

RADIO TEST REPORT

FCC ID : 2AEUPBHAFL021
Equipment : Floodlight Cam Wired Plus
Brand Name : Ring
Model Name : 5AT3T2
Applicant : Ring LLC
1523 26th St Santa Monica, CA 90404 USA
Manufacturer : Ring LLC
1523 26th St Santa Monica, CA 90404 USA
Standard : 47 CFR FCC Part 15.247

The product was received on Dec. 23, 2020, and testing was started from Dec. 23, 2020 and completed on Mar. 25, 2021. We, Sporton International Inc. Hsinchu 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 test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory

No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)



Table of Contents

History of this test report.....3

Summary of Test Result.....4

1 General Description5

1.1 Information.....5

1.2 Applicable Standards7

1.3 Testing Location Information.....7

1.4 Measurement Uncertainty7

2 Test Configuration of EUT8

2.1 Test Channel Mode8

2.2 The Worst Case Measurement Configuration.....9

2.3 EUT Operation during Test10

2.4 Accessories10

2.5 Support Equipment.....10

2.6 Test Setup Diagram11

3 Transmitter Test Result13

3.1 AC Power-line Conducted Emissions13

3.2 DTS Bandwidth15

3.3 Maximum Conducted Output Power16

3.4 Power Spectral Density19

3.5 Emissions in Non-restricted Frequency Bands21

3.6 Emissions in Restricted Frequency Bands.....22

4 Test Equipment and Calibration Data26

Appendix A. Test Results of AC Power-line Conducted Emissions

Appendix B. Test Results of DTS Bandwidth

Appendix C. Test Results of Maximum Conducted Output Power

Appendix D. Test Results of Power Spectral Density

Appendix E. Test Results of Emissions in Non-restricted Frequency Bands

Appendix F. Test Results of Emissions in Restricted Frequency Bands

Appendix G. Test Photos

Photographs of EUT v01



Summary of Test Result

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

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Sam Chen

Report Producer: Viola Huang



1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
2400-2483.5	b, g, n (HT20)	2412-2462	1-11 [11]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	1
2.4-2.4835GHz	802.11g	20	1
2.4-2.4835GHz	802.11n HT20	20	1

Note:

- ♦ 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- ♦ 11g, HT20 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ BWch is the nominal channel bandwidth.



1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	INPAQ	WA-P-LALA-02-003	PCB Antenna	I-PEX	Note1
2	1	INPAQ	WA-P-LALA-02-003	PCB Antenna	I-PEX	
3	1	INPAQ	WA-P-LORA-03-001	PCB Antenna	I-PEX	

Note1:

Ant.	Gain (dBi)						
	WLAN 2.4GHz	Bluetooth	LoRa				
			863MHz	870MHz	902MHz	915MHz	928MHz
1	1.69	-	-	-	-	-	-
2	-	3.64	-	-	-	-	-
3	-	-	0.58	1.07	1.74	1.34	0.90

Note2: 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 Bluetooth function (1TX/1RX):

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

For LoRa function (1TX/1RX):

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

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	0.976	0.11	8.45m	300
802.11g	0.904	0.44	1.403m	1k
802.11n HT20	0.818	0.87	1.315m	1k

Note:

- ◆ DC is Duty Cycle.
- ◆ DCF is Duty Cycle Factor.

1.1.4 EUT Operational Condition

EUT Power Type	From host system			
Beamforming Function	<input type="checkbox"/> With beamforming	<input checked="" type="checkbox"/>	Without beamforming	
Function	<input checked="" type="checkbox"/> Point-to-multipoint	<input type="checkbox"/>	Point-to-point	
Test Software Version	QATool_Dbg V3.2.8			

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 Information	
Test Lab. : Sporton International Inc. Hsinchu Laboratory	
Hsinchu (TAF: 3787)	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.) TEL: 886-3-656-9065 FAX: 886-3-656-9085 Test site Designation No. TW0006 with FCC. Test site registered number IC 4086D with Industry Canada.

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted	TH02-CB	Benson Su	20.7~22.6 / 55~60	Jan. 21, 2021~Mar. 25, 2021
Radiated below 1GHz	03CH01-CB	Eason Chen	20.4~21.4 / 55~57	Dec. 23, 2020~Jan. 27, 2021
	03CH04-CB		22.6~23.6 / 55~57	
Radiated above 1GHz	03CH02-CB	Eason Chen	22.3~23.6 / 56~58	Dec. 23, 2020~Jan. 27, 2021
	03CH06-CB		22.6~23.6 / 54~57	
AC Conduction	CO02-CB	Peter Wu	20~21 / 59~63	Feb. 18, 2021

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 (9kHz ~ 30MHz)	3.8 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	5.0 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.9 dB	Confidence levels of 95%
Conducted Emission	2.8 dB	Confidence levels of 95%
Output Power Measurement	1.4 dB	Confidence levels of 95%
Power Density Measurement	2.8 dB	Confidence levels of 95%
Bandwidth Measurement	0.4%	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	19
2437MHz	19
2462MHz	19
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	17
2437MHz	18.5
2462MHz	18.5
802.11n HT20_Nss1,(MCS0)_1TX	-
2412MHz	17
2437MHz	17.5
2462MHz	17.5



2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	CTX
1	EUT_2.4GHz
2	EUT_Bluetooth
3	EUT_LoRa

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
Operating Mode	EUT

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	CTX
	For 2.4GHz The EUT was performed at X axis, Y axis and Z axis position for emissions in restricted frequency bands above 1GHz, and the worst case was found at Z axis.
	For Bluetooth The EUT was performed at X axis, Y axis and Z axis position for emissions in restricted frequency bands above 1GHz, and the worst case was found at Y axis.
	For LoRa The EUT was performed at X axis, Y axis and Z axis position for emissions in restricted frequency bands above 1GHz, and the worst case was found at X axis. So the measurement will follow this same test configuration.
1	EUT_2.4GHz in Z axis
2	EUT_Bluetooth in Y axis
3	EUT_LoRa in X axis

For operating mode 1 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 and the harmonic worst case was found at Z axis and the bandedge worst case was found at Y axis. So the measurement will follow this same test configuration.
1	EUT_2.4GHz in Z axis for harmonic and EUT in Y axis for bandedge

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz + Bluetooth + LoRa
Refer to Sporton Test Report No.: FA0D3022 for Co-location RF Exposure Evaluation.	

2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

2.4 Accessories

N/A

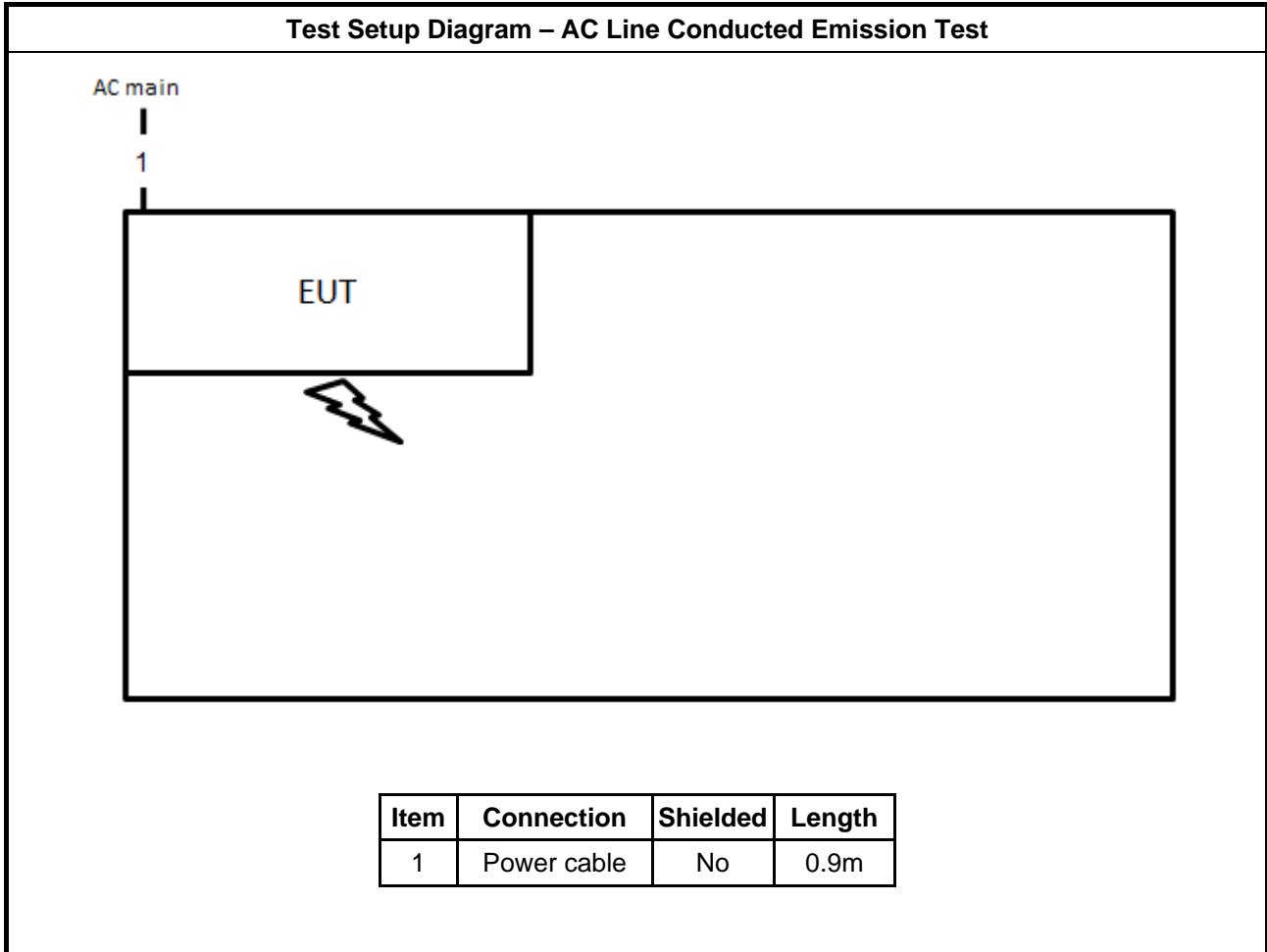
2.5 Support Equipment

For AC Conduction and Radiated: N/A

For RF Conducted:

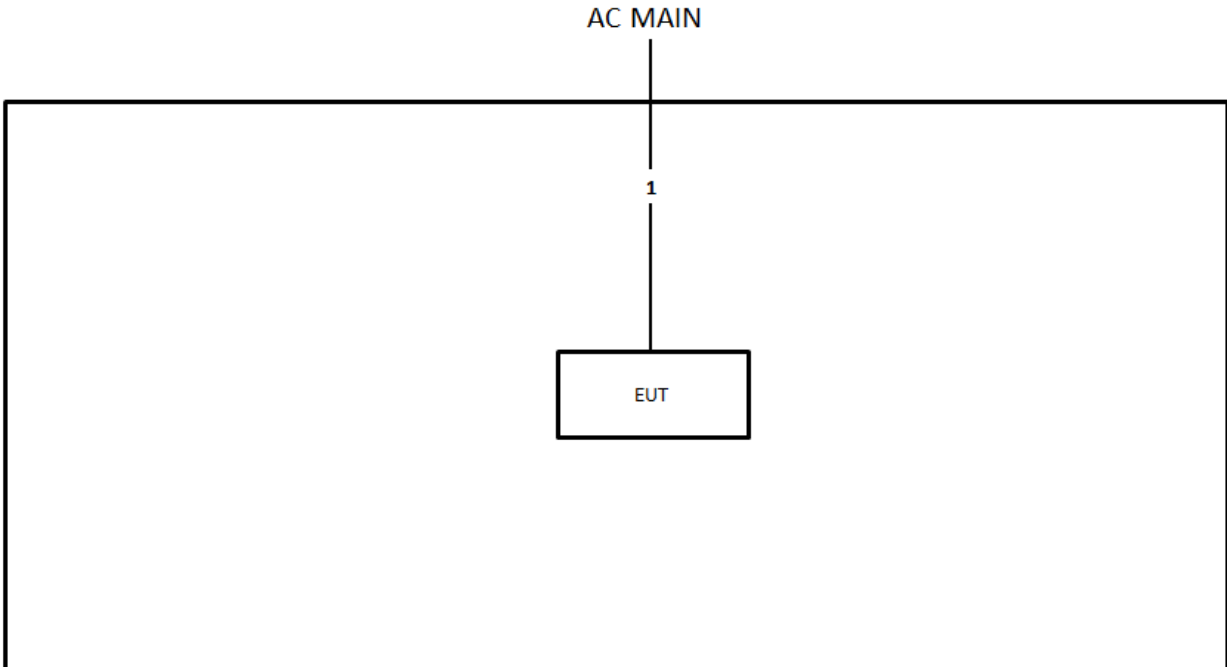
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A
B	Test Fixture	Foxconn	E221612	N/A
C	Test Fixture	Foxconn	E248779	N/A

2.6 Test Setup Diagram





Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length
1	Power cable	No	0.9m



3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

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

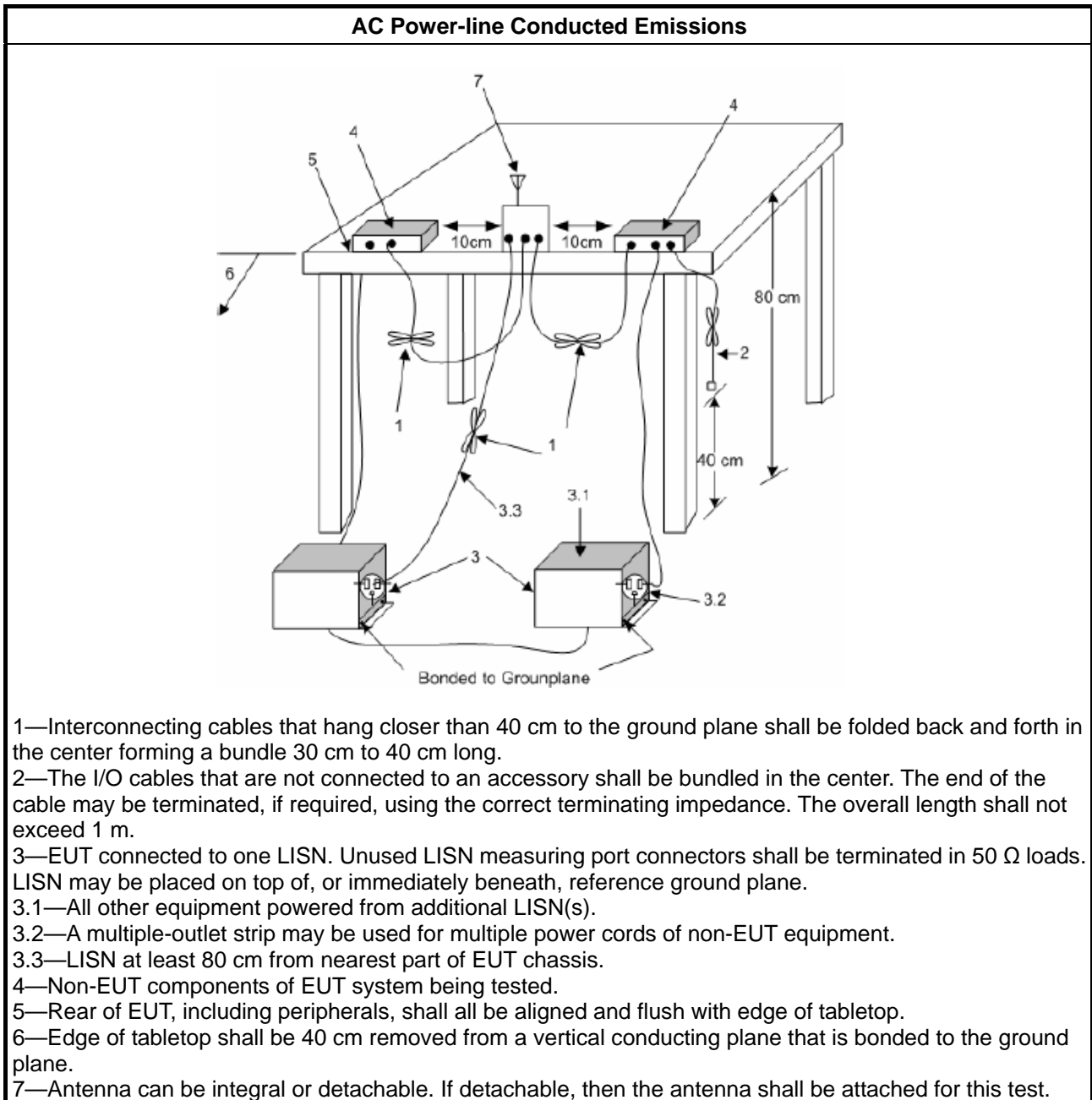
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

3.1.4 Test Setup



3.1.5 Measurement Results Calculation

The measured Level is calculated using:

- a. Corrected Reading: LISN Factor (LISN) + Attenuator (AT/AUX) + Cable Loss (CL) + Read Level (Raw) = Level
- b. Margin = -Limit + Level

3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

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

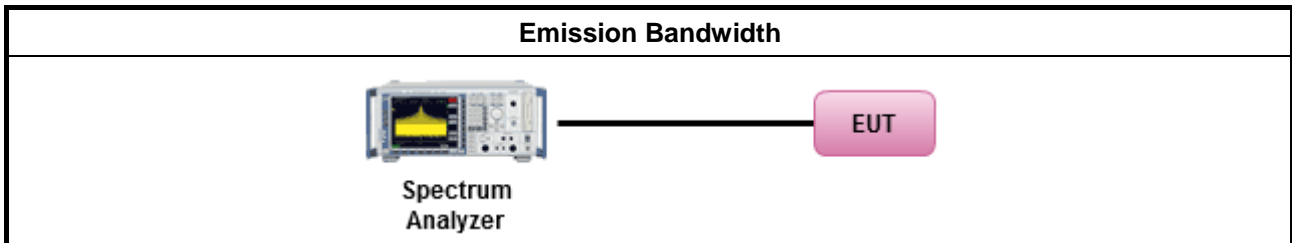
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method
<ul style="list-style-type: none"> ▪ For the emission bandwidth shall be measured using one of the options below:
<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.1 Option 1 for 6 dB bandwidth measurement.
<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.2 Option 2 for 6 dB bandwidth measurement.
<input type="checkbox"/> Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B



3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
	<ul style="list-style-type: none"> ▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)
	<ul style="list-style-type: none"> ▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm
	<ul style="list-style-type: none"> ▪ Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> ▪ Smart antenna system (SAS):
	<ul style="list-style-type: none"> - Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> - Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> - Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$ dB dBm
<p>P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.</p>	

3.3.2 Measuring Instruments

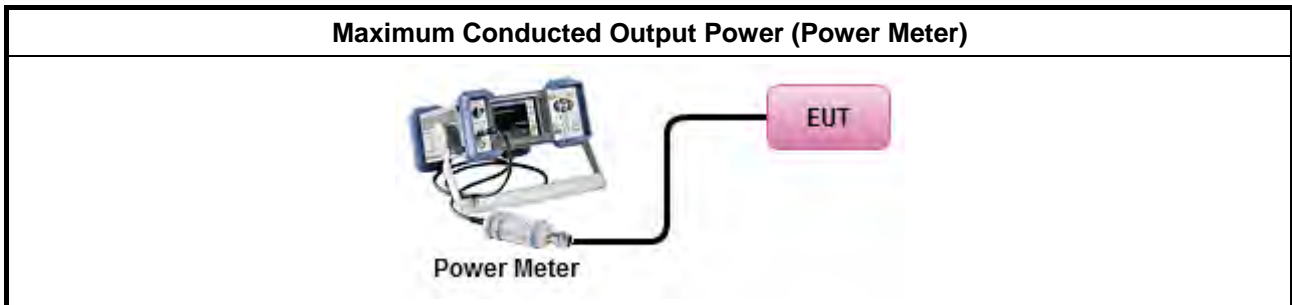
Refer a test equipment and calibration data table in this test report.



3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ Maximum Peak Conducted Output Power 	
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 8.3.1.1 & C63.10 clause 11.9.1.1 (RBW ≥ EBW method).
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 8.3.1.3 & C63.10 clause 11.9.1.3 (peak power meter).
<ul style="list-style-type: none"> ▪ Maximum Conducted Output Power 	
[duty cycle ≥ 98% or external video / power trigger]	
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.2 Method AVGSA-1.
<input type="checkbox"/>	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	
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.4 Method AVGSA-2.
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.5 Method AVGSA-2A (alternative)
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.6 Method AVGSA-3
<input type="checkbox"/>	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)	
<input type="checkbox"/>	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).
<input checked="" type="checkbox"/>	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).
<ul style="list-style-type: none"> ▪ For conducted measurement. 	
<ul style="list-style-type: none"> ▪ If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them. 	
<ul style="list-style-type: none"> ▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$ 	

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C



3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

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

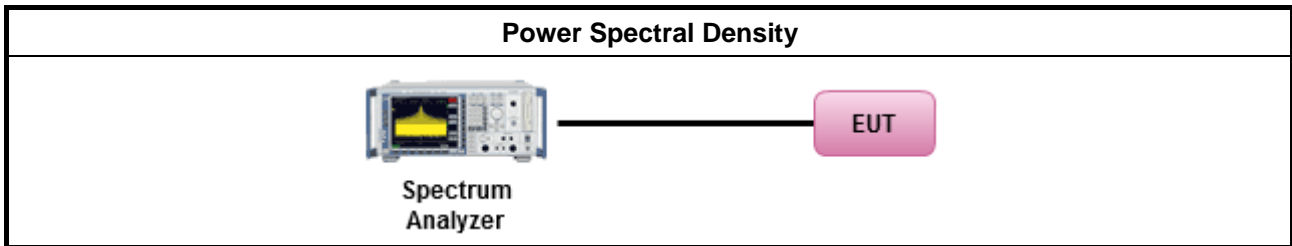
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method			
<ul style="list-style-type: none"> Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option). 			
<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10 Method Max. PSD.			
<ul style="list-style-type: none"> For conducted measurement. <ul style="list-style-type: none"> If The EUT supports multiple transmit chains using options given below: <table border="1"> <tbody> <tr> <td> <input type="checkbox"/> Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace. </td> </tr> <tr> <td> <input type="checkbox"/> Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits, </td> </tr> <tr> <td> <input type="checkbox"/> Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit. </td> </tr> </tbody> </table> 	<input type="checkbox"/> Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.	<input type="checkbox"/> Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,	<input type="checkbox"/> Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.
<input type="checkbox"/> Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.			
<input type="checkbox"/> Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,			
<input type="checkbox"/> Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.			

3.4.4 Test Setup



3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	Limit (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.

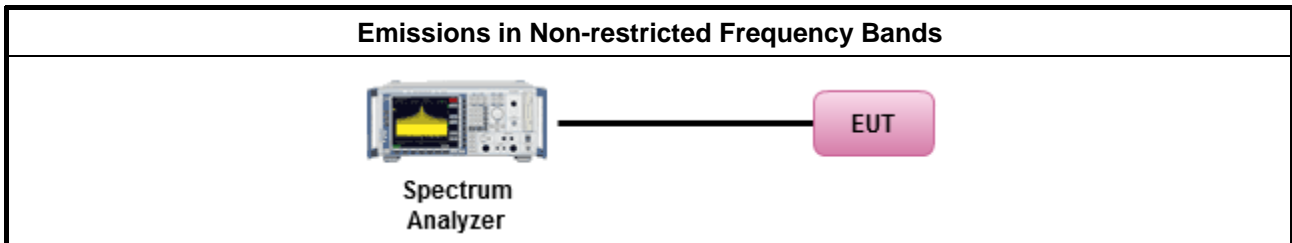
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method
<ul style="list-style-type: none"> Refer as FCC KDB 558074, clause 8.5 for unwanted emissions into non-restricted bands.

