

FCC Test Report

Equipment : 802.11ac Tri Band PoE Access Point
Brand Name : LITE-ON, MOJO, WatchGuard
Model No. : WP8333V1, C-110, AP225
FCC ID : PPQ-WP8333V1
Standard : 47 CFR FCC Part 15.407
Operating Band : 5250 MHz – 5350 MHz
5470 MHz – 5725 MHz
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
Function : ☐ Outdoor; ☒ Indoor; ☐ Fixed P2P
☐ Client
TPC Function : ☒ With TPC ☐ Without TPC

The product sample received on Aug. 10, 2017 and completely tested on Aug. 24, 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	Result
1.1.2	15.203	Antenna Requirement	Complied
3.1	15.407(a)	Emission Bandwidth	Complied
3.2	15.407(a)	Maximum Conducted Output Power	Complied
3.3	15.407(a)	Peak Power Spectral Density	Complied
3.4	15.407(b)	Unwanted Emissions	Complied
3.5	15.407(g)	Frequency Stability	Complied



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FCC ID: PPQ-WP8333V1

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5250-5350	a, n (HT20), ac (VHT20)	5260-5320	52-64 [4]
5470-5725		5500-5720	100-144 [12]
5250-5350	n (HT40), ac (VHT40)	5270-5310	54-62 [2]
5470-5725		5510-5710	102-142 [6]
5250-5350	ac (VHT80)	5290	58 [1]
5470-5725		5530-5690	106-138 [3]

Band	Mode	BWch (MHz)	Nant
5.25-5.35GHz	802.11a	20	2TX
5.25-5.35GHz	802.11n HT20	20	2TX
5.25-5.35GHz	802.11ac VHT20	20	2TX
5.25-5.35GHz	802.11n HT40	40	2TX
5.25-5.35GHz	802.11ac VHT40	40	2TX
5.25-5.35GHz	802.11ac VHT80	80	2TX
5.47-5.725GHz	802.11a	20	2TX
5.47-5.725GHz	802.11n HT20	20	2TX
5.47-5.725GHz	802.11ac VHT20	20	2TX
5.47-5.725GHz	802.11n HT40	40	2TX
5.47-5.725GHz	802.11ac VHT40	40	2TX
5.47-5.725GHz	802.11ac VHT80	80	2TX

Note:

- ♦ 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ VHT20, VHT40, VHT80 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM 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 Holder	Model Name	Antenna Type	Connector	Radio
1	Master Wave Technology CO., LTD	98P7NPIPF000	PCB Antenna	I-PEX	R1
2	Master Wave Technology CO., LTD	98P7NPIPF001	PCB Antenna	I-PEX	R1
3	Master Wave Technology CO., LTD	98P7PUIPF000	PCB Antenna	I-PEX	R2
4	Master Wave Technology CO., LTD	98P7QUIPF000	PCB Antenna	I-PEX	R2
5	Master Wave Technology CO., LTD	98P7RPIPF000	PCB Antenna	I-PEX	R3
6	Master Wave Technology CO., LTD	98P7RPIPF001	PCB Antenna	I-PEX	R3
7	Master Wave Technology CO., LTD	98P7SMIPF000	PCB Antenna	I-PEX	R4

Ant.	Gain (dBi)												
	Radio 1			Radio 2				Radio 3					Radio 4
	2.4G	5G B1	5G B4	5G B1	5G B2	5G B3	5G B4	2.4G	5G B1	5G B2	5G B3	5G B4	BT
1	6.3	4.3	5.3	-	-	-	-	-	-	-	-	-	-
2	6.5	4.9	6.1	-	-	-	-	-	-	-	-	-	-
3	-	-	-	5.6	5.8	6.1	5.9	-	-	-	-	-	-
4	-	-	-	5.6	6.0	5.4	4.6	-	-	-	-	-	-
5	-	-	-	-	-	-	-	6.5	4.7	4.7	5.6	6.0	-
6	-	-	-	-	-	-	-	6.5	4.8	5.4	5.8	5.5	-
7	-	-	-	-	-	-	-	-	-	-	-	-	2.1

Note1: The EUT has seven antennas.

Note2: The EUT contain Radio 3 (2.4G)/(5G) RF module (Model Name: WM862FEMD)

FCC ID: PPQ-WM862FEMD)

Radio 1

For 2.4GHz and 5GHz (For Band 1, Band 4) function

IEEE 802.11a/b/g/n/ac mode (2TX/2RX):

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

Radio 2

For 5GHz function

IEEE 802.11a/n/ac mode (2TX/2RX):

Ant. 3 (port 1) and Ant. 4 (port 2) could transmit/receive simultaneously.

Radio 3

For 2.4GHz and 5GHz function

IEEE 802.11a/b/g/n/ac mode (2TX/2RX):

Ant. 5 (port 1) and Ant. 6 (port 2) could transmit/receive simultaneously.

Radio 4
For Bluetooth function / Bluetooth mode (1TX/1RX):

Only Ant. 7 (port 1) can be used as transmitting/receiving antenna.

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11a	0.962	0.168	2.06m	1k
802.11ac VHT20	0.962	0.168	5.013m	300
802.11ac VHT40	0.935	0.292	2.43m	1k
802.11ac VHT80	0.827	0.825	1.142m	1k

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter or PoE			
Beamforming Function	☐	With beamforming	☒	Without beamforming
Weather Band	☒	With 5600~5650MHz	☐	Without 5600~5650MHz

1.1.5 Table for Multiple Listing

The brand/model names in the following table are all refer to the identical product.

Brand Name	Model Name	Description
LITE-ON	WP8333V1	All the models are identical, the difference model name for difference brand served as marketing strategy.
MOJO	C-110	
WatchGuard	AP225, C-110	

From the above models, model: WP8333V1 was selected as representative model for the test and its data was recorded in this report.

1.1.6 Table for Explanation of Flash

EUT No.	Brand name	Model name	Flash
1	winbond	25Q256JVFQ	32M+32M
2	MXIC	MX25L51245GMI-08G	64M

**1.1.7 Table for Class II Change**

This product is an extension of original one reported under Sporton project number: FR741722-02

Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
1. Changing the location of the EUT radio 2 antenna.	1. Unwanted Emissions below 1GHz. 2. Emission Bandwidth 3. Maximum Conducted Output Power 4. Peak Power Spectral Density 5. Unwanted Emissions above 1GHz 6. Frequency Stability 7. Radiated Emission Co-location
2. Removing the EUT copper foil.	Unwanted Emissions below 1GHz.

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 789033 D02 v01r04
- ♦ FCC KDB 644545 D03 v01
- ♦ FCC KDB 662911 D01 v02r01

1.3 Testing Location Information

Testing Location				
☐	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
☒	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	Peter Wu, Lucke Hsieh	26°C / 70%	Aug. 23, 2017 ~ Aug. 24, 2017
Radiated	03CH01-CB	Joy Tseng & Mars Lin	22°C / 54%	Jul. 12, 2017 ~ Oct. 03, 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%
Output Power Measurement	1.33 dB	Confidence levels of 95%
Power Density Measurement	1.27 dB	Confidence levels of 95%
Bandwidth Measurement	9.74×10^{-8}	Confidence levels of 95%
Frequency Stability	6.06×10^{-8}	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
802.11a_(6Mbps)_2TX	-
5260MHz	18
5300MHz	17.5
5320MHz	17.5
5500MHz	18.5
5580MHz	18
5700MHz	18
5720MHz Straddle 5.47-5.725GHz	19.5
5720MHz Straddle 5.725-5.85GHz	19.5
802.11ac VHT20_Nss1,(MCS0)_2TX	-
5260MHz	18
5300MHz	18
5320MHz	18
5500MHz	18.5
5580MHz	18
5700MHz	18
5720MHz Straddle 5.47-5.725GHz	19.5
5720MHz Straddle 5.725-5.85GHz	19.5
802.11ac VHT40_Nss1,(MCS0)_2TX	-
5270MHz	20.5
5310MHz	19
5510MHz	19.5
5550MHz	21
5670MHz	20
5710MHz Straddle 5.47-5.725GHz	21
5710MHz Straddle 5.725-5.85GHz	21
802.11ac VHT80_Nss1,(MCS0)_2TX	-
5290MHz	19
5530MHz	18.5
5610MHz	21
5690MHz Straddle 5.47-5.725GHz	21.5
5690MHz Straddle 5.725-5.85GHz	21.5

Note:

- ♦ VHT20/VHT40 covers HT20/HT40, due to same modulation. The power setting for 802.11n HT20 and HT40 are the same or lower than 802.11ac VHT20 and VHT40.

2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emission Bandwidth Maximum Conducted Output Power Peak Power Spectral Density Frequency Stability
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests	
Tests Item	Unwanted Emissions
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. EUT1-Radio 1 (2.4GHz WLAN function) + Radio 2 (5GHz WLAN function) + Radio 3 (2.4GHz WLAN function) + Bluetooth and the EUT was performed at Z axis, Y axis for EUT position. The worst case was found at Y axis. 2. The EUT could be powered by Adapter or PoE. The worst case was found at PoE. So the measurement will follow this same test configuration generated the worst test result for radiation emission test, thus the measurement test will follow this same test configuration.
1	EUT 1 in Y axis - R1 (2.4G) + R2 (5G) + R3 (2.4G) + R4 (BT) + PoE
Operating Mode > 1GHz	CTX
	The EUT was performed at X axis, Y axis and Z axis position for Radiated emission above 1GHz test, and the worst case was found at X axis. So the measurement will follow this same test configuration.
1	EUT 2 in Y axis - R2 (5G)

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location
Test Condition	Radiated measurement
Operating Mode	Normal Link
1	EUT 2 - R1 (2.4G) + R2 (5G) + R3 (2.4G) + R4 (BT)
2	EUT 2 - R1 (2.4G) + R2 (5G) + R3 (5G) + R4 (BT)
3	EUT 2 - R1 (5G) + R2 (5G) + R3 (2.4G) + R4 (BT)
4	EUT 2 - R1 (5G) + R2 (5G) + R3 (5G) + R4 (BT)
For operating mode 4 is the worst case and it was record in this test report.	
Refer to Appendix F for Radiated Emission Co-location.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	EUT 2 - R1 (2.4G) + R2 (5G) + R3 (2.4G) + R4 (BT)
2	EUT 2 - R1 (2.4G) + R2 (5G) + R3 (5G) + R4 (BT)
3	EUT 2 - R1 (5G) + R2 (5G) + R3 (2.4G) + R4 (BT)
4	EUT 2 - R1 (5G) + R2 (5G) + R3 (5G) + R4 (BT)
Refer to Sporton Test Report No.: FA741722-04 for Co-location RF Exposure Evaluation.	

Note: The PoE and Adapter were for measurement only, would not be marketed.

The PoE and Adapter information as below:

Support Unit	Brand	Model Number
PoE	Ruckus	740-64214-001
Adapter	APD	WB-18D12FU

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

N/A

2.5 Support Equipment

For Test Site No: 03CH01-CB (below 1GHz) and 03CH01-CB (above 1GHz / for Radiated Emission Co-location)

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB*5	DELL	E4300	DoC
2	Device	LITE-ON	WP8333V1	PPQ-WP8333V1
3	Flash disk3.0	Silicon Power	B06	DoC
4	PoE	Ruckus	740-64214-001	DoC

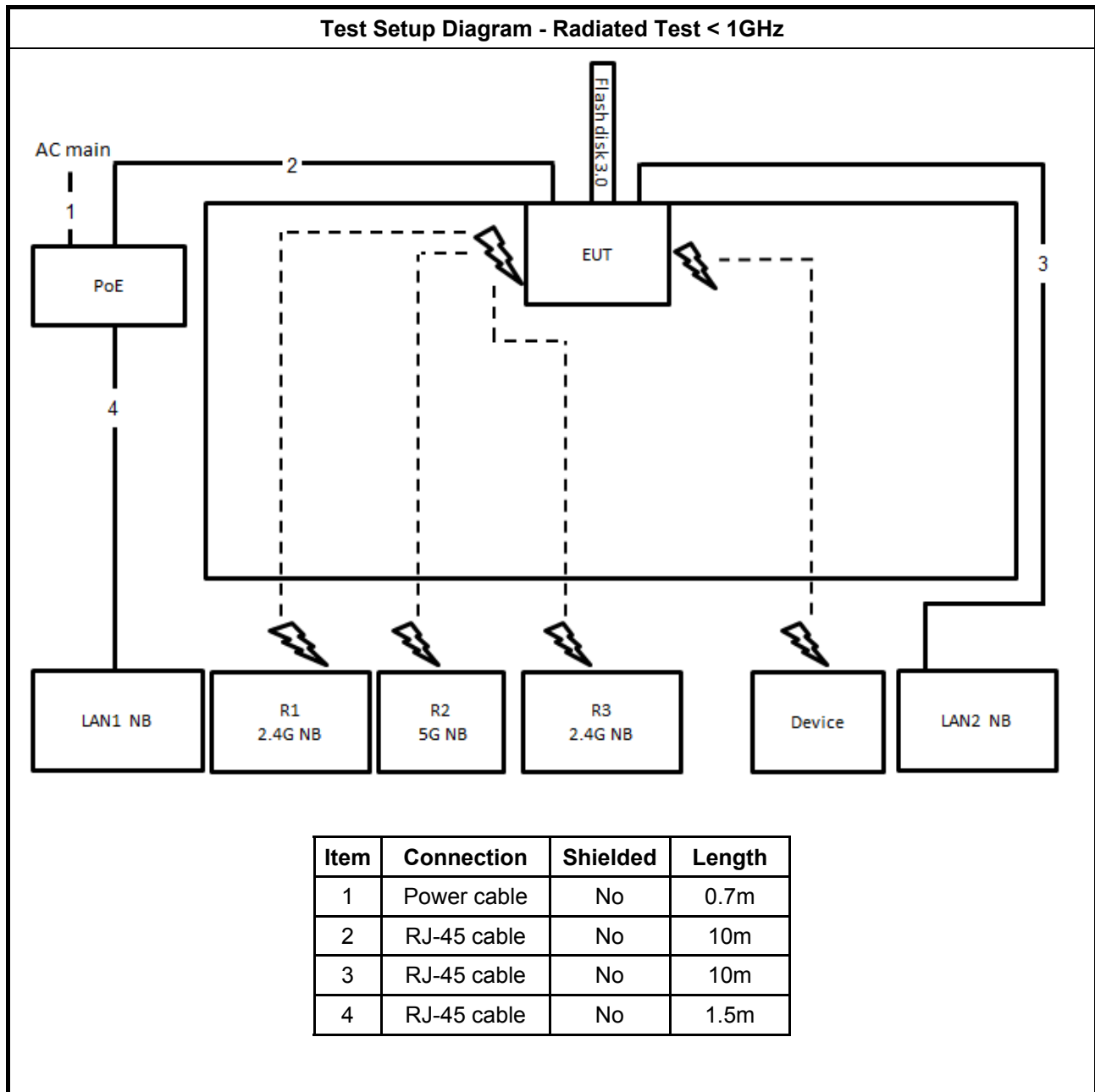
For Test Site No: 03CH01-CB (above 1GHz)

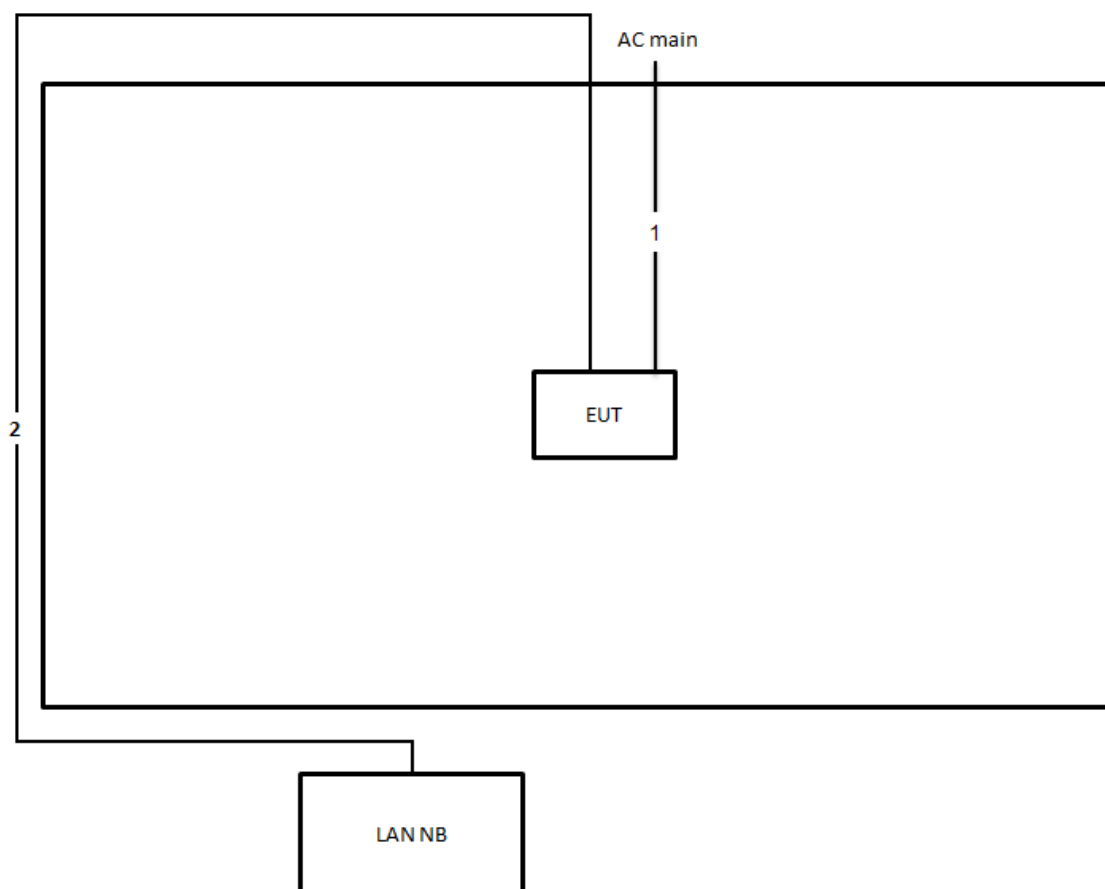
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC
2	Adapter	APD	WB-18D12FU	DoC

For Test Site No: TH01-CB

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC
2	Adapter	APD	WB-18D12FU	DoC

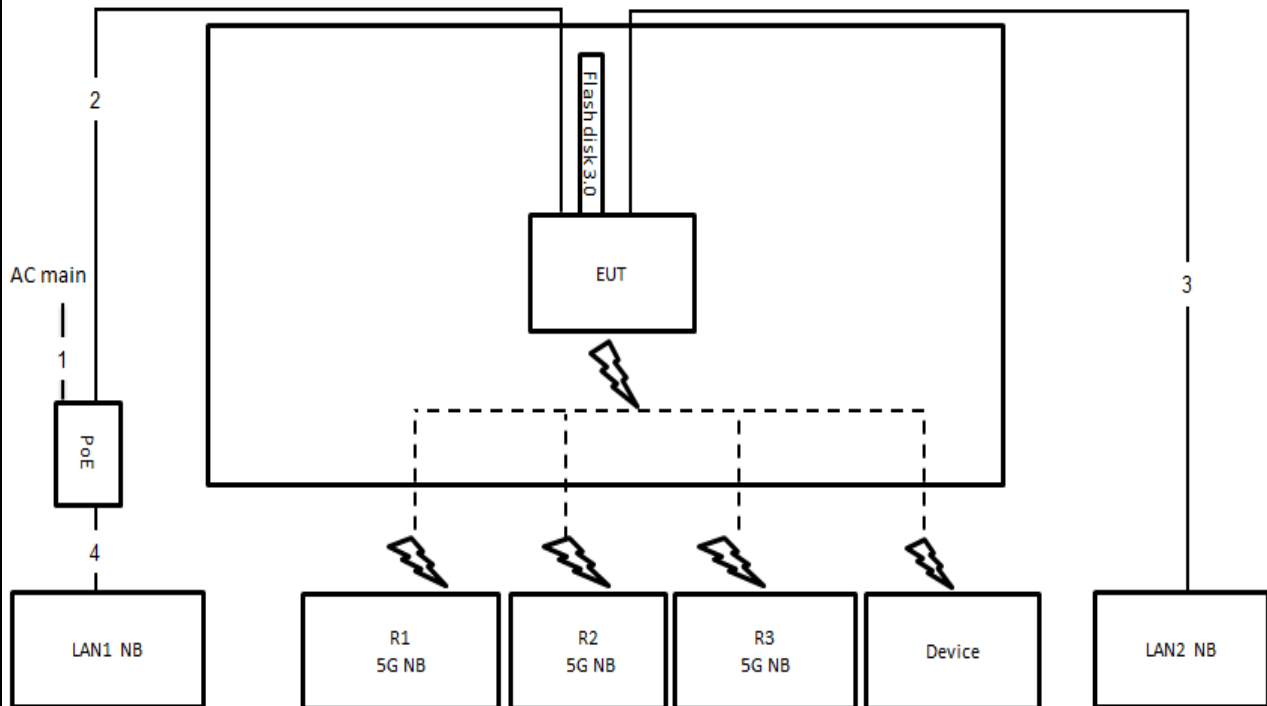
2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test > 1GHz


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

Test Setup Diagram - Radiated Test > 1GHz / for Radiated Emission Co-location



Item	Connection	Shielded	Length
1	Power cable	No	0.7m
2	RJ-45 cable	No	10m
3	RJ-45 cable	No	10m
4	RJ-45 cable	No	1.5m

3 Transmitter Test Result

3.1 Emission Bandwidth

3.1.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
UNII Devices	
☐	For the 5.15-5.25 GHz band, N/A
☒	For the 5.25-5.35 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
☒	For the 5.47-5.725 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
☒	For the 5.725-5.85 GHz band, 6 dB emission bandwidth $\geq$ 500kHz.
LE-LAN Devices	
☐	For the band 5.15-5.25 GHz, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
☐	For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
☐	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
☐	For the 5.725-5.85 GHz band, 6 dB emission bandwidth $\geq$ 500kHz.

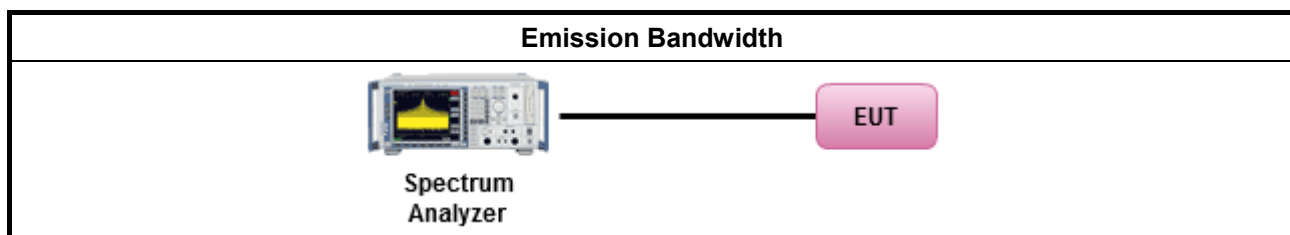
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

Test Method	
For the emission bandwidth shall be measured using one of the options below:	
☒	Refer as FCC KDB 789033, clause C for EBW and clause D for OBW measurement.
☐	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.
☒	Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.

3.1.4 Test Setup



3.1.5 Test Result of Emission Bandwidth

Refer as Appendix A

3.2 Maximum Conducted Output Power

3.2.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
UNII Devices	
☐ For the 5.15-5.25 GHz band:	
☐	- Outdoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$. e.i.r.p. at any elevation angle above 30 degrees ≤ 125mW [21dBm] - Indoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ - Point-to-point AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 23$ dBi, then $P_{Out} = 30 - (G_{TX} - 23)$. - Mobile or Portable Client: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.
☒	For the 5.25-5.35 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.
☒	For the 5.47-5.725 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.
☒ For the 5.725-5.85 GHz band:	
☐	- Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$. - Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W.
LE-LAN Devices	
☐ For the 5.15-5.25 GHz band, the maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.	
☐ For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz	
☐ For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz	
☐ For the 5.725-5.85 GHz band:	
☐	- Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$. - Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W.
P_{Out} = maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.	

3.2.2 Measuring Instruments

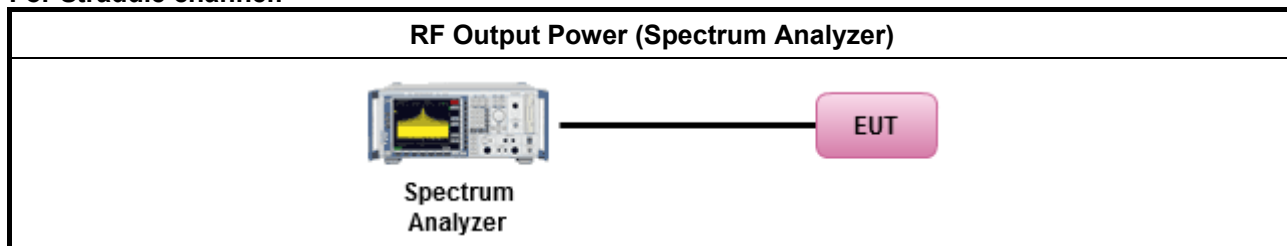
Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

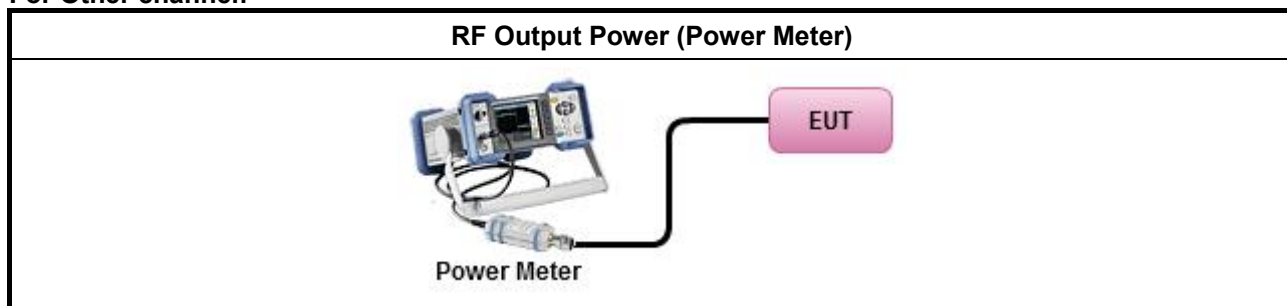
Test Method	
Maximum Conducted Output Power	
Average over on/off periods with duty factor	
☒	Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
☐	Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
Wideband RF power meter and average over on/off periods with duty factor	
☒	Refer as FCC KDB 789033, clause E Method PM-G (using an 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]) $EIRP_{total} = P_{total} + DG$	

3.2.4 Test Setup

For Straddle channel:



For Other channel:



3.2.5 Test Result of Maximum Conducted Output Power

Refer as Appendix B

3.3 Peak Power Spectral Density

3.3.1 Peak Power Spectral Density Limit

Peak Power Spectral Density Limit	
UNII Devices	
☐ For the 5.15-5.25 GHz band:	
	- Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$. - Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$. - Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 23$ dBi, then $P_{Out} = 17 - (G_{TX} - 23)$. - Mobile or Portable Client: the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.
☒ For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
☒ For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
☒ For the 5.725-5.85 GHz band:	
	- Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then $PPSD = 30 - (G_{TX} - 6)$. - Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
LE-LAN Devices	
☐ For the 5.15-5.25 GHz band, the peak power spectral density (PPSD) ≤ 4 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 10 dBm/MHz.	
☐ For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 17 dBm/MHz.	
	e.i.r.p. greater than 200 mW shall comply with the following e.i.r.p. at different elevations, where θ is the angle above the local horizontal plane (of the Earth) as shown below: -13 dBW/MHz for $0^\circ \leq \theta < 8^\circ$; $-13 - 0.716 (\theta - 8)$ dBW/MHz for $8^\circ \leq \theta < 40^\circ$; $-35.9 - 1.22 (\theta - 40)$ dBW/MHz for $40^\circ \leq \theta \leq 45^\circ$; -42 dBW/MHz for $\theta > 45^\circ$
☐ For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 17 dBm/MHz.	
☐ For the 5.725-5.85 GHz band:	
	- Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then $PPSD = 30 - (G_{TX} - 6)$. - Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
PPSD = peak power spectral density that he same method as used to determine the conducted output power shall be used to determine the power spectral density. And power spectral density in dBm/MHz G_{TX} = the maximum transmitting antenna directional gain in dBi.	

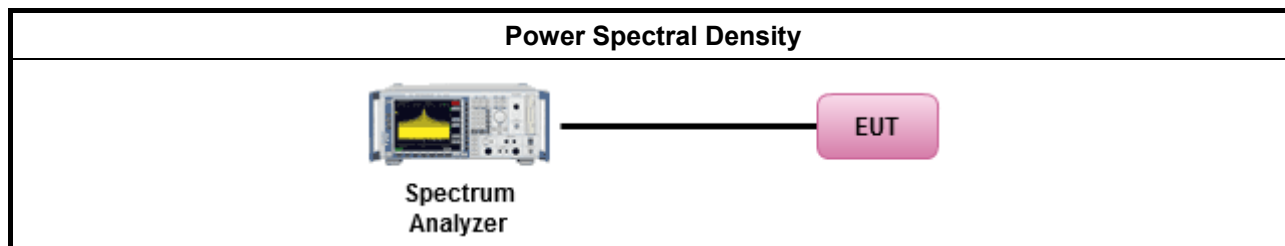
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
Peak power spectral density procedures that the same method as used to determine the conducted output power shall be used to determine the peak power spectral density and use the peak search function on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density shall be measured using below options:	
☐ Refer as FCC KDB 789033, F)5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth	
[duty cycle ≥ 98% or external video / power trigger]	
☒ Refer as FCC KDB 789033, clause E Method SA-1 (spectral trace averaging).	
☐ Refer as FCC KDB 789033, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)	
duty cycle < 98% and average over on/off periods with duty factor	
☒ Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).	
☐ Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)	
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.	
If multiple transmit chains, EIRP PPSD calculation could be following as methods: $PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = PPSD_{total} + DG$	

3.3.4 Test Setup



3.3.5 Test Result of Peak Power Spectral Density

Refer as Appendix C

3.4 Unwanted Emissions

3.4.1 Transmitter Radiated Unwanted Emissions Limit

Unwanted emissions below 1 GHz and restricted band emissions above 1GHz 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.

Un-restricted band emissions above 1GHz Limit	
Operating Band	Limit
5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.725 - 5.85 GHz	all emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Note 1: 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).

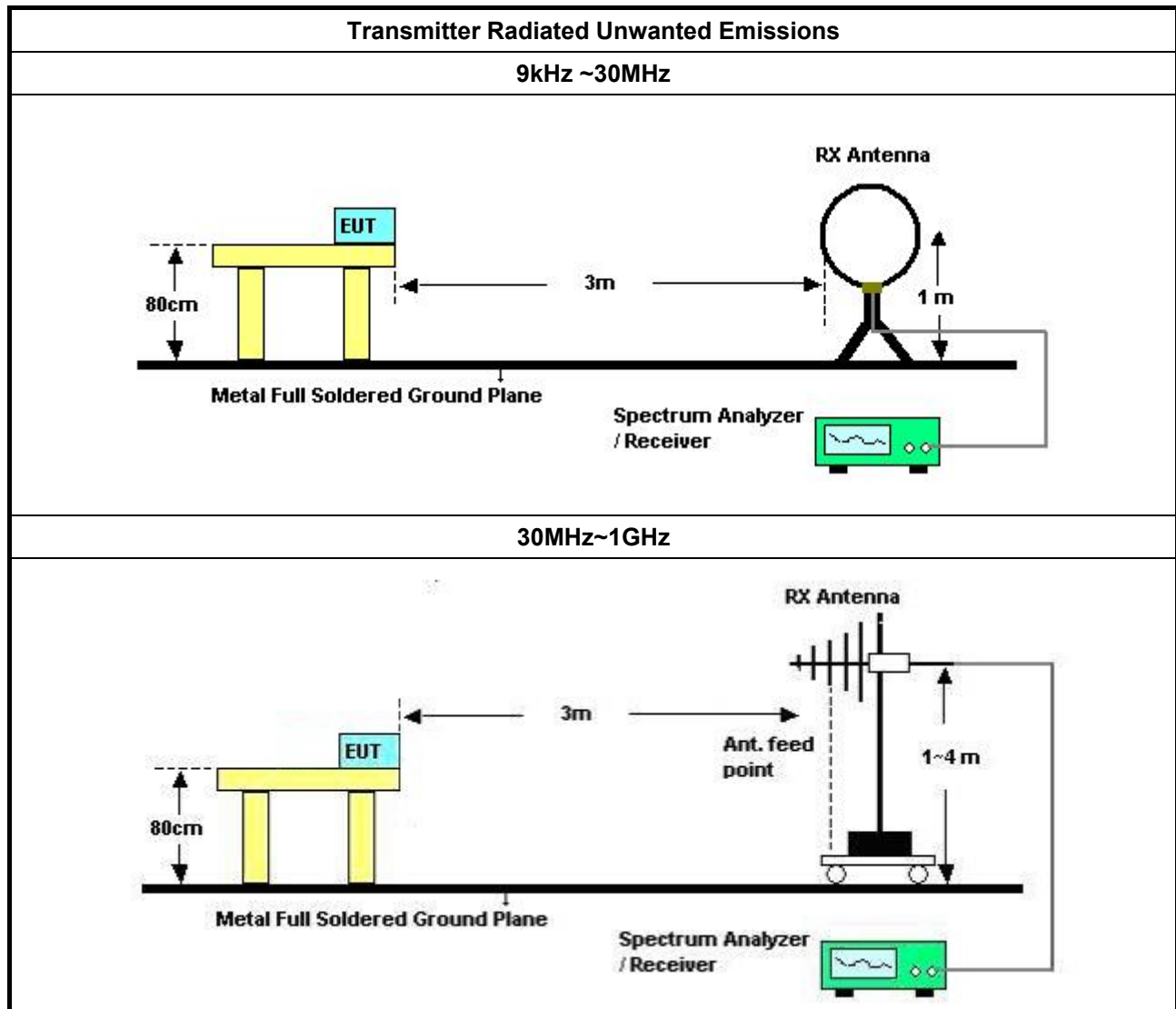
3.4.2 Measuring Instruments

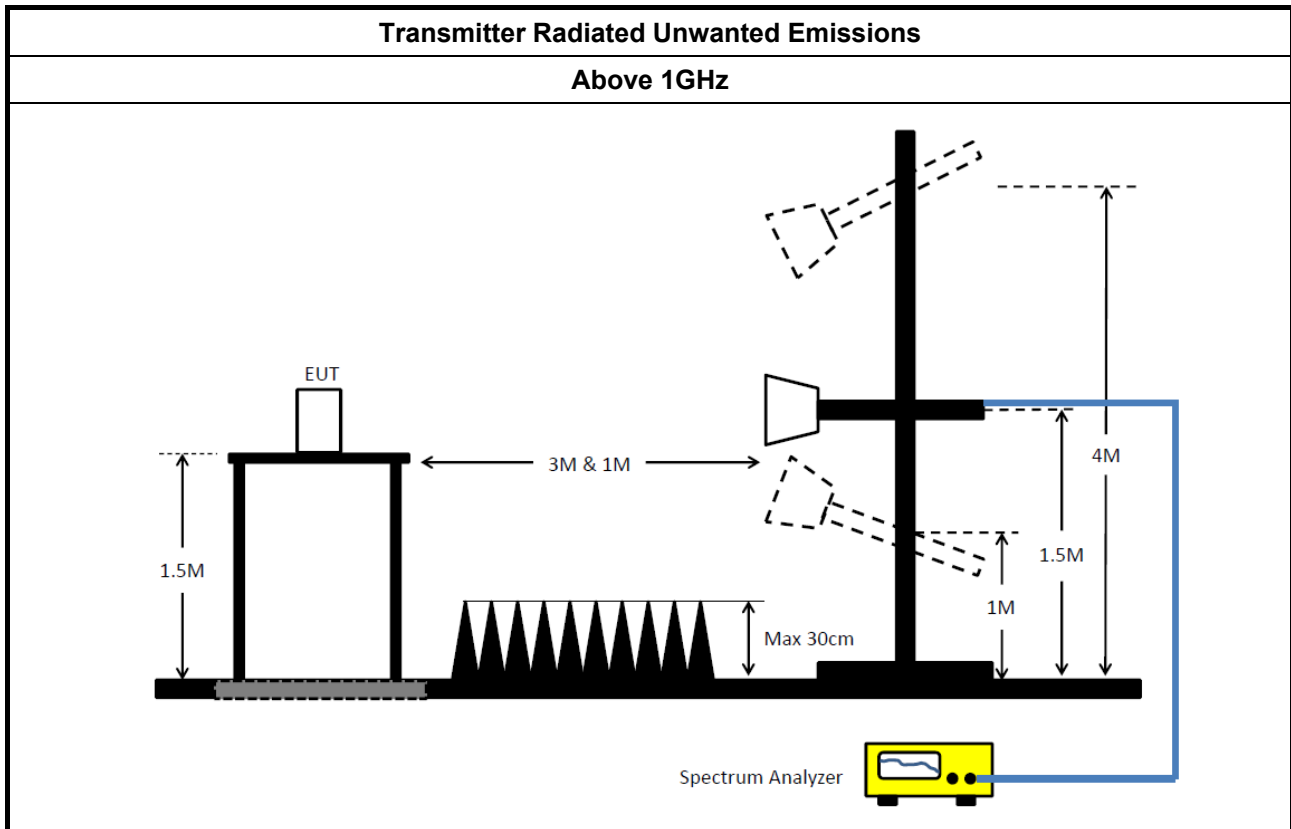
Refer a test equipment and calibration data table in this test report.

3.4.3 Test Procedures

Test Method	
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. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. 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).	
The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].	
For the transmitter unwanted emissions shall be measured using following options below:	
	Refer as FCC KDB 789033, clause H)2) for unwanted emissions into non-restricted bands.
	Refer as FCC KDB 789033, clause H)1) for unwanted emissions into restricted bands.
	☐ Refer as FCC KDB 789033, H)6) Method AD (Trace Averaging).
	☒ Refer as FCC KDB 789033, H)6) Method VB (Reduced VBW).
	☐ Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW $\geq$ 1/T, where T is pulse time.
	☐ Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions.
	☒ Refer as FCC KDB 789033, clause H)5) measurement procedure peak limit.
	☐ Refer as ANSI C63.10, clause 4.2.3.2.2 measurement procedure peak limit.
	For radiated measurement.
	Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.
	Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.
	Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
	The any unwanted emissions level shall not exceed the fundamental emission level.
All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.	

3.4.4 Test Setup





3.4.5 Transmitter 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.

3.4.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix D

3.5 Frequency Stability

3.5.1 Frequency Stability Limit

Frequency Stability Limit
UNII Devices
In-band emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.
LE-LAN Devices
N/A
IEEE Std. 802.11
The transmitter center frequency tolerance shall be ± 20 ppm maximum for the 5 GHz band and ± 25 ppm maximum for the 2.4 GHz band.

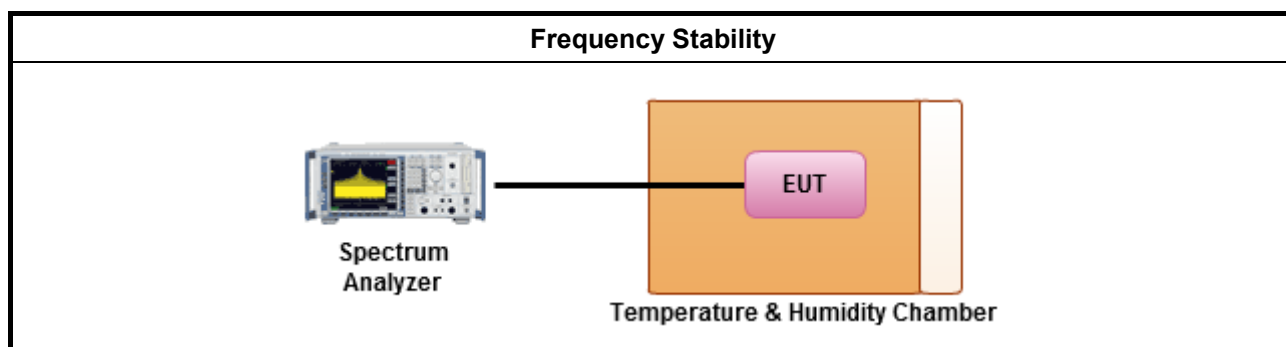
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method
Refer as ANSI C63.10, clause 6.8 for frequency stability tests
- Frequency stability with respect to ambient temperature - Frequency stability when varying supply voltage - Extreme temperature is 0°C~45°C.

3.5.4 Test Setup



3.5.5 Test Result of Frequency Stability

Refer as Appendix E



4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2016*	Mar. 15, 2018*	Radiation (03CH01-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. 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	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)
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
Test Software	Audix	E3	6.2009-I0-7	N/A	N/A	N/A	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 26, 2016	Dec. 25, 2017	Conducted (TH01-CB)
Temp. and Humidity Chamber	Ten Billion	TTH-D3SP	TBN-931011	-30~100 degree	Jun. 02, 2017	Jun. 01, 2018	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)



FCC Test Report

Report No. : FR741722-04

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
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)
Power Sensor	Agilent	U2021XA	MY53410002	50MHz~18GHz	Nov. 22, 2016	Nov. 21, 2017	Conducted (TH01-CB)

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

*Calibration Interval of instruments listed above is two year.

