FCC RADIO TEST REPORT

FCC ID	:	MSQ-RTACJ900
Equipment	:	Wireless AC3000 Tri Band Gigabit Router
Brand Name	:	ASUS
Model Name	:	RT-AC95U,ZenWiFi CT8, ZenWiFi, CT8, ASUS ZenWiFi CT8, ASUS ZenWiFi
Applicant	:	ASUSTeK COMPUTER INC. 4F, No. 150, Li-Te Rd., Peitou, Taipei 112, Taiwan
Manufacturer (1)	:	Datamax Electronics (DongGuan) Co., Ltd. Niu Shan Foreign Economic Industrial Park, Dong Cheng District, Dong Guan City, Guang Dong, China
Manufacturer (2)	:	Lukisen Electronic Corp. 3F.,No.236,Boai St., Shulin Dist.,New Taipei City 23845, Taiwan
Manufacturer (3)	:	Kentec Inc. No. 5, Tzu-Chiang 1st Rd. Chungli Industrial Zone, Taoyuan City, Taiwan
Standard	:	47 CFR FCC Part 15.247

The product was received on Jun. 07, 2019, and testing was started from Jun. 07, 2019 and completed on Jul. 31, 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.)

Table of Contents

Photographs of EUT v01

History of this test report

Report No.	Version	Description	Issued Date
FR850709AC	01	Initial issue of report	Aug. 22, 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: Wendy Pan

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
2400-2483.5	b, g, n (HT20), VHT20	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	802.11n HT20	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	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

Set	Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	1	PSA	RFDPA230505IMLB901	Dipole Antenna	I-PEX	Note 1
	2	2	PSA	RFDPA230510IMLB901	Dipole Antenna	I-PEX	
	3	3	PSA	RFDPA100610IM5B901	Dipole Antenna	I-PEX	
	4	4	PSA	RFDPA100607IM5B901	Dipole Antenna	I-PEX	
	5	5	PSA	RFDPA100608IM5B901	Dipole Antenna	I-PEX	
	6	6	PSA	RFDPA100605IM5B901	Dipole Antenna	I-PEX	
	7	1	PSA	-	Printed Antenna	N/A	
2	1	1	Whayu	C660-510478-A ANT1 2_5G	Dipole Antenna	I-PEX	
	2	2	Whayu	C660-510478-A ANT2 2_5G	Dipole Antenna	I-PEX	
	3	3	Whayu	C660-510478-A_ANT 3 5G	Dipole Antenna	I-PEX	
	4	4	Whayu	C660-510478-A_ANT 4 5G	Dipole Antenna	I-PEX	
	5	5	Whayu	C660-510478-A_ANT 5 5G	Dipole Antenna	I-PEX	
	6	6	Whayu	C660-510478-A_ANT 6 5G	Dipole Antenna	I-PEX	
3	1	1	Airgain	M2440DMCT-PK1-HSR3-LB1X52BU	Dipole Antenna	I-PEX	
	2	2	Airgain	M2440DMCT-PK1-HSY3-LB1X102BU	Dipole Antenna	I-PEX	
	3	3	Airgain	M5X30CT-PK1-HSE3-LBIX102BU	Dipole Antenna	I-PEX	
	4	4	Airgain	M5X30CT-PK1-HSA3-LB1X75BU	Dipole Antenna	I-PEX	
	5	5	Airgain	M5X30CT-PK1-HSW3-LB 1X85BU	Dipole Antenna	I-PEX	
	6	6	Airgain	M5X30CT-PK1-HSB3-LBIX52BU	Dipole Antenna	I-PEX	

Note 1:

Set	Ant.	Port	Gain (dBi) - CDD mode for output power			
			2.4GHz	5GHz Band 1	5GHz Band 4	Bluetooth
1	1	1	1.36	1.74	-	-
	2	2	1.36	1.74	-	-
	3	1	-	-	1.36	-
	4	2	-	-	1.36	-
	5	3	-	-	1.36	-
	6	4	-	-	1.36	-
	7	1	-	-	-	-2.93
2	1	1	1.17	1.69	-	-
	2	2	1.17	1.69	-	-
	3	1	-	-	0.43	-
	4	2	-	-	0.43	-
	5	3	-	-	0.43	-
	6	4	-	-	0.43	-
3	1	1	0.80	1.47	-	-
	2	2	0.80	1.47	-	-
	3	1	-	-	0.34	-
	4	2	-	-	0.34	-
	5	3	-	-	0.34	-
	6	4	-	-	0.34	-

Set	Ant.	Port	Gain (dBi) - Beamforming mode for output power & PSD, CDD mode for PSD			
			2.4GHz	5GHz Band 1 Nss1	5GHz Band 4 Nss1	5GHz Band 4 Nss2
1	1	1	4.37	4.70	-	-
	2	2	4.37	4.70	-	-
	3	1	-	-	7.21	4.32
	4	2	-	-	7.21	4.32
	5	3	-	-	7.21	4.32
	6	4	-	-	7.21	4.32
2	1	1	4.18	4.54	-	-
	2	2	4.18	4.54	-	-
	3	1	-	-	6.05	3.40
	4	2	-	-	6.05	3.40
	5	3	-	-	6.05	3.40
	6	4	-	-	6.05	3.40
3	1	1	3.79	4.48	-	-
	2	2	3.79	4.48	-	-
	3	1	-	-	6.02	3.33
	4	2	-	-	6.02	3.33
	5	3	-	-	6.02	3.33
	6	4	-	-	6.02	3.33

Note2: The above information was declared by manufacturer.
The EUT has three sets of WLAN antenna and there are six antennas for each set.
There are three sets antenna are the same type antennas, only the higher gain antennas “Set 1” was tested and recorded in the report.
Directional Gain of CDD in Power Measurement = Gant + Array Gain ; Array Gain = 0dB.
For 2.4GHz function:
For IEEE 802.11a/b/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 function:
For IEEE 802.11a/b/g/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 function:
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 function
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	0.996	0.02	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11g	0.959	0.18	2.033m	1k
VHT20-BF	0.961	0.17	7.71m	300
VHT40-BF	0.935	0.29	3.685m	300

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

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter			
Beamforming Function	☒	With beamforming	☐	Without beamforming
	For VHT20 and VHT40 in 2.4GHz and 802.11ac in 5GHz.			
Function	☒	Point-to-multipoint	☐	Point-to-point
Test Software Version	For Non-beamforming: QSPR Verson 5.0-00161 For beamforming: Telnet			

Note: The above information was declared by manufacturer.

1.1.5 Table for Radio information

Radio	Band
1	5GHz Band 1
	2.4GHz
2	5GHz Band 4
3	Bluetooth

Note: The above information was declared by manufacturer.

1.1.6 Table for Multiple Listing

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

Brand Name	Model Name	Description
ASUS	RT-AC95U	All the models are identical, the difference model served as marketing strategy.
	ZenWiFi CT8	
	ZenWiFi	
	CT8	
	ASUS ZenWiFi CT8	
	ASUS ZenWiFi	

From the above models, model:RT-AC95U 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	TH02-CB	Lucas Huang	25.4~26.9°C / 62~66%	Jun. 07, 2019 ~ Jul. 18, 2019
Radiated<1GHz	03CH05-CB	KJ Chang	24.8~25.5°C / 58~63%	Jul. 06, 2019 ~ Jul. 31, 2019
Radiated>1GHz	03CH03-CB	KJ Chang	25.6~26.9°C / 60~64%	Jul. 06, 2019 ~ Jul. 31, 2019
AC Conduction	CO01-CB	Deven Huang	22~23°C / 58~60%	Jul. 22, 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)	4.3 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	2.4 dB	Confidence levels of 95%
Output Power Measurement	1.5 dB	Confidence levels of 95%
Power Density Measurement	2.4 dB	Confidence levels of 95%
Bandwidth Measurement	2%	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	PowerSetting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	27
2437MHz	27
2462MHz	27
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	23
2417MHz	24
2437MHz	27
2457MHz	24
2462MHz	22
VHT20-BF_Nss1,(MCS0)_2TX	-
2412MHz	26
2417MHz	27
2437MHz	30
2457MHz	27
2462MHz	27
VHT40-BF_Nss1,(MCS0)_2TX	-
2422MHz	23
2427MHz	23
2437MHz	26
2447MHz	24
2452MHz	24

Note:
- There are two modes of EUT for VHT20 and VHT40 in 2.4GHz. One is beamforming mode, and the other is non-beamforming mode, after evaluating, beamforming mode has been evaluated to be the worst case, so it was selected to test and record in this test report.
- VHT 20MHz / 40MHz modulation and bandwidth are similar for 802.11n mode for 20MHz / 40MHz, therefore investigated worst case to representative mode in 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 + Radio 1 WLAN 2.4GHz + Adapter
2	CTX + Radio 1 WLAN 5GHz + Adapter
3	CTX + Radio 2 WLAN 5GHz + Adapter
4	CTX + Radio 3 Bluetooth BR/EDR + Adapter
5	CTX + Radio 3 Bluetooth LE + Adapter
For operating mode 1 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 + Radio 1 WLAN 2.4GHz + Adapter
2	CTX + Radio 1 WLAN 5GHz + Adapter
3	CTX + Radio 2 WLAN 5GHz + Adapter
4	CTX + Radio 3 Bluetooth BR/EDR + Adapter
5	CTX + Radio 3 Bluetooth LE + Adapter
For operating mode 2 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX

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	Radio 1 WLAN 2.4GHz + Radio 1 WLAN 5GHz
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	Radio 1 WLAN 2.4GHz + Radio 2 WLAN 5GHz + Radio 3 Bluetooth
2	Radio 1 WLAN 5GHz + Radio 2 WLAN 5GHz + Radio 3 Bluetooth
Refer to Sporton Test Report No.: FA850709 for Co-location RF Exposure Evaluation.	

Note: The EUT can only be used Y axis.

2.3 EUT Operation during Test

For CTX Mode:

non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

beamforming mode:

During the test, the following programs under WIN XP 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 AP Router 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**	**Type**	**Rating**
Adapter	ASUS	AD2088320	010LF	Input: 100-240V~50/60Hz, 0.8A Output: 19V, 1.75A
Equipment Name	**Brand Name**	**Model Name**		**Remark**
RJ-45 cable	NIEN-YI	NYT976		Non-Shieding:1.5m

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

For Radiated (below 1GHz):

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

For Radiated (above 1GHz) and RF Conducted:
<For Non-Beamforming Mode>

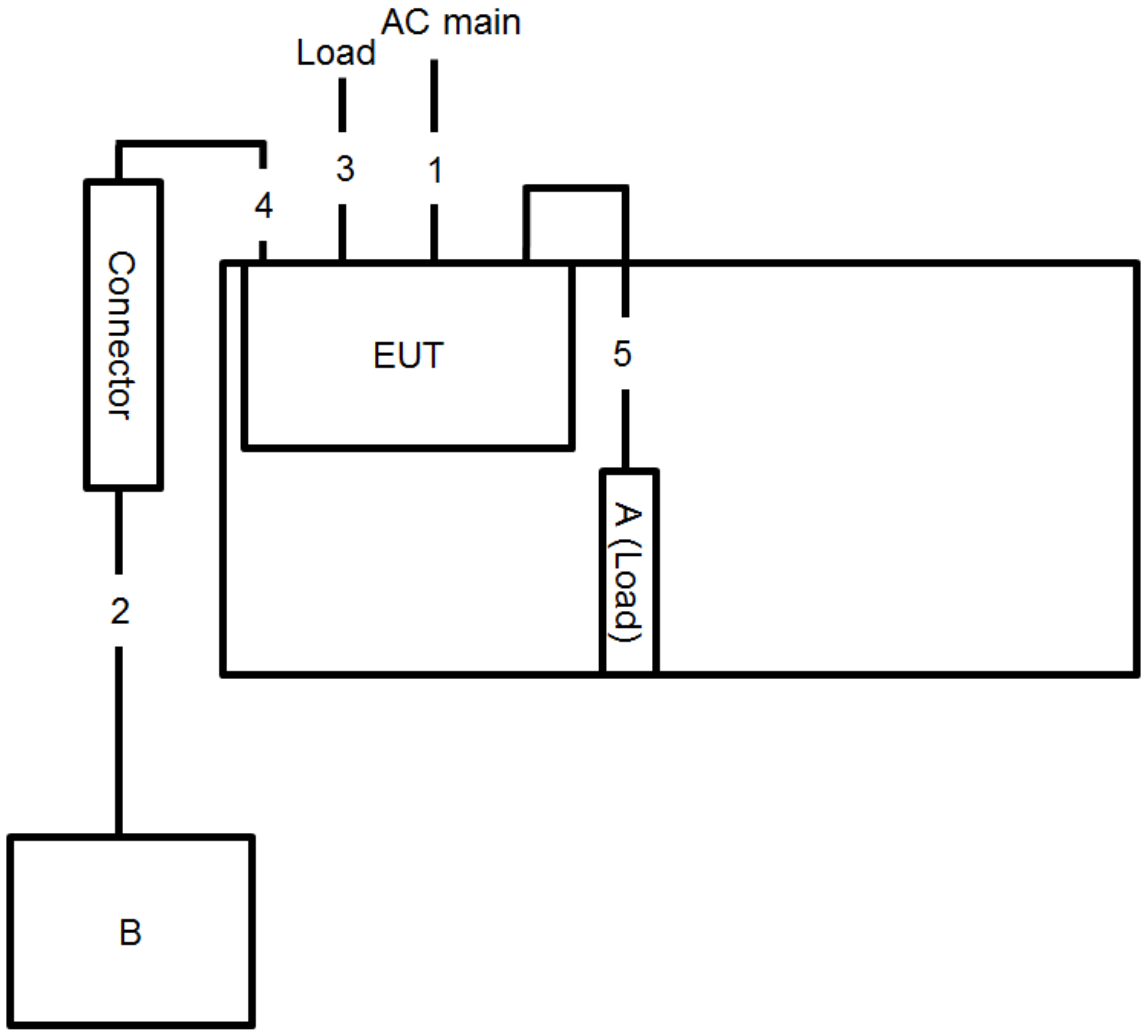
Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	Notebook	DELL	E4300	N/A

<For Non-Beamforming Mode>

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	NB	DELL	E4300	DoC
B	Fixture	Abocom	AM7221T-X10	N/A
C	AP Router	ASUS	BRT-AC828	N/A

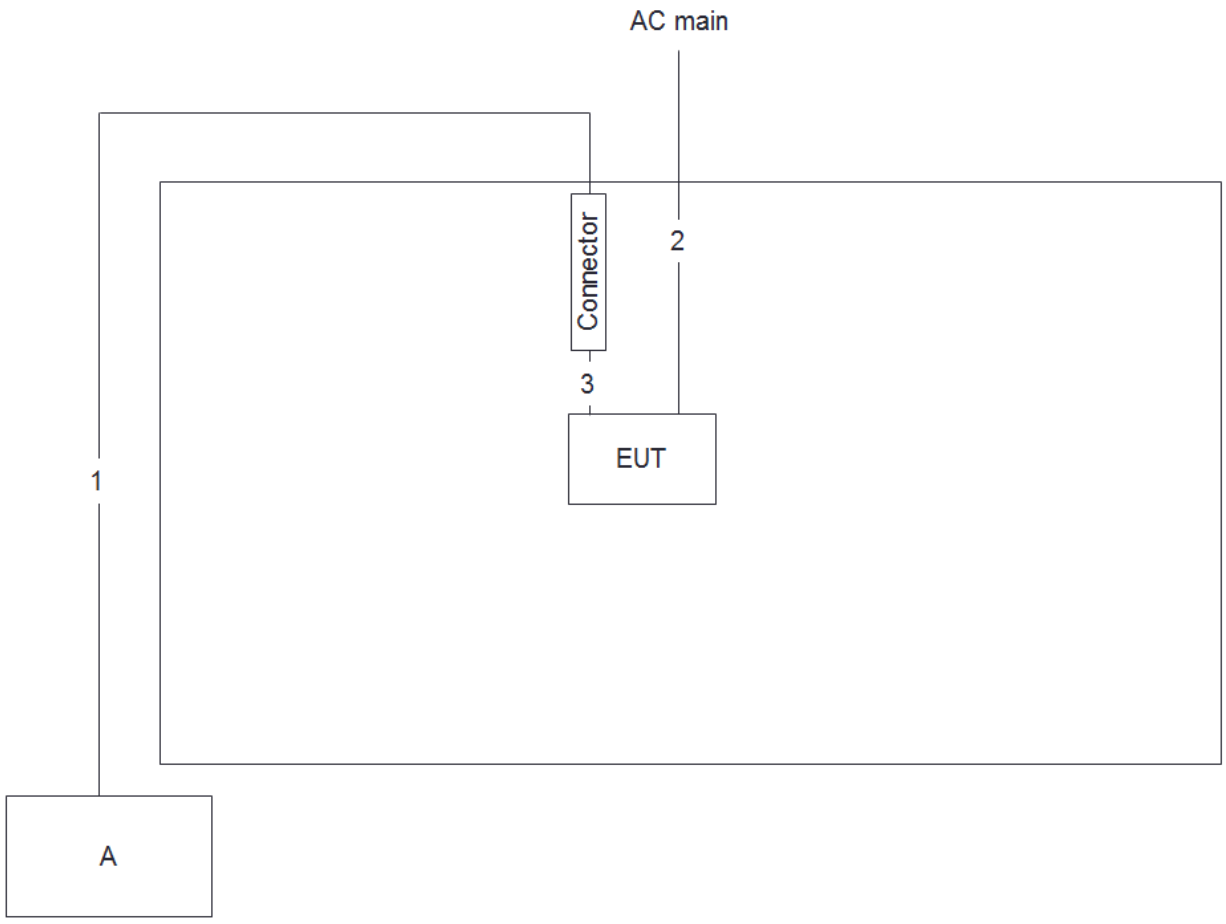
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



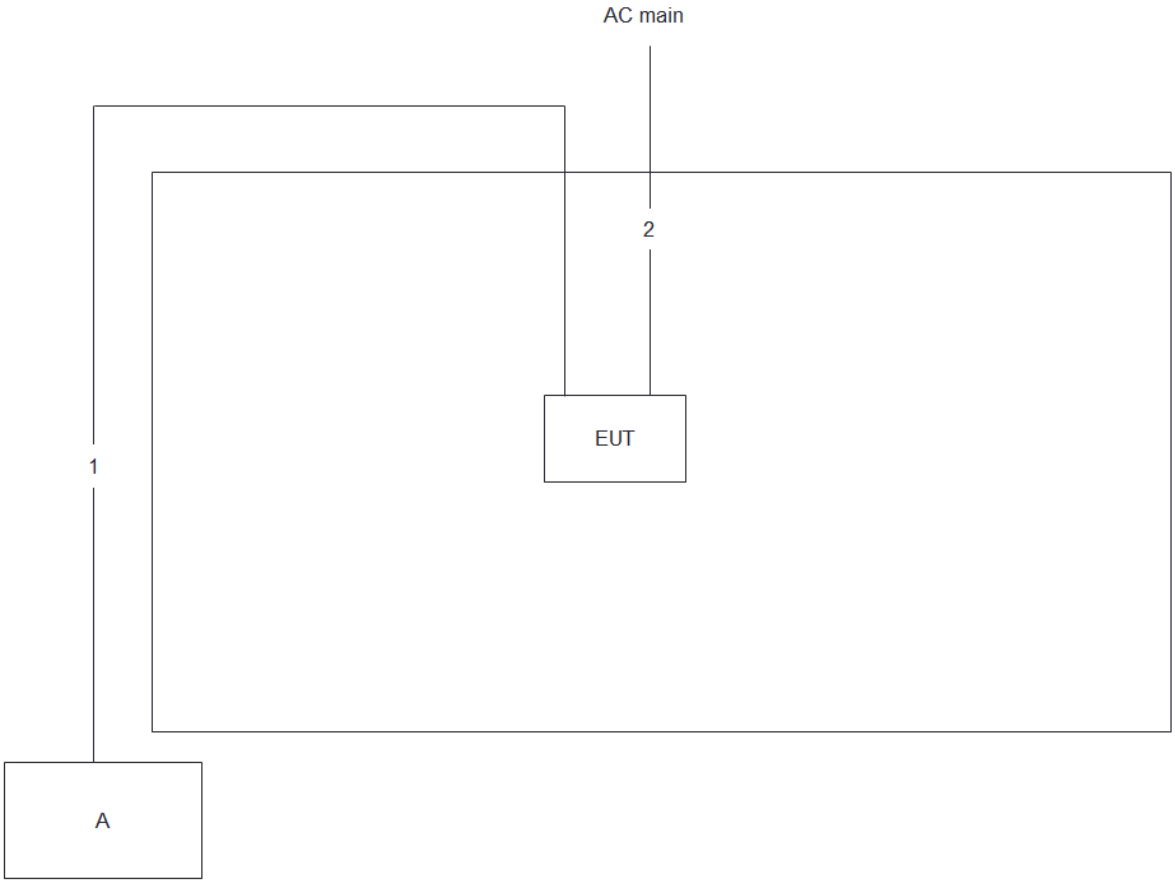
Item	Connection	Shielded	Length
1	Power cable	No	2.2m
2	RJ-45 cable	No	10m
3	RJ-45 cable*3	No	1.5m
4	RJ-45 cable	No	1.5m
5	USB cable	Yes	1.8m

Test Setup Diagram - Radiated Test < 1GHz



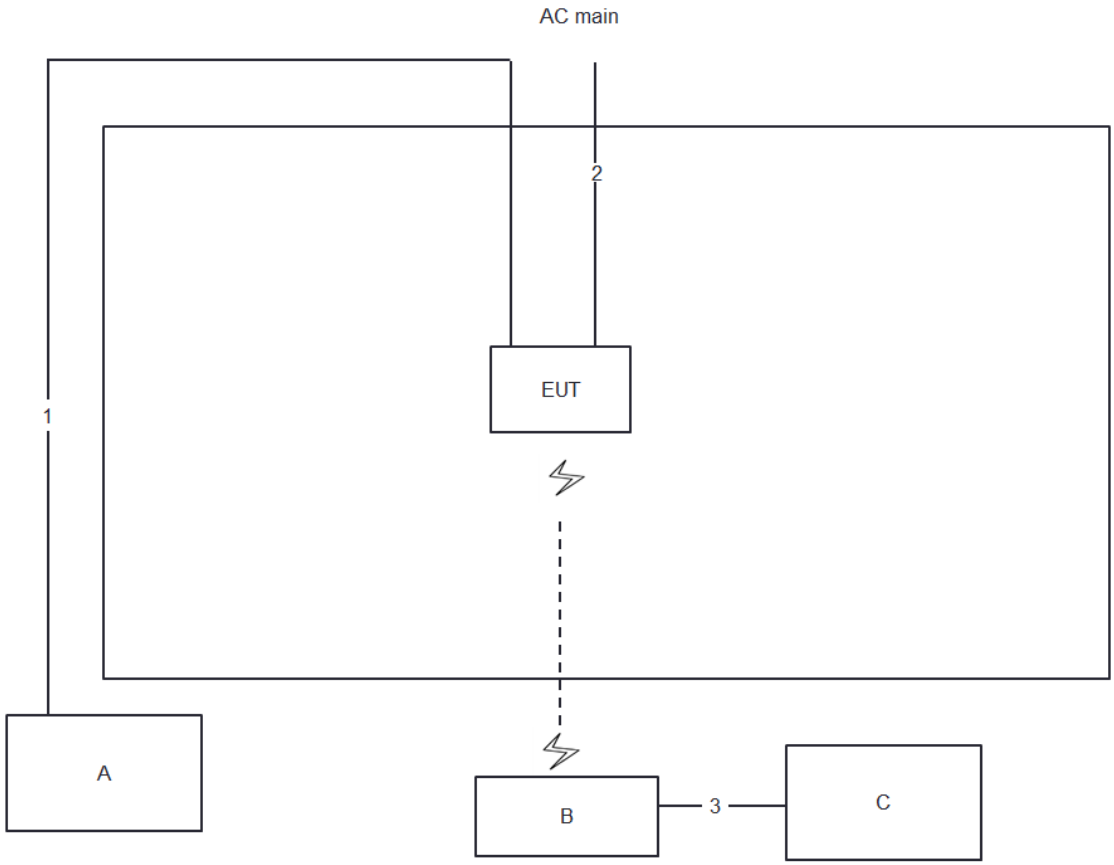
Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m
2	Power cable	No	2.2m
3	RJ-45 cable	No	1.5m

Test Setup Diagram - Radiated Test > 1GHz / Non-Beamforming Mode



Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m
2	Power cable	No	2.2m

Test Setup Diagram - Radiated Test > 1GHz / Beamforming Mode



Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m
2	Power cable	No	2.2m
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

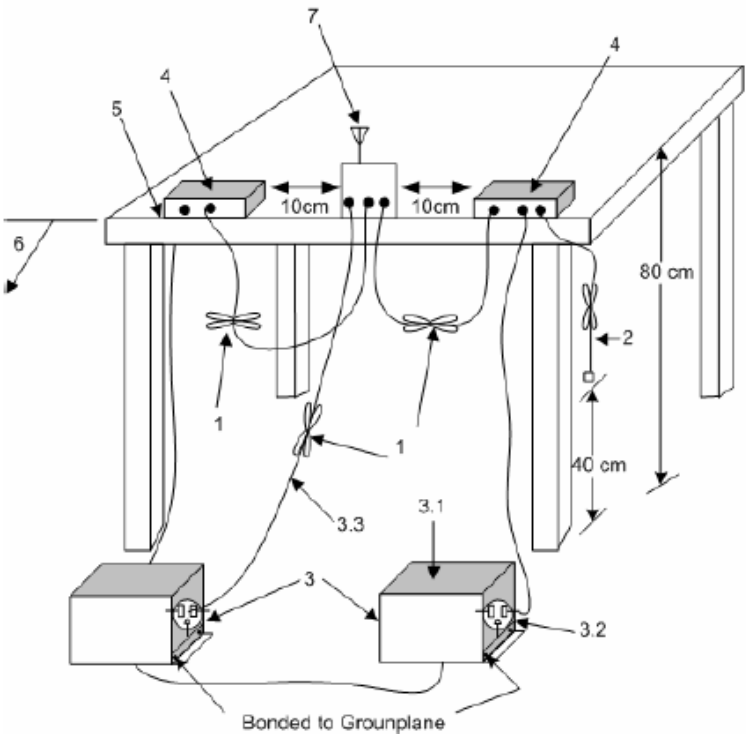
Refer a test equipment and calibration data table in this test report.

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.

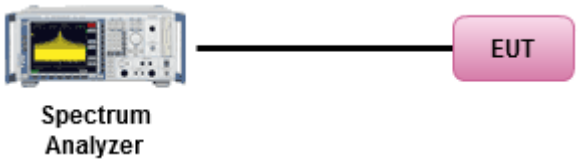
3.2.2 Measuring Instruments

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.		

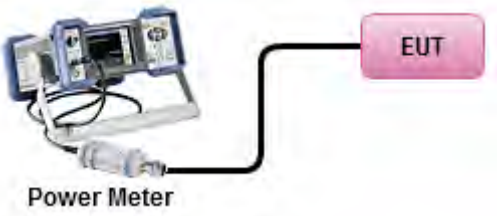
3.3.2 Measuring Instruments

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.

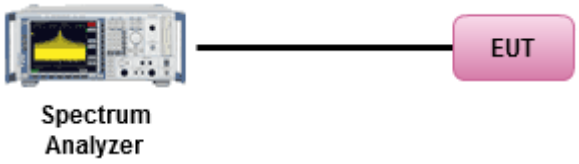
3.4.3 Test Procedures

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.	

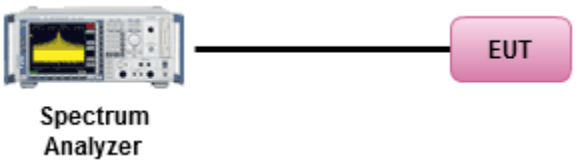
3.5.2 Measuring Instruments

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.