3.5.4 Test Setup



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E



3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

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

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

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

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

3.6.2 Measuring Instruments

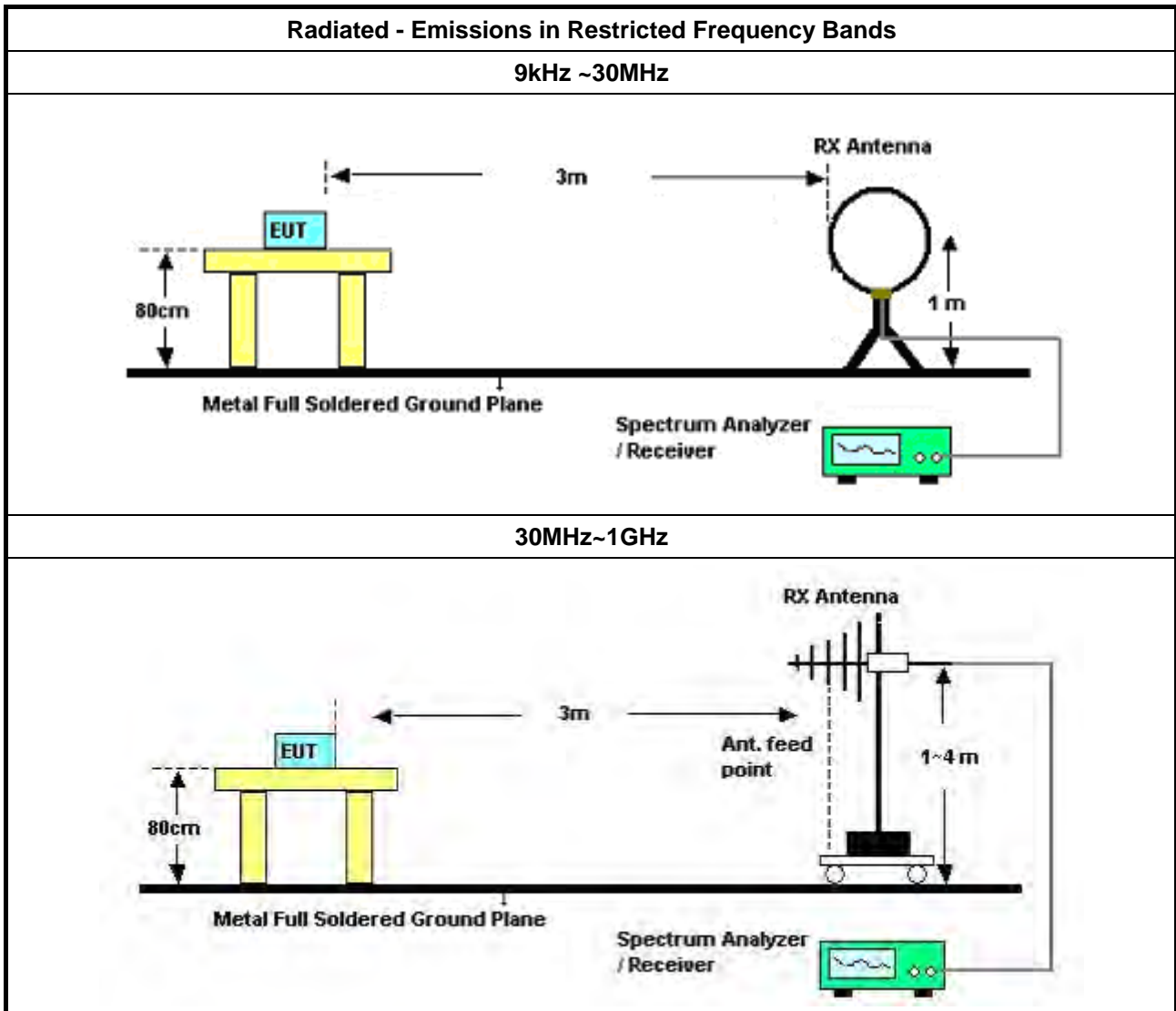
Refer a test equipment and calibration data table in this test report.

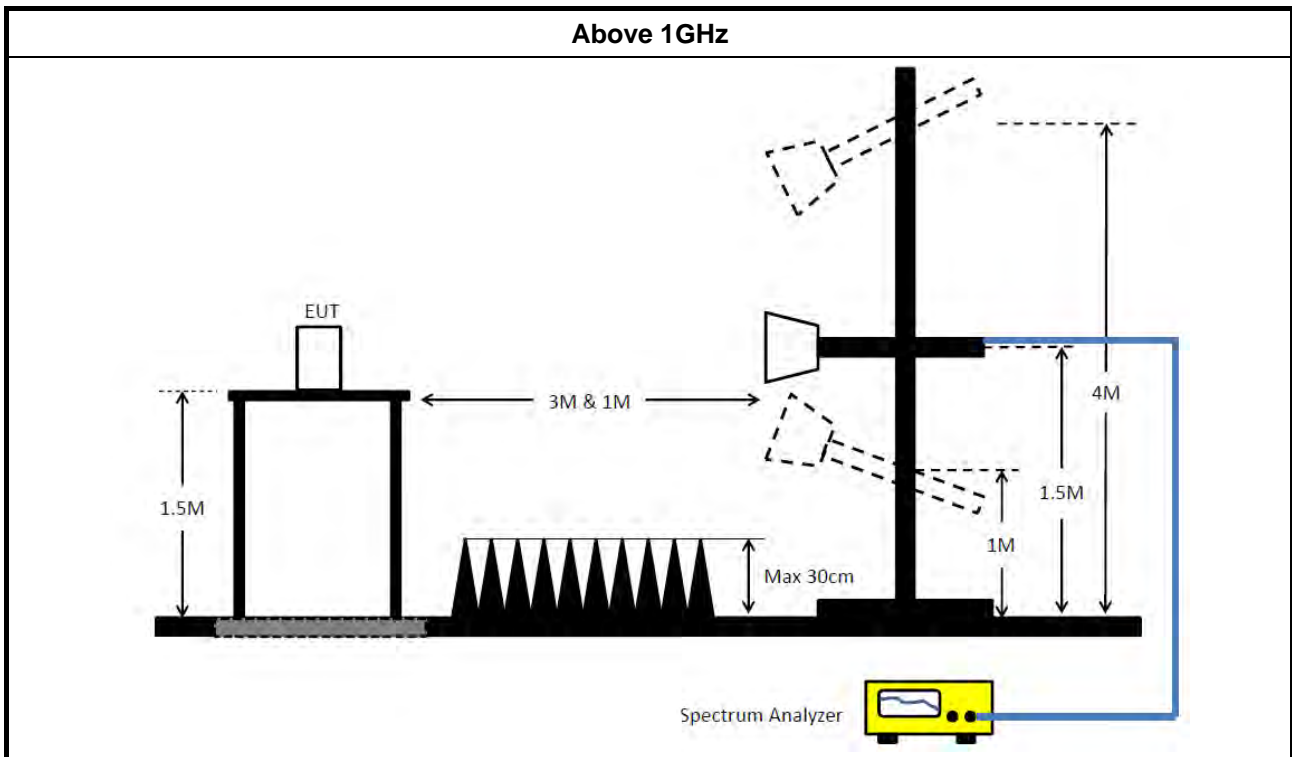


3.6.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ The average emission levels shall be measured in [duty cycle \geq 98 or duty factor]. 	
<ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band. 	
<ul style="list-style-type: none"> ▪ For the transmitter unwanted emissions shall be measured using following options below: 	
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 558074, clause 8.6 for unwanted emissions into restricted bands.
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.1(trace averaging for duty cycle \geq 98%).
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.2(trace averaging + duty factor).
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.3(Reduced VBW \geq 1/T).
	<input type="checkbox"/> Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW \geq 1/T, where T is pulse time.
	<input type="checkbox"/> Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.4 measurement procedure peak limit.
<ul style="list-style-type: none"> ▪ For the transmitter band-edge emissions shall be measured using following options below: 	
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 558074 clause 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.
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 558074, clause 8.7 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.
	<ul style="list-style-type: none"> ▪ 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).
	<ul style="list-style-type: none"> ▪ For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB
	<ul style="list-style-type: none"> ▪ For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.

3.6.4 Test Setup





3.6.5 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Antenna factor (AF) + Cable loss (CL) + Read level (Raw) - Preamp factor (PA)(if applicable) = 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 10th 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	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
LISN	Schwarzbeck	NSLK 8127	8127650	9kHz ~ 30MHz	Dec. 04, 2020	Dec. 03, 2021	Conduction (CO02-CB)
LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Nov. 20, 2020	Nov. 19, 2021	Conduction (CO02-CB)
EMI Receiver	Agilent	N9038A	MY52260140	9kHz ~ 8.4GHz	Mar. 10, 2020	Mar. 09, 2021	Conduction (CO02-CB)
COND Cable	Woken	Cable	2	0.15MHz ~ 30MHz	Oct. 20, 2020	Oct. 19, 2021	Conduction (CO02-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO02-CB)
Pulse Limiter	Schwarzbeck	VTSD 9561F-N	00378	9kHz ~ 30MHz	Mar. 19, 2020	Mar. 18, 2021	Conduction (CO02-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Apr. 13, 2020	Apr. 12, 2021	Radiation (03CH01-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH01-CB	30 MHz ~ 1 GHz	Jan. 28, 2020	Jan. 27, 2021	Radiation (03CH01-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH01-CB	30 MHz ~ 1 GHz	Jan. 26, 2021	Jan. 25, 2022	Radiation (03CH01-CB)
BILOG ANTENNA with 6dB Attenuator	TESEQ & EMCI	CBL6112D N-6-06	37880 & AT-N0609	20MHz ~ 2GHz	Feb. 28, 2020	Feb. 27, 2021	Radiation (03CH01-CB)
Preamplifier	EMCI	EMC330N	980332	20MHz ~ 3GHz	Jul. 03, 2020	Jun. 02, 2021	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Apr. 16, 2020	Apr. 15, 2021	Radiation (03CH01-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	May 13, 2020	May 12, 2021	Radiation (03CH01-CB)
RF Cable-low	Woken	RG402	Low Cable-16+17	30 MHz ~ 1 GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Apr. 13, 2020	Apr. 12, 2021	Radiation (03CH04-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH04-CB	30 MHz ~ 1 GHz	Aug. 09, 2020	Aug. 08, 2021	Radiation (03CH04-CB)
BILOG ANTENNA with 6 dB attenuator	Schaffner & EMCI	CBL6112B & N-6-06	22021&AT-N06 07	30MHz ~ 1GHz	Oct. 11, 2020	Oct. 10, 2021	Radiation (03CH04-CB)
Pre-Amplifier	Agilent	310N	187291	0.1MHz ~ 1GHz	Dec. 17, 2020	Dec. 16, 2021	Radiation (03CH04-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Signal Analyzer	R&S	FSV40	101904	9kHz ~ 40GHz	Mar 12, 2020	Mar 11, 2021	Radiation (03CH04-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	May 13, 2020	May 12, 2021	Radiation (03CH04-CB)
RF Cable-low	Woken	RG402	Low Cable-03+67	30MHz – 1GHz	Nov. 05, 2020	Nov. 04, 2021	Radiation (03CH04-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH04-CB)
3m Semi Anechoic Chamber VSWR	RIKEN	SAC-3M	03CH02-CB	1GHz ~18GHz 3m	Mar. 28, 2020	Mar. 27, 2021	Radiation (03CH02-CB)
Horn Antenna	EMCO	3115	9610-4976	1GHz ~ 18GHz	Apr. 21, 2020	Apr. 20, 2021	Radiation (03CH02-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 21, 2020	Jul. 20, 2021	Radiation (03CH02-CB)
Pre-Amplifier	Agilent	83017A	MY39501305	1GHz ~ 26.5GHz	Jul. 13, 2020	Jul. 12, 2021	Radiation (03CH02-CB)
Pre-Amplifier	MITEQ	TTA1840-35-H G	1864479	18GHz ~ 40GHz	Jul. 08, 2020	Jul. 07, 2021	Radiation (03CH02-CB)
Spectrum analyzer	R&S	FSU	100015	9kHz~26GHz	Oct. 15, 2020	Oct. 14, 2021	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18	1GHz ~ 18GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18+19	1GHz ~ 18GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH02-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH02-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH06-CB	1GHz ~18GHz 3m	Oct. 02, 2020	Oct. 01, 2021	Radiation (03CH06-CB)
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA 9120D-1292	1GHz~18GHz	Jul. 22, 2020	Jul. 21, 2021	Radiation (03CH06-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 21, 2020	Jul. 20, 2021	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	83017A	MY53270064	0.5GHz~26.5GHz	May 07, 2020	May 06, 2021	Radiation (03CH06-CB)
Pre-Amplifier	MITEQ	TTA1840-35-H G	1864479	18GHz ~ 40GHz	Jul. 08, 2020	Jul. 07, 2021	Radiation (03CH06-CB)
Spectrum analyzer	R&S	FSP40	100080	9kHz~40GHz	Dec. 15, 2020	Dec. 14, 2021	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-05	1GHz~18GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH06-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-05+24	1GHz~18GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH06-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH06-CB)
Spectrum analyzer	R&S	FSV40	101027	9kHz~40GHz	Jul. 27, 2020	Jul. 26, 2021	Conducted (TH02-CB)
Power Sensor	Anritsu	MA2411B	1126203	300MHz~40GHz	Sep. 17, 2020	Sep. 16, 2021	Conducted (TH02-CB)
Power Meter	Anritsu	ML2495A	1210004	300MHz~40GHz	Sep. 17, 2020	Sep. 16, 2021	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-01	1 GHz – 18 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-02	1 GHz – 18 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-03	1 GHz – 18 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-04	1 GHz – 18 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-05	1 GHz – 18 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH02-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH02-CB)

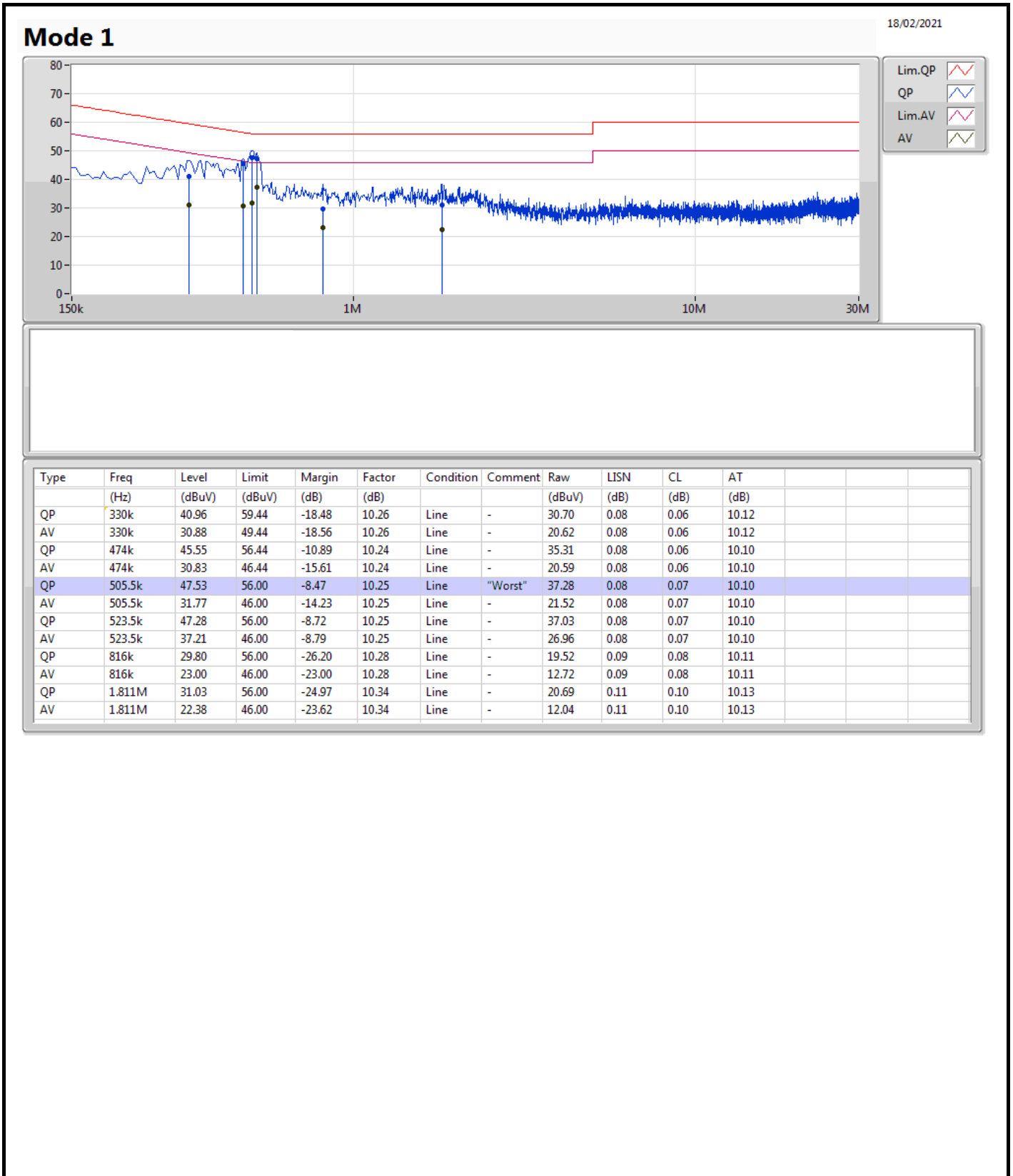
Note: Calibration Interval of instruments listed above is one year.

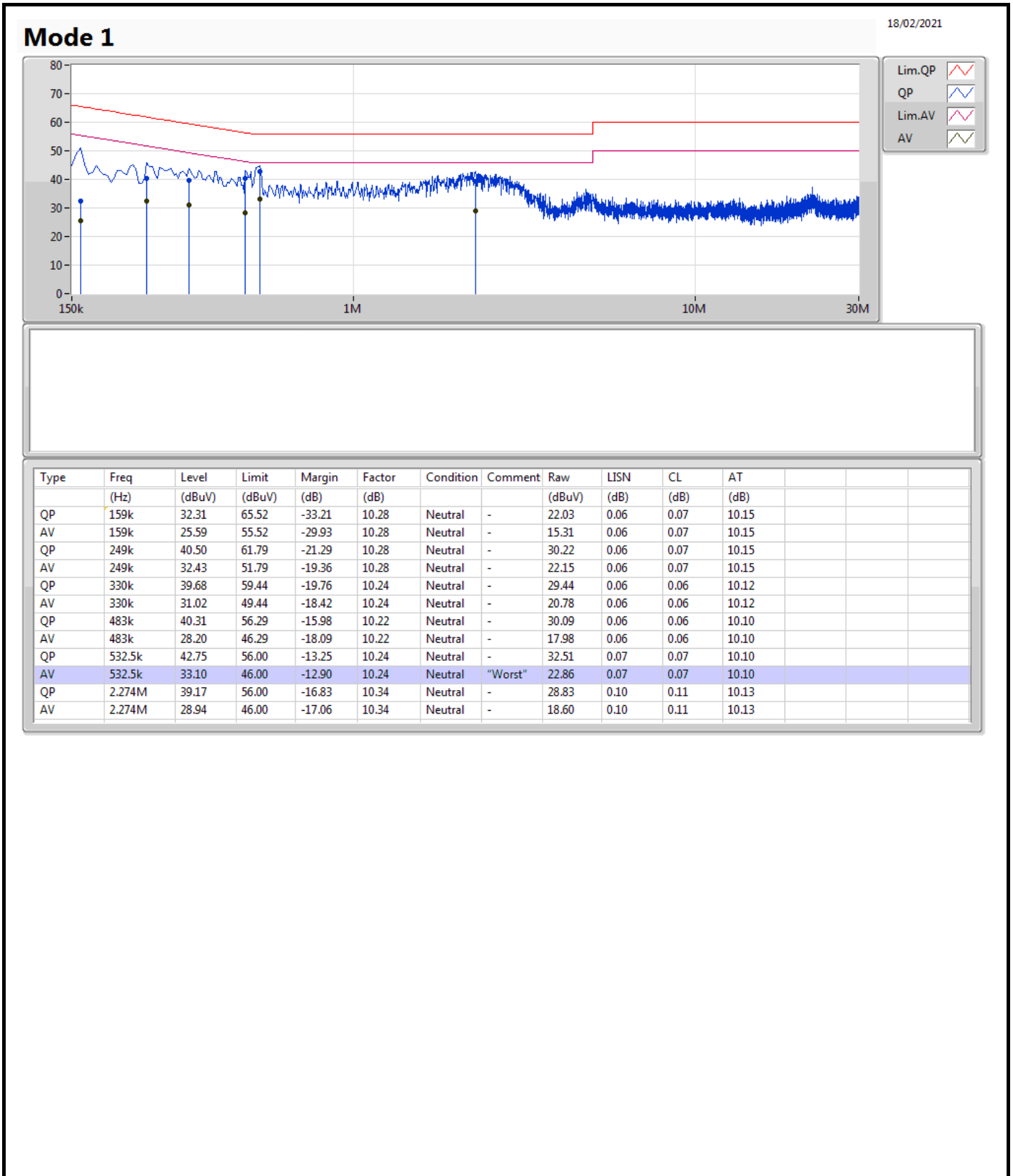
N.C.R. means Non-Calibration required.



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	505.5k	47.53	56.00	-8.47	Line





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	10.075M	15.242M	15M2G1D	10.05M	14.993M
802.11g_Nss1,(6Mbps)_1TX	15.05M	18.066M	18M1D1D	15.05M	16.917M
802.11n HT20_Nss1,(MCS0)_1TX	15.1M	17.766M	17M8D1D	15.025M	17.691M

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	10.05M	14.993M
2437MHz	Pass	500k	10.075M	15.117M
2462MHz	Pass	500k	10.05M	15.242M
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	15.05M	16.917M
2437MHz	Pass	500k	15.05M	18.066M
2462MHz	Pass	500k	15.05M	18.016M
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	15.025M	17.691M
2437MHz	Pass	500k	15.1M	17.766M
2462MHz	Pass	500k	15.025M	17.766M

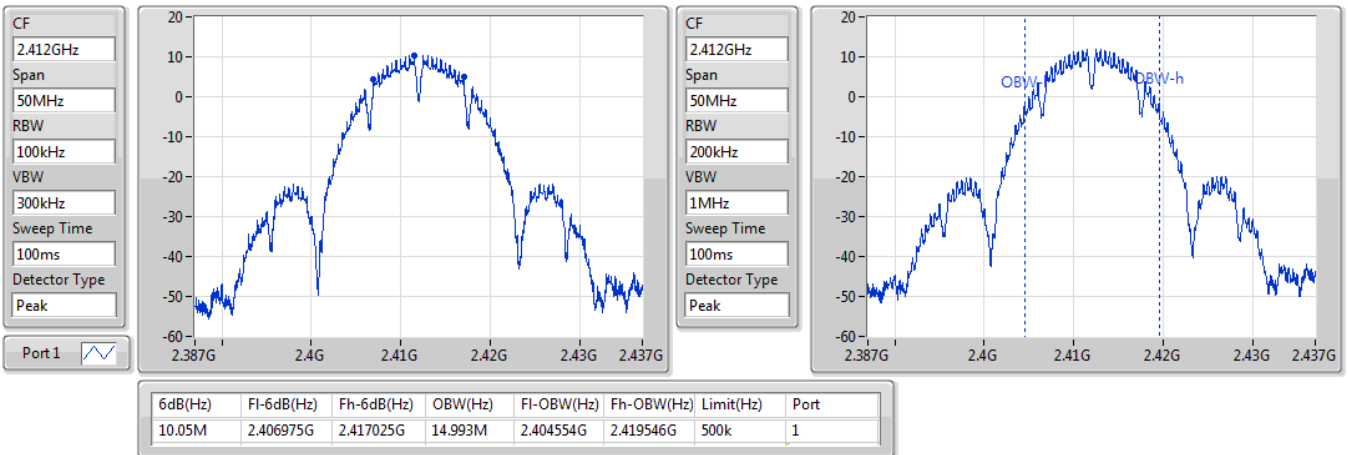
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

