



RADIO TEST REPORT

FCC ID : 2AYRA-03812
Equipment : Linksys Classic Micro Router 5
Brand Name : LINKSYS
Model Name : E5450
Applicant : Linksys USA, Inc.
121 Theory, Irvine, CA. 92617, USA
Manufacturer : Linksys USA, Inc.
121 Theory, Irvine, CA. 92617, USA
Standard : 47 CFR FCC Part 15.247

The product was received on Oct. 31, 2018, and testing was started from Oct. 31, 2018 and completed on Oct. 16, 2023. 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.)



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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 Ver1.3

Page Number : 3 of 31
Issued Date : Nov. 16, 2023
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	-
Note: Reference to Sporton Project No.: 8N1905				

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the chapter "Measurement Uncertainty".

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Sam Chen

Report Producer: Lavender Zeng

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
2400-2483.5	b, g, n (HT20)	2412-2462	1-11 [11]
2400-2483.5	n (HT40)	2422-2452	3-9 [7]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	2TX
2.4-2.4835GHz	802.11g	20	2TX
2.4-2.4835GHz	802.11n HT20	20	2TX
2.4-2.4835GHz	802.11n HT40	40	2TX

Note:

- ♦ 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- ♦ 11g, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	
					2.4Gz	5GHz
1	FIT	4TS4009-A0001-JH	Dipole Antenna	I-PEX	2.52	3.37
2	FIT	4TS4009-A0002JH	Dipole Antenna	I-PEX	2.53	3.28

Note 1: The above information was declared by manufacturer.

Note 2: The EUT has two antennas.

For WLAN 2.4GHz (2TX/2RX):

Ant. 1 (Port 1) and Ant. 2 (Port 2) could transmit/receive simultaneously.

For WLAN 5GHz (2TX/2RX):

Ant. 1 (Port 1) and Ant. 2 (Port 2) could transmit/receive simultaneously.

Note 3: Directional gain information

Type	Maximum Output Power	Power Spectral Density
Non-BF	Directional gain = Max.gain + array gain. For power measurements on IEEE 802.11 devices Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left(\sum_{k=1}^{N_{ANT}} \xi_{j,k} \right)^2}{N_{ANT}} \right]$
BF	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left(\sum_{k=1}^{N_{ANT}} \xi_{j,k} \right)^2}{N_{ANT}} \right]$	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left(\sum_{k=1}^{N_{ANT}} \xi_{j,k} \right)^2}{N_{ANT}} \right]$

Ex.

Directional Gain (NSS1) formula :

$$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left(\sum_{k=1}^{N_{ANT}} \xi_{j,k} \right)^2}{N_{ANT}} \right]$$

$$NSS1(g1,1) = 10^{G1/20} ; NSS1(g1,2) = 10^{G2/20} ; NSS1(g1,2) = 10^{G3/20} ; NSS1(g1,2) = 10^{G4/20}$$

$$g_{j,k} = (NSS1(g1,1) + NSS1(g1,2) + NSS1(g1,3) + NSS1(g1,4))^2$$

$$DG = 10 \log[(NSS1(g1,1) + NSS1(g1,2) + NSS1(g1,3) + NSS1(g1,4))^2 / N_{ANT}] \Rightarrow 10$$

$$\log[(10^{G1/20} + 10^{G2/20} + 10^{G3/20} + 10^{G4/20})^2 / N_{ANT}]$$

Where ;

$$2.4G \ G1 = 2.52 \text{ dBi} ; G2 = 2.53 \text{ dBi} ;$$

$$5G \ UNII-1 \ G1 = 3.37 \text{ dBi} ; G2 = 3.28 \text{ dBi} ;$$

$$5G \ UNII-3 \ G1 = 3.37 \text{ dBi} ; G2 = 3.28 \text{ dBi} ;$$

$$2.4G \ DG = 5.54 \text{ dBi}$$

$$5G \ UNII-1 \ DG = 6.34 \text{ dBi}$$

$$5G \ UNII-3 \ DG = 6.34 \text{ dBi}$$

**1.1.3 Mode Test Duty Cycle**

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11b	0.981	0.083	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11g	0.941	0.264	1.397m	1k
802.11n HT20	0.923	0.348	1.309m	1k
802.11n HT40	0.85	0.706	650u	3k

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter			
Beamforming Function	☒	With beamforming for 802.11a/n/ac in 5GHz	☐	Without beamforming
Function	☒	Point-to-multipoint	☐	Point-to-point
Test Software Version	QATool_0.0.1.85			

Note: The above information was declared by manufacturer.



1.2 Testing Applied Standards

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

- ♦ 47 CFR FCC Part 15.247
- ♦ 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 662911 D01 v02r01
- ♦ 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. TW3787 with FCC. Conformity Assessment Body Identifier (CABID) TW3787 with ISED.

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted	TH01-CB	Paul Chen	22 / 64	Nov. 23, 2018 ~ Dec. 04, 2018
Radiated (Below 1GHz)	03CH04-CB	Jackson Peng	22-23 / 56-57	Sep. 22, 2023 ~ Sep. 23, 2023
Radiated (Above 1GHz)	03CH01-CB	Stim Sung	22 / 54	Oct. 31, 2018 ~ Dec. 01, 2018
AC Conduction	CO01-CB	Elvin Yeh	22-23 / 60-61	Sep. 14, 2023 ~ Oct. 16, 2023

The tested sample of the AC power-line conducted emissions and Emissions in Restricted Frequency Bands Below 1GHz test item was received on Aug. 30, 2023.



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 Date Before Jun. 01, 2023

Test Items	Uncertainty	Remark
Radiated Emission (1GHz ~ 18GHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.7 dB	Confidence levels of 95%
Output Power Measurement	1.33 dB	Confidence levels of 95%
Power Density Measurement	1.27 dB	Confidence levels of 95%
Bandwidth Measurement	9.74×10^{-8}	Confidence levels of 95%

Test Date After May 31, 2023

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.4 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.1 dB	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	PowerSetting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	21
2417MHz	24
2422MHz	24
2427MHz	25
2437MHz	25
2442MHz	25
2447MHz	24
2452MHz	24
2457MHz	23
2462MHz	23
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	1A
2417MHz	2F
2437MHz	2F
2452MHz	2F
2457MHz	22
2462MHz	1B
802.11n HT20_Nss1,(MCS0)_2TX	-
2412MHz	18
2417MHz	21
2422MHz	2F
2437MHz	2F
2447MHz	2F
2452MHz	22
2457MHz	1F
2462MHz	17
802.11n HT40_Nss1,(MCS0)_2TX	-
2422MHz	13
2427MHz	16
2432MHz	1A
2437MHz	1D
2442MHz	1A
2447MHz	17
2452MHz	14

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 Test Voltage: 120Vac / 60Hz
Operating Mode	Normal Link
1	EUT + Adapter 1
2	EUT + Adapter 2 + US plug
3	EUT + Adapter 3
For operating mode 1 is the worst case and it was record in this test report.	

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

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	Normal Link
After evaluating, "Z axis" generated the worst test result, so the measurement will follow this same test configuration.	
1	EUT in Z axis + Adapter 1
2	EUT in Z axis + Adapter 2 + US plug
3	EUT in Z axis + Adapter 3
For operating mode 3 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
After evaluating, "Y axis" generated the worst test result, So the measurement will follow this same test configuration.	
1	EUT in Y axis

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location
Test Condition	Radiated measurement
Operating Mode	Normal Link
After evaluating, "Z axis" generated the worst test result, So the measurement will follow this same test configuration.	
1	EUT in Z axis with WLAN 2.4GHz + WLAN 5GHz
Refer to Appendix G for Radiated Emission Co-location.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz + WLAN 5GHz
Refer to Sporton Test Report No.: FA8N1905-05 for Co-location RF Exposure Evaluation.	

2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link:

During the test, the EUT operation to normal function.

2.4 Accessories

Accessories			
Power	Brand	Model	Rating
Adapter 1 (Fixed plug)	Ktec	KSAS0051200050VUD	Input: 100-240V ~ 50/60Hz, 0.18A Output: 12V, 0.5A
Adapter 2 (Removable plug)	Ktec	KSA-6W-120050D5D	Input: 100-240V ~ 50/60Hz, 0.18A Output: 12.0V, 0.5A, 6.0W
Adapter 3 (Fixed plug)	Ktec	KSA-6W-120050VUD	Input: 100-240V ~ 50/60Hz, 0.18A Output: 12V, 0.5A
Others			
US plug*1 (for Adapter 2 use)			
RJ-45 cable*1, Non-shielded, 0.88m			



2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	WAN NB	DELL	E6430	N/A
B	LAN NB	DELL	E6430	N/A
C	2.4G NB	DELL	E6430	N/A
D	5G NB	DELL	E6430	N/A

For Radiated (below 1GHz):

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	LAN NB	DELL	E4300	N/A
B	WAN NB	DELL	E4300	N/A
C	2.4G NB	DELL	E4300	N/A
D	5G NB	DELL	E4300	N/A

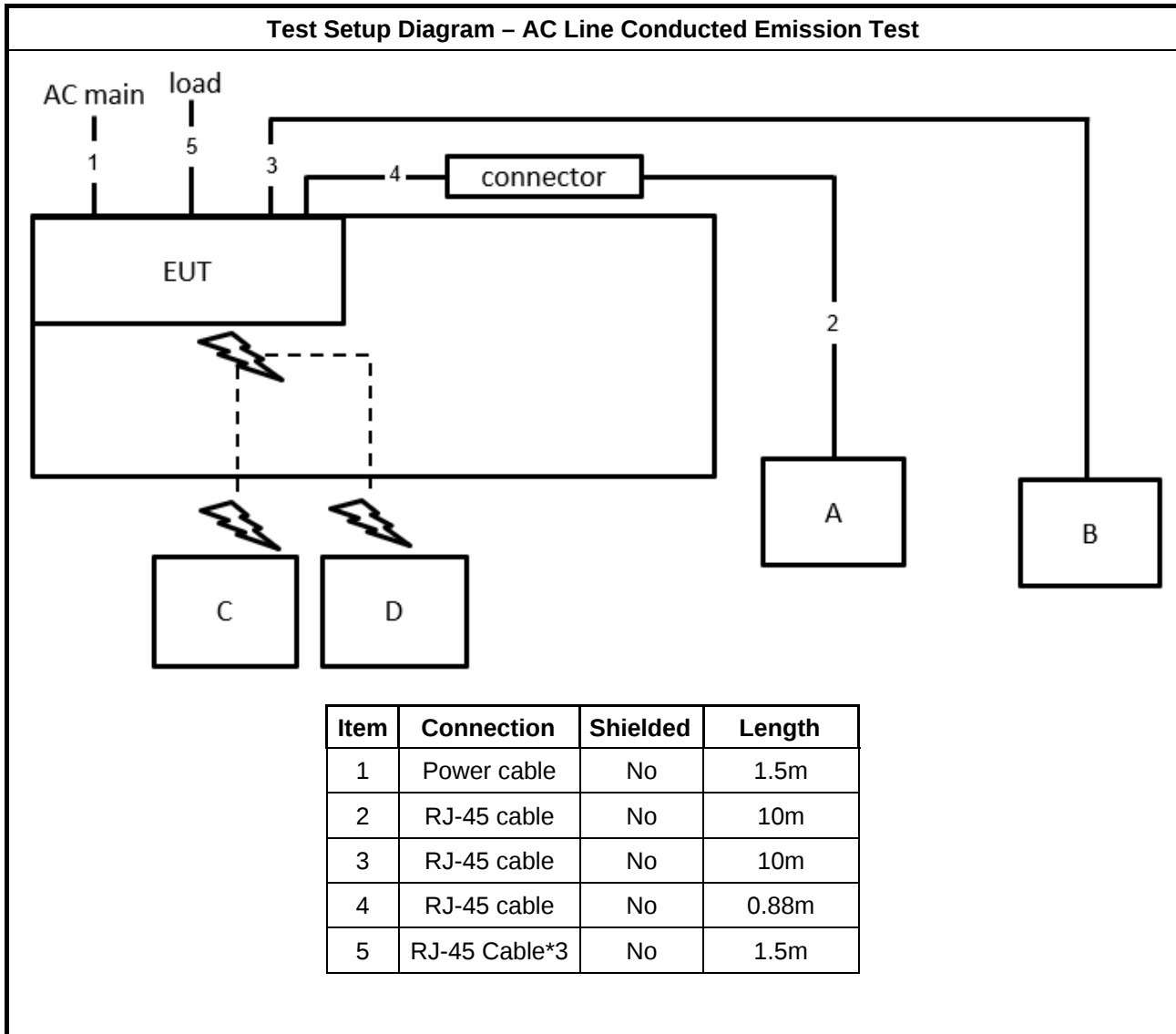
For Radiated (above 1GHz):

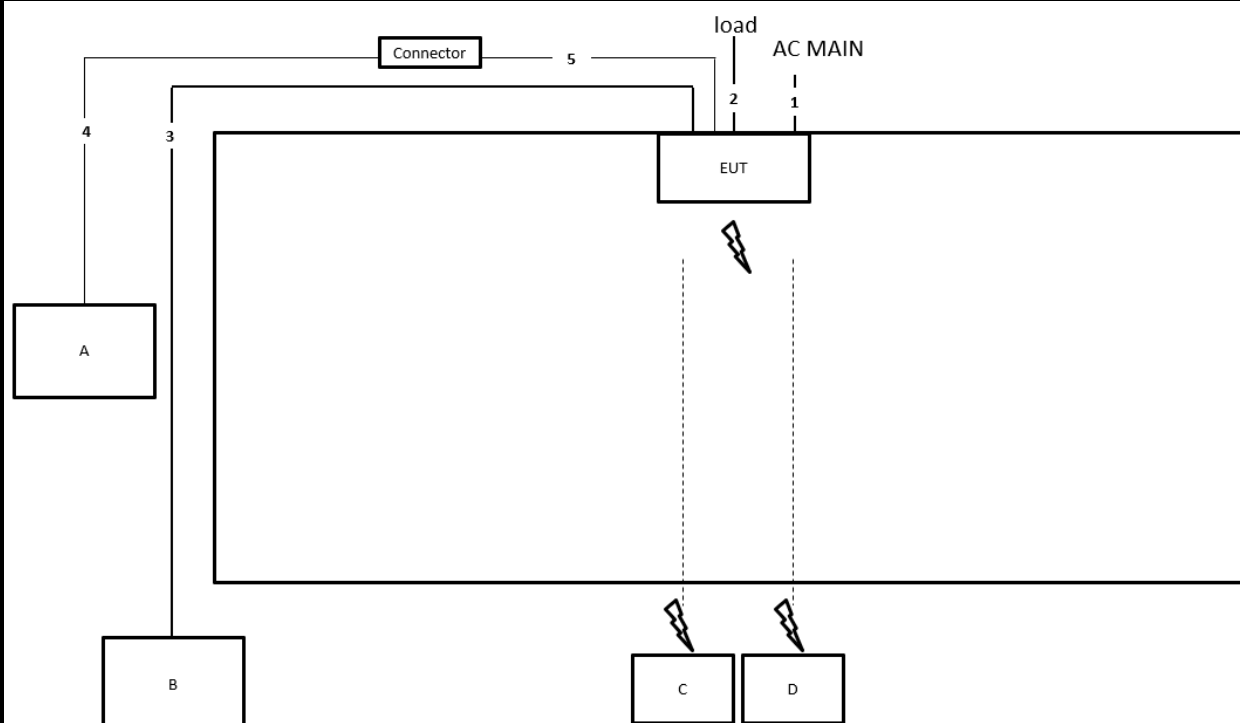
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A

For RF Conducted:

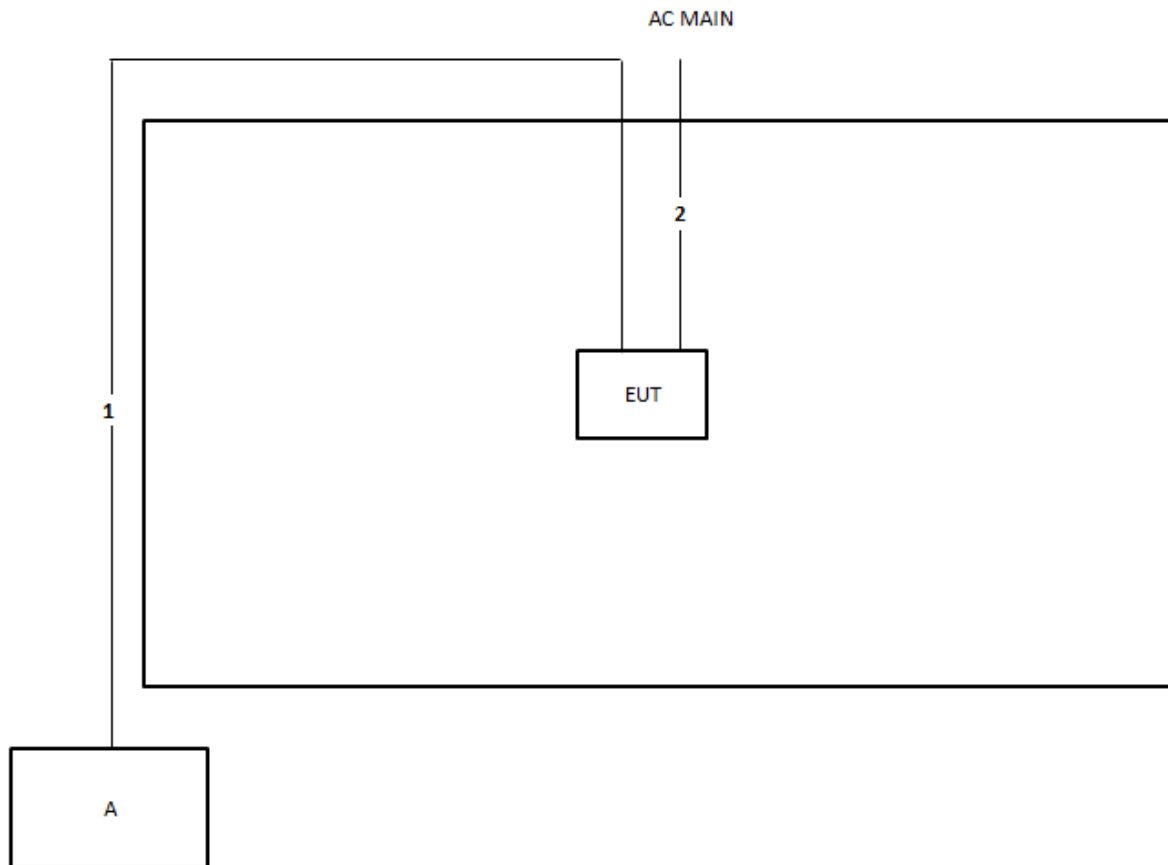
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A

2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test < 1GHz


Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable*3	No	1m
3	RJ-45 cable	No	10m
4	RJ-45 cable	No	10m
5	RJ-45 cable	No	0.88m

Test Setup Diagram - Radiated Test > 1GHz


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



3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

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

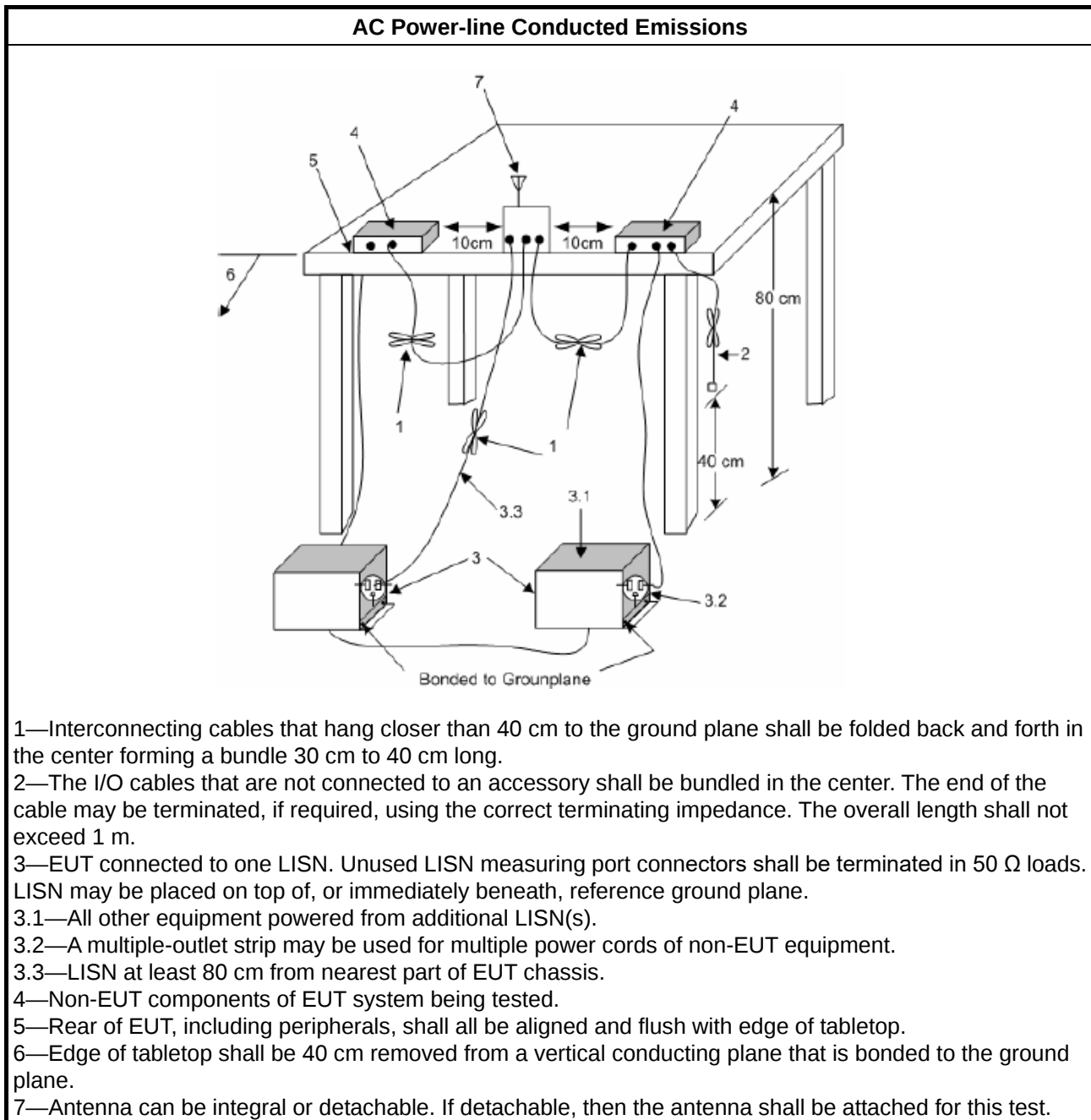
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

Test Method
☒ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Test Setup



3.1.5 Measurement Results Calculation

The measured Level is calculated using:

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

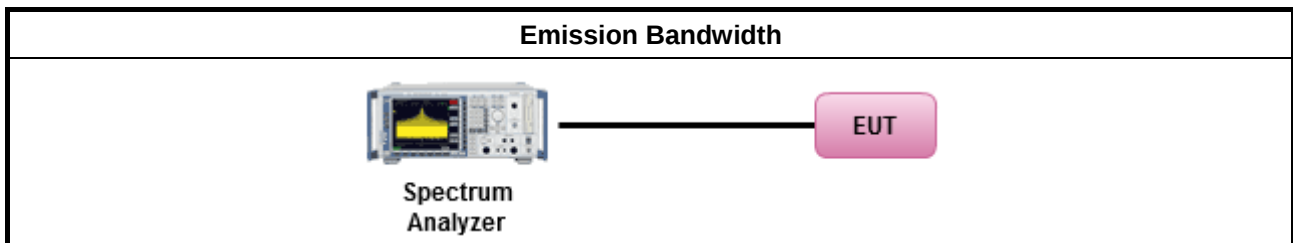
3.2.2 Measuring Instruments

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.	

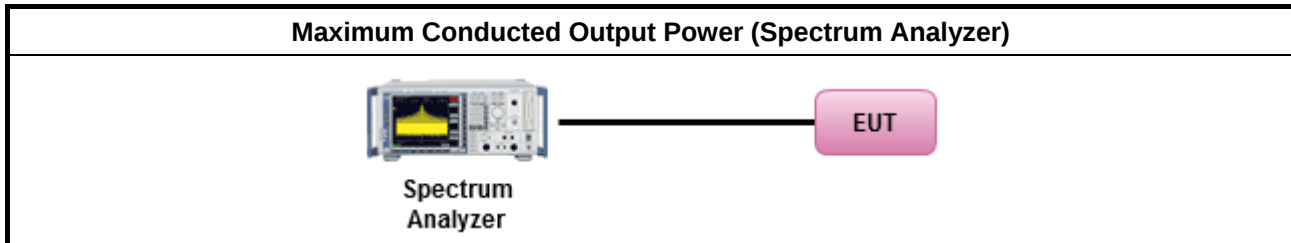
3.3.2 Measuring Instruments

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

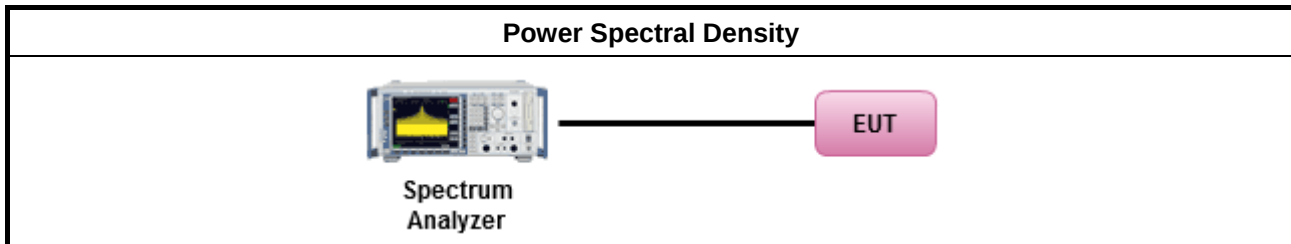
Refer a test equipment and calibration data table in this test report.

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 11.10.2 Method PKPSD. [duty cycle $\geq 98\%$ or external video / power trigger]
☐ Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.3 Method AVGPS-1.
☐ Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.5 Method AVGPS-2.
☐ Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.7 Method AVGPS-3.
duty cycle $< 98\%$ and average over on/off periods with duty factor
☐ Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.4 Method AVGPS-1A. (alternative).
☐ Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.6 Method AVGPS-2A. (alternative)
☐ Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.8 Method AVGPS-3A. (alternative)
▪ For conducted measurement.
▪ If The EUT supports multiple transmit chains using options given below:
☒ Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.
☐ Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,

- ☐ Option 3: Measure and add $10 \log(N)$ dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with $10 \log(N)$. Or each transmit chains shall be add $10 \log(N)$ to compared with the limit.

3.4.4 Test Setup



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 (dB)
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.	