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11a_(6Mbps)_2TX	-	-	-	-	-
5.25-5.35GHz	19.425M	16.525M	16M5D1D	18.95M	16.45M
5.47-5.725GHz	19.3M	16.525M	16M5D1D	14.49M	13.208M
5.725-5.85GHz	3.16M	3.358M	3M36D1D	3.16M	3.358M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-
5.25-5.35GHz	20.35M	17.7M	17M7D1D	20.1M	17.65M
5.47-5.725GHz	20.3M	17.7M	17M7D1D	15.015M	13.808M
5.725-5.85GHz	3.78M	3.898M	3M90D1D	3.76M	3.878M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-
5.25-5.35GHz	40.7M	36.25M	36M2D1D	39.3M	35.982M
5.47-5.725GHz	40.75M	36.35M	36M3D1D	34.685M	32.849M
5.725-5.85GHz	3.14M	3.438M	3M44D1D	3.14M	3.418M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-
5.25-5.35GHz	83.5M	75.662M	75M7D1D	83.2M	75.662M
5.47-5.725GHz	83.3M	75.8M	75M8D1D	76.275M	72.414M
5.725-5.85GHz	3.14M	4.118M	4M12D1D	3.14M	4.078M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Max-OBW = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

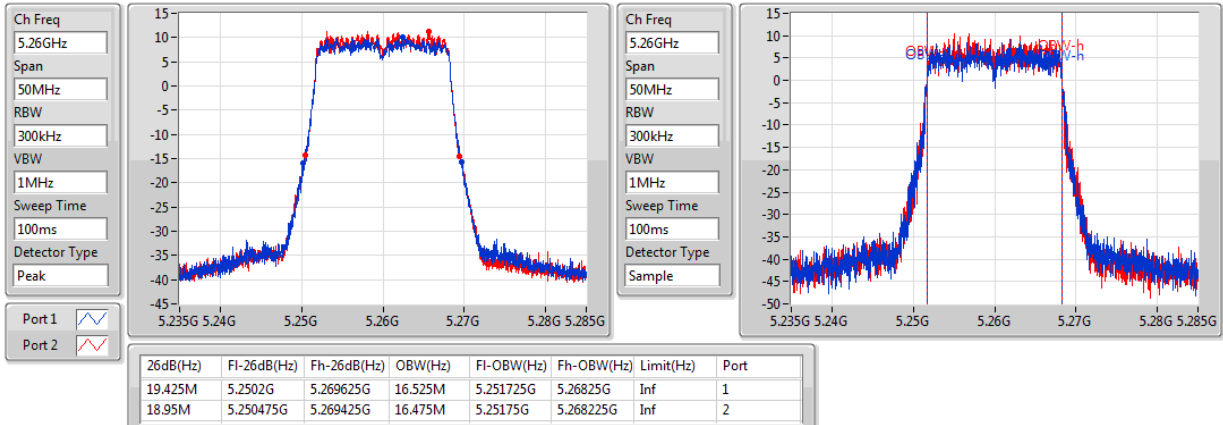
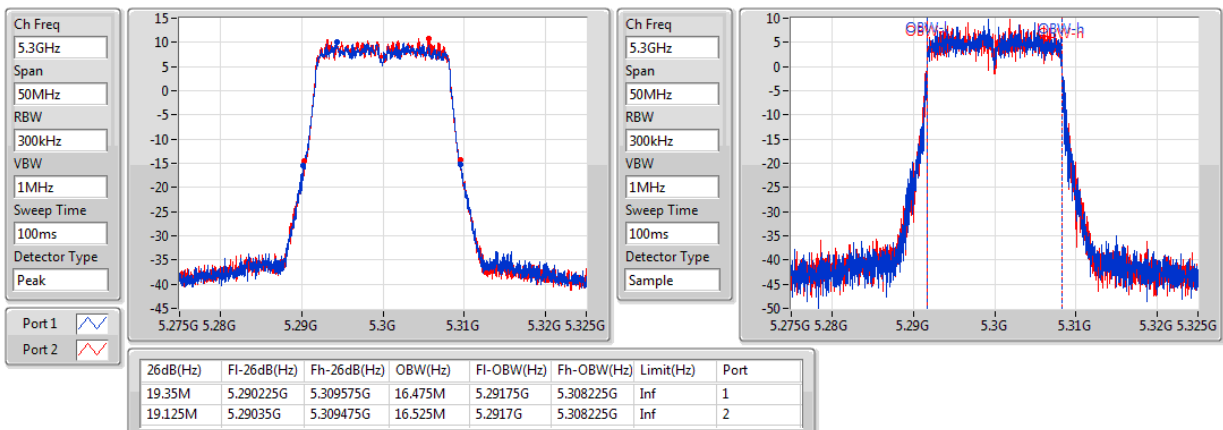
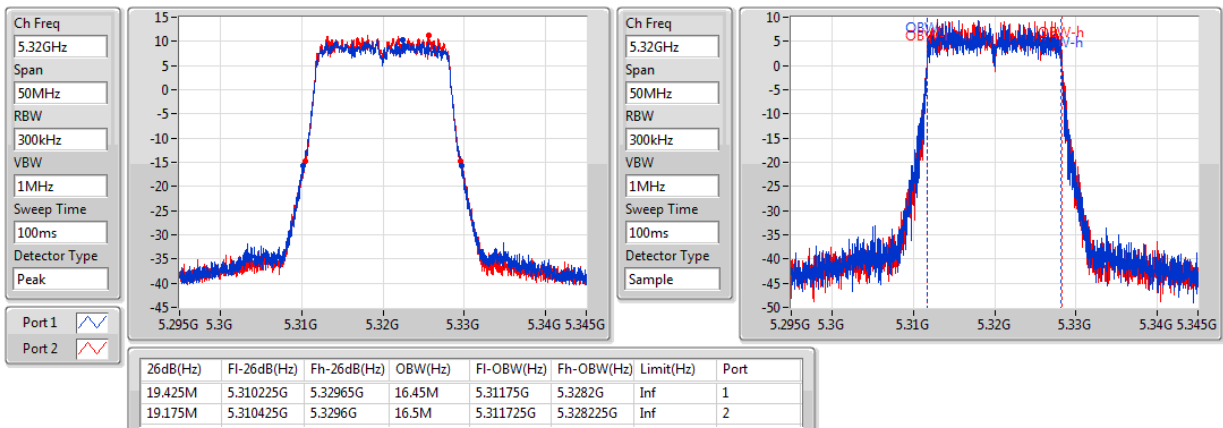
Min-OBW = Minimum 99% occupied bandwidth;

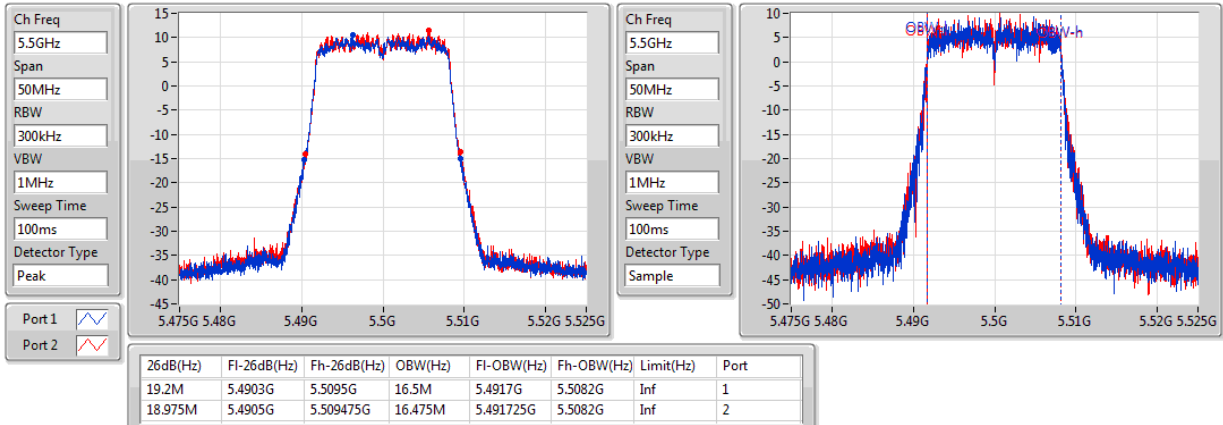
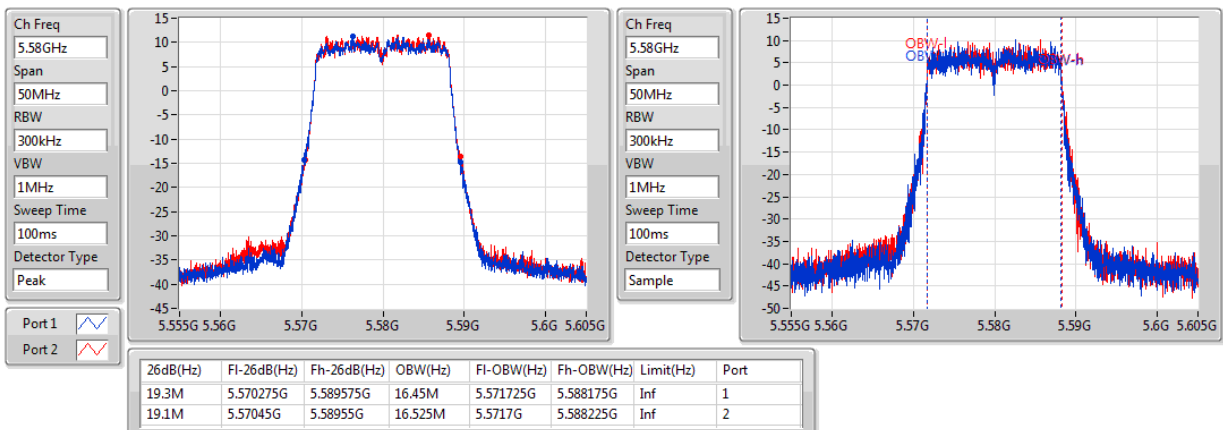
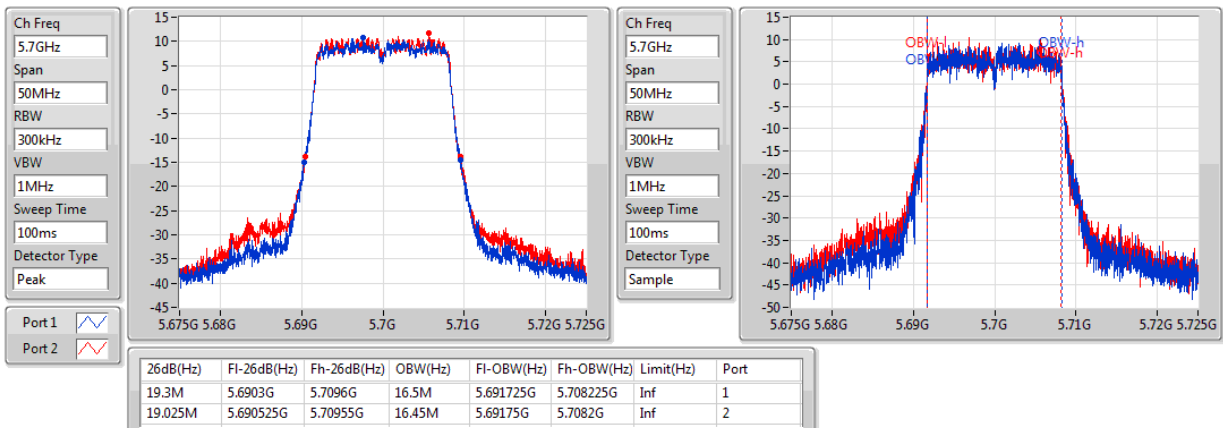
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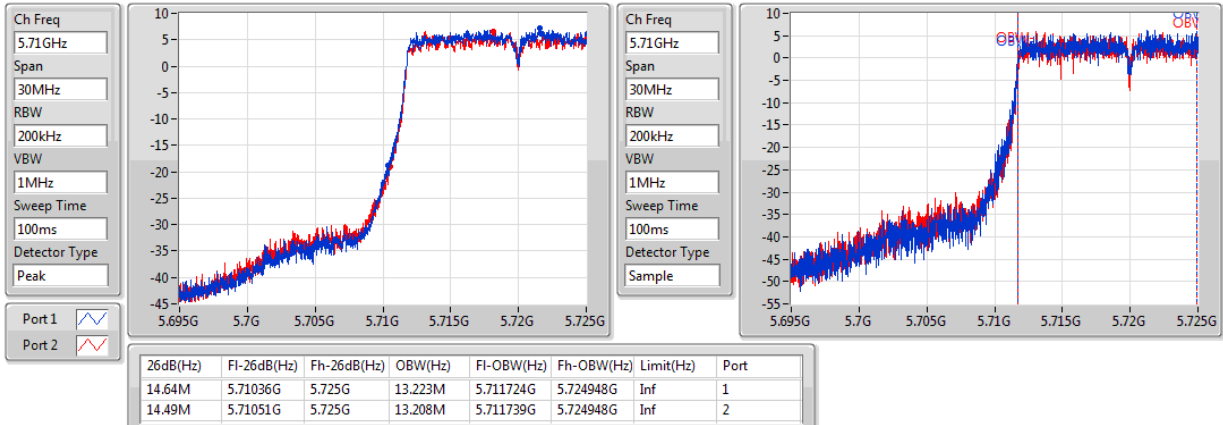
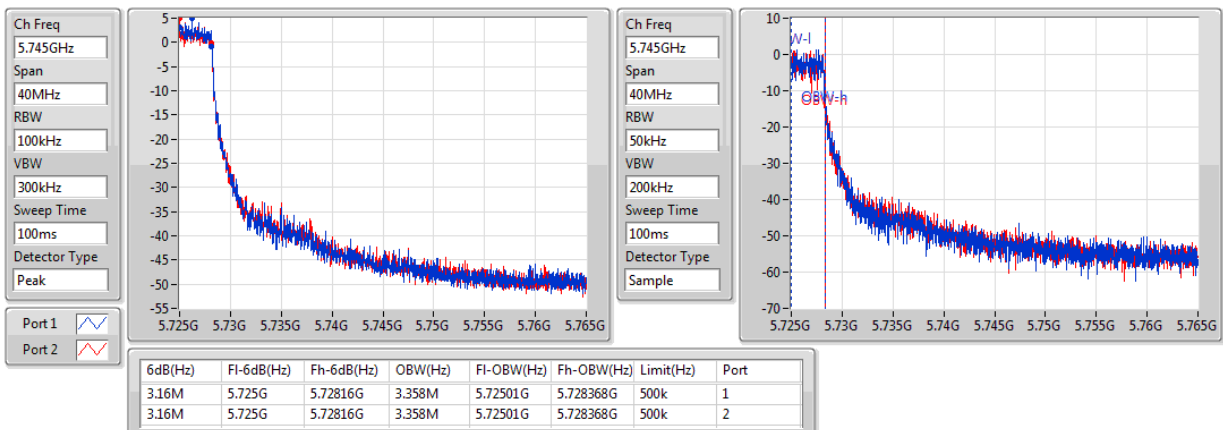
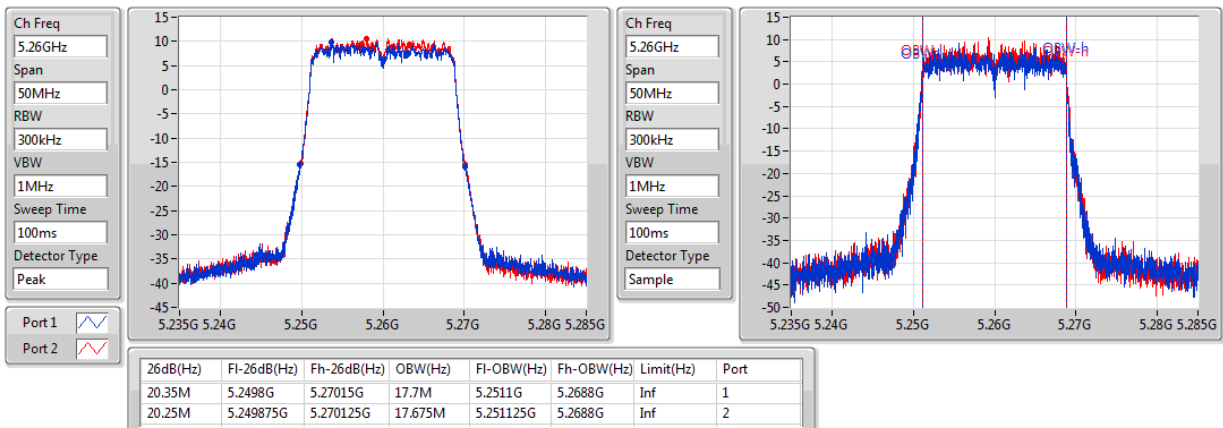
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_(6Mbps)_2TX	-	-	-	-	-	-
5260MHz	Pass	Inf	19.425M	16.525M	18.95M	16.475M
5300MHz	Pass	Inf	19.35M	16.475M	19.125M	16.525M
5320MHz	Pass	Inf	19.425M	16.45M	19.175M	16.5M
5500MHz	Pass	Inf	19.2M	16.5M	18.975M	16.475M
5580MHz	Pass	Inf	19.3M	16.45M	19.1M	16.525M
5700MHz	Pass	Inf	19.3M	16.5M	19.025M	16.45M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	14.64M	13.223M	14.49M	13.208M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.16M	3.358M	3.16M	3.358M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5260MHz	Pass	Inf	20.35M	17.7M	20.25M	17.675M
5300MHz	Pass	Inf	20.175M	17.7M	20.3M	17.65M
5320MHz	Pass	Inf	20.1M	17.65M	20.35M	17.675M
5500MHz	Pass	Inf	20.175M	17.625M	20.3M	17.65M
5580MHz	Pass	Inf	20.175M	17.675M	20.2M	17.6M
5700MHz	Pass	Inf	20.25M	17.7M	20.225M	17.625M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.015M	13.808M	15.015M	13.823M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.76M	3.878M	3.78M	3.898M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5270MHz	Pass	Inf	40.7M	36.25M	40.65M	36.2M
5310MHz	Pass	Inf	39.3M	35.982M	39.65M	36.032M
5510MHz	Pass	Inf	40.45M	36.3M	40.75M	36.15M
5550MHz	Pass	Inf	40.5M	36.35M	40.75M	36.25M
5670MHz	Pass	Inf	40.6M	36.15M	40.7M	36.2M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	34.685M	32.849M	34.685M	32.849M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.14M	3.418M	3.14M	3.438M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5290MHz	Pass	Inf	83.5M	75.662M	83.2M	75.662M
5530MHz	Pass	Inf	83.2M	75.762M	83.2M	75.762M
5610MHz	Pass	Inf	83.3M	75.6M	83.3M	75.8M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	76.275M	72.414M	76.575M	72.414M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.14M	4.118M	3.14M	4.078M

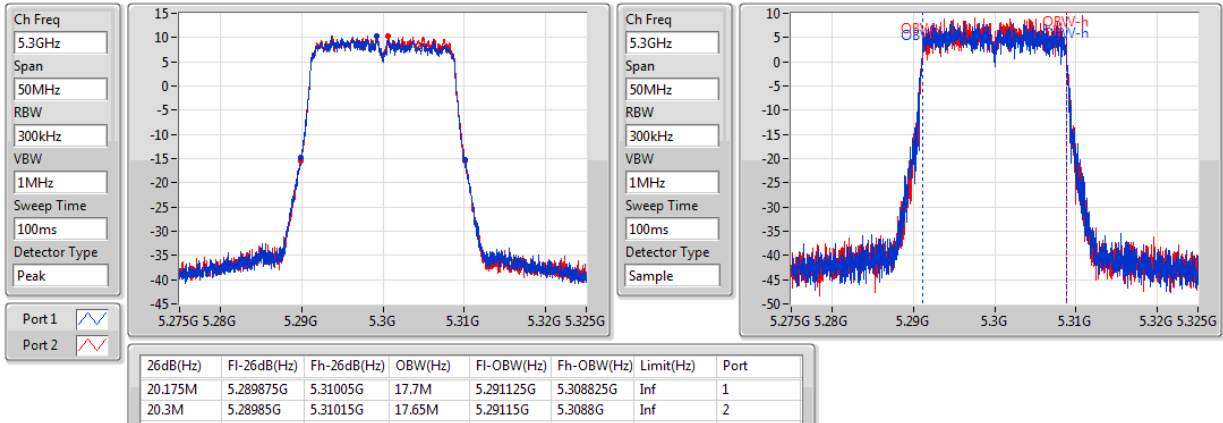
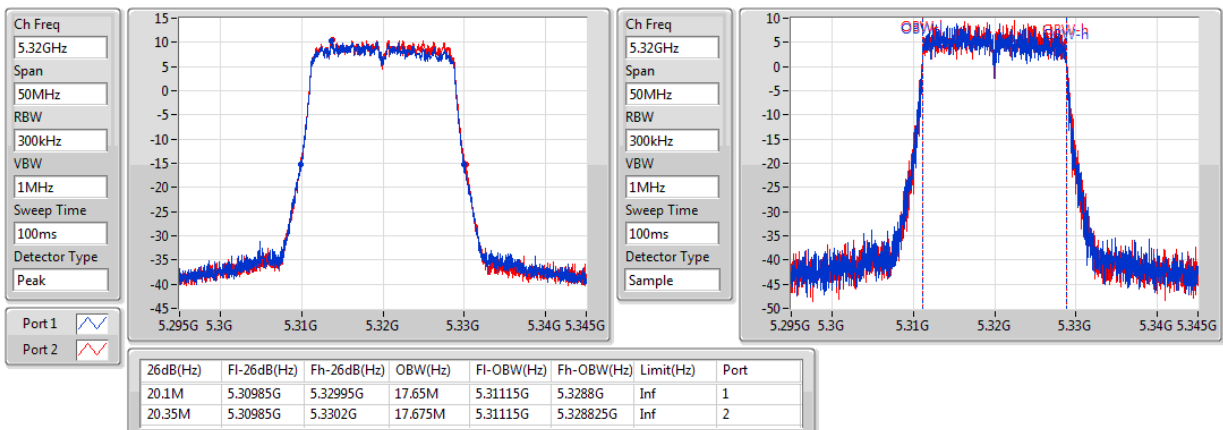
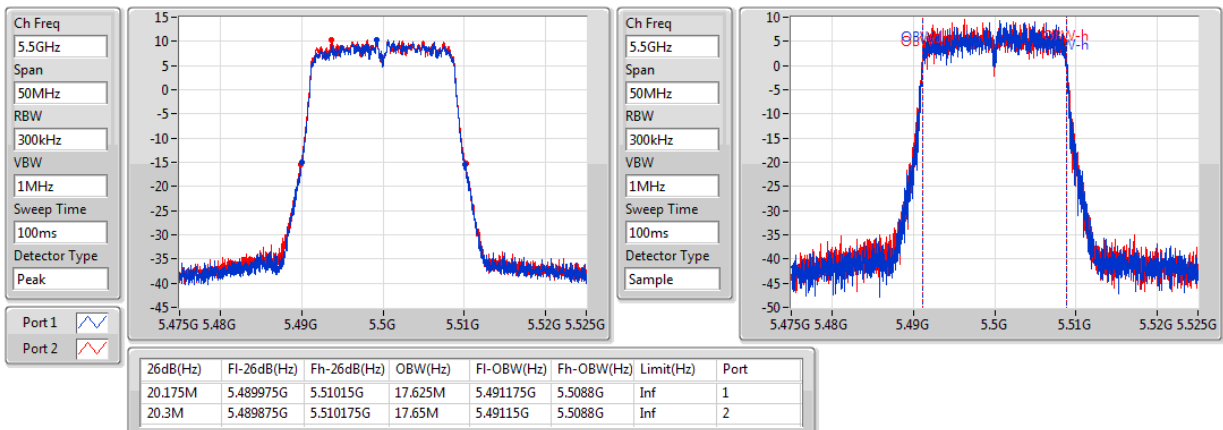
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band

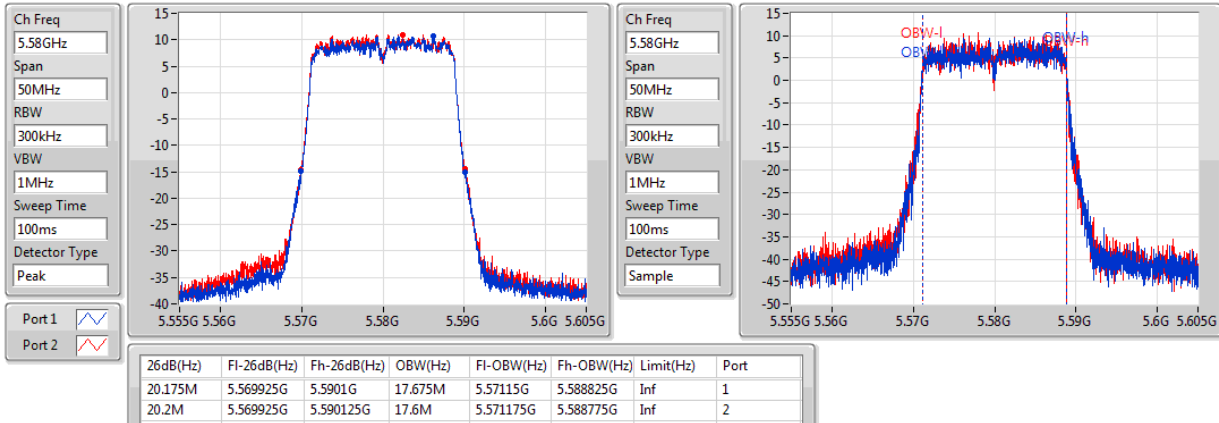
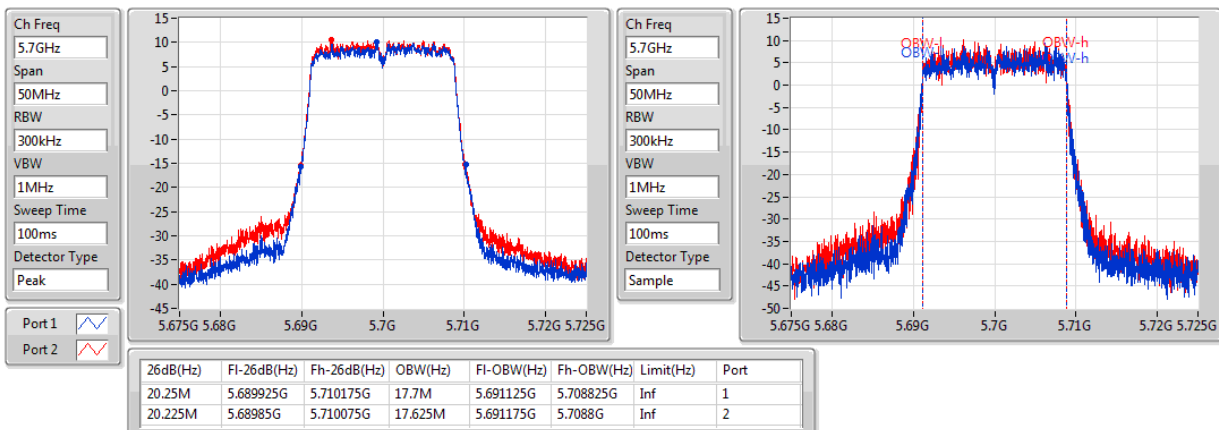
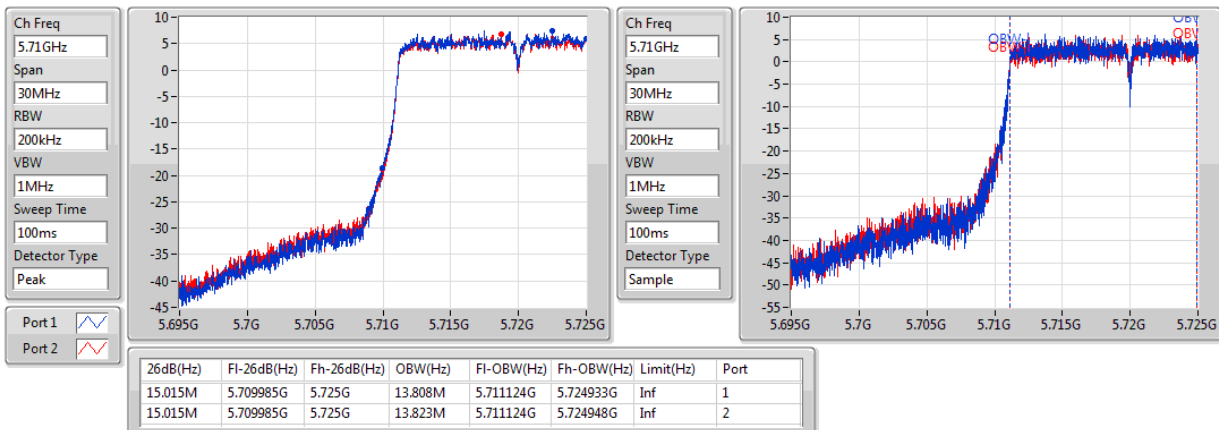
Port X-OBW = Port X 99% occupied bandwidth;

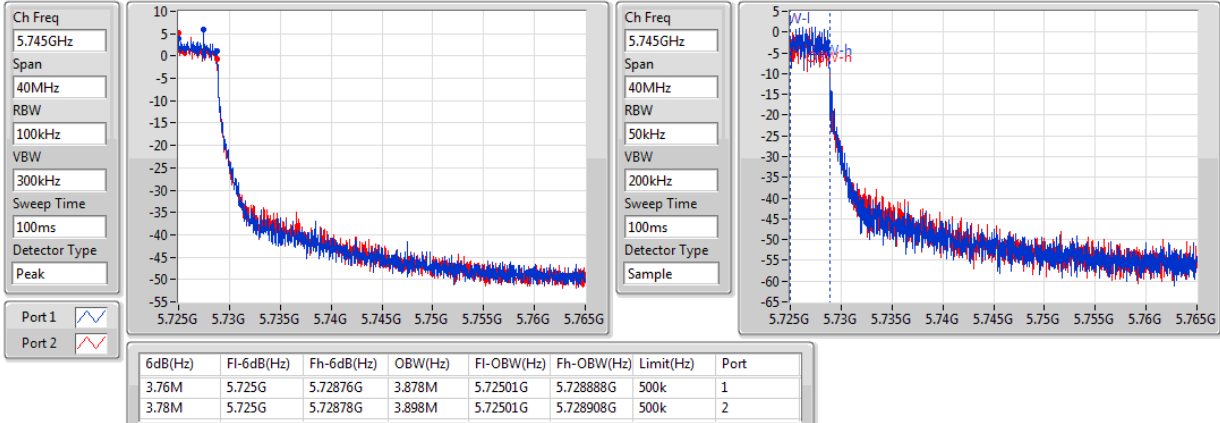
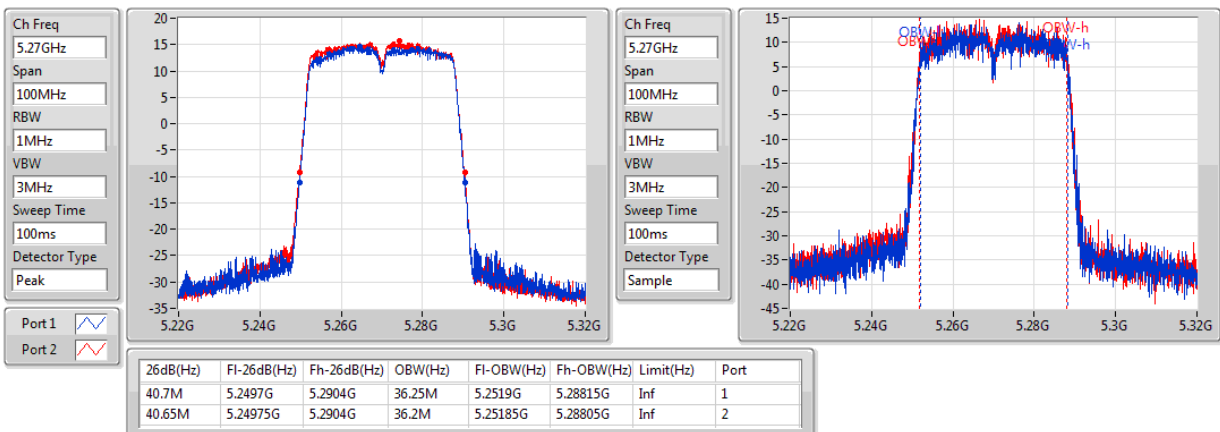
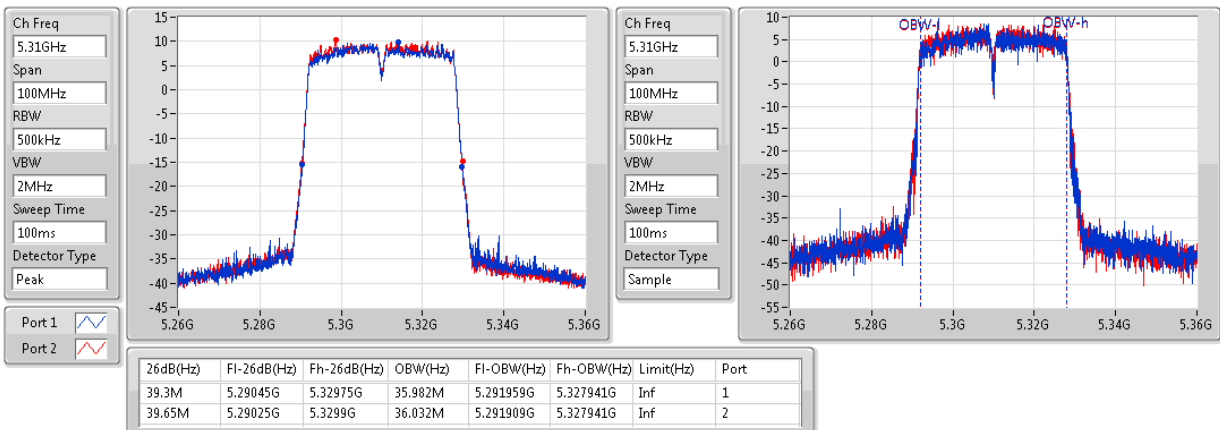
802.11a_(6Mbps)_2TX
EBW
5260MHz

802.11a_(6Mbps)_2TX
EBW
5300MHz

802.11a_(6Mbps)_2TX
EBW
5320MHz


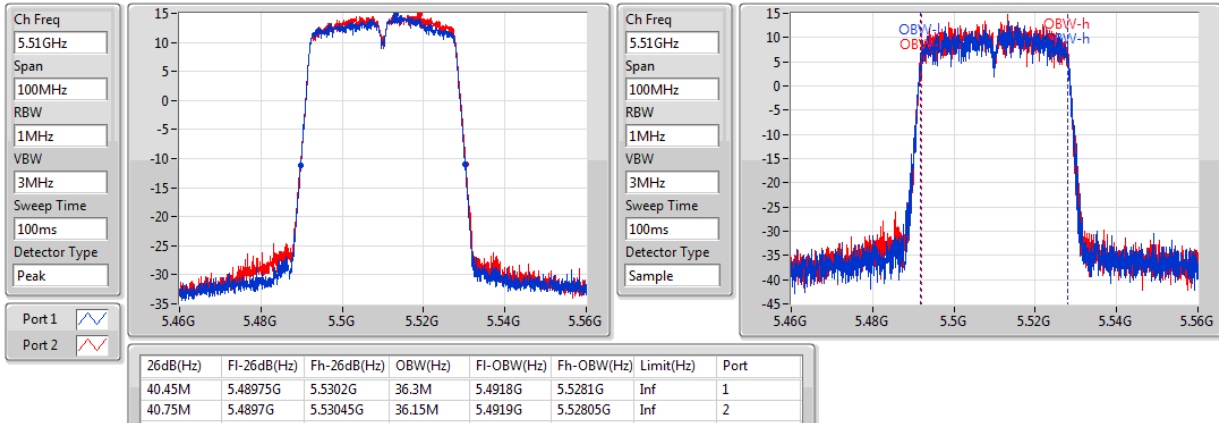
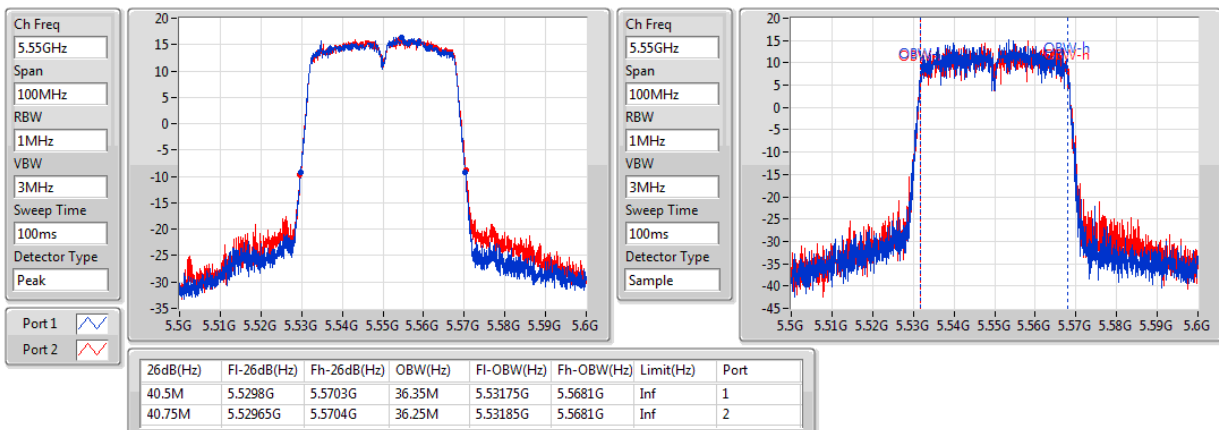
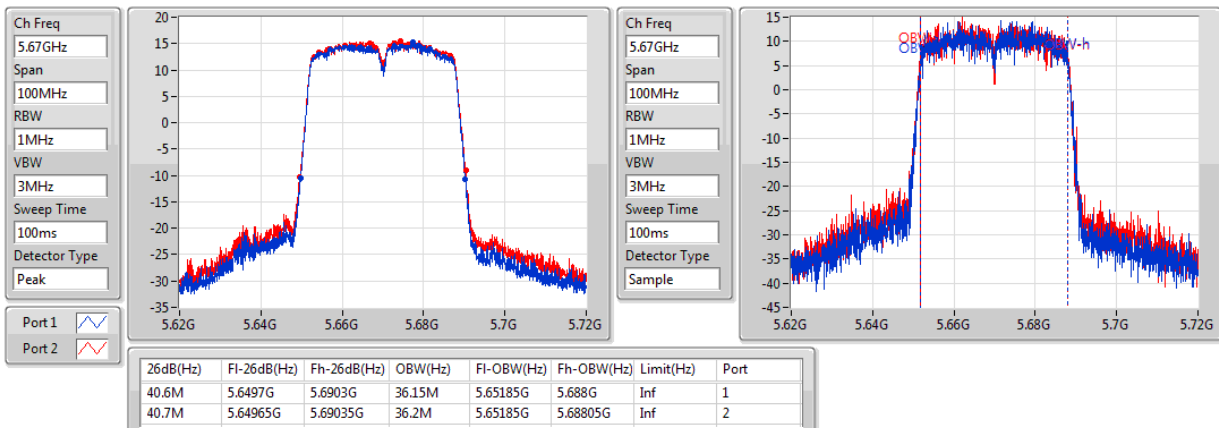
802.11a_(6Mbps)_2TX
EBW
5500MHz

802.11a_(6Mbps)_2TX
EBW
5580MHz

802.11a_(6Mbps)_2TX
EBW
5700MHz


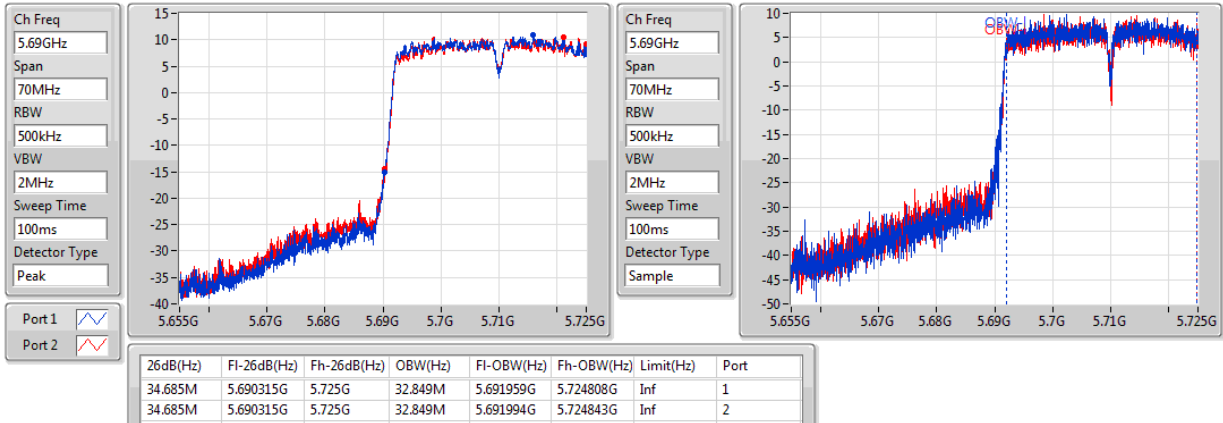
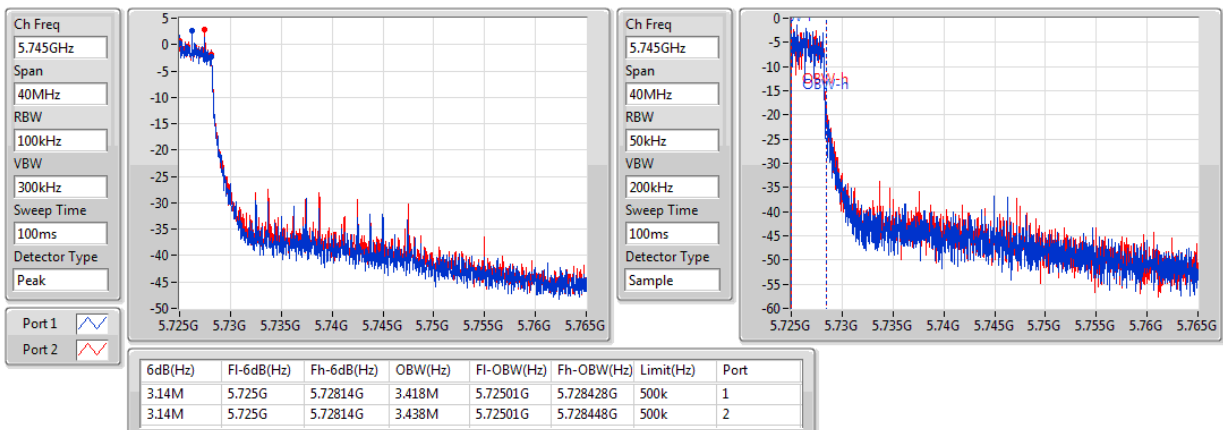
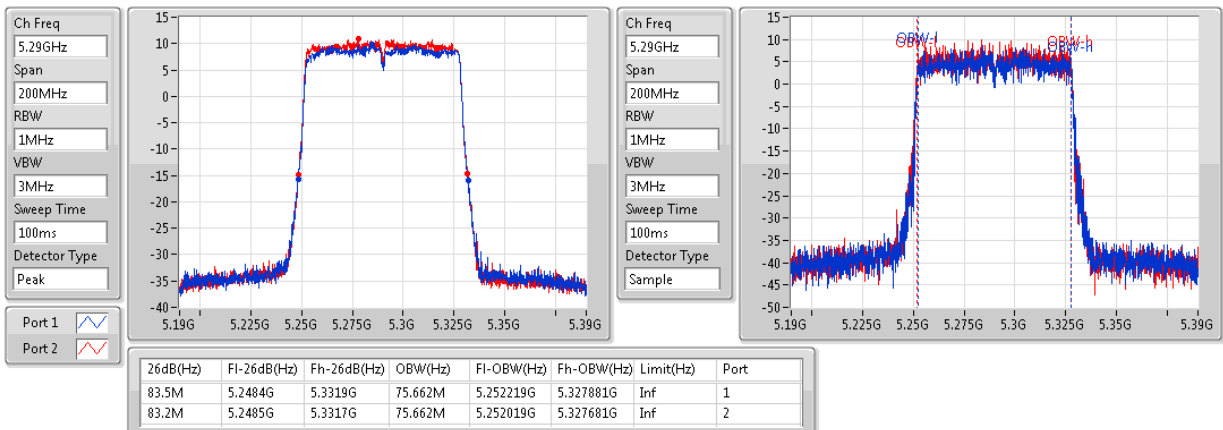
802.11a_(6Mbps)_2TX
EBW
5720MHz Straddle 5.47-5.725GHz

802.11a_(6Mbps)_2TX
EBW
5720MHz Straddle 5.725-5.85GHz

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5260MHz


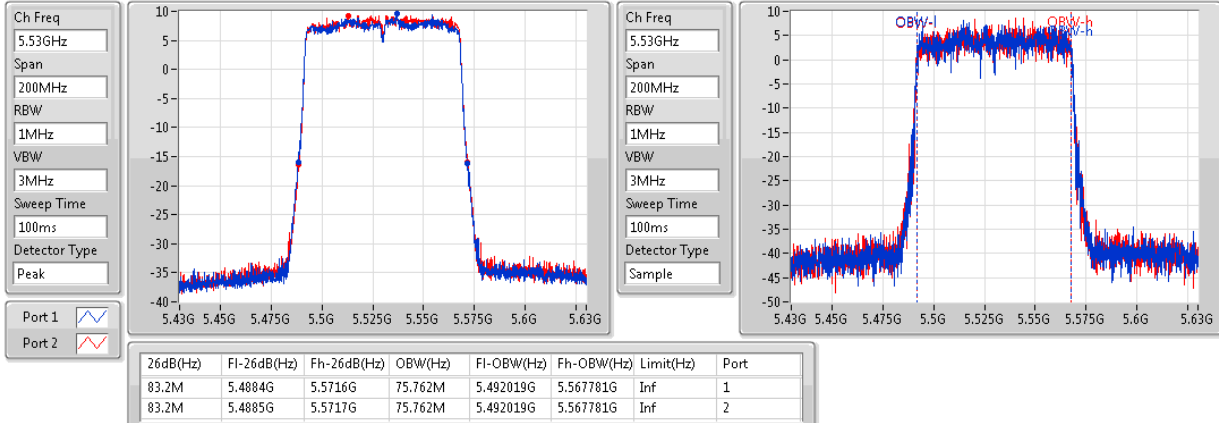
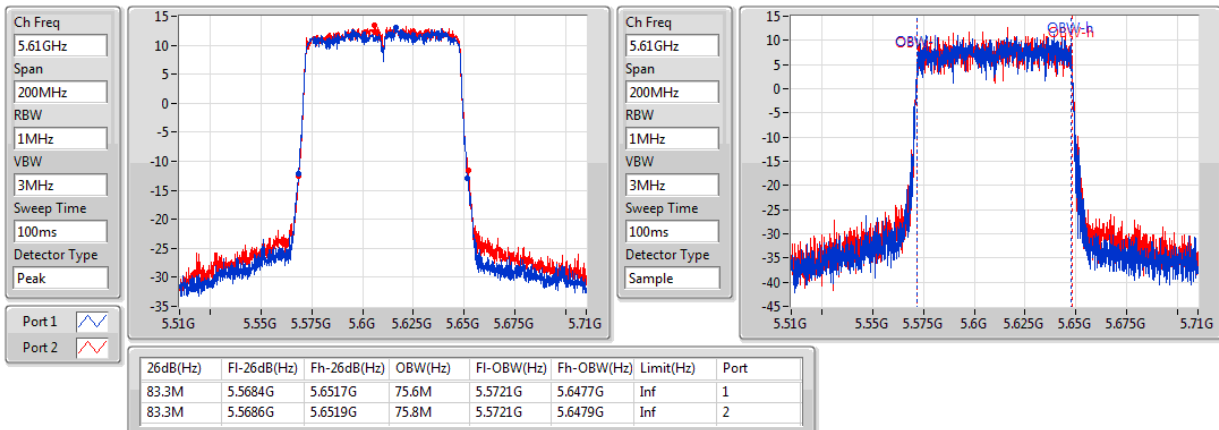
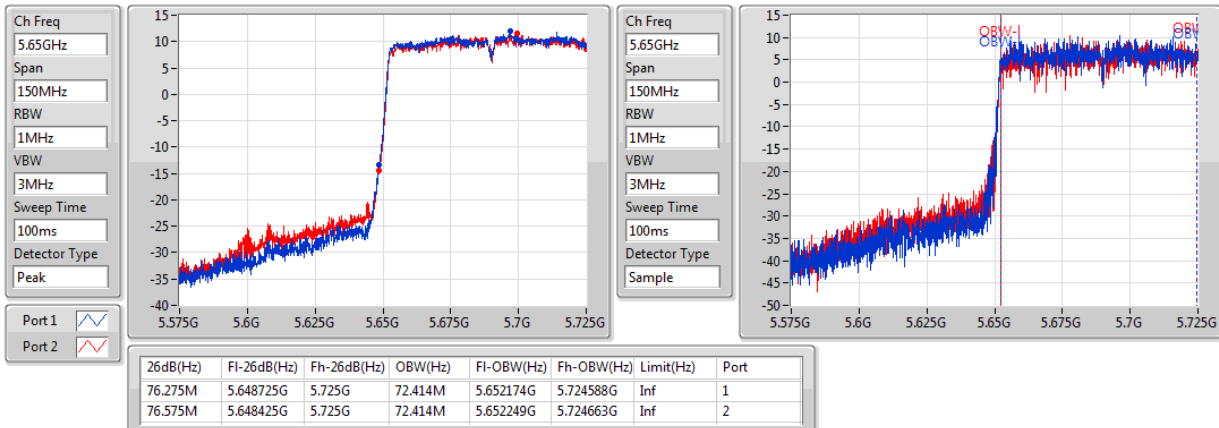
802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5300MHz

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5320MHz

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5500MHz


802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5580MHz

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5700MHz

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5720MHz Straddle 5.47-5.725GHz


802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5720MHz Straddle 5.725-5.85GHz

802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5270MHz

802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5310MHz


802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5510MHz

802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5550MHz

802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5670MHz


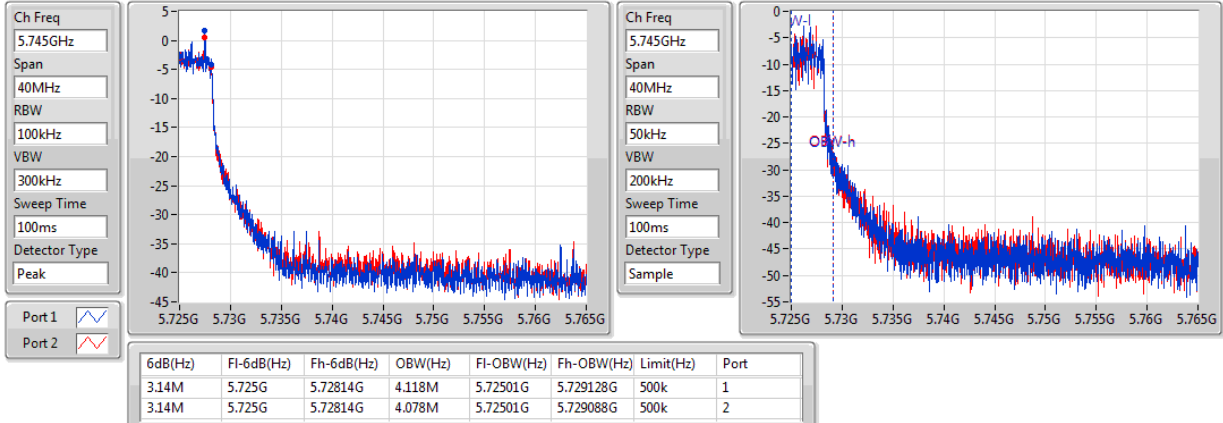
802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5710MHz Straddle 5.47-5.725GHz

802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5710MHz Straddle 5.725-5.85GHz

802.11ac VHT80_Nss1,(MCS0)_2TX
EBW
5290MHz


802.11ac VHT80_Nss1,(MCS0)_2TX
EBW
5530MHz

802.11ac VHT80_Nss1,(MCS0)_2TX
EBW
5610MHz

802.11ac VHT80_Nss1,(MCS0)_2TX
EBW
5690MHz Straddle 5.47-5.725GHz


802.11ac VHT80_Nss1,(MCS0)_2TX

EBW

5690MHz Straddle 5.725-5.85GHz



Summary

Mode	Total Power (dBm)	Total Power (W)
802.11a_(6Mbps)_2TX	-	-
5.25-5.35GHz	21.35	0.13646
5.47-5.725GHz	21.46	0.13996
5.725-5.85GHz	13.99	0.02506
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-
5.25-5.35GHz	21.57	0.14355
5.47-5.725GHz	21.43	0.13900
5.725-5.85GHz	14.70	0.02951
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-
5.25-5.35GHz	23.80	0.23988
5.47-5.725GHz	23.87	0.24378
5.725-5.85GHz	11.36	0.01368
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-
5.25-5.35GHz	22.25	0.16788
5.47-5.725GHz	23.87	0.24378
5.725-5.85GHz	9.48	0.00887

