



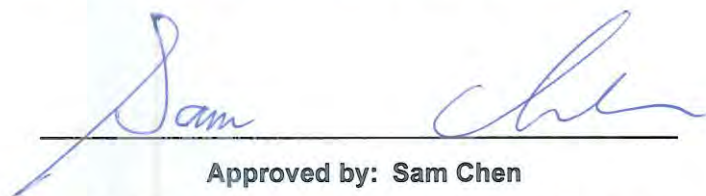
FCC RADIO TEST REPORT

FCC ID : PPQ-WP838
Equipment : Access Point
Brand Name : LITE-ON
Model Name : WP838I, WP838I-BT, WP838E
Applicant : LITE-ON Technology Corp.
Bldg. C, 90, Chien 1 Rd., Chung-Ho, New Taipei City, 23585
Taiwan
Manufacturer : Lite-On Network Communication (Dongguan) Limited
30#Keji Rd., Yin Hu Industrial Area, Qingxi Town, DongGuan
City, Guangdong, China
Standard : 47 CFR FCC Part 15.247

The product was received on Jan. 10, 2014, and testing was started from May 31, 2016 and completed on May 28, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.


Approved by: Sam Chen

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



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History of this test report

TEL : 886-3-656-9065
FAX : 886-3-656-9085
Report Template No.: CB Ver1.0

Page Number : 3 of 44
Issued Date : May 28, 2019
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	Note1
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	-

Note1:

For PoE mode, the PoE is for measurement only, would not be marketed. It's not necessary to apply to AC Power Port Conducted emission test.

Note2:

From Sporton Project No.: 411023-08 and 411023-10

Declaration of Conformity:

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

Comments and Explanations:

1. The test configuration, test mode and test software were written in this test report are declared by the manufacturer.
2. The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Sam Chen

Report Producer: Vicky Huang



1 General Description

1.1 Information

1.1.1 RF General Information

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

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	1
2.4-2.4835GHz	802.11g	20	1
2.4-2.4835GHz	802.11n HT20	20	3
2.4-2.4835GHz	802.11n HT40	40	3

Note:

- ♦ 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- ♦ 11g, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ BWch is the nominal channel bandwidth.
- ♦ Nss-Min is the minimum number of spatial streams.
- ♦ Nant is the number of outputs. e.g., 2(2,3) means have 2 outputs for port 2 and port 3. 2 means have 2 outputs for port 1 and port 2.

1.1.2 Antenna Information

Internal antenna:

Model Name: WP838I, WP838I-BT / Type 1 Internal antenna (low gain)

Ant.	Brand	Model No.	Type	Connector	Antenna Gain		Cable Loss		True Gain (dBi)	
					2.4GHz	5GHz	2.4GHz	5GHz	2.4GHz	5GHz
1	LITEON	WP838 AP	PCB	I-PEX	3.5	6.5	0.2	-	3.3	6.5
2	LITEON	WP838 AP	PCB	I-PEX	6	5.8	-	-	6	5.8
3	LITEON	WP838 AP	PCB	I-PEX	5.4	6.6	-	-	5.4	6.6

Model Name: WP838I, WP838I-BT / Type 2 Internal antenna (higher gain)

Ant.	Brand	P/N	Type	Connector	Gain (dBi)	
					2.4GHz	5GHz
1	Galtronics	001174B2AD5F	Dipole	I-PEX	6.36	6.31
2	Galtronics	001174B2AD5F	Dipole	I-PEX	6.69	6.64
3	Galtronics	001174B2AD5F	Dipole	I-PEX	4.78	6.04

**External antenna:****Model Name: WP838E / External antenna**

Ant.	Brand	P/N	Type	Connector	Gain (dBi)	
					2.4GHz	5GHz
1	MAG.LAYERS	EDA-1713-25GR2-A7	Dipole	SMA Male RP	5	5
2	MAG.LAYERS	EDA-1713-25GR2-A7	Dipole	SMA Male RP	5	5
3	MAG.LAYERS	EDA-1713-25GR2-A7	Dipole	SMA Male RP	5	5

Note: The above information was declared by manufacturer.

<For 2.4GHz Band>**For IEEE 802.11b/g mode (1TX/1RX):**

Only Ant. 1 could transmit/receive simultaneously.

For IEEE 802.11n mode (3TX/3RX):

Ant. 1, Ant. 2 and Ant. 3 could transmit/receive simultaneously.

<For 5GHz Band>**For IEEE 802.11a mode (1TX/1RX):**

Only Ant. 1 could transmit/receive simultaneously.

For IEEE 802.11n/ac mode (3TX/3RX):

Ant. 1, Ant. 2 and Ant. 3 could transmit/receive simultaneously.

1.1.3 Mode Test Duty Cycle

For Mode 1:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11b	0.997	0.01	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11g	0.976	0.11	2.028m	1k
802.11n MCS0 HT20	0.974	0.11	1.893m	1k
802.11n MCS0 HT40	0.964	0.16	930u	3k

For Mode 2:

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11b	1.000	1.000	100.00%	0.00	0.01
802.11g	2.000	2.070	96.62%	0.15	0.50
802.11n MCS0 HT20	1.880	1.950	96.41%	0.16	0.53
802.11n MCS0 HT40	0.900	0.970	92.78%	0.33	1.11

For Mode 3:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11b	0.997	0.01	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11g	0.977	0.1	2.033m	1k
802.11n MCS0 HT20	0.977	0.1	1.894m	1k
802.11n MCS0 HT40	0.96	0.18	930u	3k

Note:

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

1.1.4 EUT Operational Condition

EUT Power Type	From adapter or PoE			
Beamforming Function	☐	With beamforming	☒	Without beamforming
Function	☒	Point-to-multipoint	☐	Point-to-point
Test Software Version	Mode 1 and Mode 3:		artgui.exe Version:2.3	
	Mode 2:		ART2-GUI Version 2.3	

Note: The above information was declared by manufacturer.

1.1.5 Table for Multiple Listing

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

EUT	Model Name	Antenna	Description
1	WP838I	Internal antenna	All the models are identical; different models serve as marketing strategy.
3	WP838I-BT		
2	WP838E	External antenna	-

From the above models, WP838I and WP838E were selected as representative model for the test and their data was recorded in this report.



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
- ♦ ANSI C63.10-2013
- ♦ FCC KDB 558074 D01 v05r02
- ♦ FCC KDB 662911 D01 v02r01

1.3 Testing Location Information

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

Test site Designation No. TW0006 with FCC.

Test site registered number IC 4086B with Industry Canada.

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted (For Mode 1 and Mode 3)	TH01-CB	Brian Sun	22~24°C / 50~60%	May 16, 2019~May 22, 2019
RF Conducted (For Mode 2-othe tests)	TH01-CB	Serway Li	24°C / 60%	May 31, 2016
RF Conducted (For Mode 2- maximum conducted output power test / 2417MHz, 2457MHz)	TH01-CB	Brian Sun	22~24°C / 50~60%	May 28, 2019
Radiated (For below 1GHz test)	03CH01-CB	Steven Liang	23°C / 63%	Dec. 30, 2016~Jan. 17, 2017
Radiated (For Mode 1 and Mode 3-above 1GHz test)	03CH01-CB	Brian Sun	22~24°C / 50~60%	May 13, 2019~May 22, 2019
Radiated (For Mode 2-above 1GHz test / other channel)	03CH01-CB	Brian Sun	23°C / 63%	May 20, 2016 ~ Jun. 03, 2016
Radiated (For Mode 2-above 1GHz test / 2417MHz, 2457MHz)	03CH01-CB	Brian Sun	22~24°C / 50~60%	May 28, 2019
AC Conduction	CO01-CB	Hank Yang	23°C / 56%	Dec. 19, 2016 Jan. 18, 2017

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))

For Mode 1 and Mode 3:

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	2.4 dB	Confidence levels of 95%

For Mode 2:

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.2 dB	Confidence levels of 95%

For Mode 1 ~ Mode 3:

Test Items	Uncertainty	Remark
Radiated Emission (30MHz ~ 1,000MHz)	3.6 dB	Confidence levels of 95%
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 x10-8	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

For Mode 1:

Mode	Power Setting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	31.5
2437MHz	31.5
2462MHz	31.5
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	30
2437MHz	31.5
2462MHz	30.5
802.11n HT20_Nss1,(MCS0)_3TX	-
2412MHz	23
2417MHz	28
2437MHz	31.5
2457MHz	26.5
2462MHz	25
802.11n HT40_Nss1,(MCS0)_3TX	-
2422MHz	21
2427MHz	22
2437MHz	26.5
2447MHz	25
2452MHz	23.5

**For Mode 2:**

Mode	Power Setting
802.11b_(1Mbps)_1TX	-
2412MHz	19.5
2437MHz	19.5
2462MHz	19.5
802.11g_(6Mbps)_1TX	-
2412MHz	15
2417MHz	29.5
2437MHz	20
2462MHz	16.5
802.11n HT20_MCS0_3TX	-
2412MHz	13.5
2417MHz	27.5
2437MHz	19
2457MHz	27.5
2462MHz	14.5
802.11n HT40_MCS0_3TX	-
2422MHz	12.5
2437MHz	15
2452MHz	13.5

**For Mode 3:**

Mode	Power Setting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	15
2417MHz	17
2437MHz	23.5
2457MHz	17.5
2462MHz	17.5
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	8
2417MHz	12.5
2437MHz	19
2457MHz	15.5
2462MHz	13.5
802.11n HT20_Nss1,(MCS0)_3TX	-
2412MHz	5.5
2417MHz	12.5
2437MHz	17
2457MHz	13
2462MHz	8
802.11n HT40_Nss1,(MCS0)_3TX	-
2422MHz	3
2427MHz	6.5
2437MHz	8.5
2447MHz	6
2452MHz	5

2.2 The Worst Case Measurement Configuration

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

The Worst Case Mode for Following Conformance Tests	
Tests Item	Maximum Conducted Output Power Power Spectral Density DTS Bandwidth for EUT 1 + Type 1 antenna and EUT 2 Emissions in Non-restricted Frequency Bands for EUT 1 + Type 1 antenna and EUT 2
Test Condition	Conducted measurement at transmit chains
Operating Mode	CTX
1	EUT 1 + Type 1 antenna
2	EUT 1 + Type 2 antenna
3	EUT 2

The Worst Case Mode for Following Conformance Tests	
Tests Item	DTS Bandwidth for EUT 1 + Type 2 antenna Emissions in Non-restricted Frequency Bands for EUT 1 + Type 2 antenna Emissions in Restricted Frequency Bands
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	Normal Link
1	EUT 1 in Z axis + Type 1 antenna + Adapter
2	EUT 1 in Y axis + Type 1 antenna + Adapter
Mode 1 has been evaluated to be the worst case between Mode 1~2, thus measurement for Mode 3 will follow this same test mode.	
3	EUT 1 in Z axis + Type 1 antenna + PoE
Mode 3 has been evaluated to be the worst case among Mode 1~3, thus measurement for Mode 4~5 will follow this same test mode.	
4	EUT 1 in Z axis + Type 2 antenna + PoE



5	EUT 2 in Z axis + PoE
For operating mode 5 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
For EUT 1 + Type 1 antenna and EUT 2: The EUT can be placed in Y-axis and Z-axis. After evaluating, Z-axis was the worst case, so it's recorded in this report. For EUT 1 + Type 2 antenna: The EUT can be placed in Y-axis and Z-axis. After evaluating, Y-axis was the worst case, so it's recorded in this report.	
1	EUT 1 in Z axis + Type 1 antenna
2	EUT 1 in Y axis + Type 2 antenna
3	EUT 2 in Z axis

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	EUT 1 + Type 1 antenna-WLAN 2.4GHz+WLAN 5GHz
2	EUT 1 + Type 2 antenna-WLAN 2.4GHz+WLAN 5GHz
3	EUT 2-WLAN 2.4GHz+WLAN 5GHz
Refer to Sporton Test Report No.: FA411023-11 for Co-location RF Exposure Evaluation.	

Note: The PoE below is for measurement only, would not be marketed.

Support Unit	Brand	Model	FCC ID
PoE	LITEON	LGS528P	DoC



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			
Equipment Name	Brand Name	Model Name	Rating
Adapter	APD	WA-24Q12R	Input: 100-240Vac, 50-60Hz, 0.7A Max. Output: 12Vdc, 2A
Other			
Plug*1			

2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E6430	DoC
B	NB	DELL	E6430	DoC
C	NB	DELL	E6430	DoC
D	NB	DELL	E6430	DoC
E	Flash disk3.0	Transcend	639205 7755	DoC

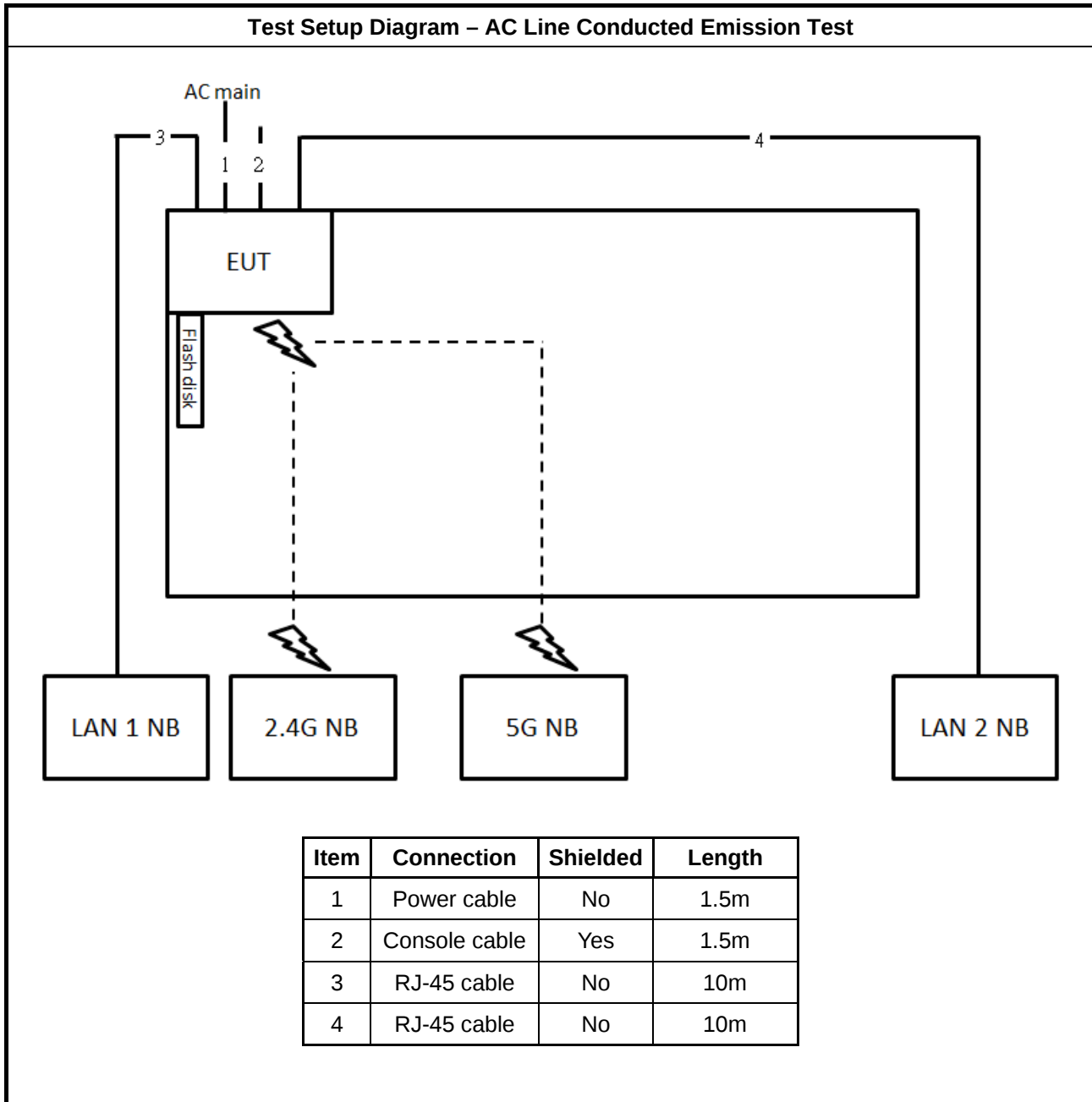
For Radiated (below 1GHz):

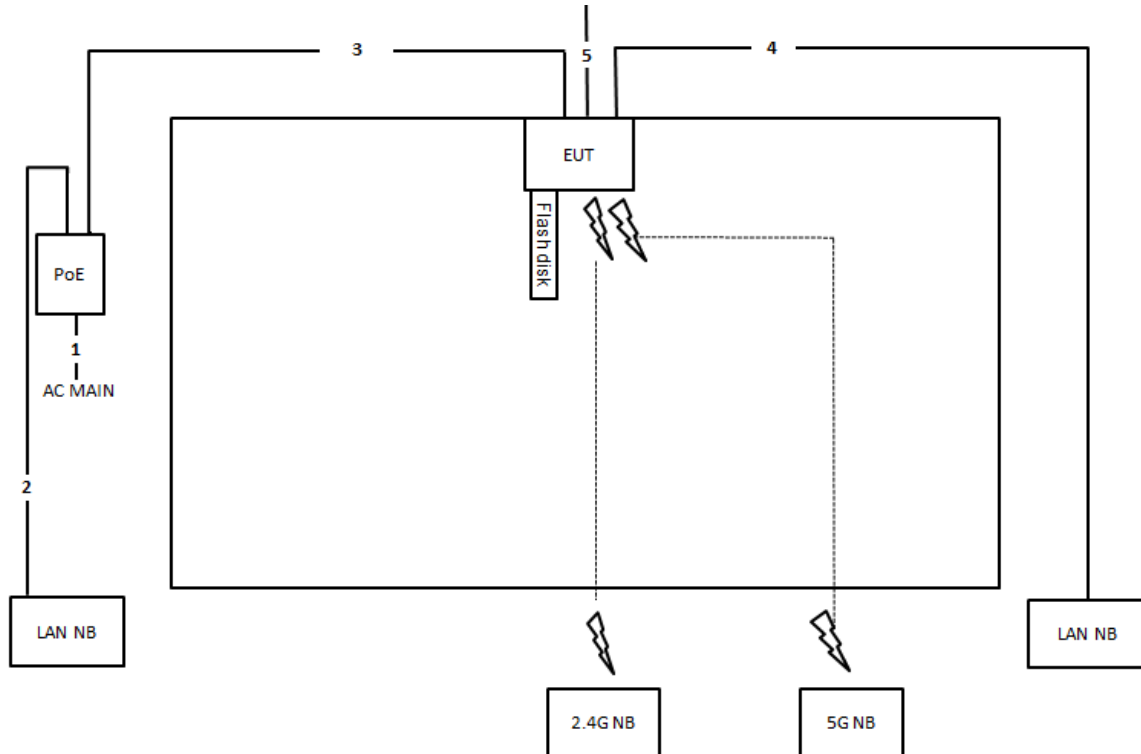
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	DoC
B	NB	DELL	E4300	DoC
C	NB	Apple	Mac Book	DoC
D	NB	Apple	Mac Book	DoC
E	Flash disk	Silicon Power	Touch 835	DoC
F	PoE	LITEON	LGS528P	DoC

**For Radiated (above 1GHz) and RF Conducted:**

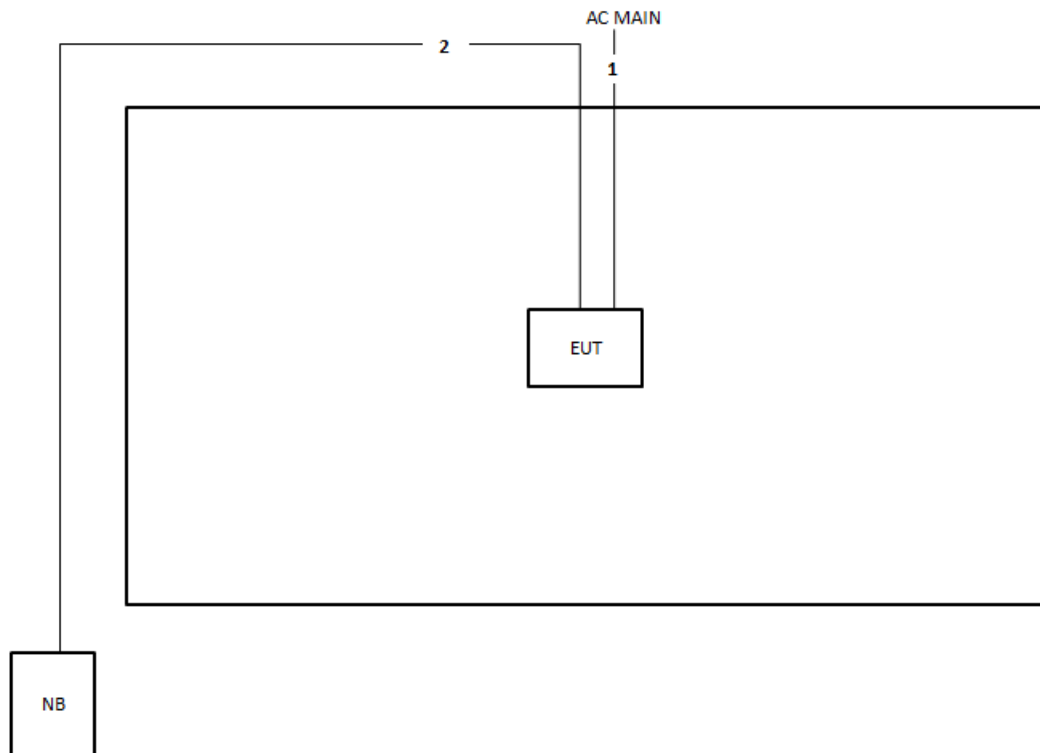
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A

2.6 Test Setup Diagram

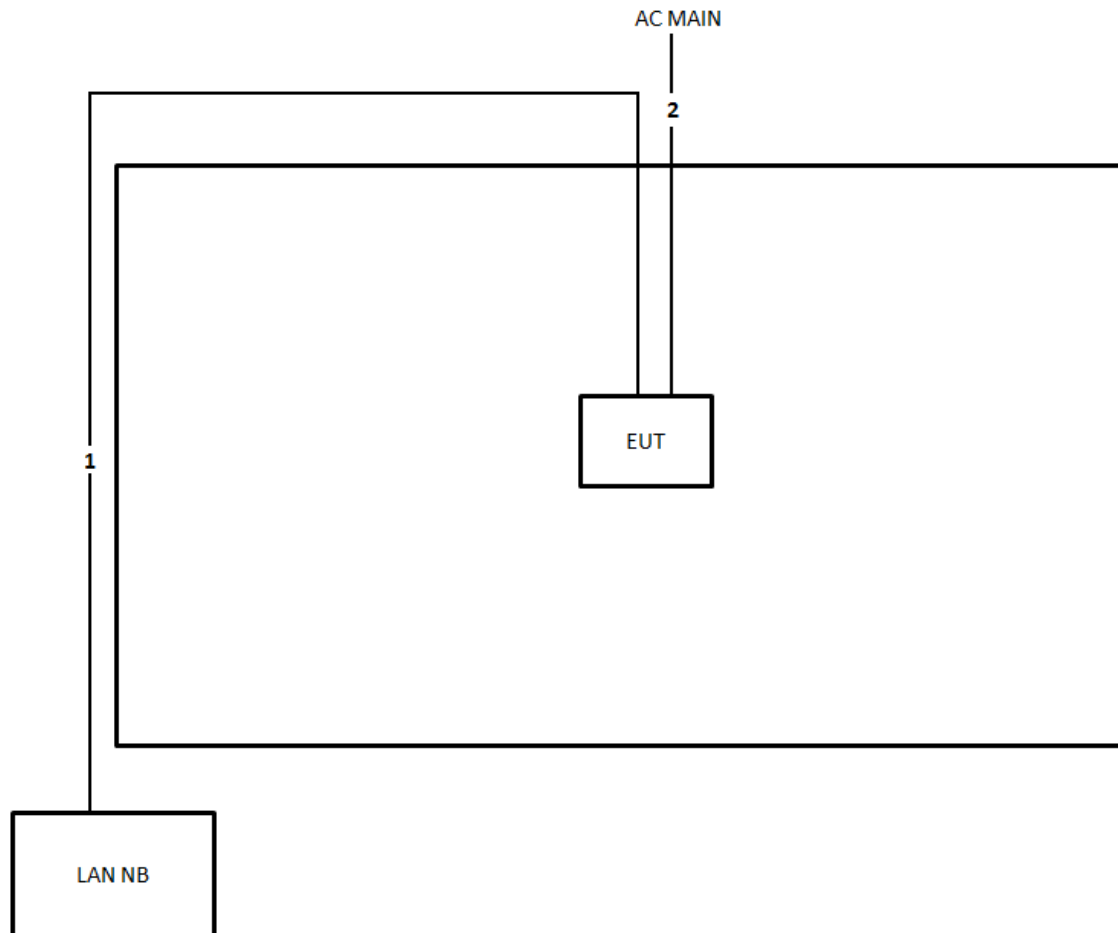


Test Setup Diagram - Radiated Test < 1GHz


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

Test Setup Diagram - Radiated Test > 1GHz
For Mode 1 and Mode 3:


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

For Mode 2:


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.

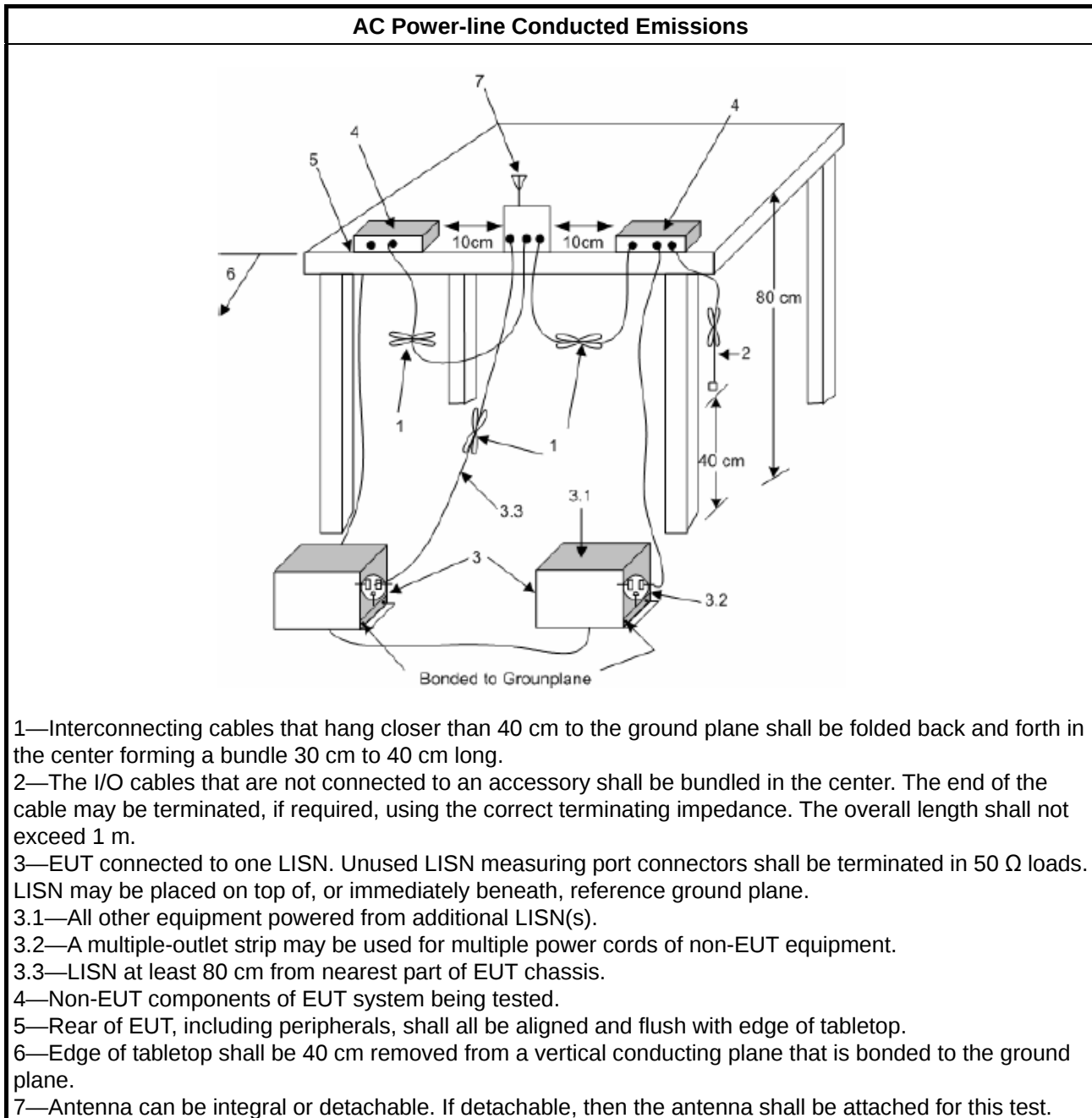
3.1.2 Measuring Instruments

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.

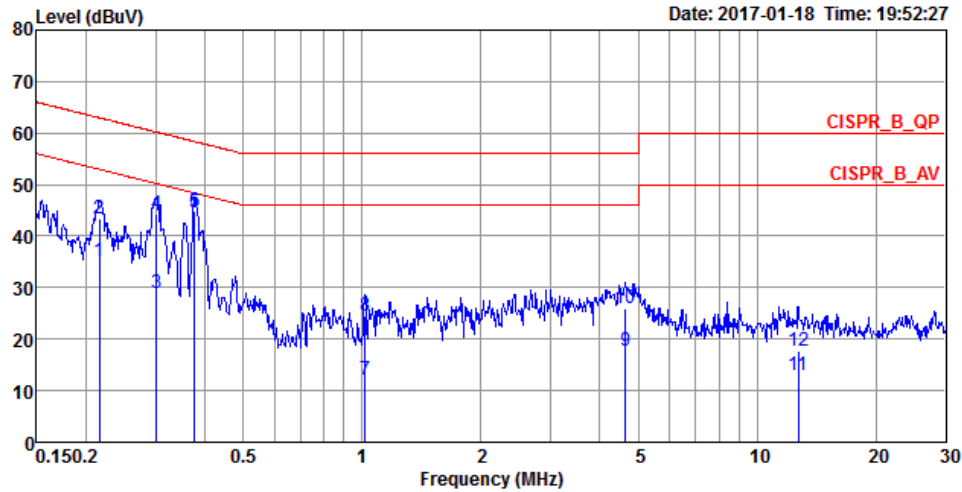
3.1.4 Test Setup





3.1.5 Test Result of AC Power-line Conducted Emissions

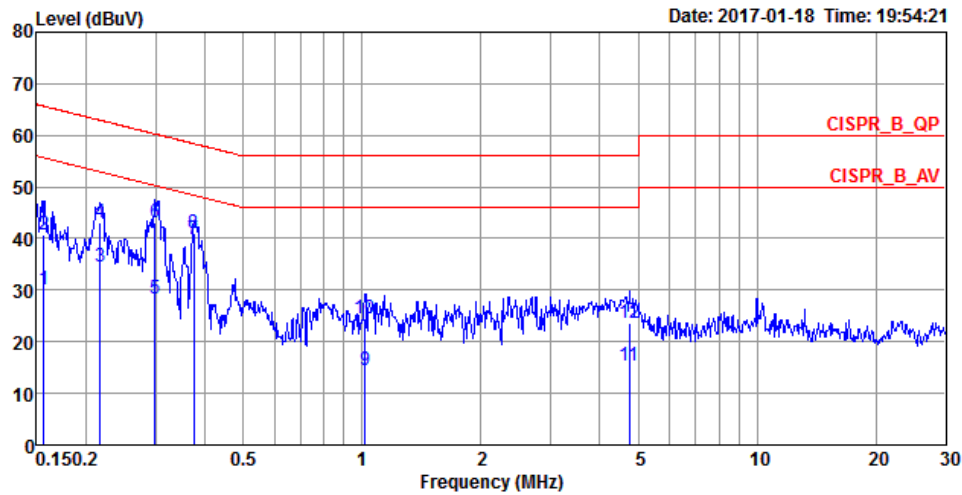
Test Mode	Mode 2	Phase	Line
Configuration	Normal Link		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Pol/Phase	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.2162	35.22	-17.74	52.96	25.13	9.92	0.17	LINE	Average
2	0.2162	43.54	-19.42	62.96	33.45	9.92	0.17	LINE	QP
3	0.3019	28.81	-21.38	50.19	18.81	9.92	0.08	LINE	Average
4	0.3019	44.17	-16.02	60.19	34.17	9.92	0.08	LINE	QP
5	0.3771	44.51	-3.83	48.34	34.56	9.92	0.03	LINE	Average
6	0.3771	45.01	-13.33	58.34	35.06	9.92	0.03	LINE	QP
7	1.0157	12.13	-33.87	46.00	1.47	9.94	0.72	LINE	Average
8	1.0157	24.46	-31.54	56.00	13.80	9.94	0.72	LINE	QP
9	4.6469	17.86	-28.14	46.00	7.75	10.01	0.10	LINE	Average
10	4.6469	25.95	-30.05	56.00	15.84	10.01	0.10	LINE	QP
11	12.7161	13.00	-37.00	50.00	2.62	10.19	0.19	LINE	Average
12	12.7161	17.79	-42.21	60.00	7.41	10.19	0.19	LINE	QP



Test Mode	Mode 2	Phase	Neutral
Configuration	Normal Link		



	Freq	Level	Over	Limit	Read	LISN	Cable		
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Pol/Phase	Remark
			dB	dBuV	dBuV	dB	dB		
1	0.1565	30.03	-25.62	55.65	19.84	10.02	0.17	NEUTRAL	Average
2	0.1565	40.85	-24.80	65.65	30.66	10.02	0.17	NEUTRAL	QP
3	0.2174	34.62	-18.30	52.92	24.53	9.92	0.17	NEUTRAL	Average
4	0.2174	43.23	-19.69	62.92	33.14	9.92	0.17	NEUTRAL	QP
5	0.2987	28.48	-21.80	50.28	18.47	9.92	0.09	NEUTRAL	Average
6	0.2987	43.20	-17.08	60.28	33.19	9.92	0.09	NEUTRAL	QP
7	0.3751	39.80	-8.59	48.39	29.85	9.92	0.03	NEUTRAL	Average
8	0.3751	41.09	-17.30	58.39	31.14	9.92	0.03	NEUTRAL	QP
9	1.0157	14.52	-31.48	46.00	3.86	9.94	0.72	NEUTRAL	Average
10	1.0157	24.48	-31.52	56.00	13.82	9.94	0.72	NEUTRAL	QP
11	4.7464	15.48	-30.52	46.00	5.37	10.01	0.10	NEUTRAL	Average
12	4.7464	23.64	-32.36	56.00	13.53	10.01	0.10	NEUTRAL	QP

Note:

Level = Read Level + LISN Factor + Cable Loss.

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

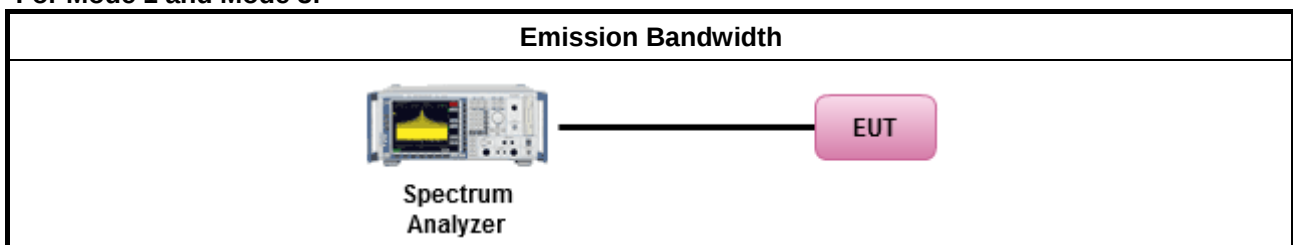
Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

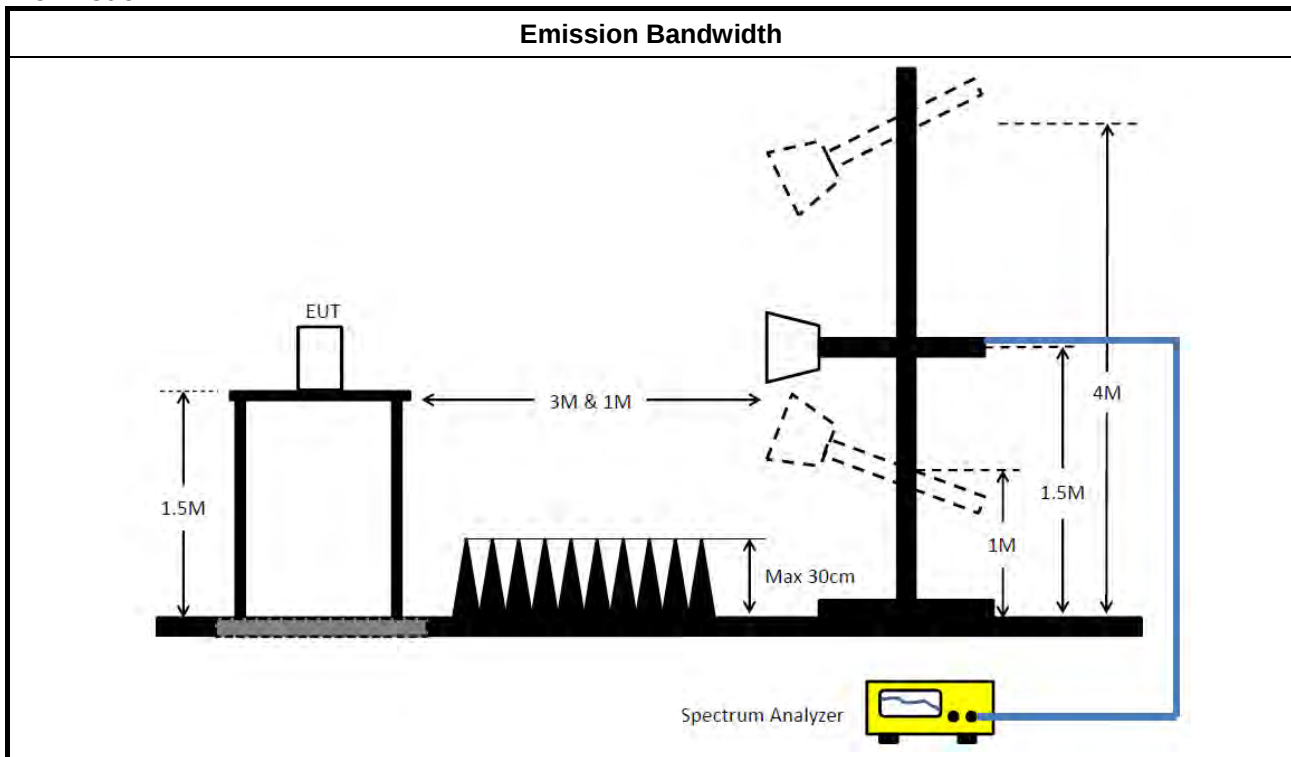
Test Method	
▪	For the emission bandwidth shall be measured using one of the options below:
☒	Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.1 Option 1 for 6 dB bandwidth measurement.
☐	Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.2 Option 2 for 6 dB bandwidth measurement.
☐	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.

3.2.4 Test Setup

For Mode 1 and Mode 3:



For Mode 2:



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix A

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.	

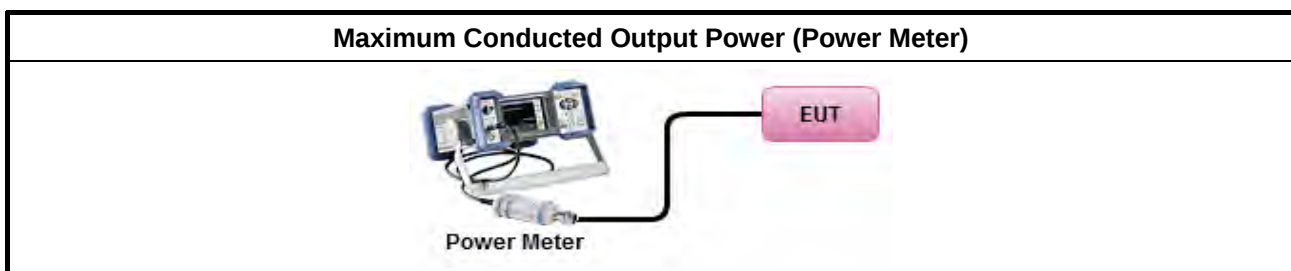
3.3.2 Measuring Instruments

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 B



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

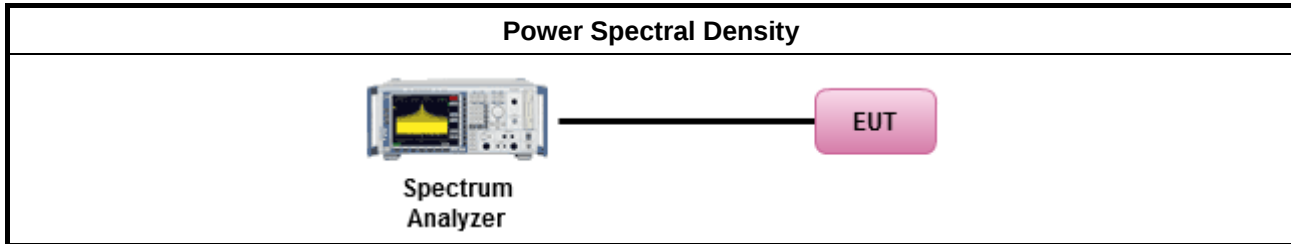
Refer a test equipment and calibration data table in this test report.

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 C

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	Limit (dBc)
Peak output power procedure	20
Average output power procedure	30
Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level. Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average PSD level.	

3.5.2 Measuring Instruments

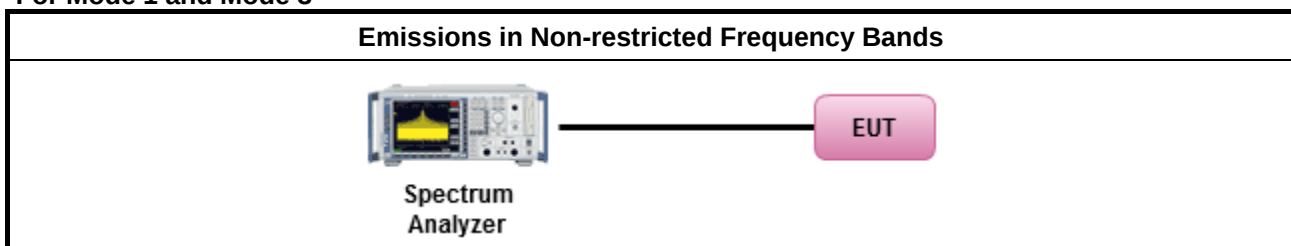
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

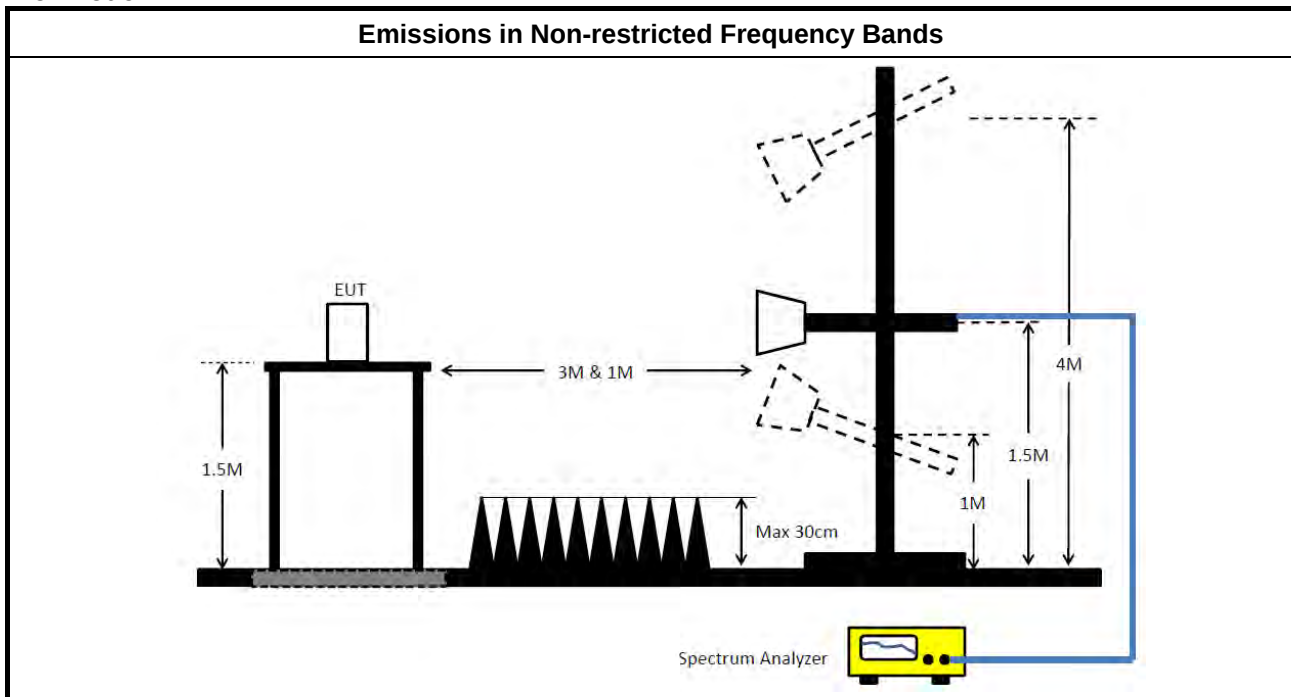
Test Method
Refer as FCC KDB 558074, clause 8.5 for unwanted emissions into non-restricted bands.

3.5.4 Test Setup

For Mode 1 and Mode 3



For Mode 2



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix D

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.

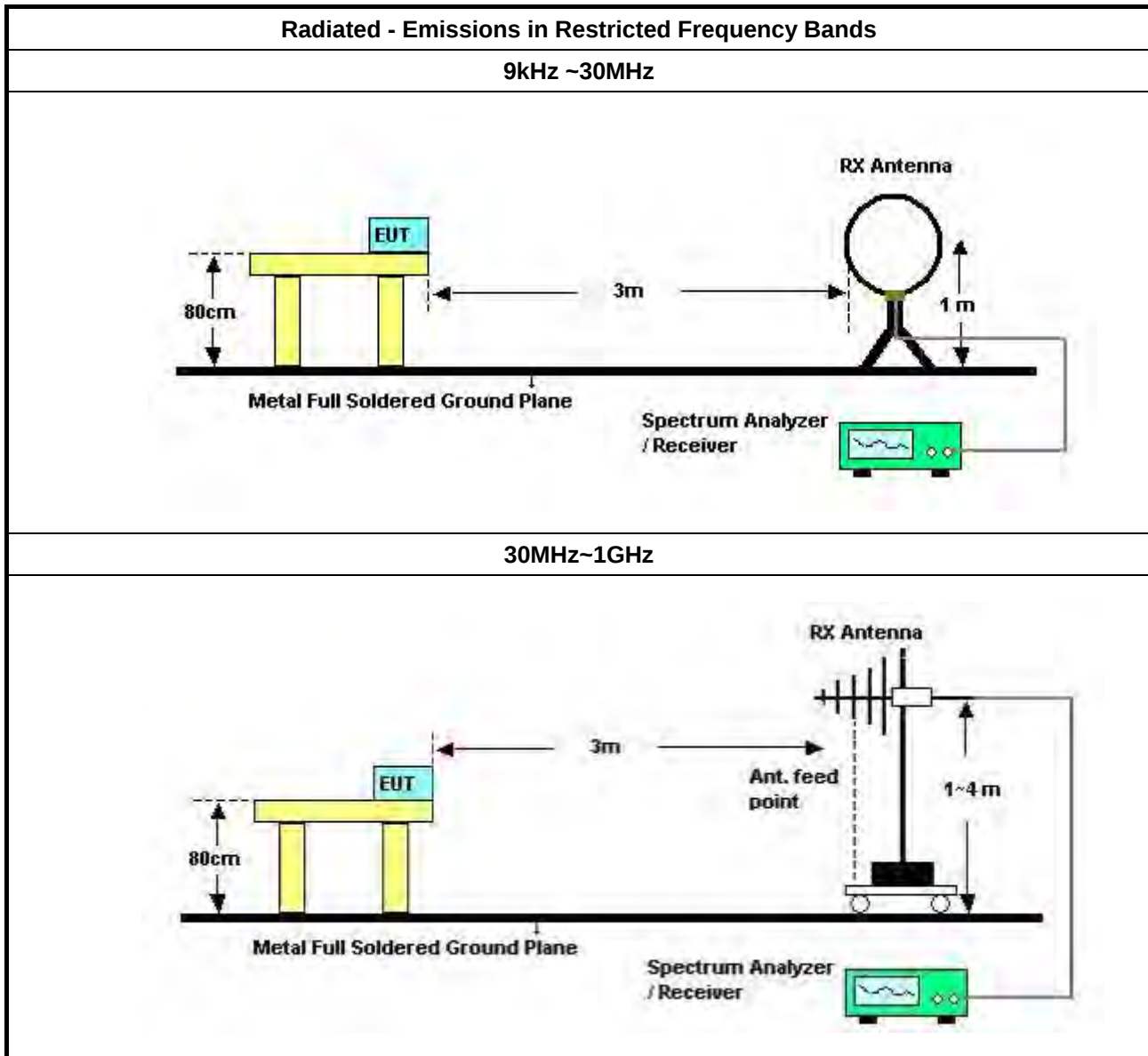
3.6.2 Measuring Instruments

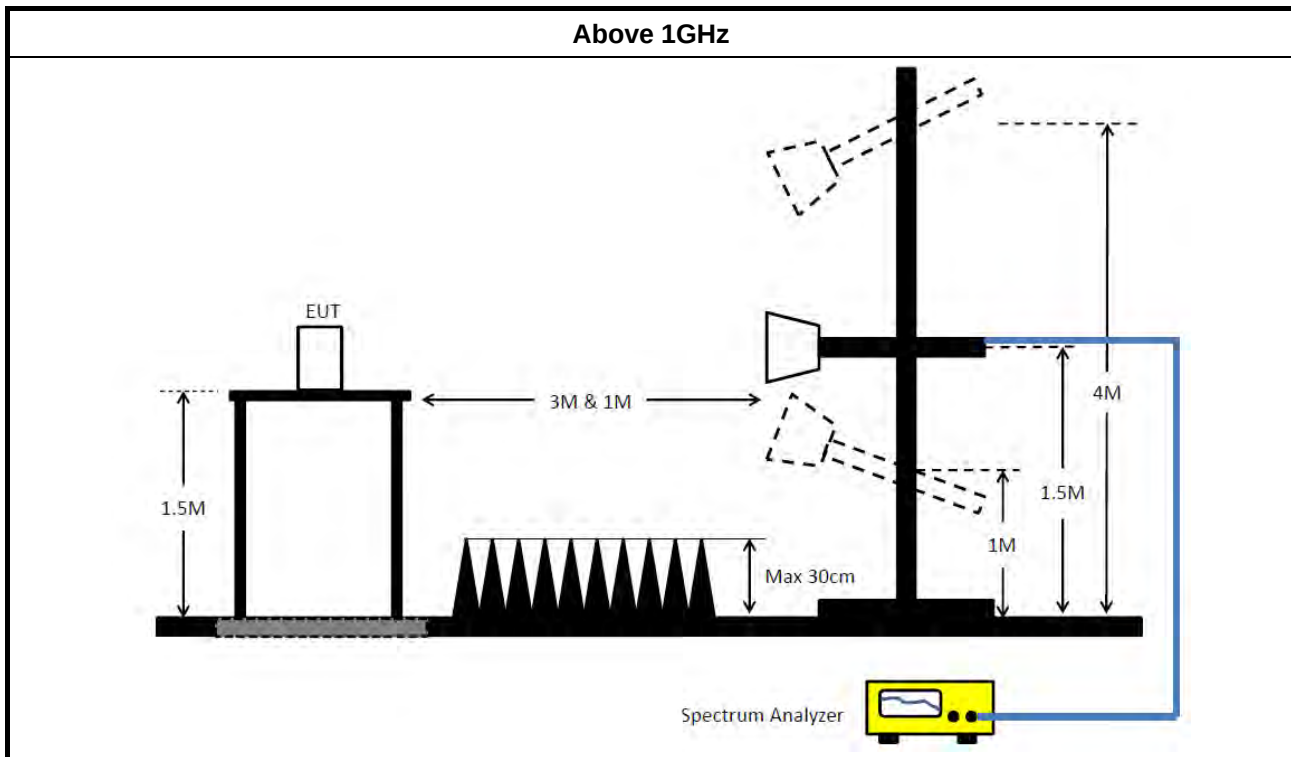
Refer a test equipment and calibration data table in this test report.

