FCC RADIO TEST REPORT

FCC ID	:	TE7RE200V4
Equipment	:	AC750 Wi-Fi Range Extender
Brand Name	:	tp-link
Model Name	:	RE200/RE220
Applicant	:	TP-Link Technologies Co., Ltd. Building 24 (floors 1,3,4,5) and 28 (floors1-4),Central Science and Technology Park,Nanshan，Shenzhen,518057，China
Manufacturer	:	TP-Link Technologies Co., Ltd. Building 24 (floors 1,3,4,5) and 28 (floors1-4),Central Science and Technology Park,Nanshan，Shenzhen,518057，China
Standard	:	47 CFR FCC Part 15.247

The product was received on Aug. 26, 2019, and testing was started from Sep. 10, 2019 and completed on Sep. 26, 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: Cliff Chang

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

Table of Contents

Appendix H. Test Photos

Photographs of EUT v01

History of this test report

Report No.	Version	Description	Issued Date
FR982620AA	01	Initial issue of report	Oct. 28, 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: Sandy Chuang

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
2400-2483.5	b, g, n (HT20)	2412-2462	1-11 [11]
2400-2483.5	n (HT40)	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	802.11n HT40	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.
- BWch is the nominal channel bandwidth.
- Nss-Min is the minimum number of spatial streams.
- Nant is the number of outputs. e.g., 2(2,3) means have 2 outputs for port 2 and port 3. 2 means have 2 outputs for port 1 and port 2.

1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)				
						2.4GHz	5GHz Band 1	5GHz Band 2	5GHz Band 3	5GHz Band 4
1	1	TP-Link	N/A	Printed	N/A	1.95	-	-	-	-
2	2	TP-Link	N/A	Printed	N/A	1.96	-	-	-	-
3	1	TP-Link	N/A	Printed	N/A	-	2.50	2.28	2.75	2.98

Note: The above information was declared by manufacturer.

<For 2.4GHz Band>

For IEEE 802.11b/g/n 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>

For IEEE 802.11a/n/ac mode (1TX/1RX)

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

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	0.994	0.03	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11g	0.938	0.28	1.398m	1k
802.11n HT20	0.92	0.36	1.299m	1k
802.11n HT40	0.866	0.62	638.75u	3k

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

1.1.4 EUT Operational Condition

EUT Power Type	From Internal Power Supply			
Beamforming Function	☐	With beamforming	☒	Without beamforming
Function	☒	Point-to-multipoint	☐	Point-to-point
Test Software Version	MT7603 QA UI (Version 0.0.0.70)			

Note: The above information was declared by manufacturer.

1.1.5 Table for Multiple Listing

The EUT has two model names which are identical to each other in all aspects except for the following table:

Model Name	Description
RE200	All the models are identical, the difference model for difference marketing strategy.
RE220	

From the above models, model: RE200 was selected as representative model for the test and its data was recorded in this report.

1.1.6 Table for EUT support function

Function
AP (Master) Mode
Repeater (Master + Client without radar detection) Mode

Note: The EUT supports AP and Repeater mode, only Repeater mode was tested and recorded in this test report by manufacturer request.

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
- FCC KDB 414788 D01 v01r01

1.3 Testing Location Information

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

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH03-CB	Serway Li	25.1-26.6°C / 58-62%	Sep. 14, 2019~Sep. 26, 2019
Radiated (Below 1GHz)	03CH05-CB	KJ Chang	24.3-25.4°C / 60-63%	Sep. 10, 2019
Radiated (Above 1GHz)	03CH03-CB	KJ Chang	24.2-25.4°C / 59-63%	Sep. 18, 2019~Sep. 24, 2019
AC Conduction	CO01-CB	Rick Yeh	25-26°C / 45-46%	Sep. 11, 2019

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

1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	2.0 dB	Confidence levels of 95%
Radiated Emission (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	22
2437MHz	22
2462MHz	22
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	1D
2417MHz	24
2437MHz	28
2457MHz	24
2462MHz	1A
802.11n HT20_Nss1,(MCS0)_2TX	-
2412MHz	1A
2417MHz	24
2437MHz	28
2457MHz	1F
2462MHz	17
802.11n HT40_Nss1,(MCS0)_2TX	-
2422MHz	14
2427MHz	17
2437MHz	1C
2447MHz	17
2452MHz	13

2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	Normal Link
1	Repeater Mode

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	Normal Link
1	Repeater Mode: Place EUT in Y axis
2	Repeater Mode: Place EUT in Z axis
For operating mode 2 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
The EUT can be placed in Y-axis and Z-axis. After evaluating, Y-axis was the worst case, so the test will follow this same test configuration.	
1	EUT in Y axis

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location
Test Condition	Radiated measurement
Operating Mode	Normal Link
The EUT can be placed in Y-axis and Z-axis. After evaluating, Z-axis was the worst case, so the test will follow this same test configuration.	
1	WLAN 2.4GHz + WLAN 5GHz_EUT in Z axis
Refer to Appendix G for Radiated Emission Co-location.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz + WLAN 5GHz
Refer to Sporton Test Report No.: FA982620 for Co-location RF Exposure Evaluation.	

2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link:

During the test, the EUT operation to normal function.

2.4 Accessories

N/A

2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	LAN NB	DELL	E6430	N/A
B	2.4G NB	DELL	E6430	N/A
C	5G NB	DELL	E6430	N/A
D	AP Router	ASUS	RP-N53	MSQ-RPN53

For Radiated (below 1GHz):

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	NB	DELL	E4300	N/A
B	WLAN AP	NETGEAR	WNDR3300v2	PY309300116
C	NB	DELL	E4300	N/A
D	NB	DELL	E4300	N/A

For Radiated (above 1GHz):

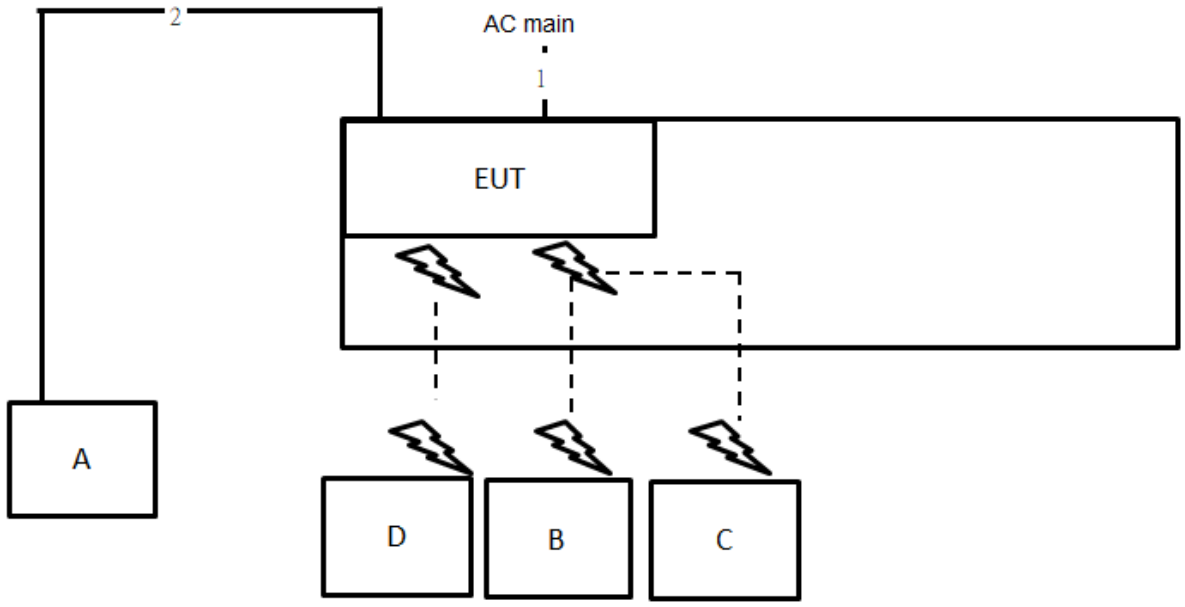
Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	NB	DELL	E4300	N/A

For RF Conducted:

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

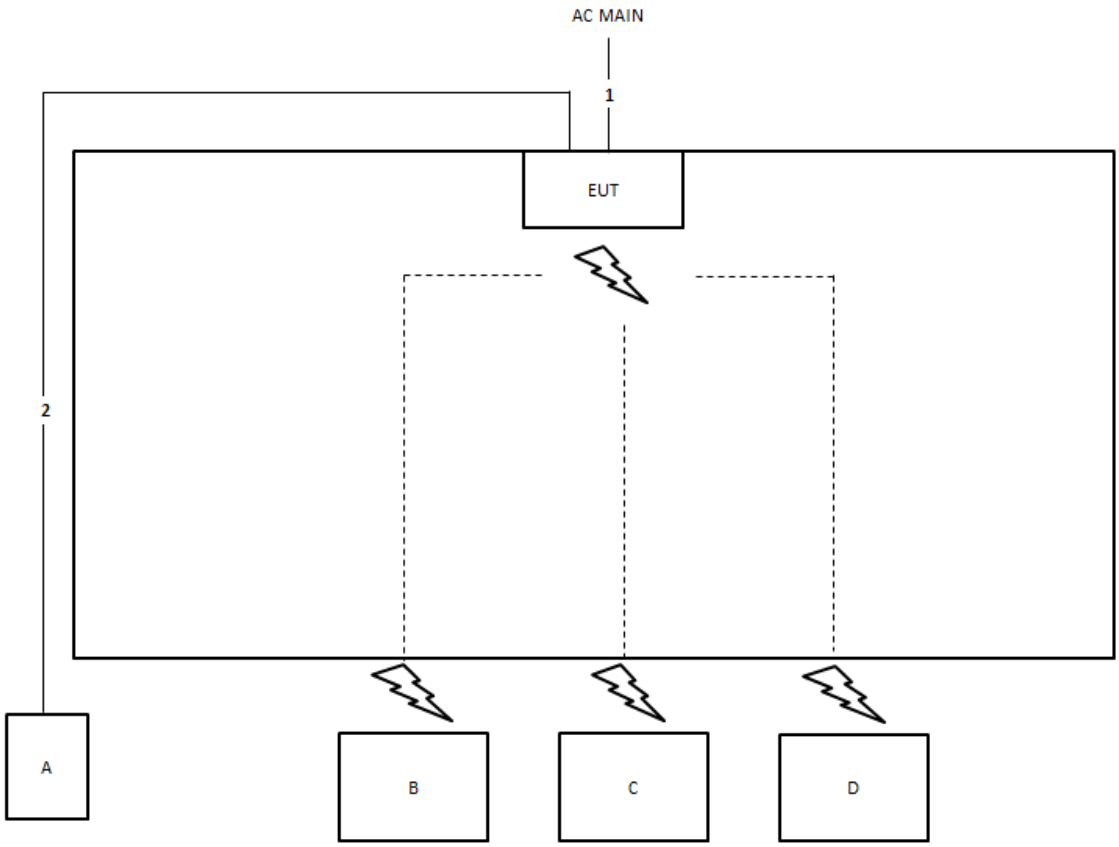
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



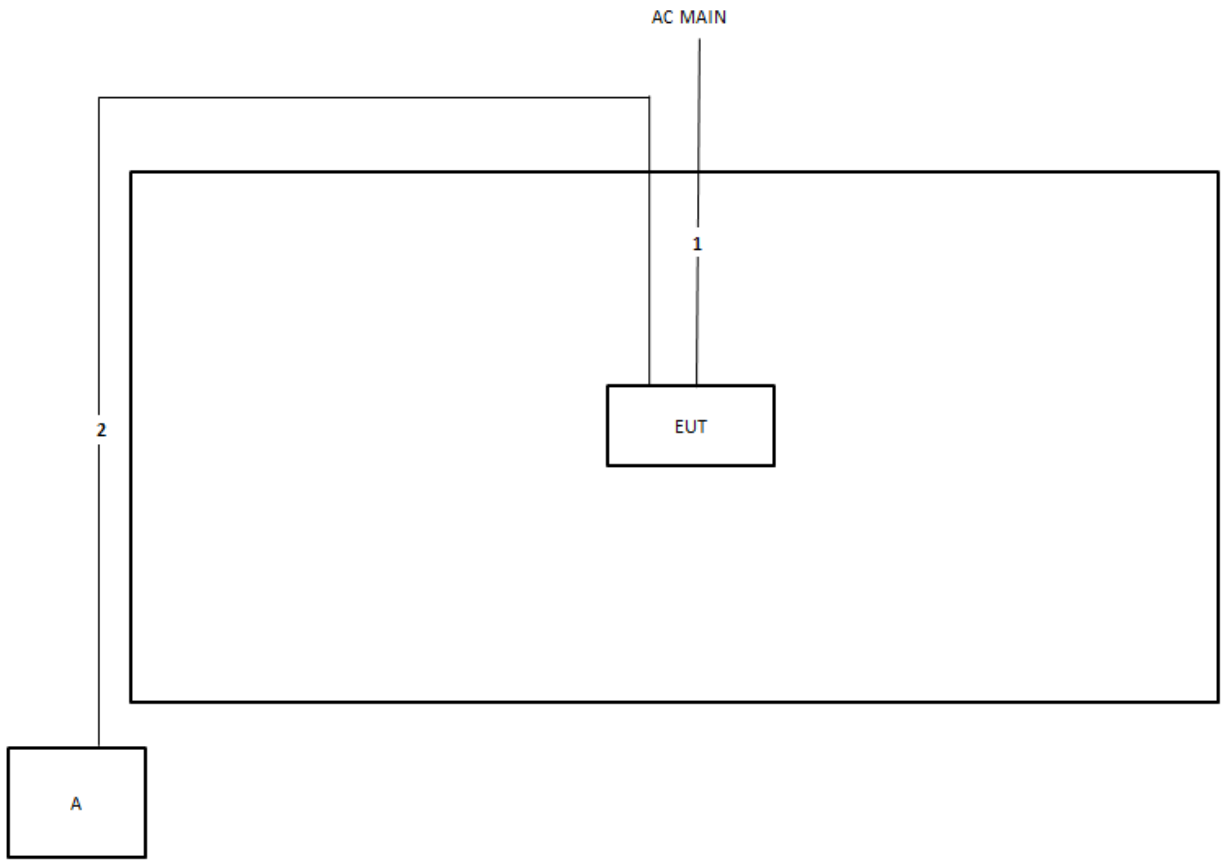
Item	Connection	Shielded	Length
1	Power cable	No	1m
2	RJ-45 cable	No	10m

Test Setup Diagram - Radiated Test < 1GHz



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

Test Setup Diagram - Radiated Test > 1GHz



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

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

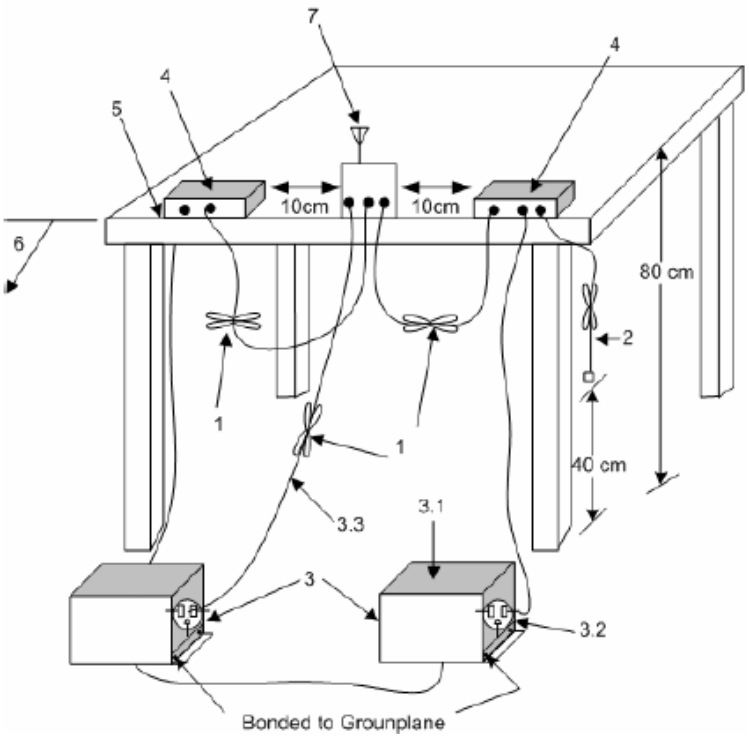
Refer a test equipment and calibration data table in this test report.

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.

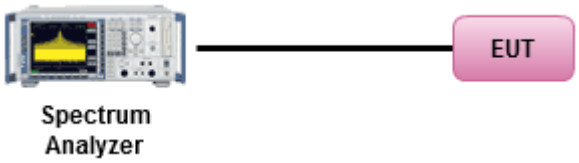
3.2.2 Measuring Instruments

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

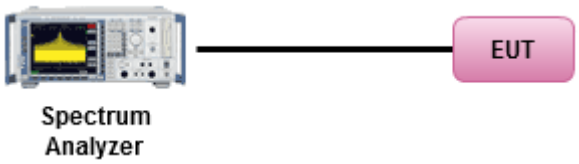
Refer a test equipment and calibration data table in this test report.

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.	

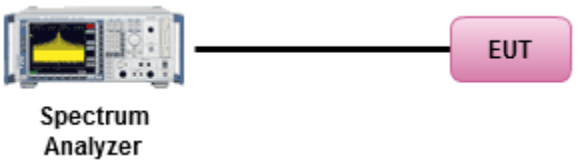
3.5.2 Measuring Instruments

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.

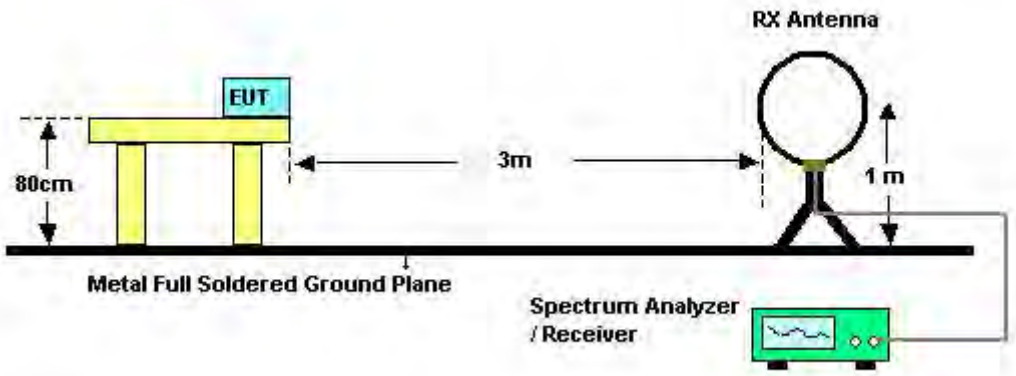
3.6.3 Test Procedures

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.		

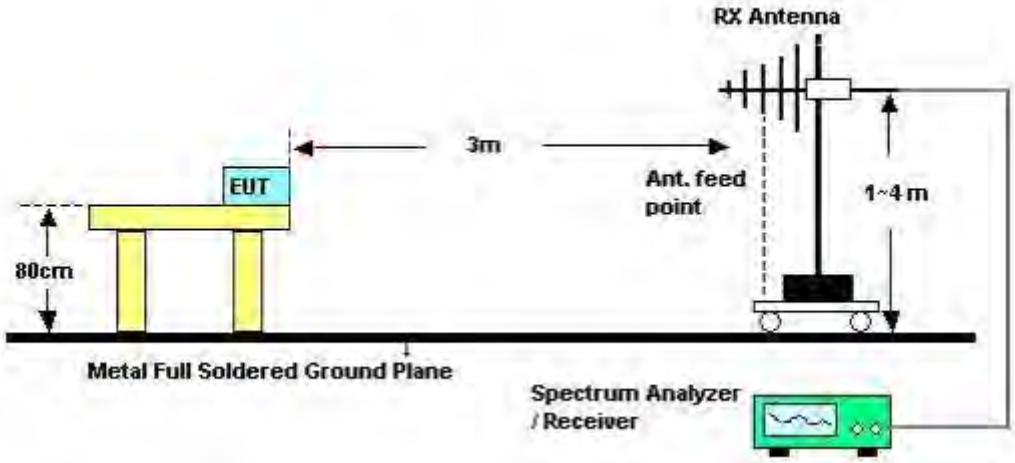
3.6.4 Test Setup

Radiated - Emissions in Restricted Frequency Bands

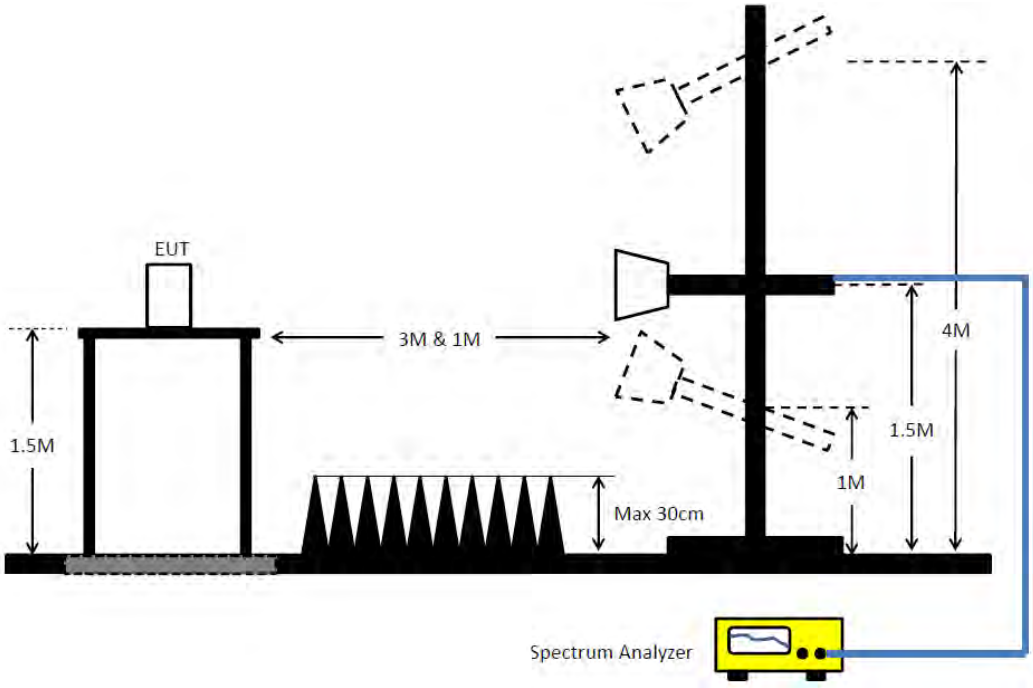
9kHz ~30MHz



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)

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

3.6.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

4 Test Equipment and Calibration Data

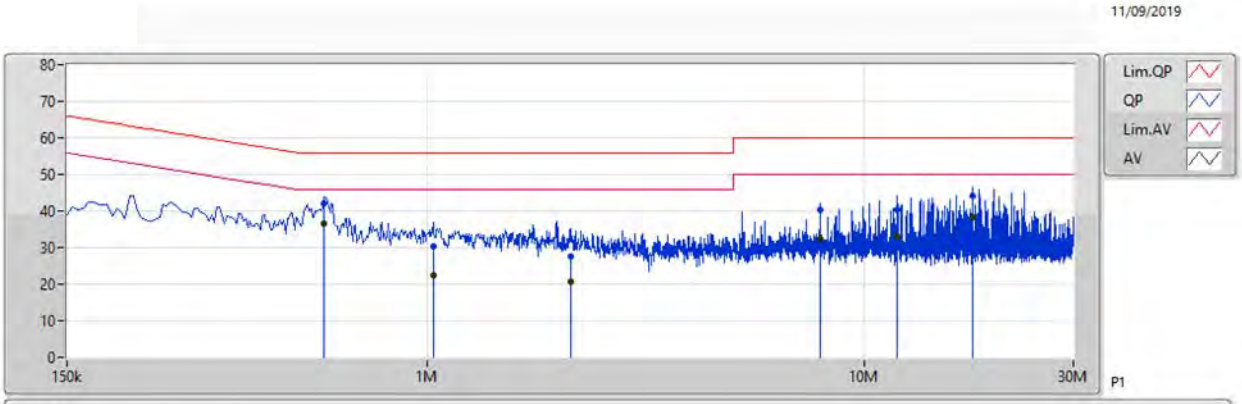
Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Jan. 28, 2019	Jan. 29, 2020	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 24, 2018	Dec. 23, 2019	Conduction (CO01-CB)
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)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 29, 2019	Mar. 28, 2020	Radiation (03CH05-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)
Pre-Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	May 02, 2019	May 01, 2020	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Aug, 15, 2019	Aug, 14, 2020	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-high	Woken	RG402	High Cable-04+23	30MHz~18GHz	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	FSP40	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. 24, 2019	Jul. 23, 2020	Radiation (03CH03-CB)
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	101028	9kHz~40GHz	Oct. 30, 2018	Oct. 29, 2019	Conducted (TH03-CB)
Power Sensor	Anritsu	MA2411B	1726195	300MHz~40GHz	Aug. 13, 2019	Aug. 12, 2020	Conducted (TH03-CB)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Power Meter	Anritsu	ML2495A	1035008	300MHz~40GHz	Aug. 13, 2019	Aug. 12, 2020	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-11	1 GHz – 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-12	1 GHz – 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-13	1 GHz – 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-14	1 GHz – 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-15	1 GHz – 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH03-CB)

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

NCR means Non-Calibration required.

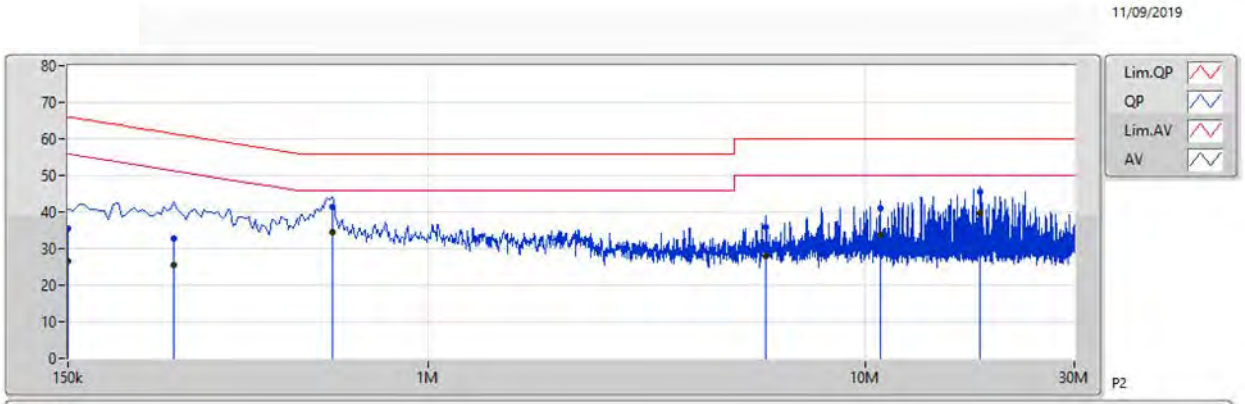
AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Line
Operating Function	Normal Link		



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	AF	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	582k	41.99	56.00	-14.01	9.94	Line	-	32.05	0.06	0.07	9.81
AV	582k	36.67	46.00	-9.33	9.94	Line	"Worst"	26.73	0.06	0.07	9.81
QP	1.032M	30.42	56.00	-25.58	9.98	Line	-	20.44	0.07	0.09	9.82
AV	1.032M	22.27	46.00	-23.73	9.98	Line	-	12.29	0.07	0.09	9.82
QP	2.126M	27.75	56.00	-28.25	10.04	Line	-	17.71	0.09	0.12	9.83
AV	2.126M	20.67	46.00	-25.33	10.04	Line	-	10.63	0.09	0.12	9.83
QP	7.922M	40.46	60.00	-19.54	10.29	Line	-	30.17	0.19	0.21	9.89
AV	7.922M	32.47	50.00	-17.53	10.29	Line	-	22.18	0.19	0.21	9.89
QP	11.895M	40.40	60.00	-19.60	10.38	Line	-	30.02	0.23	0.23	9.92
AV	11.895M	33.24	50.00	-16.76	10.38	Line	-	22.86	0.23	0.23	9.92
QP	17.696M	44.16	60.00	-15.84	10.48	Line	-	33.68	0.28	0.24	9.96
AV	17.696M	38.33	50.00	-11.67	10.48	Line	-	27.85	0.28	0.24	9.96

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

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Neutral
Operating Function	Normal Link		



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	AF	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	150k	35.49	66.00	-30.51	9.89	Neutral	-	25.60	0.04	0.06	9.79
AV	150k	26.41	56.00	-29.59	9.89	Neutral	-	16.52	0.04	0.06	9.79
QP	262.5k	32.79	61.35	-28.56	9.90	Neutral	-	22.89	0.04	0.06	9.80
AV	262.5k	25.46	51.35	-25.89	9.90	Neutral	-	15.56	0.04	0.06	9.80
QP	604.5k	41.31	56.00	-14.69	9.93	Neutral	-	31.38	0.05	0.07	9.81
AV	604.5k	34.39	46.00	-11.61	9.93	Neutral	-	24.46	0.05	0.07	9.81
QP	5.906M	35.94	60.00	-24.06	10.20	Neutral	-	25.74	0.14	0.20	9.86
AV	5.906M	28.06	50.00	-21.94	10.20	Neutral	-	17.86	0.14	0.20	9.86
QP	10.793M	41.14	60.00	-18.86	10.35	Neutral	-	30.79	0.20	0.23	9.92
AV	10.793M	33.95	50.00	-16.05	10.35	Neutral	-	23.60	0.20	0.23	9.92
QP	18.245M	45.53	60.00	-14.47	10.45	Neutral	-	35.08	0.24	0.24	9.97
AV	18.245M	39.76	50.00	-10.24	10.45	Neutral	"Worst"	29.31	0.24	0.24	9.97

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

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	10.05M	15.037M	15M0G1D	10.05M	14.943M
802.11g_Nss1,(6Mbps)_2TX	15.125M	18.12M	18M1D1D	14.175M	16.405M
802.11n HT20_Nss1,(MCS0)_2TX	16.3M	19.258M	19M3D1D	15M	17.523M
802.11n HT40_Nss1,(MCS0)_2TX	35.05M	36.163M	36M2D1D	33.8M	35.788M

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

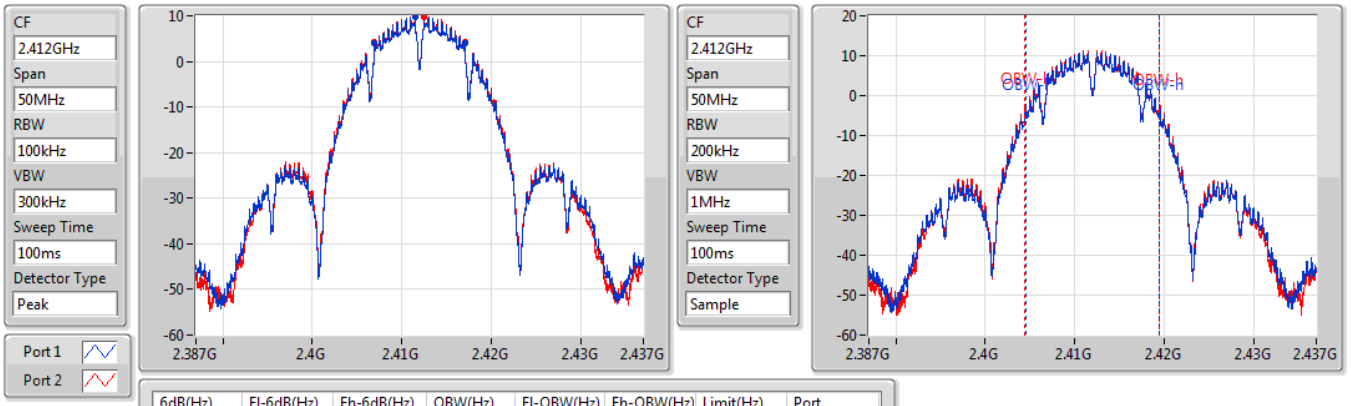
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	10.05M	14.943M	10.05M	15.037M
2437MHz	Pass	500k	10.05M	15.022M	10.05M	14.995M
2462MHz	Pass	500k	10.05M	14.972M	10.05M	15.008M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	14.175M	16.437M	15.05M	16.503M
2437MHz	Pass	500k	15.05M	18.03M	15.1M	18.12M
2462MHz	Pass	500k	15.05M	16.405M	15.125M	16.423M
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	15.025M	17.55M	15M	17.59M
2437MHz	Pass	500k	15.075M	18.798M	15.1M	19.258M
2462MHz	Pass	500k	16.3M	17.523M	15.05M	17.539M
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	33.8M	35.884M	33.8M	36.042M
2437MHz	Pass	500k	35.05M	36.089M	35.05M	36.163M
2452MHz	Pass	500k	35.05M	35.851M	35M	35.788M