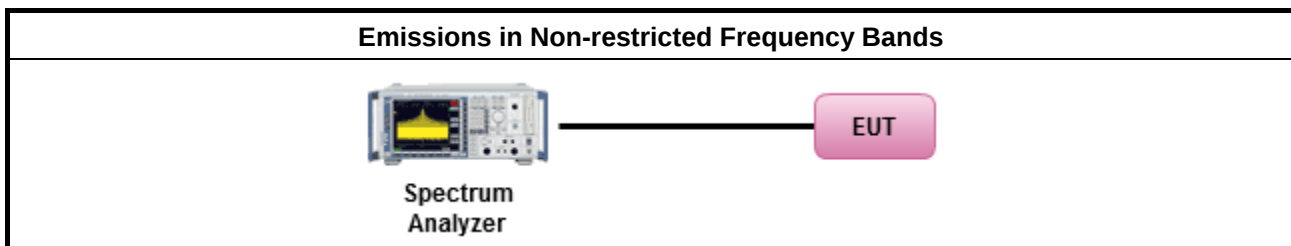
3.5.2 Measuring Instruments

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

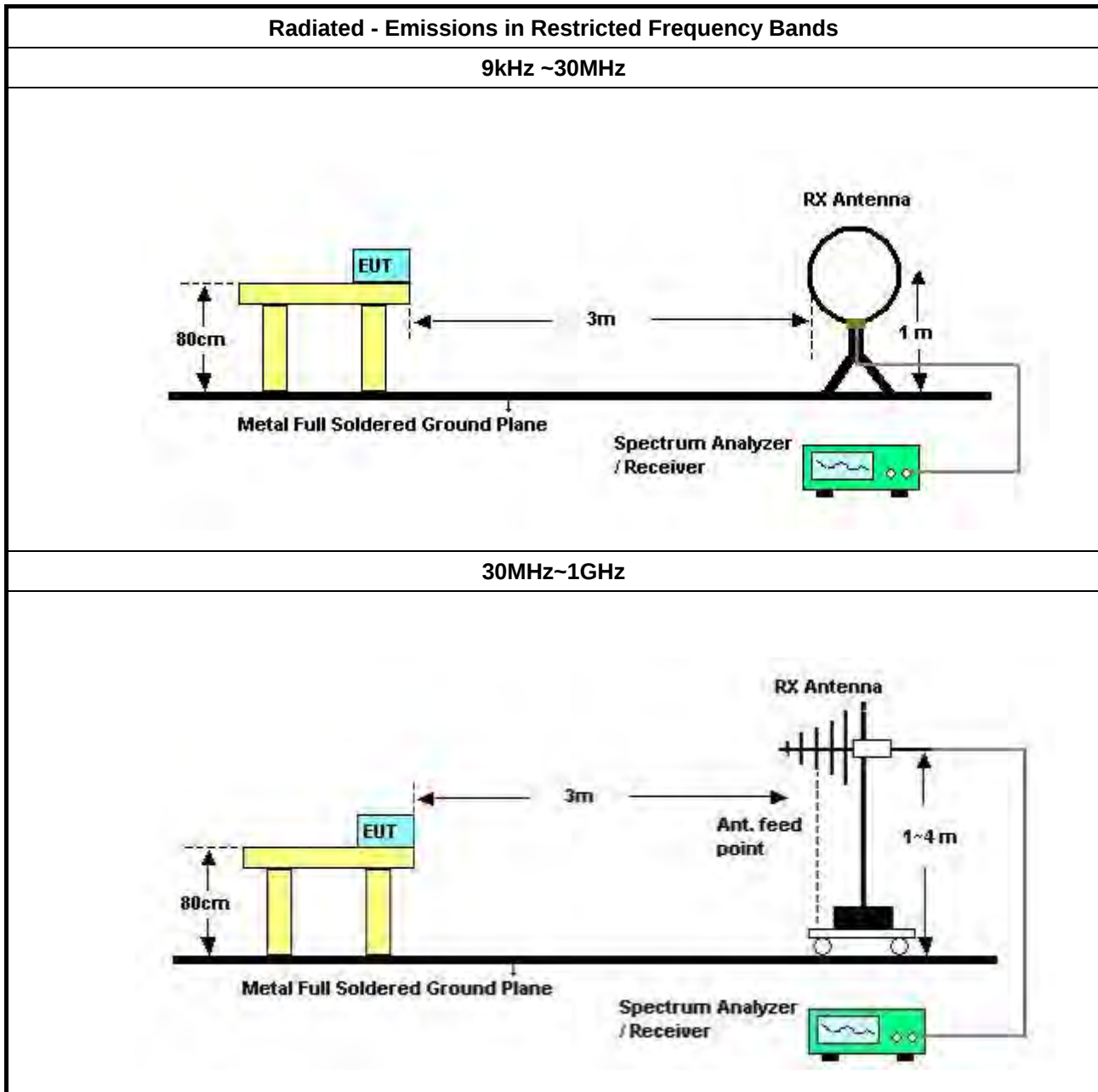
Refer a test equipment and calibration data table in this test report.

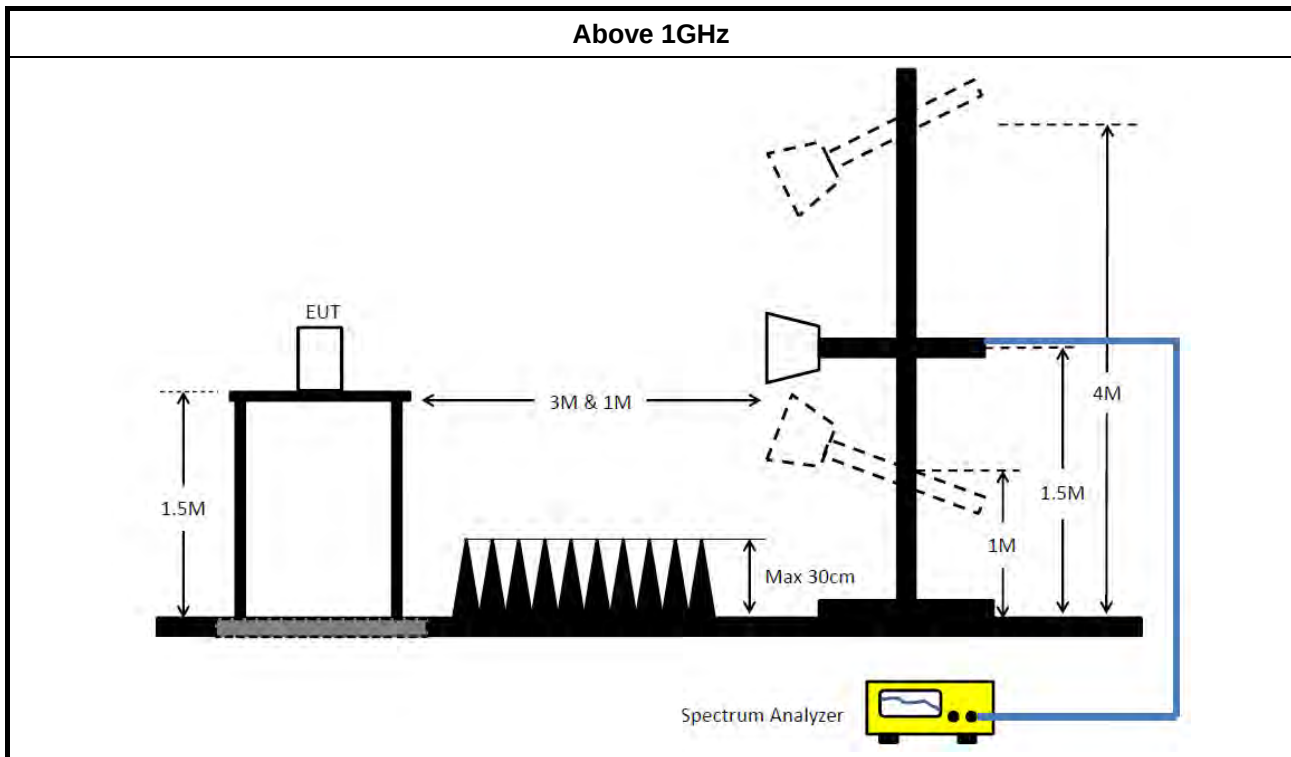


3.6.3 Test Procedures

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)

All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10 harmonic or 40 GHz, whichever is appropriate.

3.6.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F



4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.4GHz	Feb. 20, 2023	Feb. 19, 2024	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Feb. 16, 2023	Feb. 15, 2024	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Apr. 27, 2023	Apr. 26, 2024	Conduction (CO01-CB)
Pulse Limiter	Rohde&Schwarz	ESH3-Z2	100430	9kHz ~ 30MHz	Feb. 09, 2023	Feb. 08, 2024	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	Oct. 18, 2022	Oct. 17, 2023	Conduction (CO01-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6120	31244	9kHz - 30 MHz	Mar. 23, 2023	Mar. 22, 2024	Radiation (03CH04-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH04-CB	30 MHz ~ 1 GHz	Aug. 01, 2023	Jul. 31, 2024	Radiation (03CH04-CB)
BILOG ANTENNA with 6 dB attenuator	Schaffner & EMCi	CBL6112B & N-6-06	22021&AT-N06 07	30MHz ~ 1GHz	Oct. 08, 2022	Oct. 07, 2023	Radiation (03CH04-CB)
Pre-Amplifier	EMCI	EMC330N	980391	20MHz ~ 3GHz	May 23, 2023	May 22, 2024	Radiation (03CH04-CB)
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Mar. 21, 2023	Mar. 20, 2024	Radiation (03CH04-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 13, 2023	Jun. 12, 2024	Radiation (03CH04-CB)
RF Cable-low	Woken	RG402	Low Cable-03+67	30MHz ~ 1GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH04-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH04-CB)
Horn Antenna	EMCO	3115	9610-4976	1GHz ~ 18GHz	Apr. 25, 2018	Apr. 24, 2019	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jun. 28, 2018	Jun. 27, 2019	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 09, 2018	Jan. 08, 2019	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 04, 2018	Jul. 03, 2019	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSP40	100080	9kHz~40GHz	Oct. 03, 2018	Oct. 02, 2019	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#1	N/A	18GHz ~ 40 GHz	Jul. 27, 2018	Jul. 26, 2019	Radiation (03CH01-CB)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Jul. 27, 2018	Jul. 26, 2019	Radiation (03CH01-CB)
Test Software	Audix	E3	6.2009-10-7	-	N.C.R.	N.C.R.	Radiation (03CH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 21, 2017	Dec. 20, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz – 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz –26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz –26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz –26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-28	1 GHz –26.5 GHz	Nov. 19, 2018	Nov. 18, 2019	Conducted (TH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH01-CB)

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

N.C.R means Non-Calibration required.



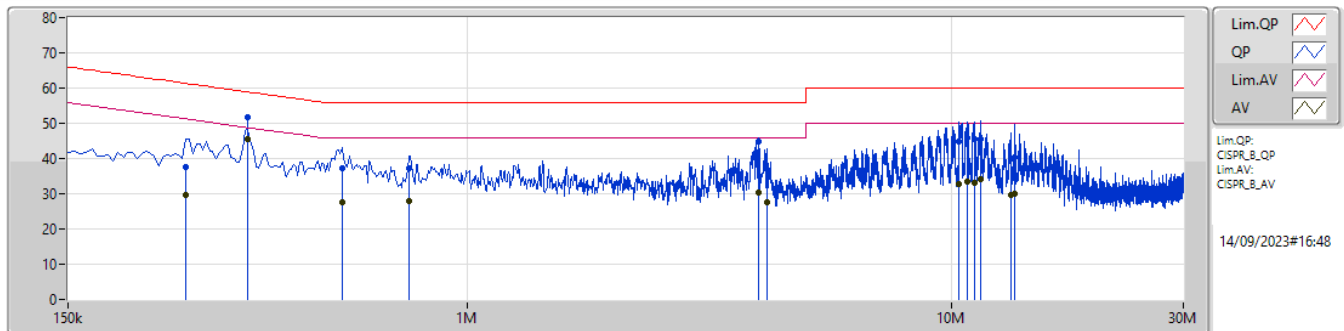
Conducted Emissions at Powerline

Appendix A

Summary

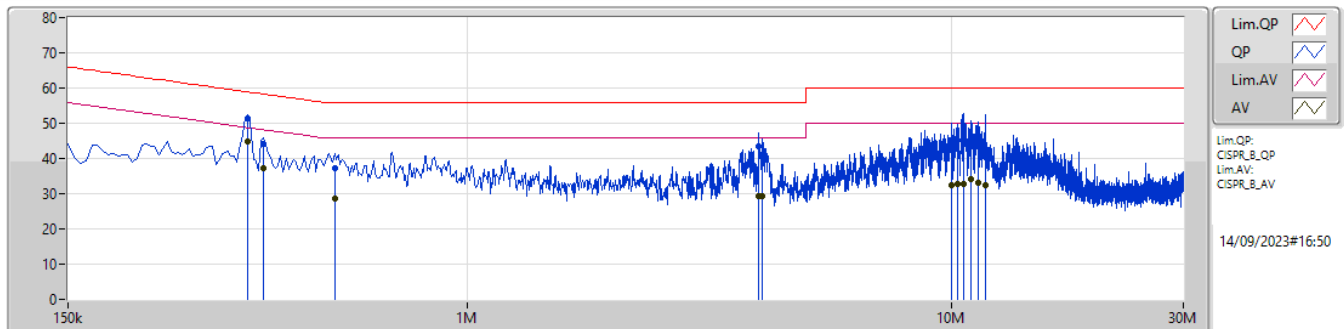
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	352.5k	45.68	48.91	-3.23	Line

Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)						
QP	262.5k	37.66	61.35	-23.69	10.01	Line	-	27.65	0.08	0.05	9.88						
AV	262.5k	29.57	51.35	-21.78	10.01	Line	-	19.56	0.08	0.05	9.88						
QP	352.5k	51.60	58.91	-7.31	10.04	Line	-	41.56	0.09	0.06	9.89						
AV	352.5k	45.68	48.91	-3.23	10.04	Line	"Worst"	35.64	0.09	0.06	9.89						
QP	550.5k	37.07	56.00	-18.93	10.05	Line	-	27.02	0.10	0.05	9.90						
AV	550.5k	27.74	46.00	-18.26	10.05	Line	-	17.69	0.10	0.05	9.90						
QP	757.5k	37.35	56.00	-18.65	10.05	Line	-	27.30	0.10	0.05	9.90						
AV	757.5k	28.03	46.00	-17.97	10.05	Line	-	17.98	0.10	0.05	9.90						
QP	3.993M	44.70	56.00	-11.30	10.18	Line	-	34.52	0.17	0.10	9.91						
AV	3.993M	30.46	46.00	-15.54	10.18	Line	-	20.28	0.17	0.10	9.91						
QP	4.16M	36.96	56.00	-19.04	10.18	Line	-	26.78	0.17	0.10	9.91						
AV	4.16M	27.47	46.00	-18.53	10.18	Line	-	17.29	0.17	0.10	9.91						
QP	10.307M	44.80	60.00	-15.20	10.35	Line	-	34.45	0.25	0.16	9.94						
AV	10.307M	32.59	50.00	-17.41	10.35	Line	-	22.24	0.25	0.16	9.94						
QP	10.752M	45.97	60.00	-14.03	10.37	Line	-	35.60	0.26	0.16	9.95						
AV	10.752M	33.32	50.00	-16.68	10.37	Line	-	22.95	0.26	0.16	9.95						
QP	11.121M	45.41	60.00	-14.59	10.37	Line	-	35.04	0.26	0.16	9.95						
AV	11.121M	33.22	50.00	-16.78	10.37	Line	-	22.85	0.26	0.16	9.95						
QP	11.463M	45.66	60.00	-14.34	10.37	Line	-	35.29	0.26	0.16	9.95						
AV	11.463M	34.10	50.00	-15.90	10.37	Line	-	23.73	0.26	0.16	9.95						
QP	13.218M	39.94	60.00	-20.06	10.41	Line	-	29.53	0.27	0.17	9.97						
AV	13.218M	29.53	50.00	-20.47	10.41	Line	-	19.12	0.27	0.17	9.97						
QP	13.497M	40.36	60.00	-19.64	10.41	Line	-	29.95	0.27	0.17	9.97						
AV	13.497M	29.99	50.00	-20.01	10.41	Line	-	19.58	0.27	0.17	9.97						

Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)						
QP	352.5k	51.32	58.91	-7.59	10.02	Neutral	-	41.30	0.07	0.06	9.89						
AV	352.5k	44.88	48.91	-4.03	10.02	Neutral	"Worst"	34.86	0.07	0.06	9.89						
QP	379.5k	44.28	58.29	-14.01	10.03	Neutral	-	34.25	0.07	0.06	9.90						
AV	379.5k	37.29	48.29	-11.00	10.03	Neutral	-	27.26	0.07	0.06	9.90						
QP	532.5k	37.37	56.00	-18.63	10.02	Neutral	-	27.35	0.07	0.05	9.90						
AV	532.5k	28.71	46.00	-17.29	10.02	Neutral	-	18.69	0.07	0.05	9.90						
QP	3.989M	43.51	56.00	-12.49	10.14	Neutral	-	33.37	0.13	0.10	9.91						
AV	3.989M	29.32	46.00	-16.68	10.14	Neutral	-	19.18	0.13	0.10	9.91						
QP	4.061M	41.14	56.00	-14.86	10.14	Neutral	-	31.00	0.13	0.10	9.91						
AV	4.061M	29.25	46.00	-16.75	10.14	Neutral	-	19.11	0.13	0.10	9.91						
QP	9.956M	44.49	60.00	-15.51	10.33	Neutral	-	34.16	0.23	0.16	9.94						
AV	9.956M	32.48	50.00	-17.52	10.33	Neutral	-	22.15	0.23	0.16	9.94						
QP	10.271M	45.25	60.00	-14.75	10.33	Neutral	-	34.92	0.23	0.16	9.94						
AV	10.271M	32.61	50.00	-17.39	10.33	Neutral	-	22.28	0.23	0.16	9.94						
QP	10.581M	45.26	60.00	-14.74	10.34	Neutral	-	34.92	0.23	0.16	9.95						
AV	10.581M	32.71	50.00	-17.29	10.34	Neutral	-	22.37	0.23	0.16	9.95						
QP	10.919M	46.38	60.00	-13.62	10.35	Neutral	-	36.03	0.24	0.16	9.95						
AV	10.919M	34.03	50.00	-15.97	10.35	Neutral	-	23.68	0.24	0.16	9.95						
QP	11.328M	45.39	60.00	-14.61	10.35	Neutral	-	35.04	0.24	0.16	9.95						
AV	11.328M	32.99	50.00	-17.01	10.35	Neutral	-	22.64	0.24	0.16	9.95						
QP	11.738M	42.60	60.00	-17.40	10.36	Neutral	-	32.24	0.24	0.16	9.96						
AV	11.738M	32.31	50.00	-17.69	10.36	Neutral	-	21.95	0.24	0.16	9.96						

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	10.075M	16.717M	16M7G1D	10M	14.993M
802.11g_Nss1,(6Mbps)_2TX	15.1M	17.291M	17M3D1D	14.375M	16.342M
802.11n HT20_Nss1,(MCS0)_2TX	15.05M	18.166M	18M2D1D	14.4M	17.516M
802.11n HT40_Nss1,(MCS0)_2TX	35.05M	36.132M	36M1D1D	30.05M	35.732M

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

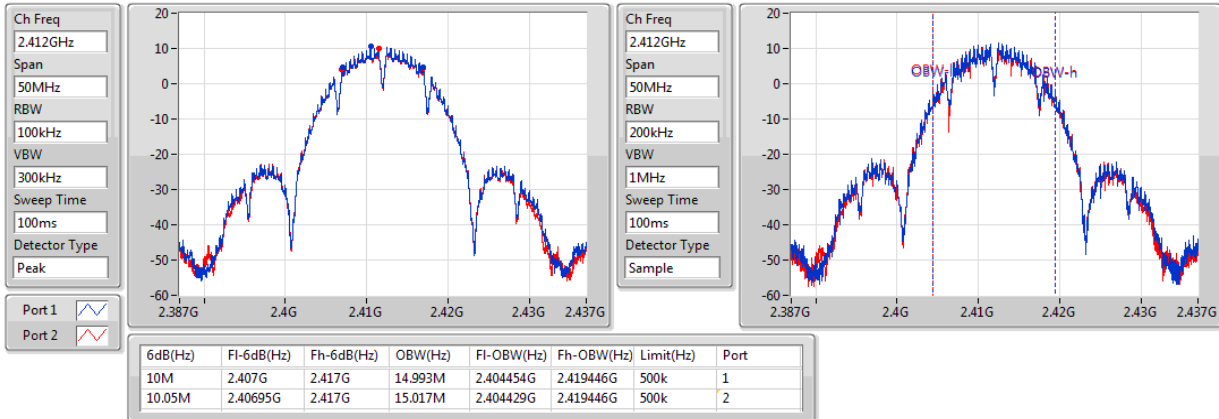
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	10M	14.993M	10.05M	15.017M
2437MHz	Pass	500k	10.075M	15.767M	10.075M	16.717M
2462MHz	Pass	500k	10.05M	15.467M	10.05M	15.367M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	15.1M	16.342M	15.1M	16.442M
2437MHz	Pass	500k	15.05M	16.592M	15M	17.291M
2462MHz	Pass	500k	15.1M	16.392M	14.375M	16.417M
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	15.05M	17.516M	14.4M	17.516M
2437MHz	Pass	500k	15.05M	17.791M	14.975M	18.166M
2462MHz	Pass	500k	15.05M	17.516M	15M	17.516M
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	35.05M	35.782M	35M	35.932M
2437MHz	Pass	500k	35M	35.732M	33.8M	36.132M
2452MHz	Pass	500k	33.8M	35.832M	30.05M	35.832M

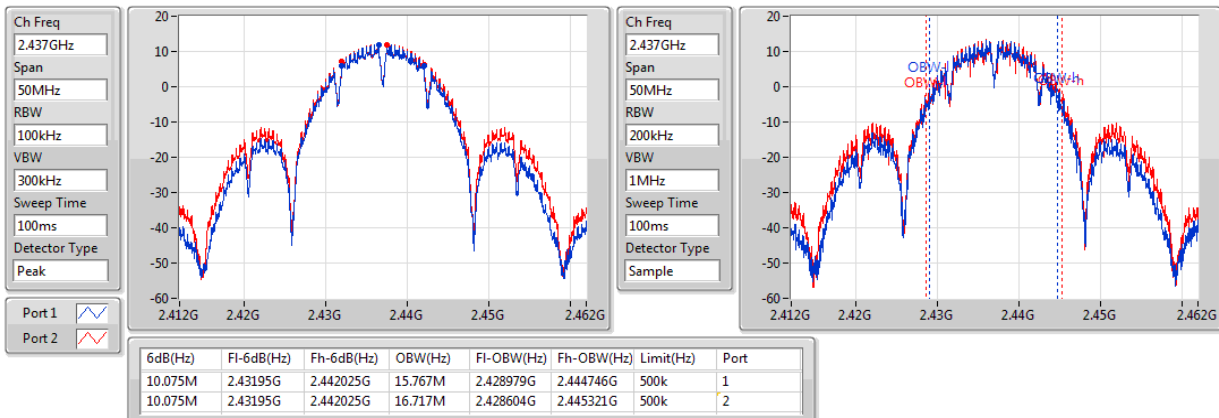
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

