Testing Laboratory 1190

FCC RADIO TEST REPORT

FCC ID	:	Q87-03433
Equipment	:	LINKSYS MR9000 TRI-BAND WIFI 5 ROUTER, LINKSYS MR9000X TRI-BAND WIFI 5 ROUTER, LINKSYS MR8900 TRI-BAND WIFI 5 ROUTER, LINKSYS MR8950 TRI-BAND WIFI 5 ROUTER
Brand Name	:	LINKSYS
Model Name	:	MR9000, MR9000X, MR8900, MR8950
Applicant	:	Linksys LLC 121 Theory Drive, Irvine CA 92617, United States
Standard	:	47 CFR FCC Part 15.247

The product was received on Apr. 02, 2019, and testing was started from Apr. 02, 2019 and completed on Jun. 03, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

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

Approved by: Sam Chen

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

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History of this test report

Report No.	Version	Description	Issued Date
FR941701AA	01	Initial issue of report	Jul. 19, 2019

Summary of Test Result

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

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

Reviewed by: Sam Chen
Report Producer: Viola Huang

1 General Description

1.1 Information

1.1.1 RF General Information

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

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	2TX
2.4-2.4835GHz	802.11g	20	2TX
2.4-2.4835GHz	802.11g-BF	20	2TX
2.4-2.4835GHz	802.11n HT20	20	2TX
2.4-2.4835GHz	802.11n HT20-BF	20	2TX
2.4-2.4835GHz	VHT20	20	2TX
2.4-2.4835GHz	VHT20-BF	20	2TX
2.4-2.4835GHz	802.11n HT40	40	2TX
2.4-2.4835GHz	802.11n HT40-BF	40	2TX
2.4-2.4835GHz	VHT40	40	2TX
2.4-2.4835GHz	VHT40-BF	40	2TX

Note:
- 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- 11g, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- VHT20, VHT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- 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.	Port	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1	1	FIT	ANEP5M3-CCG01-EH	Dipole Antenna	I-PEX	Note 1
2	2	FIT	ANEP5M3-CCG00-EH	Dipole Antenna	I-PEX	
3	3	FIT	ANEP5M1-CCG00-EH	Dipole Antenna	I-PEX	
4	4	FIT	ANEP5M1-CCG01-EH	Dipole Antenna	I-PEX	
5	1	FIT	ANTS1M1-CCG00-EH	PIFA Antenna	N/A	

Note 1:

Ant.	Port	Gain (dBi)			
		WLAN 2.4G	WLAN 5G Band 1	WLAN 5G Band 4	BT
1	1	2.84	2.60	2.44	-
2	2	2.36	2.87	2.28	-
3	3	-	-	2.93	-
4	4	-	-	3.01	-
5	1	-	-	-	2.90

Note 2: The above information was declared by manufacturer.

Note 3: The EUT has five antennas.

<For 2.4GHz Band>

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

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

Port 1 and Port 2 could transmit/receive simultaneously.

<For 5GHz Band 1>

For IEEE 802.11a/n/ac mode (2TX/2RX)

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

Port 1 and Port 2 could transmit/receive simultaneously.

<For 5GHz Band 4>

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

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

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

<For Bluetooth>

For BT function (1TX/1RX)

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

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	0.862	0.645	3.173m	1k
802.11g-BF	0.784	1.057	585u	3k
VHT20-BF	0.833	0.794	1.717m	1k
VHT40-BF	0.836	0.778	1.694m	1k

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

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter			
Beamforming Function	☒	With beamforming for 802.11g/n/VHT in 2.4GHz and 11a/n/ac in 5GHz	☐	Without beamforming
Function	☒	Point-to-multipoint	☐	Point-to-point
Test Software Version	QRCT Version3.0.187.0			

Note: The above information was declared by manufacturer.

1.1.5 Table for EUT supports function

Function	Supports type
AP Router	Master

1.1.6 Table for Multiple Listing

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

Equipment Name	Model Name	Description
LINKSYS MR9000 TRI-BAND WIFI 5 ROUTER	MR9000	Marketing purpose to sell in different retailers.
LINKSYS MR9000X TRI-BAND WIFI 5 ROUTER	MR9000X	
LINKSYS MR8900 TRI-BAND WIFI 5 ROUTER	MR8900	
LINKSYS MR8950 TRI-BAND WIFI 5 ROUTER	MR8950	

From the above models, model: MR9000 was selected as representative model for the test and its data was recorded in this report.

1.2 Applicable Standards

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

- 47 CFR FCC Part 15
- ANSI C63.10-2013
- FCC KDB 558074 D01 v05r02
- FCC KDB 662911 D01 v02r01

1.3 Testing Location Information

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

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Brian Sun	22~24°C / 50~60%	Apr. 18, 2019~May 15, 2019
Radiated	03CH01-CB for below 1GHz 03CH03-CB for above 1GHz	Brian Sun	22~24°C / 50~60%	Apr. 02, 2019~Jun. 03, 2019
AC Conduction	CO01-CB	Wei Li	23~23.6°C / 55~58%	Apr. 11, 2019

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

1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	2.0 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	5.1 dB	Confidence levels of 95%
Conducted Emission	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	9.74×10^{-8}	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	PowerSetting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	24.5
2437MHz	25
2462MHz	24.5
802.11g-BF_Nss1,(6Mbps)_2TX	-
2412MHz	19.5
2417MHz	20.5
2437MHz	24.5
2457MHz	20.5
2462MHz	19.5
VHT20-BF_Nss1,(MCS0)_2TX	-
2412MHz	20.5
2417MHz	20.5
2437MHz	24.5
2457MHz	20
2462MHz	19.5
VHT40-BF_Nss1,(MCS0)_2TX	-
2422MHz	19.5
2437MHz	21
2452MHz	19.5

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 VHT20 and VHT40.
- There are two modes of EUT, one is beamforming mode, and the other is non-beamforming mode for 11g/11n/VHT in 2.4GHz and 11a/11n/11ac in 5GHz, after evaluating, beamforming mode has been evaluated to be the worst case, so it was selected to test and record 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	Normal Link
1	EUT + Adapter 2 with US plug
2	EUT + Adapter 1
3	EUT + Adapter 3
Mode 2 generated the worst test result, so it was recorded in this 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
	The EUT was performed at Y axis and Z axis position for Emissions in Restricted above 1GHz test, and the worst case was found at Z axis. So the measurement will follow this same test configuration.
1	EUT_2.4GHz in Z axis + Adapter 1
2	EUT_2.4GHz in Z axis + Adapter 2 with US plug
3	EUT_2.4GHz in Z axis + Adapter 3
Mode 2 has been evaluated to be the worst case among Mode 1~3, thus measurement for Mode 4~6 will follow this same test mode.	
4	EUT_5GHz in Z axis + Adapter 2 with US plug
5	EUT_Bluetooth 2.0 in Z axis + Adapter 2 with US plug
6	EUT_Bluetooth 4.0 in Z axis + Adapter 2 with US plug
Mode 2 generated the worst test result, so it was recorded in this report.	

Operating Mode > 1GHz	CTX
	The EUT was performed at Y axis and Z axis position for Emissions in Restricted test, and the worst case was found at Z axis. So the measurement will follow this same test configuration.
1	EUT in Z axis

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location
Test Condition	Radiated measurement
Operating Mode	Normal Link
1	WLAN 2.4GHz + WLAN 5GHz B1
Refer to Appendix G for Radiated Emission Co-location.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz + WLAN 5GHz B1 + WLAN 5GHz B4 + Bluetooth
Refer to Sporton Test Report No.: FA941701 for Co-location RF Exposure Evaluation.	

2.3 EUT Operation during Test

For CTX Mode:

non-beamforming mode:

The EUT was programmed to be in continuously transmitting/receiving 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 Telnet.
3. Executed "Lantest.exe" to link with the remote workstation to transmit and receive packet by RX Device and transmit duty cycle no less than 98%.

For Normal Link:

During the test, the EUT operation to normal function.

2.4 Accessories

Accessories			
Equipment Name	**Brand Name**	**Model Name**	**Rating**
Adapter 1 (Fixed plug)	KTEC	KSA-24W-120200HU	INPUT: 100-240V, 50/60Hz 0.6A OUTPUT: 12V, 2.0A
Adapter 2 (Interchangeable plug)	KTEC	KSA-24W-120200D5	INPUT: 100-240V, 50/60Hz 0.6A OUTPUT: 12V, 2.0A
Adapter 3 (Fixed plug)	APD	WB-24J12FU-ABBC	INPUT: 100-240V, 50-60Hz 0.7A Max. OUTPUT: 12V, 2A
Other			
US plug*1 (only for adapter 2 use)			

Note:The power adapter does not affect the test result of RF tests, so only adapter 3 was tested and recorded in this report.

2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	Flash disk3.0	Transcend	JetFlash-700	N/A
B	LAN NB	DELL	E6430	N/A
C	WAN NB	DELL	E6430	N/A
D	2.4G NB	DELL	E6430	N/A
E	5G-1 & BT NB	Apple	A1278	N/A
F	5G-2 NB	DELL	E6430	N/A

For Radiated (below 1GHz) and Radiated (above 1GHz / for Non-beamforming mode):

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

For Radiated (above 1GHz / for beamforming mode):

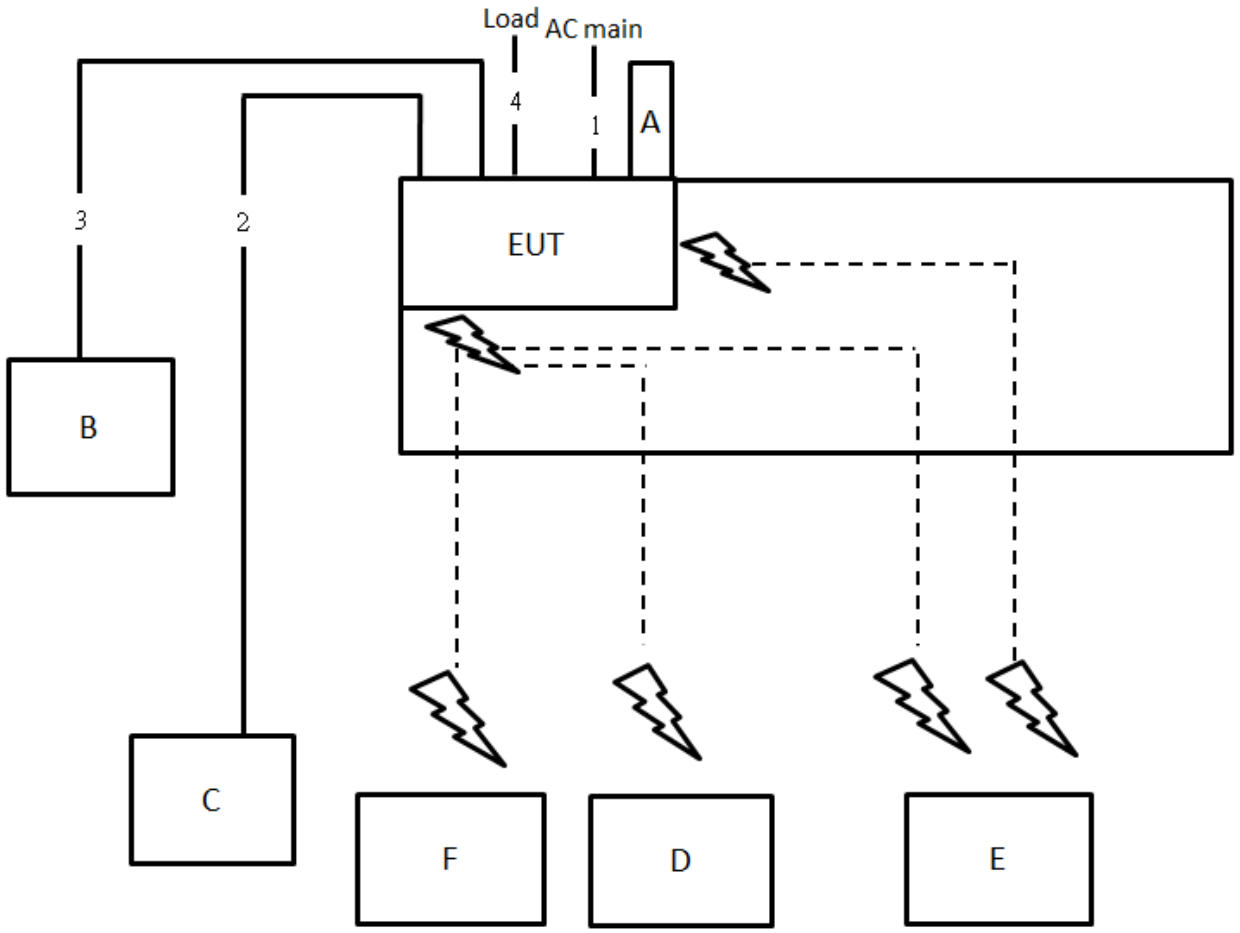
Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	NB	DELL	E4300	N/A
B	NB	DELL	E4300	N/A
C	RX Device	LINKSYS	MR9000	Q87-03433

For RF Conducted:

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

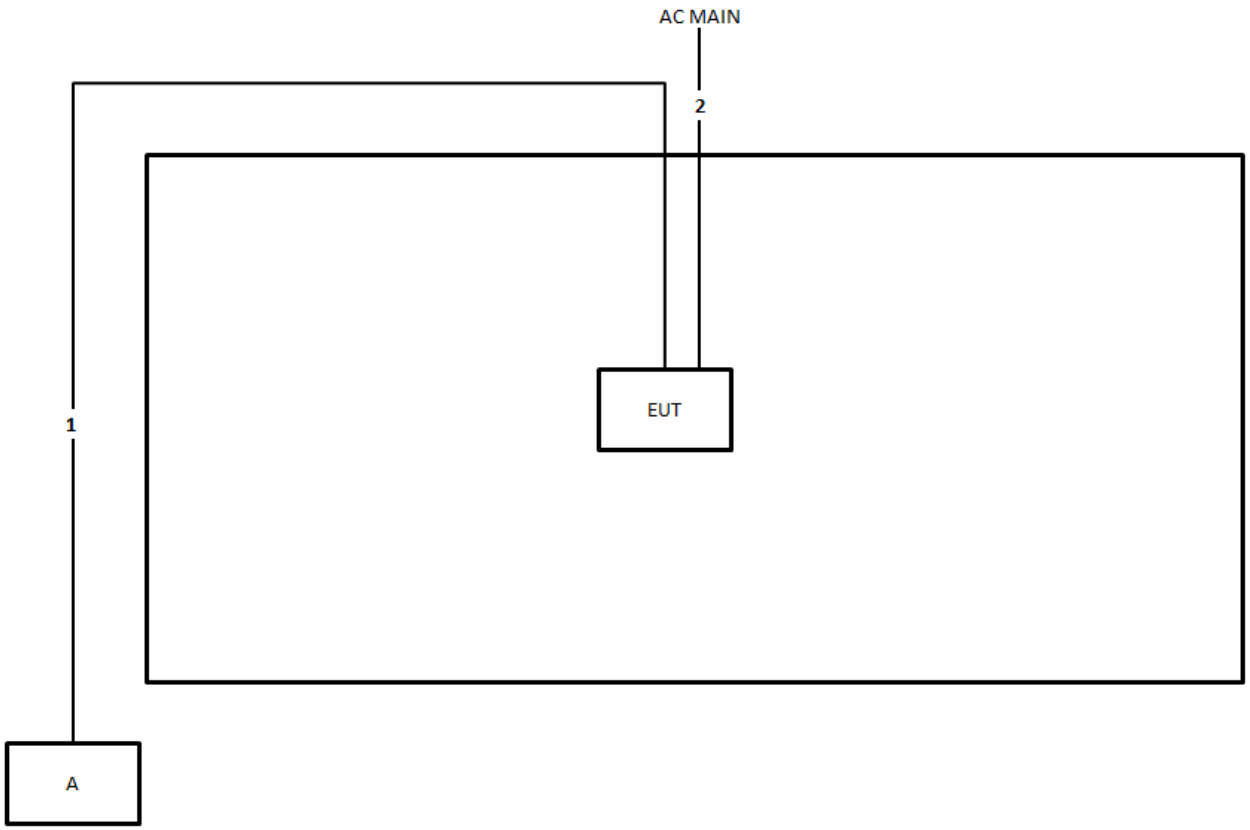
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



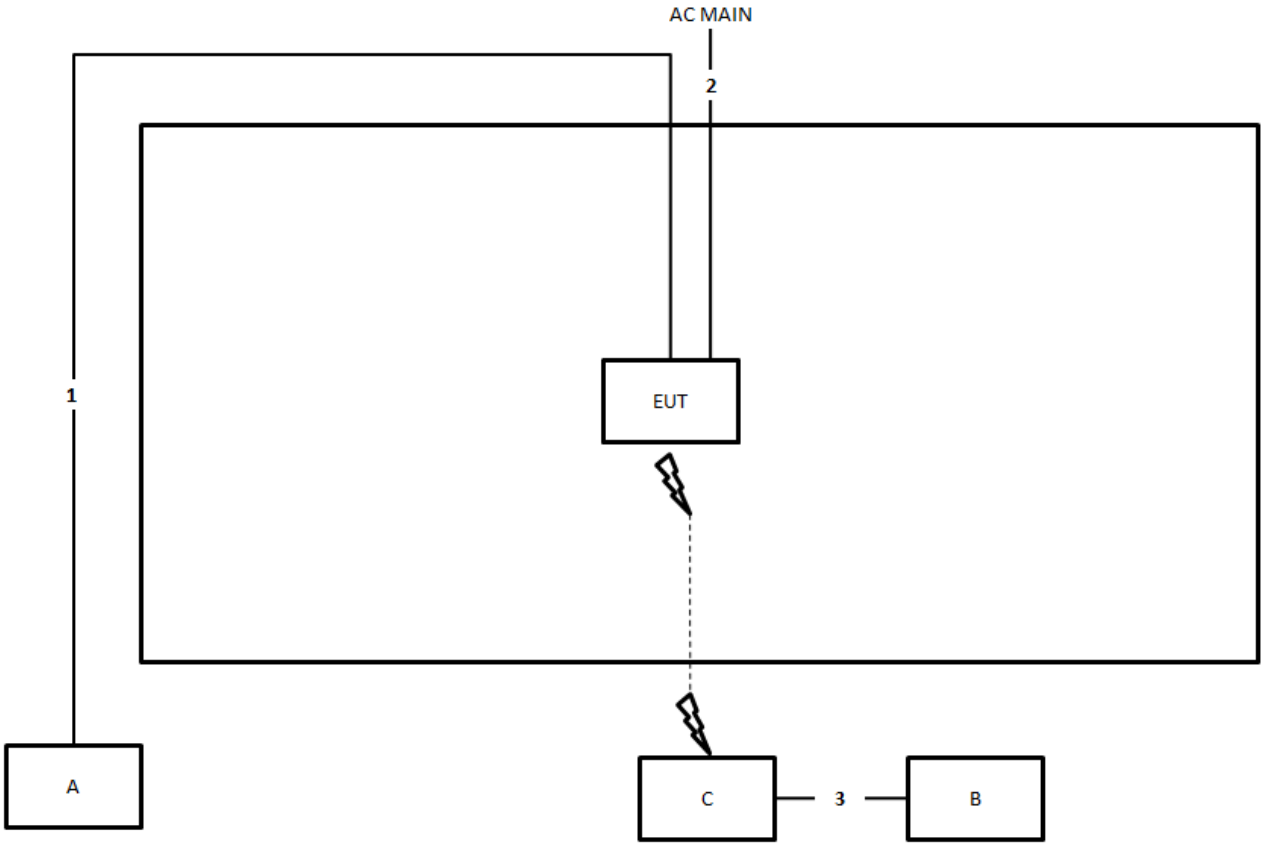
Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable	No	10m
3	RJ-45 cable	No	10m
4	RJ-45 cable*3	No	1.5m

Test Setup Diagram - Radiated Test < 1GHz and Radiated Test > 1GHz for non-beamforming mode



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

Test Setup Diagram - Radiated Test > 1GHz for beamforming mode



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

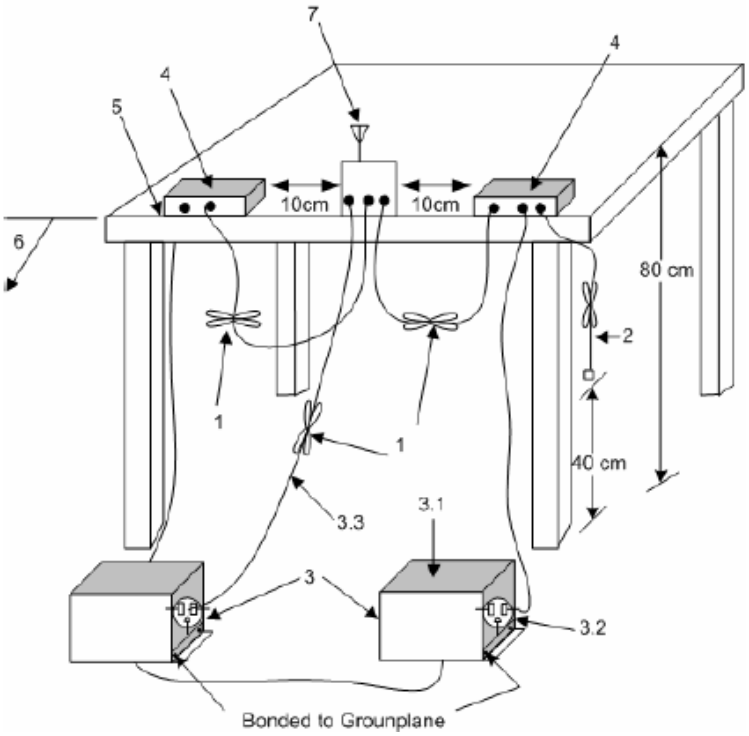
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

Test Method
☒ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Test Setup

AC Power-line Conducted Emissions



1—Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 cm to 40 cm long.
2—The I/O cables that are not connected to an accessory shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
3—EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in 50 Ω loads. LISN may be placed on top of, or immediately beneath, reference ground plane.
3.1—All other equipment powered from additional LISN(s).
3.2—A multiple-outlet strip may be used for multiple power cords of non-EUT equipment.
3.3—LISN at least 80 cm from nearest part of EUT chassis.
4—Non-EUT components of EUT system being tested.
5—Rear of EUT, including peripherals, shall all be aligned and flush with edge of tabletop.
6—Edge of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.
7—Antenna can be integral or detachable. If detachable, then the antenna shall be attached for this test.

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:
▪ 6 dB bandwidth ≥ 500 kHz.

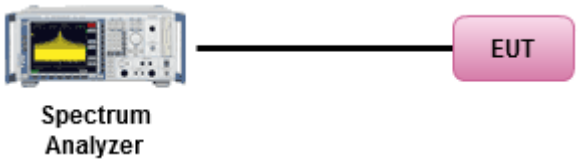
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
▪ For the emission bandwidth shall be measured using one of the options below:	
	☒ Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.1 Option 1 for 6 dB bandwidth measurement.
	☐ Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.2 Option 2 for 6 dB bandwidth measurement.
	☐ Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.

3.2.4 Test Setup

Emission Bandwidth


3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

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

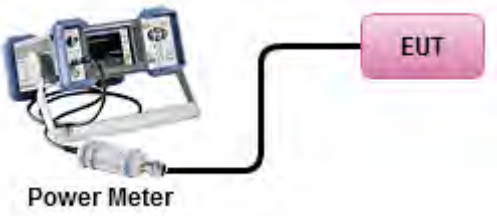
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
▪ Maximum Peak Conducted Output Power	
	☐ Refer as FCC KDB 558074, clause 8.3.1.1 & C63.10 clause 11.9.1.1 (RBW ≥ EBW method).
	☐ Refer as FCC KDB 558074, clause 8.3.1.3 & C63.10 clause 11.9.1.3 (peak power meter).
▪ Maximum Conducted Output Power	
	[duty cycle ≥ 98% or external video / power trigger]
	☐ Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.2 Method AVGSA-1.
	☐ Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.3 Method AVGSA-1A. (alternative)
	duty cycle < 98% and average over on/off periods with duty factor
	☐ Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.4 Method AVGSA-2.
	☐ Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.5 Method AVGSA-2A (alternative)
	☐ Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.6 Method AVGSA-3
	☐ Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.7 Method AVGSA-3A (alternative)
	Measurement using a power meter (PM)
	☒ Refer as FCC KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.1 Method AVGPM (using an RF average power meter).
	☐ Refer as FCC KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.2 Method AVGPM-G (using an gate RF average power meter).
▪ For conducted measurement.	
	▪ If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
	▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \ldots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup

Maximum Conducted Output Power (Power Meter)


3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

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

3.4.2 Measuring Instruments

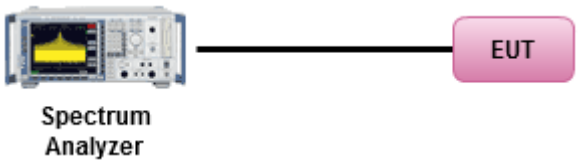
Refer a test equipment and calibration data table in this test report.