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

802.11b_Nss1,(1Mbps)_2TX EBW

2412MHz

24/09/2019

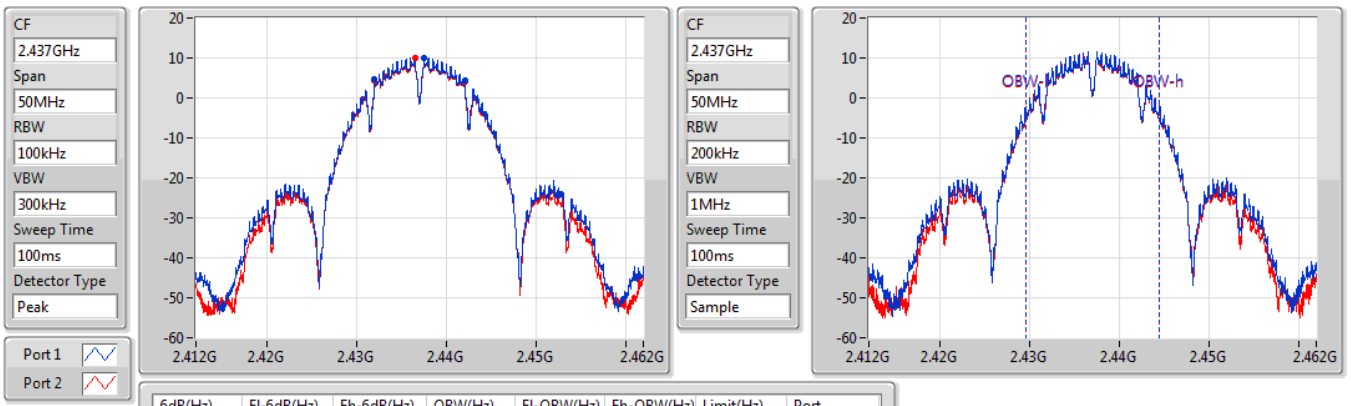


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
10.05M	2.406975G	2.417025G	14.943M	2.404545G	2.419489G	500k	1
10.05M	2.406975G	2.417025G	15.037M	2.404478G	2.419515G	500k	2

802.11b_Nss1,(1Mbps)_2TX EBW

2437MHz

24/09/2019

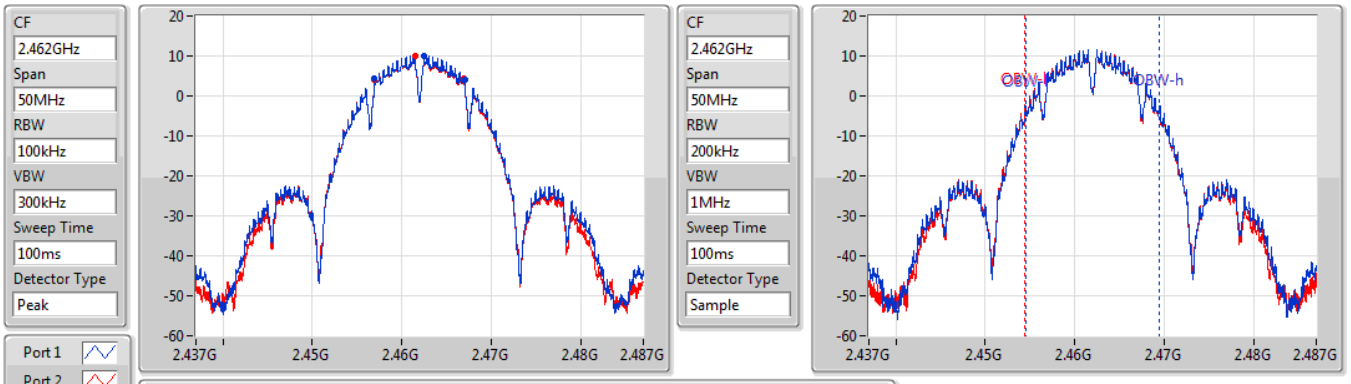


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
10.05M	2.431975G	2.442025G	15.022M	2.429491G	2.444513G	500k	1
10.05M	2.431975G	2.442025G	14.995M	2.429507G	2.444502G	500k	2

802.11b_Nss1,(1Mbps)_2TX EBW

2462MHz

24/09/2019

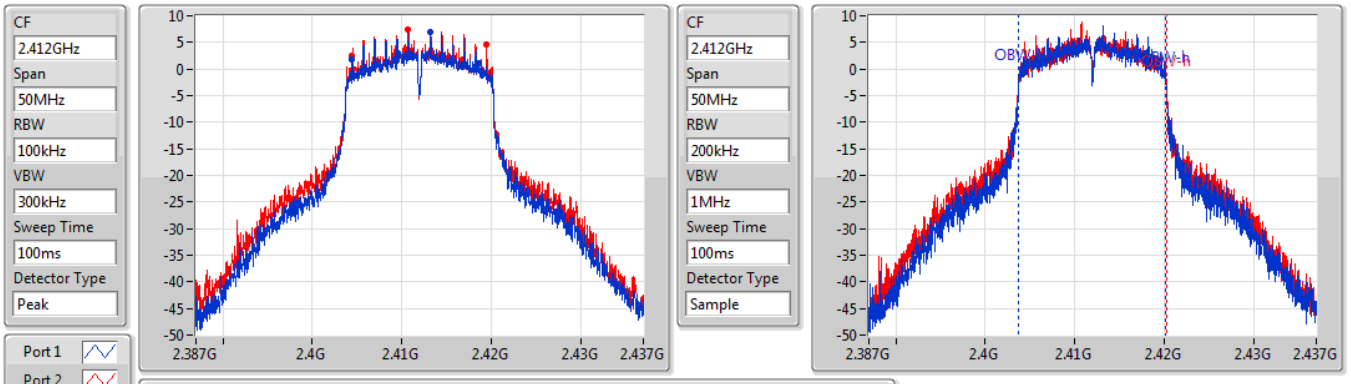


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
10.05M	2.456975G	2.467025G	14.972M	2.454517G	2.469489G	500k	1
10.05M	2.45695G	2.467G	15.008M	2.454463G	2.469471G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2412MHz

24/09/2019

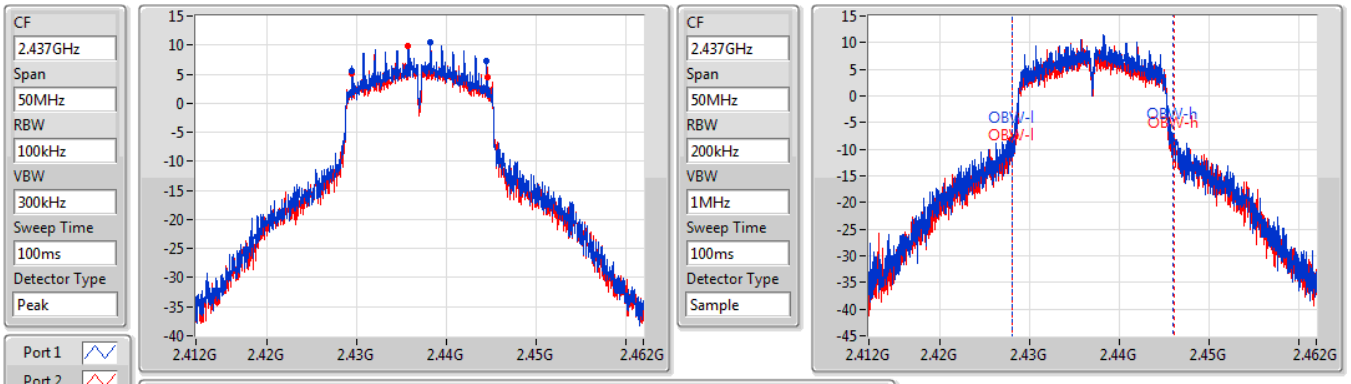


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
14.175M	2.40445G	2.418625G	16.437M	2.403767G	2.420204G	500k	1
15.05M	2.40445G	2.4195G	16.503M	2.403741G	2.420244G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2437MHz

24/09/2019

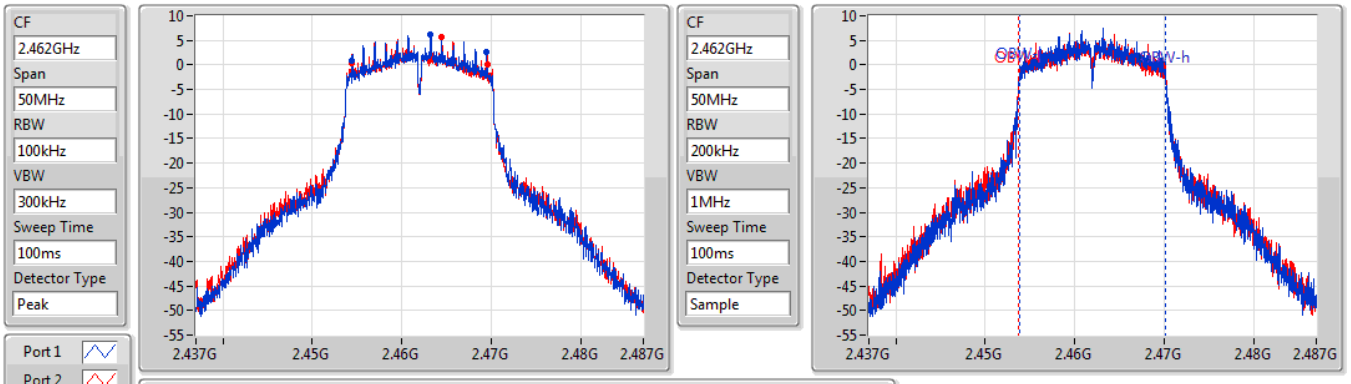


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.05M	2.42945G	2.4445G	18.03M	2.428017G	2.446048G	500k	1
15.1M	2.42945G	2.44455G	18.12M	2.427991G	2.446111G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2462MHz

24/09/2019

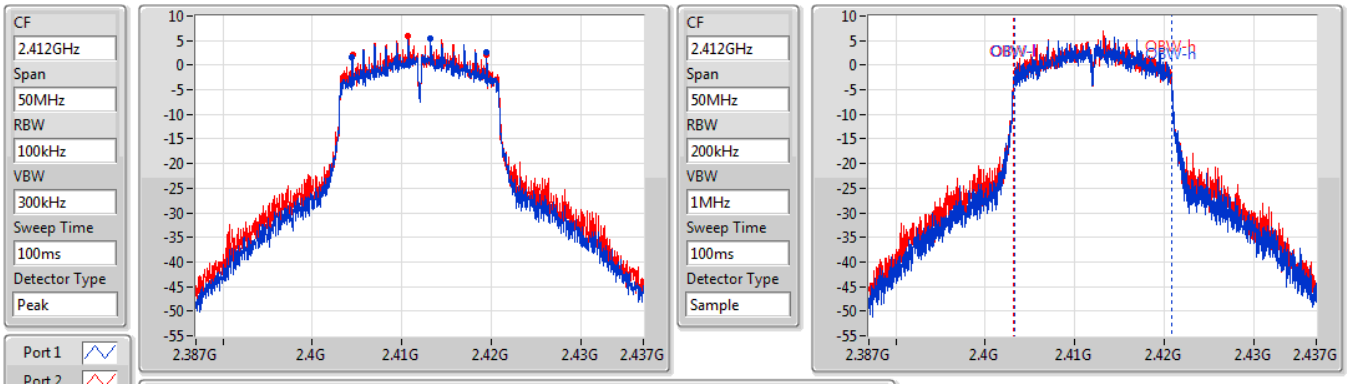


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.05M	2.45445G	2.4695G	16.405M	2.453792G	2.470196G	500k	1
15.125M	2.454425G	2.46955G	16.423M	2.453771G	2.470194G	500k	2

802.11n HT20_Nss1,(MCS0)_2TX EBW

2412MHz

24/09/2019

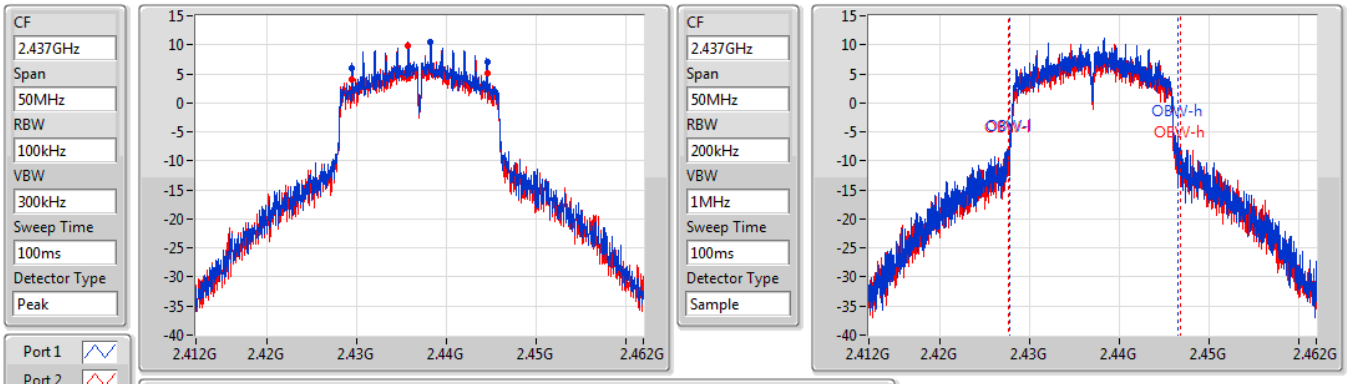


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.025M	2.404475G	2.4195G	17.55M	2.403231G	2.420781G	500k	1
15M	2.4045G	2.4195G	17.59M	2.403197G	2.420786G	500k	2

802.11n HT20_Nss1,(MCS0)_2TX EBW

2437MHz

24/09/2019

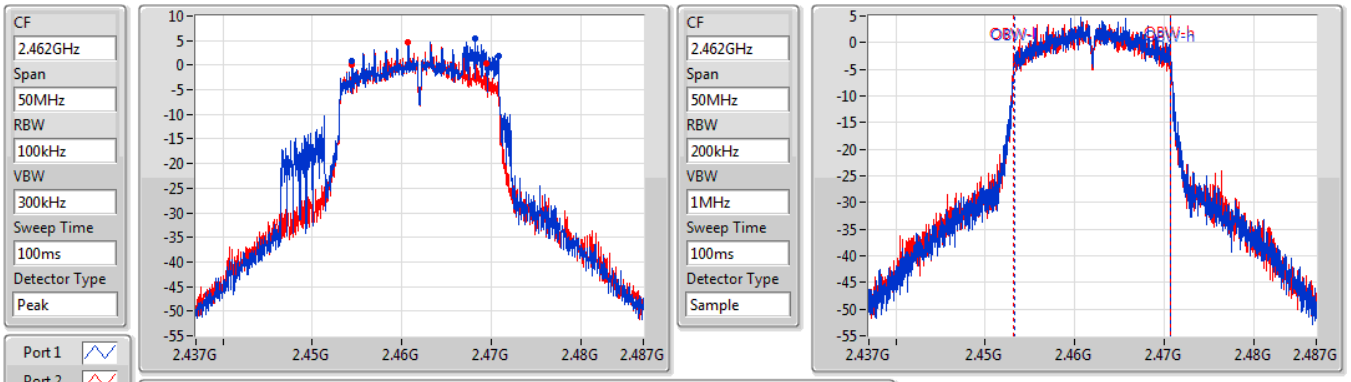


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.075M	2.42945G	2.444525G	18.798M	2.427687G	2.446485G	500k	1
15.1M	2.429425G	2.444525G	19.258M	2.427622G	2.44688G	500k	2

802.11n HT20_Nss1,(MCS0)_2TX EBW

2462MHz

24/09/2019

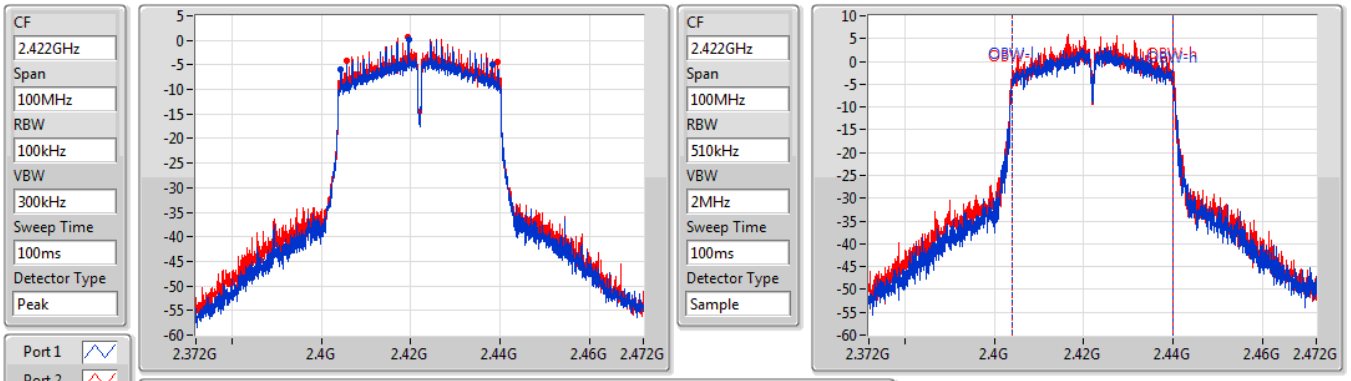


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.3M	2.454475G	2.470775G	17.523M	2.453238G	2.470761G	500k	1
15.05M	2.45445G	2.4695G	17.539M	2.453206G	2.470746G	500k	2

802.11n HT40_Nss1,(MCS0)_2TX EBW

2422MHz

24/09/2019

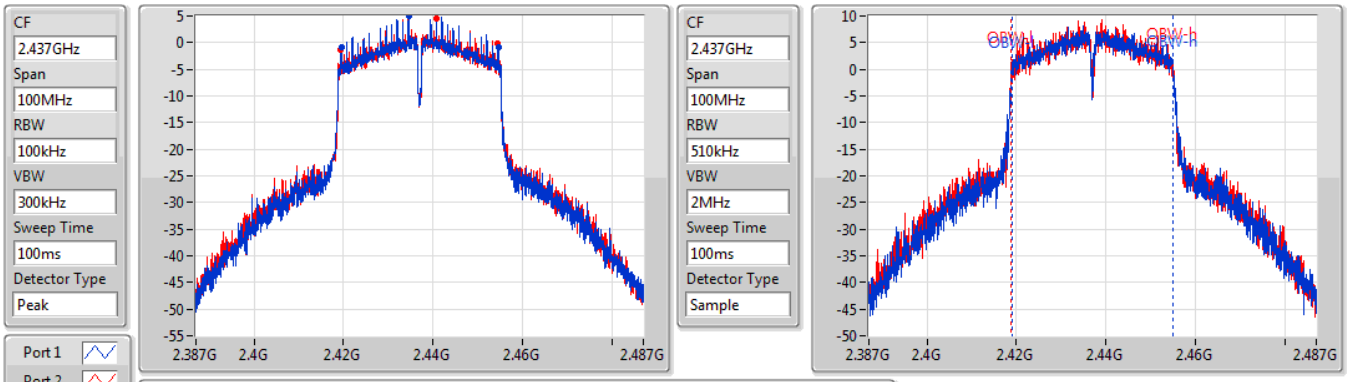


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
33.8M	2.40445G	2.43825G	35.884M	2.404122G	2.440006G	500k	1
33.8M	2.4057G	2.4395G	36.042M	2.403987G	2.440029G	500k	2

802.11n HT40_Nss1,(MCS0)_2TX EBW

2437MHz

24/09/2019

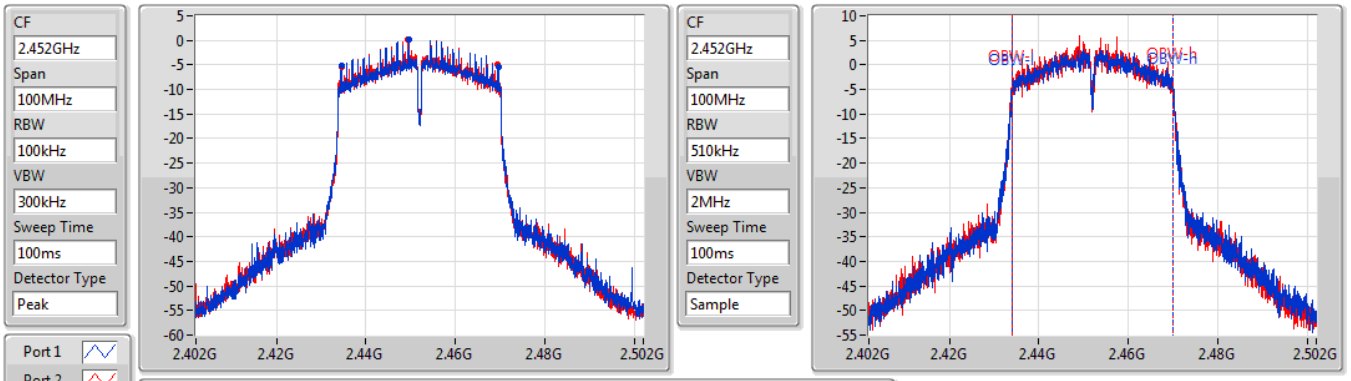


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.05M	2.4195G	2.45455G	36.089M	2.418966G	2.455055G	500k	1
35.05M	2.41945G	2.4545G	36.163M	2.418891G	2.455054G	500k	2

802.11n HT40_Nss1,(MCS0)_2TX EBW

2452MHz

24/09/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.05M	2.4345G	2.46955G	35.851M	2.434083G	2.469934G	500k	1
35M	2.4345G	2.4695G	35.788M	2.434063G	2.469851G	500k	2

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_2TX	23.02	0.20045
802.11g_Nss1,(6Mbps)_2TX	23.25	0.21135
802.11n HT20_Nss1,(MCS0)_2TX	23.24	0.21086
802.11n HT40_Nss1,(MCS0)_2TX	20.06	0.10139

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	1.96	19.63	19.91	22.78	30.00
2437MHz	Pass	1.96	20.03	19.87	22.96	30.00
2462MHz	Pass	1.96	20.20	19.81	23.02	30.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	1.96	17.11	17.45	20.29	30.00
2417MHz	Pass	1.96	20.22	19.63	22.95	30.00
2437MHz	Pass	1.96	19.93	20.47	23.22	30.00
2457MHz	Pass	1.96	20.52	19.94	23.25	30.00
2462MHz	Pass	1.96	16.09	15.79	18.95	30.00
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	1.96	15.40	16.05	18.75	30.00
2417MHz	Pass	1.96	20.00	19.71	22.87	30.00
2437MHz	Pass	1.96	20.04	20.42	23.24	30.00
2457MHz	Pass	1.96	18.10	18.09	21.11	30.00
2462MHz	Pass	1.96	14.03	14.56	17.31	30.00
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	1.96	12.69	13.25	15.99	30.00
2427MHz	Pass	1.96	14.26	14.68	17.49	30.00
2437MHz	Pass	1.96	17.11	16.98	20.06	30.00
2447MHz	Pass	1.96	14.65	14.71	17.69	30.00
2452MHz	Pass	1.96	12.65	12.92	15.80	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	-4.70
802.11g_Nss1,(6Mbps)_2TX	-4.21
802.11n HT20_Nss1,(MCS0)_2TX	-4.60
802.11n HT40_Nss1,(MCS0)_2TX	-9.43

RBW=3 kHz.

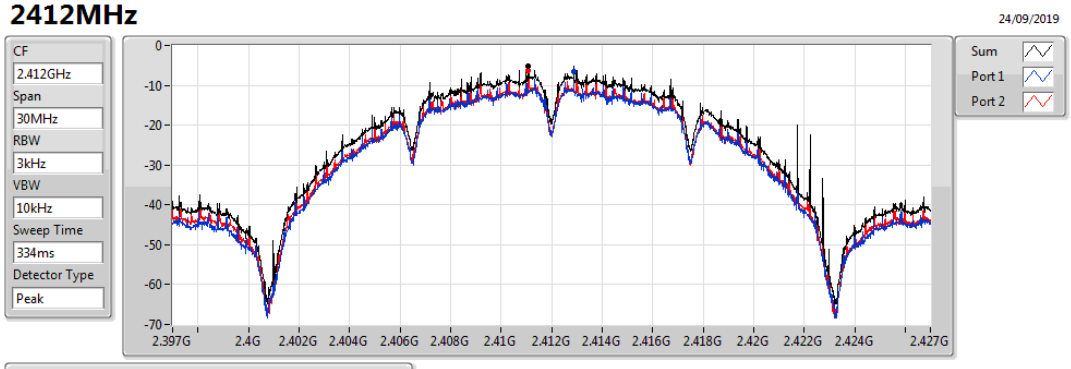
Result

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	4.97	-6.47	-6.37	-5.21	8.00
2437MHz	Pass	4.97	-5.81	-6.29	-4.86	8.00
2462MHz	Pass	4.97	-6.17	-5.83	-4.70	8.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.97	-10.32	-10.80	-8.10	8.00
2437MHz	Pass	4.97	-7.10	-7.13	-4.21	8.00
2462MHz	Pass	4.97	-10.74	-11.17	-8.83	8.00
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.97	-12.64	-10.78	-9.07	8.00
2437MHz	Pass	4.97	-6.75	-6.37	-4.60	8.00
2462MHz	Pass	4.97	-12.84	-12.51	-10.42	8.00
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	4.97	-16.94	-16.76	-14.41	8.00
2437MHz	Pass	4.97	-11.56	-12.69	-9.43	8.00
2452MHz	Pass	4.97	-16.55	-16.45	-14.42	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

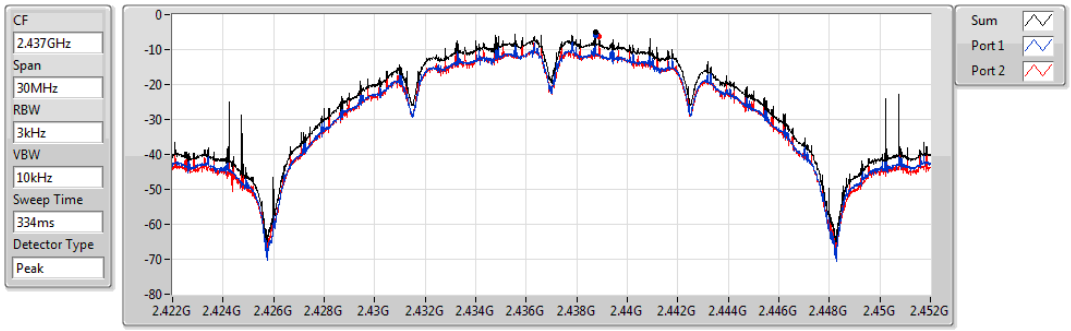
2412MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.21	-5.21	-6.47	-6.37

802.11b_Nss1,(1Mbps)_2TX PSD

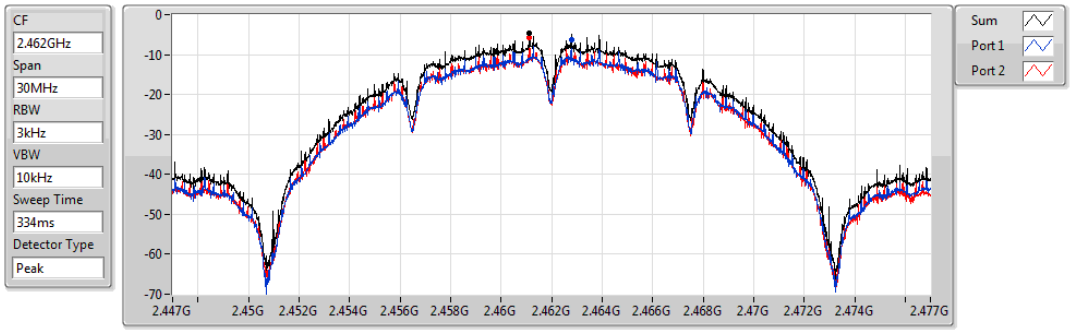
2437MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.86	-4.86	-5.81	-6.29

802.11b_Nss1,(1Mbps)_2TX PSD

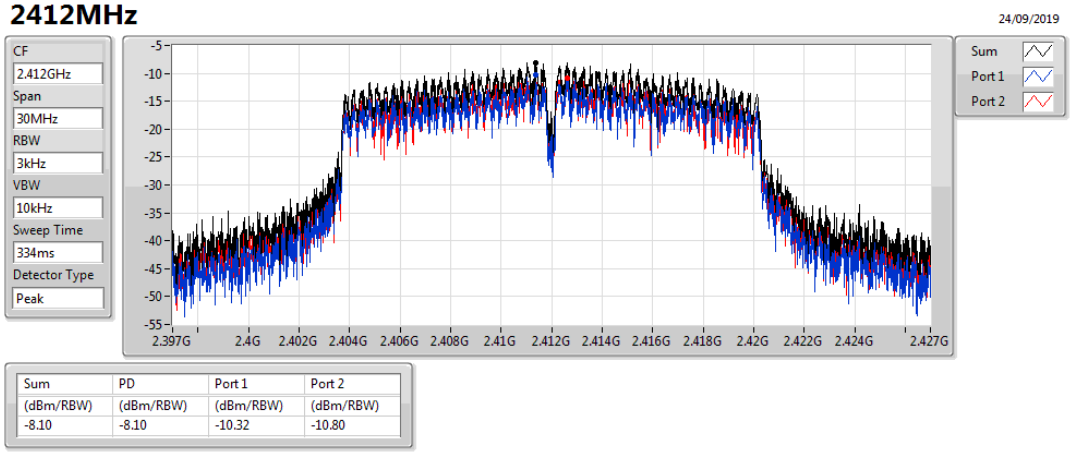
2462MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.70	-4.70	-6.17	-5.83

802.11g_Nss1,(6Mbps)_2TX PSD

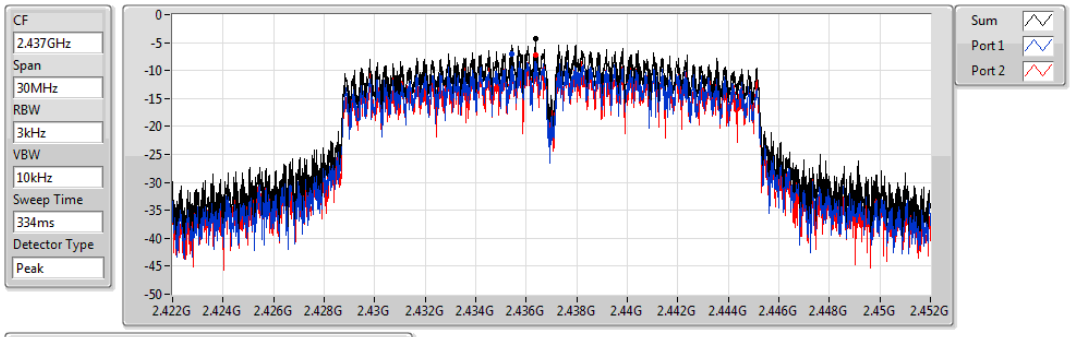
2412MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.10	-8.10	-10.32	-10.80

