

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 : 5150 MHz – 5250 MHz
5725 MHz – 5850 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

The product sample received on Apr. 17, 2017 and completely tested on Oct. 03, 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
5150-5250	a, n (HT20), ac (VHT20)	5180-5240	36-48 [4]
5725-5850		5745-5825	149-165 [5]
5150-5250	n (HT40), ac (VHT40)	5190-5230	38-46 [2]
5725-5850		5755-5795	151-159 [2]
5150-5250	ac (VHT80)	5210	42 [1]
5725-5850		5775	155 [1]

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	2TX
5.15-5.25GHz	802.11n HT20	20	2TX
5.15-5.25GHz	802.11ac VHT20	20	2TX
5.15-5.25GHz	802.11n HT40	40	2TX
5.15-5.25GHz	802.11ac VHT40	40	2TX
5.15-5.25GHz	802.11ac VHT80	80	2TX
5.725-5.85GHz	802.11a	20	2TX
5.725-5.85GHz	802.11n HT20	20	2TX
5.725-5.85GHz	802.11ac VHT20	20	2TX
5.725-5.85GHz	802.11n HT40	40	2TX
5.725-5.85GHz	802.11ac VHT40	40	2TX
5.725-5.85GHz	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 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	5.9	-	-	-	-	-	-
4	-	-	-	5.6	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 (For Band 1, Band 4)

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 (For Band 1~Band 4)

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
Radio 2

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 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

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: FR741722AB

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.	For Radio 2 only 1. Emission Bandwidth 2. Maximum Conducted Output Power 3. Peak Power Spectral Density 4. Unwanted Emissions 5. Frequency Stability 6. Radiated Emission Co-location
2. Removing the EUT copper foil.	Unwanted Emissions below 1GHz
3. Adding the brand name WatchGuard and collocation two model name: AP225, C-110.	Do not effect the test results

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 KDB644545
- ♦ 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	26°C / 71%	Aug. 22, 2017
Radiated below 1GHz	03CH01-CB	Mars Lin	22°C / 54%	Aug. 14, 2017
Radiated above 1GHz	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
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

Radio 2

Mode	Power Setting
802.11a_(6Mbps)_2TX	-
5180MHz	21
5200MHz	21.5
5240MHz	21.5
5745MHz	22
5785MHz	22
5825MHz	22
802.11ac VHT20_Nss1,(MCS0)_2TX	-
5180MHz	20
5200MHz	21
5240MHz	21
5745MHz	21
5785MHz	22
5825MHz	22
802.11ac VHT40_Nss1,(MCS0)_2TX	-
5190MHz	19.5
5230MHz	22.5
5755MHz	23.5
5795MHz	24
802.11ac VHT80_Nss1,(MCS0)_2TX	-
5210MHz	18.5
5775MHz	23.5

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
Operating Mode	
1	EUT - R2 (5G) + Adapter

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 The test mode were performed according the worst case of original test report.
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 Y 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.: FA741722-03 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

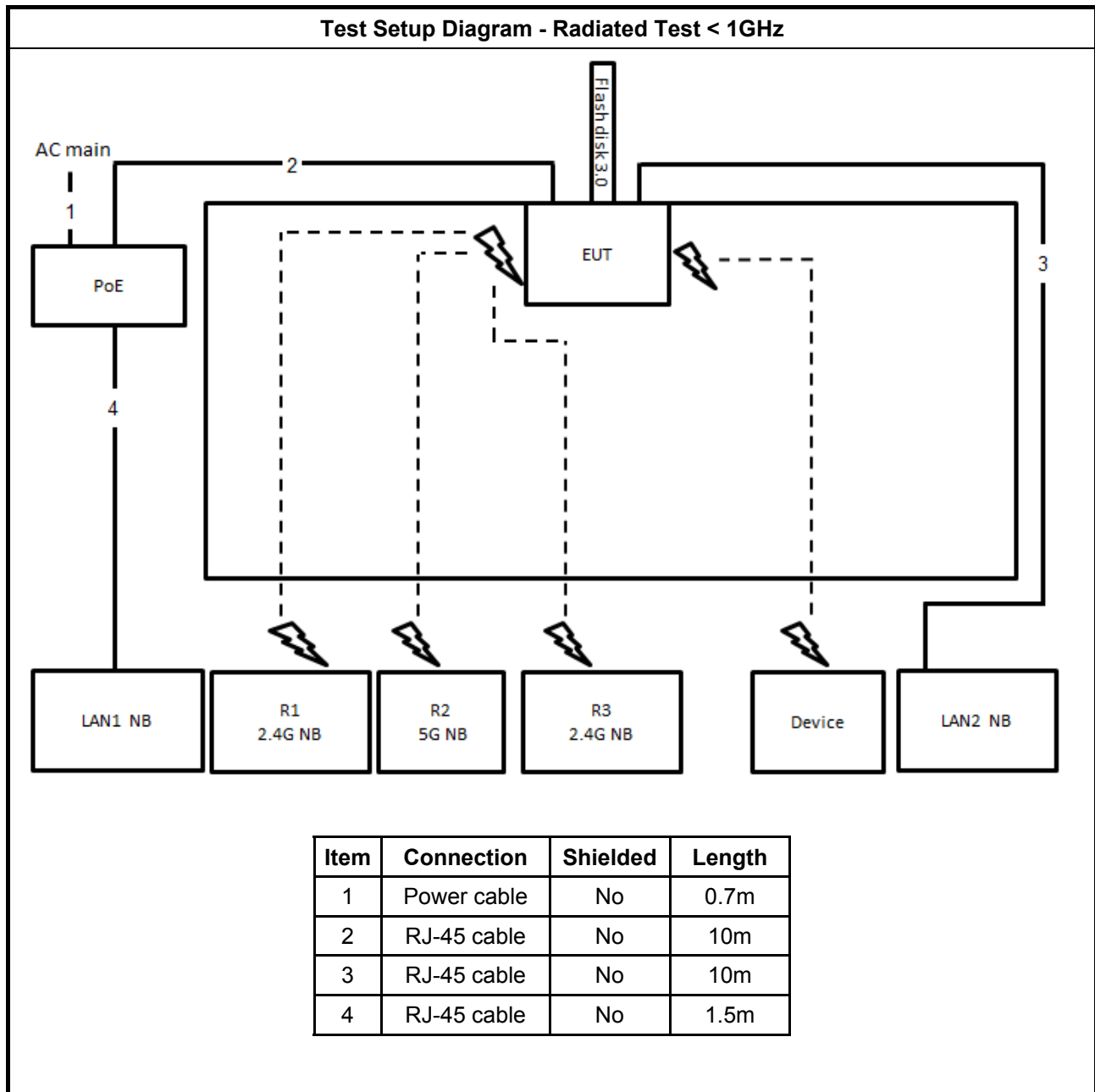
For Test Site No: 03CH01-CB (above 1GHz) / for other test items

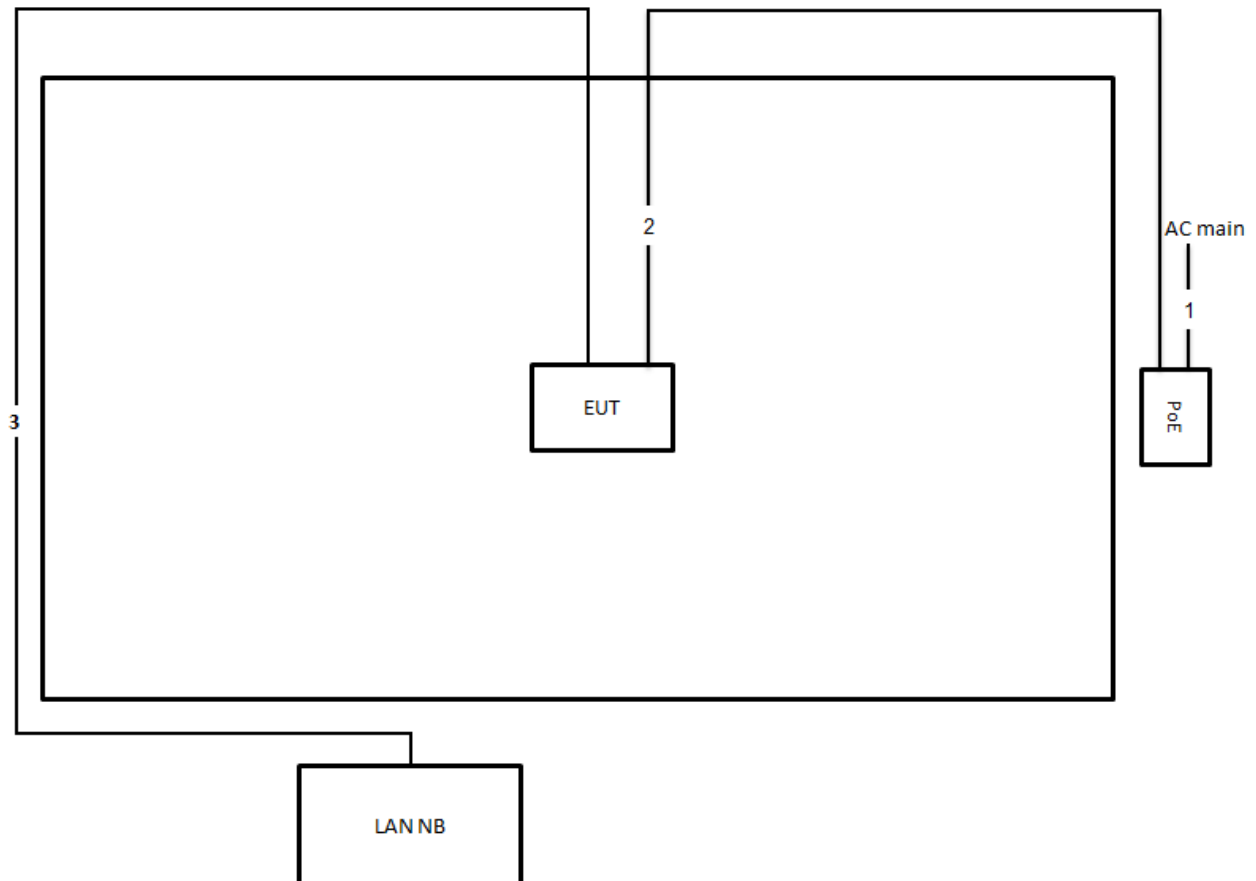
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC
2	PoE	Ruckus	740-64214-001	DoC

For Test Site No: TH01-CB

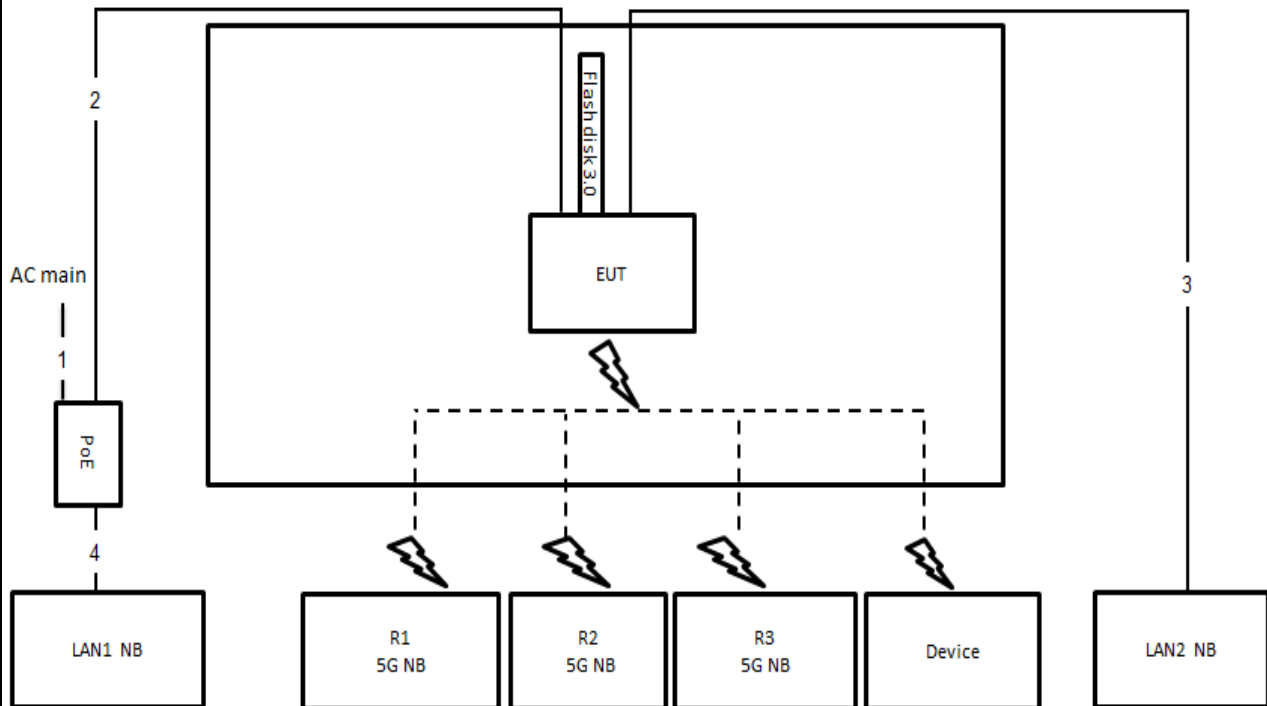
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC
2	Adapter	APD	WB-18D12FU	DoC

2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test > 1GHz (for other test items)


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

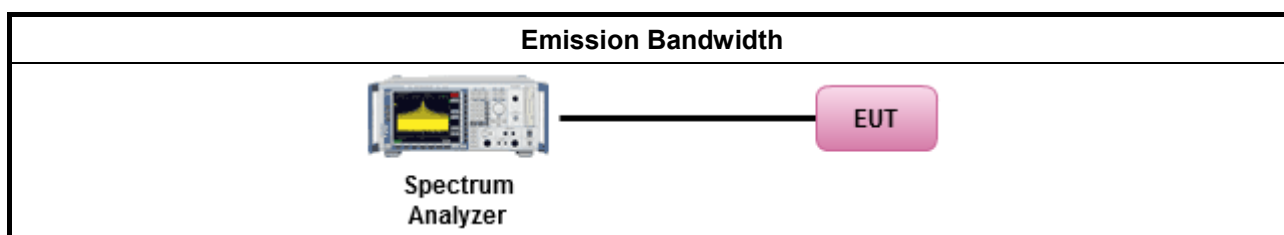
3.1.2 Measuring Instruments

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 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 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.	

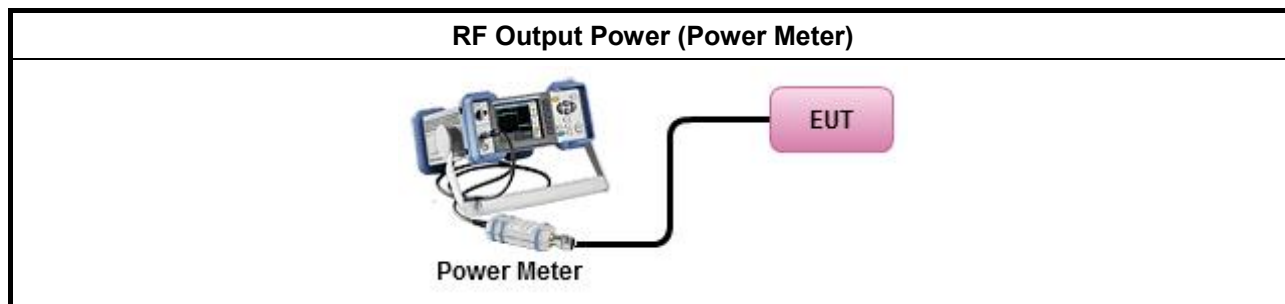
3.2.2 Measuring Instruments

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 $0^\circ \leq \theta < 8^\circ$; $-13 - 0.716(\theta - 8)$ 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.	

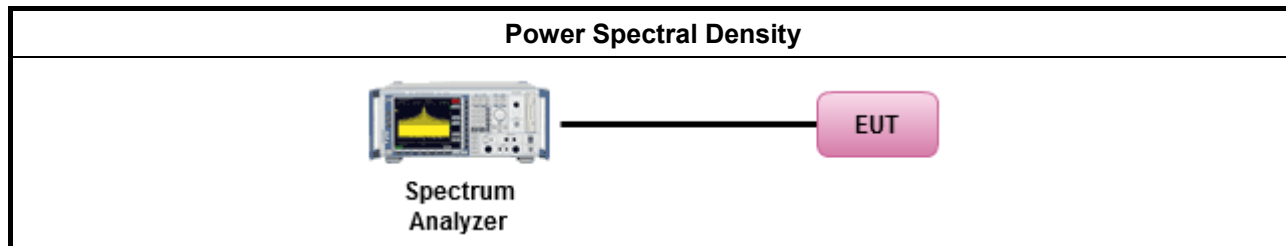
3.3.2 Measuring Instruments

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).

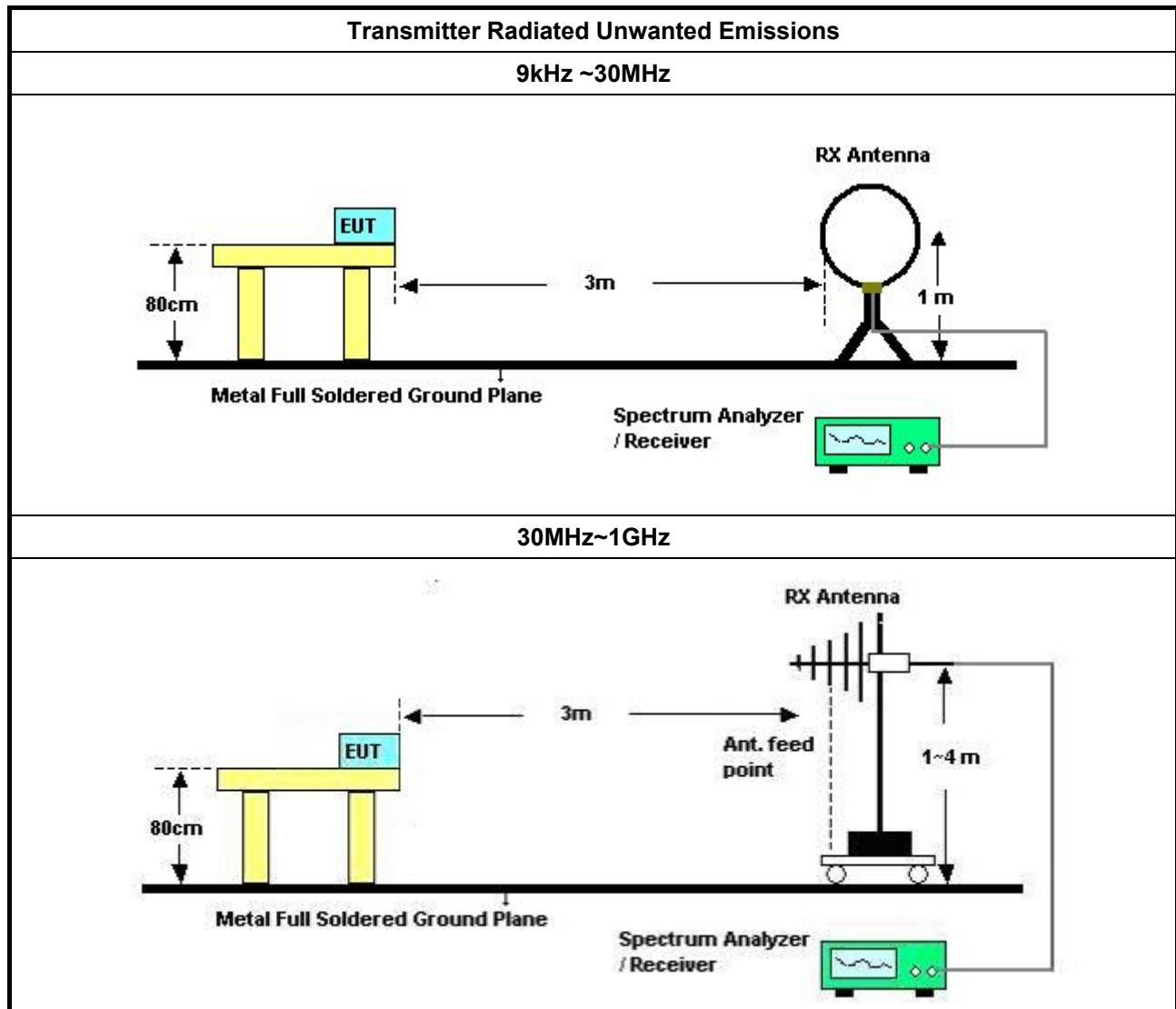
3.4.2 Measuring Instruments

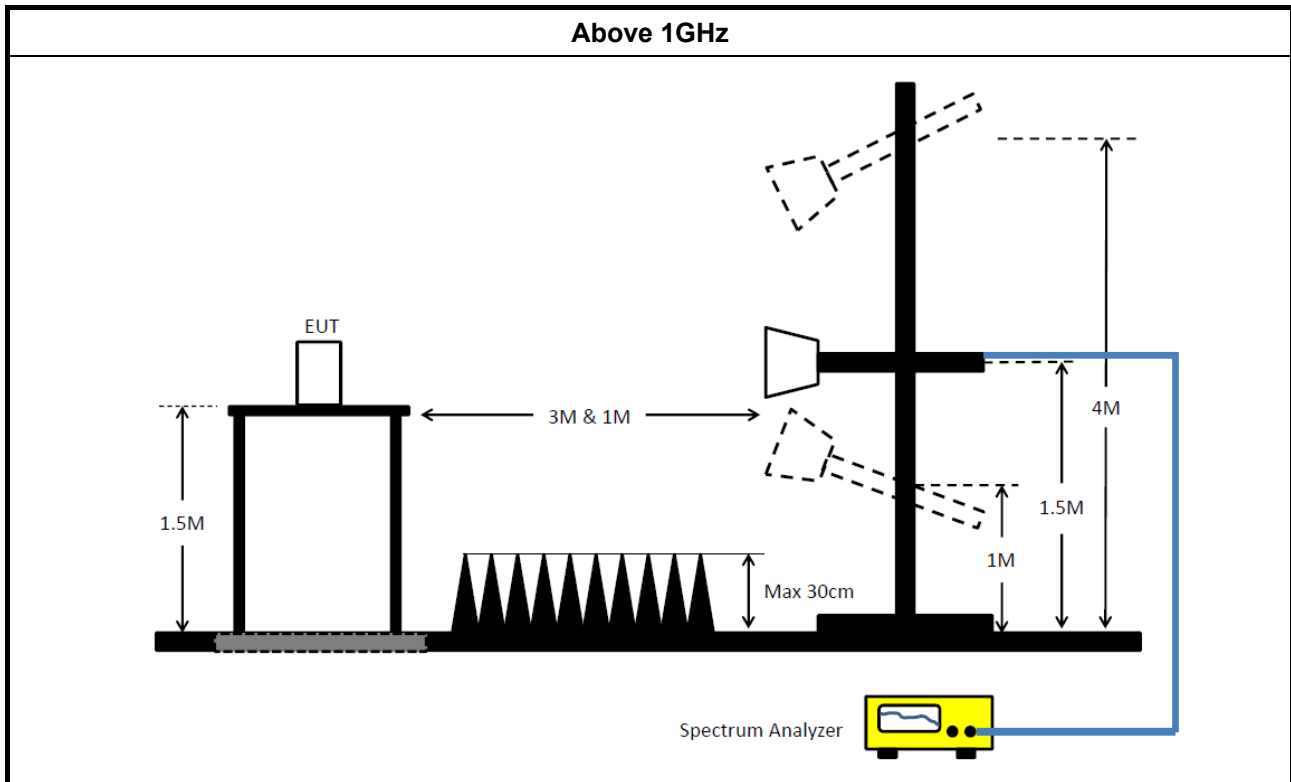
Refer a test equipment and calibration data table in this test report.

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.

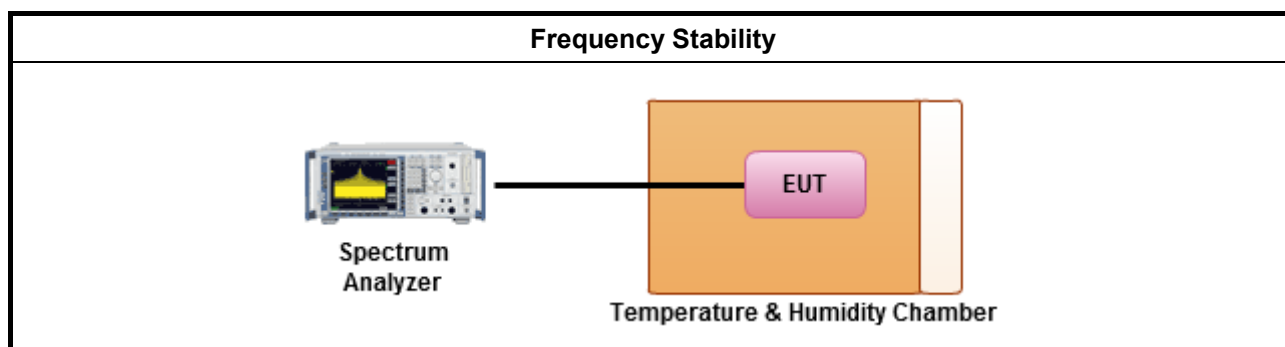
3.5.2 Measuring Instruments

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. : FR741722-03AB

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.

Test Mode: Mode 1 / For Radio 2
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11a_(6Mbps)_2TX	-	-	-	-	-
5.15-5.25GHz	19.225M	16.417M	16M4D1D	18.925M	16.392M
5.725-5.85GHz	16.375M	16.417M	16M4D1D	16.35M	16.367M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-
5.15-5.25GHz	20.425M	17.641M	17M6D1D	19.8M	17.591M
5.725-5.85GHz	17.625M	17.641M	17M6D1D	17.575M	17.591M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-
5.15-5.25GHz	39.55M	36.032M	36M0D1D	39.3M	35.882M
5.725-5.85GHz	35.9M	36.032M	36M0D1D	35.25M	35.882M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-
5.15-5.25GHz	83.4M	75.762M	75M8D1D	83.2M	75.762M
5.725-5.85GHz	76.3M	75.862M	75M9D1D	76.1M	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;

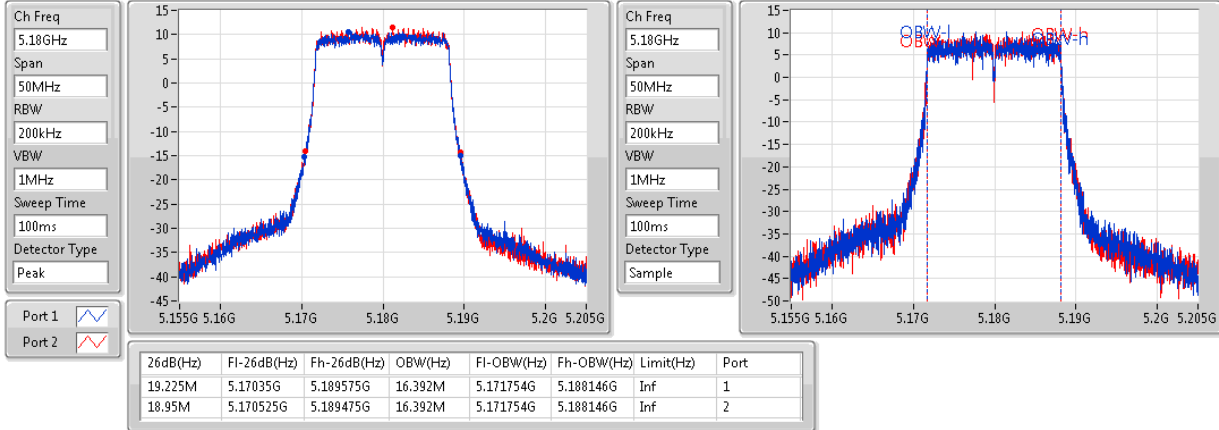
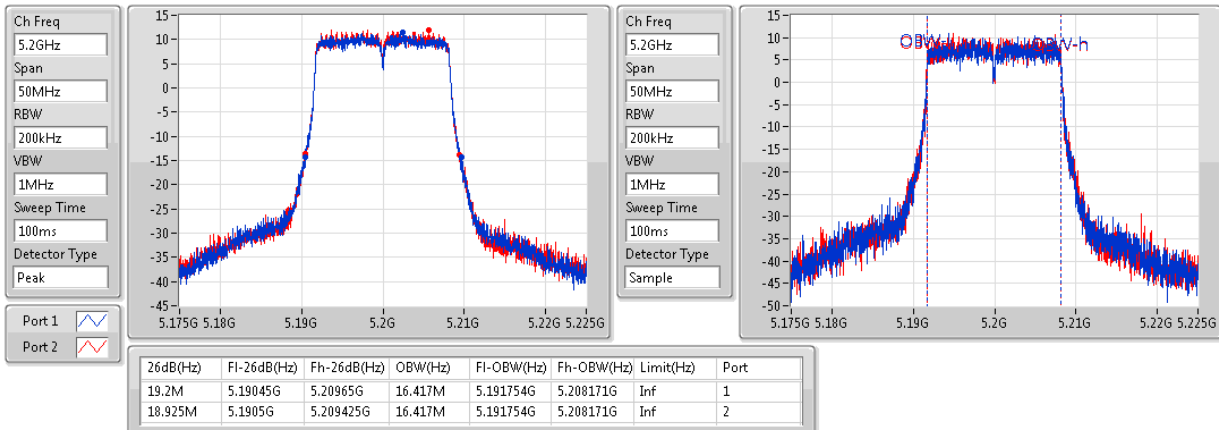
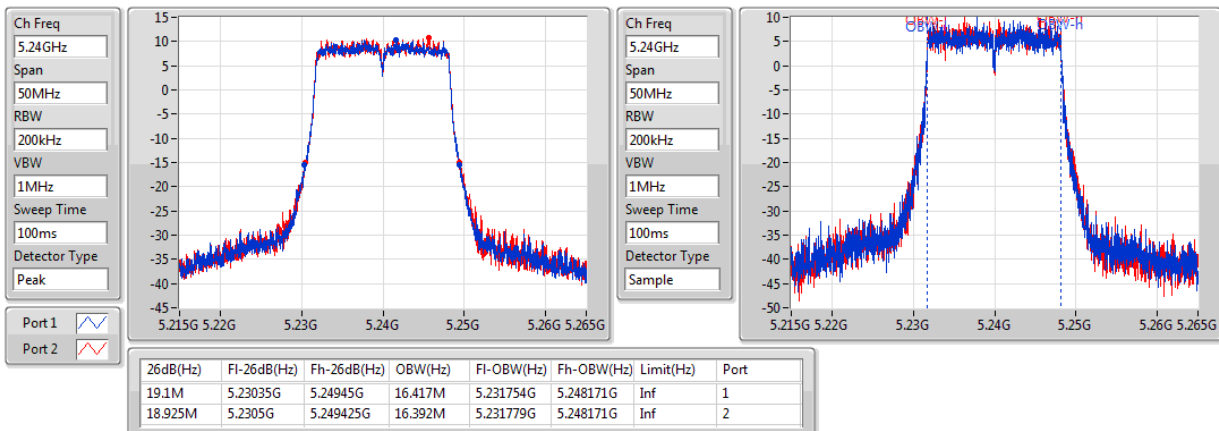
Min-OBW = Minimum 99% occupied bandwidth;

