



FCC RADIO TEST REPORT

FCC ID : 2AWNEKDE20104
Equipment : Home Entertainment Hub
Brand Name : E1 by Ericsson
Model Name : KDE20104
Applicant : Ericsson AB
21-23 Torshamnsgatan Stockholm, 16480 Sweden
Manufacturer : CyberTAN Technology Inc.
No. 99, Park Avenue III Science-based Industrial
Park Hsinchu Taiwan 308
Standard : 47 CFR FCC Part 15.247

The product was received on Jan. 21, 2021, and testing was started from Jan. 21, 2021 and completed on Feb. 22, 2021. 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 test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

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



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History of this test report

TEL : 886-3-656-9065
FAX : 886-3-656-9085
Report Template No.: CB-A10_10 Ver1.2

Page Number : 3 of 28
Issued Date : Feb. 26, 2021
Report Version : 01



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: Vicky 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	1TX
2.4-2.4835GHz	802.11g	20	1TX
2.4-2.4835GHz	802.11n HT20	20	1TX

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

For AX Module:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)		
					WLAN 2.4GHz	WLAN 5GHz	Bluetooth
1	Airgain	N2420DSRH-T6-PK1-B320 U4LI	PCB Antenna	I-PEX	1.1	3.3	1.1
2	Airgain	N2420DSRJ-T6-PK1-W110 U4LIR1	PCB Antenna	I-PEX	1.1	3.6	-

Note: Certified AX module (module FCC ID: PD9AX200NG)

For AI module:

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	
						WLAN 2.4GHz	Zigbee
1	1	Airgain	N2415GB	PCB Antenna	I-PEX	3.2	-
2	1	Airgain	N2420ZB	PCB Antenna	I-PEX	-	1.4

Note: The above information was declared by manufacturer.

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	0.961	0.17	11.396m	100
802.11g	0.929	0.32	1.897m	1k
802.11n HT20	0.904	0.44	1.77m	1k

Note:

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

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter			
Beamforming Function	☐	With beamforming	☒	Without beamforming
Function	☒	Point-to-multipoint	☐	Point-to-point
Test Software Version	RadioToolGUI_v1.0.3.7			

Note: The above information was declared by manufacturer.

1.1.5 The EUT Support Function Information

Module	Function
AX (Contain module FCC ID: PD9AX200NG)	WLAN 2.4GHz, WLAN 5GHz and Bluetooth
AI	WLAN 2.4GHz, Zigbee



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, Ln. 724, Bo'ai St., Zhubei 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 (°C / %)	Test Date
RF Conducted	TH02-CB	Paul Chen	21-22 / 56-57	Feb. 05, 2021
Radiated<1GHz	03CH05-CB	KJ Chang	20.8-22 / 55-58	Feb. 03, 2021~ Feb. 22, 2021
Radiated>1GHz	03CH05-CB	KJ Chang	20.1-21.3 / 56-58	Feb. 03, 2021~ Feb. 22, 2021
AC Conduction	CO01-CB	Ryo Fan	19~20 / 61~62	Jan. 21, 2021

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 (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	0
2437MHz	0
2462MHz	0
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	0
2437MHz	0
2462MHz	0
802.11n HT20_Nss1,(MCS0)_1TX	-
2412MHz	0
2437MHz	0
2462MHz	0

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				
Test Mode	SD R/W	Camera	AX Module	AI Module	Adapter
1	●	-	● WLAN 5GHz + Bluetooth	● WLAN 2.4GHz + Zigbee	● US cable
2	●	-	● WLAN 2.4GHz + Bluetooth	● WLAN 2.4GHz + Zigbee	● US cable
Mode 1 has been evaluated to be the worst case between Mode 1~2, thus measurement for Mode 3 will follow this same test mode.					
3	●	●	● WLAN 5GHz + Bluetooth	-	● US cable
For operating mode 3 is the worst case and it was record in this test report.					

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

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	CTX
1	EUT - WLAN 2.4GHz (AI module) + Adapter
2	EUT - Zigbee (AI module) + Adapter
For operating mode 1 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX



The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	AX module (WLAN 2.4GHz + Bluetooth) + AI module (WLAN 2.4GHz + Zigbee)
2	AX module (WLAN 5GHz + Bluetooth) + AI module (WLAN 2.4GHz + Zigbee)
Refer to Sporton Test Report No.: FA031633-01 for Co-location RF Exposure Evaluation.	

Note: The EUT can only be used at Z axis.

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

Power	Brand	Model	Rating	DC Power cable length
Adapter	FSP	FSP100-A1AR3	Input: 100-240V ~ 50-60Hz, 1.4A Output: 5V, 3A / 9V, 3A 12V, 3A / 15V, 3A 20V, 5.0A 100W MAX.	Non-Shielded 1.6m
Others				
HDMI cable*1: Shielded, 1.5m				
USB-C to USB-A cable*1: Shielded, 0.1m				
Power cable*1: Non-Shielded, 1m				

2.5 Support Equipment

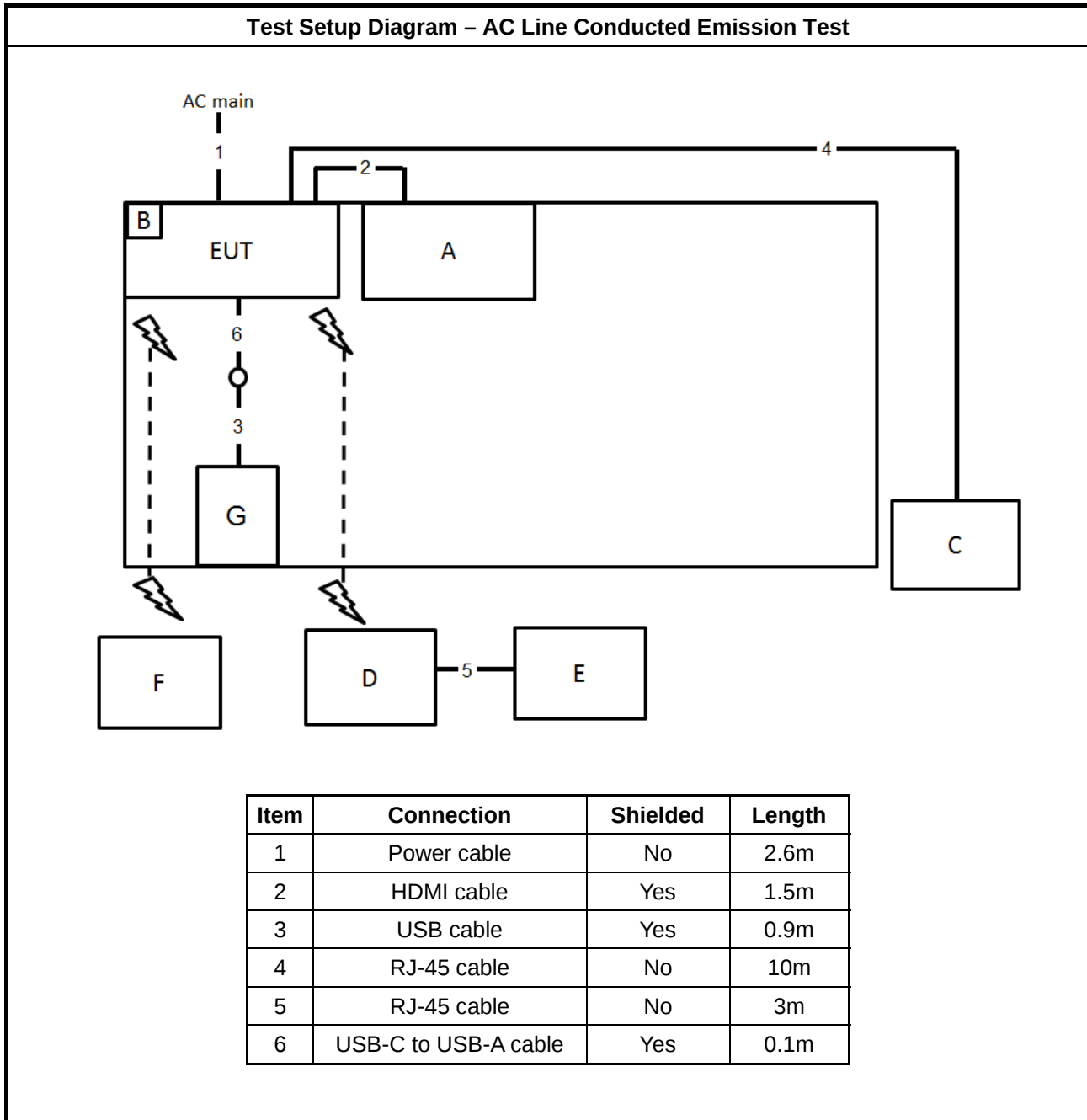
For AC Conduction:

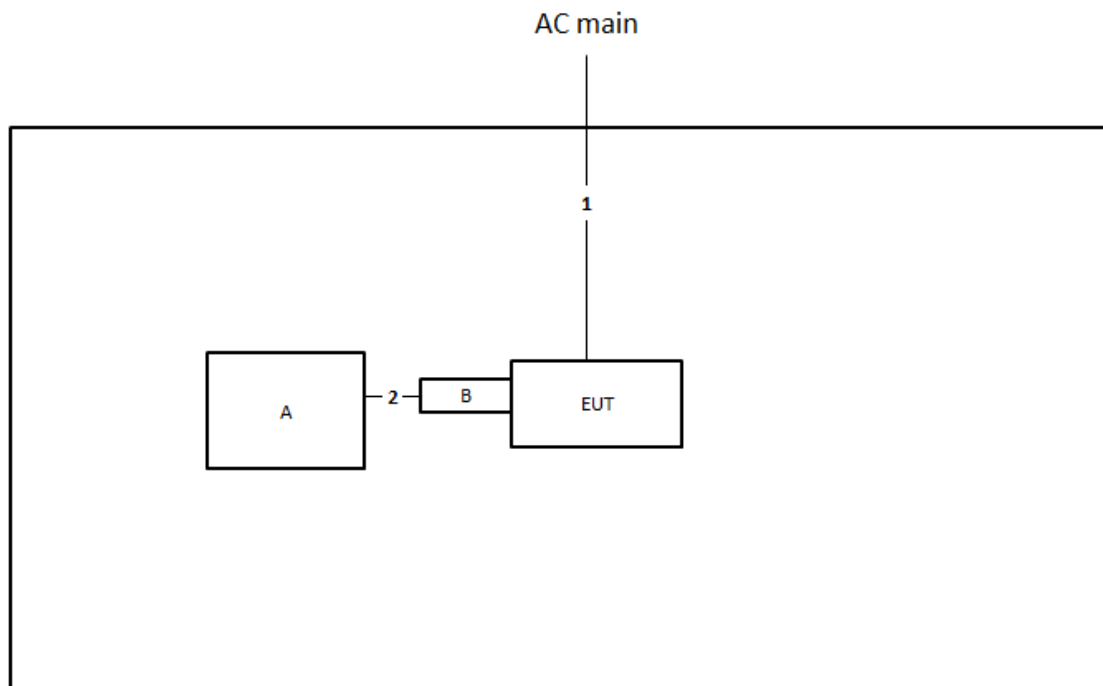
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	TV	ASUS	VP28U	N/A
B	Micro SD Card	Transcend	TS16GUSDHC10	N/A
C	LAN NB	DELL	E6430	N/A
D	AP Router	ASUS	RT-AX88U	MSQ-RTAXHP00
E	AP NB	DELL	E6430	N/A
F	Bluetooth Speaker	MARUS	MSK06C-RD	N/A
G	Air mouse	HENCHUNGYU	HCY-57B	2AOBUHCY-57B

For Radiated and RF Conducted:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A
B	Test Fixture	Cybertan	CC31XXEMVB003T	N/A

2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test


Item	Connection	Shielded	Length
1	Power cable	No	2.6m
2	USB-C to USB-A cable	Yes	0.1m



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.

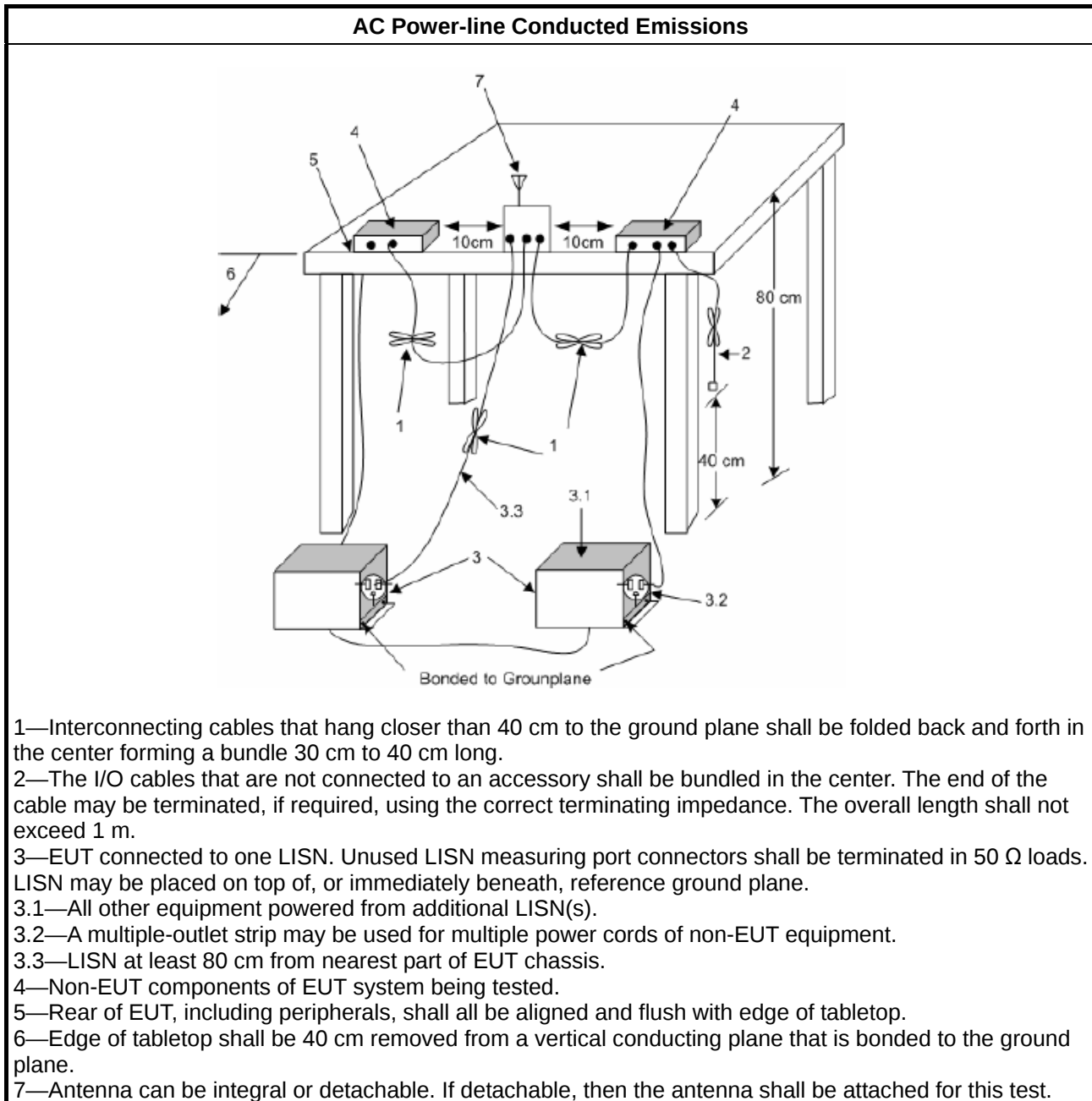
3.1.2 Measuring Instruments

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



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:	
▪	6 dB bandwidth $\geq$ 500 kHz.

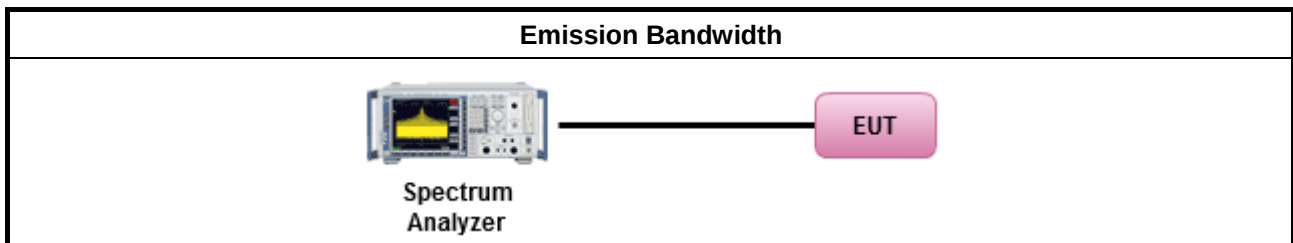
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
▪	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



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.	

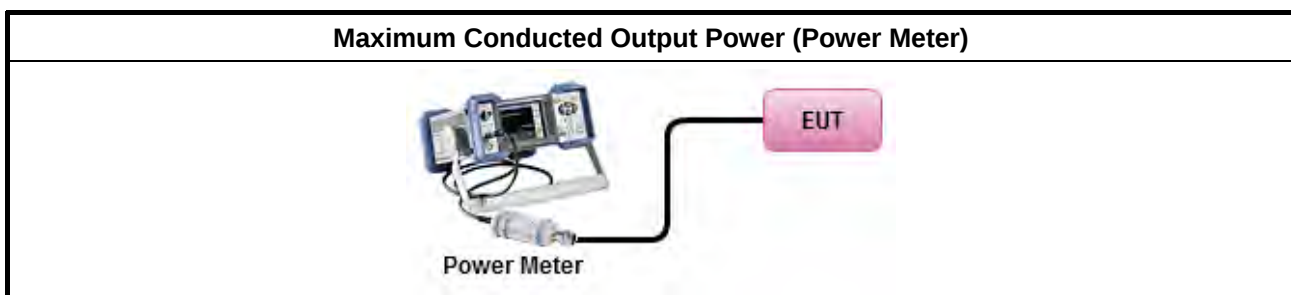
3.3.2 Measuring Instruments

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: $P_{total} = P_1 + P_2 + \dots + P_n$ (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
▪ Power Spectral Density (PSD) ≤ 8 dBm/3kHz

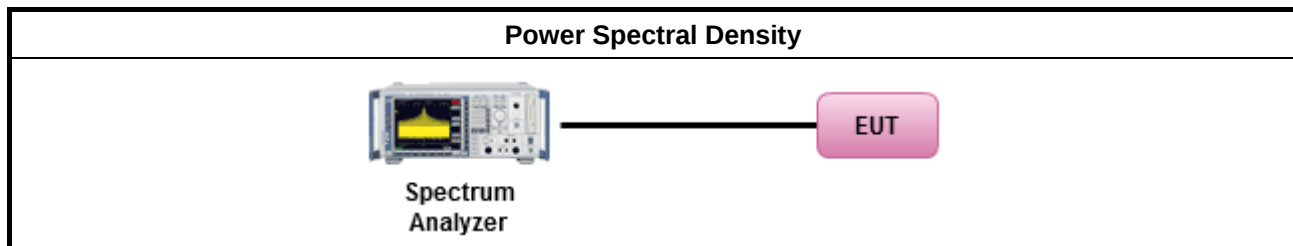
3.4.2 Measuring Instruments

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



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.	