802.11g_Nss1,(6Mbps)_2TX PSD

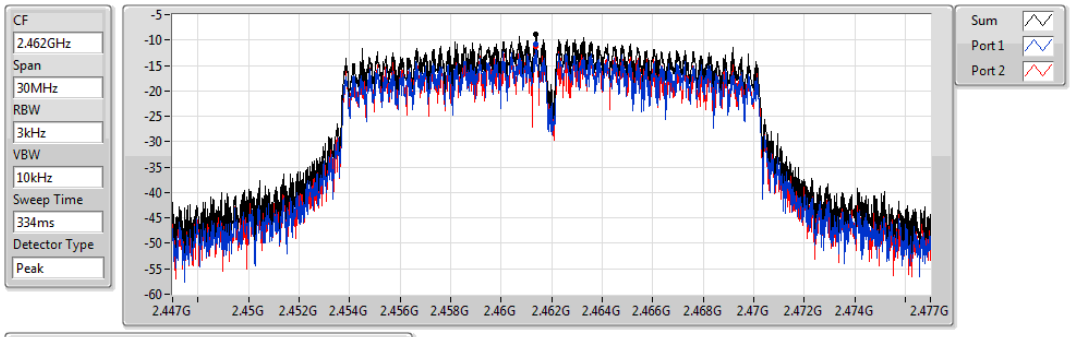
2437MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.21	-4.21	-7.10	-7.13

802.11g_Nss1,(6Mbps)_2TX PSD

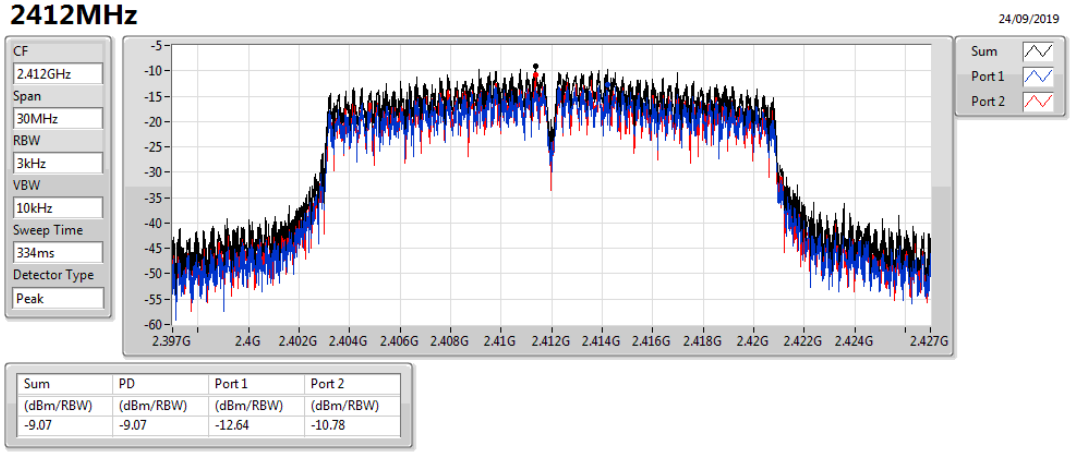
2462MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.83	-8.83	-10.74	-11.17

802.11n HT20_Nss1,(MCS0)_2TX PSD

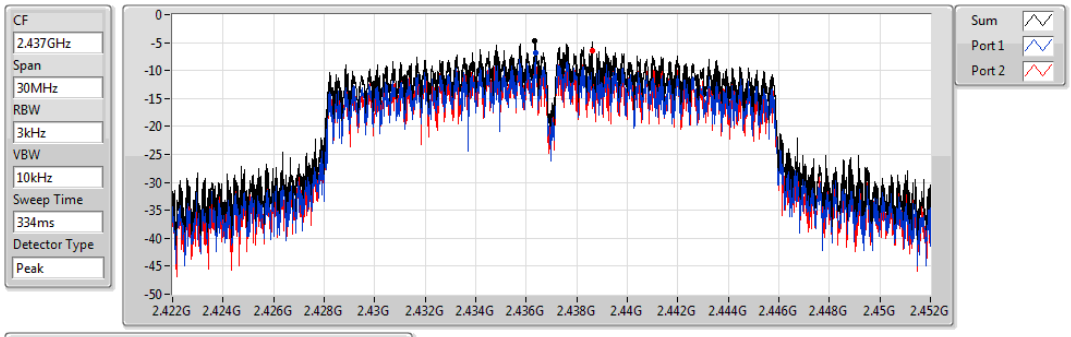
2412MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.07	-9.07	-12.64	-10.78

802.11n HT20_Nss1,(MCS0)_2TX PSD

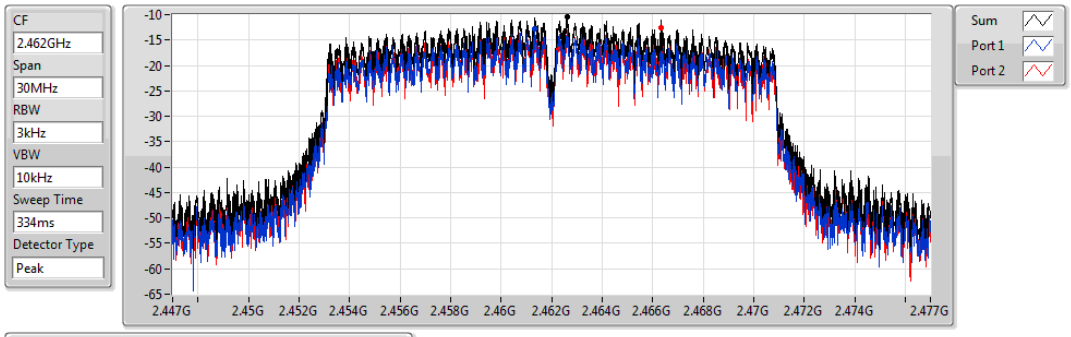
2437MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.60	-4.60	-6.75	-6.37

802.11n HT20_Nss1,(MCS0)_2TX PSD

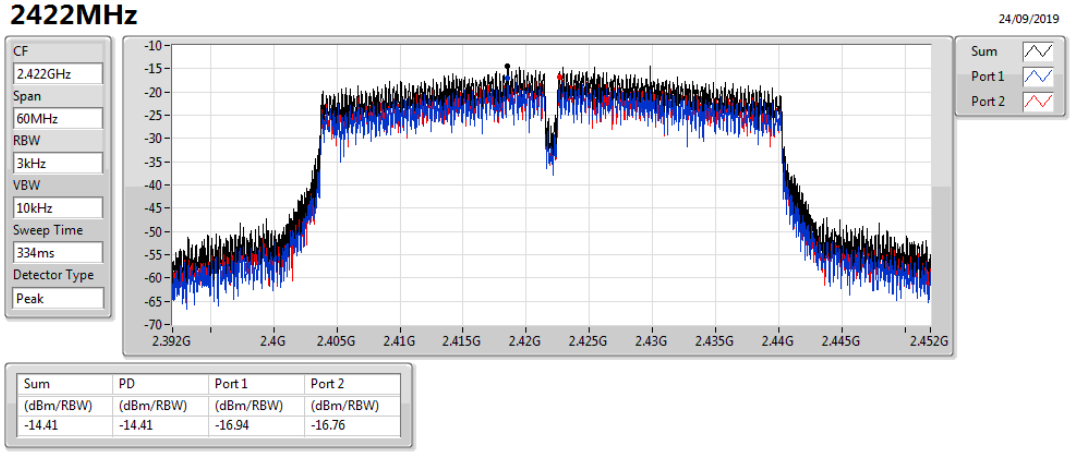
2462MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-10.42	-10.42	-12.84	-12.51

802.11n HT40_Nss1,(MCS0)_2TX PSD

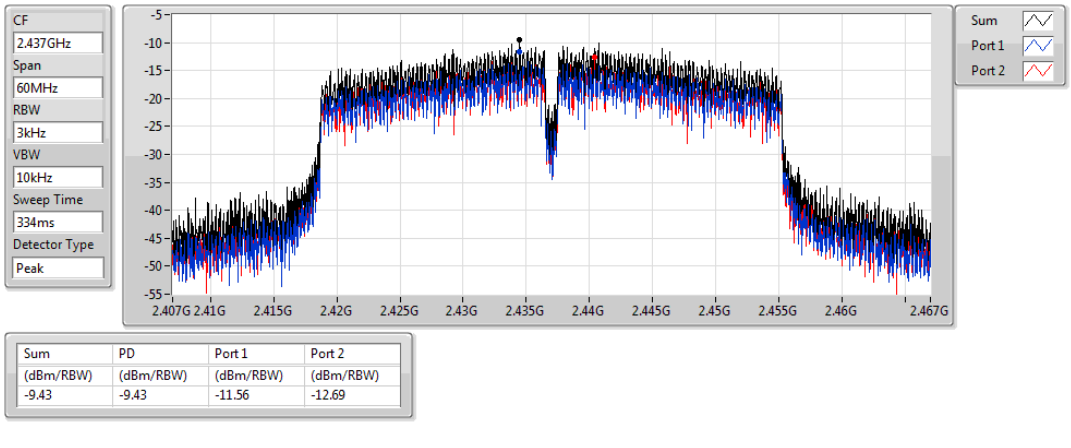
2422MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-14.41	-14.41	-16.94	-16.76

802.11n HT40_Nss1,(MCS0)_2TX PSD

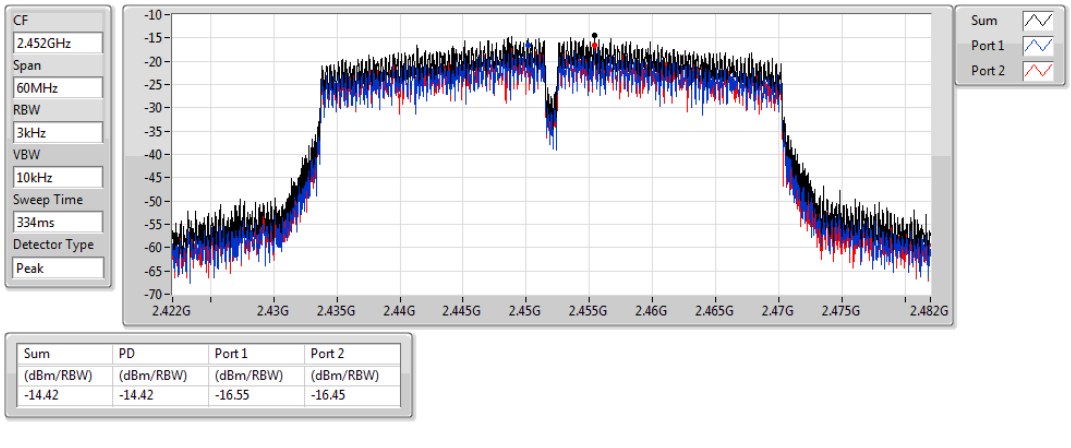
2437MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.43	-9.43	-11.56	-12.69

802.11n HT40_Nss1,(MCS0)_2TX PSD

2452MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-14.42	-14.42	-16.55	-16.45

Summary

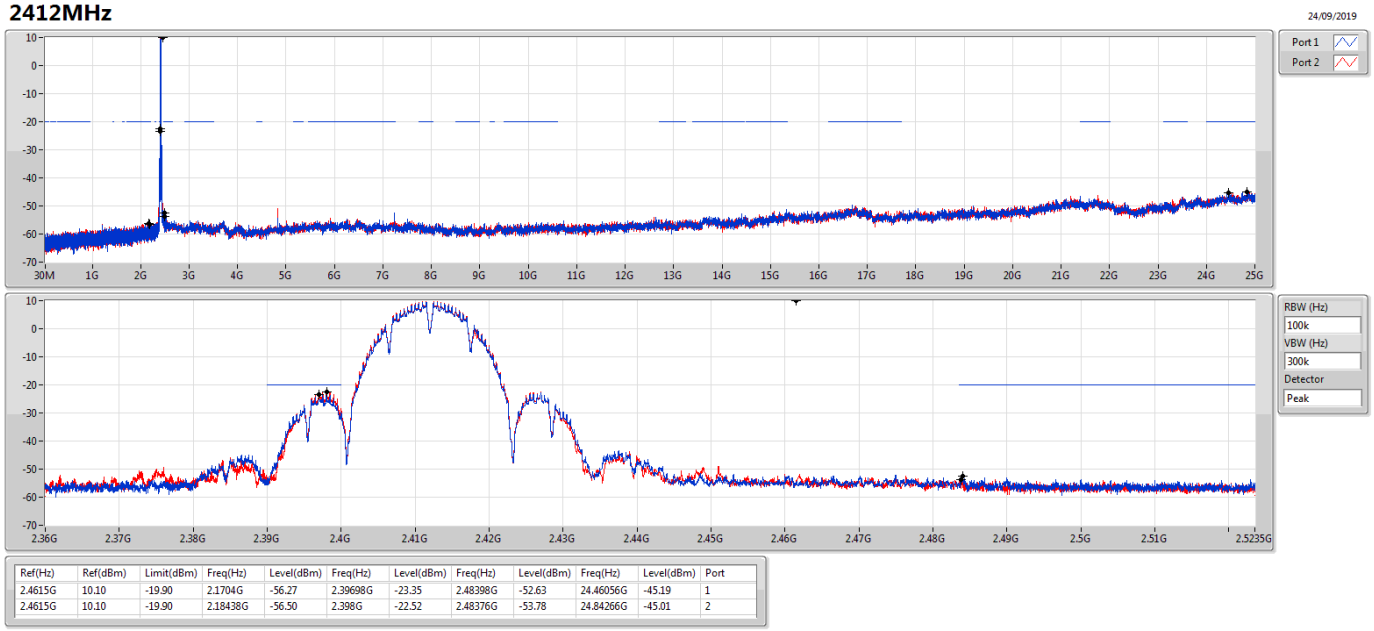
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	Pass	2.4615G	10.10	-19.90	2.18438G	-56.50	2.398G	-22.52	2.48376G	-53.78	24.84266G	-45.01	2
802.11g_Nss1,(6Mbps)_2TX	Pass	2.43574G	8.05	-21.95	2.30641G	-55.91	2.39938G	-22.76	2.49072G	-50.89	24.89043G	-45.05	2
802.11n HT20_Nss1,(MCS0)_2TX	Pass	2.4382G	9.54	-20.46	2.30903G	-55.93	2.3995G	-24.18	2.48508G	-51.92	24.4718G	-45.27	2
802.11n HT40_Nss1,(MCS0)_2TX	Pass	2.43449G	4.74	-25.26	479.7M	-54.42	2.39952G	-29.11	2.48378G	-44.09	24.89062G	-45.32	2

Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.4615G	10.10	-19.90	2.1704G	-56.27	2.39698G	-23.35	2.48398G	-52.63	24.46056G	-45.19	1
2412MHz	Pass	2.4615G	10.10	-19.90	2.18438G	-56.50	2.398G	-22.52	2.48376G	-53.78	24.84266G	-45.01	2
2437MHz	Pass	2.4615G	10.10	-19.90	2.19311G	-56.55	2.39562G	-52.92	2.48796G	-51.82	24.90728G	-45.22	1
2437MHz	Pass	2.4615G	10.10	-19.90	2.30321G	-56.60	2.39946G	-50.79	2.484G	-52.29	24.90167G	-45.05	2
2462MHz	Pass	2.4615G	10.10	-19.90	2.16923G	-55.93	2.39268G	-54.62	2.48648G	-43.72	24.90167G	-44.74	1
2462MHz	Pass	2.4615G	10.10	-19.90	2.10836G	-56.32	2.3994G	-54.34	2.489G	-46.00	24.95505G	-44.84	2
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43574G	8.05	-21.95	2.3067G	-56.40	2.39986G	-24.65	2.48914G	-51.48	24.89605G	-44.51	1
2412MHz	Pass	2.43574G	8.05	-21.95	2.30641G	-55.91	2.39938G	-22.76	2.49072G	-50.89	24.89043G	-45.05	2
2437MHz	Pass	2.43574G	8.05	-21.95	2.30932G	-55.78	2.3976G	-50.26	2.49074G	-49.50	24.87076G	-45.15	1
2437MHz	Pass	2.43574G	8.05	-21.95	2.30408G	-55.73	2.39672G	-50.76	2.48422G	-50.40	24.93257G	-44.55	2
2462MHz	Pass	2.43574G	8.05	-21.95	2.18729G	-56.53	2.3971G	-52.60	2.48362G	-42.36	24.93257G	-44.98	1
2462MHz	Pass	2.43574G	8.05	-21.95	2.30845G	-56.24	2.39106G	-51.57	2.4839G	-42.70	24.78085G	-44.63	2
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.4382G	9.54	-20.46	2.18642G	-56.57	2.39988G	-27.05	2.49174G	-51.91	24.85952G	-45.41	1
2412MHz	Pass	2.4382G	9.54	-20.46	2.30903G	-55.93	2.3995G	-24.18	2.48508G	-51.92	24.4718G	-45.27	2
2437MHz	Pass	2.4382G	9.54	-20.46	2.08681G	-56.38	2.3992G	-49.12	2.48642G	-49.71	24.8539G	-45.30	1
2437MHz	Pass	2.4382G	9.54	-20.46	2.08943G	-56.10	2.39984G	-50.11	2.48358G	-50.59	24.90447G	-45.31	2
2462MHz	Pass	2.4382G	9.54	-20.46	2.30321G	-56.23	2.39074G	-52.81	2.48386G	-43.36	24.95505G	-44.62	1
2462MHz	Pass	2.4382G	9.54	-20.46	2.16224G	-56.31	2.39944G	-52.52	2.48386G	-43.23	24.89886G	-44.12	2
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.43449G	4.74	-25.26	2.14424G	-55.77	2.39828G	-37.39	2.4895G	-52.20	24.96915G	-45.11	1
2422MHz	Pass	2.43449G	4.74	-25.26	1.92669G	-56.48	2.397G	-34.89	2.48542G	-52.82	24.8794G	-44.83	2
2437MHz	Pass	2.43449G	4.74	-25.26	2.30025G	-56.47	2.39948G	-31.82	2.48362G	-44.47	24.95232G	-45.10	1
2437MHz	Pass	2.43449G	4.74	-25.26	479.7M	-54.42	2.39952G	-29.11	2.48378G	-44.09	24.89062G	-45.32	2
2452MHz	Pass	2.43449G	4.74	-25.26	2.18146G	-56.21	2.39452G	-52.02	2.48454G	-40.97	24.83453G	-45.07	1
2452MHz	Pass	2.43449G	4.74	-25.26	2.16514G	-56.52	2.39828G	-53.21	2.48446G	-39.88	24.86258G	-44.90	2

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

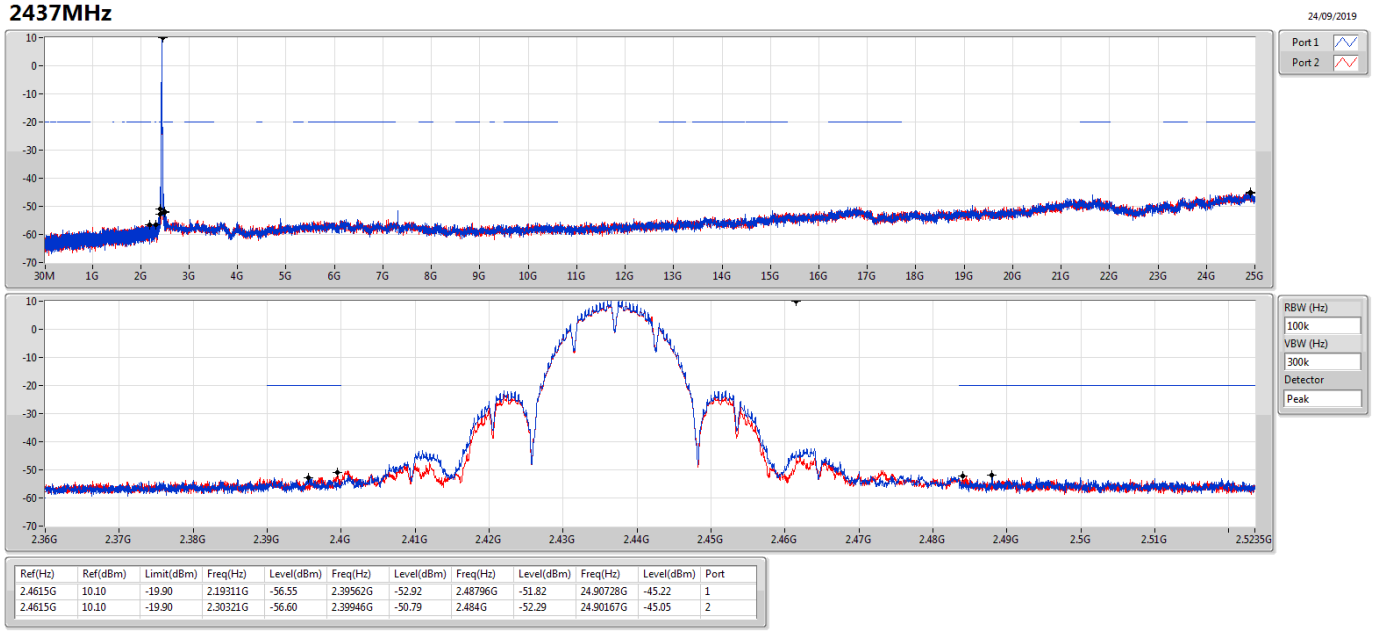
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4615G	10.10	-19.90	2.1704G	-56.27	2.39698G	-23.35	2.48398G	-52.63	24.46056G	-45.19	1
2.4615G	10.10	-19.90	2.18438G	-56.50	2.398G	-22.52	2.48376G	-53.78	24.84266G	-45.01	2

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

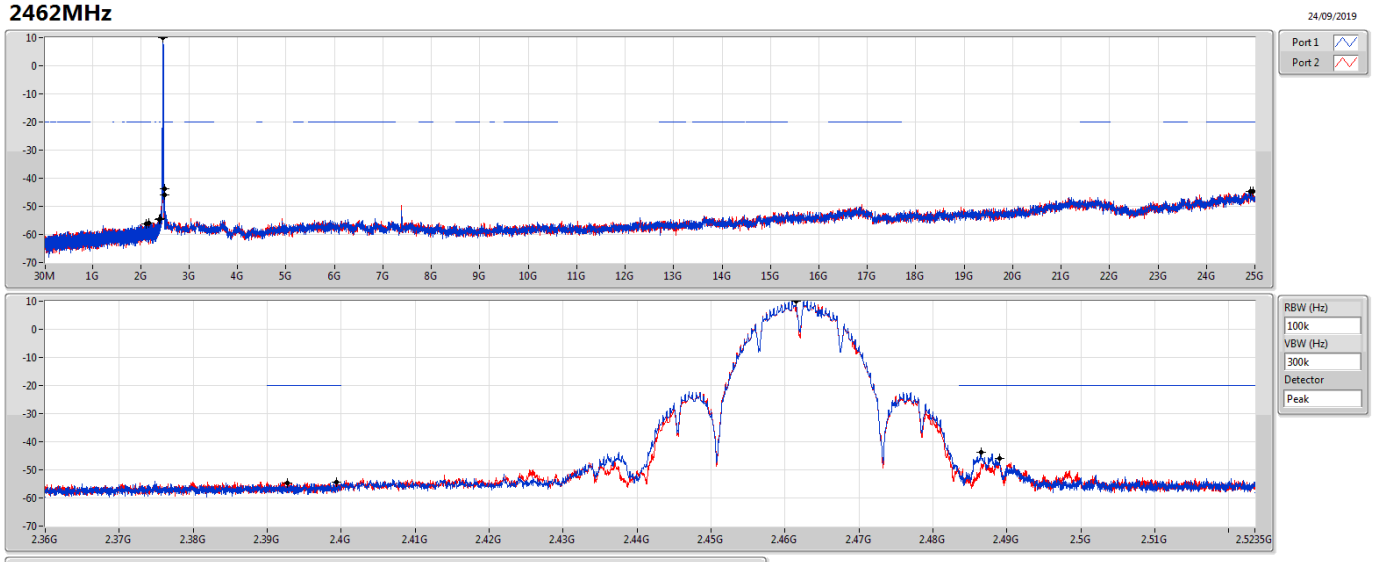
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4615G	10.10	-19.90	2.19311G	-56.55	2.39562G	-52.92	2.48796G	-51.82	24.90728G	-45.22	1
2.4615G	10.10	-19.90	2.30321G	-56.60	2.39946G	-50.79	2.484G	-52.29	24.90167G	-45.05	2

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

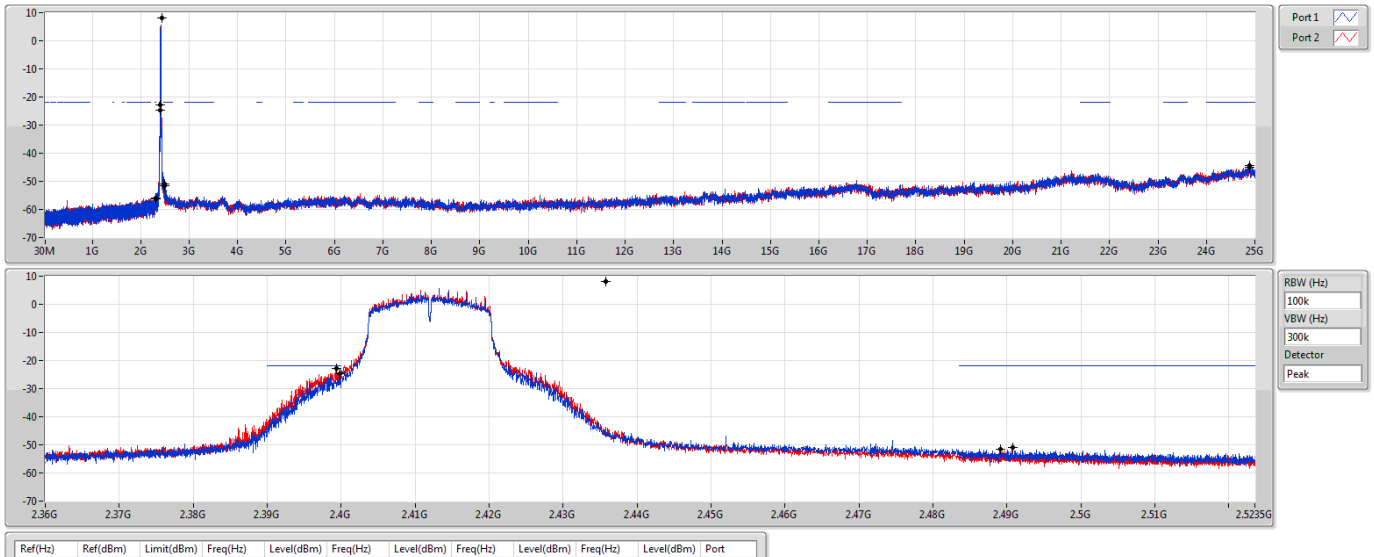
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4615G	10.10	-19.90	2.16923G	-55.93	2.39268G	-54.62	2.48648G	-43.72	24.90167G	-44.74	1
2.4615G	10.10	-19.90	2.10836G	-56.32	2.3994G	-54.34	2.489G	-46.00	24.95505G	-44.84	2

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

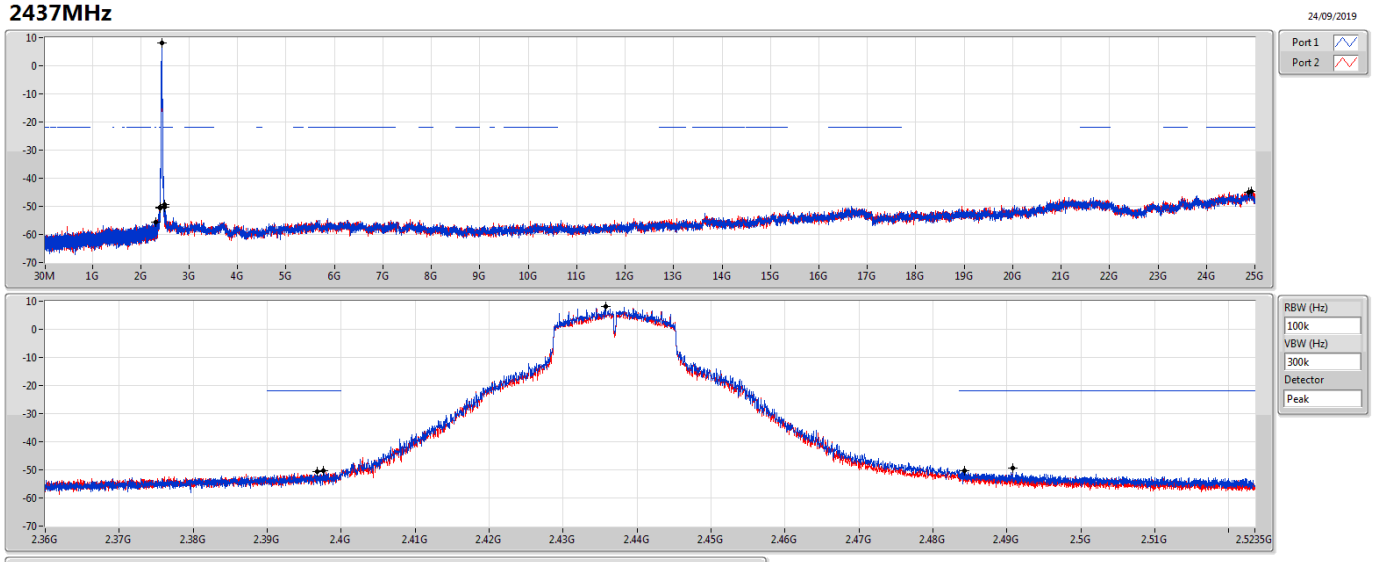
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43574G	8.05	-21.95	2.3067G	-56.40	2.39986G	-24.65	2.48914G	-51.48	24.89605G	-44.51	1
2.43574G	8.05	-21.95	2.30641G	-55.91	2.39938G	-22.76	2.49072G	-50.89	24.89043G	-45.05	2

