FCC RADIO TEST REPORT

FCC ID	:	**TLZ-CM390SM**
Equipment	:	**IEEE 802.11a/b/g/n/ac WiFi with Bluetooth 5.0 Combo Stamp Module**
Brand Name	:	**AzureWave**
Model Name	:	**AW-CM390SM**
Applicant	:	**AzureWave Technologies, Inc.** **8F., No.94, Baozhong Rd., Xindian Dist., New Taipei City 23144, Taiwan**
Standard	:	**47 CFR FCC Part 15.247**

The product was received on Mar. 12, 2020, and testing was started from Mar. 19, 2020 and completed on Apr. 29, 2020. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The 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.

Cliff chang

Approved by: Cliff Chang

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

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History of this test report

Report No.	Version	Description	Issued Date
FR030609AA	01	Initial issue of report	Jun. 10, 2020

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	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	1TX
2.4-2.4835GHz	802.11g	20	1TX
2.4-2.4835GHz	802.11n HT20	20	1TX
2.4-2.4835GHz	802.11n HT40	40	1TX

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.

1.1.2 Antenna Information

Ant.	Port	Brand	P/N	Antenna Type	Connector	Gain (dBi)		
						WLAN		Bluetooth
						2.4GHz	5GHz	
1	1	MAG.LAYERS	MSA-4008-25GC1-A1	PIFA	I-PEX	2.98	5.16	2.98

Note: The above information was declared by manufacturer.

For 2.4GHz function:

For IEEE 802.11b/g/n (1TX/1RX):

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

For 5GHz function:

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

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

For Bluetooth function:

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

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	0.971	0.13	12.418m	100
802.11g	0.879	0.56	2.065m	1k
802.11n HT20	0.949	0.23	1.921m	1k
802.11n HT40	0.899	0.46	945.938u	3k

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

1.1.4 EUT Operational Condition

EUT Power Type	From host system			
Beamforming Function	☐	With beamforming	☒	Without beamforming
Function	☒	Point-to-multipoint	☐	Point-to-point
Test Software Version	Version 7.45.173(r707987 CY WLTEST)FWID 01-6c82dde4			

Note: The above information was declared by manufacturer.

1.2 Applicable Standards

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

- 47 CFR FCC Part 15
- ANSI C63.10-2013

The following reference test guidance is not within the scope of accreditation of TAF.

- FCC KDB 558074 D01 v05r02
- FCC KDB 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	Lucas Huangs	22-22.4°C / 45-47%	Mar. 25, 2020~ Mar. 31, 2020
Radiated<Below 1GHz>	03CH04-CB	Stim Sung	21.1-22.7°C / 45-47%	Mar. 25, 2020~ Apr. 29, 2020
Radiated<Above 1GHz>	03CH03-CB	Brian Sun	21.3-22.7°C / 47-49%	Mar. 19, 2020 Mar. 31, 2020
AC Conduction	CO01-CB	Max Lin	23~24°C / 59~60%	Apr. 16, 2020

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

1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
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	Power Setting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	21
2437MHz	22
2457MHz	20
2462MHz	19
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	16
2417MHz	17
2437MHz	23
2457MHz	18
2462MHz	16
802.11n HT20_Nss1,(MCS0)_1TX	-
2412MHz	17
2417MHz	18
2437MHz	24
2457MHz	19
2462MHz	18
802.11n HT40_Nss1,(MCS0)_1TX	-
2422MHz	15
2437MHz	17
2452MHz	16

2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	Normal Link
1	EUT + 2.4GHz + Bluetooth with Ant.
2	EUT + 5GHz + Bluetooth with Ant.
For operating mode 1 is the worst case and it was record in this test report.	

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

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	Normal Link
1	EUT in Z axis + 2.4GHz + Bluetooth with Ant.
2	EUT in Z axis + 5GHz + Bluetooth with Ant.
For operating mode 2 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
The EUT was performed at X axis, Y axis and Z axis position test, and the worst case was found at X axis So the measurement will follow this same test configuration.	
1	EUT in X axis + Ant.

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location
Test Condition	Radiated measurement
Operating Mode	Normal Link
1	EUT in Z axis: Bluetooth+WLAN 2.4GHz
2	EUT in Z axis: Bluetooth+WLAN 5GHz
For operating mode 1 was the worst case and it was record in this test report.	
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	Bluetooth+WLAN 2.4GHz
2	Bluetooth+WLAN 5GHz
Refer to Sporton Test Report No.: FA030609 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	Fixture	AzureWave	CK77 94V-0	N/A
B	Notebook	DELL	E6430	N/A
C	Earphone	e-Power	S90W	N/A
D	Mouse	HP	FM100	N/A
E	Smart phone	Samsung	Galaxy J2	A3LSMJ200F
F	AP	ASUS	RP-N53	MSQ-RPN53

For Radiated (below 1GHz):

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	Notebook	DELL	E4300	N/A
B	WLAN AP	ASUS	RT-AX88U	MSQ-RTAXHP00
C	Smart phone	Samsung	Galaxy J2	A3LSMJ200F
D	Fixture	AzureWave	CK77 94V-0	N/A
E	Earphone	e-Power	S90W	N/A
F	Mouse	HP	FM100	N/A

For Radiated (above 1GHz):

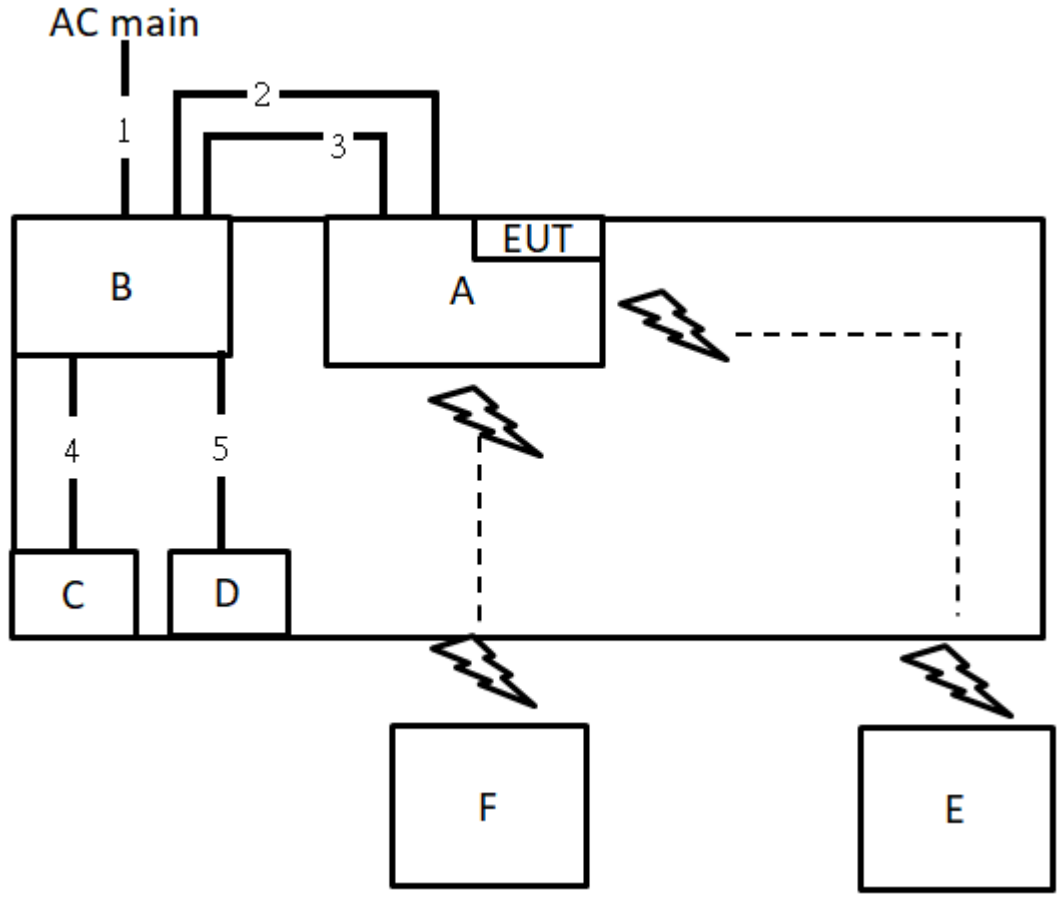
Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	Notebook	DELL	E4300	N/A
B	Fixture	AzureWave	CK77 94V-0	N/A

For RF Conducted:

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	Notebook	DELL	E4300	N/A
B	Fixture	AzureWave	CK77 94V-0	N/A

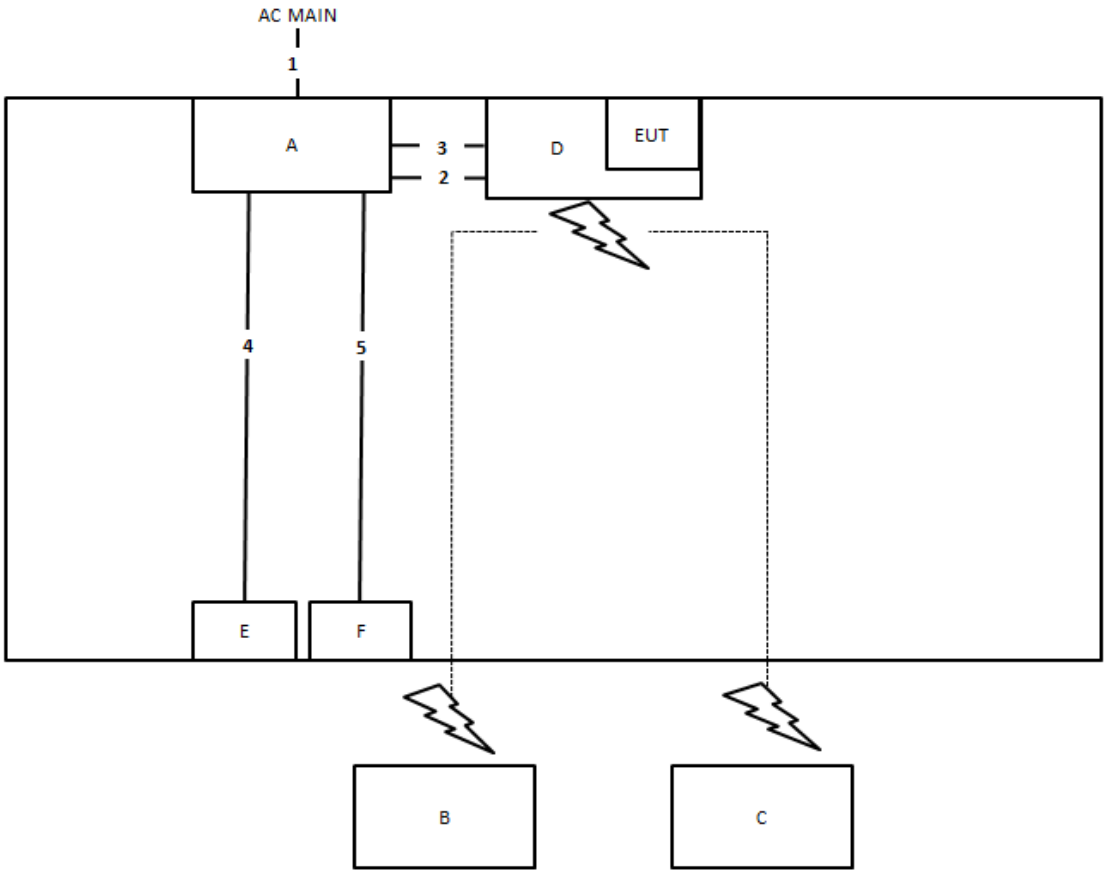
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



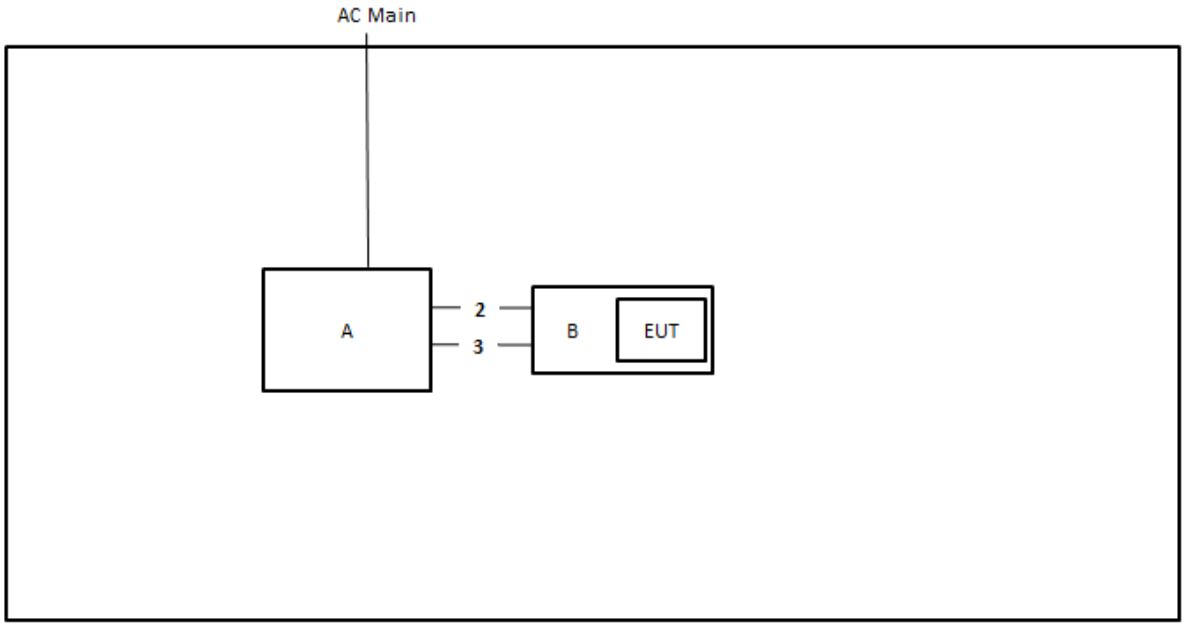
Item	Connection	Shielded	Length
1	Power cable	No	2.6m
2	USB cable	Yes	1m
3	USB cable	Yes	1m
4	Audio cable	No	1.2m
5	USB cable	Yes	1.5m

Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	2.6m
2	USB cable	Yes	1m
3	USB cable	Yes	1m
4	Audio cable	No	1.2m
5	USB cable	Yes	1.5m

Test Setup Diagram - Radiated Test > 1GHz



Item	Connection	Shielded	Length
1	USB cable	No	1m
2	USB cable	No	1m

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

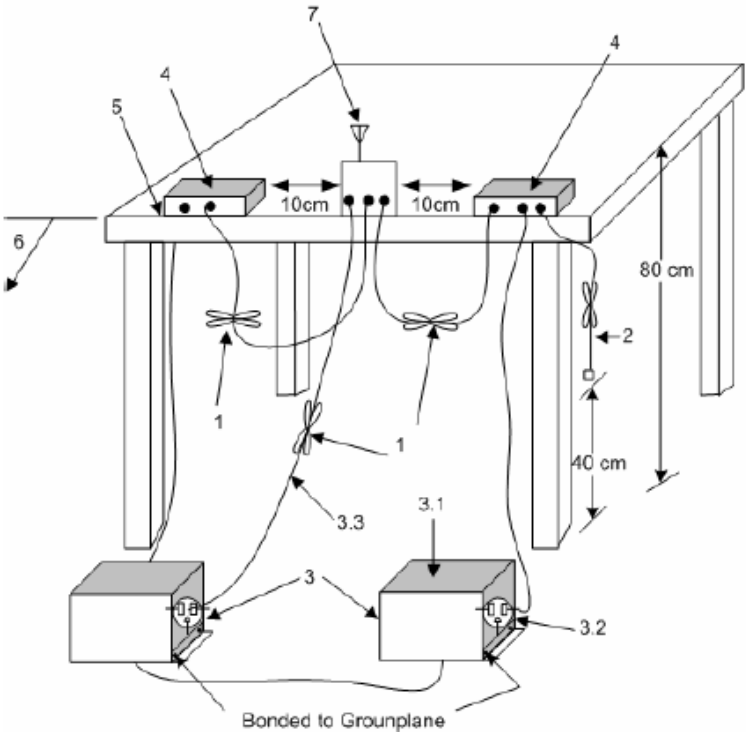
Refer a test equipment and calibration data table in this test report.

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.

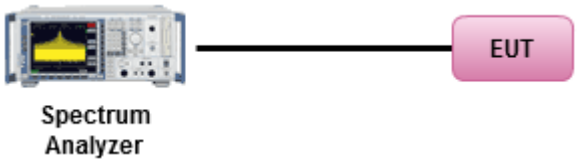
3.2.2 Measuring Instruments

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

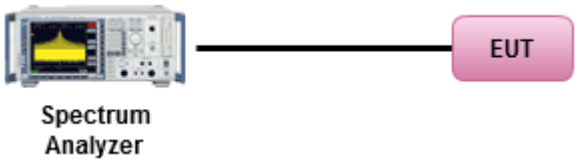
3.4.2 Measuring Instruments

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 Method Max. PSD.		
▪ 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

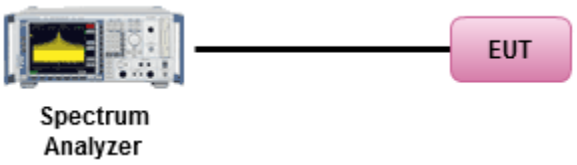
Refer a test equipment and calibration data table in this test report.

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.

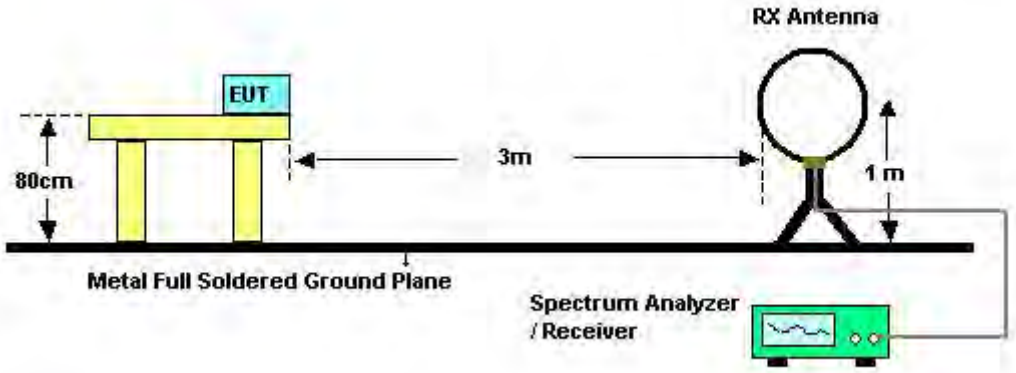
3.6.3 Test Procedures

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.	

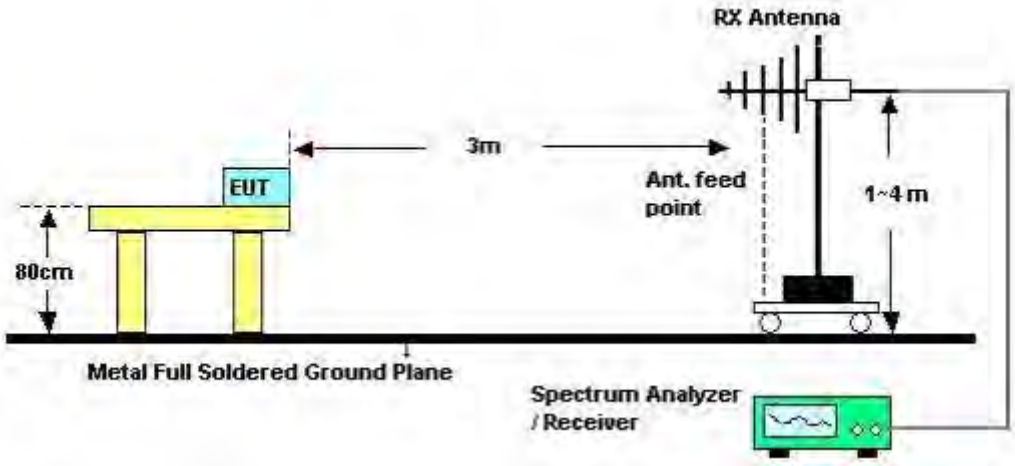
3.6.4 Test Setup

Radiated - Emissions in Restricted Frequency Bands

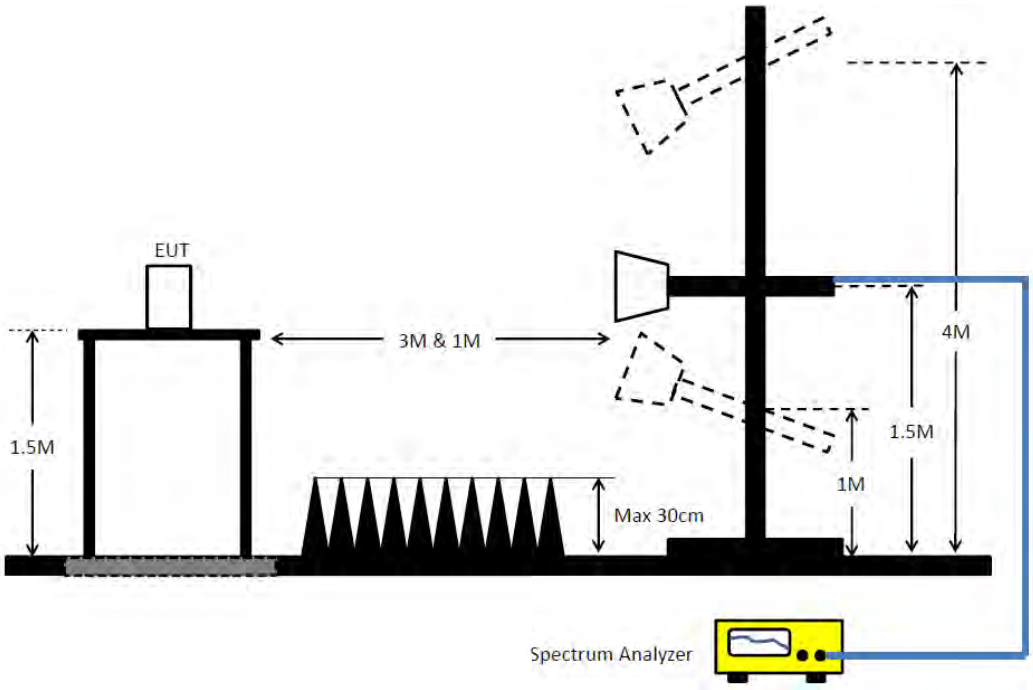
9kHz ~30MHz



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

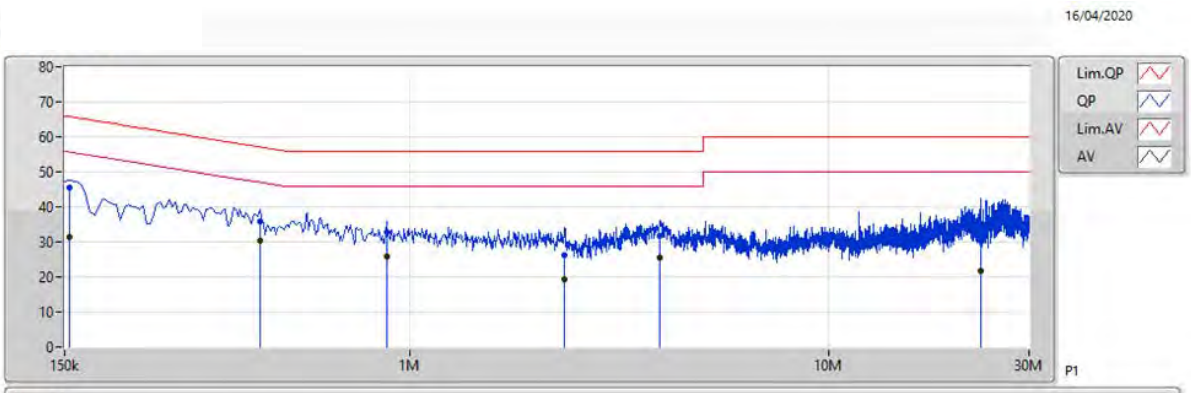
Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Feb. 26, 2020	Feb. 25, 2021	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 25, 2019	Dec. 24, 2020	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Feb. 25, 2020	Feb. 24, 2021	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 (03CH04-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Apr. 13, 2020	Apr. 12, 2021	Radiation (03CH04-CB)
BILOG ANTENNA with 6 dB attenuator	Schaffner & EMCI	CBL6112B & N-6-06	22021&AT-N0607	30MHz ~ 1GHz	Oct. 12, 2019	Oct. 11, 2020	Radiation (03CH04-CB)
Pre-Amplifier	Agilent	310N	187291	0.1MHz ~ 1GHz	Mar. 19, 2020	Mar. 18, 2021	Radiation (03CH04-CB)
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Dec. 18, 2019	Dec. 17, 2020	Radiation (03CH04-CB
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	May 15, 2019	May 14, 2020	Radiation (03CH04-CB)
RF Cable-low	Woken	RG402	Low Cable-03+22	30MHz – 1GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH04-CB)
Horn Antenna	ETS・Lindgren	3115	6821	750MHz~18GHz	Jan. 20, 2020	Jan. 19, 2021	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. 19, 2019	Dec. 18, 2020	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. 07, 2019	Oct. 06, 2020	Radiation (03CH03-CB)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-27	1GHz ~ 18GHz	Oct. 07, 2019	Oct. 06, 2020	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	Nov. 01, 2019	Oct. 31, 2020	Conducted (TH03-CB)
Power Sensor	Anritsu	MA2411B	1726195	300MHz~40GHz	Aug. 13, 2019	Aug. 12, 2020	Conducted (TH03-CB)
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. 07, 2019	Oct. 06, 2020	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-12	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-13	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-14	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-15	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH03-CB)

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

NCR means Non-Calibration required.

