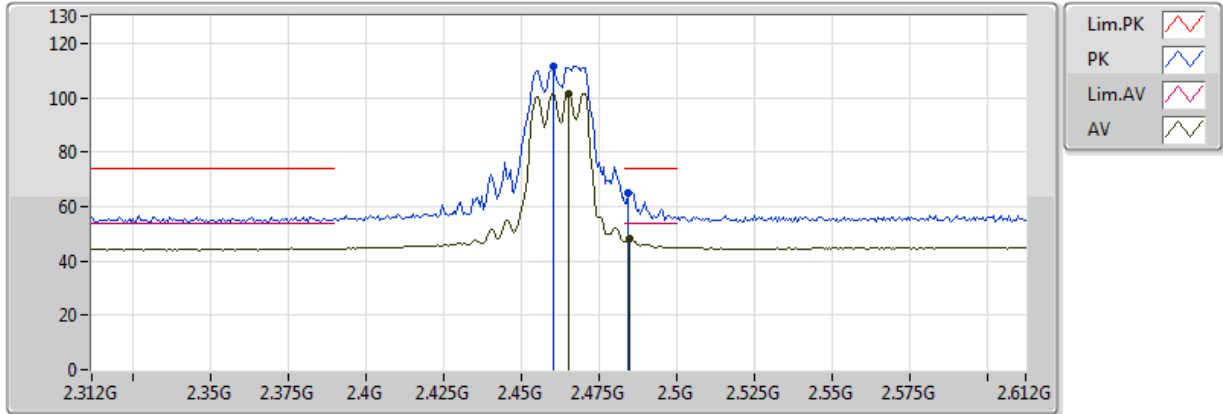


20170721
EUT_Z_4TX
Setting 94
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.8724G	39.59	54.00	-14.41	4.81	3	H	26	1.03	-
AV	7.3087G	48.65	54.00	-5.35	8.80	3	H	351	1.08	-
PK	4.8722G	53.10	74.00	-20.90	4.81	3	H	26	1.03	-
PK	7.3085G	63.87	74.00	-10.13	8.80	3	H	351	1.08	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2462MHz_TX

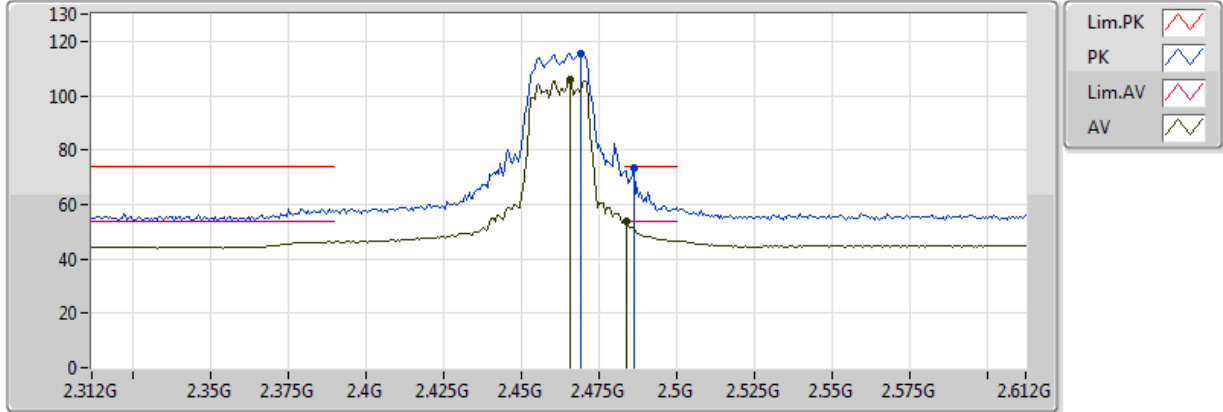


20170721
 EUT_Z_4TX
 Setting 73
 03-P-2
 FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.465G	101.62	Inf	-Inf	32.10	3	V	182	2.98	-
AV	2.4848G	48.06	54.00	-5.94	32.14	3	V	182	2.98	-
PK	2.4602G	111.58	Inf	-Inf	32.08	3	V	182	2.98	-
PK	2.4842G	65.11	74.00	-8.89	32.14	3	V	182	2.98	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2462MHz_TX

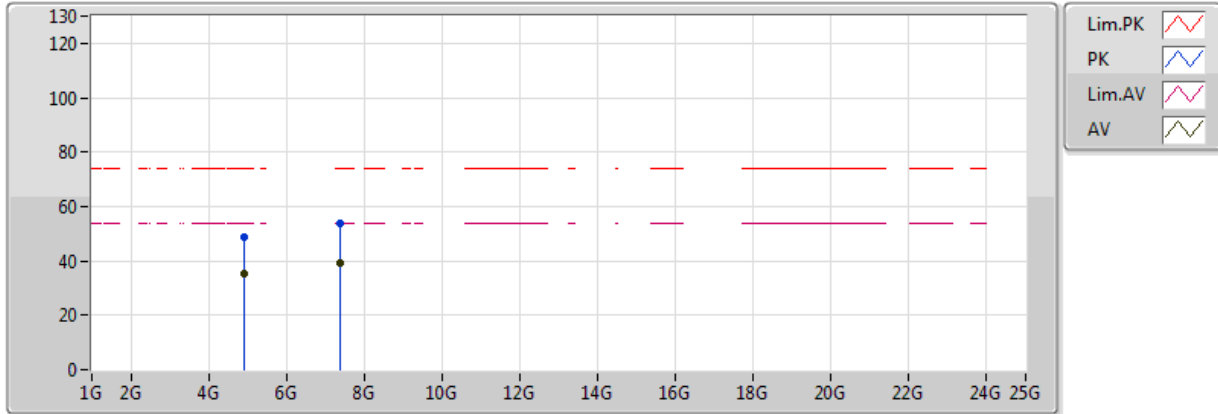


20170721
EUT_Z_4TX
Setting 73
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4656G	106.07	Inf	-Inf	32.10	3	H	79	1.61	-
AV	2.4836G	53.58	54.00	-0.42	32.14	3	H	79	1.61	-
PK	2.4692G	115.60	Inf	-Inf	32.11	3	H	79	1.61	-
PK	2.486G	73.21	74.00	-0.79	32.15	3	H	79	1.61	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2462MHz_TX

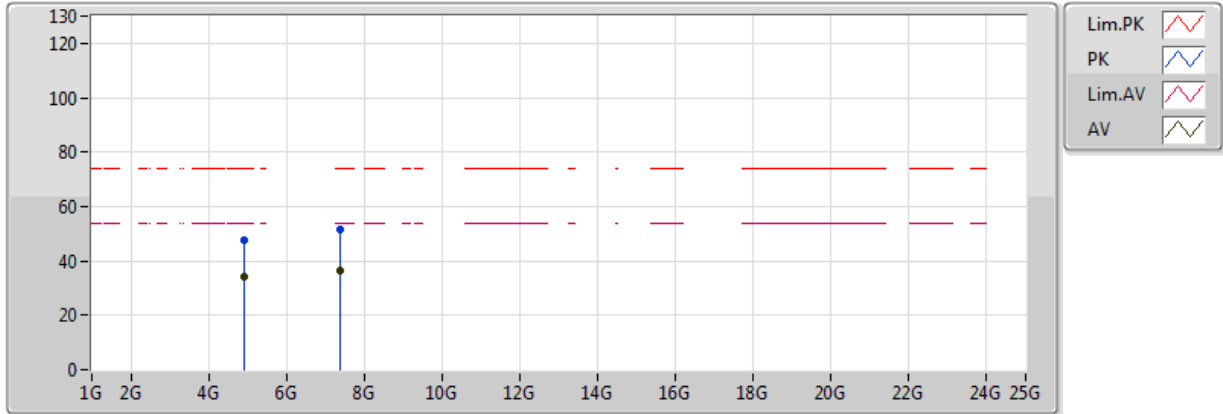


20170721
EUT_Z_4TX
Setting 73
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.92662G	35.14	54.00	-18.86	4.93	3	V	18	1.02	-
AV	7.38718G	39.02	54.00	-14.98	8.83	3	V	232	1.02	-
PK	4.92662G	49.03	74.00	-24.97	4.93	3	V	18	1.02	-
PK	7.38718G	53.69	74.00	-20.31	8.83	3	V	232	1.02	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2462MHz_TX

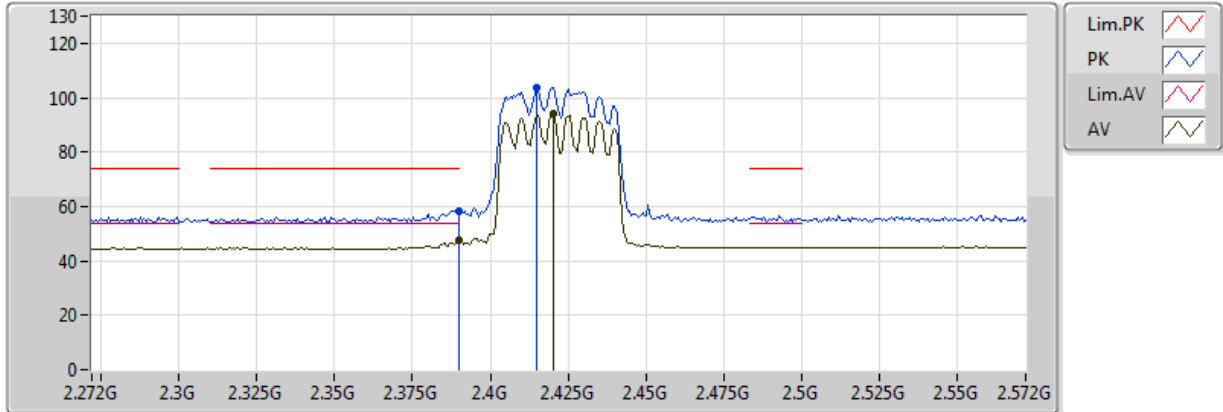


20170721
EUT_Z_4TX
Setting 73
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.9224G	34.37	54.00	-19.63	4.92	3	H	26	1.23	-
AV	7.38724G	36.68	54.00	-17.32	8.83	3	H	11	1.01	-
PK	4.92252G	47.82	74.00	-26.18	4.92	3	H	26	1.23	-
PK	7.3822G	51.68	74.00	-22.32	8.82	3	H	11	1.01	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2422MHz_TX