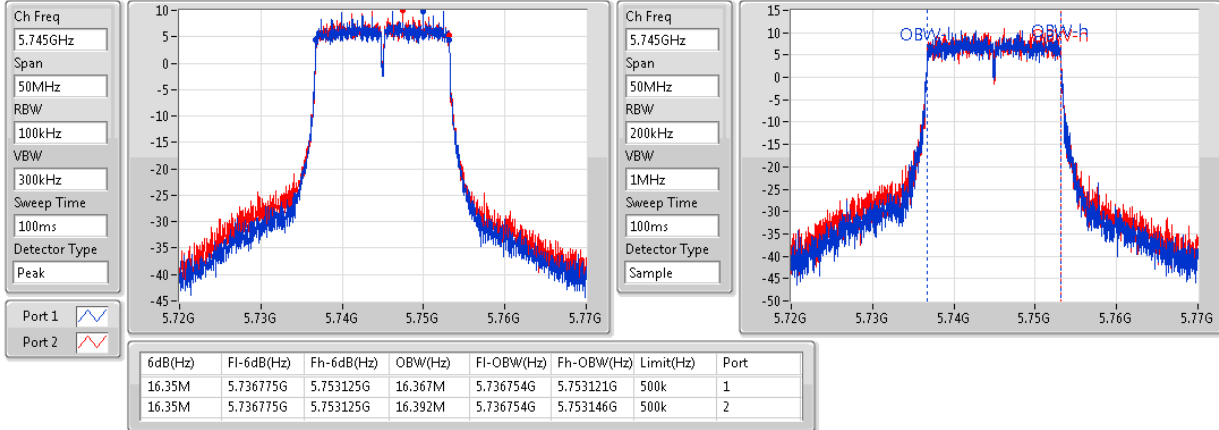
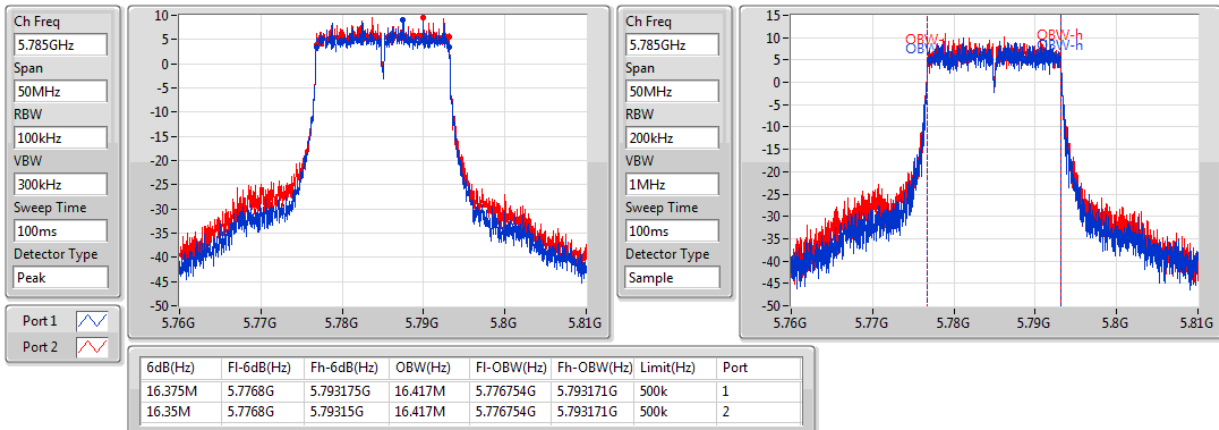
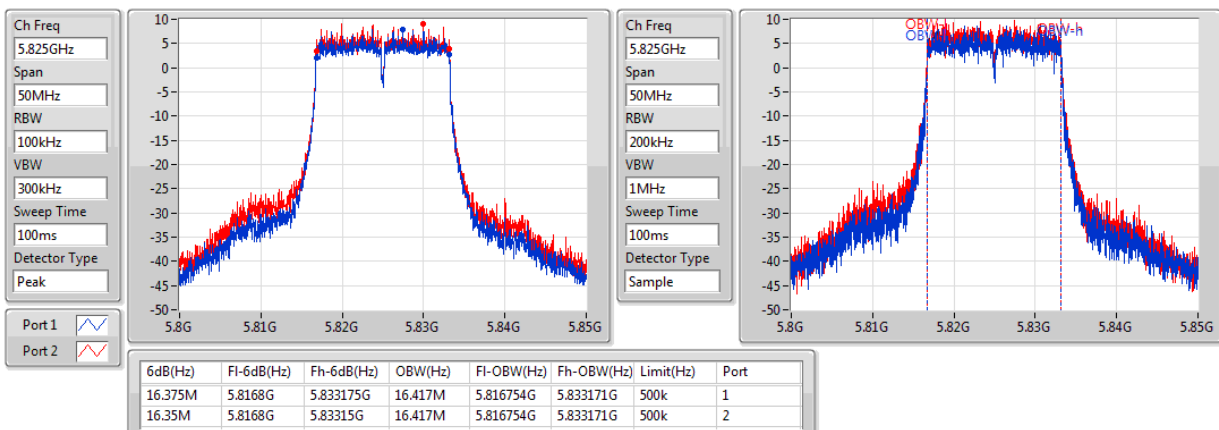
Result

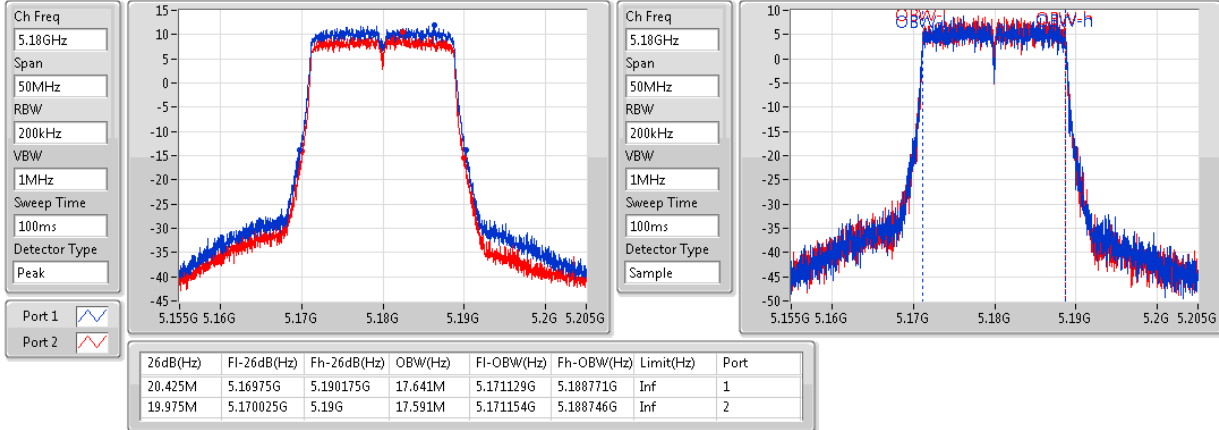
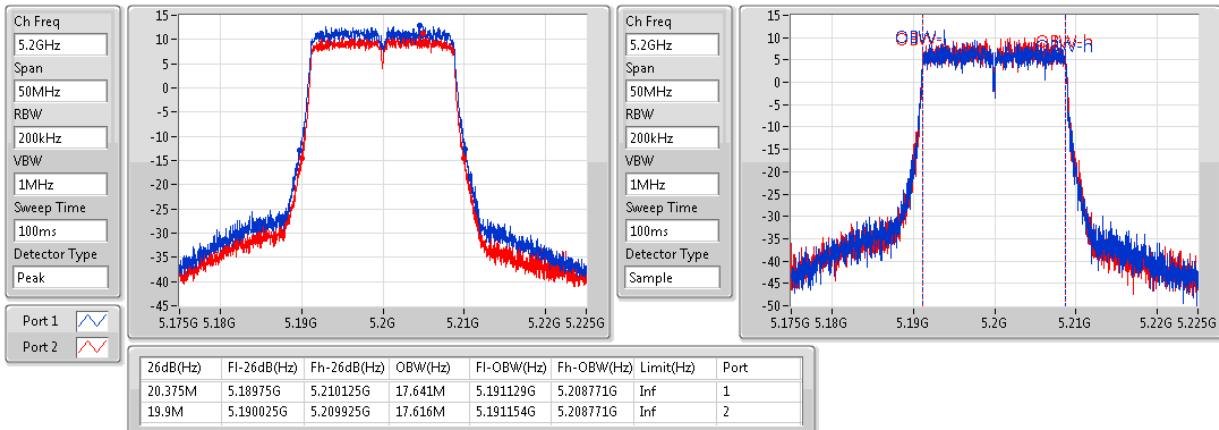
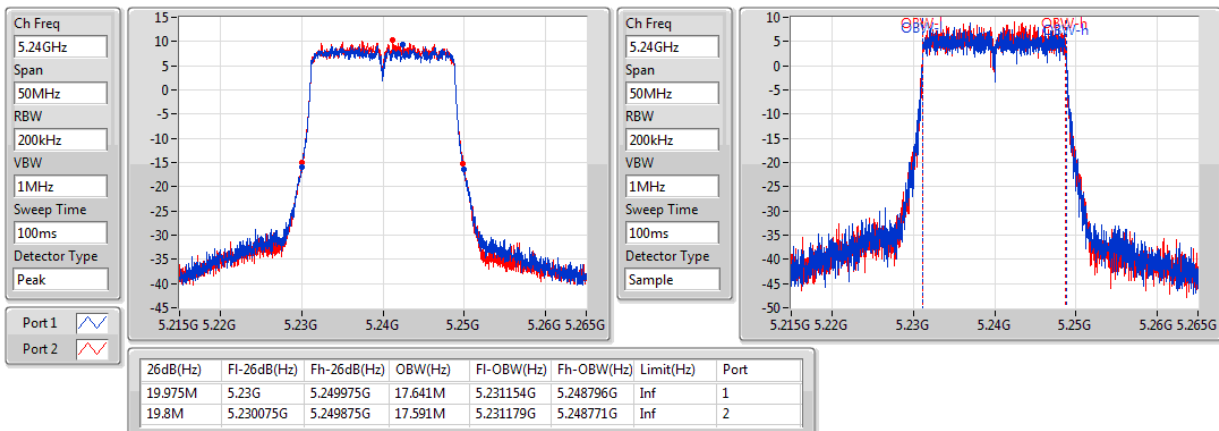
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	19.225M	16.392M	18.95M	16.392M
5200MHz	Pass	Inf	19.2M	16.417M	18.925M	16.417M
5240MHz	Pass	Inf	19.1M	16.417M	18.925M	16.392M
5745MHz	Pass	500k	16.35M	16.367M	16.35M	16.392M
5785MHz	Pass	500k	16.375M	16.417M	16.35M	16.417M
5825MHz	Pass	500k	16.375M	16.417M	16.35M	16.417M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	20.425M	17.641M	19.975M	17.591M
5200MHz	Pass	Inf	20.375M	17.641M	19.9M	17.616M
5240MHz	Pass	Inf	19.975M	17.641M	19.8M	17.591M
5745MHz	Pass	500k	17.575M	17.616M	17.575M	17.591M
5785MHz	Pass	500k	17.6M	17.641M	17.575M	17.616M
5825MHz	Pass	500k	17.625M	17.641M	17.575M	17.591M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	39.55M	35.932M	39.5M	36.032M
5230MHz	Pass	Inf	39.35M	35.882M	39.3M	36.032M
5755MHz	Pass	500k	35.6M	35.882M	35.9M	35.982M
5795MHz	Pass	500k	35.25M	35.982M	35.55M	36.032M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	83.4M	75.762M	83.2M	75.762M
5775MHz	Pass	500k	76.1M	75.662M	76.3M	75.862M

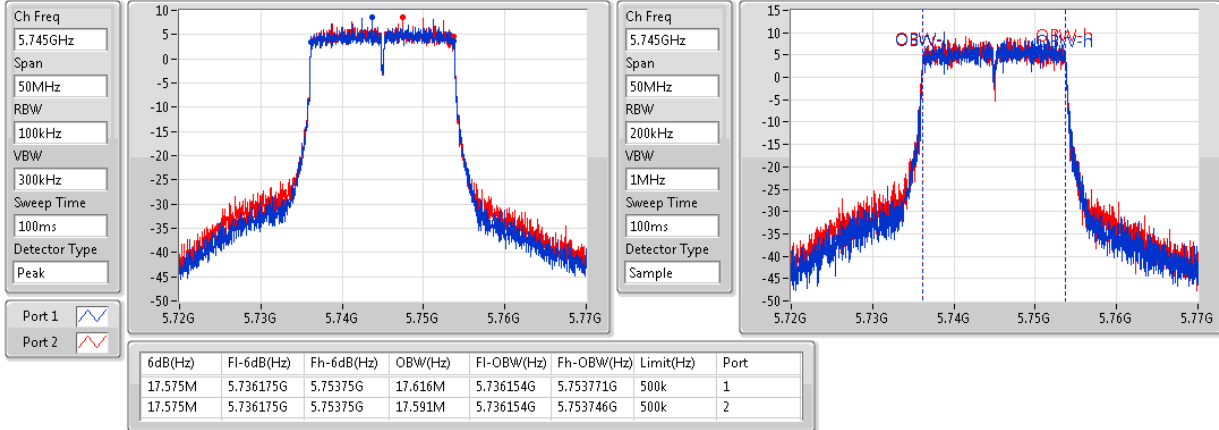
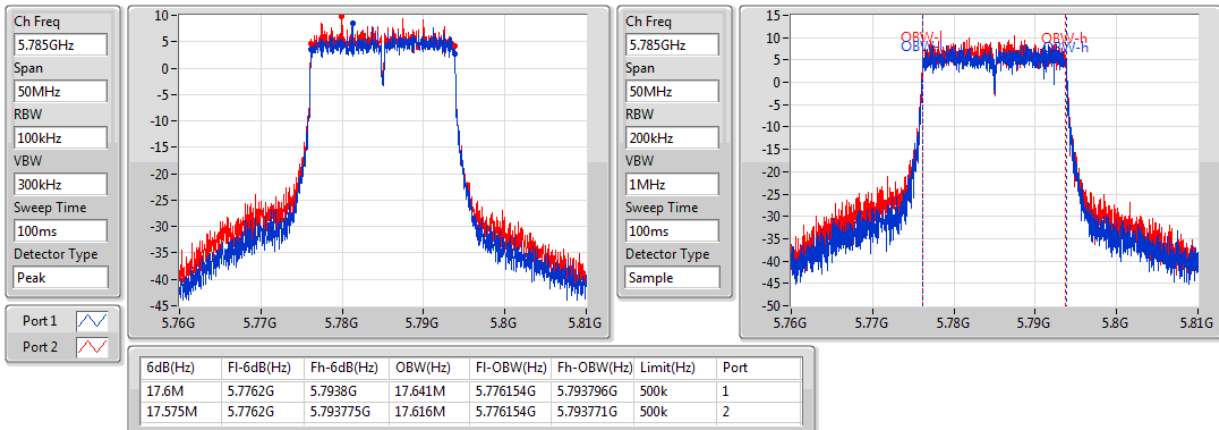
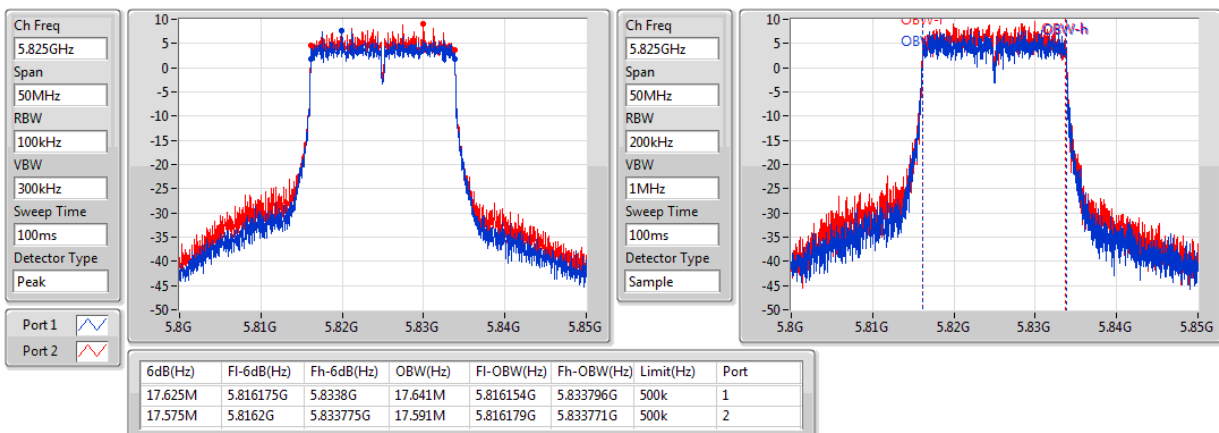
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band

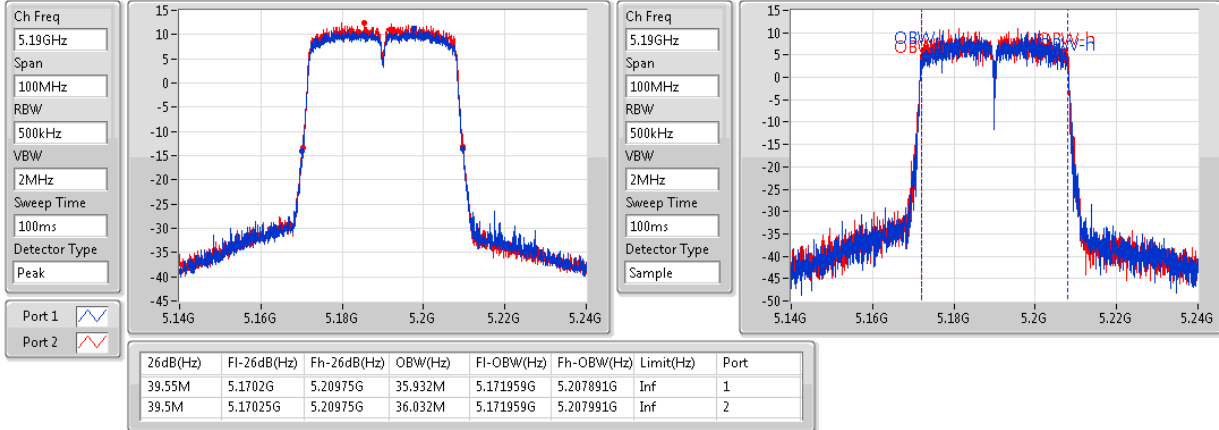
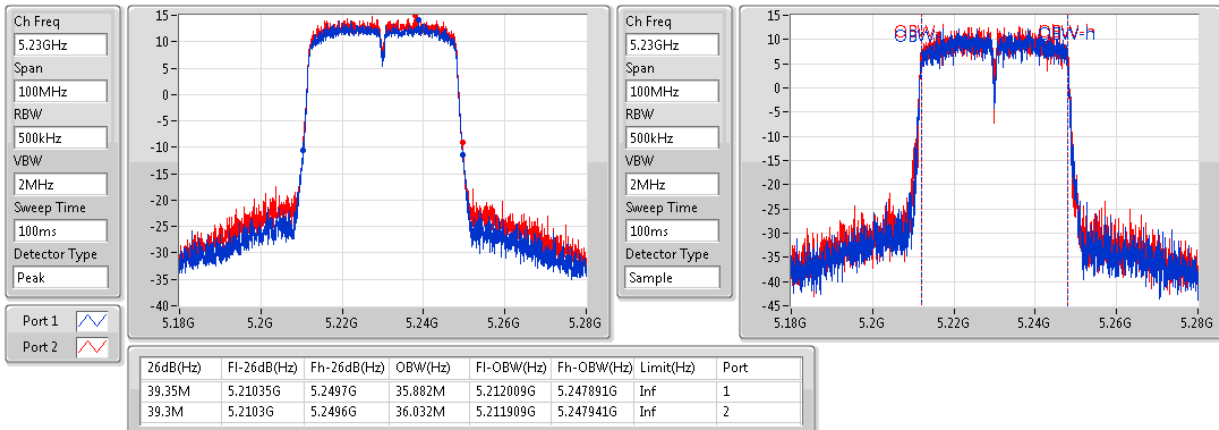
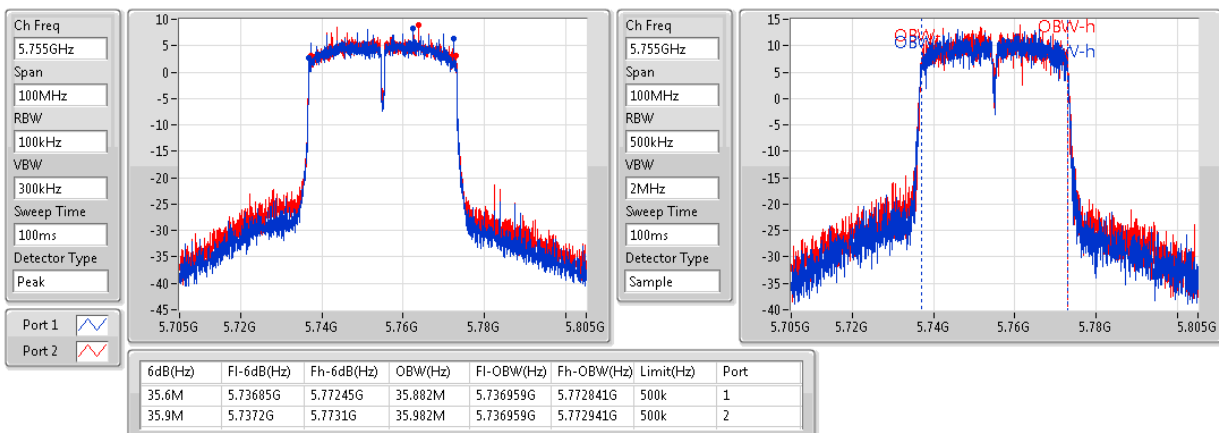
Port X-OBW = Port X 99% occupied bandwidth;

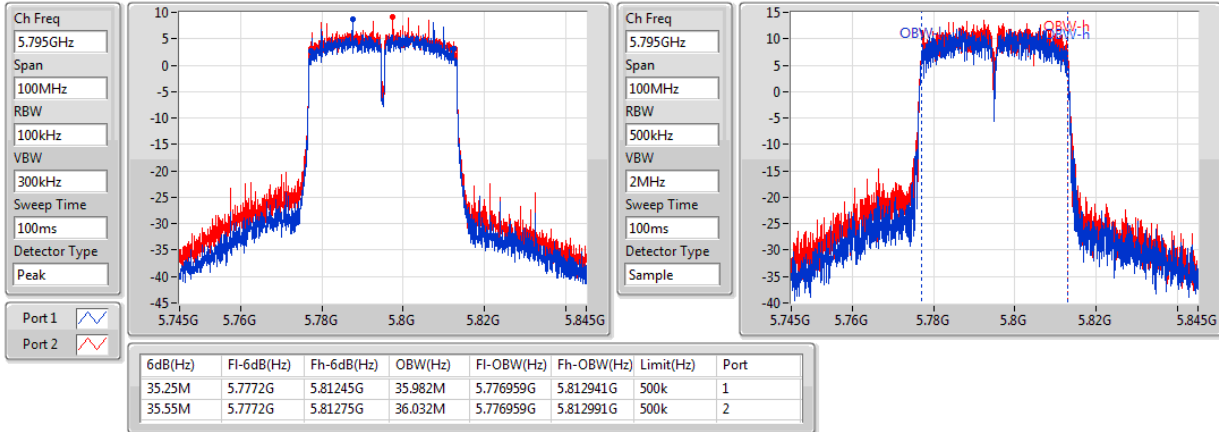
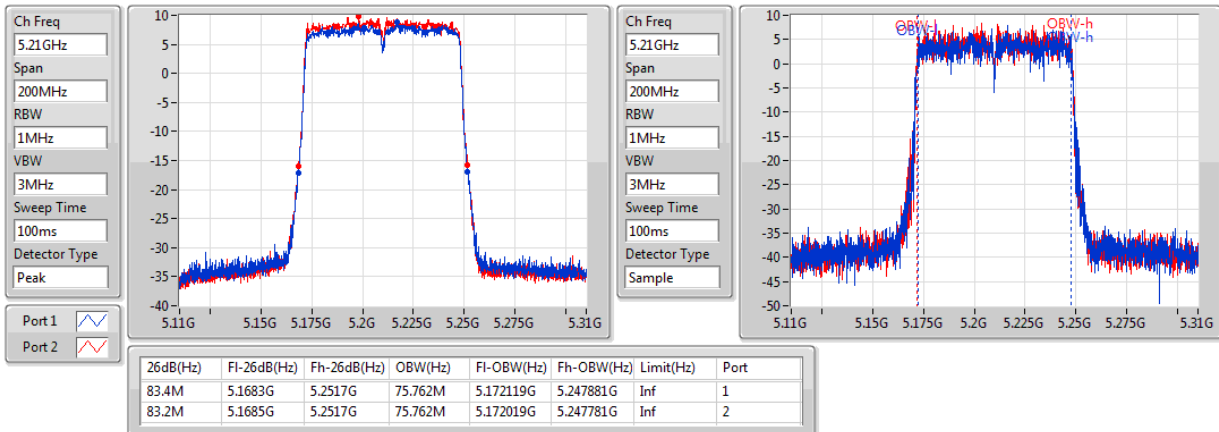
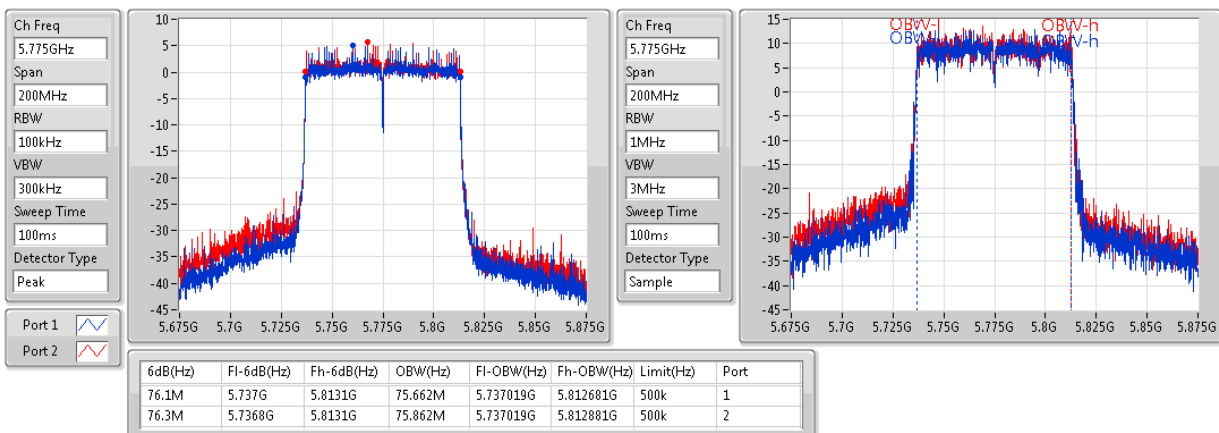
802.11a_(6Mbps)_2TX
EBW
5180MHz

802.11a_(6Mbps)_2TX
EBW
5200MHz

802.11a_(6Mbps)_2TX
EBW
5240MHz


802.11a_(6Mbps)_2TX
EBW
5745MHz

802.11a_(6Mbps)_2TX
EBW
5785MHz

802.11a_(6Mbps)_2TX
EBW
5825MHz


802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5180MHz

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5200MHz

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5240MHz


802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5745MHz

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5785MHz

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5825MHz


802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5190MHz

802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5230MHz

802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5755MHz


802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5795MHz

802.11ac VHT80_Nss1,(MCS0)_2TX
EBW
5210MHz

802.11ac VHT80_Nss1,(MCS0)_2TX
EBW
5775MHz


**Test Mode: Mode 1 / For Radio 2
Summary**

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
802.11a_(6Mbps)_2TX	-	-	-	-
5.15-5.25GHz	25.37	0.34435	30.97	1.25026
5.725-5.85GHz	25.23	0.33343	31.13	1.29718
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-
5.15-5.25GHz	24.85	0.30549	30.45	1.10917
5.725-5.85GHz	24.95	0.31261	30.85	1.21619
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-
5.15-5.25GHz	26.04	0.40179	31.64	1.45881
5.725-5.85GHz	27.34	0.54200	33.24	2.10863
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-
5.15-5.25GHz	21.37	0.13709	26.97	0.49774
5.725-5.85GHz	26.09	0.40644	31.99	1.58125

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	5.60	21.69	22.14	24.93	30.00
5200MHz	Pass	5.60	22.15	22.56	25.37	30.00
5240MHz	Pass	5.60	21.69	22.19	24.96	30.00
5745MHz	Pass	5.90	22.13	22.30	25.23	30.00
5785MHz	Pass	5.90	21.46	21.89	24.69	30.00
5825MHz	Pass	5.90	20.92	21.32	24.13	30.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	5.60	20.65	21.12	23.90	30.00
5200MHz	Pass	5.60	21.59	22.08	24.85	30.00
5240MHz	Pass	5.60	21.29	21.78	24.55	30.00
5745MHz	Pass	5.90	21.10	21.25	24.18	30.00
5785MHz	Pass	5.90	21.70	22.17	24.95	30.00
5825MHz	Pass	5.90	21.34	21.68	24.52	30.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	5.60	20.41	20.92	23.68	30.00
5230MHz	Pass	5.60	22.77	23.28	26.04	30.00
5755MHz	Pass	5.90	23.38	23.83	26.62	30.00
5795MHz	Pass	5.90	24.07	24.57	27.34	30.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	5.60	18.23	18.48	21.37	30.00
5775MHz	Pass	5.90	22.89	23.26	26.09	30.00

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

Test Mode: Mode 1 / For Radio 2
Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
802.11a_(6Mbps)_2TX	-	-
5.15-5.25GHz	12.52	21.13
5.725-5.85GHz	10.87	19.15
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-
5.15-5.25GHz	11.58	20.19
5.725-5.85GHz	9.82	18.10
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-
5.15-5.25GHz	10.02	18.63
5.725-5.85GHz	9.38	17.66
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-
5.15-5.25GHz	2.50	11.11
5.725-5.85GHz	5.17	13.45

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	-	-	-	-	-	-
5180MHz	Pass	8.61	8.91	9.20	11.89	14.39
5200MHz	Pass	8.61	9.51	9.67	12.52	14.39
5240MHz	Pass	8.61	8.42	8.63	11.46	14.39
5745MHz	Pass	8.28	7.97	7.87	10.87	27.72
5785MHz	Pass	8.28	7.00	7.50	10.19	27.72
5825MHz	Pass	8.28	6.05	6.81	9.35	27.72
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	8.61	7.26	8.00	10.58	14.39
5200MHz	Pass	8.61	8.23	8.98	11.58	14.39
5240MHz	Pass	8.61	7.46	8.09	10.68	14.39
5745MHz	Pass	8.28	6.46	6.58	9.46	27.72
5785MHz	Pass	8.28	6.53	7.37	9.82	27.72
5825MHz	Pass	8.28	5.74	7.14	9.38	27.72
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	8.61	4.39	5.03	7.60	14.39
5230MHz	Pass	8.61	6.95	7.39	10.02	14.39
5755MHz	Pass	8.28	6.11	6.47	9.16	27.72
5795MHz	Pass	8.28	6.11	6.85	9.38	27.72
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	8.61	-0.59	-0.14	2.50	14.39
5775MHz	Pass	8.28	2.20	2.40	5.17	27.72

