



FCC Test Report

Equipment : Linksys Tri-Band Wireless-AC Router
Brand Name : Linksys
Model No. : EA8300, EA8250
FCC ID : Q87-EA8300
Standard : 47 CFR FCC Part 15.407
Operating Band : 5250 MHz – 5350 MHz
5470 MHz – 5725 MHz
Applicant : Linksys LLC
121 Theory, Irvine CA 92617, United States
Function : ☐ Outdoor; ☒ Indoor; ☐ Fixed P2P
☐ Client

The product sample received on Dec. 07, 2016 and completely tested on Feb. 09, 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.

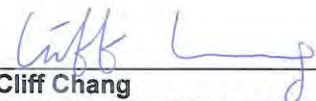

Cliff Chang
SPORTON INTERNATIONAL INC.





Table of Contents

1	GENERAL DESCRIPTION	5
1.1	Information.....	5
1.2	Testing Applied Standards	8
1.3	Testing Location Information	8
1.4	Measurement Uncertainty	9
2	TEST CONFIGURATION OF EUT	10
2.1	Test Channel Mode	10
2.2	The Worst Case Measurement Configuration.....	11
2.3	EUT Operation during Test	12
2.4	Accessories	13
2.5	Support Equipment.....	13
2.6	Test Setup Diagram	14
3	TRANSMITTER TEST RESULT	16
3.1	Emission Bandwidth	16
3.2	Maximum Conducted Output Power	17
3.3	Peak Power Spectral Density.....	19
3.4	Unwanted Emissions.....	22
3.5	Frequency Stability.....	25
4	TEST EQUIPMENT AND CALIBRATION DATA	26
APPENDIX A. TEST RESULTS OF EMISSION BANDWIDTH		
APPENDIX B. TEST RESULTS OF MAXIMUM CONDUCTED OUTPUT POWER		
APPENDIX C. TEST RESULTS OF PEAK POWER SPECTRAL DENSITY		
APPENDIX D. TEST RESULTS OF UNWANTED EMISSIONS		
APPENDIX E. TEST RESULTS OF FREQUENCY STABILITY		
APPENDIX F. TEST PHOTOS		
PHOTOGRAPHS OF EUT V01		



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: Q87-EA8300

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	100-140 [11]
5250-5350	n (HT40), ac (VHT40)	5270-5310	54-62 [2]
5470-5725		5510-5670	102-144 [5]
5250-5350	ac (VHT80)	5290	58 [1]
5470-5725		5530-5610	106-122 [2]

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

Note:

- ♦ 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ VHT20, VHT40 and 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	P/N	Type	Connector	Gain (dBi)	
					2.4GHz	5GHz Band 3, 4
1	ARISTOTLE	RFA-52-F90S-240-165	Dipole	I-PEX	2.70	3.14
2	ARISTOTLE	RFA-52-F90-195-105	Dipole	I-PEX	2.06	3.47
Ant.	Brand	P/N	Type	Connector	5GHz Band 1, 2	
3	ARISTOTLE	RFA-05-F90-120	Dipole	I-PEX	3.59	
4	ARISTOTLE	RFA-05-F90S-165	Dipole	I-PEX	3.49	
Ant.	Brand	P/N	Type	Connector	Bluetooth	
5	PSA	RFMTA271200NNAB003	PIFA	N/A	2.54	

Note: The EUT has five antennas.

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

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

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

For 5GHz Band 3, 4: Ant. 1 (Port 1) and Ant. 2 (Port 2) could transmit/receive simultaneously.

For 5GHz Band 1, 2: Ant. 3 (Port 1) and Ant. 4 (Port 2) could transmit/receive simultaneously.

For Bluetooth (1TX/1RX):

Only Ant. 5 (Port 1) can be used as transmitting/receiving antenna.

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)
802.11a-BF	0.815	0.888
802.11ac VHT20-BF	0.868	0.615
802.11ac VHT40-BF	0.887	0.521
802.11ac VHT80-BF	0.873	0.59

1.1.4 EUT Operational Condition

EUT Power Type	From power adapter		
Beamforming Function	☒	With beamforming	☐ Without beamforming
	The product has beamforming function for 802.11a/g/n/ac.		

1.1.5 Table for Multiple Listing

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

Model No.	Description
EA8300	All models are identical except for the EA8300 supports 256QAM and the EA8250 disable 256QAM.
EA8250	

From the above models, model: EA8300 was selected as representative model for the test and its data was recorded in this report.

1.1.6 Table for Class II Change

This product is an extension of original one reported under Sporton project number: FR710901AB

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

Modifications	Performance Checking
Adding 5GHz band 2 and band 3 (5250~5350 MHz, 5470~5725 MHz) for this device	1. Emission Bandwidth. 2. Maximum Conducted Output Power. 3. Peak Power Spectral Density. 4. Frequency Stability. 5. Unwanted Emissions above 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 v01r03
- ◆ 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	Andy Tsai, Peter Lin	20°C / 58%	Feb. 06, 2017~Feb. 09, 2017
Radiated	03CH01-CB	Jay Luo, Jeff Wu, Steven Liang, Lucke Hsieh	25°C / 58%	Jan. 17, 2016~Feb. 09, 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
Radiated Emission (1GHz ~ 18GHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.7 dB	Confidence levels of 95%
Output Power Measurement	1.33 dB	Confidence levels of 95%
Power Density Measurement	1.27 dB	Confidence levels of 95%
Bandwidth Measurement	9.74×10^{-8}	Confidence levels of 95%
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-BF_(6Mbps)_2TX	-
5260MHz	18
5300MHz	19
5320MHz	18
5500MHz	19
5580MHz	19.5
5700MHz	19
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-
5260MHz	18
5300MHz	18.5
5320MHz	18.5
5500MHz	20
5580MHz	20
5700MHz	20
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-
5270MHz	18.5
5310MHz	18
5510MHz	19.5
5550MHz	20
5670MHz	20
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-
5290MHz	18.5
5530MHz	19
5610MHz	20.5

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.
- ♦ There are two modes of EUT, one is beamforming mode, and the other is non-beamforming mode for 802.11a/g/n/ac, after evaluating, beamforming mode has been evaluated to be the worst case, so it was selected to test and record in this test report.

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	CTX
1	EUT Z axis
2	EUT Y axis
Mode 1 has been evaluated to be the worst case after evaluating. Consequently, measurement will follow this same test mode.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Operating Mode	
1	WLAN 2.4GHz + WLAN 5GHz
2	WLAN 5GHz + Bluetooth
Refer to Sporton Test Report No.: FA710901-01 for Co-location RF Exposure Evaluation	



2.3 EUT Operation during Test

Non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

Beamforming mode:

For Conducted Mode:

The EUT was programmed to be in continuously transmitting mode.

For Radiated Mode:

During the test, the following programs under WIN 7 were executed.

The program was executed as follows:

1. During the test, the EUT operation to normal function.
2. Executed command fixed test channel under Telnet.
3. Executed "Lantest.exe" to link with the remote workstation to transmit and receive packet by RX Device and transmit duty cycle no less 98%.

2.4 Accessories

Accessories			
Power	Brand	Model	Rating
Adapter 1 (Fixed plug)	LEI	MU24-Y120200-A1	Input: 100-240Vac, 50/60Hz, 0.7A Output: 12Vdc, 2.0A
Adapter 2 (Fixed plug)	DVE	DSA-24PFM-12 FUS 120200	Input: 100-240Vac, 50/60Hz, 0.8A Output: 12Vdc, 2A
Adapter 3 (Interchangeable plug)	DVE	DSA-24PFM-12 FCA 120200	Input: 100-240Vac, 50/60Hz, 0.8A Output: 12Vdc, 2A
Others			
Plug*1 (for adapter 3 use only)			
RJ-45 cable: Non-shielded, 0.9m			

Note: Adapter does not affect the radio tests, there is only adapter 1 tested and recorded in this report.

2.5 Support Equipment

For Test Site No: TH01-CB

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

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

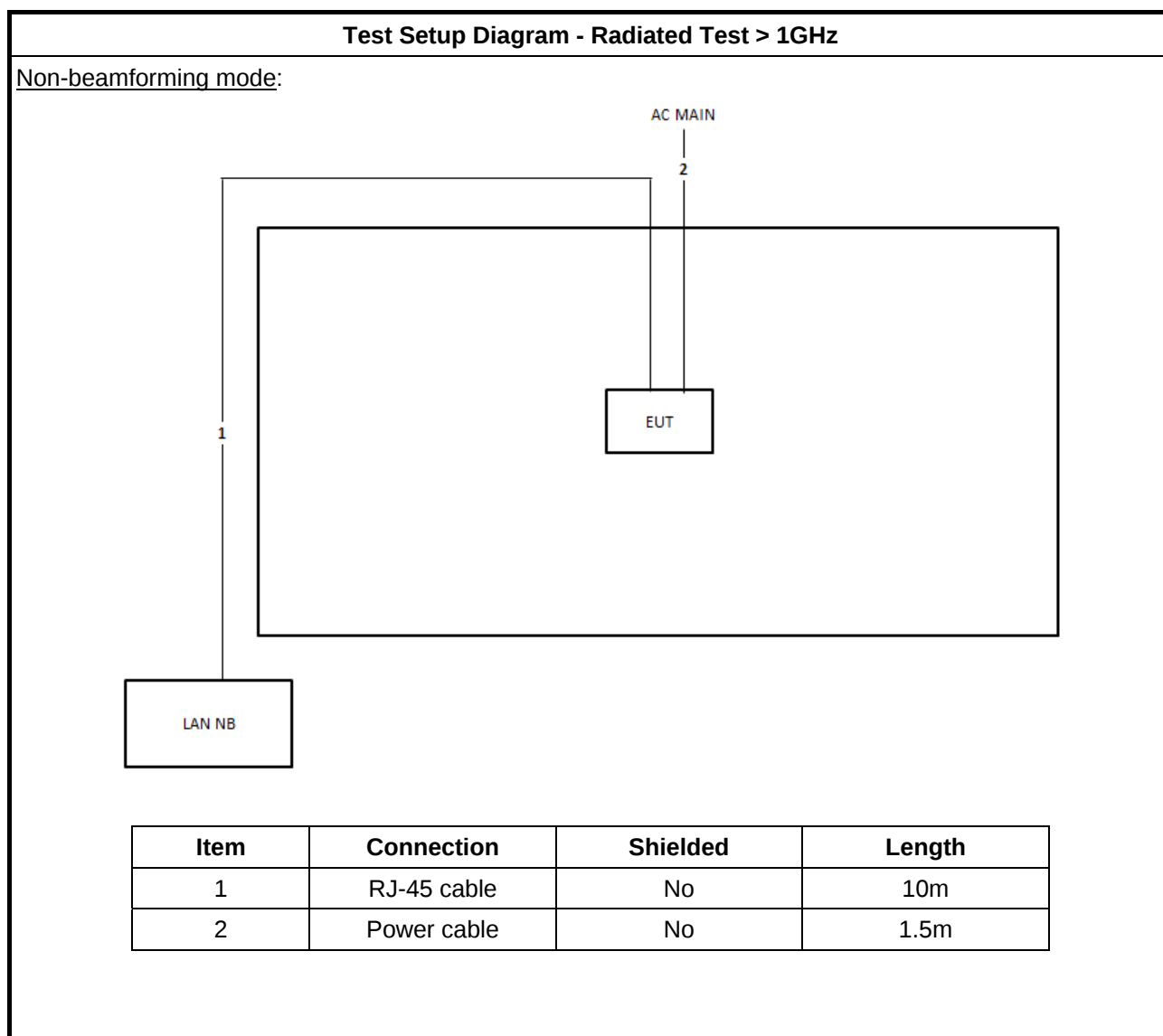
Non-beamforming mode:

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

Beamforming mode:

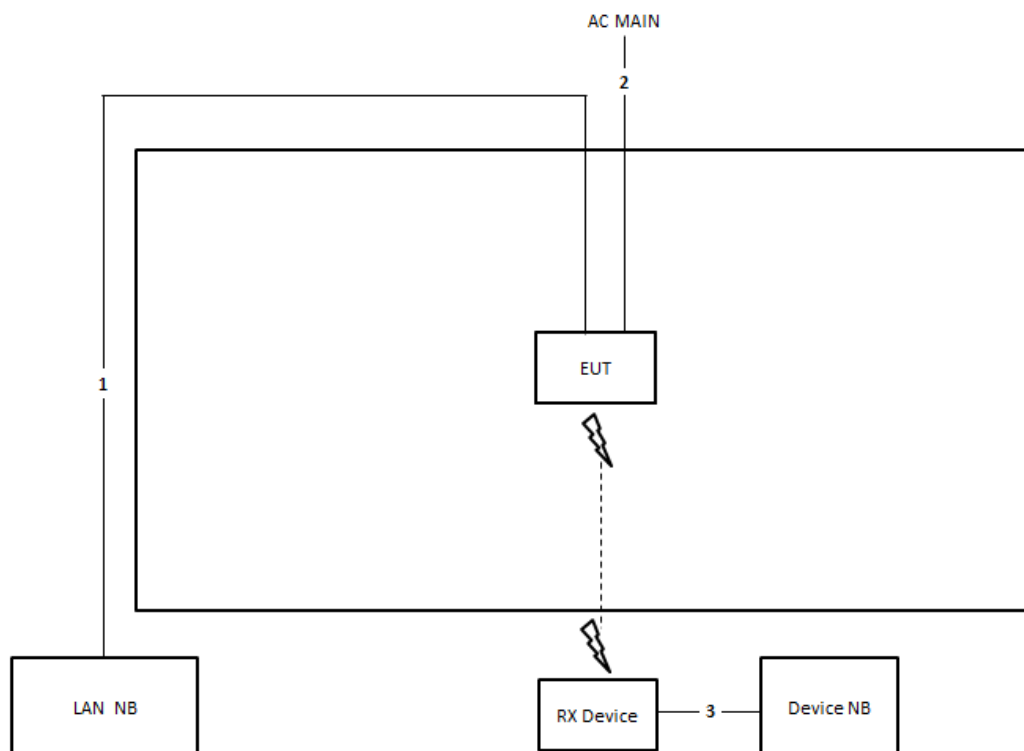
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB*2	DELL	E4300	DoC
2	RX Device (WLAN AP)	LINKSYS	1117-2253	DoC

2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test > 1GHz

Beamforming mode:



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

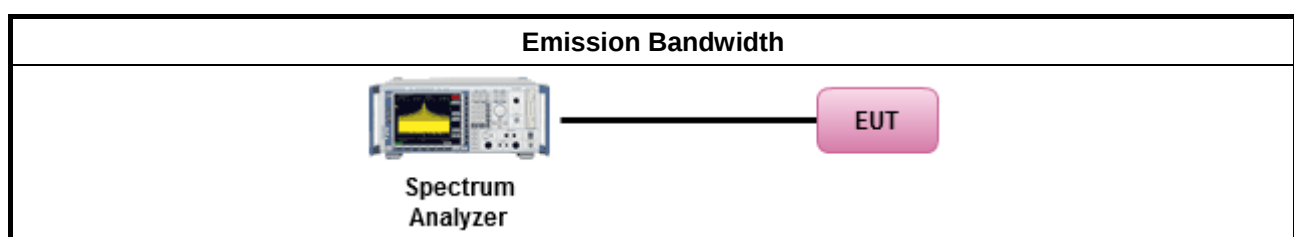
3.1.2 Measuring Instruments

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.	

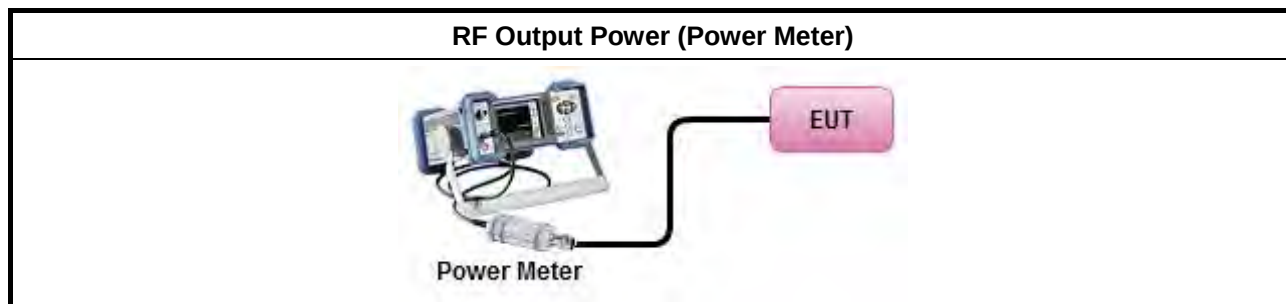
3.2.2 Measuring Instruments

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



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 (θ-8) dBW/MHz for $8^\circ \leq \theta < 40^\circ$ -35.9 - 1.22 (θ-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.	

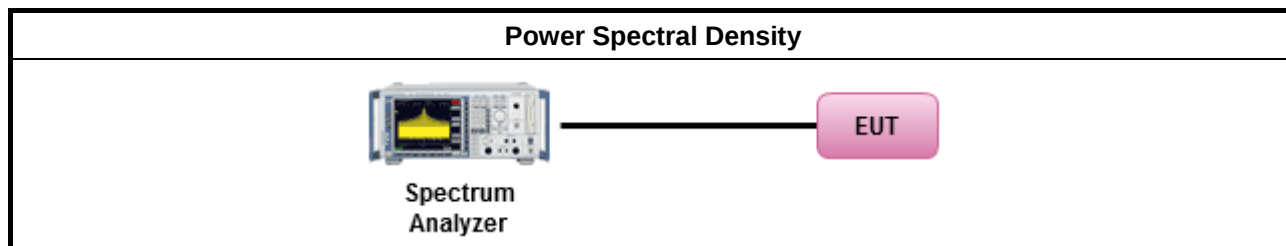
3.3.2 Measuring Instruments

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, F5) 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).

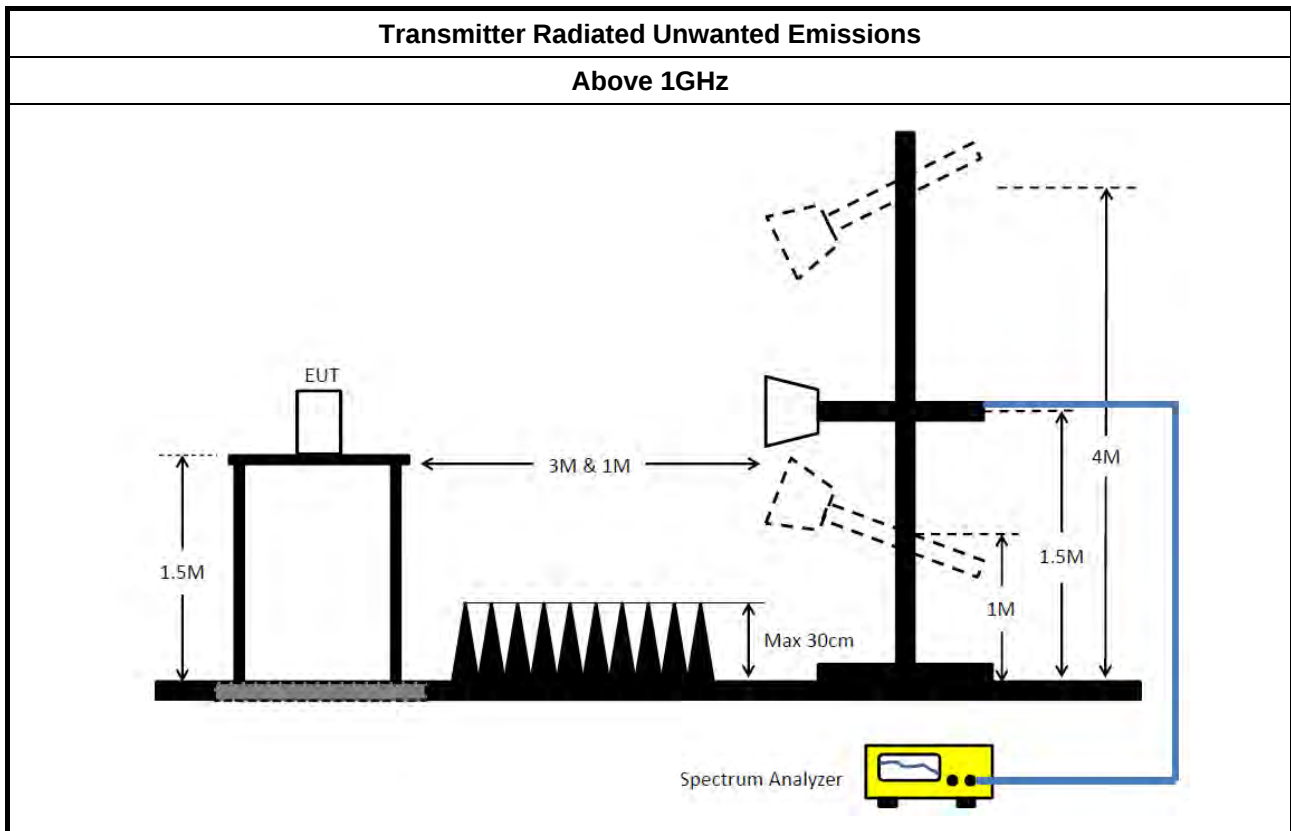
3.4.2 Measuring Instruments

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 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.

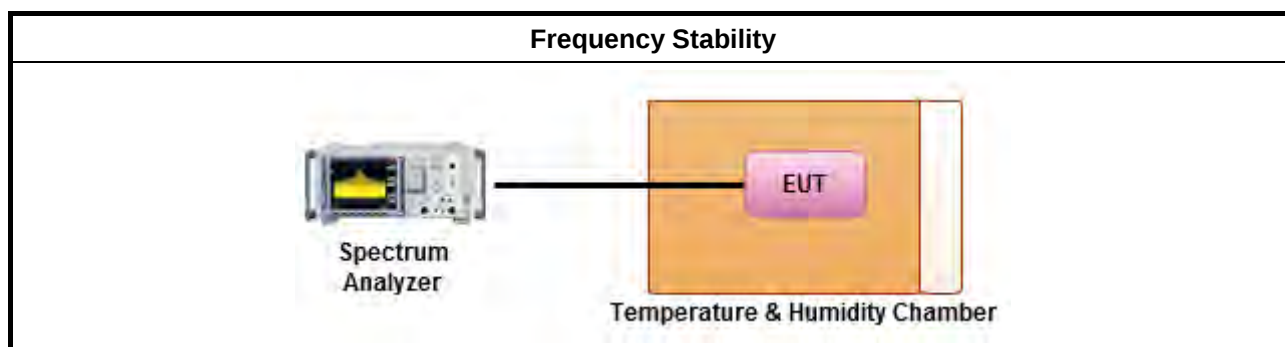
3.5.2 Measuring Instruments

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~40°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	Remark
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Nov. 10, 2016	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 25, 2016	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 18, 2016	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 16, 2017	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jun. 28, 2016	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 21, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#1	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
Test Software	Audix	E3	6.2009-I0-7	N/A	N/A	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 26, 2016	Conducted (TH01-CB)
Temp. and Humidity Chamber	Ten Billion	TTH-D3SP	TBN-931011	-30~100 degree	Jun. 03, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-6	1 GHz ~ 26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-7	1 GHz ~ 26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-8	1 GHz ~ 26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-9	1 GHz ~ 26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz ~ 26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 22, 2016	Conducted (TH01-CB)

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

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11a-BF_(6Mbps)_2TX	-	-	-	-	-
5.25-5.35GHz	18.9M	16.417M	16M4D1D	18.8M	16.367M
5.47-5.725GHz	19.75M	16.417M	16M4D1D	19.45M	16.392M
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-
5.25-5.35GHz	19.875M	17.616M	17M6D1D	19.775M	17.566M
5.47-5.725GHz	20.625M	17.616M	17M6D1D	20M	17.591M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-
5.25-5.35GHz	39.65M	35.982M	36M0D1D	39.25M	35.882M
5.47-5.725GHz	40.15M	35.982M	36M0D1D	39.65M	35.882M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-
5.25-5.35GHz	83.1M	75.762M	75M8D1D	82.8M	75.762M
5.47-5.725GHz	83.8M	75.862M	75M9D1D	83.2M	75.662M

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;

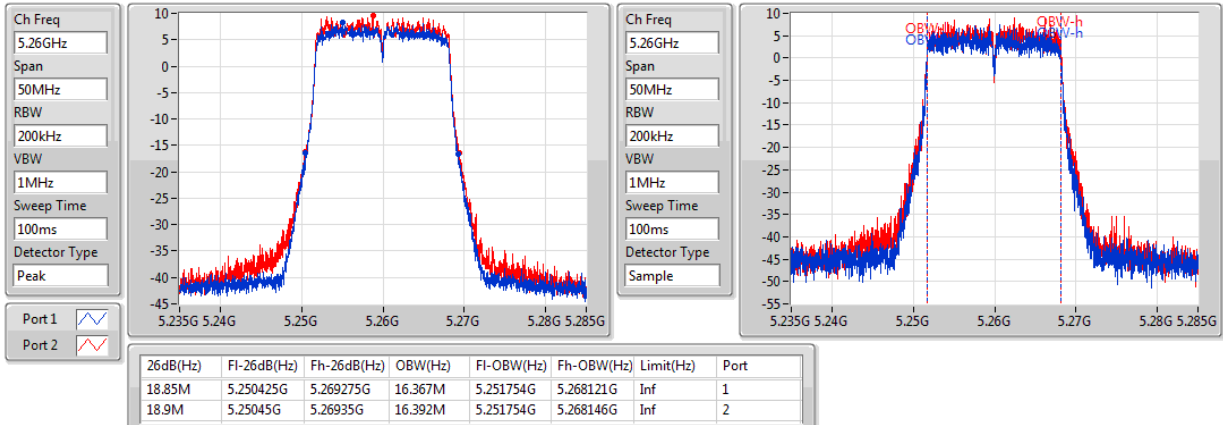
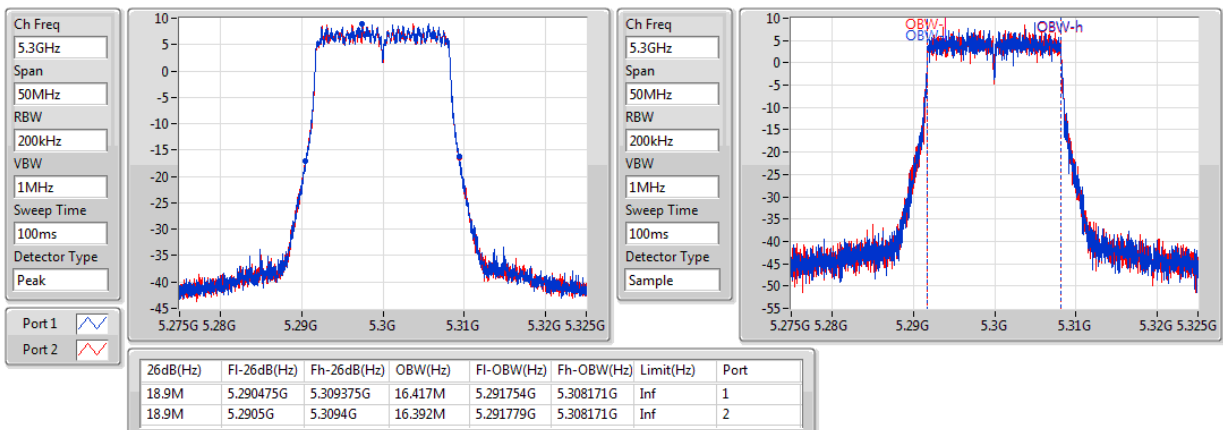
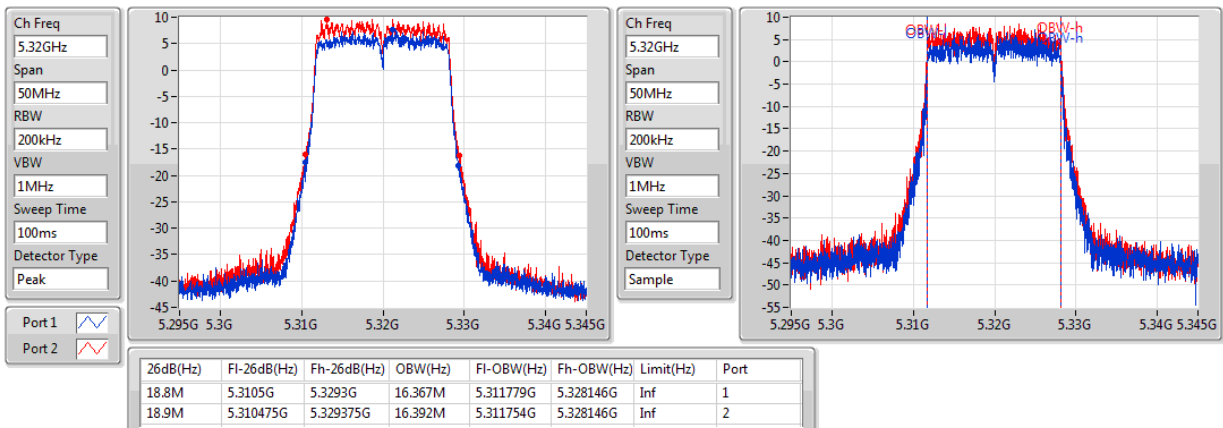
Min-OBW = Minimum 99% occupied bandwidth;