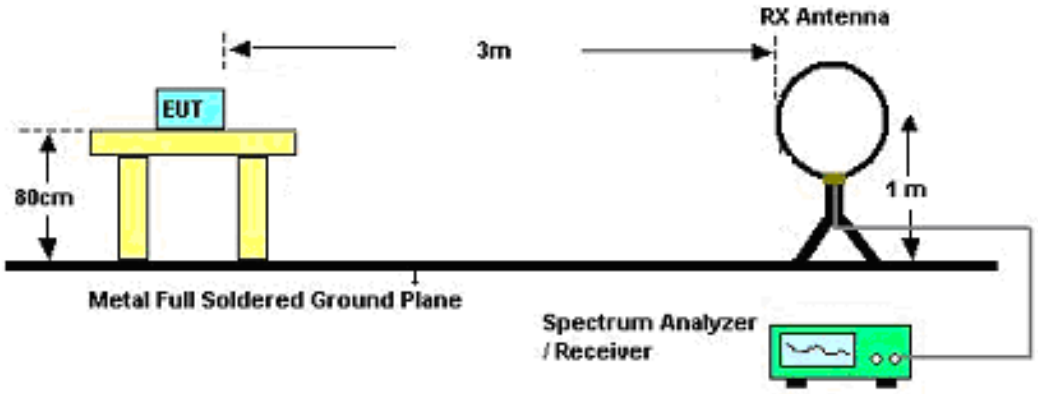
3.6.3 Test Procedures

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.	

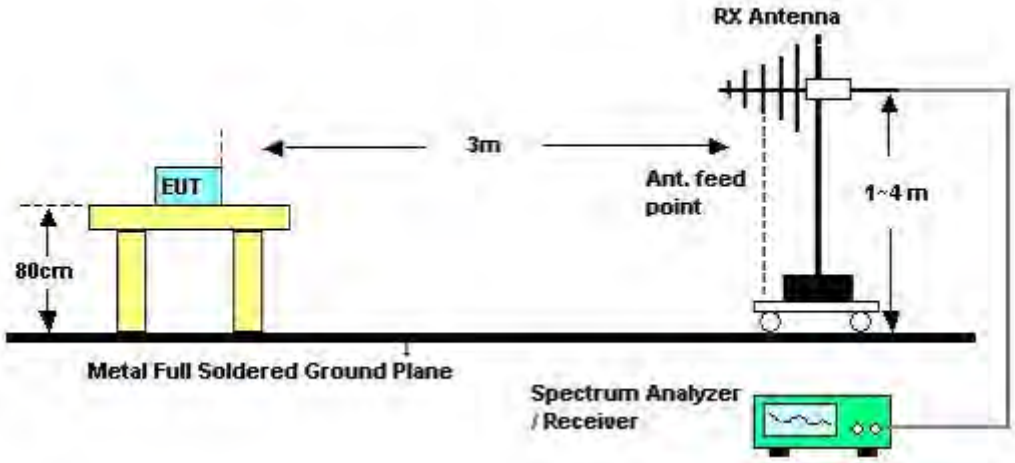
3.6.4 Test Setup

Radiated - Emissions in Restricted Frequency Bands

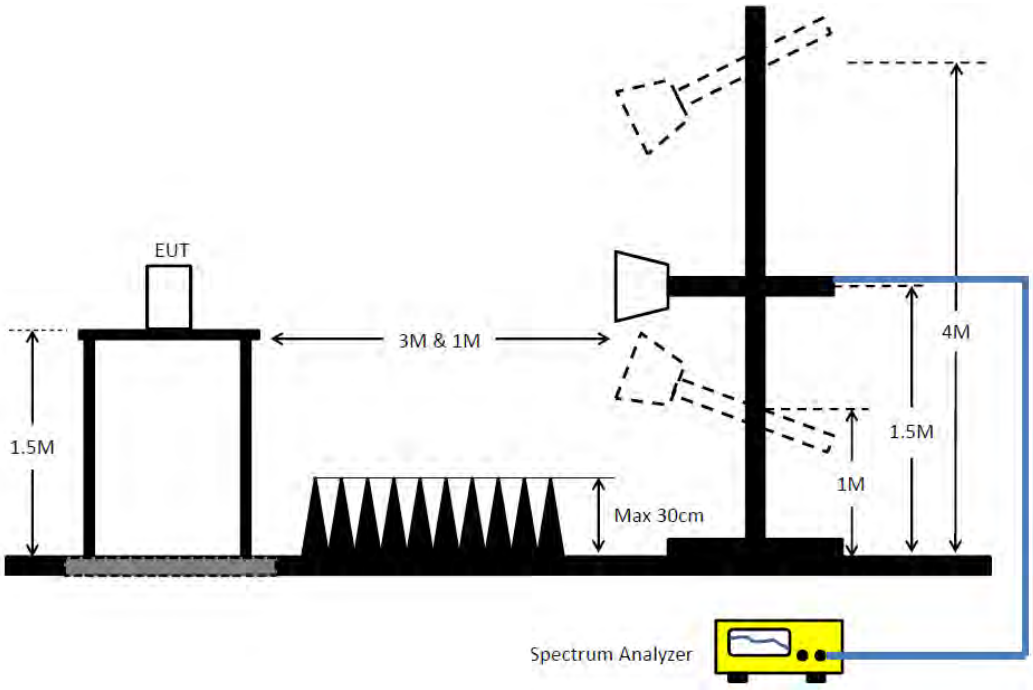
9kHz ~30MHz



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	9kHz ~ 30MHz	May 21, 2019	May 20, 2020	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Bilog Antenna with 6dB Attenuator	TESE & EMCI	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 28, 2019	Mar. 27, 2020	Radiation (03CH05-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 29, 2019	Mar. 28, 2020	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	May 02, 2019	May 01, 2020	Radiation (03CH05-CB)
Spectrum analyzer	R&S	FSP40	100080	9kHz~40GHz	Oct. 03, 2018	Oct. 02, 2019	Radiation (03CH05-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	May 15, 2019	May 14, 2020	Radiation (03CH05-CB)
RF Cable-low	Woken	RG402	LOW Cable-04+23	30MHz~1GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH05-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. 27, 2019	Jun. 26, 2020	Radiation (03CH03-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. 03, 2019	Jul. 02, 2020	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP-40	100019	9kHz ~ 40GHz	Jun. 19, 2019	Jun. 18, 2020	Radiation (03CH03-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#1	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 27, 2018	Jul. 26, 2019	Radiation (03CH03-CB)

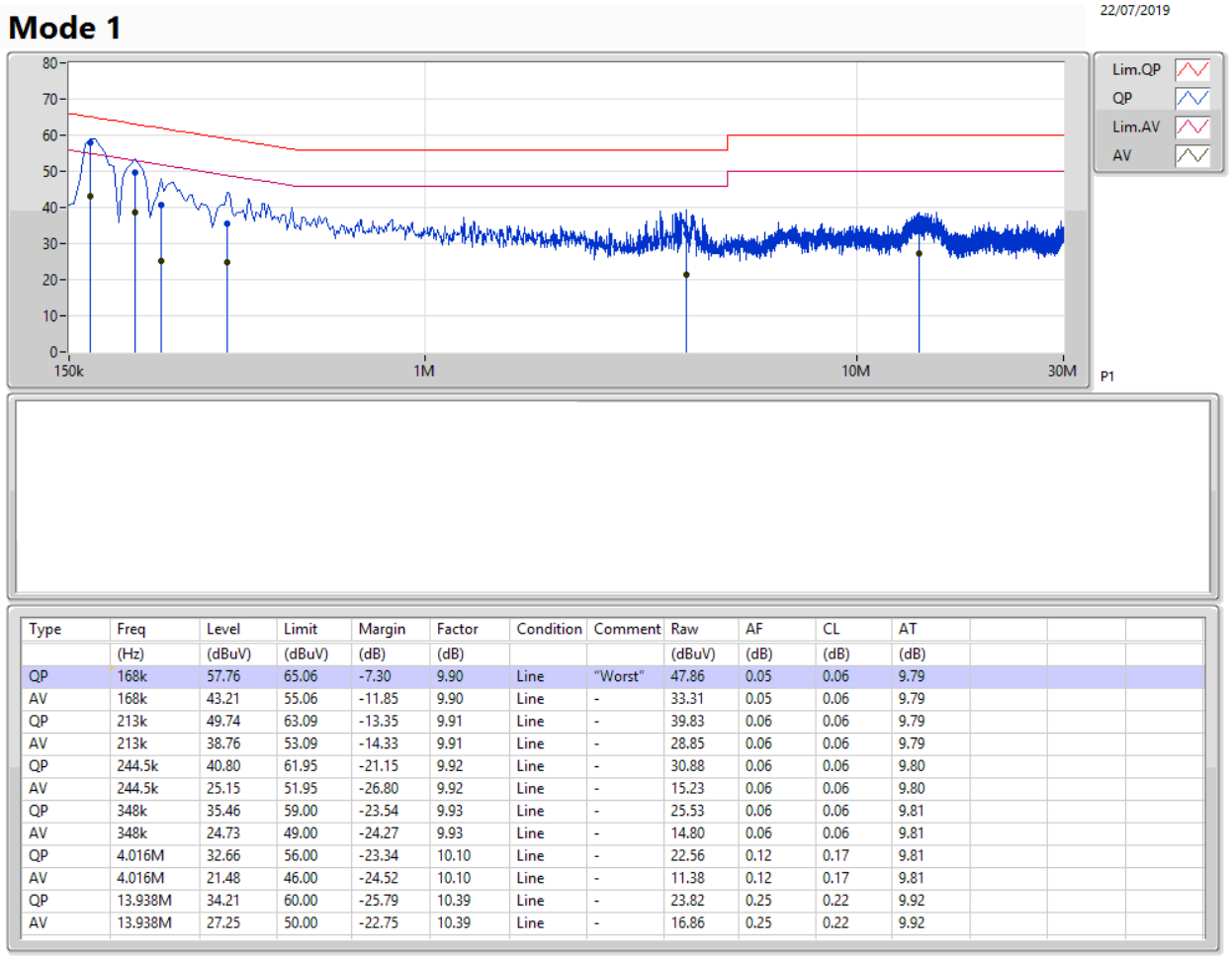
Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH03-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Feb. 25, 2019	Feb. 24, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-01	1 GHz – 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-02	1 GHz – 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-3	1 GHz – 26.5 GHz	Oct. 24, 2018	Oct. 23, 2019	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-04	1 GHz – 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-05	1 GHz – 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH02-CB)
Power Sensor	Anritsu	MA2411B	1126203	300MHz~40GHz	Sep. 03, 2018	Sep. 02, 2019	Conducted (TH02-CB)
Power Meter	Anritsu	ML2495A	1210004	300MHz~40GHz	Sep. 03, 2018	Sep. 02, 2019	Conducted (TH02-CB)

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

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

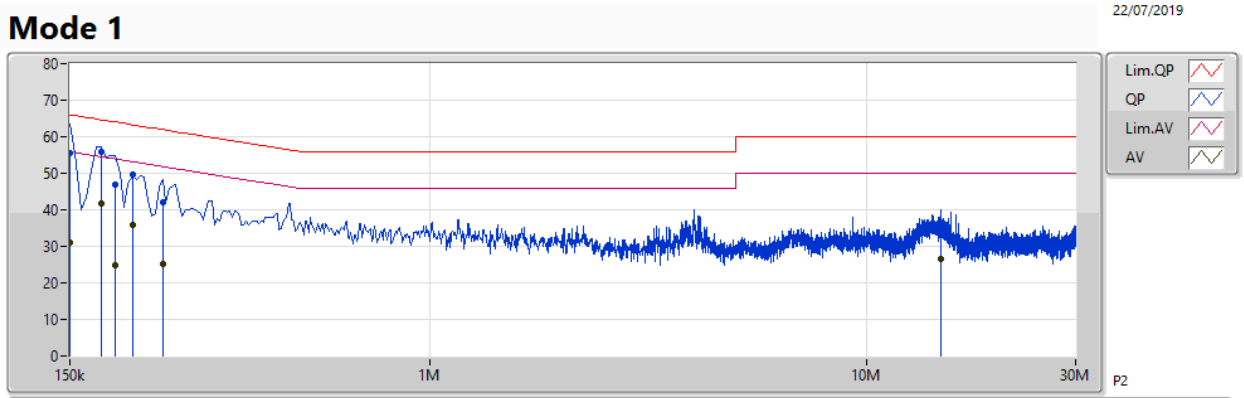
Test Mode	Mode 1	Frequency Range	0.15 MHz to 30 MHz

Line



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	AF	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	168k	57.76	65.06	-7.30	9.90	Line	"Worst"	47.86	0.05	0.06	9.79
AV	168k	43.21	55.06	-11.85	9.90	Line	-	33.31	0.05	0.06	9.79
QP	213k	49.74	63.09	-13.35	9.91	Line	-	39.83	0.06	0.06	9.79
AV	213k	38.76	53.09	-14.33	9.91	Line	-	28.85	0.06	0.06	9.79
QP	244.5k	40.80	61.95	-21.15	9.92	Line	-	30.88	0.06	0.06	9.80
AV	244.5k	25.15	51.95	-26.80	9.92	Line	-	15.23	0.06	0.06	9.80
QP	348k	35.46	59.00	-23.54	9.93	Line	-	25.53	0.06	0.06	9.81
AV	348k	24.73	49.00	-24.27	9.93	Line	-	14.80	0.06	0.06	9.81
QP	4.016M	32.66	56.00	-23.34	10.10	Line	-	22.56	0.12	0.17	9.81
AV	4.016M	21.48	46.00	-24.52	10.10	Line	-	11.38	0.12	0.17	9.81
QP	13.938M	34.21	60.00	-25.79	10.39	Line	-	23.82	0.25	0.22	9.92
AV	13.938M	27.25	50.00	-22.75	10.39	Line	-	16.86	0.25	0.22	9.92

Neutral



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	AF	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	150k	55.58	66.00	-10.42	9.89	Neutral	-	45.69	0.04	0.06	9.79
AV	150k	30.87	56.00	-25.13	9.89	Neutral	-	20.98	0.04	0.06	9.79
QP	177k	55.82	64.62	-8.80	9.89	Neutral	"Worst"	45.93	0.04	0.06	9.79
AV	177k	41.87	54.62	-12.75	9.89	Neutral	-	31.98	0.04	0.06	9.79
QP	190.5k	47.05	64.01	-16.96	9.89	Neutral	-	37.16	0.04	0.06	9.79
AV	190.5k	25.00	54.01	-29.01	9.89	Neutral	-	15.11	0.04	0.06	9.79
QP	208.5k	49.74	63.27	-13.53	9.89	Neutral	-	39.85	0.04	0.06	9.79
AV	208.5k	35.71	53.27	-17.56	9.89	Neutral	-	25.82	0.04	0.06	9.79
QP	244.5k	41.93	61.95	-20.02	9.90	Neutral	-	32.03	0.04	0.06	9.80
AV	244.5k	25.22	51.95	-26.73	9.90	Neutral	-	15.32	0.04	0.06	9.80
QP	14.775M	33.12	60.00	-26.88	10.36	Neutral	-	22.76	0.22	0.22	9.92
AV	14.775M	26.50	50.00	-23.50	10.36	Neutral	-	16.14	0.22	0.22	9.92

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	8.525M	13.014M	13M0G1D	8M	12.955M
802.11g_Nss1,(6Mbps)_2TX	16.325M	16.493M	16M5D1D	16.3M	16.386M
VHT20-BF_Nss1,(MCS0)_2TX	17.575M	17.675M	17M7D1D	17.3M	17.592M
VHT40-BF_Nss1,(MCS0)_2TX	35M	35.982M	36M0D1D	30.05M	35.858M

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	8.5M	12.992M	8.525M	13M
2437MHz	Pass	500k	8.025M	12.955M	8M	12.975M
2462MHz	Pass	500k	8.025M	13.014M	8.025M	12.967M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.3M	16.397M	16.325M	16.414M
2437MHz	Pass	500k	16.325M	16.493M	16.325M	16.434M
2462MHz	Pass	500k	16.325M	16.386M	16.3M	16.386M
VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.525M	17.604M	17.55M	17.617M
2437MHz	Pass	500k	17.525M	17.675M	17.575M	17.657M
2462MHz	Pass	500k	17.55M	17.592M	17.3M	17.617M
VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	35M	35.916M	35M	35.899M
2437MHz	Pass	500k	34.9M	35.877M	33.75M	35.95M
2452MHz	Pass	500k	30.05M	35.858M	34.95M	35.982M

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

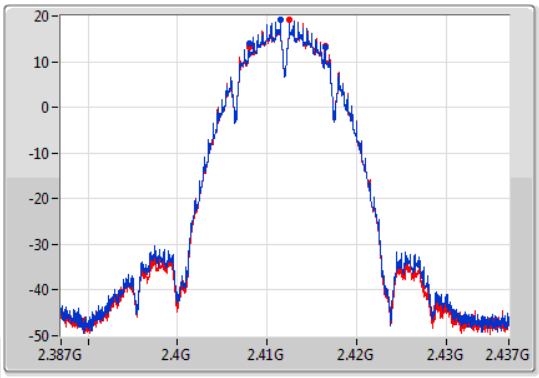
802.11b_Nss1,(1Mbps)_2TX EBW

2412MHz

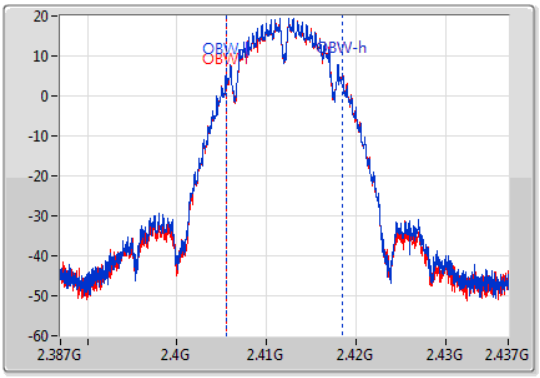
06/07/2019

CF	2.412GHz
Span	50MHz
RBW	100kHz
VBW	300kHz
Sweep Time	100ms
Detector Type	Peak

Port 1
Port 2



CF	2.412GHz
Span	50MHz
RBW	200kHz
VBW	1MHz
Sweep Time	100ms
Detector Type	Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.5M	2.407975G	2.416475G	12.992M	2.405507G	2.418499G	500k	1
8.525M	2.407975G	2.4165G	13M	2.405535G	2.418535G	500k	2

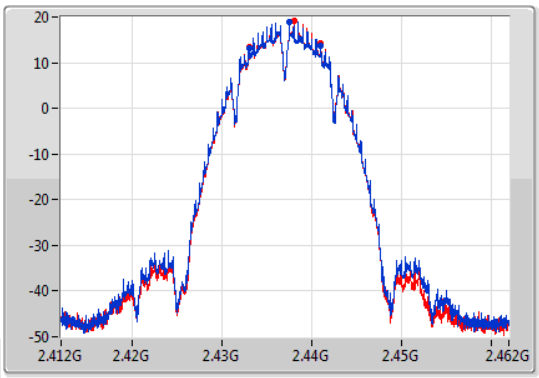
802.11b_Nss1,(1Mbps)_2TX EBW

2437MHz

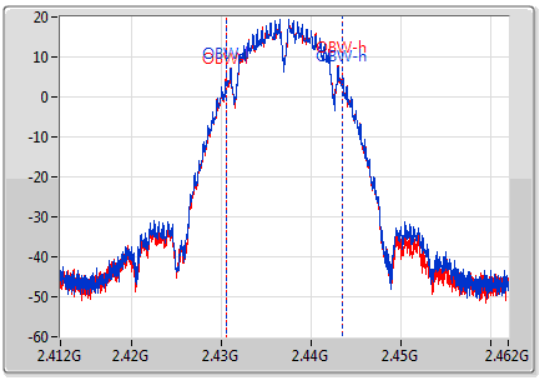
06/07/2019

CF	2.437GHz
Span	50MHz
RBW	100kHz
VBW	300kHz
Sweep Time	100ms
Detector Type	Peak

Port 1
Port 2



CF	2.437GHz
Span	50MHz
RBW	200kHz
VBW	1MHz
Sweep Time	100ms
Detector Type	Sample

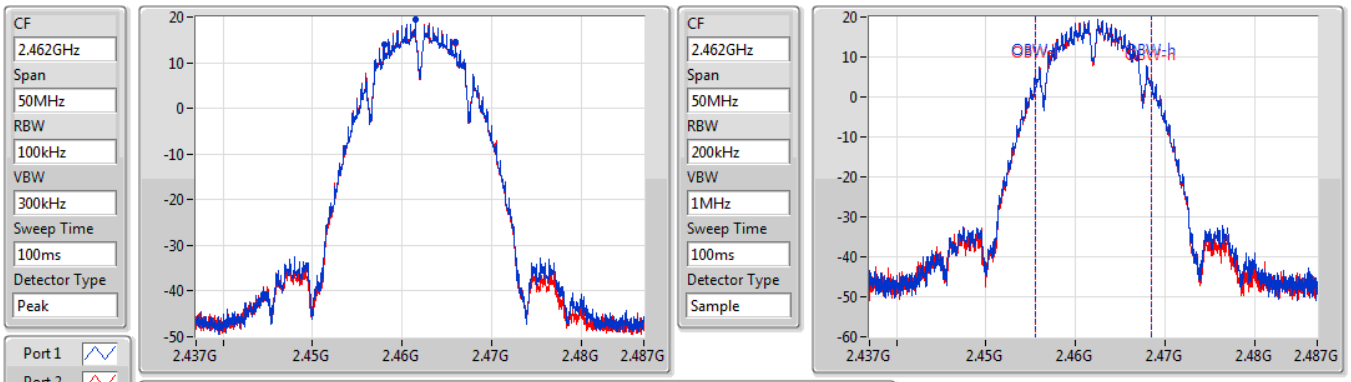


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.025M	2.432975G	2.441G	12.955M	2.430517G	2.443472G	500k	1
8M	2.433G	2.441G	12.975M	2.430531G	2.443505G	500k	2

802.11b_Nss1,(1Mbps)_2TX EBW

2462MHz

06/07/2019

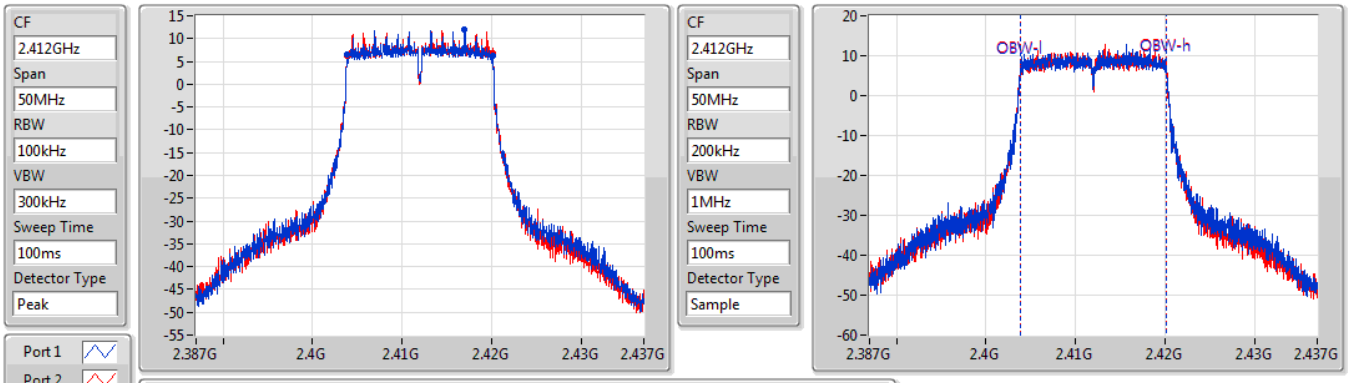


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.025M	2.457975G	2.466G	13.014M	2.455498G	2.468512G	500k	1
8.025M	2.457975G	2.466G	12.967M	2.455525G	2.468492G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2412MHz

06/07/2019

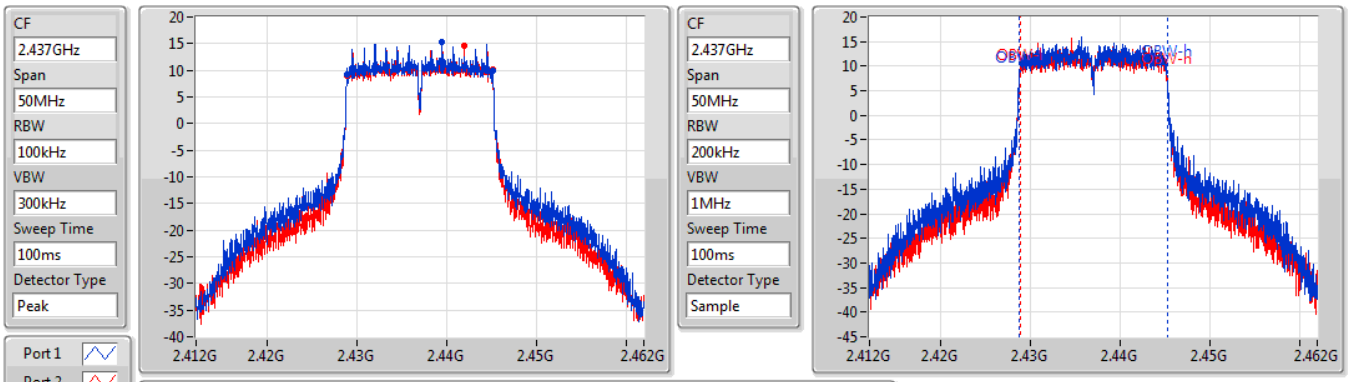


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.3M	2.40385G	2.42015G	16.397M	2.403805G	2.420202G	500k	1
16.325M	2.403825G	2.42015G	16.414M	2.403793G	2.420207G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2437MHz

06/07/2019

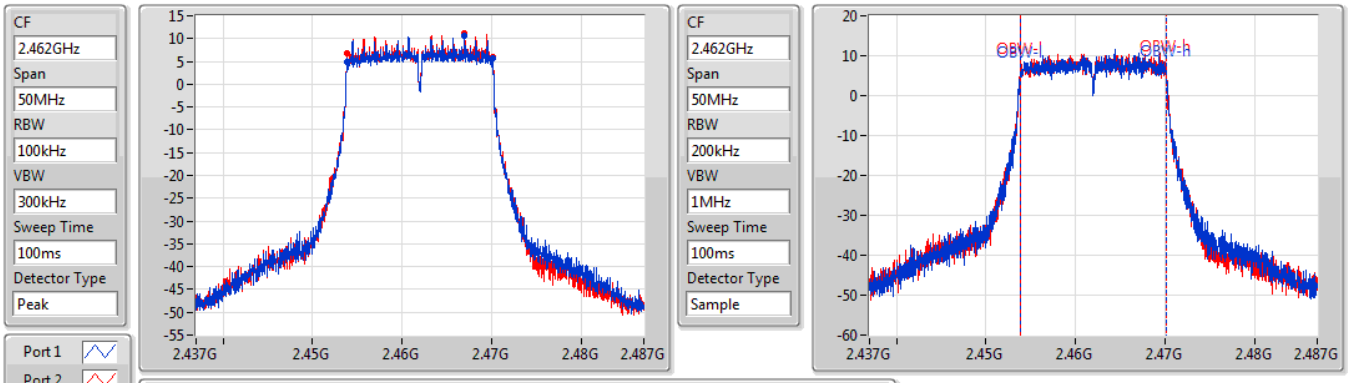


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.428825G	2.44515G	16.493M	2.428756G	2.44525G	500k	1
16.325M	2.428825G	2.44515G	16.434M	2.428784G	2.445218G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2462MHz

