



# FCC Test Report

Equipment : 2.4GHz 300Mbps 9dBi Outdoor CPE  
Brand Name : tp-link  
Model No. : CPE210  
FCC ID : TE7CPE210V3  
Standard : 47 CFR FCC Part 15.247  
Operating Band : 2400 MHz – 2483.5 MHz  
Function :  Point-to-multipoint;  Point-to-point  
Applicant : TP-Link Technologies Co., Ltd.  
Building 24 (floors 1,3,4,5) and 28 (floors1-4), Central  
Science and Technology Park,Nanshan Shenzhen,  
518057 China  
Manufacturer : TP-Link Technologies Co., Ltd.  
Building 24 (floors 1,3,4,5) and 28 (floors1-4), Central  
Science and Technology Park,Nanshan Shenzhen,  
518057 China

The product sample received on Jun. 22, 2017 and completely tested on Aug. 08, 2017. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

  
Cliff Chang  
SPORTON INTERNATIONAL INC.





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### Summary of Test Result

Conformance Test Specifications				
Report Clause	Ref. Std. Clause	Description	Limit	Result
1.1.2	15.203	Antenna Requirement	FCC 15.203	Complied
3.1	15.207	AC Power-line Conducted Emissions	FCC 15.207	Complied
3.2	15.247(a)	DTS Bandwidth	≥500kHz	Complied
3.3	15.247(b)	Maximum Conducted Output Power	Power [dBm]:30	Complied
3.4	15.247(e)	Power Spectral Density	PSD [dBm/3kHz]:8	Complied
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	Non-Restricted Bands: > 30 dBc	Complied
3.6	15.247(d)	Emissions in Restricted Frequency Bands	Restricted Bands: FCC 15.209	Complied



Revision History

Report No.	Version	Description	Issued Date
FR762925	Rev. 01	Initial issue of report	Sep. 13, 2017



# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

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

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

Note:

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

Ant.	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1	TP-LINK	3101501193	Microstrip Antenna	Weld	10.7
2	TP-LINK	3101501193	Microstrip Antenna	Weld	10.7

Note: The EUT has two antennas.

For IEEE 802.11b/g/n mode (2TX, 2RX):

Ant. 1 connect to port 1 and Ant. 2 connect to port 2

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

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	0.998	0.009	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11g	0.991	0.039	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11n HT20	0.991	0.039	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11n HT40	0.985	0.066	n/a (DC>=0.98)	n/a (DC>=0.98)

1.1.4 EUT Operational Condition

EUT Power Type	From PoE		
Beamforming Function	<input type="checkbox"/> With beamforming	<input checked="" type="checkbox"/>	Without beamforming



### 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 v04
- ◆ FCC KDB 662911 D01 v02r01
- ◆ FCC KDB 412172 D01 v01r01

### 1.3 Testing Location Information

Testing Location		
<input type="checkbox"/>	HWA YA	ADD : No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL : 886-3-327-3456 FAX : 886-3-318-0055
<input checked="" type="checkbox"/>	JHUBEI	ADD : No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C. TEL : 886-3-656-9065 FAX : 886-3-656-9085

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Serway Li	22°C / 60%	Jul. 12, 2017
Radiated	03CH01-CB	Justin Lin & Nyle Chang	22°C / 54%	Jun. 22, 2017 ~ Aug. 02, 2017
AC Conduction	CO01-CB	GN Hou	21°C / 62%	Aug. 08, 2017

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

### 1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.2 dB	Confidence levels of 95%
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 <sup>-8</sup>	Confidence levels of 95%



## 2 Test Configuration of EUT

### 2.1 Test Channel Mode

Mode	Power Setting
802.11b_(1Mbps)_2TX	-
2412MHz	17
2437MHz	18.5
2462MHz	14.5
802.11g_(6Mbps)_2TX	-
2412MHz	14
2437MHz	22
2462MHz	14
802.11n HT20_Nss1,(MCS0)_2TX	-
2412MHz	14
2437MHz	22
2462MHz	13.5
802.11n HT40_Nss1,(MCS0)_2TX	-
2422MHz	11.5
2437MHz	14.5
2452MHz	11



## 2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	AC power-line conducted emissions
<b>Condition</b>	AC power-line conducted measurement for line and neutral
<b>Operating Mode</b>	Normal Link
1	EUT in Y axis

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

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	Emissions in Restricted Frequency Bands
<b>Test Condition</b>	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.
<b>Operating Mode &lt; 1GHz</b>	Normal Link
1	EUT in Y axis
<b>Operating Mode &gt; 1GHz</b>	CTX
1	EUT in Y axis

Note: The EUT can only use Y axis position.



### 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	P/N	Rating
PoE	tp-link	TL-POE2412G	T240050-2-PoE	Input: 100-240V ~ 50/60Hz 0.4A Output: 24V, 0.5A
Others				
Power cord*1, non-shielded, 0.5m				

### 2.5 Support Equipment

For Test Site No: CO01-CB

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E6430	DoC
2	Notebook	DELL	E6430	DoC
3	AP Router	Planex	GW-AP54SGX	KA220030603014-1

For Test Site No: 03CH01-CB (below 1GHz)

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E4300	DoC
2	Notebook	DELL	E4300	DoC
3	WLAN AP	Netgear	R7500	PY314300288

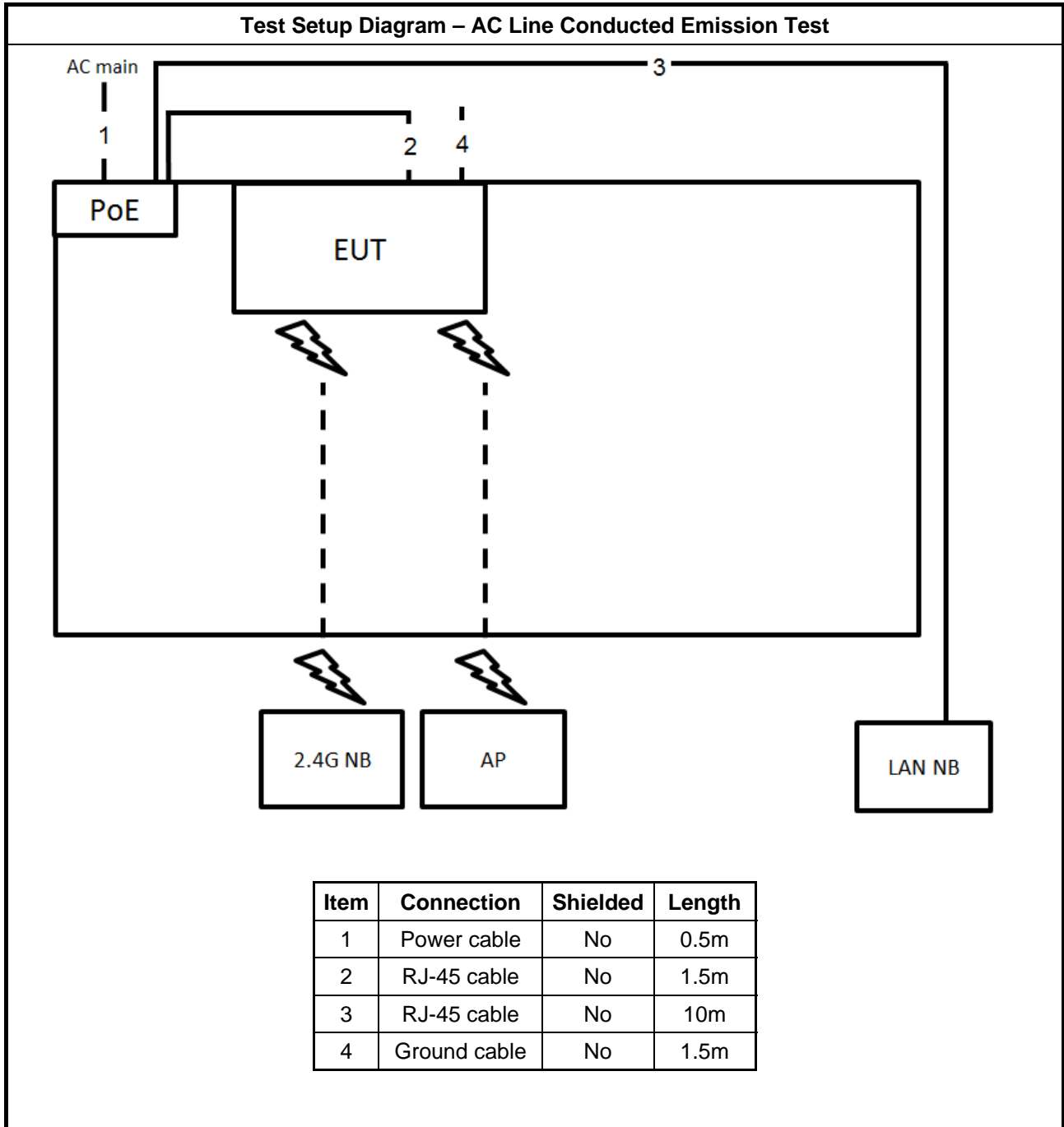
For Test Site No: 03CH01-CB (above 1GHz)

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E4300	DoC

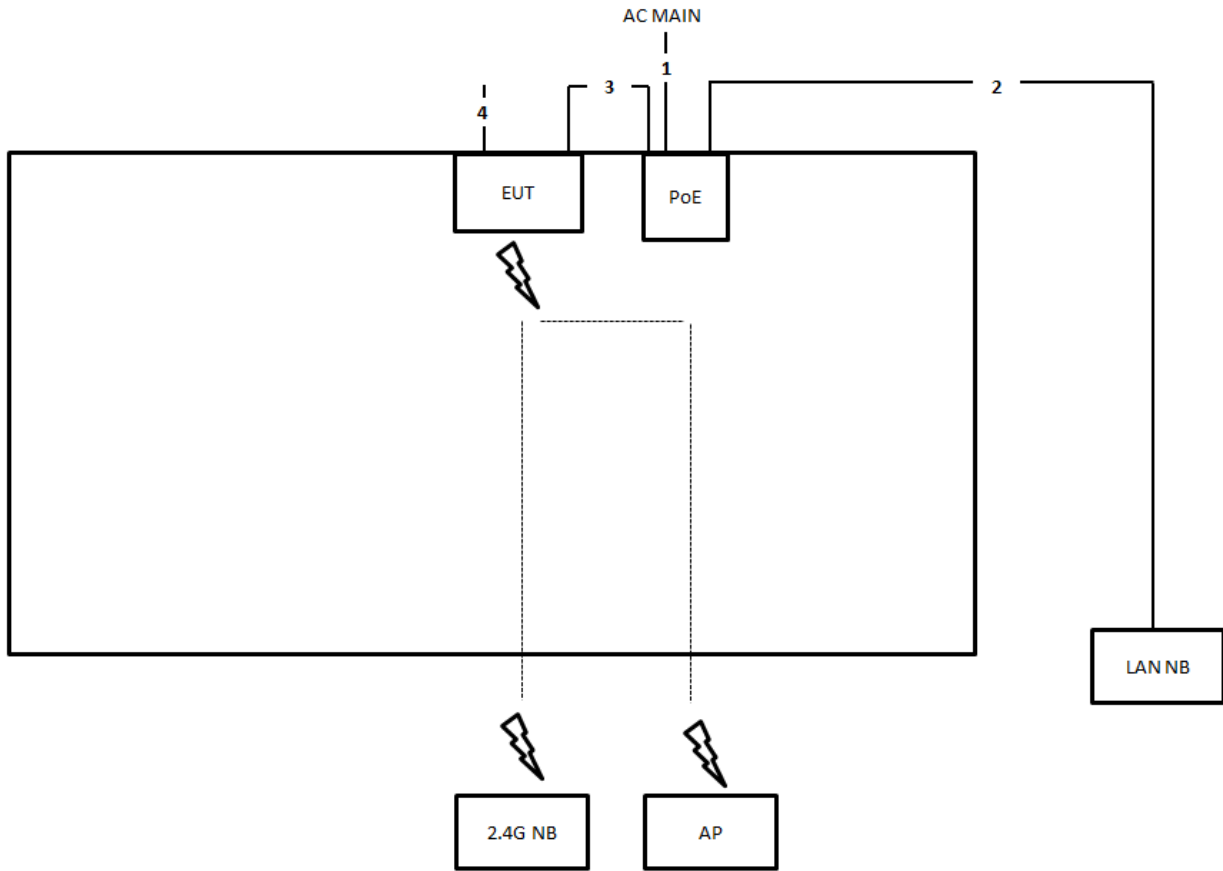
For Test Site No: TH01-CB

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E4300	DoC

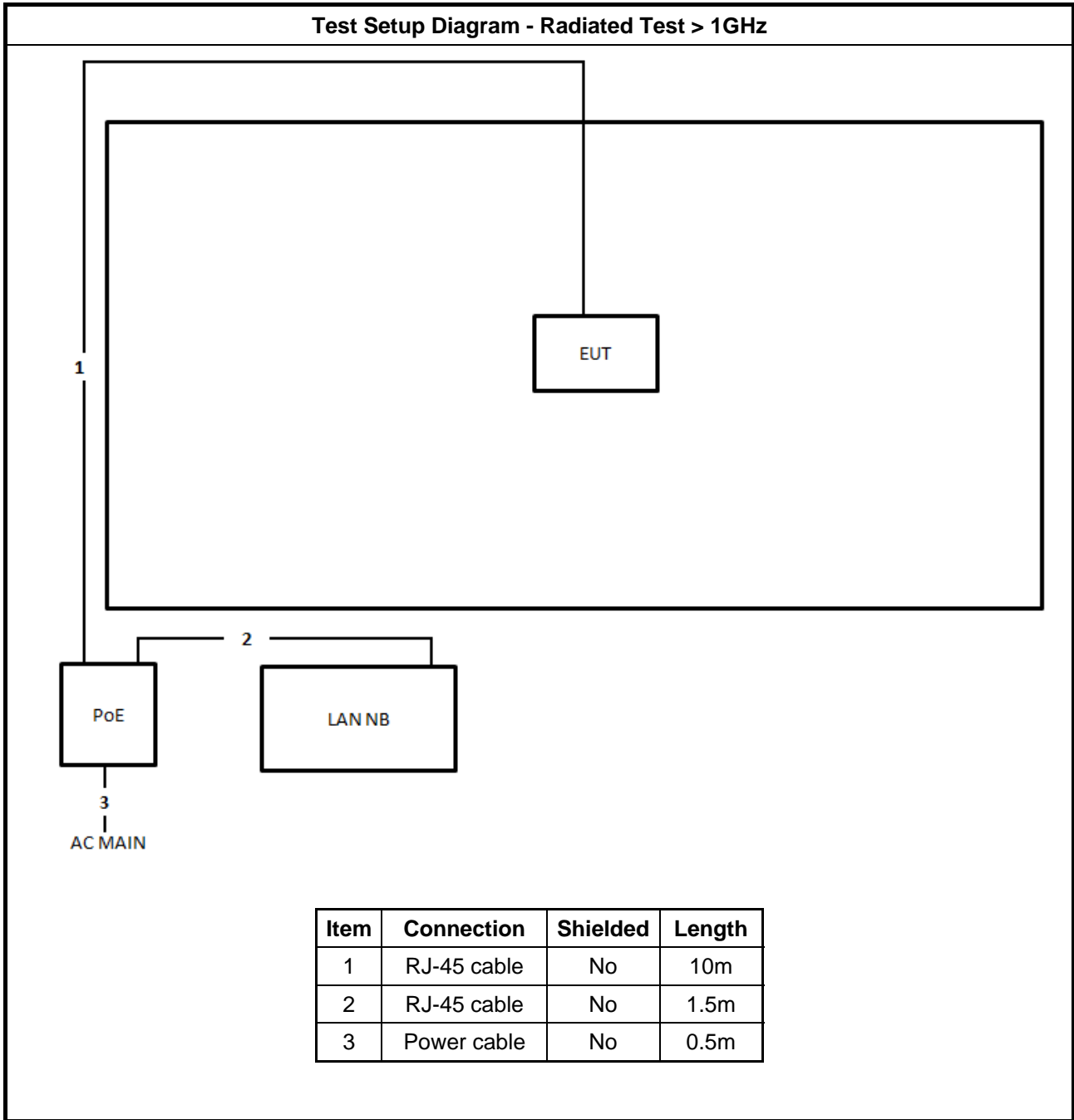
## 2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	0.5m
2	RJ-45 cable	No	1.5m
3	RJ-45 cable	No	10m
4	Ground 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.

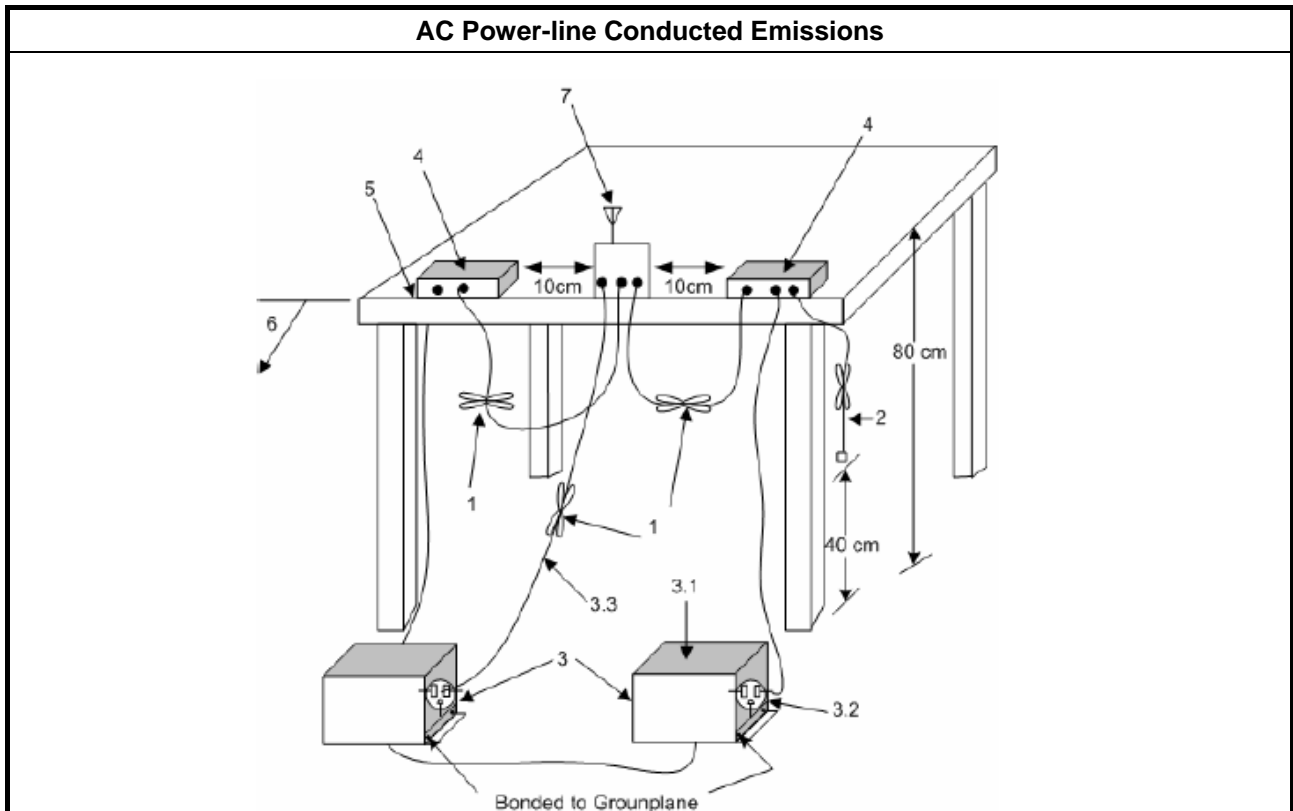
##### 3.1.2 Measuring Instruments

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

##### 3.1.3 Test Procedures

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

##### 3.1.4 Test Setup





### **3.1.5 Test Result of AC Power-line Conducted Emissions**

Refer as Appendix A

### 3.2 DTS Bandwidth

#### 3.2.1 6dB Bandwidth Limit

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

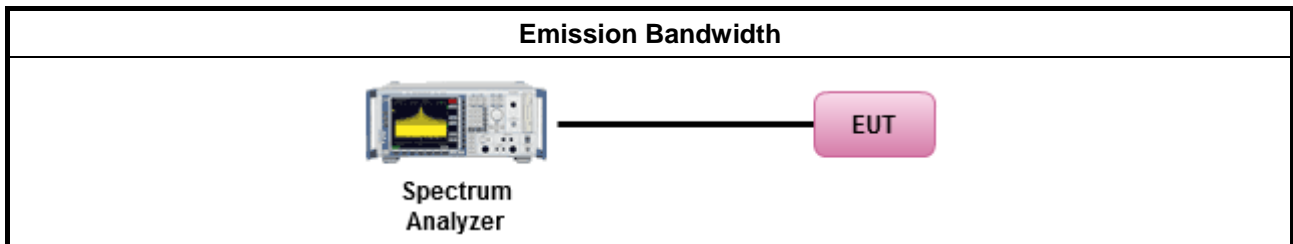
#### 3.2.2 Measuring Instruments

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

#### 3.2.3 Test Procedures

Test Method
<ul style="list-style-type: none"> <li>▪ For the emission bandwidth shall be measured using one of the options below:</li> </ul>
<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.1 Option 1 for 6 dB bandwidth measurement.
<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.2 Option 2 for 6 dB bandwidth measurement.
<input type="checkbox"/> Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.

#### 3.2.4 Test Setup



#### 3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B





### 3.3 Maximum Conducted Output Power

#### 3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
	▪ 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.	

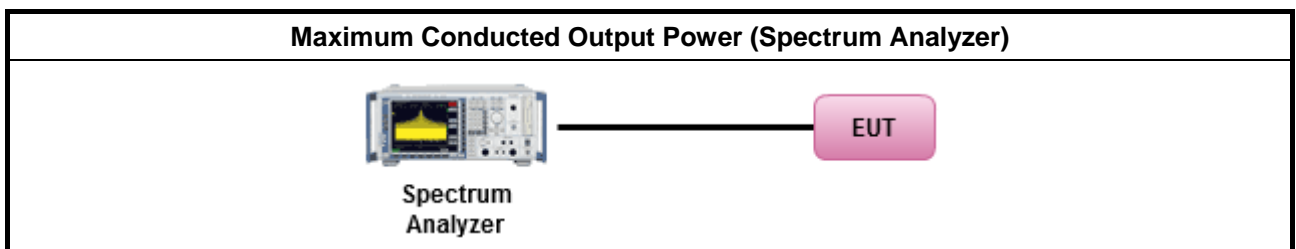
#### 3.3.2 Measuring Instruments

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

### 3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> <li>Maximum Peak Conducted Output Power</li> </ul>	
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 9.1.1 Option 1 (RBW ≥ EBW method).
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 9.1.2 Option 2 (peak power meter for VBW ≥ DTS BW)
<ul style="list-style-type: none"> <li>Maximum Conducted Output Power</li> </ul>	
[duty cycle ≥ 98% or external video / power trigger]	
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 9.2.2.2 Method AVGSA-1 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 9.2.2.3 Method AVGSA-1 Alt. (slow sweep speed)
duty cycle < 98% and average over on/off periods with duty factor	
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 9.2.2.4 Method AVGSA-2 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 9.2.2.5 Method AVGSA-2 Alt. (slow sweep speed)
RF power meter and average over on/off periods with duty factor or gated trigger	
<input checked="" type="checkbox"/>	Refer as FCC KDB 558074, clause 9.2.3 Method AVGPM-G (using an RF average power meter).
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 9.1.2 PKPM1 Peak power meter method.
<ul style="list-style-type: none"> <li>For conducted measurement.</li> </ul>	
<ul style="list-style-type: none"> <li>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.</li> </ul>	
<ul style="list-style-type: none"> <li>If multiple transmit chains, EIRP calculation could be following as methods:  <math>P_{total} = P_1 + P_2 + \dots + P_n</math>                      (calculated in linear unit [mW] and transfer to log unit [dBm])  <math>EIRP_{total} = P_{total} + DG</math> </li> </ul>	

### 3.3.4 Test Setup



### 3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

### 3.4 Power Spectral Density

#### 3.4.1 Power Spectral Density Limit

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

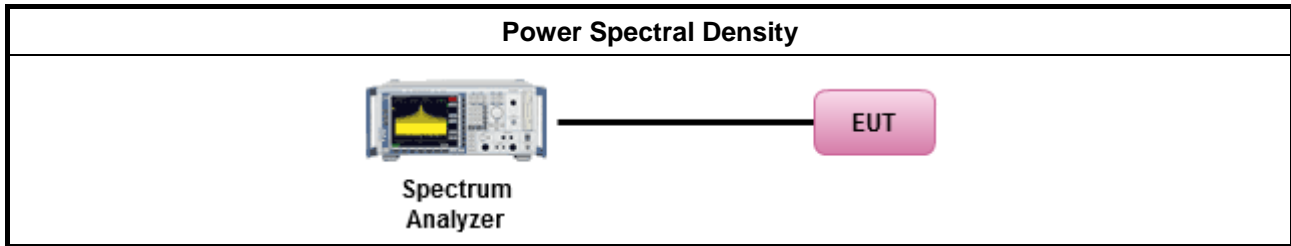
#### 3.4.2 Measuring Instruments

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

#### 3.4.3 Test Procedures

Test Method
<ul style="list-style-type: none"> <li>▪ 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).</li> </ul>
<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 10.2 Method PKPSD (RBW=3-100kHz; Detector=peak). [duty cycle $\geq$ 98% or external video / power trigger]
<input type="checkbox"/> Refer as FCC KDB 558074, clause 10.3 Method AVGPSD-1 (spectral trace averaging).
<input type="checkbox"/> Refer as FCC KDB 558074, clause 10.4 Method AVGPSD-2 (slow sweep speed) duty cycle < 98% and average over on/off periods with duty factor
<input type="checkbox"/> Refer as FCC KDB 558074, clause 10.5 Method AVGPSD-1 Alt (spectral trace averaging).
<input type="checkbox"/> Refer as FCC KDB 558074, clause 10.6 Method AVGPSD-2 Alt. (slow sweep speed)
<ul style="list-style-type: none"> <li>▪ For conducted measurement.</li> </ul>
<ul style="list-style-type: none"> <li>▪ If The EUT supports multiple transmit chains using options given below:           <ul style="list-style-type: none"> <li> <input checked="" type="checkbox"/> Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.               </li> <li> <input type="checkbox"/> Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,               </li> <li> <input type="checkbox"/> Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.               </li> </ul> </li> </ul>

### 3.4.4 Test Setup



### 3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

### 3.5 Emissions in Non-restricted Frequency Bands

#### 3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	Limit (dB)
Peak output power procedure	20
Average output power procedure	30

Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level.

Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average PSD level.