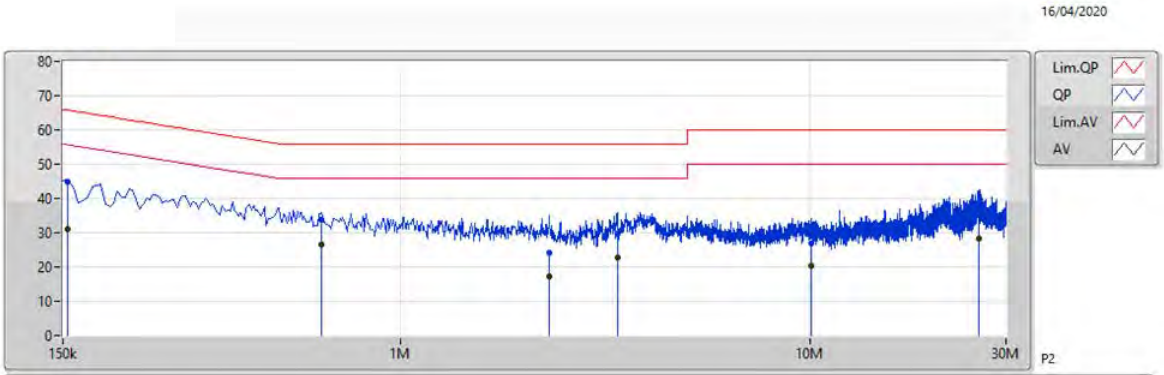
AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Line
Operating Function	Normal Link		



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	AF	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	154.5k	45.68	65.75	-20.07	9.90	Line	-	35.78	0.05	0.06	9.79
AV	154.5k	31.51	55.75	-24.24	9.90	Line	-	21.61	0.05	0.06	9.79
QP	438k	35.73	57.11	-21.38	9.91	Line	-	25.82	0.04	0.06	9.81
AV	438k	30.32	47.11	-16.79	9.91	Line	"Worst"	20.41	0.04	0.06	9.81
QP	879k	32.90	56.00	-23.10	9.96	Line	-	22.94	0.05	0.09	9.82
AV	879k	25.99	46.00	-20.01	9.96	Line	-	16.03	0.05	0.09	9.82
QP	2.337M	26.23	56.00	-29.77	10.03	Line	-	16.20	0.07	0.13	9.83
AV	2.337M	19.46	46.00	-26.54	10.03	Line	-	9.43	0.07	0.13	9.83
QP	3.944M	31.71	56.00	-24.29	10.07	Line	-	21.64	0.09	0.17	9.81
AV	3.944M	25.66	46.00	-20.34	10.07	Line	-	15.59	0.09	0.17	9.81
QP	22.997M	31.92	60.00	-28.08	10.59	Line	-	21.33	0.26	0.32	10.01
AV	22.997M	21.84	50.00	-28.16	10.59	Line	-	11.25	0.26	0.32	10.01

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	154.5k	44.87	65.75	-20.88	9.87	Neutral	-	35.00	0.02	0.06	9.79
AV	154.5k	30.93	55.75	-24.82	9.87	Neutral	-	21.06	0.02	0.06	9.79
QP	640.5k	33.66	56.00	-22.34	9.92	Neutral	-	23.74	0.02	0.08	9.82
AV	640.5k	26.70	46.00	-19.30	9.92	Neutral	"Worst"	16.78	0.02	0.08	9.82
QP	2.306M	24.00	56.00	-32.00	10.00	Neutral	-	14.00	0.04	0.13	9.83
AV	2.306M	17.27	46.00	-28.73	10.00	Neutral	-	7.27	0.04	0.13	9.83
QP	3.377M	29.59	56.00	-26.41	10.02	Neutral	-	19.57	0.05	0.16	9.81
AV	3.377M	22.93	46.00	-23.07	10.02	Neutral	-	12.91	0.05	0.16	9.81
QP	10.059M	26.81	60.00	-33.19	10.27	Neutral	-	16.54	0.12	0.23	9.92
AV	10.059M	20.20	50.00	-29.80	10.27	Neutral	-	9.93	0.12	0.23	9.92
QP	25.832M	37.16	60.00	-22.84	10.61	Neutral	-	26.55	0.23	0.35	10.03
AV	25.832M	28.16	50.00	-21.84	10.61	Neutral	-	17.55	0.23	0.35	10.03

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)_1TX	9.05M	13.493M	13M5G1D	8.05M	12.169M
802.11g_Nss1,(6Mbps)_1TX	15.55M	23.988M	24M0D1D	15.025M	16.417M
802.11n HT20_Nss1,(MCS0)_1TX	17.225M	32.709M	32M7D1D	15M	17.616M
802.11n HT40_Nss1,(MCS0)_1TX	35.5M	36.382M	36M4D1D	35.1M	36.282M

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

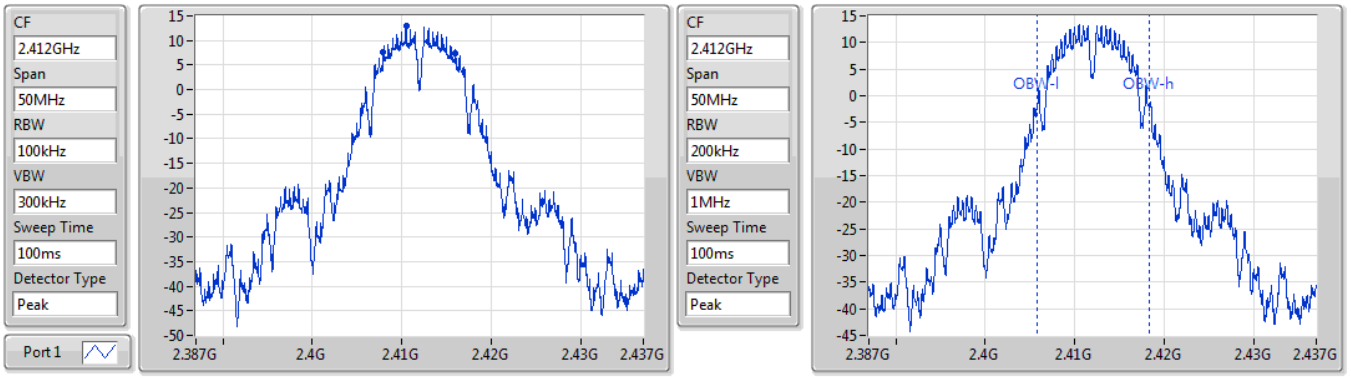
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	8.075M	12.494M
2437MHz	Pass	500k	9.05M	13.493M
2462MHz	Pass	500k	8.05M	12.169M
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	15.025M	16.417M
2437MHz	Pass	500k	15.55M	23.988M
2462MHz	Pass	500k	15.4M	16.442M
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	15M	17.616M
2437MHz	Pass	500k	17.225M	32.709M
2462MHz	Pass	500k	15.9M	17.641M
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	35.1M	36.282M
2437MHz	Pass	500k	35.35M	36.382M
2452MHz	Pass	500k	35.5M	36.382M

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

802.11b_Nss1,(1Mbps)_1TX EBW

2412MHz

25/03/2020

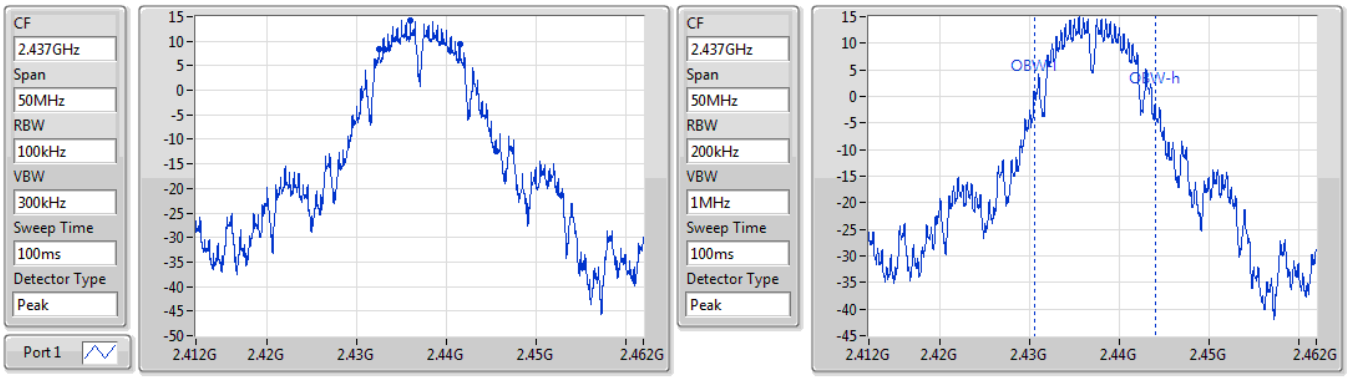


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.075M	2.40795G	2.416025G	12.494M	2.405803G	2.418297G	500k	1

802.11b_Nss1,(1Mbps)_1TX EBW

2437MHz

25/03/2020

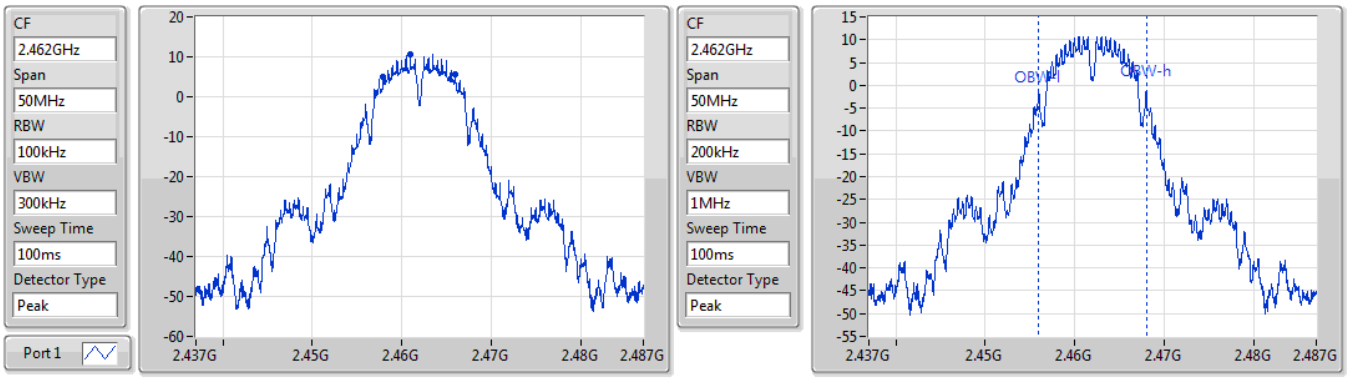


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
9.05M	2.43245G	2.4415G	13.493M	2.430478G	2.443972G	500k	1

802.11b_Nss1,(1Mbps)_1TX EBW

2462MHz

25/03/2020

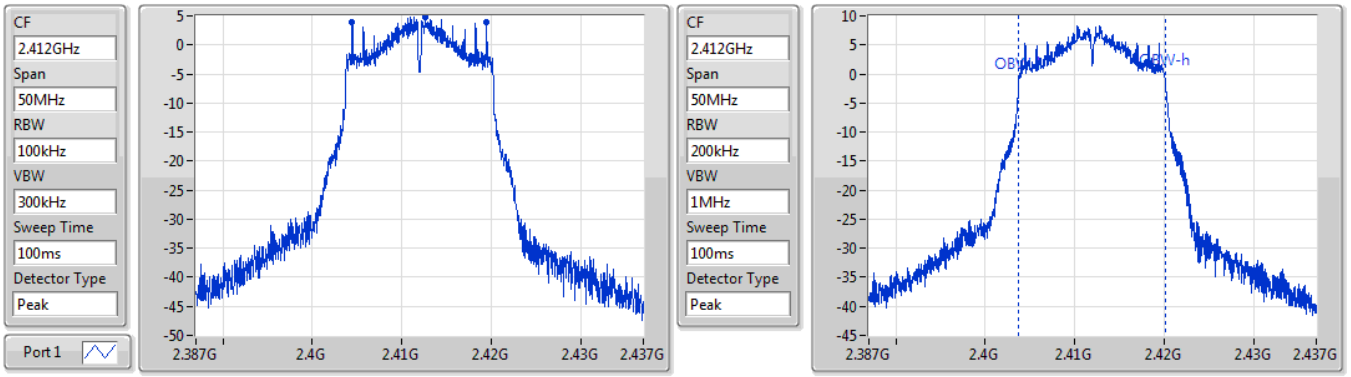


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.05M	2.45795G	2.466G	12.169M	2.455878G	2.468047G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2412MHz

25/03/2020

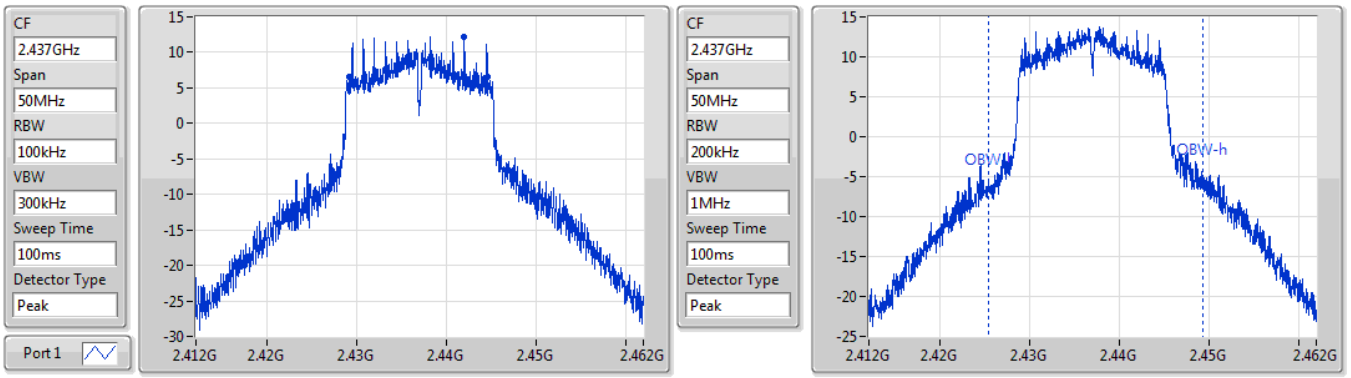


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.025M	2.404475G	2.4195G	16.417M	2.403754G	2.420171G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2437MHz

25/03/2020

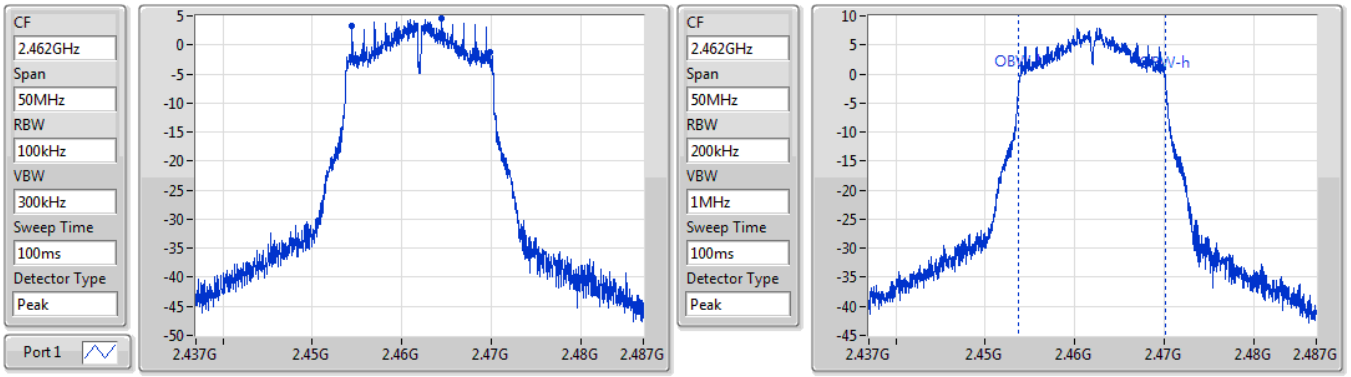


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.55M	2.429075G	2.444625G	23.988M	2.425356G	2.449344G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2462MHz

25/03/2020

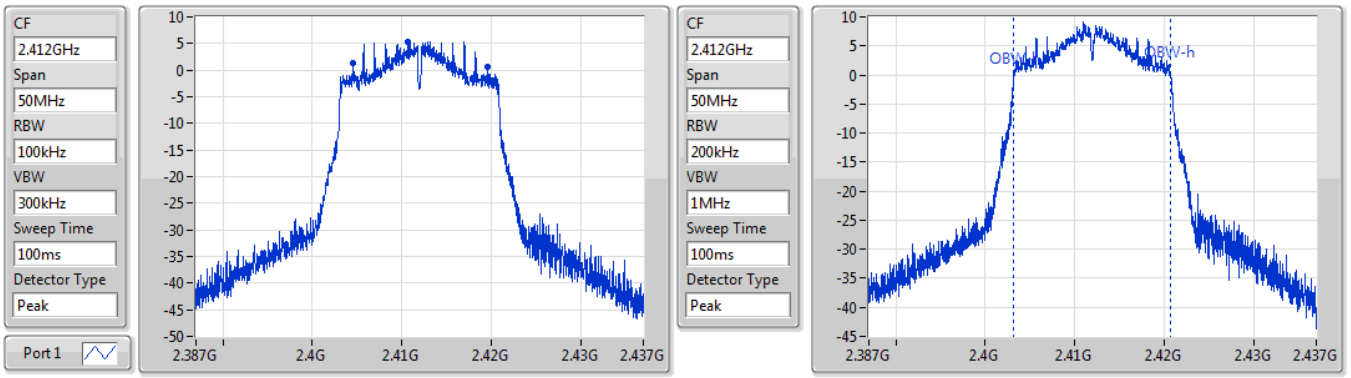


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.4M	2.454475G	2.469875G	16.442M	2.453754G	2.470196G	500k	1

802.11n HT20_Nss1,(MCS0)_1TX EBW

2412MHz

25/03/2020

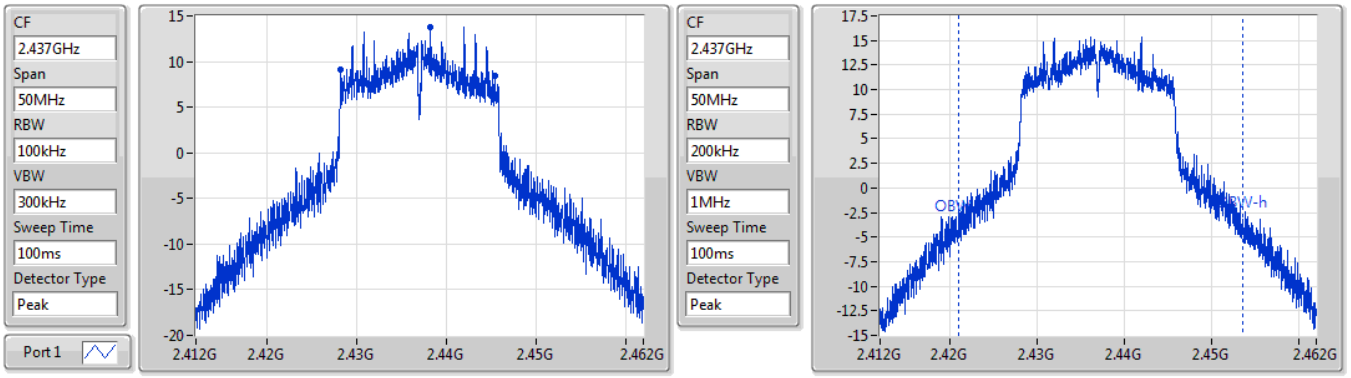


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15M	2.40455G	2.41955G	17.616M	2.403154G	2.420771G	500k	1

802.11n HT20_Nss1,(MCS0)_1TX EBW

2437MHz

25/03/2020

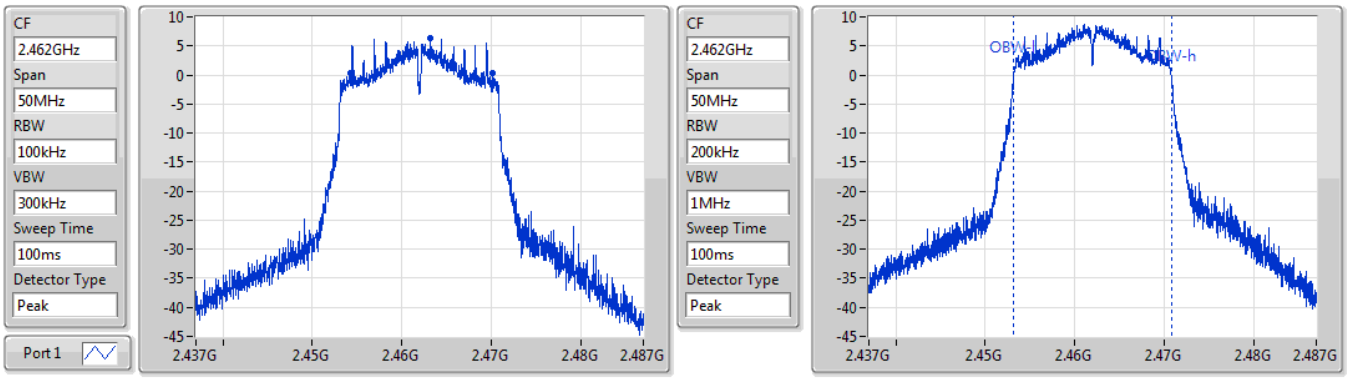


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.225M	2.428225G	2.44545G	32.709M	2.420933G	2.453642G	500k	1

802.11n HT20_Nss1,(MCS0)_1TX EBW

2462MHz

25/03/2020

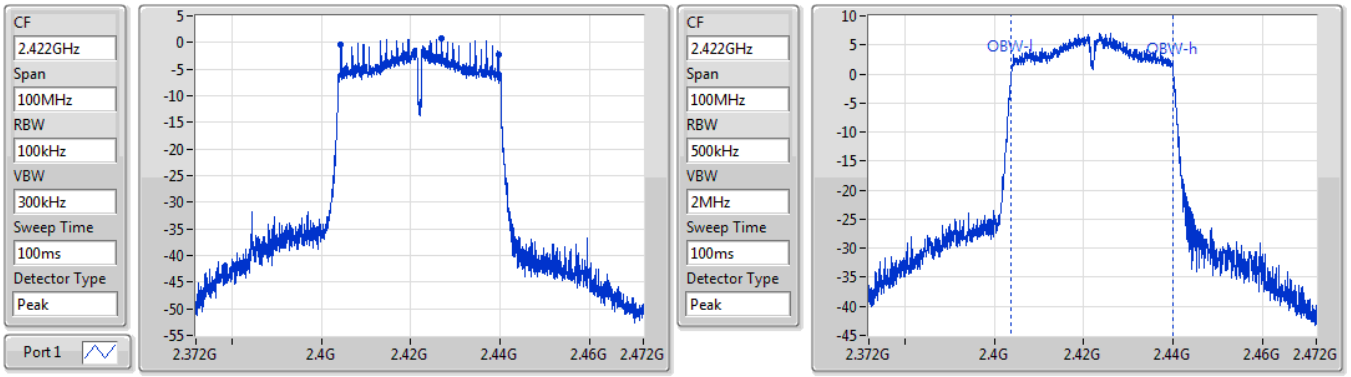


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.9M	2.454225G	2.470125G	17.641M	2.453179G	2.470821G	500k	1

802.11n HT40_Nss1,(MCS0)_1TX EBW

2422MHz

25/03/2020

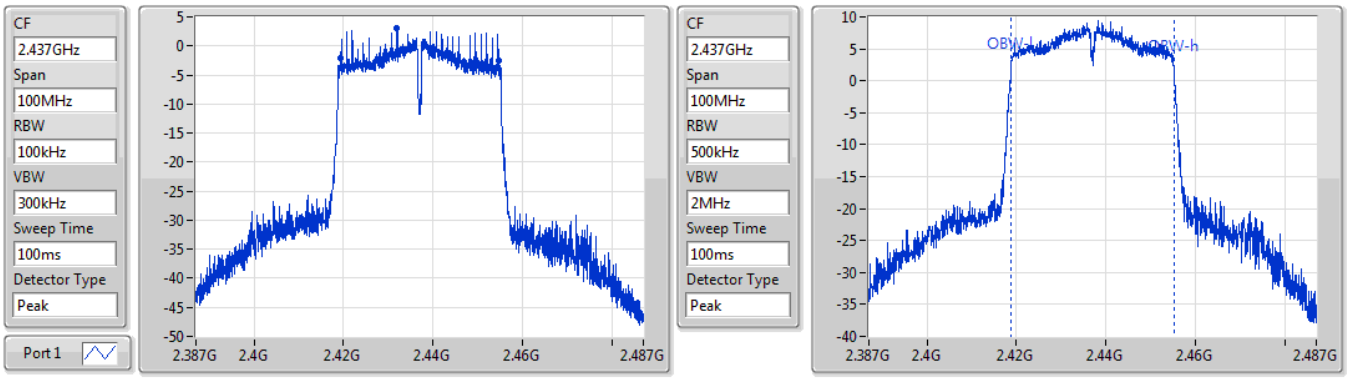


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.1M	2.40445G	2.43955G	36.282M	2.403809G	2.440091G	500k	1

802.11n HT40_Nss1,(MCS0)_1TX EBW

2437MHz

25/03/2020

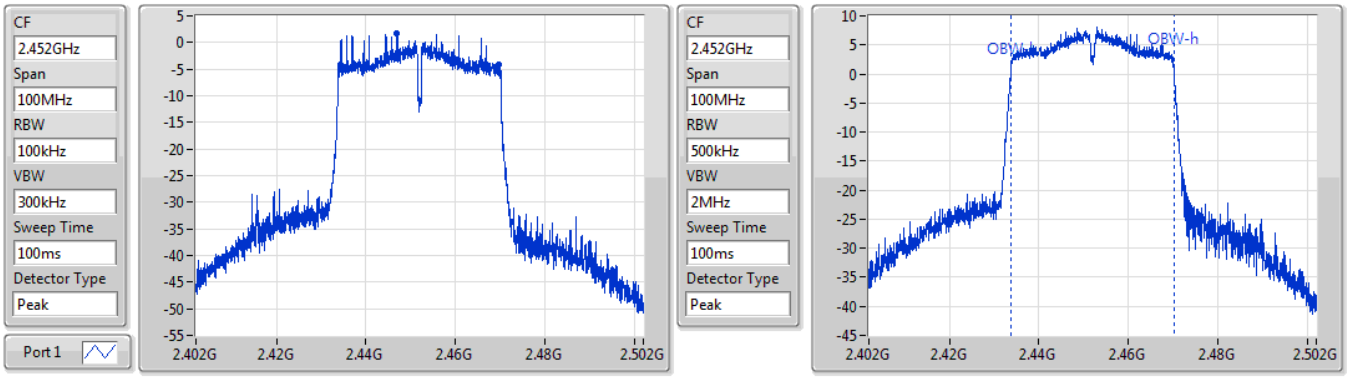


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.35M	2.4194G	2.45475G	36.382M	2.418759G	2.455141G	500k	1

802.11n HT40_Nss1,(MCS0)_1TX EBW

2452MHz

25/03/2020



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.5M	2.4342G	2.4697G	36.382M	2.433759G	2.470141G	500k	1

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX	23.19	0.20845
802.11g_Nss1,(6Mbps)_1TX	22.89	0.19454
802.11n HT20_Nss1,(MCS0)_1TX	24.22	0.26424
802.11n HT40_Nss1,(MCS0)_1TX	17.06	0.05082

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	2.98	21.53	21.53	30.00
2437MHz	Pass	2.98	23.19	23.19	30.00
2457MHz	Pass	2.98	20.16	20.16	30.00
2462MHz	Pass	2.98	19.11	19.11	30.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	2.98	16.49	16.49	30.00
2417MHz	Pass	2.98	17.19	17.19	30.00
2437MHz	Pass	2.98	22.89	22.89	30.00
2457MHz	Pass	2.98	17.91	17.91	30.00
2462MHz	Pass	2.98	16.30	16.30	30.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	2.98	17.04	17.04	30.00
2417MHz	Pass	2.98	18.09	18.09	30.00
2437MHz	Pass	2.98	24.22	24.22	30.00
2457MHz	Pass	2.98	18.53	18.53	30.00
2462MHz	Pass	2.98	17.69	17.69	30.00
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2422MHz	Pass	2.98	14.94	14.94	30.00
2437MHz	Pass	2.98	17.06	17.06	30.00
2452MHz	Pass	2.98	16.14	16.14	30.00

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

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_1TX	0.01
802.11g_Nss1,(6Mbps)_1TX	-0.95
802.11n HT20_Nss1,(MCS0)_1TX	-0.26
802.11n HT40_Nss1,(MCS0)_1TX	-9.29

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

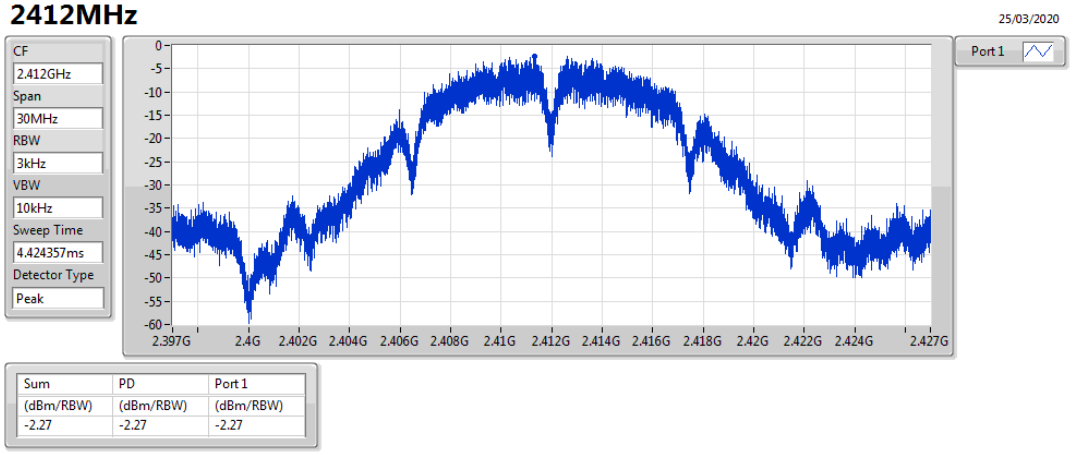
Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	2.98	-2.27	-2.27	8.00
2437MHz	Pass	2.98	0.01	0.01	8.00
2462MHz	Pass	2.98	-4.87	-4.87	8.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	2.98	-7.29	-7.29	8.00
2437MHz	Pass	2.98	-0.95	-0.95	8.00
2462MHz	Pass	2.98	-7.84	-7.84	8.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	2.98	-5.91	-5.91	8.00
2437MHz	Pass	2.98	-0.26	-0.26	8.00
2462MHz	Pass	2.98	-6.38	-6.38	8.00
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2422MHz	Pass	2.98	-11.78	-11.78	8.00
2437MHz	Pass	2.98	-9.29	-9.29	8.00
2452MHz	Pass	2.98	-11.54	-11.54	8.00

DG = Directional Gain; **RBW** = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

802.11b_Nss1,(1Mbps)_1TX PSD

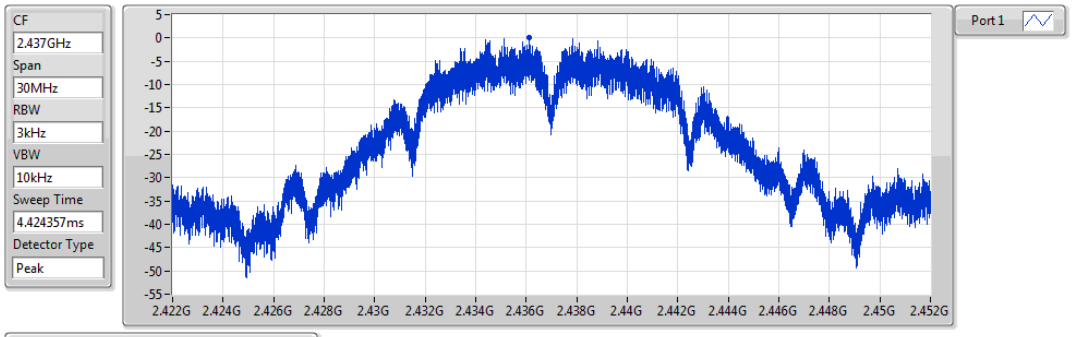
2412MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.27	-2.27	-2.27

802.11b_Nss1,(1Mbps)_1TX PSD

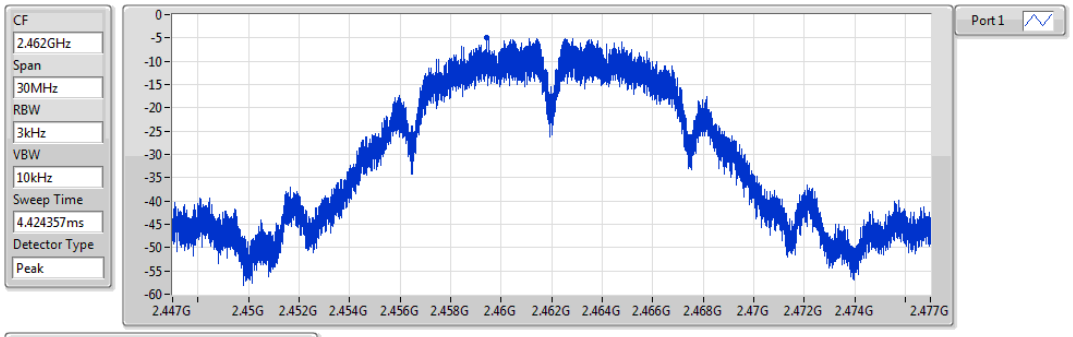
2437MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.01	0.01	0.01