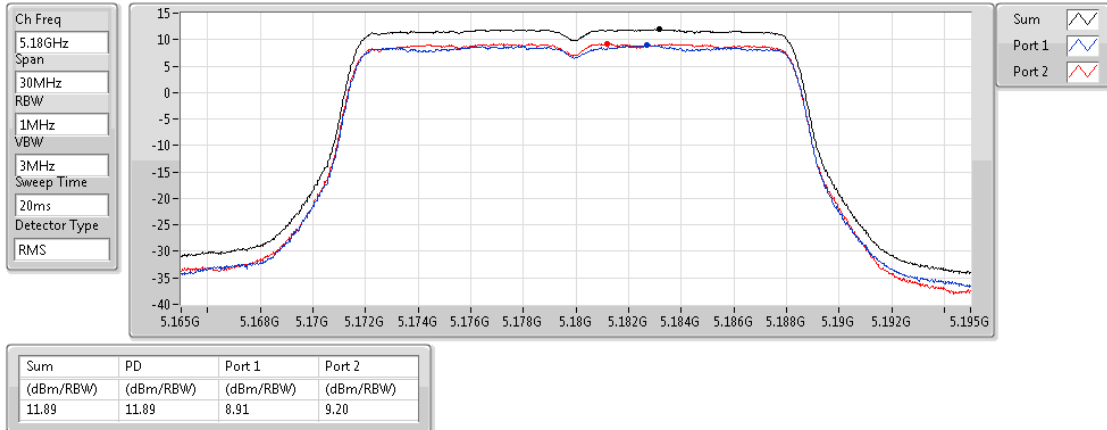
DG = Directional Gain; **RBW** = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

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

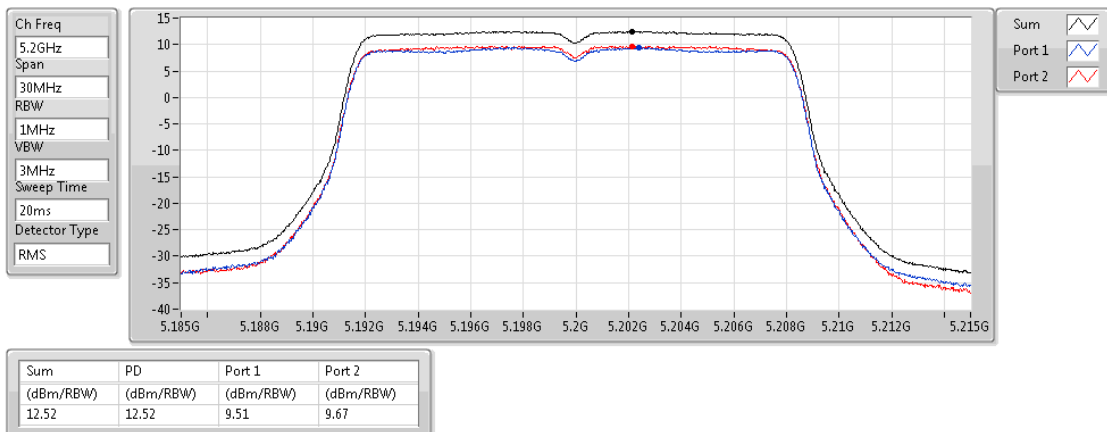
5180MHz



802.11a_(6Mbps)_2TX

PSD

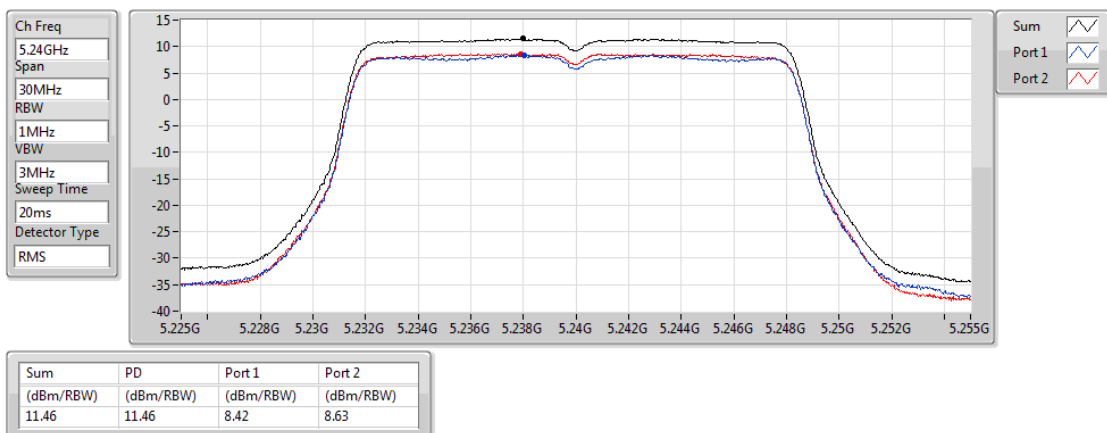
5200MHz



802.11a_(6Mbps)_2TX

PSD

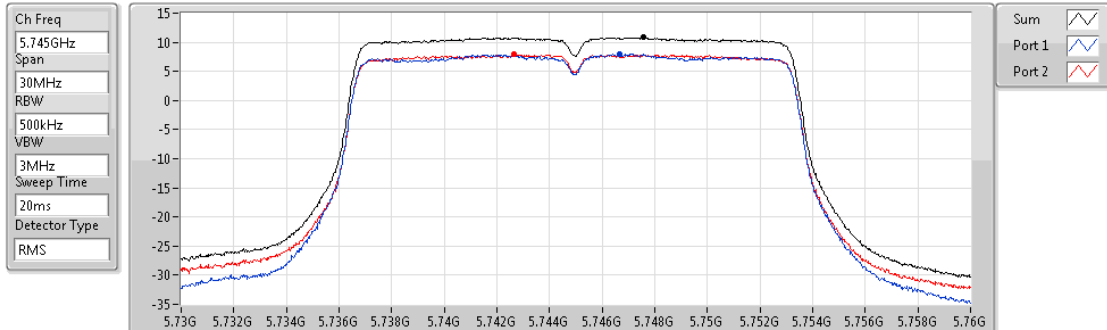
5240MHz



802.11a_(6Mbps)_2TX

PSD

5745MHz

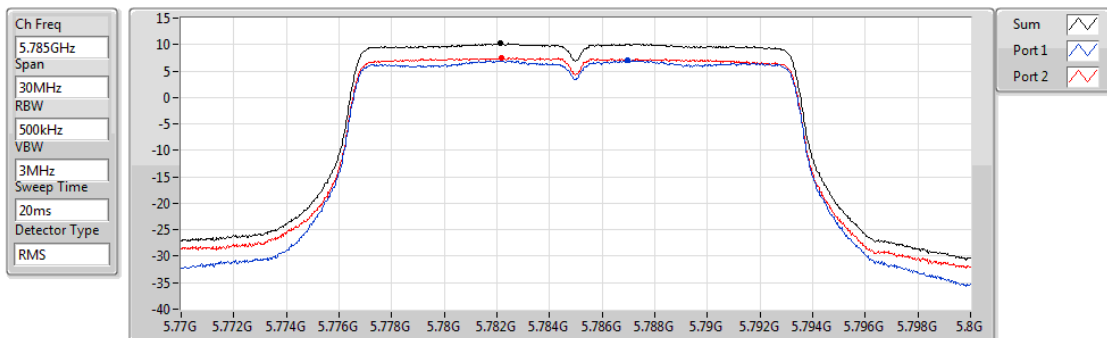


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.87	10.87	7.97	7.87

802.11a_(6Mbps)_2TX

PSD

5785MHz

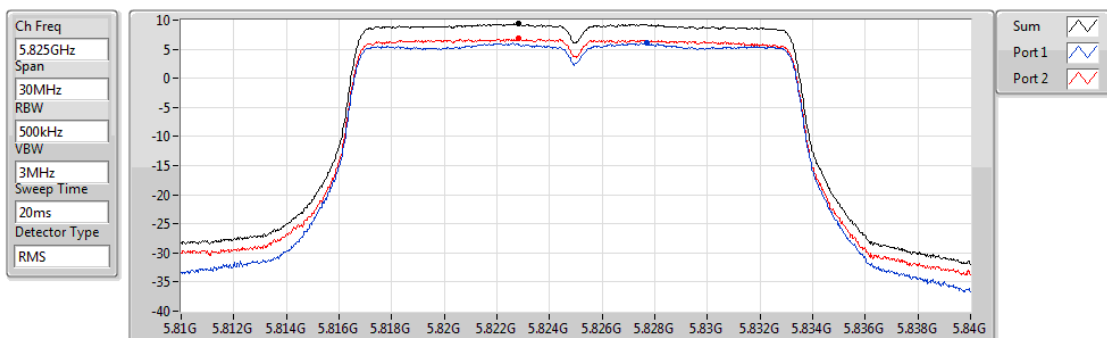


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.19	10.19	7.00	7.50

802.11a_(6Mbps)_2TX

PSD

5825MHz

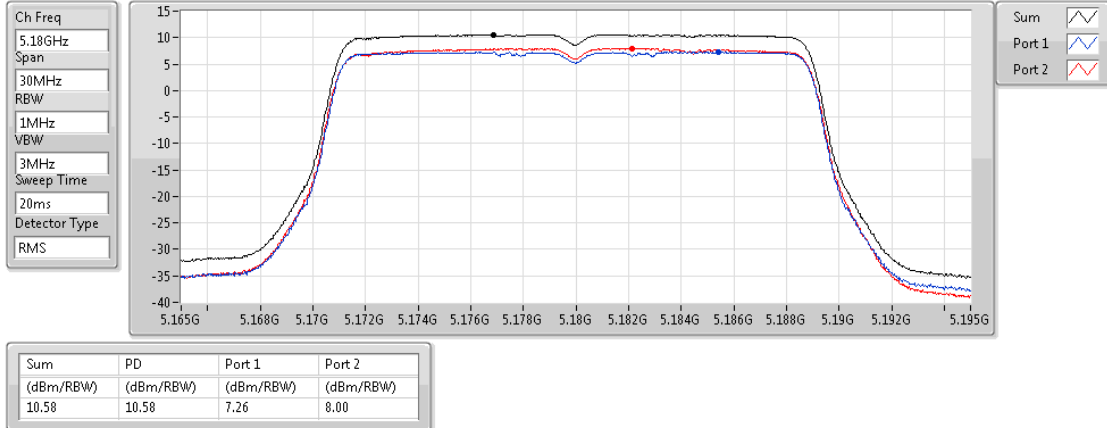


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.35	9.35	6.05	6.81

802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

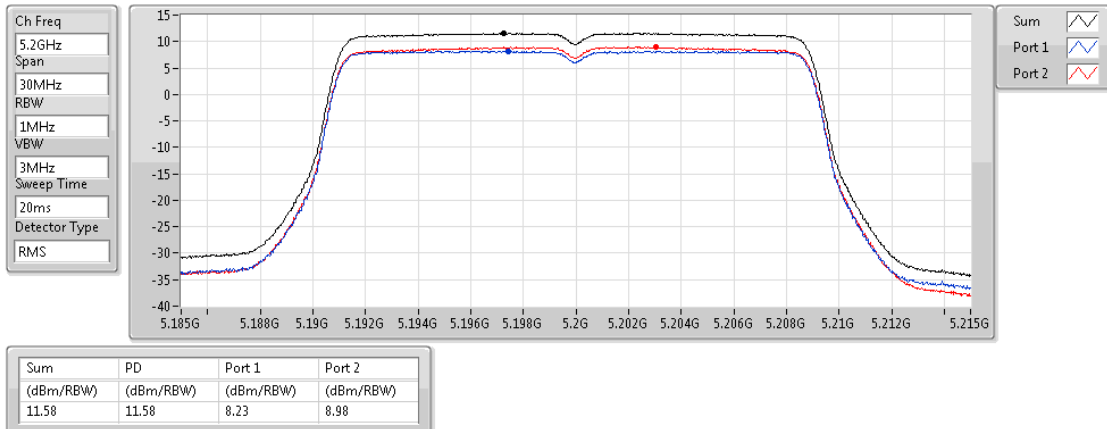
5180MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

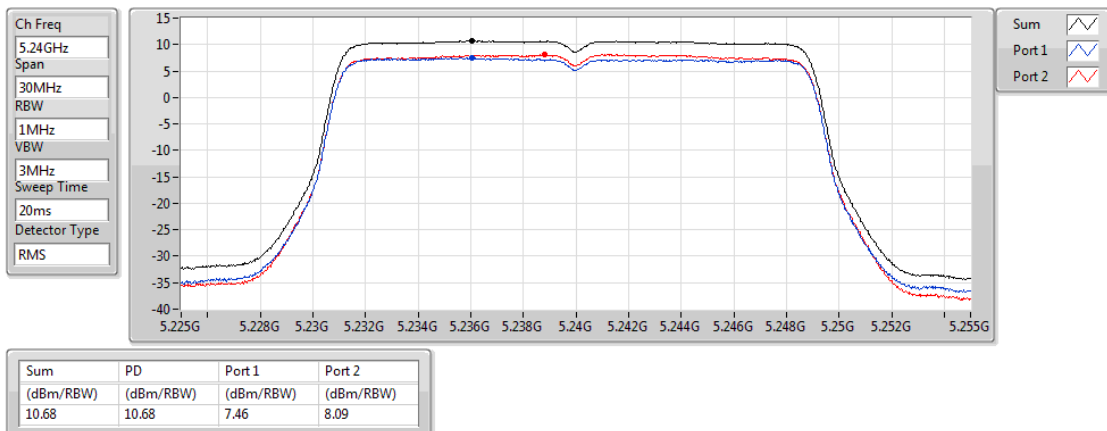
5200MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

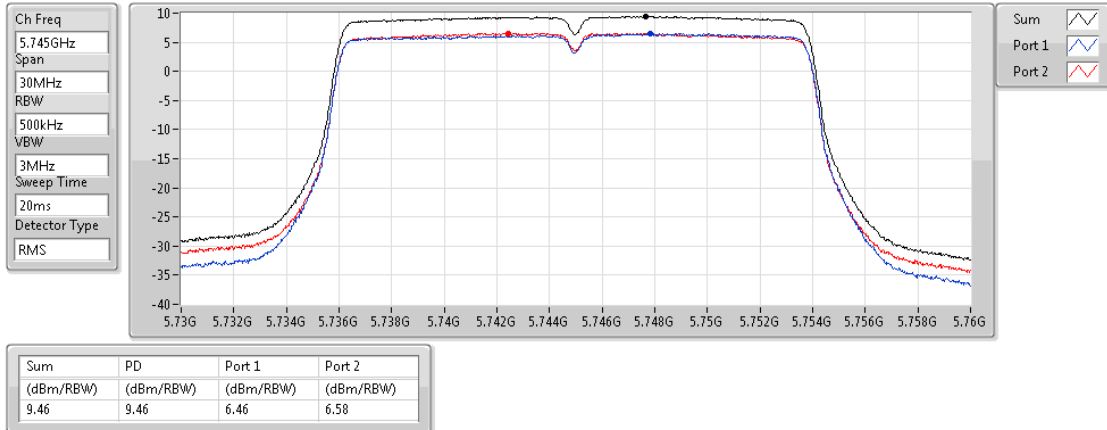
5240MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

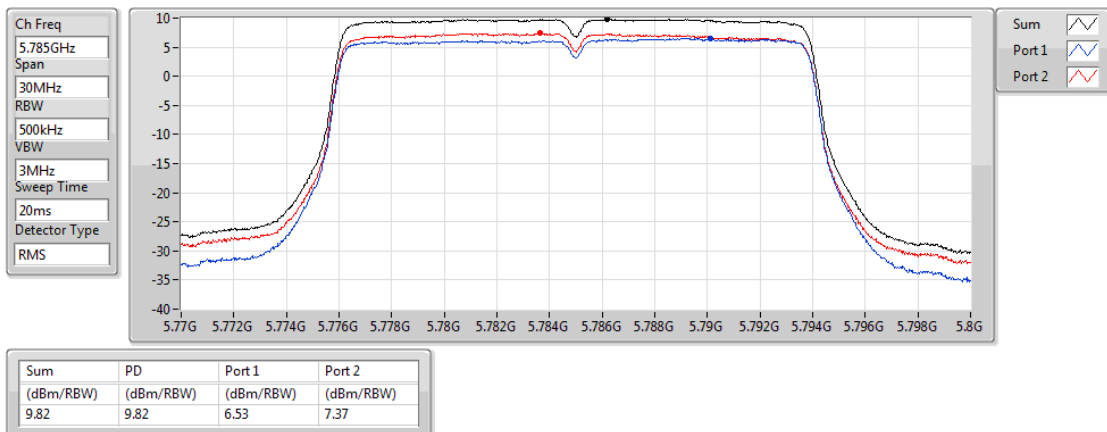
5745MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

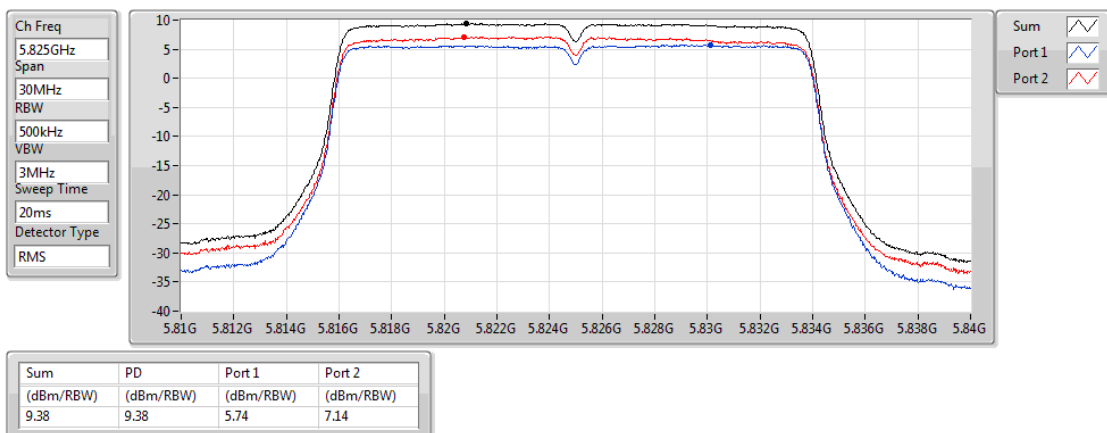
5785MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

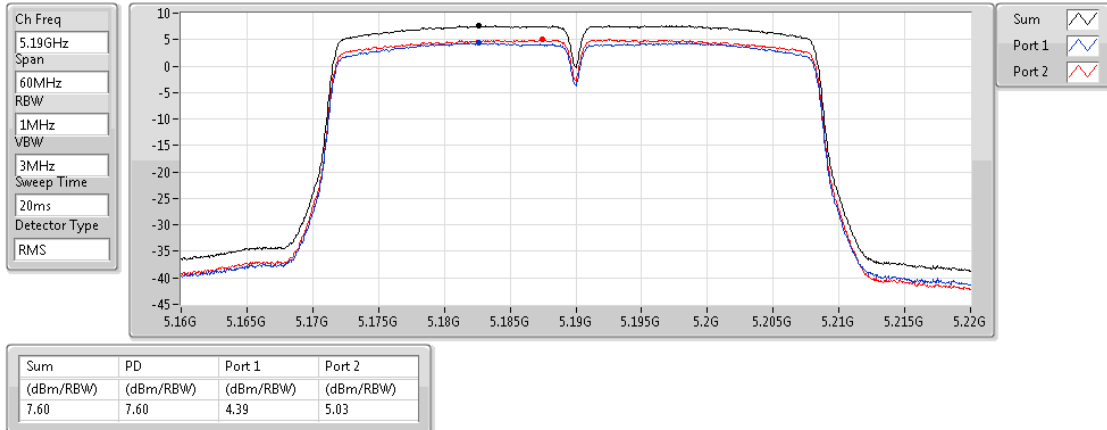
5825MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

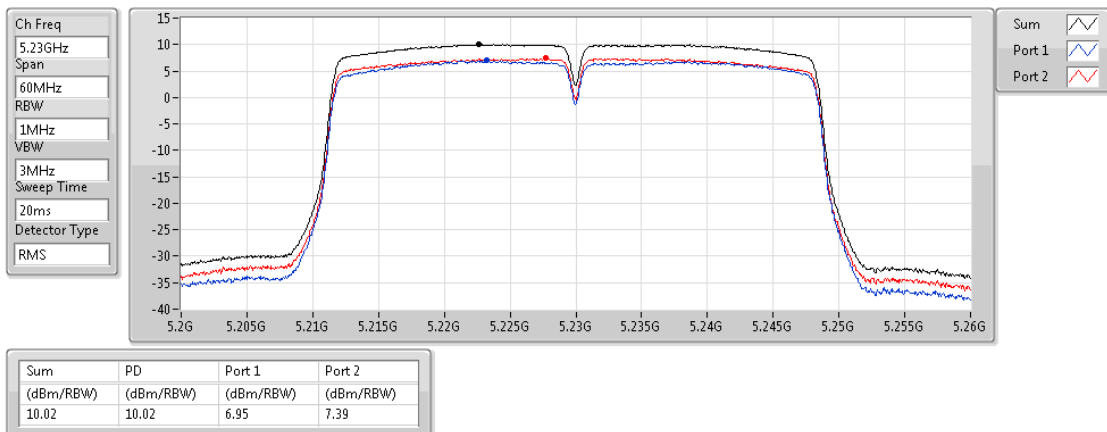
5190MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

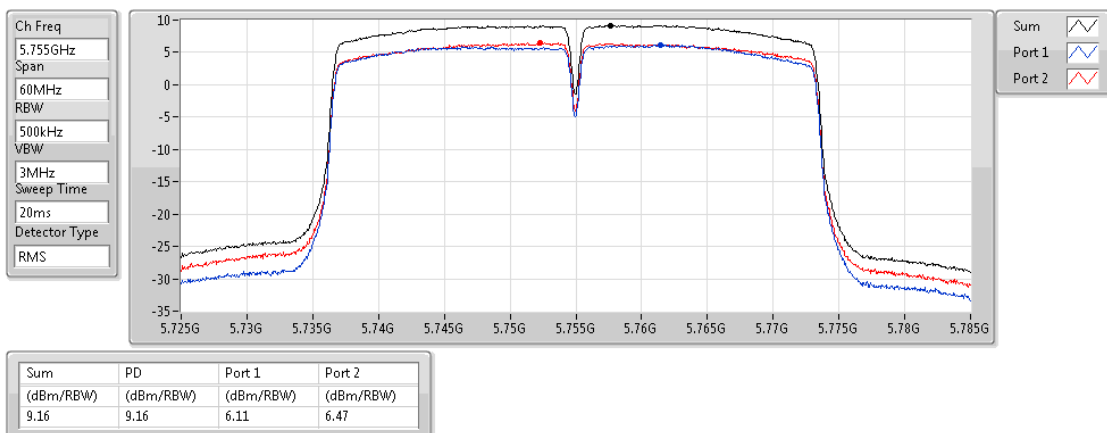
5230MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

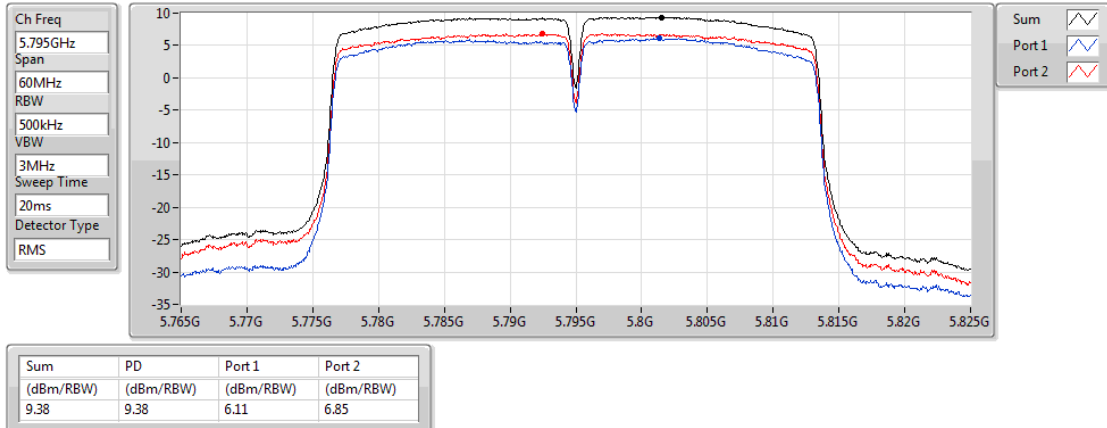
5755MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

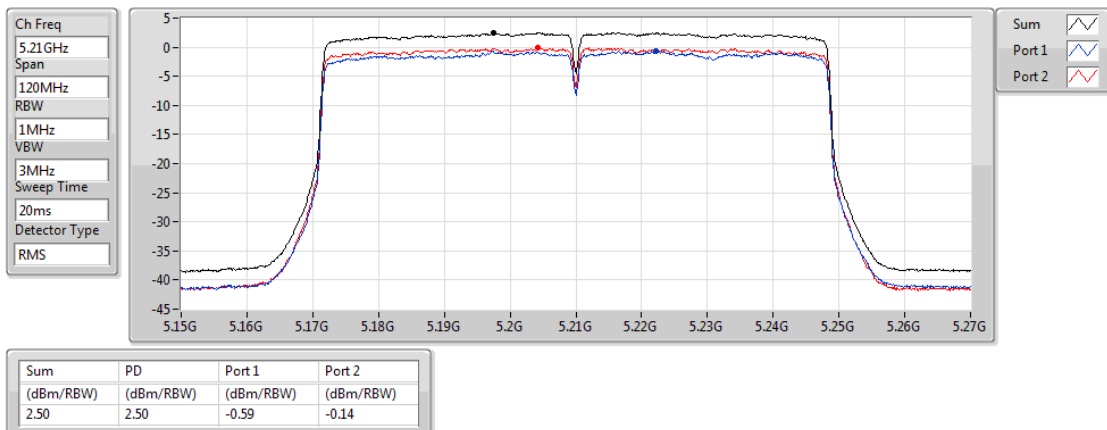
5795MHz



802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

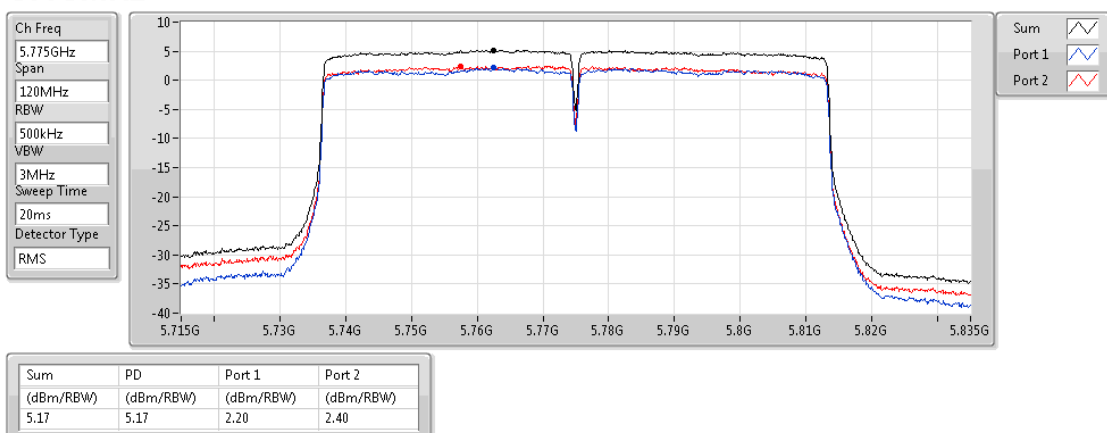
5210MHz

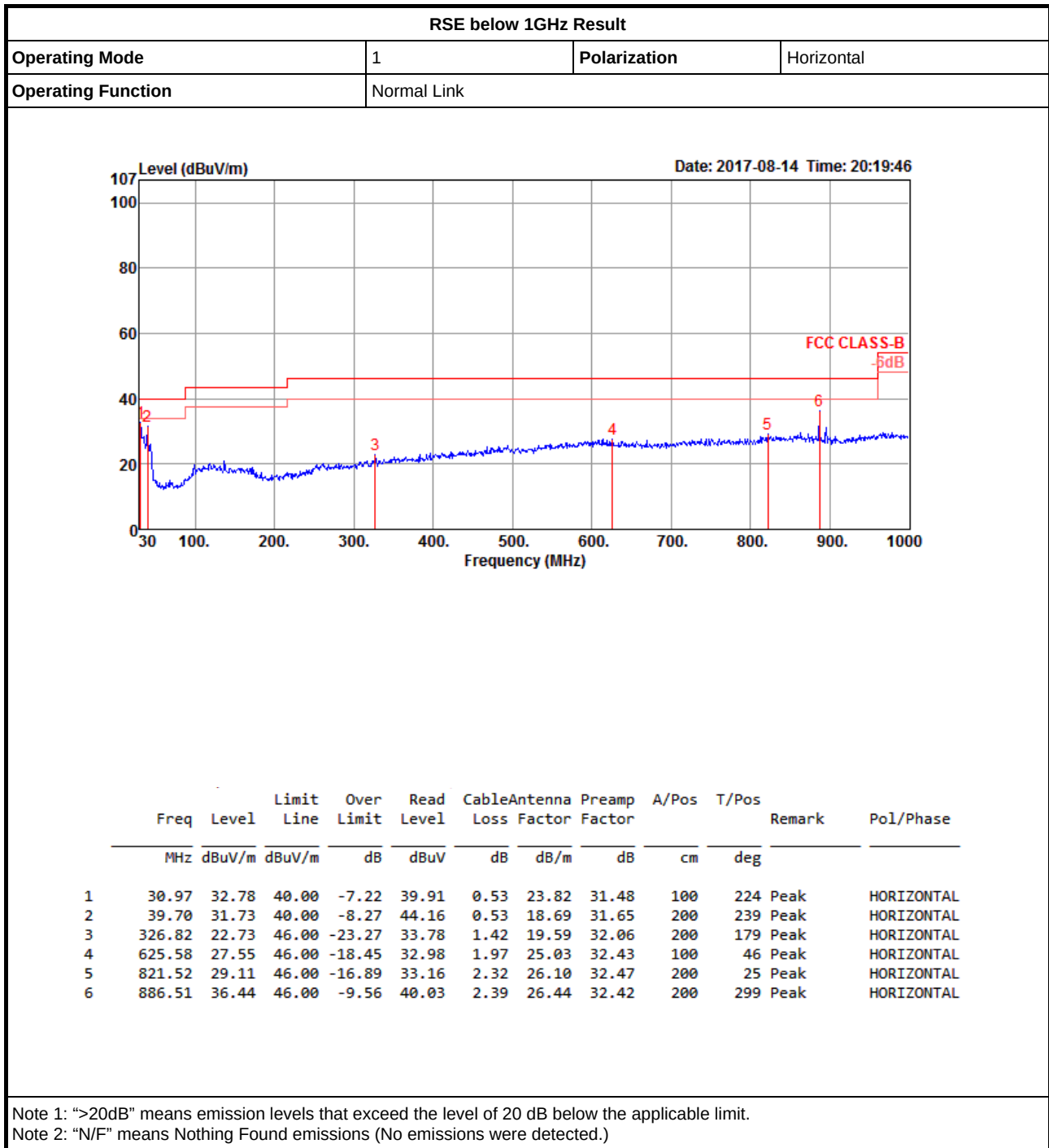


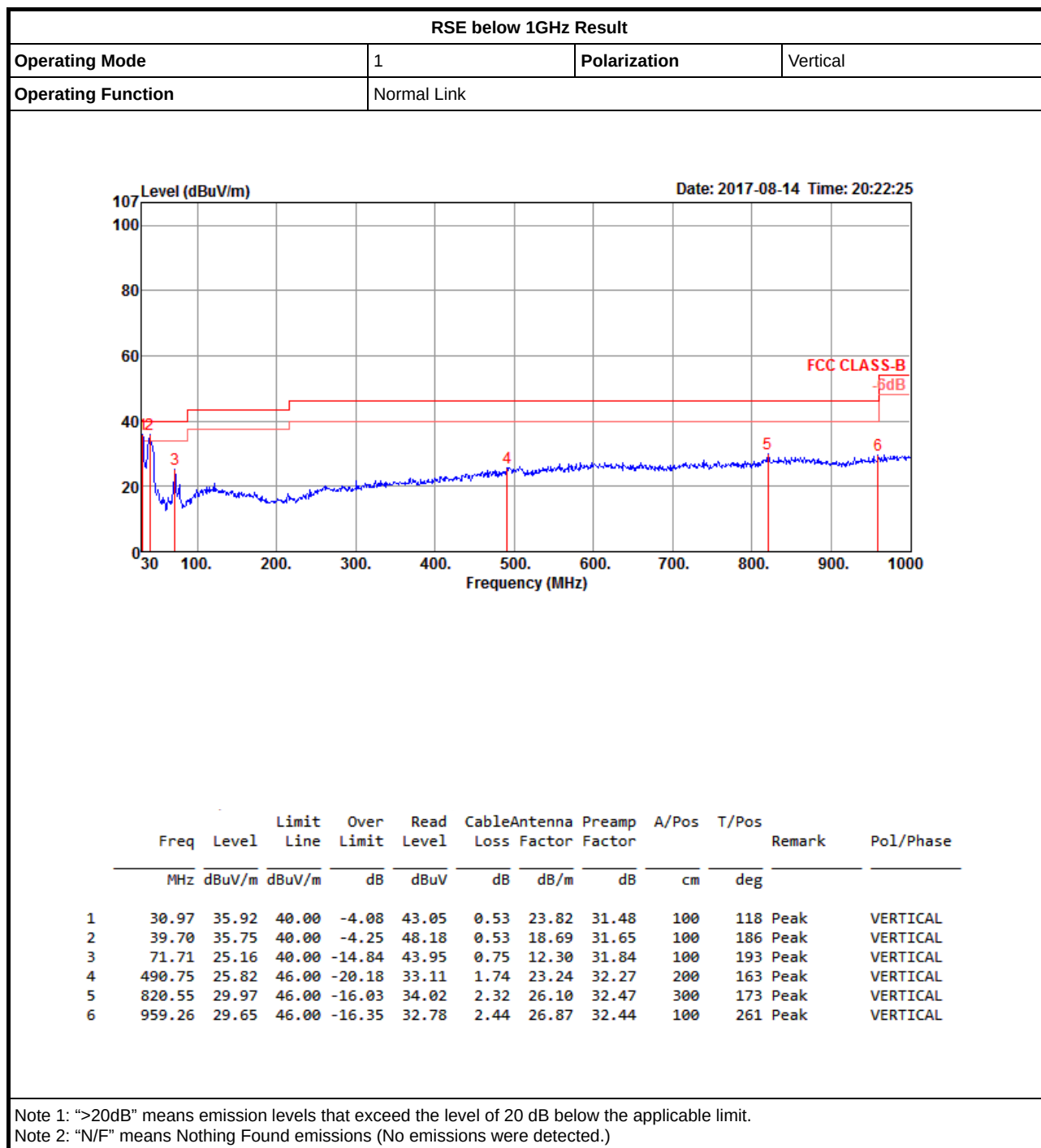
802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