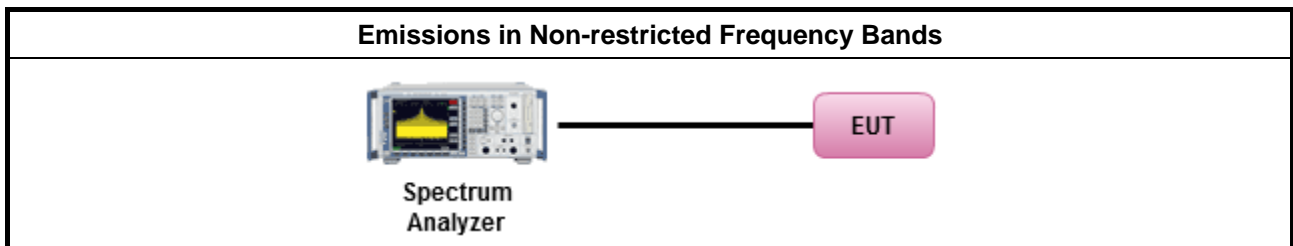
#### 3.5.2 Measuring Instruments

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

#### 3.5.3 Test Procedures

Test Method
<ul style="list-style-type: none"> <li>Refer as FCC KDB 558074, clause 11 for unwanted emissions into non-restricted bands.</li> </ul>

#### 3.5.4 Test Setup



#### 3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

### 3.6 Emissions in Restricted Frequency Bands

#### 3.6.1 Emissions in Restricted Frequency Bands Limit

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

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

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

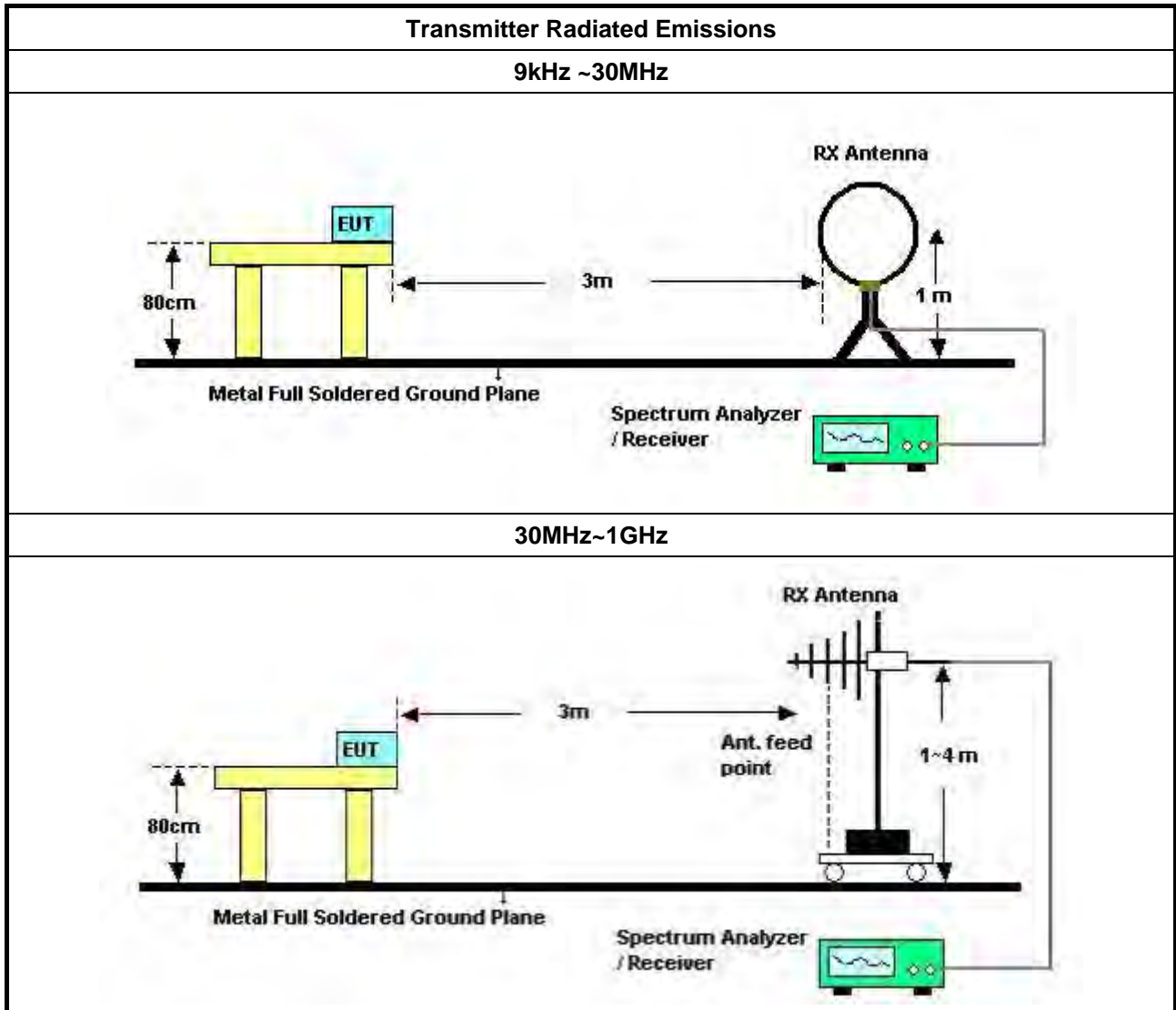
#### 3.6.2 Measuring Instruments

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

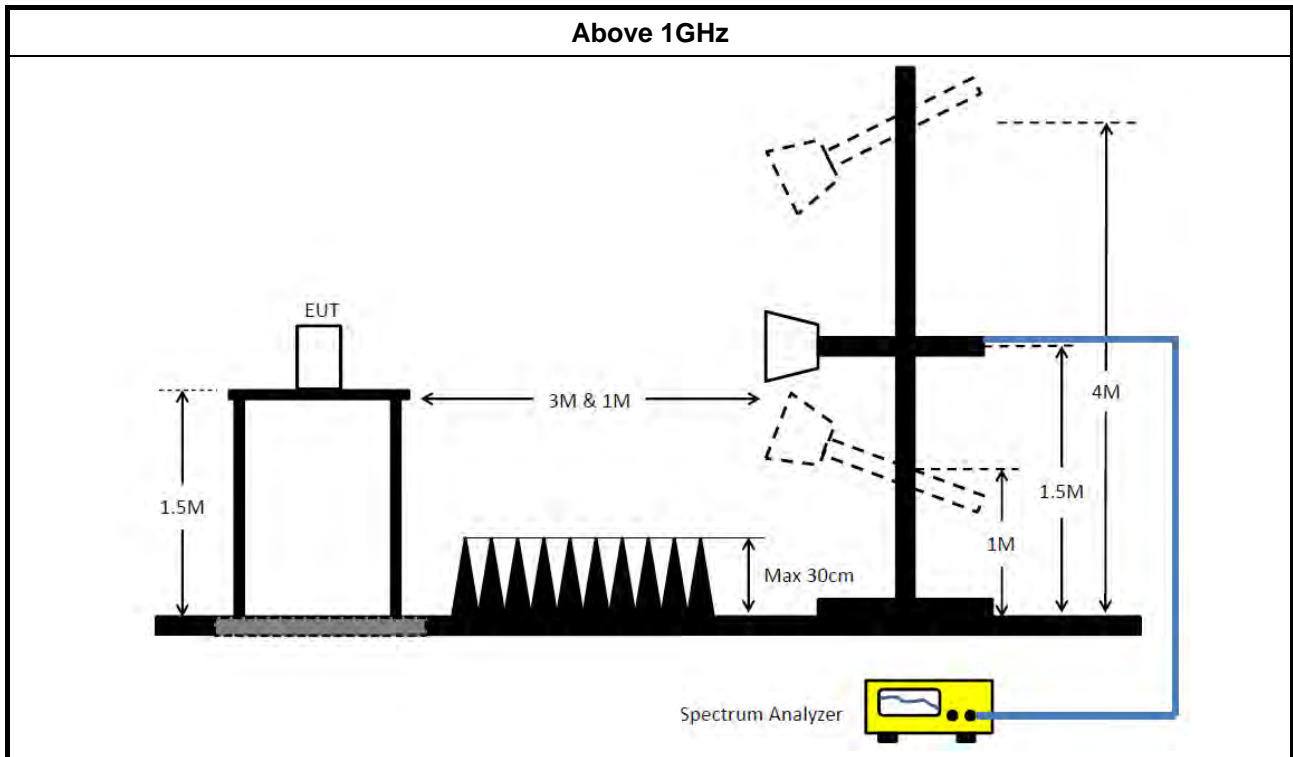
### 3.6.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> <li>▪ The average emission levels shall be measured in [duty cycle <math>\geq 98</math> or duty factor].</li> </ul>	
<ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 6.9.2.2 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.</li> </ul>	
<ul style="list-style-type: none"> <li>▪ For the transmitter unwanted emissions shall be measured using following options below:</li> </ul>	
	<ul style="list-style-type: none"> <li>▪ Refer as FCC KDB 558074, clause 12 for unwanted emissions into restricted bands.</li> </ul>
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 12.2.5.1 Option 1 (trace averaging for duty cycle $\geq 98\%$ )
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 12.2.5.2 Option 2 (trace averaging + duty factor).
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 12.2.5.3 Option 3 (Reduced VBW $\geq 1/T$ ).
	<input type="checkbox"/> Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW $\geq 1/T$ , where T is pulse time.
	<input type="checkbox"/> Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions.
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 12.2.4 measurement procedure peak limit.
<ul style="list-style-type: none"> <li>▪ For the transmitter band-edge emissions shall be measured using following options below:</li> </ul>	
	<ul style="list-style-type: none"> <li>▪ Refer as FCC KDB 558074 clause 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.</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Refer as FCC KDB 558074, clause 13.2 (ANSI C63.10, clause 6.9.3) for marker-delta method for band-edge measurements.</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Refer as FCC KDB 558074, clause 13.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).</li> </ul>
<ul style="list-style-type: none"> <li>▪ For conducted and cabinet radiation measurement, refer as FCC KDB 558074, clause 12.2.2.</li> </ul>	
	<ul style="list-style-type: none"> <li>▪ 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</li> </ul>
	<ul style="list-style-type: none"> <li>▪ 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.</li> </ul>

### 3.6.4 Test Setup







### 3.6.5 Transmitter Radiated Unwanted Emissions (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.

### 3.6.6 Test Result of Transmitter Radiated Unwanted Emissions

Refer as Appendix F



## 4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Jan. 23, 2017	Jan. 22, 2018	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-1 6-2	04083	150kHz~ 100MHz	Dec. 14, 2016	Dec. 13, 2017	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 23, 2017	May 22, 2018	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)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Nov. 10, 2016	Nov. 09, 2017	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 25, 2016	Jul. 24, 2017	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 05, 2017	Jul. 04, 2018	Radiation (03CH01-CB)
Pre-Amplifier	EMCI	EMC330N	980332	20MHz ~ 3GHz	May 02, 2017	May 01, 2018	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 16, 2017	Jan. 15, 2018	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jun. 28, 2016	Jun. 27, 2017	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 10, 2017	Jul. 09, 2018	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 22, 2016	Nov. 21, 2017	Radiation (03CH01-CB)
EMI Test	R&S	ESCS	100355	9kHz ~ 2.75GHz	May 06, 2017	May 05, 2018	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-16	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#1	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 26, 2016	Dec. 25, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-6	1 GHz – 26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-7	1 GHz –26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-8	1 GHz –26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-9	1 GHz –26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 22, 2016	Nov. 21, 2017	Conducted (TH01-CB)

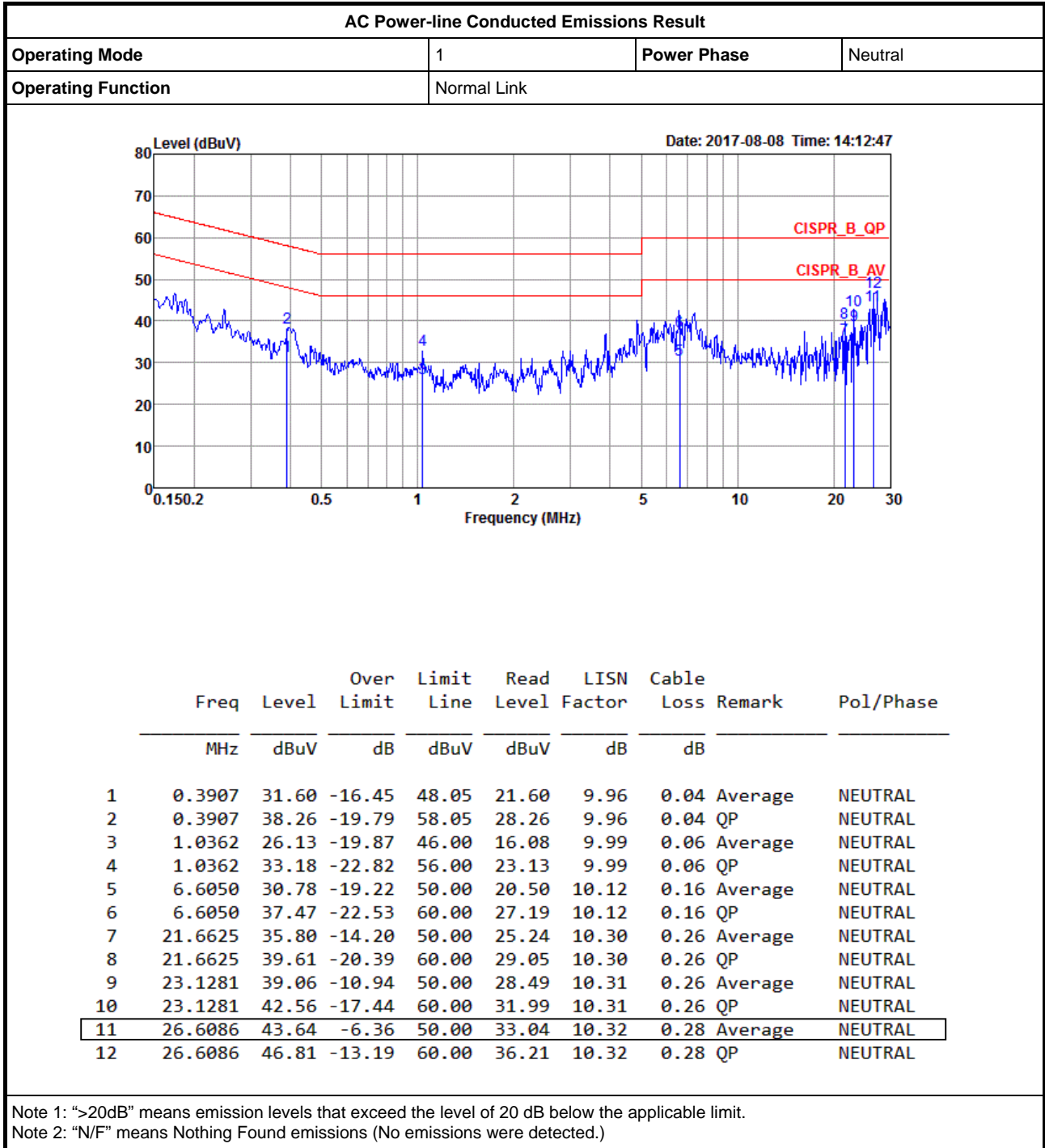
Note: Calibration Interval of instruments listed above is one year.

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



# AC Power-line Conducted Emissions Result

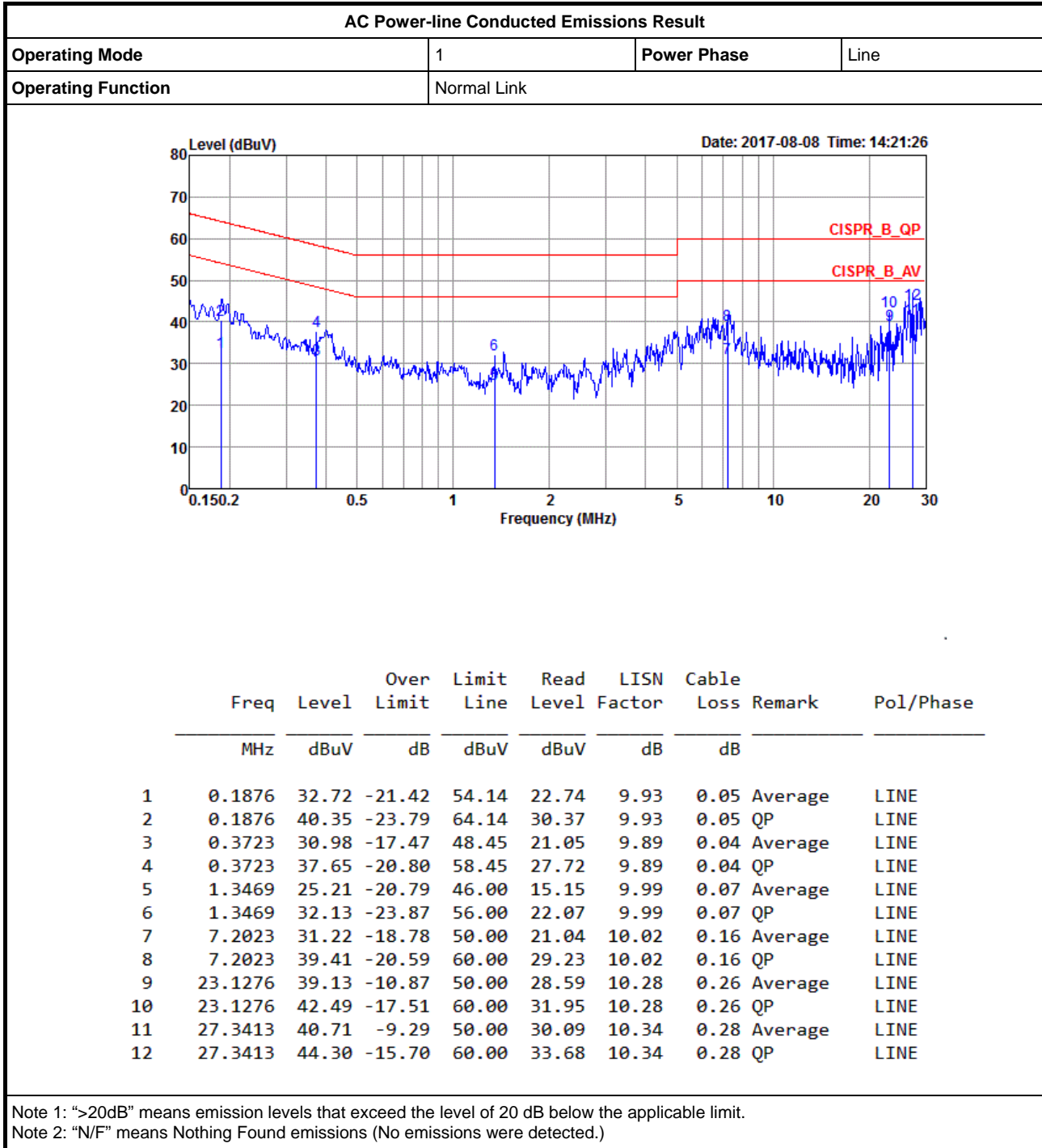
Appendix A





# AC Power-line Conducted Emissions Result

Appendix A





**Summary**

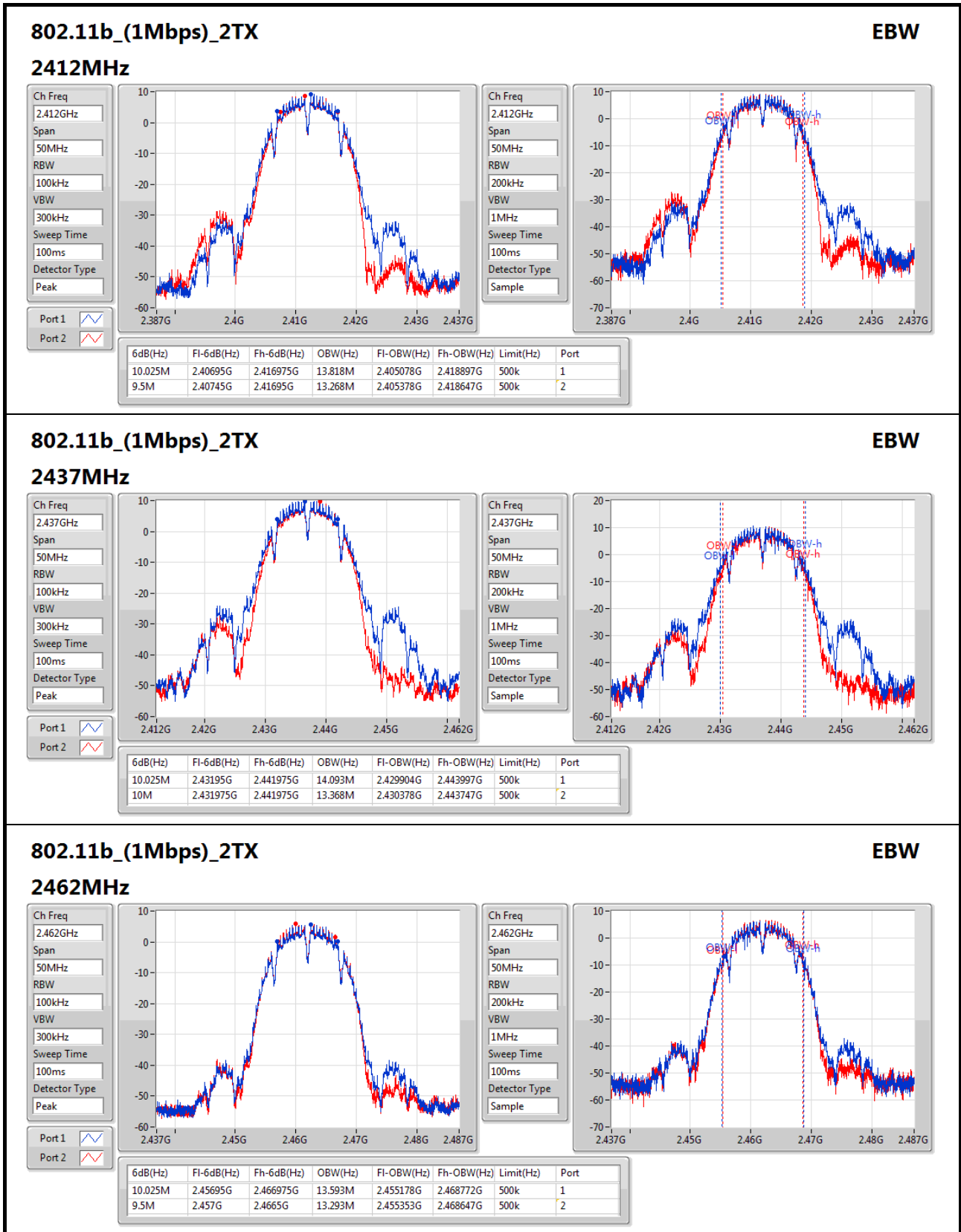
Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_2TX	-	-	-	-	-
2.4-2.4835GHz	10.025M	14.093M	14M1G1D	9.025M	13.268M
802.11g_(6Mbps)_2TX	-	-	-	-	-
2.4-2.4835GHz	15.25M	21.414M	21M4D1D	12.25M	16.167M
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	15.075M	21.414M	21M4D1D	12.975M	17.291M
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	33.75M	35.782M	35M8D1D	28.85M	35.682M

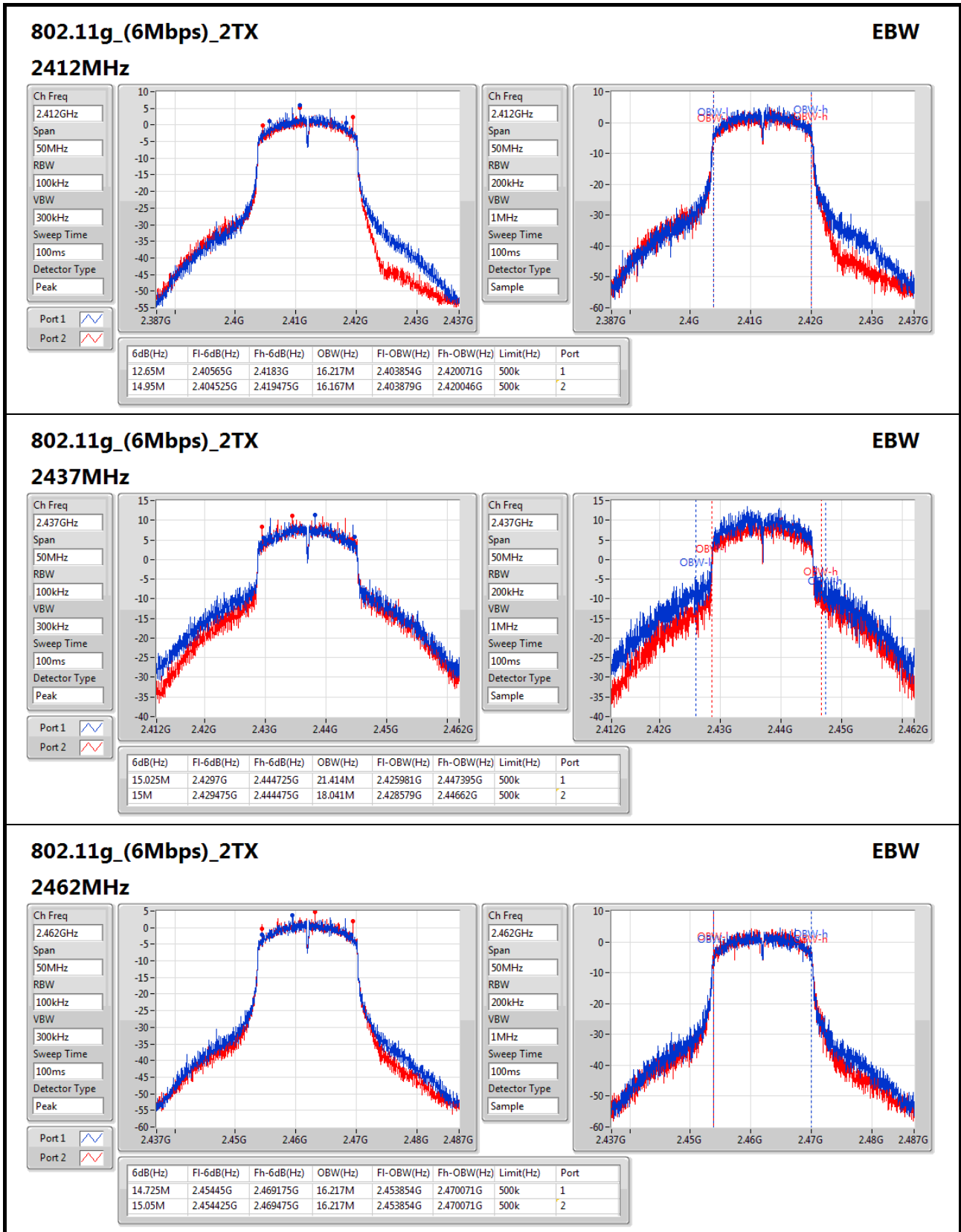
**Max-N dB** = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;  
**Min-N dB** = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

**Result**

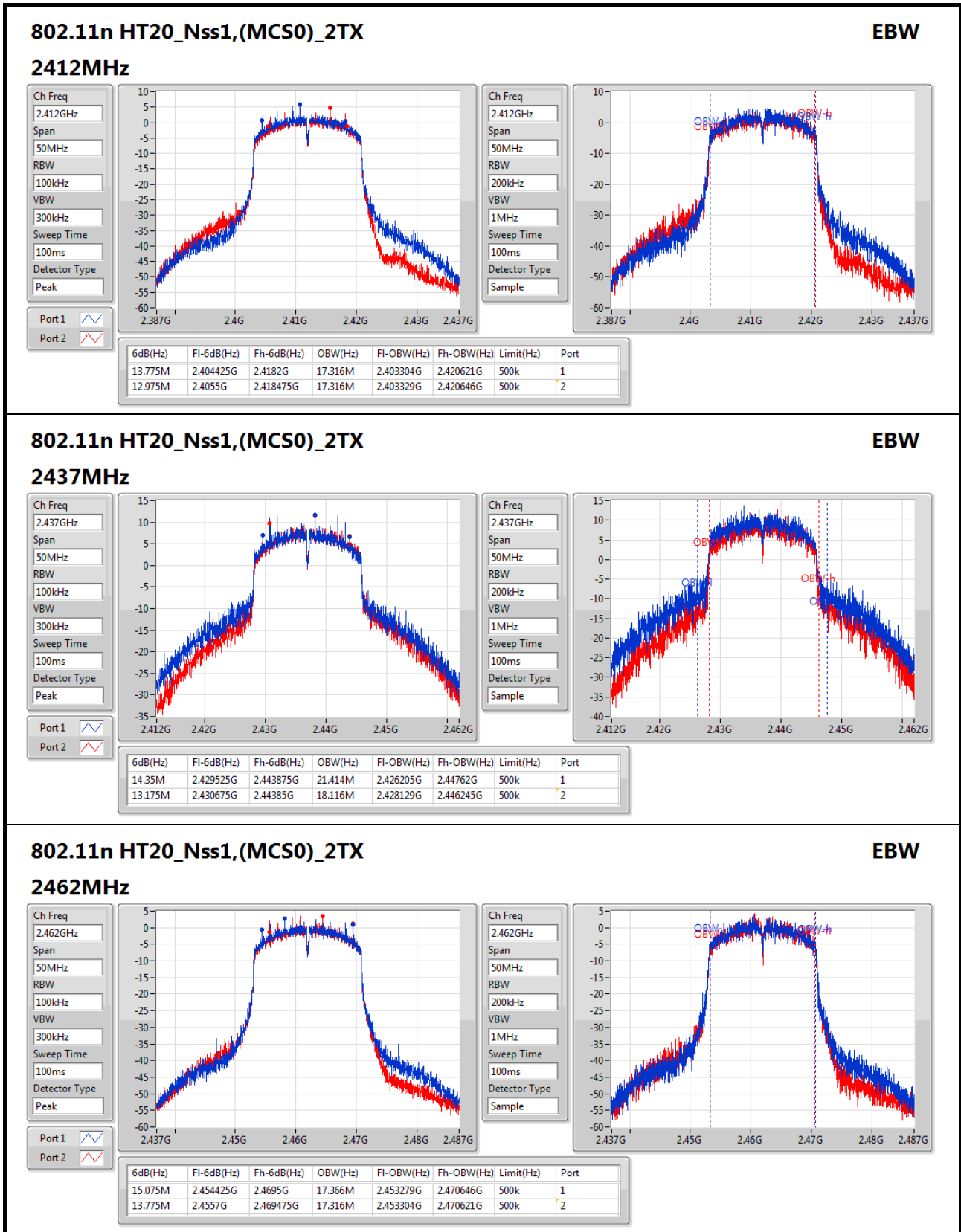
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	10.025M	13.818M	9.5M	13.268M
2437MHz	Pass	500k	10.025M	14.093M	10M	13.368M
2462MHz	Pass	500k	10.025M	13.593M	9.5M	13.293M
802.11g_(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	12.65M	16.217M	14.95M	16.167M
2437MHz	Pass	500k	15.025M	21.414M	15M	18.041M
2462MHz	Pass	500k	14.725M	16.217M	15.05M	16.217M
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	13.775M	17.316M	12.975M	17.316M
2437MHz	Pass	500k	14.35M	21.414M	13.175M	18.116M
2462MHz	Pass	500k	15.075M	17.366M	13.775M	17.316M
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	31.35M	35.782M	31.2M	35.782M
2437MHz	Pass	500k	31.8M	35.782M	28.85M	35.732M
2452MHz	Pass	500k	31.3M	35.732M	32.5M	35.682M

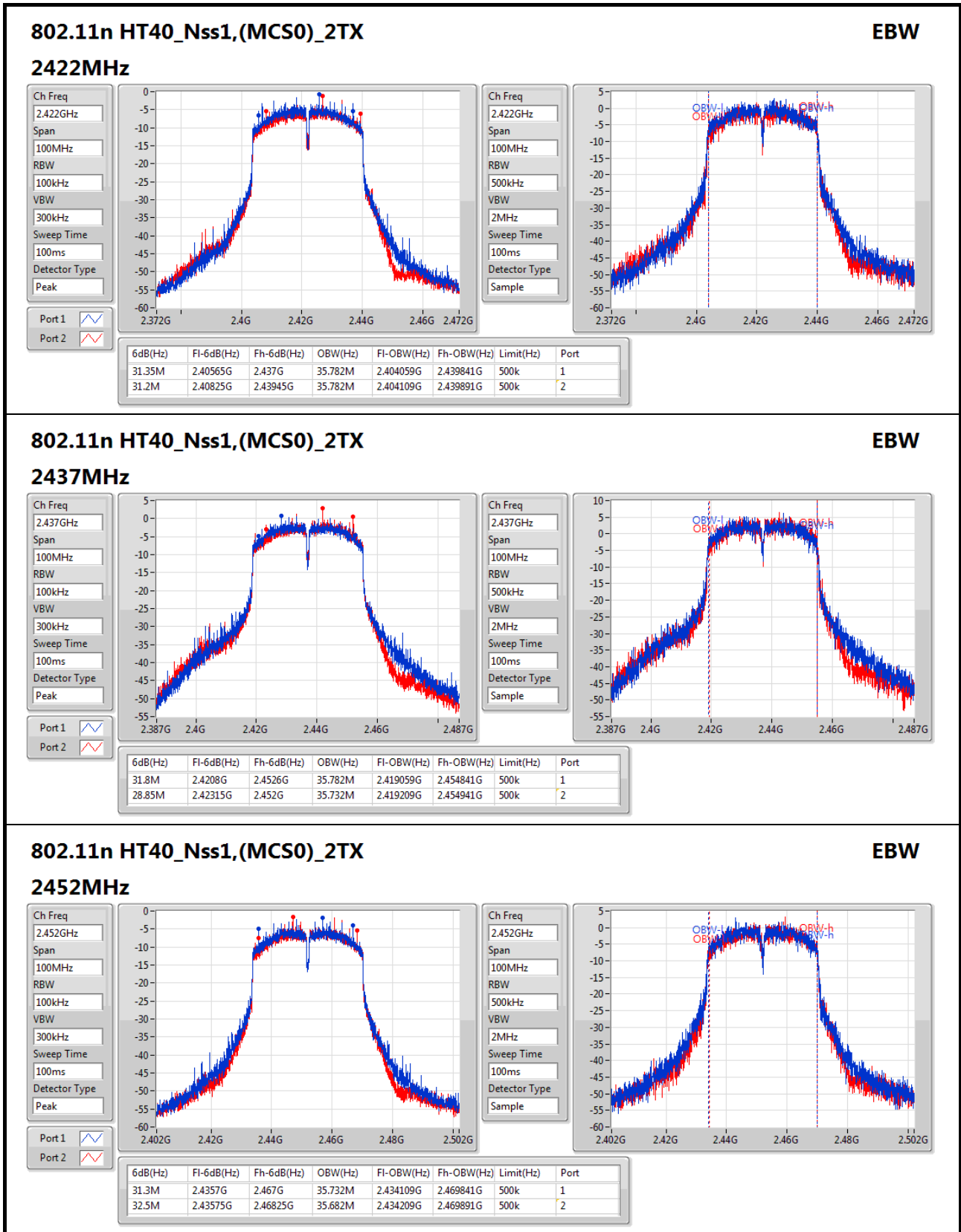
**Port X-N dB** = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;