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 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.

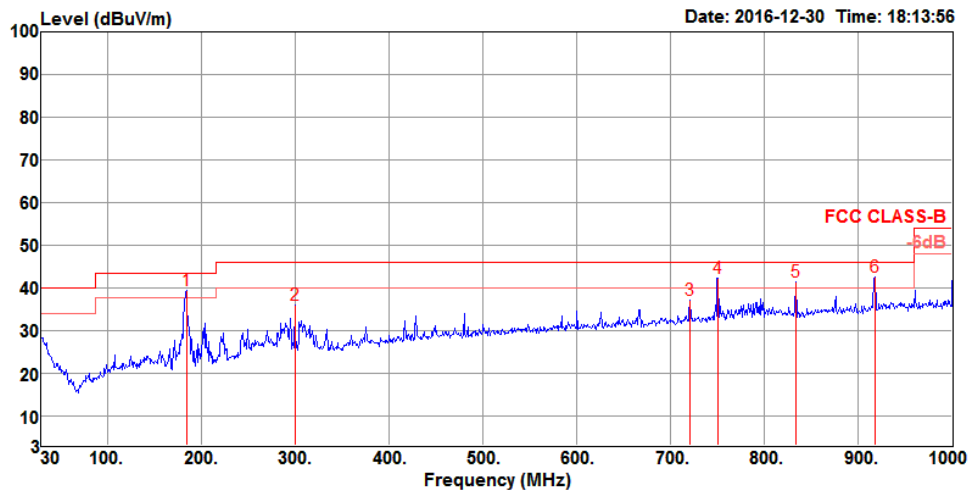
The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10 harmonic or 40 GHz, whichever is appropriate.



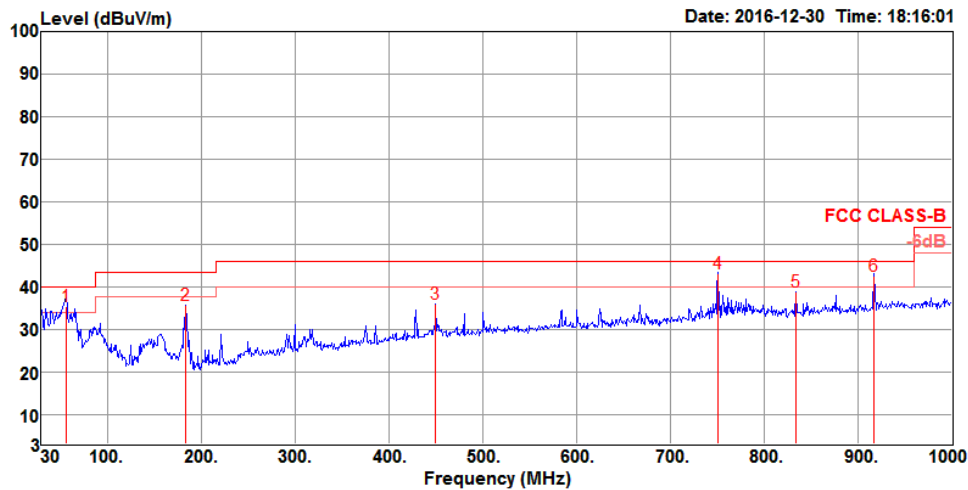
3.6.6 Test Result of Emissions in Restricted Frequency Bands (30MHz~1GHz)

Test Mode	Mode 5	Configurations	Normal Link
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Horizontal



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	184.23	39.23	43.50	-4.27	53.68	2.34	15.55	32.34	150	228 Peak	HORIZONTAL
2	299.66	35.78	46.00	-10.22	45.38	3.00	19.68	32.28	150	209 Peak	HORIZONTAL
3	720.64	37.18	46.00	-8.82	38.88	4.78	25.83	32.31	300	239 Peak	HORIZONTAL
4	750.71	42.33	46.00	-3.67	43.63	4.87	26.10	32.27	150	212 Peak	HORIZONTAL
5	833.16	41.45	46.00	-4.55	41.47	5.14	26.87	32.03	100	187 Peak	HORIZONTAL
6	917.55	42.45	46.00	-3.55	41.02	5.45	27.50	31.52	100	97 Peak	HORIZONTAL

**Vertical**

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	Limit	Level	Loss	Factor	Factor			
				dB	dBuV	dB	dB/m	dB	cm	deg	
1	56.19	35.24	40.00	-4.76	53.04	1.24	13.34	32.38	150	255 QP	VERTICAL
2	183.26	35.50	43.50	-8.00	49.94	2.33	15.57	32.34	100	118 Peak	VERTICAL
3	450.01	35.83	46.00	-10.17	41.41	3.73	23.00	32.31	150	349 Peak	VERTICAL
4	750.71	42.94	46.00	-3.06	44.24	4.87	26.10	32.27	150	201 QP	VERTICAL
5	833.16	38.85	46.00	-7.15	38.87	5.14	26.87	32.03	100	166 Peak	VERTICAL
6	916.58	42.46	46.00	-3.54	41.03	5.45	27.50	31.52	100	111 QP	VERTICAL

Note:

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

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.



3.6.7 Test Result of Emissions in Restricted Frequency Bands (1GHz~10th Harmonic)

Refer as Appendix E

3.6.8 Test Result of Emissions in Restricted Frequency Bands (Band Edge)

Refer as Appendix E



4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz~8.45GHz	Jan. 27, 2016	Jan. 26, 2017	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 14, 2016	Dec. 13, 2017	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz~30MHz	Dec. 23, 2015	Dec. 22, 2016	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz~30MHz	Dec. 21, 2016	Dec. 20, 2017	Conduction (CO01-CB)
COND Cable	Woken	Cable	01	150kHz~ 30MHz	May 24, 2016	May 23, 2017	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
BILOG ANTENNA with 6dB Attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37880 & AT-N0609	20MHz ~ 2GHz	Aug. 30, 2016	Aug. 29, 2017	Radiation (03CH01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2016*	Mar. 15, 2018	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz~18GHz	Nov. 01, 2013	Oct. 31, 2014	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Oct. 22, 2015	Oct. 21, 2016	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Nov. 13, 2018	Nov. 12, 2019	Radiation (03CH01-CB)
Horn Antenna	SCHWARZBE AK	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Dec. 17, 2013	Dec. 16, 2014	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 21, 2015	Jul. 20, 2016	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jun. 28, 2018	Jun. 27, 2019	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8447D	2944A10991	0.1MHz ~ 1.3GHz	Mar. 15, 2016	Mar. 14, 2017	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Dec. 16, 2013	Dec. 15, 2014	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 18, 2016	Jan. 17, 2017	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 08, 2019	Jan. 07, 2020	Radiation (03CH01-CB)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Pre-Amplifier	WM	TF-130N-R1	923365	26GHz ~ 40GHz	Oct. 23, 2013	Oct. 22, 2014	Radiation (03CH01-CB)
Pre-Amplifier	WM	TF-130N-R1	923365	26GHz ~ 40GHz	Nov. 13, 2015	Nov. 12, 2016	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-H G	1864479	18GHz ~ 40GHz	Jul. 04, 2018	Jul. 03, 2019	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSP40	100019	9kHz~40GHz	Dec. 02, 2013	Dec. 01, 2014	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Oct. 27, 2015	Oct. 26, 2016	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Jan. 31, 2019	Jan. 30, 2020	Radiation (03CH01-CB)
EMI Test	R&S	ESCS	100355	9kHz ~ 2.75GHz	May 16, 2016	May 15, 2017	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-16+17	N/A	30 MHz ~ 1 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-1	N/A	1 GHz ~ 26.5 GHz	Nov. 17, 2013	Nov. 16, 2014	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-2	N/A	1 GHz ~ 26.5 GHz	Nov. 17, 2013	Nov. 16, 2014	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Nov. 02, 2015	Nov. 01, 2016	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-17	N/A	1 GHz ~ 18 GHz	Nov. 02, 2015	Nov. 01, 2016	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-3	N/A	1 GHz - 40 GHz	Nov. 17, 2013	Nov. 16, 2014	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-4	N/A	1 GHz - 40 GHz	Nov. 17, 2013	Nov. 16, 2014	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)
RF Cable-high	Woken	High Cable-40G-1	N/A	18GHz ~ 40 GHz	Nov. 02, 2015	Nov. 01, 2016	Radiation (03CH01-CB)
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/A	N/A	N/A	Radiation (03CH01-CB)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Signal analyzer	R&S	FSV40	100979	9kHz~40GHz	Nov. 29, 2013	Nov. 28, 2014	Conducted (TH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 09, 2015	Dec. 08, 2016	Conducted (TH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Feb. 25, 2019	Feb. 24, 2020	Conducted (TH01-CB)
RF Power Divider	Woken	3 Way	MDC2366	2GHz ~ 18GHz	Nov. 17, 2013	Nov. 16, 2014	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-6	1 GHz – 26.5 GHz	Nov. 02, 2015	Nov. 01, 2016	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	High Cable-7	-	1 GHz – 26.5 GHz	Nov. 17, 2013	Nov. 16, 2014	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-7	1 GHz – 26.5 GHz	Nov. 02, 2015	Nov. 01, 2016	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	High Cable-8	-	1 GHz – 26.5 GHz	Nov. 17, 2013	Nov. 16, 2014	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-8	1 GHz – 26.5 GHz	Nov. 02, 2015	Nov. 01, 2016	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	High Cable-9	-	1 GHz – 26.5 GHz	Nov. 17, 2013	Nov. 16, 2014	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-9	1 GHz – 26.5 GHz	Nov. 02, 2015	Nov. 01, 2016	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	High Cable-10	-	1 GHz – 26.5 GHz	Nov. 17, 2013	Nov. 16, 2014	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz – 26.5 GHz	Nov. 02, 2015	Nov. 01, 2016	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	High Cable-11	-	1 GHz – 26.5 GHz	Nov. 17, 2013	Nov. 16, 2014	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)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Power Sensor	Anritsu	MA2411B	0917223	300MHz~40GHz	Sep. 18, 2013	Sep. 17, 2014	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 02, 2015	Nov. 01, 2016	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410002	50MHz~18GHz	Nov. 05, 2018	Nov. 04, 2019	Conducted (TH01-CB)
Power Meter	Anritsu	ML2495A	1035008	300MHz~40GHz	Sep. 18, 2013	Sep. 17, 2014	Conducted (TH01-CB)

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

“*” Calibration Interval of instruments listed above is two years.

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

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	10.075M	13.893M	13M9G1D	10.05M	13.868M
802.11g_Nss1,(6Mbps)_1TX	16.35M	16.642M	16M6D1D	16.35M	16.592M
802.11n HT20_Nss1,(MCS0)_3TX	17.6M	17.816M	17M8D1D	17.575M	17.716M
802.11n HT40_Nss1,(MCS0)_3TX	36.35M	36.332M	36M3D1D	35.7M	36.282M

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

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

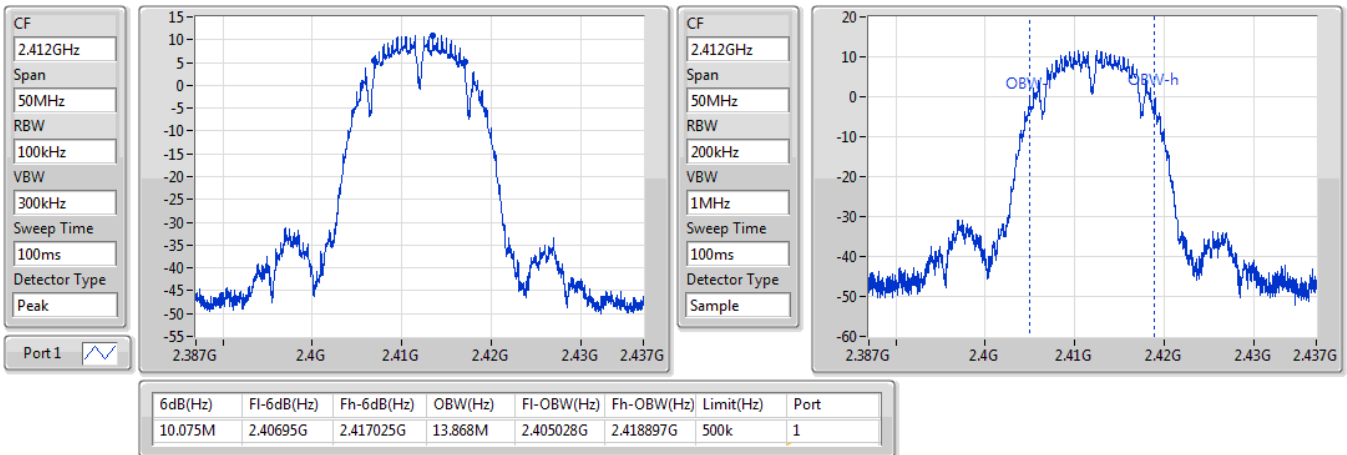
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	10.075M	13.868M				
2437MHz	Pass	500k	10.075M	13.868M				
2462MHz	Pass	500k	10.05M	13.893M				
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	16.35M	16.642M				
2437MHz	Pass	500k	16.35M	16.592M				
2462MHz	Pass	500k	16.35M	16.617M				
802.11n HT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	17.6M	17.766M	17.6M	17.766M	17.575M	17.716M
2437MHz	Pass	500k	17.575M	17.791M	17.575M	17.816M	17.575M	17.741M
2462MHz	Pass	500k	17.6M	17.791M	17.575M	17.791M	17.6M	17.741M
802.11n HT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	36.35M	36.282M	36.05M	36.282M	36.3M	36.332M
2437MHz	Pass	500k	36.3M	36.332M	35.75M	36.332M	36M	36.332M
2452MHz	Pass	500k	36M	36.332M	35.7M	36.282M	36.05M	36.332M

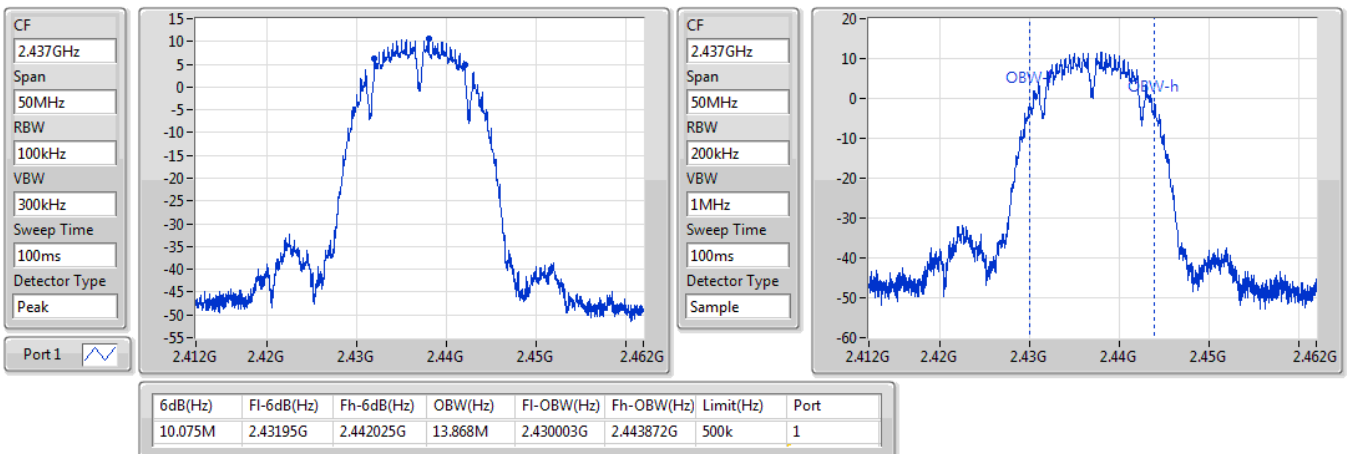
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

802.11b_Nss1,(1Mbps)_1TX
EBW
2412MHz

17/05/2019

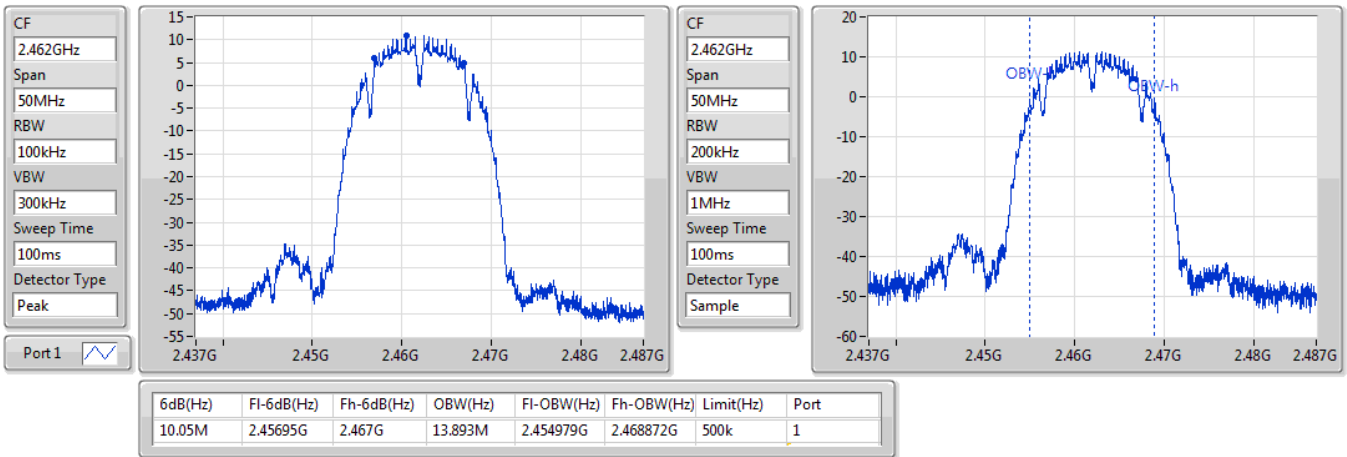

802.11b_Nss1,(1Mbps)_1TX
EBW
2437MHz

17/05/2019

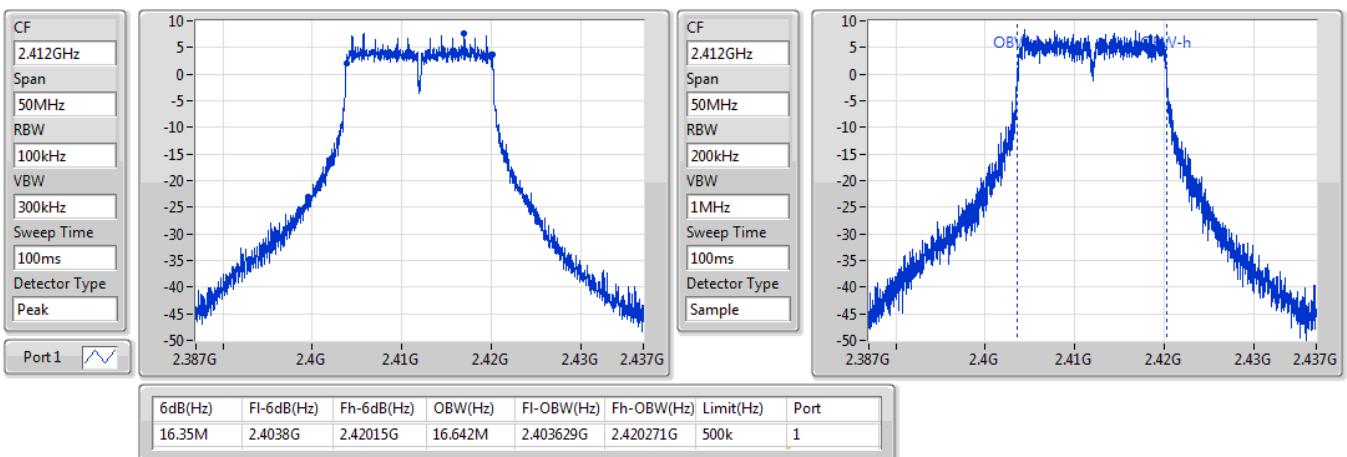


802.11b_Nss1,(1Mbps)_1TX
EBW
2462MHz

17/05/2019

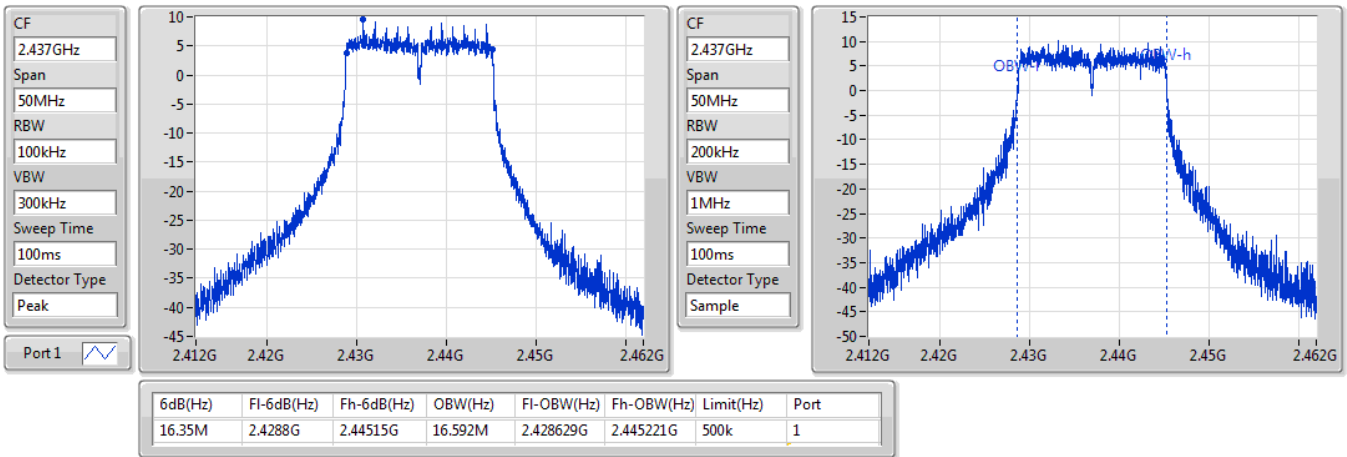

802.11g_Nss1,(6Mbps)_1TX
EBW
2412MHz

17/05/2019

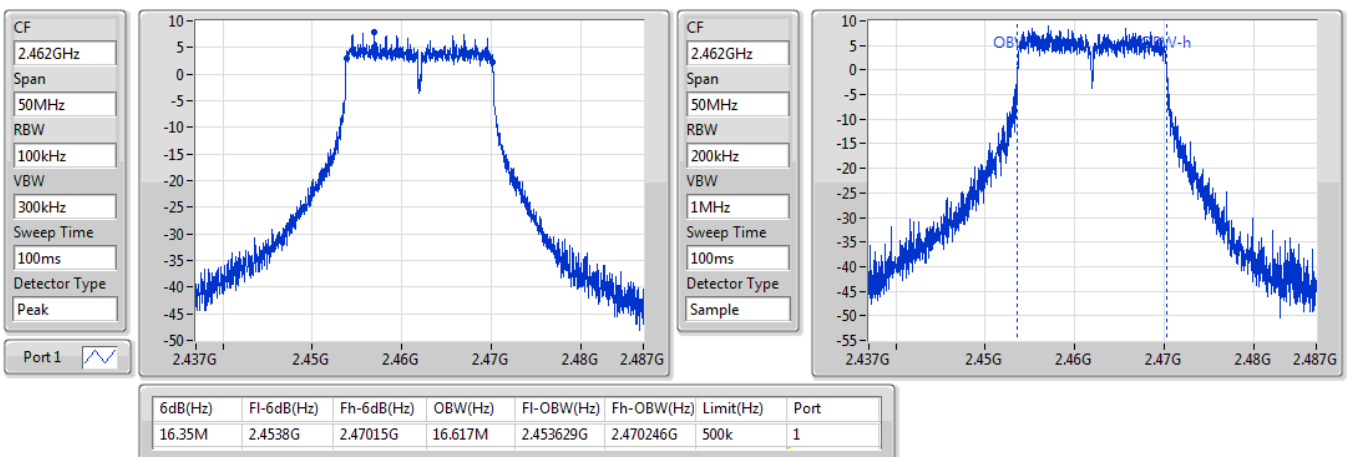


802.11g_Nss1,(6Mbps)_1TX
EBW
2437MHz

17/05/2019

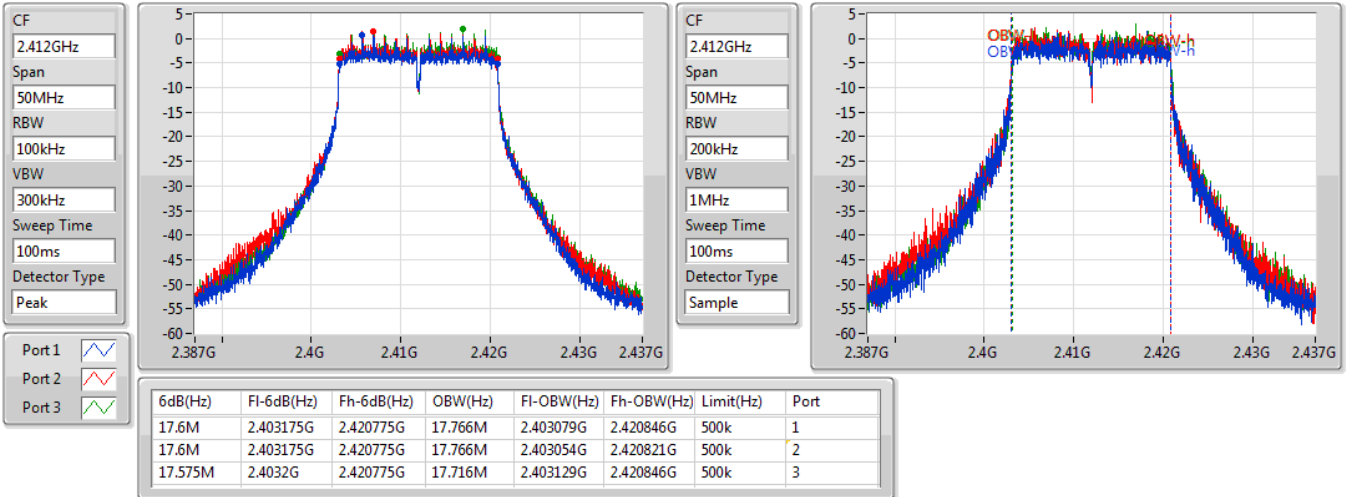

802.11g_Nss1,(6Mbps)_1TX
EBW
2462MHz

17/05/2019

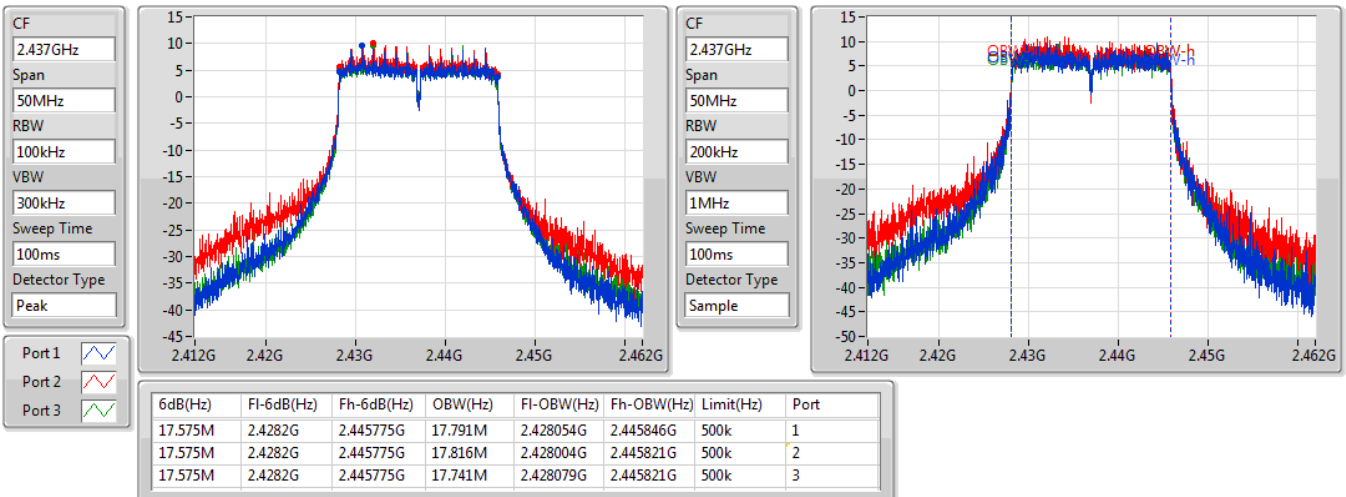


802.11n HT20_Nss1,(MCS0)_3TX
EBW
2412MHz

17/05/2019

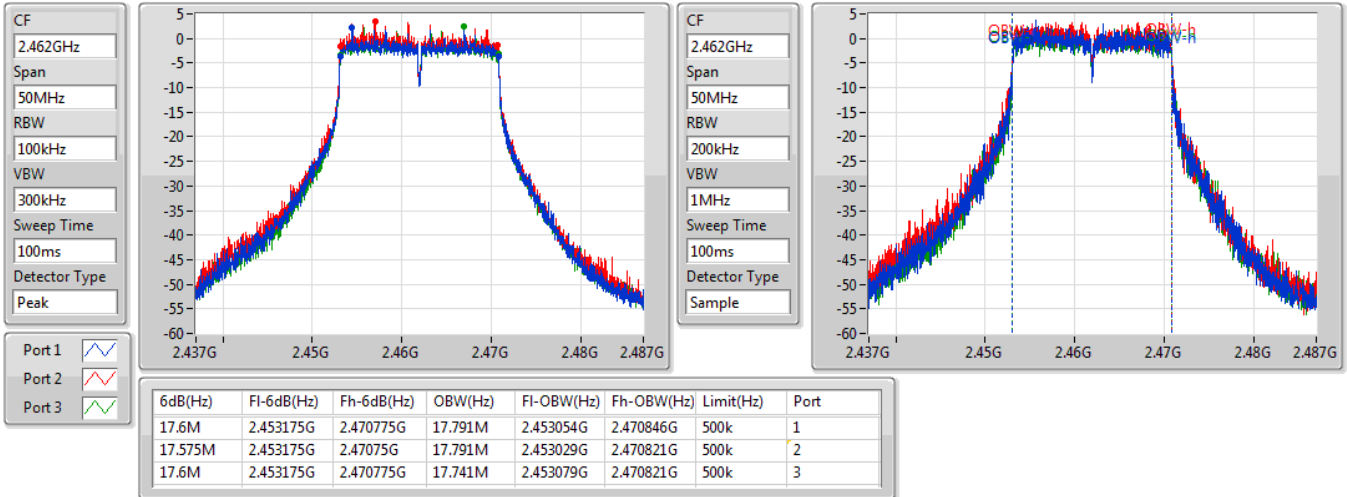

802.11n HT20_Nss1,(MCS0)_3TX
EBW
2437MHz

17/05/2019

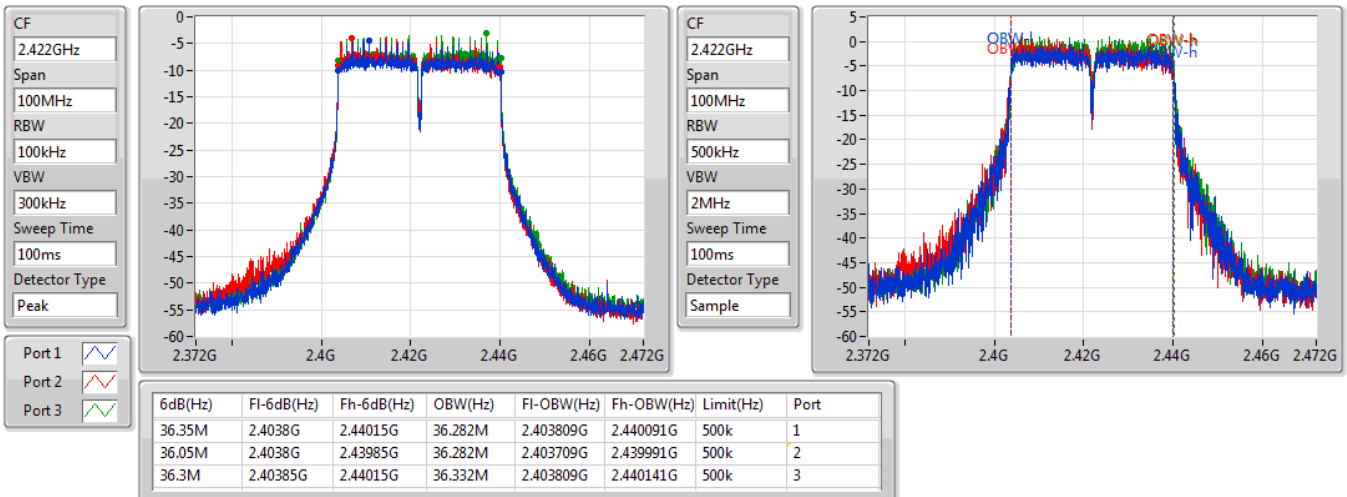


802.11n HT20_Nss1,(MCS0)_3TX
EBW
2462MHz

17/05/2019

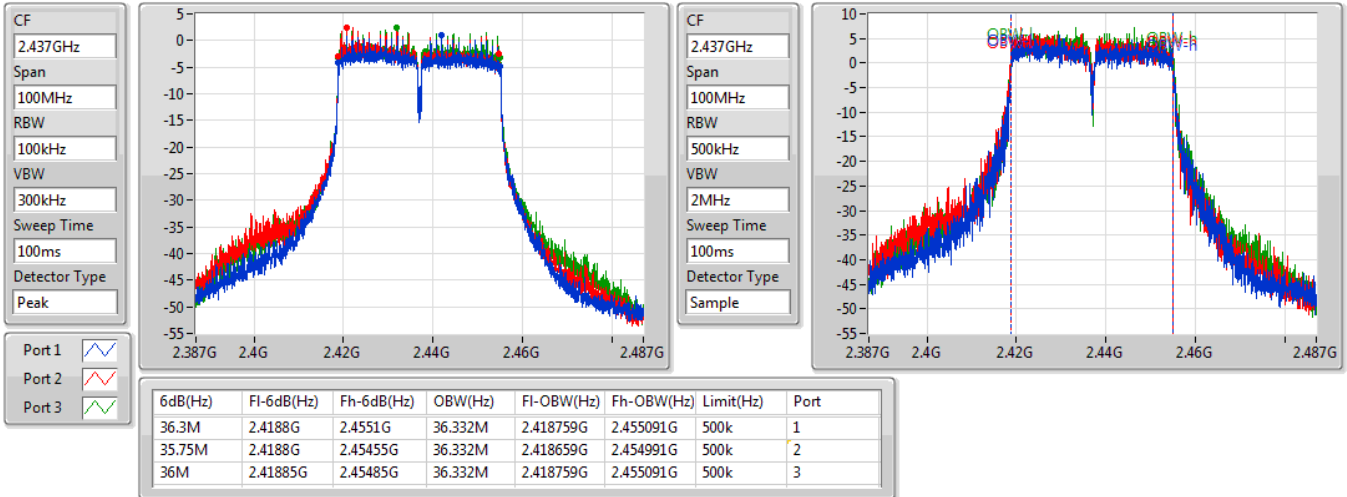

802.11n HT40_Nss1,(MCS0)_3TX
EBW
2422MHz

17/05/2019

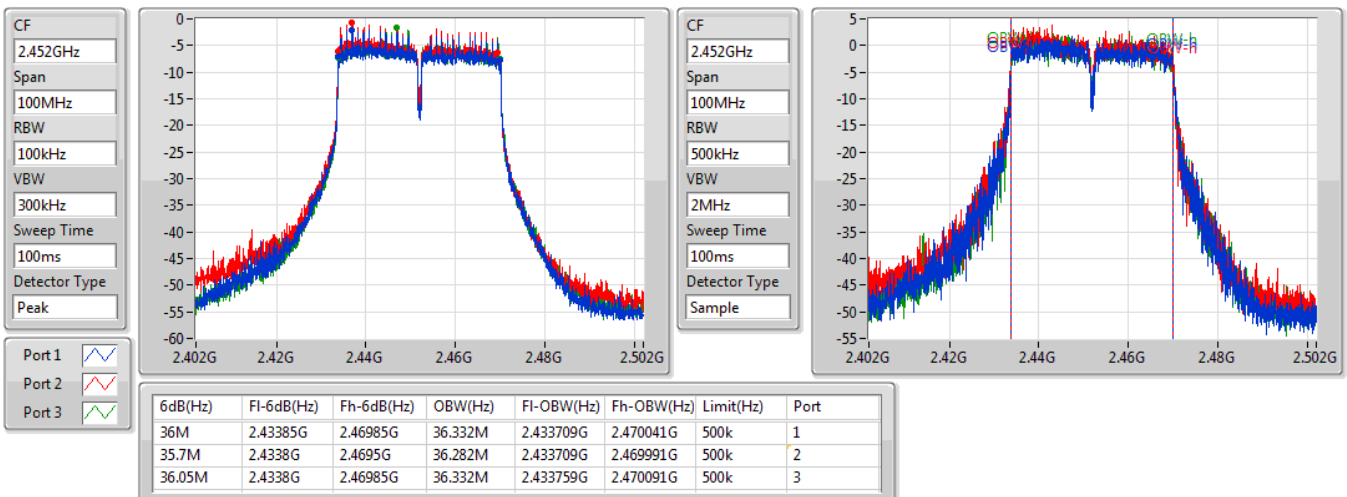


802.11n HT40_Nss1,(MCS0)_3TX
EBW
2437MHz

17/05/2019


802.11n HT40_Nss1,(MCS0)_3TX
EBW
2452MHz

17/05/2019



Configuration IEEE 802.11n MCS0 HT20 / Ant. 1 + Ant. 2 + Ant. 3

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	17.62	18.76	500	Complies
6	2437 MHz	17.62	18.84	500	Complies
11	2462 MHz	17.74	18.76	500	Complies

Configuration IEEE 802.11n MCS0 HT40 / Ant. 1 + Ant. 2 + Ant. 3

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
3	2422 MHz	35.48	38.49	500	Complies
6	2437 MHz	35.48	38.49	500	Complies
9	2452 MHz	35.48	38.35	500	Complies

Configuration IEEE 802.11b / Ant. 1

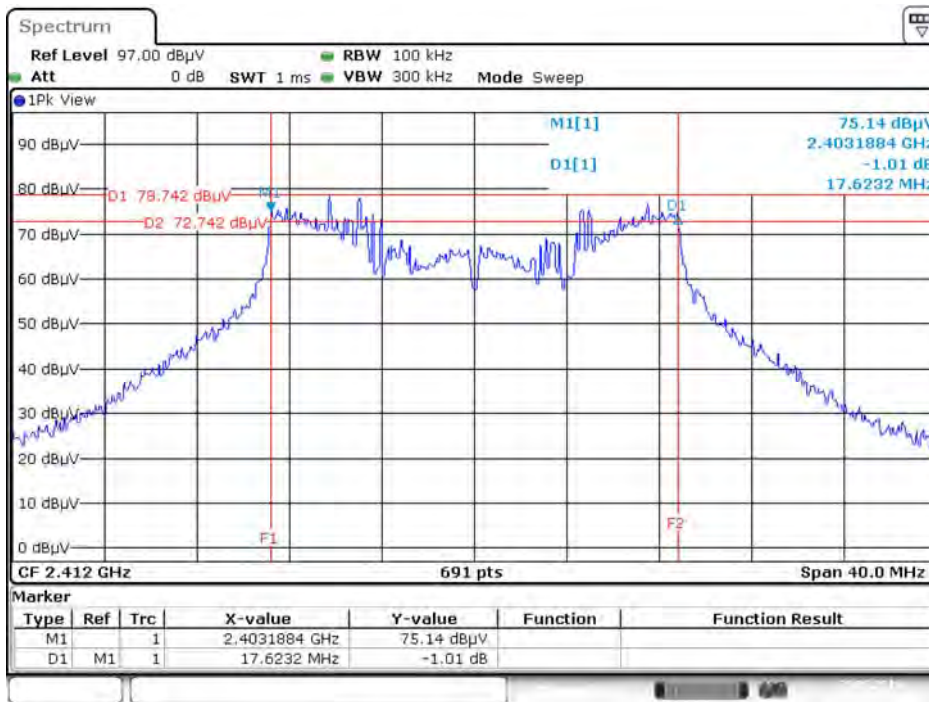
Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	10.03	13.89	500	Complies
6	2437 MHz	10.03	13.89	500	Complies
11	2462 MHz	9.80	13.89	500	Complies

Configuration IEEE 802.11g / Ant. 1

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	16.35	17.28	500	Complies
6	2437 MHz	16.35	17.28	500	Complies
11	2462 MHz	16.35	17.28	500	Complies

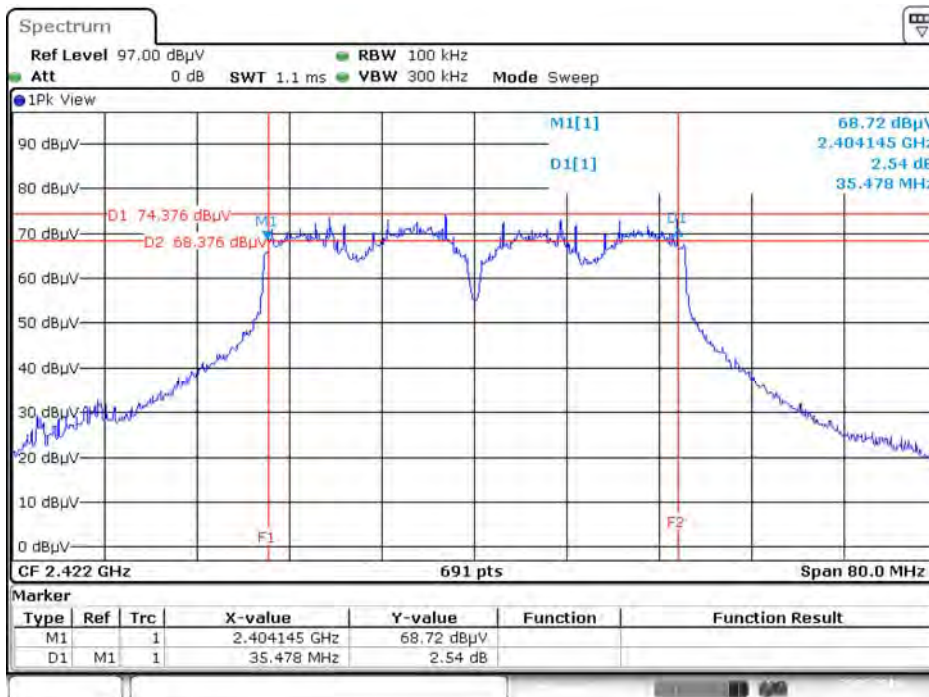
Note: All the test values were listed in the report.
For plots, only the channel with worse result was shown.

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 HT20 / 2412 MHz / Ant. 1 + Ant. 2 + Ant. 3



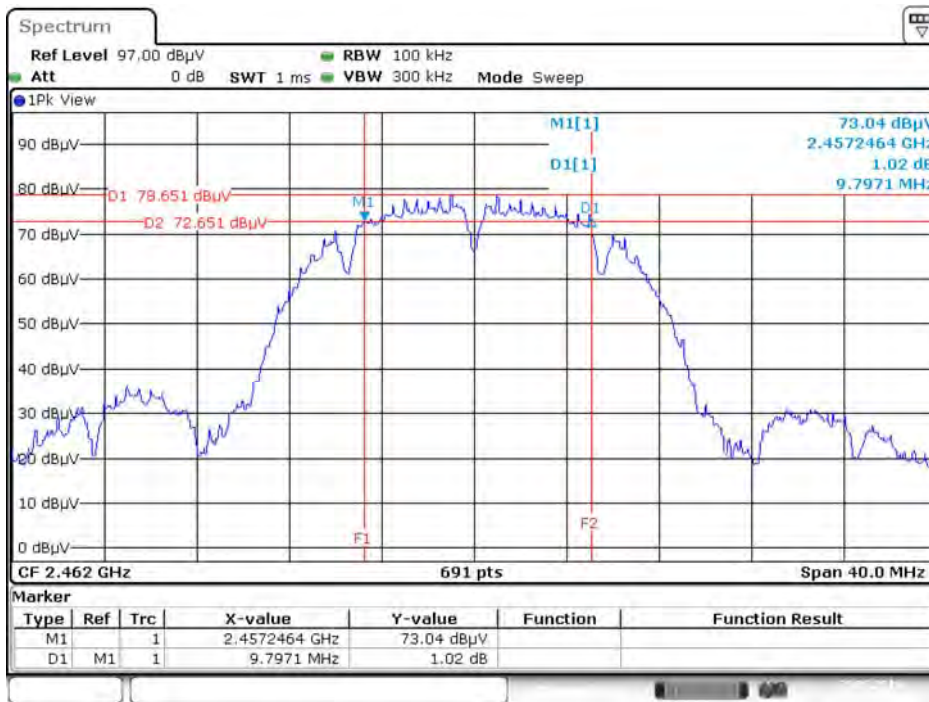
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6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 HT40 / 2422 MHz / Ant. 1 + Ant. 2 + Ant. 3

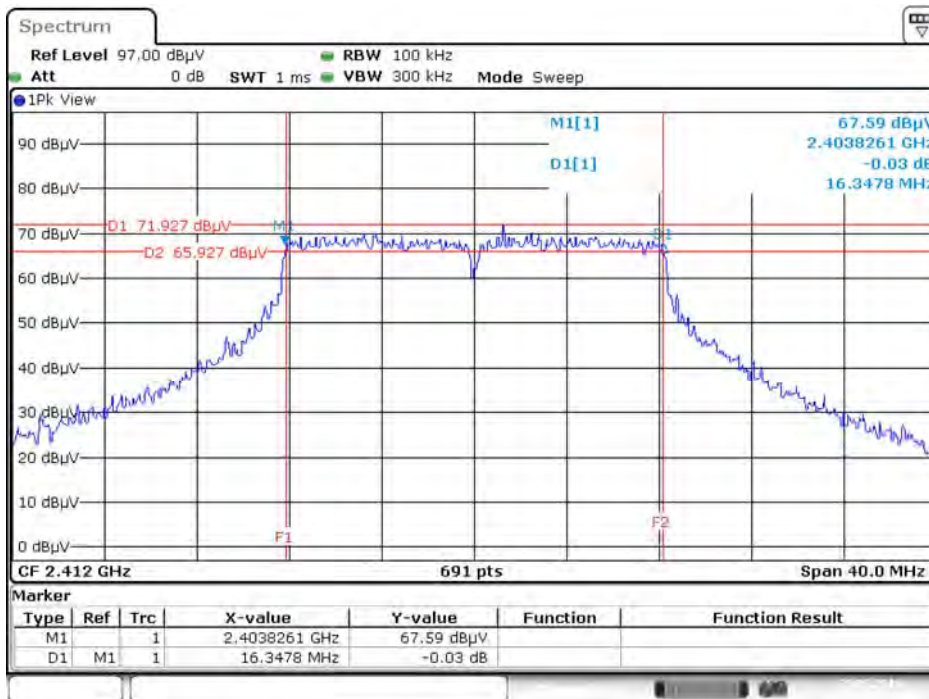


Date: 31.MAY.2016 15:05:34

6 dB Bandwidth Plot on Configuration IEEE 802.11b / 2462 MHz / Ant. 1



6 dB Bandwidth Plot on Configuration IEEE 802.11g / 2412 MHz / Ant. 1



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	10.075M	14.968M	15M0G1D	10.05M	14.018M
802.11g_Nss1,(6Mbps)_1TX	16.425M	16.867M	16M9D1D	16.325M	16.617M
802.11n HT20_Nss1,(MCS0)_3TX	17.575M	18.366M	18M4D1D	17.3M	17.766M
802.11n HT40_Nss1,(MCS0)_3TX	36.3M	36.532M	36M5D1D	35.65M	36.282M

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

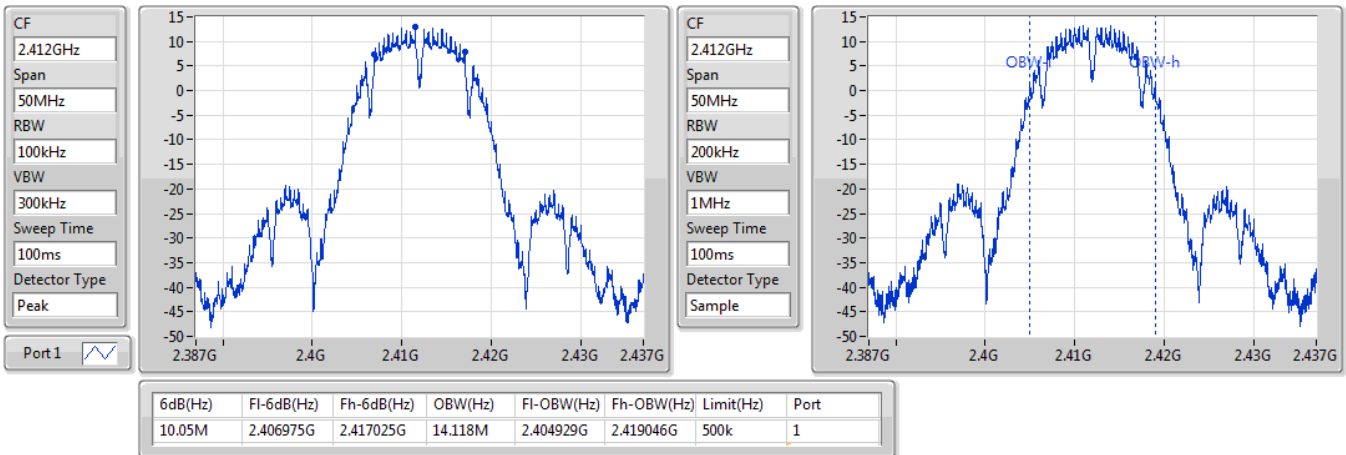
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	10.05M	14.118M				
2437MHz	Pass	500k	10.075M	14.968M				
2462MHz	Pass	500k	10.075M	14.018M				
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	16.325M	16.617M				
2437MHz	Pass	500k	16.35M	16.867M				
2462MHz	Pass	500k	16.425M	16.692M				
802.11n HT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	17.575M	17.791M	17.575M	17.766M	17.575M	17.766M
2437MHz	Pass	500k	17.575M	17.891M	17.3M	18.366M	17.575M	17.966M
2462MHz	Pass	500k	17.55M	17.816M	17.575M	17.766M	17.575M	17.791M
802.11n HT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	36.3M	36.332M	36.3M	36.382M	36.3M	36.382M
2437MHz	Pass	500k	36.3M	36.382M	35.9M	36.282M	36.3M	36.432M
2452MHz	Pass	500k	35.95M	36.532M	35.65M	36.332M	36.3M	36.382M

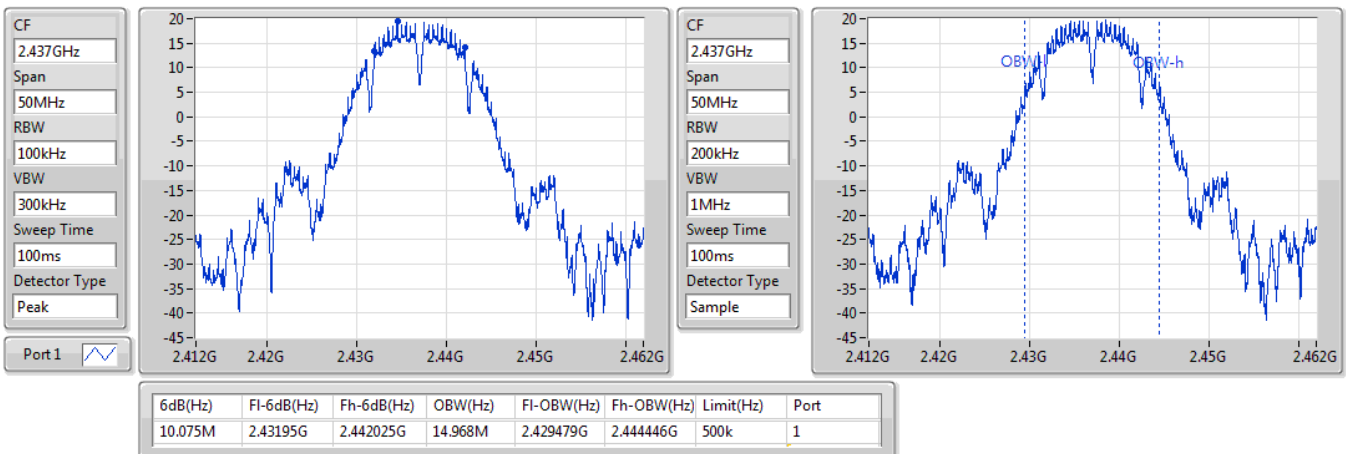
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