802.11b_Nss1,(1Mbps)_1TX

EBW

2412MHz

21/01/2021

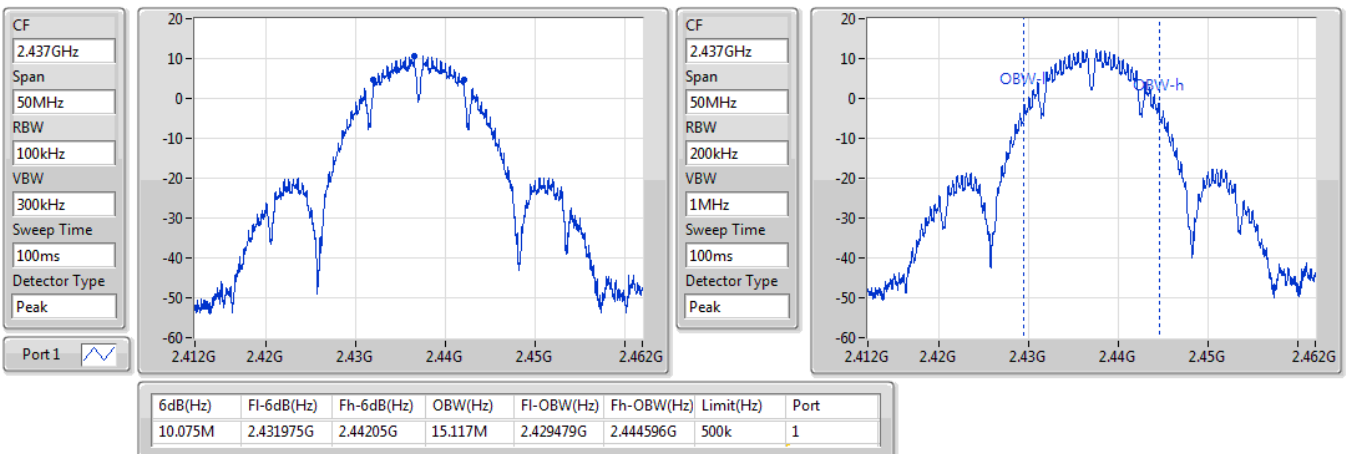


802.11b_Nss1,(1Mbps)_1TX

EBW

2437MHz

21/01/2021

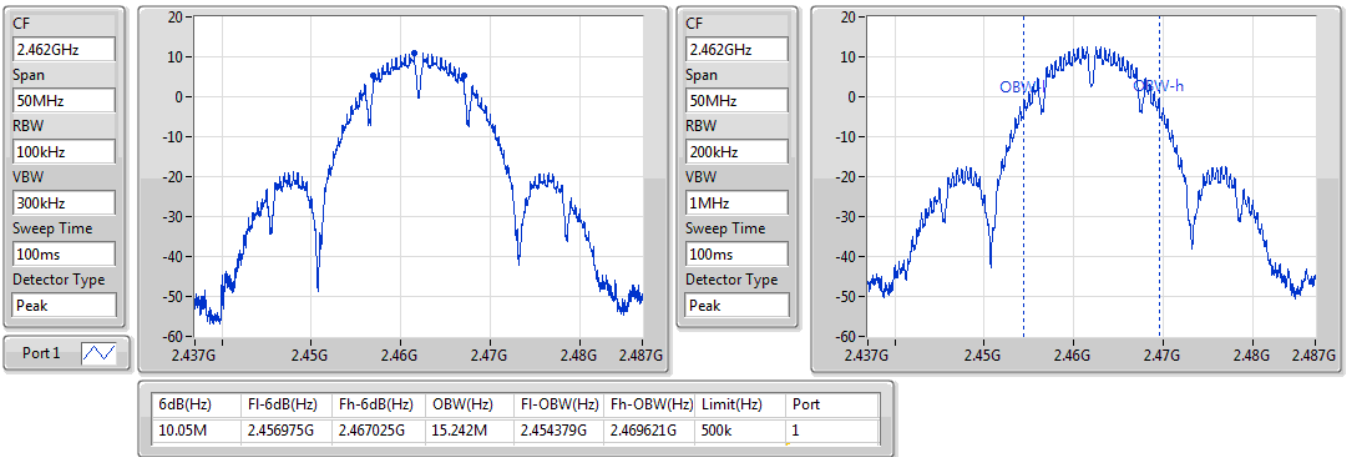


802.11b_Nss1,(1Mbps)_1TX

EBW

2462MHz

21/01/2021

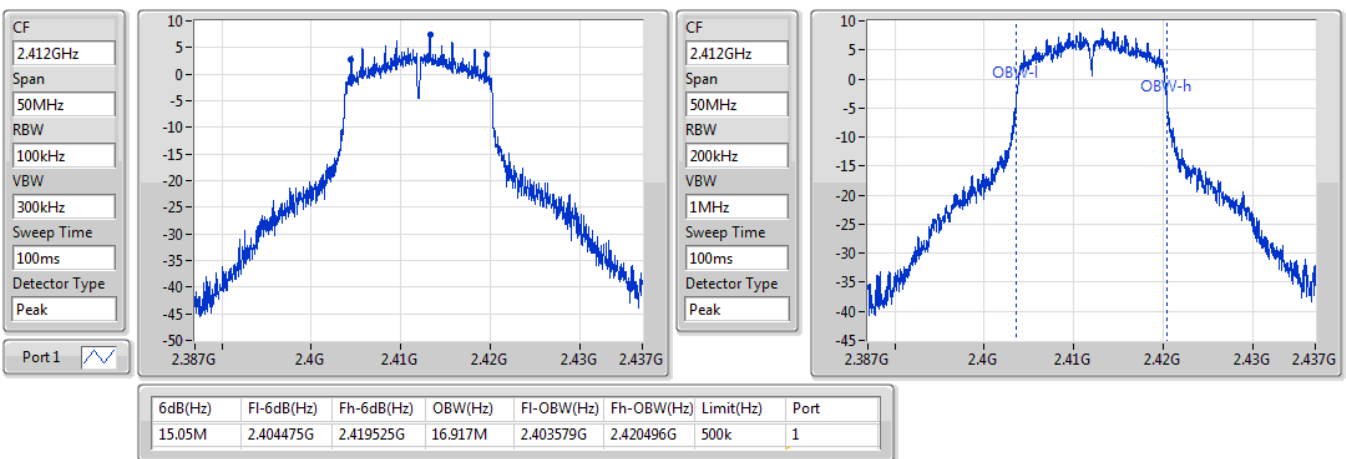


802.11g_Nss1,(6Mbps)_1TX

EBW

2412MHz

21/01/2021

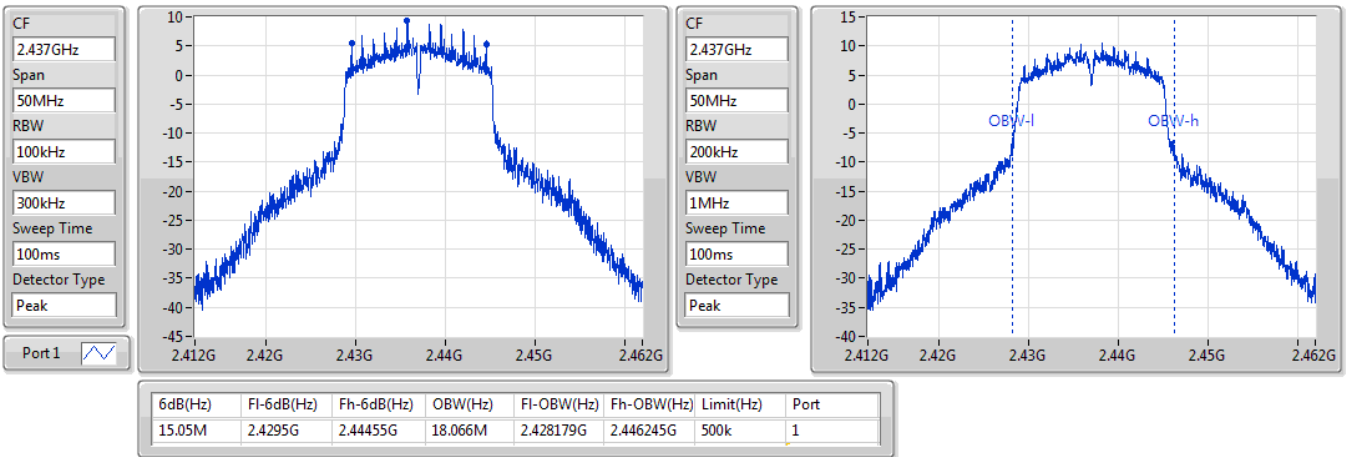


802.11g_Nss1,(6Mbps)_1TX

EBW

2437MHz

21/01/2021

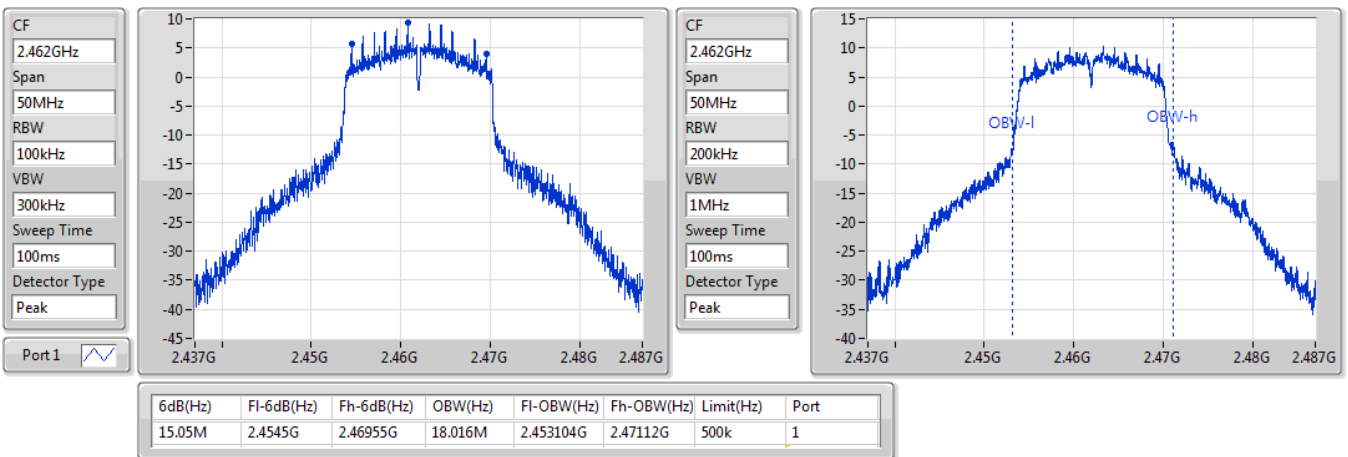


802.11g_Nss1,(6Mbps)_1TX

EBW

2462MHz

21/01/2021

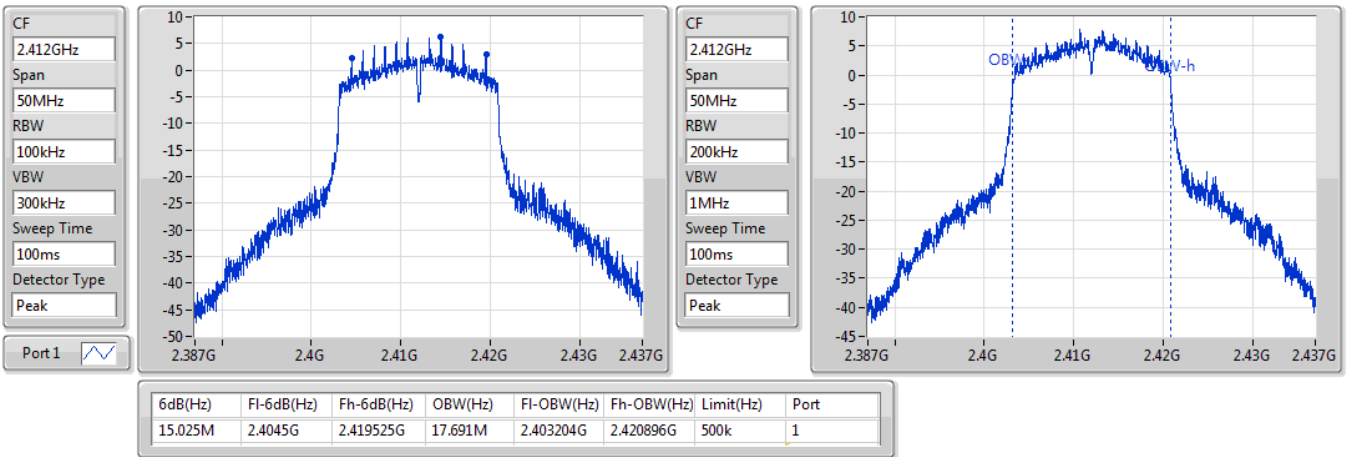


802.11n HT20_Nss1,(MCS0)_1TX

EBW

2412MHz

21/01/2021

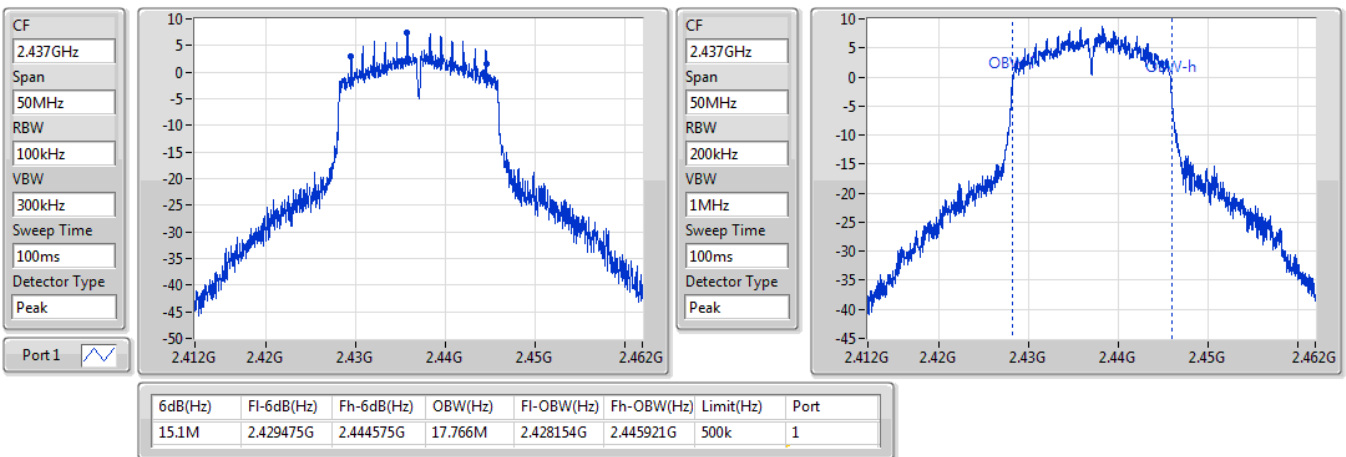


802.11n HT20_Nss1,(MCS0)_1TX

EBW

2437MHz

21/01/2021

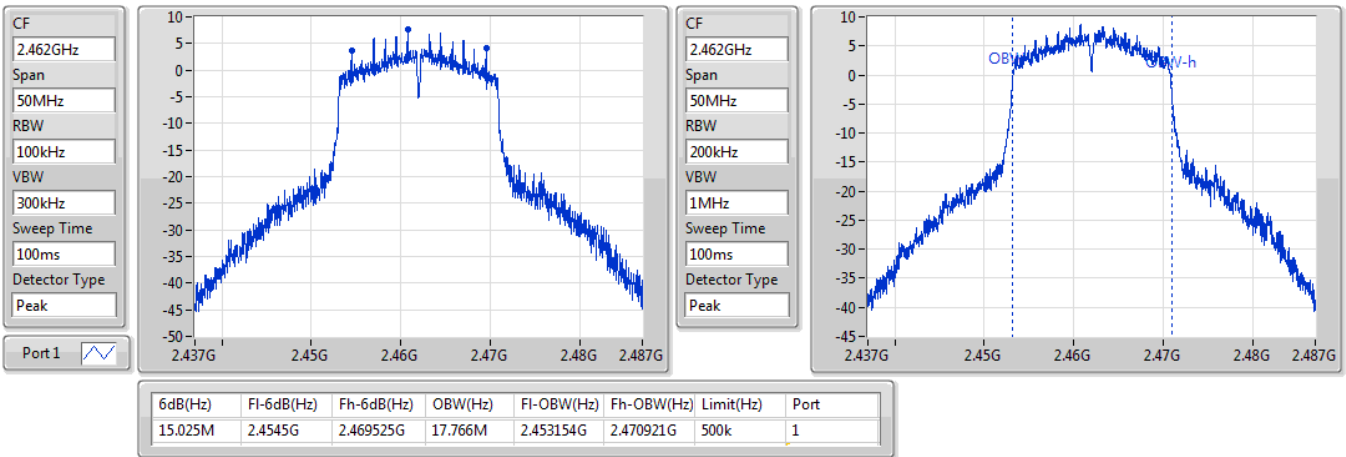


802.11n HT20_Nss1,(MCS0)_1TX

EBW

2462MHz

21/01/2021





Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX	21.76	0.14997
802.11g_Nss1,(6Mbps)_1TX	19.92	0.09817
802.11n HT20_Nss1,(MCS0)_1TX	18.06	0.06397



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	1.69	21.04	21.04	30.00
2437MHz	Pass	1.69	21.36	21.36	30.00
2462MHz	Pass	1.69	21.76	21.76	30.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	1.69	18.39	18.39	30.00
2437MHz	Pass	1.69	19.78	19.78	30.00
2462MHz	Pass	1.69	19.92	19.92	30.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	1.69	17.25	17.25	30.00
2437MHz	Pass	1.69	17.86	17.86	30.00
2462MHz	Pass	1.69	18.06	18.06	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	-8.35
802.11g_Nss1,(6Mbps)_1TX	-7.64
802.11n HT20_Nss1,(MCS0)_1TX	-8.62

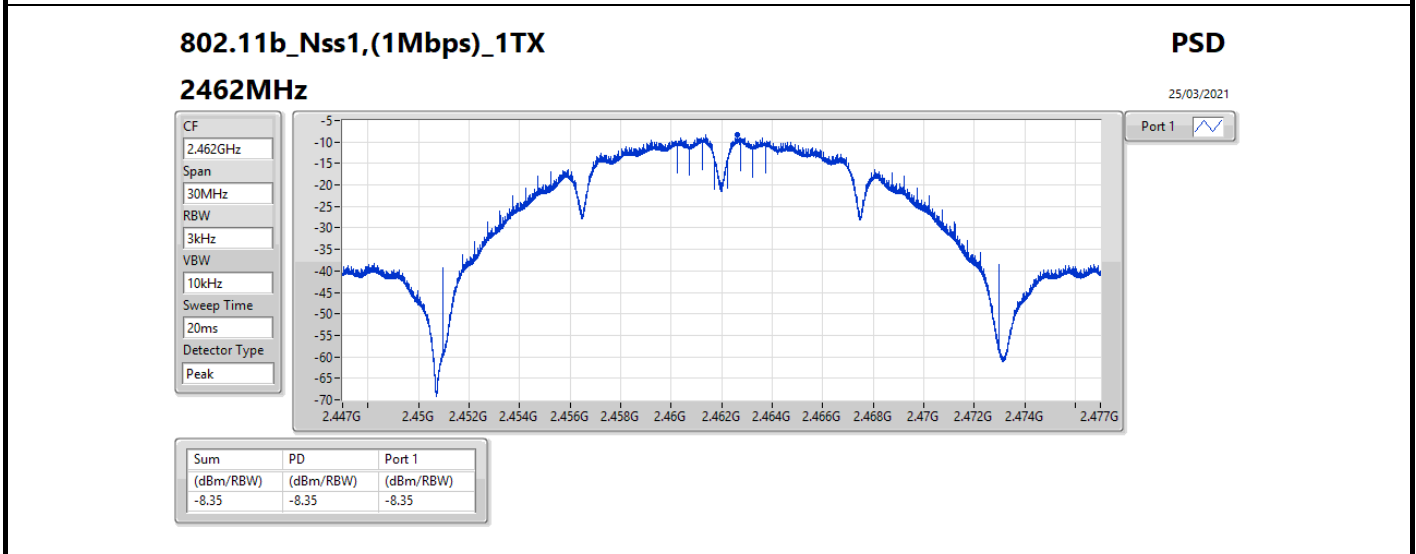
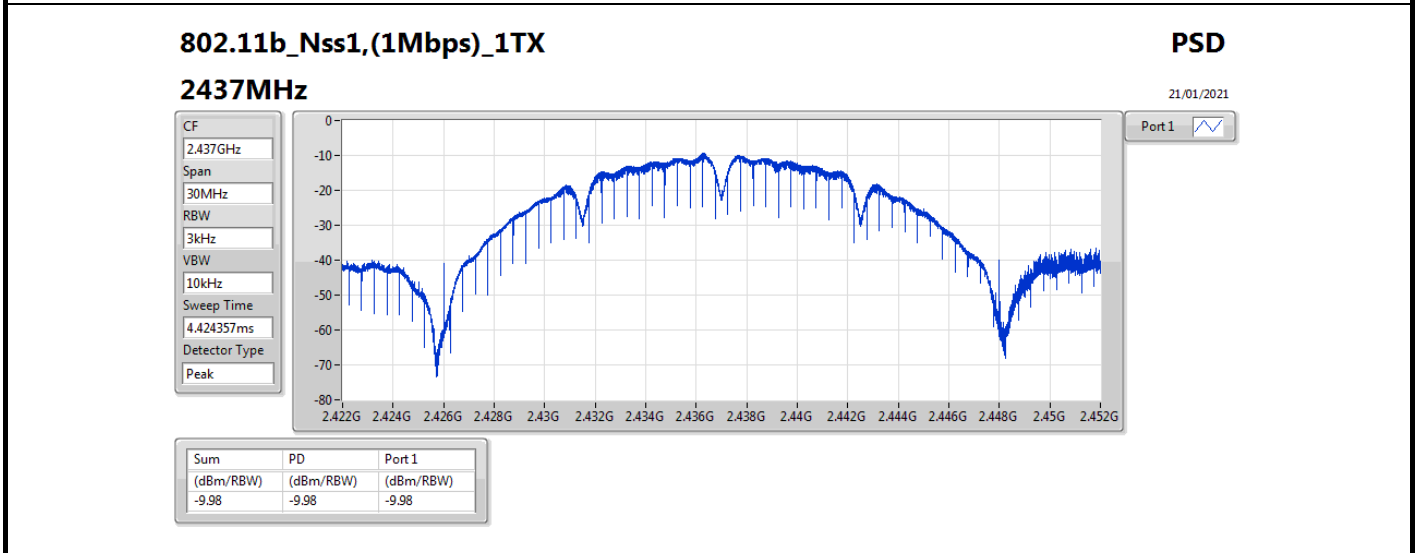
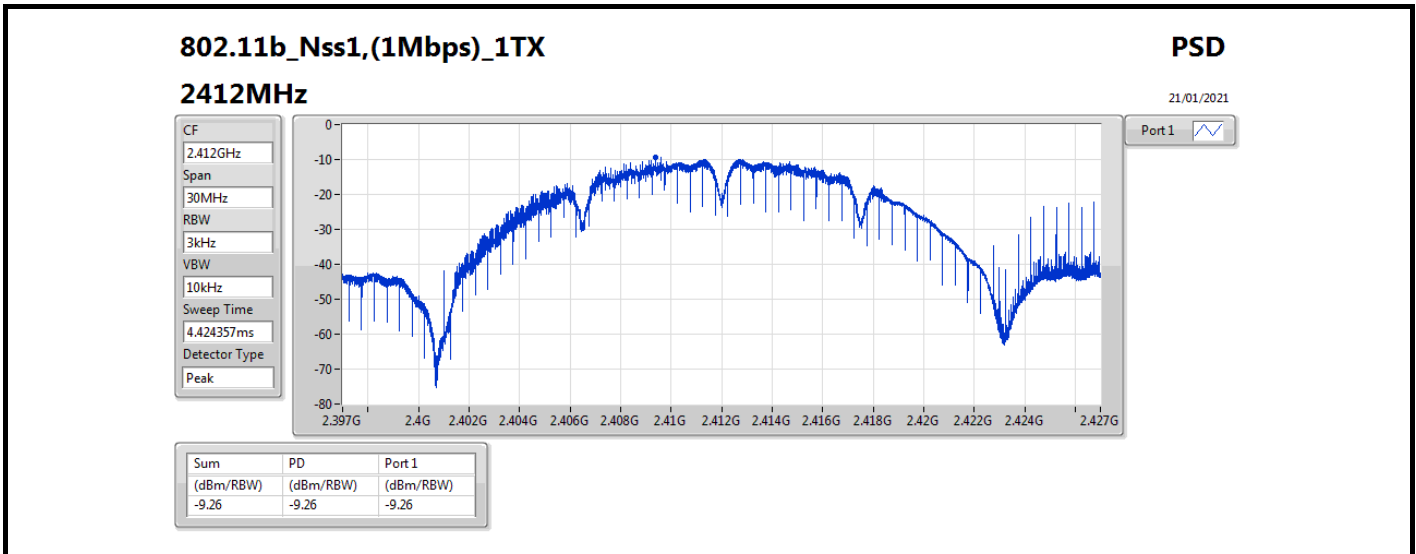
RBW = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;