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

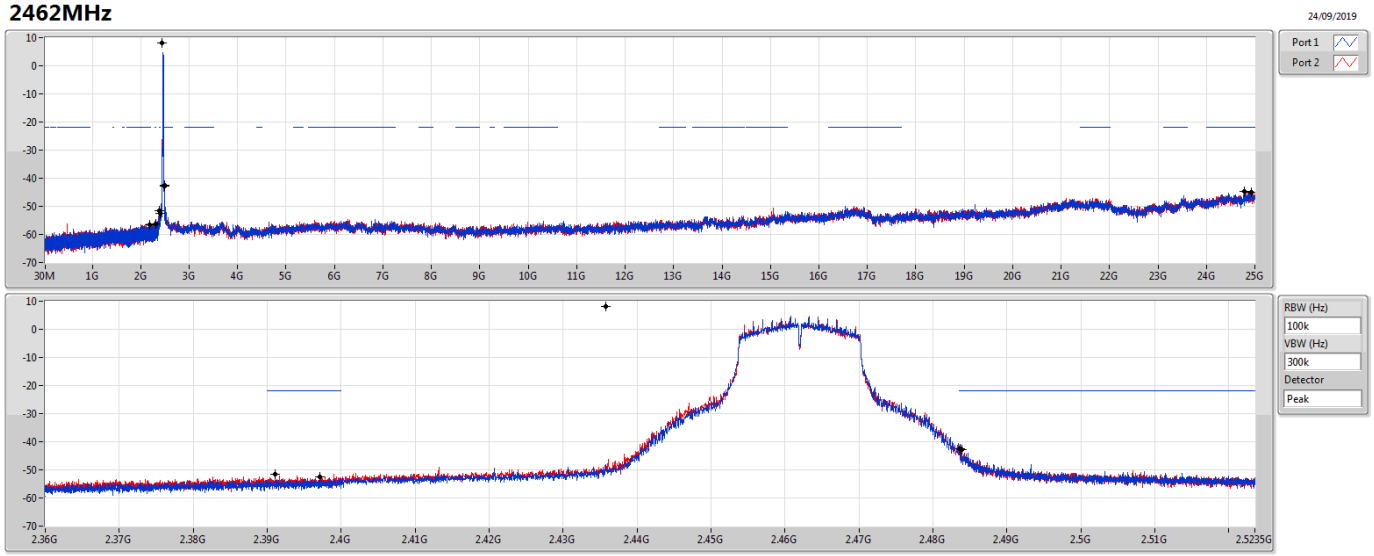
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43574G	8.05	-21.95	2.30932G	-55.78	2.3976G	-50.26	2.49074G	-49.50	24.87076G	-45.15	1
2.43574G	8.05	-21.95	2.30408G	-55.73	2.39672G	-50.76	2.48422G	-50.40	24.93257G	-44.55	2

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

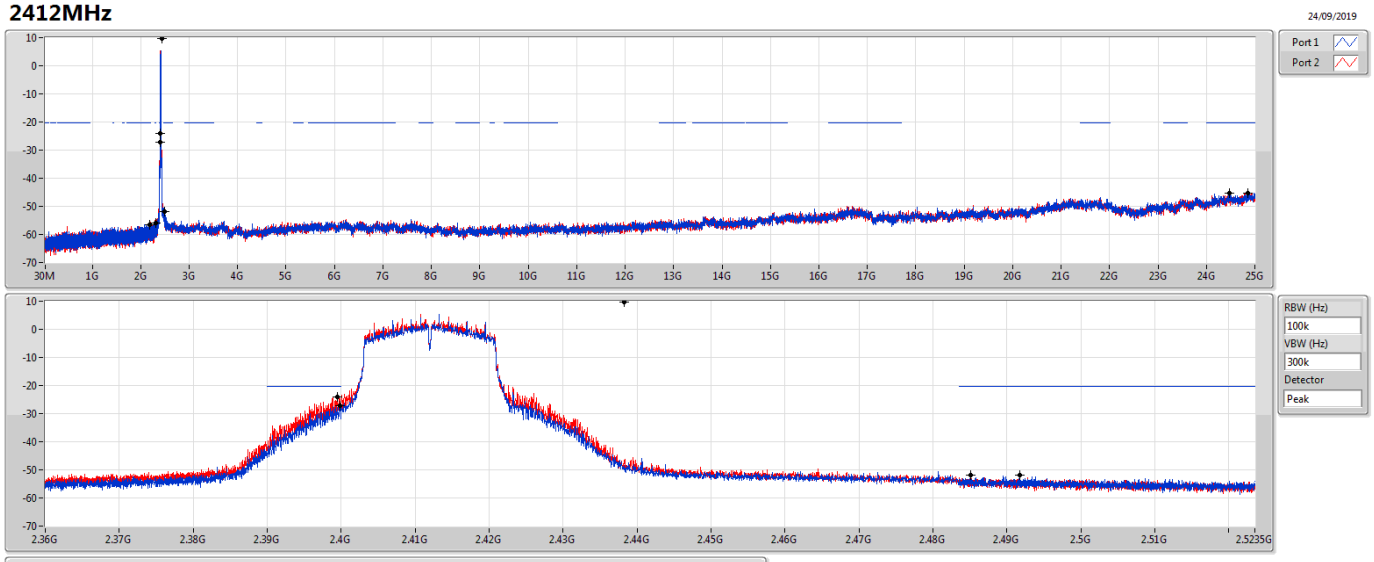
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43574G	8.05	-21.95	2.18729G	-56.53	2.3971G	-52.60	2.48362G	-42.36	24.93257G	-44.98	1
2.43574G	8.05	-21.95	2.30845G	-56.24	2.39106G	-51.57	2.4839G	-42.70	24.78085G	-44.63	2

802.11n HT20_Nss1,(MCS0)_2TX **CSE NdB**

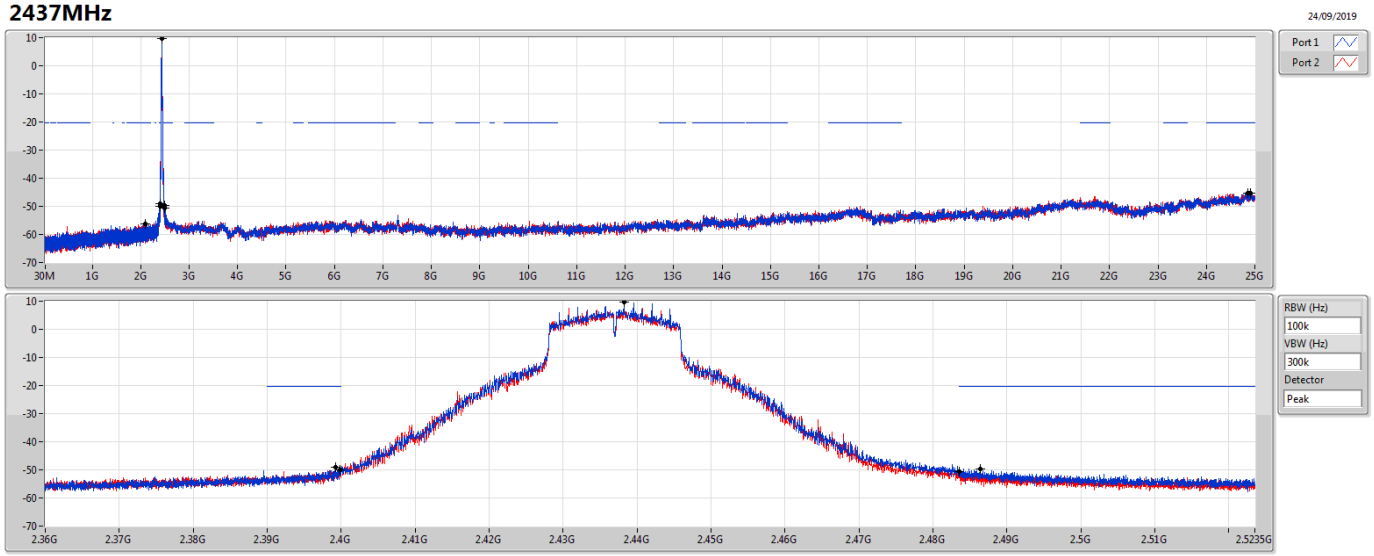
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4382G	9.54	-20.46	2.18642G	-56.57	2.39988G	-27.05	2.49174G	-51.91	24.85952G	-45.41	1
2.4382G	9.54	-20.46	2.30903G	-55.93	2.3995G	-24.18	2.48508G	-51.92	24.4718G	-45.27	2

802.11n HT20_Nss1,(MCS0)_2TX **CSE NdB**

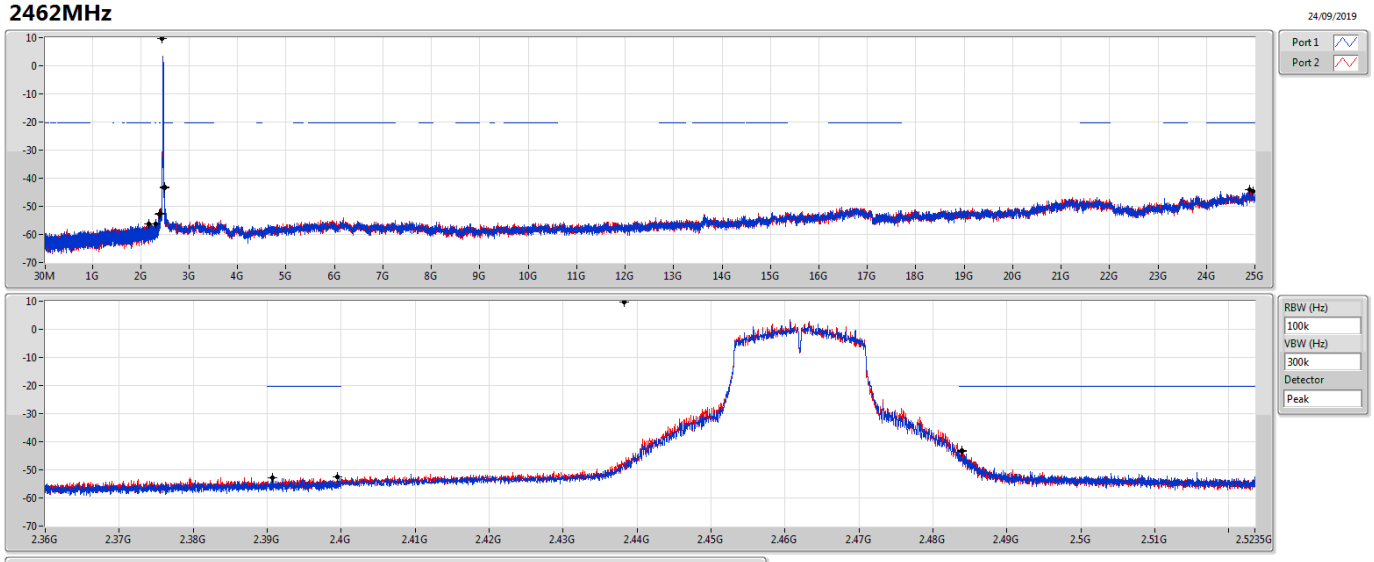
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4382G	9.54	-20.46	2.08681G	-56.38	2.3992G	-49.12	2.48642G	-49.71	24.8539G	-45.30	1
2.4382G	9.54	-20.46	2.08943G	-56.10	2.39984G	-50.11	2.48358G	-50.59	24.90447G	-45.31	2

802.11n HT20_Nss1,(MCS0)_2TX **CSE NdB**

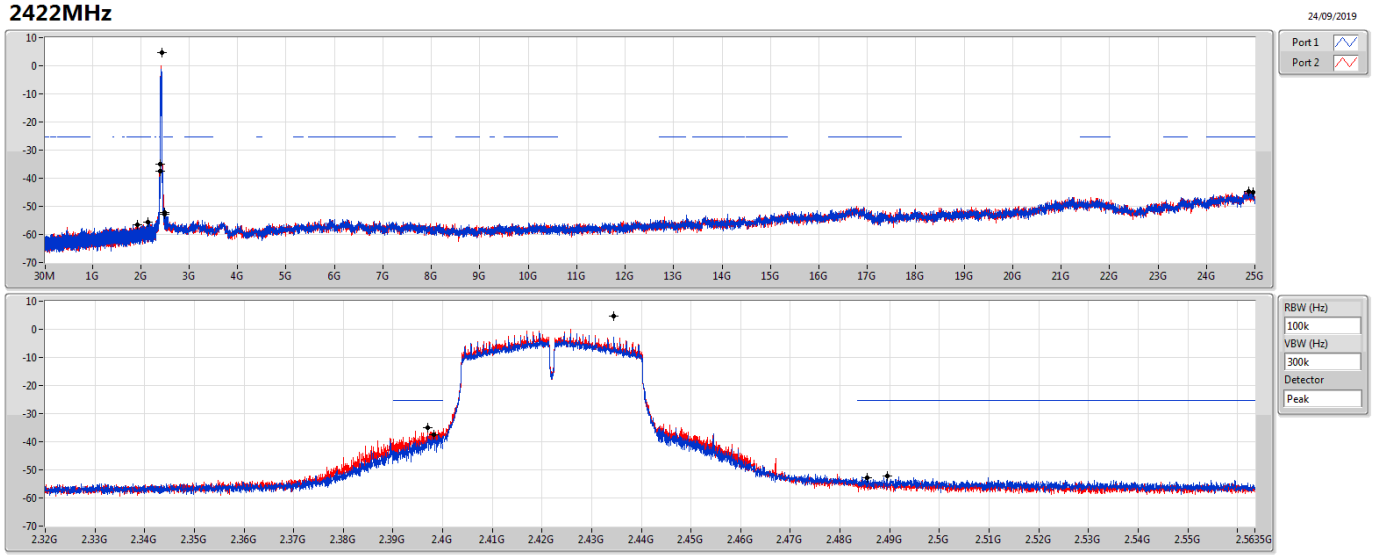
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4382G	9.54	-20.46	2.30321G	-56.23	2.39074G	-52.81	2.48386G	-43.36	24.95505G	-44.62	1
2.4382G	9.54	-20.46	2.16224G	-56.31	2.39944G	-52.52	2.48386G	-43.23	24.89886G	-44.12	2

802.11n HT40_Nss1,(MCS0)_2TX **CSE NdB**

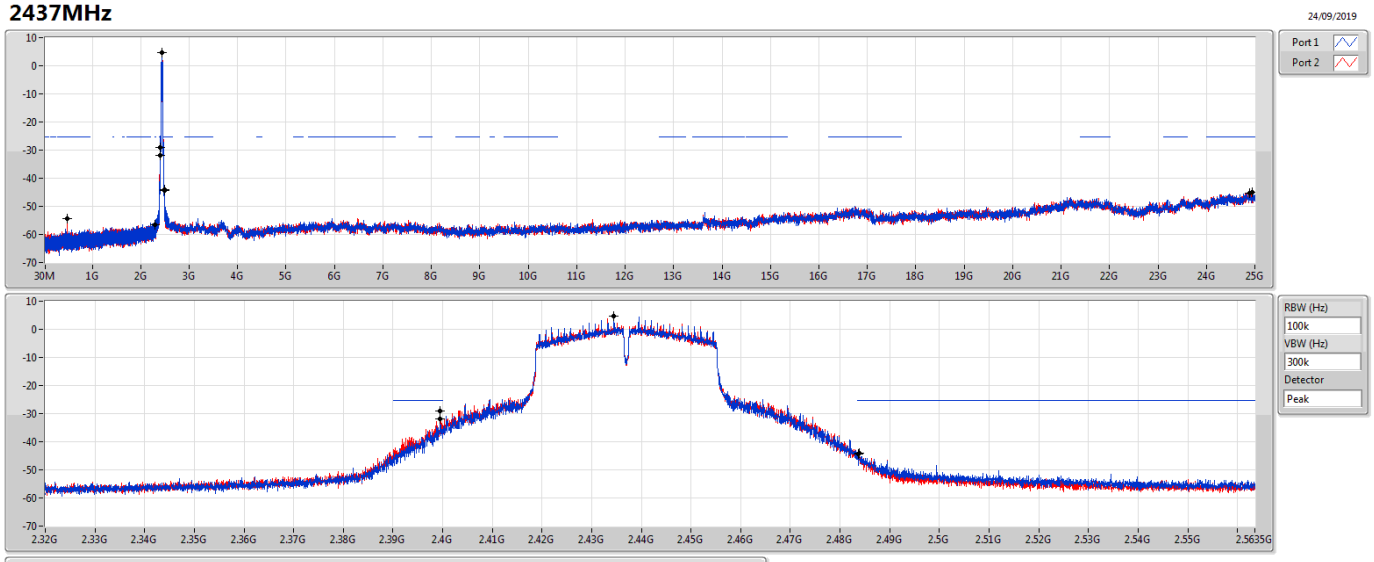
2422MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43449G	4.74	-25.26	2.14424G	-55.77	2.39828G	-37.39	2.4895G	-52.20	24.96915G	-45.11	1
2.43449G	4.74	-25.26	1.92669G	-56.48	2.397G	-34.89	2.48542G	-52.82	24.8794G	-44.83	2

802.11n HT40_Nss1,(MCS0)_2TX **CSE NdB**

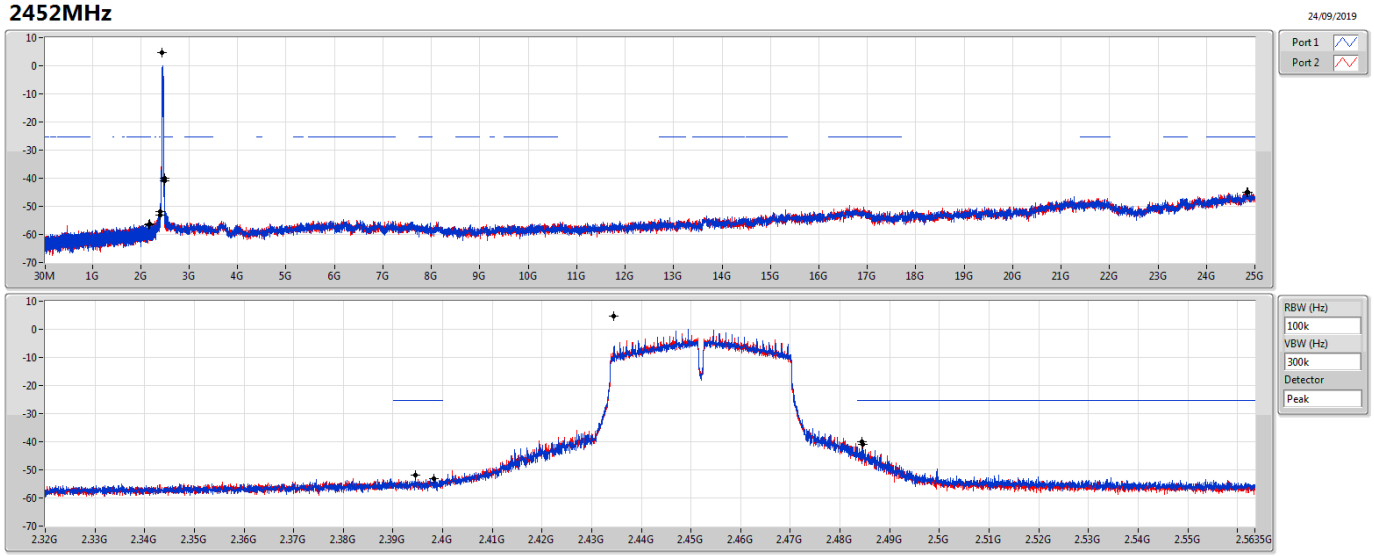
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43449G	4.74	-25.26	2.30025G	-56.47	2.39948G	-31.82	2.48362G	-44.47	24.95232G	-45.10	1
2.43449G	4.74	-25.26	479.7M	-54.42	2.39952G	-29.11	2.48378G	-44.09	24.89062G	-45.32	2

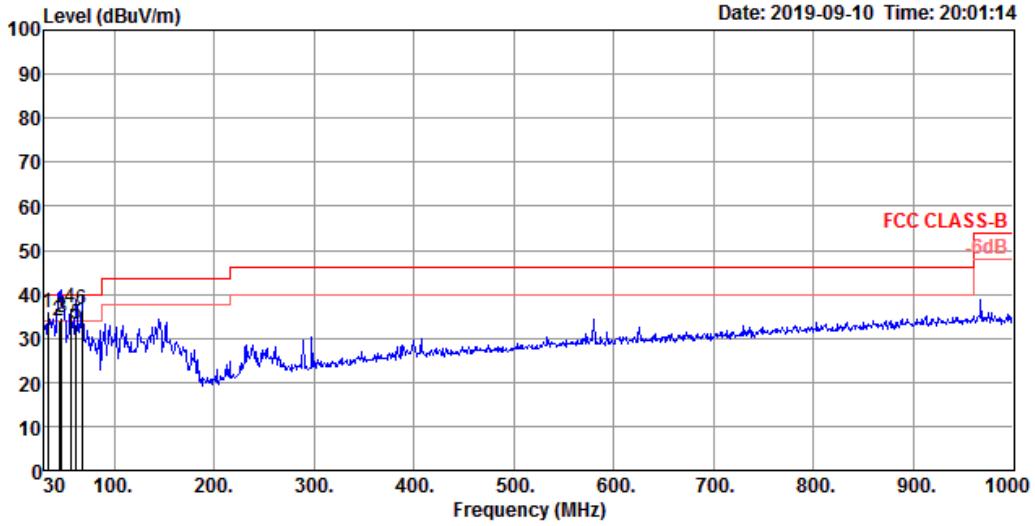
802.11n HT40_Nss1,(MCS0)_2TX **CSE NdB**

2452MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43449G	4.74	-25.26	2.18146G	-56.21	2.39452G	-52.02	2.48454G	-40.97	24.83453G	-45.07	1
2.43449G	4.74	-25.26	2.16514G	-56.52	2.39828G	-53.21	2.48446G	-39.88	24.86258G	-44.90	2

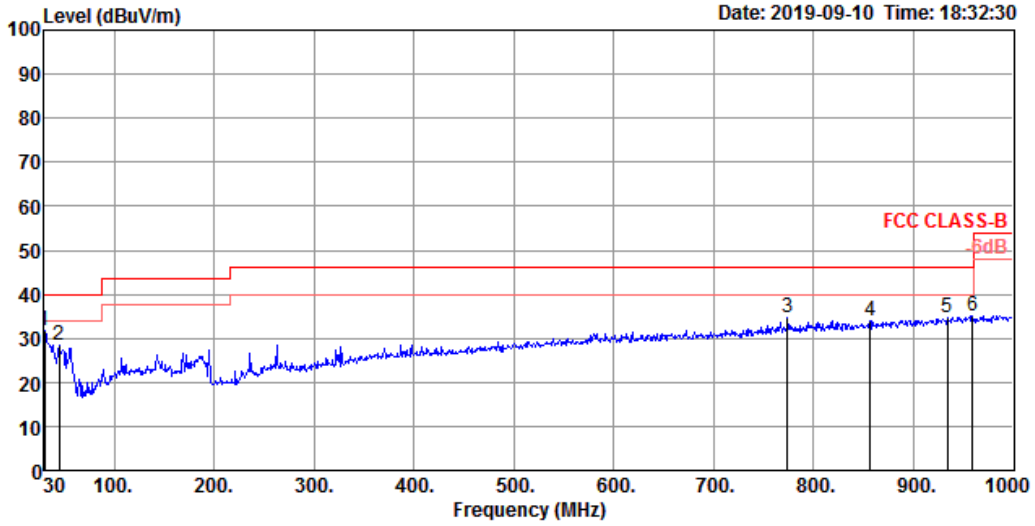
RSE below 1GHz Result			
Operating Mode	2	**Polarization**	Vertical
Operating Function	Normal Link		



	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	33.88	35.76	40.00	-4.24	43.13	0.74	23.39	31.50	100	309	Peak	VERTICAL
2	44.55	33.86	40.00	-6.14	47.31	0.89	17.25	31.59	200	126	QP	VERTICAL
3	47.46	34.64	40.00	-5.36	49.50	0.91	15.90	31.67	100	60	QP	VERTICAL
4	56.19	36.85	40.00	-3.15	54.32	0.94	13.40	31.81	100	28	Peak	VERTICAL
5	62.01	33.09	40.00	-6.91	51.35	1.00	12.60	31.86	100	198	QP	VERTICAL
6	67.83	36.53	40.00	-3.47	54.80	1.01	12.60	31.88	100	118	QP	VERTICAL

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

RSE below 1GHz Result			
Operating Mode	2	**Polarization**	Horizontal
Operating Function	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	30.00	31.90	40.00	-8.10	37.11	0.67	25.70	31.58	125	147	Peak	HORIZONTAL
2	44.55	28.51	40.00	-11.49	41.96	0.89	17.25	31.59	100	306	Peak	HORIZONTAL
3	773.99	34.85	46.00	-11.15	37.04	3.68	26.45	32.32	200	164	Peak	HORIZONTAL
4	856.44	34.10	46.00	-11.90	35.34	3.80	27.35	32.39	150	136	Peak	HORIZONTAL
5	934.04	34.84	46.00	-11.16	34.98	4.10	27.92	32.16	100	355	Peak	HORIZONTAL
6	959.26	35.20	46.00	-10.80	35.09	4.12	28.06	32.07	125	265	Peak	HORIZONTAL

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

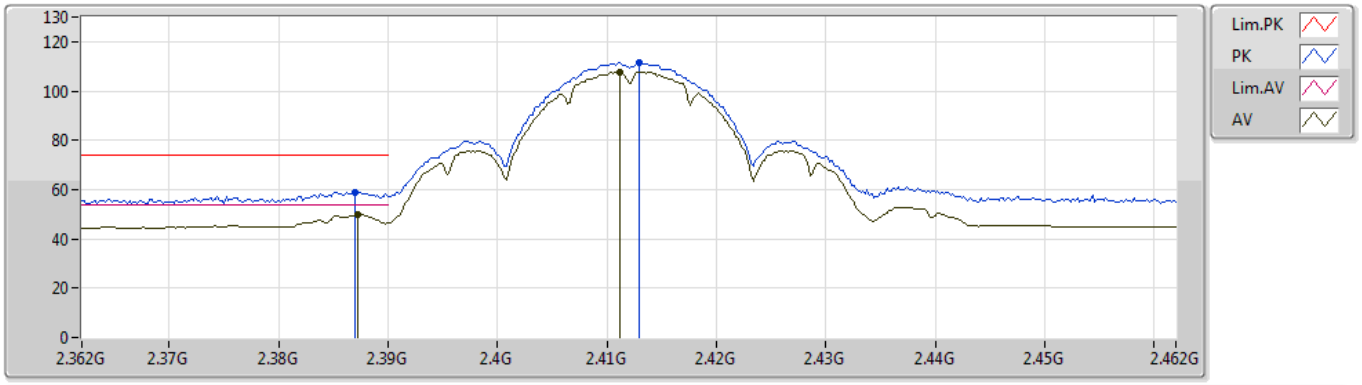
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	Pass	AV	4.82406G	53.98	54.00	-0.02	4.71	3	Vertical	196	2.24	-

802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

18/09/2019



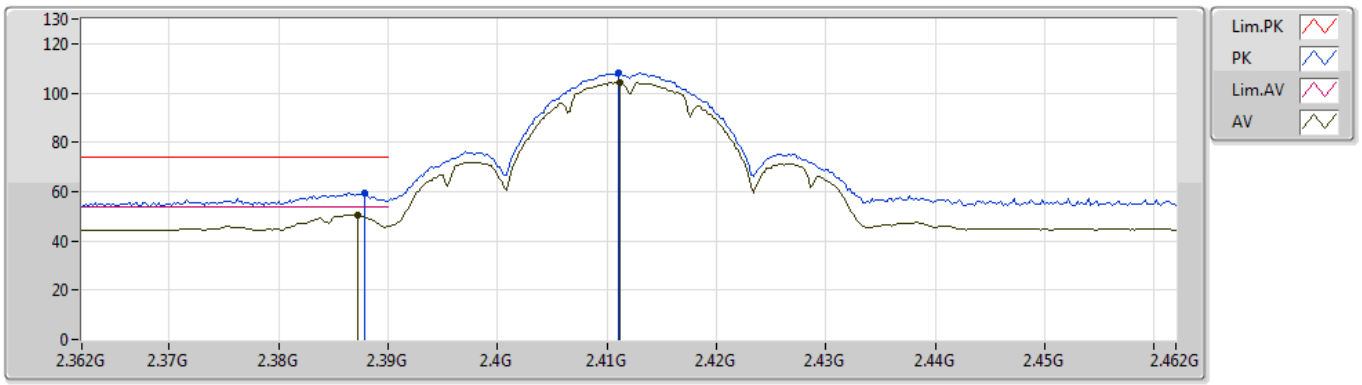
EUT Y_2TX
Setting 22
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.387G	58.95	74.00	-15.05	31.92	3	Vertical	269	1.19	-	27.03
AV	2.3872G	49.94	54.00	-4.06	31.92	3	Vertical	269	1.19	-	18.02
PK	2.413G	111.55	Inf	-Inf	32.01	3	Vertical	269	1.19	-	79.54
AV	2.4112G	107.74	Inf	-Inf	32.00	3	Vertical	269	1.19	-	75.74

802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

18/09/2019



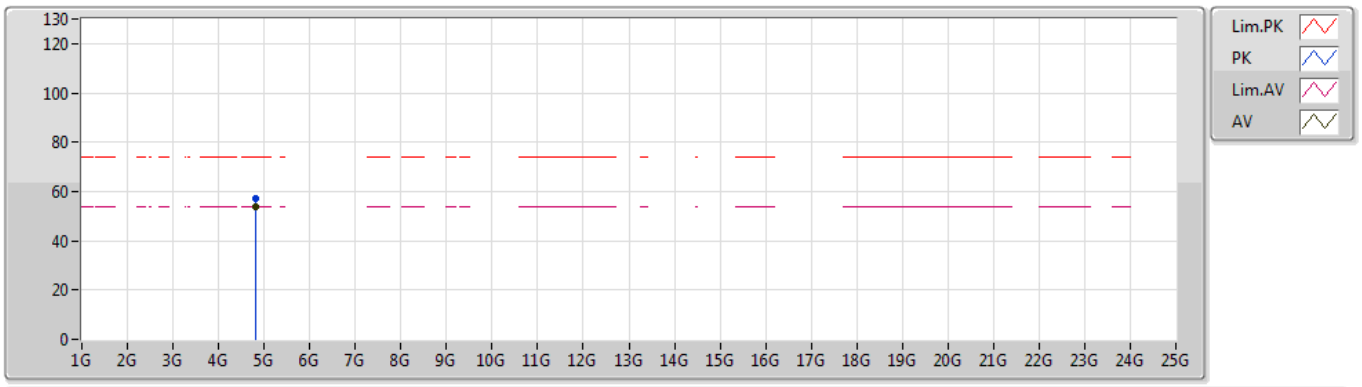
EUT Y_2TX
Setting 22
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.3878G	59.35	74.00	-14.65	31.93	3	Horizontal	0	1.09	-	27.42
AV	2.3872G	50.65	54.00	-3.35	31.92	3	Horizontal	0	1.09	-	18.73
PK	2.411G	108.15	Inf	-Inf	32.00	3	Horizontal	0	1.09	-	76.15
AV	2.4112G	104.50	Inf	-Inf	32.00	3	Horizontal	0	1.09	-	72.50

802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

18/09/2019



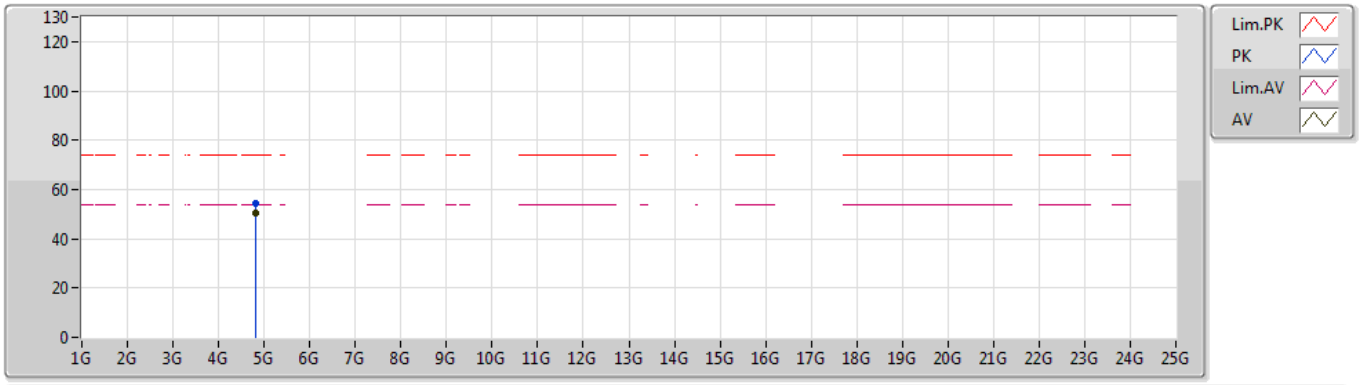
EUT Y_2TX
Setting 22
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	4.82409G	56.93	74.00	-17.07	4.71	3	Vertical	196	2.24	-	52.22
AV	4.82406G	53.98	54.00	-0.02	4.71	3	Vertical	196	2.24	-	49.27

