



FCC RADIO TEST REPORT

FCC ID : TE7WPA7510V2
Equipment : AC750 Wi-Fi Range Extender, AV1000 Powerline Edition
Brand Name : tp-link
Model Name : TL-WPA7510
Applicant : TP-Link Technologies Co., Ltd.
Building 24 (floors 1,3,4,5) and 28 (floors1-4), Central
Science and Technology Park,Nanshan Shenzhen,
518057 China
Manufacturer : TP-Link Technologies Co., Ltd.
Building 24 (floors 1,3,4,5) and 28 (floors1-4), Central
Science and Technology Park,Nanshan Shenzhen,
518057 China
Standard : 47 CFR FCC Part 15.407

The product was received on Jul. 20, 2018, and testing was started from Sep. 08, 2018 and completed on Nov. 19, 2018. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

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


Approved by: Cliff Chang

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



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Photographs of EUT v01



History of this test report

Report No.	Version	Description	Issued Date
FR731330-01AB	01	Initial issue of report	Dec. 06, 2018



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.407(a)	Emission Bandwidth	PASS	-
3.3	15.407(a)	Maximum Conducted Output Power	PASS	-
3.4	15.407(a)	Peak Power Spectral Density	PASS	-
3.5	15.407(b)	Unwanted Emissions	PASS	-

Declaration of Conformity:

The judgment of conformity in the report is based on the measurement results excluding the measurement uncertainty.

Comments and Explanations:

None

Reviewed by: Cliff Chang

Report Producer: Vicky Huang



1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
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	1TX
5.15-5.25GHz	802.11n HT20	20	1TX
5.15-5.25GHz	802.11ac VHT20	20	1TX
5.15-5.25GHz	802.11n HT40	40	1TX
5.15-5.25GHz	802.11ac VHT40	40	1TX
5.15-5.25GHz	802.11ac VHT80	80	1TX
5.725-5.85GHz	802.11a	20	1TX
5.725-5.85GHz	802.11n HT20	20	1TX
5.725-5.85GHz	802.11ac VHT20	20	1TX
5.725-5.85GHz	802.11n HT40	40	1TX
5.725-5.85GHz	802.11ac VHT40	40	1TX
5.725-5.85GHz	802.11ac VHT80	80	1TX

Note:

- ♦ 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ VHT20, VHT40 and VHT80 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- ♦ BWch is the nominal channel bandwidth.
- ♦ Nss-Min is the minimum number of spatial streams.
- ♦ Nant is the number of outputs. e.g., 2(2,3) means have 2 outputs for port 2 and port 3. 2 means have 2 outputs for port 1 and port 2.



1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	
						2.4GHz	5GHz
1	1	tp-link	-	Printed Antenna	N/A	2	-
2	2	tp-link	-	Printed Antenna	N/A	2	-
3	1	tp-link	-	Printed Antenna	N/A	-	2.98

Note: The EUT has three Antennas.

For 2.4GHz function:

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

Ant. 1(Port 1) and Ant. 2(Port 2) can be used as transmitting/receiving antenna.

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

For 5GHz function:

For IEEE 802.11a/n/ac mode (1TX/1RX)

Only Ant. 3(Port 1) can be used as transmitting/receiving antenna.

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.981	0.083	n/a (DC≥0.98)	n/a (DC≥0.98)
802.11ac VHT20	0.981	0.083	n/a (DC≥0.98)	n/a (DC≥0.98)
802.11ac VHT40	0.96	0.177	677.5u	3k
802.11ac VHT80	0.924	0.343	337.5u	3k

Note:

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

1.1.4 EUT Operational Condition

EUT Power Type	Internal Power Supply			
Beamforming Function	<input type="checkbox"/> With beamforming	<input checked="" type="checkbox"/>	Without beamforming	
Function	<input type="checkbox"/> Outdoor P2M	<input checked="" type="checkbox"/>	Indoor P2M	
	<input type="checkbox"/> Fixed P2P	<input type="checkbox"/>	Client	
Test Software Version	MT76xxE QA Version 2.0.10.0			



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

1.3 Testing Location Information

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

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Serway Li	23°C / 60%	Sep. 13, 2018
Radiated	03CH01-CB	Mason Chen	20°C / 55%	Sep. 08, 2018~Sep. 18, 2018
AC Conduction	CO01-CB	GN Hou	24°C / 68%	Nov. 19, 2018

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

1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	2.0 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.7 dB	Confidence levels of 95%
Output Power Measurement	1.33 dB	Confidence levels of 95%
Power Density Measurement	1.27 dB	Confidence levels of 95%
Bandwidth Measurement	9.74 x10 ⁻⁸	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX	-
5180MHz	14
5200MHz	1F
5240MHz	19
5745MHz	2A
5785MHz	2A
5825MHz	2A
802.11ac VHT20_Nss1,(MCS0)_1TX	-
5180MHz	15
5200MHz	20
5240MHz	1A
5745MHz	2A
5785MHz	2A
5825MHz	2A
802.11ac VHT40_Nss1,(MCS0)_1TX	-
5190MHz	0A
5230MHz	16
5755MHz	1A
5795MHz	24
802.11ac VHT80_Nss1,(MCS0)_1TX	-
5210MHz	03
5775MHz	14

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	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	CTX
1	CTX-2.4GHz
2	CTX-5GHz
For operating mode 1 is the worst case and it was record in this test report.	

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

The Worst Case Mode for Following Conformance Tests	
Tests Item	Unwanted Emissions
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	CTX
For 2.4GHz: The EUT was performed at 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. For 5GHz: The EUT was performed at Y axis and Z axis position for Radiated emission above 1GHz test, and the worst case was found at Z axis. So the measurement will follow this same test configuration.	
1	EUT in Y axis-2.4GHz
2	EUT in Z axis-5GHz
For operating mode 1 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
The EUT was performed at Y axis and Z axis position, and the worst case was found at Z axis. So the measurement will follow this same test configuration.	
1	EUT in Z axis



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
The EUT was performed at 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 in Y axis-WLAN 2.4GHz+WLAN 5GHz
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	WLAN 2.4GHz+WLAN 5GHz
Refer to Sporton Test Report No.: FA731330-01 for Co-location RF Exposure Evaluation.	

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

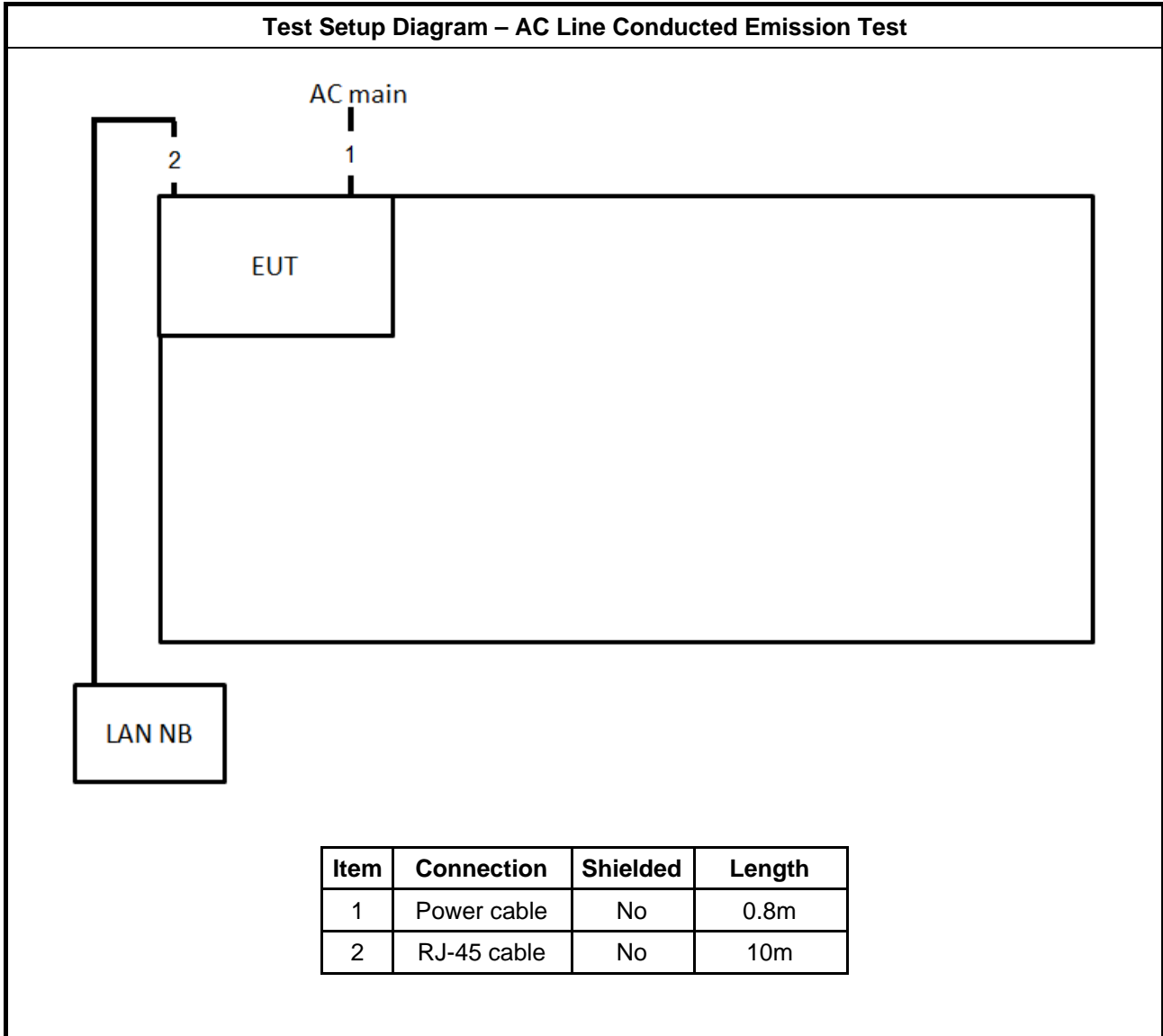
For Test Site No: CO01-CB

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E6430	N/A

For Test Site No: 03CH01-CB and TH01-CB

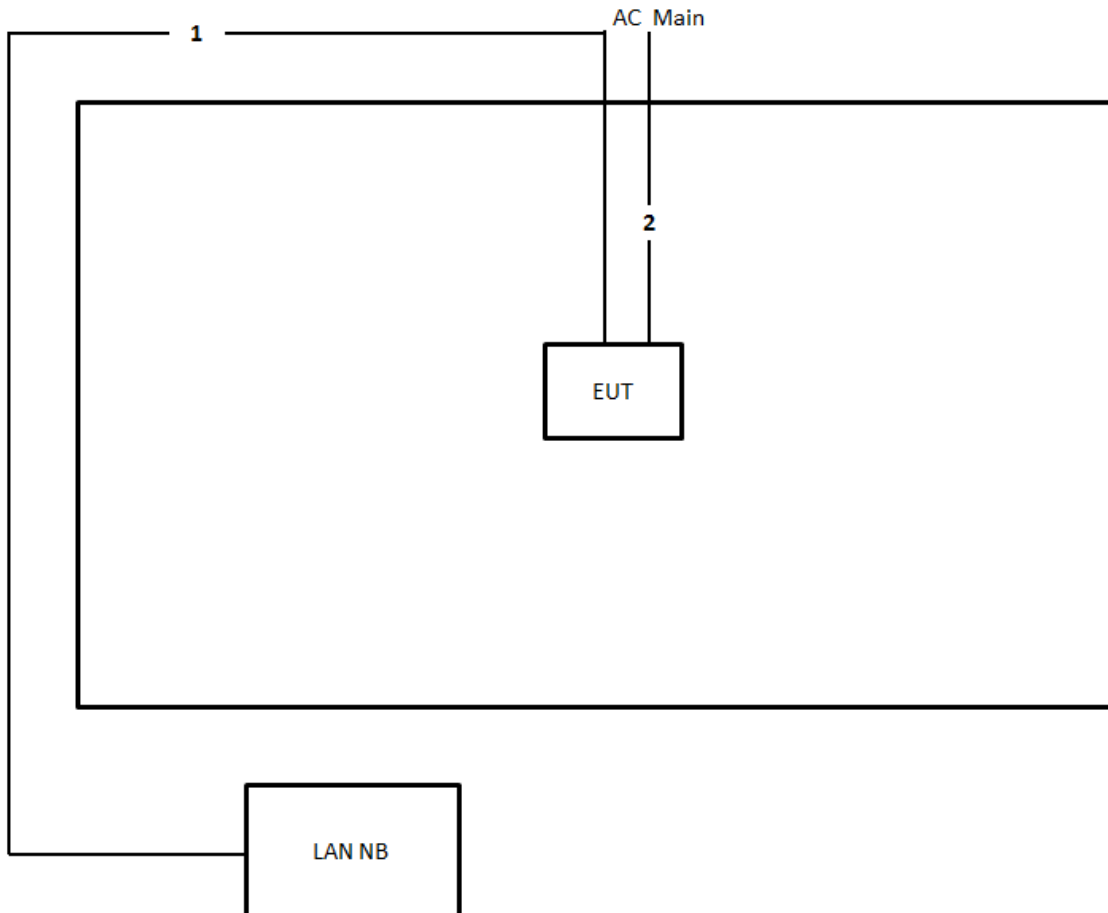
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	N/A

2.6 Test Setup Diagram





Test Setup Diagram - Radiated Test



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



3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

Note 1: * Decreases with the logarithm of the frequency.

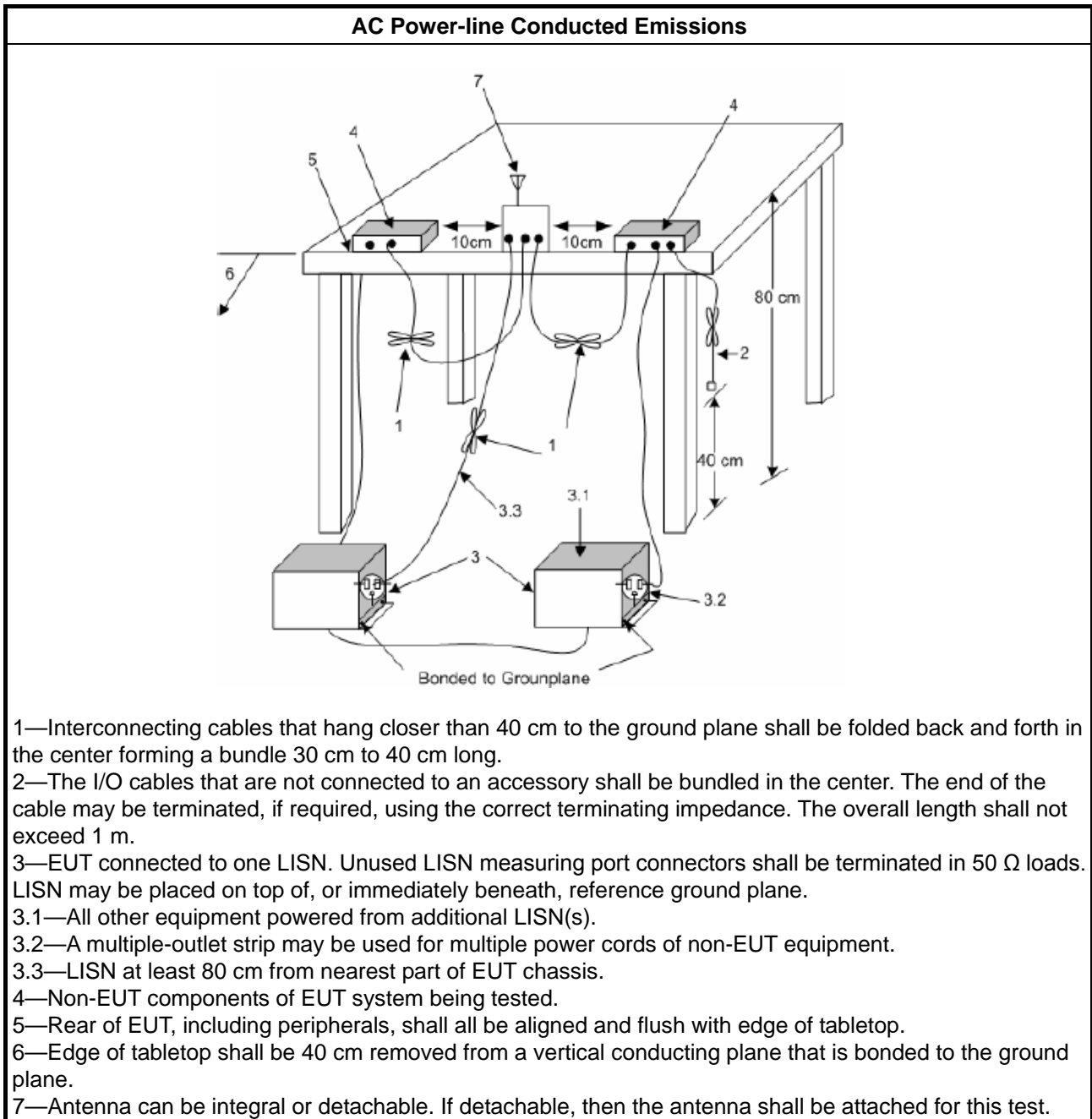
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

3.1.4 Test Setup



3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
UNII Devices	
<input checked="" type="checkbox"/>	For the 5.15-5.25 GHz band, N/A
<input type="checkbox"/>	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.
<input type="checkbox"/>	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.
<input checked="" type="checkbox"/>	For the 5.725-5.85 GHz band, 6 dB emission bandwidth \geq 500kHz.
LE-LAN Devices	
<input type="checkbox"/>	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.
<input type="checkbox"/>	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
<input type="checkbox"/>	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
<input type="checkbox"/>	For the 5.725-5.85 GHz band, 6 dB emission bandwidth \geq 500kHz.

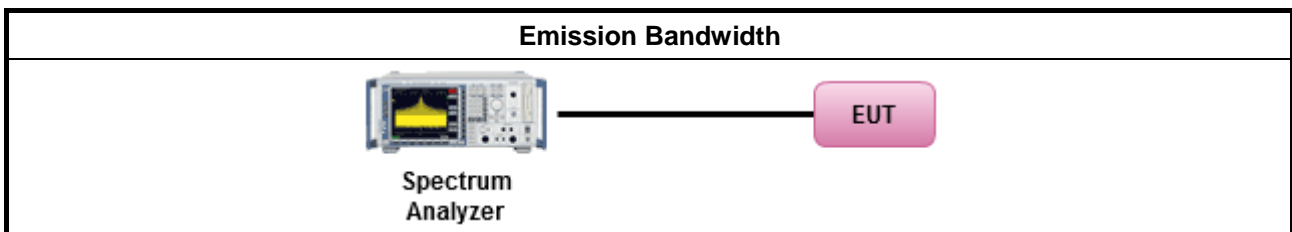
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method							
<ul style="list-style-type: none"> ▪ For the emission bandwidth shall be measured using one of the options below: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30px;"><input checked="" type="checkbox"/></td> <td>Refer as FCC KDB 789033, clause C for EBW and clause D for OBW measurement.</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.</td> </tr> </table> 		<input checked="" type="checkbox"/>	Refer as FCC KDB 789033, clause C for EBW and clause D for OBW measurement.	<input type="checkbox"/>	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.	<input type="checkbox"/>	Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033, clause C for EBW and clause D for OBW measurement.						
<input type="checkbox"/>	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.						
<input type="checkbox"/>	Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.						

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B



3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
UNII Devices	
<input checked="" type="checkbox"/> For the 5.15-5.25 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ 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 $\leq 125mW$ [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 $P_{Out} = 24 - (G_{TX} - 6)$.
<input type="checkbox"/> For the 5.25-5.35 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.	
<input type="checkbox"/> For the 5.47-5.725 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.	
<input checked="" type="checkbox"/> For the 5.725-5.85 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ 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	
<input type="checkbox"/> 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.	
<input type="checkbox"/> 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	
<input type="checkbox"/> 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	
<input type="checkbox"/> For the 5.725-5.85 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ 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.	

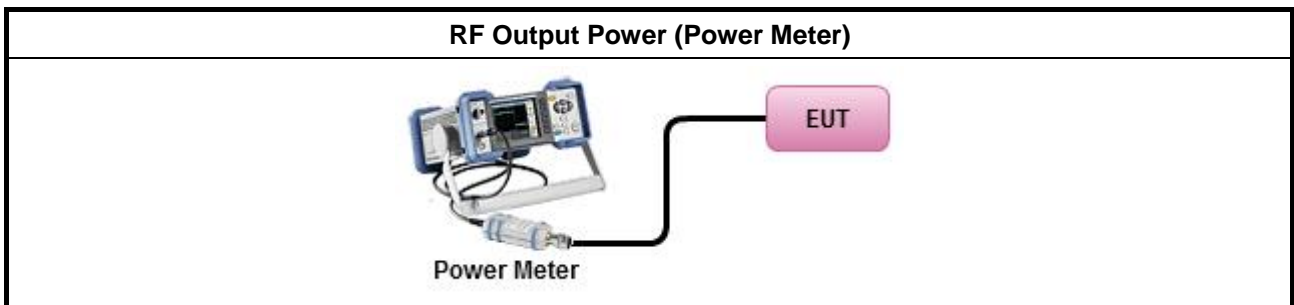
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ Maximum Conducted Output Power 	
Average over on/off periods with duty factor	
<input type="checkbox"/>	Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
<input type="checkbox"/>	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	
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033, clause E Method PM-G (using an RF average power meter).
<ul style="list-style-type: none"> ▪ For conducted measurement. 	
<ul style="list-style-type: none"> ▪ 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. 	
<ul style="list-style-type: none"> ▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$ 	

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C



3.4 Peak Power Spectral Density

3.4.1 Peak Power Spectral Density Limit

Peak Power Spectral Density Limit	
UNII Devices	
<input checked="" type="checkbox"/> For the 5.15-5.25 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"> 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 $PPSD = 11 - (G_{TX} - 6)$.
<input type="checkbox"/> For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
<input type="checkbox"/> For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
<input checked="" type="checkbox"/> For the 5.725-5.85 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"> 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	
<input type="checkbox"/> For the 5.15-5.25 GHz band, the e.i.r.p. peak power spectral density (PPSD) ≤ 10 dBm/MHz.	
<input type="checkbox"/> For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz.	
<input type="checkbox"/>	<ul style="list-style-type: none"> 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 $\theta > 45^\circ$
<input type="checkbox"/> For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz.	
<input type="checkbox"/> For the 5.725-5.85 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"> 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.
<p>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</p> <p>G_{TX} = the maximum transmitting antenna directional gain in dBi.</p>	



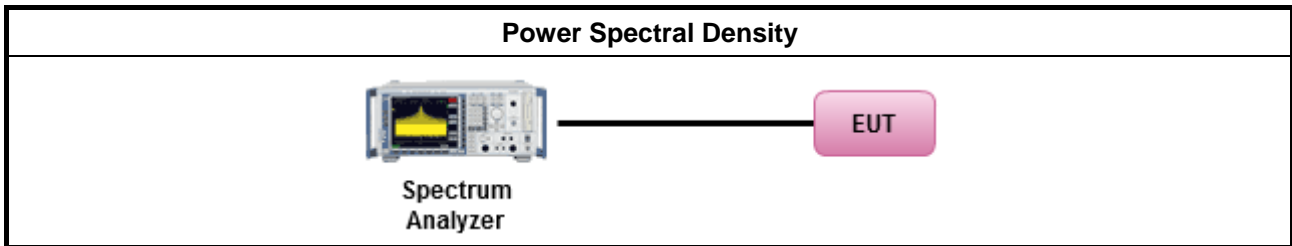
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ 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: 	
<input type="checkbox"/>	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]	
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033, clause E Method SA-1 (spectral trace averaging).
<input type="checkbox"/>	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	
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
<ul style="list-style-type: none"> ▪ For conducted measurement. 	
<ul style="list-style-type: none"> ▪ If the EUT supports multiple transmit chains using options given below: 	
<input checked="" type="checkbox"/>	Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.
<input type="checkbox"/>	Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,
<input type="checkbox"/>	Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.
<ul style="list-style-type: none"> ▪ 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]) $EIRP_{total} = PPSD_{total} + DG$ 	

3.4.4 Test Setup



3.4.5 Test Result of Peak Power Spectral Density

Refer as Appendix D



3.5 Unwanted Emissions

3.5.1 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.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

Un-restricted band emissions above 1GHz Limit	
Operating Band	Limit
<input checked="" type="checkbox"/> 5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
<input type="checkbox"/> 5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
<input type="checkbox"/> 5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
<input checked="" type="checkbox"/> 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).

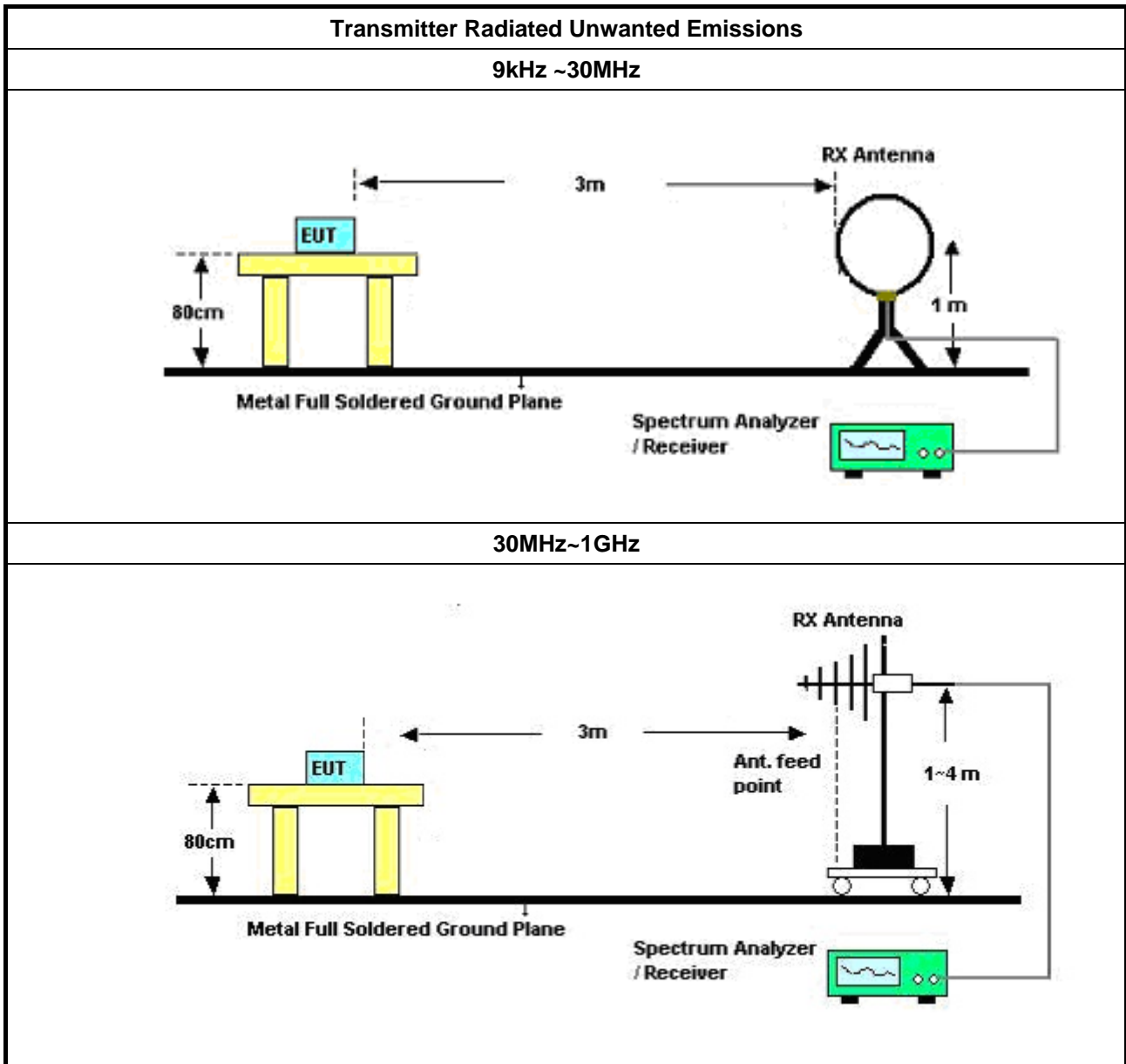
3.5.2 Measuring Instruments

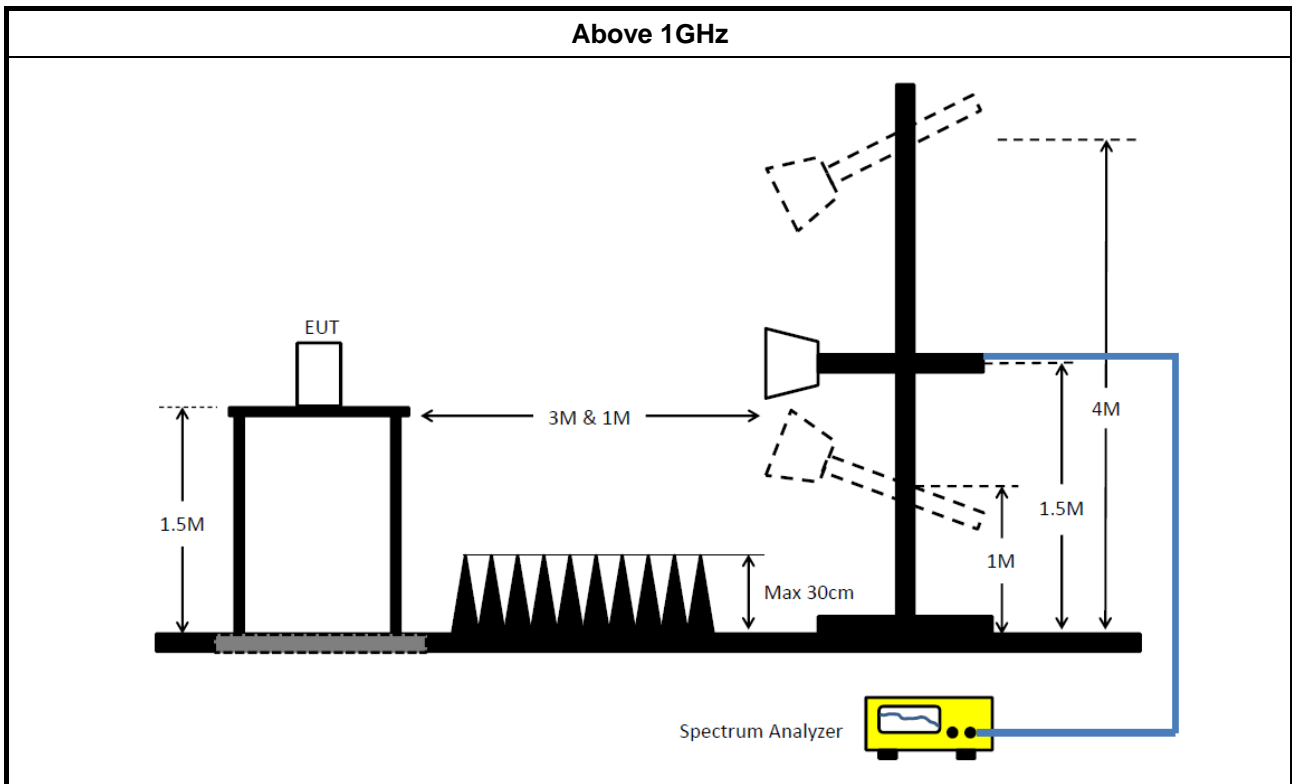
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method	
	<ul style="list-style-type: none"> ▪ 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).
	<ul style="list-style-type: none"> ▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].
	<ul style="list-style-type: none"> ▪ For the transmitter unwanted emissions shall be measured using following options below: <ul style="list-style-type: none"> ▪ 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. <ul style="list-style-type: none"> <input type="checkbox"/> Refer as FCC KDB 789033, H)6) Method AD (Trace Averaging). <input checked="" type="checkbox"/> Refer as FCC KDB 789033, H)6) Method VB (Reduced VBW). <input type="checkbox"/> Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time. <input type="checkbox"/> Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions. <input checked="" type="checkbox"/> Refer as FCC KDB 789033, clause H)5) measurement procedure peak limit. <input type="checkbox"/> Refer as ANSI C63.10, clause 4.2.3.2.2 measurement procedure peak limit.
	<ul style="list-style-type: none"> ▪ For radiated measurement. <ul style="list-style-type: none"> ▪ 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.
	<ul style="list-style-type: none"> ▪ The any unwanted emissions level shall not exceed the fundamental emission level.
	<ul style="list-style-type: none"> ▪ All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

3.5.4 Test Setup





3.5.5 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.