3.4.3 Test Procedures

Test Method	
▪ Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).	
	☒ Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.2 Method PKPSD.
	[duty cycle ≥ 98% or external video / power trigger]
	☐ Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.3 Method AVGPSD-1.
	☐ Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.5 Method AVGPSD-2.
	☐ Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.7 Method AVGPSD-3.
	duty cycle < 98% and average over on/off periods with duty factor
	☐ Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.4 Method AVGPSD-1A. (alternative).
	☐ Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.6 Method AVGPSD-2A. (alternative)
	☐ Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.8 Method AVGPSD-3A. (alternative)
▪ For conducted measurement.	
	▪ If The EUT supports multiple transmit chains using options given below:
	☒ Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.
	☐ Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,

		☐ Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.

3.4.4 Test Setup

Power Spectral Density


3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	**Limit (dBc)**
Peak output power procedure	20
Average output power procedure	30
Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level. Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average PSD level.	

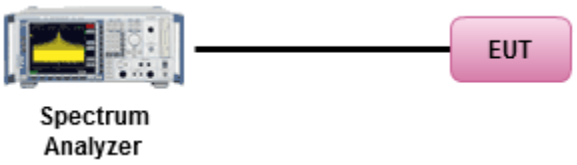
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

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

3.5.4 Test Setup

Emissions in Non-restricted Frequency Bands


3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

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

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

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

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

3.6.2 Measuring Instruments

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

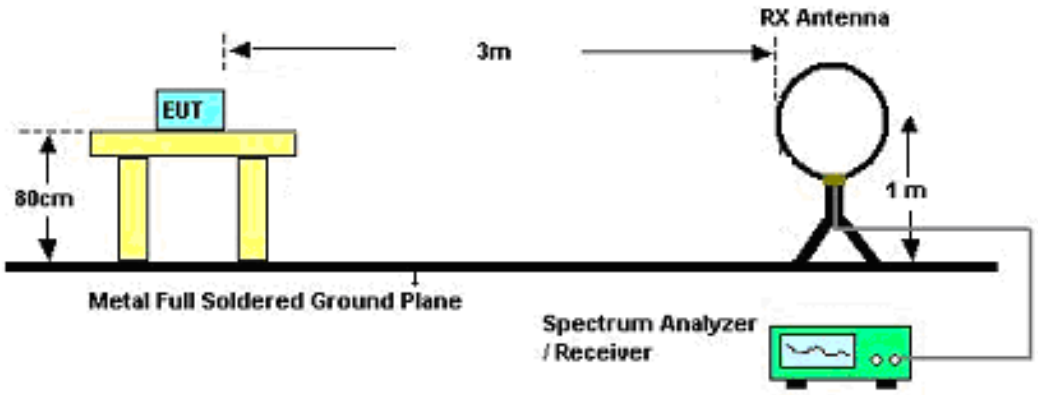
3.6.3 Test Procedures

Test Method			
▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].			
▪ Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.			
▪ For the transmitter unwanted emissions shall be measured using following options below:			
	▪ Refer as FCC KDB 558074, clause 8.6 for unwanted emissions into restricted bands.		
		☐	Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.1(trace averaging for duty cycle ≥98%).
		☐	Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.2(trace averaging + duty factor).
		☒	Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.3(Reduced VBW≥1/T).
		☐	Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.
		☐	Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
		☒	Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.4 measurement procedure peak limit.
▪ For the transmitter band-edge emissions shall be measured using following options below:			
	▪ Refer as FCC KDB 558074 clause 8.7 & C63.10 clause 11.13.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.		
	▪ Refer as FCC KDB 558074, clause 8.7 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.		
	▪ Refer as FCC KDB 558074, clause 8.7 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).		
	▪ For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB		
	▪ For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.		

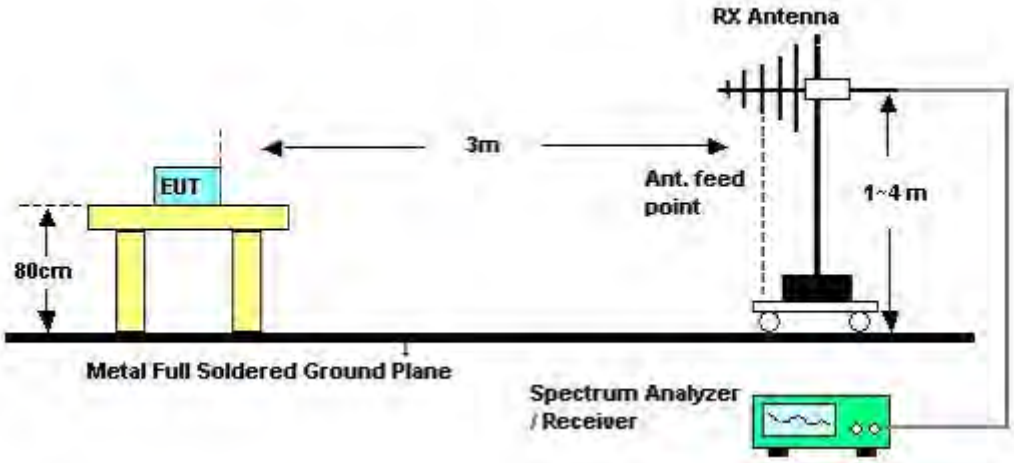
3.6.4 Test Setup

Radiated - Emissions in Restricted Frequency Bands

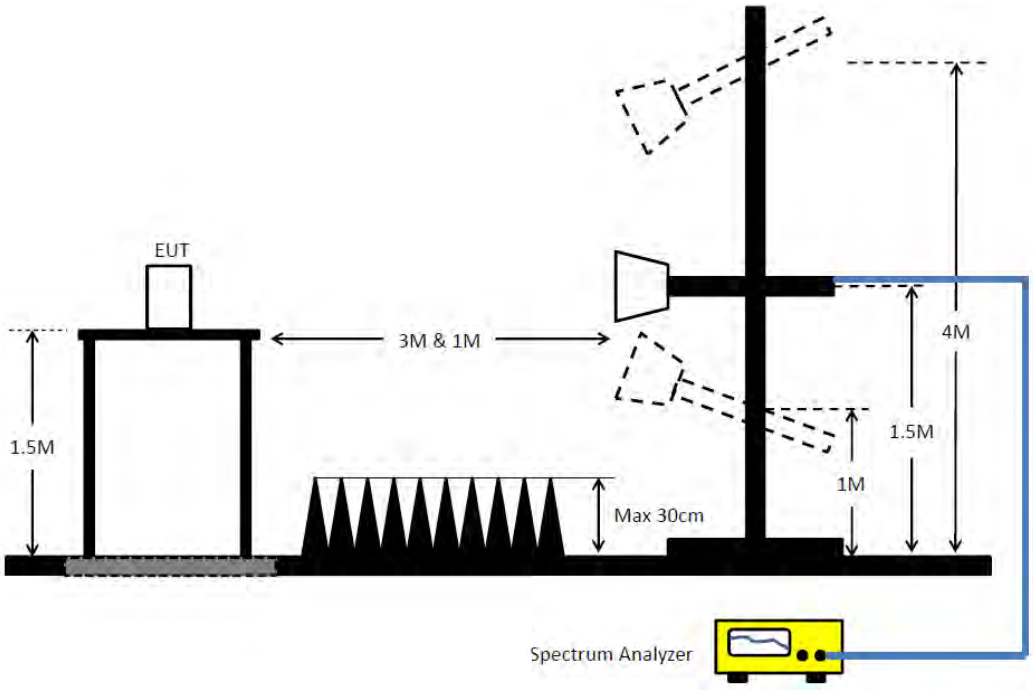
9kHz ~30MHz



30MHz~1GHz



Above 1GHz



3.6.5 Measurement Results Calculation

The measured Level is calculated using:
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

3.6.6 Emissions in Restricted Frequency Bands (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.
The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10 harmonic or 40 GHz, whichever is appropriate.

3.6.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

4 Test Equipment and Calibration Data

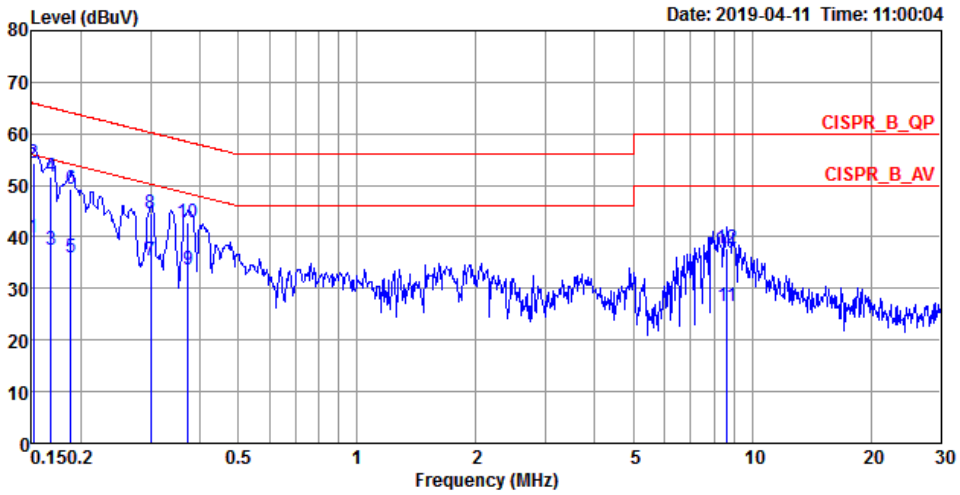
Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Jan. 28, 2019	Jan. 29, 2020	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 24, 2018	Dec. 23, 2019	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Jan. 11, 2019	Jan. 10, 2020	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	150kHz ~ 30MHz	May 22, 2018	May 21, 2019	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
BILOG ANTENNA with 6dB Attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37880 & AT-N0609	20MHz ~ 2GHz	Aug. 27, 2018	Aug. 26, 2019	Radiation (03CH01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 29, 2019	Mar. 28, 2020	Radiation (03CH01-CB)
Horn Antenna	ETS・Lindgren	3115	6821	750MHz~18GHz	Jan. 24, 2019	Jan. 23, 2020	Radiation (03CH03-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jun. 28, 2018	Jun. 27, 2019	Radiation (03CH03-CB)
Pre-Amplifier	EMCI	EMC330N	980332	20MHz ~ 3GHz	May 02, 2018	May 01, 2019	Radiation (03CH01-CB)
Pre-Amplifier	EMCI	EMC330N	980332	20MHz ~ 3GHz	May 01, 2019	Apr. 30, 2020	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02097	1GHz ~ 26.5GHz	Dec. 20, 2018	Dec. 19, 2019	Radiation (03CH03-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 04, 2018	Jul. 03, 2019	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Jan. 31, 2019	Jan. 30, 2020	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Dec. 26, 2018	Dec. 25, 2019	Radiation (03CH03-CB)
EMI Test Receiver	R&S	ESCS	100359	9kHz ~ 2.75GHz	Jul. 03, 2018	Jul. 02, 2019	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-16+17	N/A	30 MHz ~ 1 GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-20+27	1GHz ~ 18GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-27	1GHz ~ 18GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 27, 2018	Jul. 26, 2019	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 27, 2018	Jul. 26, 2019	Radiation (03CH03-CB)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Feb. 25, 2019	Feb. 24, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz – 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz –26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz –26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz –26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-28	1 GHz –26.5 GHz	Nov. 19, 2018	Nov. 18, 2019	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 05, 2018	Nov. 04, 2019	Conducted (TH01-CB)

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

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

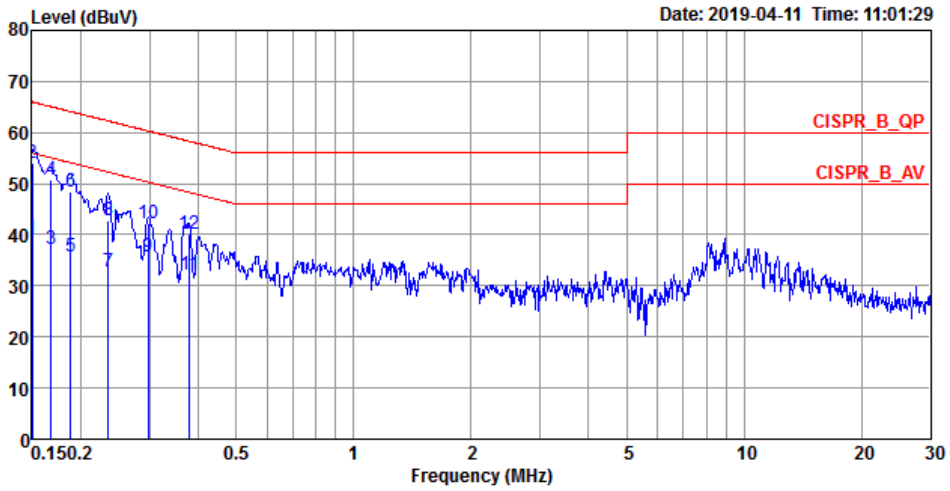
AC Power-line Conducted Emissions Result			
Operating Mode	2	**Power Phase**	Line
Operating Function	Normal Link		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark	Pol/Phase
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.1516	39.76	-16.15	55.91	29.76	9.84	0.16	Average	LINE
2	0.1516	54.33	-11.58	65.91	44.33	9.84	0.16	QP	LINE
3	0.1677	37.47	-17.61	55.08	27.47	9.85	0.15	Average	LINE
4	0.1677	51.66	-13.42	65.08	41.66	9.85	0.15	QP	LINE
5	0.1884	36.13	-17.98	54.11	26.14	9.85	0.14	Average	LINE
6	0.1884	49.44	-14.67	64.11	39.45	9.85	0.14	QP	LINE
7	0.3003	35.32	-14.92	50.24	25.33	9.86	0.13	Average	LINE
8	0.3003	44.48	-15.76	60.24	34.49	9.86	0.13	QP	LINE
9	0.3731	33.61	-14.82	48.43	23.62	9.87	0.12	Average	LINE
10	0.3731	42.66	-15.77	58.43	32.67	9.87	0.12	QP	LINE
11	8.6373	26.51	-23.49	50.00	16.26	10.10	0.15	Average	LINE
12	8.6373	37.66	-22.34	60.00	27.41	10.10	0.15	QP	LINE

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

AC Power-line Conducted Emissions Result			
Operating Mode	2	**Power Phase**	Neutral
Operating Function	Normal Link		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark	Pol/Phase
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.1500	39.30	-16.70	56.00	29.31	9.83	0.16	Average	NEUTRAL
2	0.1500	53.94	-12.06	66.00	43.95	9.83	0.16	QP	NEUTRAL
3	0.1677	37.29	-17.79	55.08	27.31	9.83	0.15	Average	NEUTRAL
4	0.1677	50.76	-14.32	65.08	40.78	9.83	0.15	QP	NEUTRAL
5	0.1884	35.82	-18.29	54.11	25.85	9.83	0.14	Average	NEUTRAL
6	0.1884	48.46	-15.65	64.11	38.49	9.83	0.14	QP	NEUTRAL
7	0.2353	32.84	-19.42	52.26	22.87	9.83	0.14	Average	NEUTRAL
8	0.2353	42.74	-19.52	62.26	32.77	9.83	0.14	QP	NEUTRAL
9	0.2971	35.57	-14.75	50.32	25.60	9.84	0.13	Average	NEUTRAL
10	0.2971	42.35	-17.97	60.32	32.38	9.84	0.13	QP	NEUTRAL
11	0.3791	32.20	-16.10	48.30	22.23	9.85	0.12	Average	NEUTRAL
12	0.3791	40.21	-18.09	58.30	30.24	9.85	0.12	QP	NEUTRAL

Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	9.05M	13.643M	13M6G1D	8.55M	13.193M
802.11g-BF_Nss1,(6Mbps)_2TX	16.35M	16.842M	16M8D1D	14.925M	16.367M
VHT20-BF_Nss1,(MCS0)_2TX	17.55M	17.916M	17M9D1D	13.85M	17.616M
VHT40-BF_Nss1,(MCS0)_2TX	35.85M	36.082M	36M1D1D	33.1M	35.532M

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

Result

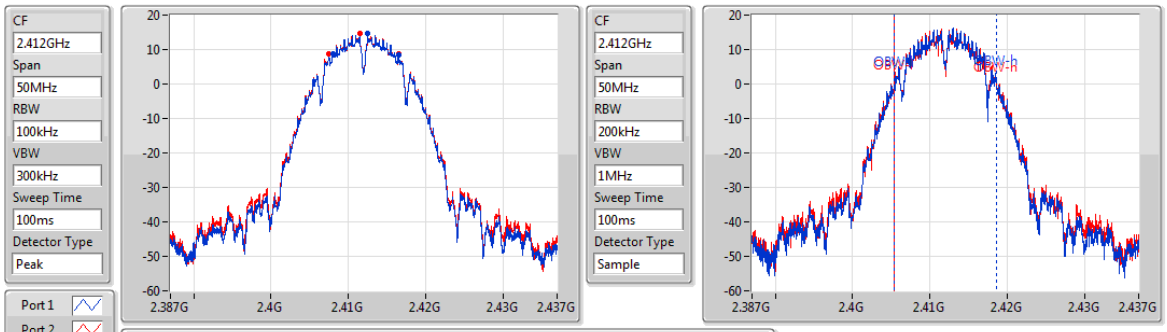
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	8.55M	13.193M	9.05M	13.318M
2437MHz	Pass	500k	9.05M	13.618M	9.05M	13.643M
2462MHz	Pass	500k	9.05M	13.293M	9.025M	13.518M
802.11g-BF_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	14.925M	16.392M	16.3M	16.417M
2437MHz	Pass	500k	16.025M	16.642M	16.3M	16.842M
2462MHz	Pass	500k	16.325M	16.367M	16.35M	16.392M
VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.55M	17.616M	17.4M	17.616M
2437MHz	Pass	500k	13.85M	17.816M	17.225M	17.916M
2462MHz	Pass	500k	17.55M	17.616M	17.55M	17.616M
VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	33.1M	35.932M	35M	35.932M
2437MHz	Pass	500k	34.85M	35.932M	35M	35.982M
2452MHz	Pass	500k	35.85M	36.082M	35.05M	35.532M

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

802.11b_Nss1,(1Mbps)_2TX **EBW**

2412MHz

06/05/2019

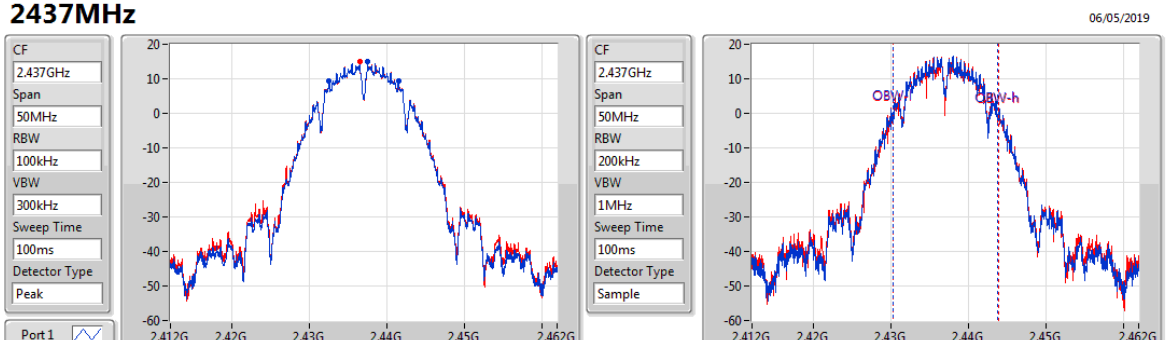


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.55M	2.407975G	2.416525G	13.193M	2.405378G	2.418572G	500k	1
9.05M	2.407475G	2.416525G	13.318M	2.405353G	2.418672G	500k	2

802.11b_Nss1,(1Mbps)_2TX **EBW**

2437MHz

06/05/2019

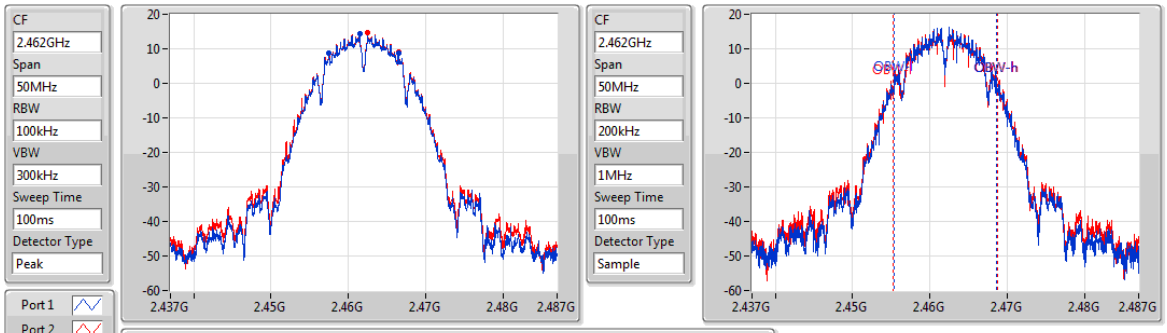


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
9.05M	2.432475G	2.441525G	13.618M	2.430203G	2.443822G	500k	1
9.05M	2.432475G	2.441525G	13.643M	2.430203G	2.443847G	500k	2

802.11b_Nss1,(1Mbps)_2TX **EBW**

2462MHz

06/05/2019

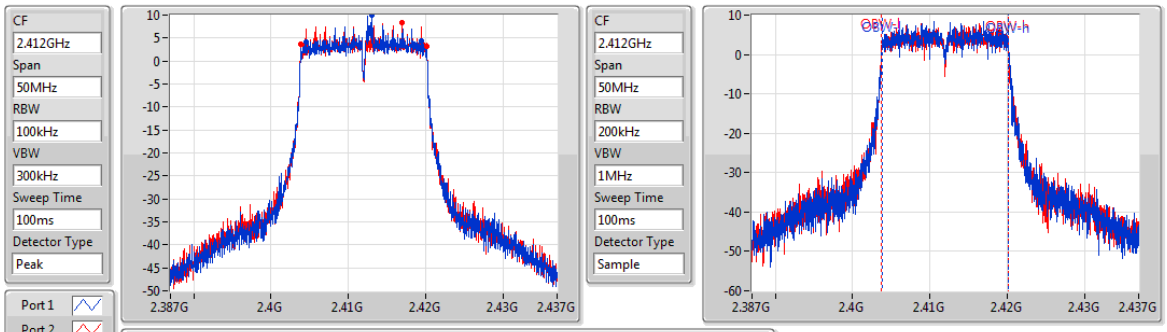


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
9.05M	2.45745G	2.4665G	13.293M	2.455328G	2.468622G	500k	1
9.025M	2.457475G	2.4665G	13.518M	2.455253G	2.468772G	500k	2

802.11g-BF_Nss1,(6Mbps)_2TX EBW

2412MHz

06/05/2019

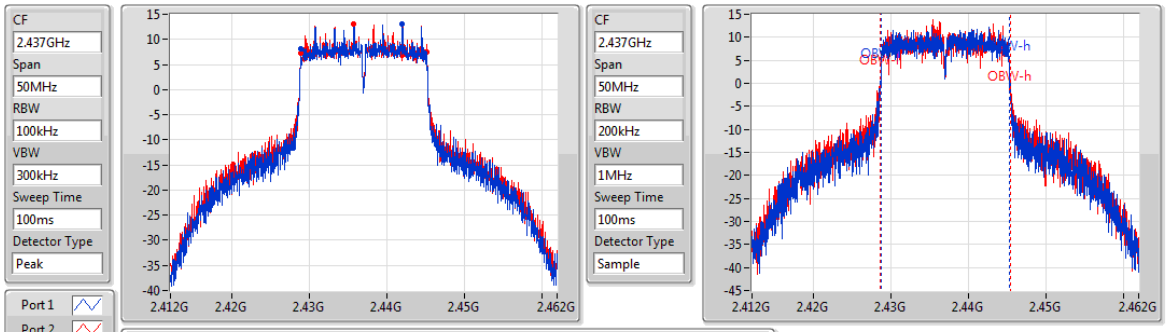


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
14.925M	2.404575G	2.4195G	16.392M	2.403804G	2.420196G	500k	1
16.3M	2.40385G	2.42015G	16.417M	2.403779G	2.420196G	500k	2