802.11b_Nss1,(1Mbps)_1TX
EBW
2412MHz

22/05/2019

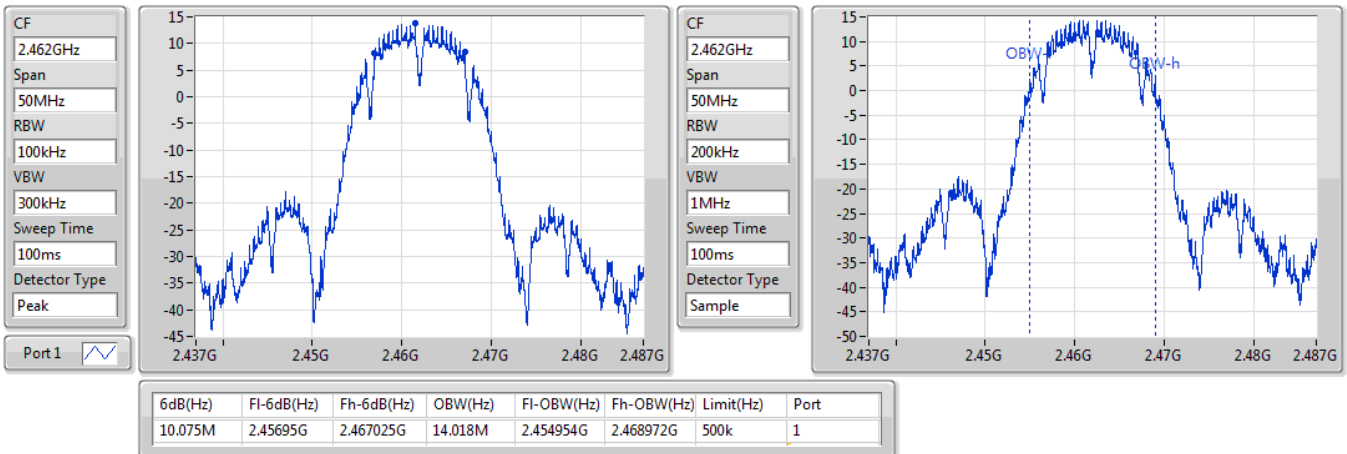

802.11b_Nss1,(1Mbps)_1TX
EBW
2437MHz

22/05/2019

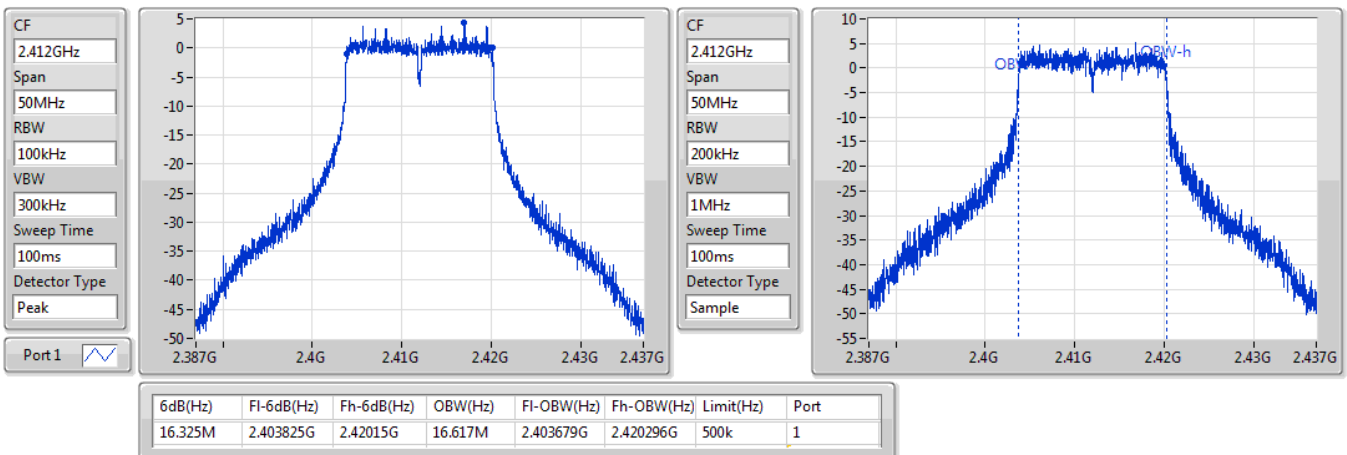


802.11b_Nss1,(1Mbps)_1TX
EBW
2462MHz

22/05/2019

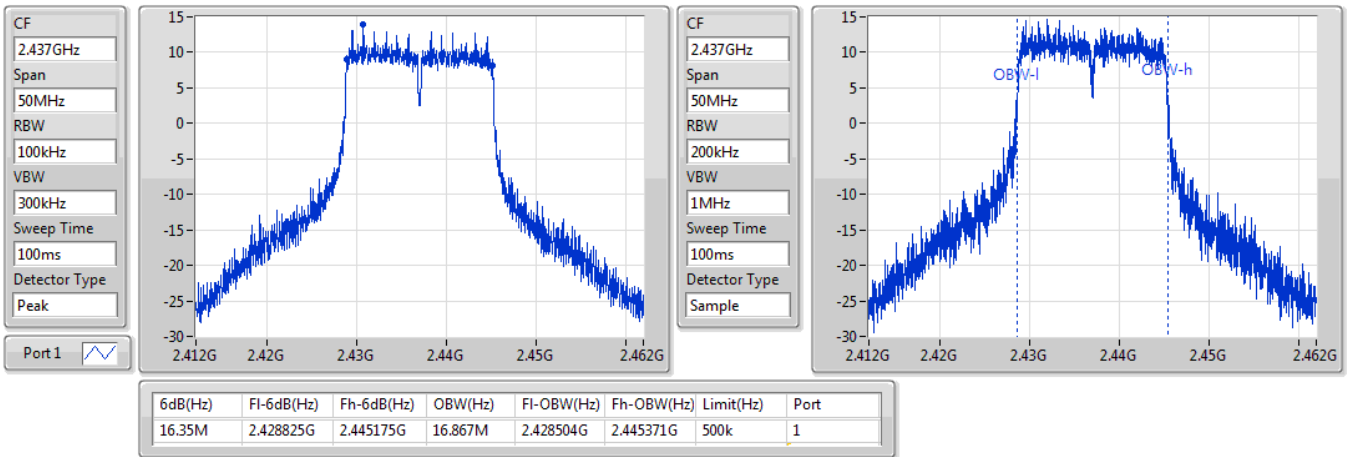

802.11g_Nss1,(6Mbps)_1TX
EBW
2412MHz

22/05/2019

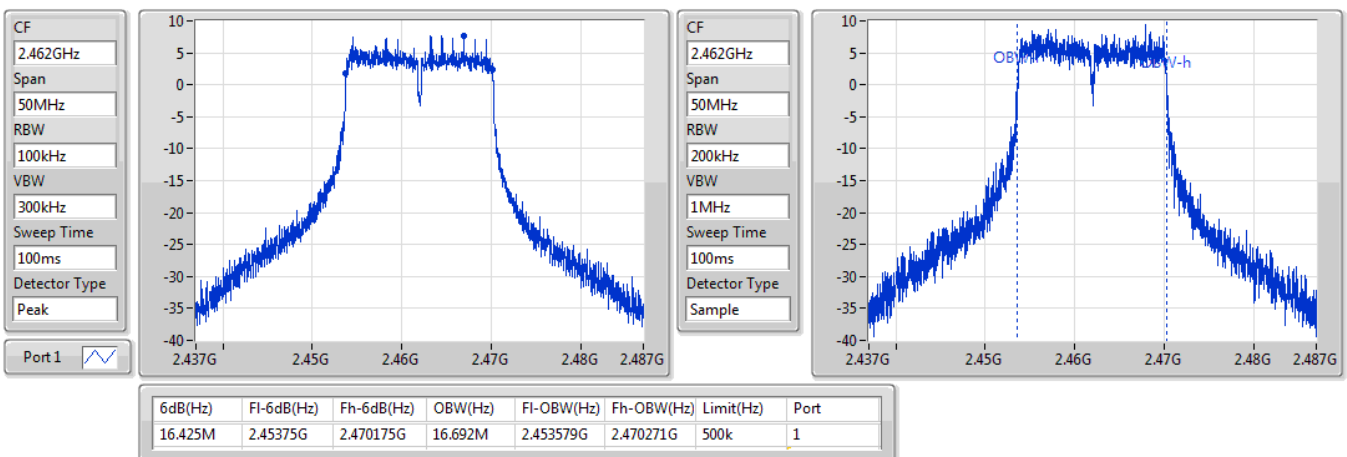


802.11g_Nss1,(6Mbps)_1TX
EBW
2437MHz

22/05/2019

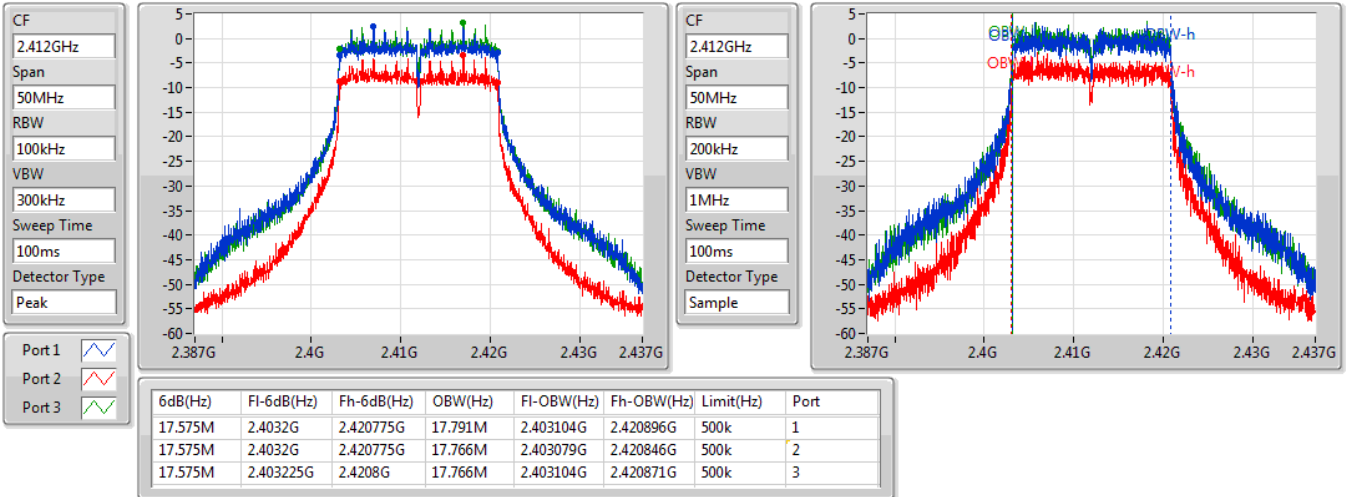

802.11g_Nss1,(6Mbps)_1TX
EBW
2462MHz

22/05/2019

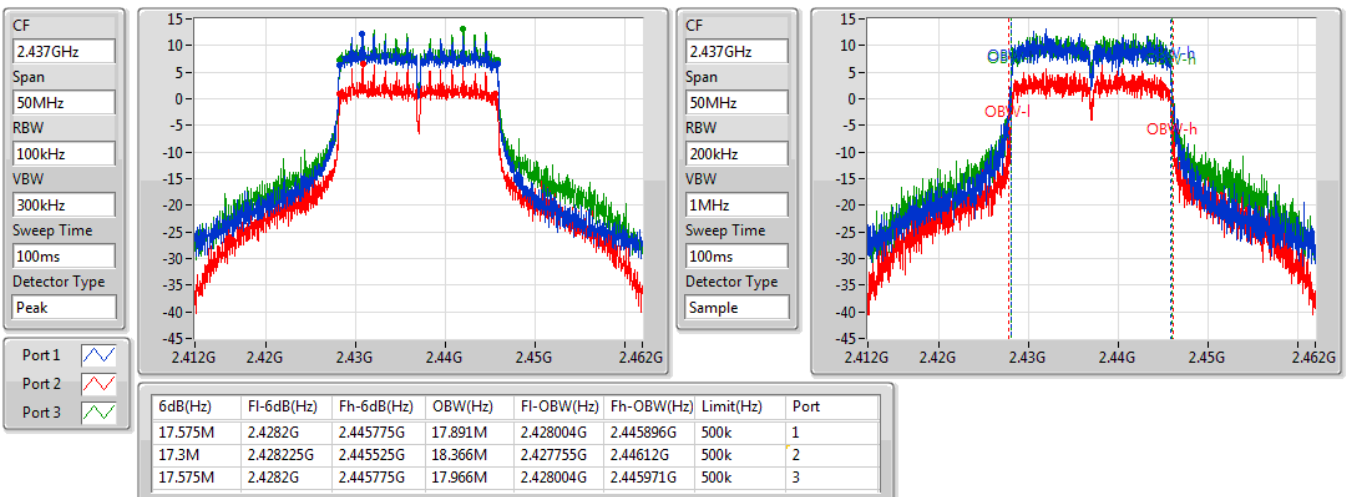


802.11n HT20_Nss1,(MCS0)_3TX
EBW
2412MHz

22/05/2019

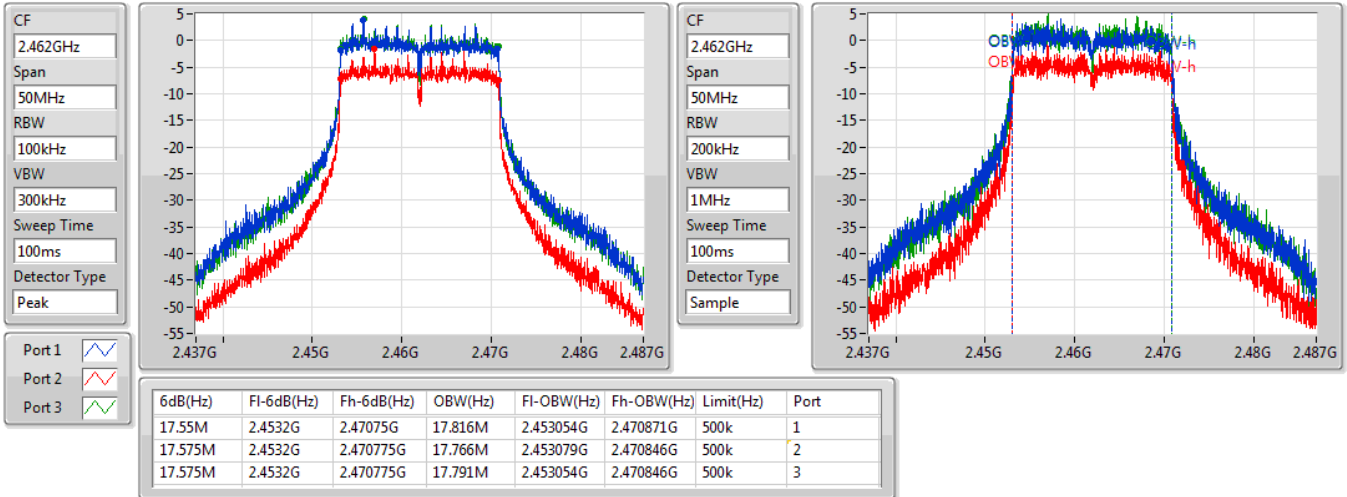

802.11n HT20_Nss1,(MCS0)_3TX
EBW
2437MHz

22/05/2019

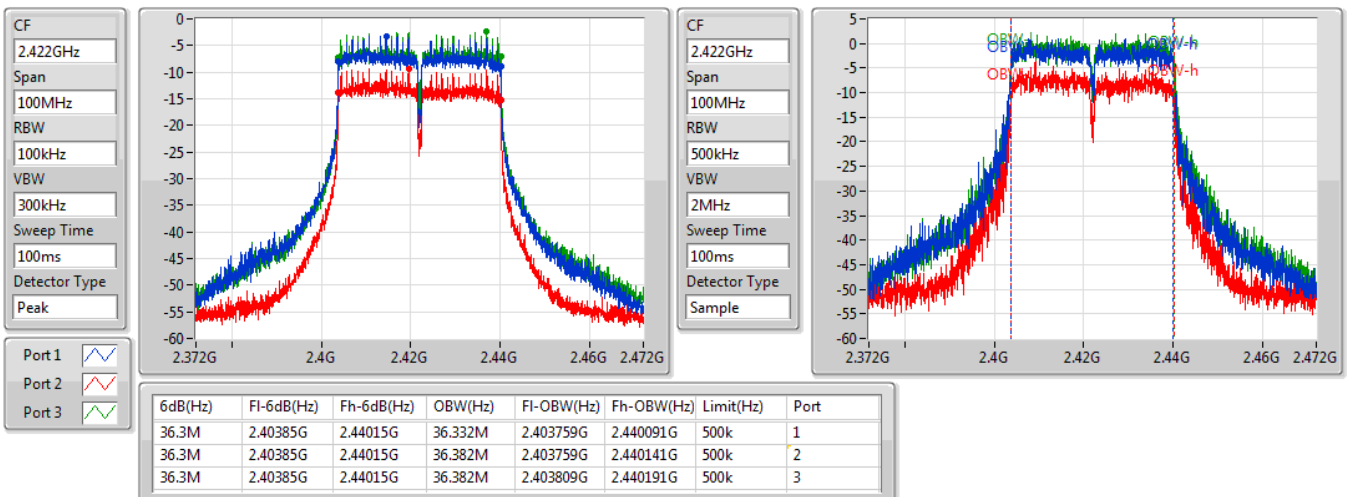


802.11n HT20_Nss1,(MCS0)_3TX
EBW
2462MHz

22/05/2019

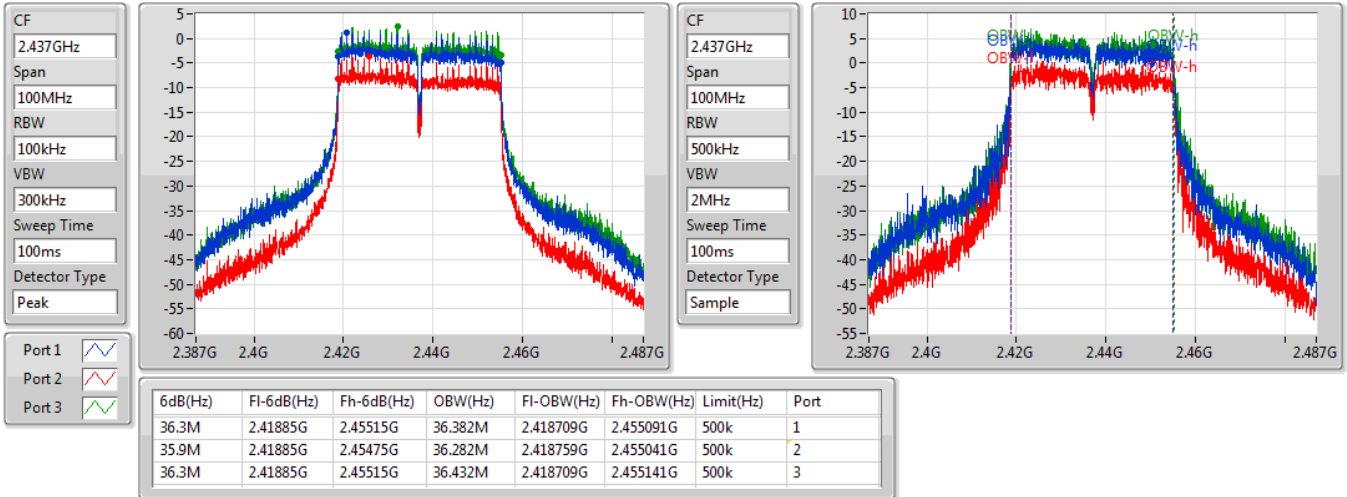

802.11n HT40_Nss1,(MCS0)_3TX
EBW
2422MHz

22/05/2019

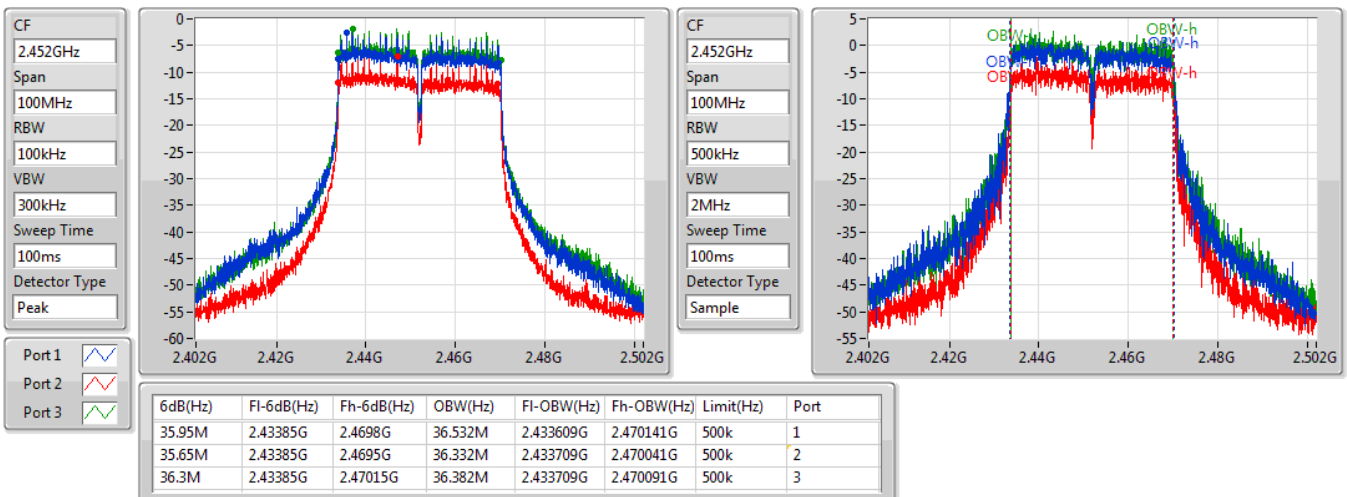


802.11n HT40_Nss1,(MCS0)_3TX
EBW
2437MHz

22/05/2019


802.11n HT40_Nss1,(MCS0)_3TX
EBW
2452MHz

22/05/2019





Average Power For Mode 1

Appendix B.1

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX	21.16	0.13062
802.11g_Nss1,(6Mbps)_1TX	21.46	0.13996
802.11n HT20_Nss1,(MCS0)_3TX	26.52	0.44875
802.11n HT40_Nss1,(MCS0)_3TX	21.59	0.14421

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	3.30	21.11			21.11	30.00
2437MHz	Pass	3.30	21.16			21.16	30.00
2462MHz	Pass	3.30	21.13			21.13	30.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	3.30	19.86			19.86	30.00
2437MHz	Pass	3.30	21.46			21.46	30.00
2462MHz	Pass	3.30	19.97			19.97	30.00
802.11n HT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	6.00	12.52	13.65	13.60	18.06	30.00
2417MHz	Pass	6.00	18.10	18.80	18.98	23.41	30.00
2437MHz	Pass	6.00	21.35	22.16	21.70	26.52	30.00
2457MHz	Pass	6.00	16.22	17.14	16.66	21.46	30.00
2462MHz	Pass	6.00	14.59	15.77	15.13	19.96	30.00
802.11n HT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2422MHz	Pass	6.00	10.67	11.13	11.69	15.95	30.00
2427MHz	Pass	6.00	11.49	12.55	12.65	17.03	30.00
2437MHz	Pass	6.00	16.41	16.93	17.08	21.59	30.00
2447MHz	Pass	6.00	14.47	15.23	15.31	19.79	30.00
2452MHz	Pass	6.00	12.62	13.71	12.96	17.89	30.00

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

Configuration IEEE 802.11n MCS0 HT20

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Ant. 1	Ant. 2	Ant. 3	Total		
1	2412 MHz	14.32	14.60	15.13	19.47	29.31	Complies
2	2417 MHz	8.90	9.49	9.41	14.05	29.31	Complies
6	2437 MHz	19.83	19.87	20.86	24.98	29.31	Complies
10	2457 MHz	9.18	9.91	9.23	14.22	29.31	Complies
11	2462 MHz	16.01	15.89	16.28	20.83	29.31	Complies

Configuration IEEE 802.11n MCS0 HT40

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Ant. 1	Ant. 2	Ant. 3	Total		
3	2422 MHz	13.08	13.12	13.92	18.16	29.31	Complies
6	2437 MHz	15.43	15.59	16.16	20.51	29.31	Complies
9	2452 MHz	14.31	14.68	15.36	19.58	29.31	Complies

Configuration IEEE 802.11b / Ant. 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	20.25	29.64	Complies
6	2437 MHz	20.34	29.64	Complies
11	2462 MHz	20.41	29.64	Complies

Configuration IEEE 802.11g / Ant. 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	16.14	29.64	Complies
2	2417 MHz	9.73	29.64	Complies
6	2437 MHz	20.11	29.64	Complies
11	2462 MHz	17.58	29.64	Complies

Note:

802.11b/g: Ant. Gain=6.36dBi, so limit =30-(6.36-6)=29.64 dBm

802.11n: Ant. Gain=6.69dBi, so limit =30-(6.69-6)=29.31 dBm

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX	29.12	0.81658
802.11g_Nss1,(6Mbps)_1TX	25.51	0.35563
802.11n HT20_Nss1,(MCS0)_3TX	27.32	0.53951
802.11n HT40_Nss1,(MCS0)_3TX	20.00	0.10000

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	5.00	22.47			22.47	30.00
2417MHz	Pass	5.00	24.20			24.20	30.00
2437MHz	Pass	5.00	29.12			29.12	30.00
2457MHz	Pass	5.00	23.79			23.79	30.00
2462MHz	Pass	5.00	23.54			23.54	30.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	5.00	15.91			15.91	30.00
2417MHz	Pass	5.00	20.27			20.27	30.00
2437MHz	Pass	5.00	25.51			25.51	30.00
2457MHz	Pass	5.00	22.05			22.05	30.00
2462MHz	Pass	5.00	19.79			19.79	30.00
802.11n HT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	5.00	14.40	8.24	14.61	18.00	30.00
2417MHz	Pass	5.00	20.48	14.37	21.29	24.37	30.00
2437MHz	Pass	5.00	23.46	17.34	24.20	27.32	30.00
2457MHz	Pass	5.00	19.93	13.93	20.58	23.75	30.00
2462MHz	Pass	5.00	15.33	10.21	15.85	19.19	30.00
802.11n HT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2422MHz	Pass	5.00	11.39	5.85	12.32	15.40	30.00
2427MHz	Pass	5.00	14.58	8.91	15.66	18.65	30.00
2437MHz	Pass	5.00	15.98	10.89	16.83	20.00	30.00
2447MHz	Pass	5.00	13.11	8.16	13.84	17.09	30.00
2452MHz	Pass	5.00	12.03	7.54	12.69	16.04	30.00

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

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_1TX	-3.16
802.11g_Nss1,(6Mbps)_1TX	-3.90
802.11n HT20_Nss1,(MCS0)_3TX	-1.33
802.11n HT40_Nss1,(MCS0)_3TX	-8.50

RBW=3 kHz.

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	3.30	-3.16			-3.16	8.00
2437MHz	Pass	3.30	-3.59			-3.59	8.00
2462MHz	Pass	3.30	-3.76			-3.76	8.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	3.30	-4.95			-4.95	8.00
2437MHz	Pass	3.30	-4.19			-4.19	8.00
2462MHz	Pass	3.30	-3.90			-3.90	8.00
802.11n HT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	9.75	-11.59	-10.65	-12.94	-9.12	4.25
2437MHz	Pass	9.75	-3.84	-4.14	-3.39	-1.33	4.25
2462MHz	Pass	9.75	-11.24	-10.46	-11.41	-8.27	4.25
802.11n HT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2422MHz	Pass	9.75	-18.58	-17.22	-16.55	-14.13	4.25
2437MHz	Pass	9.75	-12.16	-9.52	-11.70	-8.50	4.25
2452MHz	Pass	9.75	-15.72	-14.92	-14.08	-12.29	4.25

DG = Directional Gain; RBW=3 kHz;

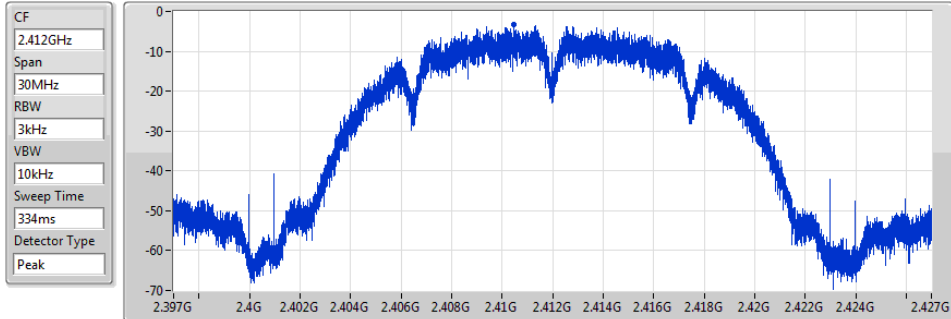
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

802.11b_Nss1,(1Mbps)_1TX

PSD

2412MHz

17/05/2019



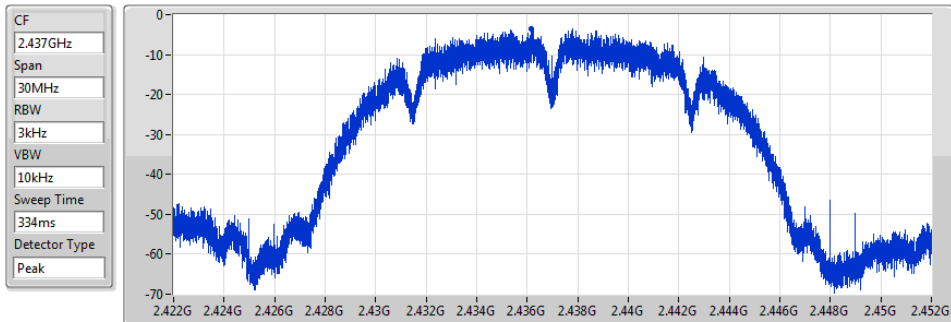
Sum	PD	Port 1
(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)
-3.16	-3.16	-3.16

802.11b_Nss1,(1Mbps)_1TX

PSD

2437MHz

17/05/2019



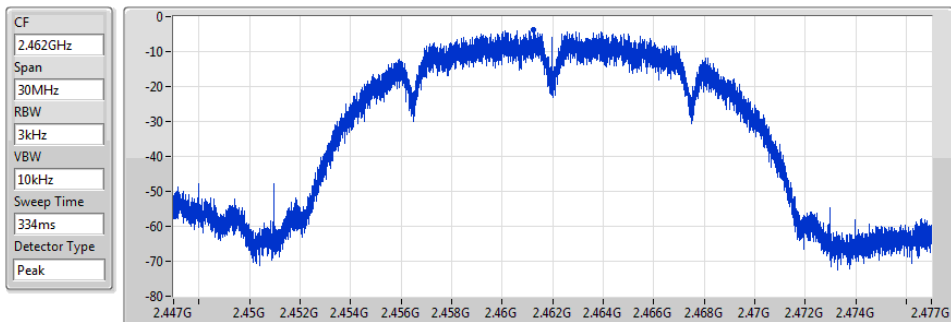
Sum	PD	Port 1
(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)
-3.59	-3.59	-3.59

802.11b_Nss1,(1Mbps)_1TX

PSD

2462MHz

17/05/2019



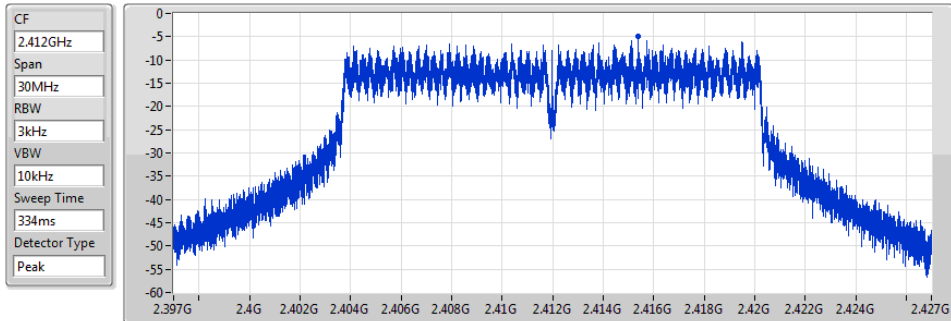
Sum	PD	Port 1
(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)
-3.76	-3.76	-3.76

802.11g_Nss1,(6Mbps)_1TX

PSD

2412MHz

17/05/2019



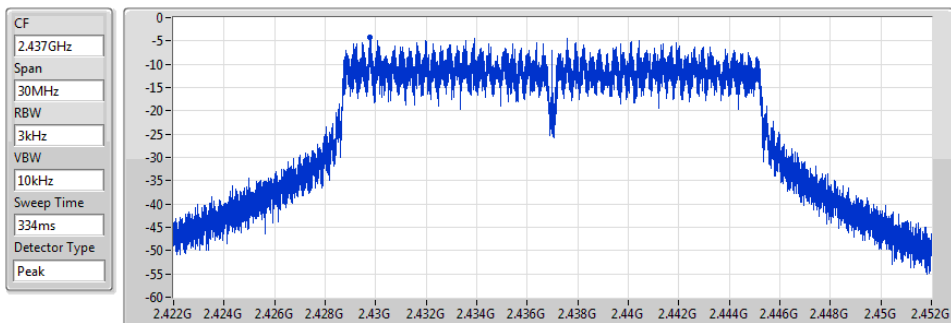
Sum	PD	Port1
(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)
-4.95	-4.95	-4.95

802.11g_Nss1,(6Mbps)_1TX

PSD

2437MHz

17/05/2019



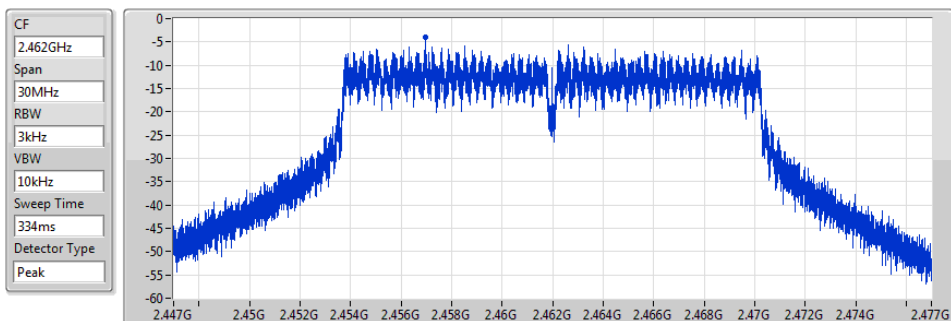
Sum	PD	Port1
(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)
-4.19	-4.19	-4.19

802.11g_Nss1,(6Mbps)_1TX

PSD

2462MHz

17/05/2019



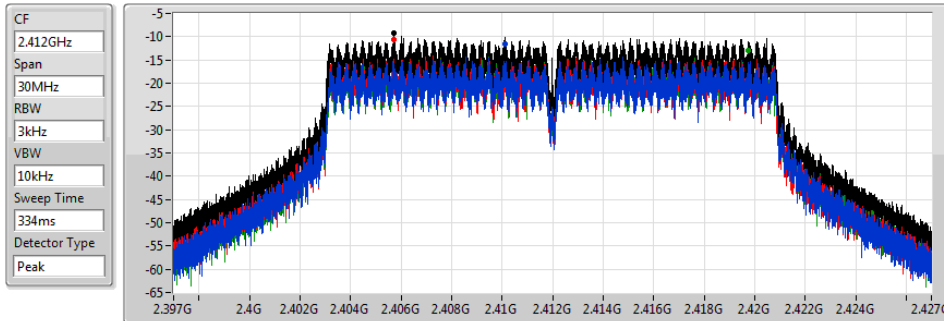
Sum	PD	Port1
(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)
-3.90	-3.90	-3.90

802.11n HT20_Nss1,(MCS0)_3TX

2412MHz

PSD

17/05/2019



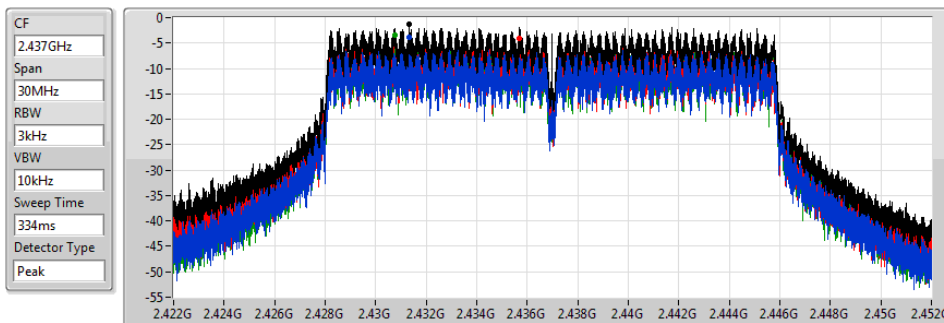
Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.12	-9.12	-11.59	-10.65	-12.94

802.11n HT20_Nss1,(MCS0)_3TX

2437MHz

PSD

17/05/2019



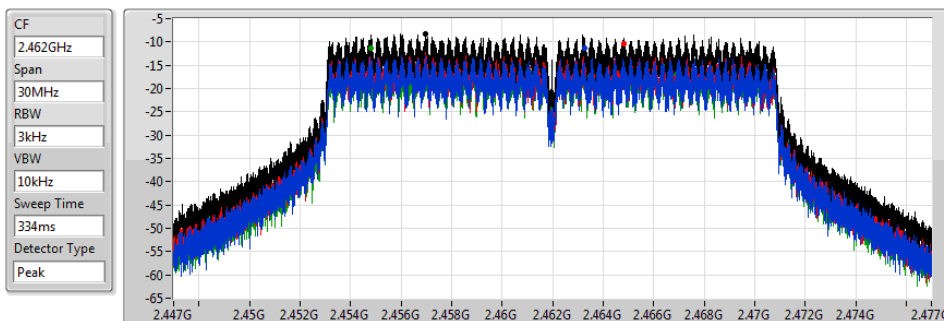
Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.33	-1.33	-3.84	-4.14	-3.39

802.11n HT20_Nss1,(MCS0)_3TX

2462MHz

PSD

17/05/2019



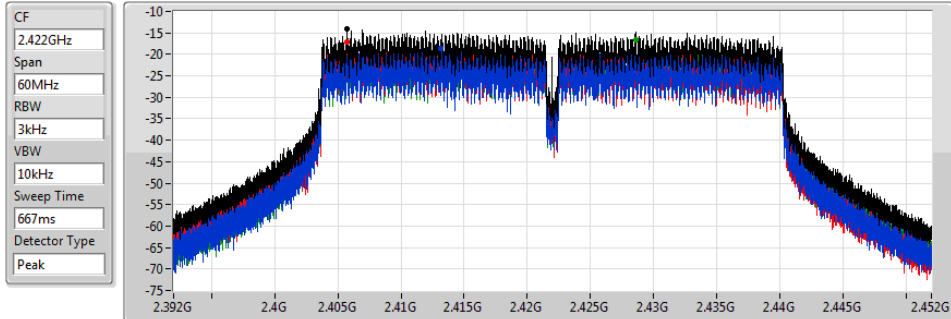
Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.27	-8.27	-11.24	-10.46	-11.41

802.11n HT40_Nss1,(MCS0)_3TX

PSD

2422MHz

17/05/2019



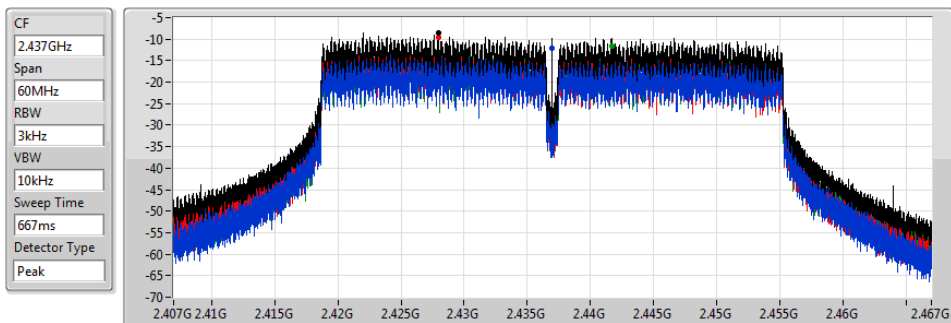
Sum	PD	Port 1	Port 2	Port 3
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-14.13	-14.13	-18.58	-17.22	-16.55

802.11n HT40_Nss1,(MCS0)_3TX

PSD

2437MHz

17/05/2019



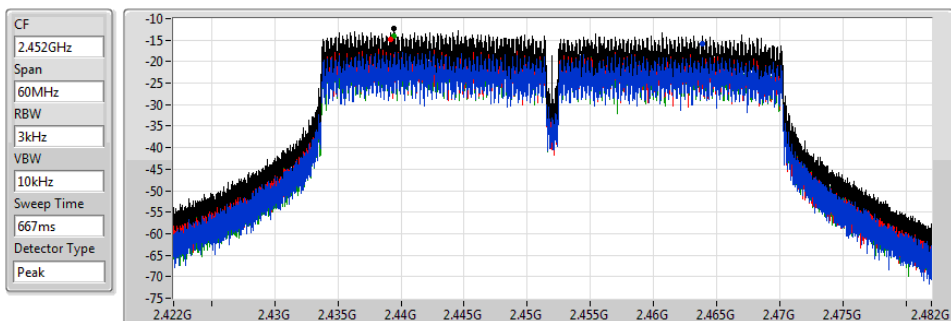
Sum	PD	Port 1	Port 2	Port 3
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-8.50	-8.50	-12.16	-9.52	-11.70

802.11n HT40_Nss1,(MCS0)_3TX

PSD

2452MHz

17/05/2019



Sum	PD	Port 1	Port 2	Port 3
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-12.29	-12.29	-15.72	-14.92	-14.08

Configuration IEEE 802.11n MCS0 HT20

Channel	Frequency	Power Density (dBm/3kHz)				Power Density Limit (dBm/3kHz)	Result
		Ant. 1	Ant. 2	Ant. 3	Total		
1	2412 MHz	-11.91	-11.67	-11.73	-7.00	3.25	Complies
6	2437 MHz	-6.84	-5.21	-5.73	-1.10	3.25	Complies
11	2462 MHz	-11.53	-10.53	-10.87	-6.19	3.25	Complies

Configuration IEEE 802.11n MCS0 HT40

Channel	Frequency	Power Density (dBm/3kHz)				Power Density Limit (dBm/3kHz)	Result
		Ant. 1	Ant. 2	Ant. 3	Total		
3	2422 MHz	-15.97	-16.95	-15.79	-11.44	3.25	Complies
6	2437 MHz	-14.45	-13.70	-14.01	-9.27	3.25	Complies
9	2452 MHz	-15.31	-15.40	-15.19	-10.53	3.25	Complies

Configuration IEEE 802.11b / Ant. 1

Channel	Frequency	Power Density (dBm/3kHz)	Power Density Limit (dBm/3kHz)	Result
1	2412 MHz	-4.13	7.64	Complies
6	2437 MHz	-4.94	7.64	Complies
11	2462 MHz	-4.57	7.64	Complies

Configuration IEEE 802.11g / Ant. 1

Channel	Frequency	Power Density (dBm/3kHz)	Power Density Limit (dBm/3kHz)	Result
1	2412 MHz	-10.21	7.64	Complies
6	2437 MHz	-5.49	7.64	Complies
11	2462 MHz	-8.70	7.64	Complies

Note:

802.11b/g: Ant. Gain: =6.36dBi, so limit =8-(6.36-6)=7.64 (dBm/3kHz)

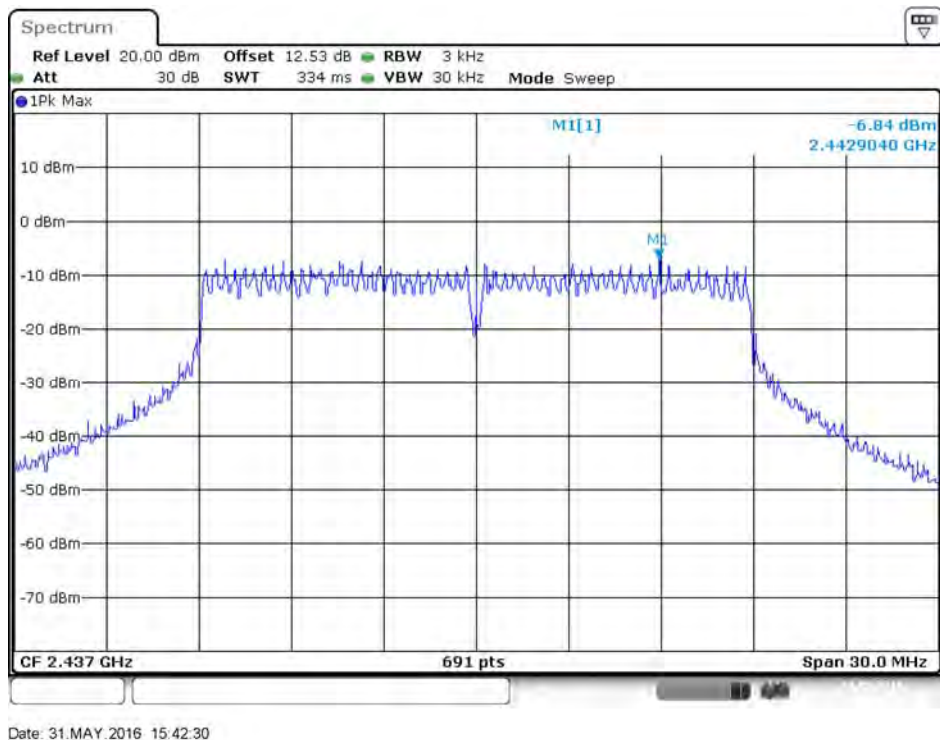
$$Directional\ Gain = 10\log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{K=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

802.11n: =10.75dBi, so limit =8-(10.75-6)=3.25 (dBm/3kHz)

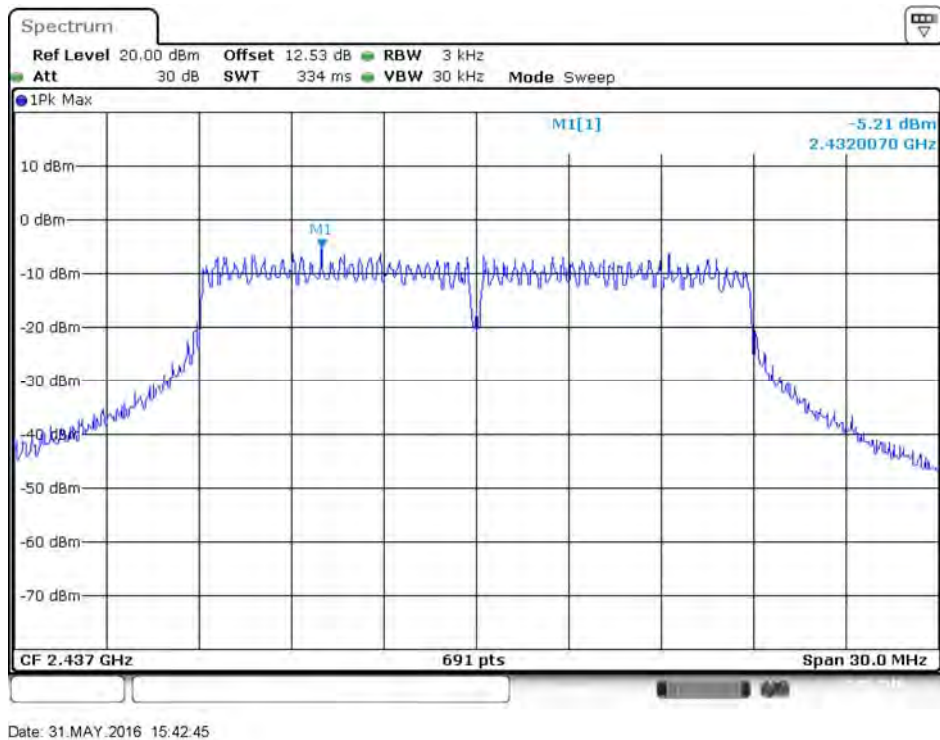
Note: All the test values were listed in the report.

For plots, only the channel with worse result was shown.