802.11b_Nss1,(1Mbps)_2TX
EBW
2412MHz

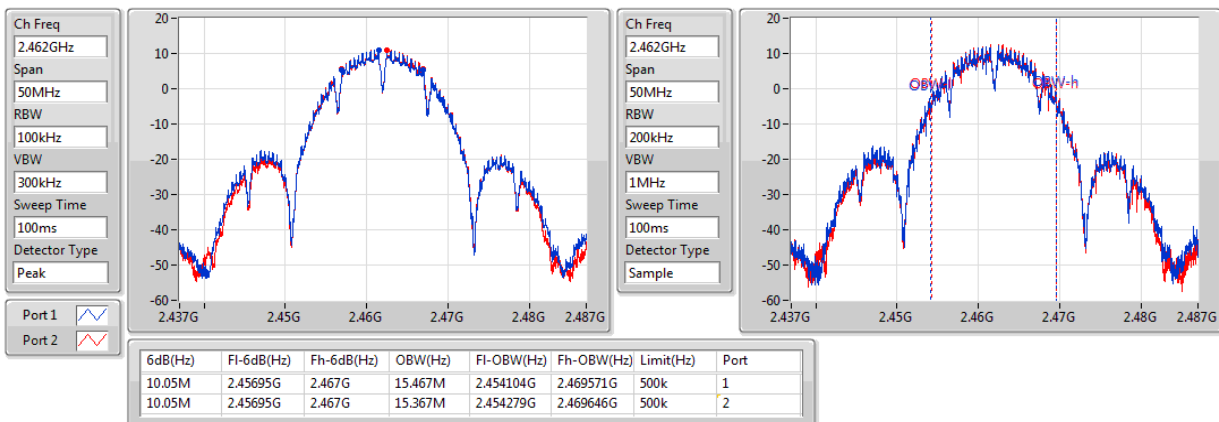
23/11/2018


802.11b_Nss1,(1Mbps)_2TX
EBW
2437MHz

23/11/2018

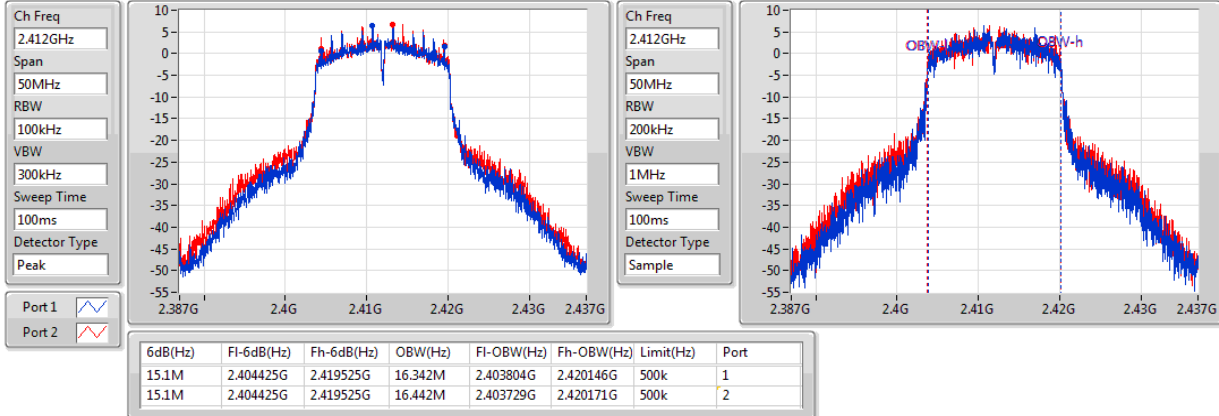

802.11b_Nss1,(1Mbps)_2TX
EBW
2462MHz

23/11/2018

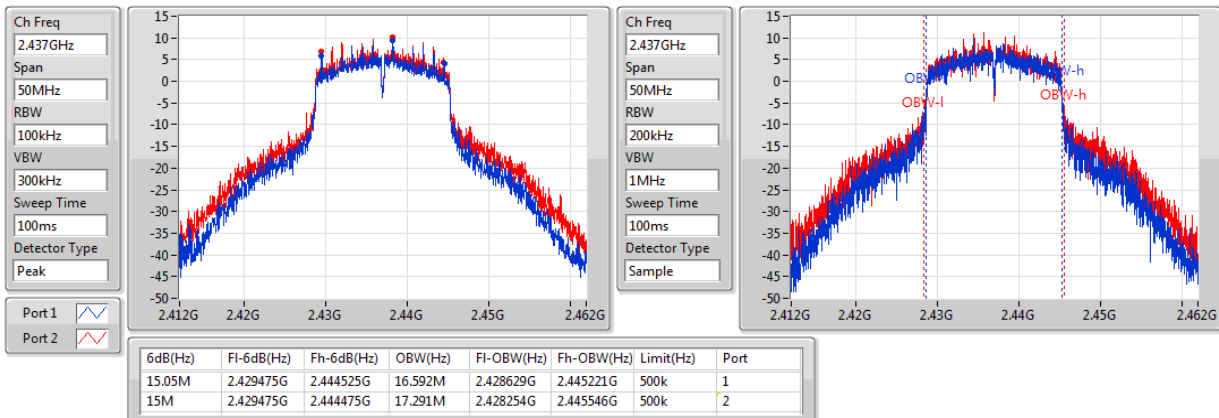


802.11g_Nss1,(6Mbps)_2TX
EBW
2412MHz

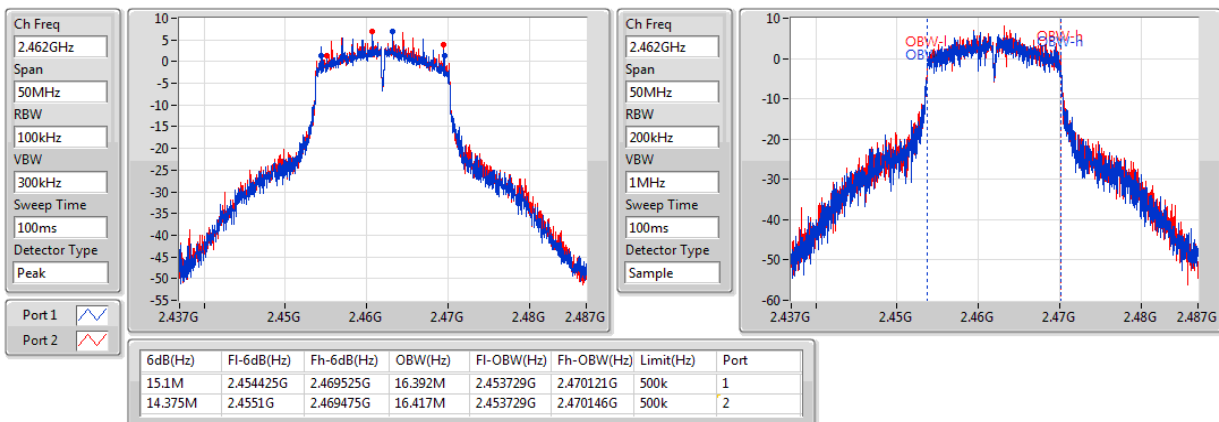
24/11/2018


802.11g_Nss1,(6Mbps)_2TX
EBW
2437MHz

23/11/2018

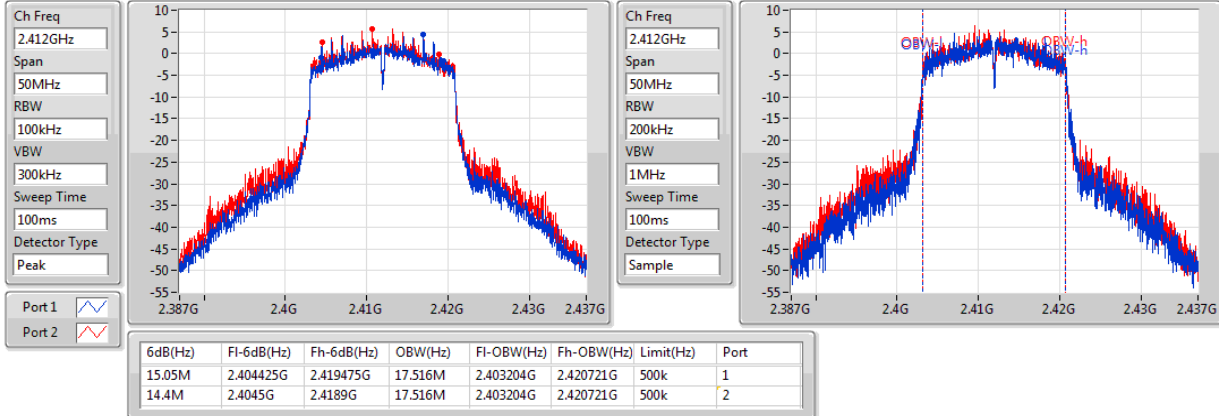

802.11g_Nss1,(6Mbps)_2TX
EBW
2462MHz

24/11/2018

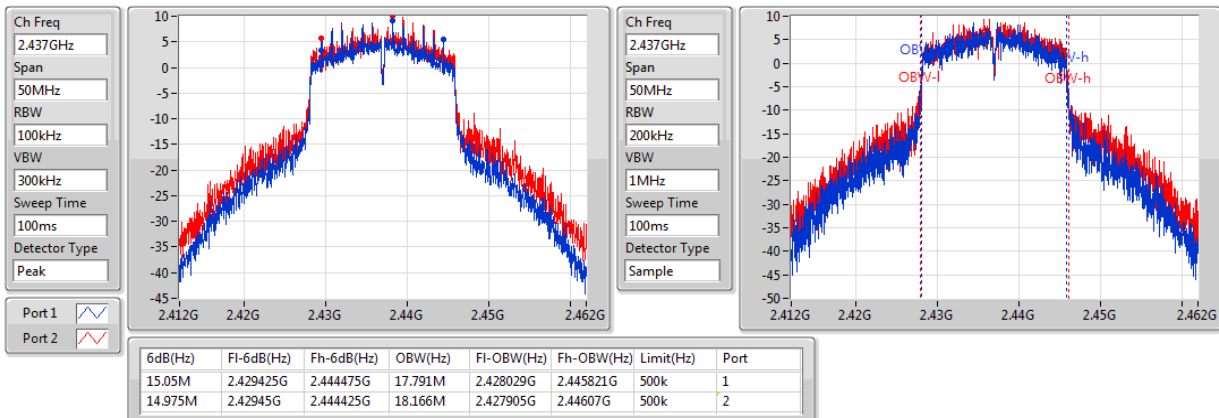


802.11n HT20_Nss1,(MCS0)_2TX
EBW
2412MHz

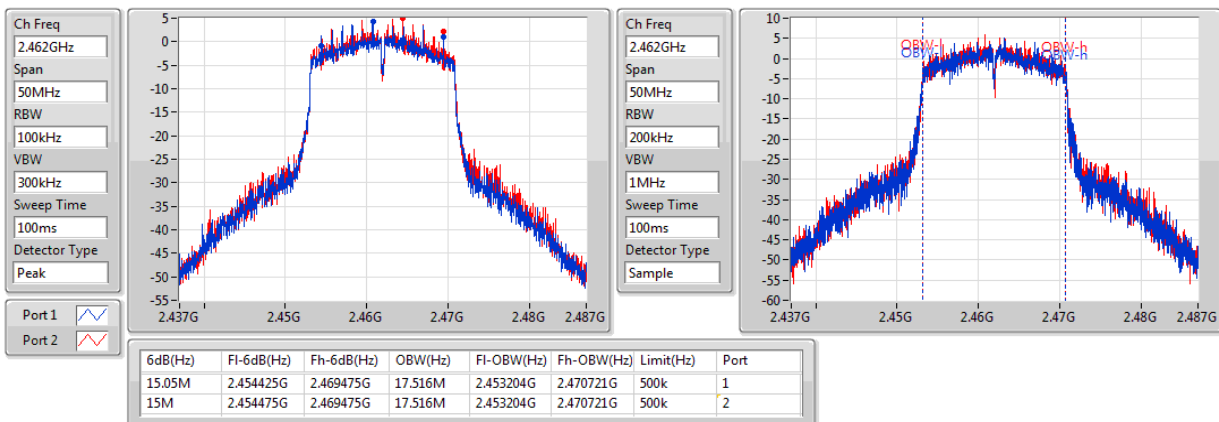
24/11/2018


802.11n HT20_Nss1,(MCS0)_2TX
EBW
2437MHz

24/11/2018

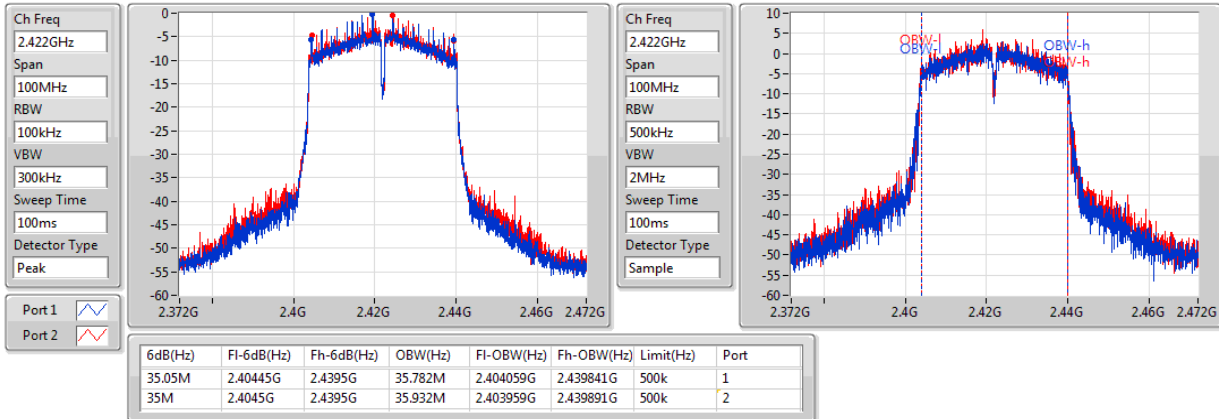

802.11n HT20_Nss1,(MCS0)_2TX
EBW
2462MHz

24/11/2018

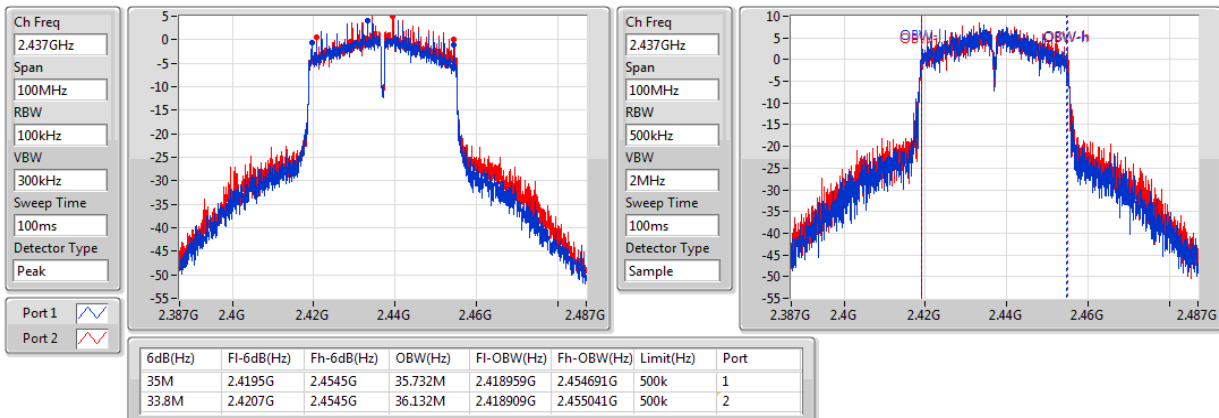


802.11n HT40_Nss1,(MCS0)_2TX
EBW
2422MHz

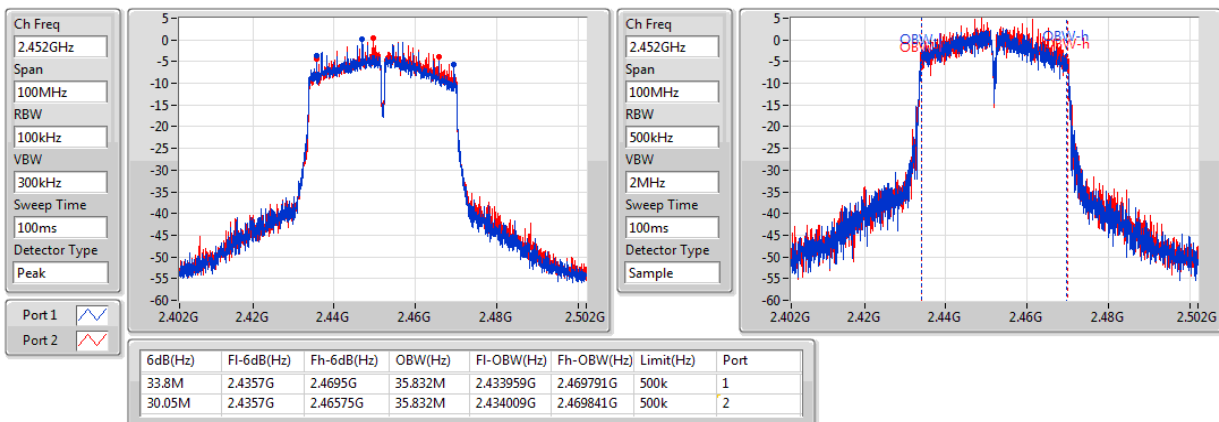
23/11/2018


802.11n HT40_Nss1,(MCS0)_2TX
EBW
2437MHz

23/11/2018


802.11n HT40_Nss1,(MCS0)_2TX
EBW
2452MHz

23/11/2018





Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_2TX	25.84	0.38371
802.11g_Nss1,(6Mbps)_2TX	23.49	0.22336
802.11n HT20_Nss1,(MCS0)_2TX	23.38	0.21777
802.11n HT40_Nss1,(MCS0)_2TX	20.83	0.12106

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	2.53	20.49	20.79	23.65	30.00
2417MHz	Pass	2.53	21.91	21.90	24.92	30.00
2422MHz	Pass	2.53	21.94	21.73	24.85	30.00
2427MHz	Pass	2.53	22.25	22.46	25.37	30.00
2432MHz						
2437MHz	Pass	2.53	22.62	23.03	25.84	30.00
2442MHz	Pass	2.53	22.21	22.52	25.38	30.00
2447MHz	Pass	2.53	21.88	21.98	24.94	30.00
2452MHz	Pass	2.53	21.67	21.99	24.84	30.00
2457MHz	Pass	2.53	21.28	21.40	24.35	30.00
2462MHz	Pass	2.53	21.48	21.51	24.51	30.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	2.53	17.34	17.17	20.27	30.00
2417MHz	Pass	2.53	19.87	19.92	22.91	30.00
2437MHz	Pass	2.53	19.86	21.03	23.49	30.00
2452MHz	Pass	2.53	19.72	20.44	23.11	30.00
2457MHz	Pass	2.53	18.75	20.11	22.49	30.00
2462MHz	Pass	2.53	17.49	17.62	20.57	30.00
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	2.53	16.22	16.44	19.34	30.00
2417MHz	Pass	2.53	19.91	20.07	23.00	30.00
2422MHz	Pass	2.53	19.89	20.17	23.04	30.00
2437MHz	Pass	2.53	19.67	20.97	23.38	30.00
2447MHz	Pass	2.53	19.33	20.53	22.98	30.00
2452MHz	Pass	2.53	18.93	20.23	22.64	30.00
2457MHz	Pass	2.53	18.64	19.22	21.95	30.00
2462MHz	Pass	2.53	15.65	15.94	18.81	30.00
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	2.53	12.87	13.04	15.97	30.00
2427MHz	Pass	2.53	14.00	14.14	17.08	30.00
2432MHz	Pass	2.53	16.05	16.14	19.11	30.00
2437MHz	Pass	2.53	17.71	17.93	20.83	30.00
2442MHz	Pass	2.53	15.92	16.08	19.01	30.00
2447MHz	Pass	2.53	14.35	14.49	17.43	30.00
2452MHz	Pass	2.53	13.34	13.52	16.44	30.00

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

Note : Conducted average output power is for reference only

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_2TX	-6.86
802.11g_Nss1,(6Mbps)_2TX	-4.00
802.11n HT20_Nss1,(MCS0)_2TX	-4.71
802.11n HT40_Nss1,(MCS0)_2TX	-8.36

RBW=3kHz.

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.54	-11.20	-11.91	-8.62	8.00
2437MHz	Pass	5.54	-9.58	-9.71	-6.86	8.00
2462MHz	Pass	5.54	-10.52	-10.49	-7.49	8.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.54	-9.69	-8.59	-7.70	8.00
2437MHz	Pass	5.54	-7.32	-6.21	-4.00	8.00
2462MHz	Pass	5.54	-9.99	-8.88	-6.90	8.00
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.54	-11.45	-10.26	-8.64	8.00
2437MHz	Pass	5.54	-6.40	-6.63	-4.71	8.00
2462MHz	Pass	5.54	-11.57	-9.16	-7.51	8.00
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	5.54	-16.39	-16.40	-13.41	8.00
2437MHz	Pass	5.54	-11.77	-10.71	-8.36	8.00
2452MHz	Pass	5.54	-15.34	-14.25	-13.12	8.00

DG = Directional Gain; RBW=3kHz;

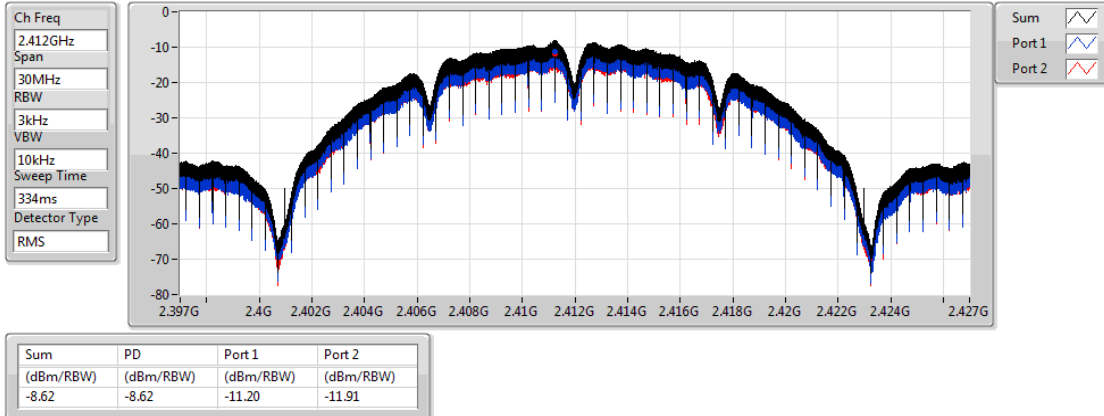
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port Xpower density;