06/07/2019

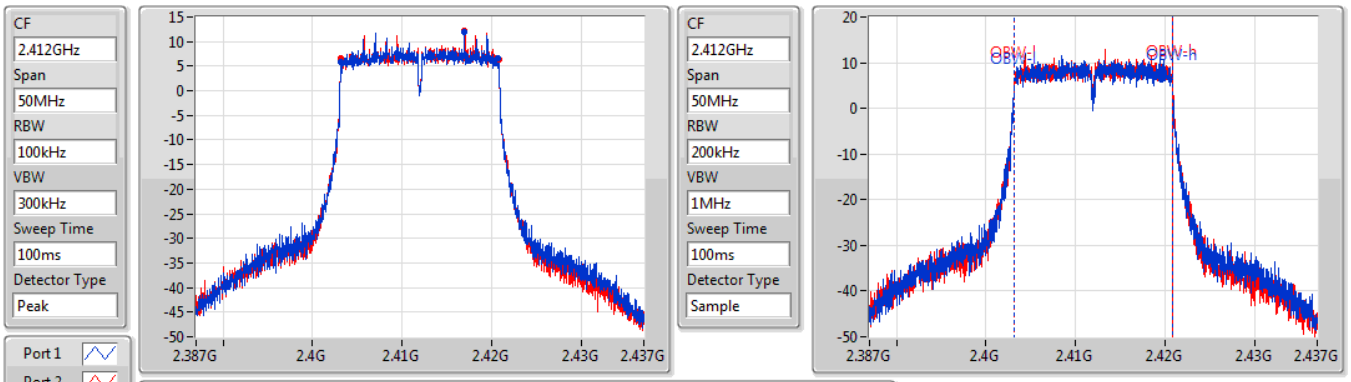


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.453825G	2.47015G	16.386M	2.453793G	2.47018G	500k	1
16.3M	2.45385G	2.47015G	16.386M	2.453799G	2.470184G	500k	2

VHT20-BF_Nss1,(MCS0)_2TX EBW

2412MHz

06/07/2019

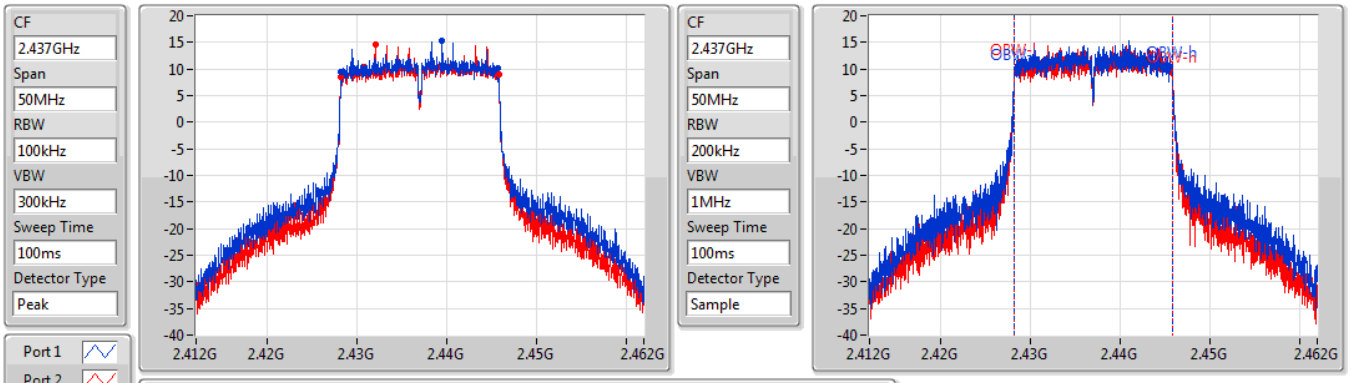


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.525M	2.403225G	2.42075G	17.604M	2.403191G	2.420795G	500k	1
17.55M	2.403225G	2.420775G	17.617M	2.403195G	2.420812G	500k	2

VHT20-BF_Nss1,(MCS0)_2TX EBW

2437MHz

06/07/2019

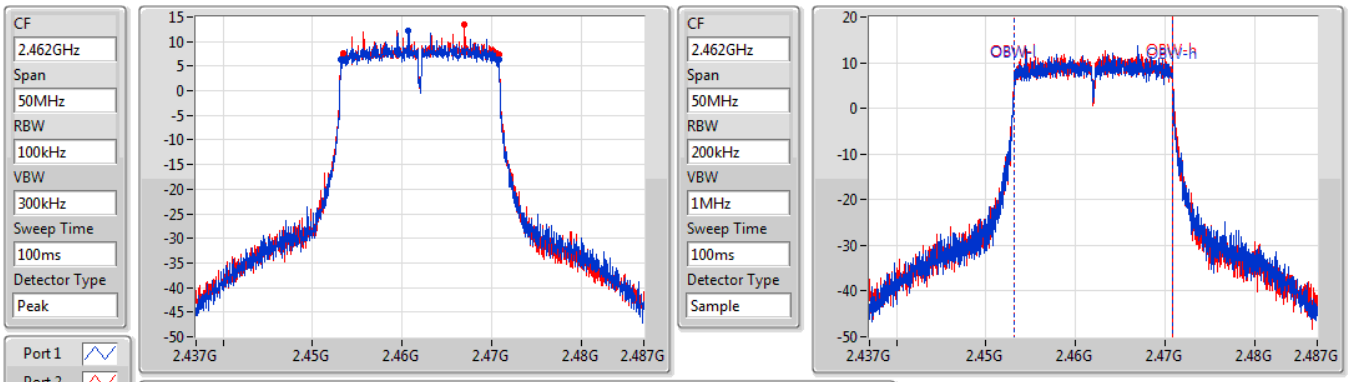


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.525M	2.428225G	2.44575G	17.675M	2.42816G	2.445835G	500k	1
17.575M	2.4282G	2.445775G	17.657M	2.428172G	2.445829G	500k	2

VHT20-BF_Nss1,(MCS0)_2TX EBW

2462MHz

06/07/2019

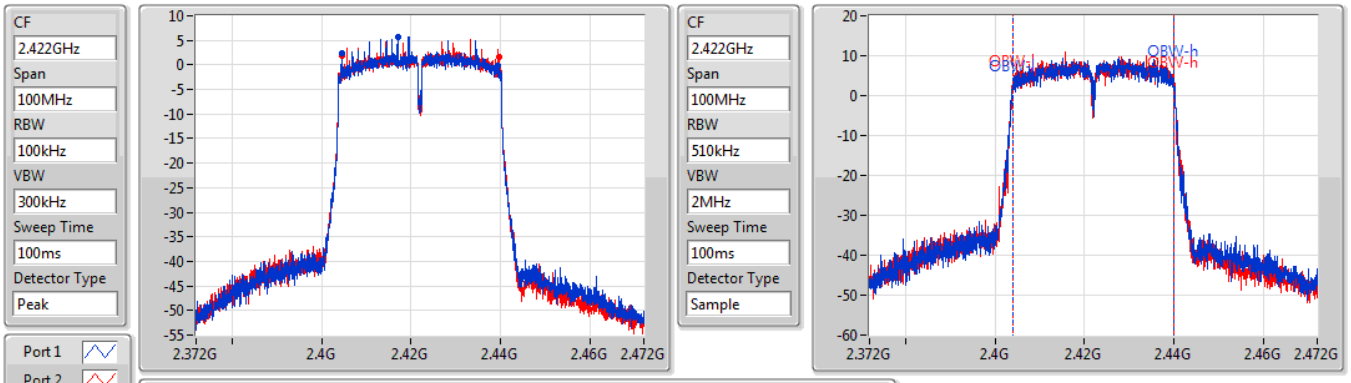


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	2.453225G	2.470775G	17.592M	2.453205G	2.470797G	500k	1
17.3M	2.453475G	2.470775G	17.617M	2.453195G	2.470812G	500k	2

VHT40-BF_Nss1,(MCS0)_2TX EBW

2422MHz

06/07/2019

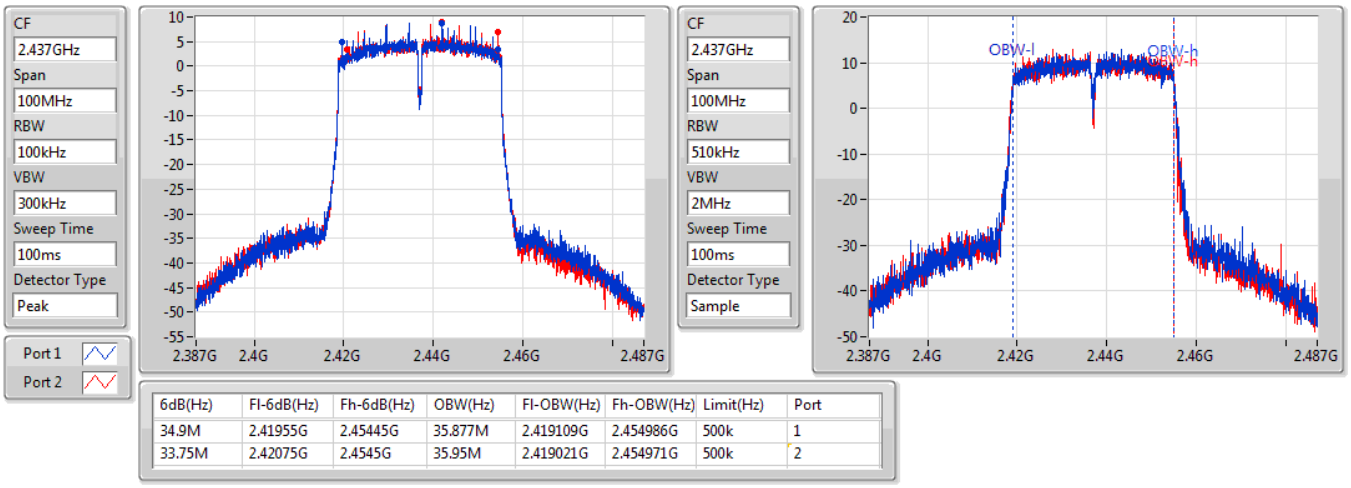


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35M	2.4045G	2.4395G	35.916M	2.404072G	2.439988G	500k	1
35M	2.40455G	2.43955G	35.899M	2.404051G	2.43995G	500k	2

VHT40-BF_Nss1,(MCS0)_2TX EBW

2437MHz

06/07/2019

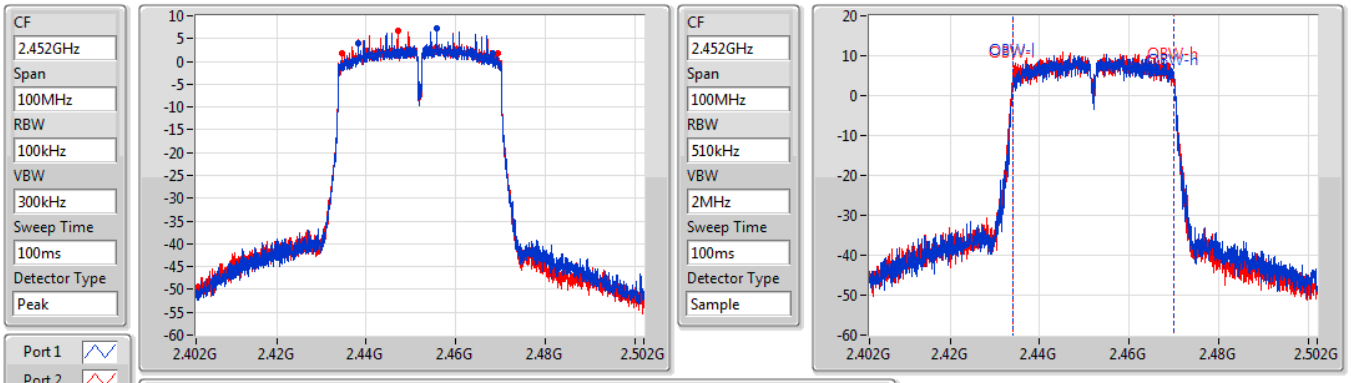


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
34.9M	2.41955G	2.45445G	35.877M	2.419109G	2.454986G	500k	1
33.75M	2.42075G	2.4545G	35.95M	2.419021G	2.454971G	500k	2

VHT40-BF_Nss1,(MCS0)_2TX EBW

2452MHz

06/07/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
30.05M	2.4382G	2.46825G	35.858M	2.43411G	2.469968G	500k	1
34.95M	2.43455G	2.4695G	35.982M	2.434024G	2.470006G	500k	2

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_2TX	29.98	0.99541
802.11g_Nss1,(6Mbps)_2TX	29.80	0.95499
VHT20-BF_Nss1,(MCS0)_2TX	29.98	0.99541
VHT40-BF_Nss1,(MCS0)_2TX	25.53	0.35727

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	1.36	26.97	26.89	29.94	30.00
2437MHz	Pass	1.36	26.98	26.96	29.98	30.00
2462MHz	Pass	1.36	26.91	26.93	29.93	30.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	1.36	22.95	23.01	25.99	30.00
2417MHz	Pass	1.36	23.77	24.03	26.91	30.00
2437MHz	Pass	1.36	26.69	26.89	29.80	30.00
2457MHz	Pass	1.36	23.71	23.96	26.85	30.00
2462MHz	Pass	1.36	21.73	22.08	24.92	30.00
VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.37	22.72	22.62	25.68	30.00
2417MHz	Pass	4.37	23.64	23.95	26.81	30.00
2437MHz	Pass	4.37	27.13	26.81	29.98	30.00
2457MHz	Pass	4.37	23.77	23.94	26.87	30.00
2462MHz	Pass	4.37	23.58	23.91	26.76	30.00
VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	4.37	19.48	19.62	22.56	30.00
2427MHz	Pass	4.37	19.49	19.68	22.60	30.00
2437MHz	Pass	4.37	22.49	22.54	25.53	30.00
2447MHz	Pass	4.37	20.38	20.69	23.55	30.00
2452MHz	Pass	4.37	20.50	20.66	23.59	30.00

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

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_2TX	6.32
802.11g_Nss1,(6Mbps)_2TX	0.85
VHT20-BF_Nss1,(MCS0)_2TX	1.00
VHT40-BF_Nss1,(MCS0)_2TX	-4.15

RBW=3 kHz.

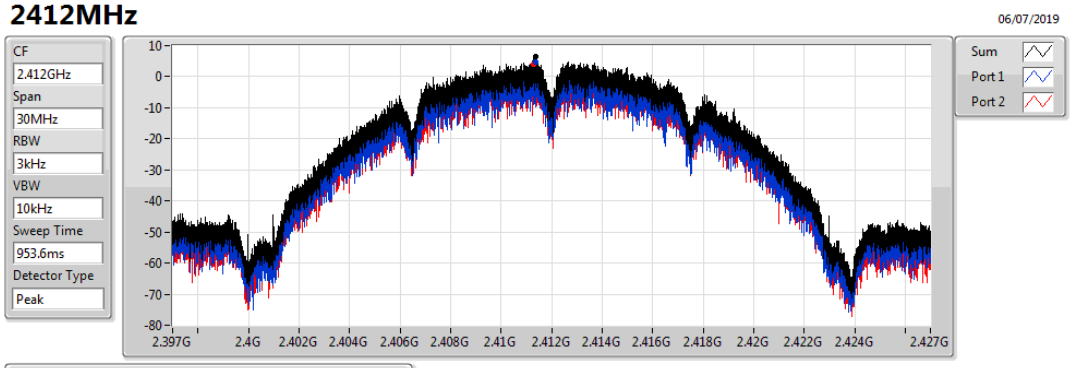
Result

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	4.37	4.74	3.96	6.32	8.00
2437MHz	Pass	4.37	3.41	4.00	4.89	8.00
2462MHz	Pass	4.37	3.35	4.37	5.34	8.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.37	-3.60	-2.72	-1.50	8.00
2437MHz	Pass	4.37	-0.01	-0.05	0.85	8.00
2462MHz	Pass	4.37	-3.87	-4.49	-2.65	8.00
VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.37	-3.80	-3.05	-1.84	8.00
2437MHz	Pass	4.37	-0.07	-0.10	1.00	8.00
2462MHz	Pass	4.37	-2.57	-2.72	-0.62	8.00
VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	4.37	-8.68	-8.76	-7.24	8.00
2437MHz	Pass	4.37	-4.80	-6.06	-4.15	8.00
2452MHz	Pass	4.37	-7.82	-8.17	-6.09	8.00

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

802.11b_Nss1,(1Mbps)_2TX PSD

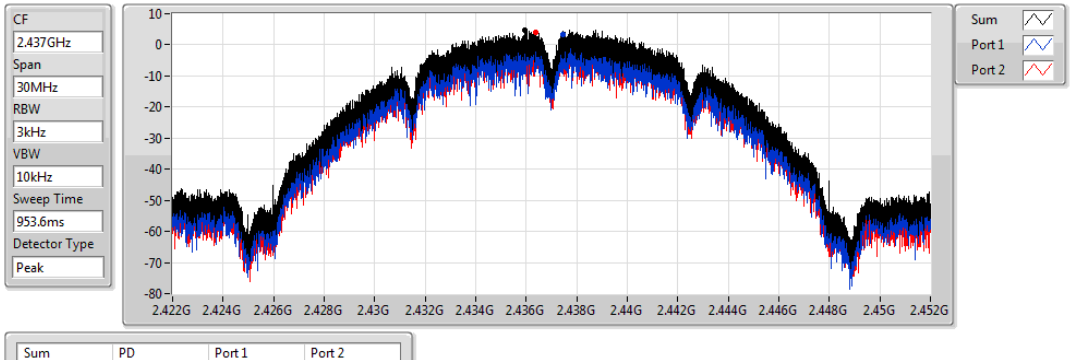
2412MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.32	6.32	4.74	3.96

802.11b_Nss1,(1Mbps)_2TX PSD

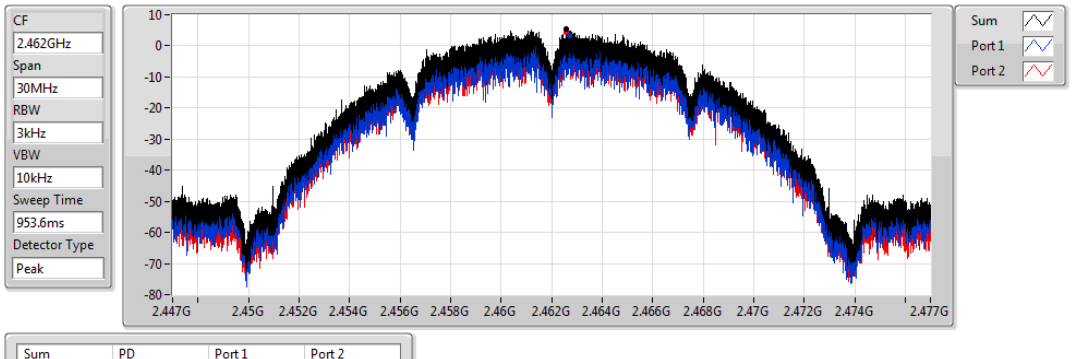
2437MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.89	4.89	3.41	4.00

802.11b_Nss1,(1Mbps)_2TX PSD

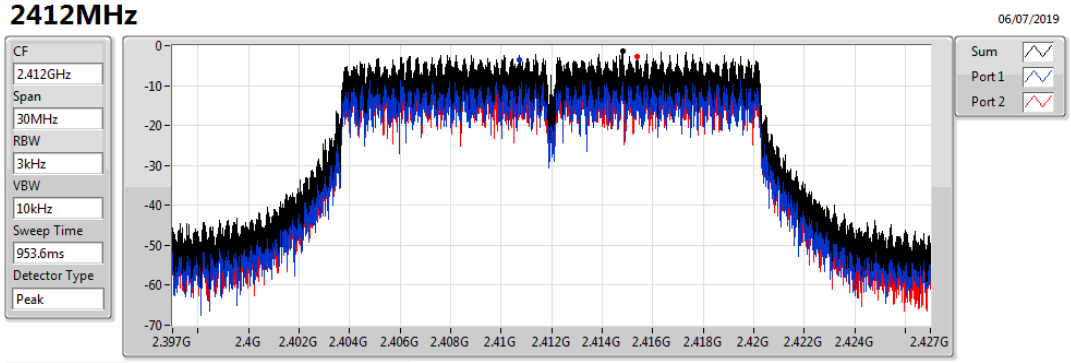
2462MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.34	5.34	3.35	4.37

802.11g_Nss1,(6Mbps)_2TX PSD

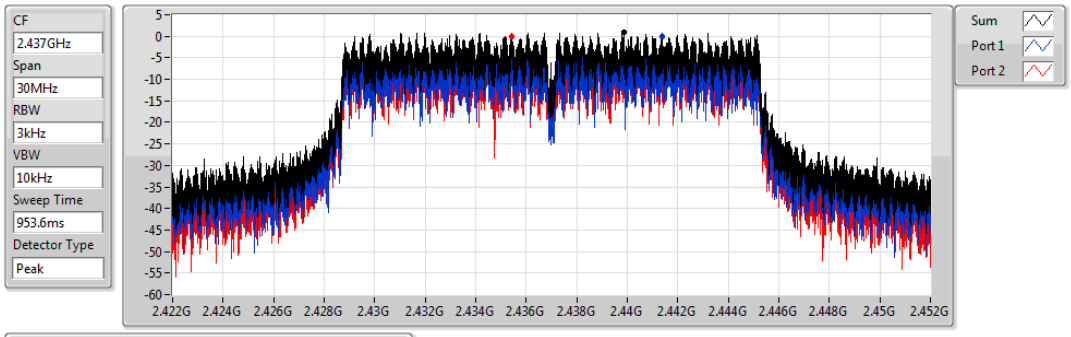
2412MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.50	-1.50	-3.60	-2.72

802.11g_Nss1,(6Mbps)_2TX PSD

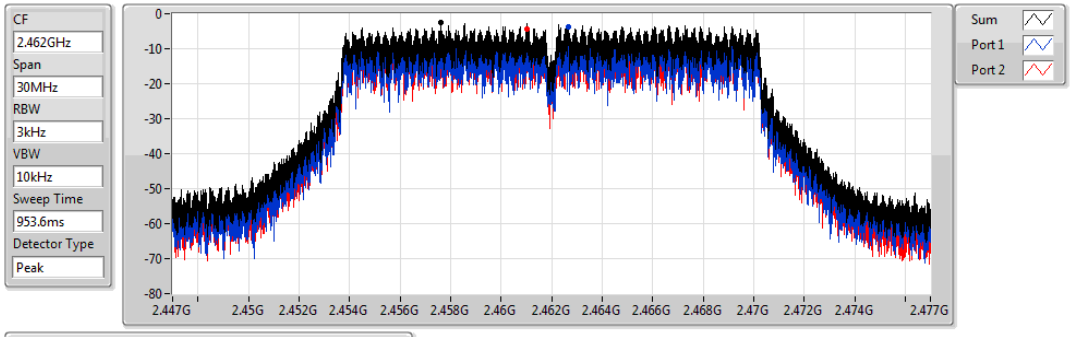
2437MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.85	0.85	-0.01	-0.05

802.11g_Nss1,(6Mbps)_2TX PSD

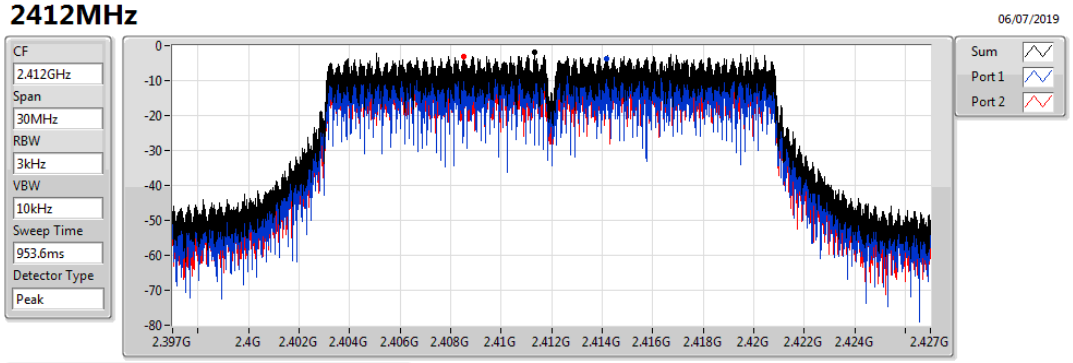
2462MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.65	-2.65	-3.87	-4.49

VHT20-BF_Nss1,(MCS0)_2TX PSD

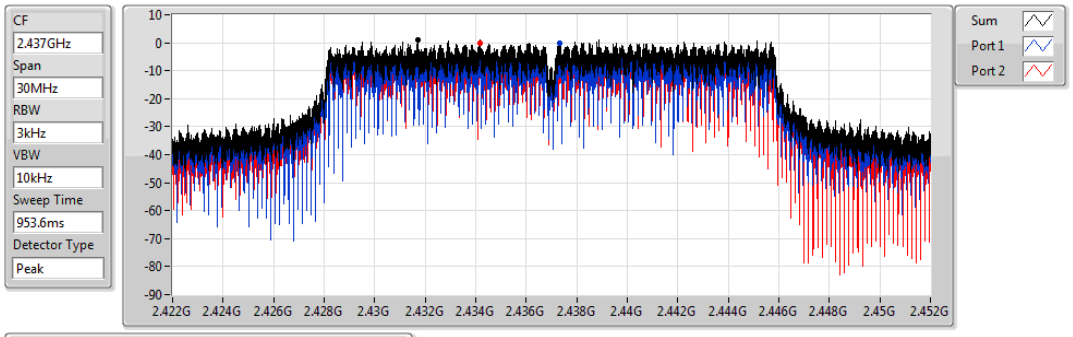
2412MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.84	-1.84	-3.80	-3.05

VHT20-BF_Nss1,(MCS0)_2TX PSD

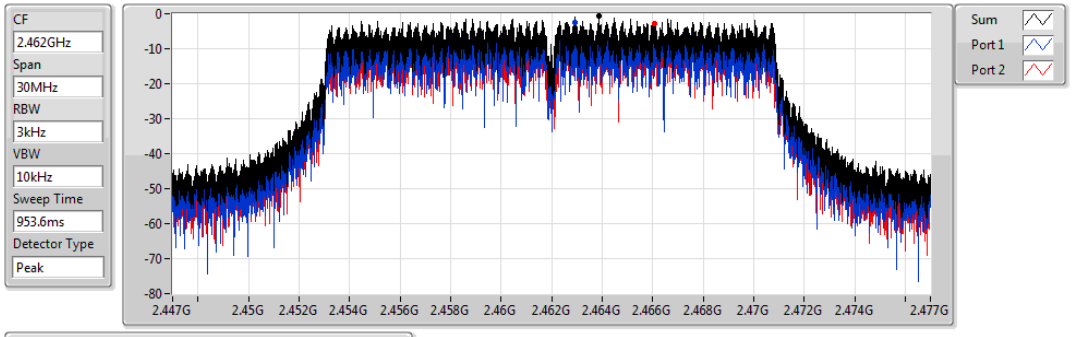
2437MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.00	1.00	-0.07	-0.10

VHT20-BF_Nss1,(MCS0)_2TX PSD

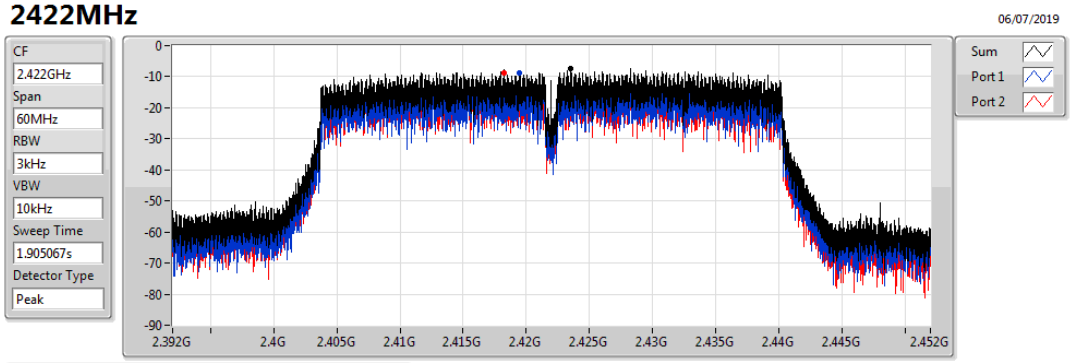
2462MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.62	-0.62	-2.57	-2.72