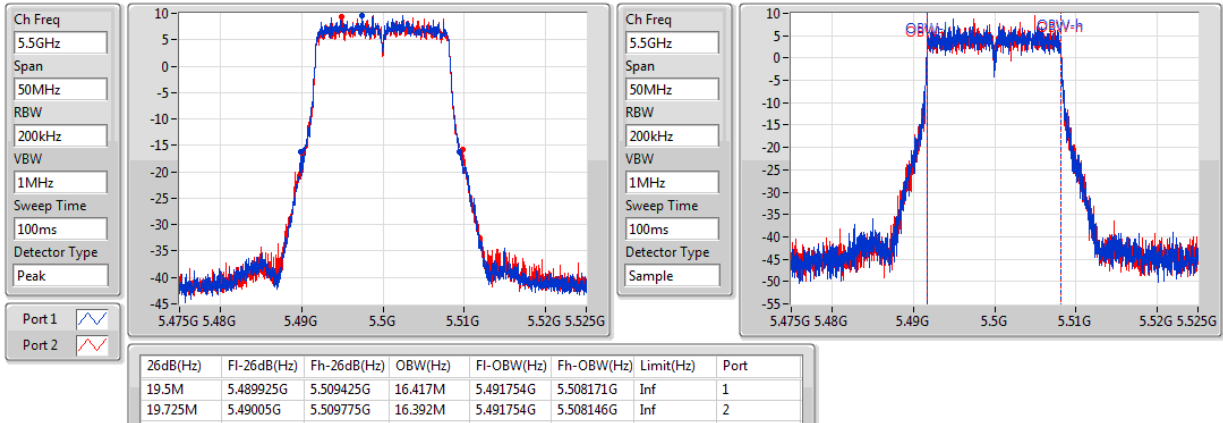
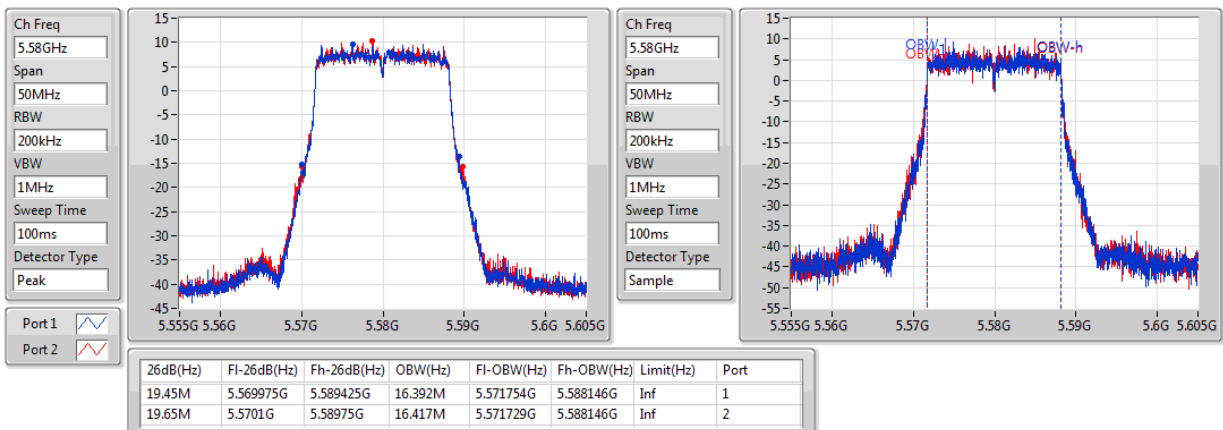
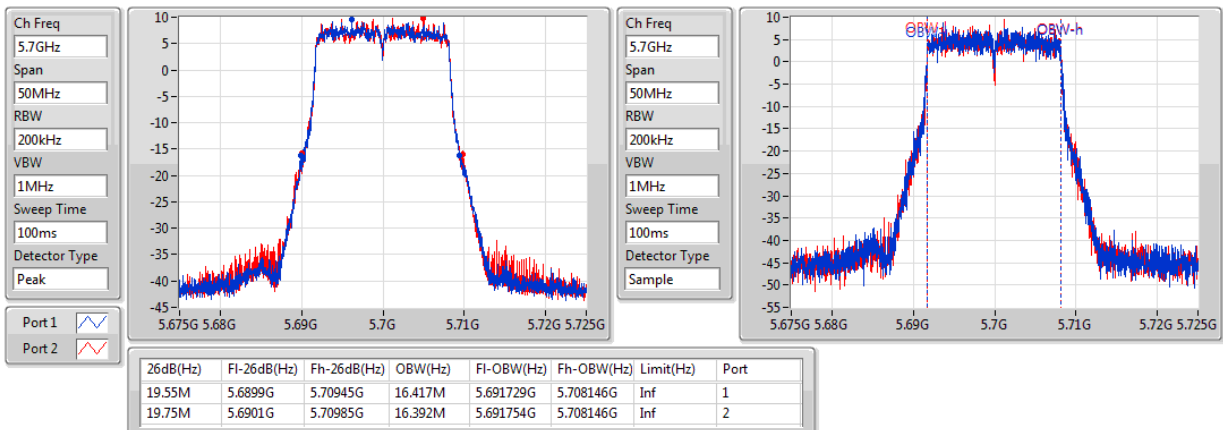
Result

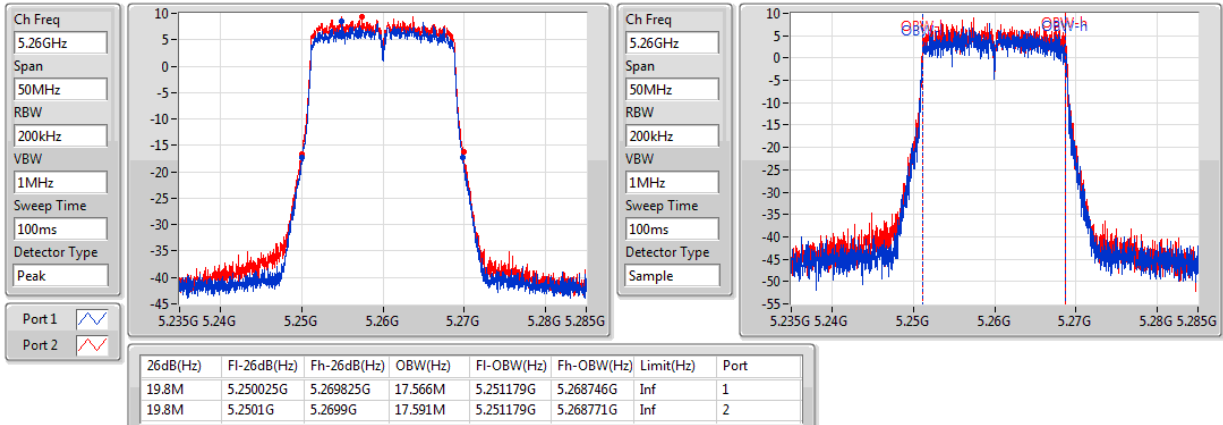
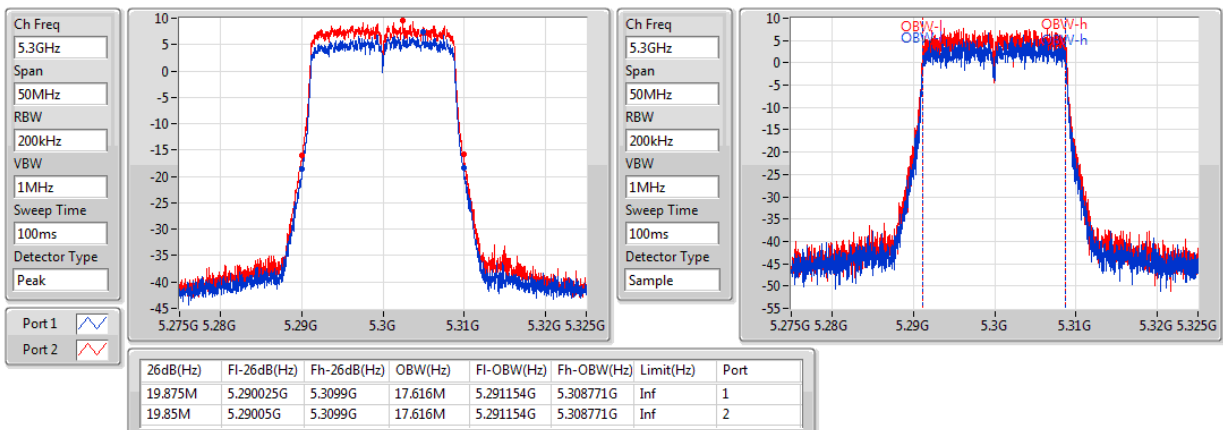
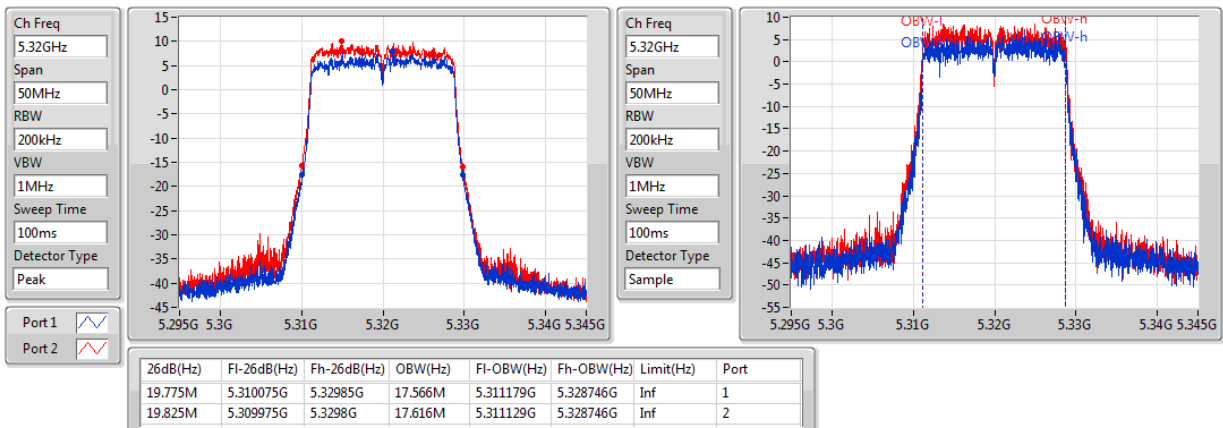
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a-BF_(6Mbps)_2TX	-	-	-	-	-	-
5260MHz	Pass	Inf	18.85M	16.367M	18.9M	16.392M
5300MHz	Pass	Inf	18.9M	16.417M	18.9M	16.392M
5320MHz	Pass	Inf	18.8M	16.367M	18.9M	16.392M
5500MHz	Pass	Inf	19.5M	16.417M	19.725M	16.392M
5580MHz	Pass	Inf	19.45M	16.392M	19.65M	16.417M
5700MHz	Pass	Inf	19.55M	16.417M	19.75M	16.392M
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5260MHz	Pass	Inf	19.8M	17.566M	19.8M	17.591M
5300MHz	Pass	Inf	19.875M	17.616M	19.85M	17.616M
5320MHz	Pass	Inf	19.775M	17.566M	19.825M	17.616M
5500MHz	Pass	Inf	20M	17.616M	20.625M	17.616M
5580MHz	Pass	Inf	20.275M	17.591M	20.5M	17.616M
5700MHz	Pass	Inf	20.375M	17.591M	20.45M	17.616M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5270MHz	Pass	Inf	39.25M	35.932M	39.35M	35.882M
5310MHz	Pass	Inf	39.25M	35.882M	39.65M	35.982M
5510MHz	Pass	Inf	40M	35.932M	39.9M	35.982M
5550MHz	Pass	Inf	40.15M	35.932M	39.65M	35.932M
5670MHz	Pass	Inf	40M	35.982M	39.95M	35.882M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5290MHz	Pass	Inf	82.8M	75.762M	83.1M	75.762M
5530MHz	Pass	Inf	83.3M	75.662M	83.2M	75.762M
5610MHz	Pass	Inf	83.8M	75.862M	83.8M	75.862M

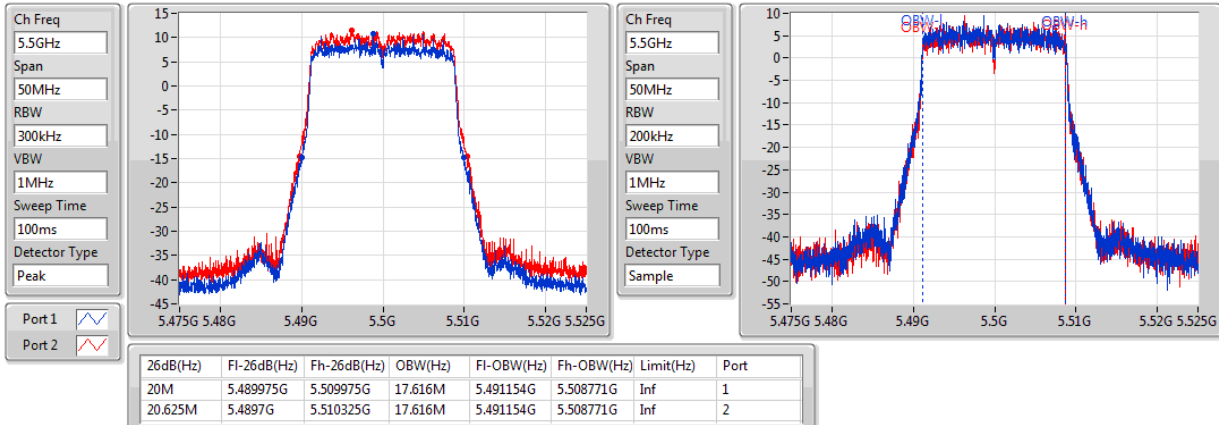
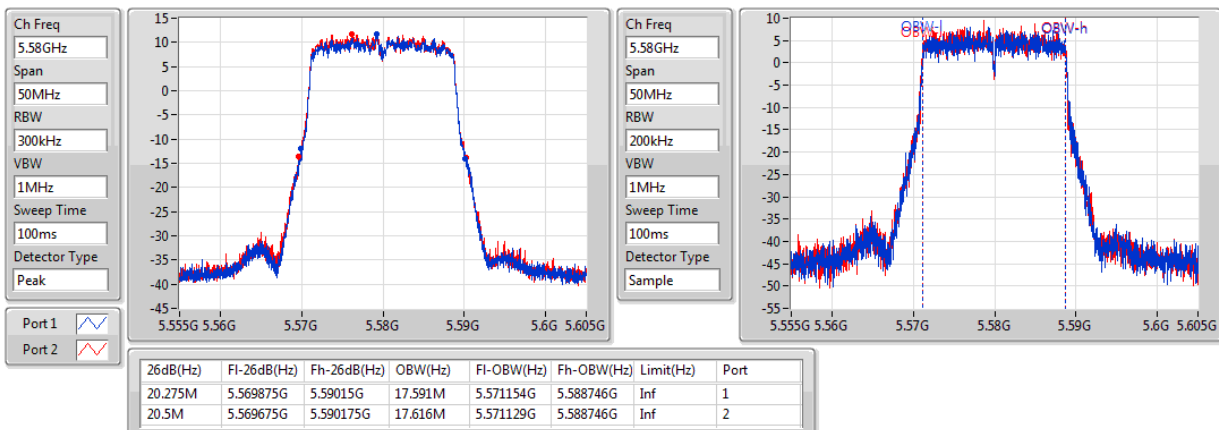
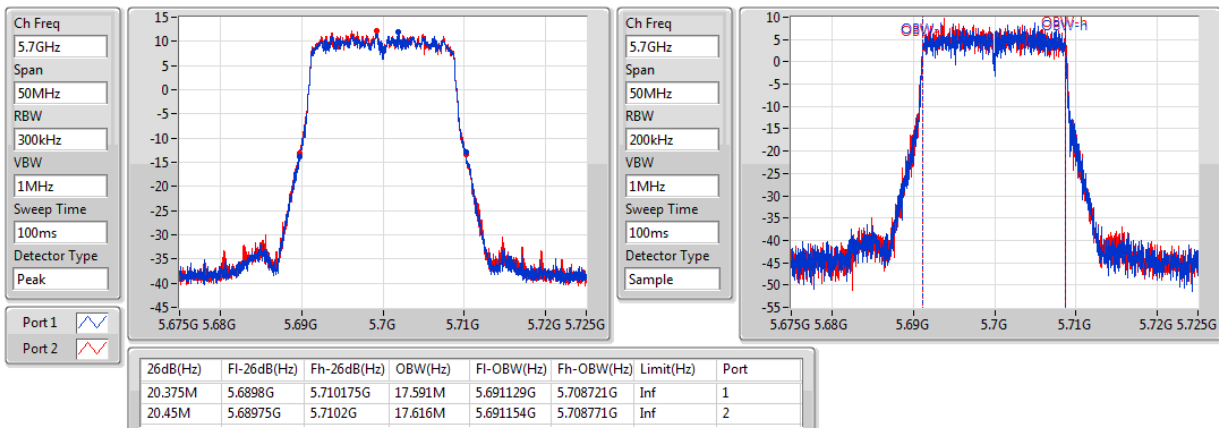
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band

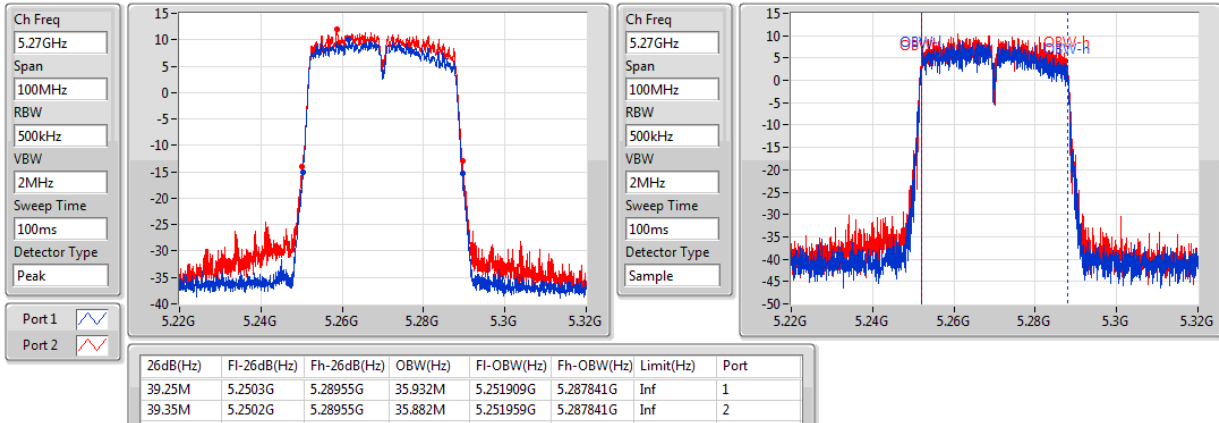
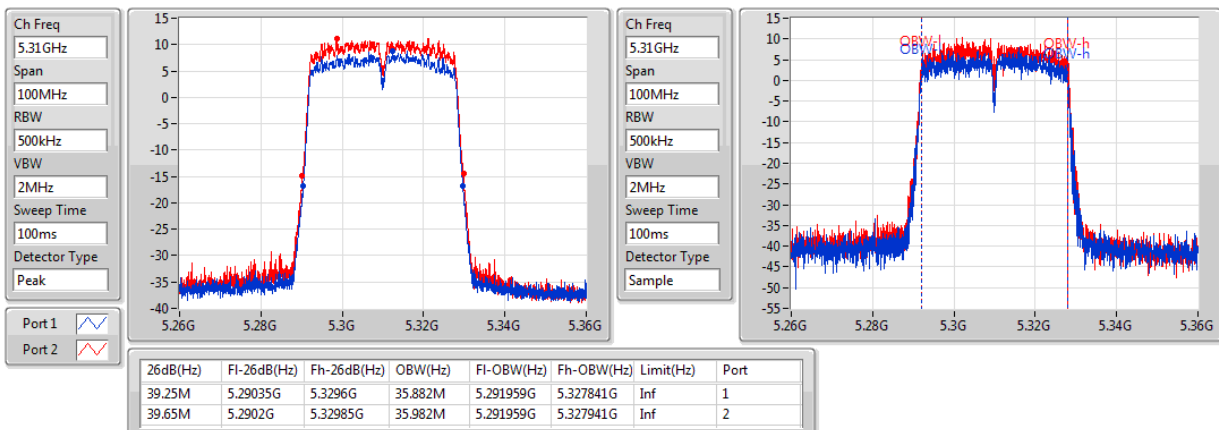
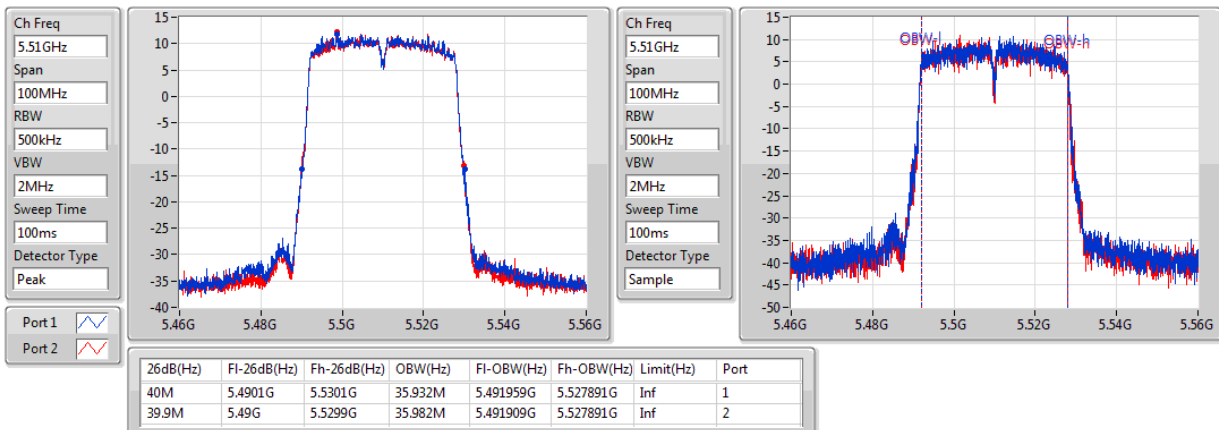
Port X-OBW = Port X 99% occupied bandwidth;

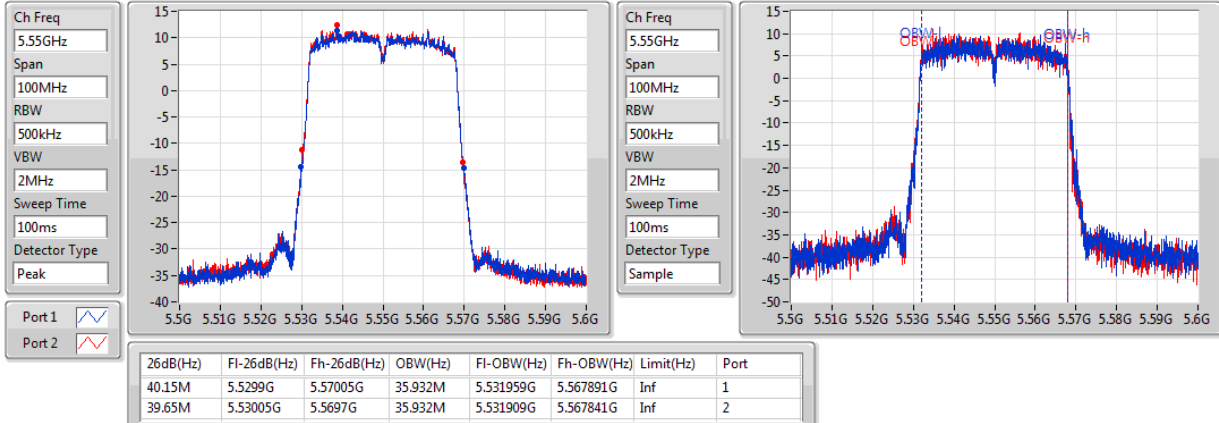
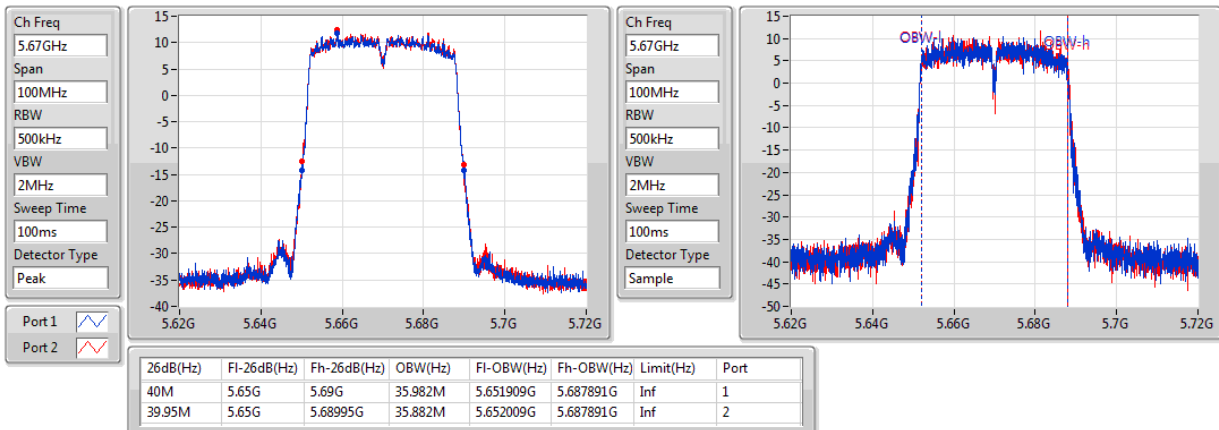
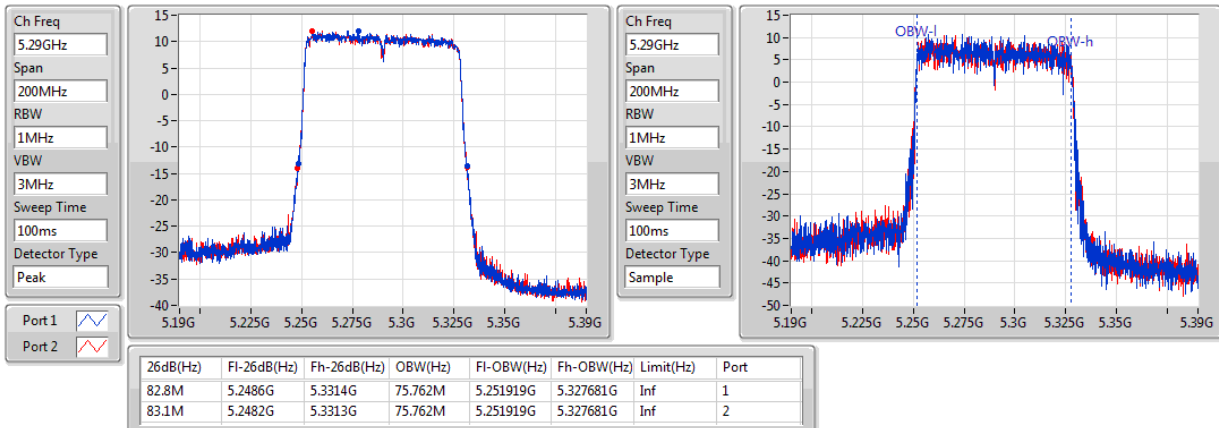
802.11a-BF_(6Mbps)_2TX
EBW
5260MHz