802.11b_Nss1,(1Mbps)_2TX

PSD

2412MHz

23/11/2018

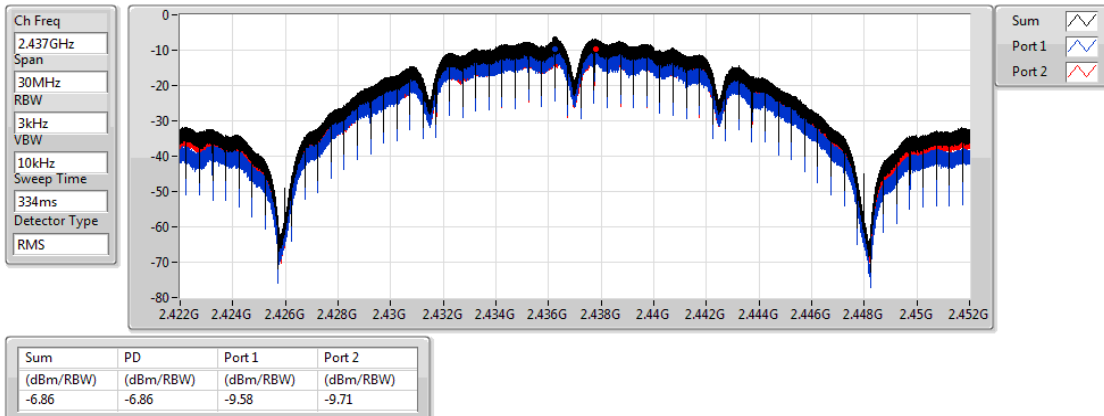


802.11b_Nss1,(1Mbps)_2TX

PSD

2437MHz

23/11/2018

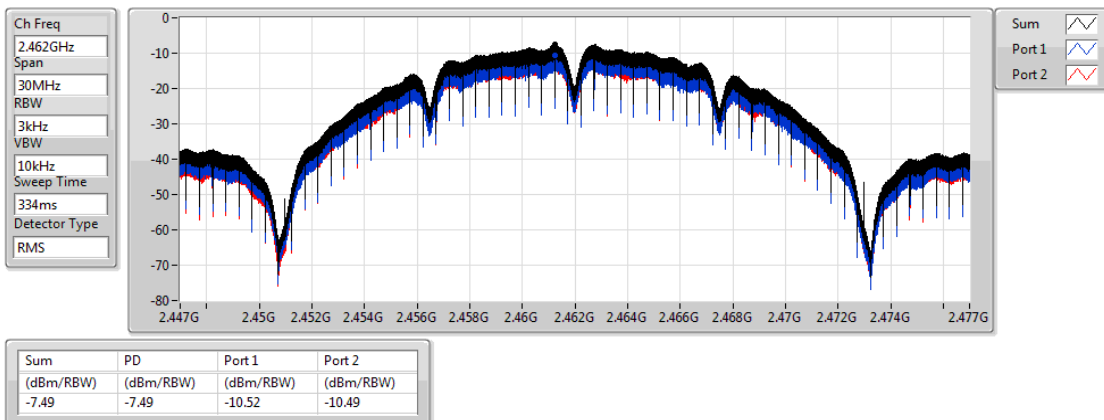


802.11b_Nss1,(1Mbps)_2TX

PSD

2462MHz

23/11/2018

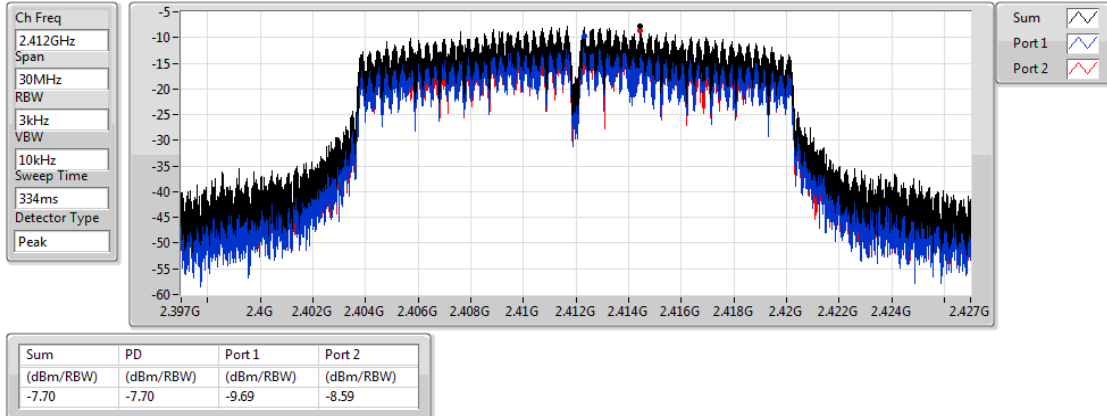


802.11g_Nss1,(6Mbps)_2TX

PSD

2412MHz

24/11/2018

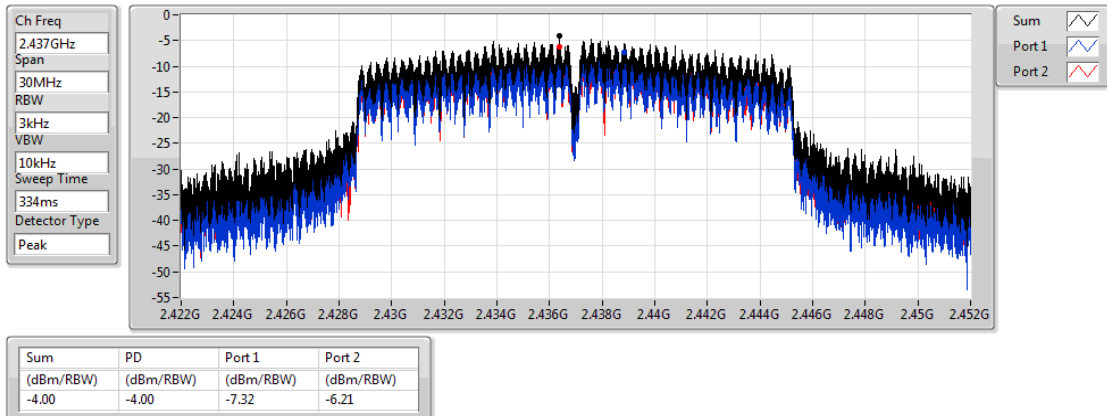


802.11g_Nss1,(6Mbps)_2TX

PSD

2437MHz

23/11/2018

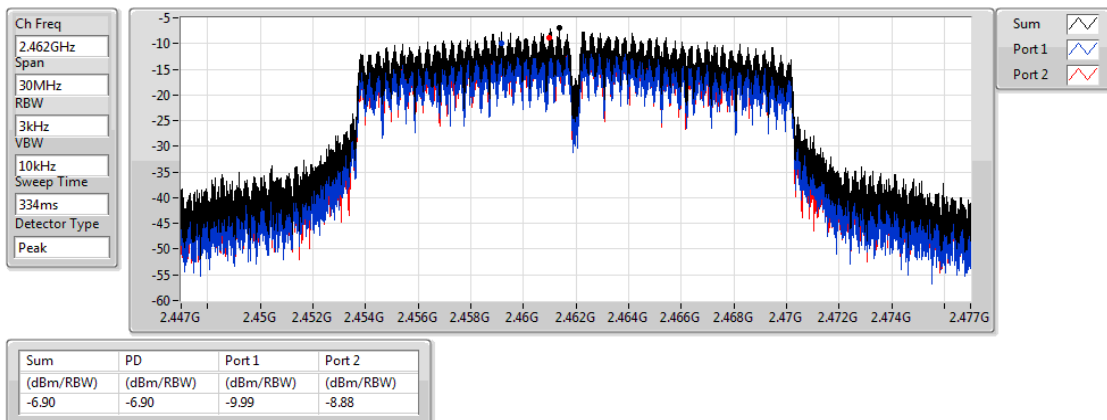


802.11g_Nss1,(6Mbps)_2TX

PSD

2462MHz

24/11/2018

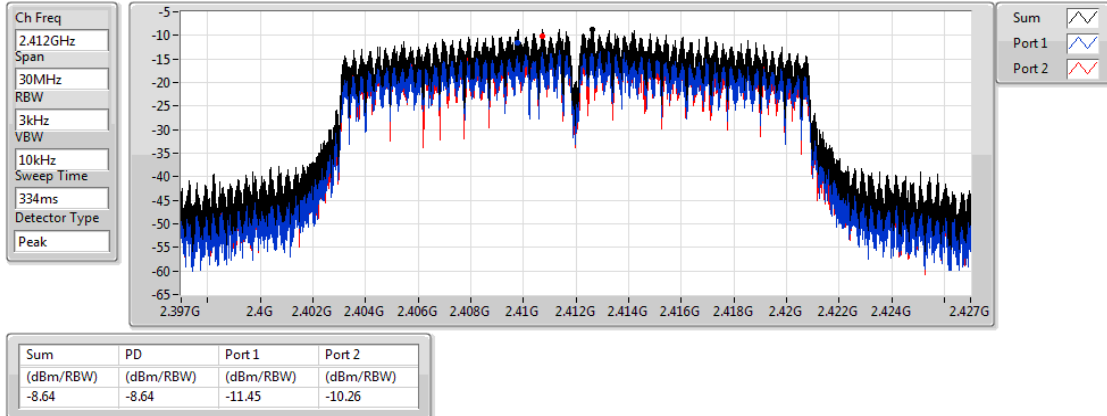


802.11n HT20_Nss1,(MCS0)_2TX

PSD

2412MHz

24/11/2018

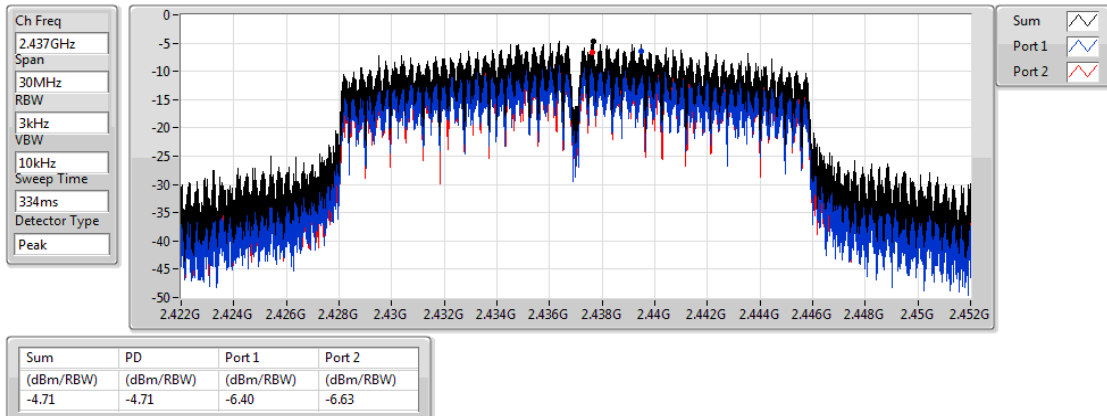


802.11n HT20_Nss1,(MCS0)_2TX

PSD

2437MHz

24/11/2018

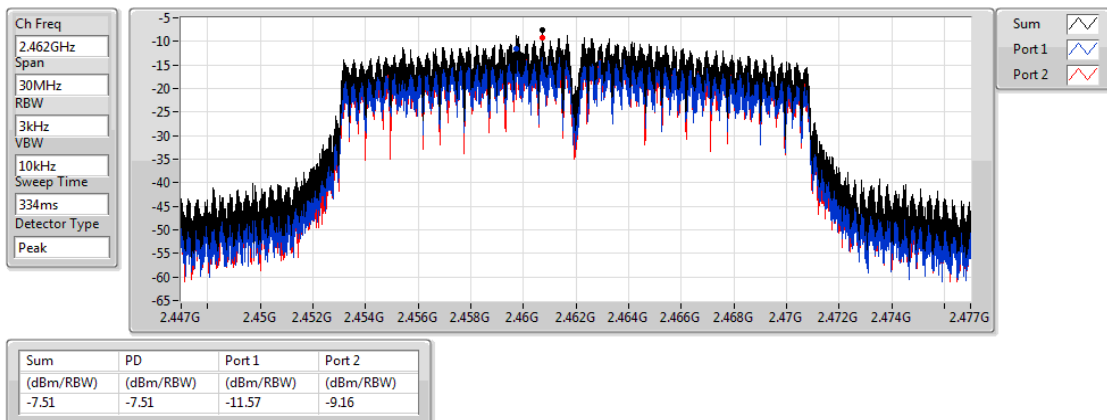


802.11n HT20_Nss1,(MCS0)_2TX

PSD

2462MHz

24/11/2018

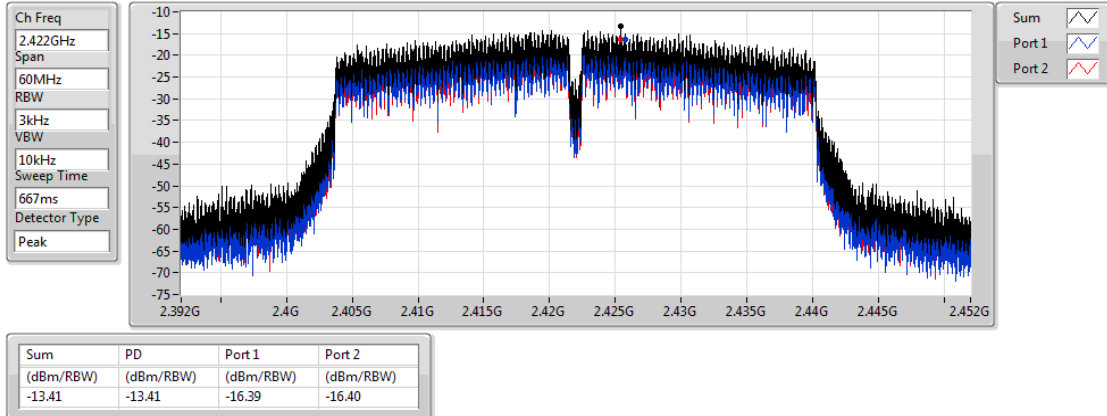


802.11n HT40_Nss1,(MCS0)_2TX

PSD

2422MHz

23/11/2018

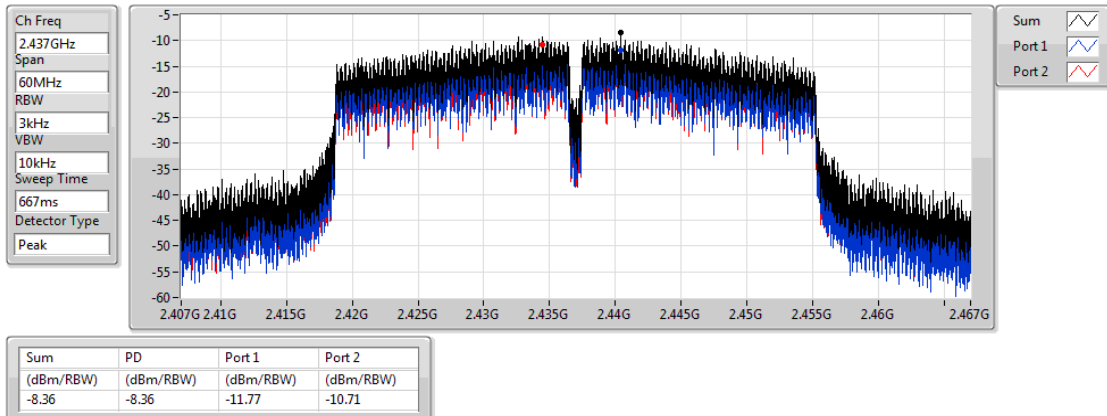


802.11n HT40_Nss1,(MCS0)_2TX

PSD

2437MHz

23/11/2018

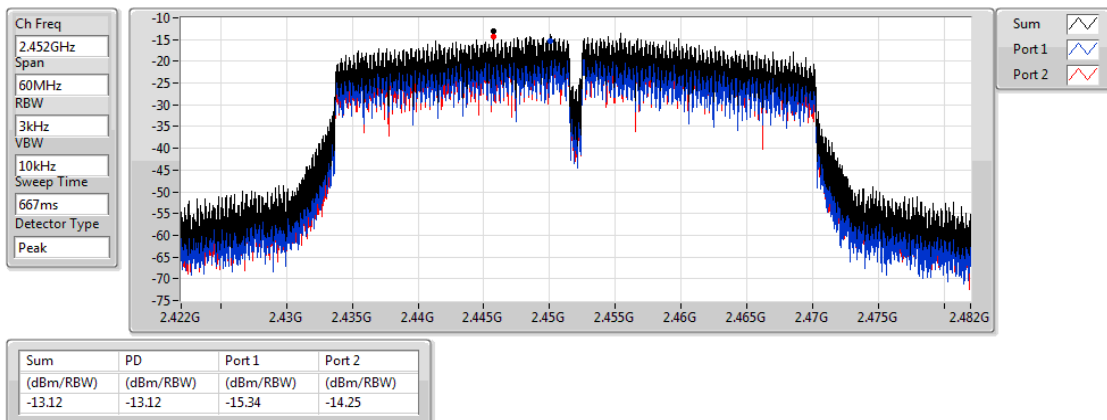


802.11n HT40_Nss1,(MCS0)_2TX

PSD

2452MHz

23/11/2018



Summary

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	Pass	2.436406G	12.16	-17.84	479.69M	-58.76	2.398G	-22.23	2.4887G	-54.65	7.235136G	-52.66	2
802.11g_Nss1,(6Mbps)_2TX	Pass	2.435738G	10.12	-19.88	479.69M	-53.74	2.39992G	-21.51	2.5095G	-53.53	17.012414G	-55.11	2
802.11n HT20_Nss1,(MCS0)_2TX	Pass	2.438243G	10.03	-19.97	479.69M	-54.94	2.39976G	-23.54	2.48822G	-55.03	16.944984G	-54.96	2
802.11n HT40_Nss1,(MCS0)_2TX	Pass	2.434402G	5.49	-24.51	479.985M	-51.99	2.39952G	-25.99	2.48366G	-43.16	16.227329G	-54.05	2

Result

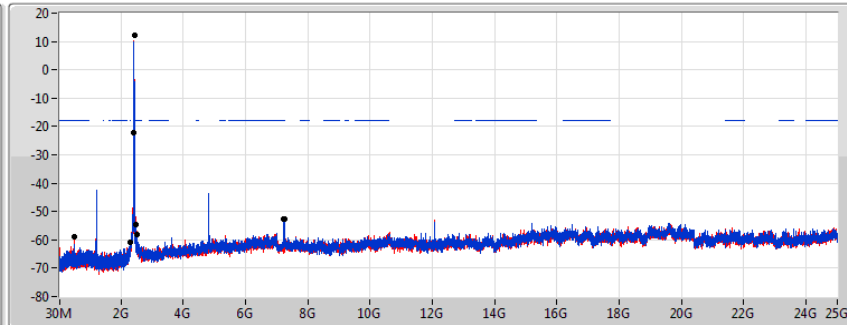
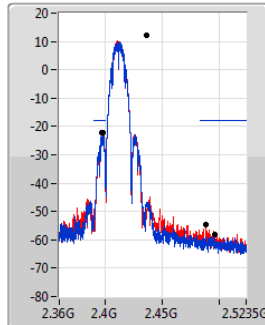
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.436406G	12.16	-17.84	2.307575G	-60.79	2.39704G	-22.38	2.49638G	-58.29	7.232327G	-52.68	1
2412MHz	Pass	2.436406G	12.16	-17.84	479.69M	-58.76	2.398G	-22.23	2.4887G	-54.65	7.235136G	-52.66	2
2437MHz	Pass	2.436406G	12.16	-17.84	32.33M	-57.59	2.39904G	-52.37	2.48886G	-55.56	16.562884G	-55.20	1
2437MHz	Pass	2.436406G	12.16	-17.84	32.33M	-50.94	2.39752G	-41.25	2.48446G	-44.21	17.67828G	-56.04	2
2462MHz	Pass	2.436406G	12.16	-17.84	479.69M	-59.93	2.39992G	-56.47	2.48798G	-40.86	16.942175G	-55.01	1
2462MHz	Pass	2.436406G	12.16	-17.84	479.69M	-58.20	2.39904G	-53.07	2.4875G	-43.03	21.676288G	-55.51	2
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.435738G	10.12	-19.88	479.69M	-56.82	2.39992G	-24.65	2.50446G	-53.23	7.235136G	-54.71	1
2412MHz	Pass	2.435738G	10.12	-19.88	479.69M	-53.74	2.39992G	-21.51	2.5095G	-53.53	17.012414G	-55.11	2
2437MHz	Pass	2.435738G	10.12	-19.88	479.69M	-55.35	2.39328G	-47.28	2.50574G	-50.79	15.205865G	-55.24	1
2437MHz	Pass	2.435738G	10.12	-19.88	479.69M	-54.86	2.39936G	-48.72	2.48502G	-50.99	16.936556G	-55.16	2
2462MHz	Pass	2.435738G	10.12	-19.88	479.69M	-57.22	2.39888G	-52.83	2.48382G	-41.44	16.489835G	-54.82	1
2462MHz	Pass	2.435738G	10.12	-19.88	479.69M	-54.29	2.3996G	-50.87	2.48358G	-39.82	2.529119G	-55.19	2
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.438243G	10.03	-19.97	2.30175G	-57.52	2.39992G	-26.19	2.4995G	-55.37	24.949428G	-55.33	1
2412MHz	Pass	2.438243G	10.03	-19.97	479.69M	-54.94	2.39976G	-23.54	2.48822G	-55.03	16.944984G	-54.96	2
2437MHz	Pass	2.438243G	10.03	-19.97	479.69M	-57.17	2.3932G	-48.75	2.50574G	-49.70	17.478801G	-55.13	1
2437MHz	Pass	2.438243G	10.03	-19.97	479.69M	-54.77	2.39856G	-45.55	2.48382G	-49.49	24.87357G	-55.23	2
2462MHz	Pass	2.438243G	10.03	-19.97	479.69M	-57.39	2.39832G	-52.04	2.48374G	-44.14	16.531979G	-55.15	1
2462MHz	Pass	2.438243G	10.03	-19.97	479.69M	-55.11	2.39512G	-53.04	2.48446G	-42.81	24.848284G	-54.28	2
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.434402G	5.49	-24.51	2.309695G	-56.93	2.39952G	-37.89	2.50686G	-54.39	15.212077G	-54.83	1
2422MHz	Pass	2.434402G	5.49	-24.51	479.985M	-51.83	2.39824G	-36.03	2.48926G	-54.84	21.785971G	-55.60	2
2437MHz	Pass	2.434402G	5.49	-24.51	32.29M	-55.12	2.39984G	-33.33	2.4851G	-46.17	15.299018G	-54.74	1
2437MHz	Pass	2.434402G	5.49	-24.51	479.985M	-51.99	2.39952G	-25.99	2.48366G	-43.16	16.227329G	-54.05	2
2452MHz	Pass	2.434402G	5.49	-24.51	479.985M	-57.53	2.3944G	-53.04	2.48446G	-40.46	16.37597G	-55.53	1
2452MHz	Pass	2.434402G	5.49	-24.51	479.985M	-54.47	2.39584G	-50.94	2.4843G	-41.47	16.636795G	-55.57	2

802.11b_Nss1,(1Mbps)_2TX

CSE NdB

2412MHz

23/11/2018



Port 1 
Port 2 

RBW VBW
100kHz 300kHz
Detector Type
Peak

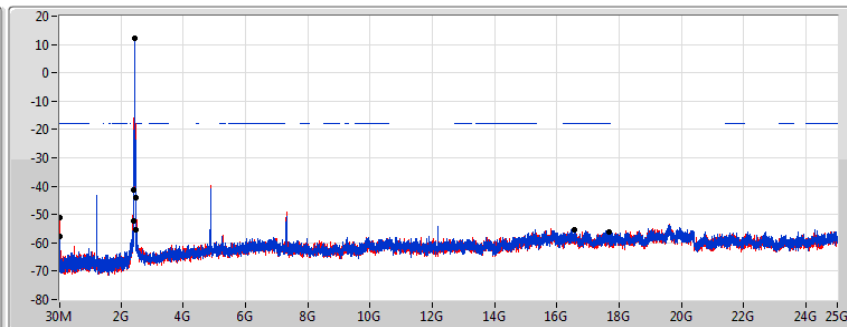
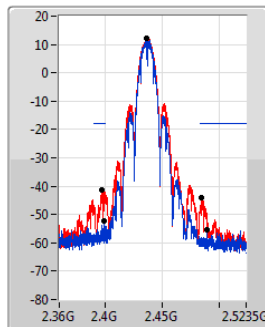
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.436406G	12.16	-17.84	2.307575G	-60.79	2.39704G	-22.38	2.49638G	-58.29	7.232327G	-52.68	1
2.436406G	12.16	-17.84	479.69M	-58.76	2.398G	-22.23	2.4887G	-54.65	7.235136G	-52.66	2

802.11b_Nss1,(1Mbps)_2TX

CSE NdB

2437MHz

23/11/2018



Port 1 
Port 2 

RBW VBW
100kHz 300kHz
Detector Type
Peak

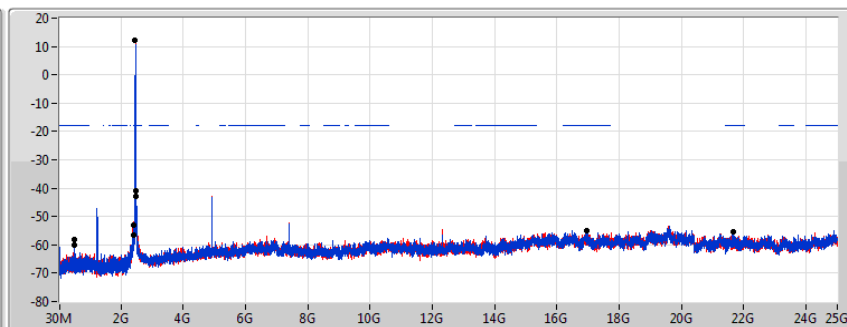
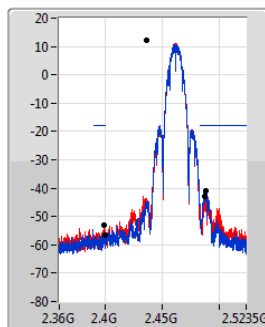
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.436406G	12.16	-17.84	32.33M	-57.59	2.39904G	-52.37	2.48886G	-55.56	16.562884G	-55.20	1
2.436406G	12.16	-17.84	32.33M	-50.94	2.39752G	-41.25	2.48446G	-44.21	17.67828G	-56.04	2

802.11b_Nss1,(1Mbps)_2TX

CSE NdB

2462MHz

23/11/2018



Port 1 
Port 2 

RBW VBW
100kHz 300kHz
Detector Type
Peak

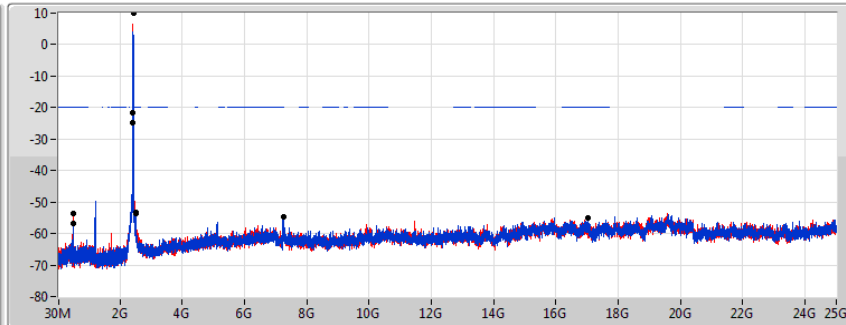
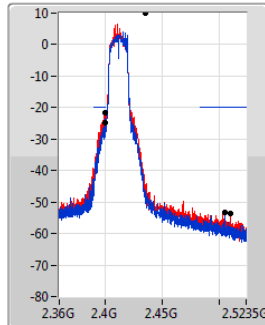
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.436406G	12.16	-17.84	479.69M	-59.93	2.39992G	-56.47	2.48798G	-40.86	16.942175G	-55.01	1
2.436406G	12.16	-17.84	479.69M	-58.20	2.39904G	-53.07	2.4875G	-43.03	21.676288G	-55.51	2

802.11g_Nss1,(6Mbps)_2TX

CSE NdB

2412MHz

24/11/2018



Port 1
Port 2

RBW VBW
100kHz 300kHz
Detector Type
Peak

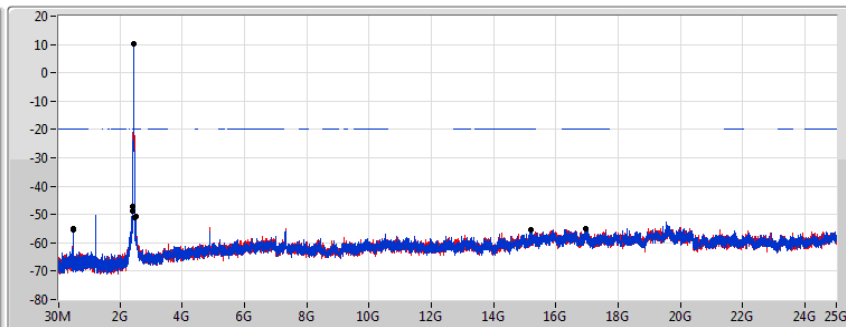
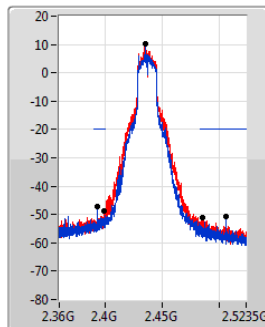
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.435738G	10.12	-19.88	479.69M	-56.82	2.39992G	-24.65	2.50446G	-53.23	7.235136G	-54.71	1
2.435738G	10.12	-19.88	479.69M	-53.74	2.39992G	-21.51	2.5095G	-53.53	17.012414G	-55.11	2

802.11g_Nss1,(6Mbps)_2TX

CSE NdB

2437MHz

23/11/2018



Port 1
Port 2

RBW VBW
100kHz 300kHz
Detector Type
Peak

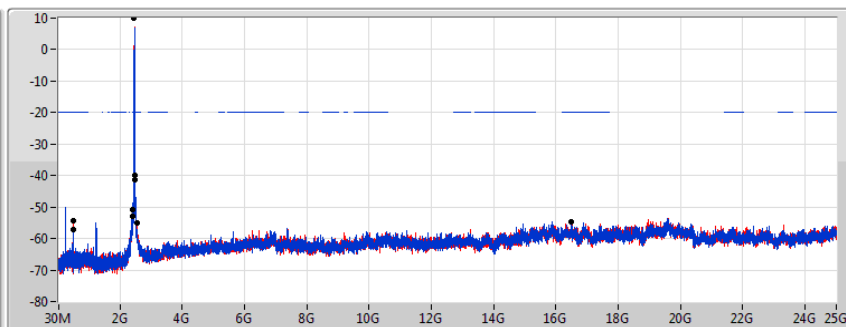
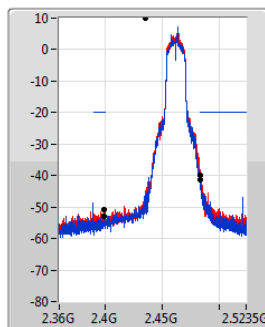
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.435738G	10.12	-19.88	479.69M	-55.35	2.39328G	-47.28	2.50574G	-50.79	15.205865G	-55.24	1
2.435738G	10.12	-19.88	479.69M	-54.86	2.39936G	-48.72	2.48502G	-50.99	16.936556G	-55.16	2

802.11g_Nss1,(6Mbps)_2TX

CSE NdB

2462MHz

24/11/2018



Port 1
Port 2

RBW VBW
100kHz 300kHz
Detector Type
Peak

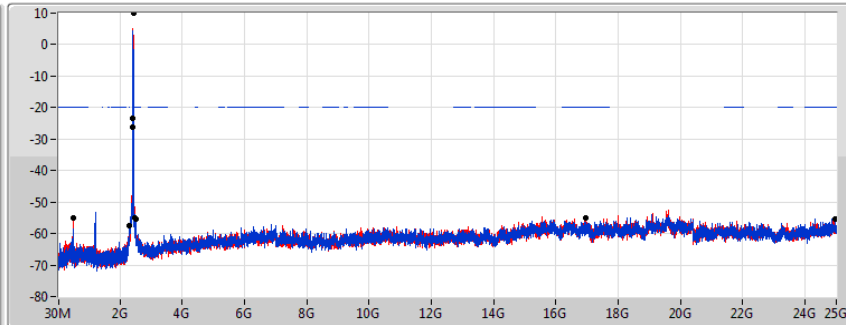
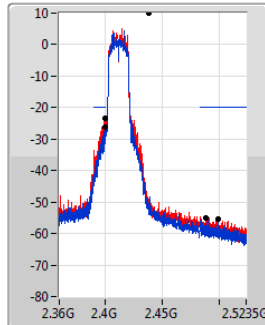
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.435738G	10.12	-19.88	479.69M	-57.22	2.39888G	-52.83	2.48382G	-41.44	16.489835G	-54.82	1
2.435738G	10.12	-19.88	479.69M	-54.29	2.3996G	-50.87	2.48358G	-39.82	2.529119G	-55.19	2

802.11n HT20_Nss1,(MCS0)_2TX

CSE NdB

2412MHz

24/11/2018



Port 1
Port 2

RBW VBW
100kHz 300kHz
Detector Type
Peak

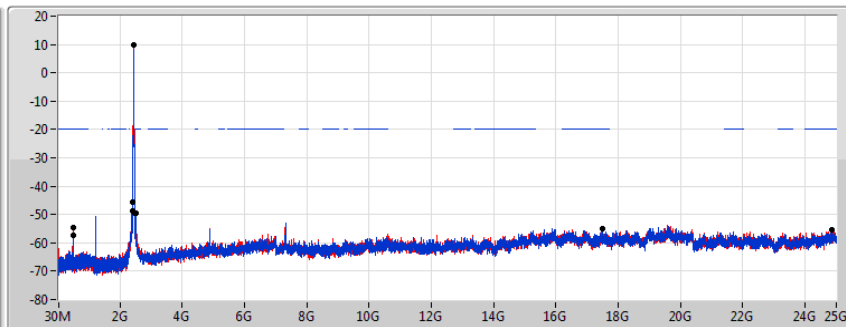
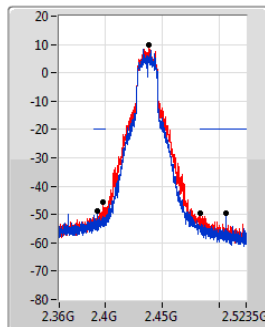
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.438243G	10.03	-19.97	2.30175G	-57.52	2.39992G	-26.19	2.4995G	-55.37	2.4949428G	-55.33	1
2.438243G	10.03	-19.97	479.69M	-54.94	2.39976G	-23.54	2.48822G	-55.03	16.944984G	-54.96	2