802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

18/09/2019



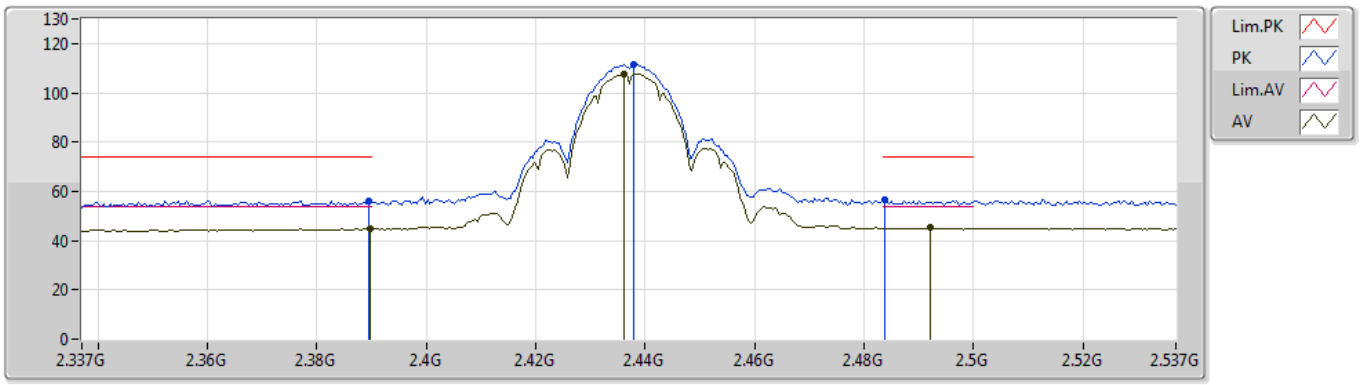
EUT Y_2TX
Setting 22
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	4.82402G	54.22	74.00	-19.78	4.71	3	Horizontal	128	1.08	-	49.51
AV	4.82404G	50.33	54.00	-3.67	4.71	3	Horizontal	128	1.08	-	45.62

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

18/09/2019



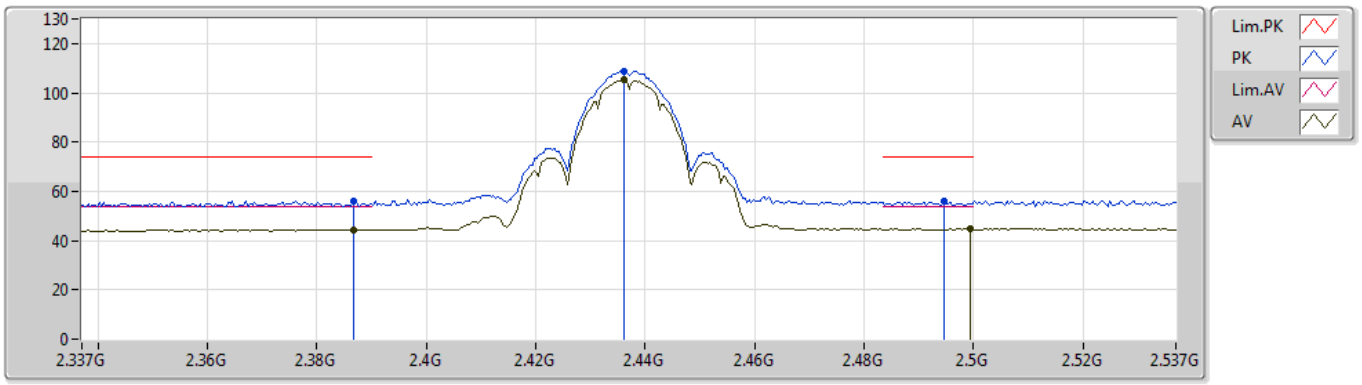
EUT Y_2TX
Setting 22
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.3894G	56.16	74.00	-17.84	31.93	3	Vertical	268	1.10	-	24.23
AV	2.3898G	45.05	54.00	-8.95	31.93	3	Vertical	268	1.10	-	13.12
PK	2.4378G	111.62	Inf	-Inf	32.09	3	Vertical	268	1.10	-	79.53
AV	2.4362G	107.72	Inf	-Inf	32.09	3	Vertical	268	1.10	-	75.63
PK	2.4838G	56.58	74.00	-17.42	32.25	3	Vertical	268	1.10	-	24.33
AV	2.4922G	45.17	54.00	-8.83	32.29	3	Vertical	268	1.10	-	12.88

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

18/09/2019



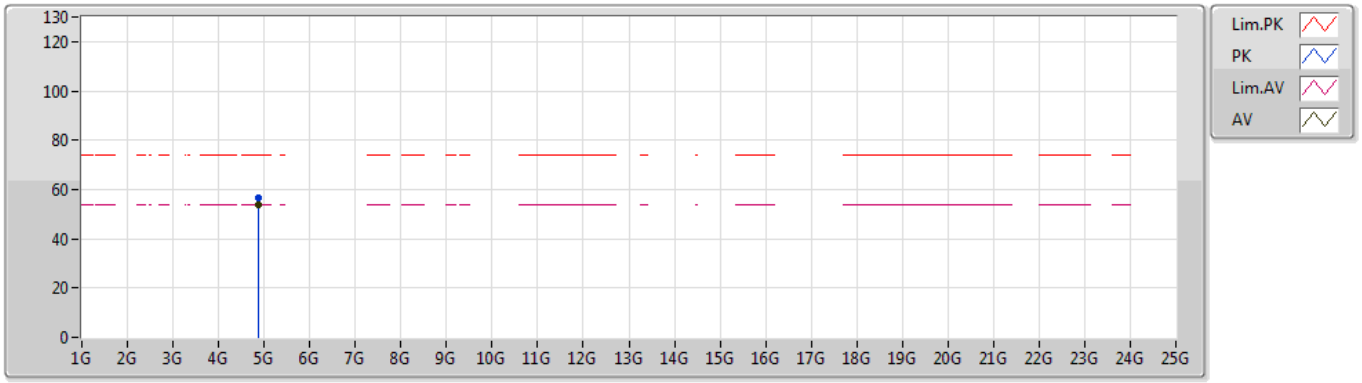
EUT Y_2TX
Setting 22
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.3866G	56.13	74.00	-17.87	31.92	3	Horizontal	0	1.49	-	24.21
AV	2.3866G	44.36	54.00	-9.64	31.92	3	Horizontal	0	1.49	-	12.44
PK	2.4362G	108.81	Inf	-Inf	32.09	3	Horizontal	0	1.49	-	76.72
AV	2.4362G	105.08	Inf	-Inf	32.09	3	Horizontal	0	1.49	-	72.99
PK	2.4946G	55.82	74.00	-18.18	32.29	3	Horizontal	0	1.49	-	23.53
AV	2.4994G	44.67	54.00	-9.33	32.31	3	Horizontal	0	1.49	-	12.36

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

18/09/2019



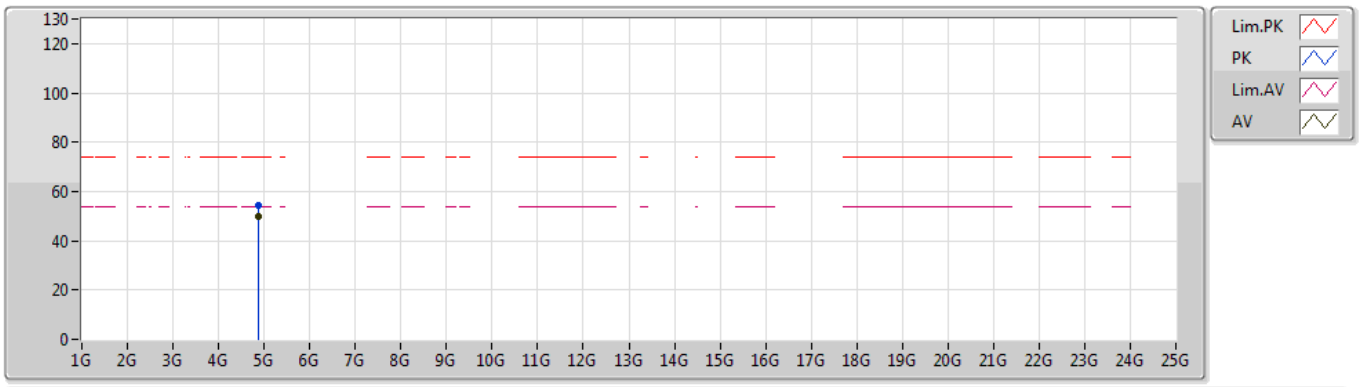
EUT Y_2TX
Setting 22
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	4.87404G	56.48	74.00	-17.52	4.80	3	Vertical	137	2.05	-	51.68
AV	4.87406G	53.71	54.00	-0.29	4.80	3	Vertical	137	2.05	-	48.91

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

18/09/2019



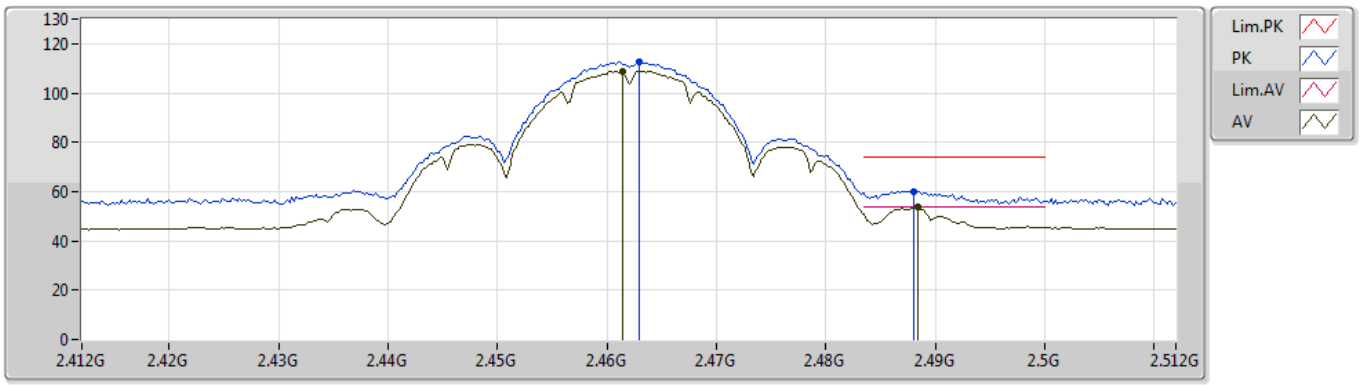
EUT Y_2TX
Setting 22
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	4.8741G	54.13	74.00	-19.87	4.80	3	Horizontal	126	1.55	-	49.33
AV	4.87403G	50.03	54.00	-3.97	4.80	3	Horizontal	126	1.55	-	45.23

802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

18/09/2019



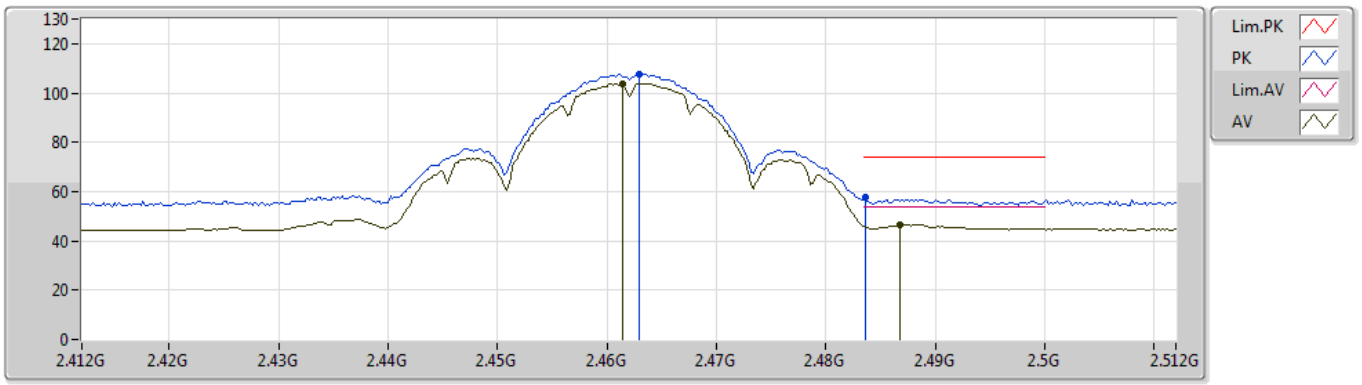
EUT Y_2TX
Setting 22
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.463G	112.57	Inf	-Inf	32.18	3	Vertical	243	1.07	-	80.39
AV	2.4614G	108.79	Inf	-Inf	32.17	3	Vertical	243	1.07	-	76.62
PK	2.488G	60.17	74.00	-13.83	32.26	3	Vertical	243	1.07	-	27.91
AV	2.4884G	53.55	54.00	-0.45	32.27	3	Vertical	243	1.07	-	21.28

802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

18/09/2019



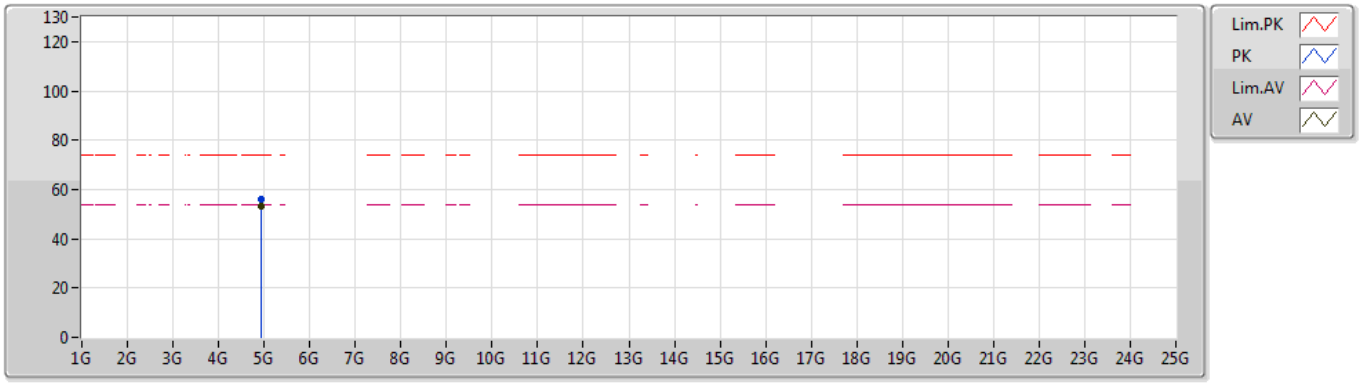
EUT Y_2TX
Setting 22
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.463G	107.77	Inf	-Inf	32.18	3	Horizontal	332	2.02	-	75.59
AV	2.4614G	103.80	Inf	-Inf	32.17	3	Horizontal	332	2.02	-	71.63
PK	2.4836G	57.64	74.00	-16.36	32.25	3	Horizontal	332	2.02	-	25.39
AV	2.4868G	46.64	54.00	-7.36	32.26	3	Horizontal	332	2.02	-	14.38

802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

18/09/2019



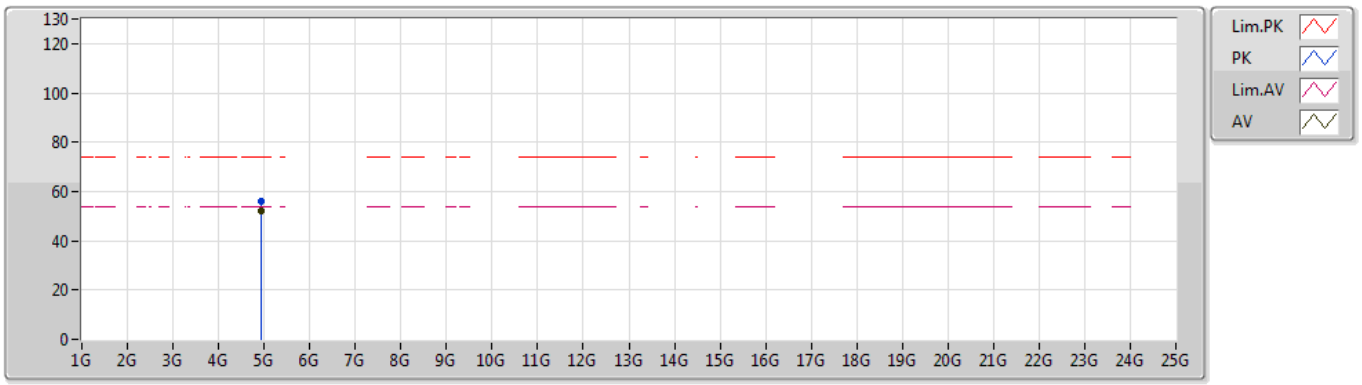
EUT Y_2TX
Setting 22
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	4.92407G	56.16	74.00	-17.84	4.90	3	Vertical	139	1.90	-	51.26
AV	4.92402G	53.15	54.00	-0.85	4.90	3	Vertical	139	1.90	-	48.25

802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

18/09/2019



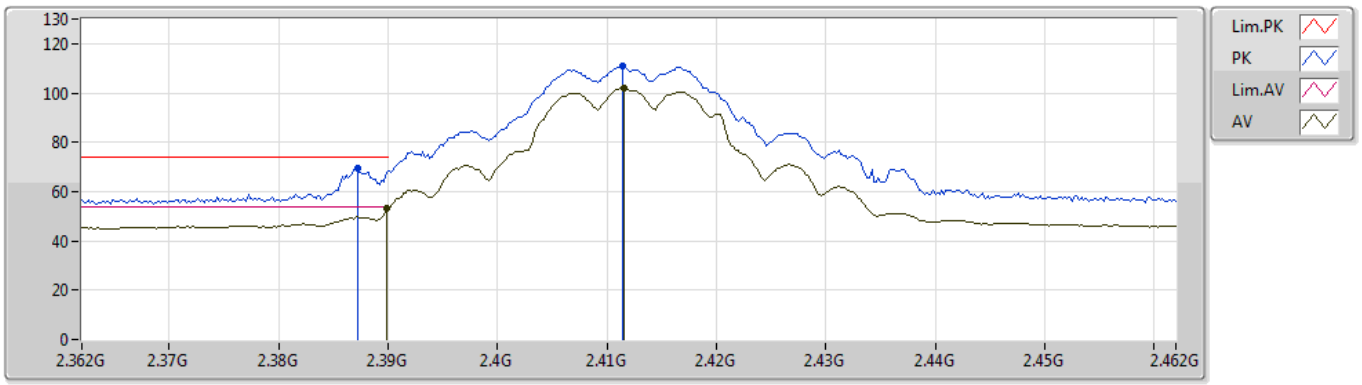
EUT Y_2TX
Setting 22
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	4.92403G	56.28	74.00	-17.72	4.90	3	Horizontal	125	1.74	-	51.38
AV	4.92406G	52.02	54.00	-1.98	4.90	3	Horizontal	125	1.74	-	47.12

802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

18/09/2019



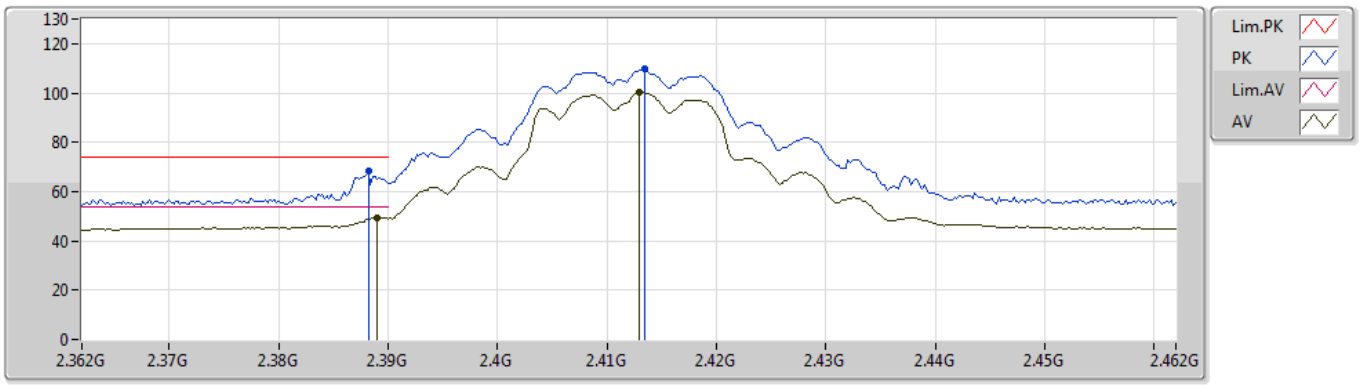
EUT Y_2TX
Setting 1D
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.3872G	69.72	74.00	-4.28	31.92	3	Vertical	268	1.16	-	37.80
AV	2.3899G	53.51	54.00	-0.49	31.93	3	Vertical	268	1.16	-	21.58
PK	2.4114G	111.19	Inf	-Inf	32.00	3	Vertical	268	1.16	-	79.19
AV	2.4116G	101.97	Inf	-Inf	32.00	3	Vertical	268	1.16	-	69.97

802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

18/09/2019



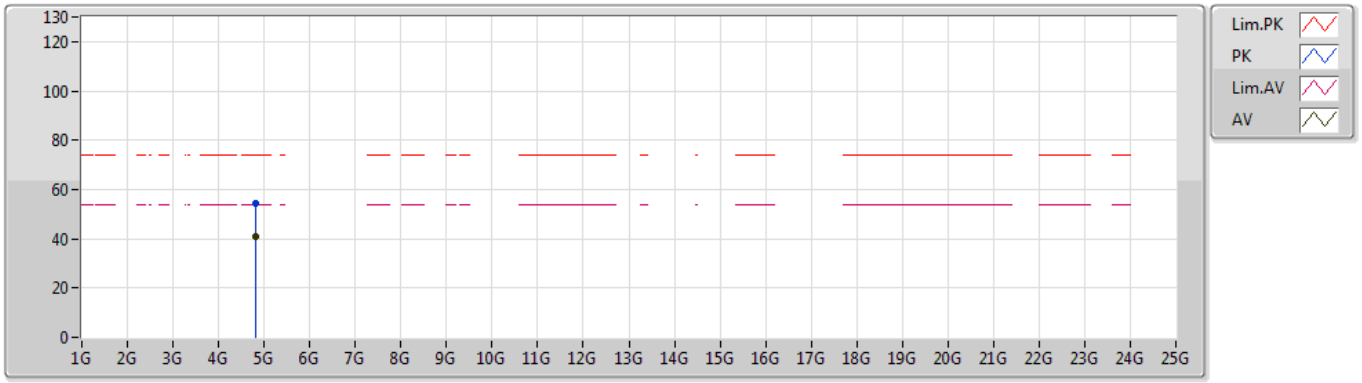
EUT Y_2TX
Setting 1D
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.3882G	68.32	74.00	-5.68	31.93	3	Horizontal	7	1.31	-	36.39
AV	2.389G	49.47	54.00	-4.53	31.93	3	Horizontal	7	1.31	-	17.54
PK	2.4134G	109.58	Inf	-Inf	32.01	3	Horizontal	7	1.31	-	77.57
AV	2.413G	100.21	Inf	-Inf	32.01	3	Horizontal	7	1.31	-	68.20

802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

18/09/2019



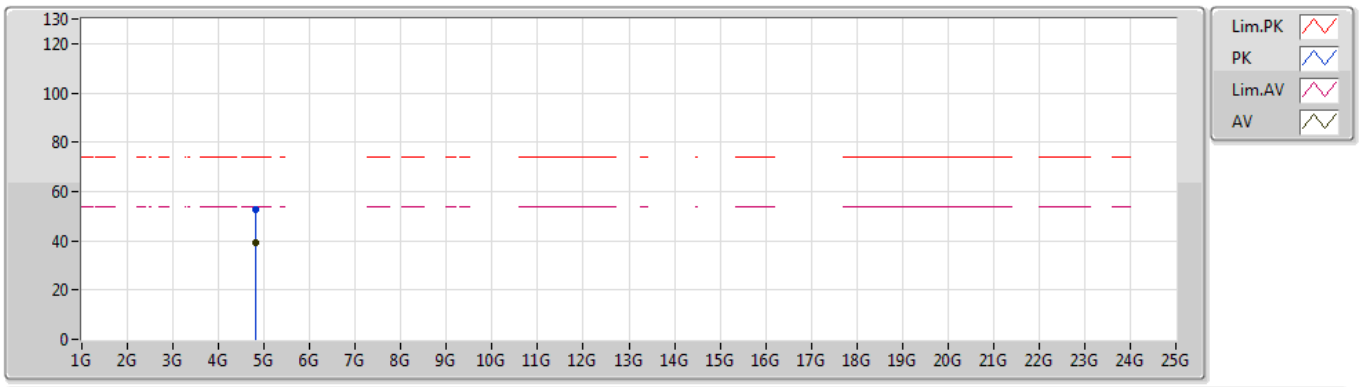
EUT Y_2TX
Setting 1D
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	4.82586G	54.58	74.00	-19.42	4.71	3	Vertical	189	2.92	-	49.87
AV	4.82562G	41.09	54.00	-12.91	4.71	3	Vertical	189	2.92	-	36.38

802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

18/09/2019



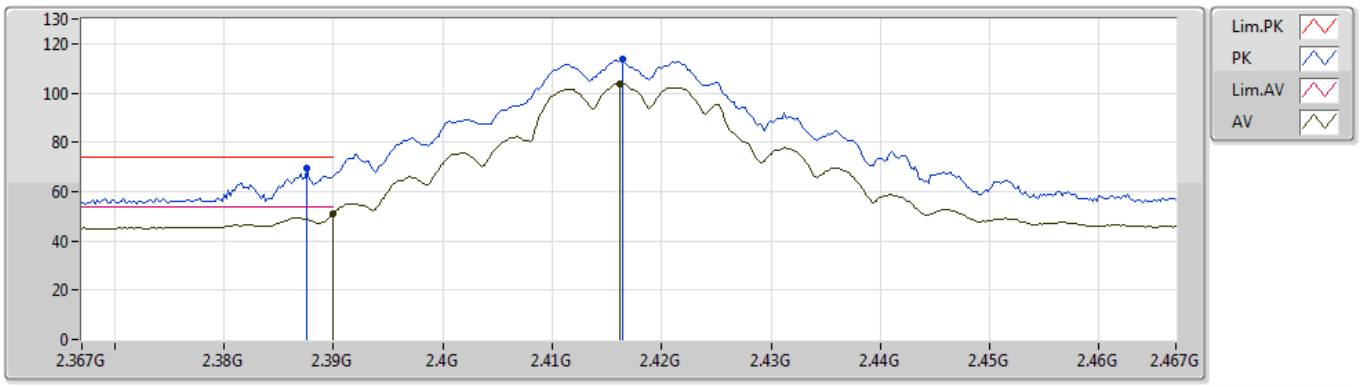
EUT Y_2TX
Setting 1D
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	4.82028G	52.57	74.00	-21.43	4.70	3	Horizontal	122	1.71	-	47.87
AV	4.82562G	39.29	54.00	-14.71	4.71	3	Horizontal	122	1.71	-	34.58

802.11g_Nss1,(6Mbps)_2TX

2417MHz_TX

18/09/2019



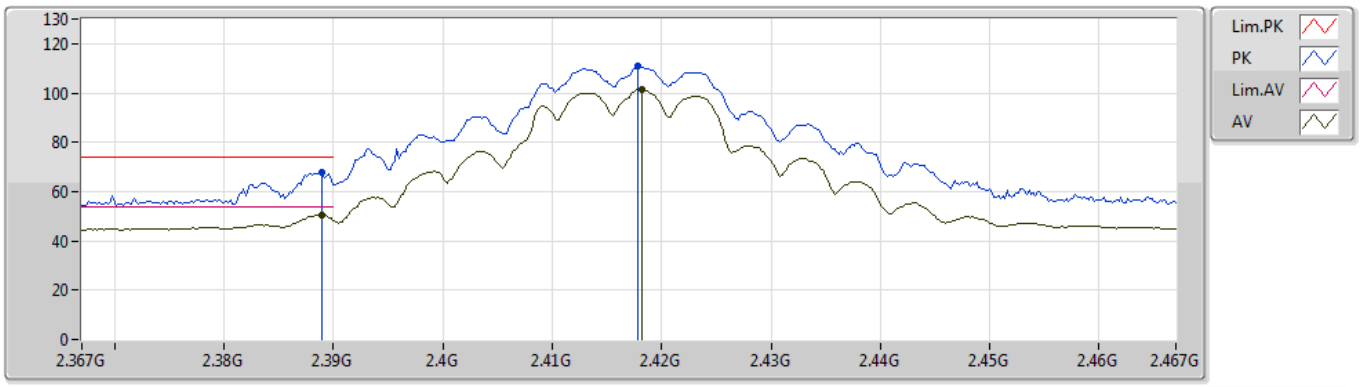
EUT Y_2TX
Setting 24
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.3876G	69.23	74.00	-4.77	31.93	3	Vertical	201	1.23	-	37.30
AV	2.39G	51.23	54.00	-2.77	31.93	3	Vertical	201	1.23	-	19.30
PK	2.4164G	113.48	Inf	-Inf	32.02	3	Vertical	201	1.23	-	81.46
AV	2.4162G	103.78	Inf	-Inf	32.02	3	Vertical	201	1.23	-	71.76

802.11g_Nss1,(6Mbps)_2TX

2417MHz_TX

18/09/2019



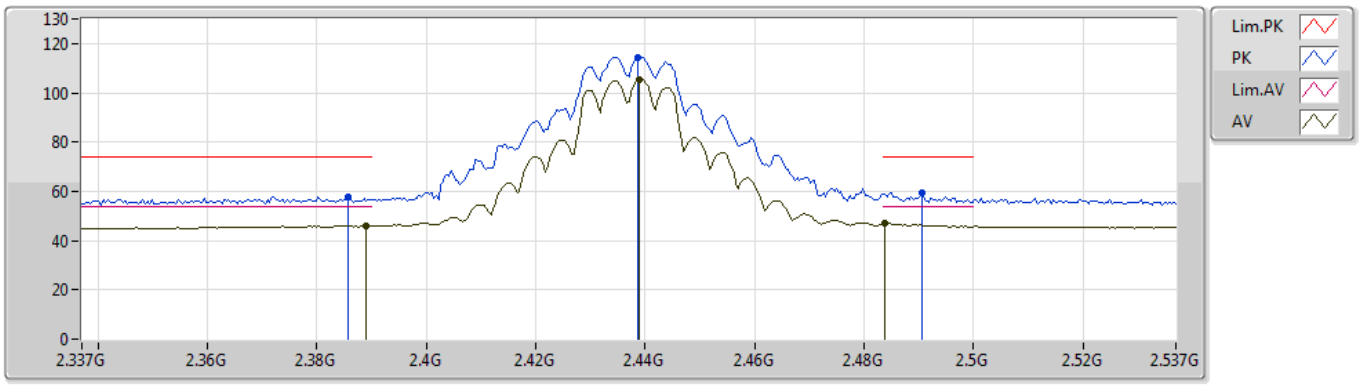
EUT Y_2TX
Setting 24
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.389G	67.61	74.00	-6.39	31.93	3	Horizontal	358	1.08	-	35.68
AV	2.389G	50.33	54.00	-3.67	31.93	3	Horizontal	358	1.08	-	18.40
PK	2.4178G	110.77	Inf	-Inf	32.02	3	Horizontal	358	1.08	-	78.75
AV	2.4182G	101.61	Inf	-Inf	32.02	3	Horizontal	358	1.08	-	69.59