5775MHz





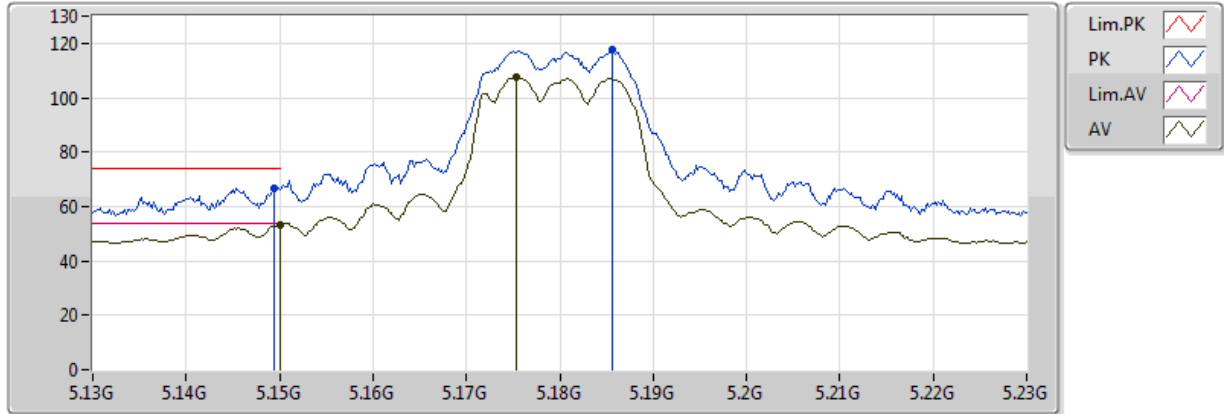


**Test Mode: Mode 1 / For Radio 2****Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
802.11a_(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
5.725-5.85GHz	Pass	PK	17.35192G	68.19	68.20	-0.01	20.56	3	H	68	1.36	-

802.11a_(6Mbps)_2TX

5180MHz_TX

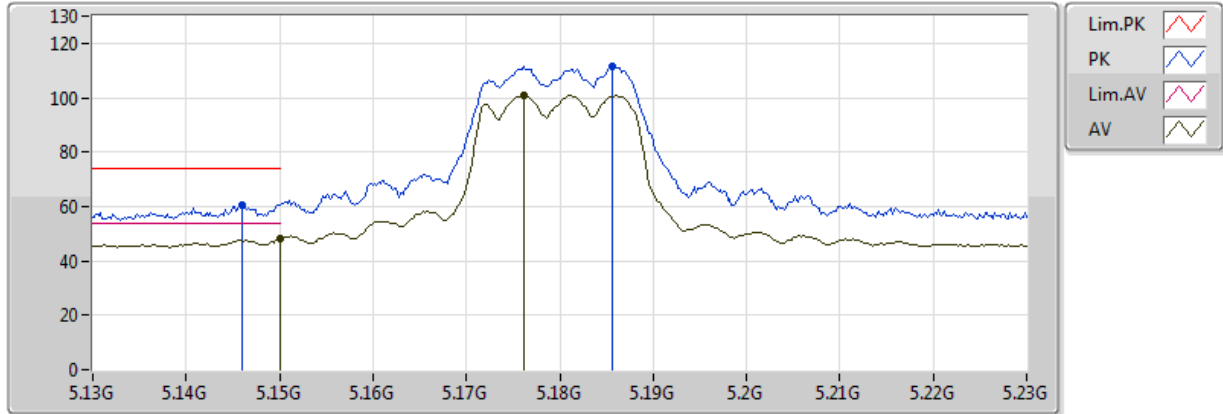


20170814
04-M-0
EUT X 2TX
Setting 21
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.149995G	53.42	54.00	-0.58	5.31	3	V	123	1.50	-
AV	5.1754G	107.63	Inf	-Inf	5.40	3	V	123	1.50	-
PK	5.1494G	66.80	74.00	-7.20	5.31	3	V	123	1.50	-
PK	5.1856G	117.52	Inf	-Inf	5.44	3	V	123	1.50	-

802.11a_(6Mbps)_2TX

5180MHz_TX

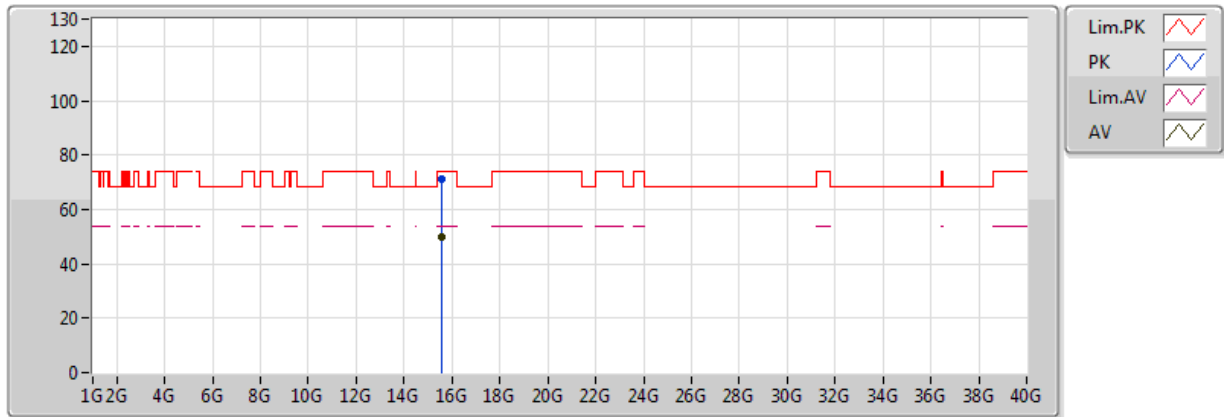


20170814
04-M-0
EUT X 2TX
Setting 21
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.149995G	48.22	54.00	-5.78	5.31	3	H	102	1.06	-
AV	5.1762G	100.73	Inf	-Inf	5.41	3	H	102	1.06	-
PK	5.146G	60.71	74.00	-13.29	5.30	3	H	102	1.06	-
PK	5.1856G	111.54	Inf	-Inf	5.44	3	H	102	1.06	-

802.11a_(6Mbps)_2TX

5180MHz_TX

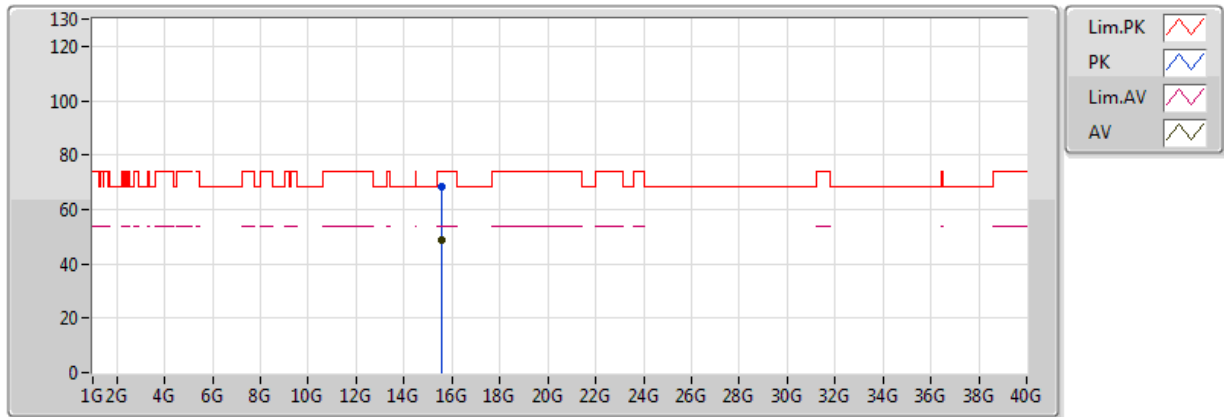


20170814
04-M-0
EUT X 2TX
Setting 21
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.54136G	49.81	54.00	-4.19	17.80	3	V	120	1.50	-
PK	15.53764G	71.24	74.00	-2.76	17.80	3	V	120	1.50	-

802.11a_(6Mbps)_2TX

5180MHz_TX

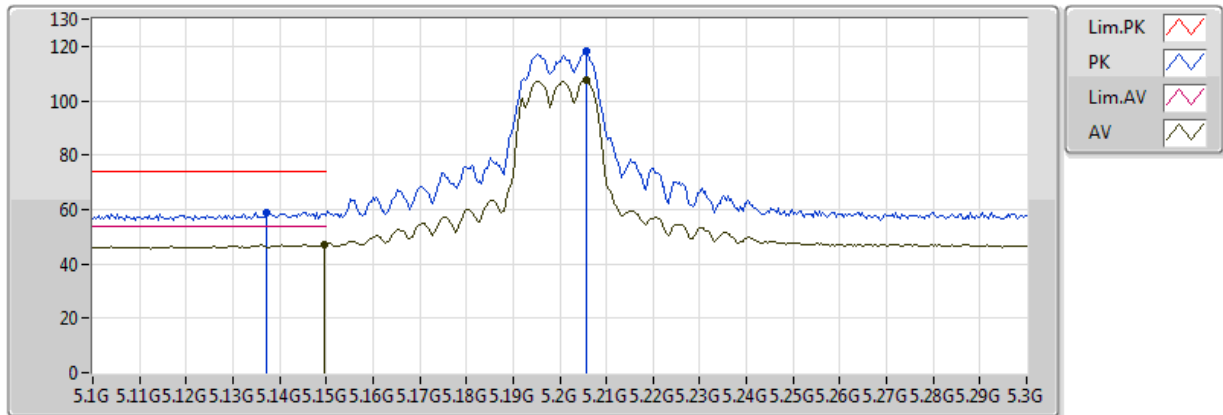


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04-M-0
EUT X 2TX
Setting 21
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.53812G	48.72	54.00	-5.28	17.80	3	H	77	1.50	-
PK	15.54352G	68.15	74.00	-5.85	17.80	3	H	77	1.50	-

802.11a_(6Mbps)_2TX

5200MHz_TX

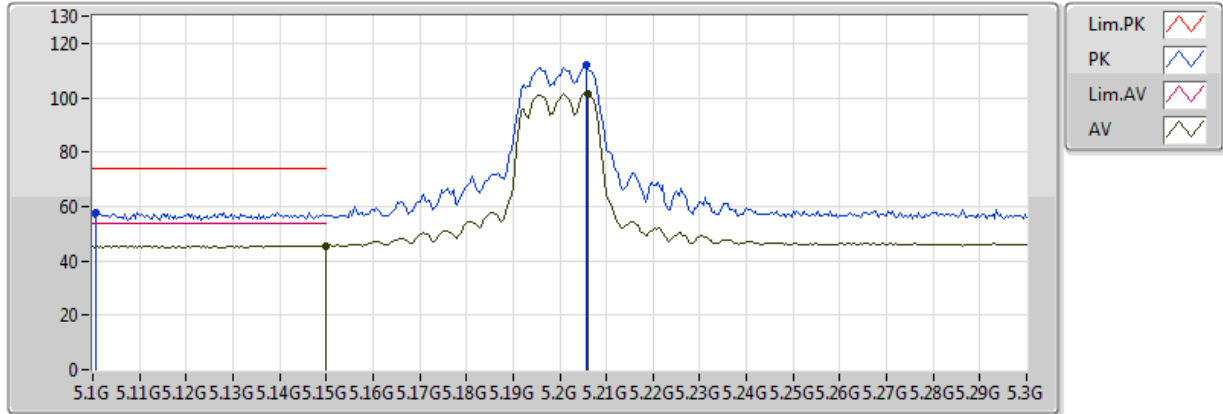


20170814
04-M-0
EUT X 2TX
Setting 21.5
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1496G	47.19	54.00	-6.81	5.31	3	V	124	1.50	-
AV	5.2056G	107.47	Inf	-Inf	5.50	3	V	124	1.50	-
PK	5.1372G	59.04	74.00	-14.96	5.27	3	V	124	1.50	-
PK	5.2056G	118.13	Inf	-Inf	5.50	3	V	124	1.50	-

802.11a_(6Mbps)_2TX

5200MHz_TX

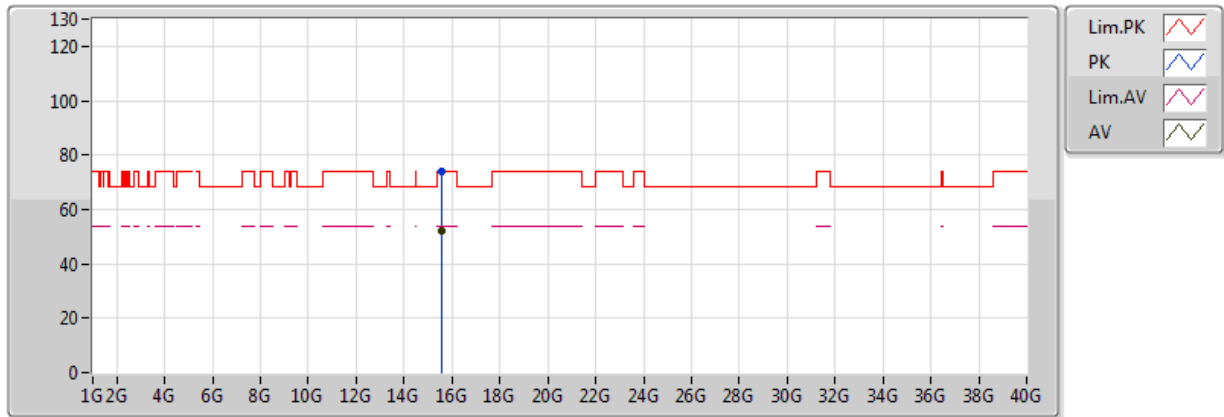


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EUT X 2TX
Setting 21.5
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.149995G	45.61	54.00	-8.39	5.31	3	H	104	1.00	-
AV	5.206G	101.49	Inf	-Inf	5.50	3	H	104	1.00	-
PK	5.1008G	57.64	74.00	-16.36	5.14	3	H	104	1.00	-
PK	5.2056G	112.27	Inf	-Inf	5.50	3	H	104	1.00	-

802.11a_(6Mbps)_2TX

5200MHz_TX

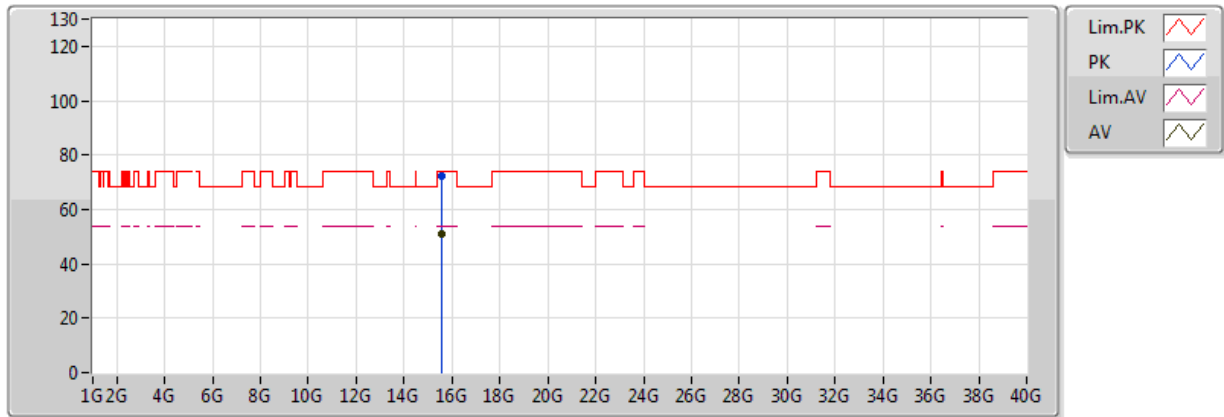


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04-M-0
EUT X 2TX
Setting 21.5
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.5972G	51.95	54.00	-2.05	17.84	3	V	120	1.50	-
PK	15.59316G	73.69	74.00	-0.31	17.84	3	V	120	1.50	-

802.11a_(6Mbps)_2TX

5200MHz_TX

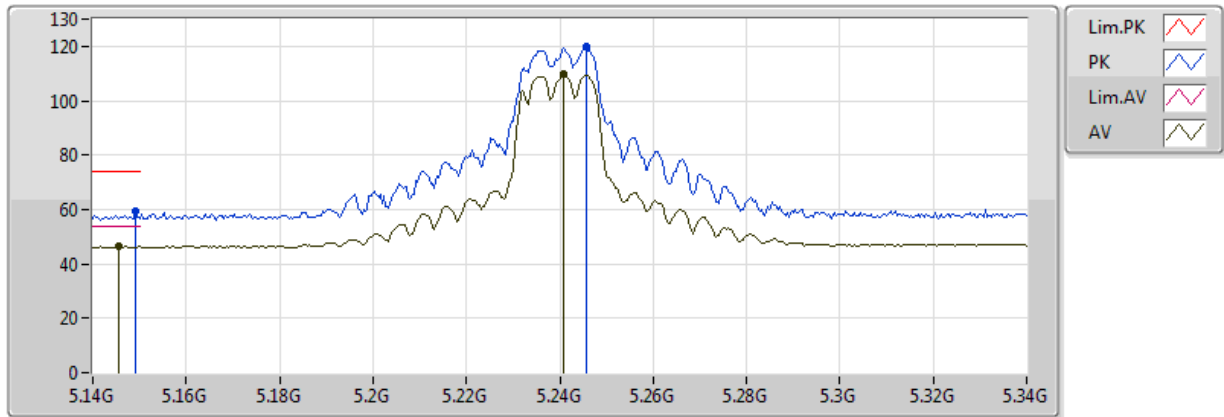


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04-M-0
EUT X 2TX
Setting 21.5
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.59384G	51.09	54.00	-2.91	17.84	3	H	113	1.94	-
PK	15.5992G	72.34	74.00	-1.66	17.85	3	H	113	1.94	-

802.11a_(6Mbps)_2TX

5240MHz_TX

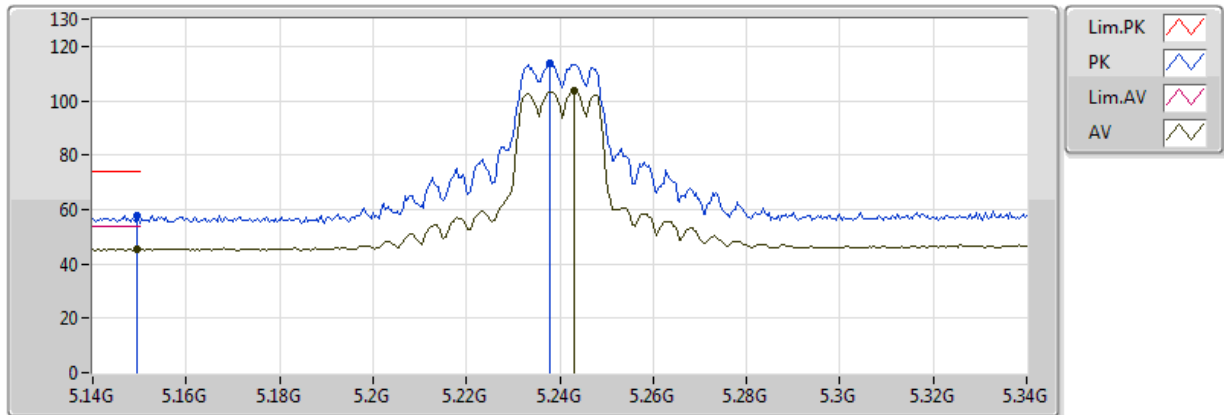


20170814
04-M-0
EUT X 2TX
Setting 21.5
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1456G	46.46	54.00	-7.54	5.30	3	V	124	1.54	-
AV	5.2408G	109.72	Inf	-Inf	5.53	3	V	124	1.54	-
PK	5.1492G	59.31	74.00	-14.69	5.31	3	V	124	1.54	-
PK	5.2456G	119.81	Inf	-Inf	5.54	3	V	124	1.54	-

802.11a_(6Mbps)_2TX

5240MHz_TX

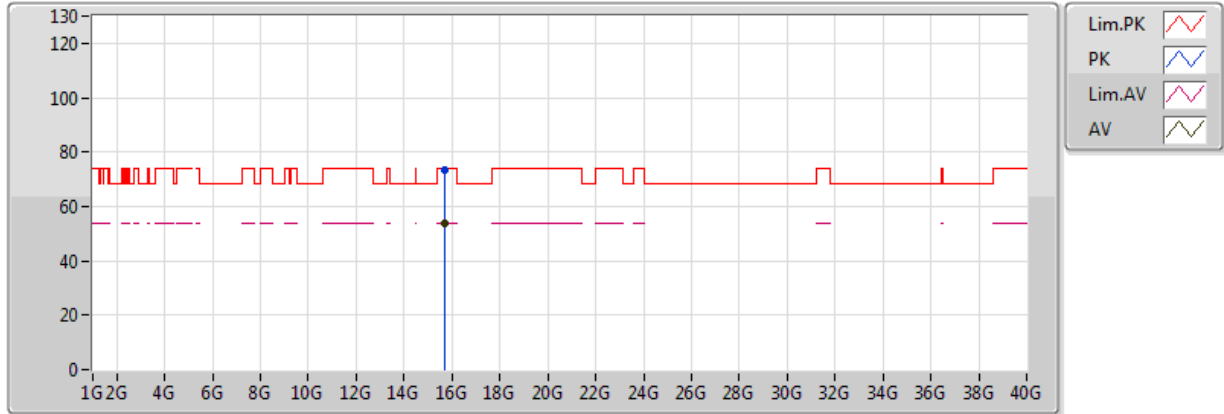


20170814
04-M-0
EUT X 2TX
Setting 21.5
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1496G	45.44	54.00	-8.56	5.31	3	H	102	1.65	-
AV	5.2432G	103.58	Inf	-Inf	5.54	3	H	102	1.65	-
PK	5.1496G	57.61	74.00	-16.39	5.31	3	H	102	1.65	-
PK	5.238G	113.53	Inf	-Inf	5.53	3	H	102	1.65	-

802.11a_(6Mbps)_2TX

5240MHz_TX

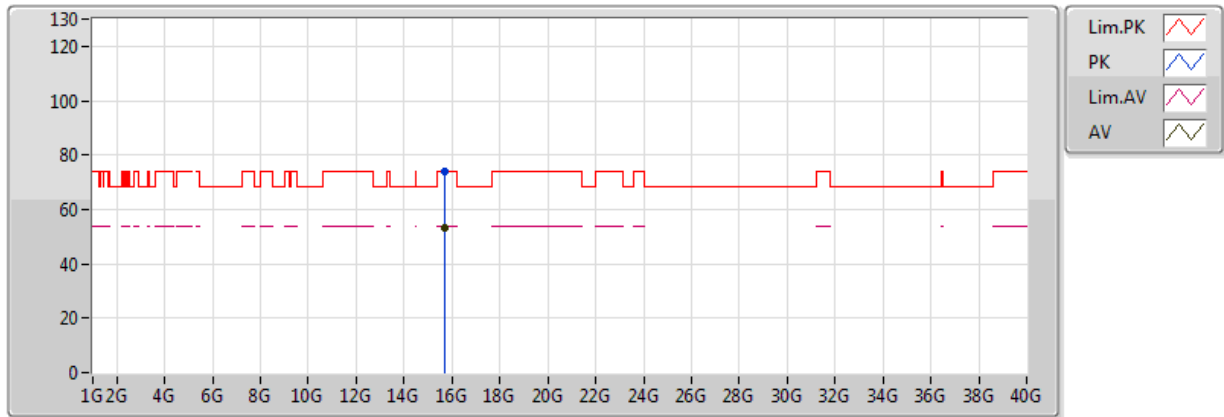


20170814
04-M-0
EUT X 2TX
Setting 21.5
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.71688G	53.98	54.00	-0.02	17.94	3	V	132	1.78	-
PK	15.71664G	73.58	74.00	-0.42	17.94	3	V	132	1.78	-

802.11a_(6Mbps)_2TX

5240MHz_TX

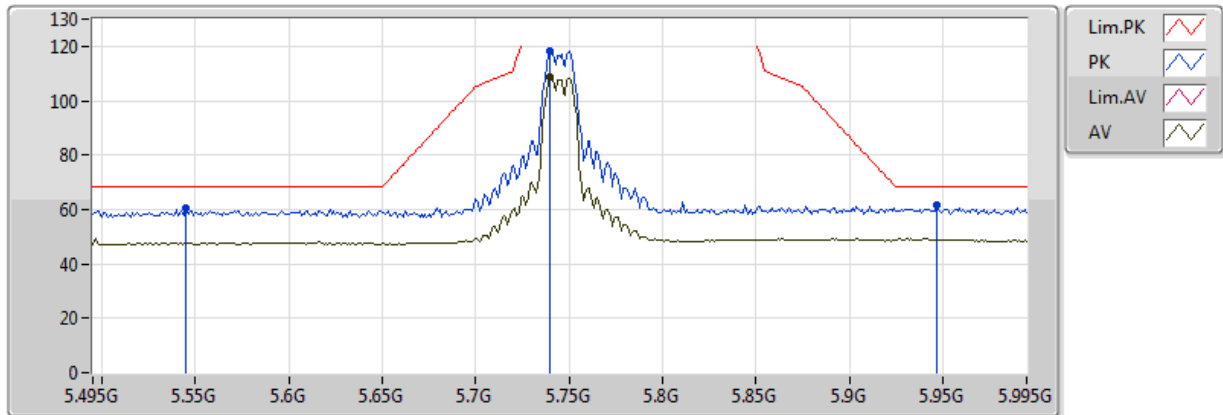


20170814
04-M-0
EUT X 2TX
Setting 21.5
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.71444G	53.01	54.00	-0.99	17.94	3	H	116	1.69	-
PK	15.71396G	73.96	74.00	-0.04	17.94	3	H	116	1.69	-