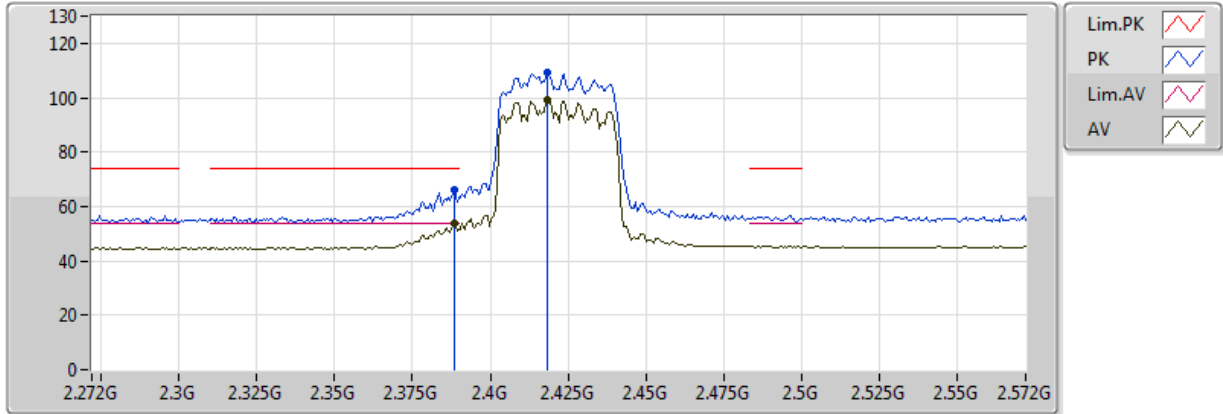


20170721
 EUT_Z_4TX
 Setting 59
 03-P-2
 FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	47.47	54.00	-6.53	31.91	3	V	152	2.61	-
AV	2.4202G	94.37	Inf	-Inf	31.99	3	V	152	2.61	-
PK	2.389998G	58.53	74.00	-15.47	31.91	3	V	152	2.61	-
PK	2.4148G	103.89	Inf	-Inf	31.98	3	V	152	2.61	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2422MHz_TX

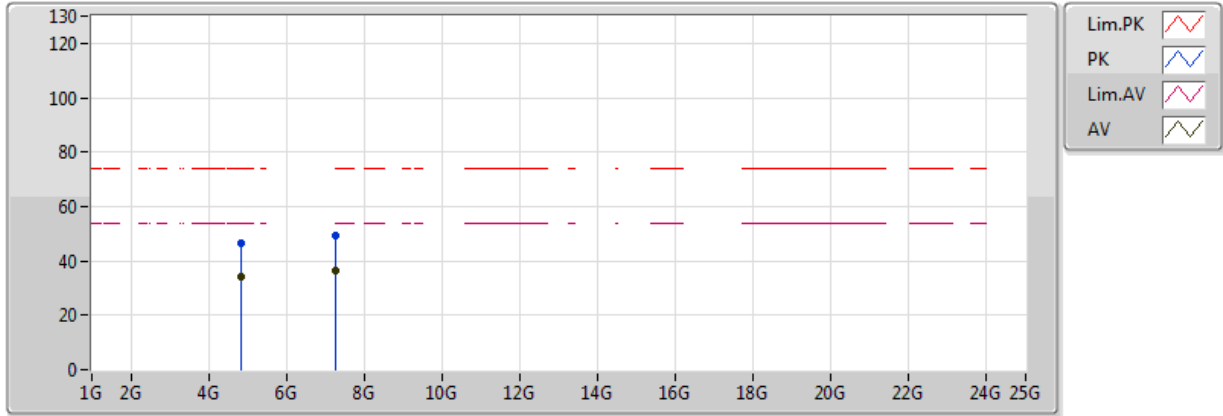


20170721
EUT_Z_4TX
Setting 59
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3884G	53.65	54.00	-0.35	31.91	3	H	305	1.01	-
AV	2.4184G	99.45	Inf	-Inf	31.98	3	H	305	1.01	-
PK	2.3884G	65.90	74.00	-8.10	31.91	3	H	305	1.01	-
PK	2.4184G	109.14	Inf	-Inf	31.98	3	H	305	1.01	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2422MHz_TX

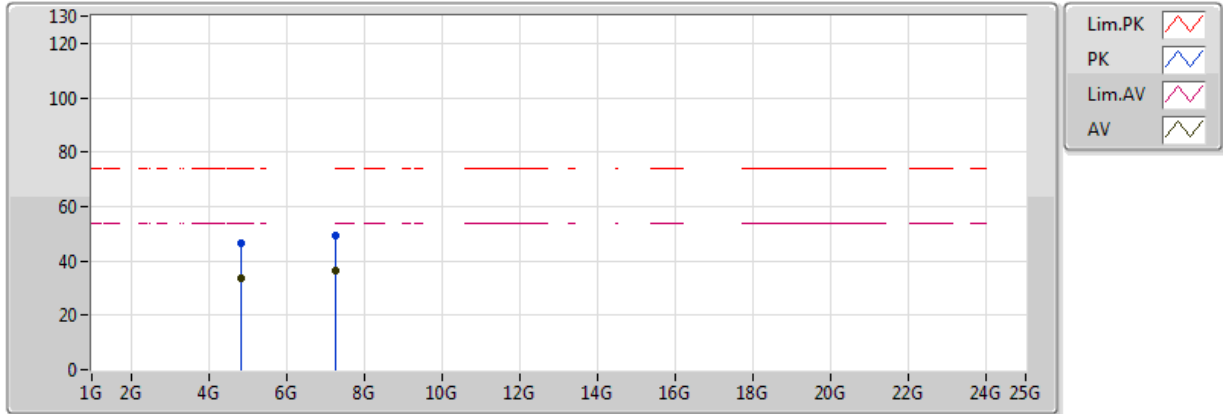


20170721
EUT_Z_4TX
Setting 59
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.84228G	33.99	54.00	-20.01	4.75	3	V	25	1.01	-
AV	7.26798G	36.54	54.00	-17.46	8.79	3	V	247	1.50	-
PK	4.84856G	46.29	74.00	-27.71	4.77	3	V	25	1.01	-
PK	7.26162G	49.52	74.00	-24.48	8.78	3	V	247	1.50	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2422MHz_TX

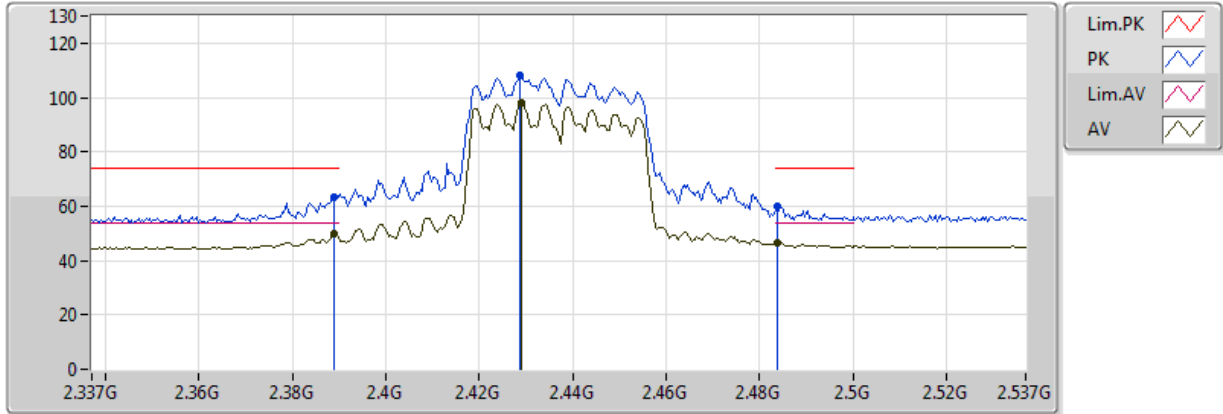


20170721
 EUT_Z_4TX
 Setting 59
 03-P-2
 FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.84532G	33.64	54.00	-20.36	4.76	3	H	171	2.30	-
AV	7.27086G	36.52	54.00	-17.48	8.79	3	H	359	2.95	-
PK	4.84366G	46.48	74.00	-27.52	4.76	3	H	171	2.30	-
PK	7.26192G	49.12	74.00	-24.88	8.78	3	H	359	2.95	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2437MHz_TX

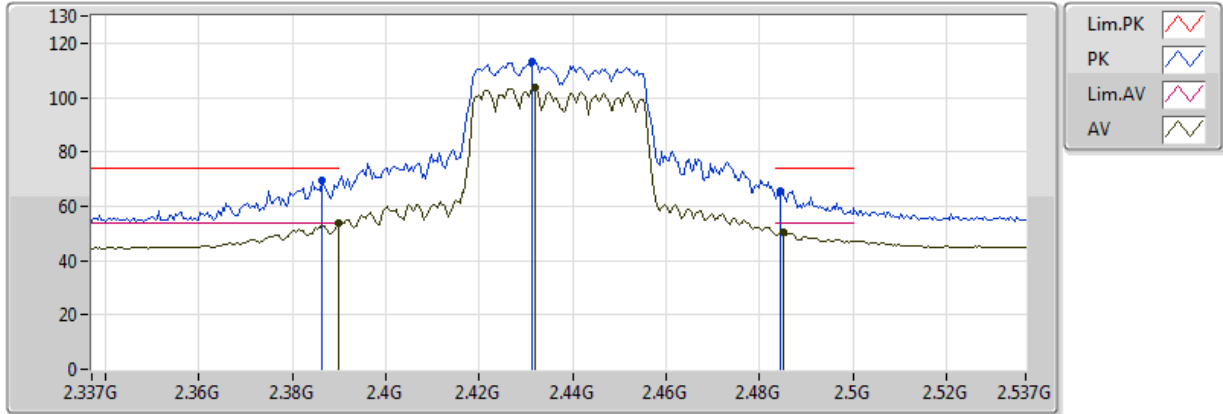


20170721
EUT_Z_4TX
Setting 74
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389G	49.74	54.00	-4.26	31.91	3	V	145	2.68	-
AV	2.429G	97.98	Inf	-Inf	32.01	3	V	145	2.68	-
AV	2.4838G	46.78	54.00	-7.22	32.14	3	V	145	2.68	-
PK	2.389G	63.50	74.00	-10.50	31.91	3	V	145	2.68	-
PK	2.4286G	108.40	Inf	-Inf	32.01	3	V	145	2.68	-
PK	2.4838G	59.80	74.00	-14.20	32.14	3	V	145	2.68	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2437MHz_TX