802.11a-BF_(6Mbps)_2TX
EBW
5300MHz

802.11a-BF_(6Mbps)_2TX
EBW
5320MHz


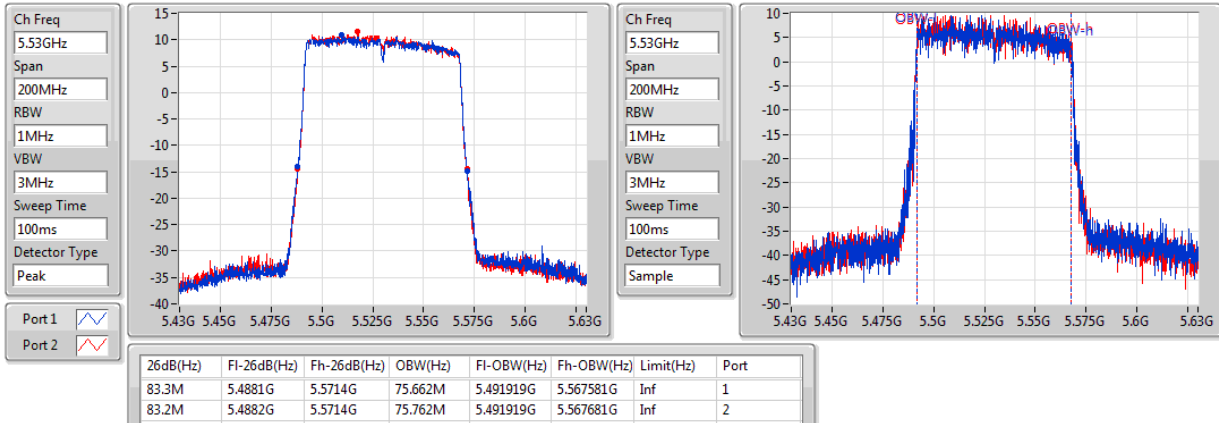
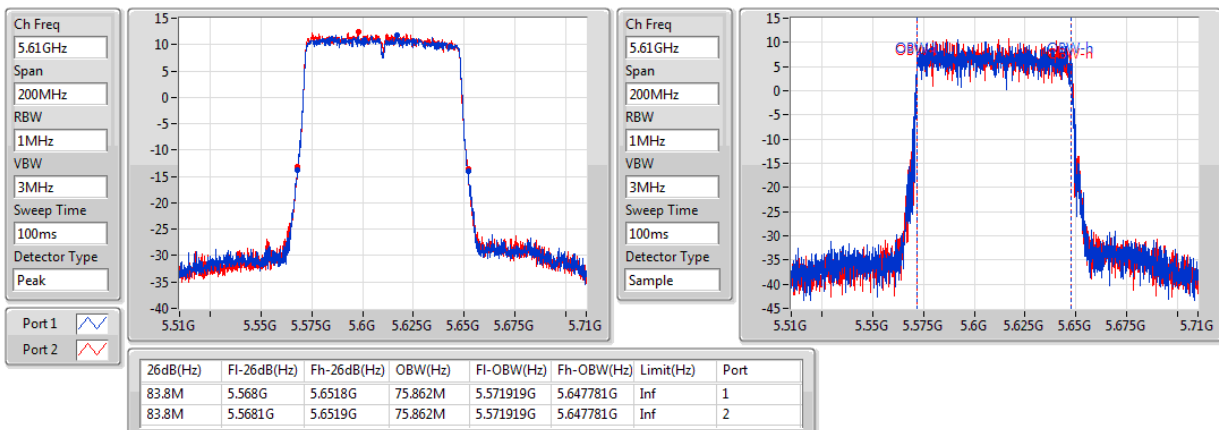
802.11a-BF_(6Mbps)_2TX
EBW
5500MHz

802.11a-BF_(6Mbps)_2TX
EBW
5580MHz

802.11a-BF_(6Mbps)_2TX
EBW
5700MHz


802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
5260MHz

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
5300MHz

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
5320MHz


802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
5500MHz

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
5580MHz

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
5700MHz


802.11ac VHT40-BF_Nss1,(MCS0)_2TX
EBW
5270MHz

802.11ac VHT40-BF_Nss1,(MCS0)_2TX
EBW
5310MHz

802.11ac VHT40-BF_Nss1,(MCS0)_2TX
EBW
5510MHz


802.11ac VHT40-BF_Nss1,(MCS0)_2TX
EBW
5550MHz

802.11ac VHT40-BF_Nss1,(MCS0)_2TX
EBW
5670MHz

802.11ac VHT80-BF_Nss1,(MCS0)_2TX
EBW
5290MHz


802.11ac VHT80-BF_Nss1,(MCS0)_2TX
EBW
5530MHz

802.11ac VHT80-BF_Nss1,(MCS0)_2TX
EBW
5610MHz


Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
802.11a-BF_(6Mbps)_2TX	-	-	-	-
5.25-5.35GHz	22.94	0.19679	29.49	0.88920
5.47-5.725GHz	22.64	0.18365	28.96	0.78705
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-
5.25-5.35GHz	21.59	0.14421	28.14	0.65163
5.47-5.725GHz	22.71	0.18664	29.02	0.79799
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-
5.25-5.35GHz	23.34	0.21577	29.89	0.97499
5.47-5.725GHz	23.64	0.23121	29.96	0.99083
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-
5.25-5.35GHz	23.23	0.21038	29.78	0.95060
5.47-5.725GHz	23.64	0.23121	29.96	0.99083

Result

Mode	Result	DG (dBi)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)	Port 1 (dBm)	Port 2 (dBm)
802.11a-BF_(6Mbps)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	6.55	21.42	23.20	27.97	29.75	18.41	18.40
5300MHz	Pass	6.55	22.94	23.21	29.49	29.76	19.88	19.98
5320MHz	Pass	6.55	20.73	23.19	27.28	29.74	17.69	17.74
5500MHz	Pass	6.32	22.28	23.58	28.60	29.90	19.22	19.32
5580MHz	Pass	6.32	22.64	23.57	28.96	29.89	19.64	19.62
5700MHz	Pass	6.32	22.00	23.59	28.31	29.91	18.96	19.01
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	6.55	21.59	23.42	28.14	29.97	18.58	18.57
5300MHz	Pass	6.55	21.13	23.43	27.68	29.98	18.04	18.19
5320MHz	Pass	6.55	21.33	23.41	27.88	29.96	18.29	18.34
5500MHz	Pass	6.32	22.71	23.66	29.02	30.00	19.79	19.60
5580MHz	Pass	6.32	22.60	23.66	28.92	30.00	19.59	19.59
5700MHz	Pass	6.32	22.66	23.66	28.98	30.00	19.66	19.64
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5270MHz	Pass	6.55	23.34	23.43	29.89	30.00	20.36	20.29
5310MHz	Pass	6.55	23.20	23.43	29.75	30.00	20.15	20.23
5510MHz	Pass	6.32	23.64	23.66	29.96	30.00	20.65	20.61
5550MHz	Pass	6.32	23.59	23.66	29.91	30.00	20.56	20.60
5670MHz	Pass	6.32	23.53	23.66	29.85	30.00	20.52	20.52
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5290MHz	Pass	6.55	23.23	23.43	29.78	30.00	20.23	20.20
5530MHz	Pass	6.32	22.44	23.66	28.75	30.00	19.45	19.40
5610MHz	Pass	6.32	23.64	23.66	29.96	30.00	20.59	20.67

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

Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
802.11a-BF_(6Mbps)_2TX	-	-
5.25-5.35GHz	10.40	16.95
5.47-5.725GHz	10.63	16.94
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-
5.25-5.35GHz	10.25	16.80
5.47-5.725GHz	10.61	16.93
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-
5.25-5.35GHz	8.01	14.56
5.47-5.725GHz	8.48	14.80
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-
5.25-5.35GHz	5.06	11.61
5.47-5.725GHz	5.08	11.39

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

Result

Mode	Result	DG (dBi)	Sum (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)
802.11a-BF_(6Mbps)_2TX	-	-	-	-	-	-	-
5260MHz	Pass	6.55	10.33	10.33	10.45	6.90	8.00
5300MHz	Pass	6.55	10.40	10.40	10.45	7.41	7.45
5320MHz	Pass	6.55	10.36	10.36	10.45	7.39	7.41
5500MHz	Pass	6.32	10.36	10.36	10.68	7.48	7.31
5580MHz	Pass	6.32	10.63	10.63	10.68	7.57	7.79
5700MHz	Pass	6.32	10.50	10.50	10.68	7.61	7.59
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5260MHz	Pass	6.55	10.09	10.09	10.45	6.62	7.62
5300MHz	Pass	6.55	10.23	10.23	10.45	7.24	7.22
5320MHz	Pass	6.55	10.25	10.25	10.45	7.29	7.26
5500MHz	Pass	6.32	10.55	10.55	10.68	7.84	7.38
5580MHz	Pass	6.32	10.36	10.36	10.68	7.23	7.60
5700MHz	Pass	6.32	10.61	10.61	10.68	7.56	7.85
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5270MHz	Pass	6.55	7.54	7.54	10.45	4.56	4.51
5310MHz	Pass	6.55	8.01	8.01	10.45	5.09	5.02
5510MHz	Pass	6.32	8.48	8.48	10.68	5.59	5.48
5550MHz	Pass	6.32	8.43	8.43	10.68	5.36	5.58
5670MHz	Pass	6.32	8.38	8.38	10.68	5.41	5.60
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5290MHz	Pass	6.55	5.06	5.06	10.45	2.04	2.12
5530MHz	Pass	6.32	4.04	4.04	10.68	1.02	1.20
5610MHz	Pass	6.32	5.08	5.08	10.68	2.03	2.14

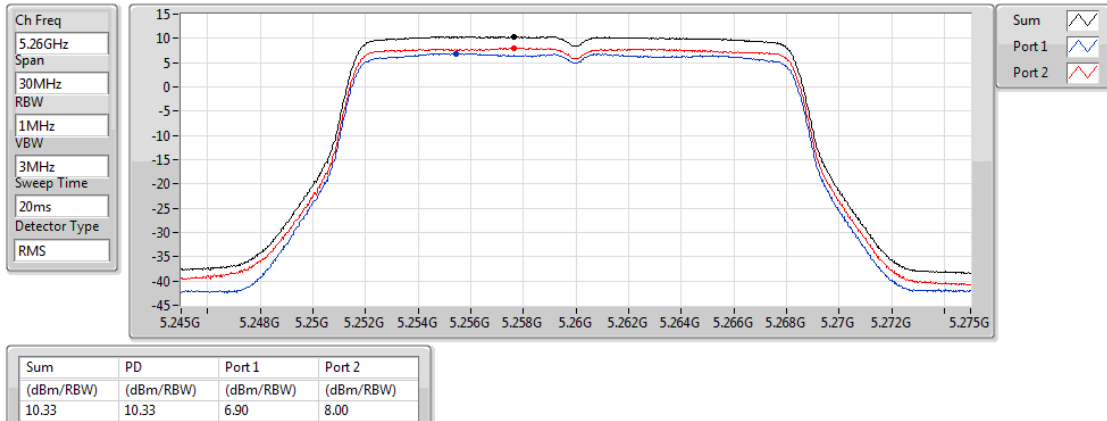
DG = Directional Gain; **RBW** = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