VHT40-BF_Nss1,(MCS0)_2TX PSD

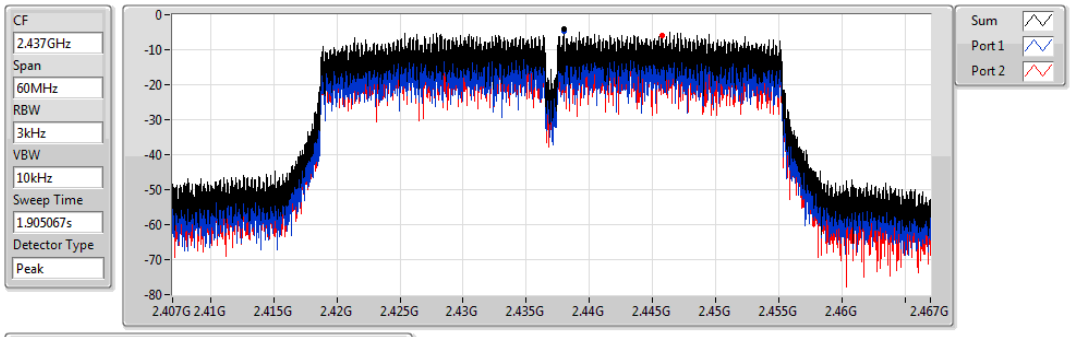
2422MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.24	-7.24	-8.68	-8.76

VHT40-BF_Nss1,(MCS0)_2TX PSD

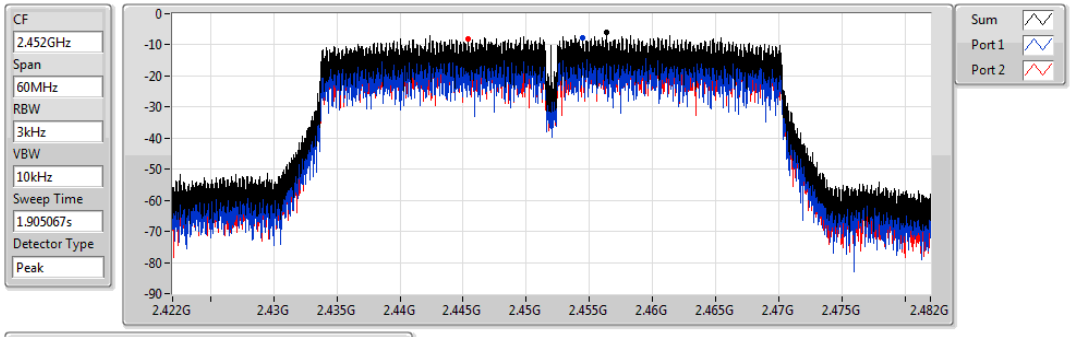
2437MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.15	-4.15	-4.80	-6.06

VHT40-BF_Nss1,(MCS0)_2TX PSD

2452MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.09	-6.09	-7.82	-8.17

Summary

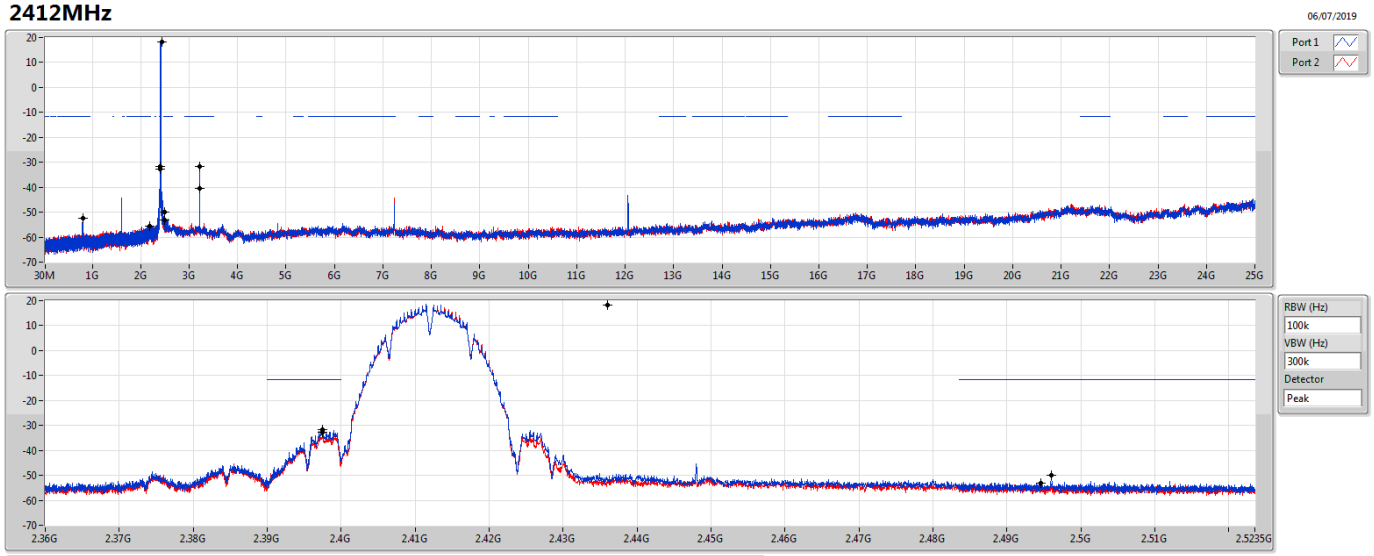
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	Pass	2.43599G	18.40	-11.60	1.62372G	-45.17	2.3999G	-48.23	2.49596G	-48.15	3.24837G	-31.33	1
802.11g_Nss1,(6Mbps)_2TX	Pass	2.442G	13.52	-16.48	800.07M	-53.60	2.39984G	-28.91	2.49602G	-49.10	3.21465G	-30.49	1
VHT20-BF_Nss1,(MCS0)_2TX	Pass	2.4395G	13.24	-16.76	2.30525G	-56.08	2.39948G	-29.32	2.4863G	-53.15	3.21465G	-40.34	2
VHT40-BF_Nss1,(MCS0)_2TX	Pass	2.44826G	7.58	-22.42	817.47M	-56.18	2.39956G	-38.46	2.55998G	-45.65	3.25062G	-31.96	1

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	2.43599G	18.40	-11.60	801.81M	-52.57	2.39752G	-31.63	2.49598G	-49.96	3.21465G	-31.54	1
2412MHz	Pass	2.43599G	18.40	-11.60	2.19253G	-55.61	2.3975G	-32.56	2.49458G	-53.05	3.21465G	-40.59	2
2437MHz	Pass	2.43599G	18.40	-11.60	1.62372G	-45.17	2.3999G	-48.23	2.49596G	-48.15	3.24837G	-31.33	1
2437MHz	Pass	2.43599G	18.40	-11.60	1.62372G	-51.70	2.39998G	-49.80	2.49598G	-52.77	3.24837G	-41.08	2
2462MHz	Pass	2.43599G	18.40	-11.60	1.64032G	-46.72	2.39996G	-50.03	2.51468G	-48.13	3.28208G	-33.39	1
2462MHz	Pass	2.43599G	18.40	-11.60	1.64032G	-56.34	2.39994G	-53.65	2.49198G	-50.34	3.28208G	-42.94	2
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.442G	13.52	-16.48	800.07M	-53.60	2.39984G	-28.91	2.49602G	-49.10	3.21465G	-30.49	1
2412MHz	Pass	2.442G	13.52	-16.48	2.08826G	-56.25	2.3991G	-30.44	2.49598G	-52.30	3.21465G	-40.41	2
2437MHz	Pass	2.442G	13.52	-16.48	805.6M	-53.94	2.39982G	-44.58	2.48352G	-48.39	3.24837G	-31.45	1
2437MHz	Pass	2.442G	13.52	-16.48	2.30379G	-55.87	2.3982G	-47.10	2.48546G	-51.29	3.24837G	-40.80	2
2462MHz	Pass	2.442G	13.52	-16.48	817.25M	-55.79	2.39998G	-50.23	2.48356G	-46.84	3.28208G	-32.42	1
2462MHz	Pass	2.442G	13.52	-16.48	2.19719G	-55.99	2.39996G	-54.02	2.48388G	-47.76	3.28208G	-41.99	2
VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.4395G	13.24	-16.76	807.64M	-53.22	2.39886G	-29.54	2.496G	-48.98	3.21465G	-30.26	1
2412MHz	Pass	2.4395G	13.24	-16.76	2.30525G	-56.08	2.39948G	-29.32	2.4863G	-53.15	3.21465G	-40.34	2
2437MHz	Pass	2.4395G	13.24	-16.76	811.42M	-55.03	2.39984G	-43.26	2.49602G	-48.72	3.24837G	-33.00	1
2437MHz	Pass	2.4395G	13.24	-16.76	2.30379G	-56.36	2.39882G	-46.61	2.4845G	-50.44	3.24837G	-42.35	2
2462MHz	Pass	2.4395G	13.24	-16.76	825.4M	-55.69	2.39996G	-50.58	2.48352G	-37.82	3.28208G	-32.34	1
2462MHz	Pass	2.4395G	13.24	-16.76	2.17331G	-56.65	2.39666G	-53.53	2.48452G	-39.37	3.28208G	-42.23	2
VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.44826G	7.58	-22.42	2.19663G	-55.95	2.39828G	-38.54	2.55994G	-46.96	3.22818G	-32.38	1
2422MHz	Pass	2.44826G	7.58	-22.42	2.30225G	-56.80	2.39952G	-39.33	2.4871G	-52.12	3.22818G	-40.56	2
2437MHz	Pass	2.44826G	7.58	-22.42	817.47M	-56.18	2.39956G	-38.46	2.55998G	-45.65	3.25062G	-31.96	1
2437MHz	Pass	2.44826G	7.58	-22.42	2.18203G	-55.81	2.39952G	-36.79	2.48422G	-48.91	3.25062G	-41.82	2
2452MHz	Pass	2.44826G	7.58	-22.42	2.30283G	-56.08	2.39996G	-49.08	2.4845G	-43.55	3.27025G	-35.92	1
2452MHz	Pass	2.44826G	7.58	-22.42	2.30397G	-55.95	2.39824G	-49.88	2.48538G	-46.76	3.27025G	-40.80	2

802.11b_Nss1,(1Mbps)_2TX **CSE NdB**

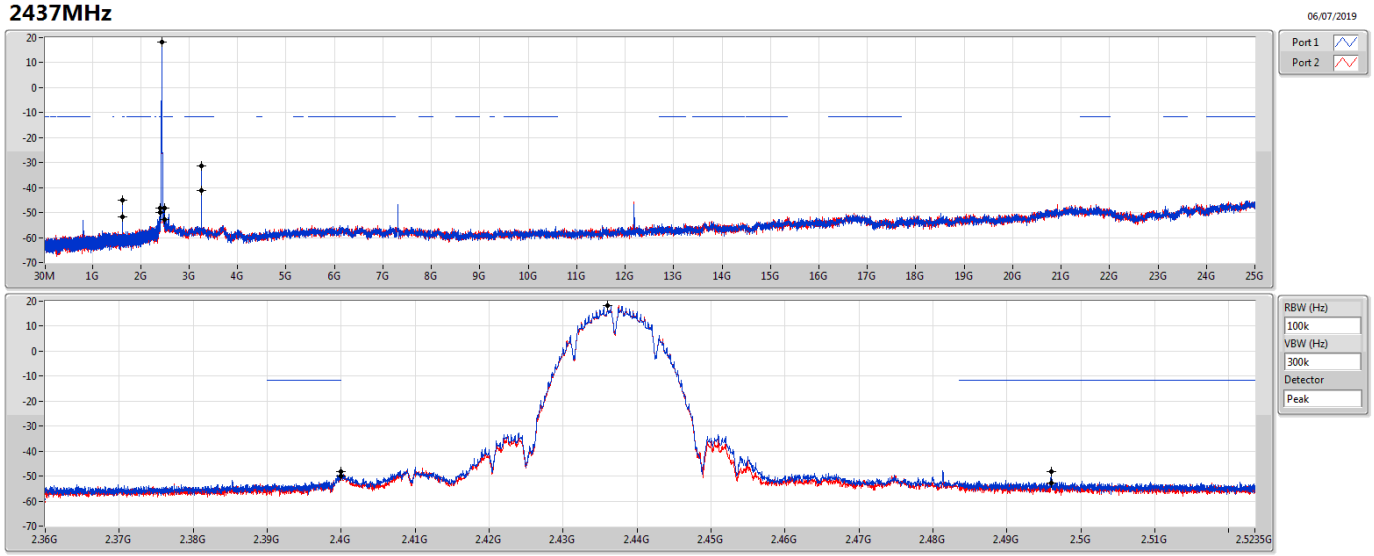
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43599G	18.40	-11.60	801.81M	-52.57	2.39752G	-31.63	2.49598G	-49.96	3.21465G	-31.54	1
2.43599G	18.40	-11.60	2.19253G	-55.61	2.3975G	-32.56	2.49458G	-53.05	3.21465G	-40.59	2

802.11b_Nss1,(1Mbps)_2TX **CSE NdB**

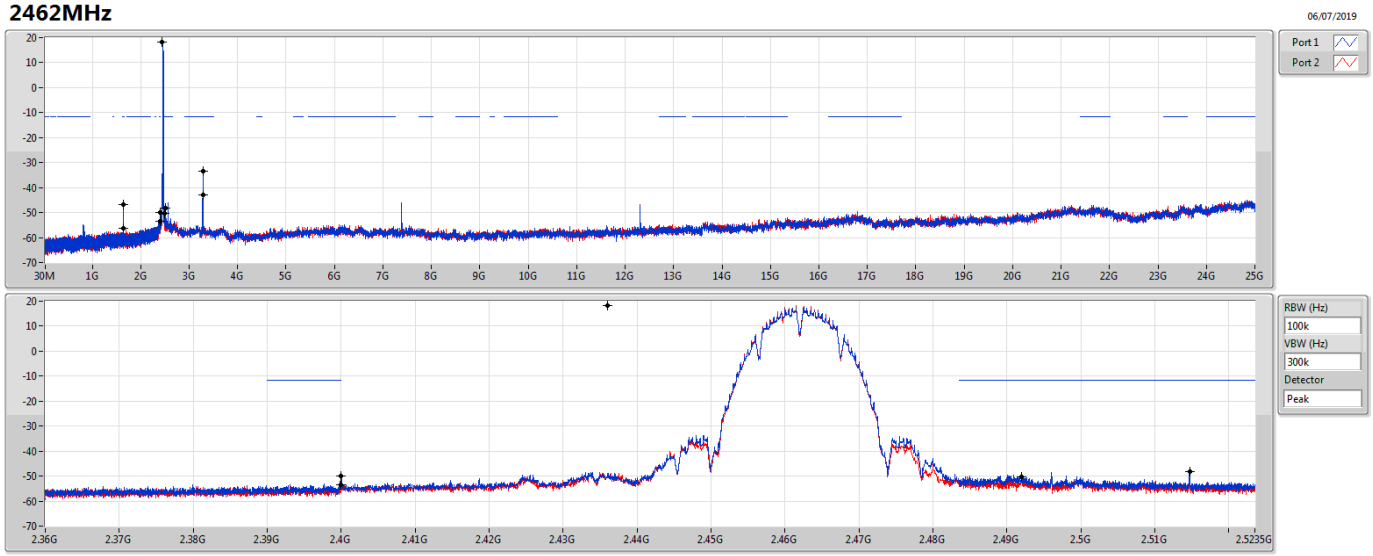
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43599G	18.40	-11.60	1.62372G	-45.17	2.3999G	-48.23	2.49596G	-48.15	3.24837G	-31.33	1
2.43599G	18.40	-11.60	1.62372G	-51.70	2.39998G	-49.80	2.49598G	-52.77	3.24837G	-41.08	2

802.11b_Nss1,(1Mbps)_2TX **CSE NdB**

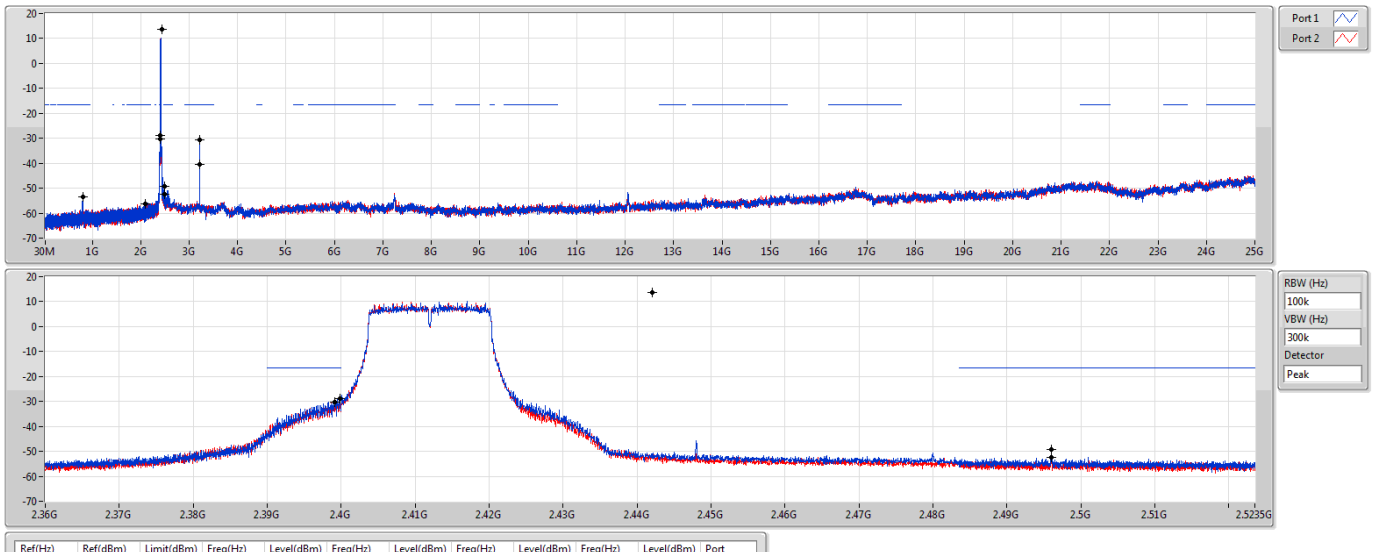
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43599G	18.40	-11.60	1.64032G	-46.72	2.39996G	-50.03	2.51468G	-48.13	3.28208G	-33.39	1
2.43599G	18.40	-11.60	1.64032G	-56.34	2.39994G	-53.65	2.49198G	-50.34	3.28208G	-42.94	2

802.11g_Nss1,(6Mbps)_2TX **CSE NdB**

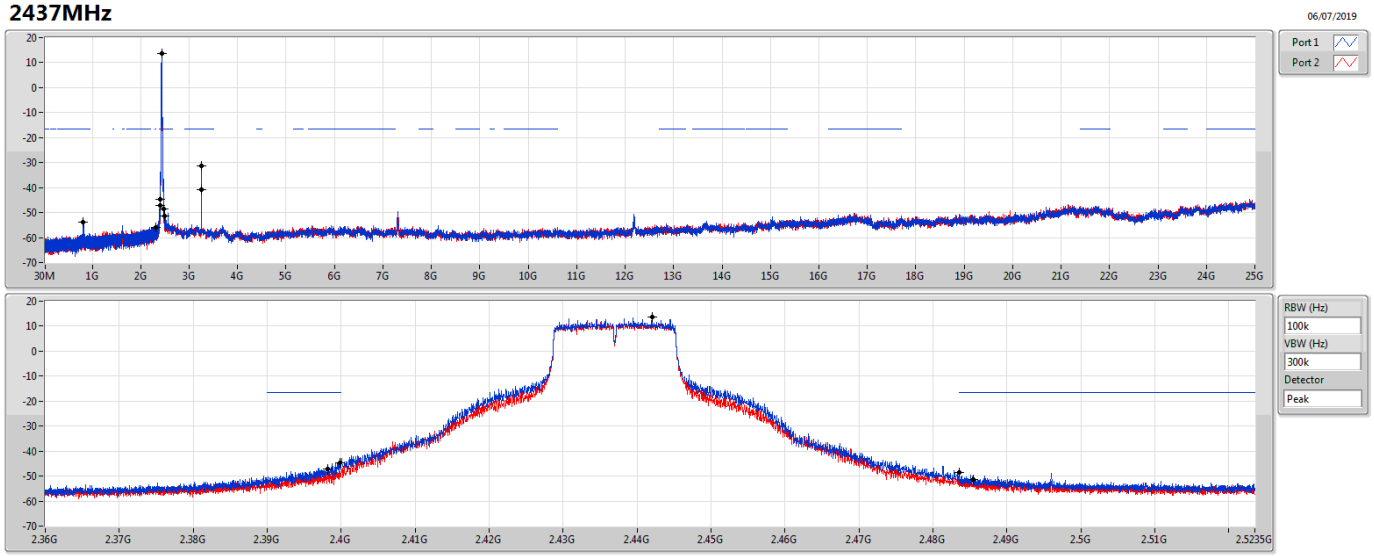
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.442G	13.52	-16.48	800.07M	-53.60	2.39984G	-28.91	2.49602G	-49.10	3.21465G	-30.49	1
2.442G	13.52	-16.48	2.08826G	-56.25	2.3991G	-30.44	2.49598G	-52.30	3.21465G	-40.41	2

802.11g_Nss1,(6Mbps)_2TX **CSE NdB**

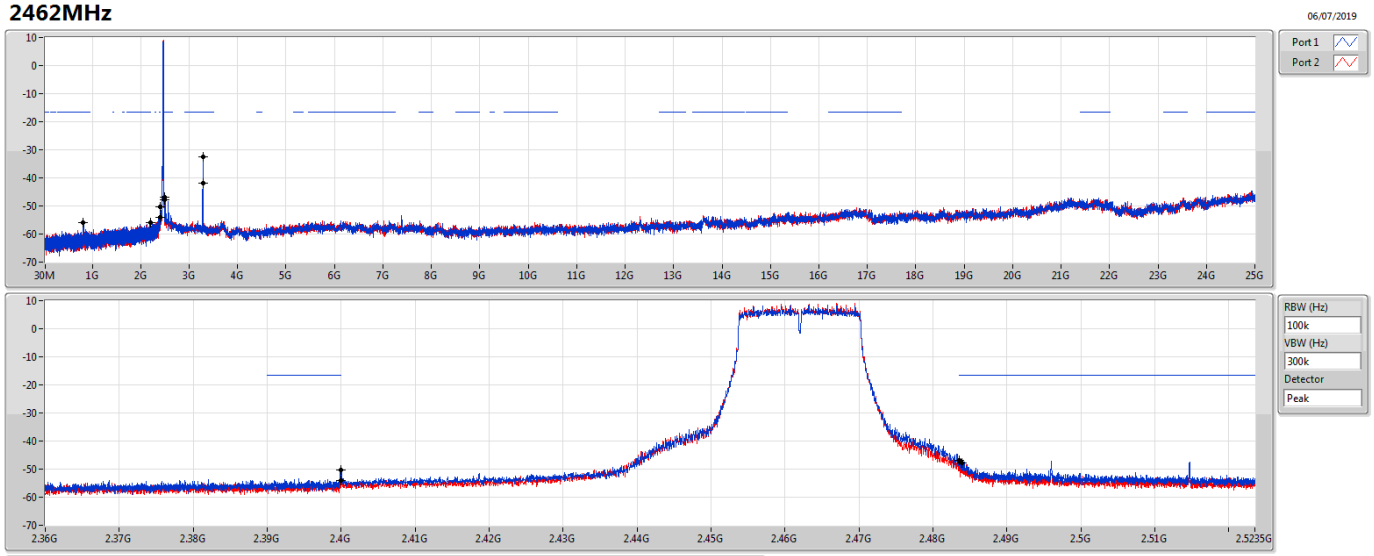
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.442G	13.52	-16.48	805.6M	-53.94	2.39982G	-44.58	2.48352G	-48.39	3.24837G	-31.45	1
2.442G	13.52	-16.48	2.30379G	-55.87	2.3982G	-47.10	2.48546G	-51.29	3.24837G	-40.80	2

802.11g_Nss1,(6Mbps)_2TX **CSE NdB**

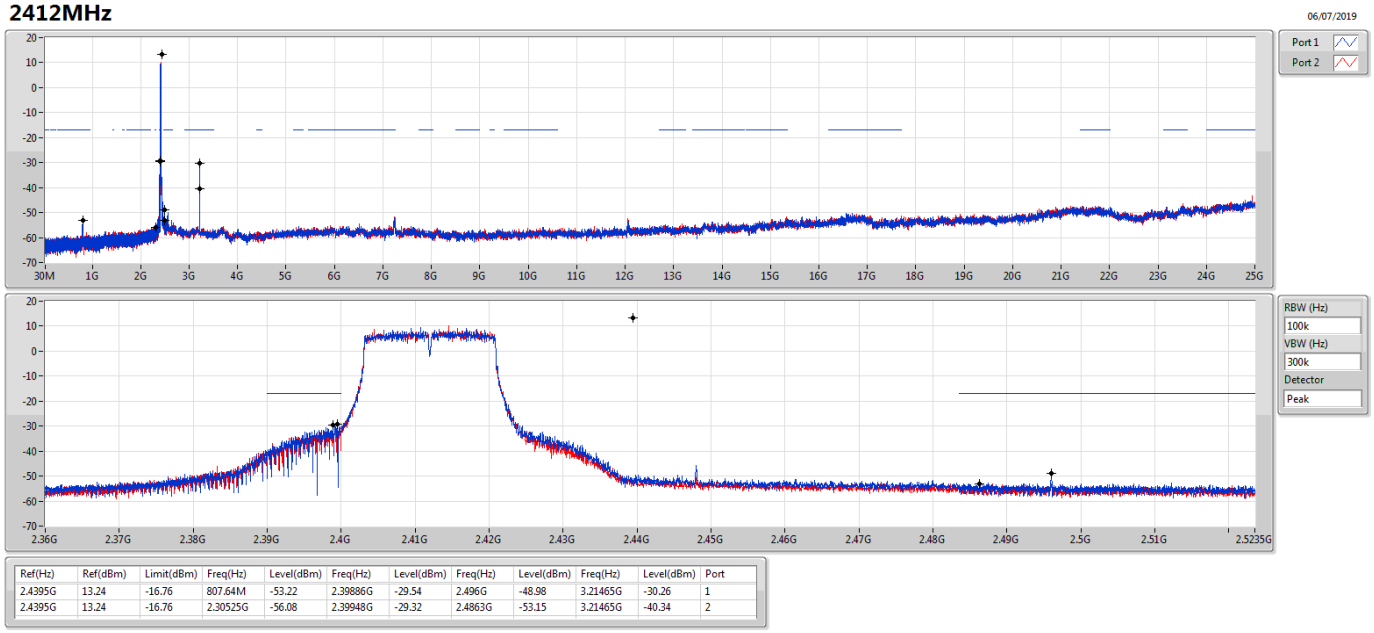
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.442G	13.52	-16.48	817.25M	-55.79	2.39998G	-50.23	2.48356G	-46.84	3.28208G	-32.42	1
2.442G	13.52	-16.48	2.19719G	-55.99	2.39996G	-54.02	2.48388G	-47.76	3.28208G	-41.99	2