Summary

Mode	Total Power (dBm)	Total Power (W)
802.11b_(1Mbps)_2TX	-	-
2.4-2.4835GHz	22.37	0.17258
802.11g_(6Mbps)_2TX	-	-
2.4-2.4835GHz	25.24	0.33420
802.11n HT20_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	25.02	0.31769
802.11n HT40_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	18.89	0.07745

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	10.70	18.19	18.07	21.14	29.00
2437MHz	Pass	10.70	19.55	19.16	22.37	29.00
2462MHz	Pass	10.70	15.45	15.52	18.50	29.00
802.11g_(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	10.70	15.92	15.56	18.75	29.00
2437MHz	Pass	10.70	22.18	22.27	25.24	29.00
2462MHz	Pass	10.70	15.23	15.37	18.31	29.00
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	10.70	15.65	15.09	18.39	29.00
2437MHz	Pass	10.70	21.94	22.08	25.02	29.00
2462MHz	Pass	10.70	14.19	14.64	17.43	29.00
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	10.70	12.41	12.25	15.34	29.00
2437MHz	Pass	10.70	16.12	15.63	18.89	29.00
2452MHz	Pass	10.70	11.93	12.15	15.05	29.00

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



Summary

Mode	PD (dBm/RBW)
802.11b_(1Mbps)_2TX	-
2.4-2.4835GHz	-2.05
802.11g_(6Mbps)_2TX	-
2.4-2.4835GHz	-0.86
802.11n HT20_Nss1,(MCS0)_2TX	-
2.4-2.4835GHz	-1.09
802.11n HT40_Nss1,(MCS0)_2TX	-
2.4-2.4835GHz	-9.98

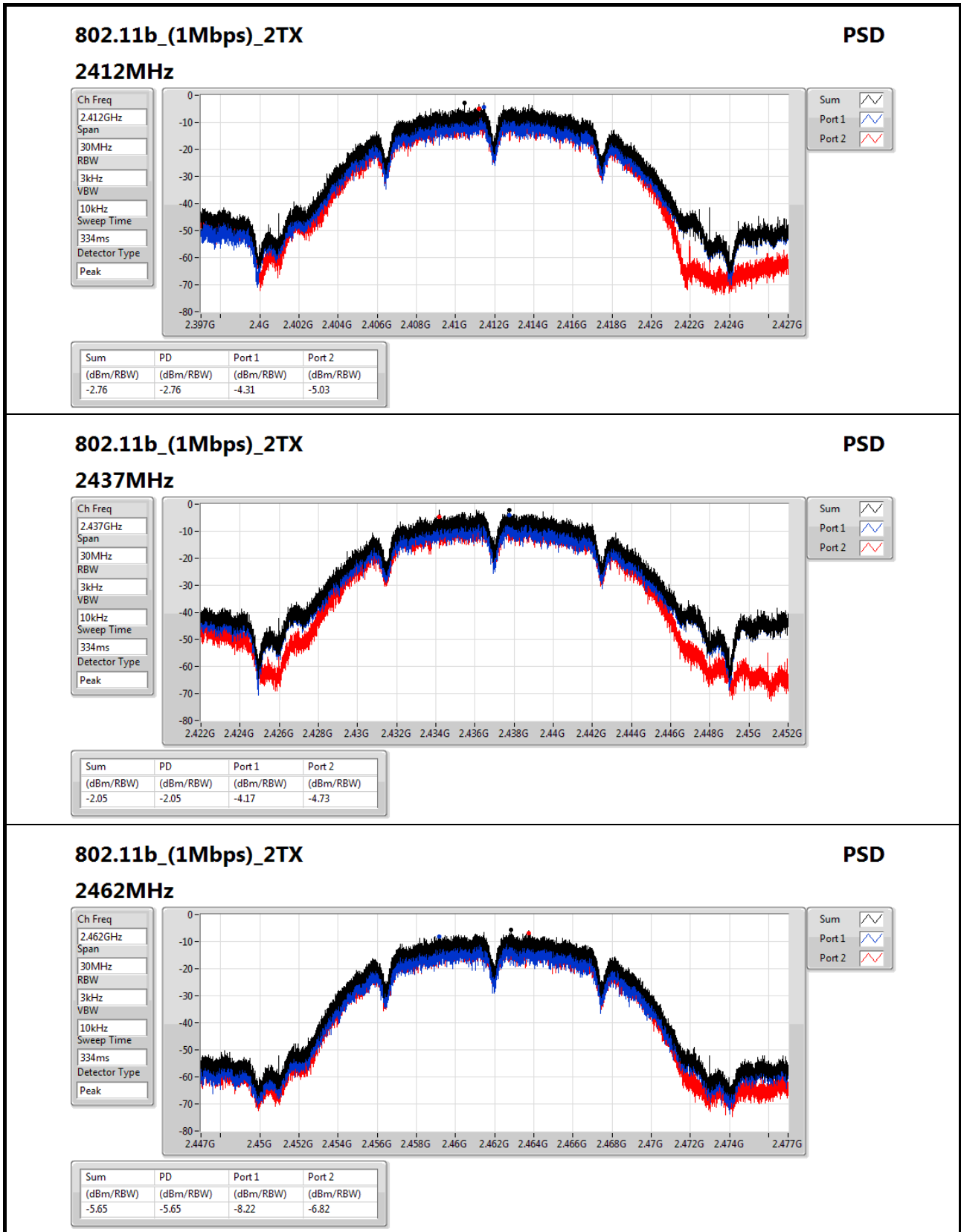
RBW=3kHz.

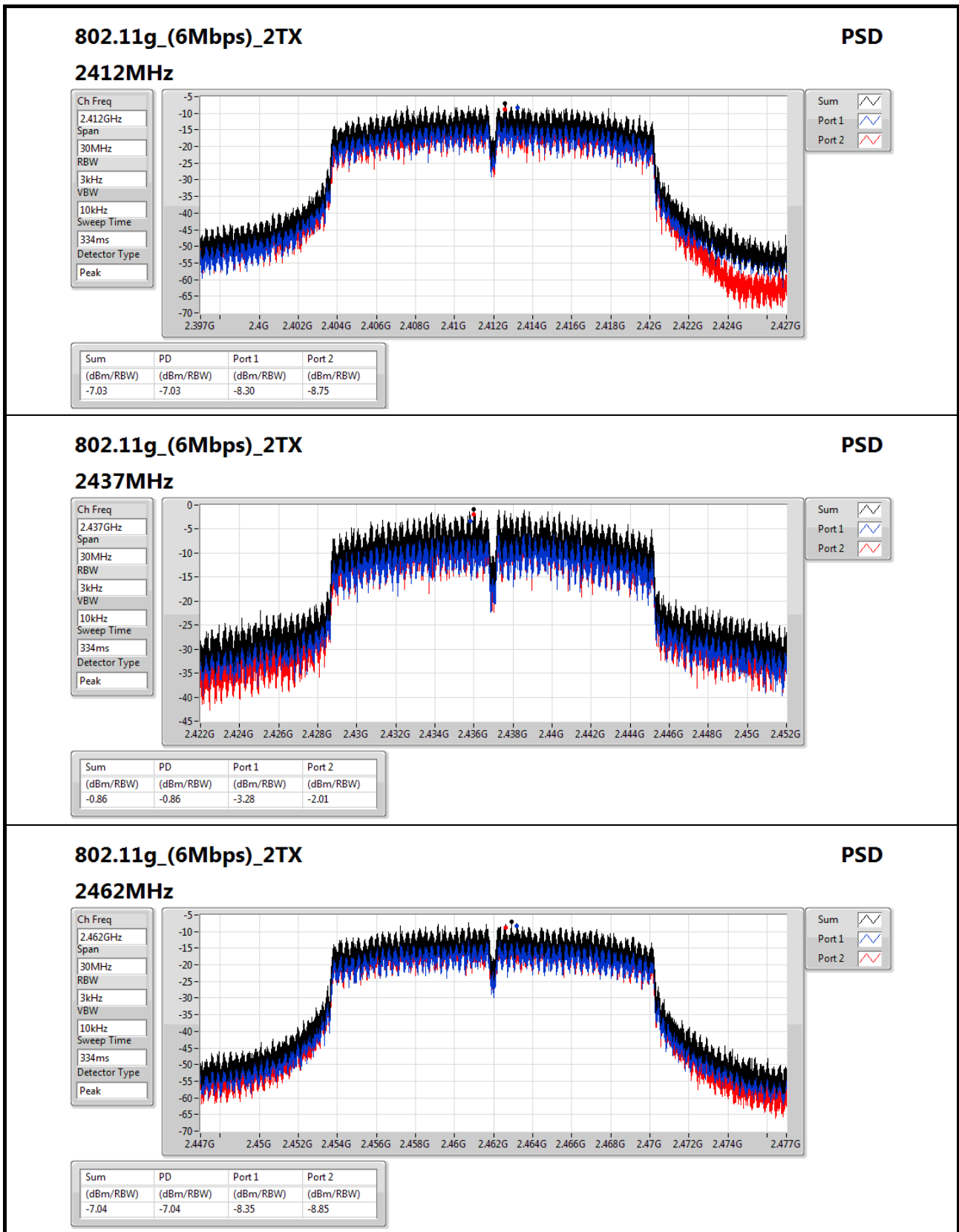
Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	13.71	-4.31	-5.03	-2.76	6.00
2437MHz	Pass	13.71	-4.17	-4.73	-2.05	6.00
2462MHz	Pass	13.71	-8.22	-6.82	-5.65	6.00
802.11g_(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	13.71	-8.30	-8.75	-7.03	6.00
2437MHz	Pass	13.71	-3.28	-2.01	-0.86	6.00
2462MHz	Pass	13.71	-8.35	-8.85	-7.04	6.00
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	13.71	-9.42	-9.22	-7.75	6.00
2437MHz	Pass	13.71	-3.74	-2.95	-1.09	6.00
2462MHz	Pass	13.71	-10.49	-9.82	-8.88	6.00
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	13.71	-15.42	-16.00	-14.00	6.00
2437MHz	Pass	13.71	-11.22	-11.96	-9.98	6.00
2452MHz	Pass	13.71	-16.02	-15.93	-13.36	6.00

DG = Directional Gain; RBW=3kHz;

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




**802.11g\_(6Mbps)\_2TX**
**PSD**
**2462MHz**

Ch Freq  
2.462GHz

Span  
30MHz

RBW  
3kHz

VBW  
10kHz

Sweep Time  
334ms

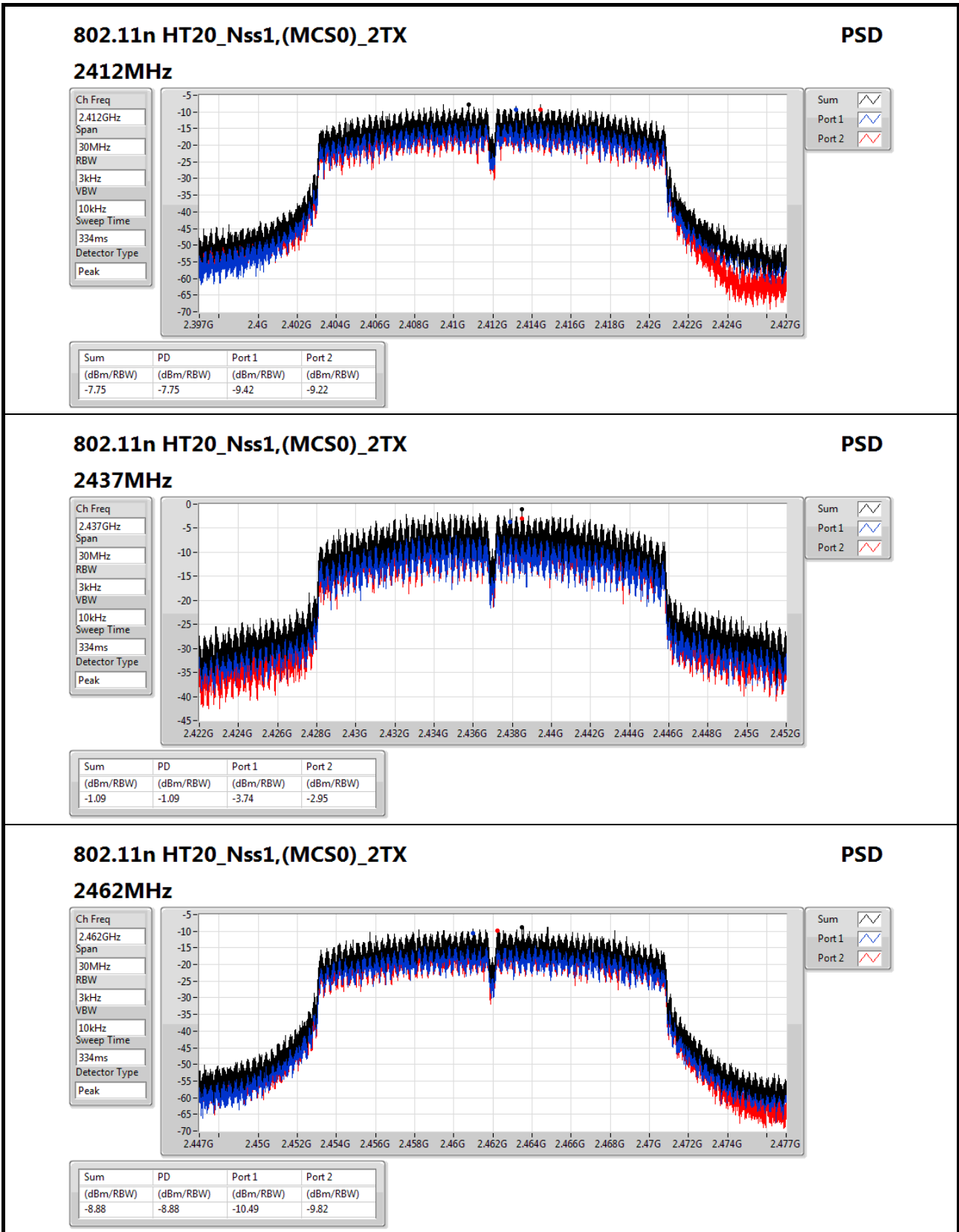
Detector Type  
Peak

Sum

Port 1

Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.04	-7.04	-8.35	-8.85


**802.11n HT20\_Nss1,(MCS0)\_2TX**
**PSD**

**2462MHz**

Ch Freq  
2.462GHz

Span  
30MHz

RBW  
3kHz

VBW  
10kHz

Sweep Time  
334ms

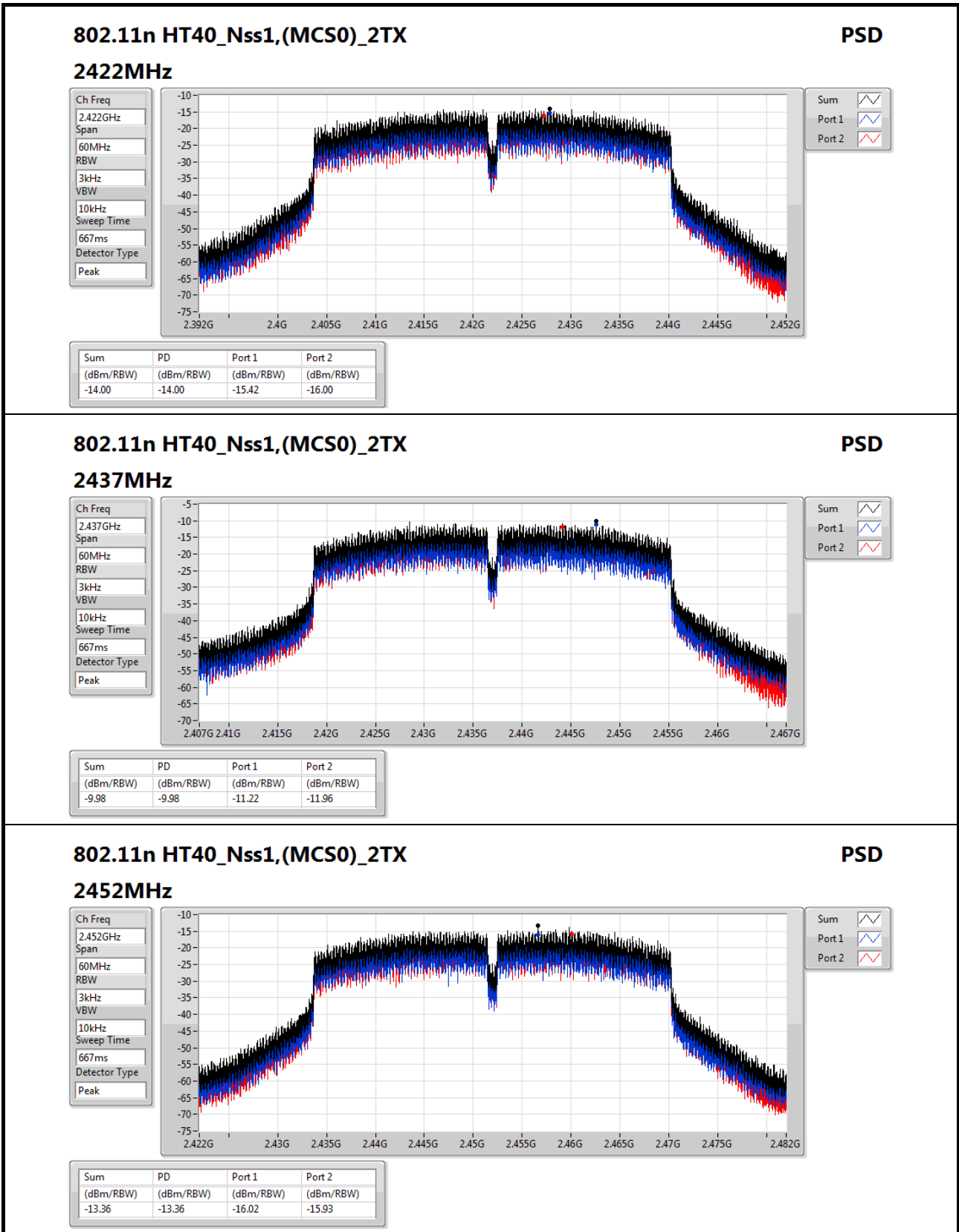
Detector Type  
Peak

Sum

Port 1

Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.88	-8.88	-10.49	-9.82



### 802.11n HT40\_Nss1,(MCS0)\_2TX

#### 2452MHz

### PSD

Ch Freq  
2.452GHz

Span  
60MHz

RBW  
3kHz

VBW  
10kHz

Sweep Time  
667ms

Detector Type  
Peak

Sum

Port 1

Port 2



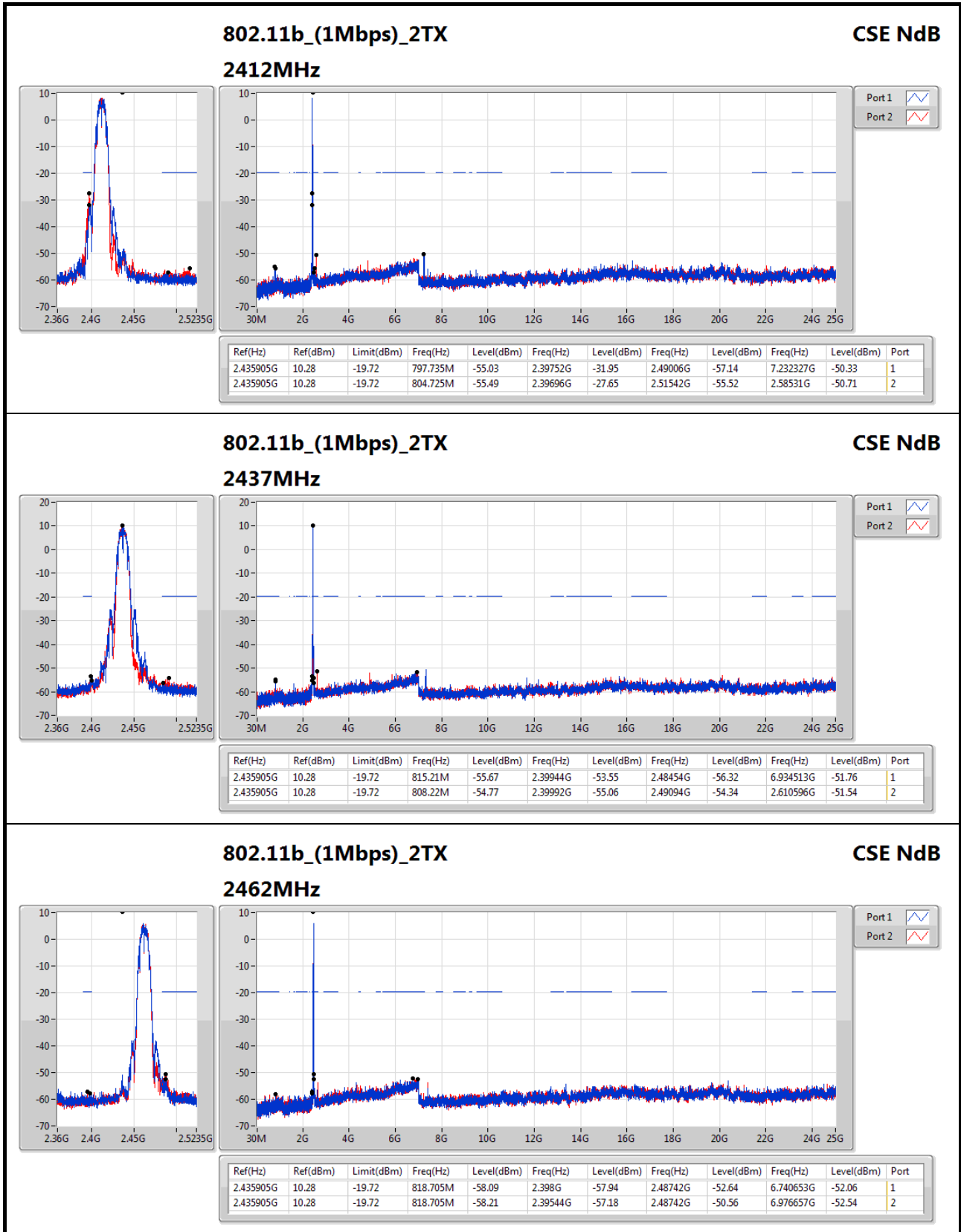


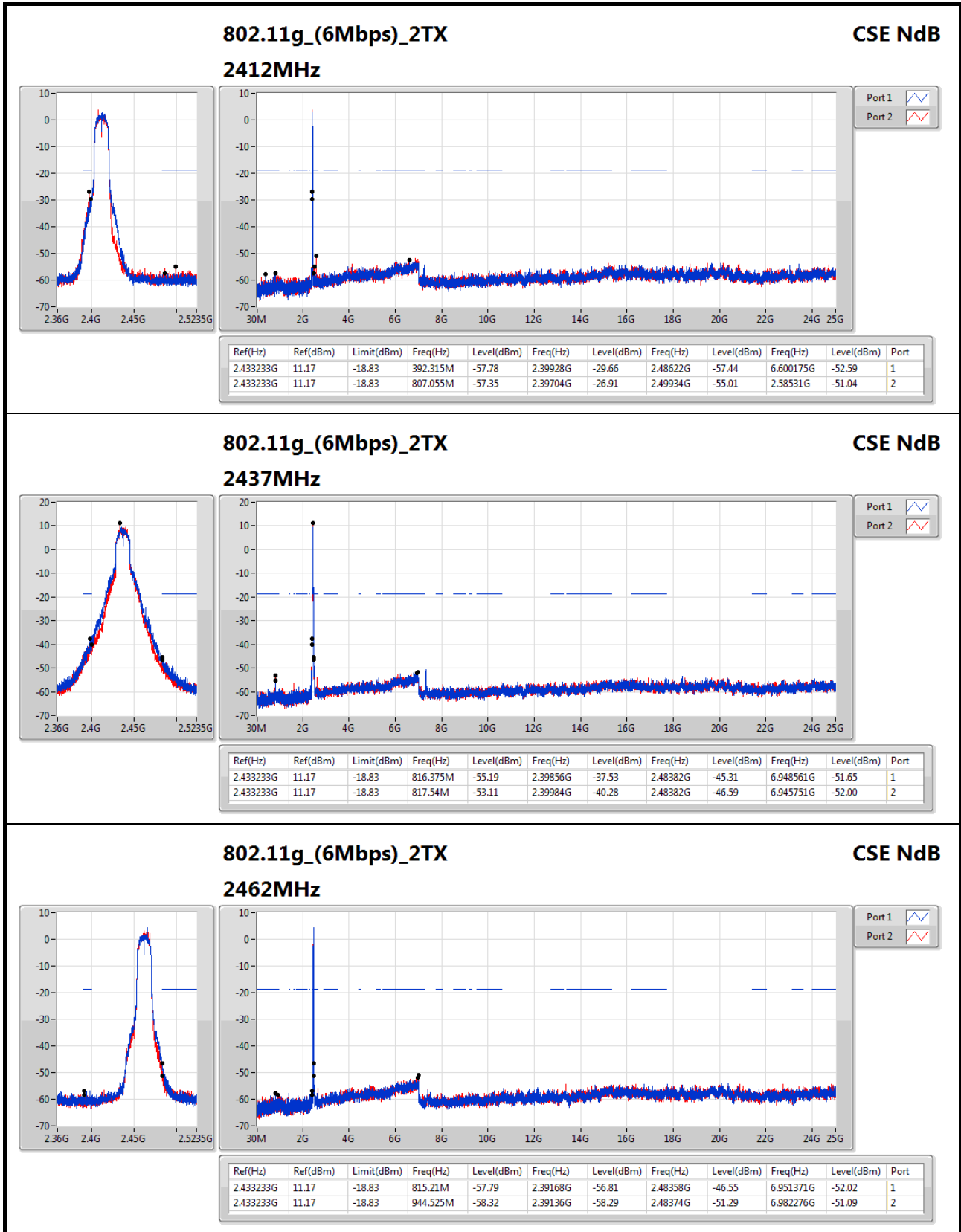
Summary

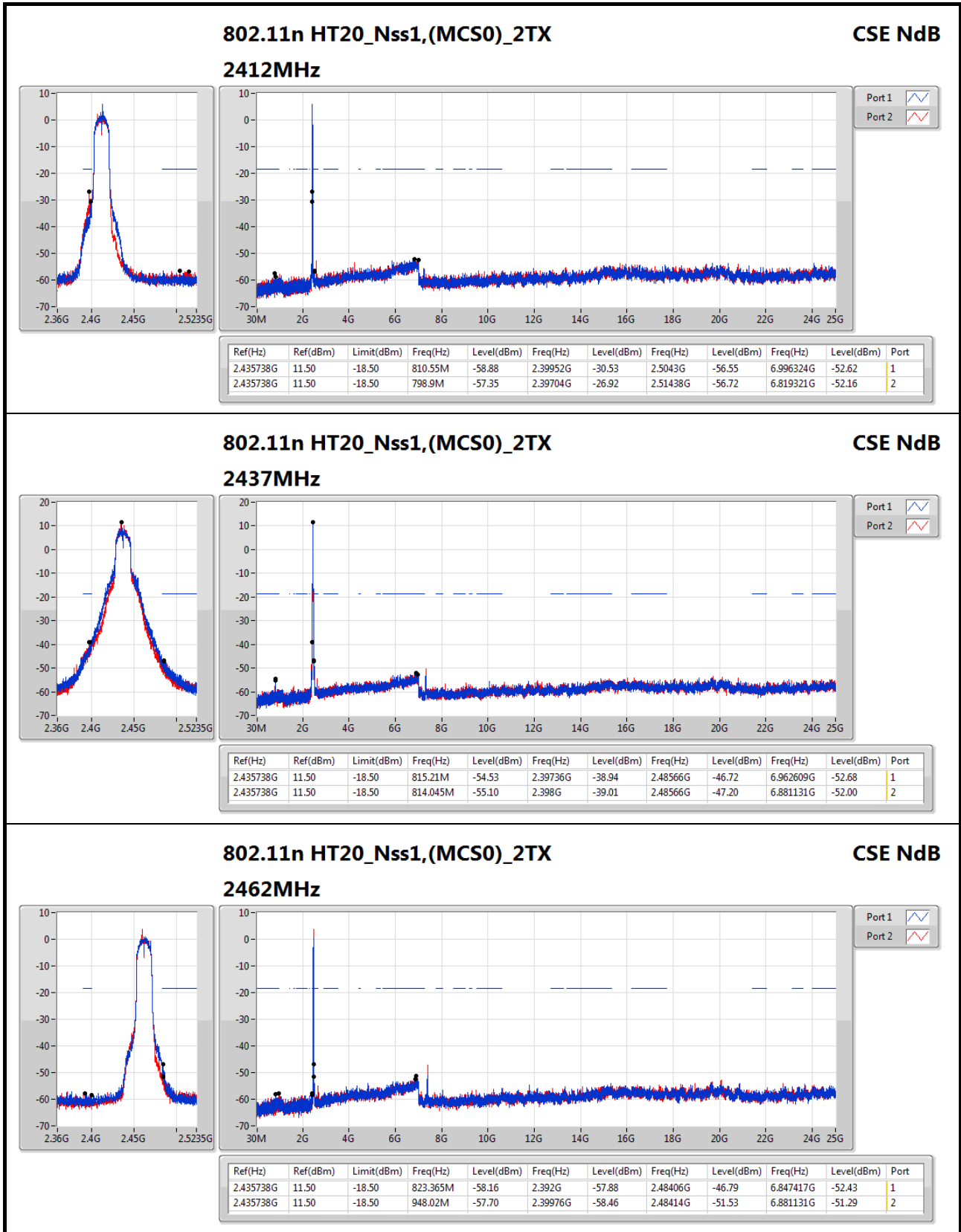
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2.4-2.4835GHz	Pass	2.434402G	1.33	-28.67	1.95131G	-58.97	2.39952G	-31.49	2.56238G	-58.21	6.655357G	-52.39	1