802.11b_Nss1,(1Mbps)_1TX PSD

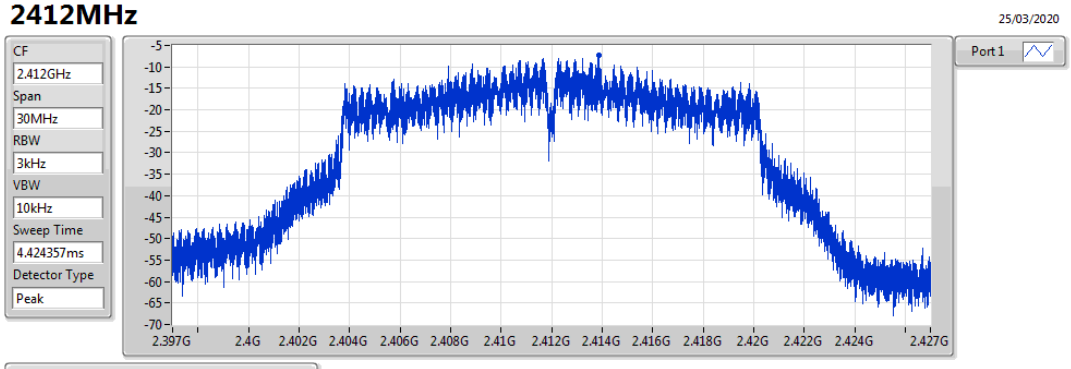
2462MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.87	-4.87	-4.87

802.11g_Nss1,(6Mbps)_1TX **PSD**

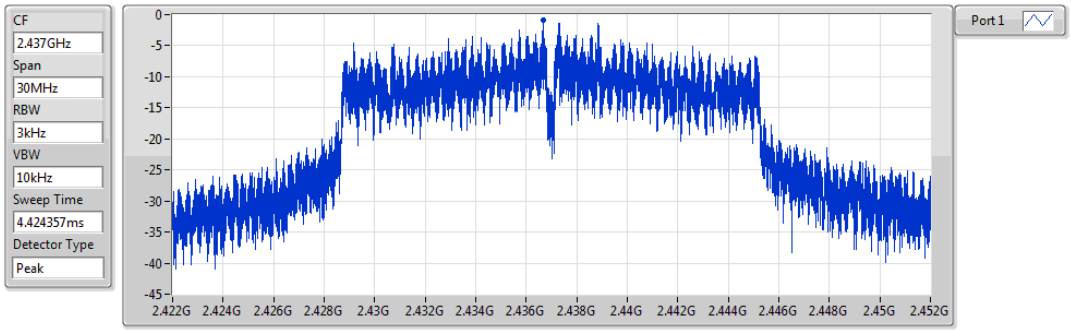
2412MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.29	-7.29	-7.29

802.11g_Nss1,(6Mbps)_1TX **PSD**

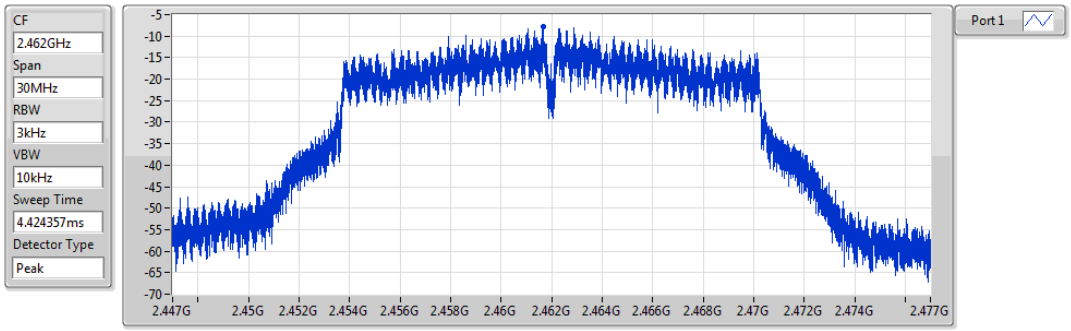
2437MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.95	-0.95	-0.95

802.11g_Nss1,(6Mbps)_1TX **PSD**

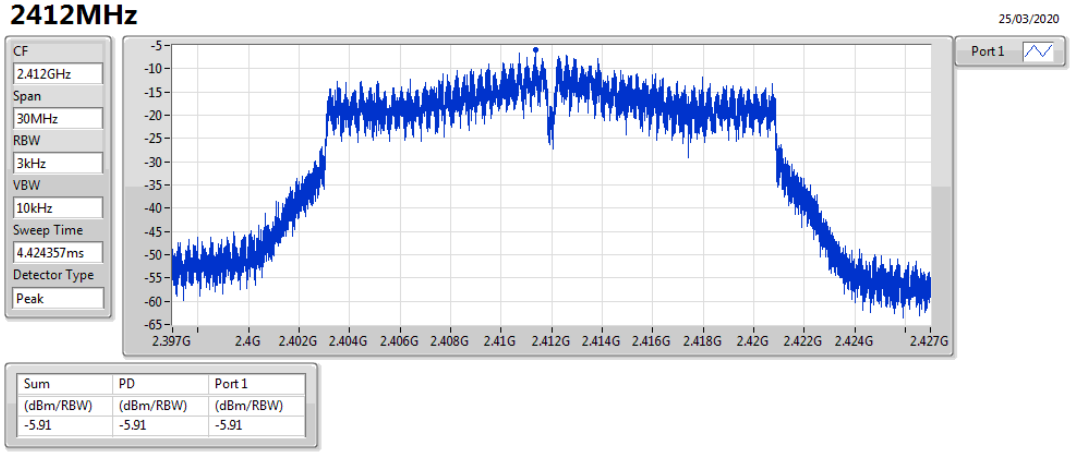
2462MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.84	-7.84	-7.84

802.11n HT20_Nss1,(MCS0)_1TX PSD

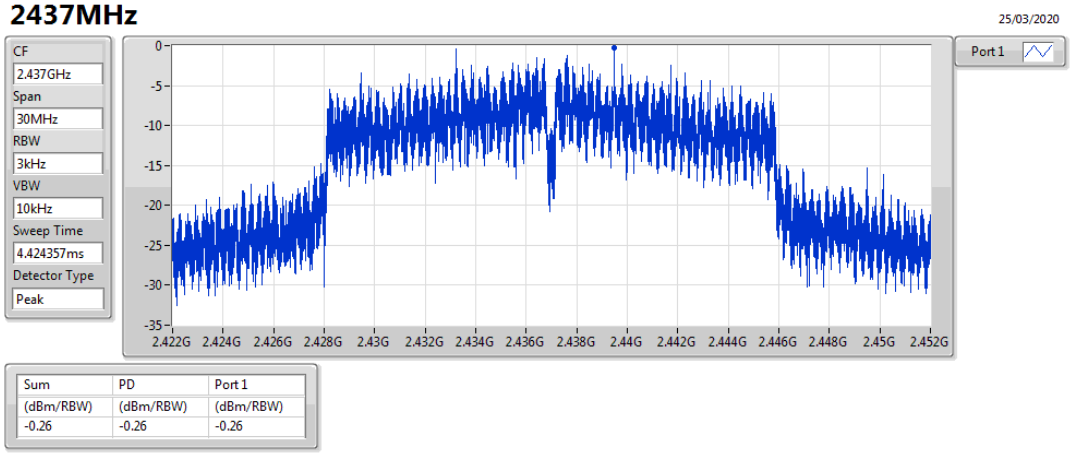
2412MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.91	-5.91	-5.91

802.11n HT20_Nss1,(MCS0)_1TX PSD

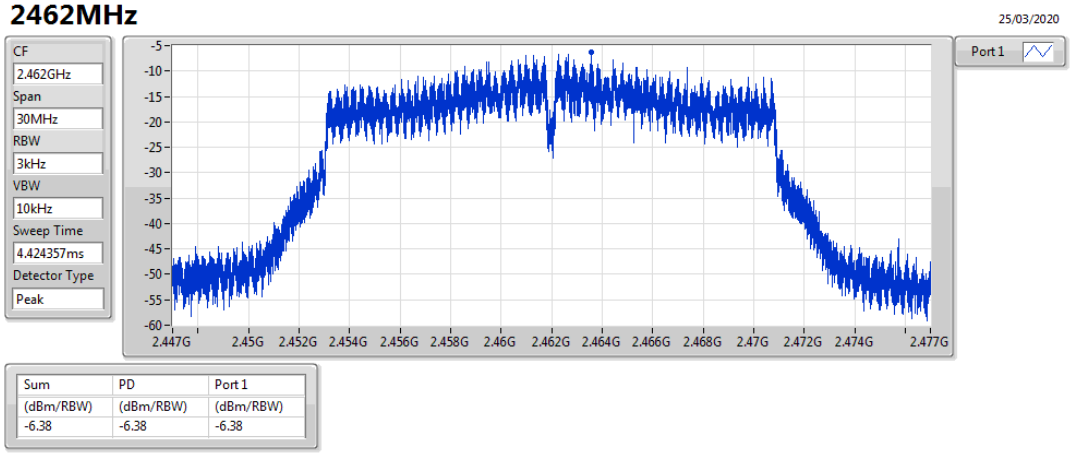
2437MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.26	-0.26	-0.26

802.11n HT20_Nss1,(MCS0)_1TX PSD

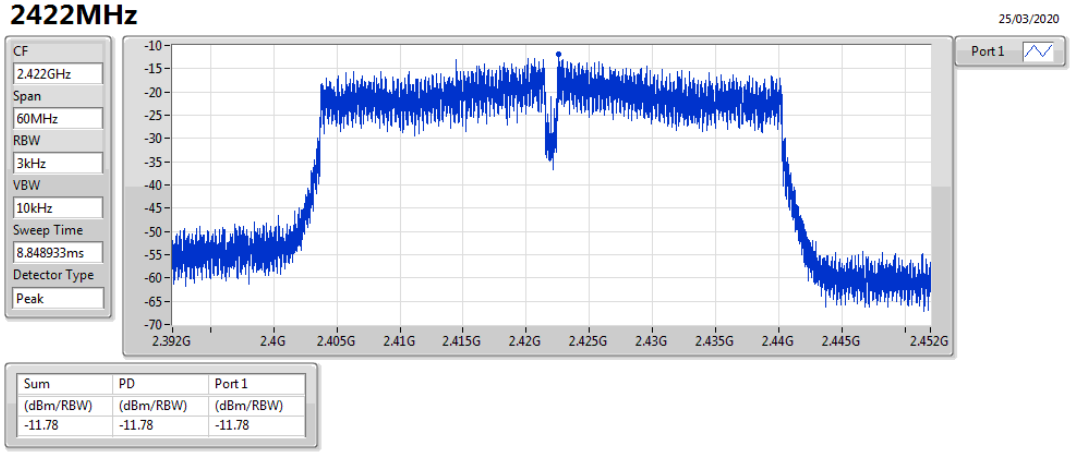
2462MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.38	-6.38	-6.38

802.11n HT40_Nss1,(MCS0)_1TX PSD

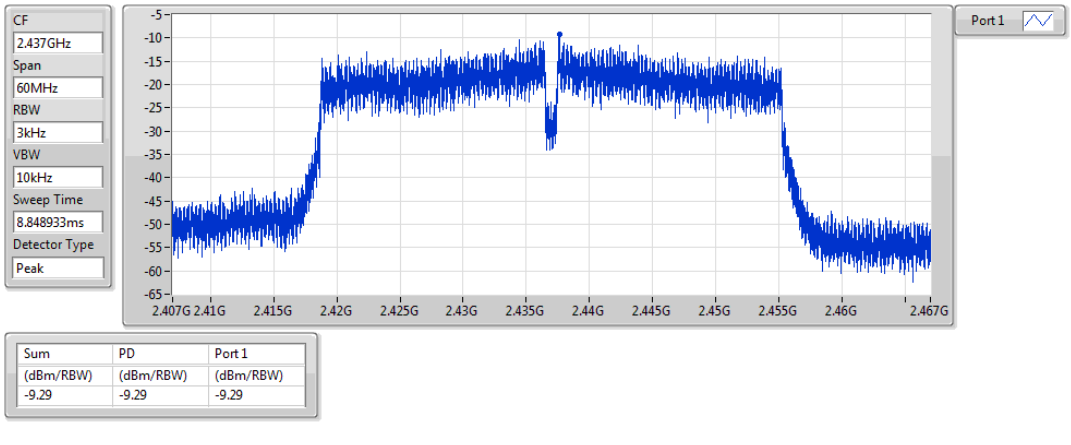
2422MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-11.78	-11.78	-11.78

802.11n HT40_Nss1,(MCS0)_1TX PSD

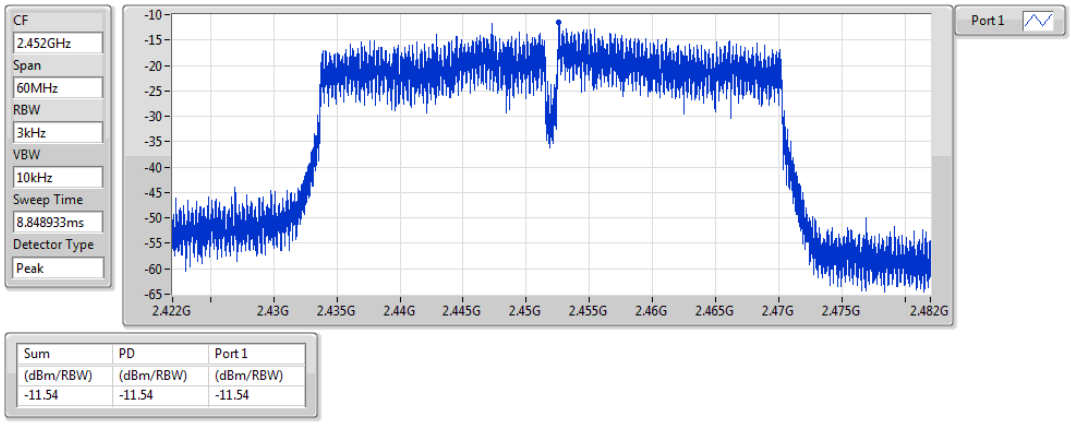
2437MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.29	-9.29	-9.29

802.11n HT40_Nss1,(MCS0)_1TX PSD

2452MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-11.54	-11.54	-11.54

Summary

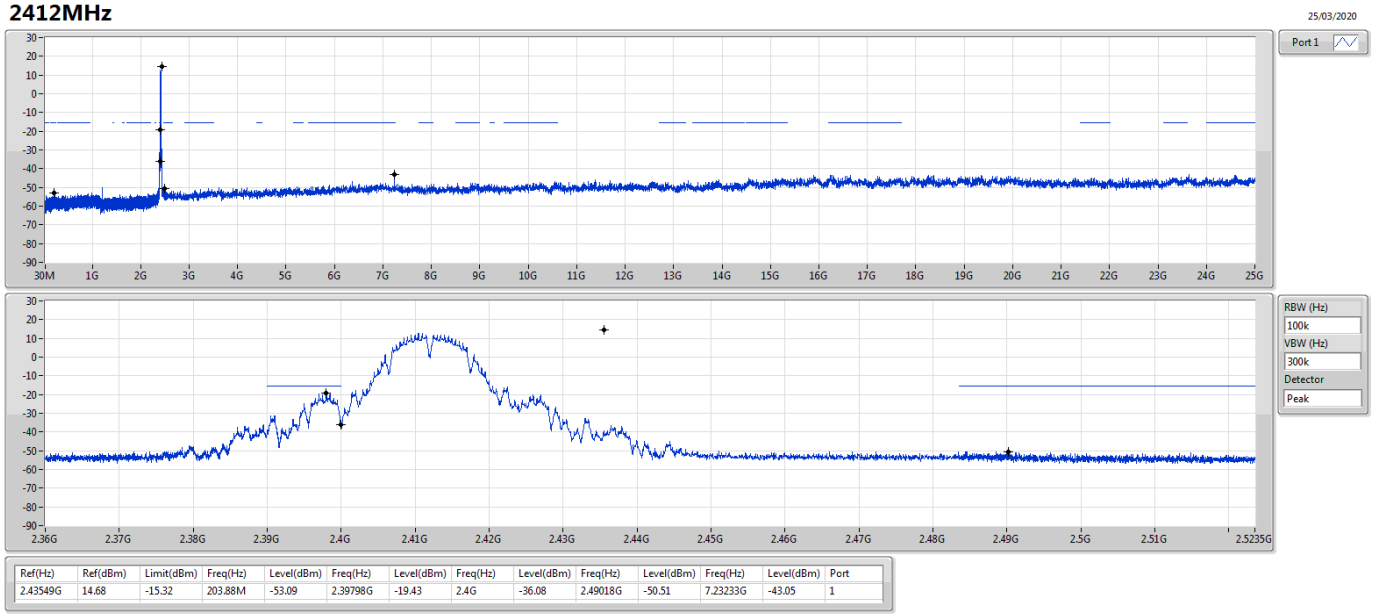
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	Pass	2.43549G	14.68	-15.32	203.88M	-53.09	2.39798G	-19.43	2.4G	-36.08	2.49018G	-50.51	7.23233G	-43.05	1
802.11g_Nss1,(6Mbps)_1TX	Pass	2.43198G	12.18	-17.82	910.45M	-53.19	2.39824G	-28.11	2.4G	-32.00	2.50318G	-51.70	24.62352G	-43.75	1
802.11n HT20_Nss1,(MCS0)_1TX	Pass	2.43198G	14.36	-15.64	2.30233G	-52.34	2.39944G	-24.33	2.4G	-26.34	2.48358G	-29.66	16.26788G	-43.72	1
802.11n HT40_Nss1,(MCS0)_1TX	Pass	2.44071G	2.97	-27.03	2.06552G	-52.72	2.39944G	-27.34	2.4G	-33.76	2.48354G	-40.76	16.26379G	-43.37	1

Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43549G	14.68	-15.32	203.88M	-53.09	2.39798G	-19.43	2.4G	-36.08	2.49018G	-50.51	7.23233G	-43.05	1
2437MHz	Pass	2.43549G	14.68	-15.32	2.13749G	-53.20	2.39998G	-41.65	2.4G	-42.57	2.48486G	-49.21	16.23417G	-42.90	1
2462MHz	Pass	2.43549G	14.68	-15.32	593.86M	-52.52	2.3908G	-51.52	2.4835G	-41.04	2.4835G	-41.39	17.64737G	-43.25	1
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43198G	12.18	-17.82	910.45M	-53.19	2.39824G	-28.11	2.4G	-32.00	2.50318G	-51.70	24.62352G	-43.75	1
2437MHz	Pass	2.43198G	12.18	-17.82	834.14M	-52.60	2.39698G	-31.16	2.4G	-35.27	2.48372G	-39.89	17.61085G	-43.74	1
2462MHz	Pass	2.43198G	12.18	-17.82	933.17M	-52.64	2.39946G	-52.11	2.4835G	-41.53	2.4851G	-39.43	16.29878G	-43.32	1
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43198G	14.36	-15.64	622.69M	-52.96	2.39858G	-28.77	2.4G	-29.79	2.48924G	-50.94	16.28193G	-43.39	1
2437MHz	Pass	2.43198G	14.36	-15.64	2.30233G	-52.34	2.39944G	-24.33	2.4G	-26.34	2.48358G	-29.66	16.26788G	-43.72	1
2462MHz	Pass	2.43198G	14.36	-15.64	911.61M	-53.33	2.39148G	-52.49	2.4835G	-37.88	2.48384G	-34.64	16.26226G	-43.29	1
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.44071G	3.15	-26.85	959.74M	-53.62	2.397G	-30.77	2.4G	-36.17	2.49226G	-50.57	23.42103G	-43.23	1
2437MHz	Pass	2.44071G	2.97	-27.03	2.06552G	-52.72	2.39944G	-27.34	2.4G	-33.76	2.48354G	-40.76	16.26379G	-43.37	1
2452MHz	Pass	2.44071G	3.15	-26.85	732.17M	-53.09	2.3954G	-44.42	2.4835G	-35.18	2.48946G	-33.30	24.64943G	-43.61	1

802.11b_Nss1,(1Mbps)_1TX **CSE NdB**

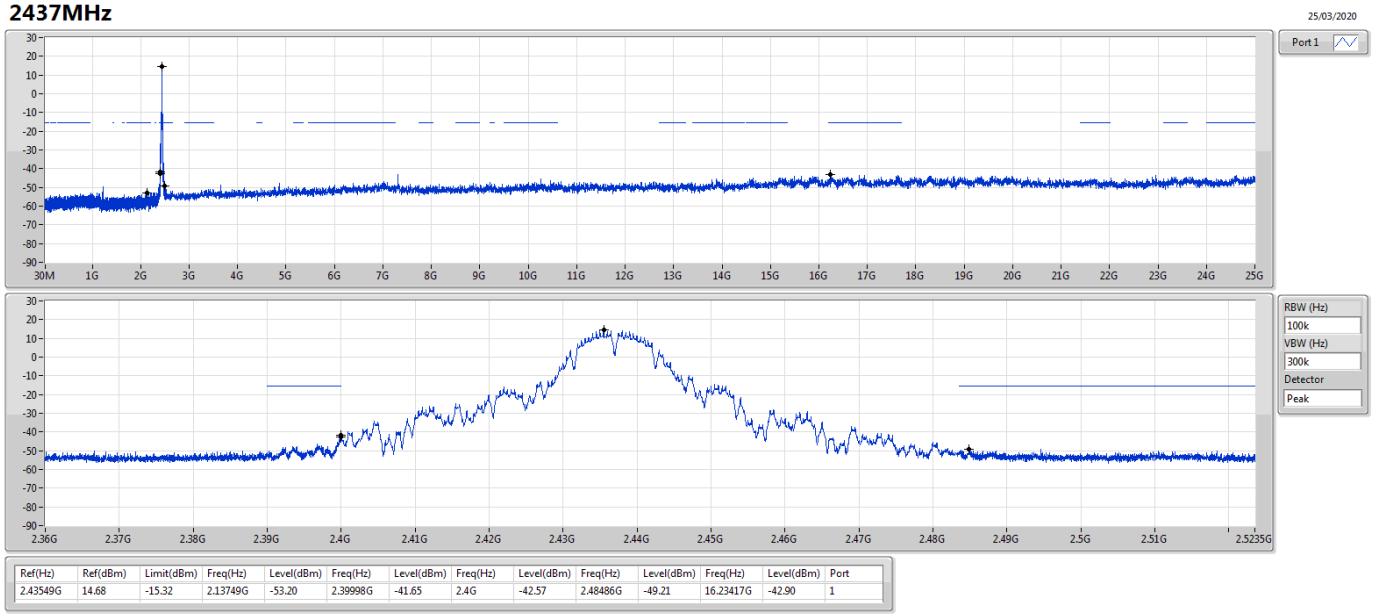
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43549G	14.68	-15.32	203.88M	-53.09	2.39798G	-19.43	2.4G	-36.08	2.49018G	-50.51	7.23233G	-43.05	1

802.11b_Nss1,(1Mbps)_1TX **CSE NdB**

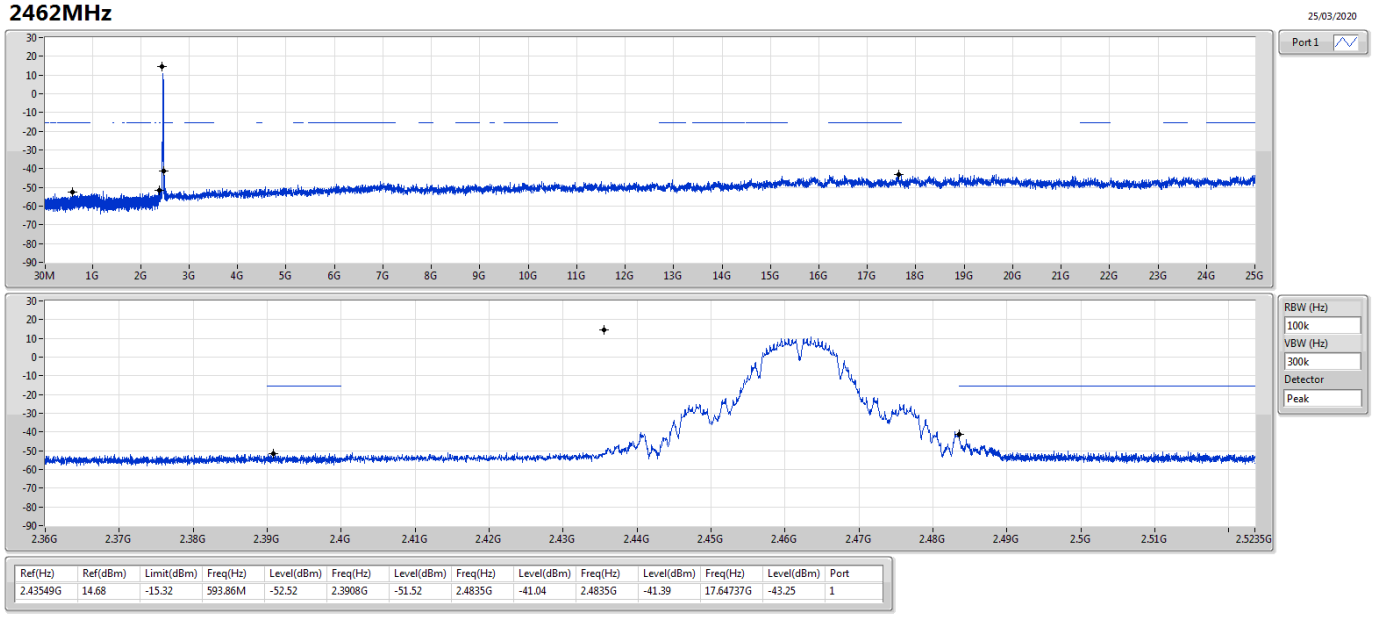
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43549G	14.68	-15.32	2.13749G	-53.20	2.39998G	-41.65	2.4G	-42.57	2.48486G	-49.21	16.23417G	-42.90	1

802.11b_Nss1,(1Mbps)_1TX **CSE NdB**

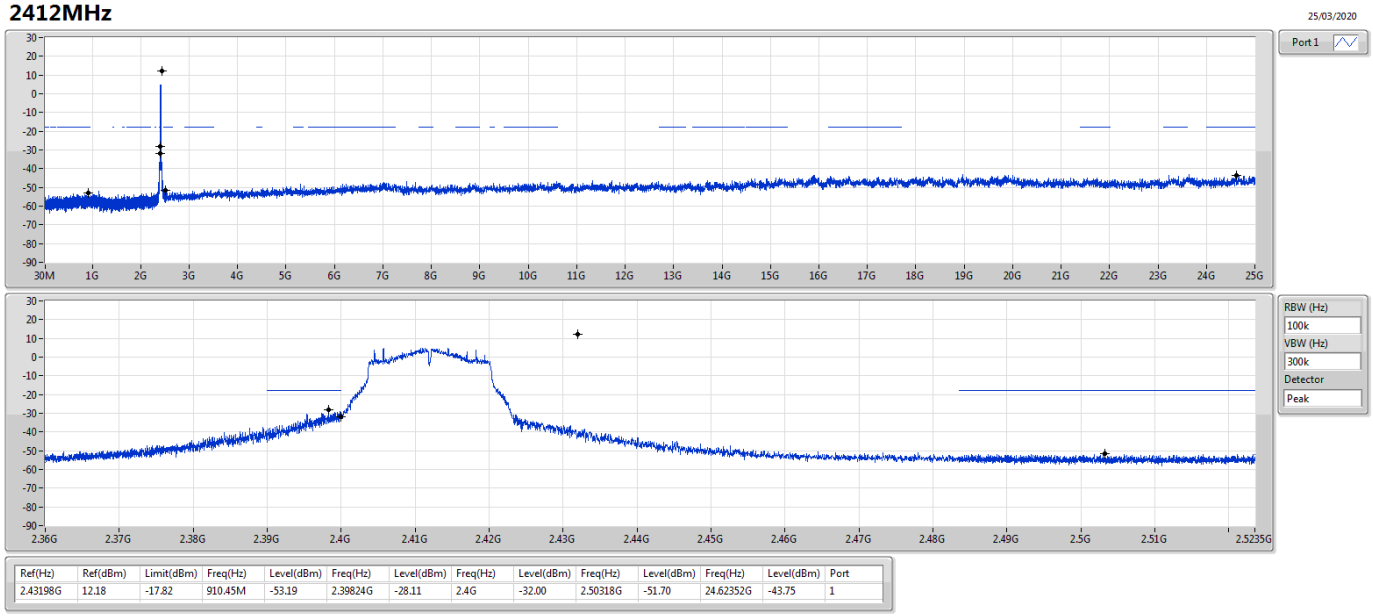
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43549G	14.68	-15.32	593.86M	-52.52	2.3908G	-51.52	2.4835G	-41.04	2.4835G	-41.39	17.64737G	-43.25	1