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

802.11a-BF_(6Mbps)_2TX

PSD

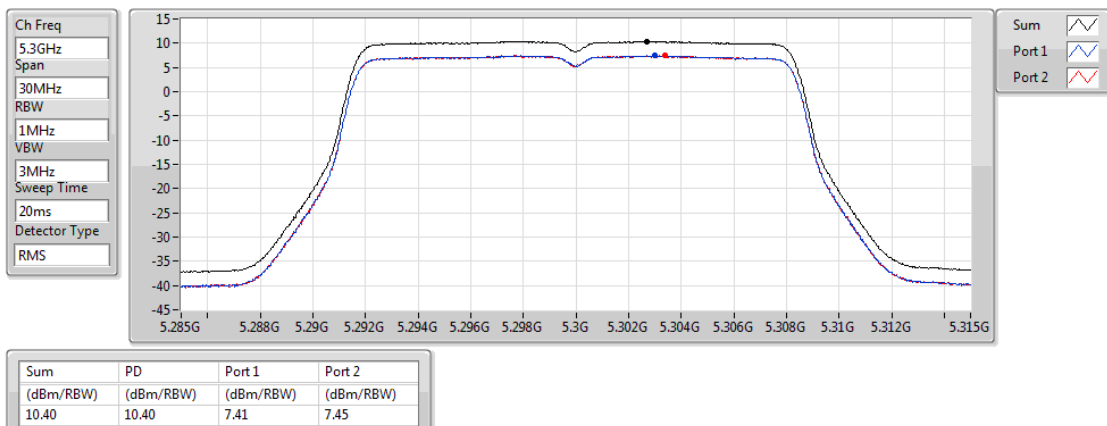
5260MHz



802.11a-BF_(6Mbps)_2TX

PSD

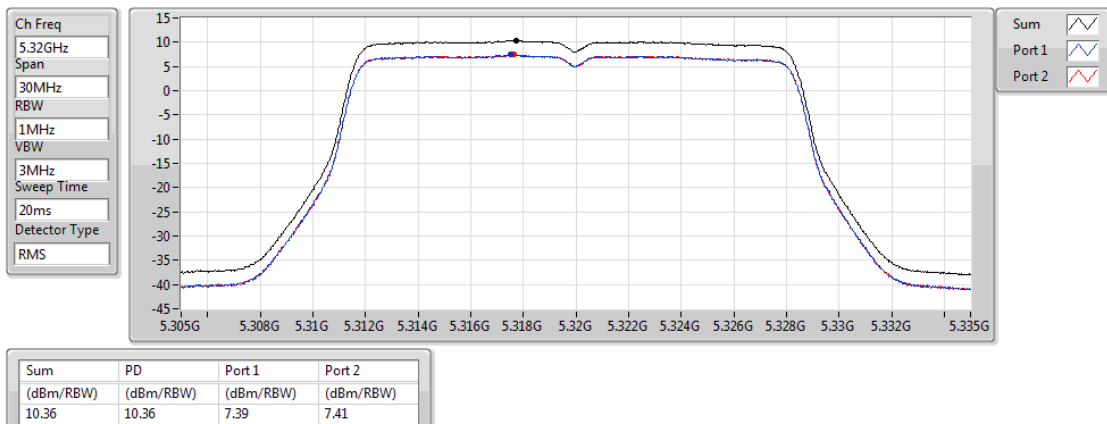
5300MHz



802.11a-BF_(6Mbps)_2TX

PSD

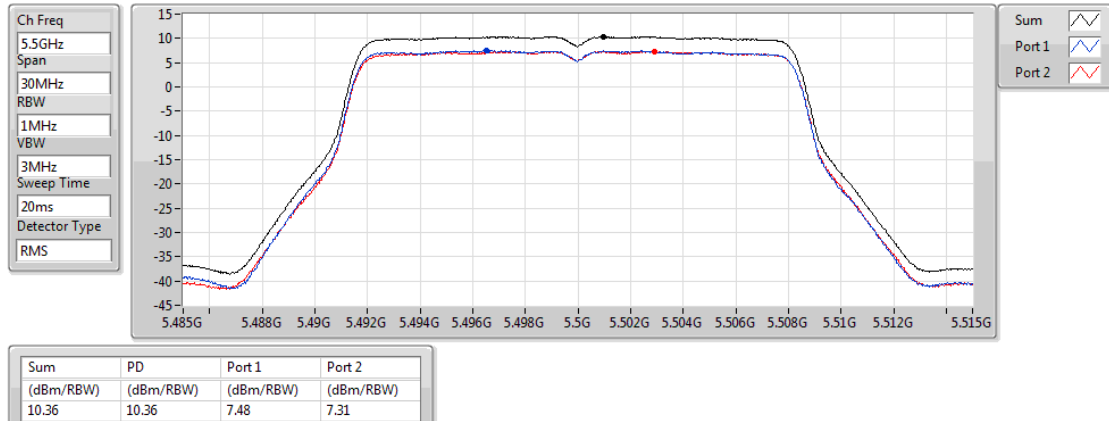
5320MHz



802.11a-BF_(6Mbps)_2TX

PSD

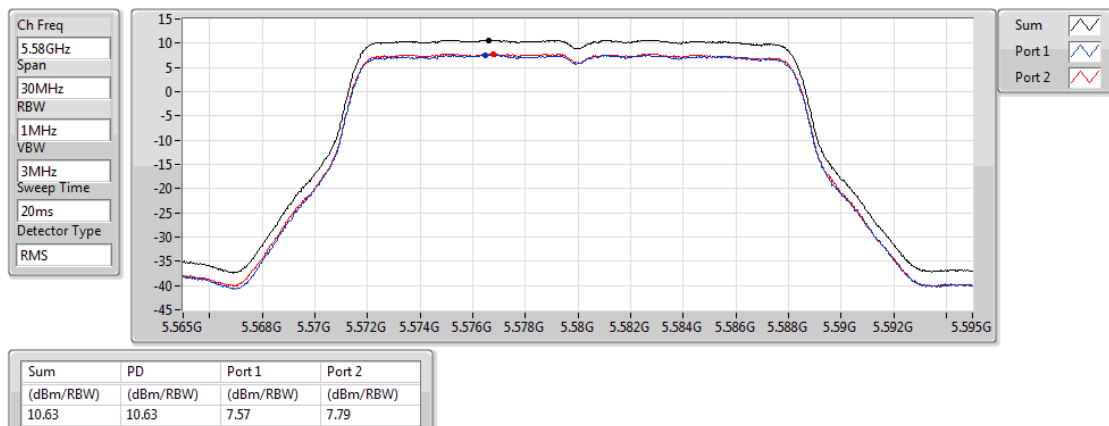
5500MHz



802.11a-BF_(6Mbps)_2TX

PSD

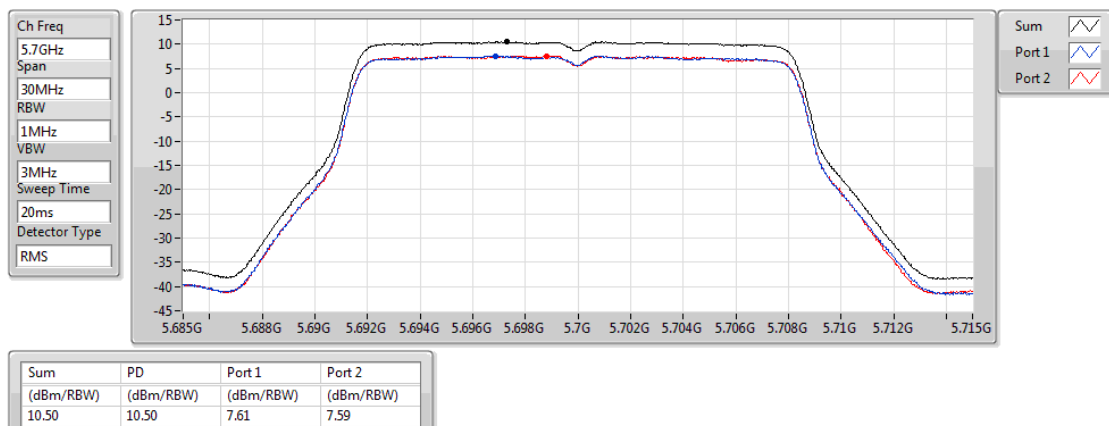
5580MHz



802.11a-BF_(6Mbps)_2TX

PSD

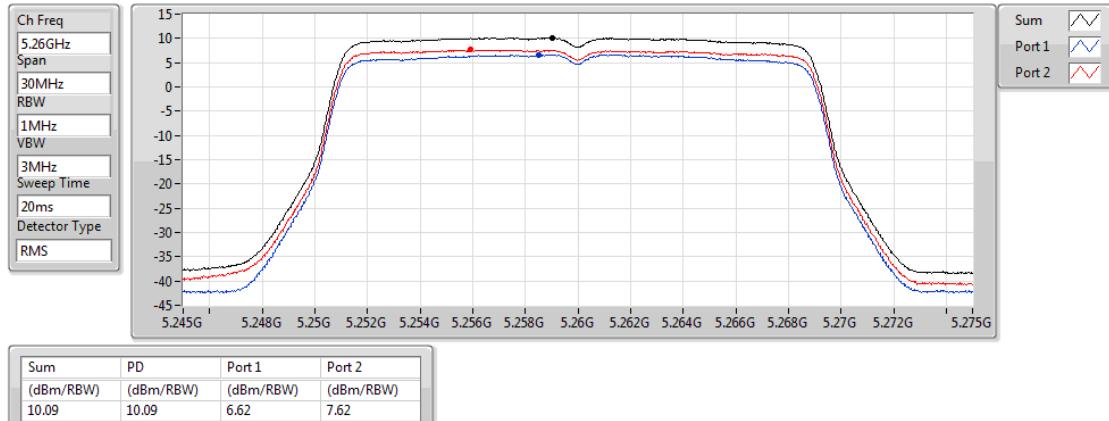
5700MHz



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

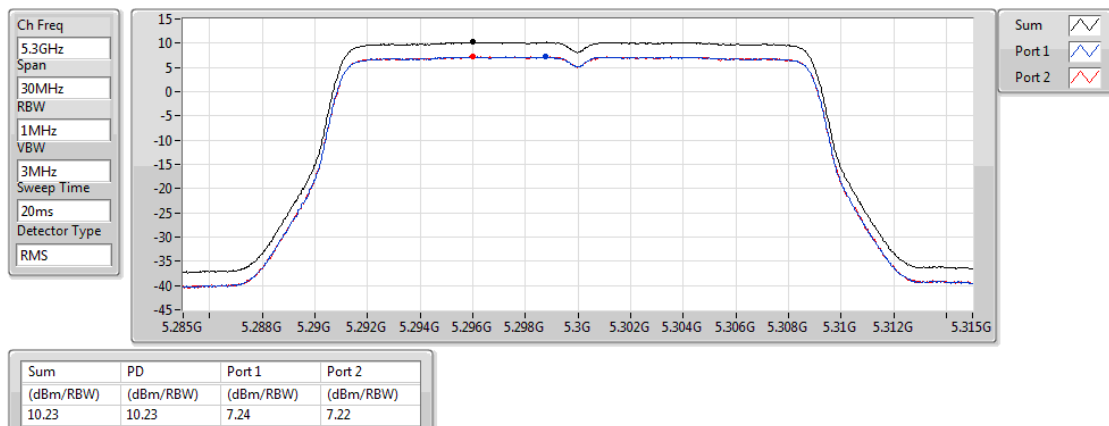
5260MHz



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

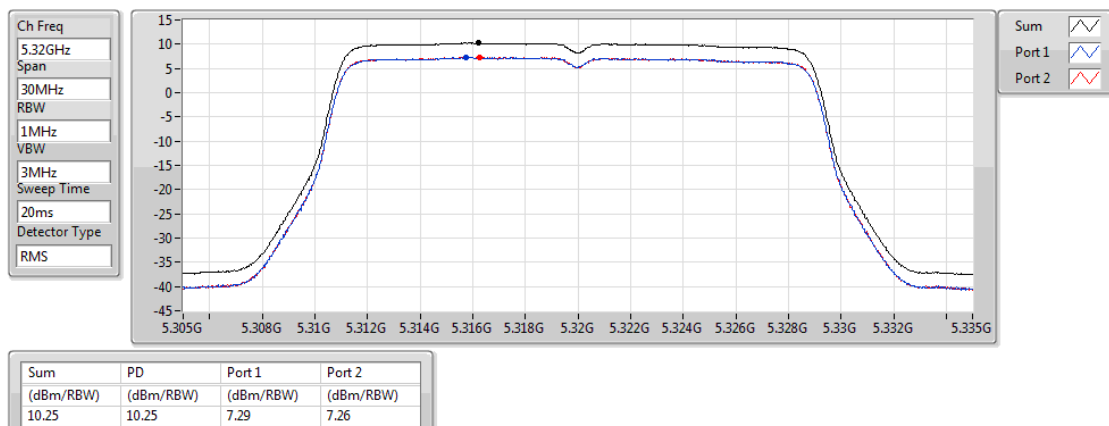
5300MHz



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

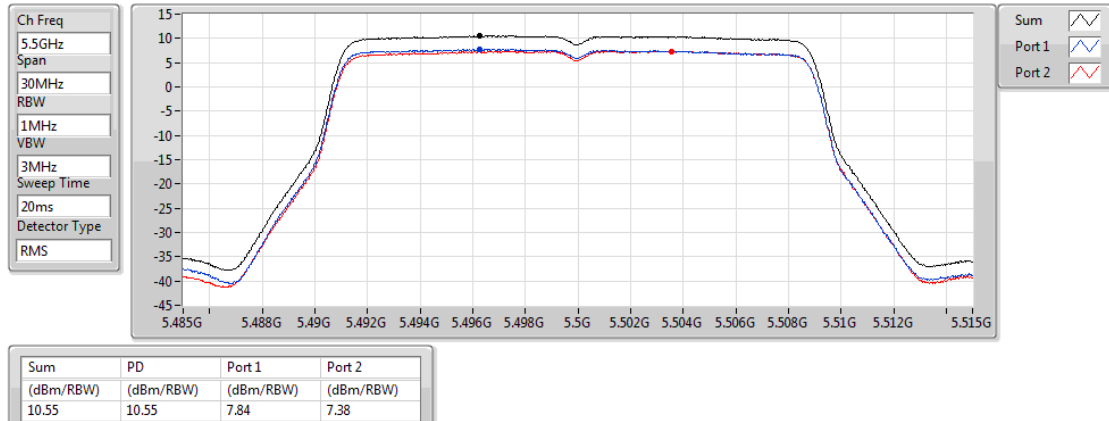
5320MHz



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

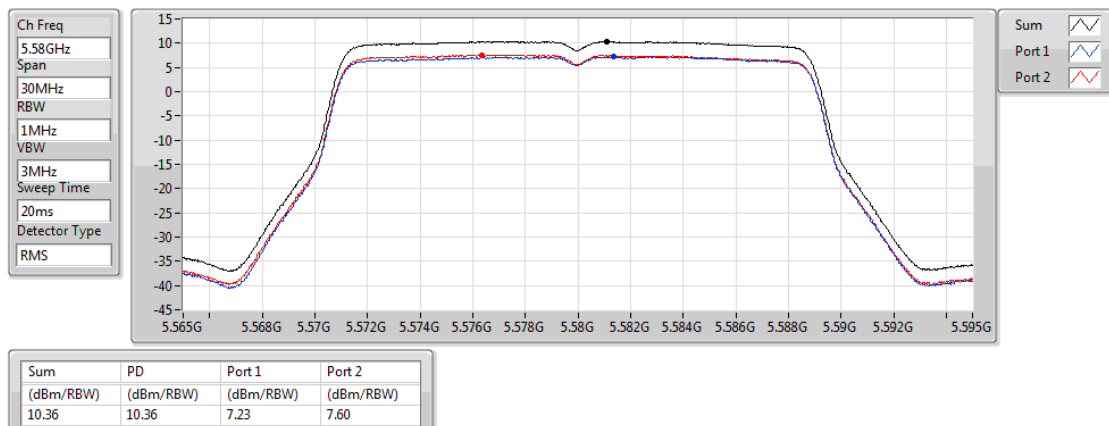
5500MHz



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

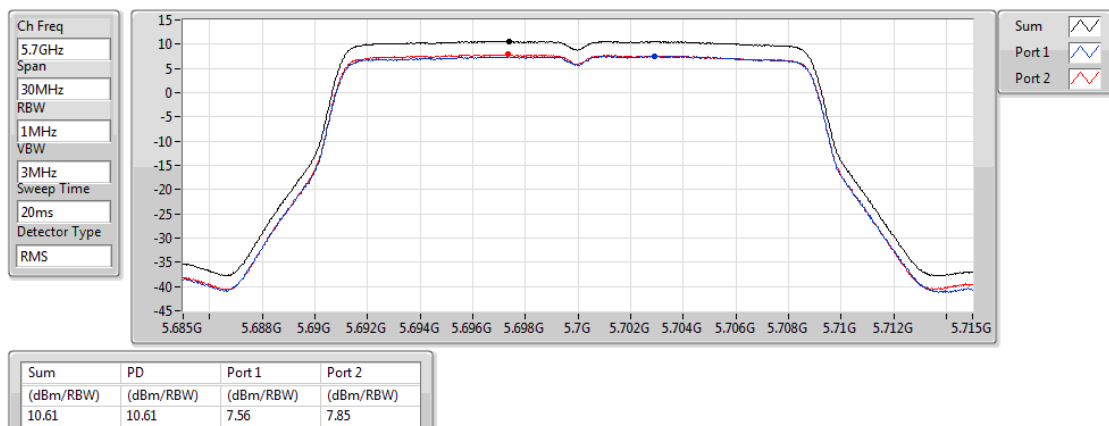
5580MHz



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

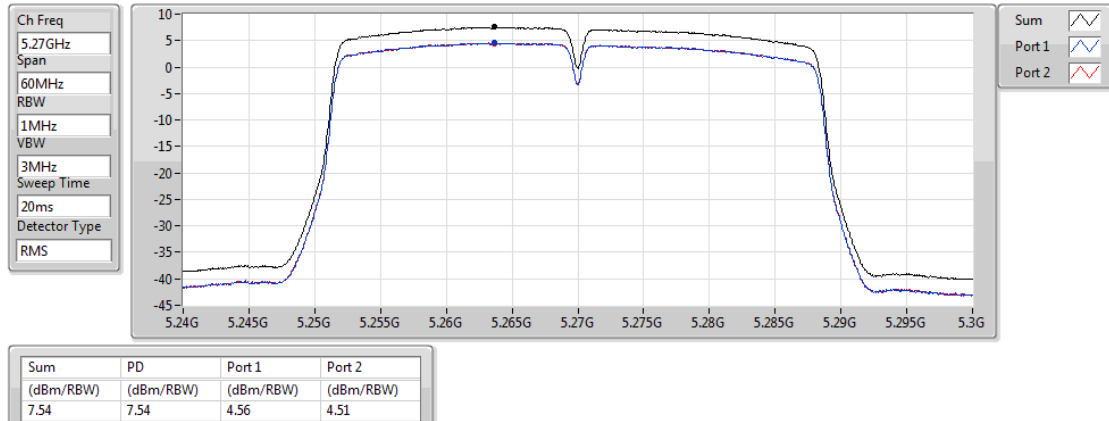
5700MHz



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

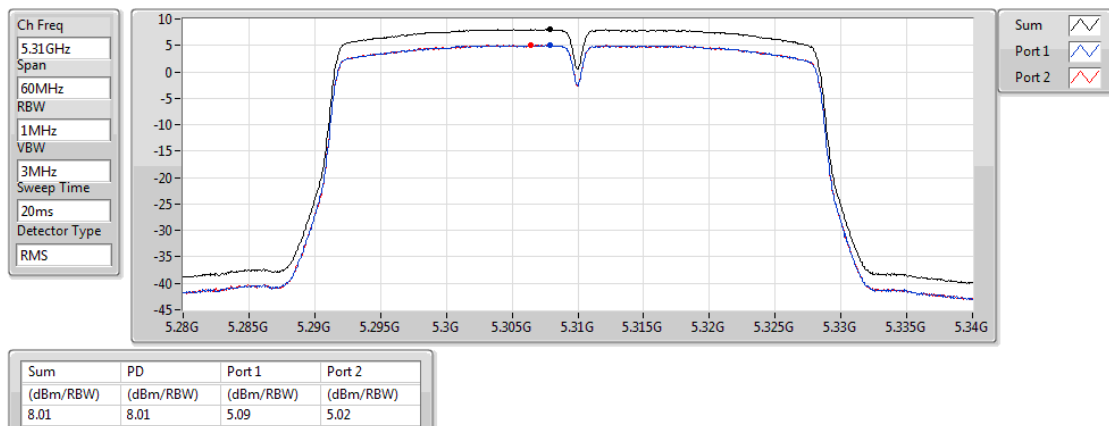
5270MHz



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

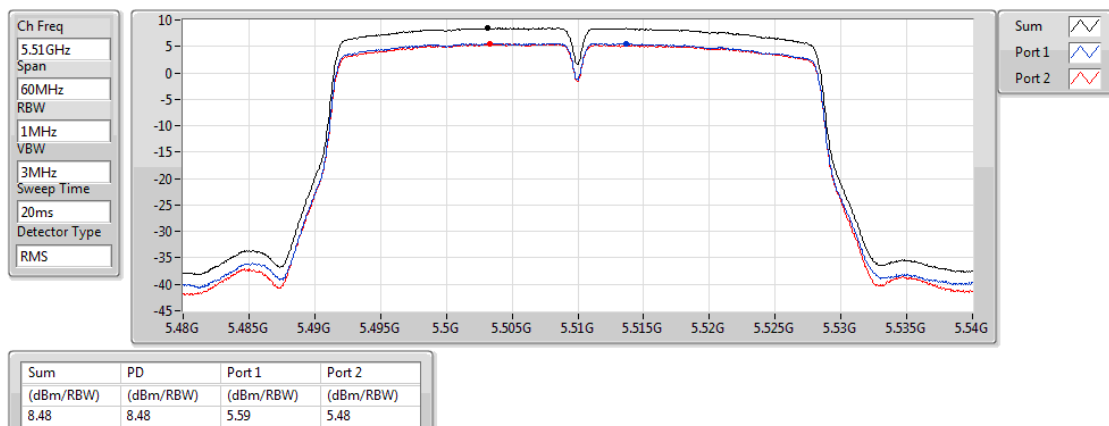
5310MHz



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

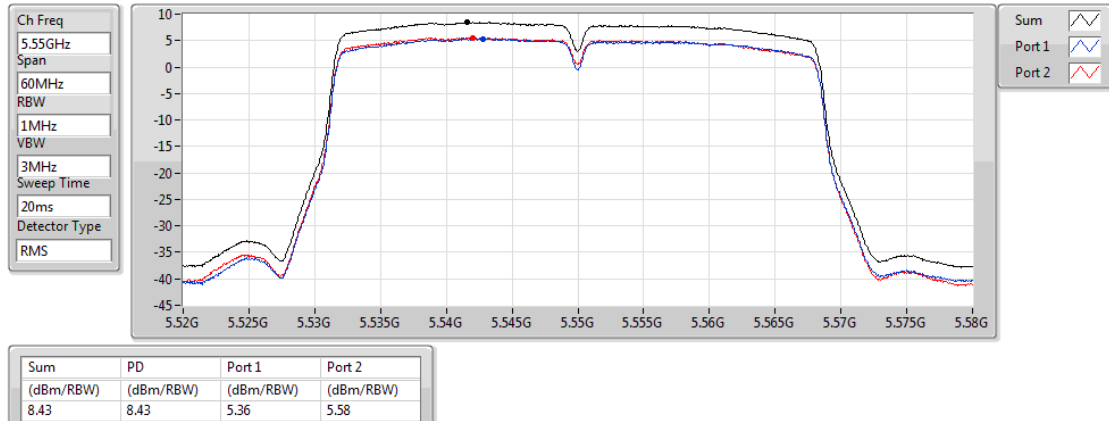
5510MHz



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

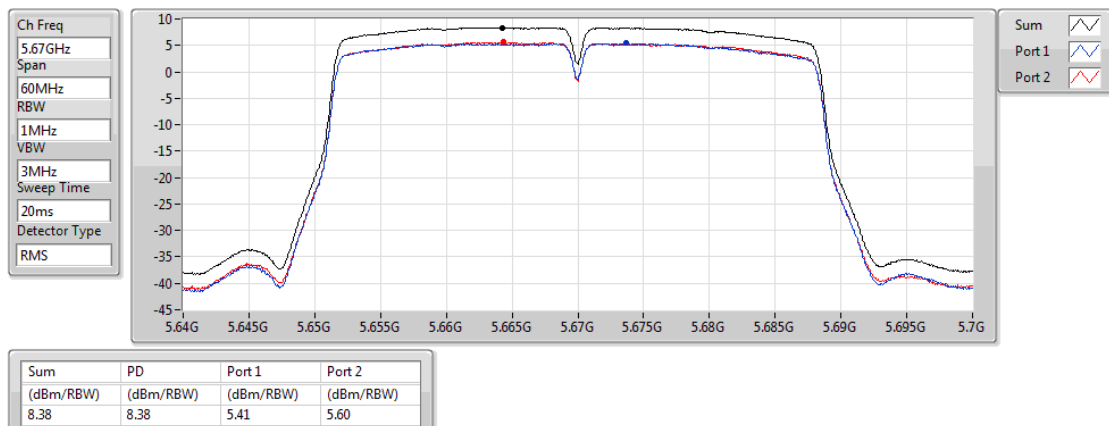
5550MHz



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

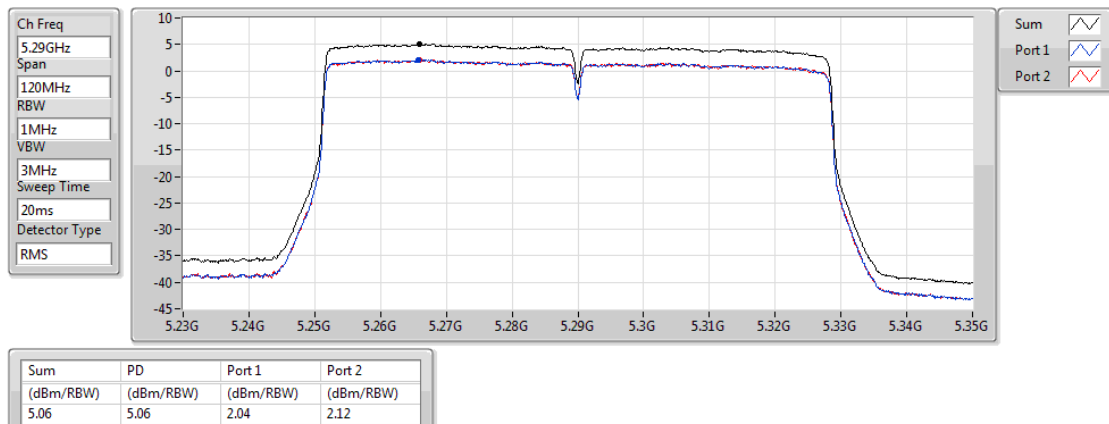
5670MHz



802.11ac VHT80-BF_Nss1,(MCS0)_2TX

PSD

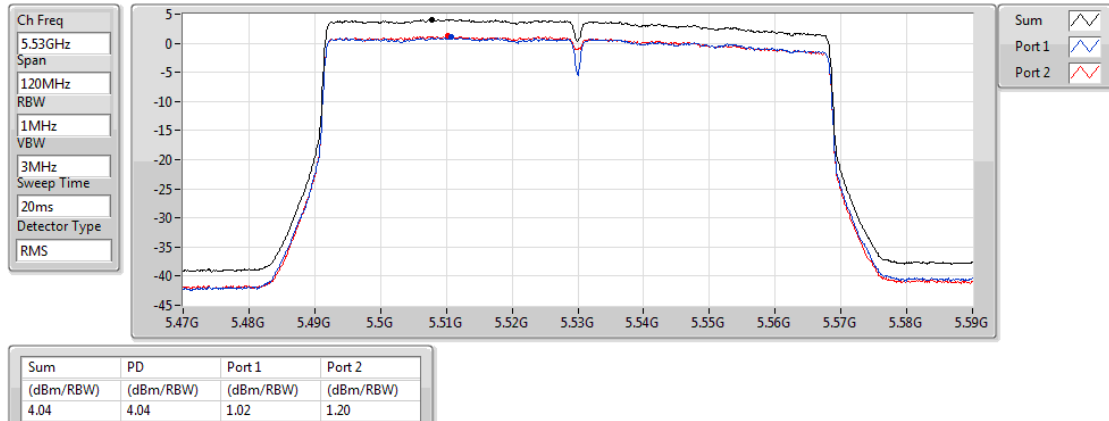
5290MHz



802.11ac VHT80-BF_Nss1,(MCS0)_2TX

PSD

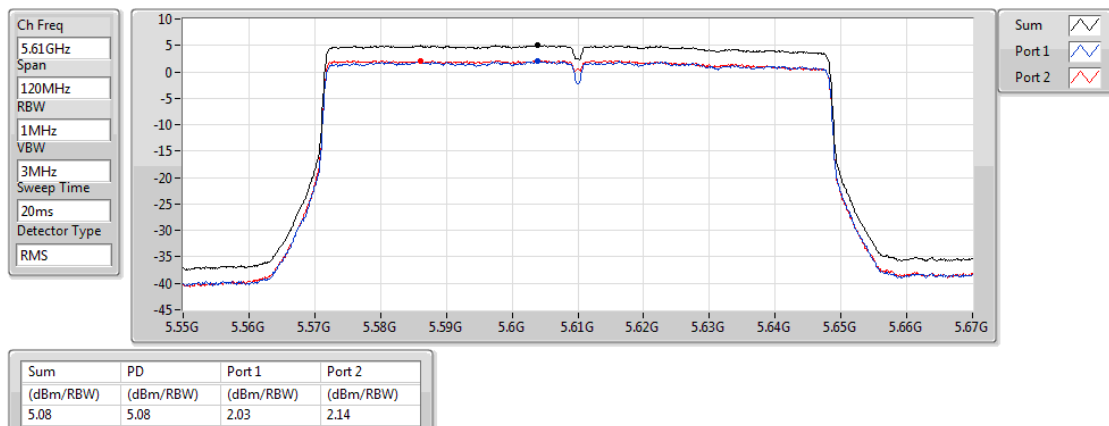
5530MHz



802.11ac VHT80-BF_Nss1,(MCS0)_2TX

PSD

5610MHz

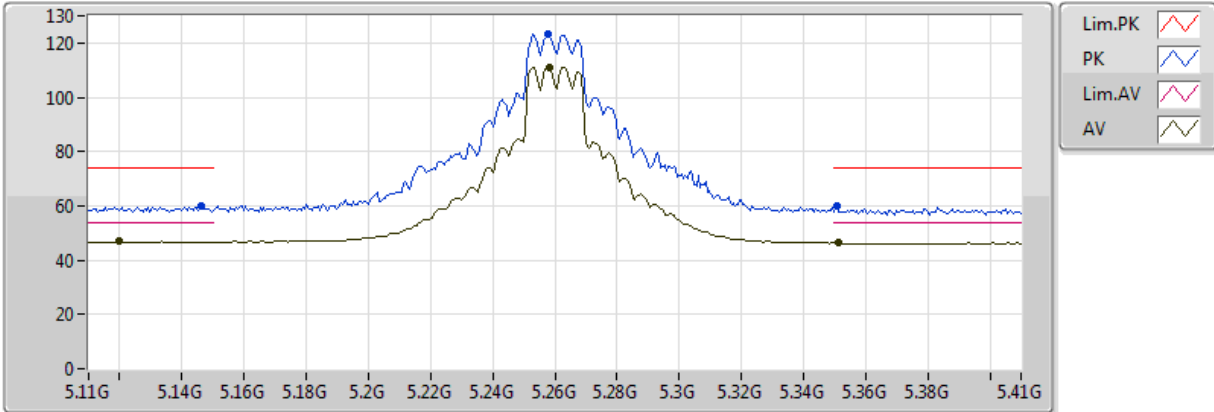


**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
5.47-5.725GHz	Pass	PK	5.461G	68.17	68.20	-0.03	9.59	3	V	302	1.58	-

802.11a-BF_(6Mbps)_2TX

5260MHz_TX

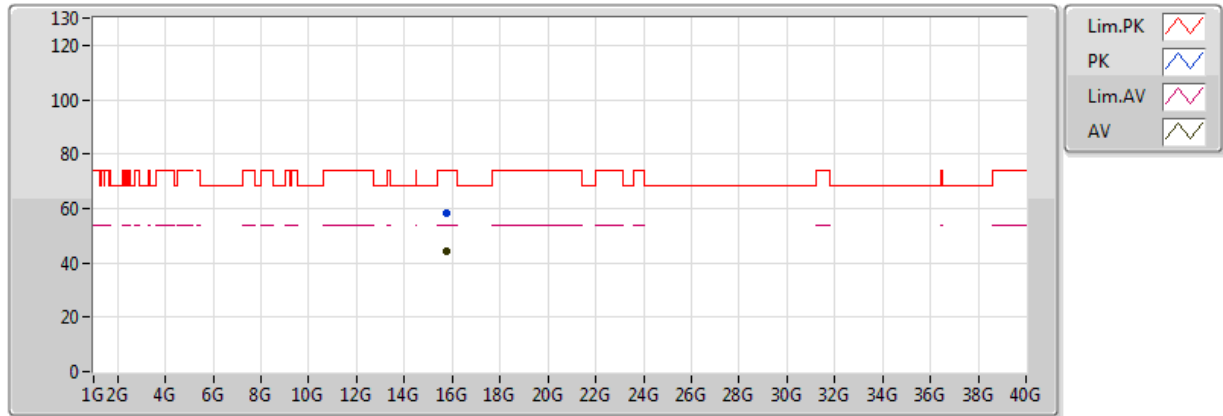


20170203
EUT Z 2TX Dipole TXBF
Setting 25,5
02-J-1-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1196G	46.92	54.00	-7.08	8.50	3	V	126	1.53	-
AV	5.2582G	111.16	Inf	-Inf	8.88	3	V	126	1.53	-
AV	5.3512G	46.29	54.00	-7.71	9.08	3	V	126	1.53	-
PK	5.146G	59.82	74.00	-14.18	8.58	3	V	126	1.53	-
PK	5.2576G	123.18	Inf	-Inf	8.87	3	V	126	1.53	-
PK	5.3506G	59.85	74.00	-14.15	9.08	3	V	126	1.53	-

802.11a-BF_(6Mbps)_2TX

5260MHz_TX

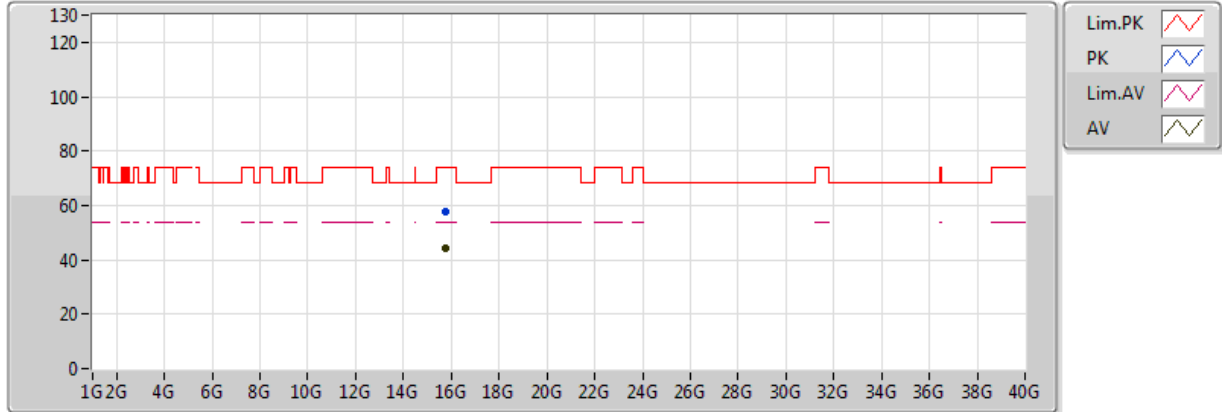


20170203
EUT Z 2TX Dipole TXBF
Setting 25.5
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.77992G	44.27	54.00	-9.73	17.50	3	V	261	1.94	-
PK	15.78199G	58.35	74.00	-15.65	17.49	3	V	261	1.94	-

802.11a-BF_(6Mbps)_2TX

5260MHz_TX

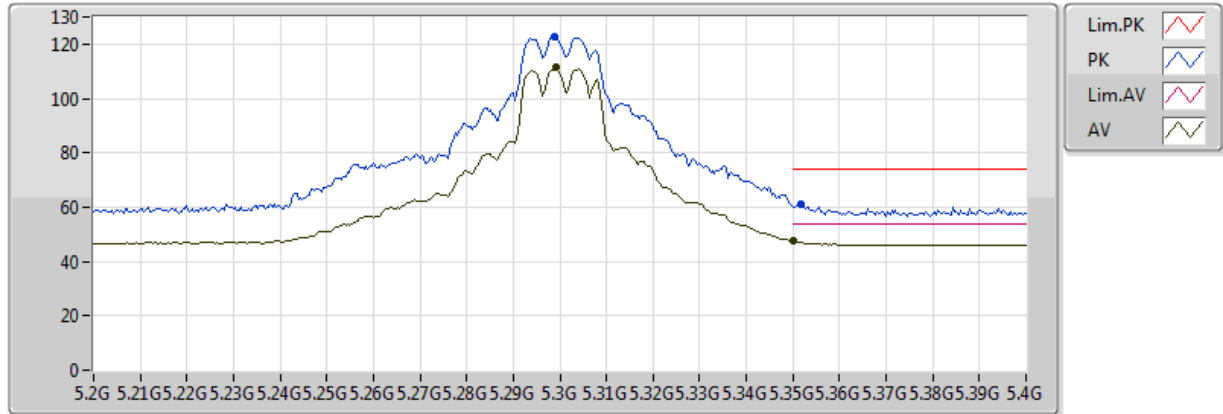


20170203
EUT Z 2TX Dipole TXBF
Setting 25.5
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.78073G	44.27	54.00	-9.73	17.49	3	H	86	1.74	-
PK	15.77958G	57.99	74.00	-16.01	17.50	3	H	86	1.74	-

802.11a-BF_(6Mbps)_2TX

5300MHz_TX

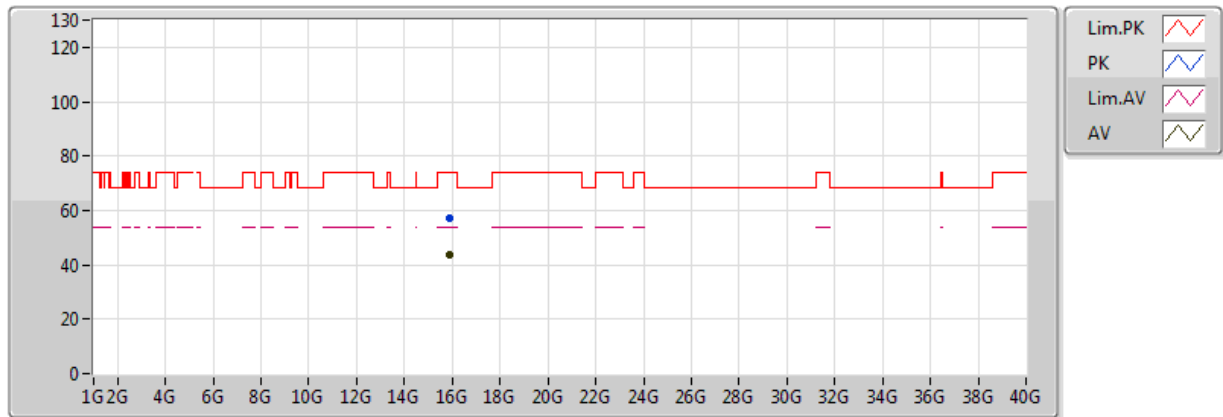


20170203
EUT Z 2TX Dipole TXBF
Setting 25.5
02-J-1-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.2992G	111.26	Inf	-Inf	8.98	3	V	4	1.73	-
AV	5.350005G	47.59	54.00	-6.41	9.08	3	V	4	1.73	-
PK	5.2988G	122.47	Inf	-Inf	8.98	3	V	4	1.73	-
PK	5.3516G	61.19	74.00	-12.81	9.08	3	V	4	1.73	-

802.11a-BF_(6Mbps)_2TX

5300MHz_TX

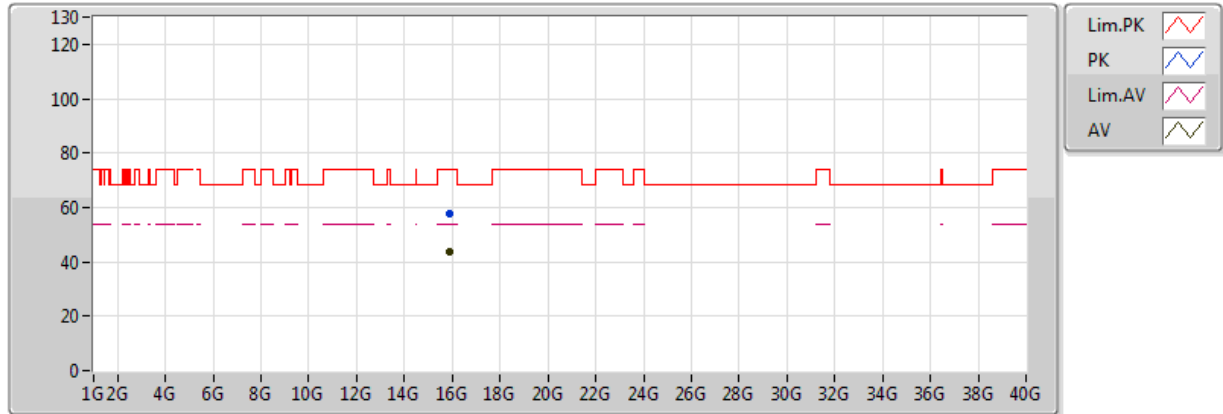


20170203
EUT Z 2TX Dipole TXBF
Setting 25.5
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.9017G	43.77	54.00	-10.23	17.18	3	V	56	1.91	-
PK	15.89762G	57.31	74.00	-16.69	17.19	3	V	56	1.91	-

802.11a-BF_(6Mbps)_2TX

5300MHz_TX

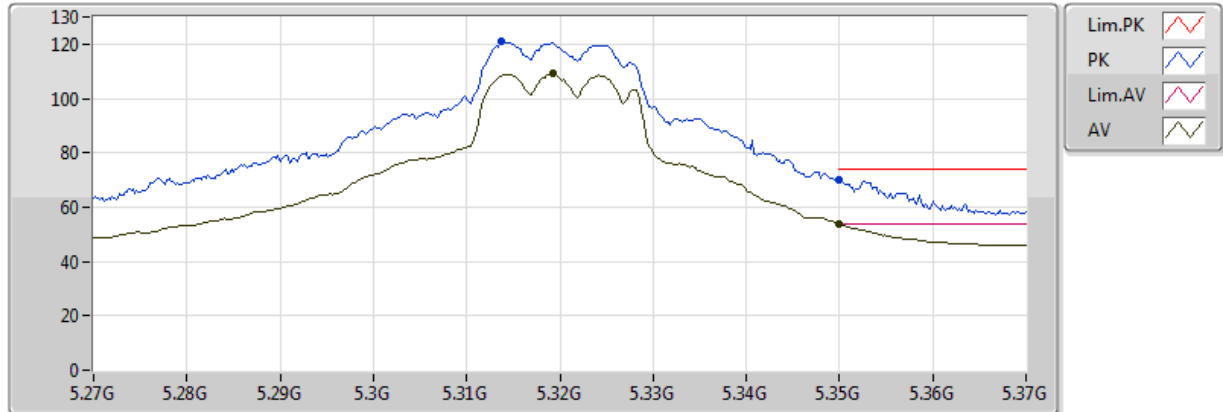


20170203
EUT Z 2TX Dipole TXBF
Setting 25.5
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.89814G	43.71	54.00	-10.29	17.19	3	H	239	2.51	-
PK	15.89943G	57.75	74.00	-16.25	17.19	3	H	239	2.51	-