VHT20-BF_Nss1,(MCS0)_2TX **CSE NdB**

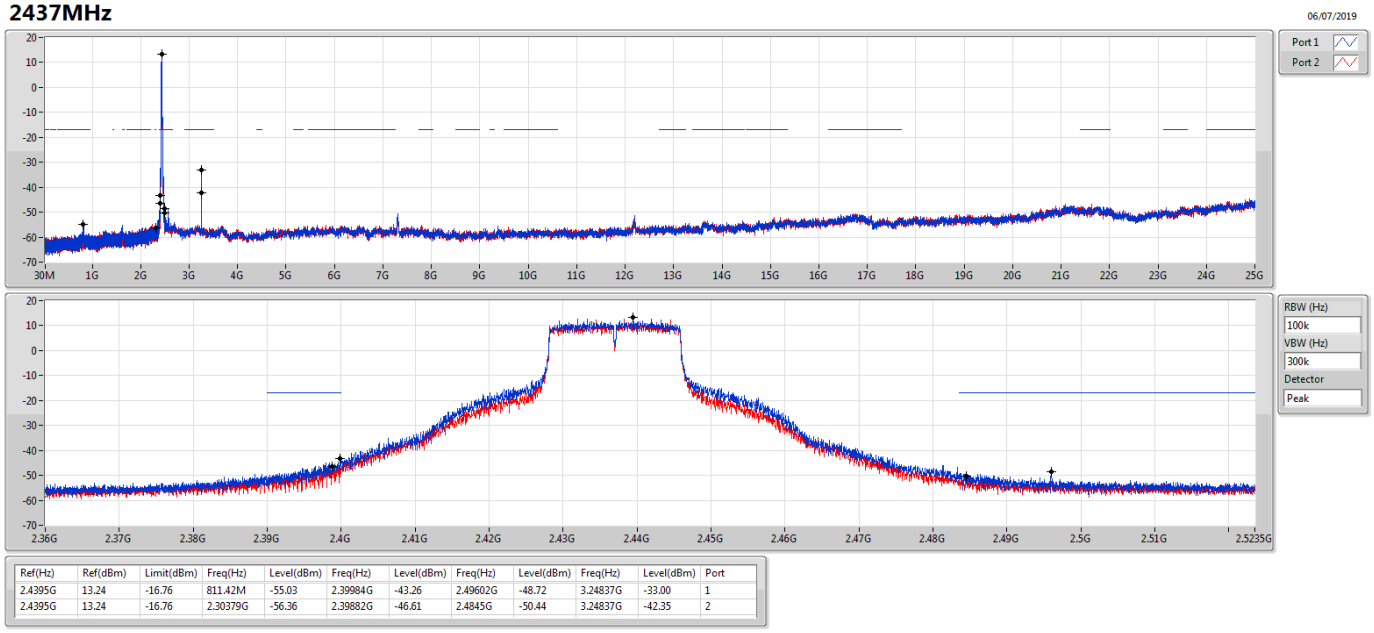
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4395G	13.24	-16.76	807.64M	-53.22	2.39886G	-29.54	2.496G	-48.98	3.21465G	-30.26	1
2.4395G	13.24	-16.76	2.30525G	-56.08	2.39948G	-29.32	2.4863G	-53.15	3.21465G	-40.34	2

VHT20-BF_Nss1,(MCS0)_2TX **CSE NdB**

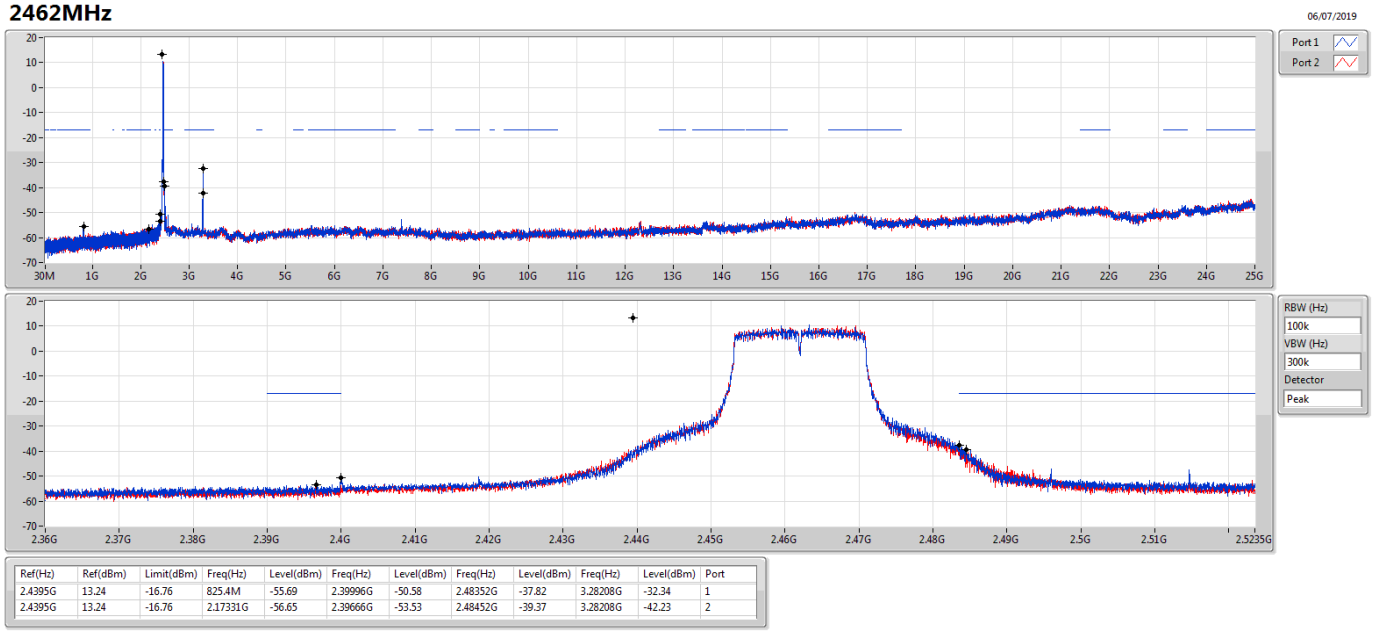
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4395G	13.24	-16.76	811.42M	-55.03	2.39984G	-43.26	2.49602G	-48.72	3.24837G	-33.00	1
2.4395G	13.24	-16.76	2.30379G	-56.36	2.39882G	-46.61	2.4845G	-50.44	3.24837G	-42.35	2

VHT20-BF_Nss1,(MCS0)_2TX **CSE NdB**

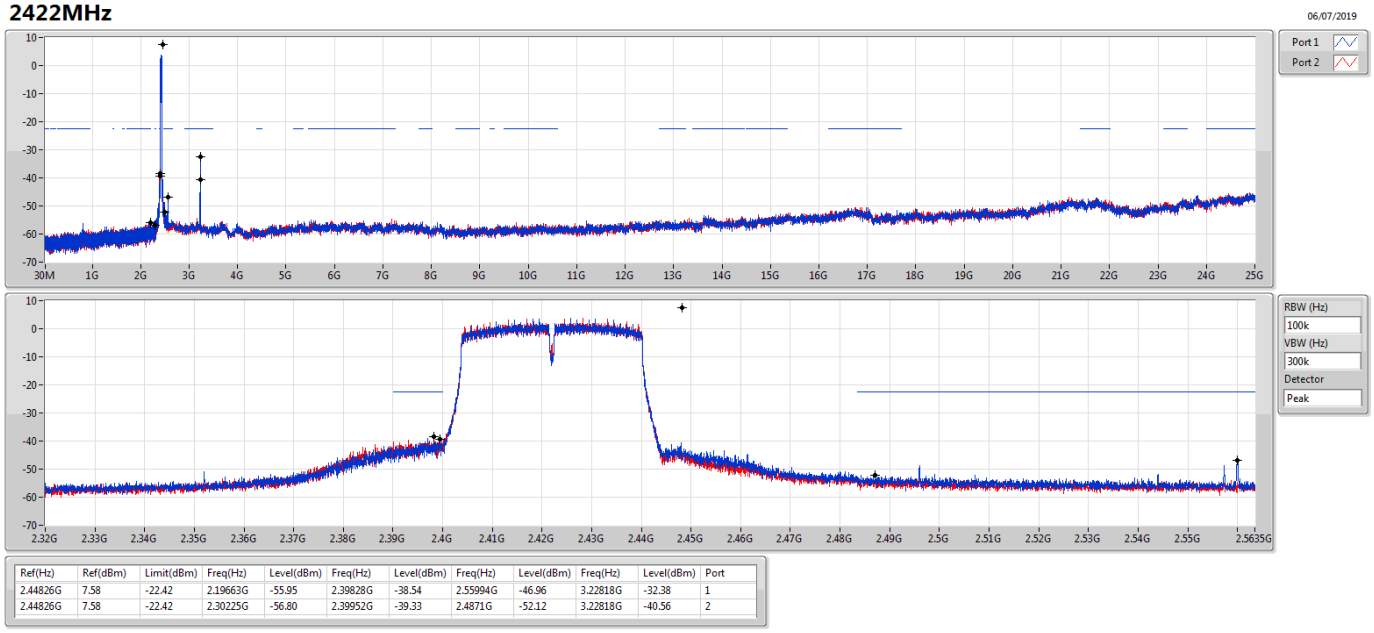
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4395G	13.24	-16.76	825.4M	-55.69	2.39996G	-50.58	2.48352G	-37.82	3.28208G	-32.34	1
2.4395G	13.24	-16.76	2.17331G	-56.65	2.39666G	-53.53	2.48452G	-39.37	3.28208G	-42.23	2

VHT40-BF_Nss1,(MCS0)_2TX **CSE NdB**

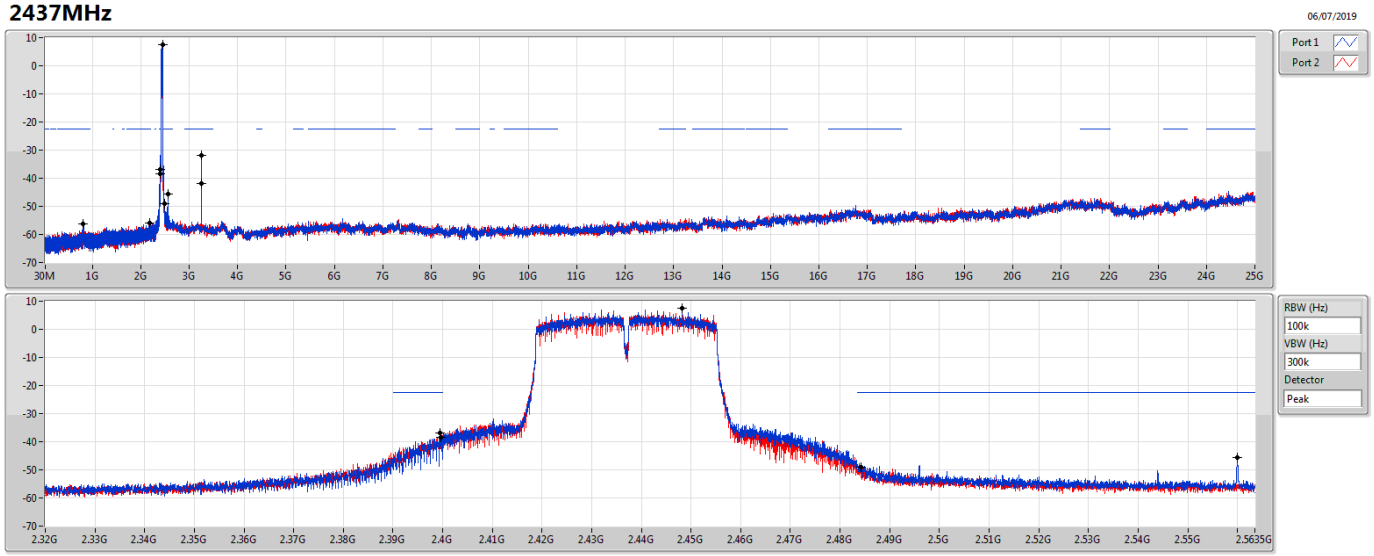
2422MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44826G	7.58	-22.42	2.19663G	-55.95	2.39828G	-38.54	2.55994G	-46.96	3.22818G	-32.38	1
2.44826G	7.58	-22.42	2.30225G	-56.80	2.39952G	-39.33	2.4871G	-52.12	3.22818G	-40.56	2

VHT40-BF_Nss1,(MCS0)_2TX **CSE NdB**

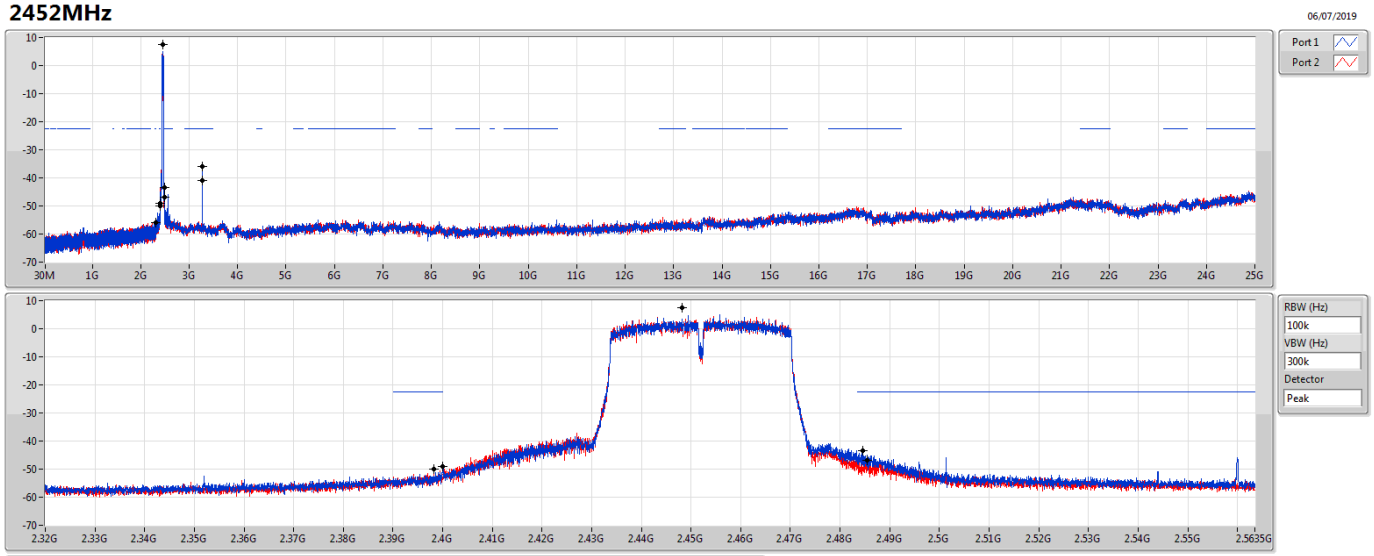
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44826G	7.58	-22.42	817.47M	-56.18	2.39956G	-38.46	2.55998G	-45.65	3.25062G	-31.96	1
2.44826G	7.58	-22.42	2.18203G	-55.81	2.39952G	-36.79	2.48422G	-48.91	3.25062G	-41.82	2

VHT40-BF_Nss1,(MCS0)_2TX **CSE NdB**

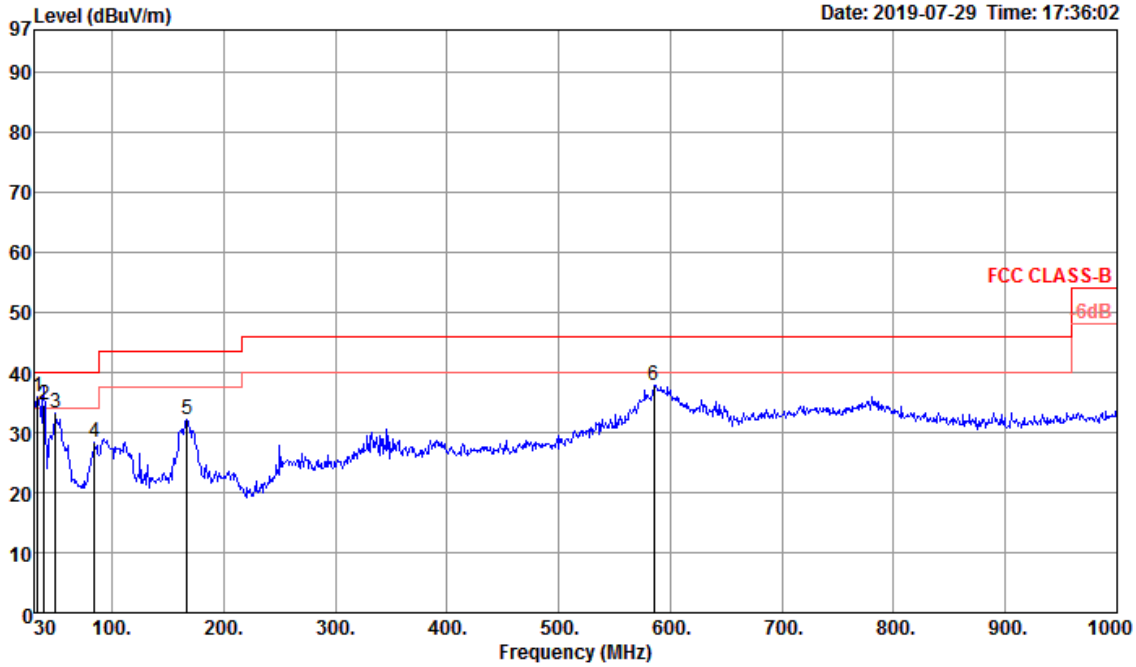
2452MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44826G	7.58	-22.42	2.30283G	-56.08	2.39996G	-49.08	2.4845G	-43.55	3.27025G	-35.92	1
2.44826G	7.58	-22.42	2.30397G	-55.95	2.39824G	-49.88	2.48538G	-46.76	3.27025G	-40.80	2

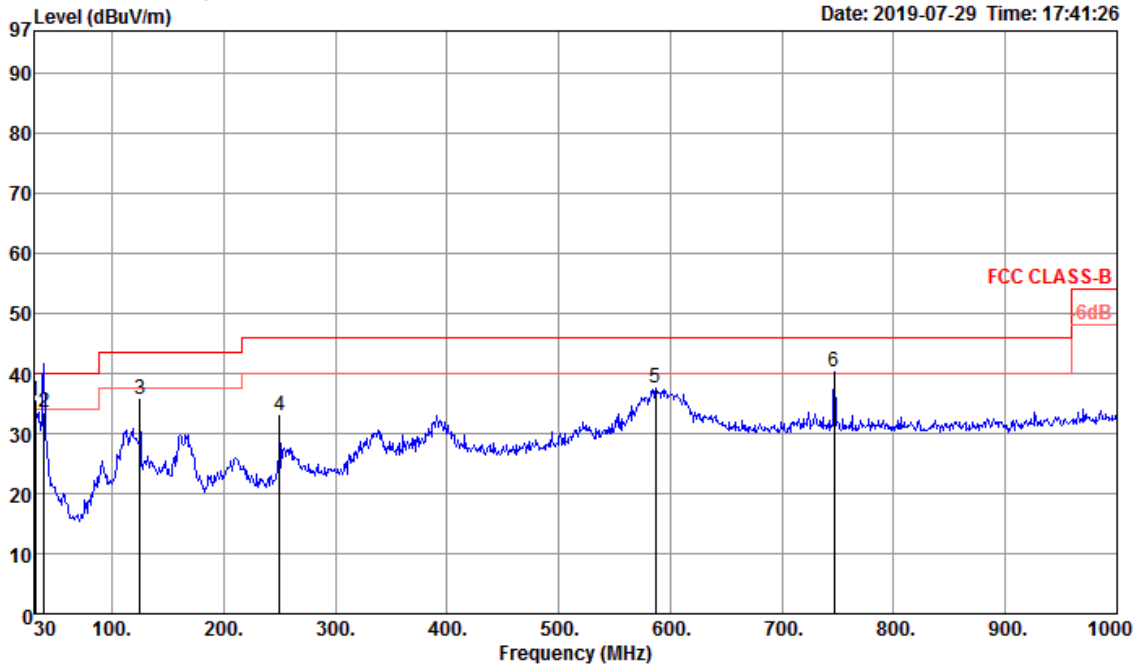
Test Mode	Mode 2	Frequency Range	30 MHz to 1,000 MHz

Vertical 30 MHz to 1,000 MHz



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	32.91	35.89	40.00	-4.11	40.92	0.67	22.87	28.57	300	0	Peak	VERTICAL
2	38.73	34.56	40.00	-5.44	42.71	0.73	19.69	28.57	134	55	QP	VERTICAL
3	49.40	33.24	40.00	-6.76	46.46	0.82	14.52	28.56	300	0	Peak	VERTICAL
4	84.32	28.42	40.00	-11.58	41.99	1.07	13.84	28.48	300	0	Peak	VERTICAL
5	166.77	32.23	43.50	-11.27	43.31	1.50	15.61	28.19	300	0	Peak	VERTICAL
6	584.84	37.93	46.00	-8.07	39.62	2.84	24.96	29.49	300	0	Peak	VERTICAL

Horizontal 30 MHz to 1,000 MHz



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	30.97	35.29	40.00	-4.71	39.35	0.65	23.86	28.57	100	0	Peak	HORIZONTAL
2	38.73	33.46	40.00	-6.54	41.61	0.73	19.69	28.57	131	17	QP	HORIZONTAL
3	125.06	35.70	43.50	-7.80	44.84	1.30	17.91	28.35	100	0	Peak	HORIZONTAL
4	250.19	32.93	46.00	-13.07	40.73	1.85	18.34	27.99	100	0	Peak	HORIZONTAL
5	586.78	37.65	46.00	-8.35	39.41	2.84	24.89	29.49	100	0	Peak	HORIZONTAL
6	746.83	40.24	46.00	-5.76	40.53	3.22	25.90	29.41	100	0	Peak	HORIZONTAL

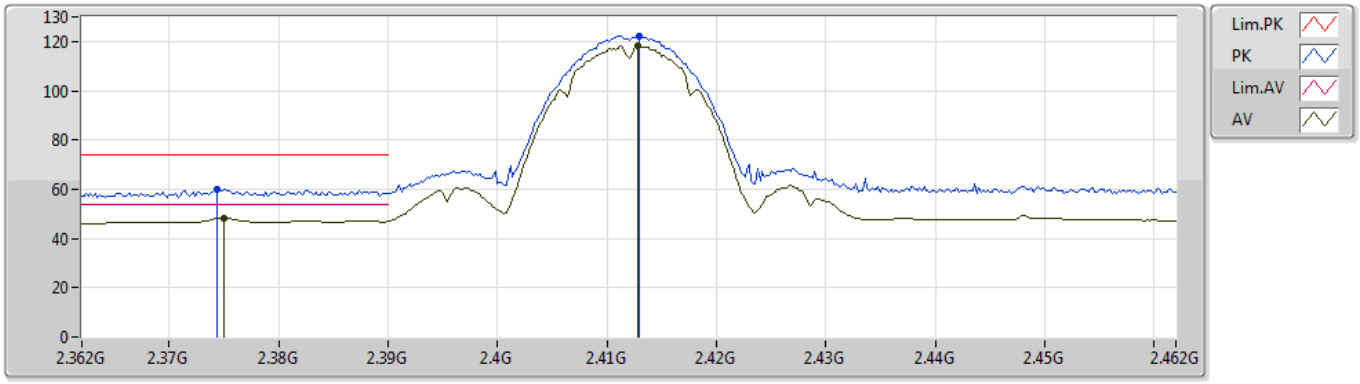
Summary

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	-	-	-	-	-	-	-	-	-	-	-	-
VHT40-BF_Nss1,(MCS0)_2TX	Pass	AV	2.3892G	53.93	54.00	-0.07	31.20	3	Vertical	360	1.53	-

802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

08/07/2019



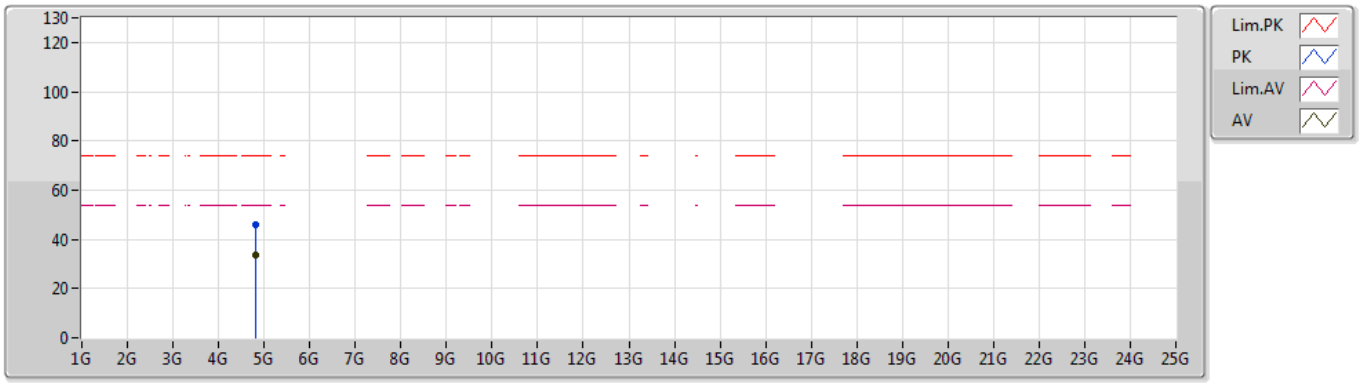
EUT Y_2TX
Setting 27
02-G-2
FSU(100015)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3744G	59.86	74.00	-14.14	31.16	3	Vertical	322	2.60	-
AV	2.375G	48.40	54.00	-5.60	31.17	3	Vertical	322	2.60	-
PK	2.413G	122.42	Inf	-Inf	31.26	3	Vertical	322	2.60	-
AV	2.4128G	118.16	Inf	-Inf	31.26	3	Vertical	322	2.60	-

802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

08/07/2019



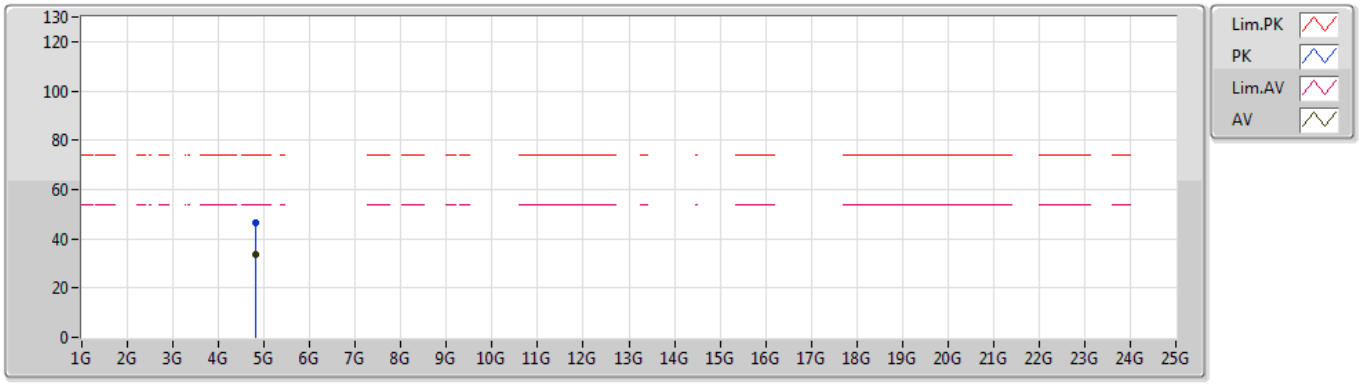
EUT Y_2TX
Setting 27
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.82296G	46.13	74.00	-27.87	4.71	3	Vertical	159	1.98	-
AV	4.82396G	33.90	54.00	-20.10	4.71	3	Vertical	159	1.98	-

802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

08/07/2019



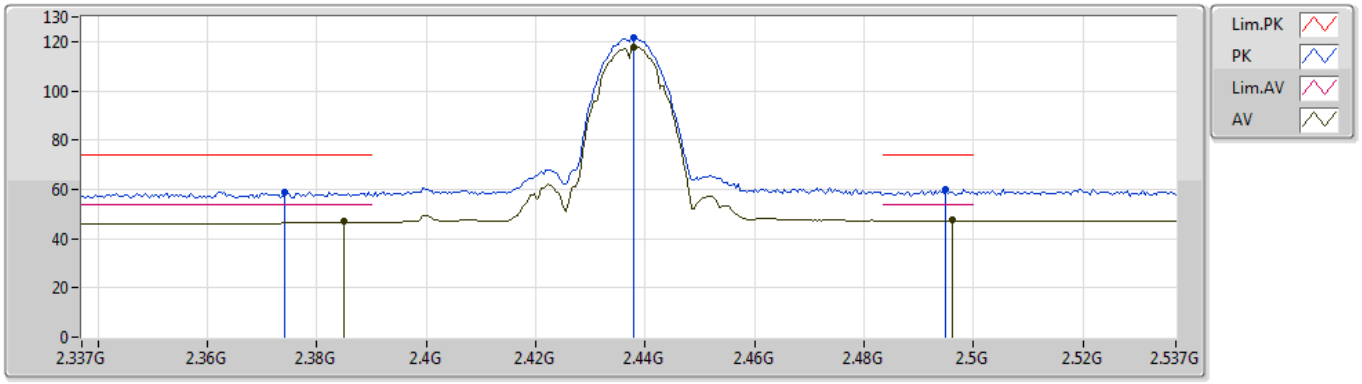
EUT Y_2TX
Setting 27
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.82384G	46.63	74.00	-27.37	4.71	3	Horizontal	77	2.02	-
AV	4.82404G	33.63	54.00	-20.37	4.71	3	Horizontal	77	2.02	-