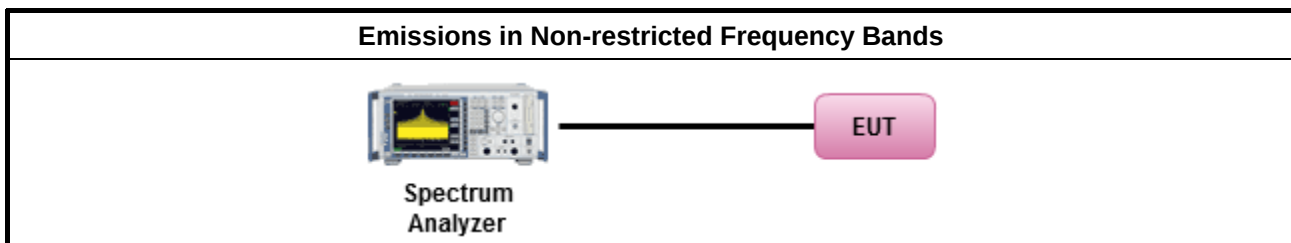
3.5.2 Measuring Instruments

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



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

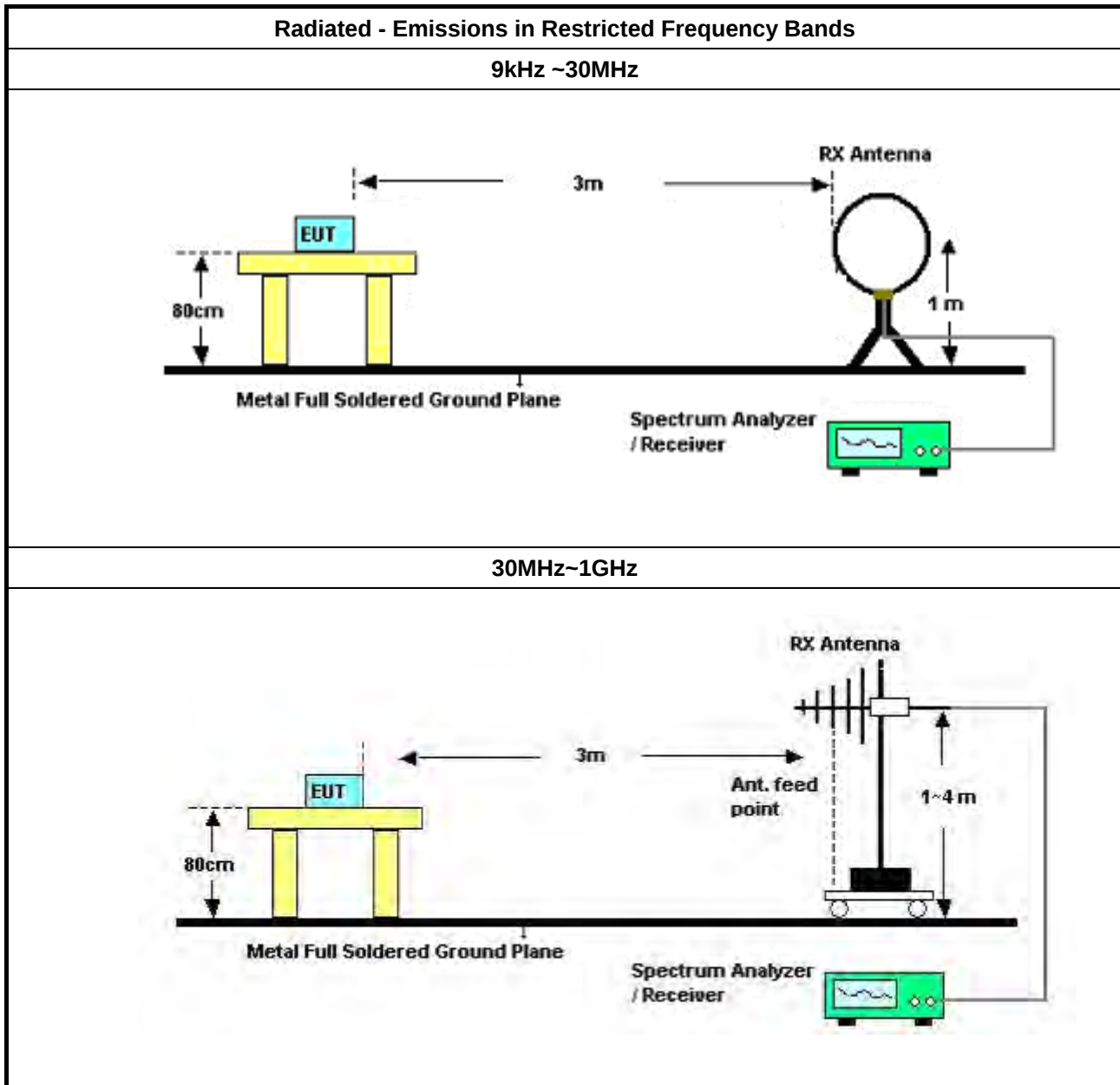
Refer a test equipment and calibration data table in this test report.

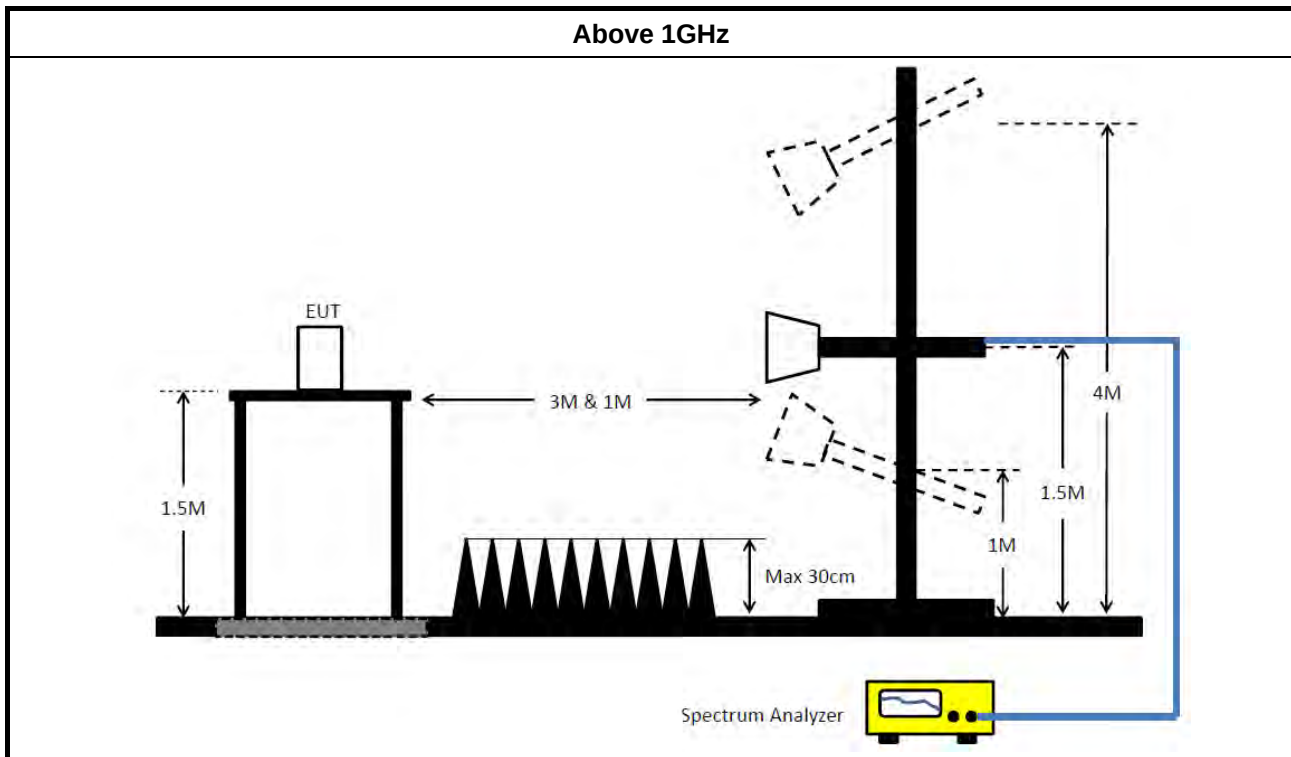


3.6.3 Test Procedures

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 $\geq 98\%$).
	☐ 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 $\geq 1/T$).
	☐ Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW $\geq 1/T$, 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





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
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.4GHz	Feb. 26, 2020	Feb. 25, 2021	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Jan. 06, 2021	Jan. 05, 2022	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Feb. 25, 2020	Feb. 24, 2021	Conduction (CO01-CB)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100430	9kHz ~ 30MHz	Jan. 31, 2020	Jan. 30, 2021	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	May 20, 2020	May 19, 2021	Conduction (CO01-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH05-CB	30 MHz ~ 1 GHz	Aug. 10, 2020	Aug. 09, 2021	Radiation (03CH05-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH05-CB	1GHz ~ 18GHz 3m	Nov. 08, 2020	Nov. 07, 2021	Radiation (03CH05-CB)
Bilog Antenna with 6dB Attenuator	TESEQ & EMCI	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 27, 2020	Mar. 26, 2021	Radiation (03CH05-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Apr. 13, 2020	Apr. 12, 2021	Radiation (03CH05-CB)
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA 9120 D-1291	1GHz~18GHz	Sep. 05, 2020	Sep. 04, 2021	Radiation (03CH05-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 21, 2020	Jul. 20, 2021	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	Apr. 28, 2020	Apr. 27, 2021	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC12630SE	980287	1GHz ~ 26.5GHz	Jul. 03, 2020	Jul. 02, 2021	Radiation (03CH05-CB)
Pre-Amplifier	MITEQ	TTA1840-35-H G	1864479	18GHz ~ 40GHz	Jul. 08, 2020	Jul. 07, 2021	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Nov. 10, 2020	Nov. 09, 2021	Radiation (03CH05-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	May 13, 2020	May 12, 2021	Radiation (03CH05-CB)
RF Cable-low	Woken	RG402	Low Cable-04+23	30MHz~1GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-28	1GHz~18GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-04+28	1GHz~18GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH05-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH05-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH05-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.

NCR means Non-Calibration required.



AC Power Port Conducted Emission Result

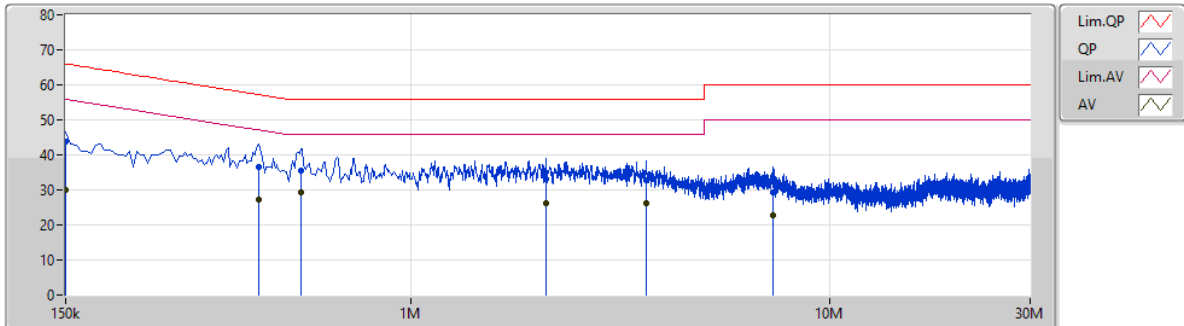
Appendix A

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 3	Pass	AV	546k	29.35	46.00	-16.65	Line

Mode 3

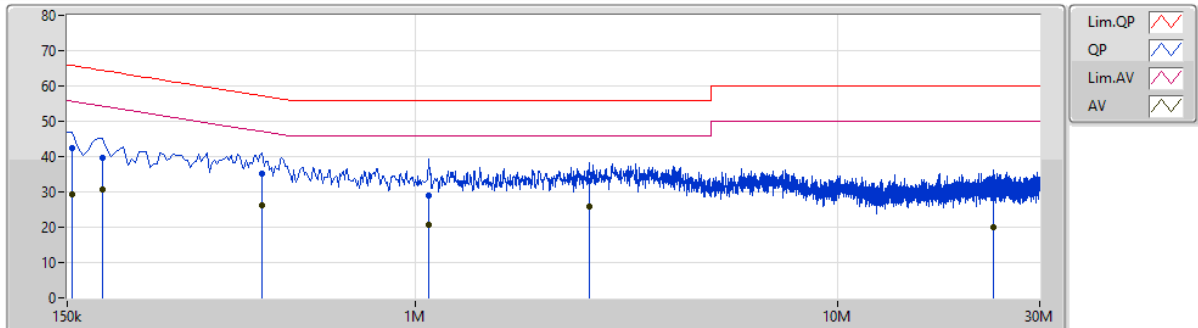
21/01/2021



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	150k	43.95	66.00	-22.05	9.89	Line	-	34.06	0.05	0.03	9.81			
AV	150k	29.94	56.00	-26.06	9.89	Line	-	20.05	0.05	0.03	9.81			
QP	433.5k	36.64	57.19	-20.55	9.90	Line	-	26.74	0.04	0.03	9.83			
AV	433.5k	27.18	47.19	-20.01	9.90	Line	-	17.28	0.04	0.03	9.83			
QP	546k	35.43	56.00	-20.57	9.90	Line	-	25.53	0.04	0.03	9.83			
AV	546k	29.35	46.00	-16.65	9.90	Line	"Worst"	19.45	0.04	0.03	9.83			
QP	2.099M	33.19	56.00	-22.81	9.99	Line	-	23.20	0.06	0.07	9.86			
AV	2.099M	26.15	46.00	-19.85	9.99	Line	-	16.16	0.06	0.07	9.86			
QP	3.647M	32.75	56.00	-23.25	10.05	Line	-	22.70	0.09	0.12	9.84			
AV	3.647M	26.04	46.00	-19.96	10.05	Line	-	15.99	0.09	0.12	9.84			
QP	7.328M	29.30	60.00	-30.70	10.17	Line	-	19.13	0.14	0.14	9.89			
AV	7.328M	22.82	50.00	-27.18	10.17	Line	-	12.65	0.14	0.14	9.89			

Mode 3

21/01/2021



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	154.5k	42.58	65.75	-23.17	9.88	Neutral	-	32.70	0.04	0.03	9.81			
AV	154.5k	29.33	55.75	-26.42	9.88	Neutral	-	19.45	0.04	0.03	9.81			
QP	181.5k	39.61	64.41	-24.80	9.89	Neutral	-	29.72	0.04	0.03	9.82			
AV	181.5k	30.72	54.41	-23.69	9.89	Neutral	-	20.83	0.04	0.03	9.82			
QP	433.5k	35.34	57.19	-21.85	9.90	Neutral	-	25.44	0.04	0.03	9.83			
AV	433.5k	26.06	47.19	-21.13	9.90	Neutral	-	16.16	0.04	0.03	9.83			
QP	1.077M	28.92	56.00	-27.08	9.93	Neutral	-	18.99	0.06	0.04	9.83			
AV	1.077M	20.81	46.00	-25.19	9.93	Neutral	-	10.88	0.06	0.04	9.83			
QP	2.576M	33.07	56.00	-22.93	10.02	Neutral	-	23.05	0.08	0.09	9.85			
AV	2.576M	25.85	46.00	-20.15	10.02	Neutral	"Worst"	15.83	0.08	0.09	9.85			
QP	23.294M	28.28	60.00	-31.72	10.59	Neutral	-	17.69	0.25	0.33	10.01			
AV	23.294M	20.13	50.00	-29.87	10.59	Neutral	-	9.54	0.25	0.33	10.01			

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	9.575M	14.018M	14M0G1D	9.075M	13.993M
802.11g_Nss1,(6Mbps)_1TX	15.1M	17.016M	17M0D1D	14.05M	16.392M
802.11n HT20_Nss1,(MCS0)_1TX	15.025M	17.666M	17M7D1D	14.975M	17.466M

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;

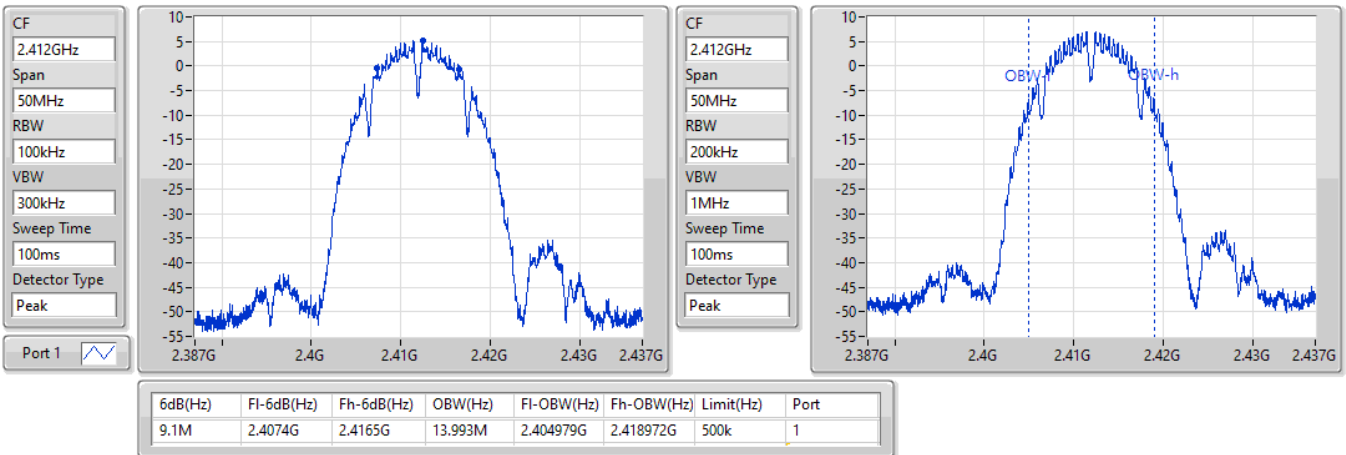
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	9.1M	13.993M
2437MHz	Pass	500k	9.575M	13.993M
2462MHz	Pass	500k	9.075M	14.018M
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	15.1M	16.392M
2437MHz	Pass	500k	15.025M	17.016M
2462MHz	Pass	500k	14.05M	16.392M
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	14.975M	17.466M
2437MHz	Pass	500k	15M	17.666M
2462MHz	Pass	500k	15.025M	17.466M

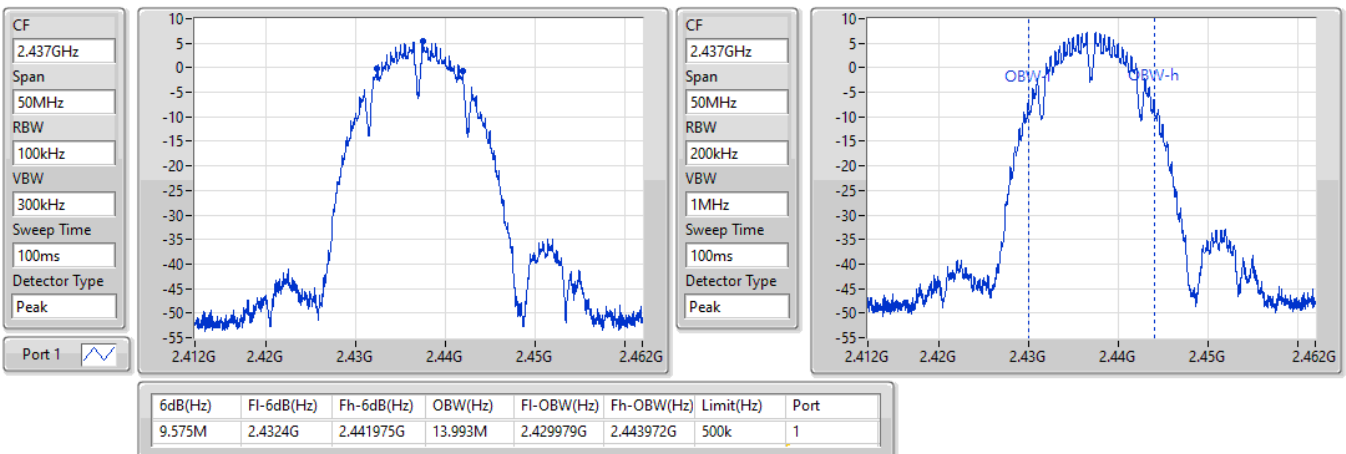
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

802.11b_Nss1,(1Mbps)_1TX
EBW
2412MHz

05/02/2021


802.11b_Nss1,(1Mbps)_1TX
EBW
2437MHz

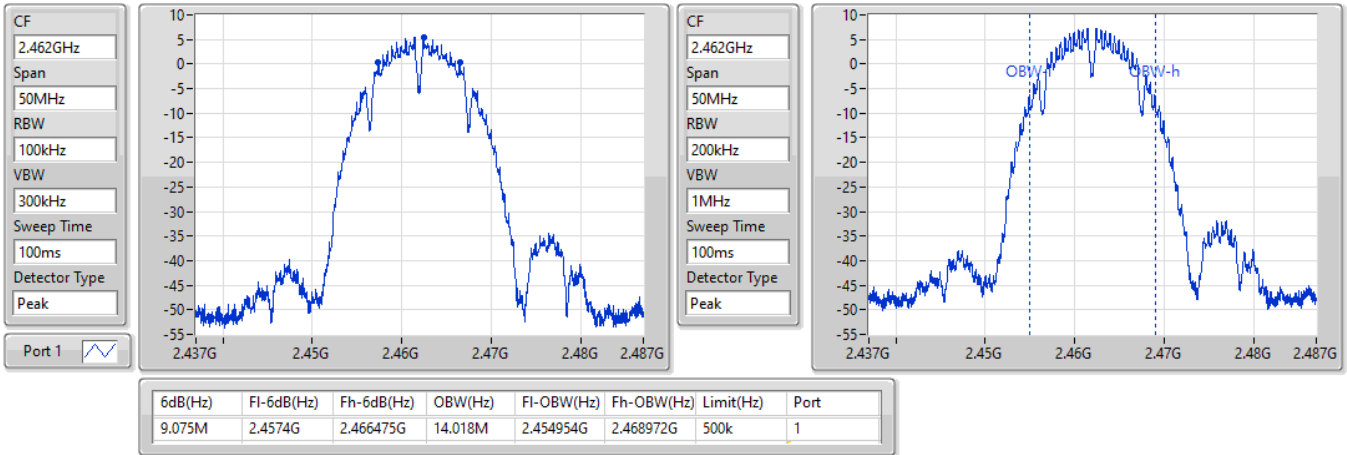
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802.11b_Nss1,(1Mbps)_1TX

