



FCC Test Report

Equipment : AC3000 Tri-Band Wireless Gigabit Dual-WAN VPN SMB Router
Brand Name : TRENDnet
Model No. : TEW-829DRU
FCC ID : XU8TEW829DRU
Standard : 47 CFR FCC Part 15.407
Operating Band : 5150 MHz – 5250 MHz
5725 MHz – 5850 MHz
Applicant : TRENDnet, Inc.
20675 Manhattan, Place, Torrance, CA, 90501
Function : Outdoor; Indoor; Fixed P2P
 Client

The product sample received on Dec. 20, 2017 and completely tested on Feb. 09, 2018. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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


Cliff Chang
SPORTON INTERNATIONAL INC.





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PHOTOGRAPHS OF EUT V01



Summary of Test Result

Conformance Test Specifications			
Report Clause	Ref. Std. Clause	Description	Result
1.1.2	15.203	Antenna Requirement	Complied
3.1	15.207	AC Power-line Conducted Emissions	Complied
3.2	15.407(a)	Emission Bandwidth	Complied
3.3	15.407(a)	Maximum Conducted Output Power	Complied
3.4	15.407(a)	Peak Power Spectral Density	Complied
3.5	15.407(b)	Unwanted Emissions	Complied
3.6	15.407(g)	Frequency Stability	Complied



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]

For Radio 2

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	4TX
5.15-5.25GHz	802.11n HT20	20	4TX
5.15-5.25GHz	802.11n HT20-BF	20	4TX
5.15-5.25GHz	802.11ac VHT20	20	4TX
5.15-5.25GHz	802.11ac VHT20-BF	20	4TX
5.15-5.25GHz	802.11n HT40	40	4TX
5.15-5.25GHz	802.11n HT40-BF	40	4TX
5.15-5.25GHz	802.11ac VHT40	40	4TX
5.15-5.25GHz	802.11ac VHT40-BF	40	4TX
5.15-5.25GHz	802.11ac VHT80	80	4TX
5.15-5.25GHz	802.11ac VHT80-BF	80	4TX



For Radio 3

Band	Mode	BWch (MHz)	Nant
5.725-5.85GHz	802.11a	20	2TX
5.725-5.85GHz	802.11n HT20	20	2TX
5.725-5.85GHz	802.11n HT20-BF	20	2TX
5.725-5.85GHz	802.11ac VHT20	20	2TX
5.725-5.85GHz	802.11ac VHT20-BF	20	2TX
5.725-5.85GHz	802.11n HT40	40	2TX
5.725-5.85GHz	802.11n HT40-BF	40	2TX
5.725-5.85GHz	802.11ac VHT40	40	2TX
5.725-5.85GHz	802.11ac VHT40-BF	40	2TX
5.725-5.85GHz	802.11ac VHT80	80	2TX
5.725-5.85GHz	802.11ac VHT80-BF	80	2TX

Note:

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

1.1.2 Antenna Information

Ant.	2.4G Port	5G B1 Port	5G B4 Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	-	1	WHA YU	C732-510011-A	Dipole Antenna	Reversed-SMA	Note1
2	2	-	2	WHA YU	C732-510011-A	Dipole Antenna	Reversed-SMA	
3	-	1	-	WHA YU	C732-510011-A	Dipole Antenna	Reversed-SMA	
4	-	2	-	WHA YU	C732-510011-A	Dipole Antenna	Reversed-SMA	
5	-	3	-	WHA YU	C732-510011-A	Dipole Antenna	Reversed-SMA	
6	-	4	-	WHA YU	C732-510011-A	Dipole Antenna	Reversed-SMA	

Note 1:

Ant.	2.4G Port	5G B1 Port	5G B4 Port	Gain (dBi)			Cable loss (dB)			True Gain (dBi)		
				2.4G	5G B1	5G B4	2.4G	5G B1	5G B4	2.4G	5G B1	5G B4
1	1	-	1	2.9	4.4	4.4	2.5	2.5	2.5	0.4	1.9	1.9
2	2	-	2	2.9	4.4	4.4	2.5	2.5	2.5	0.4	1.9	1.9
3	-	1	-	2.9	4.4	4.4	2.5	2.5	2.5	0.4	1.9	1.9
4	-	2	-	2.9	4.4	4.4	2.5	2.5	2.5	0.4	1.9	1.9
5	-	3	-	2.9	4.4	4.4	2.5	2.5	2.5	0.4	1.9	1.9
6	-	4	-	2.9	4.4	4.4	2.5	2.5	2.5	0.4	1.9	1.9

Note 2: B1=Band 1, B4=Band 4, Connect to reverse SMA to execute the conducted measurement.

Note 3: The EUT has six antennas.

<For 2.4GHz Band / For Radio 1>

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

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

Port 1 and Port 2 could transmit/receive simultaneously.

<For 5GHz Band 1 / For Radio 2>

For IEEE 802.11a/n/ac mode (4TX/4RX)

Port 1, Port 2, Port 3 and Port 4 can be used as transmitting/receiving antenna.

Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.

<For 5GHz Band 4 / For Radio 3>

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

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

Port 1 and Port 2 could transmit/receive simultaneously.



1.1.3 Mode Test Duty Cycle

For Radio 2

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.969	0.137	2.064m	1k
802.11ac VHT20	0.988	0.052	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ac VHT20-BF	0.936	0.287	1.754m	1k
802.11ac VHT40	0.975	0.11	2.436m	1k
802.11ac VHT40-BF	0.933	0.301	1.689m	1k
802.11ac VHT80	0.952	0.214	1.148m	1k
802.11ac VHT80-BF	0.859	0.66	1.941m	1k

For Radio 3

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.968	0.141	2.068m	1k
802.11ac VHT20	0.986	0.061	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ac VHT20-BF	0.919	0.367	1.82m	1k
802.11ac VHT40	0.971	0.128	2.44m	1k
802.11ac VHT40-BF	0.94	0.269	1.828m	1k
802.11ac VHT80	0.939	0.273	1.153m	1k
802.11ac VHT80-BF	0.928	0.325	2.138m	1k

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter		
Beamforming Function	<input checked="" type="checkbox"/>	With beamforming function for 802.11n in 2.4GHz/5GHz and 802.11ac in 5GHz.	<input type="checkbox"/> Without beamforming
Test Software Version	For non-beamforming mode: QRCT Version3.0.210.0 For beamforming mode: PUTTY.EXE		

1.1.5 Table for Radio type

Radio No.	function	Chip brand Name
Radio 1	2.4GHz	IPQ4019
Radio 2	5GHz Band 1	QCA9984
Radio 3	5GHz Band 4	IPQ4019



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

1.3 Testing Location Information

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

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Stim Sung & Brian Sun & Paul Chen & Ron Huang	25°C / 55%	Jan. 05, 2018 ~ Feb. 09, 2018
Radiated	03CH01-CB	Jay Luo & Zero Chen & Cola Fan & Eason Chen	22°C / 54%	Dec. 29, 2017 ~ Feb. 09, 2018
AC Conduction	CO01-CB	Max Lin	24°C / 56%	Jan. 03, 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)	3.2 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.7 dB	Confidence levels of 95%
Output Power Measurement	1.33 dB	Confidence levels of 95%
Power Density Measurement	1.27 dB	Confidence levels of 95%
Bandwidth Measurement	9.74 x10 ⁻⁸	Confidence levels of 95%
Frequency Stability	6.06 x10 ⁻⁸	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

For Radio 2

Mode	Power Setting
802.11a_Nss1,(6Mbps)_4TX	-
5180MHz	19
5200MHz	19
5240MHz	19
802.11ac VHT20_Nss1,(MCS0)_4TX	-
5180MHz	19.5
5200MHz	19.5
5240MHz	20
802.11ac VHT40_Nss1,(MCS0)_4TX	-
5190MHz	17
5230MHz	21
802.11ac VHT80_Nss1,(MCS0)_4TX	-
5210MHz	15
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-
5180MHz	25
5200MHz	25
5240MHz	25
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-
5190MHz	22
5230MHz	26
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-
5210MHz	22



For Radio 3

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5745MHz	25
5785MHz	25
5825MHz	25
802.11ac VHT20_Nss1,(MCS0)_2TX	-
5745MHz	25
5785MHz	25
5825MHz	25
802.11ac VHT40_Nss1,(MCS0)_2TX	-
5755MHz	25
5795MHz	25
802.11ac VHT80_Nss1,(MCS0)_2TX	-
5775MHz	25
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-
5745MHz	21
5785MHz	21
5825MHz	21
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-
5755MHz	21
5795MHz	21
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-
5775MHz	21

Note:

- ♦ VHT20/VHT40 covers HT20/HT40, due to same modulation. The power setting for 802.11n HT20 and HT40 are the same or lower than 802.11ac VHT20 and VHT40.
- ♦ There are two modes of EUT for 802.11n in 2.4GHz/5GHz and 802.11ac in 5GHz. One is beamforming mode, and the other is non-beamforming mode. Both modes have been tested and recorded in this test report.

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	Normal Link
1	EUT with Adapter 1
2	EUT with Adapter 2
Mode 1 generated the worst test result, so it was recorded in this report.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emission Bandwidth Maximum Conducted Output Power Peak Power Spectral Density Frequency Stability
Test Condition	Conducted measurement at transmit chains
1	EUT with Adapter 1

The Worst Case Mode for Following Conformance Tests	
Tests Item	Unwanted Emissions
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	Normal Link
1	EUT with Adapter 1 in Z axis
2	EUT with Adapter 1 in X axis
Mode 1 has been evaluated to be the worst case among Mode 1~2, thus measurement for Mode 3 will follow this same test mode.	
3	EUT with Adapter 2 in Z axis
Mode 1 generated the worst test result, so it was recorded in this report.	
Operating Mode > 1GHz	CTX The EUT was performed at Z axis and X axis position for Radiated emission above 1GHz test, and the worst case were found at X axis for Band 1 and Z axis for Band 4. So the measurement will follow this same test configuration.
1	EUT (Band 1) with Adapter 1 in X axis
2	EUT (Band 4) with Adapter 1 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 Z axis and X 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 Z axis - Radio 1 (WLAN 2.4GHz) + Radio 3 (WLAN 5GHz Band 4)
Refer to Appendix G for Radiated Emission Co-location.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	EUT in Z axis - Radio 1 (WLAN 2.4GHz) + Radio 2 (WLAN 5GHz Band 1) + Radio 3 (WLAN 5GHz Band 4)
Refer to Sporton Test Report No.: FA7D2029 for Co-location RF Exposure Evaluation.	

Note: The console port can not be used by end user. It is generally used for updating FW by applicant.

2.3 EUT Operation during Test

For CTX Mode:

non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

beamforming mode:

For Conducted Mode:

The EUT was programmed to be in continuously transmitting mode.

For Radiated Mode:

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

The program was executed as follows:

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

For Normal Link:

During the test, the EUT operation to normal function.



2.4 Accessories

Accessories			
Equipment Name	Brand Name	Model Name	Rating
Adapter 1	AMIGO	AMS157-1203000FU	Input: 100-240V~50/60Hz, 1A Output: 12V, 3.0A
Adapter 2	UMEC	UP0361K-12PA	Input: 100-240V~50/60Hz, 1A MAX Output: +12V, 3A, 36W MAX
Other			
Bracket *2			
Console cable*1, Non-Shielded, 1.5m			
RJ-45 cable*1, Non-Shielded, 1.5m			

Note1: The power adapter does not affect the test result of RF tests, so Emission Bandwidth, Maximum Conducted Output Power, Peak Power Spectral Density, Frequency Stability and Unwanted Emissions above 1GHz only test adapter 2 and recorded in this report.

Note2: All adapters test for AC power-line conducted emissions and Unwanted Emissions below 1GHz.

2.5 Support Equipment

For Test Site No: CO01-CB

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB*6	DELL	E6430	DoC
2	Flash disk3.0	Transcend	JetFlash-700	DoC

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

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB*4	DELL	E4300	DoC
2	NB*2	Apple	Mac Book	DoC
3	Flash disk3.0	Transcend	JetFlash-700	DoC



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

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

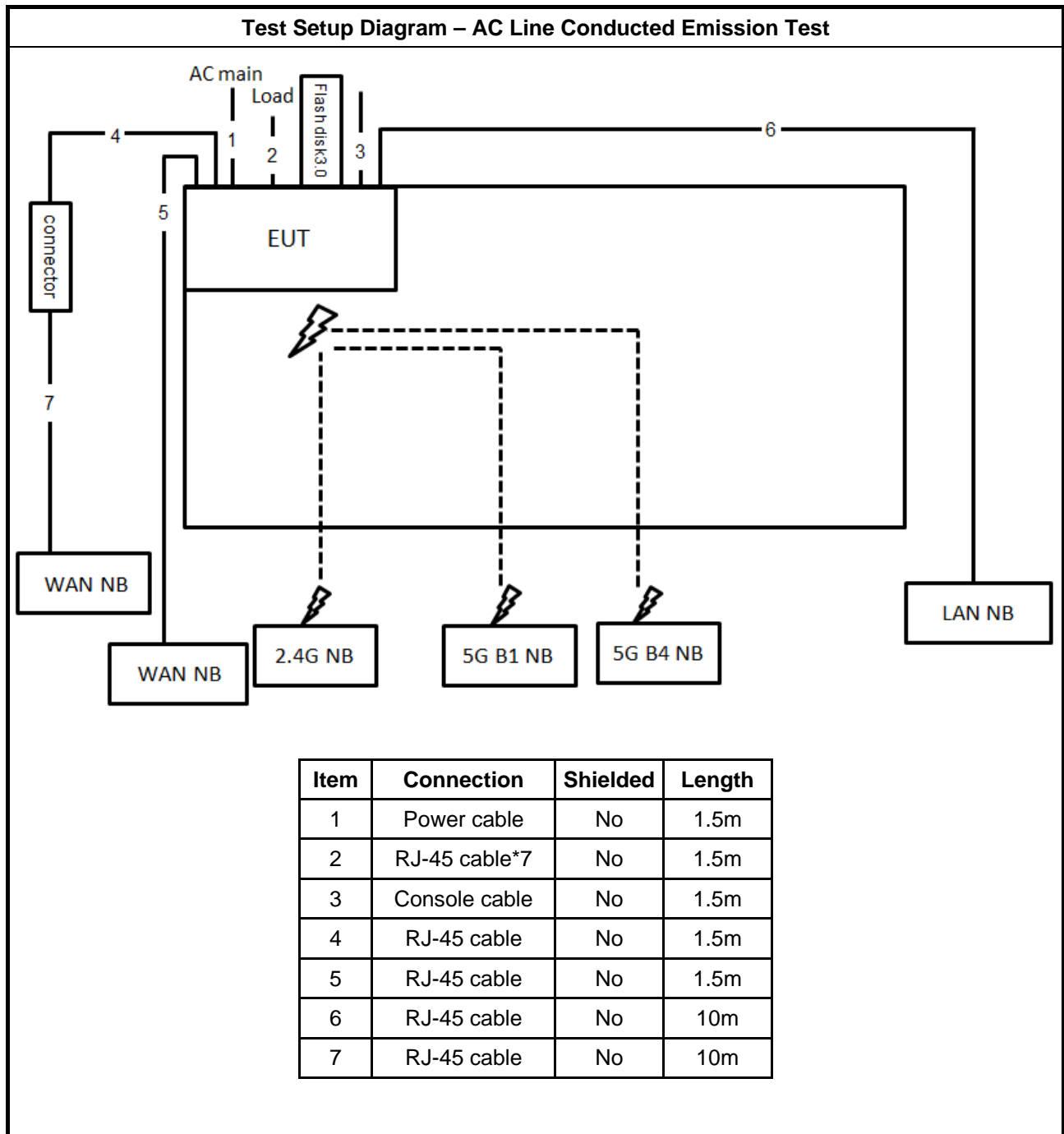
For beamforming mode

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB*2	DELL	E4300	DoC
2	RX Device	TRENDnet	WRT-C92Q	N/A

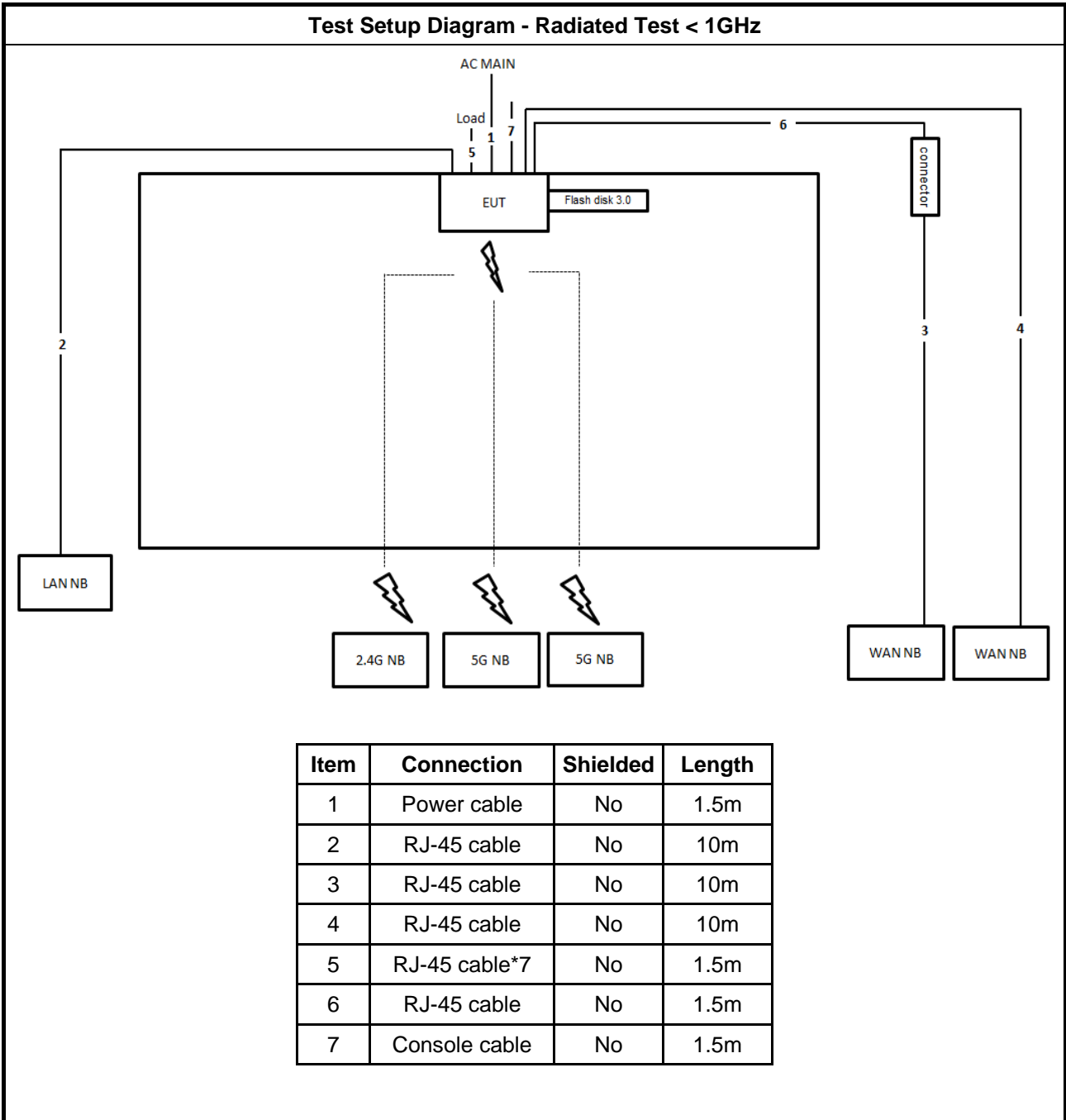
For Test Site No: TH01-CB

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

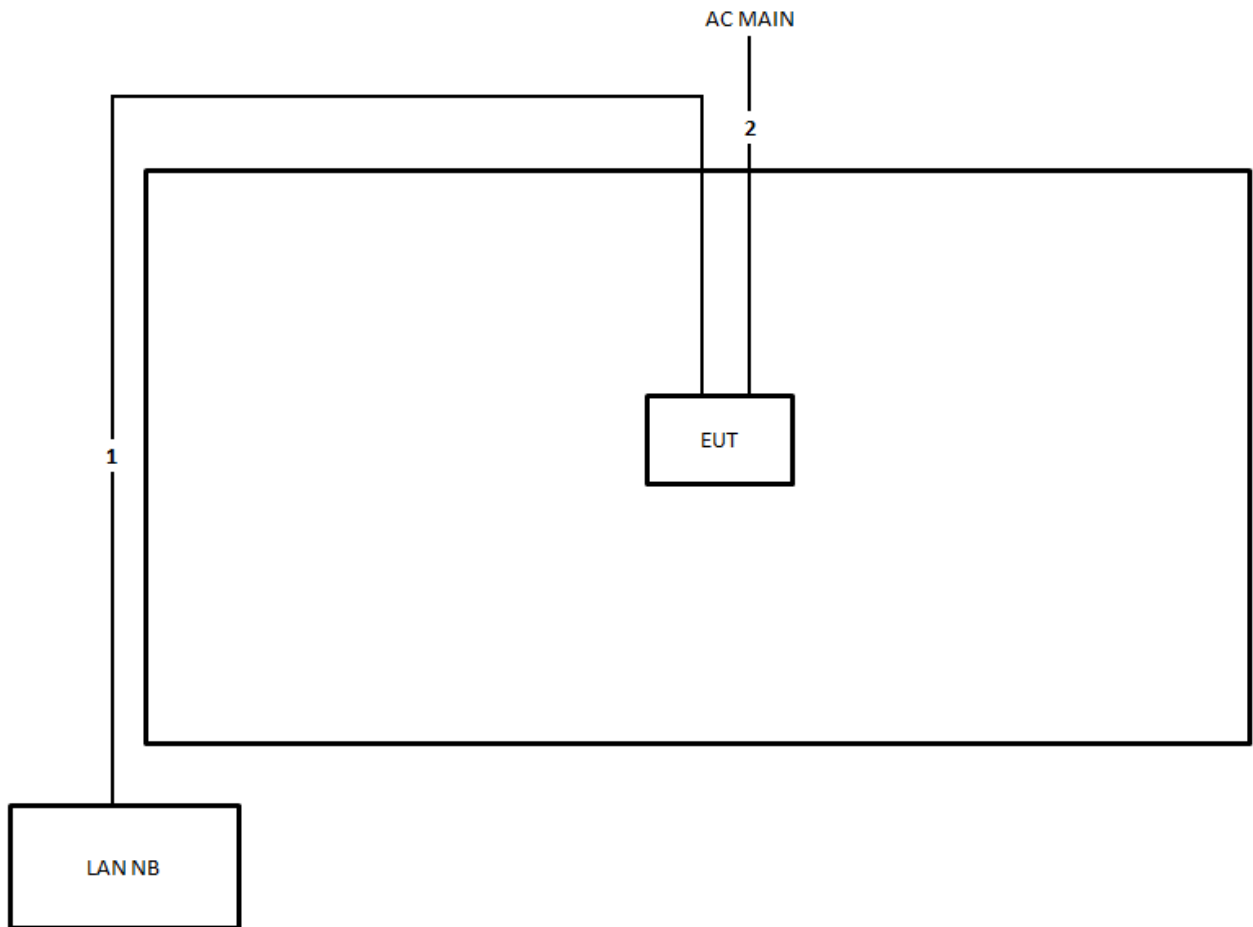
2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test < 1GHz

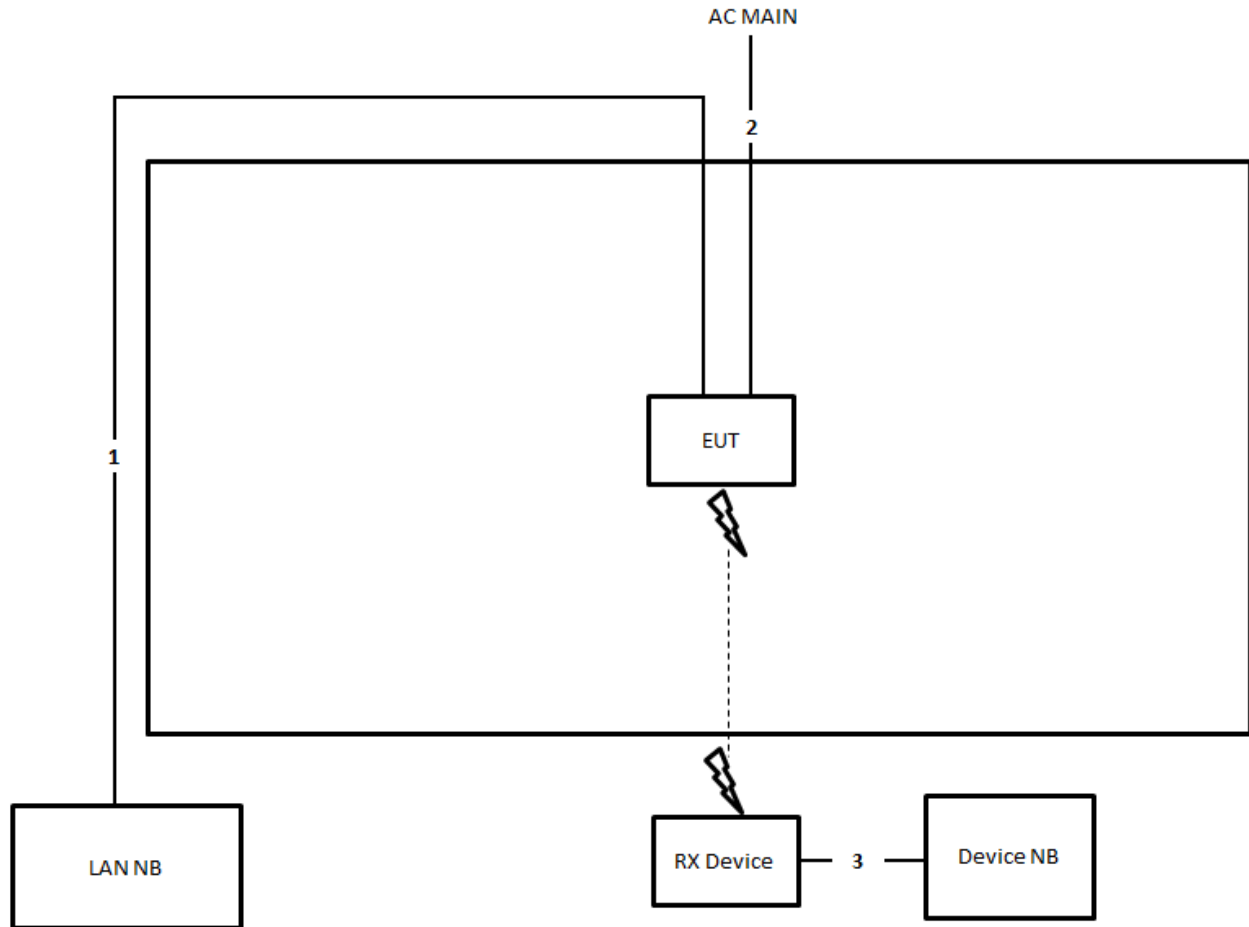


Test Setup Diagram - Radiated Test > 1GHz / For non-beamforming mode



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

Test Setup Diagram - Radiated Test > 1GHz / For beamforming mode



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



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.