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

3.5.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E



4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Jan. 31, 2018	Jan. 30, 2019	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 20, 2017	Dec. 19, 2018	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Dec. 29, 2017	Dec. 28, 2018	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	150kHz ~ 30MHz	May 22, 2018	May 21, 2019	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
BILOG ANTENNA with 6dB Attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37880 & AT-N0609	20MHz ~ 2GHz	Aug. 27, 2018	Aug. 26, 2019	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Nov. 20, 2017	Nov. 19, 2018	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jun. 28, 2018	Jun. 27, 2019	Radiation (03CH01-CB)
Pre-Amplifier	EMCI	EMC330N	980332	20MHz ~ 3GHz	May 02, 2018	May 01, 2019	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 09, 2018	Jan. 08, 2019	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-H G	1864479	18GHz ~ 40GHz	Jul. 04, 2018	Jul. 03, 2019	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 23, 2017	Nov. 22, 2018	Radiation (03CH01-CB)
EMI Test	R&S	ESCS	100354	9kHz ~ 2.75GHz	Dec. 08, 2017	Dec. 07, 2018	Radiation (03CH01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2018	Mar. 15, 2019	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-16+17	N/A	30 MHz ~ 1 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#1	N/A	18GHz ~ 40 GHz	Jul. 27, 2018	Jul. 26, 2019	Radiation (03CH01-CB)



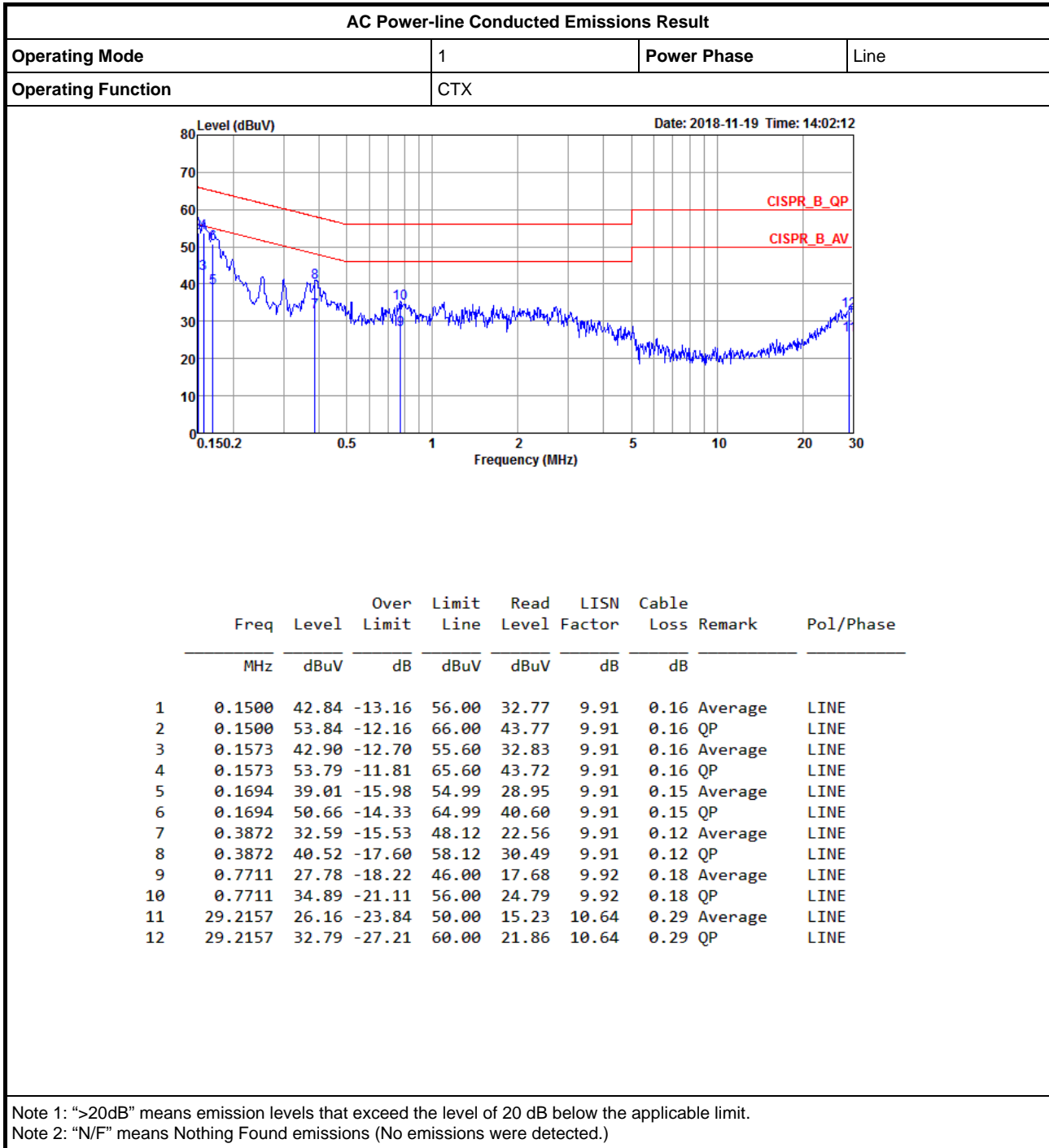
Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Jul. 27, 2018	Jul. 26, 2019	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 21, 2017	Dec. 20, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz – 26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz –26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz –26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz –26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 20, 2017	Nov. 19, 2018	Conducted (TH01-CB)

Note: Calibration Interval of instruments listed above is one year.
N.C.R. means Non-Calibration required.



AC Power-line Conducted Emissions Result

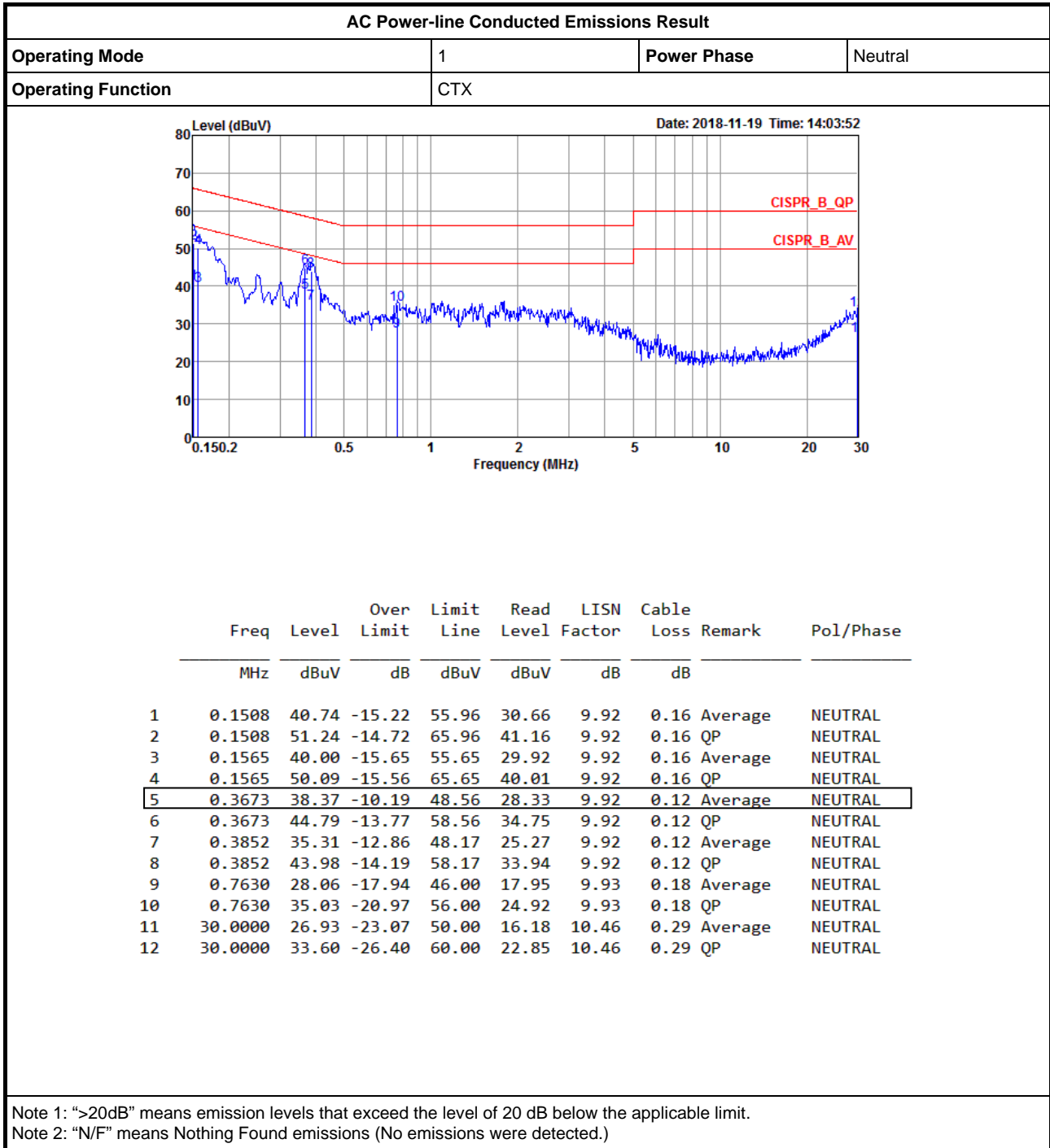
Appendix A





AC Power-line Conducted Emissions Result

Appendix A





Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	44.2M	25.937M	25M9D1D	30.975M	16.567M
802.11ac VHT20_Nss1,(MCS0)_1TX	48.225M	26.962M	27M0D1D	33.475M	17.616M
802.11ac VHT40_Nss1,(MCS0)_1TX	87.65M	37.231M	37M2D1D	40.85M	36.082M
802.11ac VHT80_Nss1,(MCS0)_1TX	83.7M	75.362M	75M4D1D	83.7M	75.362M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	16.3M	34.983M	35M0D1D	16.05M	34.533M
802.11ac VHT20_Nss1,(MCS0)_1TX	17.275M	36.082M	36M1D1D	16.925M	35.432M
802.11ac VHT40_Nss1,(MCS0)_1TX	35.7M	71.514M	71M5D1D	35.7M	57.021M
802.11ac VHT80_Nss1,(MCS0)_1TX	75.2M	81.459M	81M5D1D	75.2M	81.459M

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;



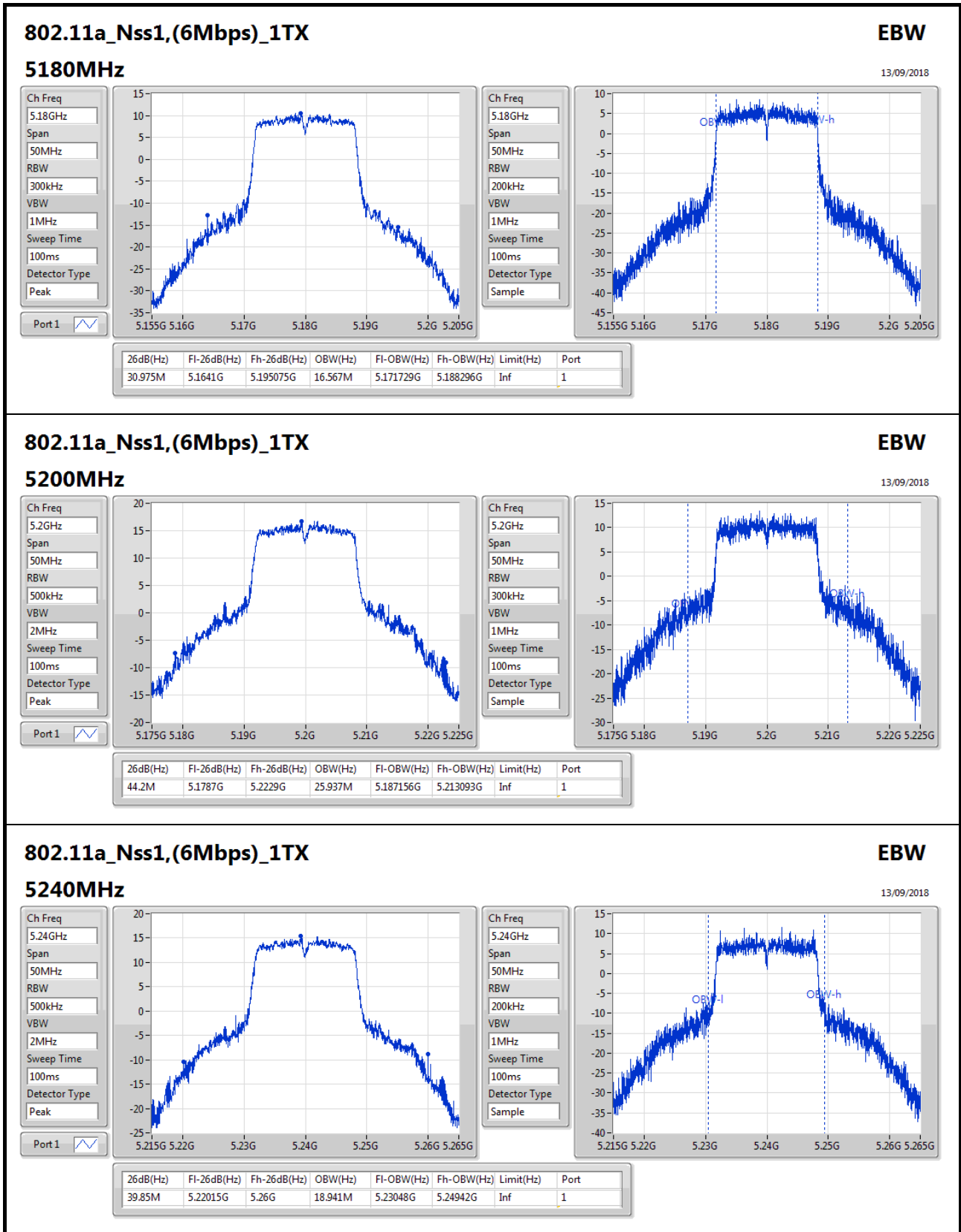
EBW Result

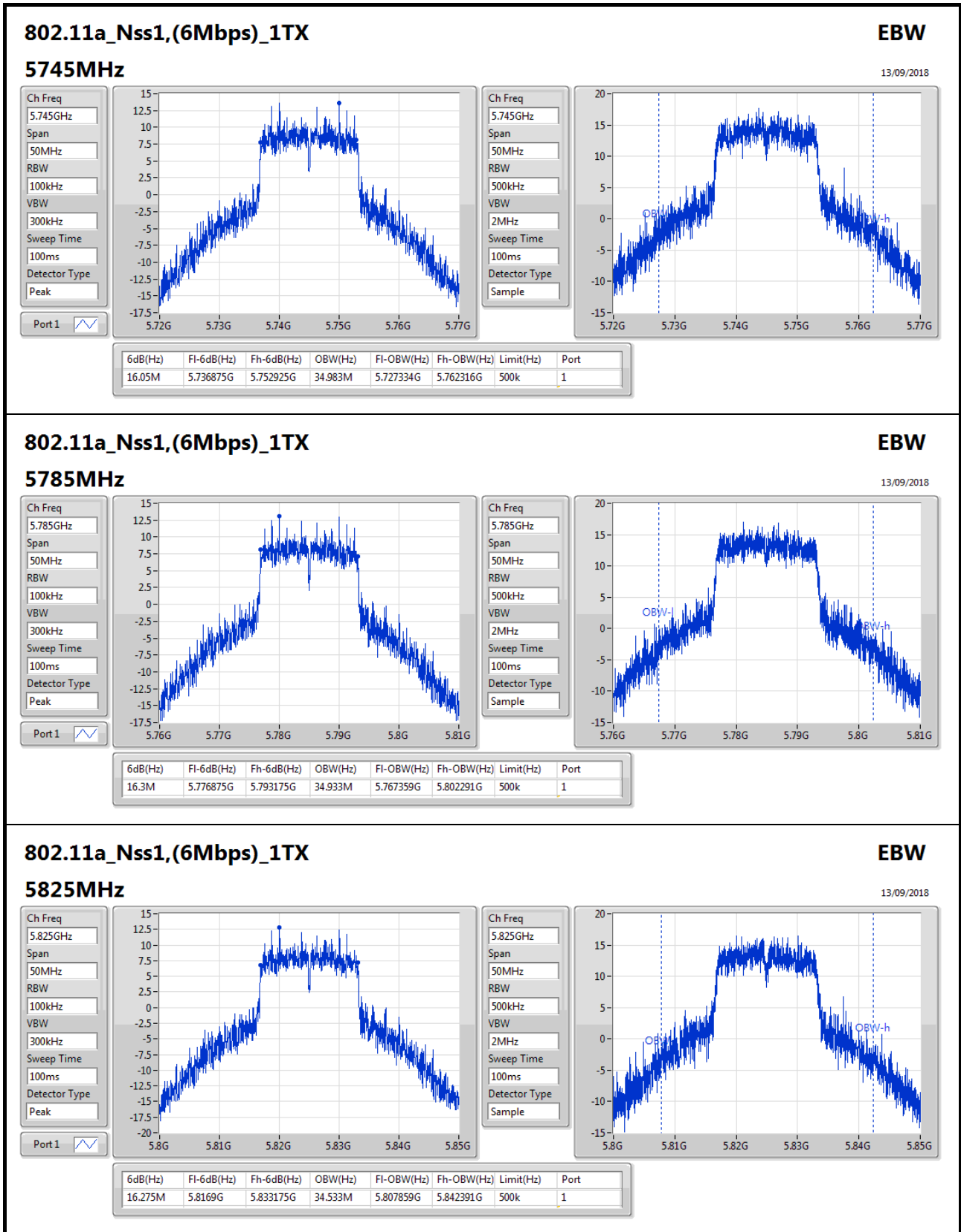
Appendix B

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-
5180MHz	Pass	Inf	30.975M	16.567M
5200MHz	Pass	Inf	44.2M	25.937M
5240MHz	Pass	Inf	39.85M	18.941M
5745MHz	Pass	500k	16.05M	34.983M
5785MHz	Pass	500k	16.3M	34.933M
5825MHz	Pass	500k	16.275M	34.533M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-
5180MHz	Pass	Inf	33.475M	17.616M
5200MHz	Pass	Inf	48.225M	26.962M
5240MHz	Pass	Inf	44M	19.515M
5745MHz	Pass	500k	16.925M	36.082M
5785MHz	Pass	500k	17.175M	35.757M
5825MHz	Pass	500k	17.275M	35.432M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-
5190MHz	Pass	Inf	40.85M	36.082M
5230MHz	Pass	Inf	87.65M	37.231M
5755MHz	Pass	500k	35.7M	57.021M
5795MHz	Pass	500k	35.7M	71.514M
802.11ac VHT80_Nss1,(MCS0)_1TX	-	-	-	-
5210MHz	Pass	Inf	83.7M	75.362M
5775MHz	Pass	500k	75.2M	81.459M

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_Nss1,(6Mbps)_1TX
EBW

13/09/2018

5825MHz

Ch Freq: 5.825GHz

Span: 50MHz

RBW: 100kHz

VBW: 300kHz

Sweep Time: 100ms

Detector Type: Peak

Port 1

Ch Freq: 5.825GHz

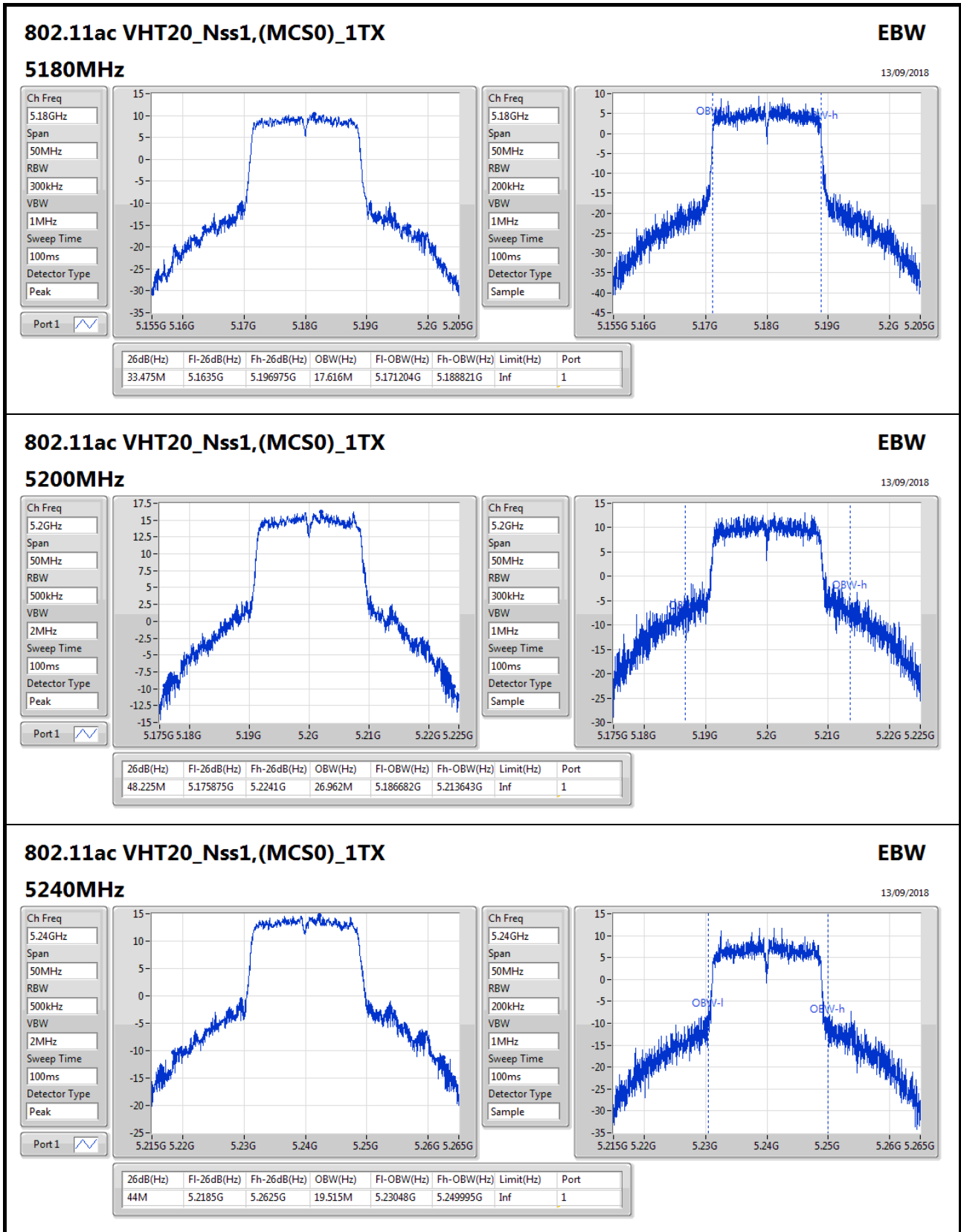
Span: 50MHz

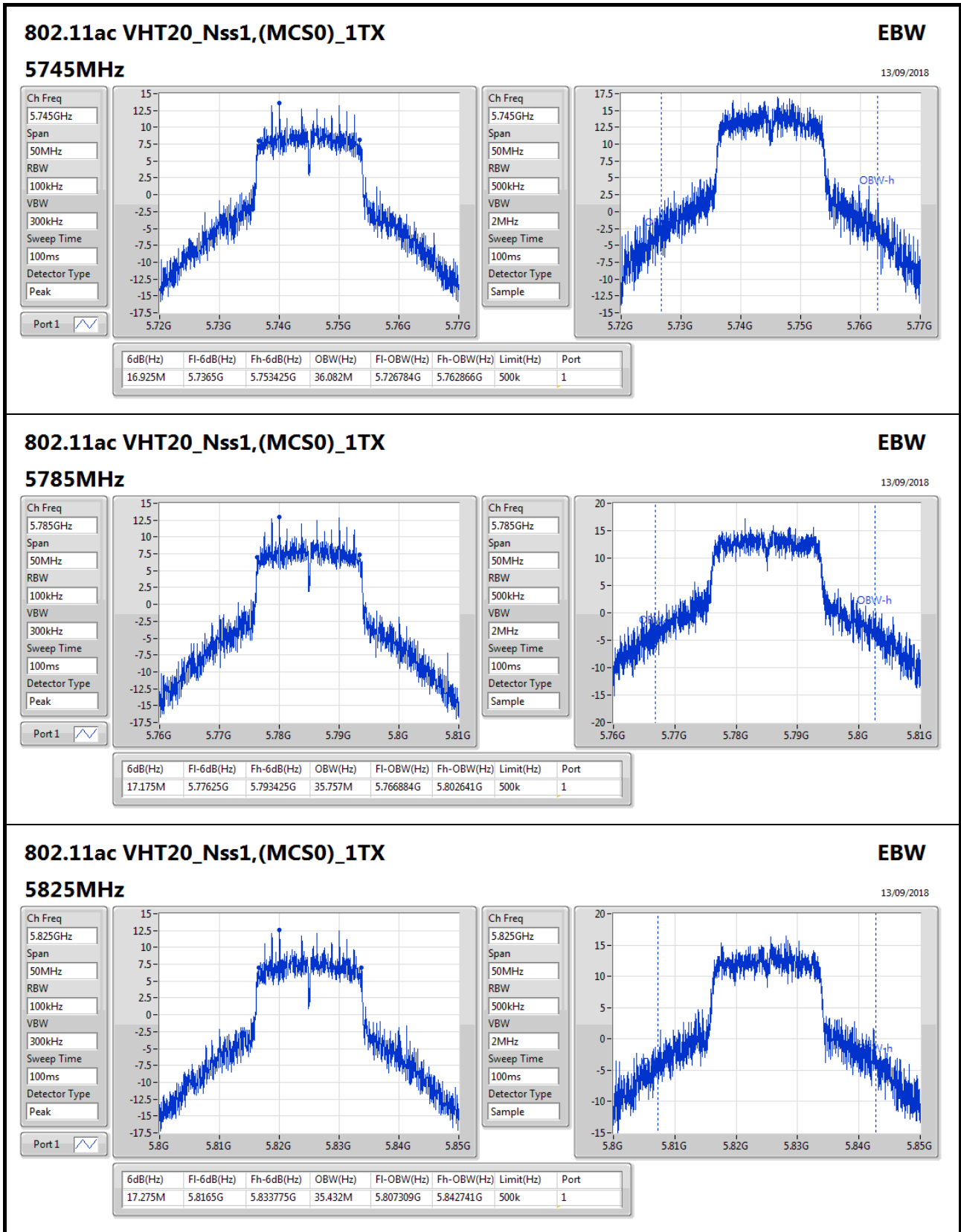
RBW: 500kHz

VBW: 2MHz

Sweep Time: 100ms

Detector Type: Sample




802.11ac VHT20_Nss1,(MCS0)_1TX
EBW

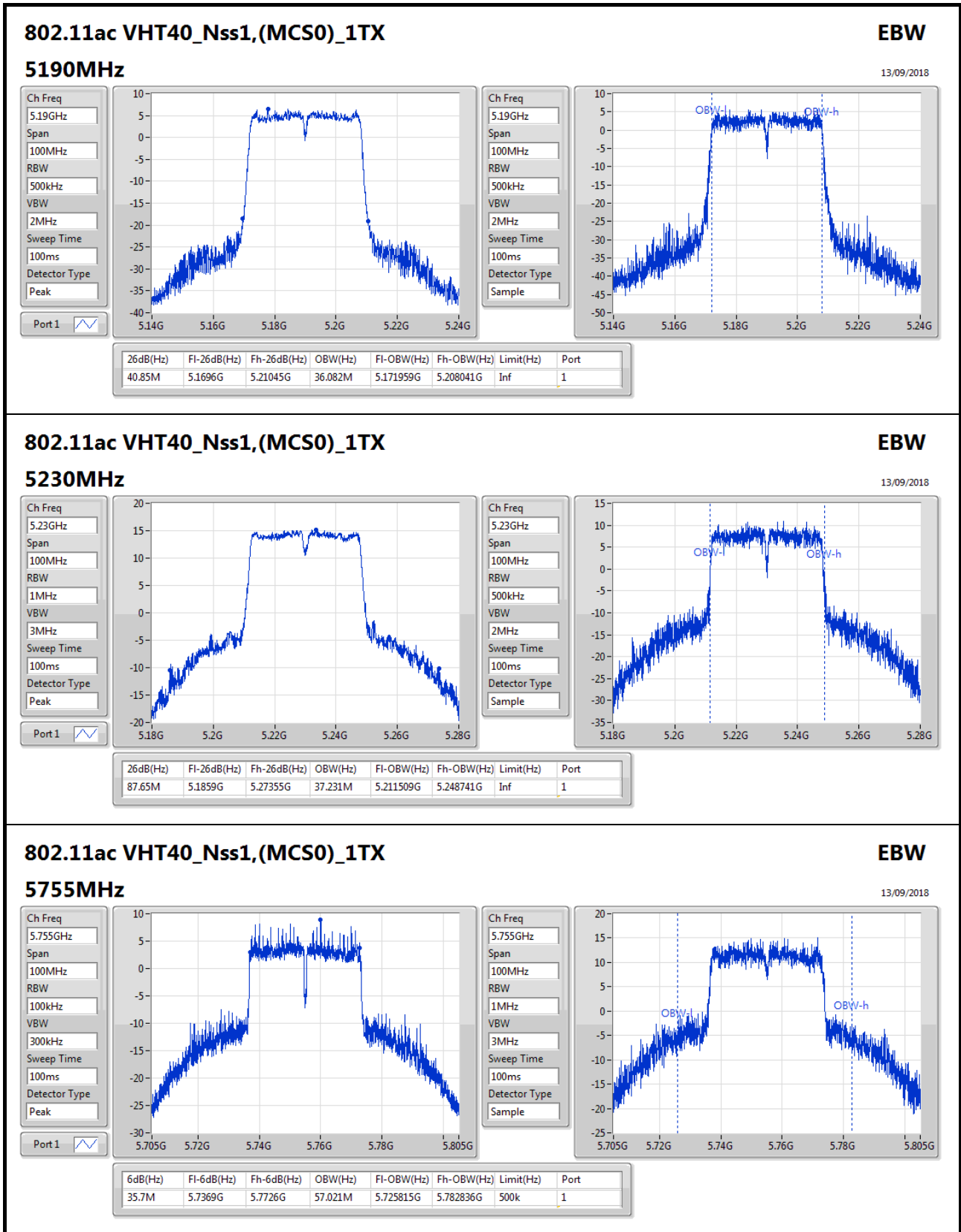
13/09/2018

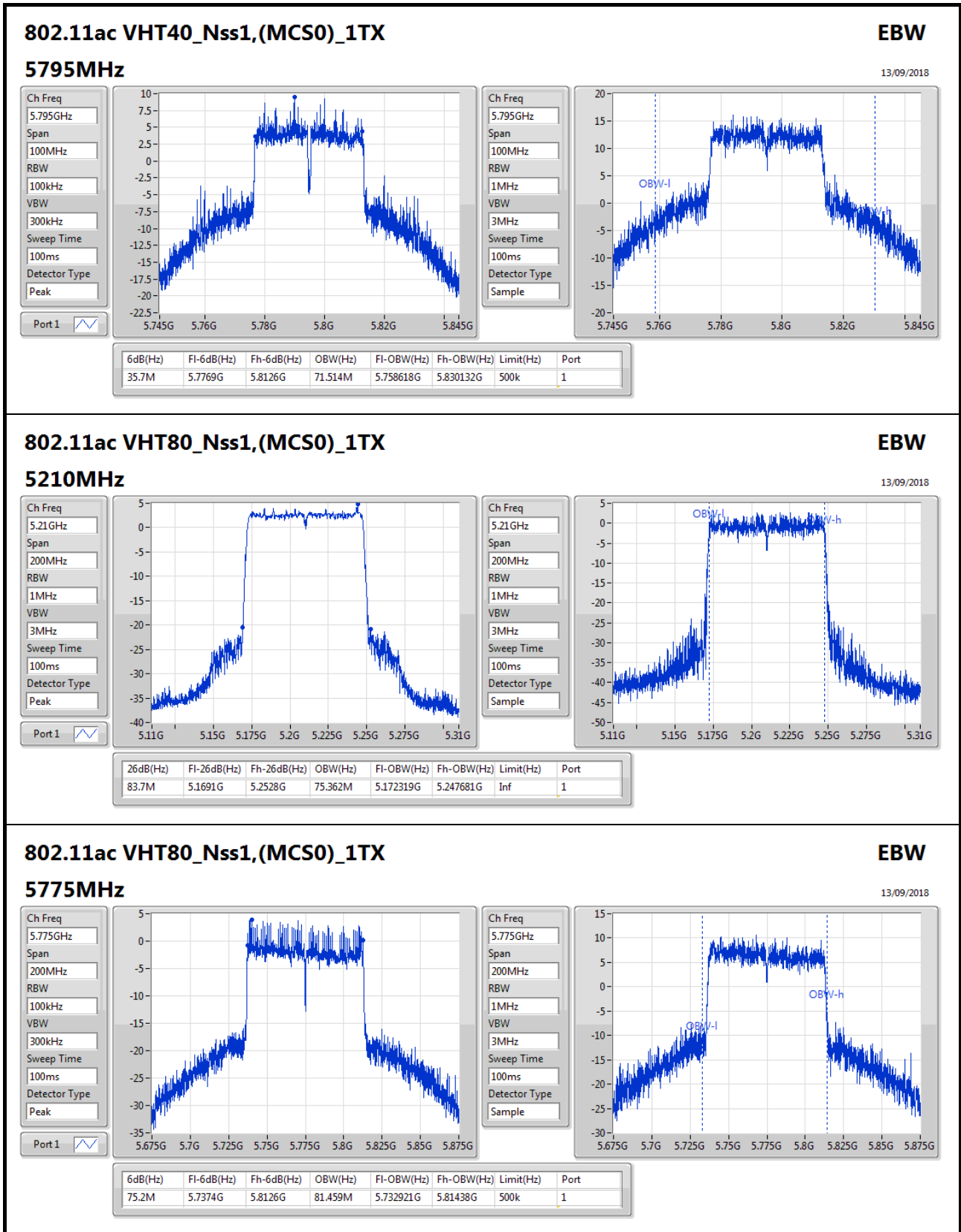
5825MHz

Ch Freq: 5.825GHz
Span: 50MHz
RBW: 100kHz
VBW: 300kHz
Sweep Time: 100ms
Detector Type: Peak