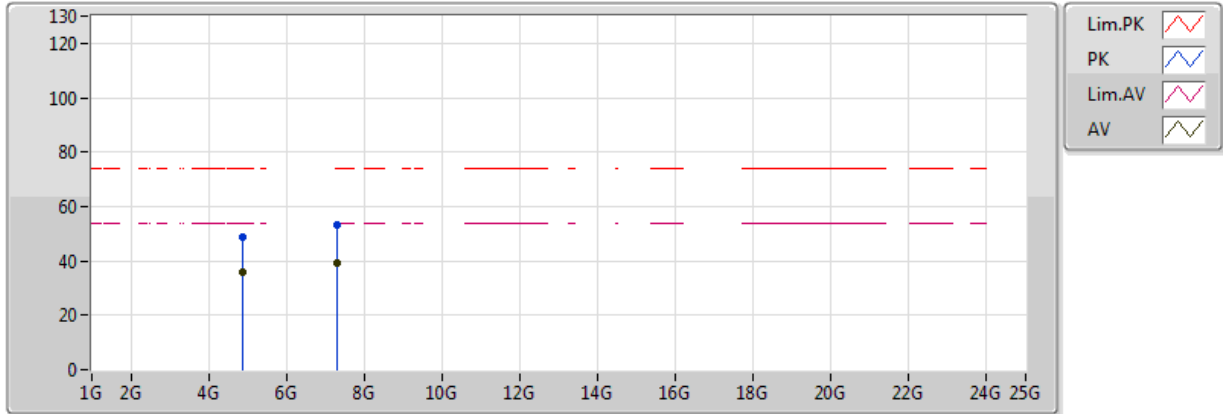


20170721
EUT_Z_4TX
Setting 74
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	53.56	54.00	-0.44	31.91	3	H	85	1.04	-
AV	2.4318G	103.87	Inf	-Inf	32.02	3	H	85	1.04	-
AV	2.485G	50.29	54.00	-3.71	32.14	3	H	85	1.04	-
PK	2.3862G	69.69	74.00	-4.31	31.90	3	H	85	1.04	-
PK	2.4314G	112.91	Inf	-Inf	32.02	3	H	85	1.04	-
PK	2.4846G	65.35	74.00	-8.65	32.14	3	H	85	1.04	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2437MHz_TX

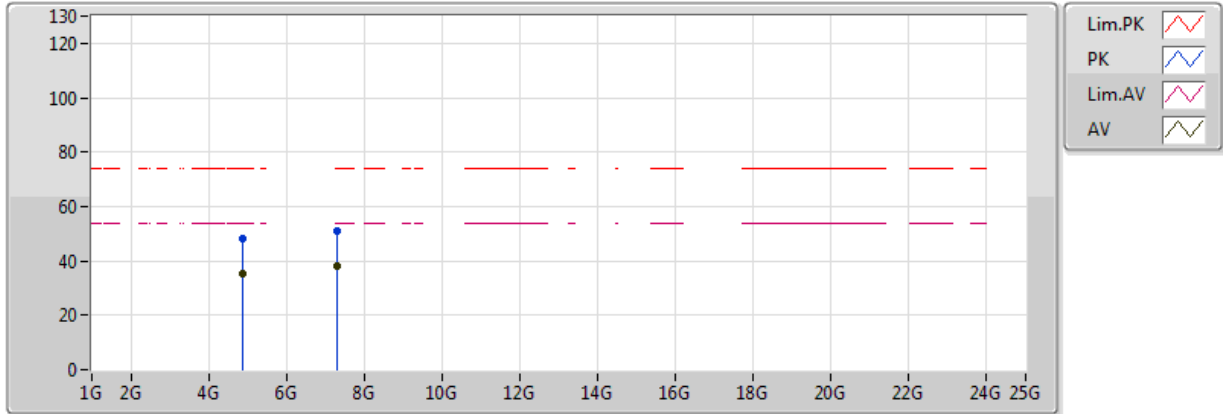


20170721
EUT_Z_4TX
Setting 74
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.8767G	35.81	54.00	-18.19	4.82	3	V	18	1.01	-
AV	7.30732G	39.13	54.00	-14.87	8.80	3	V	231	1.17	-
PK	4.87138G	48.56	74.00	-25.44	4.81	3	V	18	1.01	-
PK	7.31234G	53.16	74.00	-20.84	8.80	3	V	231	1.17	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2437MHz_TX

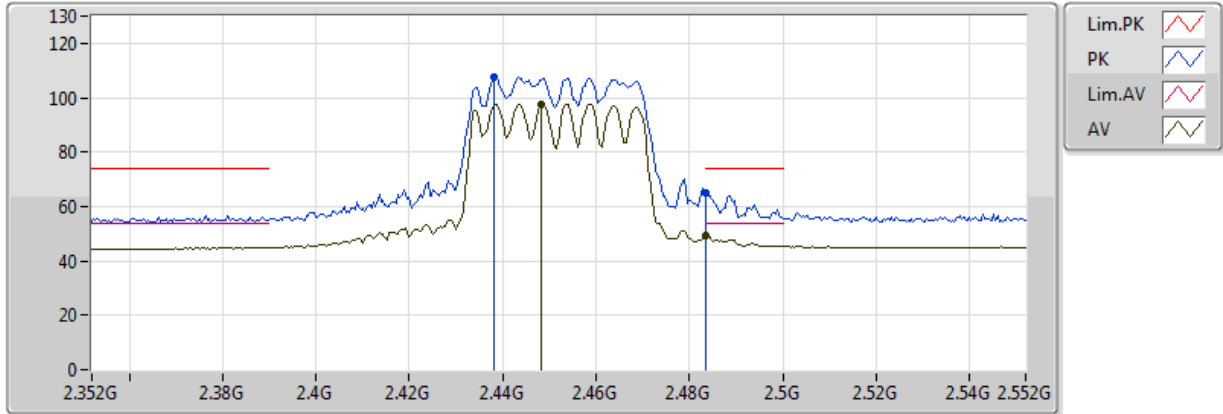


20170721
EUT_Z_4TX
Setting 74
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.8778G	35.34	54.00	-18.66	4.83	3	H	24	2.66	-
AV	7.30938G	37.92	54.00	-16.08	8.80	3	H	0	2.74	-
PK	4.87242G	48.05	74.00	-25.95	4.81	3	H	24	2.66	-
PK	7.30884G	50.78	74.00	-23.22	8.80	3	H	0	2.74	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2452MHz_TX

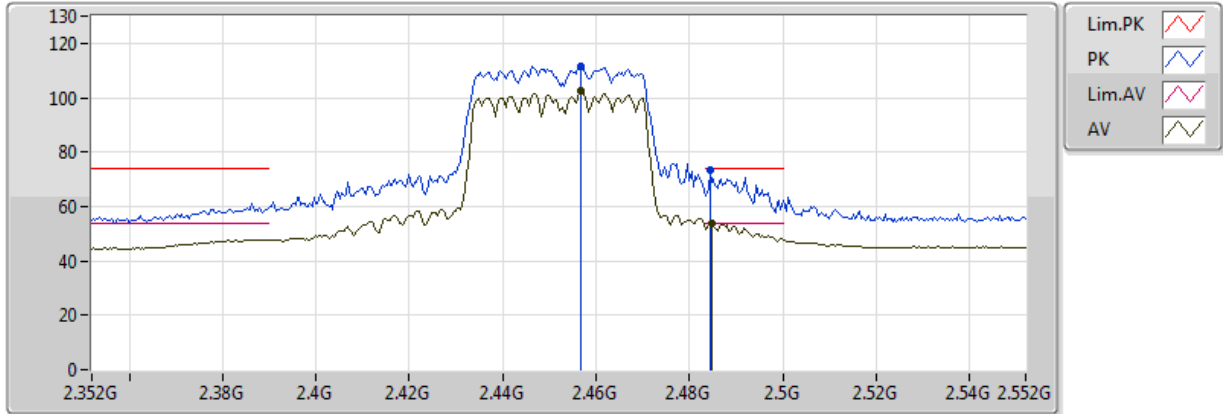


20170721
EUT_Z_4TX
Setting 68
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4484G	97.66	Inf	-Inf	32.06	3	V	188	2.96	-
AV	2.4836G	49.07	54.00	-4.93	32.14	3	V	188	2.96	-
PK	2.438G	107.60	Inf	-Inf	32.03	3	V	188	2.96	-
PK	2.4836G	65.07	74.00	-8.93	32.14	3	V	188	2.96	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2452MHz_TX

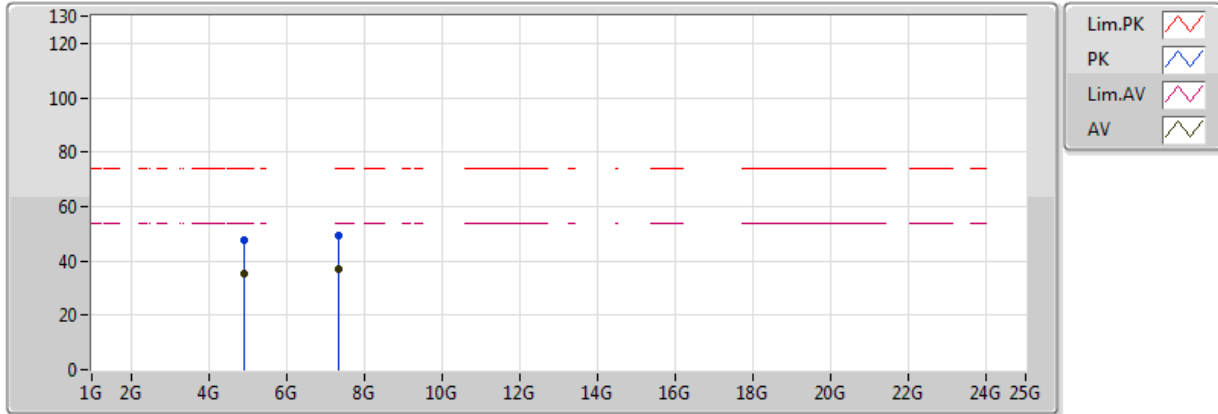


20170721
EUT_Z_4TX
Setting 68
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4568G	102.40	Inf	-Inf	32.08	3	H	86	1.01	-
AV	2.4848G	53.71	54.00	-0.29	32.14	3	H	86	1.01	-
PK	2.4568G	111.55	Inf	-Inf	32.08	3	H	86	1.01	-
PK	2.4844G	73.27	74.00	-0.73	32.14	3	H	86	1.01	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2452MHz_TX