Result

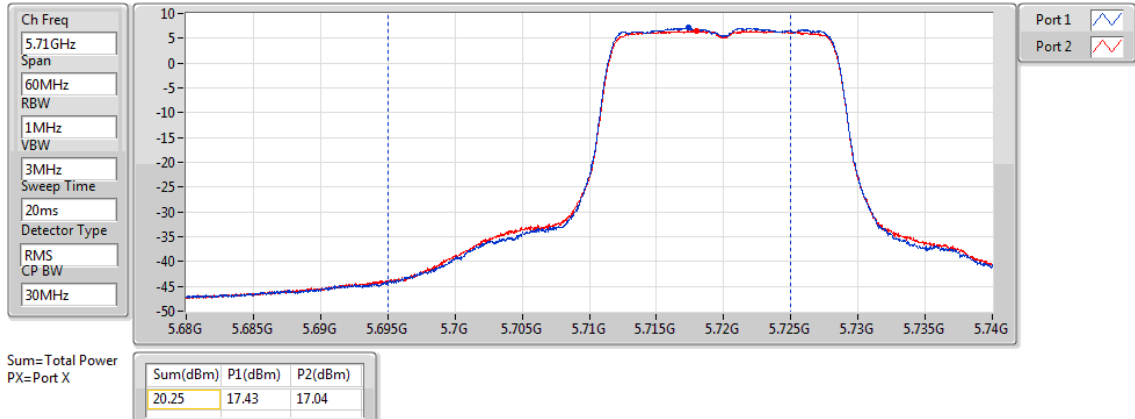
Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_(6Mbps)_2TX	-	-	-	-	-	-
5260MHz	Pass	6.00	18.03	18.62	21.35	23.78
5300MHz	Pass	6.00	17.76	18.37	21.09	23.82
5320MHz	Pass	6.00	17.75	18.42	21.11	23.83
5500MHz	Pass	6.10	18.04	18.17	21.12	23.68
5580MHz	Pass	6.10	18.09	18.18	21.15	23.71
5700MHz	Pass	6.10	18.21	18.68	21.46	23.69
5720MHz Straddle 5.47-5.725GHz	Pass	6.10	17.43	17.04	20.25	22.51
5720MHz Straddle 5.725-5.85GHz	Pass	5.90	11.21	10.74	13.99	30.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5260MHz	Pass	6.00	18.01	18.62	21.34	23.98
5300MHz	Pass	6.00	18.14	18.73	21.46	23.98
5320MHz	Pass	6.00	18.32	18.79	21.57	23.98
5500MHz	Pass	6.10	18.08	18.25	21.18	23.88
5580MHz	Pass	6.10	18.06	18.37	21.23	23.88
5700MHz	Pass	6.10	18.17	18.65	21.43	23.88
5720MHz Straddle 5.47-5.725GHz	Pass	6.10	17.45	17.26	20.37	22.67
5720MHz Straddle 5.725-5.85GHz	Pass	5.90	11.96	11.40	14.70	30.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5270MHz	Pass	6.00	20.65	20.92	23.80	23.98
5310MHz	Pass	6.00	19.23	19.59	22.42	23.98
5510MHz	Pass	6.10	19.51	19.87	22.70	23.88
5550MHz	Pass	6.10	20.81	20.90	23.87	23.88
5670MHz	Pass	6.10	20.75	20.94	23.86	23.88
5710MHz Straddle 5.47-5.725GHz	Pass	6.10	20.09	19.81	22.96	23.88
5710MHz Straddle 5.725-5.85GHz	Pass	5.90	8.24	8.45	11.36	30.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5290MHz	Pass	6.00	18.98	19.48	22.25	23.98
5530MHz	Pass	6.10	18.02	18.24	21.14	23.88
5610MHz	Pass	6.10	20.78	20.94	23.87	23.88
5690MHz Straddle 5.47-5.725GHz	Pass	6.10	20.85	20.46	23.67	23.88
5690MHz Straddle 5.725-5.85GHz	Pass	5.90	6.46	6.48	9.48	30.00

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

802.11a_(6Mbps)_2TX

AV Power

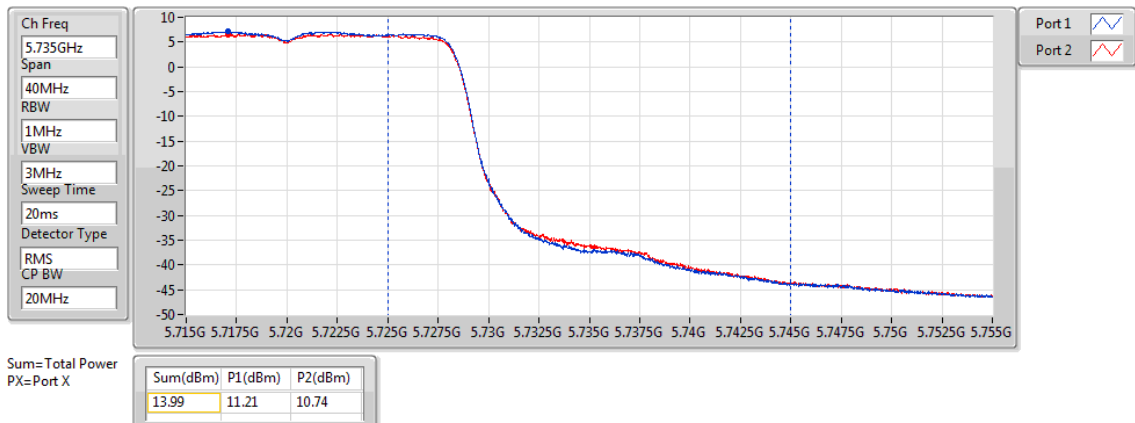
5720MHz Straddle 5.47-5.725GHz



802.11a_(6Mbps)_2TX

AV Power

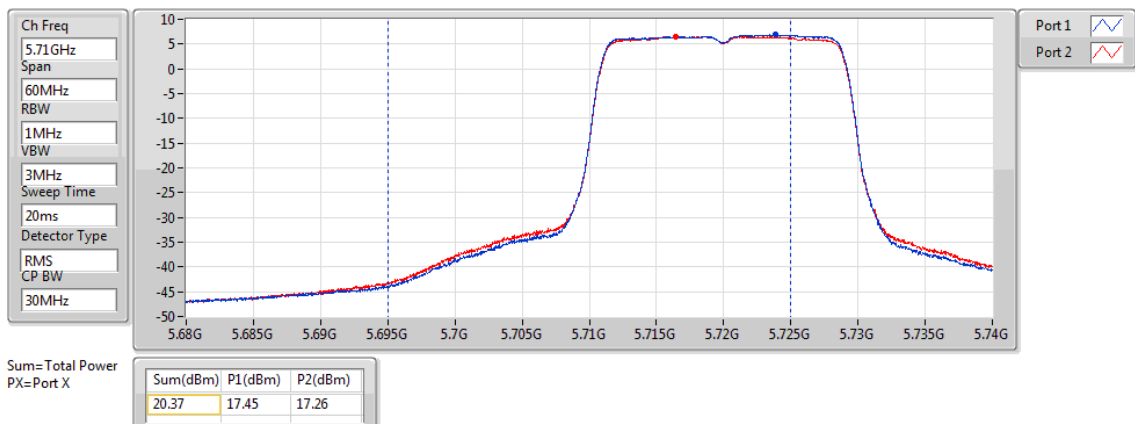
5720MHz Straddle 5.725-5.85GHz



802.11ac VHT20_Nss1,(MCS0)_2TX

AV Power

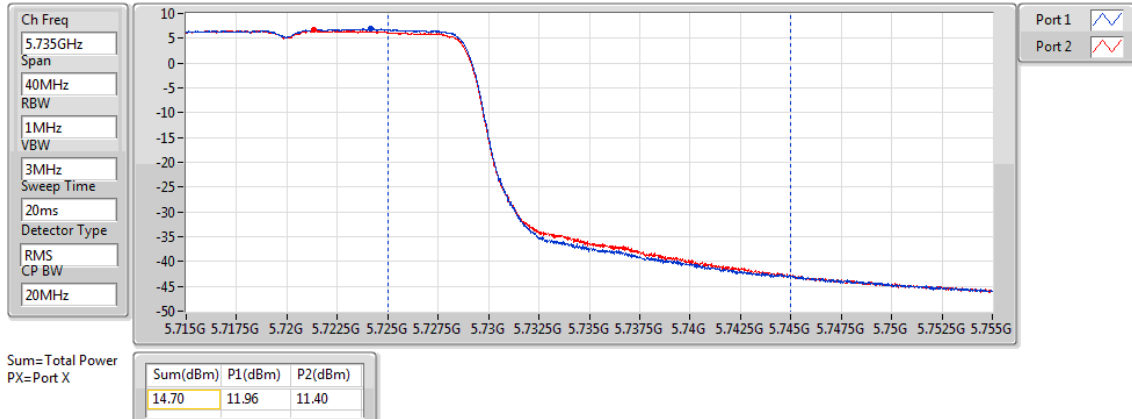
5720MHz Straddle 5.47-5.725GHz



802.11ac VHT20_Nss1,(MCS0)_2TX

AV Power

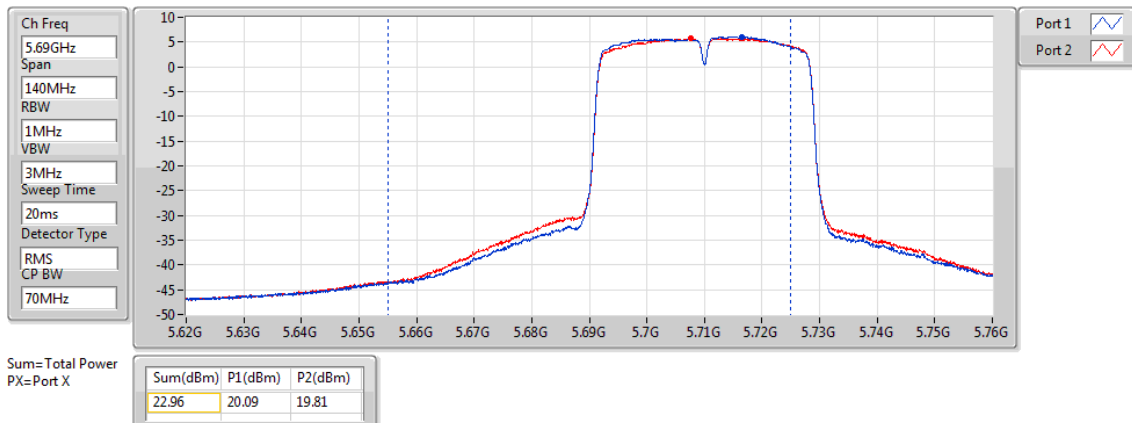
5720MHz Straddle 5.725-5.85GHz



802.11ac VHT40_Nss1,(MCS0)_2TX

AV Power

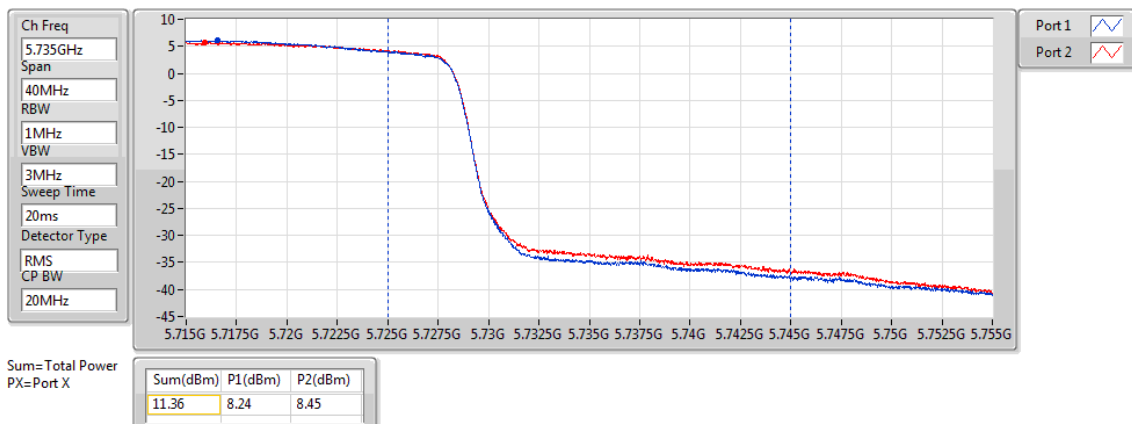
5710MHz Straddle 5.47-5.725GHz



802.11ac VHT40_Nss1,(MCS0)_2TX

AV Power

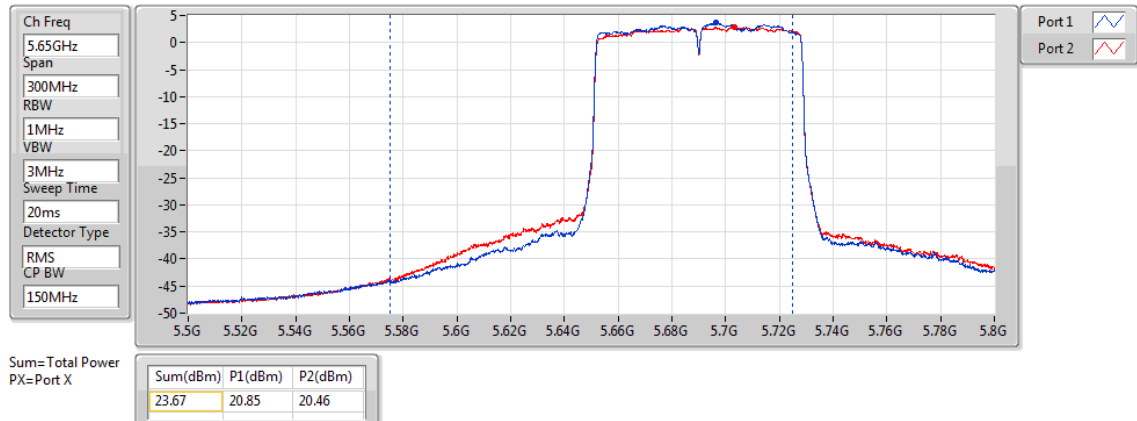
5710MHz Straddle 5.725-5.85GHz



802.11ac VHT80_Nss1,(MCS0)_2TX

AV Power

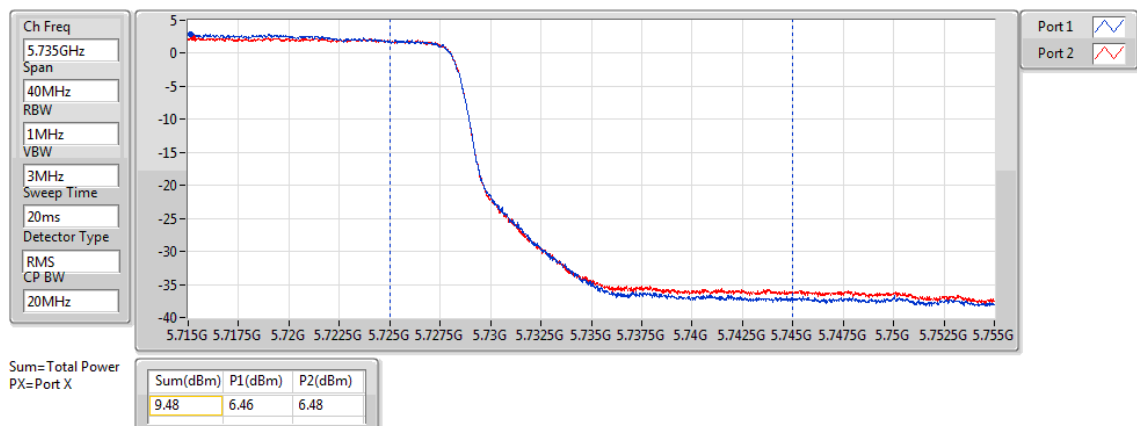
5690MHz Straddle 5.47-5.725GHz



802.11ac VHT80_Nss1,(MCS0)_2TX

AV Power

5690MHz Straddle 5.725-5.85GHz



Summary

Mode	PD (dBm/RBW)
802.11a_(6Mbps)_2TX	-
5.25-5.35GHz	8.08
5.47-5.725GHz	8.22
5.725-5.85GHz	6.45
802.11ac VHT20_Nss1,(MCS0)_2TX	-
5.25-5.35GHz	8.08
5.47-5.725GHz	8.17
5.725-5.85GHz	6.49
802.11ac VHT40_Nss1,(MCS0)_2TX	-
5.25-5.35GHz	7.61
5.47-5.725GHz	8.19
5.725-5.85GHz	4.09
802.11ac VHT80_Nss1,(MCS0)_2TX	-
5.25-5.35GHz	3.82
5.47-5.725GHz	5.49
5.725-5.85GHz	2.05

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

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_(6Mbps)_2TX	-	-	-	-	-	-
5260MHz	Pass	8.91	4.94	5.33	8.08	8.09
5300MHz	Pass	8.91	4.87	4.72	7.72	8.09
5320MHz	Pass	8.91	4.72	5.06	7.73	8.09
5500MHz	Pass	8.77	5.03	5.17	8.02	8.23
5580MHz	Pass	8.77	5.17	5.17	8.12	8.23
5700MHz	Pass	8.77	5.17	5.44	8.22	8.23
5720MHz Straddle 5.47-5.725GHz	Pass	8.77	5.54	4.97	8.21	8.23
5720MHz Straddle 5.725-5.85GHz	Pass	8.28	3.58	3.33	6.45	27.72
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5260MHz	Pass	8.91	4.63	5.33	7.89	8.09
5300MHz	Pass	8.91	4.93	5.07	7.94	8.09
5320MHz	Pass	8.91	5.03	5.25	8.08	8.09
5500MHz	Pass	8.77	4.96	4.94	7.91	8.23
5580MHz	Pass	8.77	5.04	5.26	8.06	8.23
5700MHz	Pass	8.77	4.99	5.35	8.11	8.23
5720MHz Straddle 5.47-5.725GHz	Pass	8.77	5.41	5.08	8.17	8.23
5720MHz Straddle 5.725-5.85GHz	Pass	8.28	3.78	3.17	6.49	27.72
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5270MHz	Pass	8.91	4.40	5.02	7.61	8.09
5310MHz	Pass	8.91	3.72	3.73	6.67	8.09
5510MHz	Pass	8.77	4.10	4.15	7.06	8.23
5550MHz	Pass	8.77	5.42	5.01	8.19	8.23
5670MHz	Pass	8.77	4.79	5.16	7.87	8.23
5710MHz Straddle 5.47-5.725GHz	Pass	8.77	4.63	4.17	7.38	8.23
5710MHz Straddle 5.725-5.85GHz	Pass	8.28	1.02	1.15	4.09	27.72
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5290MHz	Pass	8.91	0.72	1.17	3.82	8.09
5530MHz	Pass	8.77	-0.21	-0.29	2.73	8.23
5610MHz	Pass	8.77	2.61	2.61	5.49	8.23
5690MHz Straddle 5.47-5.725GHz	Pass	8.77	2.04	1.17	4.64	8.23
5690MHz Straddle 5.725-5.85GHz	Pass	8.28	-0.95	-0.93	2.05	27.72

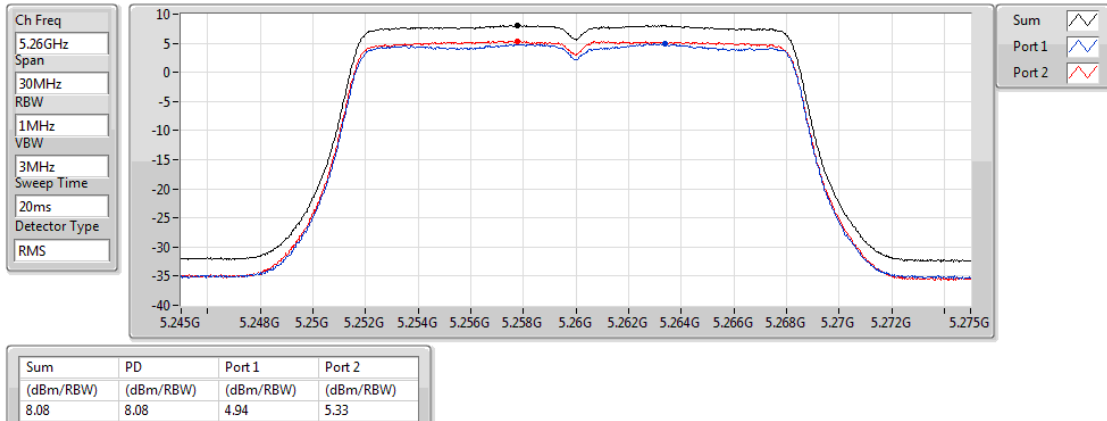
DG = Directional Gain; **RBW** = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

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

802.11a_(6Mbps)_2TX

PSD

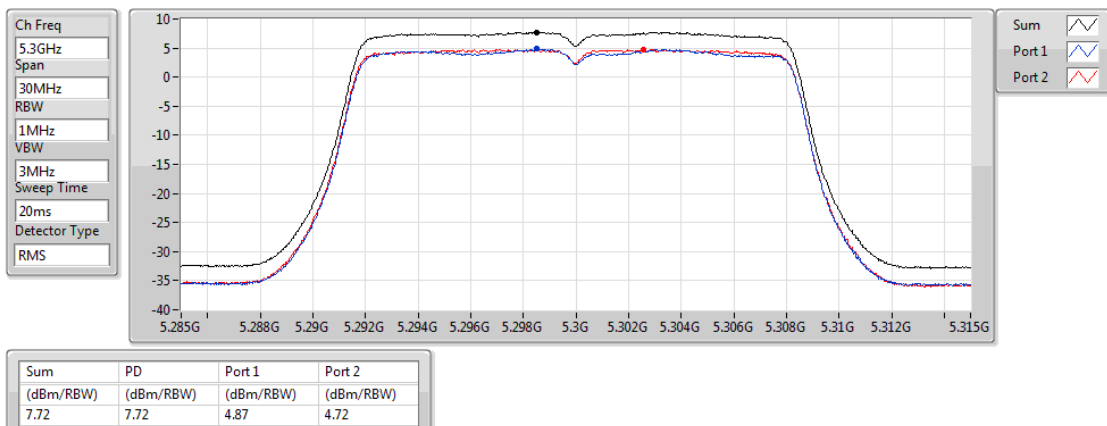
5260MHz



802.11a_(6Mbps)_2TX

PSD

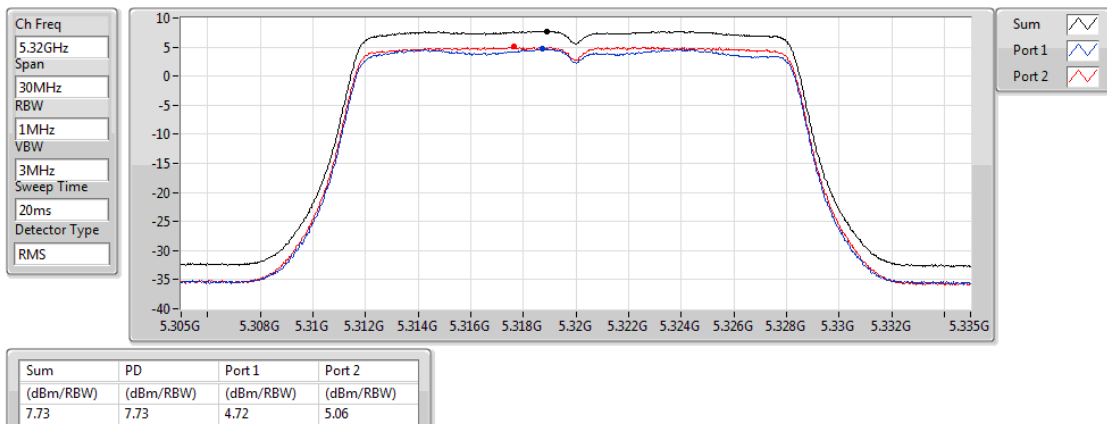
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802.11a_(6Mbps)_2TX

PSD

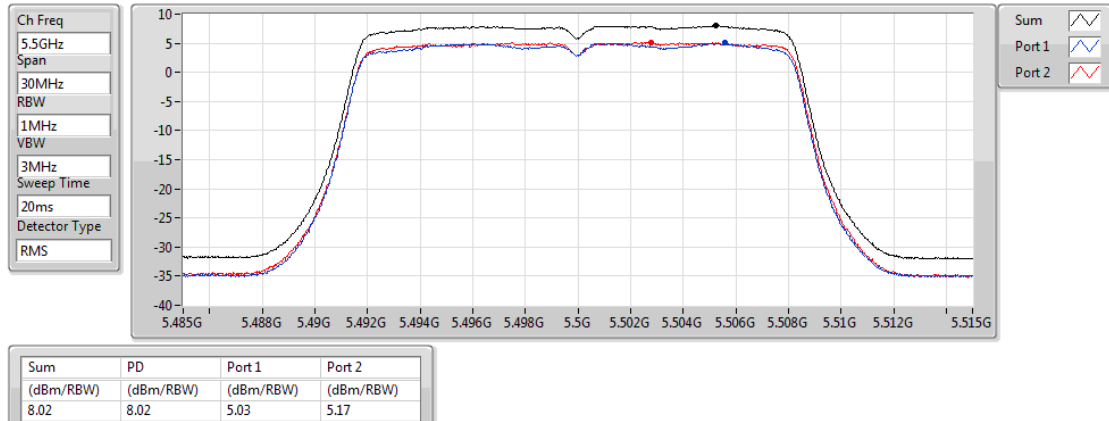
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802.11a_(6Mbps)_2TX

PSD

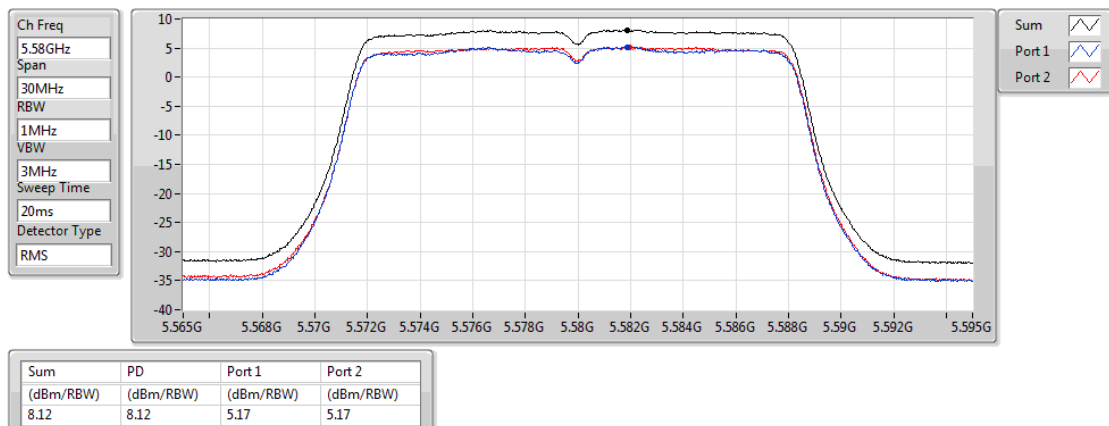
5500MHz



802.11a_(6Mbps)_2TX

PSD

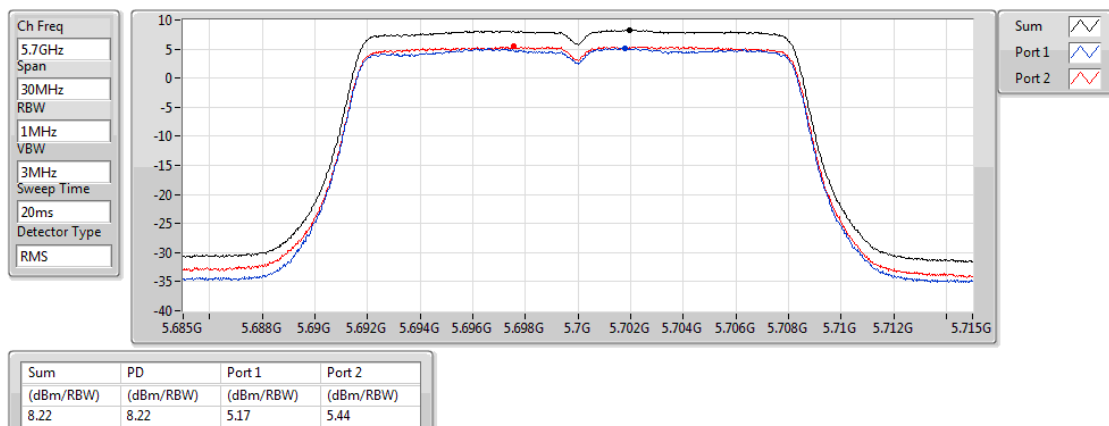
5580MHz



802.11a_(6Mbps)_2TX

PSD

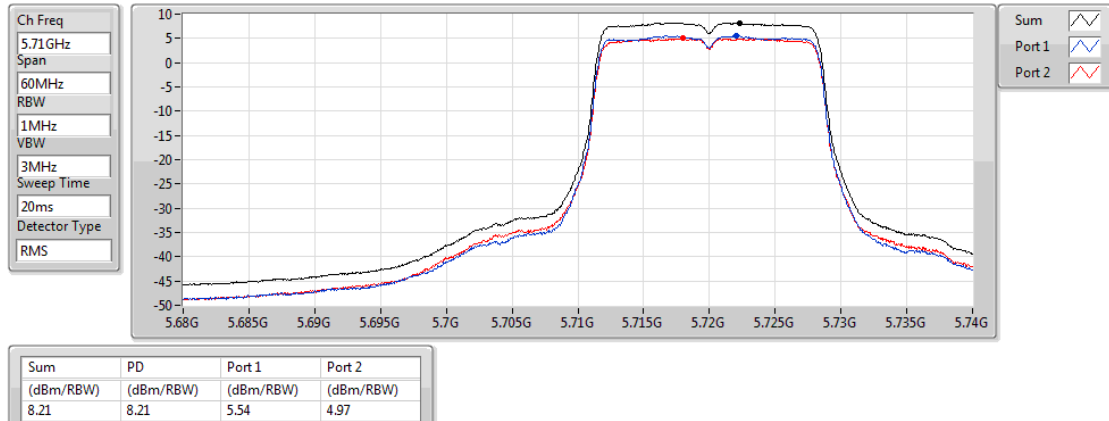
5700MHz



802.11a_(6Mbps)_2TX

PSD

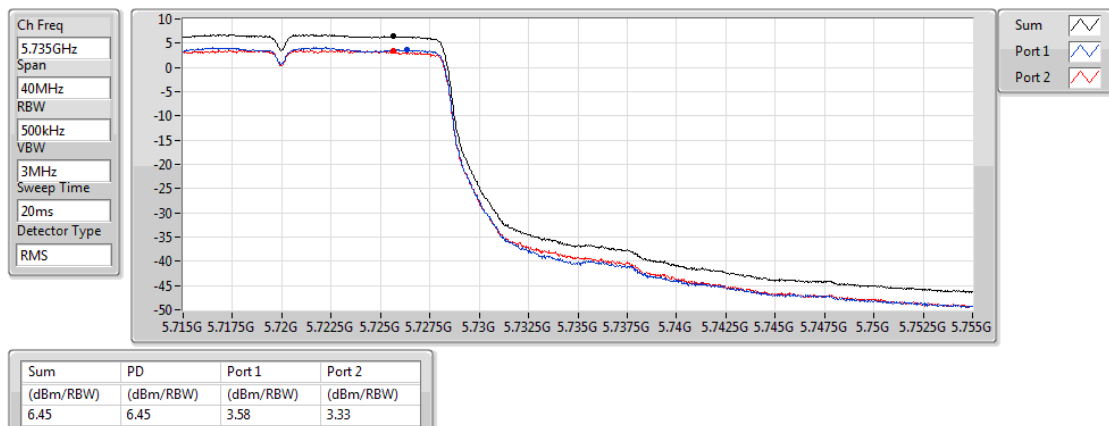
5720MHz Straddle 5.47-5.725GHz



802.11a_(6Mbps)_2TX

PSD

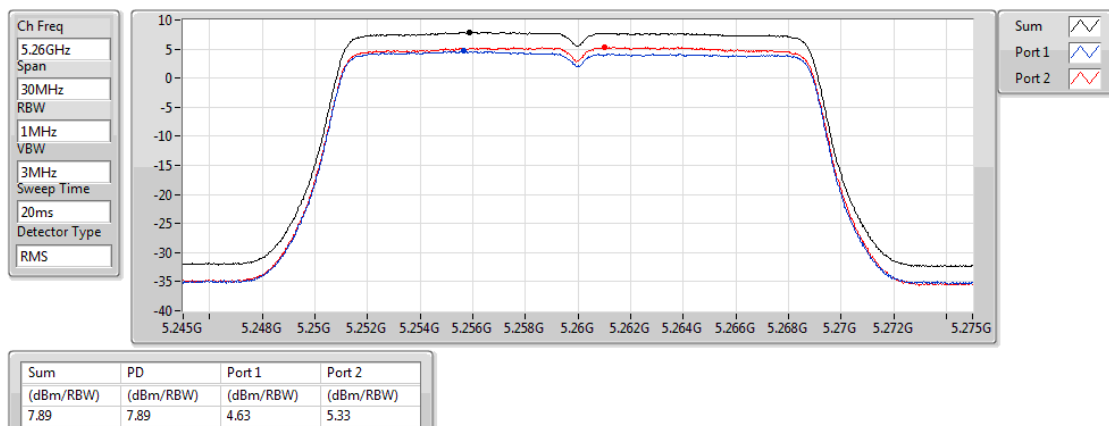
5720MHz Straddle 5.725-5.85GHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

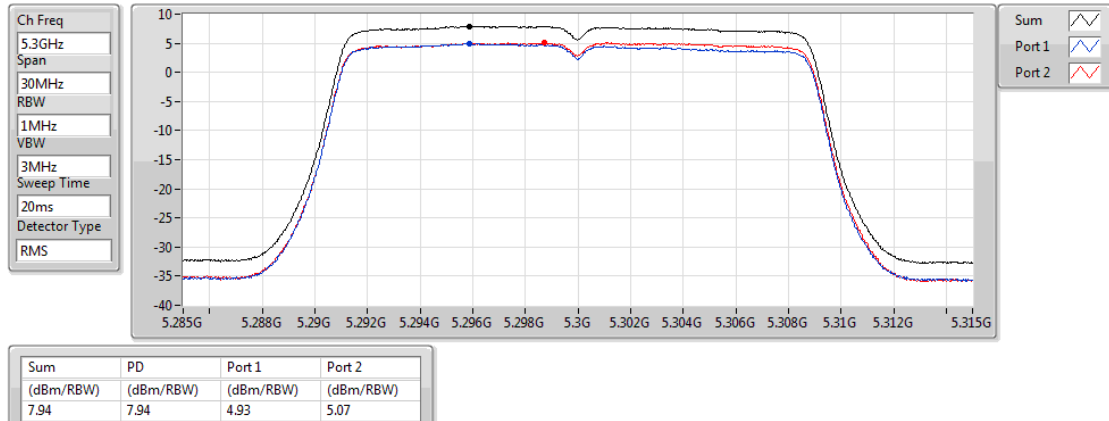
5260MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

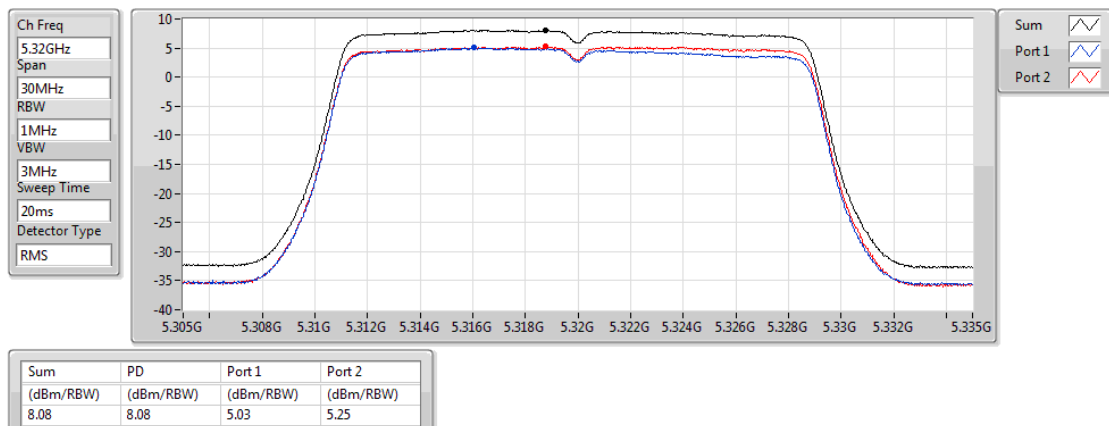
5300MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

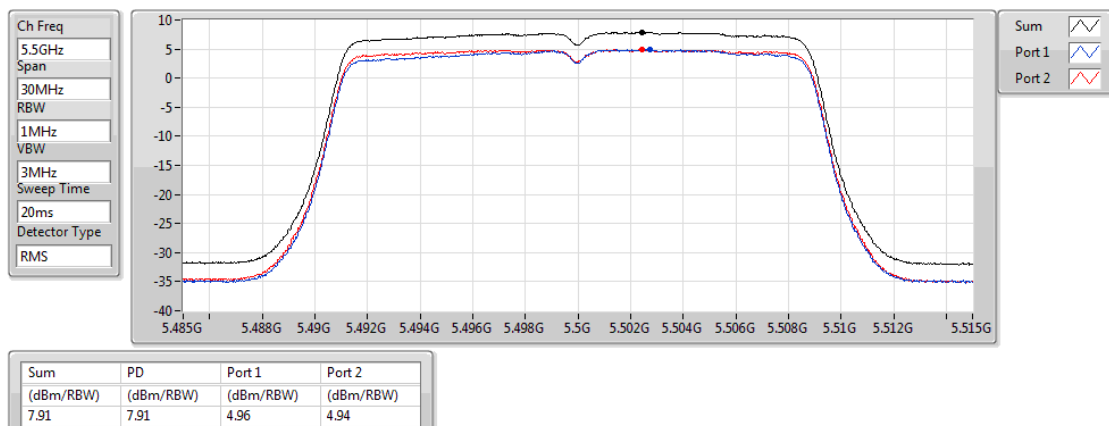
5320MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

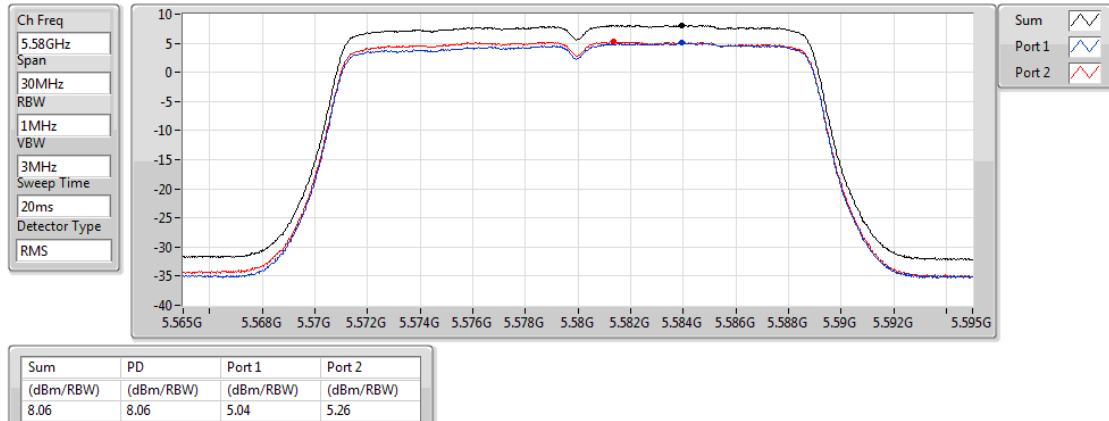
5500MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

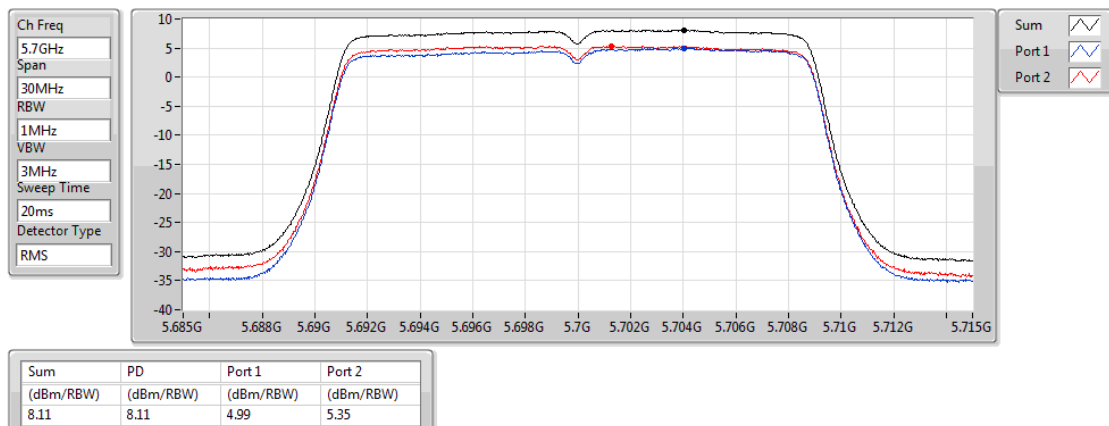
5580MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

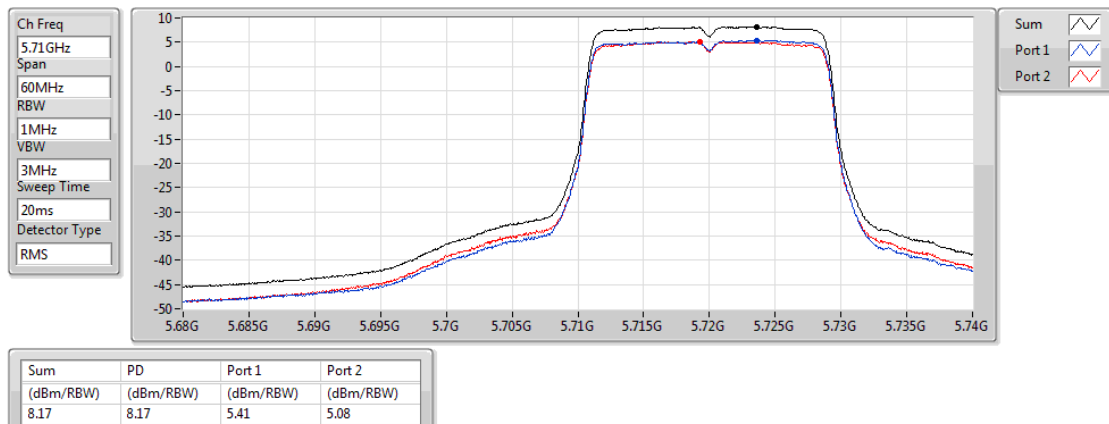
5700MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

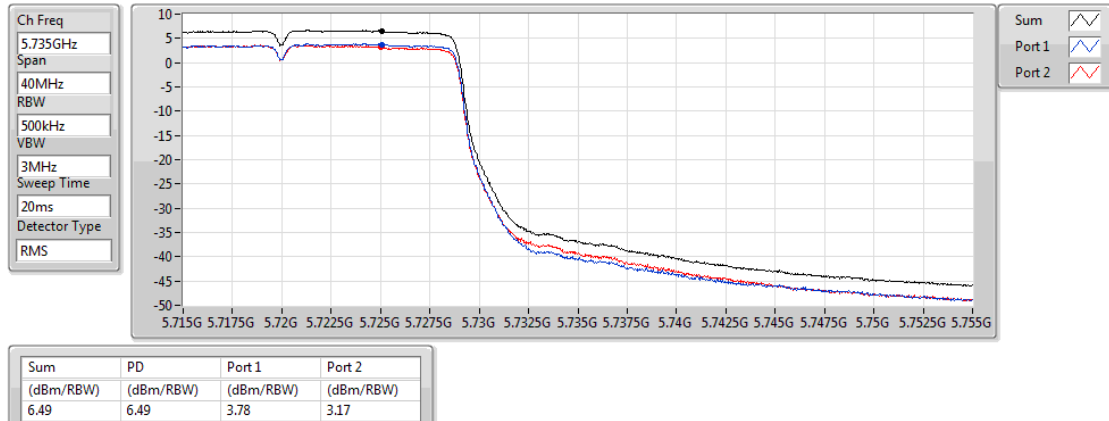
5720MHz Straddle 5.47-5.725GHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

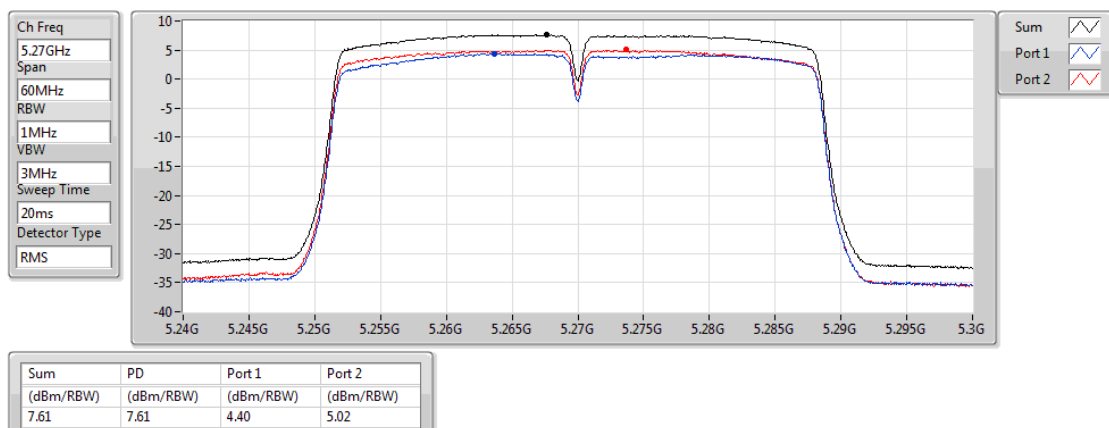
5720MHz Straddle 5.725-5.85GHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

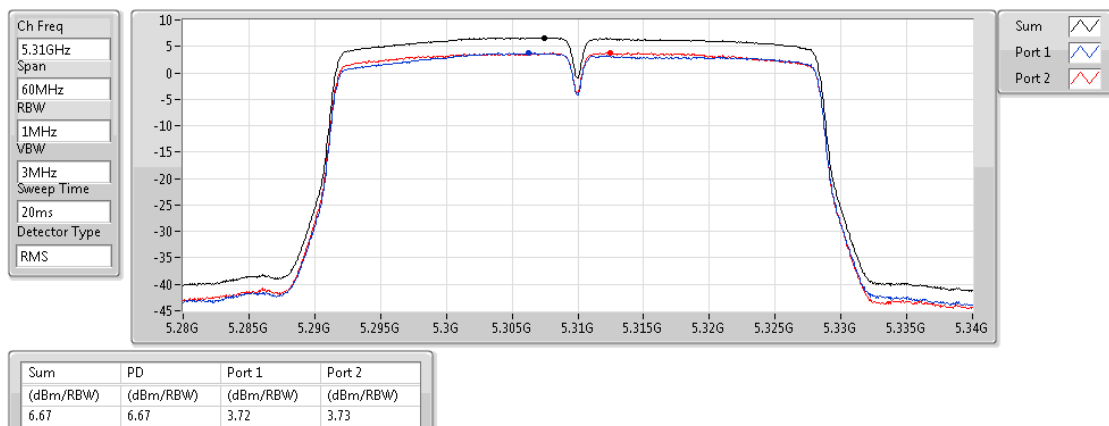
5270MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

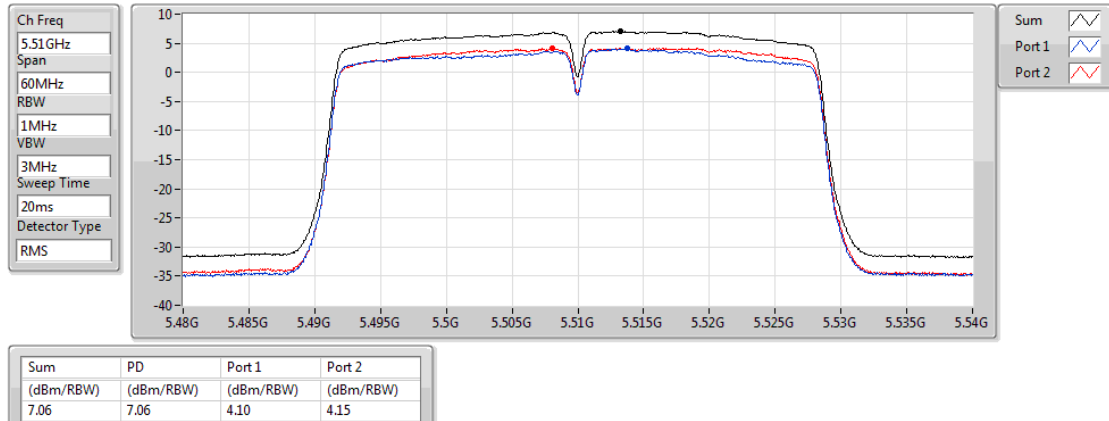
5310MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