Ch Freq: 5.825GHz
Span: 50MHz
RBW: 500kHz
VBW: 2MHz
Sweep Time: 100ms
Detector Type: Sample

6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.275M	5.8165G	5.833775G	35.432M	5.807309G	5.842741G	500k	1







Power Result

Summary

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_1TX	23.32	0.21478
802.11ac VHT20_Nss1,(MCS0)_1TX	23.25	0.21135
802.11ac VHT40_Nss1,(MCS0)_1TX	21.66	0.14655
802.11ac VHT80_Nss1,(MCS0)_1TX	13.57	0.02275
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_1TX	24.37	0.27353
802.11ac VHT20_Nss1,(MCS0)_1TX	24.18	0.26182
802.11ac VHT40_Nss1,(MCS0)_1TX	23.79	0.23933
802.11ac VHT80_Nss1,(MCS0)_1TX	20.62	0.11535



Power Result

Appendix C

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-
5180MHz	Pass	2.98	19.86	19.86	30.00
5200MHz	Pass	2.98	23.32	23.32	30.00
5240MHz	Pass	2.98	21.94	21.94	30.00
5745MHz	Pass	2.98	24.37	24.37	30.00
5785MHz	Pass	2.98	24.17	24.17	30.00
5825MHz	Pass	2.98	23.91	23.91	30.00
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
5180MHz	Pass	2.98	19.83	19.83	30.00
5200MHz	Pass	2.98	23.25	23.25	30.00
5240MHz	Pass	2.98	21.87	21.87	30.00
5745MHz	Pass	2.98	24.18	24.18	30.00
5785MHz	Pass	2.98	24.06	24.06	30.00
5825MHz	Pass	2.98	23.79	23.79	30.00
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
5190MHz	Pass	2.98	17.02	17.02	30.00
5230MHz	Pass	2.98	21.66	21.66	30.00
5755MHz	Pass	2.98	22.47	22.47	30.00
5795MHz	Pass	2.98	23.79	23.79	30.00
802.11ac VHT80_Nss1,(MCS0)_1TX	-	-	-	-	-
5210MHz	Pass	2.98	13.57	13.57	30.00
5775MHz	Pass	2.98	20.62	20.62	30.00

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



Summary

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
802.11a_Nss1,(6Mbps)_1TX	10.23
802.11ac VHT20_Nss1,(MCS0)_1TX	10.07
802.11ac VHT40_Nss1,(MCS0)_1TX	5.53
802.11ac VHT80_Nss1,(MCS0)_1TX	-5.52
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_1TX	9.56
802.11ac VHT20_Nss1,(MCS0)_1TX	9.13
802.11ac VHT40_Nss1,(MCS0)_1TX	5.45
802.11ac VHT80_Nss1,(MCS0)_1TX	0.08

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

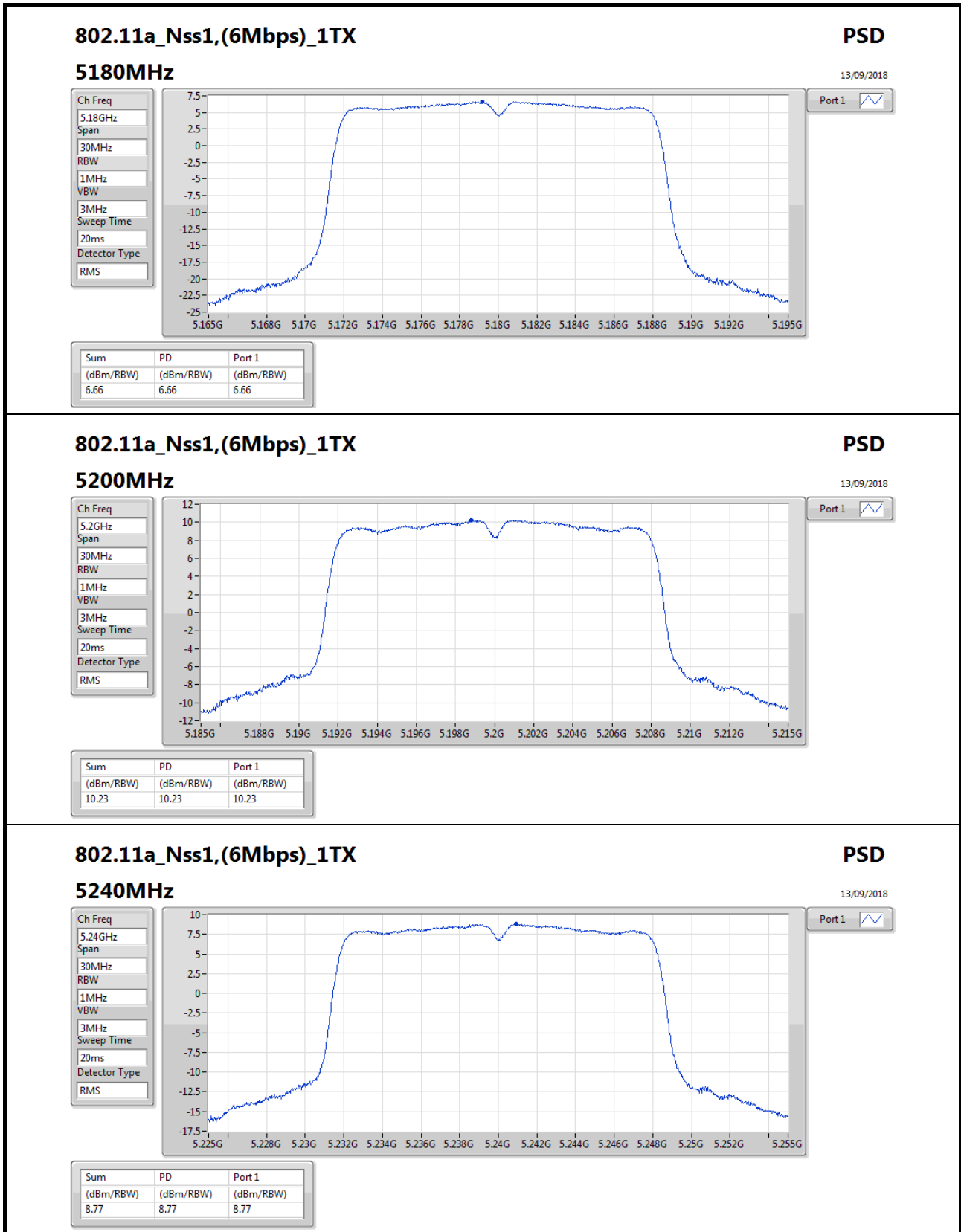


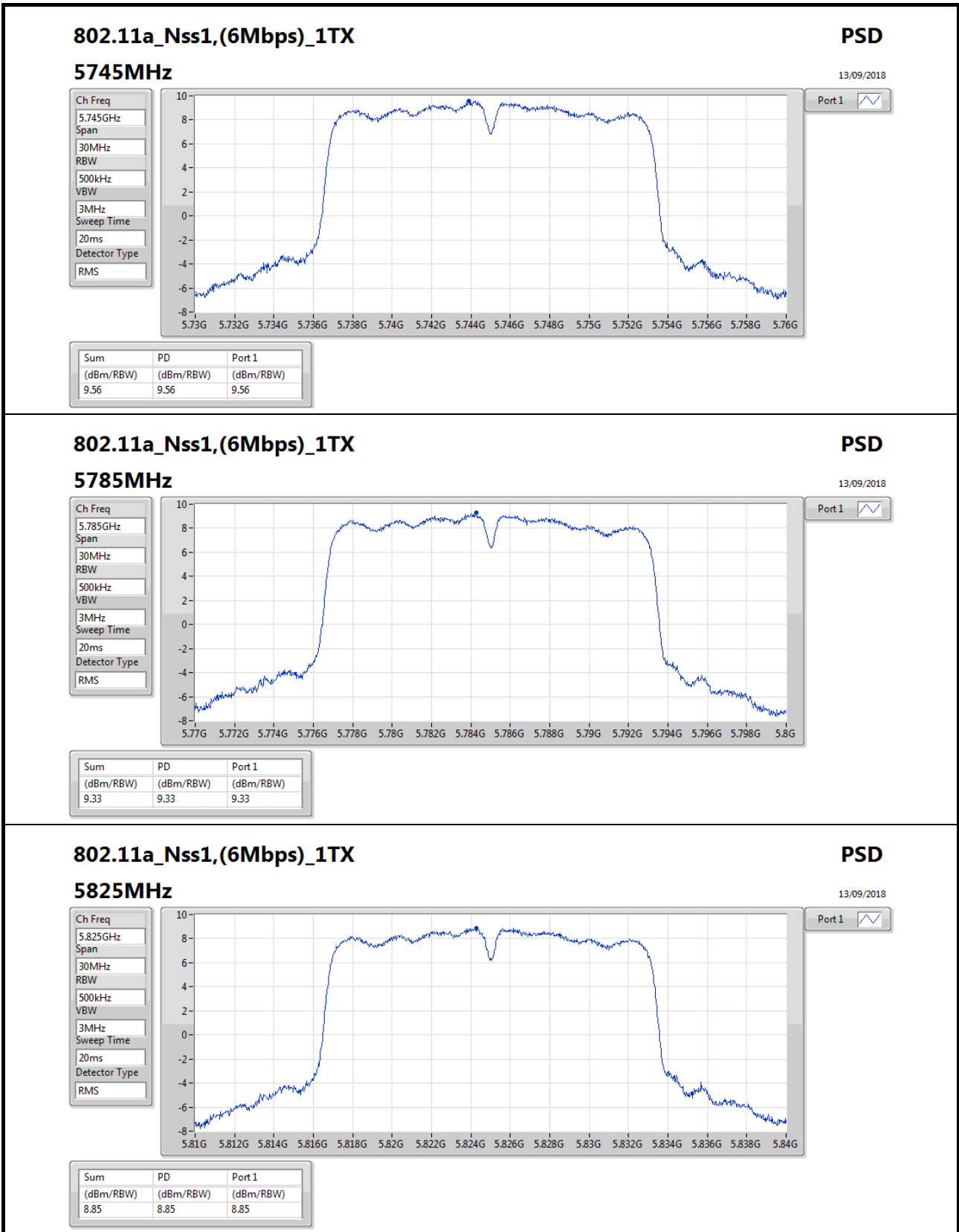
PSD Result

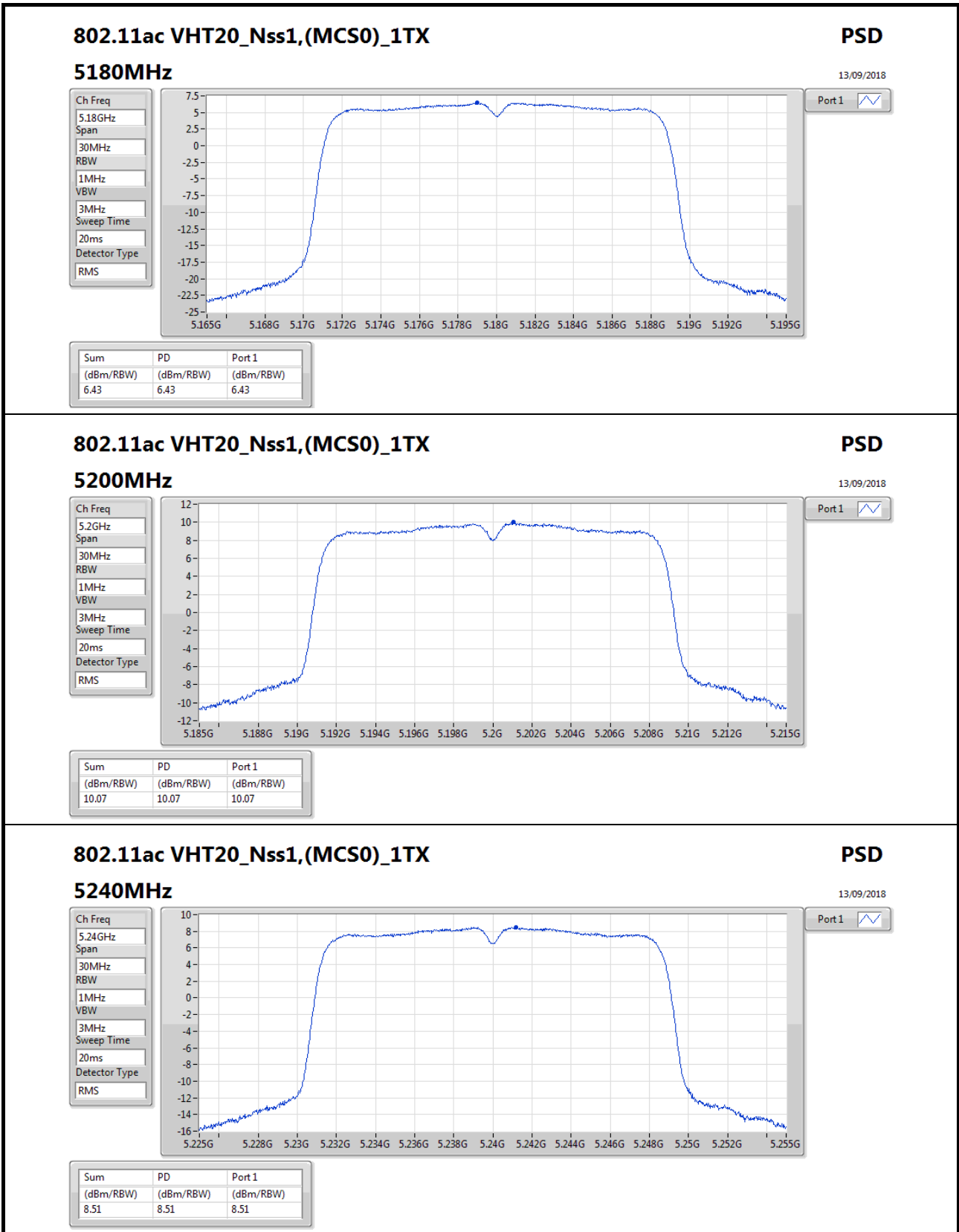
Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-
5180MHz	Pass	2.98	6.66	6.66	17.00
5200MHz	Pass	2.98	10.23	10.23	17.00
5240MHz	Pass	2.98	8.77	8.77	17.00
5745MHz	Pass	2.98	9.56	9.56	30.00
5785MHz	Pass	2.98	9.33	9.33	30.00
5825MHz	Pass	2.98	8.85	8.85	30.00
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
5180MHz	Pass	2.98	6.43	6.43	17.00
5200MHz	Pass	2.98	10.07	10.07	17.00
5240MHz	Pass	2.98	8.51	8.51	17.00
5745MHz	Pass	2.98	9.13	9.13	30.00
5785MHz	Pass	2.98	8.74	8.74	30.00
5825MHz	Pass	2.98	8.47	8.47	30.00
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
5190MHz	Pass	2.98	0.74	0.74	17.00
5230MHz	Pass	2.98	5.53	5.53	17.00
5755MHz	Pass	2.98	4.43	4.43	30.00
5795MHz	Pass	2.98	5.45	5.45	30.00
802.11ac VHT80_Nss1,(MCS0)_1TX	-	-	-	-	-
5210MHz	Pass	2.98	-5.52	-5.52	17.00
5775MHz	Pass	2.98	0.08	0.08	30.00

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 Xpower density;







802.11ac VHT20_Nss1,(MCS0)_1TX

5240MHz

PSD
13/09/2018

Ch Freq
5.24GHz

Span
30MHz

RBW
1MHz

VBW
3MHz

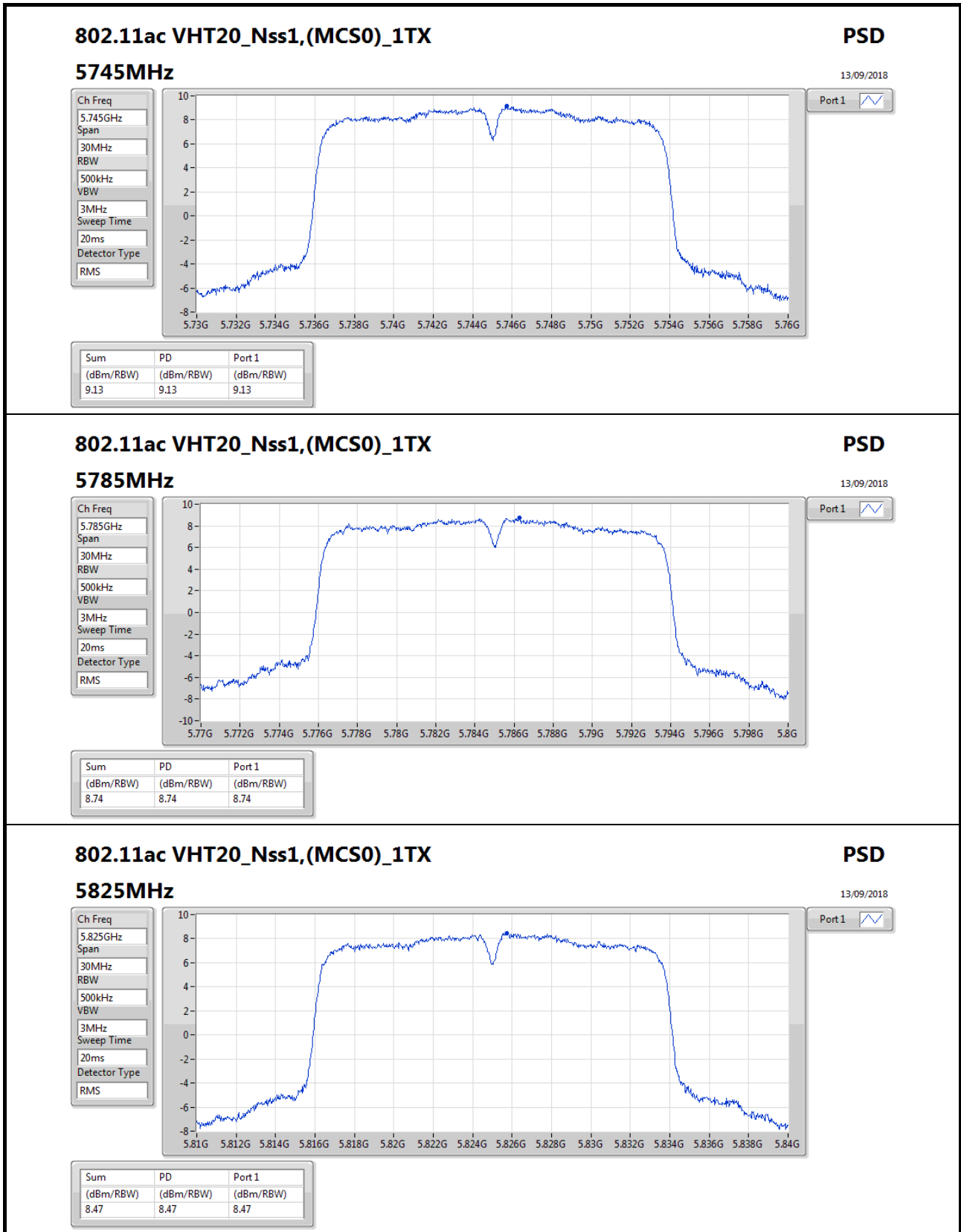
Sweep Time
20ms

Detector Type
RMS



Port 1 

Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.51	8.51	8.51



802.11ac VHT20_Nss1,(MCS0)_1TX

5825MHz

PSD
13/09/2018

Ch Freq
5.825GHz

Span
30MHz

RBW
500kHz

VBW
3MHz

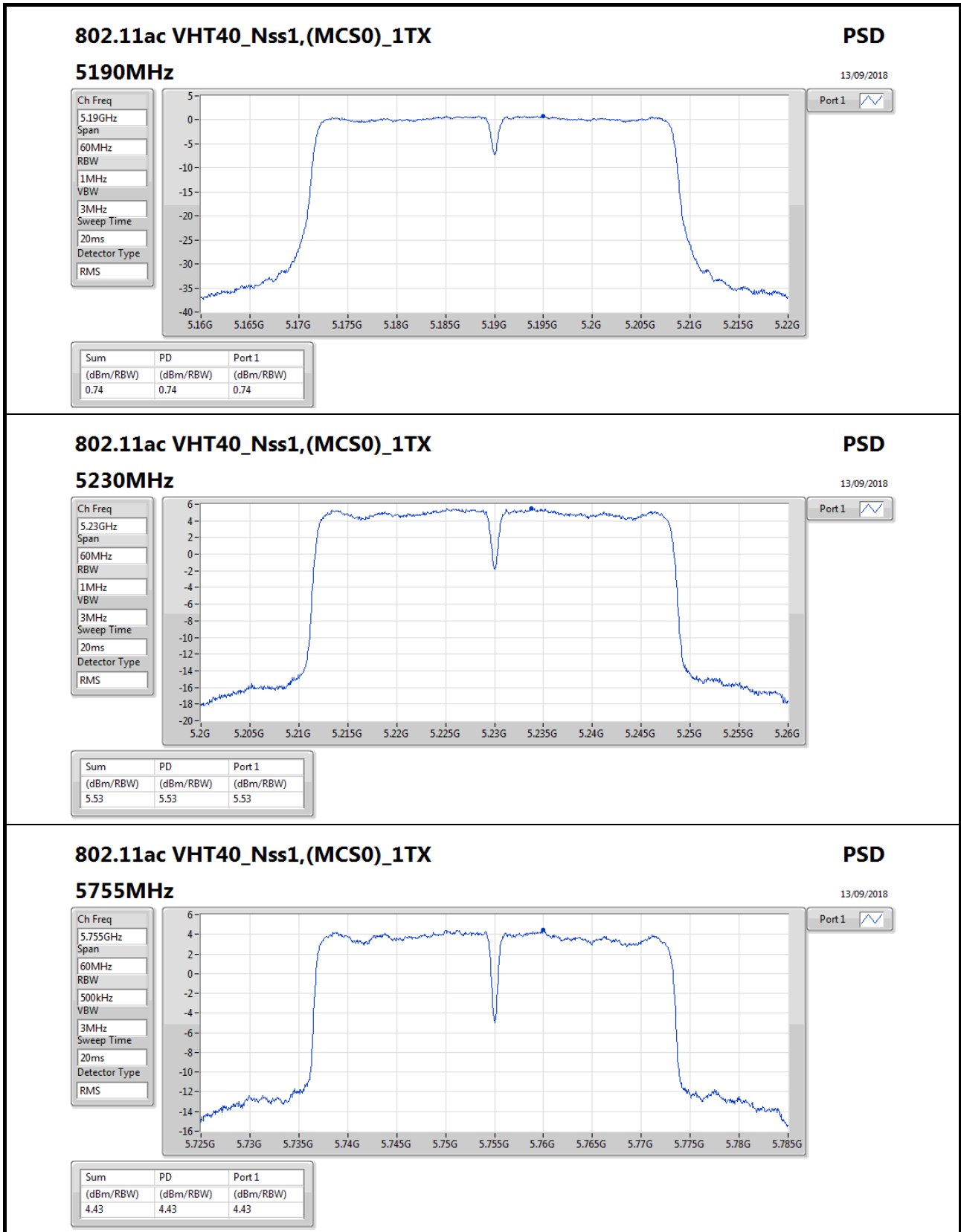
Sweep Time
20ms

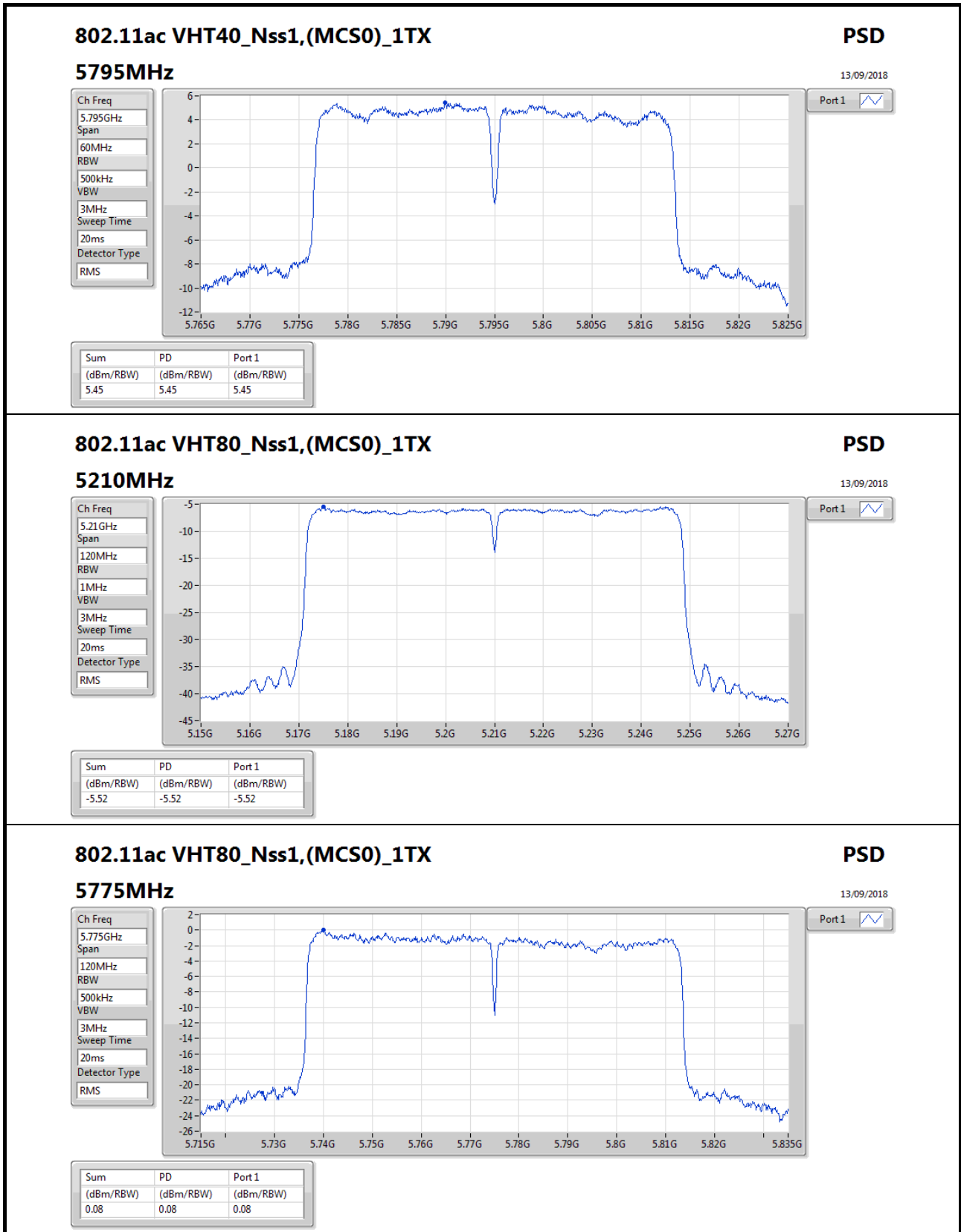
Detector Type
RMS



Port 1 

Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.47	8.47	8.47





802.11ac VHT80_Nss1,(MCS0)_1TX

5775MHz

PSD

13/09/2018

Ch Freq

5.775GHz

Span

120MHz

RBW

500kHz

VBW

3MHz

Sweep Time

20ms

Detector Type

RMS



Port 1

Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.08	0.08	0.08



RSE below 1GHz Result

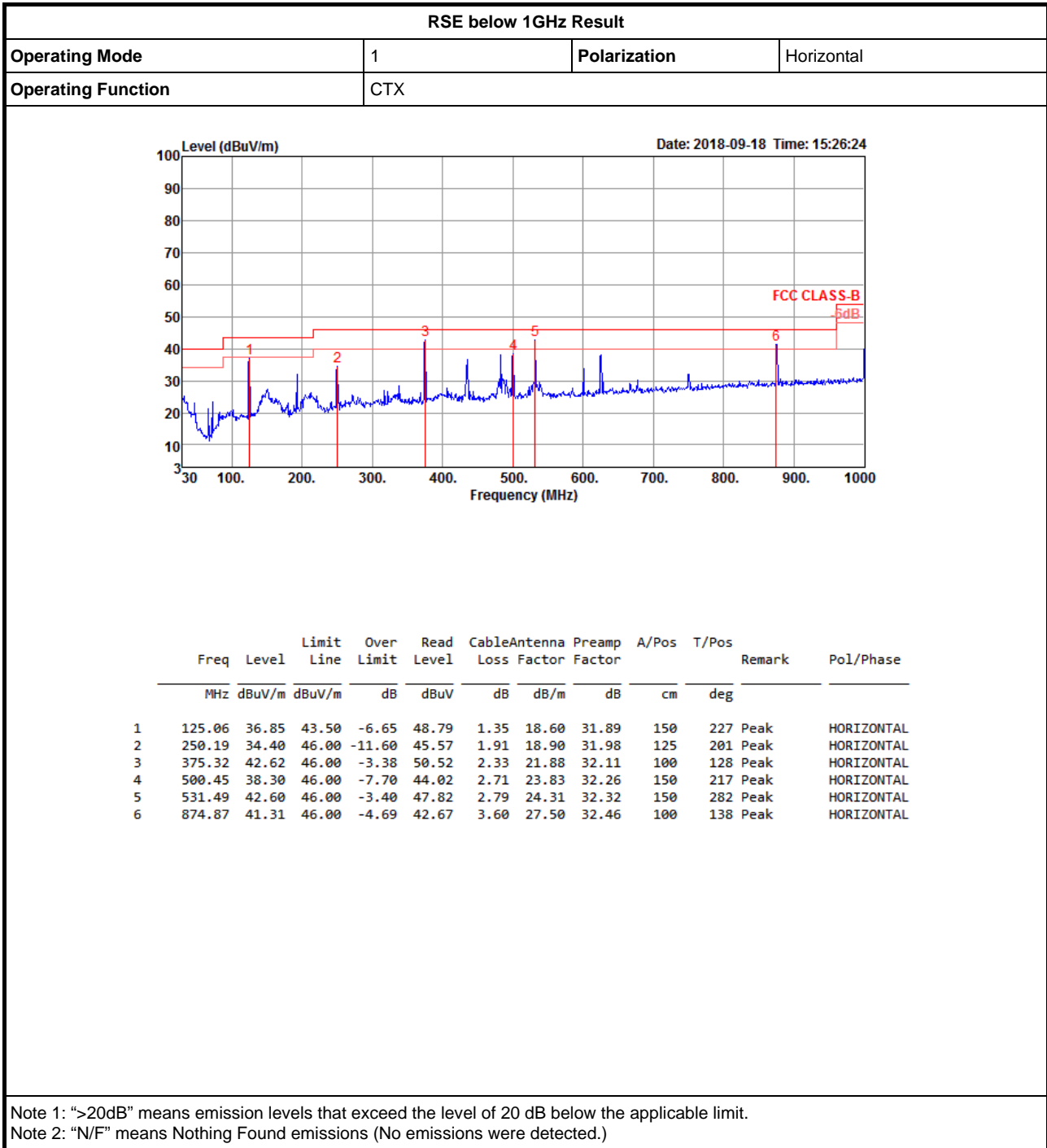
Appendix E.1

RSE below 1GHz Result										
Operating Mode	1			Polarization	Vertical					
Operating Function	CTX									
<div style="text-align: right;">Date: 2018-09-18 Time: 15:26:35</div> <p>The spectrum plot displays the emission levels across a frequency range from 30 MHz to 1000 MHz. A red stepped line represents the FCC CLASS-B limit, which is 5 dB above the 20 dBuV/m floor. Six specific peaks are identified and numbered 1 through 6, corresponding to the data table below.</p>										

Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.
 Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)



RSE below 1GHz Result





RSE TX above 1GHz Result

Appendix E.2

Summary

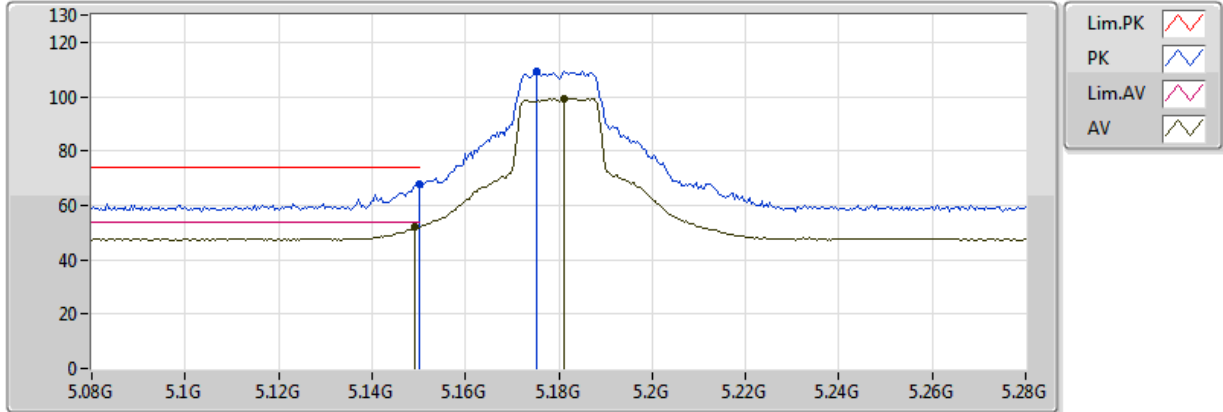
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
5.15-5.25GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	Pass	AV	15.7196G	53.98	54.00	-0.02	14.62	3	Vertical	44	1.76	-



802.11a_Nss1,(6Mbps)_1TX

5180MHz_TX

11/09/2018



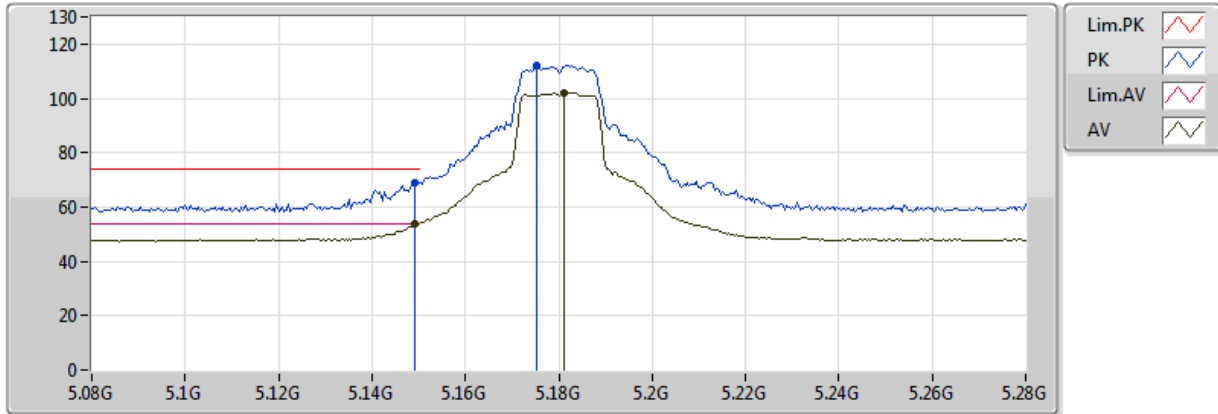
EUT Z_1TX
Setting 14
04-M-1-10
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.149995G	67.97	74.00	-6.03	7.79	3	Vertical	213	2.93	-
AV	5.1492G	51.87	54.00	-2.13	7.79	3	Vertical	213	2.93	-
PK	5.1752G	109.33	Inf	-Inf	7.88	3	Vertical	213	2.93	-
AV	5.1812G	99.36	Inf	-Inf	7.89	3	Vertical	213	2.93	-

802.11a_Nss1,(6Mbps)_1TX

5180MHz_TX

11/09/2018



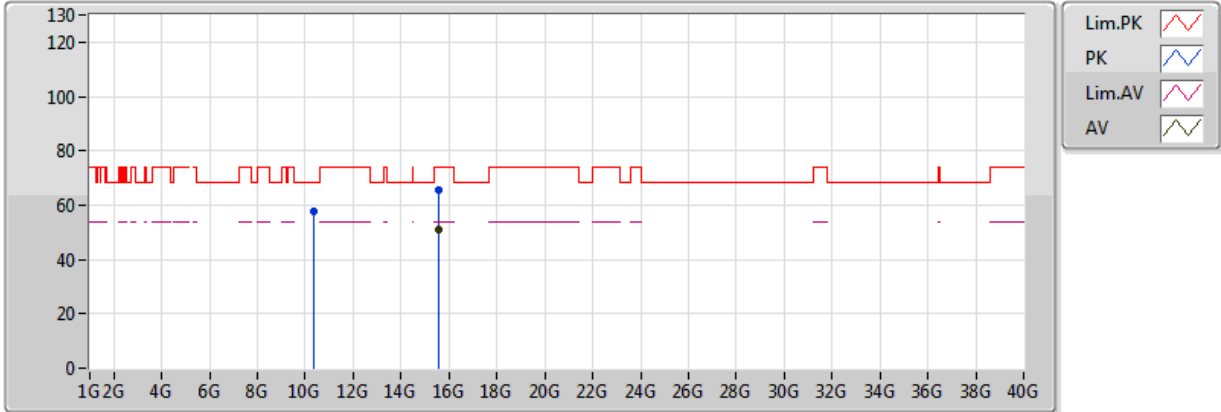
EUT_Z_1TX
Setting 14
04-M-1-10
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.1492G	69.20	74.00	-4.80	7.79	3	Horizontal	52	2.90	-
AV	5.1492G	53.56	54.00	-0.44	7.79	3	Horizontal	52	2.90	-
PK	5.1752G	112.08	Inf	-Inf	7.88	3	Horizontal	52	2.90	-
AV	5.1812G	102.06	Inf	-Inf	7.89	3	Horizontal	52	2.90	-

802.11a_Nss1,(6Mbps)_1TX

5180MHz_TX

12/09/2018



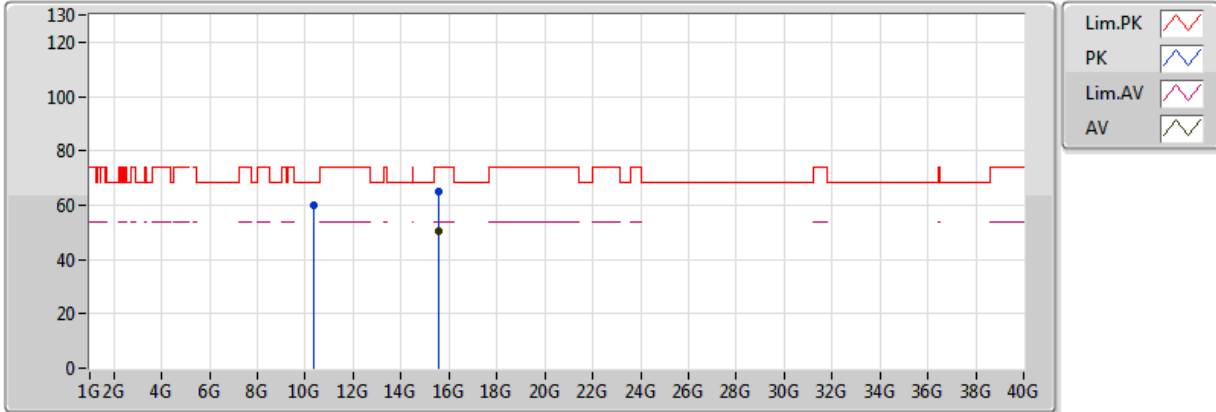
EUT_Z_1TX
Setting 14
04-M-1
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	10.3566G	57.89	68.20	-10.31	13.78	3	Vertical	171	1.50	-
PK	15.5438G	65.35	74.00	-8.65	14.83	3	Vertical	47	1.76	-
AV	15.5401G	50.72	54.00	-3.28	14.83	3	Vertical	47	1.76	-

802.11a_Nss1,(6Mbps)_1TX

5180MHz_TX

12/09/2018



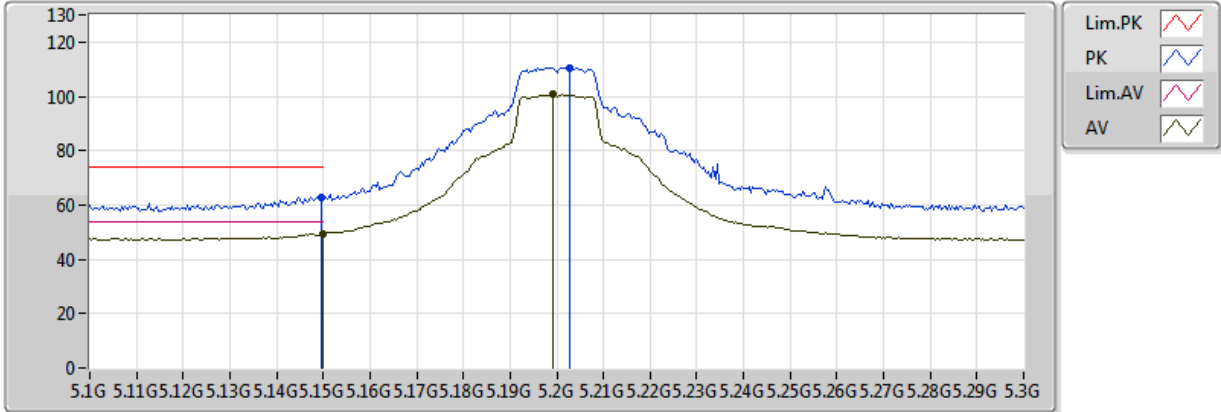
EUT_Z_1TX
 Setting 14
 04-M-1
 FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	10.3551G	59.88	68.20	-8.32	13.78	3	Horizontal	271	2.44	-
PK	15.5376G	64.94	74.00	-9.06	14.83	3	Horizontal	323	1.72	-
AV	15.5388G	50.47	54.00	-3.53	14.83	3	Horizontal	323	1.72	-

802.11a_Nss1,(6Mbps)_1TX

5200MHz_TX

12/09/2018



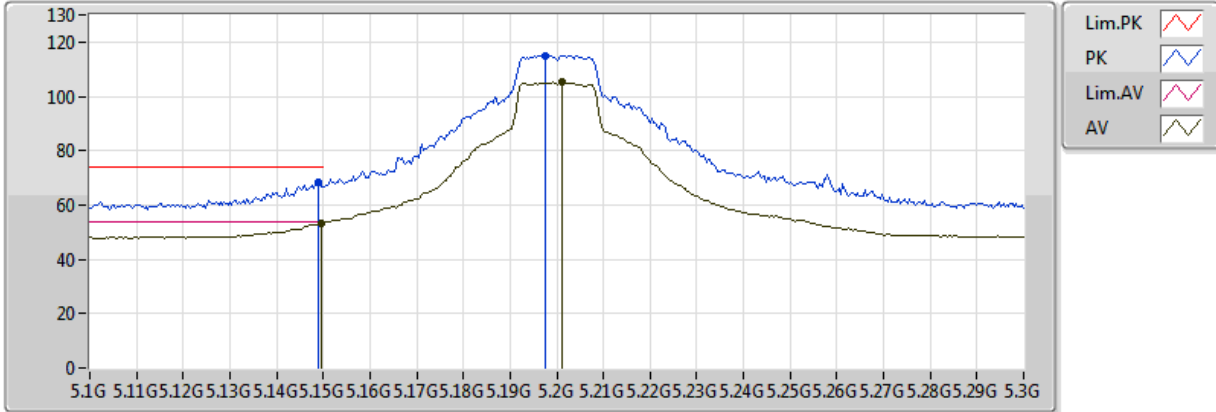
EUT_Z_1TX
Setting 1F
04-M-1-10
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.1496G	62.99	74.00	-11.01	7.79	3	Vertical	180	2.38	-
AV	5.149995G	49.45	54.00	-4.55	7.79	3	Vertical	180	2.38	-
PK	5.2028G	110.51	Inf	-Inf	7.96	3	Vertical	180	2.38	-
AV	5.1992G	100.72	Inf	-Inf	7.95	3	Vertical	180	2.38	-

802.11a_Nss1,(6Mbps)_1TX

5200MHz_TX

12/09/2018



EUT Z_1TX
Setting 1F
04-M-1-10
FSP(100142)

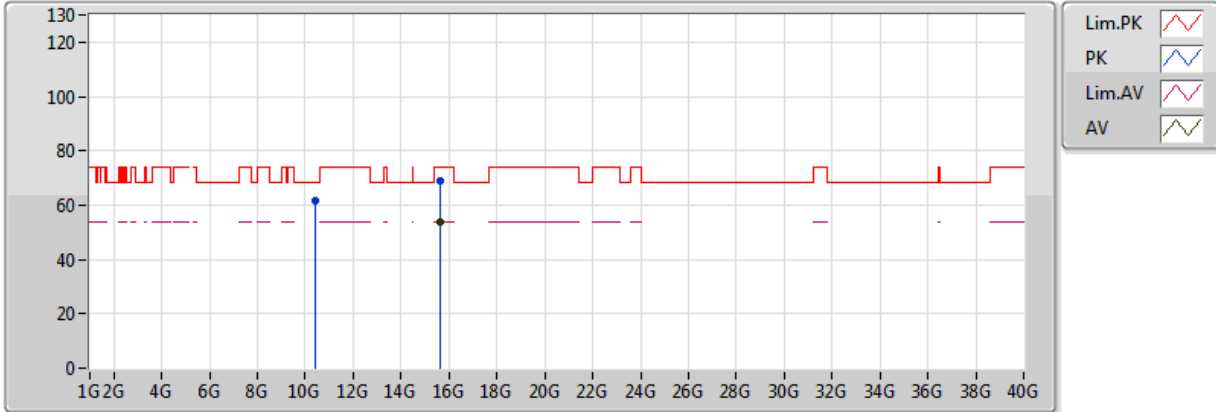
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.1488G	68.31	74.00	-5.69	7.79	3	Horizontal	50	2.14	-
AV	5.1496G	53.37	54.00	-0.63	7.79	3	Horizontal	50	2.14	-
PK	5.1976G	114.98	Inf	-Inf	7.94	3	Horizontal	50	2.14	-
AV	5.2012G	105.20	Inf	-Inf	7.95	3	Horizontal	50	2.14	-



802.11a_Nss1,(6Mbps)_1TX

5200MHz_TX

12/09/2018



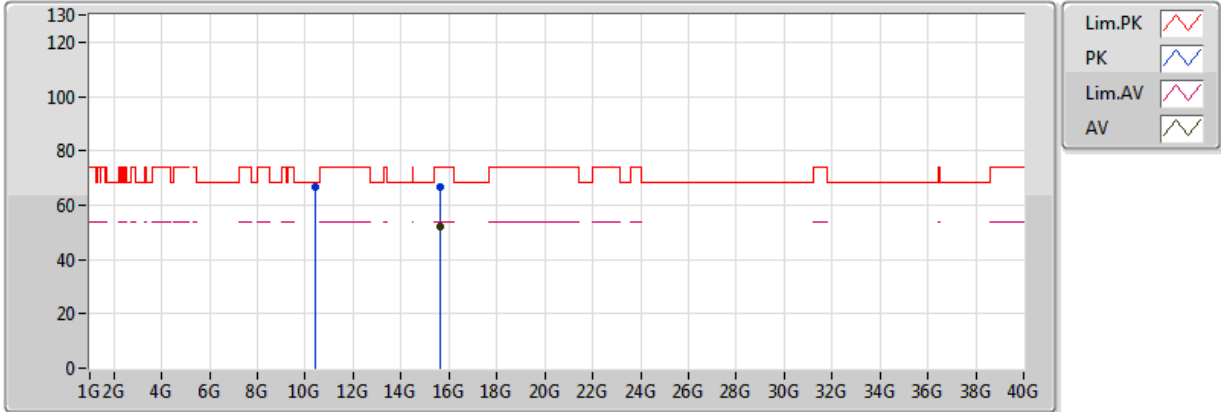
EUT_Z_1TX
 Setting 1F
 04-M-1
 FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	10.40186G	61.78	68.20	-6.42	13.79	3	Vertical	173	1.55	-
PK	15.6039G	69.01	74.00	-4.99	14.76	3	Vertical	49	2.05	-
AV	15.6024G	53.92	54.00	-0.08	14.76	3	Vertical	49	2.05	-

802.11a_Nss1,(6Mbps)_1TX

5200MHz_TX

12/09/2018



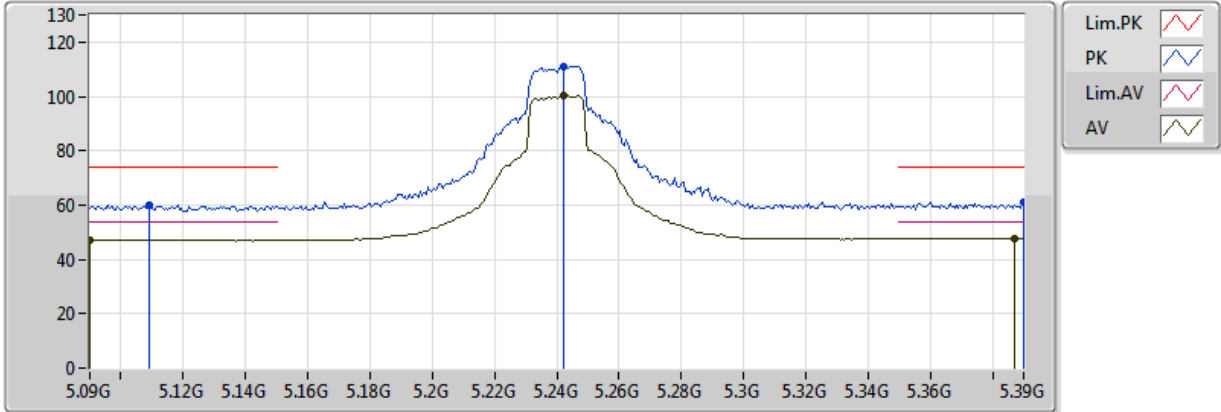
EUT_Z_1TX
Setting 1F
04-M-1
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	10.3991G	66.47	68.20	-1.73	13.79	3	Horizontal	78	1.71	-
PK	15.6039G	66.59	74.00	-7.41	14.76	3	Horizontal	322	1.50	-
AV	15.6024G	52.03	54.00	-1.97	14.76	3	Horizontal	322	1.50	-

802.11a_Nss1,(6Mbps)_1TX

5240MHz_TX

12/09/2018



EUT_Z_1TX
Setting 1A
04-M-1-10
FSP(100142)

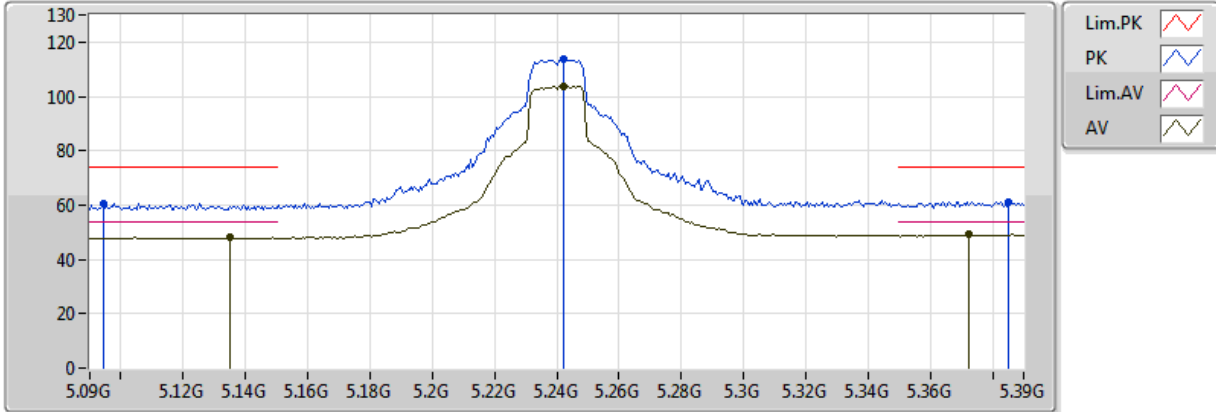
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.1092G	60.14	74.00	-13.86	7.67	3	Vertical	212	2.88	-
AV	5.09G	47.11	54.00	-6.89	7.62	3	Vertical	212	2.88	-
PK	5.2424G	111.19	Inf	-Inf	8.05	3	Vertical	212	2.88	-
AV	5.2424G	100.18	Inf	-Inf	8.05	3	Vertical	212	2.88	-
PK	5.39G	61.19	74.00	-12.81	8.36	3	Vertical	212	2.88	-
AV	5.387G	47.78	54.00	-6.22	8.36	3	Vertical	212	2.88	-



802.11a_Nss1,(6Mbps)_1TX

5240MHz_TX

12/09/2018



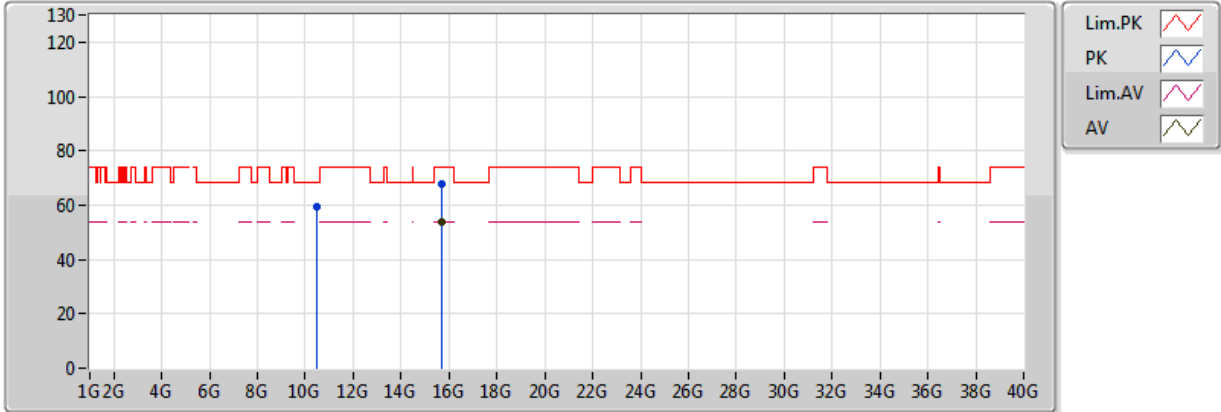
EUT_Z_1TX
Setting 1A
04-M-1-10
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.0942G	60.52	74.00	-13.48	7.63	3	Horizontal	51	2.20	-
AV	5.135G	48.00	54.00	-6.00	7.76	3	Horizontal	51	2.20	-
PK	5.2424G	113.72	Inf	-Inf	8.05	3	Horizontal	51	2.20	-
AV	5.2424G	103.77	Inf	-Inf	8.05	3	Horizontal	51	2.20	-
PK	5.3852G	61.32	74.00	-12.68	8.36	3	Horizontal	51	2.20	-
AV	5.3726G	49.21	54.00	-4.79	8.33	3	Horizontal	51	2.20	-

802.11a_Nss1,(6Mbps)_1TX

5240MHz_TX

12/09/2018



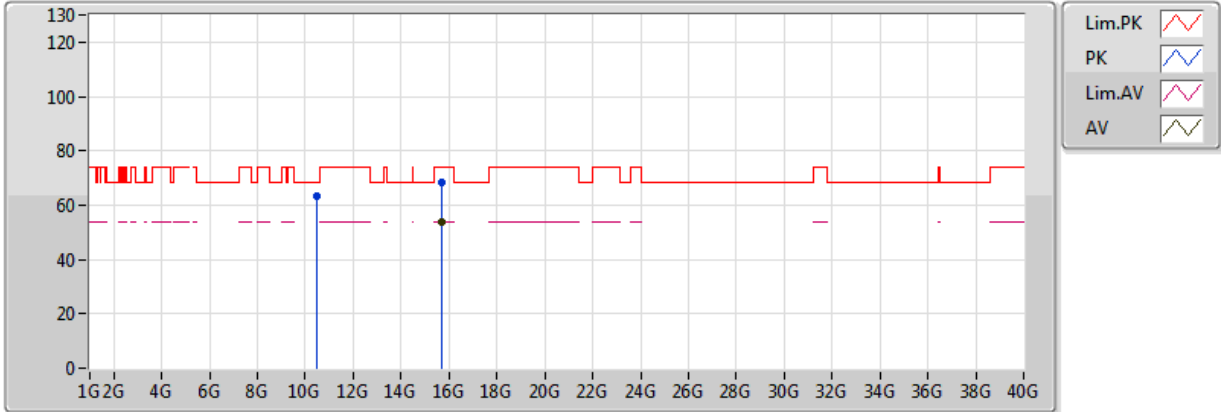
EUT_Z_1TX
Setting 1A
04-M-1
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	10.4791G	59.41	68.20	-8.79	13.81	3	Vertical	86	1.73	-
PK	15.7178G	67.87	74.00	-6.13	14.62	3	Vertical	44	1.76	-
AV	15.7196G	53.98	54.00	-0.02	14.62	3	Vertical	44	1.76	-

802.11a_Nss1,(6Mbps)_1TX

5240MHz_TX

12/09/2018



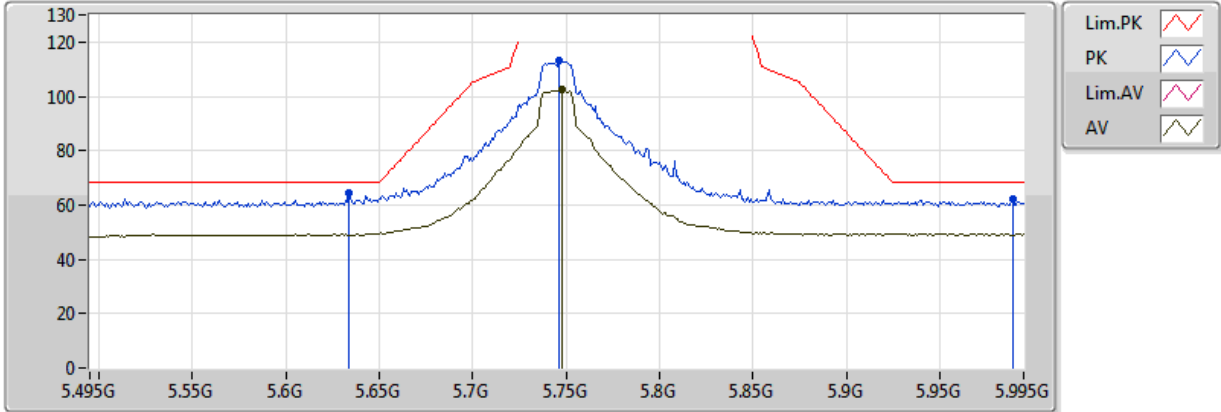
EUT_Z_1TX
Setting 1A
04-M-1
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	10.4793G	63.22	68.20	-4.98	13.81	3	Horizontal	73	1.71	-
PK	15.7238G	68.17	74.00	-5.83	14.61	3	Horizontal	314	1.75	-
AV	15.7196G	53.61	54.00	-0.39	14.62	3	Horizontal	314	1.75	-