802.11a_(6Mbps)_2TX

5745MHz_TX

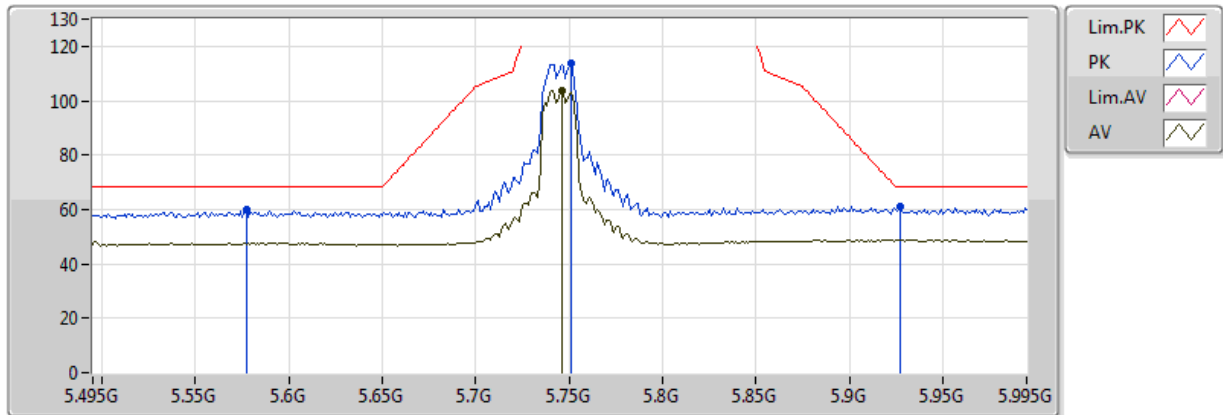


20170814
04-M-0
EUT X 2TX
Setting 22
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.74G	108.72	Inf	-Inf	7.05	3	V	104	1.50	-
PK	5.545G	60.36	68.20	-7.84	6.44	3	V	104	1.50	-
PK	5.74G	118.43	Inf	-Inf	7.05	3	V	104	1.50	-
PK	5.947G	61.53	68.20	-6.67	8.14	3	V	104	1.50	-

802.11a_(6Mbps)_2TX

5745MHz_TX

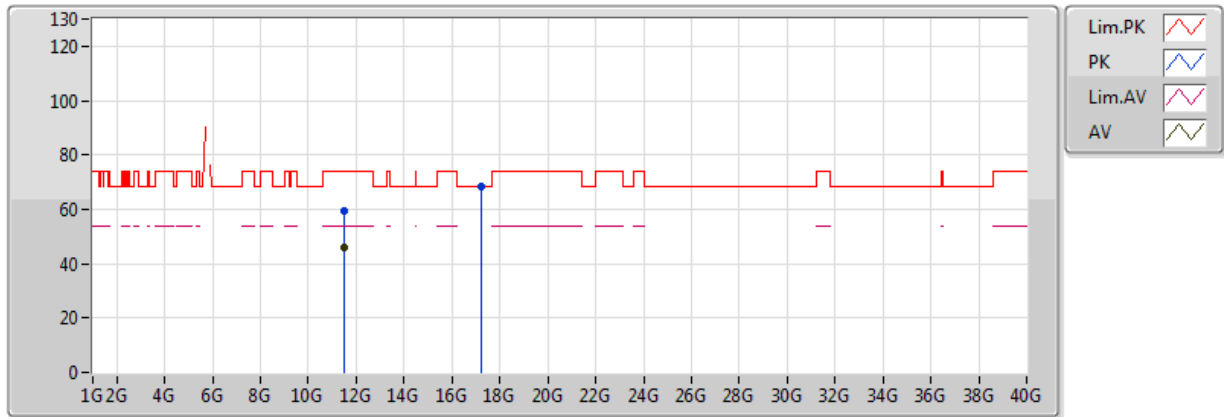


20170814
04-M-0
EUT X 2TX
Setting 22
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.746G	103.75	Inf	-Inf	7.07	3	H	95	1.82	-
PK	5.577G	59.77	68.20	-8.43	6.64	3	H	95	1.82	-
PK	5.751G	113.96	Inf	-Inf	7.08	3	H	95	1.82	-
PK	5.927G	61.15	68.20	-7.05	8.01	3	H	95	1.82	-

802.11a_(6Mbps)_2TX

5745MHz_TX

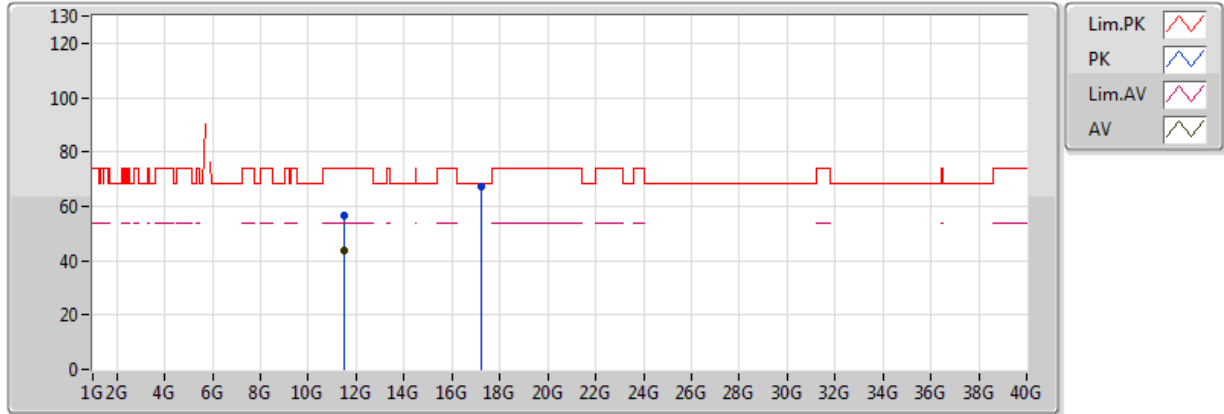


20170814
04-M-0
EUT X 2TX
Setting 22
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.49196G	46.05	54.00	-7.95	16.12	3	V	153	1.75	-
PK	11.49156G	59.34	74.00	-14.66	16.12	3	V	153	1.75	-
PK	17.24124G	68.18	68.20	-0.02	20.47	3	V	96	1.83	-

802.11a_(6Mbps)_2TX

5745MHz_TX

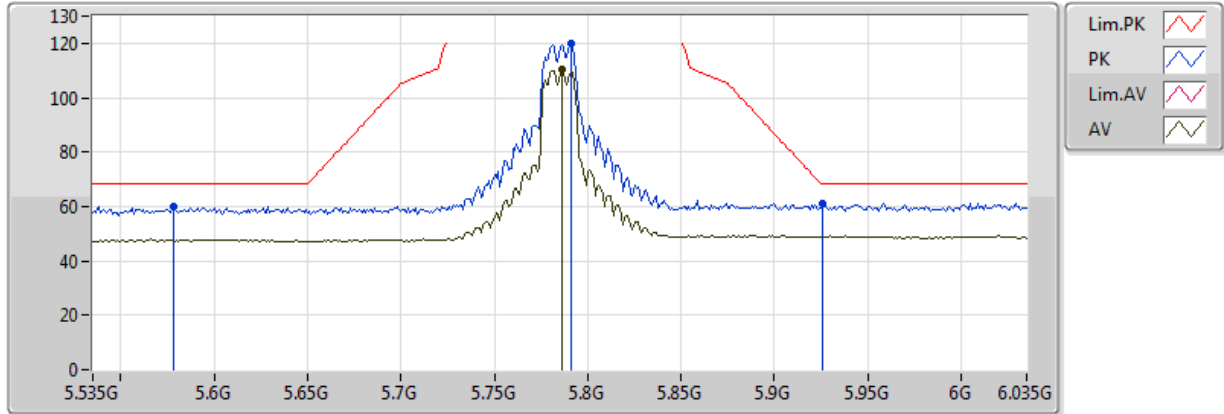


20170814
04-M-0
EUT X 2TX
Setting 22
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.48804G	43.74	54.00	-10.26	16.12	3	H	78	1.77	-
PK	11.48808G	56.60	74.00	-17.40	16.12	3	H	78	1.77	-
PK	17.2406G	67.52	68.20	-0.68	20.47	3	H	113	1.49	-

802.11a_(6Mbps)_2TX

5785MHz_TX

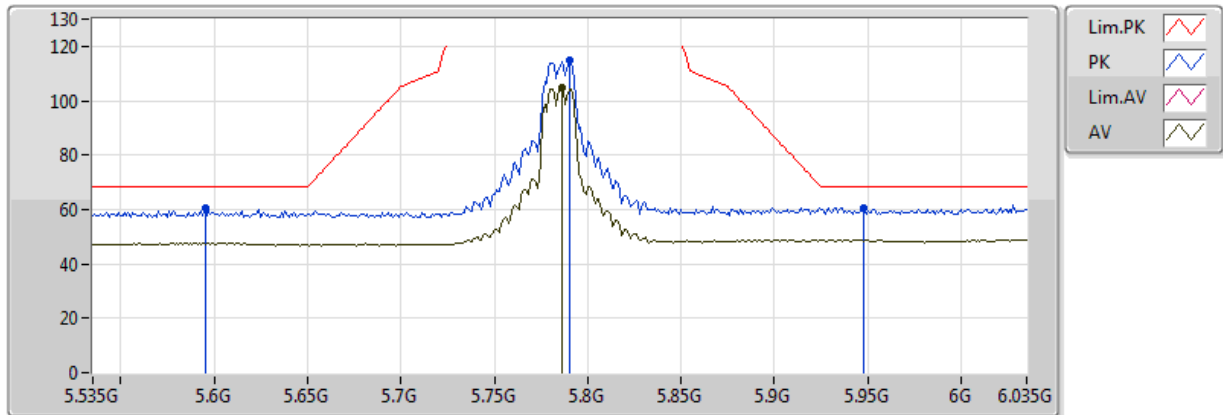


20170814
04-M-0
EUT X 2TX
Setting 22
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.786G	110.13	Inf	-Inf	7.15	3	V	101	1.59	-
PK	5.578G	60.23	68.20	-7.97	6.64	3	V	101	1.59	-
PK	5.791G	119.85	Inf	-Inf	7.16	3	V	101	1.59	-
PK	5.926G	61.06	68.20	-7.14	8.00	3	V	101	1.59	-

802.11a_(6Mbps)_2TX

5785MHz_TX

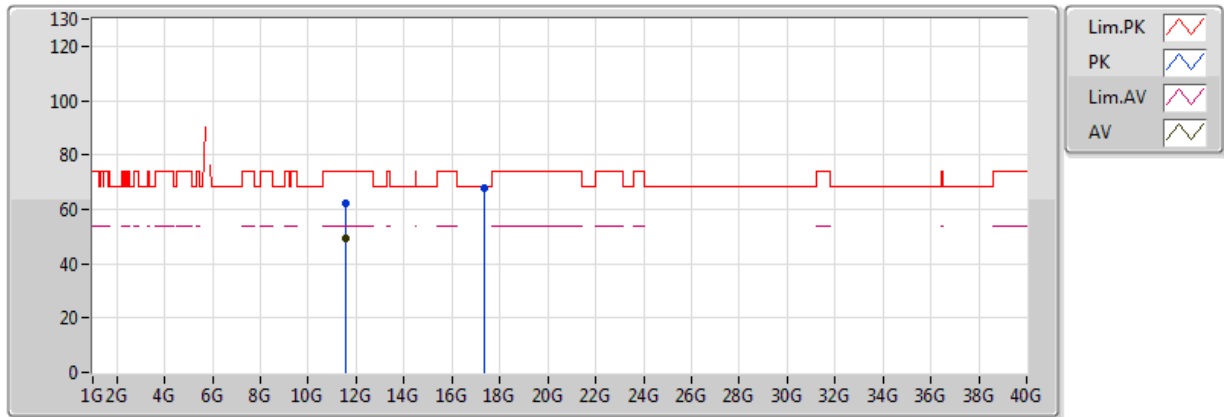


20170814
04-M-0
EUT X 2TX
Setting 22
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.786G	104.76	Inf	-Inf	7.15	3	H	94	1.53	-
PK	5.595G	60.71	68.20	-7.49	6.75	3	H	94	1.53	-
PK	5.79G	114.94	Inf	-Inf	7.16	3	H	94	1.53	-
PK	5.948G	60.56	68.20	-7.64	8.14	3	H	94	1.53	-

802.11a_(6Mbps)_2TX

5785MHz_TX

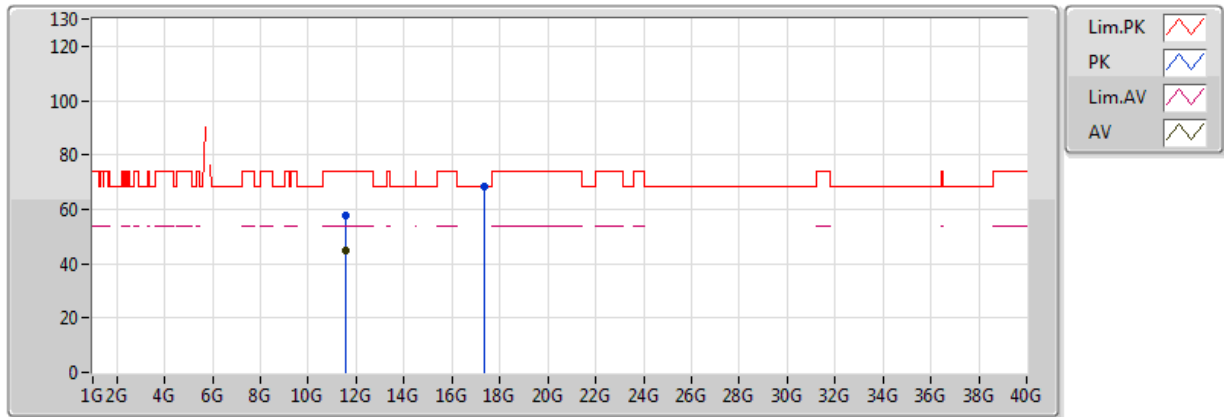


20170814
04-M-0
EUT X 2TX
Setting 22
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.5678G	49.14	54.00	-4.86	16.17	3	V	73	1.64	-
PK	11.57224G	62.37	74.00	-11.63	16.18	3	V	73	1.64	-
PK	17.3504G	67.98	68.20	-0.22	20.56	3	V	97	1.85	-

802.11a_(6Mbps)_2TX

5785MHz_TX

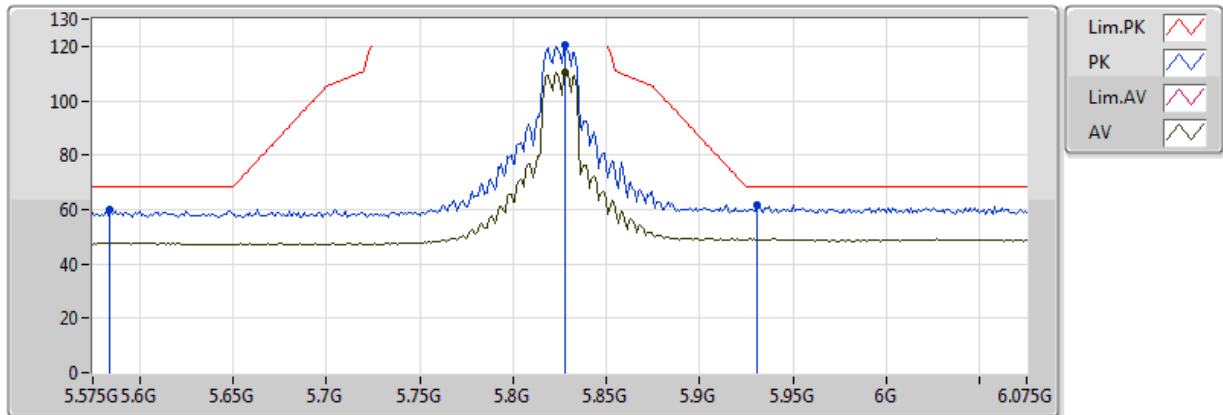


20170814
04-M-0
EUT X 2TX
Setting 22
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.56816G	44.57	54.00	-9.43	16.17	3	H	96	1.10	-
PK	11.57276G	57.55	74.00	-16.45	16.18	3	H	96	1.10	-
PK	17.35192G	68.19	68.20	-0.01	20.56	3	H	68	1.36	-

802.11a_(6Mbps)_2TX

5825MHz_TX

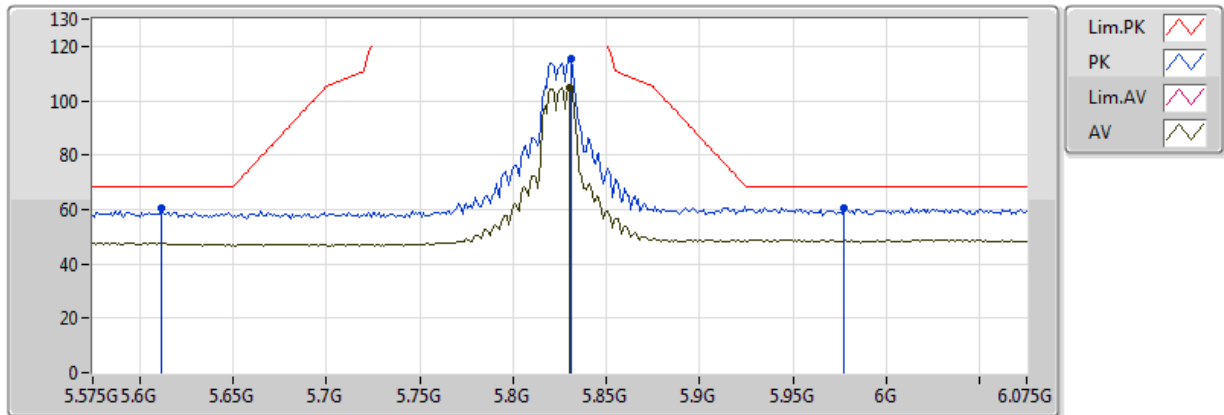


20170814
04-M-0
EUT X 2TX
Setting 22
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.828G	110.27	Inf	-Inf	7.36	3	V	89	1.50	-
PK	5.584G	59.82	68.20	-8.38	6.68	3	V	89	1.50	-
PK	5.828G	120.26	Inf	-Inf	7.36	3	V	89	1.50	-
PK	5.931G	61.66	68.20	-6.54	8.03	3	V	89	1.50	-

802.11a_(6Mbps)_2TX

5825MHz_TX

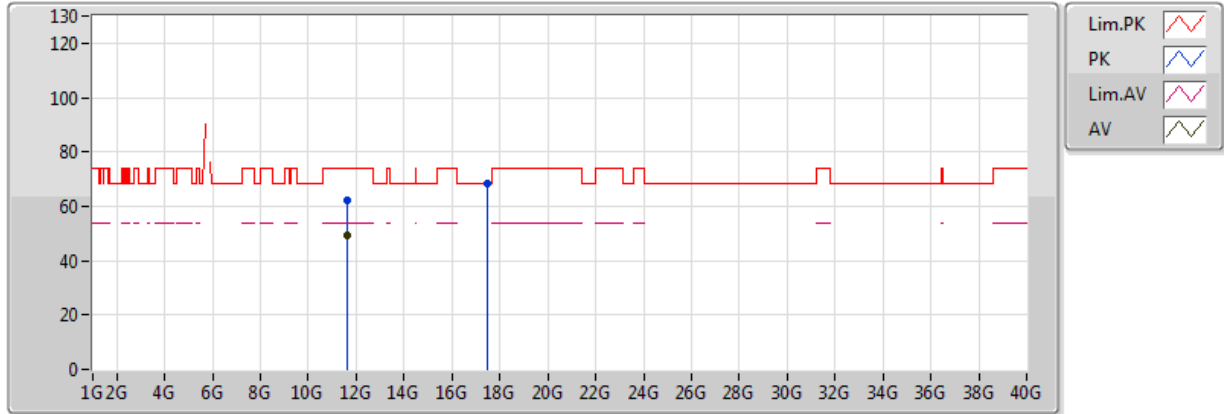


20170814
04-M-0
EUT X 2TX
Setting 22
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.83G	105.03	Inf	-Inf	7.37	3	H	98	1.80	-
PK	5.612G	60.49	68.20	-7.71	6.80	3	H	98	1.80	-
PK	5.831G	115.70	Inf	-Inf	7.38	3	H	98	1.80	-
PK	5.977G	60.64	68.20	-7.56	8.33	3	H	98	1.80	-

802.11a_(6Mbps)_2TX

5825MHz_TX

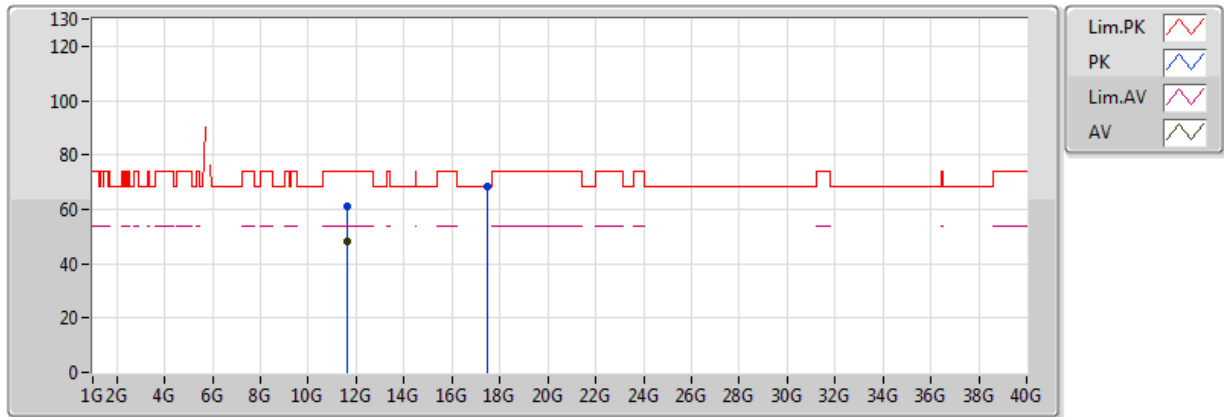


20170814
04-M-0
EUT X 2TX
Setting 22
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.6498G	49.30	54.00	-4.70	16.23	3	V	75	1.68	-
PK	11.65356G	61.99	74.00	-12.01	16.23	3	V	75	1.68	-
PK	17.48096G	68.16	68.20	-0.04	20.66	3	V	100	1.58	-

802.11a_(6Mbps)_2TX

5825MHz_TX

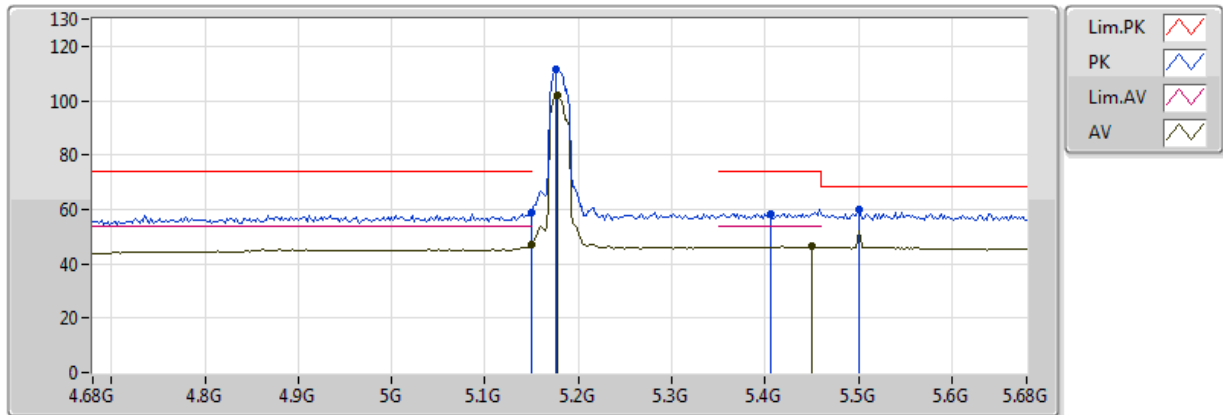


20170814
04-M-0
EUT X 2TX
Setting 22
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.6498G	48.34	54.00	-5.66	16.23	3	H	91	1.50	-
PK	11.65048G	61.04	74.00	-12.96	16.23	3	H	91	1.50	-
PK	17.473G	68.17	68.20	-0.03	20.65	3	H	86	146	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5180MHz_TX

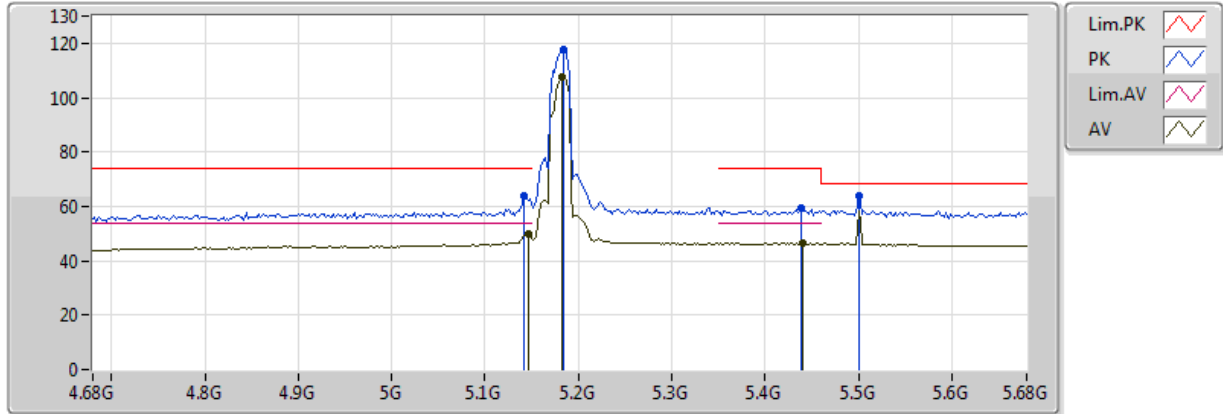


20170818
EUT X_2TX
Setting 20
03-M-01-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.149995G	46.88	54.00	-7.12	5.44	3	V	350	1.48	-
AV	5.178G	101.78	Inf	-Inf	5.50	3	V	350	1.48	-
AV	5.45G	46.41	54.00	-7.59	6.03	3	V	350	1.48	-
PK	5.149995G	59.09	74.00	-14.91	5.44	3	V	350	1.48	-
PK	5.176G	111.75	Inf	-Inf	5.50	3	V	350	1.48	-
PK	5.5G	59.93	68.20	-8.27	6.16	3	V	350	1.48	-
PK	5.406G	58.26	74.00	-15.74	5.93	3	V	350	1.48	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5180MHz_TX

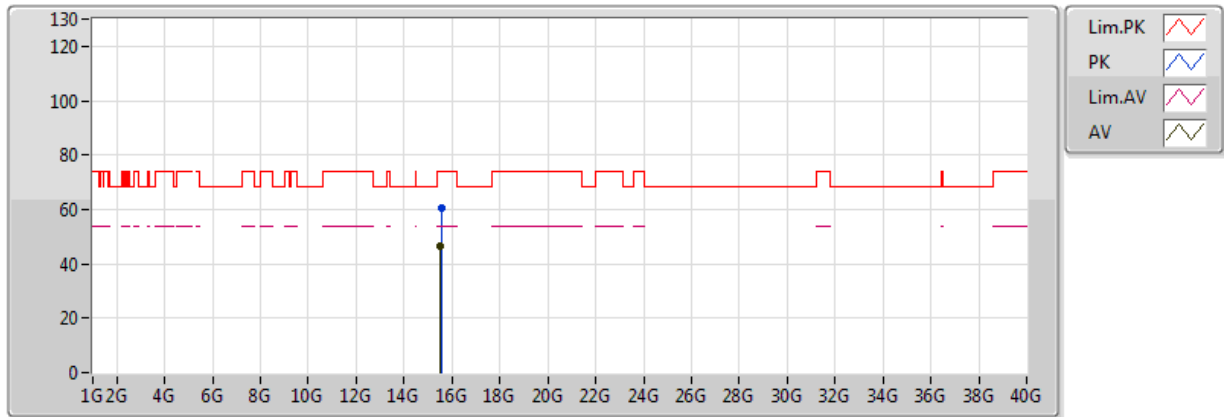


20170818
EUT X_2TX
Setting 20
03-M-01-10
FSP(100019)

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	50.04	54.00	-3.96	5.44	3	H	9	2.51	-
AV	5.182G	107.77	Inf	-Inf	5.51	3	H	9	2.51	-
AV	5.44G	46.73	54.00	-7.27	6.01	3	H	9	2.51	-
PK	5.142G	63.95	74.00	-10.05	5.43	3	H	9	2.51	-
PK	5.184G	117.62	Inf	-Inf	5.52	3	H	9	2.51	-
PK	5.5G	63.64	68.20	-4.56	6.16	3	H	9	2.51	-
PK	5.438G	59.38	74.00	-14.62	6.01	3	H	9	2.51	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5180MHz_TX

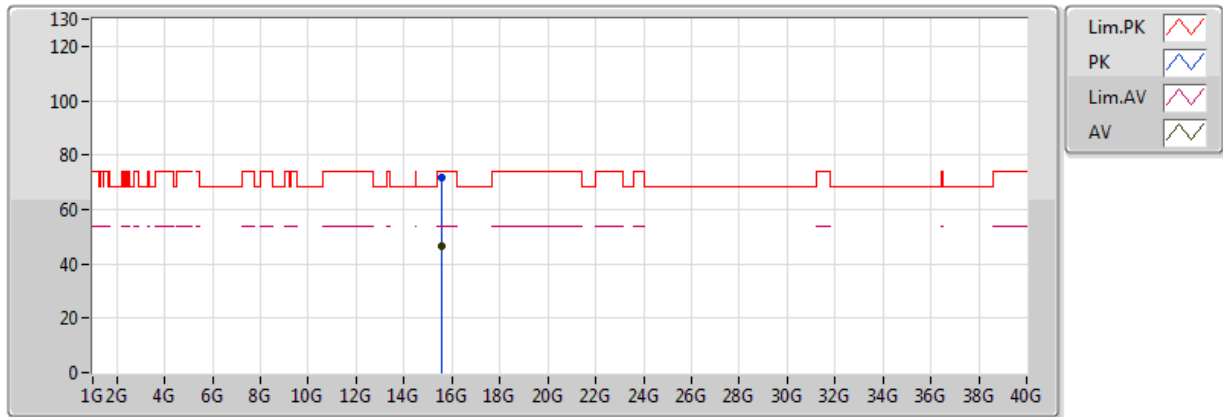


20170818
EUT X_2TX
Setting 20
03-M-01
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.4944G	46.45	54.00	-7.55	16.45	3	V	0	1.75	-
PK	15.5376G	60.36	74.00	-13.64	16.31	3	V	0	1.75	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5180MHz_TX

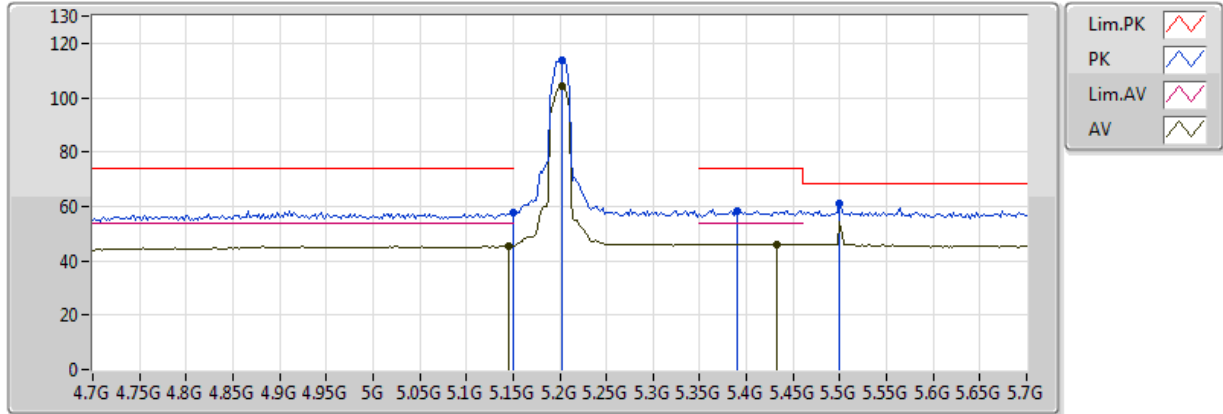


20170818
EUT X_2TX
Setting 20
03-M-01
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.53784G	46.57	54.00	-7.43	16.31	3	H	319	1.49	-
PK	15.53856G	71.92	74.00	-2.08	16.31	3	H	319	1.49	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5200MHz_TX