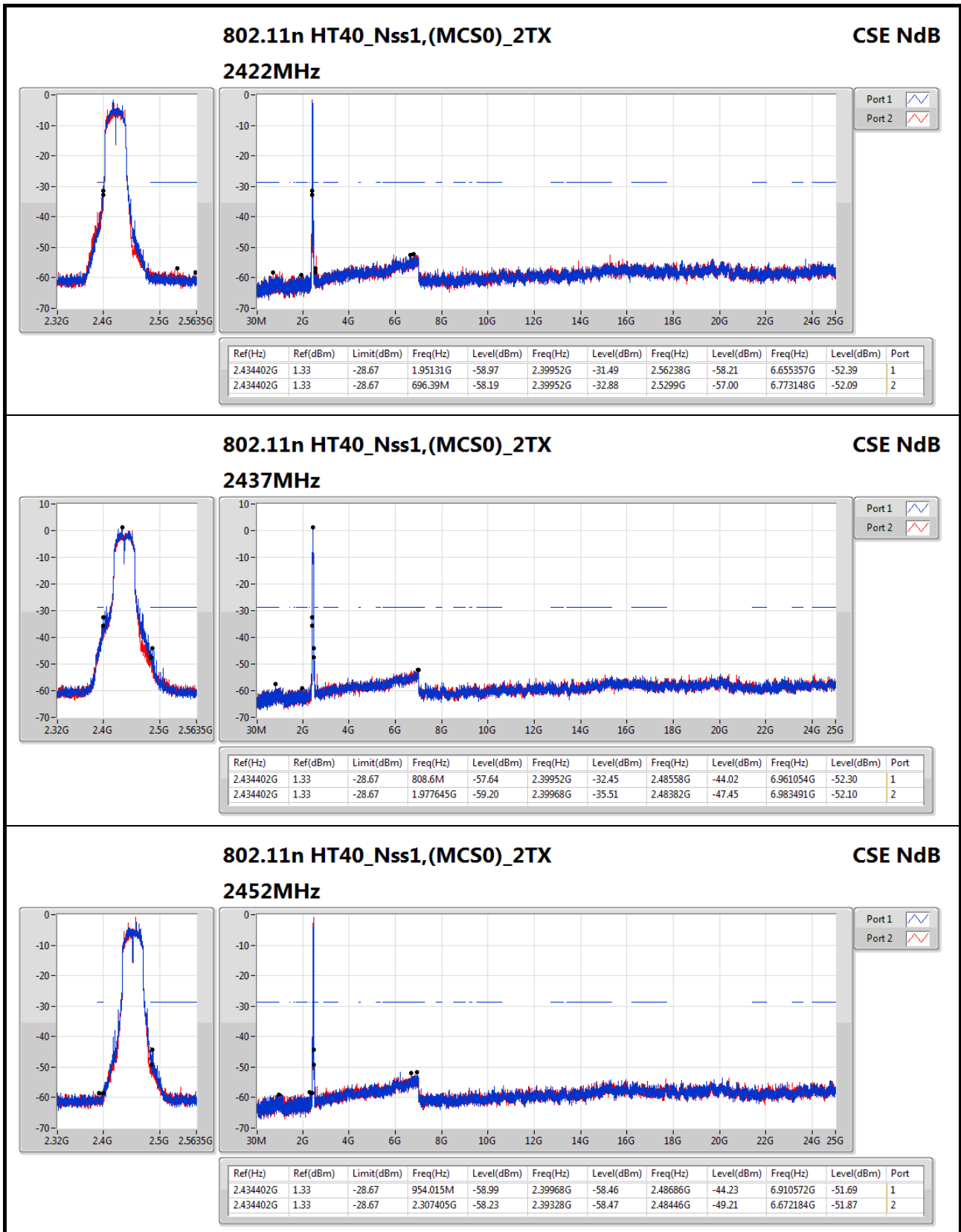
Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_(1Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.435905G	10.28	-19.72	797.735M	-55.03	2.39752G	-31.95	2.49006G	-57.14	7.232327G	-50.33	1
2412MHz	Pass	2.435905G	10.28	-19.72	804.725M	-55.49	2.39696G	-27.65	2.51542G	-55.52	2.58531G	-50.71	2
2437MHz	Pass	2.435905G	10.28	-19.72	815.21M	-55.67	2.39944G	-53.55	2.48454G	-56.32	6.934513G	-51.76	1
2437MHz	Pass	2.435905G	10.28	-19.72	808.22M	-54.77	2.39992G	-55.06	2.49094G	-54.34	2.610596G	-51.54	2
2462MHz	Pass	2.435905G	10.28	-19.72	818.705M	-58.09	2.398G	-57.94	2.48742G	-52.64	6.740653G	-52.06	1
2462MHz	Pass	2.435905G	10.28	-19.72	818.705M	-58.21	2.39544G	-57.18	2.48742G	-50.56	6.976657G	-52.54	2
802.11g_(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.433233G	11.17	-18.83	392.315M	-57.78	2.39928G	-29.66	2.48622G	-57.44	6.600175G	-52.59	1
2412MHz	Pass	2.433233G	11.17	-18.83	807.055M	-57.35	2.39704G	-26.91	2.49934G	-55.01	2.58531G	-51.04	2
2437MHz	Pass	2.433233G	11.17	-18.83	816.375M	-55.19	2.39856G	-37.53	2.48382G	-45.31	6.948561G	-51.65	1
2437MHz	Pass	2.433233G	11.17	-18.83	817.54M	-53.11	2.39984G	-40.28	2.48382G	-46.59	6.945751G	-52.00	2
2462MHz	Pass	2.433233G	11.17	-18.83	815.21M	-57.79	2.39168G	-56.81	2.48358G	-46.55	6.951371G	-52.02	1
2462MHz	Pass	2.433233G	11.17	-18.83	944.525M	-58.32	2.39136G	-58.29	2.48374G	-51.29	6.982276G	-51.09	2
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.435738G	11.50	-18.50	810.55M	-58.88	2.39952G	-30.53	2.5043G	-56.55	6.996324G	-52.62	1
2412MHz	Pass	2.435738G	11.50	-18.50	798.9M	-57.35	2.39704G	-26.92	2.51438G	-56.72	6.819321G	-52.16	2
2437MHz	Pass	2.435738G	11.50	-18.50	815.21M	-54.53	2.39736G	-38.94	2.48566G	-46.72	6.962609G	-52.68	1
2437MHz	Pass	2.435738G	11.50	-18.50	814.045M	-55.10	2.398G	-39.01	2.48566G	-47.20	6.881131G	-52.00	2
2462MHz	Pass	2.435738G	11.50	-18.50	823.365M	-58.16	2.392G	-57.88	2.48406G	-46.79	6.847417G	-52.43	1
2462MHz	Pass	2.435738G	11.50	-18.50	948.02M	-57.70	2.39976G	-58.46	2.48414G	-51.53	6.881131G	-51.29	2
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.434402G	1.33	-28.67	1.95131G	-58.97	2.39952G	-31.49	2.56238G	-58.21	6.655357G	-52.39	1
2422MHz	Pass	2.434402G	1.33	-28.67	696.39M	-58.19	2.39952G	-32.88	2.5299G	-57.00	6.773148G	-52.09	2
2437MHz	Pass	2.434402G	1.33	-28.67	808.6M	-57.64	2.39952G	-32.45	2.48558G	-44.02	6.961054G	-52.30	1
2437MHz	Pass	2.434402G	1.33	-28.67	1.977645G	-59.20	2.39968G	-35.51	2.48382G	-47.45	6.983491G	-52.10	2
2452MHz	Pass	2.434402G	1.33	-28.67	954.015M	-58.99	2.39968G	-58.46	2.48686G	-44.23	6.910572G	-51.69	1
2452MHz	Pass	2.434402G	1.33	-28.67	2.307405G	-58.23	2.39328G	-58.47	2.48446G	-49.21	6.672184G	-51.87	2





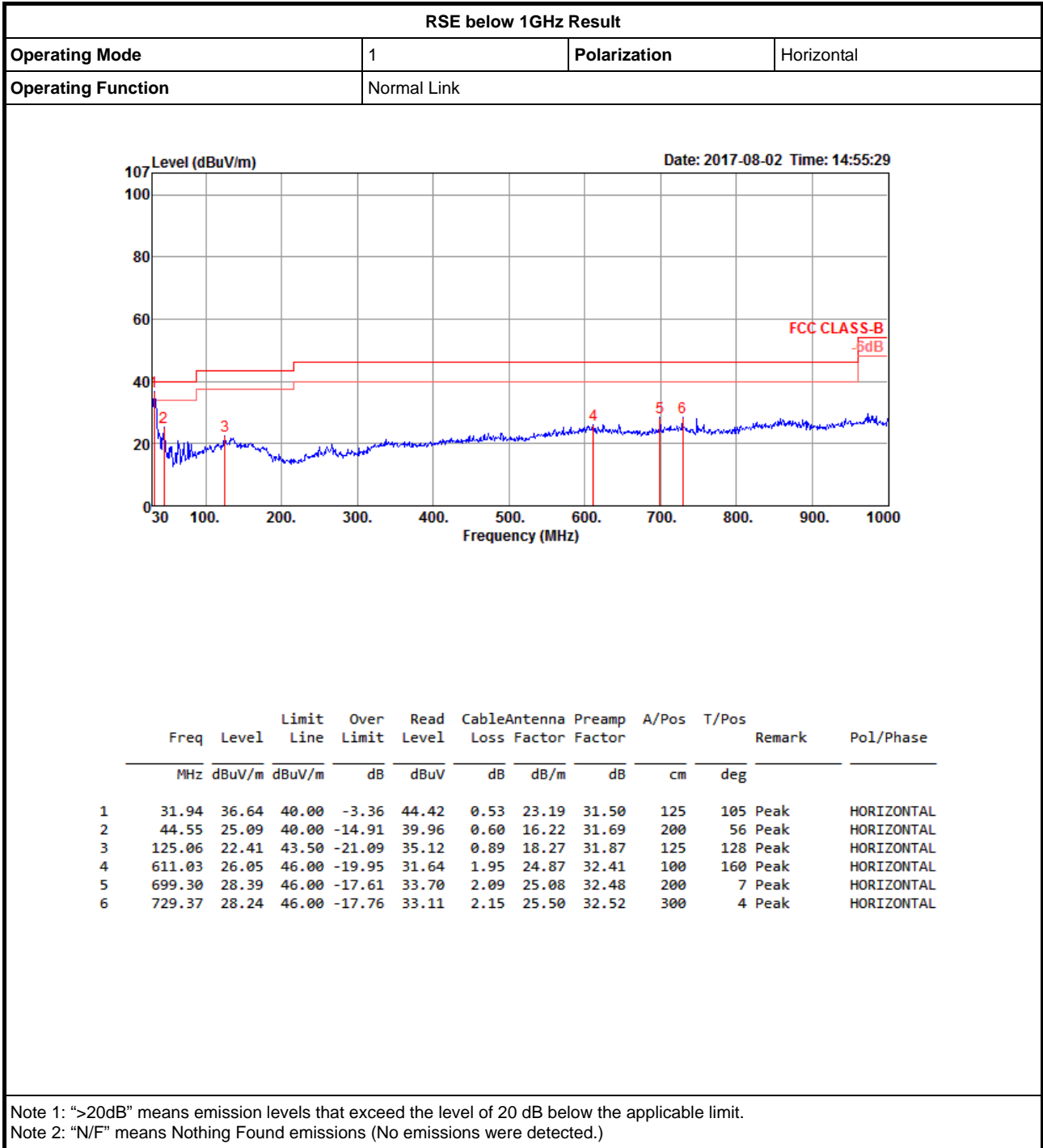






# RSE below 1GHz Result

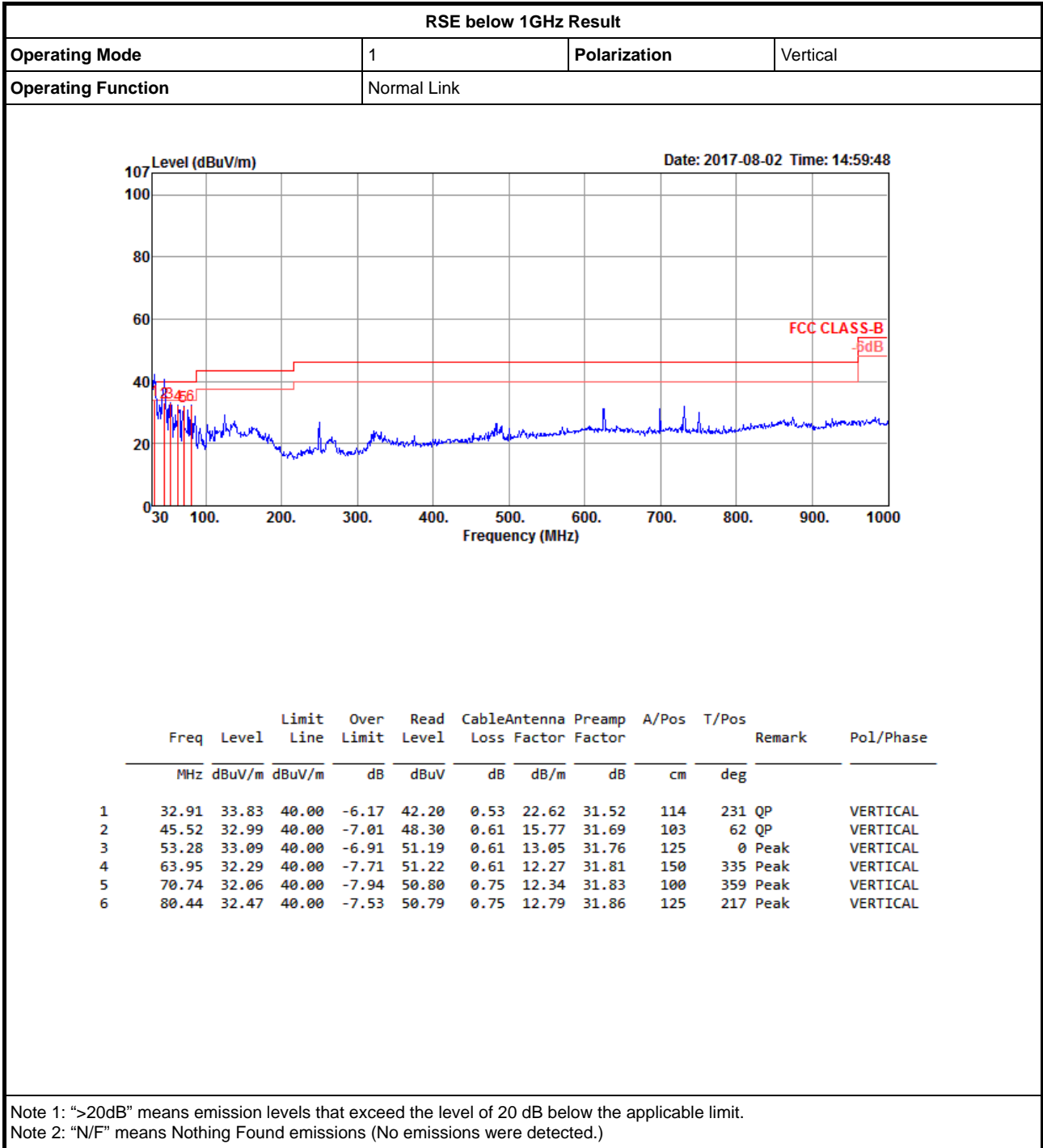
Appendix F.1





# RSE below 1GHz Result

Appendix F.1





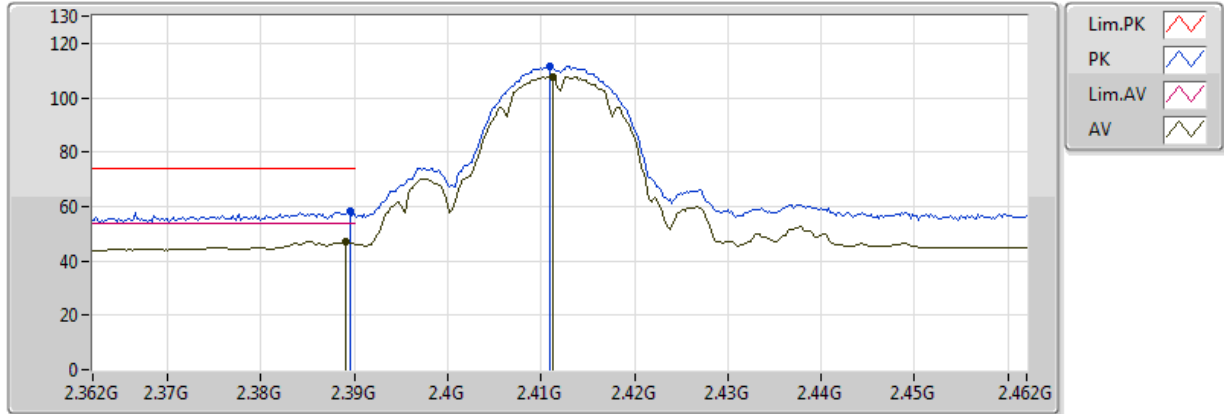
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
2.4-2.4835GHz	Pass	AV	2.483502G	53.97	54.00	-0.03	32.71	3	H	257	1.49	-



### 802.11b\_(1Mbps)\_2TX

### 2412MHz\_TX

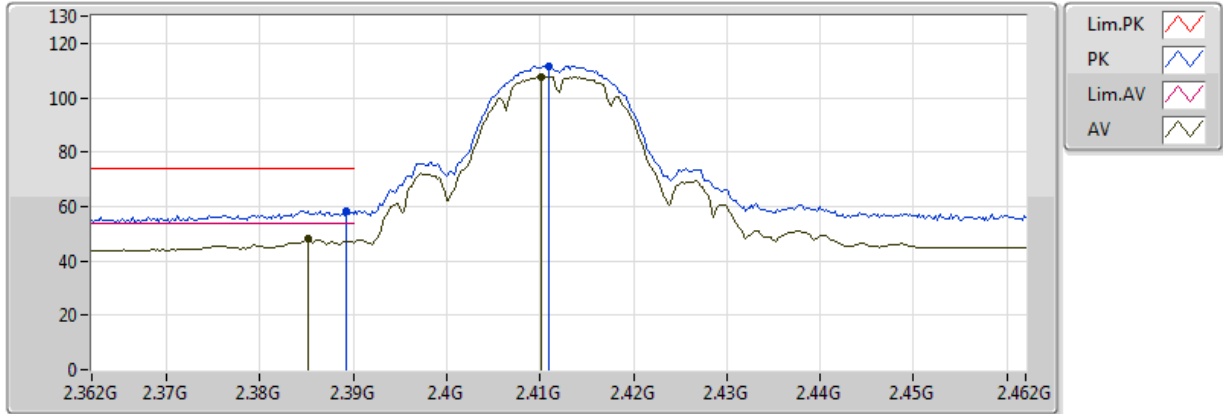


20170622  
 EUT\_Y\_2TX  
 Setting 17  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389G	47.29	54.00	-6.71	32.37	3	V	268	1.68	-
AV	2.4112G	107.62	Inf	-Inf	32.45	3	V	268	1.68	-
PK	2.3896G	58.54	74.00	-15.46	32.37	3	V	268	1.68	-
PK	2.411G	111.49	Inf	-Inf	32.45	3	V	268	1.68	-

### 802.11b\_(1Mbps)\_2TX

### 2412MHz\_TX



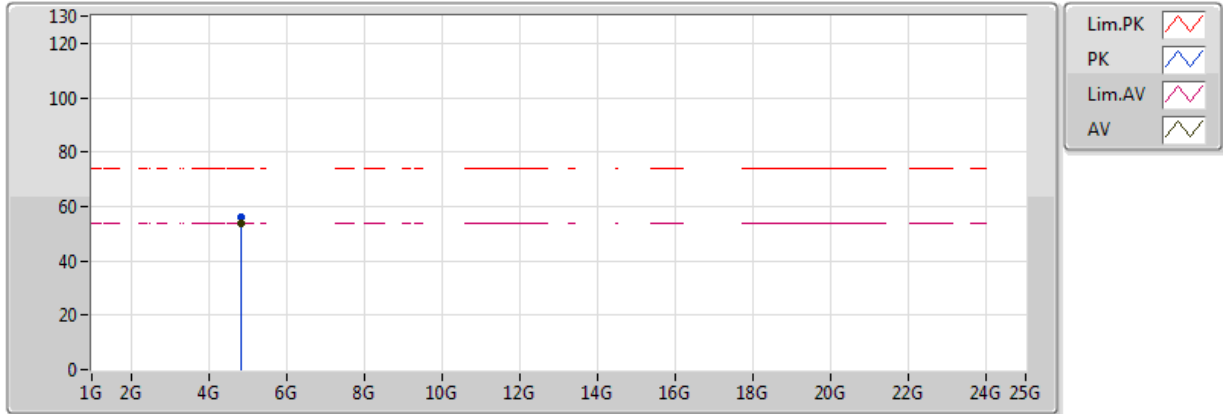
20170622  
EUT\_Y\_2TX  
Setting 17  
05-J-5  
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3852G	47.92	54.00	-6.08	32.36	3	H	259	1.04	-
AV	2.4102G	107.79	Inf	-Inf	32.45	3	H	259	1.04	-
PK	2.3892G	58.36	74.00	-15.64	32.37	3	H	259	1.04	-
PK	2.411G	111.48	Inf	-Inf	32.45	3	H	259	1.04	-



### 802.11b\_(1Mbps)\_2TX

### 2412MHz\_TX

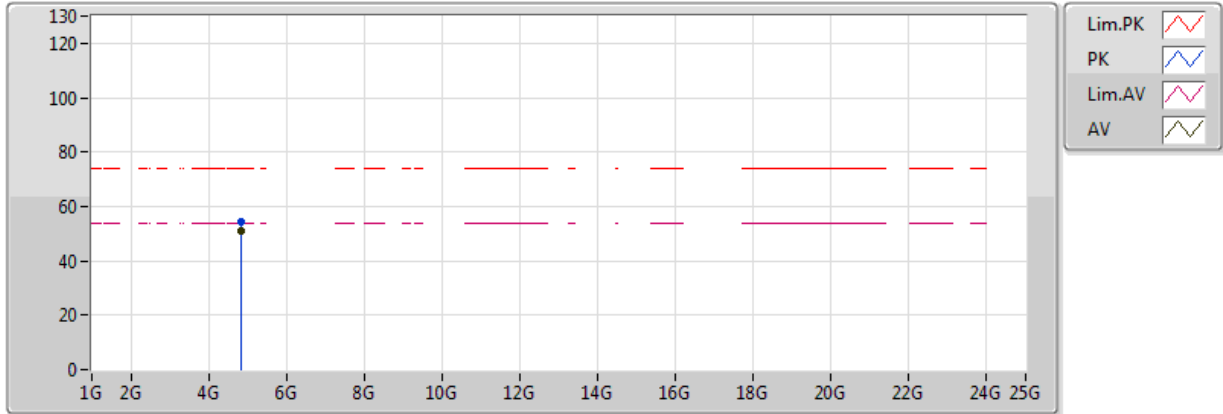


20170622  
 EUT\_Y\_2TX  
 Setting 17  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82398G	53.91	54.00	-0.09	6.59	3	V	106	1.94	-
PK	4.82396G	56.03	74.00	-17.97	6.59	3	V	106	1.94	-

### 802.11b\_(1Mbps)\_2TX

### 2412MHz\_TX

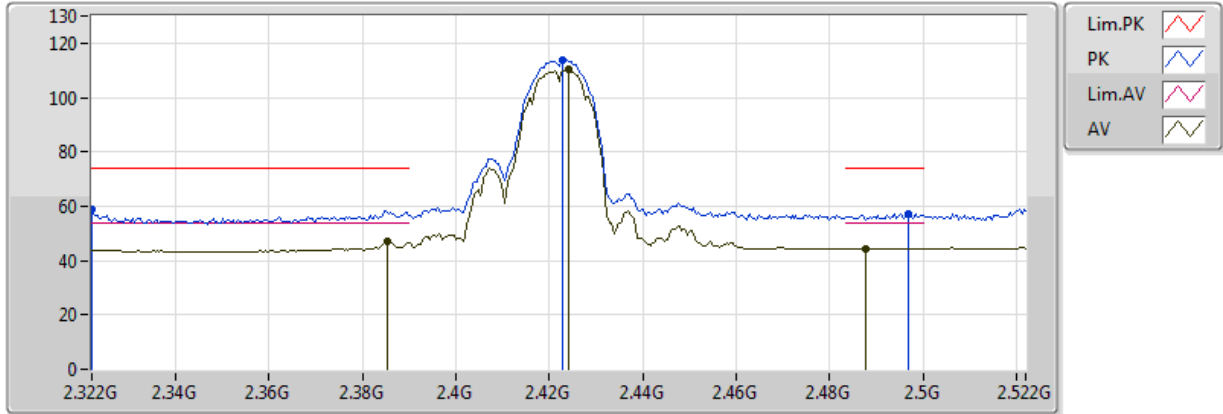


20170622  
 EUT\_Y\_2TX  
 Setting 17  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82398G	50.82	54.00	-3.18	6.59	3	H	89	1.65	-
PK	4.824G	54.45	74.00	-19.55	6.59	3	H	89	1.65	-

### 802.11b\_(1Mbps)\_2TX

### 2422MHz\_TX

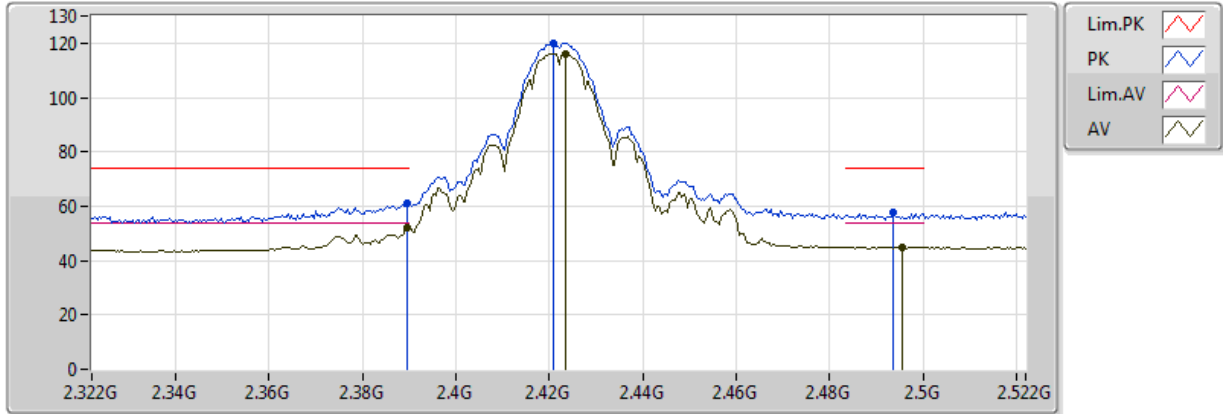


20170711  
EUT\_Z\_2TX  
Setting 17  
01-O-1  
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3852G	46.80	54.00	-7.20	31.04	3	V	360	1.81	-
AV	2.424G	110.26	Inf	-Inf	30.99	3	V	360	1.81	-
AV	2.4876G	44.49	54.00	-9.51	30.91	3	V	360	1.81	-
PK	2.322G	58.57	74.00	-15.43	31.14	3	V	360	1.81	-
PK	2.4228G	113.81	Inf	-Inf	30.99	3	V	360	1.81	-
PK	2.4968G	57.35	74.00	-16.65	30.90	3	V	360	1.81	-

### 802.11b\_(1Mbps)\_2TX

### 2422MHz\_TX

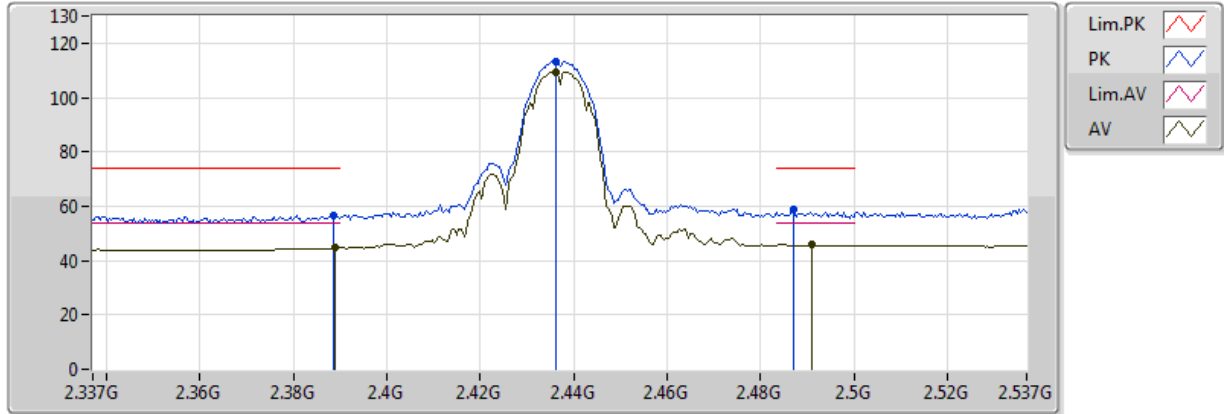


20170711  
EUT\_Z\_2TX  
Setting 17  
01-O-1  
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3896G	52.30	54.00	-1.70	31.04	3	H	352	1.49	-
AV	2.4236G	116.26	Inf	-Inf	30.99	3	H	352	1.49	-
AV	2.4956G	44.85	54.00	-9.15	30.91	3	H	352	1.49	-
PK	2.3896G	61.32	74.00	-12.68	31.04	3	H	352	1.49	-
PK	2.4208G	120.01	Inf	-Inf	31.00	3	H	352	1.49	-
PK	2.4936G	57.81	74.00	-16.19	30.91	3	H	352	1.49	-