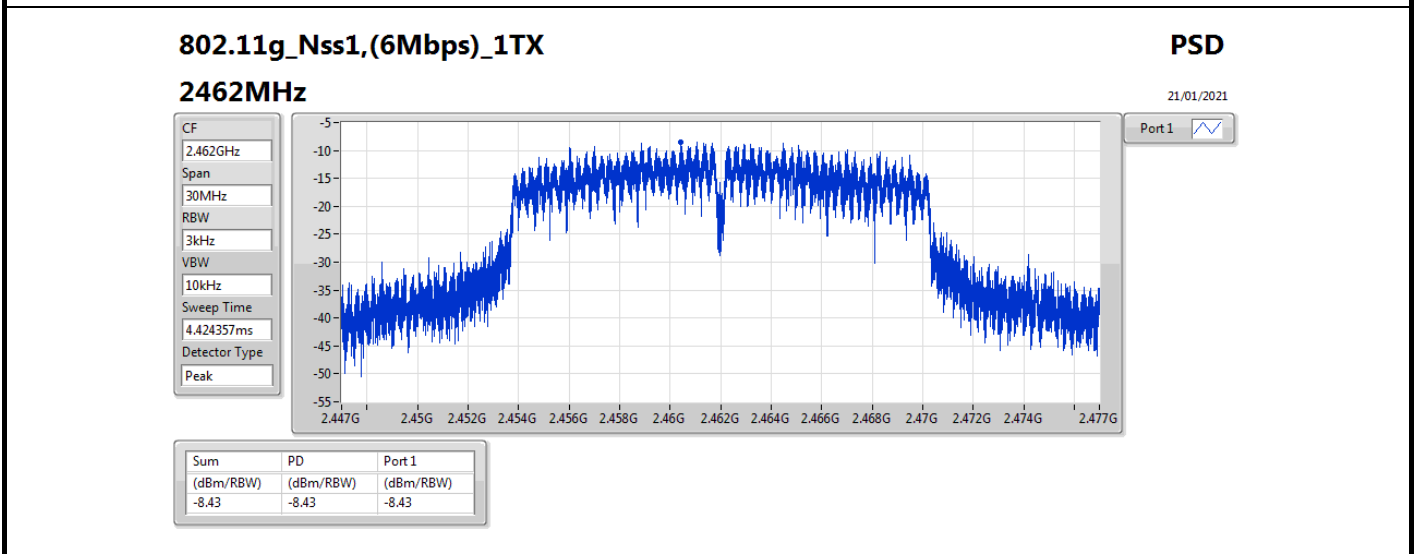
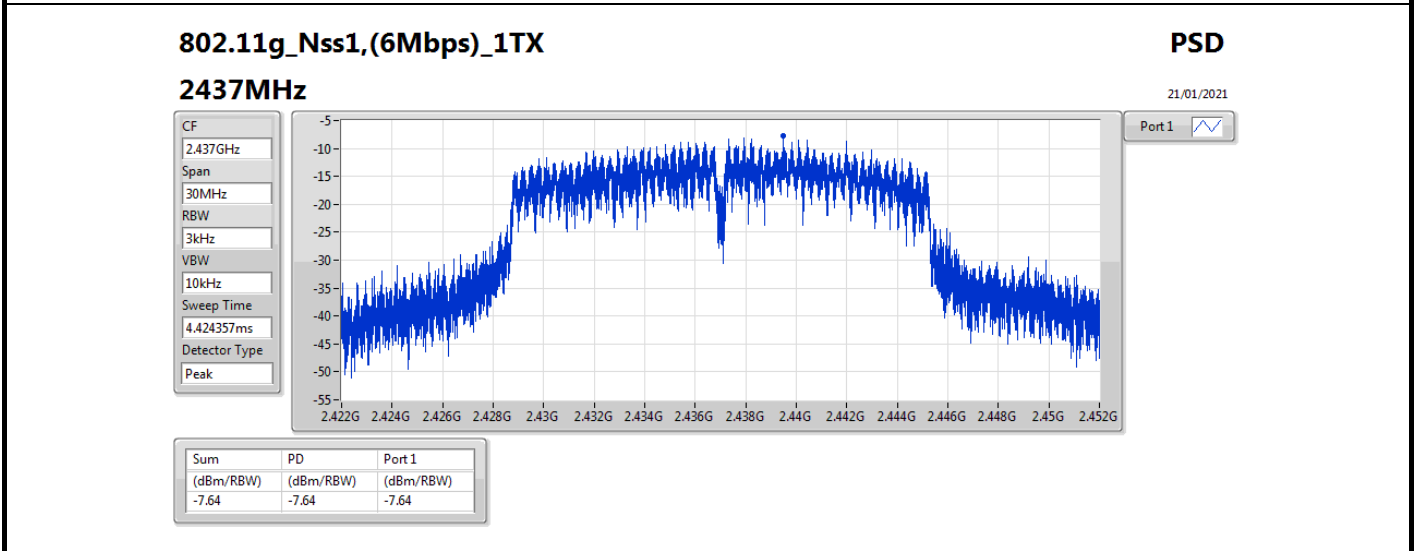
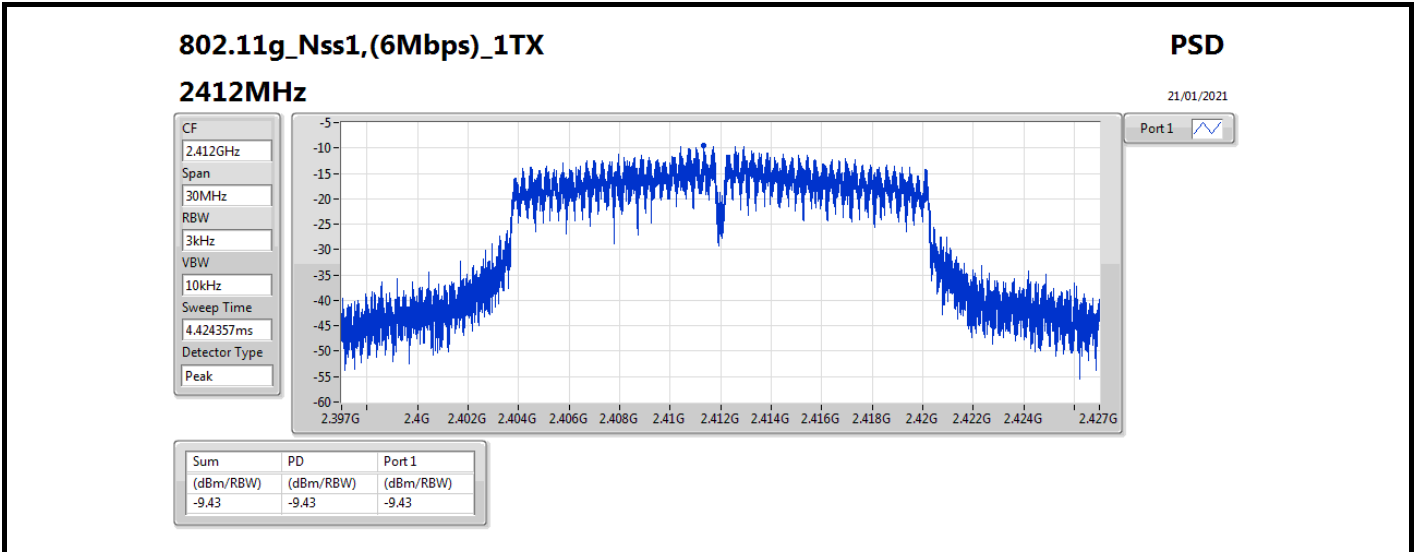
Result

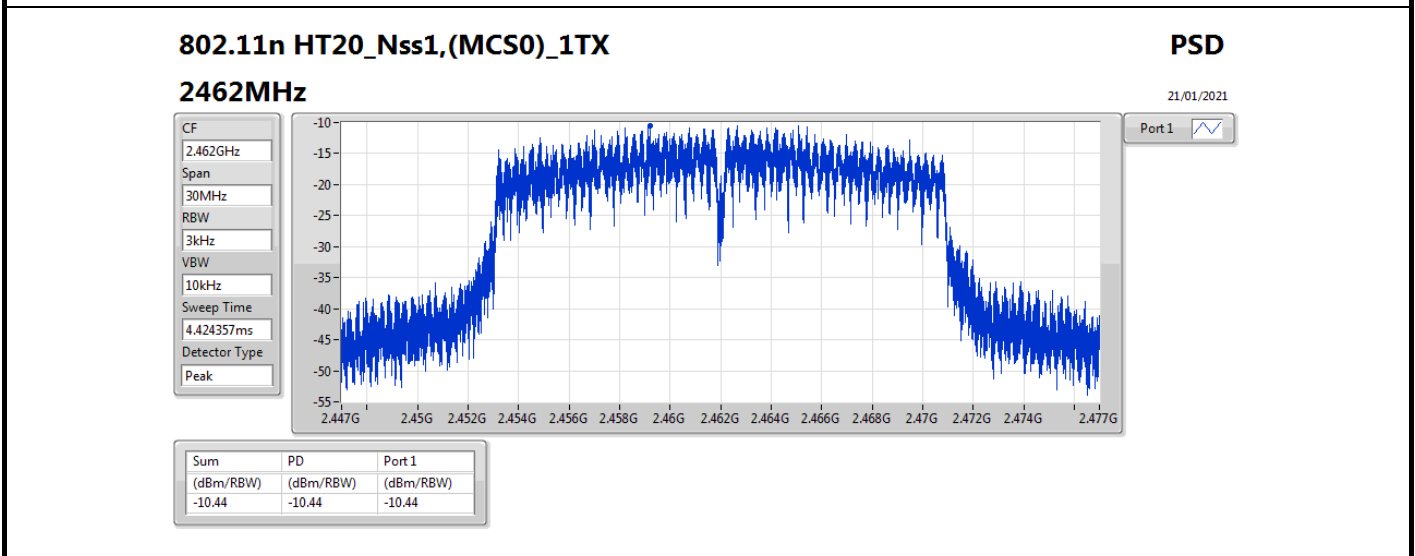
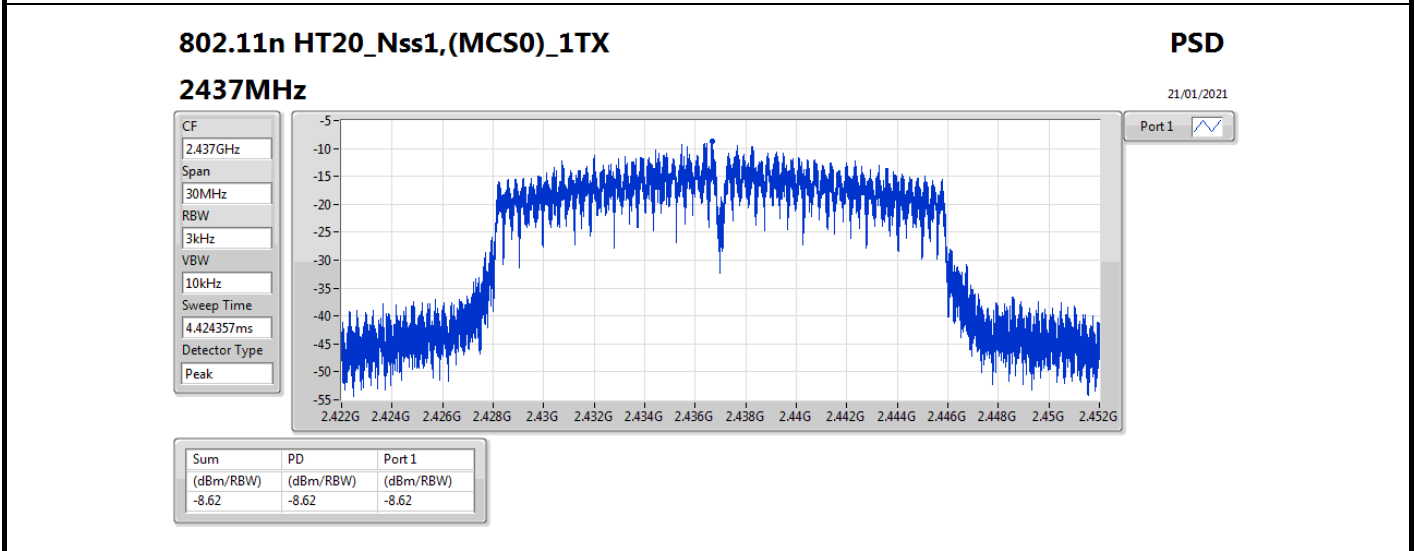
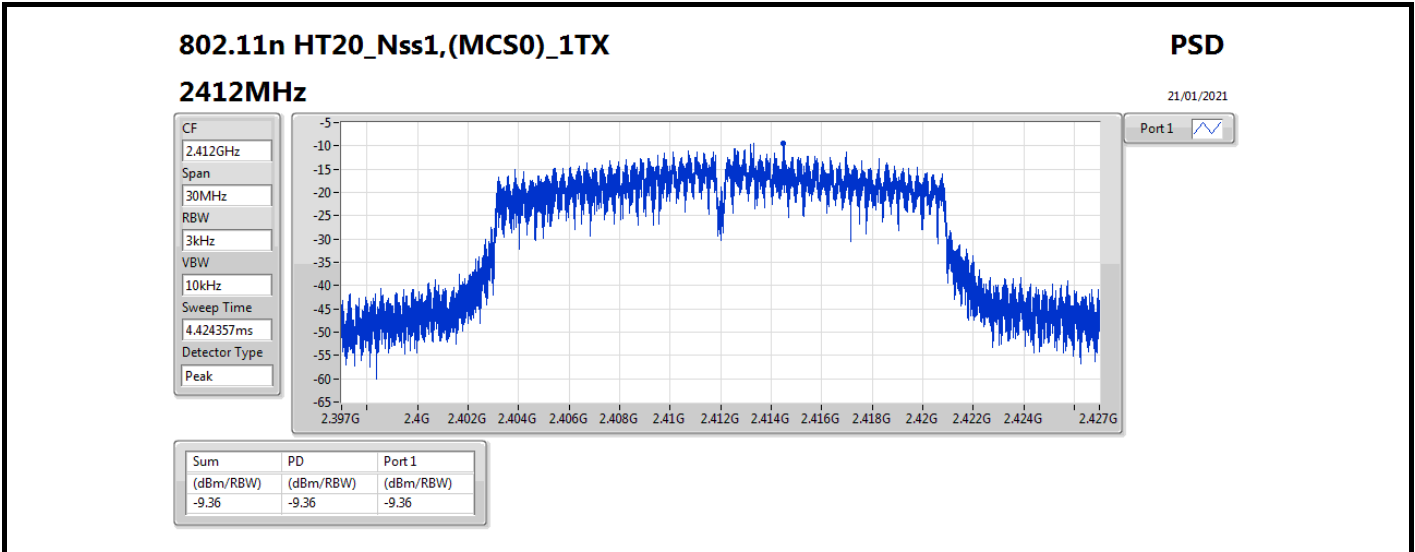
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	1.69	-9.26	-9.26	8.00
2437MHz	Pass	1.69	-9.98	-9.98	8.00
2462MHz	Pass	1.69	-8.35	-8.35	8.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	1.69	-9.43	-9.43	8.00
2437MHz	Pass	1.69	-7.64	-7.64	8.00
2462MHz	Pass	1.69	-8.43	-8.43	8.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	1.69	-9.36	-9.36	8.00
2437MHz	Pass	1.69	-8.62	-8.62	8.00
2462MHz	Pass	1.69	-10.44	-10.44	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;







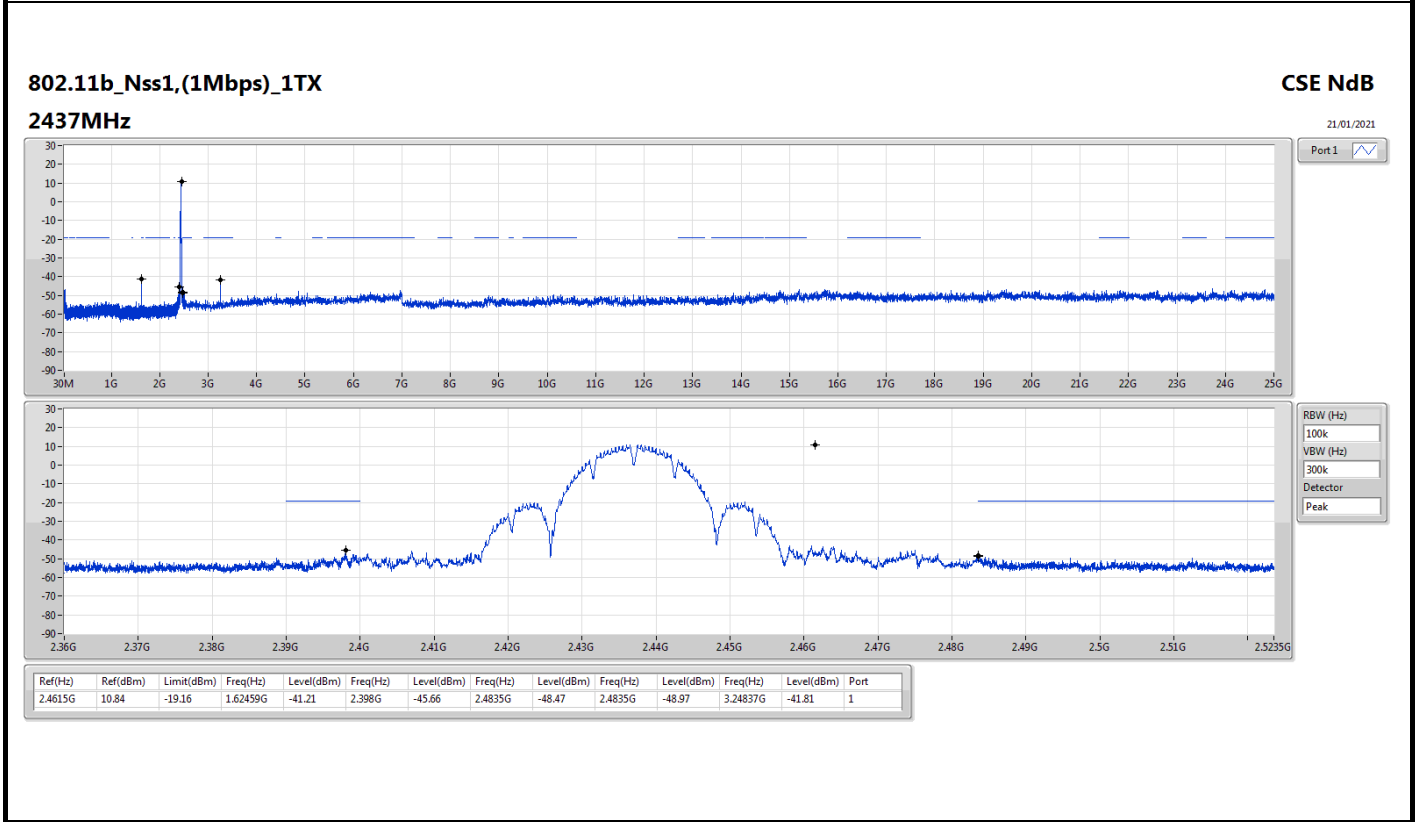
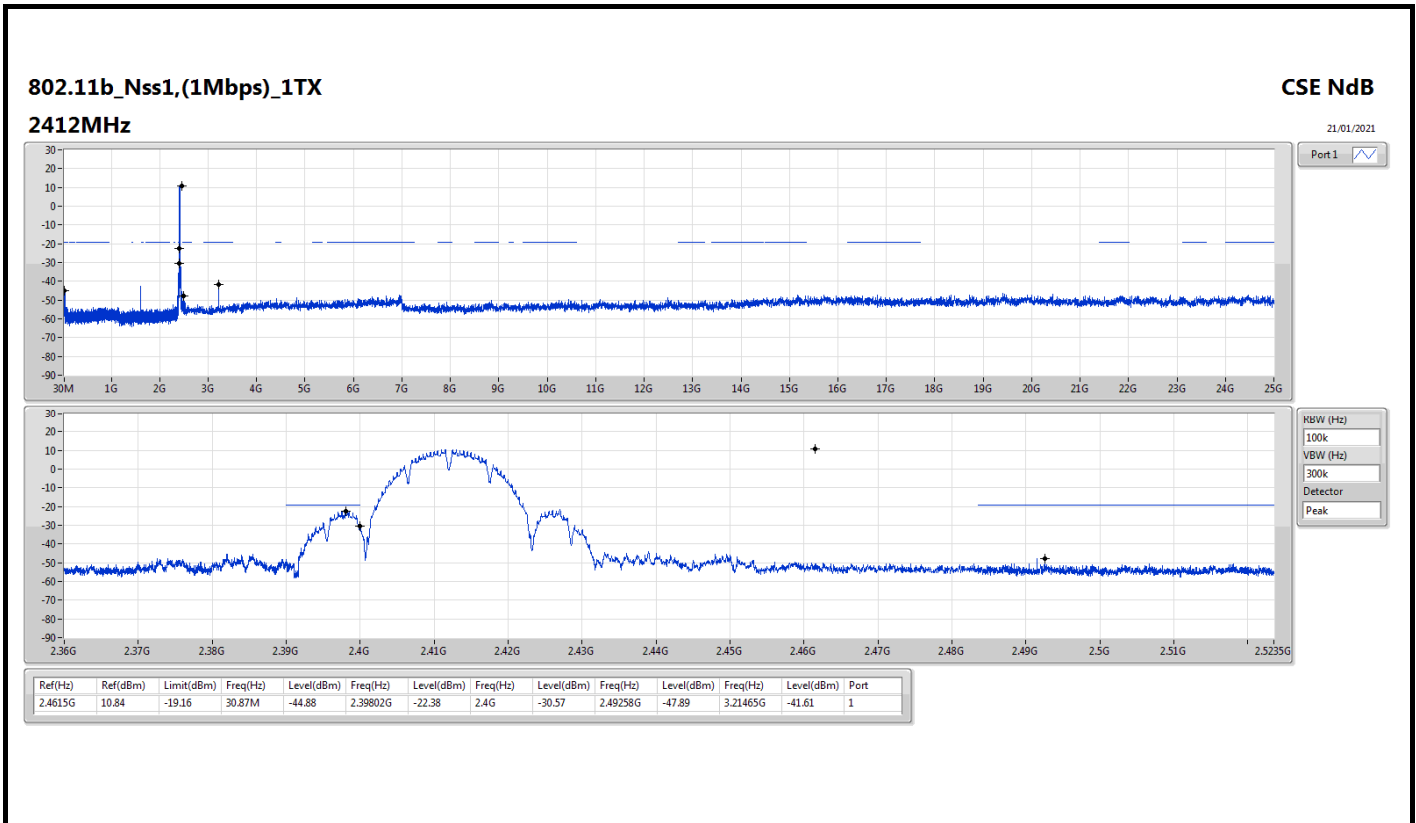


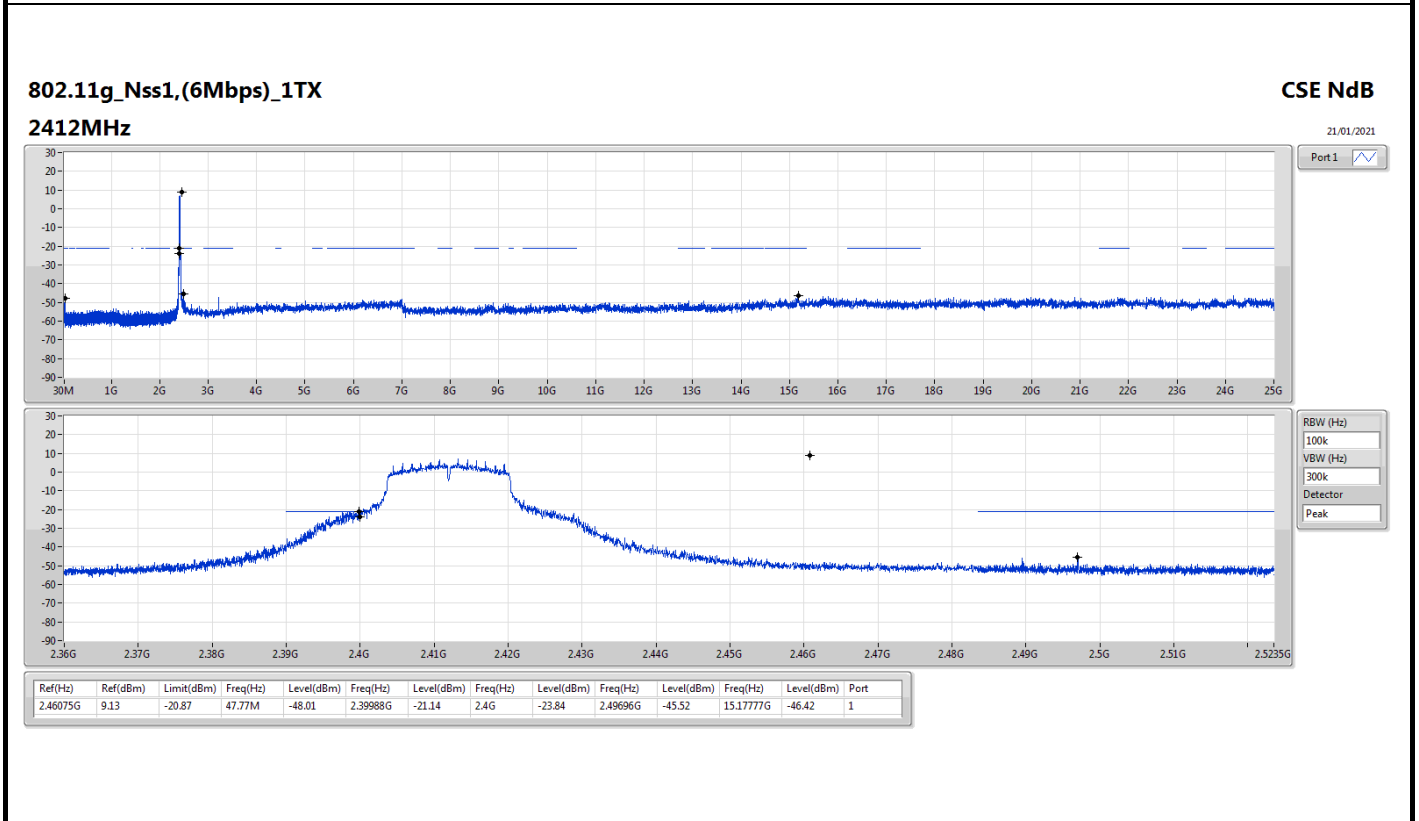
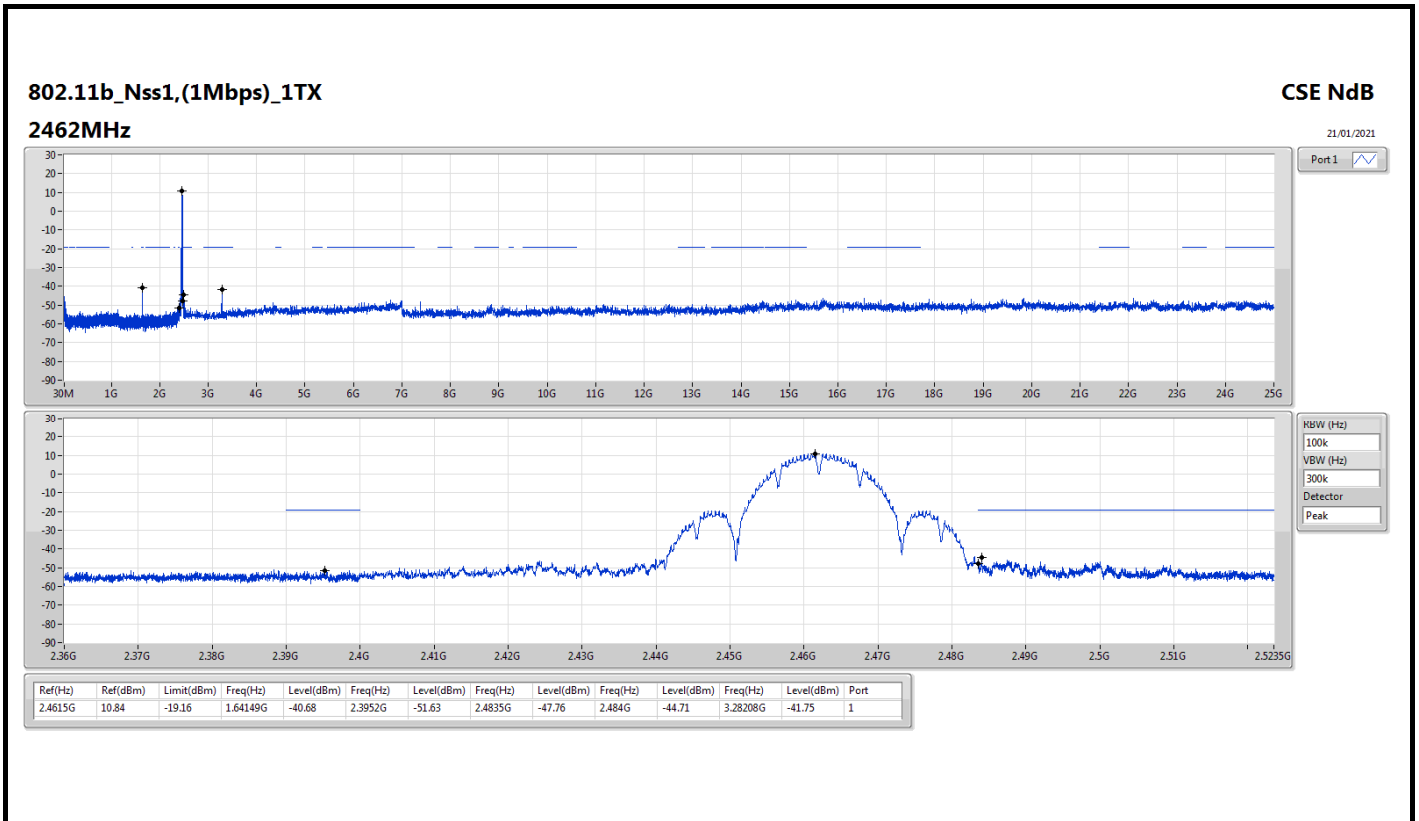
Summary