802.11a-BF_(6Mbps)_2TX

5320MHz_TX

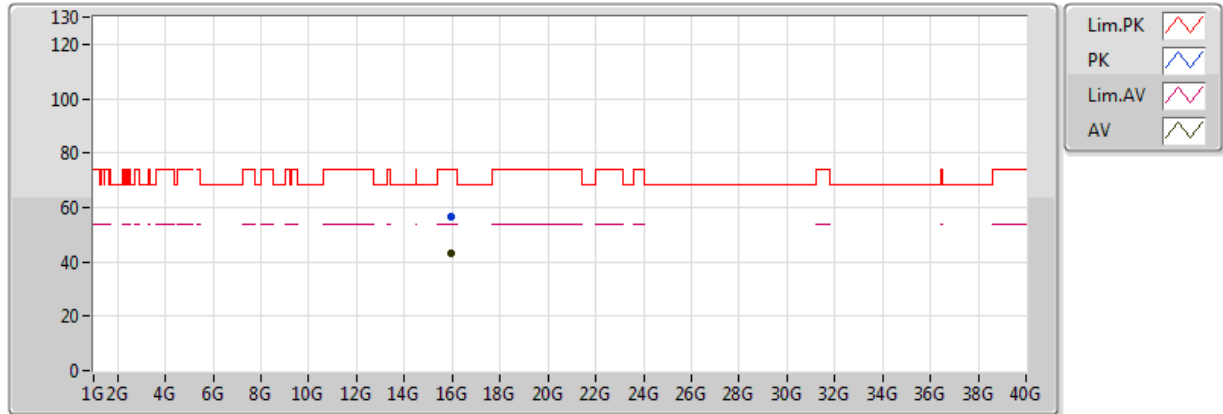


20170203
EUT Z 2TX Dipole TXBF
Setting 23
02-J-1-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.3192G	109.07	Inf	-Inf	9.02	3	V	131	1.96	-
AV	5.350005G	53.89	54.00	-0.11	9.08	3	V	131	1.96	-
PK	5.3138G	120.78	Inf	-Inf	9.01	3	V	131	1.96	-
PK	5.350005G	70.03	74.00	-3.97	9.08	3	V	131	1.96	-

802.11a-BF_(6Mbps)_2TX

5320MHz_TX

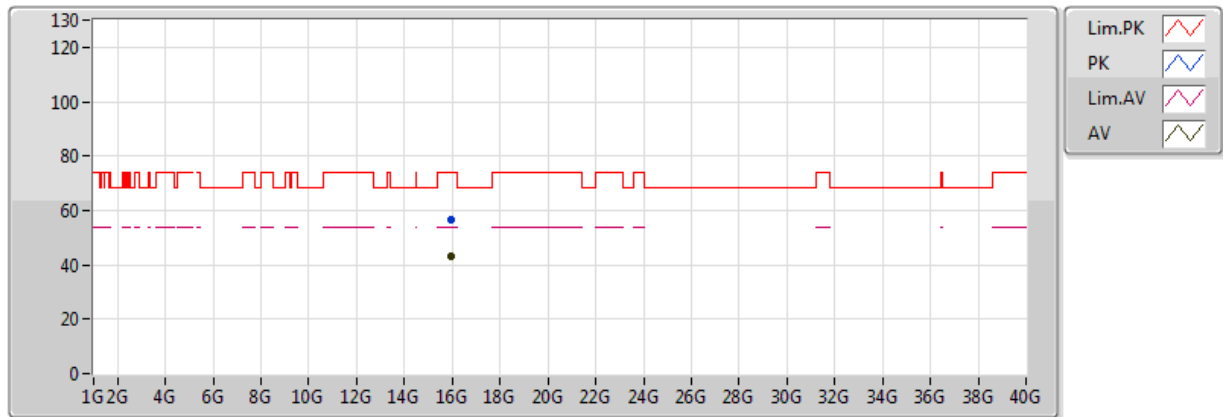


20170203
EUT Z 2TX Dipole TXBF
Setting 23
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.95804G	43.36	54.00	-10.64	17.04	3	V	293	2.12	-
PK	15.95769G	56.76	74.00	-17.24	17.04	3	V	293	2.12	-

802.11a-BF_(6Mbps)_2TX

5320MHz_TX

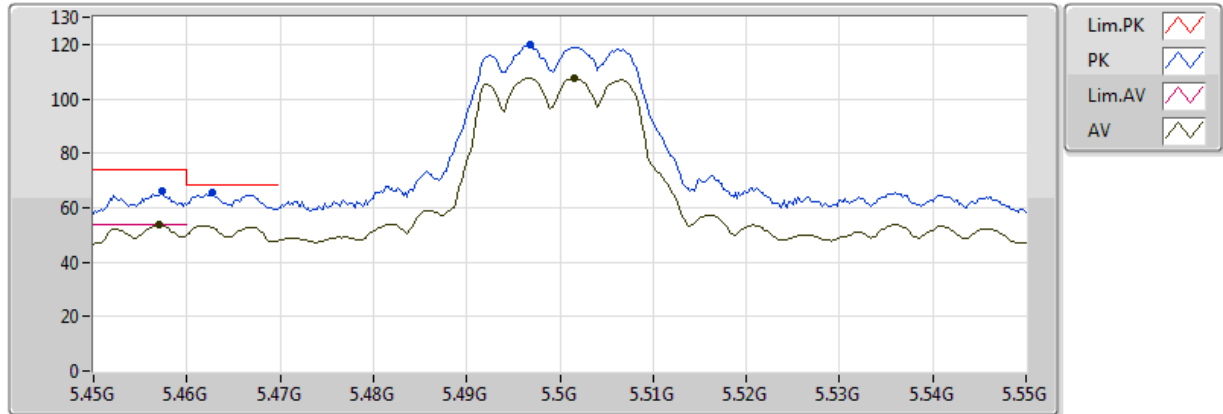


20170203
EUT Z 2TX Dipole TXBF
Setting 23
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.95787G	43.16	54.00	-10.84	17.04	3	H	76	1.20	-
PK	15.96233G	56.75	74.00	-17.25	17.03	3	H	76	1.20	-

802.11a-BF_(6Mbps)_2TX

5500MHz_TX

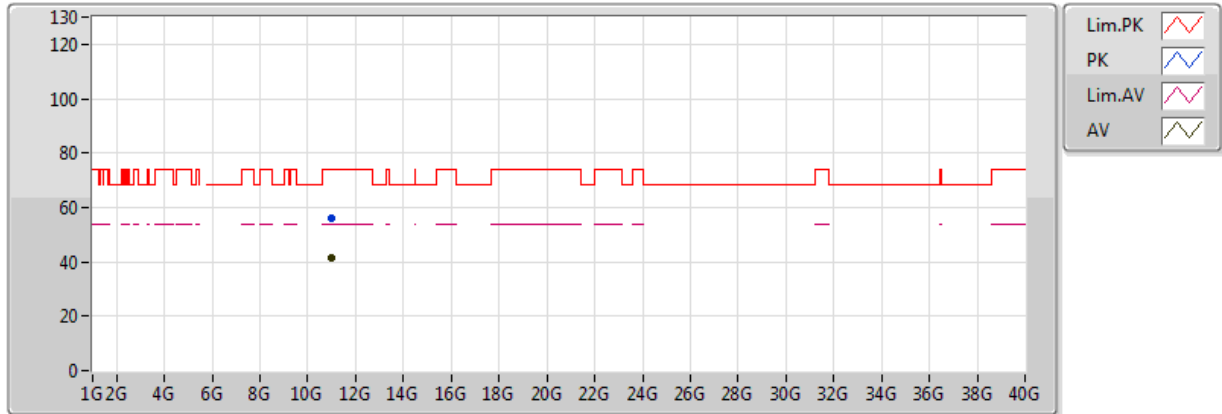


20170203
EUT Z 2TX Dipole Non-TXBF
Setting 22
02-J-1-10

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	53.55	54.00	-0.45	9.36	3	V	232	1.49	-
AV	5.5016G	107.67	Inf	-Inf	9.50	3	V	232	1.49	-
PK	5.4574G	66.31	74.00	-7.69	9.36	3	V	232	1.49	-
PK	5.4628G	65.41	68.20	-2.79	9.37	3	V	232	1.49	-
PK	5.4968G	120.06	Inf	-Inf	9.48	3	V	232	1.49	-

802.11a-BF_(6Mbps)_2TX

5500MHz_TX

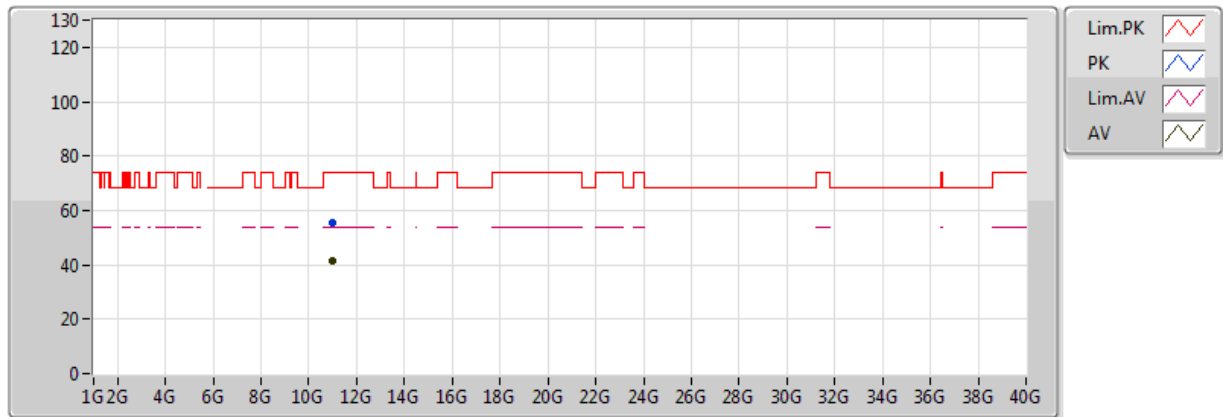


20170203
EUT Z 2TX Dipole TXBF
Setting 22
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.00196G	41.61	54.00	-12.39	15.83	3	V	151	1.87	-
PK	11.00232G	55.88	74.00	-18.12	15.83	3	V	151	1.87	-

802.11a-BF_(6Mbps)_2TX

5500MHz_TX

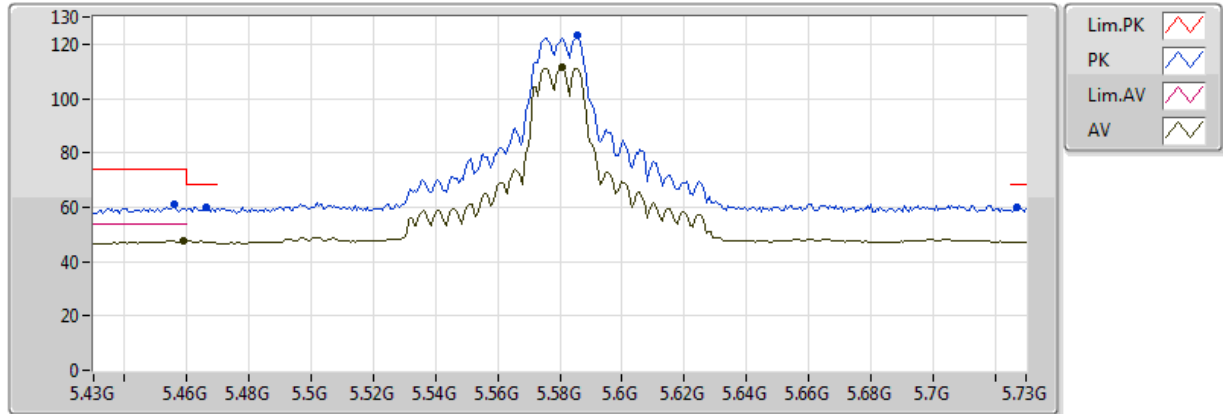


20170203
EUT Z 2TX Dipole TXBF
Setting 22
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.00191G	41.64	54.00	-12.36	15.83	3	H	329	1.32	-
PK	10.99973G	55.37	74.00	-18.63	15.83	3	H	329	1.32	-

802.11a-BF_(6Mbps)_2TX

5580MHz_TX

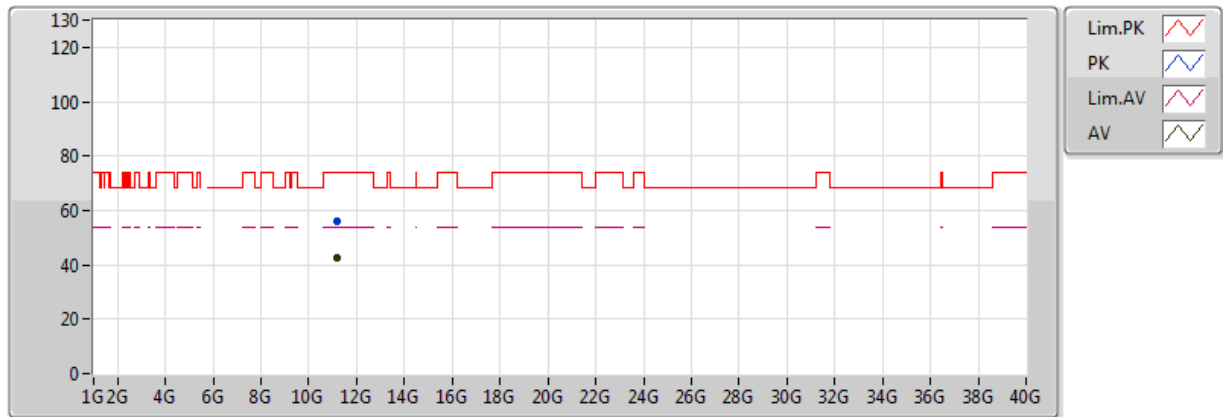


20170203
EUT Z 2TX Dipole TXBF
Setting 25.5
02-J-1-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.4588G	47.57	54.00	-6.43	9.36	3	V	291	1.82	-
AV	5.5806G	111.26	Inf	-Inf	9.76	3	V	291	1.82	-
PK	5.4558G	60.91	74.00	-13.09	9.35	3	V	291	1.82	-
PK	5.466G	59.69	68.20	-8.51	9.38	3	V	291	1.82	-
PK	5.5854G	123.10	Inf	-Inf	9.77	3	V	291	1.82	-
PK	5.727G	60.01	68.20	-8.19	10.15	3	V	291	1.82	-

802.11a-BF_(6Mbps)_2TX

5580MHz_TX

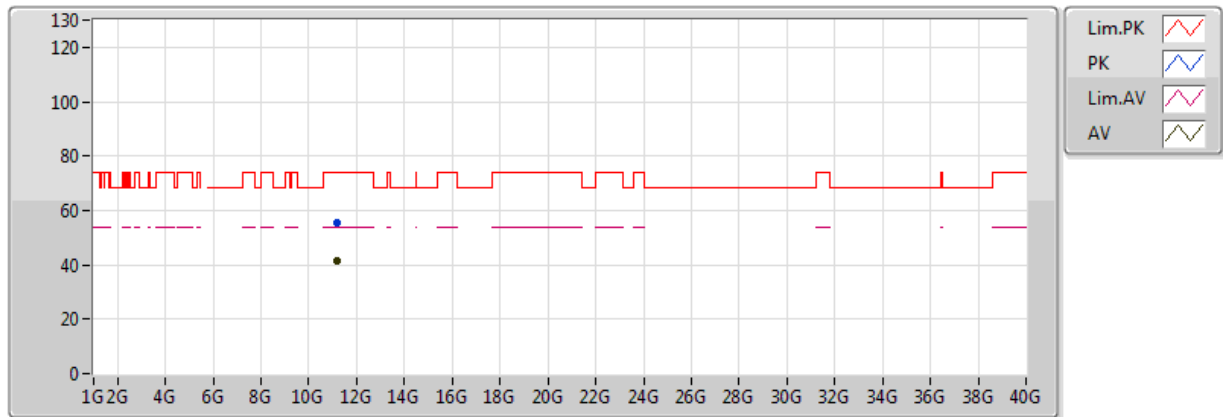


20170203
EUT Z 2TX Dipole TXBF
Setting 25.5
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.16136G	42.57	54.00	-11.43	15.99	3	V	79	2.06	-
PK	11.15816G	56.06	74.00	-17.94	15.99	3	V	79	2.06	-

802.11a-BF_(6Mbps)_2TX

5580MHz_TX

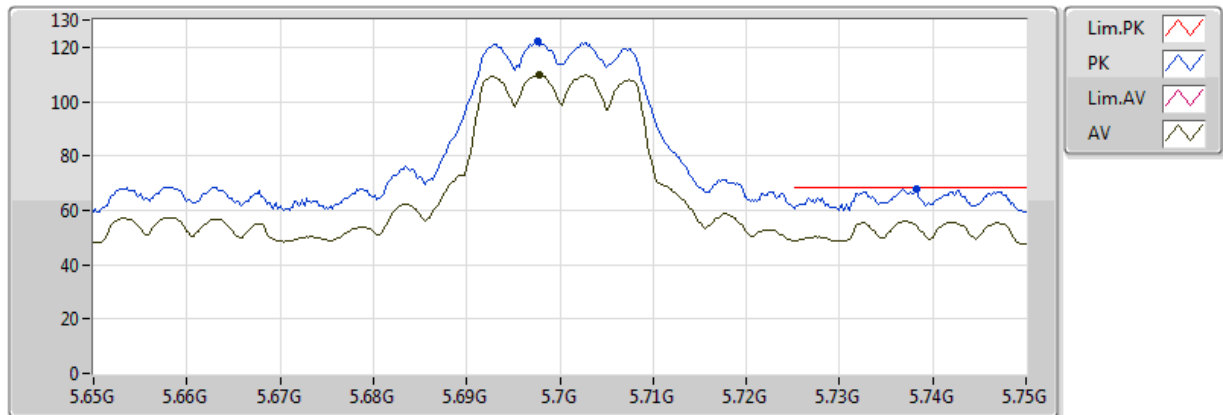


20170203
EUT Z 2TX Dipole TXBF
Setting 25.5
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.16252G	41.41	54.00	-12.59	15.99	3	H	246	2.05	-
PK	11.16544G	55.27	74.00	-18.73	15.99	3	H	246	2.05	-

802.11a-BF_(6Mbps)_2TX

5700MHz_TX

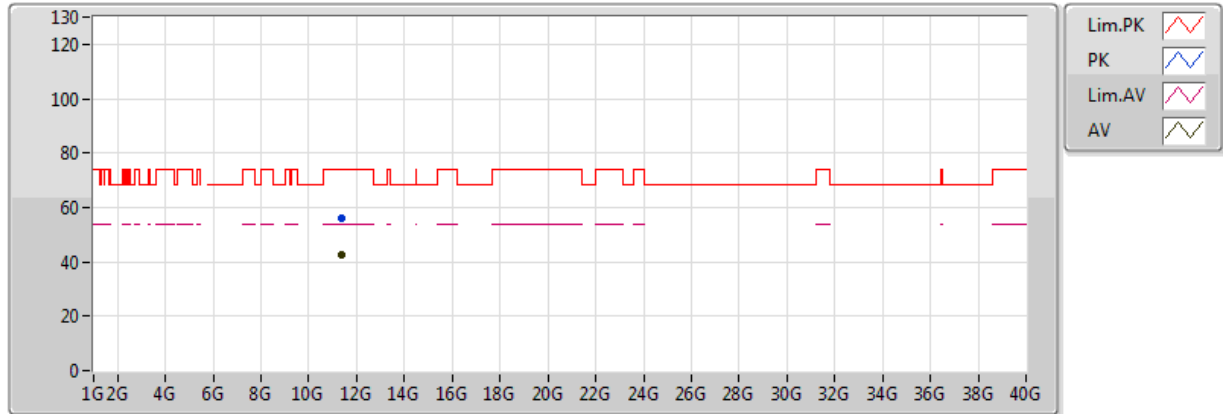


20170203
EUT Z 2TX Dipole TXBF
Setting 23
02-J-1-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.6978G	109.98	Inf	-Inf	10.07	3	V	289	1.48	-
PK	5.6976G	121.90	Inf	-Inf	10.07	3	V	289	1.48	-
PK	5.7382G	67.73	68.20	-0.47	10.18	3	V	289	1.48	-

802.11a-BF_(6Mbps)_2TX

5700MHz_TX

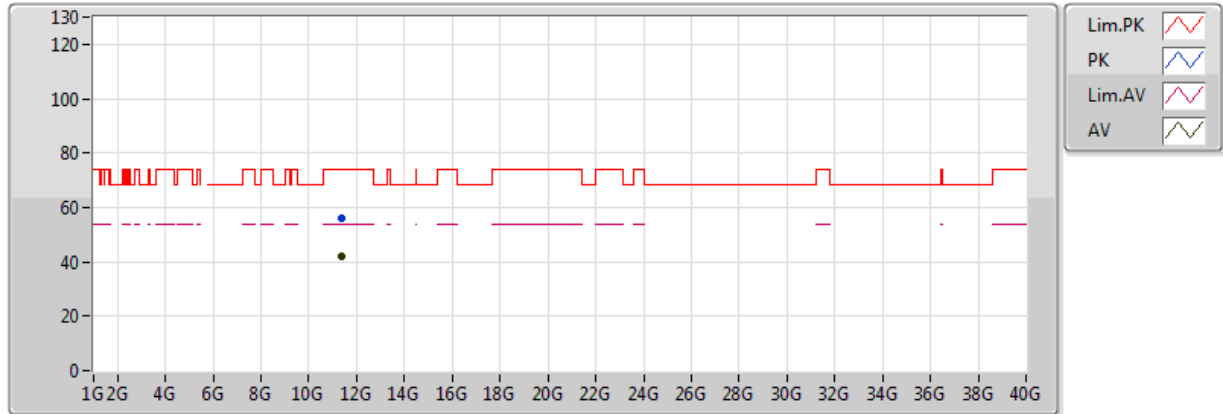


20170203
EUT Z 2TX Dipole TXBF
Setting 23
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.39706G	42.42	54.00	-11.58	16.22	3	V	90	1.60	-
PK	11.401G	55.96	74.00	-18.04	16.23	3	V	90	1.60	-

802.11a-BF_(6Mbps)_2TX

5700MHz_TX

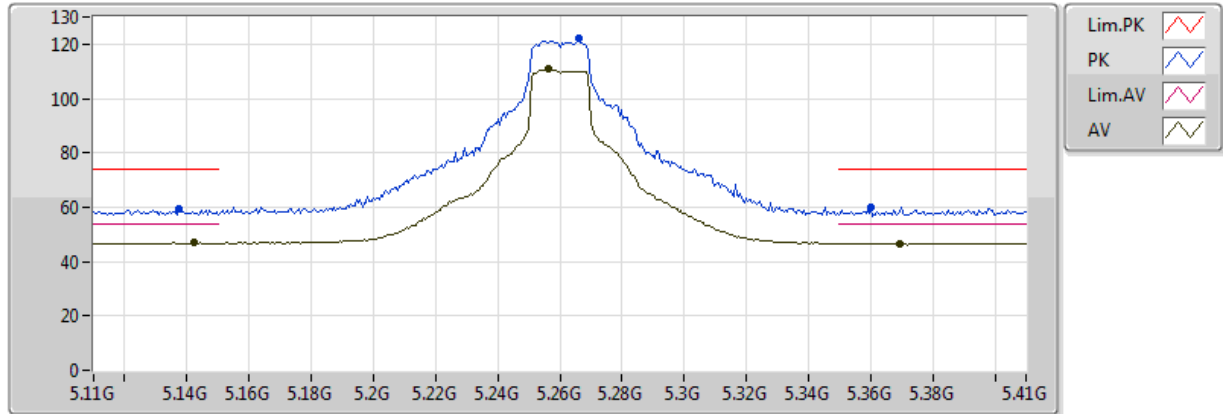


20170203
EUT Z 2TX Dipole TXBF
Setting 23
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.39765G	42.19	54.00	-11.81	16.22	3	H	124	2.12	-
PK	11.39929G	55.82	74.00	-18.18	16.23	3	H	124	2.12	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5260MHz_TX

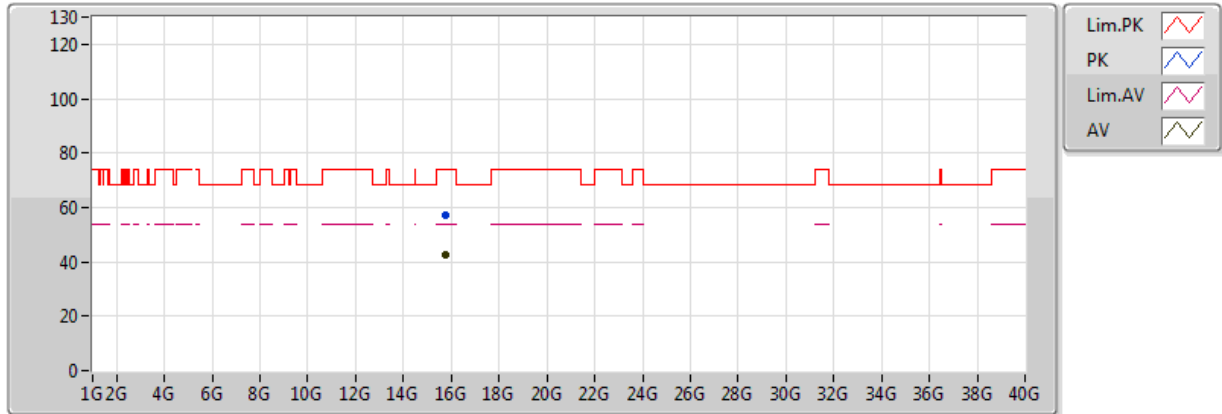


20170203
EUT Z 2TX Dipole TXBF
Setting 25.5
02-J-1-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1424G	46.91	54.00	-7.09	8.91	3	V	43	1.94	-
AV	5.2564G	110.87	Inf	-Inf	9.17	3	V	43	1.94	-
AV	5.3692G	46.72	54.00	-7.28	9.37	3	V	43	1.94	-
PK	5.1376G	59.31	74.00	-14.69	8.90	3	V	43	1.94	-
PK	5.266G	122.06	Inf	-Inf	9.19	3	V	43	1.94	-
PK	5.3602G	60.04	74.00	-13.96	9.36	3	V	43	1.94	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5260MHz_TX