802.11g-BF_Nss1,(6Mbps)_2TX EBW

2437MHz

06/05/2019

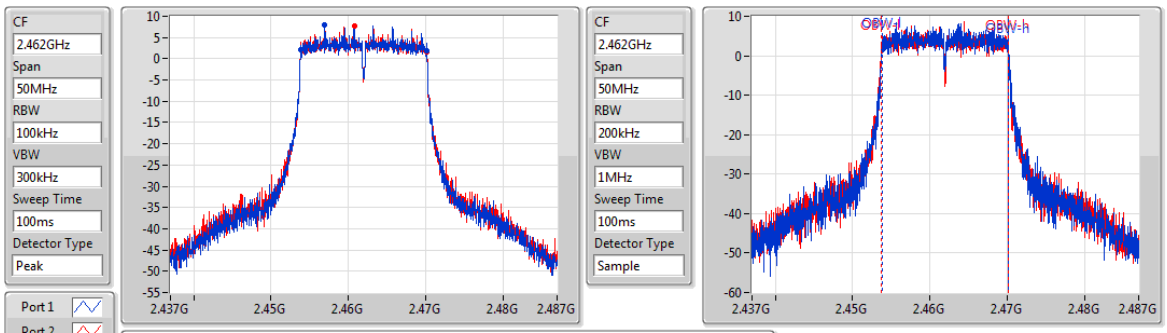


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.025M	2.42885G	2.444875G	16.642M	2.428679G	2.445321G	500k	1
16.3M	2.42885G	2.44515G	16.842M	2.428529G	2.445371G	500k	2

802.11g-BF_Nss1,(6Mbps)_2TX EBW

2462MHz

06/05/2019

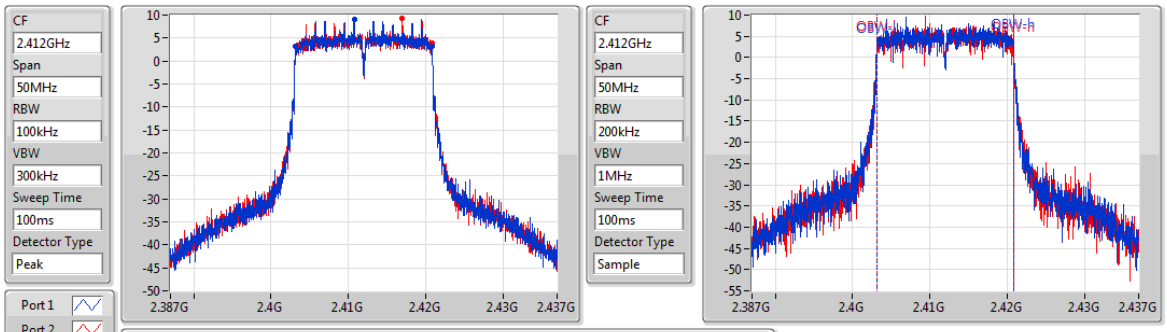


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.453825G	2.47015G	16.367M	2.453804G	2.470171G	500k	1
16.35M	2.453825G	2.470175G	16.392M	2.453779G	2.470171G	500k	2

VHT20-BF_Nss1,(MCS0)_2TX **EBW**

2412MHz

06/05/2019

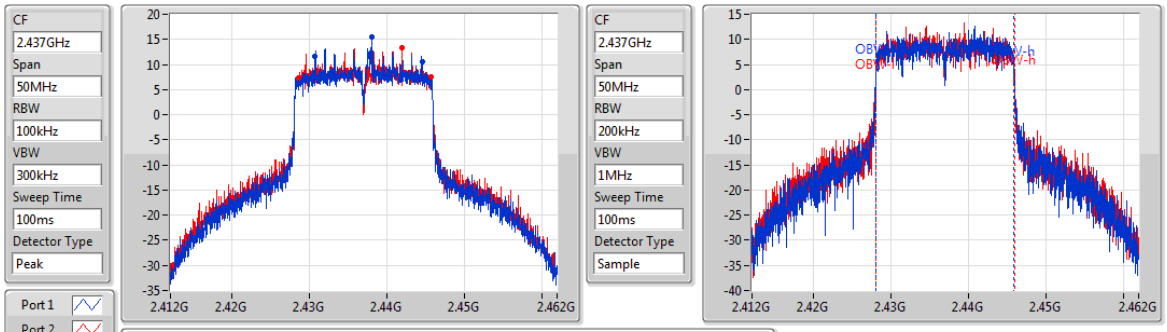


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	2.403225G	2.420775G	17.616M	2.403179G	2.420796G	500k	1
17.4M	2.403375G	2.420775G	17.616M	2.403179G	2.420796G	500k	2

VHT20-BF_Nss1,(MCS0)_2TX **EBW**

2437MHz

06/05/2019

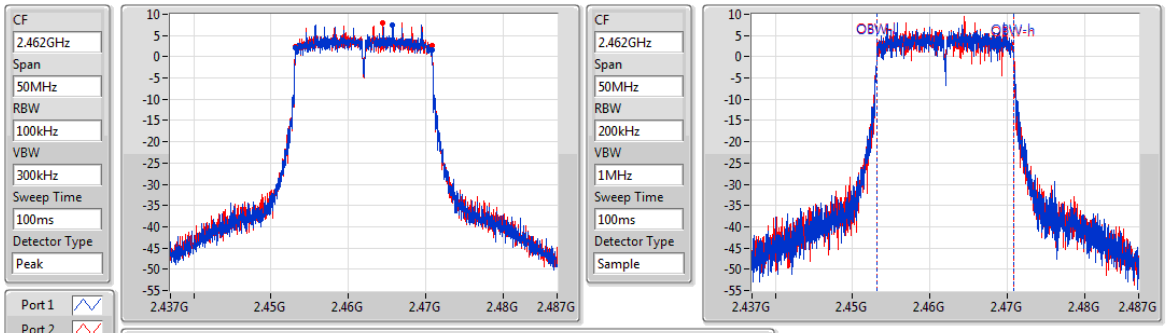


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
13.85M	2.4307G	2.44455G	17.816M	2.428079G	2.445896G	500k	1
17.225M	2.428525G	2.44575G	17.916M	2.428029G	2.445946G	500k	2

VHT20-BF_Nss1,(MCS0)_2TX **EBW**

2462MHz

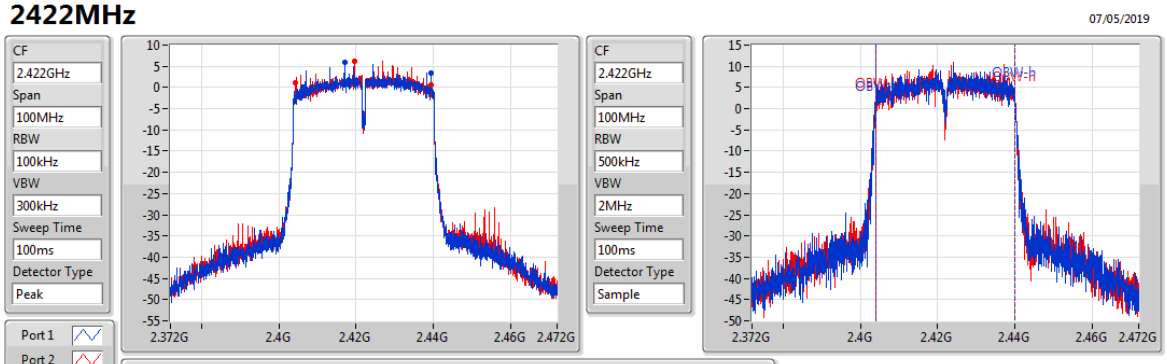
06/05/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	2.453225G	2.470775G	17.616M	2.453179G	2.470796G	500k	1
17.55M	2.453225G	2.470775G	17.616M	2.453179G	2.470796G	500k	2

VHT40-BF_Nss1,(MCS0)_2TX **EBW**

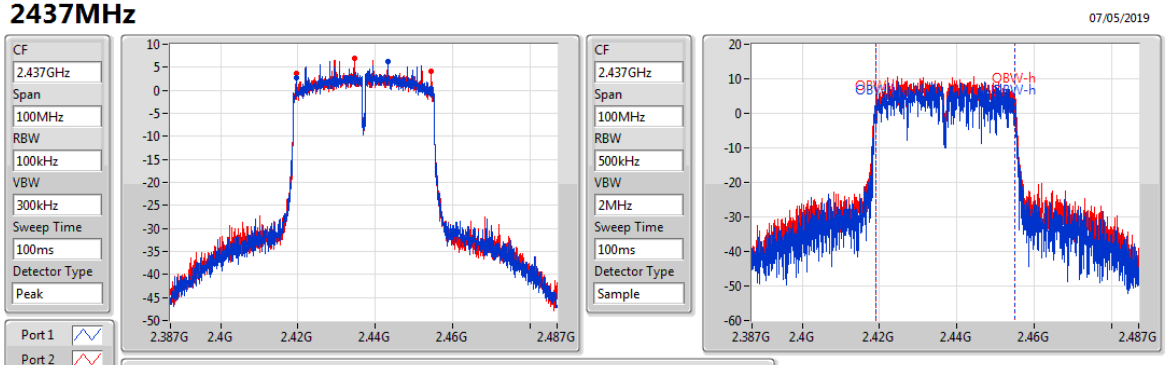
2422MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
33.1M	2.4064G	2.4395G	35.932M	2.404059G	2.439991G	500k	1
35M	2.40445G	2.43945G	35.932M	2.404059G	2.439991G	500k	2

VHT40-BF_Nss1,(MCS0)_2TX **EBW**

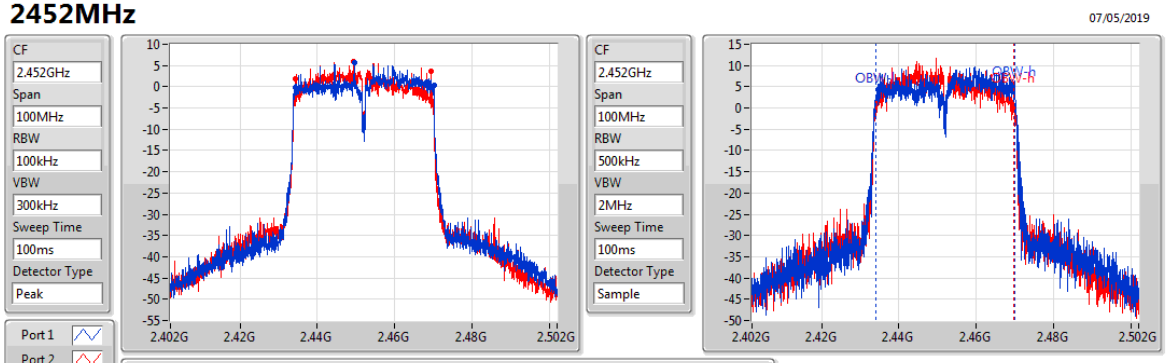
2437MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
34.85M	2.41955G	2.4544G	35.932M	2.418959G	2.454891G	500k	1
35M	2.4195G	2.4545G	35.982M	2.419009G	2.454991G	500k	2

VHT40-BF_Nss1,(MCS0)_2TX **EBW**

2452MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.85M	2.43435G	2.4702G	36.082M	2.433959G	2.470041G	500k	1
35.05M	2.43445G	2.4695G	35.532M	2.434159G	2.469691G	500k	2

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_2TX	28.45	0.69984
802.11g-BF_Nss1,(6Mbps)_2TX	27.36	0.54450
VHT20-BF_Nss1,(MCS0)_2TX	26.88	0.48753
VHT40-BF_Nss1,(MCS0)_2TX	23.94	0.24774

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	2.84	25.20	24.80	28.01	30.00
2437MHz	Pass	2.84	25.55	25.32	28.45	30.00
2462MHz	Pass	2.84	25.13	24.57	27.87	30.00
802.11g-BF_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.61	19.75	20.02	22.90	30.00
2417MHz	Pass	5.61	20.59	20.64	23.63	30.00
2437MHz	Pass	5.61	24.08	24.61	27.36	30.00
2457MHz	Pass	5.61	20.50	20.61	23.57	30.00
2462MHz	Pass	5.61	19.76	19.9	22.84	30.00
VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.61	20.73	20.79	23.77	30.00
2417MHz	Pass	5.61	20.78	20.85	23.83	30.00
2437MHz	Pass	5.61	23.45	24.26	26.88	30.00
2457MHz	Pass	5.61	20.08	20.13	23.12	30.00
2462MHz	Pass	5.61	19.59	19.8	22.71	30.00
VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	5.61	19.34	19.61	22.49	30.00
2437MHz	Pass	5.61	20.75	21.11	23.94	30.00
2452MHz	Pass	5.61	19.55	19.69	22.63	30.00

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

Note : Conducted average output power is for reference only

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_2TX	0.01
802.11g-BF_Nss1,(6Mbps)_2TX	0.06
VHT20-BF_Nss1,(MCS0)_2TX	-0.45
VHT40-BF_Nss1,(MCS0)_2TX	-4.59

RBW=3kHz.

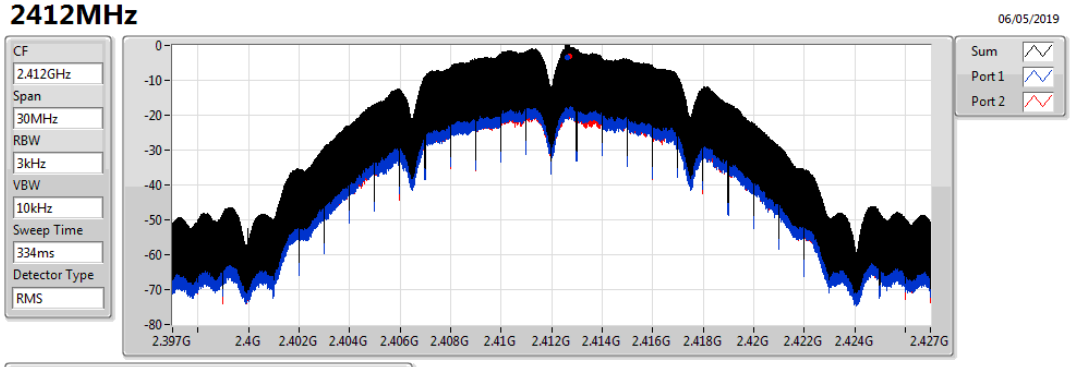
Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.61	-3.30	-3.17	-0.23	8.00
2437MHz	Pass	5.61	-2.92	-2.85	0.01	8.00
2462MHz	Pass	5.61	-3.48	-4.00	-0.80	8.00
802.11g-BF_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.61	-6.62	-6.08	-4.52	8.00
2437MHz	Pass	5.61	-1.01	-2.30	0.06	8.00
2462MHz	Pass	5.61	-6.91	-7.18	-5.09	8.00
VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.61	-5.32	-4.48	-3.69	8.00
2437MHz	Pass	5.61	-1.93	-1.71	-0.45	8.00
2462MHz	Pass	5.61	-6.79	-7.03	-5.15	8.00
VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	5.61	-7.03	-7.16	-6.25	8.00
2437MHz	Pass	5.61	-5.28	-5.63	-4.59	8.00
2452MHz	Pass	5.61	-7.20	-6.46	-5.79	8.00

DG = Directional Gain; RBW=3kHz;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port Xpower density;

802.11b_Nss1,(1Mbps)_2TX **PSD**

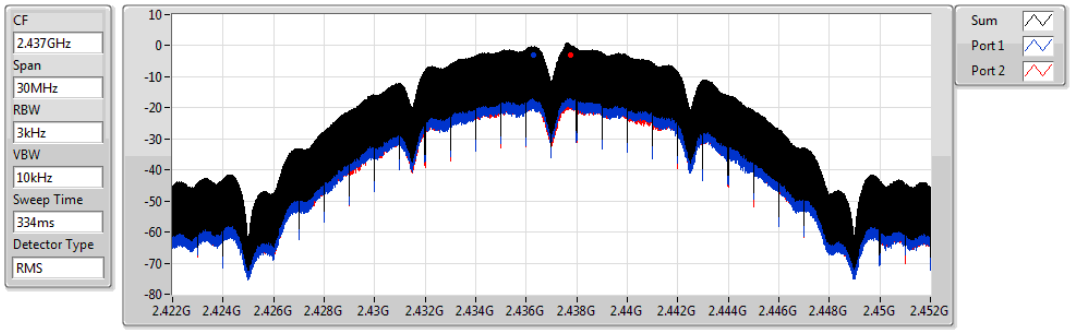
2412MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.23	-0.23	-3.30	-3.17

802.11b_Nss1,(1Mbps)_2TX **PSD**

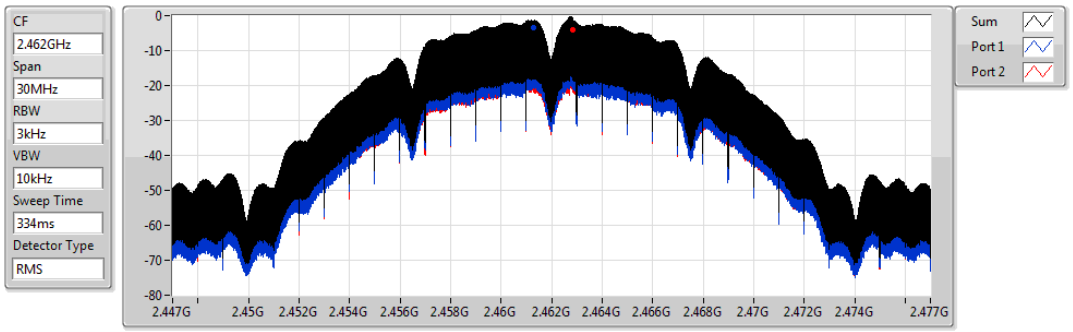
2437MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.01	0.01	-2.92	-2.85

802.11b_Nss1,(1Mbps)_2TX **PSD**

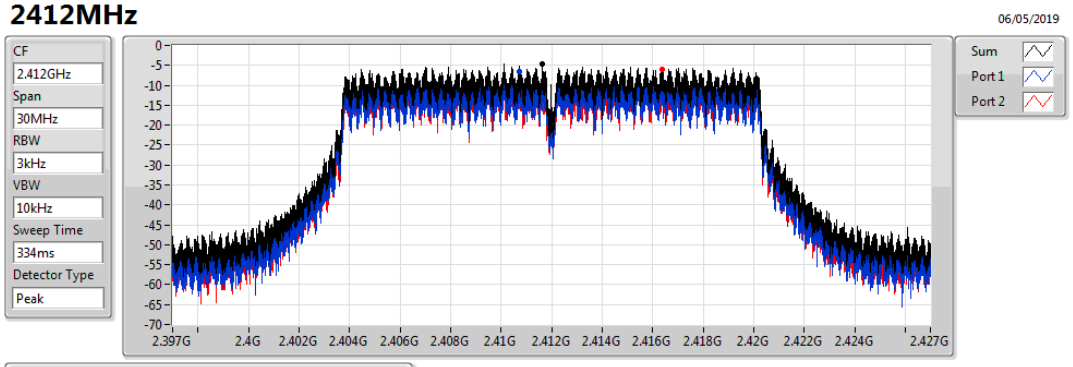
2462MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.80	-0.80	-3.48	-4.00

802.11g-BF_Nss1,(6Mbps)_2TX **PSD**

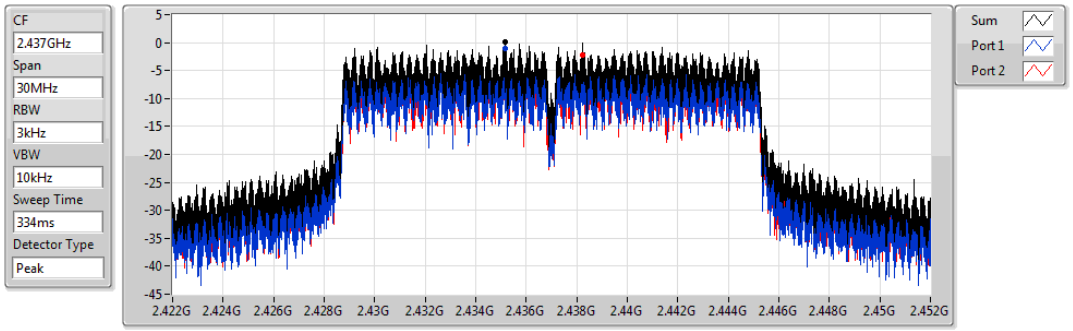
2412MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.52	-4.52	-6.62	-6.08

802.11g-BF_Nss1,(6Mbps)_2TX **PSD**

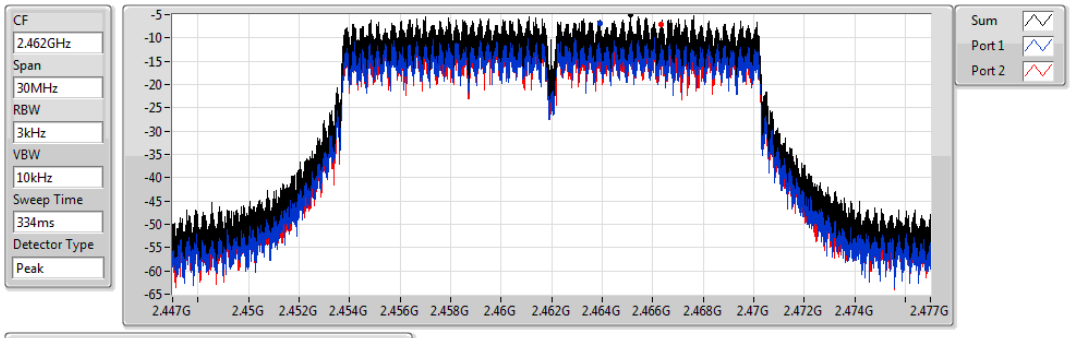
2437MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.06	0.06	-1.01	-2.30

802.11g-BF_Nss1,(6Mbps)_2TX **PSD**

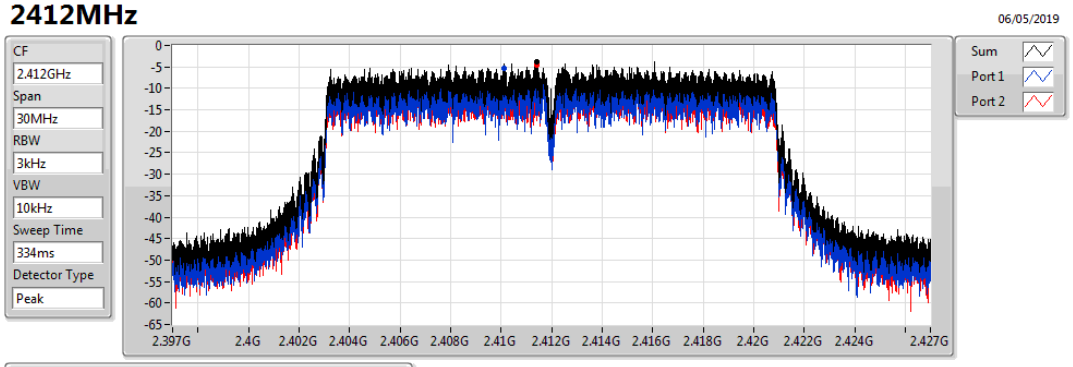
2462MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.09	-5.09	-6.91	-7.18

VHT20-BF_Nss1,(MCS0)_2TX **PSD**

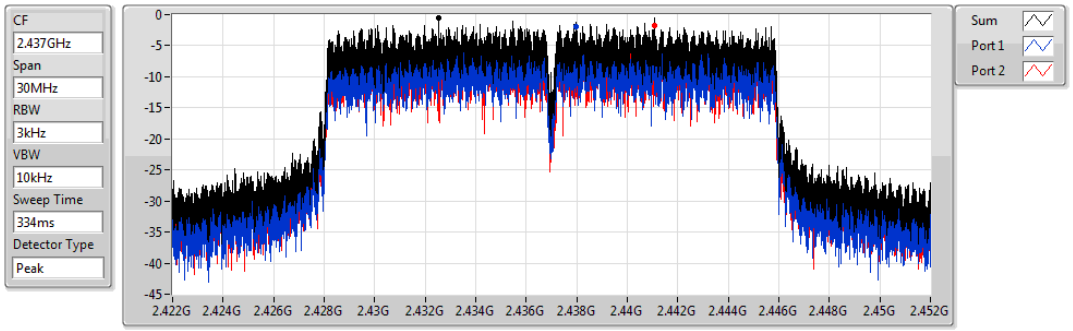
2412MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.69	-3.69	-5.32	-4.48

VHT20-BF_Nss1,(MCS0)_2TX **PSD**

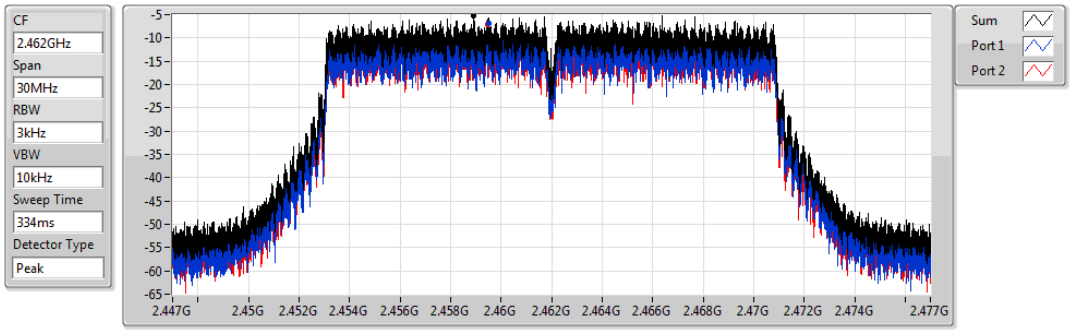
2437MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.45	-0.45	-1.93	-1.71