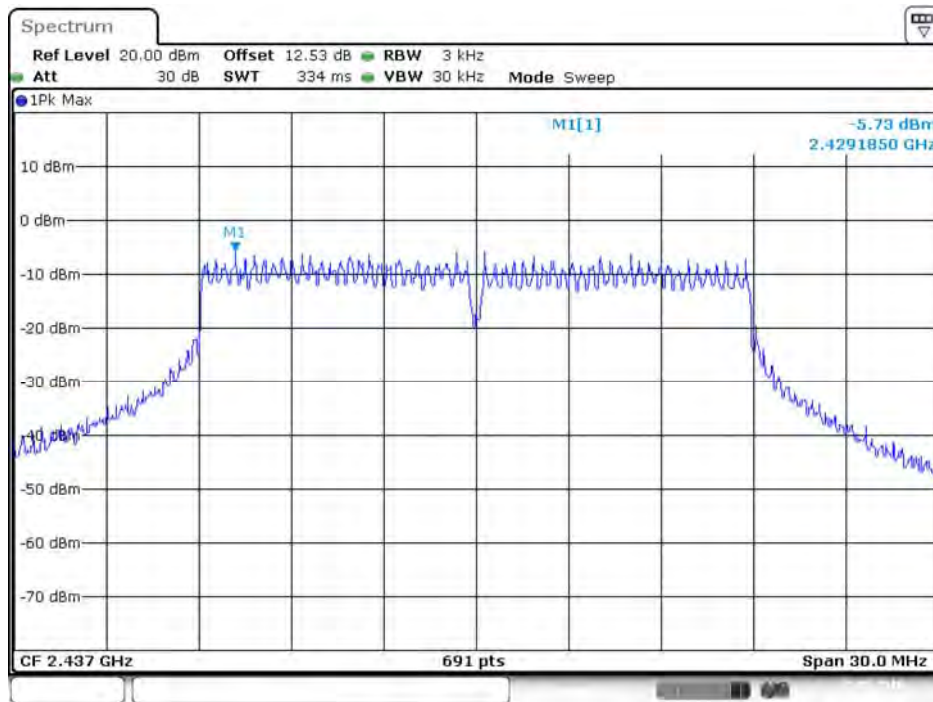
Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Ant. 1



Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Ant. 2

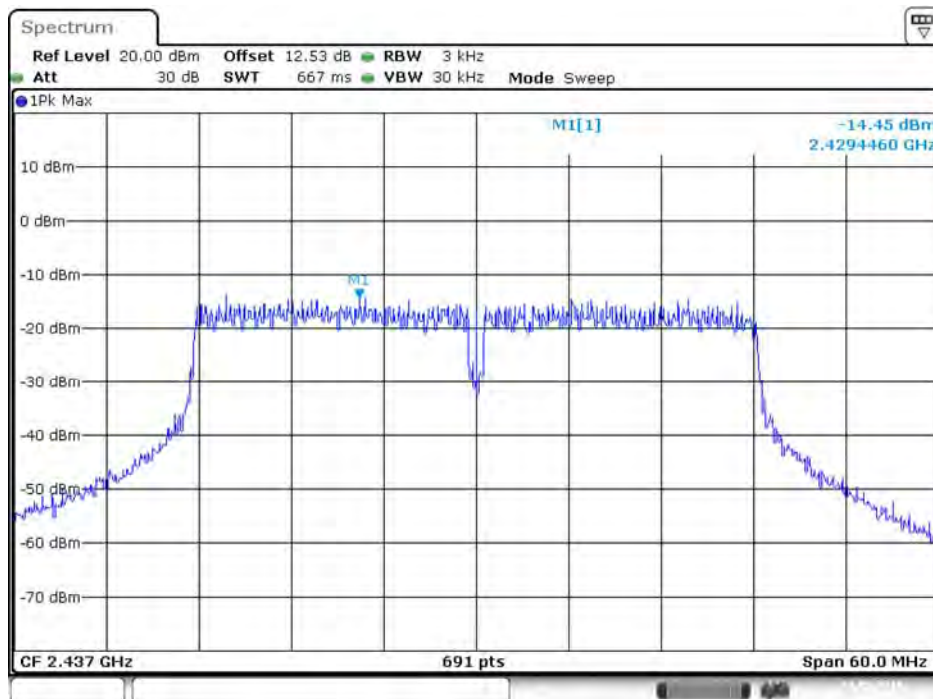


Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Ant. 3



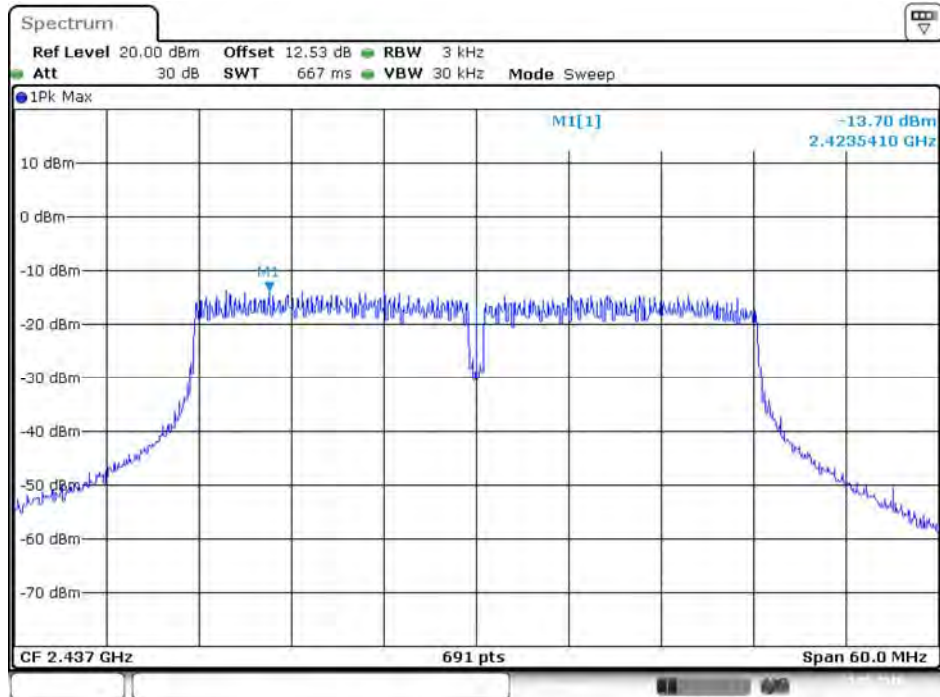
Date: 31.MAY.2016 15:43:05

Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2437 MHz / Ant. 1



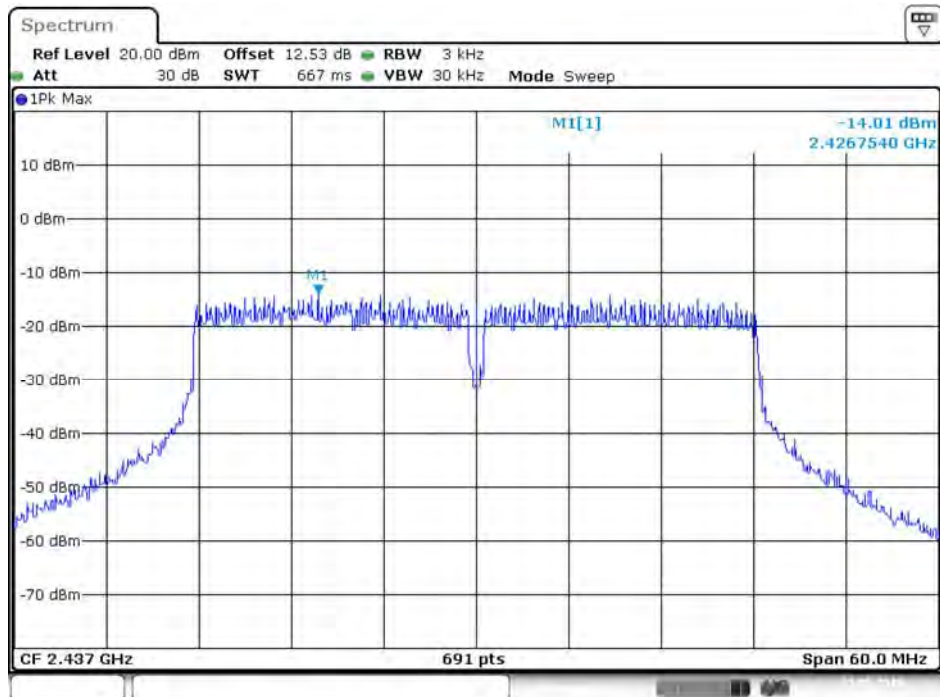
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Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2437 MHz / Ant. 2



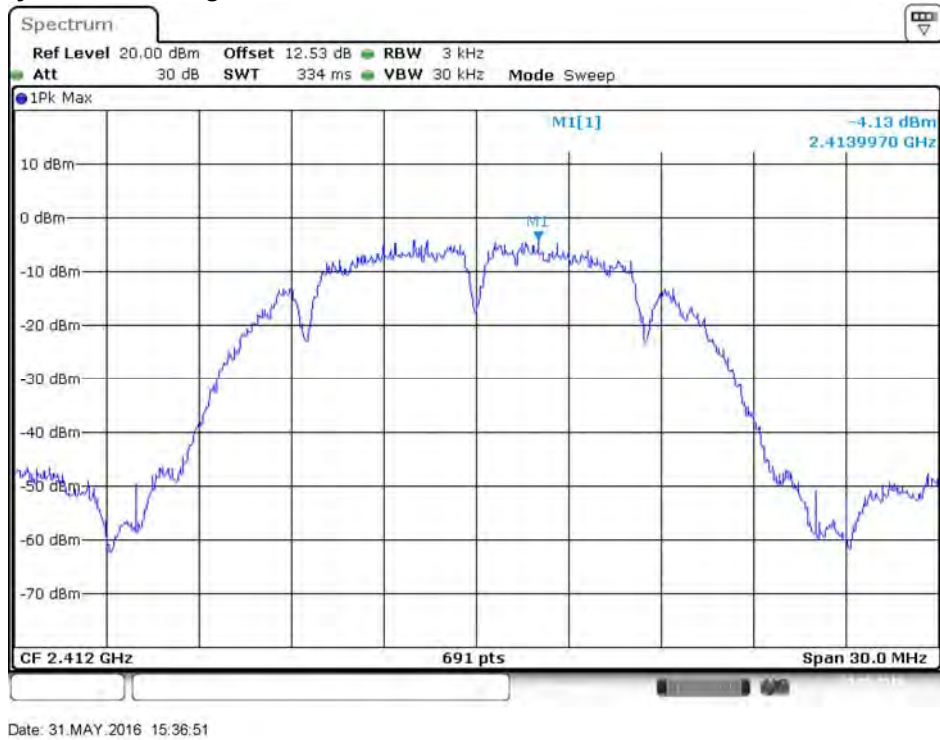
Date: 31.MAY.2016 15:47:21

Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2437 MHz / Ant. 3

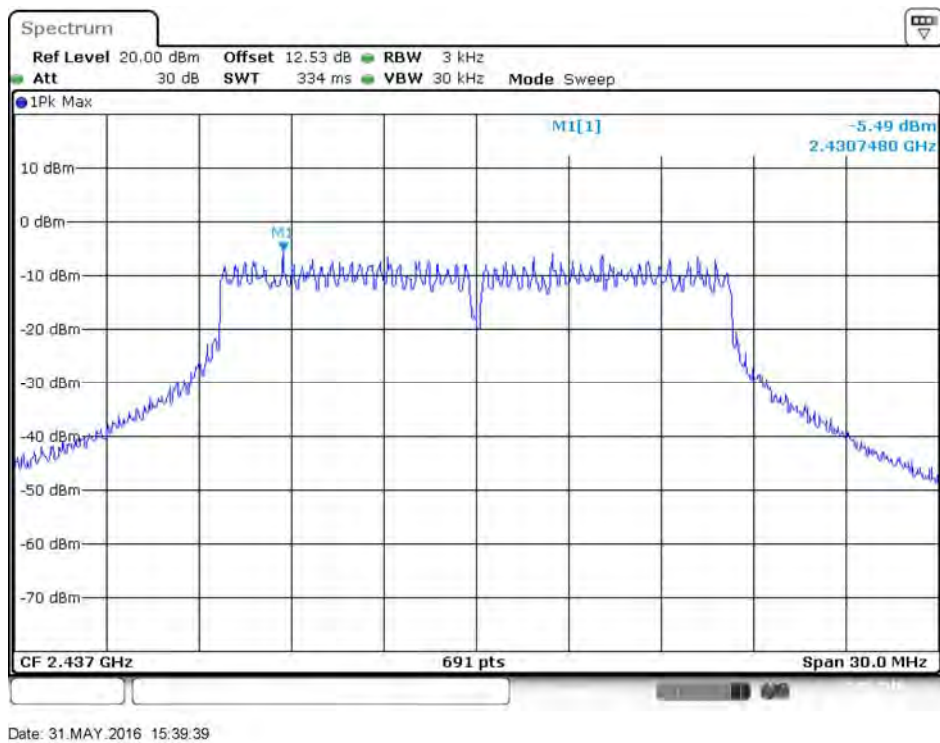


Date: 31.MAY.2016 15:47:52

Power Density Plot on Configuration IEEE 802.11b / 2412 MHz / Ant. 1



Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Ant. 1



Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_1TX	5.44
802.11g_Nss1,(6Mbps)_1TX	-0.58
802.11n HT20_Nss1,(MCS0)_3TX	-0.65
802.11n HT40_Nss1,(MCS0)_3TX	-10.16

RBW=3 kHz.

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	5.00	-1.69			-1.69	8.00
2437MHz	Pass	5.00	5.44			5.44	8.00
2462MHz	Pass	5.00	-0.69			-0.69	8.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	5.00	-8.89			-8.89	8.00
2437MHz	Pass	5.00	-0.58			-0.58	8.00
2462MHz	Pass	5.00	-5.49			-5.49	8.00
802.11n HT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	9.77	-11.33	-16.79	-11.34	-9.67	4.23
2437MHz	Pass	9.77	-2.31	-7.65	-1.78	-0.65	4.23
2462MHz	Pass	9.77	-7.59	-14.18	-10.08	-6.63	4.23
802.11n HT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2422MHz	Pass	9.77	-17.18	-23.21	-16.09	-14.98	4.23
2437MHz	Pass	9.77	-13.42	-15.05	-11.24	-10.16	4.23
2452MHz	Pass	9.77	-16.25	-19.74	-15.86	-14.43	4.23

DG = Directional Gain; RBW=3 kHz;

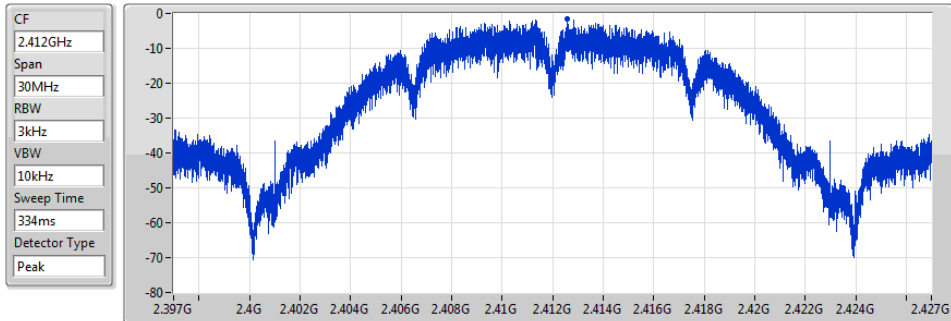
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

802.11b_Nss1,(1Mbps)_1TX

PSD

2412MHz

22/05/2019



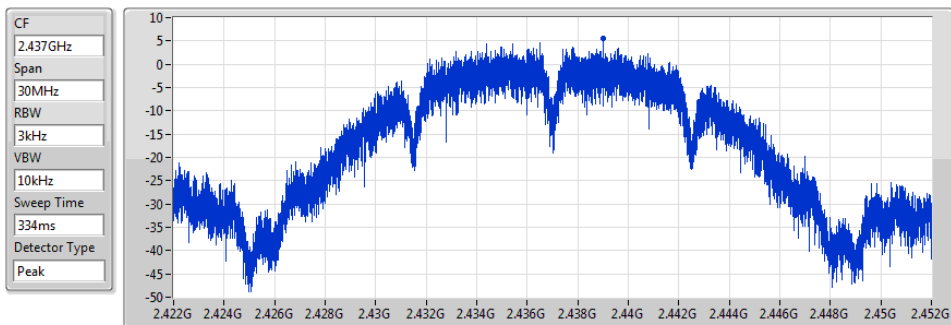
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-1.69	-1.69	-1.69

802.11b_Nss1,(1Mbps)_1TX

PSD

2437MHz

22/05/2019



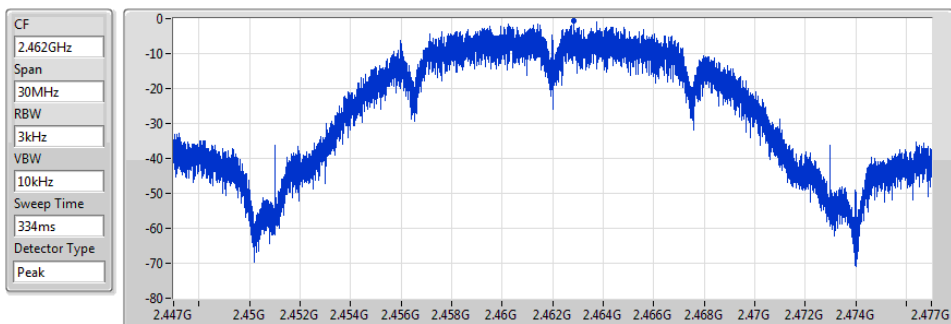
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
5.44	5.44	5.44

802.11b_Nss1,(1Mbps)_1TX

PSD

2462MHz

22/05/2019



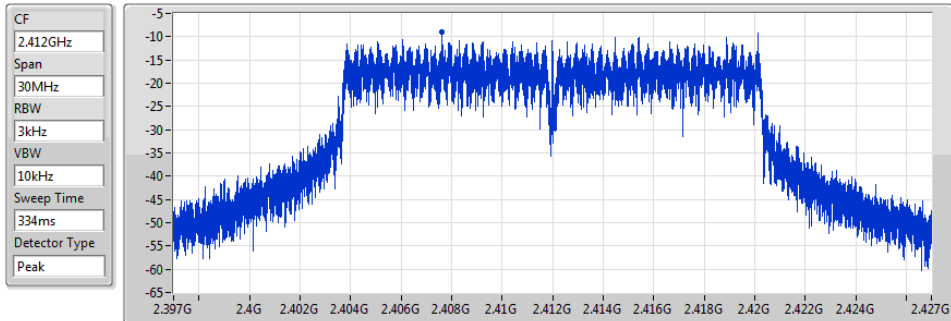
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-0.69	-0.69	-0.69

802.11g_Nss1,(6Mbps)_1TX

PSD

2412MHz

22/05/2019



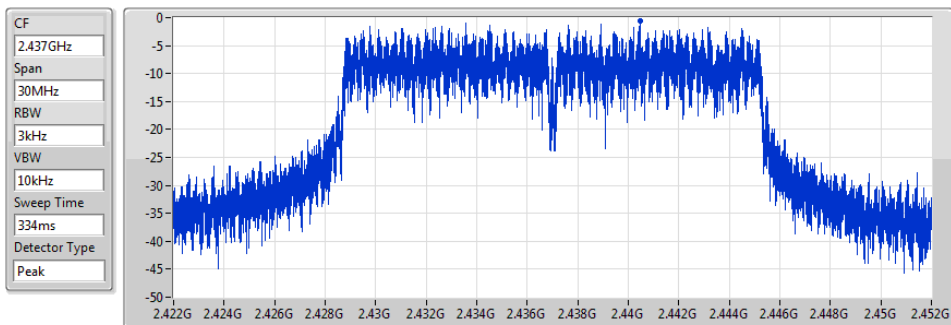
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.89	-8.89	-8.89

802.11g_Nss1,(6Mbps)_1TX

PSD

2437MHz

22/05/2019



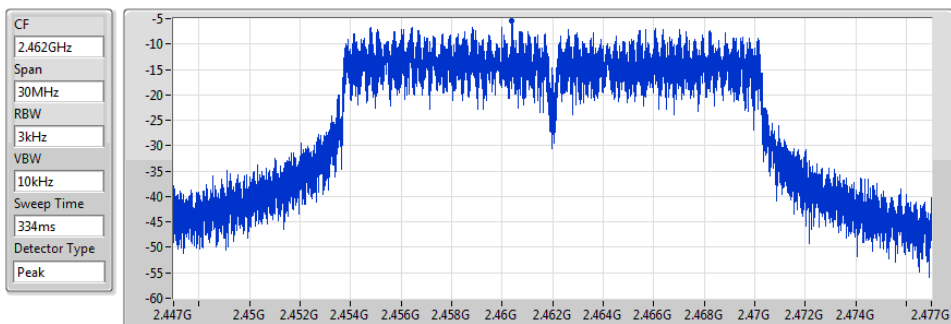
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.58	-0.58	-0.58

802.11g_Nss1,(6Mbps)_1TX

PSD

2462MHz

22/05/2019



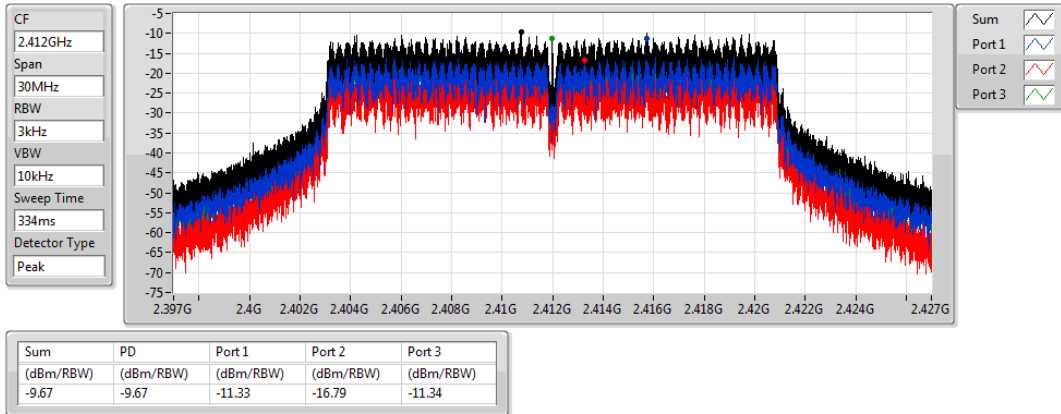
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.49	-5.49	-5.49

802.11n HT20_Nss1,(MCS0)_3TX

PSD

2412MHz

22/05/2019

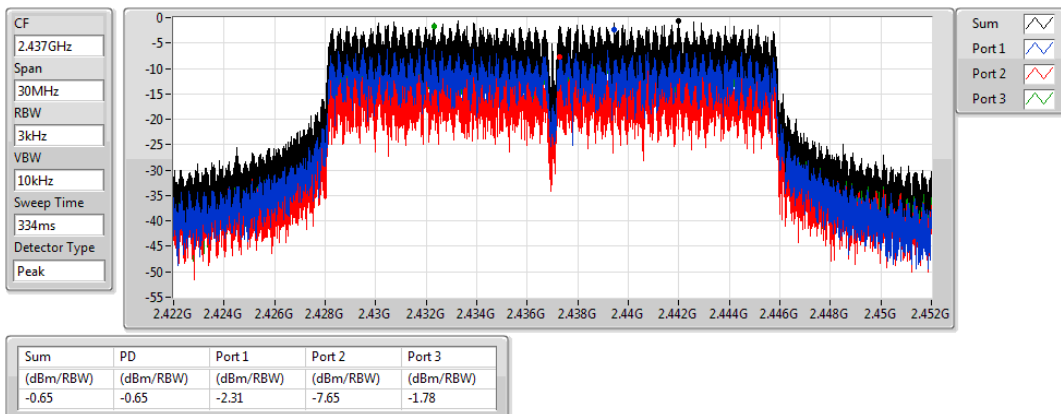


802.11n HT20_Nss1,(MCS0)_3TX

PSD

2437MHz

22/05/2019

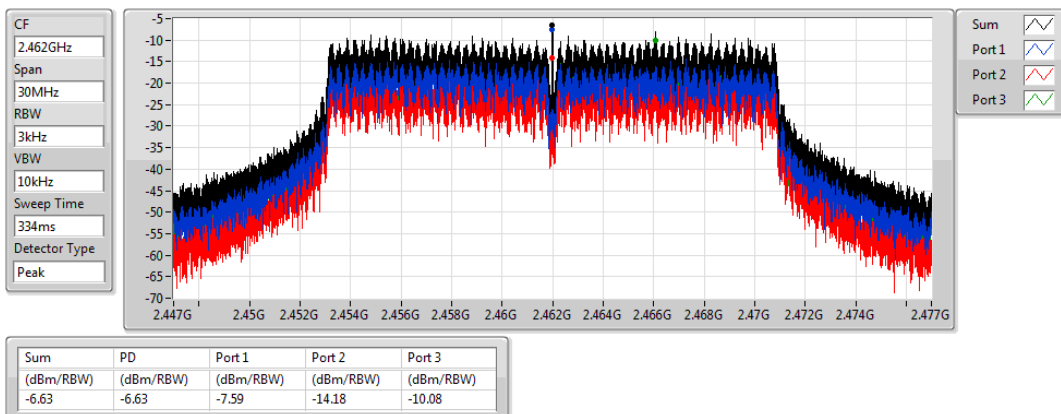


802.11n HT20_Nss1,(MCS0)_3TX

PSD

2462MHz

22/05/2019

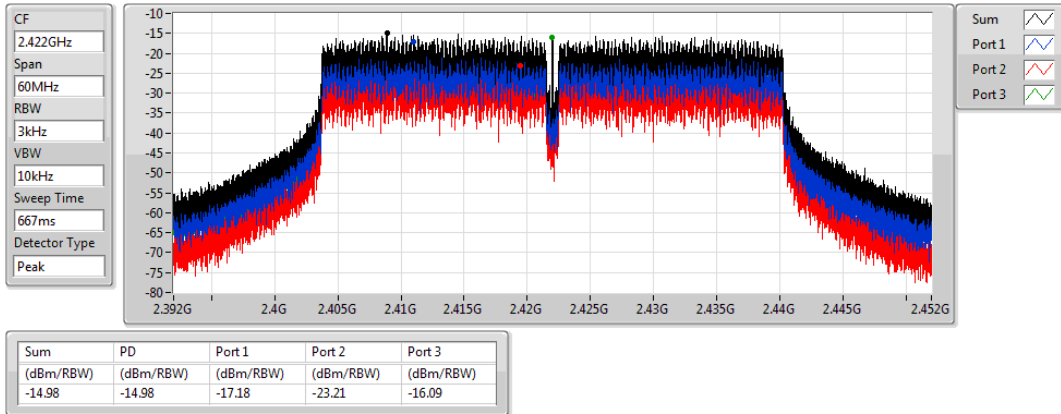


802.11n HT40_Nss1,(MCS0)_3TX

PSD

2422MHz

22/05/2019

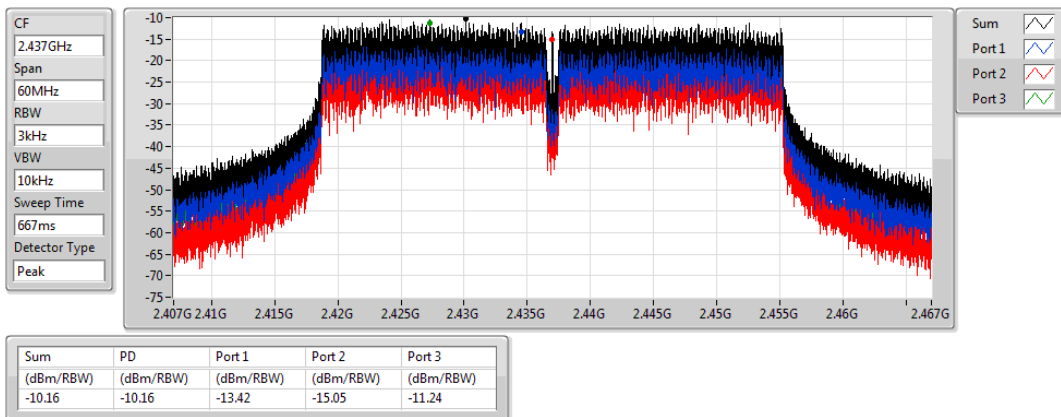


802.11n HT40_Nss1,(MCS0)_3TX

PSD

2437MHz

22/05/2019

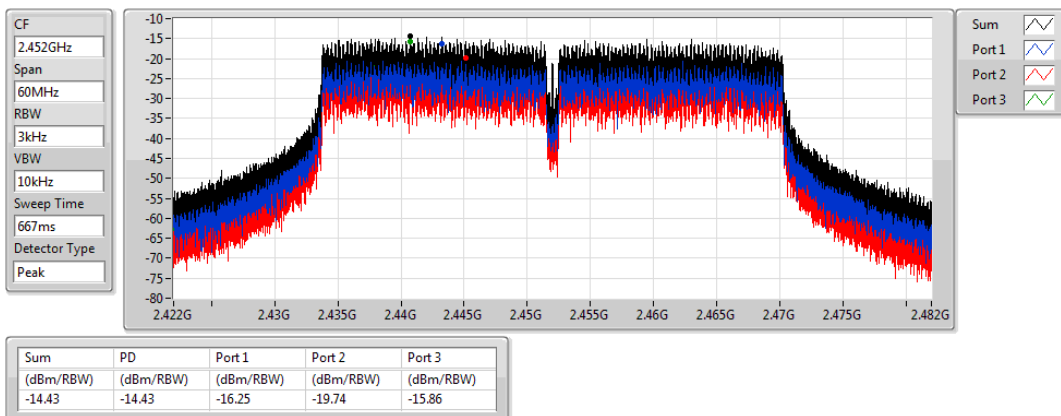


802.11n HT40_Nss1,(MCS0)_3TX

PSD

2452MHz

22/05/2019



**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)_1TX	Pass	2.43549G	11.50	-18.50	2.15671G	-44.61	2.397G	-30.39	2.50398G	-46.95	16.42522G	-46.80	1
802.11g_Nss1,(6Mbps)_1TX	Pass	2.43198G	9.45	-20.55	2.14593G	-29.67	2.39994G	-21.51	2.4903G	-46.72	6.88675G	-46.31	1
802.11n HT20_Nss1,(MCS0)_3TX	Pass	2.43194G	10.69	-19.31	2.17943G	-23.44	2.39998G	-41.37	2.51994G	-44.03	2.59936G	-47.04	3
802.11n HT40_Nss1,(MCS0)_3TX	Pass	2.42196G	2.49	-27.51	2.16027G	-45.39	2.39956G	-32.83	2.4839G	-48.71	15.09709G	-46.72	2

Result

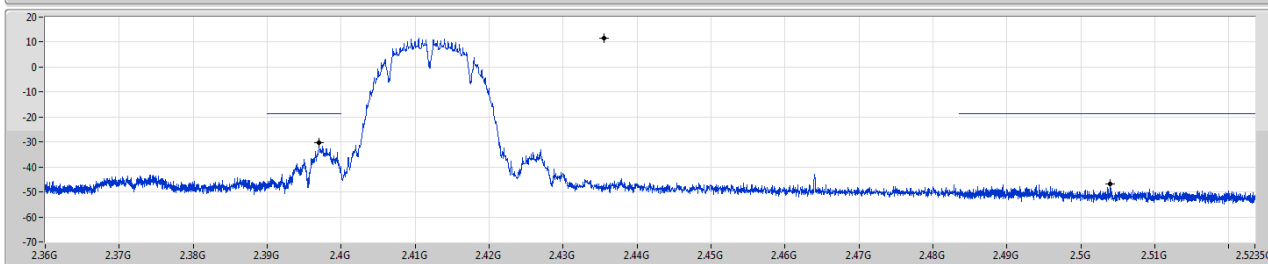
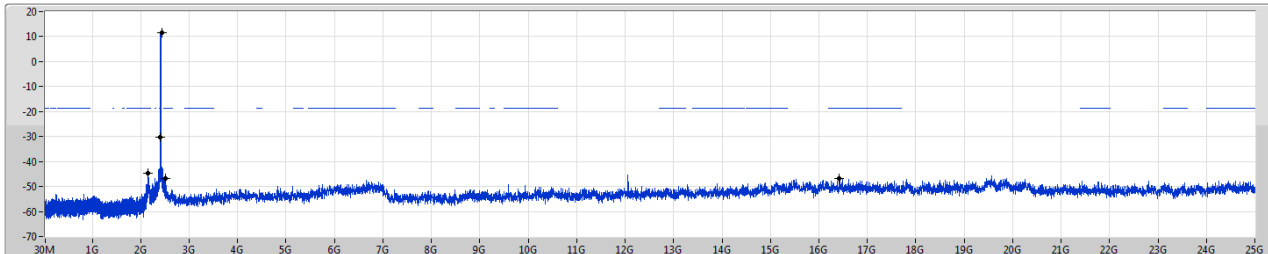
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43549G	11.50	-18.50	2.15671G	-44.61	2.397G	-30.39	2.50398G	-46.95	16.42522G	-46.80	1
2437MHz	Pass	2.43549G	11.50	-18.50	2.1835G	-45.25	2.39598G	-42.67	2.49844G	-47.37	15.21991G	-46.66	1
2462MHz	Pass	2.43549G	11.50	-18.50	2.1937G	-46.36	2.3971G	-45.64	2.48794G	-47.43	15.1581G	-46.77	1
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43198G	9.45	-20.55	2.14593G	-29.67	2.39994G	-21.51	2.4903G	-46.72	6.88675G	-46.31	1
2437MHz	Pass	2.43198G	9.45	-20.55	2.17273G	-28.53	2.3991G	-42.29	2.48456G	-45.47	16.48141G	-46.83	1
2462MHz	Pass	2.43198G	9.45	-20.55	2.19457G	-42.19	2.39996G	-43.24	2.48444G	-36.19	6.75751G	-46.71	1
802.11n HT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43194G	10.69	-19.31	2.11215G	-47.71	2.39996G	-28.14	2.48848G	-51.40	15.2452G	-46.91	1
2412MHz	Pass	2.43194G	10.69	-19.31	2.1602G	-44.37	2.39998G	-27.21	2.52G	-49.13	16.82417G	-46.92	2
2412MHz	Pass	2.43194G	10.69	-19.31	2.1602G	-48.68	2.39992G	-29.13	2.48522G	-50.47	16.7736G	-46.75	3
2437MHz	Pass	2.43194G	10.69	-19.31	2.17506G	-33.73	2.39198G	-43.32	2.5152G	-48.23	16.44488G	-47.34	1
2437MHz	Pass	2.43194G	10.69	-19.31	2.16079G	-29.36	2.3997G	-38.07	2.48384G	-44.80	16.44769G	-46.89	2
2437MHz	Pass	2.43194G	10.69	-19.31	2.17943G	-23.44	2.39998G	-41.37	2.51994G	-44.03	2.59936G	-47.04	3
2462MHz	Pass	2.43194G	10.69	-19.31	2.11215G	-47.46	2.3914G	-46.82	2.48362G	-47.96	16.62188G	-47.17	1
2462MHz	Pass	2.43194G	10.69	-19.31	2.1602G	-44.81	2.3936G	-48.07	2.4836G	-46.60	16.64436G	-47.21	2
2462MHz	Pass	2.43194G	10.69	-19.31	2.1602G	-47.44	2.39092G	-50.34	2.48386G	-46.60	16.75393G	-47.43	3
802.11n HT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.42196G	2.49	-27.51	2.11218G	-48.25	2.39928G	-33.42	2.51794G	-52.36	16.5779G	-46.76	1
2422MHz	Pass	2.42196G	2.49	-27.51	2.15999G	-44.32	2.39996G	-33.40	2.51998G	-48.90	17.59596G	-47.12	2
2422MHz	Pass	2.42196G	2.49	-27.51	2.15999G	-49.70	2.39964G	-33.13	2.51998G	-51.50	16.4573G	-47.31	3
2437MHz	Pass	2.42196G	2.49	-27.51	2.19147G	-48.11	2.39952G	-38.64	2.48518G	-47.92	24.74198G	-46.75	1
2437MHz	Pass	2.42196G	2.49	-27.51	2.16027G	-45.39	2.39956G	-32.83	2.4839G	-48.71	15.09709G	-46.72	2
2437MHz	Pass	2.42196G	2.49	-27.51	2.17086G	-47.76	2.3992G	-36.29	2.51998G	-45.58	16.77702G	-46.55	3
2452MHz	Pass	2.42196G	2.49	-27.51	2.11218G	-46.41	2.39996G	-51.10	2.48446G	-48.29	16.7602G	-47.16	1
2452MHz	Pass	2.42196G	2.49	-27.51	2.15999G	-47.05	2.3972G	-47.16	2.48358G	-46.52	16.8275G	-46.60	2
2452MHz	Pass	2.42196G	2.49	-27.51	2.15999G	-50.58	2.39648G	-51.09	2.4839G	-48.33	17.45292G	-46.03	3

802.11b_Nss1,(1Mbps)_1TX

CSE NdB

2412MHz

17/05/2019



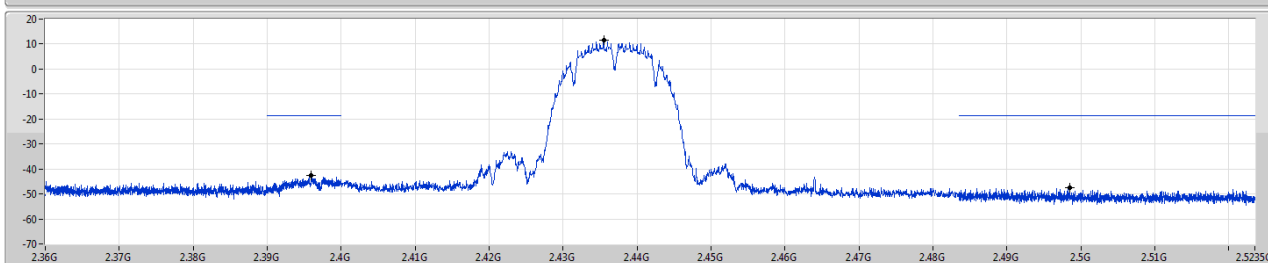
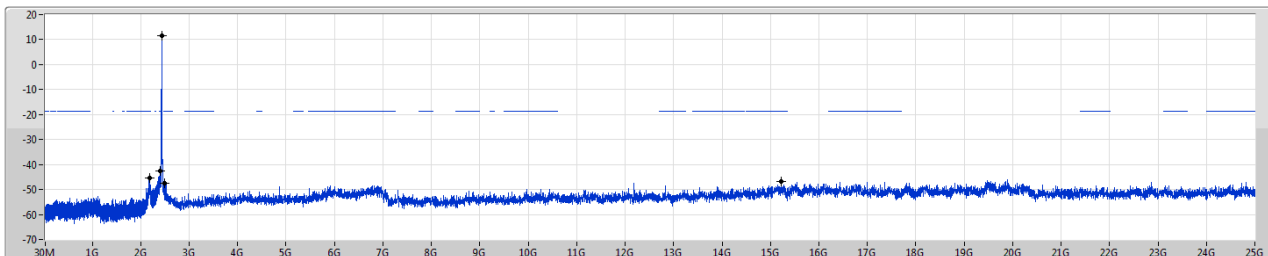
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43549G	11.50	-18.50	2.15671G	-44.61	2.397G	-30.39	2.50398G	-46.95	16.42522G	-46.80	1

802.11b_Nss1,(1Mbps)_1TX

CSE NdB

2437MHz

17/05/2019



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43549G	11.50	-18.50	2.1835G	-45.25	2.39598G	-42.67	2.49844G	-47.37	15.21991G	-46.66	1

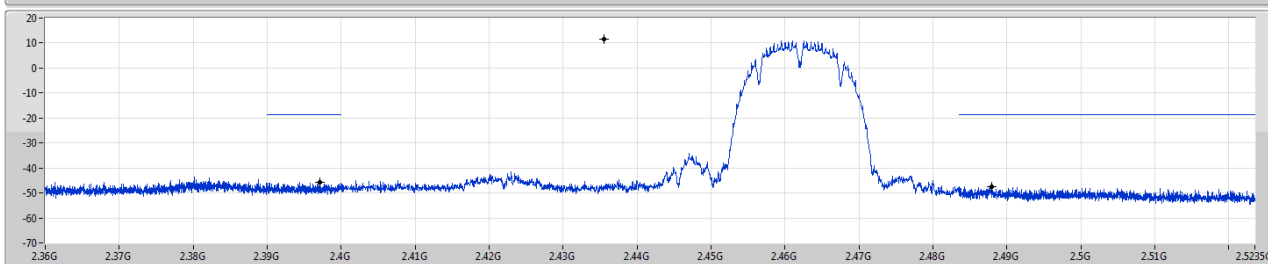
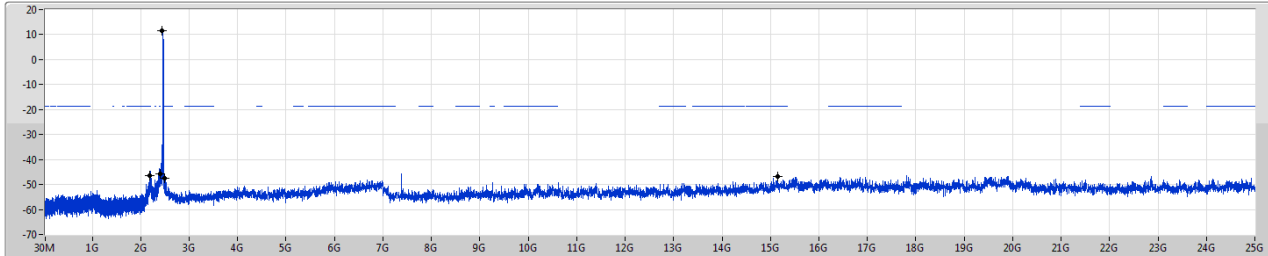
802.11b_Nss1,(1Mbps)_1TX

2462MHz

CSE NdB

17/05/2019

Port1



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

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43549G	11.50	-18.50	2.1937G	-46.36	2.3971G	-45.64	2.48794G	-47.43	15.1581G	-46.77	1

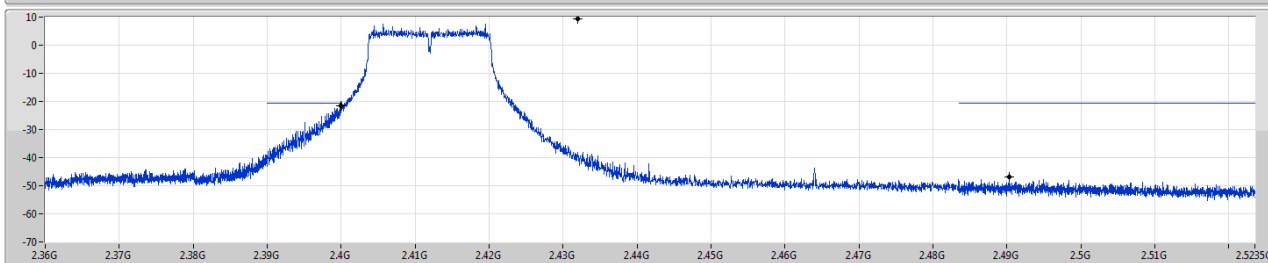
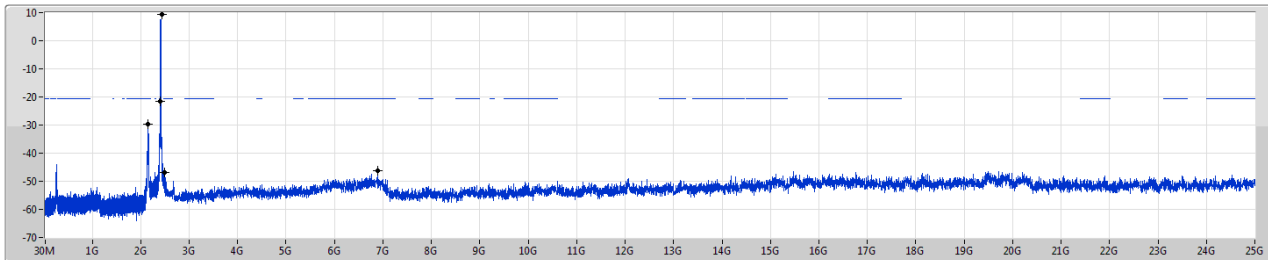
802.11g_Nss1,(6Mbps)_1TX

2412MHz

CSE NdB

17/05/2019

Port1



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

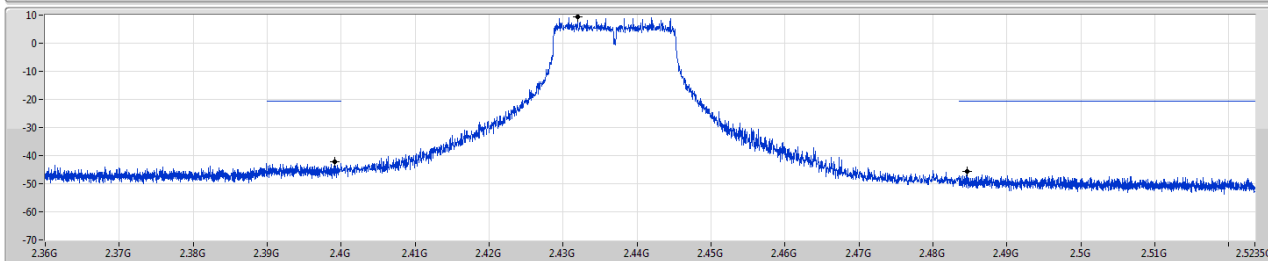
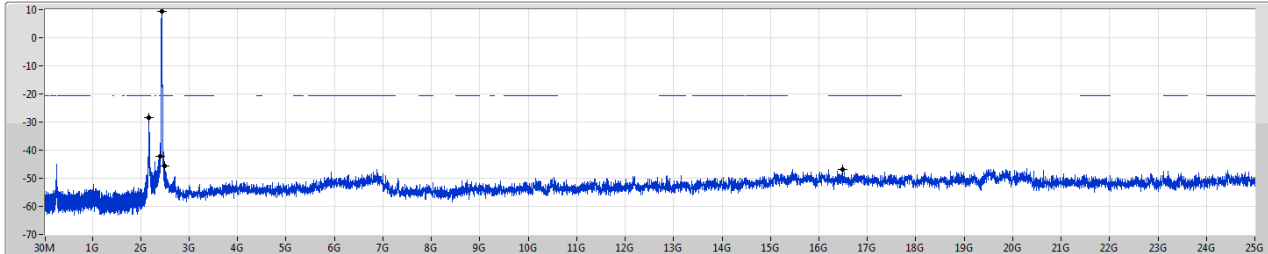
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43198G	9.45	-20.55	2.14593G	-29.67	2.39994G	-21.51	2.4903G	-46.72	6.88675G	-46.31	1

802.11g_Nss1,(6Mbps)_1TX

CSE NdB

2437MHz

17/05/2019



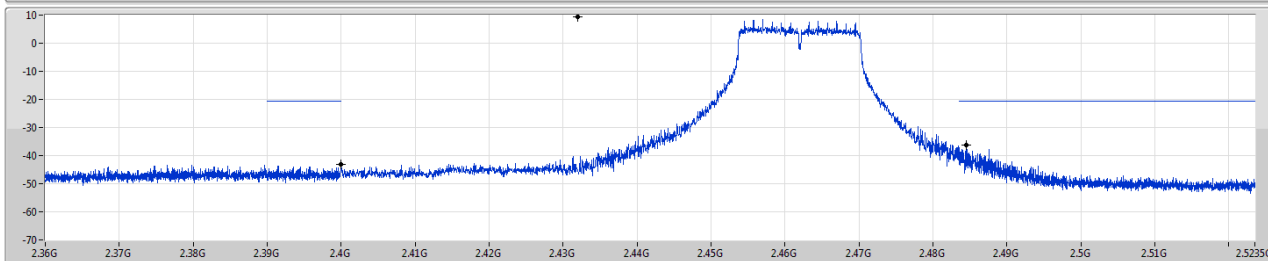
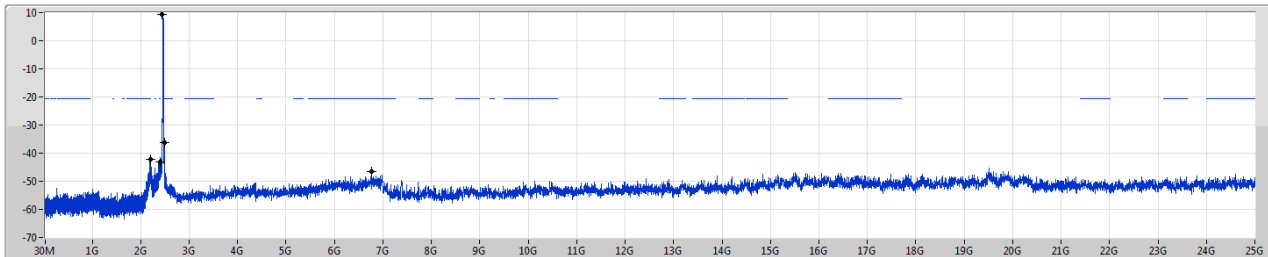
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43198G	9.45	-20.55	2.17273G	-28.53	2.3991G	-42.29	2.48456G	-45.47	16.48141G	-46.83	1

802.11g_Nss1,(6Mbps)_1TX

CSE NdB

2462MHz

17/05/2019



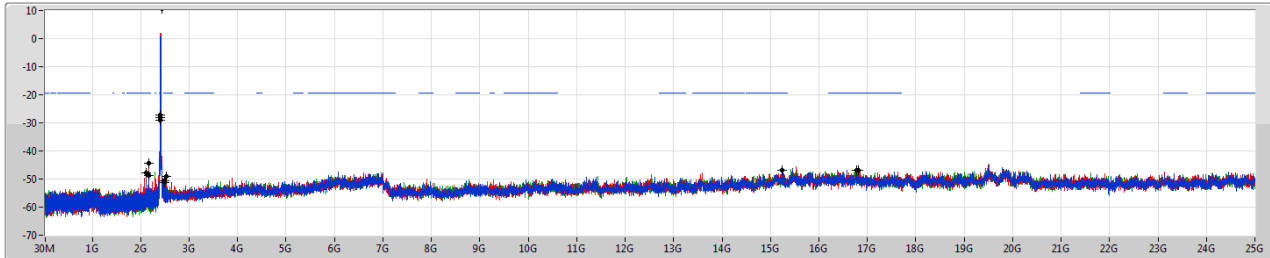
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43198G	9.45	-20.55	2.19457G	-42.19	2.39996G	-43.24	2.48444G	-36.19	6.75751G	-46.71	1

802.11n HT20_Nss1,(MCS0)_3TX

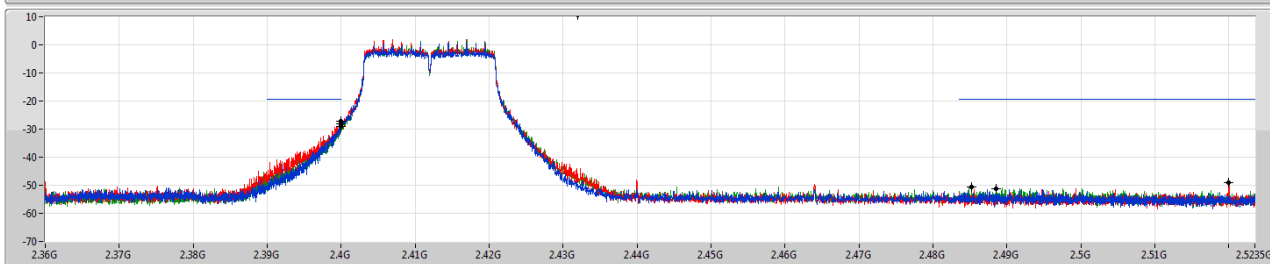
2412MHz

CSE NdB

17/05/2019



Port 1
Port 2
Port 3



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

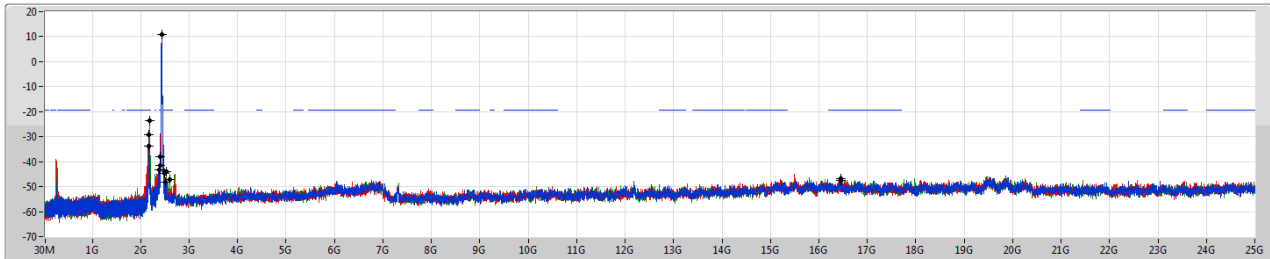
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43194G	10.69	-19.31	2.11215G	-47.71	2.39996G	-28.14	2.48848G	-51.40	15.2452G	-46.91	1
2.43194G	10.69	-19.31	2.1602G	-44.37	2.39998G	-27.21	2.52G	-49.13	16.82417G	-46.92	2
2.43194G	10.69	-19.31	2.1602G	-48.68	2.39992G	-29.13	2.48522G	-50.47	16.7736G	-46.75	3

802.11n HT20_Nss1,(MCS0)_3TX

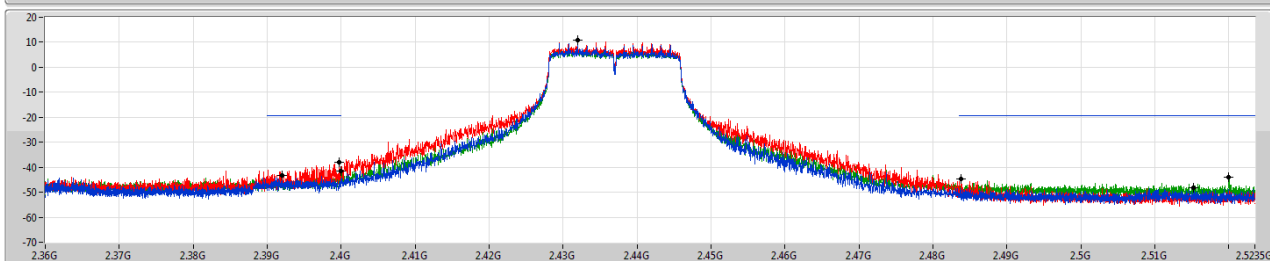
2437MHz

CSE NdB

17/05/2019



Port 1
Port 2
Port 3



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

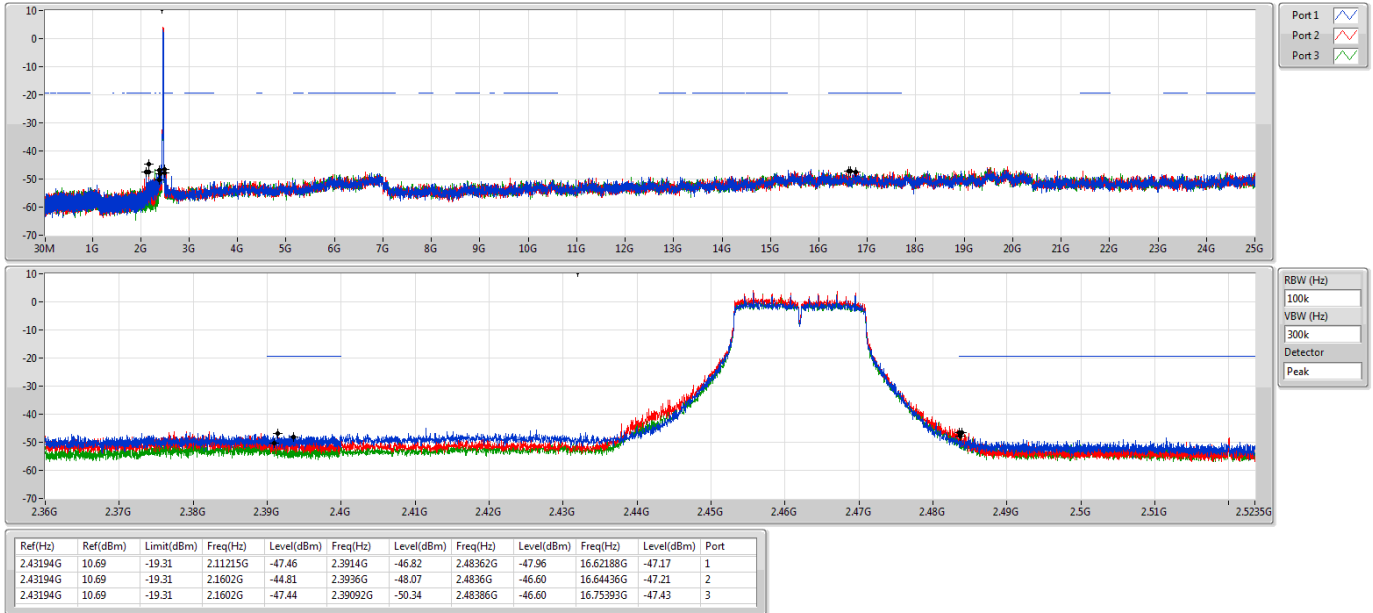
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43194G	10.69	-19.31	2.17506G	-33.73	2.39198G	-43.32	2.5152G	-48.23	16.44488G	-47.34	1
2.43194G	10.69	-19.31	2.16079G	-29.36	2.3997G	-38.07	2.48384G	-44.80	16.44769G	-46.89	2
2.43194G	10.69	-19.31	2.17943G	-23.44	2.39998G	-41.37	2.51994G	-44.03	2.59936G	-47.04	3