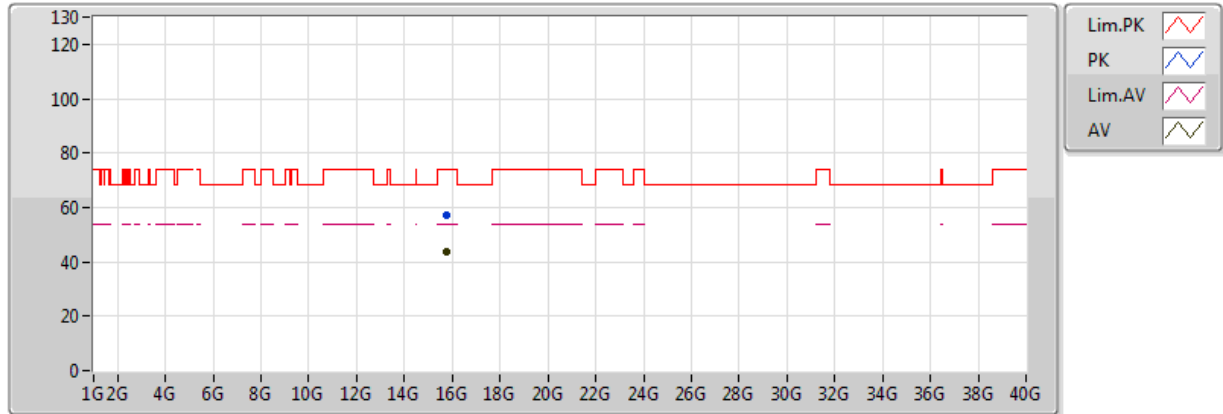


20170203
EUT Z 2TX Dipole TXBF
Setting 25.5
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.7781G	42.66	54.00	-11.34	17.50	3	V	273	1.97	-
PK	15.7795G	57.00	74.00	-17.00	17.50	3	V	273	1.97	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5260MHz_TX

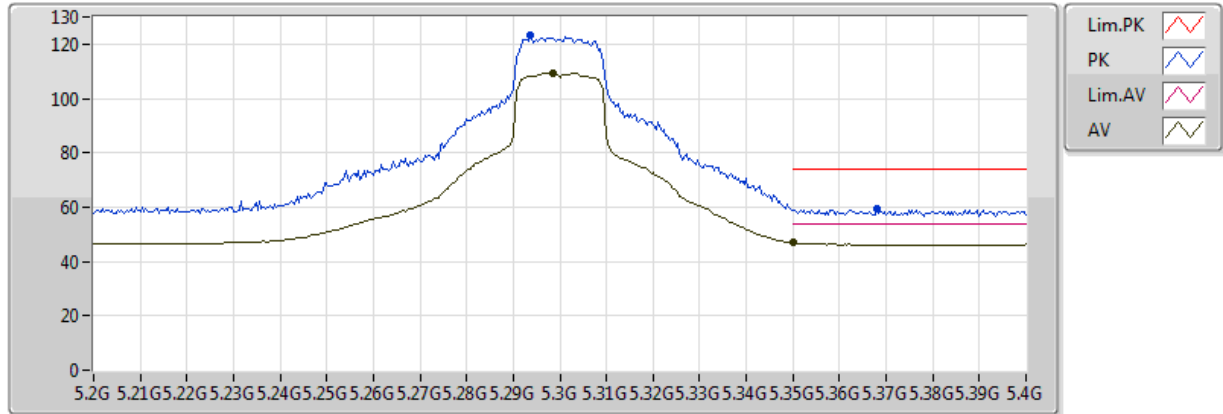


20170203
EUT Z 2TX Dipole TXBF
Setting 25.5
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.77871G	43.52	54.00	-10.48	17.50	3	H	134	2.61	-
PK	15.77773G	56.94	74.00	-17.06	17.50	3	H	134	2.61	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5300MHz_TX

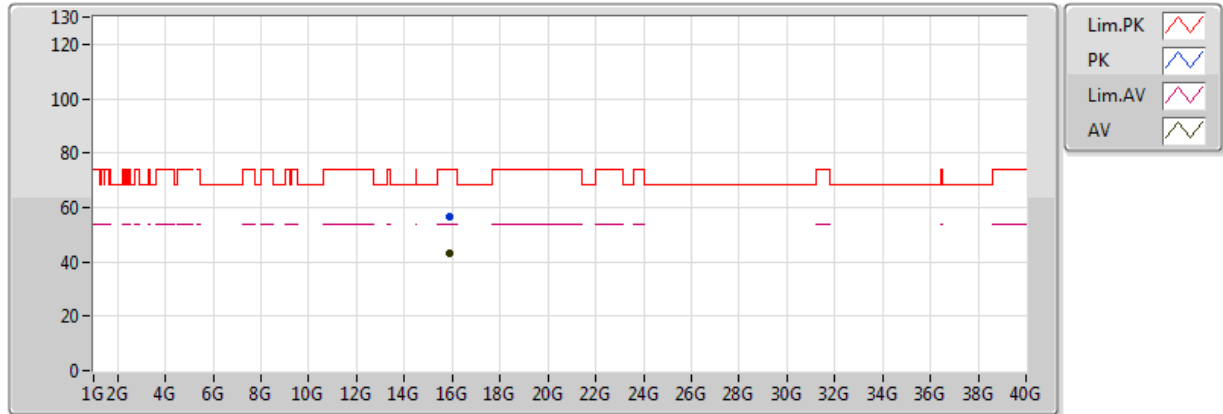


20170203
EUT Z 2TX Dipole TXBF
Setting 25.5
02-J-1-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.2984G	109.30	Inf	-Inf	9.25	3	V	213	1.91	-
AV	5.350005G	46.82	54.00	-7.18	9.34	3	V	213	1.91	-
PK	5.2936G	123.16	Inf	-Inf	9.24	3	V	213	1.91	-
PK	5.368G	59.57	74.00	-14.43	9.37	3	V	213	1.91	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5300MHz_TX

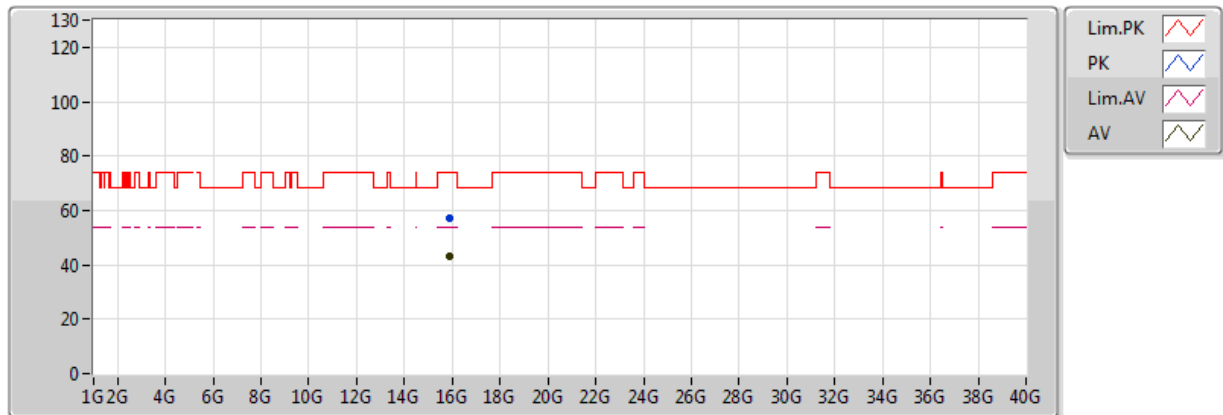


20170203
EUT Z 2TX Dipole TXBF
Setting 25.5
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.90195G	43.16	54.00	-10.84	17.18	3	V	106	2.07	-
PK	15.89981G	56.72	74.00	-17.28	17.19	3	V	106	2.07	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5300MHz_TX

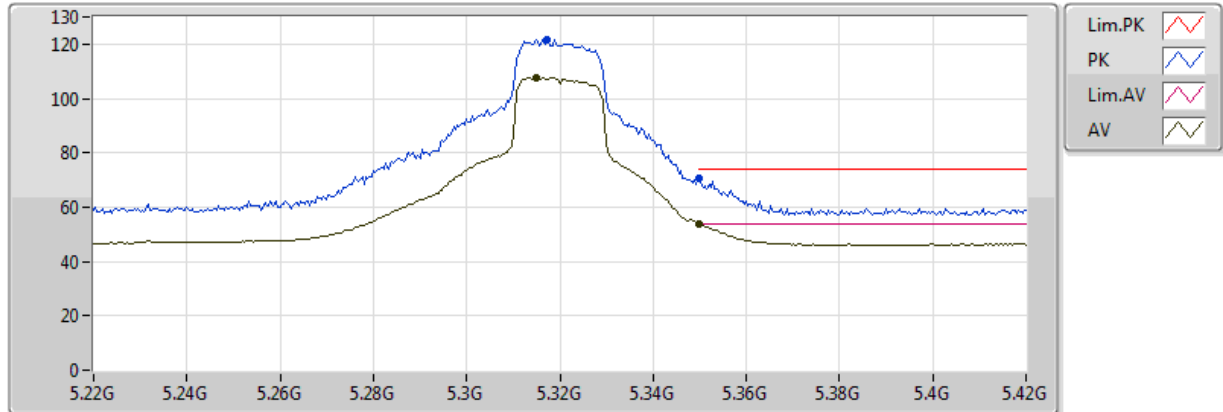


20170203
EUT Z 2TX Dipole TXBF
Setting 25.5
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.89755G	43.05	54.00	-10.95	17.19	3	H	237	2.51	-
PK	15.90178G	56.91	74.00	-17.09	17.18	3	H	237	2.51	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5320MHz_TX

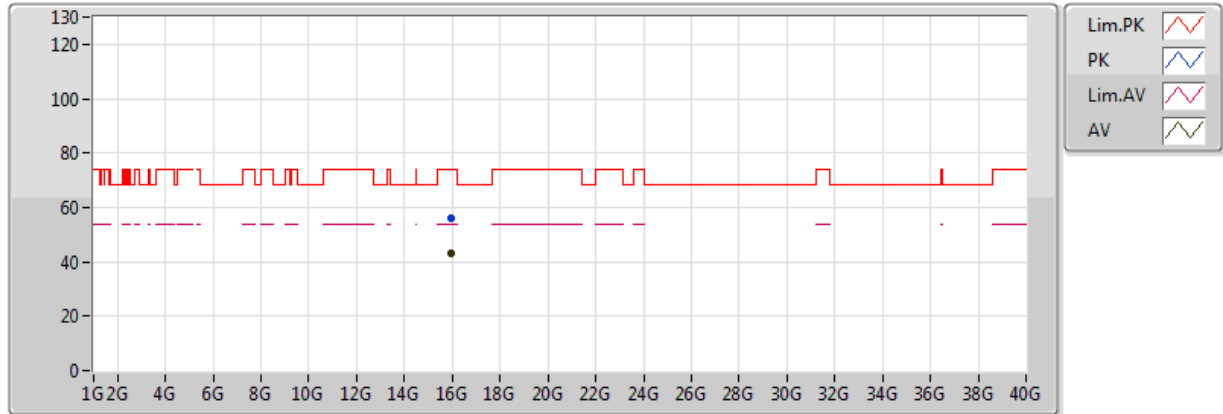


20170203
EUT Z 2TX Dipole TXBF
Setting 23.5
02-J-1-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.3148G	107.61	Inf	-Inf	9.28	3	V	58	1.73	-
AV	5.350005G	53.86	54.00	-0.14	9.34	3	V	58	1.73	-
PK	5.3172G	121.77	Inf	-Inf	9.28	3	V	58	1.73	-
PK	5.350005G	70.65	74.00	-3.35	9.34	3	V	58	1.73	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5320MHz_TX

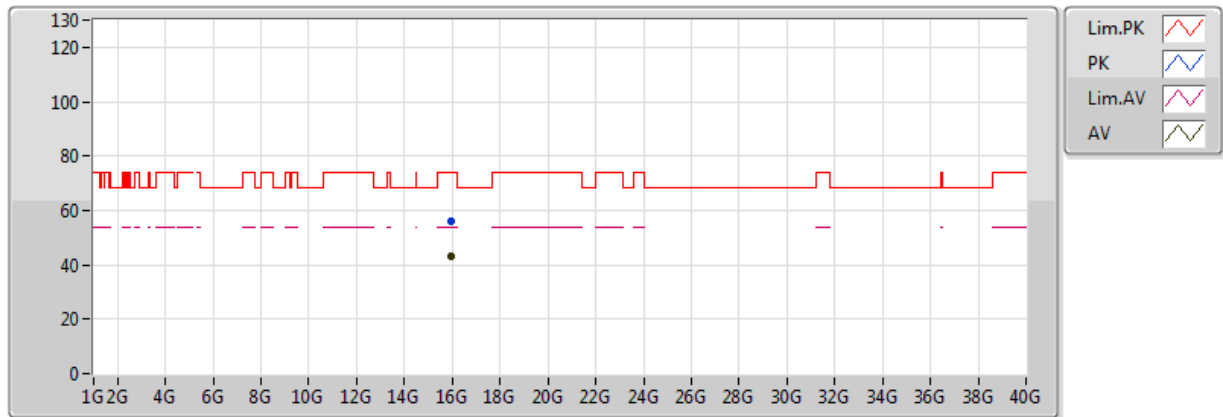


20170203
EUT Z 2TX Dipole TXBF
Setting 23.5
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.95991G	43.09	54.00	-10.91	17.03	3	V	284	2.35	-
PK	15.95985G	56.26	74.00	-17.74	17.03	3	V	284	2.35	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5320MHz_TX

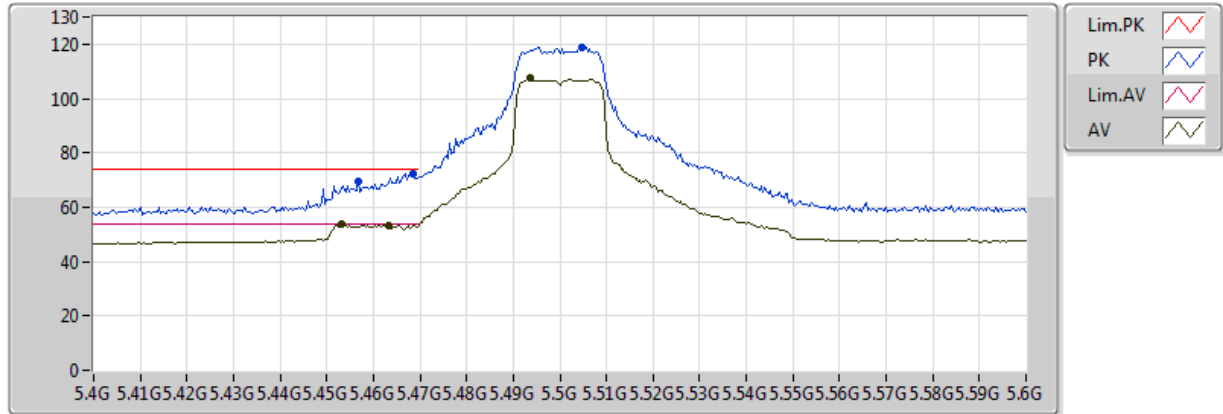


20170203
EUT Z 2TX Dipole TXBF
Setting 23.5
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.96151G	42.99	54.00	-11.01	17.03	3	H	182	1.14	-
PK	15.96124G	56.27	74.00	-17.73	17.03	3	H	182	1.14	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5500MHz_TX

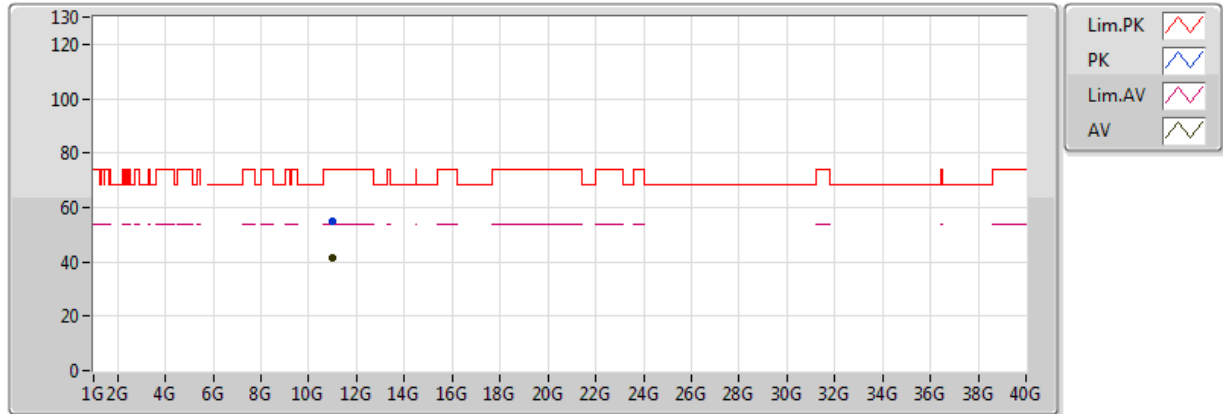


20170203
EUT Z 2TX Dipole TXBF
Setting 23
02-J-1-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.4532G	53.70	54.00	-0.30	9.57	3	V	253	1.47	-
AV	5.4632G	53.50	54.00	-0.50	9.59	3	V	253	1.47	-
AV	5.4936G	107.60	Inf	-Inf	9.67	3	V	253	1.47	-
PK	5.4568G	69.74	74.00	-4.26	9.58	3	V	253	1.47	-
PK	5.4684G	72.25	74.00	-1.75	9.61	3	V	253	1.47	-
PK	5.5048G	119.00	Inf	-Inf	9.69	3	V	253	1.47	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5500MHz_TX

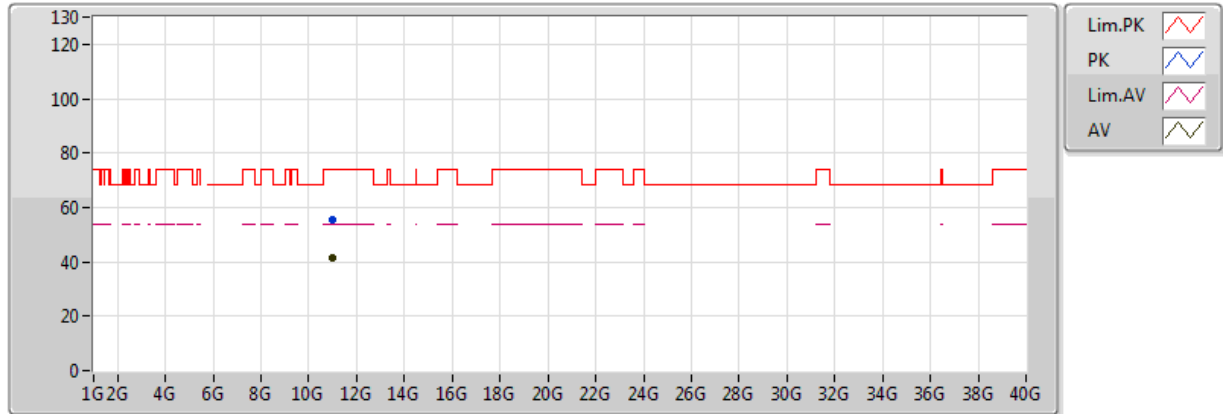


20170203
EUT Z 2TX Dipole TXBF
Setting 23
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.00022G	41.53	54.00	-12.47	15.83	3	V	181	2.03	-
PK	10.99867G	55.07	74.00	-18.93	15.83	3	V	181	2.03	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5500MHz_TX

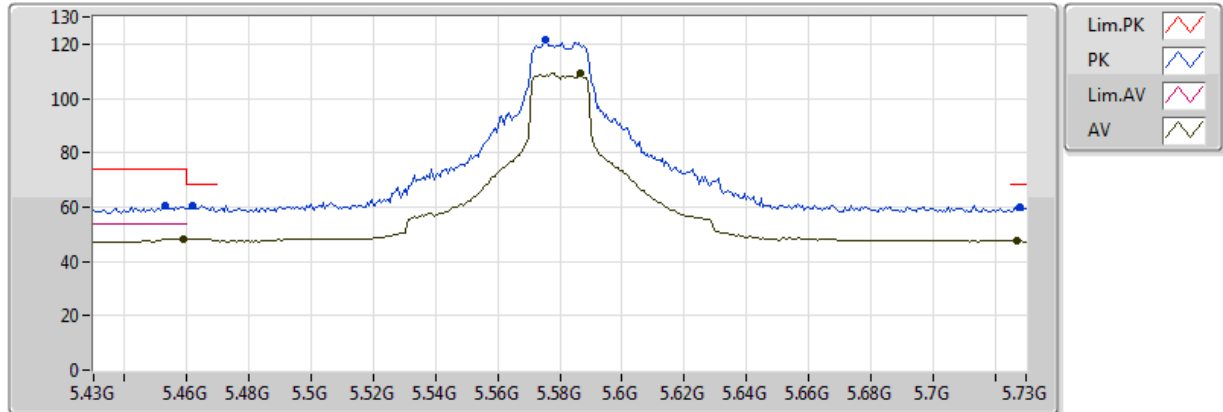


20170203
EUT Z 2TX Dipole TXBF
Setting 23
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.00175G	41.52	54.00	-12.48	15.83	3	H	290	2.11	-
PK	10.99819G	55.20	74.00	-18.80	15.83	3	H	290	2.11	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5580MHz_TX

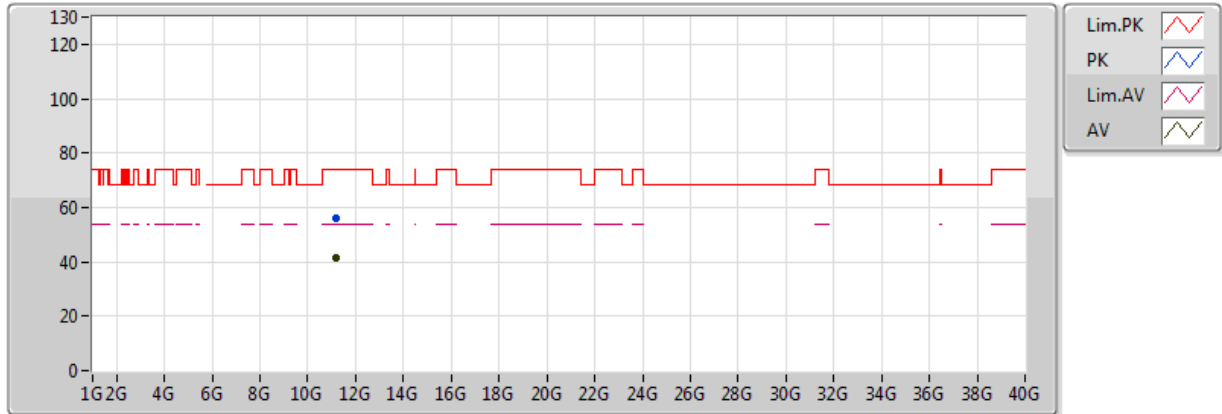


20170203
EUT Z 2TX Dipole TXBF
Setting 25.5
02-J-1-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.4588G	48.46	54.00	-5.54	9.58	3	V	260	1.89	-
AV	5.5866G	109.14	Inf	-Inf	9.77	3	V	260	1.89	-
AV	5.727G	47.53	Inf	-Inf	9.81	3	V	260	1.89	-
PK	5.4528G	60.77	74.00	-13.23	9.57	3	V	260	1.89	-
PK	5.4618G	60.75	68.20	-7.45	9.59	3	V	260	1.89	-
PK	5.5752G	121.84	Inf	-Inf	9.76	3	V	260	1.89	-
PK	5.7282G	59.86	68.20	-8.34	9.81	3	V	260	1.89	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5580MHz_TX

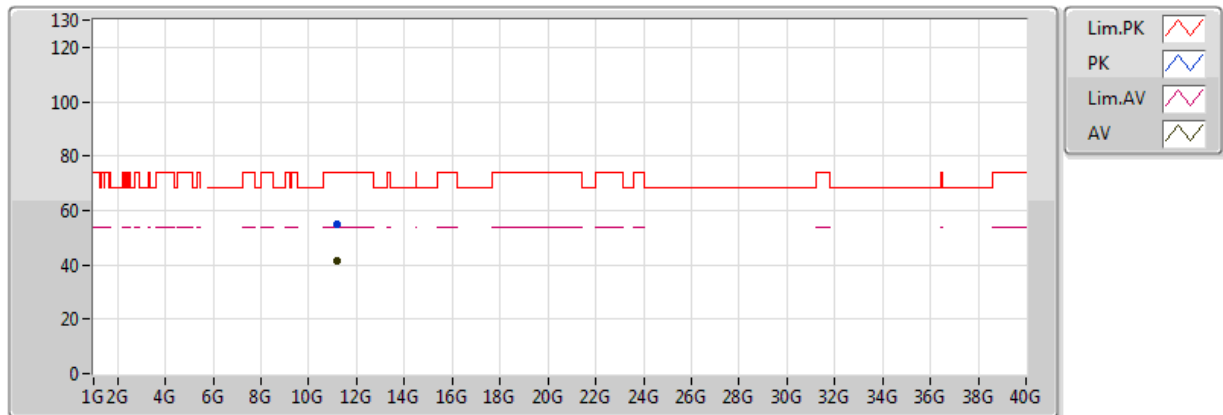


20170203
EUT Z 2TX Dipole TXBF
Setting 25.5
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.16211G	41.52	54.00	-12.48	15.99	3	V	135	1.55	-
PK	11.16161G	56.16	74.00	-17.84	15.99	3	V	135	1.55	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5580MHz_TX

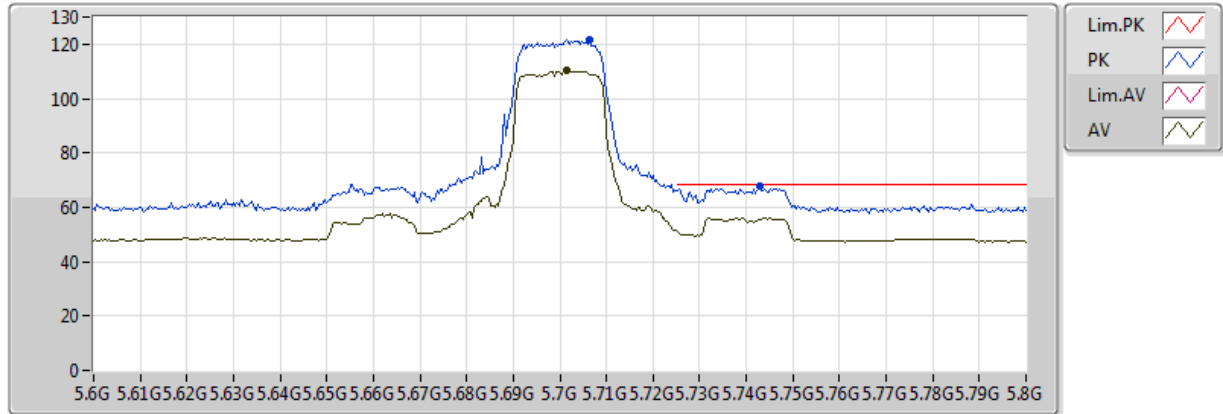


20170203
EUT Z 2TX Dipole TXBF
Setting 25.5
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.16008G	41.37	54.00	-12.63	15.99	3	H	85	2.38	-
PK	11.15996G	55.11	74.00	-18.89	15.99	3	H	85	2.38	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5700MHz_TX

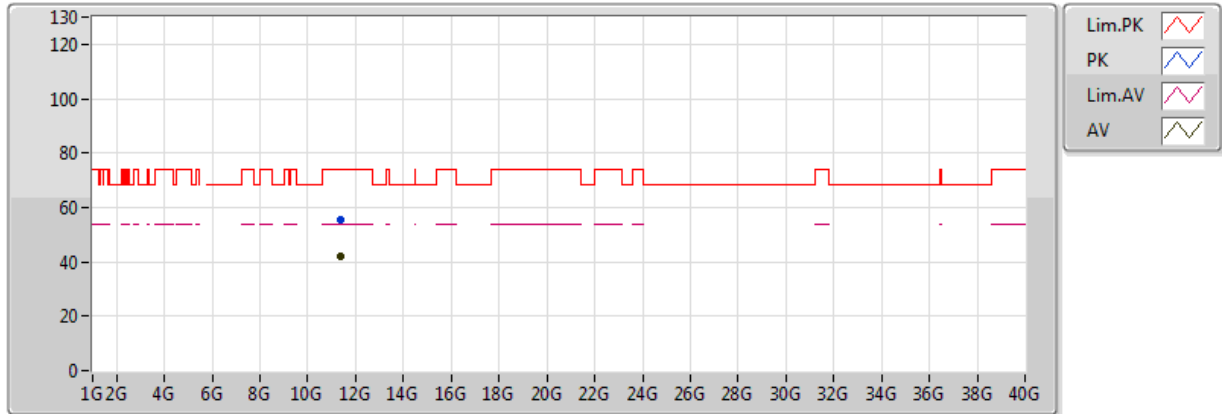


20170203
EUT Z 2TX Dipole TXBF
Setting 23
02-J-1-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.7016G	110.13	Inf	-Inf	9.80	3	V	290	1.64	-
PK	5.7064G	121.64	Inf	-Inf	9.80	3	V	290	1.64	-
PK	5.7428G	68.07	68.20	-0.13	9.81	3	V	290	1.64	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5700MHz_TX