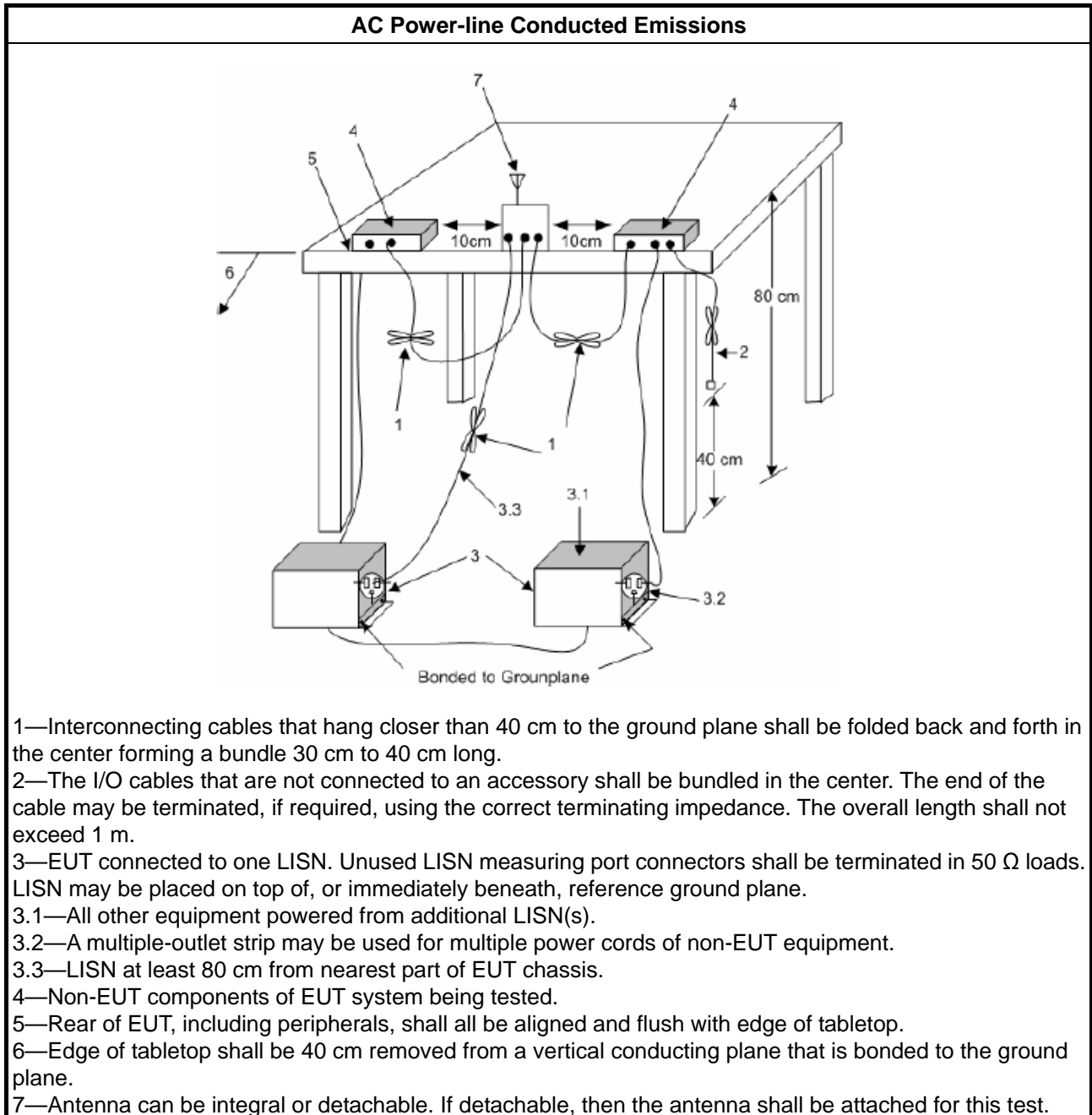
3.1.2 Measuring Instruments

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.

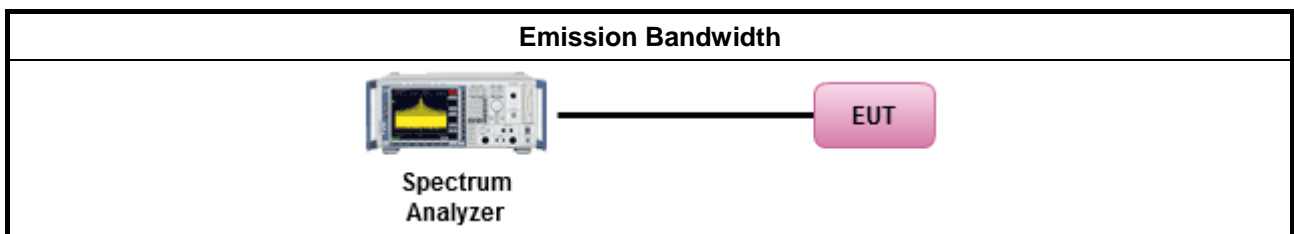
3.2.2 Measuring Instruments

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: 	
<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:	
	<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 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 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:	
	<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:	
	<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.	

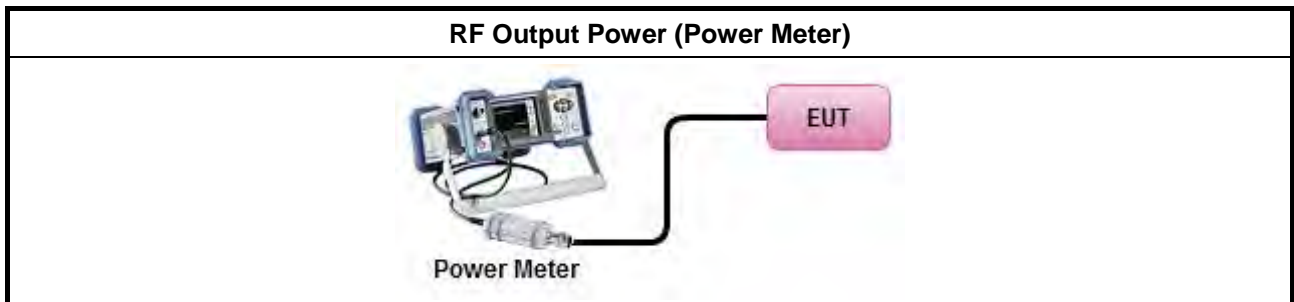
3.3.2 Measuring Instruments

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:	
	<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:	
	<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 peak power spectral density (PPSD) ≤ 4 dBm/MHz and 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 and the e.i.r.p. peak power spectral density (PPSD) ≤ 17 dBm/MHz.	
	<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 and the e.i.r.p. peak power spectral density (PPSD) ≤ 17 dBm/MHz.	
<input type="checkbox"/> For the 5.725-5.85 GHz band:	
	<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 G_{TX} = the maximum transmitting antenna directional gain in dBi.</p>	

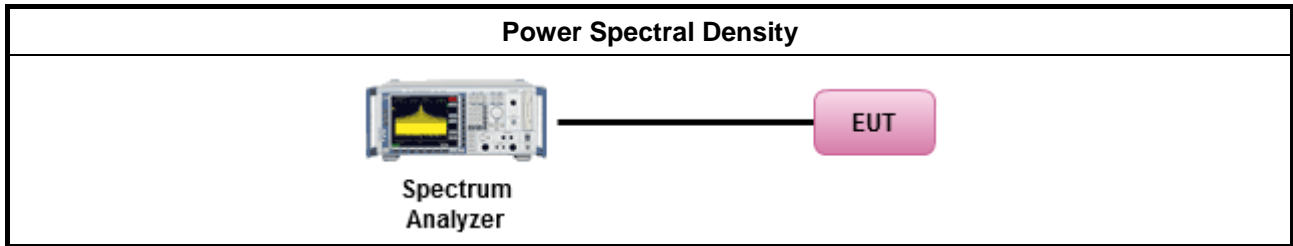
3.4.2 Measuring Instruments

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, F5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth
[duty cycle ≥ 98% or external video / power trigger]	
	<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).



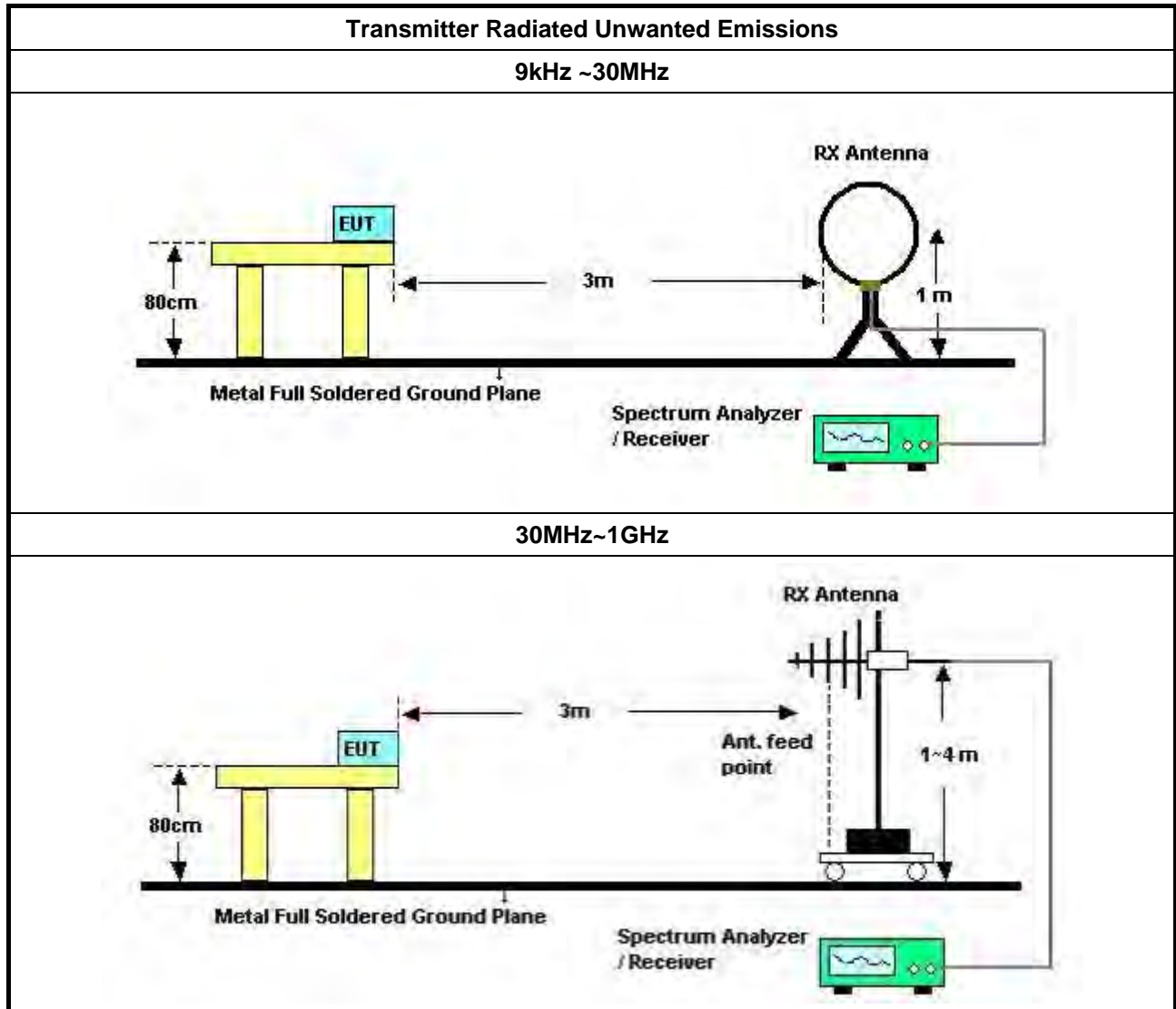
3.5.2 Measuring Instruments

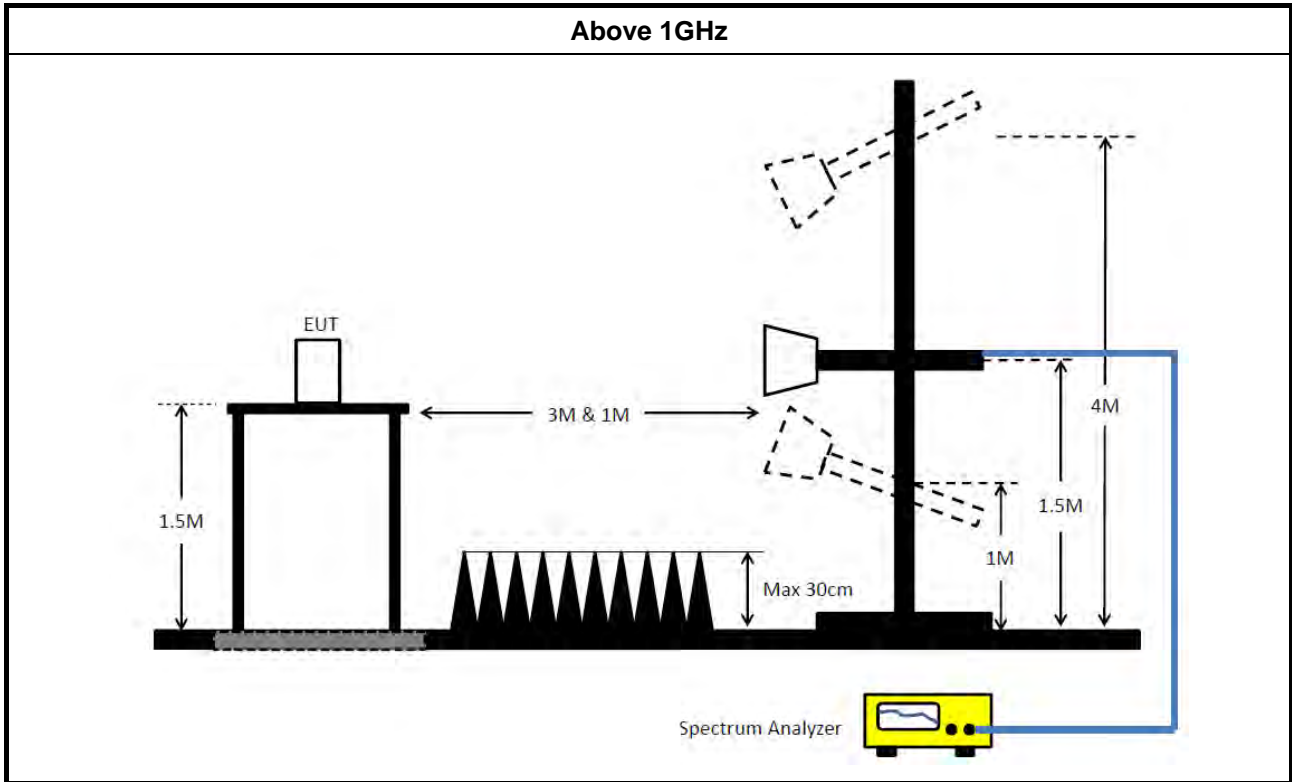
Refer a test equipment and calibration data table in this test report.

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). $VBW \geq 1/T$, where T is pulse time. <input type="checkbox"/> Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions. <input checked="" type="checkbox"/> Refer as FCC KDB 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.

3.5.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E

3.6 Frequency Stability

3.6.1 Frequency Stability Limit

Frequency Stability Limit
UNII Devices
<ul style="list-style-type: none"> In-band emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.
LE-LAN Devices
<ul style="list-style-type: none"> N/A
IEEE Std. 802.11
<ul style="list-style-type: none"> The transmitter center frequency tolerance shall be ± 20 ppm maximum for the 5 GHz band and ± 25 ppm maximum for the 2.4 GHz band.

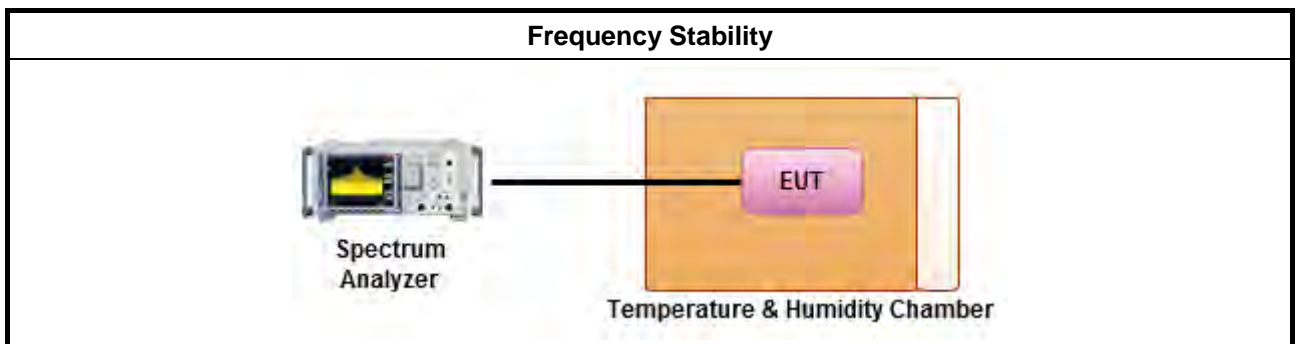
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

Test Method
<ul style="list-style-type: none"> Refer as ANSI C63.10, clause 6.8 for frequency stability tests
<ul style="list-style-type: none"> Frequency stability with respect to ambient temperature
<ul style="list-style-type: none"> Frequency stability when varying supply voltage
<ul style="list-style-type: none"> Extreme temperature is 0°C~40°C.

3.6.4 Test Setup



3.6.5 Test Result of Frequency Stability

Refer as Appendix F



4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Jan. 23, 2017	Jan. 22, 2018	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	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	01	150kHz ~ 30MHz	May 23, 2017	May 22, 2018	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
BILOG ANTENNA with 6dB Attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37880 & AT-N0609	20MHz ~ 2GHz	Aug. 30, 2017	Aug. 29, 2018	Radiation (03CH01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2016*	Mar. 15, 2018*	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	Jul. 05, 2017	Jul. 04, 2018	Radiation (03CH01-CB)
Pre-Amplifier	EMCI	EMC330N	980332	20MHz ~ 3GHz	May 02, 2017	May 01, 2018	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 16, 2017	Jan. 15, 2018	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 09, 2018	Jan. 08, 2019	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 10, 2017	Jul. 09, 2018	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 23, 2017	Nov. 22, 2018	Radiation (03CH01-CB)
EMI Test	R&S	ESCS	100355	9kHz ~ 2.75GHz	May 06, 2017	May 05, 2018	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-16+17	N/A	30 MHz ~ 1 GHz	Oct. 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	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 21, 2017	Dec. 20, 2018	Conducted (TH01-CB)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Temp. and Humidity Chamber	Ten Billion	TTH-D3SP	TBN-931011	-30~100 degree	Jun. 02, 2017	Jun. 01, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-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.

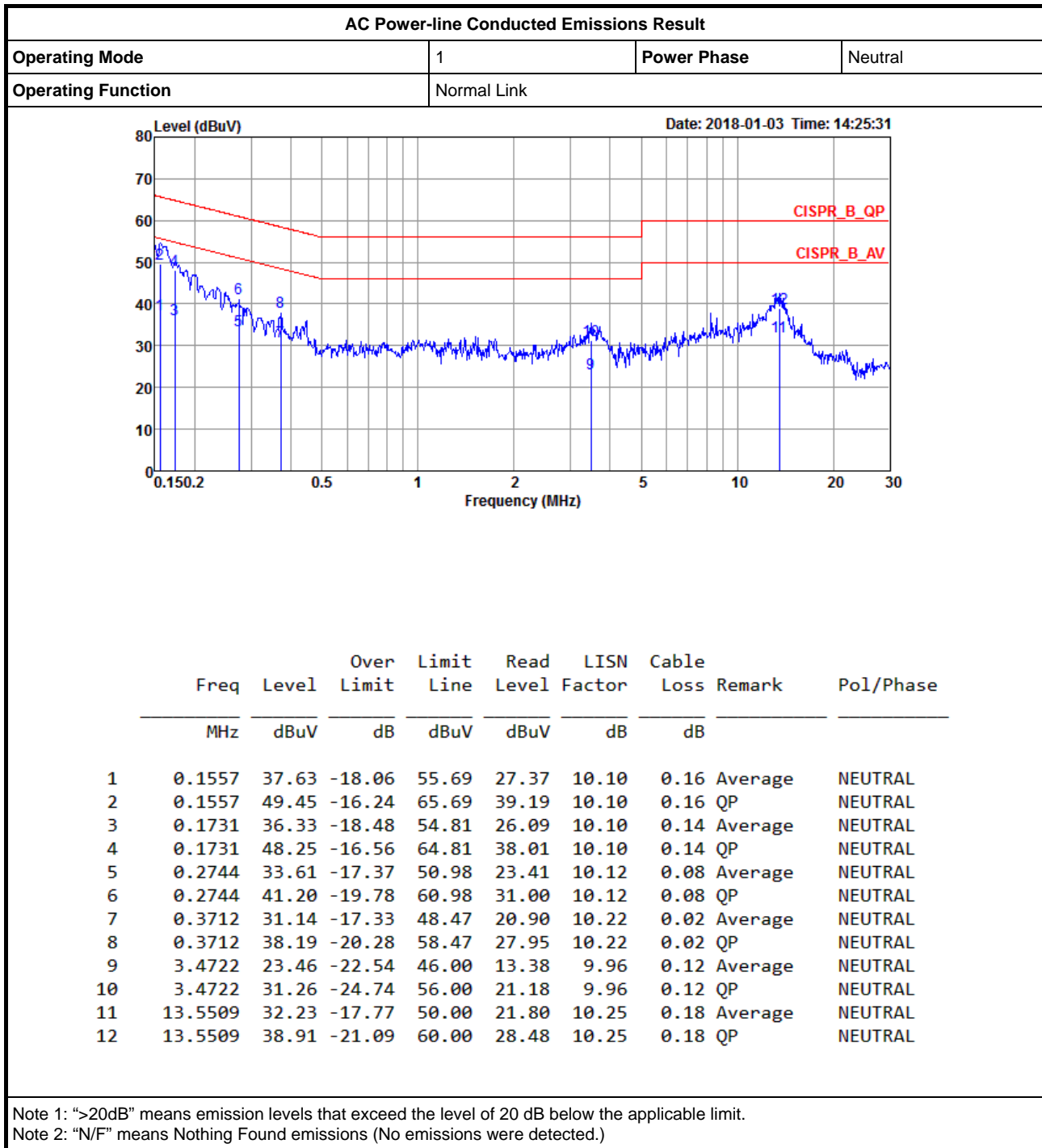
“**” Calibration Interval of instruments listed above is two years.