802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

23/09/2019



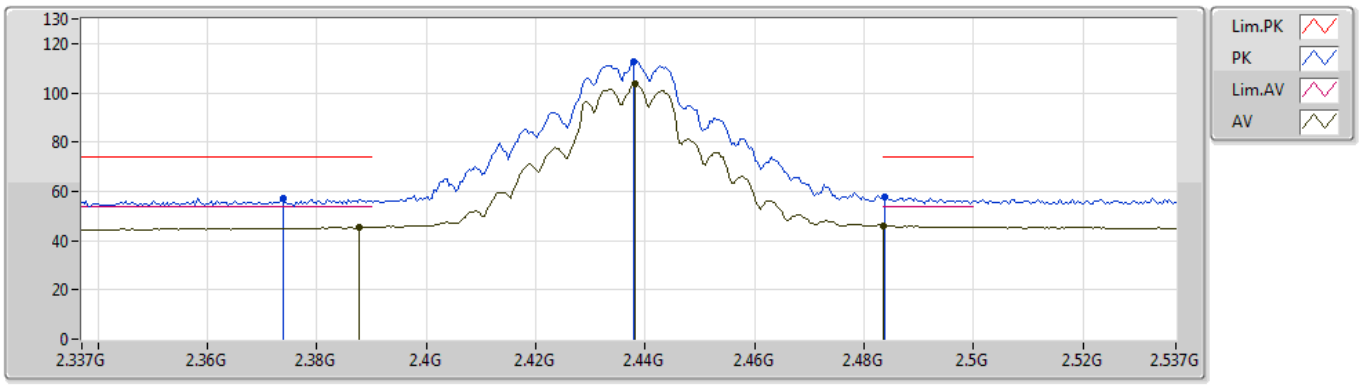
EUT Y_2TX
Setting 28
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.3858G	57.86	74.00	-16.14	31.92	3	Vertical	224	1.03	-	25.94
AV	2.389G	46.04	54.00	-7.96	31.93	3	Vertical	224	1.03	-	14.11
PK	2.4386G	114.33	Inf	-Inf	32.10	3	Vertical	224	1.03	-	82.23
AV	2.439G	105.24	Inf	-Inf	32.10	3	Vertical	224	1.03	-	73.14
PK	2.4906G	59.47	74.00	-14.53	32.28	3	Vertical	224	1.03	-	27.19
AV	2.4838G	46.94	54.00	-7.06	32.25	3	Vertical	224	1.03	-	14.69

802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

23/09/2019



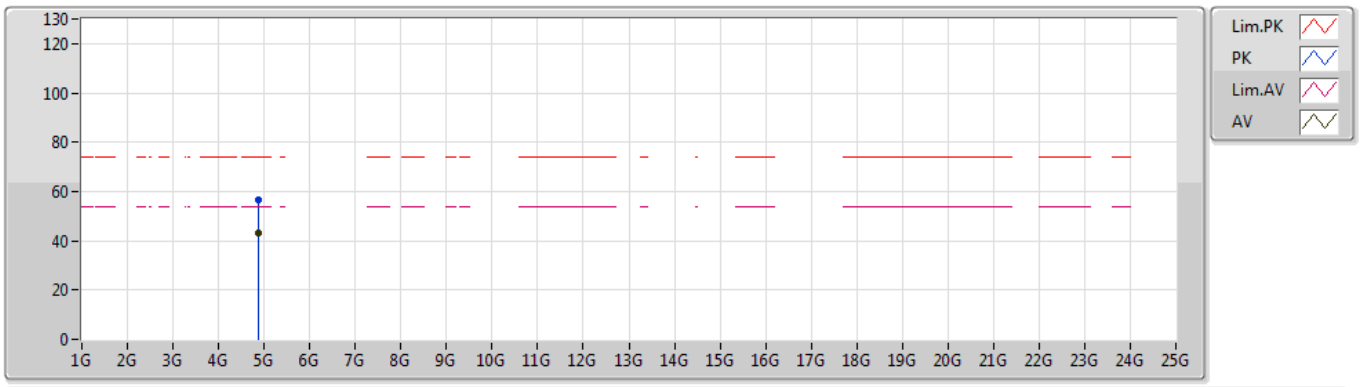
EUT Y_2TX
Setting 28
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.3738G	57.20	74.00	-16.80	31.89	3	Horizontal	160	1.82	-	25.31
AV	2.3878G	45.51	54.00	-8.49	31.93	3	Horizontal	160	1.82	-	13.58
PK	2.4378G	112.74	Inf	-Inf	32.09	3	Horizontal	160	1.82	-	80.65
AV	2.4382G	103.42	Inf	-Inf	32.09	3	Horizontal	160	1.82	-	71.33
PK	2.4838G	57.63	74.00	-16.37	32.25	3	Horizontal	160	1.82	-	25.38
AV	2.4835G	46.04	54.00	-7.96	32.25	3	Horizontal	160	1.82	-	13.79

802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

23/09/2019



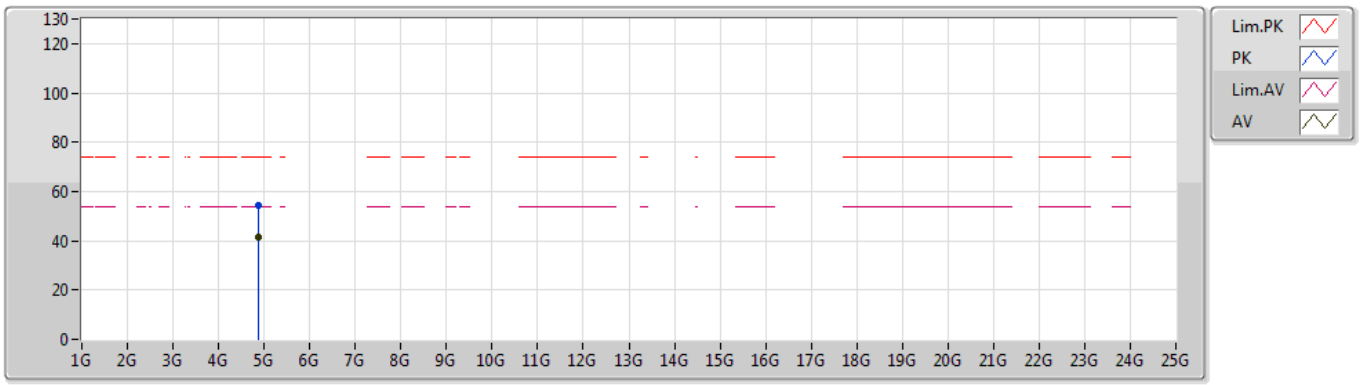
EUT Y_2TX
Setting 28
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	4.8704G	56.33	74.00	-17.67	4.79	3	Vertical	323	2.08	-	51.54
AV	4.87526G	43.18	54.00	-10.82	4.80	3	Vertical	323	2.08	-	38.38

802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

23/09/2019



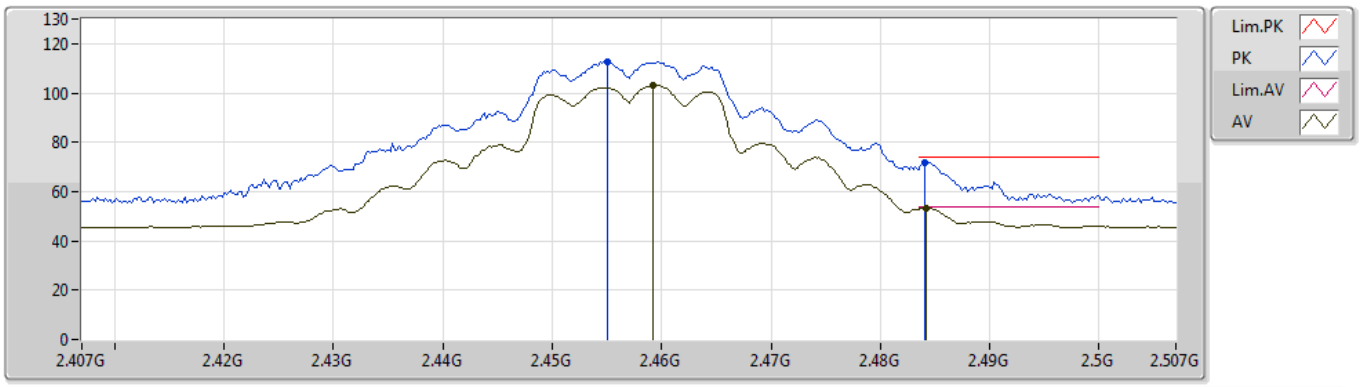
EUT Y_2TX
Setting 28
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	4.8761G	54.11	74.00	-19.89	4.80	3	Horizontal	18	2.78	-	49.31
AV	4.87592G	41.27	54.00	-12.73	4.80	3	Horizontal	18	2.78	-	36.47

802.11g_Nss1,(6Mbps)_2TX

2457MHz_TX

18/09/2019



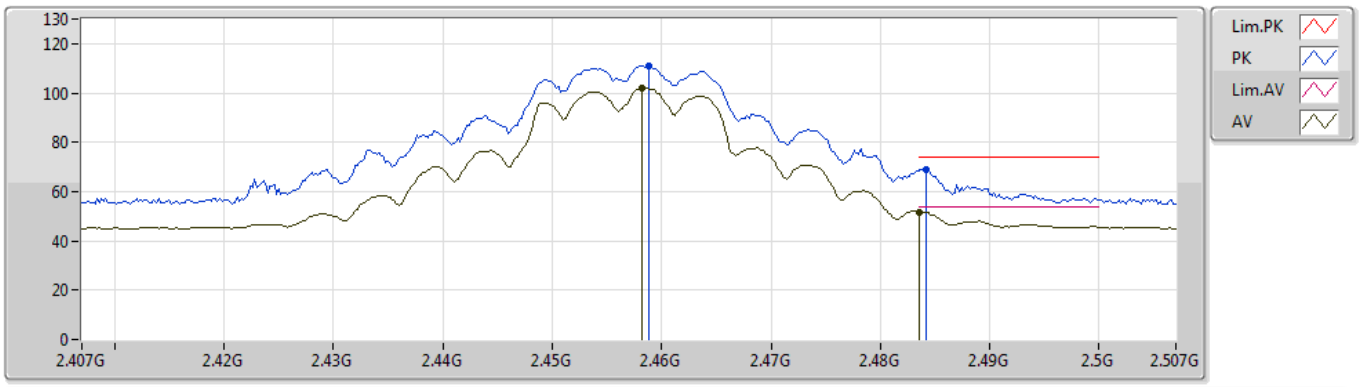
EUT Y_2TX
Setting 24
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.455G	112.75	Inf	-Inf	32.15	3	Vertical	95	1.50	-	80.60
AV	2.4592G	103.20	Inf	-Inf	32.17	3	Vertical	95	1.50	-	71.03
PK	2.484G	71.88	74.00	-2.12	32.25	3	Vertical	95	1.50	-	39.63
AV	2.4842G	53.51	54.00	-0.49	32.25	3	Vertical	95	1.50	-	21.26

802.11g_Nss1,(6Mbps)_2TX

2457MHz_TX

18/09/2019



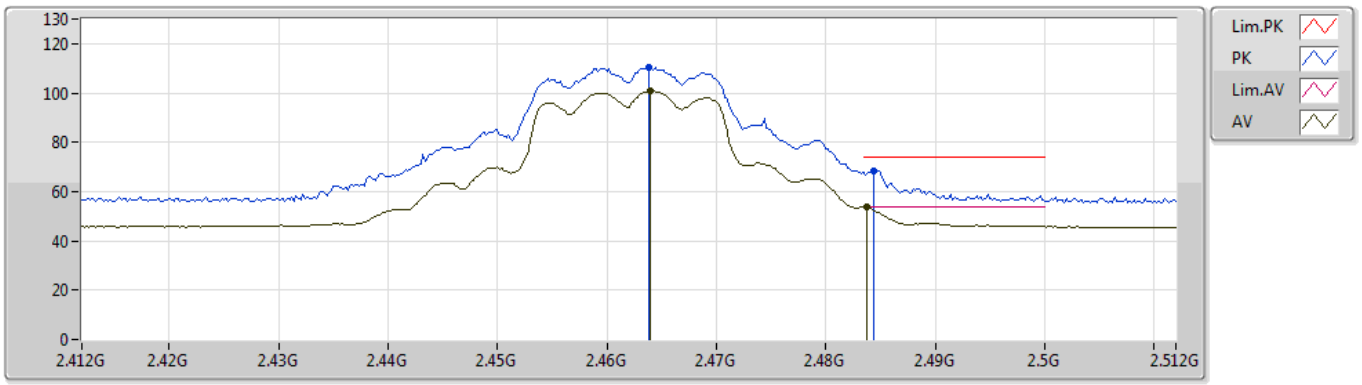
EUT Y_2TX
Setting 24
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.4588G	111.11	Inf	-Inf	32.17	3	Horizontal	191	1.01	-	78.94
AV	2.4582G	102.01	Inf	-Inf	32.16	3	Horizontal	191	1.01	-	69.85
PK	2.4842G	69.13	74.00	-4.87	32.25	3	Horizontal	191	1.01	-	36.88
AV	2.4835G	51.83	54.00	-2.17	32.25	3	Horizontal	191	1.01	-	19.58

802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

18/09/2019



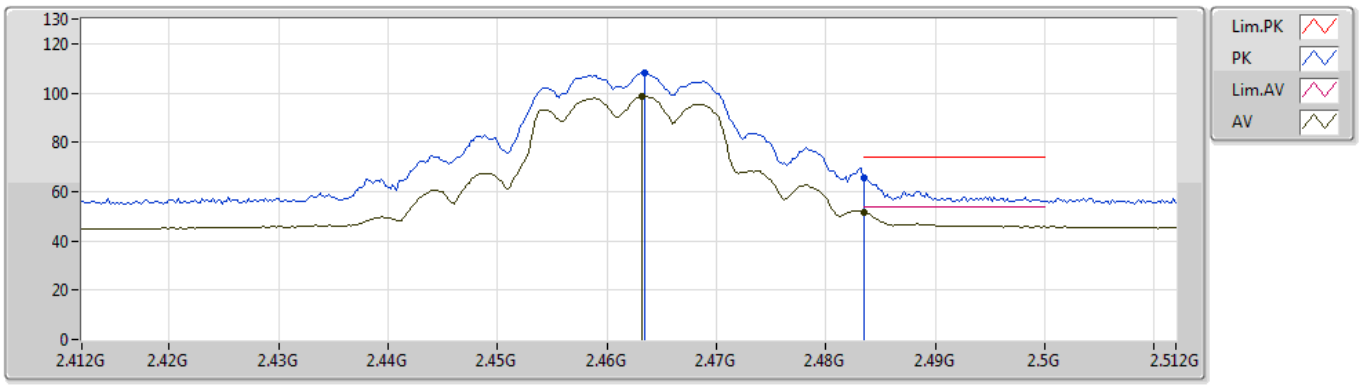
EUT Y_2TX
Setting 1A
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.4638G	110.26	Inf	-Inf	32.18	3	Vertical	92	1.45	-	78.08
AV	2.464G	100.74	Inf	-Inf	32.18	3	Vertical	92	1.45	-	68.56
PK	2.4844G	68.48	74.00	-5.52	32.25	3	Vertical	92	1.45	-	36.23
AV	2.4838G	53.58	54.00	-0.42	32.25	3	Vertical	92	1.45	-	21.33

802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

18/09/2019



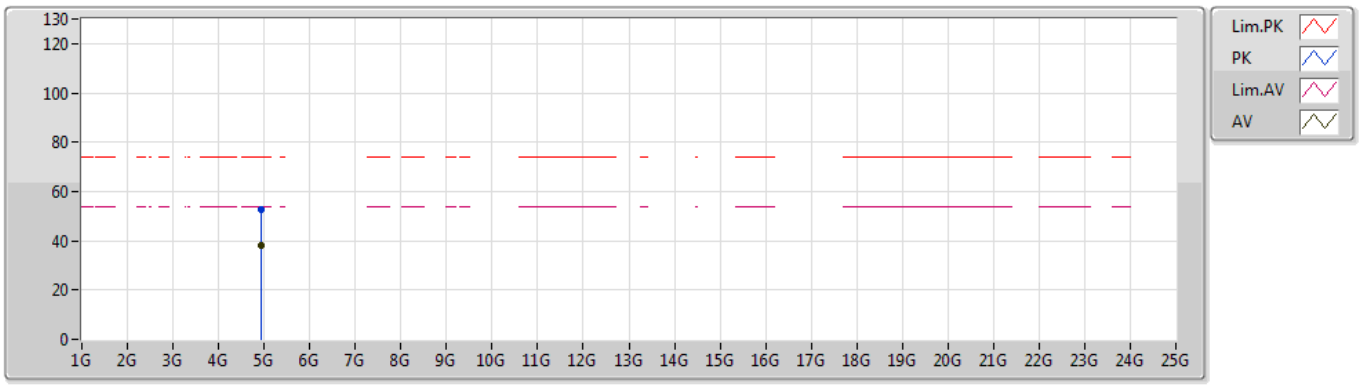
EUT Y_2TX
Setting 1A
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.4634G	107.91	Inf	-Inf	32.18	3	Horizontal	12	1.01	-	75.73
AV	2.4632G	98.76	Inf	-Inf	32.18	3	Horizontal	12	1.01	-	66.58
PK	2.4835G	65.52	74.00	-8.48	32.25	3	Horizontal	12	1.01	-	33.27
AV	2.4835G	51.77	54.00	-2.23	32.25	3	Horizontal	12	1.01	-	19.52

802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

18/09/2019



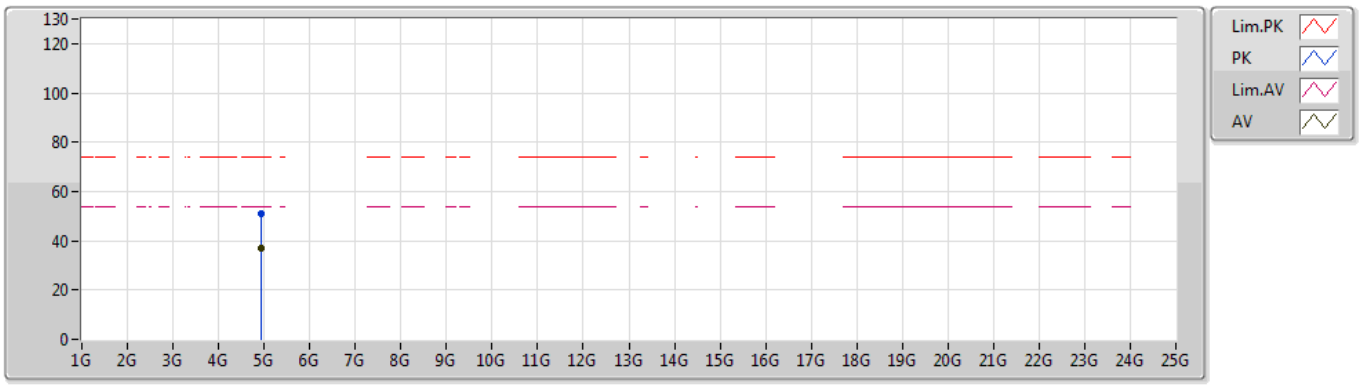
EUT Y_2TX
Setting 1A
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	4.9204G	52.75	74.00	-21.25	4.89	3	Vertical	134	2.49	-	47.86
AV	4.92538G	38.24	54.00	-15.76	4.89	3	Vertical	134	2.49	-	33.35

802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

18/09/2019



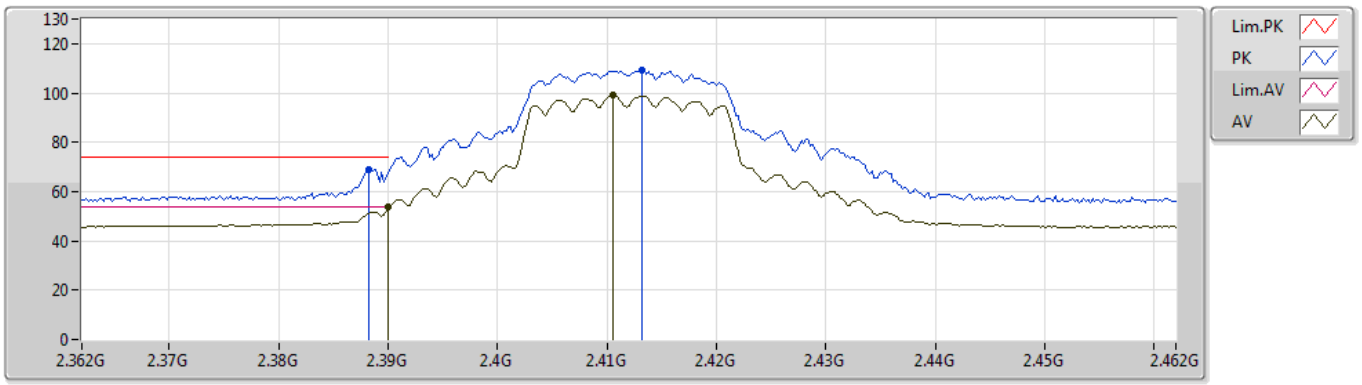
EUT Y_2TX
Setting 1A
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	4.92046G	51.20	74.00	-22.80	4.89	3	Horizontal	122	1.46	-	46.31
AV	4.92598G	36.96	54.00	-17.04	4.89	3	Horizontal	122	1.46	-	32.07

802.11n HT20_Nss1,(MCS0)_2TX

2412MHz_TX

18/09/2019



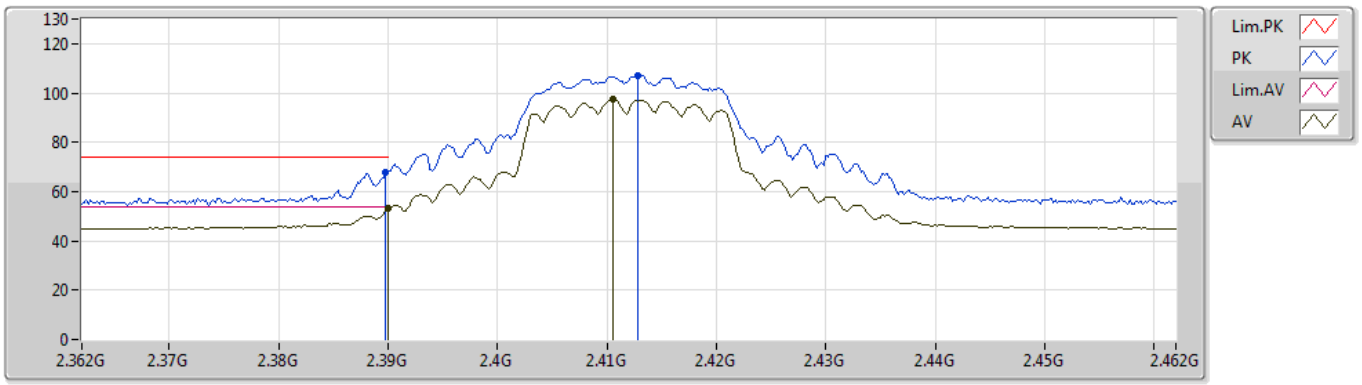
EUT Y_2TX
Setting 1A
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.3882G	68.75	74.00	-5.25	31.93	3	Vertical	90	1.38	-	36.82
AV	2.39G	53.58	54.00	-0.42	31.93	3	Vertical	90	1.38	-	21.65
PK	2.4132G	109.44	Inf	-Inf	32.01	3	Vertical	90	1.38	-	77.43
AV	2.4106G	99.46	Inf	-Inf	32.00	3	Vertical	90	1.38	-	67.46

802.11n HT20_Nss1,(MCS0)_2TX

2412MHz_TX

18/09/2019



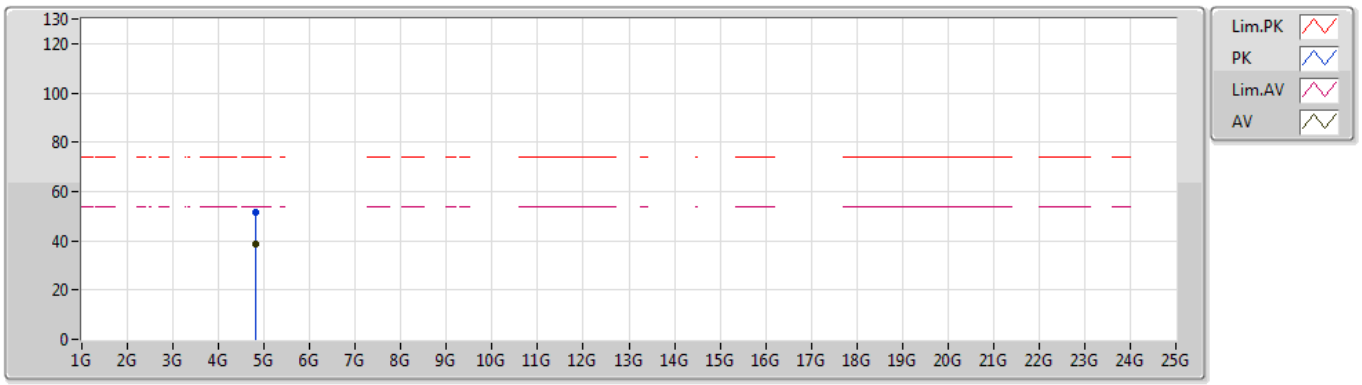
EUT Y_2TX
Setting 1A
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.3898G	67.94	74.00	-6.06	31.93	3	Horizontal	164	1.76	-	36.01
AV	2.39G	53.22	54.00	-0.78	31.93	3	Horizontal	164	1.76	-	21.29
PK	2.4128G	107.16	Inf	-Inf	32.01	3	Horizontal	164	1.76	-	75.15
AV	2.4106G	97.55	Inf	-Inf	32.00	3	Horizontal	164	1.76	-	65.55

802.11n HT20_Nss1,(MCS0)_2TX

2412MHz_TX

18/09/2019



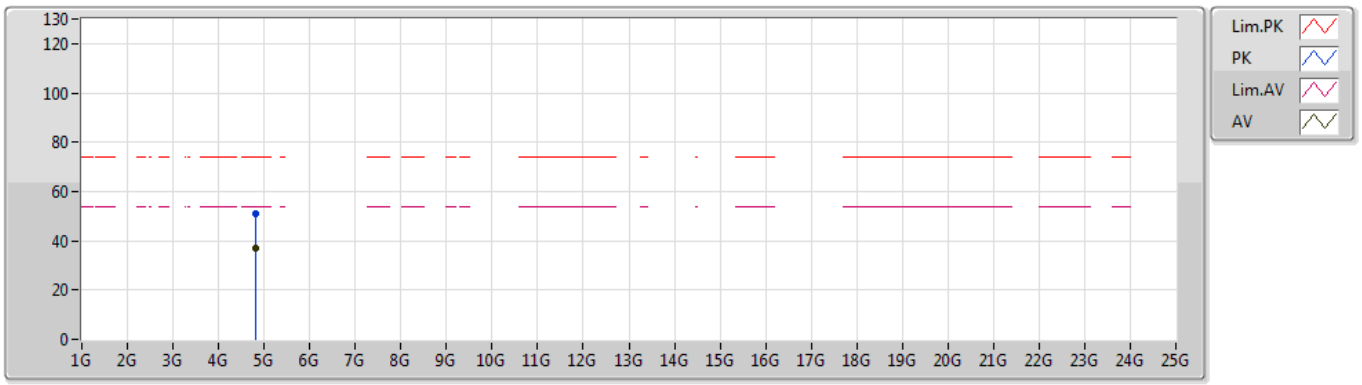
EUT Y_2TX
Setting 1A
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	4.8273G	51.69	74.00	-22.31	4.71	3	Vertical	189	2.26	-	46.98
AV	4.8222G	38.82	54.00	-15.18	4.70	3	Vertical	189	2.26	-	34.12

802.11n HT20_Nss1,(MCS0)_2TX

2412MHz_TX

18/09/2019



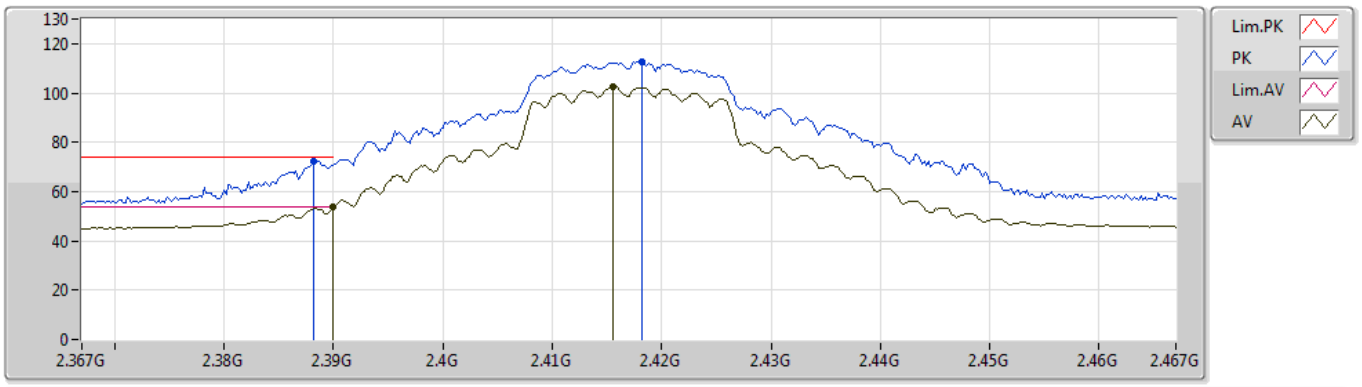
EUT Y_2TX
Setting 1A
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	4.82712G	51.02	74.00	-22.98	4.71	3	Horizontal	131	1.73	-	46.31
AV	4.8273G	37.02	54.00	-16.98	4.71	3	Horizontal	131	1.73	-	32.31

802.11n HT20_Nss1,(MCS0)_2TX

2417MHz_TX

18/09/2019



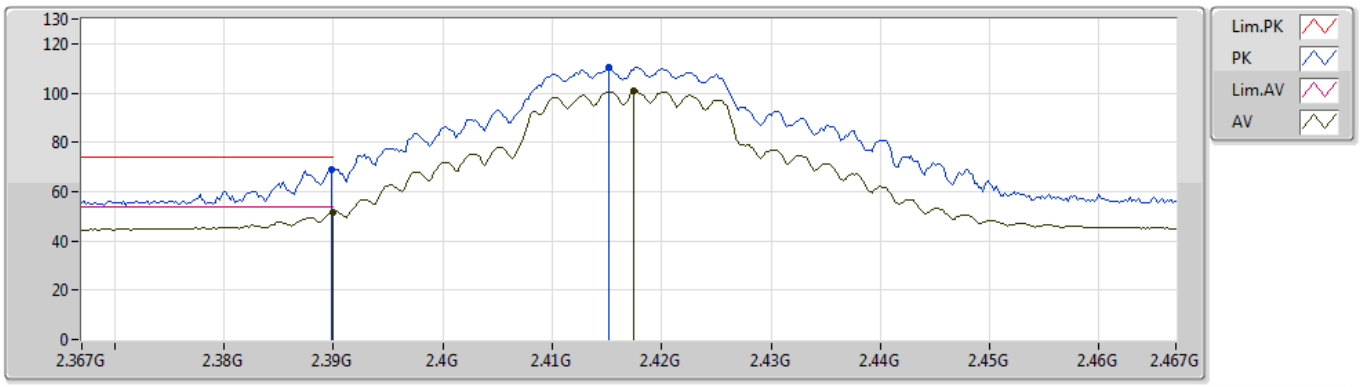
EUT Y_2TX
Setting 24
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.3882G	72.36	74.00	-1.64	31.93	3	Vertical	115	1.78	-	40.43
AV	2.39G	53.53	54.00	-0.47	31.93	3	Vertical	115	1.78	-	21.60
PK	2.4182G	112.88	Inf	-Inf	32.02	3	Vertical	115	1.78	-	80.86
AV	2.4156G	102.80	Inf	-Inf	32.02	3	Vertical	115	1.78	-	70.78