802.11n HT20_Nss1,(MCS0)_2TX

CSE NdB

2437MHz

24/11/2018



Port 1
Port 2

RBW VBW
100kHz 300kHz
Detector Type
Peak

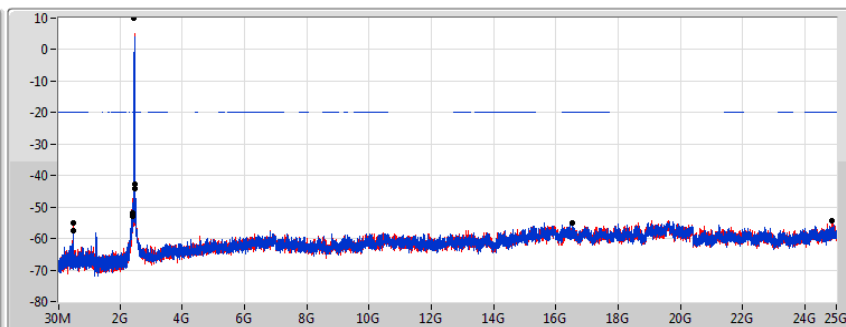
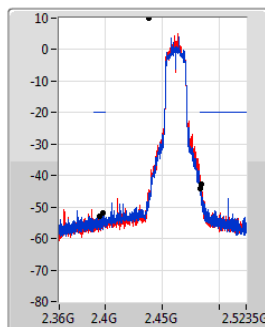
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.438243G	10.03	-19.97	479.69M	-57.17	2.3932G	-48.75	2.50574G	-49.70	17.478801G	-55.13	1
2.438243G	10.03	-19.97	479.69M	-54.77	2.39856G	-45.55	2.48382G	-49.49	24.87357G	-55.23	2

802.11n HT20_Nss1,(MCS0)_2TX

CSE NdB

2462MHz

24/11/2018



Port 1
Port 2

RBW VBW
100kHz 300kHz
Detector Type
Peak

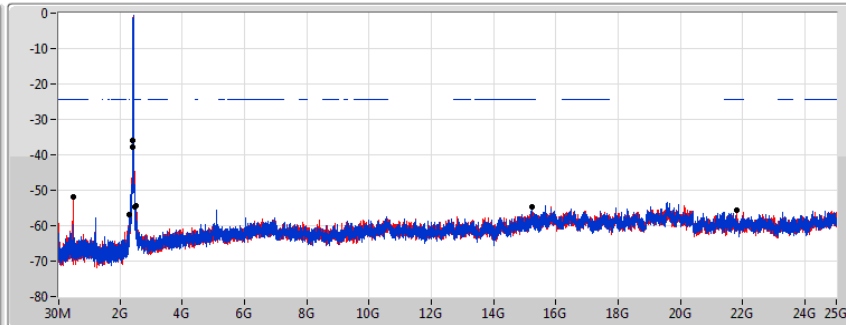
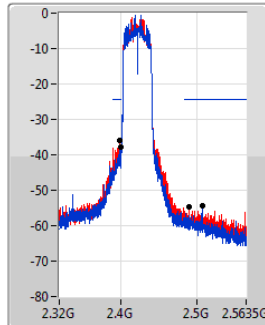
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.438243G	10.03	-19.97	479.69M	-57.39	2.39832G	-52.04	2.48374G	-44.14	16.531979G	-55.15	1
2.438243G	10.03	-19.97	479.69M	-55.11	2.39512G	-53.04	2.48446G	-42.81	24.848284G	-54.28	2

802.11n HT40_Nss1,(MCS0)_2TX

CSE NdB

2422MHz

23/11/2018



Port 1
Port 2

RBW VBW
100kHz 300kHz
Detector Type
Peak

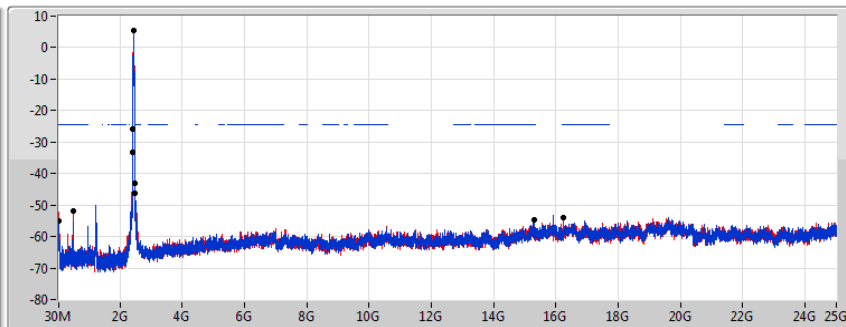
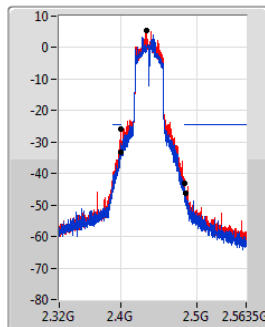
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.434402G	5.49	-24.51	2.309695G	-56.93	2.39952G	-37.89	2.50686G	-54.39	15.212077G	-54.83	1
2.434402G	5.49	-24.51	479.985M	-51.83	2.39824G	-36.03	2.48926G	-54.84	21.785971G	-55.60	2

802.11n HT40_Nss1,(MCS0)_2TX

CSE NdB

2437MHz

23/11/2018



Port 1
Port 2

RBW VBW
100kHz 300kHz
Detector Type
Peak

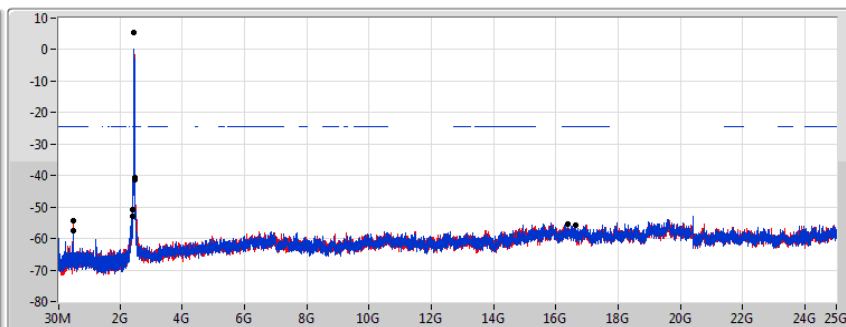
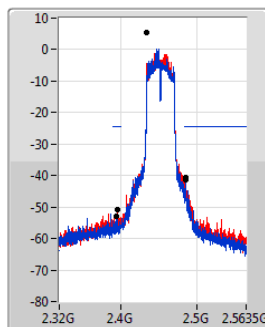
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.434402G	5.49	-24.51	32.29M	-55.12	2.39984G	-33.33	2.4851G	-46.17	15.299018G	-54.74	1
2.434402G	5.49	-24.51	479.985M	-51.99	2.39952G	-25.99	2.48366G	-43.16	16.227329G	-54.05	2

802.11n HT40_Nss1,(MCS0)_2TX

CSE NdB

2452MHz

23/11/2018



Port 1
Port 2

RBW VBW
100kHz 300kHz
Detector Type
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.434402G	5.49	-24.51	479.985M	-57.53	2.3944G	-53.04	2.48446G	-40.46	16.37597G	-55.53	1
2.434402G	5.49	-24.51	479.985M	-54.47	2.39584G	-50.94	2.4843G	-41.47	16.636795G	-55.57	2



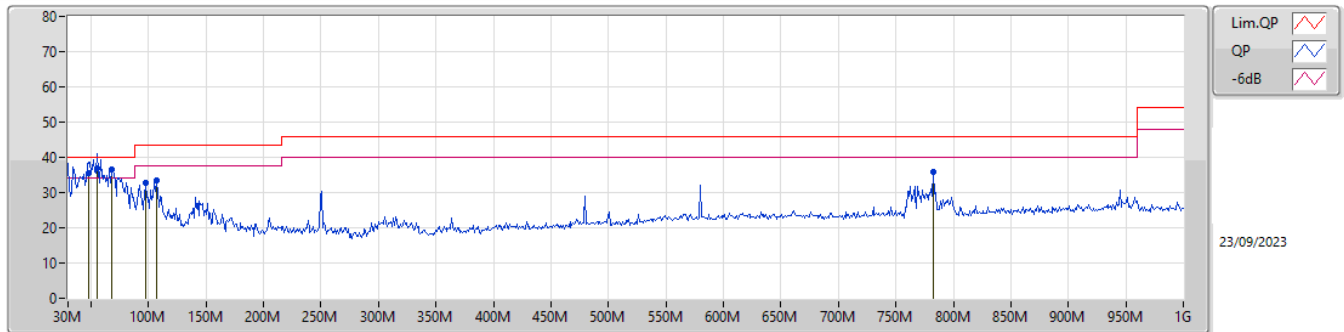
Radiated Emissions below 1GHz

Appendix F.1

Summary

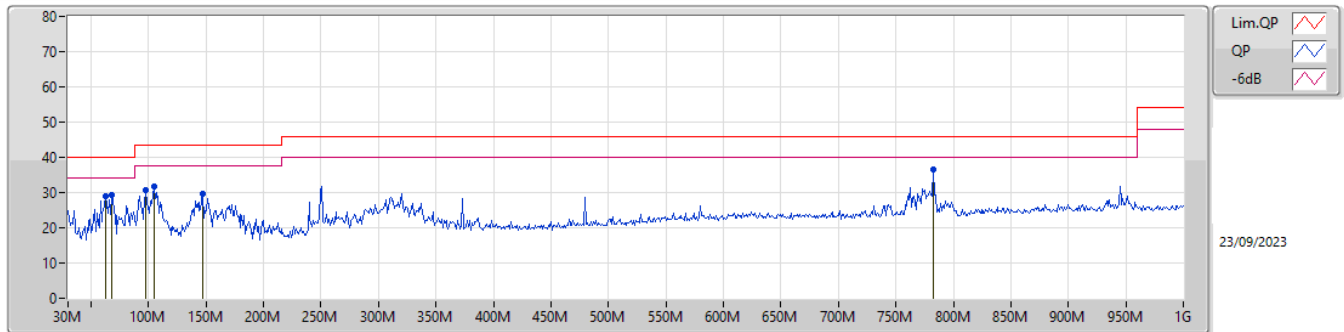
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 3	Pass	QP	55.22M	36.84	40.00	-3.16	Vertical

Mode 3



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)		
QP	47.46M	35.61	40.00	-4.39	-15.39	3	Vertical	113	1.00	-	51.00	15.37	0.76	31.52		
QP	55.22M	36.84	40.00	-3.16	-17.46	3	Vertical	0	1.00	"Worst"	54.30	13.39	0.83	31.68		
PK	67.83M	36.71	40.00	-3.29	-17.94	3	Vertical	20	1.00	-	54.65	12.89	0.91	31.74		
PK	97.9M	32.60	43.50	-10.90	-14.15	3	Vertical	172	1.00	-	46.75	16.34	1.08	31.57		
PK	106.63M	33.41	43.50	-10.09	-12.93	3	Vertical	163	1.00	-	46.34	17.51	1.13	31.57		
PK	782.72M	36.00	46.00	-10.00	-3.48	3	Vertical	106	1.50	-	39.48	25.78	3.04	32.30		

Mode 3



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)		
PK	62.98M	28.95	40.00	-11.05	-17.94	3	Horizontal	181	2.00	-	46.89	12.94	0.88	31.76		
PK	67.83M	29.14	40.00	-10.86	-17.94	3	Horizontal	0	2.00	-	47.08	12.89	0.91	31.74		
PK	97.9M	30.77	43.50	-12.73	-14.15	3	Horizontal	95	2.00	-	44.92	16.34	1.08	31.57		
PK	104.69M	31.69	43.50	-11.81	-13.12	3	Horizontal	78	3.00	-	44.81	17.32	1.12	31.56		
PK	147.37M	29.73	43.50	-13.77	-13.84	3	Horizontal	264	2.00	-	43.57	16.63	1.32	31.79		
PK	782.72M	36.63	46.00	-9.37	-3.48	3	Horizontal	351	1.25	"Worst"	40.11	25.78	3.04	32.30		

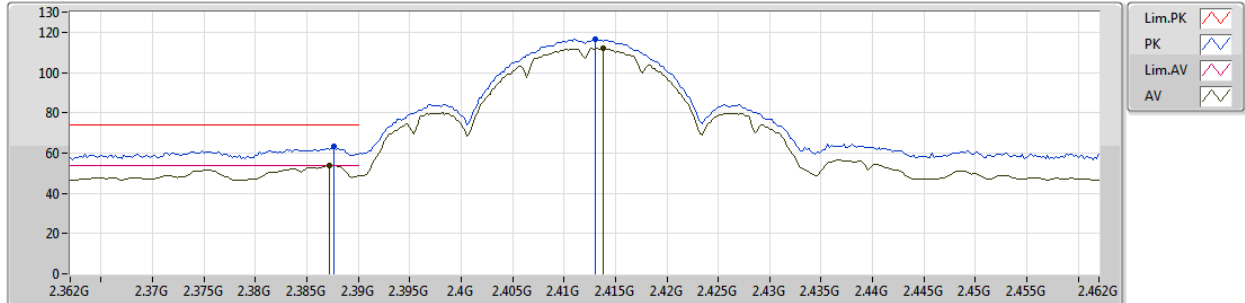
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	Pass	AV	2.3872G	53.99	54.00	-0.01	33.16	3	Vertical	318	1.80	-

802.11b_Nss1,(1Mbps)_2TX

01/11/2018

2412MHz_TX



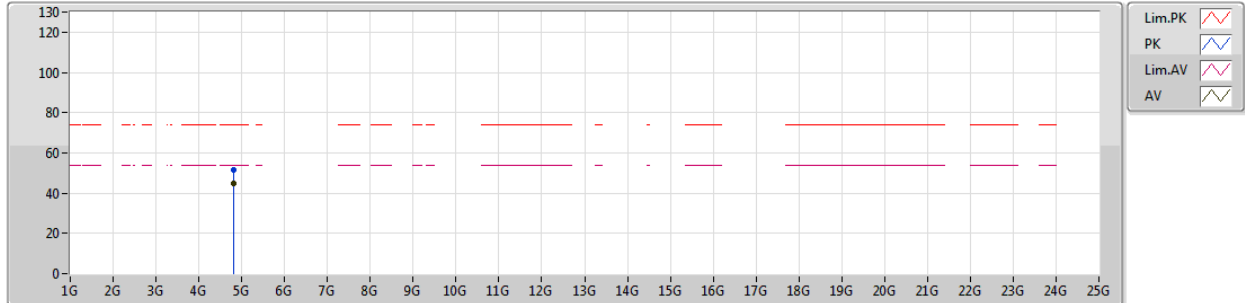
EUT Y_2TX
Setting Z1
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3876G	63.19	74.00	-10.81	33.16	3	Vertical	318	1.80	-
AV	2.3872G	53.99	54.00	-0.01	33.16	3	Vertical	318	1.80	-
PK	2.413G	116.63	Inf	-Inf	33.17	3	Vertical	318	1.80	-
AV	2.4138G	111.91	Inf	-Inf	33.17	3	Vertical	318	1.80	-

802.11b_Nss1,(1Mbps)_2TX

01/11/2018

2412MHz_TX



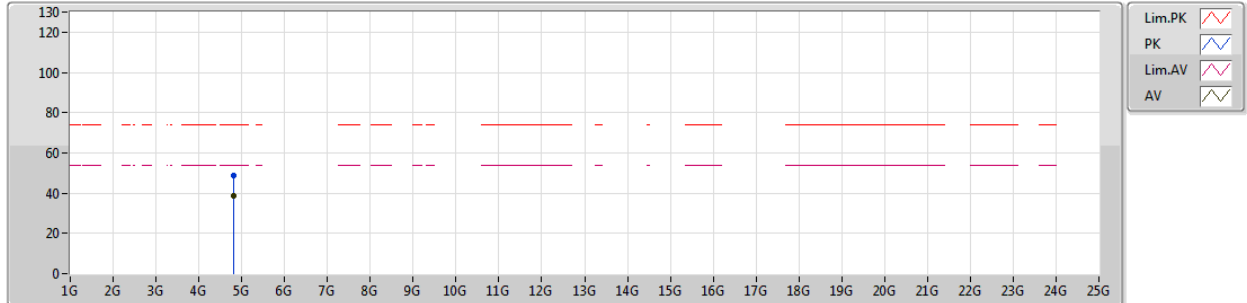
EUT Y_2TX
Setting Z1
04-E-4
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.82404G	51.60	74.00	-22.40	6.87	3	Vertical	346	1.48	-
AV	4.82397G	44.92	54.00	-9.08	6.87	3	Vertical	346	1.48	-

802.11b_Nss1,(1Mbps)_2TX

01/11/2018

2412MHz_TX



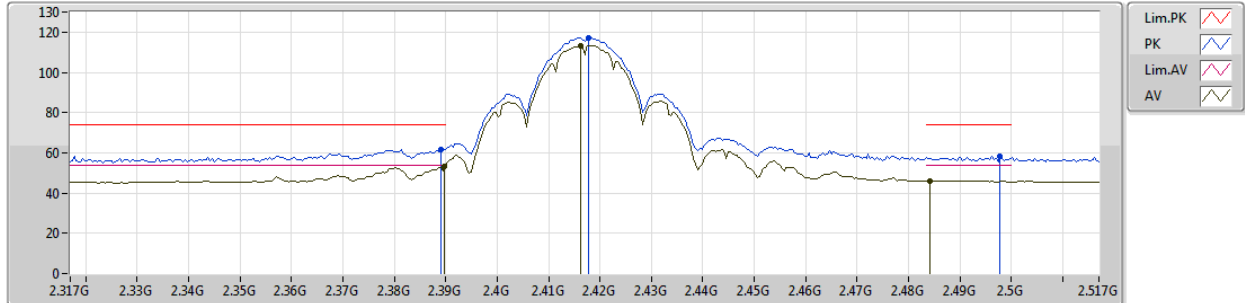
EUT Y_2TX
Setting Z1
04-E-4
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.82418G	48.60	74.00	-25.40	6.87	3	Horizontal	210	2.36	-
AV	4.82395G	38.53	54.00	-15.47	6.87	3	Horizontal	210	2.36	-

802.11b_Nss1,(1Mbps)_2TX

22/11/2018

2417MHz_TX



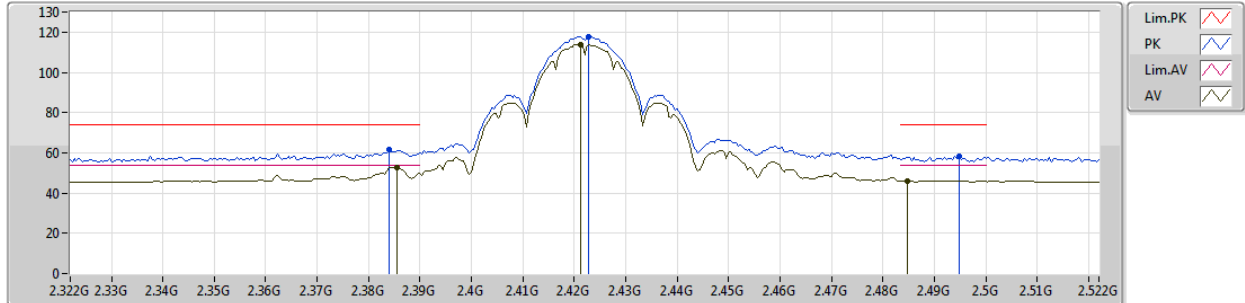
EUT Y_2TX
Setting 24
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.389G	61.88	74.00	-12.12	33.08	3	Vertical	323	1.50	-
AV	2.3898G	53.29	54.00	-0.71	33.08	3	Vertical	323	1.50	-
PK	2.4178G	117.21	Inf	-Inf	33.15	3	Vertical	323	1.50	-
AV	2.4162G	113.13	Inf	-Inf	33.14	3	Vertical	323	1.50	-
PK	2.4978G	58.49	74.00	-15.51	33.41	3	Vertical	323	1.50	-
AV	2.4842G	46.17	54.00	-7.83	33.36	3	Vertical	323	1.50	-

802.11b_Nss1,(1Mbps)_2TX

22/11/2018

2422MHz_TX



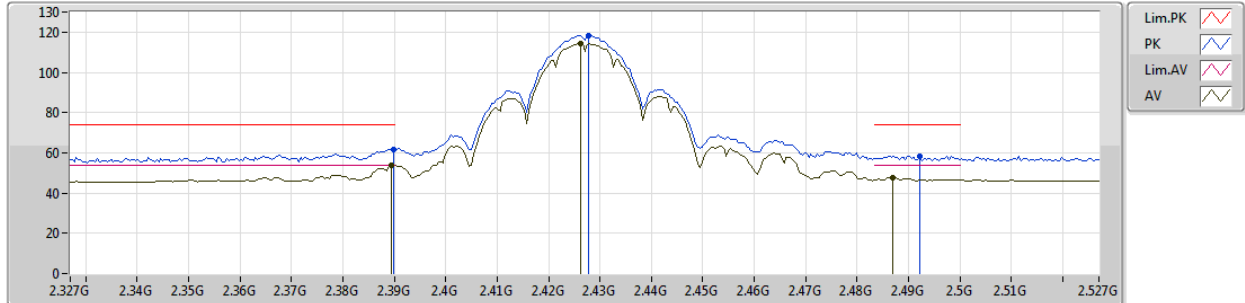
EUT Y_2TX
Setting 24
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.384G	61.50	74.00	-12.50	33.08	3	Vertical	325	1.60	-
AV	2.3856G	52.67	54.00	-1.33	33.07	3	Vertical	325	1.60	-
PK	2.4228G	117.70	Inf	-Inf	33.17	3	Vertical	325	1.60	-
AV	2.4212G	113.71	Inf	-Inf	33.16	3	Vertical	325	1.60	-
PK	2.4948G	58.55	74.00	-15.45	33.39	3	Vertical	325	1.60	-
AV	2.4848G	46.21	54.00	-7.79	33.36	3	Vertical	325	1.60	-

802.11b_Nss1,(1Mbps)_2TX

22/11/2018

2427MHz_TX



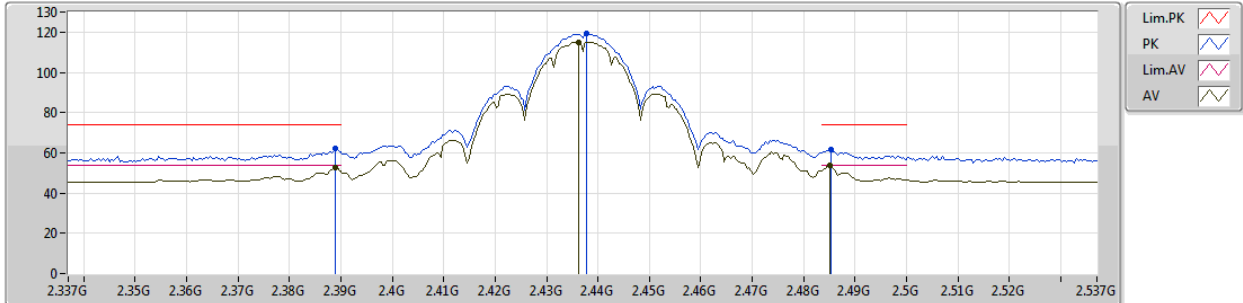
EUT_Y_2TX
Setting 25
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3898G	61.84	74.00	-12.16	33.08	3	Vertical	323	1.50	-
AV	2.3894G	53.90	54.00	-0.10	33.08	3	Vertical	323	1.50	-
PK	2.4278G	118.06	Inf	-Inf	33.18	3	Vertical	323	1.50	-
AV	2.4262G	114.30	Inf	-Inf	33.17	3	Vertical	323	1.50	-
PK	2.4922G	58.55	74.00	-15.45	33.38	3	Vertical	323	1.50	-
AV	2.487G	47.89	54.00	-6.11	33.36	3	Vertical	323	1.50	-

802.11b_Nss1,(1Mbps)_2TX

01/11/2018

2437MHz_TX



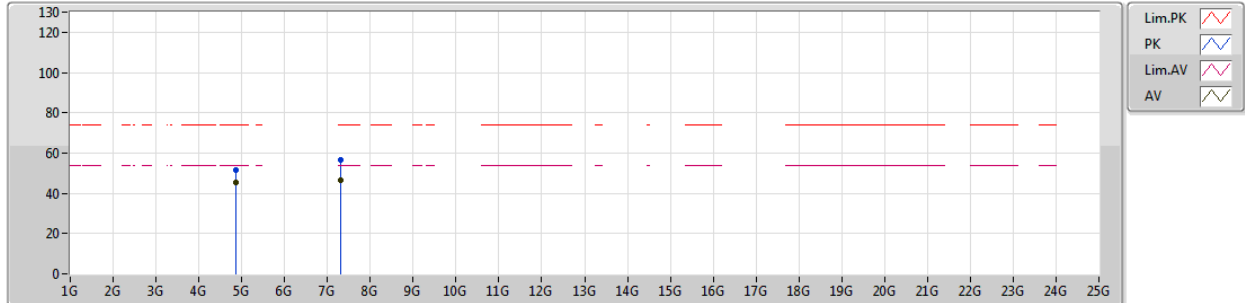
EUT_V_2TX
Setting 25
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.389G	62.06	74.00	-11.94	33.17	3	Vertical	311	1.56	-
AV	2.389G	52.90	54.00	-1.10	33.17	3	Vertical	311	1.56	-
PK	2.4378G	119.10	Inf	-Inf	33.17	3	Vertical	311	1.56	-
AV	2.4362G	115.11	Inf	-Inf	33.18	3	Vertical	311	1.56	-
PK	2.4854G	61.56	74.00	-12.44	33.19	3	Vertical	311	1.56	-
AV	2.485G	53.68	54.00	-0.32	33.18	3	Vertical	311	1.56	-