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



AC Power-line Conducted Emissions Result

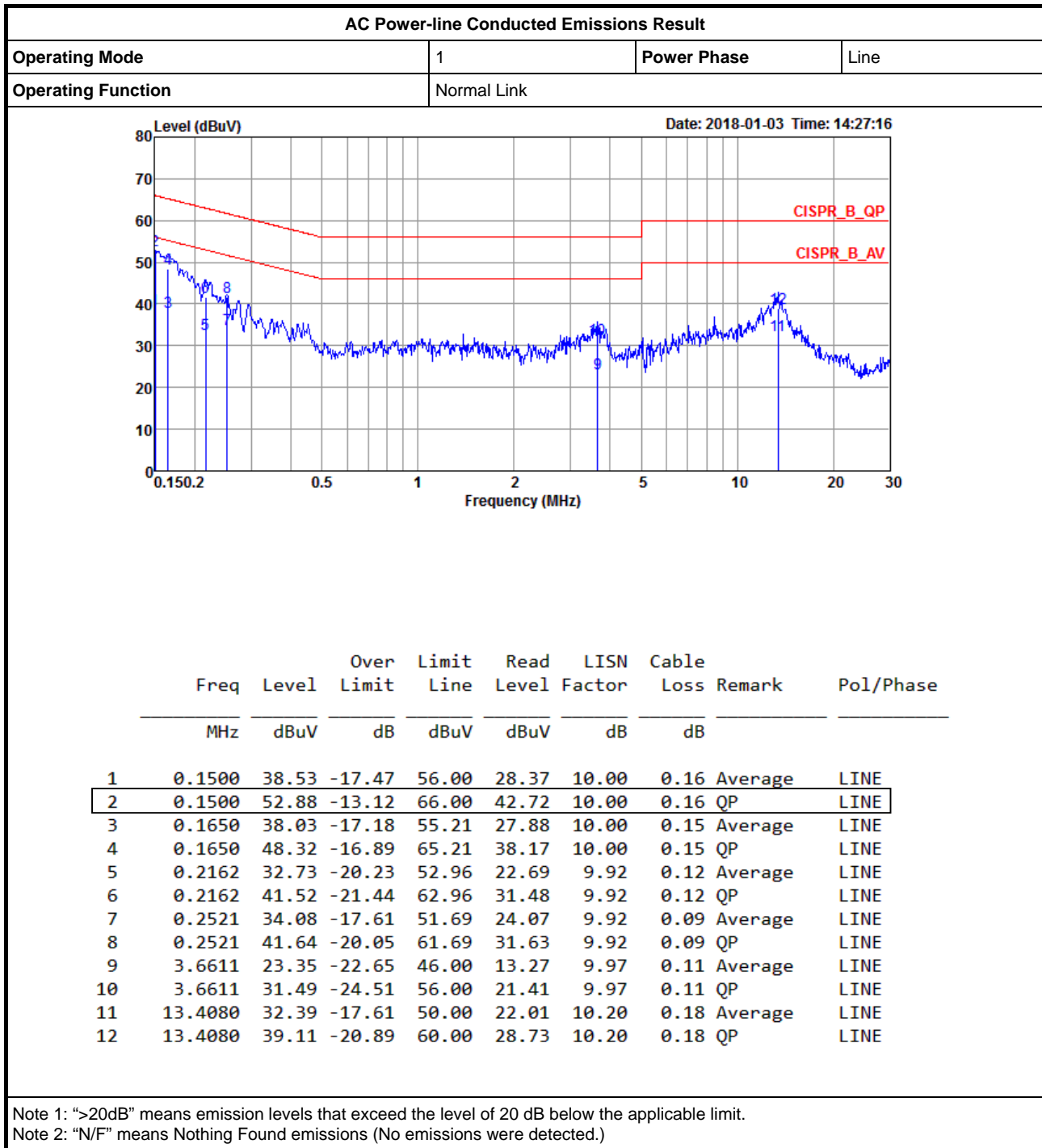
Appendix A





AC Power-line Conducted Emissions Result

Appendix A





**For Radio 2
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)_4TX	20.5M	16.467M	16M5D1D	19.525M	16.392M
802.11ac VHT20_Nss1,(MCS0)_4TX	22.925M	17.691M	17M7D1D	20.3M	17.591M
802.11ac VHT40_Nss1,(MCS0)_4TX	71.3M	36.382M	36M4D1D	39.15M	35.882M
802.11ac VHT80_Nss1,(MCS0)_4TX	84M	75.862M	75M9D1D	83.3M	75.662M
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	21.9M	17.641M	17M6D1D	20.45M	17.591M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	69.2M	36.132M	36M1D1D	38.45M	35.882M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	83.2M	76.162M	76M2D1D	80.9M	75.762M

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

Max-OBW = Maximum 99% occupied bandwidth;

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

Min-OBW = Minimum 99% occupied bandwidth;

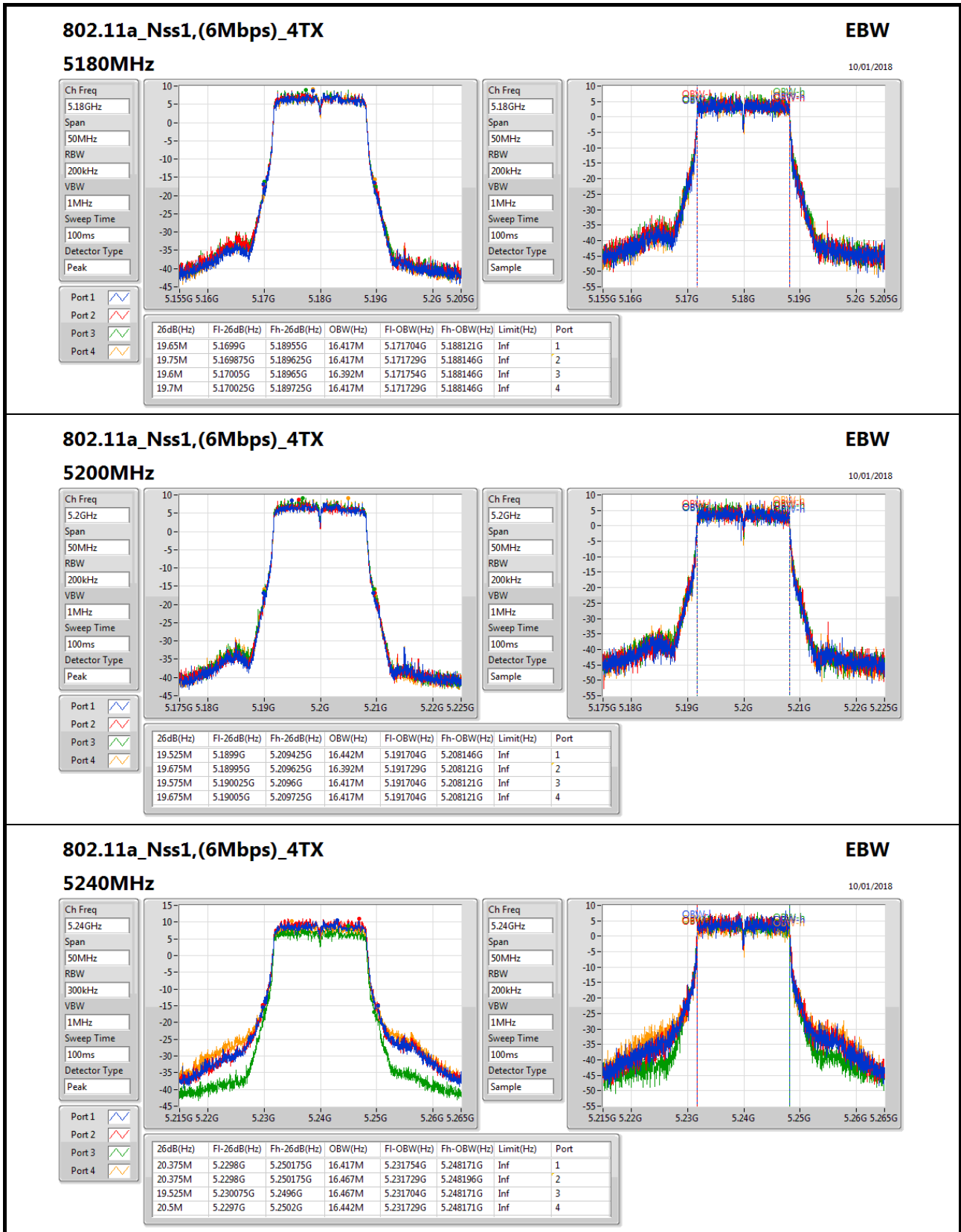


Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	19.65M	16.417M	19.75M	16.417M	19.6M	16.392M	19.7M	16.417M
5200MHz	Pass	Inf	19.525M	16.442M	19.675M	16.392M	19.575M	16.417M	19.675M	16.417M
5240MHz	Pass	Inf	20.375M	16.417M	20.375M	16.467M	19.525M	16.467M	20.5M	16.442M
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	20.3M	17.616M	20.575M	17.641M	20.65M	17.616M	20.375M	17.591M
5200MHz	Pass	Inf	20.425M	17.591M	20.55M	17.616M	20.575M	17.616M	20.4M	17.616M
5240MHz	Pass	Inf	21.475M	17.691M	21.5M	17.641M	20.65M	17.641M	22.925M	17.691M
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	40.1M	35.932M	39.6M	35.882M	39.5M	35.982M	39.15M	35.932M
5230MHz	Pass	Inf	58.05M	36.132M	56.45M	36.182M	39.9M	35.932M	71.3M	36.382M
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	84M	75.862M	83.5M	75.862M	83.6M	75.662M	83.3M	75.662M
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	21.9M	17.591M	20.875M	17.616M	20.45M	17.641M	20.75M	17.641M
5200MHz	Pass	Inf	20.775M	17.616M	20.45M	17.641M	20.55M	17.641M	20.55M	17.616M
5240MHz	Pass	Inf	20.625M	17.616M	20.6M	17.641M	20.625M	17.616M	20.875M	17.641M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	39.65M	35.932M	39.25M	35.932M	38.45M	35.882M	39.45M	35.982M
5230MHz	Pass	Inf	39M	35.982M	40.35M	36.132M	39.3M	36.032M	69.2M	36.132M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	83.2M	75.962M	80.9M	75.862M	81.4M	76.162M	82.8M	75.762M

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)_4TX
EBW

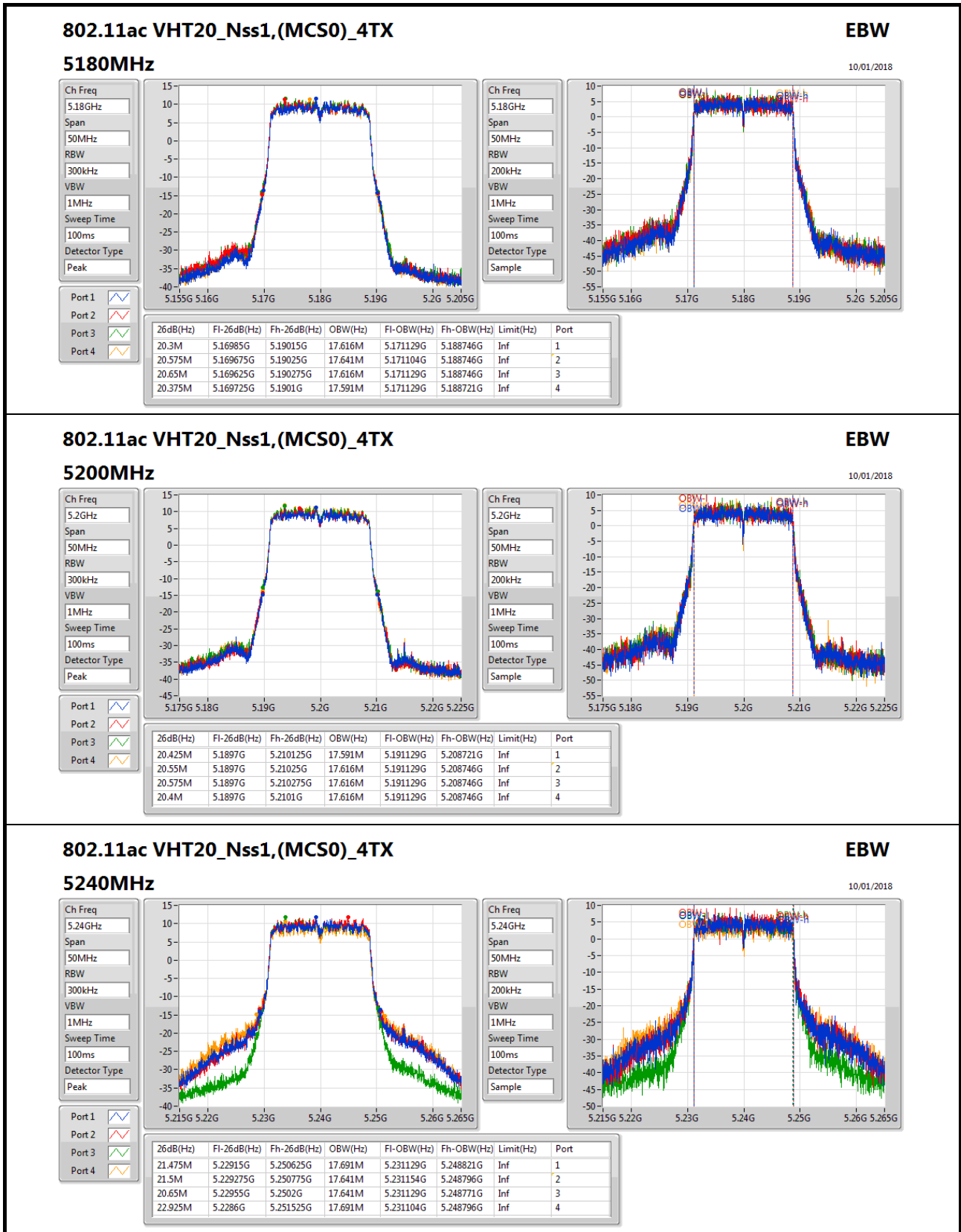
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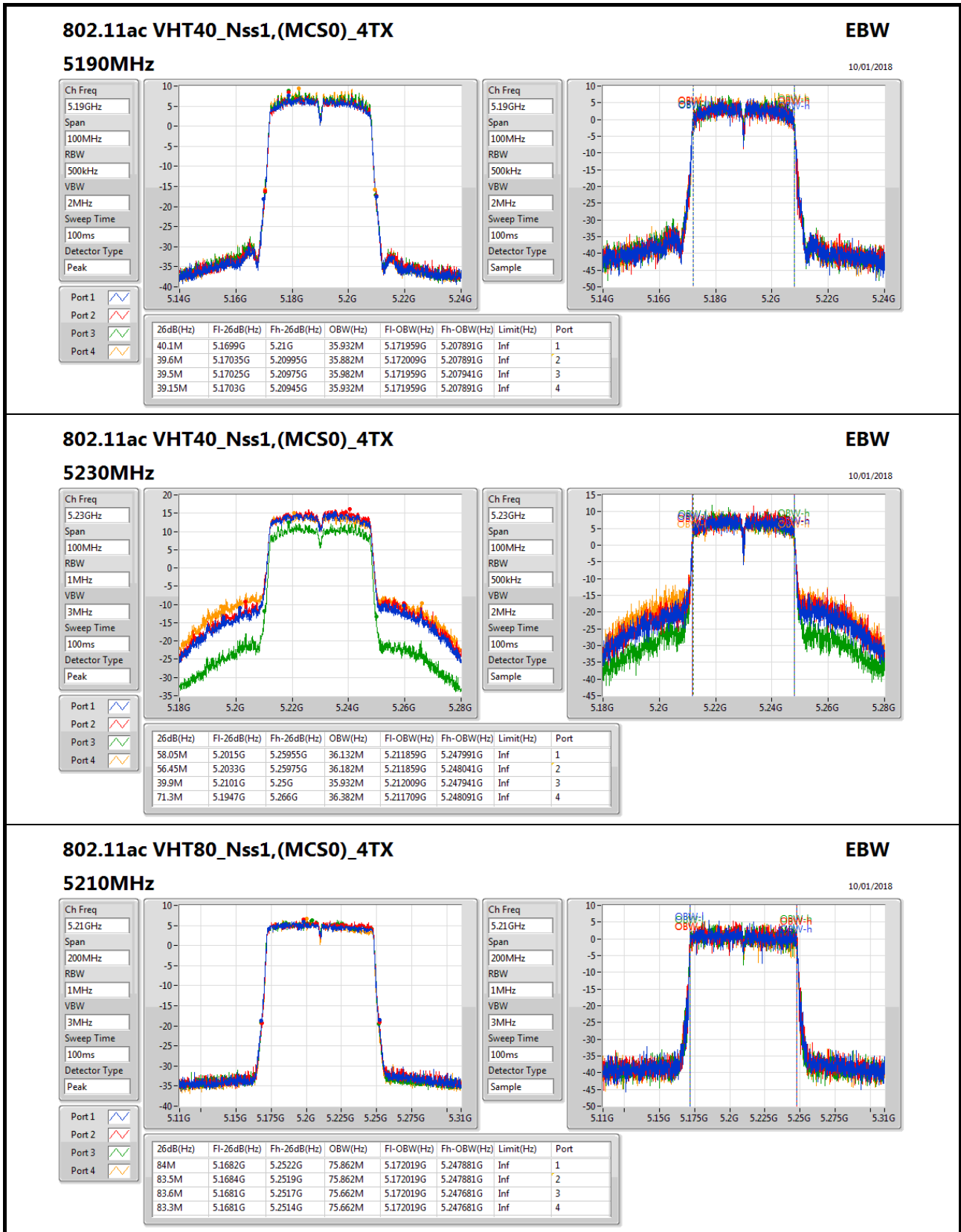
5240MHz

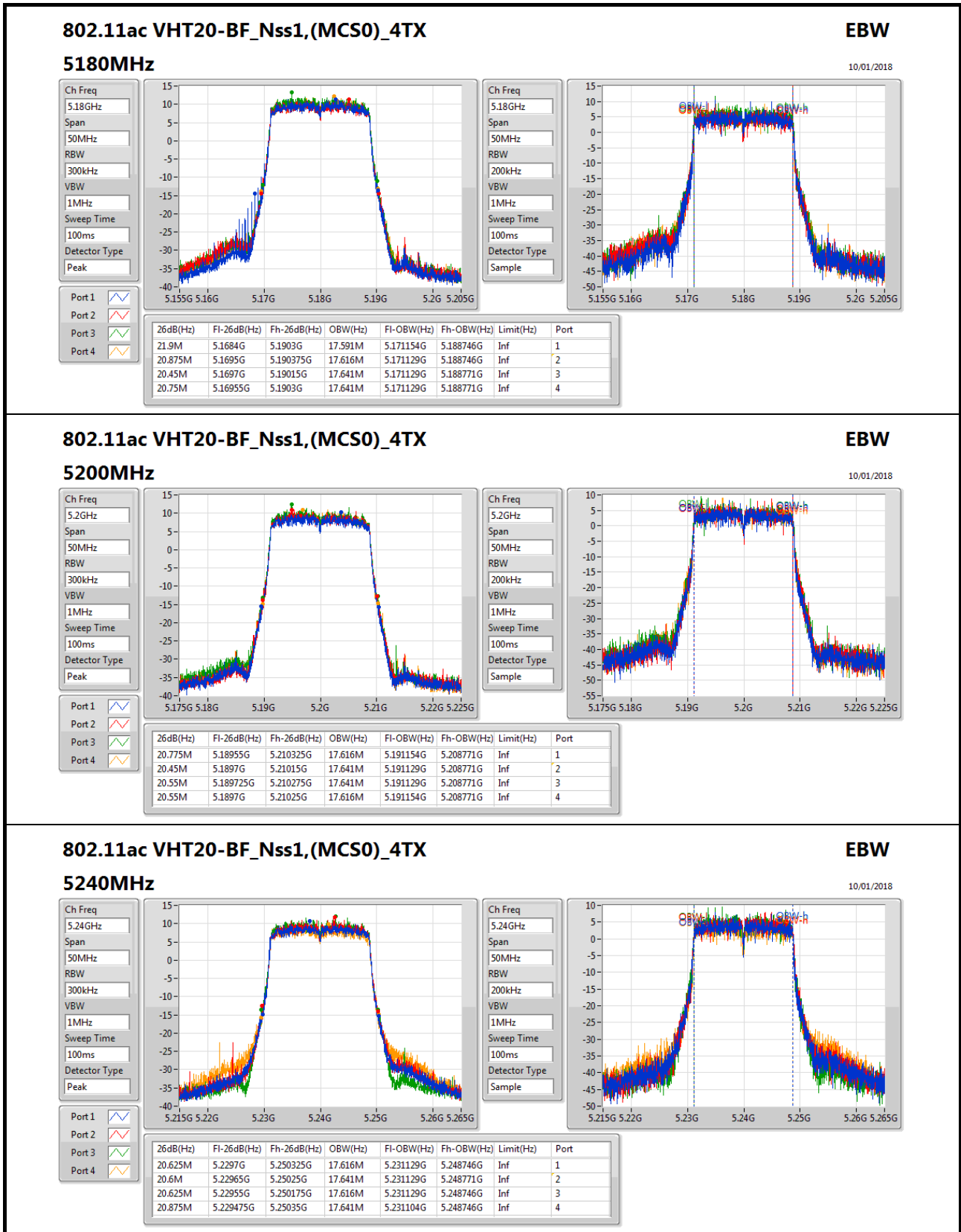
Ch Freq: 5.24GHz
Span: 50MHz
RBW: 300kHz
VBW: 1MHz
Sweep Time: 100ms
Detector Type: Peak

Ch Freq: 5.24GHz
Span: 50MHz
RBW: 200kHz
VBW: 1MHz
Sweep Time: 100ms
Detector Type: Sample

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.375M	5.2298G	5.250175G	16.417M	5.231754G	5.248171G	Inf	1
20.375M	5.2298G	5.250175G	16.467M	5.231729G	5.248196G	Inf	2
19.525M	5.230075G	5.2496G	16.467M	5.231704G	5.248171G	Inf	3
20.5M	5.2297G	5.2502G	16.442M	5.231729G	5.248171G	Inf	4






802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW

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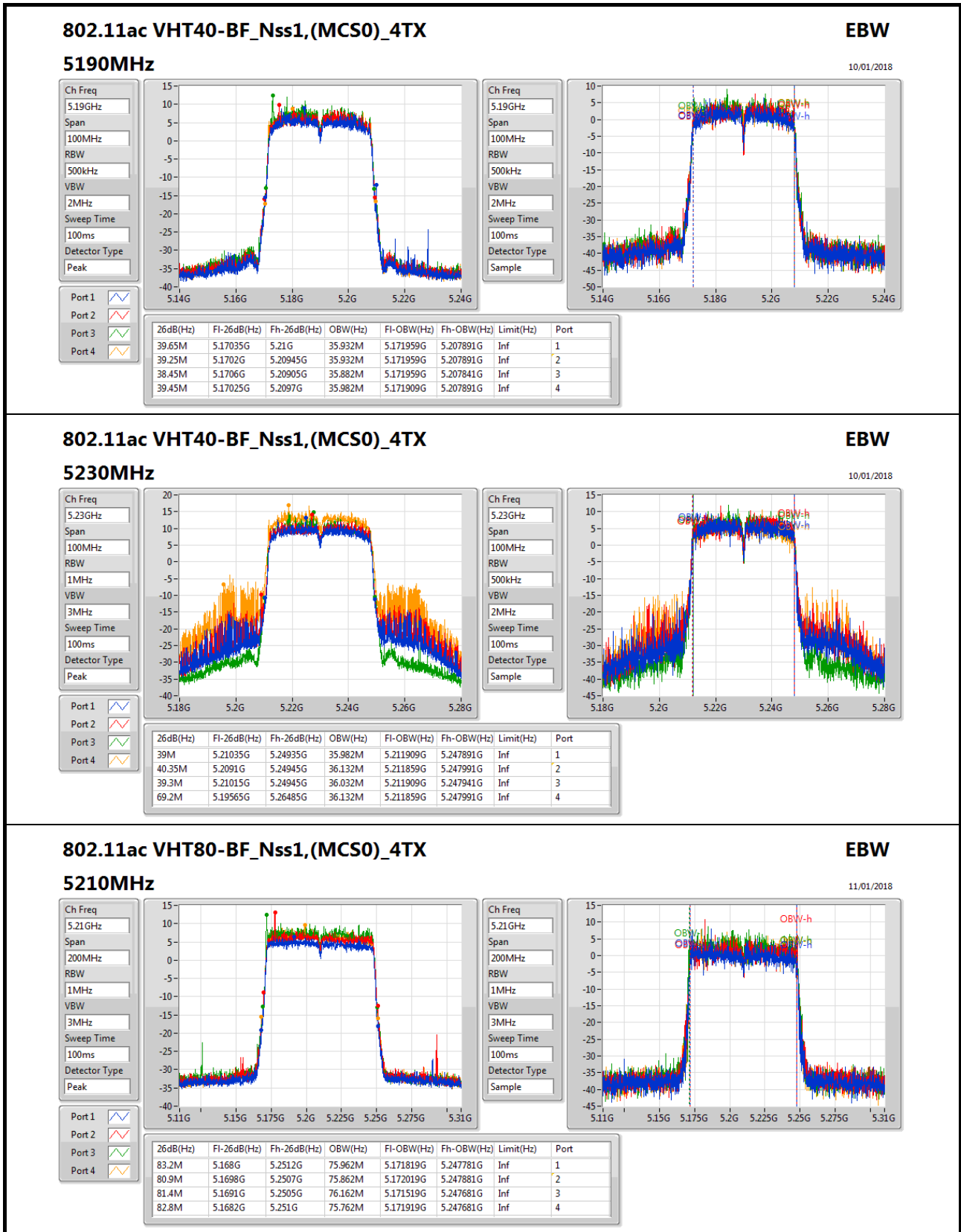
5240MHz