802.11g_Nss1,(6Mbps)_1TX **CSE NdB**

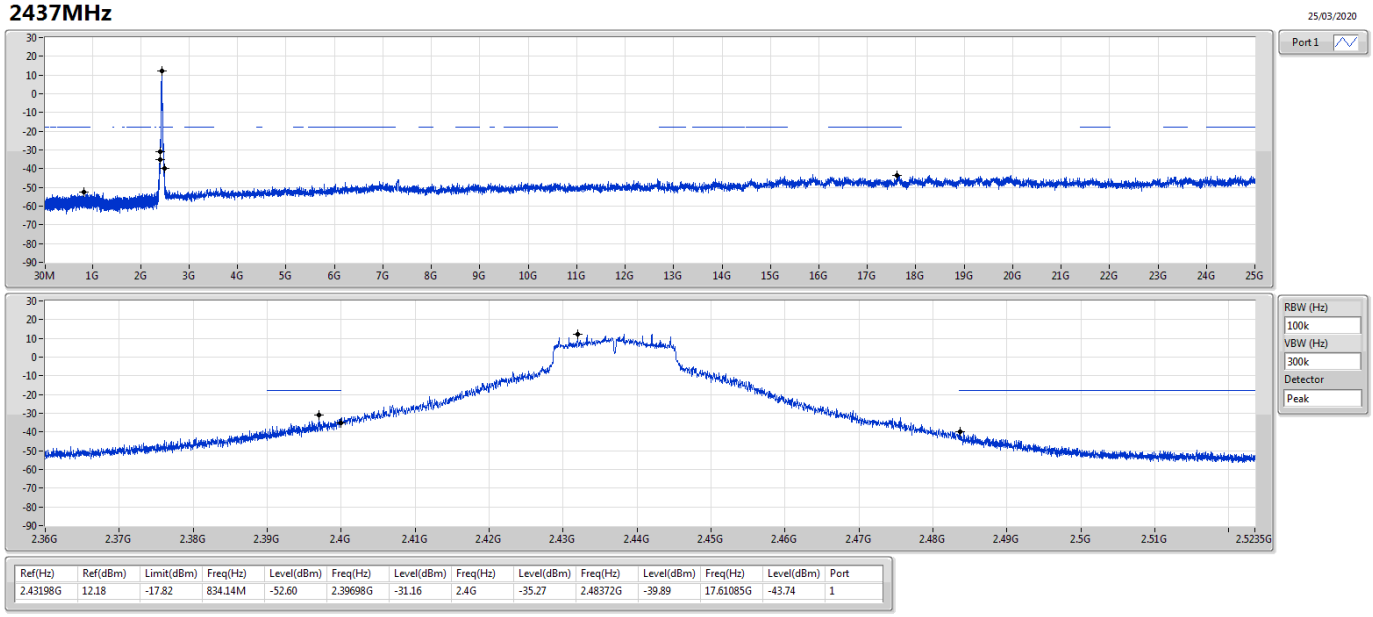
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43198G	12.18	-17.82	910.45M	-53.19	2.39824G	-28.11	2.4G	-32.00	2.50318G	-51.70	24.62352G	-43.75	1

802.11g_Nss1,(6Mbps)_1TX **CSE NdB**

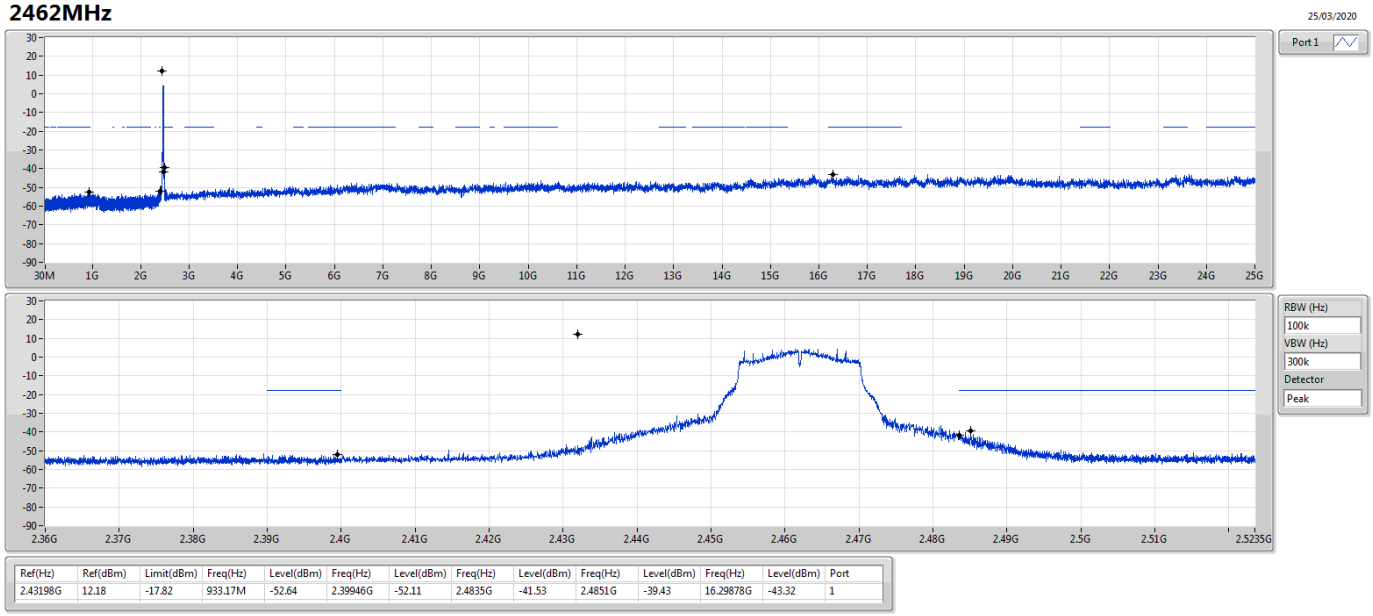
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43198G	12.18	-17.82	834.14M	-52.60	2.39698G	-31.16	2.4G	-35.27	2.48372G	-39.89	17.61085G	-43.74	1

802.11g_Nss1,(6Mbps)_1TX **CSE NdB**

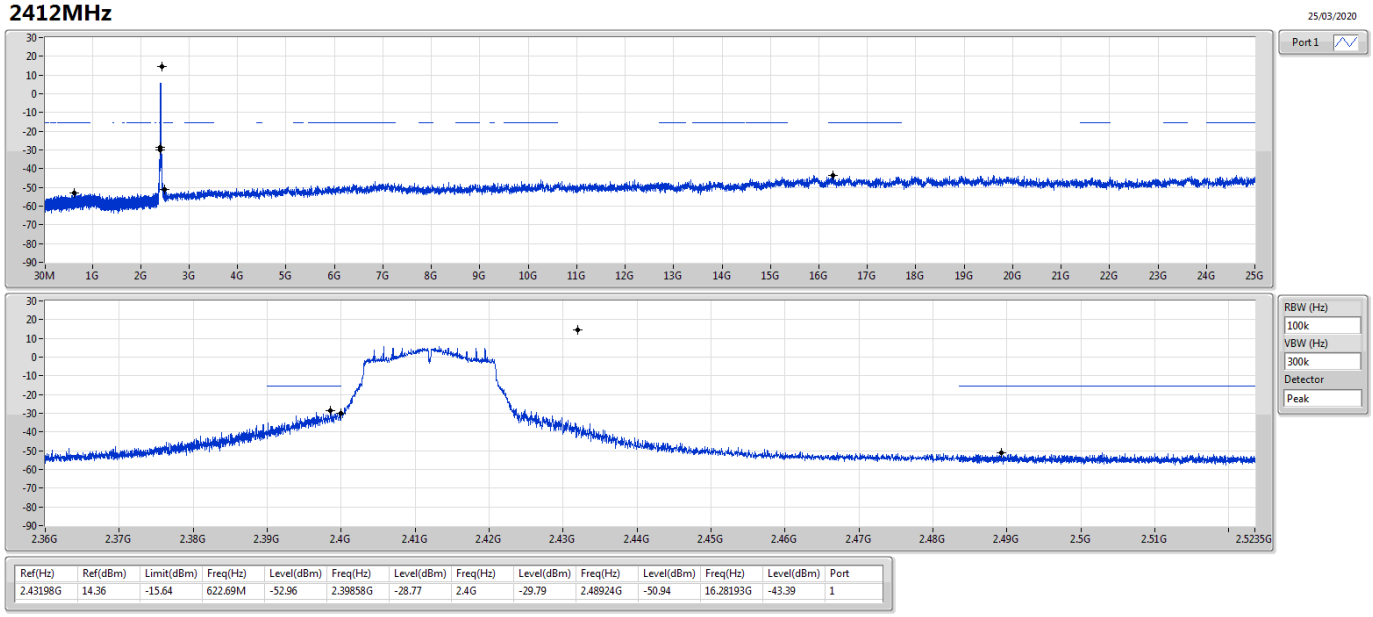
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43198G	12.18	-17.82	933.17M	-52.64	2.39946G	-52.11	2.4835G	-41.53	2.4851G	-39.43	16.29878G	-43.32	1

802.11n HT20_Nss1,(MCS0)_1TX **CSE NdB**

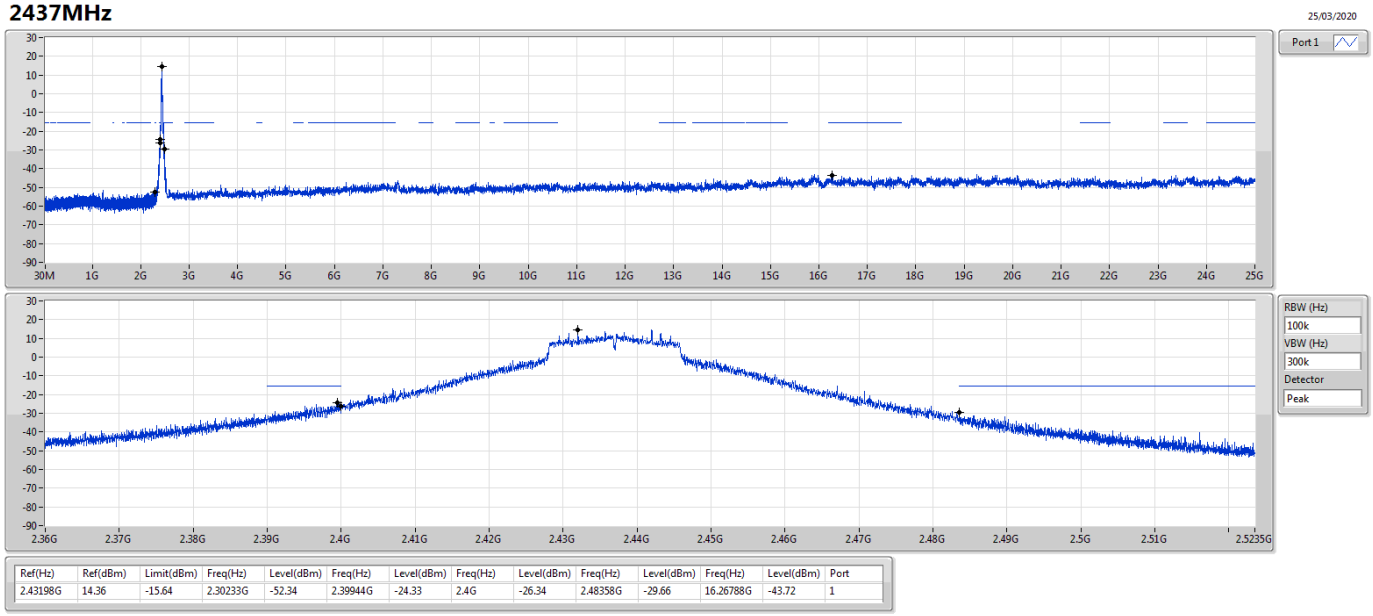
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43198G	14.36	-15.64	622.69M	-52.96	2.39858G	-28.77	2.4G	-29.79	2.48924G	-50.94	16.28193G	-43.39	1

802.11n HT20_Nss1,(MCS0)_1TX **CSE NdB**

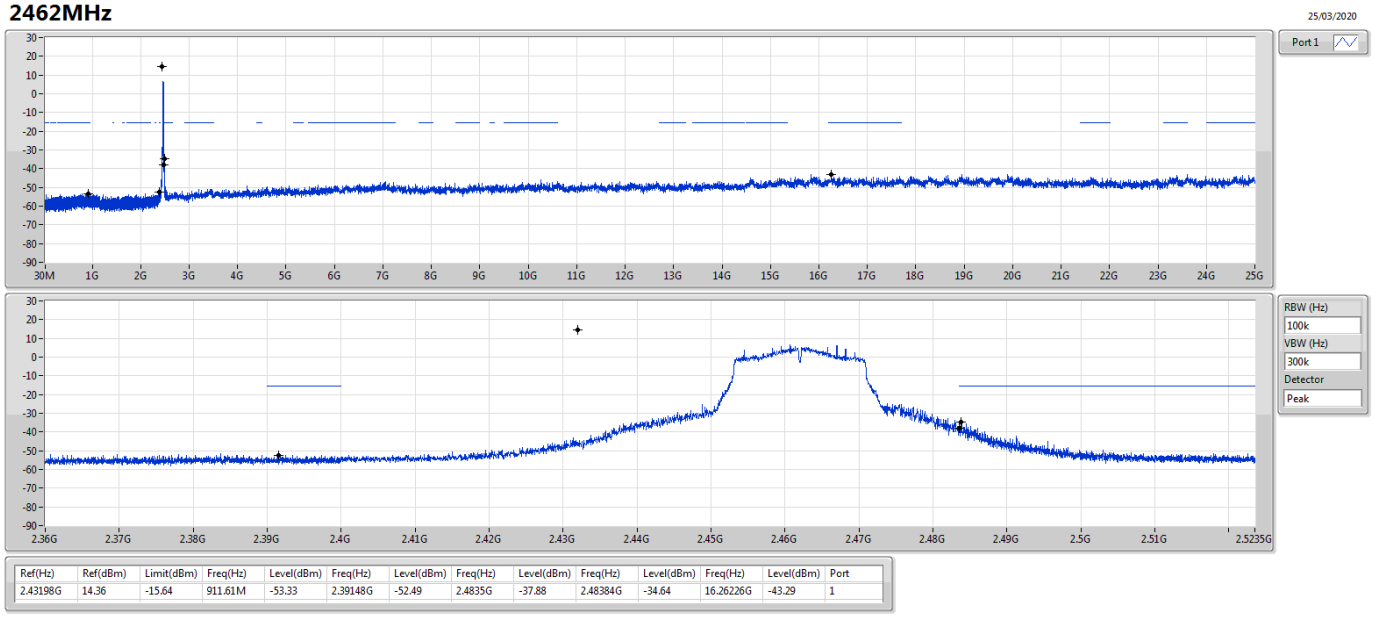
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43198G	14.36	-15.64	2.30233G	-52.34	2.39944G	-24.33	2.4G	-26.34	2.48358G	-29.66	16.26788G	-43.72	1

802.11n HT20_Nss1,(MCS0)_1TX **CSE NdB**

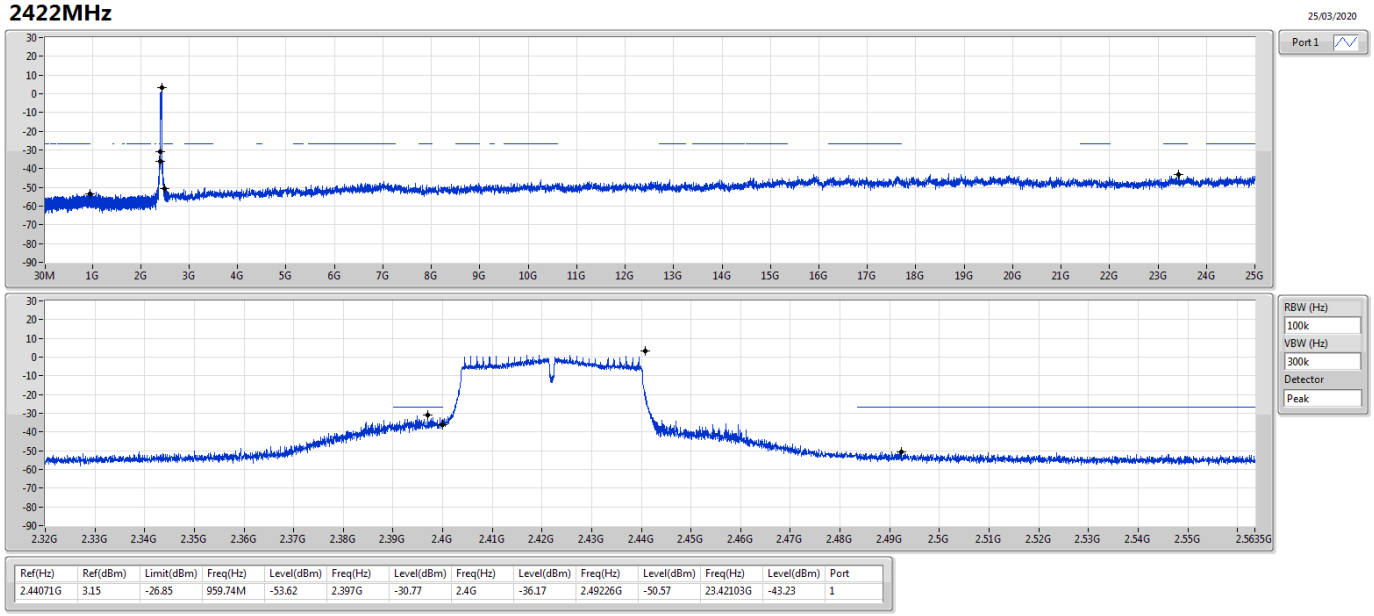
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43198G	14.36	-15.64	911.61M	-53.33	2.39148G	-52.49	2.4835G	-37.88	2.48384G	-34.64	16.26226G	-43.29	1

802.11n HT40_Nss1,(MCS0)_1TX **CSE NdB**

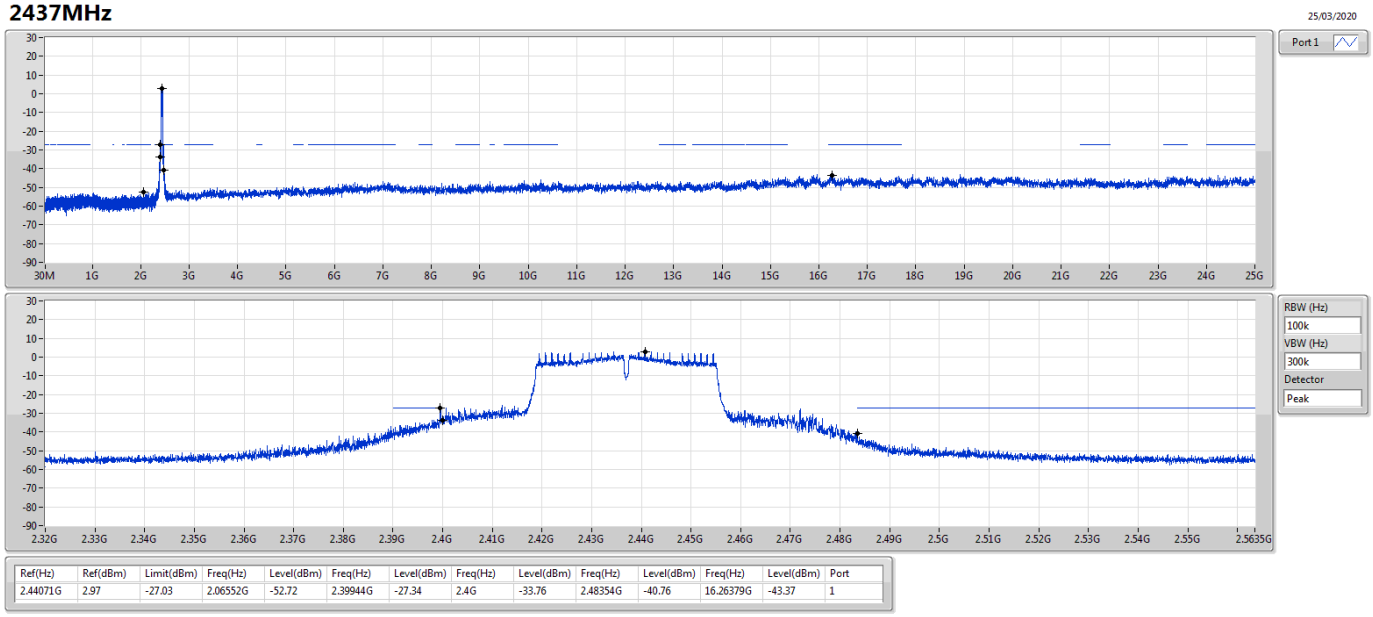
2422MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44071G	3.15	-26.85	959.74M	-53.62	2.397G	-30.77	2.4G	-36.17	2.49226G	-50.57	23.42103G	-43.23	1

802.11n HT40_Nss1,(MCS0)_1TX **CSE NdB**

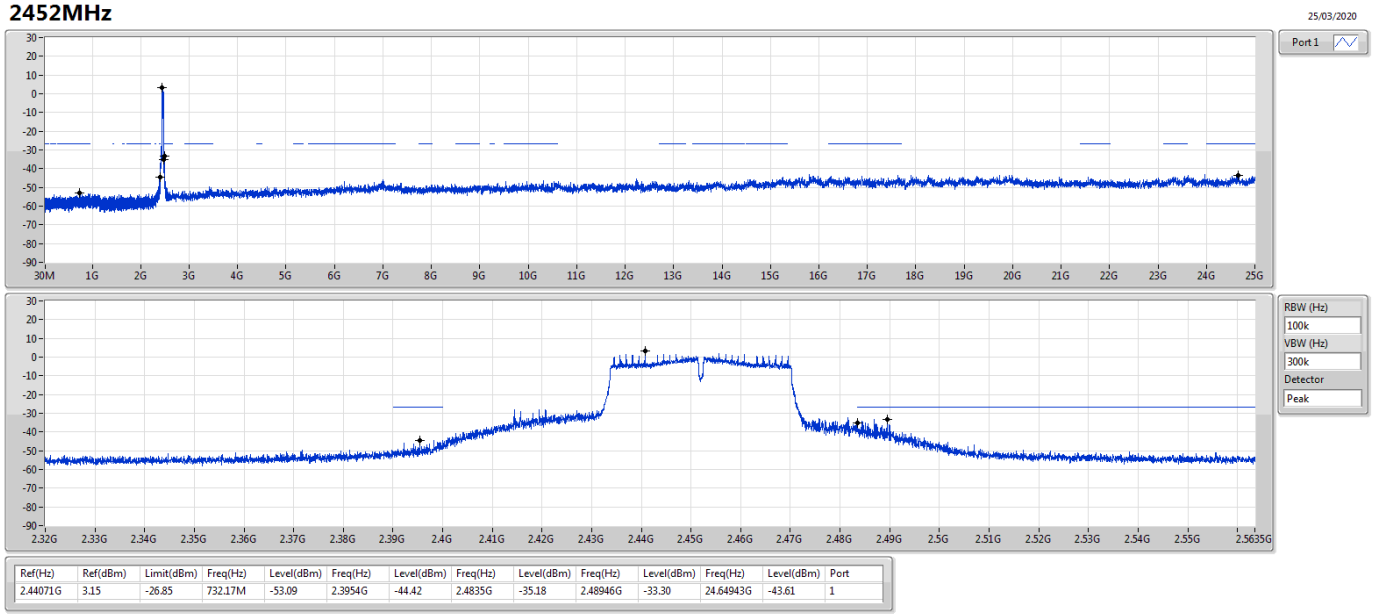
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44071G	2.97	-27.03	2.06552G	-52.72	2.39944G	-27.34	2.4G	-33.76	2.48354G	-40.76	16.26379G	-43.37	1

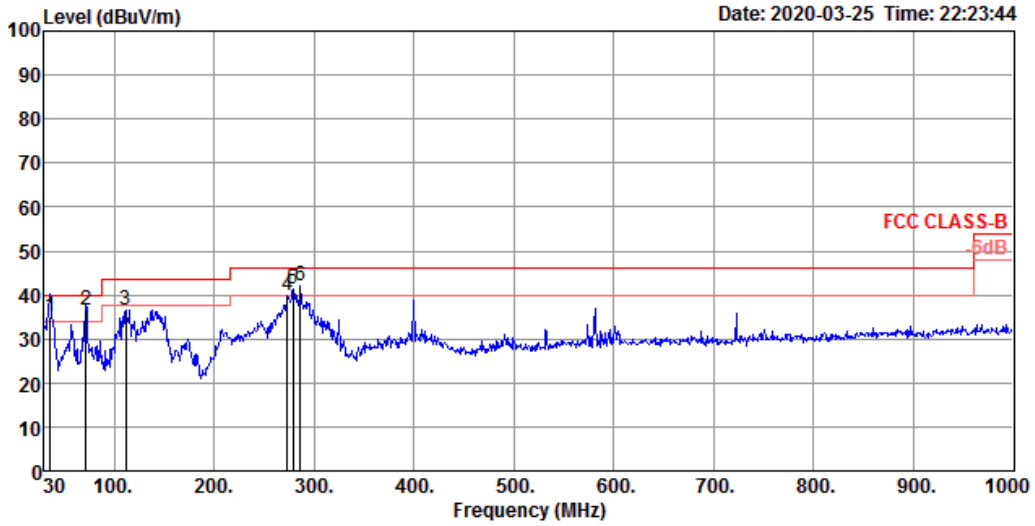
802.11n HT40_Nss1,(MCS0)_1TX **CSE NdB**

2452MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44071G	3.15	-26.85	732.17M	-53.09	2.3954G	-44.42	2.4835G	-35.18	2.48946G	-33.30	24.64943G	-43.61	1

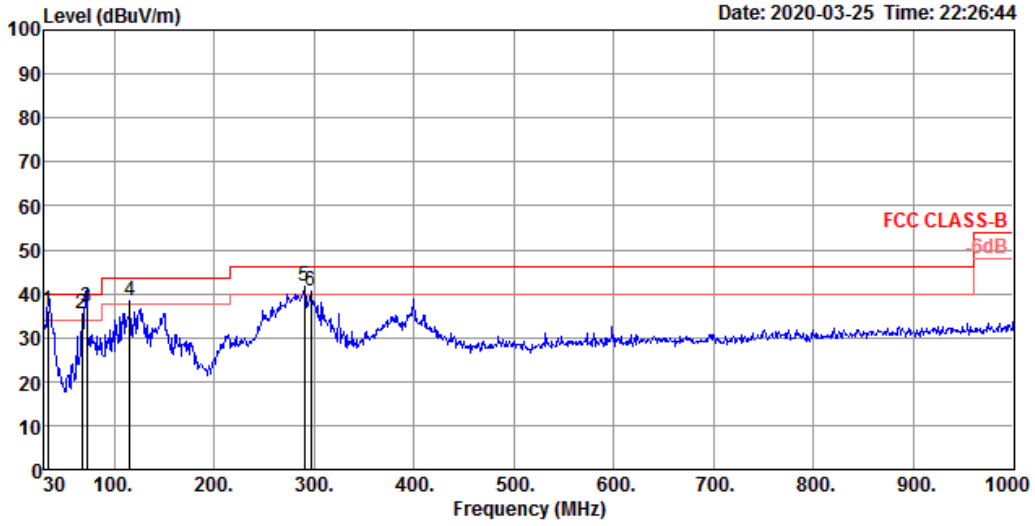
RSE below 1GHz Result			
Operating Mode	2	**Polarization**	Vertical
Operating Function	Normal Link		



	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	35.82	35.13	40.00	-4.87	41.80	0.60	21.30	28.57	100	65	QP	VERTICAL
2	71.71	36.45	40.00	-3.55	51.80	0.64	12.52	28.51	300	117	QP	VERTICAL
3	111.48	36.71	43.50	-6.79	46.55	0.86	17.70	28.40	125	242	Peak	VERTICAL
4	273.47	39.85	46.00	-6.15	47.36	1.60	18.85	27.96	200	191	Peak	VERTICAL
5	279.29	41.46	46.00	-4.54	48.95	1.62	18.85	27.96	200	199	Peak	VERTICAL
6	286.08	42.04	46.00	-3.96	49.35	1.65	18.99	27.95	200	163	Peak	VERTICAL

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

RSE below 1GHz Result			
Operating Mode	2	**Polarization**	Horizontal
Operating Function	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	36.07	40.00	-3.93	41.50	0.60	22.54	28.57	100	252	QP	HORIZONTAL
2	67.83	35.60	40.00	-4.40	51.18	0.60	12.34	28.52	300	232	Peak	HORIZONTAL
3	72.68	36.79	40.00	-3.21	52.10	0.65	12.55	28.51	300	264	QP	HORIZONTAL
4	115.36	38.45	43.50	-5.05	48.14	0.88	17.82	28.39	300	25	Peak	HORIZONTAL
5	289.96	41.73	46.00	-4.27	48.96	1.66	19.05	27.94	125	211	Peak	HORIZONTAL
6	296.75	40.71	46.00	-5.29	47.75	1.69	19.20	27.93	125	219	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.)