802.11b_Nss1,(1Mbps)_2TX

01/11/2018

2437MHz_TX



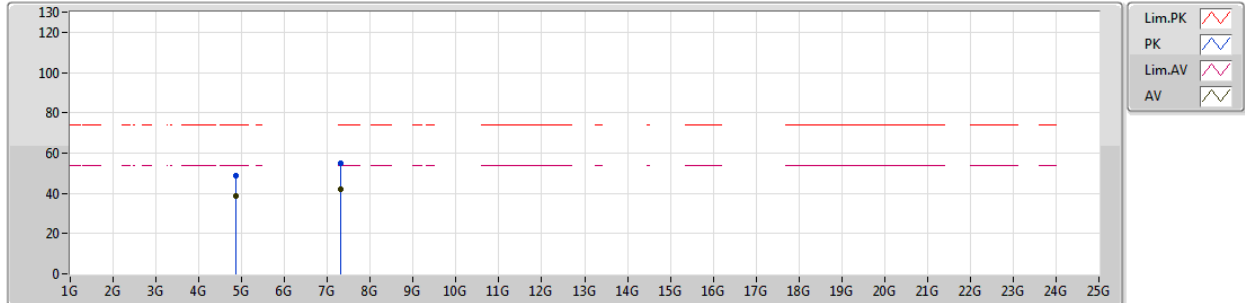
EUT Y_2TX
Setting 25
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.87391G	51.82	74.00	-22.18	6.98	3	Vertical	345	1.50	-
AV	4.87401G	45.17	54.00	-8.83	6.98	3	Vertical	345	1.50	-
PK	7.31188G	56.36	74.00	-17.64	11.70	3	Vertical	165	1.96	-
AV	7.31172G	46.62	54.00	-7.38	11.70	3	Vertical	165	1.96	-

802.11b_Nss1,(1Mbps)_2TX

01/11/2018

2437MHz_TX



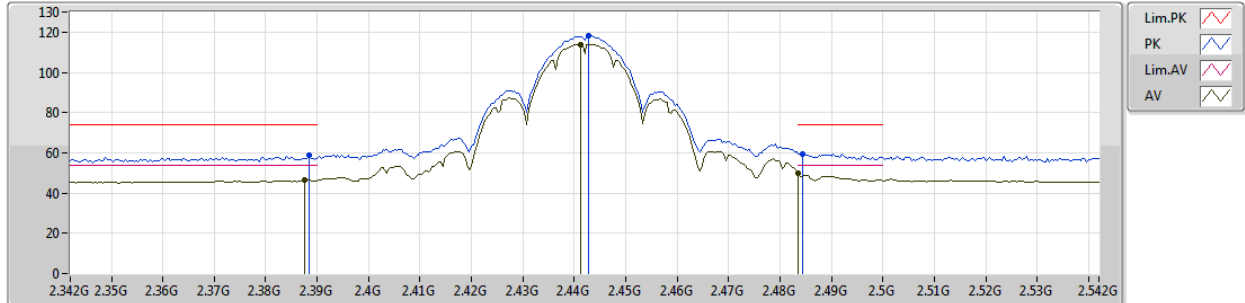
EUT Y_2TX
Setting 25
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.8741G	48.88	74.00	-25.12	6.98	3	Horizontal	214	2.37	-
AV	4.87404G	38.45	54.00	-15.55	6.98	3	Horizontal	214	2.37	-
PK	7.31224G	54.96	74.00	-19.04	11.70	3	Horizontal	123	2.70	-
AV	7.31168G	42.18	54.00	-11.82	11.70	3	Horizontal	123	2.70	-

802.11b_Nss1,(1Mbps)_2TX

22/11/2018

2442MHz_TX



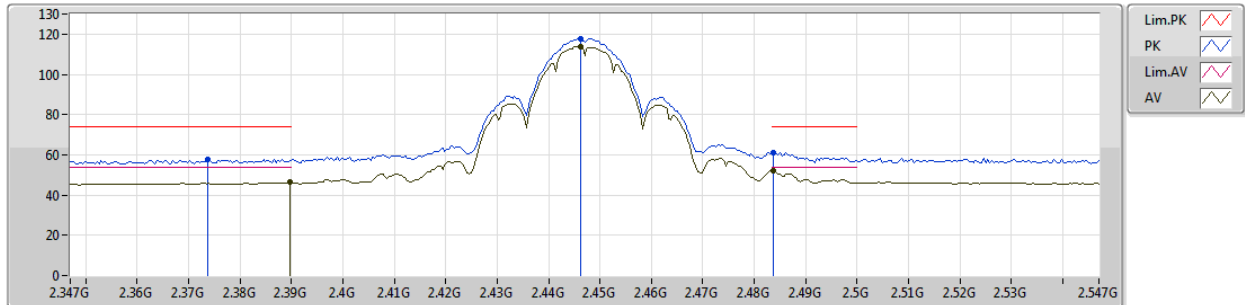
EUT Y_2TX
Setting 25
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3884G	58.88	74.00	-15.12	33.08	3	Vertical	323	1.19	-
AV	2.3876G	46.64	54.00	-7.36	33.08	3	Vertical	323	1.19	-
PK	2.4428G	118.10	Inf	-Inf	33.23	3	Vertical	323	1.19	-
AV	2.4412G	114.01	Inf	-Inf	33.22	3	Vertical	323	1.19	-
PK	2.4844G	59.57	74.00	-14.43	33.36	3	Vertical	323	1.19	-
AV	2.4835G	49.75	54.00	-4.25	33.36	3	Vertical	323	1.19	-

802.11b_Nss1,(1Mbps)_2TX

22/11/2018

2447MHz_TX



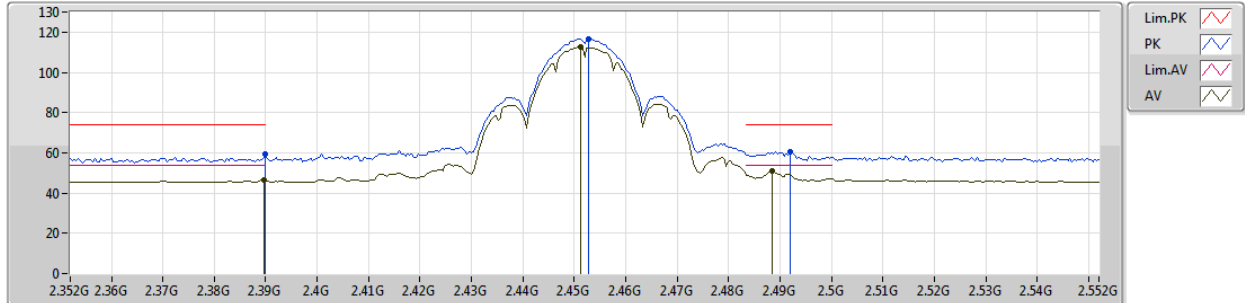
EUT Y_2TX
Setting 24
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3738G	57.51	74.00	-16.49	33.07	3	Vertical	322	1.17	-
AV	2.3898G	46.25	54.00	-7.75	33.08	3	Vertical	322	1.17	-
PK	2.4462G	117.78	Inf	-Inf	33.24	3	Vertical	322	1.17	-
AV	2.4462G	113.73	Inf	-Inf	33.24	3	Vertical	322	1.17	-
PK	2.4838G	61.11	74.00	-12.89	33.36	3	Vertical	322	1.17	-
AV	2.4838G	52.31	54.00	-1.69	33.36	3	Vertical	322	1.17	-

802.11b_Nss1,(1Mbps)_2TX

22/11/2018

2452MHz_TX



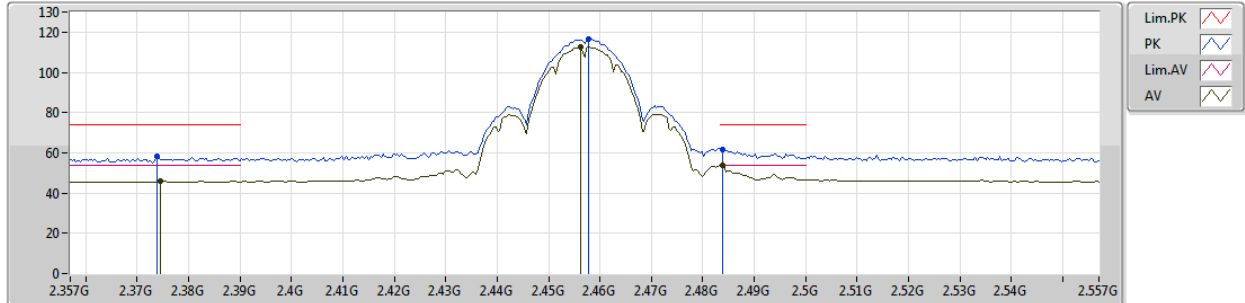
EUT Y_2TX
Setting 24
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.39G	59.41	74.00	-14.59	33.08	3	Vertical	322	1.59	-
AV	2.3896G	46.68	54.00	-7.32	33.08	3	Vertical	322	1.59	-
PK	2.4528G	116.53	Inf	-Inf	33.26	3	Vertical	322	1.59	-
AV	2.4512G	112.56	Inf	-Inf	33.25	3	Vertical	322	1.59	-
PK	2.492G	60.47	74.00	-13.53	33.38	3	Vertical	322	1.59	-
AV	2.4884G	50.73	54.00	-3.27	33.38	3	Vertical	322	1.59	-

802.11b_Nss1,(1Mbps)_2TX

22/11/2018

2457MHz_TX



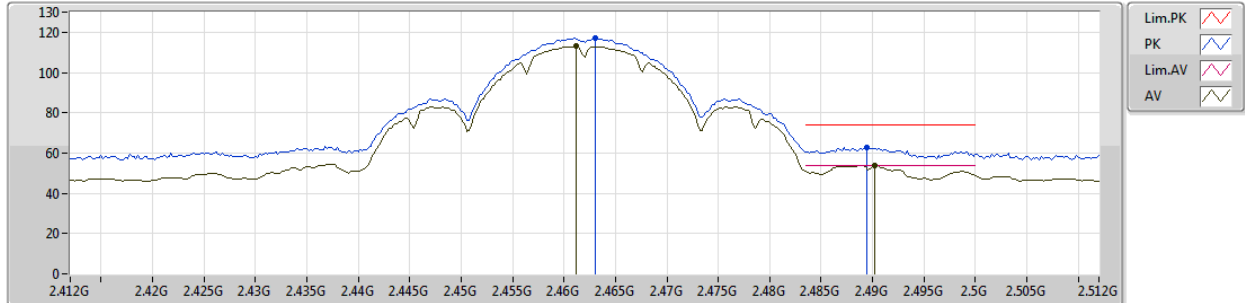
EUT Y_2TX
Setting 23
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3738G	58.08	74.00	-15.92	33.07	3	Vertical	322	1.50	-
AV	2.3746G	45.87	54.00	-8.13	33.07	3	Vertical	322	1.50	-
PK	2.4578G	116.47	Inf	-Inf	33.28	3	Vertical	322	1.50	-
AV	2.4562G	112.40	Inf	-Inf	33.27	3	Vertical	322	1.50	-
PK	2.4838G	61.84	74.00	-12.16	33.36	3	Vertical	322	1.50	-
AV	2.4838G	53.73	54.00	-0.27	33.36	3	Vertical	322	1.50	-

802.11b_Nss1,(1Mbps)_2TX

01/11/2018

2462MHz_TX



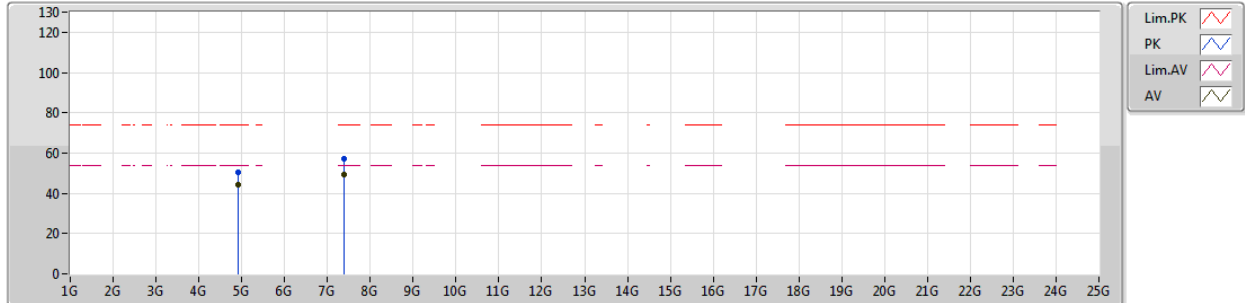
EUT Y_2TX
Setting 23
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.463G	116.89	Inf	-Inf	33.19	3	Vertical	317	1.50	-
AV	2.4612G	112.97	Inf	-Inf	33.18	3	Vertical	317	1.50	-
PK	2.4894G	62.85	74.00	-11.15	33.19	3	Vertical	317	1.50	-
AV	2.4902G	53.89	54.00	-0.11	33.18	3	Vertical	317	1.50	-

802.11b_Nss1,(1Mbps)_2TX

01/11/2018

2462MHz_TX



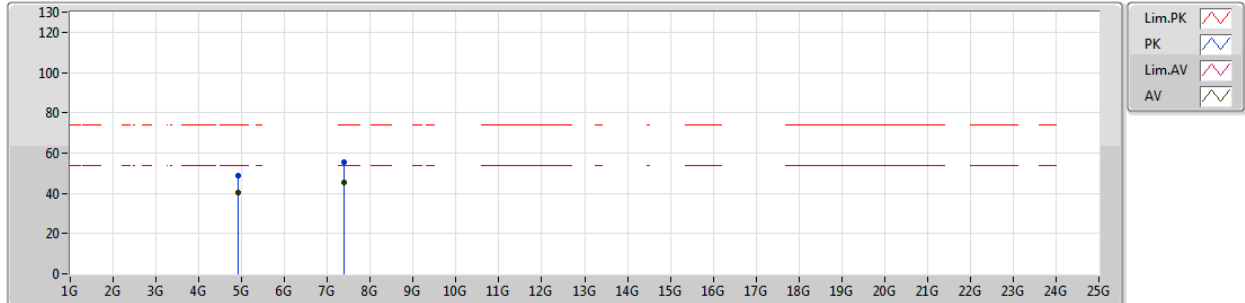
EUT Y_2TX
Setting 23
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.92411G	50.67	74.00	-23.33	7.11	3	Vertical	341	1.50	-
AV	4.92397G	44.25	54.00	-9.75	7.11	3	Vertical	341	1.50	-
PK	7.38488G	57.36	74.00	-16.64	11.68	3	Vertical	162	1.89	-
AV	7.3852G	49.32	54.00	-4.68	11.68	3	Vertical	162	1.89	-

802.11b_Nss1,(1Mbps)_2TX

01/11/2018

2462MHz_TX



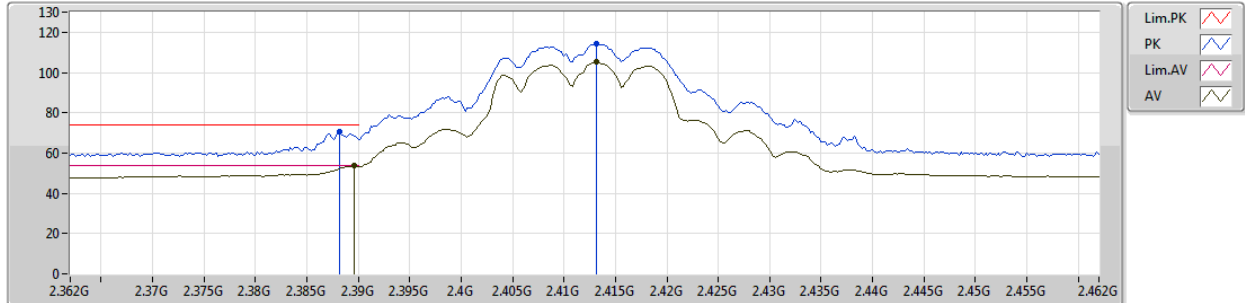
EUT Y_2TX
Setting 23
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.92414G	48.59	74.00	-25.41	7.11	3	Horizontal	335	1.01	-
AV	4.92398G	40.27	54.00	-13.73	7.11	3	Horizontal	335	1.01	-
PK	7.3856G	55.61	74.00	-18.39	11.68	3	Horizontal	122	1.92	-
AV	7.3868G	45.41	54.00	-8.59	11.68	3	Horizontal	122	1.92	-

802.11g_Nss1,(6Mbps)_2TX

01/11/2018

2412MHz_TX



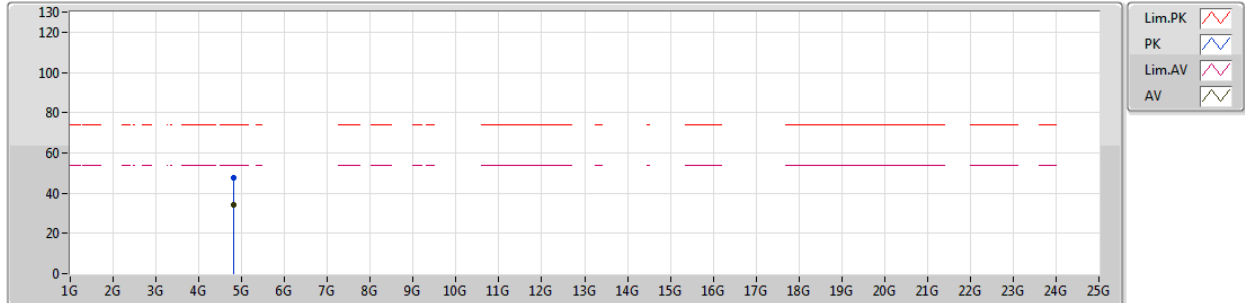
EUT_Y_2TX
Setting 1A
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3882G	70.76	74.00	-3.24	33.17	3	Vertical	330	1.50	-
AV	2.3896G	53.76	54.00	-0.24	33.17	3	Vertical	330	1.50	-
PK	2.4132G	114.24	Inf	-Inf	33.17	3	Vertical	330	1.50	-
AV	2.4132G	105.12	Inf	-Inf	33.17	3	Vertical	330	1.50	-

802.11g_Nss1,(6Mbps)_2TX

01/11/2018

2412MHz_TX



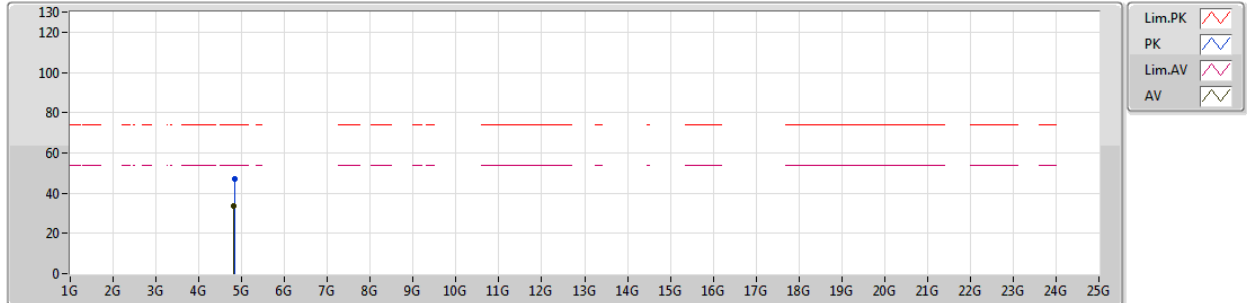
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Setting 1A
04-E-4
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.82374G	47.47	74.00	-26.53	6.87	3	Vertical	186	1.01	-
AV	4.82398G	34.26	54.00	-19.74	6.87	3	Vertical	186	1.01	-

802.11g_Nss1,(6Mbps)_2TX

01/11/2018

2412MHz_TX



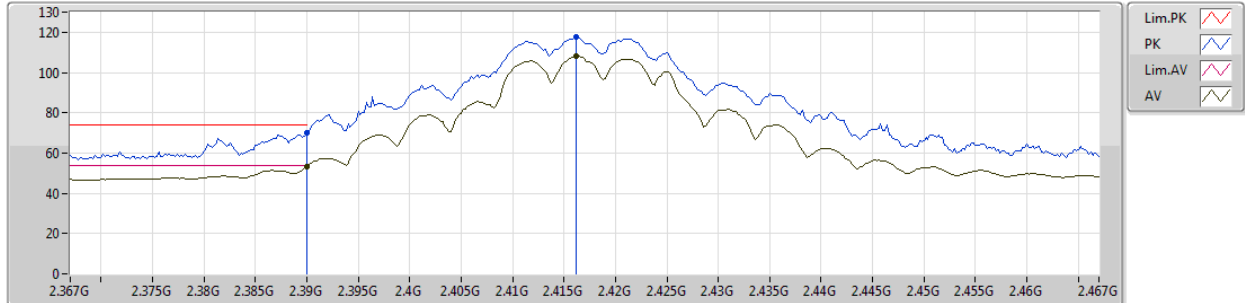
EUT Y_2TX
Setting 1A
04-E-4
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.82688 G	46.99	74.00	-27.01	6.88	3	Horizontal	247	2.99	-
AV	4.82364 G	33.45	54.00	-20.55	6.86	3	Horizontal	247	2.99	-

802.11g_Nss1,(6Mbps)_2TX

23/11/2018

2417MHz_TX



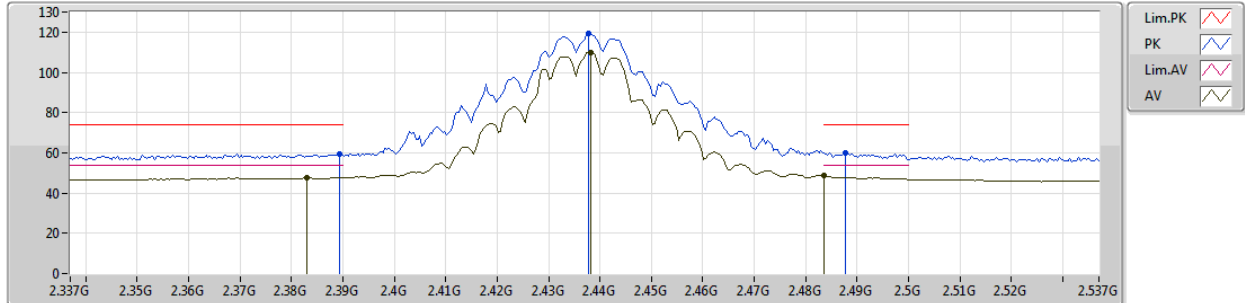
EUT_V_2TX
Setting 2F
06-S-5
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.39G	70.22	74.00	-3.78	32.13	3	Vertical	308	1.45	-
AV	2.39G	53.50	54.00	-0.50	32.13	3	Vertical	308	1.45	-
PK	2.4162G	117.80	Inf	-Inf	32.21	3	Vertical	308	1.45	-
AV	2.4162G	107.97	Inf	-Inf	32.21	3	Vertical	308	1.45	-

802.11g_Nss1,(6Mbps)_2TX

01/11/2018

2437MHz_TX



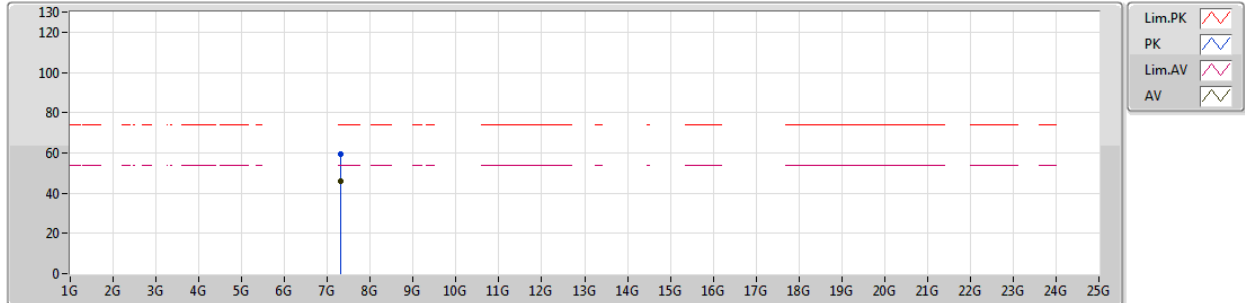
EUT Y_2TX
Setting 2F
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3894G	59.52	74.00	-14.48	33.17	3	Vertical	330	1.76	-
AV	2.383G	47.64	54.00	-6.36	33.16	3	Vertical	330	1.76	-
PK	2.4378G	119.47	Inf	-Inf	33.17	3	Vertical	330	1.76	-
AV	2.4382G	110.09	Inf	-Inf	33.17	3	Vertical	330	1.76	-
PK	2.4878G	60.15	74.00	-13.85	33.19	3	Vertical	330	1.76	-
AV	2.4835G	48.71	54.00	-5.29	33.18	3	Vertical	330	1.76	-

802.11g_Nss1,(6Mbps)_2TX

01/11/2018

2437MHz_TX



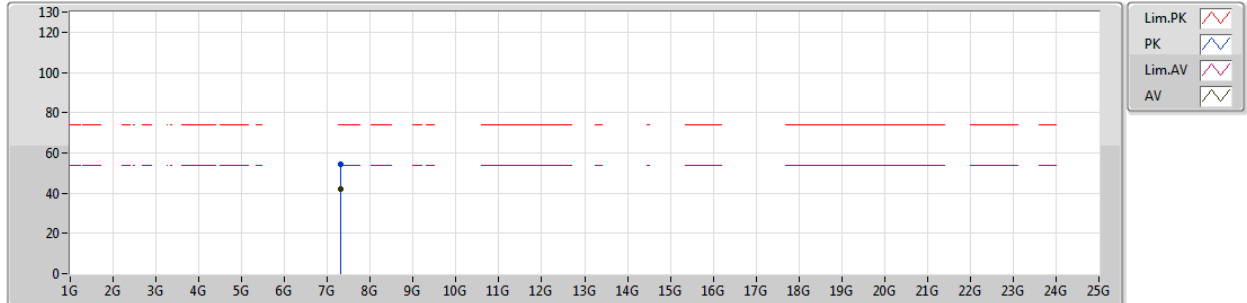
EUT Y_2TX
Setting 2F
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	7.30852G	59.64	74.00	-14.36	11.69	3	Vertical	179	1.99	-
AV	7.313G	45.82	54.00	-8.18	11.70	3	Vertical	179	1.99	-

802.11g_Nss1,(6Mbps)_2TX

01/11/2018

2437MHz_TX



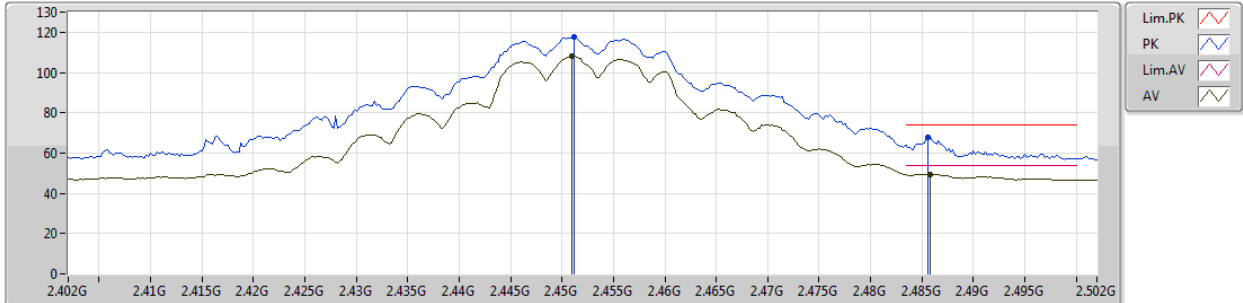
EUT Y_2TX
Setting 2F
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	7.31316G	54.62	74.00	-19.38	11.70	3	Horizontal	137	2.62	-
AV	7.3126G	41.85	54.00	-12.15	11.70	3	Horizontal	137	2.62	-