802.11n HT20_Nss1,(MCS0)_3TX

2462MHz

CSE NdB

17/05/2019

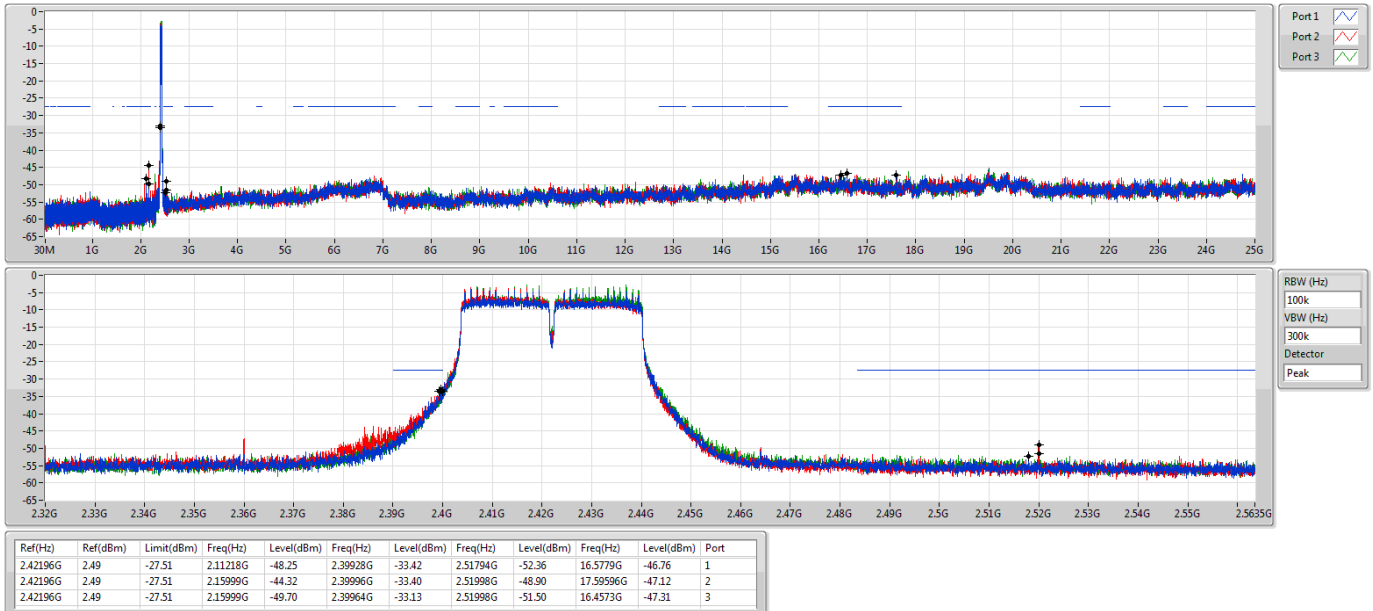


802.11n HT40_Nss1,(MCS0)_3TX

2422MHz

CSE NdB

17/05/2019

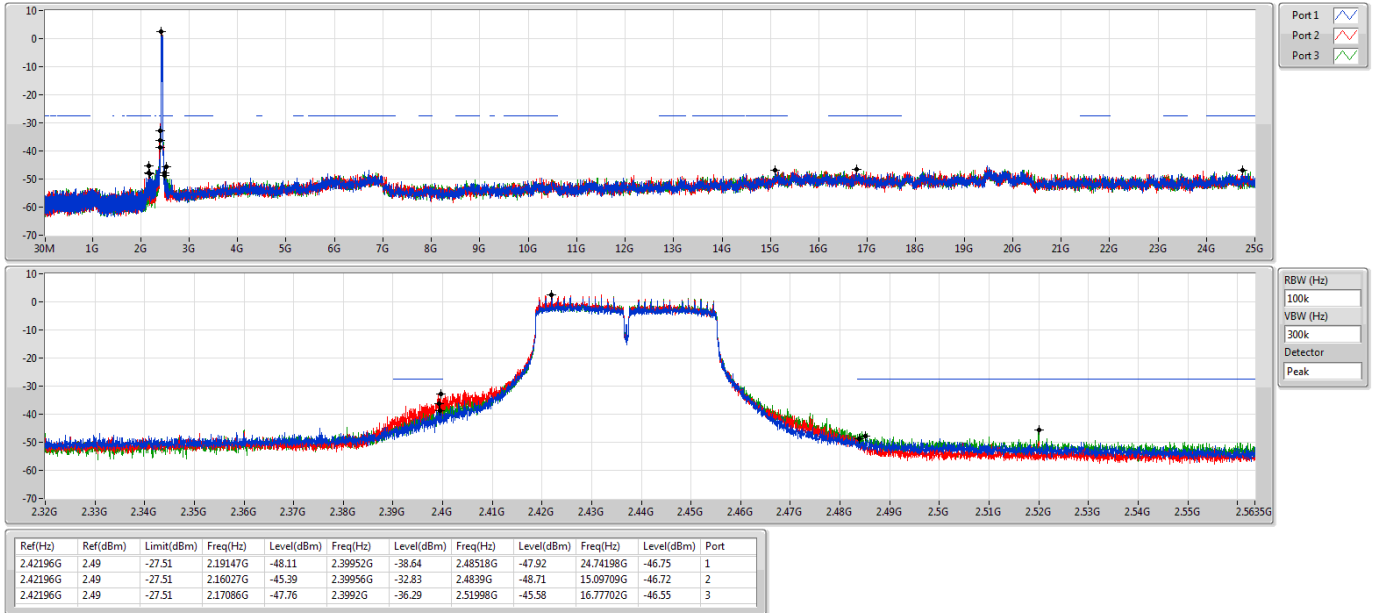


802.11n HT40_Nss1,(MCS0)_3TX

2437MHz

CSE NdB

17/05/2019

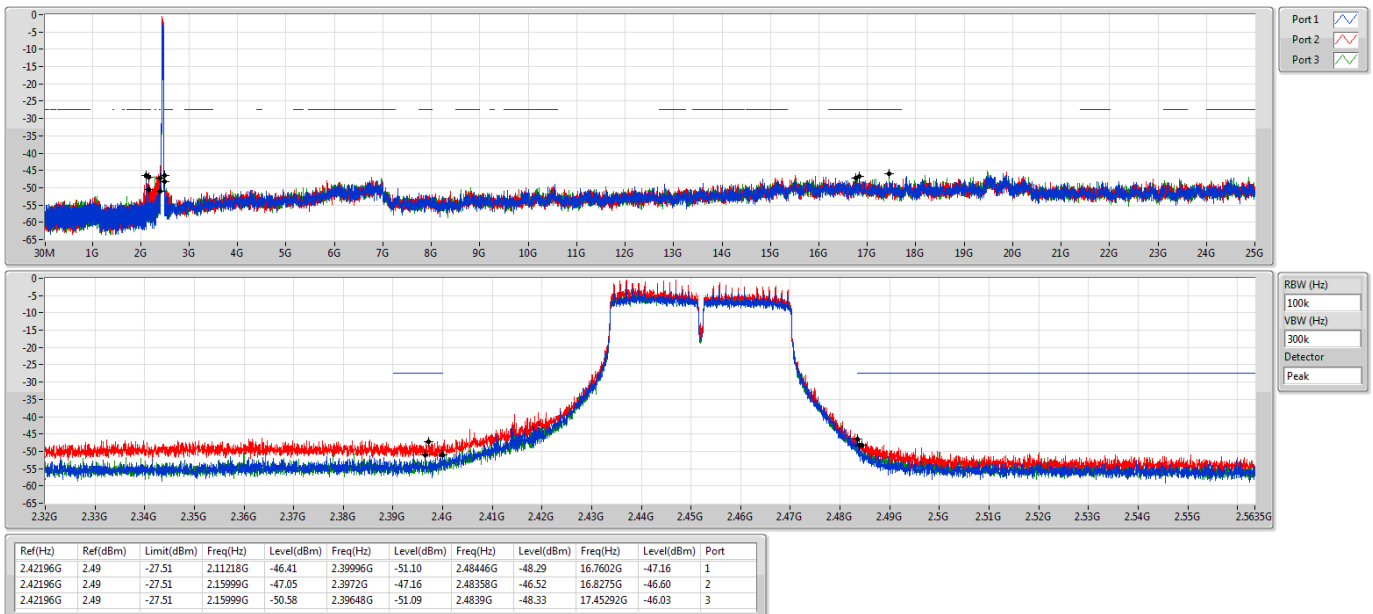


802.11n HT40_Nss1,(MCS0)_3TX

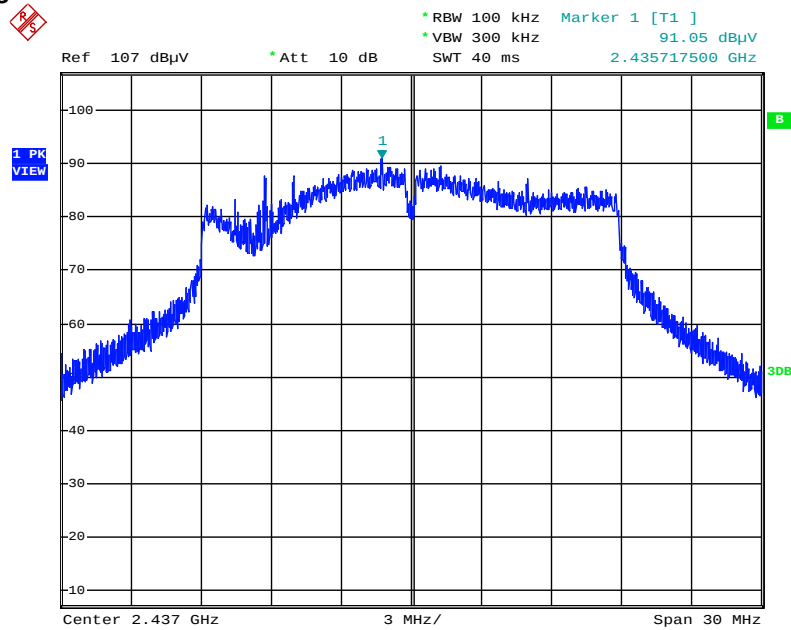
2452MHz

CSE NdB

17/05/2019

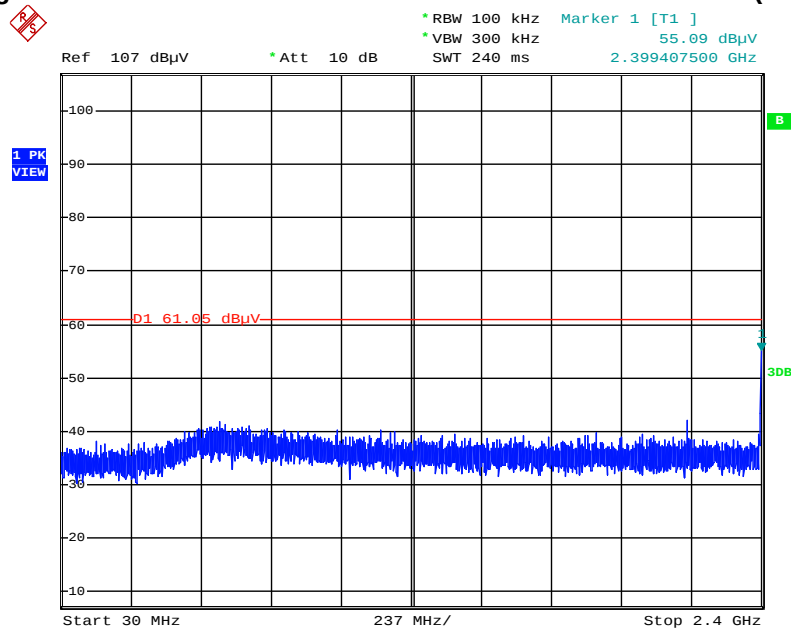


Plot on Configuration IEEE 802.11n MCS0 HT20 / Reference Level



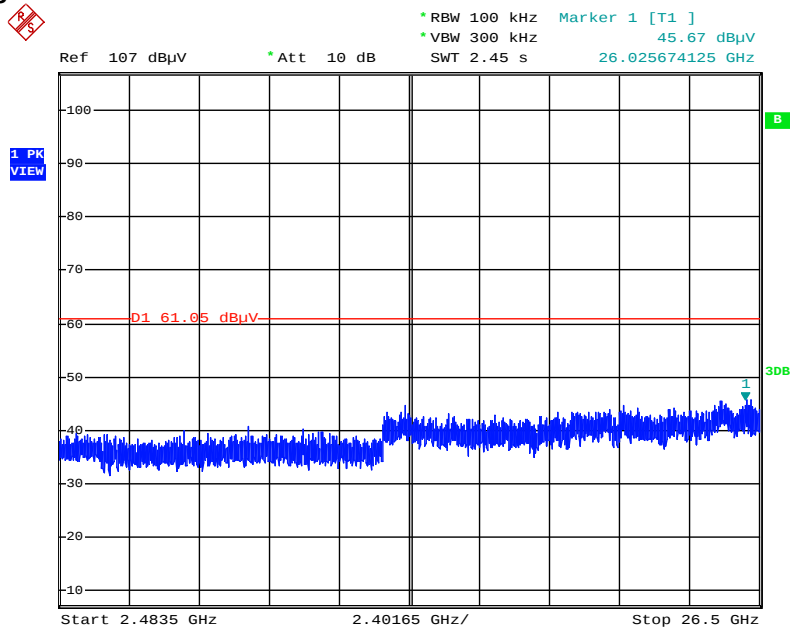
Date: 21.MAY.2016 01:55:46

Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 1 / 30MHz~2400MHz (down 30dBc)



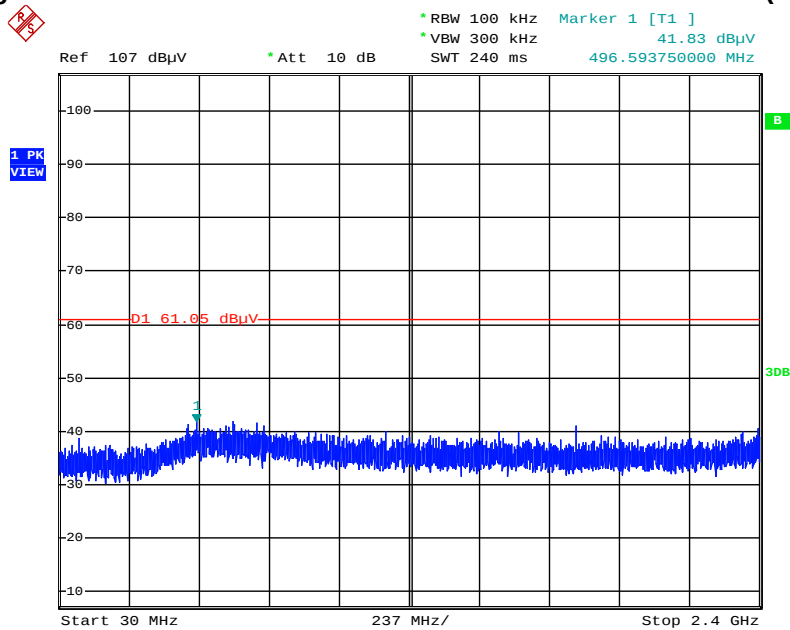
Date: 21.MAY.2016 01:56:47

Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 1 / 2483.5MHz~26500MHz (down 30dBc)



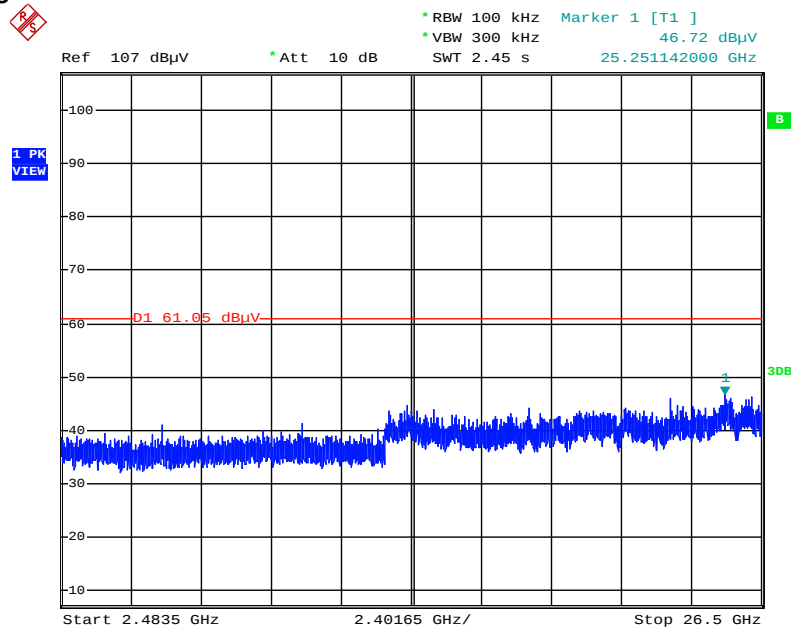
Date: 21.MAY.2016 01:57:08

Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 11 / 30MHz~2400MHz (down 30dBc)



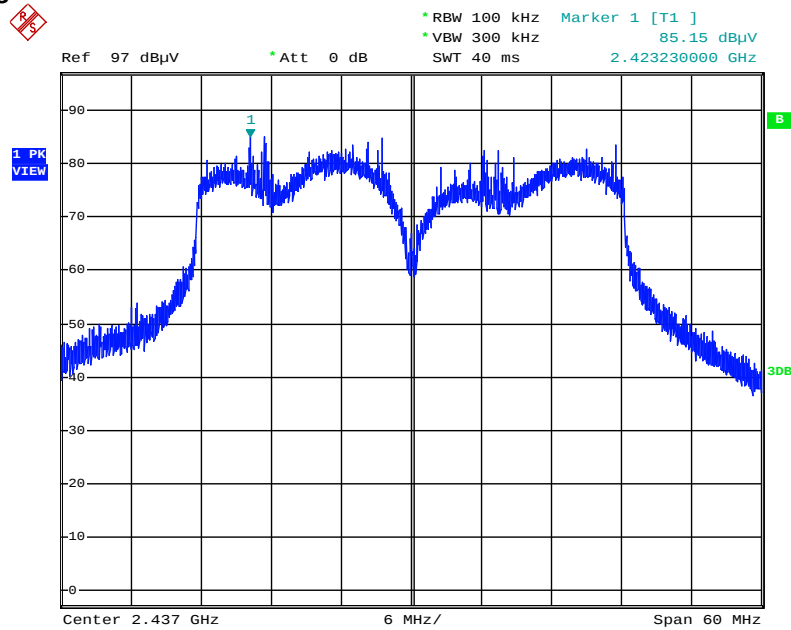
Date: 21.MAY.2016 01:58:50

Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 11 / 2483.5MHz~26500MHz (down 30dBc)



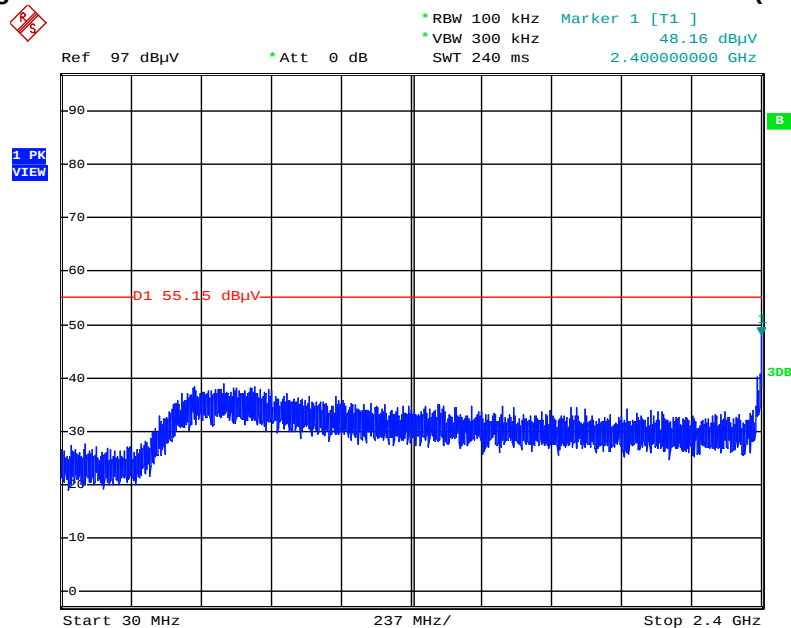
Date: 21.MAY.2016 01:58:24

Plot on Configuration IEEE 802.11n MCS0 HT40 / Reference Level



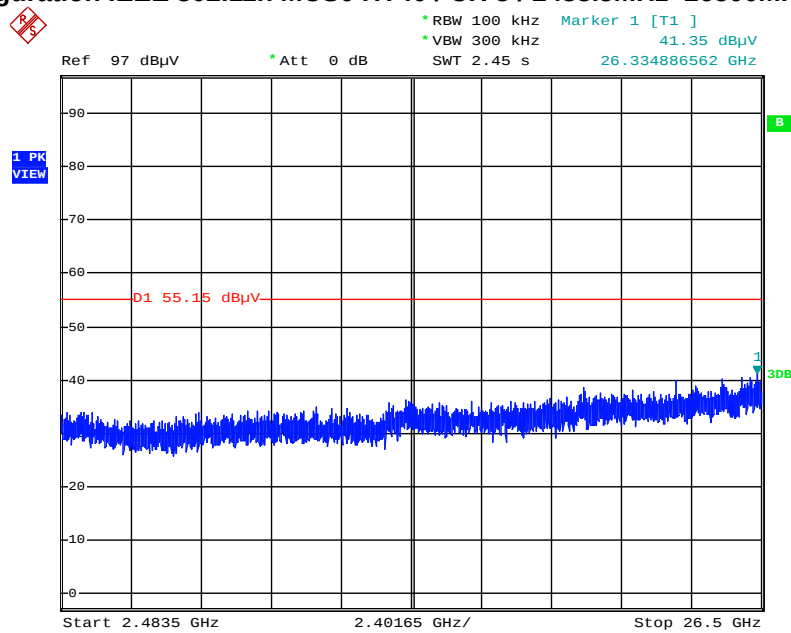
Date: 21.MAY.2016 02:01:19

Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 3 / 30MHz~2400MHz (down 30dBc)



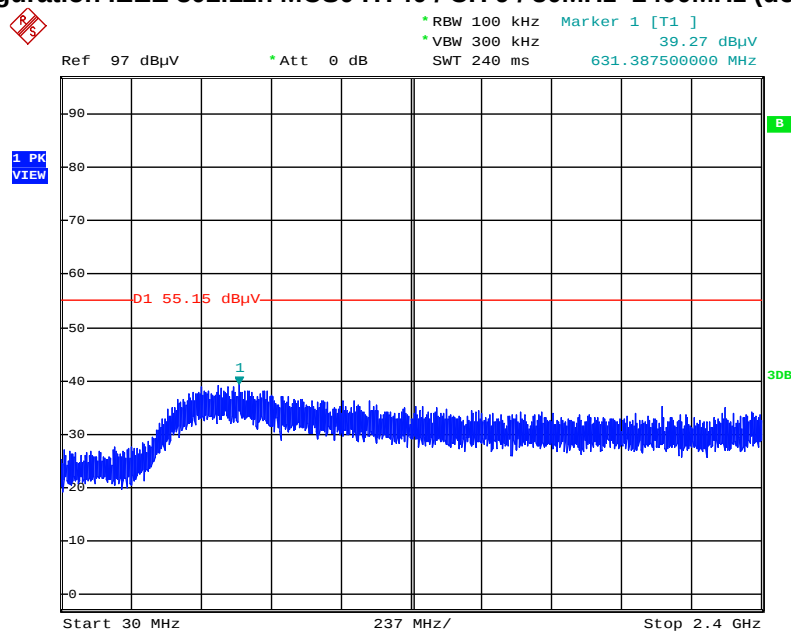
Date: 21.MAY.2016 02:02:22

Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 3 / 2483.5MHz~26500MHz (down 30dBc)



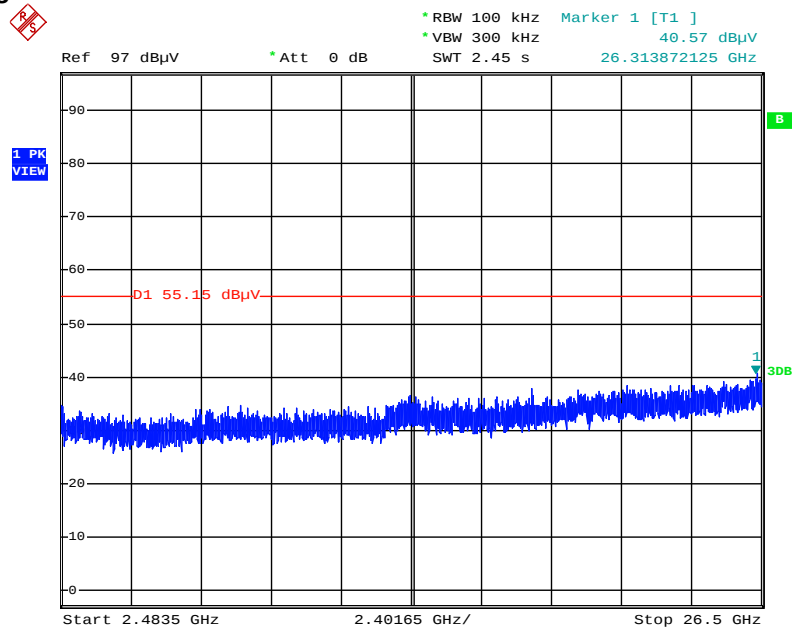
Date: 21.MAY.2016 02:02:40

Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 9 / 30MHz~2400MHz (down 30dBc)



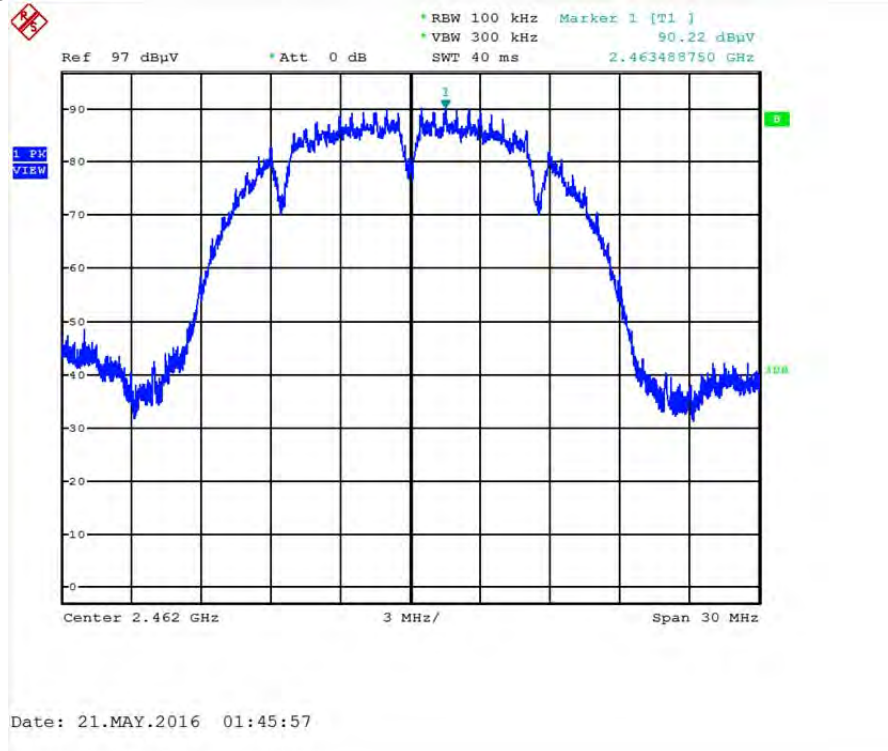
Date: 21.MAY.2016 02:04:24

Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 9 / 2483.5MHz~26500MHz (down 30dBc)

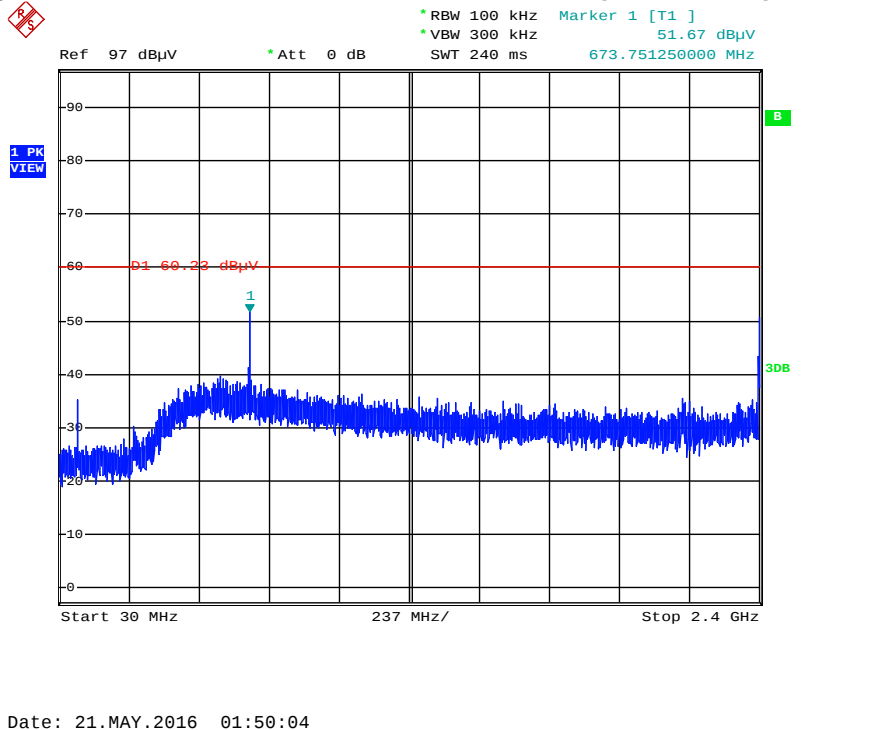


Date: 21.MAY.2016 02:04:09

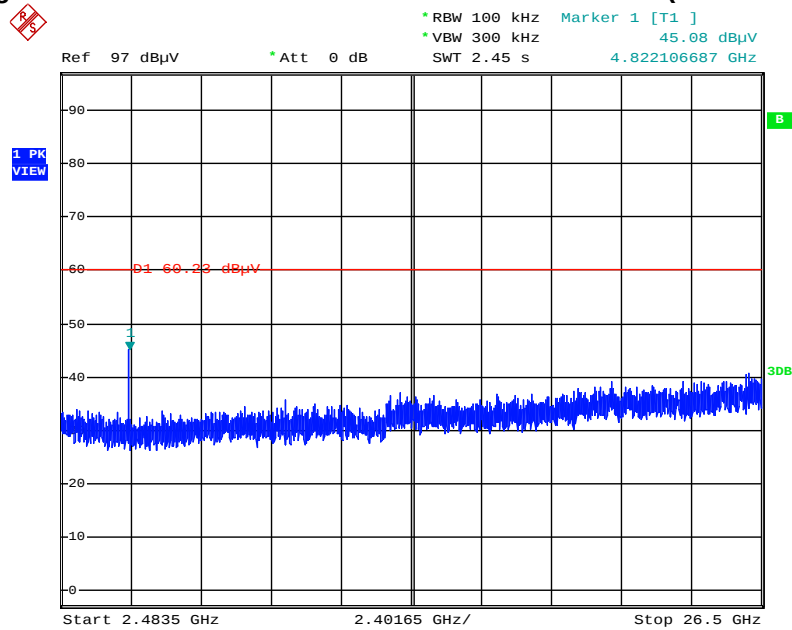
Plot on Configuration IEEE 802.11b / Reference Level



Plot on Configuration IEEE 802.11b / CH 1 / 30MHz~2400MHz (down 30dB)

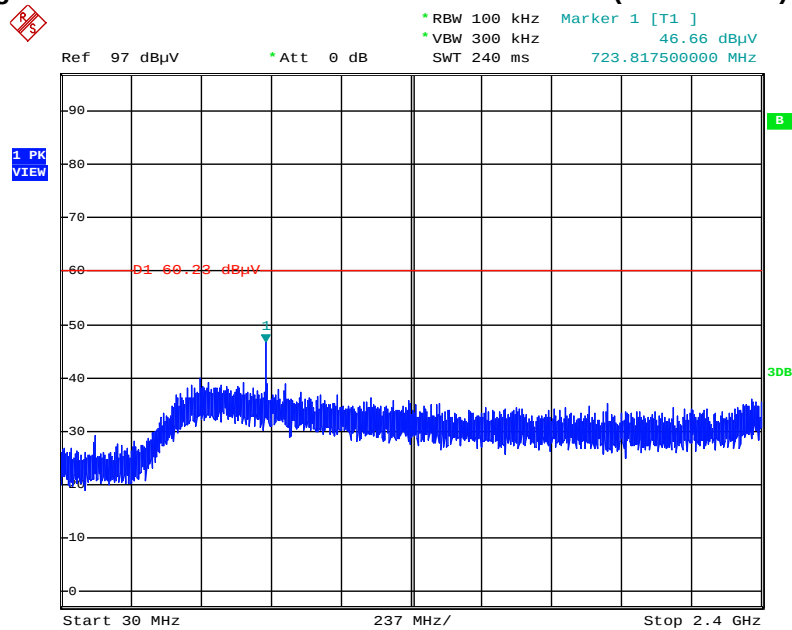


Plot on Configuration IEEE 802.11b / CH 1 / 2483.5MHz~26500MHz (down 30dBc)



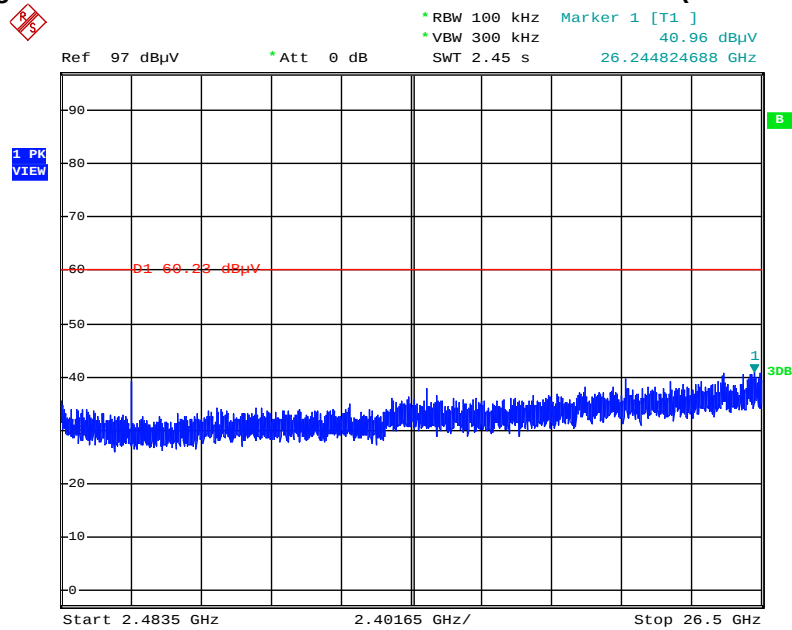
Date: 21.MAY.2016 01:49:12

Plot on Configuration IEEE 802.11b / CH 11 / 30MHz~2400MHz (down 30dBc)



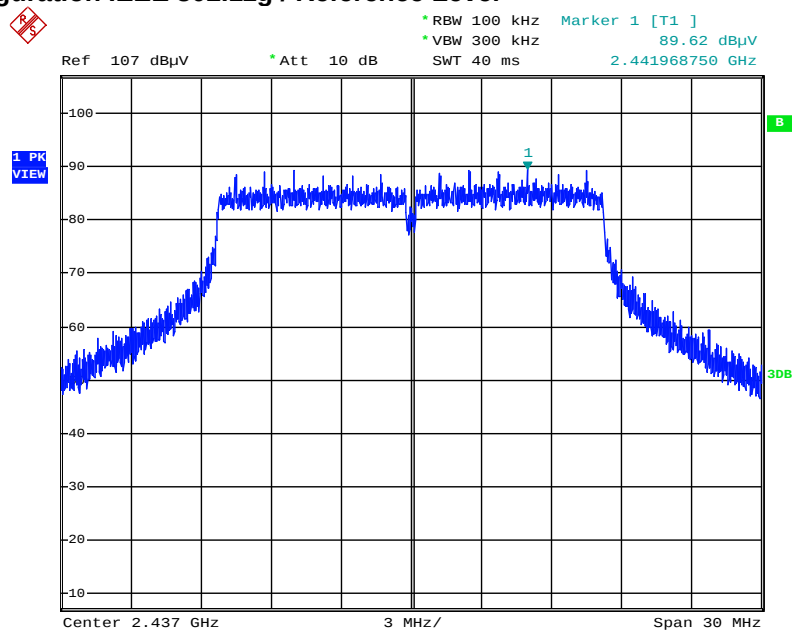
Date: 21.MAY.2016 01:47:38

Plot on Configuration IEEE 802.11b / CH 11 / 2483.5MHz~26500MHz (down 30dBc)



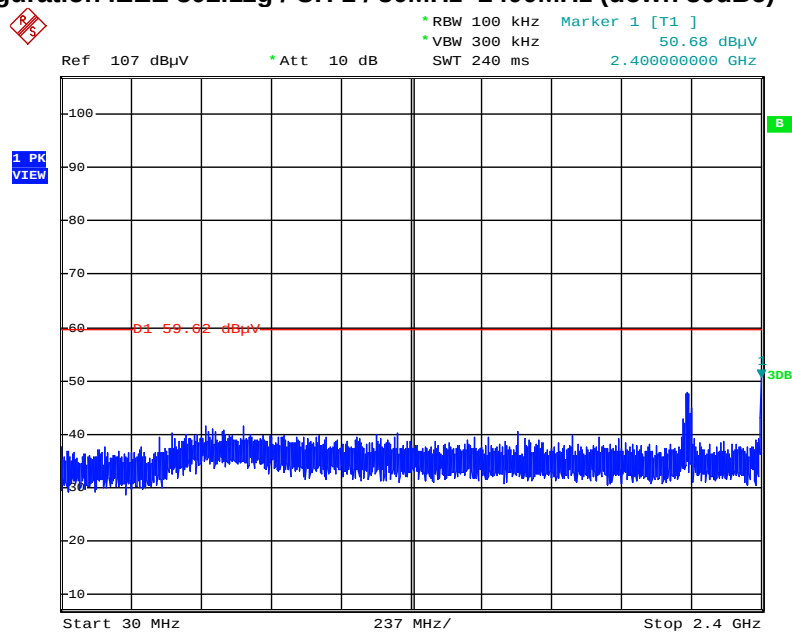
Date: 21.MAY.2016 01:48:32

Plot on Configuration IEEE 802.11g / Reference Level



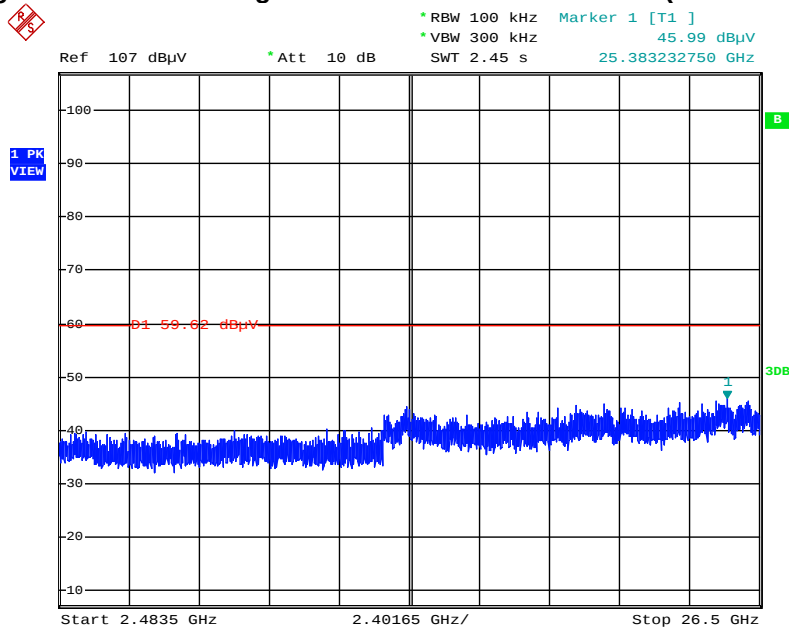
Date: 21.MAY.2016 01:51:17

Plot on Configuration IEEE 802.11g / CH 1 / 30MHz~2400MHz (down 30dBc)



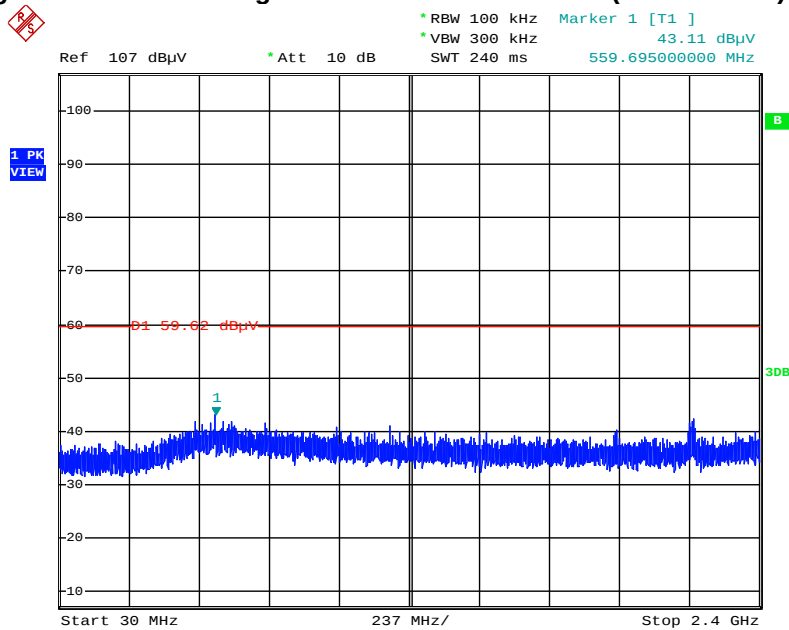
Date: 21.MAY.2016 01:52:30

Plot on Configuration IEEE 802.11g / CH 1 / 2483.5MHz~26500MHz (down 30dBc)



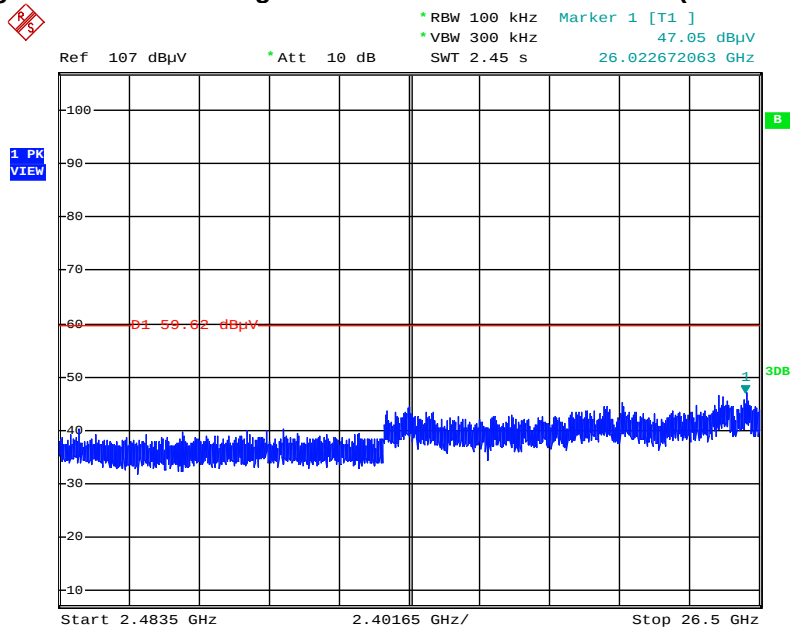
Date: 21.MAY.2016 01:52:48

Plot on Configuration IEEE 802.11g / CH 11 / 30MHz~2400MHz (down 30dBc)



Date: 21.MAY.2016 01:53:51

Plot on Configuration IEEE 802.11g / CH 11 / 2483.5MHz~26500MHz (down 30dBc)



Date: 21.MAY.2016 01:53:33

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)_1TX	Pass	2.43449G	19.24	-10.76	2.15991G	-46.08	2.39752G	-18.71	2.49108G	-47.46	17.6558G	-47.48	1
802.11g_Nss1,(6Mbps)_1TX	Pass	2.44451G	13.50	-16.50	2.16748G	-48.12	2.39928G	-24.88	2.50932G	-49.13	23.17659G	-45.92	1
802.11n HT20_Nss1,(MCS0)_3TX	Pass	2.442G	12.79	-17.21	2.11215G	-48.27	2.39958G	-26.78	2.49268G	-51.19	16.52636G	-46.51	1
802.11n HT40_Nss1,(MCS0)_3TX	Pass	2.43198G	2.77	-27.23	2.14567G	-53.00	2.39952G	-32.26	2.48354G	-42.11	15.14477G	-47.21	3

Result

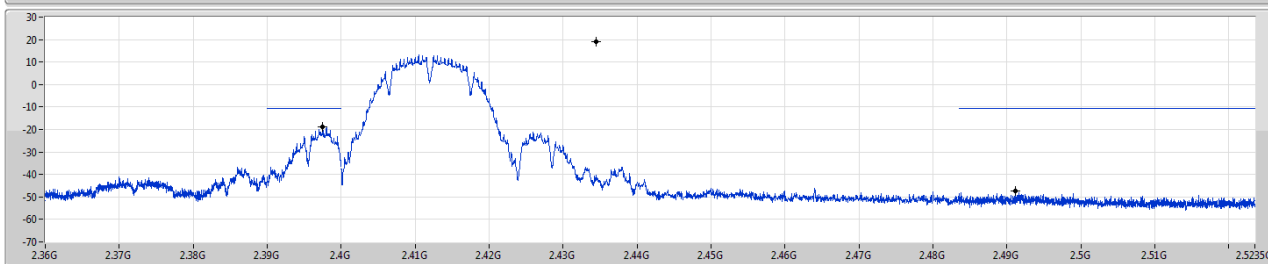
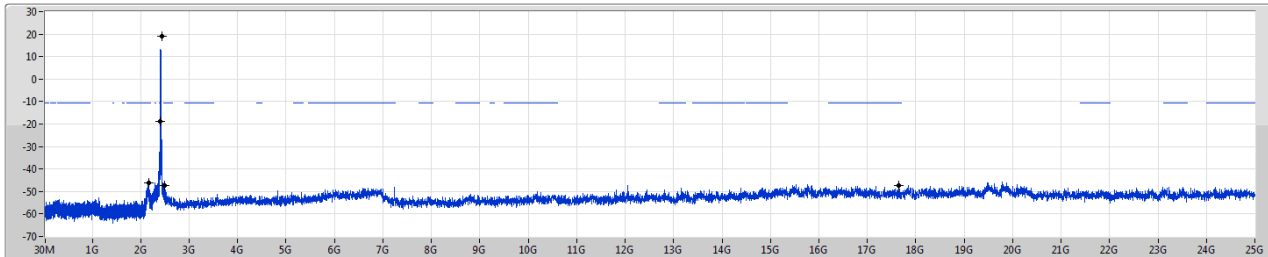
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43449G	19.24	-10.76	2.15991G	-46.08	2.39752G	-18.71	2.49108G	-47.46	17.6558G	-47.48	1
2437MHz	Pass	2.43449G	19.24	-10.76	2.15496G	-49.05	2.39998G	-22.45	2.48498G	-31.92	5.78259G	-47.08	1
2462MHz	Pass	2.43449G	19.24	-10.76	2.18991G	-45.11	2.39776G	-44.57	2.48702G	-30.02	16.53198G	-46.05	1
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.44451G	13.50	-16.50	2.16748G	-48.12	2.39928G	-24.88	2.50932G	-49.13	23.17659G	-45.92	1
2437MHz	Pass	2.44451G	13.50	-16.50	2.16778G	-45.99	2.39828G	-29.75	2.48478G	-32.02	15.09629G	-47.03	1
2462MHz	Pass	2.44451G	13.50	-16.50	2.19894G	-45.90	2.39008G	-44.72	2.48634G	-30.35	16.84946G	-46.53	1
802.11n HT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.442G	12.79	-17.21	2.11215G	-48.27	2.39958G	-26.78	2.49268G	-51.19	16.52636G	-46.51	1
2412MHz	Pass	2.442G	12.79	-17.21	2.12001G	-51.30	2.39988G	-33.56	2.52002G	-51.80	16.48984G	-46.57	2
2412MHz	Pass	2.442G	12.79	-17.21	2.19748G	-53.00	2.3998G	-26.88	2.48626G	-49.45	16.23417G	-46.98	3
2437MHz	Pass	2.442G	12.79	-17.21	2.17389G	-45.95	2.39988G	-32.96	2.4854G	-32.79	17.37485G	-45.85	1
2437MHz	Pass	2.442G	12.79	-17.21	2.11448G	-50.98	2.39914G	-46.67	2.4849G	-49.04	6.97385G	-46.71	2
2437MHz	Pass	2.442G	12.79	-17.21	2.30699G	-50.97	2.39922G	-32.85	2.48386G	-35.52	16.25383G	-46.81	3
2462MHz	Pass	2.442G	12.79	-17.21	2.1937G	-47.67	2.39966G	-46.22	2.48386G	-39.05	6.6676G	-46.82	1
2462MHz	Pass	2.442G	12.79	-17.21	2.19311G	-50.75	2.3956G	-49.48	2.48422G	-46.00	17.46194G	-46.70	2
2462MHz	Pass	2.442G	12.79	-17.21	2.16399G	-52.11	2.39404G	-50.08	2.48386G	-36.33	16.86351G	-46.79	3
802.11n HT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.43198G	2.77	-27.23	2.16027G	-48.93	2.3994G	-33.33	2.49742G	-52.57	16.78544G	-46.29	1
2422MHz	Pass	2.43198G	2.77	-27.23	2.08012G	-51.07	2.39988G	-37.82	2.52002G	-51.60	15.20647G	-47.73	2
2422MHz	Pass	2.43198G	2.77	-27.23	2.30769G	-51.56	2.39984G	-32.29	2.49102G	-49.64	15.14477G	-46.39	3
2437MHz	Pass	2.43198G	2.77	-27.23	2.18117G	-46.38	2.39924G	-33.34	2.48538G	-43.56	24.46713G	-46.94	1
2437MHz	Pass	2.43198G	2.77	-27.23	2.1202G	-49.45	2.39924G	-42.04	2.48442G	-49.56	16.74056G	-47.21	2
2437MHz	Pass	2.43198G	2.77	-27.23	2.14567G	-53.00	2.39952G	-32.26	2.48354G	-42.11	15.14477G	-47.21	3
2452MHz	Pass	2.43198G	2.77	-27.23	2.11218G	-49.64	2.3958G	-50.12	2.48446G	-41.69	6.87131G	-47.26	1
2452MHz	Pass	2.43198G	2.77	-27.23	2.08012G	-50.16	2.39304G	-52.73	2.4851G	-47.75	16.58351G	-46.38	2
2452MHz	Pass	2.43198G	2.77	-27.23	2.15369G	-53.02	2.39664G	-49.28	2.48386G	-41.83	16.28062G	-45.80	3