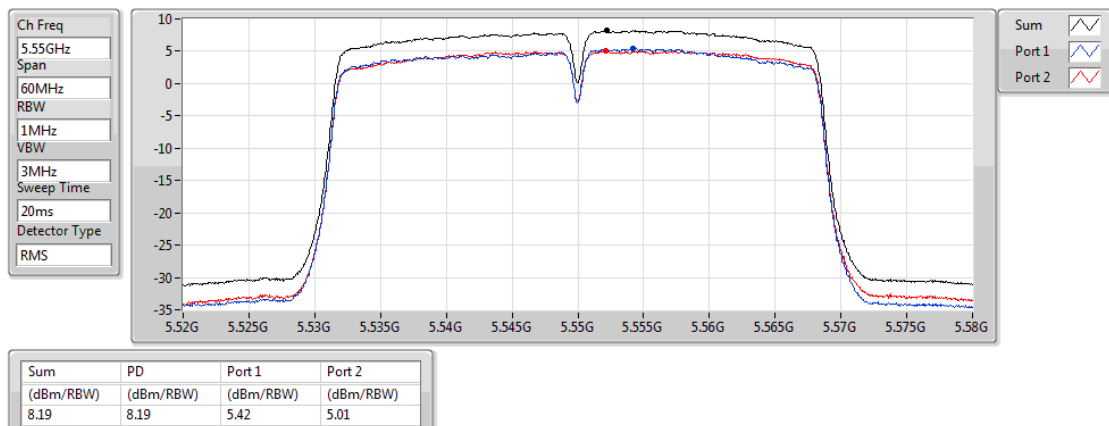
5510MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

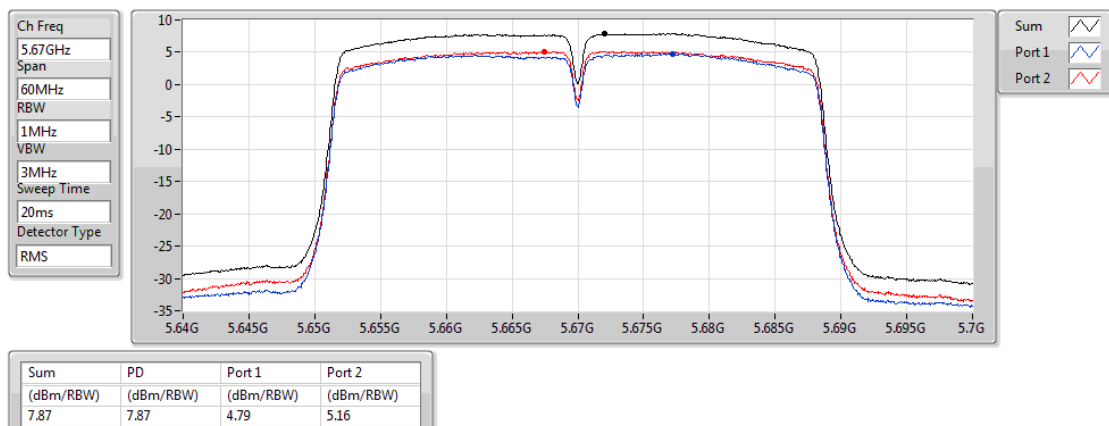
5550MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

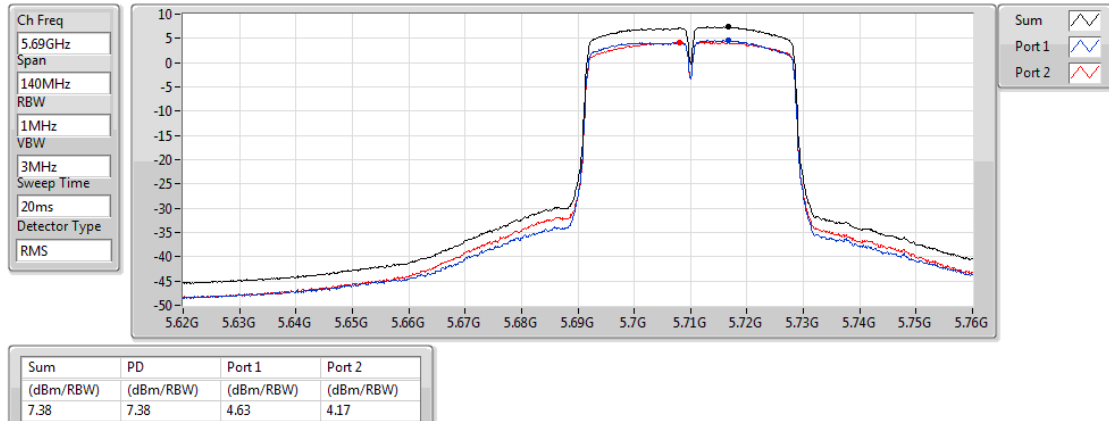
5670MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

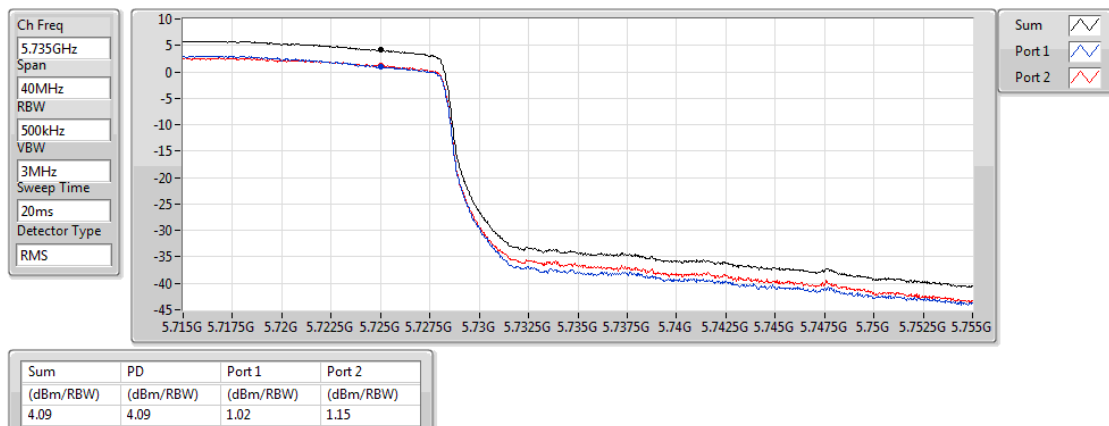
5710MHz Straddle 5.47-5.725GHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

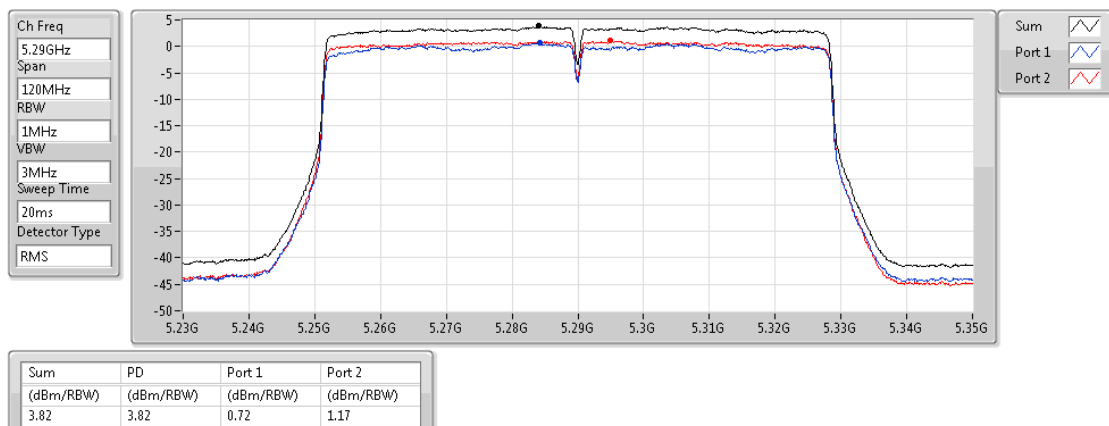
5710MHz Straddle 5.725-5.85GHz



802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

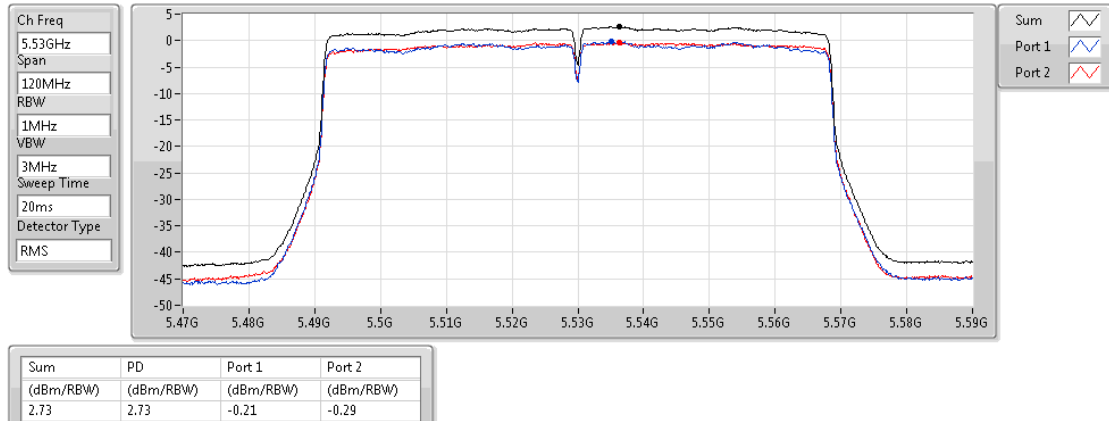
5290MHz



802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

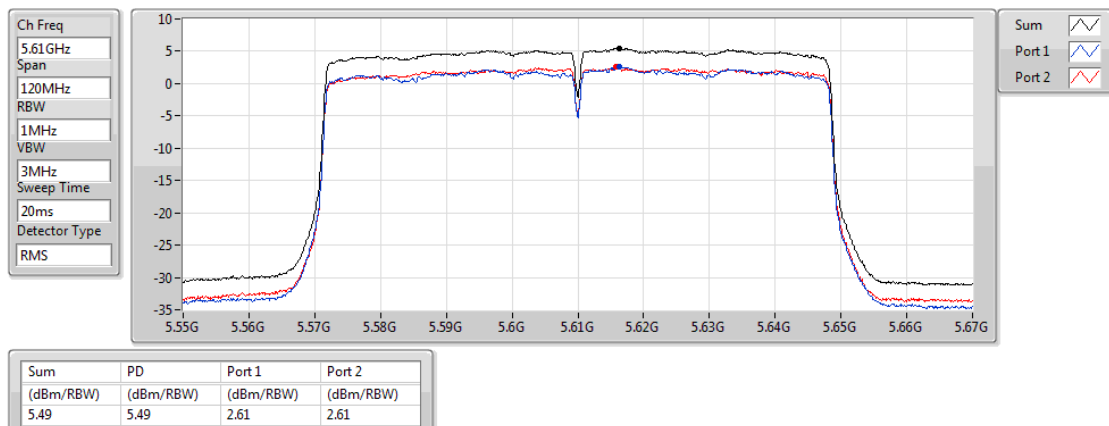
5530MHz



802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

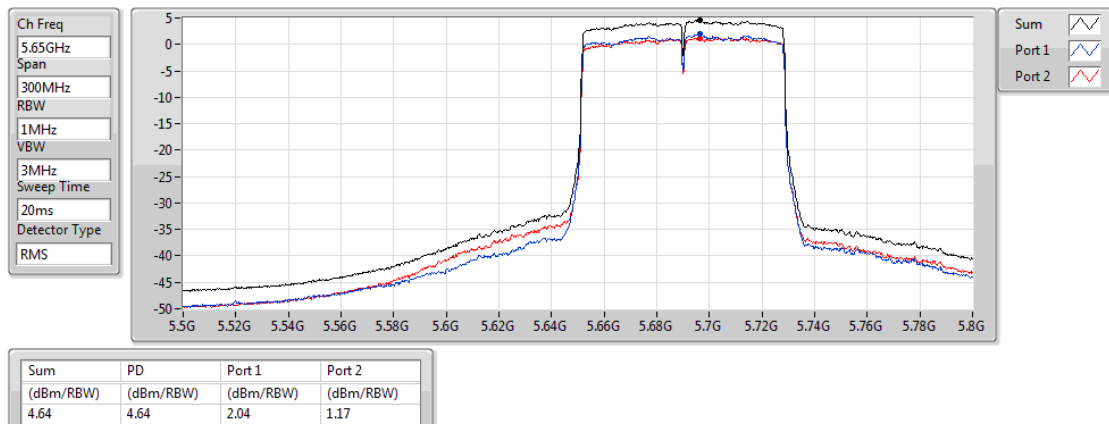
5610MHz

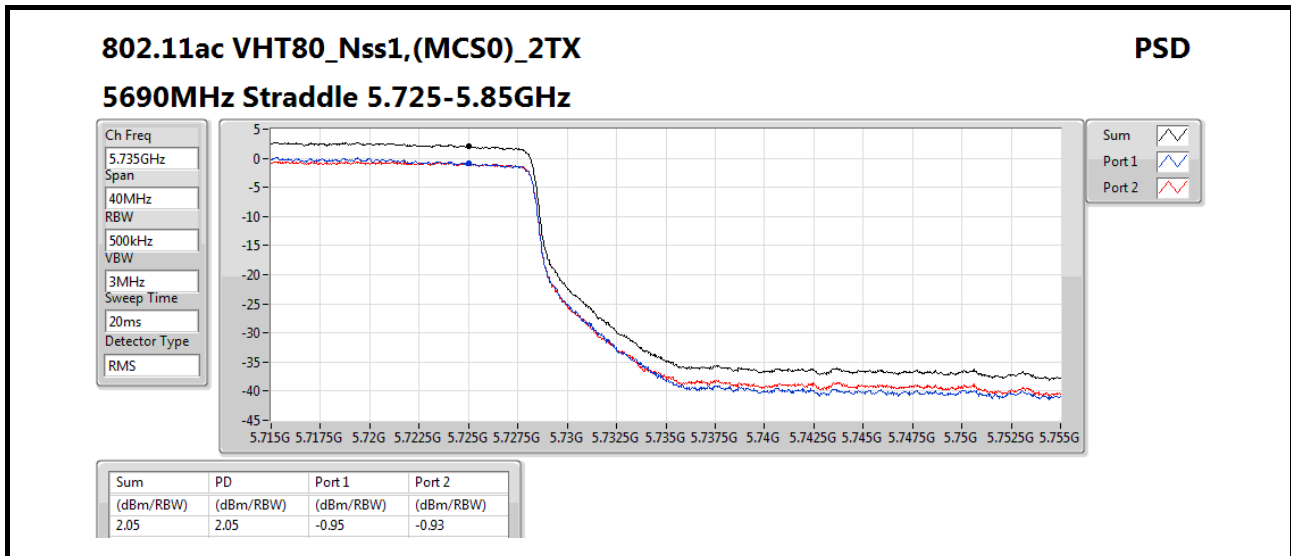


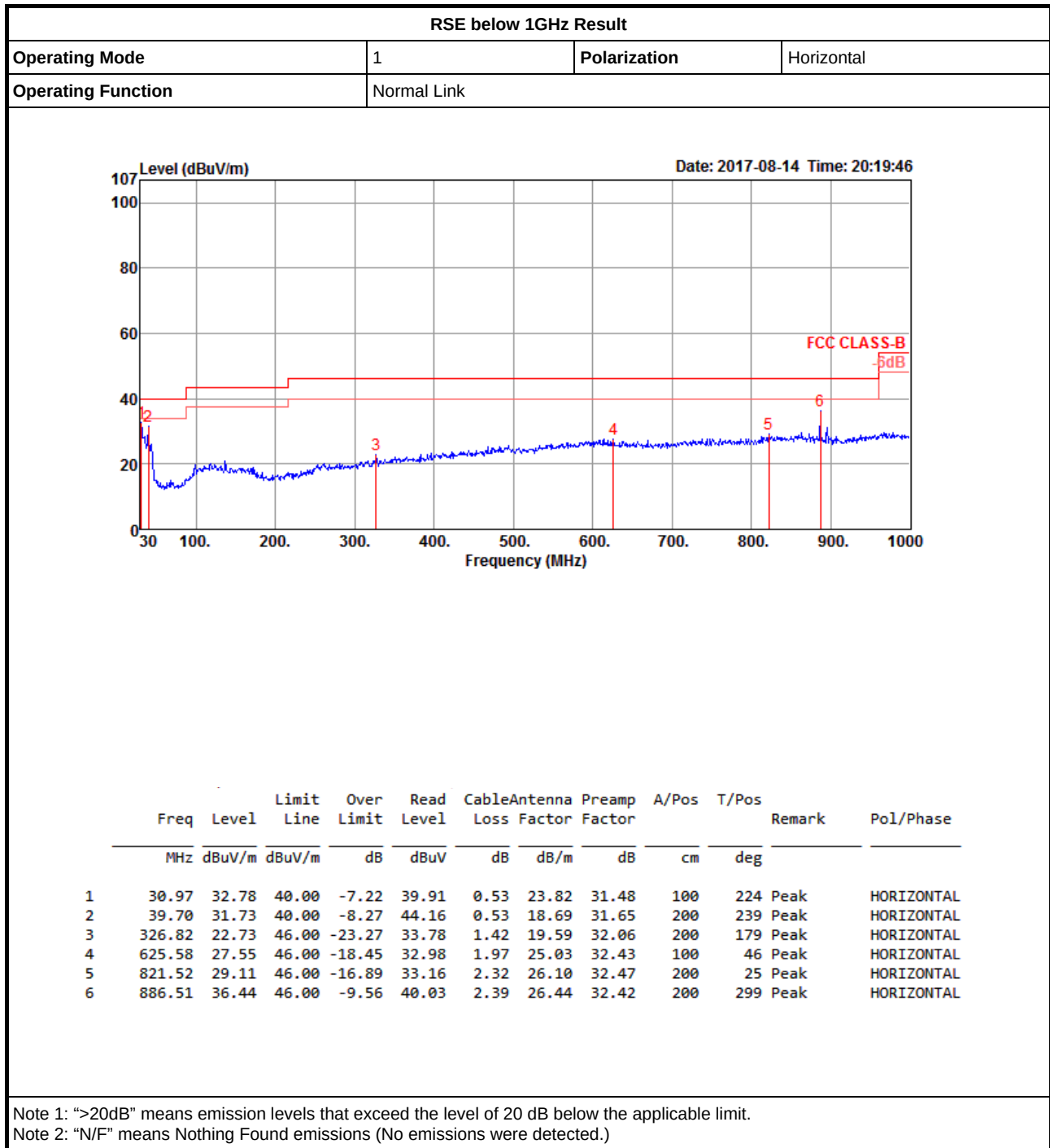
802.11ac VHT80_Nss1,(MCS0)_2TX

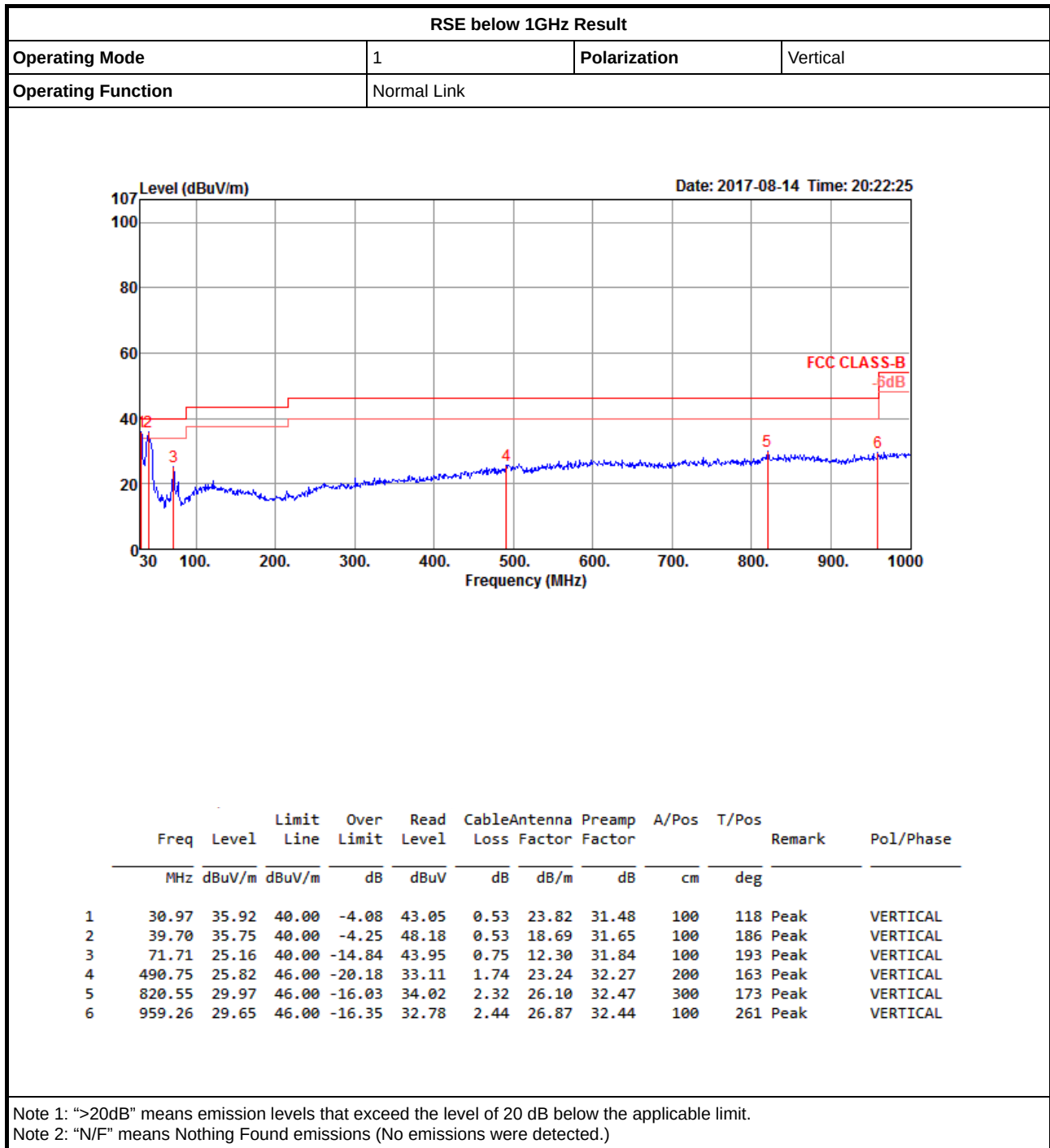
PSD

5690MHz Straddle 5.47-5.725GHz











RSE TX above 1GHz Result

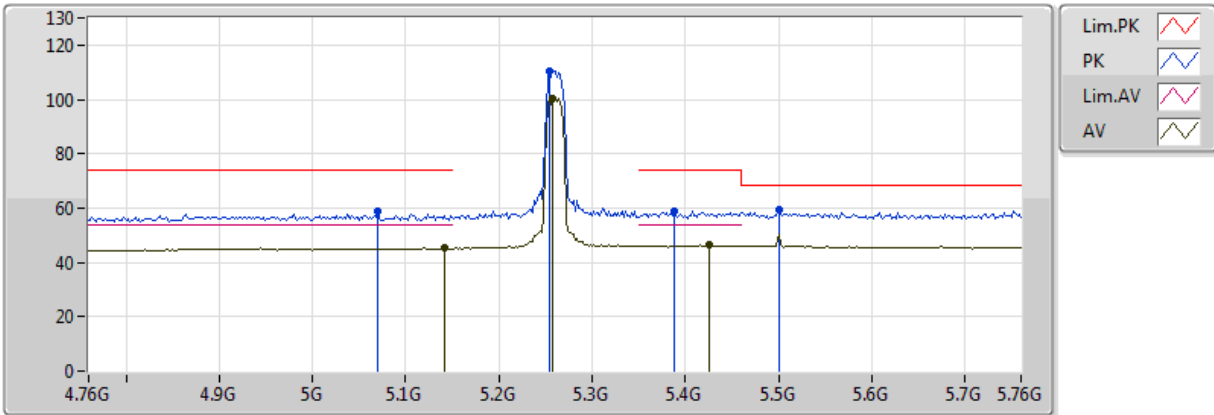
Appendix D.2

Summary

Mode	Result	Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height	Comments
802.11ac VHT80_Nss1,(MCS0)_2TX												
5530MHz	Pass	AV	5.452G	53.79	54.00	-0.21	6.04	3	H	347	1.47	-

802.11a_(6Mbps)_2TX

5260MHz_TX

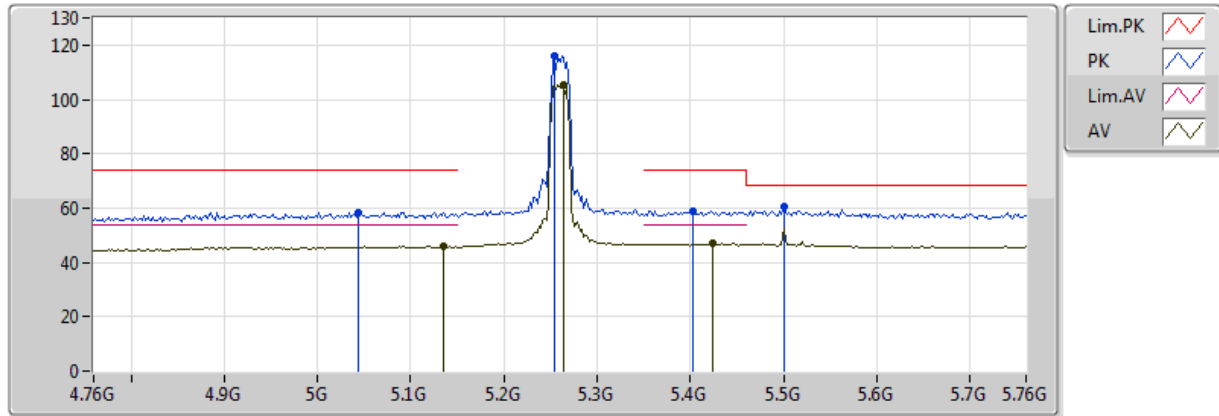


20170818
EUT X_2TX
Setting 18
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.142G	45.26	54.00	-8.74	5.43	3	V	343	1.70	-
AV	5.258G	100.57	Inf	-Inf	5.66	3	V	343	1.70	-
AV	5.426G	46.26	54.00	-7.74	5.98	3	V	343	1.70	-
PK	5.07G	58.67	74.00	-15.33	5.27	3	V	343	1.70	-
PK	5.254G	110.44	Inf	-Inf	5.65	3	V	343	1.70	-
PK	5.388G	58.80	74.00	-15.20	5.89	3	V	343	1.70	-
PK	5.5G	59.30	68.20	-8.90	6.16	3	V	343	1.70	-

802.11a_(6Mbps)_2TX

5260MHz_TX

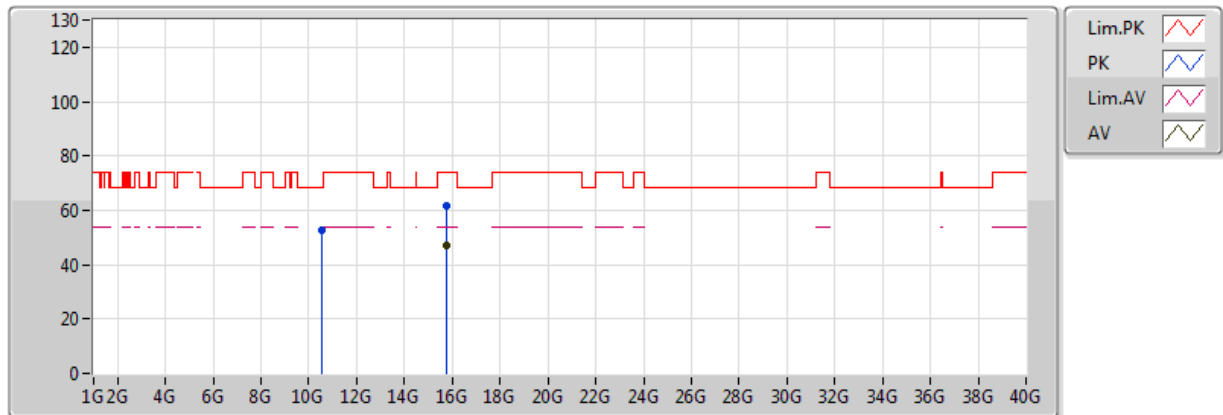


20170818
EUT_X_2TX
Setting 18
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.136G	45.92	54.00	-8.08	5.42	3	H	351	2.35	-
AV	5.264G	105.55	Inf	-Inf	5.67	3	H	351	2.35	-
AV	5.424G	47.30	54.00	-6.70	5.97	3	H	351	2.35	-
PK	5.044G	58.30	74.00	-15.70	5.20	3	H	351	2.35	-
PK	5.254G	116.02	Inf	-Inf	5.65	3	H	351	2.35	-
PK	5.402G	59.11	74.00	-14.89	5.92	3	H	351	2.35	-
PK	5.5G	60.30	68.20	-7.90	6.16	3	H	351	2.35	-

802.11a_(6Mbps)_2TX

5260MHz_TX

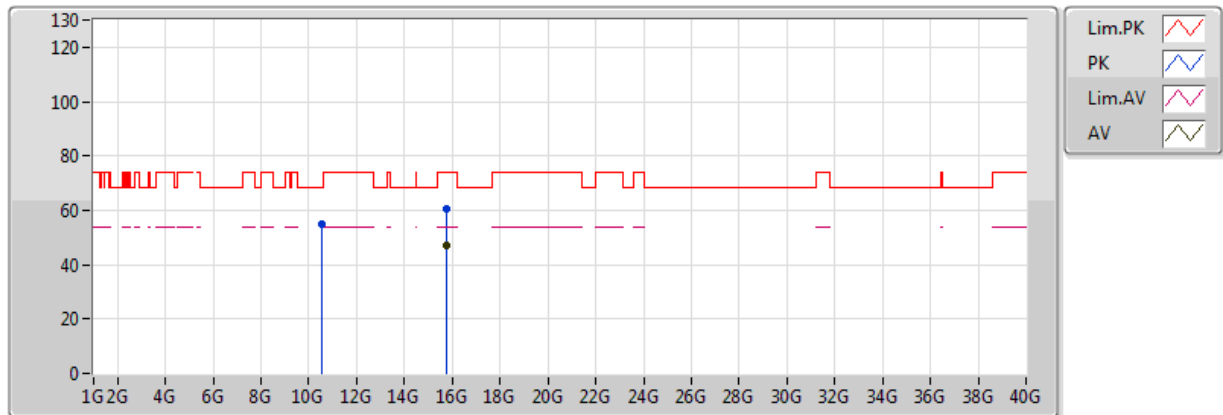


20170818
EUT X_2TX
Setting 18
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.7857G	47.11	54.00	-6.89	15.51	3	V	49	1.33	-
PK	10.5185G	52.62	68.20	-15.58	12.47	3	V	282	1.50	-
PK	15.7782G	61.54	74.00	-12.46	15.53	3	V	49	1.33	-

802.11a_(6Mbps)_2TX

5260MHz_TX

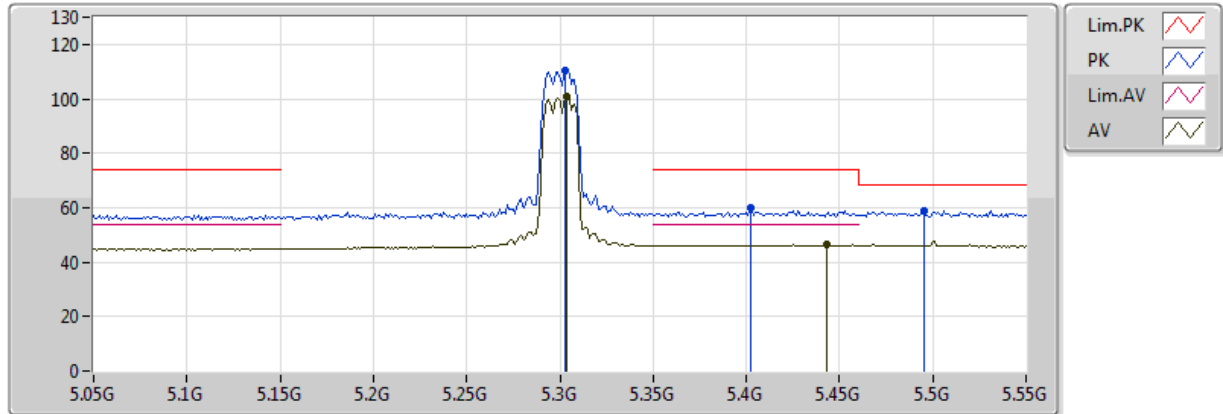


20170818
EUT_X_2TX
Setting 18
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.78376G	47.12	54.00	-6.88	15.51	3	H	134	2.00	-
PK	10.52164G	55.07	68.20	-13.13	12.47	3	H	41	2.29	-
PK	15.78068G	60.63	74.00	-13.37	15.52	3	H	134	2.00	-

802.11a_(6Mbps)_2TX

5300MHz_TX

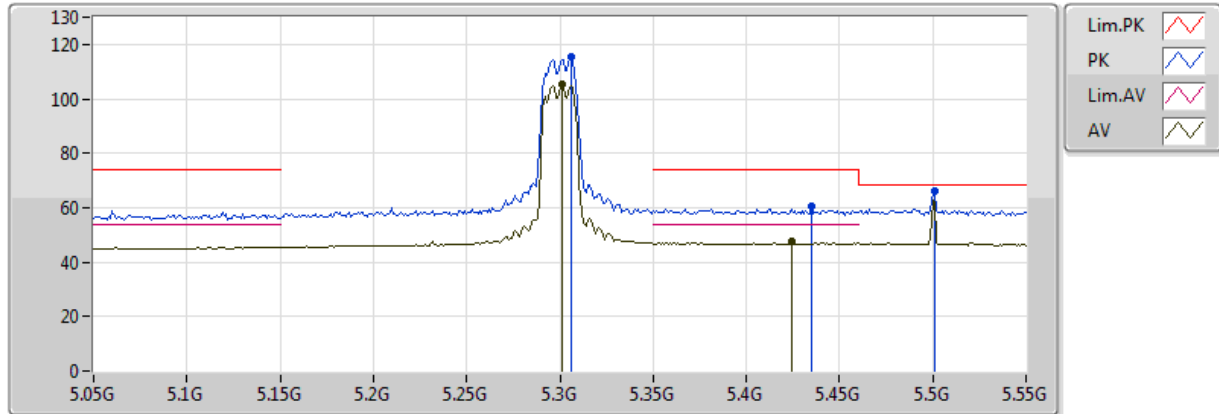


20170818
EUT X_2TX
Setting 17.5
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.304G	100.60	Inf	-Inf	5.75	3	V	342	1.56	-
AV	5.443G	46.37	54.00	-7.63	6.02	3	V	342	1.56	-
PK	5.303G	110.38	Inf	-Inf	5.75	3	V	342	1.56	-
PK	5.402G	59.82	74.00	-14.18	5.92	3	V	342	1.56	-
PK	5.495G	58.66	68.20	-9.54	6.15	3	V	342	1.56	-

802.11a_(6Mbps)_2TX

5300MHz_TX

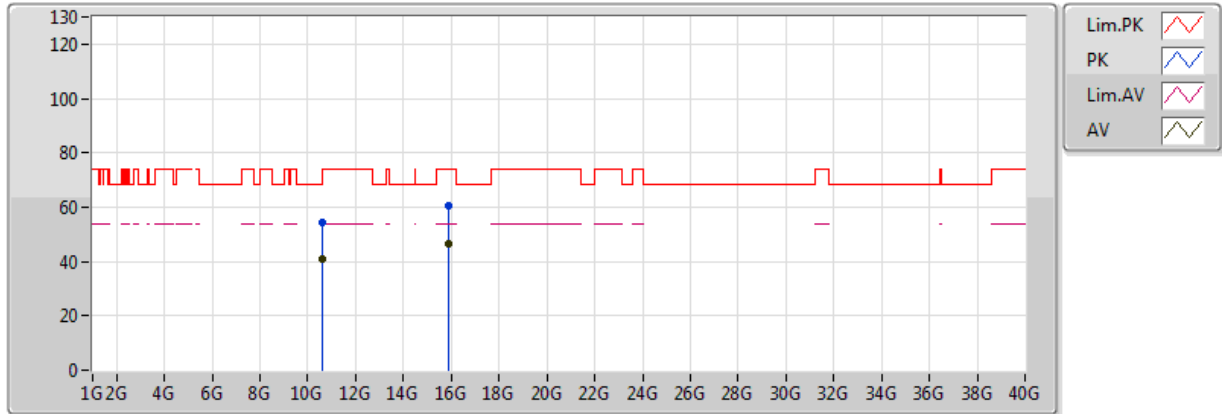


20170818
EUT_X_2TX
Setting 17.5
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.301G	105.13	Inf	-Inf	5.74	3	H	6	2.41	-
AV	5.424G	47.54	54.00	-6.46	5.97	3	H	6	2.41	-
PK	5.306G	115.29	Inf	-Inf	5.75	3	H	6	2.41	-
PK	5.435G	60.68	74.00	-13.32	6.00	3	H	6	2.41	-
PK	5.501G	66.07	68.20	-2.13	6.16	3	H	6	2.41	-

802.11a_(6Mbps)_2TX

5300MHz_TX

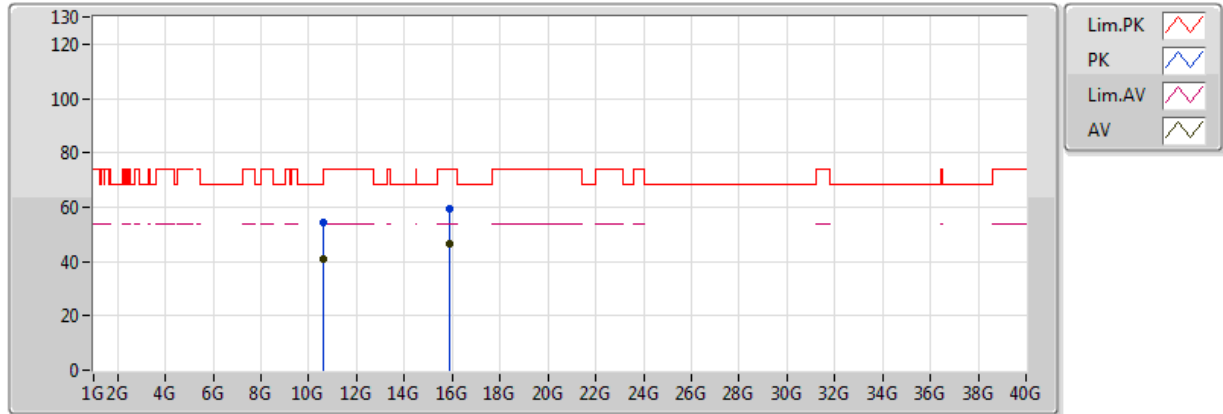


20170818
EUT X_2TX
Setting 17.5
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	10.60002G	40.74	54.00	-13.26	12.54	3	V	350	2.77	-
AV	15.90342G	46.75	54.00	-7.25	15.12	3	V	82	2.87	-
PK	10.60022G	54.54	74.00	-19.46	12.54	3	V	350	2.77	-
PK	15.89926G	60.50	74.00	-13.50	15.14	3	V	82	2.87	-

802.11a_(6Mbps)_2TX

5300MHz_TX

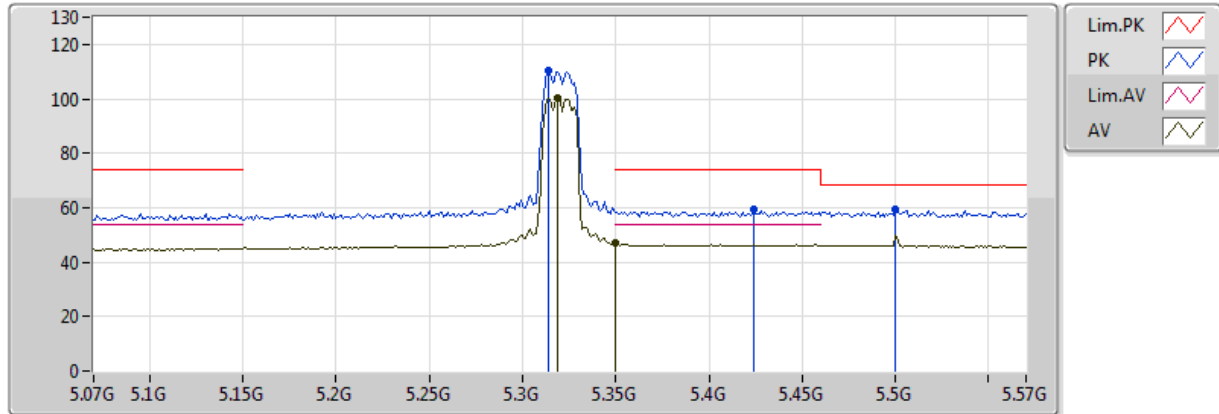


20170818
EUT X_2TX
Setting 17.5
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	10.60412G	41.13	54.00	-12.87	12.55	3	H	0	1.11	-
AV	15.90824G	46.36	54.00	-7.64	15.11	3	H	64	1.27	-
PK	10.60246G	54.47	74.00	-19.53	12.55	3	H	0	1.11	-
PK	15.90124G	59.56	74.00	-14.44	15.13	3	H	64	1.27	-

802.11a_(6Mbps)_2TX

5320MHz_TX

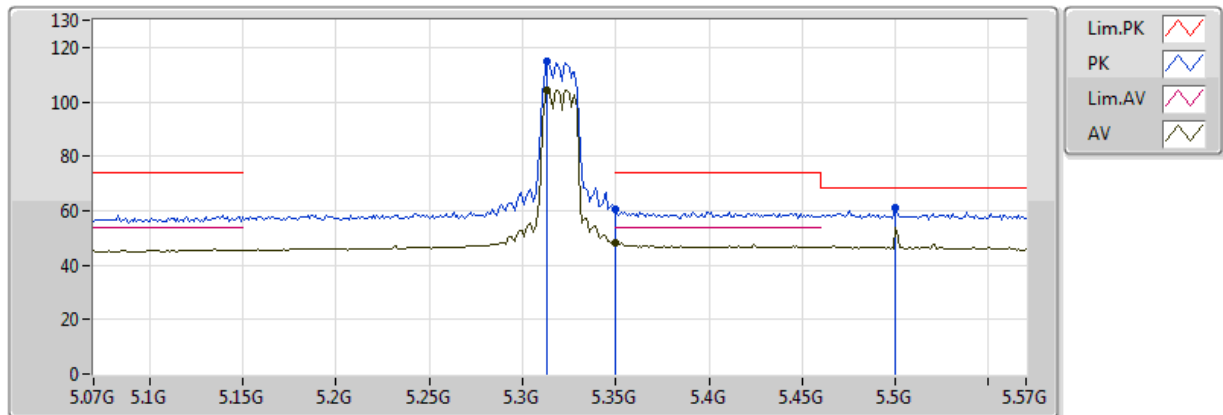


20170818
EUT_X_2TX
Setting 17.5
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.319G	100.16	Inf	-Inf	5.77	3	V	344	1.50	-
AV	5.350005G	46.98	54.00	-7.02	5.83	3	V	344	1.50	-
PK	5.314G	110.34	Inf	-Inf	5.76	3	V	344	1.50	-
PK	5.424G	59.49	74.00	-14.51	5.97	3	V	344	1.50	-
PK	5.5G	59.30	68.20	-8.90	6.16	3	V	344	1.50	-

802.11a_(6Mbps)_2TX

5320MHz_TX

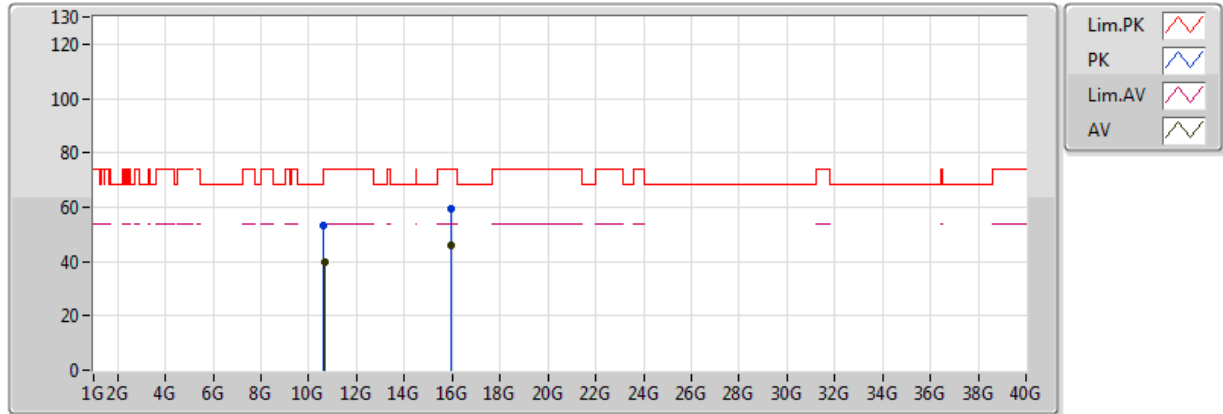


20170818
EUT X_2TX
Setting 17.5
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.313G	104.34	Inf	-Inf	5.76	3	H	351	2.41	-
AV	5.350005G	48.33	54.00	-5.67	5.83	3	H	351	2.41	-
PK	5.313G	114.80	Inf	-Inf	5.76	3	H	351	2.41	-
PK	5.350005G	60.30	74.00	-13.70	5.83	3	H	351	2.41	-
PK	5.5G	60.98	68.20	-7.22	6.16	3	H	351	2.41	-

802.11a_(6Mbps)_2TX

5320MHz_TX

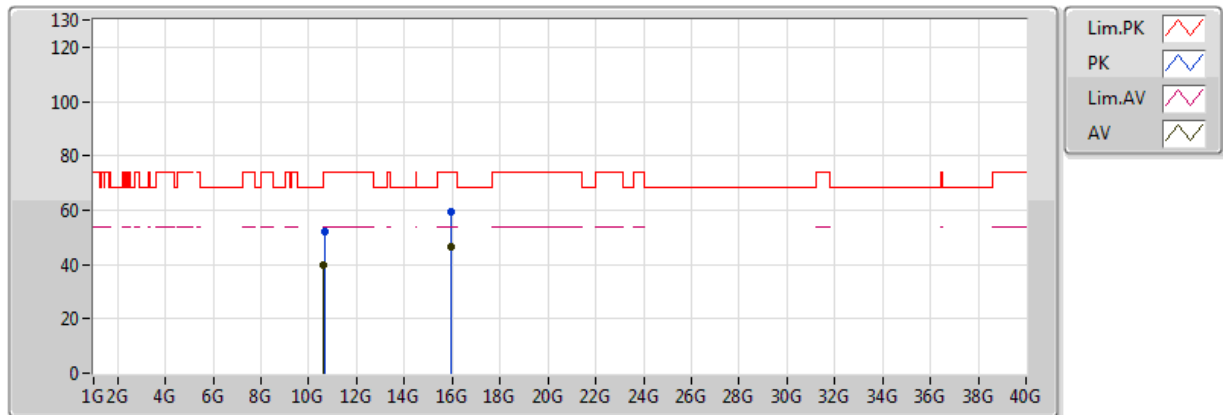


20170818
EUT X_2TX
Setting 17.5
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	10.64008G	39.92	54.00	-14.08	12.58	3	V	312	2.18	-
AV	15.95664G	46.17	54.00	-7.83	14.95	3	V	359	1.32	-
PK	10.6362G	53.20	74.00	-20.80	12.58	3	V	312	2.18	-
PK	15.95826G	59.49	74.00	-14.51	14.95	3	V	359	1.32	-