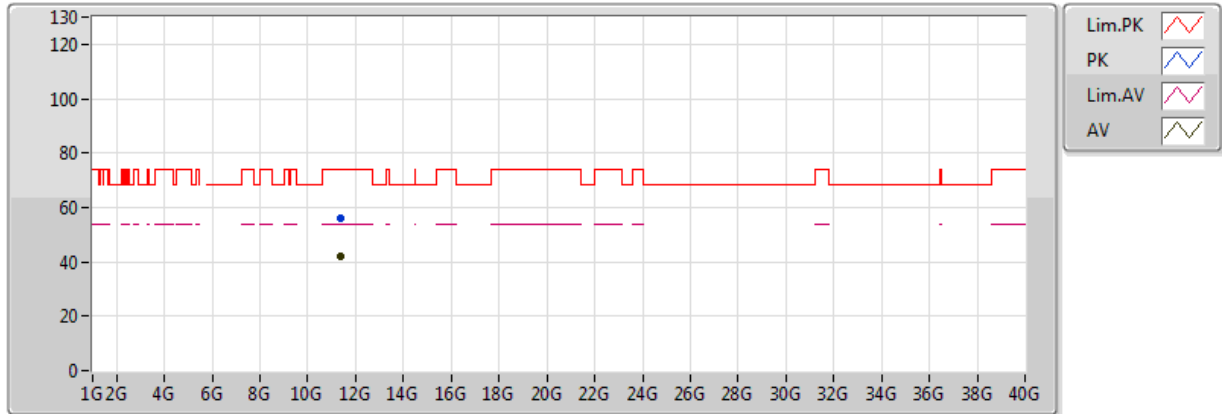


20170203
EUT Z 2TX Dipole TXBF
Setting 23
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.40144G	42.29	54.00	-11.71	16.23	3	V	245	1.31	-
PK	11.39942G	55.65	74.00	-18.35	16.23	3	V	245	1.31	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5700MHz_TX

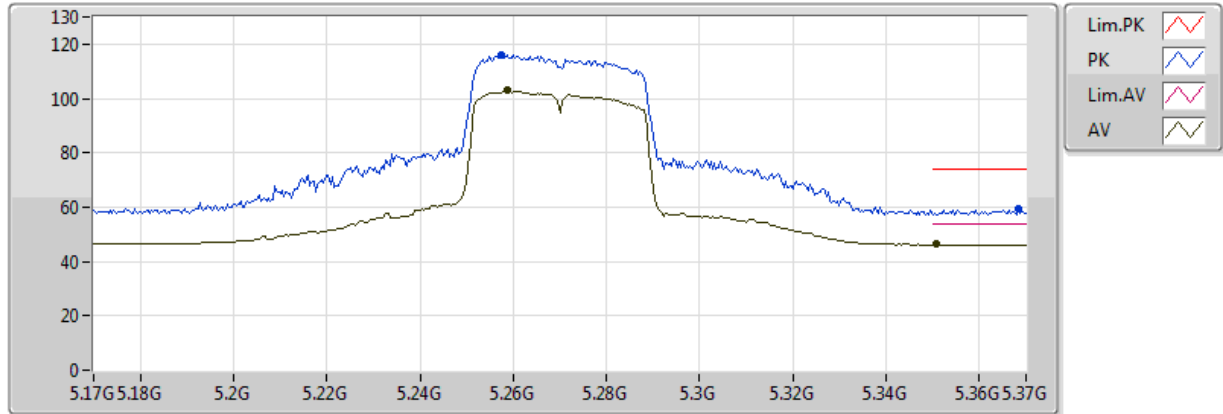


20170203
EUT Z 2TX Dipole TXBF
Setting 23
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.4021G	41.93	54.00	-12.07	16.23	3	H	71	2.26	-
PK	11.39829G	55.80	74.00	-18.20	16.22	3	H	71	2.26	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5270MHz_TX

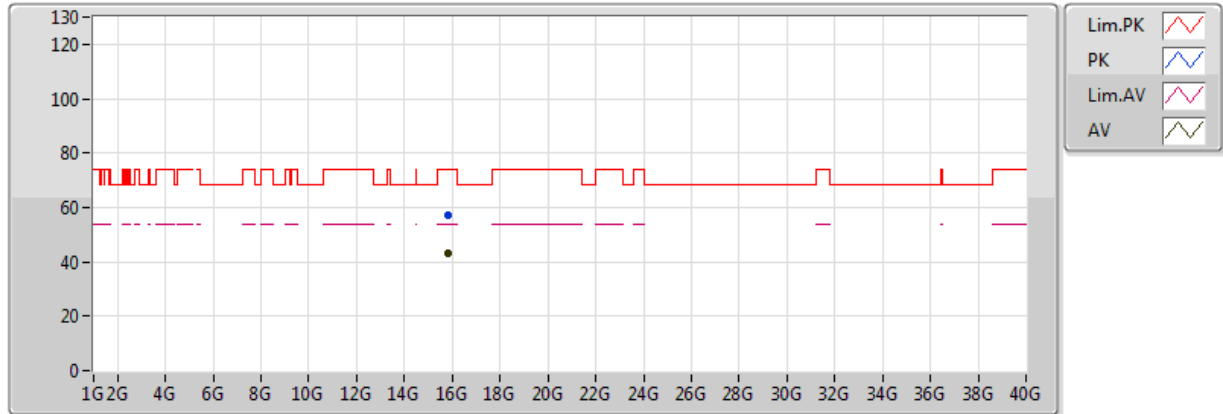


20170203
EUT Z 2TX Dipole TXBF
Setting 25.5
02-J-1-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.2588G	102.85	Inf	-Inf	9.17	3	V	231	1.47	-
AV	5.3508G	46.25	54.00	-7.75	9.34	3	V	231	1.47	-
PK	5.2576G	116.03	Inf	-Inf	9.17	3	V	231	1.47	-
PK	5.3684G	59.13	74.00	-14.87	9.37	3	V	231	1.47	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5270MHz_TX

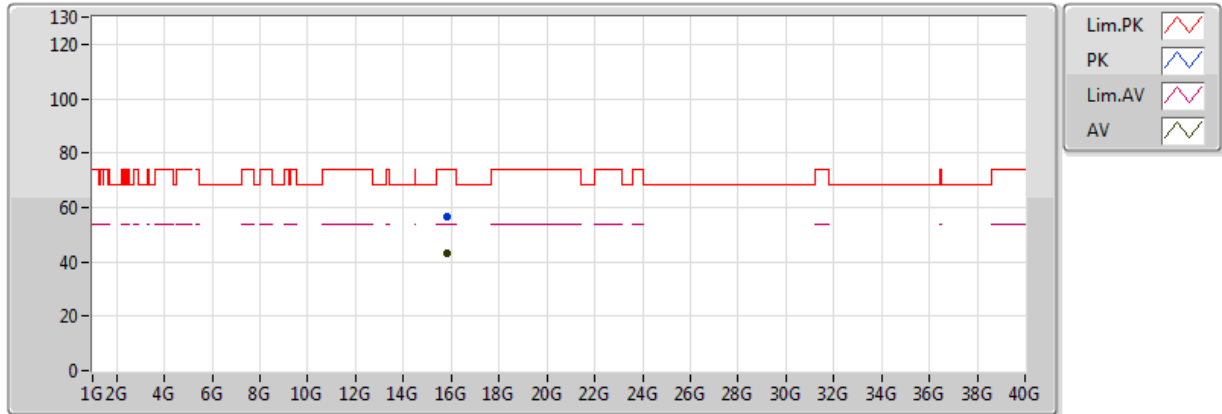


20170203
EUT Z 2TX Dipole TXBF
Setting 25.5
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.81233G	43.20	54.00	-10.80	17.41	3	V	114	1.60	-
PK	15.81192G	57.04	74.00	-16.96	17.41	3	V	114	1.60	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5270MHz_TX

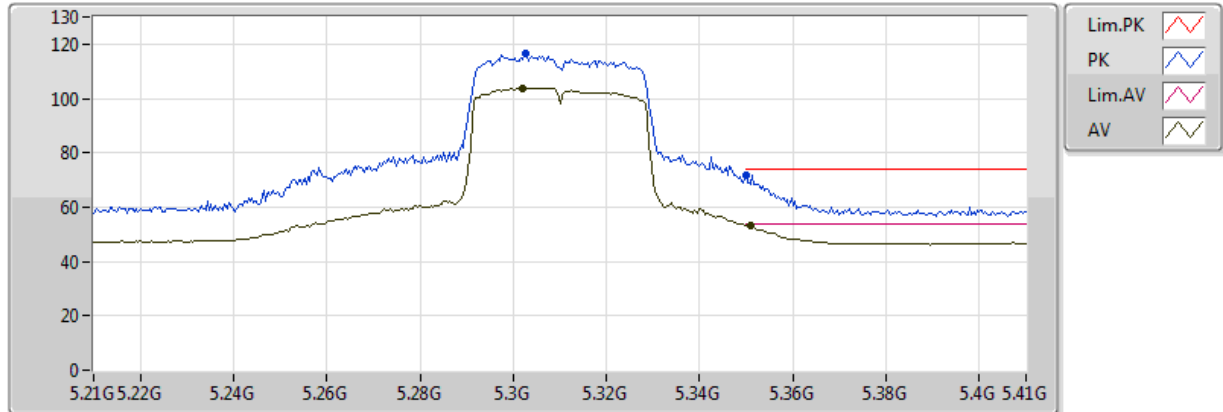


20170203
EUT Z 2TX Dipole TXBF
Setting 25.5
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.80785G	43.24	54.00	-10.76	17.42	3	H	271	2.45	-
PK	15.80889G	56.66	74.00	-17.34	17.42	3	H	271	2.45	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5310MHz_TX

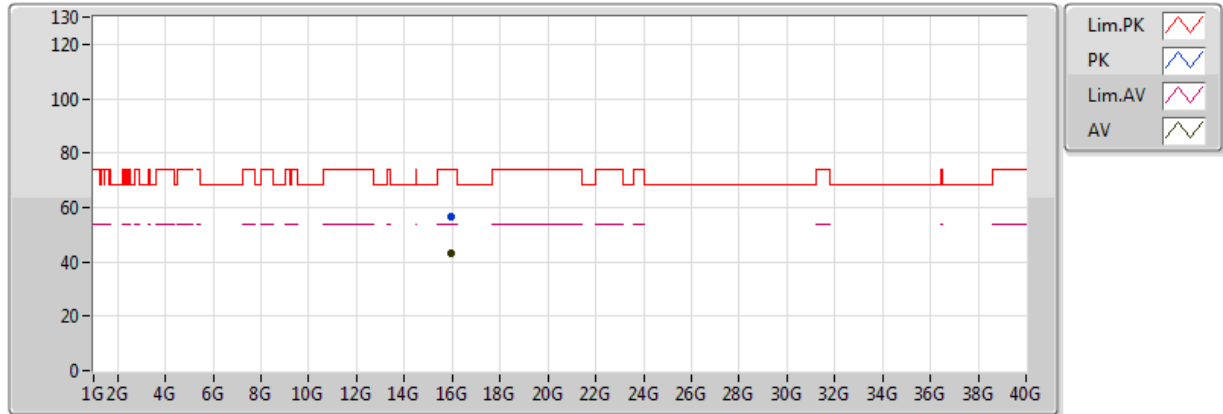


20170203
EUT Z 2TX Dipole TXBF
Setting 21
02-J-1-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.302G	103.80	Inf	-Inf	9.25	3	V	40	1.74	-
AV	5.3508G	53.51	54.00	-0.49	9.34	3	V	40	1.74	-
PK	5.3028G	116.54	Inf	-Inf	9.26	3	V	40	1.74	-
PK	5.350005G	71.61	74.00	-2.39	9.34	3	V	40	1.74	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5310MHz_TX

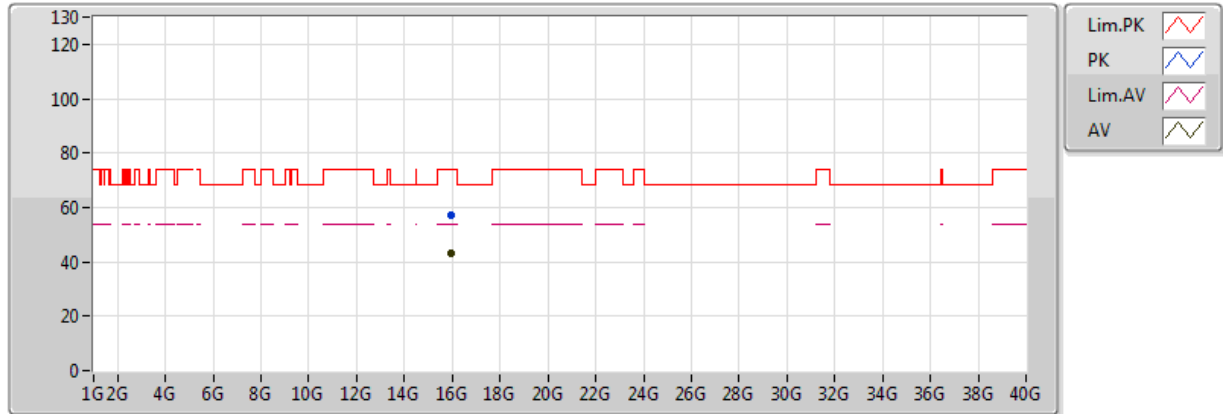


20170203
EUT Z 2TX Dipole TXBF
Setting 21
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.93181G	43.25	54.00	-10.75	17.11	3	V	212	1.37	-
PK	15.93141G	56.52	74.00	-17.48	17.11	3	V	212	1.37	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5310MHz_TX

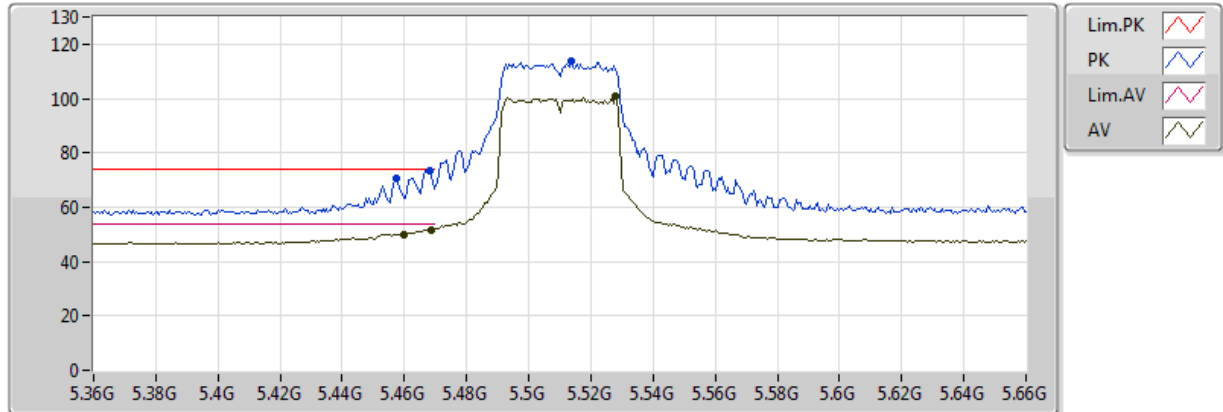


20170203
EUT Z 2TX Dipole TXBF
Setting 21
02-J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.92968G	43.04	54.00	-10.96	17.11	3	H	146	2.39	-
PK	15.93118G	57.34	74.00	-16.66	17.11	3	H	146	2.39	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5510MHz_TX

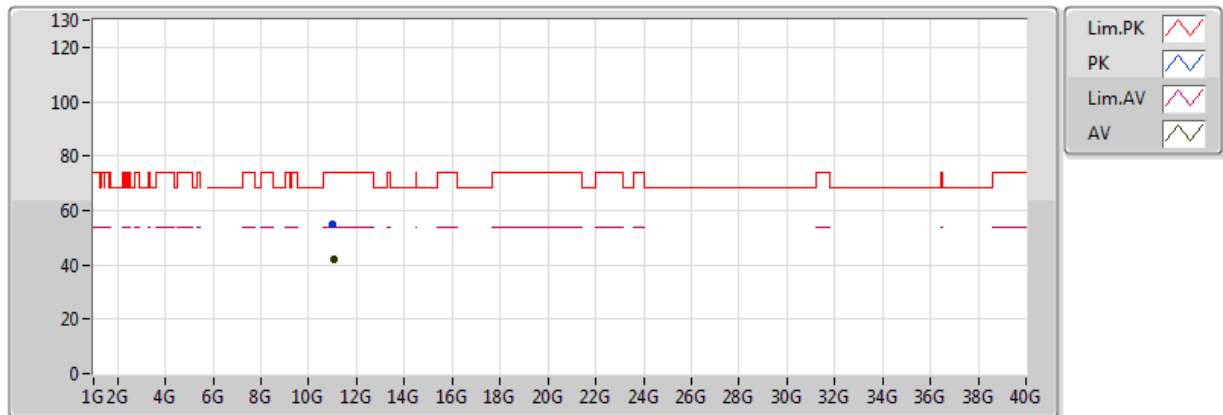


20170203
EUT Z 2TX_TXBF
Setting_19.5
02-J-4-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.459995G	49.99	54.00	-4.01	9.59	3	V	173	2.12	-
AV	5.4686G	51.78	54.00	-2.22	9.61	3	V	173	2.12	-
AV	5.528G	101.09	Inf	-Inf	9.72	3	V	173	2.12	-
PK	5.4572G	70.42	74.00	-3.58	9.58	3	V	173	2.12	-
PK	5.468G	73.68	74.00	-0.32	9.61	3	V	173	2.12	-
PK	5.5136G	113.78	Inf	-Inf	9.70	3	V	173	2.12	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5510MHz_TX

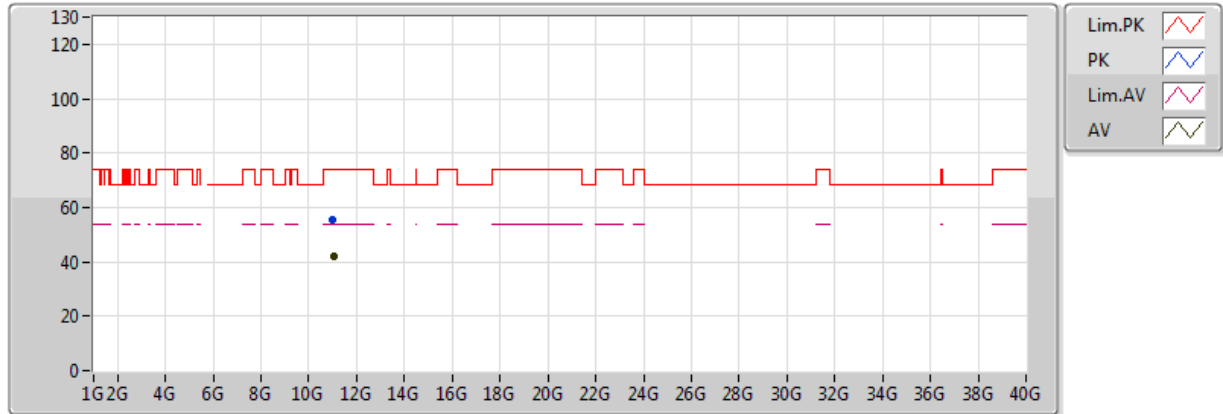


20170203
EUT Z 2TX_TXBF
Setting_19.5
02-J-4

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.02342G	42.06	54.00	-11.94	15.85	3	V	305	1.55	-
PK	11.01826G	55.11	74.00	-18.89	15.85	3	V	305	1.55	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5510MHz_TX

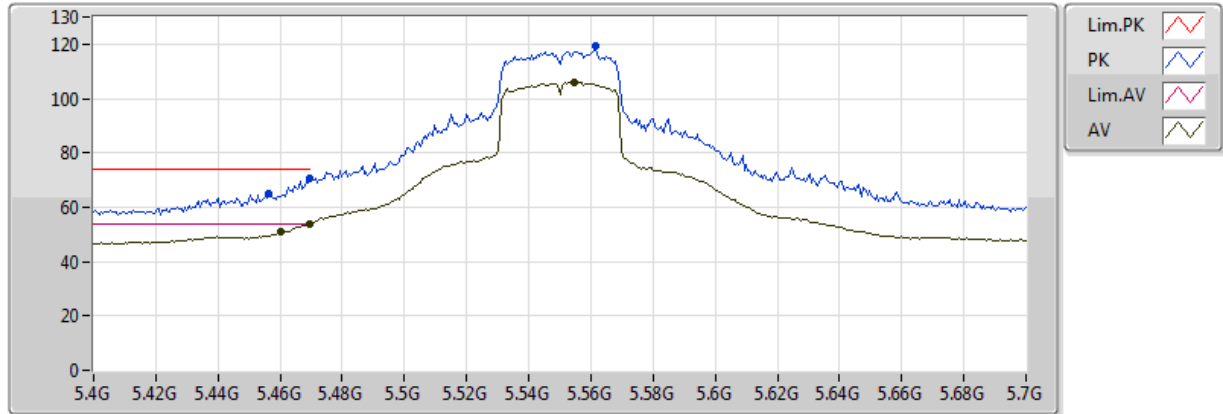


20170203
EUT Z 2TX_TXBF
Setting_19.5
02-J-4

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.02516G	41.93	54.00	-12.07	15.85	3	H	148	2.14	-
PK	11.00896G	55.27	74.00	-18.73	15.84	3	H	148	2.14	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5550MHz_TX

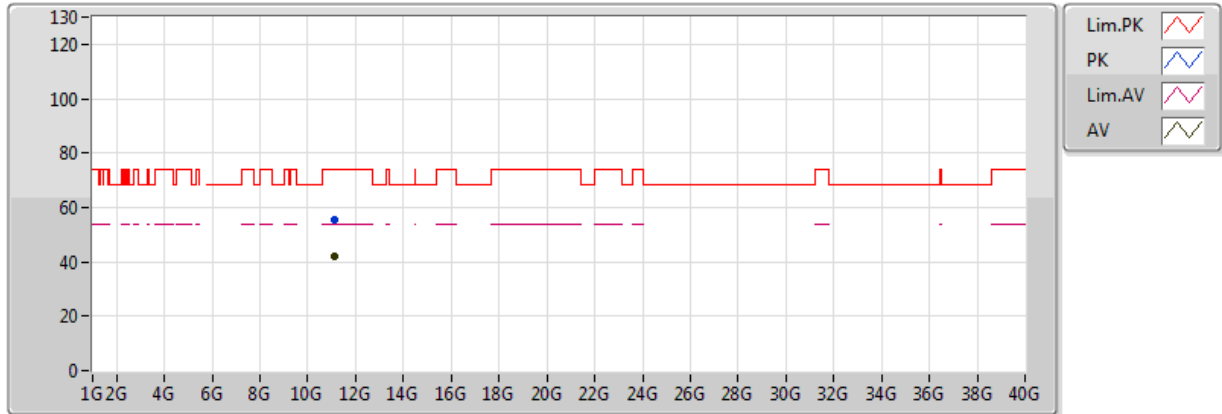


20170203
EUT Z 2TX_TXBF
Setting_25.5
02-J-4-10

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	50.81	54.00	-3.19	9.59	3	V	230	1.50	-
AV	5.4696G	53.94	54.00	-0.06	9.61	3	V	230	1.50	-
AV	5.5548G	106.11	Inf	-Inf	9.74	3	V	230	1.50	-
PK	5.4564G	65.08	74.00	-8.92	9.58	3	V	230	1.50	-
PK	5.4696G	70.72	74.00	-3.28	9.61	3	V	230	1.50	-
PK	5.5614G	119.28	Inf	-Inf	9.75	3	V	230	1.50	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5550MHz_TX

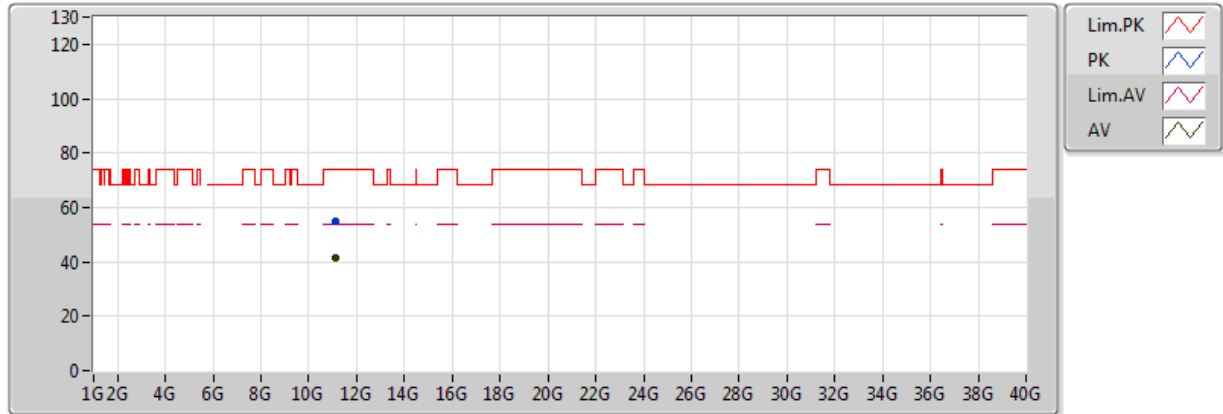


20170203
EUT Z 2TX_TXBF
Setting_25.5
02-J-4

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.10882G	41.92	54.00	-12.08	15.94	3	V	246	2.15	-
PK	11.11212G	55.24	74.00	-18.76	15.94	3	V	246	2.15	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5550MHz_TX

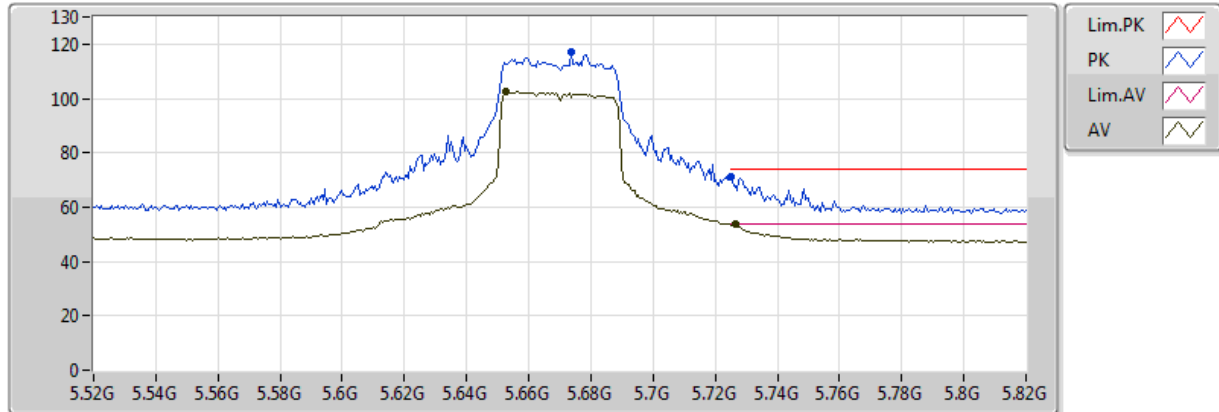


20170203
EUT Z 2TX_TXBF
Setting_25.5
02-J-4

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.1063G	41.70	54.00	-12.30	15.94	3	H	189	2.22	-
PK	11.0874G	55.12	74.00	-18.88	15.92	3	H	189	2.22	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5670MHz_TX