802.11b_Nss1,(1Mbps)_1TX

CSE NdB

2412MHz

22/05/2019



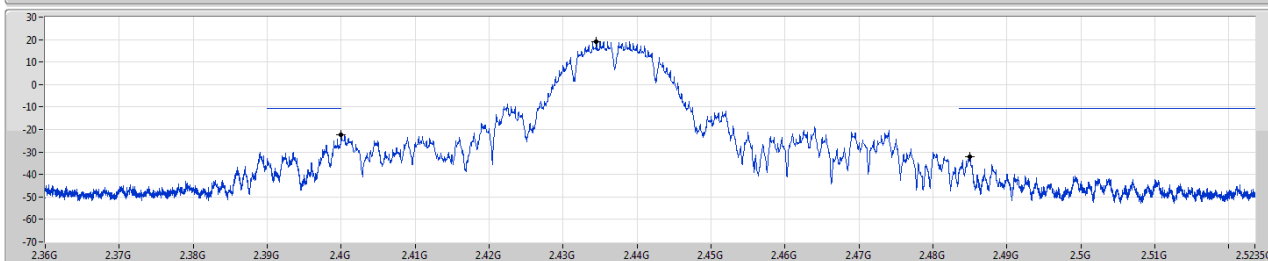
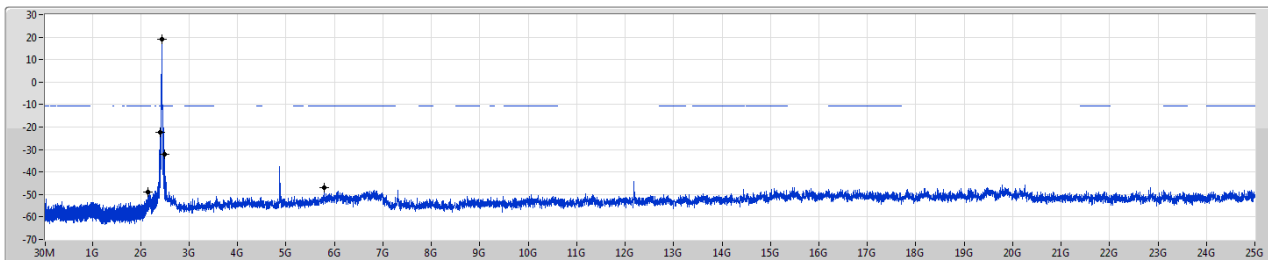
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43449G	19.24	-10.76	2.15991G	-46.08	2.39752G	-18.71	2.49108G	-47.46	17.6558G	-47.48	1

802.11b_Nss1,(1Mbps)_1TX

CSE NdB

2437MHz

22/05/2019



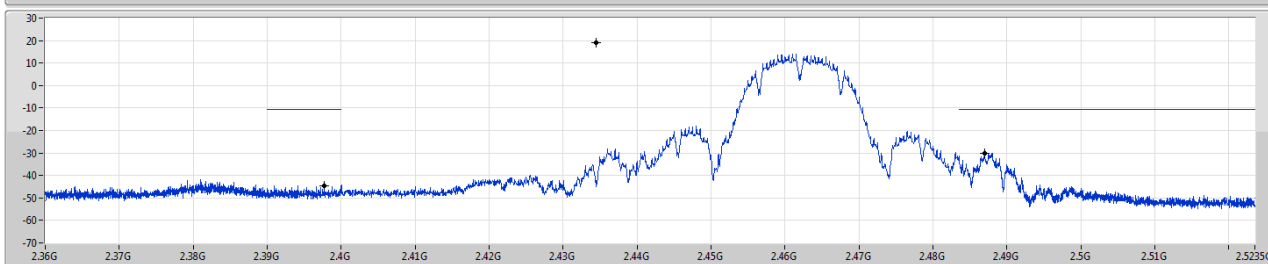
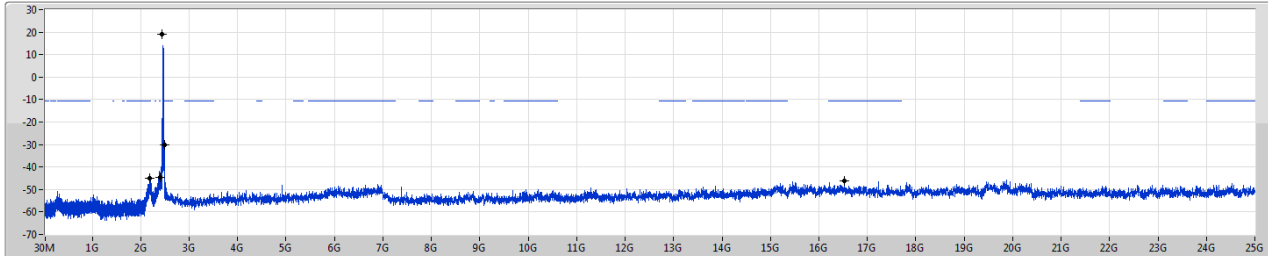
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43449G	19.24	-10.76	2.15496G	-49.05	2.39998G	-22.45	2.48498G	-31.92	5.78259G	-47.08	1

802.11b_Nss1,(1Mbps)_1TX

2462MHz

CSE NdB

22/05/2019



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

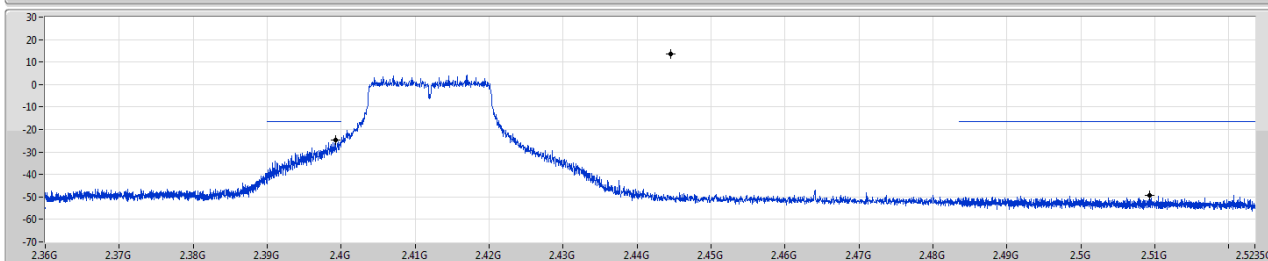
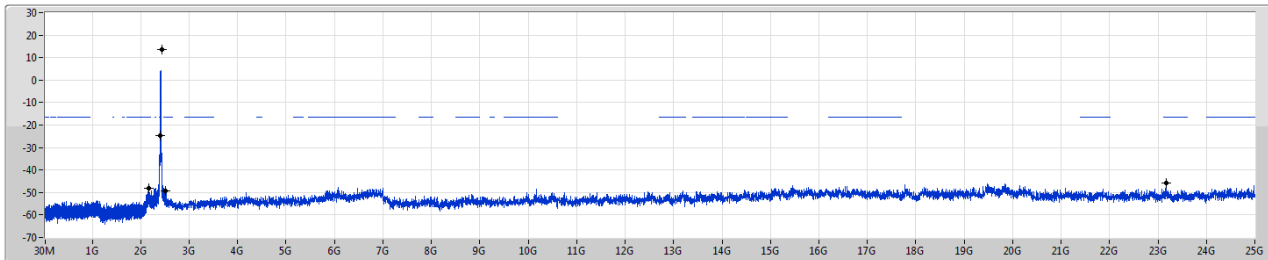
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43449G	19.24	-10.76	2.18991G	-45.11	2.39776G	-44.57	2.48702G	-30.02	16.53198G	-46.05	1

802.11g_Nss1,(6Mbps)_1TX

2412MHz

CSE NdB

22/05/2019



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

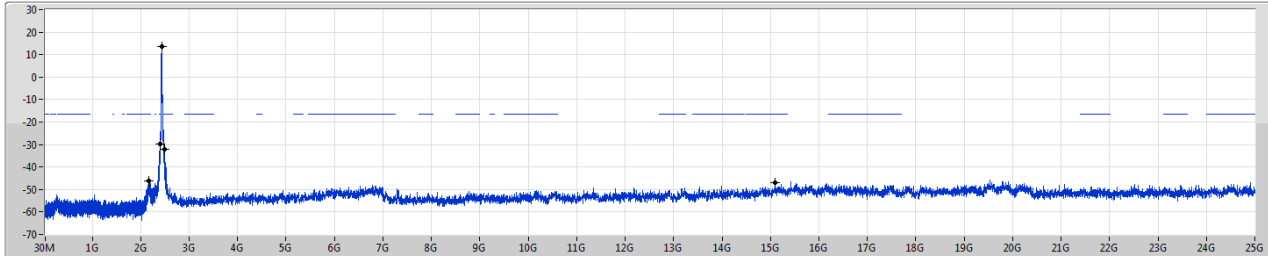
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44451G	13.50	-16.50	2.16748G	-48.12	2.39928G	-24.88	2.50932G	-49.13	23.17659G	-45.92	1

802.11g_Nss1,(6Mbps)_1TX

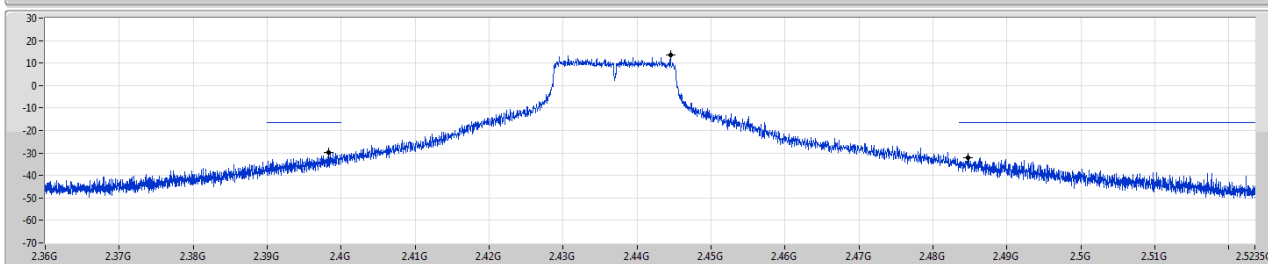
CSE NdB

2437MHz

22/05/2019



Port1



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

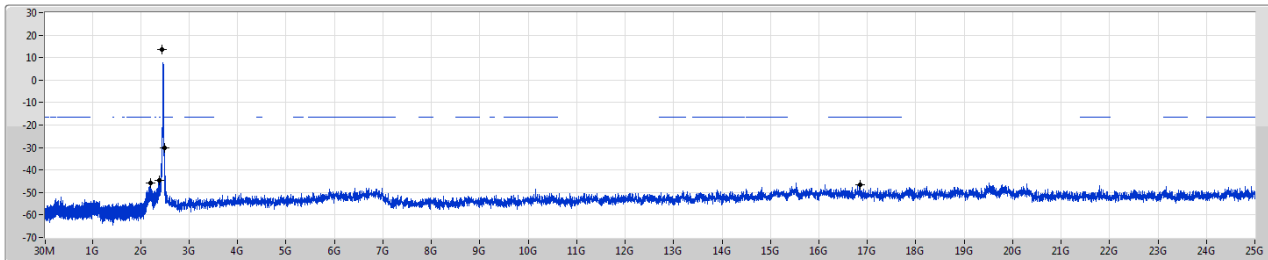
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44451G	13.50	-16.50	2.16778G	-45.99	2.39828G	-29.75	2.48478G	-32.02	15.09629G	-47.03	1

802.11g_Nss1,(6Mbps)_1TX

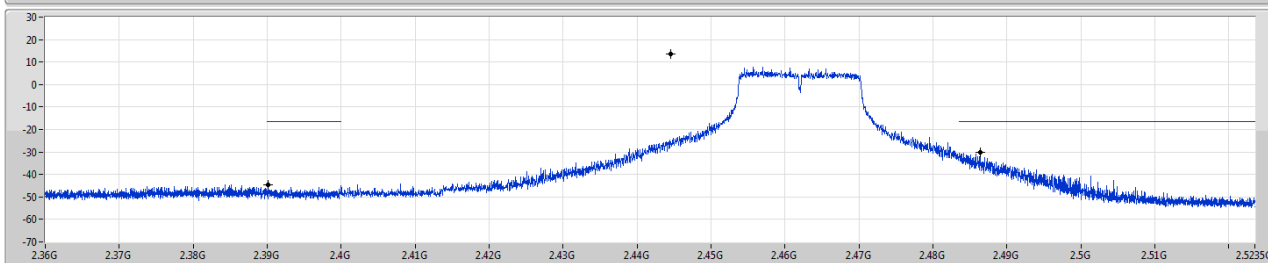
CSE NdB

2462MHz

22/05/2019



Port1



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

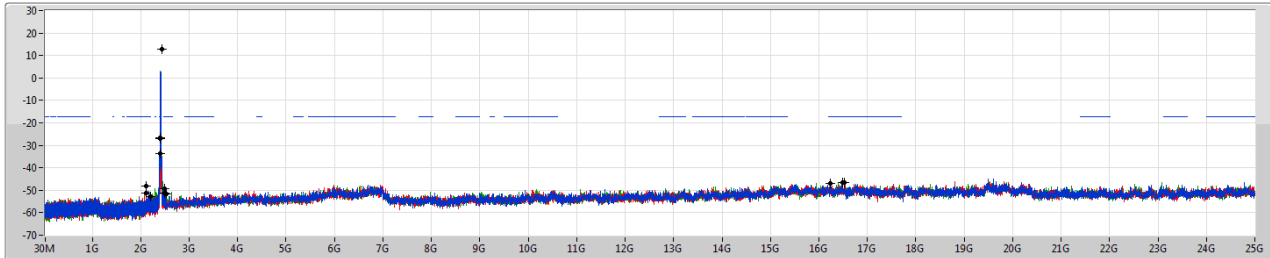
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44451G	13.50	-16.50	2.19894G	-45.90	2.39008G	-44.72	2.48634G	-30.35	16.84946G	-46.53	1

802.11n HT20_Nss1,(MCS0)_3TX

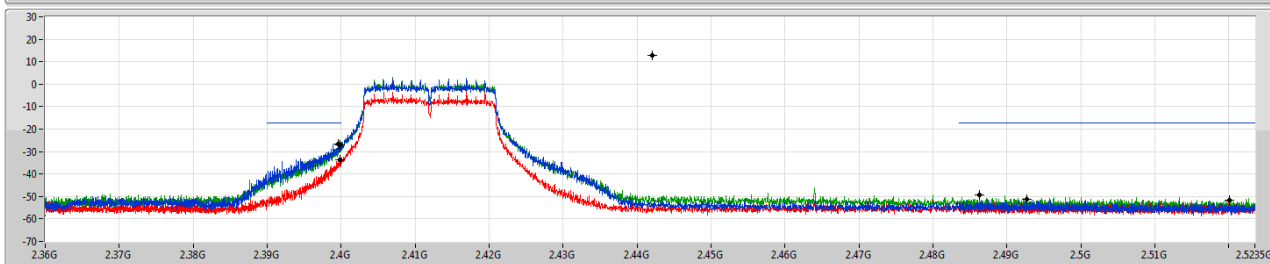
2412MHz

CSE NdB

22/05/2019



Port 1
Port 2
Port 3



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

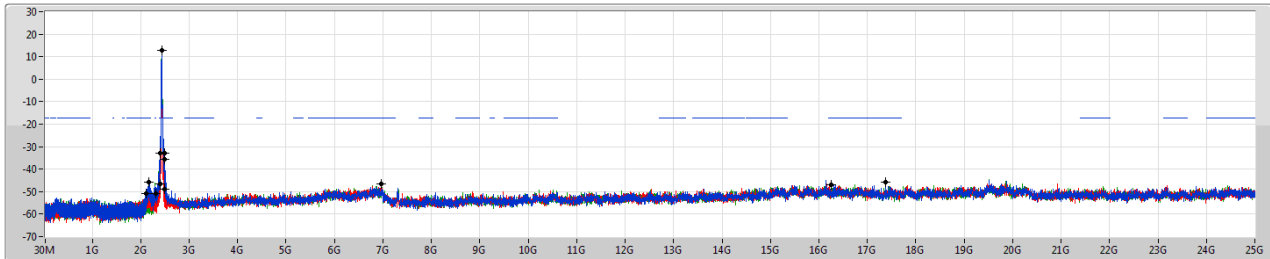
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.442G	12.79	-17.21	2.11215G	-48.27	2.39958G	-26.78	2.49268G	-51.19	16.52636G	-46.51	1
2.442G	12.79	-17.21	2.12001G	-51.30	2.39988G	-33.56	2.52002G	-51.80	16.48984G	-46.57	2
2.442G	12.79	-17.21	2.19748G	-53.00	2.3998G	-26.88	2.48626G	-49.45	16.23417G	-46.98	3

802.11n HT20_Nss1,(MCS0)_3TX

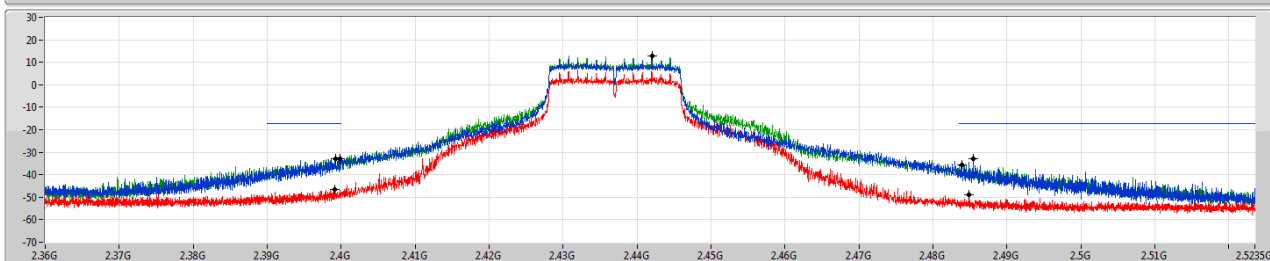
2437MHz

CSE NdB

22/05/2019



Port 1
Port 2
Port 3



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

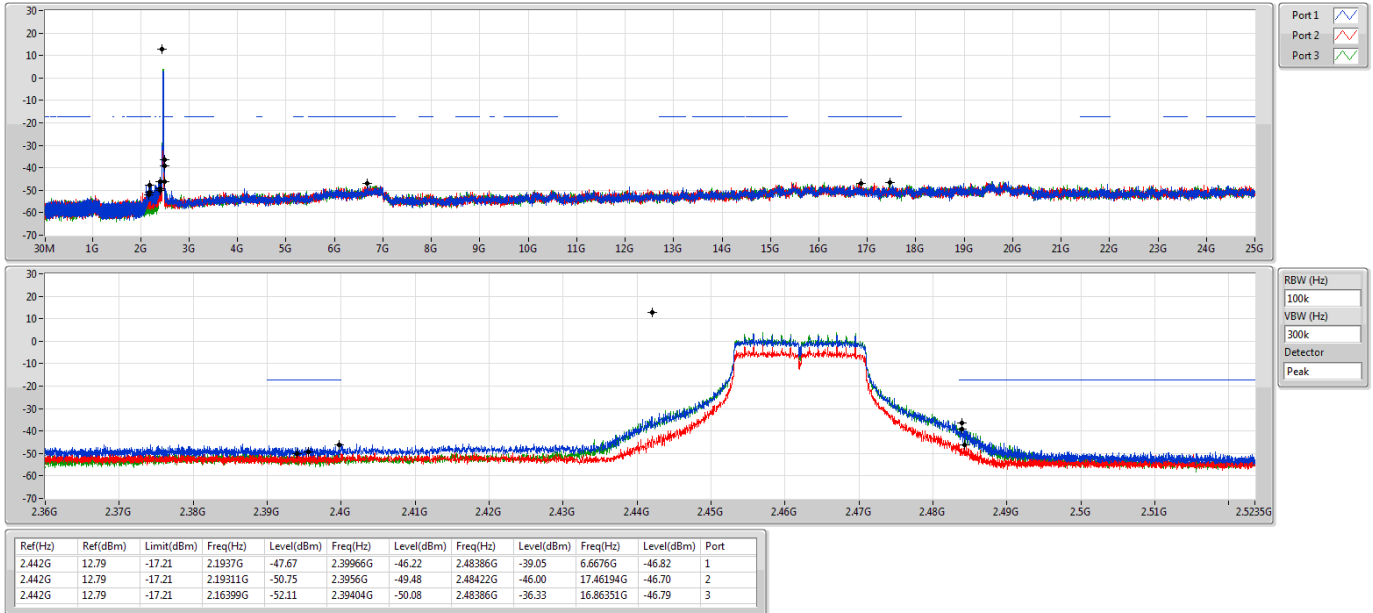
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.442G	12.79	-17.21	2.17389G	-45.95	2.39988G	-32.96	2.4854G	-32.79	17.37485G	-45.85	1
2.442G	12.79	-17.21	2.11448G	-50.98	2.39914G	-46.67	2.4849G	-49.04	6.97385G	-46.71	2
2.442G	12.79	-17.21	2.30699G	-50.97	2.39922G	-32.85	2.48386G	-35.52	16.25383G	-46.81	3

802.11n HT20_Nss1,(MCS0)_3TX

2462MHz

CSE NdB

22/05/2019

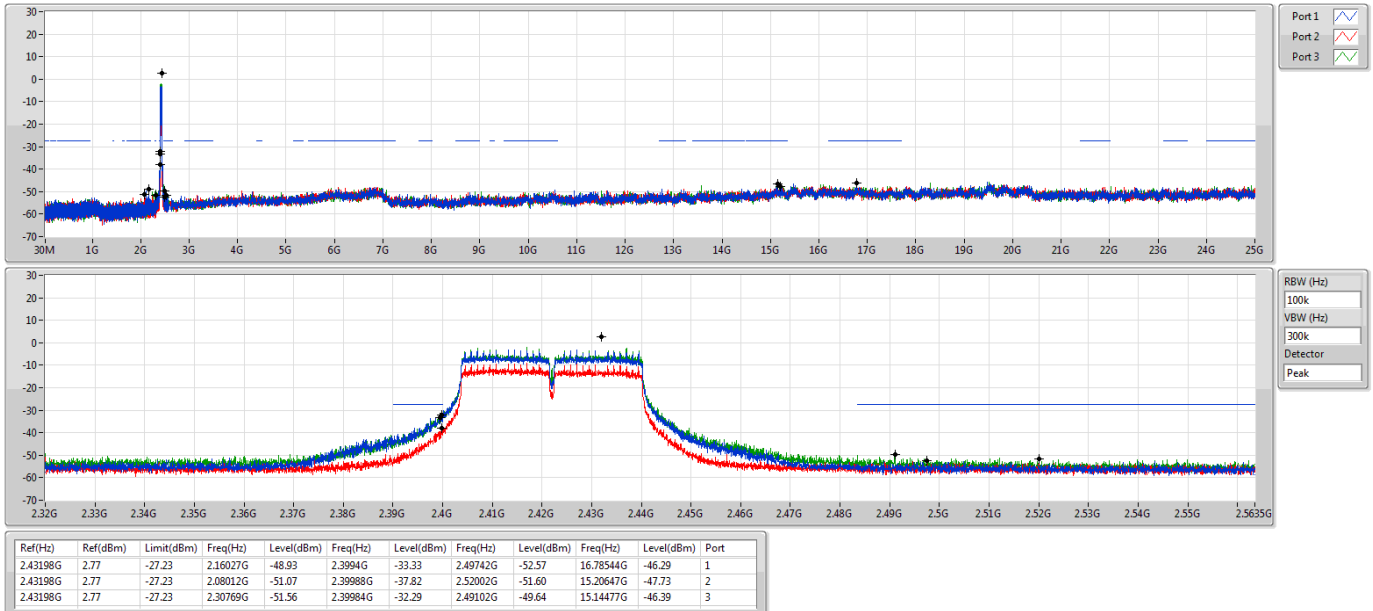


802.11n HT40_Nss1,(MCS0)_3TX

2422MHz

CSE NdB

22/05/2019

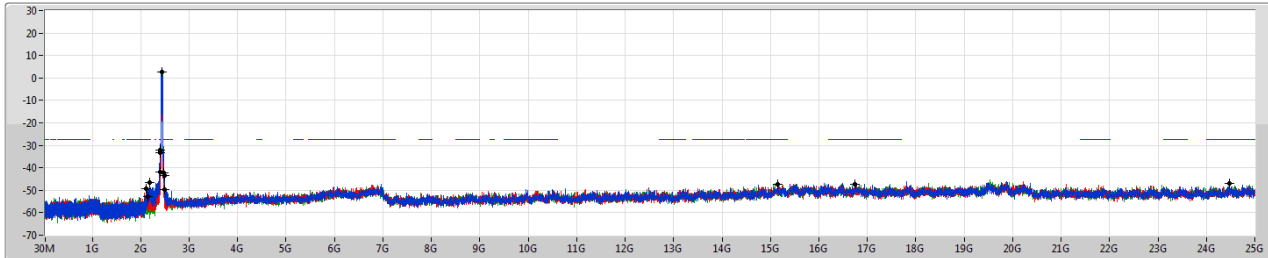


802.11n HT40_Nss1,(MCS0)_3TX

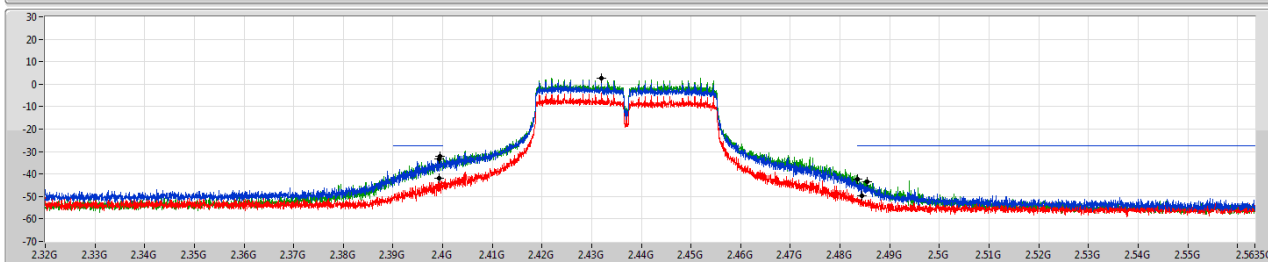
2437MHz

CSE NdB

22/05/2019



Port 1
Port 2
Port 3



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

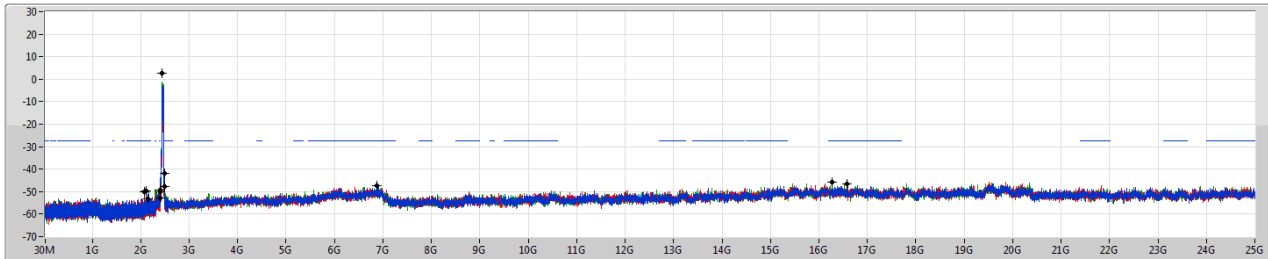
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43198G	2.77	-27.23	2.18117G	-46.38	2.39924G	-33.34	2.48538G	-43.56	2.46713G	-46.94	1
2.43198G	2.77	-27.23	2.1202G	-49.45	2.39924G	-42.04	2.48442G	-49.56	16.74056G	-47.21	2
2.43198G	2.77	-27.23	2.14567G	-53.00	2.39952G	-32.26	2.48354G	-42.11	15.14477G	-47.21	3

802.11n HT40_Nss1,(MCS0)_3TX

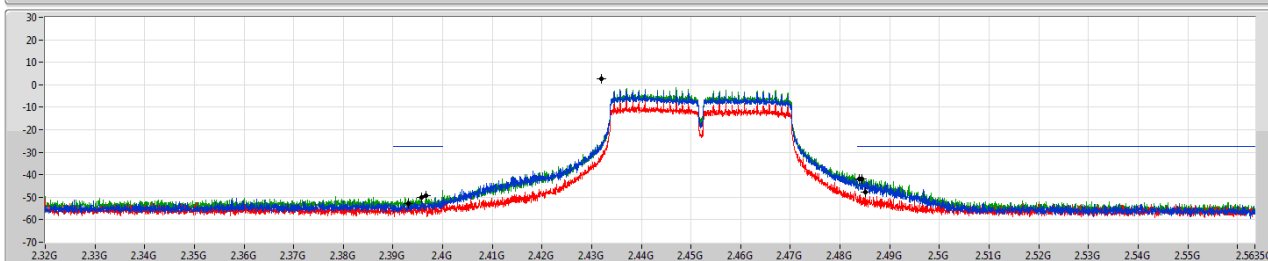
2452MHz

CSE NdB

22/05/2019



Port 1
Port 2
Port 3



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

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43198G	2.77	-27.23	2.11218G	-49.64	2.3958G	-50.12	2.48446G	-41.69	6.87131G	-47.26	1
2.43198G	2.77	-27.23	2.08012G	-50.16	2.39304G	-52.73	2.4851G	-47.75	16.58351G	-46.38	2
2.43198G	2.77	-27.23	2.15369G	-53.02	2.39664G	-49.28	2.48386G	-41.83	16.28062G	-45.80	3



RSE TX above 1GHz For Mode 1

Appendix E.1

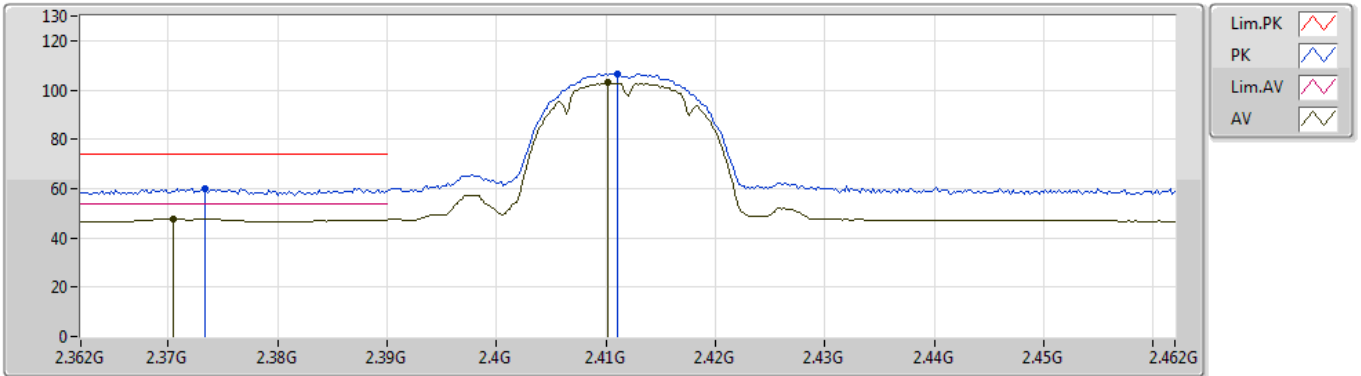
Summary

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	-	-	-	-	-	-	-	-	-	-	-	-
802.11g_Nss1,(6Mbps)_1TX	Pass	AV	2.39G	53.91	54.00	-0.09	31.38	3	Horizontal	184	1.12	-

802.11b_Nss1,(1Mbps)_1TX

13/05/2019

2412MHz_TX



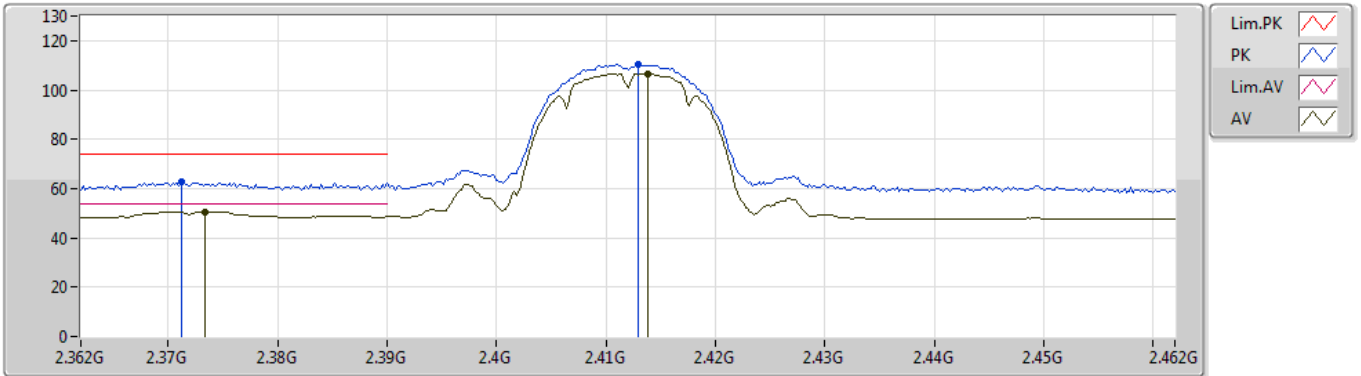
EUT Z_1TX
Setting 31.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	2.3734G	60.18	74.00	-13.82	31.34	3	Vertical	333	2.45	-				
AV	2.3704G	47.62	54.00	-6.38	31.33	3	Vertical	333	2.45	-				
PK	2.411G	106.49	Inf	-Inf	31.43	3	Vertical	333	2.45	-				
AV	2.4102G	102.89	Inf	-Inf	31.43	3	Vertical	333	2.45	-				

802.11b_Nss1,(1Mbps)_1TX

13/05/2019

2412MHz_TX



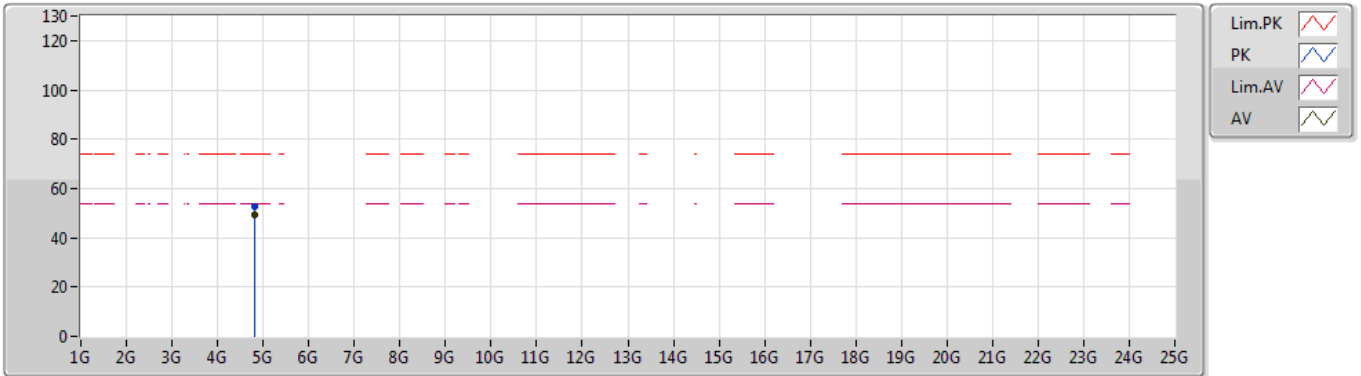
EUT_Z_1TX
Setting 31.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	2.3712G	62.58	74.00	-11.42	31.33	3	Horizontal	181	1.37	-				
AV	2.3734G	50.58	54.00	-3.42	31.34	3	Horizontal	181	1.37	-				
PK	2.413G	110.37	Inf	-Inf	31.44	3	Horizontal	181	1.37	-				
AV	2.4138G	106.66	Inf	-Inf	31.44	3	Horizontal	181	1.37	-				

802.11b_Nss1,(1Mbps)_1TX

13/05/2019

2412MHz_TX



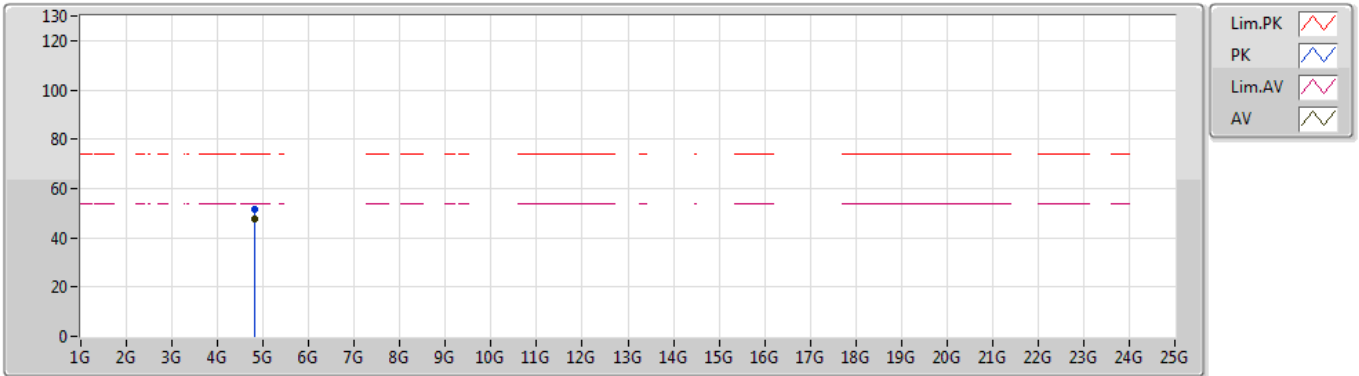
EUT Z_1TX
Setting 31.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	4.82402G	52.72	74.00	-21.28	7.30	3	Vertical	37	2.71	-				
AV	4.82394G	49.15	54.00	-4.85	7.30	3	Vertical	37	2.71	-				

802.11b_Nss1,(1Mbps)_1TX

13/05/2019

2412MHz_TX



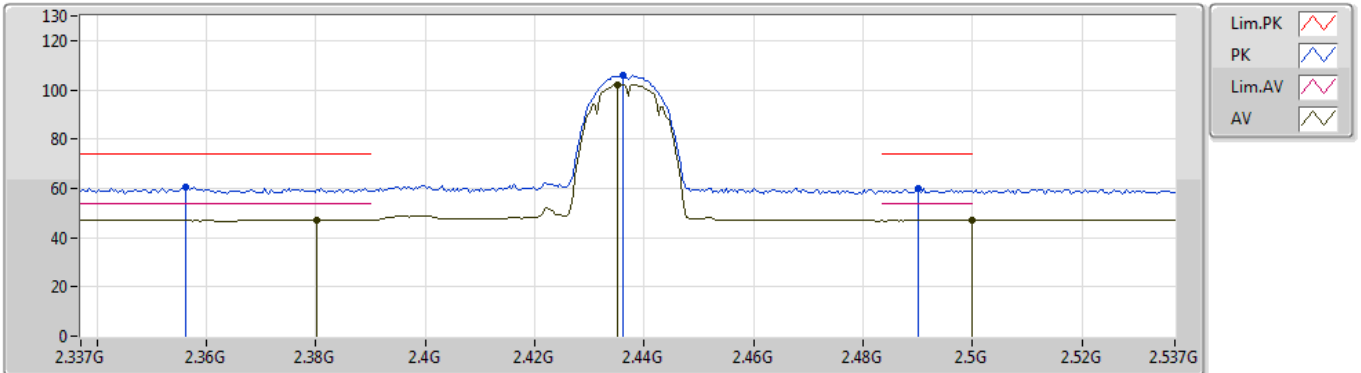
EUT Z_1TX
Setting 31.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	4.82404G	51.83	74.00	-22.17	7.30	3	Horizontal	65	1.14	-				
AV	4.82396G	47.85	54.00	-6.15	7.30	3	Horizontal	65	1.14	-				

802.11b_Nss1,(1Mbps)_1TX

13/05/2019

2437MHz_TX



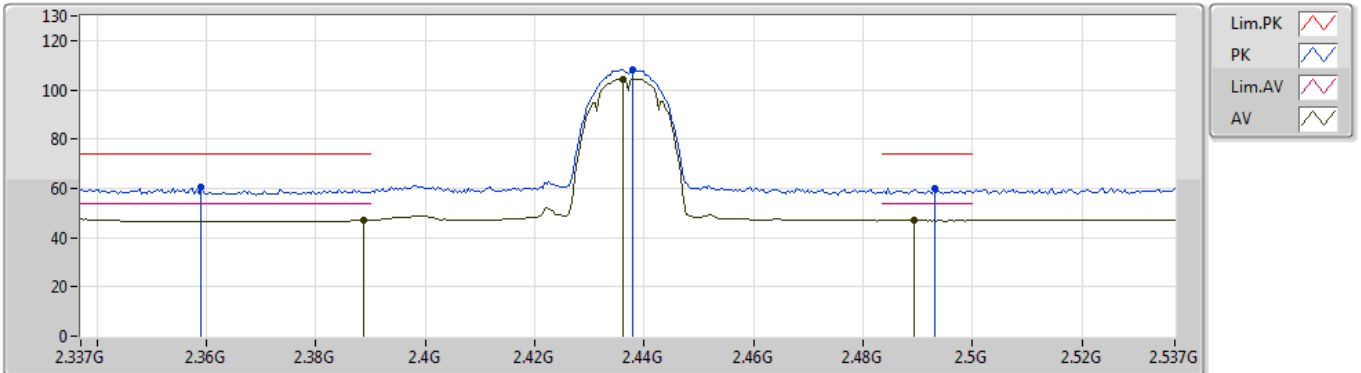
EUT Z_1TX
Setting 31.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
PK	2.3562G	60.67	74.00	-13.33	31.29	3	Vertical	24	2.97	-
AV	2.3802G	47.29	54.00	-6.71	31.36	3	Vertical	24	2.97	-
PK	2.4362G	105.91	Inf	-Inf	31.49	3	Vertical	24	2.97	-
AV	2.435G	102.18	Inf	-Inf	31.48	3	Vertical	24	2.97	-
PK	2.4902G	60.22	74.00	-13.78	31.61	3	Vertical	24	2.97	-
AV	2.4998G	46.95	54.00	-7.05	31.63	3	Vertical	24	2.97	-

802.11b_Nss1,(1Mbps)_1TX

13/05/2019

2437MHz_TX



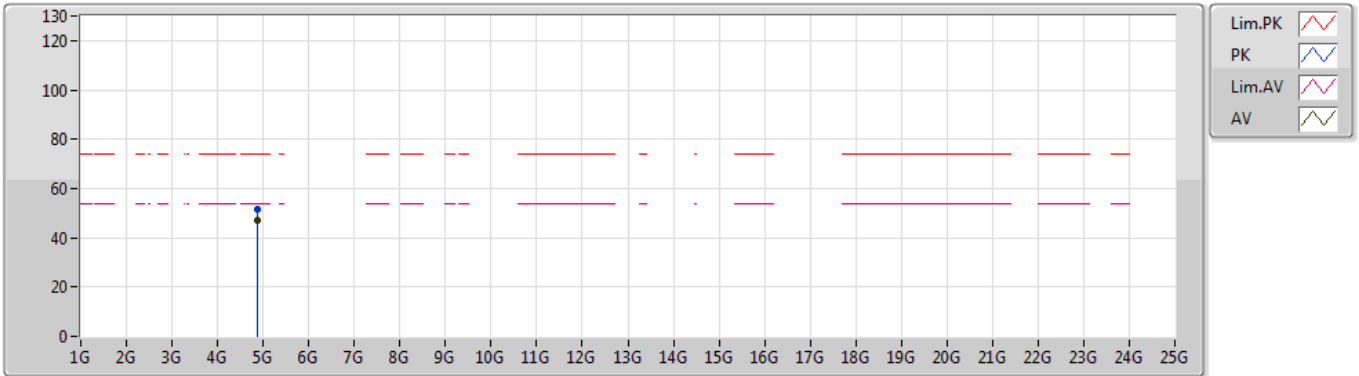
EUT Z_1TX
Setting 31.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
PK	2.359G	60.61	74.00	-13.39	31.30	3	Horizontal	188	2.96	-
AV	2.3886G	46.93	54.00	-7.07	31.38	3	Horizontal	188	2.96	-
PK	2.4378G	108.25	Inf	-Inf	31.50	3	Horizontal	188	2.96	-
AV	2.4362G	104.42	Inf	-Inf	31.49	3	Horizontal	188	2.96	-
PK	2.493G	60.01	74.00	-13.99	31.62	3	Horizontal	188	2.96	-
AV	2.4894G	46.89	54.00	-7.11	31.61	3	Horizontal	188	2.96	-

802.11b_Nss1,(1Mbps)_1TX

13/05/2019

2437MHz_TX



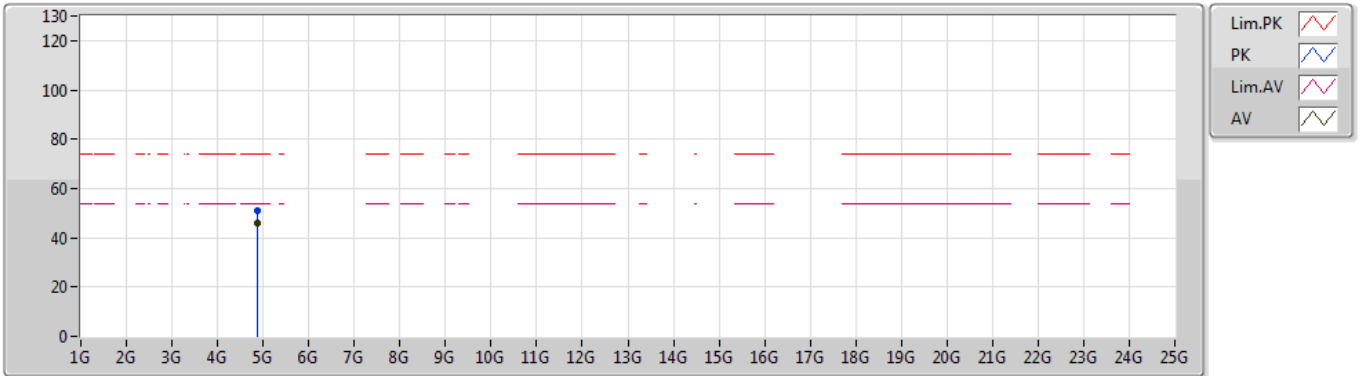
EUT Z_1TX
Setting 31.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	4.87406G	51.61	74.00	-22.39	7.41	3	Vertical	39	2.51	-				
AV	4.87396G	47.21	54.00	-6.79	7.41	3	Vertical	39	2.51	-				

802.11b_Nss1,(1Mbps)_1TX

13/05/2019

2437MHz_TX



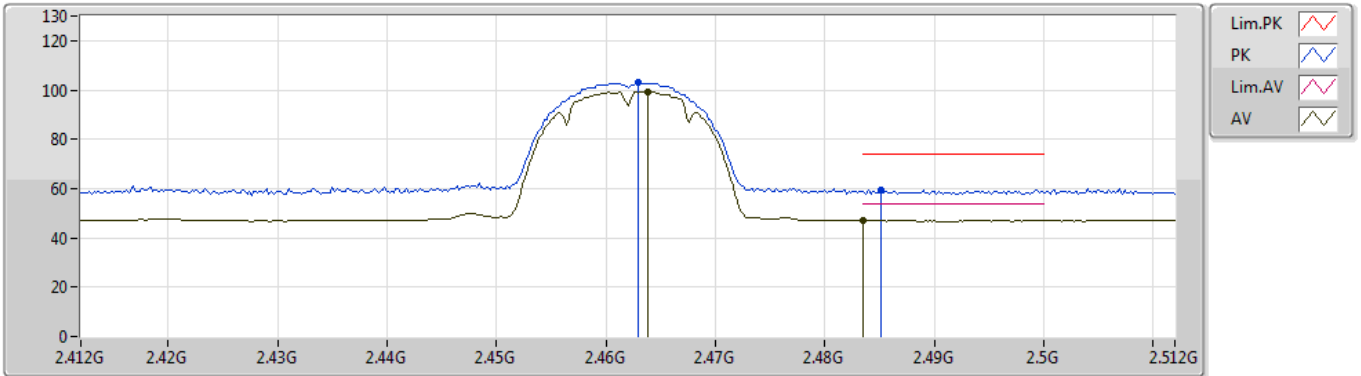
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Setting 31.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	4.87402G	51.09	74.00	-22.91	7.41	3	Horizontal	74	1.02	-				
AV	4.87396G	45.80	54.00	-8.20	7.41	3	Horizontal	74	1.02	-				

802.11b_Nss1,(1Mbps)_1TX

13/05/2019

2462MHz_TX



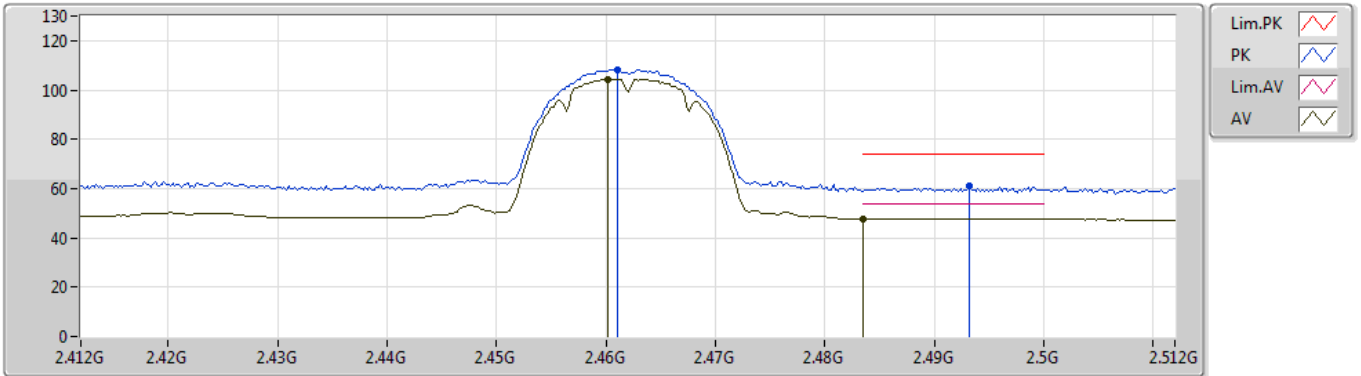
EUT Z_1TX
Setting 31.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	2.463G	103.06	Inf	-Inf	31.55	3	Vertical	322	1.35	-				
AV	2.4638G	99.41	Inf	-Inf	31.55	3	Vertical	322	1.35	-				
PK	2.4852G	59.60	74.00	-14.40	31.59	3	Vertical	322	1.35	-				
AV	2.4835G	46.91	54.00	-7.09	31.59	3	Vertical	322	1.35	-				

802.11b_Nss1,(1Mbps)_1TX

13/05/2019

2462MHz_TX



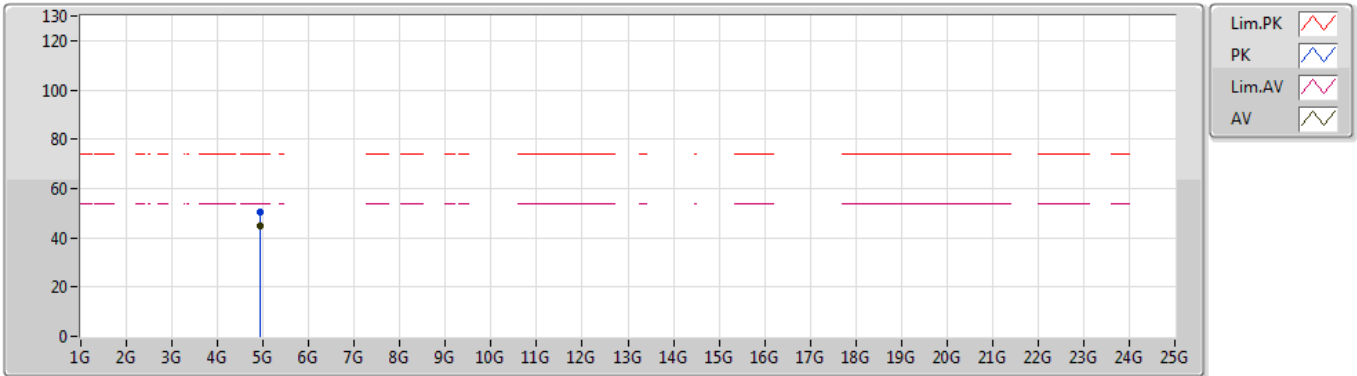
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Setting 31.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment			
PK	2.461G	108.18	Inf	-Inf	31.54	3	Horizontal	184	1.31	-			
AV	2.4602G	104.50	Inf	-Inf	31.54	3	Horizontal	184	1.31	-			
PK	2.4932G	60.92	74.00	-13.08	31.62	3	Horizontal	184	1.31	-			
AV	2.4835G	47.86	54.00	-6.14	31.59	3	Horizontal	184	1.31	-			