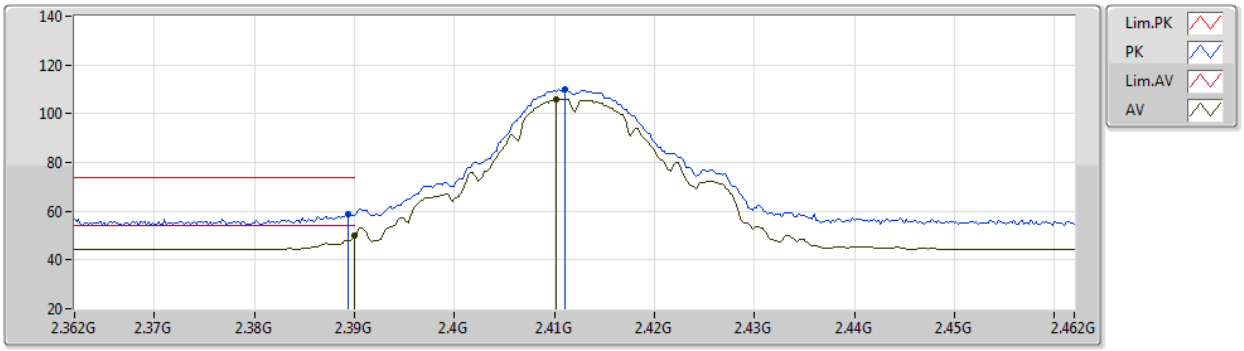
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11n HT20_Nss1,(MCS0)_1TX	Pass	AV	2.4835G	53.00	54.00	-1.00	3	Vertical	283	1.00	-

802.11b_Nss1,(1Mbps)_1TX

2412MHz_TX

19/03/2020



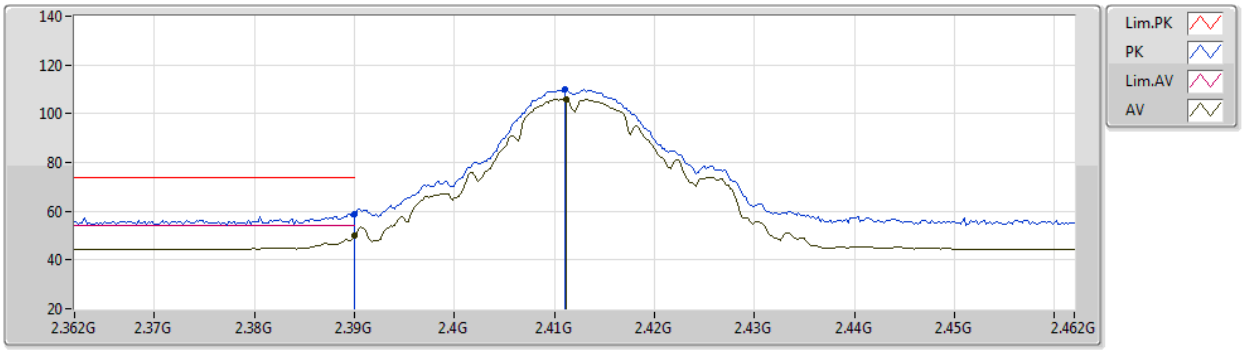
EUT X_1TX
Setting 21
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3894G	58.81	74.00	-15.19	26.86	3	Vertical	287	3.00	-	28.45	3.50	-
AV	2.39G	49.80	54.00	-4.20	17.85	3	Vertical	287	3.00	-	28.45	3.50	-
PK	2.411G	109.99	Inf	-Inf	77.98	3	Vertical	287	3.00	-	28.50	3.51	-
AV	2.4102G	106.01	Inf	-Inf	74.00	3	Vertical	287	3.00	-	28.50	3.51	-

802.11b_Nss1,(1Mbps)_1TX

2412MHz_TX

19/03/2020



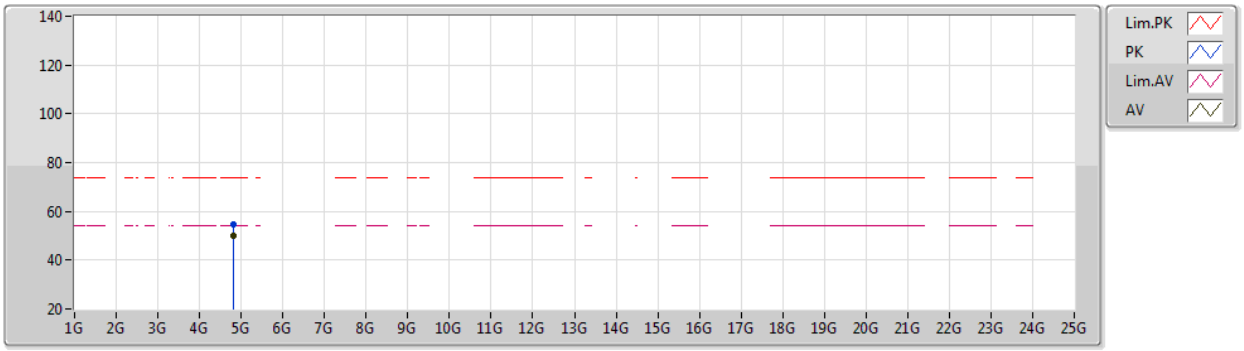
EUT X_1TX
Setting 21
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.39G	59.05	74.00	-14.95	27.10	3	Horizontal	28	2.89	-	28.45	3.50	-
AV	2.39G	49.75	54.00	-4.25	17.80	3	Horizontal	28	2.89	-	28.45	3.50	-
PK	2.411G	109.90	Inf	-Inf	77.89	3	Horizontal	28	2.89	-	28.50	3.51	-
AV	2.4112G	105.92	Inf	-Inf	73.91	3	Horizontal	28	2.89	-	28.50	3.51	-

802.11b_Nss1,(1Mbps)_1TX

2412MHz_TX

19/03/2020



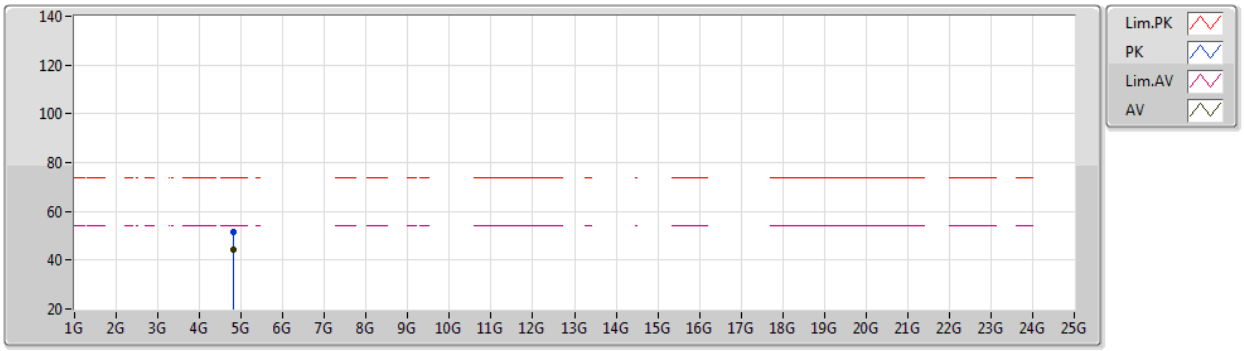
EUT X_1TX
Setting 21
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.82396G	54.51	74.00	-19.49	46.27	3	Vertical	159	2.19	-	32.80	5.81	30.37
AV	4.82396G	49.92	54.00	-4.08	41.68	3	Vertical	159	2.19	-	32.80	5.81	30.37

802.11b_Nss1,(1Mbps)_1TX

2412MHz_TX

19/03/2020



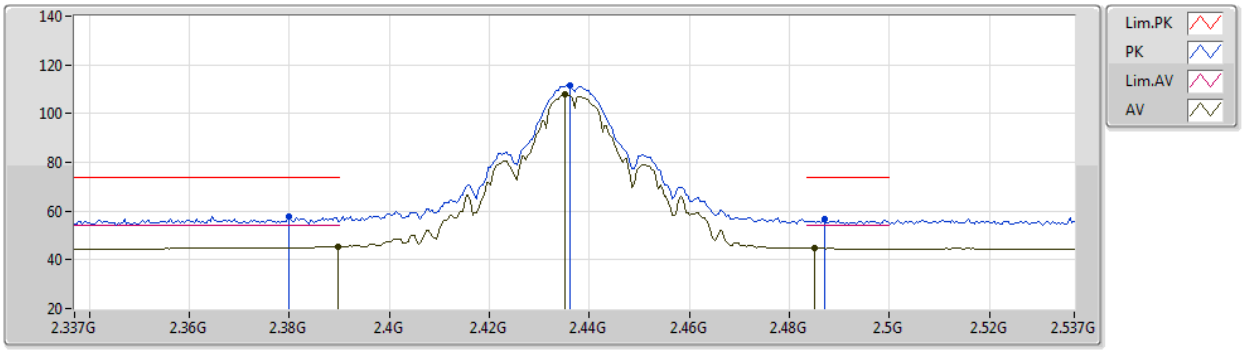
EUT X_1TX
Setting 21
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.82402G	51.38	74.00	-22.62	43.14	3	Horizontal	321	2.08	-	32.80	5.81	30.37
AV	4.82396G	44.10	54.00	-9.90	35.86	3	Horizontal	321	2.08	-	32.80	5.81	30.37

802.11b_Nss1,(1Mbps)_1TX

2437MHz_TX

19/03/2020



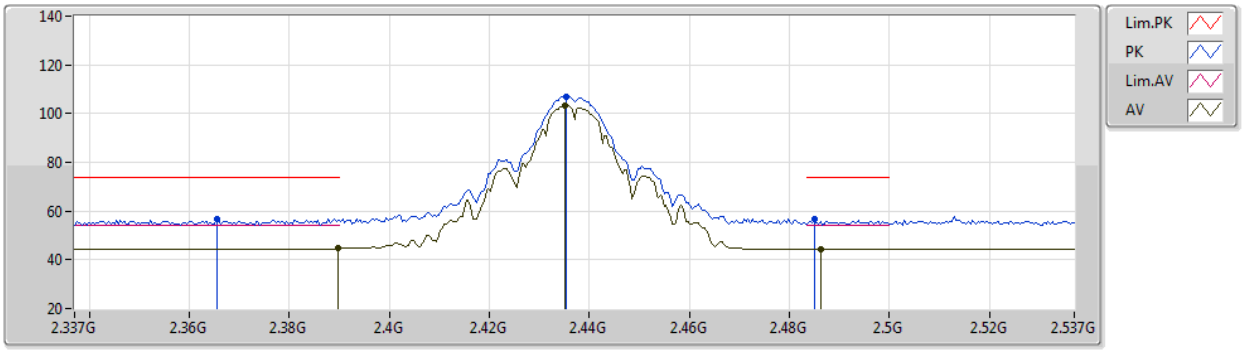
EUT X_1TX
Setting 22
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3798G	57.84	74.00	-16.16	25.94	3	Vertical	101	1.32	-	28.40	3.50	-
AV	2.3898G	45.56	54.00	-8.44	13.61	3	Vertical	101	1.32	-	28.45	3.50	-
PK	2.4362G	111.43	Inf	-Inf	79.39	3	Vertical	101	1.32	-	28.50	3.54	-
AV	2.435G	107.72	Inf	-Inf	75.68	3	Vertical	101	1.32	-	28.50	3.54	-
PK	2.487G	56.70	74.00	-17.30	24.61	3	Vertical	101	1.32	-	28.50	3.59	-
AV	2.485G	44.83	54.00	-9.17	12.74	3	Vertical	101	1.32	-	28.50	3.59	-

802.11b_Nss1,(1Mbps)_1TX

2437MHz_TX

19/03/2020



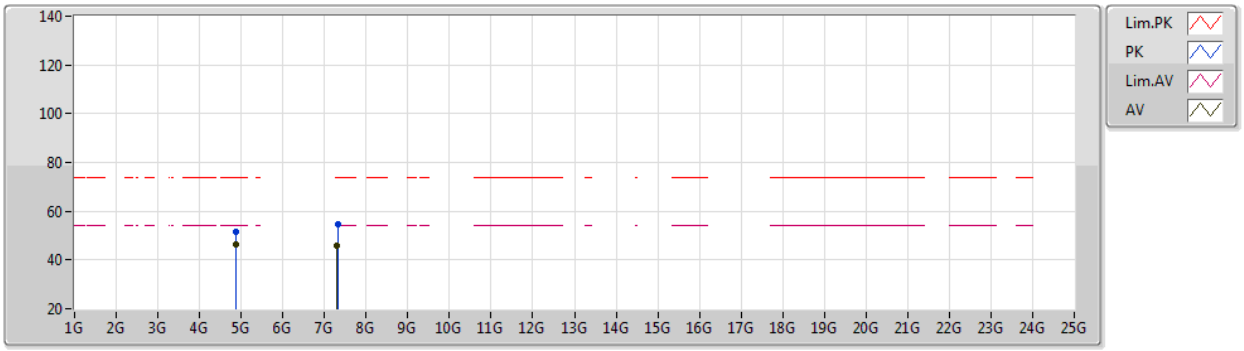
EUT X_1TX
Setting 22
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3654G	56.83	74.00	-17.17	25.00	3	Horizontal	229	2.75	-	28.33	3.50	-
AV	2.3898G	44.63	54.00	-9.37	12.68	3	Horizontal	229	2.75	-	28.45	3.50	-
PK	2.4354G	106.94	Inf	-Inf	74.90	3	Horizontal	229	2.75	-	28.50	3.54	-
AV	2.435G	103.31	Inf	-Inf	71.27	3	Horizontal	229	2.75	-	28.50	3.54	-
PK	2.485G	56.49	74.00	-17.51	24.40	3	Horizontal	229	2.75	-	28.50	3.59	-
AV	2.4862G	44.36	54.00	-9.64	12.27	3	Horizontal	229	2.75	-	28.50	3.59	-

802.11b_Nss1,(1Mbps)_1TX

2437MHz_TX

19/03/2020



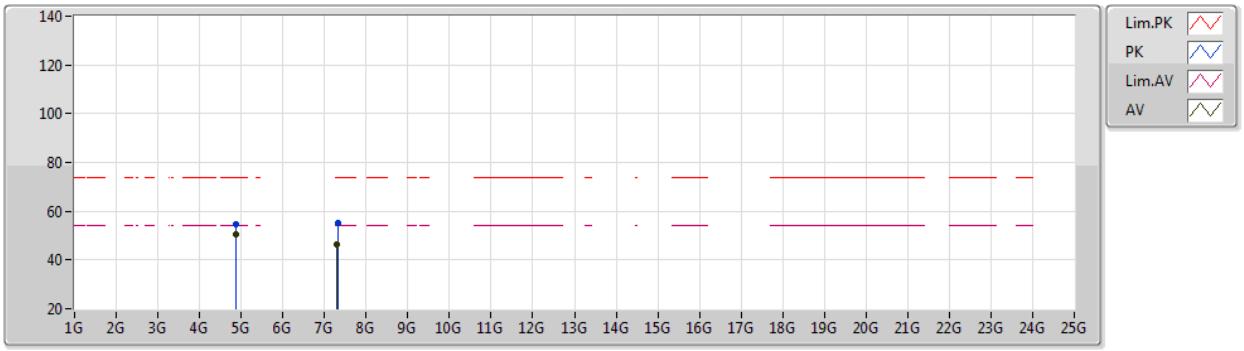
EUT X_1TX
Setting 22
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.87406G	51.56	74.00	-22.44	43.08	3	Vertical	328	2.33	-	33.00	5.84	30.36
AV	4.87398G	46.21	54.00	-7.79	37.73	3	Vertical	328	2.33	-	33.00	5.84	30.36
PK	7.31032G	54.40	74.00	-19.60	42.43	3	Vertical	0	2.13	-	36.42	6.96	31.41
AV	7.3102G	45.64	54.00	-8.36	33.67	3	Vertical	0	2.13	-	36.42	6.96	31.41

802.11b_Nss1,(1Mbps)_1TX

2437MHz_TX

19/03/2020



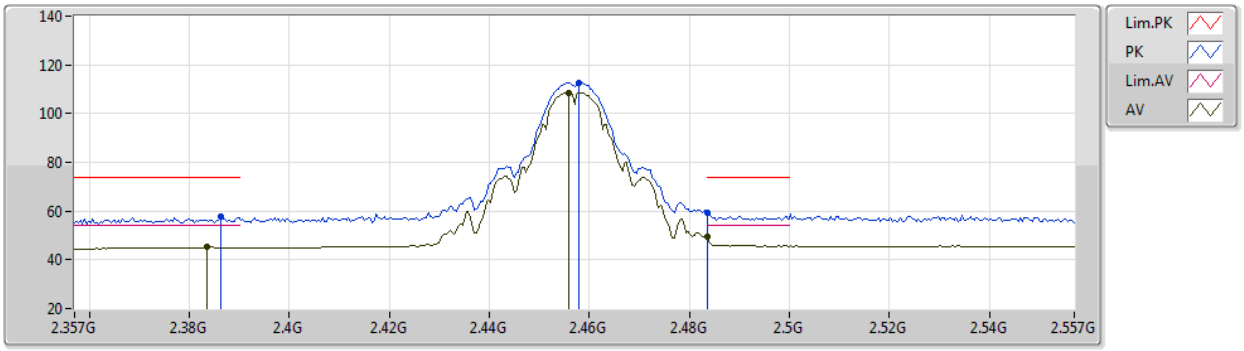
EUT X_1TX
Setting 22
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.87398G	54.57	74.00	-19.43	46.09	3	Horizontal	327	2.40	-	33.00	5.84	30.36
AV	4.874G	50.69	54.00	-3.31	42.21	3	Horizontal	327	2.40	-	33.00	5.84	30.36
PK	7.31188G	54.95	74.00	-19.05	42.98	3	Horizontal	342	2.11	-	36.42	6.96	31.41
AV	7.3102G	46.28	54.00	-7.72	34.31	3	Horizontal	342	2.11	-	36.42	6.96	31.41

802.11b_Nss1,(1Mbps)_1TX

2457MHz_TX

19/03/2020



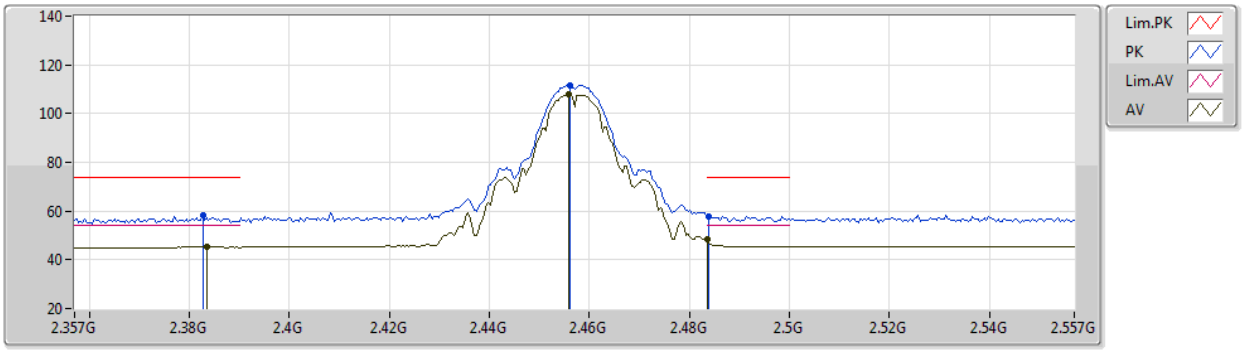
EUT X_1TX
Setting 20
03-A-S-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3862G	57.72	74.00	-16.28	24.90	3	Vertical	315	1.80	-	28.27	4.55	-
AV	2.3834G	45.15	54.00	-8.85	12.33	3	Vertical	315	1.80	-	28.27	4.55	-
PK	2.4578G	112.70	Inf	-Inf	79.64	3	Vertical	315	1.80	-	28.47	4.59	-
AV	2.4558G	108.69	Inf	-Inf	75.63	3	Vertical	315	1.80	-	28.47	4.59	-
PK	2.4835G	59.32	74.00	-14.68	26.16	3	Vertical	315	1.80	-	28.55	4.61	-
AV	2.4835G	49.30	54.00	-4.70	16.14	3	Vertical	315	1.80	-	28.55	4.61	-

802.11b_Nss1,(1Mbps)_1TX

2457MHz_TX

19/03/2020



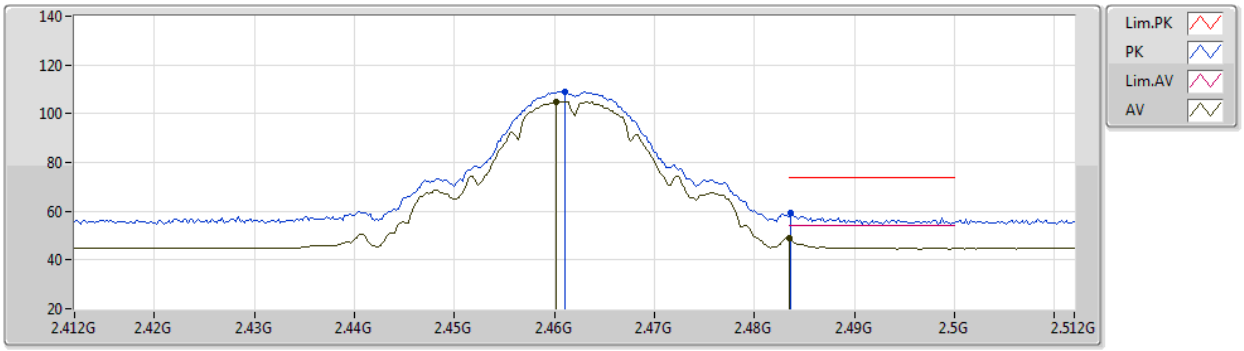
EUT X_1TX
Setting 20
03-A-S-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3826G	58.08	74.00	-15.92	25.26	3	Horizontal	41	1.00	-	28.27	4.55	-
AV	2.3834G	45.33	54.00	-8.67	12.51	3	Horizontal	41	1.00	-	28.27	4.55	-
PK	2.4562G	111.73	Inf	-Inf	78.67	3	Horizontal	41	1.00	-	28.47	4.59	-
AV	2.4558G	107.81	Inf	-Inf	74.75	3	Horizontal	41	1.00	-	28.47	4.59	-
PK	2.4838G	57.89	74.00	-16.11	24.73	3	Horizontal	41	1.00	-	28.55	4.61	-
AV	2.4835G	48.21	54.00	-5.79	15.05	3	Horizontal	41	1.00	-	28.55	4.61	-

802.11b_Nss1,(1Mbps)_1TX

2462MHz_TX

19/03/2020



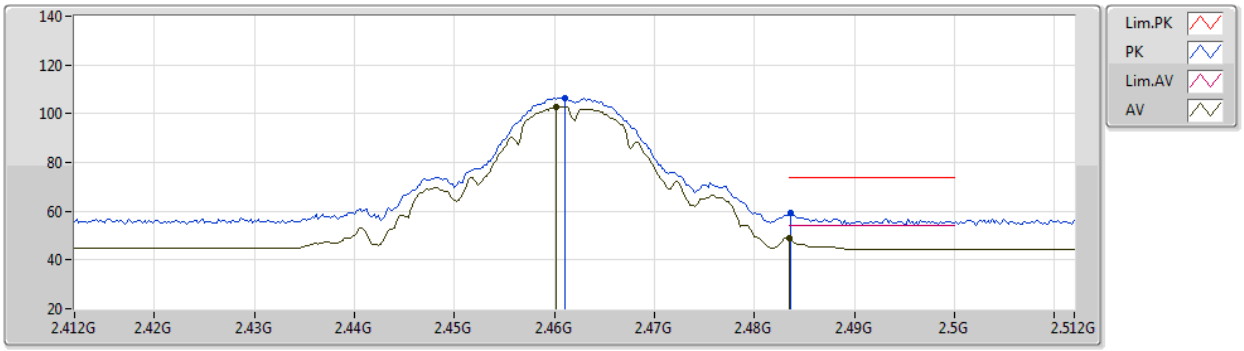
EUT X_1TX
Setting 19
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.461G	109.01	Inf	-Inf	76.95	3	Vertical	279	1.00	-	28.50	3.56	-
AV	2.4602G	105.03	Inf	-Inf	72.97	3	Vertical	279	1.00	-	28.50	3.56	-
PK	2.4836G	59.17	74.00	-14.83	27.09	3	Vertical	279	1.00	-	28.50	3.58	-
AV	2.4835G	48.76	54.00	-5.24	16.68	3	Vertical	279	1.00	-	28.50	3.58	-

802.11b_Nss1,(1Mbps)_1TX

2462MHz_TX

19/03/2020



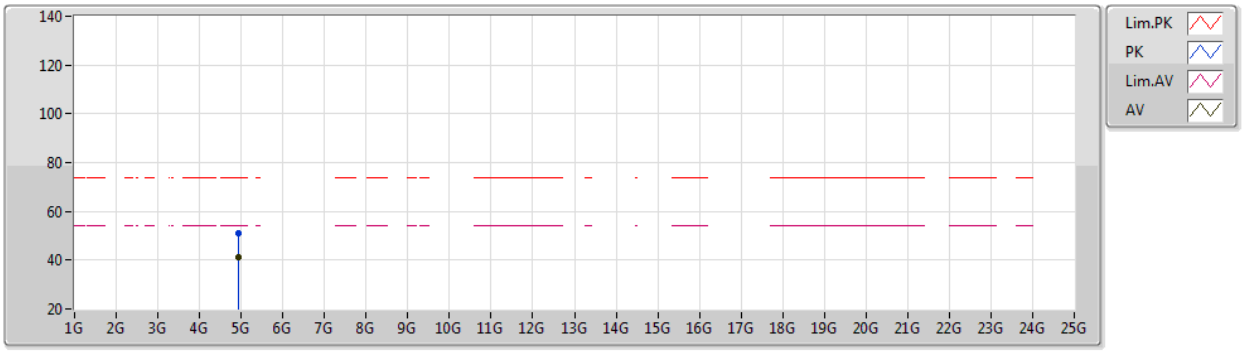
EUT X_1TX
Setting 19
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.461G	106.54	Inf	-Inf	74.48	3	Horizontal	109	2.87	-	28.50	3.56	-
AV	2.4602G	102.65	Inf	-Inf	70.59	3	Horizontal	109	2.87	-	28.50	3.56	-
PK	2.4836G	59.09	74.00	-14.91	27.01	3	Horizontal	109	2.87	-	28.50	3.58	-
AV	2.4835G	49.14	54.00	-4.86	17.06	3	Horizontal	109	2.87	-	28.50	3.58	-

802.11b_Nss1,(1Mbps)_1TX

2462MHz_TX

19/03/2020



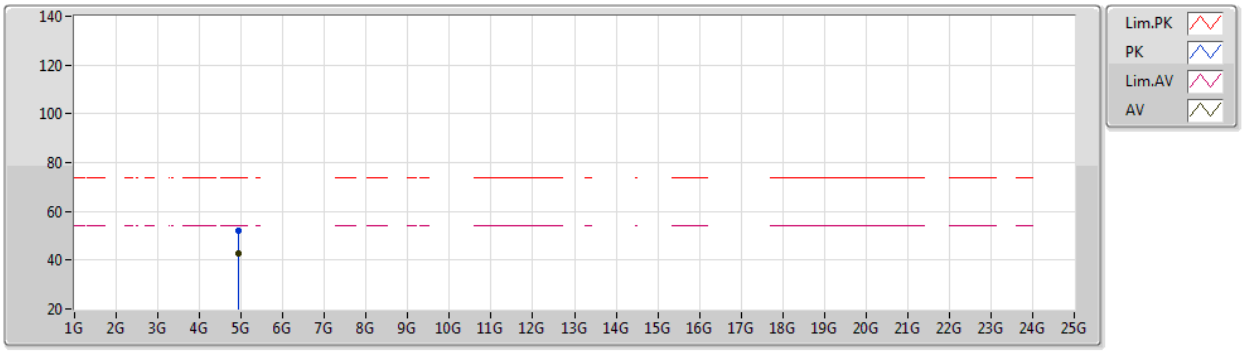
EUT X_1TX
Setting 19
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.92396G	50.87	74.00	-23.13	42.21	3	Vertical	360	1.00	-	33.15	5.86	30.35
AV	4.92392G	41.29	54.00	-12.71	32.63	3	Vertical	360	1.00	-	33.15	5.86	30.35

802.11b_Nss1,(1Mbps)_1TX

2462MHz_TX

19/03/2020



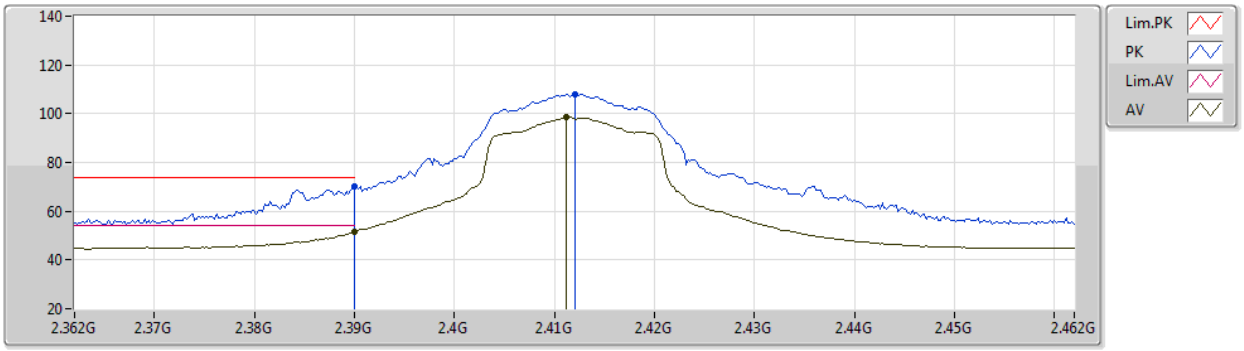
EUT X_1TX
Setting 19
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.92402G	51.85	74.00	-22.15	43.19	3	Horizontal	315	2.15	-	33.15	5.86	30.35
AV	4.92393G	42.96	54.00	-11.04	34.30	3	Horizontal	315	2.15	-	33.15	5.86	30.35