### 802.11b\_(1Mbps)\_2TX

### 2437MHz\_TX

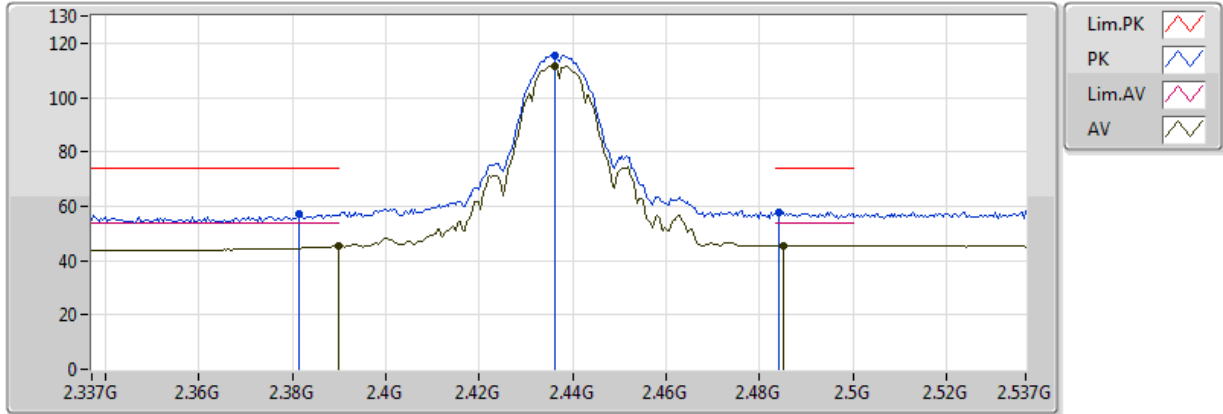


20170622  
EUT\_Y\_2TX  
Setting 18.5  
05-J-5  
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389G	44.73	54.00	-9.27	32.37	3	V	263	1.84	-
AV	2.4362G	109.38	Inf	-Inf	32.54	3	V	263	1.84	-
AV	2.491G	45.96	54.00	-8.04	32.74	3	V	263	1.84	-
PK	2.3886G	56.58	74.00	-17.42	32.37	3	V	263	1.84	-
PK	2.4362G	113.28	Inf	-Inf	32.54	3	V	263	1.84	-
PK	2.487G	58.60	74.00	-15.40	32.72	3	V	263	1.84	-

### 802.11b\_(1Mbps)\_2TX

### 2437MHz\_TX



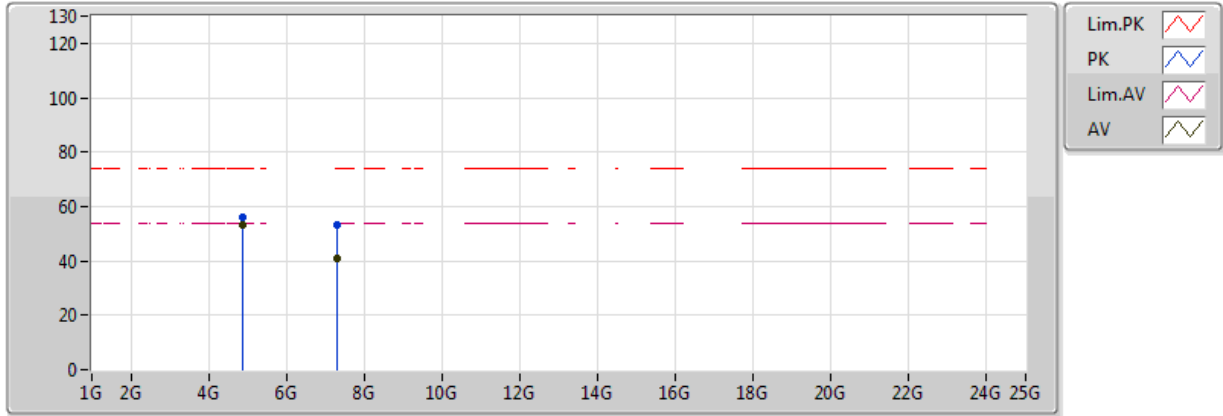
20170622  
 EUT\_Y\_2TX  
 Setting 18.5  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	45.45	54.00	-8.55	32.37	3	H	259	1.45	-
AV	2.4362G	111.64	Inf	-Inf	32.54	3	H	259	1.45	-
AV	2.485G	45.56	54.00	-8.44	32.72	3	H	259	1.45	-
PK	2.3814G	57.05	74.00	-16.95	32.34	3	H	259	1.45	-
PK	2.4362G	115.64	Inf	-Inf	32.54	3	H	259	1.45	-
PK	2.4842G	57.95	74.00	-16.05	32.71	3	H	259	1.45	-



### 802.11b\_(1Mbps)\_2TX

### 2437MHz\_TX

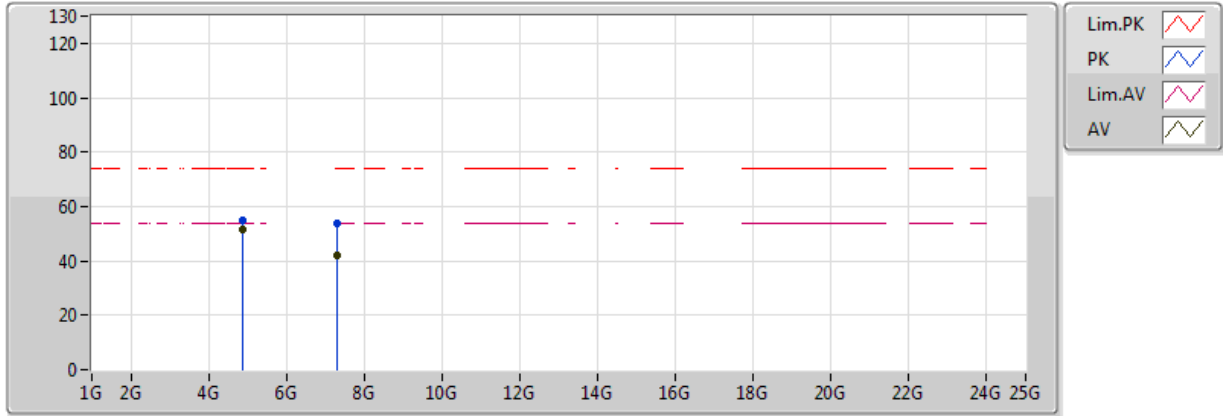


20170622  
 EUT\_Y\_2TX  
 Setting 18.5  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87394G	53.42	54.00	-0.58	6.73	3	V	57	1.58	-
AV	7.31004G	40.71	54.00	-13.29	13.01	3	V	55	2.95	-
PK	4.8739G	56.18	74.00	-17.82	6.73	3	V	57	1.58	-
PK	7.3089G	53.47	74.00	-20.53	13.01	3	V	55	2.95	-

### 802.11b\_(1Mbps)\_2TX

### 2437MHz\_TX

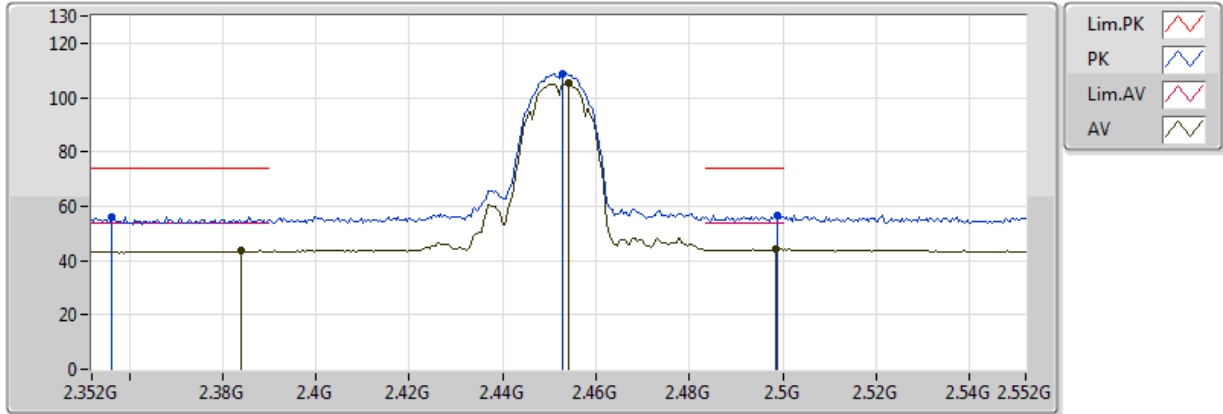


20170622  
 EUT\_Y\_2TX  
 Setting 18.5  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87394G	51.74	54.00	-2.26	6.73	3	H	70	1.61	-
AV	7.30914G	41.99	54.00	-12.01	13.01	3	H	32	1.77	-
PK	4.87394G	54.76	74.00	-19.24	6.73	3	H	70	1.61	-
PK	7.30944G	53.63	74.00	-20.37	13.01	3	H	32	1.77	-

### 802.11b\_(1Mbps)\_2TX

### 2452MHz\_TX

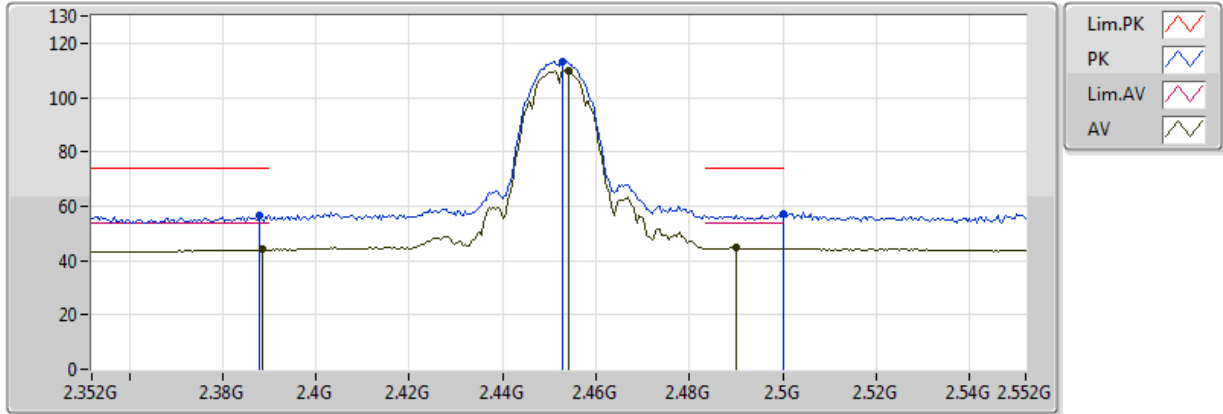


20170711  
 EUT\_Y\_2TX  
 Setting 15  
 01-O-1  
 FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.384G	43.43	54.00	-10.57	31.04	3	V	360	1.64	-
AV	2.454G	105.32	Inf	-Inf	30.96	3	V	360	1.64	-
AV	2.4984G	44.06	54.00	-9.94	30.90	3	V	360	1.64	-
PK	2.3564G	56.05	74.00	-17.95	31.09	3	V	360	1.64	-
PK	2.4528G	108.94	Inf	-Inf	30.96	3	V	360	1.64	-
PK	2.4988G	56.71	74.00	-17.29	30.90	3	V	360	1.64	-

### 802.11b\_(1Mbps)\_2TX

### 2452MHz\_TX

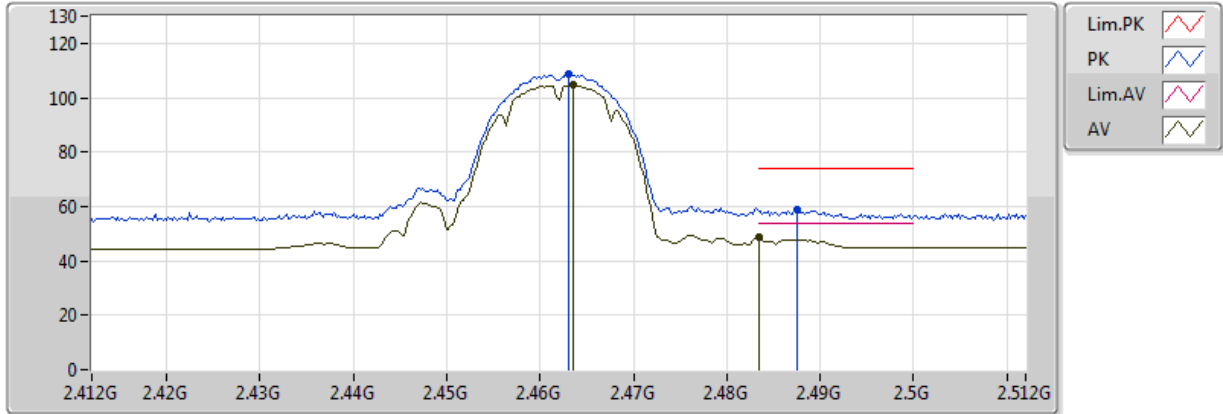


20170711  
 EUT\_Y\_2TX  
 Setting 15  
 01-O-1  
 FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3884G	44.03	54.00	-9.97	31.04	3	H	356	2.01	-
AV	2.454G	109.78	Inf	-Inf	30.96	3	H	356	2.01	-
AV	2.49G	44.59	54.00	-9.41	30.91	3	H	356	2.01	-
PK	2.388G	56.53	74.00	-17.47	31.04	3	H	356	2.01	-
PK	2.4528G	113.37	Inf	-Inf	30.96	3	H	356	2.01	-
PK	2.499998G	56.99	74.00	-17.01	30.90	3	H	356	2.01	-

### 802.11b\_(1Mbps)\_2TX

### 2462MHz\_TX

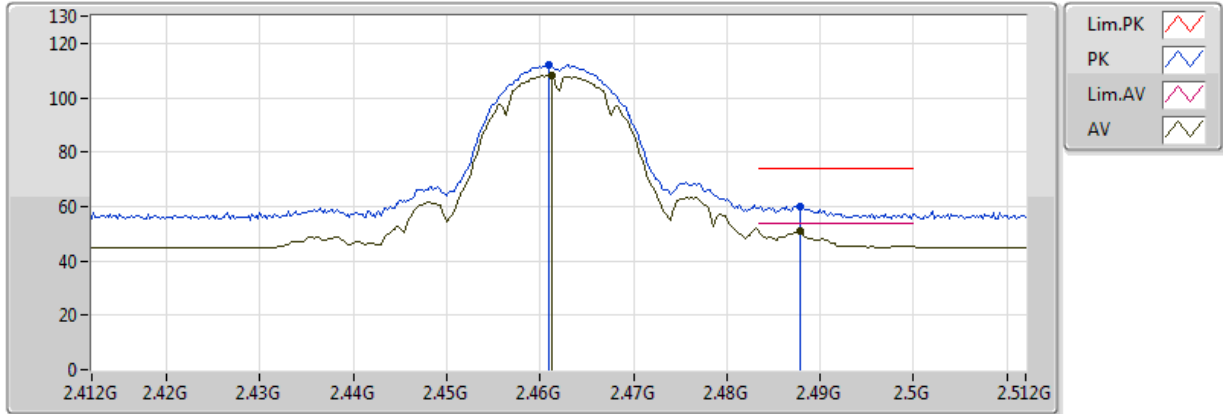


20170622  
 EUT\_Y\_2TX  
 Setting 14.5  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4636G	104.62	Inf	-Inf	32.64	3	V	250	1.50	-
AV	2.483502G	48.72	54.00	-5.28	32.71	3	V	250	1.50	-
PK	2.463G	108.51	Inf	-Inf	32.64	3	V	250	1.50	-
PK	2.4876G	58.78	74.00	-15.22	32.73	3	V	250	1.50	-

### 802.11b\_(1Mbps)\_2TX

### 2462MHz\_TX

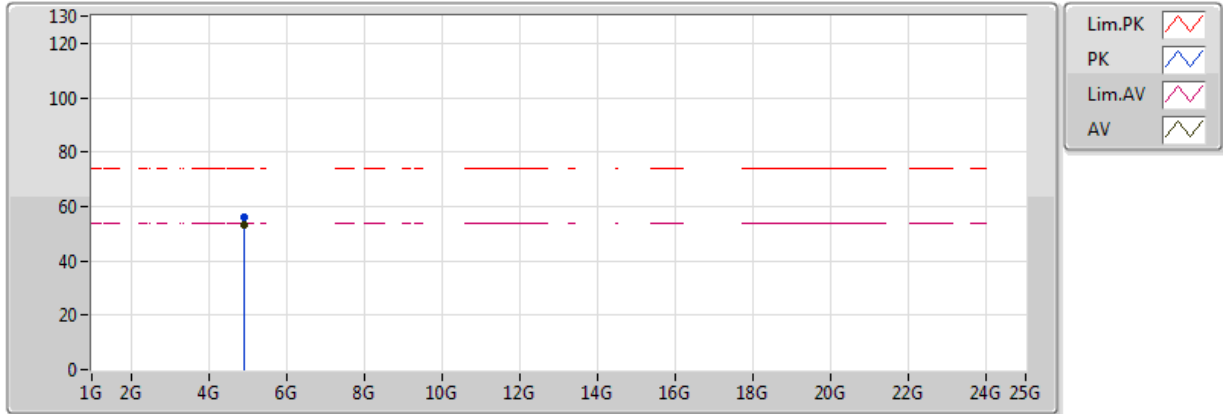


20170622  
 EUT\_Y\_2TX  
 Setting 14.5  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4612G	108.02	Inf	-Inf	32.63	3	H	257	1.48	-
AV	2.4878G	51.20	54.00	-2.80	32.73	3	H	257	1.48	-
PK	2.461G	111.91	Inf	-Inf	32.63	3	H	257	1.48	-
PK	2.4878G	60.06	74.00	-13.94	32.73	3	H	257	1.48	-

### 802.11b\_(1Mbps)\_2TX

### 2462MHz\_TX



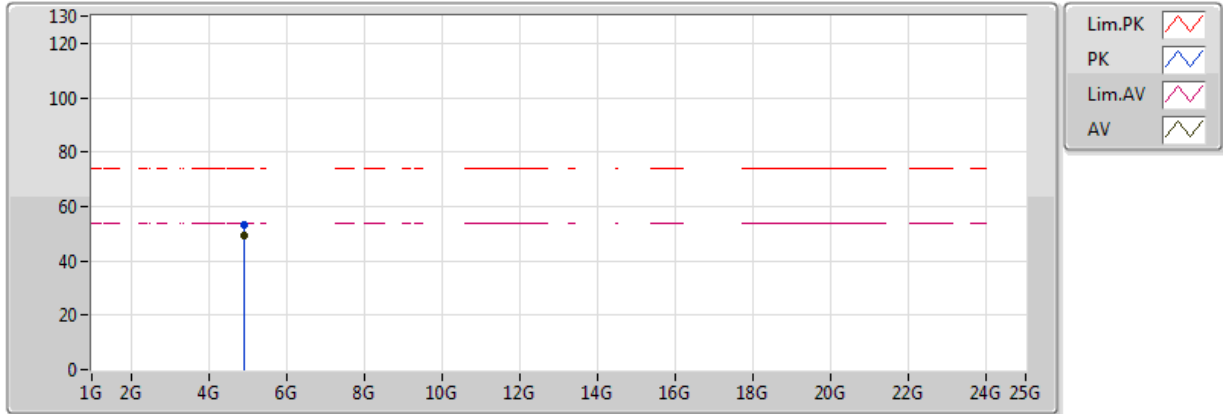
20170622  
 EUT\_Y\_2TX  
 Setting 14.5  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.92394G	53.36	54.00	-0.64	6.86	3	V	66	1.44	-
PK	4.92398G	56.13	74.00	-17.87	6.86	3	V	66	1.44	-



### 802.11b\_(1Mbps)\_2TX

### 2462MHz\_TX



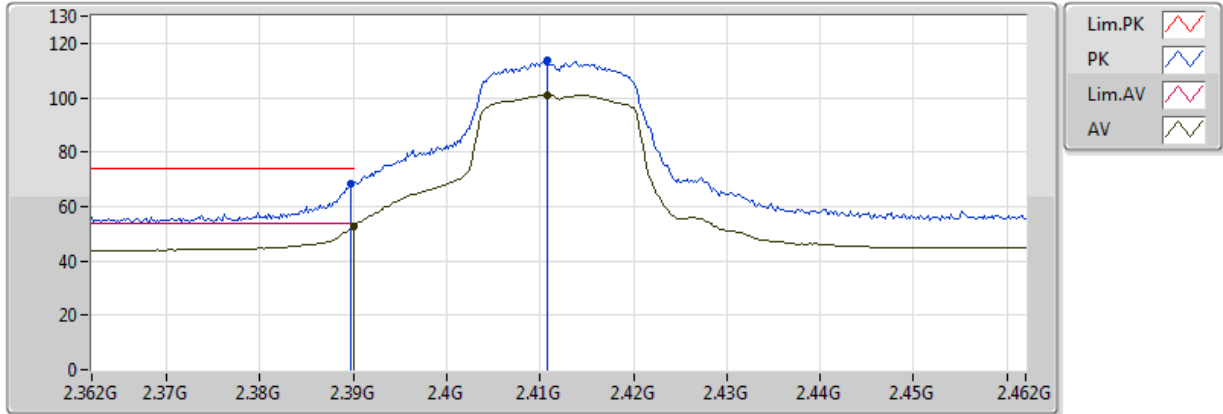
20170622  
 EUT\_Y\_2TX  
 Setting 14.5  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.92394G	49.48	54.00	-4.52	6.86	3	H	70	1.55	-
PK	4.92396G	53.16	74.00	-20.84	6.86	3	H	70	1.55	-



### 802.11g\_(6Mbps)\_2TX

### 2412MHz\_TX

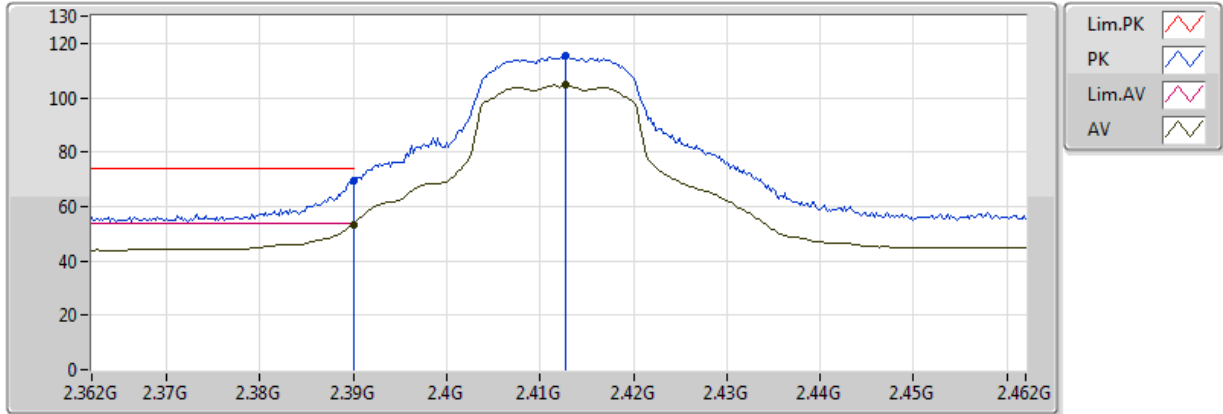


20170622  
 EUT\_Y\_2TX  
 Setting 14  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.39G	52.52	54.00	-1.48	32.37	3	V	268	1.82	-
AV	2.4108G	101.09	Inf	-Inf	32.45	3	V	268	1.82	-
PK	2.3898G	68.17	74.00	-5.83	32.37	3	V	268	1.82	-
PK	2.4108G	113.47	Inf	-Inf	32.45	3	V	268	1.82	-

### 802.11g\_(6Mbps)\_2TX

### 2412MHz\_TX



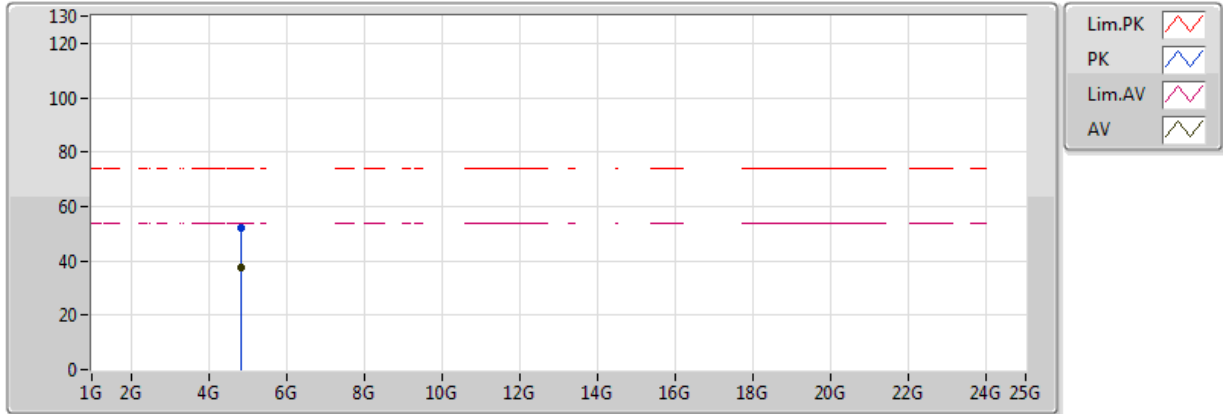
20170622  
EUT\_Y\_2TX  
Setting 14  
05-J-5  
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.39G	53.50	54.00	-0.50	32.37	3	H	256	1.49	-
AV	2.4128G	104.71	Inf	-Inf	32.46	3	H	256	1.49	-
PK	2.39G	69.29	74.00	-4.71	32.37	3	H	256	1.49	-
PK	2.4128G	115.41	Inf	-Inf	32.46	3	H	256	1.49	-



### 802.11g\_(6Mbps)\_2TX

### 2412MHz\_TX



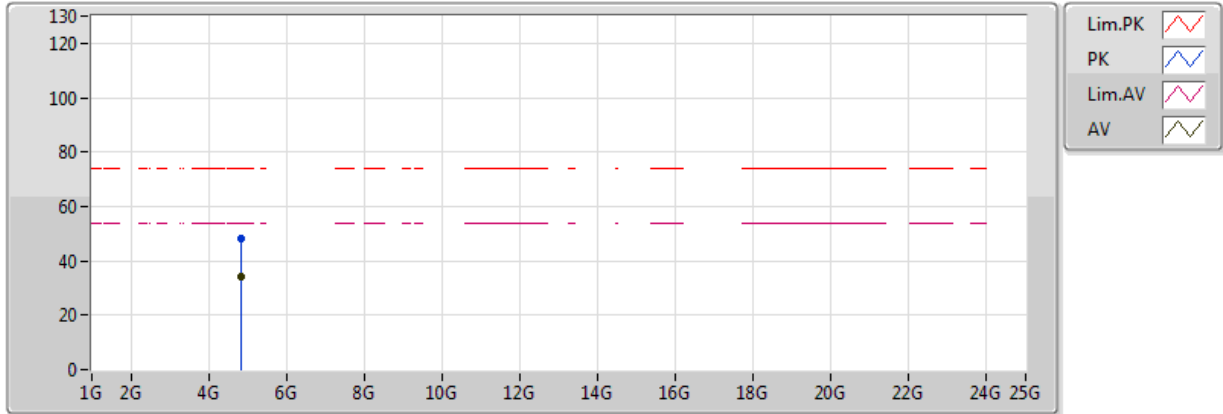
20170622  
 EUT\_Y\_2TX  
 Setting 14  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82466G	37.63	54.00	-16.37	6.60	3	V	105	1.84	-
PK	4.82472G	51.91	74.00	-22.09	6.60	3	V	105	1.84	-



### 802.11g\_(6Mbps)\_2TX

### 2412MHz\_TX

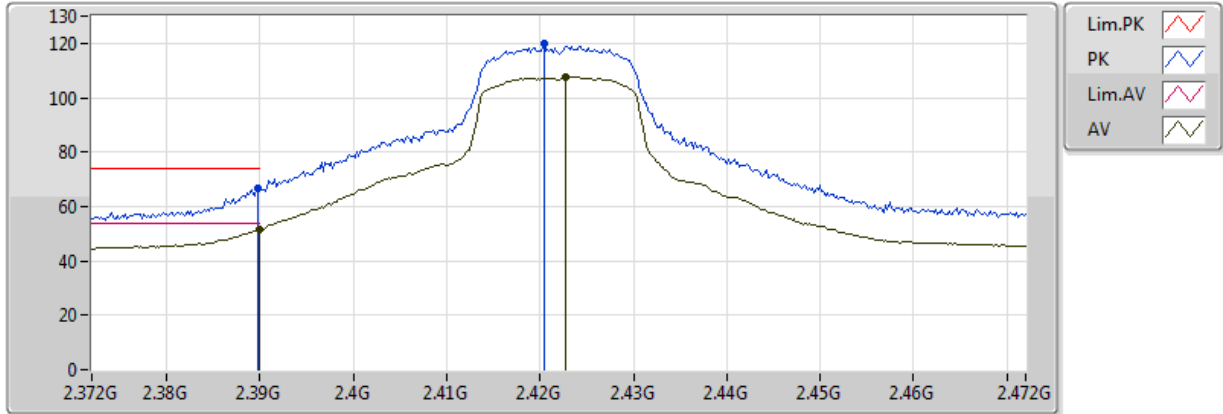


20170622  
 EUT\_Y\_2TX  
 Setting 14  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82418G	34.45	54.00	-19.55	6.60	3	H	87	1.50	-
PK	4.81896G	48.33	74.00	-25.67	6.58	3	H	87	1.50	-