802.11a_(6Mbps)_2TX

5320MHz_TX

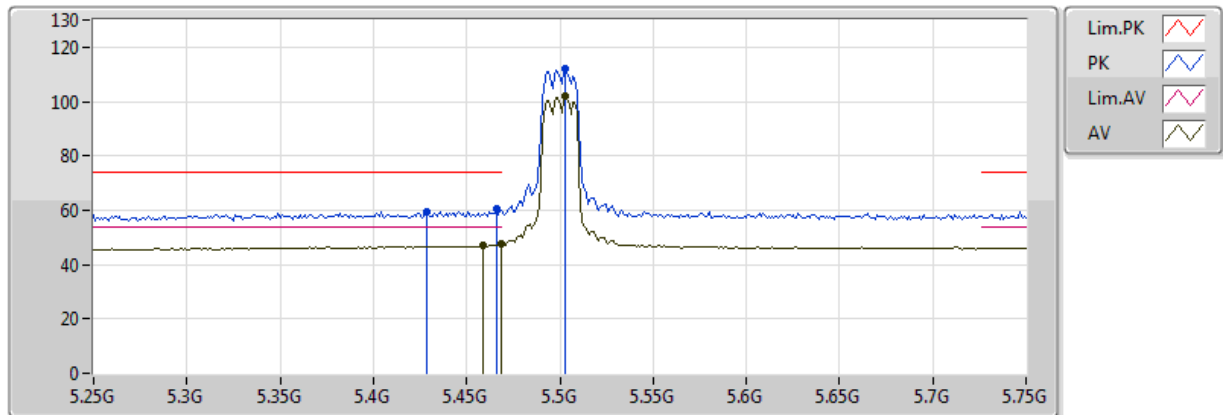


20170818
EUT_X_2TX
Setting 17.5
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	10.63852G	39.81	54.00	-14.19	12.58	3	H	292	1.01	-
AV	15.95954G	46.32	54.00	-7.68	14.94	3	H	341	1.07	-
PK	10.63886G	52.27	74.00	-21.73	12.58	3	H	292	1.01	-
PK	15.96052G	59.54	74.00	-14.46	14.94	3	H	341	1.07	-

802.11a_(6Mbps)_2TX

5500MHz_TX

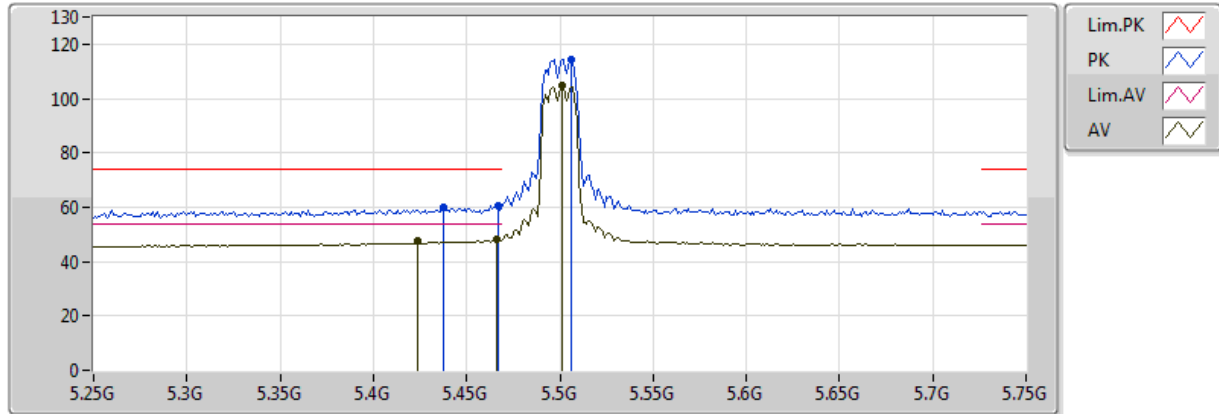


20170818
EUT X_2TX
Setting 18.5
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.459G	47.03	54.00	-6.97	6.06	3	V	346	1.18	-
AV	5.469G	47.47	54.00	-6.53	6.08	3	V	346	1.18	-
AV	5.503G	101.84	Inf	-Inf	6.16	3	V	346	1.18	-
PK	5.429G	59.34	74.00	-14.66	5.98	3	V	346	1.18	-
PK	5.466G	60.46	74.00	-13.54	6.08	3	V	346	1.18	-
PK	5.503G	112.24	Inf	-Inf	6.16	3	V	346	1.18	-

802.11a_(6Mbps)_2TX

5500MHz_TX

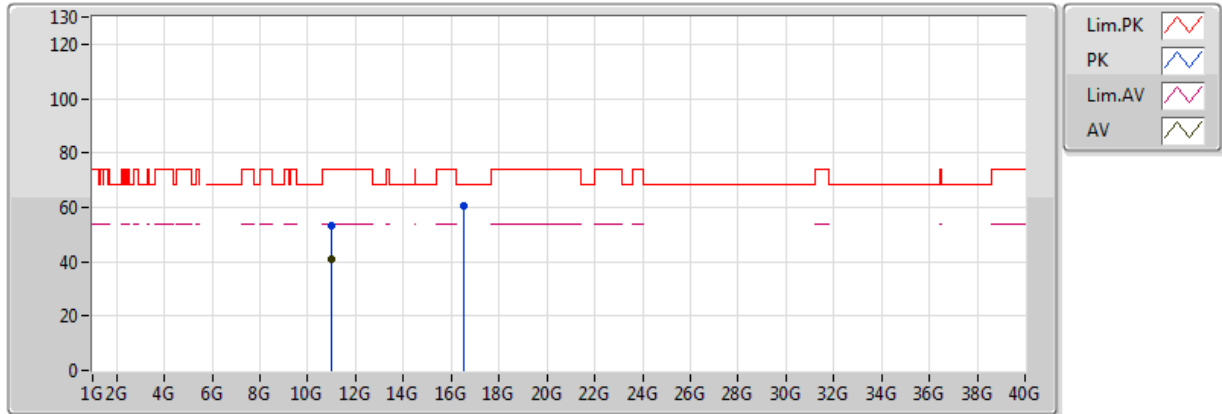


20170818
EUT X_2TX
Setting 18.5
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.424G	47.88	54.00	-6.12	5.97	3	H	349	1.64	-
AV	5.466G	48.04	54.00	-5.96	6.08	3	H	349	1.64	-
AV	5.501G	104.68	Inf	-Inf	6.16	3	H	349	1.64	-
PK	5.438G	59.85	74.00	-14.15	6.01	3	H	349	1.64	-
PK	5.467G	60.49	74.00	-13.51	6.08	3	H	349	1.64	-
PK	5.506G	114.55	Inf	-Inf	6.16	3	H	349	1.64	-

802.11a_(6Mbps)_2TX

5500MHz_TX

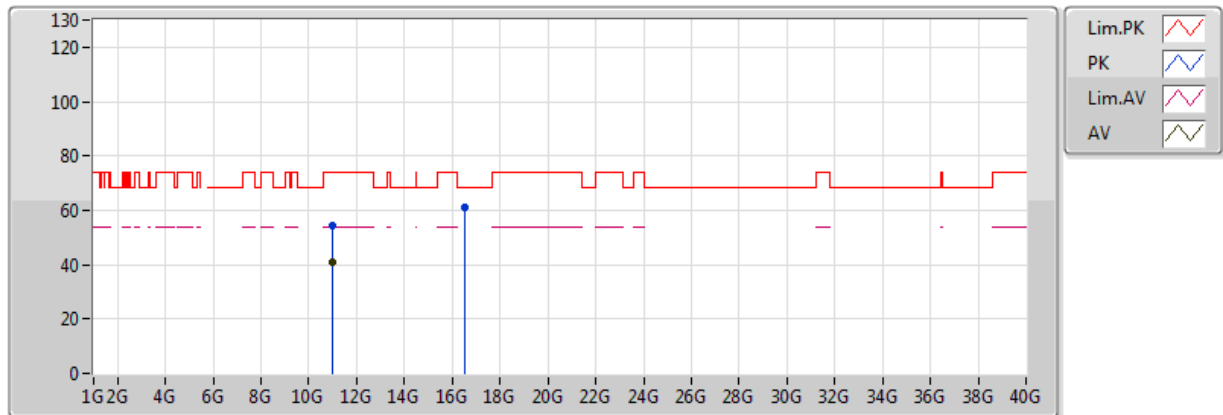


20170818
EUT_X_2TX
Setting 18.5
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	10.99984G	41.08	54.00	-12.92	12.92	3	V	0	1.48	-
PK	10.99934G	53.27	74.00	-20.73	12.92	3	V	0	1.48	-
PK	16.50198G	60.74	68.20	-7.46	16.76	3	V	71	1.50	-

802.11a_(6Mbps)_2TX

5500MHz_TX

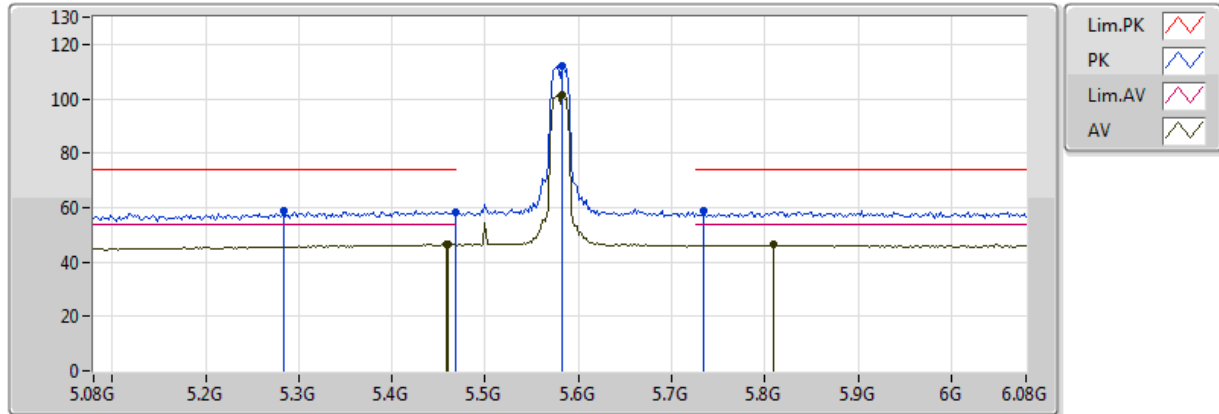


20170818
EUT X_2TX
Setting 18.5
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.00186G	41.05	54.00	-12.95	12.92	3	H	299	1.49	-
PK	11.00164G	54.56	74.00	-19.44	12.92	3	H	299	1.49	-
PK	16.50484G	61.25	68.20	-6.95	16.77	3	H	332	1.50	-

802.11a_(6Mbps)_2TX

5580MHz_TX

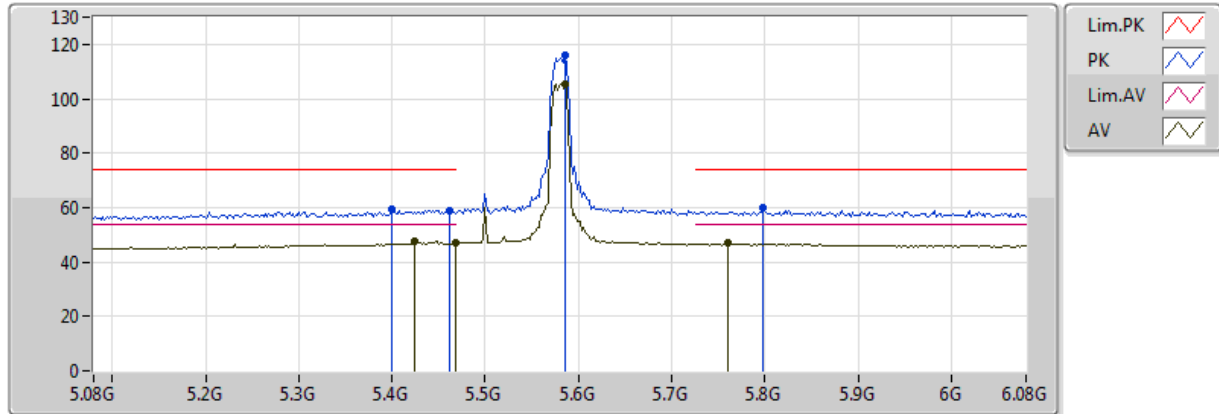


20170818
EUT_X_2TX
Setting 18
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.458G	46.49	54.00	-7.51	6.05	3	V	15	2.27	-
AV	5.460005G	46.37	54.00	-7.63	6.06	3	V	15	2.27	-
AV	5.582G	101.57	Inf	-Inf	6.23	3	V	15	2.27	-
AV	5.81G	46.25	54.00	-7.75	6.25	3	V	15	2.27	-
PK	5.284G	58.93	74.00	-15.07	5.71	3	V	15	2.27	-
PK	5.468G	58.45	74.00	-15.55	6.08	3	V	15	2.27	-
PK	5.582G	112.01	Inf	-Inf	6.23	3	V	15	2.27	-
PK	5.734G	58.90	74.00	-15.10	6.25	3	V	15	2.27	-

802.11a_(6Mbps)_2TX

5580MHz_TX

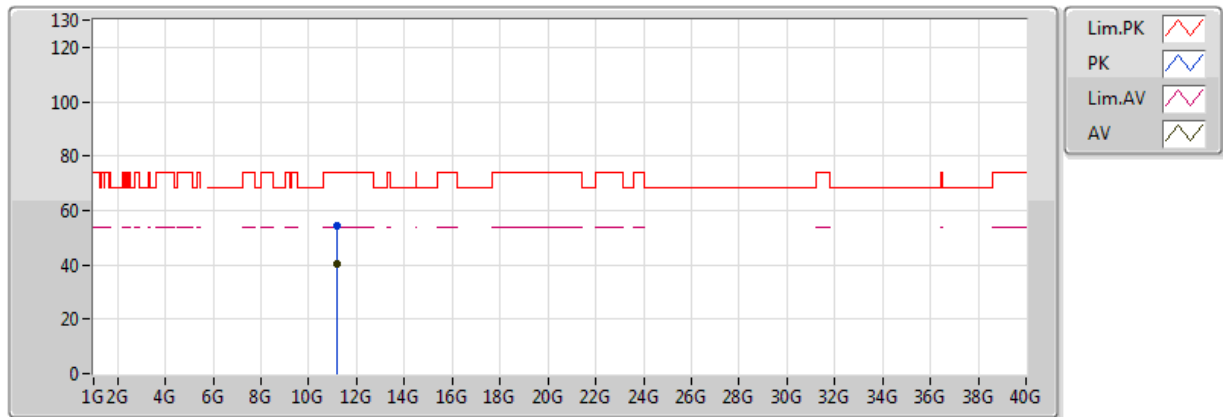


20170818
EUT_X_2TX
Setting 18
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.424G	47.46	54.00	-6.54	5.97	3	H	355	2.67	-
AV	5.468G	47.08	54.00	-6.92	6.08	3	H	355	2.67	-
AV	5.586G	105.45	Inf	-Inf	6.23	3	H	355	2.67	-
AV	5.76G	47.02	54.00	-6.98	6.25	3	H	355	2.67	-
PK	5.4G	59.50	74.00	-14.50	5.91	3	H	355	2.67	-
PK	5.462G	58.85	74.00	-15.15	6.06	3	H	355	2.67	-
PK	5.586G	116.01	Inf	-Inf	6.23	3	H	355	2.67	-
PK	5.798G	60.23	74.00	-13.77	6.25	3	H	355	2.67	-

802.11a_(6Mbps)_2TX

5580MHz_TX

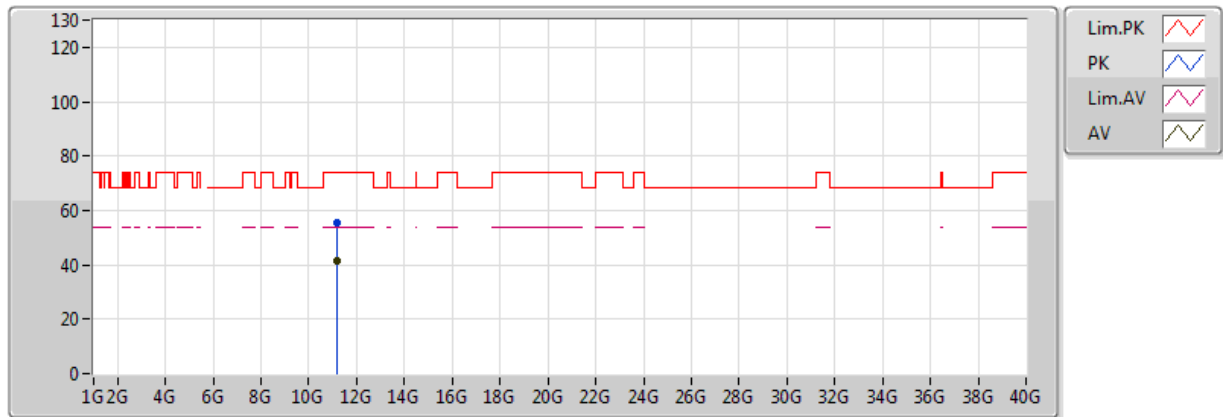


20170818
EUT_X_2TX
Setting 18
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.16034G	40.48	54.00	-13.52	13.08	3	V	328	2.54	-
PK	11.15954G	54.15	74.00	-19.85	13.08	3	V	328	2.54	-

802.11a_(6Mbps)_2TX

5580MHz_TX

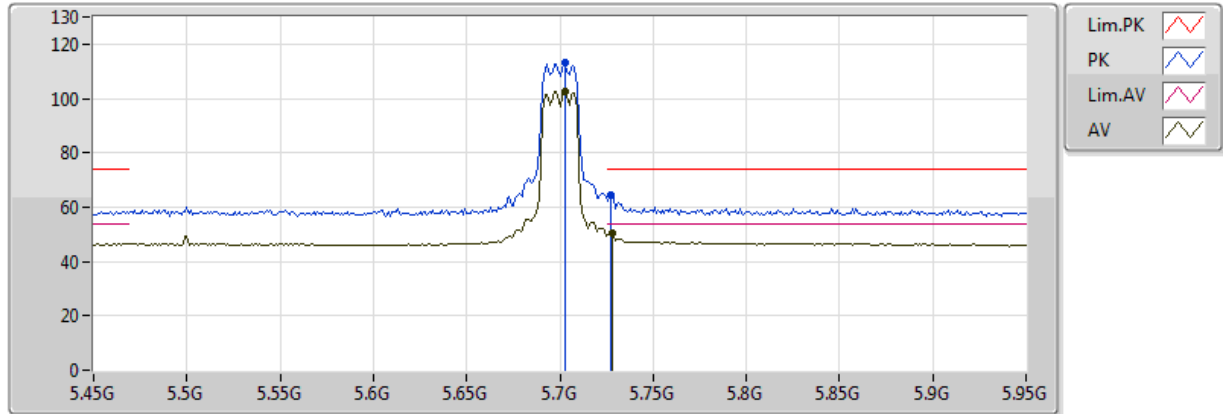


20170818
EUT_X_2TX
Setting 18
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.16184G	41.45	54.00	-12.55	13.09	3	H	307	2.50	-
PK	11.16156G	55.31	74.00	-18.69	13.08	3	H	307	2.50	-

802.11a_(6Mbps)_2TX

5700MHz_TX

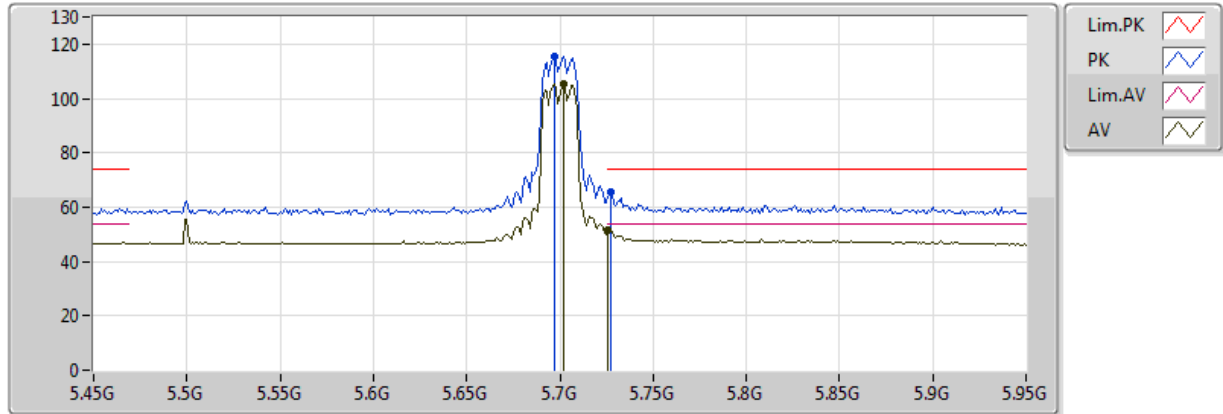


20170818
EUT_X_2TX
Setting 18
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.703G	102.74	Inf	-Inf	6.25	3	V	343	1.03	-
AV	5.728G	50.38	54.00	-3.62	6.25	3	V	343	1.03	-
PK	5.703G	113.21	Inf	-Inf	6.25	3	V	343	1.03	-
PK	5.727G	64.39	74.00	-9.61	6.25	3	V	343	1.03	-

802.11a_(6Mbps)_2TX

5700MHz_TX

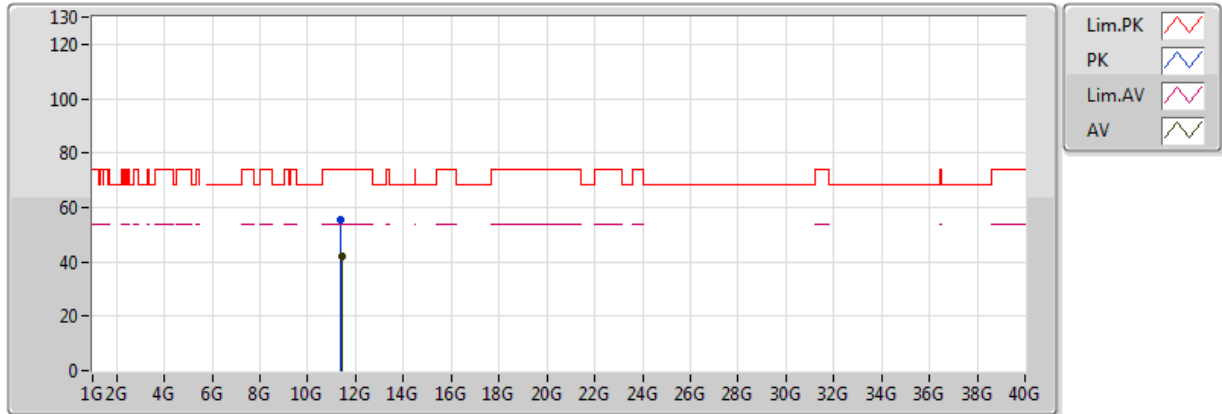


20170818
EUT_X_2TX
Setting 18
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.702G	105.12	Inf	-Inf	6.25	3	H	350	1.55	-
AV	5.726G	51.52	54.00	-2.48	6.25	3	H	350	1.55	-
PK	5.697G	115.67	Inf	-Inf	6.25	3	H	350	1.55	-
PK	5.727G	65.46	74.00	-8.54	6.25	3	H	350	1.55	-

802.11a_(6Mbps)_2TX

5700MHz_TX

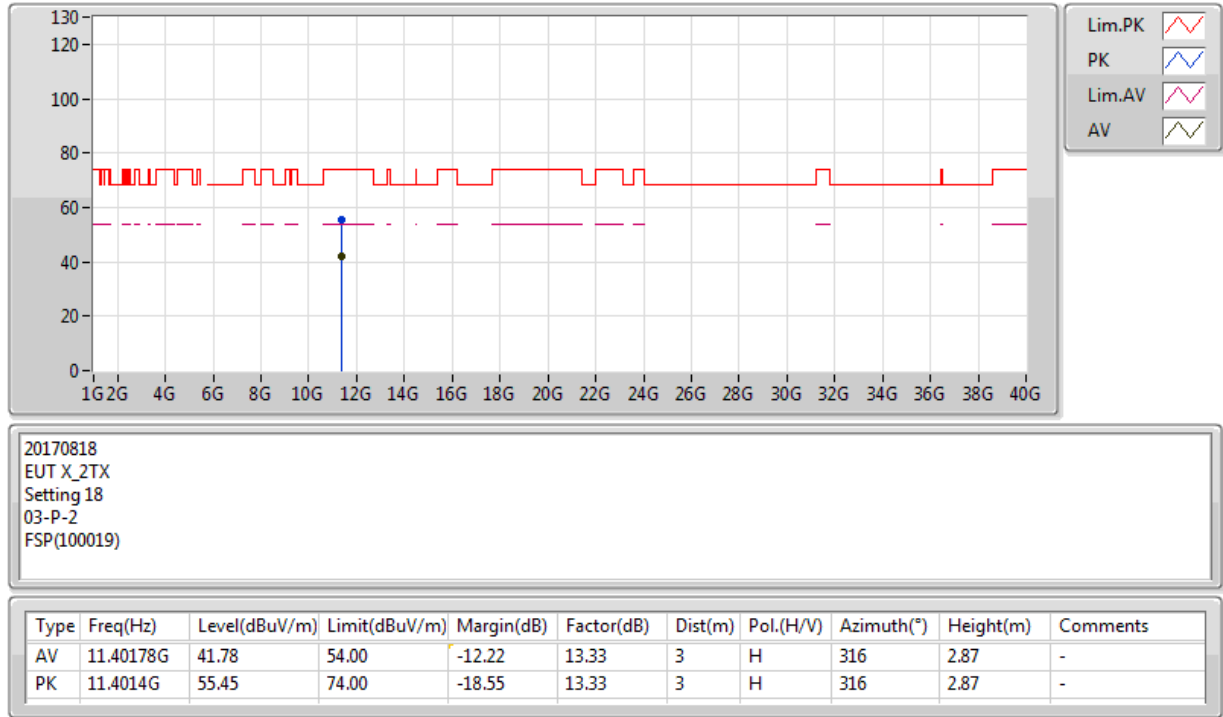


20170818
EUT X_2TX
Setting 18
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.40244G	41.79	54.00	-12.21	13.33	3	V	1	2.26	-
PK	11.4021G	55.20	74.00	-18.80	13.33	3	V	1	2.26	-

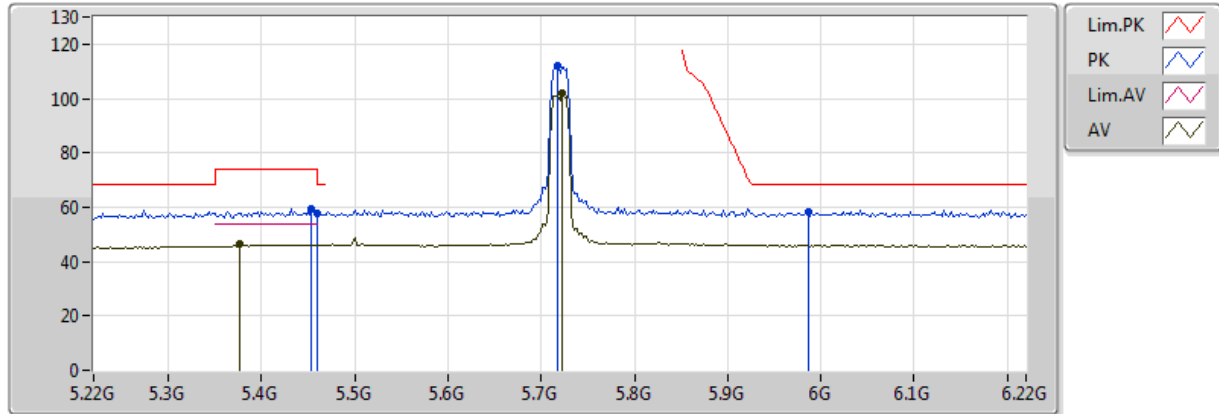
802.11a_(6Mbps)_2TX

5700MHz_TX



802.11a_(6Mbps)_2TX

5720MHz Straddle 5.47-5.725GHz_TX

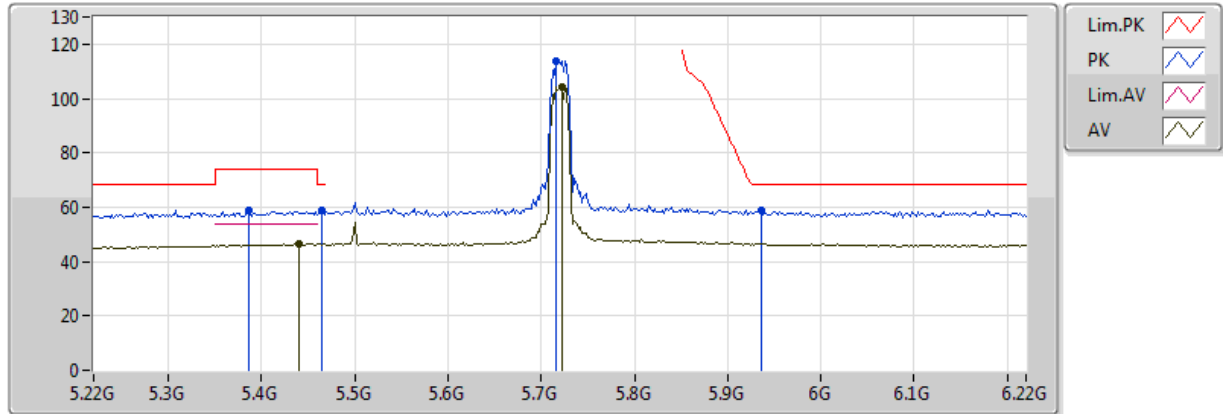


20170818
EUT_X_2TX
Setting 19.5
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.376G	46.29	54.00	-7.71	5.87	3	V	343	1.04	-
AV	5.722G	101.89	Inf	-Inf	6.25	3	V	343	1.04	-
PK	5.454G	59.56	74.00	-14.44	6.05	3	V	343	1.04	-
PK	5.460005G	57.50	68.20	-10.70	6.06	3	V	343	1.04	-
PK	5.718G	111.88	Inf	-Inf	6.25	3	V	343	1.04	-
PK	5.986G	58.14	68.20	-10.06	6.16	3	V	343	1.04	-

802.11a_(6Mbps)_2TX

5720MHz Straddle 5.47-5.725GHz_TX

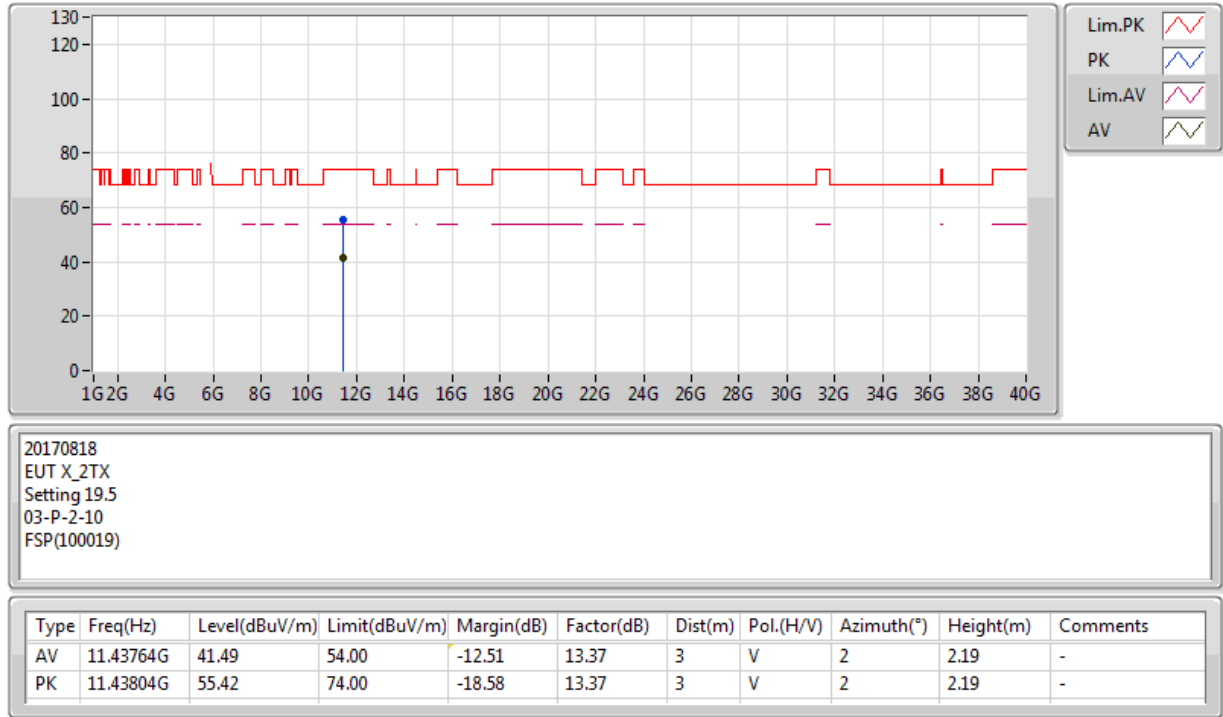


20170818
EUT_X_2TX
Setting 19.5
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.44G	46.47	54.00	-7.53	6.01	3	H	347	1.52	-
AV	5.722G	104.09	Inf	-Inf	6.25	3	H	347	1.52	-
PK	5.386G	58.84	74.00	-15.16	5.89	3	H	347	1.52	-
PK	5.464G	58.70	68.20	-9.50	6.07	3	H	347	1.52	-
PK	5.716G	113.96	Inf	-Inf	6.25	3	H	347	1.52	-
PK	5.936G	58.91	68.20	-9.29	6.18	3	H	347	1.52	-

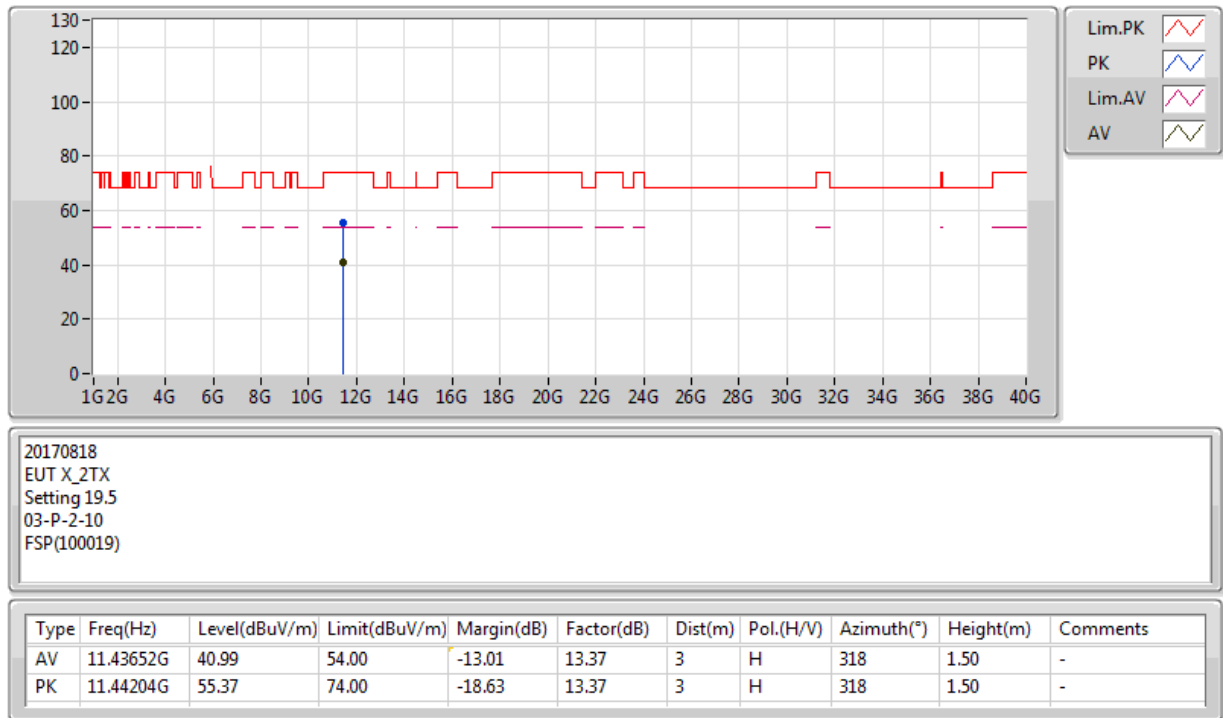
802.11a_(6Mbps)_2TX

5720MHz Straddle 5.47-5.725GHz_TX



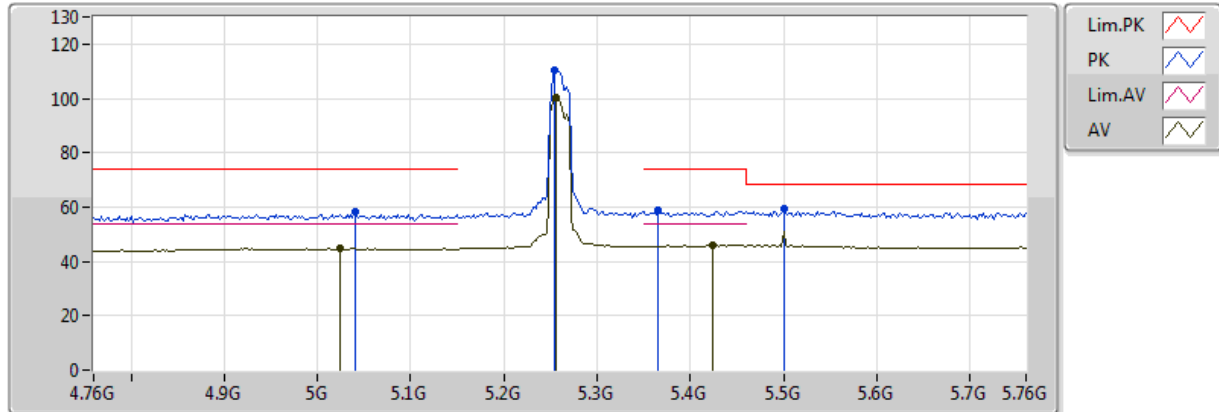
802.11a_(6Mbps)_2TX

5720MHz Straddle 5.47-5.725GHz_TX



802.11ac VHT20_Nss1,(MCS0)_2TX

5260MHz_TX

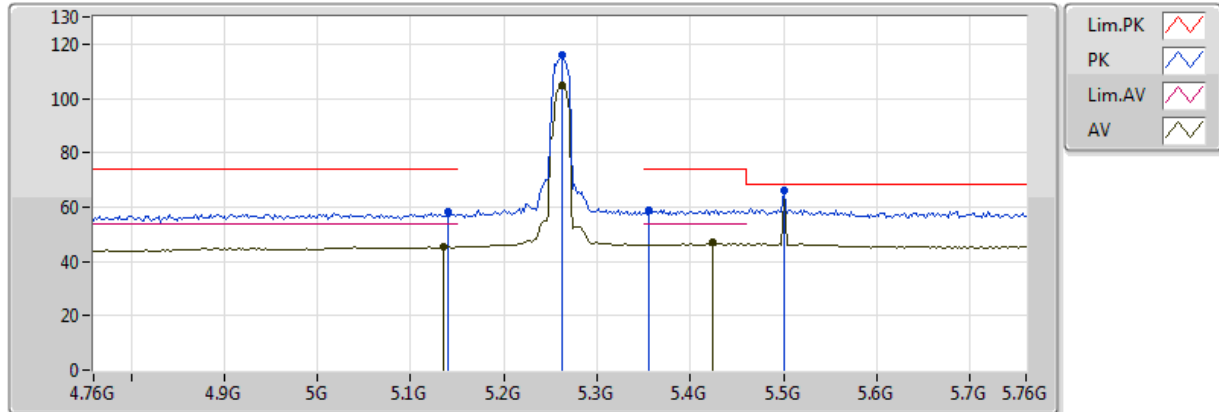


20170818
EUT_X_2TX
Setting 18
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.024G	44.61	54.00	-9.39	5.15	3	V	346	1.46	-
AV	5.256G	100.15	Inf	-Inf	5.66	3	V	346	1.46	-
AV	5.424G	45.94	54.00	-8.06	5.97	3	V	346	1.46	-
PK	5.04G	58.14	74.00	-15.86	5.19	3	V	346	1.46	-
PK	5.254G	110.62	Inf	-Inf	5.65	3	V	346	1.46	-
PK	5.366G	58.57	74.00	-15.43	5.85	3	V	346	1.46	-
PK	5.5G	59.55	68.20	-8.65	6.16	3	V	346	1.46	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5260MHz_TX

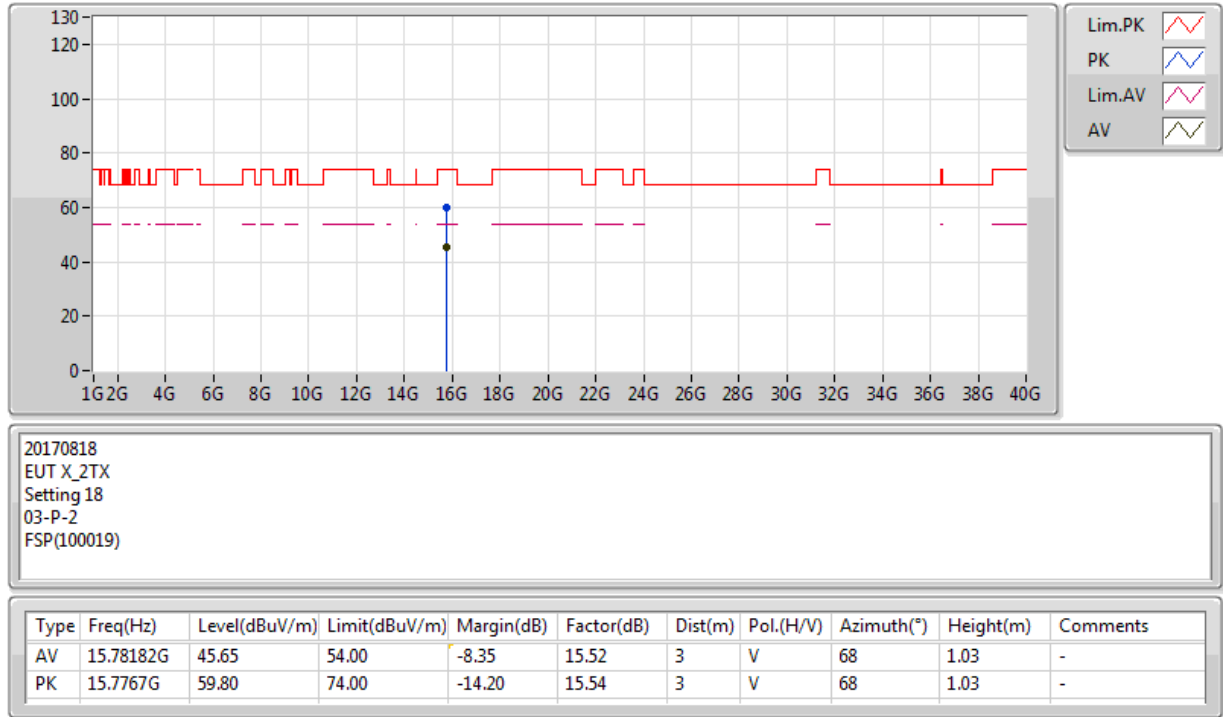


20170818
EUT X_2TX
Setting 18
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.136G	45.42	54.00	-8.58	5.42	3	H	6	2.34	-
AV	5.262G	104.98	Inf	-Inf	5.67	3	H	6	2.34	-
AV	5.424G	46.81	54.00	-7.19	5.97	3	H	6	2.34	-
PK	5.14G	58.01	74.00	-15.99	5.42	3	H	6	2.34	-
PK	5.262G	116.11	Inf	-Inf	5.67	3	H	6	2.34	-
PK	5.356G	59.11	74.00	-14.89	5.84	3	H	6	2.34	-
PK	5.5G	65.91	68.20	-2.29	6.16	3	H	6	2.34	-

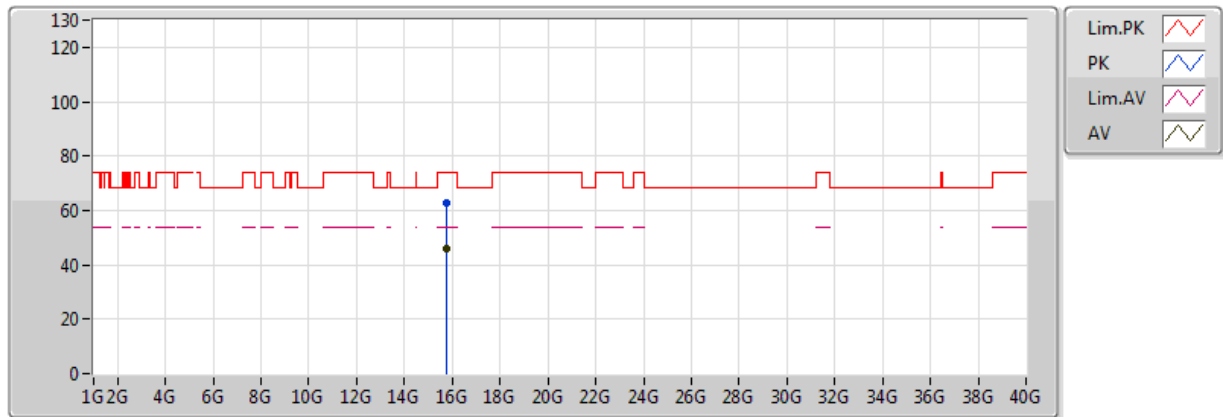
802.11ac VHT20_Nss1,(MCS0)_2TX

5260MHz_TX



802.11ac VHT20_Nss1,(MCS0)_2TX

5260MHz_TX

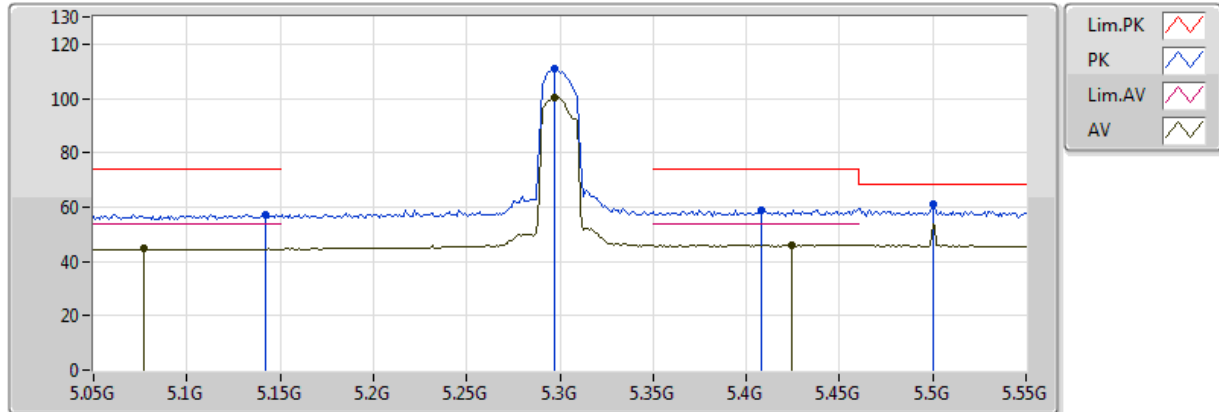


20170818
EUT X_2TX
Setting 18
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.77602G	45.91	54.00	-8.09	15.54	3	H	326	1.50	-
PK	15.77516G	62.74	74.00	-11.26	15.54	3	H	326	1.50	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5300MHz_TX

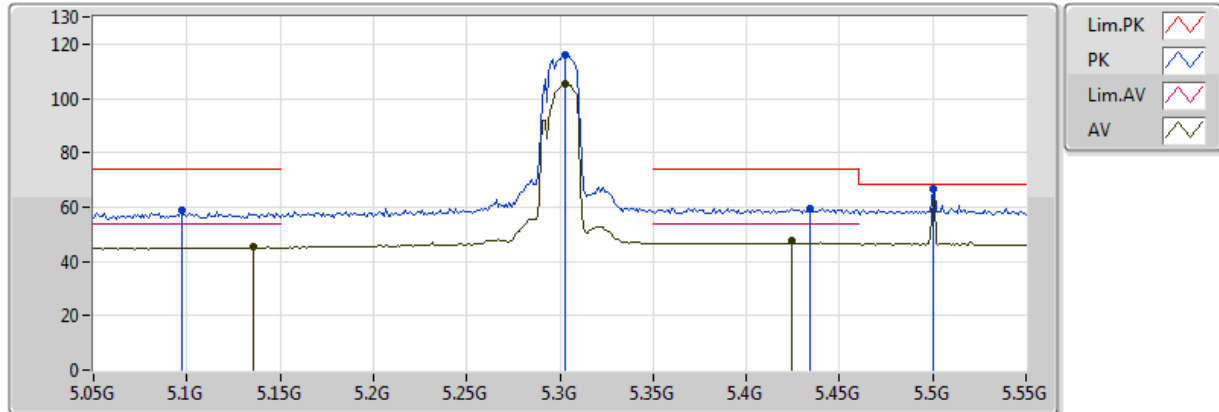


20170818
EUT_X_2TX
Setting 18
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.077G	44.60	54.00	-9.40	5.28	3	V	348	1.50	-
AV	5.297G	100.23	Inf	-Inf	5.73	3	V	348	1.50	-
AV	5.424G	46.20	54.00	-7.80	5.97	3	V	348	1.50	-
PK	5.142G	56.98	74.00	-17.02	5.43	3	V	348	1.50	-
PK	5.297G	110.87	Inf	-Inf	5.73	3	V	348	1.50	-
PK	5.408G	59.10	74.00	-14.90	5.93	3	V	348	1.50	-
PK	5.5G	61.07	68.20	-7.13	6.16	3	V	348	1.50	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5300MHz_TX