802.11a_Nss1,(6Mbps)_1TX

5745MHz_TX

12/09/2018



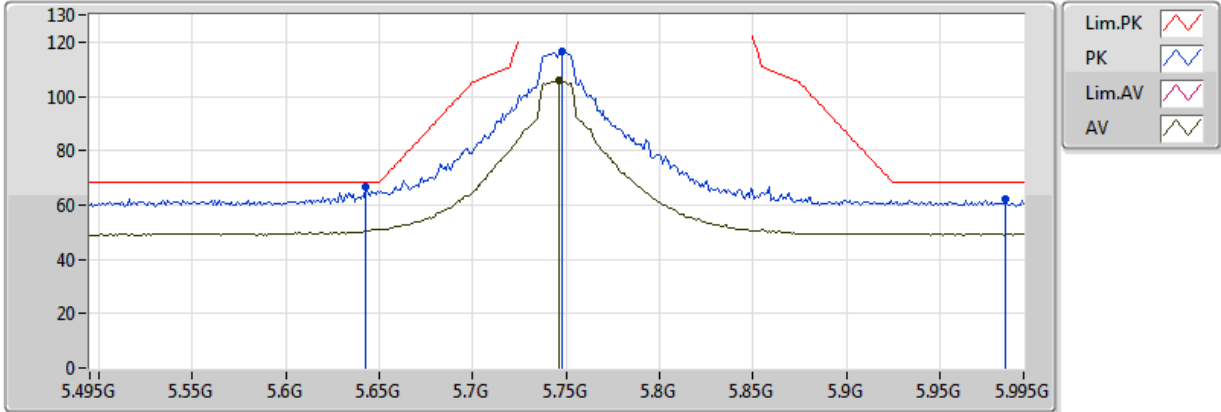
EUT_Z_1TX
Setting 2A
04-M-1-10
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.634G	64.64	68.20	-3.56	8.89	3	Vertical	182	1.49	-
PK	5.746G	113.13	Inf	-Inf	9.26	3	Vertical	182	1.49	-
AV	5.748G	102.33	Inf	-Inf	9.26	3	Vertical	182	1.49	-
PK	5.989G	62.11	68.20	-6.09	10.04	3	Vertical	182	1.49	-

802.11a_Nss1,(6Mbps)_1TX

5745MHz_TX

12/09/2018



EUT_Z_1TX
Setting 2A
04-M-1-10
FSP(100142)

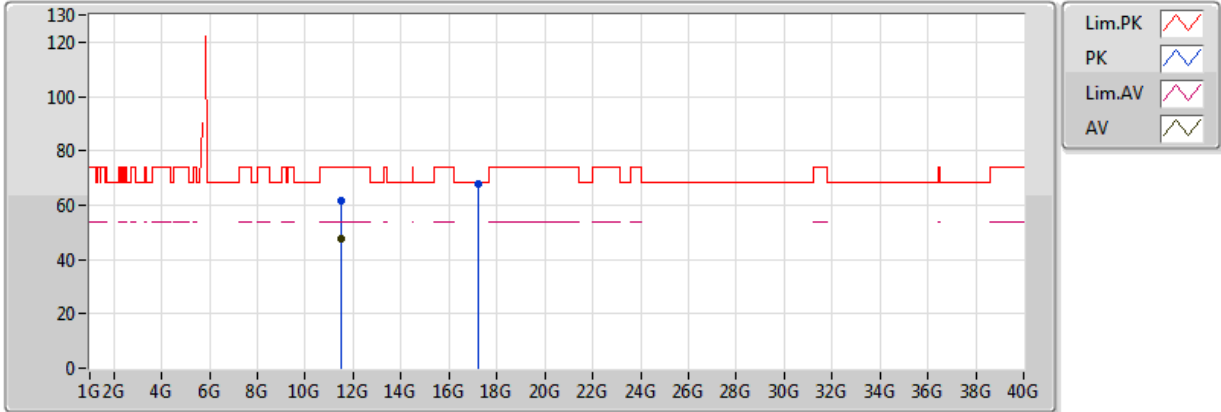
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.643G	66.68	68.20	-1.52	8.92	3	Horizontal	61	2.03	-
PK	5.748G	116.36	Inf	-Inf	9.26	3	Horizontal	61	2.03	-
AV	5.746G	105.82	Inf	-Inf	9.26	3	Horizontal	61	2.03	-
PK	5.985G	62.11	68.20	-6.09	10.02	3	Horizontal	61	2.03	-



802.11a_Nss1,(6Mbps)_1TX

5745MHz_TX

12/09/2018



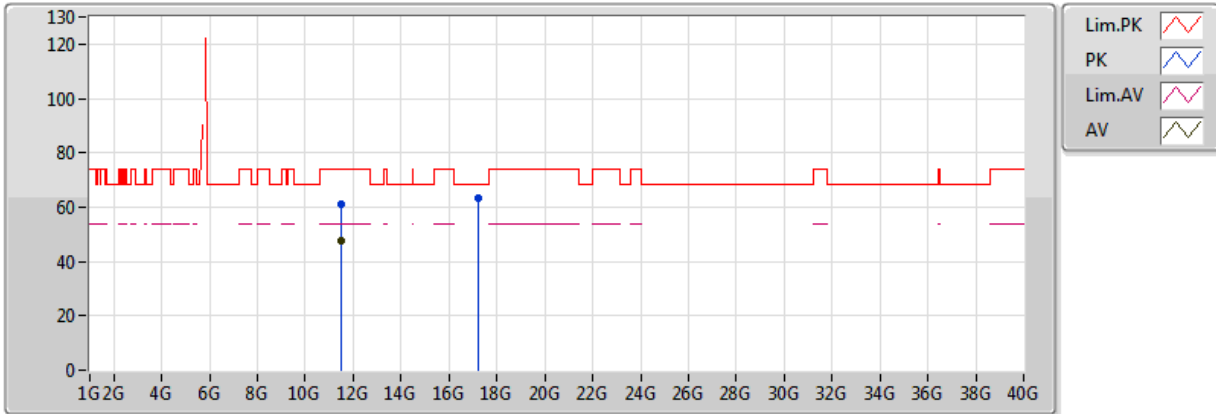
EUT_Z_1TX
Setting 2A
04-M-1
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	11.4885G	61.36	74.00	-12.64	13.71	3	Vertical	277	2.30	-
AV	11.4923G	47.74	54.00	-6.26	13.71	3	Vertical	277	2.30	-
PK	17.2343G	67.73	68.20	-0.47	16.75	3	Vertical	38	1.66	-

802.11a_Nss1,(6Mbps)_1TX

5745MHz_TX

12/09/2018



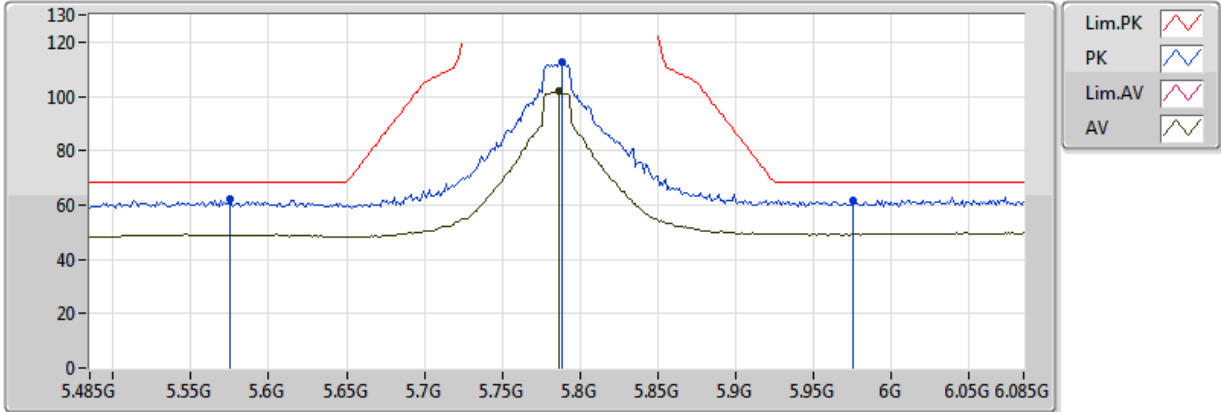
EUT_Z_1TX
Setting 2A
04-M-1
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	11.4884G	60.91	74.00	-13.09	13.71	3	Horizontal	277	2.24	-
AV	11.4921G	47.39	54.00	-6.61	13.71	3	Horizontal	277	2.24	-
PK	17.2419G	63.16	68.20	-5.04	16.76	3	Horizontal	31	1.50	-

802.11a_Nss1,(6Mbps)_1TX

5785MHz_TX

11/09/2018



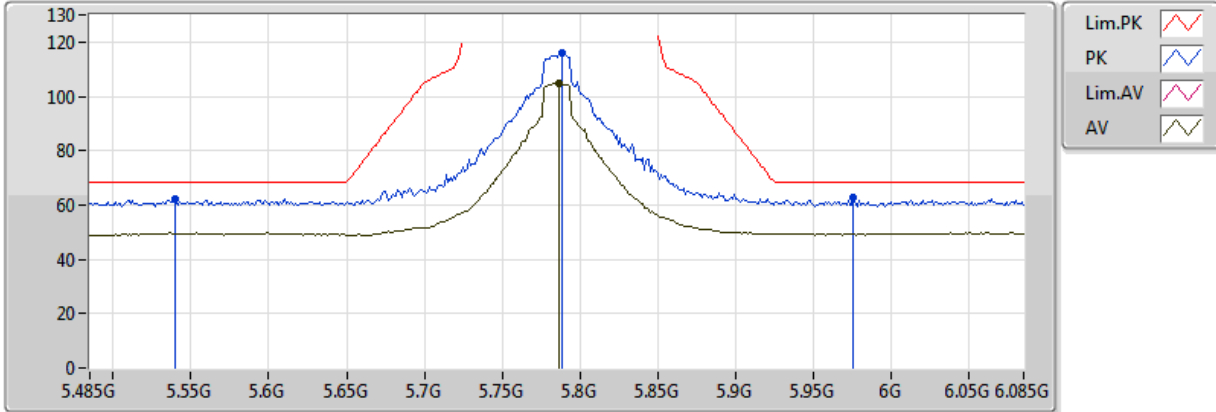
EUT_Z_1TX
Setting 2A
04-M-1-10
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.575G	62.10	68.20	-6.10	8.72	3	Vertical	180	1.50	-
PK	5.786G	112.72	Inf	-Inf	9.39	3	Vertical	180	1.50	-
AV	5.7862G	101.84	Inf	-Inf	9.39	3	Vertical	180	1.50	-
PK	5.9758G	61.69	68.20	-6.51	10.00	3	Vertical	180	1.50	-

802.11a_Nss1,(6Mbps)_1TX

5785MHz_TX

11/09/2018



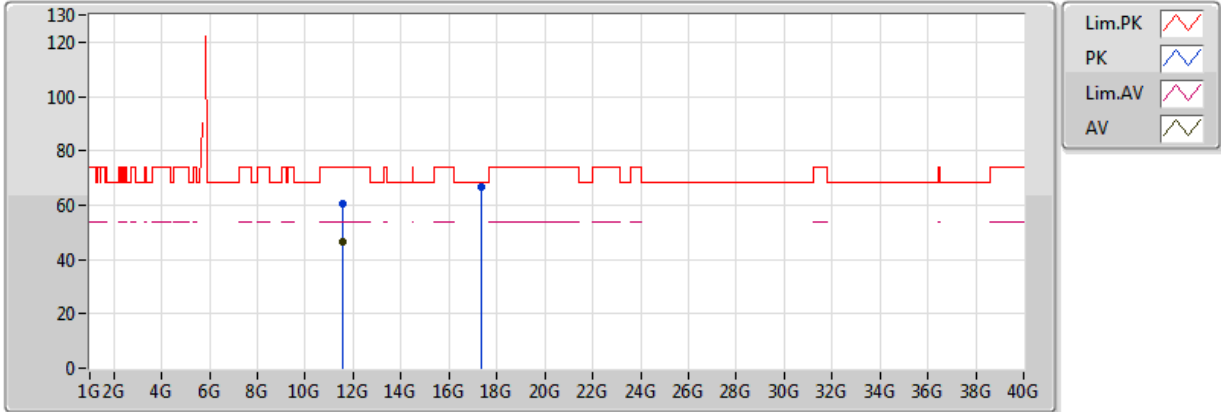
EUT_Z_1TX
Setting 2A
04-M-1-10
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.5402G	62.10	68.20	-6.10	8.64	3	Horizontal	56	2.06	-
PK	5.7886G	115.98	Inf	-Inf	9.39	3	Horizontal	56	2.06	-
AV	5.7862G	105.04	Inf	-Inf	9.39	3	Horizontal	56	2.06	-
PK	5.9758G	62.56	68.20	-5.64	10.00	3	Horizontal	56	2.06	-

802.11a_Nss1,(6Mbps)_1TX

5785MHz_TX

12/09/2018



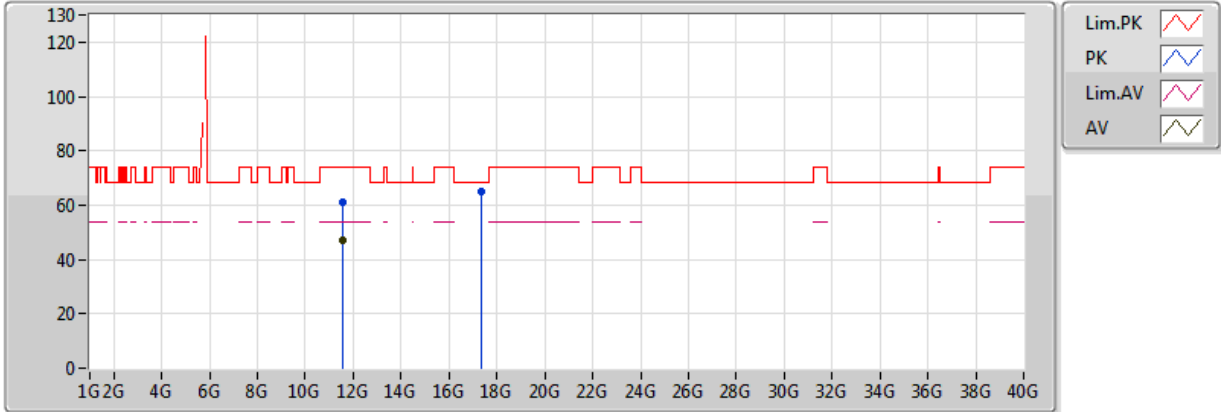
EUT_Z_1TX
Setting 2A
04-M-1
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	11.5718G	60.61	74.00	-13.39	13.68	3	Vertical	99	1.63	-
AV	11.57G	46.51	54.00	-7.49	13.68	3	Vertical	99	1.63	-
PK	17.359G	66.59	68.20	-1.61	16.93	3	Vertical	39	1.70	-

802.11a_Nss1,(6Mbps)_1TX

5785MHz_TX

12/09/2018



EUT_Z_1TX
Setting 2A
04-M-1
FSP(100142)

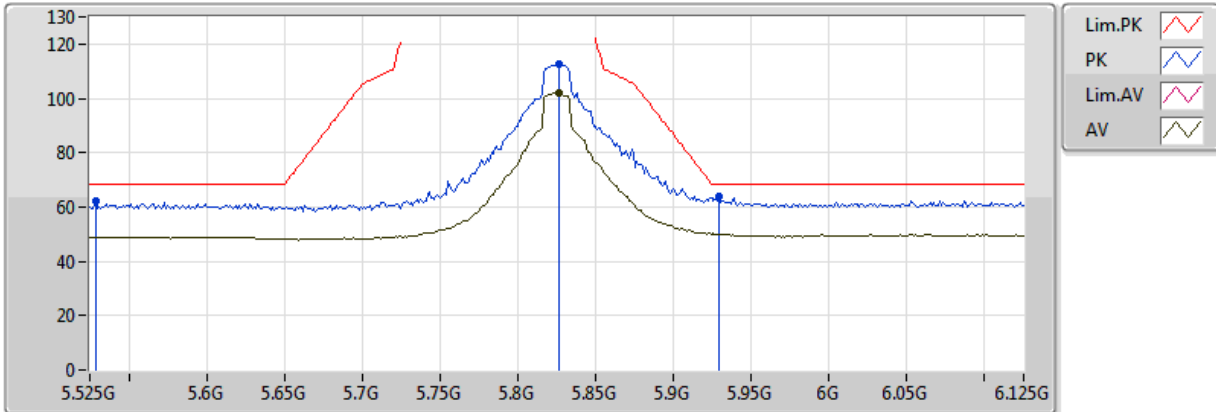
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	11.5684G	60.96	74.00	-13.04	13.68	3	Horizontal	272	1.79	-
AV	11.5699G	47.16	54.00	-6.84	13.68	3	Horizontal	272	1.79	-
PK	17.3599G	64.76	68.20	-3.44	16.94	3	Horizontal	33	1.79	-



802.11a_Nss1,(6Mbps)_1TX

5825MHz_TX

12/09/2018



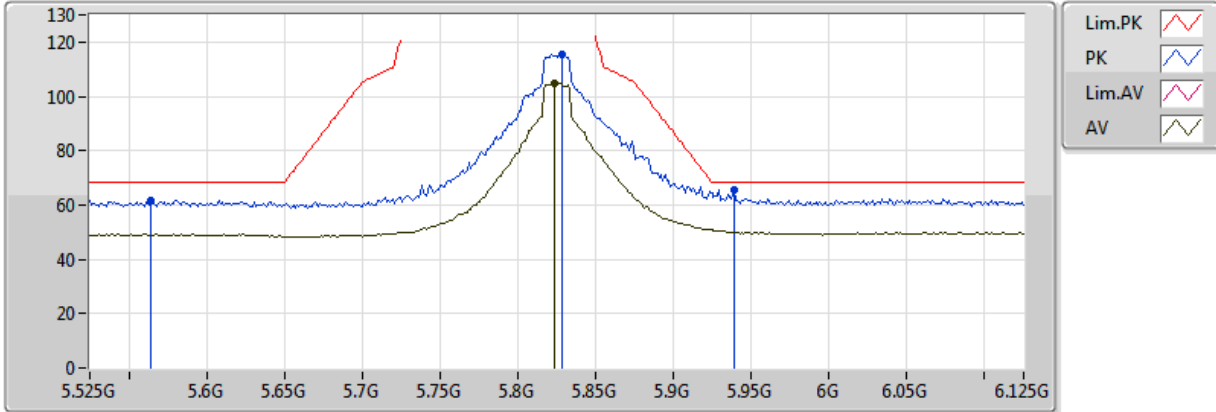
EUT Z_1TX
Setting 2A
04-M-1-10
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.5286G	62.24	68.20	-5.96	8.61	3	Vertical	179	1.50	-
PK	5.8262G	112.73	Inf	-Inf	9.51	3	Vertical	179	1.50	-
AV	5.8262G	102.17	Inf	-Inf	9.51	3	Vertical	179	1.50	-
PK	5.9294G	64.11	68.20	-4.09	9.85	3	Vertical	179	1.50	-

802.11a_Nss1,(6Mbps)_1TX

5825MHz_TX

12/09/2018



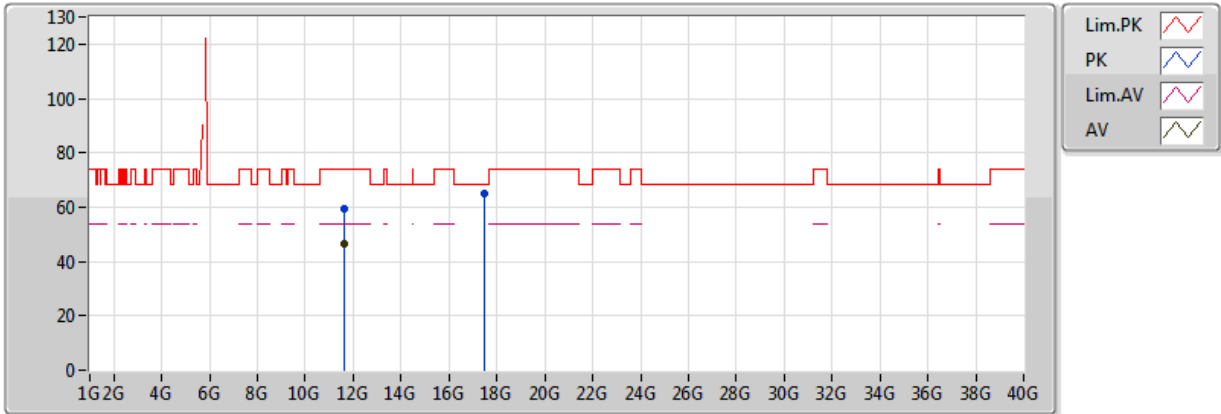
EUT_Z_1TX
Setting 2A
04-M-1-10
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.5646G	61.84	68.20	-6.36	8.69	3	Horizontal	67	1.95	-
PK	5.8286G	115.66	Inf	-Inf	9.52	3	Horizontal	67	1.95	-
AV	5.8238G	104.96	Inf	-Inf	9.51	3	Horizontal	67	1.95	-
PK	5.939G	65.71	68.20	-2.49	9.88	3	Horizontal	67	1.95	-

802.11a_Nss1,(6Mbps)_1TX

5825MHz_TX

12/09/2018



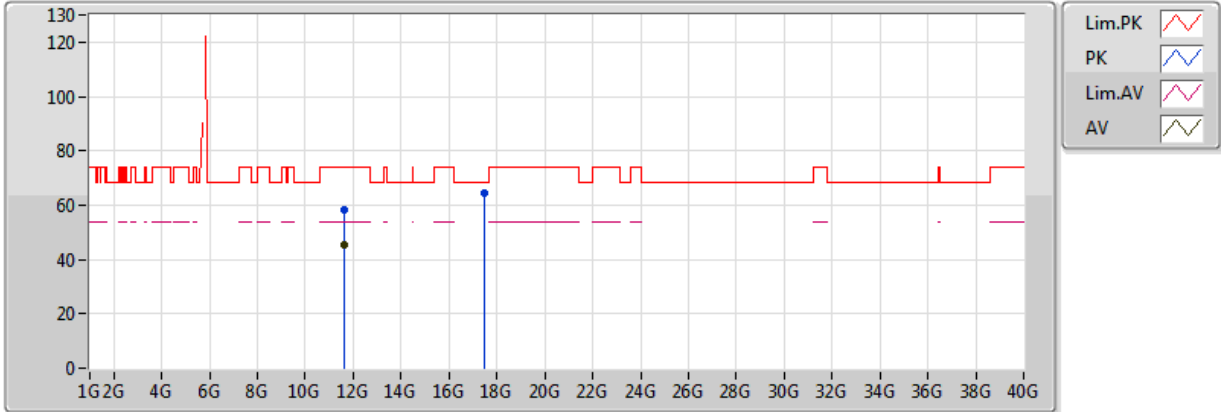
EUT_Z_1TX
Setting 2A
04-M-1
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	11.6485G	59.64	74.00	-14.36	13.64	3	Vertical	274	2.29	-
AV	11.6524G	46.34	54.00	-7.66	13.64	3	Vertical	274	2.29	-
PK	17.4688G	64.98	68.20	-3.22	17.09	3	Vertical	36	1.68	-

802.11a_Nss1,(6Mbps)_1TX

5825MHz_TX

12/09/2018



EUT_Z_1TX
Setting 2A
04-M-1
FSP(100142)

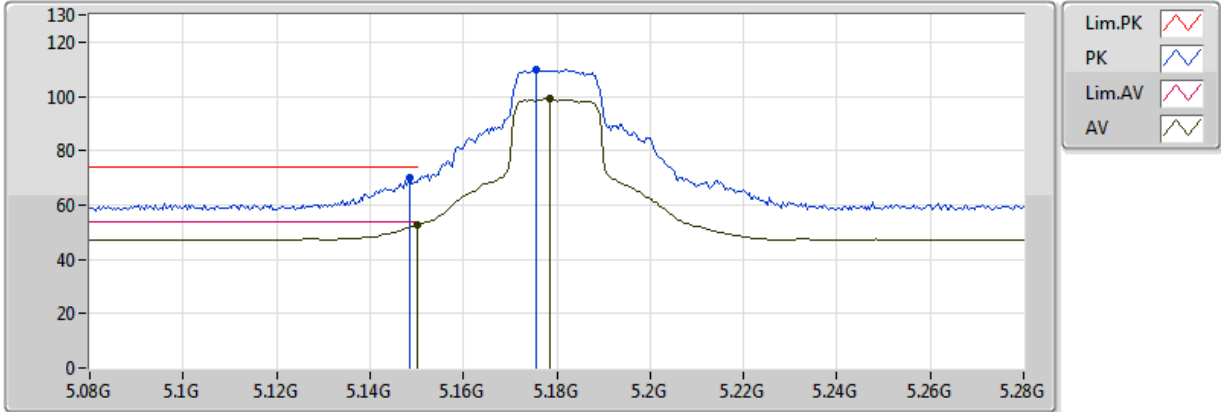
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	11.6482G	58.41	74.00	-15.59	13.64	3	Horizontal	285	2.27	-
AV	11.6524G	45.16	54.00	-8.84	13.64	3	Horizontal	285	2.27	-
PK	17.4689G	64.31	68.20	-3.89	17.09	3	Horizontal	6	1.72	-



802.11ac VHT20_Nss1,(MCS0)_1TX

5180MHz_TX

12/09/2018



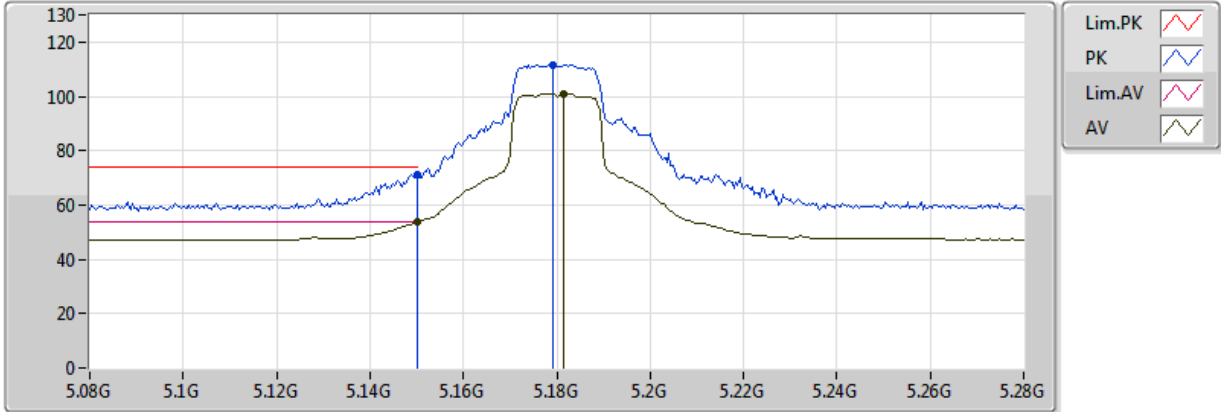
EUT_Z_1TX
Setting 15
04-M-1-10
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.1484G	69.97	74.00	-4.03	7.79	3	Vertical	222	2.82	-
AV	5.149995G	52.56	54.00	-1.44	7.79	3	Vertical	222	2.82	-
PK	5.1756G	110.00	Inf	-Inf	7.88	3	Vertical	222	2.82	-
AV	5.1784G	99.00	Inf	-Inf	7.89	3	Vertical	222	2.82	-

802.11ac VHT20_Nss1,(MCS0)_1TX

5180MHz_TX

12/09/2018



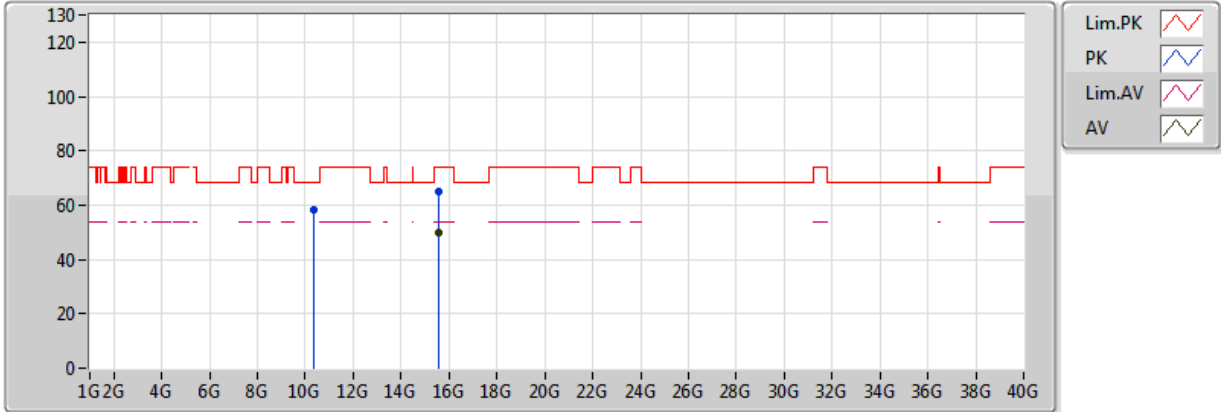
EUT_Z_1TX
Setting 15
04-M-1-10
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.149995G	71.34	74.00	-2.66	7.79	3	Horizontal	47	2.87	-
AV	5.149995G	53.53	54.00	-0.47	7.79	3	Horizontal	47	2.87	-
PK	5.1792G	111.64	Inf	-Inf	7.89	3	Horizontal	47	2.87	-
AV	5.1816G	100.87	Inf	-Inf	7.89	3	Horizontal	47	2.87	-

802.11ac VHT20_Nss1,(MCS0)_1TX

5180MHz_TX

12/09/2018



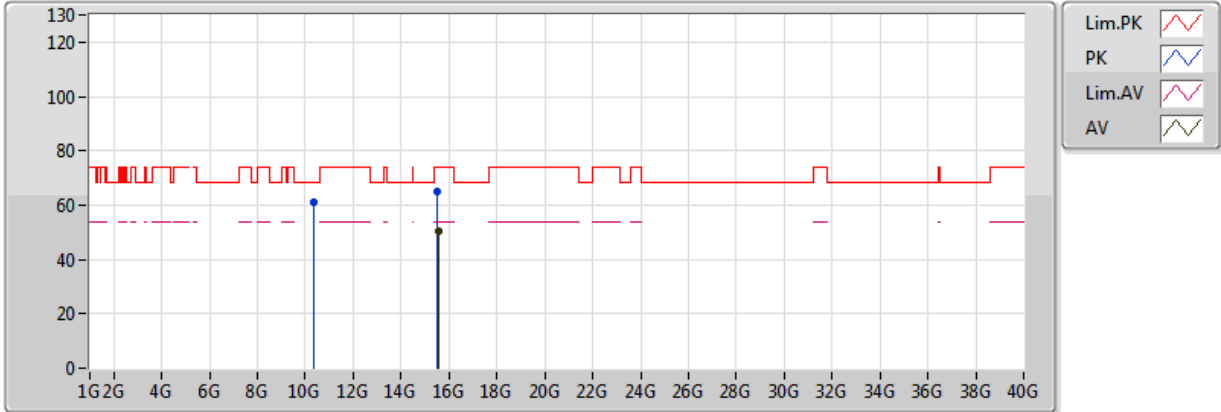
EUT_Z_1TX
Setting 15
04-M-1
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	10.3619G	58.15	68.20	-10.05	13.78	3	Vertical	174	1.50	-
PK	15.5452G	64.77	74.00	-9.23	14.83	3	Vertical	47	1.71	-
AV	15.5415G	49.77	54.00	-4.23	14.83	3	Vertical	47	1.71	-