802.11g_Nss1,(6Mbps)_2TX

23/11/2018

2452MHz_TX



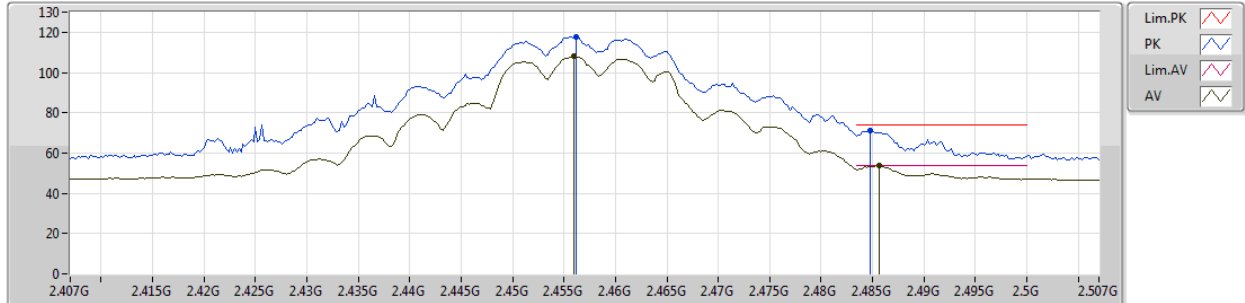
EUT_V_2TX
Setting 2F
06-S-5
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.4512G	117.70	Inf	-Inf	32.31	3	Vertical	307	1.59	-
AV	2.451G	107.91	Inf	-Inf	32.31	3	Vertical	307	1.59	-
PK	2.4856G	67.86	74.00	-6.14	32.42	3	Vertical	307	1.59	-
AV	2.4858G	49.57	54.00	-4.43	32.42	3	Vertical	307	1.59	-

802.11g_Nss1,(6Mbps)_2TX

23/11/2018

2457MHz_TX



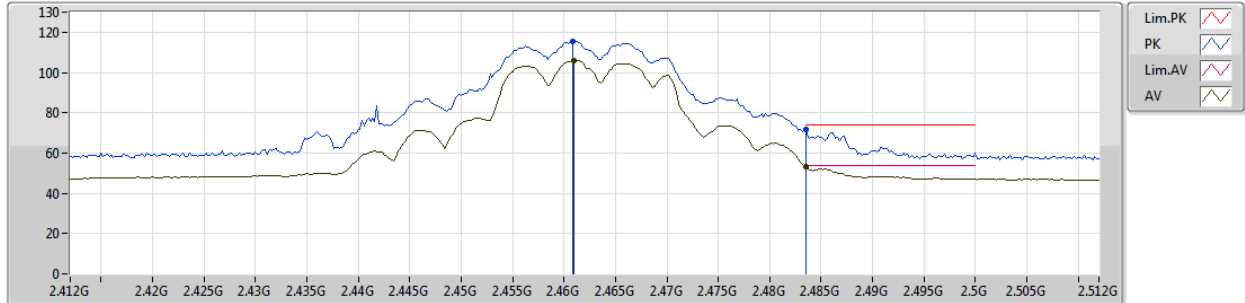
EUT_V_2TX
Setting 22
06-S-5
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.4562G	117.63	Inf	-Inf	32.32	3	Vertical	306	1.58	-
AV	2.456G	107.99	Inf	-Inf	32.32	3	Vertical	306	1.58	-
PK	2.4848G	71.44	74.00	-2.56	32.42	3	Vertical	306	1.58	-
AV	2.4856G	53.61	54.00	-0.39	32.42	3	Vertical	306	1.58	-

802.11g_Nss1,(6Mbps)_2TX

01/11/2018

2462MHz_TX



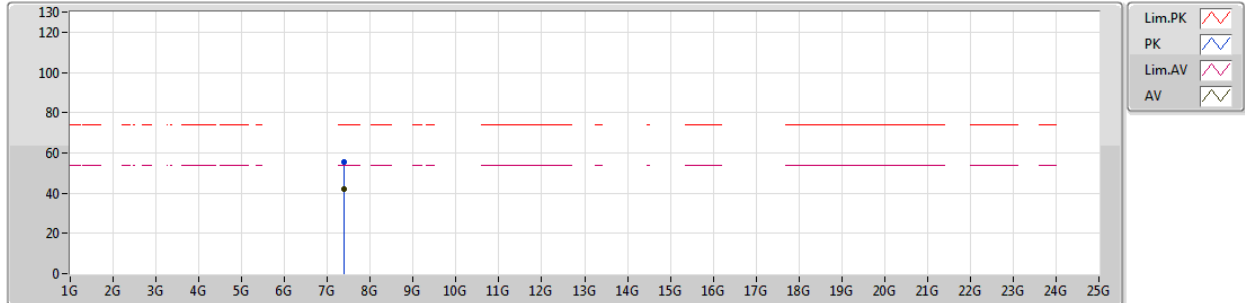
EUT Y_2TX
Setting 18
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.4608G	115.42	Inf	-Inf	33.18	3	Vertical	297	1.50	-
AV	2.461G	105.96	Inf	-Inf	33.18	3	Vertical	297	1.50	-
PK	2.4835G	71.50	74.00	-2.50	33.18	3	Vertical	297	1.50	-
AV	2.4835G	53.47	54.00	-0.53	33.18	3	Vertical	297	1.50	-

802.11g_Nss1,(6Mbps)_2TX

01/11/2018

2462MHz_TX



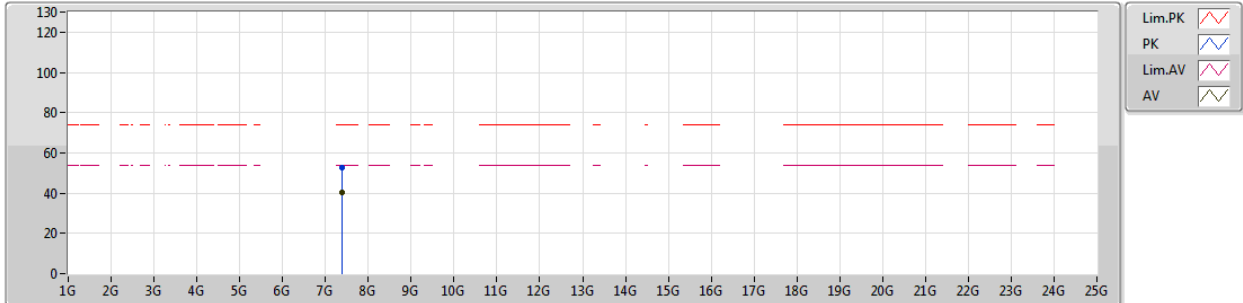
EUT Y_2TX
Setting 18
04-E-4
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	7.3875G	55.44	74.00	-18.56	11.68	3	Vertical	181	2.40	-
AV	7.3878G	42.09	54.00	-11.91	11.68	3	Vertical	181	2.40	-

802.11g_Nss1,(6Mbps)_2TX

01/11/2018

2462MHz_TX



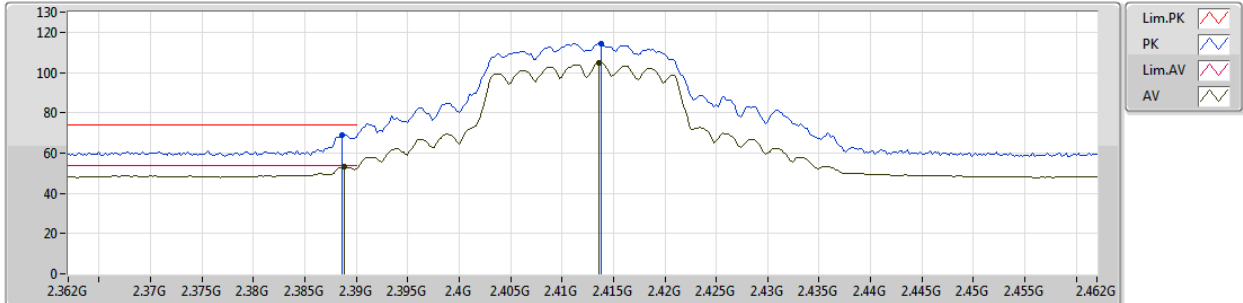
EUT Y_2TX
Setting 18
04-E-4
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	7.3832G	52.83	74.00	-21.17	11.69	3	Horizontal	127	2.98	-
AV	7.3834G	40.23	54.00	-13.77	11.68	3	Horizontal	127	2.98	-

802.11n HT20_Nss1,(MCS0)_2TX

01/11/2018

2412MHz_TX



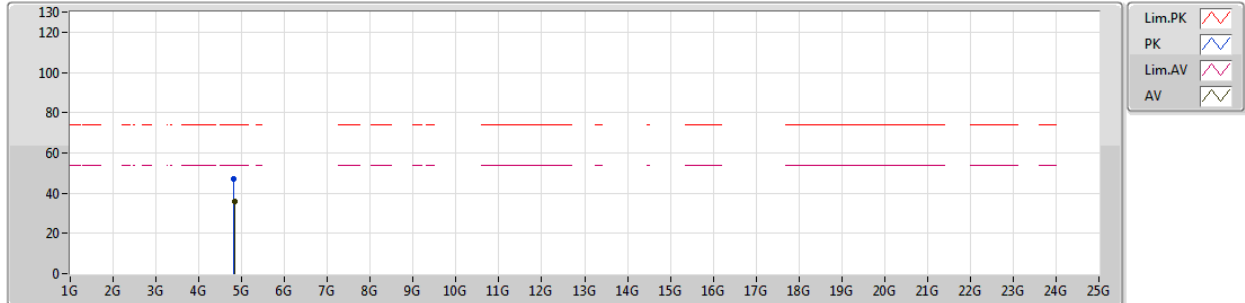
EUT Y_2TX
Setting 18
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3886G	68.89	74.00	-5.11	33.17	3	Vertical	279	1.88	-
AV	2.3888G	53.12	54.00	-0.88	33.17	3	Vertical	279	1.88	-
PK	2.4138G	114.33	Inf	-Inf	33.17	3	Vertical	279	1.88	-
AV	2.4136G	104.64	Inf	-Inf	33.17	3	Vertical	279	1.88	-

802.11n HT20_Nss1,(MCS0)_2TX

01/11/2018

2412MHz_TX



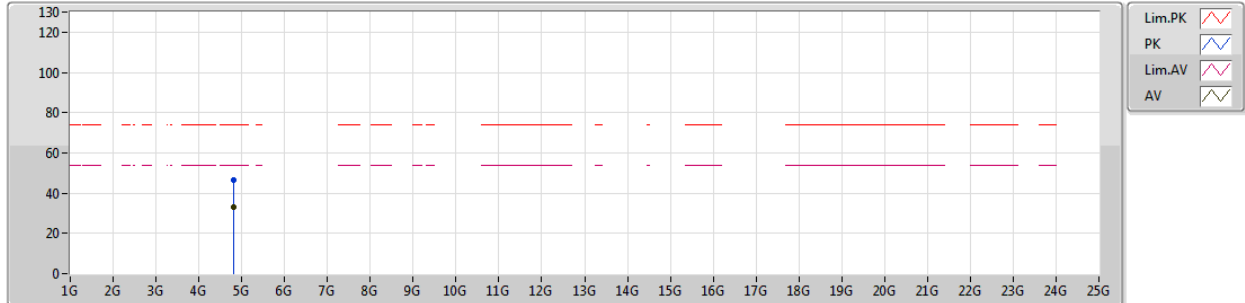
EUT Y_2TX
Setting 18
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.81508G	46.80	74.00	-27.20	6.84	3	Vertical	27	1.50	-
AV	4.834G	35.67	54.00	-18.33	6.89	3	Vertical	27	1.50	-

802.11n HT20_Nss1,(MCS0)_2TX

01/11/2018

2412MHz_TX



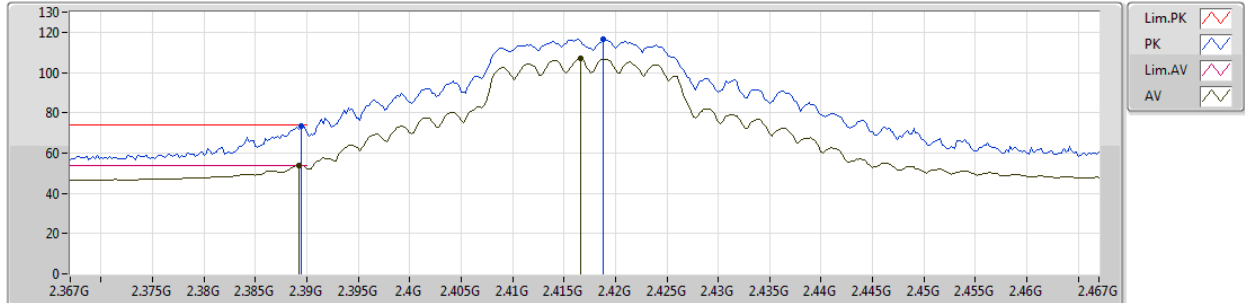
EUT Y_2TX
Setting 18
04-E-4
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.81772G	46.52	74.00	-27.48	6.85	3	Horizontal	150	1.50	-
AV	4.823G	33.32	54.00	-20.68	6.86	3	Horizontal	150	1.50	-

802.11n HT20_Nss1,(MCS0)_2TX

23/11/2018

2417MHz_TX



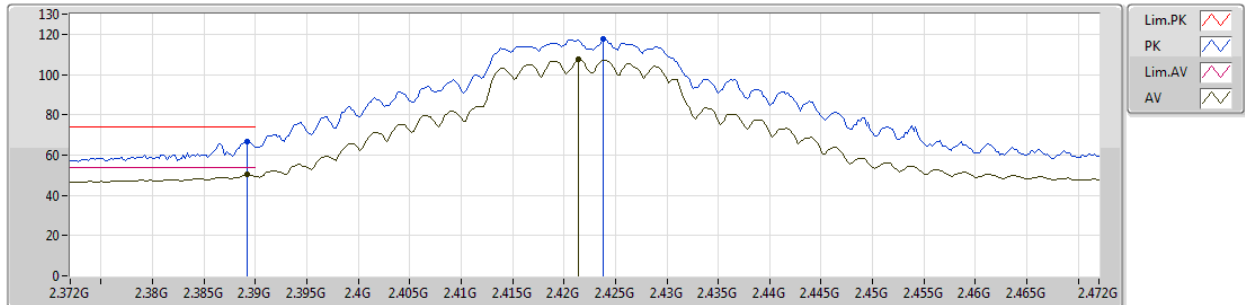
EUT_V_2TX
Setting Z1
06-S-5
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3894G	73.53	74.00	-0.47	32.13	3	Vertical	305	1.64	-
AV	2.3892G	53.66	54.00	-0.34	32.13	3	Vertical	305	1.64	-
PK	2.4188G	116.80	Inf	-Inf	32.22	3	Vertical	305	1.64	-
AV	2.4166G	106.82	Inf	-Inf	32.21	3	Vertical	305	1.64	-

802.11n HT20_Nss1,(MCS0)_2TX

23/11/2018

2422MHz_TX



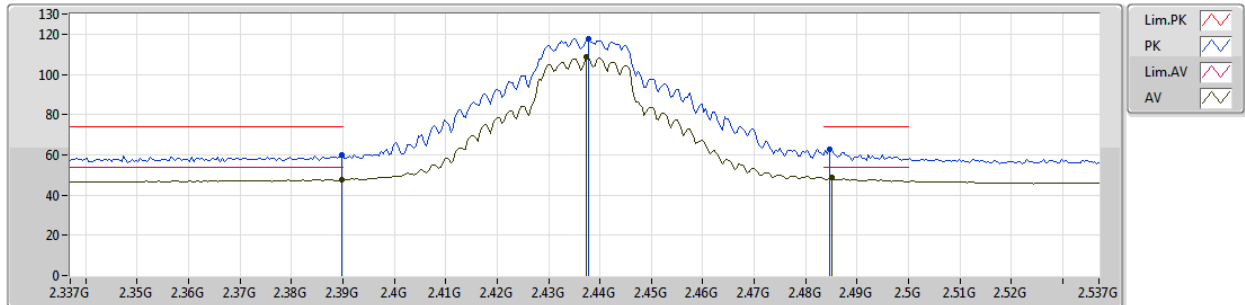
EUT V_2TX
Setting 2F
06-S-5
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3892G	66.93	74.00	-7.07	32.13	3	Vertical	306	1.62	-
AV	2.3892G	50.27	54.00	-3.73	32.13	3	Vertical	306	1.62	-
PK	2.4238G	117.43	Inf	-Inf	32.23	3	Vertical	306	1.62	-
AV	2.4214G	107.35	Inf	-Inf	32.23	3	Vertical	306	1.62	-

802.11n HT20_Nss1,(MCS0)_2TX

01/11/2018

2437MHz_TX



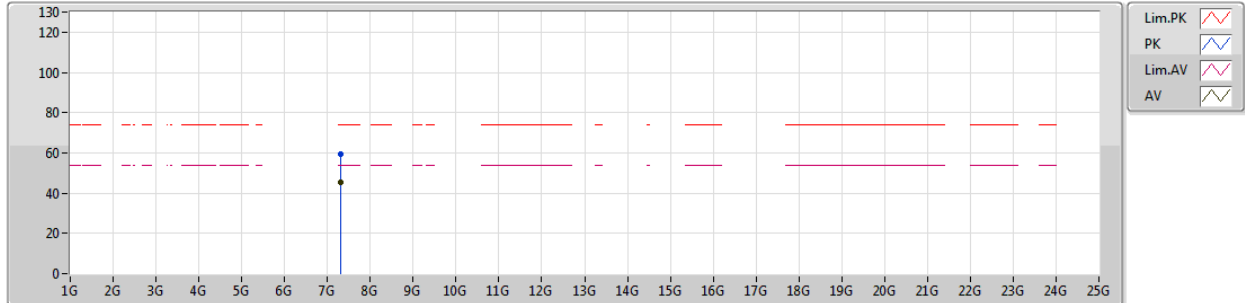
EUT Y_2TX
Setting 2F
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3898G	59.78	74.00	-14.22	33.17	3	Vertical	331	1.78	-
AV	2.3898G	47.59	54.00	-6.41	33.17	3	Vertical	331	1.78	-
PK	2.4378G	117.47	Inf	-Inf	33.17	3	Vertical	331	1.78	-
AV	2.4374G	108.54	Inf	-Inf	33.17	3	Vertical	331	1.78	-
PK	2.4846G	62.59	74.00	-11.41	33.18	3	Vertical	331	1.78	-
AV	2.485G	48.50	54.00	-5.50	33.18	3	Vertical	331	1.78	-

802.11n HT20_Nss1,(MCS0)_2TX

01/11/2018

2437MHz_TX



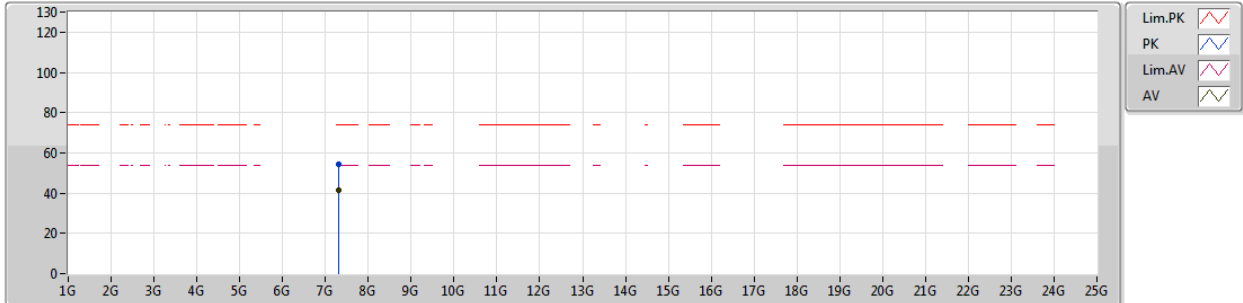
EUT Y_2TX
Setting 2F
04-E-4
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	7.3073G	59.43	74.00	-14.57	11.70	3	Vertical	178	2.10	-
AV	7.3094G	45.12	54.00	-8.88	11.69	3	Vertical	178	2.10	-

802.11n HT20_Nss1,(MCS0)_2TX

01/11/2018

2437MHz_TX



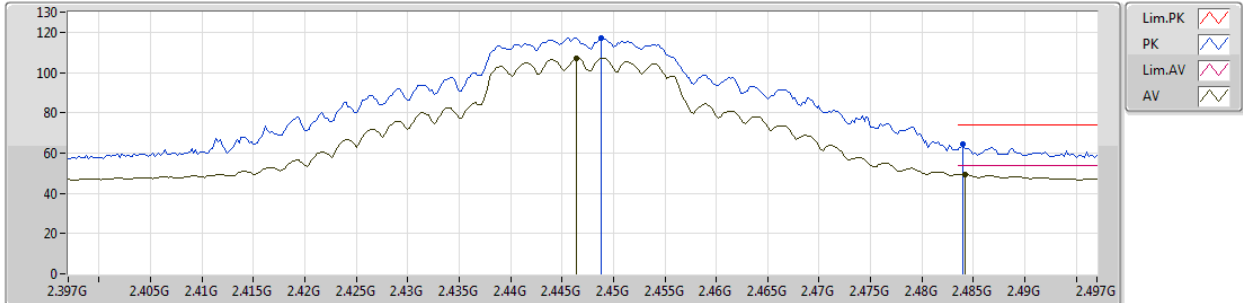
EUT Y_2TX
Setting 2F
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	7.3142G	54.10	74.00	-19.90	11.70	3	Horizontal	119	2.84	-
AV	7.3118G	41.30	54.00	-12.70	11.70	3	Horizontal	119	2.84	-

802.11n HT20_Nss1,(MCS0)_2TX

23/11/2018

2447MHz_TX



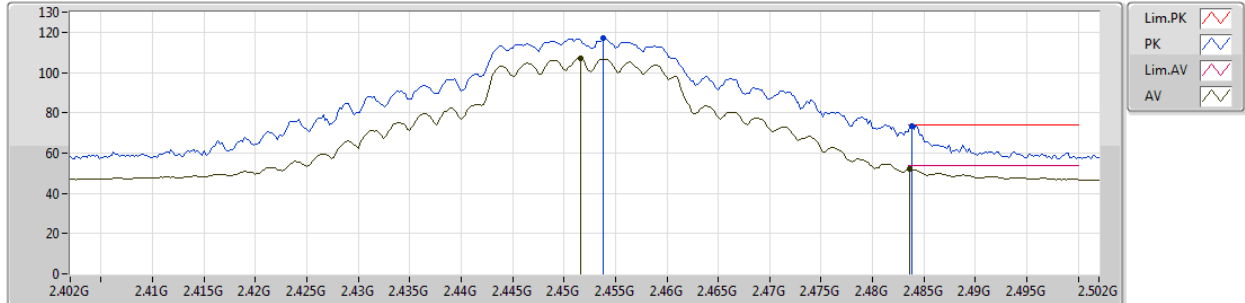
EUT_V_2TX
Setting 2F
06-S-5
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.4488G	117.37	Inf	-Inf	32.31	3	Vertical	306	1.58	-
AV	2.4464G	107.29	Inf	-Inf	32.30	3	Vertical	306	1.58	-
PK	2.484G	64.23	74.00	-9.77	32.41	3	Vertical	306	1.58	-
AV	2.4842G	49.54	54.00	-4.46	32.42	3	Vertical	306	1.58	-

802.11n HT20_Nss1,(MCS0)_2TX

23/11/2018

2452MHz_TX



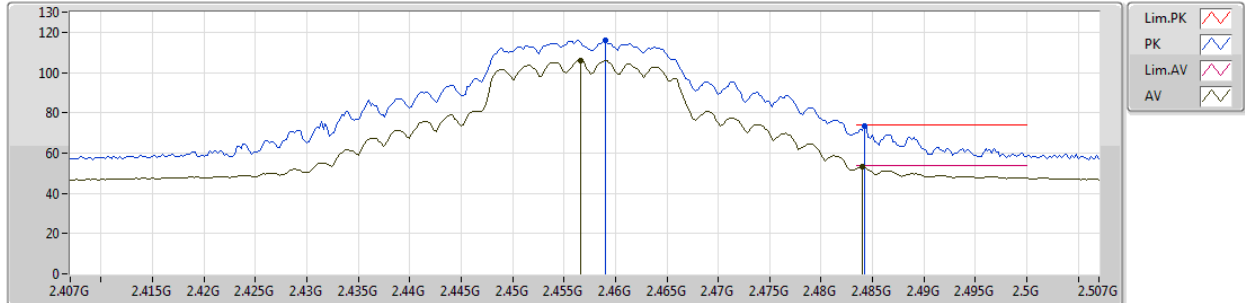
EUT_V_2TX
Setting 22
06-S-5
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.4538G	117.06	Inf	-Inf	32.32	3	Vertical	305	1.61	-
AV	2.4516G	107.06	Inf	-Inf	32.31	3	Vertical	305	1.61	-
PK	2.4838G	73.65	74.00	-0.35	32.41	3	Vertical	305	1.61	-
AV	2.4836G	51.95	54.00	-2.05	32.41	3	Vertical	305	1.61	-

802.11n HT20_Nss1,(MCS0)_2TX

23/11/2018

2457MHz_TX



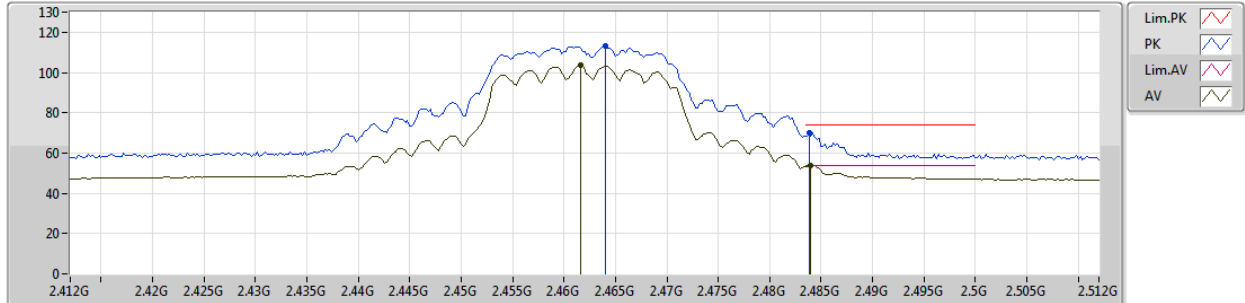
EUT Y_2TX
Setting 1F
06-S-5
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.459G	115.82	Inf	-Inf	32.34	3	Vertical	305	1.50	-
AV	2.4566G	106.01	Inf	-Inf	32.33	3	Vertical	305	1.50	-
PK	2.4842G	73.58	74.00	-0.42	32.42	3	Vertical	305	1.50	-
AV	2.484G	53.09	54.00	-0.91	32.41	3	Vertical	305	1.50	-