### 802.11g\_(6Mbps)\_2TX

### 2422MHz\_TX

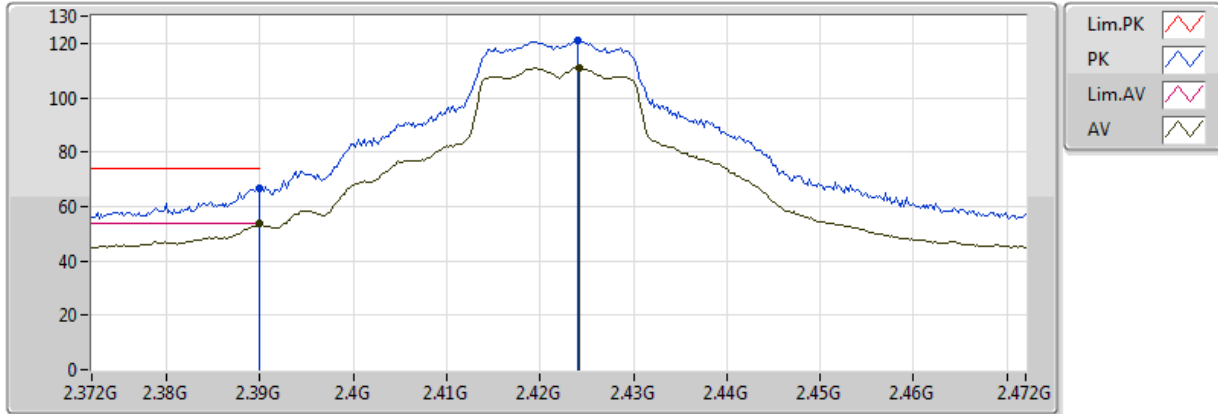


20170711  
EUT\_Y\_2TX  
Setting 17.5  
01-Z-1  
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	51.55	54.00	-2.45	31.04	3	V	360	1.80	-
AV	2.4228G	107.77	Inf	-Inf	30.99	3	V	360	1.80	-
PK	2.3898G	66.78	74.00	-7.22	31.04	3	V	360	1.80	-
PK	2.4204G	119.84	Inf	-Inf	31.00	3	V	360	1.80	-

### 802.11g\_(6Mbps)\_2TX

### 2422MHz\_TX

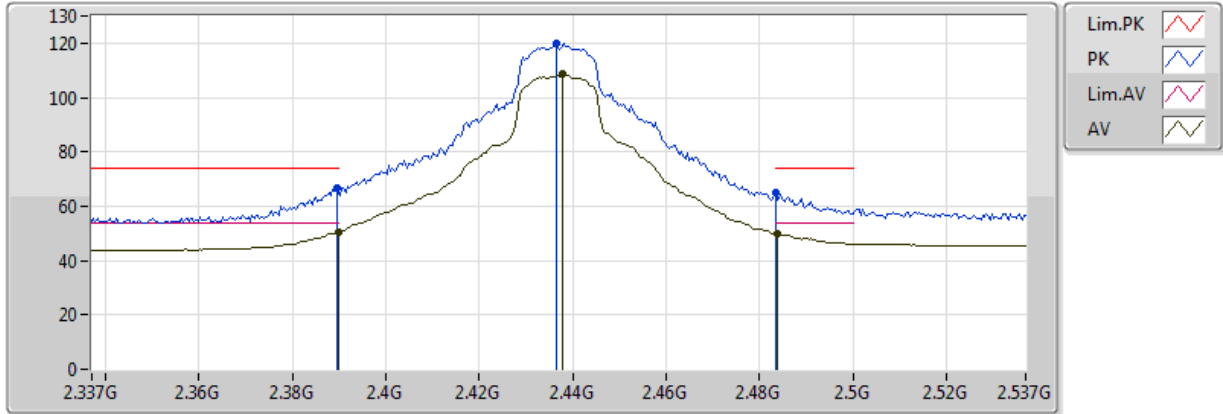


20170711  
EUT\_Y\_2TX  
Setting 17.5  
01-Z-1  
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	53.84	54.00	-0.16	31.04	3	H	0	1.80	-
AV	2.4242G	110.97	Inf	-Inf	30.99	3	H	0	1.80	-
PK	2.389998G	66.77	74.00	-7.23	31.04	3	H	0	1.80	-
PK	2.424G	120.82	Inf	-Inf	30.99	3	H	0	1.80	-

### 802.11g\_(6Mbps)\_2TX

### 2437MHz\_TX

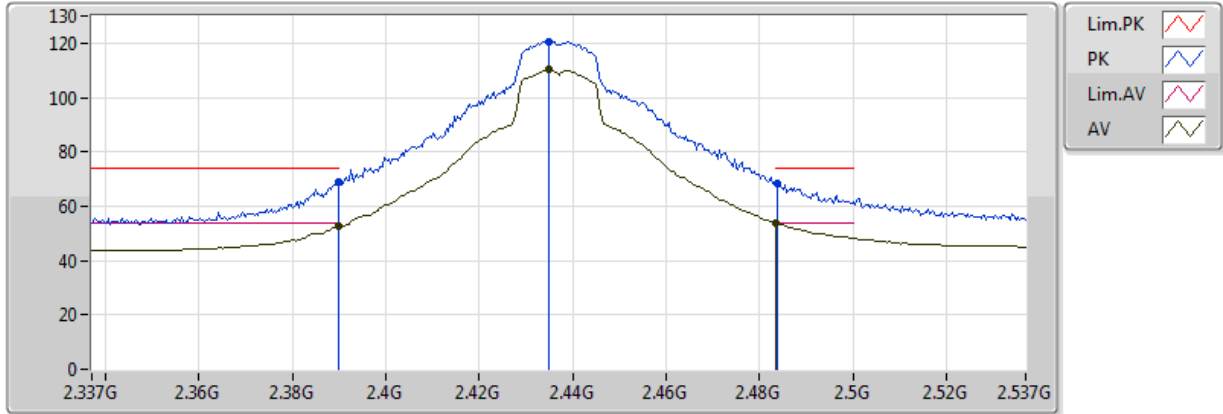


20170622  
EUT\_Y\_2TX  
Setting 22  
05-J-5  
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	50.31	54.00	-3.69	32.37	3	V	269	1.81	-
AV	2.4378G	108.44	Inf	-Inf	32.55	3	V	269	1.81	-
AV	2.4838G	49.69	54.00	-4.31	32.71	3	V	269	1.81	-
PK	2.3894G	66.78	74.00	-7.22	32.37	3	V	269	1.81	-
PK	2.4366G	120.06	Inf	-Inf	32.54	3	V	269	1.81	-
PK	2.483502G	64.76	74.00	-9.24	32.71	3	V	269	1.81	-

### 802.11g\_(6Mbps)\_2TX

### 2437MHz\_TX



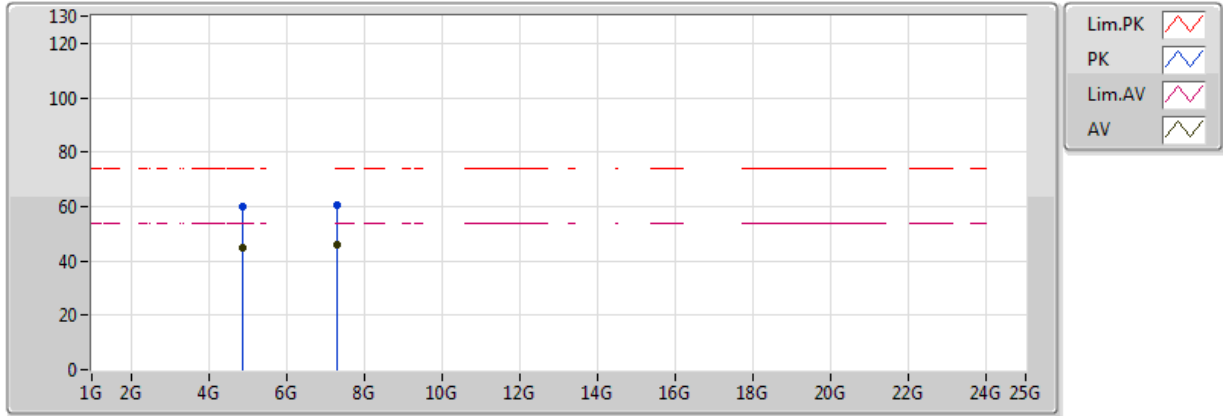
20170622  
EUT Y\_2TX  
Setting 22  
05-J-5  
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	52.66	54.00	-1.34	32.37	3	H	263	2.04	-
AV	2.435G	110.17	Inf	-Inf	32.54	3	H	263	2.04	-
AV	2.483502G	53.96	54.00	-0.04	32.71	3	H	263	2.04	-
PK	2.389998G	68.85	74.00	-5.15	32.37	3	H	263	2.04	-
PK	2.435G	120.55	Inf	-Inf	32.54	3	H	263	2.04	-
PK	2.4838G	68.56	74.00	-5.44	32.71	3	H	263	2.04	-



### 802.11g\_(6Mbps)\_2TX

### 2437MHz\_TX

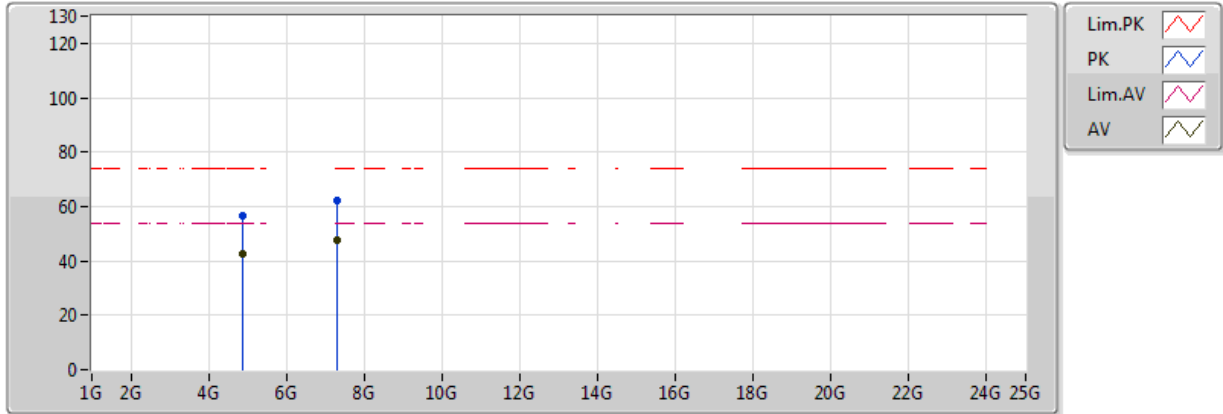


20170622  
 EUT\_Y\_2TX  
 Setting 22  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87586G	44.87	54.00	-9.13	6.73	3	V	67	1.52	-
AV	7.30818G	46.05	54.00	-7.95	13.01	3	V	46	1.84	-
PK	4.88108G	59.72	74.00	-14.28	6.75	3	V	67	1.52	-
PK	7.30854G	60.24	74.00	-13.76	13.01	3	V	46	1.84	-

### 802.11g\_(6Mbps)\_2TX

### 2437MHz\_TX

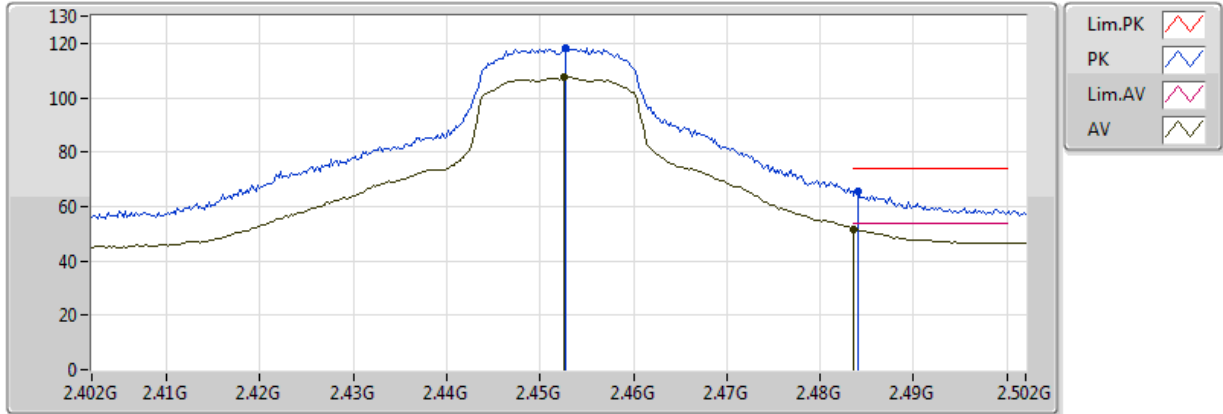


20170622  
EUT\_Y\_2TX  
Setting 22  
05-J-5  
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87526G	42.35	54.00	-11.65	6.73	3	H	67	1.70	-
AV	7.31016G	47.43	54.00	-6.57	13.01	3	H	29	1.57	-
PK	4.87112G	56.32	74.00	-17.68	6.72	3	H	67	1.70	-
PK	7.31034G	62.16	74.00	-11.84	13.01	3	H	29	1.57	-

### 802.11g\_(6Mbps)\_2TX

### 2452MHz\_TX

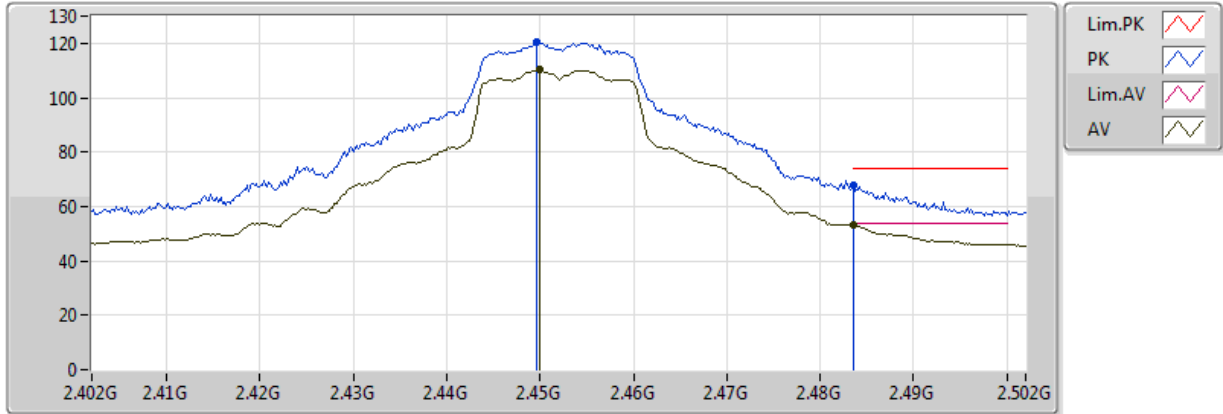


20170711  
EUT\_Y\_2TX  
Setting 17.5  
01-Z-1  
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4526G	107.86	Inf	-Inf	30.96	3	V	352	1.94	-
AV	2.483502G	51.75	54.00	-2.25	30.92	3	V	352	1.94	-
PK	2.4528G	118.46	Inf	-Inf	30.96	3	V	352	1.94	-
PK	2.484G	65.38	74.00	-8.62	30.92	3	V	352	1.94	-

### 802.11g\_(6Mbps)\_2TX

### 2452MHz\_TX

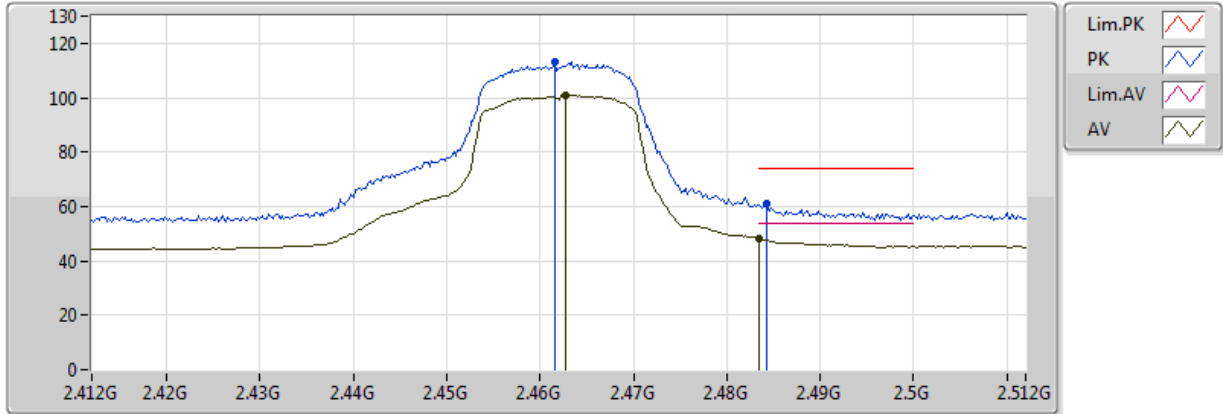


20170711  
EUT\_Y\_2TX  
Setting 17.5  
01-Z-1  
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.45G	110.20	Inf	-Inf	30.96	3	H	347	1.91	-
AV	2.483502G	53.02	54.00	-0.98	30.92	3	H	347	1.91	-
PK	2.4496G	120.33	Inf	-Inf	30.96	3	H	347	1.91	-
PK	2.4836G	68.08	74.00	-5.92	30.92	3	H	347	1.91	-

### 802.11g\_(6Mbps)\_2TX

### 2462MHz\_TX

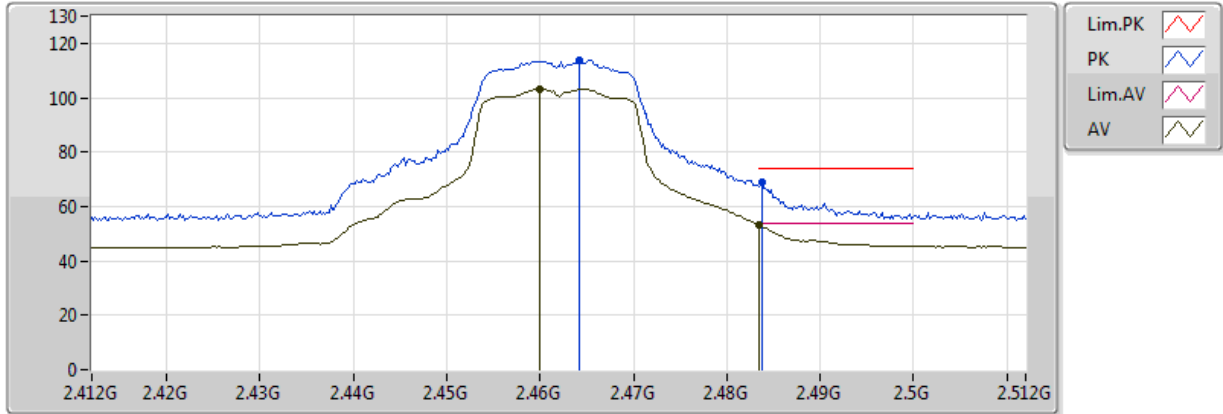


20170622  
EUT\_Y\_2TX  
Setting 14  
05-J-5  
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4628G	101.09	Inf	-Inf	32.64	3	V	265	1.77	-
AV	2.483502G	48.22	54.00	-5.78	32.71	3	V	265	1.77	-
PK	2.4616G	113.25	Inf	-Inf	32.63	3	V	265	1.77	-
PK	2.4842G	60.88	74.00	-13.12	32.71	3	V	265	1.77	-

### 802.11g\_(6Mbps)\_2TX

### 2462MHz\_TX



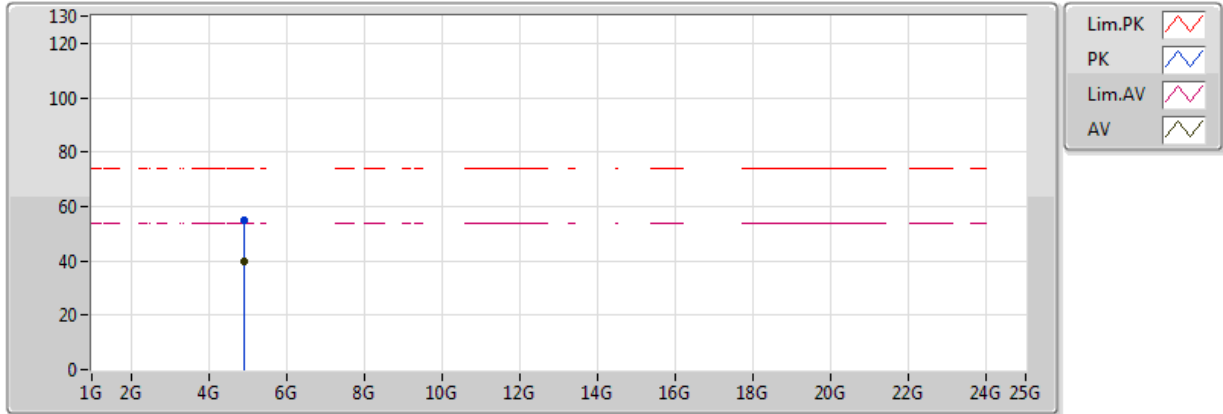
20170622  
 EUT\_Y\_2TX  
 Setting 14  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.46G	103.24	Inf	-Inf	32.63	3	H	253	1.49	-
AV	2.483502G	53.41	54.00	-0.59	32.71	3	H	253	1.49	-
PK	2.4642G	113.74	Inf	-Inf	32.64	3	H	253	1.49	-
PK	2.4838G	68.80	74.00	-5.20	32.71	3	H	253	1.49	-



### 802.11g\_(6Mbps)\_2TX

### 2462MHz\_TX

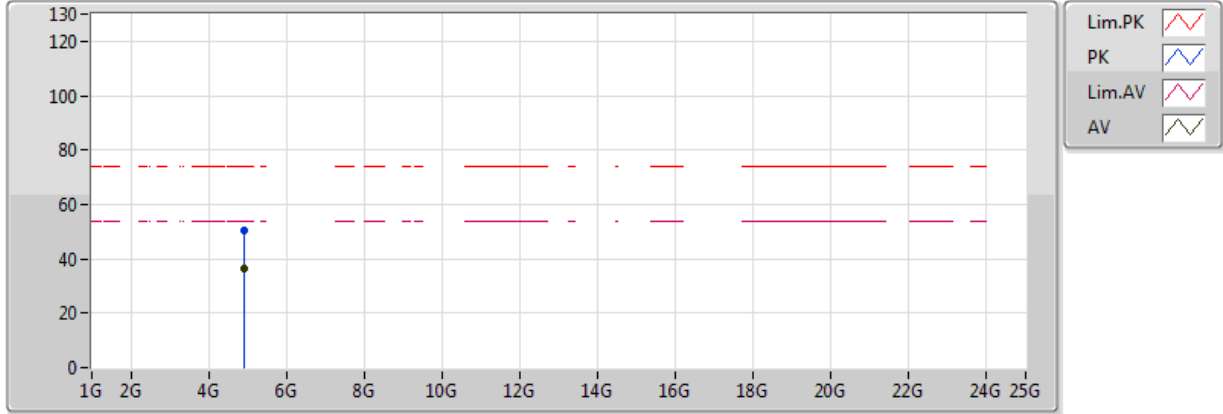


20170622  
EUT\_Y\_2TX  
Setting 14  
05-J-5  
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.92466G	39.99	54.00	-14.01	6.86	3	V	64	1.61	-
PK	4.92472G	55.09	74.00	-18.91	6.86	3	V	64	1.61	-

### 802.11g\_(6Mbps)\_2TX

### 2462MHz\_TX



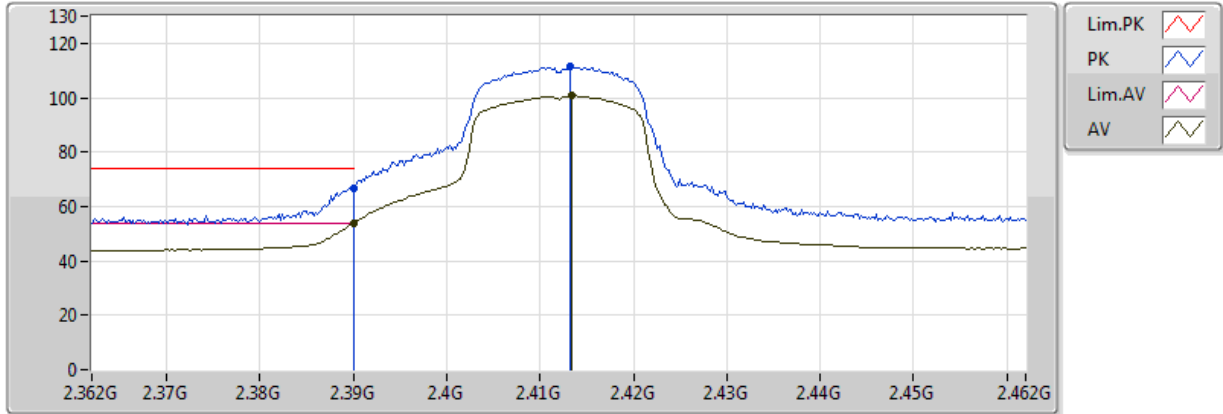
20170622  
 EUT\_Y\_2TX  
 Setting 14  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.92442G	36.55	54.00	-17.45	6.86	3	H	66	1.47	-
PK	4.92418G	50.31	74.00	-23.69	6.86	3	H	66	1.47	-



### 802.11n HT20\_Nss1,(MCS0)\_2TX

### 2412MHz\_TX

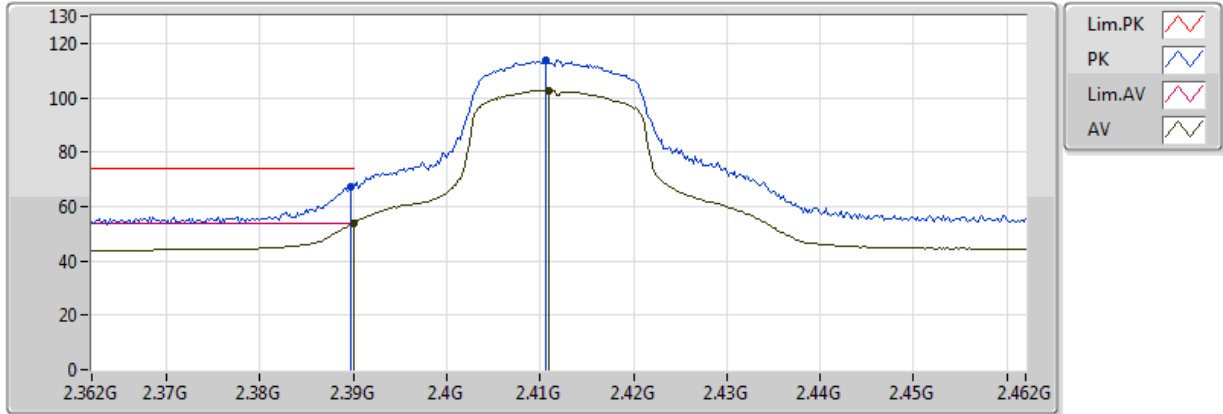


20170622  
EUT\_Y\_2TX  
Setting 14  
05-J-5  
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.39G	53.84	54.00	-0.16	32.37	3	V	269	1.70	-
AV	2.4134G	100.62	Inf	-Inf	32.46	3	V	269	1.70	-
PK	2.39G	66.73	74.00	-7.27	32.37	3	V	269	1.70	-
PK	2.4132G	111.36	Inf	-Inf	32.46	3	V	269	1.70	-

### 802.11n HT20\_Nss1,(MCS0)\_2TX

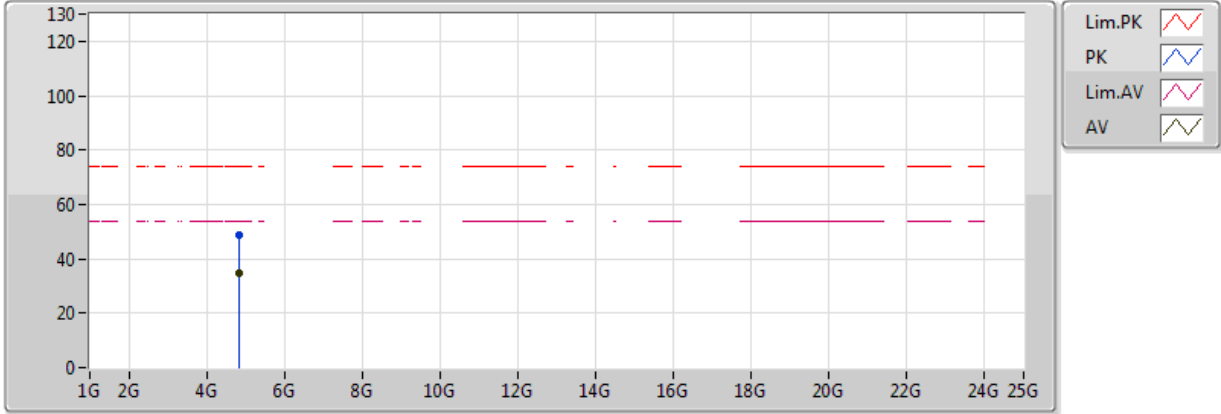
### 2412MHz\_TX



20170622  
EUT\_Y\_2TX  
Setting 14  
05-J-5  
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.39G	53.87	54.00	-0.13	32.37	3	H	238	2.26	-
AV	2.411G	102.75	Inf	-Inf	32.45	3	H	238	2.26	-
PK	2.3898G	67.27	74.00	-6.73	32.37	3	H	238	2.26	-
PK	2.4106G	113.81	Inf	-Inf	32.45	3	H	238	2.26	-

**802.11n HT20\_Nss1,(MCS0)\_2TX  
2412MHz\_TX**

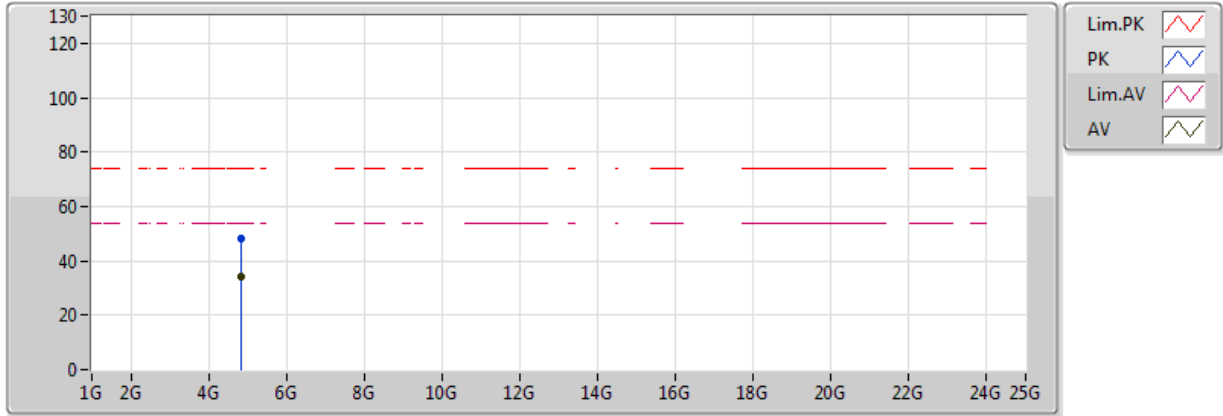


20170622  
EUT\_Y\_2TX  
Setting 14  
05-J-5  
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.8243G	35.02	54.00	-18.98	6.60	3	V	112	1.50	-
PK	4.82784G	48.83	74.00	-25.17	6.61	3	V	112	1.50	-