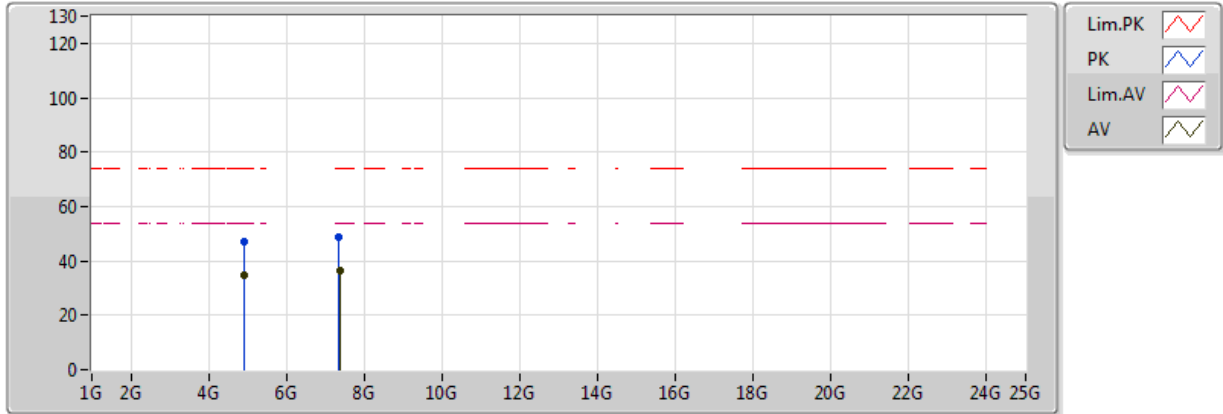


20170721
EUT_Z_4TX
Setting 68
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.90442G	35.13	54.00	-18.87	4.88	3	V	230	1.11	-
AV	7.35228G	37.25	54.00	-16.75	8.82	3	V	236	1.19	-
PK	4.9044G	47.35	74.00	-26.65	4.88	3	V	230	1.11	-
PK	7.35212G	49.53	74.00	-24.47	8.82	3	V	236	1.19	-

802.11ac VHT40_Nss1,(MCS0)_4TX

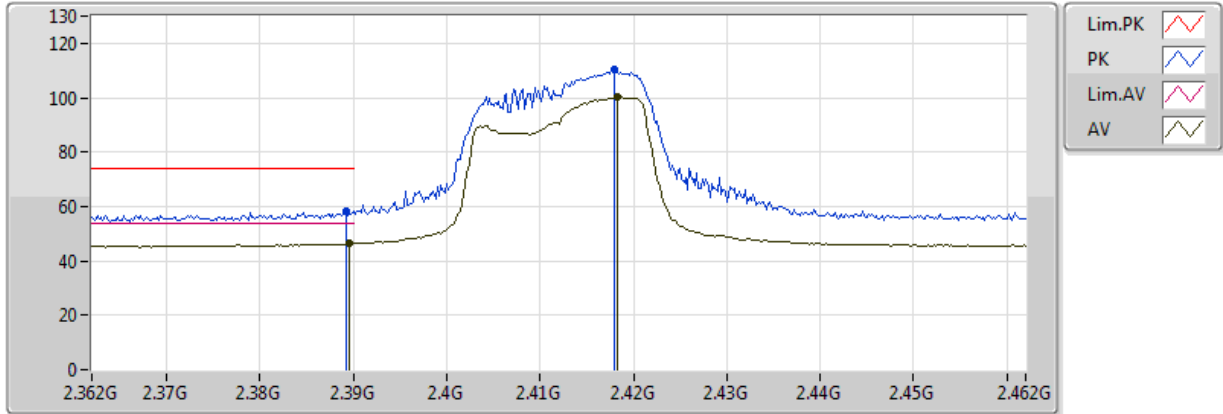
2452MHz_TX



20170721
 EUT_Z_4TX
 Setting 68
 03-P-2
 FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.90702G	34.73	54.00	-19.27	4.89	3	H	18	2.98	-
AV	7.36452G	36.55	54.00	-17.45	8.82	3	H	338	1.22	-
PK	4.90646G	46.80	74.00	-27.20	4.88	3	H	18	2.98	-
PK	7.34664G	48.86	74.00	-25.14	8.81	3	H	338	1.22	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX 2412MHz_TX

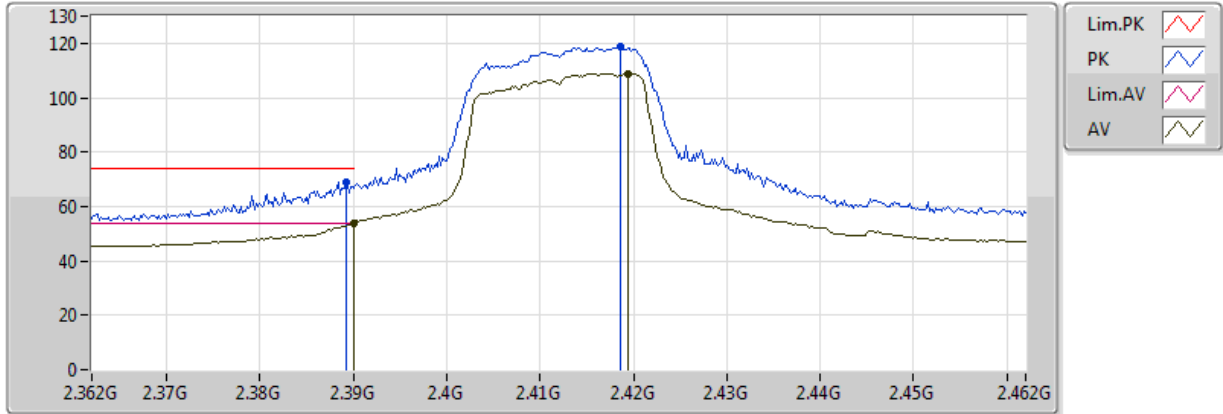


20170908
EUT_Z_4TX
Setting 69
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3896G	46.34	54.00	-7.66	33.15	3	V	241	2.08	-
AV	2.4182G	100.19	Inf	-Inf	33.15	3	V	241	2.08	-
PK	2.3892G	58.20	74.00	-15.80	33.15	3	V	241	2.08	-
PK	2.418G	110.56	Inf	-Inf	33.15	3	V	241	2.08	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2412MHz_TX

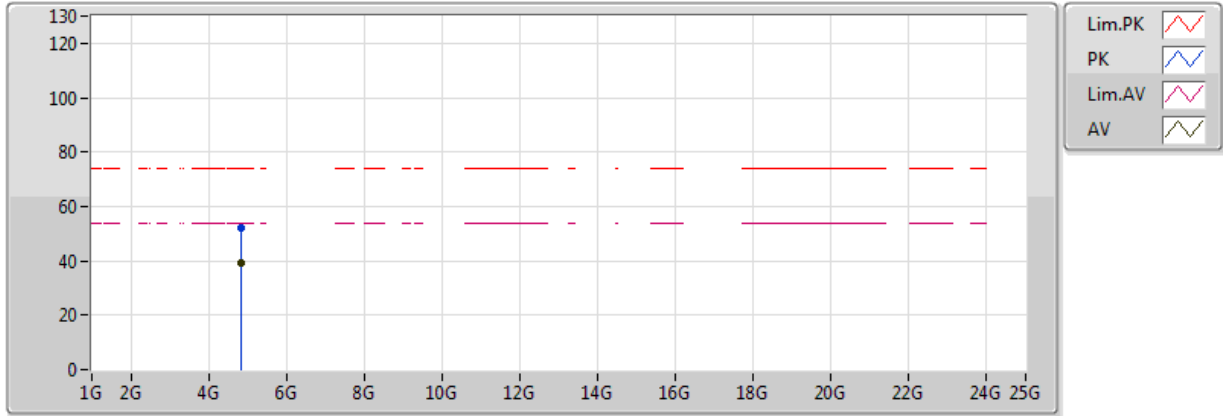


20170908
EUT_Z_4TX
Setting 69
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	53.92	54.00	-0.08	33.15	3	H	72	1.40	-
AV	2.4194G	108.84	Inf	-Inf	33.15	3	H	72	1.40	-
PK	2.3892G	69.20	74.00	-4.80	33.15	3	H	72	1.40	-
PK	2.4186G	118.63	Inf	-Inf	33.15	3	H	72	1.40	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2412MHz_TX

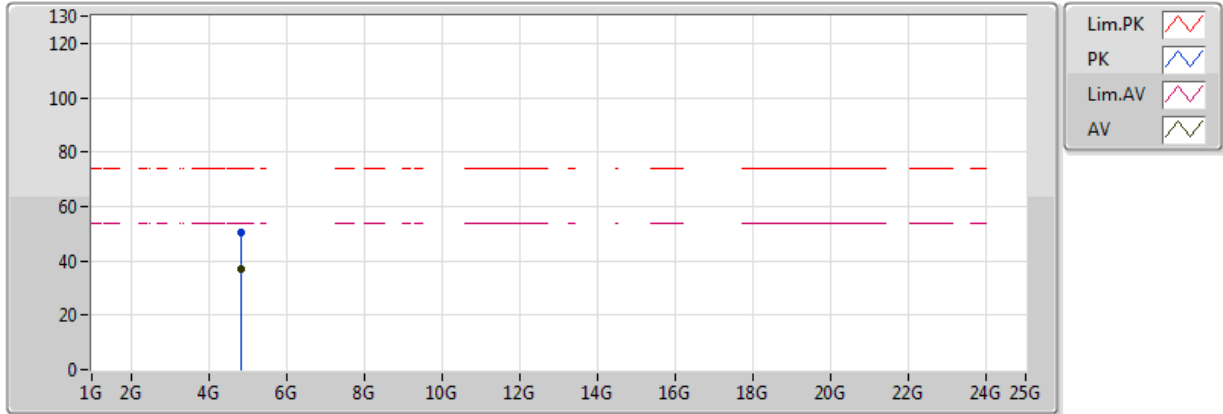


20170908
EUT_Z_4TX
Setting 69
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82508G	39.25	54.00	-14.75	4.19	3	V	16	1.45	-
PK	4.82256G	52.22	74.00	-21.78	4.18	3	V	16	1.45	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2412MHz_TX