EBW
2462MHz

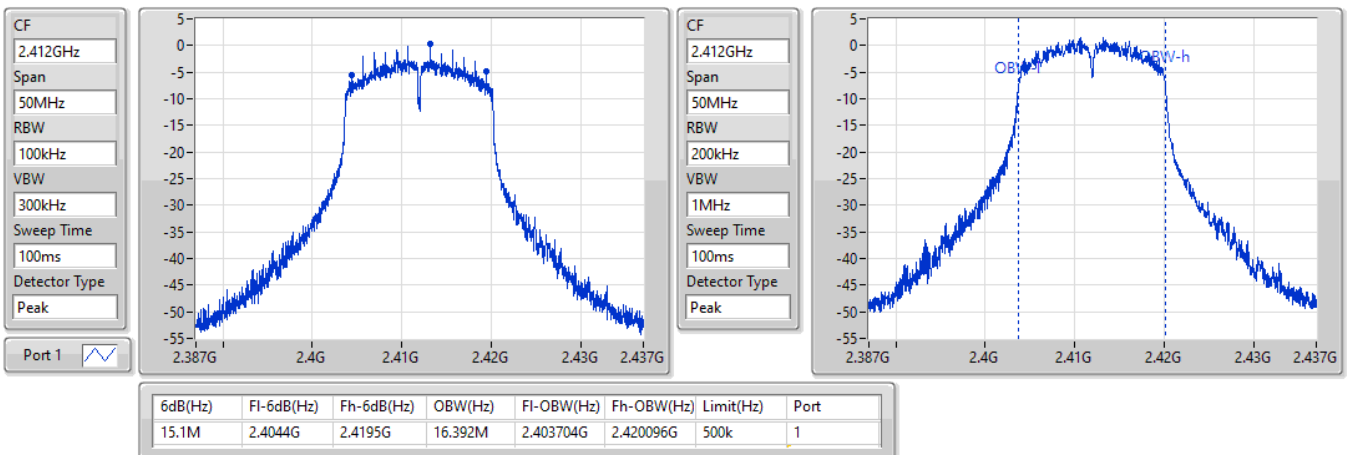
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802.11g_Nss1,(6Mbps)_1TX

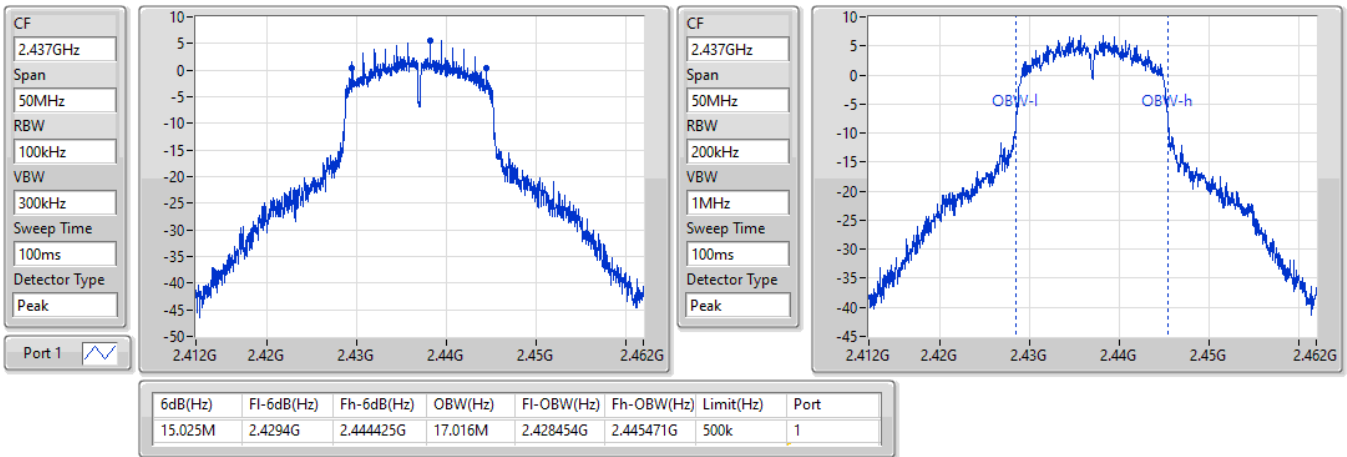
EBW
2412MHz

05/02/2021

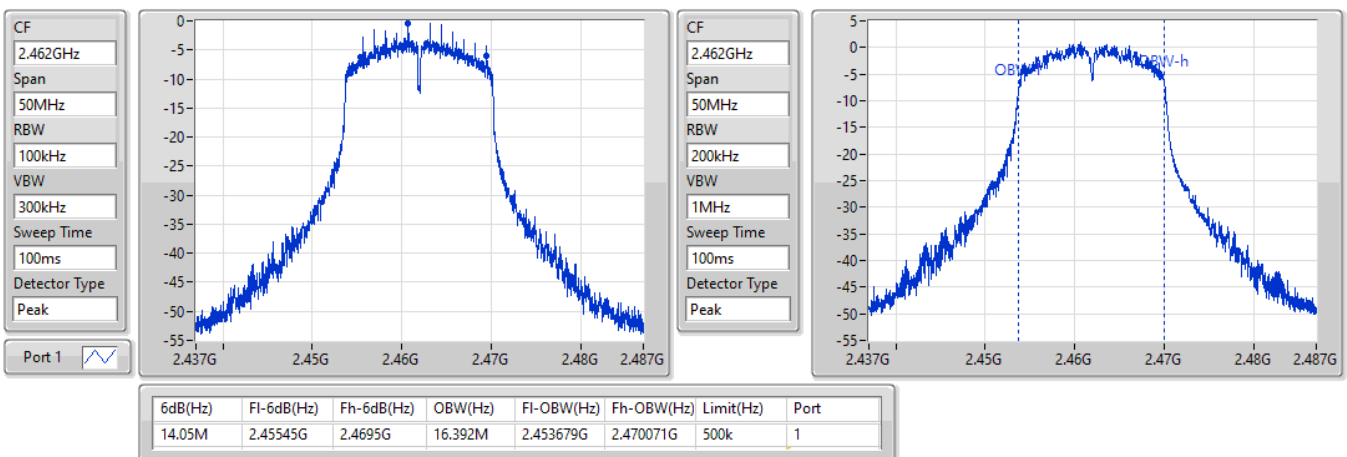


802.11g_Nss1,(6Mbps)_1TX
EBW
2437MHz

05/02/2021

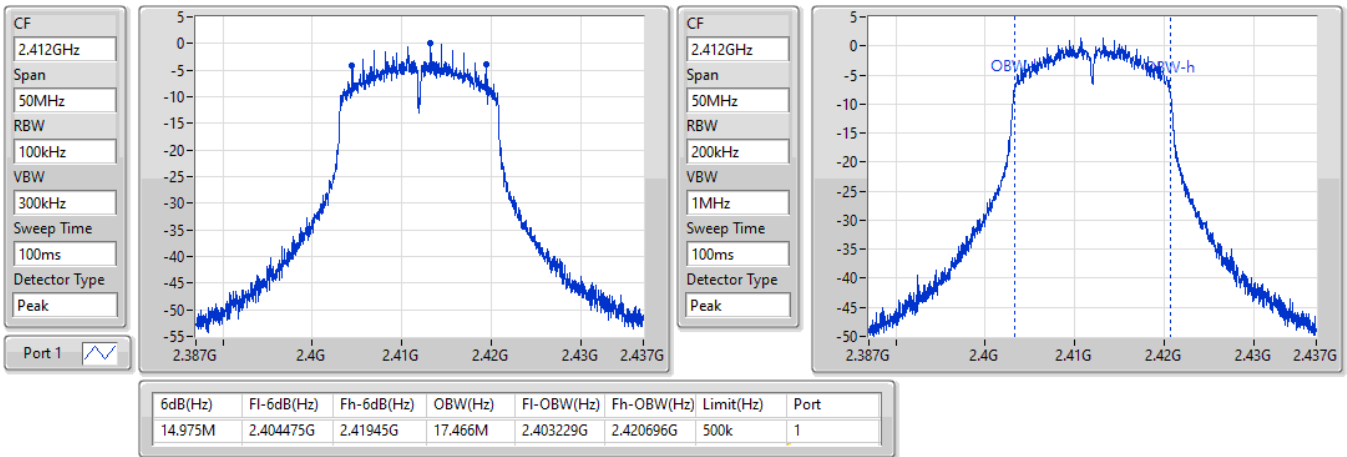

802.11g_Nss1,(6Mbps)_1TX
EBW
2462MHz

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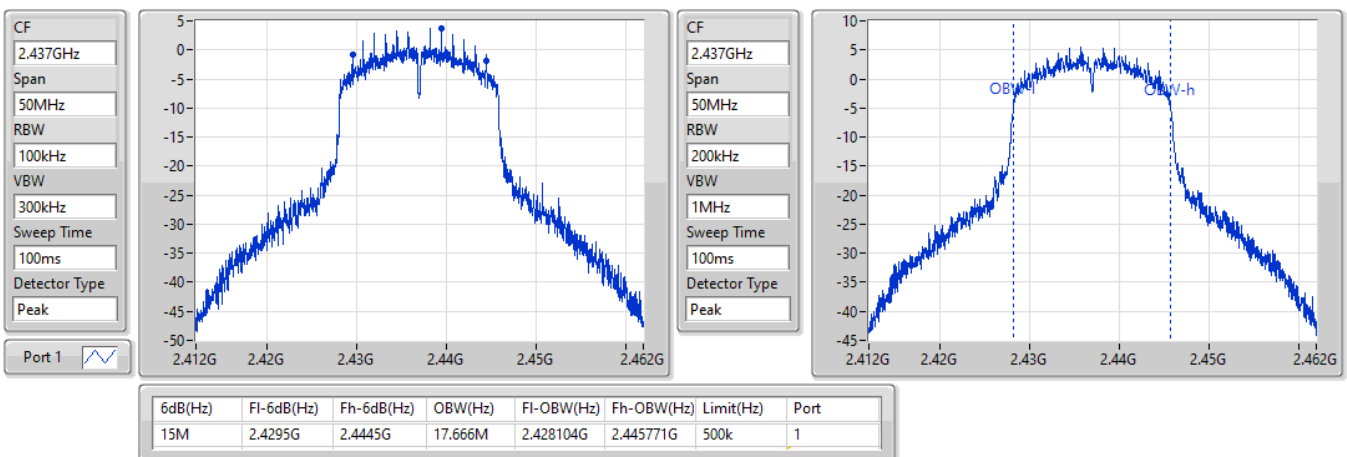


802.11n HT20_Nss1,(MCS0)_1TX
EBW
2412MHz

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802.11n HT20_Nss1,(MCS0)_1TX
EBW
2437MHz

05/02/2021

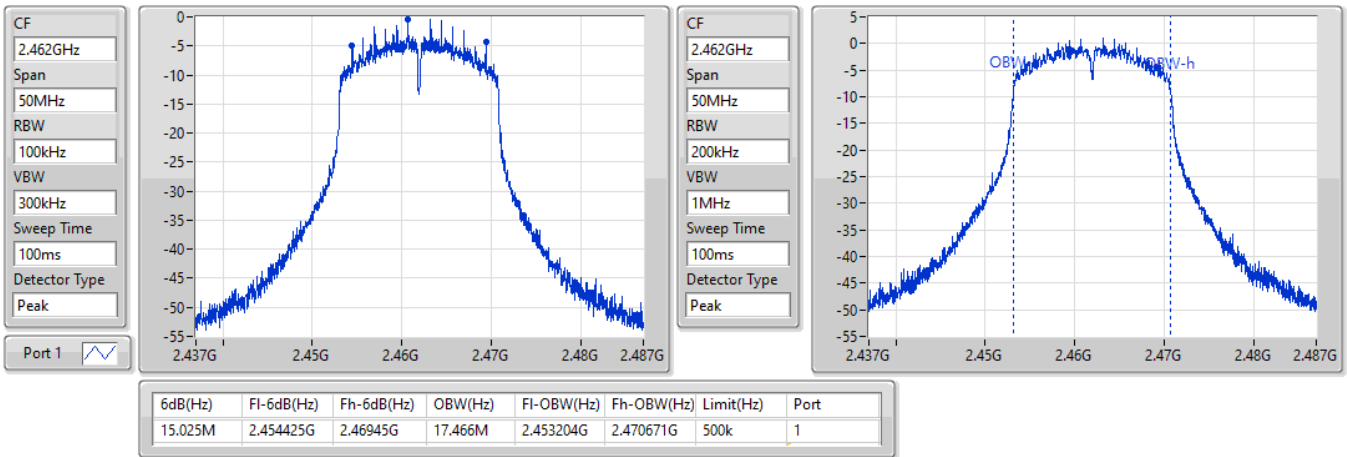


802.11n HT20_Nss1,(MCS0)_1TX

EBW

2462MHz

05/02/2021





Average Power

Appendix C

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX	15.22	0.03327
802.11g_Nss1,(6Mbps)_1TX	15.27	0.03365
802.11n HT20_Nss1,(MCS0)_1TX	13.78	0.02388

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	3.20	15.03	15.03	30.00
2437MHz	Pass	3.20	15.18	15.18	30.00
2462MHz	Pass	3.20	15.22	15.22	30.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	3.20	10.52	10.52	30.00
2437MHz	Pass	3.20	15.27	15.27	30.00
2462MHz	Pass	3.20	10.00	10.00	30.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	3.20	10.19	10.19	30.00
2437MHz	Pass	3.20	13.78	13.78	30.00
2462MHz	Pass	3.20	9.71	9.71	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	-11.39
802.11g_Nss1,(6Mbps)_1TX	-11.98
802.11n HT20_Nss1,(MCS0)_1TX	-12.33

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	3.20	-11.39	-11.39	8.00
2437MHz	Pass	3.20	-12.97	-12.97	8.00
2462MHz	Pass	3.20	-11.88	-11.88	8.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	3.20	-15.36	-15.36	8.00
2437MHz	Pass	3.20	-11.98	-11.98	8.00
2462MHz	Pass	3.20	-16.30	-16.30	8.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	3.20	-17.08	-17.08	8.00
2437MHz	Pass	3.20	-12.33	-12.33	8.00
2462MHz	Pass	3.20	-16.80	-16.80	8.00

DG = Directional Gain; **RBW** = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;

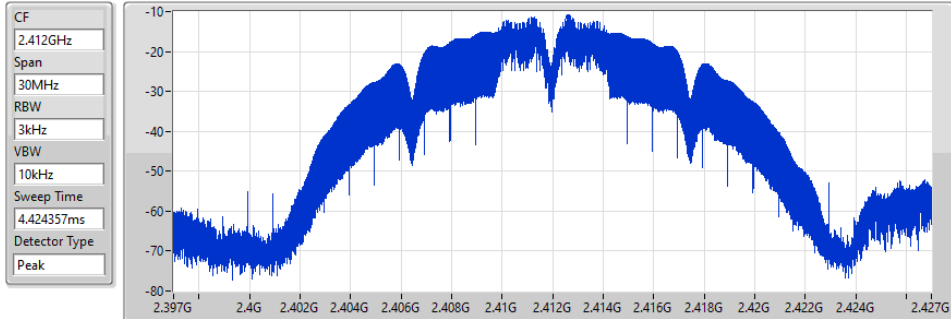
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

802.11b_Nss1,(1Mbps)_1TX

PSD

2412MHz

05/02/2021



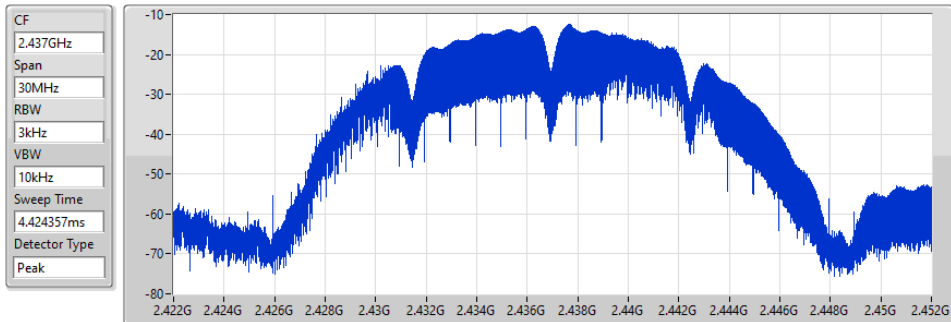
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-11.39	-11.39	-11.39

802.11b_Nss1,(1Mbps)_1TX

PSD

2437MHz

05/02/2021



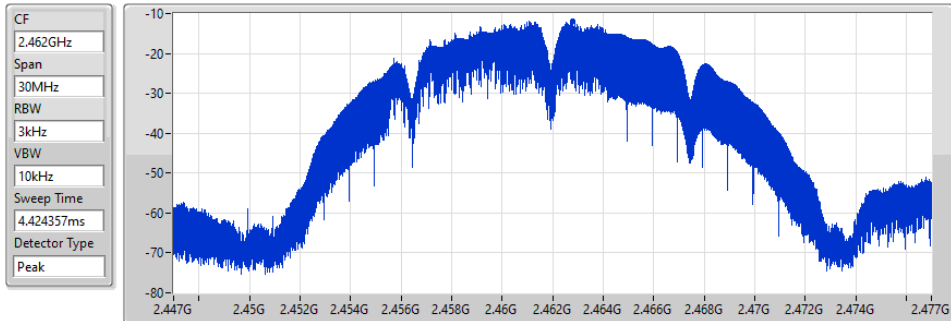
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-12.97	-12.97	-12.97

802.11b_Nss1,(1Mbps)_1TX

PSD

2462MHz

05/02/2021



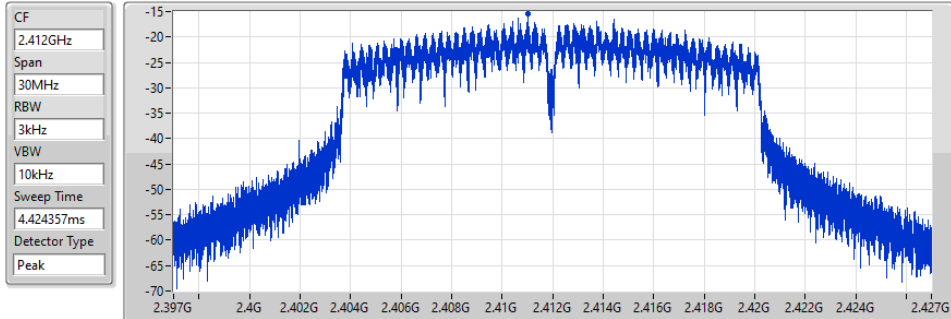
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-11.88	-11.88	-11.88

802.11g_Nss1,(6Mbps)_1TX

PSD

2412MHz

05/02/2021



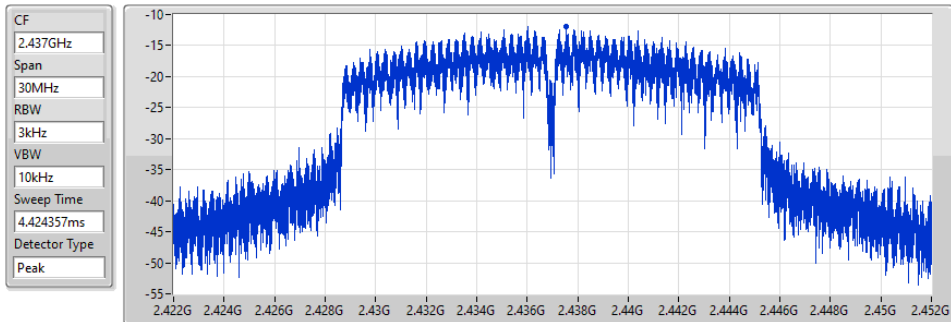
Sum	PD	Port 1
(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)
-15.36	-15.36	-15.36

802.11g_Nss1,(6Mbps)_1TX

PSD

2437MHz

05/02/2021



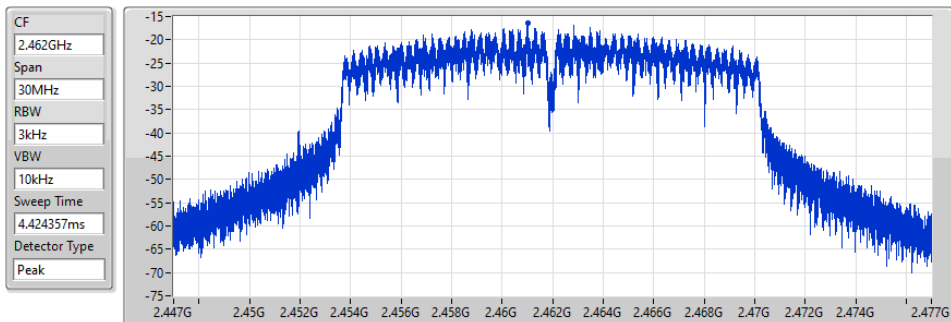
Sum	PD	Port 1
(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)
-11.98	-11.98	-11.98