802.11n HT20_Nss1,(MCS0)_2TX

2417MHz_TX

18/09/2019



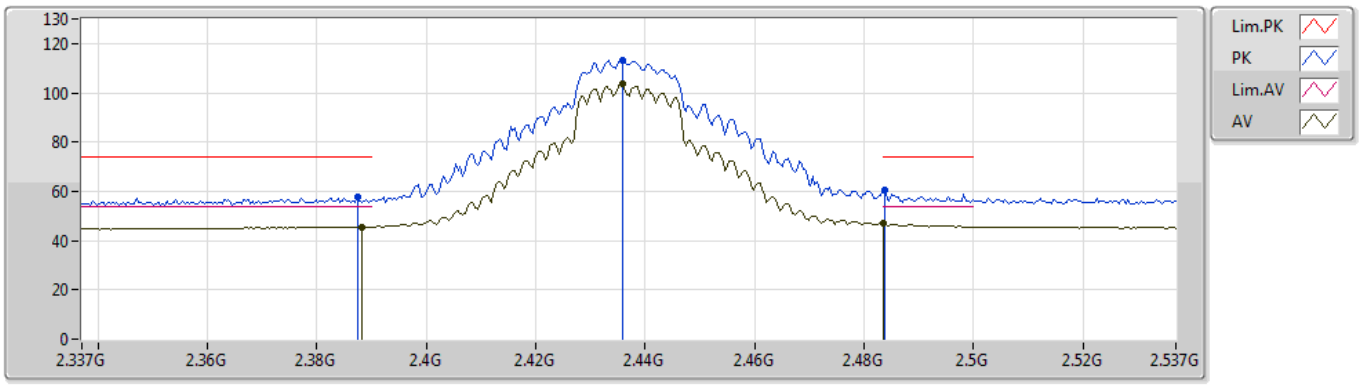
EUT Y_2TX
Setting 24
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.3898G	69.19	74.00	-4.81	31.93	3	Horizontal	6	1.30	-	37.26
AV	2.39G	51.77	54.00	-2.23	31.93	3	Horizontal	6	1.30	-	19.84
PK	2.4152G	110.47	Inf	-Inf	32.02	3	Horizontal	6	1.30	-	78.45
AV	2.4174G	101.01	Inf	-Inf	32.02	3	Horizontal	6	1.30	-	68.99

802.11n HT20_Nss1,(MCS0)_2TX

2437MHz_TX

23/09/2019



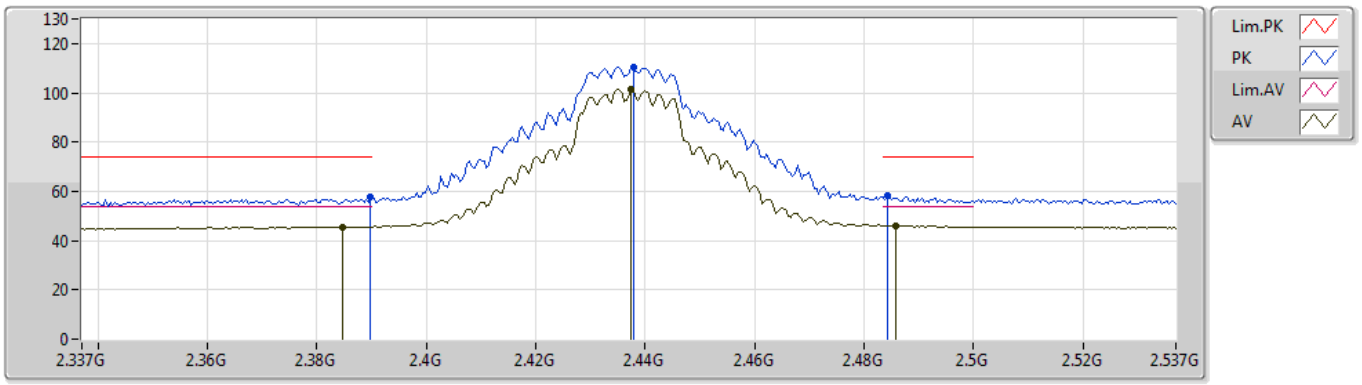
EUT Y_2TX
Setting 28
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.3874G	57.46	74.00	-16.54	31.92	3	Vertical	241	1.53	-	25.54
AV	2.3882G	45.58	54.00	-8.42	31.93	3	Vertical	241	1.53	-	13.65
PK	2.4358G	113.36	Inf	-Inf	32.09	3	Vertical	241	1.53	-	81.27
AV	2.4358G	103.64	Inf	-Inf	32.09	3	Vertical	241	1.53	-	71.55
PK	2.4838G	60.28	74.00	-13.72	32.25	3	Vertical	241	1.53	-	28.03
AV	2.4835G	47.09	54.00	-6.91	32.25	3	Vertical	241	1.53	-	14.84

802.11n HT20_Nss1,(MCS0)_2TX

2437MHz_TX

23/09/2019



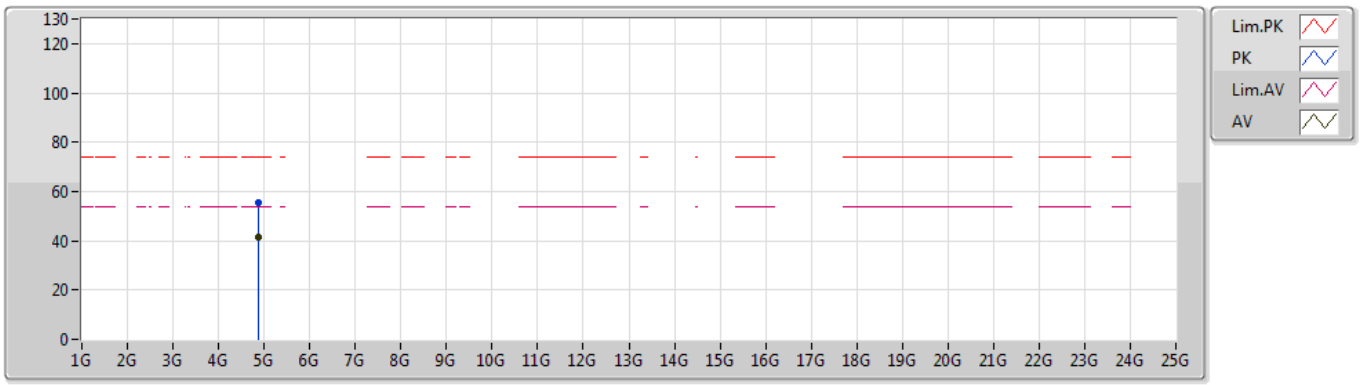
EUT Y_2TX
Setting 28
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.3898G	57.45	74.00	-16.55	31.93	3	Horizontal	157	1.68	-	25.52
AV	2.3846G	45.55	54.00	-8.45	31.92	3	Horizontal	157	1.68	-	13.63
PK	2.4378G	110.62	Inf	-Inf	32.09	3	Horizontal	157	1.68	-	78.53
AV	2.4374G	101.51	Inf	-Inf	32.09	3	Horizontal	157	1.68	-	69.42
PK	2.4842G	58.18	74.00	-15.82	32.25	3	Horizontal	157	1.68	-	25.93
AV	2.4858G	45.99	54.00	-8.01	32.26	3	Horizontal	157	1.68	-	13.73

802.11n HT20_Nss1,(MCS0)_2TX

2437MHz_TX

23/09/2019



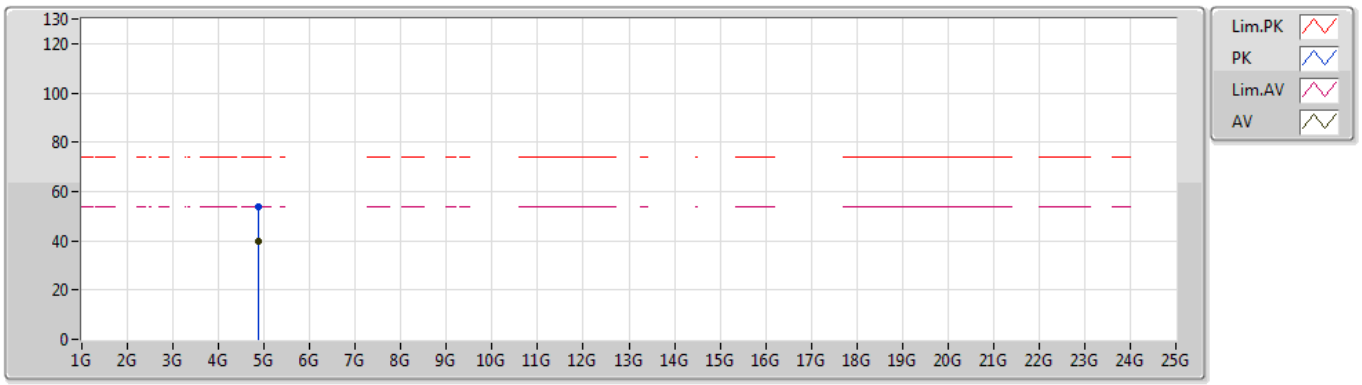
EUT Y_2TX
Setting 28
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	4.87478G	55.47	74.00	-18.53	4.80	3	Vertical	360	2.88	-	50.67
AV	4.8722G	41.59	54.00	-12.41	4.79	3	Vertical	360	2.88	-	36.80

802.11n HT20_Nss1,(MCS0)_2TX

2437MHz_TX

23/09/2019



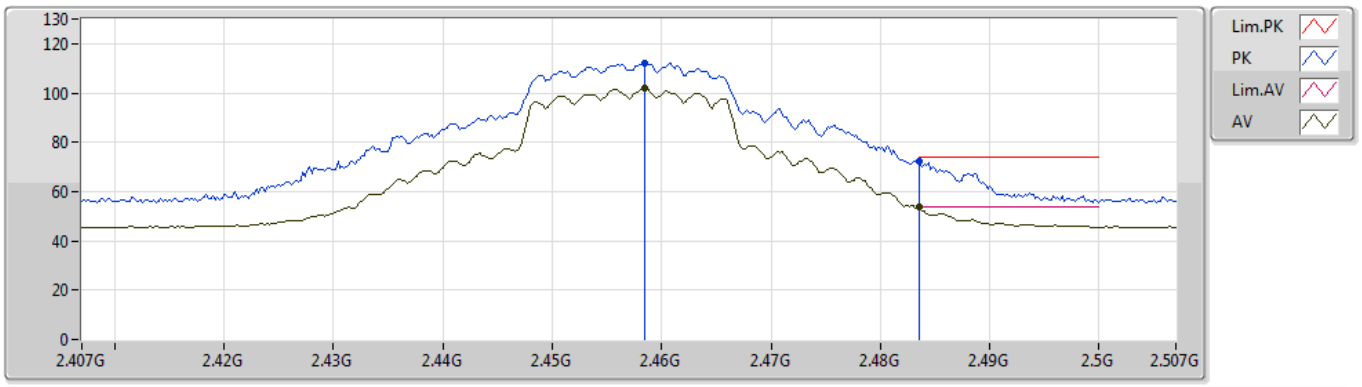
EUT Y_2TX
Setting 28
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	4.87262G	53.54	74.00	-20.46	4.80	3	Horizontal	18	2.74	-	48.74
AV	4.87742G	40.00	54.00	-14.00	4.80	3	Horizontal	18	2.74	-	35.20

802.11n HT20_Nss1,(MCS0)_2TX

2457MHz_TX

18/09/2019



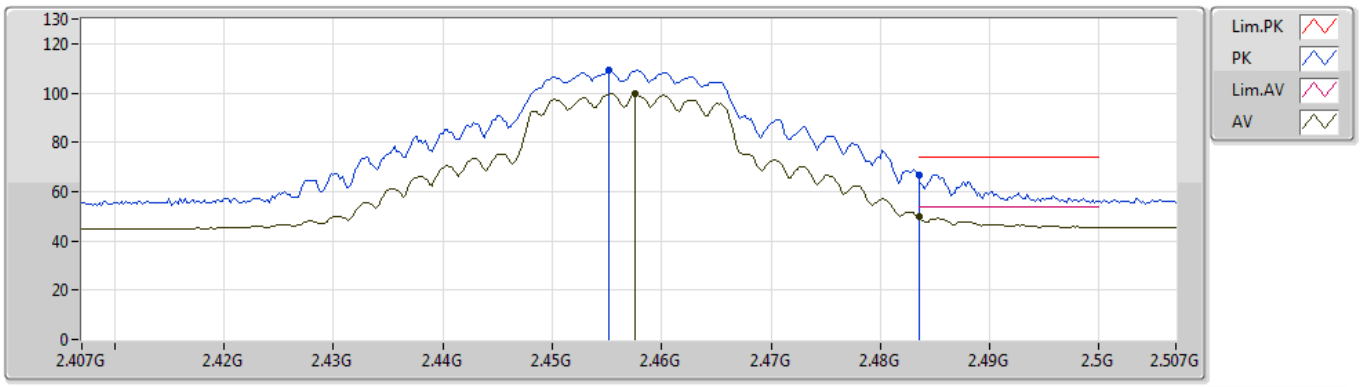
EUT Y_2TX
Setting 1F
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.4584G	111.80	Inf	-Inf	32.17	3	Vertical	95	1.50	-	79.63
AV	2.4584G	101.88	Inf	-Inf	32.17	3	Vertical	95	1.50	-	69.71
PK	2.4836G	72.12	74.00	-1.88	32.25	3	Vertical	95	1.50	-	39.87
AV	2.483501G	53.52	54.00	-0.48	32.25	3	Vertical	95	1.50	-	21.27

802.11n HT20_Nss1,(MCS0)_2TX

2457MHz_TX

18/09/2019



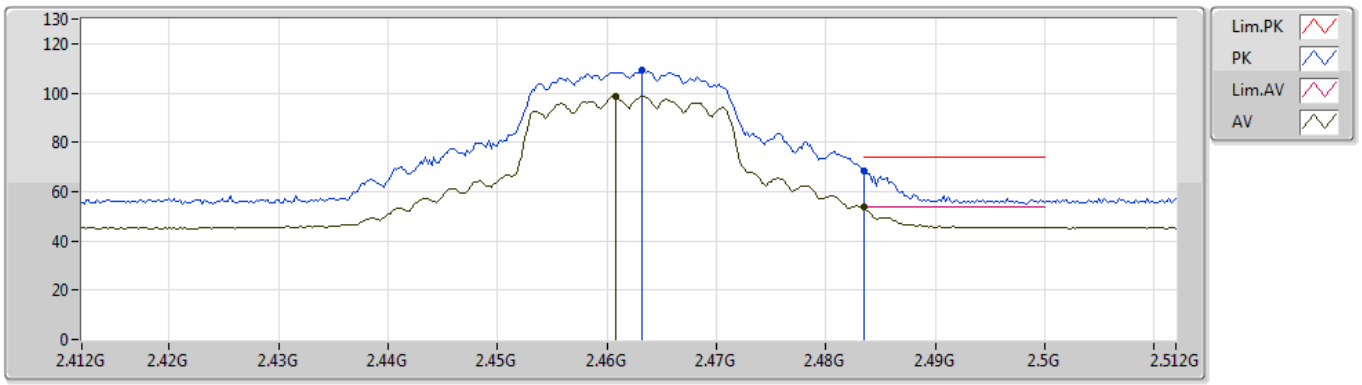
EUT Y_2TX
Setting 1F
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.4552G	109.12	Inf	-Inf	32.16	3	Horizontal	13	1.03	-	76.96
AV	2.4576G	99.84	Inf	-Inf	32.16	3	Horizontal	13	1.03	-	67.68
PK	2.4835G	66.71	74.00	-7.29	32.25	3	Horizontal	13	1.03	-	34.46
AV	2.4835G	50.11	54.00	-3.89	32.25	3	Horizontal	13	1.03	-	17.86

802.11n HT20_Nss1,(MCS0)_2TX

2462MHz_TX

18/09/2019



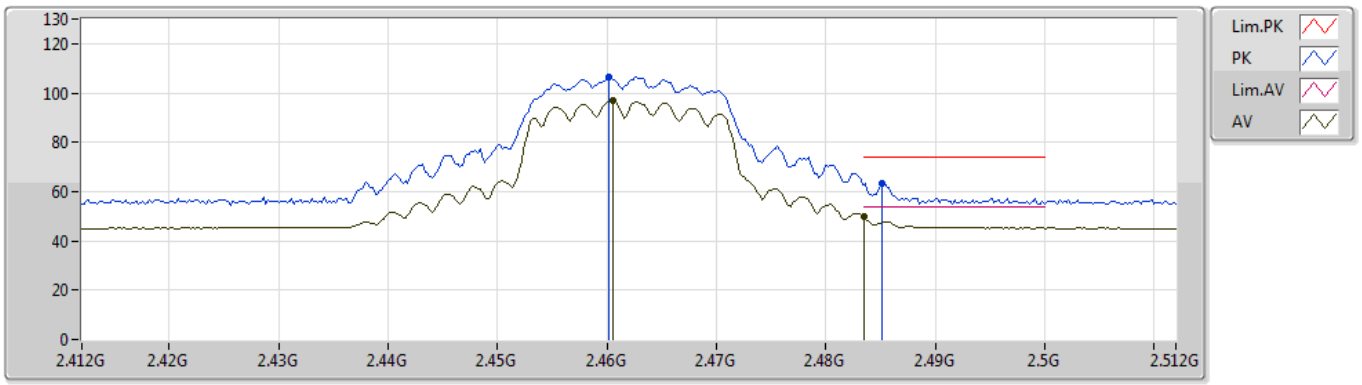
EUT Y_2TX
Setting 17
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.4632G	109.07	Inf	-Inf	32.18	3	Vertical	92	1.49	-	76.89
AV	2.4608G	98.67	Inf	-Inf	32.17	3	Vertical	92	1.49	-	66.50
PK	2.483501G	68.25	74.00	-5.75	32.25	3	Vertical	92	1.49	-	36.00
AV	2.483501G	53.55	54.00	-0.45	32.25	3	Vertical	92	1.49	-	21.30

802.11n HT20_Nss1,(MCS0)_2TX

2462MHz_TX

18/09/2019



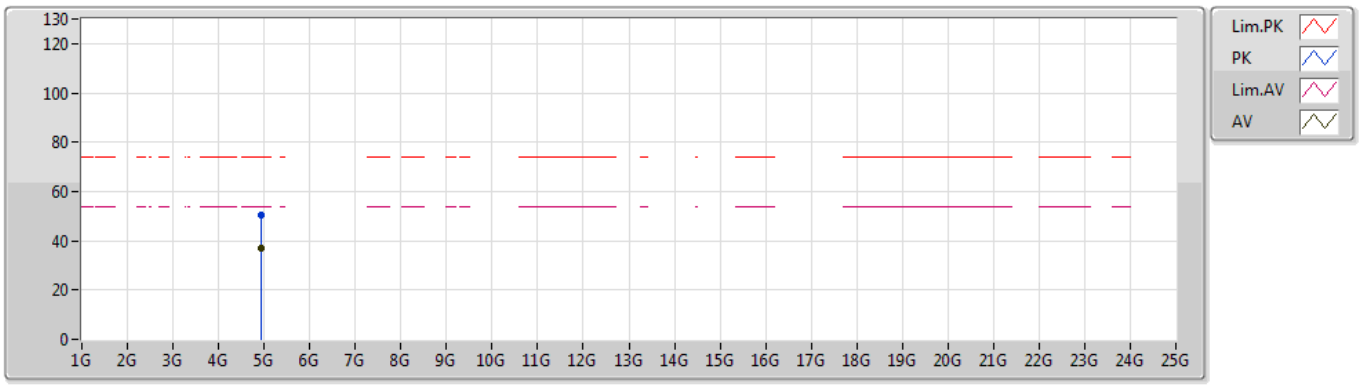
EUT Y_2TX
Setting 17
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.4602G	106.23	Inf	-Inf	32.17	3	Horizontal	192	1.00	-	74.06
AV	2.4606G	96.69	Inf	-Inf	32.17	3	Horizontal	192	1.00	-	64.52
PK	2.4852G	63.47	74.00	-10.53	32.26	3	Horizontal	192	1.00	-	31.21
AV	2.4835G	49.90	54.00	-4.10	32.25	3	Horizontal	192	1.00	-	17.65

802.11n HT20_Nss1,(MCS0)_2TX

2462MHz_TX

18/09/2019



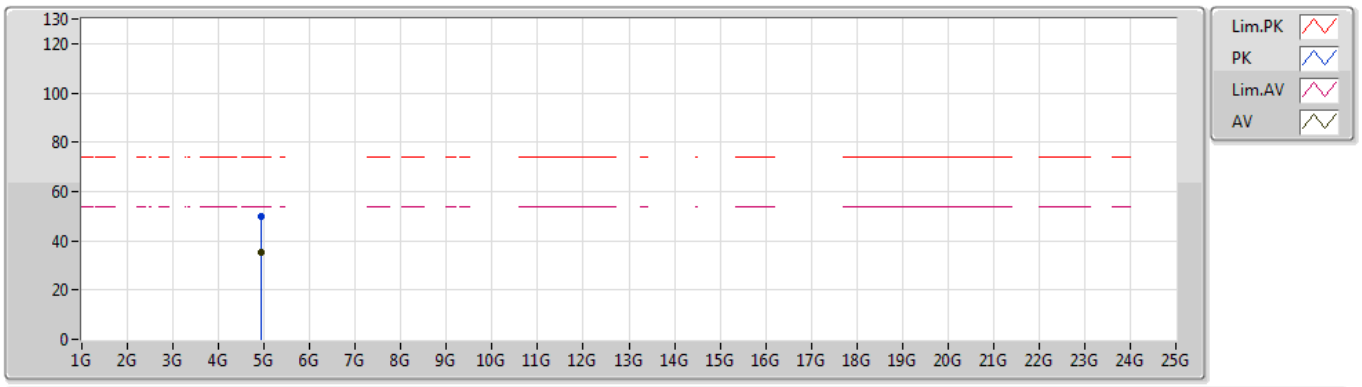
EUT Y_2TX
Setting 17
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	4.92442G	50.38	74.00	-23.62	4.90	3	Vertical	134	2.63	-	45.48
AV	4.92226G	36.75	54.00	-17.25	4.89	3	Vertical	134	2.63	-	31.86

802.11n HT20_Nss1,(MCS0)_2TX

2462MHz_TX

18/09/2019



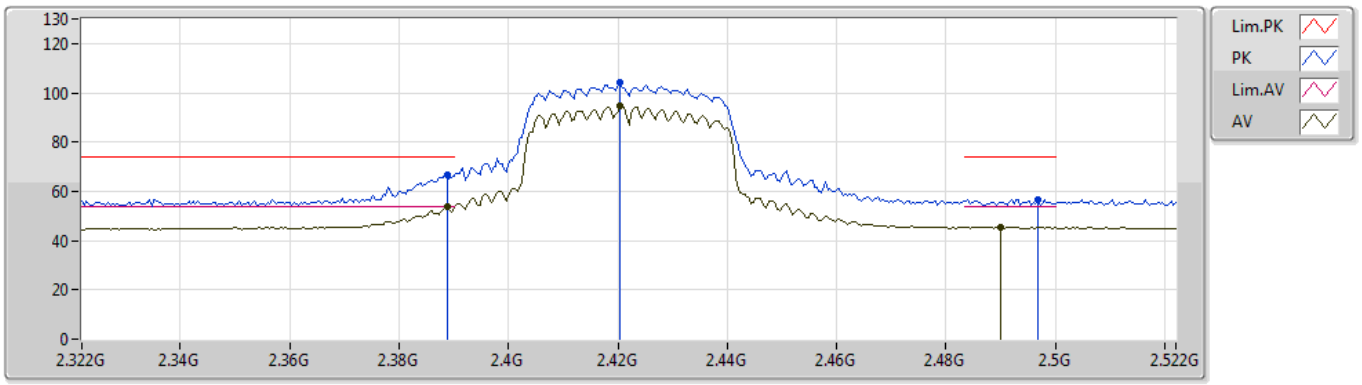
EUT Y_2TX
Setting 17
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	4.92472G	50.14	74.00	-23.86	4.90	3	Horizontal	127	1.79	-	45.24
AV	4.92238G	35.58	54.00	-18.42	4.89	3	Horizontal	127	1.79	-	30.69

802.11n HT40_Nss1,(MCS0)_2TX

2422MHz_TX

18/09/2019



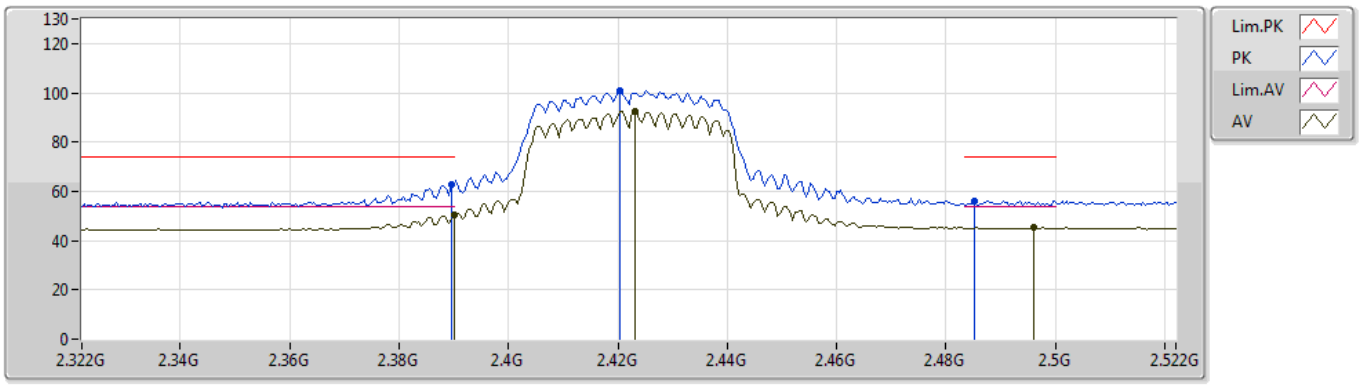
EUT Y_2TX
Setting 14
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.3888G	66.62	74.00	-7.38	31.93	3	Vertical	106	1.42	-	34.69
AV	2.3888G	53.55	54.00	-0.45	31.93	3	Vertical	106	1.42	-	21.62
PK	2.4204G	104.04	Inf	-Inf	32.03	3	Vertical	106	1.42	-	72.01
AV	2.4204G	94.75	Inf	-Inf	32.03	3	Vertical	106	1.42	-	62.72
PK	2.4968G	56.69	74.00	-17.31	32.30	3	Vertical	106	1.42	-	24.39
AV	2.49G	45.51	54.00	-8.49	32.28	3	Vertical	106	1.42	-	13.23

802.11n HT40_Nss1,(MCS0)_2TX

2422MHz_TX

18/09/2019



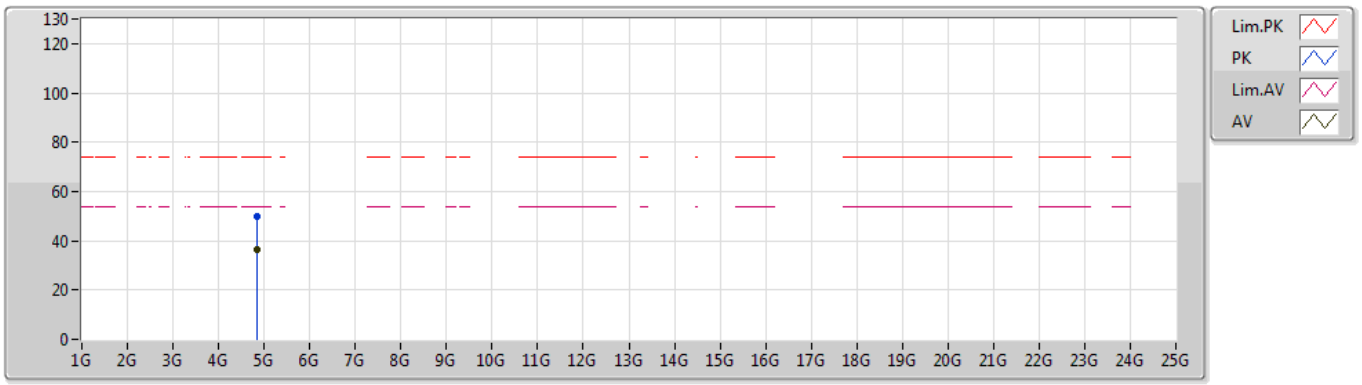
EUT Y_2TX
Setting 14
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.3896G	62.63	74.00	-11.37	31.93	3	Horizontal	165	1.50	-	30.70
AV	2.39G	50.60	54.00	-3.40	31.93	3	Horizontal	165	1.50	-	18.67
PK	2.4204G	100.85	Inf	-Inf	32.03	3	Horizontal	165	1.50	-	68.82
AV	2.4232G	92.57	Inf	-Inf	32.04	3	Horizontal	165	1.50	-	60.53
PK	2.4852G	55.99	74.00	-18.01	32.26	3	Horizontal	165	1.50	-	23.73
AV	2.496G	45.26	54.00	-8.74	32.30	3	Horizontal	165	1.50	-	12.96

802.11n HT40_Nss1,(MCS0)_2TX

2422MHz_TX

18/09/2019



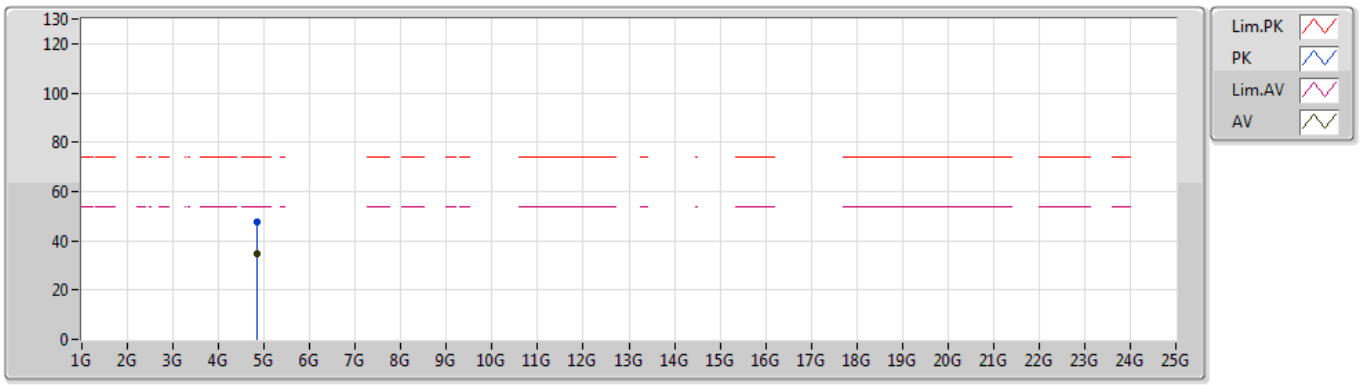
EUT Y_2TX
Setting 14
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	4.84466G	49.83	74.00	-24.17	4.75	3	Vertical	189	2.88	-	45.08
AV	4.84472G	36.22	54.00	-17.78	4.75	3	Vertical	189	2.88	-	31.47