Ch Freq: 5.24GHz
 Span: 50MHz
 RBW: 300kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Peak

Port 1:
 Port 2:
 Port 3:
 Port 4:

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.625M	5.2297G	5.250325G	17.616M	5.231129G	5.248746G	Inf	1
20.6M	5.22965G	5.25025G	17.641M	5.231129G	5.248771G	Inf	2
20.625M	5.22955G	5.250175G	17.616M	5.231129G	5.248746G	Inf	3
20.875M	5.229475G	5.25035G	17.641M	5.231104G	5.248746G	Inf	4

Ch Freq: 5.24GHz
 Span: 50MHz
 RBW: 200kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Sample





**For Radio 3
Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	16.325M	24.713M	24M7D1D	16.275M	18.491M
802.11ac VHT20_Nss1,(MCS0)_2TX	17.575M	25.737M	25M7D1D	16.925M	18.741M
802.11ac VHT40_Nss1,(MCS0)_2TX	35.9M	47.526M	47M5D1D	33.1M	37.181M
802.11ac VHT80_Nss1,(MCS0)_2TX	75.3M	94.953M	95M0D1D	75.3M	81.559M
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	17.55M	17.741M	17M7D1D	17.375M	17.641M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	35M	36.182M	36M2D1D	33.55M	35.882M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	72.6M	75.762M	75M8D1D	72.3M	75.762M

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

Max-OBW = Maximum 99% occupied bandwidth;

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

Min-OBW = Minimum 99% occupied bandwidth;

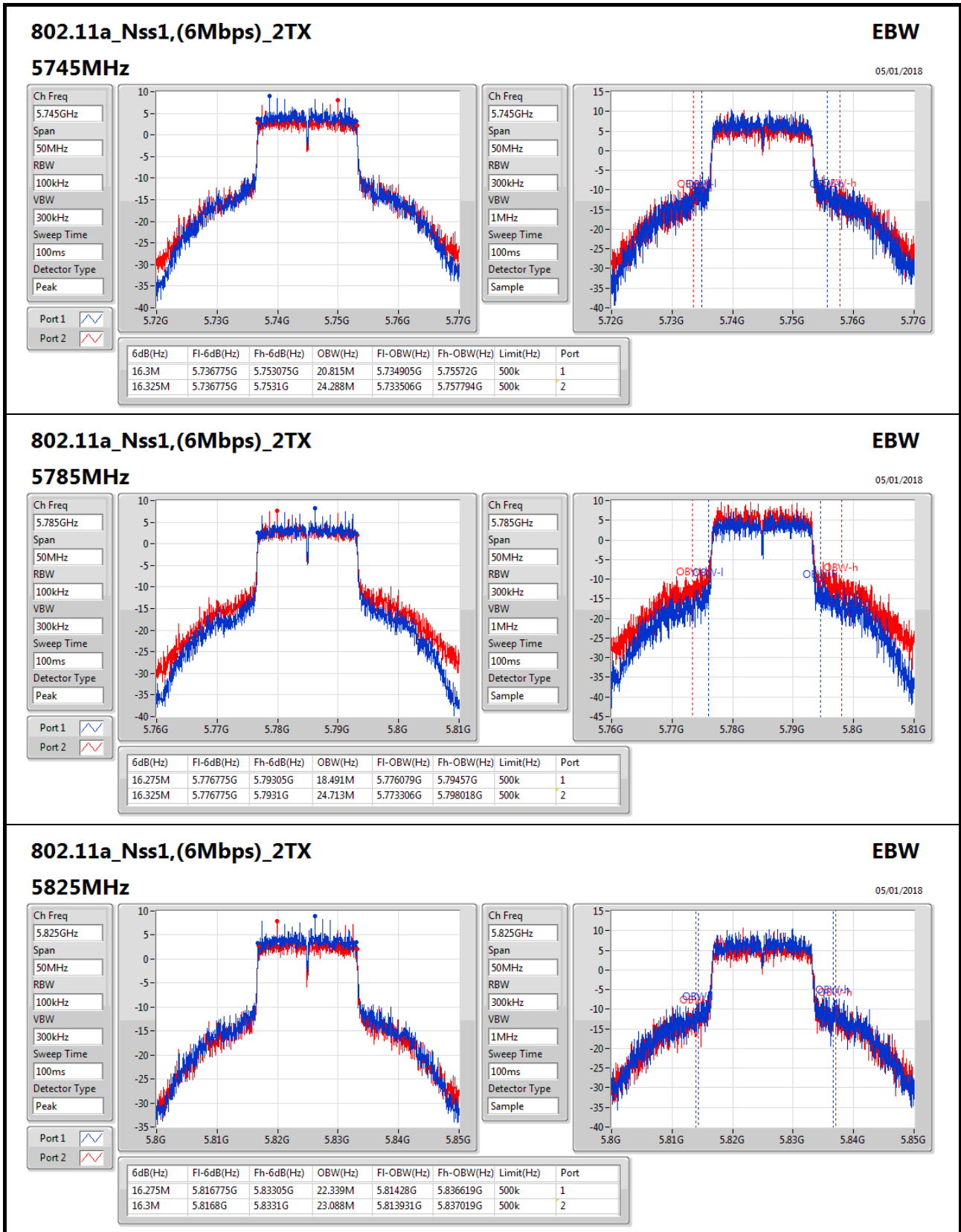


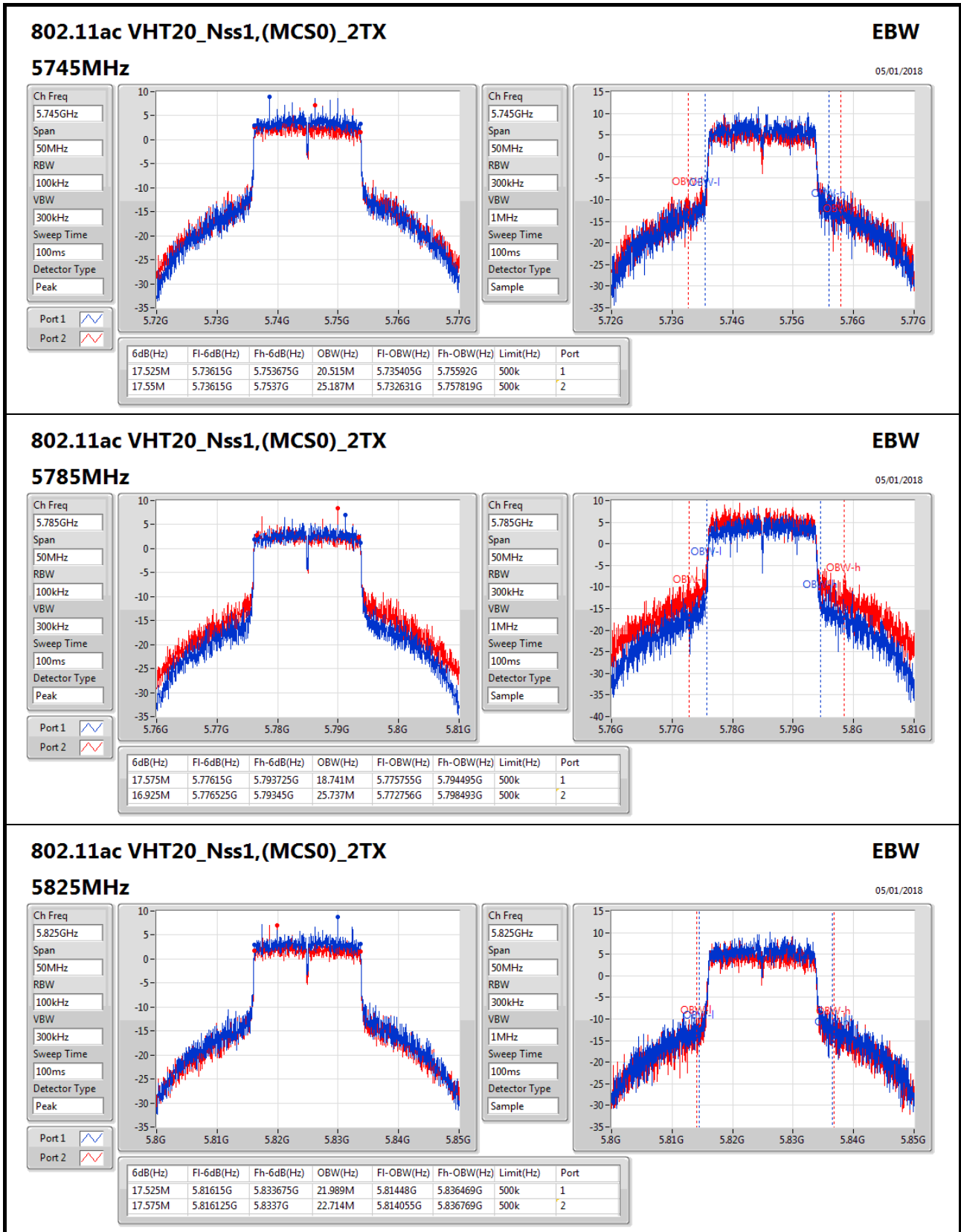
Result

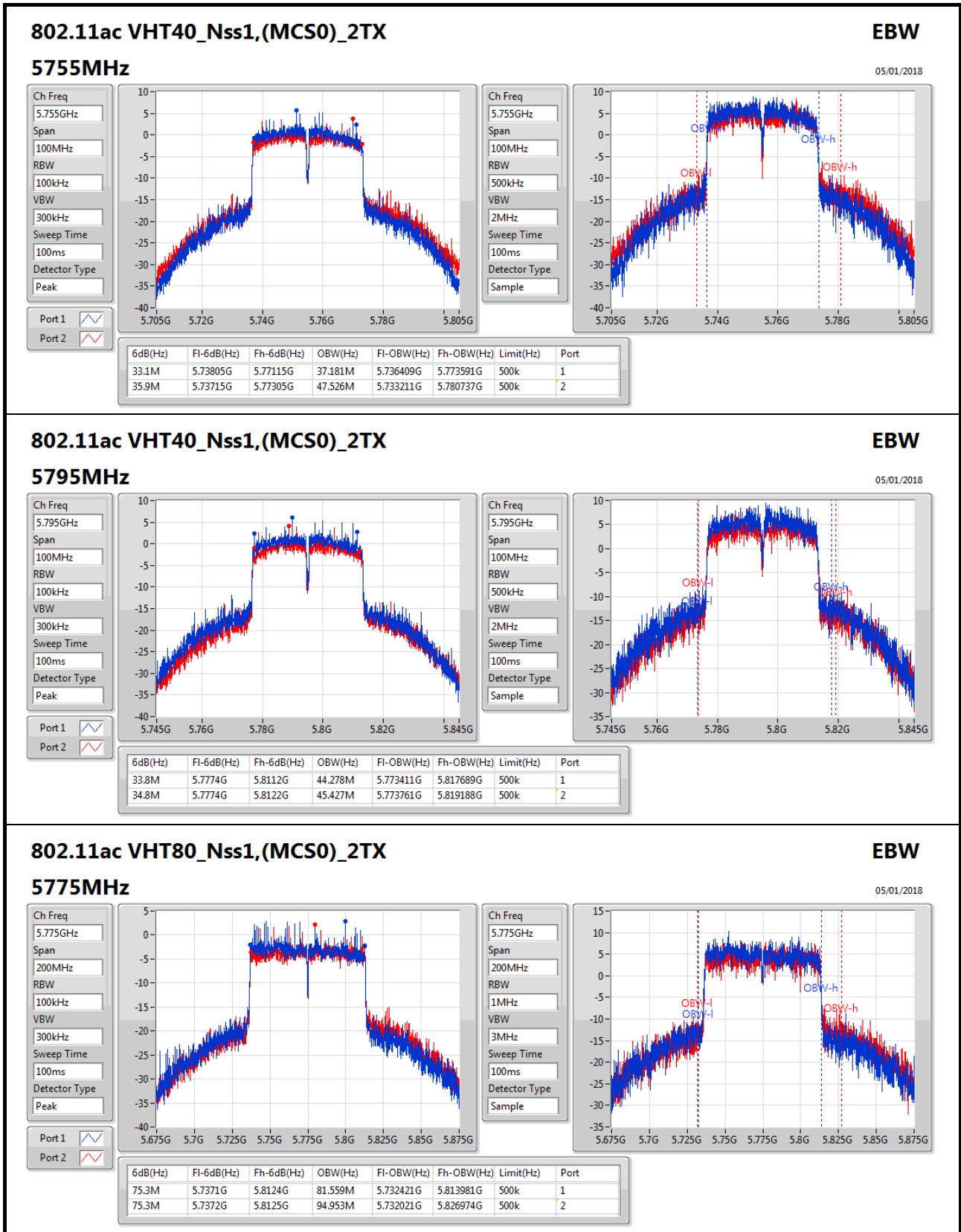
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5745MHz	Pass	500k	16.3M	20.815M	16.325M	24.288M
5785MHz	Pass	500k	16.275M	18.491M	16.325M	24.713M
5825MHz	Pass	500k	16.275M	22.339M	16.3M	23.088M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5745MHz	Pass	500k	17.525M	20.515M	17.55M	25.187M
5785MHz	Pass	500k	17.575M	18.741M	16.925M	25.737M
5825MHz	Pass	500k	17.525M	21.989M	17.575M	22.714M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5755MHz	Pass	500k	33.1M	37.181M	35.9M	47.526M
5795MHz	Pass	500k	33.8M	44.278M	34.8M	45.427M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5775MHz	Pass	500k	75.3M	81.559M	75.3M	94.953M
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5745MHz	Pass	500k	17.375M	17.641M	17.55M	17.691M
5785MHz	Pass	500k	17.4M	17.666M	17.5M	17.741M
5825MHz	Pass	500k	17.4M	17.641M	17.525M	17.691M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5755MHz	Pass	500k	33.85M	35.882M	33.55M	36.182M
5795MHz	Pass	500k	34M	36.032M	35M	35.982M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5775MHz	Pass	500k	72.3M	75.762M	72.6M	75.762M

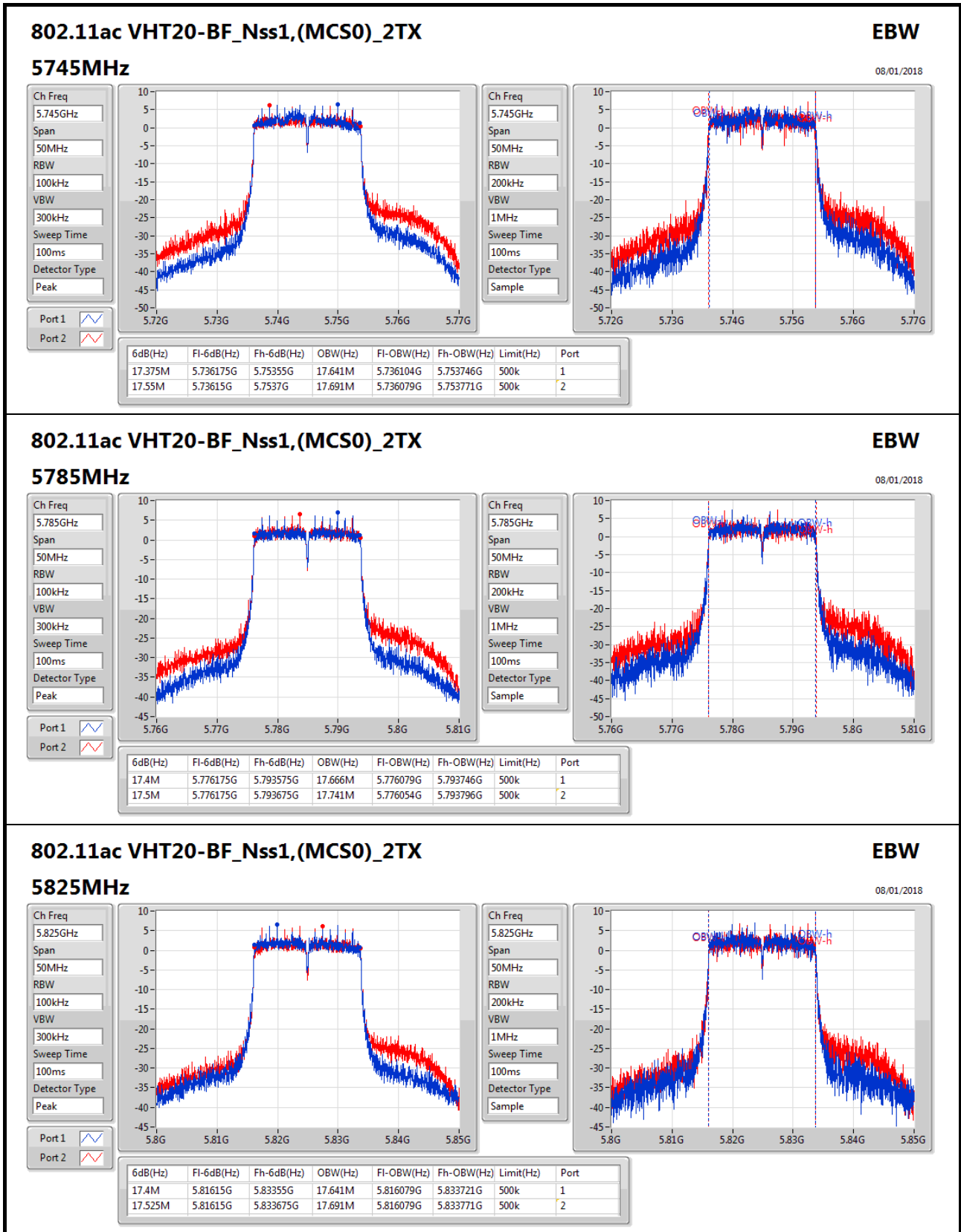
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band

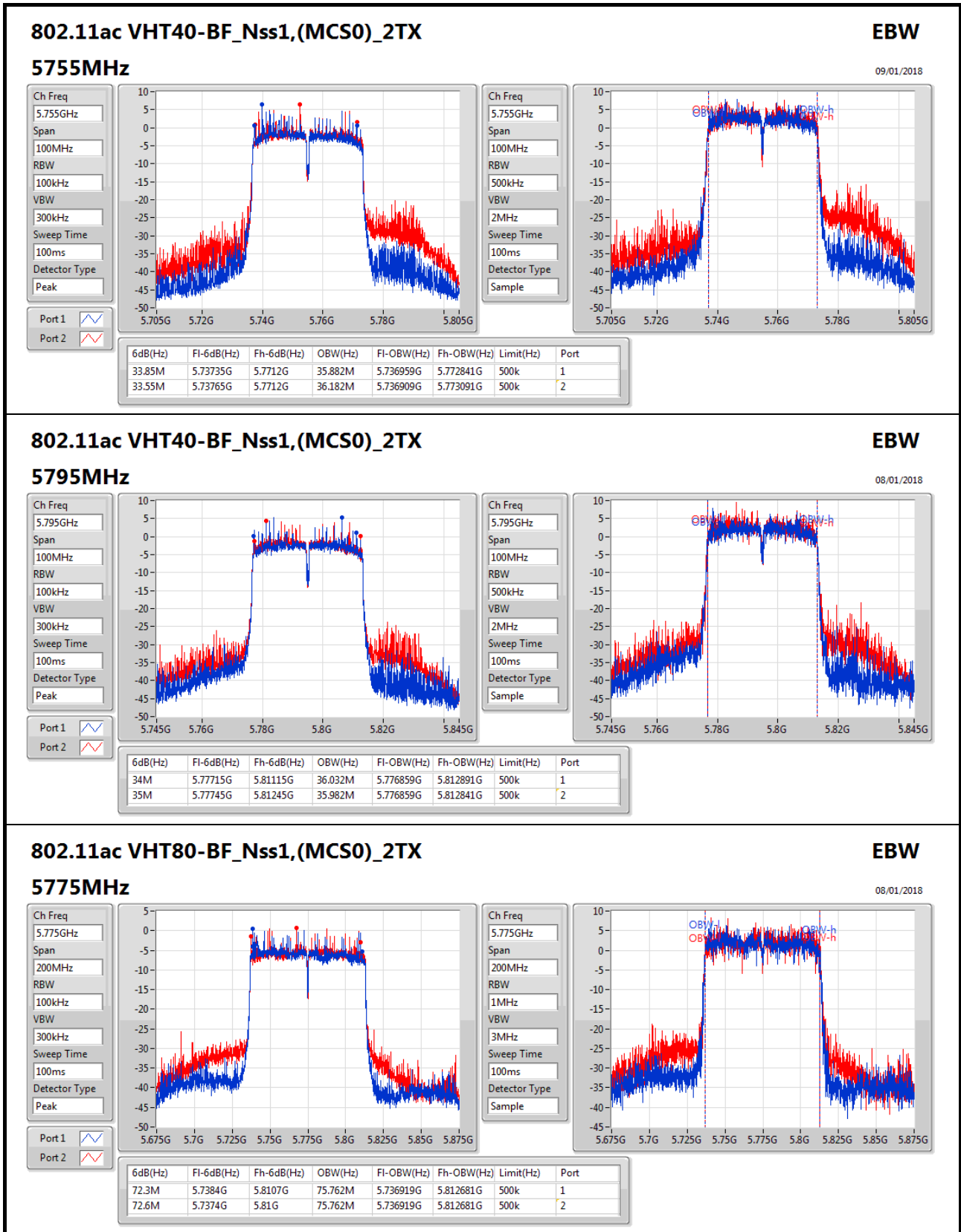
Port X-OBW = Port X 99% occupied bandwidth;













**For Radio 2
Summary**

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	25.14	0.32659
802.11ac VHT20_Nss1,(MCS0)_4TX	25.50	0.35481
802.11ac VHT40_Nss1,(MCS0)_4TX	26.79	0.47753
802.11ac VHT80_Nss1,(MCS0)_4TX	21.10	0.12882
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	24.61	0.28907
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	25.51	0.35563
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	21.84	0.15276



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	4.44	19.18	19.03	18.93	19.21	25.11	30.00
5200MHz	Pass	4.44	18.84	19.07	19.42	19.14	25.14	30.00
5240MHz	Pass	4.44	18.23	19.43	19.36	18.00	24.82	30.00
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	4.44	19.24	19.46	19.69	19.33	25.45	30.00
5200MHz	Pass	4.44	19.12	19.45	19.81	19.29	25.45	30.00
5240MHz	Pass	4.44	18.97	20.11	19.98	18.68	25.50	30.00
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5190MHz	Pass	4.44	16.81	16.91	17.35	17.01	23.05	30.00
5230MHz	Pass	4.44	20.55	20.81	21.02	20.69	26.79	30.00
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5210MHz	Pass	4.44	15.07	15.18	15.11	14.96	21.10	30.00
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	10.46	17.30	18.88	18.87	18.64	24.49	25.54
5200MHz	Pass	10.46	18.09	18.34	19.04	18.76	24.59	25.54
5240MHz	Pass	10.46	18.07	19.35	18.83	17.97	24.61	25.54
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5190MHz	Pass	10.46	14.81	15.57	15.34	15.75	21.40	25.54
5230MHz	Pass	10.46	19.21	19.96	19.90	18.79	25.51	25.54
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5210MHz	Pass	10.46	15.04	16.11	16.16	15.88	21.84	25.54