802.11g_Nss1,(6Mbps)_1TX

PSD

2462MHz

05/02/2021



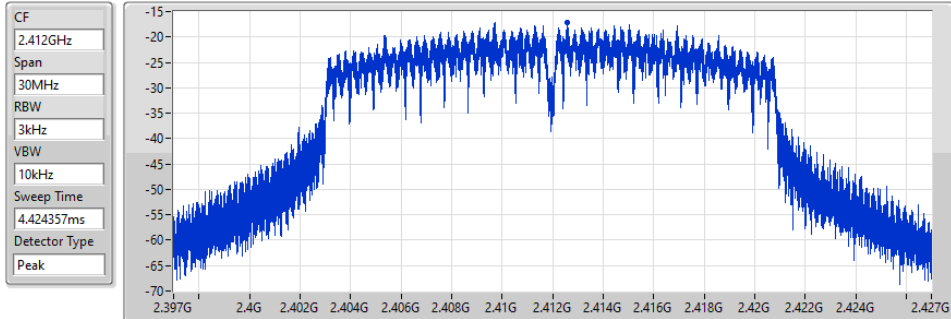
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(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)
-16.30	-16.30	-16.30

802.11n HT20_Nss1,(MCS0)_1TX

PSD

2412MHz

05/02/2021



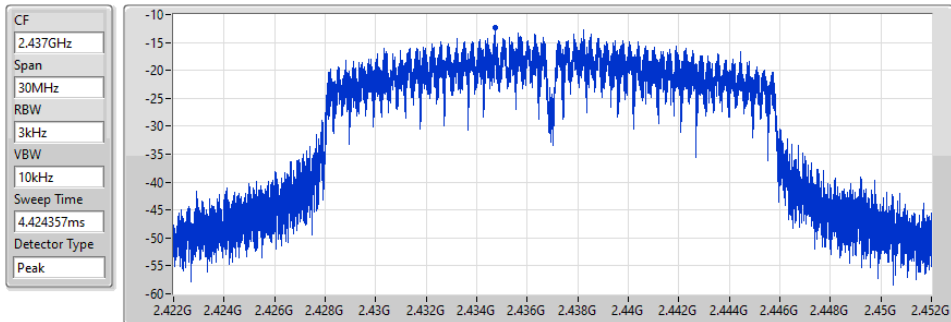
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-17.08	-17.08	-17.08

802.11n HT20_Nss1,(MCS0)_1TX

PSD

2437MHz

05/02/2021



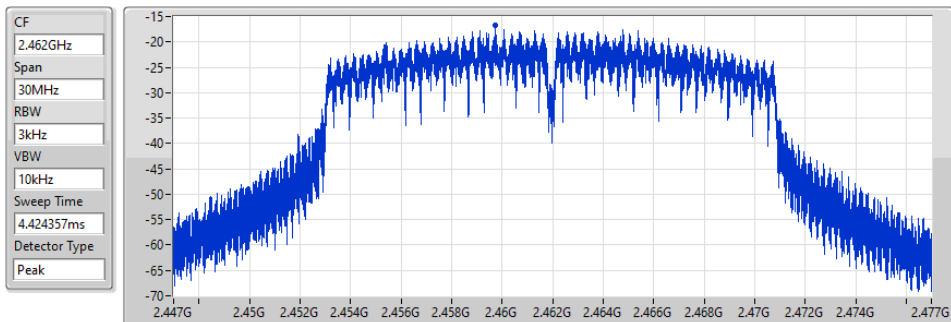
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-12.33	-12.33	-12.33

802.11n HT20_Nss1,(MCS0)_1TX

PSD

2462MHz

05/02/2021



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-16.80	-16.80	-16.80

**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	2.43791G	5.89	-24.11	717.35M	-51.86	2.39642G	-40.54	2.4G	-47.75	2.49508G	-49.31	15.16934G	-45.76	1
802.11g_Nss1,(6Mbps)_1TX	Pass	2.43941G	5.02	-24.98	879.87M	-52.36	2.39984G	-32.95	2.4G	-32.88	2.5085G	-50.98	6.9598G	-45.53	1
802.11n HT20_Nss1,(MCS0)_1TX	Pass	2.4357G	4.09	-25.91	2.13923G	-52.29	2.39996G	-32.67	2.4G	-34.18	2.49592G	-49.48	15.18901G	-45.73	1

Result

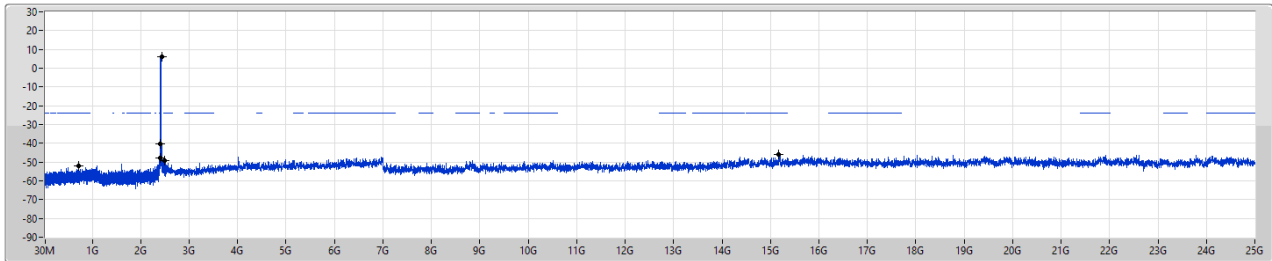
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43791G	5.89	-24.11	717.35M	-51.86	2.39642G	-40.54	2.4G	-47.75	2.49508G	-49.31	15.16934G	-45.76	1
2437MHz	Pass	2.43791G	5.89	-24.11	1.62459G	-51.24	2.39878G	-50.82	2.4G	-53.08	2.51652G	-49.82	24.19366G	-46.27	1
2462MHz	Pass	2.43791G	5.89	-24.11	1.6412G	-50.97	2.39346G	-51.18	2.4835G	-49.53	2.48792G	-47.87	15.1862G	-45.81	1
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43941G	5.02	-24.98	879.87M	-52.36	2.39984G	-32.95	2.4G	-32.88	2.5085G	-50.98	6.9598G	-45.53	1
2437MHz	Pass	2.43941G	5.02	-24.98	927.92M	-52.96	2.39796G	-51.13	2.4835G	-51.41	2.5182G	-49.74	21.8561G	-46.14	1
2462MHz	Pass	2.43941G	5.02	-24.98	751.72M	-53.03	2.39806G	-51.68	2.4835G	-51.20	2.486G	-49.07	24.47742G	-45.28	1
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.4357G	4.09	-25.91	2.13923G	-52.29	2.39996G	-32.67	2.4G	-34.18	2.49592G	-49.48	15.18901G	-45.73	1
2437MHz	Pass	2.4357G	4.09	-25.91	703.37M	-51.84	2.39938G	-50.73	2.4G	-53.49	2.49306G	-50.11	23.22717G	-46.85	1
2462MHz	Pass	2.4357G	4.09	-25.91	927.34M	-52.69	2.39942G	-52.50	2.4835G	-49.53	2.4853G	-47.84	21.84767G	-45.72	1

802.11b_Nss1,(1Mbps)_1TX

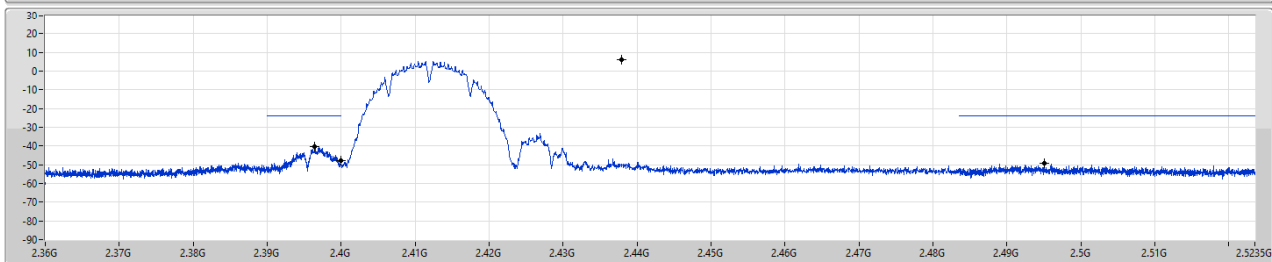
CSE NdB

2412MHz

05/02/2021



Port 1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

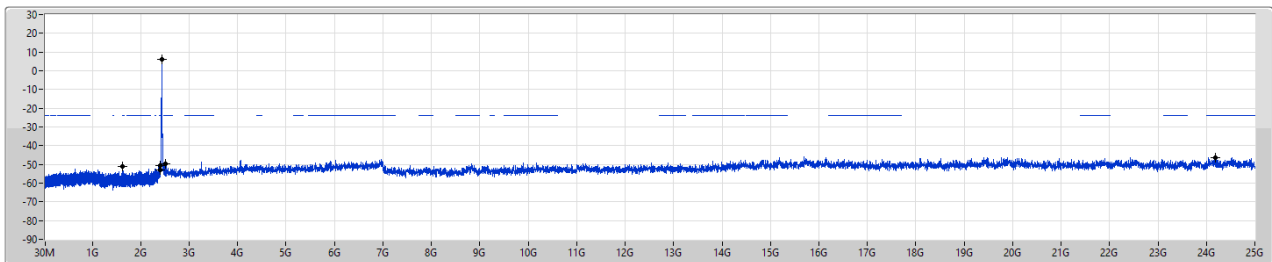
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43791G	5.89	-24.11	717.35M	-51.86	2.39642G	-40.54	2.4G	-47.75	2.49508G	-49.31	15.16934G	-45.76	1

802.11b_Nss1,(1Mbps)_1TX

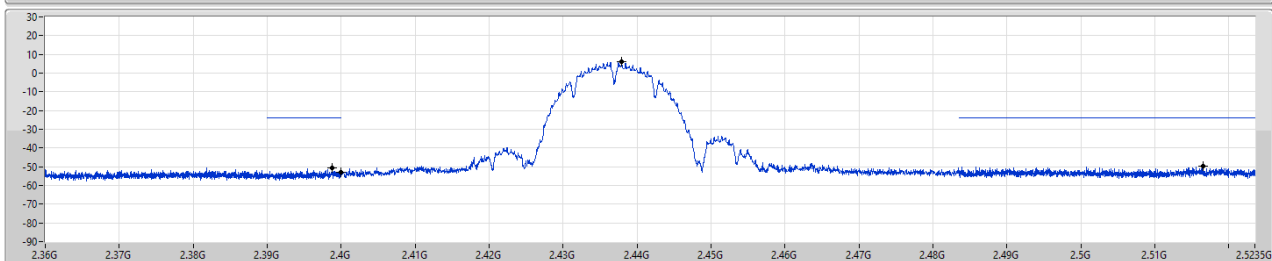
CSE NdB

2437MHz

05/02/2021



Port 1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

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
2.43791G	5.89	-24.11	1.62459G	-51.24	2.39878G	-50.82	2.4G	-53.08	2.51652G	-49.82	24.19366G	-46.27	1

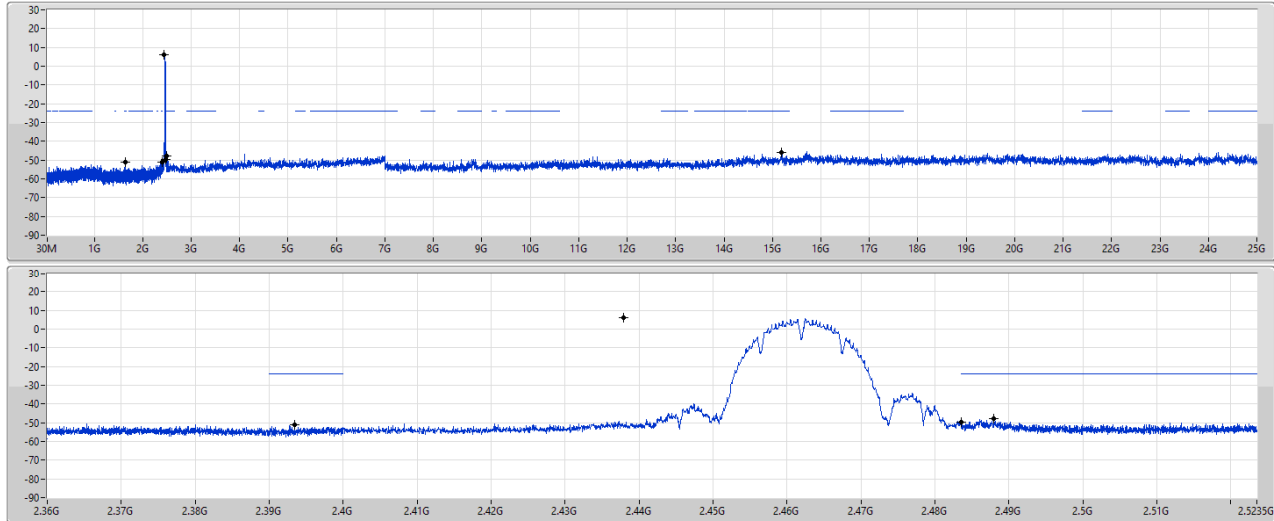
802.11b_Nss1,(1Mbps)_1TX

2462MHz

CSE NdB

05/02/2021

Port 1



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
2.43791G	5.89	-24.11	1.6412G	-50.97	2.39346G	-51.18	2.4835G	-49.53	2.48792G	-47.87	15.1862G	-45.81	1

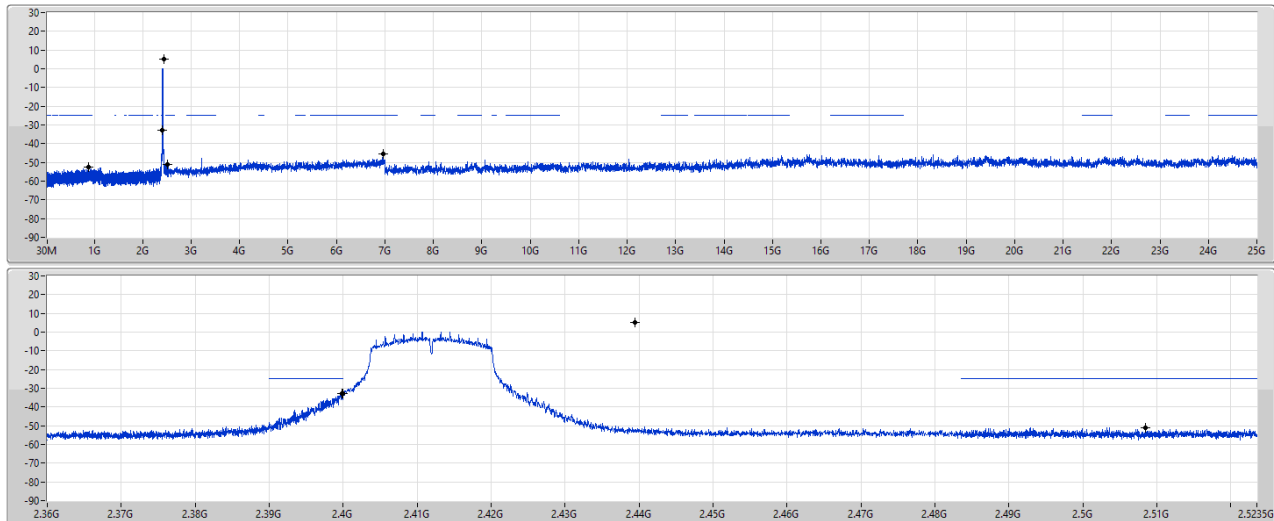
802.11g_Nss1,(6Mbps)_1TX

2412MHz

CSE NdB

05/02/2021

Port 1



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
2.43941G	5.02	-24.98	879.87M	-52.36	2.39984G	-32.95	2.4G	-32.88	2.5085G	-50.98	6.9598G	-45.53	1

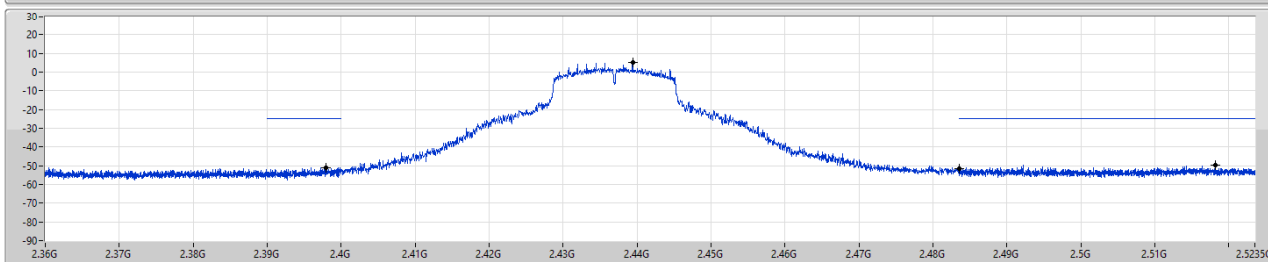
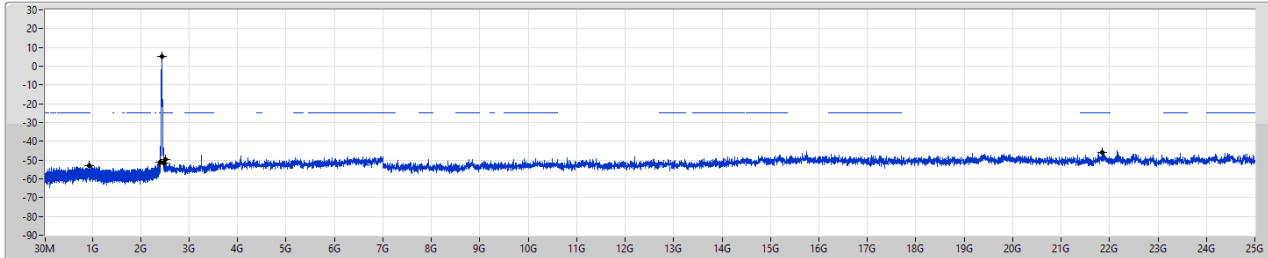
802.11g_Nss1,(6Mbps)_1TX

2437MHz

CSE NdB

05/02/2021

Port 1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

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
2.43941G	5.02	-24.98	927.92M	-52.96	2.39796G	-51.13	2.4833G	-51.41	2.5182G	-49.74	2.18561G	-46.14	1

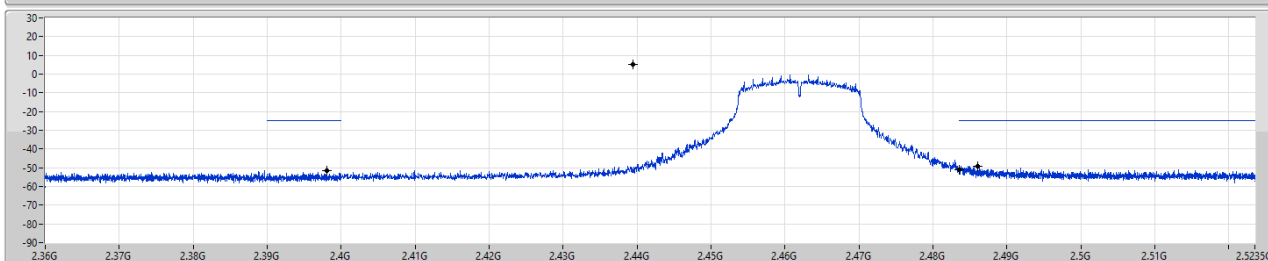
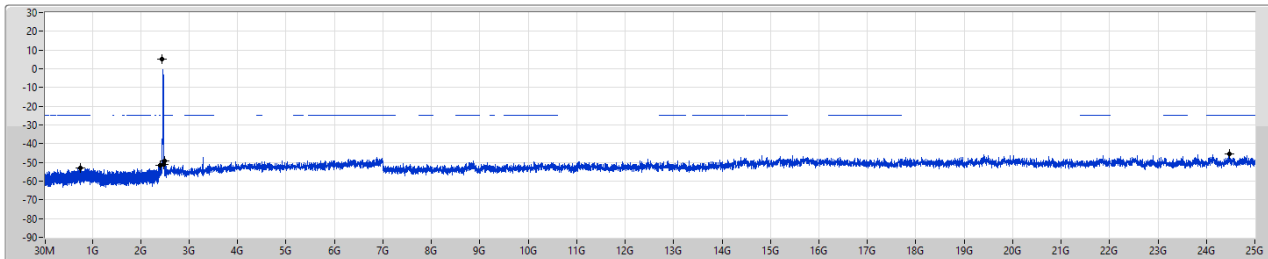
802.11g_Nss1,(6Mbps)_1TX