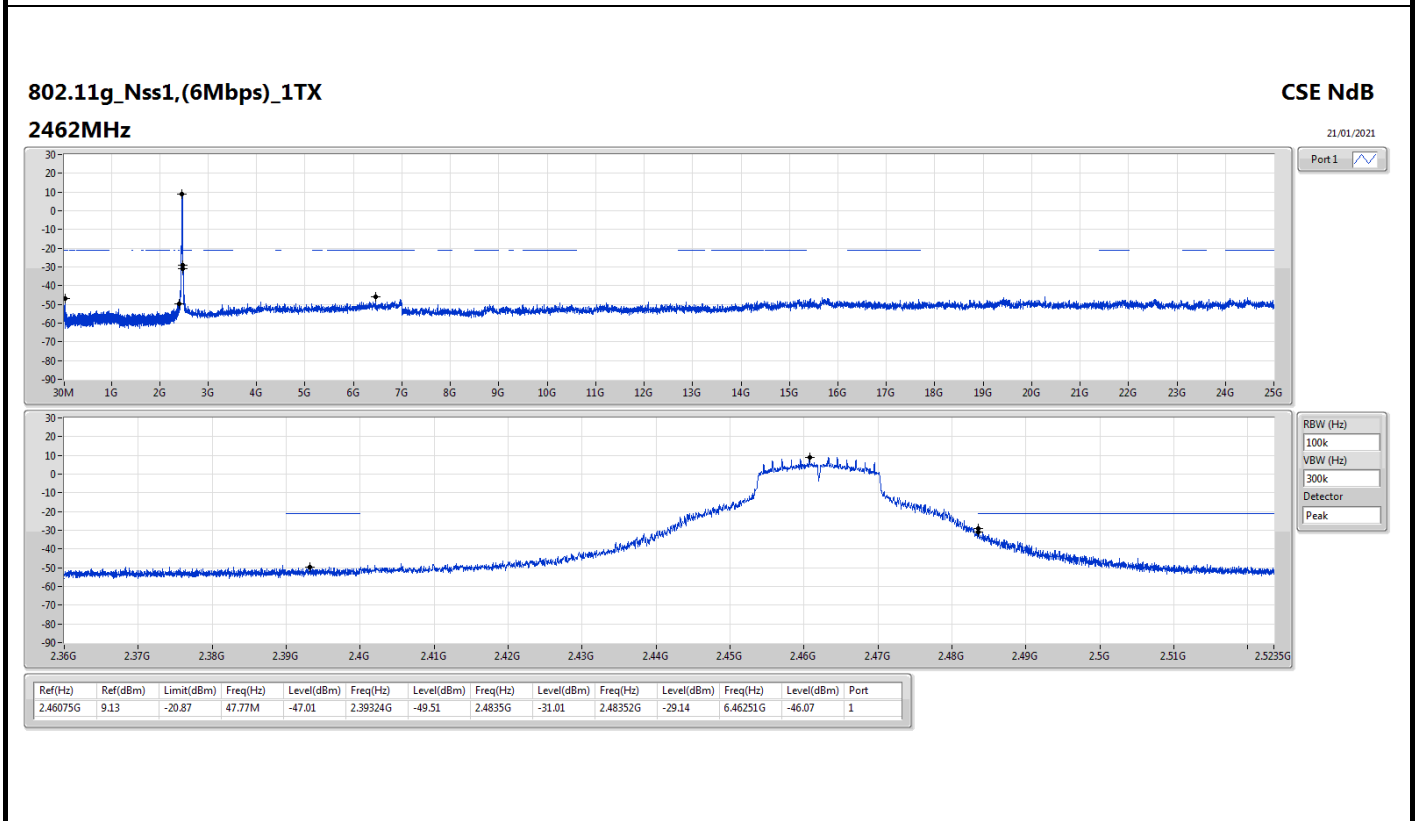
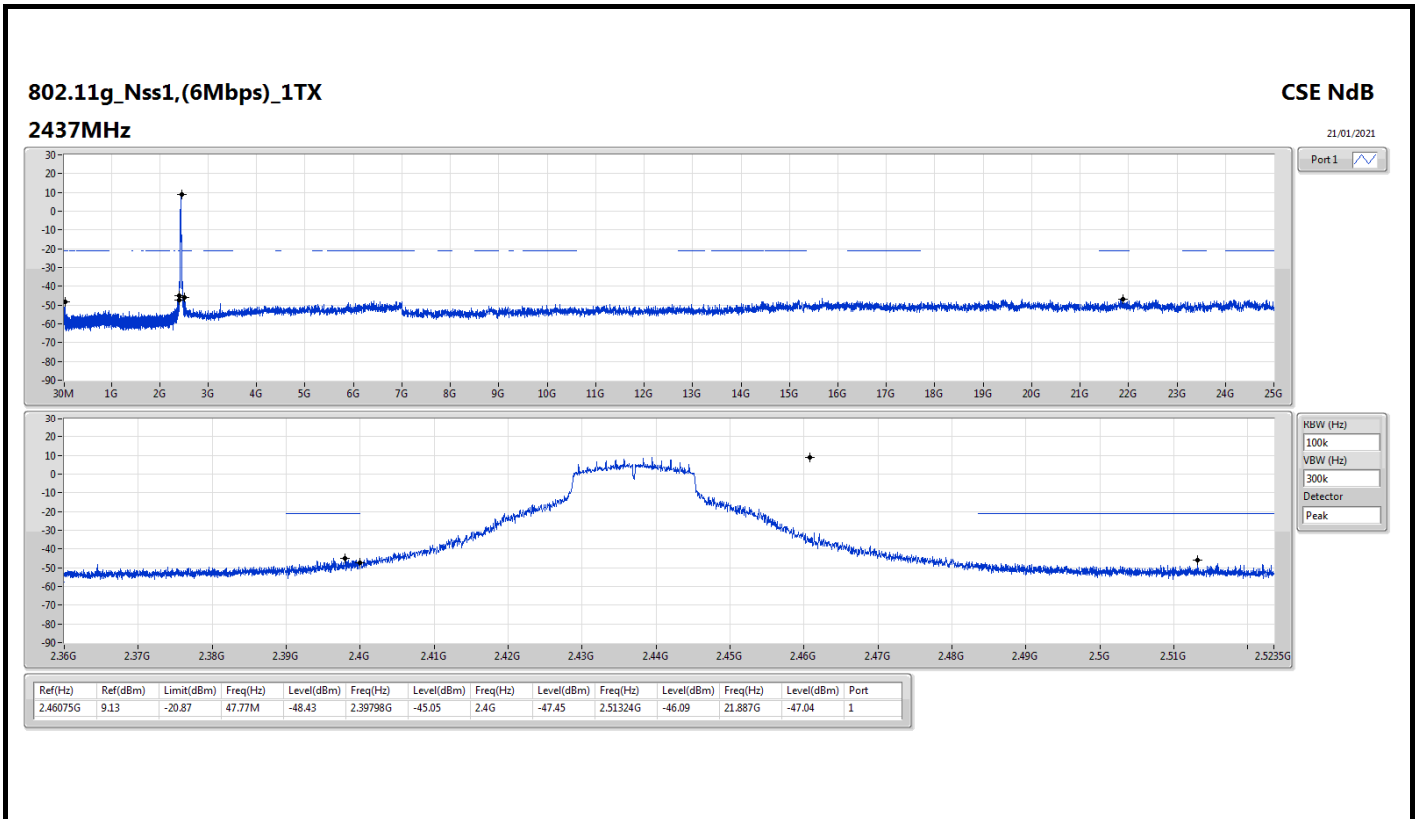
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	Pass	2.4615G	10.84	-19.16	30.87M	-44.88	2.39802G	-22.38	2.4G	-30.57	2.49258G	-47.89	3.21465G	-41.61	1
802.11g_Nss1,(6Mbps)_1TX	Pass	2.46075G	9.13	-20.87	47.77M	-48.01	2.39988G	-21.14	2.4G	-23.84	2.49696G	-45.52	15.17777G	-46.42	1
802.11n HT20_Nss1,(MCS0)_1TX	Pass	2.46075G	7.44	-22.56	47.77M	-47.39	2.3999G	-22.57	2.4G	-26.40	2.49076G	-45.92	24.49428G	-46.52	1

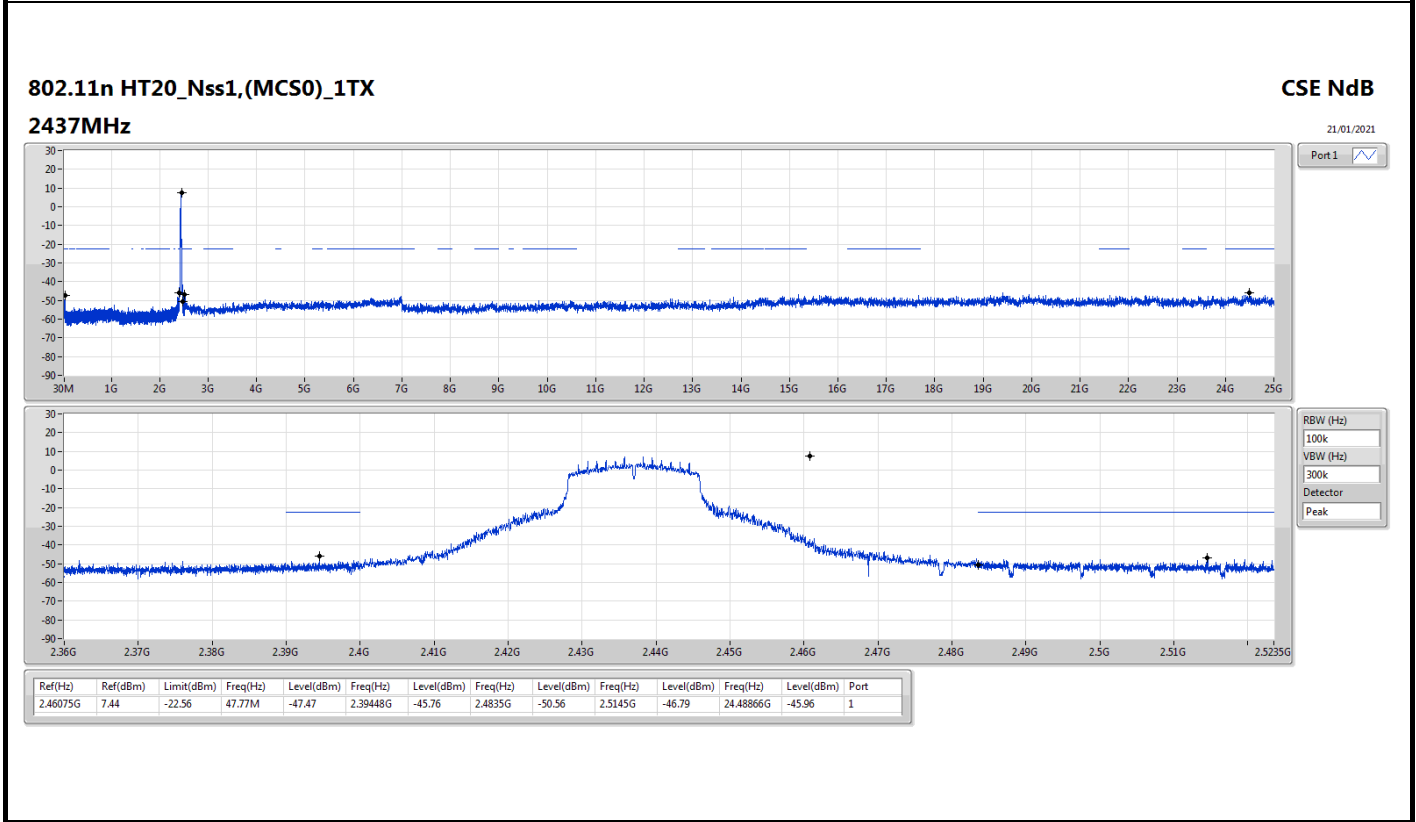
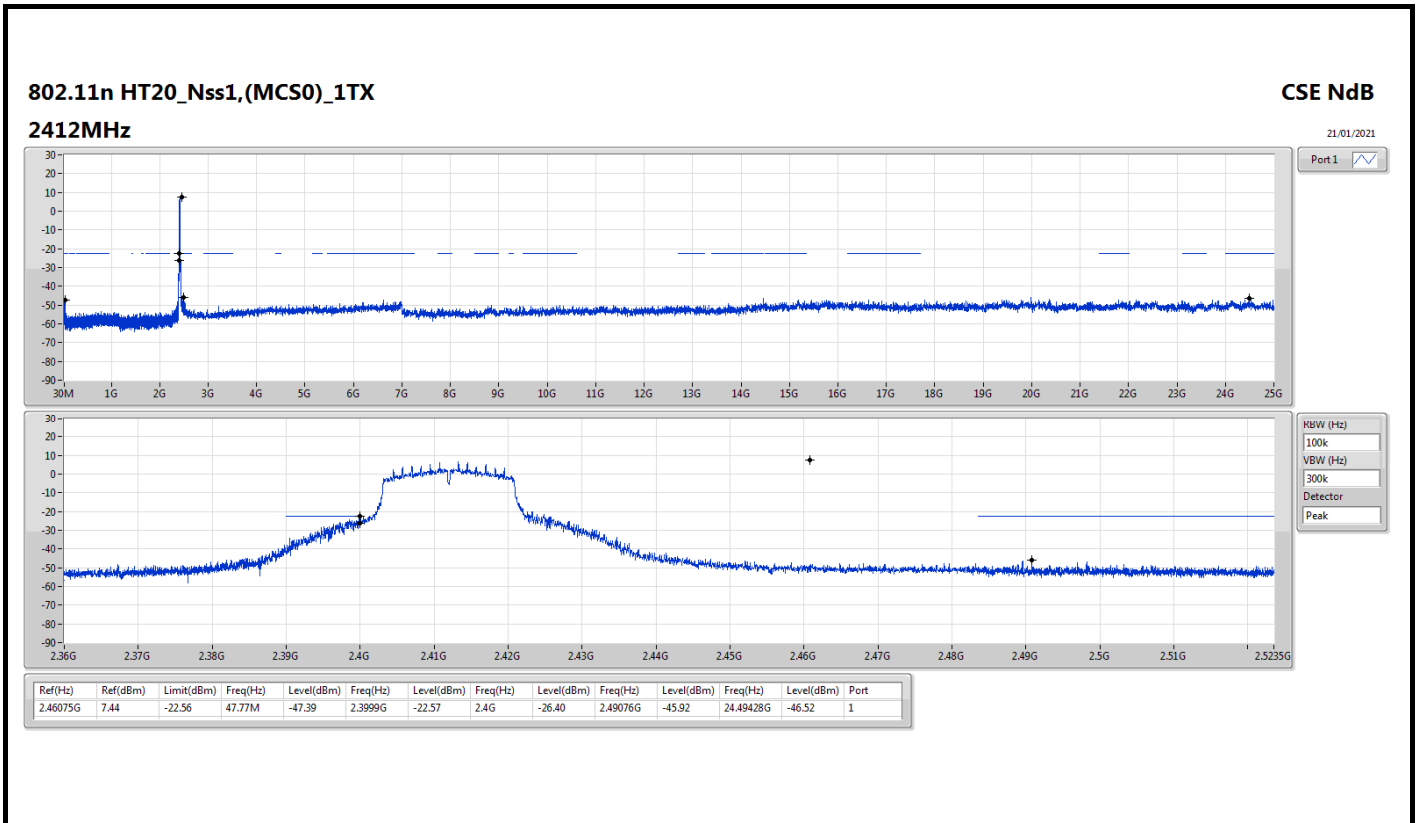
Result

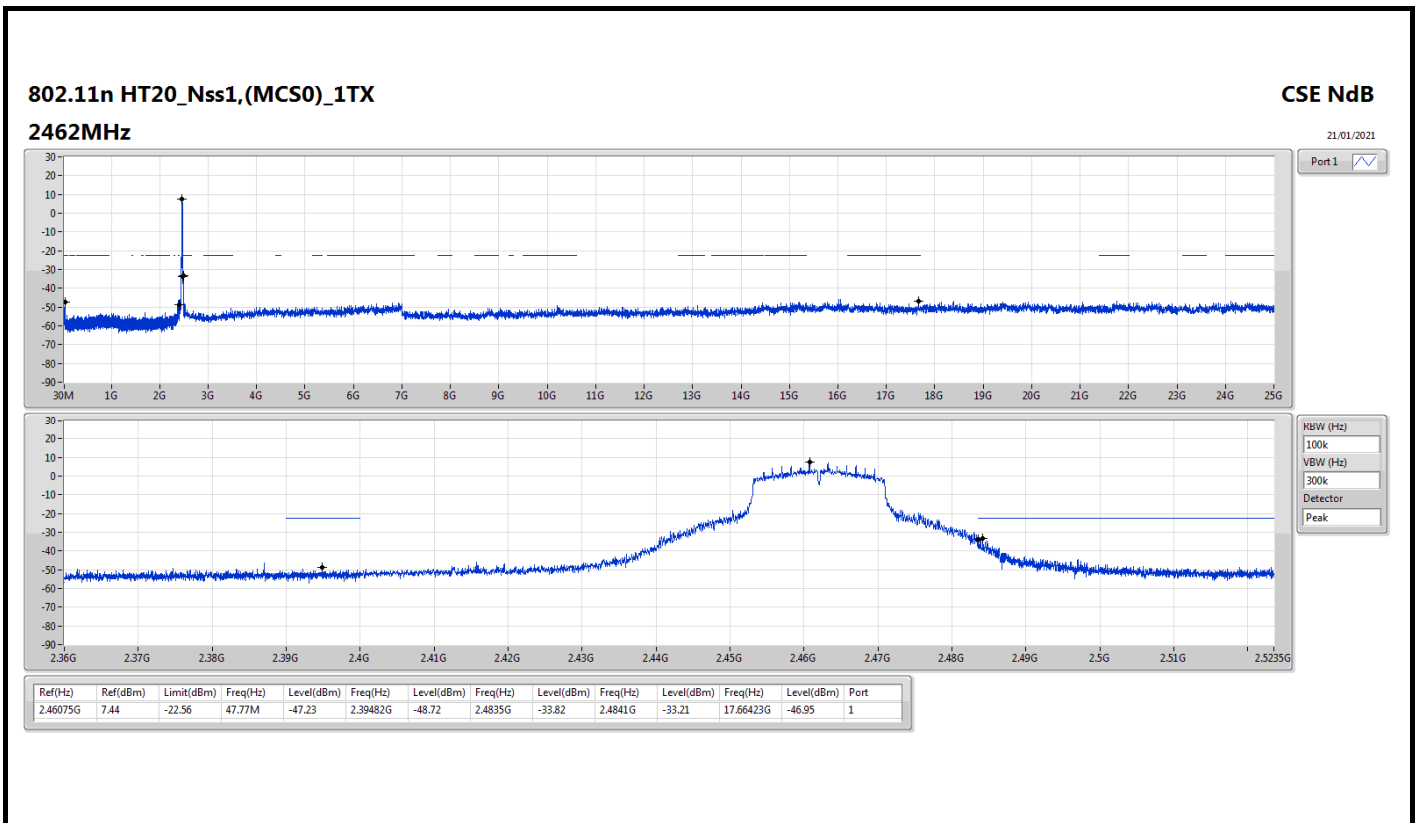
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.4615G	10.84	-19.16	30.87M	-44.88	2.39802G	-22.38	2.4G	-30.57	2.49258G	-47.89	3.21465G	-41.61	1
2437MHz	Pass	2.4615G	10.84	-19.16	1.62459G	-41.21	2.398G	-45.66	2.4835G	-48.47	2.4835G	-48.97	3.24837G	-41.81	1
2462MHz	Pass	2.4615G	10.84	-19.16	1.64149G	-40.68	2.3952G	-51.63	2.4835G	-47.76	2.484G	-44.71	3.28208G	-41.75	1
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.46075G	9.13	-20.87	47.77M	-48.01	2.39988G	-21.14	2.4G	-23.84	2.49696G	-45.52	15.17777G	-46.42	1
2437MHz	Pass	2.46075G	9.13	-20.87	47.77M	-48.43	2.39798G	-45.05	2.4G	-47.45	2.51324G	-46.09	21.887G	-47.04	1
2462MHz	Pass	2.46075G	9.13	-20.87	47.77M	-47.01	2.39324G	-49.51	2.4835G	-31.01	2.48352G	-29.14	6.46251G	-46.07	1
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.46075G	7.44	-22.56	47.77M	-47.39	2.3999G	-22.57	2.4G	-26.40	2.49076G	-45.92	24.49428G	-46.52	1
2437MHz	Pass	2.46075G	7.44	-22.56	47.77M	-47.47	2.39448G	-45.76	2.4835G	-50.56	2.5145G	-46.79	24.48866G	-45.96	1
2462MHz	Pass	2.46075G	7.44	-22.56	47.77M	-47.23	2.39482G	-48.72	2.4835G	-33.82	2.4841G	-33.21	17.66423G	-46.95	1