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



**For Radio 3
Summary**

Mode	Total Power (dBm)	Total Power (W)
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	23.38	0.21777
802.11ac VHT20_Nss1,(MCS0)_2TX	23.40	0.21878
802.11ac VHT40_Nss1,(MCS0)_2TX	23.17	0.20749
802.11ac VHT80_Nss1,(MCS0)_2TX	22.69	0.18578
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	20.98	0.12531
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	19.73	0.09397
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	19.52	0.08954



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5745MHz	Pass	4.40	20.46	20.27	23.38	30.00
5785MHz	Pass	4.40	19.52	19.44	22.49	30.00
5825MHz	Pass	4.40	20.24	20.06	23.16	30.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5745MHz	Pass	4.40	20.43	20.35	23.40	30.00
5785MHz	Pass	4.40	19.51	19.46	22.50	30.00
5825MHz	Pass	4.40	19.98	19.85	22.93	30.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5755MHz	Pass	4.40	19.97	19.81	22.90	30.00
5795MHz	Pass	4.40	20.21	20.11	23.17	30.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5775MHz	Pass	4.40	19.75	19.60	22.69	30.00
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5745MHz	Pass	7.41	17.92	18.01	20.98	28.59
5785MHz	Pass	7.41	17.73	17.98	20.87	28.59
5825MHz	Pass	7.41	17.82	17.79	20.82	28.59
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5755MHz	Pass	7.41	16.56	16.88	19.73	28.59
5795MHz	Pass	7.41	16.53	16.89	19.72	28.59
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5775MHz	Pass	7.41	16.48	16.53	19.52	28.59

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



**For Radio 2
Summary**

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
802.11a_Nss1,(6Mbps)_4TX	12.36
802.11ac VHT20_Nss1,(MCS0)_4TX	12.51
802.11ac VHT40_Nss1,(MCS0)_4TX	10.98
802.11ac VHT80_Nss1,(MCS0)_4TX	1.85
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	12.02
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	9.89
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	2.99

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

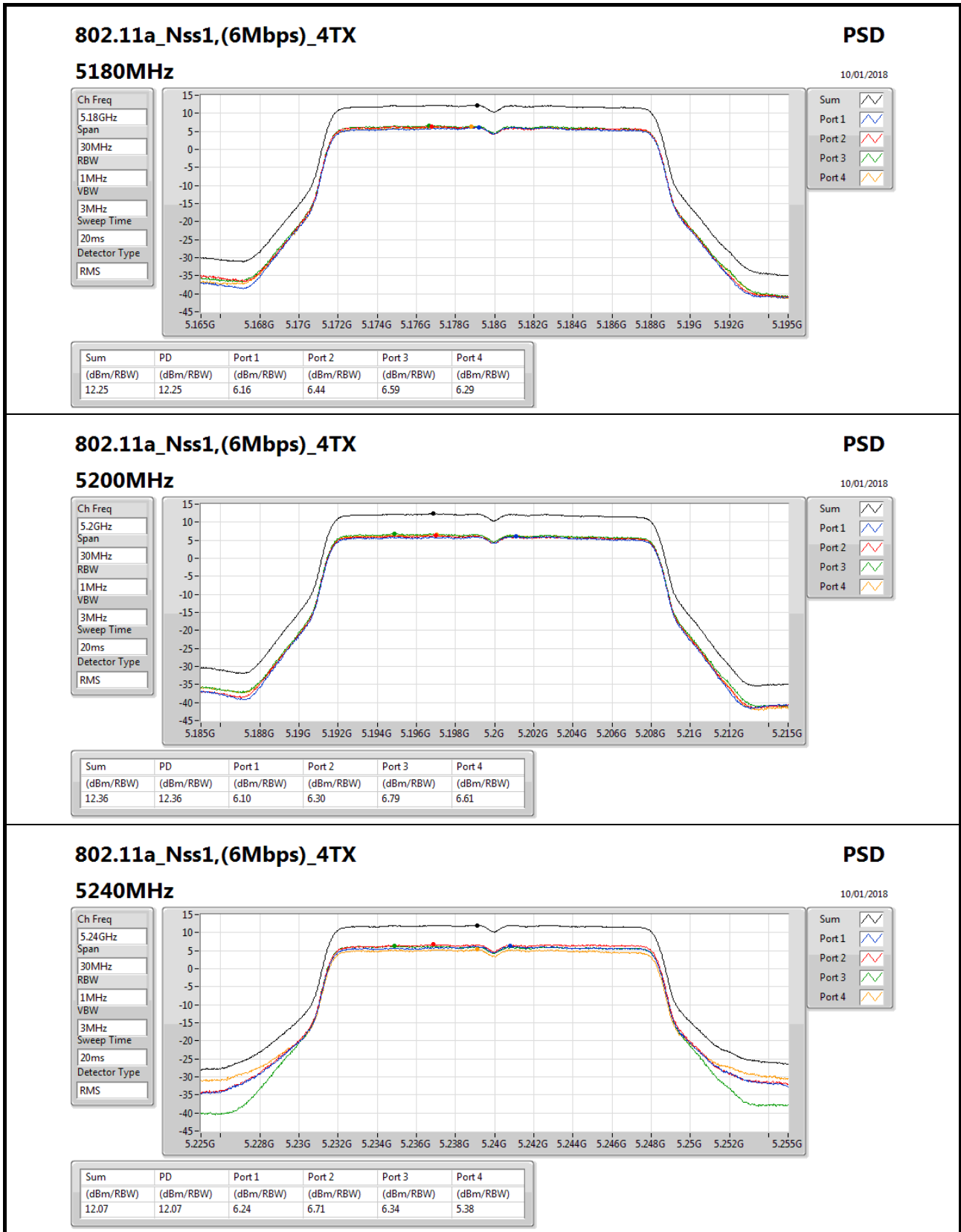


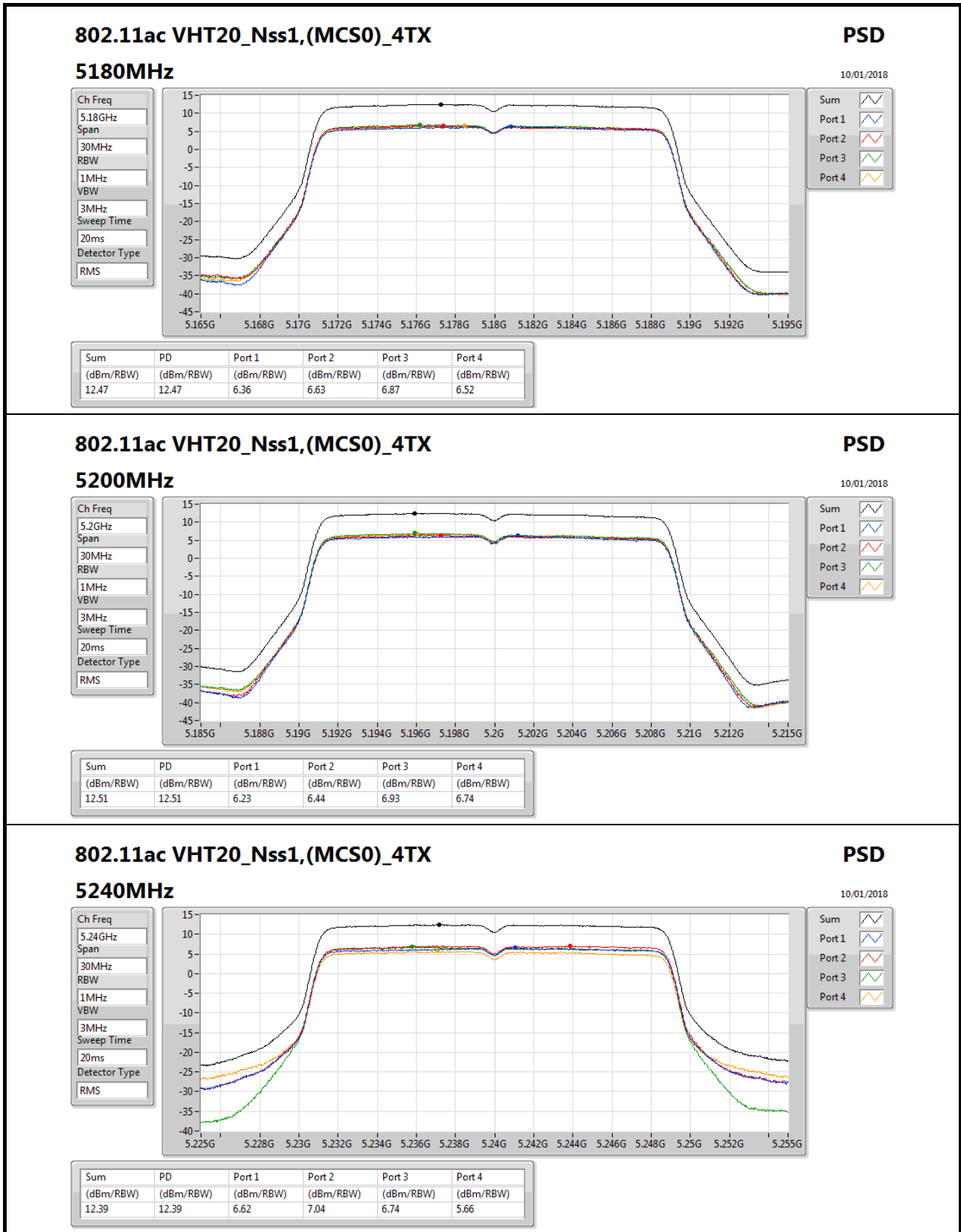
Result

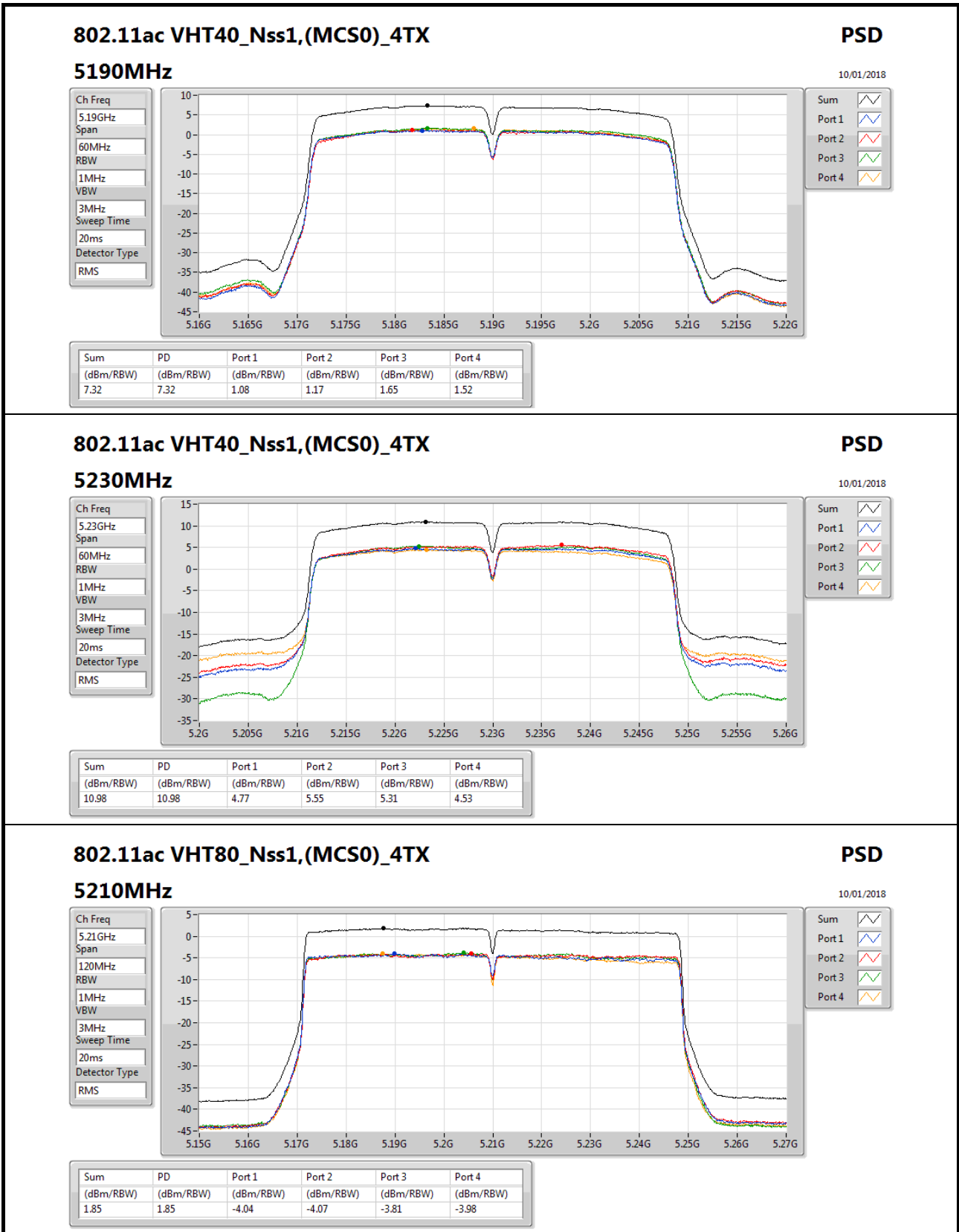
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	10.46	6.16	6.44	6.59	6.29	12.25	12.54
5200MHz	Pass	10.46	6.10	6.30	6.79	6.61	12.36	12.54
5240MHz	Pass	10.46	6.24	6.71	6.34	5.38	12.07	12.54
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	10.46	6.36	6.63	6.87	6.52	12.47	12.54
5200MHz	Pass	10.46	6.23	6.44	6.93	6.74	12.51	12.54
5240MHz	Pass	10.46	6.62	7.04	6.74	5.66	12.39	12.54
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5190MHz	Pass	10.46	1.08	1.17	1.65	1.52	7.32	12.54
5230MHz	Pass	10.46	4.77	5.55	5.31	4.53	10.98	12.54
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5210MHz	Pass	10.46	-4.04	-4.07	-3.81	-3.98	1.85	12.54
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	10.46	5.55	5.82	6.56	6.01	11.78	12.54
5200MHz	Pass	10.46	5.46	6.11	6.74	6.06	12.02	12.54
5240MHz	Pass	10.46	5.73	6.23	6.82	5.31	11.95	12.54
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5190MHz	Pass	10.46	-0.83	0.35	0.28	0.41	5.78	12.54
5230MHz	Pass	10.46	3.79	4.40	4.77	3.41	9.89	12.54
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5210MHz	Pass	10.46	-4.26	-2.69	-1.94	-2.61	2.99	12.54

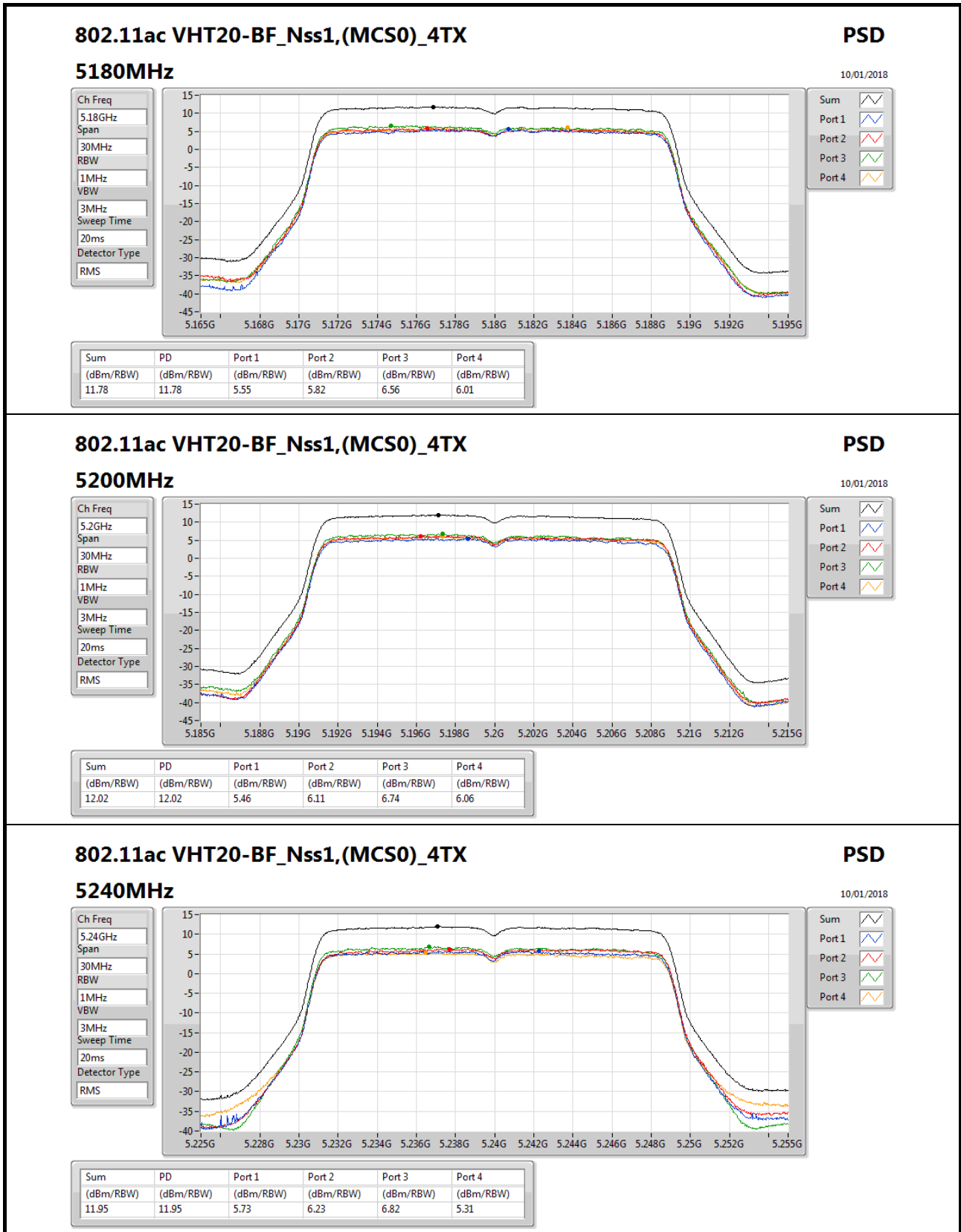
DG = Directional Gain; RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

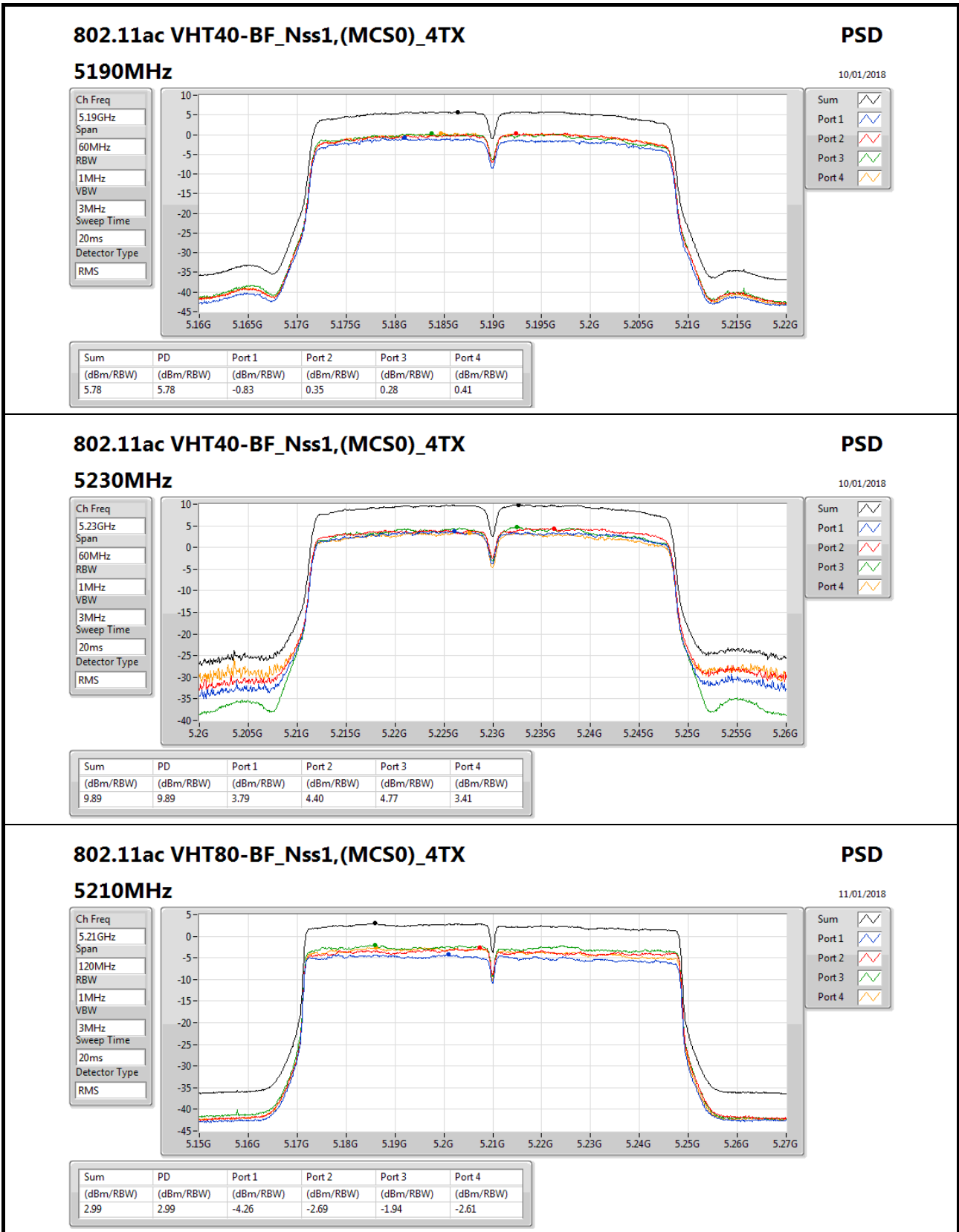
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port Xpower density;













**For Radio 3
Summary**

Mode	PD (dBm/RBW)
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_2TX	7.88
802.11ac VHT20_Nss1,(MCS0)_2TX	7.66
802.11ac VHT40_Nss1,(MCS0)_2TX	4.59
802.11ac VHT80_Nss1,(MCS0)_2TX	1.73
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	6.10
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	1.94
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-1.73