2462MHz

CSE NdB

05/02/2021

Port 1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

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
2.43941G	5.02	-24.98	751.72M	-53.03	2.39806G	-51.68	2.4833G	-51.20	2.486G	-49.07	2.47742G	-45.28	1

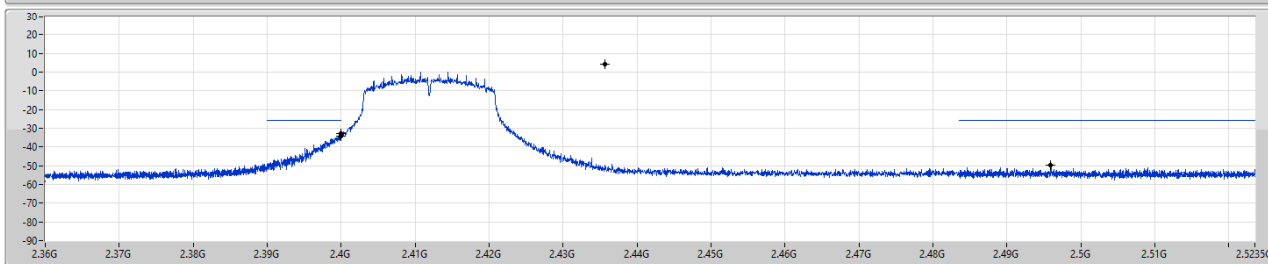
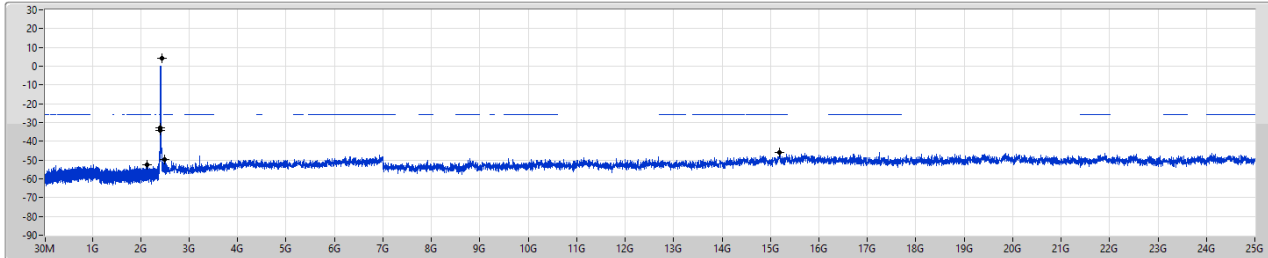
802.11n HT20_Nss1,(MCS0)_1TX

2412MHz

CSE NdB

05/02/2021

Port 1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

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
2.4357G	4.09	-25.91	2.13923G	-52.29	2.39996G	-32.67	2.4G	-34.18	2.49592G	-49.48	15.18901G	-45.73	1

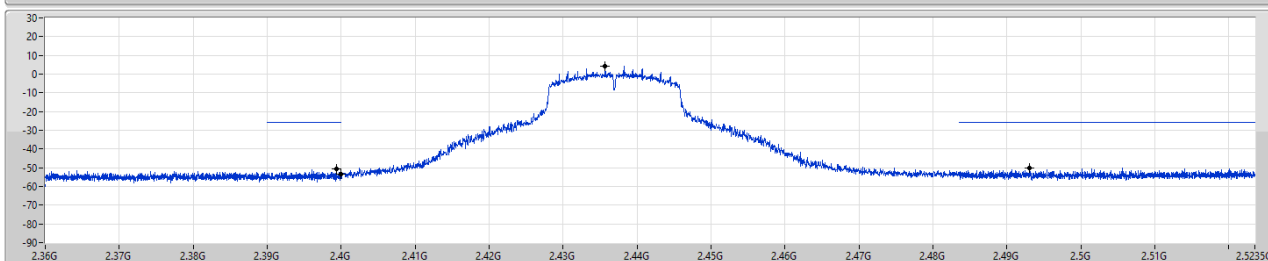
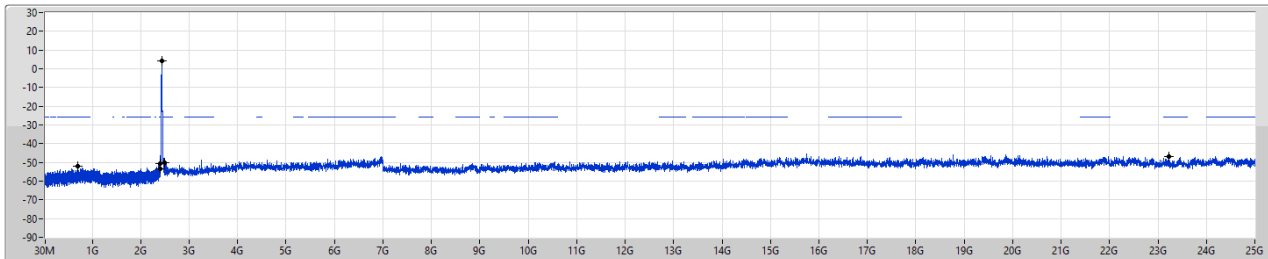
802.11n HT20_Nss1,(MCS0)_1TX

2437MHz

CSE NdB

05/02/2021

Port 1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

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
2.4357G	4.09	-25.91	703.37M	-51.84	2.39938G	-50.73	2.4G	-53.49	2.49306G	-50.11	23.22717G	-46.85	1

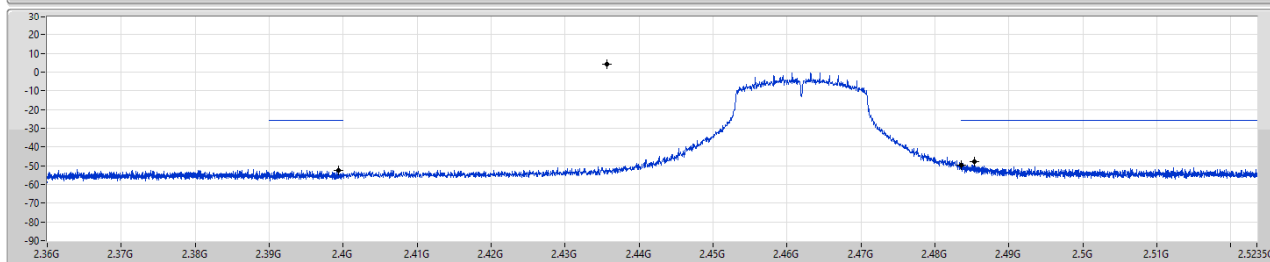
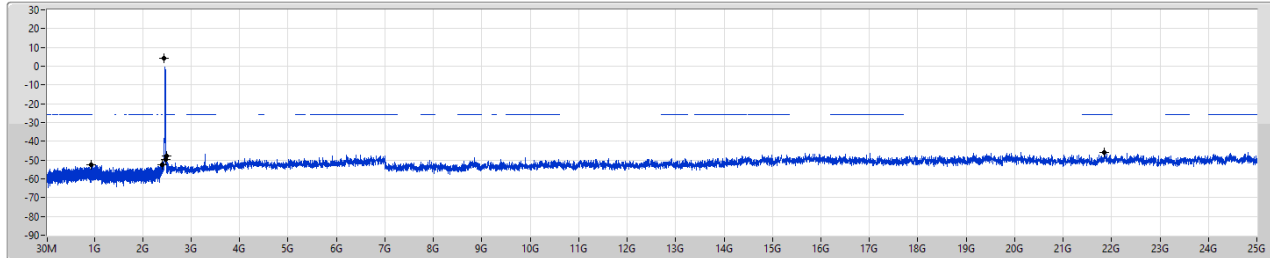
802.11n HT20_Nss1,(MCS0)_1TX

2462MHz

CSE NdB

05/02/2021

Port 1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

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
2.4357G	4.09	-25.91	927.34M	-52.69	2.39942G	-52.50	2.4835G	-49.53	2.4853G	-47.84	21.84767G	-45.72	1



RSE below 1GHz Result

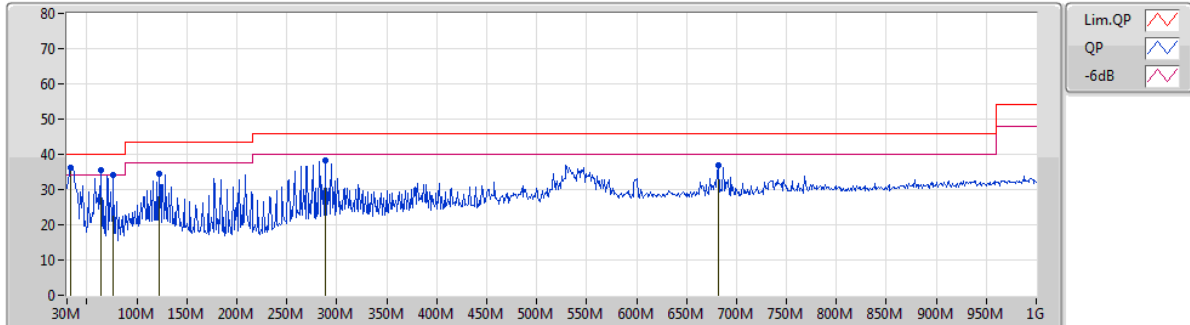
Appendix F.1

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	QP	282.2M	42.46	46.00	-3.54	Horizontal

Mode 1

22/02/2021



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
PK	33.88M	36.17	40.00	-3.83	-8.72	3	Vertical	282	1.00	"Worst"	44.89	22.30	0.48	31.50
PK	63.95M	35.59	40.00	-4.41	-18.59	3	Vertical	144	1.50	-	54.18	12.43	0.80	31.82
PK	76.56M	34.20	40.00	-5.80	-18.29	3	Vertical	111	1.50	-	52.49	12.56	0.90	31.75
PK	122.15M	34.43	43.50	-9.07	-12.27	3	Vertical	223	2.00	-	46.70	18.16	1.30	31.73
PK	288.99M	38.30	46.00	-7.70	-11.46	3	Vertical	201	1.50	-	49.76	18.41	2.13	32.00
PK	681.84M	36.87	46.00	-9.13	-4.58	3	Vertical	219	1.00	-	41.45	24.46	3.43	32.47

Mode 1

22/02/2021



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
PK	122.15M	39.29	43.50	-4.21	-12.27	3	Horizontal	124	1.50	-	51.56	18.16	1.30	31.73
QP	270.56M	42.10	46.00	-3.90	-11.71	3	Horizontal	302	1.25	-	53.81	18.25	2.02	31.98
QP	276.38M	42.17	46.00	-3.83	-11.76	3	Horizontal	302	1.25	-	53.93	18.17	2.06	31.99
QP	282.2M	42.46	46.00	-3.54	-11.62	3	Horizontal	313	1.00	"Worst"	54.08	18.29	2.09	32.00
QP	288.02M	41.48	46.00	-4.52	-11.48	3	Horizontal	306	1.00	-	52.96	18.39	2.13	32.00
QP	294.81M	41.47	46.00	-4.53	-11.34	3	Horizontal	300	1.00	-	52.81	18.50	2.17	32.01



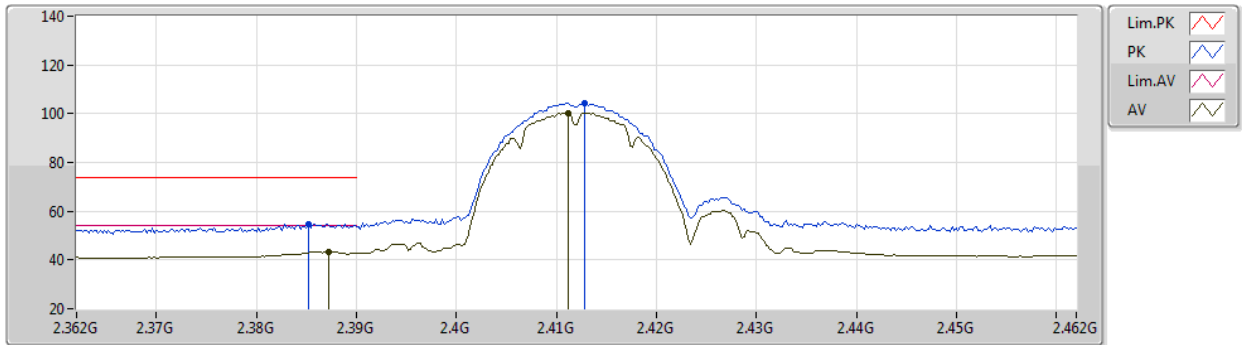
Summary

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	2.39G	44.48	54.00	-9.52	3	Vertical	339	1.64	-

802.11b_Nss1,(1Mbps)_1TX

03/02/2021

2412MHz_TX



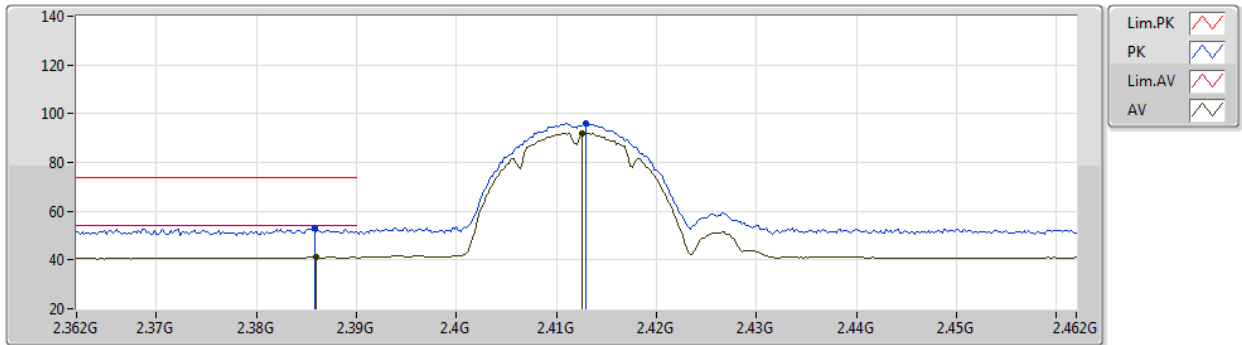
EUT Z_1TX
Setting 0
01-A-K-3

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	2.3852G	54.81	74.00	-19.19	25.25	3	Vertical	315	1.80	-	27.37	2.19	-
AV	2.3872G	43.39	54.00	-10.61	13.83	3	Vertical	315	1.80	-	27.37	2.19	-
PK	2.4128G	104.42	Inf	-Inf	74.78	3	Vertical	315	1.80	-	27.43	2.21	-
AV	2.4112G	100.37	Inf	-Inf	70.74	3	Vertical	315	1.80	-	27.42	2.21	-

802.11b_Nss1,(1Mbps)_1TX

03/02/2021

2412MHz_TX



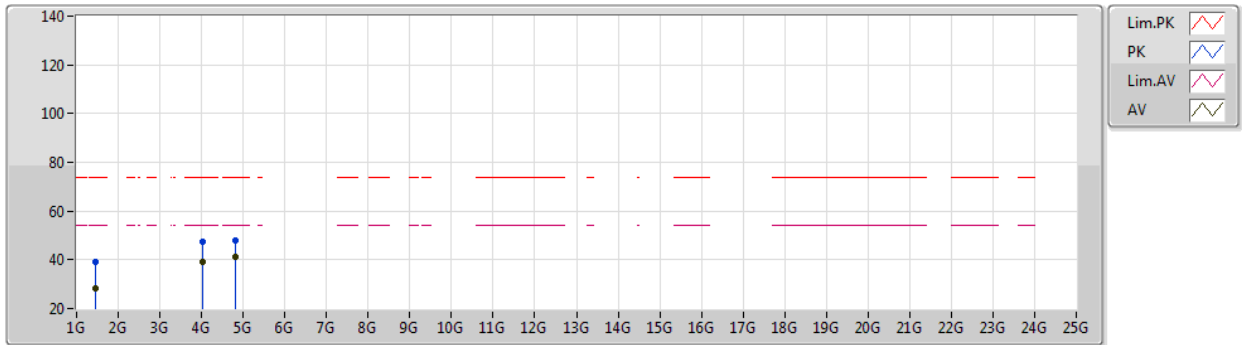
EUT Z_1TX
Setting 0
01-A-K-3

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	2.3858G	52.93	74.00	-21.07	23.37	3	Horizontal	138	1.62	-	27.37	2.19	-
AV	2.386G	41.08	54.00	-12.92	11.52	3	Horizontal	138	1.62	-	27.37	2.19	-
PK	2.413G	96.00	Inf	-Inf	66.36	3	Horizontal	138	1.62	-	27.43	2.21	-
AV	2.4126G	91.98	Inf	-Inf	62.34	3	Horizontal	138	1.62	-	27.43	2.21	-

802.11b_Nss1,(1Mbps)_1TX

03/02/2021

2412MHz_TX



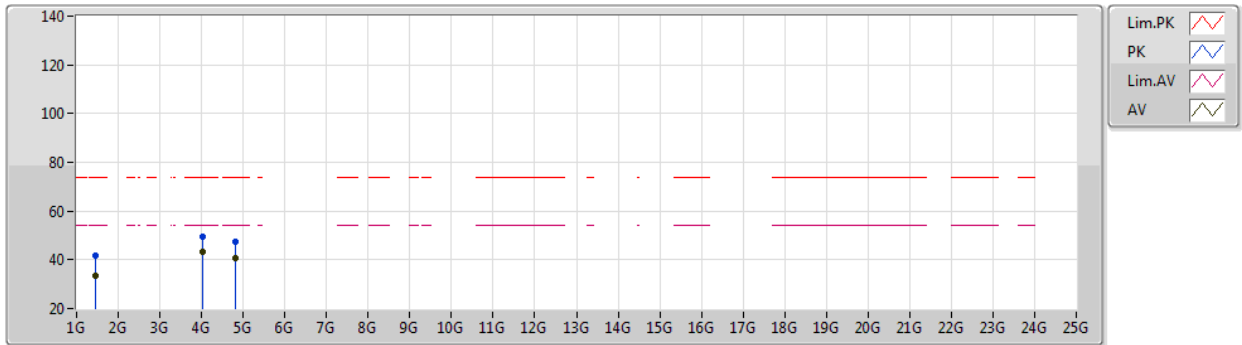
EUT Z_1TX
Setting 0
01-A-K-3

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	1.43988G	39.08	74.00	-34.92	46.27	3	Vertical	169	1.80	-	25.54	2.42	35.15
AV	1.44004G	28.25	54.00	-25.75	35.43	3	Vertical	169	1.80	-	25.54	2.42	35.14
PK	4.01904G	47.26	74.00	-26.74	46.12	3	Vertical	337	2.96	-	31.48	4.32	34.66
AV	4.02064G	39.14	54.00	-14.86	38.00	3	Vertical	337	2.96	-	31.48	4.32	34.66
PK	4.82384G	47.95	74.00	-26.05	45.25	3	Vertical	317	2.53	-	32.24	5.01	34.55
AV	4.82384G	41.13	54.00	-12.87	38.43	3	Vertical	317	2.53	-	32.24	5.01	34.55

802.11b_Nss1,(1Mbps)_1TX

03/02/2021

2412MHz_TX



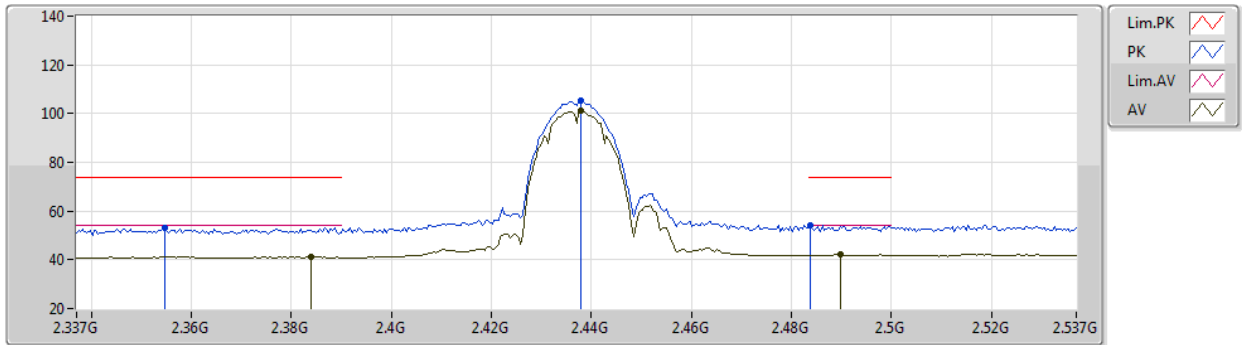
EUT Z_1TX
Setting 0
01-A-K-3

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	1.44002G	41.93	74.00	-32.07	49.11	3	Horizontal	288	2.21	-	25.54	2.42	35.14
AV	1.44003G	33.67	54.00	-20.33	40.85	3	Horizontal	288	2.21	-	25.54	2.42	35.14
PK	4.02092G	49.64	74.00	-24.36	48.50	3	Horizontal	346	2.71	-	31.48	4.32	34.66
AV	4.02064G	43.08	54.00	-10.92	41.94	3	Horizontal	346	2.71	-	31.48	4.32	34.66
PK	4.82374G	47.35	74.00	-26.65	44.65	3	Horizontal	332	3.00	-	32.24	5.01	34.55
AV	4.8239G	40.61	54.00	-13.39	37.91	3	Horizontal	332	3.00	-	32.24	5.01	34.55