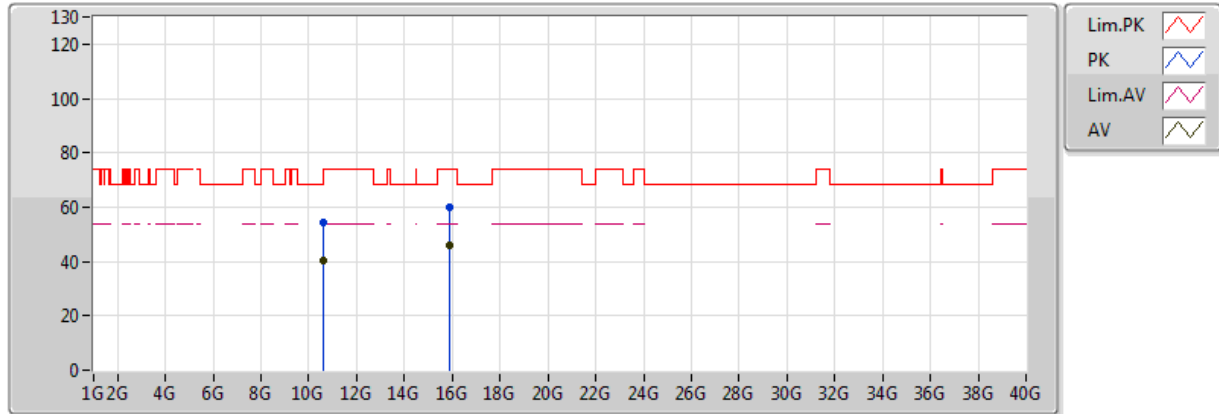


20170818
EUT_X_2TX
Setting 18
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.136G	45.25	54.00	-8.75	5.42	3	H	5	2.42	-
AV	5.303G	105.43	Inf	-Inf	5.75	3	H	5	2.42	-
AV	5.424G	47.43	54.00	-6.57	5.97	3	H	5	2.42	-
PK	5.097G	59.01	74.00	-14.99	5.33	3	H	5	2.42	-
PK	5.303G	116.07	Inf	-Inf	5.75	3	H	5	2.42	-
PK	5.434G	59.67	74.00	-14.33	6.00	3	H	5	2.42	-
PK	5.5G	66.73	68.20	-1.47	6.16	3	H	5	2.42	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5300MHz_TX

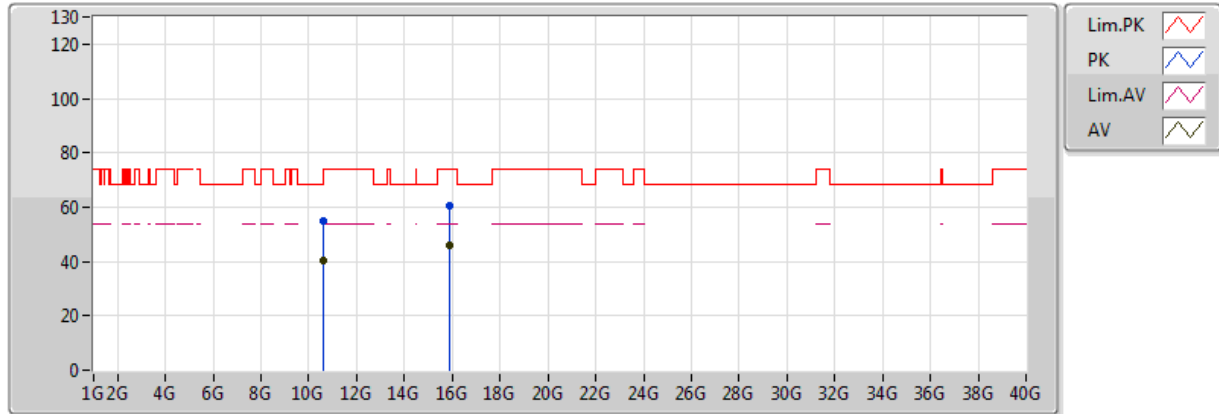


20170818
EUT X_2TX
Setting 18
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	10.60082G	40.09	54.00	-13.91	12.54	3	V	353	2.77	-
AV	15.89744G	46.03	54.00	-7.97	15.14	3	V	98	1.50	-
PK	10.60264G	54.37	74.00	-19.63	12.55	3	V	353	2.77	-
PK	15.90338G	60.04	74.00	-13.96	15.12	3	V	98	1.50	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5300MHz_TX

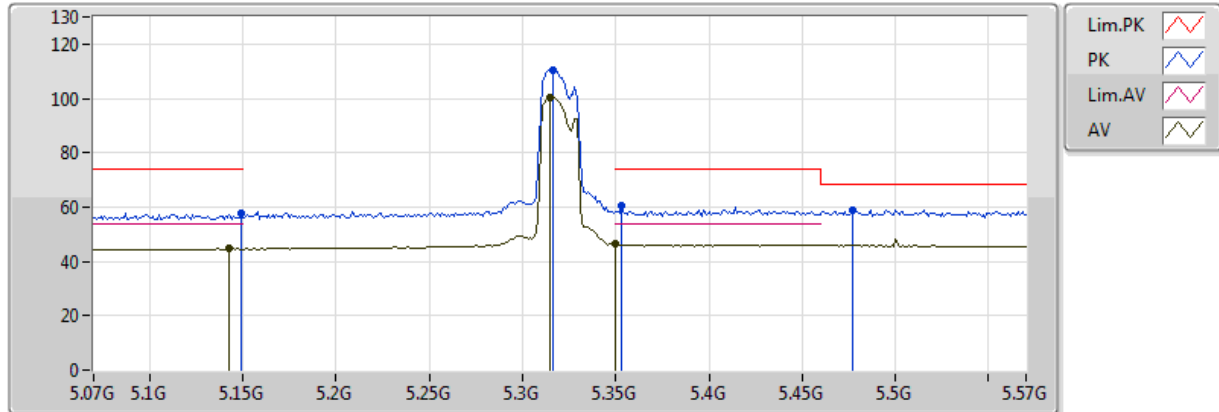


20170818
EUT X_2TX
Setting 18
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	10.60086G	40.51	54.00	-13.49	12.54	3	H	296	2.15	-
AV	15.89736G	46.08	54.00	-7.92	15.14	3	H	298	2.03	-
PK	10.60224G	54.90	74.00	-19.10	12.55	3	H	296	2.15	-
PK	15.90004G	60.34	74.00	-13.66	15.13	3	H	298	2.03	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5320MHz_TX

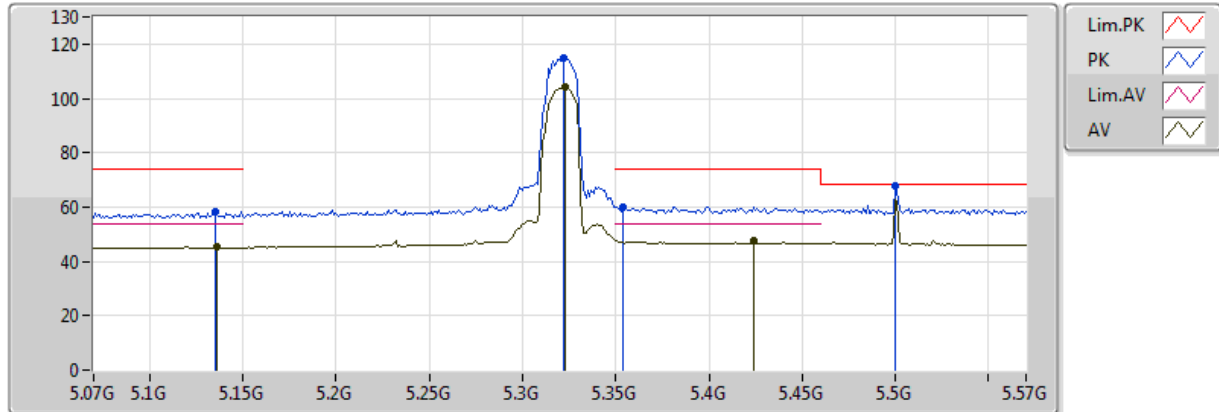


20170818
EUT_X_2TX
Setting 18
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.143G	44.59	54.00	-9.41	5.43	3	V	342	1.58	-
AV	5.315G	100.16	Inf	-Inf	5.77	3	V	342	1.58	-
AV	5.350005G	46.24	54.00	-7.76	5.83	3	V	342	1.58	-
PK	5.149G	57.89	74.00	-16.11	5.44	3	V	342	1.58	-
PK	5.316G	110.63	Inf	-Inf	5.77	3	V	342	1.58	-
PK	5.353G	60.79	74.00	-13.21	5.83	3	V	342	1.58	-
PK	5.477G	58.80	68.20	-9.40	6.10	3	V	342	1.58	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5320MHz_TX

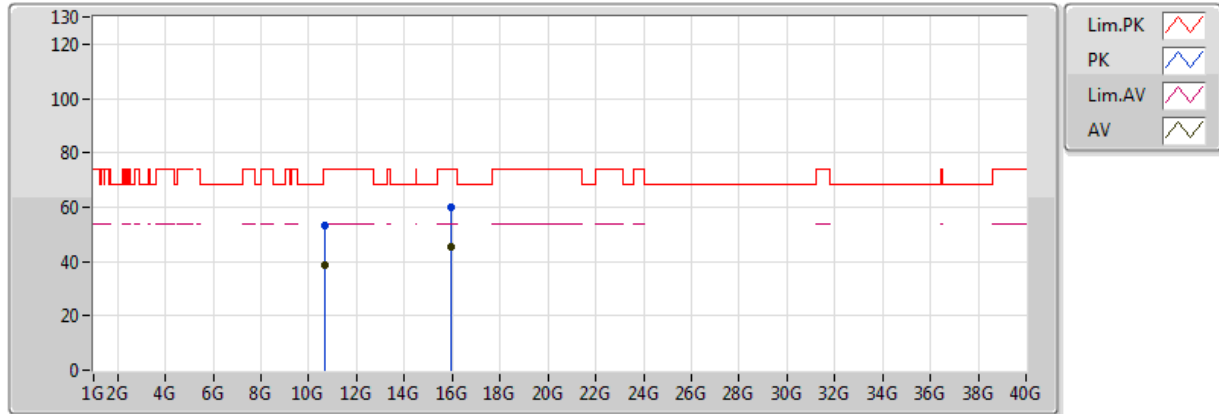


20170818
EUT_X_2TX
Setting 18
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.136G	45.47	54.00	-8.53	5.42	3	H	2	2.41	-
AV	5.323G	104.29	Inf	-Inf	5.78	3	H	2	2.41	-
AV	5.424G	47.74	54.00	-6.26	5.97	3	H	2	2.41	-
PK	5.135G	58.49	74.00	-15.51	5.41	3	H	2	2.41	-
PK	5.322G	115.03	Inf	-Inf	5.78	3	H	2	2.41	-
PK	5.354G	60.17	74.00	-13.83	5.83	3	H	2	2.41	-
PK	5.5G	67.87	68.20	-0.33	6.16	3	H	2	2.41	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5320MHz_TX

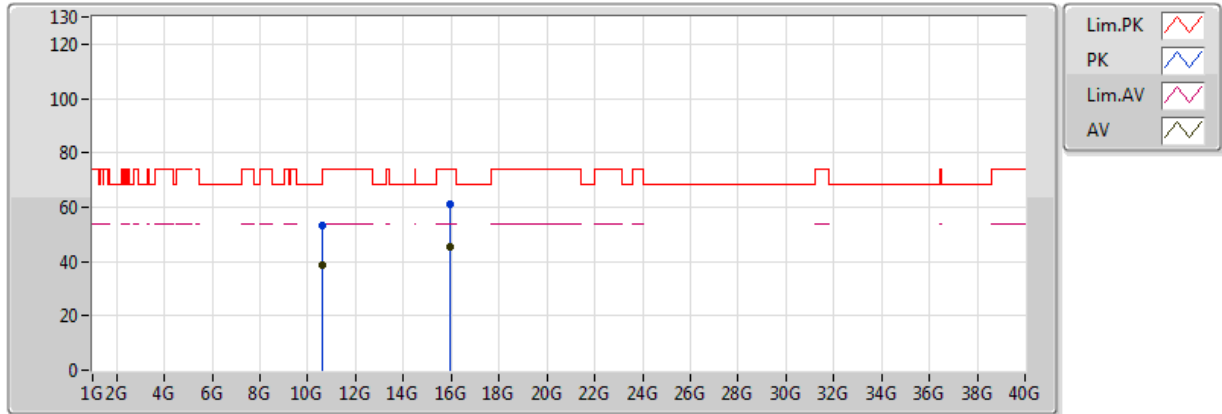


20170818
EUT_X_2TX
Setting 18
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	10.63994G	38.93	54.00	-15.07	12.58	3	V	357	1.40	-
AV	15.95514G	45.56	54.00	-8.44	14.96	3	V	43	1.02	-
PK	10.64268G	53.24	74.00	-20.76	12.58	3	V	357	1.40	-
PK	15.96258G	60.16	74.00	-13.84	14.93	3	V	43	1.02	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5320MHz_TX

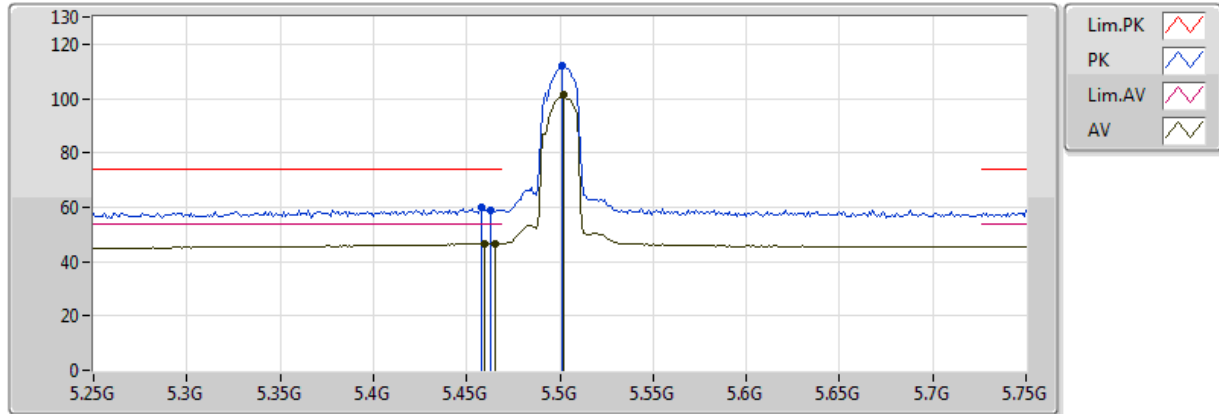


20170818
EUT_X_2TX
Setting 18
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	10.63728G	38.45	54.00	-15.55	12.58	3	H	355	1.50	-
AV	15.95854G	45.61	54.00	-8.39	14.94	3	H	50	1.40	-
PK	10.63852G	53.07	74.00	-20.93	12.58	3	H	355	1.50	-
PK	15.95734G	60.98	74.00	-13.02	14.95	3	H	50	1.40	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5500MHz_TX

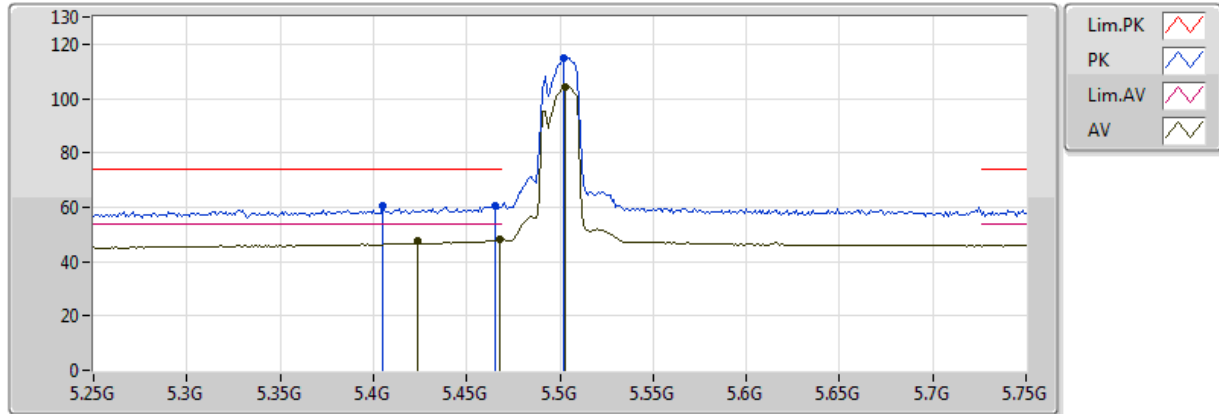


20170818
EUT X_2TX
Setting 18.5
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.46G	46.53	54.00	-7.47	6.06	3	V	0	1.18	-
AV	5.465G	46.68	54.00	-7.32	6.07	3	V	0	1.18	-
AV	5.502G	101.15	Inf	-Inf	6.16	3	V	0	1.18	-
PK	5.458G	59.70	74.00	-14.30	6.05	3	V	0	1.18	-
PK	5.463G	59.10	74.00	-14.90	6.07	3	V	0	1.18	-
PK	5.501G	112.11	Inf	-Inf	6.16	3	V	0	1.18	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5500MHz_TX

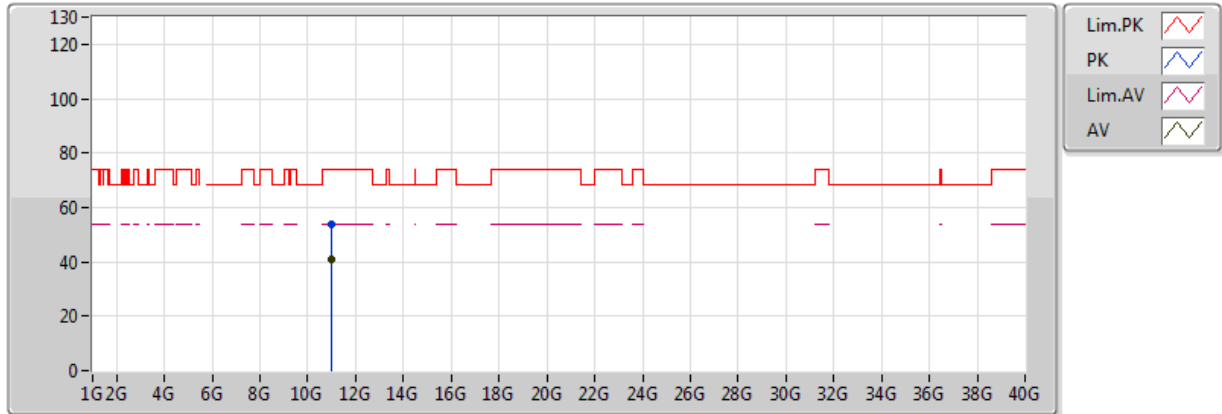


20170818
EUT X_2TX
Setting 18.5
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.424G	47.54	54.00	-6.46	5.97	3	H	349	1.54	-
AV	5.468G	48.05	54.00	-5.95	6.08	3	H	349	1.54	-
AV	5.503G	104.33	Inf	-Inf	6.16	3	H	349	1.54	-
PK	5.405G	60.47	74.00	-13.53	5.92	3	H	349	1.54	-
PK	5.465G	60.57	74.00	-13.43	6.07	3	H	349	1.54	-
PK	5.502G	114.86	Inf	-Inf	6.16	3	H	349	1.54	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5500MHz_TX

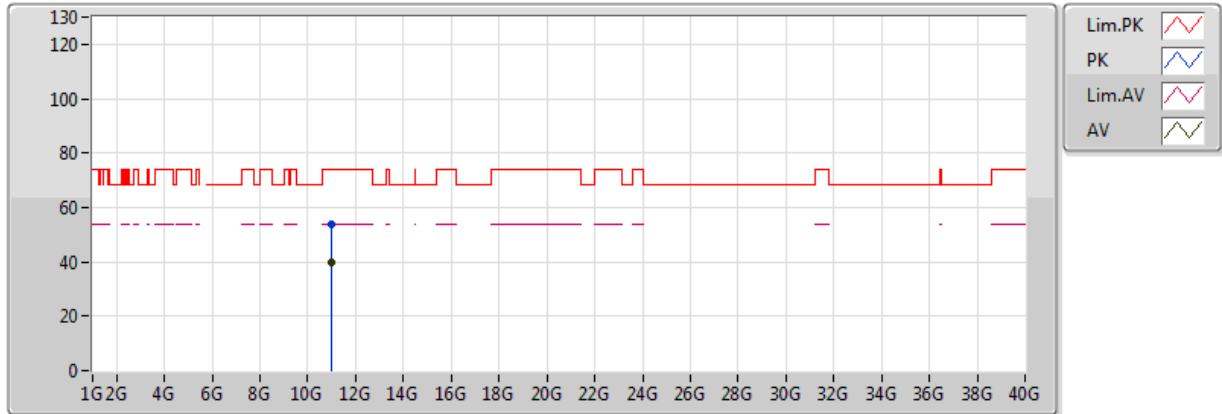


20170818
EUT X_2TX
Setting 18.5
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	10.99998G	40.72	54.00	-13.28	12.92	3	V	1	1.47	-
PK	10.99658G	53.60	74.00	-20.40	12.92	3	V	1	1.47	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5500MHz_TX

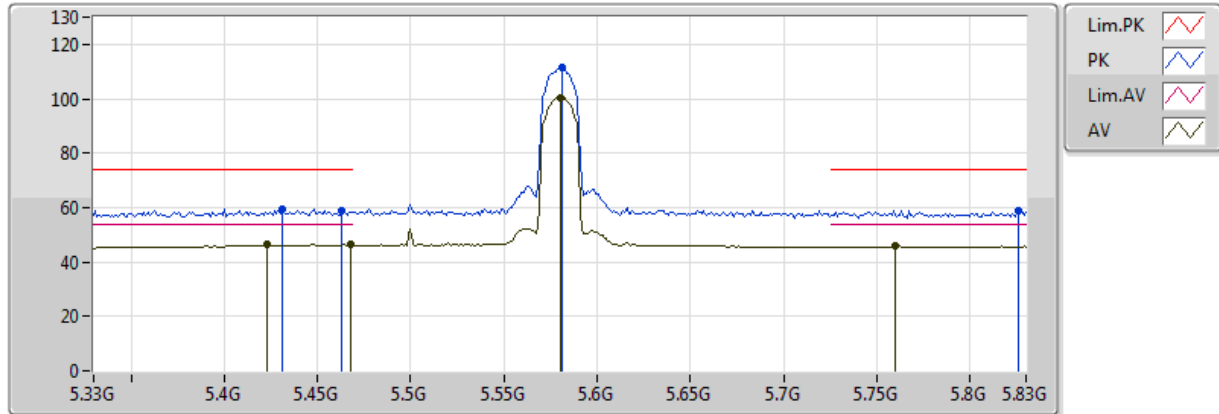


20170818
EUT X_2TX
Setting 18.5
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	10.9999G	40.02	54.00	-13.98	12.92	3	H	17	1.50	-
PK	10.9999G	54.04	74.00	-19.96	12.92	3	H	17	1.50	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5580MHz_TX

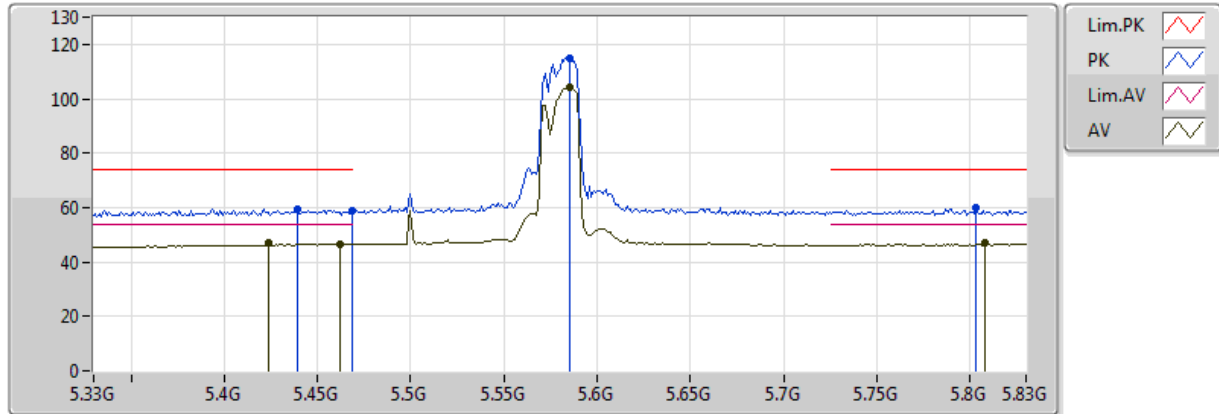


20170818
EUT X_2TX
Setting 18
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.423G	46.41	54.00	-7.59	5.97	3	V	31	2.27	-
AV	5.468G	46.35	54.00	-7.65	6.08	3	V	31	2.27	-
AV	5.58G	100.36	Inf	-Inf	6.22	3	V	31	2.27	-
AV	5.76G	45.94	54.00	-8.06	6.25	3	V	31	2.27	-
PK	5.431G	59.51	74.00	-14.49	5.99	3	V	31	2.27	-
PK	5.463G	58.93	74.00	-15.07	6.07	3	V	31	2.27	-
PK	5.581G	111.65	Inf	-Inf	6.22	3	V	31	2.27	-
PK	5.826G	59.09	74.00	-14.91	6.24	3	V	31	2.27	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5580MHz_TX

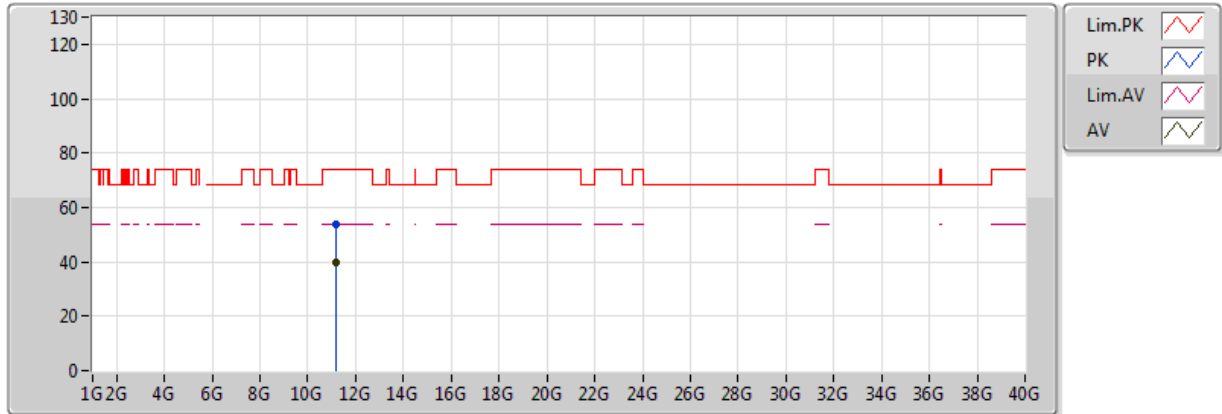


20170818
EUT_X_2TX
Setting 18
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.424G	47.08	54.00	-6.92	5.97	3	H	348	1.49	-
AV	5.462G	46.46	54.00	-7.54	6.06	3	H	348	1.49	-
AV	5.585G	104.14	Inf	-Inf	6.23	3	H	348	1.49	-
AV	5.808G	46.85	54.00	-7.15	6.25	3	H	348	1.49	-
PK	5.439G	59.43	74.00	-14.57	6.01	3	H	348	1.49	-
PK	5.469G	58.72	74.00	-15.28	6.08	3	H	348	1.49	-
PK	5.585G	114.88	Inf	-Inf	6.23	3	H	348	1.49	-
PK	5.803G	59.81	74.00	-14.19	6.25	3	H	348	1.49	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5580MHz_TX

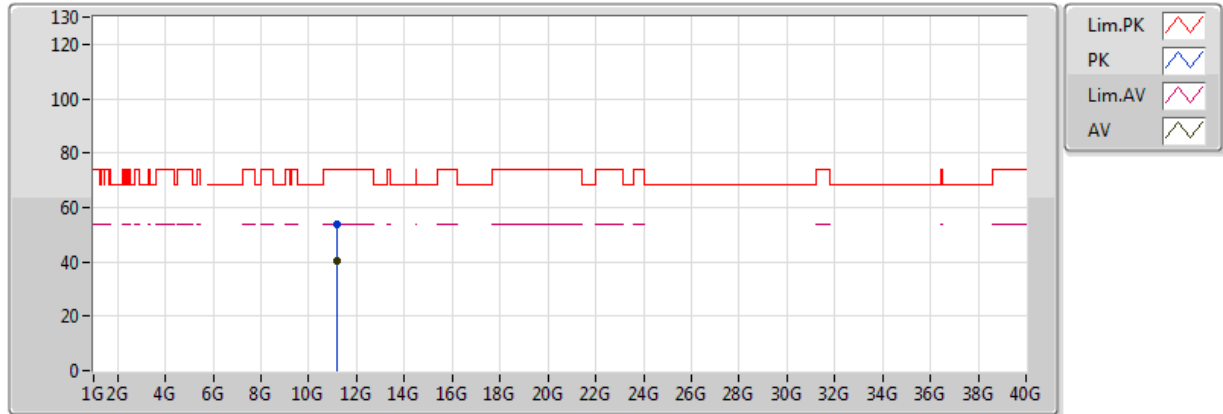


20170818
EUT X_2TX
Setting 18
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.15534G	39.77	54.00	-14.23	13.08	3	V	345	2.31	-
PK	11.15552G	53.73	74.00	-20.27	13.08	3	V	345	2.31	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5580MHz_TX

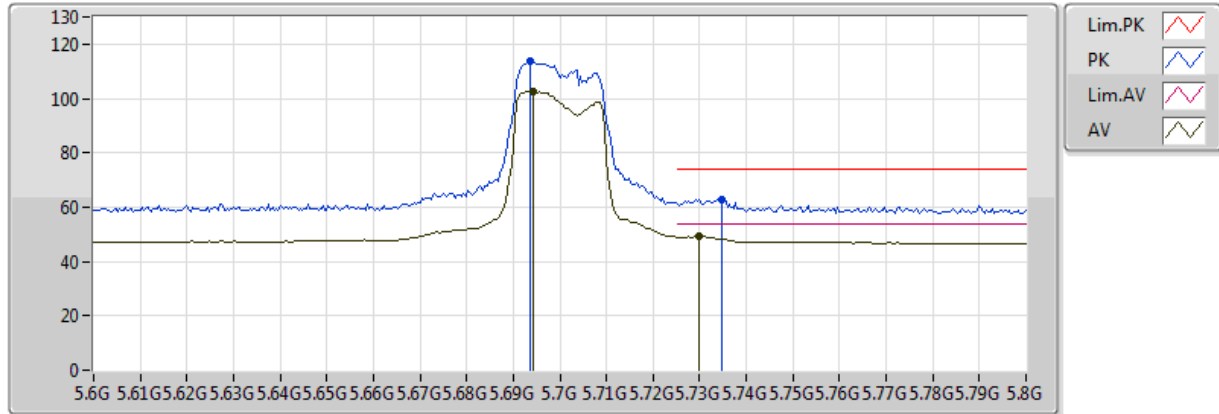


20170818
EUT X_2TX
Setting 18
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.1641G	40.31	54.00	-13.69	13.09	3	H	310	1.38	-
PK	11.16204G	53.66	74.00	-20.34	13.09	3	H	310	1.38	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5700MHz_TX

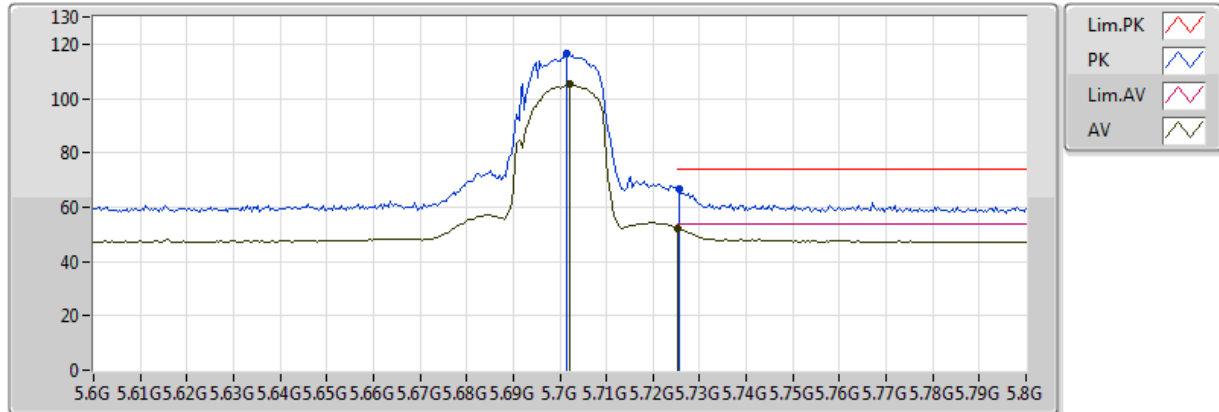


20170821
EUT_X_2TX
Setting 18
03-M-1-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.6944G	102.76	Inf	-Inf	6.25	3	V	339	1.01	-
AV	5.73G	49.10	54.00	-4.90	6.25	3	V	339	1.01	-
PK	5.6936G	113.82	Inf	-Inf	6.25	3	V	339	1.01	-
PK	5.7348G	62.98	74.00	-11.02	6.25	3	V	339	1.01	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5700MHz_TX

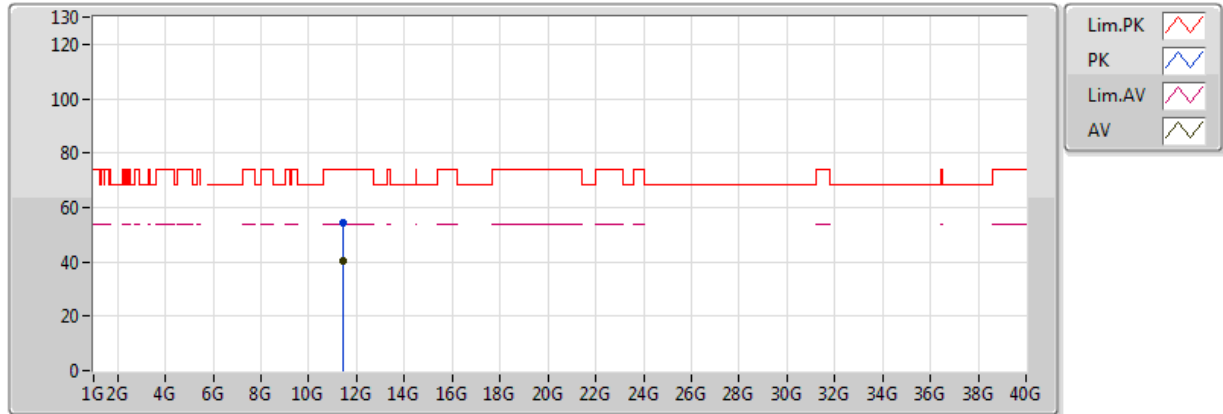


20170821
EUT_X_2TX
Setting 18
03-M-1-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.702G	105.16	Inf	-Inf	6.25	3	H	9	2.99	-
AV	5.7252G	52.28	54.00	-1.72	6.25	3	H	9	2.99	-
PK	5.7016G	116.61	Inf	-Inf	6.25	3	H	9	2.99	-
PK	5.7256G	66.60	74.00	-7.40	6.25	3	H	9	2.99	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5700MHz_TX

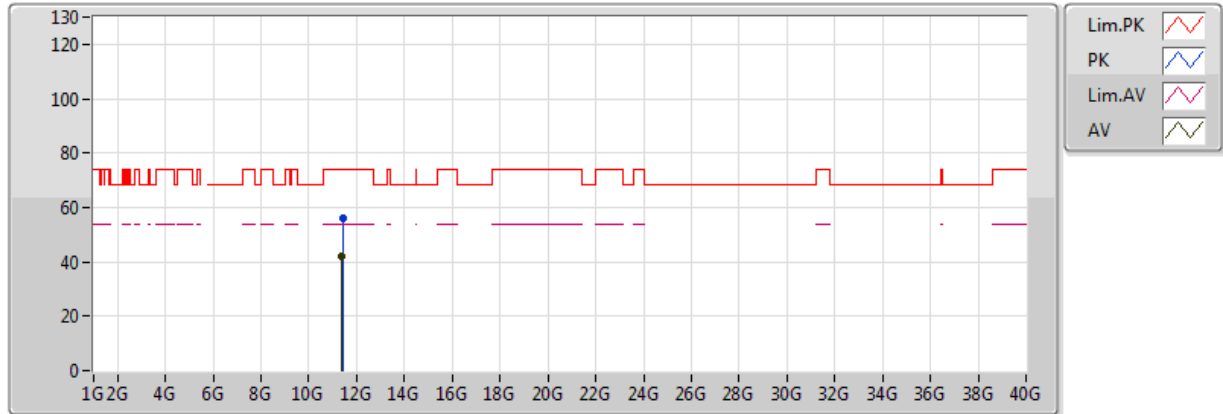


20170821
EUT X_2TX
Setting 18
03-M-1-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.40454G	40.58	54.00	-13.42	13.33	3	V	4	1.50	-
PK	11.40406G	54.60	74.00	-19.40	13.33	3	V	4	1.50	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5700MHz_TX

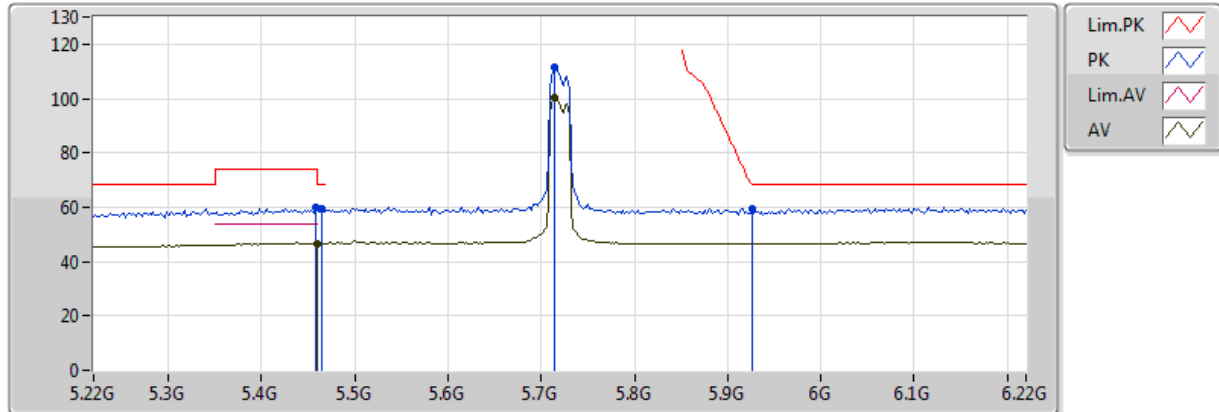


20170821
EUT X_2TX
Setting 18
03-M-1-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.39976G	41.88	54.00	-12.12	13.33	3	H	310	2.07	-
PK	11.4026G	56.12	74.00	-17.88	13.33	3	H	310	2.07	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5720MHz Straddle 5.47-5.725GHz_TX

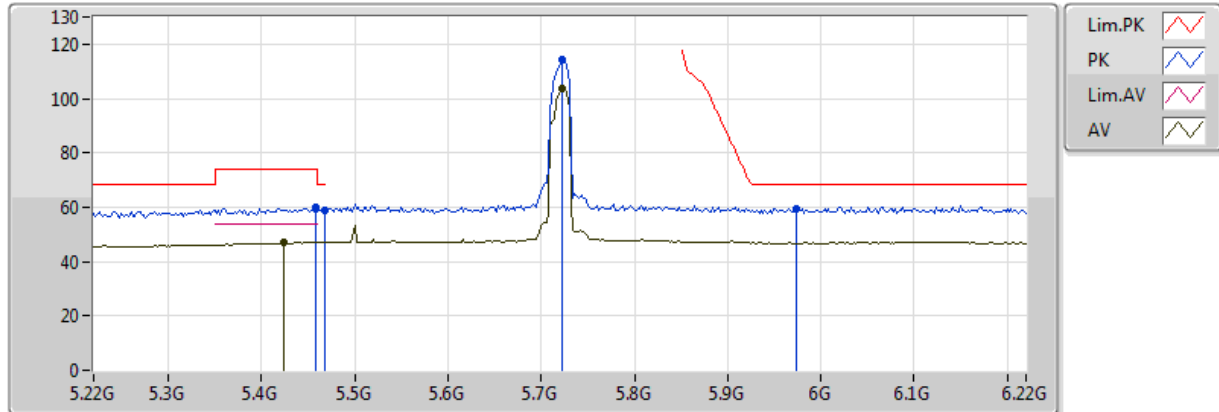


20170821
EUT_X_2TX
Setting 19.5
03-M-1-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.46G	46.78	54.00	-7.22	6.06	3	V	344	1.02	-
AV	5.714G	100.49	Inf	-Inf	6.25	3	V	344	1.02	-
PK	5.458G	59.68	74.00	-14.32	6.05	3	V	344	1.02	-
PK	5.464G	59.29	68.20	-8.91	6.07	3	V	344	1.02	-
PK	5.714G	111.54	Inf	-Inf	6.25	3	V	344	1.02	-
PK	5.926G	59.25	68.20	-8.95	6.19	3	V	344	1.02	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5720MHz Straddle 5.47-5.725GHz_TX

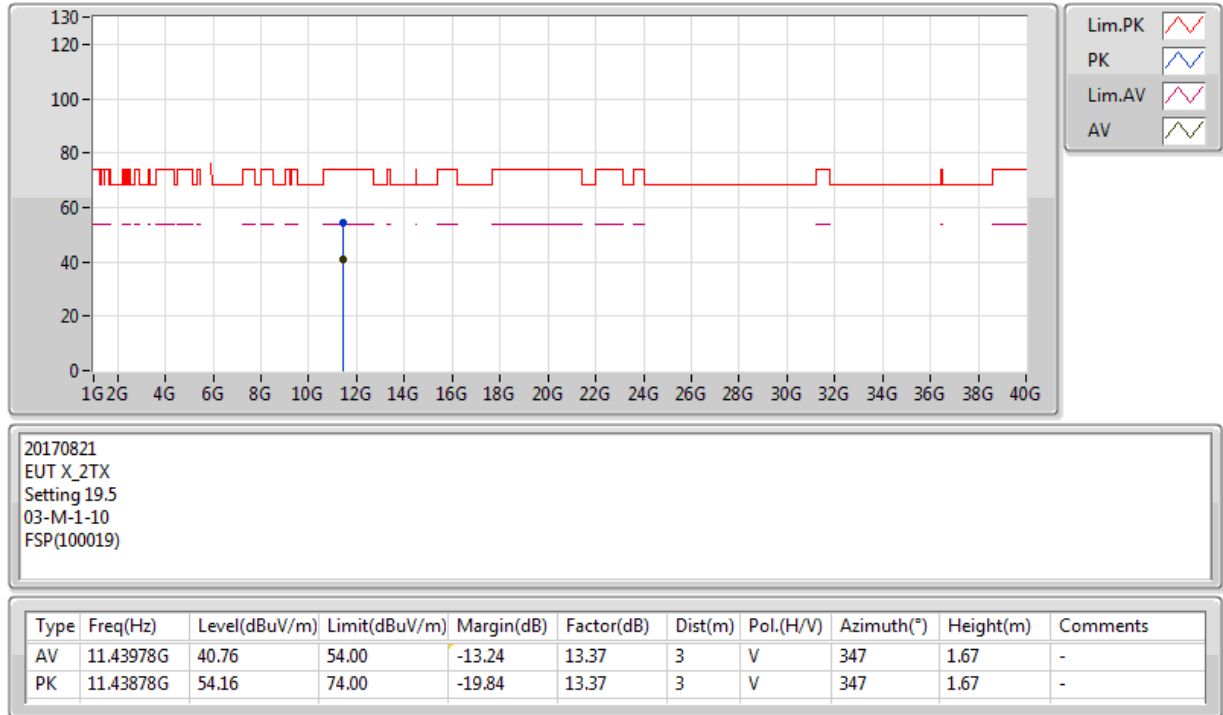


20170821
EUT_X_2TX
Setting 19.5
03-M-1-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.424G	47.28	54.00	-6.72	5.97	3	H	8	1.50	-
AV	5.722G	103.79	Inf	-Inf	6.25	3	H	8	1.50	-
PK	5.458G	59.77	74.00	-14.23	6.05	3	H	8	1.50	-
PK	5.468G	58.98	68.20	-9.22	6.08	3	H	8	1.50	-
PK	5.722G	114.50	Inf	-Inf	6.25	3	H	8	1.50	-
PK	5.974G	59.63	68.20	-8.57	6.16	3	H	8	1.50	-

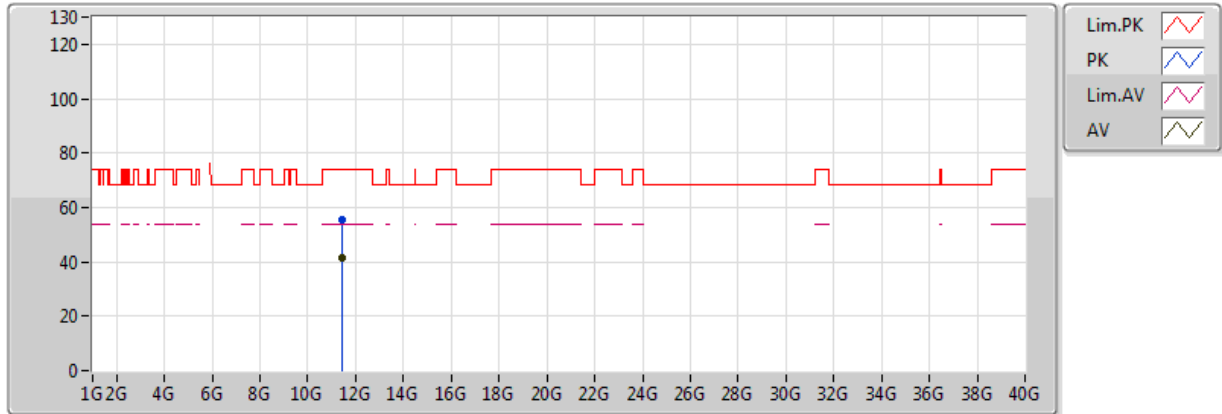
802.11ac VHT20_Nss1,(MCS0)_2TX

5720MHz Straddle 5.47-5.725GHz_TX



802.11ac VHT20_Nss1,(MCS0)_2TX

5720MHz Straddle 5.47-5.725GHz_TX

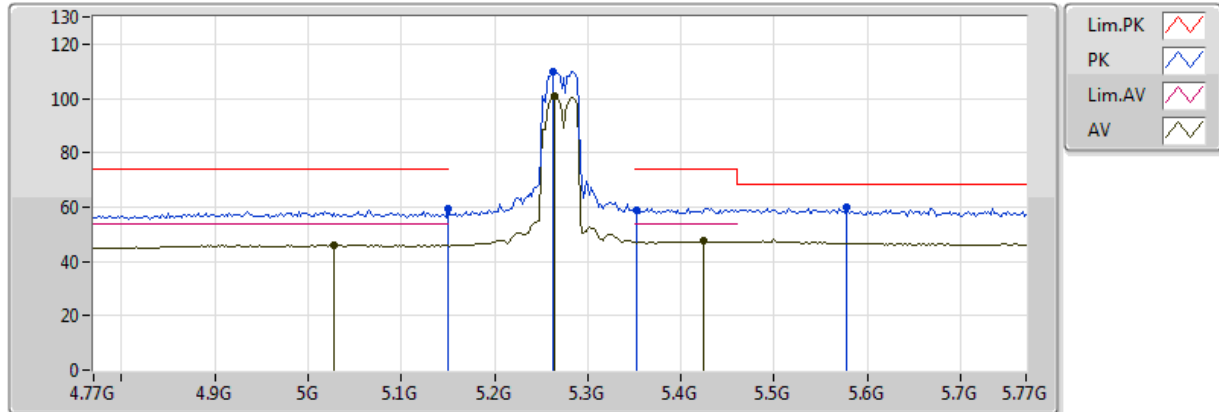


20170821
EUT_X_2TX
Setting 19.5
03-M-1-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.44214G	41.52	54.00	-12.48	13.37	3	H	311	2.11	-
PK	11.44184G	55.35	74.00	-18.65	13.37	3	H	311	2.11	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5270MHz_TX