### 802.11n HT20\_Nss1,(MCS0)\_2TX

### 2412MHz\_TX

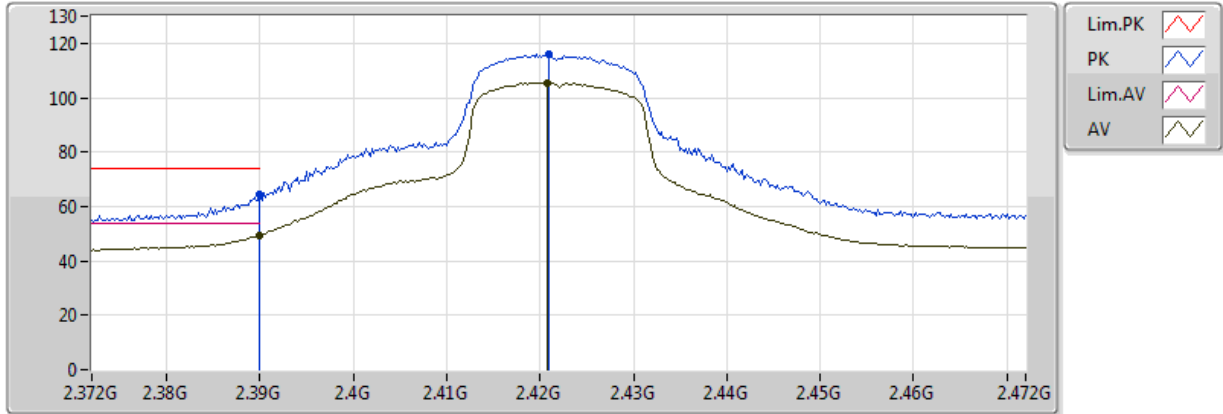


20170622  
 EUT\_Y\_2TX  
 Setting 14  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82484G	34.38	54.00	-19.62	6.60	3	H	85	1.49	-
PK	4.82736G	48.28	74.00	-25.72	6.60	3	H	85	1.49	-

### 802.11n HT20\_Nss1,(MCS0)\_2TX

### 2422MHz\_TX

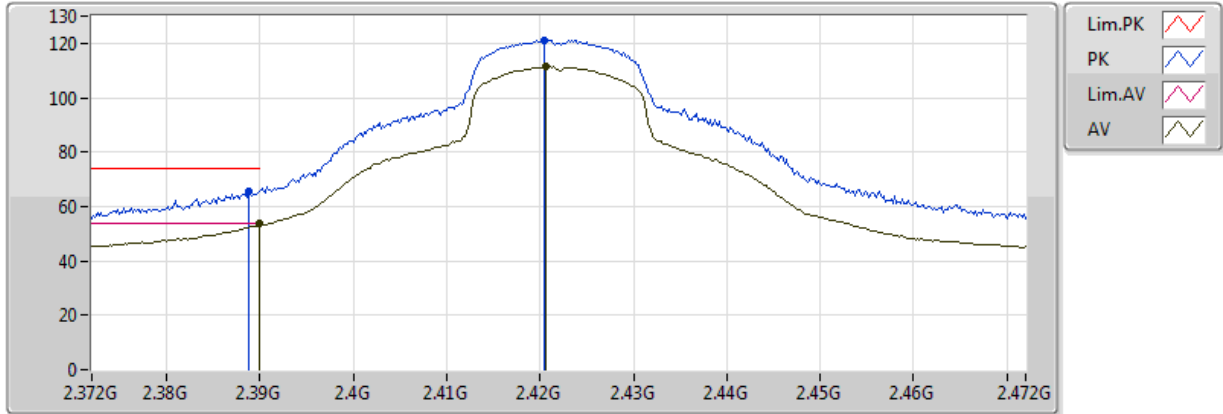


20170711  
EUT\_Y\_2TX  
Setting 17.5  
01-Z-1  
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	49.04	54.00	-4.96	31.04	3	V	335	1.58	-
AV	2.4208G	105.61	Inf	-Inf	31.00	3	V	335	1.58	-
PK	2.389998G	64.61	74.00	-9.39	31.04	3	V	335	1.58	-
PK	2.421G	115.80	Inf	-Inf	30.99	3	V	335	1.58	-

### 802.11n HT20\_Nss1,(MCS0)\_2TX

### 2422MHz\_TX

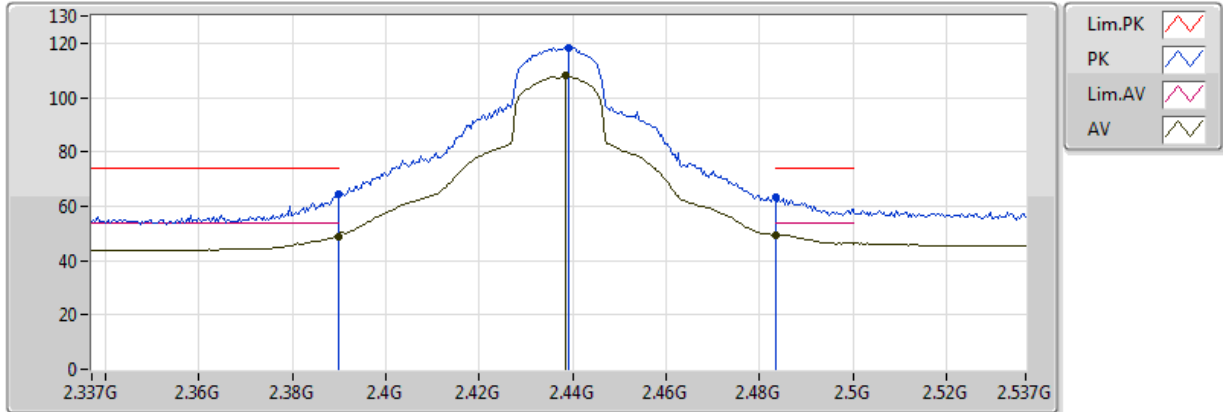


20170711  
EUT\_Y\_2TX  
Setting 17.5  
01-Z-1  
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	53.84	54.00	-0.16	31.04	3	H	353	2.02	-
AV	2.4206G	111.42	Inf	-Inf	31.00	3	H	353	2.02	-
PK	2.3888G	65.67	74.00	-8.33	31.04	3	H	353	2.02	-
PK	2.4204G	121.25	Inf	-Inf	31.00	3	H	353	2.02	-

### 802.11n HT20\_Nss1,(MCS0)\_2TX

### 2437MHz\_TX

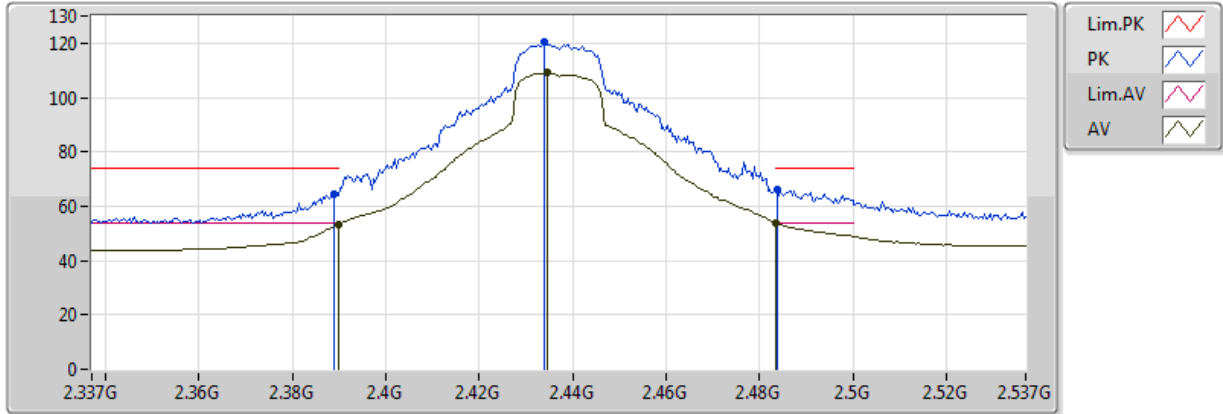


20170622  
 EUT Y\_2TX  
 Setting 22  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	49.03	54.00	-4.97	32.37	3	V	257	1.85	-
AV	2.4386G	107.89	Inf	-Inf	32.55	3	V	257	1.85	-
AV	2.483502G	49.55	54.00	-4.45	32.71	3	V	257	1.85	-
PK	2.389998G	64.30	74.00	-9.70	32.37	3	V	257	1.85	-
PK	2.439G	118.37	Inf	-Inf	32.55	3	V	257	1.85	-
PK	2.483502G	63.53	74.00	-10.47	32.71	3	V	257	1.85	-

### 802.11n HT20\_Nss1,(MCS0)\_2TX

### 2437MHz\_TX



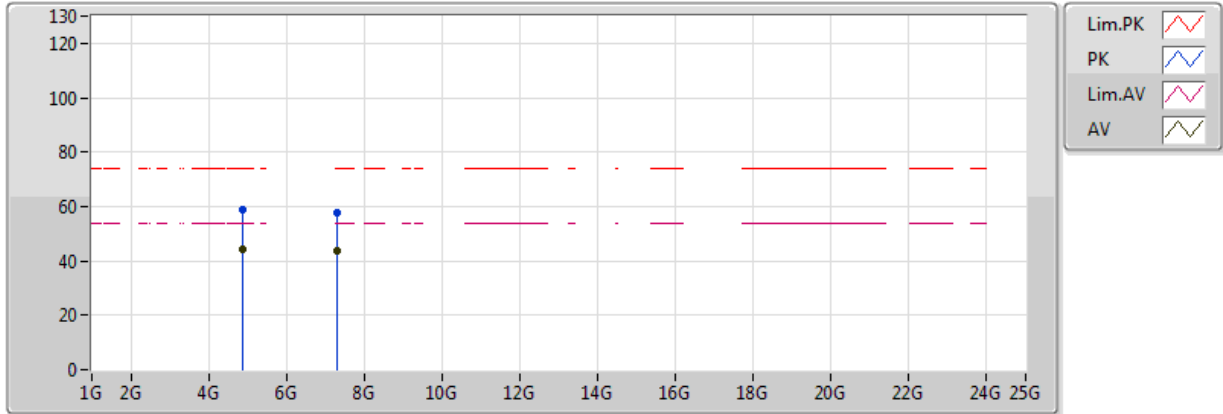
20170622  
EUT Y\_2TX  
Setting 22  
05-J-5  
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	53.15	54.00	-0.85	32.37	3	H	257	1.49	-
AV	2.4346G	109.02	Inf	-Inf	32.53	3	H	257	1.49	-
AV	2.483502G	53.97	54.00	-0.03	32.71	3	H	257	1.49	-
PK	2.389G	64.59	74.00	-9.41	32.37	3	H	257	1.49	-
PK	2.4338G	120.21	Inf	-Inf	32.53	3	H	257	1.49	-
PK	2.4838G	66.15	74.00	-7.85	32.71	3	H	257	1.49	-



### 802.11n HT20\_Nss1,(MCS0)\_2TX

### 2437MHz\_TX

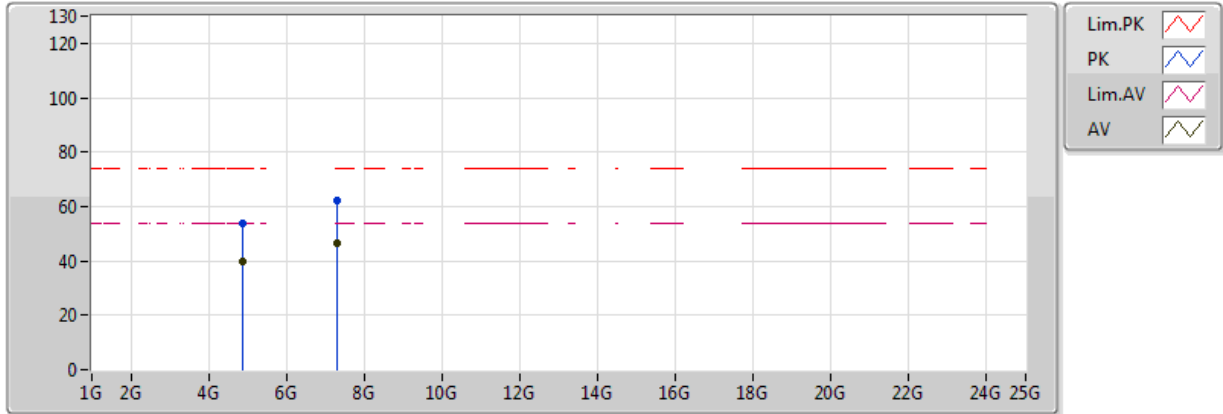


20170622  
 EUT\_Y\_2TX  
 Setting 22  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87964G	44.24	54.00	-9.76	6.75	3	V	62	1.51	-
AV	7.31712G	43.59	54.00	-10.41	13.03	3	V	49	1.74	-
PK	4.87982G	58.82	74.00	-15.18	6.75	3	V	62	1.51	-
PK	7.31772G	57.52	74.00	-16.48	13.03	3	V	49	1.74	-

### 802.11n HT20\_Nss1,(MCS0)\_2TX

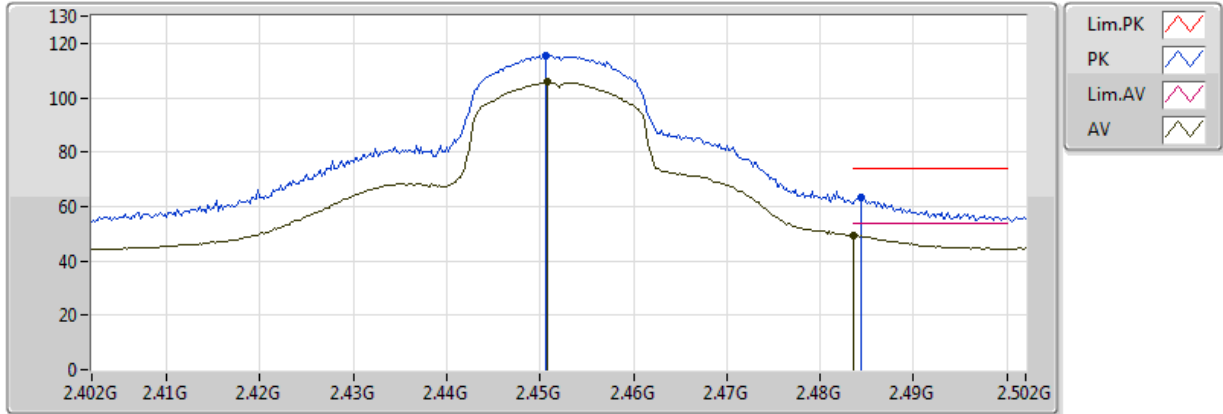
### 2437MHz\_TX



20170622  
EUT\_Y\_2TX  
Setting 22  
05-J-5  
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87712G	39.86	54.00	-14.14	6.74	3	H	86	1.50	-
AV	7.31748G	46.28	54.00	-7.72	13.03	3	H	31	1.78	-
PK	4.87862G	53.55	74.00	-20.45	6.74	3	H	86	1.50	-
PK	7.31628G	61.92	74.00	-12.08	13.03	3	H	31	1.78	-

**802.11n HT20\_Nss1,(MCS0)\_2TX  
2452MHz\_TX**

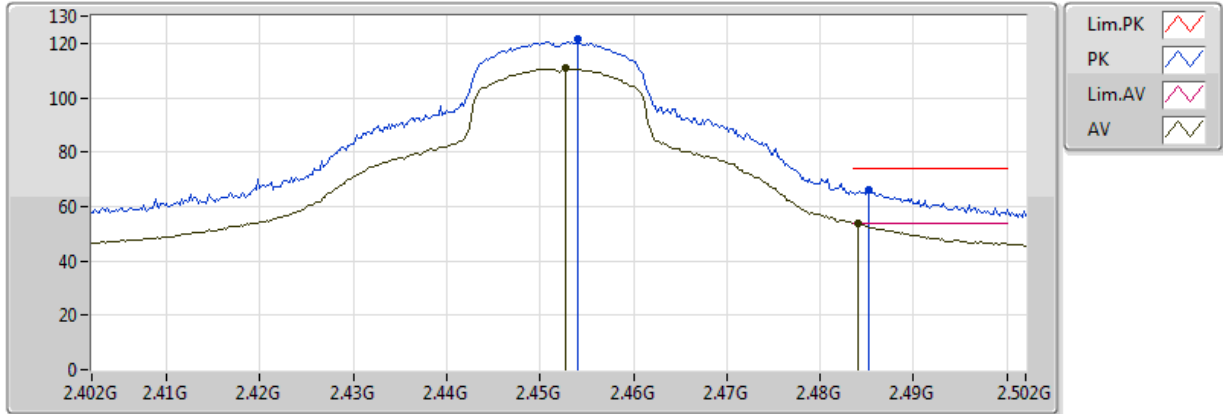


20170711  
EUT\_Y\_2TX  
Setting 18  
01-Z-1  
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4508G	105.68	Inf	-Inf	30.96	3	V	326	1.00	-
AV	2.483502G	49.54	54.00	-4.46	30.92	3	V	326	1.00	-
PK	2.4506G	115.44	Inf	-Inf	30.96	3	V	326	1.00	-
PK	2.4844G	63.06	74.00	-10.94	30.92	3	V	326	1.00	-

### 802.11n HT20\_Nss1,(MCS0)\_2TX

### 2452MHz\_TX

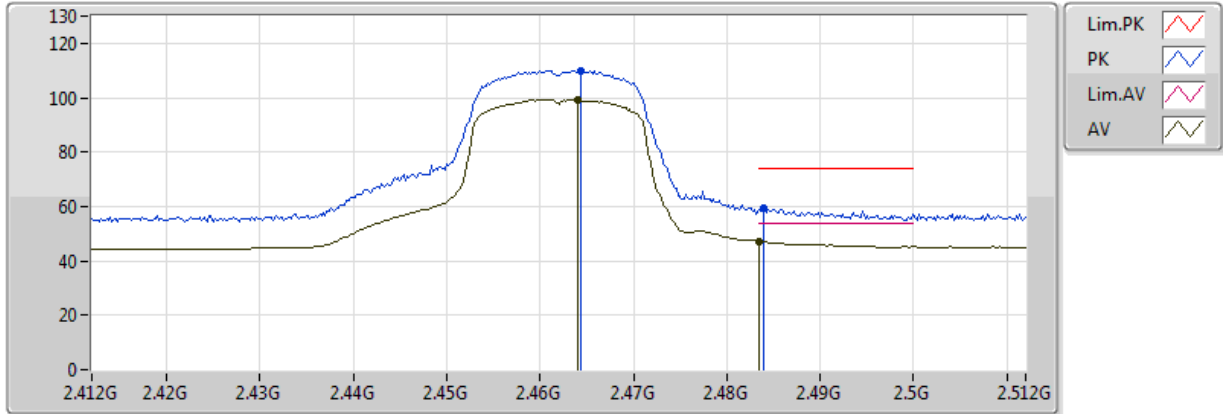


20170711  
EUT\_Y\_2TX  
Setting 18  
01-Z-1  
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4528G	110.89	Inf	-Inf	30.96	3	H	348	1.75	-
AV	2.484G	53.80	54.00	-0.20	30.92	3	H	348	1.75	-
PK	2.454G	121.55	Inf	-Inf	30.96	3	H	348	1.75	-
PK	2.4852G	66.14	74.00	-7.86	30.92	3	H	348	1.75	-

### 802.11n HT20\_Nss1,(MCS0)\_2TX

### 2462MHz\_TX

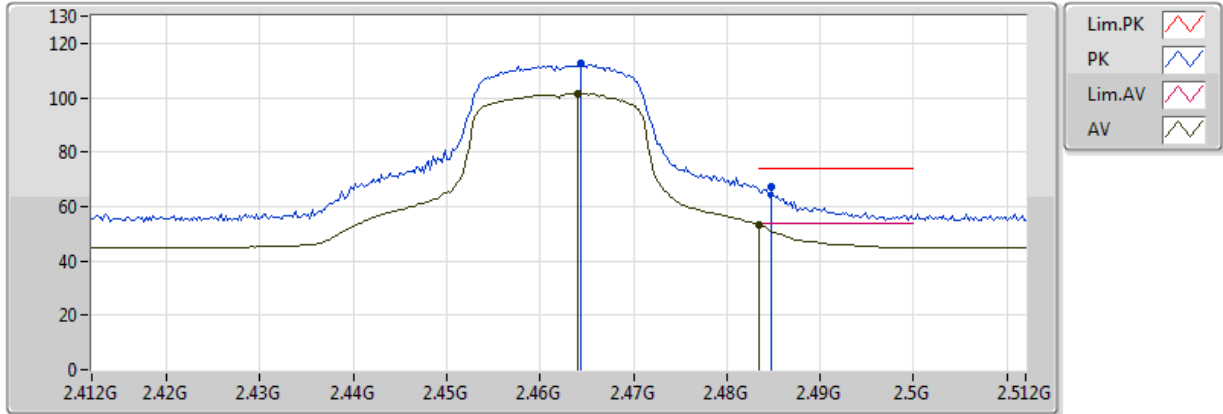


20170622  
 EUT\_Y\_2TX  
 Setting 13.5  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.464G	99.25	Inf	-Inf	32.64	3	V	265	1.50	-
AV	2.483502G	47.09	54.00	-6.91	32.71	3	V	265	1.50	-
PK	2.4644G	109.98	Inf	-Inf	32.64	3	V	265	1.50	-
PK	2.484G	59.20	74.00	-14.80	32.71	3	V	265	1.50	-

### 802.11n HT20\_Nss1,(MCS0)\_2TX

### 2462MHz\_TX

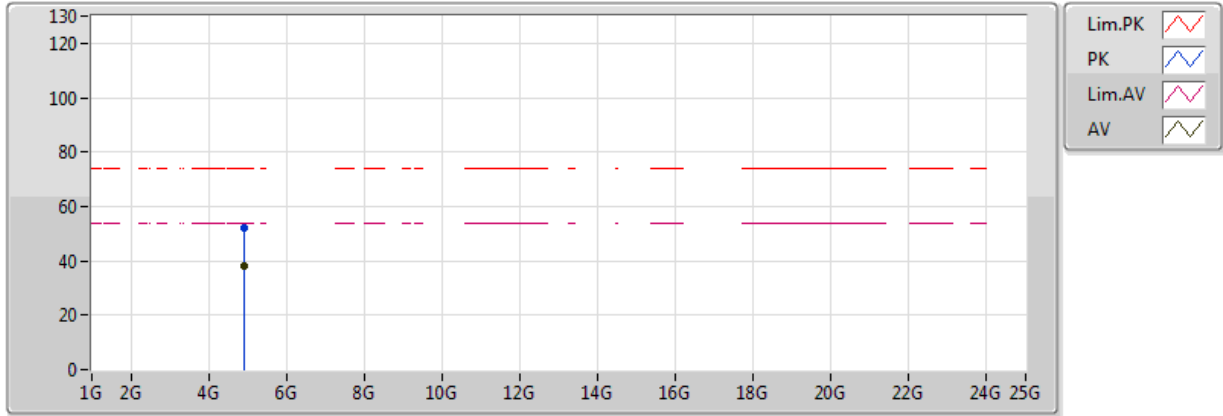


20170622  
EUT\_Y\_2TX  
Setting 13.5  
05-J-5  
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.464G	101.58	Inf	-Inf	32.64	3	H	253	2.19	-
AV	2.483502G	53.02	54.00	-0.98	32.71	3	H	253	2.19	-
PK	2.4644G	112.43	Inf	-Inf	32.64	3	H	253	2.19	-
PK	2.483502G	67.10	74.00	-6.90	32.72	3	H	253	2.19	-

### 802.11n HT20\_Nss1,(MCS0)\_2TX

### 2462MHz\_TX

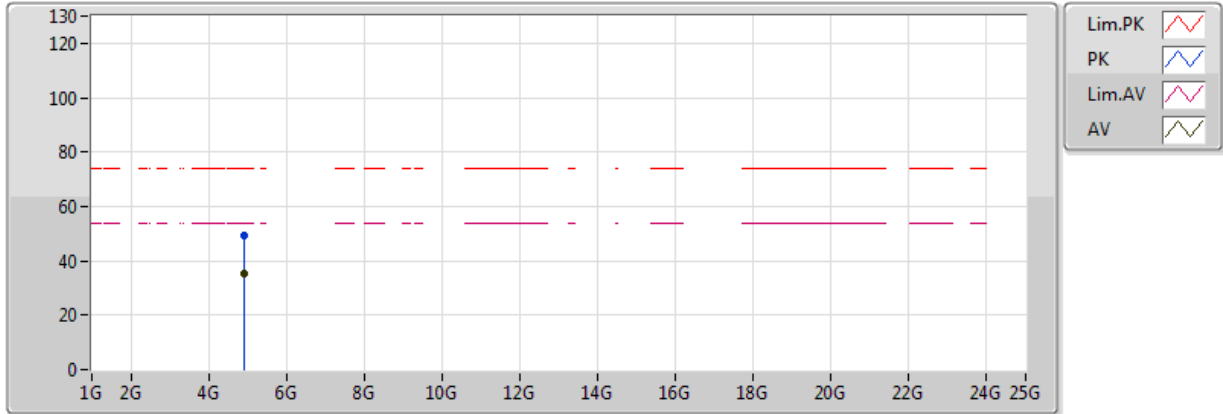


20170622  
 EUT\_Y\_2TX  
 Setting 13.5  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.92682G	38.32	54.00	-15.68	6.87	3	V	57	1.59	-
PK	4.9264G	52.36	74.00	-21.64	6.87	3	V	57	1.59	-

802.11n HT20\_Nss1,(MCS0)\_2TX

2462MHz\_TX



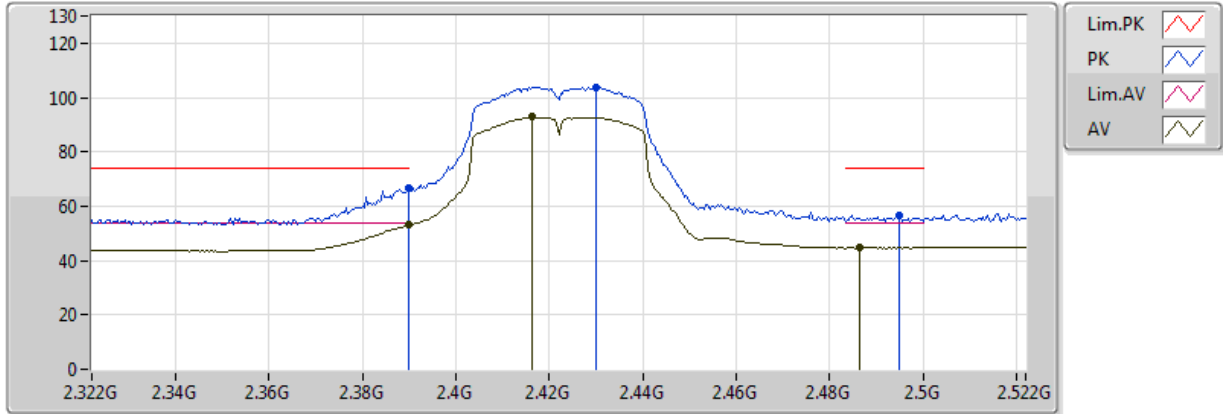
20170622  
 EUT\_Y\_2TX  
 Setting 13.5  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.92562G	35.40	54.00	-18.60	6.87	3	H	67	1.50	-
PK	4.92718G	49.25	74.00	-24.75	6.87	3	H	67	1.50	-



### 802.11n HT40\_Nss1,(MCS0)\_2TX

### 2422MHz\_TX

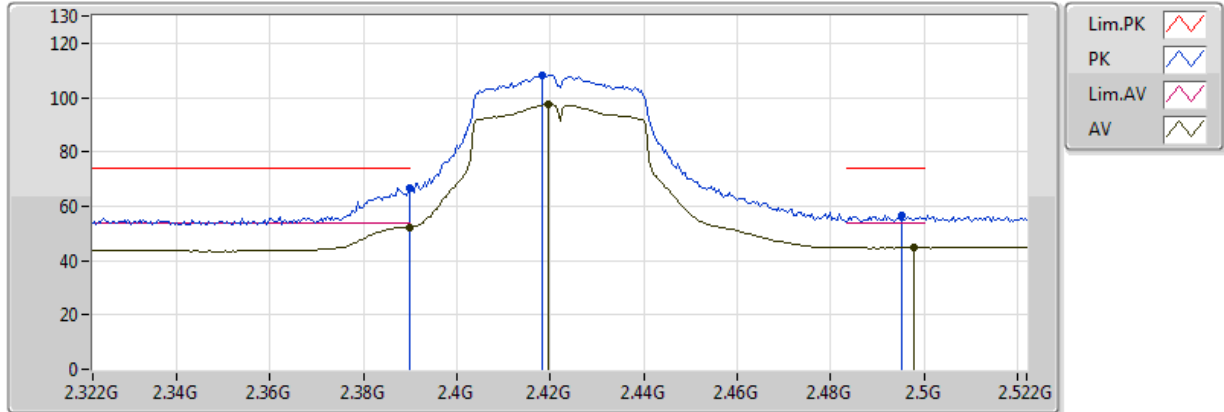


20170622  
EUT\_Y\_2TX  
Setting 11.5  
05-J-5  
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.39G	53.05	54.00	-0.95	32.37	3	V	263	1.50	-
AV	2.4164G	92.98	Inf	-Inf	32.47	3	V	263	1.50	-
AV	2.4864G	44.65	54.00	-9.35	32.72	3	V	263	1.50	-
PK	2.39G	66.46	74.00	-7.54	32.37	3	V	263	1.50	-
PK	2.43G	103.92	Inf	-Inf	32.52	3	V	263	1.50	-
PK	2.4948G	56.70	74.00	-17.30	32.75	3	V	263	1.50	-