802.11n HT40_Nss1,(MCS0)_2TX

2422MHz_TX

18/09/2019



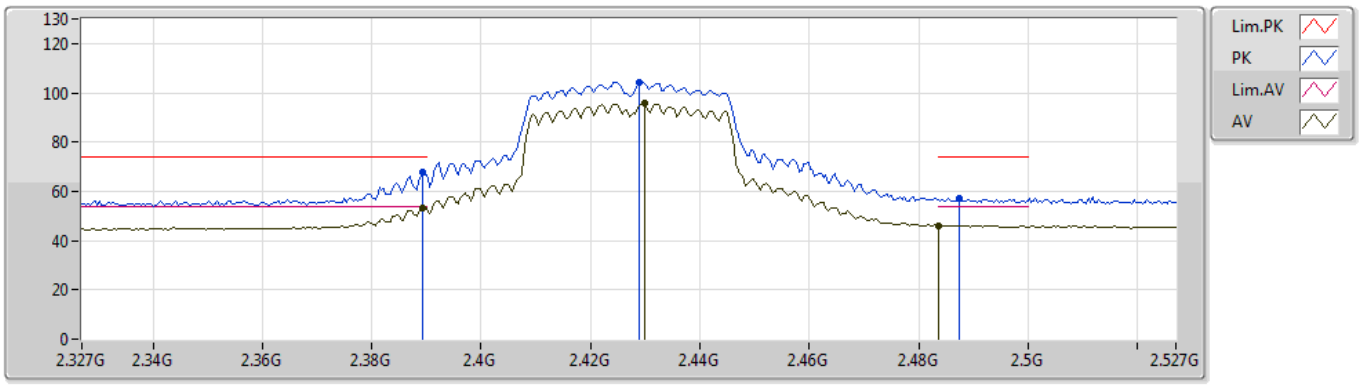
EUT Y_2TX
Setting 14
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	4.84256G	47.38	74.00	-26.62	4.75	3	Horizontal	128	1.43	-	42.63
AV	4.84478G	34.80	54.00	-19.20	4.75	3	Horizontal	128	1.43	-	30.05

802.11n HT40_Nss1,(MCS0)_2TX

2427MHz_TX

18/09/2019



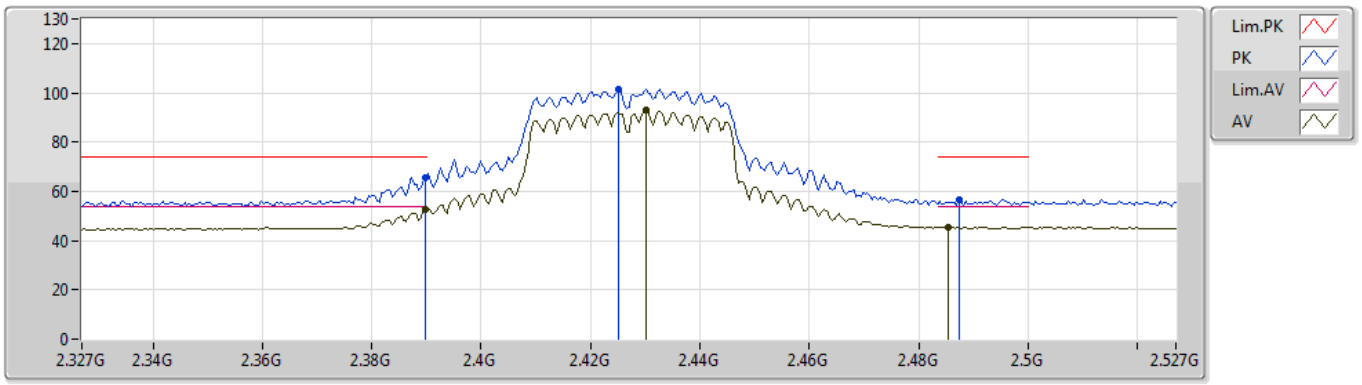
EUT Y_2TX
Setting 17
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.3894G	67.73	74.00	-6.27	31.93	3	Vertical	254	1.18	-	35.80
AV	2.3894G	53.51	54.00	-0.49	31.93	3	Vertical	254	1.18	-	21.58
PK	2.429G	104.20	Inf	-Inf	32.06	3	Vertical	254	1.18	-	72.14
AV	2.4298G	95.54	Inf	-Inf	32.06	3	Vertical	254	1.18	-	63.48
PK	2.4874G	57.15	74.00	-16.85	32.26	3	Vertical	254	1.18	-	24.89
AV	2.483501G	46.19	54.00	-7.81	32.25	3	Vertical	254	1.18	-	13.94

802.11n HT40_Nss1,(MCS0)_2TX

2427MHz_TX

18/09/2019



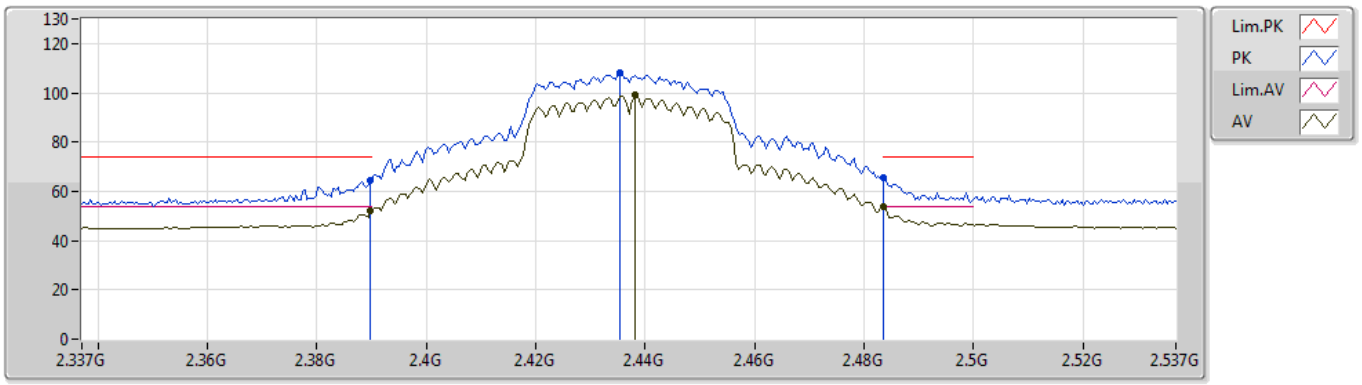
EUT Y_2TX
Setting 17
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.3898G	65.80	74.00	-8.20	31.93	3	Horizontal	0	1.18	-	33.87
AV	2.3898G	52.40	54.00	-1.60	31.93	3	Horizontal	0	1.18	-	20.47
PK	2.425G	101.55	Inf	-Inf	32.04	3	Horizontal	0	1.18	-	69.51
AV	2.4302G	92.79	Inf	-Inf	32.07	3	Horizontal	0	1.18	-	60.72
PK	2.4874G	56.33	74.00	-17.67	32.26	3	Horizontal	0	1.18	-	24.07
AV	2.4854G	45.45	54.00	-8.55	32.26	3	Horizontal	0	1.18	-	13.19

802.11n HT40_Nss1,(MCS0)_2TX

2437MHz_TX

18/09/2019



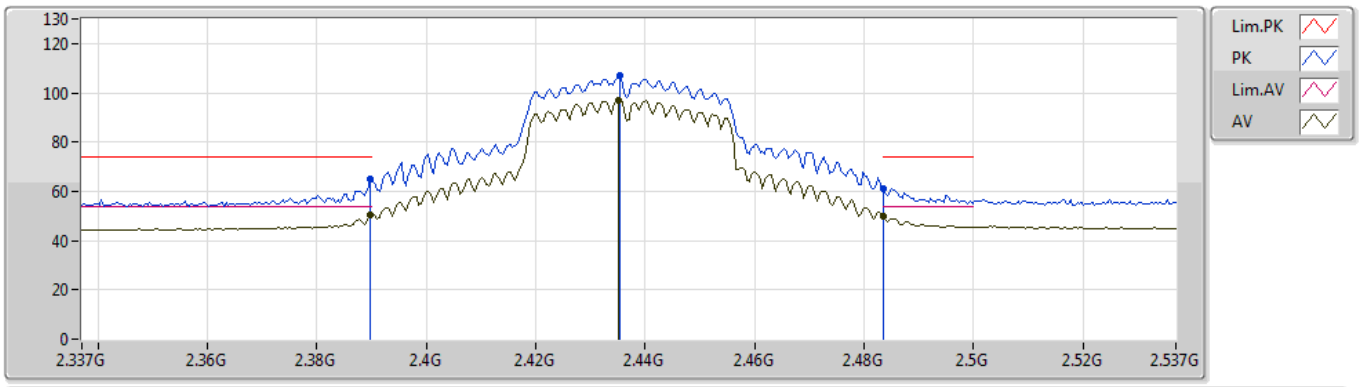
EUT Y_2TX
Setting 1C
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.3898G	64.18	74.00	-9.82	31.93	3	Vertical	87	1.33	-	32.25
AV	2.3898G	52.18	54.00	-1.82	31.93	3	Vertical	87	1.33	-	20.25
PK	2.4354G	108.42	Inf	-Inf	32.09	3	Vertical	87	1.33	-	76.33
AV	2.4382G	99.01	Inf	-Inf	32.09	3	Vertical	87	1.33	-	66.92
PK	2.483501G	65.62	74.00	-8.38	32.25	3	Vertical	87	1.33	-	33.37
AV	2.483501G	53.54	54.00	-0.46	32.25	3	Vertical	87	1.33	-	21.29

802.11n HT40_Nss1,(MCS0)_2TX

2437MHz_TX

18/09/2019



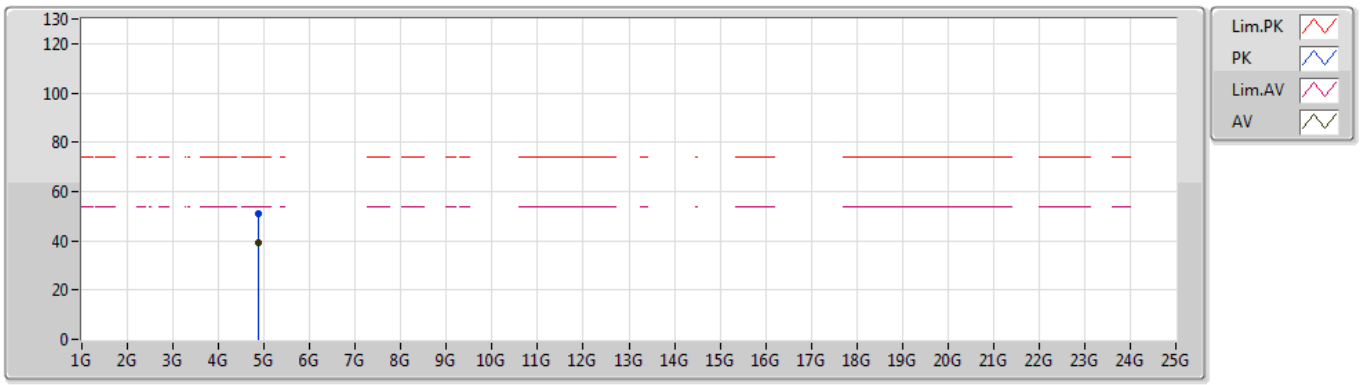
EUT Y_2TX
Setting 1C
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.3898G	65.19	74.00	-8.81	31.93	3	Horizontal	359	1.49	-	33.26
AV	2.3898G	50.32	54.00	-3.68	31.93	3	Horizontal	359	1.49	-	18.39
PK	2.4354G	106.77	Inf	-Inf	32.09	3	Horizontal	359	1.49	-	74.68
AV	2.435G	97.18	Inf	-Inf	32.09	3	Horizontal	359	1.49	-	65.09
PK	2.4835G	61.30	74.00	-12.70	32.25	3	Horizontal	359	1.49	-	29.05
AV	2.4835G	49.95	54.00	-4.05	32.25	3	Horizontal	359	1.49	-	17.70

802.11n HT40_Nss1,(MCS0)_2TX

2437MHz_TX

18/09/2019



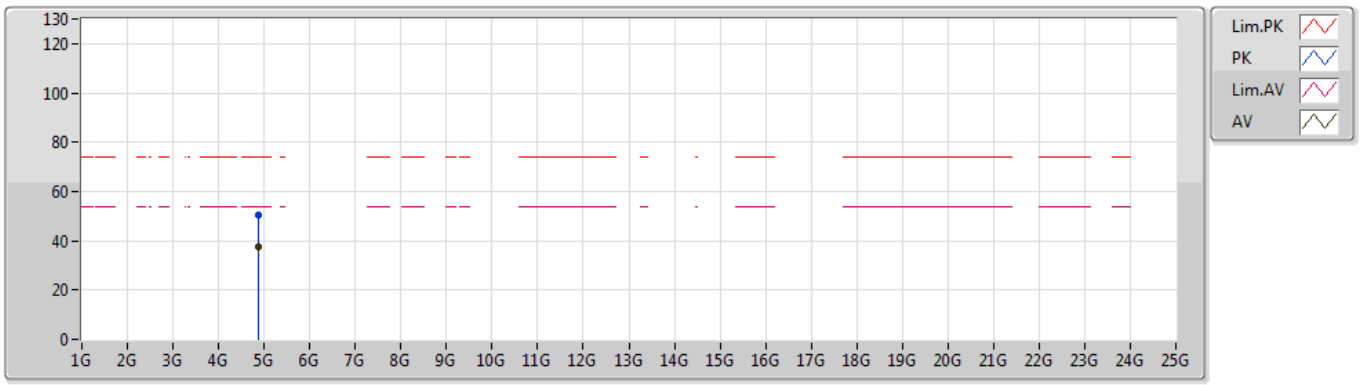
EUT Y_2TX
Setting 1C
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	4.8746G	51.08	74.00	-22.92	4.80	3	Vertical	194	2.44	-	46.28
AV	4.87454G	38.97	54.00	-15.03	4.80	3	Vertical	194	2.44	-	34.17

802.11n HT40_Nss1,(MCS0)_2TX

2437MHz_TX

18/09/2019



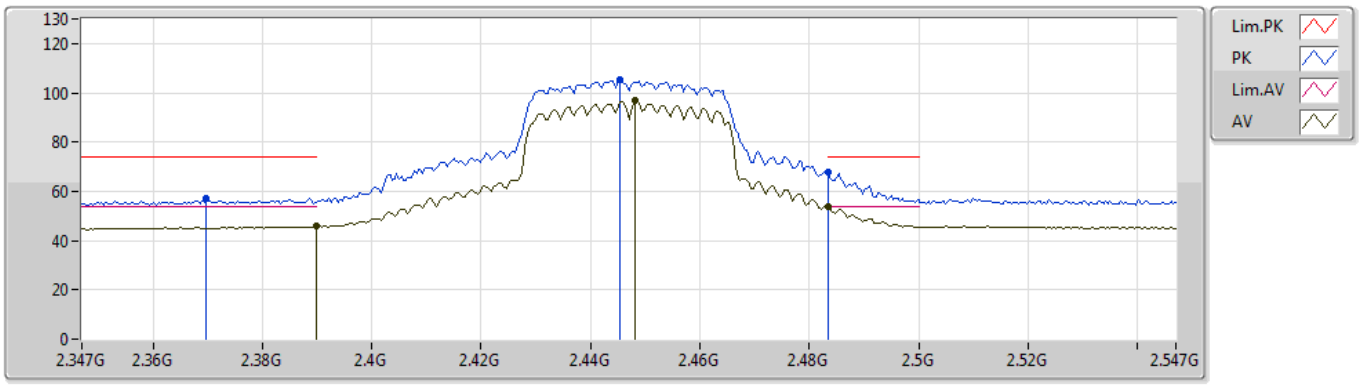
EUT Y_2TX
Setting 1C
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	4.8749G	50.63	74.00	-23.37	4.80	3	Horizontal	125	1.64	-	45.83
AV	4.87466G	37.27	54.00	-16.73	4.80	3	Horizontal	125	1.64	-	32.47

802.11n HT40_Nss1,(MCS0)_2TX

2447MHz_TX

18/09/2019



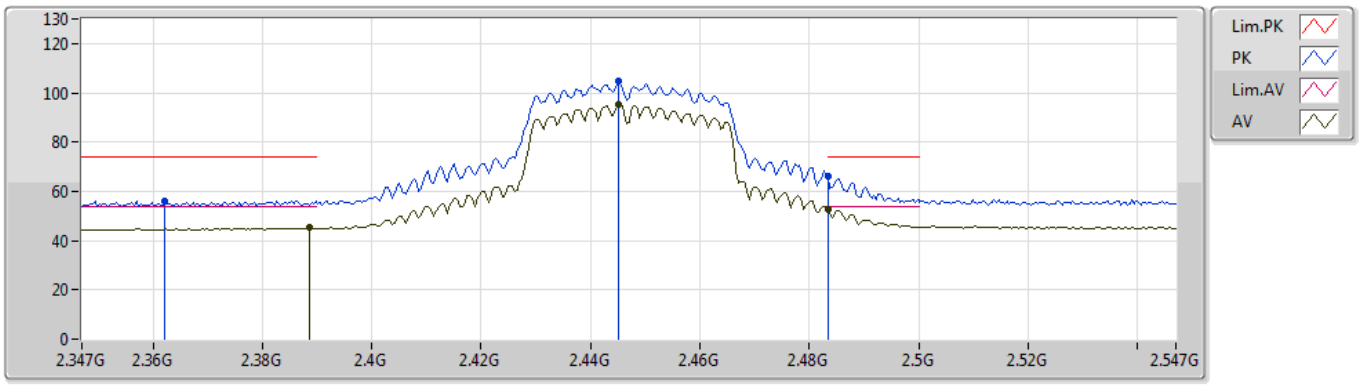
EUT Y_2TX
Setting 17
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.3698G	57.12	74.00	-16.88	31.88	3	Vertical	94	1.54	-	25.24
AV	2.3898G	45.79	54.00	-8.21	31.93	3	Vertical	94	1.54	-	13.86
PK	2.4454G	105.51	Inf	-Inf	32.12	3	Vertical	94	1.54	-	73.39
AV	2.4482G	96.69	Inf	-Inf	32.12	3	Vertical	94	1.54	-	64.57
PK	2.4835G	67.53	74.00	-6.47	32.25	3	Vertical	94	1.54	-	35.28
AV	2.4835G	53.71	54.00	-0.29	32.25	3	Vertical	94	1.54	-	21.46

802.11n HT40_Nss1,(MCS0)_2TX

2447MHz_TX

18/09/2019



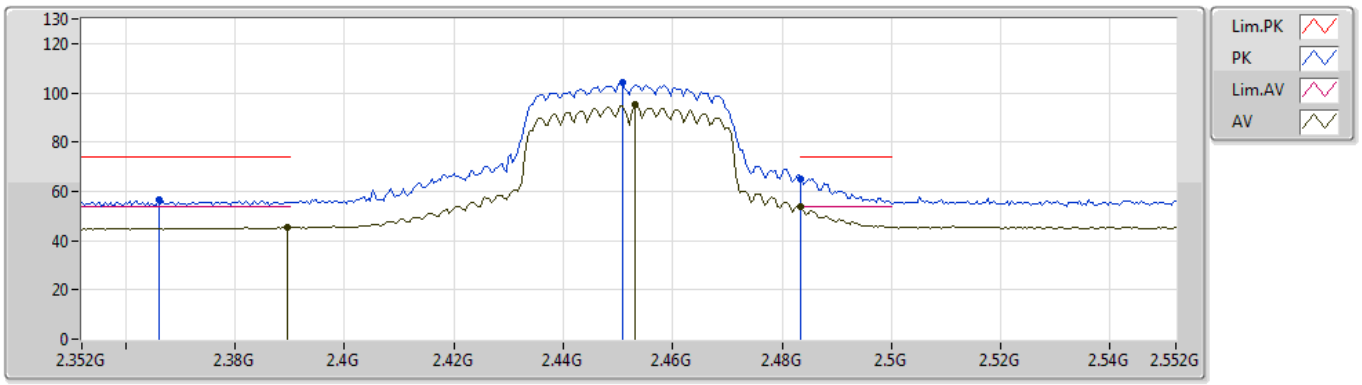
EUT Y_2TX
Setting 17
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.3622G	56.31	74.00	-17.69	31.85	3	Horizontal	8	1.05	-	24.46
AV	2.3886G	45.15	54.00	-8.85	31.93	3	Horizontal	8	1.05	-	13.22
PK	2.445G	104.58	Inf	-Inf	32.12	3	Horizontal	8	1.05	-	72.46
AV	2.445G	95.12	Inf	-Inf	32.12	3	Horizontal	8	1.05	-	63.00
PK	2.4835G	65.87	74.00	-8.13	32.25	3	Horizontal	8	1.05	-	33.62
AV	2.4835G	52.48	54.00	-1.52	32.25	3	Horizontal	8	1.05	-	20.23

802.11n HT40_Nss1,(MCS0)_2TX

2452MHz_TX

18/09/2019



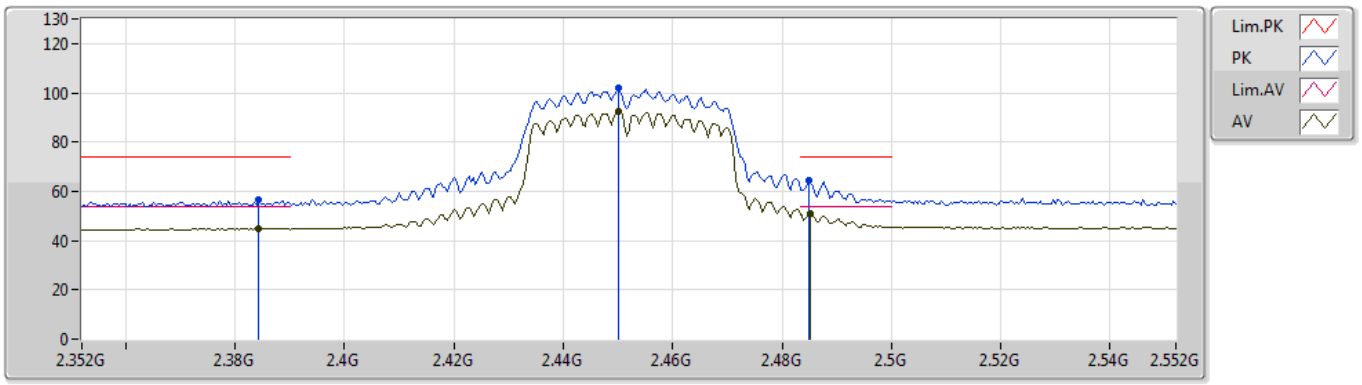
EUT Y_2TX
Setting 13
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.366G	56.46	74.00	-17.54	31.86	3	Vertical	91	1.53	-	24.60
AV	2.3896G	45.26	54.00	-8.74	31.93	3	Vertical	91	1.53	-	13.33
PK	2.4508G	104.04	Inf	-Inf	32.14	3	Vertical	91	1.53	-	71.90
AV	2.4532G	95.09	Inf	-Inf	32.15	3	Vertical	91	1.53	-	62.94
PK	2.483501G	65.27	74.00	-8.73	32.25	3	Vertical	91	1.53	-	33.02
AV	2.483501G	53.57	54.00	-0.43	32.25	3	Vertical	91	1.53	-	21.32

802.11n HT40_Nss1,(MCS0)_2TX

2452MHz_TX

18/09/2019



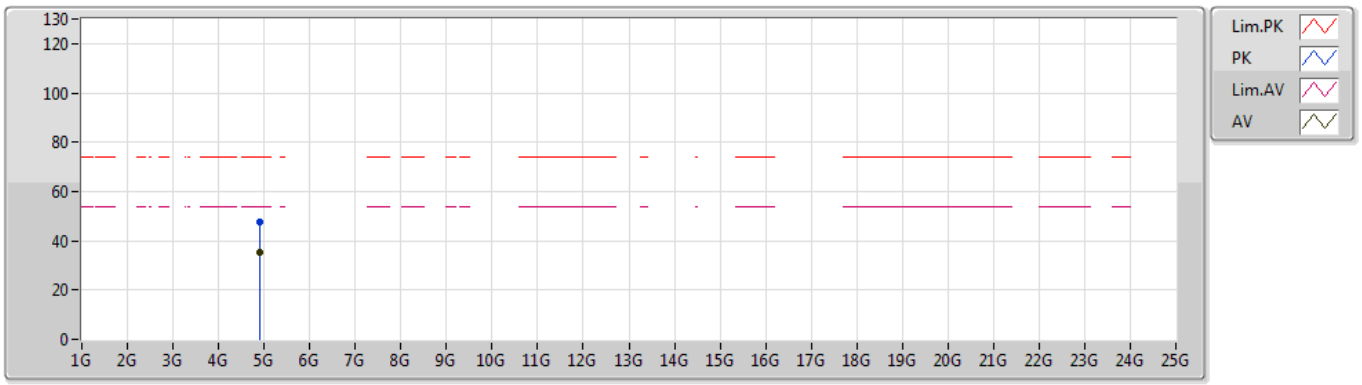
EUT Y_2TX
Setting 13
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	2.3844G	56.81	74.00	-17.19	31.92	3	Horizontal	359	1.02	-	24.89
AV	2.3844G	44.90	54.00	-9.10	31.92	3	Horizontal	359	1.02	-	12.98
PK	2.45G	101.75	Inf	-Inf	32.14	3	Horizontal	359	1.02	-	69.61
AV	2.45G	92.32	Inf	-Inf	32.14	3	Horizontal	359	1.02	-	60.18
PK	2.4848G	64.19	74.00	-9.81	32.25	3	Horizontal	359	1.02	-	31.94
AV	2.4852G	50.82	54.00	-3.18	32.26	3	Horizontal	359	1.02	-	18.56

802.11n HT40_Nss1,(MCS0)_2TX

2452MHz_TX

18/09/2019



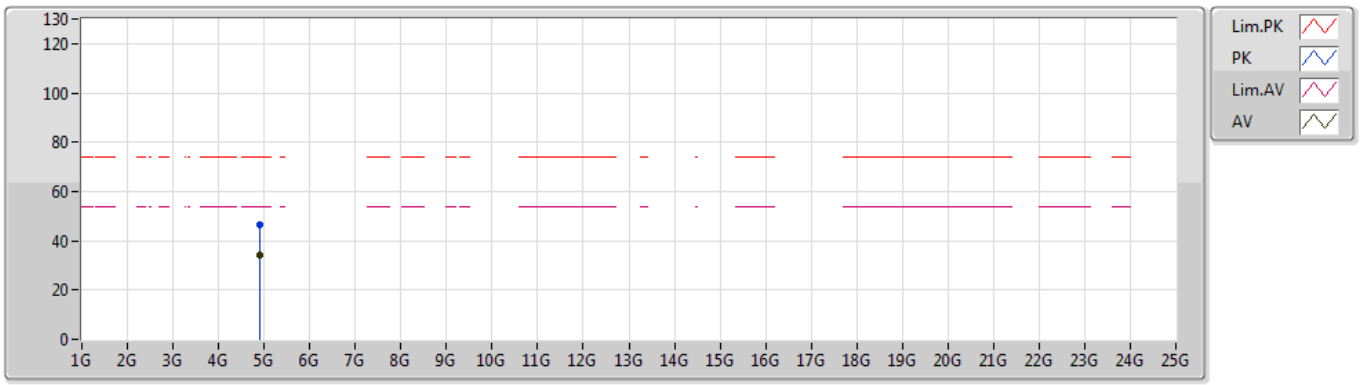
EUT Y_2TX
Setting 13
03-E-2
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	4.90466G	47.74	74.00	-26.26	4.86	3	Vertical	128	2.79	-	42.88
AV	4.90502G	35.24	54.00	-18.76	4.86	3	Vertical	128	2.79	-	30.38

802.11n HT40_Nss1,(MCS0)_2TX

2452MHz_TX

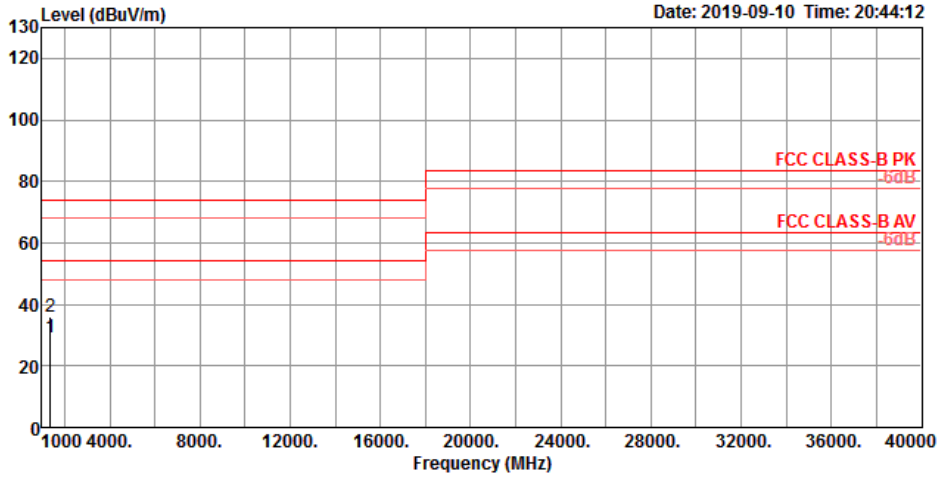
18/09/2019



EUT Y_2TX
Setting 13
03-E-2
FSP

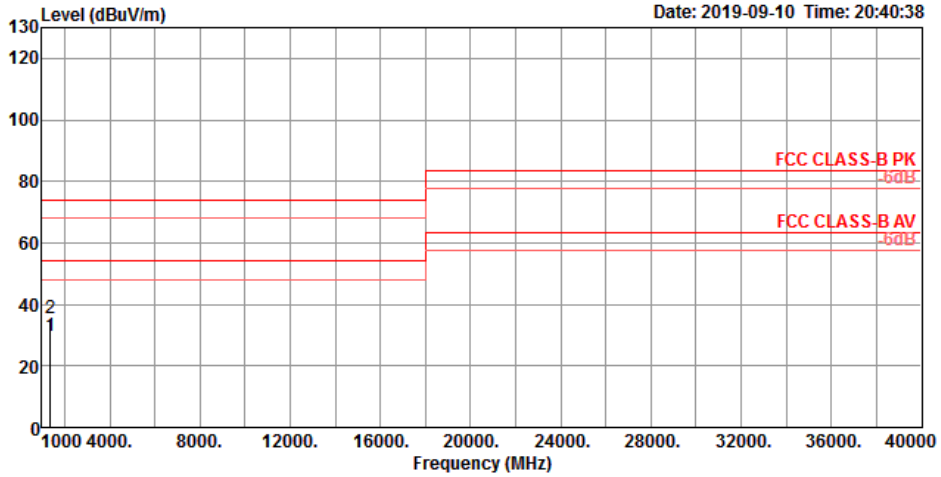
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)
PK	4.89998G	46.69	74.00	-27.31	4.85	3	Horizontal	324	1.26	-	41.84
AV	4.9004G	34.13	54.00	-19.87	4.85	3	Horizontal	324	1.26	-	29.28

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	1353.33	29.28	54.00	-24.72	37.08	2.92	26.18	36.90	118	160	Average	HORIZONTAL
2	1353.41	35.85	74.00	-38.15	43.65	2.92	26.18	36.90	118	160	Peak	HORIZONTAL

RSE Co-location Result			
Operating Mode	1	**Polarization**	Vertical
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	1353.25	29.88	54.00	-24.12	37.68	2.92	26.18	36.90	100	184	Average	VERTICAL
2	1353.25	35.35	74.00	-38.65	43.15	2.92	26.18	36.90	100	184	Peak	VERTICAL