VHT20-BF_Nss1,(MCS0)_2TX **PSD**

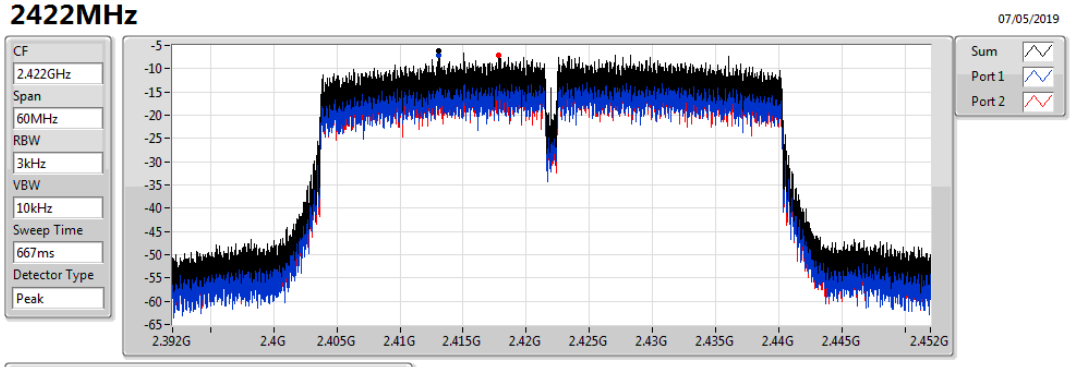
2462MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.15	-5.15	-6.79	-7.03

VHT40-BF_Nss1,(MCS0)_2TX **PSD**

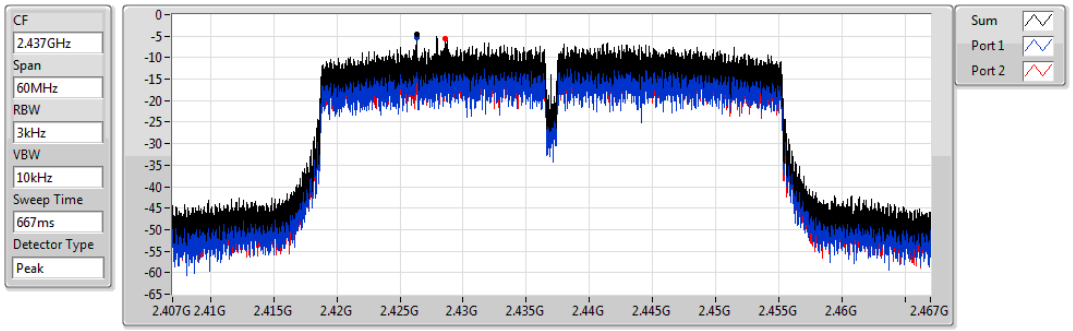
2422MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.25	-6.25	-7.03	-7.16

VHT40-BF_Nss1,(MCS0)_2TX **PSD**

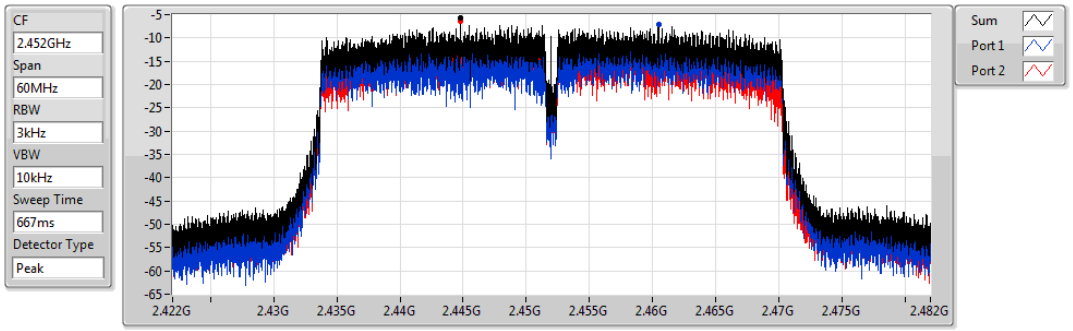
2437MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.59	-4.59	-5.28	-5.63

VHT40-BF_Nss1,(MCS0)_2TX **PSD**

2452MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.79	-5.79	-7.20	-6.46

Summary

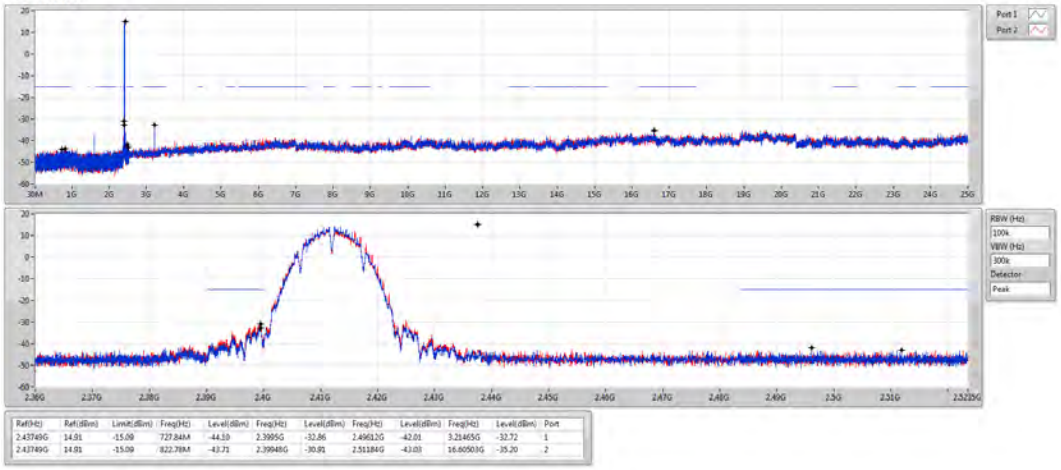
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	Pass	2.43749G	14.91	-15.09	822.78M	-43.71	2.39948G	-30.91	2.51184G	-43.03	16.60503G	-35.20	2
802.11g-BF_Nss1,(6Mbps)_2TX	Pass	2.43574G	12.88	-17.12	630.85M	-39.09	2.3992G	-30.40	2.4889G	-38.33	3.21465G	-30.74	1
VHT20-BF_Nss1,(MCS0)_2TX	Pass	2.43198G	13.01	-16.99	868.22M	-39.06	2.39856G	-27.45	2.48416G	-37.80	16.66122G	-30.71	2
VHT40-BF_Nss1,(MCS0)_2TX	Pass	2.44075G	7.59	-22.41	905.64M	-38.94	2.3996G	-28.60	2.48946G	-37.17	13.83784G	-31.36	2

Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43749G	14.91	-15.09	727.84M	-44.10	2.3995G	-32.86	2.49612G	-42.01	3.21465G	-32.72	1
2412MHz	Pass	2.43749G	14.91	-15.09	822.78M	-43.71	2.39948G	-30.91	2.51184G	-43.03	16.60503G	-35.20	2
2437MHz	Pass	2.43749G	14.91	-15.09	1.62459G	-37.76	2.3924G	-43.99	2.51808G	-42.84	3.24837G	-34.22	1
2437MHz	Pass	2.43749G	14.91	-15.09	841.42M	-43.93	2.39978G	-43.54	2.49974G	-42.57	16.66403G	-36.05	2
2462MHz	Pass	2.43749G	14.91	-15.09	1.64149G	-38.13	2.39622G	-43.67	2.48368G	-42.30	16.44207G	-35.05	1
2462MHz	Pass	2.43749G	14.91	-15.09	934.04M	-42.94	2.39252G	-43.98	2.48366G	-40.58	24.941G	-36.11	2
802.11g-BF_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43574G	12.88	-17.12	630.85M	-39.09	2.3992G	-30.40	2.4889G	-38.33	3.21465G	-30.74	1
2412MHz	Pass	2.43574G	12.88	-17.12	2.13341G	-38.75	2.39922G	-30.41	2.49982G	-37.22	15.21148G	-30.81	2
2437MHz	Pass	2.43574G	12.88	-17.12	1.87099G	-38.78	2.39888G	-36.88	2.49154G	-38.25	16.81574G	-31.22	1
2437MHz	Pass	2.43574G	12.88	-17.12	1.94031G	-39.52	2.39996G	-35.97	2.48438G	-37.66	16.67246G	-31.14	2
2462MHz	Pass	2.43574G	12.88	-17.12	670.75M	-39.26	2.39728G	-40.12	2.48414G	-37.36	24.94662G	-30.83	1
2462MHz	Pass	2.43574G	12.88	-17.12	892.97M	-38.75	2.39608G	-38.91	2.48412G	-36.92	24.85671G	-31.26	2
VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43198G	13.01	-16.99	745.89M	-39.37	2.39846G	-28.88	2.50512G	-38.23	3.21465G	-31.07	1
2412MHz	Pass	2.43198G	13.01	-16.99	868.22M	-39.06	2.39856G	-27.45	2.48416G	-37.80	16.66122G	-30.71	2
2437MHz	Pass	2.43198G	13.01	-16.99	734.83M	-39.43	2.39894G	-37.42	2.48596G	-37.89	16.40555G	-30.56	1
2437MHz	Pass	2.43198G	13.01	-16.99	805.89M	-39.24	2.39312G	-36.40	2.50708G	-37.00	24.24423G	-31.31	2
2462MHz	Pass	2.43198G	13.01	-16.99	549.59M	-39.37	2.39248G	-39.66	2.50684G	-38.26	16.48422G	-29.76	1
2462MHz	Pass	2.43198G	13.01	-16.99	2.16224G	-38.75	2.39844G	-39.44	2.4944G	-37.64	24.87076G	-30.60	2
VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.44075G	7.59	-22.41	885.03M	-39.45	2.39396G	-33.28	2.49702G	-38.56	16.43767G	-29.81	1
2422MHz	Pass	2.44075G	7.59	-22.41	843.24M	-39.29	2.39976G	-32.15	2.50446G	-39.03	17.48377G	-30.55	2
2437MHz	Pass	2.44075G	7.59	-22.41	2.00627G	-39.60	2.39992G	-31.20	2.48446G	-35.90	16.42926G	-30.74	1
2437MHz	Pass	2.44075G	7.59	-22.41	905.64M	-38.94	2.3996G	-28.60	2.48946G	-37.17	13.83784G	-31.36	2
2452MHz	Pass	2.44075G	7.59	-22.41	814.61M	-39.61	2.39764G	-39.74	2.48626G	-34.24	16.2722G	-30.94	1
2452MHz	Pass	2.44075G	7.59	-22.41	598.21M	-38.80	2.3982G	-39.68	2.48442G	-32.97	24.63541G	-30.92	2