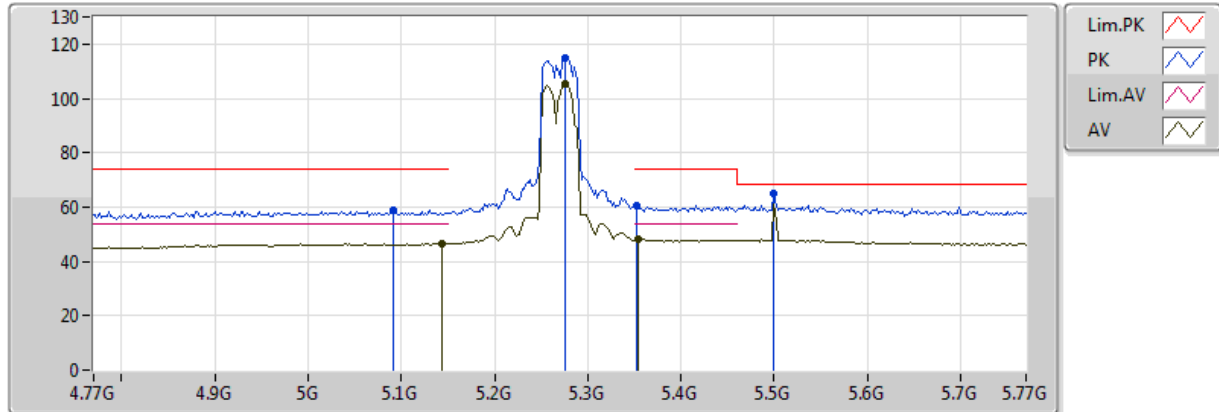


20170821
EUT_X_2TX
Setting 20.5
03-M-1-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.028G	46.00	54.00	-8.00	5.16	3	V	337	1.47	-
AV	5.264G	100.96	Inf	-Inf	5.67	3	V	337	1.47	-
AV	5.424G	47.45	54.00	-6.55	5.97	3	V	337	1.47	-
PK	5.149995G	59.25	74.00	-14.75	5.44	3	V	337	1.47	-
PK	5.262G	110.00	Inf	-Inf	5.67	3	V	337	1.47	-
PK	5.578G	59.80	68.20	-8.40	6.22	3	V	337	1.47	-
PK	5.352G	58.70	74.00	-15.30	5.83	3	V	337	1.47	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5270MHz_TX

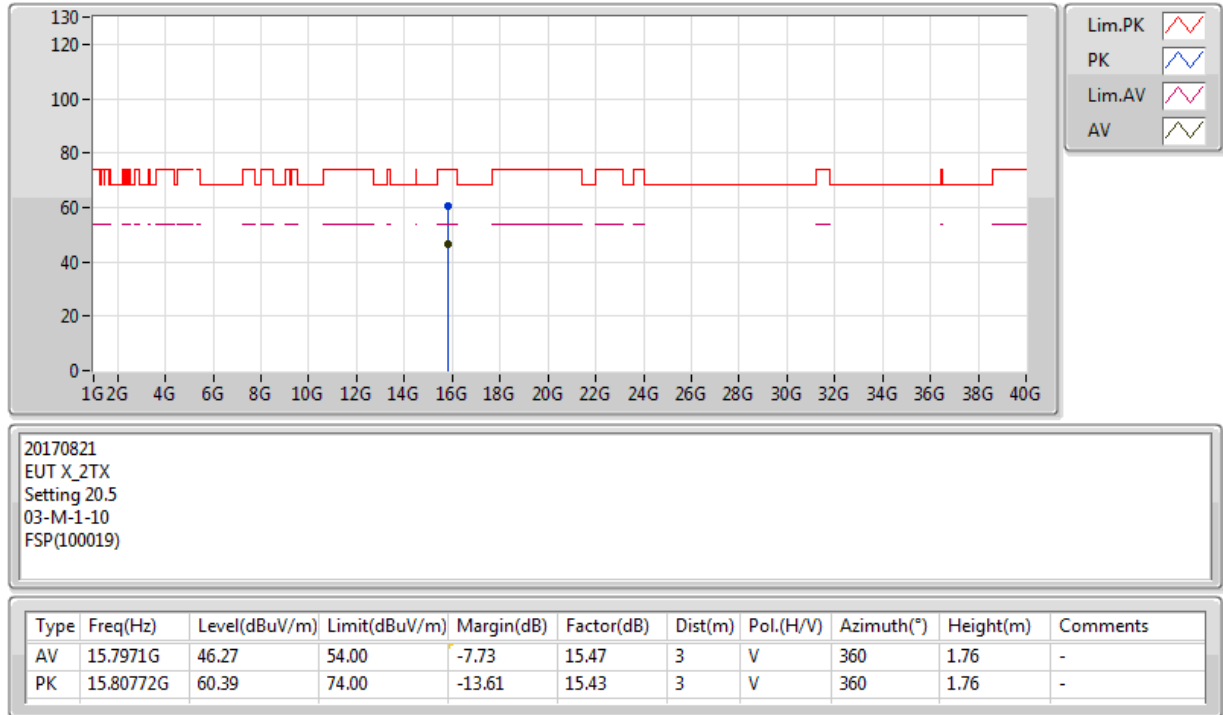


20170821
EUT_X_2TX
Setting 20.5
03-M-1-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.144G	46.49	54.00	-7.51	5.43	3	H	6	2.44	-
AV	5.276G	105.42	Inf	-Inf	5.69	3	H	6	2.44	-
AV	5.354G	48.14	54.00	-5.86	5.83	3	H	6	2.44	-
PK	5.092G	58.74	74.00	-15.26	5.32	3	H	6	2.44	-
PK	5.276G	114.82	Inf	-Inf	5.69	3	H	6	2.44	-
PK	5.5G	65.17	68.20	-3.03	6.16	3	H	6	2.44	-
PK	5.352G	60.61	74.00	-13.39	5.83	3	H	6	2.44	-

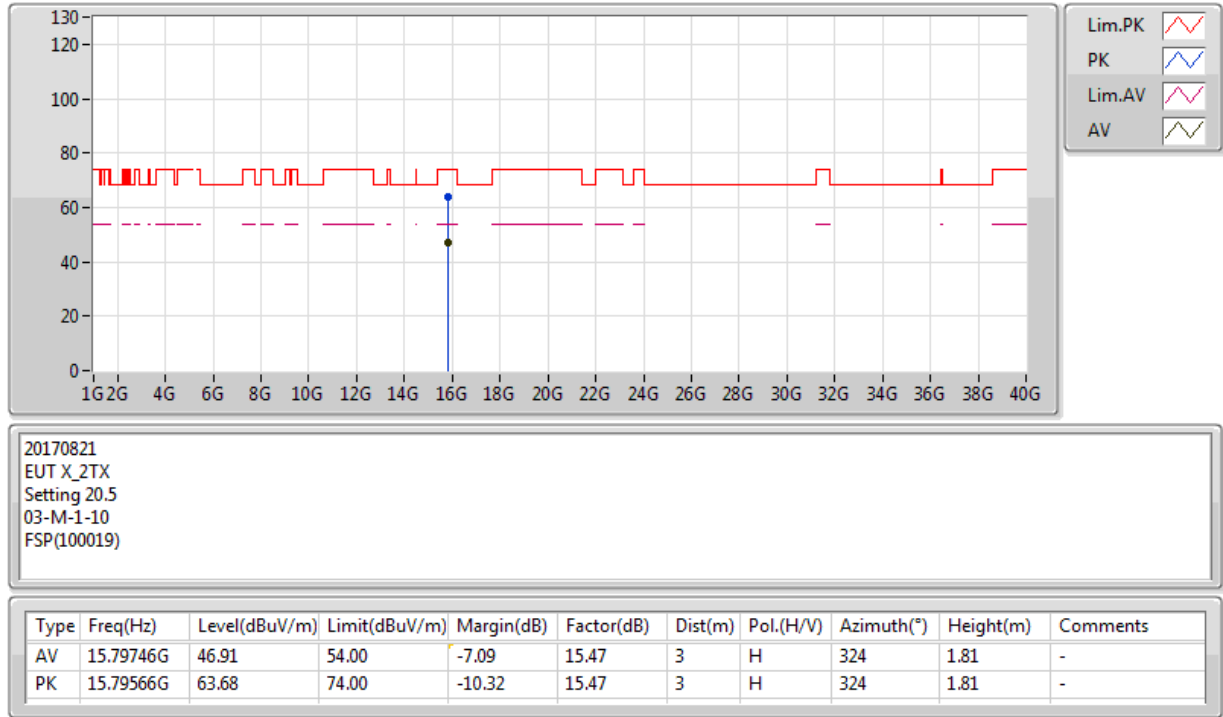
802.11ac VHT40_Nss1,(MCS0)_2TX

5270MHz_TX



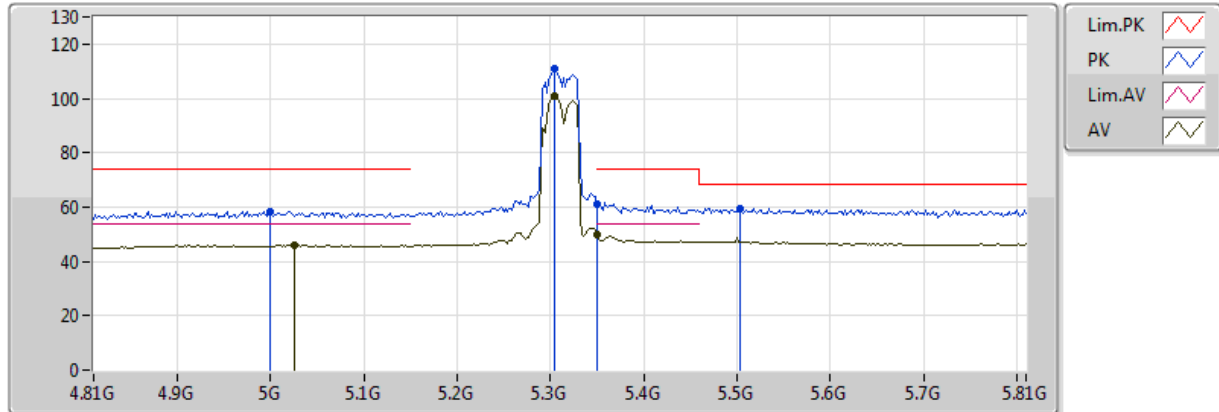
802.11ac VHT40_Nss1,(MCS0)_2TX

5270MHz_TX



802.11ac VHT40_Nss1,(MCS0)_2TX

5310MHz_TX

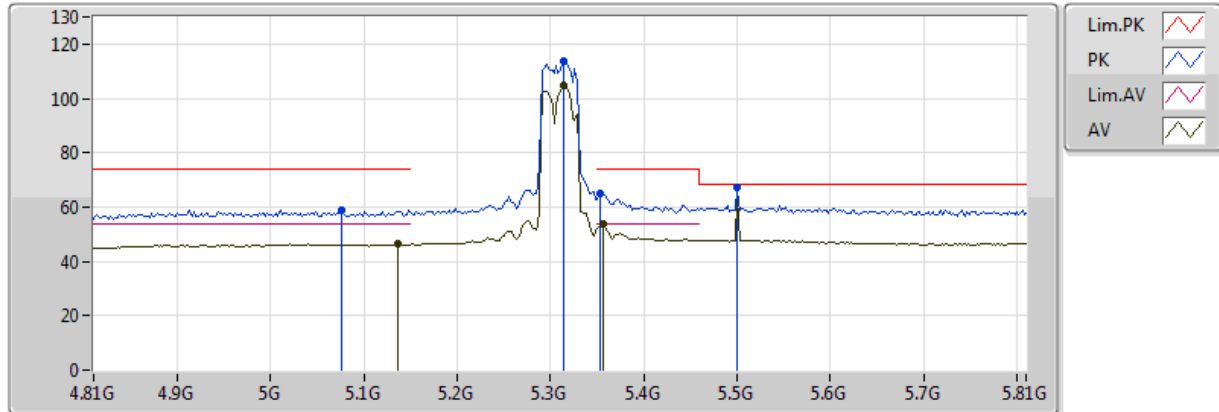


20170821
EUT_X_2TX
Setting 19
03-M-1-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.026G	46.03	54.00	-7.97	5.15	3	V	338	1.40	-
AV	5.304G	101.06	Inf	-Inf	5.75	3	V	338	1.40	-
AV	5.350005G	50.00	54.00	-4.00	5.83	3	V	338	1.40	-
PK	5G	58.19	74.00	-15.81	5.09	3	V	338	1.40	-
PK	5.304G	110.78	Inf	-Inf	5.75	3	V	338	1.40	-
PK	5.504G	59.63	68.20	-8.57	6.16	3	V	338	1.40	-
PK	5.350005G	61.35	74.00	-12.65	5.83	3	V	338	1.40	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5310MHz_TX

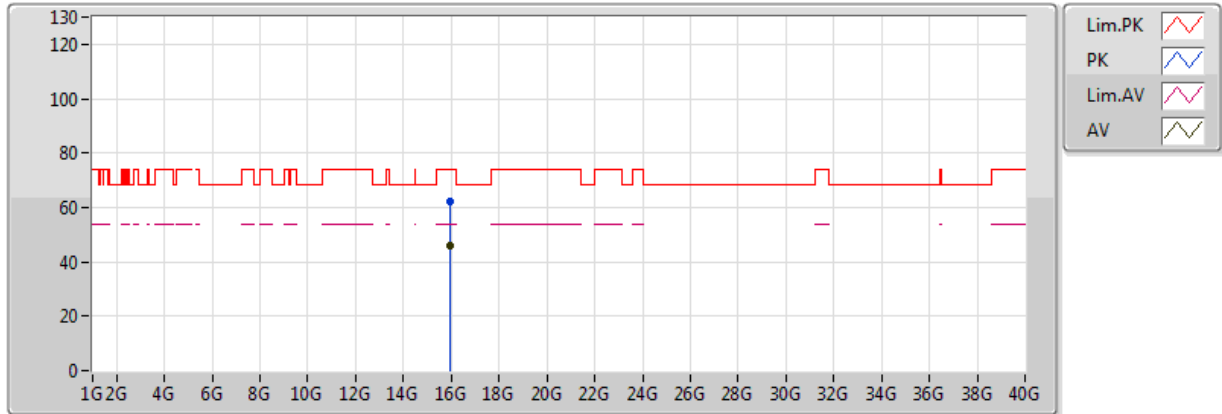


20170821
EUT_X_2TX
Setting 19
03-M-1-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.136G	46.48	54.00	-7.52	5.42	3	H	3	2.39	-
AV	5.314G	104.70	Inf	-Inf	5.76	3	H	3	2.39	-
AV	5.356G	53.76	54.00	-0.24	5.84	3	H	3	2.39	-
PK	5.076G	58.63	74.00	-15.37	5.28	3	H	3	2.39	-
PK	5.314G	113.88	Inf	-Inf	5.76	3	H	3	2.39	-
PK	5.5G	67.34	68.20	-0.86	6.16	3	H	3	2.39	-
PK	5.354G	65.25	74.00	-8.75	5.83	3	H	3	2.39	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5310MHz_TX

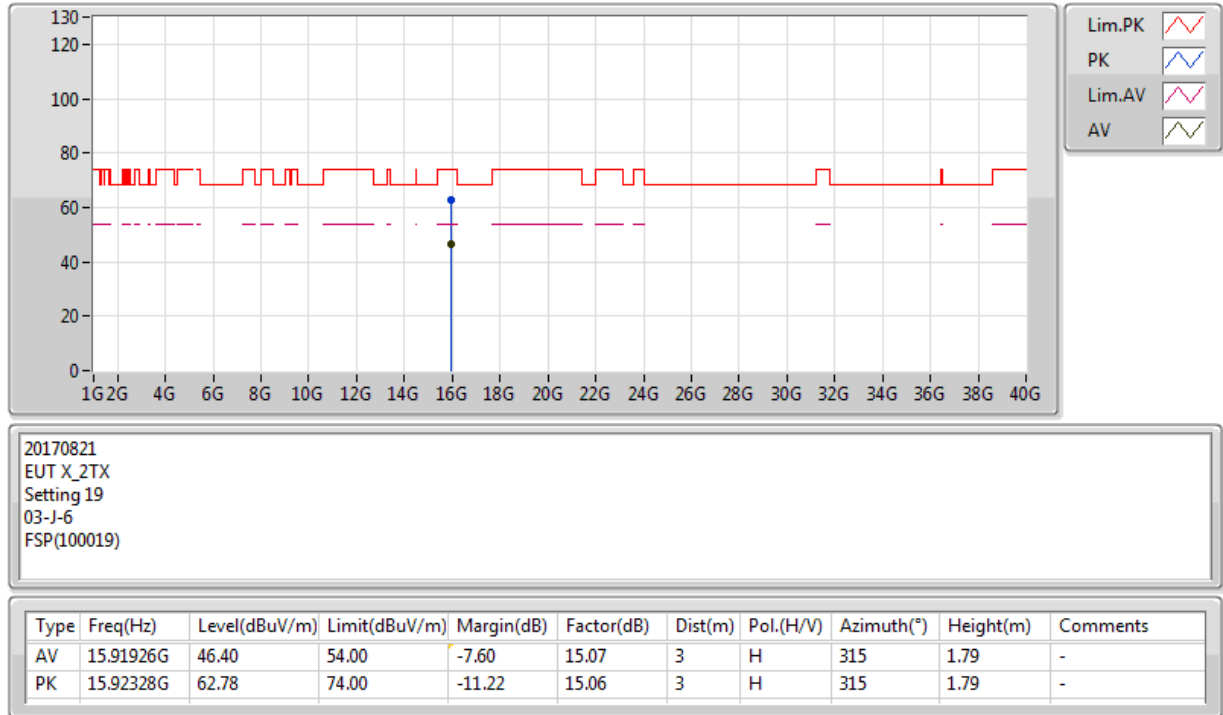


20170821
EUT_X_2TX
Setting 19
03-J-6
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.92958G	46.13	54.00	-7.87	15.04	3	V	341	1.98	-
PK	15.93396G	62.12	74.00	-11.88	15.02	3	V	341	1.98	-

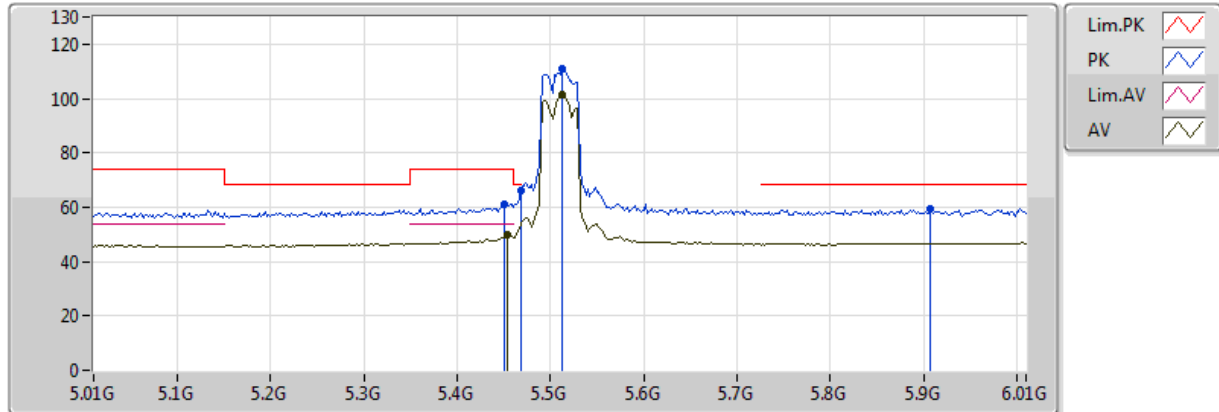
802.11ac VHT40_Nss1,(MCS0)_2TX

5310MHz_TX



802.11ac VHT40_Nss1,(MCS0)_2TX

5510MHz_TX

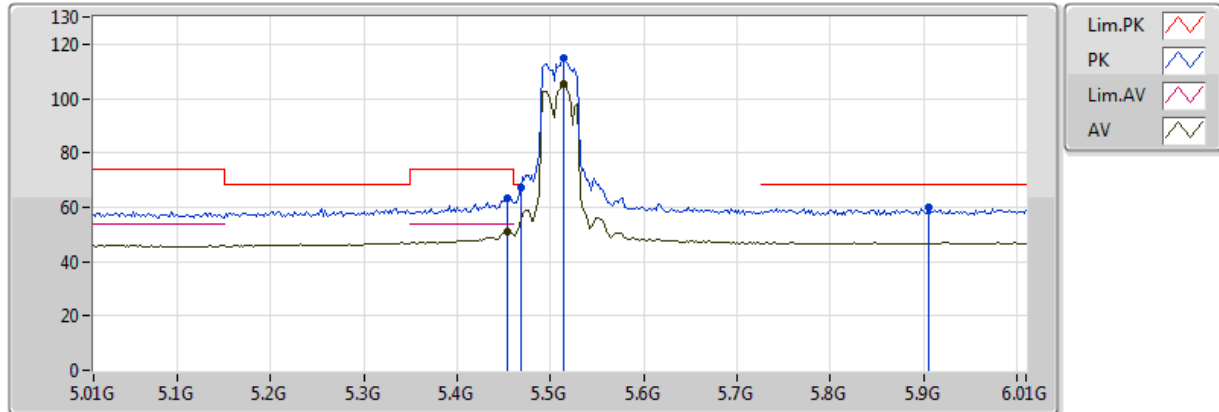


20170821
EUT X_2TX
Setting 19.5
03-M-1-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.454G	49.80	54.00	-4.20	6.05	3	V	360	1.01	-
AV	5.512G	101.57	Inf	-Inf	6.17	3	V	360	1.01	-
PK	5.468G	66.33	68.20	-1.87	6.08	3	V	360	1.01	-
PK	5.512G	110.88	Inf	-Inf	6.17	3	V	360	1.01	-
PK	5.908G	59.25	68.20	-8.95	6.20	3	V	360	1.01	-
PK	5.45G	60.98	74.00	-13.02	6.03	3	V	360	1.01	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5510MHz_TX

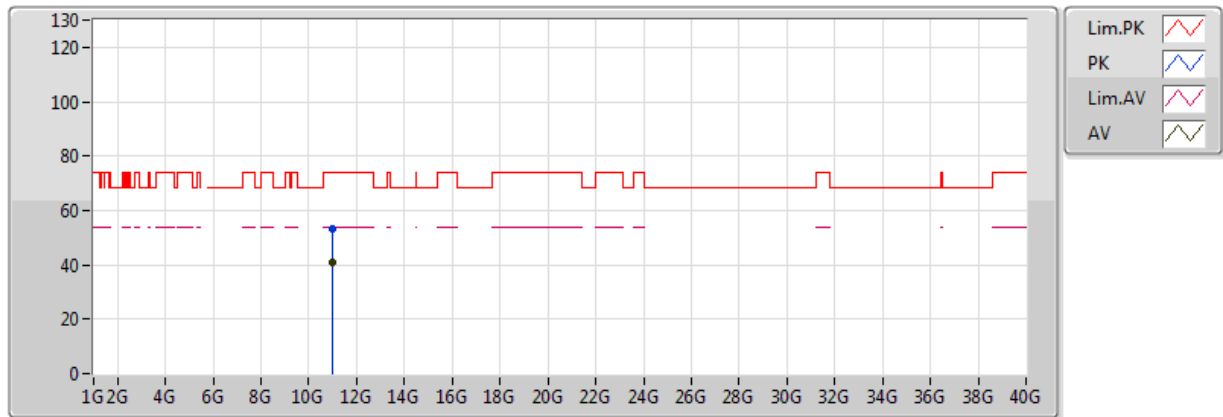


20170821
EUT X_2TX
Setting 19.5
03-M-1-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.454G	51.24	54.00	-2.76	6.05	3	H	354	2.62	-
AV	5.514G	105.44	Inf	-Inf	6.17	3	H	354	2.62	-
PK	5.468G	66.99	68.20	-1.21	6.08	3	H	354	2.62	-
PK	5.514G	114.97	Inf	-Inf	6.17	3	H	354	2.62	-
PK	5.906G	59.99	68.20	-8.21	6.20	3	H	354	2.62	-
PK	5.454G	63.04	74.00	-10.96	6.05	3	H	354	2.62	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5510MHz_TX

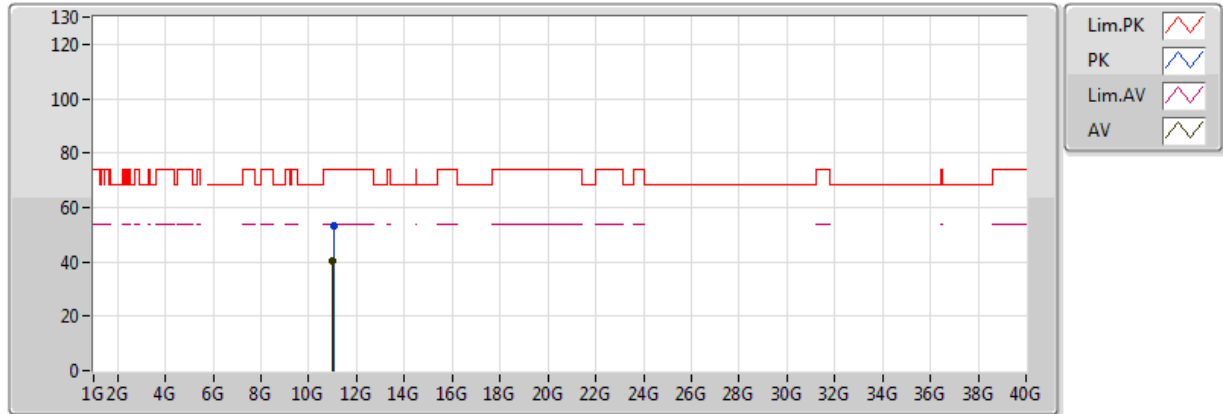


20170821
EUT X_2TX
Setting 19.5
03-J-6
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.00626G	40.66	54.00	-13.34	12.93	3	V	205	1.91	-
PK	11.00908G	53.43	74.00	-20.57	12.93	3	V	205	1.91	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5510MHz_TX

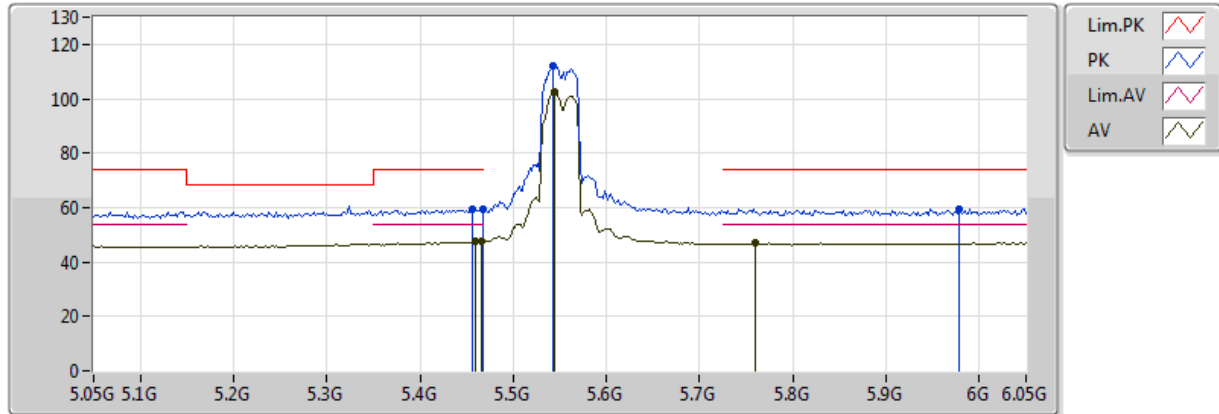


20170821
EUT_X_2TX
Setting 19.5
03-J-6
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.00626G	40.27	54.00	-13.73	12.93	3	H	90	2.04	-
PK	11.02846G	53.33	74.00	-20.67	12.95	3	H	90	2.04	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5550MHz_TX

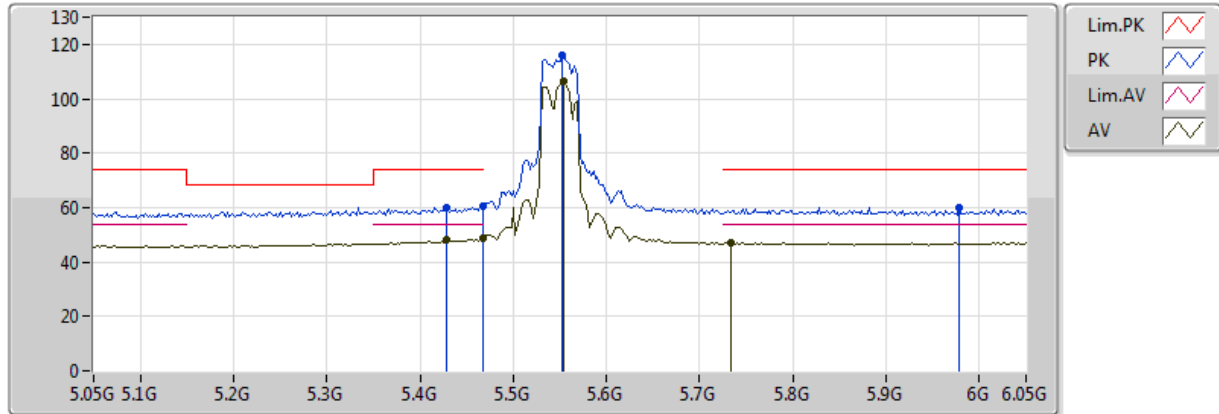


20170821
EUT X_2TX
Setting 21
03-M-1-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.46G	47.36	54.00	-6.64	6.06	3	V	344	1.00	-
AV	5.466G	47.60	54.00	-6.40	6.08	3	V	344	1.00	-
AV	5.544G	102.47	Inf	-Inf	6.20	3	V	344	1.00	-
AV	5.76G	46.97	54.00	-7.03	6.25	3	V	344	1.00	-
PK	5.468G	59.66	74.00	-14.34	6.08	3	V	344	1.00	-
PK	5.542G	111.95	Inf	-Inf	6.19	3	V	344	1.00	-
PK	5.978G	59.46	74.00	-14.54	6.16	3	V	344	1.00	-
PK	5.456G	59.31	74.00	-14.69	6.05	3	V	344	1.00	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5550MHz_TX

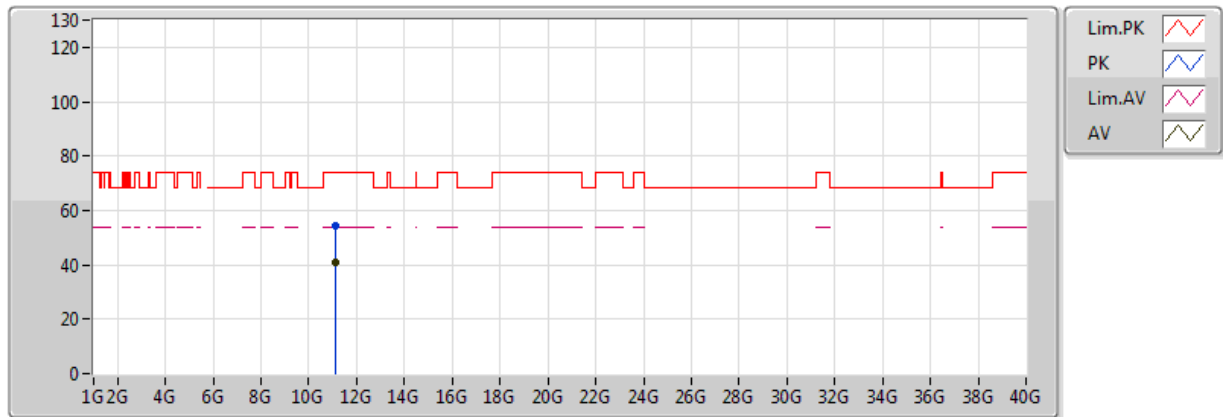


20170821
EUT X_2TX
Setting 21
03-M-1-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.428G	48.08	54.00	-5.92	5.98	3	H	351	2.70	-
AV	5.468G	48.95	54.00	-5.05	6.08	3	H	351	2.70	-
AV	5.554G	106.45	Inf	-Inf	6.20	3	H	351	2.70	-
AV	5.734G	46.90	54.00	-7.10	6.25	3	H	351	2.70	-
PK	5.468G	60.63	74.00	-13.37	6.08	3	H	351	2.70	-
PK	5.552G	115.84	Inf	-Inf	6.20	3	H	351	2.70	-
PK	5.978G	60.01	74.00	-13.99	6.16	3	H	351	2.70	-
PK	5.428G	60.23	74.00	-13.77	5.98	3	H	351	2.70	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5550MHz_TX

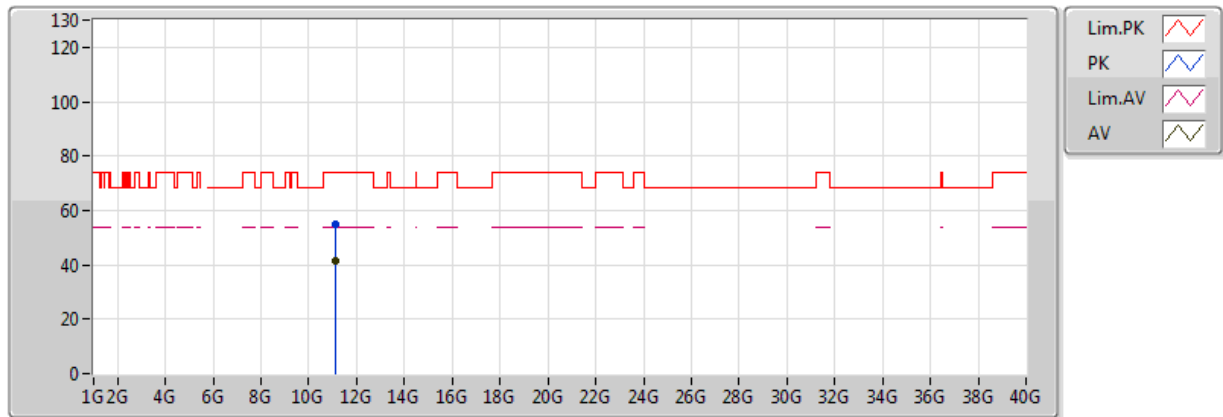


20170821
EUT X_2TX
Setting 21
03-M-1-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.10036G	40.73	54.00	-13.27	13.02	3	V	268	1.04	-
PK	11.09772G	54.46	74.00	-19.54	13.02	3	V	268	1.04	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5550MHz_TX

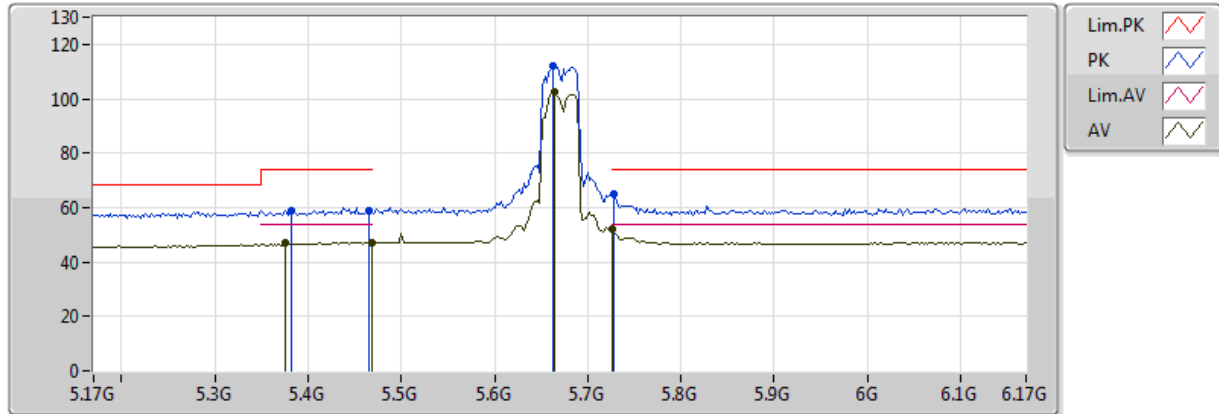


20170821
EUT X_2TX
Setting 21
03-M-1-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.10036G	41.49	54.00	-12.51	13.02	3	H	303	2.45	-
PK	11.10504G	54.96	74.00	-19.04	13.03	3	H	303	2.45	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5670MHz_TX

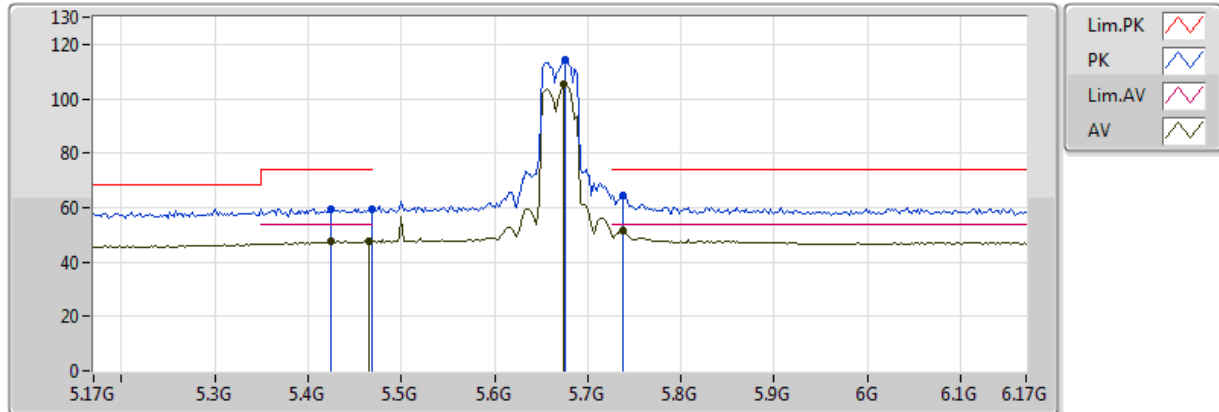


20170821
EUT X_2TX
Setting 20
03-M-1-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.376G	47.12	54.00	-6.88	5.87	3	V	341	1.04	-
AV	5.468G	47.14	54.00	-6.86	6.08	3	V	341	1.04	-
AV	5.664G	102.35	Inf	-Inf	6.25	3	V	341	1.04	-
AV	5.726G	52.25	54.00	-1.75	6.25	3	V	341	1.04	-
PK	5.466G	58.80	74.00	-15.20	6.08	3	V	341	1.04	-
PK	5.662G	112.09	Inf	-Inf	6.25	3	V	341	1.04	-
PK	5.728G	65.10	74.00	-8.90	6.25	3	V	341	1.04	-
PK	5.382G	59.00	74.00	-15.00	5.88	3	V	341	1.04	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5670MHz_TX

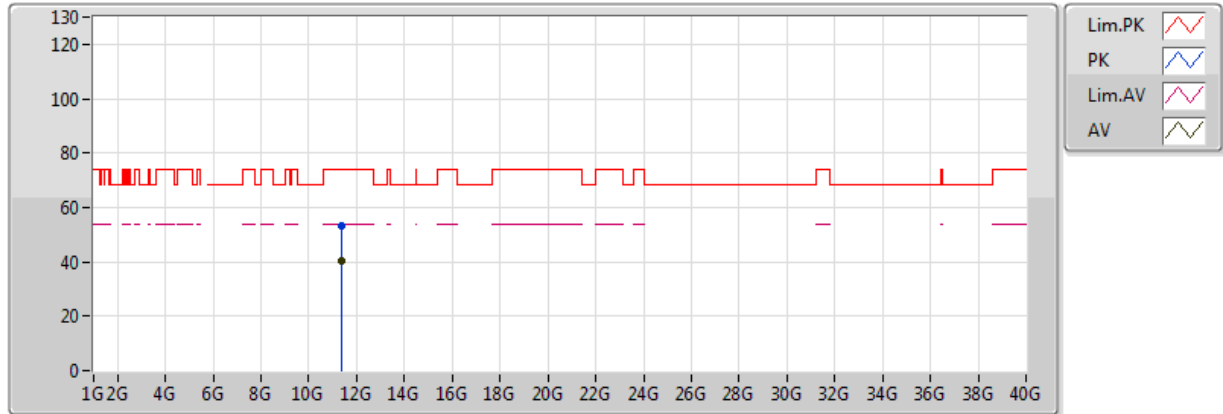


20170821
EUT X_2TX
Setting 20
03-M-1-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.424G	47.69	54.00	-6.31	5.97	3	H	8	1.62	-
AV	5.466G	47.56	54.00	-6.44	6.08	3	H	8	1.62	-
AV	5.674G	105.11	Inf	-Inf	6.25	3	H	8	1.62	-
AV	5.738G	51.47	54.00	-2.53	6.25	3	H	8	1.62	-
PK	5.468G	59.19	74.00	-14.81	6.08	3	H	8	1.62	-
PK	5.676G	114.57	Inf	-Inf	6.25	3	H	8	1.62	-
PK	5.738G	64.25	74.00	-9.75	6.25	3	H	8	1.62	-
PK	5.424G	59.30	74.00	-14.70	5.97	3	H	8	1.62	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5670MHz_TX

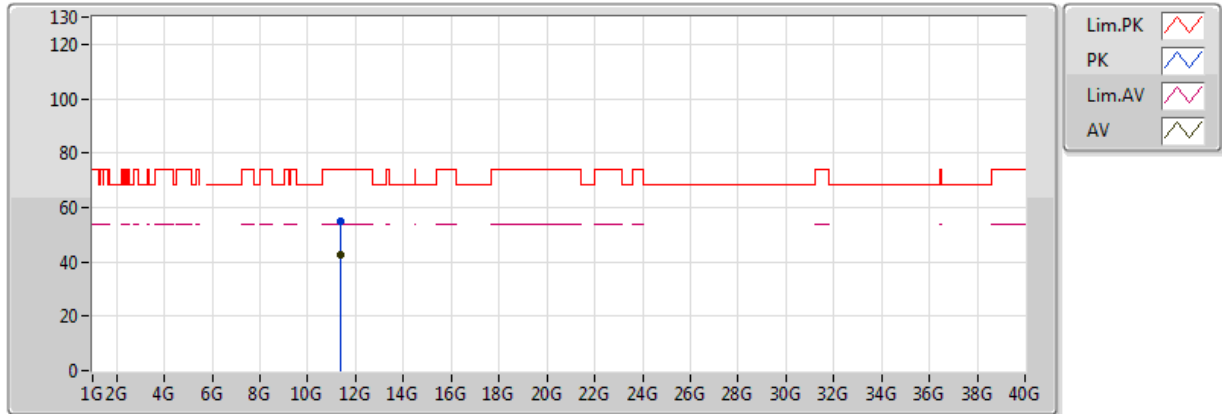


20170821
EUT_X_2TX
Setting 20
03-J-6
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.34762G	40.51	54.00	-13.49	13.27	3	V	298	2.06	-
PK	11.34954G	53.35	74.00	-20.65	13.28	3	V	298	2.06	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5670MHz_TX

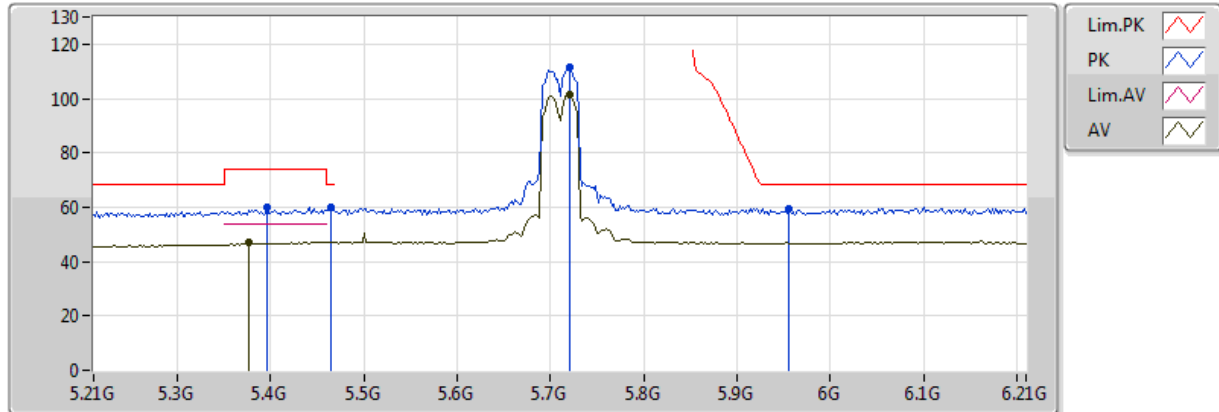


20170821
EUT X_2TX
Setting 20
03-J-6
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.34G	42.37	54.00	-11.63	13.27	3	H	308	2.09	-
PK	11.34036G	54.78	74.00	-19.22	13.27	3	H	308	2.09	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5710MHz Straddle 5.47-5.725GHz_TX

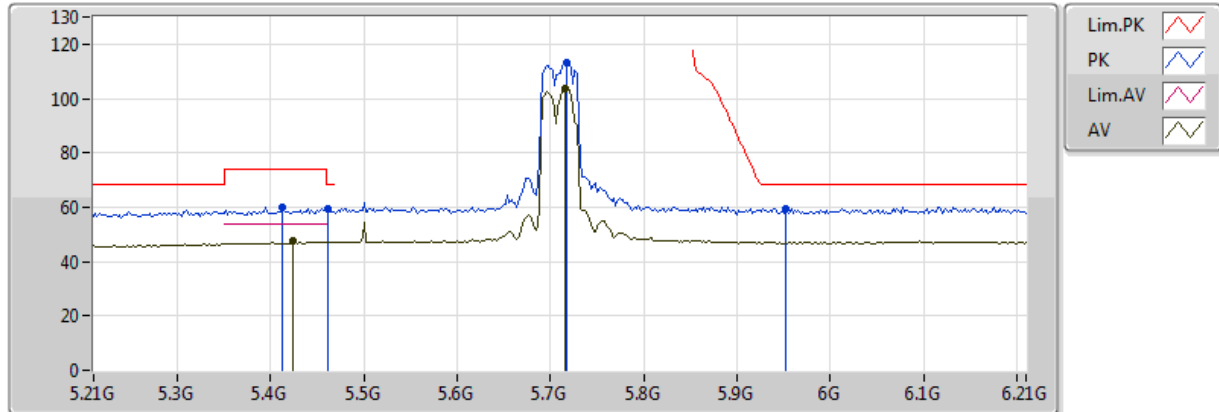


20170821
EUT_X_2TX
Setting 21
03-J-6
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.376G	47.31	54.00	-6.69	5.87	3	V	337	1.03	-
AV	5.72G	101.51	Inf	-Inf	6.25	3	V	337	1.03	-
PK	5.396G	60.04	74.00	-13.96	5.90	3	V	337	1.03	-
PK	5.464G	60.13	68.20	-8.07	6.07	3	V	337	1.03	-
PK	5.72G	111.43	Inf	-Inf	6.25	3	V	337	1.03	-
PK	5.956G	59.51	68.20	-8.69	6.17	3	V	337	1.03	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5710MHz Straddle 5.47-5.725GHz_TX