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

08/07/2019



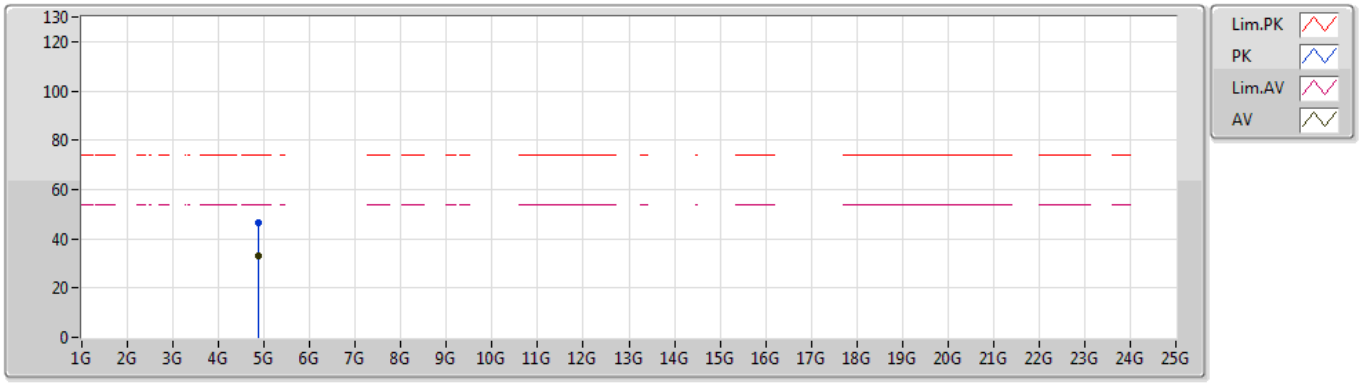
EUT Y_2TX
Setting 27
02-G-2
FSU(100015)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3742G	58.99	74.00	-15.01	31.16	3	Vertical	156	1.00	-
AV	2.385G	46.79	54.00	-7.21	31.19	3	Vertical	156	1.00	-
PK	2.4378G	121.79	Inf	-Inf	31.31	3	Vertical	156	1.00	-
AV	2.4378G	117.86	Inf	-Inf	31.31	3	Vertical	156	1.00	-
PK	2.495G	59.75	74.00	-14.25	31.42	3	Vertical	156	1.00	-
AV	2.4962G	47.76	54.00	-6.24	31.42	3	Vertical	156	1.00	-

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

08/07/2019



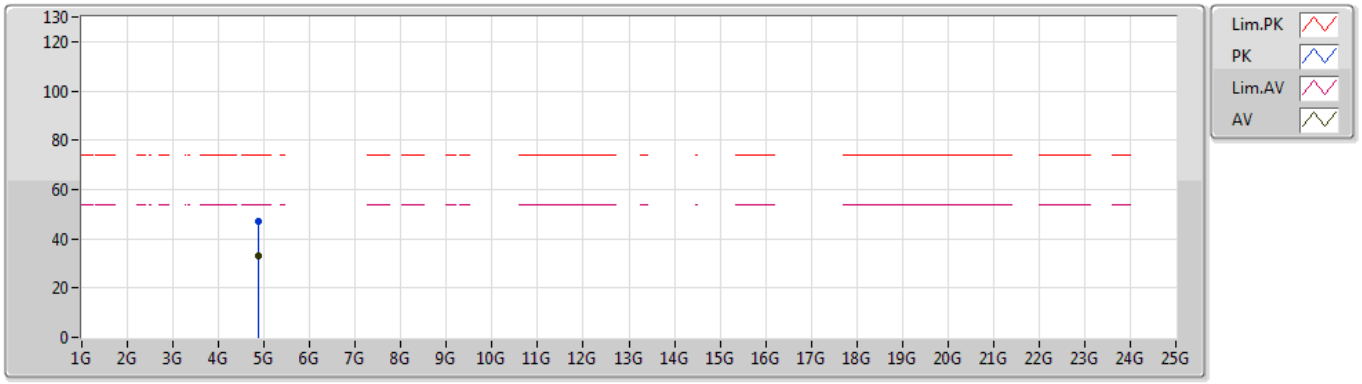
EUT Y_2TX
Setting 27
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.87192G	46.62	74.00	-27.38	4.79	3	Vertical	30	2.08	-
AV	4.8818G	32.87	54.00	-21.13	4.81	3	Vertical	30	2.08	-

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

08/07/2019



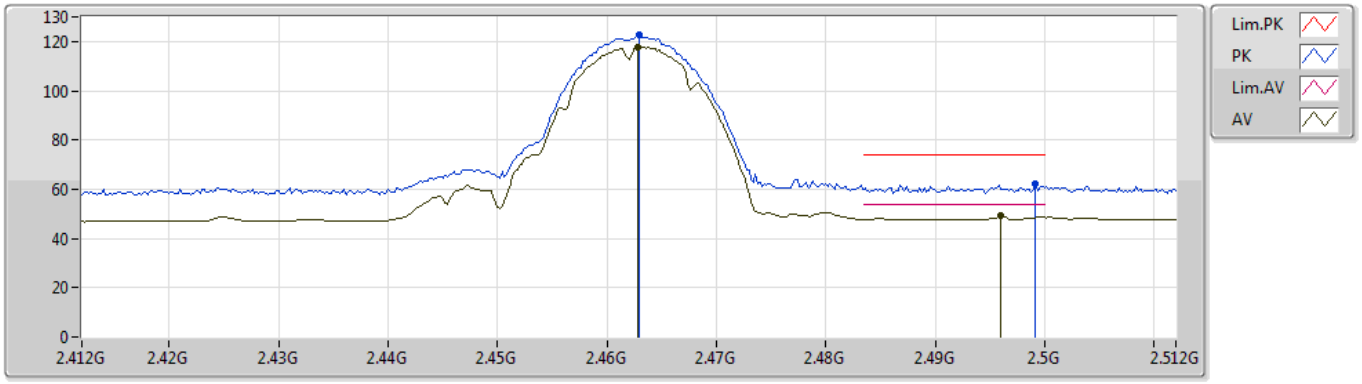
EUT Y_2TX
Setting 27
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.88396G	47.09	74.00	-26.91	4.82	3	Horizontal	198	2.23	-
AV	4.88344G	32.84	54.00	-21.16	4.82	3	Horizontal	198	2.23	-

802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

08/07/2019



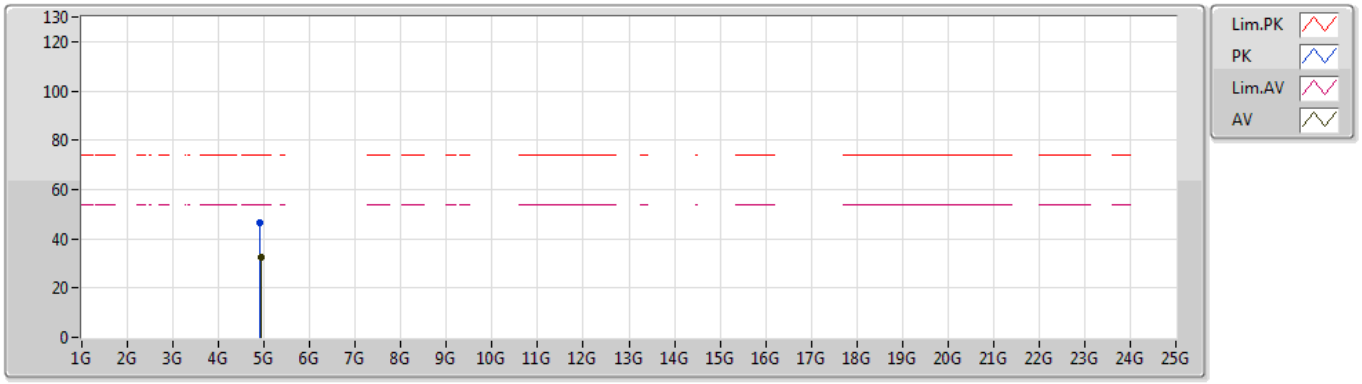
EUT Y_2TX
Setting 27
02-G-2
FSU(100015)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.463G	122.47	Inf	-Inf	31.36	3	Vertical	328	1.50	-
AV	2.4628G	117.95	Inf	-Inf	31.36	3	Vertical	328	1.50	-
PK	2.4992G	62.02	74.00	-11.98	31.43	3	Vertical	328	1.50	-
AV	2.496G	49.14	54.00	-4.86	31.42	3	Vertical	328	1.50	-

802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

08/07/2019



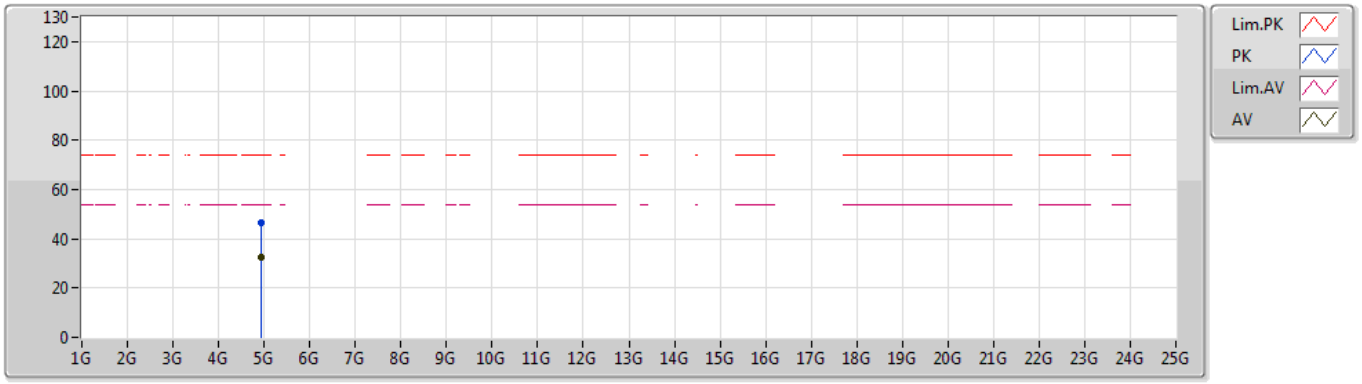
EUT Y_2TX
Setting 27
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.91648G	46.77	74.00	-27.23	4.88	3	Vertical	133	1.75	-
AV	4.93332G	32.62	54.00	-21.38	4.91	3	Vertical	133	1.75	-

802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

08/07/2019



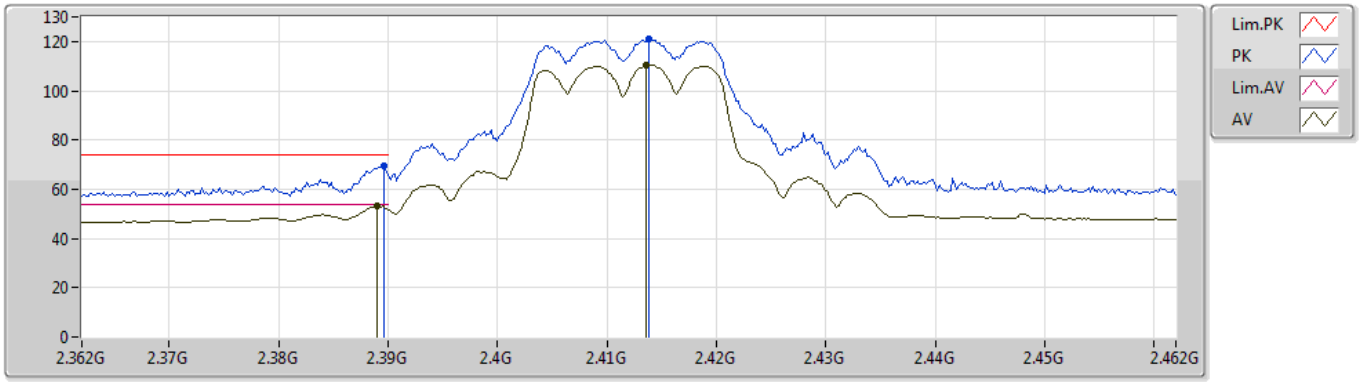
EUT Y_2TX
Setting 27
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.9206G	46.66	74.00	-27.34	4.89	3	Horizontal	2	2.06	-
AV	4.93368G	32.62	54.00	-21.38	4.91	3	Horizontal	2	2.06	-

802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

08/07/2019



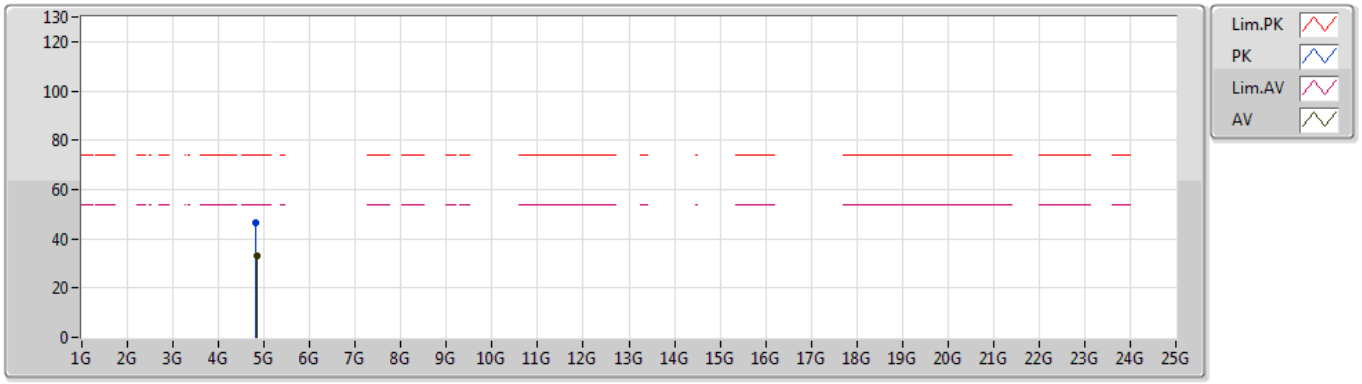
EUT Y_2TX
Setting 23
02-G-2
FSU(100015)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3896G	69.25	74.00	-4.75	31.20	3	Vertical	8	1.89	-
AV	2.389G	53.26	54.00	-0.74	31.20	3	Vertical	8	1.89	-
PK	2.4138G	121.00	Inf	-Inf	31.26	3	Vertical	8	1.89	-
AV	2.4136G	110.31	Inf	-Inf	31.26	3	Vertical	8	1.89	-

802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

08/07/2019



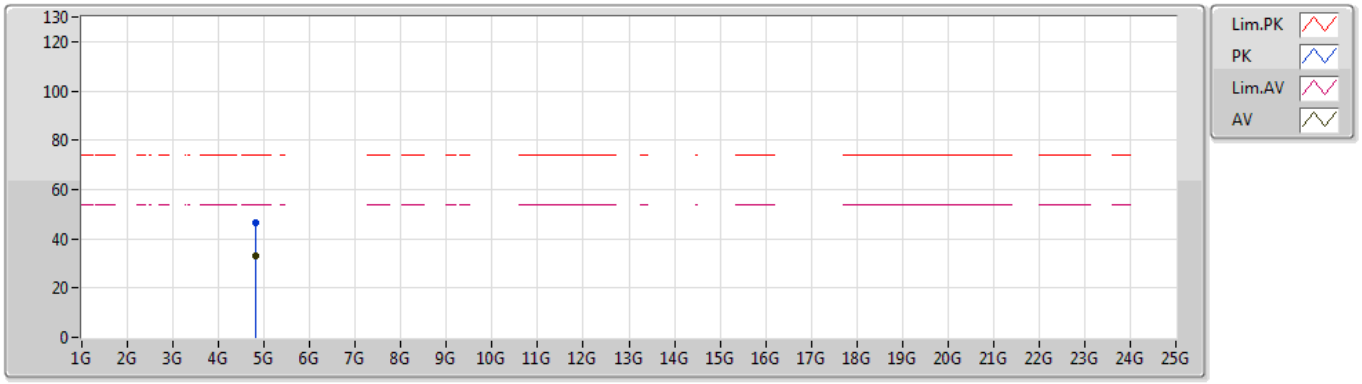
EUT Y_2TX
Setting 23
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.821G	46.61	74.00	-27.39	4.70	3	Vertical	160	2.38	-
AV	4.82932G	33.09	54.00	-20.91	4.72	3	Vertical	160	2.38	-

802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

08/07/2019



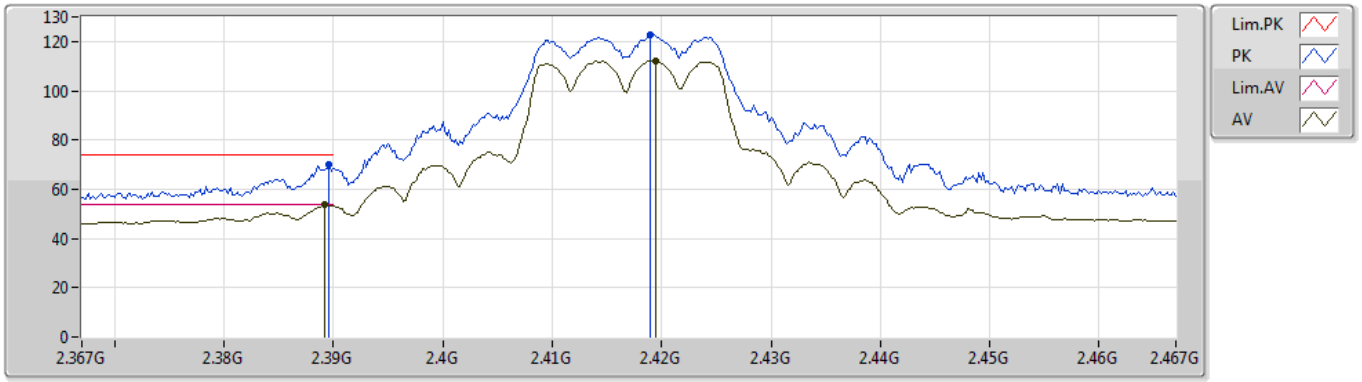
EUT Y_2TX
Setting 23
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.82476G	46.25	74.00	-27.75	4.71	3	Horizontal	279	1.26	-
AV	4.8234G	32.91	54.00	-21.09	4.71	3	Horizontal	279	1.26	-

802.11g_Nss1,(6Mbps)_2TX

2417MHz_TX

08/07/2019



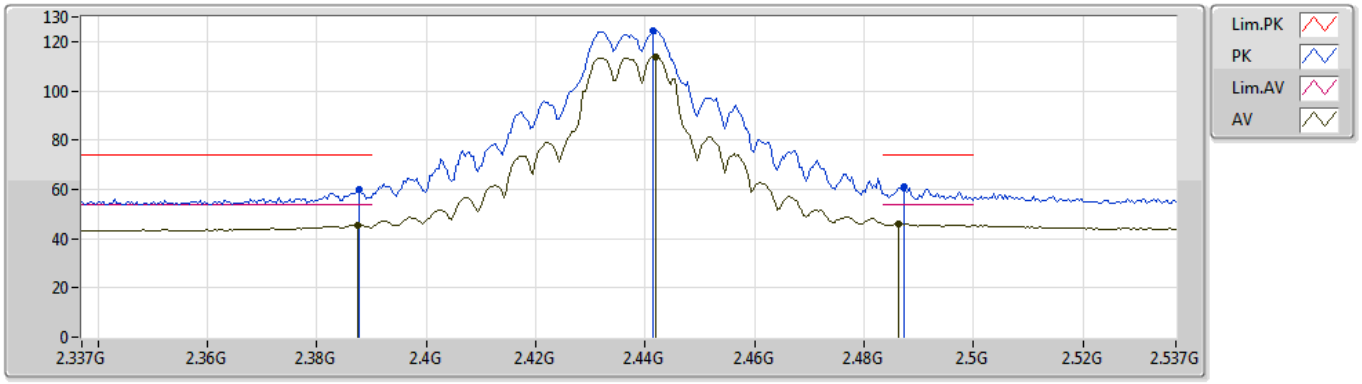
EUT Y_2TX
Setting 24
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3896G	70.31	74.00	-3.69	31.93	3	Vertical	320	1.94	-
AV	2.3892G	53.56	54.00	-0.44	31.93	3	Vertical	320	1.94	-
PK	2.419G	122.62	Inf	-Inf	32.03	3	Vertical	320	1.94	-
AV	2.4194G	112.14	Inf	-Inf	32.03	3	Vertical	320	1.94	-

802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

12/07/2019



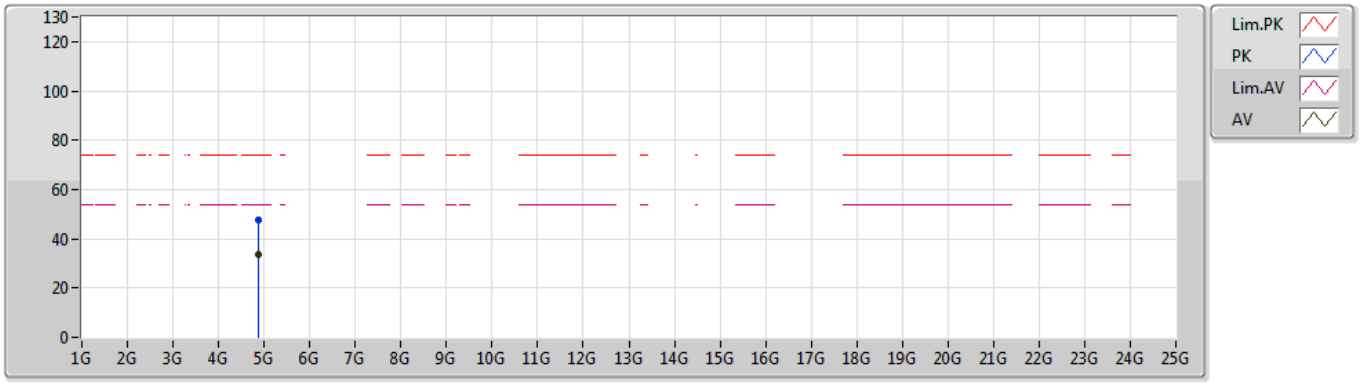
EUT Y_2TX
Setting 27
04-W-3
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3878G	60.17	74.00	-13.83	29.84	3	Vertical	136	2.18	-
AV	2.3874G	45.57	54.00	-8.43	29.84	3	Vertical	136	2.18	-
PK	2.4414G	124.46	Inf	-Inf	29.94	3	Vertical	136	2.18	-
AV	2.4418G	113.77	Inf	-Inf	29.94	3	Vertical	136	2.18	-
PK	2.4874G	61.27	74.00	-12.73	30.05	3	Vertical	136	2.18	-
AV	2.4862G	45.96	54.00	-8.04	30.05	3	Vertical	136	2.18	-

802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

12/07/2019



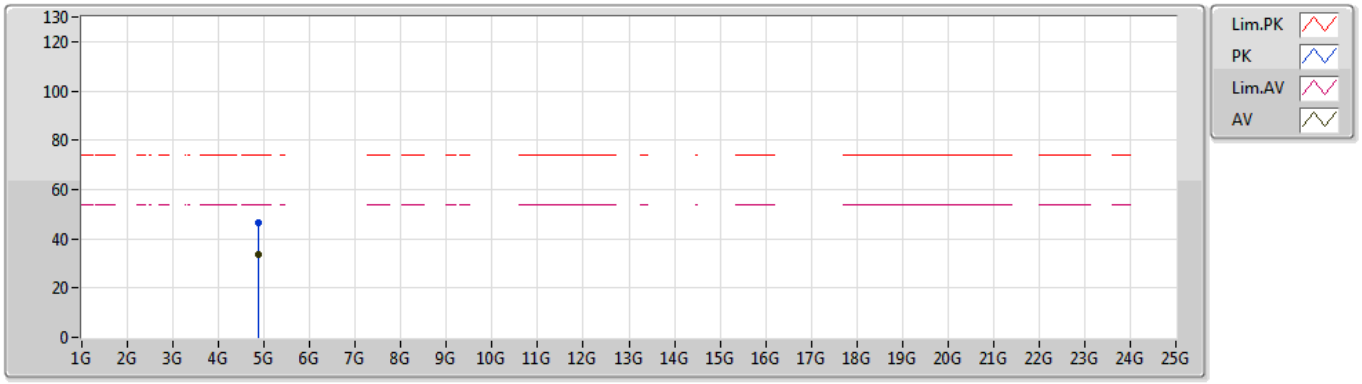
EUT Y_2TX
Setting 27
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.8764G	47.45	74.00	-26.55	4.80	3	Vertical	81	1.39	-
AV	4.87676G	33.53	54.00	-20.47	4.80	3	Vertical	81	1.39	-

802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

12/07/2019



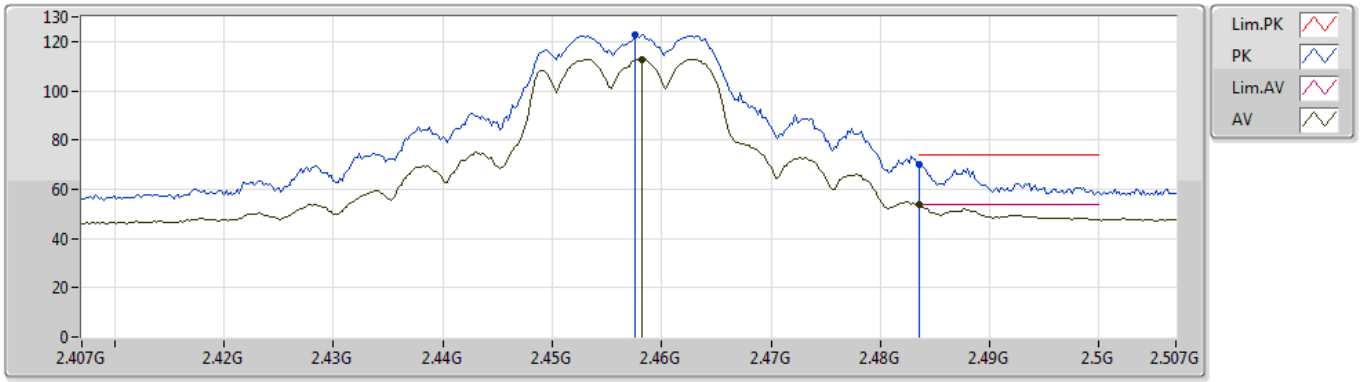
EUT Y_2TX
Setting 27
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.88384G	46.68	74.00	-27.32	4.82	3	Horizontal	5	2.04	-
AV	4.88148G	33.41	54.00	-20.59	4.81	3	Horizontal	5	2.04	-