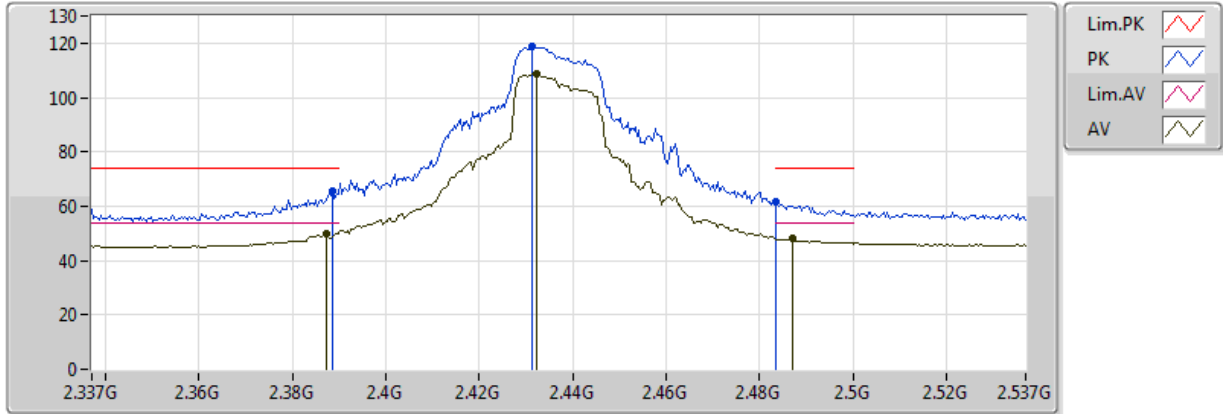


20170908
 EUT_Z_4TX
 Setting 69
 04-J-5
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.8261G	36.90	54.00	-17.10	4.19	3	H	324	1.50	-
PK	4.82838G	50.22	74.00	-23.78	4.20	3	H	324	1.50	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

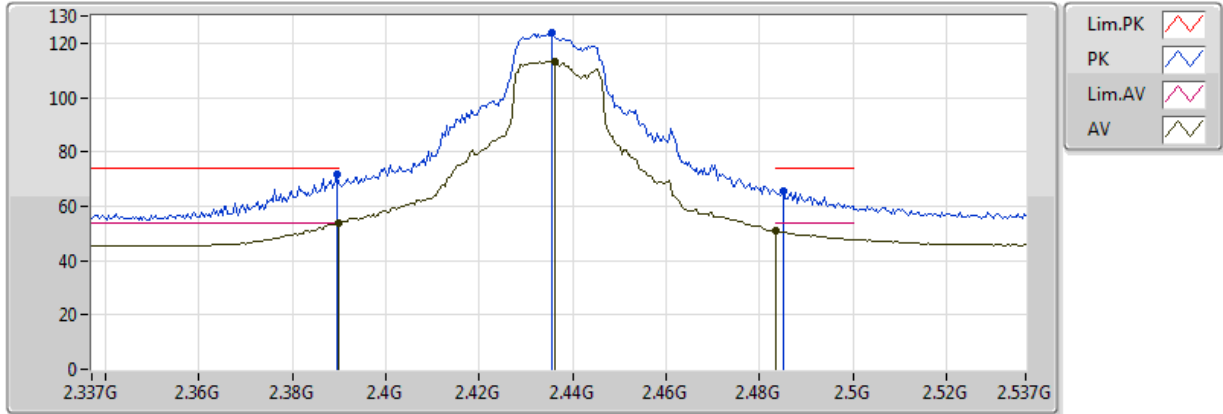
2437MHz_TX



20170908
EUT_Z_4TX
Setting 95
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3874G	49.82	54.00	-4.18	33.15	3	V	293	2.87	-
AV	2.4322G	108.84	Inf	-Inf	33.16	3	V	293	2.87	-
AV	2.487G	48.01	54.00	-5.99	33.19	3	V	293	2.87	-
PK	2.3886G	65.30	74.00	-8.70	33.15	3	V	293	2.87	-
PK	2.4314G	118.64	Inf	-Inf	33.16	3	V	293	2.87	-
PK	2.483502G	61.61	74.00	-12.39	33.19	3	V	293	2.87	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX 2437MHz_TX

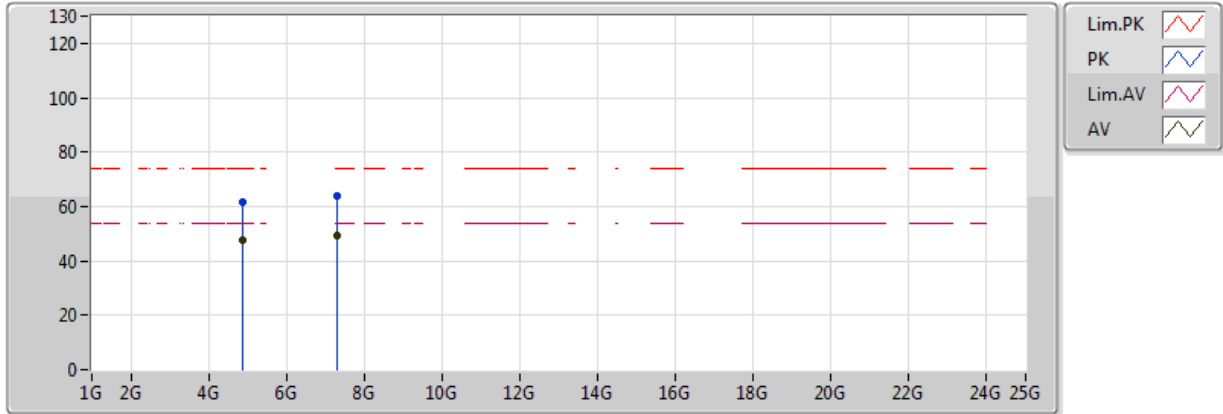


20170908
EUT_Z_4TX
Setting 95
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3898G	53.82	54.00	-0.18	33.15	3	H	267	1.50	-
AV	2.4362G	113.31	Inf	-Inf	33.16	3	H	267	1.50	-
AV	2.483502G	50.85	54.00	-3.15	33.19	3	H	267	1.50	-
PK	2.3894G	71.62	74.00	-2.38	33.15	3	H	267	1.50	-
PK	2.4354G	123.58	Inf	-Inf	33.16	3	H	267	1.50	-
PK	2.485G	65.70	74.00	-8.30	33.19	3	H	267	1.50	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2437MHz_TX

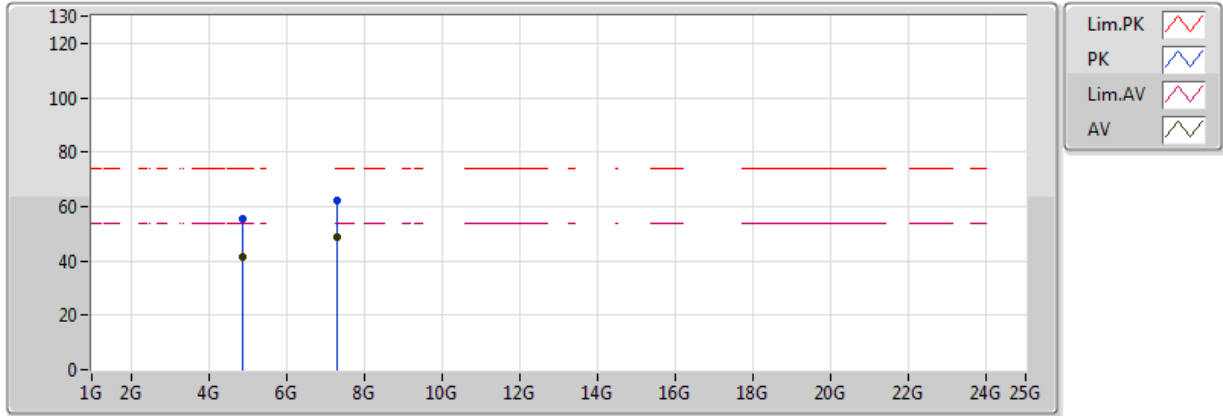


20170908
EUT_Z_4TX
Setting 95
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.874G	47.59	54.00	-6.41	4.34	3	V	4	1.09	-
AV	7.30938G	49.16	54.00	-4.84	11.33	3	V	77	1.16	-
PK	4.86566G	61.65	74.00	-12.35	4.31	3	V	4	1.09	-
PK	7.30572G	63.67	74.00	-10.33	11.33	3	V	77	1.16	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2437MHz_TX

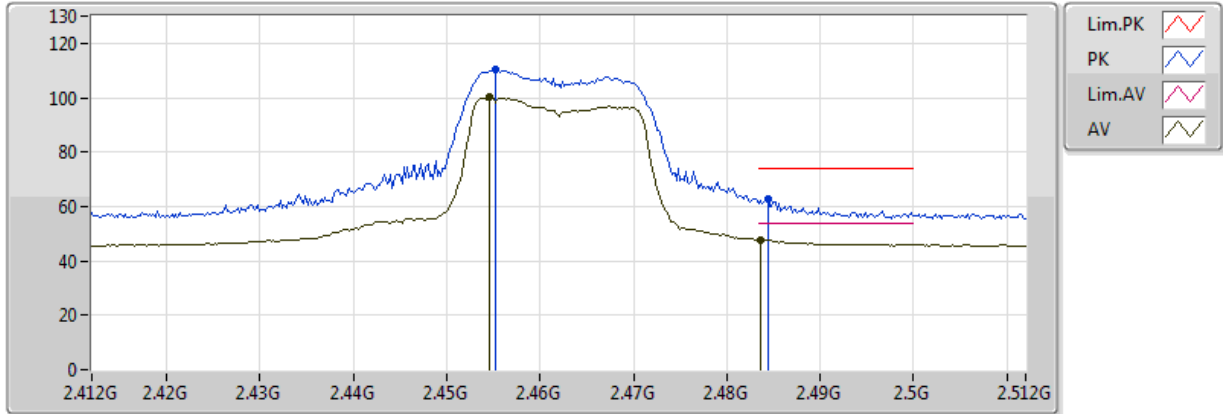


20170908
EUT_Z_4TX
Setting 95
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.86626G	41.59	54.00	-12.41	4.32	3	H	32	1.49	-
AV	7.30464G	48.49	54.00	-5.51	11.33	3	H	316	1.19	-
PK	4.86584G	55.47	74.00	-18.53	4.31	3	H	32	1.49	-
PK	7.29858G	62.46	74.00	-11.54	11.32	3	H	316	1.19	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2462MHz_TX