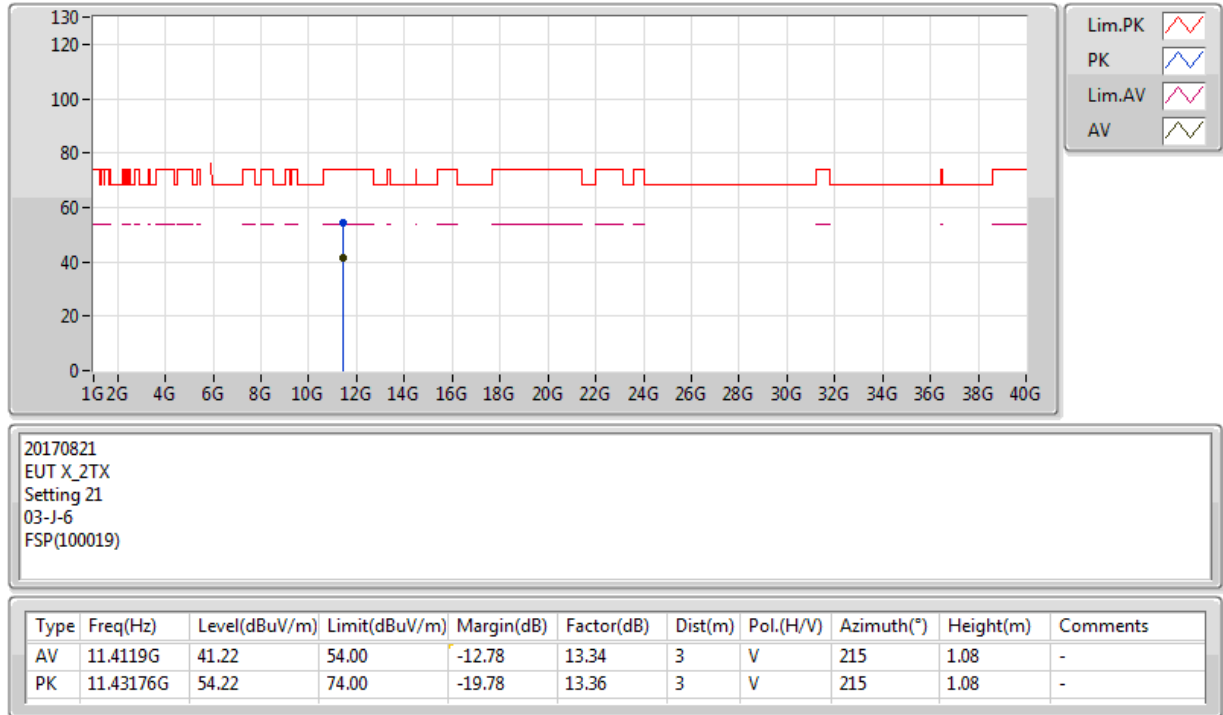


20170821
EUT_X_2TX
Setting 21
03-J-6
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.424G	47.60	54.00	-6.40	5.97	3	H	344	1.50	-
AV	5.716G	103.92	Inf	-Inf	6.25	3	H	344	1.50	-
PK	5.412G	60.08	74.00	-13.92	5.94	3	H	344	1.50	-
PK	5.462G	59.36	68.20	-8.84	6.06	3	H	344	1.50	-
PK	5.718G	113.22	Inf	-Inf	6.25	3	H	344	1.50	-
PK	5.952G	59.55	68.20	-8.65	6.17	3	H	344	1.50	-

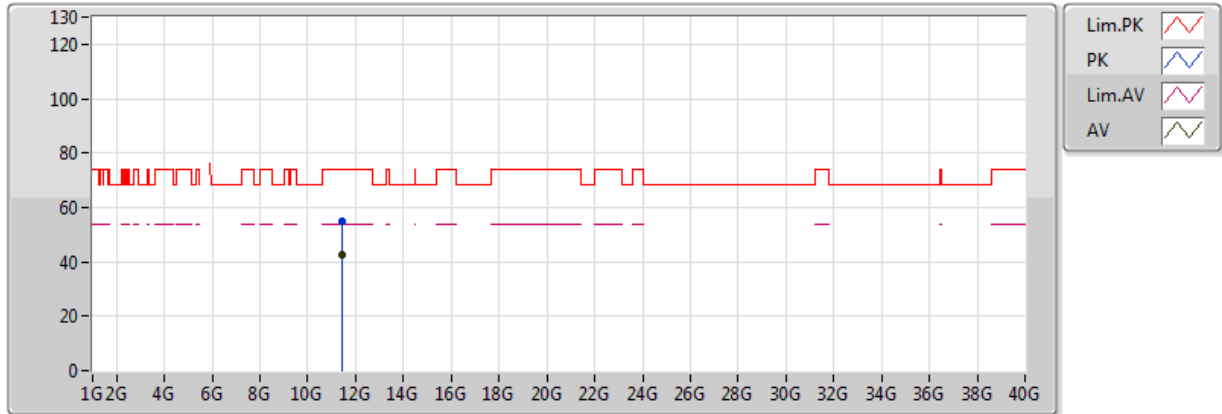
802.11ac VHT40_Nss1,(MCS0)_2TX

5710MHz Straddle 5.47-5.725GHz_TX



802.11ac VHT40_Nss1,(MCS0)_2TX

5710MHz Straddle 5.47-5.725GHz_TX

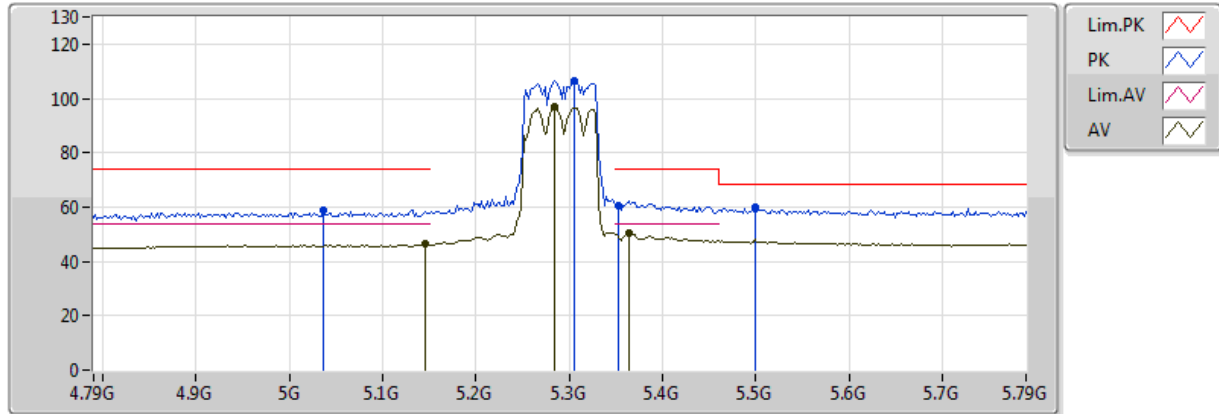


20170821
EUT_X_2TX
Setting 21
03-J-6
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.41982G	42.53	54.00	-11.47	13.35	3	H	255	1.57	-
PK	11.42006G	55.15	74.00	-18.85	13.35	3	H	255	1.57	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5290MHz_TX

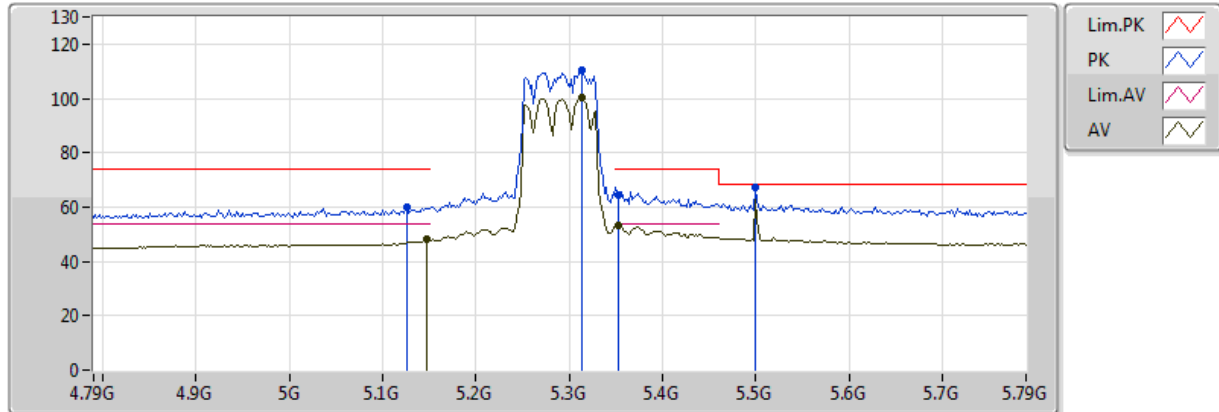


20170821
EUT_X_2TX
Setting 19
03-M-1-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.146G	46.26	54.00	-7.74	5.44	3	V	339	1.50	-
AV	5.284G	96.82	Inf	-Inf	5.71	3	V	339	1.50	-
AV	5.364G	50.28	54.00	-3.72	5.85	3	V	339	1.50	-
PK	5.036G	58.87	74.00	-15.13	5.18	3	V	339	1.50	-
PK	5.306G	106.47	Inf	-Inf	5.75	3	V	339	1.50	-
PK	5.5G	59.96	68.20	-8.24	6.16	3	V	339	1.50	-
PK	5.352G	60.54	74.00	-13.46	5.83	3	V	339	1.50	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5290MHz_TX

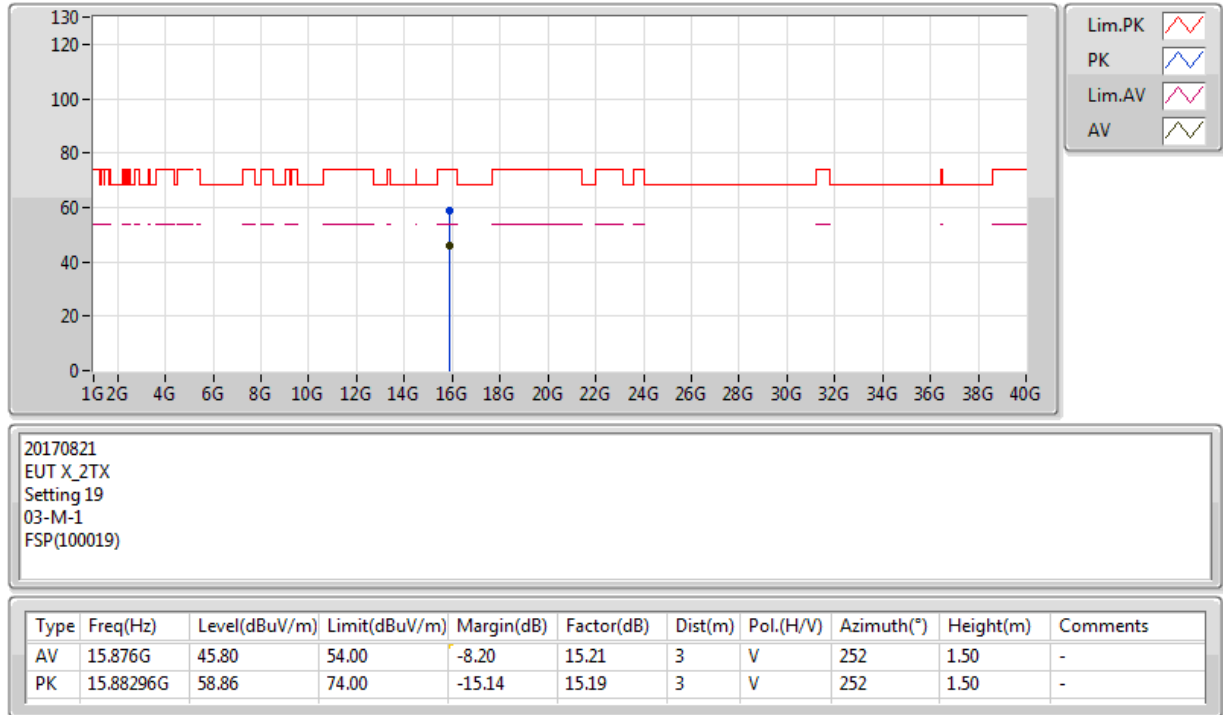


20170821
EUT X_2TX
Setting 19
03-M-1-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.148G	47.97	54.00	-6.03	5.44	3	H	2	2.28	-
AV	5.314G	100.40	Inf	-Inf	5.76	3	H	2	2.28	-
AV	5.352G	53.45	54.00	-0.55	5.83	3	H	2	2.28	-
PK	5.126G	59.69	74.00	-14.31	5.39	3	H	2	2.28	-
PK	5.314G	110.22	Inf	-Inf	5.76	3	H	2	2.28	-
PK	5.5G	67.02	68.20	-1.18	6.16	3	H	2	2.28	-
PK	5.352G	64.71	74.00	-9.29	5.83	3	H	2	2.28	-

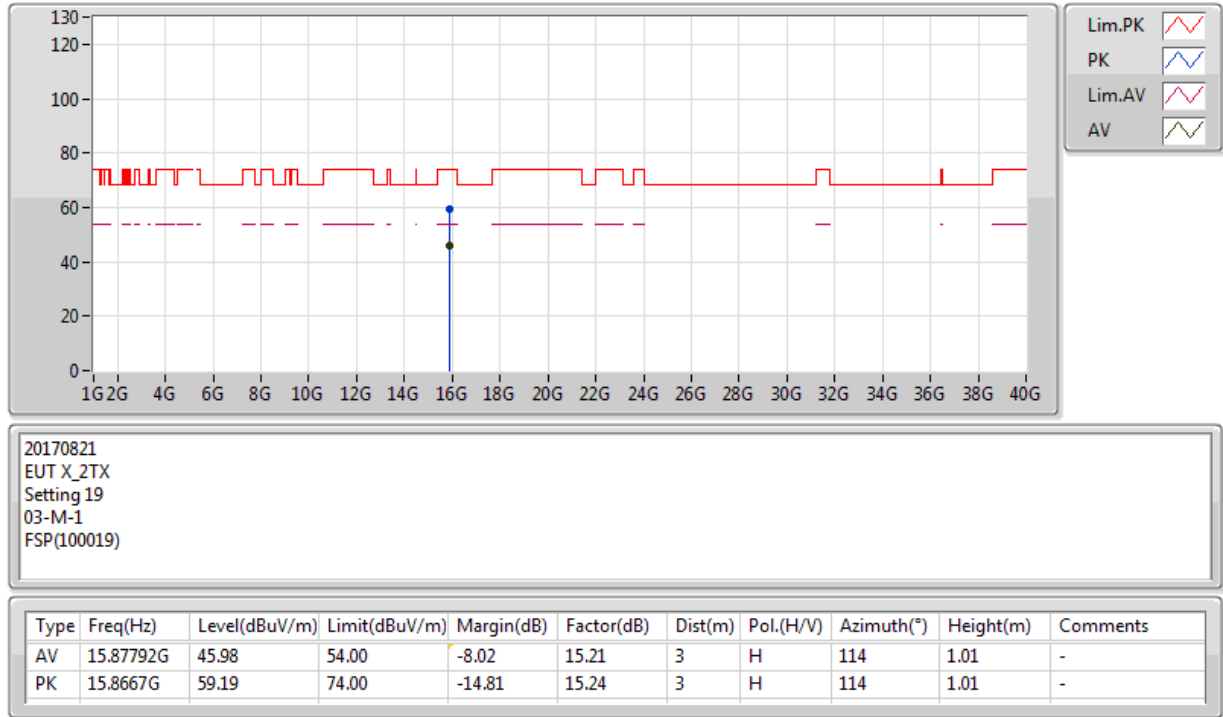
802.11ac VHT80_Nss1,(MCS0)_2TX

5290MHz_TX



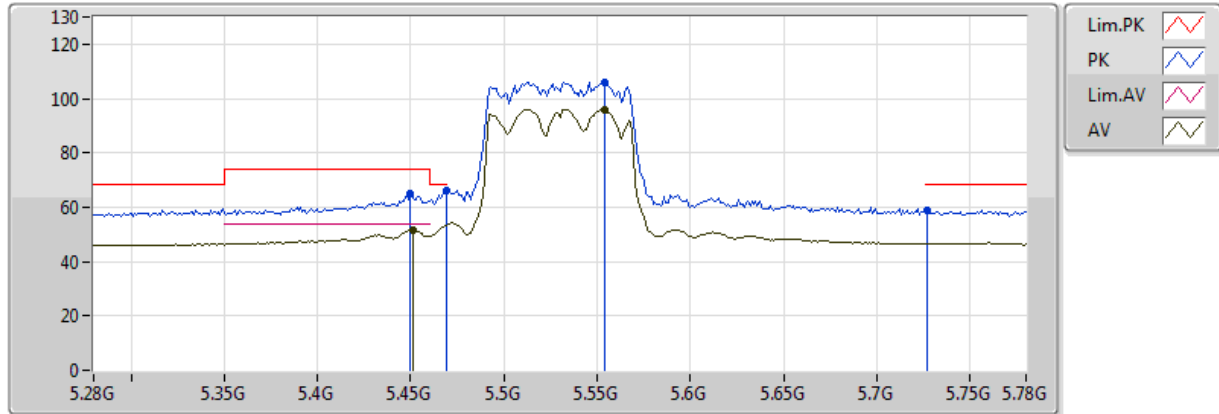
802.11ac VHT80_Nss1,(MCS0)_2TX

5290MHz_TX



802.11ac VHT80_Nss1,(MCS0)_2TX

5530MHz_TX

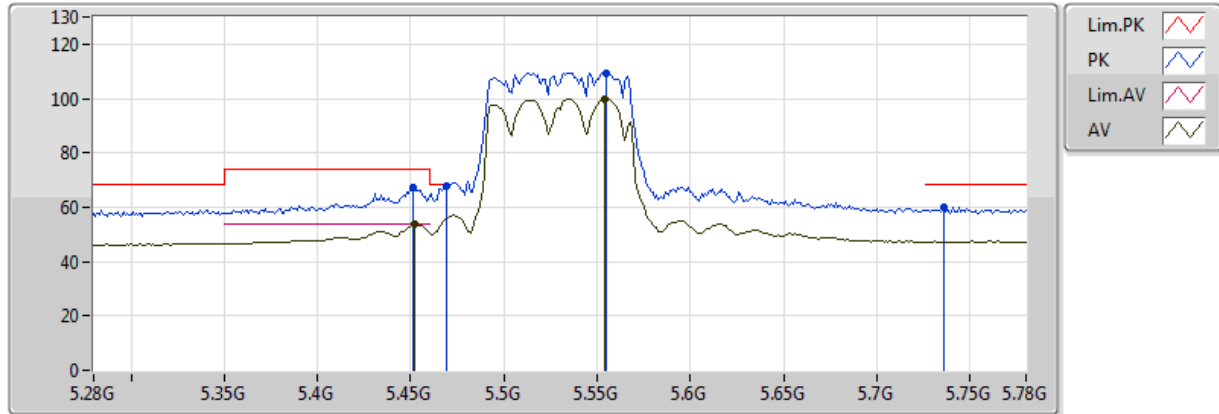


20170821
EUT_X_2TX
Setting 18.5
03-J-6-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.451G	51.50	54.00	-2.50	6.04	3	V	357	1.20	-
AV	5.554G	95.93	Inf	-Inf	6.20	3	V	357	1.20	-
PK	5.45G	64.93	74.00	-9.07	6.03	3	V	357	1.20	-
PK	5.469G	66.02	68.20	-2.18	6.08	3	V	357	1.20	-
PK	5.554G	106.08	Inf	-Inf	6.20	3	V	357	1.20	-
PK	5.727G	58.98	68.20	-9.22	6.25	3	V	357	1.20	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5530MHz_TX

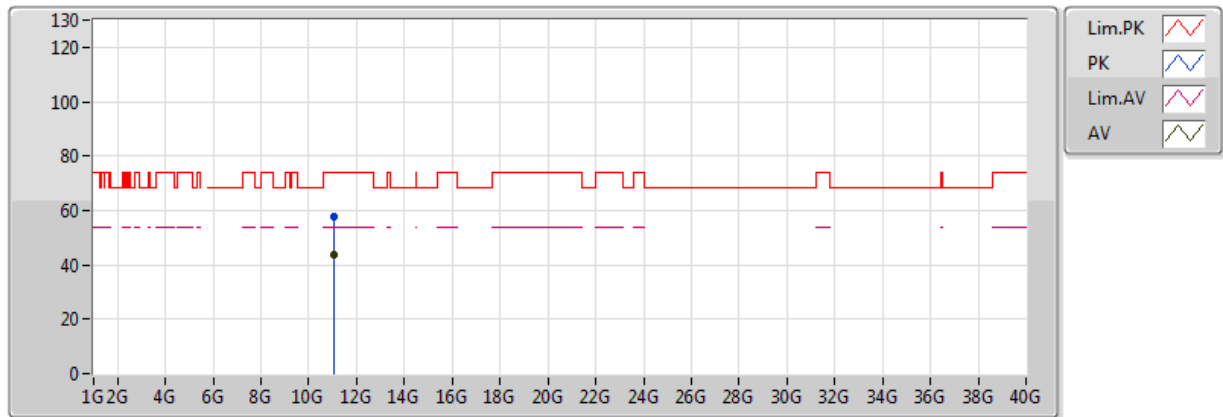


20170821
EUT X_2TX
Setting 18.5
03-J-6-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.452G	53.79	54.00	-0.21	6.04	3	H	347	1.47	-
AV	5.554G	99.85	Inf	-Inf	6.20	3	H	347	1.47	-
PK	5.451G	67.11	74.00	-6.89	6.04	3	H	347	1.47	-
PK	5.469G	67.61	68.20	-0.59	6.08	3	H	347	1.47	-
PK	5.555G	109.45	Inf	-Inf	6.20	3	H	347	1.47	-
PK	5.736G	59.92	68.20	-8.28	6.25	3	H	347	1.47	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5530MHz_TX

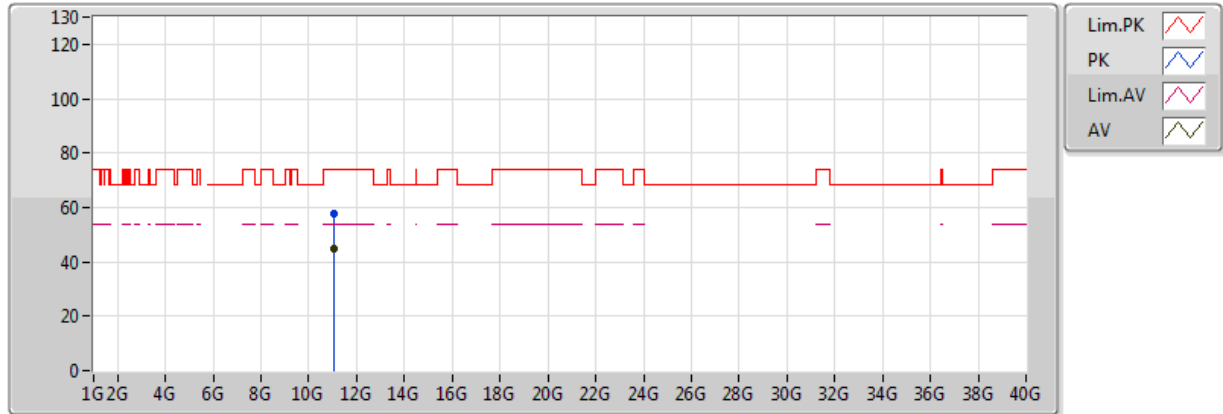


20170821
EUT X_2TX
Setting 18.5
03-J-6
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.05934G	43.96	54.00	-10.04	12.98	3	V	315	2.13	-
PK	11.05988G	57.49	74.00	-16.51	12.98	3	V	315	2.13	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5530MHz_TX

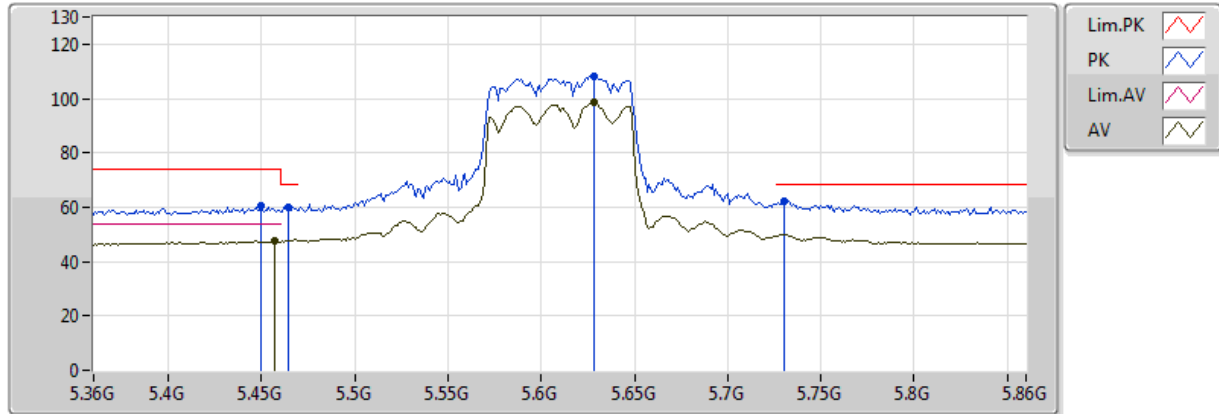


20170821
EUT_X_2TX
Setting 18.5
03-J-6
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.05988G	44.60	54.00	-9.40	12.98	3	H	312	1.54	-
PK	11.06438G	57.61	74.00	-16.39	12.99	3	H	312	1.54	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5610MHz_TX

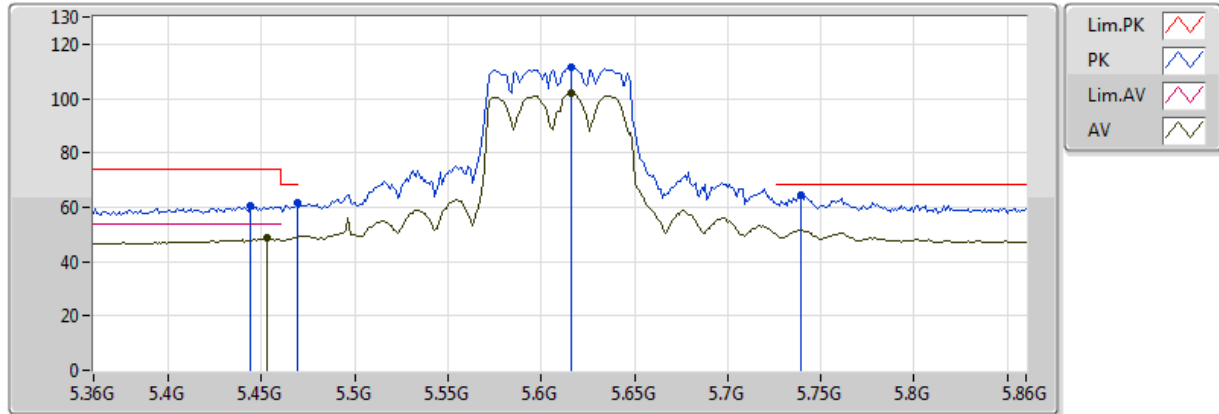


20170821
EUT_X_2TX
Setting 21
03-J-6
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.457G	47.49	54.00	-6.51	6.05	3	V	350	2.47	-
AV	5.628G	98.54	Inf	-Inf	6.24	3	V	350	2.47	-
PK	5.45G	60.49	74.00	-13.51	6.03	3	V	350	2.47	-
PK	5.464G	60.18	68.20	-8.02	6.07	3	V	350	2.47	-
PK	5.628G	108.33	Inf	-Inf	6.24	3	V	350	2.47	-
PK	5.73G	62.47	68.20	-5.73	6.25	3	V	350	2.47	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5610MHz_TX

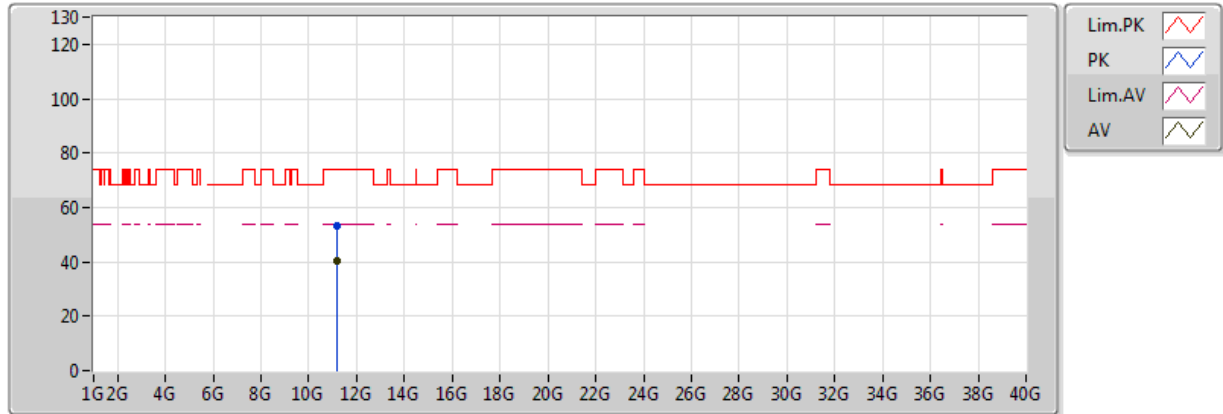


20170821
EUT X_2TX
Setting 21
03-J-6
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.453G	48.49	54.00	-5.51	6.04	3	H	345	1.63	-
AV	5.616G	101.89	Inf	-Inf	6.24	3	H	345	1.63	-
PK	5.444G	60.58	74.00	-13.42	6.02	3	H	345	1.63	-
PK	5.469G	61.83	68.20	-6.37	6.08	3	H	345	1.63	-
PK	5.616G	111.73	Inf	-Inf	6.24	3	H	345	1.63	-
PK	5.739G	64.51	68.20	-3.69	6.25	3	H	345	1.63	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5610MHz_TX

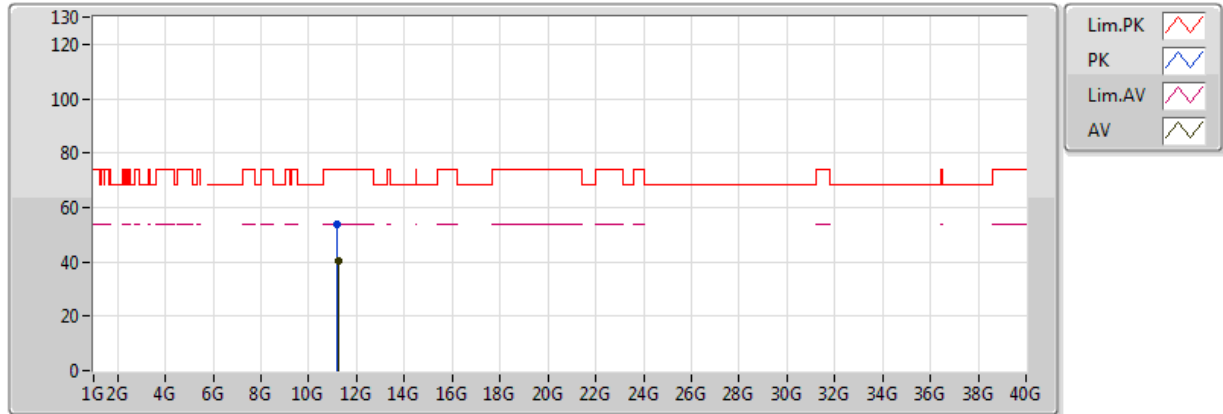


20170821
EUT X_2TX
Setting 21
03-J-6
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.2059G	40.40	54.00	-13.60	13.13	3	V	321	1.07	-
PK	11.20926G	53.47	74.00	-20.53	13.13	3	V	321	1.07	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5610MHz_TX

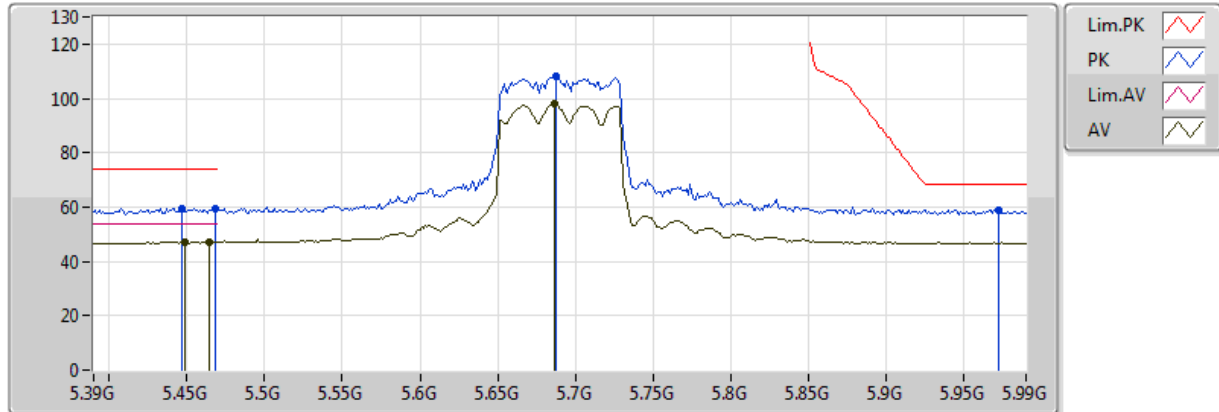


20170821
EUT X_2TX
Setting 21
03-J-6
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.23026G	40.60	54.00	-13.40	13.15	3	H	309	1.27	-
PK	11.20728G	53.61	74.00	-20.39	13.13	3	H	309	1.27	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5690MHz Straddle 5.47-5.725GHz_TX

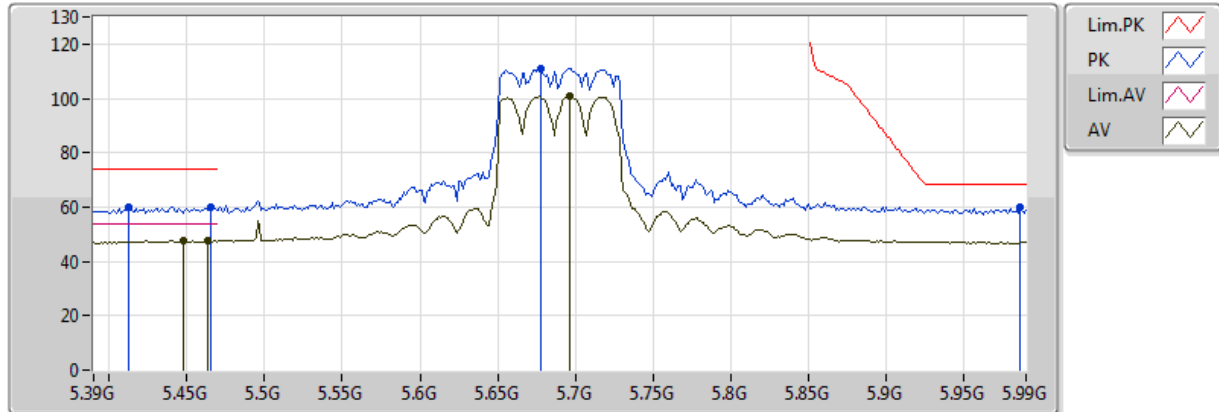


20170821
EUT X_2TX
Setting 21.5
03-J-6
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.4488G	47.09	54.00	-6.91	6.03	3	V	344	1.15	-
AV	5.4644G	47.18	54.00	-6.82	6.07	3	V	344	1.15	-
AV	5.6864G	98.22	Inf	-Inf	6.25	3	V	344	1.15	-
PK	5.4464G	59.47	74.00	-14.53	6.03	3	V	344	1.15	-
PK	5.468G	59.30	74.00	-14.70	6.08	3	V	344	1.15	-
PK	5.6876G	108.02	Inf	-Inf	6.25	3	V	344	1.15	-
PK	5.972G	58.98	68.20	-9.22	6.16	3	V	344	1.15	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5690MHz Straddle 5.47-5.725GHz_TX

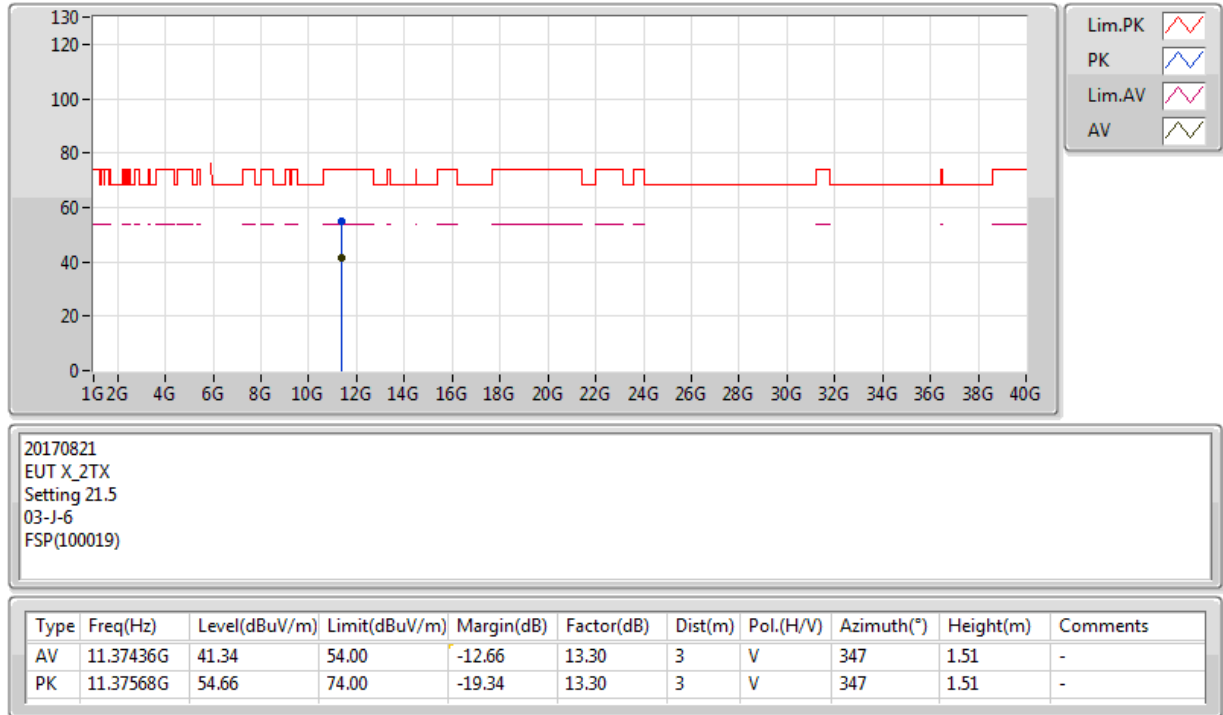


20170821
EUT X_2TX
Setting 21.5
03-J-6
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.4476G	47.55	54.00	-6.45	6.03	3	H	344	1.43	-
AV	5.4632G	47.70	54.00	-6.30	6.07	3	H	344	1.43	-
AV	5.696G	101.02	Inf	-Inf	6.25	3	H	344	1.43	-
PK	5.4128G	60.20	74.00	-13.80	5.94	3	H	344	1.43	-
PK	5.4656G	59.78	74.00	-14.22	6.07	3	H	344	1.43	-
PK	5.678G	110.80	Inf	-Inf	6.25	3	H	344	1.43	-
PK	5.9864G	59.92	68.20	-8.28	6.16	3	H	344	1.43	-

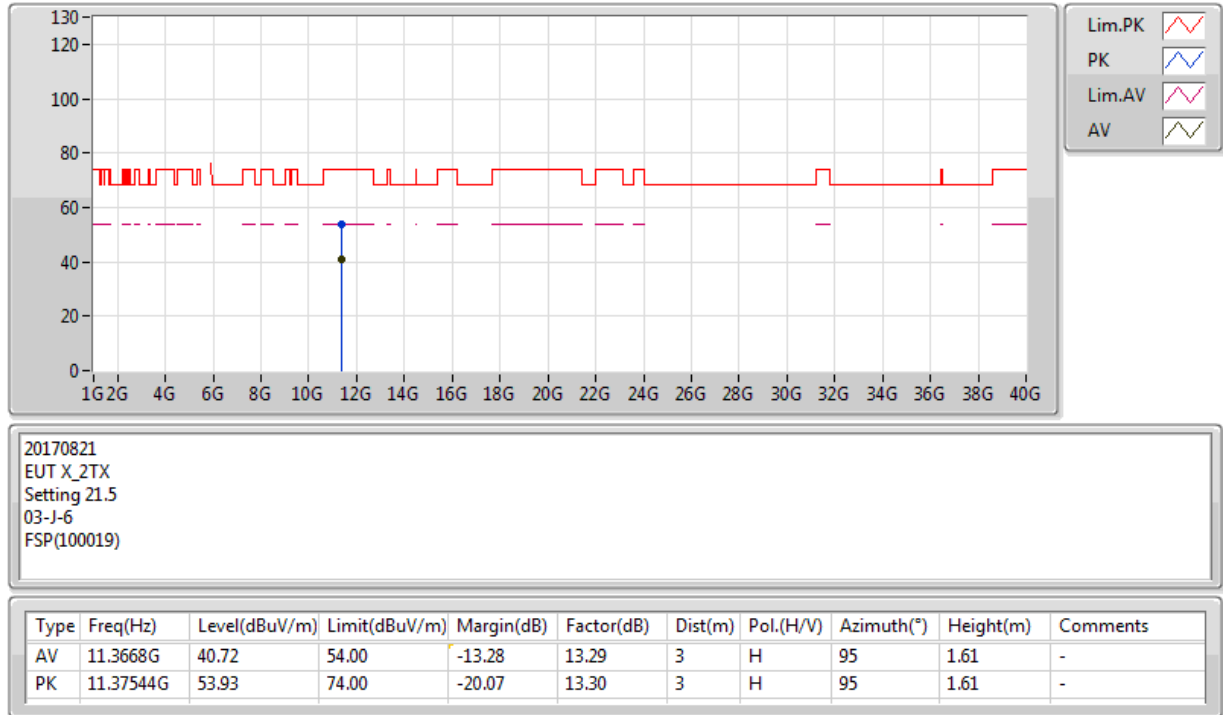
802.11ac VHT80_Nss1,(MCS0)_2TX

5690MHz Straddle 5.47-5.725GHz_TX



802.11ac VHT80_Nss1,(MCS0)_2TX

5690MHz Straddle 5.47-5.725GHz_TX



Mode: 20 MHz / Port 2

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5300 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5299.9855	5299.9848	5299.9845	5299.9844
110.00	5299.9845	5299.9838	5299.9835	5299.9827
93.50	5299.9840	5299.9832	5299.9829	5299.9828
Max. Deviation (MHz)	0.0160	0.0168	0.0171	0.0173
Max. Deviation (ppm)	3.02	3.17	3.23	3.26
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5300 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5299.9823	5299.9820	5299.9810	5299.9803
10	5299.9843	5299.9835	5299.9830	5299.9820
20	5299.9845	5299.9843	5299.9836	5299.9827
30	5299.9864	5299.9854	5299.9853	5299.9851
40	5299.9865	5299.9860	5299.9853	5299.9843
45	5299.9962	5299.9956	5299.9947	5299.9937
Max. Deviation (MHz)	0.0177	0.0180	0.0190	0.0197
Max. Deviation (ppm)	3.34	3.40	3.58	3.72
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5580 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5579.9855	5579.9845	5579.9841	5579.9834
110.00	5579.9845	5579.9836	5579.9834	5579.9831
93.50	5579.9838	5579.9828	5579.9821	5579.9820
Max. Deviation (MHz)	0.0162	0.0172	0.0179	0.0180
Max. Deviation (ppm)	2.90	3.08	3.21	3.23
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5580 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5579.9819	5579.9816	5579.9812	5579.9802
10	5579.9837	5579.9828	5579.9820	5579.9810
20	5579.9845	5579.9835	5579.9833	5579.9826
30	5579.9864	5579.9863	5579.9858	5579.9848
40	5579.9875	5579.9873	5579.9872	5579.9867
45	5579.9960	5579.9951	5579.9946	5579.9936
Max. Deviation (MHz)	0.0181	0.0184	0.0188	0.0198
Max. Deviation (ppm)	3.24	3.30	3.37	3.55
Result	Pass			

Mode: 40 MHz / Port 2

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5310 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5309.9854	5309.9844	5309.9835	5309.9827
110.00	5309.9845	5309.9842	5309.9838	5309.9830
93.50	5309.9836	5309.9831	5309.9824	5309.9822
Max. Deviation (MHz)	0.0164	0.0169	0.0176	0.0178
Max. Deviation (ppm)	3.09	3.18	3.31	3.35
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5310 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5309.9811	5309.9809	5309.9806	5309.9804
10	5309.9829	5309.9823	5309.9817	5309.9809
20	5309.9845	5309.9842	5309.9832	5309.9831
30	5309.9864	5309.9858	5309.9849	5309.9843
40	5309.9878	5309.9877	5309.9871	5309.9870
45	5309.9858	5309.9856	5309.9847	5309.9846
Max. Deviation (MHz)	0.0189	0.0191	0.0194	0.0196
Max. Deviation (ppm)	3.56	3.60	3.65	3.69
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5550 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5549.9848	5549.9843	5549.9841	5549.9833
110.00	5549.9845	5549.9838	5549.9831	5549.9826
93.50	5549.9842	5549.9839	5549.9835	5549.9828
Max. Deviation (MHz)	0.0158	0.0162	0.0169	0.0174
Max. Deviation (ppm)	2.85	2.92	3.05	3.14
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5550 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5549.9835	5549.9831	5549.9830	5549.9823
10	5549.9843	5549.9842	5549.9838	5549.9834
20	5549.9845	5549.9841	5549.9835	5549.9828
30	5549.9864	5549.9856	5549.9855	5549.9852
40	5549.9870	5549.9863	5549.9855	5549.9849
45	5549.9852	5549.9851	5549.9841	5549.9834
Max. Deviation (MHz)	0.0165	0.0169	0.0170	0.0177
Max. Deviation (ppm)	2.97	3.05	3.06	3.19
Result	Pass			

Mode: 80 MHz / Port 2

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5290 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5289.9854	5289.9844	5289.9834	5289.9826
110.00	5289.9845	5289.9841	5289.9833	5289.9826
93.50	5289.9843	5289.9841	5289.9838	5289.9832
Max. Deviation (MHz)	0.0157	0.0159	0.0167	0.0174
Max. Deviation (ppm)	2.97	3.01	3.16	3.29
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5290 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5289.9819	5289.9816	5289.9809	5289.9807
10	5289.9836	5289.9830	5289.9828	5289.9818
20	5289.9845	5289.9837	5289.9831	5289.9823
30	5289.9864	5289.9855	5289.9846	5289.9843
40	5289.9883	5289.9877	5289.9875	5289.9872
45	5289.9865	5289.9863	5289.9858	5289.9848
Max. Deviation (MHz)	0.0181	0.0184	0.0191	0.0193
Max. Deviation (ppm)	3.42	3.48	3.61	3.65
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5530 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5529.9848	5529.9844	5529.9842	5529.9841
110.00	5529.9845	5529.9837	5529.9830	5529.9820
93.50	5529.9843	5529.9835	5529.9832	5529.9831
Max. Deviation (MHz)	0.0157	0.0165	0.0170	0.0180
Max. Deviation (ppm)	2.84	2.98	3.07	3.25
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5530 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5529.9832	5529.9825	5529.9820	5529.9810
10	5529.9842	5529.9835	5529.9832	5529.9828
20	5529.9845	5529.9840	5529.9835	5529.9829
30	5529.9864	5529.9854	5529.9850	5529.9849
40	5529.9884	5529.9879	5529.9870	5529.9866
45	5529.9860	5529.9851	5529.9849	5529.9841
Max. Deviation (MHz)	0.0168	0.0175	0.0180	0.0190
Max. Deviation (ppm)	3.04	3.16	3.25	3.44
Result	Pass			