802.11g_Nss1,(6Mbps)_2TX

2457MHz_TX

08/07/2019



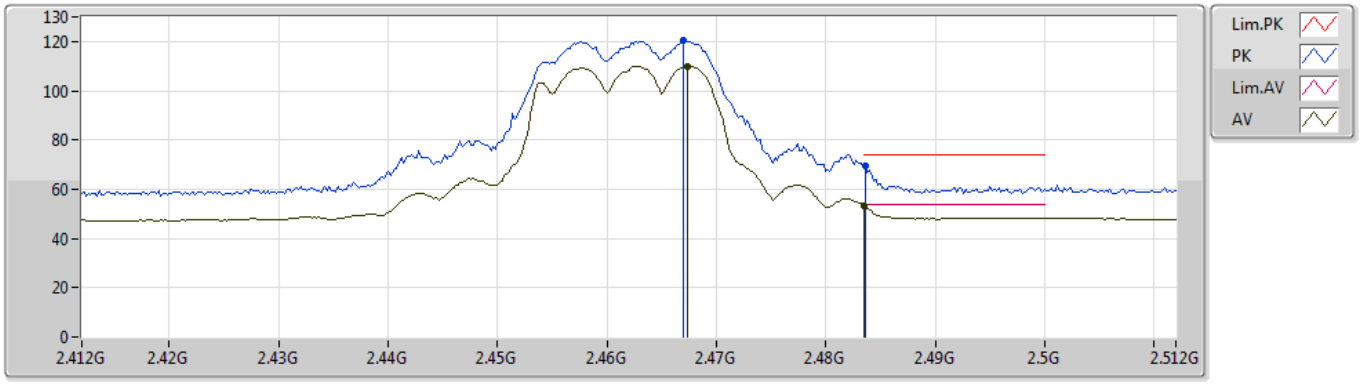
EUT Y_2TX
Setting 24
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.4576G	122.74	Inf	-Inf	32.16	3	Vertical	5	1.92	-
AV	2.4582G	112.77	Inf	-Inf	32.16	3	Vertical	5	1.92	-
PK	2.4836G	70.02	74.00	-3.98	32.25	3	Vertical	5	1.92	-
AV	2.4835G	53.85	54.00	-0.15	32.25	3	Vertical	5	1.92	-

802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

08/07/2019



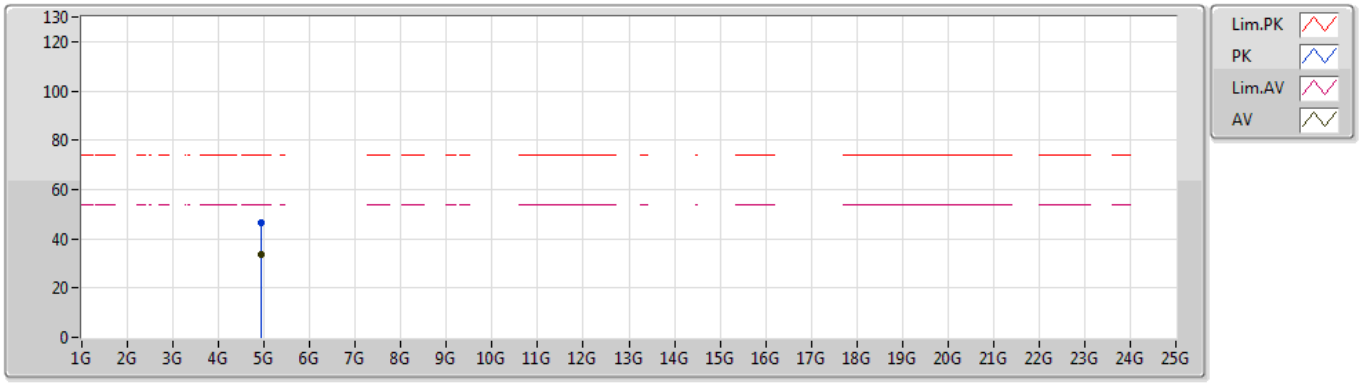
EUT Y_2TX
Setting 22
02-G-2
FSU(100015)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.467G	120.26	Inf	-Inf	31.37	3	Vertical	126	1.55	-
AV	2.4674G	110.00	Inf	-Inf	31.37	3	Vertical	126	1.55	-
PK	2.4836G	69.61	74.00	-4.39	31.39	3	Vertical	126	1.55	-
AV	2.4835G	53.27	54.00	-0.73	31.39	3	Vertical	126	1.55	-

802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

08/07/2019



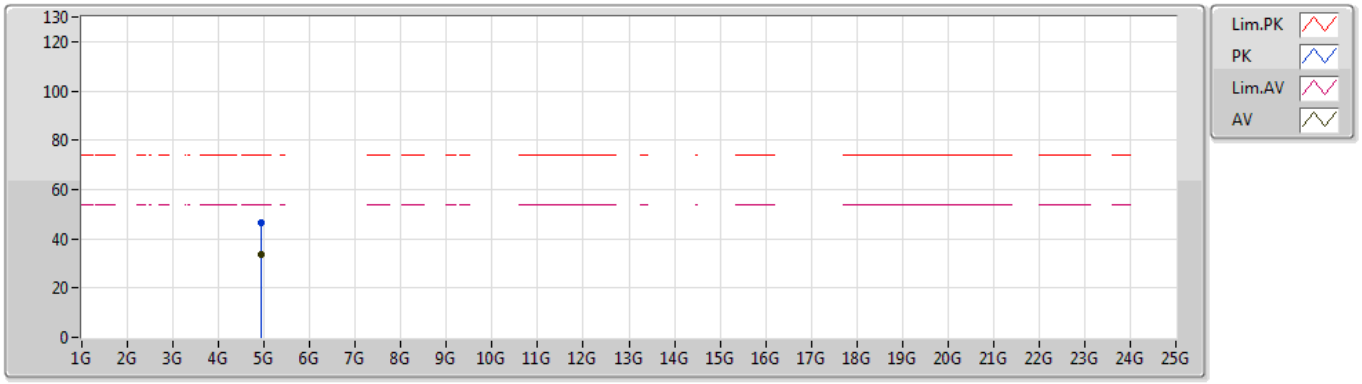
EUT Y_2TX
Setting 22
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.9324G	46.50	74.00	-27.50	4.90	3	Vertical	262	1.70	-
AV	4.9276G	33.39	54.00	-20.61	4.90	3	Vertical	262	1.70	-

802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

08/07/2019



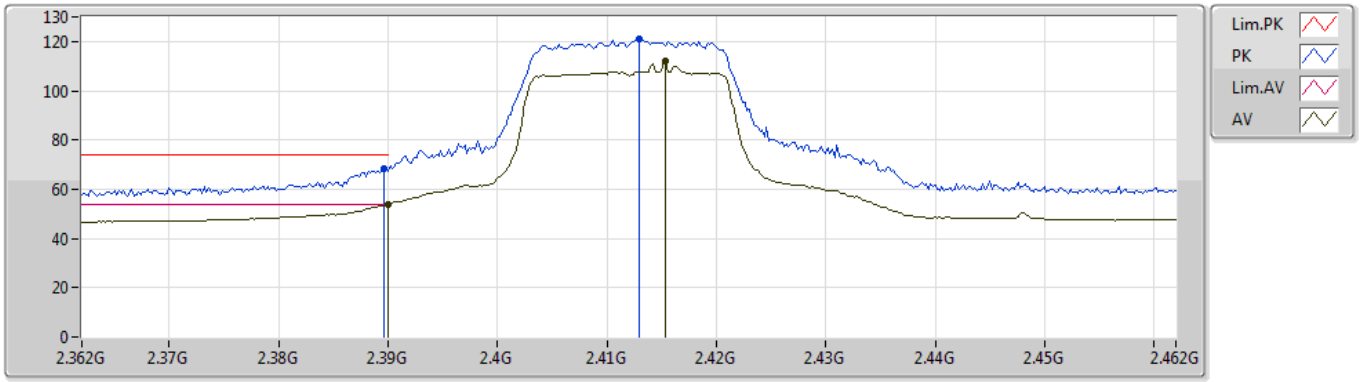
EUT Y_2TX
Setting 22
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.93112G	46.42	74.00	-27.58	4.90	3	Horizontal	260	2.36	-
AV	4.93372G	33.50	54.00	-20.50	4.91	3	Horizontal	260	2.36	-

VHT20-BF_Nss1,(MCS0)_2TX

2412MHz_TX

08/07/2019



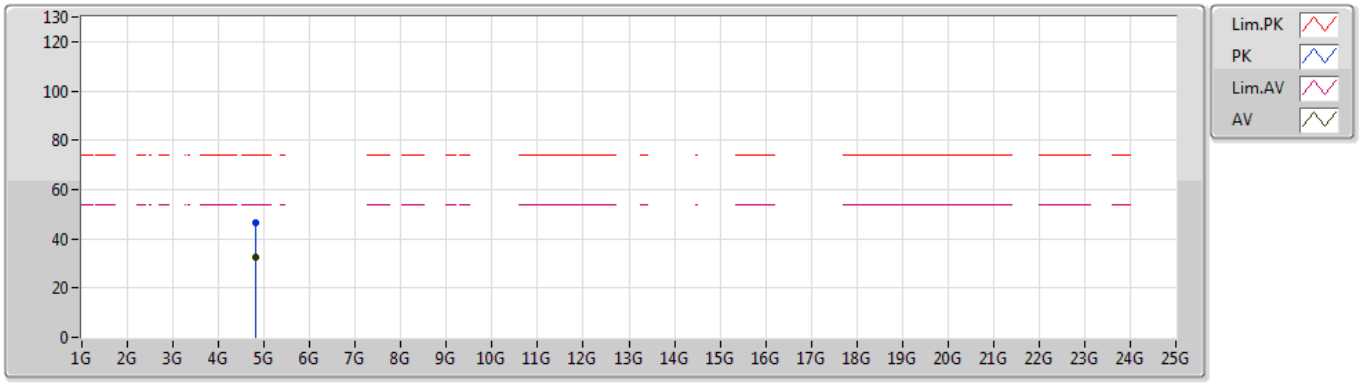
EUT Y_2TX
Setting 26
02-G-2
FSU(100015)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3896G	68.26	74.00	-5.74	31.20	3	Vertical	133	2.36	-
AV	2.39G	53.88	54.00	-0.12	31.20	3	Vertical	133	2.36	-
PK	2.413G	120.93	Inf	-Inf	31.26	3	Vertical	133	2.36	-
AV	2.4154G	112.20	Inf	-Inf	31.26	3	Vertical	133	2.36	-

VHT20-BF_Nss1,(MCS0)_2TX

2412MHz_TX

08/07/2019



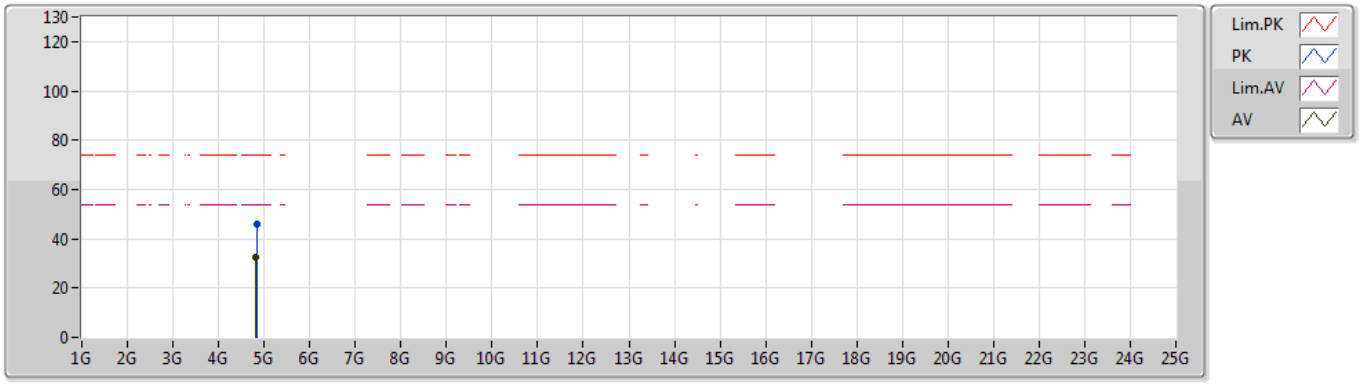
EUT Y_2TX
Setting 26
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.82384G	46.34	74.00	-27.66	4.71	3	Vertical	271	2.19	-
AV	4.82336G	32.49	54.00	-21.51	4.71	3	Vertical	271	2.19	-

VHT20-BF_Nss1,(MCS0)_2TX

2412MHz_TX

08/07/2019



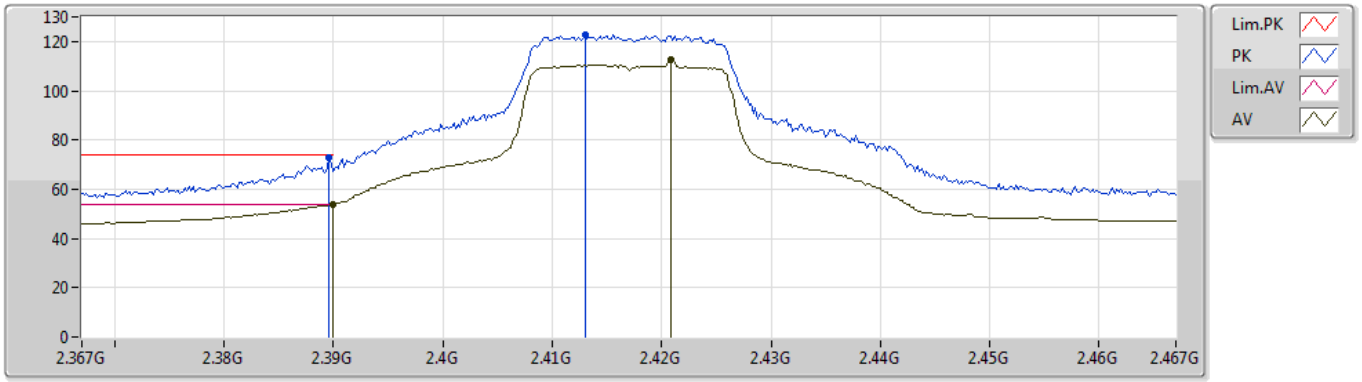
EUT Y_2TX
Setting 26
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.83308G	46.08	74.00	-27.92	4.73	3	Horizontal	146	1.59	-
AV	4.82384G	32.46	54.00	-21.54	4.71	3	Horizontal	146	1.59	-

VHT20-BF_Nss1,(MCS0)_2TX

2417MHz_TX

08/07/2019



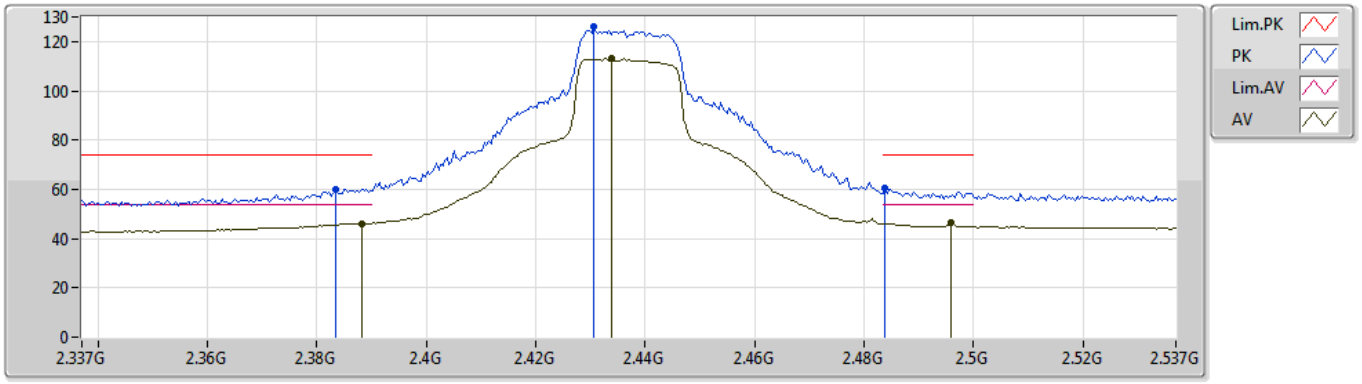
EUT Y_2TX
Setting 27
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3896G	72.57	74.00	-1.43	32.47	3	Vertical	136	2.13	-
AV	2.39G	53.91	54.00	-0.09	32.47	3	Vertical	136	2.13	-
PK	2.413G	122.61	Inf	-Inf	32.54	3	Vertical	136	2.13	-
AV	2.4208G	112.41	Inf	-Inf	32.56	3	Vertical	136	2.13	-

VHT20-BF_Nss1,(MCS0)_2TX

2437MHz_TX

12/07/2019



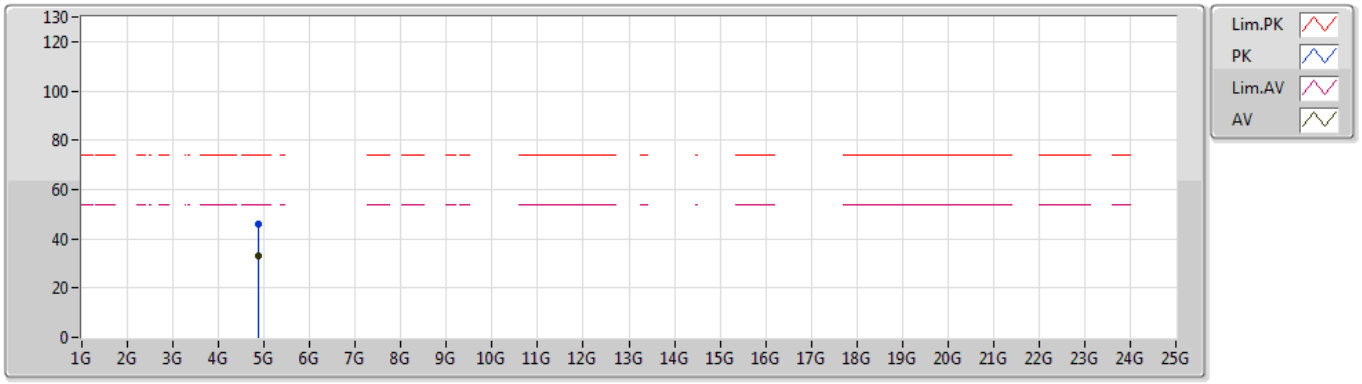
EUT Y_2TX
Setting 30
04-W-3
FSP(100019)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3834G	59.99	74.00	-14.01	29.85	3	Vertical	294	2.02	-
AV	2.3882G	46.09	54.00	-7.91	29.84	3	Vertical	294	2.02	-
PK	2.4306G	126.30	Inf	-Inf	29.92	3	Vertical	294	2.02	-
AV	2.4338G	113.24	Inf	-Inf	29.93	3	Vertical	294	2.02	-
PK	2.4838G	60.34	74.00	-13.66	30.05	3	Vertical	294	2.02	-
AV	2.4958G	46.31	54.00	-7.69	30.08	3	Vertical	294	2.02	-

VHT20-BF_Nss1,(MCS0)_2TX

2437MHz_TX

08/07/2019



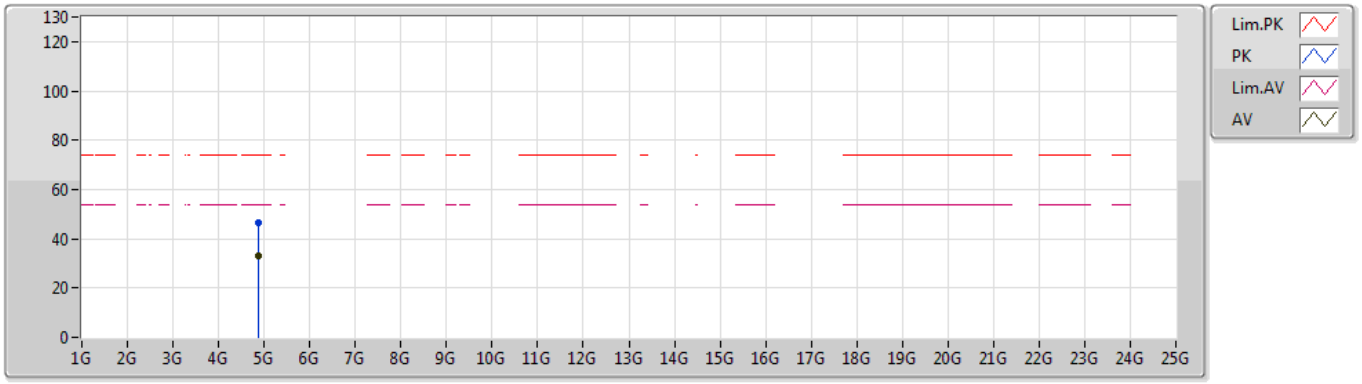
EUT Y_2TX
Setting 30
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.87972G	46.18	74.00	-27.82	4.81	3	Vertical	166	1.40	-
AV	4.88328G	32.95	54.00	-21.05	4.82	3	Vertical	166	1.40	-

VHT20-BF_Nss1,(MCS0)_2TX

2437MHz_TX

08/07/2019



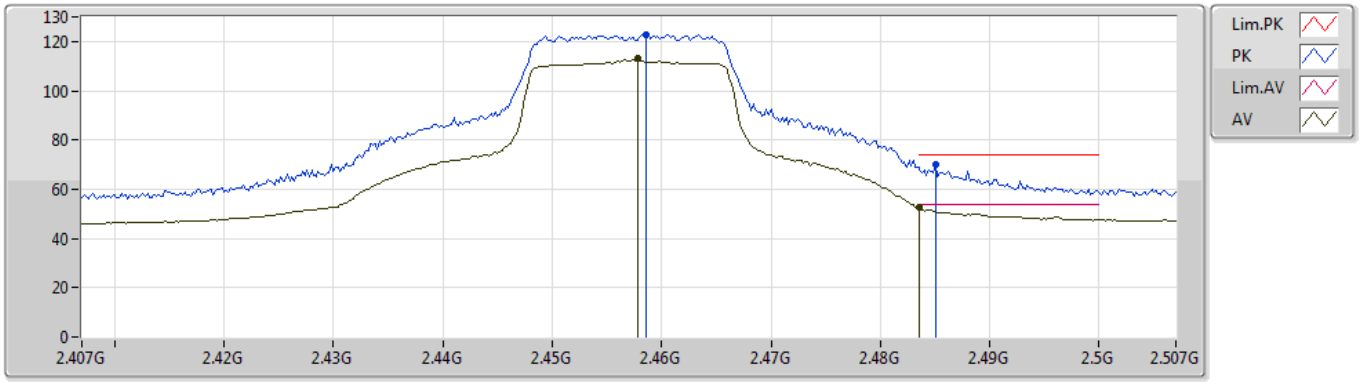
EUT Y_2TX
Setting 30
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.8838G	46.43	74.00	-27.57	4.82	3	Horizontal	290	2.00	-
AV	4.8718G	33.00	54.00	-21.00	4.79	3	Horizontal	290	2.00	-

VHT20-BF_Nss1,(MCS0)_2TX

2457MHz_TX

08/07/2019



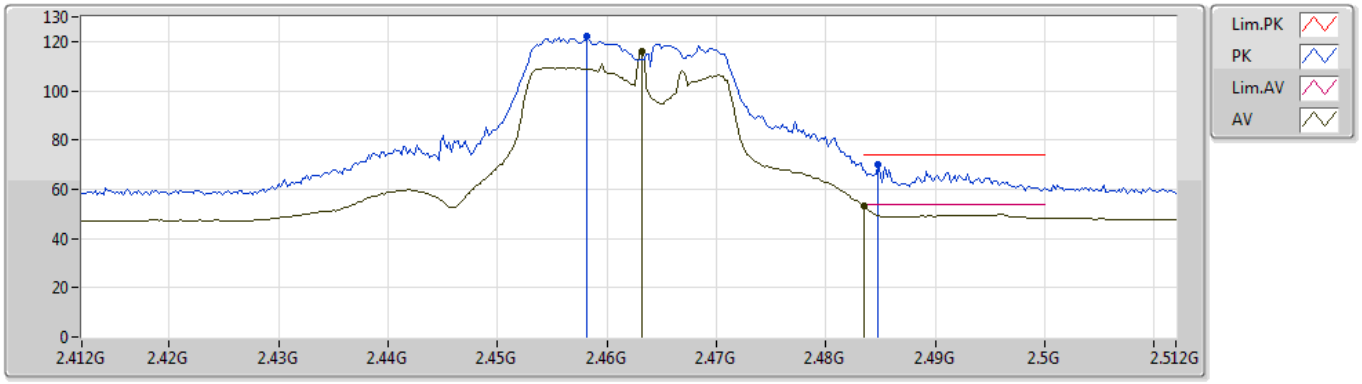
EUT Y_2TX
Setting 27
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.4586G	122.99	Inf	-Inf	32.70	3	Vertical	22	1.98	-
AV	2.4578G	112.97	Inf	-Inf	32.69	3	Vertical	22	1.98	-
PK	2.485G	70.29	74.00	-3.71	32.79	3	Vertical	22	1.98	-
AV	2.4836G	52.89	54.00	-1.11	32.78	3	Vertical	22	1.98	-

VHT20-BF_Nss1,(MCS0)_2TX

2462MHz_TX

08/07/2019



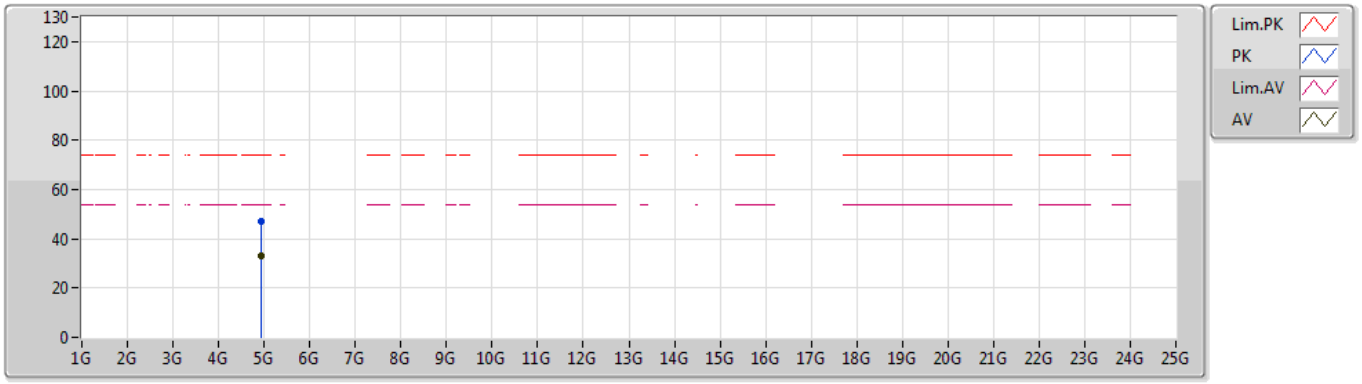
EUT Y_2TX
Setting 27
02-G-2
FSU(100015)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.4582G	121.99	Inf	-Inf	31.34	3	Vertical	331	1.50	-
AV	2.4632G	115.84	Inf	-Inf	31.36	3	Vertical	331	1.50	-
PK	2.4848G	69.90	74.00	-4.10	31.40	3	Vertical	331	1.50	-
AV	2.4835G	53.13	54.00	-0.87	31.39	3	Vertical	331	1.50	-

VHT20-BF_Nss1,(MCS0)_2TX

2462MHz_TX

08/07/2019



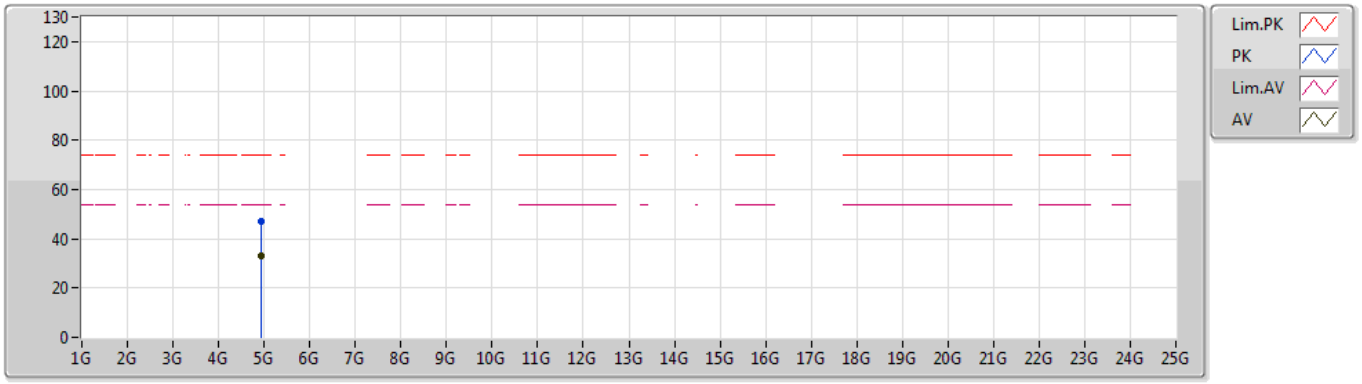
EUT Y_2TX
Setting 27
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.9226G	47.27	74.00	-26.73	4.90	3	Vertical	353	2.38	-
AV	4.93348G	32.96	54.00	-21.04	4.91	3	Vertical	353	2.38	-