802.11g_Nss1,(6Mbps)_1TX

2412MHz_TX

19/03/2020



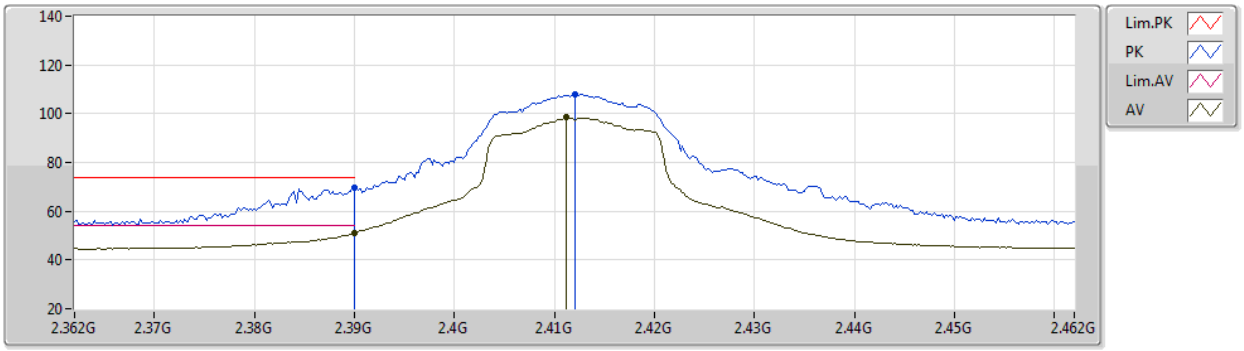
EUT X_1TX
Setting 16
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.39G	70.27	74.00	-3.73	38.32	3	Vertical	288	3.00	-	28.45	3.50	-
AV	2.39G	51.33	54.00	-2.67	19.38	3	Vertical	288	3.00	-	28.45	3.50	-
PK	2.412G	108.04	Inf	-Inf	76.03	3	Vertical	288	3.00	-	28.50	3.51	-
AV	2.4112G	98.66	Inf	-Inf	66.65	3	Vertical	288	3.00	-	28.50	3.51	-

802.11g_Nss1,(6Mbps)_1TX

2412MHz_TX

19/03/2020



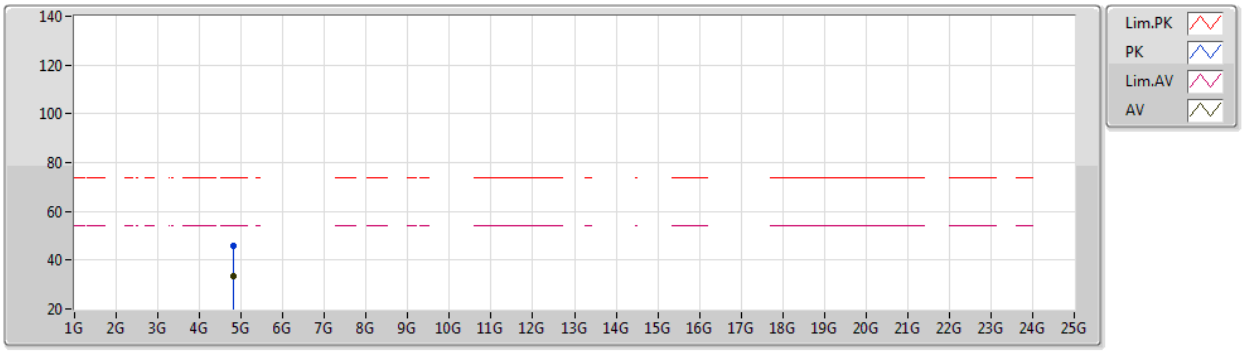
EUT X_1TX
Setting 16
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.39G	69.44	74.00	-4.56	37.49	3	Horizontal	32	2.89	-	28.45	3.50	-
AV	2.39G	51.14	54.00	-2.86	19.19	3	Horizontal	32	2.89	-	28.45	3.50	-
PK	2.412G	107.90	Inf	-Inf	75.89	3	Horizontal	32	2.89	-	28.50	3.51	-
AV	2.4112G	98.46	Inf	-Inf	66.45	3	Horizontal	32	2.89	-	28.50	3.51	-

802.11g_Nss1,(6Mbps)_1TX

2412MHz_TX

19/03/2020



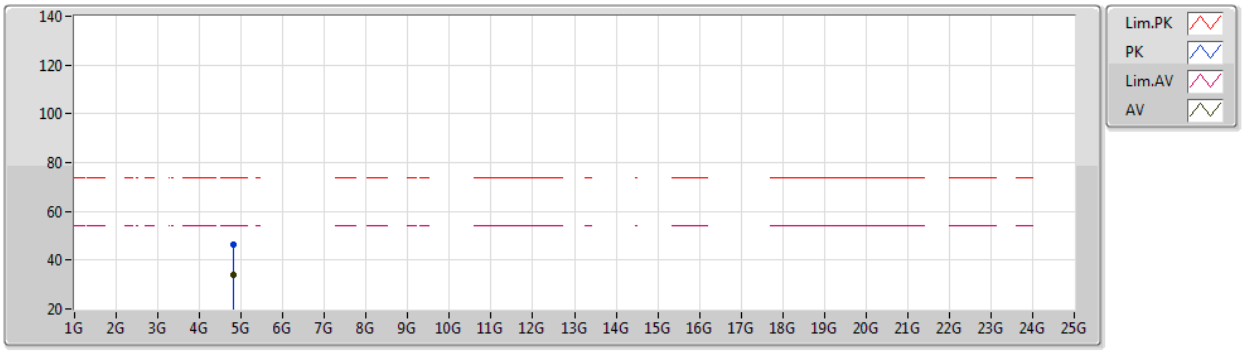
EUT X_1TX
Setting 16
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.8241G	45.83	74.00	-28.17	37.59	3	Vertical	224	1.39	-	32.80	5.81	30.37
AV	4.8044G	33.60	54.00	-20.40	25.46	3	Vertical	224	1.39	-	32.72	5.80	30.38

802.11g_Nss1,(6Mbps)_1TX

2412MHz_TX

19/03/2020



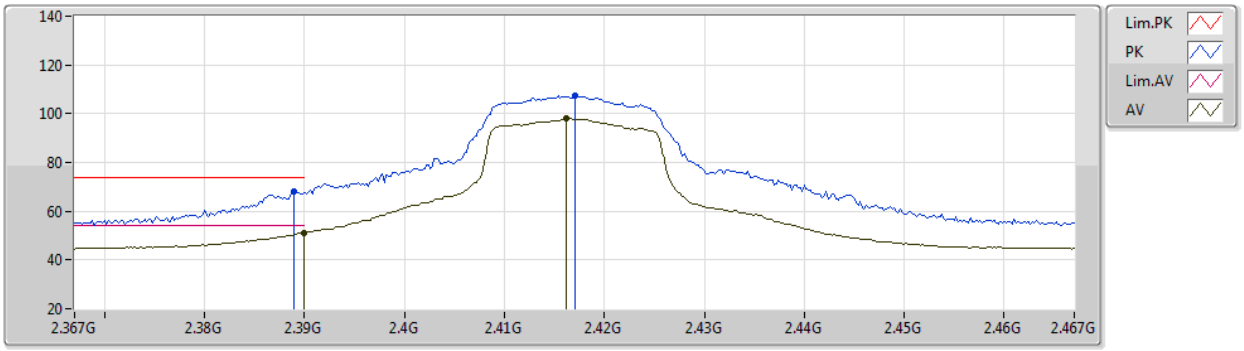
EUT X_1TX
Setting 16
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.8252G	46.42	74.00	-27.58	38.18	3	Horizontal	12	1.47	-	32.80	5.81	30.37
AV	4.8138G	33.86	54.00	-20.14	25.67	3	Horizontal	12	1.47	-	32.76	5.81	30.38

802.11g_Nss1,(6Mbps)_1TX

2417MHz_TX

19/03/2020



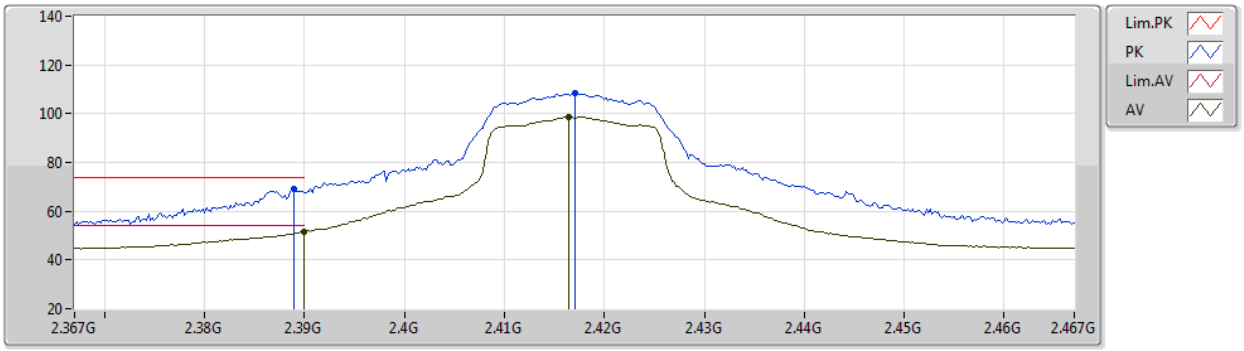
EUT X_1TX
Setting 17
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.389G	68.34	74.00	-5.66	36.39	3	Vertical	286	3.00	-	28.45	3.50	-
AV	2.39G	51.12	54.00	-2.88	19.17	3	Vertical	286	3.00	-	28.45	3.50	-
PK	2.417G	107.51	Inf	-Inf	75.49	3	Vertical	286	3.00	-	28.50	3.52	-
AV	2.4162G	98.08	Inf	-Inf	66.06	3	Vertical	286	3.00	-	28.50	3.52	-

802.11g_Nss1,(6Mbps)_1TX

2417MHz_TX

19/03/2020



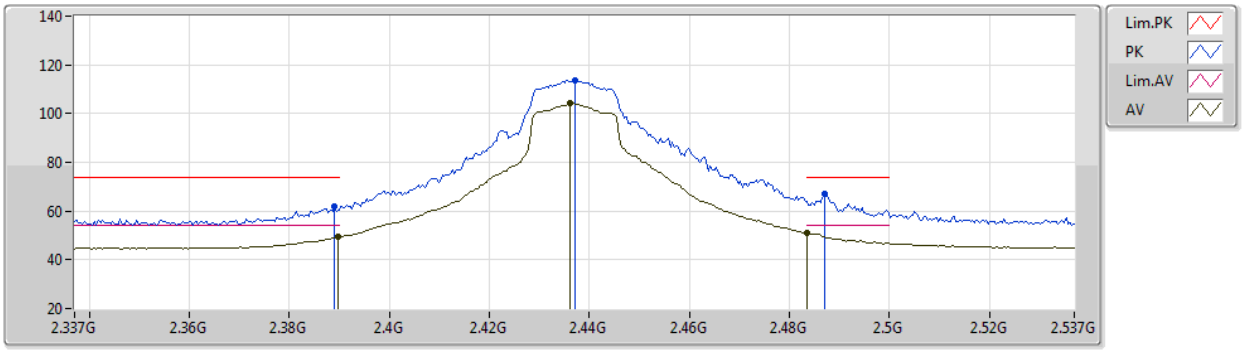
EUT X_1TX
Setting 17
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.389G	69.11	74.00	-4.89	37.16	3	Horizontal	30	2.90	-	28.45	3.50	-
AV	2.39G	51.75	54.00	-2.25	19.80	3	Horizontal	30	2.90	-	28.45	3.50	-
PK	2.417G	108.43	Inf	-Inf	76.41	3	Horizontal	30	2.90	-	28.50	3.52	-
AV	2.4164G	98.81	Inf	-Inf	66.79	3	Horizontal	30	2.90	-	28.50	3.52	-

802.11g_Nss1,(6Mbps)_1TX

2437MHz_TX

19/03/2020



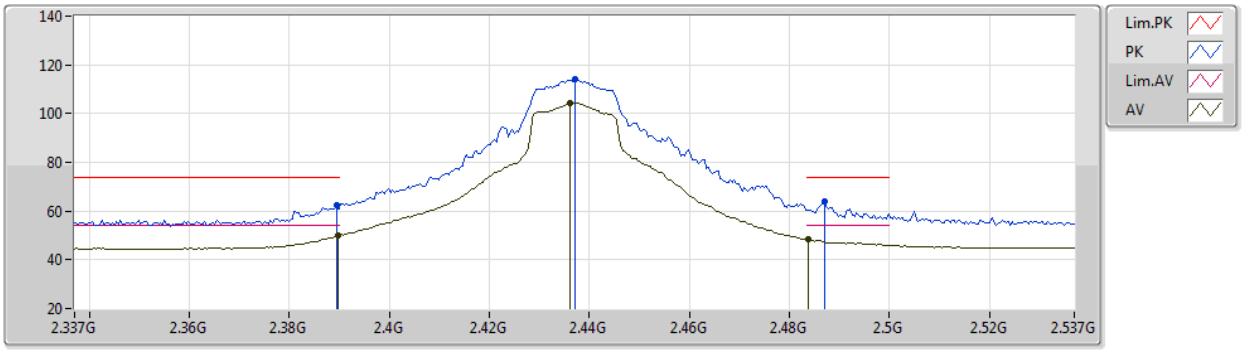
EUT X_1TX
Setting 23
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.389G	61.80	74.00	-12.20	29.85	3	Vertical	286	1.53	-	28.45	3.50	-
AV	2.3898G	49.35	54.00	-4.65	17.40	3	Vertical	286	1.53	-	28.45	3.50	-
PK	2.437G	113.87	Inf	-Inf	81.83	3	Vertical	286	1.53	-	28.50	3.54	-
AV	2.4362G	104.25	Inf	-Inf	72.21	3	Vertical	286	1.53	-	28.50	3.54	-
PK	2.487G	67.27	74.00	-6.73	35.18	3	Vertical	286	1.53	-	28.50	3.59	-
AV	2.4835G	51.07	54.00	-2.93	18.99	3	Vertical	286	1.53	-	28.50	3.58	-

802.11g_Nss1,(6Mbps)_1TX

2437MHz_TX

19/03/2020



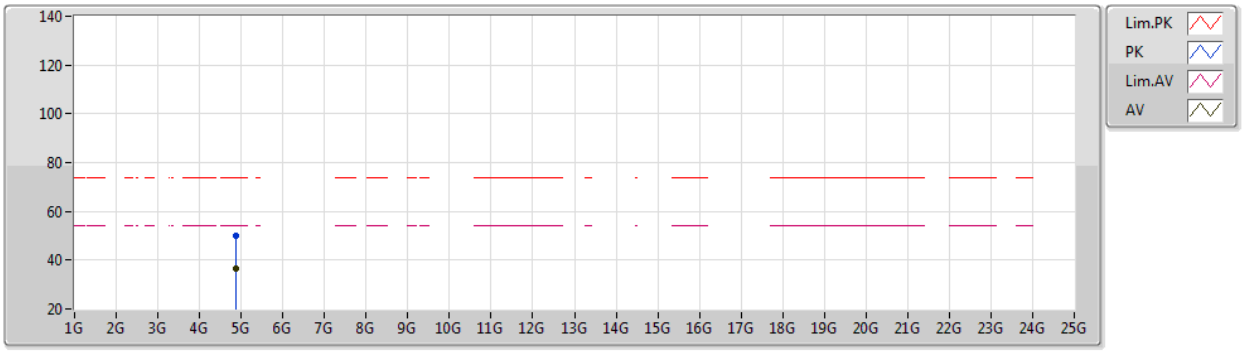
EUT X_1TX
Setting 23
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3894G	62.39	74.00	-11.61	30.44	3	Horizontal	288	2.65	-	28.45	3.50	-
AV	2.3898G	49.84	54.00	-4.16	17.89	3	Horizontal	288	2.65	-	28.45	3.50	-
PK	2.437G	114.15	Inf	-Inf	82.11	3	Horizontal	288	2.65	-	28.50	3.54	-
AV	2.4362G	104.48	Inf	-Inf	72.44	3	Horizontal	288	2.65	-	28.50	3.54	-
PK	2.487G	63.71	74.00	-10.29	31.62	3	Horizontal	288	2.65	-	28.50	3.59	-
AV	2.4838G	48.45	54.00	-5.55	16.37	3	Horizontal	288	2.65	-	28.50	3.58	-

802.11g_Nss1,(6Mbps)_1TX

2437MHz_TX

19/03/2020



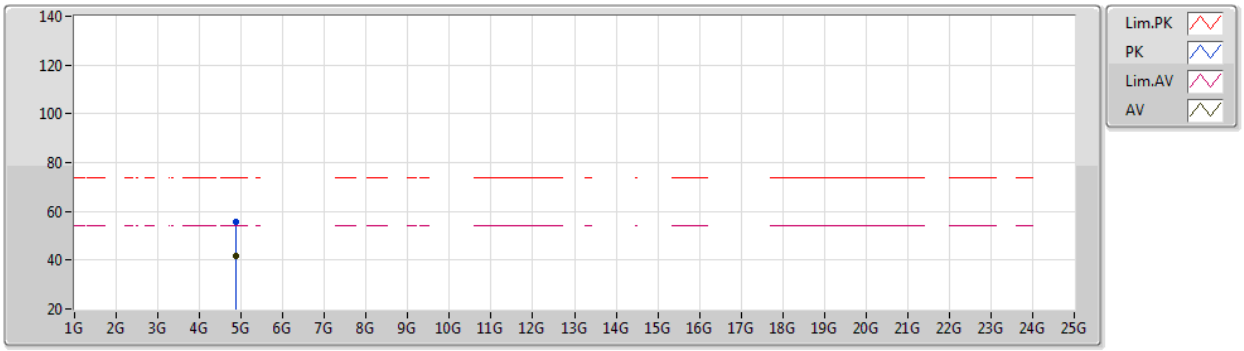
EUT X_1TX
Setting 23
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.8781G	49.83	74.00	-24.17	41.34	3	Vertical	19	1.80	-	33.01	5.84	30.36
AV	4.8744G	36.79	54.00	-17.21	28.31	3	Vertical	19	1.80	-	33.00	5.84	30.36

802.11g_Nss1,(6Mbps)_1TX

2437MHz_TX

19/03/2020



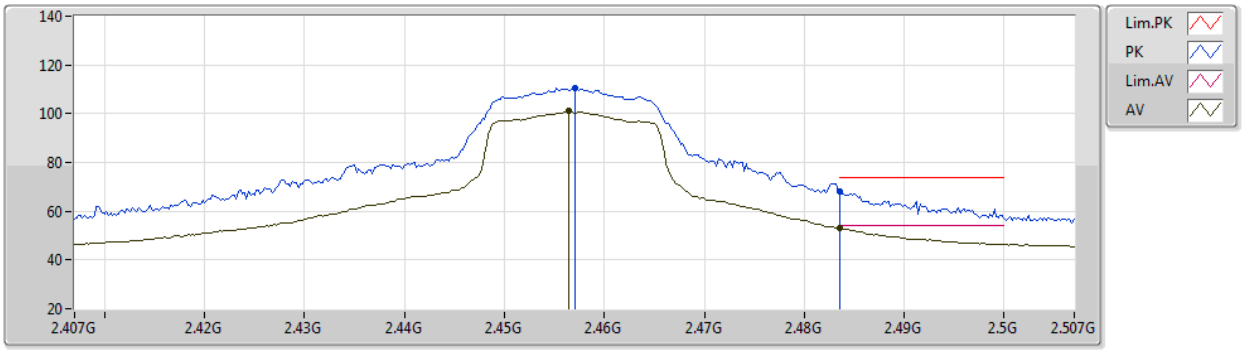
EUT X_1TX
Setting 23
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.87274G	55.67	74.00	-18.33	47.20	3	Horizontal	328	2.41	-	32.99	5.84	30.36
AV	4.87328G	41.47	54.00	-12.53	33.00	3	Horizontal	328	2.41	-	32.99	5.84	30.36

802.11g_Nss1,(6Mbps)_1TX

2457MHz_TX

19/03/2020



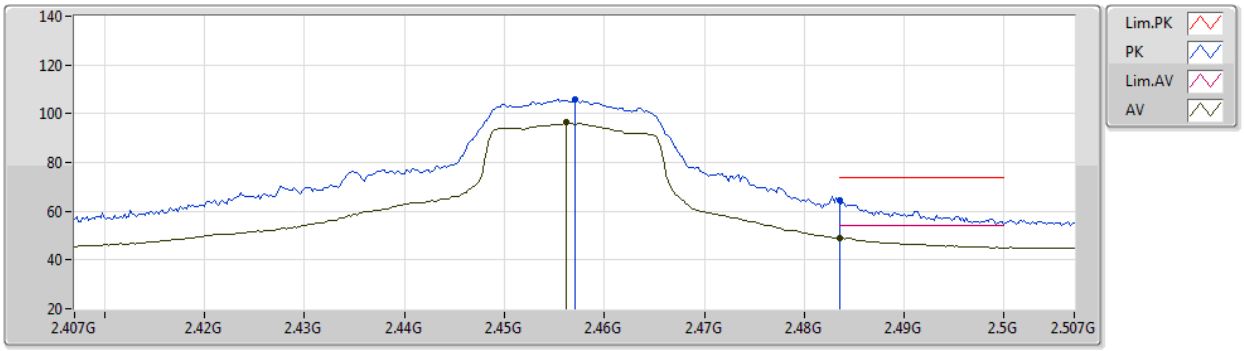
EUT X_1TX
Setting 18
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.457G	110.53	Inf	-Inf	78.47	3	Vertical	279	1.00	-	28.50	3.56	-
AV	2.4564G	100.97	Inf	-Inf	68.91	3	Vertical	279	1.00	-	28.50	3.56	-
PK	2.4836G	67.96	74.00	-6.04	35.88	3	Vertical	279	1.00	-	28.50	3.58	-
AV	2.4835G	52.96	54.00	-1.04	20.88	3	Vertical	279	1.00	-	28.50	3.58	-

802.11g_Nss1,(6Mbps)_1TX

2457MHz_TX

19/03/2020



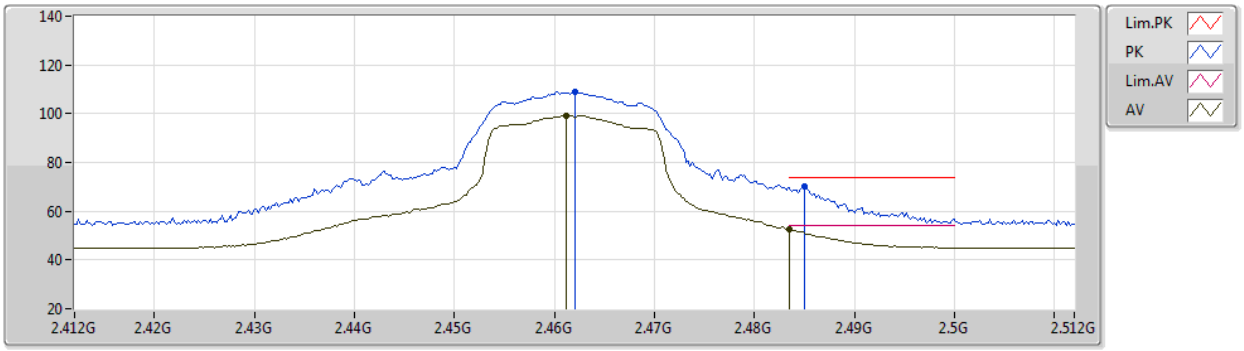
EUT X_1TX
Setting 18
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.457G	105.83	Inf	-Inf	73.77	3	Horizontal	101	2.62	-	28.50	3.56	-
AV	2.4562G	96.39	Inf	-Inf	64.33	3	Horizontal	101	2.62	-	28.50	3.56	-
PK	2.4835G	64.38	74.00	-9.62	32.30	3	Horizontal	101	2.62	-	28.50	3.58	-
AV	2.4835G	48.95	54.00	-5.05	16.87	3	Horizontal	101	2.62	-	28.50	3.58	-

802.11g_Nss1,(6Mbps)_1TX

2462MHz_TX

19/03/2020



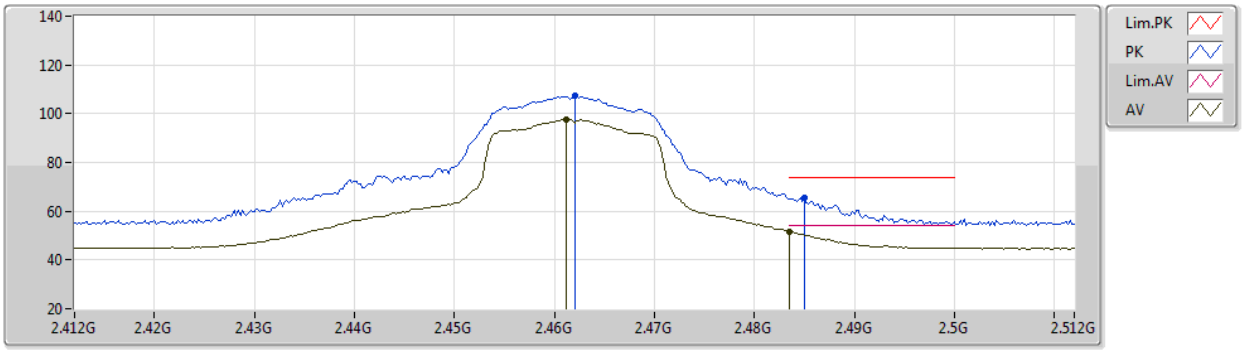
EUT X_1TX
Setting 16
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.462G	108.82	Inf	-Inf	76.76	3	Vertical	278	1.00	-	28.50	3.56	-
AV	2.4612G	99.29	Inf	-Inf	67.23	3	Vertical	278	1.00	-	28.50	3.56	-
PK	2.485G	70.42	74.00	-3.58	38.33	3	Vertical	278	1.00	-	28.50	3.59	-
AV	2.4835G	52.46	54.00	-1.54	20.38	3	Vertical	278	1.00	-	28.50	3.58	-

802.11g_Nss1,(6Mbps)_1TX

2462MHz_TX

19/03/2020



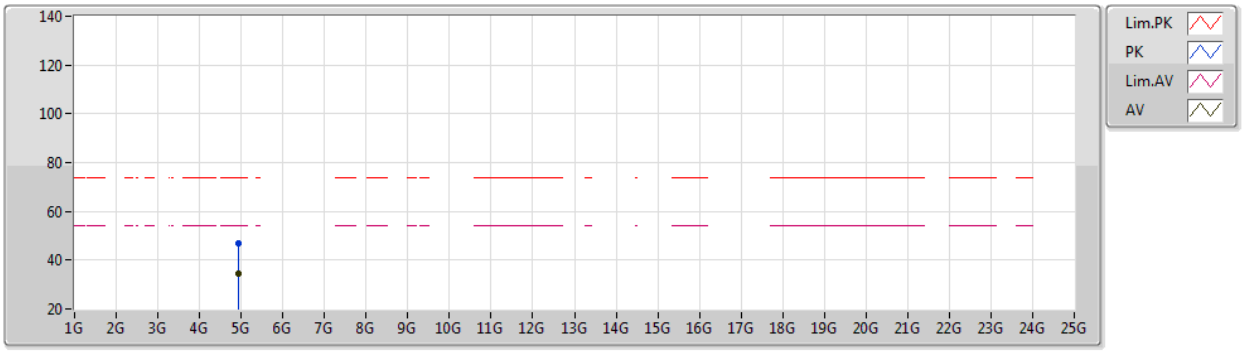
EUT X_1TX
Setting 16
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.462G	107.16	Inf	-Inf	75.10	3	Horizontal	32	2.77	-	28.50	3.56	-
AV	2.4612G	97.73	Inf	-Inf	65.67	3	Horizontal	32	2.77	-	28.50	3.56	-
PK	2.485G	65.74	74.00	-8.26	33.65	3	Horizontal	32	2.77	-	28.50	3.59	-
AV	2.4835G	51.59	54.00	-2.41	19.51	3	Horizontal	32	2.77	-	28.50	3.58	-

802.11g_Nss1,(6Mbps)_1TX

2462MHz_TX

19/03/2020



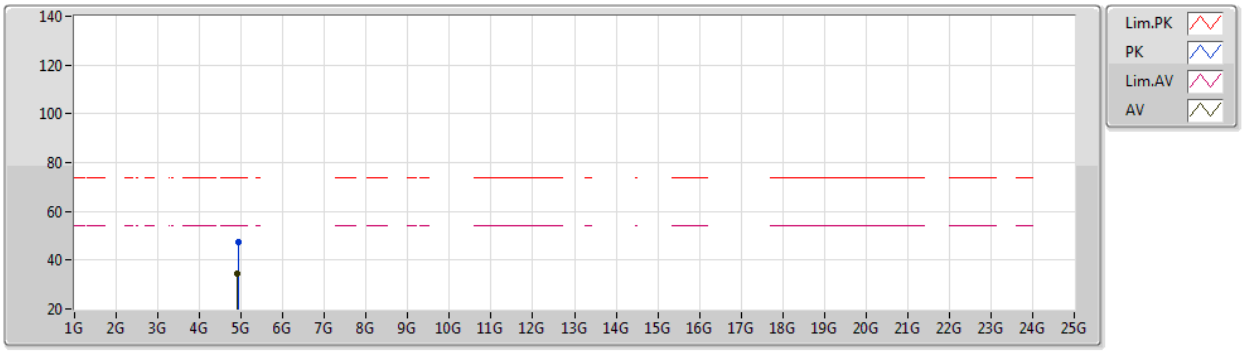
EUT X_1TX
Setting 16
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.9221G	47.05	74.00	-26.95	38.40	3	Vertical	39	2.12	-	33.14	5.86	30.35
AV	4.9218G	34.26	54.00	-19.74	25.61	3	Vertical	39	2.12	-	33.14	5.86	30.35