802.11ac VHT20_Nss1,(MCS0)_1TX

5180MHz_TX

12/09/2018



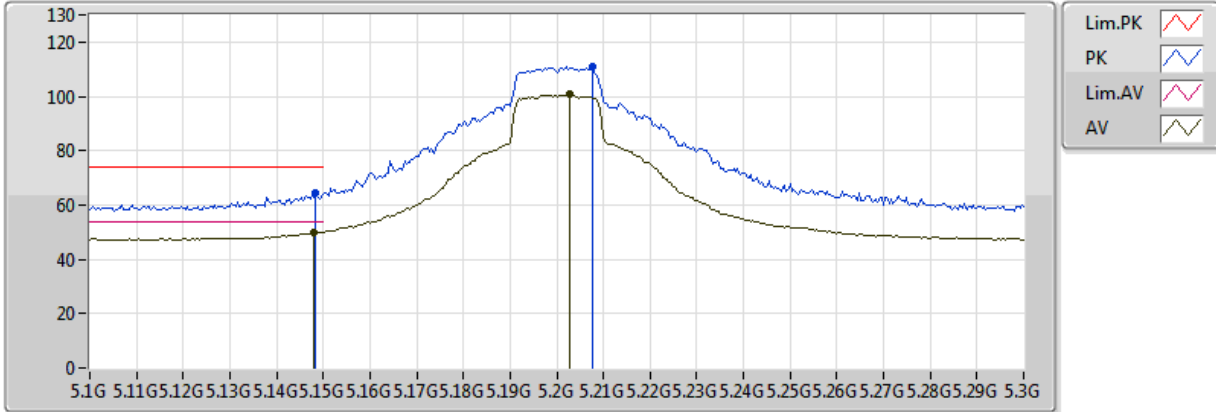
EUT_Z_1TX
Setting 15
04-M-1
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	10.3492G	61.29	68.20	-6.91	13.78	3	Horizontal	81	1.75	-
PK	15.5371G	65.14	74.00	-8.86	14.84	3	Horizontal	317	1.73	-
AV	15.5413G	50.30	54.00	-3.70	14.83	3	Horizontal	317	1.73	-

802.11ac VHT20_Nss1,(MCS0)_1TX

5200MHz_TX

12/09/2018



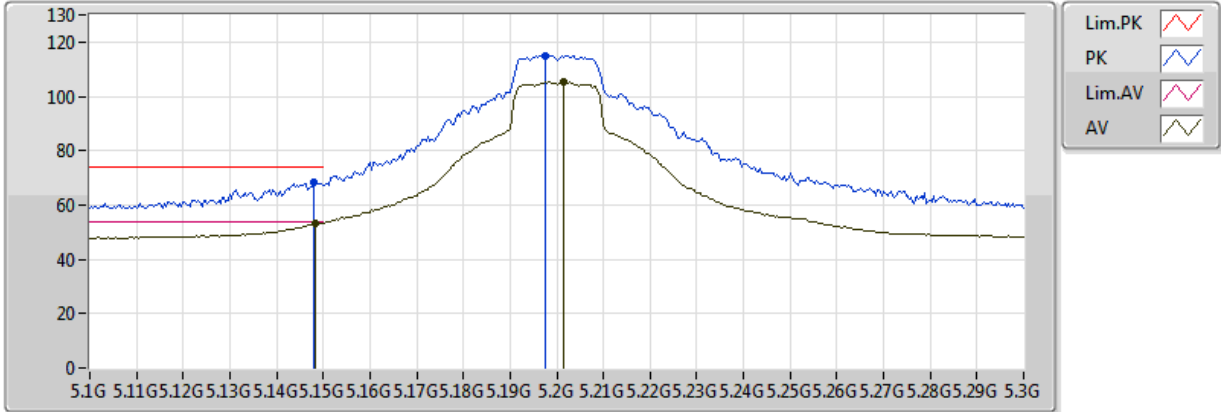
EUT_Z_1TX
Setting 20
04-M-1-10
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.1484G	64.59	74.00	-9.41	7.79	3	Vertical	183	2.04	-
AV	5.148G	49.94	54.00	-4.06	7.79	3	Vertical	183	2.04	-
PK	5.2076G	110.84	Inf	-Inf	7.97	3	Vertical	183	2.04	-
AV	5.2028G	100.64	Inf	-Inf	7.96	3	Vertical	183	2.04	-

802.11ac VHT20_Nss1,(MCS0)_1TX

5200MHz_TX

12/09/2018



EUT Z_1TX
Setting 20
04-M-1-10
FSP(100142)

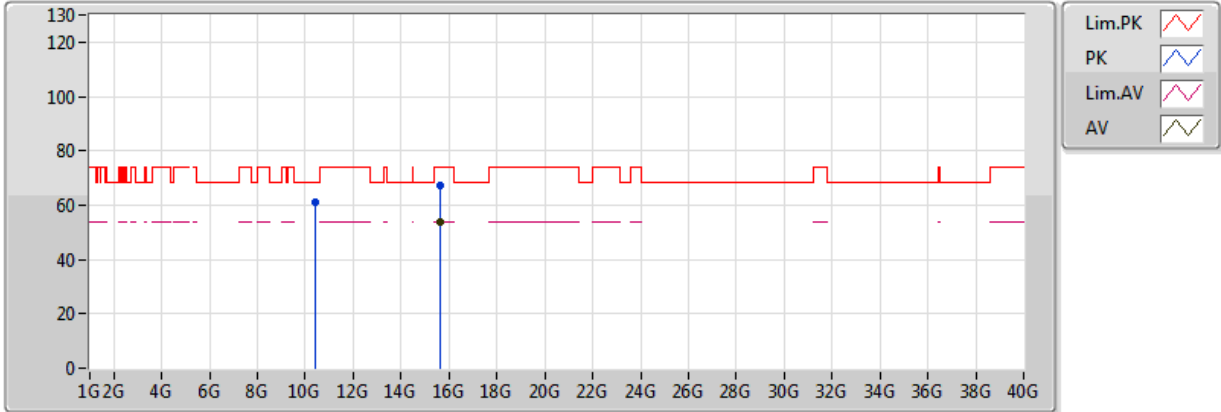
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.148G	68.31	74.00	-5.69	7.79	3	Horizontal	46	2.14	-
AV	5.1484G	53.35	54.00	-0.65	7.79	3	Horizontal	46	2.14	-
PK	5.1976G	115.14	Inf	-Inf	7.94	3	Horizontal	46	2.14	-
AV	5.2016G	105.22	Inf	-Inf	7.95	3	Horizontal	46	2.14	-



802.11ac VHT20_Nss1,(MCS0)_1TX

5200MHz_TX

12/09/2018



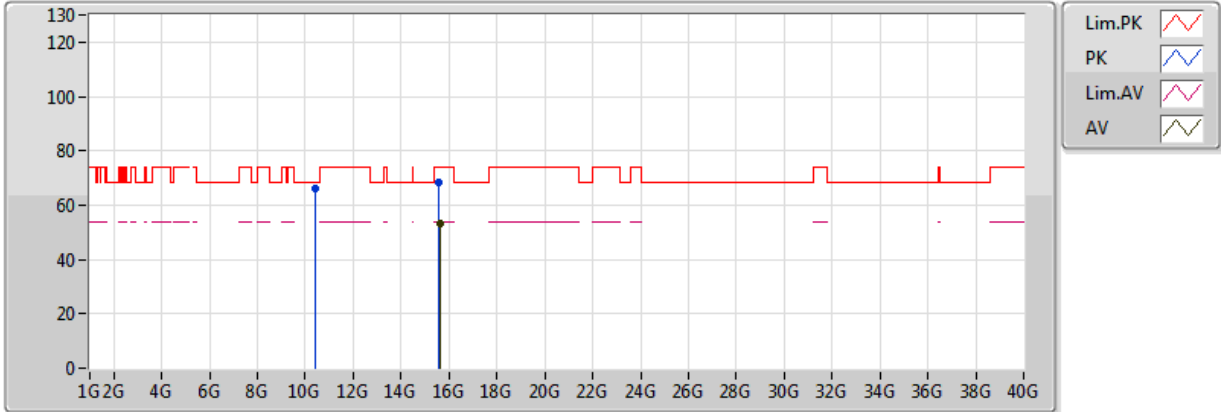
EUT_Z_1TX
Setting 20
04-M-1
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	10.3974G	61.19	68.20	-7.01	13.79	3	Vertical	176	1.50	-
PK	15.6043G	67.44	74.00	-6.56	14.75	3	Vertical	49	2.08	-
AV	15.605G	53.59	54.00	-0.41	14.75	3	Vertical	49	2.08	-

802.11ac VHT20_Nss1,(MCS0)_1TX

5200MHz_TX

12/09/2018



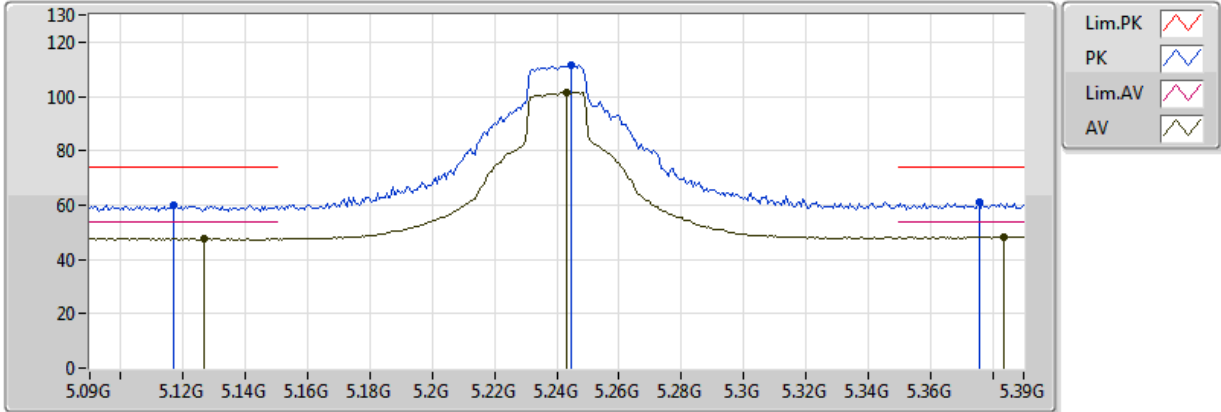
EUT_Z_1TX
Setting 20
04-M-1
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	10.3996G	66.26	68.20	-1.94	13.79	3	Horizontal	70	1.70	-
PK	15.6009G	68.18	74.00	-5.82	14.76	3	Horizontal	321	1.73	-
AV	15.6031G	53.50	54.00	-0.50	14.76	3	Horizontal	321	1.73	-

802.11ac VHT20_Nss1,(MCS0)_1TX

5240MHz_TX

12/09/2018



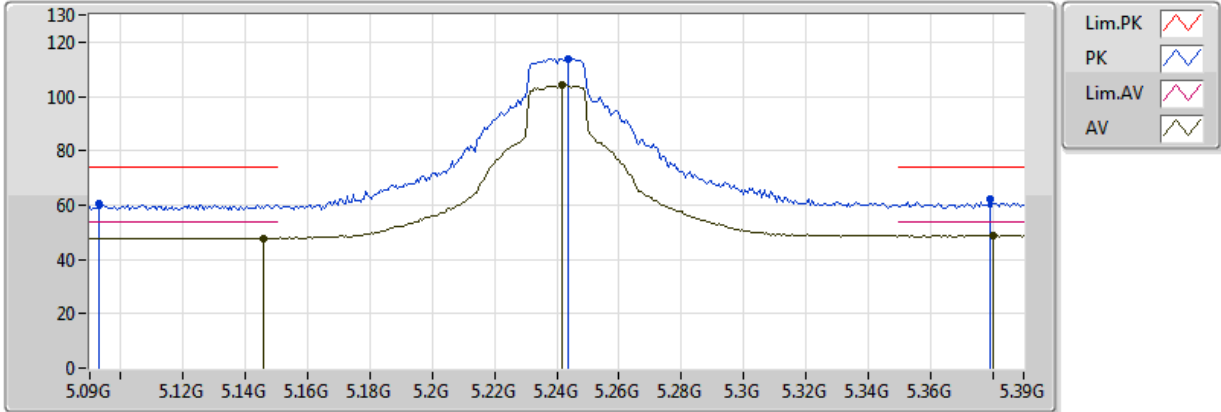
EUT_Z_1TX
Setting 1E
04-M-1-10
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.117G	60.14	74.00	-13.86	7.71	3	Vertical	213	2.88	-
AV	5.1266G	47.81	54.00	-6.19	7.73	3	Vertical	213	2.88	-
PK	5.2448G	111.65	Inf	-Inf	8.05	3	Vertical	213	2.88	-
AV	5.243G	101.61	Inf	-Inf	8.05	3	Vertical	213	2.88	-
PK	5.3756G	60.91	74.00	-13.09	8.33	3	Vertical	213	2.88	-
AV	5.3834G	48.27	54.00	-5.73	8.35	3	Vertical	213	2.88	-

802.11ac VHT20_Nss1,(MCS0)_1TX

5240MHz_TX

12/09/2018



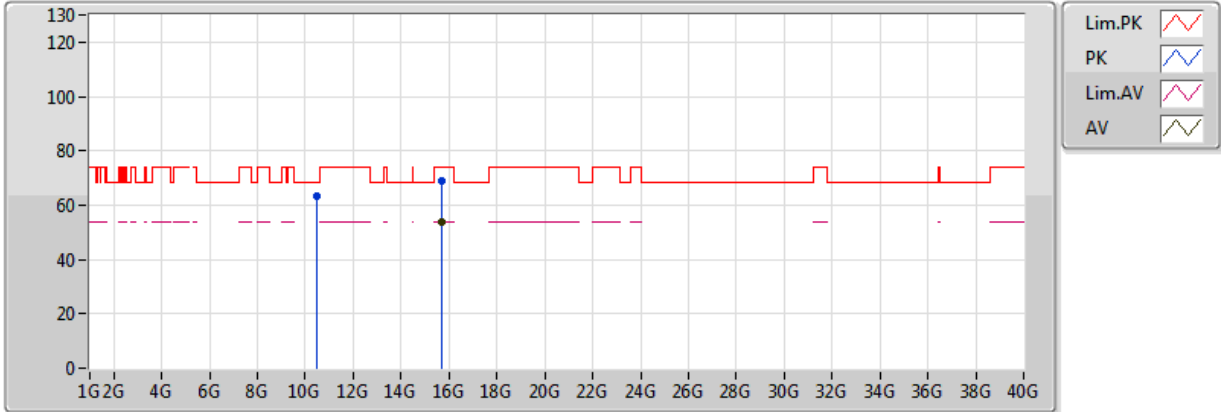
EUT_Z_1TX
Setting 1E
04-M-1-10
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.093G	60.36	74.00	-13.64	7.63	3	Horizontal	52	2.19	-
AV	5.1458G	47.89	54.00	-6.11	7.78	3	Horizontal	52	2.19	-
PK	5.2436G	114.02	Inf	-Inf	8.05	3	Horizontal	52	2.19	-
AV	5.2418G	104.13	Inf	-Inf	8.05	3	Horizontal	52	2.19	-
PK	5.3792G	62.17	74.00	-11.83	8.34	3	Horizontal	52	2.19	-
AV	5.3804G	48.79	54.00	-5.21	8.34	3	Horizontal	52	2.19	-

802.11ac VHT20_Nss1,(MCS0)_1TX

5240MHz_TX

12/09/2018



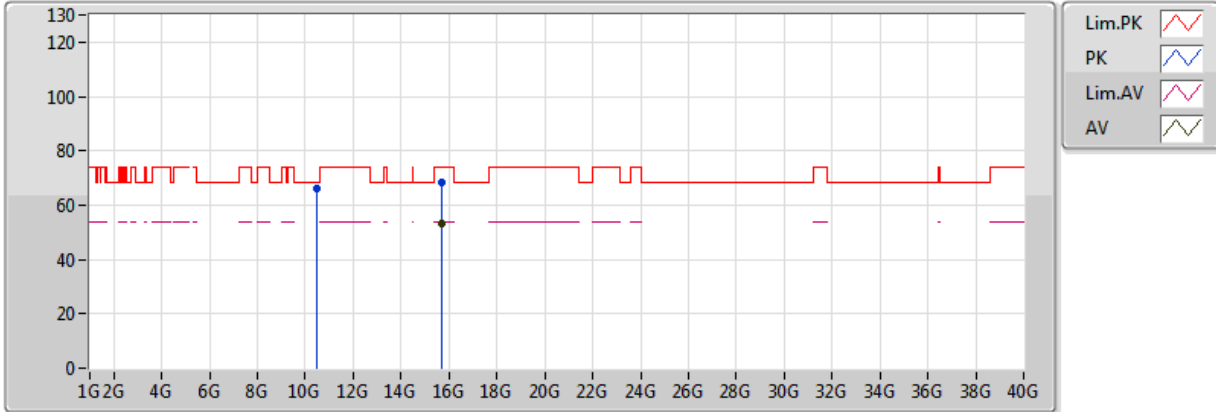
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Setting 1E
04-M-1
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	10.478G	63.07	68.20	-5.13	13.81	3	Vertical	171	1.50	-
PK	15.7208G	68.78	74.00	-5.22	14.62	3	Vertical	41	1.76	-
AV	15.72G	53.64	54.00	-0.36	14.62	3	Vertical	41	1.76	-

802.11ac VHT20_Nss1,(MCS0)_1TX

5240MHz_TX

12/09/2018



EUT_Z_1TX
Setting 1E
04-M-1
FSP(100142)

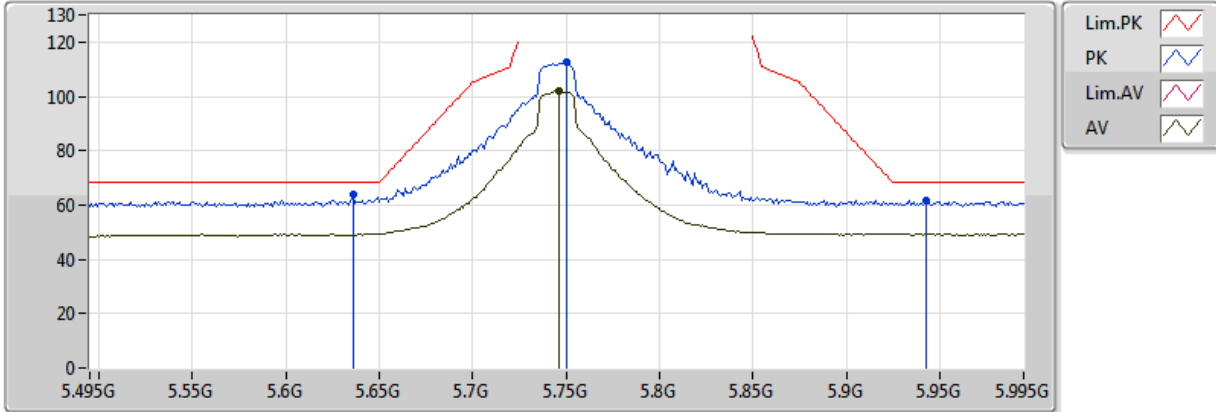
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	10.4752G	66.13	68.20	-2.07	13.81	3	Horizontal	73	1.72	-
PK	15.7189G	68.43	74.00	-5.57	14.62	3	Horizontal	316	1.75	-
AV	15.7198G	53.13	54.00	-0.87	14.62	3	Horizontal	316	1.75	-



802.11ac VHT20_Nss1,(MCS0)_1TX

5745MHz_TX

11/09/2018



EUT_Z_1TX
Setting 2A
04-M-1-10
FSP(100142)

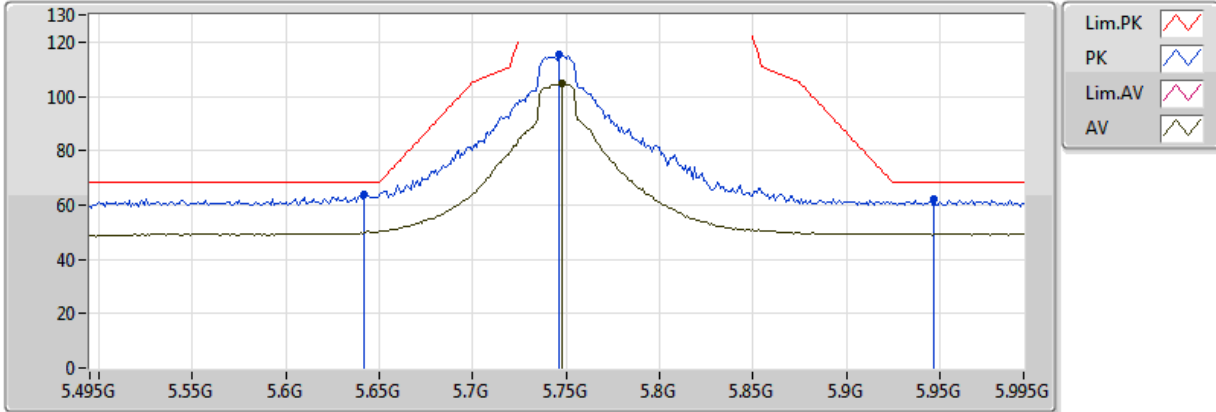
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.636G	63.80	68.20	-4.40	8.90	3	Vertical	183	1.50	-
PK	5.75G	112.83	Inf	-Inf	9.27	3	Vertical	183	1.50	-
AV	5.746G	101.92	Inf	-Inf	9.26	3	Vertical	183	1.50	-
PK	5.943G	61.50	68.20	-6.70	9.89	3	Vertical	183	1.50	-



802.11ac VHT20_Nss1,(MCS0)_1TX

5745MHz_TX

11/09/2018



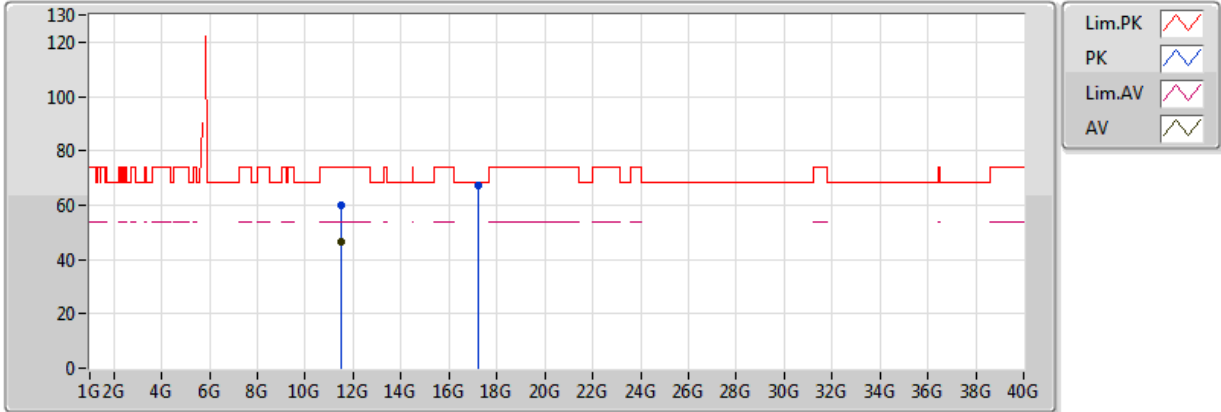
EUT Z_1TX
Setting 2A
04-M-1-10
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.642G	63.72	68.20	-4.48	8.92	3	Horizontal	66	2.01	-
PK	5.746G	115.28	Inf	-Inf	9.26	3	Horizontal	66	2.01	-
AV	5.748G	104.79	Inf	-Inf	9.26	3	Horizontal	66	2.01	-
PK	5.947G	61.93	68.20	-6.27	9.90	3	Horizontal	66	2.01	-

802.11ac VHT20_Nss1,(MCS0)_1TX

5745MHz_TX

12/09/2018



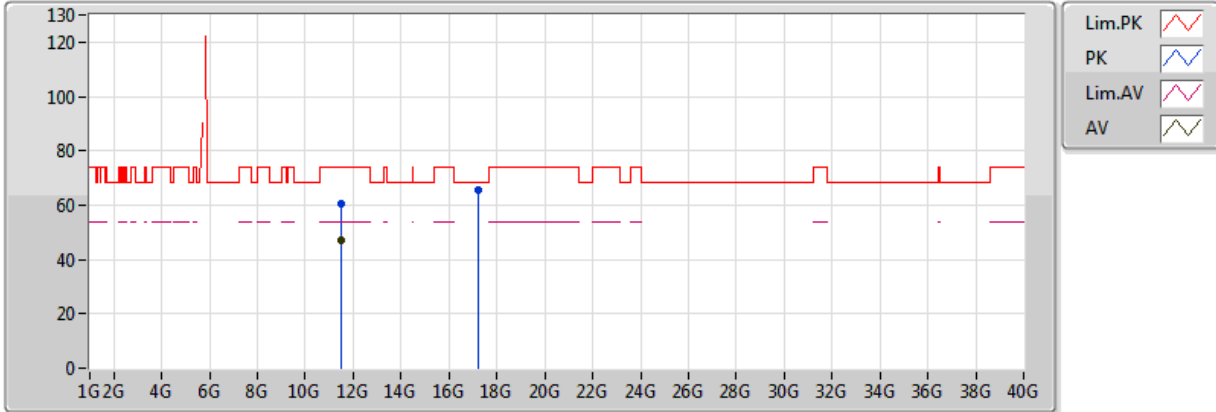
EUT_Z_1TX
Setting 2A
04-M-1
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	11.4932G	59.89	74.00	-14.11	13.71	3	Vertical	280	2.28	-
AV	11.4901G	46.39	54.00	-7.61	13.71	3	Vertical	280	2.28	-
PK	17.2279G	67.47	68.20	-0.73	16.74	3	Vertical	38	1.70	-

802.11ac VHT20_Nss1,(MCS0)_1TX

5745MHz_TX

12/09/2018



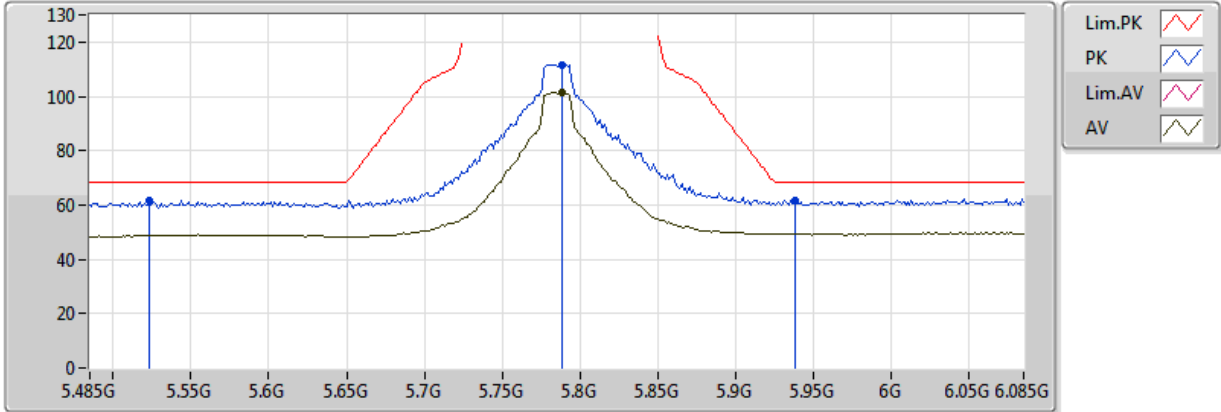
EUT_Z_1TX
 Setting 2A
 04-M-1
 FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	11.4882G	60.55	74.00	-13.45	13.71	3	Horizontal	274	2.27	-
AV	11.4899G	47.24	54.00	-6.76	13.71	3	Horizontal	274	2.27	-
PK	17.2292G	65.66	68.20	-2.54	16.74	3	Horizontal	30	1.75	-

802.11ac VHT20_Nss1,(MCS0)_1TX

5785MHz_TX

11/09/2018



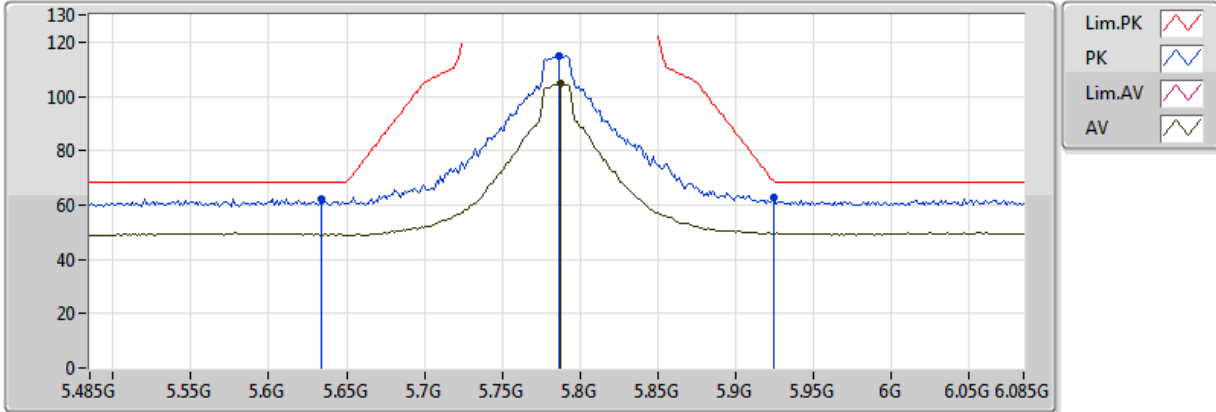
EUT Z_1TX
Setting 2A
04-M-1-10
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.5234G	61.91	68.20	-6.29	8.60	3	Vertical	182	1.48	-
PK	5.7886G	111.72	Inf	-Inf	9.39	3	Vertical	182	1.48	-
AV	5.7886G	101.58	Inf	-Inf	9.39	3	Vertical	182	1.48	-
PK	5.9386G	61.84	68.20	-6.36	9.88	3	Vertical	182	1.48	-

802.11ac VHT20_Nss1,(MCS0)_1TX

5785MHz_TX

11/09/2018



EUT Z_1TX
Setting 2A
04-M-1-10
FSP(100142)