802.11n HT20_Nss1,(MCS0)_2TX

01/11/2018

2462MHz_TX



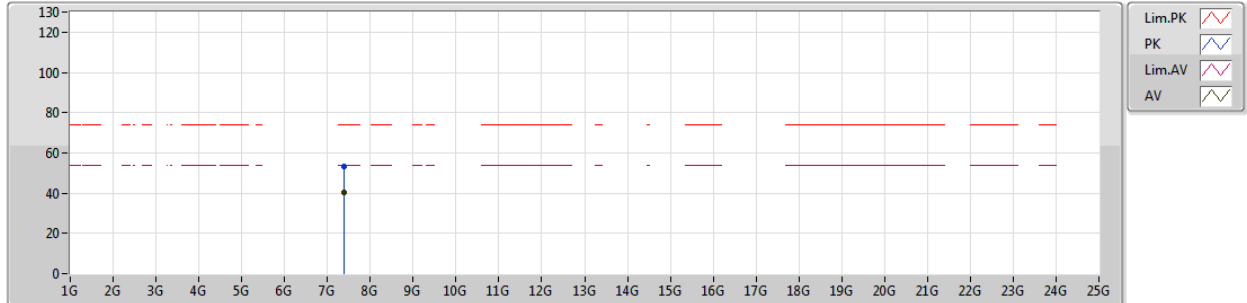
EUT Y_2TX
Setting 17
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.464G	113.34	Inf	-Inf	33.18	3	Vertical	298	1.50	-
AV	2.4616G	103.43	Inf	-Inf	33.18	3	Vertical	298	1.50	-
PK	2.4838G	69.84	74.00	-4.16	33.18	3	Vertical	298	1.50	-
AV	2.484G	53.98	54.00	-0.02	33.18	3	Vertical	298	1.50	-

802.11n HT20_Nss1,(MCS0)_2TX

01/11/2018

2462MHz_TX



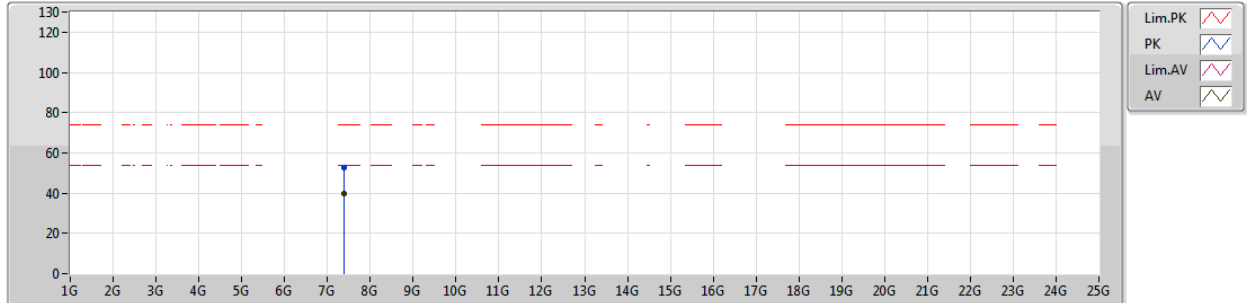
EUT Y_2TX
Setting 17
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	7.39638G	53.14	74.00	-20.86	11.68	3	Vertical	193	2.41	-
AV	7.3821G	40.23	54.00	-13.77	11.69	3	Vertical	193	2.41	-

802.11n HT20_Nss1,(MCS0)_2TX

01/11/2018

2462MHz_TX



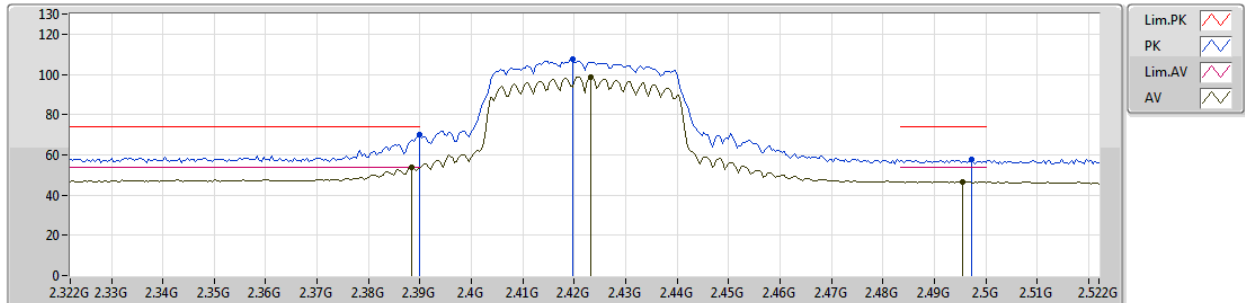
EUT Y_2TX
Setting 17
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	7.39158G	52.86	74.00	-21.14	11.69	3	Horizontal	356	1.01	-
AV	7.38978G	39.89	54.00	-14.11	11.69	3	Horizontal	356	1.01	-

802.11n HT40_Nss1,(MCS0)_2TX

2422MHz_TX

01/11/2018



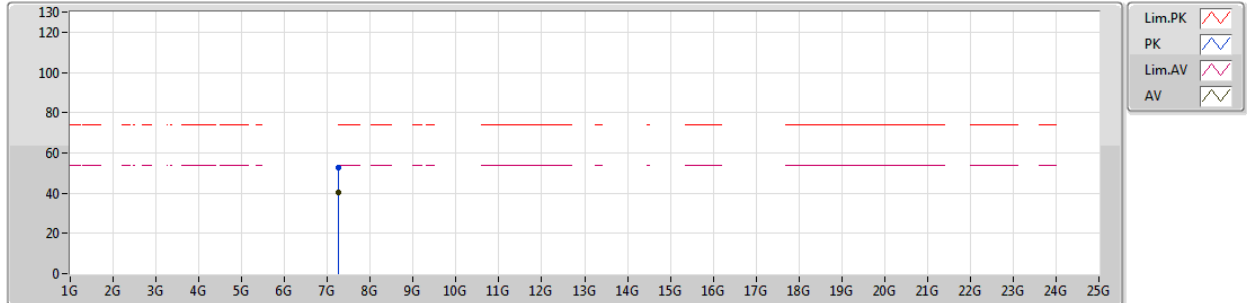
EUT Y_2TX
Setting 13
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.39G	69.80	74.00	-4.20	33.17	3	Vertical	349	1.79	-
AV	2.3884G	53.71	54.00	-0.29	33.17	3	Vertical	349	1.79	-
PK	2.4196G	107.36	Inf	-Inf	33.17	3	Vertical	349	1.79	-
AV	2.4232G	98.86	Inf	-Inf	33.18	3	Vertical	349	1.79	-
PK	2.4972G	57.68	74.00	-16.32	33.19	3	Vertical	349	1.79	-
AV	2.4956G	46.62	54.00	-7.38	33.19	3	Vertical	349	1.79	-

802.11n HT40_Nss1,(MCS0)_2TX

01/11/2018

2422MHz_TX



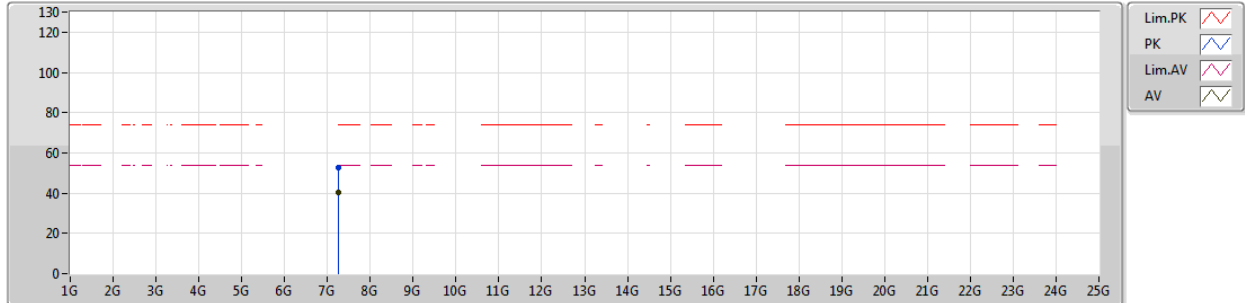
EUT Y_2TX
Setting 13
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	7.25984G	52.74	74.00	-21.26	11.71	3	Vertical	152	1.50	-
AV	7.25776G	40.53	54.00	-13.47	11.71	3	Vertical	152	1.50	-

802.11n HT40_Nss1,(MCS0)_2TX

01/11/2018

2422MHz_TX



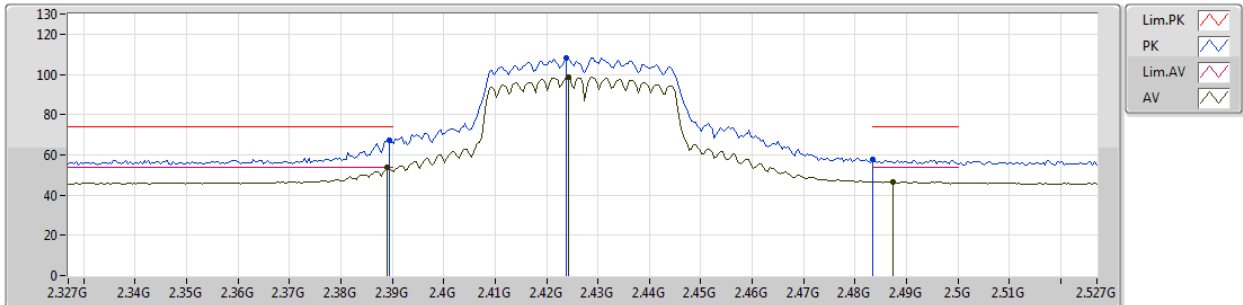
EUT Y_2TX
Setting 13
04-E-4
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	7.26776G	52.76	74.00	-21.24	11.72	3	Horizontal	311	1.50	-
AV	7.25912G	40.35	54.00	-13.65	11.71	3	Horizontal	311	1.50	-

802.11n HT40_Nss1,(MCS0)_2TX

2427MHz_TX

23/11/2018



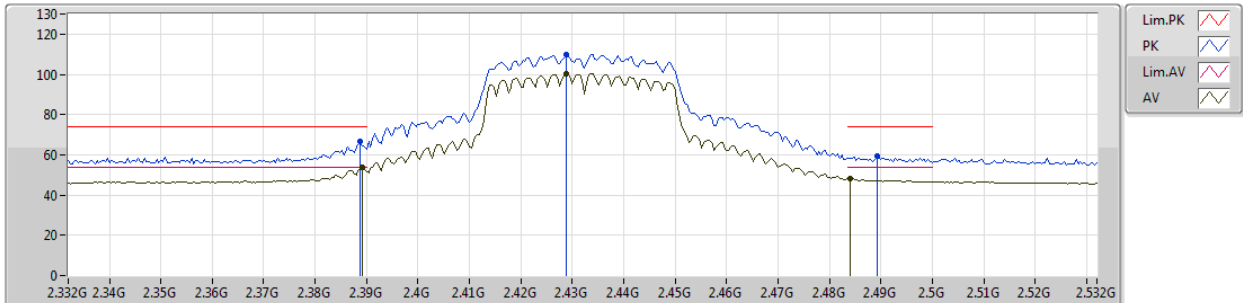
EUT_V_2TX
Setting 16
06-S-5
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3894G	67.33	74.00	-6.67	32.13	3	Vertical	306	1.60	-
AV	2.389G	53.80	54.00	-0.20	32.12	3	Vertical	306	1.60	-
PK	2.4238G	108.24	Inf	-Inf	32.23	3	Vertical	306	1.60	-
AV	2.4242G	98.64	Inf	-Inf	32.23	3	Vertical	306	1.60	-
PK	2.4835G	57.84	74.00	-16.16	32.41	3	Vertical	306	1.60	-
AV	2.4874G	46.58	54.00	-7.42	32.42	3	Vertical	306	1.60	-

802.11n HT40_Nss1,(MCS0)_2TX

2432MHz_TX

23/11/2018



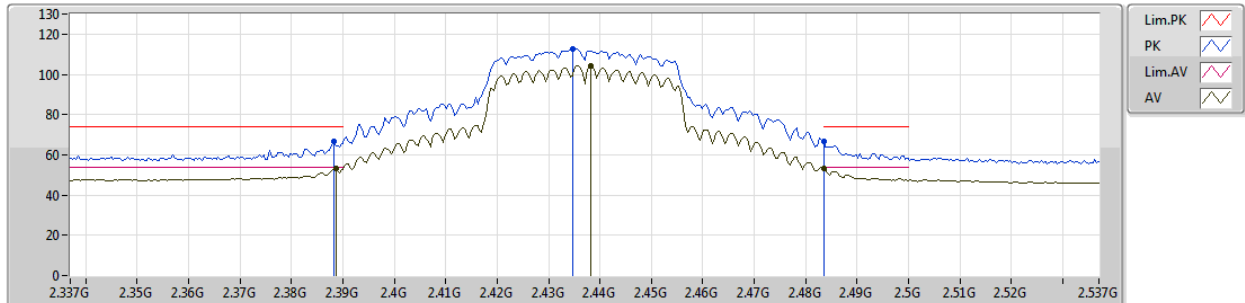
EUT_V_2TX
Setting 1A
06-S-5
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3888G	66.59	74.00	-7.41	32.12	3	Vertical	305	1.63	-
AV	2.3892G	53.73	54.00	-0.27	32.13	3	Vertical	305	1.63	-
PK	2.4288G	110.03	Inf	-Inf	32.24	3	Vertical	305	1.63	-
AV	2.4288G	100.41	Inf	-Inf	32.24	3	Vertical	305	1.63	-
PK	2.4892G	59.13	74.00	-14.87	32.43	3	Vertical	305	1.63	-
AV	2.484G	48.20	54.00	-5.80	32.41	3	Vertical	305	1.63	-

802.11n HT40_Nss1,(MCS0)_2TX

01/11/2018

2437MHz_TX



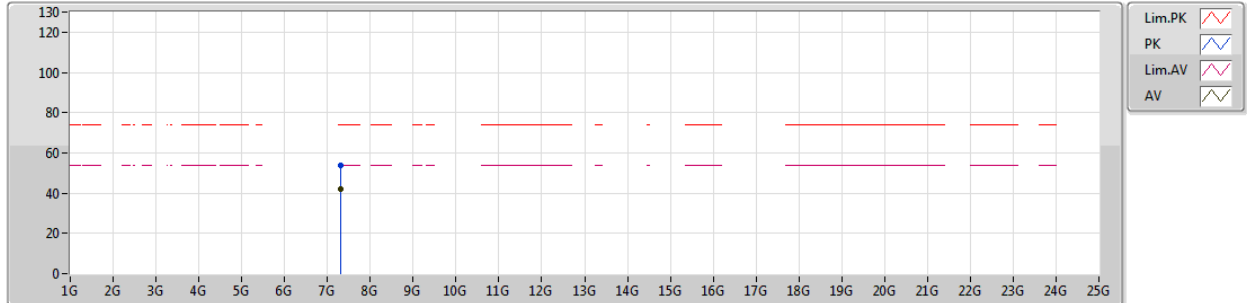
EUT_Y_2TX
Setting 1D
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3882G	66.52	74.00	-7.48	33.17	3	Vertical	348	1.75	-
AV	2.3886G	53.22	54.00	-0.78	33.17	3	Vertical	348	1.75	-
PK	2.4346G	112.68	Inf	-Inf	33.18	3	Vertical	348	1.75	-
AV	2.4382G	104.25	Inf	-Inf	33.17	3	Vertical	348	1.75	-
PK	2.4835G	66.88	74.00	-7.12	33.18	3	Vertical	348	1.75	-
AV	2.4835G	53.46	54.00	-0.54	33.18	3	Vertical	348	1.75	-

802.11n HT40_Nss1,(MCS0)_2TX

01/11/2018

2437MHz_TX



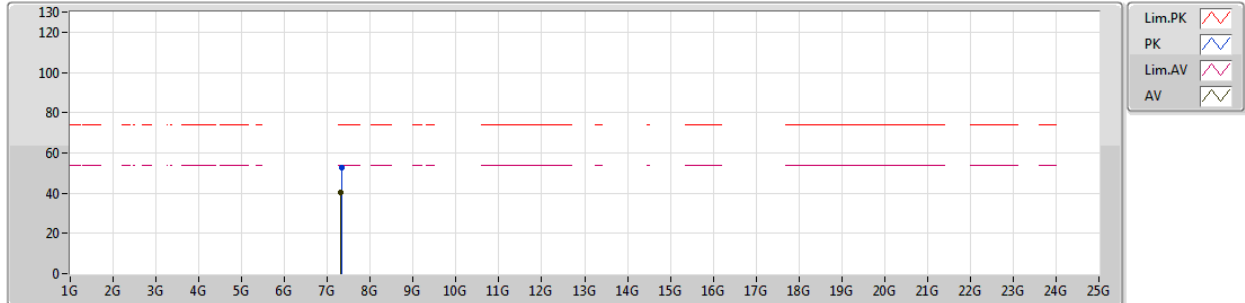
EUT Y_2TX
Setting ID
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	7.31668G	53.99	74.00	-20.01	11.69	3	Vertical	179	2.00	-
AV	7.3142G	41.89	54.00	-12.11	11.70	3	Vertical	179	2.00	-

802.11n HT40_Nss1,(MCS0)_2TX

01/11/2018

2437MHz_TX



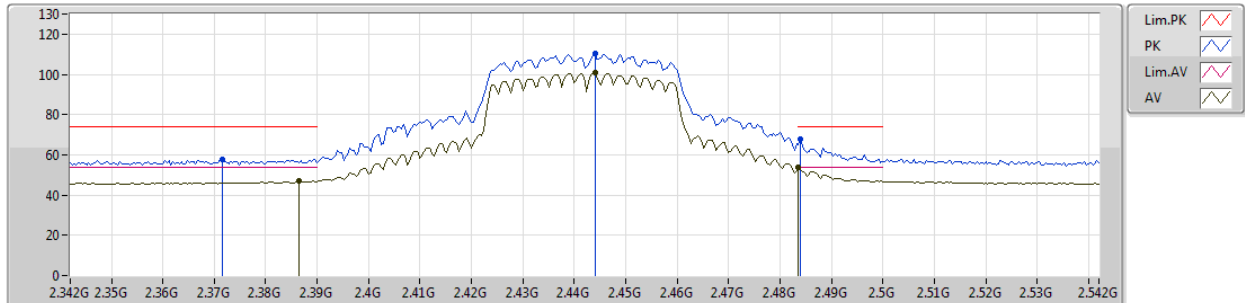
EUT Y_2TX
Setting 1D
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	7.32556G	52.51	74.00	-21.49	11.69	3	Horizontal	177	1.50	-
AV	7.32036G	40.41	54.00	-13.59	11.70	3	Horizontal	177	1.50	-

802.11n HT40_Nss1,(MCS0)_2TX

2442MHz_TX

23/11/2018



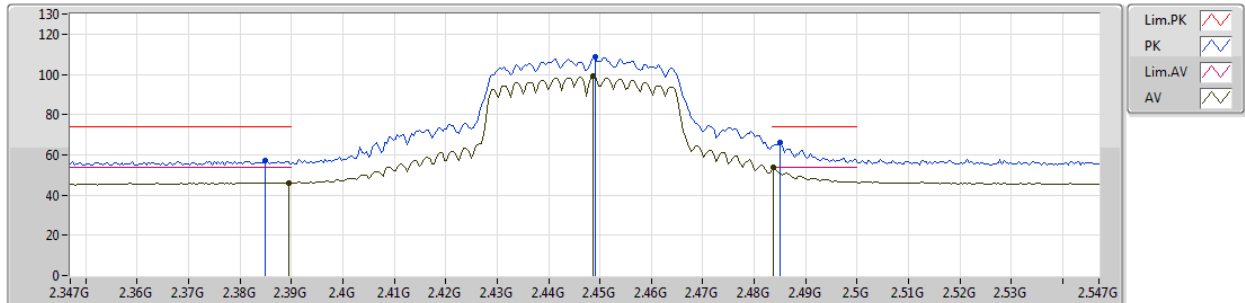
EUT V_2TX
Setting 1A
06-S-5
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3716G	57.86	74.00	-16.14	32.05	3	Vertical	304	1.60	-
AV	2.3864G	46.95	54.00	-7.05	32.11	3	Vertical	304	1.60	-
PK	2.444G	110.32	Inf	-Inf	32.30	3	Vertical	304	1.60	-
AV	2.444G	100.85	Inf	-Inf	32.30	3	Vertical	304	1.60	-
PK	2.484G	67.54	74.00	-6.46	32.41	3	Vertical	304	1.60	-
AV	2.4836G	53.63	54.00	-0.37	32.41	3	Vertical	304	1.60	-

802.11n HT40_Nss1,(MCS0)_2TX

2447MHz_TX

23/11/2018



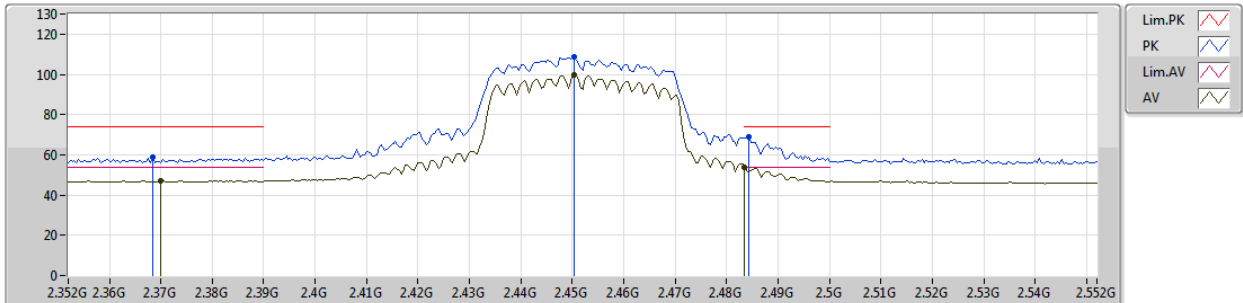
EUT V_2TX
Setting 17
06-S-5
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments								
PK	2.385G	57.13	74.00	-16.87	32.11	3	Vertical	303	1.62	-								
AV	2.3894G	46.16	54.00	-7.84	32.13	3	Vertical	303	1.62	-								
PK	2.449G	108.53	Inf	-Inf	32.31	3	Vertical	303	1.62	-								
AV	2.4486G	99.03	Inf	-Inf	32.31	3	Vertical	303	1.62	-								
PK	2.485G	65.96	74.00	-8.04	32.42	3	Vertical	303	1.62	-								
AV	2.4838G	53.63	54.00	-0.37	32.41	3	Vertical	303	1.62	-								

802.11n HT40_Nss1,(MCS0)_2TX

2452MHz_TX

01/11/2018



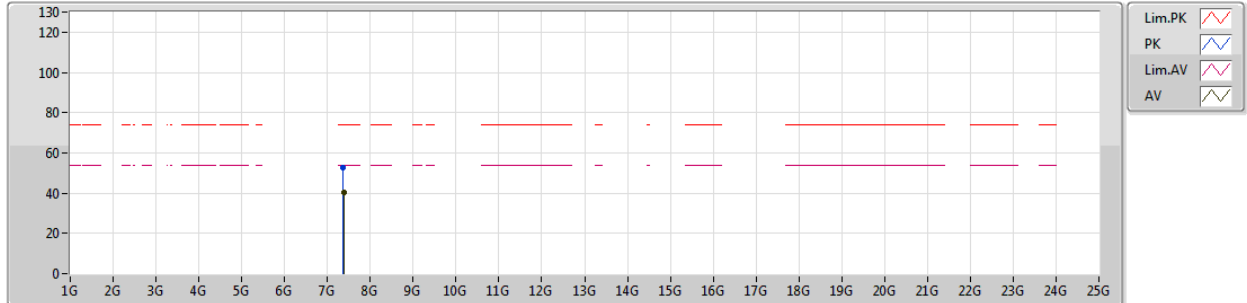
EUT Y_2TX
Setting 14
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3684G	58.79	74.00	-15.21	33.15	3	Vertical	344	1.97	-
AV	2.37G	47.13	54.00	-6.87	33.15	3	Vertical	344	1.97	-
PK	2.4504G	99.69	Inf	-Inf	33.18	3	Vertical	344	1.97	-
AV	2.4504G	99.69	Inf	-Inf	33.18	3	Vertical	344	1.97	-
PK	2.4844G	68.78	74.00	-5.22	33.18	3	Vertical	344	1.97	-
AV	2.4835G	53.63	54.00	-0.37	33.18	3	Vertical	344	1.97	-

802.11n HT40_Nss1,(MCS0)_2TX

01/11/2018

2452MHz_TX



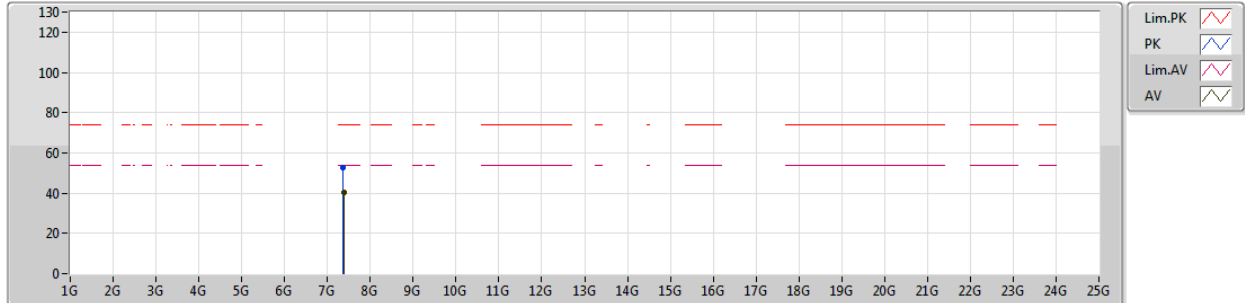
EUT Y_2TX
Setting 14
04-E-4
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	7.36168G	52.53	74.00	-21.47	11.68	3	Vertical	91	2.03	-
AV	7.37496G	40.32	54.00	-13.68	11.69	3	Vertical	91	2.03	-

802.11n HT40_Nss1,(MCS0)_2TX

01/11/2018

2452MHz_TX



EUT Y_2TX
Setting 14
04-E-4
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	7.37232G	52.48	74.00	-21.52	11.68	3	Horizontal	217	1.66	-
AV	7.37472G	40.20	54.00	-13.80	11.69	3	Horizontal	217	1.66	-