802.11g_Nss1,(6Mbps)_1TX

2462MHz_TX

19/03/2020



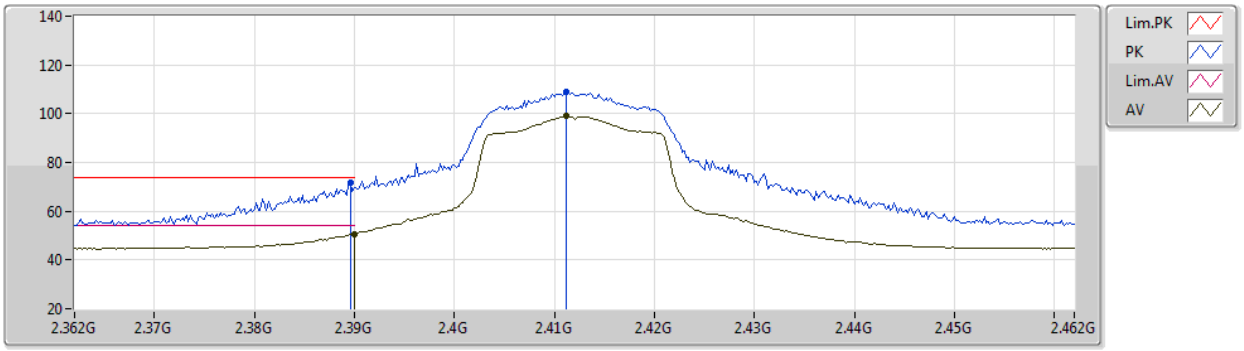
EUT X_1TX
Setting 16
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.9317G	47.22	74.00	-26.78	38.53	3	Horizontal	11	1.85	-	33.16	5.87	30.34
AV	4.916G	34.41	54.00	-19.59	25.77	3	Horizontal	11	1.85	-	33.13	5.86	30.35

802.11n HT20_Nss1,(MCS0)_1TX

2412MHz_TX

19/03/2020



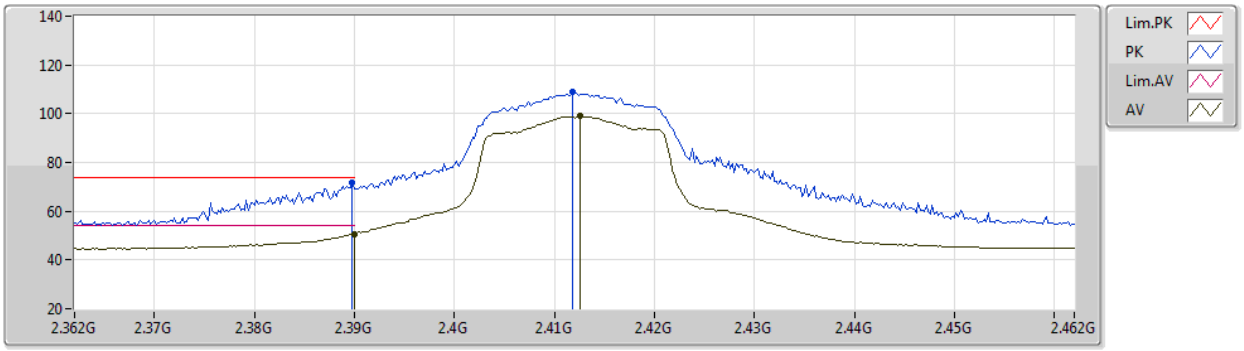
EUT X_1TX
Setting 17
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3896G	71.68	74.00	-2.32	39.73	3	Vertical	287	3.00	-	28.45	3.50	-
AV	2.39G	50.65	54.00	-3.35	18.70	3	Vertical	287	3.00	-	28.45	3.50	-
PK	2.4112G	108.82	Inf	-Inf	76.81	3	Vertical	287	3.00	-	28.50	3.51	-
AV	2.4112G	99.13	Inf	-Inf	67.12	3	Vertical	287	3.00	-	28.50	3.51	-

802.11n HT20_Nss1,(MCS0)_1TX

2412MHz_TX

19/03/2020



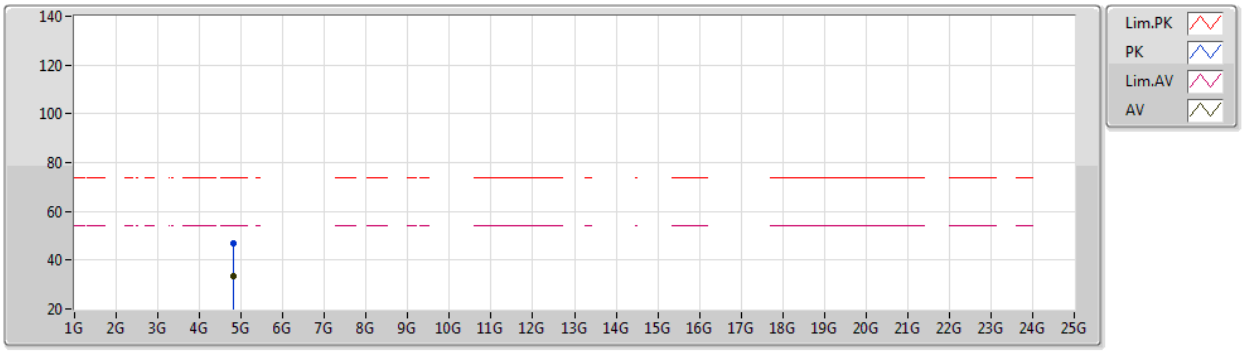
EUT X_1TX
Setting 17
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3898G	71.80	74.00	-2.20	39.85	3	Horizontal	31	2.89	-	28.45	3.50	-
AV	2.39G	50.68	54.00	-3.32	18.73	3	Horizontal	31	2.89	-	28.45	3.50	-
PK	2.4118G	108.83	Inf	-Inf	76.82	3	Horizontal	31	2.89	-	28.50	3.51	-
AV	2.4126G	99.04	Inf	-Inf	67.03	3	Horizontal	31	2.89	-	28.50	3.51	-

802.11n HT20_Nss1,(MCS0)_1TX

2412MHz_TX

19/03/2020



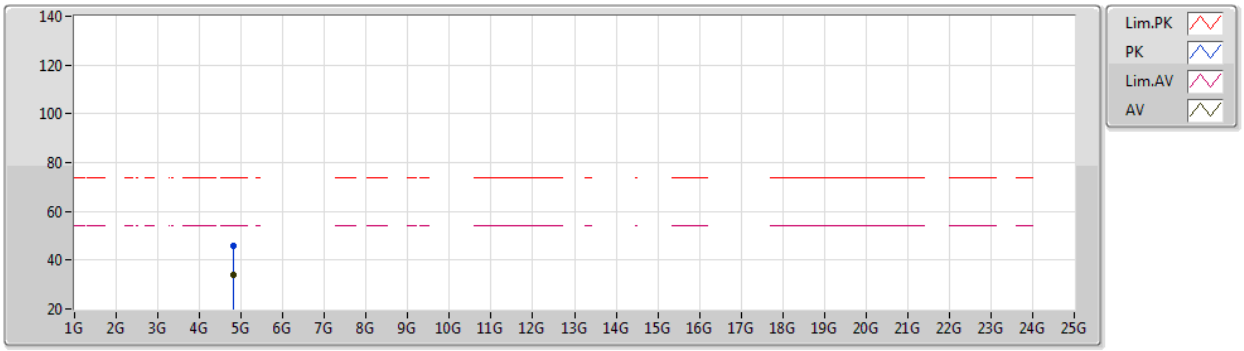
EUT X_1TX
Setting 17
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.814G	46.87	74.00	-27.13	38.68	3	Vertical	16	2.48	-	32.76	5.81	30.38
AV	4.8209G	33.68	54.00	-20.32	25.46	3	Vertical	16	2.48	-	32.78	5.81	30.37

802.11n HT20_Nss1,(MCS0)_1TX

2412MHz_TX

19/03/2020



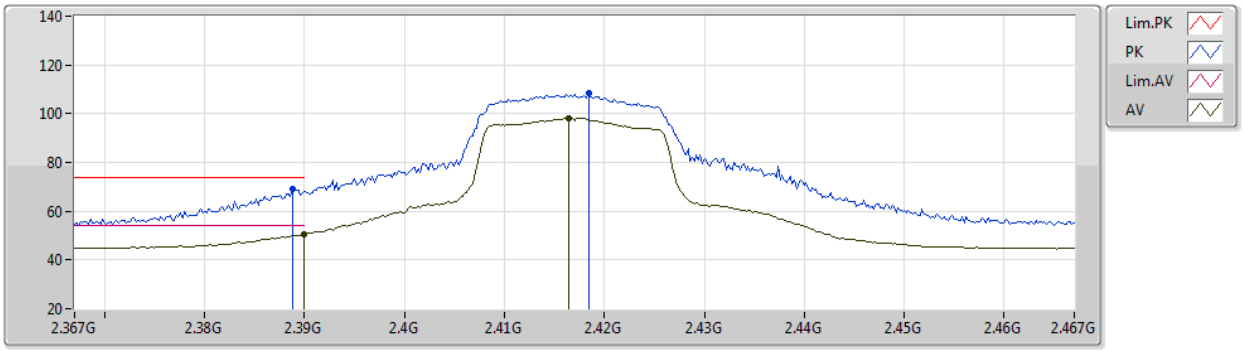
EUT X_1TX
Setting 17
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.8163G	46.00	74.00	-28.00	37.80	3	Horizontal	309	1.11	-	32.77	5.81	30.38
AV	4.8142G	33.75	54.00	-20.25	25.56	3	Horizontal	309	1.11	-	32.76	5.81	30.38

802.11n HT20_Nss1,(MCS0)_1TX

2417MHz_TX

19/03/2020



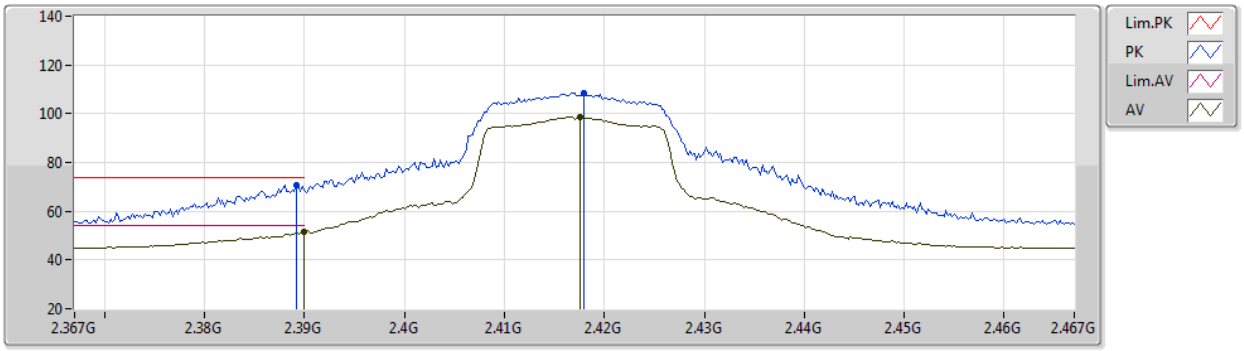
EUT X_1TX
Setting 18
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3888G	69.32	74.00	-4.68	37.38	3	Vertical	287	3.00	-	28.44	3.50	-
AV	2.39G	50.74	54.00	-3.26	18.79	3	Vertical	287	3.00	-	28.45	3.50	-
PK	2.4184G	108.31	Inf	-Inf	76.29	3	Vertical	287	3.00	-	28.50	3.52	-
AV	2.4164G	98.30	Inf	-Inf	66.28	3	Vertical	287	3.00	-	28.50	3.52	-

802.11n HT20_Nss1,(MCS0)_1TX

2417MHz_TX

19/03/2020



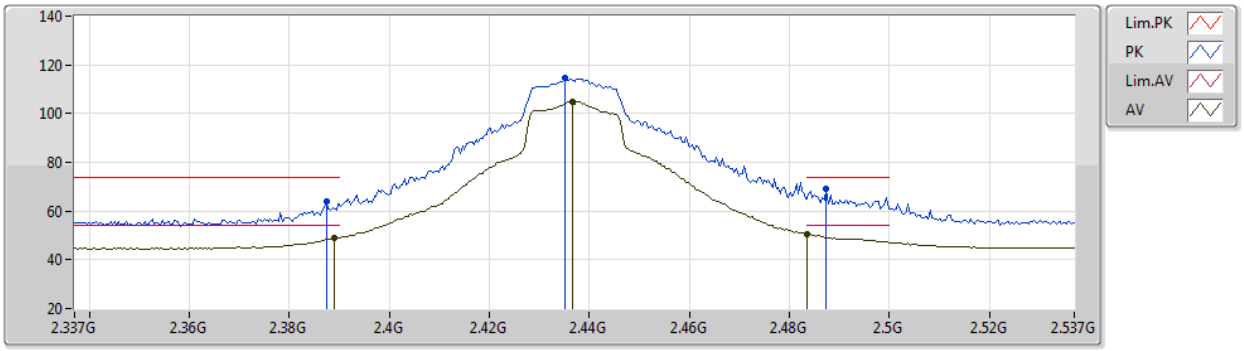
EUT X_1TX
Setting 18
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3892G	70.55	74.00	-3.45	38.60	3	Horizontal	26	2.91	-	28.45	3.50	-
AV	2.39G	51.55	54.00	-2.45	19.60	3	Horizontal	26	2.91	-	28.45	3.50	-
PK	2.418G	108.63	Inf	-Inf	76.61	3	Horizontal	26	2.91	-	28.50	3.52	-
AV	2.4176G	98.73	Inf	-Inf	66.71	3	Horizontal	26	2.91	-	28.50	3.52	-

802.11n HT20_Nss1,(MCS0)_1TX

2437MHz_TX

19/03/2020



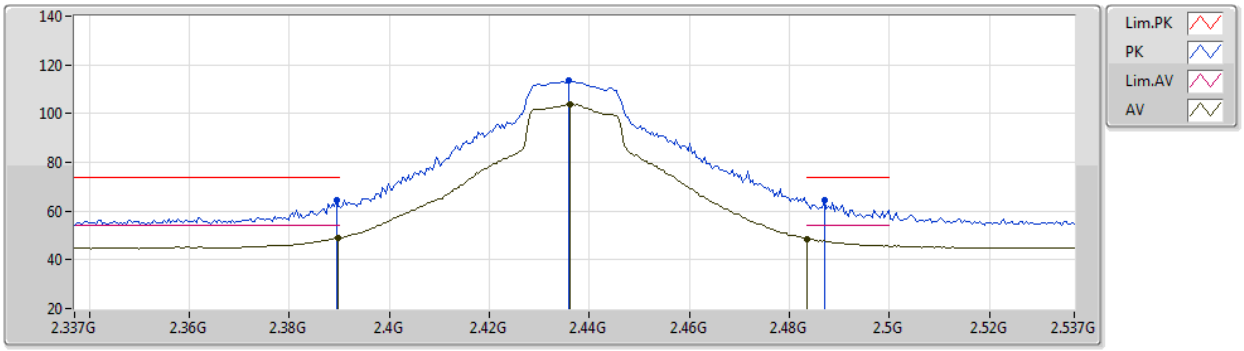
EUT X_1TX
Setting 24
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3874G	64.15	74.00	-9.85	32.21	3	Vertical	291	2.63	-	28.44	3.50	-
AV	2.389G	48.92	54.00	-5.08	16.97	3	Vertical	291	2.63	-	28.45	3.50	-
PK	2.435G	114.61	Inf	-Inf	82.57	3	Vertical	291	2.63	-	28.50	3.54	-
AV	2.4366G	104.77	Inf	-Inf	72.73	3	Vertical	291	2.63	-	28.50	3.54	-
PK	2.4874G	68.94	74.00	-5.06	36.85	3	Vertical	291	2.63	-	28.50	3.59	-
AV	2.4835G	50.75	54.00	-3.25	18.67	3	Vertical	291	2.63	-	28.50	3.58	-

802.11n HT20_Nss1,(MCS0)_1TX

2437MHz_TX

19/03/2020



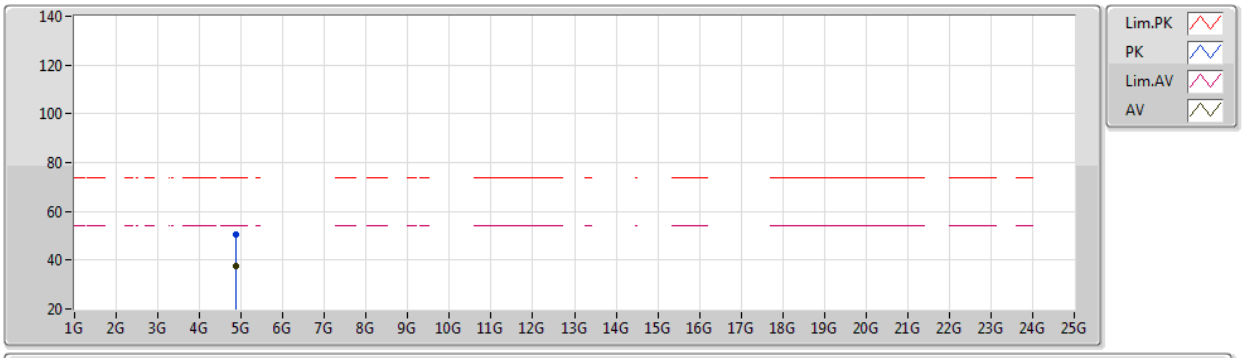
EUT X_1TX
Setting 24
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3894G	64.70	74.00	-9.30	32.75	3	Horizontal	28	2.84	-	28.45	3.50	-
AV	2.3898G	48.96	54.00	-5.04	17.01	3	Horizontal	28	2.84	-	28.45	3.50	-
PK	2.4358G	113.64	Inf	-Inf	81.60	3	Horizontal	28	2.84	-	28.50	3.54	-
AV	2.4362G	103.78	Inf	-Inf	71.74	3	Horizontal	28	2.84	-	28.50	3.54	-
PK	2.487G	64.27	74.00	-9.73	32.18	3	Horizontal	28	2.84	-	28.50	3.59	-
AV	2.4835G	48.69	54.00	-5.31	16.61	3	Horizontal	28	2.84	-	28.50	3.58	-

802.11n HT20_Nss1,(MCS0)_1TX

2437MHz_TX

19/03/2020



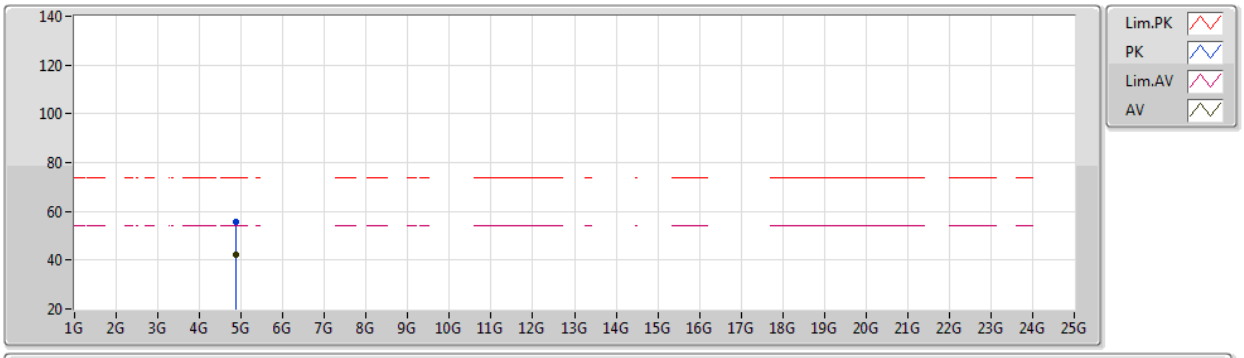
EUT X_1TX
Setting 24
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.8734G	50.70	74.00	-23.30	42.23	3	Vertical	19	1.81	-	32.99	5.84	30.36
AV	4.8742G	37.57	54.00	-16.43	29.09	3	Vertical	19	1.81	-	33.00	5.84	30.36

802.11n HT20_Nss1,(MCS0)_1TX

2437MHz_TX

19/03/2020



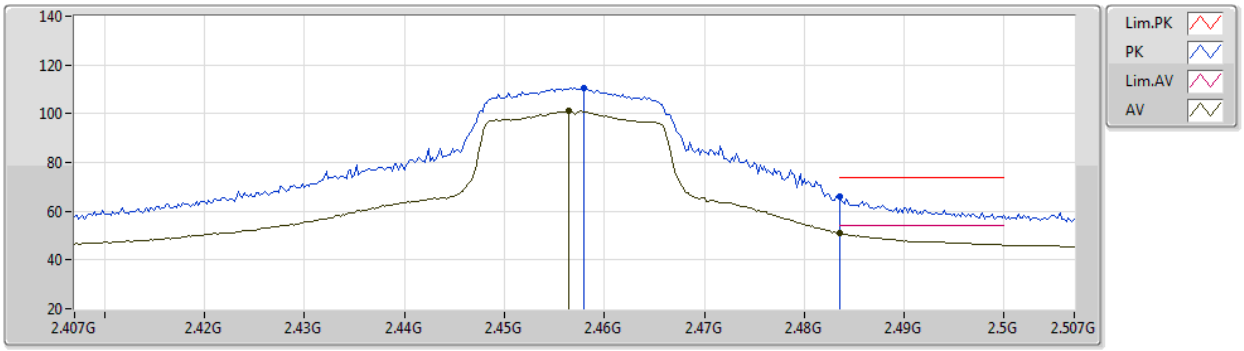
EUT X_1TX
Setting 24
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.8732G	55.48	74.00	-18.52	47.01	3	Horizontal	326	2.40	-	32.99	5.84	30.36
AV	4.874G	42.43	54.00	-11.57	33.95	3	Horizontal	326	2.40	-	33.00	5.84	30.36

802.11n HT20_Nss1,(MCS0)_1TX

2457MHz_TX

19/03/2020



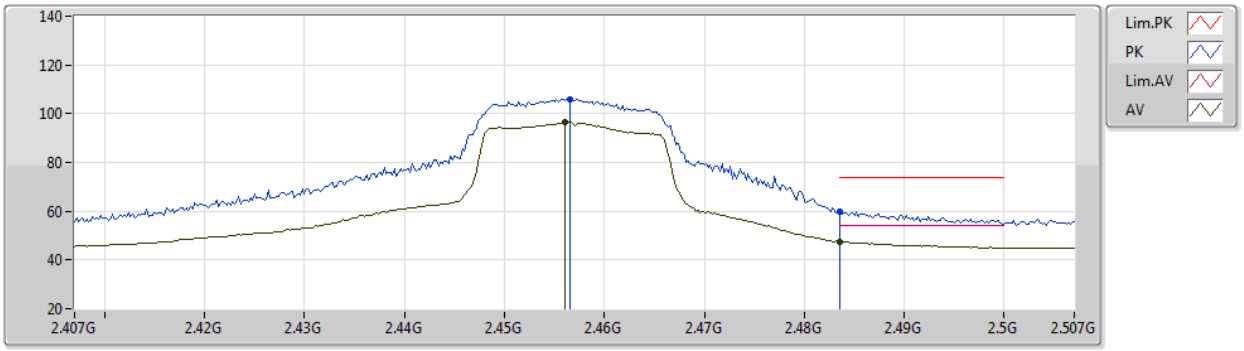
EUT X_1TX
Setting 19
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.458G	110.63	Inf	-Inf	78.57	3	Vertical	285	1.00	-	28.50	3.56	-
AV	2.4564G	101.12	Inf	-Inf	69.06	3	Vertical	285	1.00	-	28.50	3.56	-
PK	2.4835G	65.98	74.00	-8.02	33.90	3	Vertical	285	1.00	-	28.50	3.58	-
AV	2.4835G	51.03	54.00	-2.97	18.95	3	Vertical	285	1.00	-	28.50	3.58	-

802.11n HT20_Nss1,(MCS0)_1TX

2457MHz_TX

19/03/2020



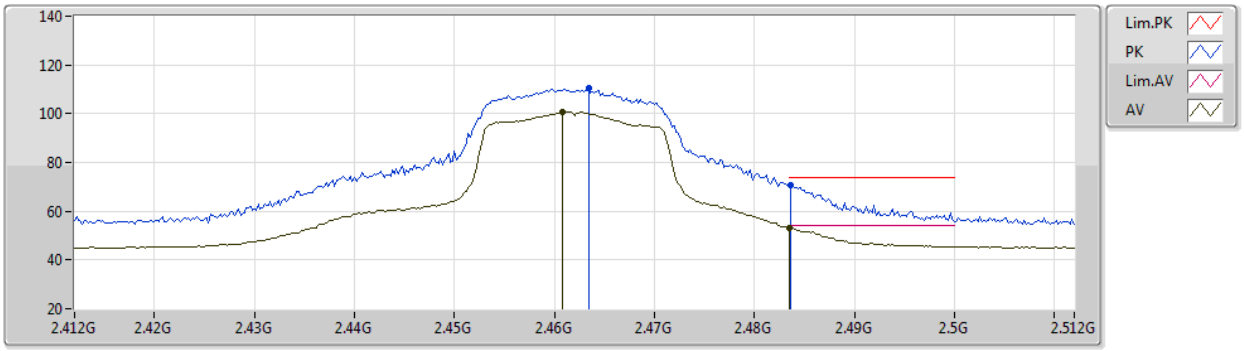
EUT X_1TX
Setting 19
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.4566G	105.93	Inf	-Inf	73.87	3	Horizontal	100	2.62	-	28.50	3.56	-
AV	2.456G	96.68	Inf	-Inf	64.62	3	Horizontal	100	2.62	-	28.50	3.56	-
PK	2.4835G	60.07	74.00	-13.93	27.99	3	Horizontal	100	2.62	-	28.50	3.58	-
AV	2.4835G	47.34	54.00	-6.66	15.26	3	Horizontal	100	2.62	-	28.50	3.58	-

802.11n HT20_Nss1,(MCS0)_1TX

2462MHz_TX

19/03/2020



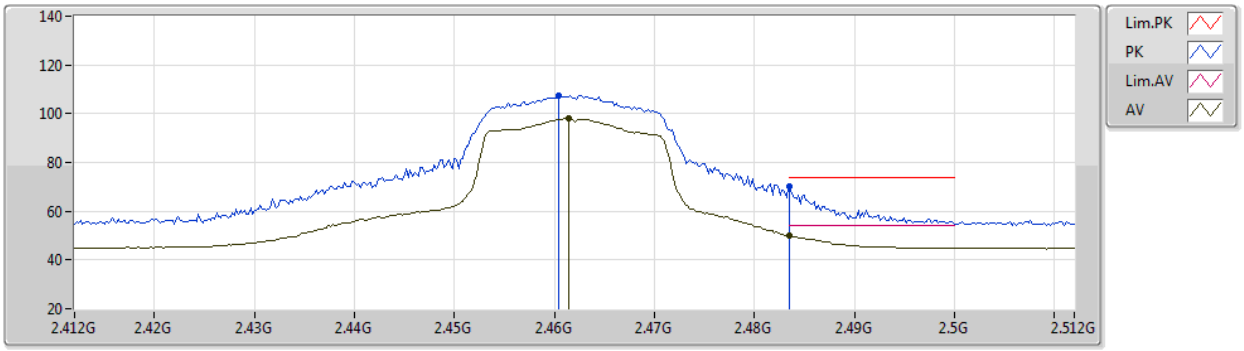
EUT X_1TX
Setting 18
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.4634G	110.29	Inf	-Inf	78.23	3	Vertical	283	1.00	-	28.50	3.56	-
AV	2.4608G	100.72	Inf	-Inf	68.66	3	Vertical	283	1.00	-	28.50	3.56	-
PK	2.4836G	70.74	74.00	-3.26	38.66	3	Vertical	283	1.00	-	28.50	3.58	-
AV	2.4835G	52.99	54.00	-1.01	20.91	3	Vertical	283	1.00	-	28.50	3.58	-

802.11n HT20_Nss1,(MCS0)_1TX

2462MHz_TX

19/03/2020



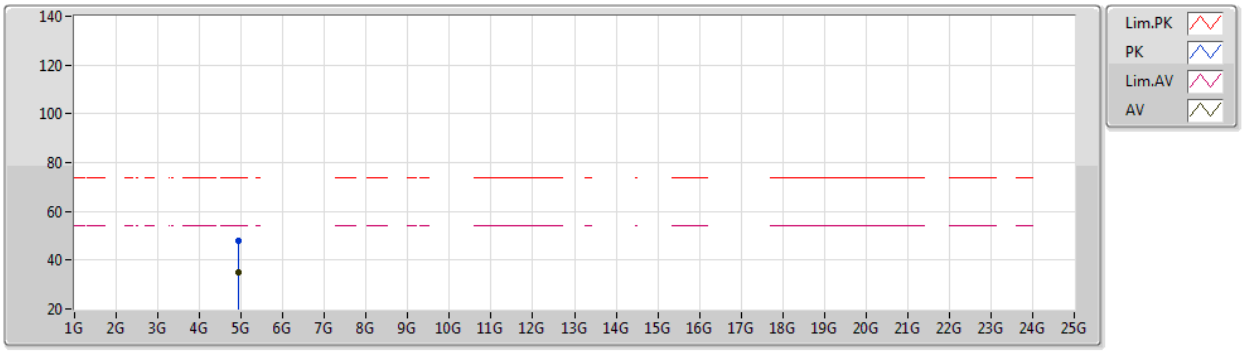
EUT X_1TX
Setting 18
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.4604G	107.51	Inf	-Inf	75.45	3	Horizontal	31	2.78	-	28.50	3.56	-
AV	2.4614G	98.05	Inf	-Inf	65.99	3	Horizontal	31	2.78	-	28.50	3.56	-
PK	2.4835G	70.19	74.00	-3.81	38.11	3	Horizontal	31	2.78	-	28.50	3.58	-
AV	2.4835G	50.10	54.00	-3.90	18.02	3	Horizontal	31	2.78	-	28.50	3.58	-