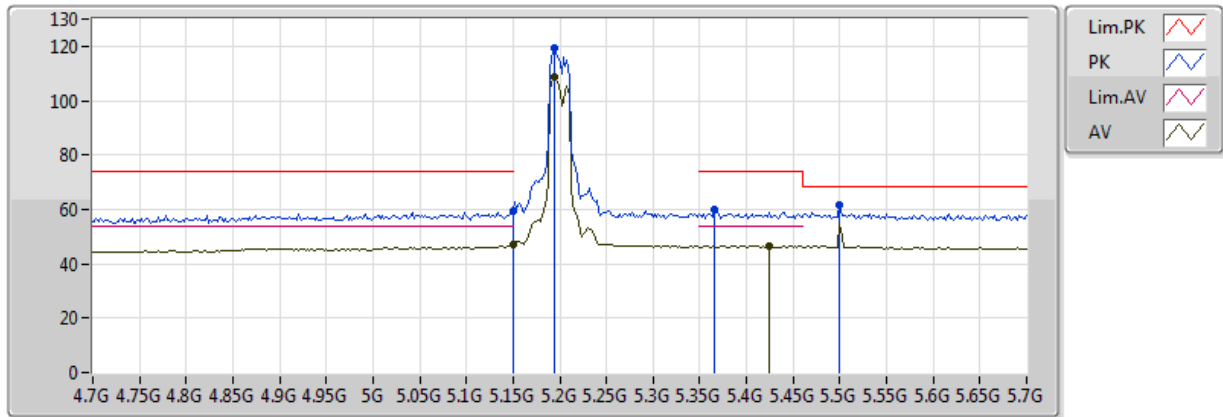


20170818
EUT X_2TX
Setting 21
03-M-01-10
FSP(100019)

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	45.54	54.00	-8.46	5.44	3	V	4	2.73	-
AV	5.202G	104.30	Inf	-Inf	5.55	3	V	4	2.73	-
AV	5.432G	46.16	54.00	-7.84	5.99	3	V	4	2.73	-
PK	5.149995G	57.92	74.00	-16.08	5.44	3	V	4	2.73	-
PK	5.202G	114.02	Inf	-Inf	5.55	3	V	4	2.73	-
PK	5.5G	60.80	68.20	-7.40	6.16	3	V	4	2.73	-
PK	5.39G	58.45	74.00	-15.55	5.89	3	V	4	2.73	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5200MHz_TX

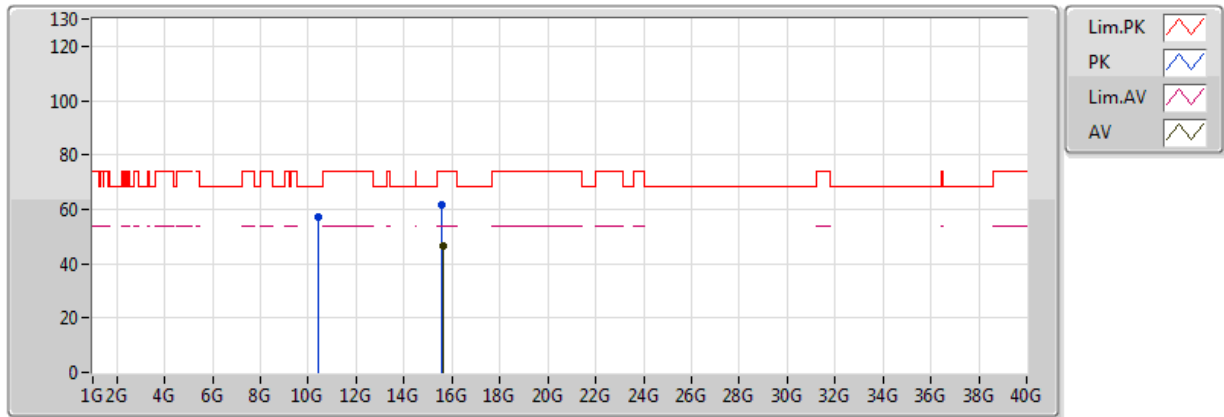


20170818
EUT X_2TX
Setting 21
03-M-01-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.149995G	47.07	54.00	-6.93	5.44	3	H	353	2.50	-
AV	5.194G	108.51	Inf	-Inf	5.54	3	H	353	2.50	-
AV	5.424G	46.57	54.00	-7.43	5.97	3	H	353	2.50	-
PK	5.149995G	59.45	74.00	-14.55	5.44	3	H	353	2.50	-
PK	5.194G	119.17	Inf	-Inf	5.54	3	H	353	2.50	-
PK	5.5G	61.71	68.20	-6.49	6.16	3	H	353	2.50	-
PK	5.366G	59.93	74.00	-14.07	5.85	3	H	353	2.50	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5200MHz_TX

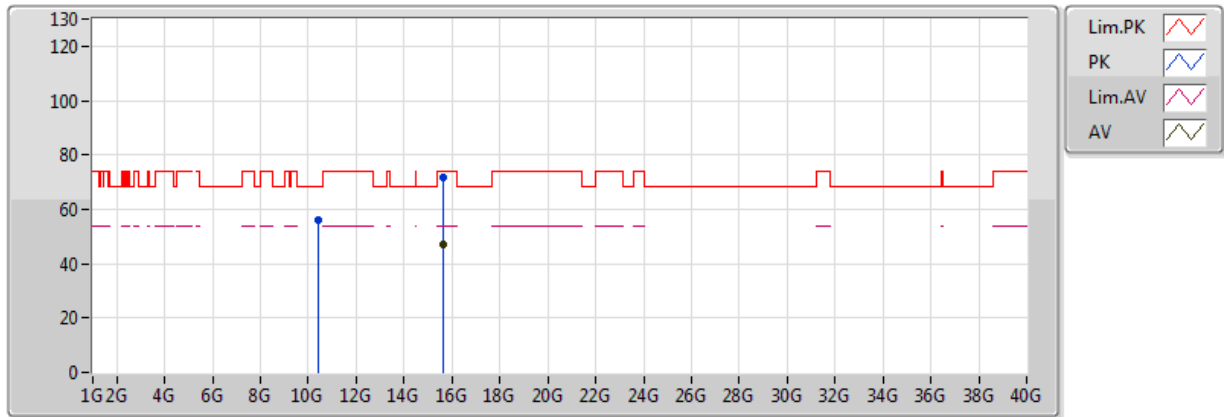


20170818
EUT X_2TX
Setting 21
03-M-01
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.643G	46.27	54.00	-7.73	15.97	3	V	296	1.75	-
PK	10.3984G	57.17	68.20	-11.03	12.35	3	V	316	2.15	-
PK	15.5924G	61.50	74.00	-12.50	16.13	3	V	296	1.75	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5200MHz_TX

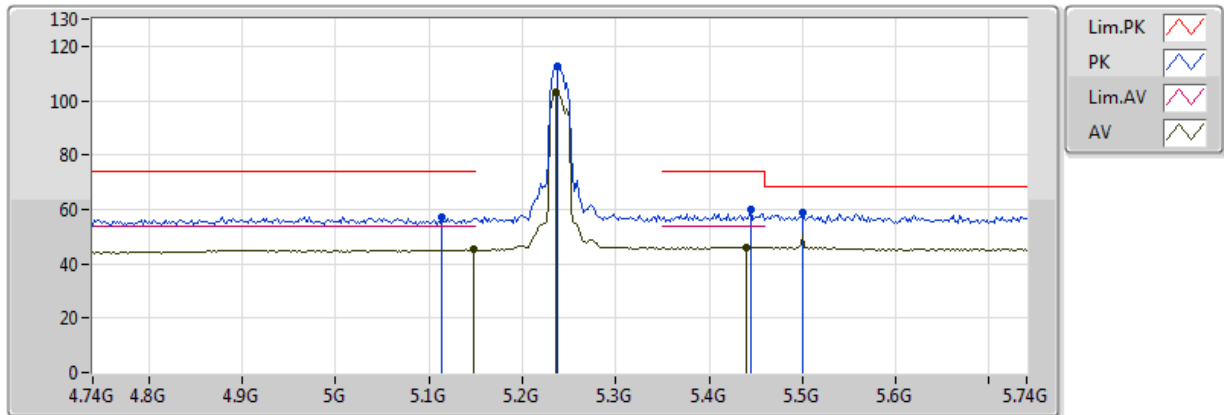


20170818
EUT X_2TX
Setting 21
03-M-01
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.6054G	46.86	54.00	-7.14	16.09	3	H	324	1.95	-
PK	10.4108G	56.31	68.20	-11.89	12.37	3	H	47	1.84	-
PK	15.604G	71.70	74.00	-2.30	16.10	3	H	324	1.95	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5240MHz_TX

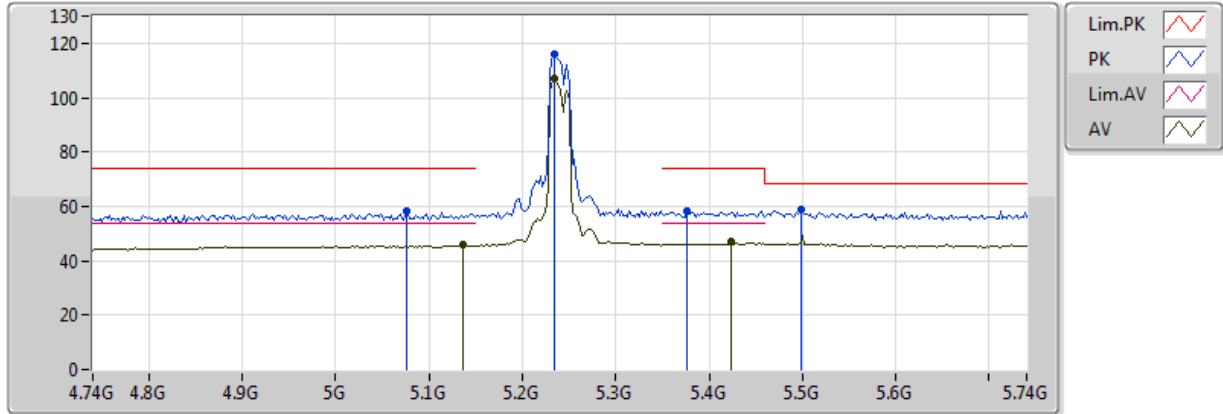


20170818
04-M-1
EUT X 2TX
Setting 21
FSP

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	45.14	54.00	-8.86	5.44	3	V	347	1.49	-
AV	5.236G	102.94	Inf	-Inf	5.62	3	V	347	1.49	-
AV	5.44G	46.14	54.00	-7.86	6.01	3	V	347	1.49	-
PK	5.114G	57.10	74.00	-16.90	5.37	3	V	347	1.49	-
PK	5.238G	112.84	Inf	-Inf	5.62	3	V	347	1.49	-
PK	5.5G	58.68	68.20	-9.52	6.16	3	V	347	1.49	-
PK	5.444G	59.90	74.00	-14.10	6.02	3	V	347	1.49	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5240MHz_TX

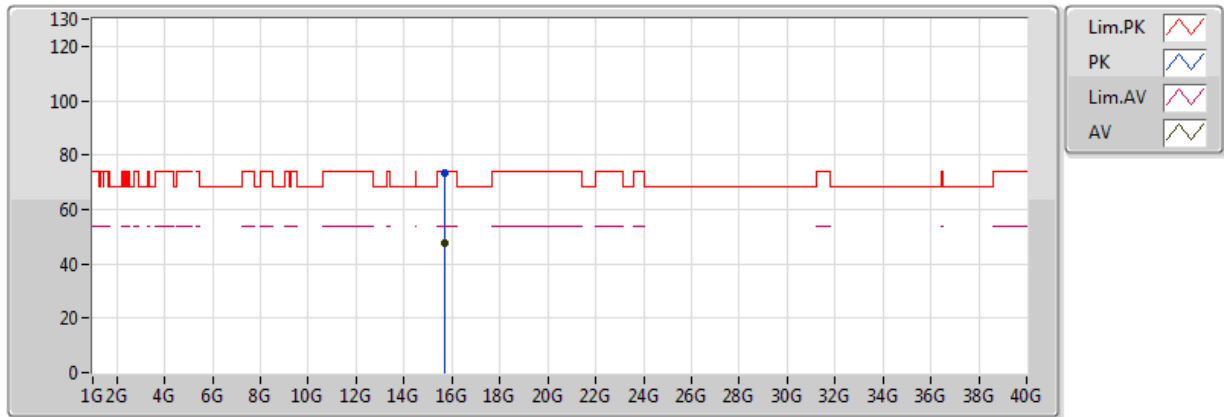


20170818
04-M-1
EUT X 2TX
Setting 21
FSP

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	45.85	54.00	-8.15	5.42	3	H	12	1.15	-
AV	5.234G	106.98	Inf	-Inf	5.61	3	H	12	1.15	-
AV	5.424G	47.03	54.00	-6.97	5.97	3	H	12	1.15	-
PK	5.076G	58.05	74.00	-15.95	5.28	3	H	12	1.15	-
PK	5.234G	116.15	Inf	-Inf	5.61	3	H	12	1.15	-
PK	5.498G	58.56	68.20	-9.64	6.16	3	H	12	1.15	-
PK	5.376G	58.39	74.00	-15.61	5.87	3	H	12	1.15	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5240MHz_TX

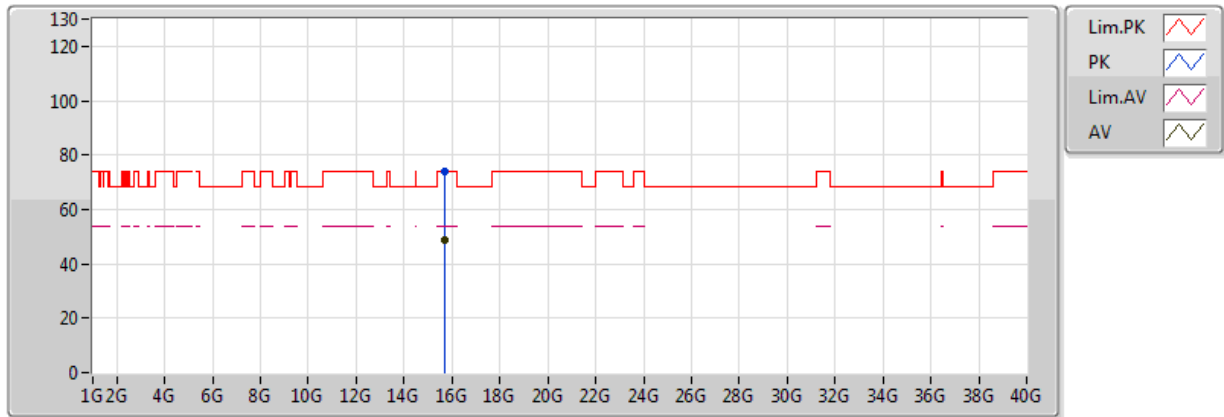


20170814
04-M-0
EUT X 2TX
Setting 21
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.7244G	47.88	54.00	-6.12	17.95	3	V	122	1.86	-
PK	15.72328G	73.65	74.00	-0.35	17.95	3	V	122	1.86	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5240MHz_TX

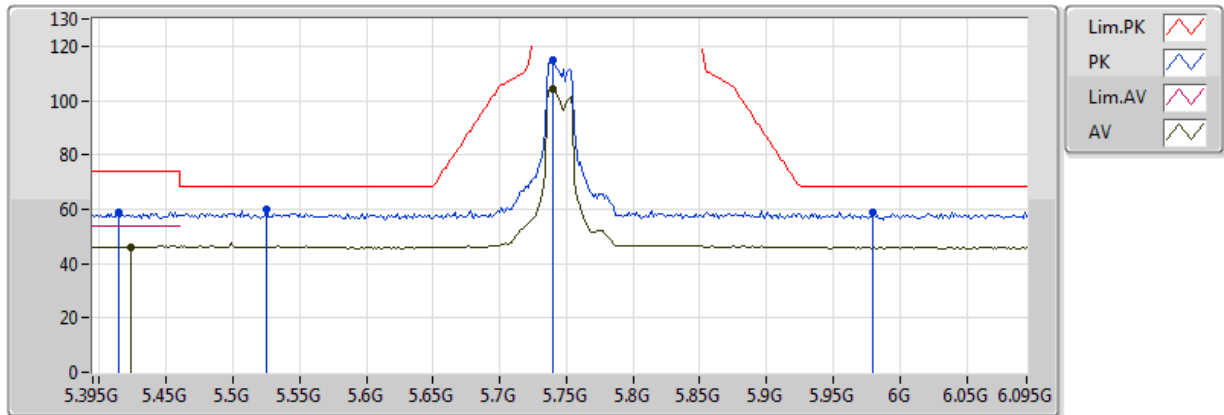


20170814
04-M-0
EUT X 2TX
Setting 21
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.71752G	48.96	54.00	-5.04	17.94	3	H	117	1.75	-
PK	15.71768G	73.98	74.00	-0.02	17.94	3	H	117	1.75	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

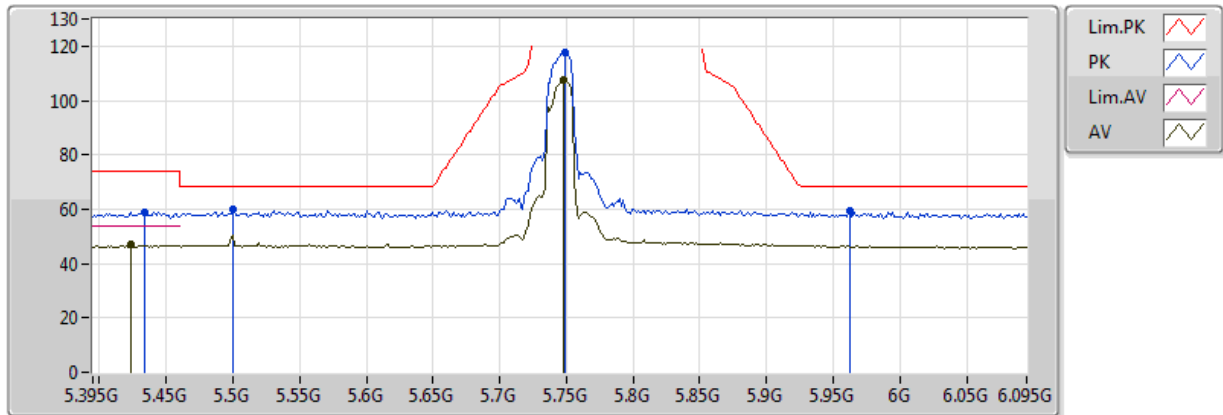


20170818
EUT X_2TX
Setting 21
03-M-01-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.7394G	104.13	Inf	-Inf	6.25	3	V	343	1.17	-
PK	5.5252G	59.72	68.20	-8.48	6.18	3	V	343	1.17	-
PK	5.7394G	114.60	Inf	-Inf	6.25	3	V	343	1.17	-
PK	5.9802G	58.70	68.20	-9.50	6.16	3	V	343	1.17	-
PK	5.4146G	59.00	74.00	-15.00	5.95	3	V	343	1.17	-
AV	5.423G	45.90	54.00	-8.10	5.97	3	V	343	1.17	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

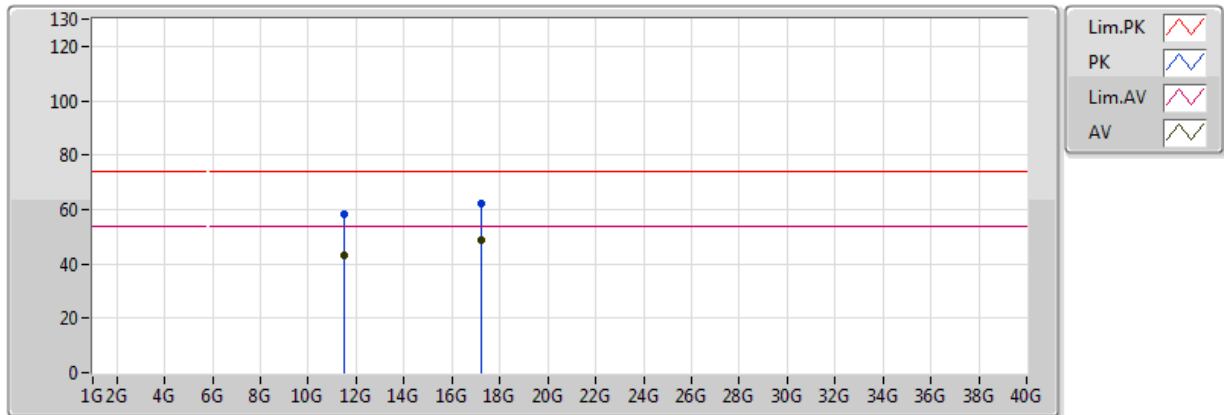


20170818
EUT X_2TX
Setting 21
03-M-01-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.7478G	107.68	Inf	-Inf	6.25	3	H	7	1.77	-
PK	5.5G	59.77	68.20	-8.43	6.16	3	H	7	1.77	-
PK	5.7492G	117.90	Inf	-Inf	6.25	3	H	7	1.77	-
PK	5.962G	59.44	68.20	-8.76	6.17	3	H	7	1.77	-
PK	5.4342G	59.02	74.00	-14.98	6.00	3	H	7	1.77	-
AV	5.423G	46.80	54.00	-7.20	5.97	3	H	7	1.77	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

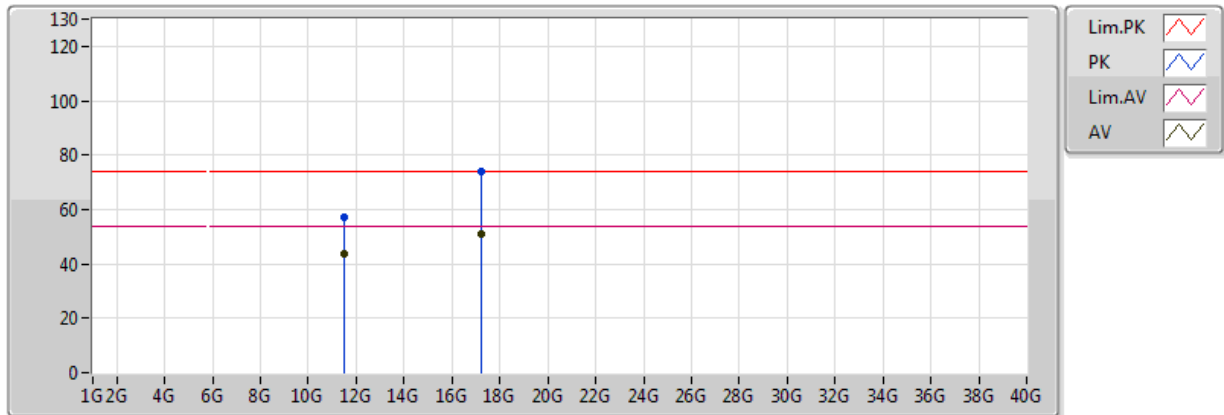


20170818
EUT X_2TX
Setting 21
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.484G	43.05	54.00	-10.95	13.41	3	V	1	2.23	-
AV	17.23994G	48.98	54.00	-5.02	20.03	3	V	252	1.50	-
PK	11.4838G	58.04	74.00	-15.96	13.41	3	V	1	2.23	-
PK	17.234G	62.38	74.00	-11.62	20.00	3	V	252	1.50	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

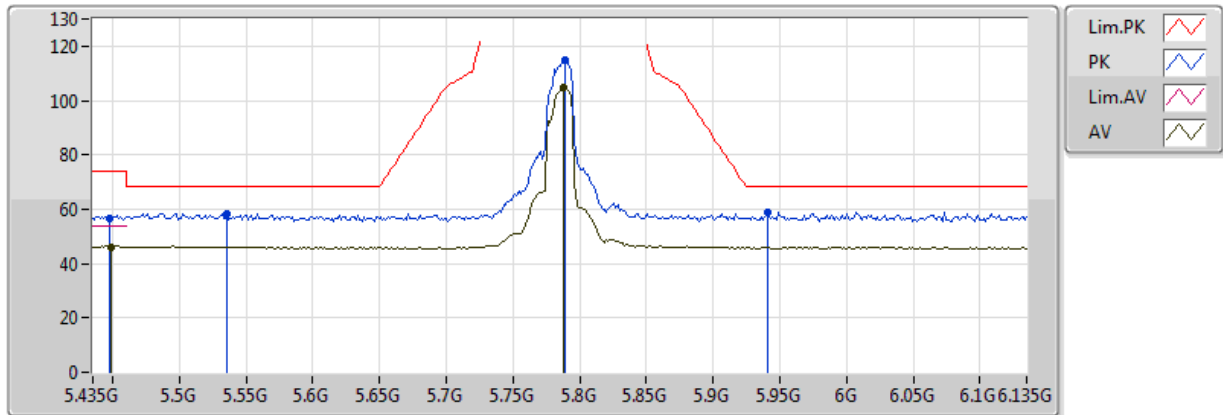


20170818
EUT X_2TX
Setting 21
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.4934G	43.80	54.00	-10.20	13.42	3	H	310	2.12	-
AV	17.2344G	50.99	54.00	-3.01	20.00	3	H	323	1.88	-
PK	11.4928G	57.13	74.00	-16.87	13.42	3	H	310	2.12	-
PK	17.239G	73.96	74.00	-0.04	20.03	3	H	323	1.88	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

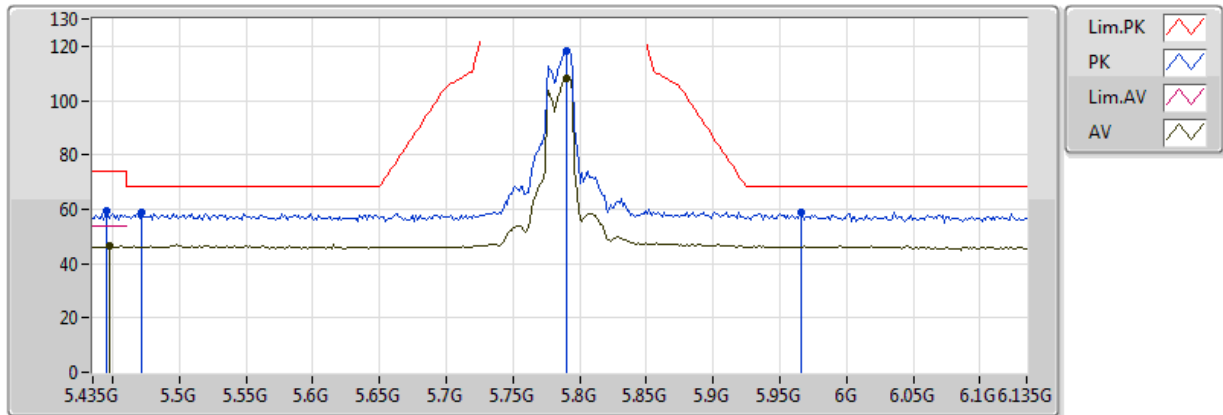


20170814
04-M-0
EUT X 2TX
Setting 22
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.7878G	104.90	Inf	-Inf	6.25	3	V	0	1.00	-
PK	5.5358G	58.47	68.20	-9.73	6.19	3	V	0	1.00	-
PK	5.7892G	114.95	Inf	-Inf	6.25	3	V	0	1.00	-
PK	5.9404G	58.80	68.20	-9.40	6.18	3	V	0	1.00	-
PK	5.4476G	56.81	74.00	-17.19	6.03	3	V	0	1.00	-
AV	5.449G	46.01	54.00	-7.99	6.03	3	V	0	1.00	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

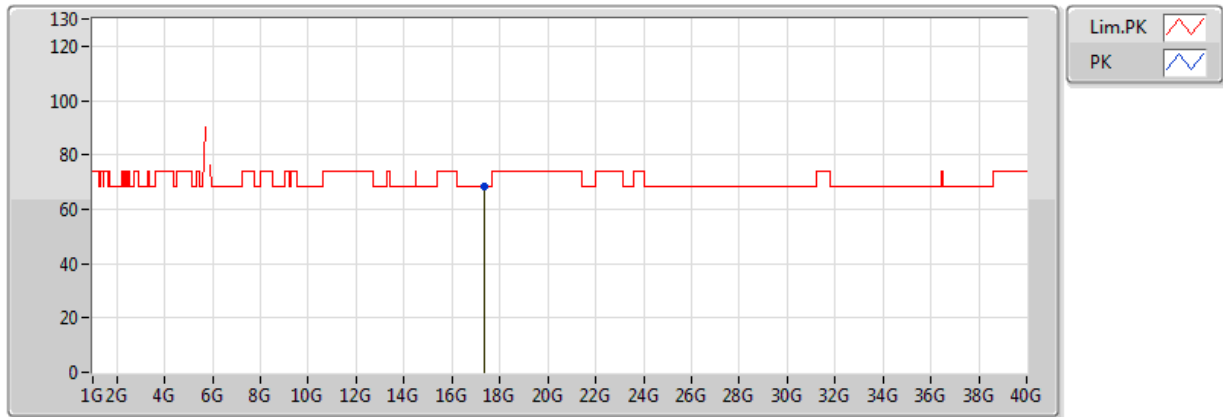


20170814
04-M-0
EUT X 2TX
Setting 22
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.7906G	108.38	Inf	-Inf	6.25	3	H	344	1.50	-
PK	5.4714G	58.77	68.20	-9.43	6.09	3	H	344	1.50	-
PK	5.7906G	118.48	Inf	-Inf	6.25	3	H	344	1.50	-
PK	5.9656G	58.66	68.20	-9.54	6.17	3	H	344	1.50	-
PK	5.4448G	59.15	74.00	-14.85	6.02	3	H	344	1.50	-
AV	5.4476G	46.25	54.00	-7.75	6.03	3	H	344	1.50	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