802.11b_Nss1,(1Mbps)_1TX

03/02/2021

2437MHz_TX



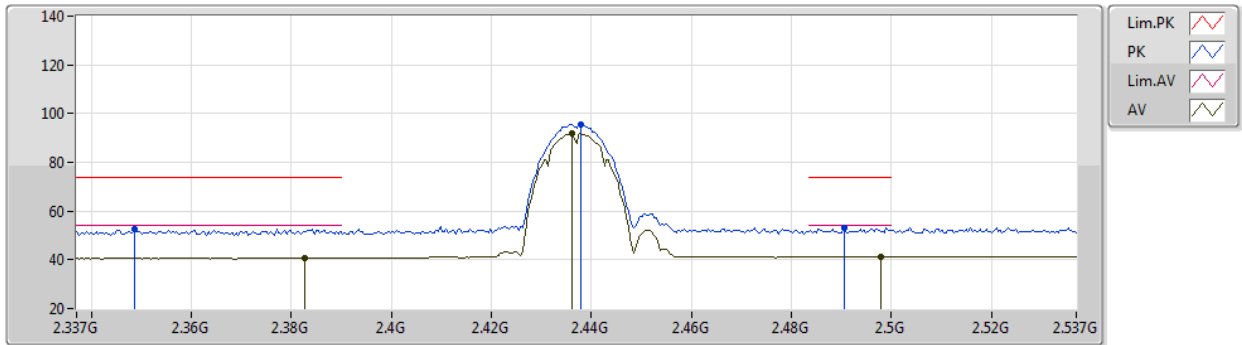
EUT Z_1TX
Setting 0
01-A-K-3

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	2.3546G	53.08	74.00	-20.92	23.62	3	Vertical	340	2.15	-	27.31	2.15	-
AV	2.3838G	41.14	54.00	-12.86	11.59	3	Vertical	340	2.15	-	27.37	2.18	-
PK	2.4378G	105.16	Inf	-Inf	75.44	3	Vertical	340	2.15	-	27.48	2.24	-
AV	2.4378G	101.08	Inf	-Inf	71.36	3	Vertical	340	2.15	-	27.48	2.24	-
PK	2.4838G	54.09	74.00	-19.91	24.11	3	Vertical	340	2.15	-	27.70	2.28	-
AV	2.4898G	42.08	54.00	-11.92	12.05	3	Vertical	340	2.15	-	27.74	2.29	-

802.11b_Nss1,(1Mbps)_1TX

03/02/2021

2437MHz_TX



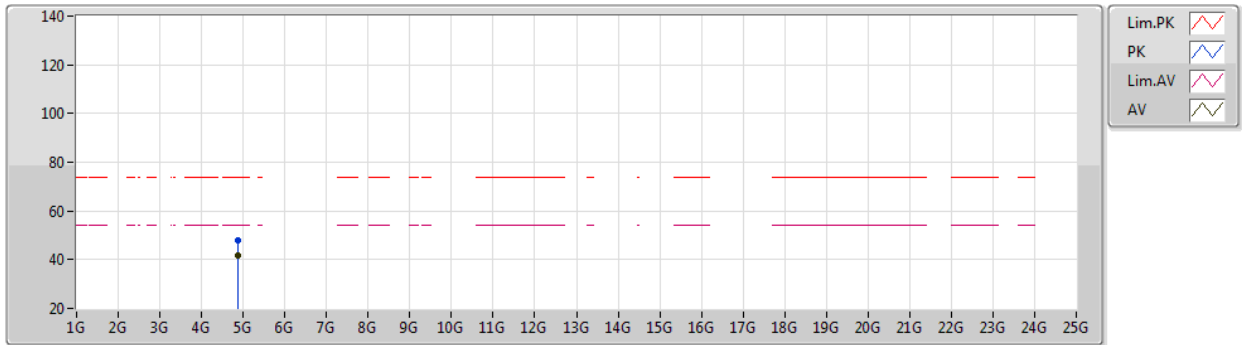
EUT Z_1TX
Setting 0
01-A-K-3

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	2.3486G	52.49	74.00	-21.51	23.04	3	Horizontal	137	1.57	-	27.30	2.15	-
AV	2.3826G	40.64	54.00	-13.36	11.09	3	Horizontal	137	1.57	-	27.37	2.18	-
PK	2.4378G	95.77	Inf	-Inf	66.05	3	Horizontal	137	1.57	-	27.48	2.24	-
AV	2.4362G	91.84	Inf	-Inf	62.13	3	Horizontal	137	1.57	-	27.47	2.24	-
PK	2.4906G	53.26	74.00	-20.74	23.23	3	Horizontal	137	1.57	-	27.74	2.29	-
AV	2.4978G	41.16	54.00	-12.84	11.07	3	Horizontal	137	1.57	-	27.79	2.30	-

802.11b_Nss1,(1Mbps)_1TX

03/02/2021

2437MHz_TX



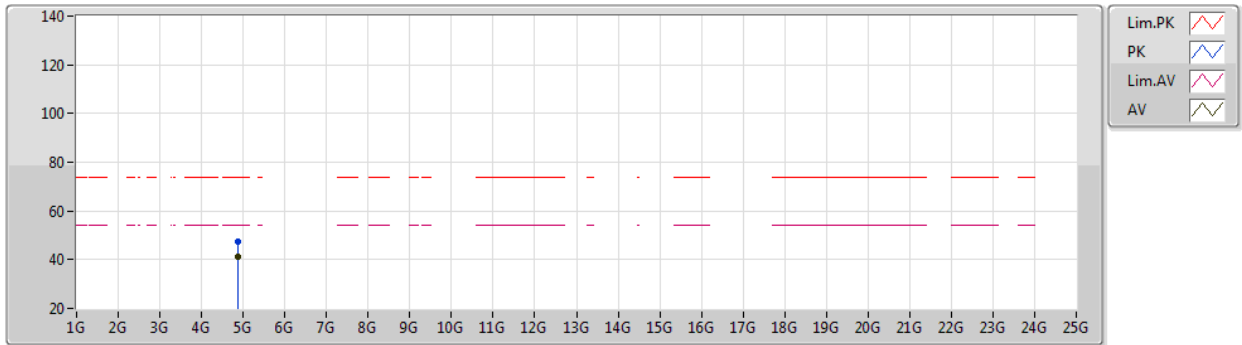
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Setting 0
01-A-K-3

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	4.8738G	47.98	74.00	-26.02	45.02	3	Vertical	318	2.46	-	32.45	5.04	34.53
AV	4.87388G	41.92	54.00	-12.08	38.96	3	Vertical	318	2.46	-	32.45	5.04	34.53

802.11b_Nss1,(1Mbps)_1TX

03/02/2021

2437MHz_TX



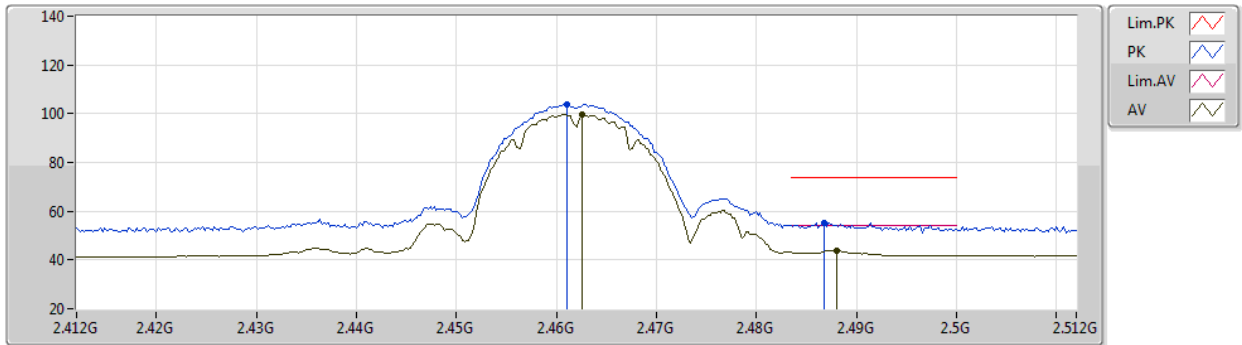
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Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.8739G	47.49	74.00	-26.51	44.53	3	Horizontal	57	2.86	-	32.45	5.04	34.53
AV	4.8739G	41.36	54.00	-12.64	38.40	3	Horizontal	57	2.86	-	32.45	5.04	34.53

802.11b_Nss1,(1Mbps)_1TX

03/02/2021

2462MHz_TX



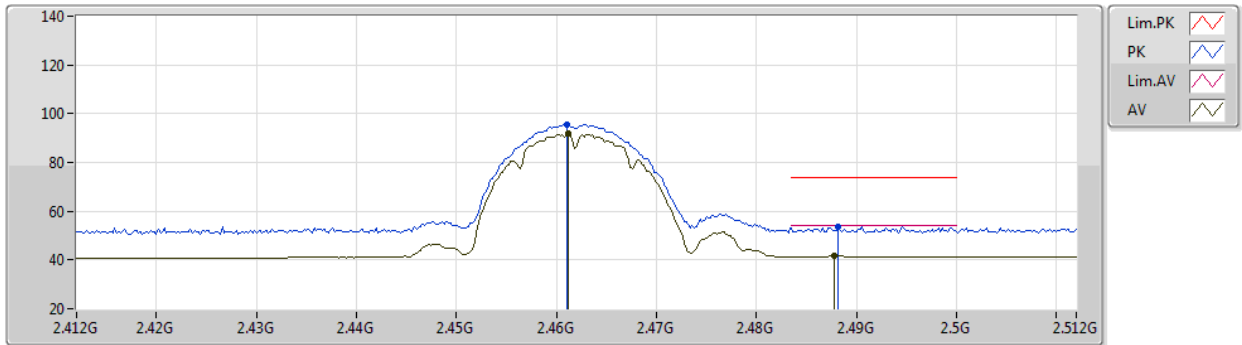
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Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.461G	103.89	Inf	-Inf	74.06	3	Vertical	338	1.64	-	27.57	2.26	-
AV	2.4626G	99.81	Inf	-Inf	69.97	3	Vertical	338	1.64	-	27.58	2.26	-
PK	2.4868G	55.25	74.00	-18.75	25.24	3	Vertical	338	1.64	-	27.72	2.29	-
AV	2.488G	43.86	54.00	-10.14	13.84	3	Vertical	338	1.64	-	27.73	2.29	-

802.11b_Nss1,(1Mbps)_1TX

03/02/2021

2462MHz_TX



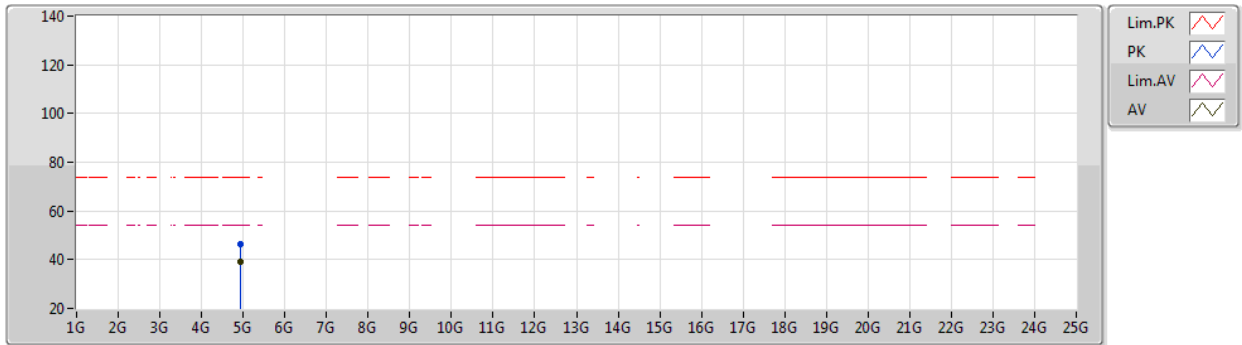
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01-A-K-3

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	2.461G	95.65	Inf	-Inf	65.82	3	Horizontal	138	1.32	-	27.57	2.26	-
AV	2.4612G	91.75	Inf	-Inf	61.92	3	Horizontal	138	1.32	-	27.57	2.26	-
PK	2.4882G	53.76	74.00	-20.24	23.74	3	Horizontal	138	1.32	-	27.73	2.29	-
AV	2.4878G	41.61	54.00	-12.39	11.59	3	Horizontal	138	1.32	-	27.73	2.29	-

802.11b_Nss1,(1Mbps)_1TX

03/02/2021

2462MHz_TX



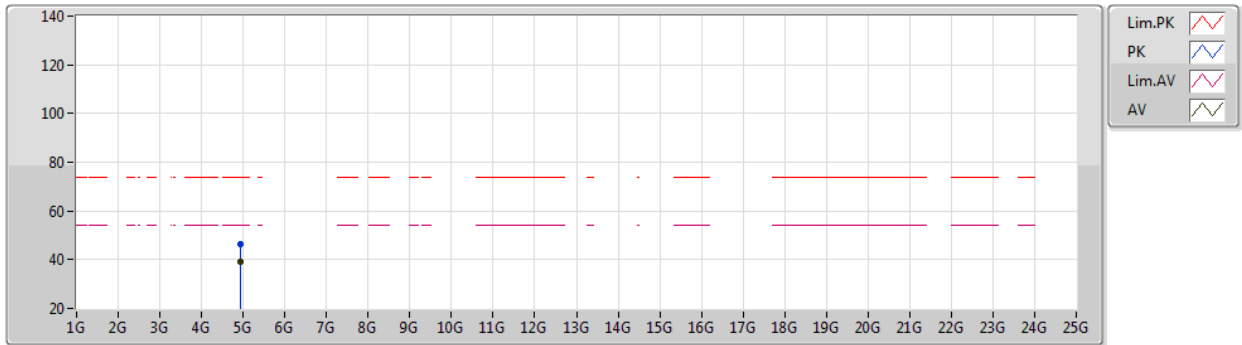
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01-A-K-3

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	4.92376G	46.19	74.00	-27.81	42.99	3	Vertical	335	1.03	-	32.64	5.06	34.50
AV	4.92386G	39.11	54.00	-14.89	35.91	3	Vertical	335	1.03	-	32.64	5.06	34.50

802.11b_Nss1,(1Mbps)_1TX

03/02/2021

2462MHz_TX



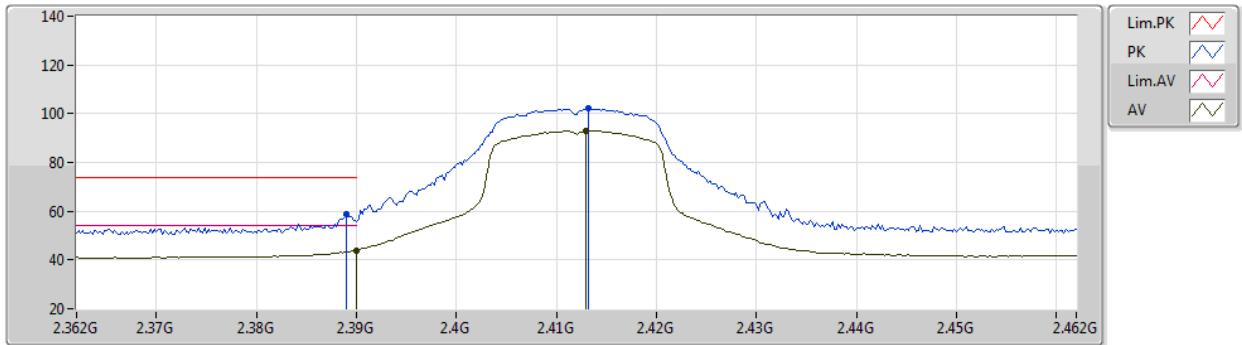
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Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.9239G	46.30	74.00	-27.70	43.10	3	Horizontal	334	1.05	-	32.64	5.06	34.50
AV	4.92391G	39.02	54.00	-14.98	35.82	3	Horizontal	334	1.05	-	32.64	5.06	34.50

802.11g_Nss1,(6Mbps)_1TX

03/02/2021

2412MHz_TX



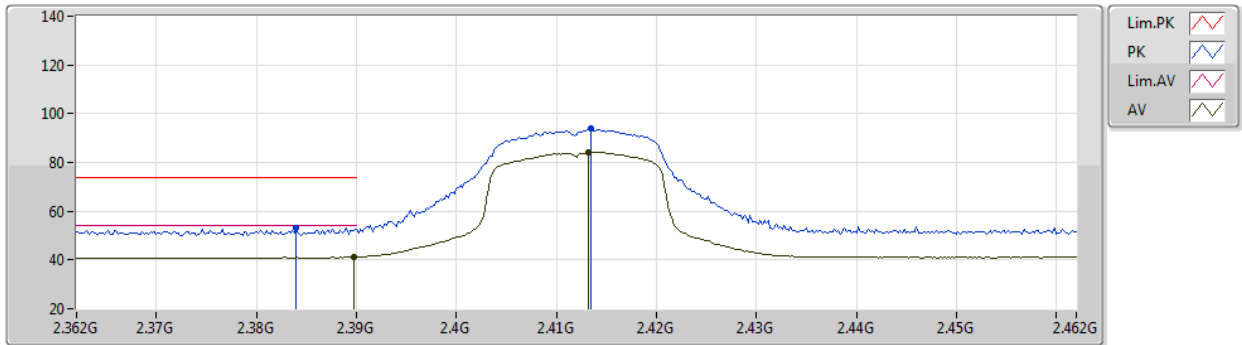
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Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.389G	58.72	74.00	-15.28	29.15	3	Vertical	340	1.90	-	27.38	2.19	-
AV	2.39G	43.87	54.00	-10.13	14.30	3	Vertical	340	1.90	-	27.38	2.19	-
PK	2.4132G	102.25	Inf	-Inf	72.61	3	Vertical	340	1.90	-	27.43	2.21	-
AV	2.413G	93.04	Inf	-Inf	63.40	3	Vertical	340	1.90	-	27.43	2.21	-

802.11g_Nss1,(6Mbps)_1TX

03/02/2021

2412MHz_TX



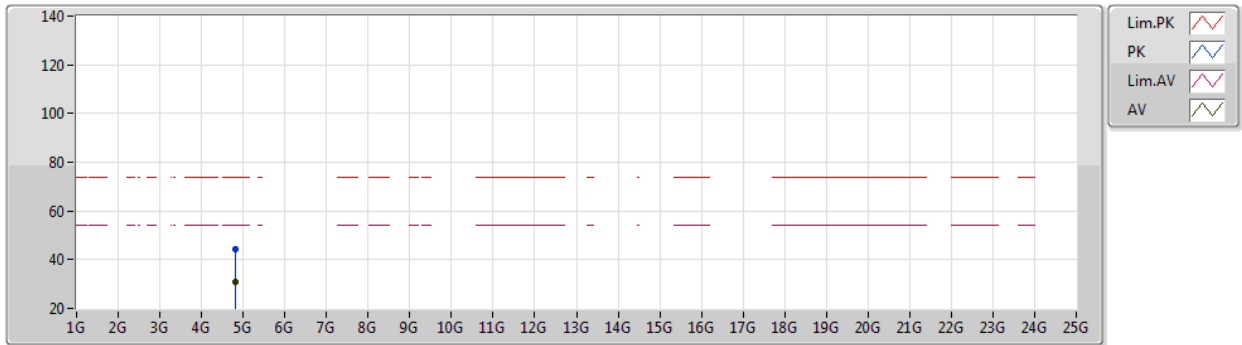
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01-A-K-3

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	2.384G	53.26	74.00	-20.74	23.71	3	Horizontal	323	2.96	-	27.37	2.18	-
AV	2.3898G	41.23	54.00	-12.77	11.66	3	Horizontal	323	2.96	-	27.38	2.19	-
PK	2.4134G	94.12	Inf	-Inf	64.48	3	Horizontal	323	2.96	-	27.43	2.21	-
AV	2.4132G	84.17	Inf	-Inf	54.53	3	Horizontal	323	2.96	-	27.43	2.21	-