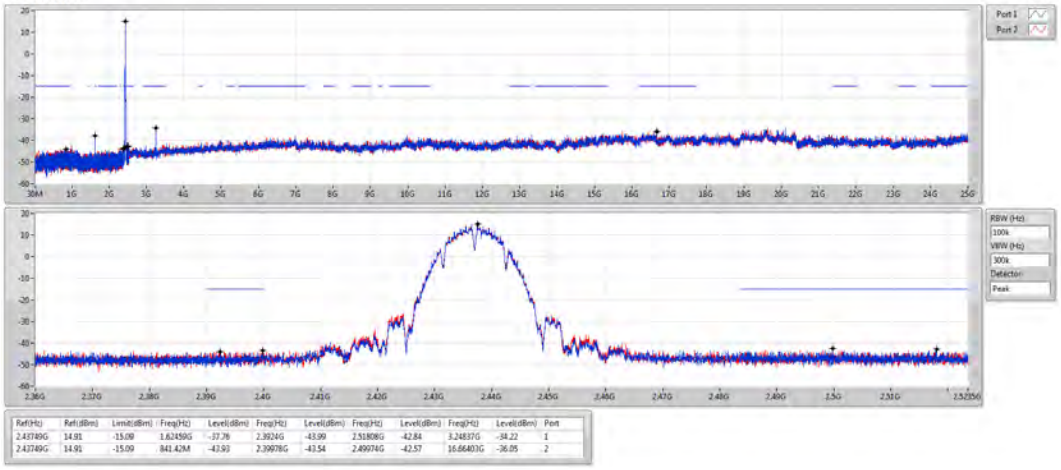
802.11b_Nss1,(1Mbps)_2TX CSE NdB

2412MHz



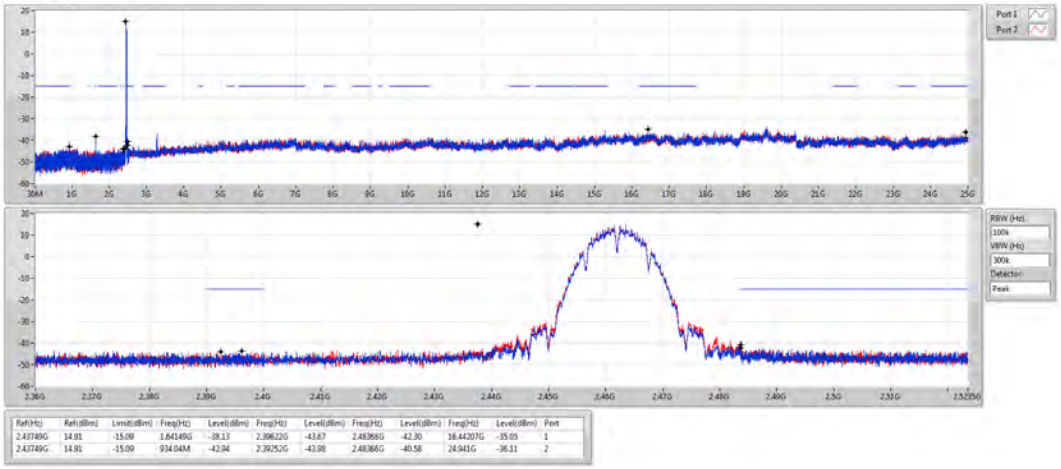
802.11b_Nss1,(1Mbps)_2TX CSE NdB

2437MHz



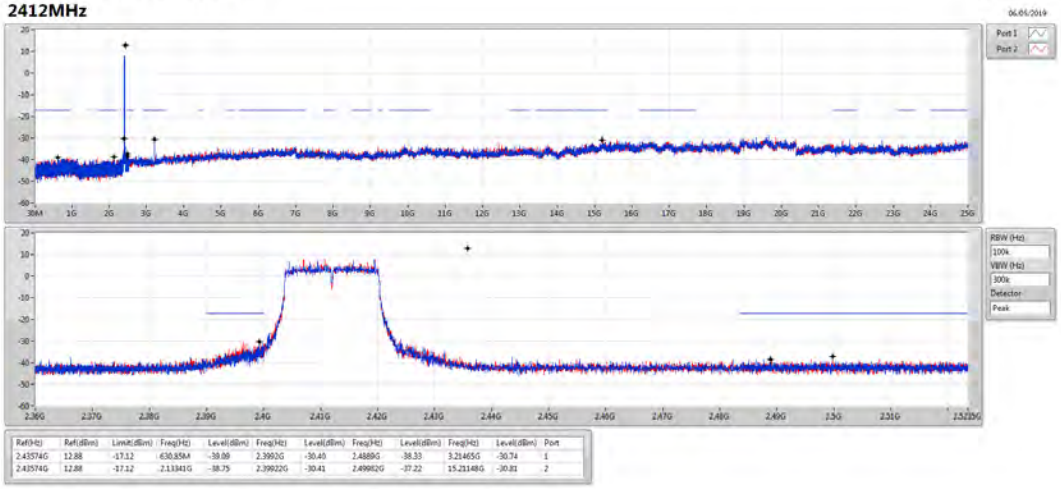
802.11b_Nss1,(1Mbps)_2TX CSE NdB

2462MHz



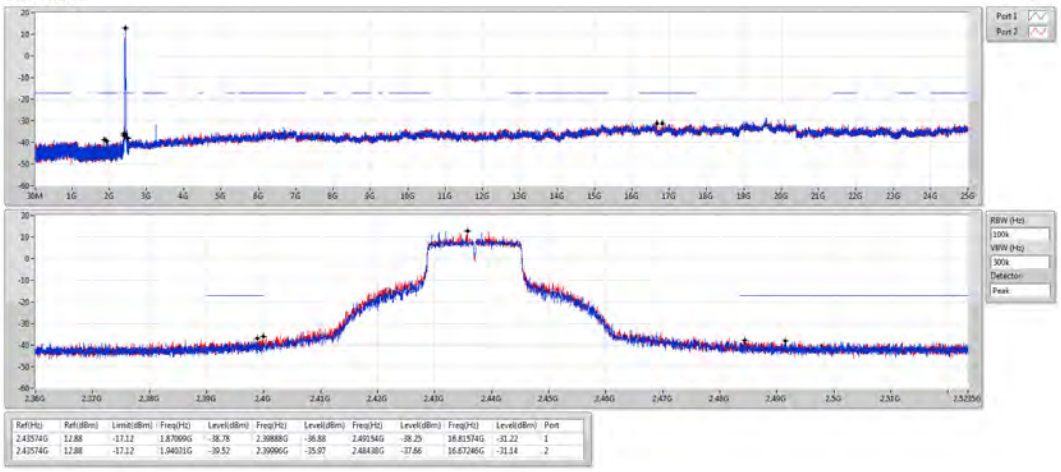
802.11g-BF_Nss1,(6Mbps)_2TX CSE NdB

2412MHz



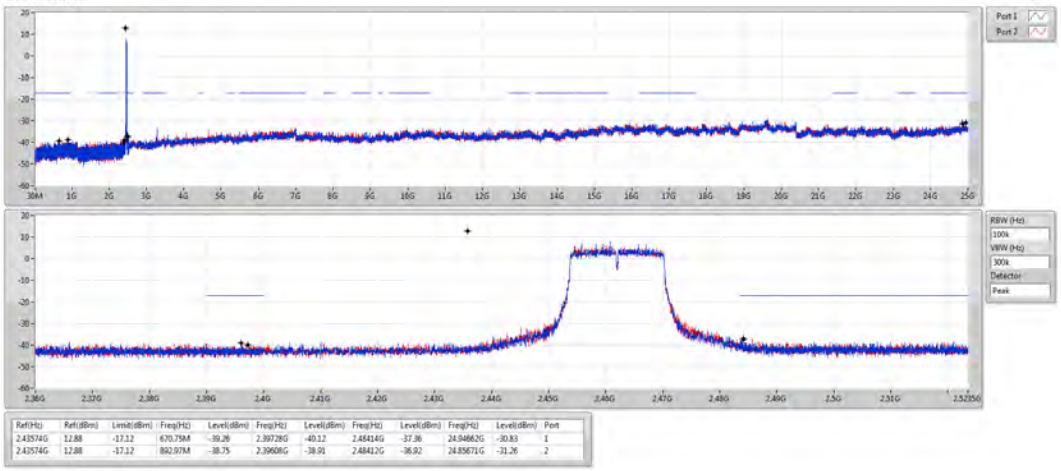
802.11g-BF_Nss1,(6Mbps)_2TX CSE NdB

2437MHz



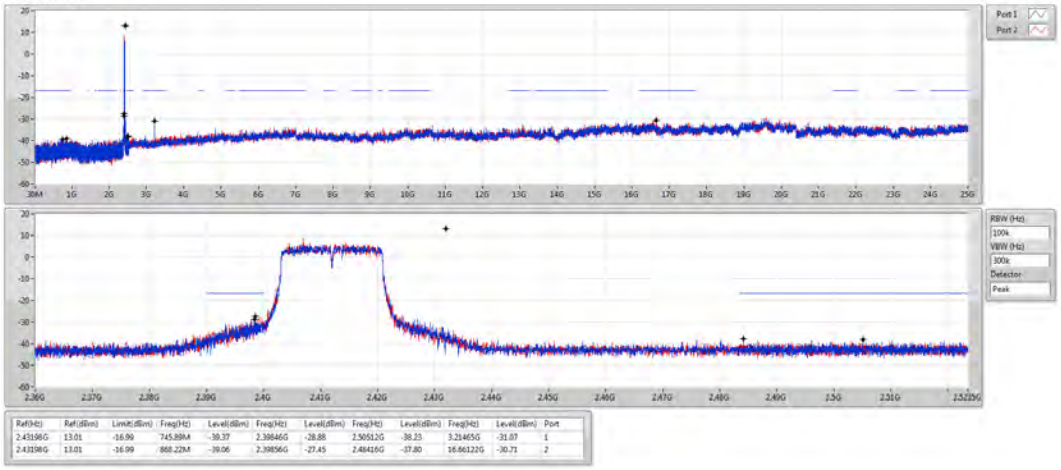
802.11g-BF_Nss1,(6Mbps)_2TX CSE NdB

2462MHz



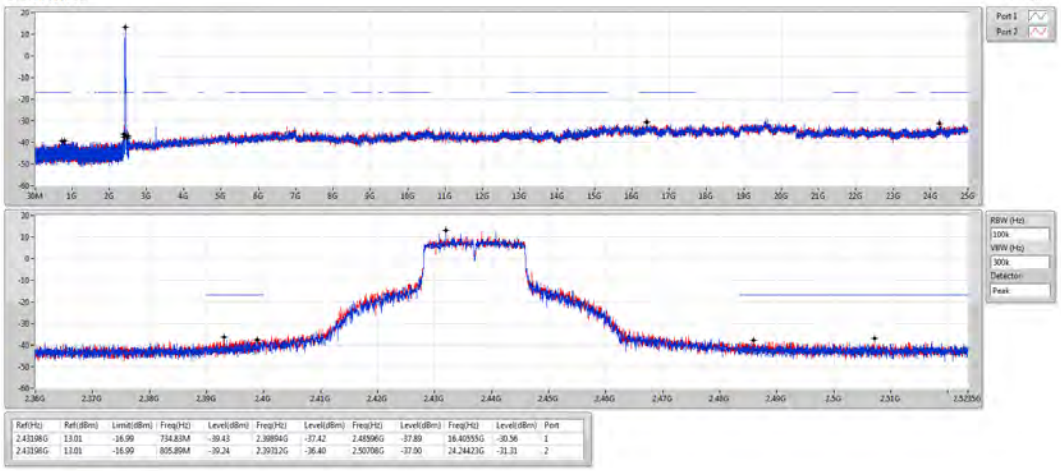
VHT20-BF_Nss1,(MCS0)_2TX CSE NdB

2412MHz



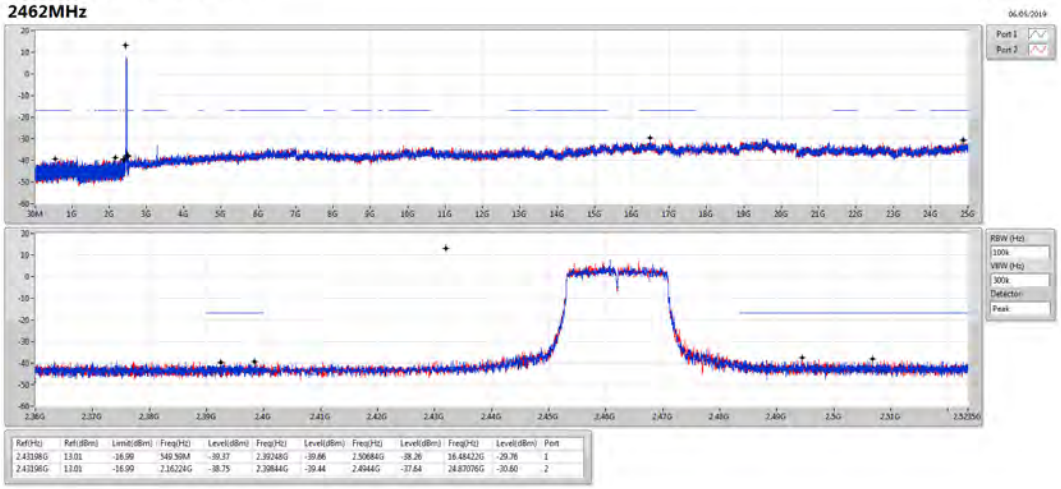
VHT20-BF_Nss1,(MCS0)_2TX CSE NdB

2437MHz



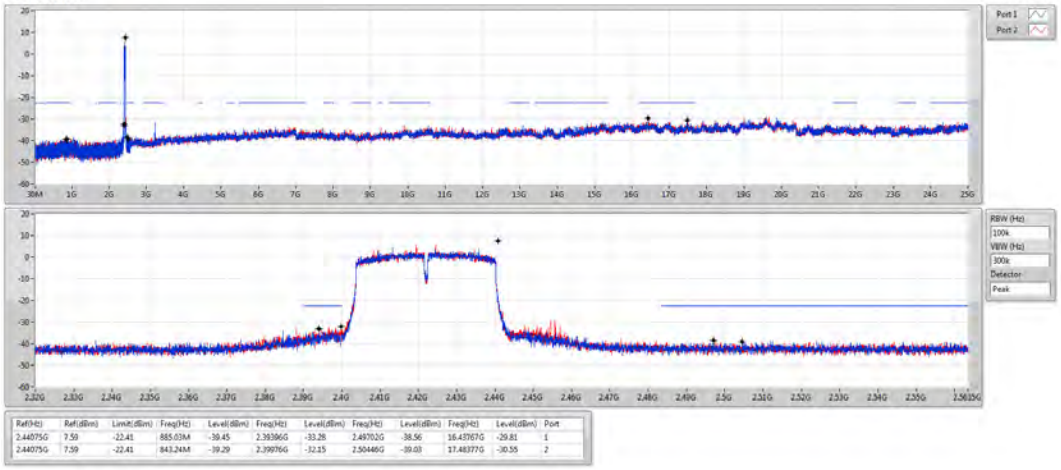
VHT20-BF_Nss1,(MCS0)_2TX CSE NdB

2462MHz



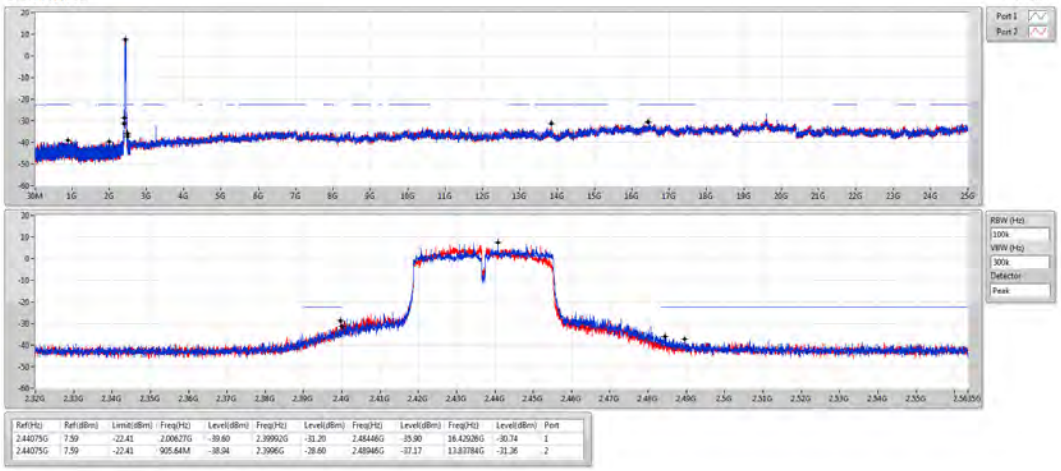
VHT40-BF_Nss1,(MCS0)_2TX CSE NdB

2422MHz



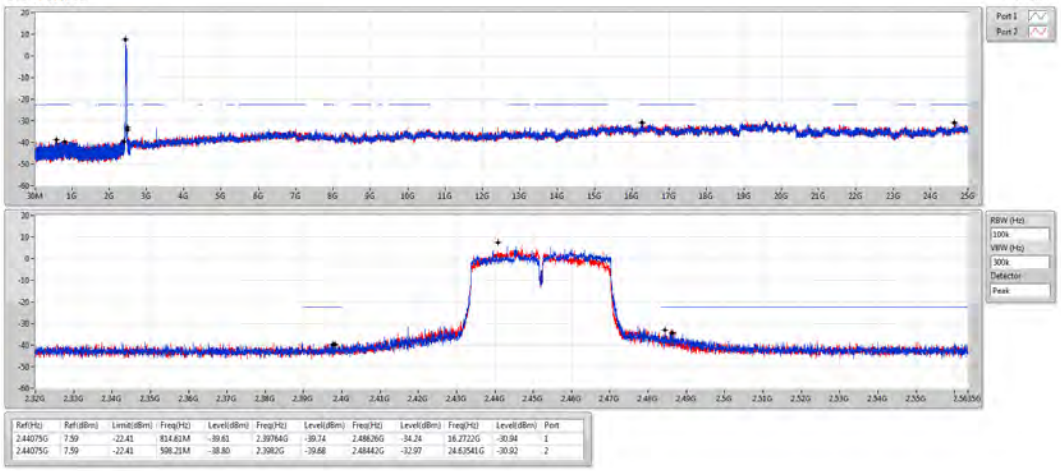
VHT40-BF_Nss1,(MCS0)_2TX CSE NdB

2437MHz

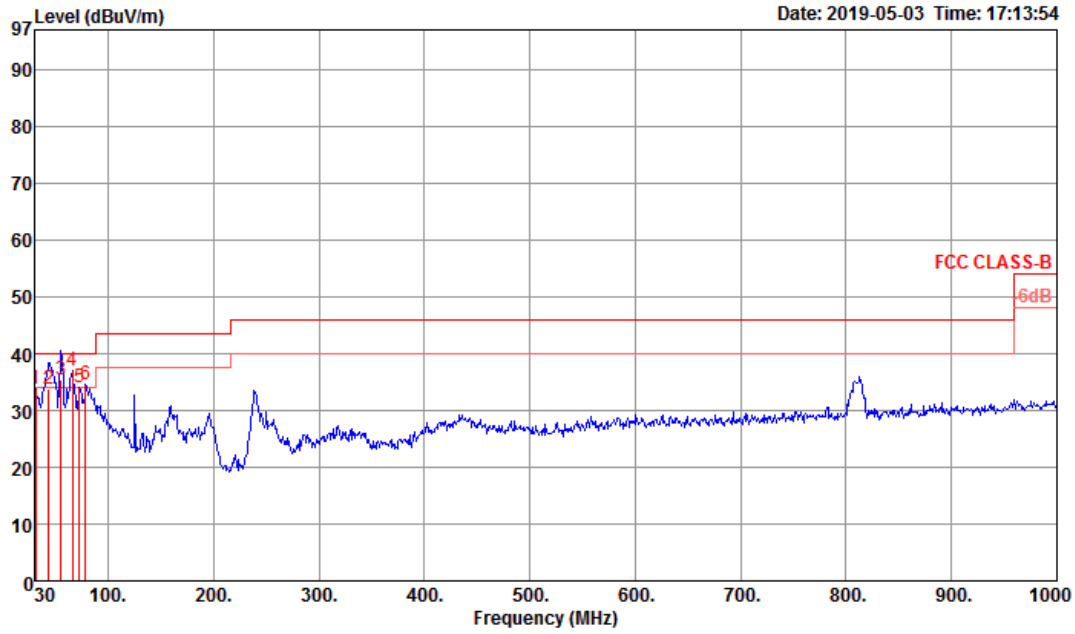


VHT40-BF_Nss1,(MCS0)_2TX CSE NdB

2452MHz



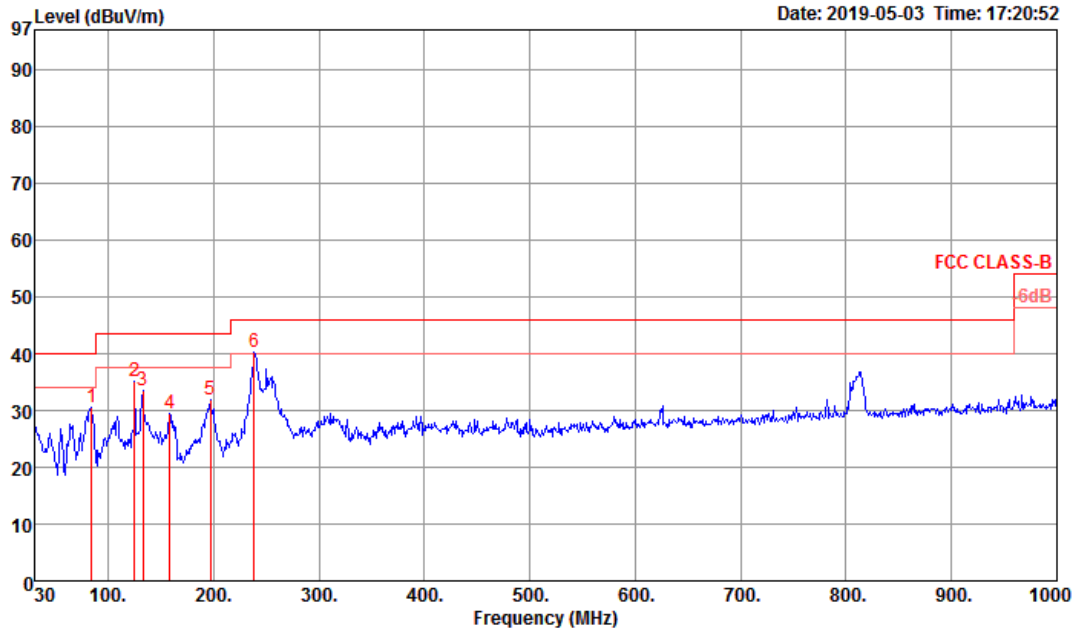
RSE below 1GHz Result			
Operating Mode	2	**Polarization**	Vertical
Operating Function	CTX- EUT_2.4GHz in Z axis + Adapter 2 with US plug		



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	30.97	33.73	40.00	-6.27	38.89	0.76	25.40	31.32	300	0	Peak	VERTICAL
2	43.58	33.67	40.00	-6.33	46.10	0.84	18.30	31.57	100	358	QP	VERTICAL
3	55.22	35.30	40.00	-4.70	52.69	0.99	13.24	31.62	122	60	QP	VERTICAL
4	65.89	36.88	40.00	-3.12	54.95	1.00	12.60	31.67	300	0	Peak	VERTICAL
5	72.68	33.91	40.00	-6.09	51.46	1.08	13.05	31.68	300	0	Peak	VERTICAL
6	78.50	34.70	40.00	-5.30	51.73	1.12	13.55	31.70	300	0	Peak	VERTICAL

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

RSE below 1GHz Result			
Operating Mode	2	**Polarization**	Horizontal
Operating Function	CTX- EUT_2.4GHz in Z axis + Adapter 2 with US plug		



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	84.32	30.59	40.00	-9.41	47.15	1.12	14.03	31.71	100	360	Peak	HORIZONTAL
2	125.06	35.00	43.50	-8.50	46.55	1.38	18.80	31.73	100	360	Peak	HORIZONTAL
3	132.82	33.41	43.50	-10.09	45.28	1.41	18.45	31.73	100	360	Peak	HORIZONTAL
4	158.04	29.37	43.50	-14.13	42.94	1.59	16.60	31.76	100	360	Peak	HORIZONTAL
5	196.84	31.77	43.50	-11.73	45.85	1.68	16.00	31.76	100	360	Peak	HORIZONTAL
6	238.55	40.29	46.00	-5.71	52.38	1.89	17.83	31.81	100	360	Peak	HORIZONTAL

Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

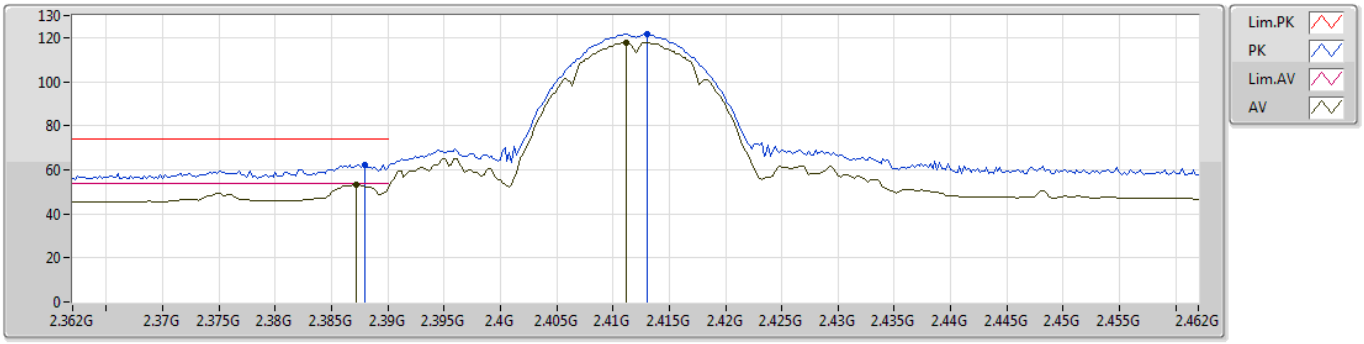
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11g-BF_Nss1,(6Mbps)_2TX	Pass	AV	2.4844G	53.54	54.00	-0.46	32.41	3	Vertical	247	2.24	-

802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

02/04/2019



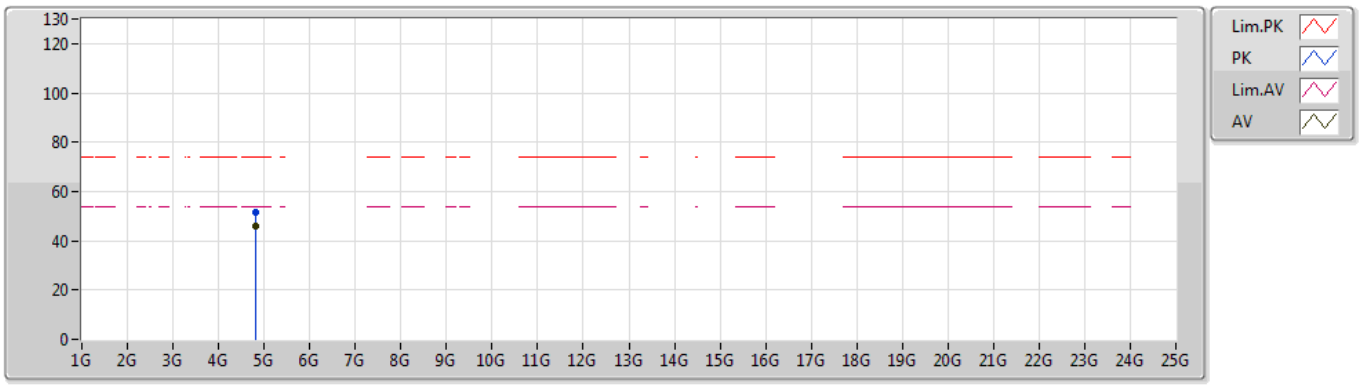
EUT Z_2TX Dipole
Setting 24.5
03-B-4
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.388G	62.40	74.00	-11.60	32.06	3	Vertical	246	2.14	-
AV	2.3872G	53.35	54.00	-0.65	32.05	3	Vertical	246	2.14	-
PK	2.413G	121.64	Inf	-Inf	32.14	3	Vertical	246	2.14	-
AV	2.4112G	117.95	Inf	-Inf	32.13	3	Vertical	246	2.14	-

802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

29/04/2019



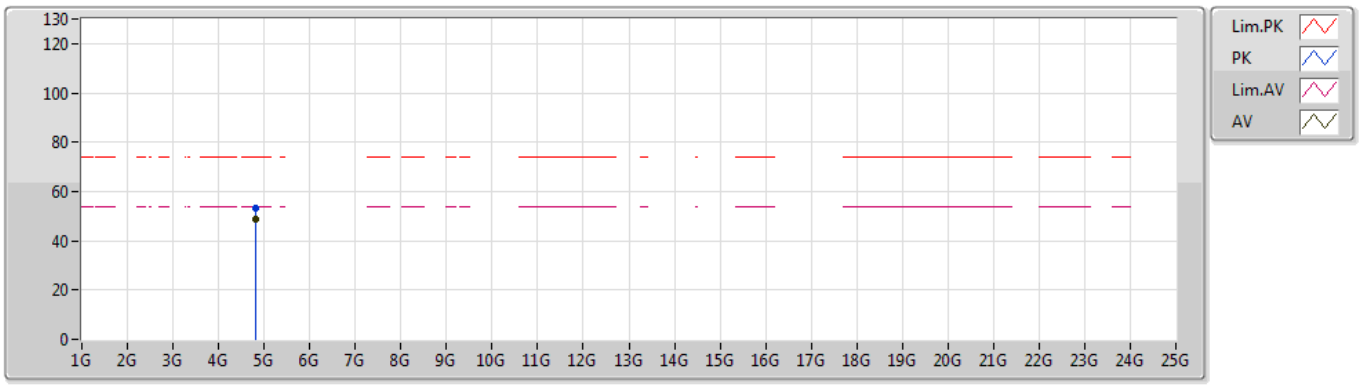
EUT Z_2TX Dipole
Setting 24.5
03-N-2
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.82394G	51.62	74.00	-22.38	5.11	3	Vertical	231	1.31	-
AV	4.824G	45.88	54.00	-8.12	5.11	3	Vertical	231	1.31	-

802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

29/04/2019



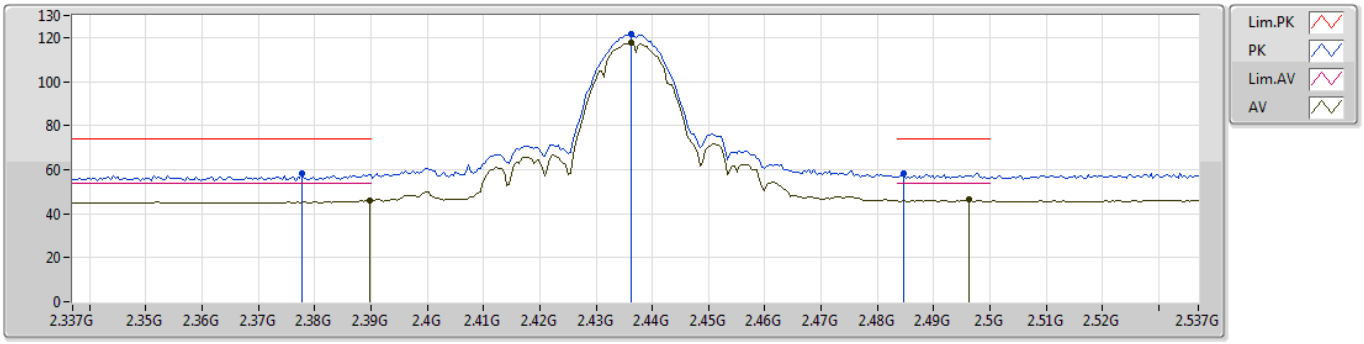
EUT Z_2TX Dipole
Setting 24.5
03-N-2
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.82398G	53.04	74.00	-20.96	5.11	3	Horizontal	36	2.53	-
AV	4.82398G	48.58	54.00	-5.42	5.11	3	Horizontal	36	2.53	-

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

02/04/2019



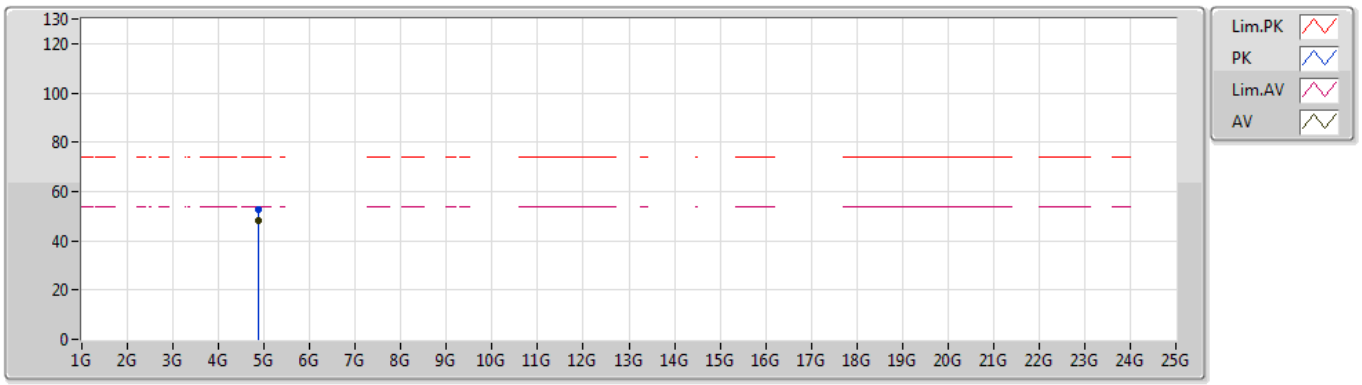
EUT Z_2TX Dipole
Setting 25
03-B-4
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3778G	58.07	74.00	-15.93	32.03	3	Vertical	241	2.60	-
AV	2.3898G	45.80	54.00	-8.20	32.06	3	Vertical	241	2.60	-
PK	2.4362G	121.41	Inf	-Inf	32.23	3	Vertical	241	2.60	-
AV	2.4362G	117.73	Inf	-Inf	32.23	3	Vertical	241	2.60	-
PK	2.4846G	58.49	74.00	-15.51	32.41	3	Vertical	241	2.60	-
AV	2.4962G	46.36	54.00	-7.64	32.46	3	Vertical	241	2.60	-

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

29/04/2019



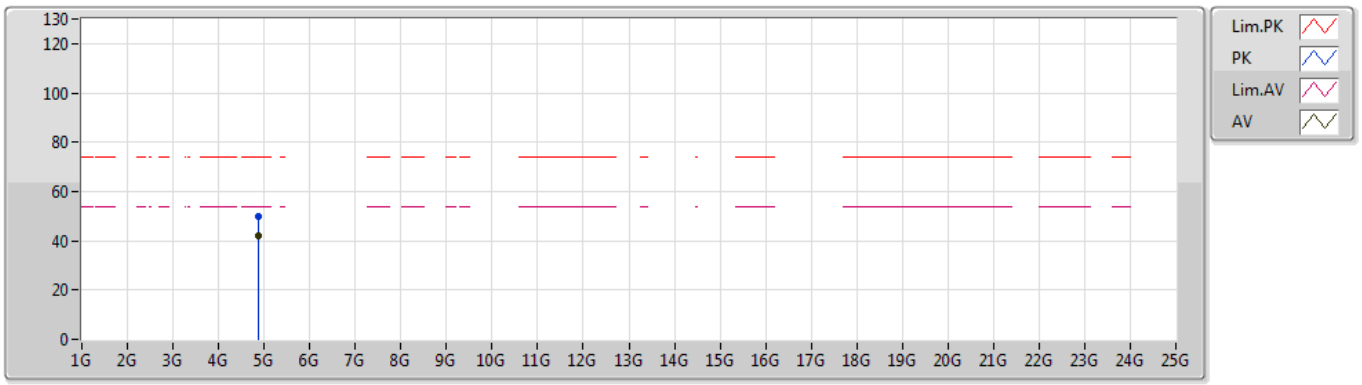
EUT Z_2TX Dipole
Setting 25
03-N-2
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.87388G	52.67	74.00	-21.33	5.24	3	Vertical	296	2.86	-
AV	4.874G	48.04	54.00	-5.96	5.24	3	Vertical	296	2.86	-

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

29/04/2019



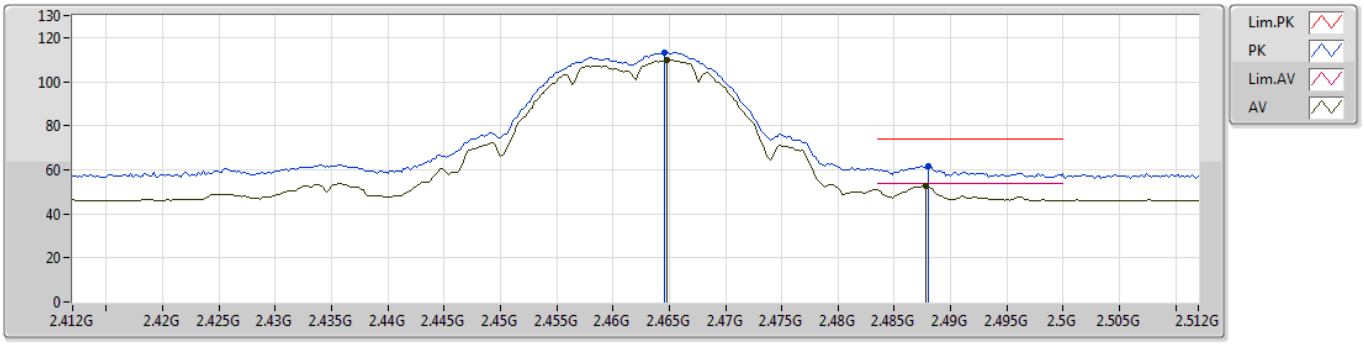
EUT Z_2TX Dipole
Setting 25
03-N-2
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.87387G	49.64	74.00	-24.36	5.24	3	Horizontal	139	1.10	-
AV	4.874G	41.96	54.00	-12.04	5.24	3	Horizontal	139	1.10	-