802.11b_Nss1,(1Mbps)_1TX

13/05/2019

2462MHz_TX



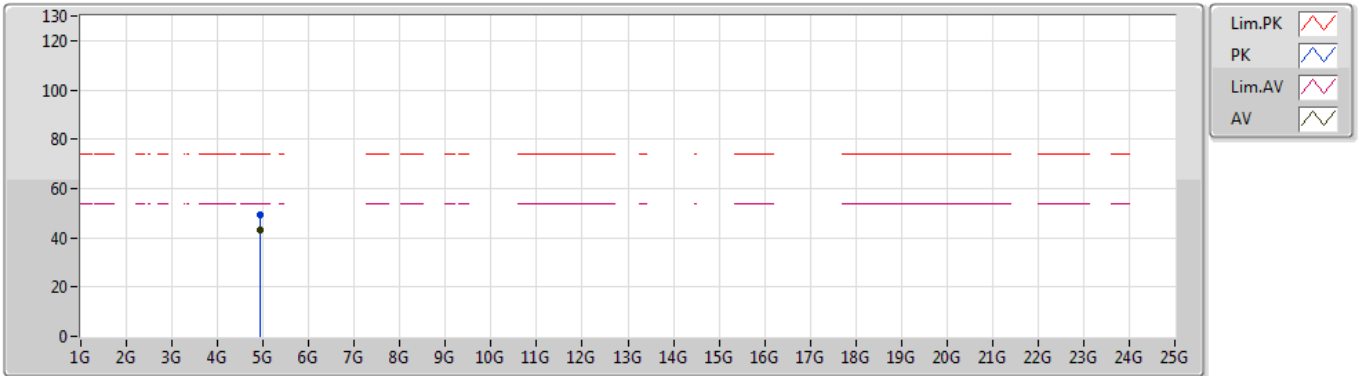
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Setting 31.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	4.924G	50.21	74.00	-23.79	7.51	3	Vertical	35	2.78	-				
AV	4.92398G	45.08	54.00	-8.92	7.51	3	Vertical	35	2.78	-				

802.11b_Nss1,(1Mbps)_1TX

13/05/2019

2462MHz_TX



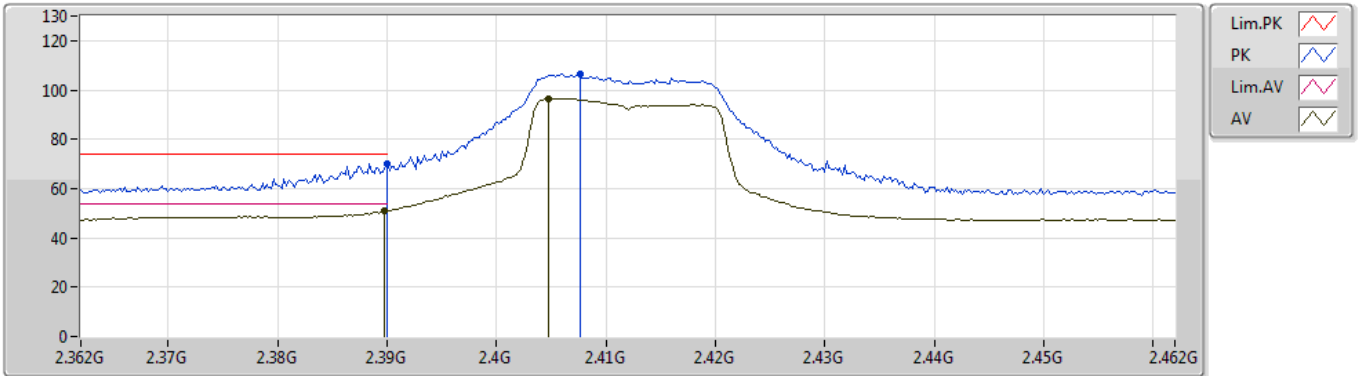
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Setting 31.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	4.92388G	49.18	74.00	-24.82	7.51	3	Horizontal	70	1.50	-				
AV	4.92396G	43.06	54.00	-10.94	7.51	3	Horizontal	70	1.50	-				

802.11g_Nss1,(6Mbps)_1TX

13/05/2019

2412MHz_TX



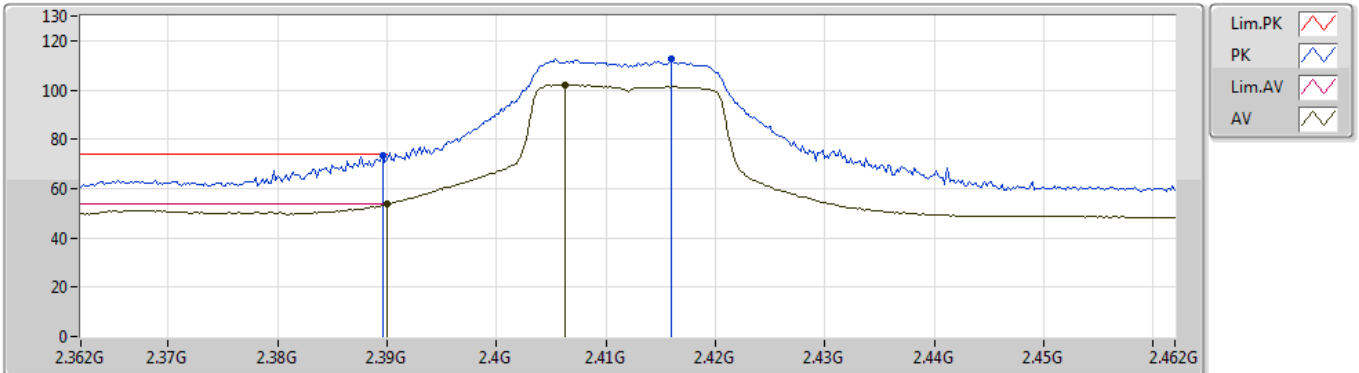
EUT_Z_1TX
Setting 30
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	2.39G	69.97	74.00	-4.03	31.38	3	Vertical	320	1.01	-				
AV	2.3898G	50.93	54.00	-3.07	31.38	3	Vertical	320	1.01	-				
PK	2.4076G	106.49	Inf	-Inf	31.42	3	Vertical	320	1.01	-				
AV	2.4048G	96.61	Inf	-Inf	31.42	3	Vertical	320	1.01	-				

802.11g_Nss1,(6Mbps)_1TX

13/05/2019

2412MHz_TX



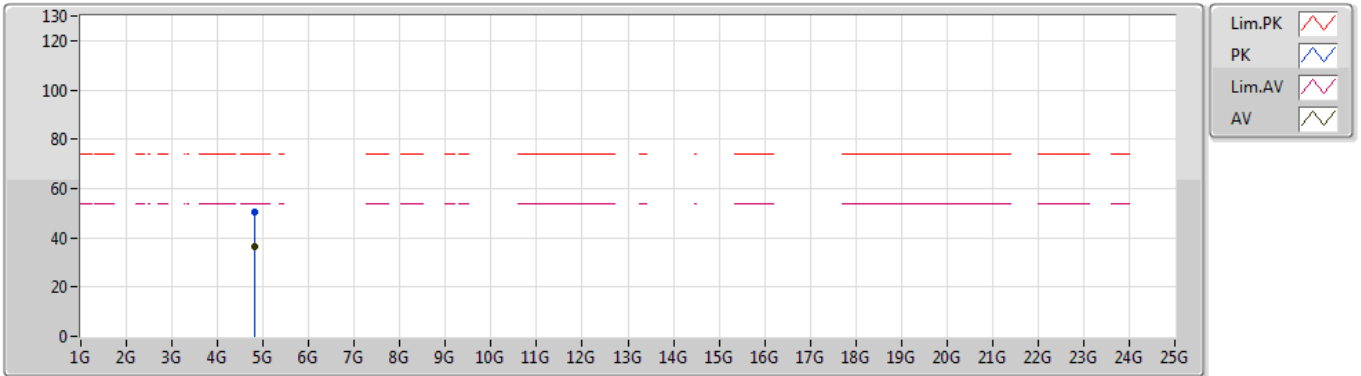
EUT_Z_1TX
Setting 30
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	2.3896G	73.35	74.00	-0.65	31.38	3	Horizontal	184	1.12	-				
AV	2.39G	53.91	54.00	-0.09	31.38	3	Horizontal	184	1.12	-				
PK	2.416G	112.40	Inf	-Inf	31.45	3	Horizontal	184	1.12	-				
AV	2.4062G	102.07	Inf	-Inf	31.42	3	Horizontal	184	1.12	-				

802.11g_Nss1,(6Mbps)_1TX

13/05/2019

2412MHz_TX



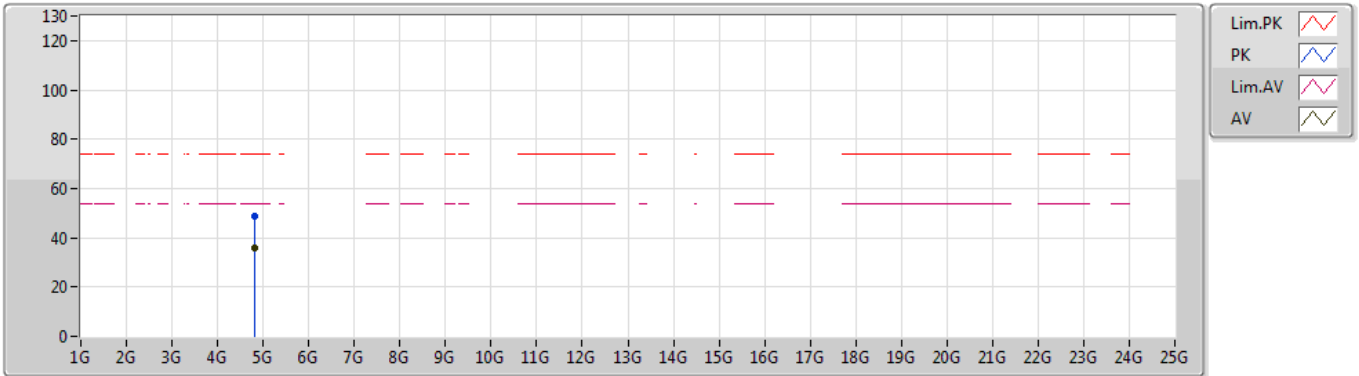
EUT Z_1TX
Setting 30
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	4.82528G	50.65	74.00	-23.35	7.31	3	Vertical	42	2.72	-				
AV	4.82328G	36.25	54.00	-17.75	7.30	3	Vertical	42	2.72	-				

802.11g_Nss1,(6Mbps)_1TX

13/05/2019

2412MHz_TX



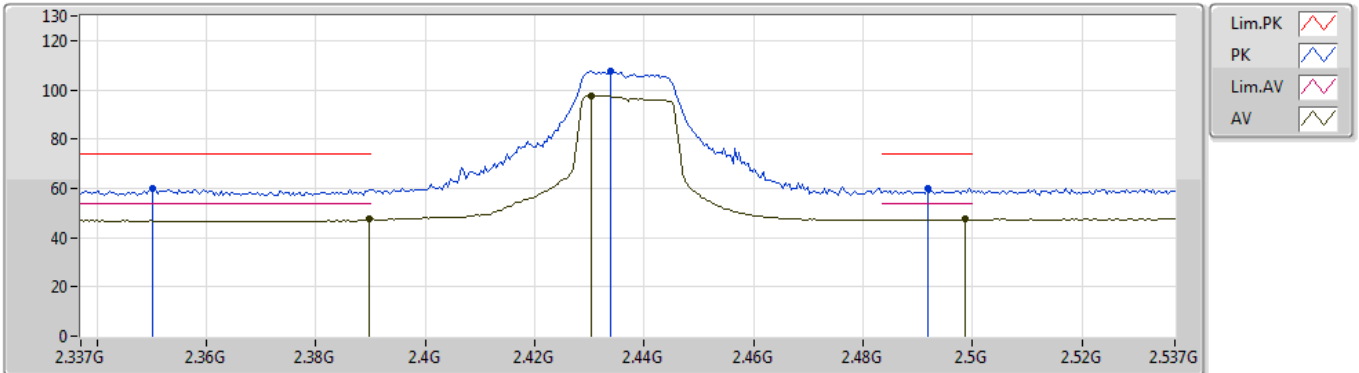
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Setting 30
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	4.81928G	48.83	74.00	-25.17	7.29	3	Horizontal	61	1.01	-				
AV	4.822G	35.60	54.00	-18.40	7.30	3	Horizontal	61	1.01	-				

802.11g_Nss1,(6Mbps)_1TX

13/05/2019

2437MHz_TX



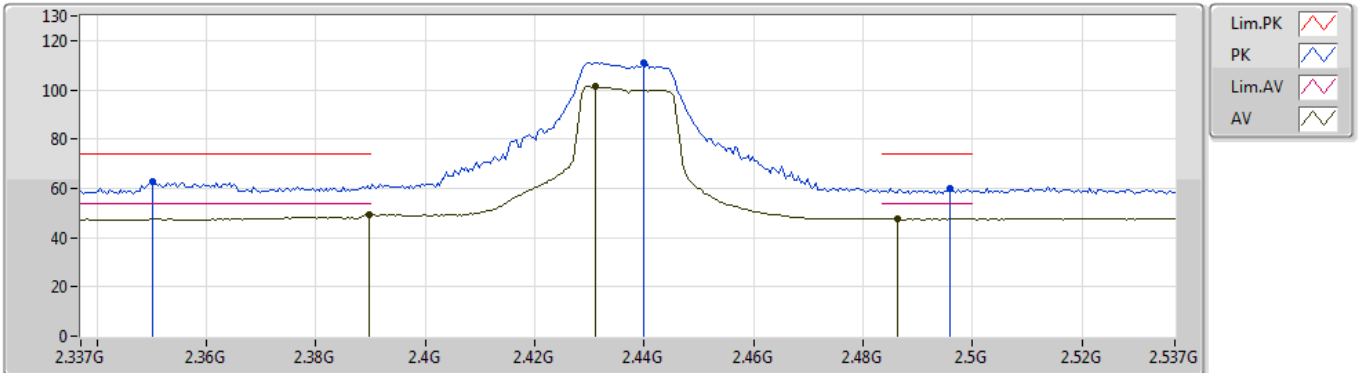
EUT Z_1TX
Setting 31.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	2.3502G	59.84	74.00	-14.16	31.28	3	Vertical	334	2.39	-				
AV	2.3898G	47.41	54.00	-6.59	31.38	3	Vertical	334	2.39	-				
PK	2.4338G	107.43	Inf	-Inf	31.48	3	Vertical	334	2.39	-				
AV	2.4302G	97.78	Inf	-Inf	31.47	3	Vertical	334	2.39	-				
PK	2.4918G	60.01	74.00	-13.99	31.62	3	Vertical	334	2.39	-				
AV	2.4986G	47.43	54.00	-6.57	31.63	3	Vertical	334	2.39	-				

802.11g_Nss1,(6Mbps)_1TX

13/05/2019

2437MHz_TX



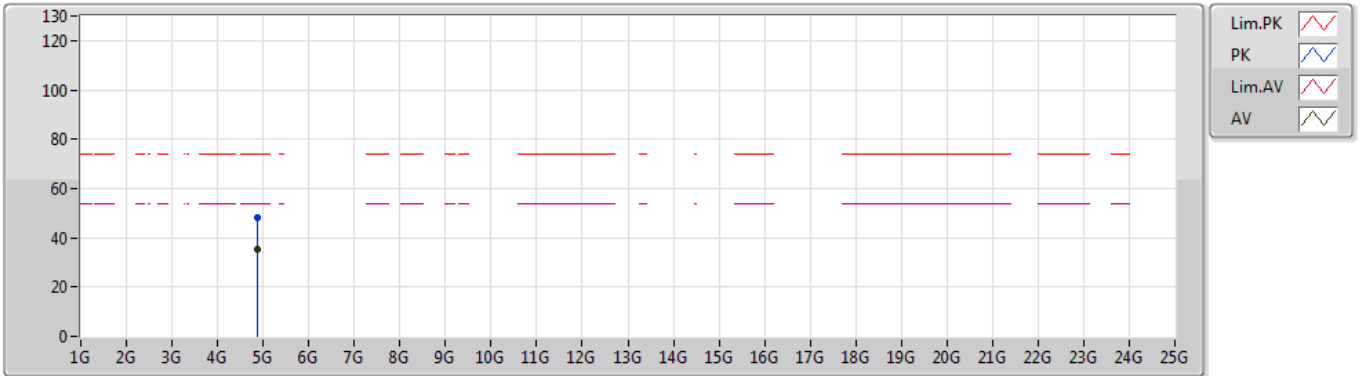
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Setting 31.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
PK	2.3502G	62.64	74.00	-11.36	31.28	3	Horizontal	177	2.16	-
AV	2.3898G	49.18	54.00	-4.82	31.38	3	Horizontal	177	2.16	-
PK	2.4398G	111.04	Inf	-Inf	31.50	3	Horizontal	177	2.16	-
AV	2.431G	101.36	Inf	-Inf	31.48	3	Horizontal	177	2.16	-
PK	2.4958G	60.23	74.00	-13.77	31.62	3	Horizontal	177	2.16	-
AV	2.4862G	47.73	54.00	-6.27	31.60	3	Horizontal	177	2.16	-

802.11g_Nss1,(6Mbps)_1TX

13/05/2019

2437MHz_TX



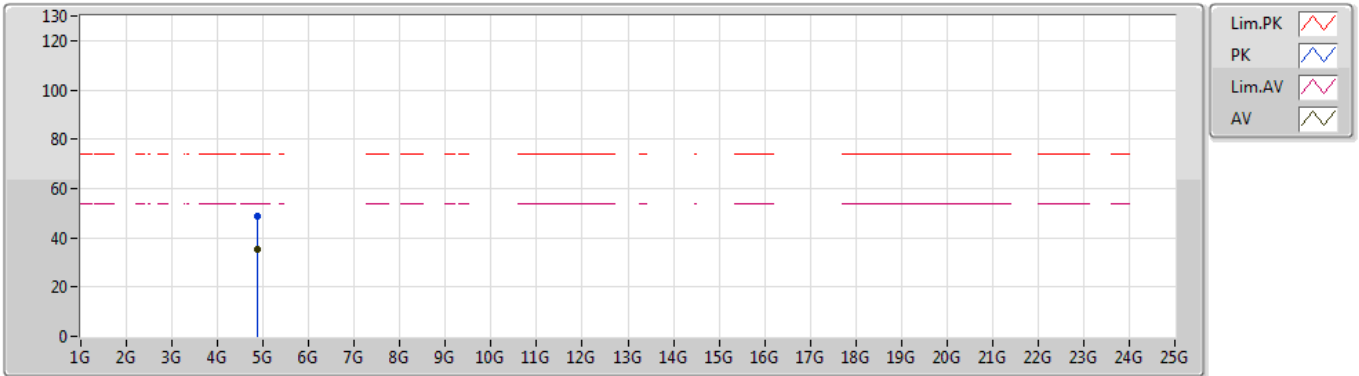
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Setting 31.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	4.8724G	48.46	74.00	-25.54	7.40	3	Vertical	38	2.57	-				
AV	4.8734G	35.17	54.00	-18.83	7.40	3	Vertical	38	2.57	-				

802.11g_Nss1,(6Mbps)_1TX

13/05/2019

2437MHz_TX



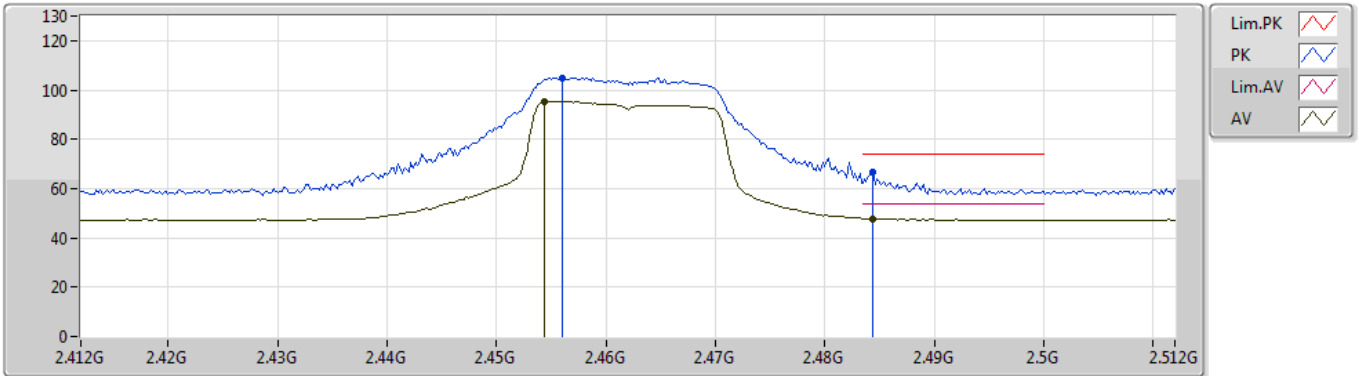
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Setting 31.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	4.8726G	48.74	74.00	-25.26	7.40	3	Horizontal	70	1.01	-				
AV	4.8755G	35.41	54.00	-18.59	7.42	3	Horizontal	70	1.01	-				

802.11g_Nss1,(6Mbps)_1TX

13/05/2019

2462MHz_TX



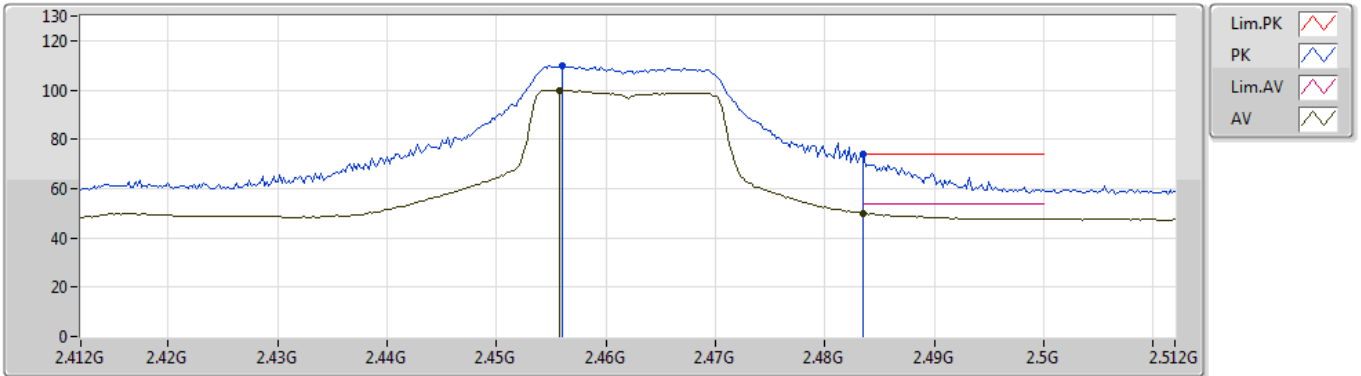
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Setting 30.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	2.456G	104.99	Inf	-Inf	31.53	3	Vertical	325	1.41	-				
AV	2.4544G	95.40	Inf	-Inf	31.53	3	Vertical	325	1.41	-				
PK	2.4844G	66.42	74.00	-7.58	31.59	3	Vertical	325	1.41	-				
AV	2.4844G	47.88	54.00	-6.12	31.59	3	Vertical	325	1.41	-				

802.11g_Nss1,(6Mbps)_1TX

13/05/2019

2462MHz_TX



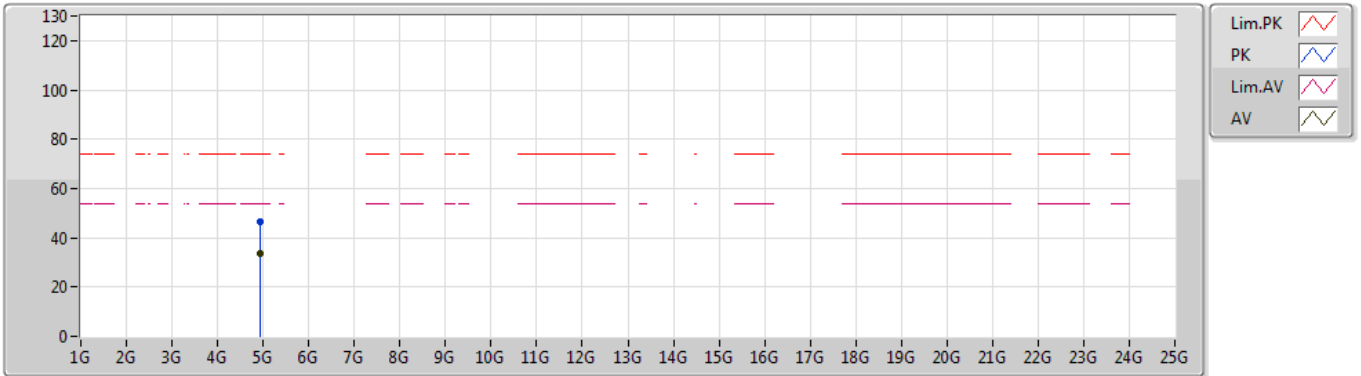
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Setting 30.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment			
PK	2.456G	109.97	Inf	-Inf	31.53	3	Horizontal	186	1.12	-			
AV	2.4558G	100.01	Inf	-Inf	31.53	3	Horizontal	186	1.12	-			
PK	2.4835G	73.79	74.00	-0.21	31.59	3	Horizontal	186	1.12	-			
AV	2.4835G	49.95	54.00	-4.05	31.59	3	Horizontal	186	1.12	-			

802.11g_Nss1,(6Mbps)_1TX

13/05/2019

2462MHz_TX



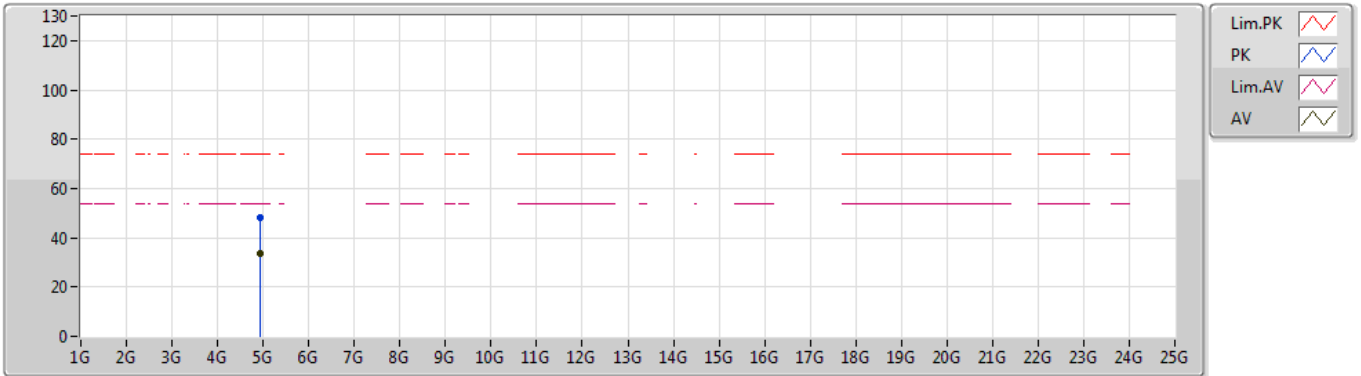
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Setting 30.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	4.9215G	46.23	74.00	-27.77	7.51	3	Vertical	39	2.30	-				
AV	4.9225G	33.48	54.00	-20.52	7.51	3	Vertical	39	2.30	-				

802.11g_Nss1,(6Mbps)_1TX

13/05/2019

2462MHz_TX



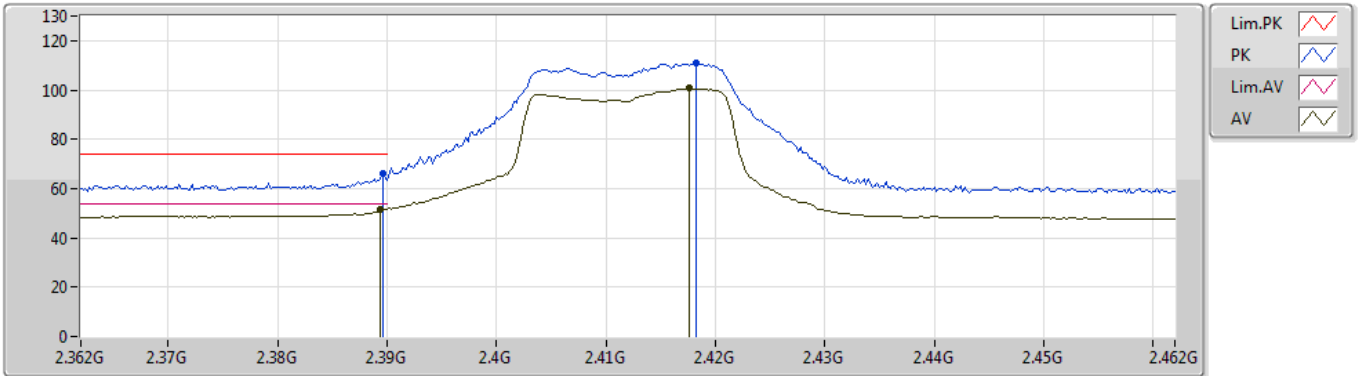
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Setting 30.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	4.9232G	47.91	74.00	-26.09	7.51	3	Horizontal	63	1.09	-				
AV	4.9239G	33.84	54.00	-20.16	7.51	3	Horizontal	63	1.09	-				

802.11n HT20_Nss1,(MCS0)_3TX

13/05/2019

2412MHz_TX



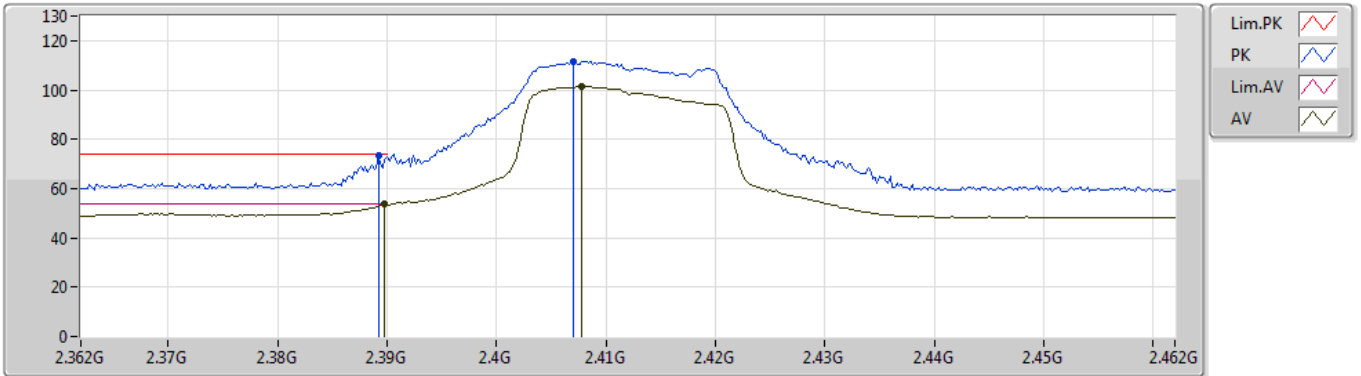
EUT Z_3TX
Setting 23
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	2.3896G	65.99	74.00	-8.01	31.38	3	Vertical	91	2.97	-				
AV	2.3894G	51.44	54.00	-2.56	31.38	3	Vertical	91	2.97	-				
PK	2.4182G	110.92	Inf	-Inf	31.45	3	Vertical	91	2.97	-				
AV	2.4176G	100.73	Inf	-Inf	31.45	3	Vertical	91	2.97	-				

802.11n HT20_Nss1,(MCS0)_3TX

13/05/2019

2412MHz_TX



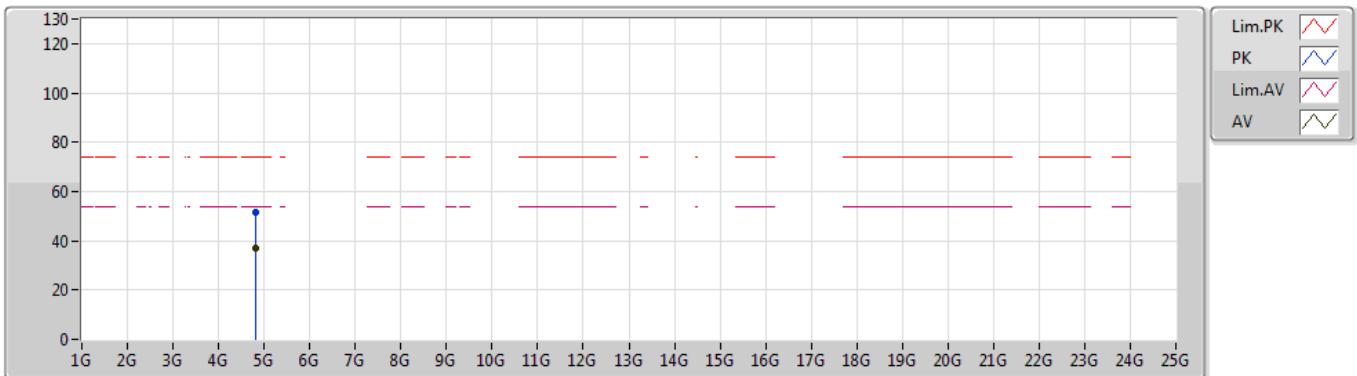
EUT Z_3TX
Setting 23
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment			
PK	2.3892G	73.63	74.00	-0.37	31.38	3	Horizontal	88	2.99	-			
AV	2.3898G	53.60	54.00	-0.40	31.38	3	Horizontal	88	2.99	-			
PK	2.407G	111.69	Inf	-Inf	31.42	3	Horizontal	88	2.99	-			
AV	2.4078G	101.49	Inf	-Inf	31.42	3	Horizontal	88	2.99	-			

802.11n HT20_Nss1,(MCS0)_3TX

13/05/2019

2412MHz_TX



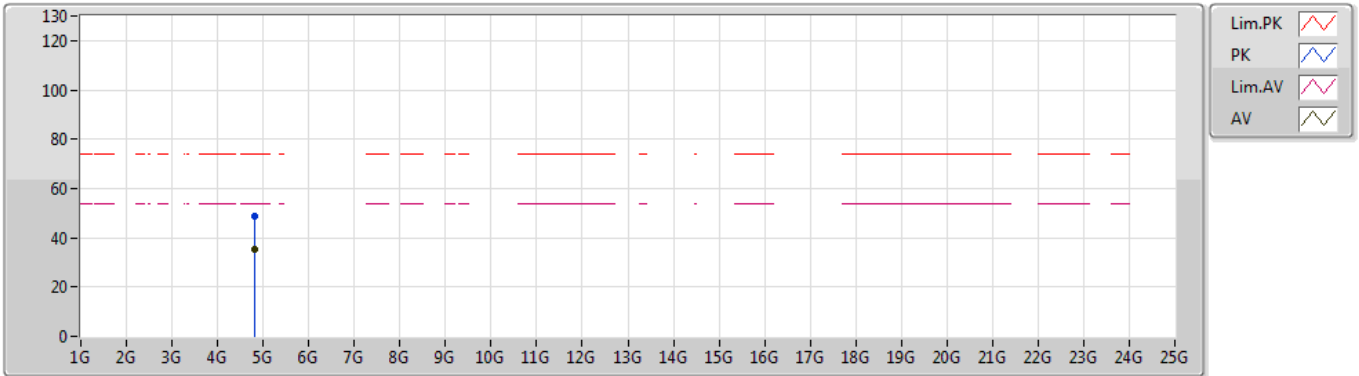
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Setting 23
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	4.8213G	51.59	74.00	-22.41	7.30	3	Vertical	44	2.73	-				
AV	4.8221G	36.87	54.00	-17.13	7.30	3	Vertical	44	2.73	-				

802.11n HT20_Nss1,(MCS0)_3TX

13/05/2019

2412MHz_TX



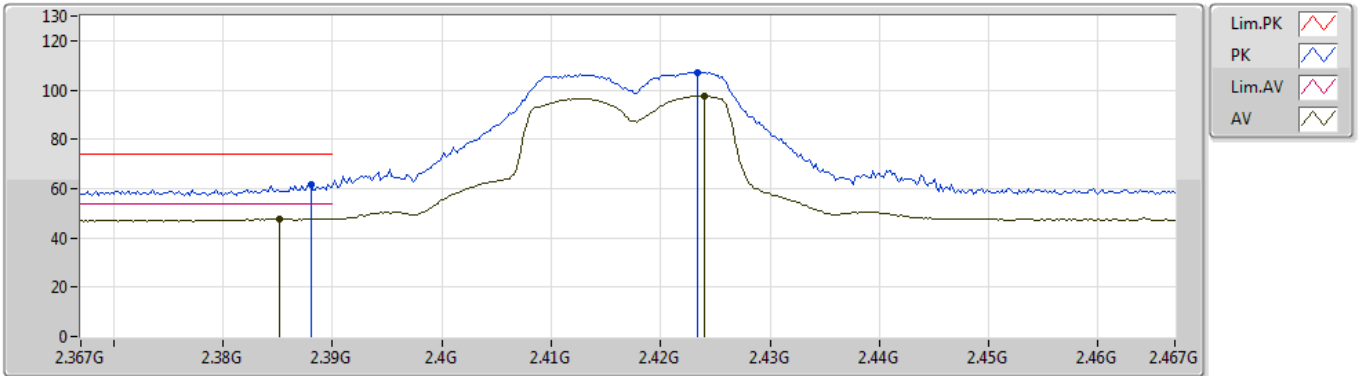
EUT Z_3TX
Setting 23
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	4.8237G	48.64	74.00	-25.36	7.30	3	Horizontal	64	1.50	-				
AV	4.8231G	35.09	54.00	-18.91	7.30	3	Horizontal	64	1.50	-				

802.11n HT20_Nss1,(MCS0)_3TX

13/05/2019

2417MHz_TX

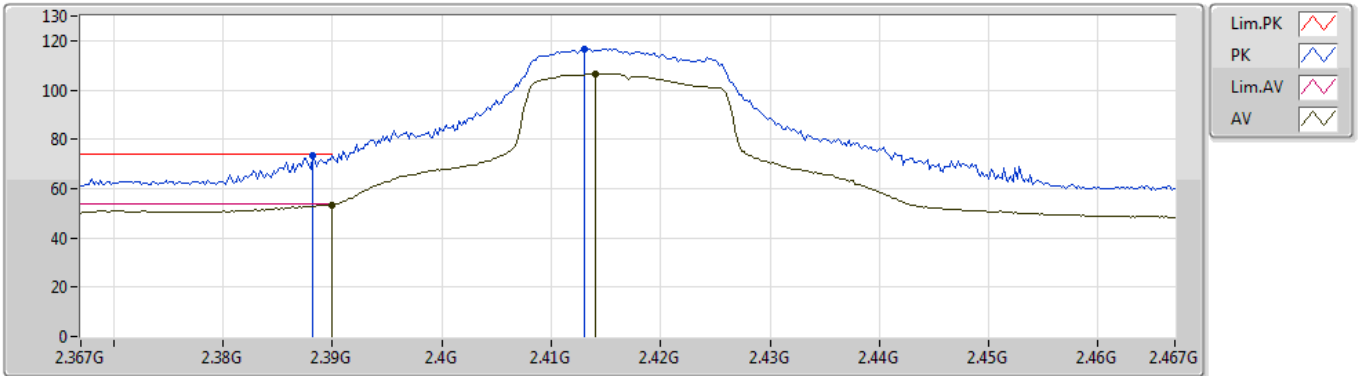

EUT Z_3TX
Setting 28
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	2.388G	61.85	74.00	-12.15	31.38	3	Vertical	339	2.40	-				
AV	2.3852G	47.71	54.00	-6.29	31.37	3	Vertical	339	2.40	-				
PK	2.4234G	107.22	Inf	-Inf	31.46	3	Vertical	339	2.40	-				
AV	2.424G	97.62	Inf	-Inf	31.46	3	Vertical	339	2.40	-				

802.11n HT20_Nss1,(MCS0)_3TX

13/05/2019

2417MHz_TX



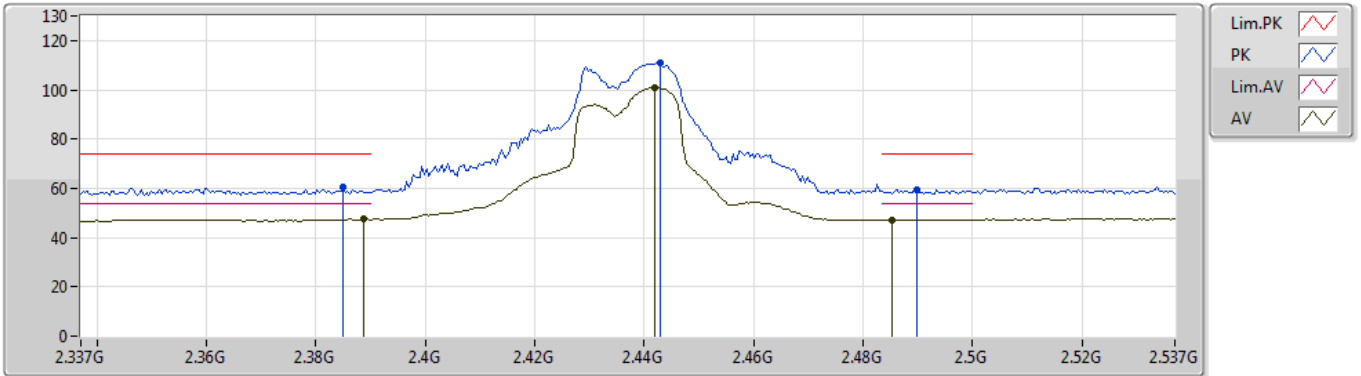
EUT Z_3TX
Setting 28
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment			
PK	2.3882G	73.64	74.00	-0.36	31.38	3	Horizontal	93	2.94	-			
AV	2.39G	53.43	54.00	-0.57	31.38	3	Horizontal	93	2.94	-			
PK	2.413G	116.51	Inf	-Inf	31.44	3	Horizontal	93	2.94	-			
AV	2.414G	106.64	Inf	-Inf	31.45	3	Horizontal	93	2.94	-			

802.11n HT20_Nss1,(MCS0)_3TX

13/05/2019

2437MHz_TX



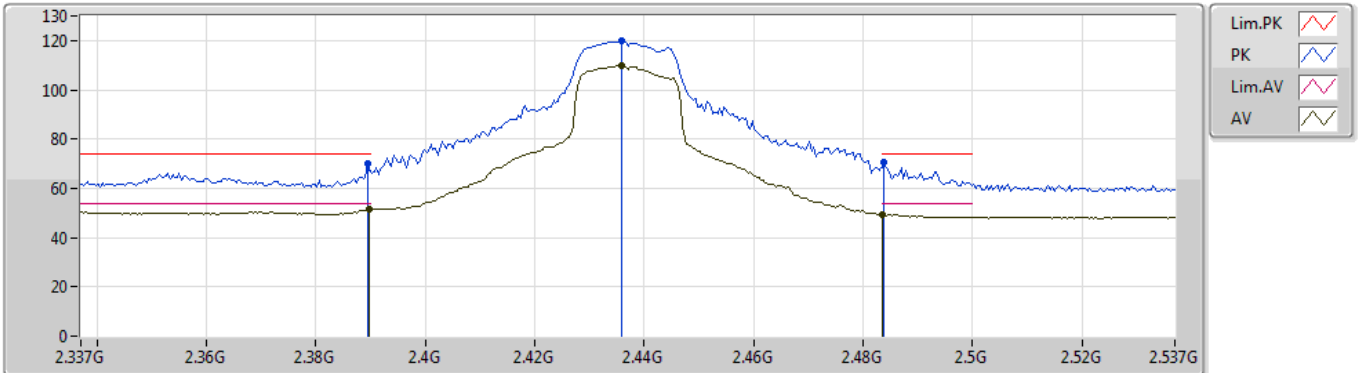
EUT Z_3TX
Setting 31.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	2.385G	60.24	74.00	-13.76	31.37	3	Vertical	198	2.95	-				
AV	2.3886G	47.61	54.00	-6.39	31.38	3	Vertical	198	2.95	-				
PK	2.443G	110.90	Inf	-Inf	31.51	3	Vertical	198	2.95	-				
AV	2.4418G	100.93	Inf	-Inf	31.51	3	Vertical	198	2.95	-				
PK	2.4898G	59.36	74.00	-14.64	31.61	3	Vertical	198	2.95	-				
AV	2.4854G	47.27	54.00	-6.73	31.59	3	Vertical	198	2.95	-				

802.11n HT20_Nss1,(MCS0)_3TX

13/05/2019

2437MHz_TX



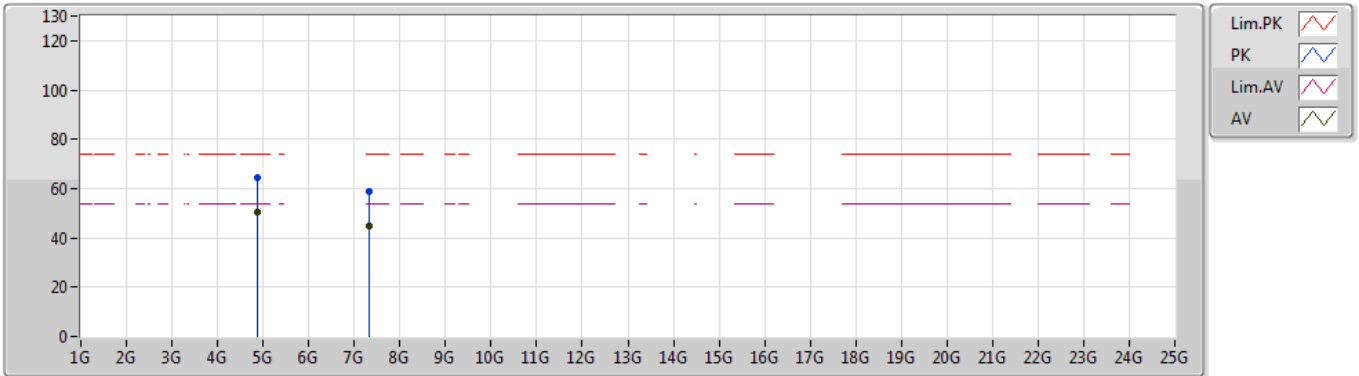
EUT Z_3TX
Setting 31.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
PK	2.3894G	70.01	74.00	-3.99	31.38	3	Horizontal	91	2.61	-
AV	2.3898G	51.47	54.00	-2.53	31.38	3	Horizontal	91	2.61	-
PK	2.4358G	119.68	Inf	-Inf	31.48	3	Horizontal	91	2.61	-
AV	2.4358G	110.10	Inf	-Inf	31.48	3	Horizontal	91	2.61	-
PK	2.4838G	70.58	74.00	-3.42	31.59	3	Horizontal	91	2.61	-
AV	2.4835G	49.42	54.00	-4.58	31.59	3	Horizontal	91	2.61	-

802.11n HT20_Nss1,(MCS0)_3TX

13/05/2019

2437MHz_TX



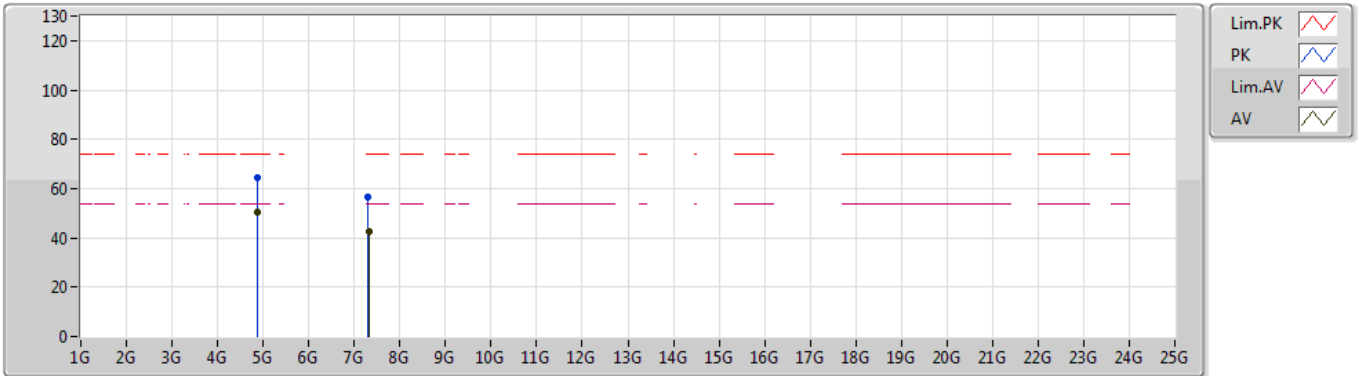
EUT Z_3TX
Setting 31.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
PK	4.8709G	64.23	74.00	-9.77	7.40	3	Vertical	36	2.57	-
AV	4.8721G	50.22	54.00	-3.78	7.40	3	Vertical	36	2.57	-
PK	7.3119G	58.84	74.00	-15.16	10.55	3	Vertical	177	1.02	-
AV	7.3108G	44.82	54.00	-9.18	10.54	3	Vertical	177	1.02	-

802.11n HT20_Nss1,(MCS0)_3TX

13/05/2019

2437MHz_TX



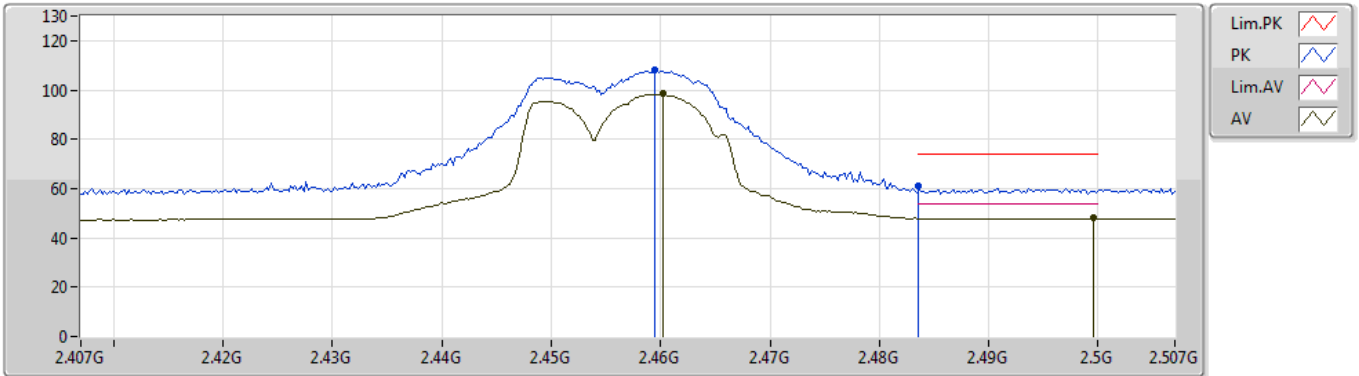
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Setting 31.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
PK	4.8736G	64.48	74.00	-9.52	7.41	3	Horizontal	64	1.08	-
AV	4.8723G	50.63	54.00	-3.37	7.40	3	Horizontal	64	1.08	-
PK	7.3102G	56.32	74.00	-17.68	10.54	3	Horizontal	79	1.01	-
AV	7.3108G	42.63	54.00	-11.37	10.54	3	Horizontal	79	1.01	-

802.11n HT20_Nss1,(MCS0)_3TX

13/05/2019

2457MHz_TX



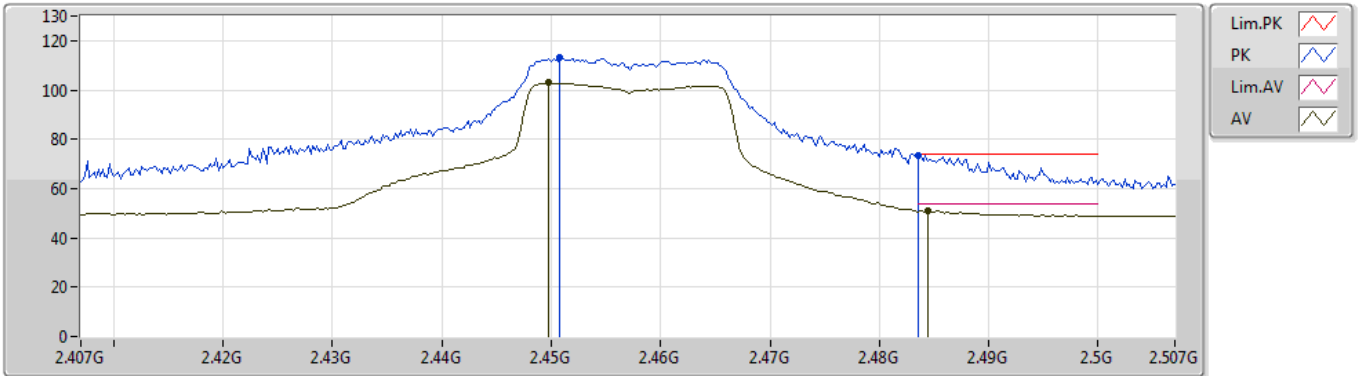
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Setting 26.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	2.4594G	107.93	Inf	-Inf	31.54	3	Vertical	271	2.69	-				
AV	2.4602G	98.44	Inf	-Inf	31.54	3	Vertical	271	2.69	-				
PK	2.4836G	61.04	74.00	-12.96	31.59	3	Vertical	271	2.69	-				
AV	2.4996G	47.93	54.00	-6.07	31.63	3	Vertical	271	2.69	-				