802.11n HT20_Nss1,(MCS0)_1TX

2462MHz_TX

19/03/2020



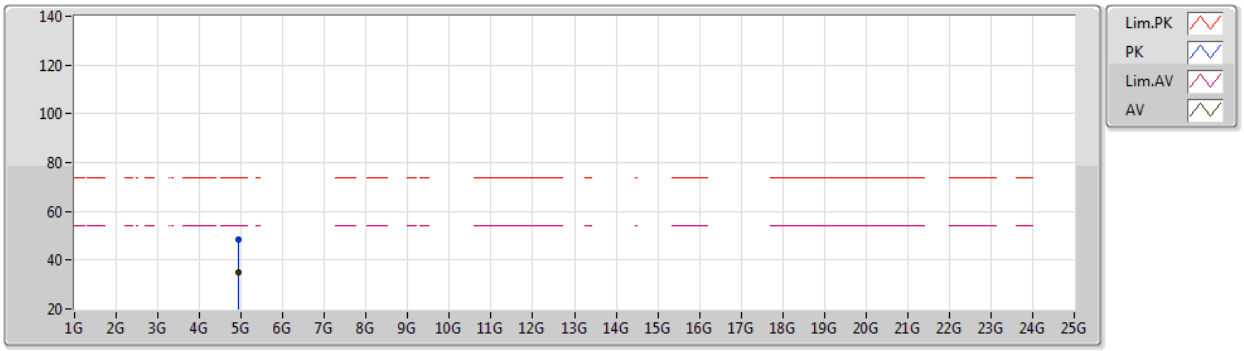
EUT X_1TX
Setting 18
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.9239G	47.72	74.00	-26.28	39.06	3	Vertical	84	2.54	-	33.15	5.86	30.35
AV	4.926G	35.14	54.00	-18.86	26.47	3	Vertical	84	2.54	-	33.15	5.86	30.34

802.11n HT20_Nss1,(MCS0)_1TX

2462MHz_TX

19/03/2020



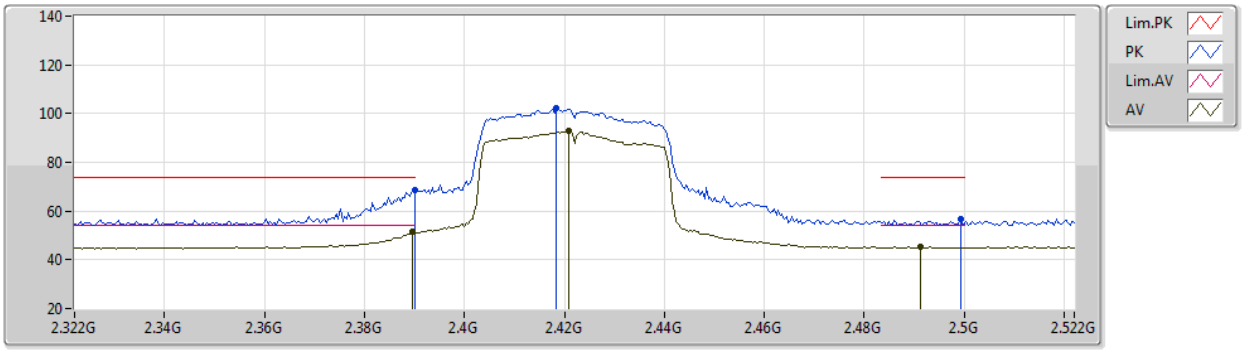
EUT X_1TX
Setting 18
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.924G	48.63	74.00	-25.37	39.97	3	Horizontal	310	1.80	-	33.15	5.86	30.35
AV	4.924G	35.14	54.00	-18.86	26.48	3	Horizontal	310	1.80	-	33.15	5.86	30.35

802.11n HT40_Nss1,(MCS0)_1TX

2422MHz_TX

19/03/2020



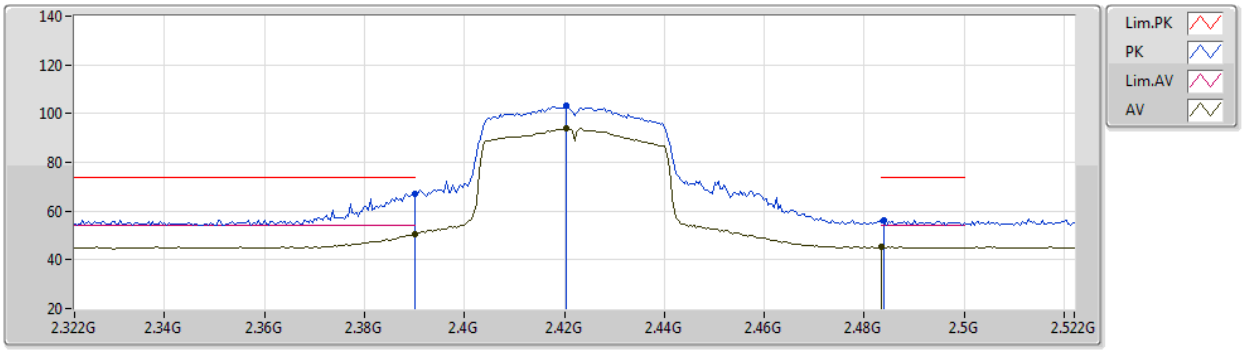
EUT X_1TX
Setting 15
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.39G	68.67	74.00	-5.33	36.72	3	Vertical	294	3.00	-	28.45	3.50	-
AV	2.3896G	51.40	54.00	-2.60	19.45	3	Vertical	294	3.00	-	28.45	3.50	-
PK	2.4184G	102.11	Inf	-Inf	70.09	3	Vertical	294	3.00	-	28.50	3.52	-
AV	2.4208G	93.03	Inf	-Inf	61.01	3	Vertical	294	3.00	-	28.50	3.52	-
PK	2.4992G	56.71	74.00	-17.29	24.61	3	Vertical	294	3.00	-	28.50	3.60	-
AV	2.4912G	45.29	54.00	-8.71	13.20	3	Vertical	294	3.00	-	28.50	3.59	-

802.11n HT40_Nss1,(MCS0)_1TX

2422MHz_TX

19/03/2020



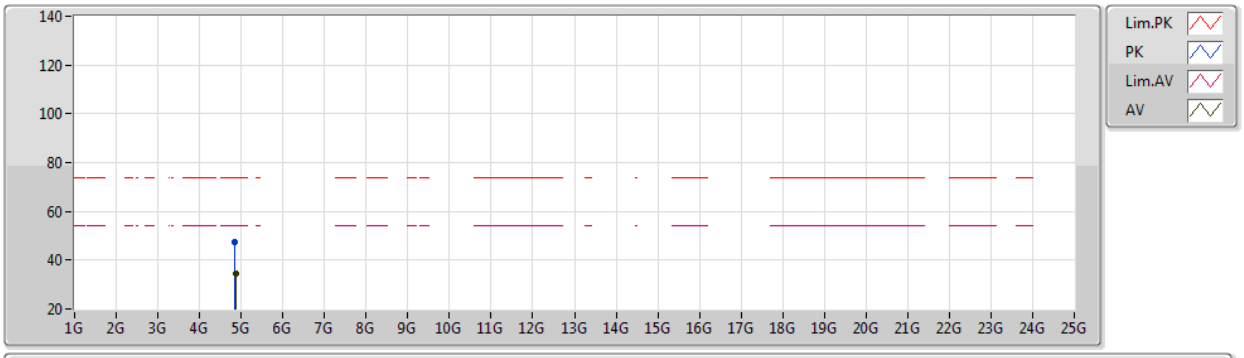
EUT X_1TX
Setting 15
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.39G	67.29	74.00	-6.71	35.34	3	Horizontal	28	2.88	-	28.45	3.50	-
AV	2.39G	50.38	54.00	-3.62	18.43	3	Horizontal	28	2.88	-	28.45	3.50	-
PK	2.4204G	103.03	Inf	-Inf	71.01	3	Horizontal	28	2.88	-	28.50	3.52	-
AV	2.4204G	93.78	Inf	-Inf	61.76	3	Horizontal	28	2.88	-	28.50	3.52	-
PK	2.484G	56.16	74.00	-17.84	24.08	3	Horizontal	28	2.88	-	28.50	3.58	-
AV	2.4835G	45.30	54.00	-8.70	13.22	3	Horizontal	28	2.88	-	28.50	3.58	-

802.11n HT40_Nss1,(MCS0)_1TX

2422MHz_TX

19/03/2020



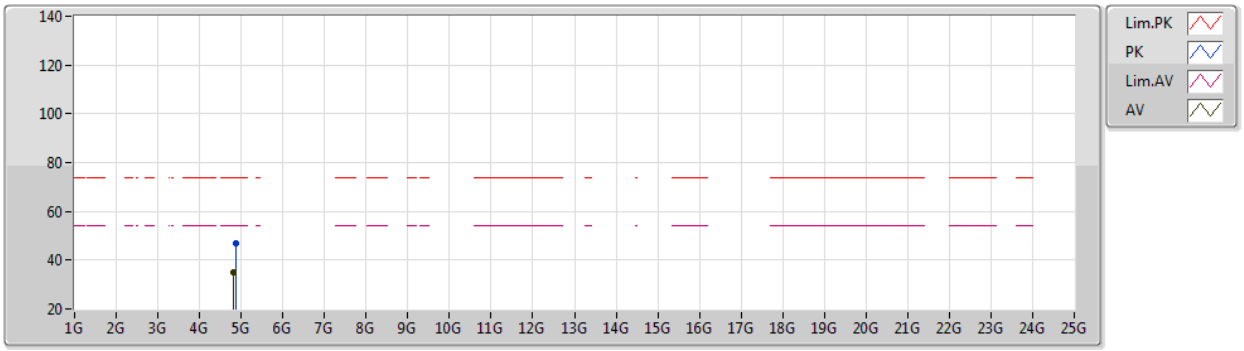
EUT X_1TX
Setting 15
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.8574G	47.50	74.00	-26.50	39.10	3	Vertical	192	1.79	-	32.93	5.83	30.36
AV	4.8659G	34.72	54.00	-19.28	26.29	3	Vertical	192	1.79	-	32.96	5.83	30.36

802.11n HT40_Nss1,(MCS0)_1TX

2422MHz_TX

19/03/2020



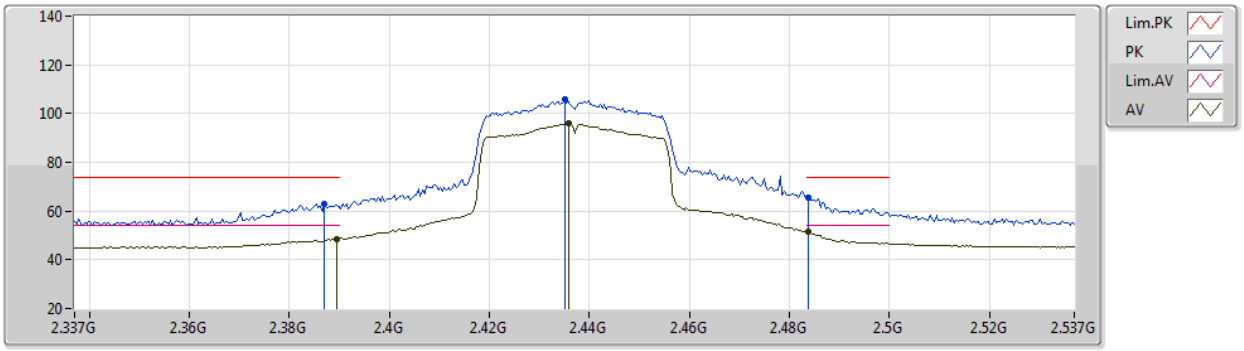
EUT X_1TX
Setting 15
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.8643G	46.83	74.00	-27.17	38.40	3	Horizontal	39	1.80	-	32.96	5.83	30.36
AV	4.8214G	34.79	54.00	-19.21	26.56	3	Horizontal	39	1.80	-	32.79	5.81	30.37

802.11n HT40_Nss1,(MCS0)_1TX

2437MHz_TX

19/03/2020



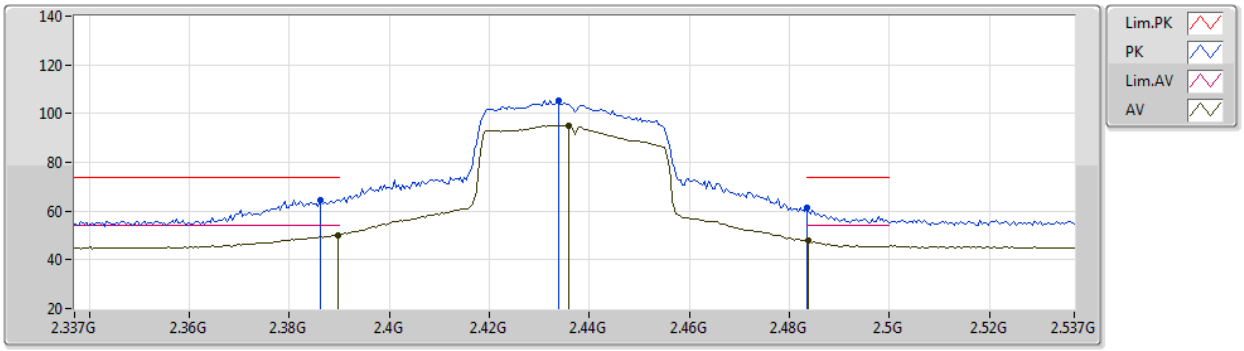
EUT X_1TX
Setting 17
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.387G	63.05	74.00	-10.95	31.11	3	Vertical	287	1.53	-	28.44	3.50	-
AV	2.3894G	48.59	54.00	-5.41	16.64	3	Vertical	287	1.53	-	28.45	3.50	-
PK	2.435G	105.63	Inf	-Inf	73.59	3	Vertical	287	1.53	-	28.50	3.54	-
AV	2.4358G	95.93	Inf	-Inf	63.89	3	Vertical	287	1.53	-	28.50	3.54	-
PK	2.4838G	65.50	74.00	-8.50	33.42	3	Vertical	287	1.53	-	28.50	3.58	-
AV	2.4838G	51.33	54.00	-2.67	19.25	3	Vertical	287	1.53	-	28.50	3.58	-

802.11n HT40_Nss1,(MCS0)_1TX

2437MHz_TX

19/03/2020



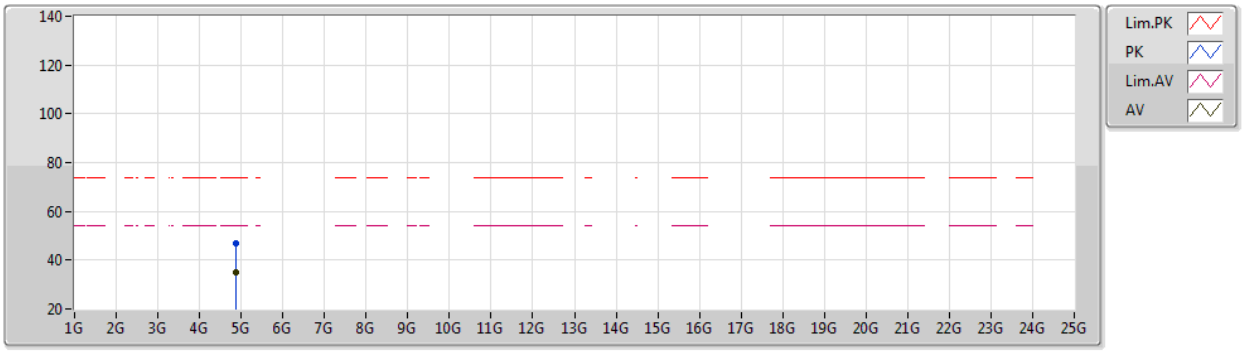
EUT X_1TX
Setting 17
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3862G	64.69	74.00	-9.31	32.76	3	Horizontal	26	2.91	-	28.43	3.50	-
AV	2.3898G	50.12	54.00	-3.88	18.17	3	Horizontal	26	2.91	-	28.45	3.50	-
PK	2.4338G	105.60	Inf	-Inf	73.57	3	Horizontal	26	2.91	-	28.50	3.53	-
AV	2.4358G	95.22	Inf	-Inf	63.18	3	Horizontal	26	2.91	-	28.50	3.54	-
PK	2.4835G	61.13	74.00	-12.87	29.05	3	Horizontal	26	2.91	-	28.50	3.58	-
AV	2.4838G	47.74	54.00	-6.26	15.66	3	Horizontal	26	2.91	-	28.50	3.58	-

802.11n HT40_Nss1,(MCS0)_1TX

2437MHz_TX

19/03/2020



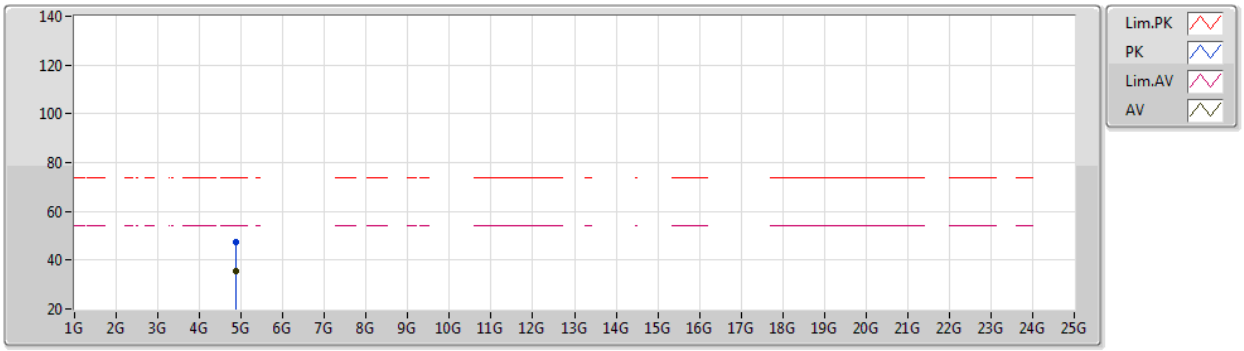
EUT X_1TX
Setting 17
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.86484G	46.93	74.00	-27.07	38.50	3	Vertical	135	2.90	-	32.96	5.83	30.36
AV	4.88364G	35.15	54.00	-18.85	26.63	3	Vertical	135	2.90	-	33.03	5.84	30.35

802.11n HT40_Nss1,(MCS0)_1TX

2437MHz_TX

19/03/2020



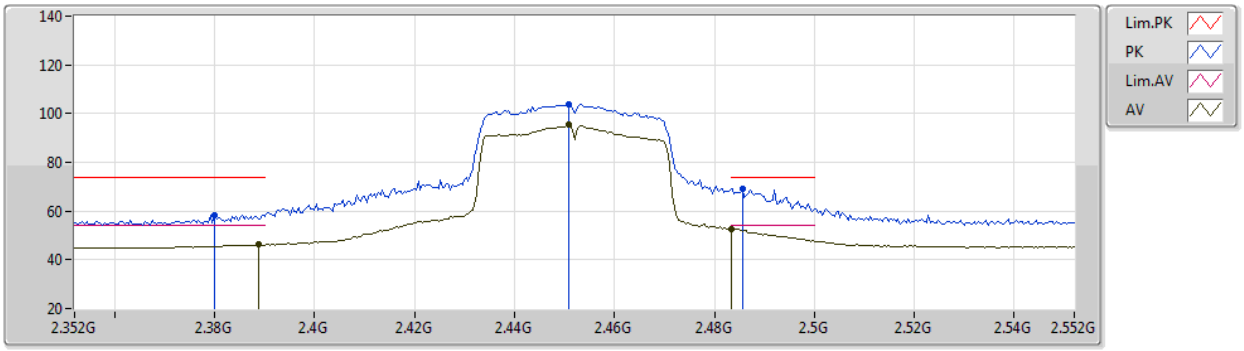
EUT X_1TX
Setting 17
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.88372G	47.34	74.00	-26.66	38.82	3	Horizontal	0	1.80	-	33.03	5.84	30.35
AV	4.88348G	35.44	54.00	-18.56	26.92	3	Horizontal	0	1.80	-	33.03	5.84	30.35

802.11n HT40_Nss1,(MCS0)_1TX

2452MHz_TX

19/03/2020



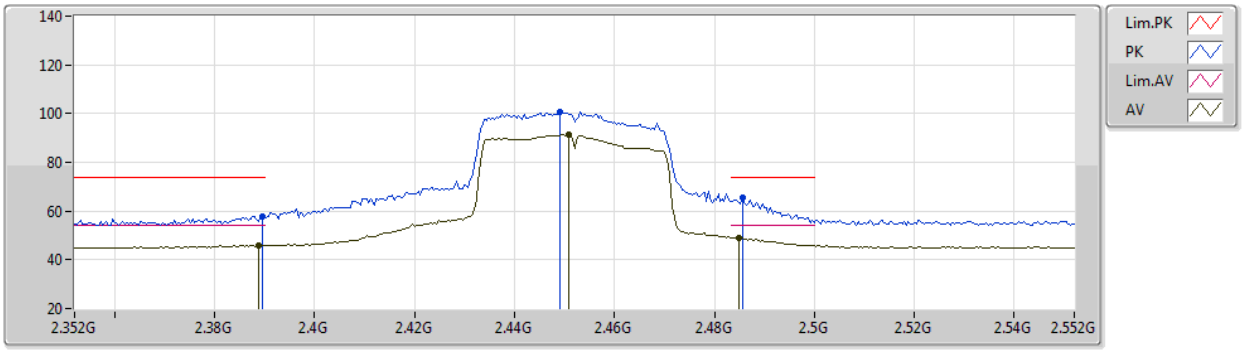
EUT X_1TX
Setting 16
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.38G	58.45	74.00	-15.55	26.55	3	Vertical	289	1.74	-	28.40	3.50	-
AV	2.3888G	46.29	54.00	-7.71	14.35	3	Vertical	289	1.74	-	28.44	3.50	-
PK	2.4508G	103.67	Inf	-Inf	71.62	3	Vertical	289	1.74	-	28.50	3.55	-
AV	2.4508G	95.30	Inf	-Inf	63.25	3	Vertical	289	1.74	-	28.50	3.55	-
PK	2.4856G	69.11	74.00	-4.89	37.02	3	Vertical	289	1.74	-	28.50	3.59	-
AV	2.4835G	52.47	54.00	-1.53	20.39	3	Vertical	289	1.74	-	28.50	3.58	-

802.11n HT40_Nss1,(MCS0)_1TX

2452MHz_TX

19/03/2020



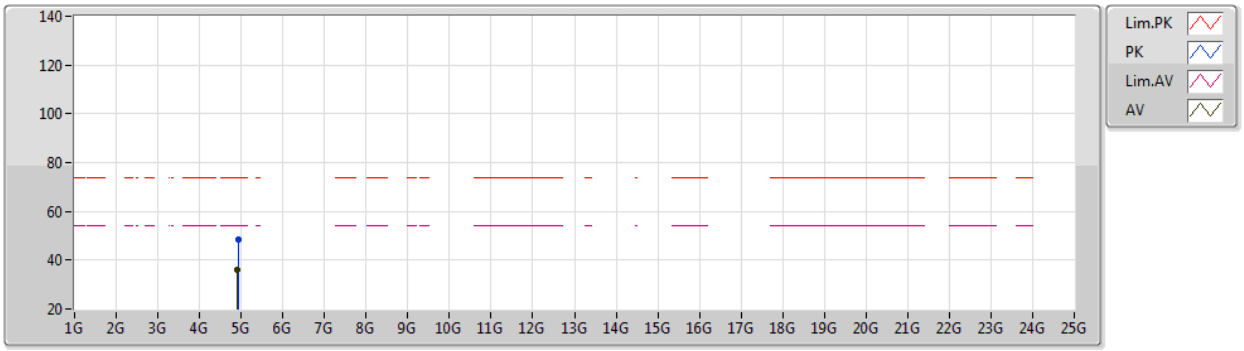
EUT X_1TX
Setting 16
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3896G	57.90	74.00	-16.10	25.95	3	Horizontal	100	2.61	-	28.45	3.50	-
AV	2.3888G	45.82	54.00	-8.18	13.88	3	Horizontal	100	2.61	-	28.44	3.50	-
PK	2.4492G	100.82	Inf	-Inf	68.77	3	Horizontal	100	2.61	-	28.50	3.55	-
AV	2.4508G	91.46	Inf	-Inf	59.41	3	Horizontal	100	2.61	-	28.50	3.55	-
PK	2.4856G	65.54	74.00	-8.46	33.45	3	Horizontal	100	2.61	-	28.50	3.59	-
AV	2.4848G	49.00	54.00	-5.00	16.92	3	Horizontal	100	2.61	-	28.50	3.58	-

802.11n HT40_Nss1,(MCS0)_1TX

2452MHz_TX

19/03/2020



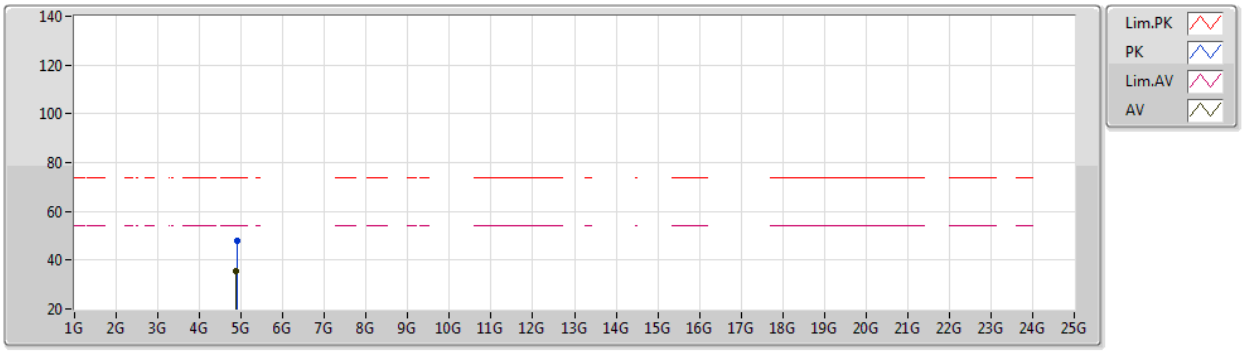
EUT X_1TX
Setting 16
02-D-E-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.9261G	48.70	74.00	-25.30	40.03	3	Vertical	97	1.80	-	33.15	5.86	30.34
AV	4.9147G	35.79	54.00	-18.21	27.15	3	Vertical	97	1.80	-	33.13	5.86	30.35

802.11n HT40_Nss1,(MCS0)_1TX

2452MHz_TX

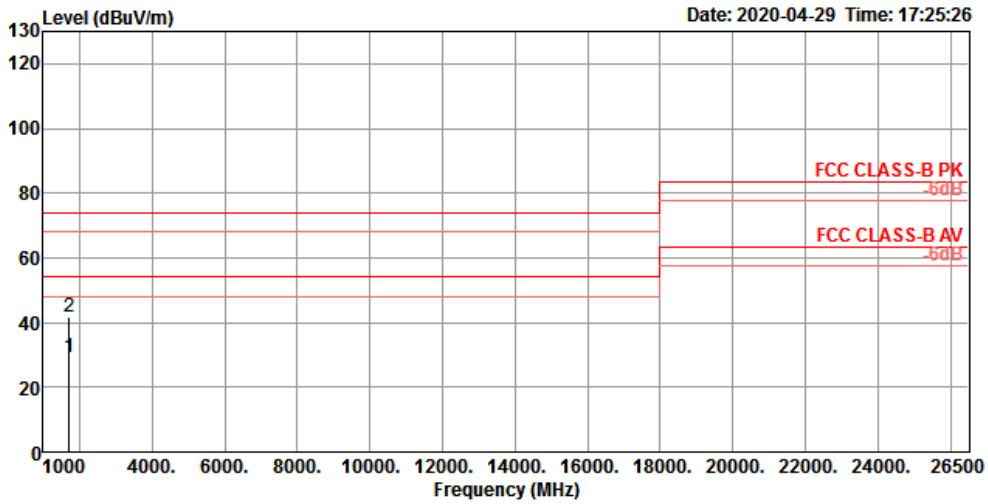
19/03/2020



EUT X_1TX
Setting 16
02-D-E-4

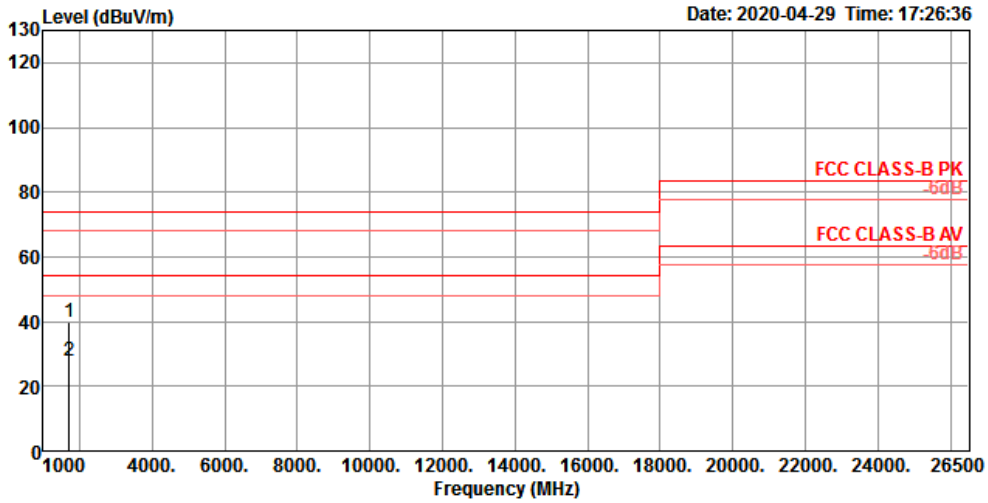
Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.9183G	47.96	74.00	-26.04	39.31	3	Horizontal	313	1.44	-	33.14	5.86	30.35
AV	4.886G	35.54	54.00	-18.46	27.01	3	Horizontal	313	1.44	-	33.04	5.84	30.35

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	1718.88	29.40	54.00	-24.60	33.56	3.94	26.46	34.56	104	122	Average	VERTICAL
2	1718.93	41.66	74.00	-32.34	45.82	3.94	26.46	34.56	104	122	Peak	VERTICAL

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	1718.73	39.87	74.00	-34.13	44.03	3.94	26.46	34.56	101	324	Peak	HORIZONTAL
2	1719.02	27.74	54.00	-26.26	31.90	3.94	26.46	34.56	101	324	Average	HORIZONTAL