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

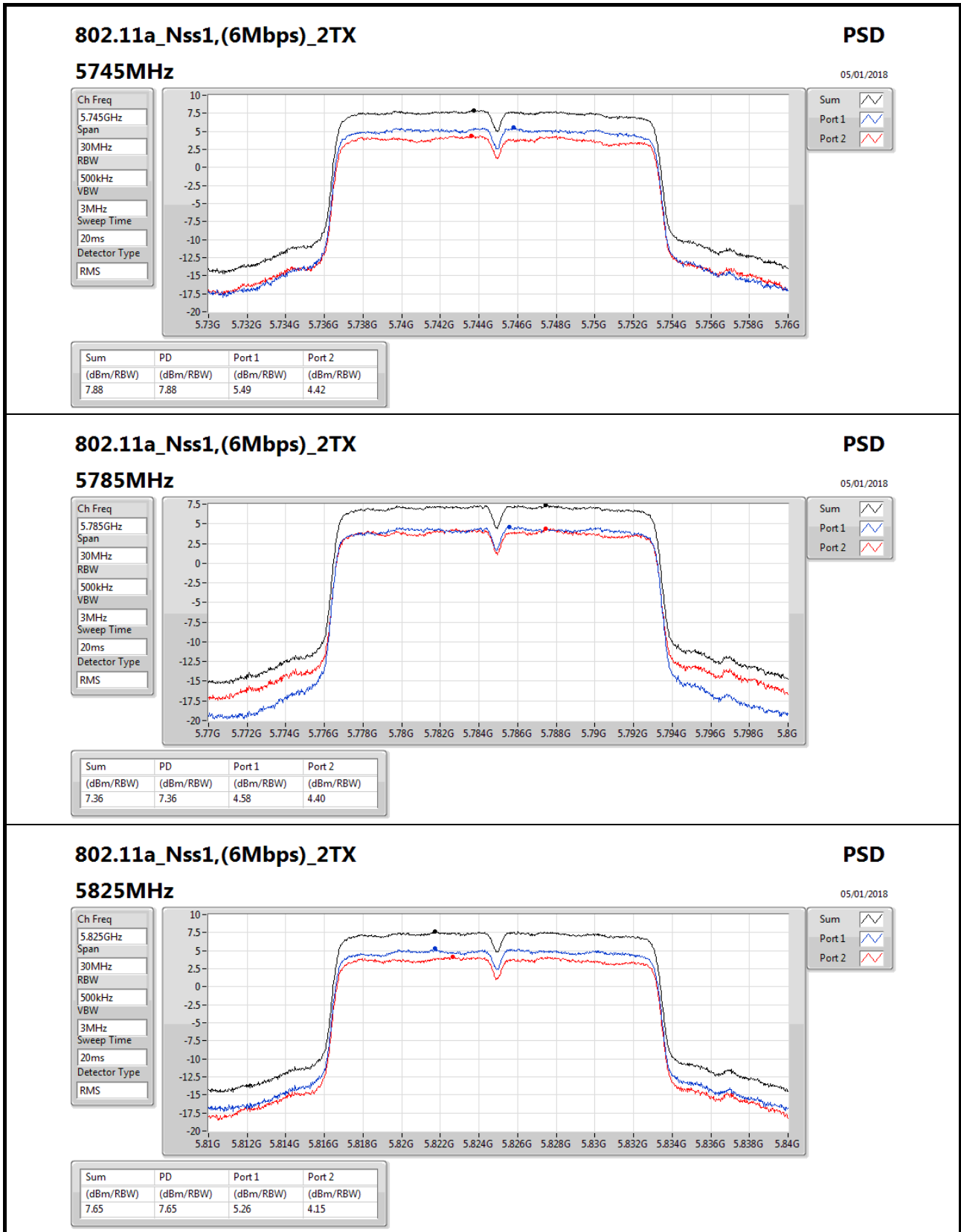


Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5745MHz	Pass	7.41	5.49	4.42	7.88	28.59
5785MHz	Pass	7.41	4.58	4.40	7.36	28.59
5825MHz	Pass	7.41	5.26	4.15	7.65	28.59
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5745MHz	Pass	7.41	5.17	4.11	7.66	28.59
5785MHz	Pass	7.41	4.42	3.94	7.09	28.59
5825MHz	Pass	7.41	4.75	3.59	7.05	28.59
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5755MHz	Pass	7.41	2.03	1.07	4.50	28.59
5795MHz	Pass	7.41	2.39	1.02	4.59	28.59
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5775MHz	Pass	7.41	-0.66	-1.88	1.73	28.59
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5745MHz	Pass	7.41	3.80	3.36	6.10	28.59
5785MHz	Pass	7.41	2.77	2.85	5.73	28.59
5825MHz	Pass	7.41	2.88	2.47	5.63	28.59
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5755MHz	Pass	7.41	-0.59	-1.12	1.94	28.59
5795MHz	Pass	7.41	-1.32	-0.75	1.93	28.59
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5775MHz	Pass	7.41	-4.64	-4.34	-1.73	28.59

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;



802.11a_Nss1,(6Mbps)_2TX

5825MHz

PSD

05/01/2018

Ch Freq
5.825GHz

Span
30MHz

RBW
500kHz

VBW
3MHz

Sweep Time
20ms

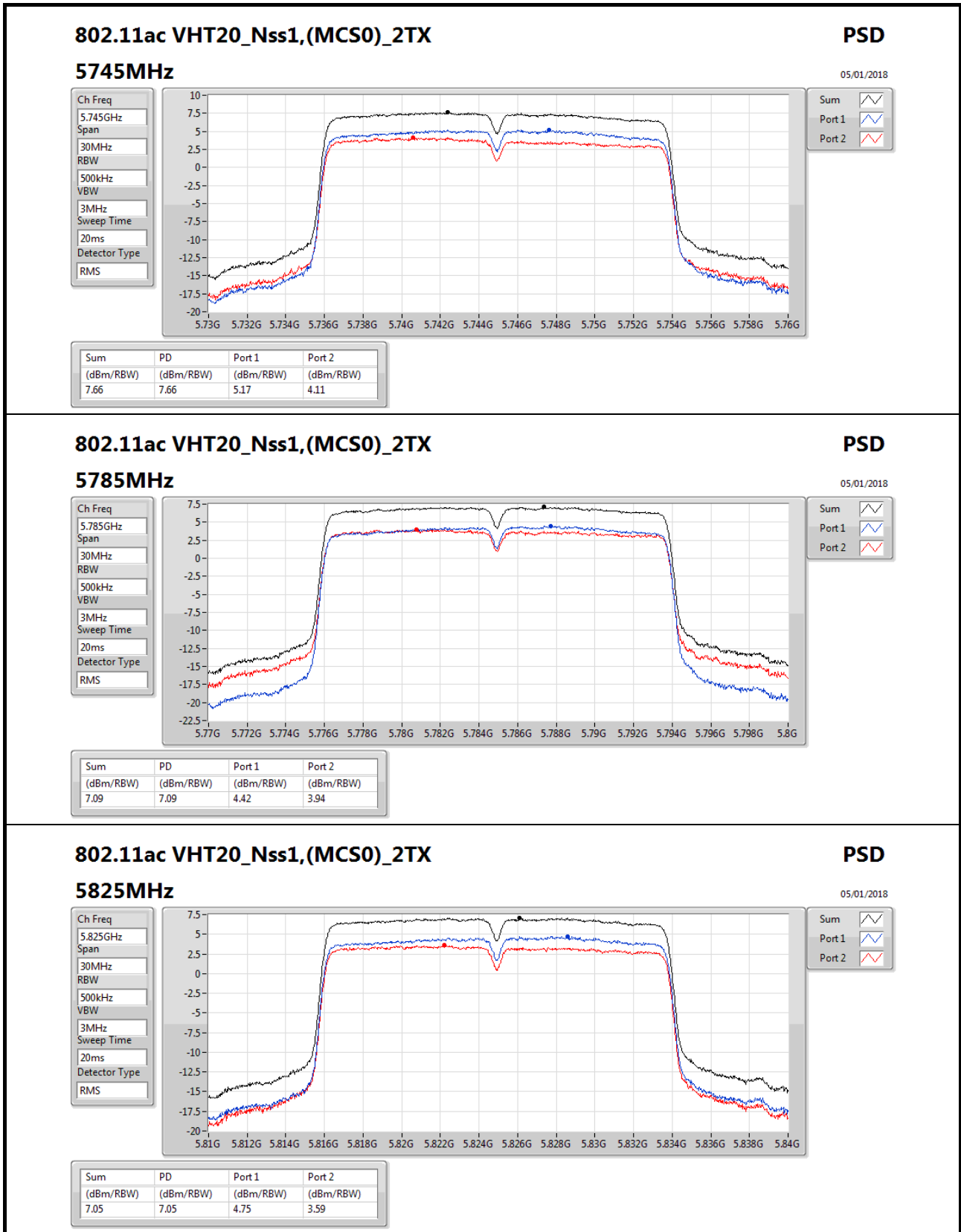
Detector Type
RMS

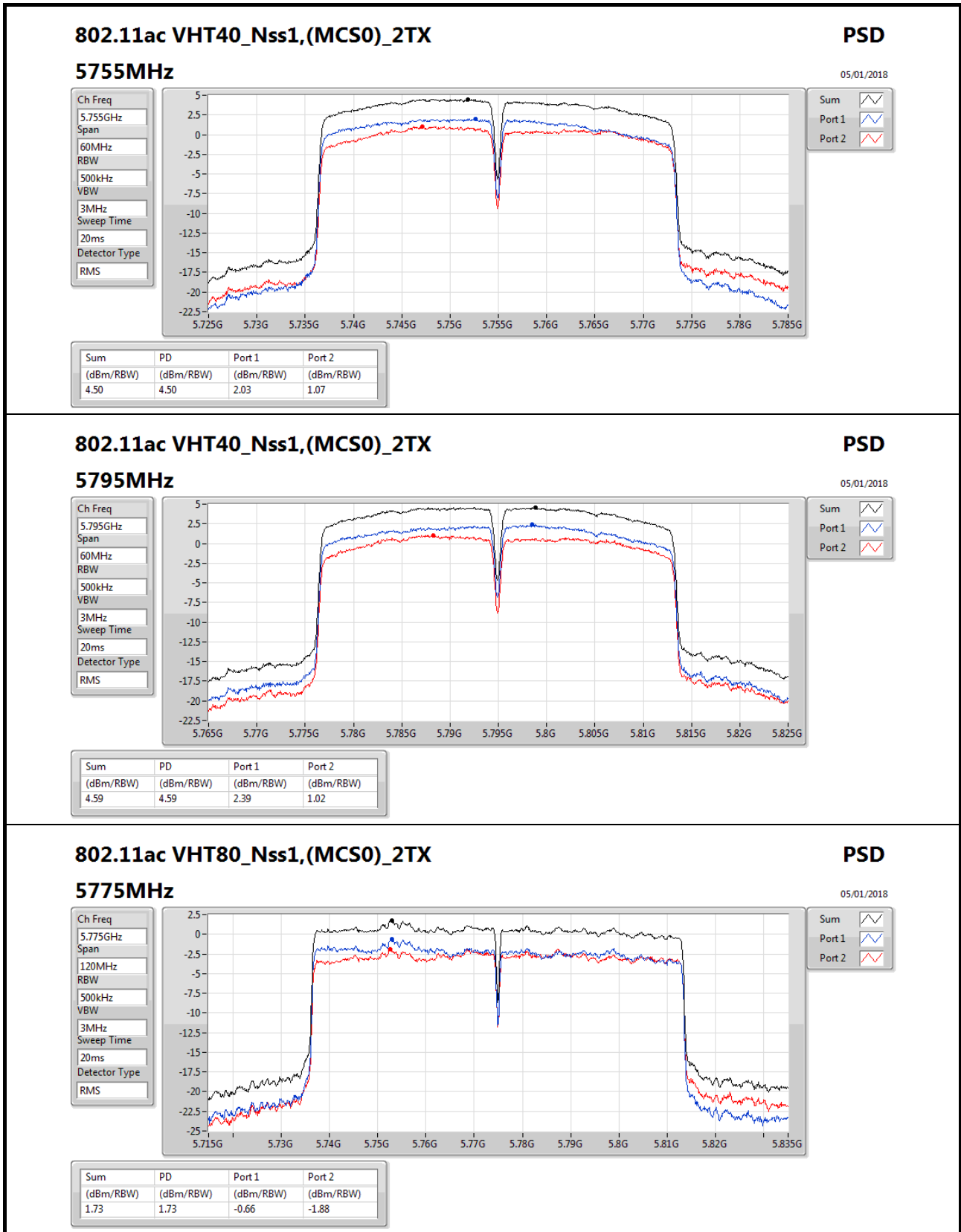
Sum

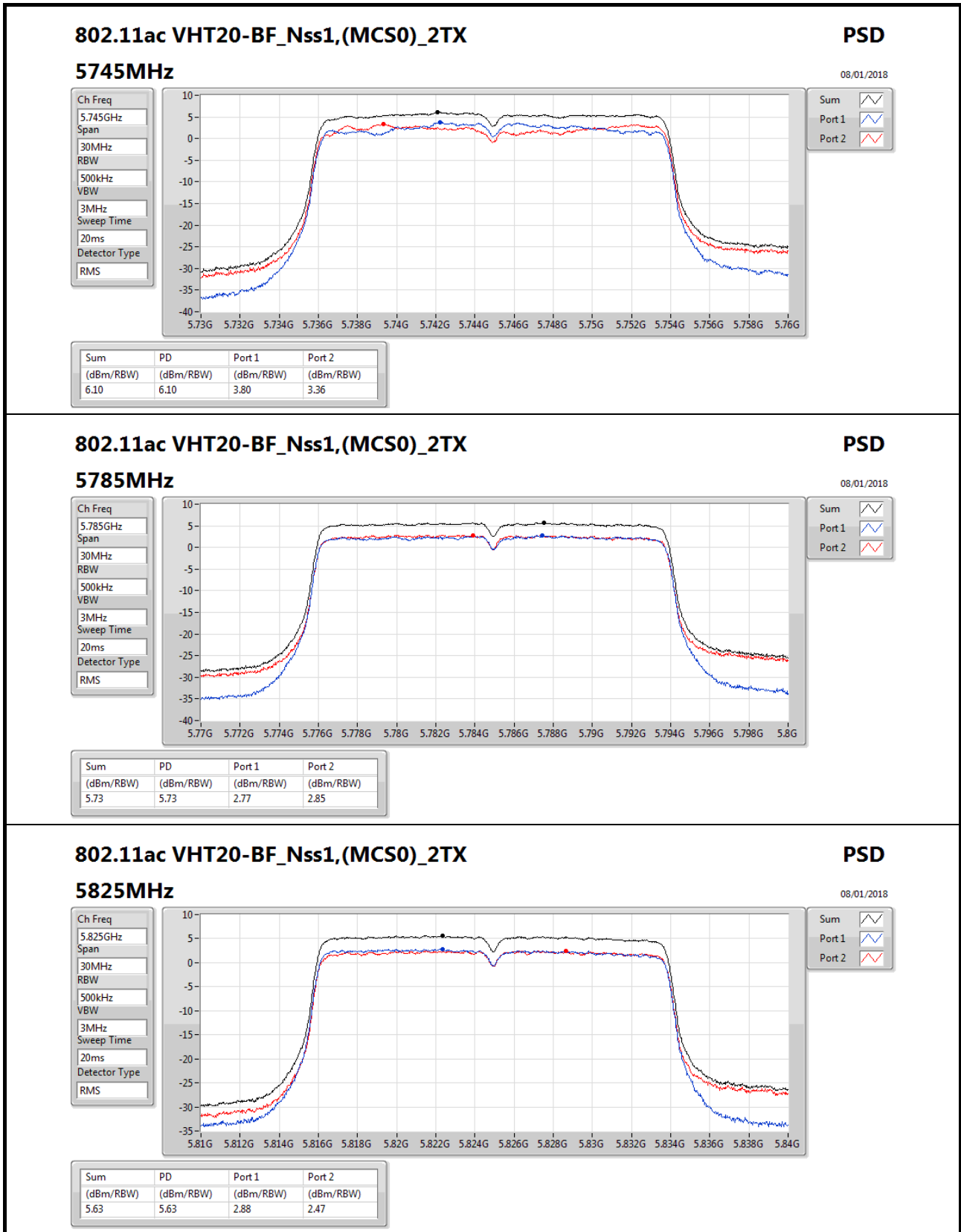
Port 1

Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.65	7.65	5.26	4.15







802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5825MHz

PSD

08/01/2018

Ch Freq
5.825GHz

Span
30MHz

RBW
500kHz

VBW
3MHz

Sweep Time
20ms

Detector Type
RMS

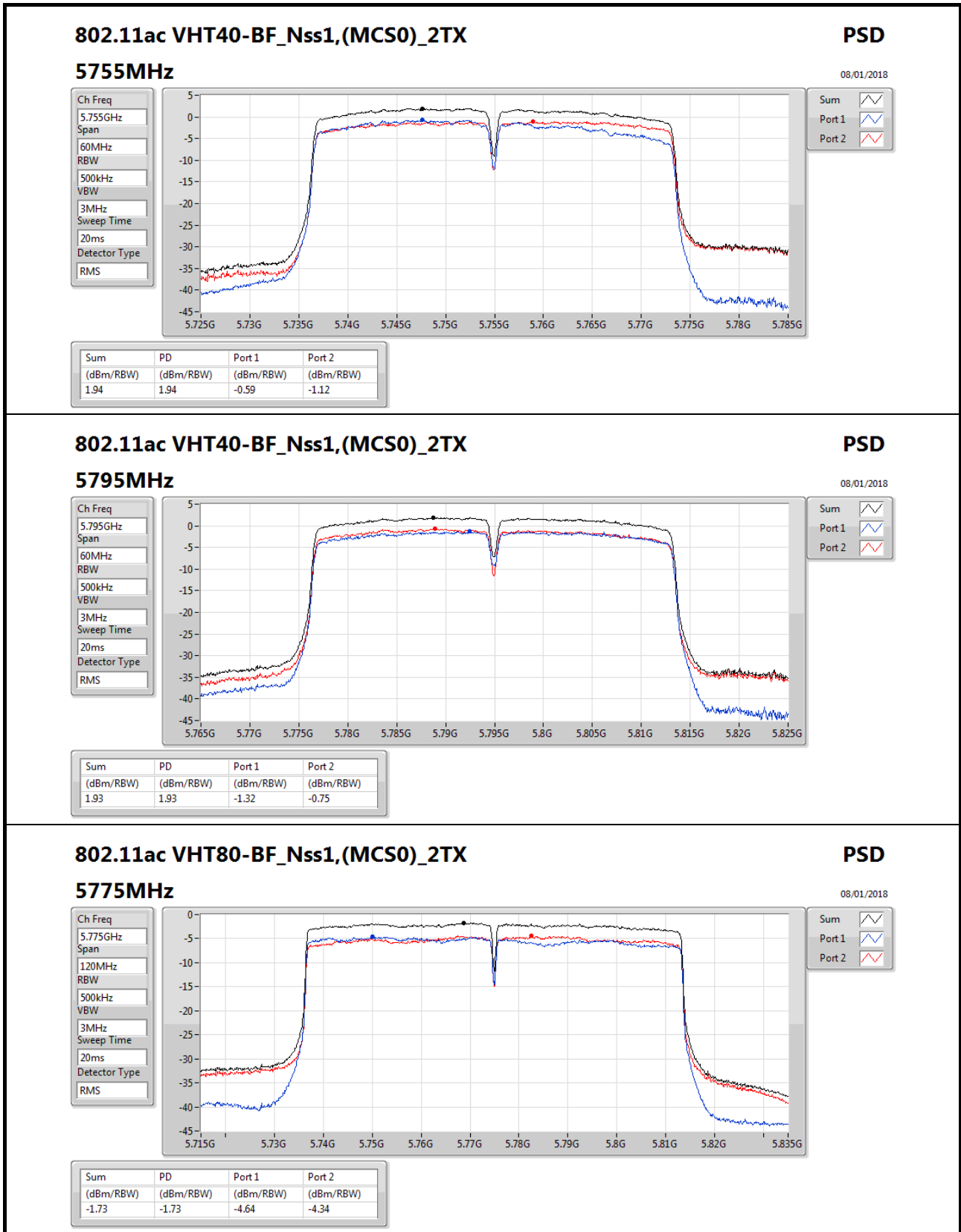


Sum

Port 1

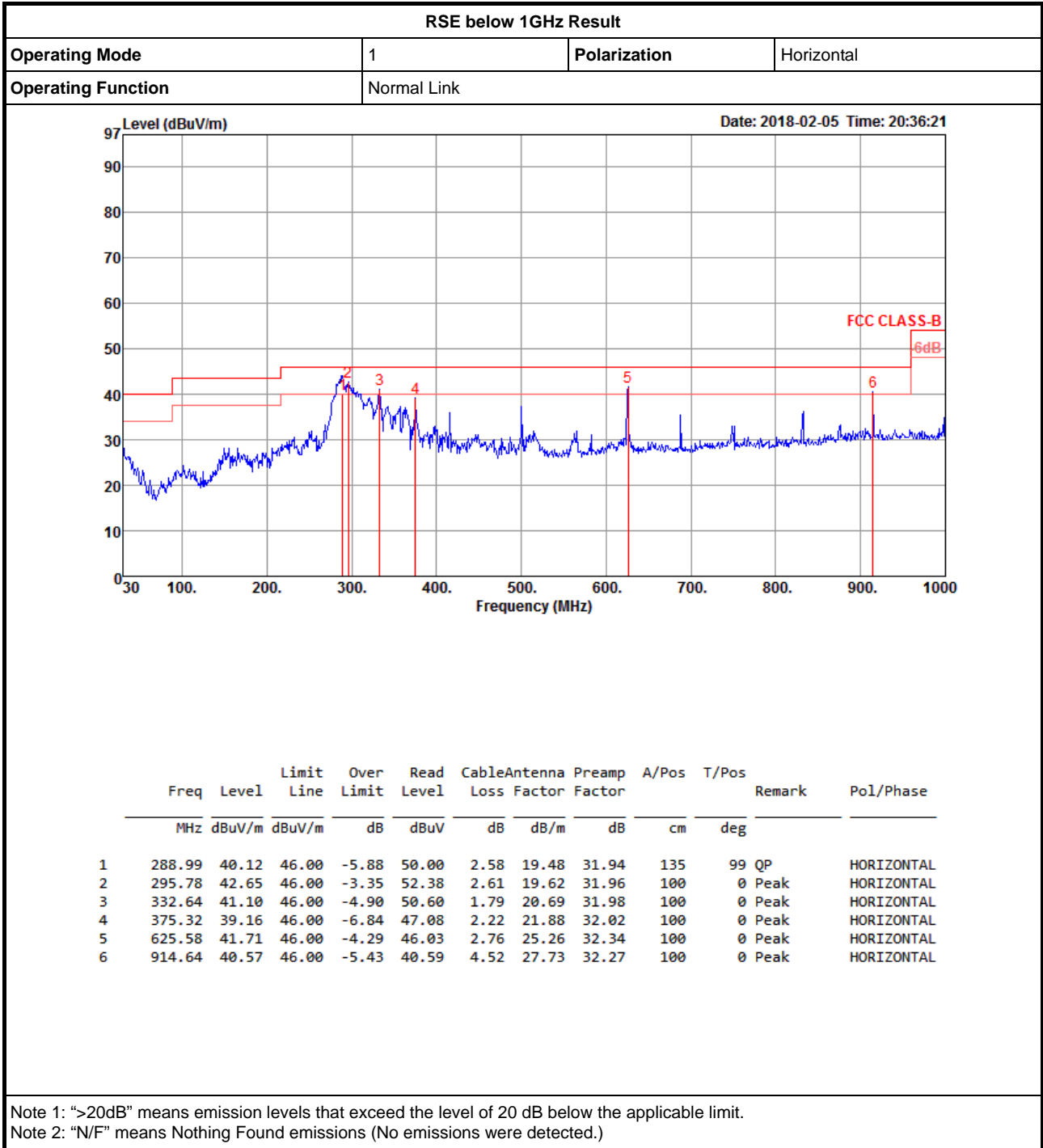
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.63	5.63	2.88	2.47