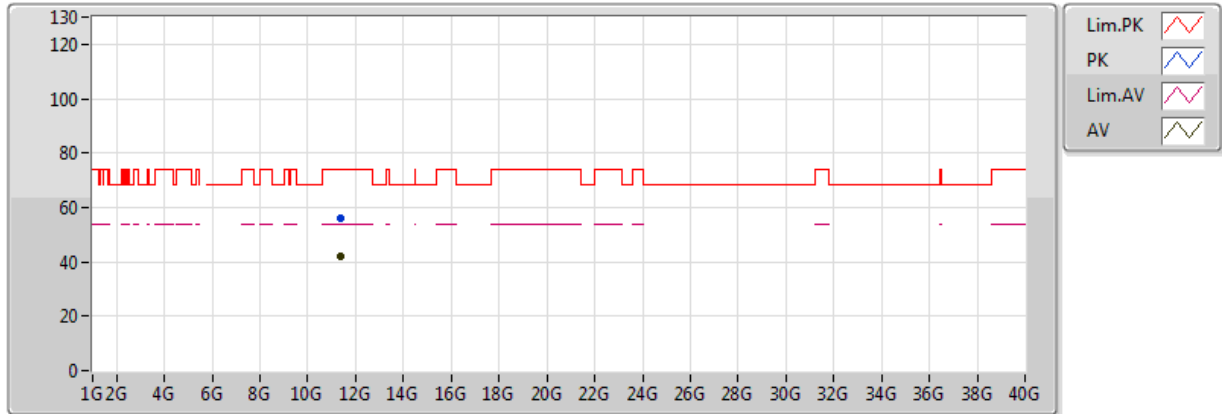


20170203
EUT Z 2TX_TXBF
Setting_20.5
02-J-4-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.6526G	102.47	Inf	-Inf	9.79	3	V	221	152	-
AV	5.7264G	53.57	54.00	-0.43	9.81	3	V	221	152	-
PK	5.6736G	117.31	Inf	-Inf	9.79	3	V	221	152	-
PK	5.7252G	71.43	74.00	-2.57	9.81	3	V	221	152	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5670MHz_TX

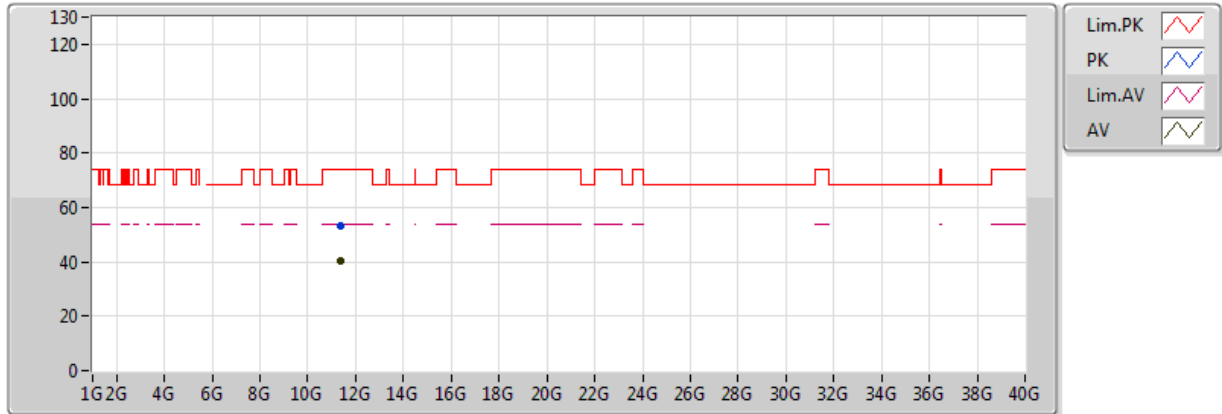


20170203
EUT Z 2TX_TXBF
Setting_20.5
02-J-4

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.35488G	41.84	54.00	-12.16	16.18	3	V	35	1.95	-
PK	11.35128G	55.78	74.00	-18.22	16.18	3	V	35	1.95	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5670MHz_TX

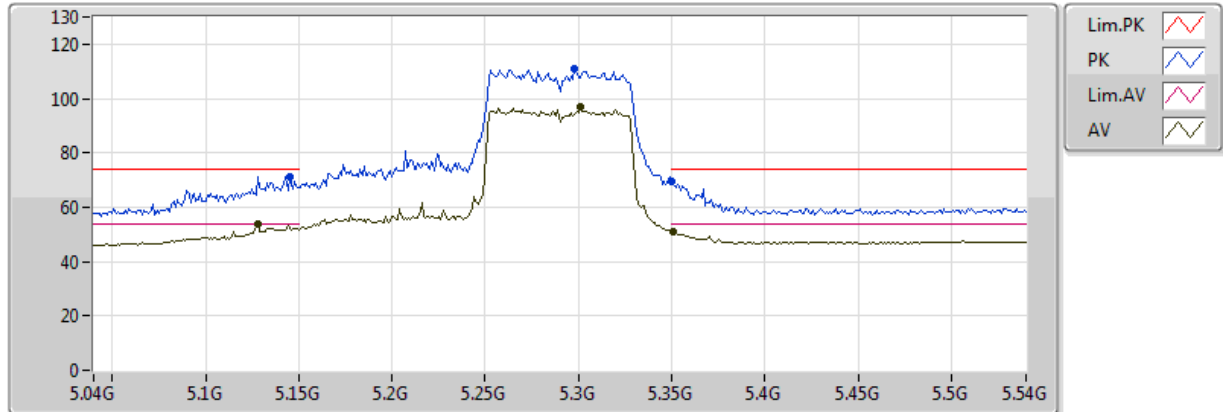


20170203
EUT Z 2TX_TXBF
Setting_20.5
02-J-4

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.35308G	40.44	54.00	-13.56	14.46	3	H	310	1.22	-
PK	11.35008G	53.43	74.00	-20.57	14.45	3	H	310	1.22	-

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

5290MHz_TX

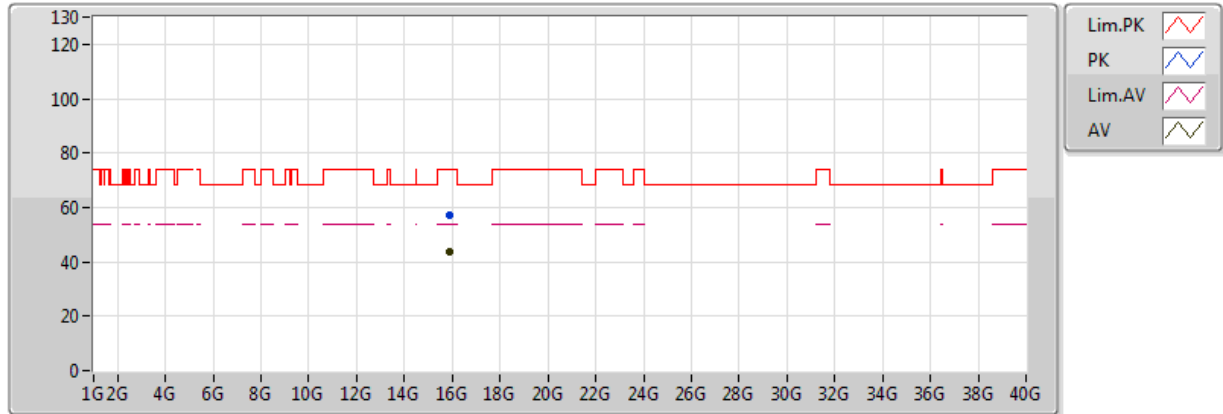


20170203
EUT Z 2TX Dipole TXBF
Setting 20
02-J-4-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.128G	53.52	54.00	-0.48	8.87	3	V	39	1.80	-
AV	5.301G	96.90	Inf	-Inf	9.25	3	V	39	1.80	-
AV	5.351G	50.85	54.00	-3.15	9.34	3	V	39	1.80	-
PK	5.145G	71.35	74.00	-2.65	8.92	3	V	39	1.80	-
PK	5.298G	110.79	Inf	-Inf	9.25	3	V	39	1.80	-
PK	5.350005G	69.60	74.00	-4.40	9.34	3	V	39	1.80	-

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

5290MHz_TX

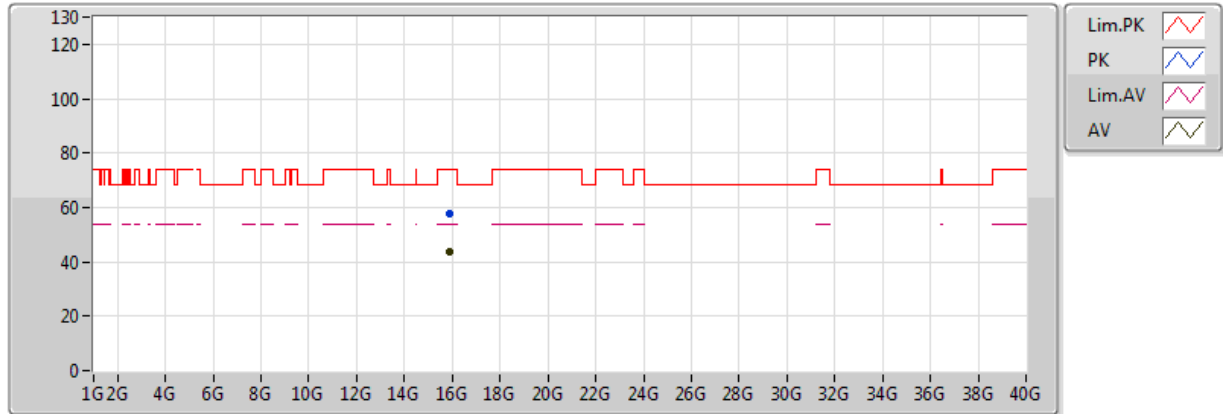


20170203
EUT Z 2TX Dipole TXBF
Setting 20
02-J-4

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.8775G	43.44	54.00	-10.56	17.24	3	V	19	1.37	-
PK	15.88152G	57.33	74.00	-16.67	17.23	3	V	19	1.37	-

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

5290MHz_TX

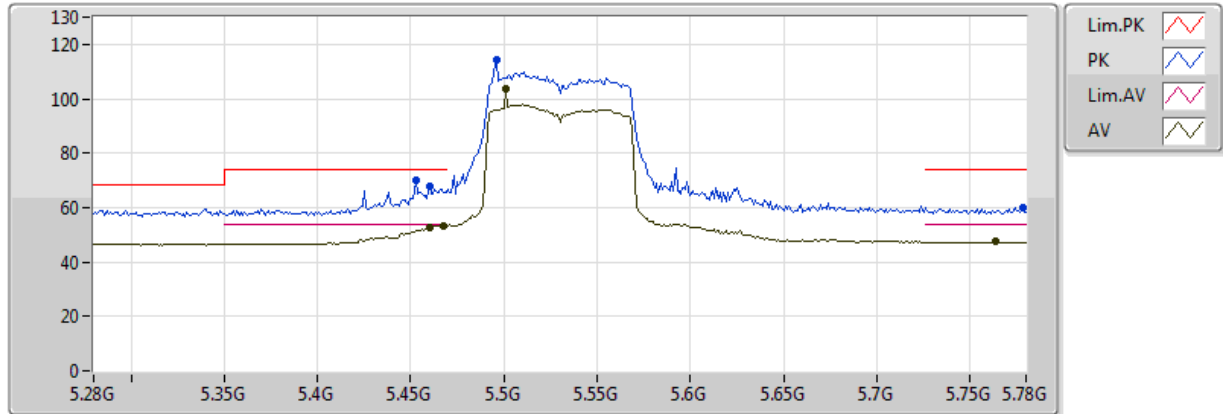


20170203
EUT Z 2TX Dipole TXBF
Setting 20
02-J-4

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.8694G	43.49	54.00	-10.51	17.27	3	H	315	1.02	-
PK	15.86808G	57.45	74.00	-16.55	17.27	3	H	315	1.02	-

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

5530MHz_TX

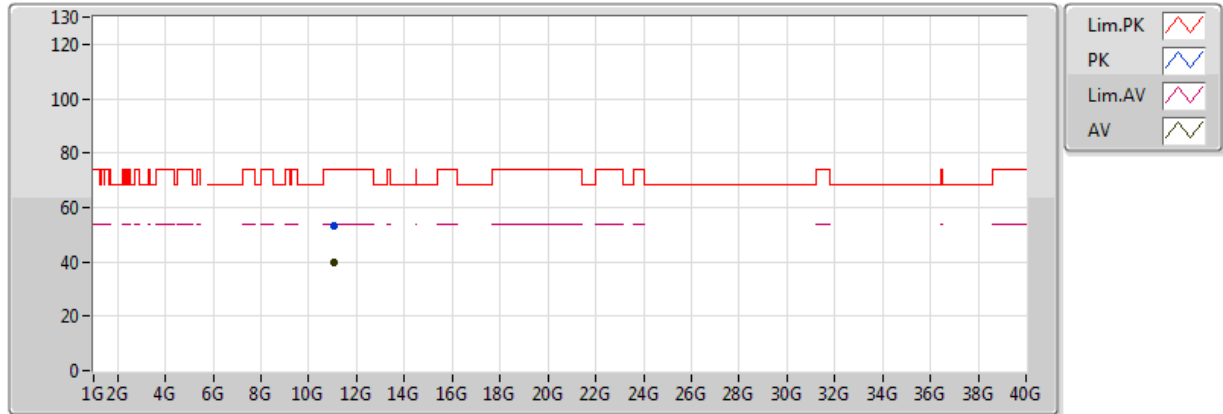


20170203
EUT Z 2TX_TXBF
Setting_19
02-J-4-10

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	52.53	54.00	-1.47	9.59	3	V	199	1.50	-
AV	5.468G	53.51	54.00	-0.49	9.61	3	V	199	1.50	-
AV	5.501G	103.51	Inf	-Inf	9.69	3	V	199	1.50	-
AV	5.764G	47.39	54.00	-6.61	9.81	3	V	199	1.50	-
PK	5.453G	69.92	74.00	-4.08	9.57	3	V	199	1.50	-
PK	5.460005G	67.79	74.00	-6.21	9.59	3	V	199	1.50	-
PK	5.496G	114.56	Inf	-Inf	9.68	3	V	199	1.50	-
PK	5.778G	60.01	74.00	-13.99	9.82	3	V	199	1.50	-

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

5530MHz_TX

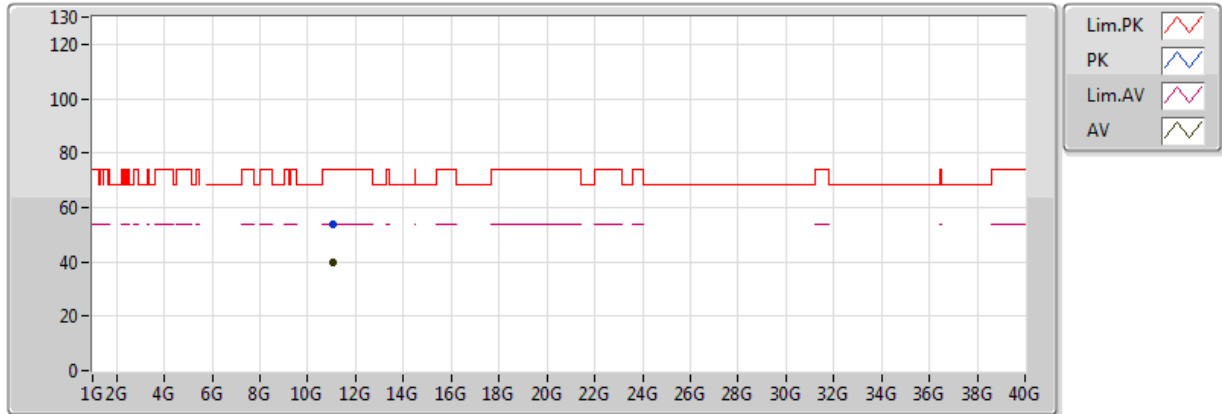


20170203
EUT Z 2TX_TXBF
Setting_19
02-J-4

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.07302G	39.84	54.00	-14.16	14.22	3	V	312	1.71	-
PK	11.0579G	53.30	74.00	-20.70	14.21	3	V	312	1.71	-

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

5530MHz_TX

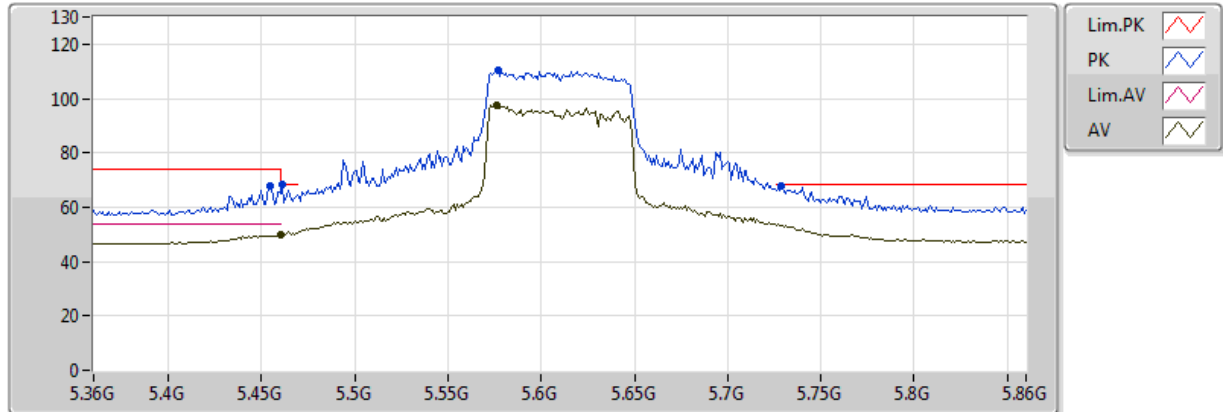


20170203
EUT Z 2TX_TXBF
Setting_19
02-J-4

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.07116G	39.89	54.00	-14.11	14.22	3	H	208	1.10	-
PK	11.06582G	53.64	74.00	-20.36	14.22	3	H	208	1.10	-

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

5610MHz_TX

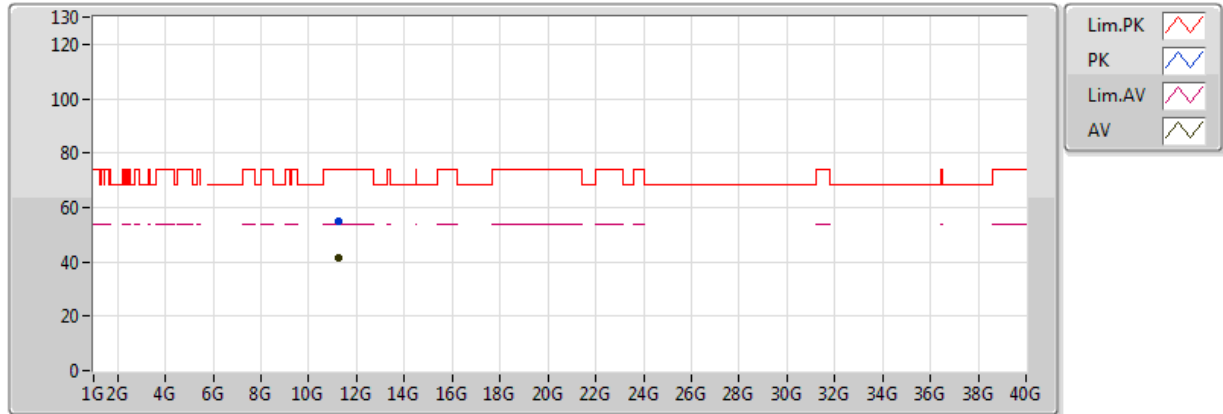


20170203
EUT Z 2TX_TXBF
Setting_22
02-J-4-10

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	49.91	54.00	-4.09	9.59	3	V	302	1.58	-
AV	5.576G	97.72	Inf	-Inf	9.76	3	V	302	1.58	-
PK	5.455G	67.72	74.00	-6.28	9.57	3	V	302	1.58	-
PK	5.461G	68.17	68.20	-0.03	9.59	3	V	302	1.58	-
PK	5.577G	110.51	Inf	-Inf	9.76	3	V	302	1.58	-
PK	5.729G	67.74	68.20	-0.46	9.81	3	V	302	1.58	-

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

5610MHz_TX

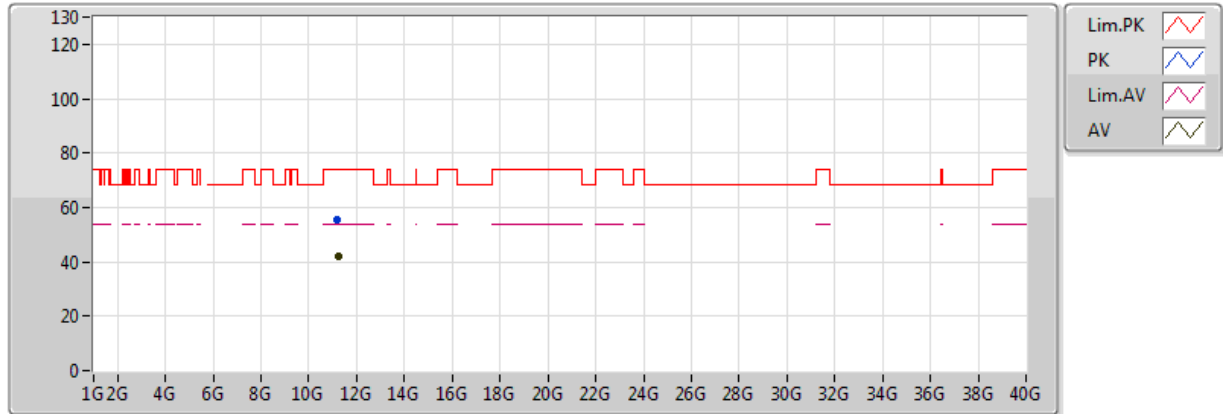


20170203
EUT Z 2TX_TXBF
Setting_22
02-J-4

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.22612G	41.72	54.00	-12.28	16.05	3	V	104	1.86	-
PK	11.23332G	55.12	74.00	-18.88	16.06	3	V	104	1.86	-

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

5610MHz_TX



20170203
EUT Z 2TX_TXBF
Setting_22
02-J-4

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.22678G	41.83	54.00	-12.17	16.05	3	H	168	1.51	-
PK	11.20518G	55.61	74.00	-18.39	16.03	3	H	168	1.51	-

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	5299.9642	5299.9641	5299.9636	5299.9633
110.00	5299.9635	5299.9626	5299.9617	5299.9611
93.50	5299.9629	5299.9626	5299.9616	5299.9613
Max. Deviation (MHz)	0.0371	0.0374	0.0384	0.0389
Max. Deviation (ppm)	7.00	7.06	7.25	7.34
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5300 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5299.9614	5299.9611	5299.9609	5299.9606
10	5299.9616	5299.9613	5299.9608	5299.9601
20	5299.9635	5299.9628	5299.9625	5299.9619
30	5299.9958	5299.9955	5299.9951	5299.9944
40	5299.9959	5299.9951	5299.9944	5299.9943
Max. Deviation (MHz)	0.0424	0.0428	0.0436	0.0440
Max. Deviation (ppm)	8.00	8.08	8.23	8.30
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5580 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5579.9643	5579.9635	5579.9632	5579.9630
110.00	5579.9635	5579.9625	5579.9621	5579.9619
93.50	5579.9631	5579.9628	5579.9621	5579.9617
Max. Deviation (MHz)	0.0369	0.0375	0.0379	0.0383
Max. Deviation (ppm)	6.61	6.72	6.79	6.86
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5580 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5579.9606	5579.9605	5579.9597	5579.9590
10	5579.9626	5579.9618	5579.9617	5579.9614
20	5579.9635	5579.9625	5579.9621	5579.9614
30	5579.9958	5579.9950	5579.9948	5579.9941
40	5579.9966	5579.9965	5579.9963	5579.9959
Max. Deviation (MHz)	0.0434	0.0443	0.0448	0.0457
Max. Deviation (ppm)	7.78	7.94	8.03	8.19
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	5309.9645	5309.9637	5309.9633	5309.9631
110.00	5309.9635	5309.9629	5309.9619	5309.9614
93.50	5309.9630	5309.9625	5309.9622	5309.9616
Max. Deviation (MHz)	0.0370	0.0375	0.0381	0.0386
Max. Deviation (ppm)	6.97	7.06	7.18	7.27
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5310 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5309.9625	5309.9621	5309.9615	5309.9612
10	5309.9633	5309.9627	5309.9625	5309.9616
20	5309.9635	5309.9627	5309.9618	5309.9611
30	5309.9958	5309.9953	5309.9951	5309.9947
40	5309.9960	5309.9950	5309.9947	5309.9938
Max. Deviation (MHz)	0.0393	0.0399	0.0405	0.0414
Max. Deviation (ppm)	7.40	7.51	7.63	7.80
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5550 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5549.9638	5549.9631	5549.9622	5549.9615
110.00	5549.9635	5549.9629	5549.9622	5549.9617
93.50	5549.9633	5549.9630	5549.9625	5549.9620
Max. Deviation (MHz)	0.0367	0.0371	0.0378	0.0385
Max. Deviation (ppm)	6.61	6.68	6.81	6.94
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5550 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5549.9621	5549.9612	5549.9609	5549.9602
10	5549.9625	5549.9622	5549.9615	5549.9605
20	5549.9635	5549.9626	5549.9618	5549.9616
30	5549.9958	5549.9948	5549.9947	5549.9942
40	5549.9977	5549.9972	5549.9963	5549.9961
Max. Deviation (MHz)	0.0417	0.0421	0.0424	0.0427
Max. Deviation (ppm)	7.51	7.59	7.64	7.69
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	5289.9639	5289.9629	5289.9624	5289.9618
110.00	5289.9635	5289.9633	5289.9631	5289.9625
93.50	5289.9626	5289.9620	5289.9617	5289.9607
Max. Deviation (MHz)	0.0374	0.0380	0.0383	0.0393
Max. Deviation (ppm)	7.07	7.18	7.24	7.43
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5290 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5289.9600	5289.9594	5289.9591	5289.9589
10	5289.9615	5289.9605	5289.9602	5289.9599
20	5289.9635	5289.9625	5289.9620	5289.9616
30	5289.9958	5289.9950	5289.9945	5289.9943
40	5289.9975	5289.9974	5289.9969	5289.9963
Max. Deviation (MHz)	0.0437	0.0438	0.0448	0.0456
Max. Deviation (ppm)	8.26	8.28	8.47	8.62
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5530 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5529.9640	5529.9631	5529.9621	5529.9611
110.00	5529.9635	5529.9631	5529.9630	5529.9625
93.50	5529.9629	5529.9621	5529.9617	5529.9607
Max. Deviation (MHz)	0.0371	0.0379	0.0383	0.0393
Max. Deviation (ppm)	6.71	6.85	6.93	7.11
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5530 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5529.9630	5529.9622	5529.9619	5529.9609
10	5529.9634	5529.9630	5529.9629	5529.9624
20	5529.9635	5529.9626	5529.9623	5529.9619
30	5529.9958	5529.9956	5529.9952	5529.9945
40	5529.9965	5529.9957	5529.9956	5529.9954
Max. Deviation (MHz)	0.0379	0.0388	0.0392	0.0394
Max. Deviation (ppm)	6.85	7.02	7.09	7.12
Result	Pass			