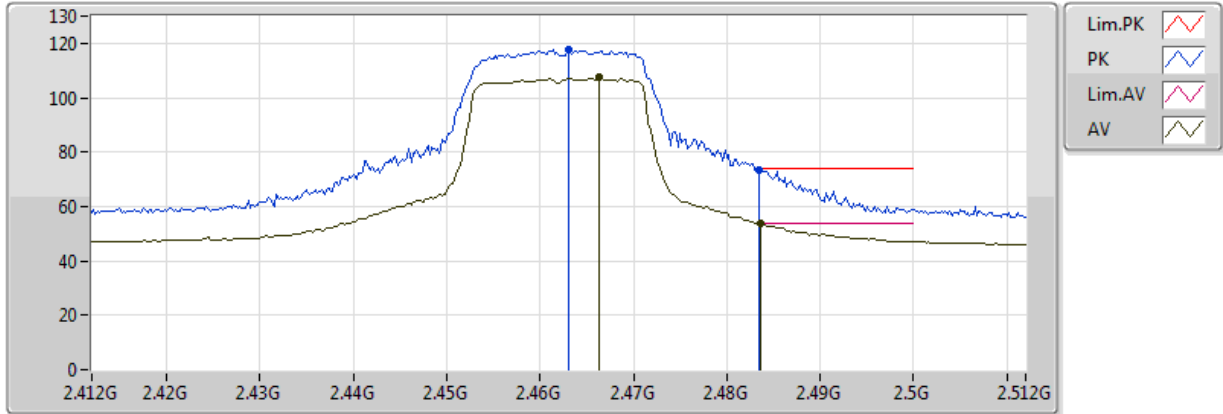


20170908
EUT_Z_4TX
Setting 68
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4546G	100.14	Inf	-Inf	33.17	3	V	157	1.02	-
AV	2.4836G	47.62	54.00	-6.38	33.19	3	V	157	1.02	-
PK	2.4552G	110.17	Inf	-Inf	33.17	3	V	157	1.02	-
PK	2.4844G	62.95	74.00	-11.05	33.19	3	V	157	1.02	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2462MHz_TX

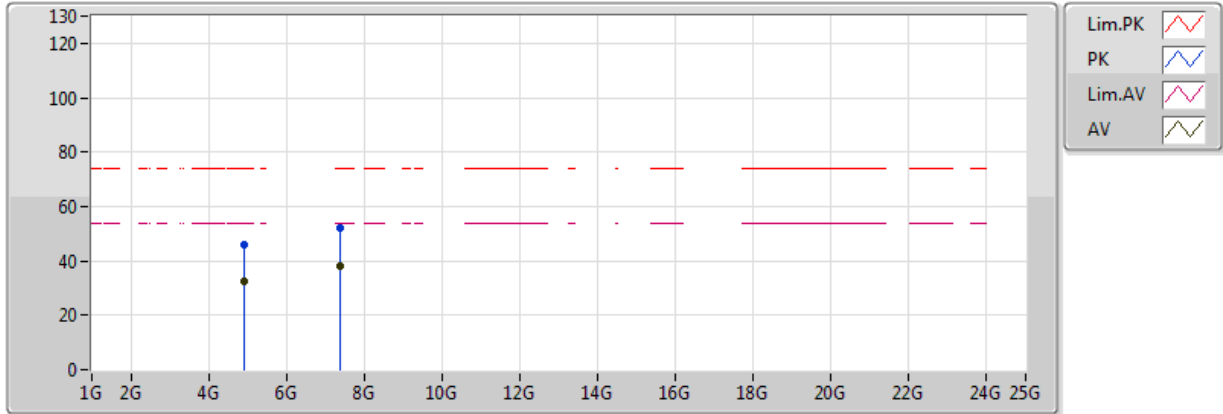


20170908
 EUT_Z_4TX
 Setting 68
 04-J-5
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4664G	107.38	Inf	-Inf	33.18	3	H	55	1.47	-
AV	2.4836G	53.87	54.00	-0.13	33.19	3	H	55	1.47	-
PK	2.463G	117.43	Inf	-Inf	33.18	3	H	55	1.47	-
PK	2.483502G	73.41	74.00	-0.59	33.19	3	H	55	1.47	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2462MHz_TX

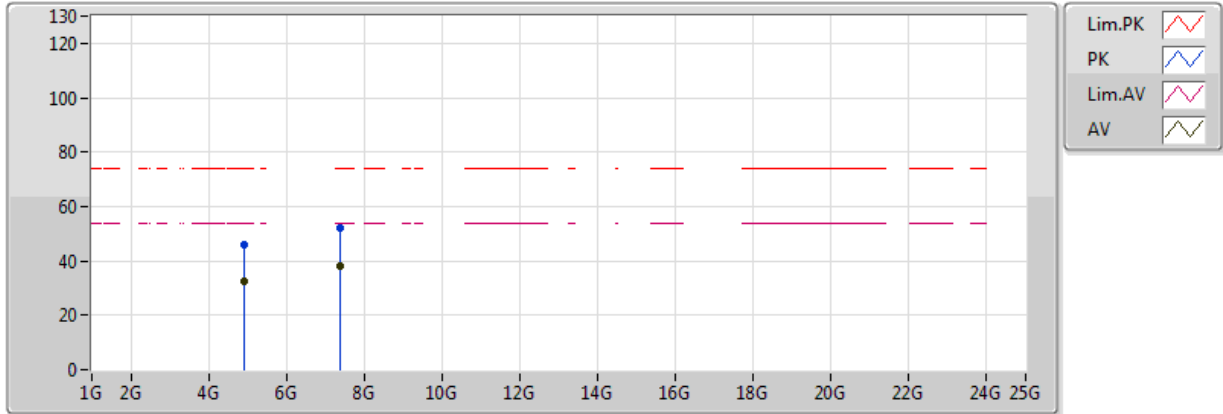


20170908
EUT_Z_4TX
Setting 68
04-P-2
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.92164G	32.73	54.00	-21.27	4.49	3	V	15	1.50	-
AV	7.38454G	38.17	54.00	-15.83	11.42	3	V	34	1.50	-
PK	4.92242G	46.14	74.00	-27.86	4.49	3	V	15	1.50	-
PK	7.38872G	51.96	74.00	-22.04	11.43	3	V	34	1.50	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2462MHz_TX

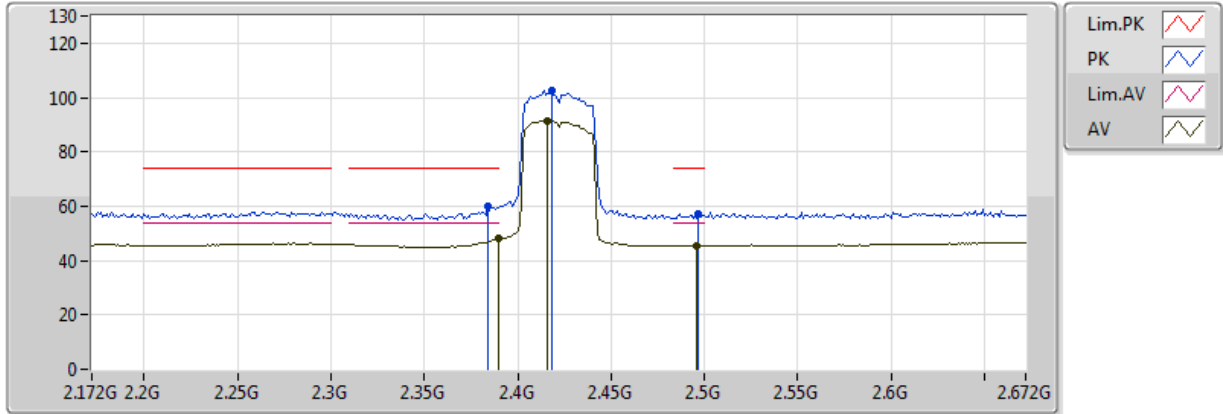


20170908
EUT_Z_4TX
Setting 68
04-P-2
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.91932G	32.47	54.00	-21.53	4.48	3	H	183	1.50	-
AV	7.38266G	37.86	54.00	-16.14	11.42	3	H	275	1.02	-
PK	4.92102G	45.85	74.00	-28.15	4.49	3	H	183	1.50	-
PK	7.38352G	52.21	74.00	-21.79	11.42	3	H	275	1.02	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2422MHz_TX

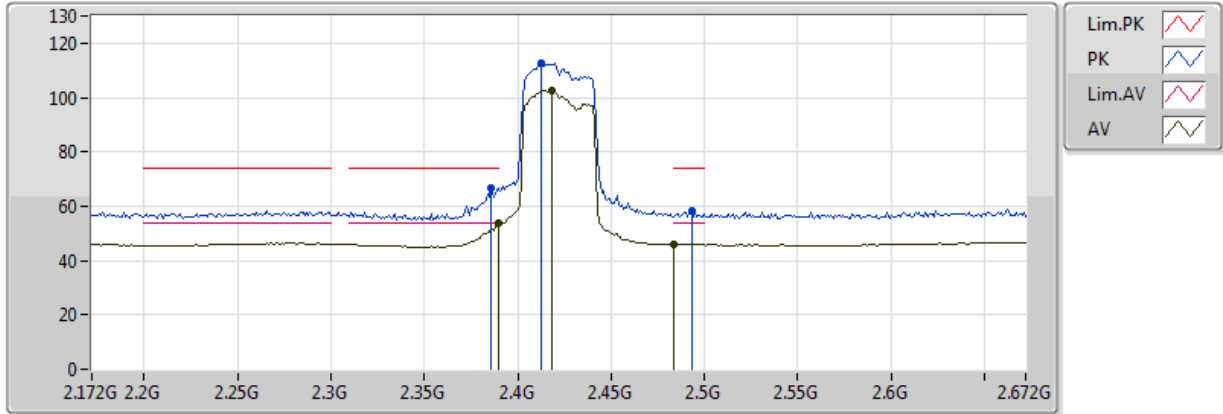


20170908
EUT_Z_4TX
Setting 50
04-P-2
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	48.03	54.00	-5.97	33.15	3	V	30	1.50	-
AV	2.416G	91.54	Inf	-Inf	33.15	3	V	30	1.50	-
AV	2.496G	45.47	54.00	-8.53	33.20	3	V	30	1.50	-
PK	2.384G	59.78	74.00	-14.22	33.15	3	V	30	1.50	-
PK	2.418G	102.52	Inf	-Inf	33.15	3	V	30	1.50	-
PK	2.497G	57.09	74.00	-16.91	33.20	3	V	30	1.50	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2422MHz_TX