802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

02/04/2019



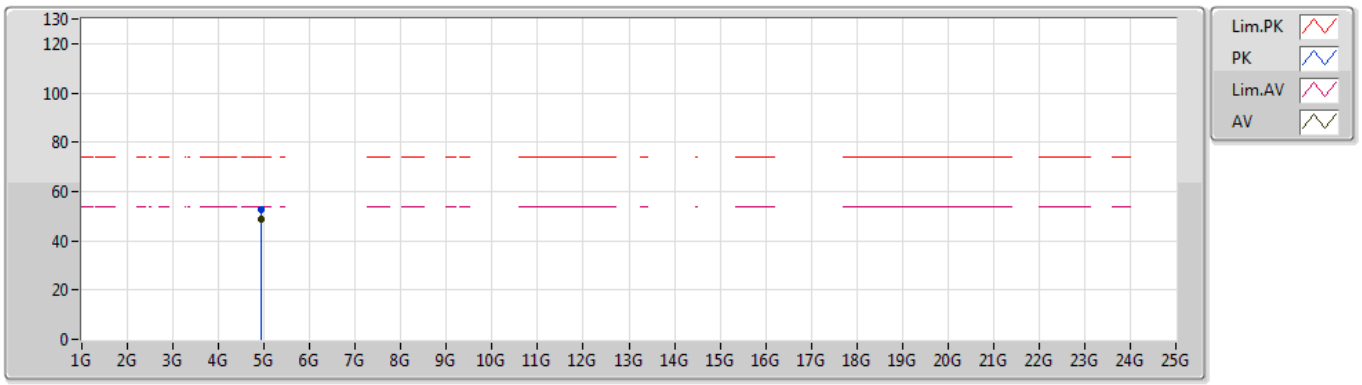
EUT Z_2TX Dipole
Setting 24.5
03-B-4
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.4646G	113.36	Inf	-Inf	32.33	3	Vertical	237	1.94	-
AV	2.4648G	109.61	Inf	-Inf	32.33	3	Vertical	237	1.94	-
PK	2.488G	61.63	74.00	-12.37	32.42	3	Vertical	237	1.94	-
AV	2.4878G	52.59	54.00	-1.41	32.42	3	Vertical	237	1.94	-

802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

29/04/2019



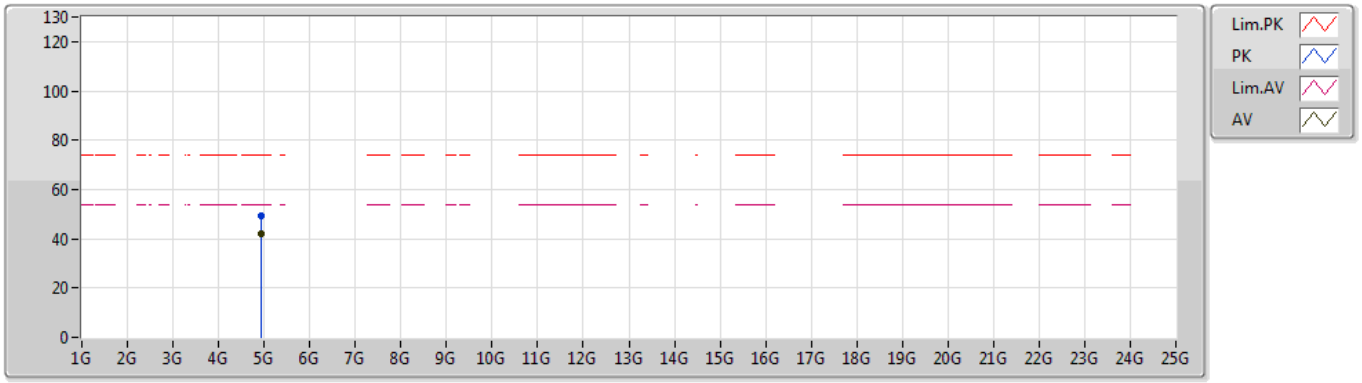
EUT Z_2TX Dipole
Setting 24.5
03-N-2
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.924G	52.83	74.00	-21.17	5.36	3	Vertical	323	2.22	-
AV	4.924G	48.61	54.00	-5.39	5.36	3	Vertical	323	2.22	-

802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

29/04/2019



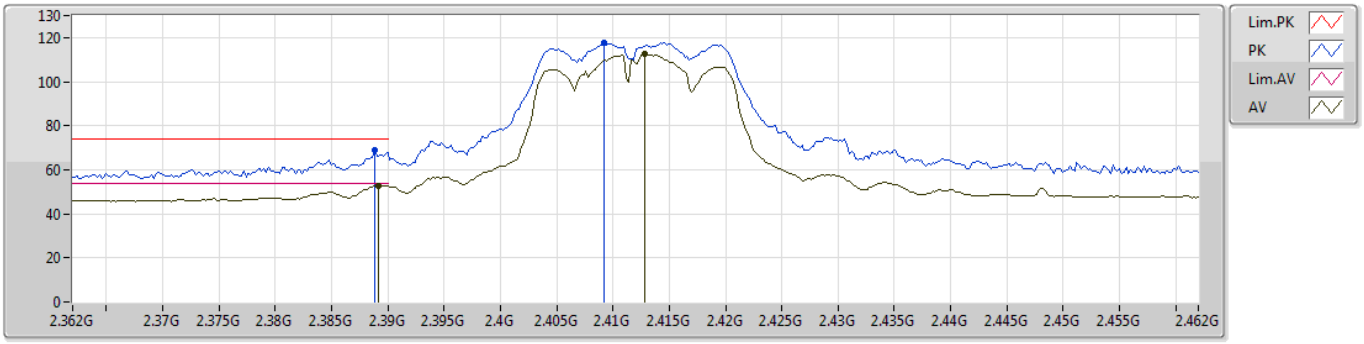
EUT Z_2TX Dipole
Setting 24.5
03-N-2
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.92408G	49.47	74.00	-24.53	5.36	3	Horizontal	73	2.38	-
AV	4.924G	42.28	54.00	-11.72	5.36	3	Horizontal	73	2.38	-

802.11g-BF_Nss1,(6Mbps)_2TX

2412MHz_TX

02/04/2019



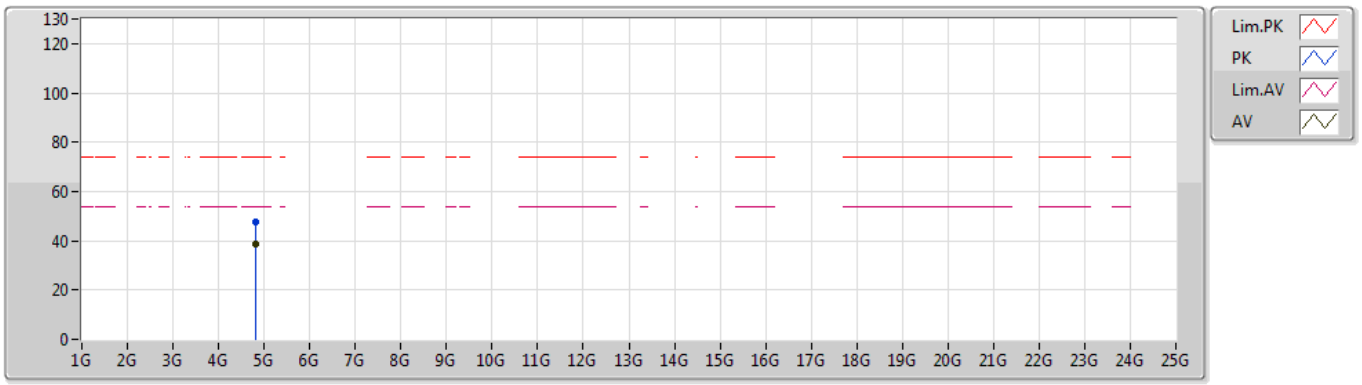
EUT Z_2TX Dipole
Setting 19.5
03-B-4
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3888G	68.96	74.00	-5.04	32.06	3	Vertical	246	2.13	-
AV	2.3892G	52.77	54.00	-1.23	32.06	3	Vertical	246	2.13	-
PK	2.4092G	117.70	Inf	-Inf	32.13	3	Vertical	246	2.13	-
AV	2.4128G	112.61	Inf	-Inf	32.14	3	Vertical	246	2.13	-

802.11g-BF_Nss1,(6Mbps)_2TX

2412MHz_TX

29/04/2019



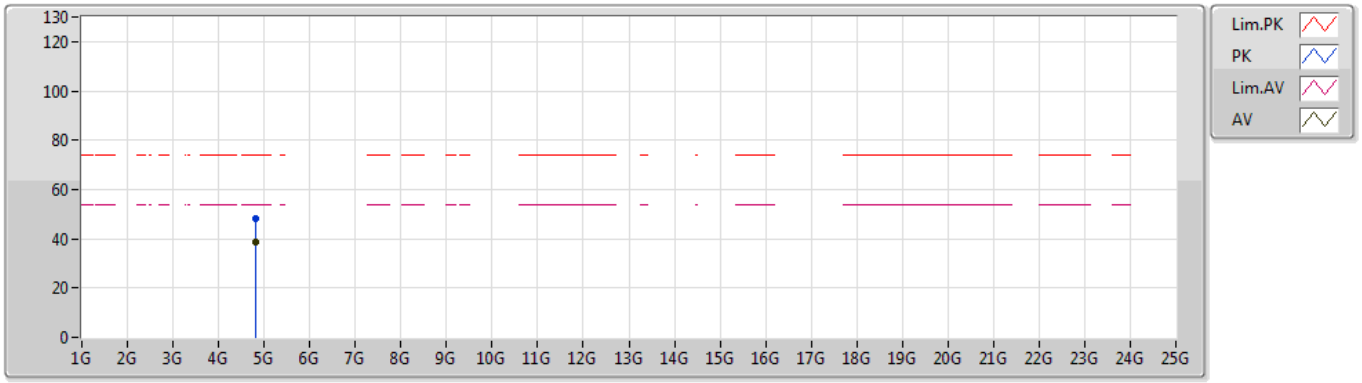
EUT Z_2TX Dipole
Setting 19.5
03-N-2
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.82392G	47.81	74.00	-26.19	5.11	3	Vertical	33	1.14	-
AV	4.82394G	38.88	54.00	-15.12	5.11	3	Vertical	33	1.14	-

802.11g-BF_Nss1,(6Mbps)_2TX

2412MHz_TX

29/04/2019



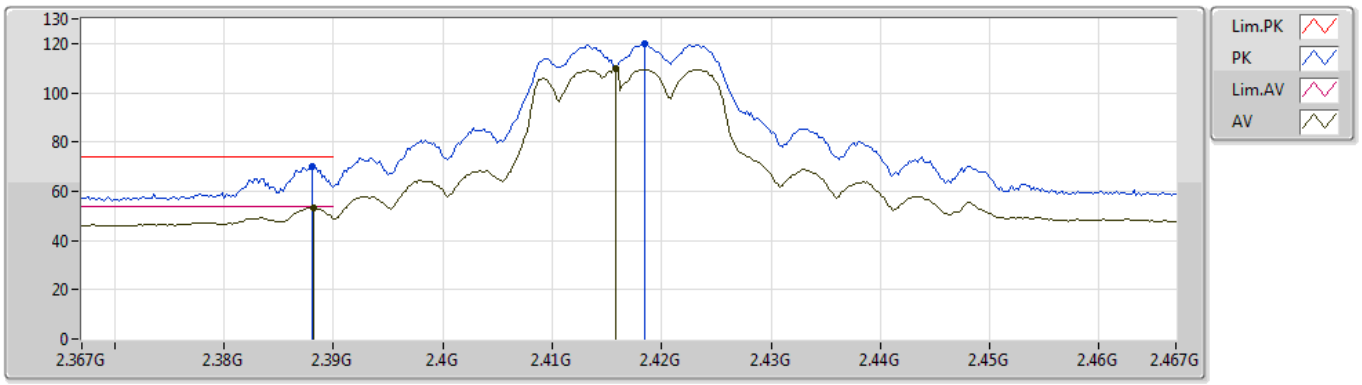
EUT Z_2TX Dipole
Setting 19.5
03-N-2
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.82388G	48.06	74.00	-25.94	5.11	3	Horizontal	341	1.01	-
AV	4.82396G	38.45	54.00	-15.55	5.11	3	Horizontal	341	1.01	-

802.11g-BF_Nss1,(6Mbps)_2TX

2417MHz_TX

06/05/2019



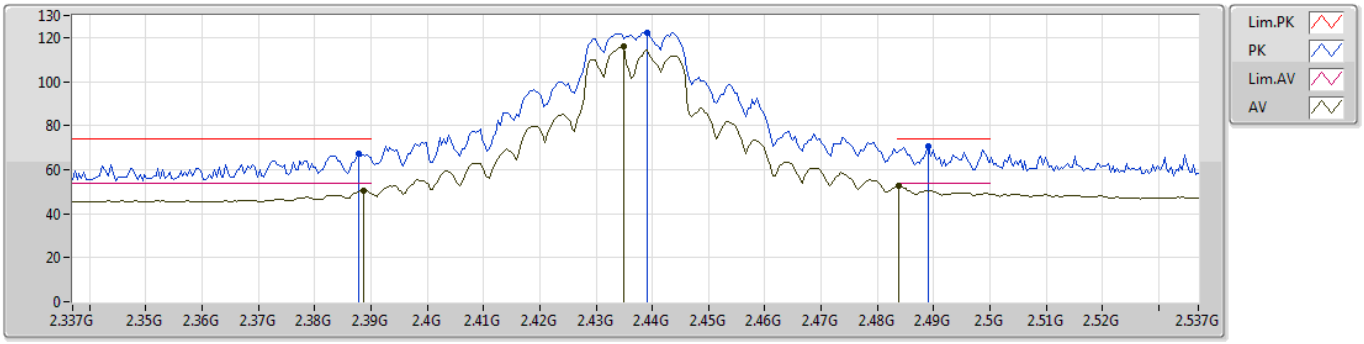
EUT Z_2TX Dipole
Setting 20.5
03-L-3
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.388G	70.17	74.00	-3.83	32.06	3	Vertical	345	1.94	-
AV	2.3882G	53.51	54.00	-0.49	32.06	3	Vertical	345	1.94	-
PK	2.4184G	119.66	Inf	-Inf	32.16	3	Vertical	345	1.94	-
AV	2.4158G	109.71	Inf	-Inf	32.15	3	Vertical	345	1.94	-

802.11g-BF_Nss1,(6Mbps)_2TX

2437MHz_TX

02/04/2019



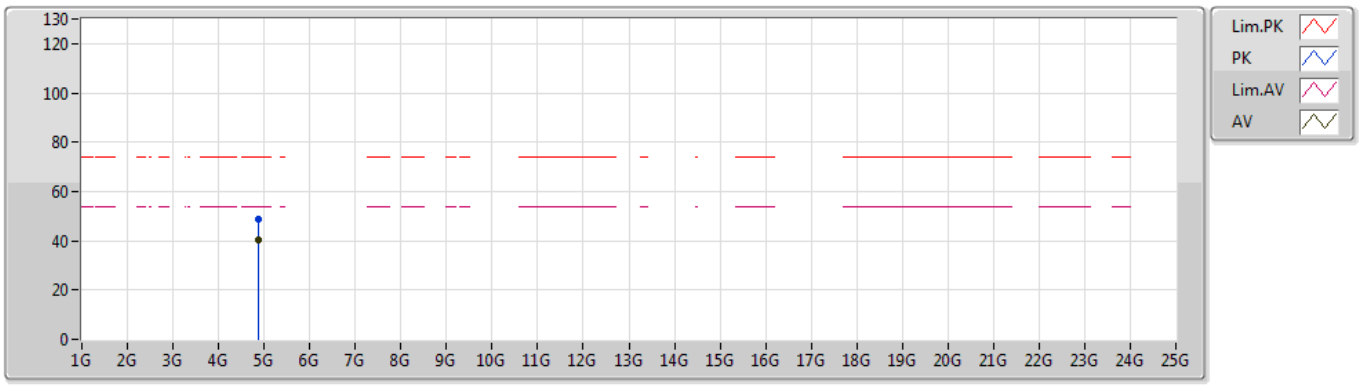
EUT Z_2TX Dipole
Setting 24.5
03-B-4
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3878G	67.07	74.00	-6.93	32.06	3	Vertical	341	1.83	-
AV	2.3886G	50.63	54.00	-3.37	32.06	3	Vertical	341	1.83	-
PK	2.439G	122.21	Inf	-Inf	32.24	3	Vertical	341	1.83	-
AV	2.435G	116.03	Inf	-Inf	32.23	3	Vertical	341	1.83	-
PK	2.489G	70.44	74.00	-3.56	32.43	3	Vertical	341	1.83	-
AV	2.4838G	52.41	54.00	-1.59	32.41	3	Vertical	341	1.83	-

802.11g-BF_Nss1,(6Mbps)_2TX

2437MHz_TX

29/04/2019



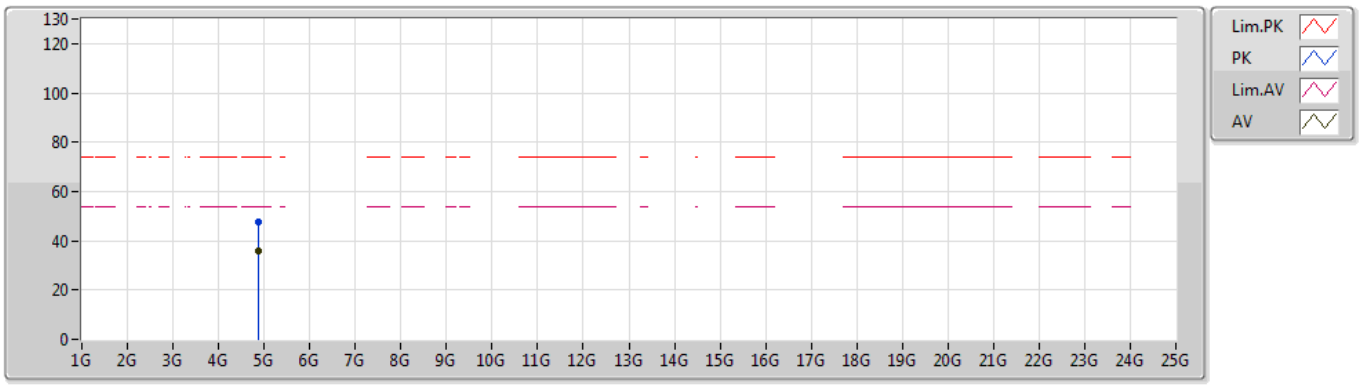
EUT Z_2TX Dipole
Setting 24.5
03-N-2
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.87398G	48.47	74.00	-25.53	5.24	3	Vertical	290	2.24	-
AV	4.8739G	40.52	54.00	-13.48	5.24	3	Vertical	290	2.24	-

802.11g-BF_Nss1,(6Mbps)_2TX

2437MHz_TX

29/04/2019



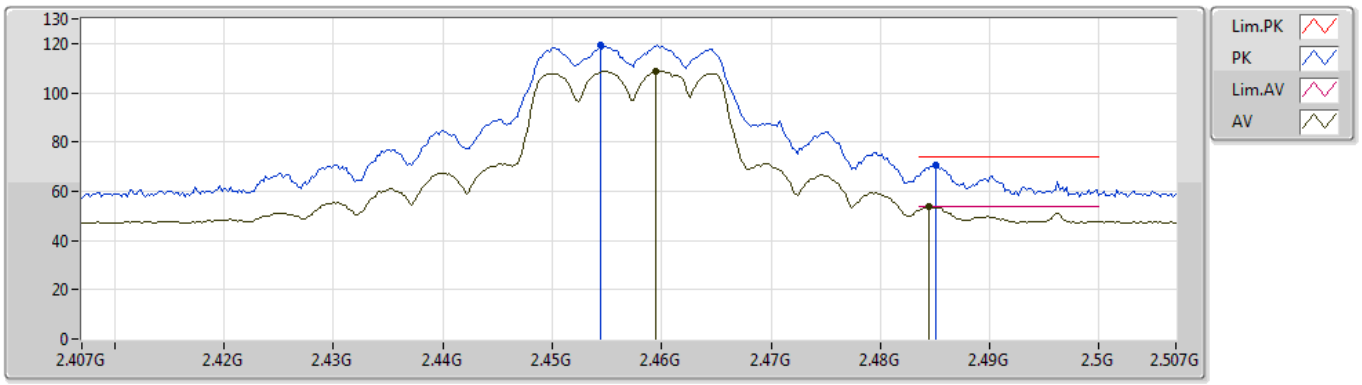
EUT Z_2TX Dipole
Setting 24.5
03-N-2
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.86964G	47.70	74.00	-26.30	5.22	3	Horizontal	76	2.12	-
AV	4.87702G	35.60	54.00	-18.40	5.24	3	Horizontal	76	2.12	-

802.11g-BF_Nss1,(6Mbps)_2TX

2457MHz_TX

06/05/2019



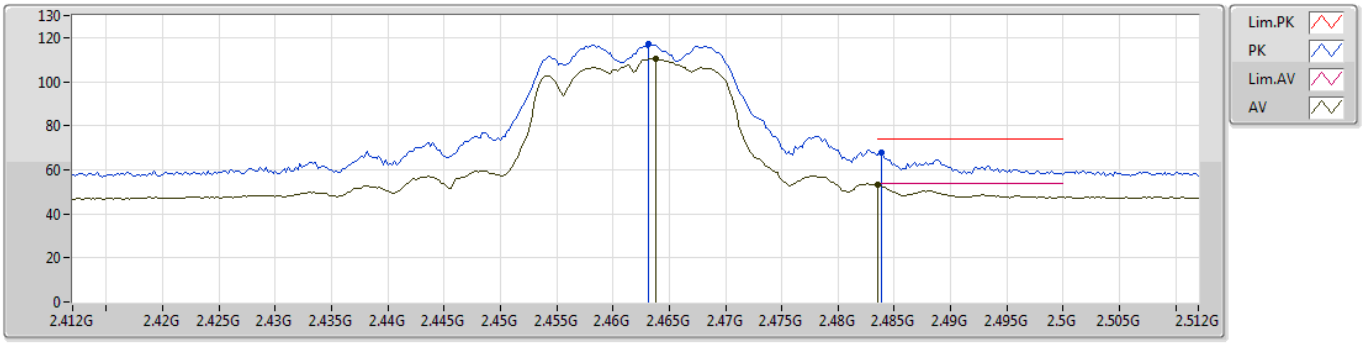
EUT Z_2TX Dipole
Setting 20.5
03-L-3
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.4544G	119.27	Inf	-Inf	32.29	3	Vertical	247	2.24	-
AV	2.4594G	108.72	Inf	-Inf	32.32	3	Vertical	247	2.24	-
PK	2.485G	70.56	74.00	-3.44	32.42	3	Vertical	247	2.24	-
AV	2.4844G	53.54	54.00	-0.46	32.41	3	Vertical	247	2.24	-

802.11g-BF_Nss1,(6Mbps)_2TX

2462MHz_TX

02/04/2019



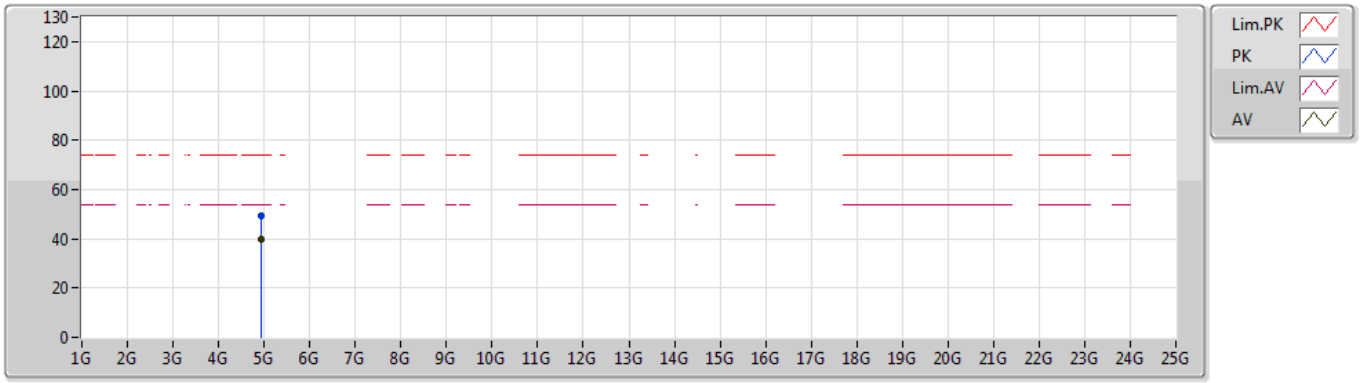
EUT Z_2TX Dipole
Setting 19.5
03-B-4
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.4632G	117.16	Inf	-Inf	32.33	3	Vertical	3	2.12	-
AV	2.4638G	110.34	Inf	-Inf	32.33	3	Vertical	3	2.12	-
PK	2.4838G	67.67	74.00	-6.33	32.41	3	Vertical	3	2.12	-
AV	2.4835G	53.20	54.00	-0.80	32.41	3	Vertical	3	2.12	-