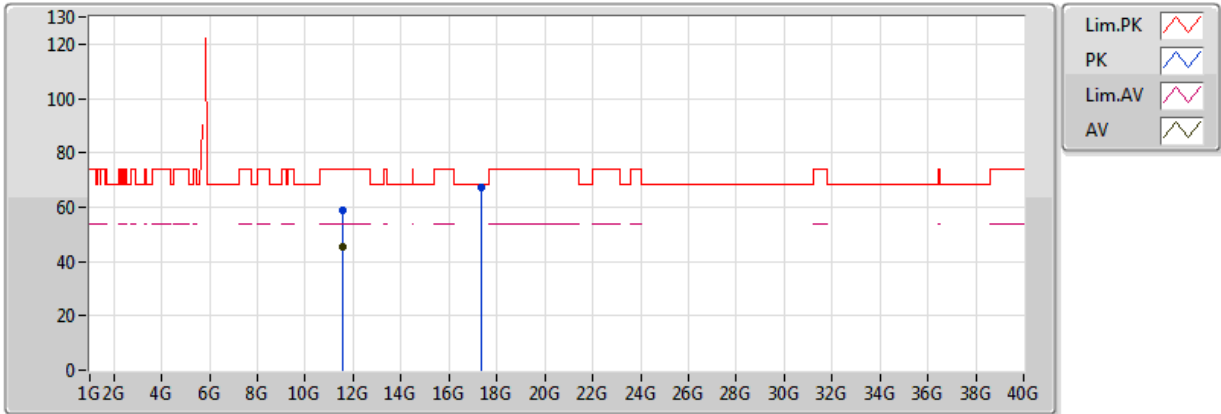
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.6338G	62.23	68.20	-5.97	8.89	3	Horizontal	60	2.06	-
PK	5.7862G	115.06	Inf	-Inf	9.39	3	Horizontal	60	2.06	-
AV	5.7874G	104.73	Inf	-Inf	9.39	3	Horizontal	60	2.06	-
PK	5.9242G	62.97	68.79	-5.82	9.82	3	Horizontal	60	2.06	-



802.11ac VHT20_Nss1,(MCS0)_1TX

5785MHz_TX

12/09/2018



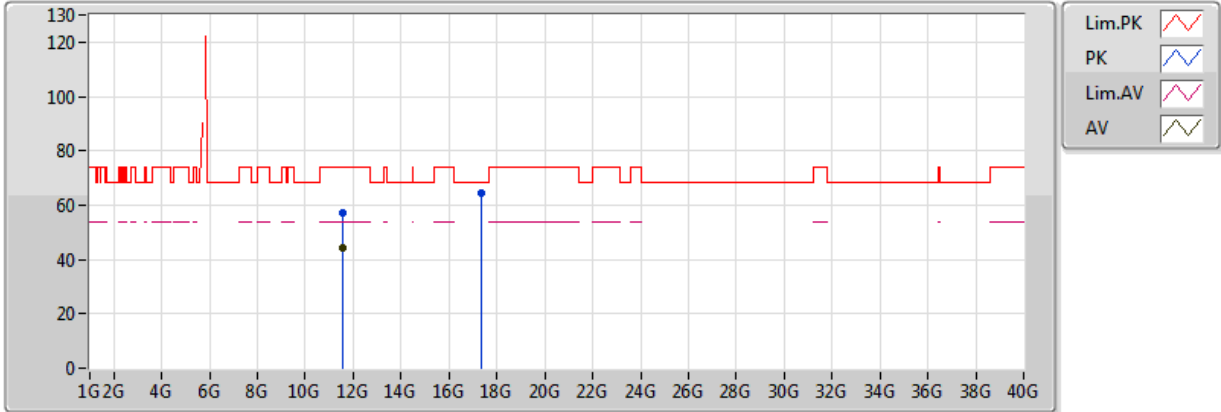
EUT_Z_1TX
 Setting 2A
 04-M-1
 FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	11.5675G	58.95	74.00	-15.05	13.68	3	Vertical	98	1.48	-
AV	11.5703G	45.32	54.00	-8.68	13.68	3	Vertical	98	1.48	-
PK	17.3586G	67.22	68.20	-0.98	16.93	3	Vertical	35	1.68	-

802.11ac VHT20_Nss1,(MCS0)_1TX

5785MHz_TX

12/09/2018



EUT_Z_1TX
Setting 2A
04-M-1
FSP(100142)

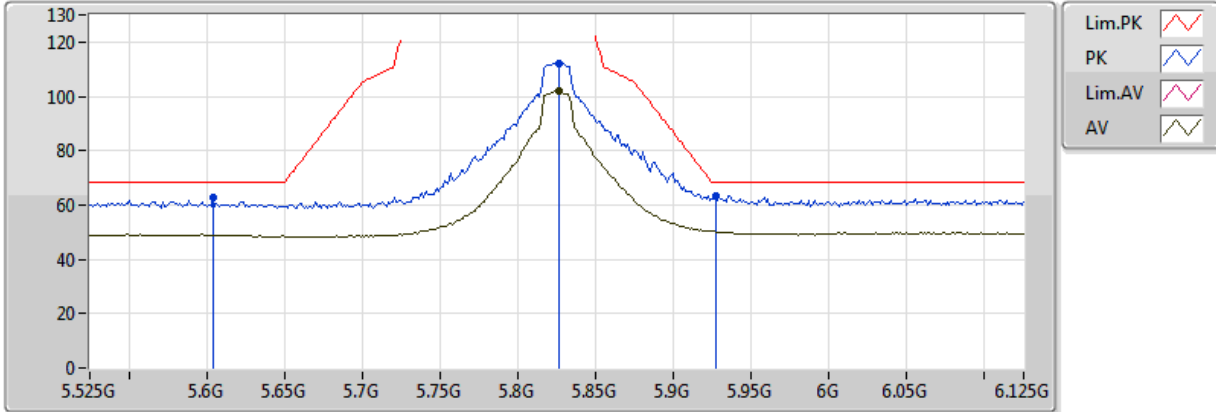
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	11.572G	57.08	74.00	-16.92	13.68	3	Horizontal	250	1.73	-
AV	11.5698G	44.44	54.00	-9.56	13.68	3	Horizontal	250	1.73	-
PK	17.3478G	64.62	68.20	-3.58	16.92	3	Horizontal	4	1.74	-



802.11ac VHT20_Nss1,(MCS0)_1TX

5825MHz_TX

11/09/2018



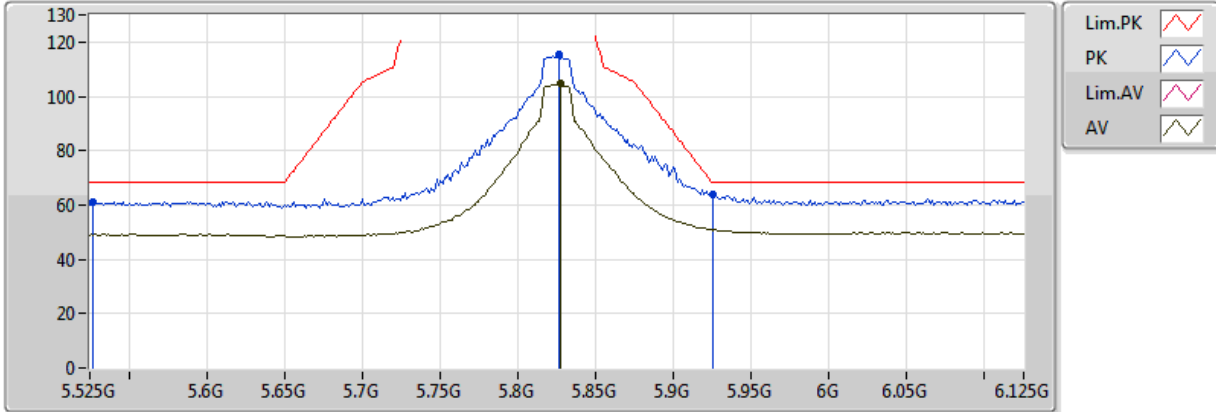
EUT Z_1TX
Setting 2A
04-M-1-10
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.6042G	62.74	68.20	-5.46	8.79	3	Vertical	177	1.50	-
PK	5.8262G	112.31	Inf	-Inf	9.51	3	Vertical	177	1.50	-
AV	5.8262G	102.10	Inf	-Inf	9.51	3	Vertical	177	1.50	-
PK	5.927G	63.19	68.20	-5.01	9.84	3	Vertical	177	1.50	-

802.11ac VHT20_Nss1,(MCS0)_1TX

5825MHz_TX

11/09/2018



EUT Z_1TX
Setting 2A
04-M-1-10
FSP(100142)

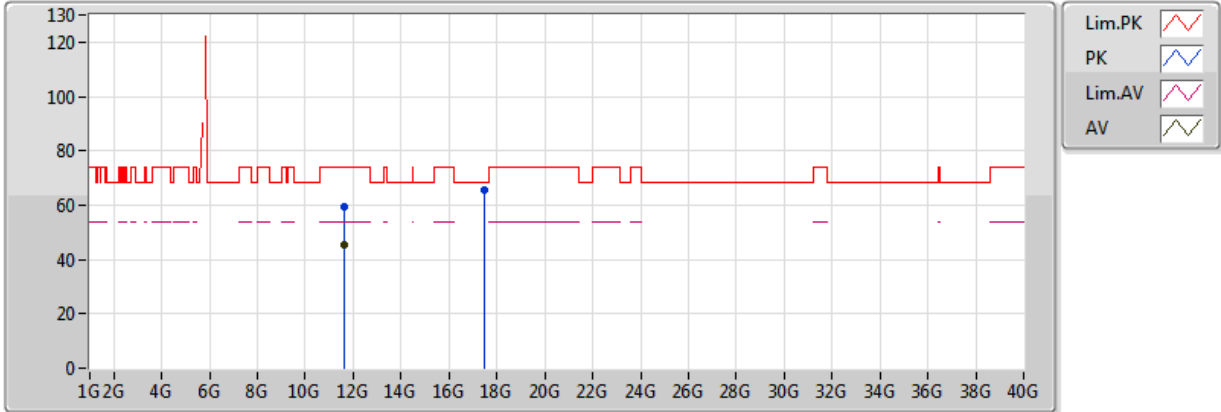
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.5274G	61.25	68.20	-6.95	8.60	3	Horizontal	66	1.93	-
PK	5.8262G	115.19	Inf	-Inf	9.51	3	Horizontal	66	1.93	-
AV	5.8274G	104.53	Inf	-Inf	9.52	3	Horizontal	66	1.93	-
PK	5.9258G	64.03	68.20	-4.17	9.84	3	Horizontal	66	1.93	-



802.11ac VHT20_Nss1,(MCS0)_1TX

5825MHz_TX

12/09/2018



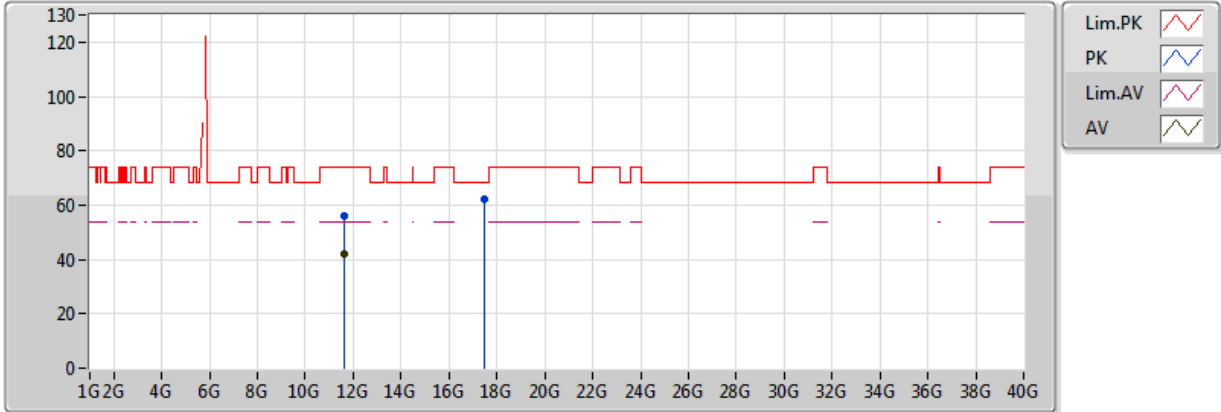
EUT_Z_1TX
Setting 2A
04-M-1
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	11.6489G	59.26	74.00	-14.74	13.64	3	Vertical	280	1.59	-
AV	11.6541G	45.48	54.00	-8.52	13.64	3	Vertical	280	1.59	-
PK	17.4688G	65.82	68.20	-2.38	17.09	3	Vertical	36	1.69	-

802.11ac VHT20_Nss1,(MCS0)_1TX

5825MHz_TX

12/09/2018



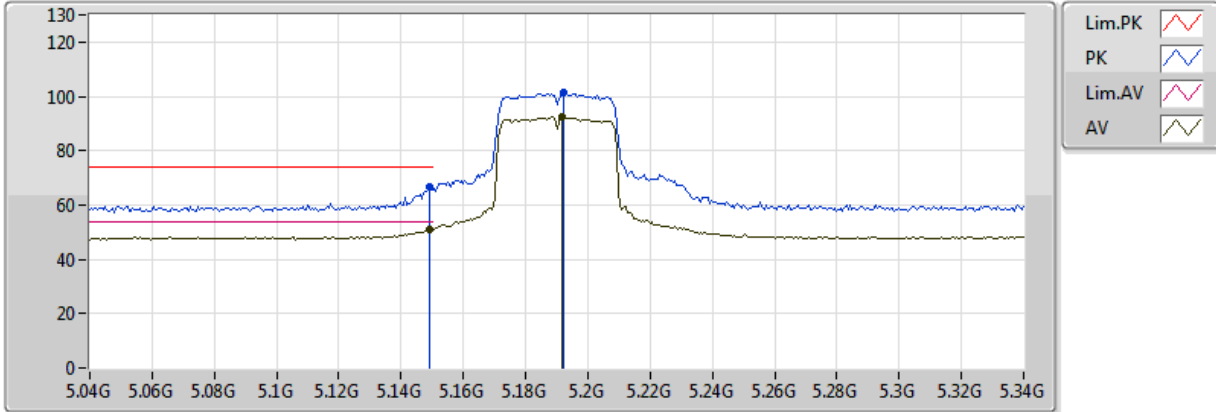
EUT_Z_1TX
Setting 2A
04-M-1
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	11.6372G	55.87	74.00	-18.13	13.65	3	Horizontal	310	1.40	-
AV	11.6376G	42.10	54.00	-11.90	13.65	3	Horizontal	310	1.40	-
PK	17.4657G	62.38	68.20	-5.82	17.09	3	Horizontal	218	1.68	-

802.11ac VHT40_Nss1,(MCS0)_1TX

5190MHz_TX

11/09/2018



EUT_Z_1TX
Setting 0A
04-M-1-10
FSP(100142)

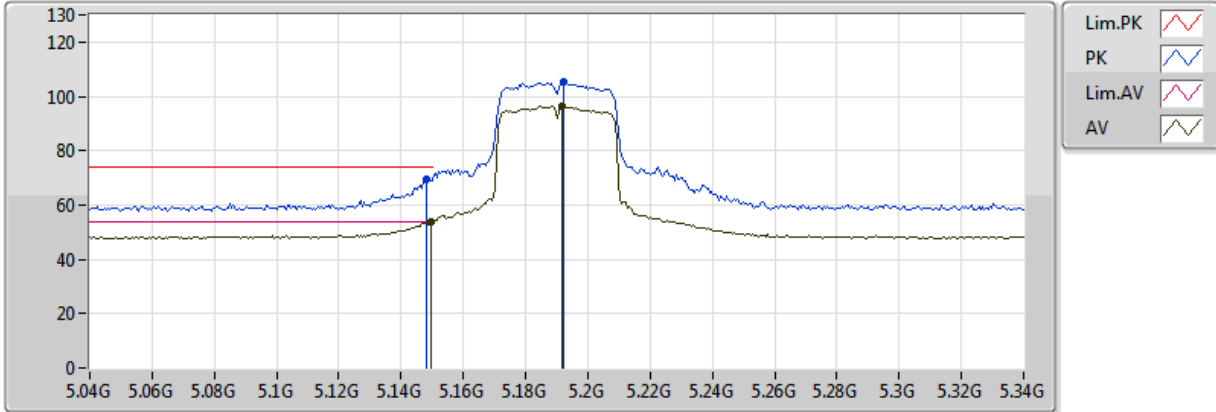
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.1492G	66.56	74.00	-7.44	7.79	3	Vertical	181	2.18	-
AV	5.1492G	50.87	54.00	-3.13	7.79	3	Vertical	181	2.18	-
PK	5.1924G	101.15	Inf	-Inf	7.93	3	Vertical	181	2.18	-
AV	5.1918G	92.50	Inf	-Inf	7.93	3	Vertical	181	2.18	-



802.11ac VHT40_Nss1,(MCS0)_1TX

5190MHz_TX

11/09/2018



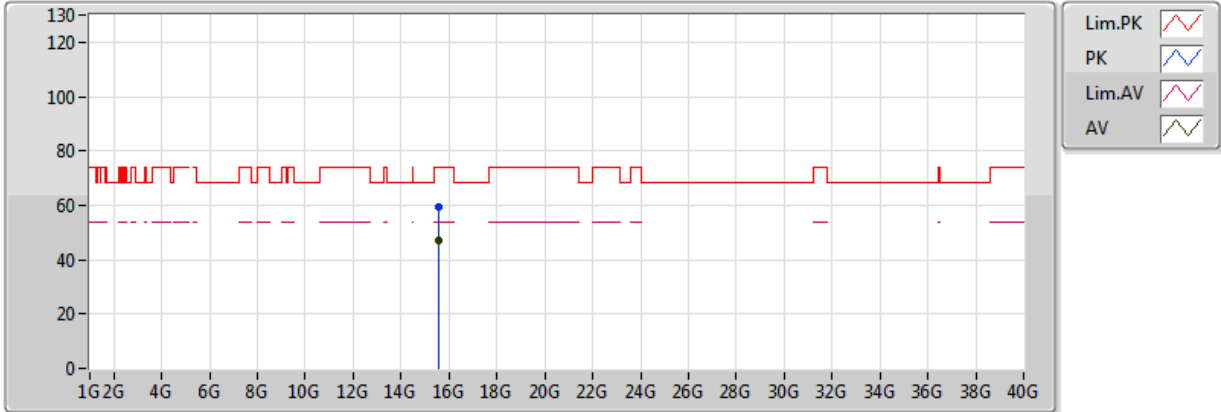
EUT Z_1TX
Setting 0A
04-M-1-10
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.148G	69.29	74.00	-4.71	7.79	3	Horizontal	287	2.16	-
AV	5.1498G	53.63	54.00	-0.37	7.79	3	Horizontal	287	2.16	-
PK	5.1924G	105.14	Inf	-Inf	7.93	3	Horizontal	287	2.16	-
AV	5.1918G	96.44	Inf	-Inf	7.93	3	Horizontal	287	2.16	-

802.11ac VHT40_Nss1,(MCS0)_1TX

5190MHz_TX

12/09/2018



EUT Z_1TX
Setting 0A
04-M-1
FSP(100142)

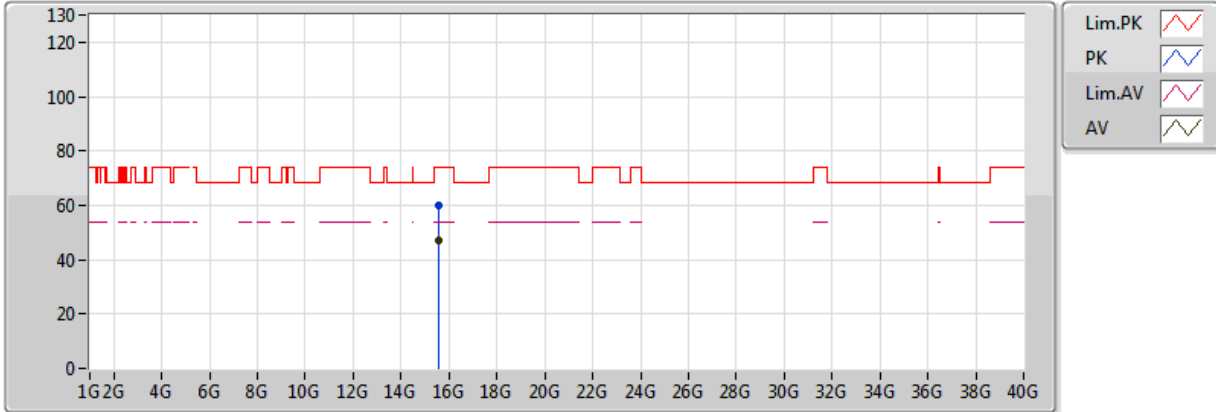
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	15.5801G	59.24	74.00	-14.76	14.78	3	Vertical	240	1.50	-
AV	15.5948G	47.12	54.00	-6.88	14.77	3	Vertical	240	1.50	-



802.11ac VHT40_Nss1,(MCS0)_1TX

5190MHz_TX

12/09/2018



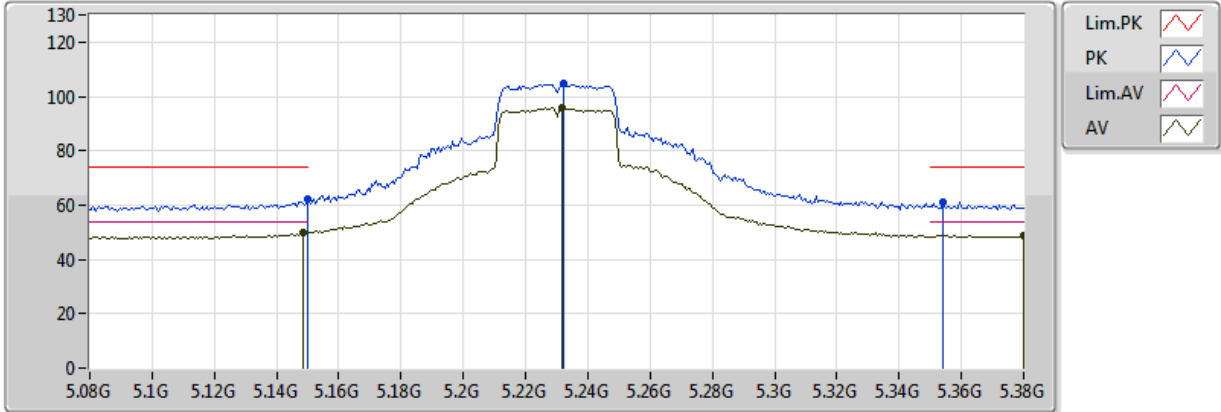
EUT Z_1TX
 Setting 0A
 04-M-1
 FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	15.5741G	60.00	74.00	-14.00	14.79	3	Horizontal	273	1.28	-
AV	15.5456G	46.95	54.00	-7.05	14.83	3	Horizontal	273	1.28	-

802.11ac VHT40_Nss1,(MCS0)_1TX

5230MHz_TX

11/09/2018



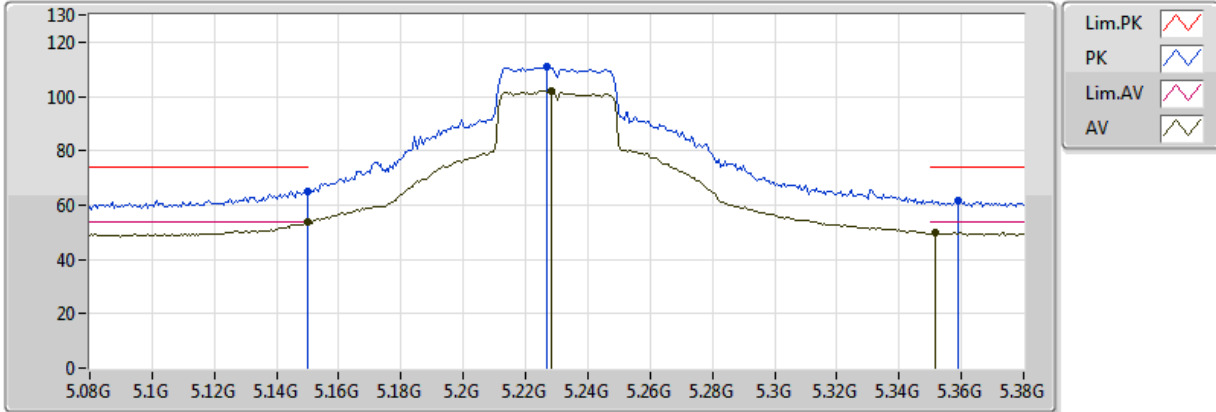
EUT_Z_1TX
Setting 16
04-M-1-10
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.149995G	62.11	74.00	-11.89	7.79	3	Vertical	173	1.50	-
AV	5.1484G	49.79	54.00	-4.21	7.79	3	Vertical	173	1.50	-
PK	5.2324G	104.53	Inf	-Inf	8.02	3	Vertical	173	1.50	-
AV	5.2318G	95.96	Inf	-Inf	8.02	3	Vertical	173	1.50	-
PK	5.3542G	61.33	74.00	-12.67	8.30	3	Vertical	173	1.50	-
AV	5.38G	48.79	54.00	-5.21	8.34	3	Vertical	173	1.50	-

802.11ac VHT40_Nss1,(MCS0)_1TX

5230MHz_TX

11/09/2018



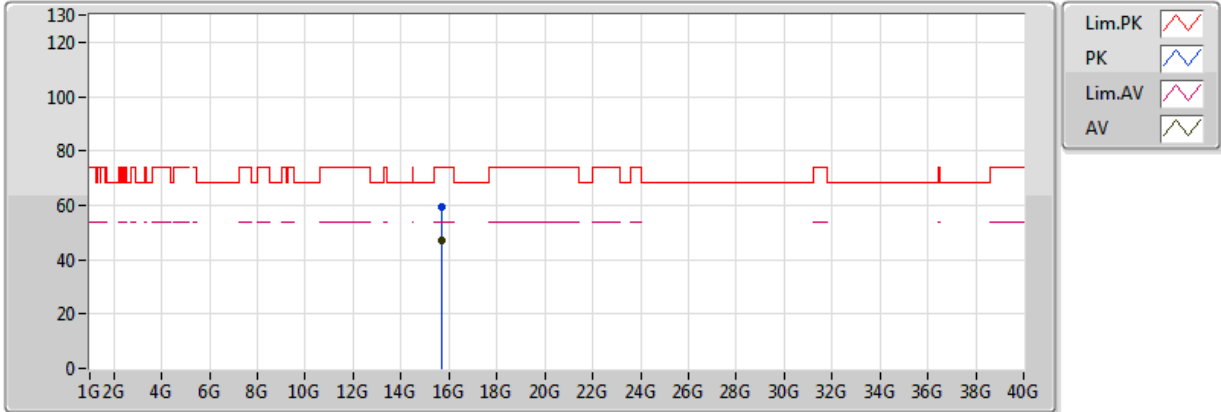
EUT_Z_1TX
Setting 16
04-M-1-10
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.149995G	65.16	74.00	-8.84	7.79	3	Horizontal	49	2.85	-
AV	5.149995G	53.68	54.00	-0.32	7.79	3	Horizontal	49	2.85	-
PK	5.227G	110.83	Inf	-Inf	8.01	3	Horizontal	49	2.85	-
AV	5.2282G	101.94	Inf	-Inf	8.01	3	Horizontal	49	2.85	-
PK	5.359G	61.49	74.00	-12.51	8.30	3	Horizontal	49	2.85	-
AV	5.3518G	49.85	54.00	-4.15	8.29	3	Horizontal	49	2.85	-

802.11ac VHT40_Nss1,(MCS0)_1TX

5230MHz_TX

12/09/2018



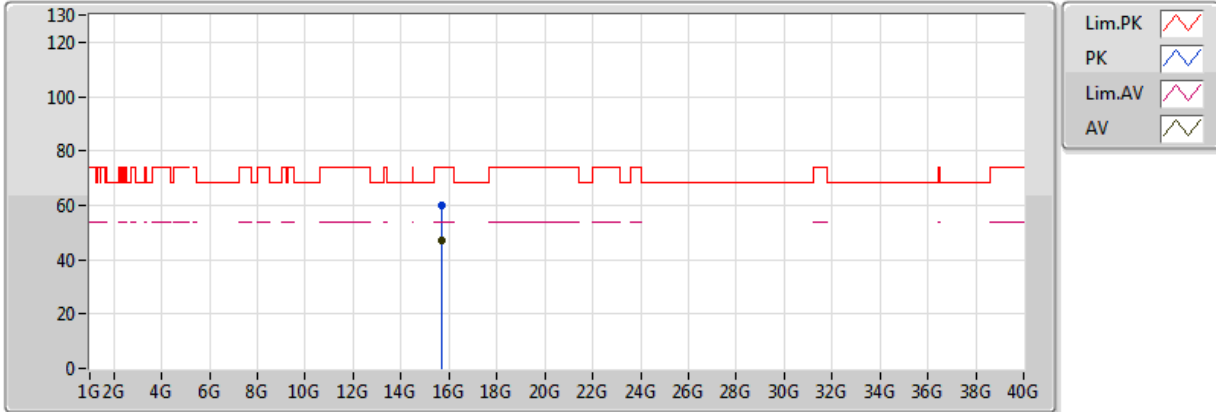
EUT Z_1TX
Setting 16
04-M-1
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	15.6889G	59.38	74.00	-14.62	14.65	3	Vertical	221	2.08	-
AV	15.6966G	47.23	54.00	-6.77	14.64	3	Vertical	221	2.08	-

802.11ac VHT40_Nss1,(MCS0)_1TX

5230MHz_TX

12/09/2018



EUT Z_1TX
Setting 16
04-M-1
FSP(100142)

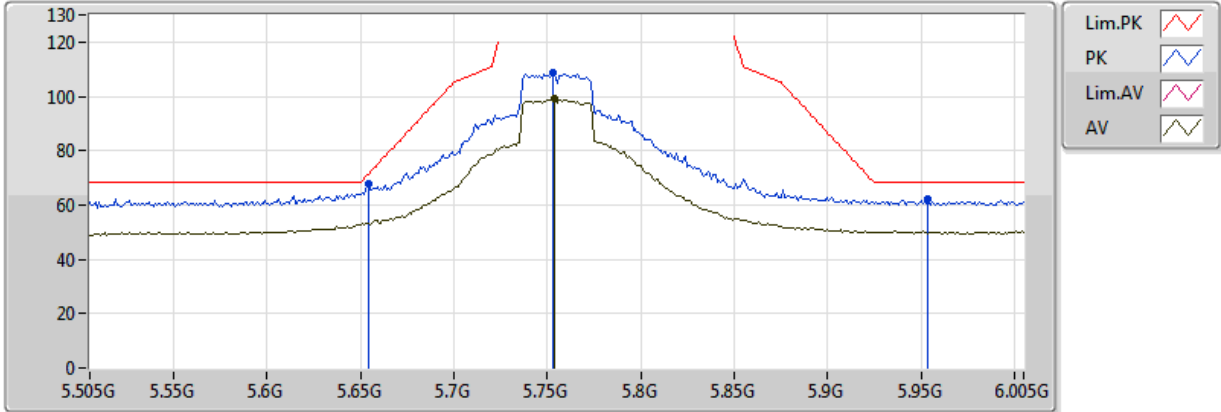
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	15.68544G	59.85	74.00	-14.15	14.66	3	Horizontal	265	1.65	-
AV	15.69648G	47.06	54.00	-6.94	14.64	3	Horizontal	265	1.65	-



802.11ac VHT40_Nss1,(MCS0)_1TX

5755MHz_TX

11/09/2018



EUT_Z_1TX
Setting 1D
04-M-1-10
FSP(100142)