802.11g_Nss1,(6Mbps)_1TX

03/02/2021

2412MHz_TX



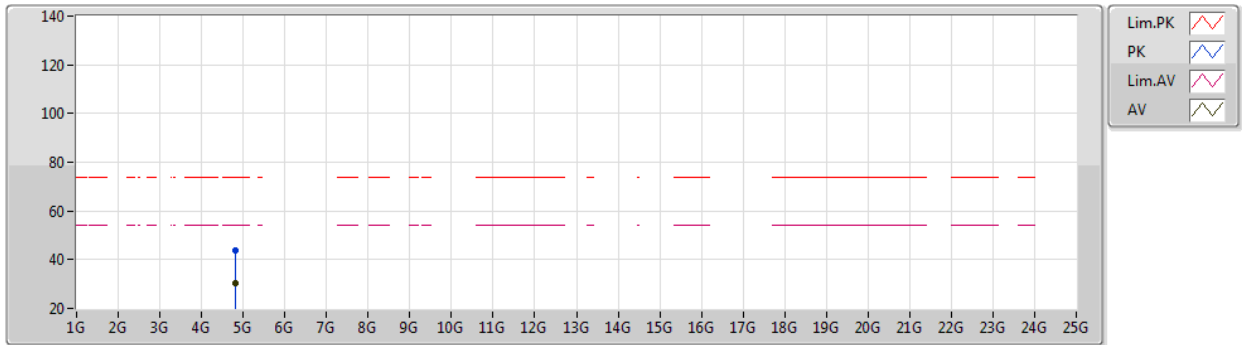
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Setting 0
01-A-K-3

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	4.82086G	44.32	74.00	-29.68	41.63	3	Vertical	90	2.35	-	32.23	5.01	34.55
AV	4.82268G	30.65	54.00	-23.35	27.95	3	Vertical	90	2.35	-	32.24	5.01	34.55

802.11g_Nss1,(6Mbps)_1TX

03/02/2021

2412MHz_TX



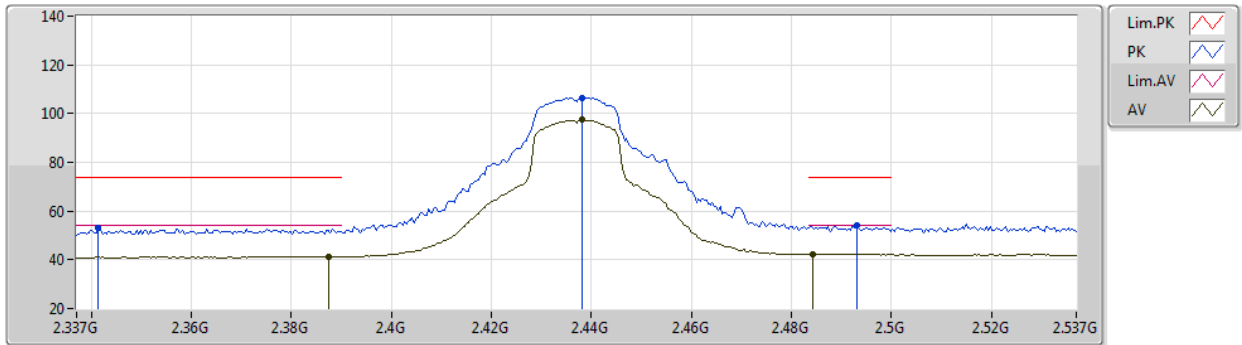
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01-A-K-3

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	4.82484G	43.92	74.00	-30.08	41.21	3	Horizontal	328	1.80	-	32.25	5.01	34.55
AV	4.82506G	30.48	54.00	-23.52	27.77	3	Horizontal	328	1.80	-	32.25	5.01	34.55

802.11g_Nss1,(6Mbps)_1TX

03/02/2021

2437MHz_TX



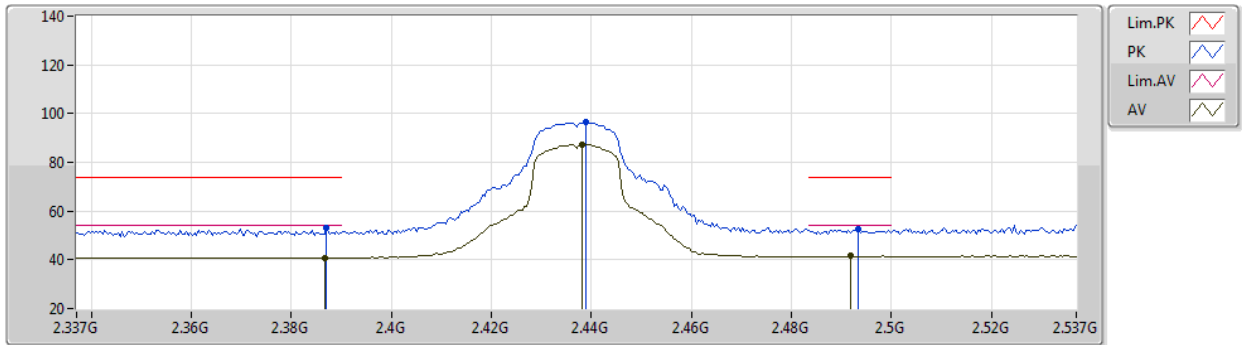
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Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3414G	53.02	74.00	-20.98	23.58	3	Vertical	340	2.30	-	27.30	2.14	-
AV	2.3874G	41.31	54.00	-12.69	11.75	3	Vertical	340	2.30	-	27.37	2.19	-
PK	2.4382G	106.56	Inf	-Inf	76.84	3	Vertical	340	2.30	-	27.48	2.24	-
AV	2.4382G	97.45	Inf	-Inf	67.73	3	Vertical	340	2.30	-	27.48	2.24	-
PK	2.493G	54.23	74.00	-19.77	24.18	3	Vertical	340	2.30	-	27.76	2.29	-
AV	2.4842G	42.23	54.00	-11.77	12.24	3	Vertical	340	2.30	-	27.71	2.28	-

802.11g_Nss1,(6Mbps)_1TX

03/02/2021

2437MHz_TX



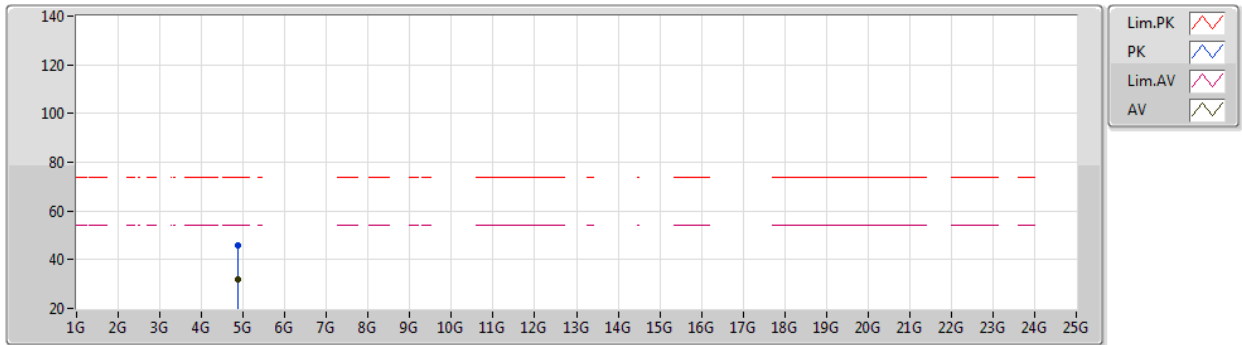
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01-A-K-3

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	2.387G	53.17	74.00	-20.83	23.61	3	Horizontal	140	1.75	-	27.37	2.19	-
AV	2.3866G	40.86	54.00	-13.14	11.30	3	Horizontal	140	1.75	-	27.37	2.19	-
PK	2.439G	96.34	Inf	-Inf	66.62	3	Horizontal	140	1.75	-	27.48	2.24	-
AV	2.4382G	87.42	Inf	-Inf	57.70	3	Horizontal	140	1.75	-	27.48	2.24	-
PK	2.4934G	52.51	74.00	-21.49	22.46	3	Horizontal	140	1.75	-	27.76	2.29	-
AV	2.4918G	41.51	54.00	-12.49	11.47	3	Horizontal	140	1.75	-	27.75	2.29	-

802.11g_Nss1,(6Mbps)_1TX

03/02/2021

2437MHz_TX



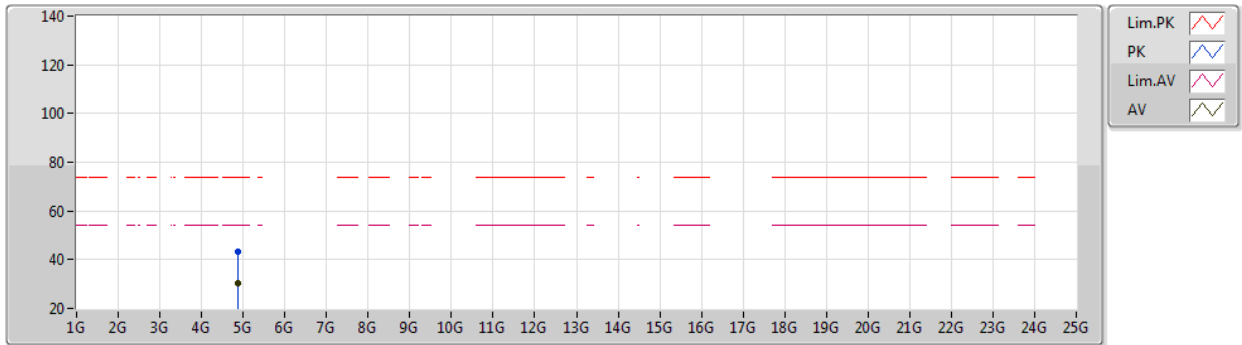
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Setting 0
01-A-K-3

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	4.87568G	45.72	74.00	-28.28	42.75	3	Vertical	177	2.18	-	32.45	5.04	34.52
AV	4.87612G	32.04	54.00	-21.96	29.07	3	Vertical	177	2.18	-	32.45	5.04	34.52

802.11g_Nss1,(6Mbps)_1TX

03/02/2021

2437MHz_TX



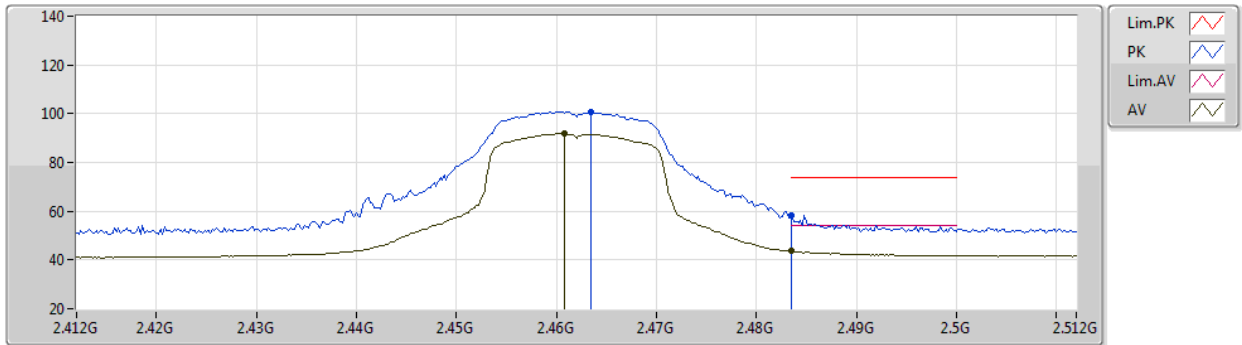
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01-A-K-3

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	4.87361G	43.29	74.00	-30.71	40.33	3	Horizontal	189	1.69	-	32.45	5.04	34.53
AV	4.876G	30.14	54.00	-23.86	27.17	3	Horizontal	189	1.69	-	32.45	5.04	34.52

802.11g_Nss1,(6Mbps)_1TX

03/02/2021

2462MHz_TX



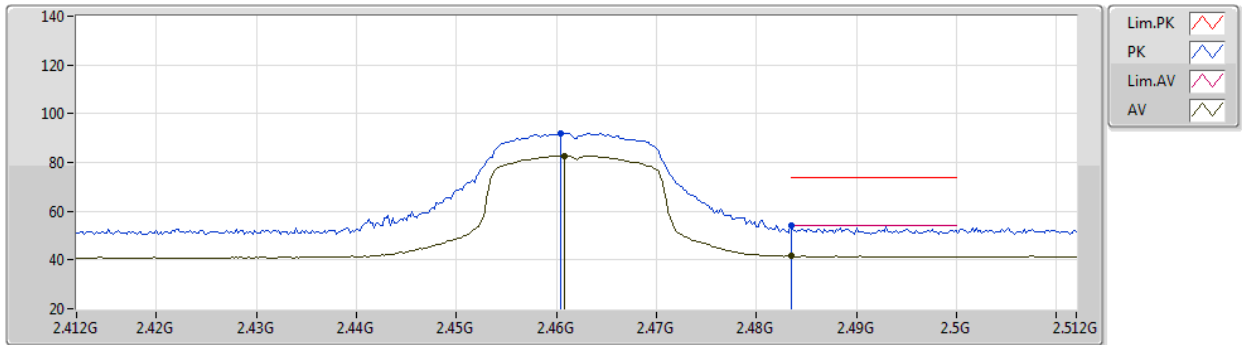
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Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	24634G	100.89	Inf	-Inf	71.05	3	Vertical	346	2.24	-	27.58	2.26	-
AV	24608G	91.80	Inf	-Inf	61.98	3	Vertical	346	2.24	-	27.56	2.26	-
PK	24835G	58.37	74.00	-15.63	28.39	3	Vertical	346	2.24	-	27.70	2.28	-
AV	24835G	43.67	54.00	-10.33	13.69	3	Vertical	346	2.24	-	27.70	2.28	-

802.11g_Nss1,(6Mbps)_1TX

03/02/2021

2462MHz_TX



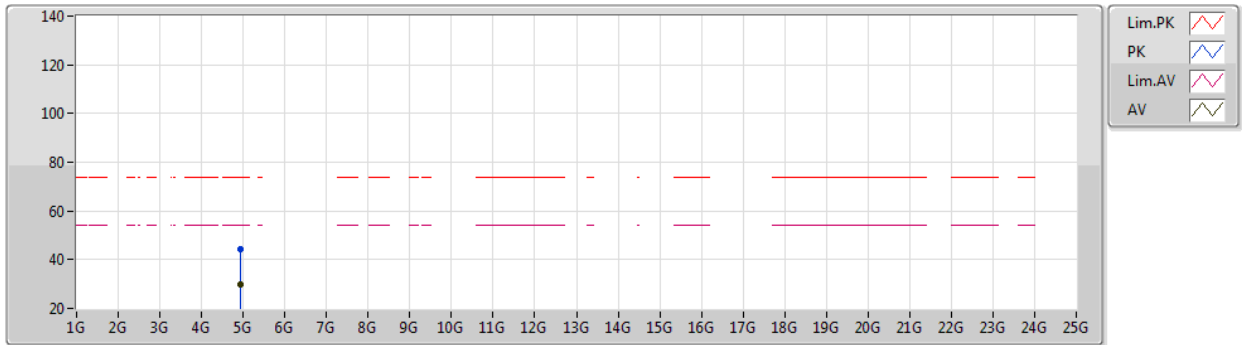
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Setting 0
01-A-K-3

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	2.4604G	92.07	Inf	-Inf	62.25	3	Horizontal	138	1.33	-	27.56	2.26	-
AV	2.4608G	82.73	Inf	-Inf	52.91	3	Horizontal	138	1.33	-	27.56	2.26	-
PK	2.4835G	54.02	74.00	-19.98	24.04	3	Horizontal	138	1.33	-	27.70	2.28	-
AV	2.4835G	41.60	54.00	-12.40	11.62	3	Horizontal	138	1.33	-	27.70	2.28	-

802.11g_Nss1,(6Mbps)_1TX

03/02/2021

2462MHz_TX



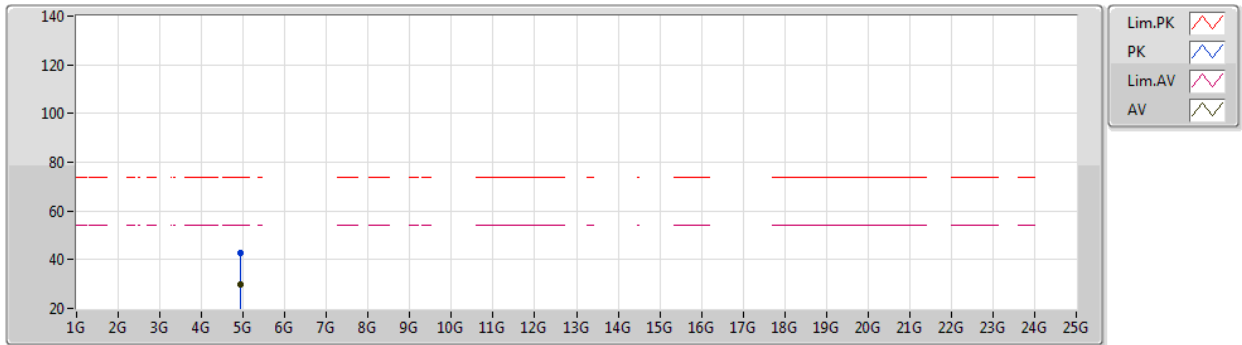
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Setting 0
01-A-K-3

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	4.92406G	44.23	74.00	-29.77	41.03	3	Vertical	21	1.95	-	32.64	5.06	34.50
AV	4.92168G	29.75	54.00	-24.25	26.56	3	Vertical	21	1.95	-	32.63	5.06	34.50

802.11g_Nss1,(6Mbps)_1TX

03/02/2021

2462MHz_TX



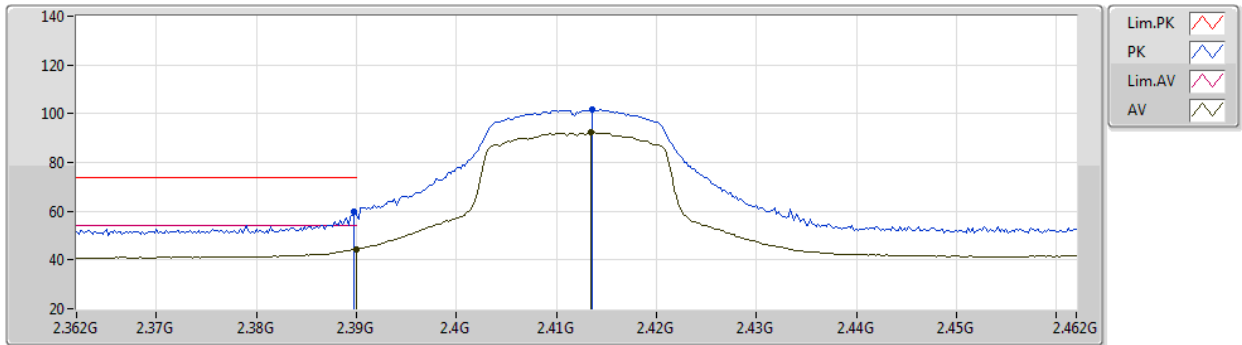
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Setting 0
01-A-K-3

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	4.92191G	42.60	74.00	-31.40	39.41	3	Horizontal	212	2.21	-	32.63	5.06	34.50
AV	4.92227G	29.79	54.00	-24.21	26.60	3	Horizontal	212	2.21	-	32.63	5.06	34.50

802.11n HT20_Nss1,(MCS0)_1TX

03/02/2021

2412MHz_TX



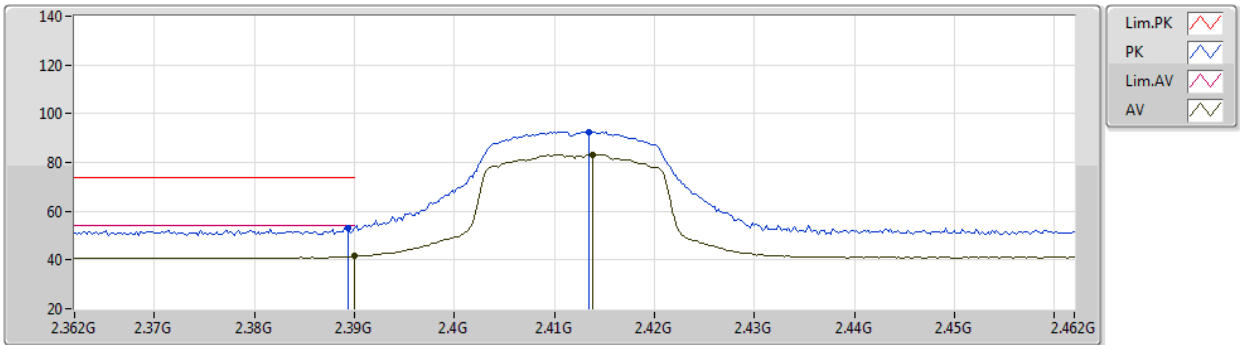
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Setting 0
01-A-K-3