802.11g-BF_Nss1,(6Mbps)_2TX

2462MHz_TX

29/04/2019



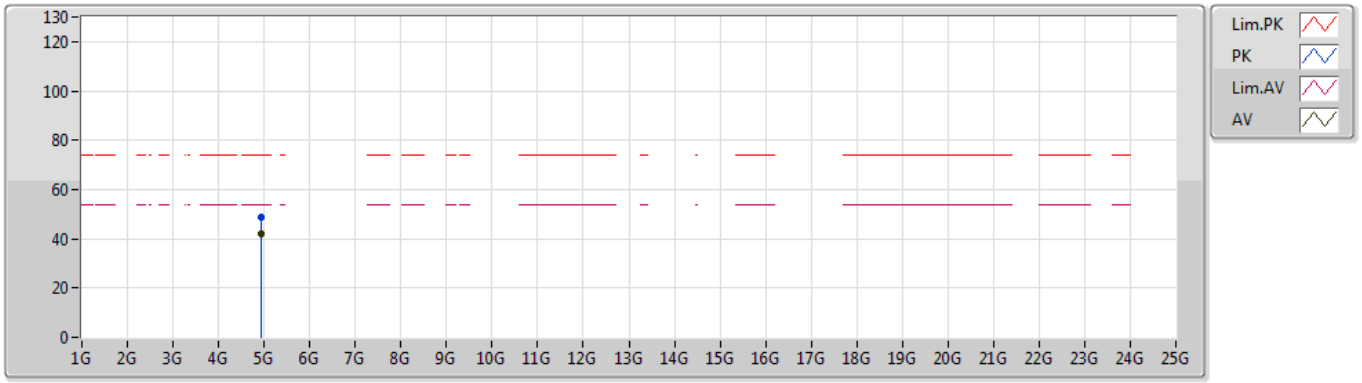
EUT Z_2TX Dipole
Setting 19.5
03-N-2
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.9239G	49.10	74.00	-24.90	5.36	3	Vertical	241	2.18	-
AV	4.924G	39.81	54.00	-14.19	5.36	3	Vertical	241	2.18	-

802.11g-BF_Nss1,(6Mbps)_2TX

2462MHz_TX

29/04/2019



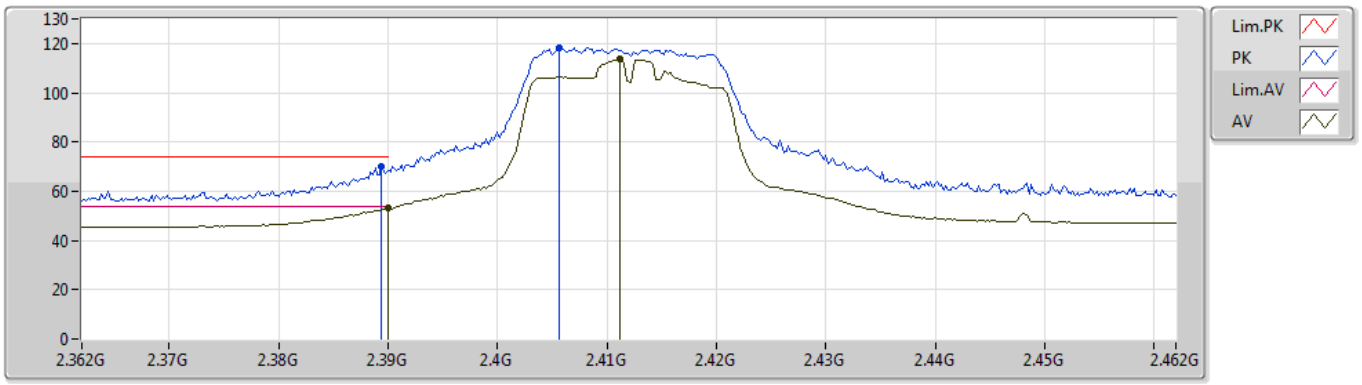
EUT Z_2TX Dipole
Setting 19.5
03-N-2
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.92422G	48.79	74.00	-25.21	5.36	3	Horizontal	343	1.35	-
AV	4.92398G	41.92	54.00	-12.08	5.36	3	Horizontal	343	1.35	-

VHT20-BF_Nss1,(MCS0)_2TX

29/04/2019

2412MHz_TX



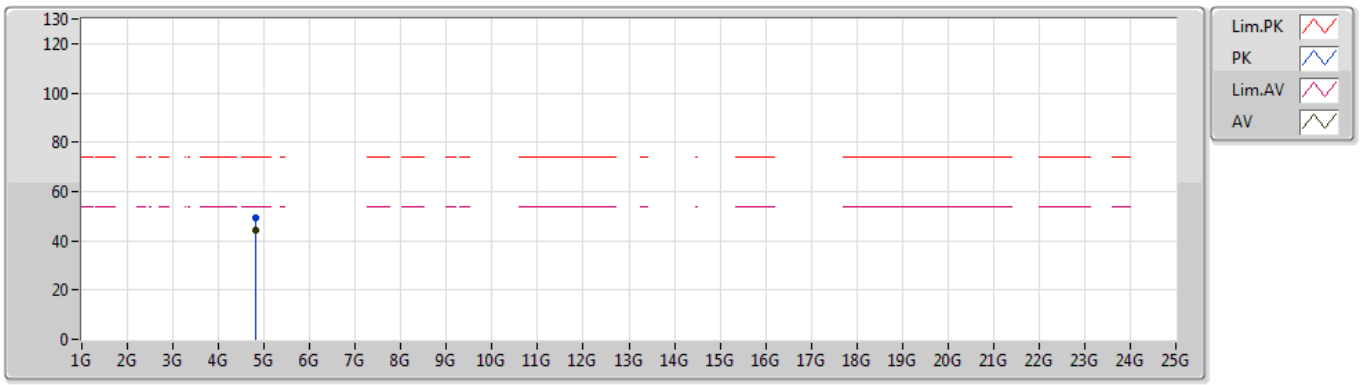
EUT Z_2TX Dipole
Setting 20.5
03-B-4
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3894G	69.80	74.00	-4.20	32.06	3	Vertical	245	2.13	-
AV	2.39G	53.11	54.00	-0.89	32.06	3	Vertical	245	2.13	-
PK	2.4056G	118.28	Inf	-Inf	32.11	3	Vertical	245	2.13	-
AV	2.4112G	113.65	Inf	-Inf	32.13	3	Vertical	245	2.13	-

VHT20-BF_Nss1,(MCS0)_2TX

29/04/2019

2412MHz_TX



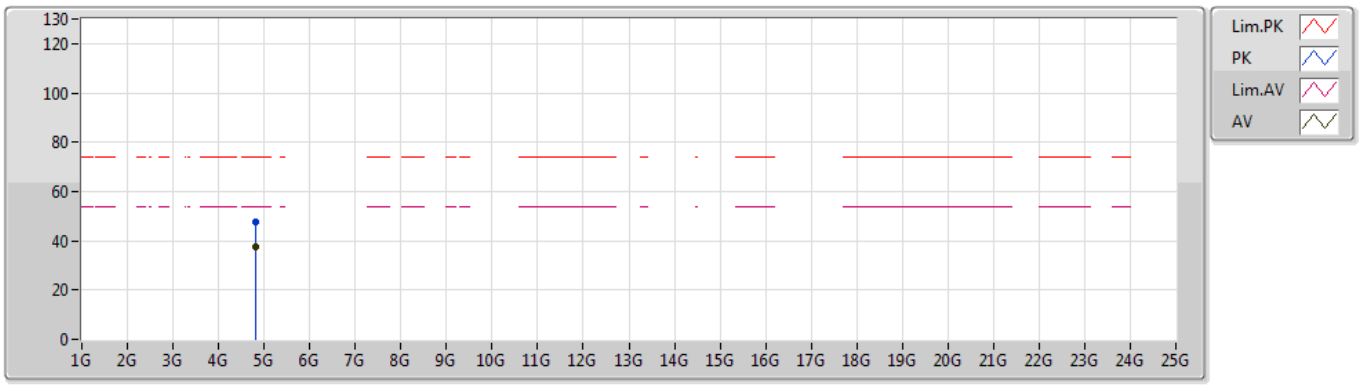
EUT Z_2TX Dipole
Setting 20.5
03-N-2
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.82418G	49.21	74.00	-24.79	5.11	3	Vertical	304	2.99	-
AV	4.82402G	44.36	54.00	-9.64	5.11	3	Vertical	304	2.99	-

VHT20-BF_Nss1,(MCS0)_2TX

29/04/2019

2412MHz_TX



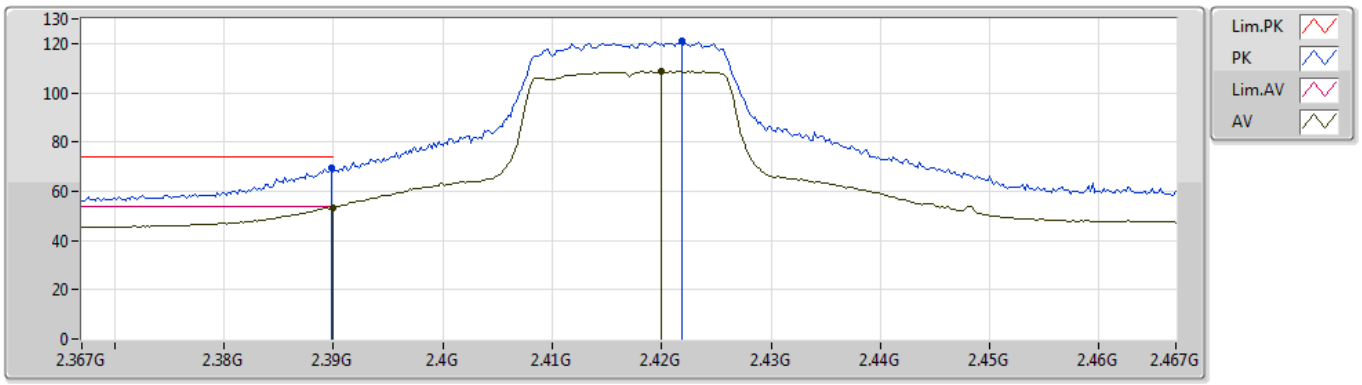
EUT Z_2TX Dipole
Setting 20.5
03-N-2
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.82416G	47.37	74.00	-26.63	5.11	3	Horizontal	342	2.67	-
AV	4.82424G	37.73	54.00	-16.27	5.11	3	Horizontal	342	2.67	-

VHT20-BF_Nss1,(MCS0)_2TX

2417MHz_TX

07/05/2019



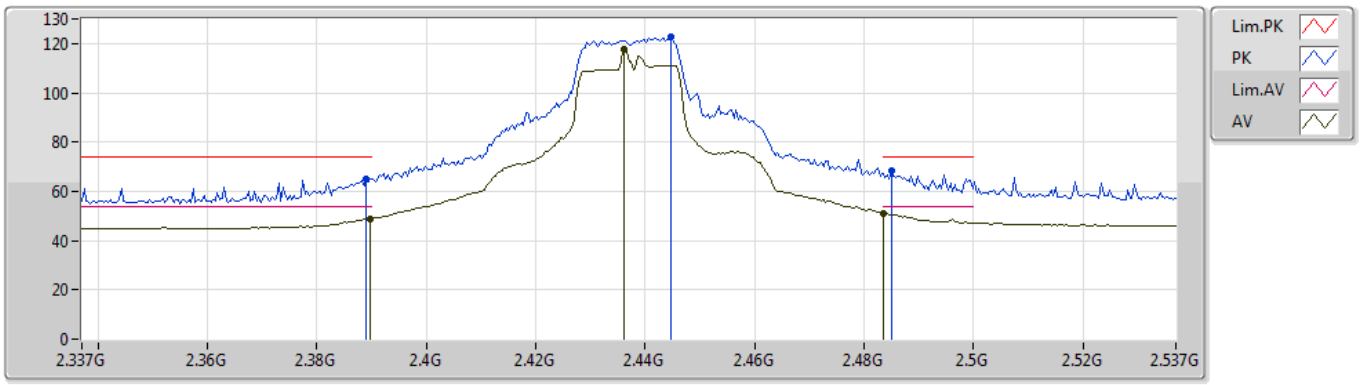
EUT Z_2TX Dipole
Setting 20.5
03-L-3
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3898G	69.58	74.00	-4.42	32.06	3	Vertical	346	1.53	-
AV	2.39G	53.45	54.00	-0.55	32.06	3	Vertical	346	1.53	-
PK	2.4218G	120.98	Inf	-Inf	32.18	3	Vertical	346	1.53	-
AV	2.42G	108.59	Inf	-Inf	32.17	3	Vertical	346	1.53	-

VHT20-BF_Nss1,(MCS0)_2TX

2437MHz_TX

29/04/2019



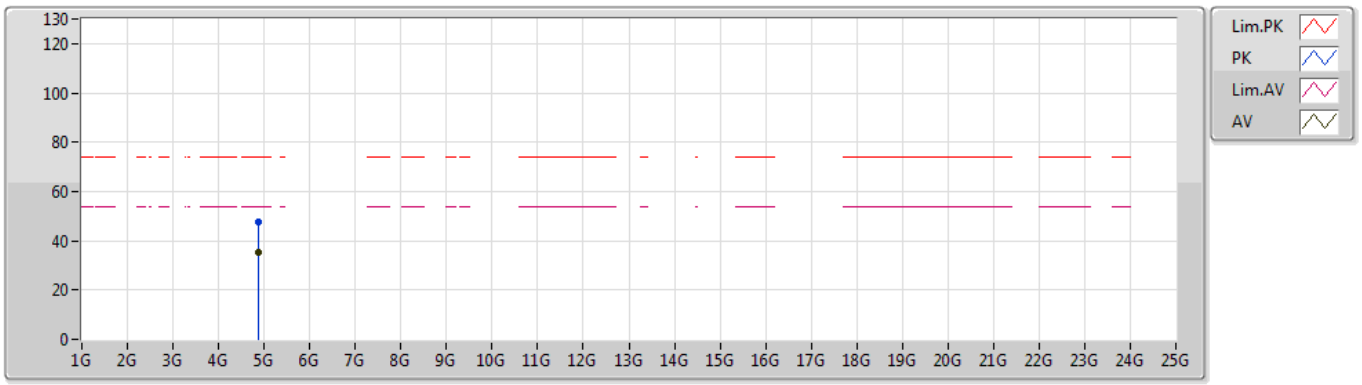
EUT Z_2TX Dipole
Setting 24.5
03-B-4
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.389G	65.17	74.00	-8.83	32.06	3	Vertical	333	2.13	-
AV	2.3898G	48.94	54.00	-5.06	32.06	3	Vertical	333	2.13	-
PK	2.4446G	122.59	Inf	-Inf	32.26	3	Vertical	333	2.13	-
AV	2.4362G	117.47	Inf	-Inf	32.23	3	Vertical	333	2.13	-
PK	2.485G	68.15	74.00	-5.85	32.42	3	Vertical	333	2.13	-
AV	2.4835G	51.00	54.00	-3.00	32.41	3	Vertical	333	2.13	-

VHT20-BF_Nss1,(MCS0)_2TX

2437MHz_TX

29/04/2019



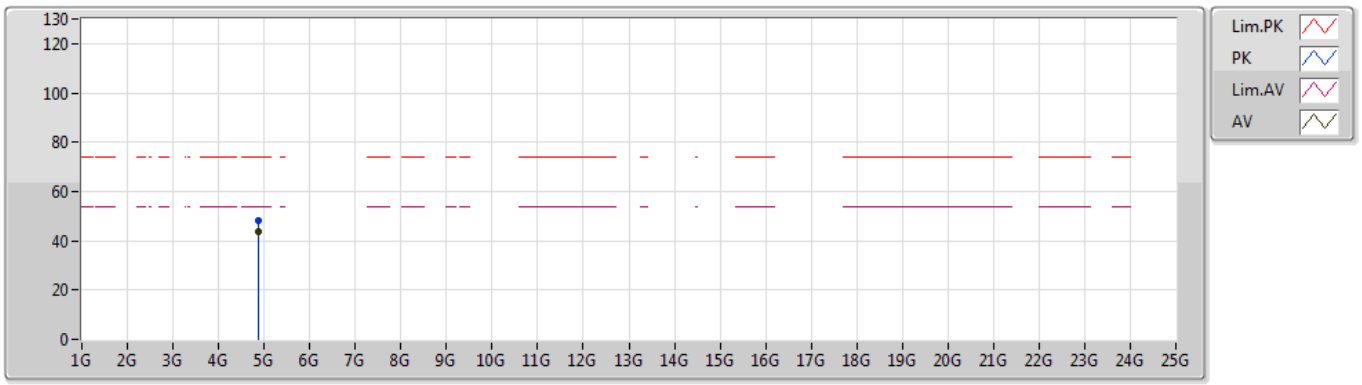
EUT Z_2TX Dipole
Setting 24.5
03-N-2
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.87392G	47.68	74.00	-26.32	5.24	3	Vertical	357	2.91	-
AV	4.87396G	35.37	54.00	-18.63	5.24	3	Vertical	357	2.91	-

VHT20-BF_Nss1,(MCS0)_2TX

2437MHz_TX

29/04/2019



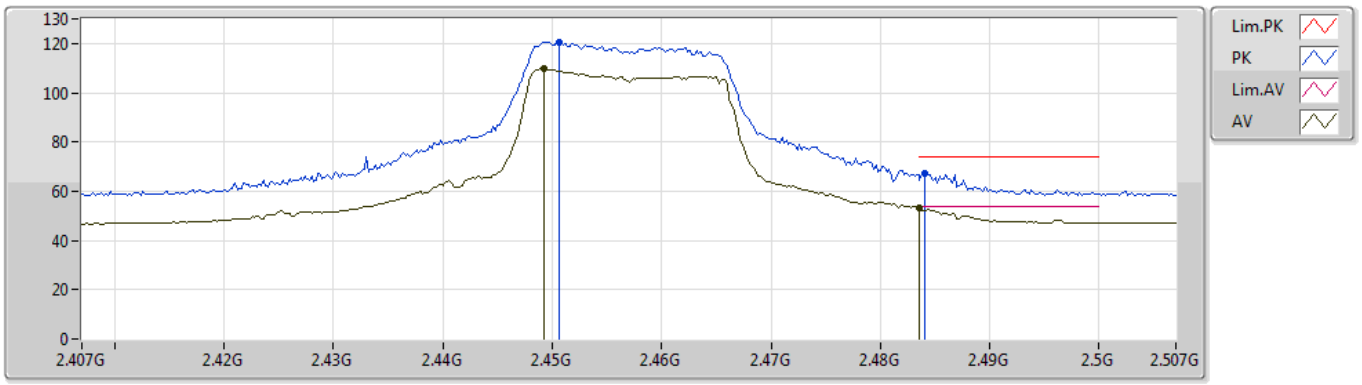
EUT Z_2TX Dipole
Setting 24.5
03-N-2
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.8753G	48.09	74.00	-25.91	5.24	3	Horizontal	86	2.76	-
AV	4.8741G	43.69	54.00	-10.31	5.24	3	Horizontal	86	2.76	-

VHT20-BF_Nss1,(MCS0)_2TX

2457MHz_TX

06/05/2019



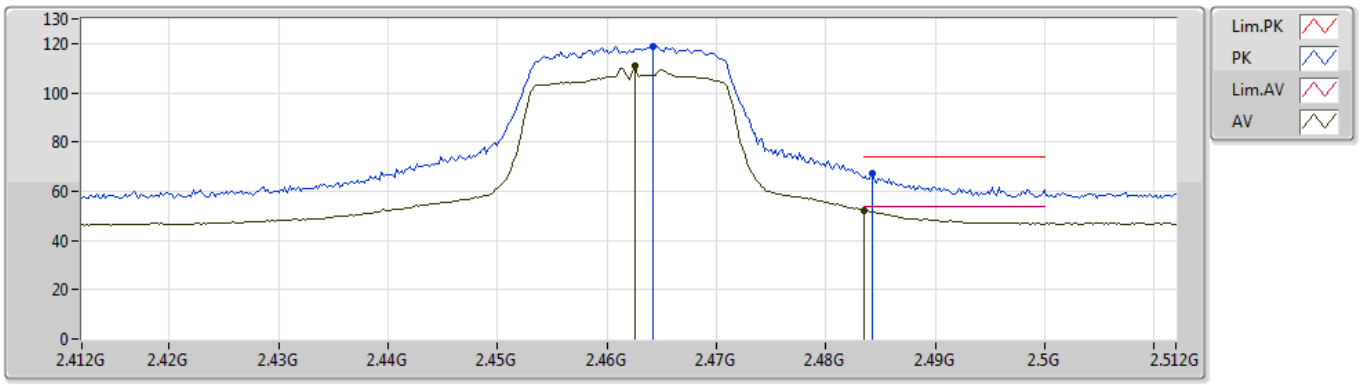
EUT Z_2TX Dipole
Setting 20
03-L-3
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.4506G	120.72	Inf	-Inf	32.28	3	Vertical	340	1.95	-
AV	2.4492G	109.60	Inf	-Inf	32.28	3	Vertical	340	1.95	-
PK	2.484G	67.51	74.00	-6.49	32.41	3	Vertical	340	1.95	-
AV	2.4836G	53.46	54.00	-0.54	32.41	3	Vertical	340	1.95	-

VHT20-BF_Nss1,(MCS0)_2TX

2462MHz_TX

29/04/2019



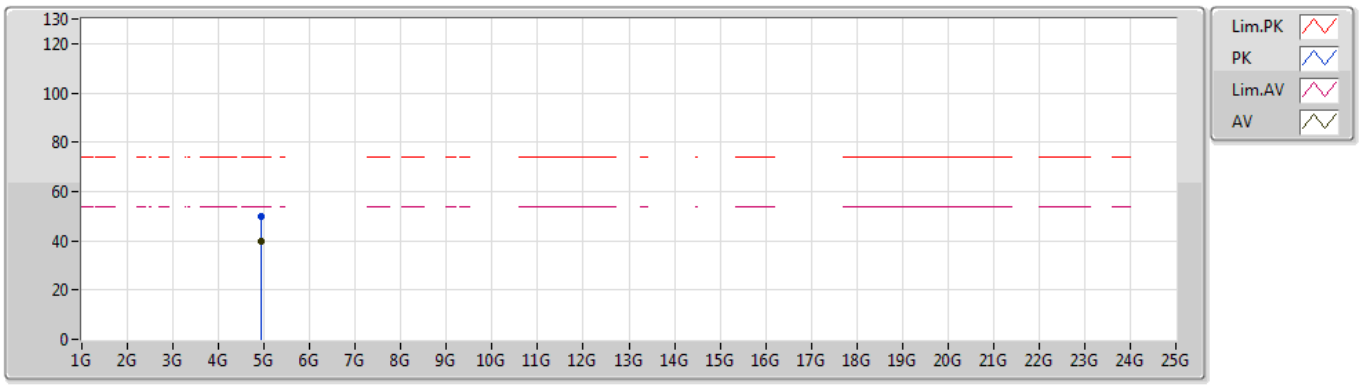
EUT Z_2TX Dipole
Setting 19.5
03-B-4
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.4642G	118.72	Inf	-Inf	32.33	3	Vertical	14	2.13	-
AV	2.4626G	110.96	Inf	-Inf	32.33	3	Vertical	14	2.13	-
PK	2.4842G	66.97	74.00	-7.03	32.41	3	Vertical	14	2.13	-
AV	2.4835G	52.34	54.00	-1.66	32.41	3	Vertical	14	2.13	-