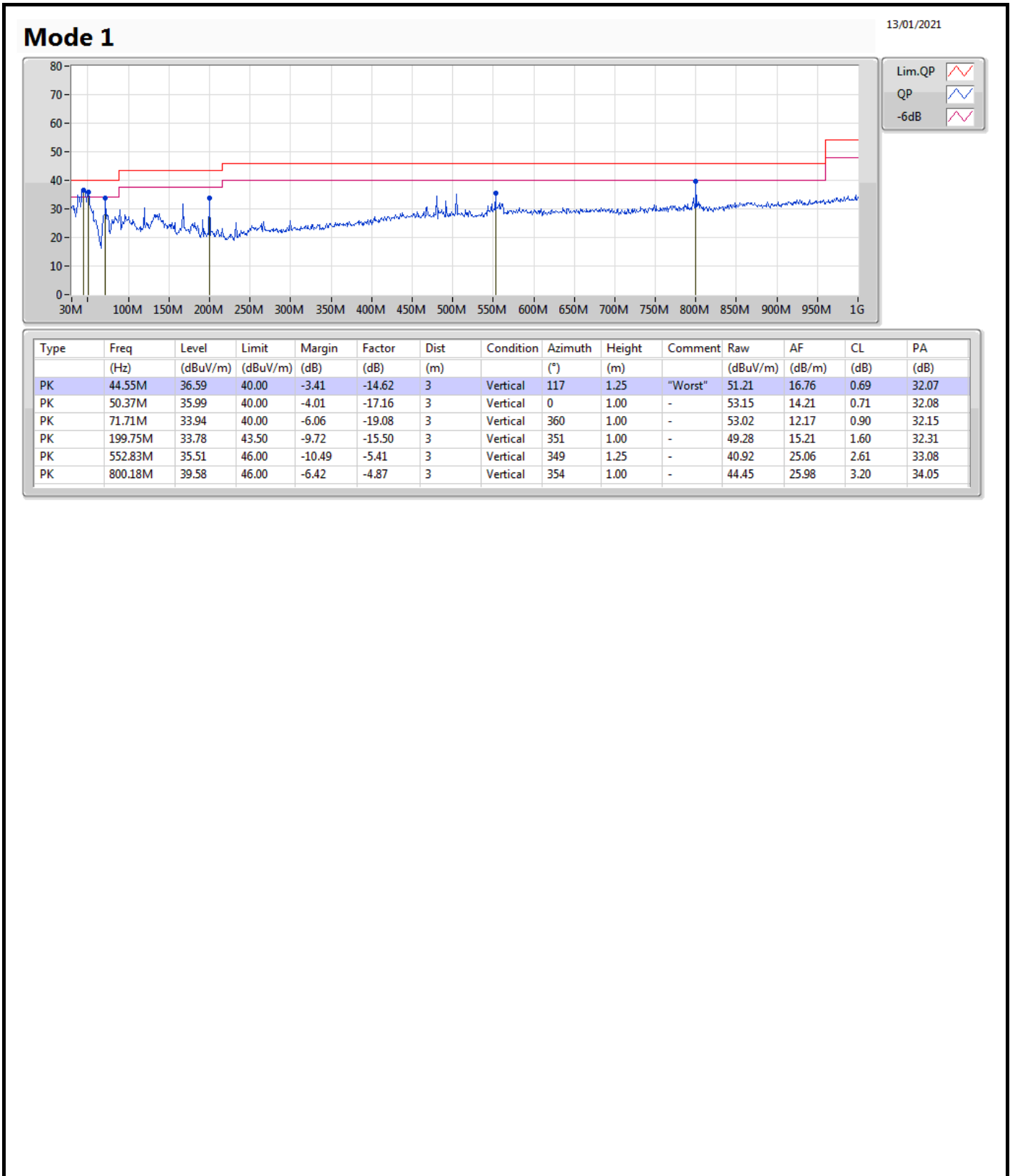


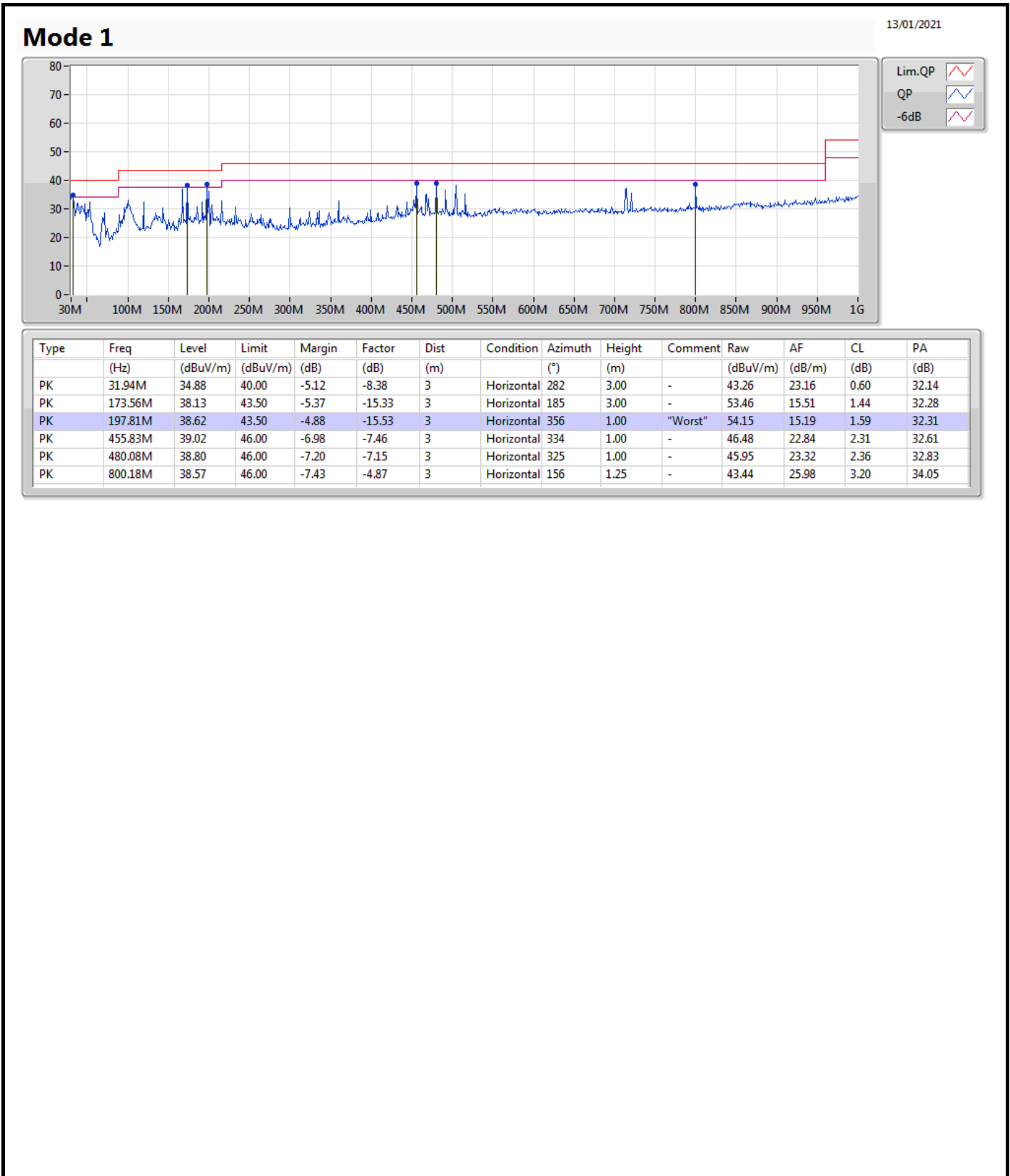




Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	PK	44.55M	36.59	40.00	-3.41	Vertical







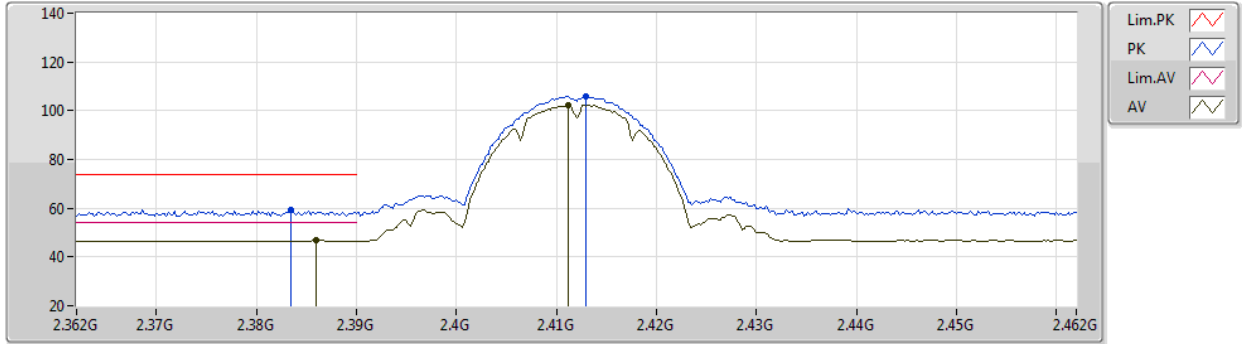
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11g_Nss1,(6Mbps)_1TX	Pass	AV	2.39G	48.26	54.00	-5.74	3	Vertical	100	1.15	-

802.11b_Nss1,(1Mbps)_1TX

23/12/2020

2412MHz_TX



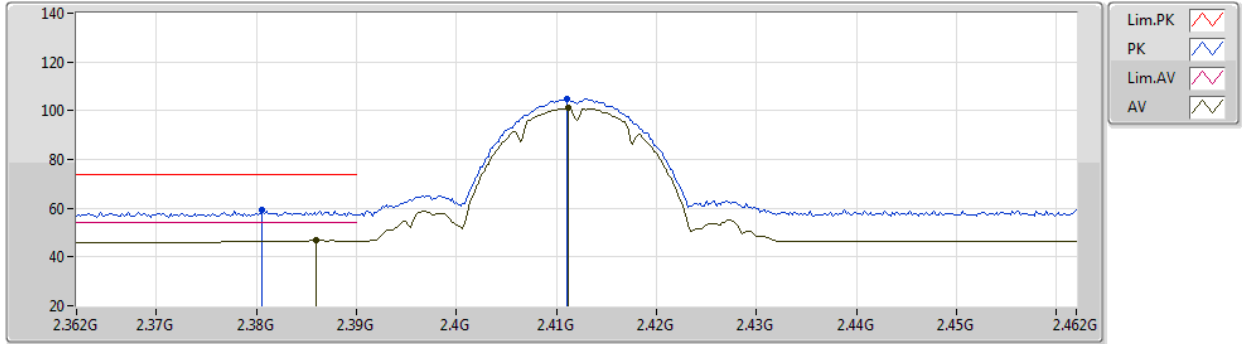
EUT Y_1TX
Setting 19
02-B-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3834G	59.12	74.00	-14.88	28.41	3	Vertical	93	1.00	-	28.30	2.41	-
AV	2.386G	46.89	54.00	-7.11	16.18	3	Vertical	93	1.00	-	28.30	2.41	-
PK	2.413G	106.04	Inf	-Inf	75.30	3	Vertical	93	1.00	-	28.33	2.41	-
AV	2.4112G	102.19	Inf	-Inf	71.46	3	Vertical	93	1.00	-	28.32	2.41	-

802.11b_Nss1,(1Mbps)_1TX

23/12/2020

2412MHz_TX



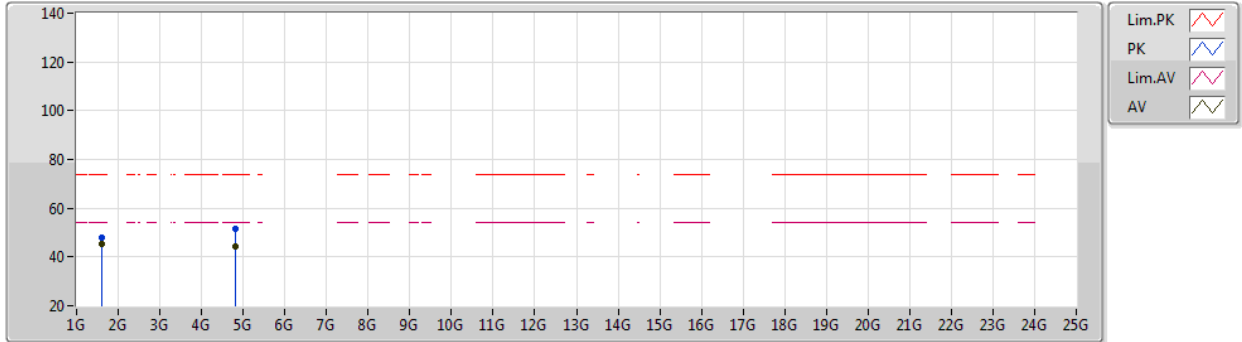
EUT Y_1TX
Setting 19
02-B-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3806G	59.23	74.00	-14.77	28.52	3	Horizontal	348	1.84	-	28.30	2.41	-
AV	2.386G	46.92	54.00	-7.08	16.21	3	Horizontal	348	1.84	-	28.30	2.41	-
PK	2.411G	104.77	Inf	-Inf	74.04	3	Horizontal	348	1.84	-	28.32	2.41	-
AV	2.4112G	101.11	Inf	-Inf	70.38	3	Horizontal	348	1.84	-	28.32	2.41	-

802.11b_Nss1,(1Mbps)_1TX

07/01/2021

2412MHz_TX



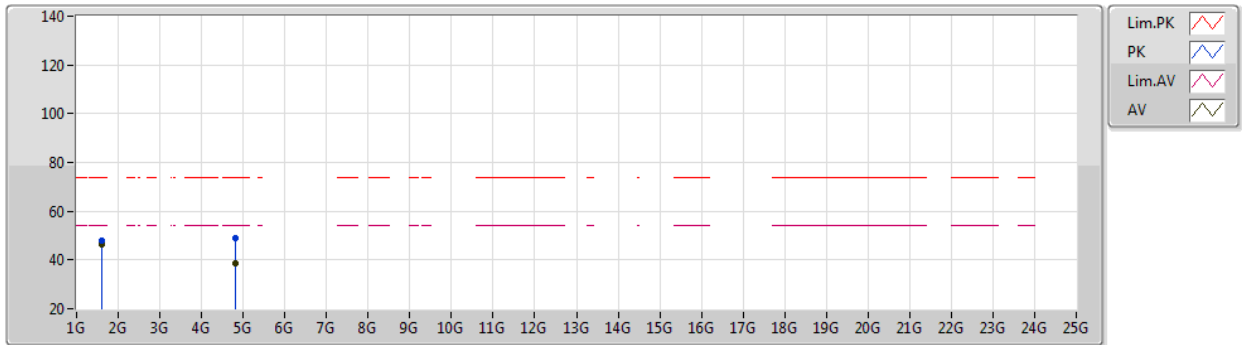
EUT Z_1TX
Setting 19
06-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	1.60794G	48.09	74.00	-25.91	54.81	3	Vertical	215	1.64	-	25.10	2.50	34.32
AV	1.608G	45.60	54.00	-8.40	52.32	3	Vertical	215	1.64	-	25.10	2.50	34.32
PK	4.82406G	51.35	74.00	-22.65	46.99	3	Vertical	159	1.71	-	31.10	5.00	31.74
AV	4.824G	44.35	54.00	-9.65	39.99	3	Vertical	159	1.71	-	31.10	5.00	31.74

802.11b_Nss1,(1Mbps)_1TX

07/01/2021

2412MHz_TX



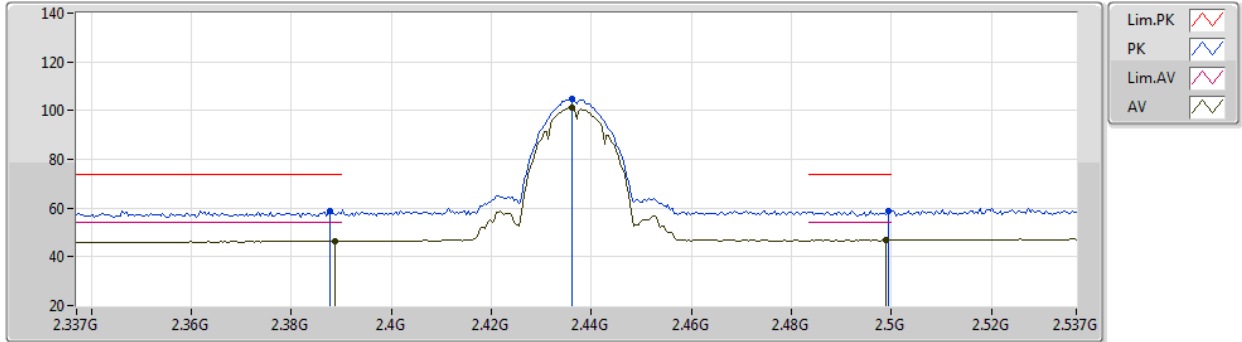
EUT_Z_1TX
Setting 19
06-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	1.608G	48.00	74.00	-26.00	52.95	3	Horizontal	46	2.97	-	25.75	2.40	33.10
AV	1.60798G	46.45	54.00	-7.55	53.17	3	Horizontal	46	2.97	-	25.10	2.50	34.32
PK	4.82388G	48.81	74.00	-25.19	44.45	3	Horizontal	217	1.80	-	31.10	5.00	31.74
AV	4.82394G	38.60	54.00	-15.40	34.24	3	Horizontal	217	1.80	-	31.10	5.00	31.74

802.11b_Nss1,(1Mbps)_1TX

23/12/2020

2437MHz_TX



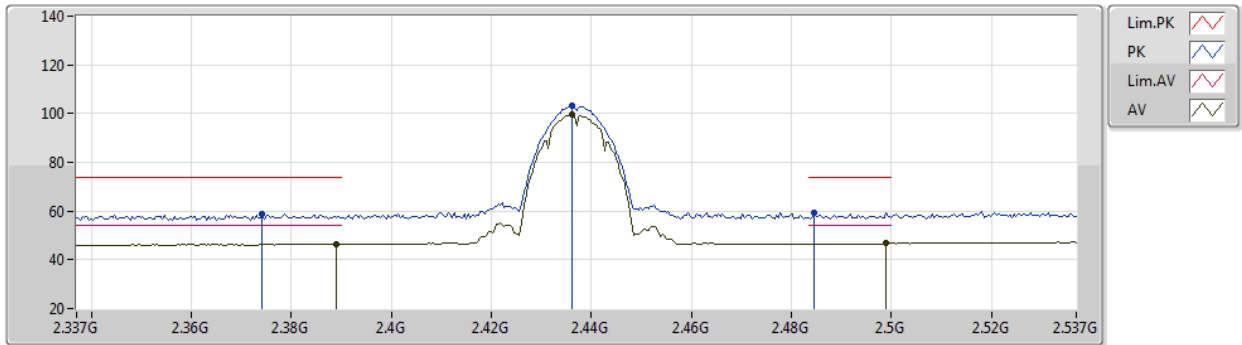
EUT Y_1TX
Setting 19
02-B-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3878G	58.85	74.00	-15.15	28.14	3	Vertical	305	1.21	-	28.30	2.41	-
AV	2.3886G	46.38	54.00	-7.62	15.67	3	Vertical	305	1.21	-	28.30	2.41	-
PK	2.4362G	104.88	Inf	-Inf	74.09	3	Vertical	305	1.21	-	28.37	2.42	-
AV	2.4362G	101.23	Inf	-Inf	70.44	3	Vertical	305	1.21	-	28.37	2.42	-
PK	2.4994G	59.03	74.00	-14.97	27.98	3	Vertical	305	1.21	-	28.60	2.45	-
AV	2.499G	46.81	54.00	-7.19	15.76	3	Vertical	305	1.21	-	28.60	2.45	-

802.11b_Nss1,(1Mbps)_1TX

23/12/2020

2437MHz_TX



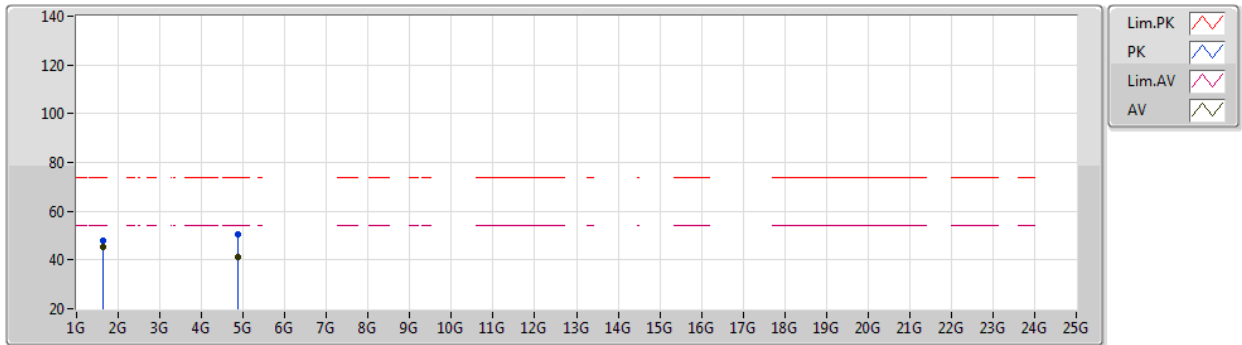
EUT Y_1TX
Setting 19
02-B-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3742G	58.84	74.00	-15.16	28.13	3	Horizontal	360	1.12	-	28.30	2.41	-
AV	2.389G	46.44	54.00	-7.56	15.73	3	Horizontal	360	1.12	-	28.30	2.41	-
PK	2.4362G	103.17	Inf	-Inf	72.38	3	Horizontal	360	1.12	-	28.37	2.42	-
AV	2.4362G	99.52	Inf	-Inf	68.73	3	Horizontal	360	1.12	-	28.37	2.42	-
PK	2.4846G	59.48	74.00	-14.52	28.50	3	Horizontal	360	1.12	-	28.54	2.44	-
AV	2.499G	46.69	54.00	-7.31	15.64	3	Horizontal	360	1.12	-	28.60	2.45	-

802.11b_Nss1,(1Mbps)_1TX

07/01/2021

2437MHz_TX



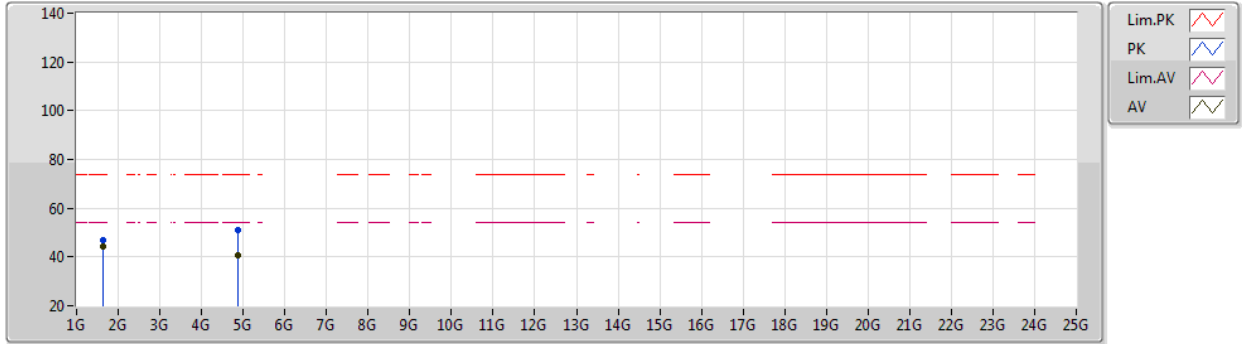
EUT Z_1TX
Setting 19
06-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	1.62468G	48.02	74.00	-25.98	54.72	3	Vertical	25	1.80	-	25.10	2.50	34.30
AV	1.62466G	45.60	54.00	-8.40	52.30	3	Vertical	25	1.80	-	25.10	2.50	34.30
PK	4.87434G	50.28	74.00	-23.72	45.81	3	Vertical	36	2.38	-	31.15	5.00	31.68
AV	4.87398G	41.30	54.00	-12.70	36.83	3	Vertical	36	2.38	-	31.15	5.00	31.68

802.11b_Nss1,(1Mbps)_1TX

07/01/2021

2437MHz_TX



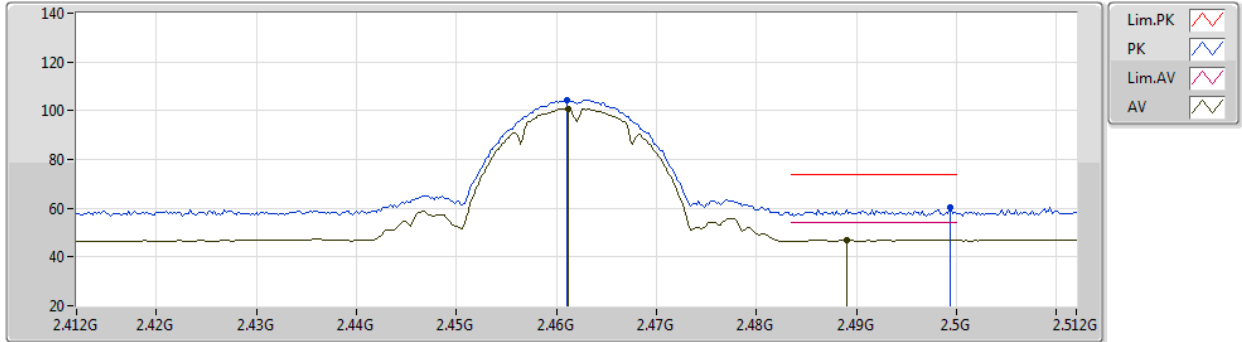
EUT Z_1TX
Setting 19
06-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	1.62462G	46.79	74.00	-27.21	53.49	3	Horizontal	169	1.01	-	25.10	2.50	34.30
AV	1.62466G	44.12	54.00	-9.88	50.82	3	Horizontal	169	1.01	-	25.10	2.50	34.30
PK	4.87416G	51.18	74.00	-22.82	46.71	3	Horizontal	199	1.80	-	31.15	5.00	31.68
AV	4.874G	40.67	54.00	-13.33	36.20	3	Horizontal	199	1.80	-	31.15	5.00	31.68

802.11b_Nss1,(1Mbps)_1TX

23/12/2020

2462MHz_TX



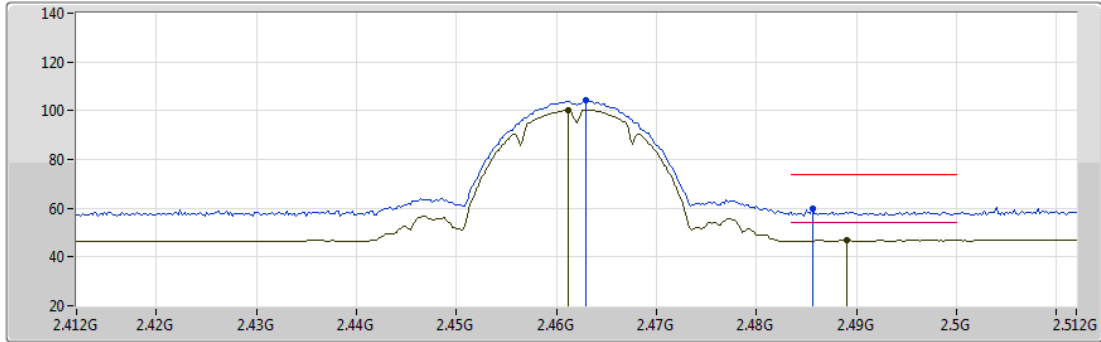
EUT Y_1TX
Setting 19
02-B-R-5





Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.461G	104.53	Inf	-Inf	73.66	3	Vertical	13	1.52	-	28.44	2.43	-
AV	2.4612G	100.86	Inf	-Inf	69.99	3	Vertical	13	1.52	-	28.44	2.43	-
PK	2.4994G	60.31	74.00	-13.69	29.26	3	Vertical	13	1.52	-	28.60	2.45	-
AV	2.489G	46.77	54.00	-7.23	15.77	3	Vertical	13	1.52	-	28.56	2.44	-