VHT20-BF_Nss1,(MCS0)_2TX

2462MHz_TX

08/07/2019



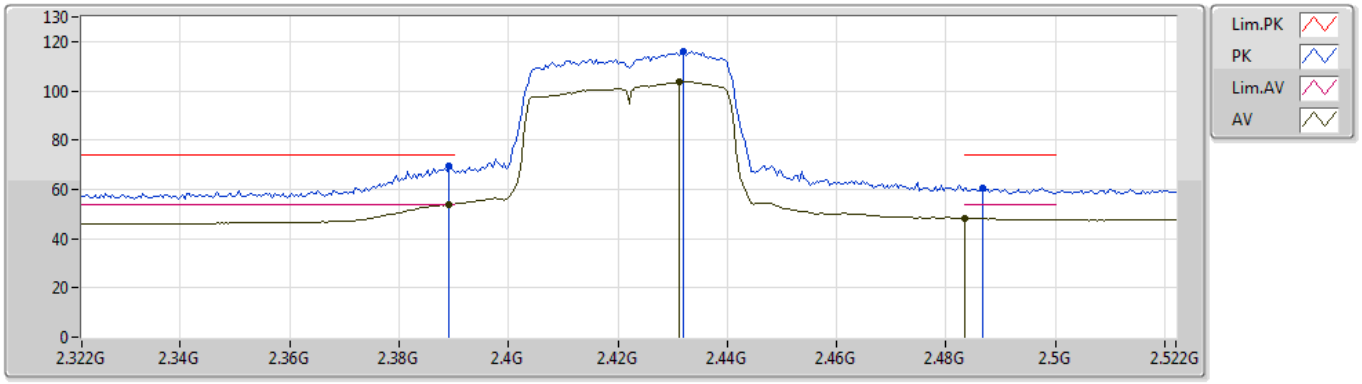
EUT Y_2TX
Setting 27
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.9202G	46.95	74.00	-27.05	4.89	3	Horizontal	71	1.86	-
AV	4.9334G	32.89	54.00	-21.11	4.91	3	Horizontal	71	1.86	-

VHT40-BF_Nss1,(MCS0)_2TX

2422MHz_TX

08/07/2019



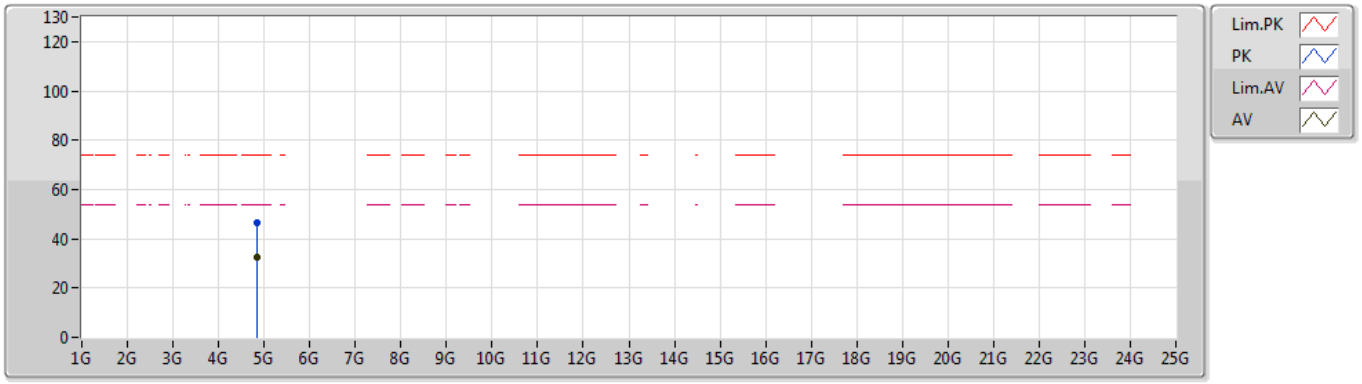
EUT Y_2TX
Setting 23
02-G-2
FSU(100015)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3892G	69.56	74.00	-4.44	31.20	3	Vertical	360	1.53	-
AV	2.3892G	53.93	54.00	-0.07	31.20	3	Vertical	360	1.53	-
PK	2.432G	116.13	Inf	-Inf	31.29	3	Vertical	360	1.53	-
AV	2.4312G	103.83	Inf	-Inf	31.29	3	Vertical	360	1.53	-
PK	2.4868G	60.31	74.00	-13.69	31.40	3	Vertical	360	1.53	-
AV	2.4835G	48.33	54.00	-5.67	31.39	3	Vertical	360	1.53	-

VHT40-BF_Nss1,(MCS0)_2TX

2422MHz_TX

08/07/2019



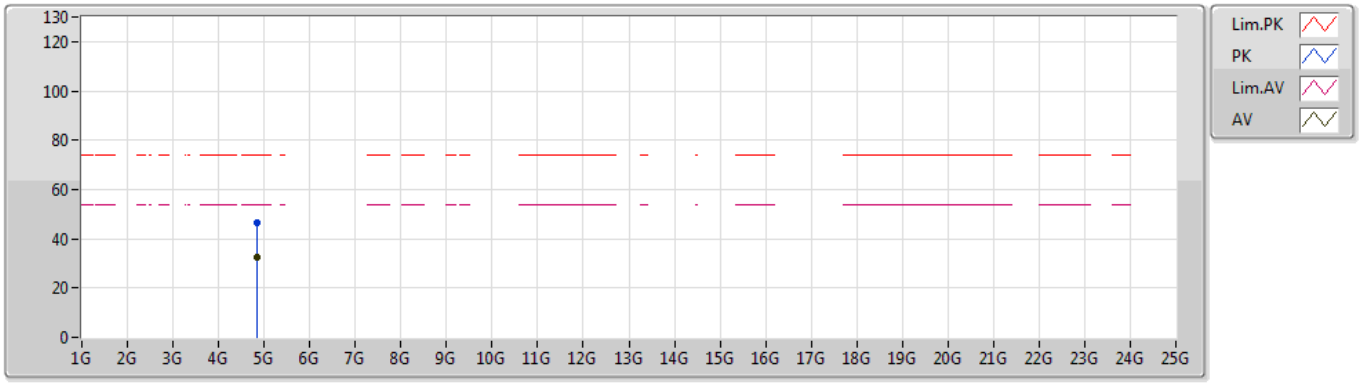
EUT Y_2TX
Setting 23
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.85284G	46.48	74.00	-27.52	4.76	3	Vertical	303	2.00	-
AV	4.854G	32.33	54.00	-21.67	4.76	3	Vertical	303	2.00	-

VHT40-BF_Nss1,(MCS0)_2TX

2422MHz_TX

08/07/2019



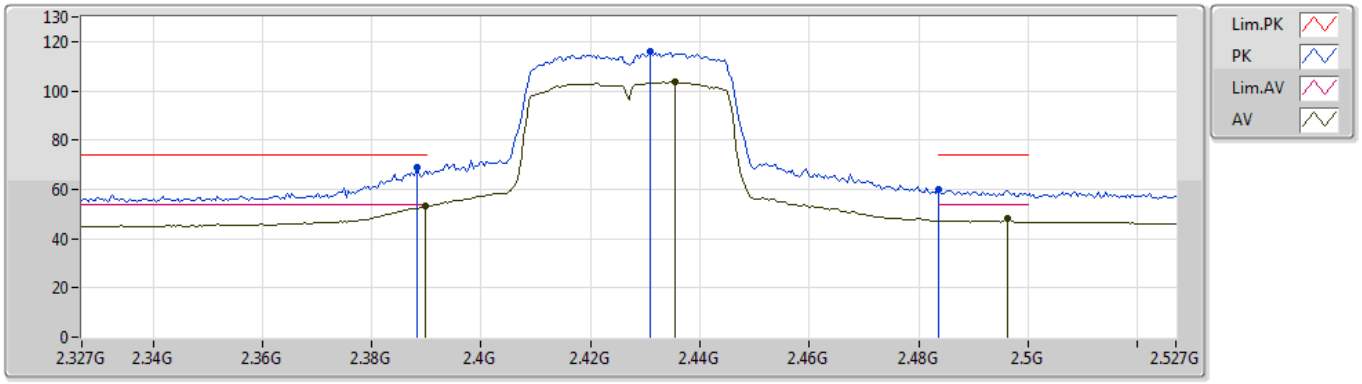
EUT Y_2TX
Setting 23
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.84728G	46.54	74.00	-27.46	4.75	3	Horizontal	109	1.20	-
AV	4.85344G	32.23	54.00	-21.77	4.76	3	Horizontal	109	1.20	-

VHT40-BF_Nss1,(MCS0)_2TX

2427MHz_TX

08/07/2019



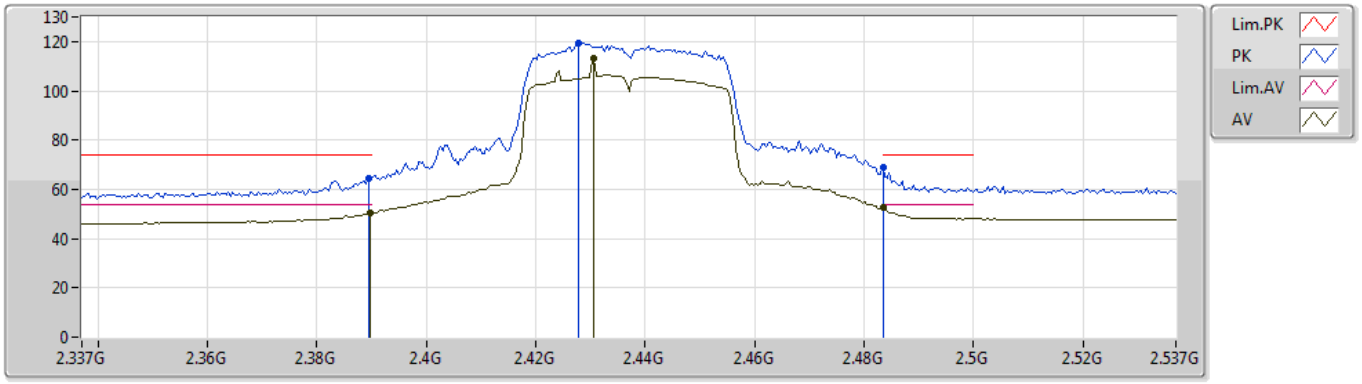
EUT Y_2TX
Setting 23
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3882G	68.82	74.00	-5.18	32.47	3	Vertical	322	1.50	-
AV	2.3898G	53.36	54.00	-0.64	32.47	3	Vertical	322	1.50	-
PK	2.431G	116.07	Inf	-Inf	32.60	3	Vertical	322	1.50	-
AV	2.4354G	103.47	Inf	-Inf	32.62	3	Vertical	322	1.50	-
PK	2.4836G	59.90	74.00	-14.10	32.78	3	Vertical	322	1.50	-
AV	2.4962G	48.00	54.00	-6.00	32.83	3	Vertical	322	1.50	-

VHT40-BF_Nss1,(MCS0)_2TX

2437MHz_TX

08/07/2019



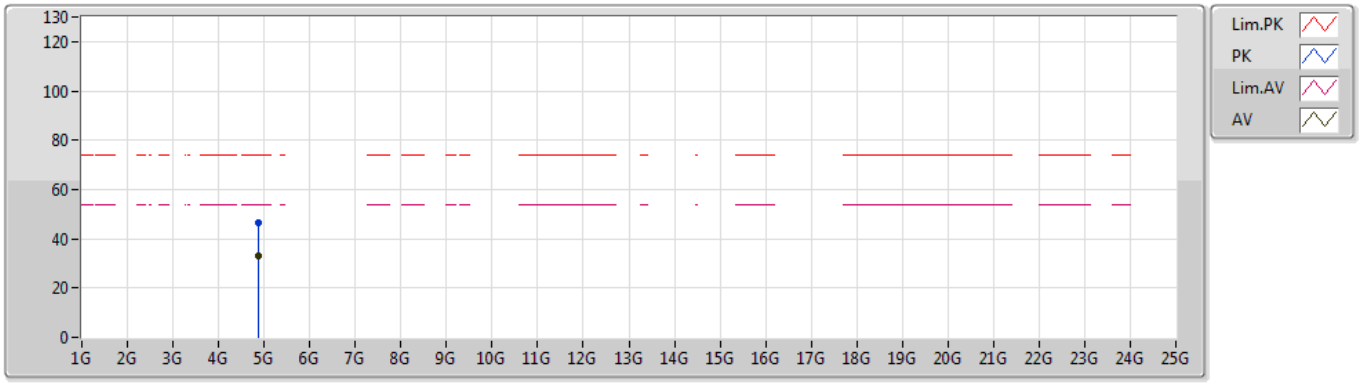
EUT Y_2TX
Setting 26
02-G-2
FSU(100015)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3894G	64.45	74.00	-9.55	31.20	3	Vertical	359	1.50	-
AV	2.3898G	50.16	54.00	-3.84	31.20	3	Vertical	359	1.50	-
PK	2.4278G	119.38	Inf	-Inf	31.28	3	Vertical	359	1.50	-
AV	2.4306G	113.13	Inf	-Inf	31.29	3	Vertical	359	1.50	-
PK	2.4835G	68.76	74.00	-5.24	31.39	3	Vertical	359	1.50	-
AV	2.4835G	52.50	54.00	-1.50	31.39	3	Vertical	359	1.50	-

VHT40-BF_Nss1,(MCS0)_2TX

2437MHz_TX

08/07/2019



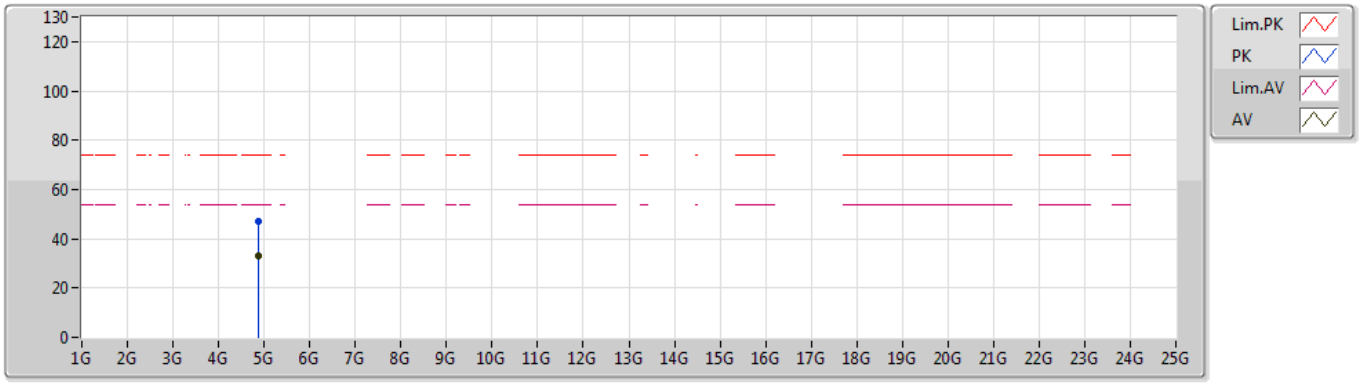
EUT Y_2TX
Setting 26
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.88292G	46.28	74.00	-27.72	4.82	3	Vertical	31	1.06	-
AV	4.87368G	32.96	54.00	-21.04	4.80	3	Vertical	31	1.06	-

VHT40-BF_Nss1,(MCS0)_2TX

2437MHz_TX

08/07/2019



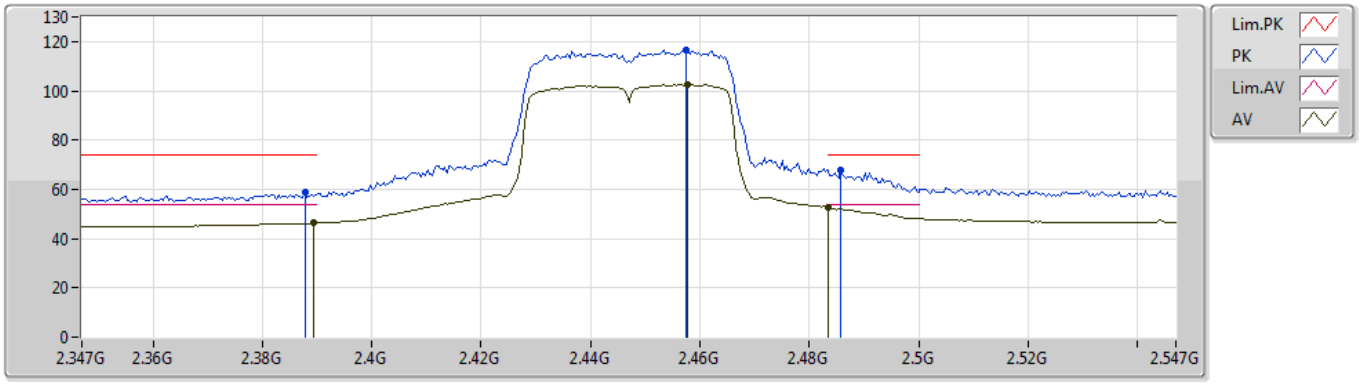
EUT Y_2TX
Setting 26
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.88008G	46.88	74.00	-27.12	4.81	3	Horizontal	124	1.99	-
AV	4.88096G	32.88	54.00	-21.12	4.81	3	Horizontal	124	1.99	-

VHT40-BF_Nss1,(MCS0)_2TX

2447MHz_TX

08/07/2019



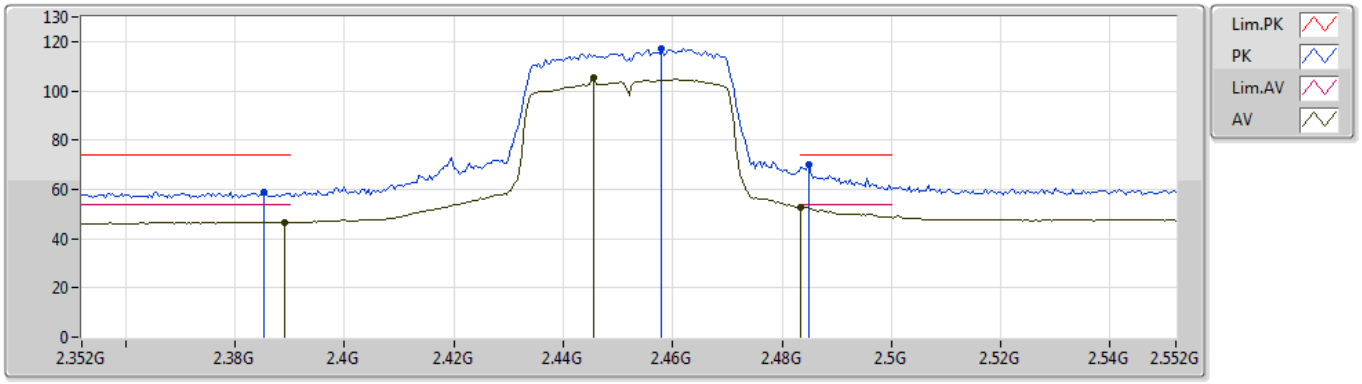
EUT Y_2TX
Setting 24
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3878G	58.61	74.00	-15.39	32.47	3	Vertical	0	2.12	-
AV	2.3894G	46.27	54.00	-7.73	32.47	3	Vertical	0	2.12	-
PK	2.4574G	116.53	Inf	-Inf	32.69	3	Vertical	0	2.12	-
AV	2.4578G	102.70	Inf	-Inf	32.69	3	Vertical	0	2.12	-
PK	2.4858G	67.90	74.00	-6.10	32.79	3	Vertical	0	2.12	-
AV	2.4835G	52.62	54.00	-1.38	32.78	3	Vertical	0	2.12	-

VHT40-BF_Nss1,(MCS0)_2TX

2452MHz_TX

08/07/2019



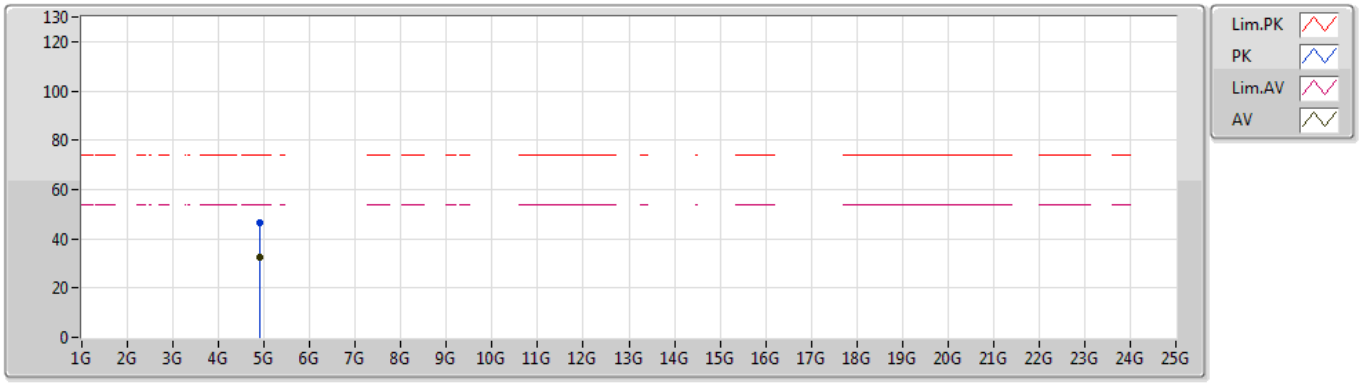
EUT Y_2TX
Setting 24
02-G-2
FSU(100015)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3852G	58.96	74.00	-15.04	31.19	3	Vertical	311	2.54	-
AV	2.3892G	46.65	54.00	-7.35	31.20	3	Vertical	311	2.54	-
PK	2.458G	117.11	Inf	-Inf	31.34	3	Vertical	311	2.54	-
AV	2.4456G	105.37	Inf	-Inf	31.32	3	Vertical	311	2.54	-
PK	2.4848G	69.90	74.00	-4.10	31.40	3	Vertical	311	2.54	-
AV	2.4835G	52.73	54.00	-1.27	31.39	3	Vertical	311	2.54	-

VHT40-BF_Nss1,(MCS0)_2TX

2452MHz_TX

08/07/2019



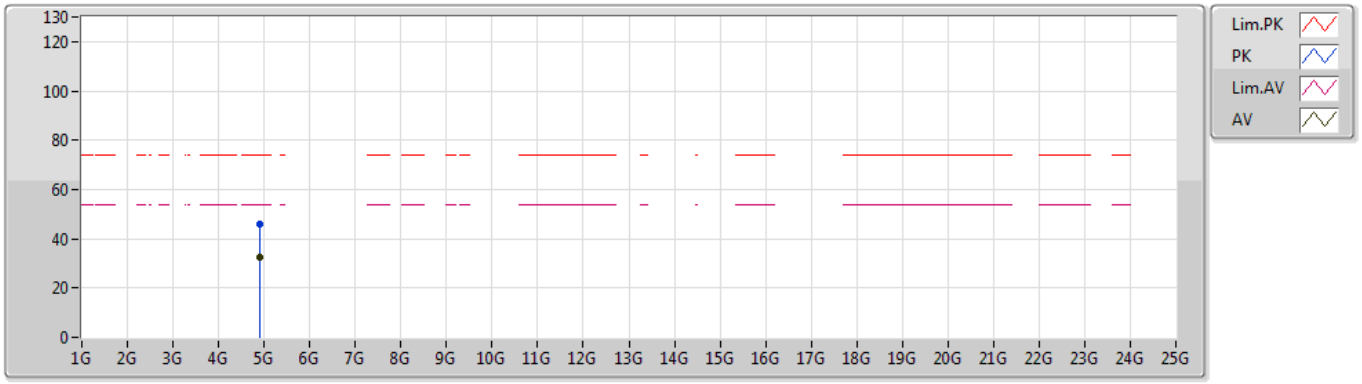
EUT Y_2TX
Setting 24
03-S-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.89692G	46.55	74.00	-27.45	4.84	3	Vertical	285	1.75	-
AV	4.89864G	32.71	54.00	-21.29	4.85	3	Vertical	285	1.75	-

VHT40-BF_Nss1,(MCS0)_2TX

2452MHz_TX

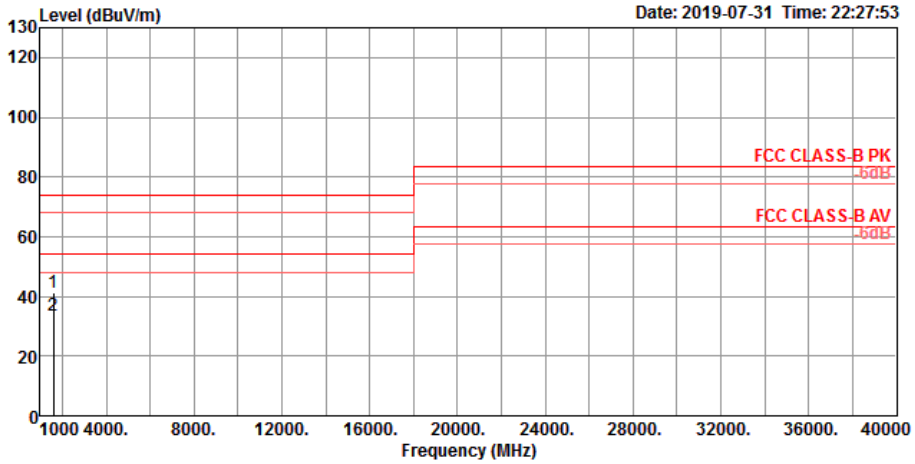
08/07/2019



EUT Y_2TX
Setting 24
03-S-5
FSP

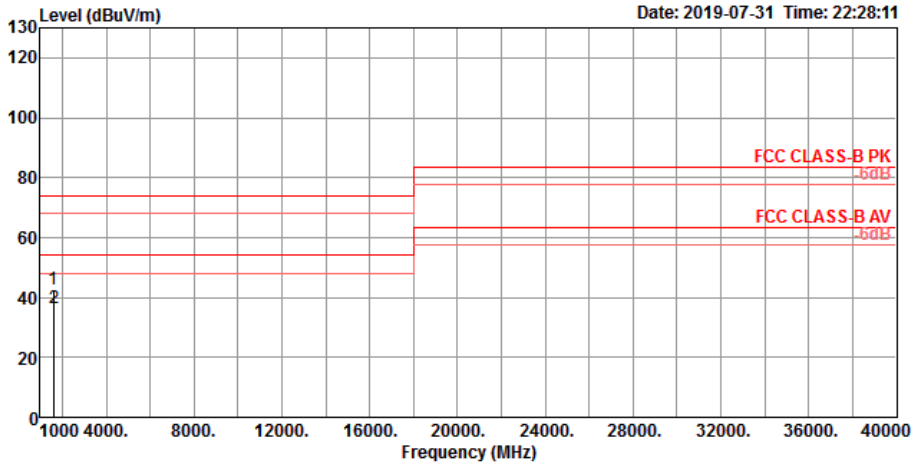
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.89464G	46.08	74.00	-27.92	4.84	3	Horizontal	172	1.27	-
AV	4.90128G	32.76	54.00	-21.24	4.85	3	Horizontal	172	1.27	-

RSE Co-location Result			
Operating Mode	1	**Polarization**	Horizontal
Operating Function	Normal Link		



	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	1611.28	41.04	74.00	-32.96	48.50	3.20	26.29	36.95	106	192	Peak	HORIZONTAL
2	1611.60	33.54	54.00	-20.46	41.00	3.20	26.29	36.95	106	192	Average	HORIZONTAL

RSE Co-location Result			
Operating Mode	1	**Polarization**	Vertical
Operating Function	Normal Link or CTX		



	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	1611.43	42.78	74.00	-31.22	50.24	3.20	26.29	36.95	131	95	Peak	VERTICAL
2	1616.18	36.31	54.00	-17.69	43.76	3.21	26.29	36.95	131	95	Average	VERTICAL