VHT20-BF_Nss1,(MCS0)_2TX

2462MHz_TX

29/04/2019



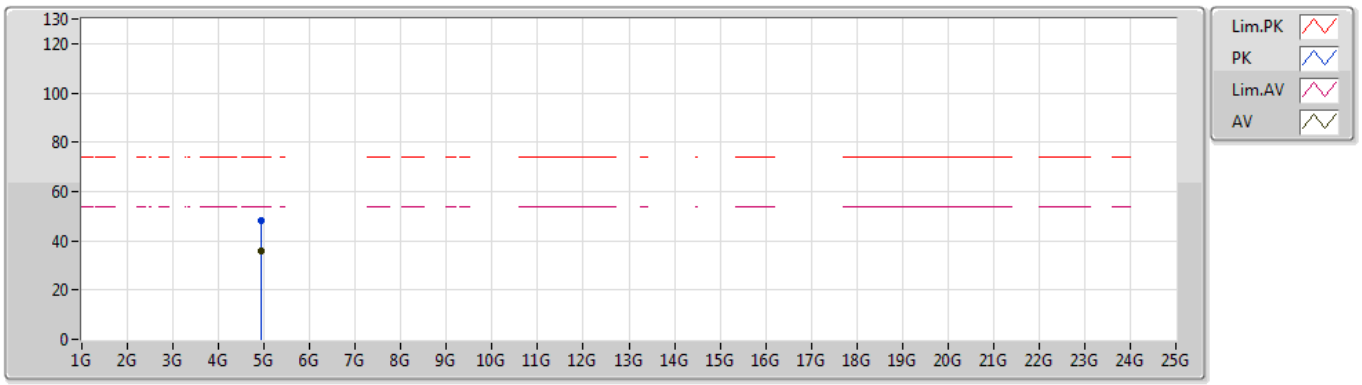
EUT Z_2TX Dipole
Setting 19.5
03-B-4
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.92408G	49.68	74.00	-24.32	5.36	3	Vertical	302	2.72	-
AV	4.92432G	39.75	54.00	-14.25	5.36	3	Vertical	302	2.72	-

VHT20-BF_Nss1,(MCS0)_2TX

29/04/2019

2462MHz_TX



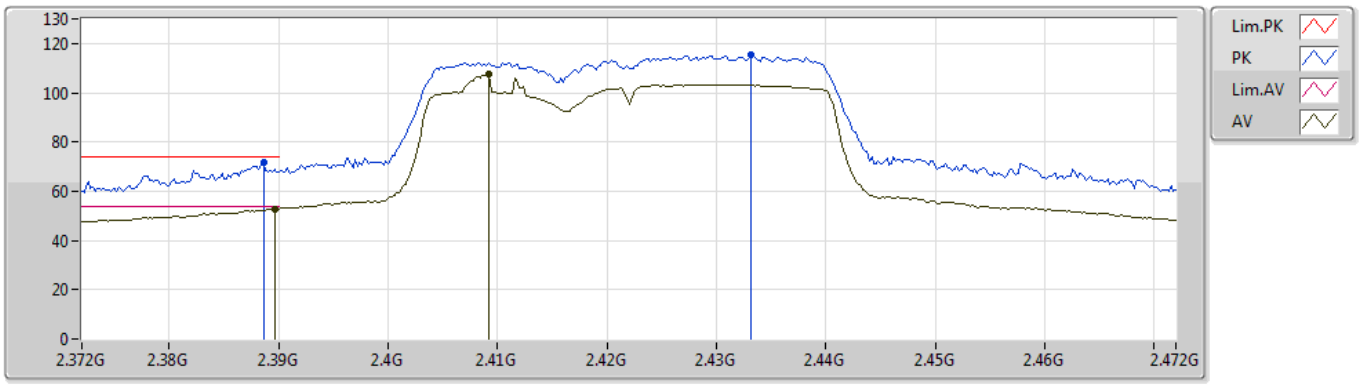
EUT Z_2TX Dipole
Setting 19.5
03-B-4
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.92624G	48.26	74.00	-25.74	5.36	3	Horizontal	81	2.14	-
AV	4.9242G	36.14	54.00	-17.86	5.36	3	Horizontal	81	2.14	-

VHT40-BF_Nss1,(MCS0)_2TX

2422MHz_TX

29/04/2019



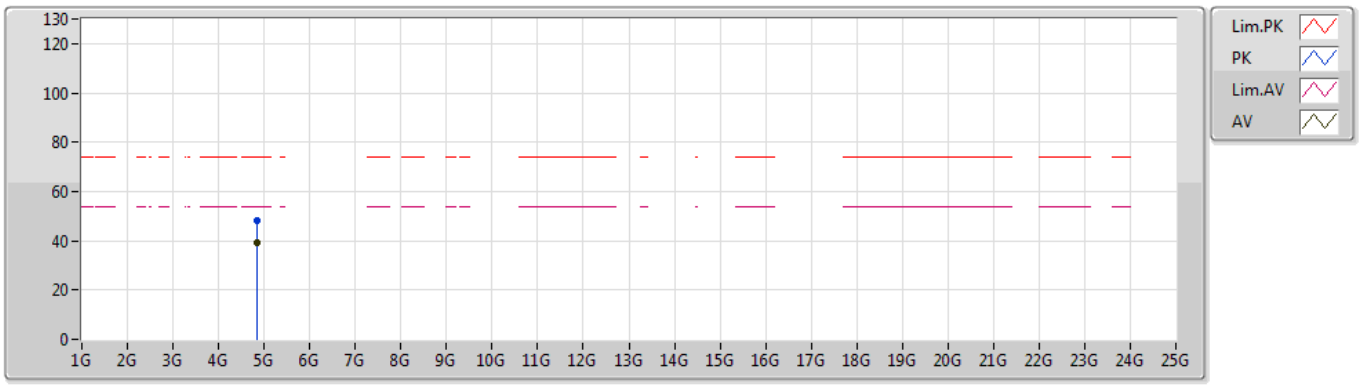
EUT Z_2TX Dipole
Setting 19.5
03-B-4
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3886G	71.60	74.00	-2.40	32.06	3	Vertical	309	1.87	-
AV	2.3896G	52.89	54.00	-1.11	32.06	3	Vertical	309	1.87	-
PK	2.4332G	115.30	Inf	-Inf	32.22	3	Vertical	309	1.87	-
AV	2.4092G	107.61	Inf	-Inf	32.13	3	Vertical	309	1.87	-

VHT40-BF_Nss1,(MCS0)_2TX

2422MHz_TX

29/04/2019



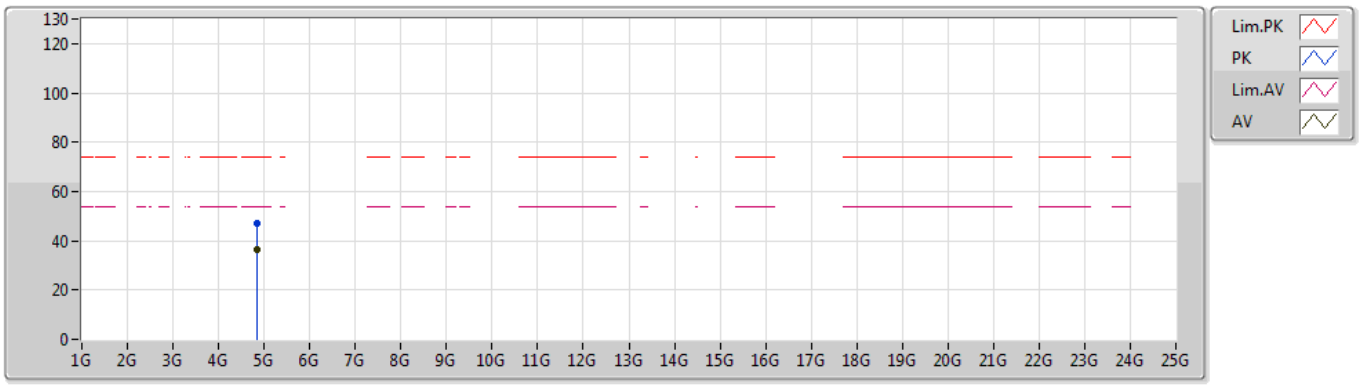
EUT Z_2TX Dipole
Setting 19.5
03-N-2
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.8441G	48.35	74.00	-25.65	5.16	3	Vertical	247	2.25	-
AV	4.844G	39.15	54.00	-14.85	5.16	3	Vertical	247	2.25	-

VHT40-BF_Nss1,(MCS0)_2TX

2422MHz_TX

29/04/2019



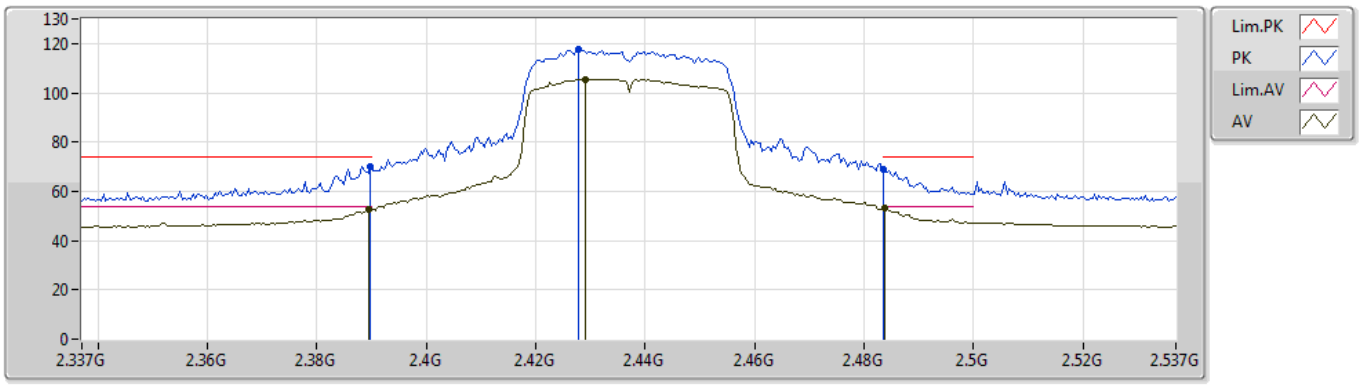
EUT Z_2TX Dipole
Setting 19.5
03-N-2
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.8439G	47.04	74.00	-26.96	5.16	3	Horizontal	346	1.02	-
AV	4.84394G	36.21	54.00	-17.79	5.16	3	Horizontal	346	1.02	-

VHT40-BF_Nss1,(MCS0)_2TX

2437MHz_TX

29/04/2019



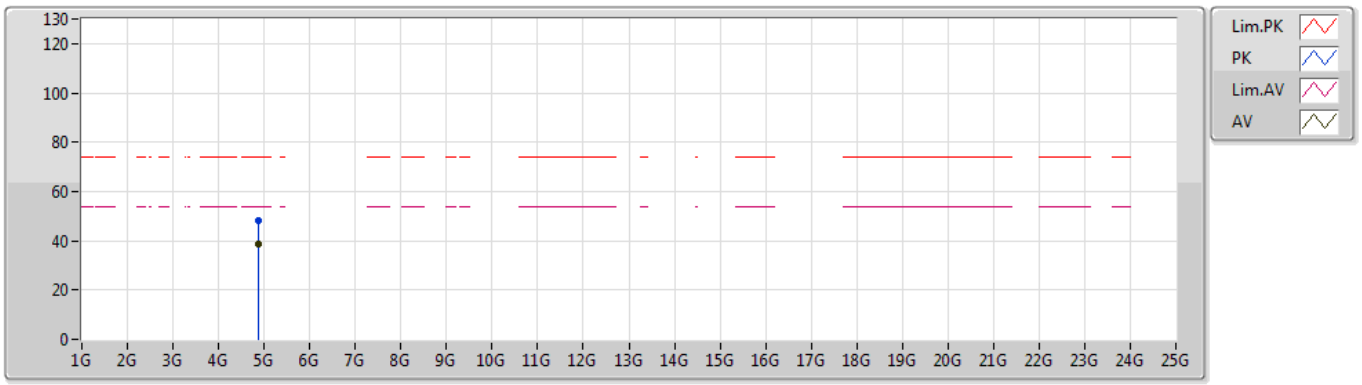
EUT Z_2TX Dipole
Setting 21
03-B-4
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3898G	70.21	74.00	-3.79	32.06	3	Vertical	250	2.29	-
AV	2.3894G	52.94	54.00	-1.06	32.06	3	Vertical	250	2.29	-
PK	2.4278G	117.71	Inf	-Inf	32.19	3	Vertical	250	2.29	-
AV	2.429G	105.43	Inf	-Inf	32.20	3	Vertical	250	2.29	-
PK	2.4835G	69.19	74.00	-4.81	32.41	3	Vertical	250	2.29	-
AV	2.4838G	53.04	54.00	-0.96	32.41	3	Vertical	250	2.29	-

VHT40-BF_Nss1,(MCS0)_2TX

2437MHz_TX

29/04/2019



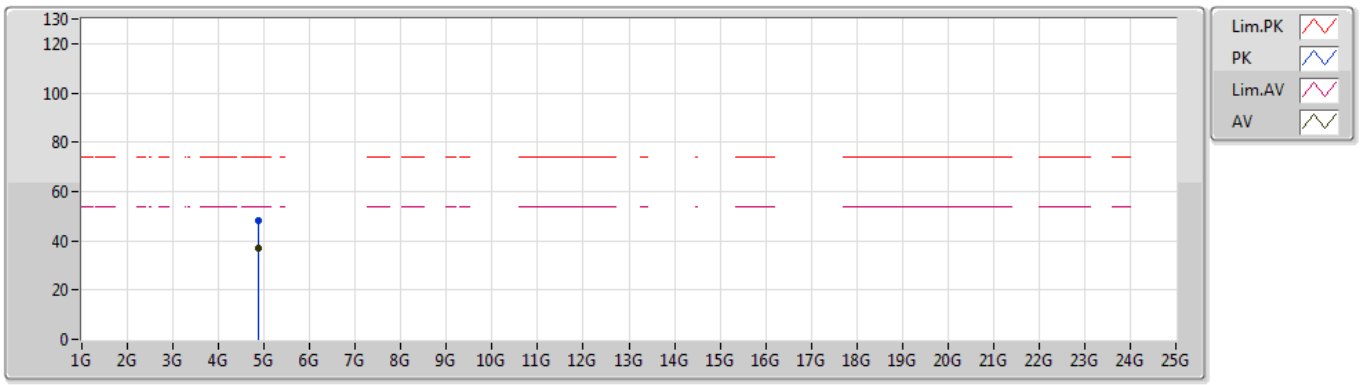
EUT Z_2TX Dipole
Setting 21
03-N-2
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.8739G	48.31	74.00	-25.69	5.24	3	Vertical	244	2.26	-
AV	4.87394G	38.68	54.00	-15.32	5.24	3	Vertical	244	2.26	-

VHT40-BF_Nss1,(MCS0)_2TX

2437MHz_TX

29/04/2019



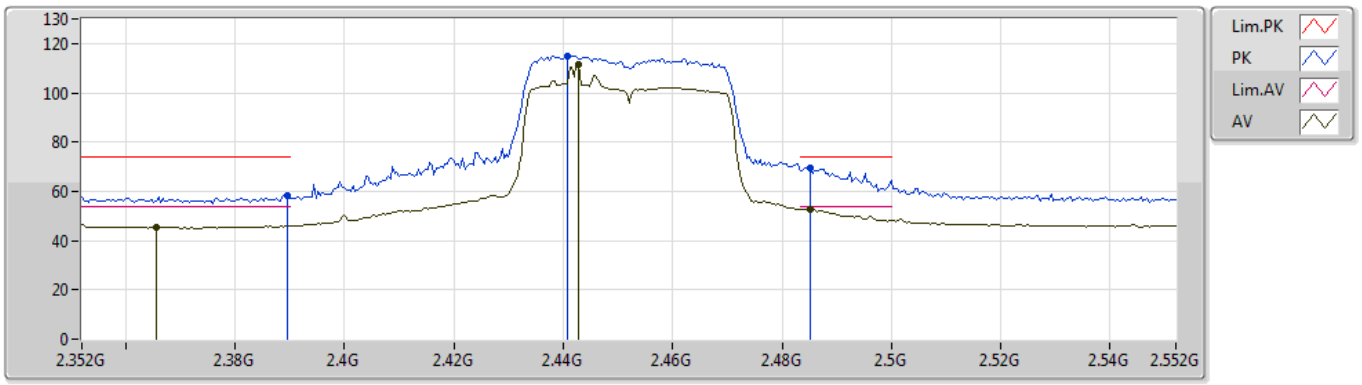
EUT Z_2TX Dipole
Setting 21
03-N-2
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.8738G	48.06	74.00	-25.94	5.24	3	Horizontal	343	1.25	-
AV	4.87402G	36.83	54.00	-17.17	5.24	3	Horizontal	343	1.25	-

VHT40-BF_Nss1,(MCS0)_2TX

2452MHz_TX

29/04/2019



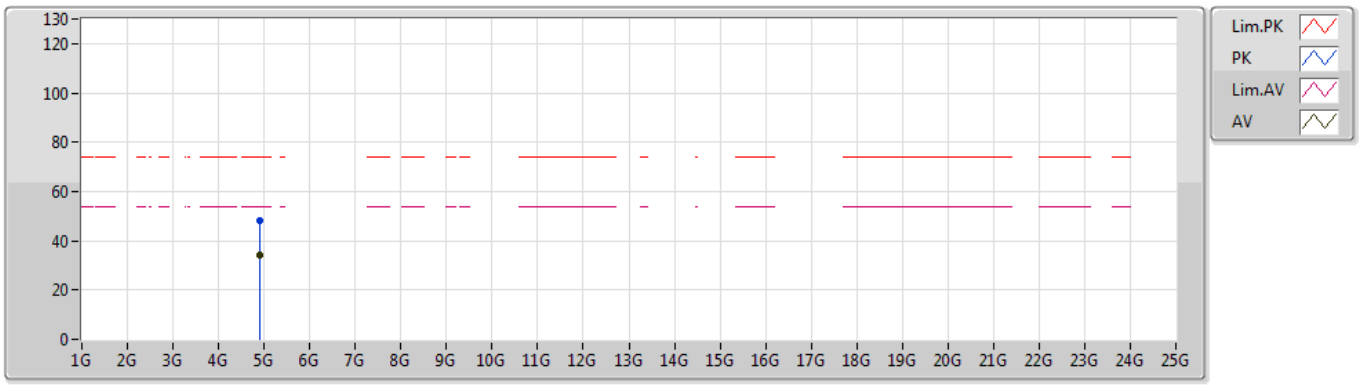
EUT Z_2TX Dipole
Setting 19.5
03-B-4
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3896G	58.29	74.00	-15.71	32.06	3	Vertical	248	2.26	-
AV	2.3656G	45.41	54.00	-8.59	31.99	3	Vertical	248	2.26	-
PK	2.4408G	115.12	Inf	-Inf	32.24	3	Vertical	248	2.26	-
AV	2.4428G	111.45	Inf	-Inf	32.25	3	Vertical	248	2.26	-
PK	2.4852G	69.69	74.00	-4.31	32.42	3	Vertical	248	2.26	-
AV	2.4852G	52.83	54.00	-1.17	32.42	3	Vertical	248	2.26	-

VHT40-BF_Nss1,(MCS0)_2TX

2452MHz_TX

29/04/2019



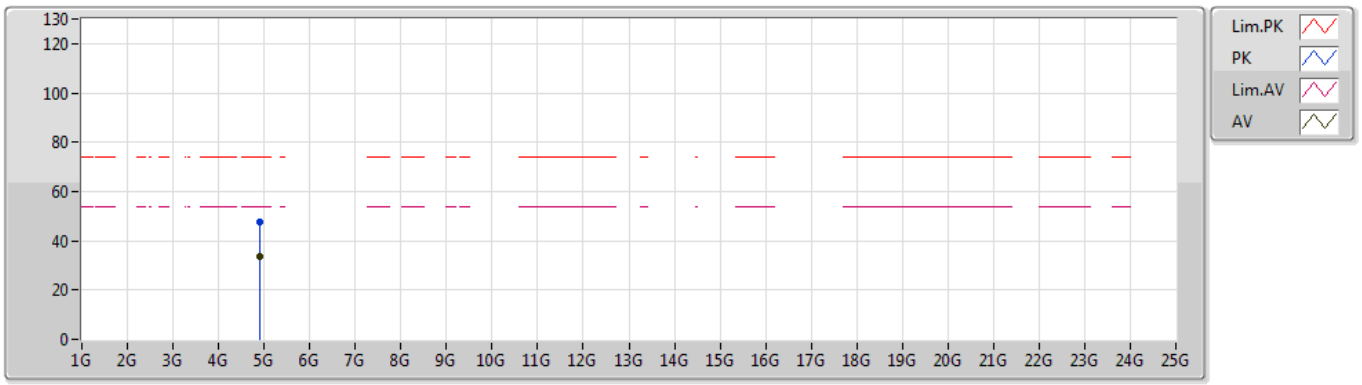
EUT Z_2TX Dipole
Setting 19.5
03-N-2
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.90206G	48.26	74.00	-25.74	5.30	3	Vertical	354	2.32	-
AV	4.90404G	34.02	54.00	-19.98	5.31	3	Vertical	354	2.32	-

VHT40-BF_Nss1,(MCS0)_2TX

2452MHz_TX

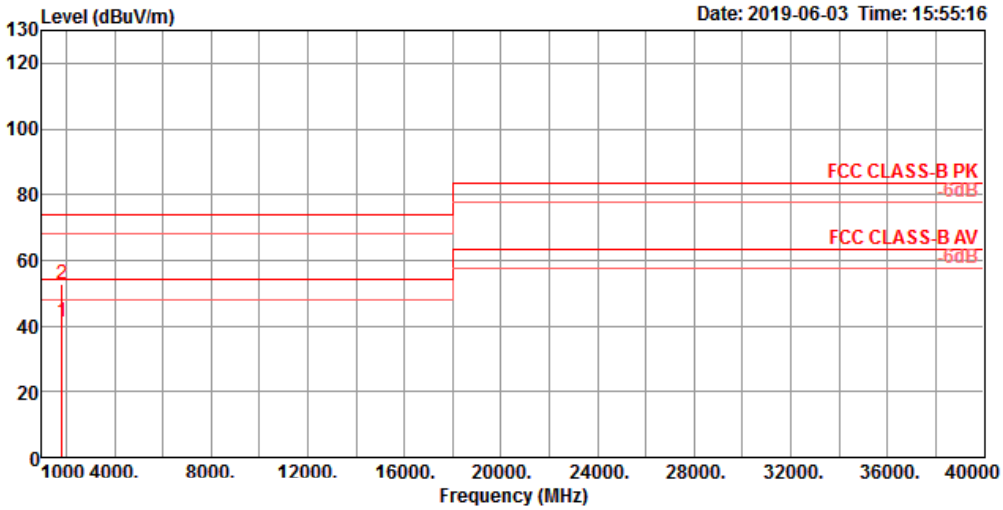
29/04/2019



EUT Z_2TX Dipole
Setting 19.5
03-N-2
FSP(100019)

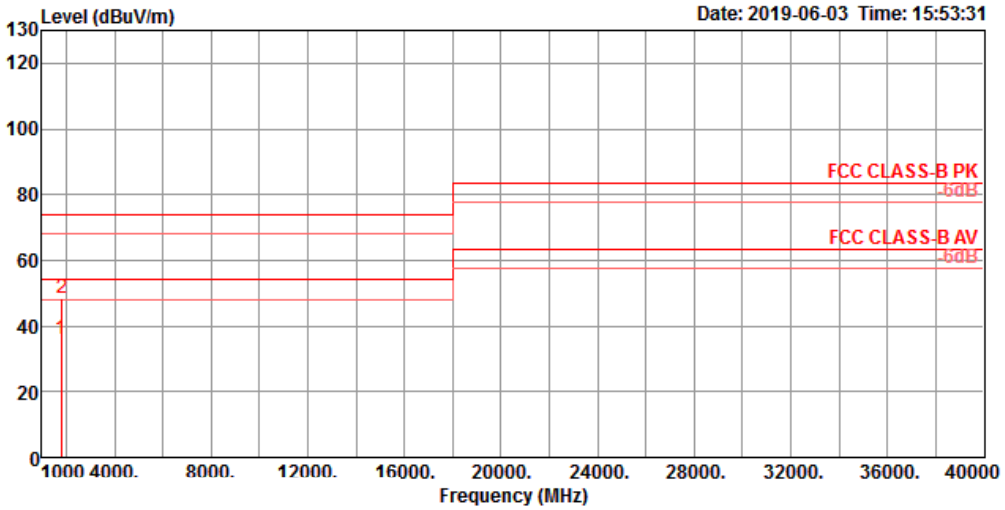
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.90766G	47.49	74.00	-26.51	5.32	3	Horizontal	360	2.47	-
AV	4.90272G	33.77	54.00	-20.23	5.31	3	Horizontal	360	2.47	-

RSE Co-location Result			
Operating Mode	1	**Polarization**	Horizontal
Operating Function	Normal Link - WLAN 2.4GHz + WLAN 5GHz B1		



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	1811.90	41.28	54.00	-12.72	49.25	3.42	25.50	36.89	100	48	Average	HORIZONTAL
2	1817.70	52.72	74.00	-21.28	60.68	3.43	25.50	36.89	100	48	Peak	HORIZONTAL

RSE Co-location Result			
Operating Mode	1	**Polarization**	Vertical
Operating Function	Normal Link - WLAN 2.4GHz + WLAN 5GHz B1		



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	1800.30	36.10	54.00	-17.90	44.08	3.41	25.50	36.89	153	257	Average	VERTICAL
2	1823.40	48.22	74.00	-25.78	56.18	3.43	25.50	36.89	153	257	Peak	VERTICAL