802.11n HT20_Nss1,(MCS0)_3TX

13/05/2019

2457MHz_TX



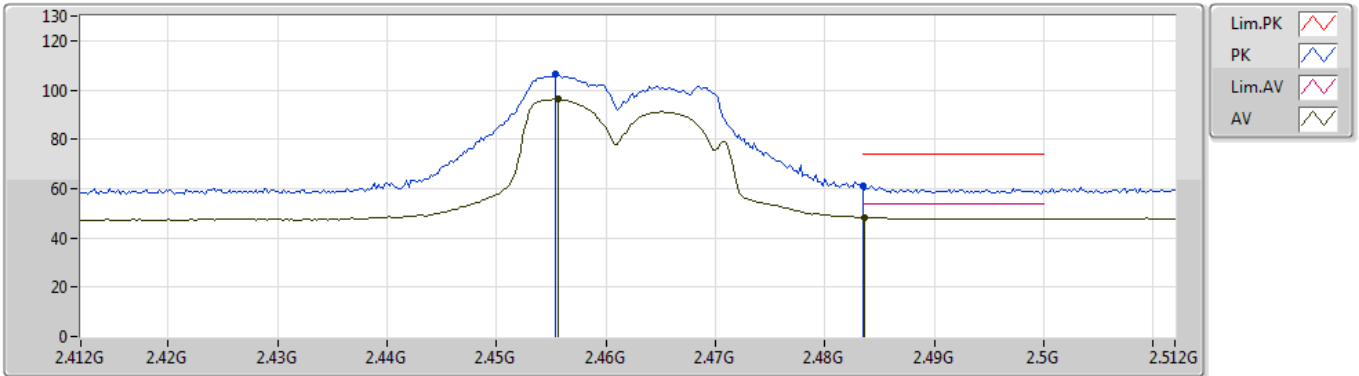
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Setting 26.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment			
PK	2.4508G	113.31	Inf	-Inf	31.52	3	Horizontal	92	2.34	-			
AV	2.4498G	102.91	Inf	-Inf	31.52	3	Horizontal	92	2.34	-			
PK	2.4836G	73.68	74.00	-0.32	31.59	3	Horizontal	92	2.34	-			
AV	2.4844G	51.02	54.00	-2.98	31.59	3	Horizontal	92	2.34	-			

802.11n HT20_Nss1,(MCS0)_3TX

13/05/2019

2462MHz_TX



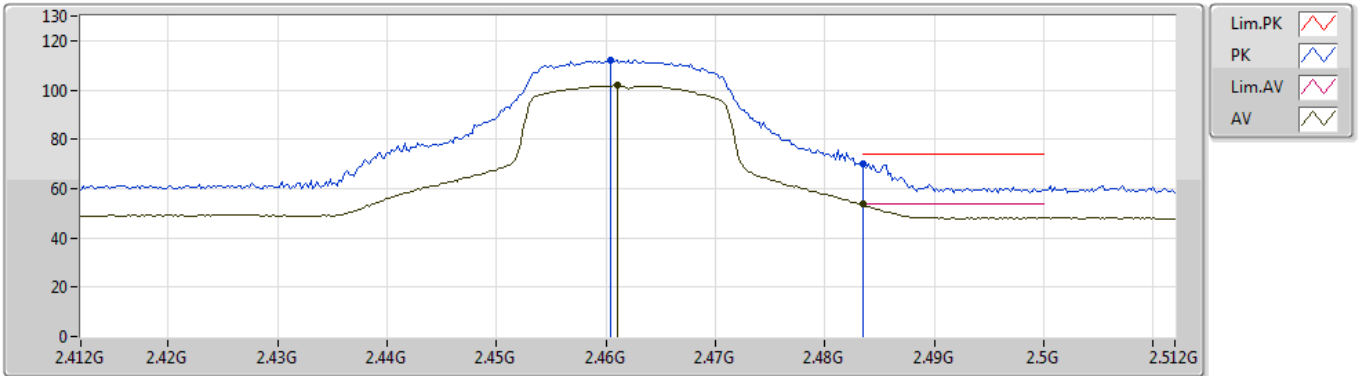
EUT Z_3TX
Setting 25
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment			
PK	2.4554G	106.39	Inf	-Inf	31.53	3	Vertical	266	2.66	-			
AV	2.4556G	96.14	Inf	-Inf	31.53	3	Vertical	266	2.66	-			
PK	2.4835G	60.91	74.00	-13.09	31.59	3	Vertical	266	2.66	-			
AV	2.4836G	48.31	54.00	-5.69	31.59	3	Vertical	266	2.66	-			

802.11n HT20_Nss1,(MCS0)_3TX

13/05/2019

2462MHz_TX



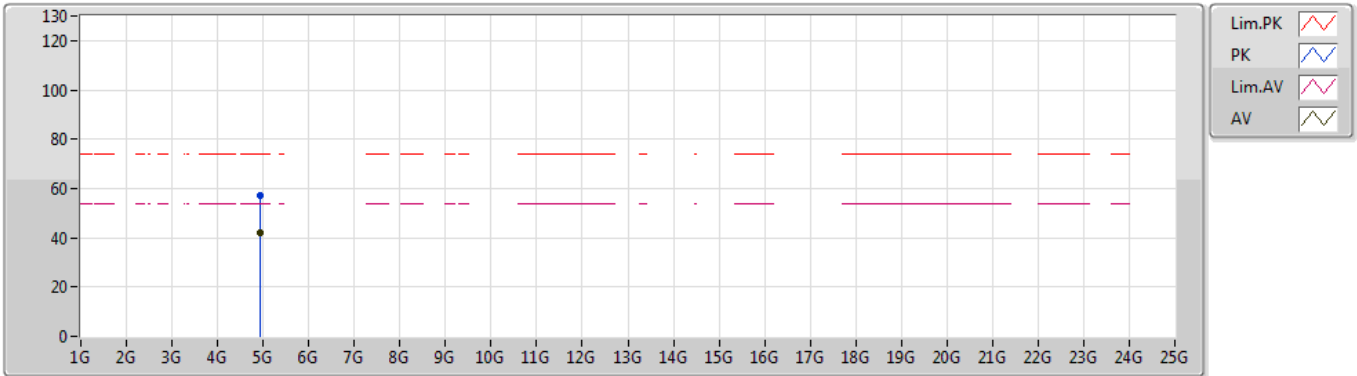
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Setting 25
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
PK	2.4604G	111.91	Inf	-Inf	31.54	3	Horizontal	97	2.33	-
AV	2.461G	101.81	Inf	-Inf	31.54	3	Horizontal	97	2.33	-
PK	2.4835G	70.20	74.00	-3.80	31.59	3	Horizontal	97	2.33	-
AV	2.4835G	53.75	54.00	-0.25	31.59	3	Horizontal	97	2.33	-

802.11n HT20_Nss1,(MCS0)_3TX

13/05/2019

2462MHz_TX



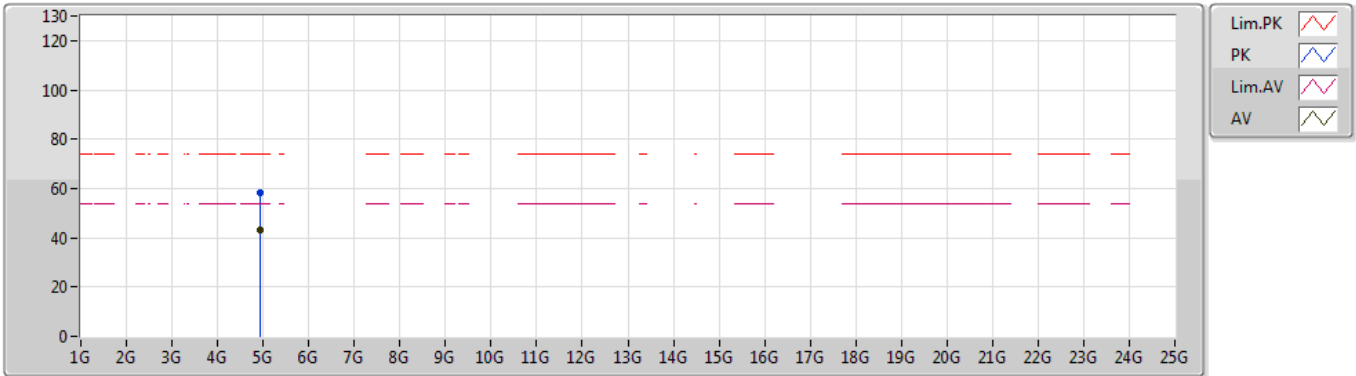
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Setting 25
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	4.9216G	57.24	74.00	-16.76	7.51	3	Vertical	34	2.81	-				
AV	4.9222G	42.15	54.00	-11.85	7.51	3	Vertical	34	2.81	-				

802.11n HT20_Nss1,(MCS0)_3TX

13/05/2019

2462MHz_TX



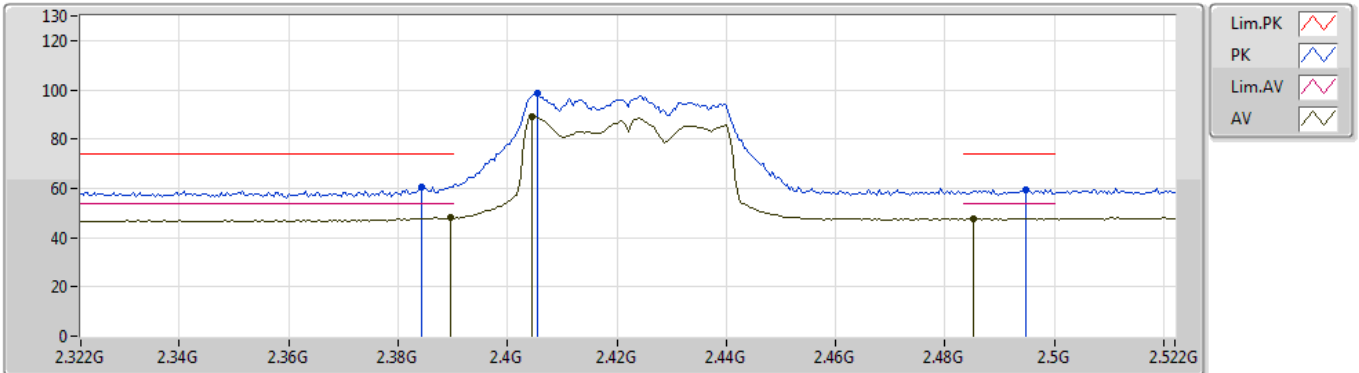
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Setting 25
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	4.923G	58.48	74.00	-15.52	7.51	3	Horizontal	66	1.10	-				
AV	4.923G	42.91	54.00	-11.09	7.51	3	Horizontal	66	1.10	-				

802.11n HT40_Nss1,(MCS0)_3TX

14/05/2019

2422MHz_TX



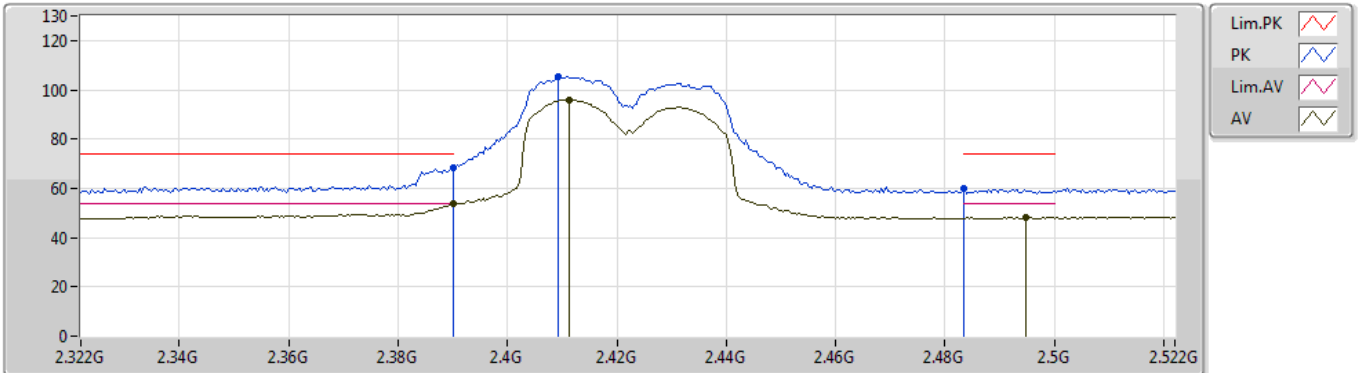
EUT Z_3TX
Setting 21
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
PK	2.3844G	60.54	74.00	-13.46	31.37	3	Vertical	343	2.93	-
AV	2.3896G	48.00	54.00	-6.00	31.38	3	Vertical	343	2.93	-
PK	2.4056G	98.39	Inf	-Inf	31.42	3	Vertical	343	2.93	-
AV	2.4044G	89.15	Inf	-Inf	31.42	3	Vertical	343	2.93	-
PK	2.4948G	59.63	74.00	-14.37	31.62	3	Vertical	343	2.93	-
AV	2.4852G	47.63	54.00	-6.37	31.59	3	Vertical	343	2.93	-

802.11n HT40_Nss1,(MCS0)_3TX

14/05/2019

2422MHz_TX



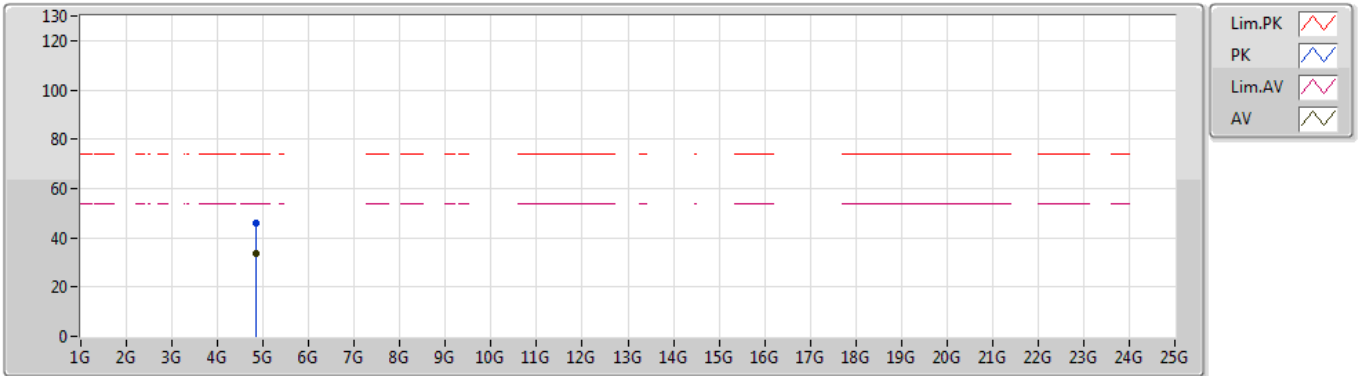
EUT_Z_3TX
Setting 21
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
PK	2.39G	68.40	74.00	-5.60	31.38	3	Horizontal	115	2.99	-
AV	2.39G	53.75	54.00	-0.25	31.38	3	Horizontal	115	2.99	-
PK	2.4092G	105.28	Inf	-Inf	31.43	3	Horizontal	115	2.99	-
AV	2.4112G	96.03	Inf	-Inf	31.43	3	Horizontal	115	2.99	-
PK	2.4835G	60.20	74.00	-13.80	31.59	3	Horizontal	115	2.99	-
AV	2.4948G	48.10	54.00	-5.90	31.62	3	Horizontal	115	2.99	-

802.11n HT40_Nss1,(MCS0)_3TX

14/05/2019

2422MHz_TX



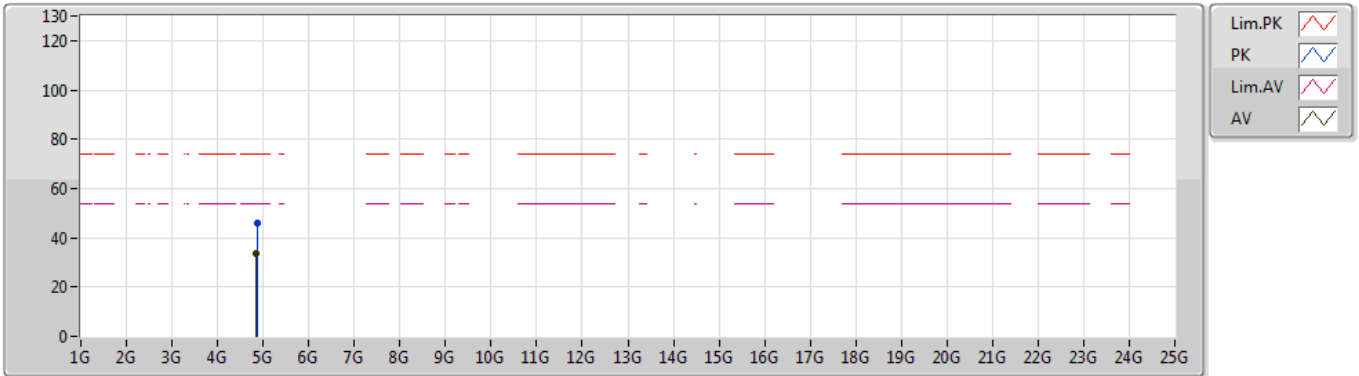
EUT Z_3TX
Setting 21
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	4.8352G	45.92	74.00	-28.08	7.33	3	Vertical	115	1.82	-				
AV	4.83968G	33.37	54.00	-20.63	7.34	3	Vertical	115	1.82	-				

802.11n HT40_Nss1,(MCS0)_3TX

14/05/2019

2422MHz_TX



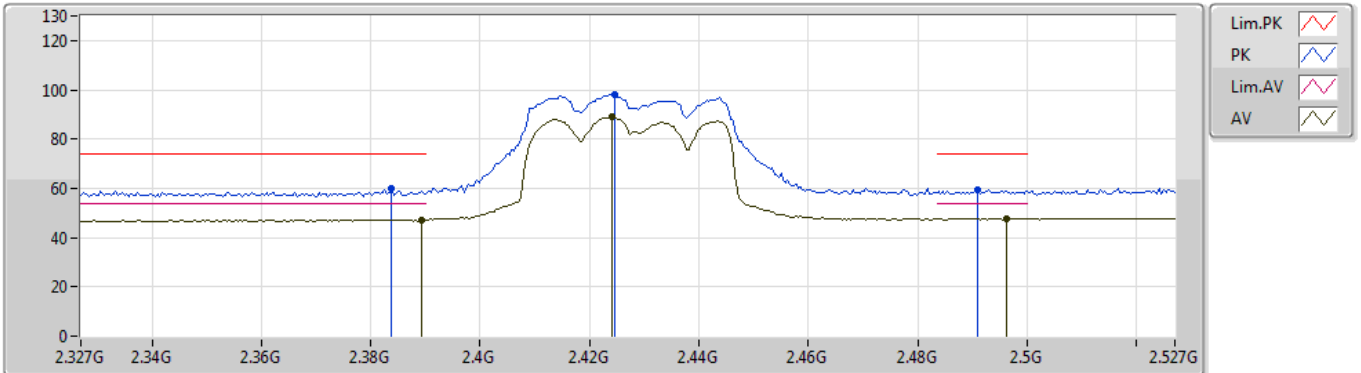
EUT Z_3TX
Setting 21
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	4.88112G	45.94	74.00	-28.06	7.43	3	Horizontal	34	1.54	-				
AV	4.83504G	33.36	54.00	-20.64	7.33	3	Horizontal	34	1.54	-				

802.11n HT40_Nss1,(MCS0)_3TX

14/05/2019

2427MHz_TX



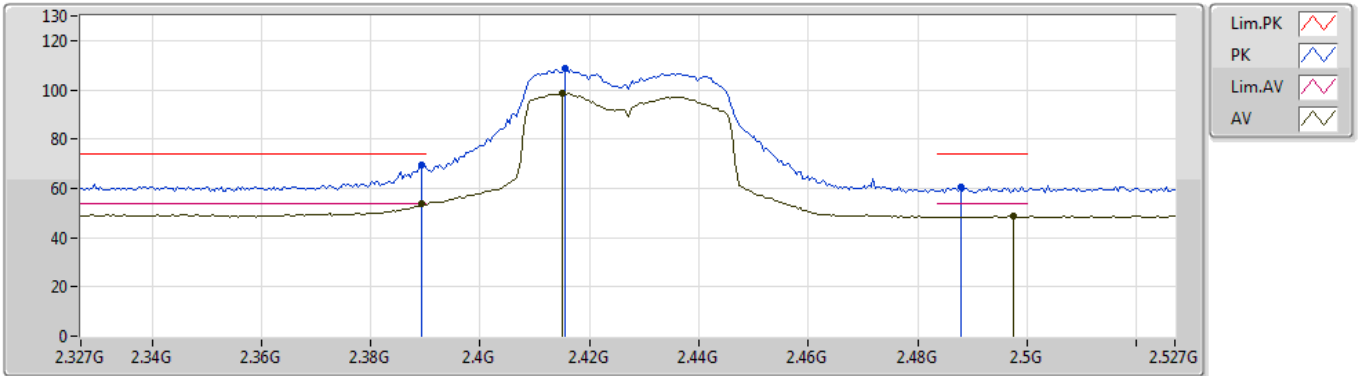
EUT_Z_3TX
Setting 22
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	2.3838G	59.83	74.00	-14.17	31.37	3	Vertical	324	2.95	-				
AV	2.3894G	47.27	54.00	-6.73	31.38	3	Vertical	324	2.95	-				
PK	2.4246G	98.08	Inf	-Inf	31.46	3	Vertical	324	2.95	-				
AV	2.4242G	88.82	Inf	-Inf	31.46	3	Vertical	324	2.95	-				
PK	2.491G	59.17	74.00	-14.83	31.61	3	Vertical	324	2.95	-				
AV	2.4962G	47.84	54.00	-6.16	31.62	3	Vertical	324	2.95	-				

802.11n HT40_Nss1,(MCS0)_3TX

14/05/2019

2427MHz_TX



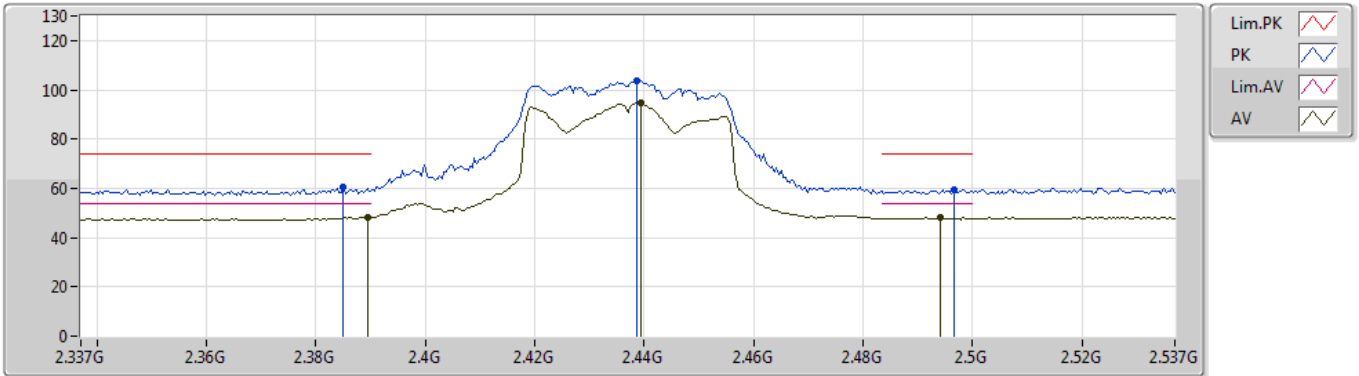
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Setting 22
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
PK	2.3894G	69.57	74.00	-4.43	31.38	3	Horizontal	85	2.94	-
AV	2.3894G	53.75	54.00	-0.25	31.38	3	Horizontal	85	2.94	-
PK	2.4154G	108.52	Inf	-Inf	31.45	3	Horizontal	85	2.94	-
AV	2.415G	98.56	Inf	-Inf	31.45	3	Horizontal	85	2.94	-
PK	2.4878G	60.29	74.00	-13.71	31.61	3	Horizontal	85	2.94	-
AV	2.4974G	48.61	54.00	-5.39	31.63	3	Horizontal	85	2.94	-

802.11n HT40_Nss1,(MCS0)_3TX

14/05/2019

2437MHz_TX



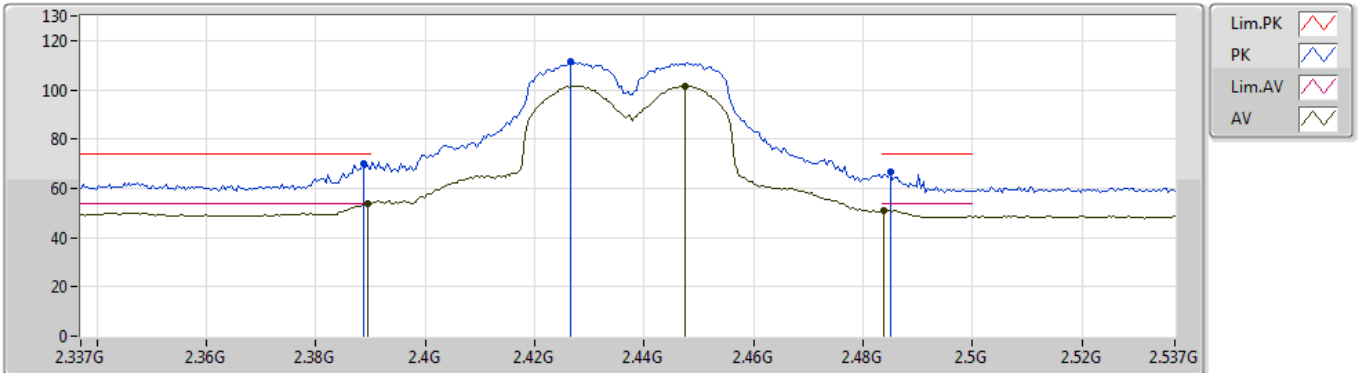
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Setting 26.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
PK	2.385G	60.35	74.00	-13.65	31.37	3	Vertical	354	2.96	-
AV	2.3894G	48.37	54.00	-5.63	31.38	3	Vertical	354	2.96	-
PK	2.4386G	103.90	Inf	-Inf	31.50	3	Vertical	354	2.96	-
AV	2.4394G	94.68	Inf	-Inf	31.50	3	Vertical	354	2.96	-
PK	2.4966G	59.39	74.00	-14.61	31.62	3	Vertical	354	2.96	-
AV	2.4942G	48.23	54.00	-5.77	31.62	3	Vertical	354	2.96	-

802.11n HT40_Nss1,(MCS0)_3TX

14/05/2019

2437MHz_TX



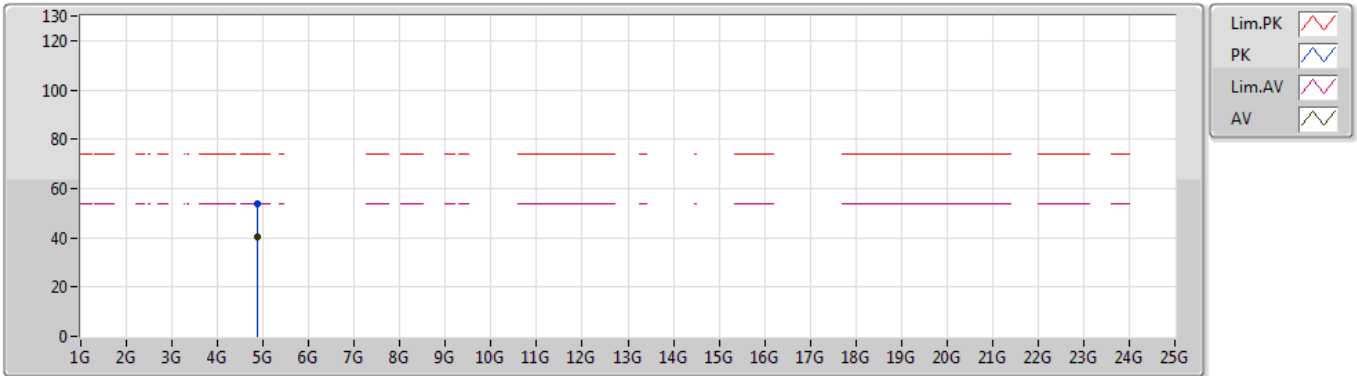
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Setting 26.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
PK	2.3886G	70.01	74.00	-3.99	31.38	3	Horizontal	118	2.87	-
AV	2.3894G	53.73	54.00	-0.27	31.38	3	Horizontal	118	2.87	-
PK	2.4266G	111.67	Inf	-Inf	31.47	3	Horizontal	118	2.87	-
AV	2.4474G	101.64	Inf	-Inf	31.52	3	Horizontal	118	2.87	-
PK	2.485G	66.69	74.00	-7.31	31.59	3	Horizontal	118	2.87	-
AV	2.4838G	50.95	54.00	-3.05	31.59	3	Horizontal	118	2.87	-

802.11n HT40_Nss1,(MCS0)_3TX

14/05/2019

2437MHz_TX



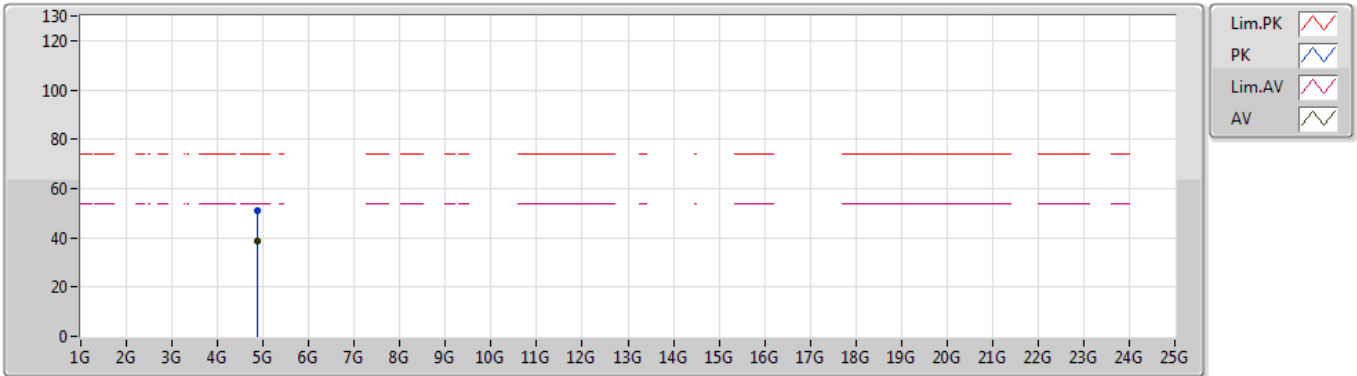
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Setting 26.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	4.8731G	54.07	74.00	-19.93	7.40	3	Vertical	26	1.03	-				
AV	4.8705G	40.54	54.00	-13.46	7.40	3	Vertical	26	1.03	-				

802.11n HT40_Nss1,(MCS0)_3TX

14/05/2019

2437MHz_TX



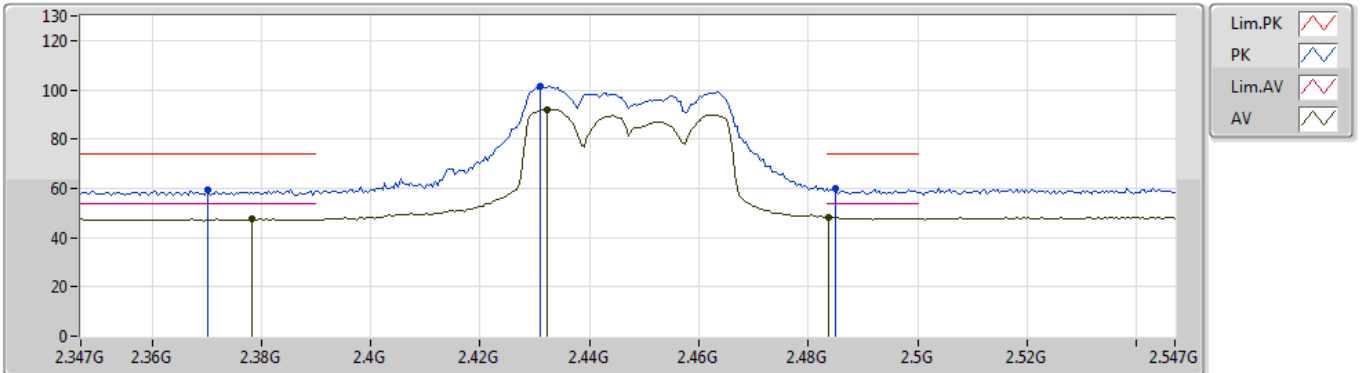
EUT Z_3TX
Setting 26.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	4.8717G	51.09	74.00	-22.91	7.40	3	Horizontal	70	1.50	-				
AV	4.8722G	38.64	54.00	-15.36	7.40	3	Horizontal	70	1.50	-				

802.11n HT40_Nss1,(MCS0)_3TX

14/05/2019

2447MHz_TX



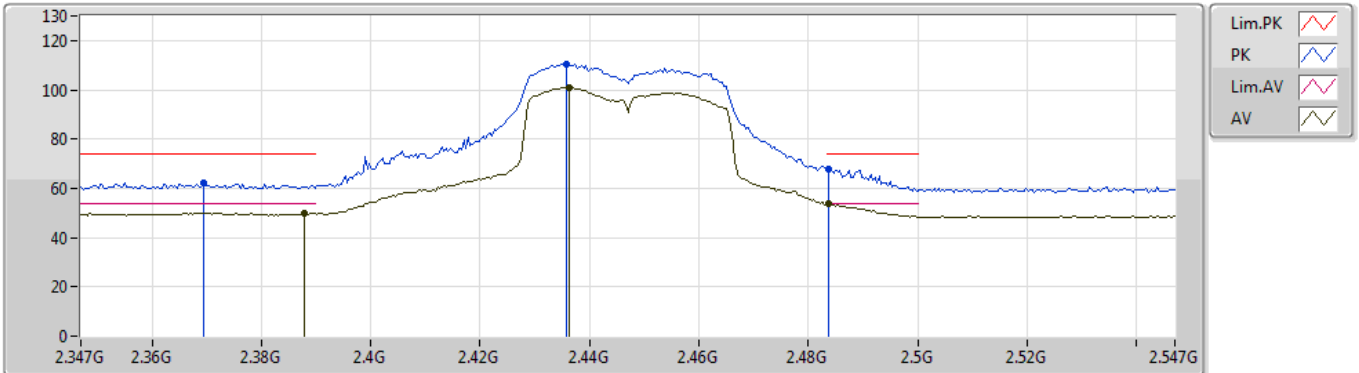
EUT_Z_3TX
Setting 25
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	2.3702G	59.30	74.00	-14.70	31.33	3	Vertical	332	2.70	-				
AV	2.3782G	47.53	54.00	-6.47	31.35	3	Vertical	332	2.70	-				
PK	2.431G	101.42	Inf	-Inf	31.48	3	Vertical	332	2.70	-				
AV	2.4322G	92.05	Inf	-Inf	31.48	3	Vertical	332	2.70	-				
PK	2.485G	59.96	74.00	-14.04	31.59	3	Vertical	332	2.70	-				
AV	2.4838G	48.22	54.00	-5.78	31.59	3	Vertical	332	2.70	-				

802.11n HT40_Nss1,(MCS0)_3TX

14/05/2019

2447MHz_TX



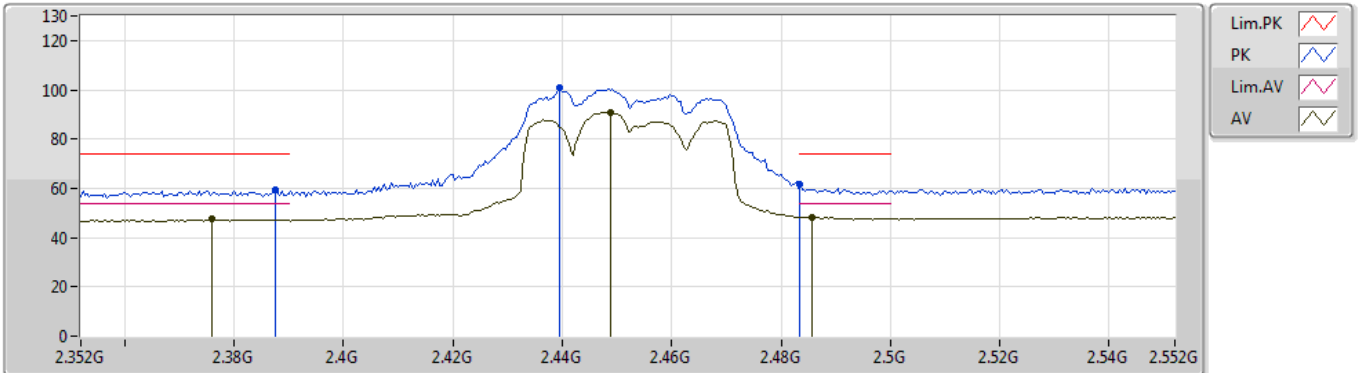
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Setting 25
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
PK	2.3694G	62.08	74.00	-11.92	31.33	3	Horizontal	98	2.61	-
AV	2.3878G	49.89	54.00	-4.11	31.38	3	Horizontal	98	2.61	-
PK	2.4358G	110.52	Inf	-Inf	31.48	3	Horizontal	98	2.61	-
AV	2.4362G	101.03	Inf	-Inf	31.49	3	Horizontal	98	2.61	-
PK	2.4838G	68.07	74.00	-5.93	31.59	3	Horizontal	98	2.61	-
AV	2.4836G	53.65	54.00	-0.35	31.59	3	Horizontal	98	2.61	-

802.11n HT40_Nss1,(MCS0)_3TX

14/05/2019

2452MHz_TX



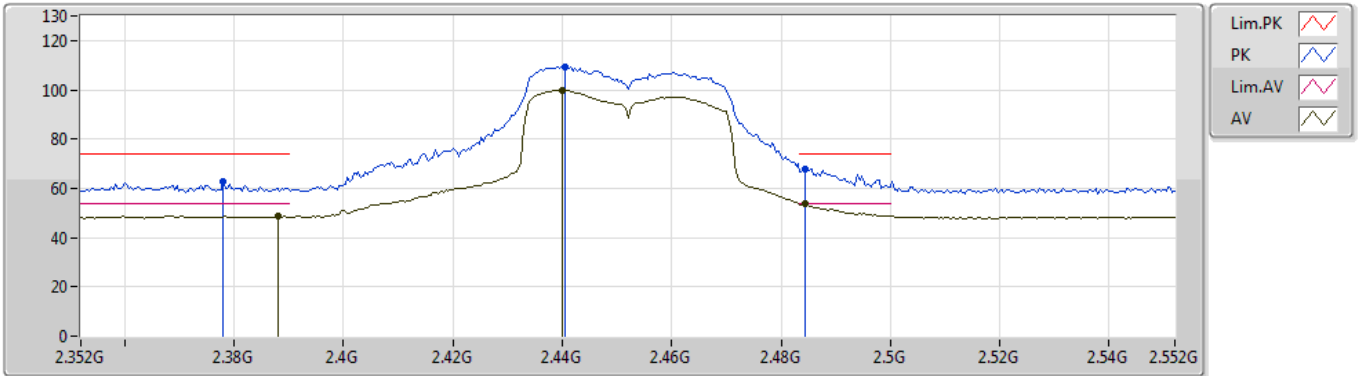
EUT Z_3TX
Setting 23.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	2.3876G	59.49	74.00	-14.51	31.38	3	Vertical	338	2.98	-				
AV	2.376G	47.42	54.00	-6.58	31.34	3	Vertical	338	2.98	-				
PK	2.4396G	100.67	Inf	-Inf	31.50	3	Vertical	338	2.98	-				
AV	2.4488G	90.92	Inf	-Inf	31.52	3	Vertical	338	2.98	-				
PK	2.4835G	61.65	74.00	-12.35	31.59	3	Vertical	338	2.98	-				
AV	2.4856G	48.36	54.00	-5.64	31.59	3	Vertical	338	2.98	-				

802.11n HT40_Nss1,(MCS0)_3TX

14/05/2019

2452MHz_TX



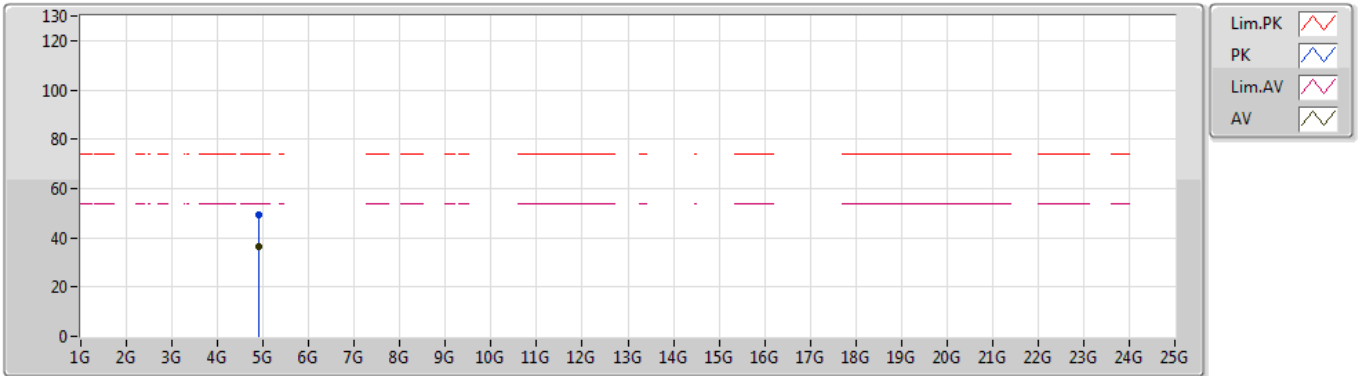
EUT_Z_3TX
Setting 23.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
PK	2.378G	62.48	74.00	-11.52	31.35	3	Horizontal	94	2.61	-
AV	2.388G	48.65	54.00	-5.35	31.38	3	Horizontal	94	2.61	-
PK	2.4404G	109.44	Inf	-Inf	31.50	3	Horizontal	94	2.61	-
AV	2.44G	99.99	Inf	-Inf	31.50	3	Horizontal	94	2.61	-
PK	2.4844G	67.84	74.00	-6.16	31.59	3	Horizontal	94	2.61	-
AV	2.4844G	53.87	54.00	-0.13	31.59	3	Horizontal	94	2.61	-

802.11n HT40_Nss1,(MCS0)_3TX

14/05/2019

2452MHz_TX



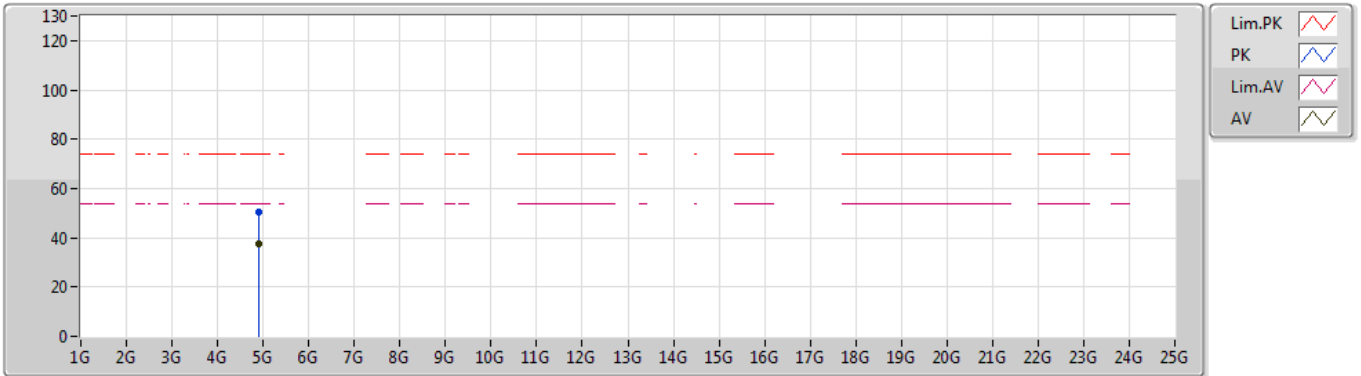
EUT Z_3TX
Setting 23.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	4.90048G	49.38	74.00	-24.62	7.47	3	Vertical	12	1.07	-				
AV	4.9008G	36.49	54.00	-17.51	7.47	3	Vertical	12	1.07	-				

802.11n HT40_Nss1,(MCS0)_3TX

14/05/2019

2452MHz_TX



EUT Z_3TX
Setting 23.5
02-C-5
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	4.9048G	50.47	74.00	-23.53	7.48	3	Horizontal	66	1.03	-				
AV	4.90336G	37.62	54.00	-16.38	7.48	3	Horizontal	66	1.03	-				

Emissions in Restricted Frequency Bands (1GHz~10th Harmonic)

Configurations	IEEE 802.11n MCS0 HT20 CH 1 / Ant. 1 + Ant. 2 + Ant. 3
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Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	4824.02	32.34	54.00	-21.66	27.17	7.08	31.12	33.03	196	114 Average	HORIZONTAL
2	4826.94	46.30	74.00	-27.70	41.11	7.08	31.14	33.03	196	114 Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	4820.66	33.34	54.00	-20.66	28.17	7.08	31.12	33.03	164	86 Average	VERTICAL
2	4821.42	46.77	74.00	-27.23	41.60	7.08	31.12	33.03	164	86 Peak	VERTICAL

Configurations	IEEE 802.11n MCS0 HT20 CH 6 / Ant. 1 + Ant. 2 + Ant. 3
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Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	4875.50	33.32	54.00	-20.68	28.04	7.08	31.21	33.01	149	206	Average
2	4877.68	46.40	74.00	-27.60	41.11	7.08	31.21	33.00	149	206	Peak
3	7313.02	39.97	54.00	-14.03	29.39	8.77	35.99	34.18	162	173	Average
4	7313.94	53.49	74.00	-20.51	42.91	8.77	35.99	34.18	162	173	Peak

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	4875.20	33.64	54.00	-20.36	28.36	7.08	31.21	33.01	139	107	Average
2	4877.92	46.36	74.00	-27.64	41.07	7.08	31.21	33.00	139	107	Peak
3	7313.94	52.71	74.00	-21.29	42.13	8.77	35.99	34.18	110	134	Peak
4	7314.48	39.72	54.00	-14.28	29.14	8.77	35.99	34.18	110	134	Average

Configurations	IEEE 802.11n MCS0 HT20 CH 11 / Ant. 1 + Ant. 2 + Ant. 3
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4927.00	46.38	74.00	-27.62	41.00	7.07	31.29	32.98	145	89	Peak	HORIZONTAL
2	4928.84	33.42	54.00	-20.58	28.04	7.07	31.29	32.98	145	89	Average	HORIZONTAL
3	7384.04	52.47	74.00	-21.53	41.73	8.82	36.17	34.25	151	184	Peak	HORIZONTAL
4	7388.04	39.67	54.00	-14.33	28.93	8.82	36.17	34.25	151	184	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4919.64	46.03	74.00	-27.97	40.68	7.07	31.27	32.99	154	128	Peak	VERTICAL
2	4925.80	33.19	54.00	-20.81	27.81	7.07	31.29	32.98	154	128	Average	VERTICAL
3	7386.90	52.59	74.00	-21.41	41.85	8.82	36.17	34.25	128	196	Peak	VERTICAL
4	7390.20	39.61	54.00	-14.39	28.87	8.82	36.17	34.25	128	196	Average	VERTICAL

Configurations	IEEE 802.11n MCS0 HT40 CH 3 / Ant. 1 + Ant. 2 + Ant. 3
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4839.20	33.13	54.00	-20.87	27.91	7.08	31.16	33.02	120	217	Average	HORIZONTAL
2	4846.28	46.18	74.00	-27.82	40.95	7.08	31.16	33.01	120	217	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4839.84	33.21	54.00	-20.79	27.99	7.08	31.16	33.02	172	187	Average	VERTICAL
2	4841.92	46.31	74.00	-27.69	41.09	7.08	31.16	33.02	172	187	Peak	VERTICAL

Configurations	IEEE 802.11n MCS0 HT40 CH 6 / Ant. 1 + Ant. 2 + Ant. 3
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4872.56	46.46	74.00	-27.54	41.18	7.08	31.21	33.01	159	162	Peak	HORIZONTAL
2	4878.80	33.70	54.00	-20.30	28.41	7.08	31.21	33.00	159	162	Average	HORIZONTAL
3	7313.34	53.44	74.00	-20.56	42.86	8.77	35.99	34.18	144	154	Peak	HORIZONTAL
4	7315.72	39.98	54.00	-14.02	29.35	8.78	36.03	34.18	144	154	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4873.74	46.69	74.00	-27.31	41.41	7.08	31.21	33.01	203	216	Peak	VERTICAL
2	4874.82	33.99	54.00	-20.01	28.71	7.08	31.21	33.01	203	216	Average	VERTICAL
3	7312.38	52.88	74.00	-21.12	42.30	8.77	35.99	34.18	127	184	Peak	VERTICAL
4	7314.32	39.90	54.00	-14.10	29.32	8.77	35.99	34.18	127	184	Average	VERTICAL

Configurations	IEEE 802.11n MCS0 HT40 CH 9 / Ant. 1 + Ant. 2 + Ant. 3
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamplifier Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4901.48	33.78	54.00	-20.22	28.45	7.07	31.25	32.99	138	120	Average	HORIZONTAL
2	4904.16	47.62	74.00	-26.38	42.29	7.07	31.25	32.99	138	120	Peak	HORIZONTAL
3	7354.46	39.33	54.00	-14.67	28.69	8.79	36.08	34.23	178	188	Average	HORIZONTAL
4	7358.82	52.42	74.00	-21.58	41.72	8.81	36.12	34.23	178	188	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamplifier Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4900.68	33.80	54.00	-20.20	28.47	7.07	31.25	32.99	148	90	Average	VERTICAL
2	4906.88	46.71	74.00	-27.29	41.38	7.07	31.25	32.99	148	90	Peak	VERTICAL
3	7351.62	39.23	54.00	-14.77	28.59	8.79	36.08	34.23	179	121	Average	VERTICAL
4	7355.00	53.17	74.00	-20.83	42.53	8.79	36.08	34.23	179	121	Peak	VERTICAL

Configurations	IEEE 802.11b CH 1 / Ant. 1
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Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	4823.95	36.22	54.00	-17.78	31.05	7.08	31.12	33.03	239	354 Average	HORIZONTAL
2	4823.95	46.78	74.00	-27.22	41.61	7.08	31.12	33.03	239	354 Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	4823.60	47.15	74.00	-26.85	41.98	7.08	31.12	33.03	241	355 Peak	VERTICAL
2	4824.00	37.07	54.00	-16.93	31.90	7.08	31.12	33.03	241	355 Average	VERTICAL

Configurations	IEEE 802.11b CH 6 / Ant. 1
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4870.20	46.13	74.00	-27.87	40.85	7.08	31.21	33.01	144	245	Peak	HORIZONTAL
2	4874.08	33.42	54.00	-20.58	28.14	7.08	31.21	33.01	144	245	Average	HORIZONTAL
3	7311.30	52.54	74.00	-21.46	41.96	8.77	35.99	34.18	127	205	Peak	HORIZONTAL
4	7313.10	40.02	54.00	-13.98	29.44	8.77	35.99	34.18	127	205	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4872.72	46.20	74.00	-27.80	40.92	7.08	31.21	33.01	156	141	Peak	VERTICAL
2	4874.04	33.82	54.00	-20.18	28.54	7.08	31.21	33.01	156	141	Average	VERTICAL
3	7310.40	53.02	74.00	-20.98	42.44	8.77	35.99	34.18	179	176	Peak	VERTICAL
4	7311.90	40.67	54.00	-13.33	30.09	8.77	35.99	34.18	179	176	Average	VERTICAL

Configurations	IEEE 802.11b CH 11 / Ant. 1
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamplifier Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4919.44	46.54	74.00	-27.46	41.19	7.07	31.27	32.99	186	252	Peak	HORIZONTAL
2	4924.02	33.52	54.00	-20.48	28.15	7.07	31.29	32.99	186	252	Average	HORIZONTAL
3	7386.50	52.52	74.00	-21.48	41.78	8.82	36.17	34.25	129	285	Peak	HORIZONTAL
4	7388.14	39.90	54.00	-14.10	29.16	8.82	36.17	34.25	129	285	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamplifier Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4920.20	46.20	74.00	-27.80	40.85	7.07	31.27	32.99	200	41	Peak	VERTICAL
2	4923.96	35.01	54.00	-18.99	29.64	7.07	31.29	32.99	200	41	Average	VERTICAL
3	7383.68	40.35	54.00	-13.65	29.61	8.82	36.17	34.25	145	317	Average	VERTICAL
4	7385.20	52.91	74.00	-21.09	42.17	8.82	36.17	34.25	145	317	Peak	VERTICAL