### 802.11n HT40\_Nss1,(MCS0)\_2TX

### 2422MHz\_TX

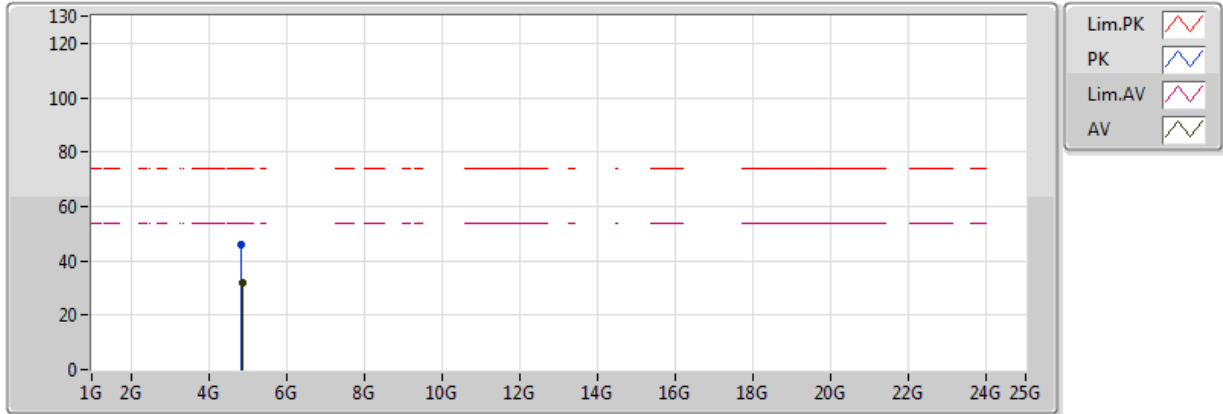


20170622  
 EUT\_Y\_2TX  
 Setting 11.5(升1 OVER 1.46)  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.39G	52.24	54.00	-1.76	32.37	3	H	264	1.27	-
AV	2.4196G	97.30	Inf	-Inf	32.48	3	H	264	1.27	-
AV	2.498G	44.74	54.00	-9.26	32.76	3	H	264	1.27	-
PK	2.39G	66.57	74.00	-7.43	32.37	3	H	264	1.27	-
PK	2.4184G	108.29	Inf	-Inf	32.48	3	H	264	1.27	-
PK	2.4952G	56.81	74.00	-17.19	32.75	3	H	264	1.27	-

### 802.11n HT40\_Nss1,(MCS0)\_2TX

### 2422MHz\_TX

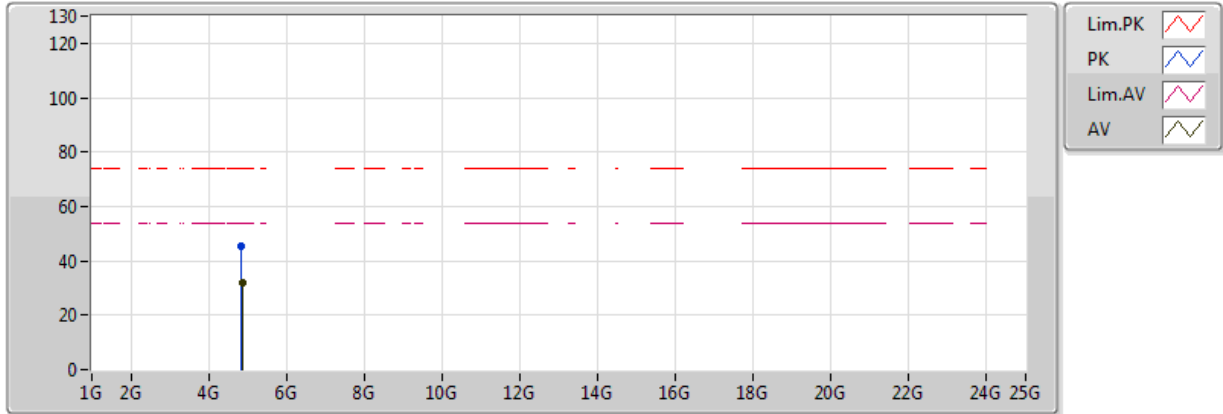


20170622  
 EUT\_Y\_2TX  
 Setting 11.5  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.85702G	32.08	54.00	-21.92	6.68	3	V	304	1.77	-
PK	4.832G	45.97	74.00	-28.03	6.62	3	V	304	1.77	-

### 802.11n HT40\_Nss1,(MCS0)\_2TX

### 2422MHz\_TX

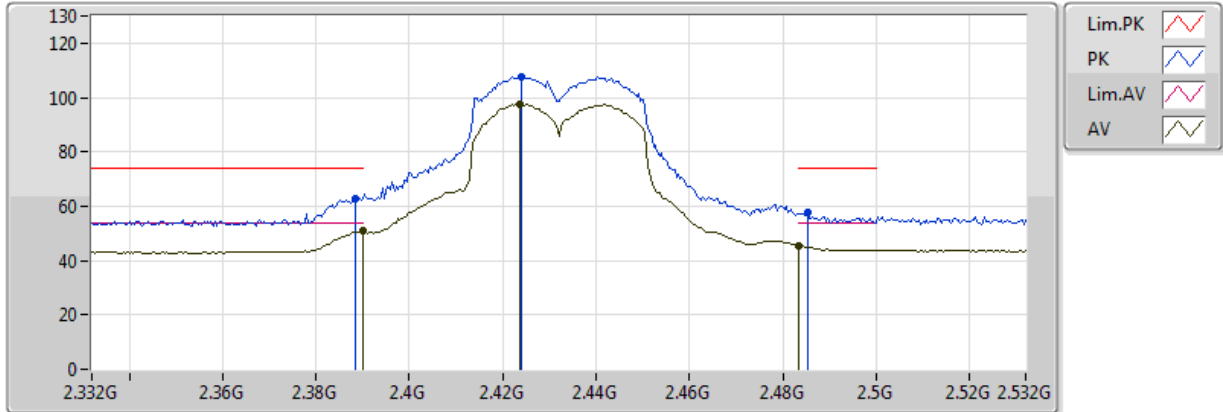


20170622  
 EUT\_Y\_2TX  
 Setting 11.5  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.85756G	31.95	54.00	-22.05	6.69	3	H	303	2.44	-
PK	4.83782G	45.30	74.00	-28.70	6.63	3	H	303	2.44	-

### 802.11n HT40\_Nss1,(MCS0)\_2TX

### 2432MHz\_TX

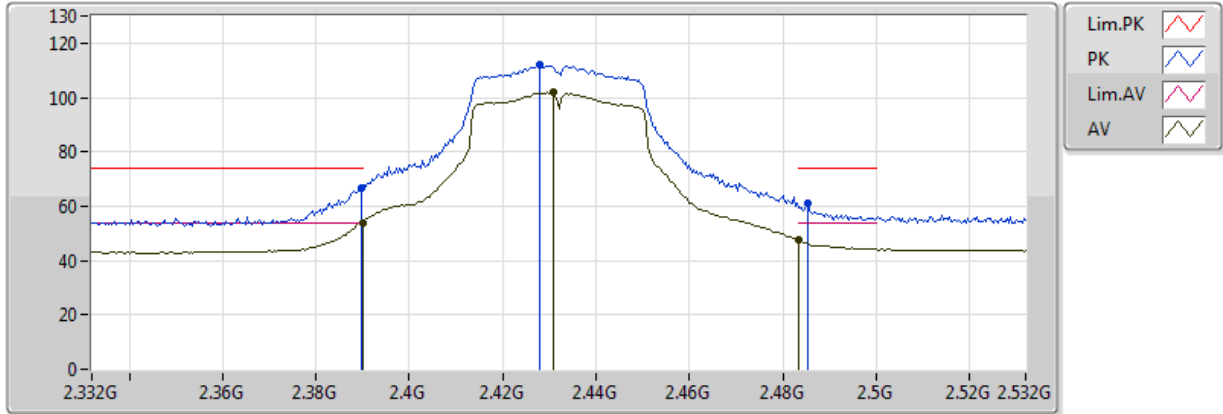


20170711  
EUT\_Y\_2TX  
Setting 12  
01-Z-1  
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	51.10	54.00	-2.90	31.04	3	V	331	2.38	-
AV	2.4236G	97.31	Inf	-Inf	30.99	3	V	331	2.38	-
AV	2.483502G	45.47	54.00	-8.53	30.92	3	V	331	2.38	-
PK	2.3884G	62.97	74.00	-11.03	31.04	3	V	331	2.38	-
PK	2.424G	107.47	Inf	-Inf	30.99	3	V	331	2.38	-
PK	2.4852G	57.65	74.00	-16.35	30.92	3	V	331	2.38	-

### 802.11n HT40\_Nss1,(MCS0)\_2TX

### 2432MHz\_TX

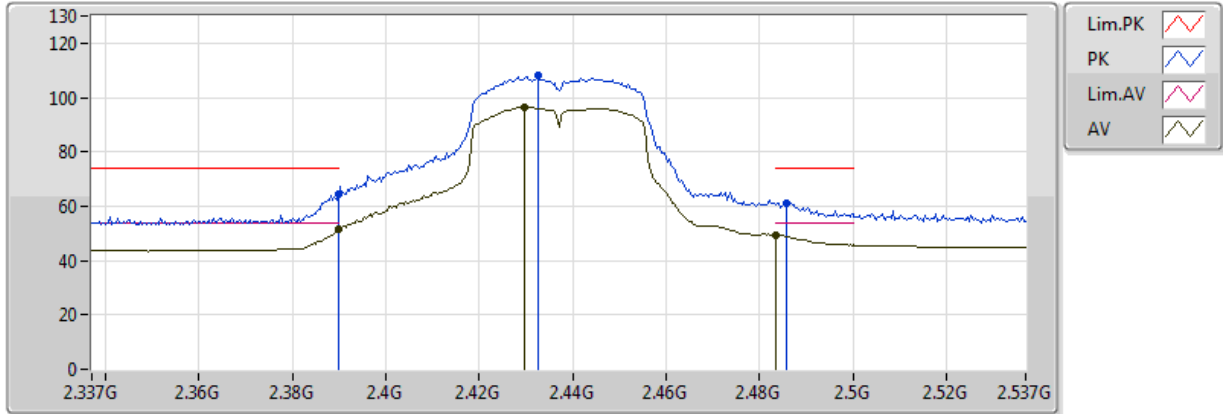


20170711  
EUT\_Y\_2TX  
Setting 12  
01-Z-1  
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	53.89	54.00	-0.11	31.04	3	H	356	1.83	-
AV	2.4308G	101.74	Inf	-Inf	30.98	3	H	356	1.83	-
AV	2.483502G	47.81	54.00	-6.19	30.92	3	H	356	1.83	-
PK	2.3896G	66.74	74.00	-7.26	31.04	3	H	356	1.83	-
PK	2.428G	111.97	Inf	-Inf	30.99	3	H	356	1.83	-
PK	2.4852G	60.93	74.00	-13.07	30.92	3	H	356	1.83	-

### 802.11n HT40\_Nss1,(MCS0)\_2TX

### 2437MHz\_TX

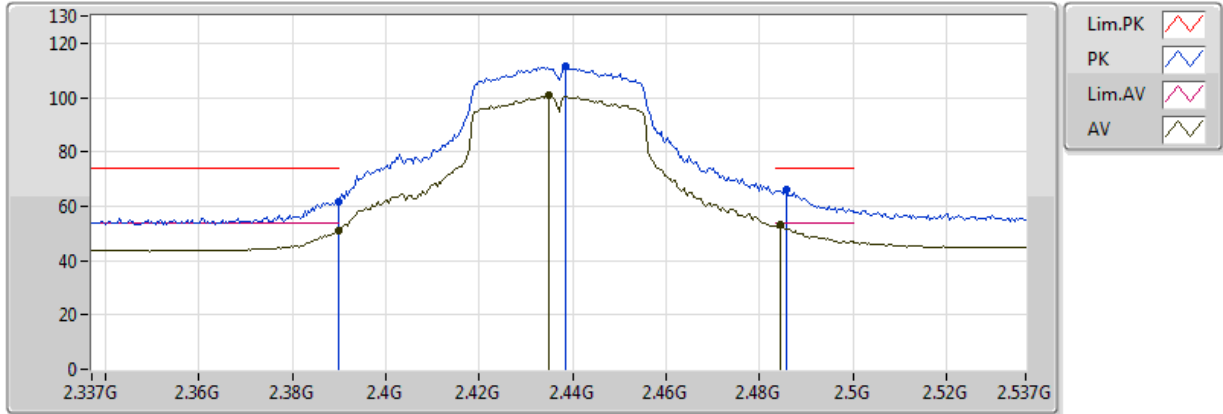


20170622  
 EUT Y\_2TX  
 Setting 14.5  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	51.49	54.00	-2.51	32.37	3	V	255	1.98	-
AV	2.4298G	96.25	Inf	-Inf	32.52	3	V	255	1.98	-
AV	2.483502G	49.21	54.00	-4.79	32.71	3	V	255	1.98	-
PK	2.389998G	64.39	74.00	-9.61	32.37	3	V	255	1.98	-
PK	2.4326G	107.94	Inf	-Inf	32.53	3	V	255	1.98	-
PK	2.4858G	61.23	74.00	-12.77	32.72	3	V	255	1.98	-

### 802.11n HT40\_Nss1,(MCS0)\_2TX

### 2437MHz\_TX



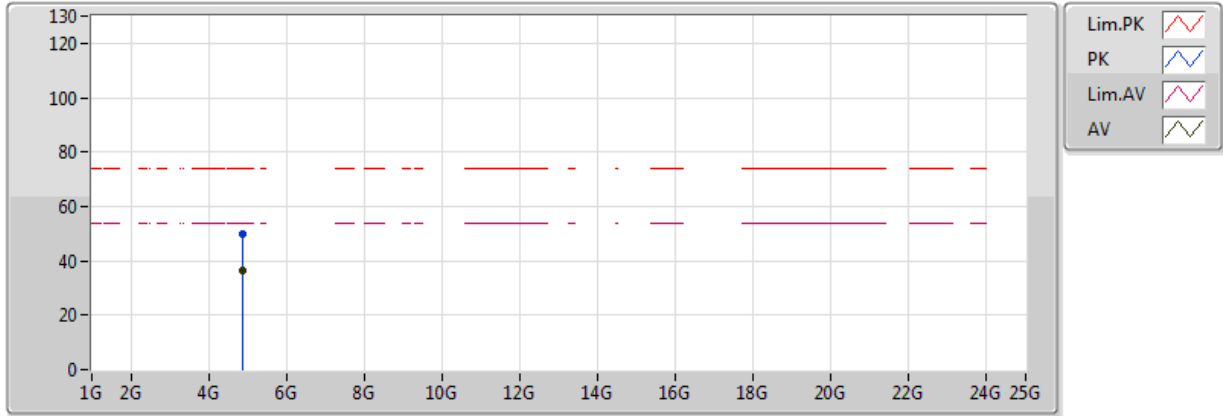
20170622  
 EUT Y\_2TX  
 Setting 14.5(升1 OVER 1.58)  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	51.08	54.00	-2.92	32.37	3	H	263	1.46	-
AV	2.435G	100.68	Inf	-Inf	32.54	3	H	263	1.46	-
AV	2.4846G	53.12	54.00	-0.88	32.71	3	H	263	1.46	-
PK	2.389998G	61.68	74.00	-12.32	32.37	3	H	263	1.46	-
PK	2.4386G	111.41	Inf	-Inf	32.55	3	H	263	1.46	-
PK	2.4858G	66.02	74.00	-7.98	32.72	3	H	263	1.46	-



### 802.11n HT40\_Nss1,(MCS0)\_2TX

### 2437MHz\_TX

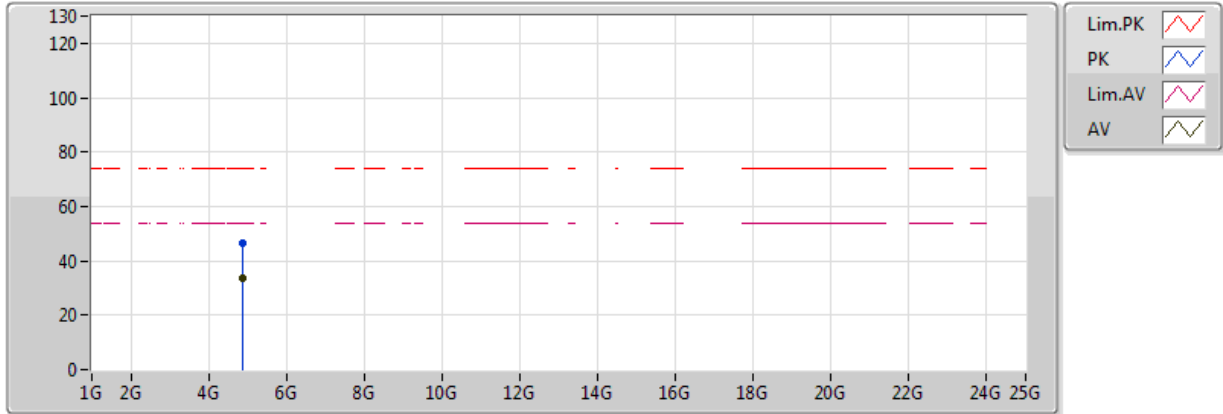


20170622  
 EUT\_Y\_2TX  
 Setting 14.5  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.8779G	36.17	54.00	-17.83	6.74	3	V	59	1.56	-
PK	4.87712G	49.91	74.00	-24.09	6.74	3	V	59	1.56	-

### 802.11n HT40\_Nss1,(MCS0)\_2TX

### 2437MHz\_TX

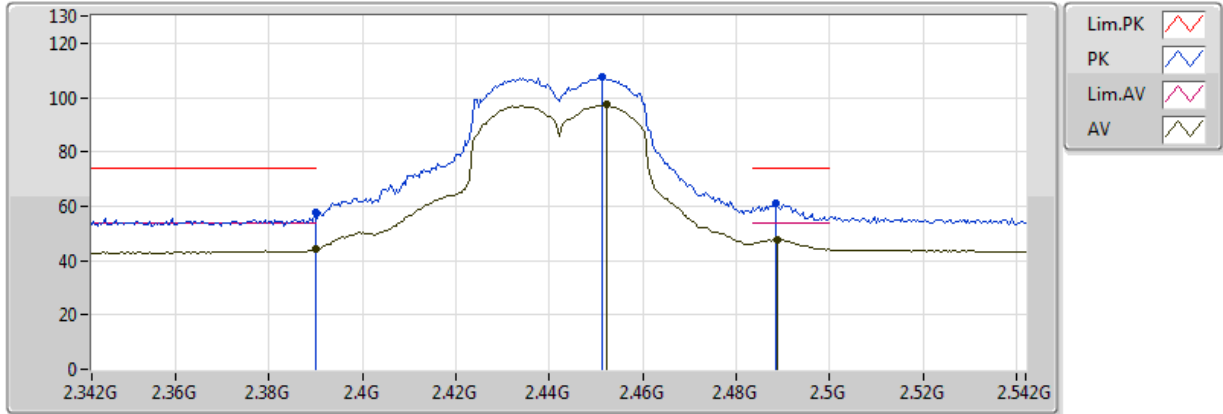


20170622  
 EUT\_Y\_2TX  
 Setting 14.5  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87478G	33.85	54.00	-20.15	6.73	3	H	85	1.63	-
PK	4.87178G	46.72	74.00	-27.28	6.72	3	H	85	1.63	-

### 802.11n HT40\_Nss1,(MCS0)\_2TX

### 2442MHz\_TX

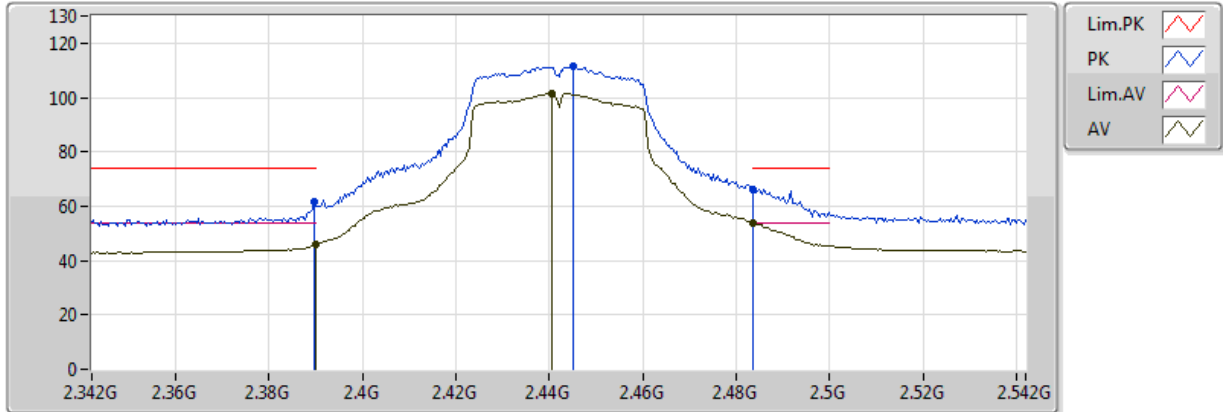


20170711  
EUT\_Y\_2TX  
Setting 12  
01-Z-1  
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	44.10	54.00	-9.90	31.04	3	V	334	2.47	-
AV	2.4524G	97.26	Inf	-Inf	30.96	3	V	334	2.47	-
AV	2.4888G	47.76	54.00	-6.24	30.91	3	V	334	2.47	-
PK	2.389998G	57.68	74.00	-16.32	31.04	3	V	334	2.47	-
PK	2.4512G	107.74	Inf	-Inf	30.96	3	V	334	2.47	-
PK	2.4884G	60.81	74.00	-13.19	30.91	3	V	334	2.47	-

### 802.11n HT40\_Nss1,(MCS0)\_2TX

### 2442MHz\_TX

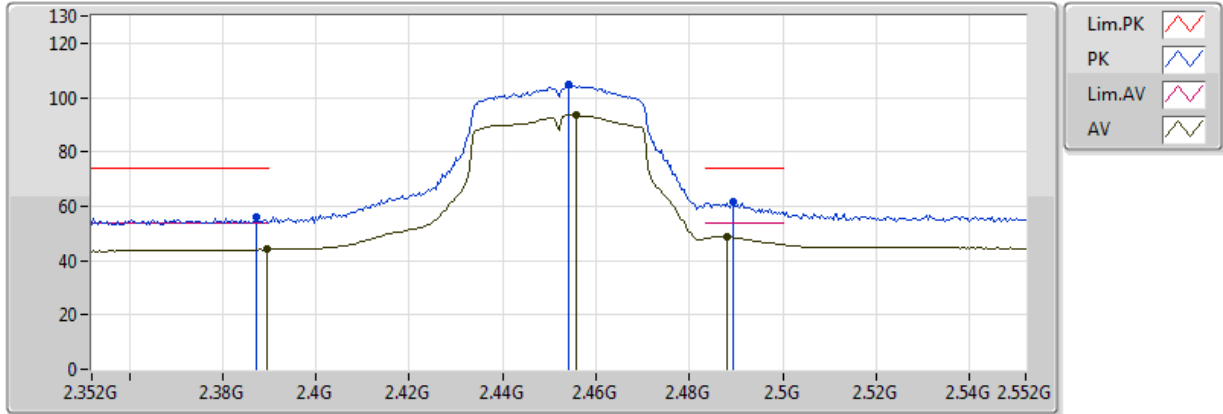


20170711  
 EUT\_Y\_2TX  
 Setting 12  
 01-Z-1  
 FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	45.99	54.00	-8.01	31.04	3	H	350	1.77	-
AV	2.4404G	101.57	Inf	-Inf	30.97	3	H	350	1.77	-
AV	2.483502G	53.92	54.00	-0.08	30.92	3	H	350	1.77	-
PK	2.3896G	61.53	74.00	-12.47	31.04	3	H	350	1.77	-
PK	2.4452G	111.72	Inf	-Inf	30.97	3	H	350	1.77	-
PK	2.483502G	66.21	74.00	-7.79	30.92	3	H	350	1.77	-

### 802.11n HT40\_Nss1,(MCS0)\_2TX

### 2452MHz\_TX

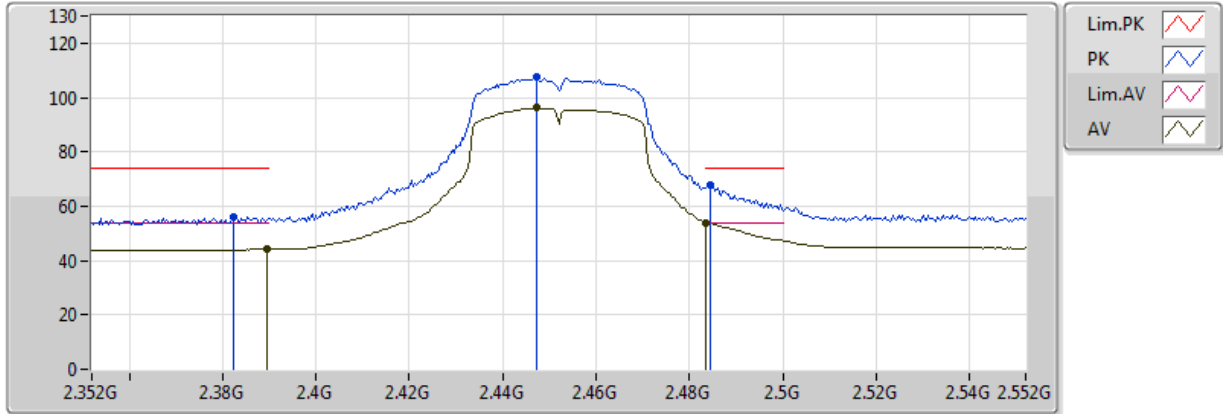


20170622  
 EUT\_Y\_2TX  
 Setting 11  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3896G	44.01	54.00	-9.99	32.37	3	V	255	2.01	-
AV	2.4556G	93.40	Inf	-Inf	32.61	3	V	255	2.01	-
AV	2.488G	48.79	54.00	-5.21	32.73	3	V	255	2.01	-
PK	2.3872G	56.19	74.00	-17.81	32.36	3	V	255	2.01	-
PK	2.454G	105.03	Inf	-Inf	32.60	3	V	255	2.01	-
PK	2.4892G	61.91	74.00	-12.09	32.73	3	V	255	2.01	-

### 802.11n HT40\_Nss1,(MCS0)\_2TX

### 2452MHz\_TX

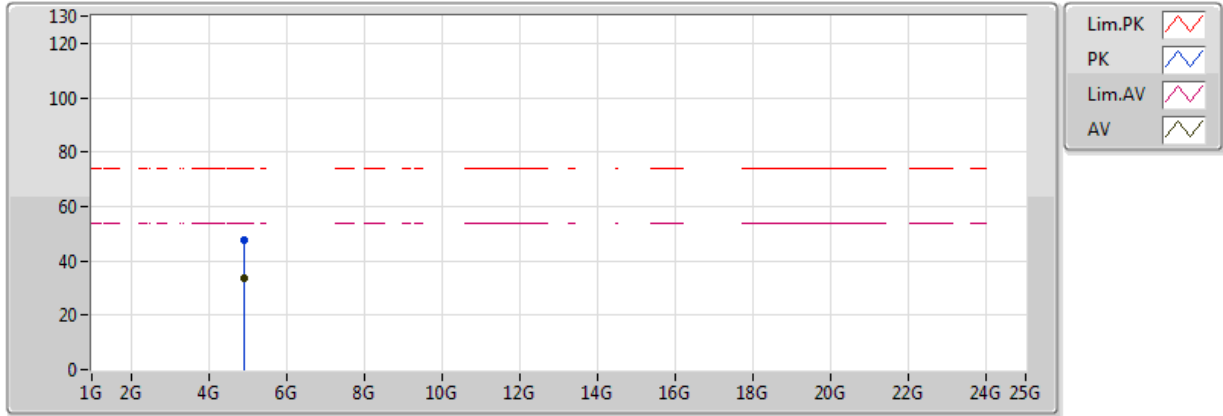


20170622  
 EUT\_Y\_2TX  
 Setting 11  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3896G	44.23	54.00	-9.77	32.37	3	H	256	2.17	-
AV	2.4472G	96.13	Inf	-Inf	32.58	3	H	256	2.17	-
AV	2.4836G	53.95	54.00	-0.05	32.71	3	H	256	2.17	-
PK	2.3824G	55.95	74.00	-18.05	32.34	3	H	256	2.17	-
PK	2.4472G	107.44	Inf	-Inf	32.58	3	H	256	2.17	-
PK	2.4844G	67.95	74.00	-6.05	32.71	3	H	256	2.17	-

### 802.11n HT40\_Nss1,(MCS0)\_2TX

### 2452MHz\_TX



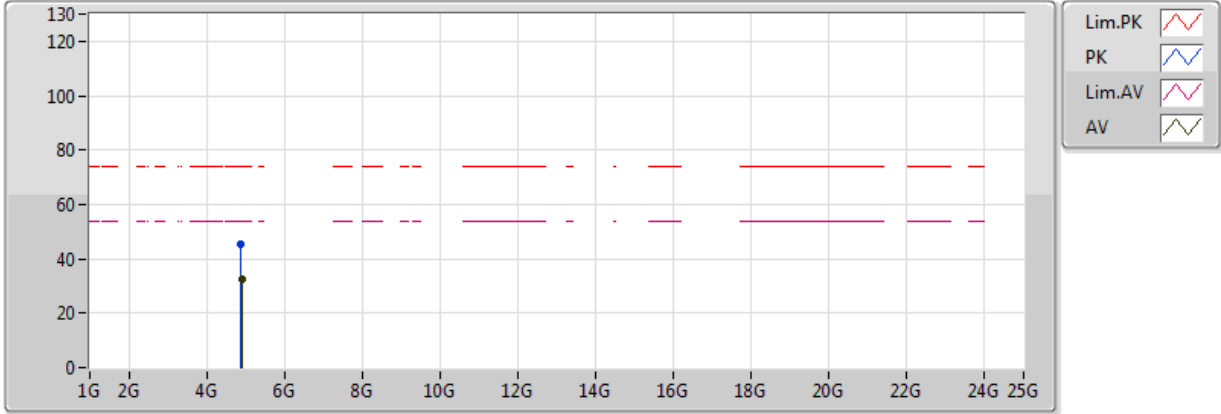
20170622  
EUT\_Y\_2TX  
Setting 11  
05-J-5  
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.90736G	33.71	54.00	-20.29	6.82	3	V	65	1.51	-
PK	4.90556G	47.54	74.00	-26.46	6.81	3	V	65	1.51	-



802.11n HT40\_Nss1,(MCS0)\_2TX

2452MHz\_TX



20170622  
 EUT\_Y\_2TX  
 Setting 11  
 05-J-5  
 FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.91798G	32.24	54.00	-21.76	6.85	3	H	322	1.60	-
PK	4.8902G	45.63	74.00	-28.37	6.77	3	H	322	1.60	-