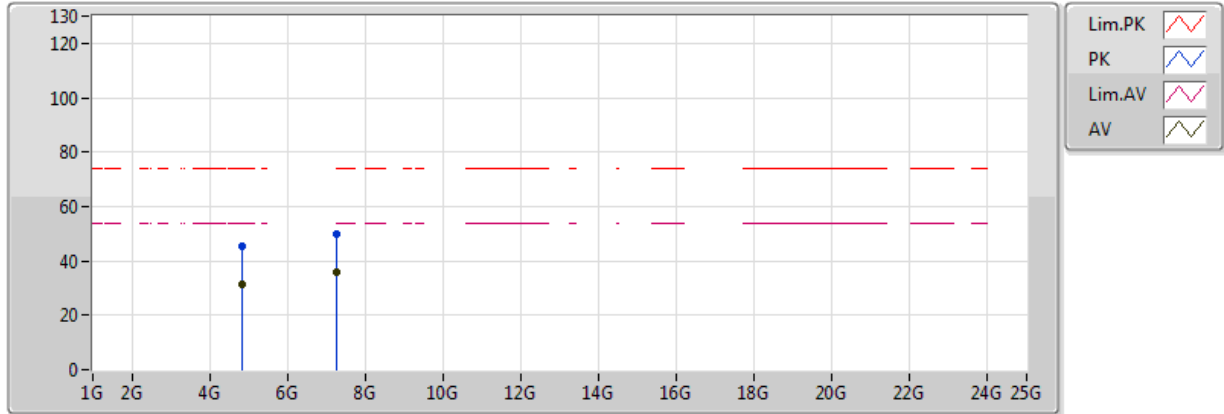


20170908
 EUT_Z_4TX
 Setting 50
 04-P-2
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	53.54	54.00	-0.46	33.15	3	H	75	1.22	-
AV	2.418G	102.67	Inf	-Inf	33.15	3	H	75	1.22	-
AV	2.483502G	45.95	54.00	-8.05	33.19	3	H	75	1.22	-
PK	2.386G	66.88	74.00	-7.12	33.15	3	H	75	1.22	-
PK	2.413G	112.79	Inf	-Inf	33.15	3	H	75	1.22	-
PK	2.493G	58.11	74.00	-15.89	33.20	3	H	75	1.22	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2422MHz_TX

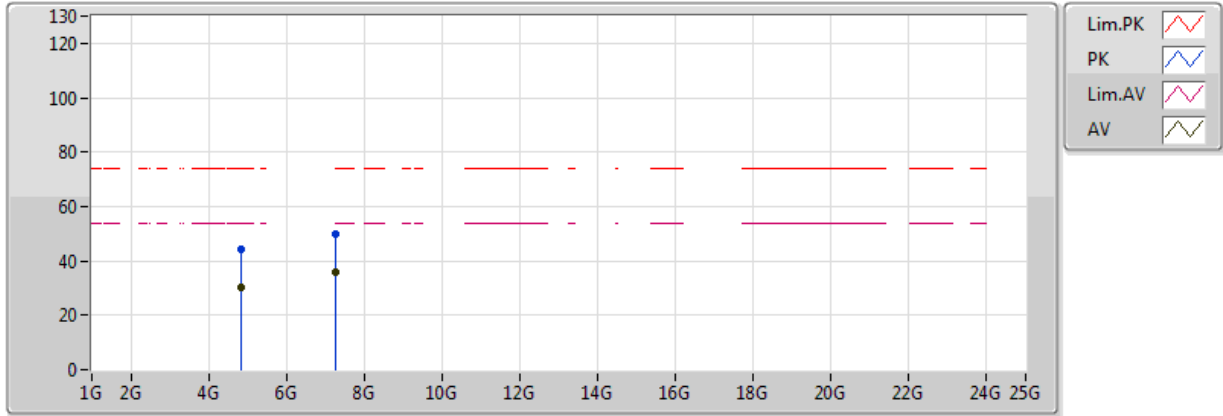


20170908
EUT_Z_4TX
Setting 50
04-P-2
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.84362G	31.10	54.00	-22.90	4.25	3	V	263	1.50	-
AV	7.262G	35.89	54.00	-18.11	11.26	3	V	272	1.50	-
PK	4.84714G	45.28	74.00	-28.72	4.26	3	V	263	1.50	-
PK	7.26164G	49.82	74.00	-24.18	11.25	3	V	272	1.50	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2422MHz_TX

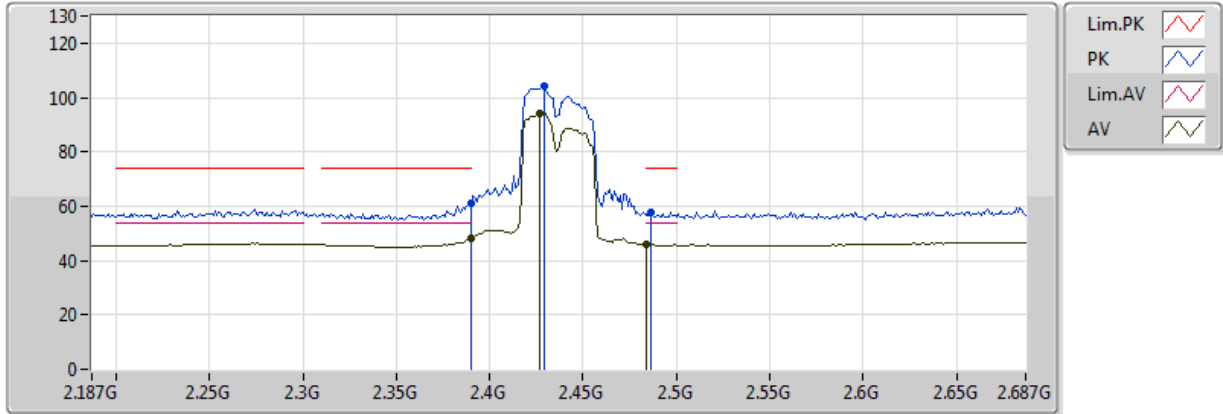


20170908
EUT_Z_4TX
Setting 50
04-P-2
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.83948G	30.32	54.00	-23.68	4.23	3	H	359	1.47	-
AV	7.26178G	35.65	54.00	-18.35	11.26	3	H	70	1.50	-
PK	4.84328G	44.50	74.00	-29.50	4.24	3	H	359	1.47	-
PK	7.26112G	50.05	74.00	-23.95	11.25	3	H	70	1.50	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2437MHz_TX

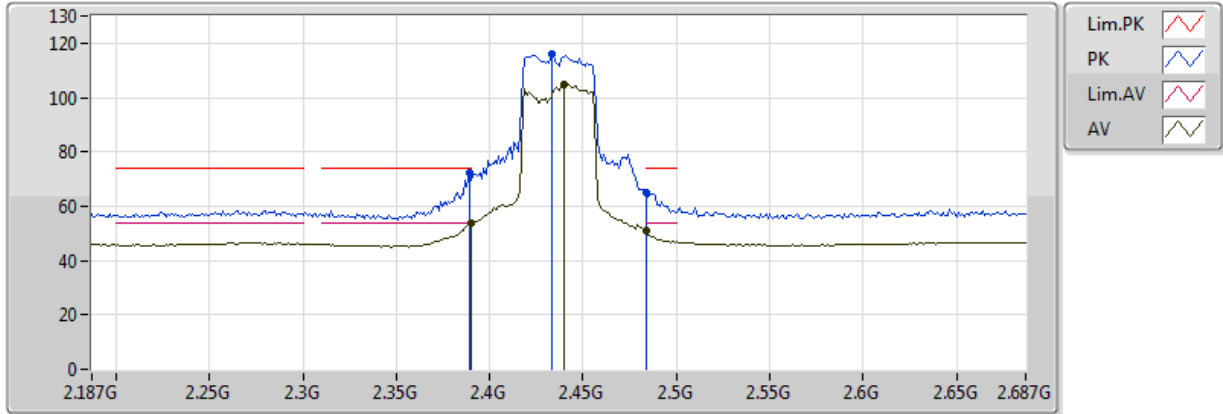


20170908
EUT_Z_4TX
Setting 70
04-P-2
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	48.28	54.00	-5.72	33.15	3	V	55	1.50	-
AV	2.427G	94.16	Inf	-Inf	33.16	3	V	55	1.50	-
AV	2.483502G	45.85	54.00	-8.15	33.19	3	V	55	1.50	-
PK	2.389998G	61.26	74.00	-12.74	33.15	3	V	55	1.50	-
PK	2.429G	104.37	Inf	-Inf	33.16	3	V	55	1.50	-
PK	2.486G	57.57	74.00	-16.43	33.19	3	V	55	1.50	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2437MHz_TX

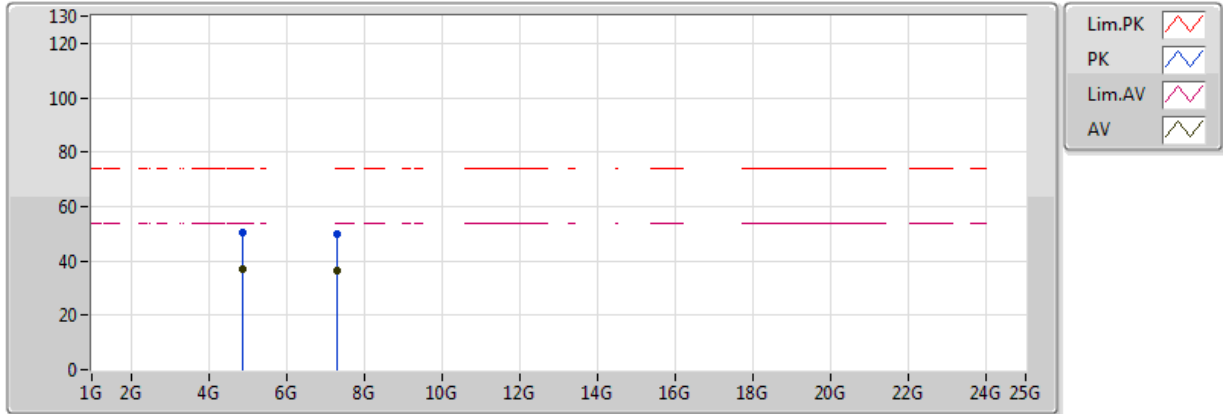


20170908
EUT_Z_4TX
Setting 70
04-P-2
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	53.67	54.00	-0.33	33.15	3	H	75	1.36	-
AV	2.44G	104.73	Inf	-Inf	33.16	3	H	75	1.36	-
AV	2.483502G	51.04	54.00	-2.96	33.19	3	H	75	1.36	-
PK	2.389G	72.28	74.00	-1.72	33.15	3	H	75	1.36	-
PK	2.433G	115.76	Inf	-Inf	33.16	3	H	75	1.36	-
PK	2.483502G	64.76	74.00	-9.24	33.19	3	H	75	1.36	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2437MHz_TX