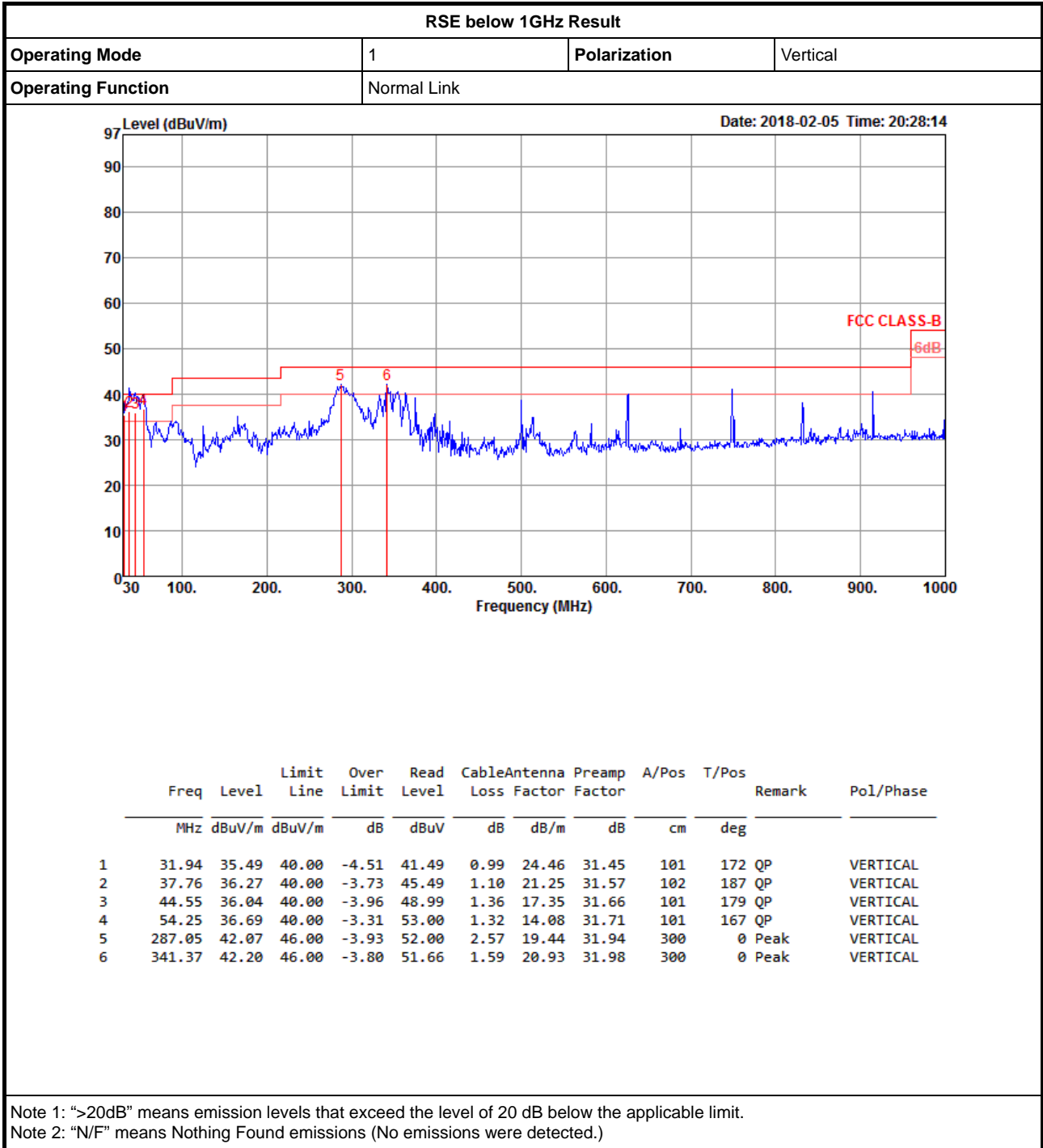


RSE below 1GHz Result





RSE below 1GHz Result





**For Radio 2
Summary**

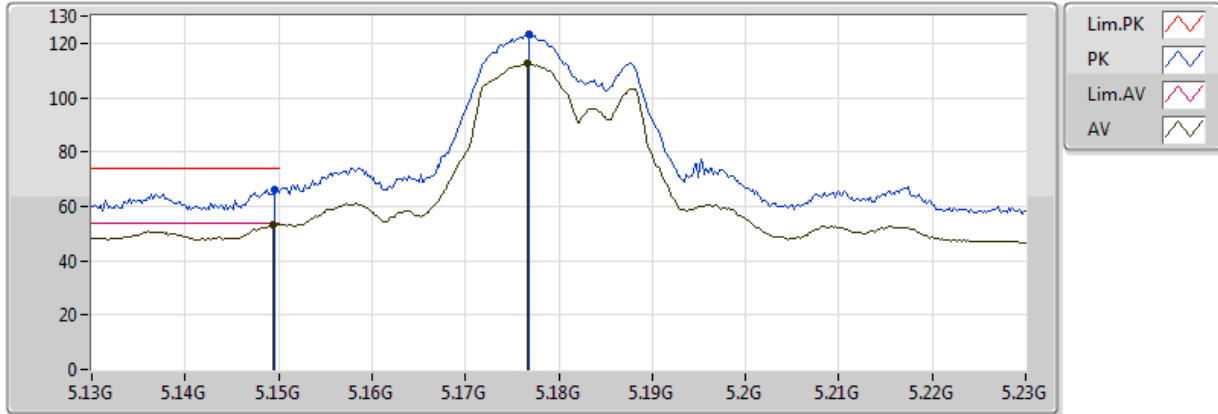
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.15-5.25GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11ac VHT20_Nss1,(MCS0)_4TX	Pass	AV	5.1498G	53.71	54.00	-0.29	6.36	3	Vertical	49	1.92	-



802.11a_Nss1,(6Mbps)_4TX

5180MHz_TX

14/02/2018



20180109
EUT_X_4TX
Setting 20
01-W-04
FSP(100080)

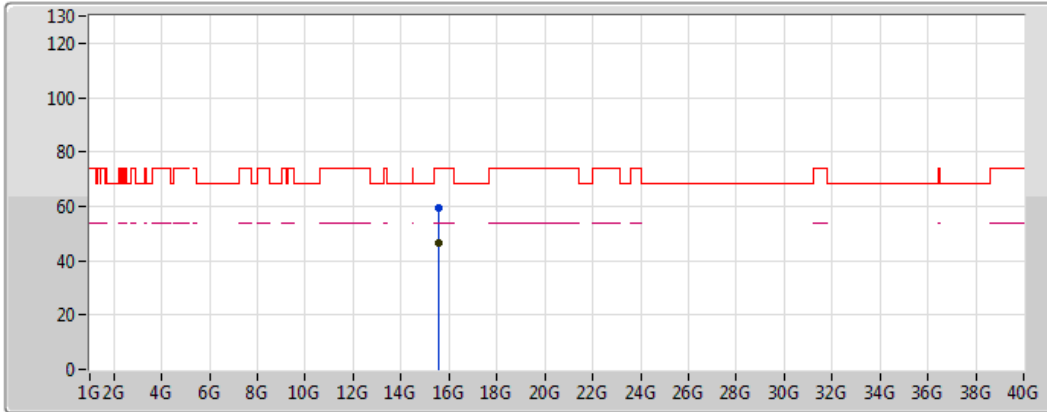
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.1494G	53.09	54.00	-0.91	6.36	3	Vertical	49	1.93	-
AV	5.1766G	112.50	Inf	-Inf	6.40	3	Vertical	49	1.93	-
PK	5.1496G	66.26	74.00	-7.74	6.36	3	Vertical	49	1.93	-
PK	5.1768G	123.28	Inf	-Inf	6.40	3	Vertical	49	1.93	-



802.11a_Nss1,(6Mbps)_4TX

5180MHz_TX

09/01/2018



Legend:

- Lim.PK (Red line)
- PK (Blue line)
- Lim.AV (Pink dashed line)
- AV (Green line)

20180109
EUT_X_4TX
Setting 20
01-W-04
FSP(100080)

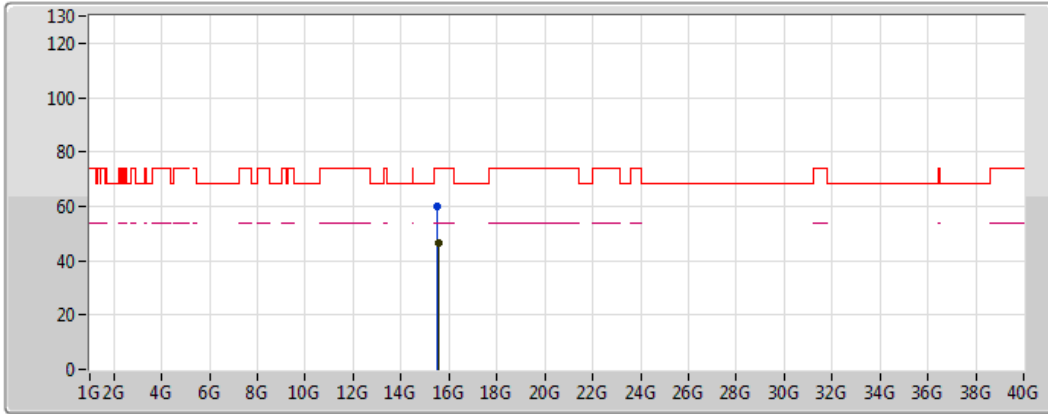
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.53872G	46.28	54.00	-7.72	15.91	3	Vertical	312	1.62	-
PK	15.54136G	59.58	74.00	-14.42	15.91	3	Vertical	312	1.62	-



802.11a_Nss1,(6Mbps)_4TX

5180MHz_TX

09/01/2018



Legend:

- Lim.PK (Red line)
- PK (Blue line)
- Lim.AV (Pink dashed line)
- AV (Black line)

20180109
EUT_X_4TX
Setting 20
01-W-04
FSP(100080)

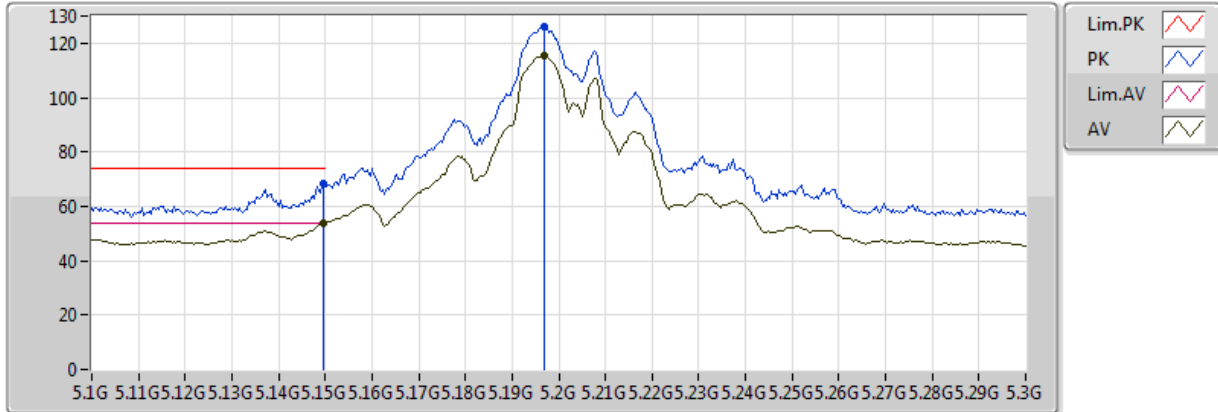
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.5445G	46.52	54.00	-7.48	15.90	3	Horizontal	108	1.31	-
PK	15.53578G	59.81	74.00	-14.19	15.91	3	Horizontal	108	1.31	-



802.11a_Nss1,(6Mbps)_4TX

5200MHz_TX

09/01/2018



20180109
EUT_X_4TX
Setting 24
01-W-04
FSP(100080)

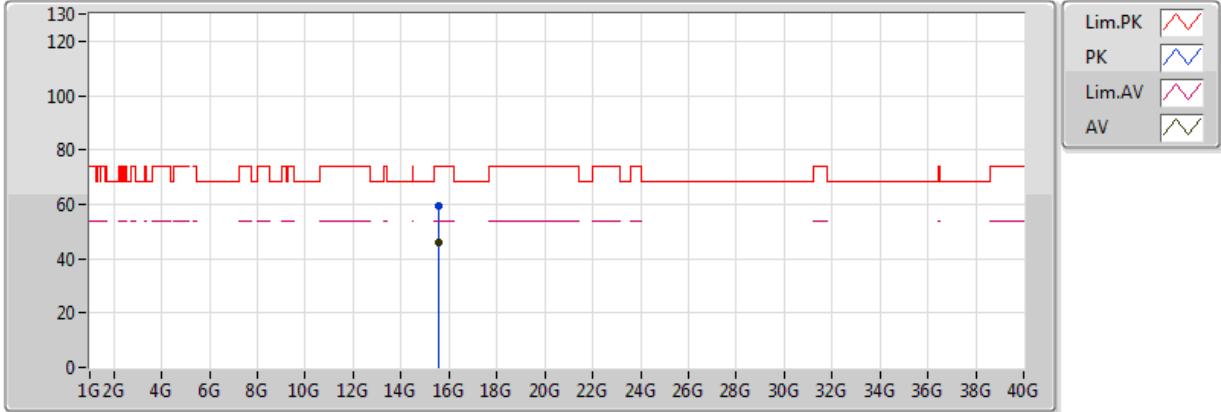
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.1496G	53.57	54.00	-0.43	6.36	3	Vertical	50	1.95	-
AV	5.1968G	115.61	Inf	-Inf	6.43	3	Vertical	50	1.95	-
PK	5.1496G	68.50	74.00	-5.50	6.36	3	Vertical	50	1.95	-
PK	5.1968G	126.17	Inf	-Inf	6.43	3	Vertical	50	1.95	-



802.11a_Nss1,(6Mbps)_4TX

5200MHz_TX

14/02/2018



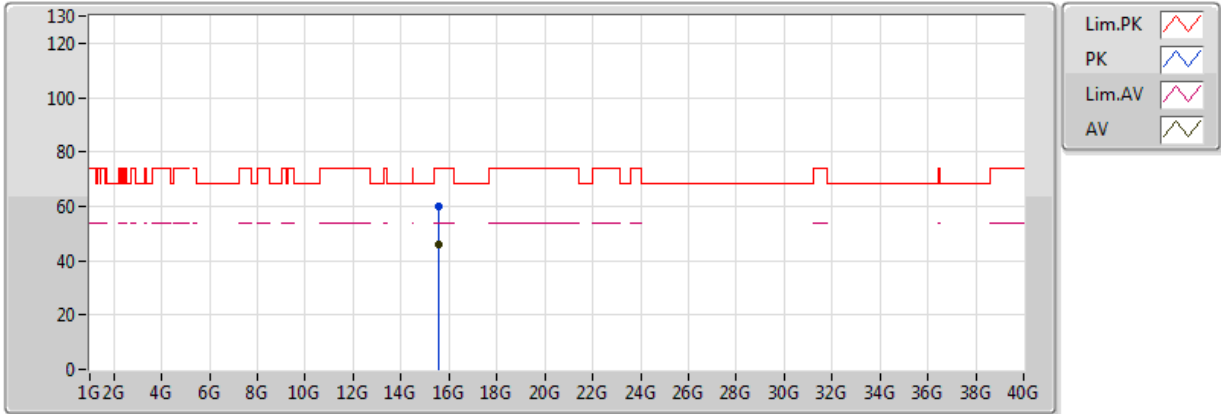
20180109
EUT_X_4TX
Setting 24
01-W-04
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.59864G	45.89	54.00	-8.11	15.82	3	Vertical	61	1.21	-
PK	15.5951G	59.56	74.00	-14.44	15.82	3	Vertical	61	1.21	-

802.11a_Nss1,(6Mbps)_4TX

5200MHz_TX

14/02/2018



20180109
EUT_X_4TX
Setting 24
01-W-04
FSP(100080)

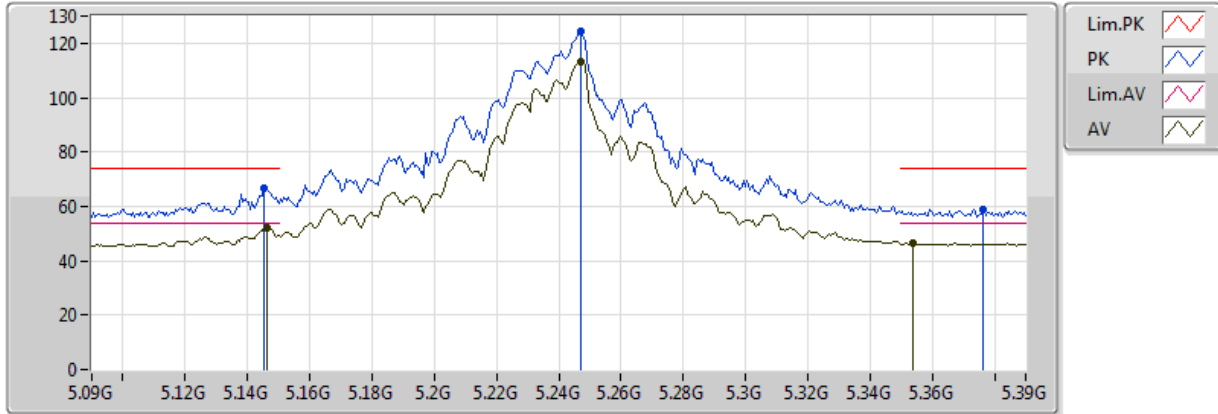
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.59542G	45.88	54.00	-8.12	15.82	3	Horizontal	97	1.89	-
PK	15.59564G	60.03	74.00	-13.97	15.82	3	Horizontal	97	1.89	-



802.11a_Nss1,(6Mbps)_4TX

5240MHz_TX

09/01/2018



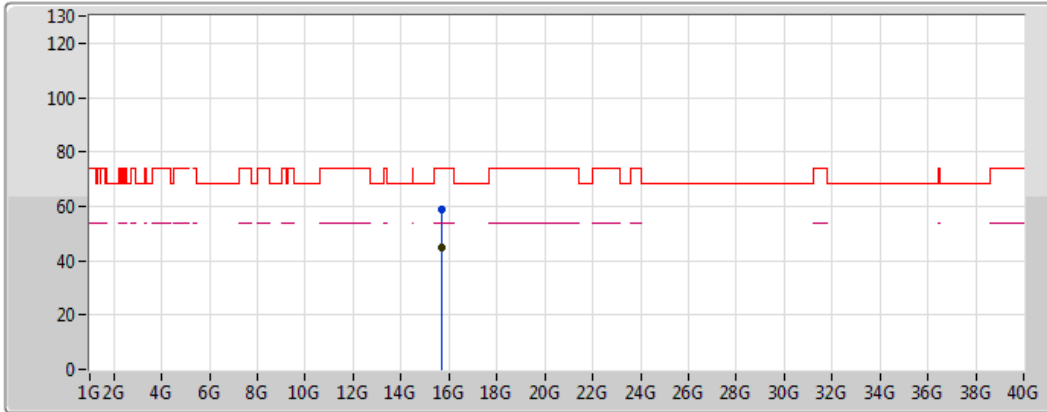
20180109
EUT_X_4TX
Setting 25
01-W-04
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.1464G	52.37	54.00	-1.63	6.35	3	Vertical	307	1.93	-
AV	5.2472G	113.40	Inf	-Inf	6.66	3	Vertical	307	1.93	-
AV	5.354G	46.43	54.00	-7.57	7.13	3	Vertical	307	1.93	-
PK	5.1452G	66.90	74.00	-7.10	6.35	3	Vertical	307	1.93	-
PK	5.2472G	124.18	Inf	-Inf	6.66	3	Vertical	307	1.93	-
PK	5.3762G	59.04	74.00	-14.96	7.22	3	Vertical	307	1.93	-

802.11a_Nss1,(6Mbps)_4TX

5240MHz_TX

09/01/2018



Legend:

- Lim.PK (Red dashed line)
- PK (Blue line)
- Lim.AV (Pink dashed line)
- AV (Pink line)

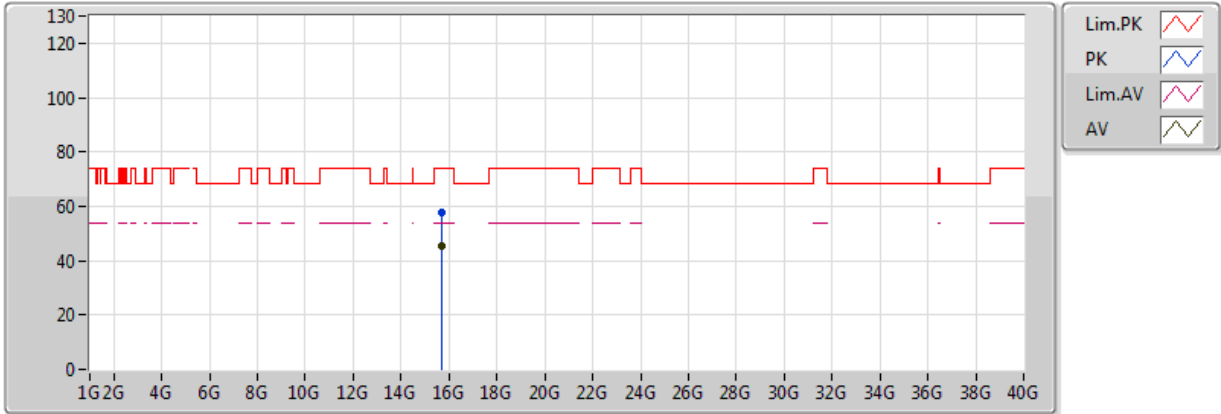
20180109
EUT_X_4TX
Setting 25
01-W-04
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.72086G	45.02	54.00	-8.98	15.63	3	Vertical	359	1.50	-
PK	15.71868G	58.72	74.00	-15.28	15.63	3	Vertical	359	1.50	-

802.11a_Nss1,(6Mbps)_4TX

5240MHz_TX

09/01/2018



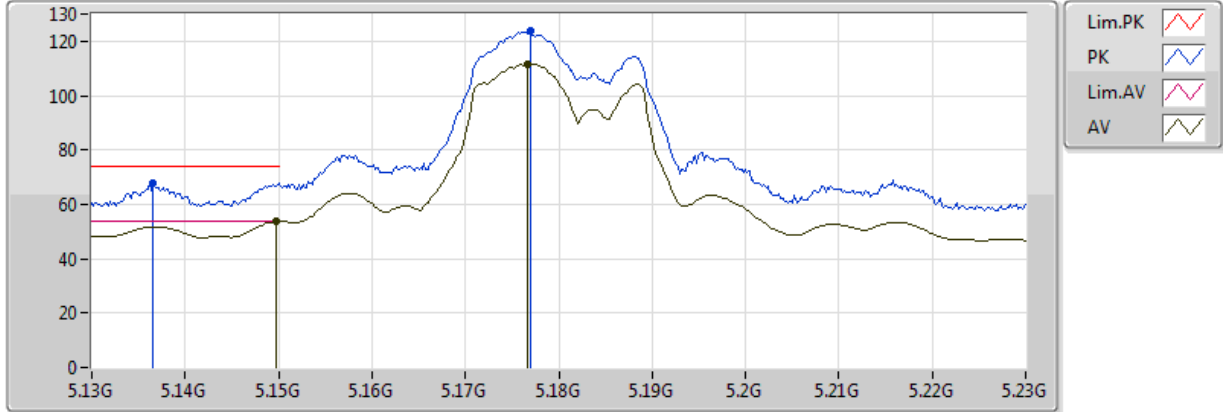
20180109
EUT_X_4TX
Setting 25
01-W-04
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.7238G	45.12	54.00	-8.88	15.63	3	Horizontal	300	1.32	-
PK	15.72442G	57.90	74.00	-16.10	15.62	3	Horizontal	300	1.32	-

802.11ac VHT20_Nss1,(MCS0)_4TX

5180MHz_TX

09/01/2018



20180109
EUT_X_4TX
Setting 21
01-W-04
FSP(100080)

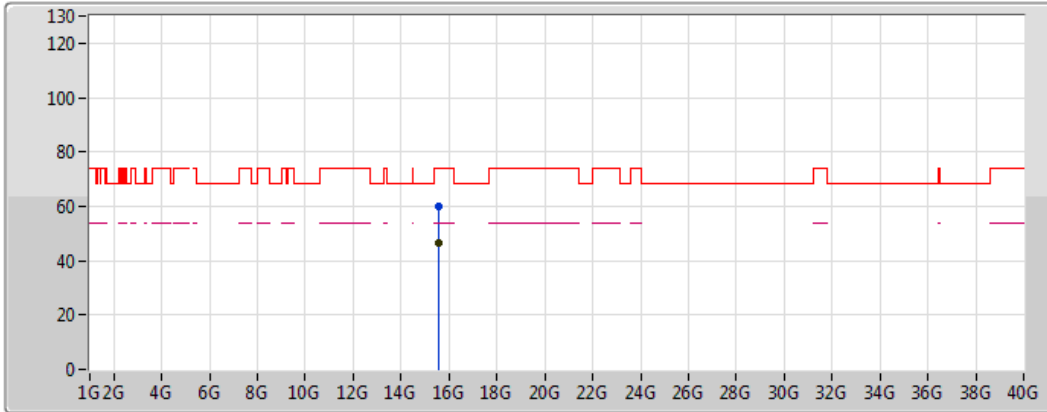
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.1498G	53.71	54.00	-0.29	6.36	3	Vertical	49	1.92	-
AV	5.1766G	111.76	Inf	-Inf	6.40	3	Vertical	49	1.92	-
PK	5.1366G	68.07	74.00	-5.93	6.34	3	Vertical	49	1.92	-
PK	5.177G	123.94	Inf	-Inf	6.40	3	Vertical	49	1.92	-



802.11ac VHT20_Nss1,(MCS0)_4TX

5180MHz_TX

09/01/2018



Legend:

- Lim.PK (Red line)
- PK (Blue line)
- Lim.AV (Pink line)
- AV (Green line)

20180109
EUT_X_4TX
Setting 21
01-W-04
FSP(100080)

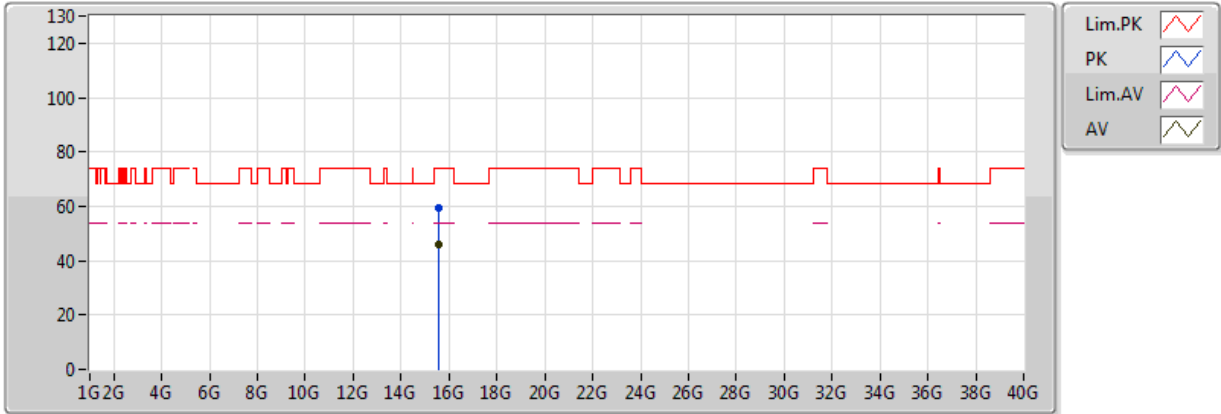
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.54394G	46.27	54.00	-7.73	15.90	3	Vertical	171	1.75	-
PK	15.54386G	59.94	74.00	-14.06	15.90	3	Vertical	171	1.75	-