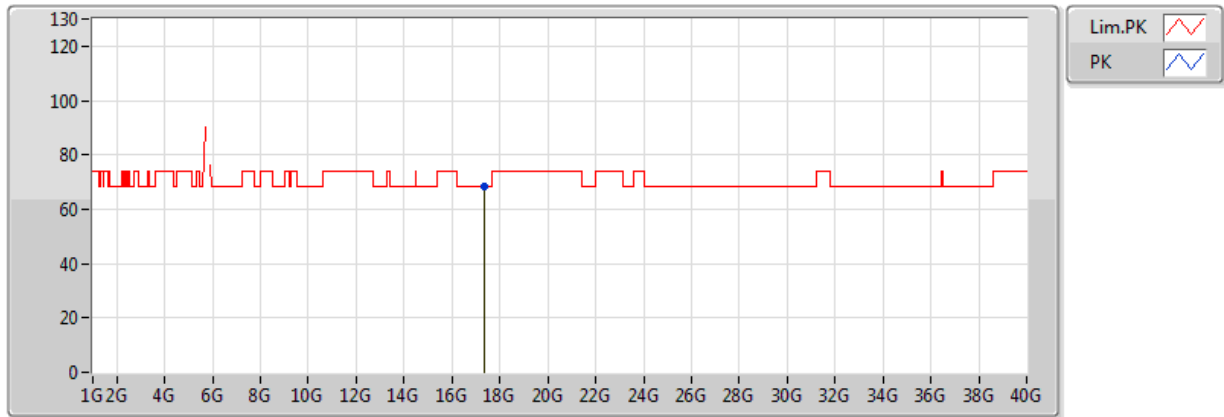


20170814
04-M-0
EUT X 2TX
Setting 22
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
PK	17.35364G	68.18	68.20	-0.02	20.56	3	V	98	1.58	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

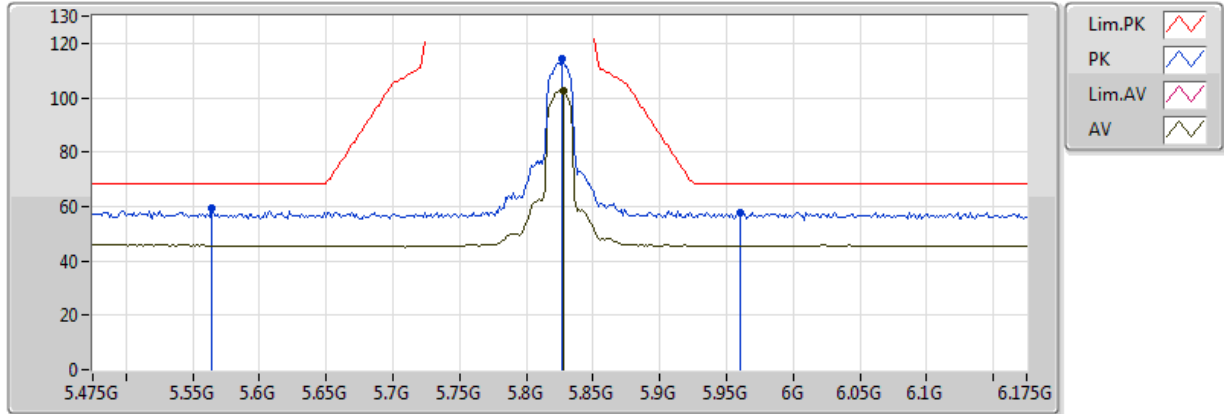


20170814
04-M-0
EUT X 2TX
Setting 22
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
PK	17.35996G	68.11	68.20	-0.09	20.56	3	H	100	1.76	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

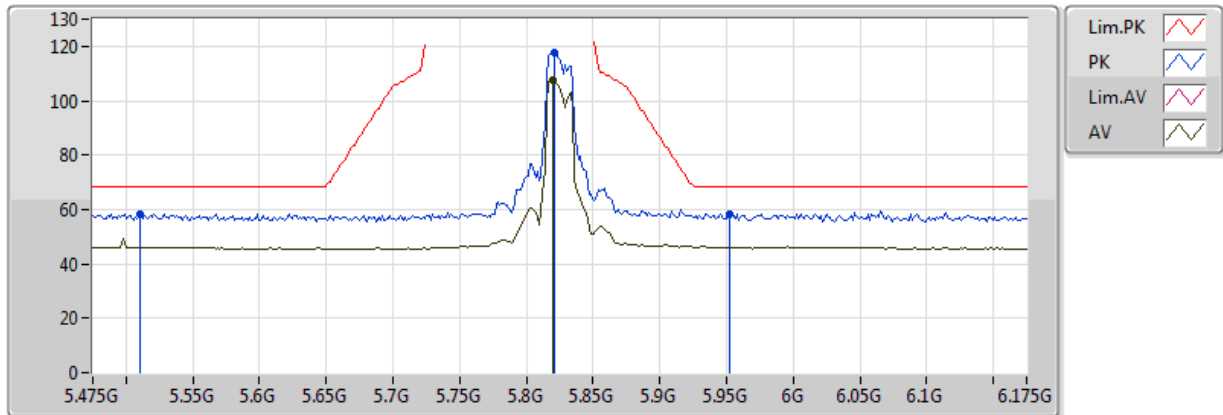


20170818
04-M-1
EUT X 2TX
Setting 22
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.8278G	102.74	Inf	-Inf	6.24	3	V	355	1.01	-
PK	5.5646G	59.46	68.20	-8.74	6.21	3	V	355	1.01	-
PK	5.8264G	114.08	Inf	-Inf	6.24	3	V	355	1.01	-
PK	5.9608G	57.81	68.20	-10.39	6.17	3	V	355	1.01	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

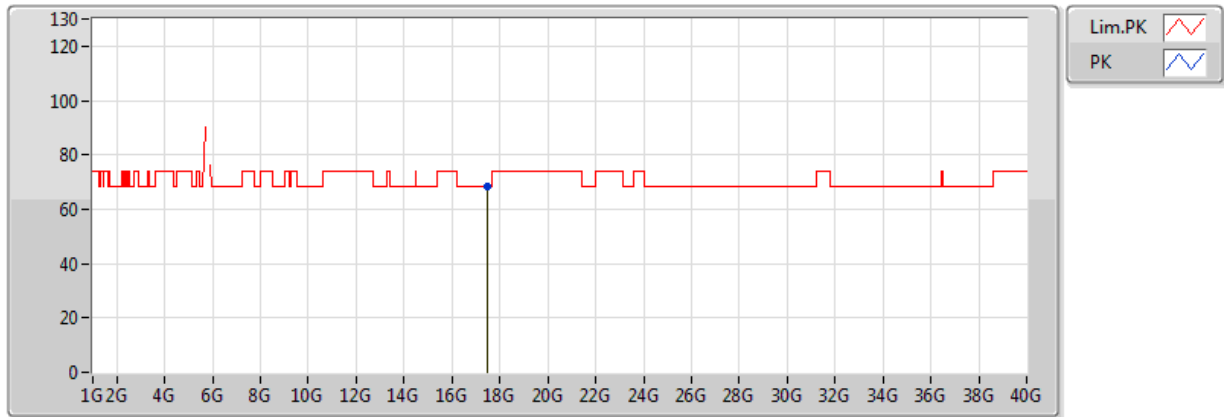


20170818
04-M-1
EUT X 2TX
Setting 22
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.8194G	107.66	Inf	-Inf	6.24	3	H	356	1.56	-
PK	5.51G	58.54	68.20	-9.66	6.17	3	H	356	1.56	-
PK	5.8208G	117.70	Inf	-Inf	6.24	3	H	356	1.56	-
PK	5.9524G	58.53	68.20	-9.67	6.17	3	H	356	1.56	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

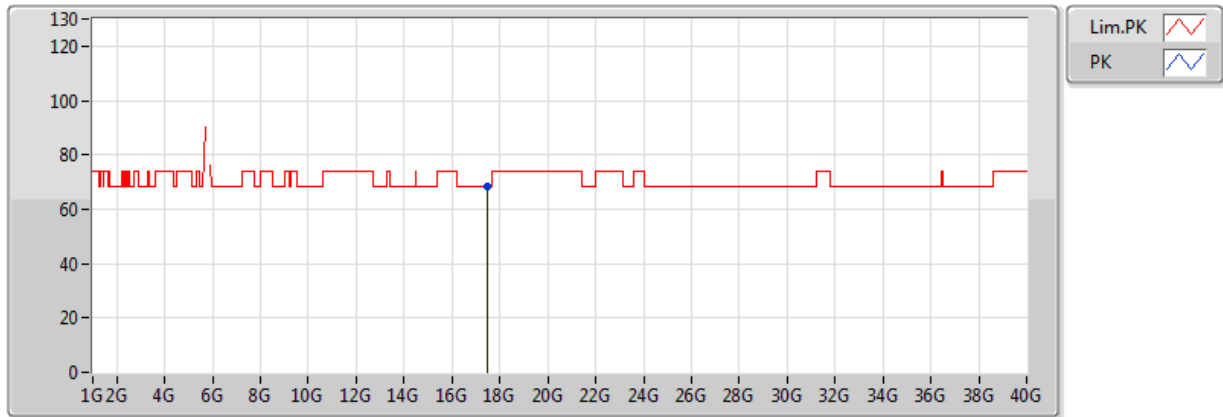


20170814
04-M-0
EUT X 2TX
Setting 22
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
PK	17.474115G	68.15	68.20	-0.05	20.65	3	V	171	1.54	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

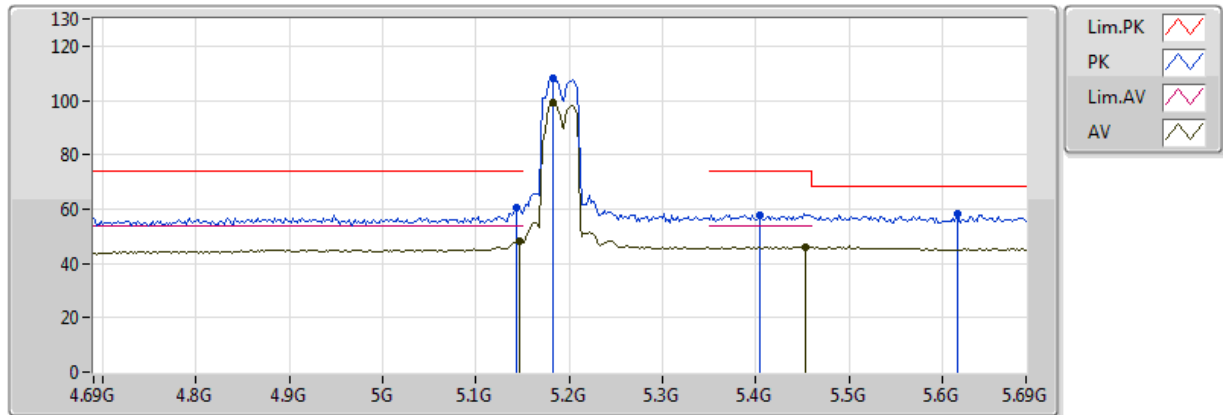


20170814
04-M-0
EUT X 2TX
Setting 22
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
PK	17.479637G	68.17	68.20	-0.03	20.66	3	H	66	1.50	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5190MHz_TX

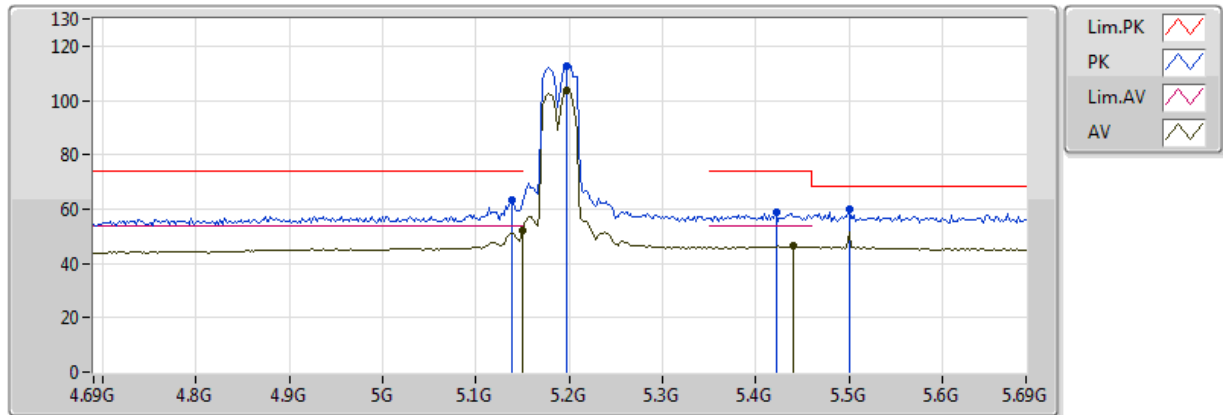


20170818
04-M-1
EUT X 2TX
Setting 19.5
FSP

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	48.29	54.00	-5.71	5.44	3	V	342	1.53	-
AV	5.182G	99.13	Inf	-Inf	5.51	3	V	342	1.53	-
AV	5.454G	46.10	54.00	-7.90	6.05	3	V	342	1.53	-
PK	5.144G	60.35	74.00	-13.65	5.43	3	V	342	1.53	-
PK	5.182G	108.14	Inf	-Inf	5.51	3	V	342	1.53	-
PK	5.616G	58.03	68.20	-10.17	6.24	3	V	342	1.53	-
PK	5.404G	57.99	74.00	-16.01	5.92	3	V	342	1.53	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5190MHz_TX

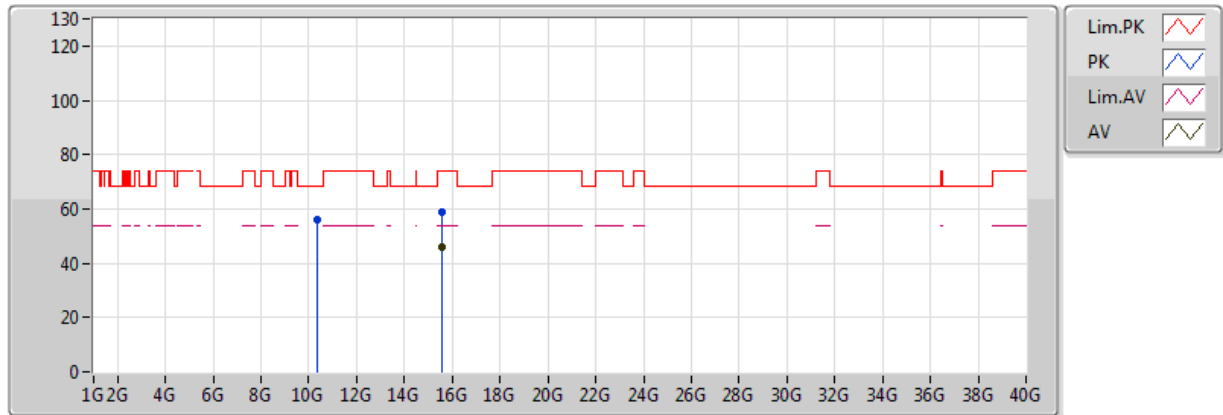


20170818
04-M-1
EUT X 2TX
Setting 19.5
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.149995G	52.16	54.00	-1.84	5.44	3	H	8	1.00	-
AV	5.198G	103.86	Inf	-Inf	5.55	3	H	8	1.00	-
AV	5.44G	46.27	54.00	-7.73	6.01	3	H	8	1.00	-
PK	5.138G	63.12	74.00	-10.88	5.42	3	H	8	1.00	-
PK	5.198G	112.58	Inf	-Inf	5.55	3	H	8	1.00	-
PK	5.5G	60.00	68.20	-8.20	6.16	3	H	8	1.00	-
PK	5.422G	58.77	74.00	-15.23	5.97	3	H	8	1.00	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5190MHz_TX

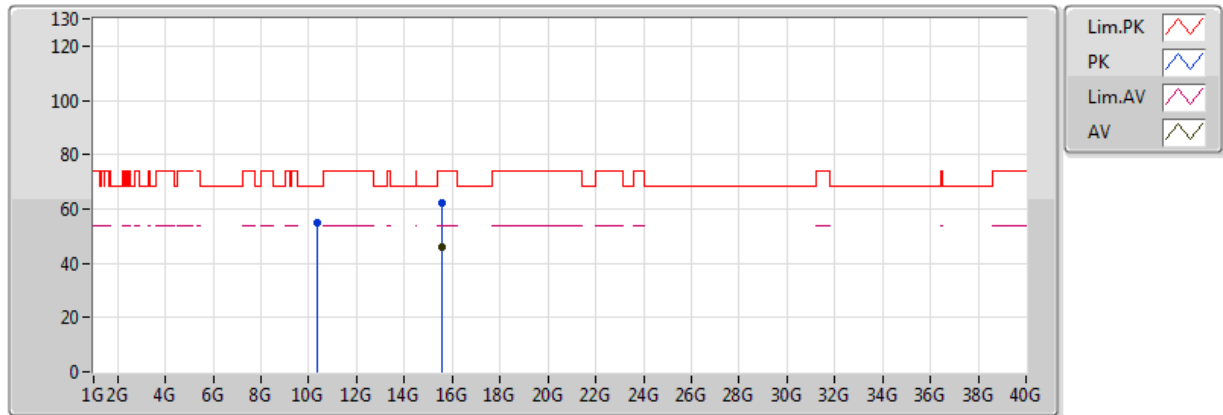


20170818
EUT X 2TX
Setting 19.5
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.5929G	45.67	54.00	-8.33	16.13	3	V	254	1.41	-
PK	10.3767G	55.98	68.20	-12.22	12.33	3	V	310	2.20	-
PK	15.5649G	58.81	74.00	-15.19	16.22	3	V	254	1.41	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5190MHz_TX

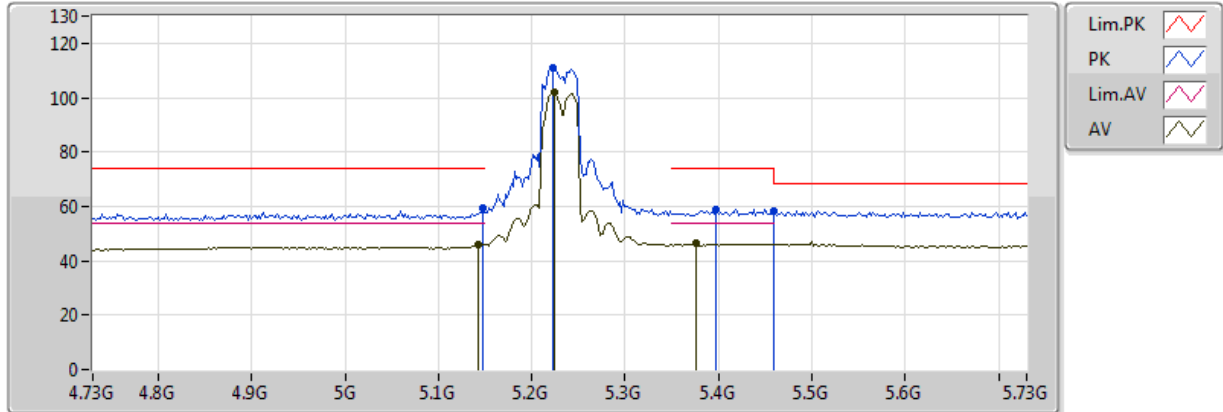


20170818
EUT X 2TX
Setting 19.5
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.57424G	45.68	54.00	-8.32	16.19	3	H	322	1.99	-
PK	10.3762G	54.87	68.20	-13.33	12.33	3	H	327	2.08	-
PK	15.57162G	62.24	74.00	-11.76	16.20	3	H	322	1.99	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5230MHz_TX

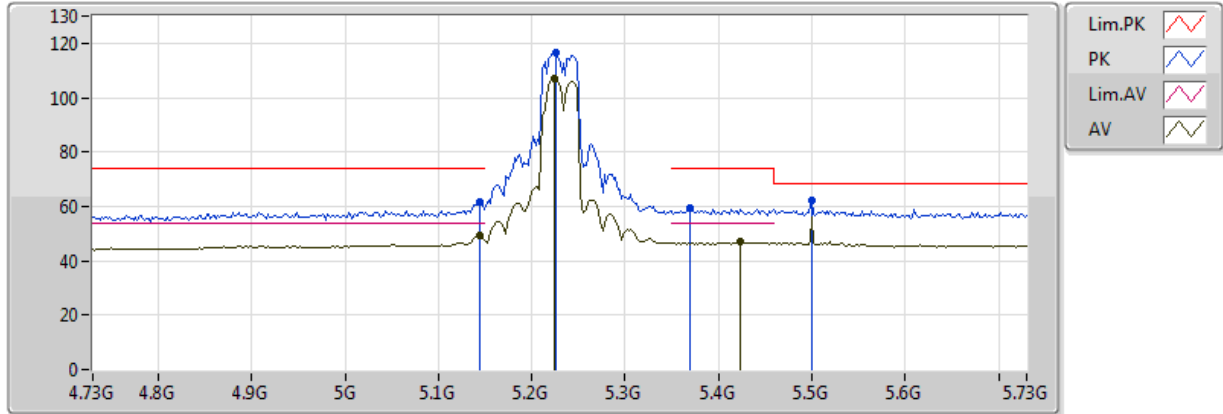


20170818
EUT X 2TX
Setting 22.5
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.142G	46.04	54.00	-7.96	5.43	3	V	341	1.50	-
AV	5.224G	101.72	Inf	-Inf	5.60	3	V	341	1.50	-
AV	5.376G	46.28	54.00	-7.72	5.87	3	V	341	1.50	-
PK	5.148G	59.45	74.00	-14.55	5.44	3	V	341	1.50	-
PK	5.222G	110.99	Inf	-Inf	5.59	3	V	341	1.50	-
PK	5.398G	58.79	74.00	-15.21	5.91	3	V	341	1.50	-
PK	5.460005G	58.22	68.20	-9.98	6.06	3	V	341	1.50	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5230MHz_TX

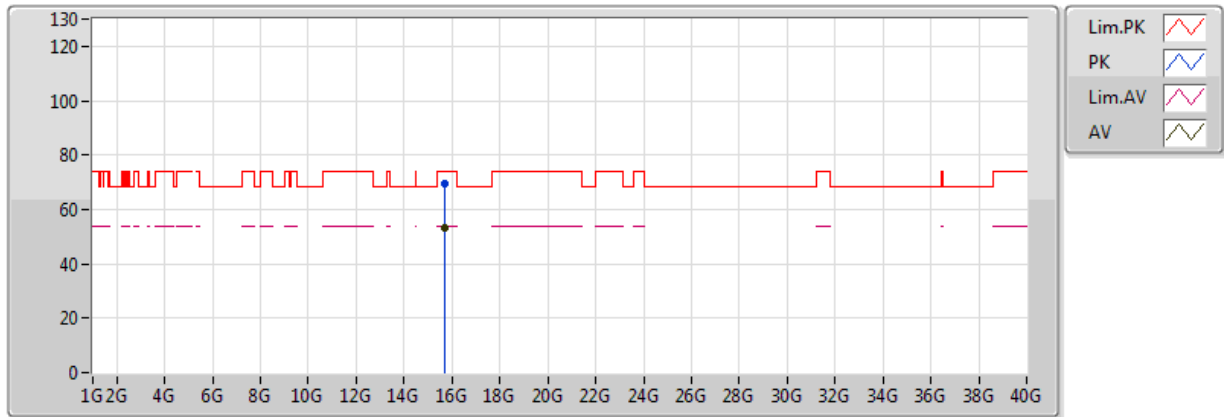


20170818
EUT X 2TX
Setting 22.5
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.144G	49.24	54.00	-4.76	5.43	3	H	355	2.38	-
AV	5.224G	107.04	Inf	-Inf	5.60	3	H	355	2.38	-
AV	5.424G	47.06	54.00	-6.94	5.97	3	H	355	2.38	-
PK	5.144G	61.78	74.00	-12.22	5.43	3	H	355	2.38	-
PK	5.226G	116.39	Inf	-Inf	5.60	3	H	355	2.38	-
PK	5.37G	59.60	74.00	-14.40	5.86	3	H	355	2.38	-
PK	5.5G	62.05	68.20	-6.15	6.16	3	H	355	2.38	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5230MHz_TX

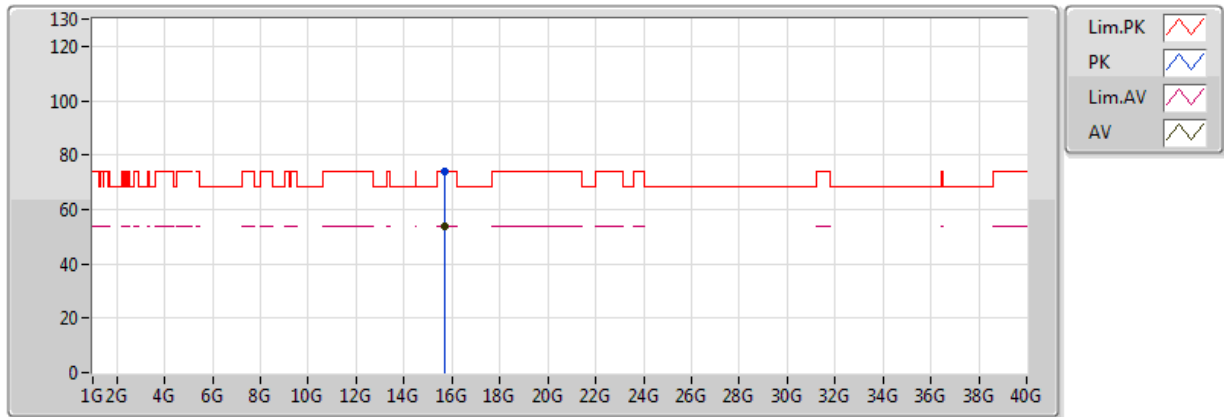


20170814
04-M-0
EUT X 2TX
Setting 22.5
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.69336G	53.23	54.00	-0.77	17.92	3	V	96	1.49	-
PK	15.69088G	69.61	74.00	-4.39	17.92	3	V	96	1.49	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5230MHz_TX

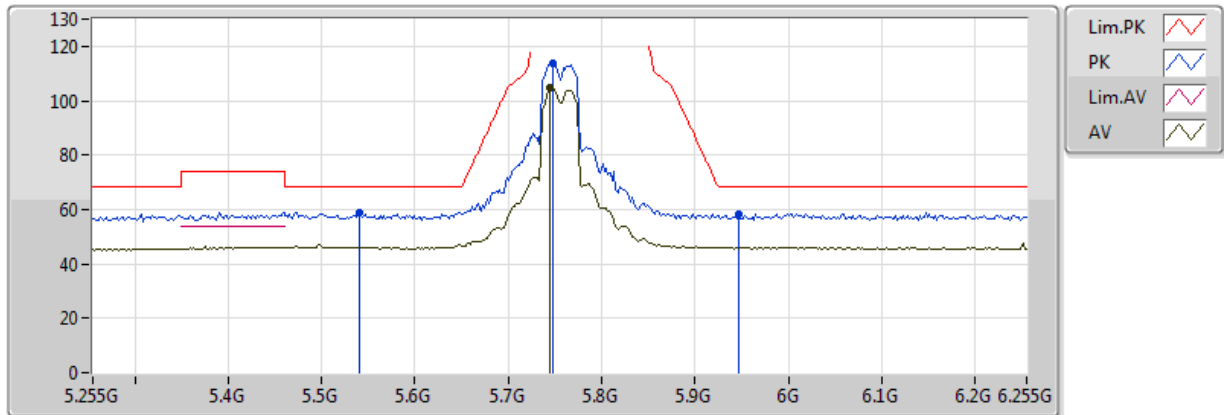


20170814
04-M-0
EUT X 2TX
Setting 22.5
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.68672G	53.95	54.00	-0.05	17.92	3	H	118	1.69	-
PK	15.68336G	73.93	74.00	-0.07	17.91	3	H	118	1.69	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz_TX

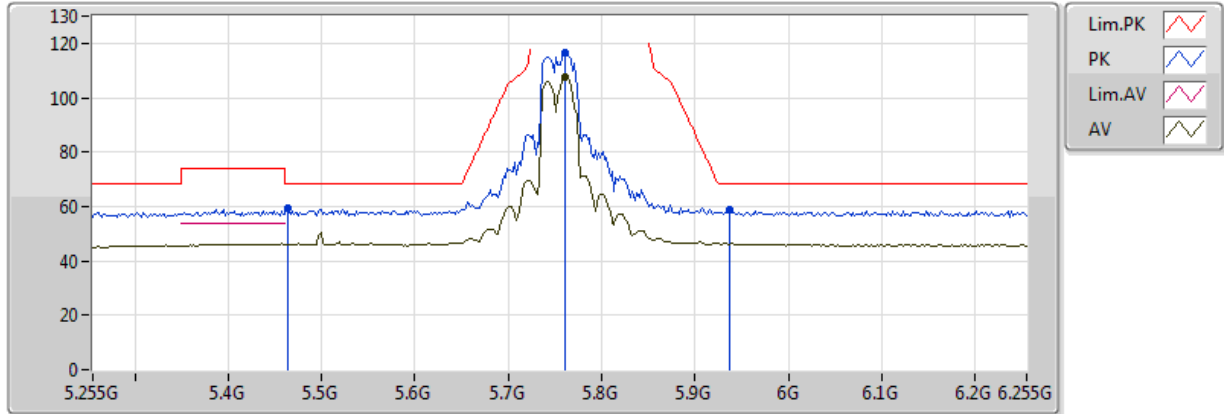


20170818
EUT X_2TX
Setting 23.5
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.745G	104.53	Inf	-Inf	6.25	3	V	344	1.02	-
PK	5.541G	58.84	68.20	-9.36	6.19	3	V	344	1.02	-
PK	5.747G	113.98	Inf	-Inf	6.25	3	V	344	1.02	-
PK	5.947G	58.52	68.20	-9.68	6.18	3	V	344	1.02	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz_TX

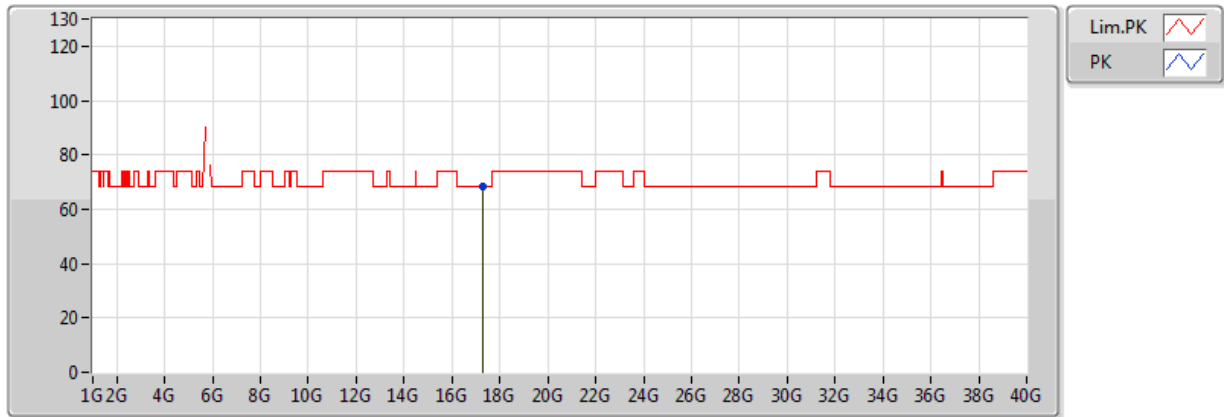


20170818
EUT X_2TX
Setting 23.5
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.761G	107.46	Inf	-Inf	6.25	3	H	345	1.53	-
PK	5.463G	59.13	68.20	-9.07	6.07	3	H	345	1.53	-
PK	5.761G	116.67	Inf	-Inf	6.25	3	H	345	1.53	-
PK	5.937G	58.65	68.20	-9.55	6.18	3	H	345	1.53	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz_TX