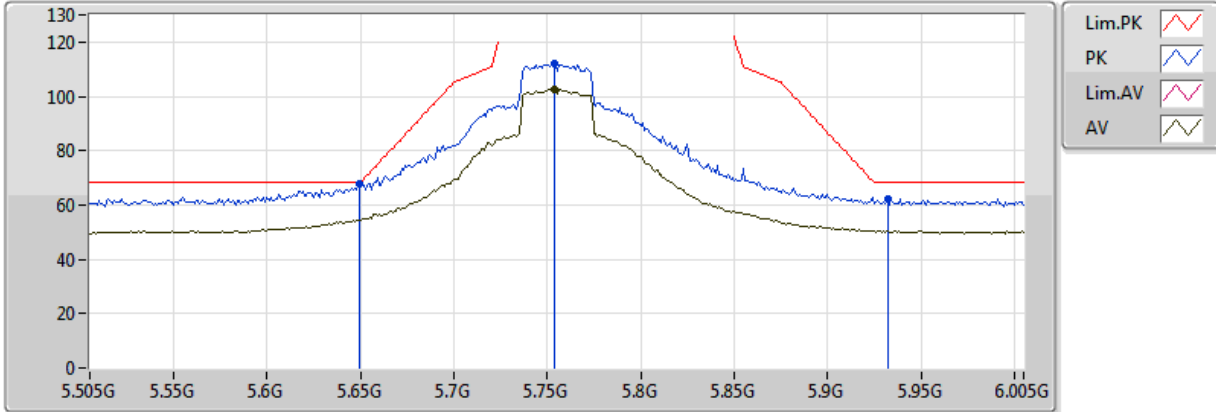
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.654G	68.03	71.16	-3.13	8.96	3	Vertical	185	1.48	-
PK	5.753G	108.50	Inf	-Inf	9.28	3	Vertical	185	1.48	-
AV	5.754G	98.97	Inf	-Inf	9.28	3	Vertical	185	1.48	-
PK	5.954G	62.35	68.20	-5.85	9.92	3	Vertical	185	1.48	-



802.11ac VHT40_Nss1,(MCS0)_1TX

5755MHz_TX

11/09/2018



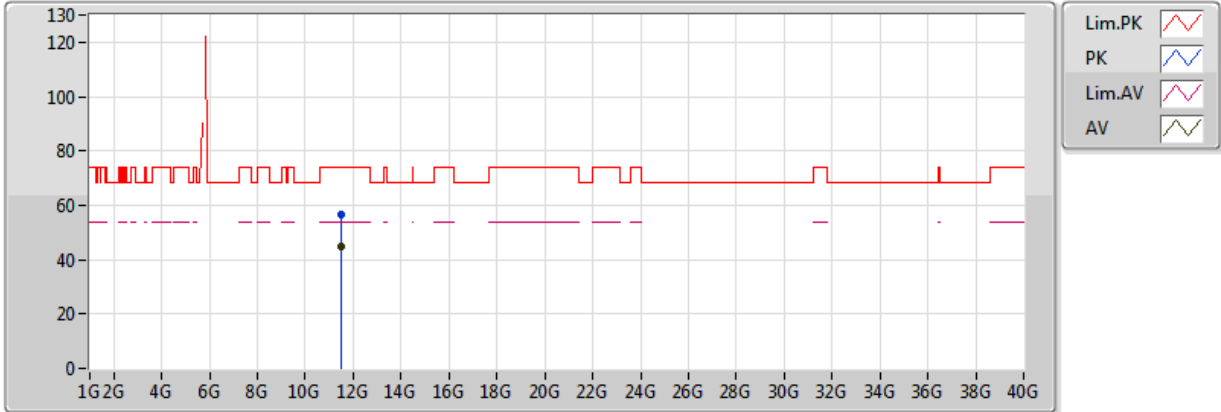
EUT_Z_1TX
Setting 1D
04-M-1-10
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.649G	67.67	68.20	-0.53	8.94	3	Horizontal	60	2.01	-
PK	5.754G	112.06	Inf	-Inf	9.28	3	Horizontal	60	2.01	-
AV	5.754G	102.61	Inf	-Inf	9.28	3	Horizontal	60	2.01	-
PK	5.932G	62.16	68.20	-6.04	9.86	3	Horizontal	60	2.01	-

802.11ac VHT40_Nss1,(MCS0)_1TX

5755MHz_TX

12/09/2018



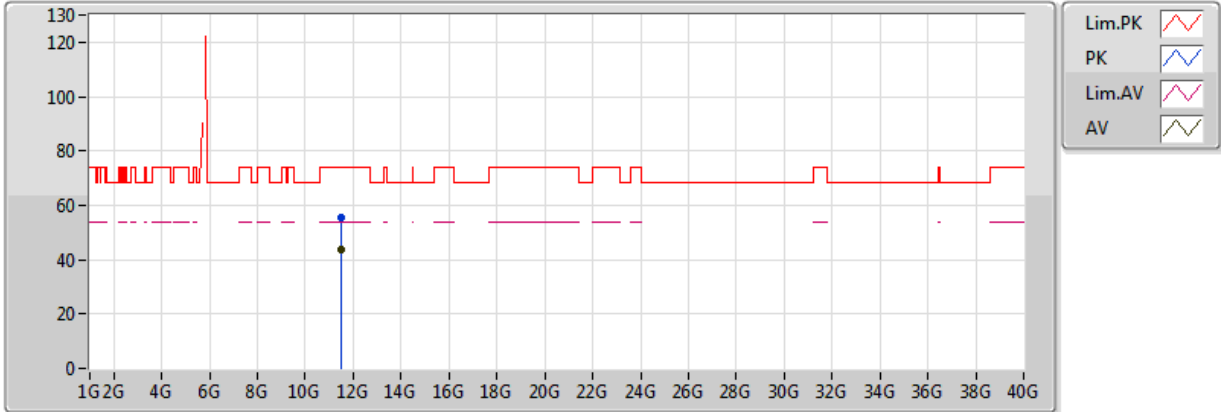
EUT Z_1TX
Setting 1D
04-M-1
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	11.5209G	56.79	74.00	-17.21	13.70	3	Vertical	110	2.29	-
AV	11.5106G	44.81	54.00	-9.19	13.70	3	Vertical	110	2.29	-

802.11ac VHT40_Nss1,(MCS0)_1TX

5755MHz_TX

12/09/2018



EUT Z_1TX
 Setting 1D
 04-M-1
 FSP(100142)

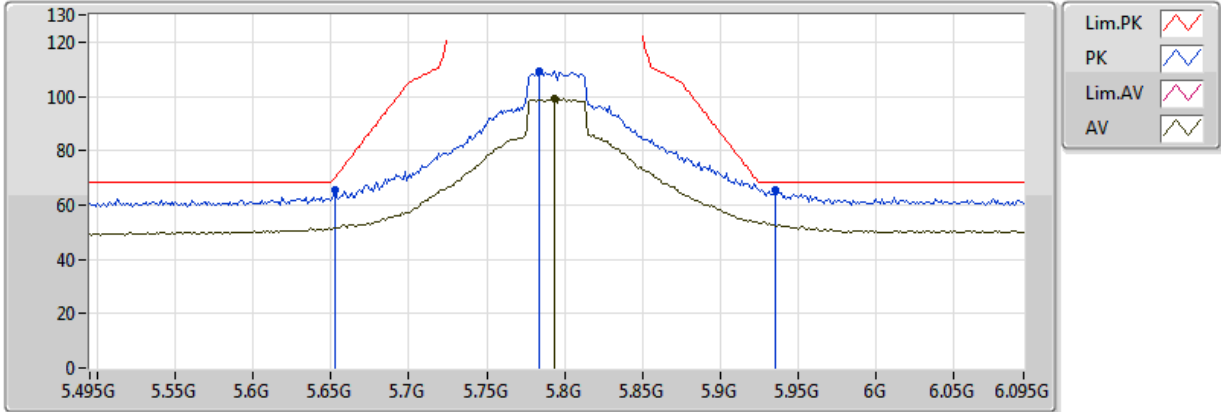
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	11.5219G	55.68	74.00	-18.32	13.70	3	Horizontal	168	1.97	-
AV	11.5054G	43.51	54.00	-10.49	13.70	3	Horizontal	168	1.97	-



802.11ac VHT40_Nss1,(MCS0)_1TX

5795MHz_TX

11/09/2018



EUT_Z_1TX
Setting 24
04-M-1-10
FSP(100142)

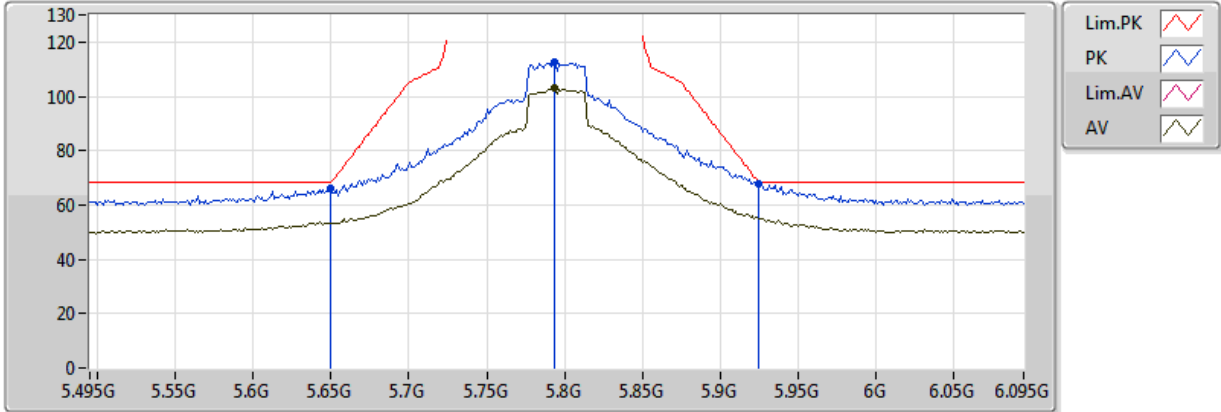
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.6522G	65.33	69.83	-4.50	8.96	3	Vertical	184	1.48	-
PK	5.7842G	109.13	Inf	-Inf	9.38	3	Vertical	184	1.48	-
AV	5.7938G	99.40	Inf	-Inf	9.41	3	Vertical	184	1.48	-
PK	5.9354G	65.81	68.20	-2.39	9.87	3	Vertical	184	1.48	-



802.11ac VHT40_Nss1,(MCS0)_1TX

5795MHz_TX

11/09/2018



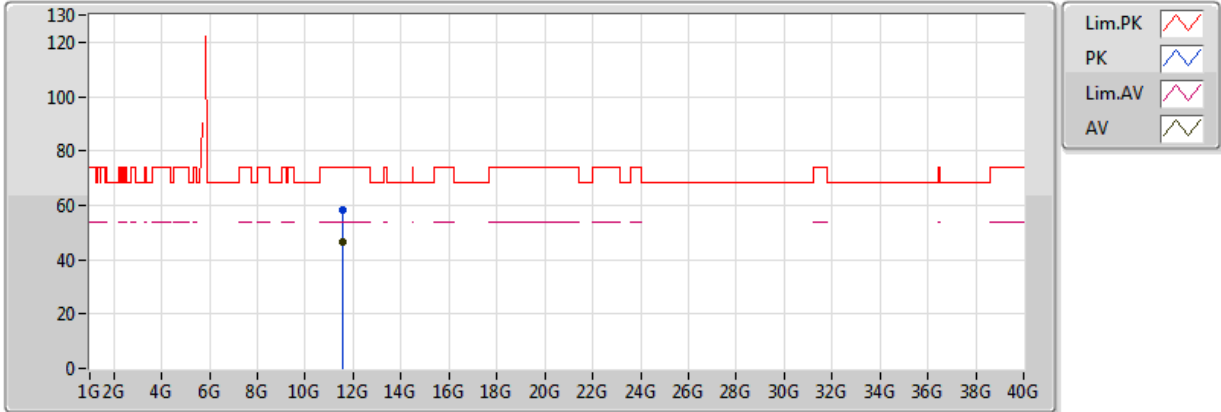
EUT_Z_1TX
Setting 24
04-M-1-10
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.6498G	66.04	68.20	-2.16	8.94	3	Horizontal	60	2.05	-
PK	5.7938G	112.82	Inf	-Inf	9.41	3	Horizontal	60	2.05	-
AV	5.7938G	102.83	Inf	-Inf	9.41	3	Horizontal	60	2.05	-
PK	5.925006G	67.97	68.20	-0.23	9.84	3	Horizontal	60	2.05	-

802.11ac VHT40_Nss1,(MCS0)_1TX

5795MHz_TX

12/09/2018



EUT Z_1TX
Setting 24
04-M-1
FSP(100142)

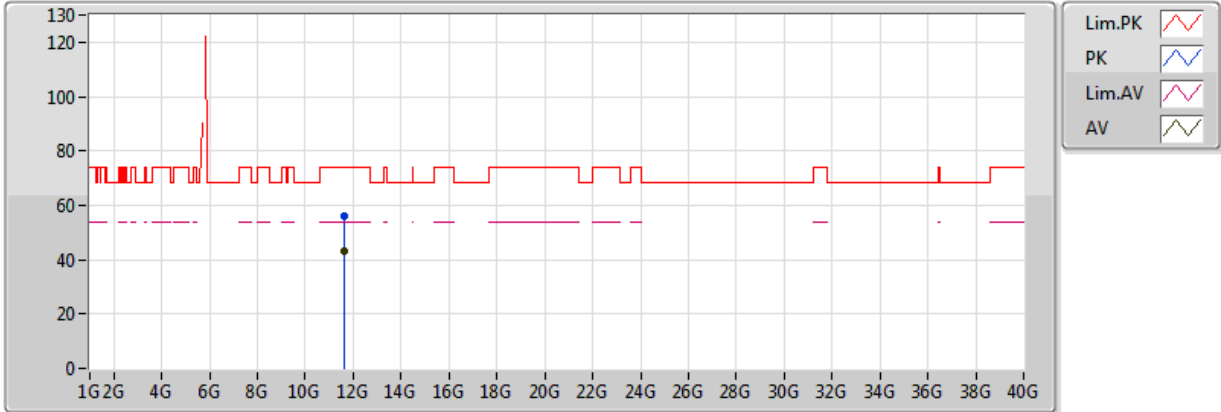
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	11.5908G	58.45	74.00	-15.55	13.67	3	Vertical	278	1.87	-
AV	11.5901G	46.43	54.00	-7.57	13.67	3	Vertical	278	1.87	-



802.11ac VHT40_Nss1,(MCS0)_1TX

5795MHz_TX

12/09/2018



EUT Z_1TX
Setting 24
04-M-1
FSP(100142)

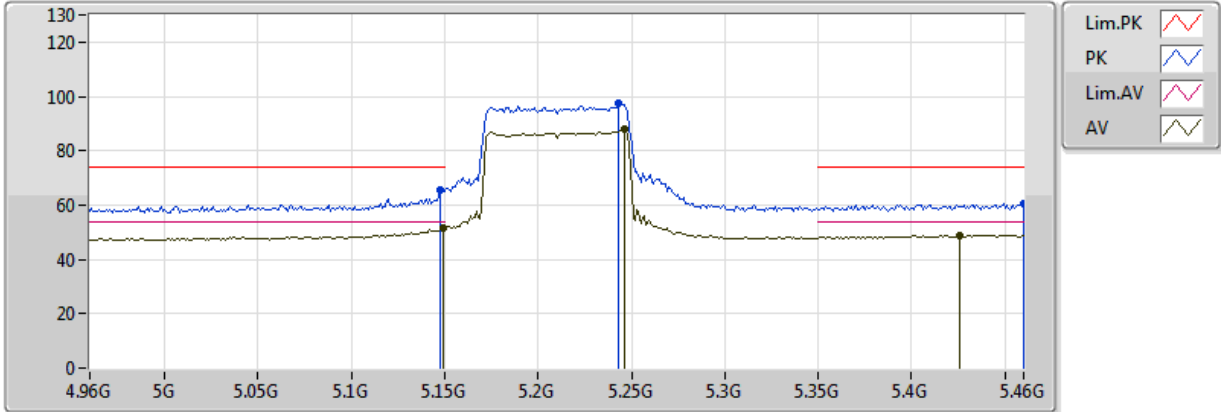
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	11.6034G	55.77	74.00	-18.23	13.66	3	Horizontal	193	2.16	-
AV	11.5952G	43.31	54.00	-10.69	13.67	3	Horizontal	193	2.16	-



802.11ac VHT80_Nss1,(MCS0)_1TX

5210MHz_TX

11/09/2018



EUT Z_1TX
Setting 03
04-M-1-10
FSP(100142)

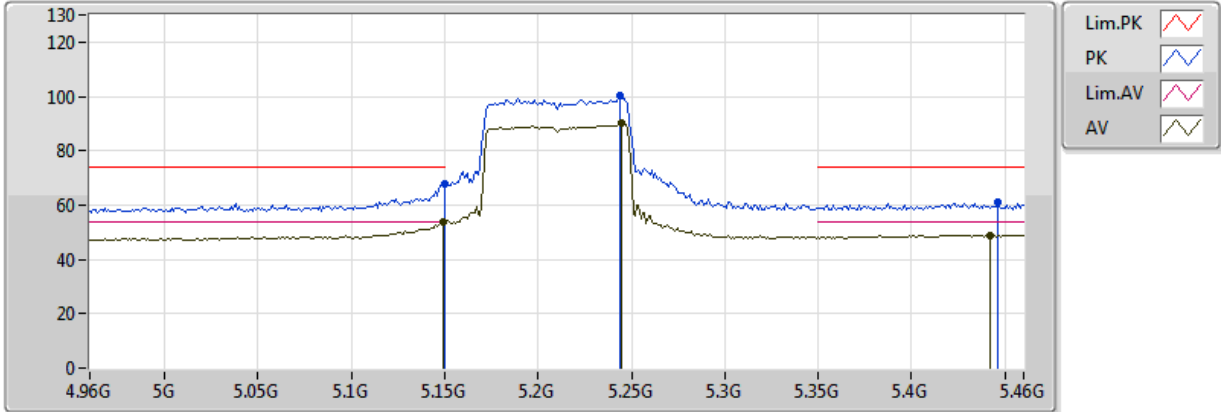
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.148G	65.30	74.00	-8.70	7.79	3	Vertical	213	2.87	-
AV	5.149G	51.55	54.00	-2.45	7.79	3	Vertical	213	2.87	-
PK	5.243G	97.40	Inf	-Inf	8.05	3	Vertical	213	2.87	-
AV	5.246G	88.01	Inf	-Inf	8.06	3	Vertical	213	2.87	-
PK	5.459995G	60.61	74.00	-13.39	8.47	3	Vertical	213	2.87	-
AV	5.426G	48.89	54.00	-5.11	8.42	3	Vertical	213	2.87	-



802.11ac VHT80_Nss1,(MCS0)_1TX

5210MHz_TX

11/09/2018



EUT Z_1TX
Setting 03
04-M-1-10
FSP(100142)

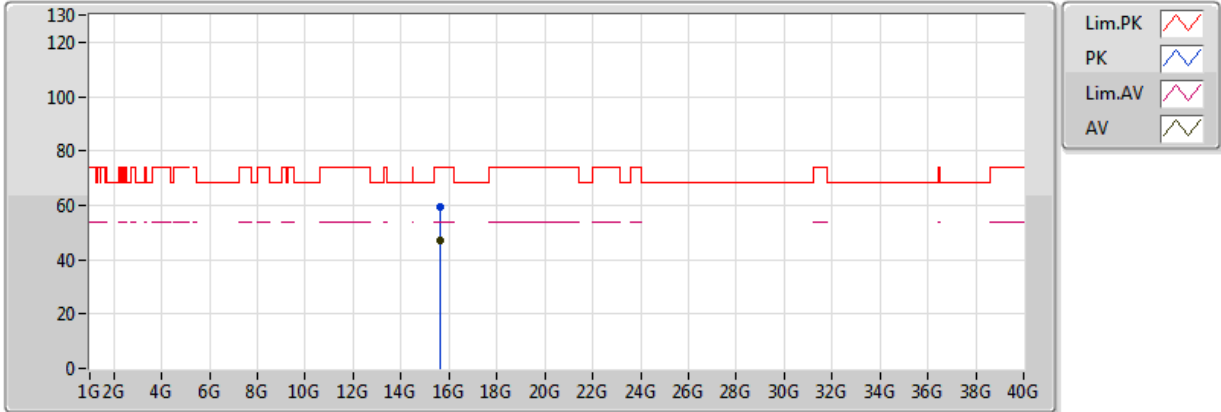
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.149995G	67.73	74.00	-6.27	7.80	3	Horizontal	52	2.20	-
AV	5.149G	53.56	54.00	-0.44	7.80	3	Horizontal	52	2.20	-
PK	5.244G	100.28	Inf	-Inf	8.05	3	Horizontal	52	2.20	-
AV	5.245G	90.00	Inf	-Inf	8.05	3	Horizontal	52	2.20	-
PK	5.446G	61.00	74.00	-13.00	8.45	3	Horizontal	52	2.20	-
AV	5.442G	48.98	54.00	-5.02	8.45	3	Horizontal	52	2.20	-



802.11ac VHT80_Nss1,(MCS0)_1TX

5210MHz_TX

12/09/2018



EUT Z_1TX
Setting 03
04-M-1
FSP(100142)

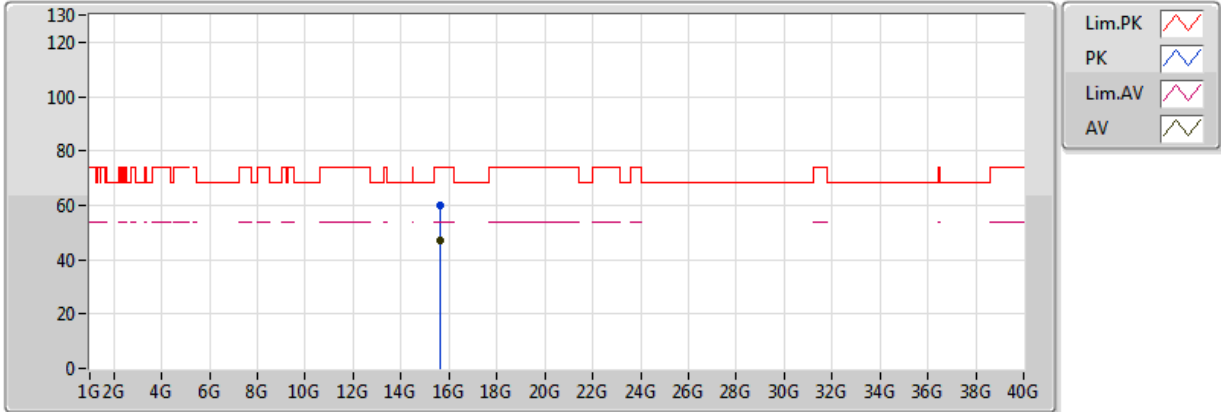
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	15.6216G	59.41	74.00	-14.59	14.73	3	Vertical	213	1.50	-
AV	15.6122G	47.05	54.00	-6.95	14.75	3	Vertical	213	1.50	-



802.11ac VHT80_Nss1,(MCS0)_1TX

5210MHz_TX

12/09/2018



EUT Z_1TX
Setting 03
04-M-1
FSP(100142)

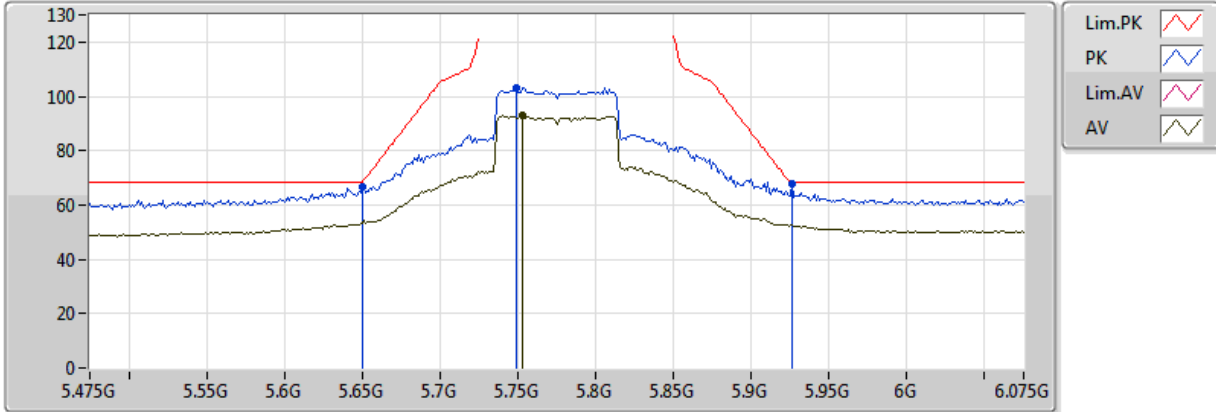
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	15.65G	60.01	74.00	-13.99	14.70	3	Horizontal	163	1.34	-
AV	15.6082G	47.10	54.00	-6.90	14.75	3	Horizontal	163	1.34	-



802.11ac VHT80_Nss1,(MCS0)_1TX

5775MHz_TX

11/09/2018



EUT Z_1TX
Setting 14
04-M-1-10
FSP(100142)

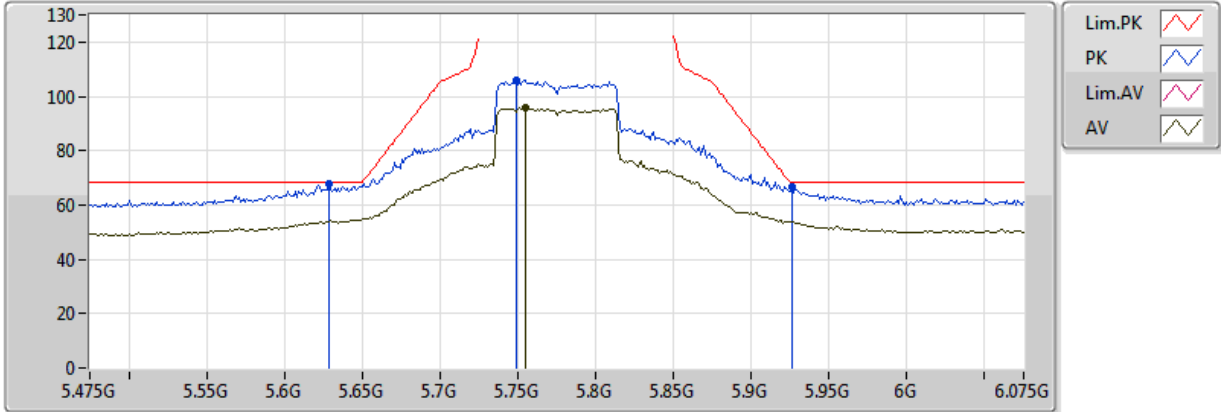
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.6502G	66.59	68.35	-1.76	8.95	3	Vertical	183	1.49	-
PK	5.7486G	103.26	Inf	-Inf	9.27	3	Vertical	183	1.49	-
AV	5.7534G	93.07	Inf	-Inf	9.28	3	Vertical	183	1.49	-
PK	5.9262G	67.95	68.20	-0.25	9.84	3	Vertical	183	1.49	-



802.11ac VHT80_Nss1,(MCS0)_1TX

5775MHz_TX

12/09/2018



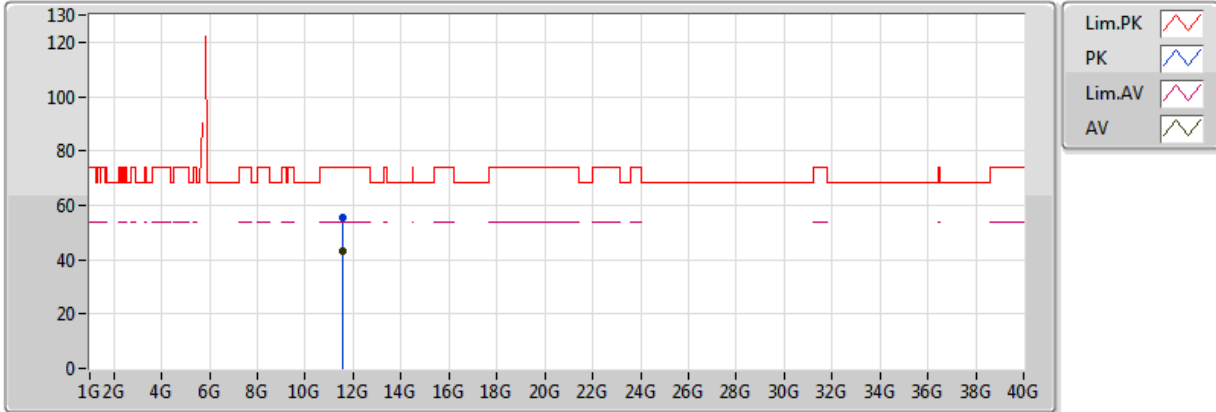
EUT Z_1TX
Setting 14
04-M-1-10
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	5.6286G	67.88	68.20	-0.32	8.88	3	Horizontal	59	1.99	-
PK	5.7486G	106.12	Inf	-Inf	9.27	3	Horizontal	59	1.99	-
AV	5.7546G	96.05	Inf	-Inf	9.28	3	Horizontal	59	1.99	-
PK	5.9262G	66.42	68.20	-1.78	9.84	3	Horizontal	59	1.99	-

802.11ac VHT80_Nss1,(MCS0)_1TX

5775MHz_TX

12/09/2018



EUT Z_1TX
 Setting 14
 04-M-1
 FSP(100142)

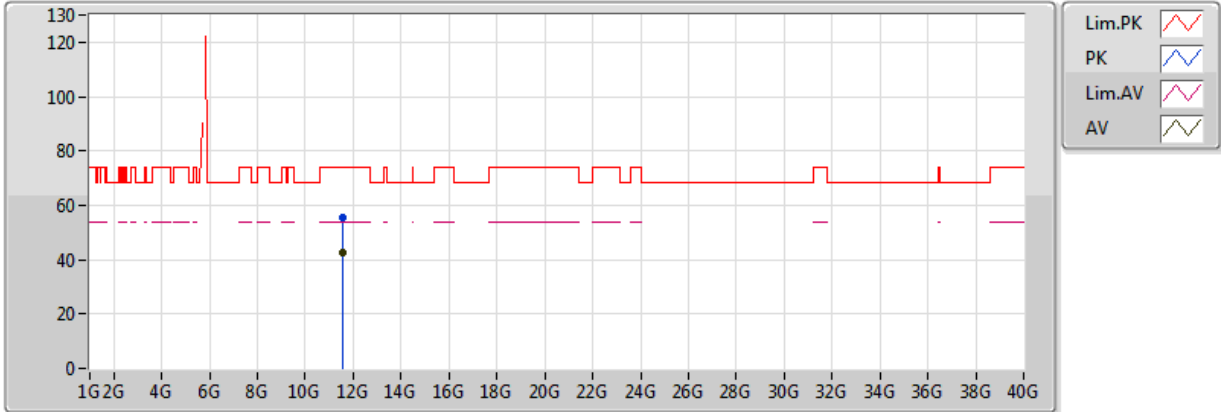
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	11.55478G	55.40	74.00	-18.60	13.68	3	Vertical	135	1.98	-
AV	11.55084G	43.05	54.00	-10.95	13.68	3	Vertical	135	1.98	-



802.11ac VHT80_Nss1,(MCS0)_1TX

5775MHz_TX

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EUT Z_1TX
Setting 14
04-M-1
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
PK	11.55256G	55.57	74.00	-18.43	13.68	3	Horizontal	254	1.33	-
AV	11.55106G	42.80	54.00	-11.20	13.68	3	Horizontal	254	1.33	-