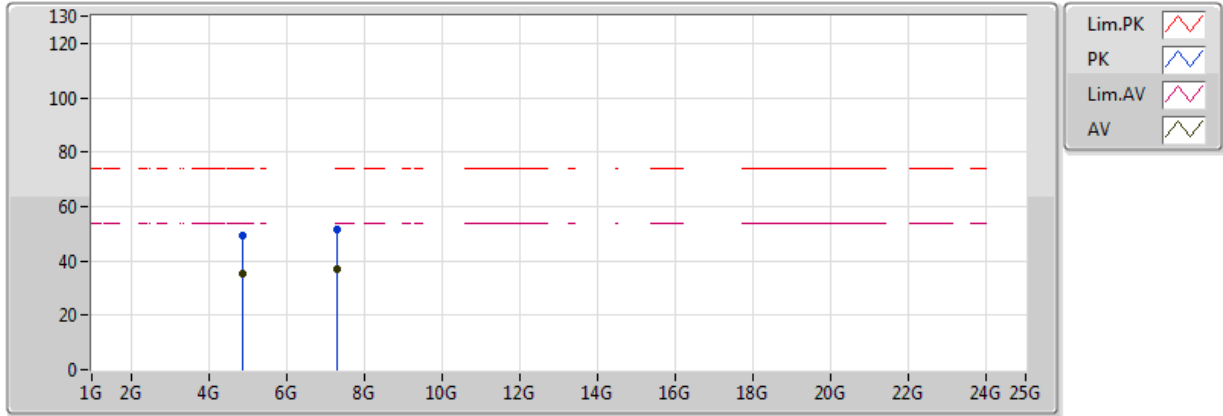


20170908
EUT_Z_4TX
Setting 70
04-P-2
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87346G	36.91	54.00	-17.09	4.34	3	V	200	1.44	-
AV	7.31298G	36.32	54.00	-17.68	11.34	3	V	298	1.22	-
PK	4.87408G	50.69	74.00	-23.31	4.34	3	V	200	1.44	-
PK	7.3068G	50.08	74.00	-23.92	11.33	3	V	298	1.22	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

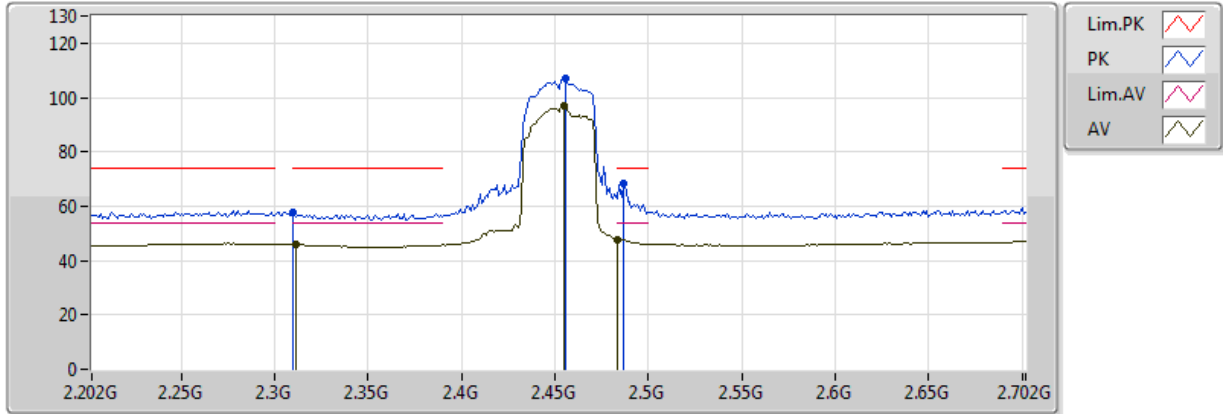
2437MHz_TX



20170908
EUT_Z_4TX
Setting 70
04-P-2
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87012G	35.27	54.00	-18.73	4.33	3	H	26	2.61	-
AV	7.30678G	36.75	54.00	-17.25	11.33	3	H	315	1.01	-
PK	4.87034G	49.13	74.00	-24.87	4.33	3	H	26	2.61	-
PK	7.30848G	51.61	74.00	-22.39	11.33	3	H	315	1.01	-

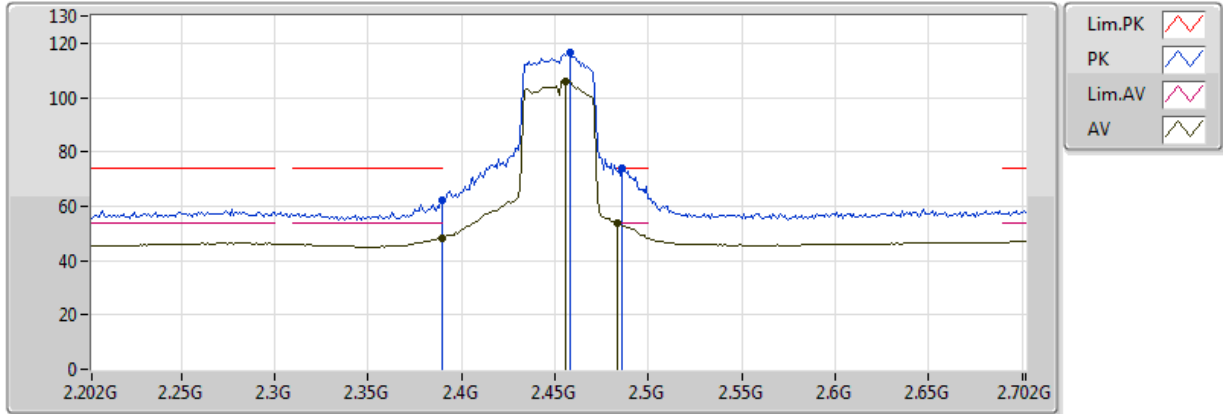
**802.11ac VHT40-BF_Nss1,(MCS0)_4TX
2452MHz_TX**



20170908
EUT_Z_4TX
Setting 67
04-P-2
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.311G	45.84	54.00	-8.16	33.18	3	V	158	1.50	-
AV	2.455G	96.79	Inf	-Inf	33.17	3	V	158	1.50	-
AV	2.483502G	47.88	54.00	-6.12	33.19	3	V	158	1.50	-
PK	2.31G	57.49	74.00	-16.51	33.19	3	V	158	1.50	-
PK	2.456G	107.20	Inf	-Inf	33.17	3	V	158	1.50	-
PK	2.487G	68.10	74.00	-5.90	33.19	3	V	158	1.50	-

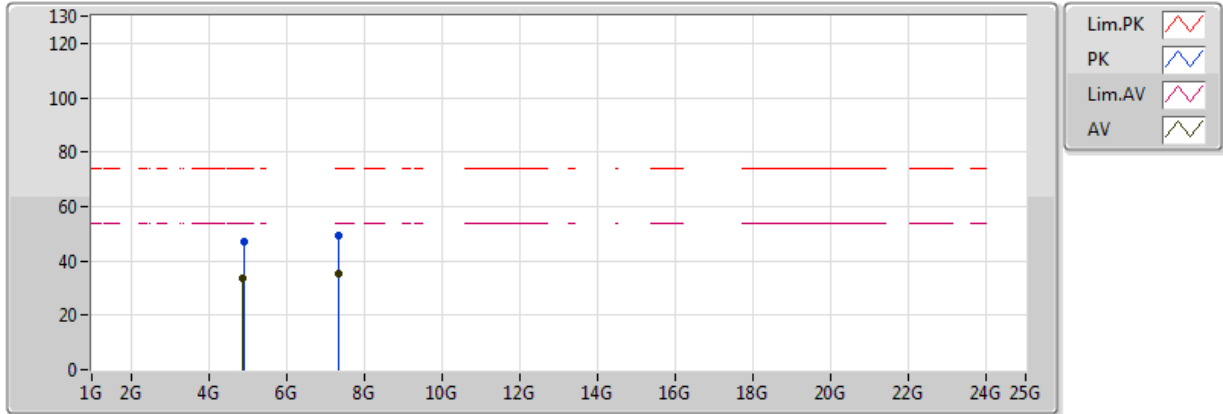
802.11ac VHT40-BF_Nss1,(MCS0)_4TX 2452MHz_TX



20170908
EUT_Z_4TX
Setting 67
04-P-2
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	48.42	54.00	-5.58	33.15	3	H	85	1.75	-
AV	2.456G	106.03	Inf	-Inf	33.17	3	H	85	1.75	-
AV	2.483502G	53.59	54.00	-0.41	33.19	3	H	85	1.75	-
PK	2.389998G	62.09	74.00	-11.91	33.15	3	H	85	1.75	-
PK	2.458G	116.72	Inf	-Inf	33.17	3	H	85	1.75	-
PK	2.486G	73.90	74.00	-0.10	33.19	3	H	85	1.75	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX 2452MHz_TX

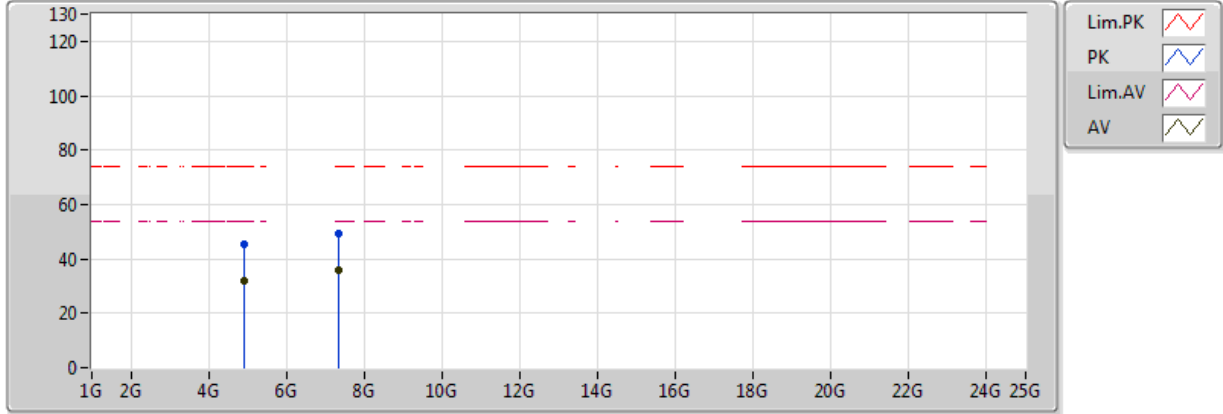


20170908
EUT_Z_4TX
Setting 67
04-P-2
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.894G	33.87	54.00	-20.13	4.40	3	V	6	1.17	-
AV	7.35764G	35.21	54.00	-18.79	11.39	3	V	67	1.44	-
PK	4.8994G	46.87	74.00	-27.13	4.42	3	V	6	1.17	-
PK	7.36026G	49.53	74.00	-24.47	11.39	3	V	67	1.44	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2452MHz_TX



20170908
EUT_Z_4TX
Setting 67
04-P-2
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.9042G	32.11	54.00	-21.89	4.43	3	H	315	1.01	-
AV	7.35996G	35.73	54.00	-18.27	11.39	3	H	332	1.01	-
PK	4.9048G	45.51	74.00	-28.49	4.43	3	H	315	1.01	-
PK	7.35664G	49.31	74.00	-24.69	11.39	3	H	332	1.01	-