802.11b_Nss1,(1Mbps)_1TX

23/12/2020

2462MHz_TX



Lim.PK 
 PK 
 Lim.AV 
 AV 

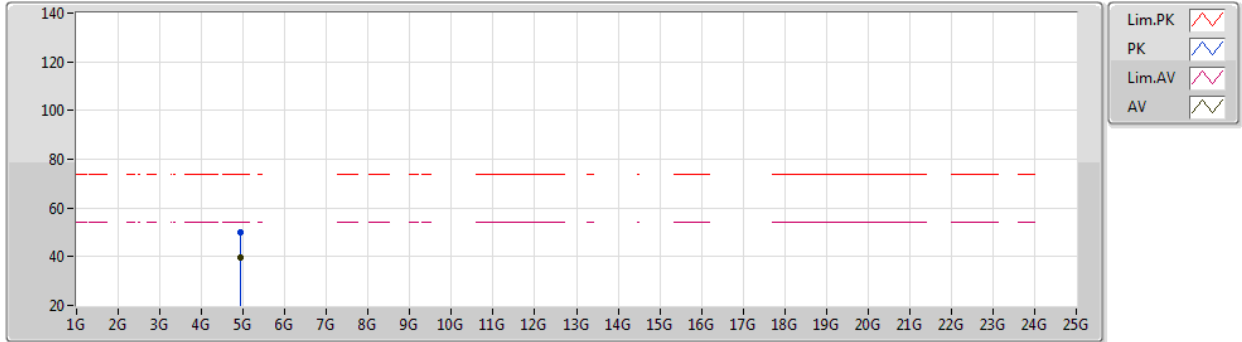
EUT Y_1TX
Setting 19
02-B-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.463G	104.12	Inf	-Inf	73.24	3	Horizontal	116	1.67	-	28.45	2.43	-
AV	2.4612G	100.25	Inf	-Inf	69.38	3	Horizontal	116	1.67	-	28.44	2.43	-
PK	2.4856G	59.81	74.00	-14.19	28.83	3	Horizontal	116	1.67	-	28.54	2.44	-
AV	2.489G	46.72	54.00	-7.28	15.72	3	Horizontal	116	1.67	-	28.56	2.44	-

802.11b_Nss1,(1Mbps)_1TX

07/01/2021

2462MHz_TX



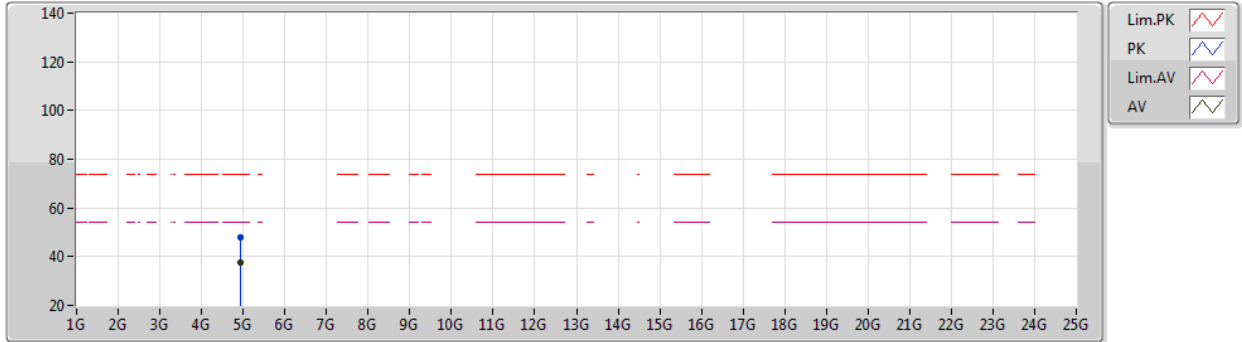
EUT Z_1TX
Setting 19
06-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.92389G	50.14	74.00	-23.86	45.56	3	Vertical	162	1.87	-	31.20	5.00	31.62
AV	4.92398G	39.59	54.00	-14.41	35.01	3	Vertical	162	1.87	-	31.20	5.00	31.62

802.11b_Nss1,(1Mbps)_1TX

07/01/2021

2462MHz_TX



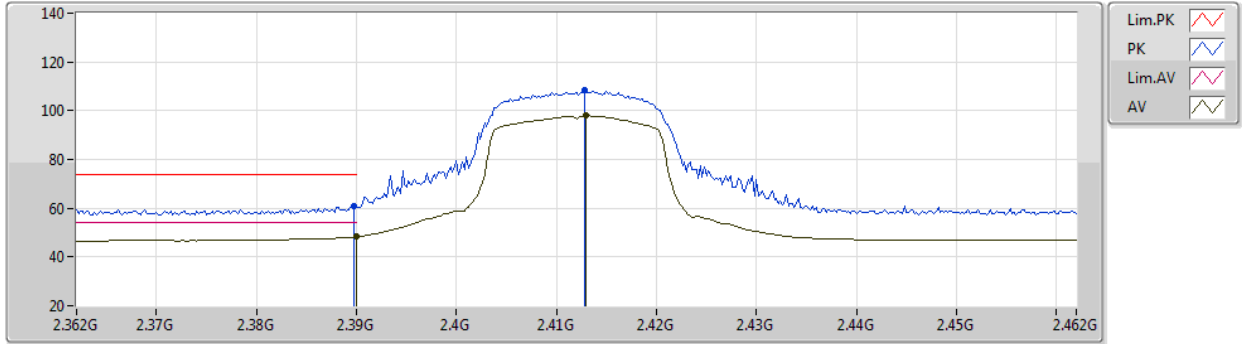
EUT Z_1TX
Setting 19
06-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.92388G	47.99	74.00	-26.01	43.41	3	Horizontal	265	1.75	-	31.20	5.00	31.62
AV	4.924G	37.46	54.00	-16.54	32.88	3	Horizontal	265	1.75	-	31.20	5.00	31.62

802.11g_Nss1,(6Mbps)_1TX

23/12/2020

2412MHz_TX



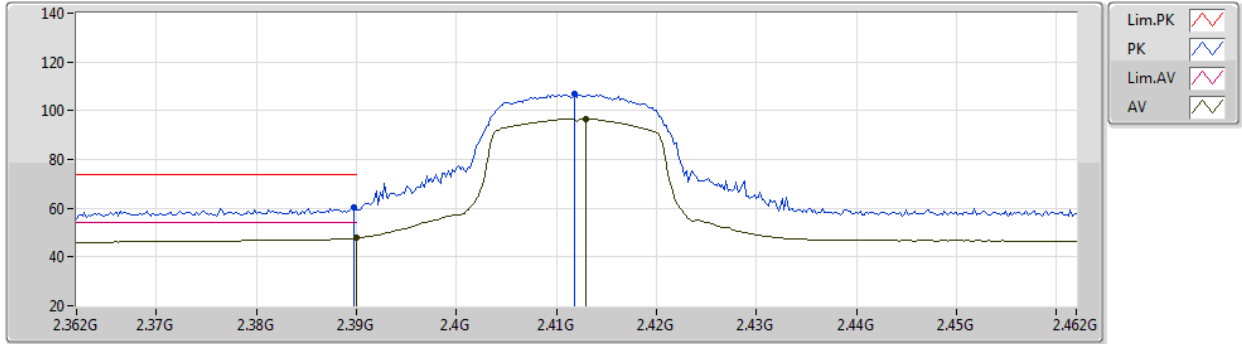
EUT Y_1TX
Setting 18.5
02-B-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	61.00	74.00	-13.00	30.29	3	Vertical	100	1.15	-	28.30	2.41	-
AV	2.39G	48.26	54.00	-5.74	17.55	3	Vertical	100	1.15	-	28.30	2.41	-
PK	2.4128G	108.45	Inf	-Inf	77.71	3	Vertical	100	1.15	-	28.33	2.41	-
AV	2.413G	97.88	Inf	-Inf	67.14	3	Vertical	100	1.15	-	28.33	2.41	-

802.11g_Nss1,(6Mbps)_1TX

23/12/2020

2412MHz_TX



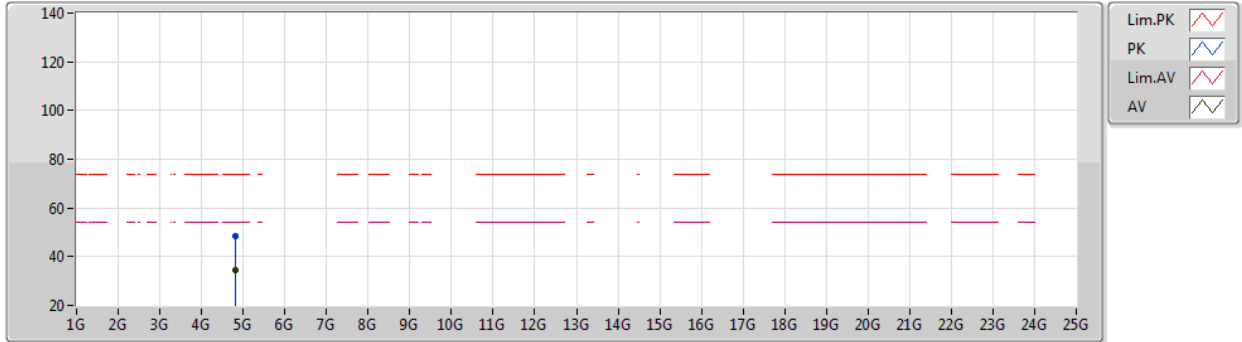
EUT Y_1TX
Setting 18.5
02-B-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	60.51	74.00	-13.49	29.80	3	Horizontal	348	1.84	-	28.30	2.41	-
AV	2.39G	47.80	54.00	-6.20	17.09	3	Horizontal	348	1.84	-	28.30	2.41	-
PK	2.4118G	106.64	Inf	-Inf	75.91	3	Horizontal	348	1.84	-	28.32	2.41	-
AV	2.413G	96.72	Inf	-Inf	65.98	3	Horizontal	348	1.84	-	28.33	2.41	-

802.11g_Nss1,(6Mbps)_1TX

07/01/2021

2412MHz_TX



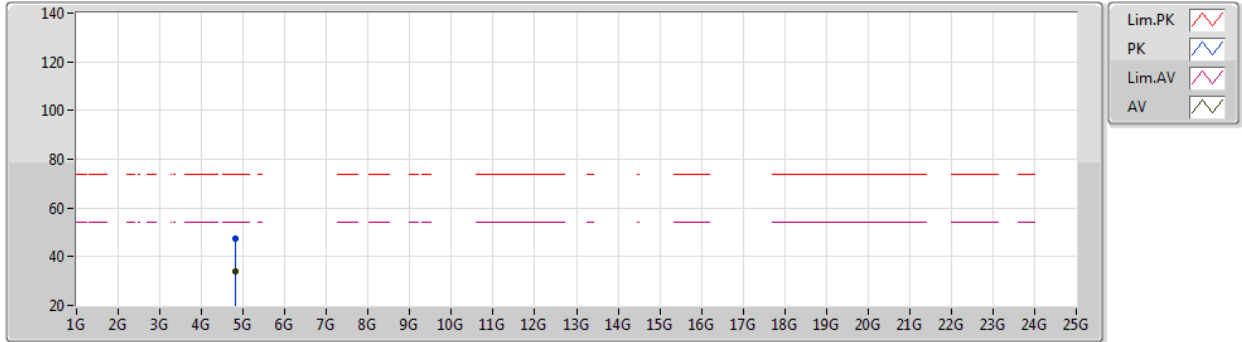
EUT Z_1TX
Setting 18.5
06-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.82496G	48.51	74.00	-25.49	44.15	3	Vertical	162	1.93	-	31.10	5.00	31.74
AV	4.824G	34.69	54.00	-19.31	30.33	3	Vertical	162	1.93	-	31.10	5.00	31.74

802.11g_Nss1,(6Mbps)_1TX

07/01/2021

2412MHz_TX



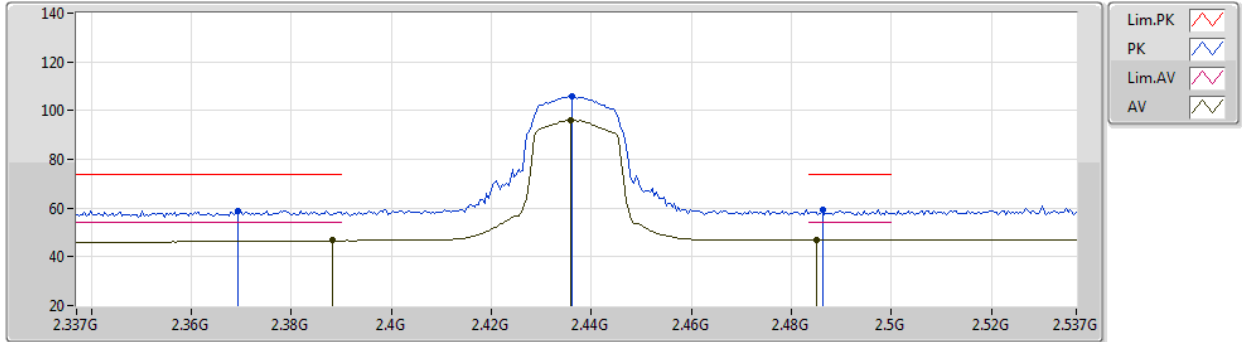
EUT Z_1TX
Setting 18.5
06-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.82682G	47.66	74.00	-26.34	43.29	3	Horizontal	151	2.03	-	31.11	5.00	31.74
AV	4.82136G	34.06	54.00	-19.94	29.72	3	Horizontal	151	2.03	-	31.09	5.00	31.75

802.11g_Nss1,(6Mbps)_1TX

23/12/2020

2437MHz_TX



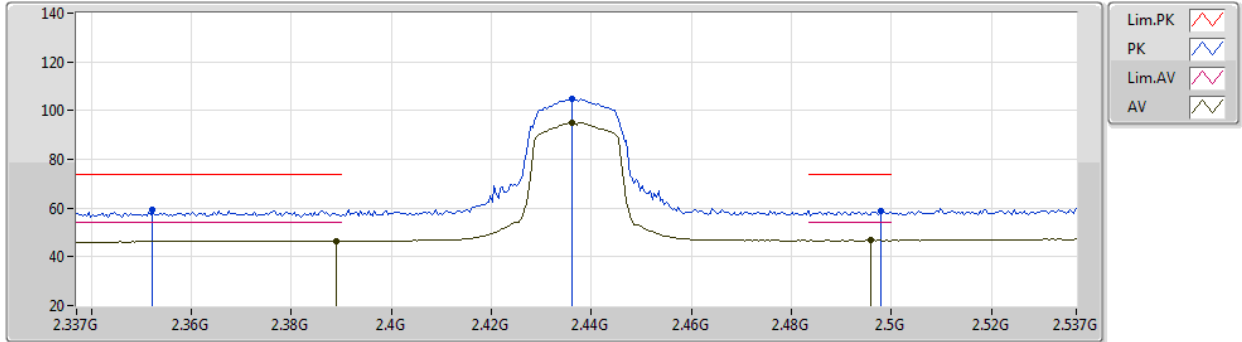
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Setting 18.5
02-B-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3694G	59.02	74.00	-14.98	28.30	3	Vertical	259	1.05	-	28.30	2.42	-
AV	2.3882G	46.66	54.00	-7.34	15.95	3	Vertical	259	1.05	-	28.30	2.41	-
PK	2.4362G	105.81	Inf	-Inf	75.02	3	Vertical	259	1.05	-	28.37	2.42	-
AV	2.4358G	96.25	Inf	-Inf	65.46	3	Vertical	259	1.05	-	28.37	2.42	-
PK	2.4862G	59.17	74.00	-14.83	28.19	3	Vertical	259	1.05	-	28.54	2.44	-
AV	2.485G	46.77	54.00	-7.23	15.79	3	Vertical	259	1.05	-	28.54	2.44	-

802.11g_Nss1,(6Mbps)_1TX

23/12/2020

2437MHz_TX



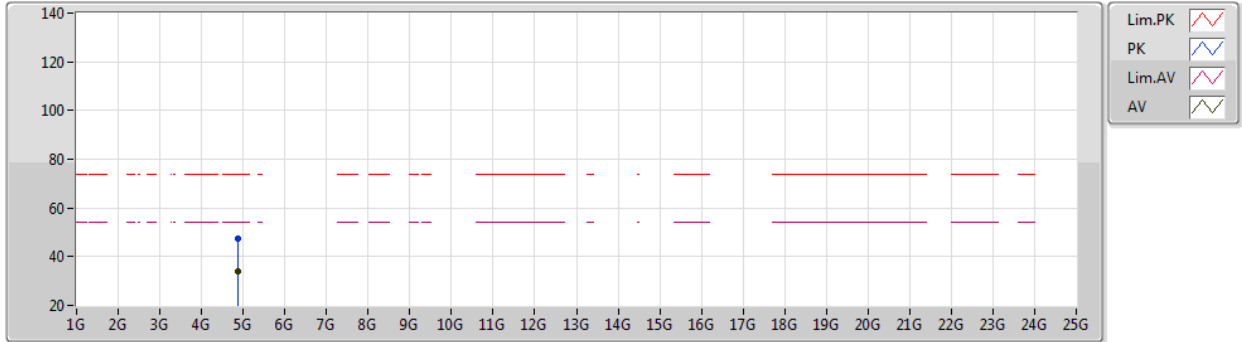
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Setting 18.5
02-B-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3522G	59.50	74.00	-14.50	28.78	3	Horizontal 1		2.04	-	28.30	2.42	-
AV	2.389G	46.62	54.00	-7.38	15.91	3	Horizontal 1		2.04	-	28.30	2.41	-
PK	2.4362G	104.66	Inf	-Inf	73.87	3	Horizontal 1		2.04	-	28.37	2.42	-
AV	2.4362G	95.17	Inf	-Inf	64.38	3	Horizontal 1		2.04	-	28.37	2.42	-
PK	2.4978G	58.84	74.00	-15.16	27.80	3	Horizontal 1		2.04	-	28.59	2.45	-
AV	2.4958G	46.74	54.00	-7.26	15.71	3	Horizontal 1		2.04	-	28.58	2.45	-

802.11g_Nss1,(6Mbps)_1TX

07/01/2021

2437MHz_TX



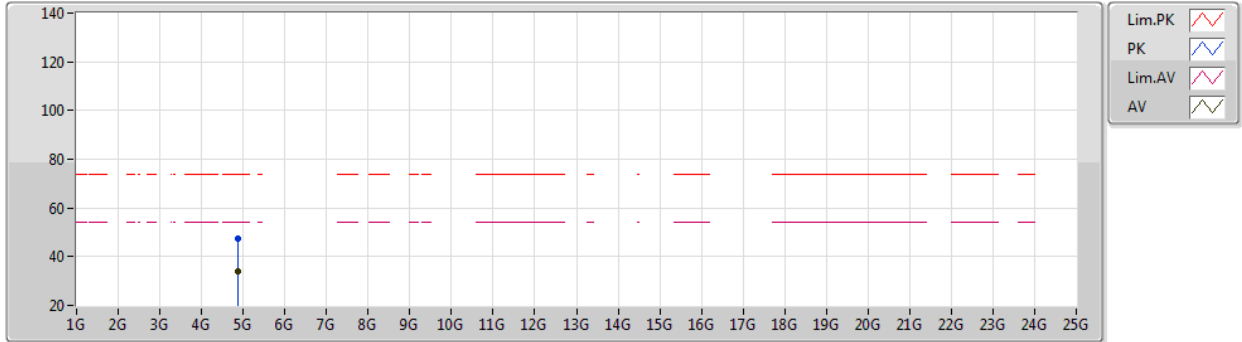
EUT Z_1TX
Setting 18.5
06-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.87428G	47.66	74.00	-26.34	43.19	3	Vertical	287	1.63	-	31.15	5.00	31.68
AV	4.87384G	33.95	54.00	-20.05	29.48	3	Vertical	287	1.63	-	31.15	5.00	31.68

802.11g_Nss1,(6Mbps)_1TX

07/01/2021

2437MHz_TX



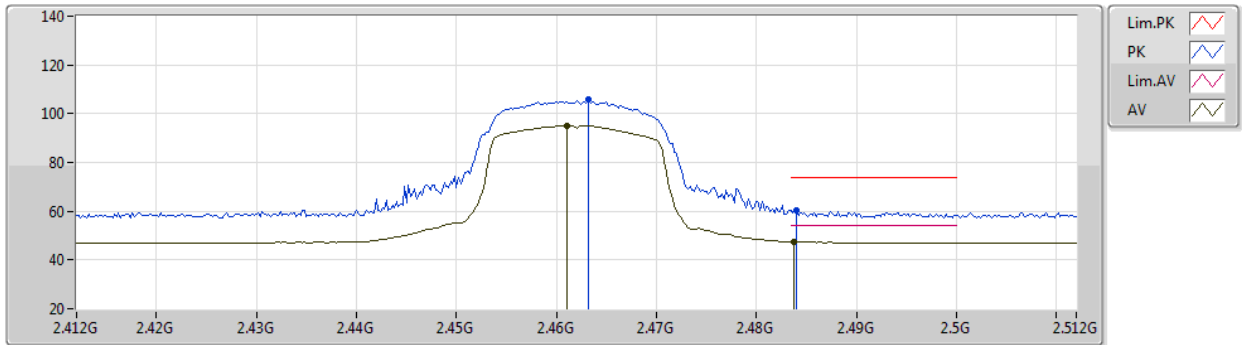
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Setting 18.5
06-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.87397G	47.31	74.00	-26.69	42.84	3	Horizontal	290	2.75	-	31.15	5.00	31.68
AV	4.87445G	33.75	54.00	-20.25	29.28	3	Horizontal	290	2.75	-	31.15	5.00	31.68

802.11g_Nss1,(6Mbps)_1TX

23/12/2020

2462MHz_TX



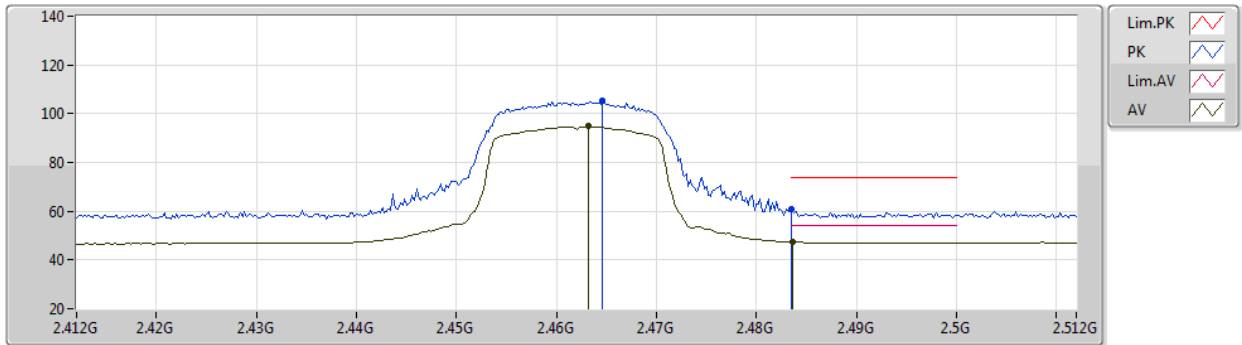
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Setting 18.5
02-B-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4632G	105.87	Inf	-Inf	74.99	3	Vertical	256	1.49	-	28.45	2.43	-
AV	2.461G	95.18	Inf	-Inf	64.31	3	Vertical	256	1.49	-	28.44	2.43	-
PK	2.484G	60.39	74.00	-13.61	29.41	3	Vertical	256	1.49	-	28.54	2.44	-
AV	2.4838G	47.41	54.00	-6.59	16.43	3	Vertical	256	1.49	-	28.54	2.44	-

802.11g_Nss1,(6Mbps)_1TX

23/12/2020

2462MHz_TX



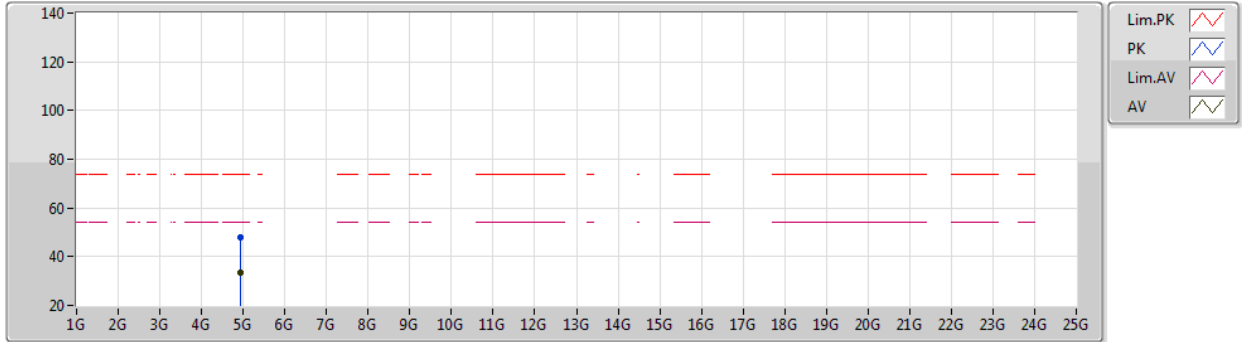
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Setting 18.5
02-B-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4646G	105.10	Inf	-Inf	74.21	3	Horizontal	114	1.67	-	28.46	2.43	-
AV	2.4632G	94.78	Inf	-Inf	63.90	3	Horizontal	114	1.67	-	28.45	2.43	-
PK	2.4835G	60.92	74.00	-13.08	29.95	3	Horizontal	114	1.67	-	28.53	2.44	-
AV	2.4836G	47.26	54.00	-6.74	16.29	3	Horizontal	114	1.67	-	28.53	2.44	-