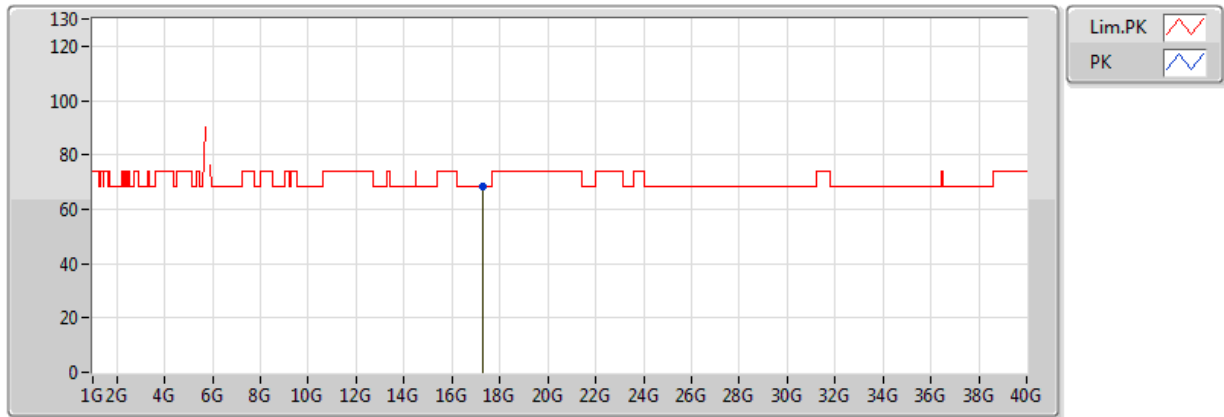


20170814
04-M-0
EUT X 2TX
Setting 23.5
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
PK	17.26556G	68.19	68.20	-0.01	20.49	3	V	96	1.49	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz_TX

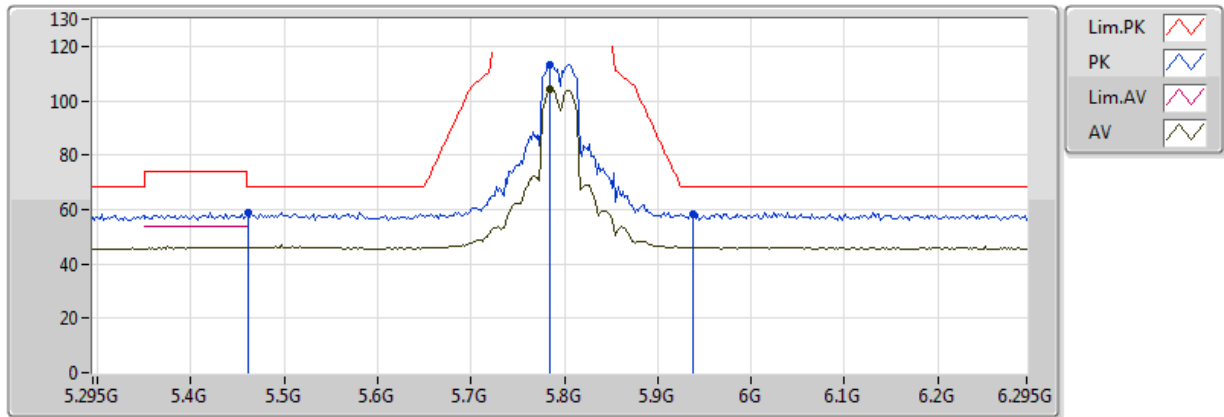


20170814
04-M-0
EUT X 2TX
Setting 23.5
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
PK	17.26564G	68.10	68.20	-0.10	20.49	3	H	114	1.10	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

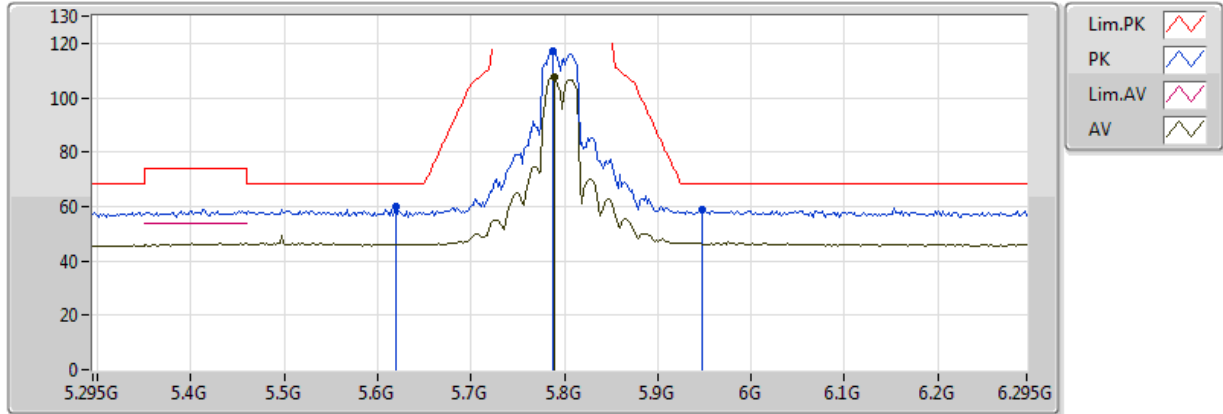


20170818
EUT X_2TX
Setting 24
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.785G	104.27	Inf	-Inf	6.25	3	V	340	1.01	-
PK	5.461G	58.93	68.20	-9.27	6.06	3	V	340	1.01	-
PK	5.785G	113.42	Inf	-Inf	6.25	3	V	340	1.01	-
PK	5.937G	58.44	68.20	-9.76	6.18	3	V	340	1.01	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

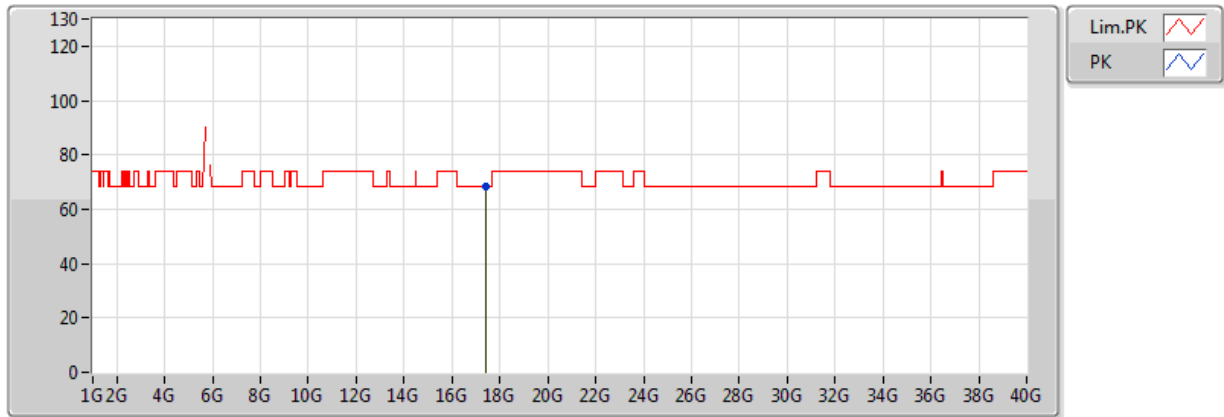


20170818
EUT X_2TX
Setting 24
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.789G	107.76	Inf	-Inf	6.25	3	H	354	1.50	-
PK	5.619G	59.70	68.20	-8.50	6.24	3	H	354	1.50	-
PK	5.787G	116.92	Inf	-Inf	6.25	3	H	354	1.50	-
PK	5.947G	58.70	68.20	-9.50	6.18	3	H	354	1.50	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

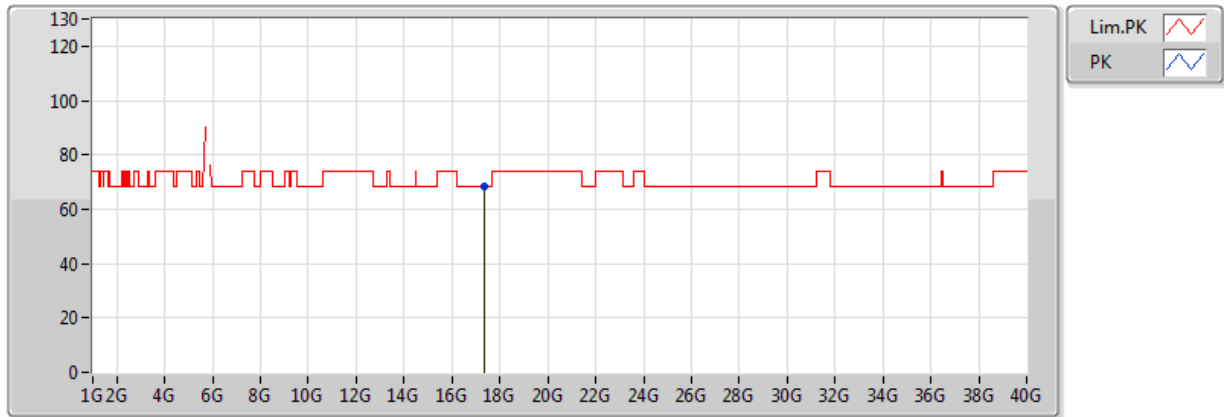


20170814
04-M-0
EUT X 2TX
Setting 24
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
PK	17.3994G	68.17	68.20	-0.03	20.60	3	V	154	1.54	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

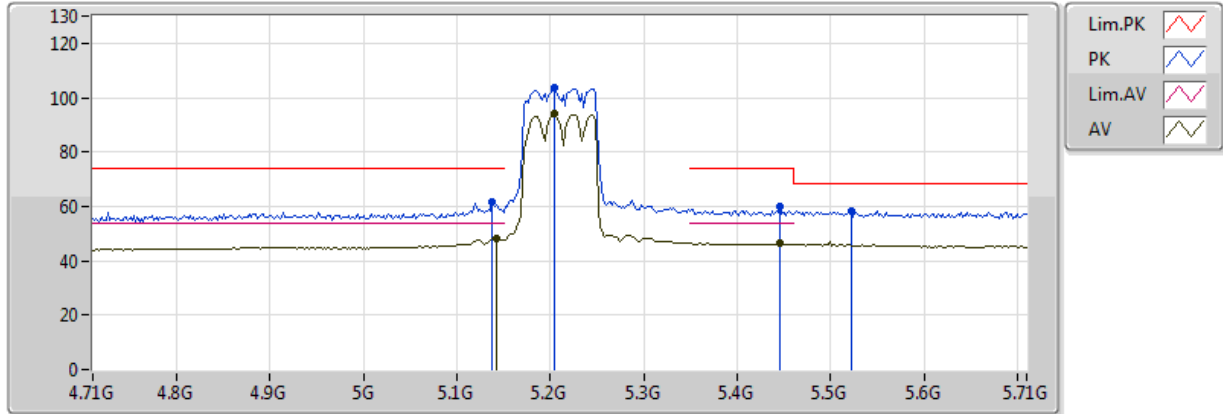


20170814
04-M-0
EUT X 2TX
Setting 24
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
PK	17.37356G	68.15	68.20	-0.05	20.58	3	H	114	1.10	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5210MHz_TX

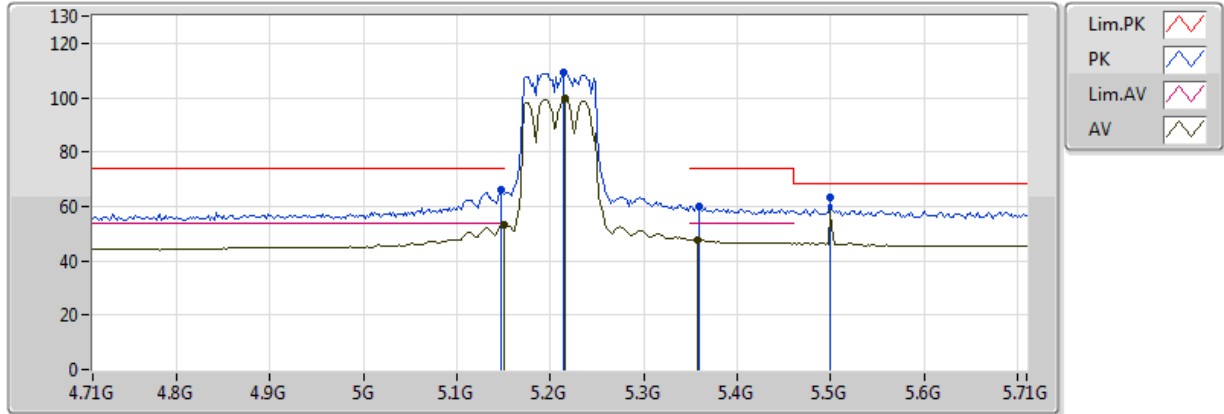


20170818
EUT X_2TX
Setting 18.5
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.142G	48.41	54.00	-5.59	5.43	3	V	342	1.65	-
AV	5.204G	93.92	Inf	-Inf	5.56	3	V	342	1.65	-
AV	5.446G	46.41	54.00	-7.59	6.03	3	V	342	1.65	-
PK	5.138G	61.39	74.00	-12.61	5.42	3	V	342	1.65	-
PK	5.204G	103.60	Inf	-Inf	5.56	3	V	342	1.65	-
PK	5.446G	59.74	74.00	-14.26	6.03	3	V	342	1.65	-
PK	5.522G	58.43	68.20	-9.77	6.18	3	V	342	1.65	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5210MHz_TX

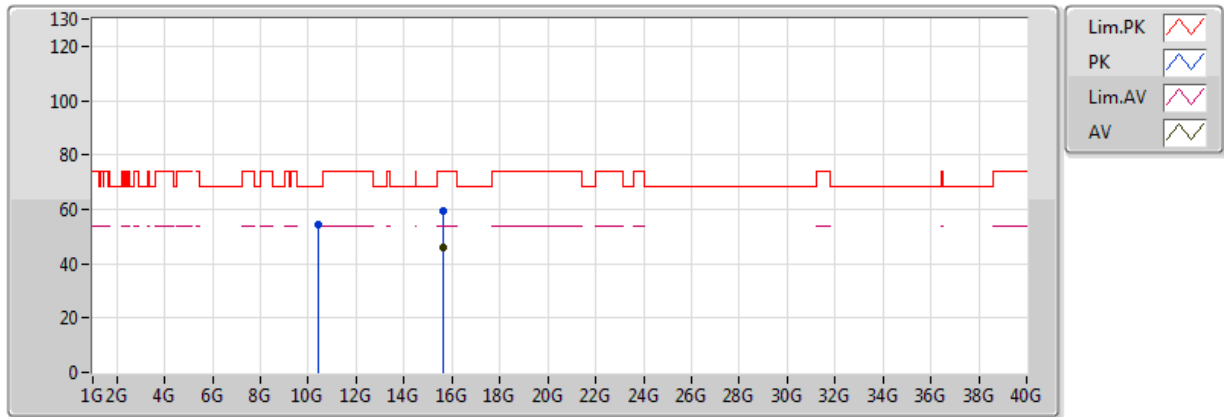


20170818
EUT X_2TX
Setting 18.5
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.149995G	53.10	54.00	-0.90	5.44	3	H	10	2.50	-
AV	5.216G	99.59	Inf	-Inf	5.58	3	H	10	2.50	-
AV	5.358G	47.64	54.00	-6.36	5.84	3	H	10	2.50	-
PK	5.148G	66.19	74.00	-7.81	5.44	3	H	10	2.50	-
PK	5.214G	109.13	Inf	-Inf	5.58	3	H	10	2.50	-
PK	5.36G	60.07	74.00	-13.93	5.84	3	H	10	2.50	-
PK	5.5G	63.24	74.00	-10.76	6.16	3	H	10	2.50	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5210MHz_TX

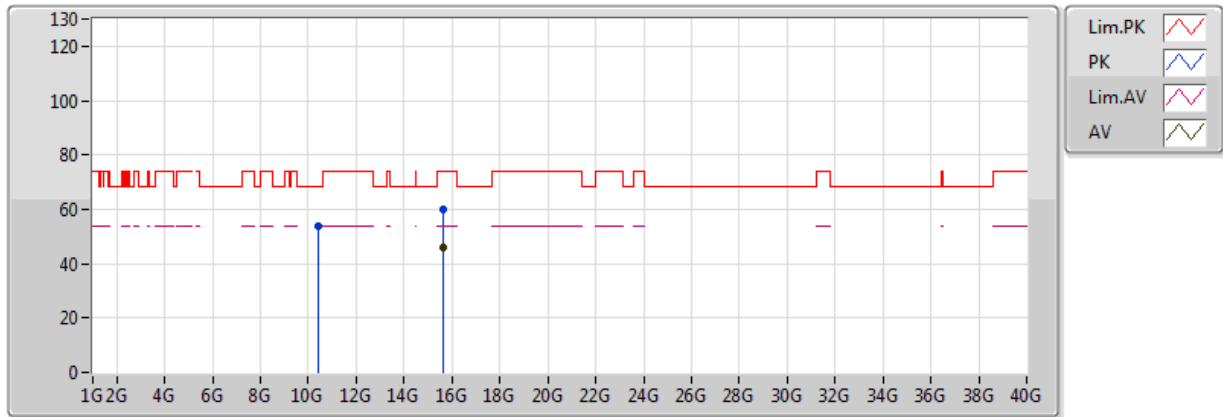


20170818
EUT X_2TX
Setting 18.5
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.63252G	46.02	54.00	-7.98	16.00	3	V	26	2.74	-
PK	10.4202G	54.54	68.20	-13.66	12.37	3	V	311	2.19	-
PK	15.62662G	59.17	74.00	-14.83	16.02	3	V	26	2.74	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5210MHz_TX

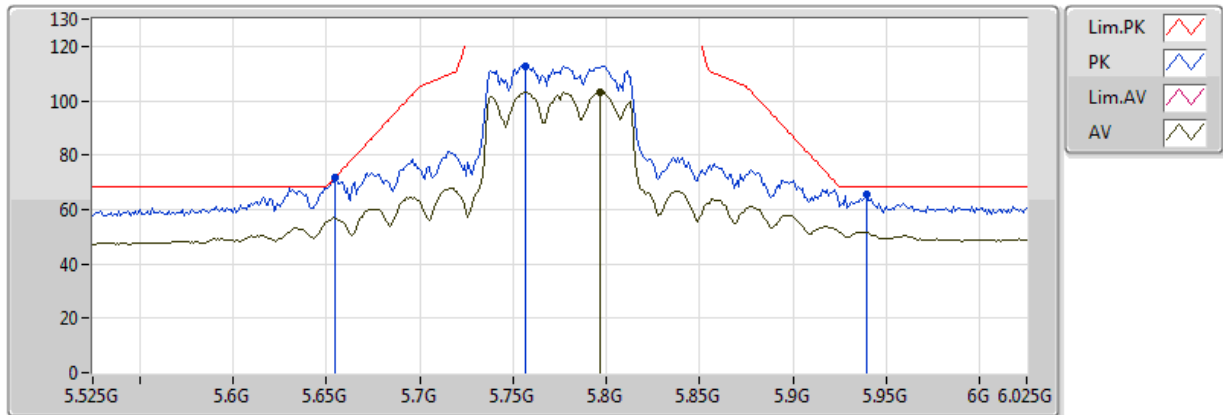


20170818
EUT X_2TX
Setting 18.5
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.63186G	45.97	54.00	-8.03	16.01	3	H	275	1.50	-
PK	10.41988G	53.55	68.20	-14.65	12.37	3	H	317	1.48	-
PK	15.63412G	59.71	74.00	-14.29	16.00	3	H	275	1.50	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX

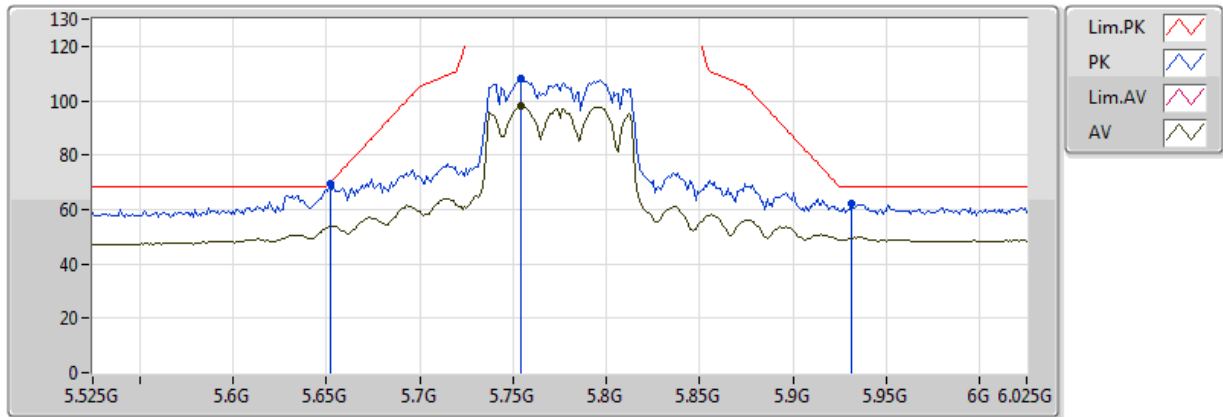


20170814
04-M-0
EUT X 2TX
Setting 23.5
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.797G	103.09	Inf	-Inf	7.17	3	V	103	1.50	-
PK	5.655G	71.86	71.90	-0.04	6.88	3	V	103	1.50	-
PK	5.757G	112.74	Inf	-Inf	7.09	3	V	103	1.50	-
PK	5.939G	65.39	68.20	-2.81	8.08	3	V	103	1.50	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX

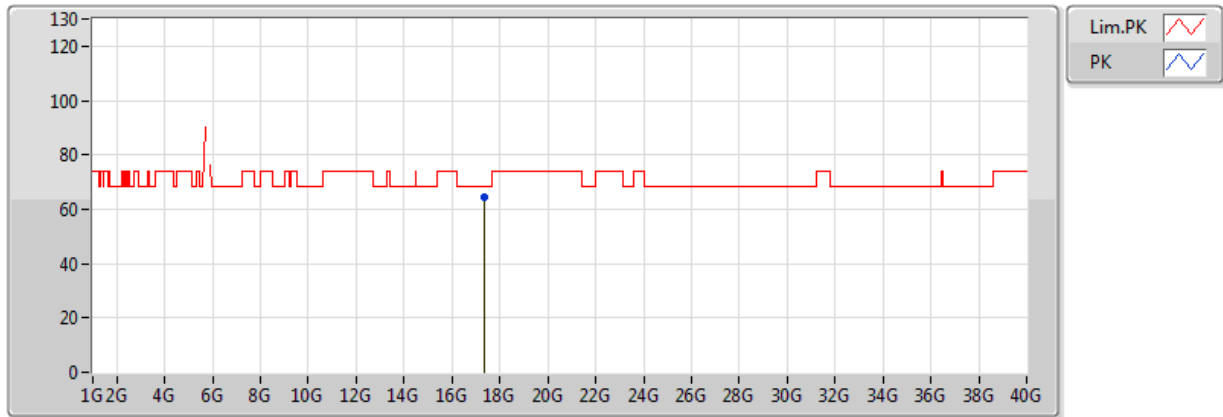


20170814
04-M-0
EUT X 2TX
Setting 23.5
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.754G	97.79	Inf	-Inf	7.08	3	H	99	1.73	-
PK	5.652G	69.62	69.68	-0.06	6.88	3	H	99	1.73	-
PK	5.754G	107.94	Inf	-Inf	7.08	3	H	99	1.73	-
PK	5.931G	61.95	68.20	-6.25	8.03	3	H	99	1.73	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX

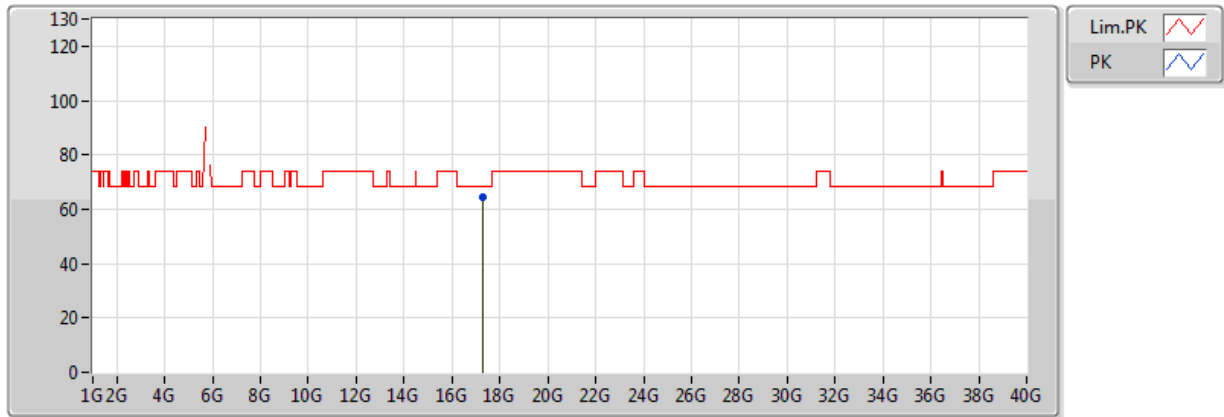


20170814
04-M-0
EUT X 2TX
Setting 23.5
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
PK	17.33148G	64.21	68.20	-3.99	20.54	3	V	98	1.50	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX



20170814
04-M-0
EUT X 2TX
Setting 23.5
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
PK	17.3174G	64.58	68.20	-3.62	20.53	3	H	67	1.50	-

For Radio 2

Mode: 20 MHz / Port 2

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5199.9646	5199.9643	5199.9640	5199.9633
110.00	5199.9645	5199.9642	5199.9632	5199.9628
93.50	5199.9639	5199.9631	5199.9630	5199.9626
Max. Deviation (MHz)	0.0361	0.0369	0.0370	0.0374
Max. Deviation (ppm)	6.94	7.10	7.12	7.19
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5199.9625	5199.9617	5199.9612	5199.9611
10	5199.9634	5199.9630	5199.9623	5199.9616
20	5199.9645	5199.9637	5199.9631	5199.9629
30	5199.9951	5199.9941	5199.9932	5199.9930
40	5199.9952	5199.9945	5199.9940	5199.9937
45	5199.9971	5199.9963	5199.9958	5199.9951
Max. Deviation (MHz)	0.0375	0.0383	0.0388	0.0389
Max. Deviation (ppm)	7.21	7.37	7.46	7.48
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5784.9653	5784.9647	5784.9646	5784.9637
110.00	5784.9645	5784.9636	5784.9633	5784.9624
93.50	5784.9642	5784.9640	5784.9633	5784.9623
Max. Deviation (MHz)	0.0358	0.0364	0.0367	0.0377
Max. Deviation (ppm)	6.19	6.29	6.34	6.52
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5784.9613	5784.9611	5784.9601	5784.9595
10	5784.9630	5784.9627	5784.9617	5784.9611
20	5784.9645	5784.9643	5784.9642	5784.9641
30	5784.9951	5784.9947	5784.9940	5784.9933
40	5784.9959	5784.9955	5784.9947	5784.9944
45	5784.9954	5784.9952	5784.9943	5784.9935
Max. Deviation (MHz)	0.0387	0.0389	0.0399	0.0405
Max. Deviation (ppm)	6.69	6.72	6.90	7.00
Result	Pass			

Mode: 40 MHz / Port 2

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5190 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5189.9650	5189.9643	5189.9638	5189.9636
110.00	5189.9645	5189.9635	5189.9630	5189.9621
93.50	5189.9637	5189.9630	5189.9626	5189.9619
Max. Deviation (MHz)	0.0363	0.0370	0.0374	0.0381
Max. Deviation (ppm)	6.99	7.13	7.21	7.34
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5190 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5189.9626	5189.9623	5189.9613	5189.9604
10	5189.9632	5189.9623	5189.9616	5189.9614
20	5189.9645	5189.9639	5189.9633	5189.9628
30	5189.9951	5189.9945	5189.9937	5189.9932
40	5189.9952	5189.9950	5189.9948	5189.9947
45	5189.9657	5189.9647	5189.9644	5189.9635
Max. Deviation (MHz)	0.0374	0.0377	0.0387	0.0396
Max. Deviation (ppm)	7.21	7.26	7.46	7.63
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5755 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5754.9647	5754.9642	5754.9638	5754.9630
110.00	5754.9645	5754.9642	5754.9638	5754.9630
93.50	5754.9638	5754.9635	5754.9626	5754.9624
Max. Deviation (MHz)	0.0362	0.0365	0.0374	0.0376
Max. Deviation (ppm)	6.29	6.34	6.50	6.53
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5755 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5754.9627	5754.9623	5754.9621	5754.9616
10	5754.9634	5754.9627	5754.9623	5754.9618
20	5754.9645	5754.9640	5754.9639	5754.9637
30	5754.9951	5754.9943	5754.9937	5754.9934
40	5754.9968	5754.9962	5754.9959	5754.9956
45	5754.9647	5754.9644	5754.9636	5754.9629
Max. Deviation (MHz)	0.0373	0.0377	0.0379	0.0384
Max. Deviation (ppm)	6.48	6.55	6.59	6.67
Result	Pass			

Mode: 80 MHz / Port 2

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5210 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5209.9646	5209.9640	5209.9630	5209.9628
110.00	5209.9645	5209.9637	5209.9632	5209.9625
93.50	5209.9640	5209.9635	5209.9625	5209.9621
Max. Deviation (MHz)	0.0360	0.0365	0.0375	0.0379
Max. Deviation (ppm)	6.91	7.01	7.20	7.27
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5210 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5209.9619	5209.9610	5209.9600	5209.9597
10	5209.9635	5209.9627	5209.9621	5209.9618
20	5209.9645	5209.9638	5209.9636	5209.9633
30	5209.9951	5209.9941	5209.9932	5209.9931
40	5209.9966	5209.9958	5209.9954	5209.9952
45	5209.9664	5209.9659	5209.9658	5209.9651
Max. Deviation (MHz)	0.0381	0.0390	0.0400	0.0403
Max. Deviation (ppm)	7.31	7.49	7.68	7.74
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5775 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5774.9646	5774.9645	5774.9636	5774.9628
110.00	5774.9645	5774.9644	5774.9641	5774.9636
93.50	5774.9637	5774.9631	5774.9623	5774.9622
Max. Deviation (MHz)	0.0363	0.0369	0.0377	0.0378
Max. Deviation (ppm)	6.29	6.39	6.53	6.55
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5775 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5774.9623	5774.9616	5774.9610	5774.9605
10	5774.9627	5774.9625	5774.9615	5774.9606
20	5774.9645	5774.9636	5774.9631	5774.9630
30	5774.9951	5774.9950	5774.9945	5774.9941
40	5774.9964	5774.9963	5774.9961	5774.9953
45	5774.9663	5774.9655	5774.9645	5774.9635
Max. Deviation (MHz)	0.0377	0.0384	0.0390	0.0395
Max. Deviation (ppm)	6.53	6.65	6.75	6.84
Result	Pass			