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	2.3898G	59.59	74.00	-14.41	30.02	3	Vertical	339	1.64	-	27.38	2.19	-
AV	2.39G	44.48	54.00	-9.52	14.91	3	Vertical	339	1.64	-	27.38	2.19	-
PK	2.4136G	101.80	Inf	-Inf	72.16	3	Vertical	339	1.64	-	27.43	2.21	-
AV	2.4134G	92.28	Inf	-Inf	62.64	3	Vertical	339	1.64	-	27.43	2.21	-

802.11n HT20_Nss1,(MCS0)_1TX

03/02/2021

2412MHz_TX



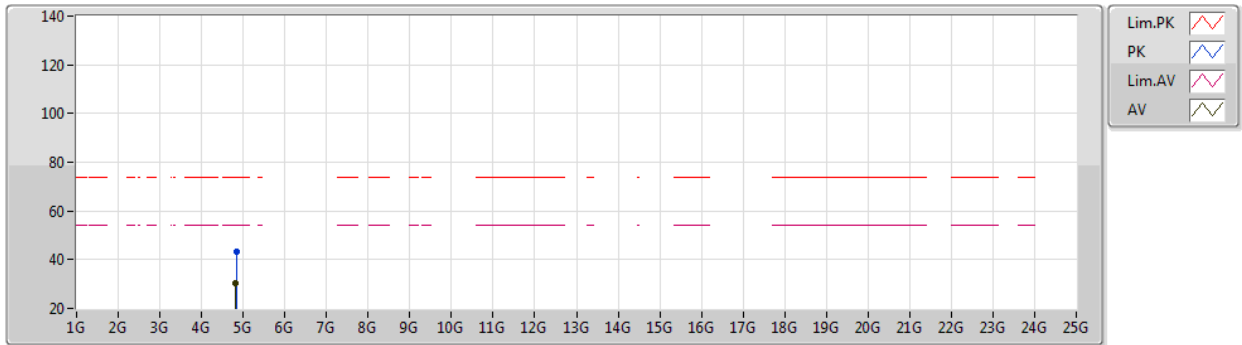
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Setting 0
01-A-K-3

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	2.3894G	53.25	74.00	-20.75	23.68	3	Horizontal	137	1.60	-	27.38	2.19	-
AV	2.39G	41.52	54.00	-12.48	11.95	3	Horizontal	137	1.60	-	27.38	2.19	-
PK	2.4134G	92.64	Inf	-Inf	63.00	3	Horizontal	137	1.60	-	27.43	2.21	-
AV	2.4138G	83.16	Inf	-Inf	53.52	3	Horizontal	137	1.60	-	27.43	2.21	-

802.11n HT20_Nss1,(MCS0)_1TX

03/02/2021

2412MHz_TX



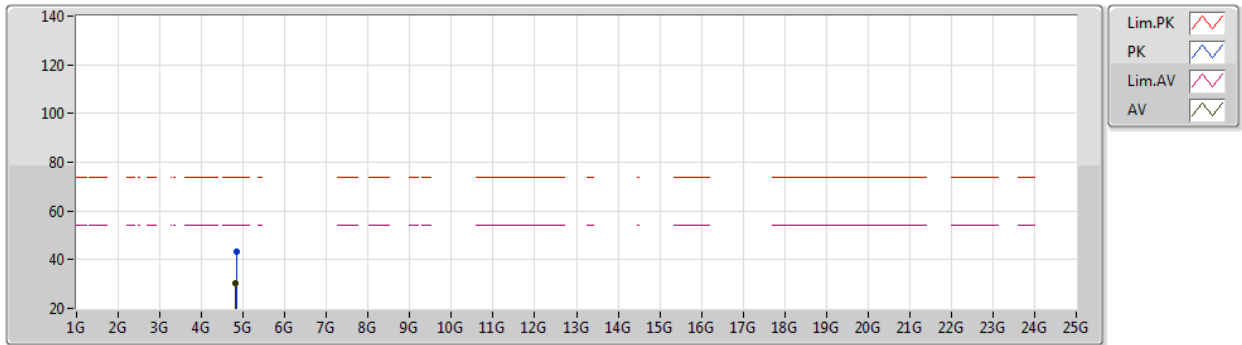
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Setting 0
01-A-K-3

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	4.83172G	43.43	74.00	-30.57	40.66	3	Vertical	0	2.32	-	32.29	5.02	34.54
AV	4.82084G	30.48	54.00	-23.52	27.79	3	Vertical	0	2.32	-	32.23	5.01	34.55

802.11n HT20_Nss1,(MCS0)_1TX

03/02/2021

2412MHz_TX



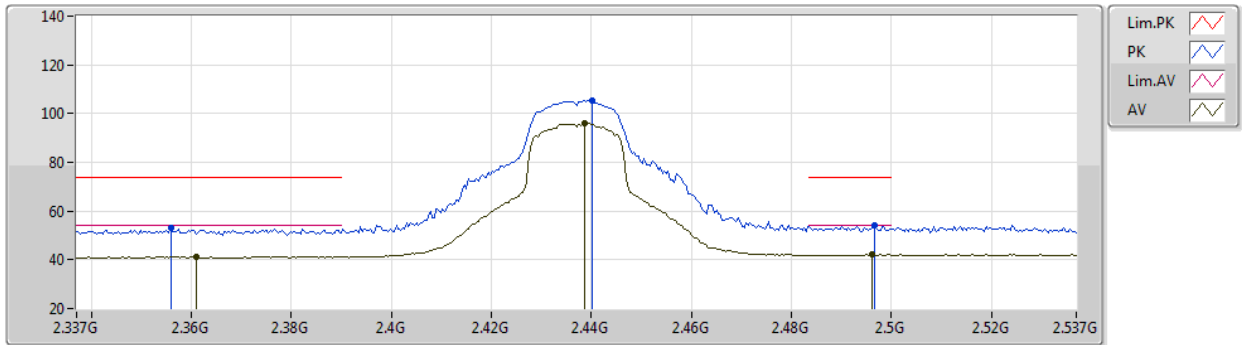
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01-A-K-3

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	4.83004G	43.37	74.00	-30.63	40.61	3	Horizontal	122	1.80	-	32.28	5.02	34.54
AV	4.8174G	30.37	54.00	-23.63	27.71	3	Horizontal	122	1.80	-	32.20	5.01	34.55

802.11n HT20_Nss1,(MCS0)_1TX

03/02/2021

2437MHz_TX



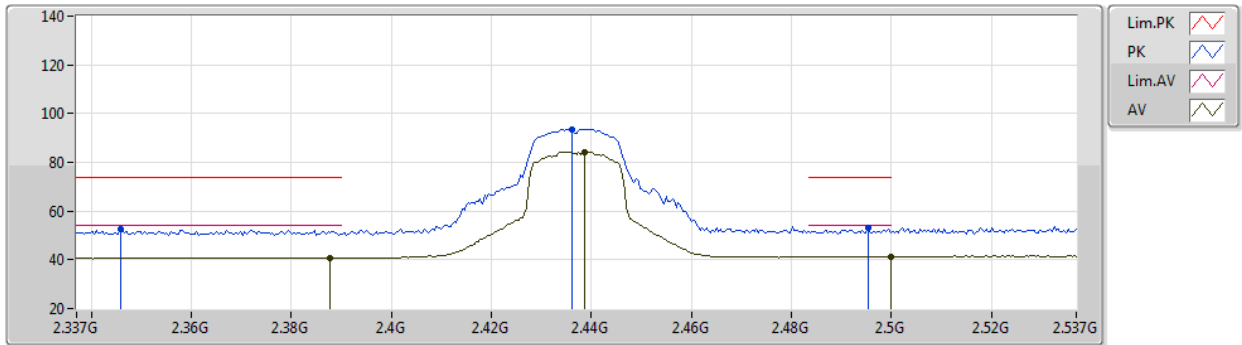
EUT Z_1TX
Setting 0
01-A-K-3

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	2.3558G	52.90	74.00	-21.10	23.43	3	Vertical	341	2.32	-	27.31	2.16	-
AV	2.361G	41.15	54.00	-12.85	11.67	3	Vertical	341	2.32	-	27.32	2.16	-
PK	2.4402G	105.28	Inf	-Inf	75.56	3	Vertical	341	2.32	-	27.48	2.24	-
AV	2.4386G	95.81	Inf	-Inf	66.09	3	Vertical	341	2.32	-	27.48	2.24	-
PK	2.4966G	54.02	74.00	-19.98	23.94	3	Vertical	341	2.32	-	27.78	2.30	-
AV	2.4962G	42.11	54.00	-11.89	12.03	3	Vertical	341	2.32	-	27.78	2.30	-

802.11n HT20_Nss1,(MCS0)_1TX

03/02/2021

2437MHz_TX



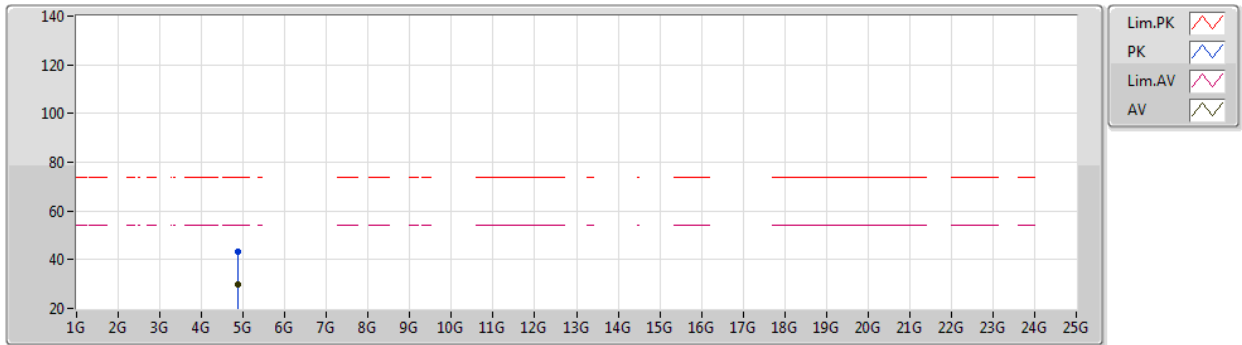
EUT Z_1TX
Setting 0
01-A-K-3

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	2.3458G	52.60	74.00	-21.40	23.15	3	Horizontal	142	1.80	-	27.30	2.15	-
AV	2.3878G	40.93	54.00	-13.07	11.36	3	Horizontal	142	1.80	-	27.38	2.19	-
PK	2.4362G	93.65	Inf	-Inf	63.94	3	Horizontal	142	1.80	-	27.47	2.24	-
AV	2.4386G	84.31	Inf	-Inf	54.59	3	Horizontal	142	1.80	-	27.48	2.24	-
PK	2.4954G	53.23	74.00	-20.77	23.16	3	Horizontal	142	1.80	-	27.77	2.30	-
AV	2.4998G	41.39	54.00	-12.61	11.29	3	Horizontal	142	1.80	-	27.80	2.30	-

802.11n HT20_Nss1,(MCS0)_1TX

03/02/2021

2437MHz_TX



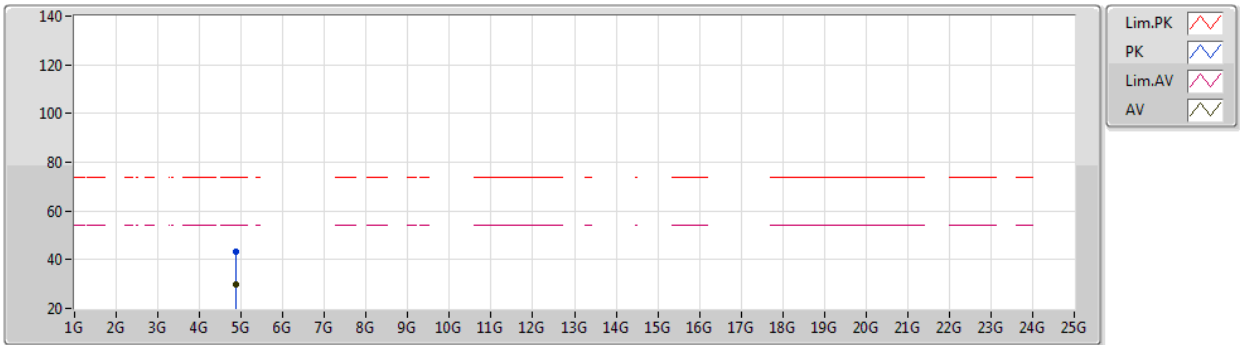
EUT Z_1TX
Setting 0
01-A-K-3

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	4.87188G	43.06	74.00	-30.94	40.11	3	Vertical	73	2.98	-	32.44	5.04	34.53
AV	4.8762G	30.04	54.00	-23.96	27.07	3	Vertical	73	2.98	-	32.45	5.04	34.52

802.11n HT20_Nss1,(MCS0)_1TX

03/02/2021

2437MHz_TX



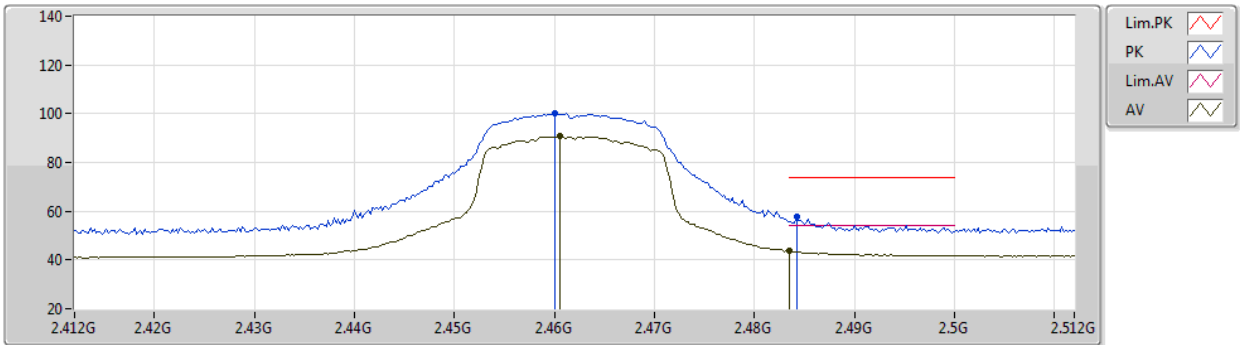
EUT Z_1TX
Setting 0
01-A-K-3

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	4.87291G	43.24	74.00	-30.76	40.28	3	Horizontal	11	2.43	-	32.45	5.04	34.53
AV	4.87586G	29.88	54.00	-24.12	26.91	3	Horizontal	11	2.43	-	32.45	5.04	34.52

802.11n HT20_Nss1,(MCS0)_1TX

03/02/2021

2462MHz_TX



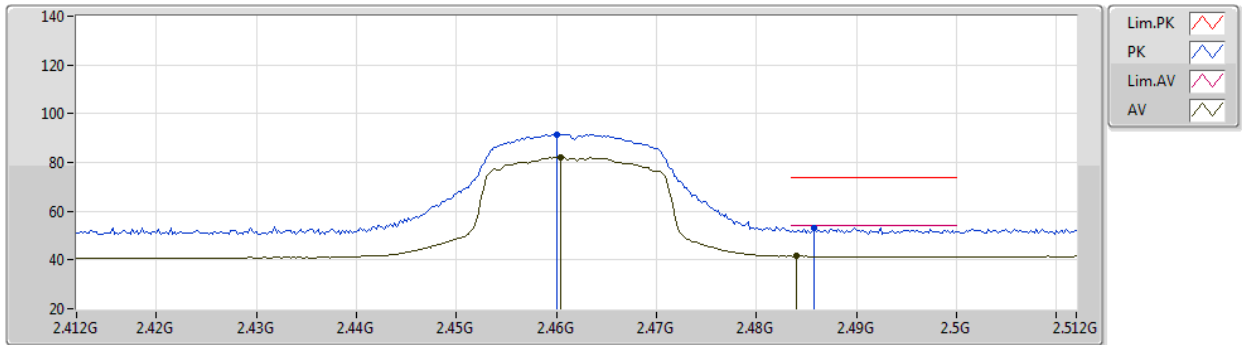
EUT Z_1TX
Setting 0
01-A-K-3

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	2.46G	100.02	Inf	-Inf	70.20	3	Vertical	338	2.23	-	27.56	2.26	-
AV	2.4606G	90.61	Inf	-Inf	60.79	3	Vertical	338	2.23	-	27.56	2.26	-
PK	2.4842G	57.54	74.00	-16.46	27.55	3	Vertical	338	2.23	-	27.71	2.28	-
AV	2.4835G	43.65	54.00	-10.35	13.67	3	Vertical	338	2.23	-	27.70	2.28	-

802.11n HT20_Nss1,(MCS0)_1TX

03/02/2021

2462MHz_TX

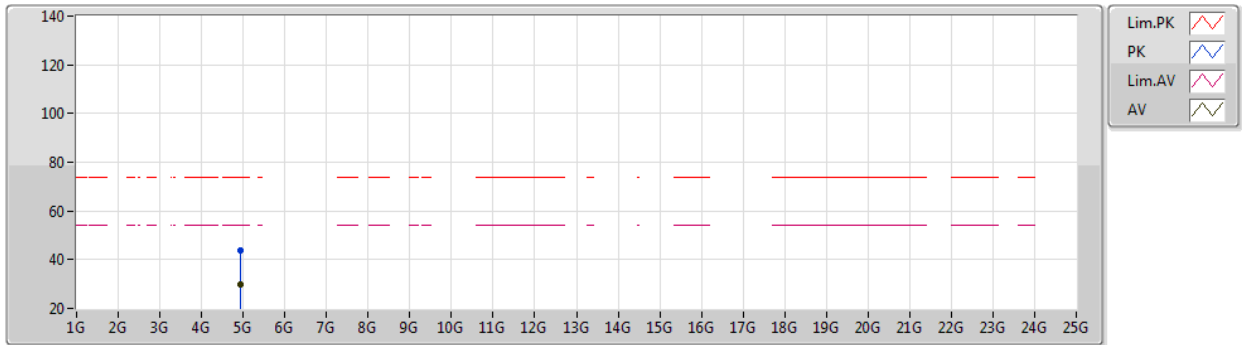

EUT Z_1TX
Setting 0
01-A-K-3

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	2.46G	91.57	Inf	-Inf	61.75	3	Horizontal	138	1.30	-	27.56	2.26	-
AV	2.4604G	82.14	Inf	-Inf	52.32	3	Horizontal	138	1.30	-	27.56	2.26	-
PK	2.4858G	52.99	74.00	-21.01	22.99	3	Horizontal	138	1.30	-	27.71	2.29	-
AV	2.484G	41.57	54.00	-12.43	11.59	3	Horizontal	138	1.30	-	27.70	2.28	-

802.11n HT20_Nss1,(MCS0)_1TX

03/02/2021

2462MHz_TX



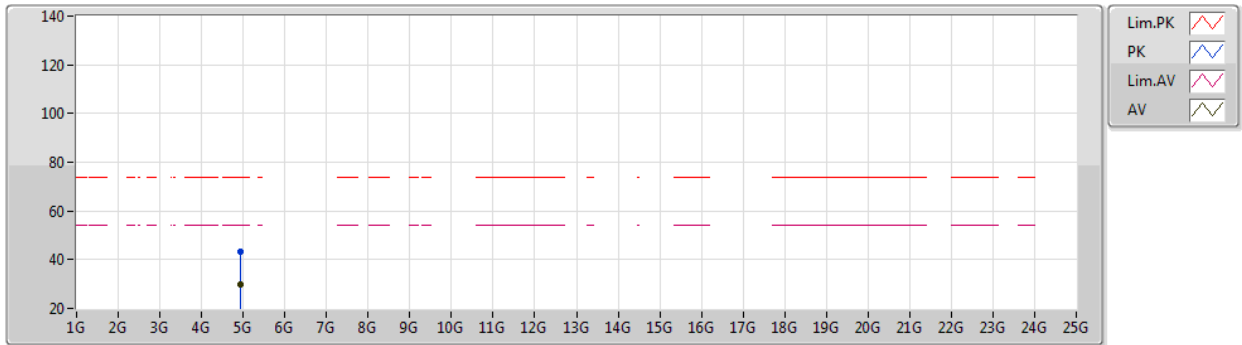
EUT Z_1TX
Setting 0
01-A-K-3

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	4.92318G	43.55	74.00	-30.45	40.35	3	Vertical	262	2.74	-	32.64	5.06	34.50
AV	4.92446G	29.82	54.00	-24.18	26.61	3	Vertical	262	2.74	-	32.65	5.06	34.50

802.11n HT20_Nss1,(MCS0)_1TX

03/02/2021

2462MHz_TX



EUT Z_1TX
Setting 0
01-A-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	4.92251G	43.16	74.00	-30.84	39.96	3	Horizontal	294	2.84	-	32.64	5.06	34.50
AV	4.92283G	30.04	54.00	-23.96	26.84	3	Horizontal	294	2.84	-	32.64	5.06	34.50