802.11g_Nss1,(6Mbps)_1TX

07/01/2021

2462MHz_TX



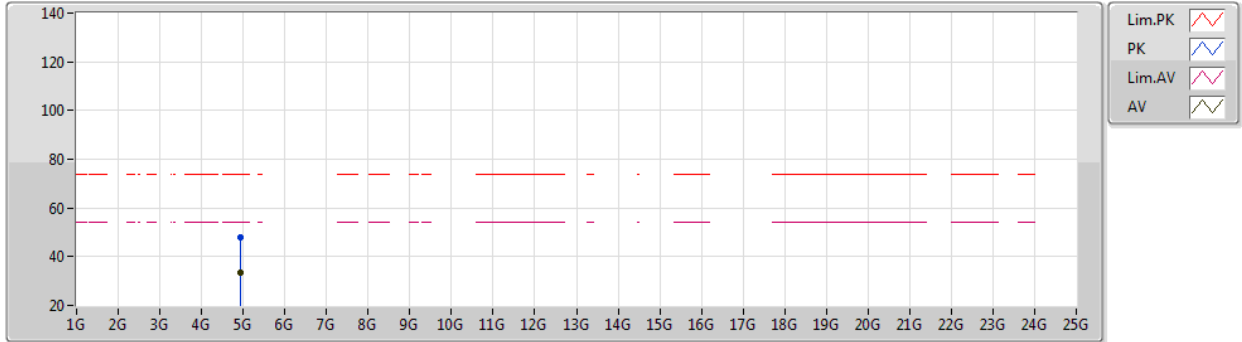
EUT Z_1TX
Setting 18.5
06-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.924G	47.74	74.00	-26.26	43.16	3	Vertical	238	1.76	-	31.20	5.00	31.62
AV	4.92439G	33.45	54.00	-20.55	28.87	3	Vertical	238	1.76	-	31.20	5.00	31.62

802.11g_Nss1,(6Mbps)_1TX

07/01/2021

2462MHz_TX



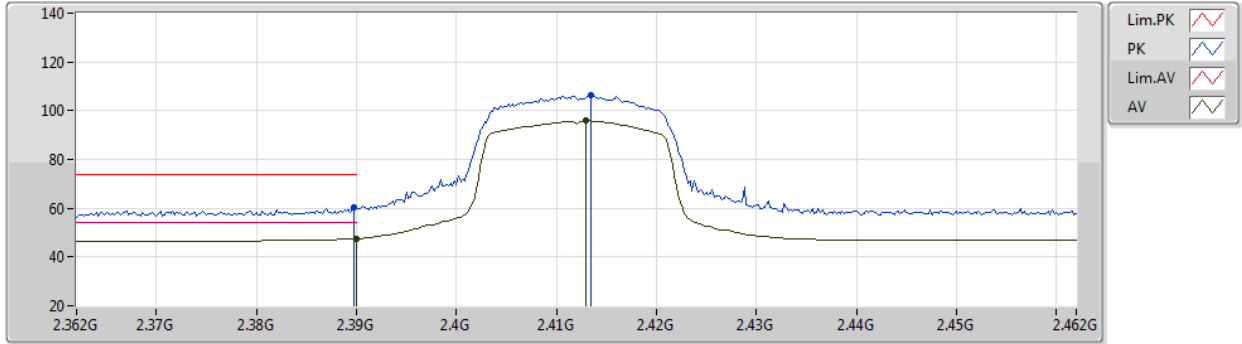
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Setting 18.5
06-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.92206G	47.82	74.00	-26.18	43.26	3	Horizontal	88	2.41	-	31.19	5.00	31.63
AV	4.92481G	33.43	54.00	-20.57	28.85	3	Horizontal	88	2.41	-	31.20	5.00	31.62

802.11n HT20_Nss1,(MCS0)_1TX

23/12/2020

2412MHz_TX



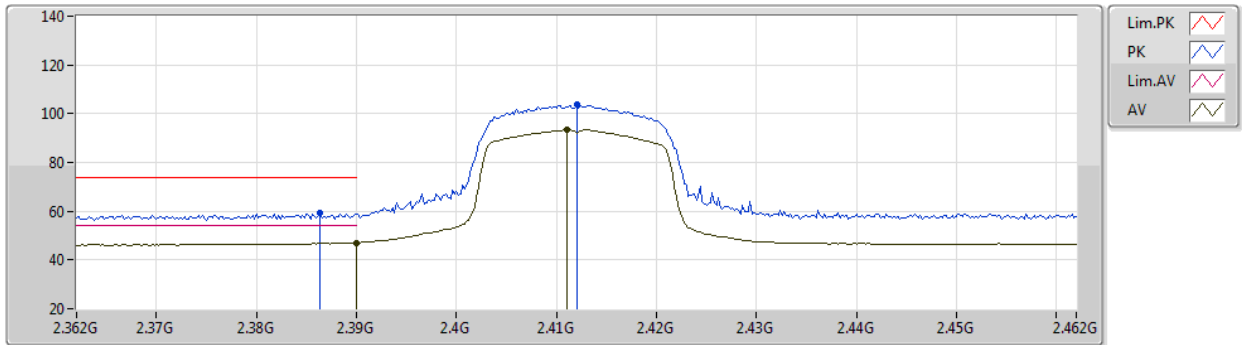
EUT Y_1TX
Setting 17.5
02-B-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	60.37	74.00	-13.63	29.66	3	Vertical	99	1.15	-	28.30	2.41	-
AV	2.39G	47.56	54.00	-6.44	16.85	3	Vertical	99	1.15	-	28.30	2.41	-
PK	2.4134G	106.23	Inf	-Inf	75.49	3	Vertical	99	1.15	-	28.33	2.41	-
AV	2.413G	95.86	Inf	-Inf	65.12	3	Vertical	99	1.15	-	28.33	2.41	-

802.11n HT20_Nss1,(MCS0)_1TX

23/12/2020

2412MHz_TX



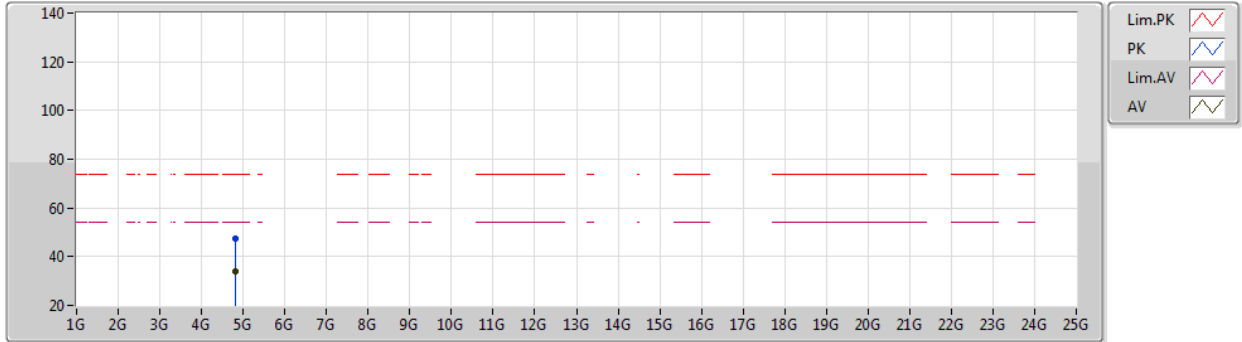
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Setting 17.5
02-B-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3864G	59.22	74.00	-14.78	28.51	3	Horizontal	353	1.85	-	28.30	2.41	-
AV	2.39G	47.07	54.00	-6.93	16.36	3	Horizontal	353	1.85	-	28.30	2.41	-
PK	2.412G	103.68	Inf	-Inf	72.95	3	Horizontal	353	1.85	-	28.32	2.41	-
AV	2.411G	93.31	Inf	-Inf	62.58	3	Horizontal	353	1.85	-	28.32	2.41	-

802.11n HT20_Nss1,(MCS0)_1TX

07/01/2021

2412MHz_TX



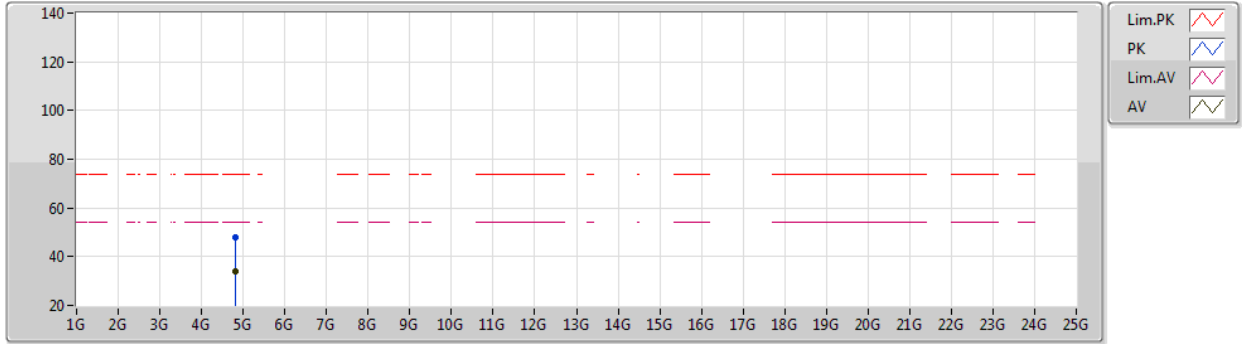
EUT Z_1TX
Setting 17.5
06-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.82464G	47.65	74.00	-26.35	43.29	3	Vertical	253	1.11	-	31.10	5.00	31.74
AV	4.8215G	33.90	54.00	-20.10	29.56	3	Vertical	253	1.11	-	31.09	5.00	31.75

802.11n HT20_Nss1,(MCS0)_1TX

07/01/2021

2412MHz_TX



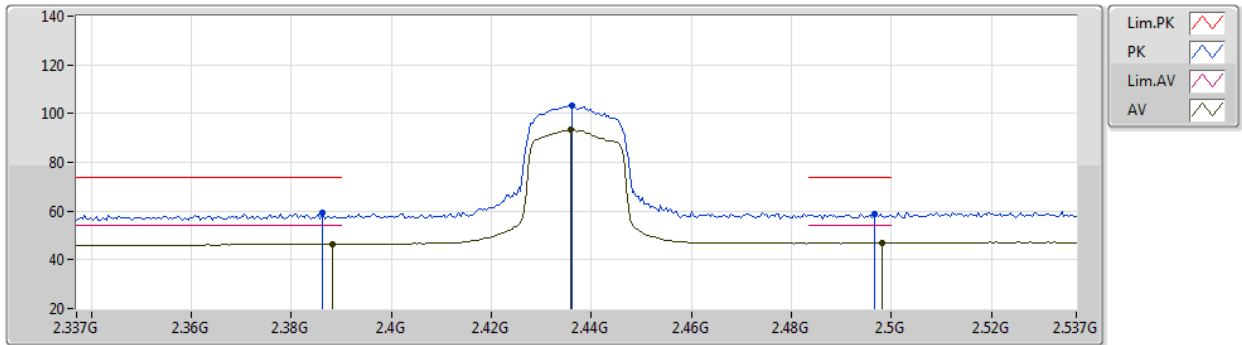
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Setting 17.5
06-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.82505G	47.78	74.00	-26.22	43.42	3	Horizontal	272	1.32	-	31.10	5.00	31.74
AV	4.82185G	33.94	54.00	-20.06	29.60	3	Horizontal	272	1.32	-	31.09	5.00	31.75

802.11n HT20_Nss1,(MCS0)_1TX

23/12/2020

2437MHz_TX



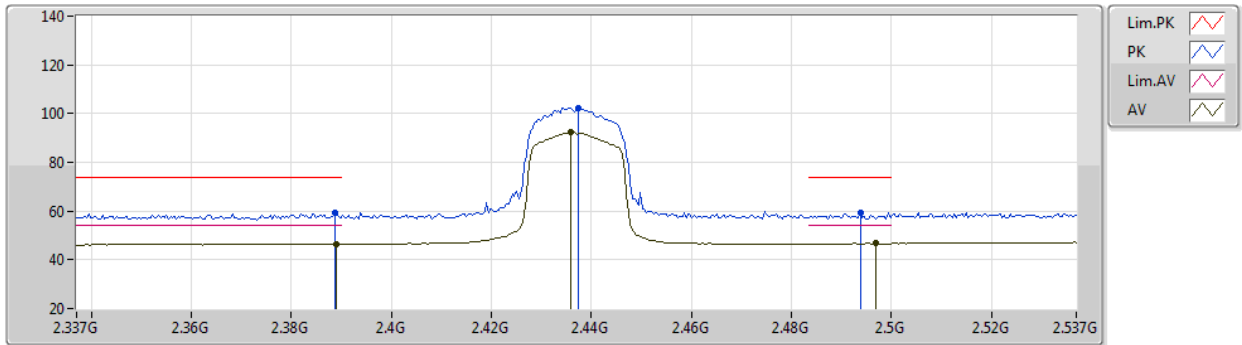
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Setting 17.5
02-B-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3862G	59.25	74.00	-14.75	28.54	3	Vertical	303	1.22	-	28.30	2.41	-
AV	2.3882G	46.50	54.00	-7.50	15.79	3	Vertical	303	1.22	-	28.30	2.41	-
PK	2.4362G	103.25	Inf	-Inf	72.46	3	Vertical	303	1.22	-	28.37	2.42	-
AV	2.4358G	93.31	Inf	-Inf	62.52	3	Vertical	303	1.22	-	28.37	2.42	-
PK	2.4966G	58.59	74.00	-15.41	27.55	3	Vertical	303	1.22	-	28.59	2.45	-
AV	2.4982G	46.82	54.00	-7.18	15.78	3	Vertical	303	1.22	-	28.59	2.45	-

802.11n HT20_Nss1,(MCS0)_1TX

23/12/2020

2437MHz_TX



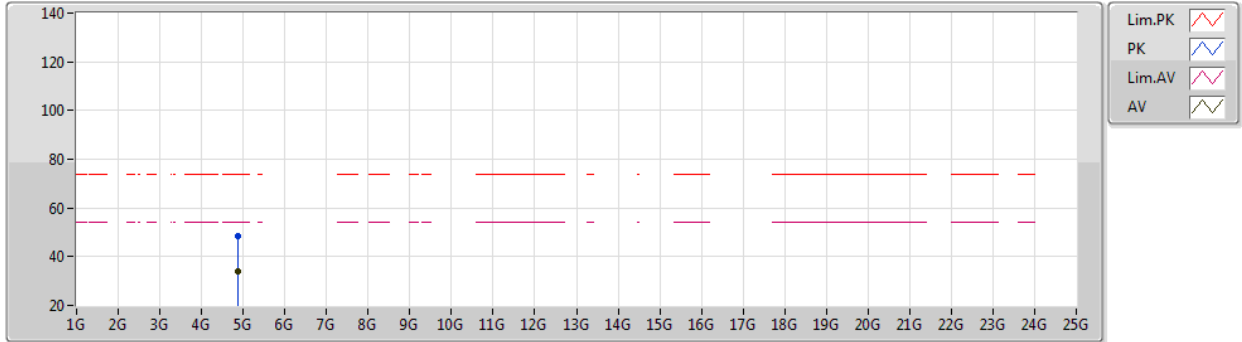
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Setting 17.5
02-B-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3886G	59.40	74.00	-14.60	28.69	3	Horizontal	357	1.13	-	28.30	2.41	-
AV	2.389G	46.50	54.00	-7.50	15.79	3	Horizontal	357	1.13	-	28.30	2.41	-
PK	2.4374G	102.48	Inf	-Inf	71.69	3	Horizontal	357	1.13	-	28.37	2.42	-
AV	2.4358G	92.38	Inf	-Inf	61.59	3	Horizontal	357	1.13	-	28.37	2.42	-
PK	2.4938G	59.53	74.00	-14.47	28.50	3	Horizontal	357	1.13	-	28.58	2.45	-
AV	2.497G	46.70	54.00	-7.30	15.66	3	Horizontal	357	1.13	-	28.59	2.45	-

802.11n HT20_Nss1,(MCS0)_1TX

07/01/2021

2437MHz_TX



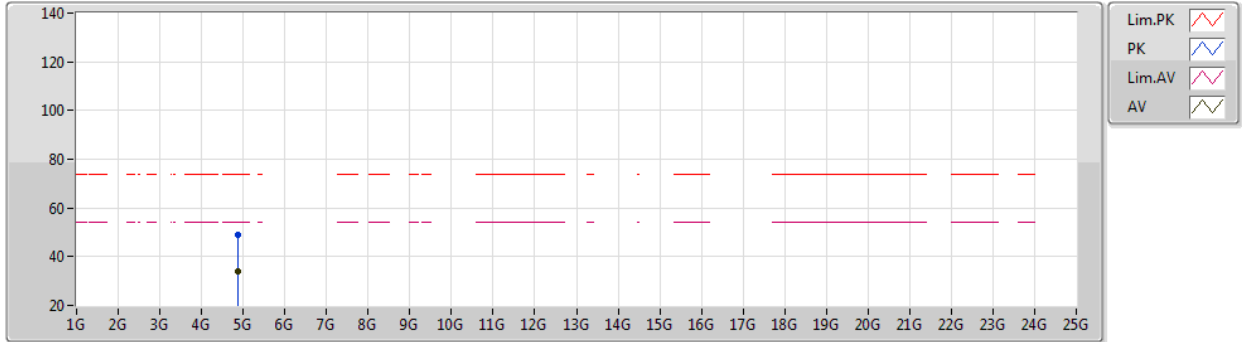
EUT Z_1TX
Setting 17.5
06-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.87335G	48.22	74.00	-25.78	43.75	3	Vertical	269	2.91	-	31.15	5.00	31.68
AV	4.87351G	34.07	54.00	-19.93	29.60	3	Vertical	269	2.91	-	31.15	5.00	31.68

802.11n HT20_Nss1,(MCS0)_1TX

07/01/2021

2437MHz_TX



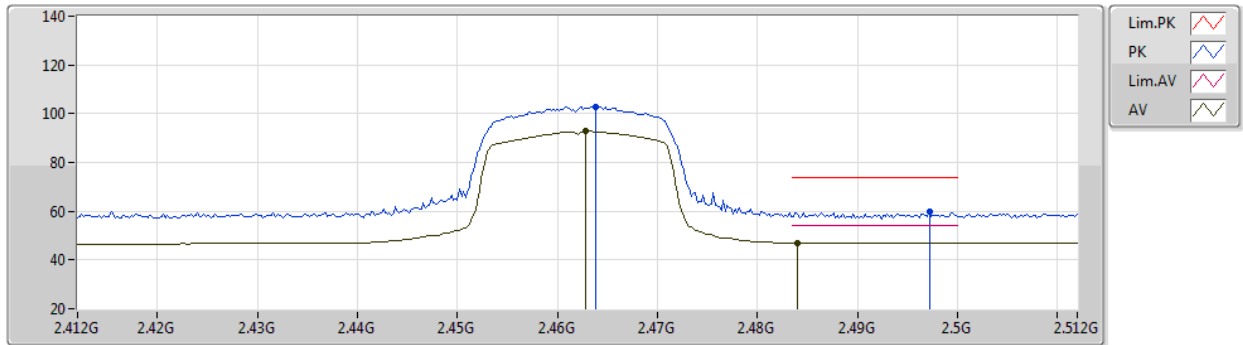
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Setting 17.5
06-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.87169G	49.21	74.00	-24.79	44.74	3	Horizontal	353	1.02	-	31.16	5.00	31.69
AV	4.8754G	34.07	54.00	-19.93	29.60	3	Horizontal	353	1.02	-	31.15	5.00	31.68

802.11n HT20_Nss1,(MCS0)_1TX

23/12/2020

2462MHz_TX



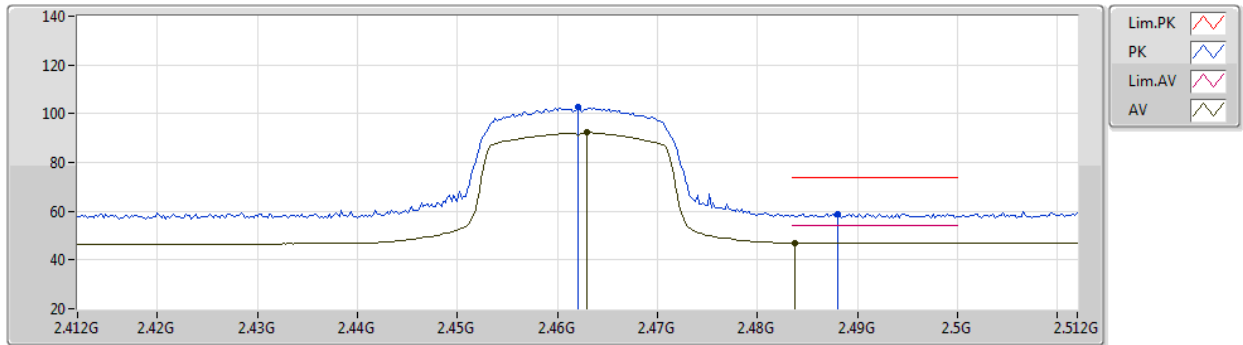
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Setting 17.5
02-B-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4638G	102.99	Inf	-Inf	72.10	3	Vertical	260	1.43	-	28.46	2.43	-
AV	2.4628G	92.77	Inf	-Inf	61.89	3	Vertical	260	1.43	-	28.45	2.43	-
PK	2.4972G	59.62	74.00	-14.38	28.58	3	Vertical	260	1.43	-	28.59	2.45	-
AV	2.484G	46.91	54.00	-7.09	15.93	3	Vertical	260	1.43	-	28.54	2.44	-

802.11n HT20_Nss1,(MCS0)_1TX

23/12/2020

2462MHz_TX



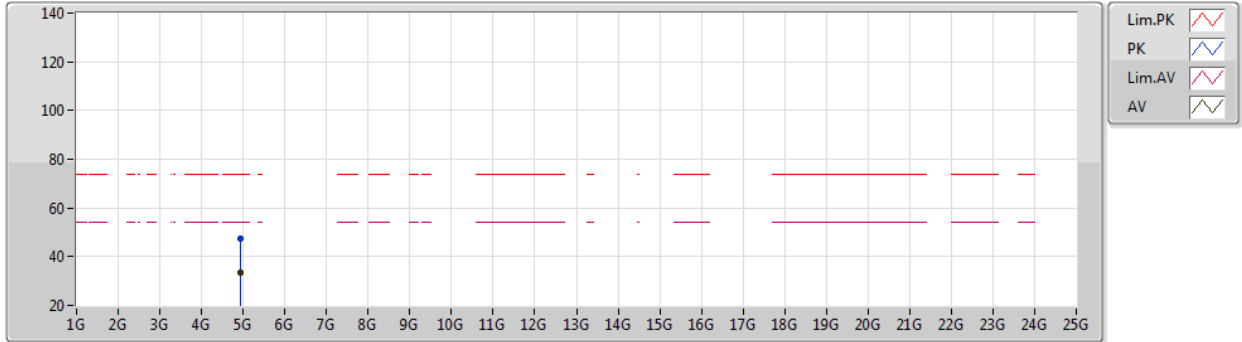
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Setting 17.5
02-B-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.462G	102.64	Inf	-Inf	71.76	3	Horizontal	115	1.67	-	28.45	2.43	-
AV	2.463G	92.26	Inf	-Inf	61.38	3	Horizontal	115	1.67	-	28.45	2.43	-
PK	2.488G	58.99	74.00	-15.01	28.00	3	Horizontal	115	1.67	-	28.55	2.44	-
AV	2.4838G	46.85	54.00	-7.15	15.87	3	Horizontal	115	1.67	-	28.54	2.44	-

802.11n HT20_Nss1,(MCS0)_1TX

07/01/2021

2462MHz_TX



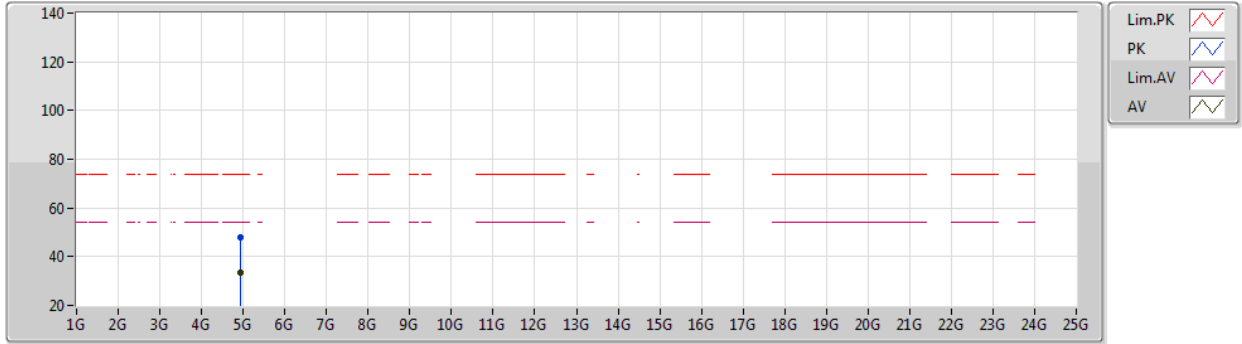
EUT Z_1TX
Setting 17.5
06-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.9234G	47.52	74.00	-26.48	42.95	3	Vertical	337	1.61	-	31.19	5.00	31.62
AV	4.9241G	33.49	54.00	-20.51	28.91	3	Vertical	337	1.61	-	31.20	5.00	31.62

802.11n HT20_Nss1,(MCS0)_1TX

07/01/2021

2462MHz_TX



EUT Z_1TX
Setting 17.5
06-C-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.92577G	48.04	74.00	-25.96	43.46	3	Horizontal	298	2.12	-	31.20	5.00	31.62
AV	4.92285G	33.51	54.00	-20.49	28.94	3	Horizontal	298	2.12	-	31.19	5.00	31.62