802.11ac VHT20_Nss1,(MCS0)_4TX

5180MHz_TX

09/01/2018



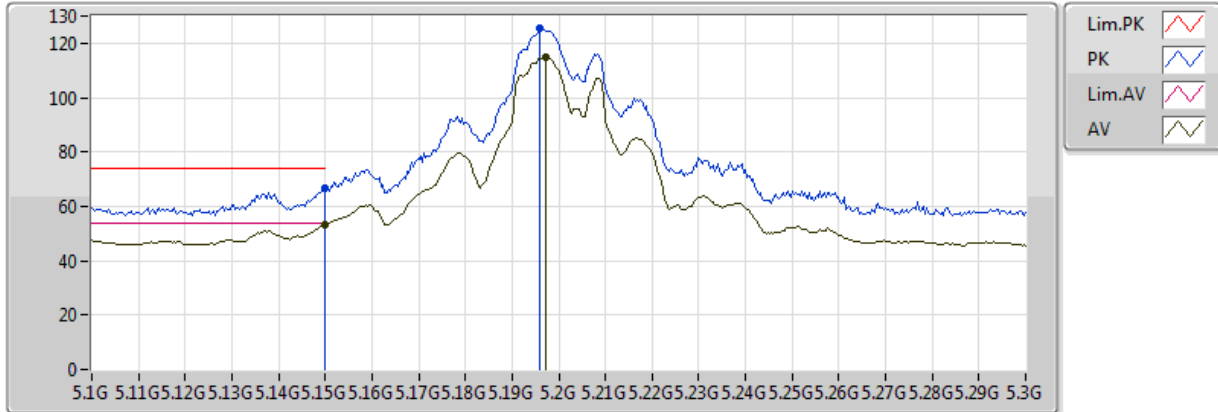
20180109
EUT_X_4TX
Setting 21
01-W-04
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.53842G	46.21	54.00	-7.79	15.91	3	Horizontal	58	1.36	-
PK	15.54128G	59.45	74.00	-14.55	15.91	3	Horizontal	58	1.36	-

802.11ac VHT20_Nss1,(MCS0)_4TX

5200MHz_TX

09/01/2018



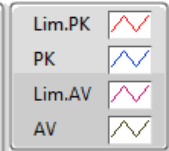
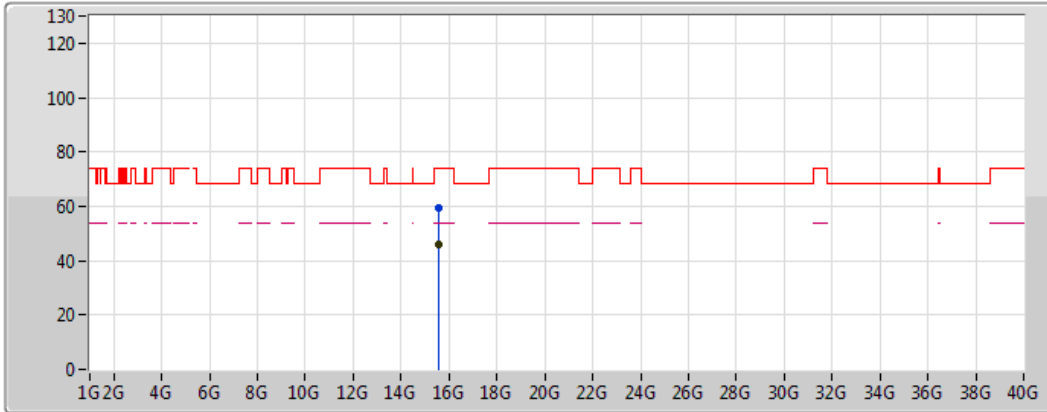
20180109
EUT_X_4TX
Setting 24
01-W-04
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.149995G	53.41	54.00	-0.59	6.36	3	Vertical	49	1.96	-
AV	5.1972G	115.05	Inf	-Inf	6.43	3	Vertical	49	1.96	-
PK	5.149995G	66.50	74.00	-7.50	6.36	3	Vertical	49	1.96	-
PK	5.196G	125.36	Inf	-Inf	6.42	3	Vertical	49	1.96	-

802.11ac VHT20_Nss1,(MCS0)_4TX

5200MHz_TX

09/01/2018



20180109
EUT_X_4TX
Setting 24
01-W-04
FSP(100080)

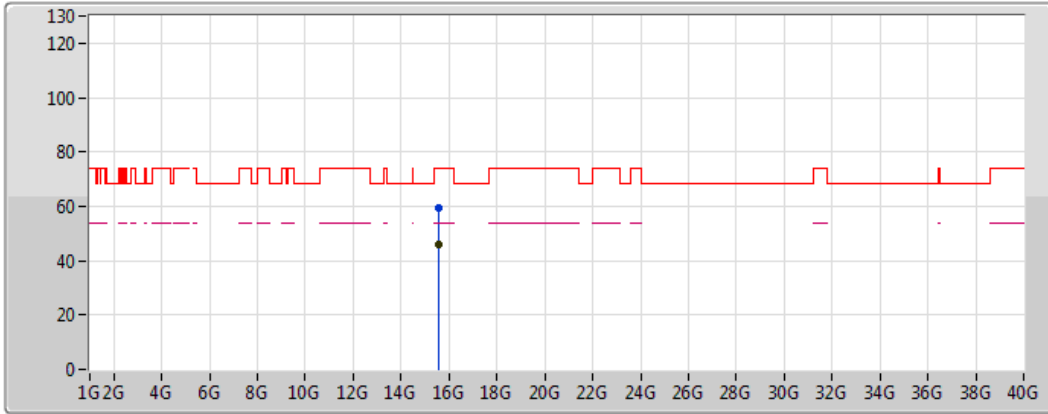
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.59544G	45.96	54.00	-8.04	15.82	3	Vertical	183	1.06	-
PK	15.59936G	59.18	74.00	-14.82	15.82	3	Vertical	183	1.06	-



802.11ac VHT20_Nss1,(MCS0)_4TX

5200MHz_TX

09/01/2018



- Lim.PK
- PK
- Lim.AV
- AV

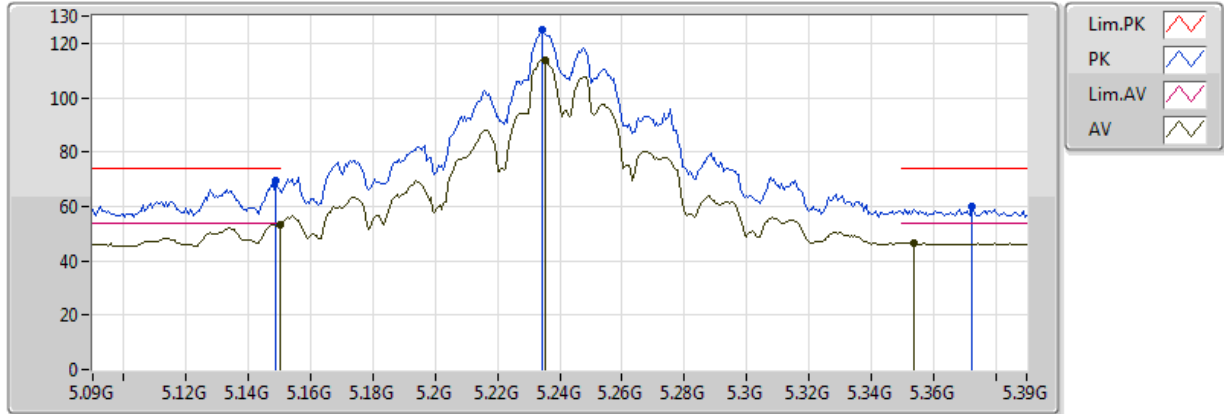
20180109
EUT_X_4TX
Setting 24
01-W-04
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.59542G	45.87	54.00	-8.13	15.82	3	Horizontal	19	1.49	-
PK	15.59852G	59.33	74.00	-14.67	15.82	3	Horizontal	19	1.49	-

802.11ac VHT20_Nss1,(MCS0)_4TX

5240MHz_TX

09/01/2018



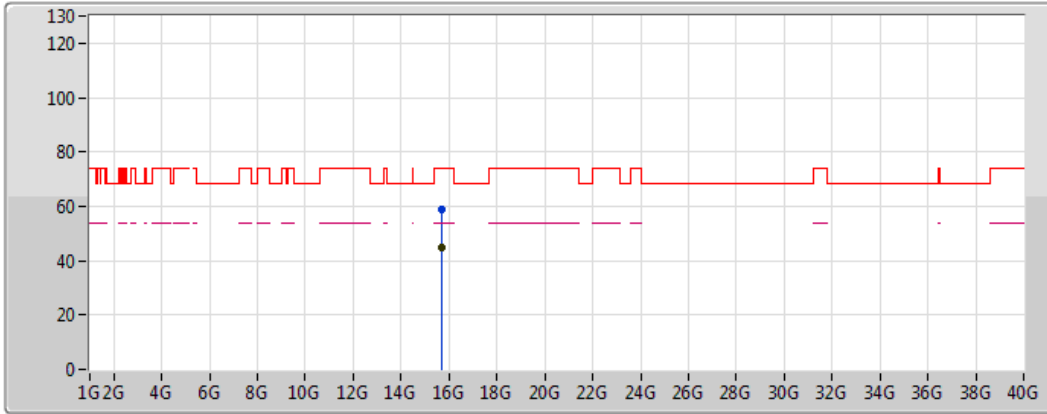
20180109
EUT_X_4TX
Setting 25
01-W-04
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.149995G	53.49	54.00	-0.51	6.36	3	Vertical	50	1.85	-
AV	5.2352G	113.75	Inf	-Inf	6.60	3	Vertical	50	1.85	-
AV	5.354G	46.59	54.00	-7.41	7.13	3	Vertical	50	1.85	-
PK	5.1488G	69.33	74.00	-4.67	6.36	3	Vertical	50	1.85	-
PK	5.2346G	124.72	Inf	-Inf	6.60	3	Vertical	50	1.85	-
PK	5.3726G	59.68	74.00	-14.32	7.21	3	Vertical	50	1.85	-

802.11ac VHT20_Nss1,(MCS0)_4TX

5240MHz_TX

09/01/2018



Legend:

- Lim.PK (Red line)
- PK (Blue line)
- Lim.AV (Pink line)
- AV (Black line)

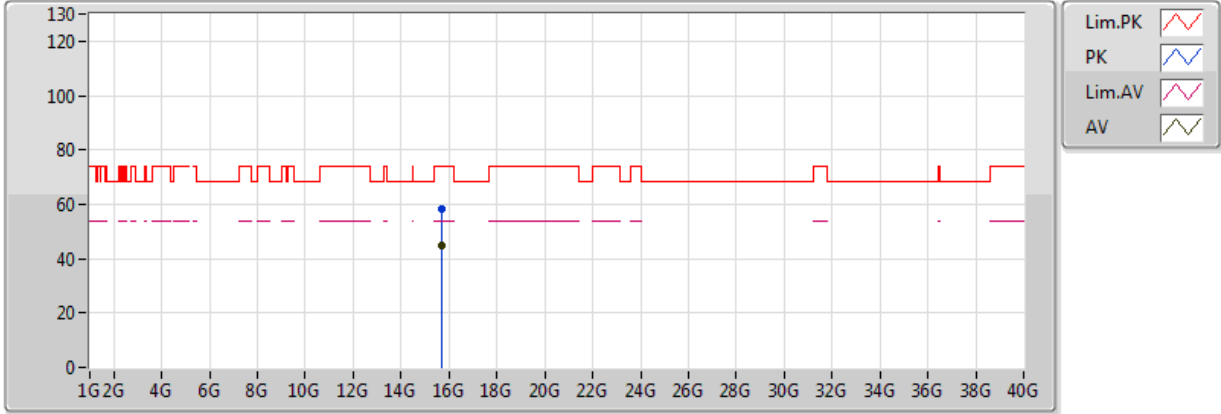
20180109
EUT_X_4TX
Setting 25
01-W-04
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.72386G	44.95	54.00	-9.05	15.63	3	Vertical	319	1.50	-
PK	15.72248G	58.67	74.00	-15.33	15.63	3	Vertical	319	1.50	-

802.11ac VHT20_Nss1,(MCS0)_4TX

5240MHz_TX

09/01/2018



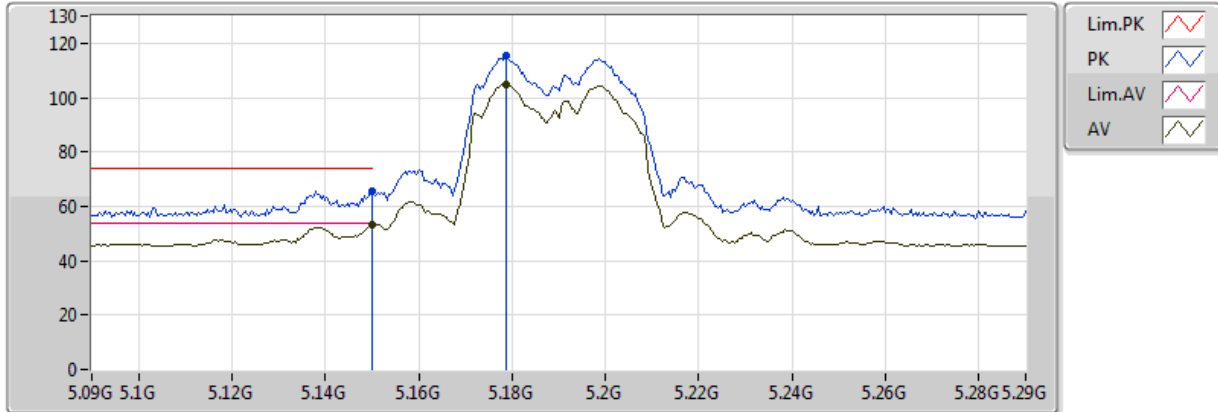
20180109
EUT_X_4TX
Setting 25
01-W-04
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.71782G	44.97	54.00	-9.03	15.63	3	Horizontal	27	2.13	-
PK	15.71958G	58.04	74.00	-15.96	15.63	3	Horizontal	27	2.13	-

802.11ac VHT40_Nss1,(MCS0)_4TX

5190MHz_TX

09/01/2018



20180109
EUT_X_4TX
Setting 17
01-W-04
FSP(100080)

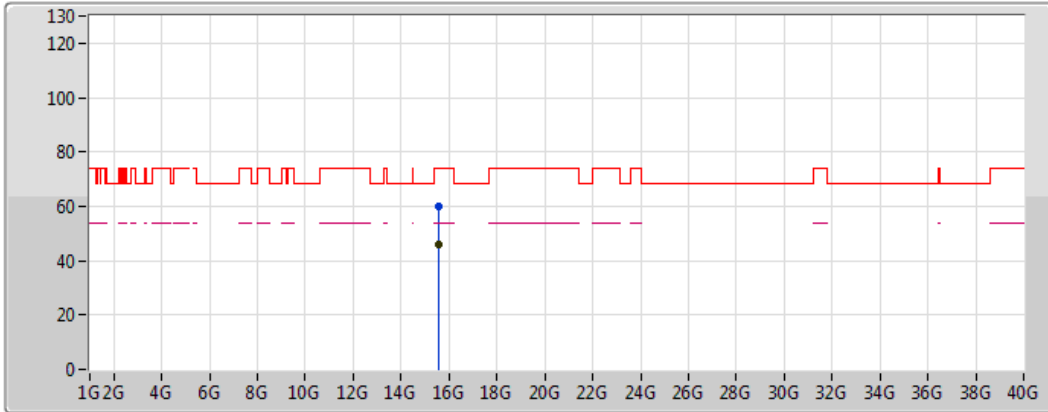
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.149995G	53.03	54.00	-0.97	6.36	3	Vertical	308	1.95	-
AV	5.1788G	104.88	Inf	-Inf	6.40	3	Vertical	308	1.95	-
PK	5.149995G	65.46	74.00	-8.54	6.36	3	Vertical	308	1.95	-
PK	5.1788G	115.45	Inf	-Inf	6.40	3	Vertical	308	1.95	-



802.11ac VHT40_Nss1,(MCS0)_4TX

5190MHz_TX

09/01/2018



Legend:

- Lim.PK (Red line)
- PK (Blue line)
- Lim.AV (Pink dashed line)
- AV (Black line)

20180109
EUT_X_4TX
Setting 17
01-W-04
FSP(100080)

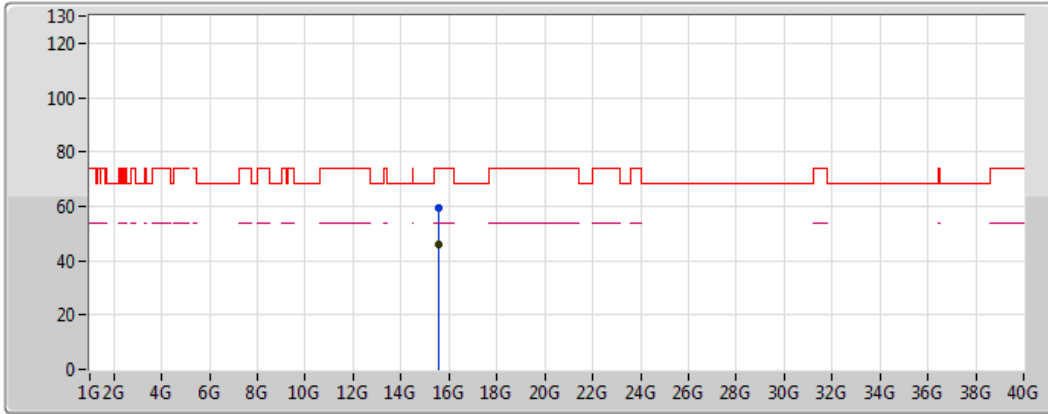
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.5729G	45.81	54.00	-8.19	15.86	3	Vertical	198	1.35	-
PK	15.56708G	59.81	74.00	-14.19	15.87	3	Vertical	198	1.35	-



802.11ac VHT40_Nss1,(MCS0)_4TX

5190MHz_TX

09/01/2018



Legend:

- Lim.PK (Red line)
- PK (Blue line)
- Lim.AV (Pink dashed line)
- AV (Black line)

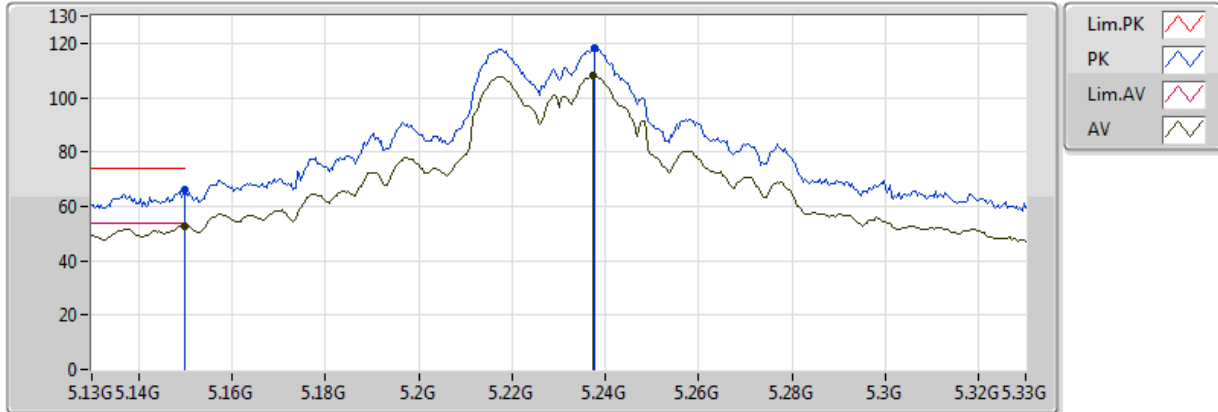
20180109
EUT_X_4TX
Setting 17
01-W-04
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.57398G	45.84	54.00	-8.16	15.86	3	Horizontal	198	1.52	-
PK	15.5677G	59.59	74.00	-14.41	15.87	3	Horizontal	198	1.52	-

802.11ac VHT40_Nss1,(MCS0)_4TX

5230MHz_TX

09/01/2018



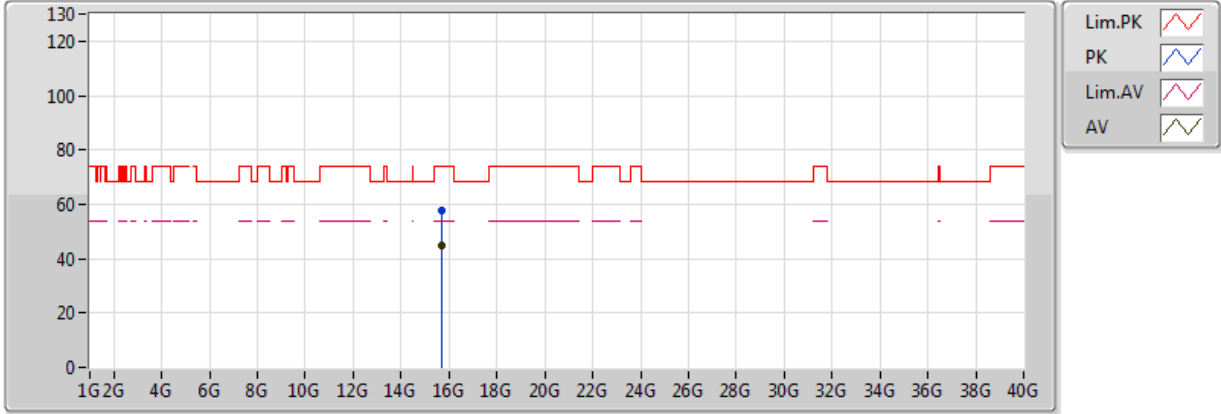
20180109
EUT_X_4TX
Setting 21
01-W-04
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.149995G	52.77	54.00	-1.23	6.36	3	Vertical	306	1.85	-
AV	5.2372G	108.00	Inf	-Inf	6.61	3	Vertical	306	1.85	-
PK	5.149995G	65.88	74.00	-8.12	6.36	3	Vertical	306	1.85	-
PK	5.2376G	118.39	Inf	-Inf	6.61	3	Vertical	306	1.85	-

802.11ac VHT40_Nss1,(MCS0)_4TX

5230MHz_TX

09/01/2018



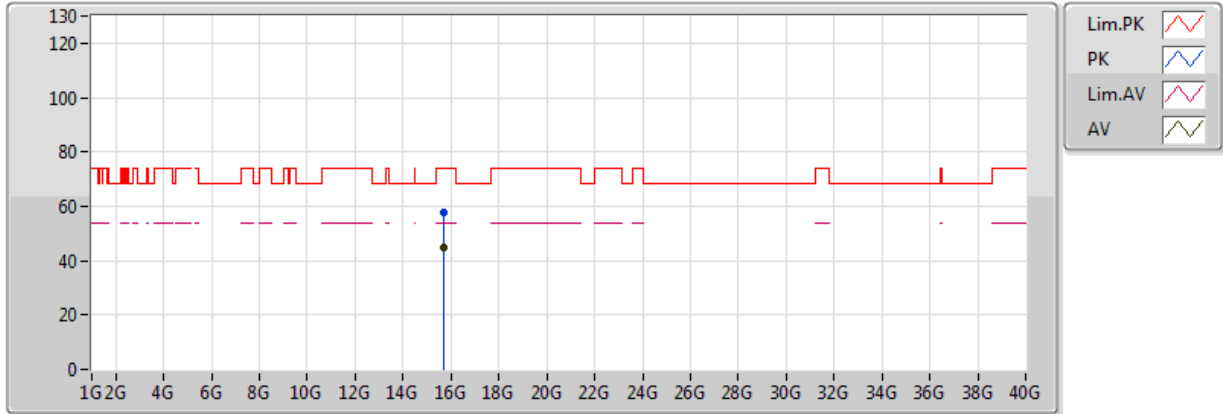
20180109
EUT_X_4TX
Setting 21
01-W-04
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.69234G	44.83	54.00	-9.17	15.67	3	Vertical	170	2.41	-
PK	15.69214G	57.78	74.00	-16.22	15.67	3	Vertical	170	2.41	-

802.11ac VHT40_Nss1,(MCS0)_4TX

5230MHz_TX

09/01/2018



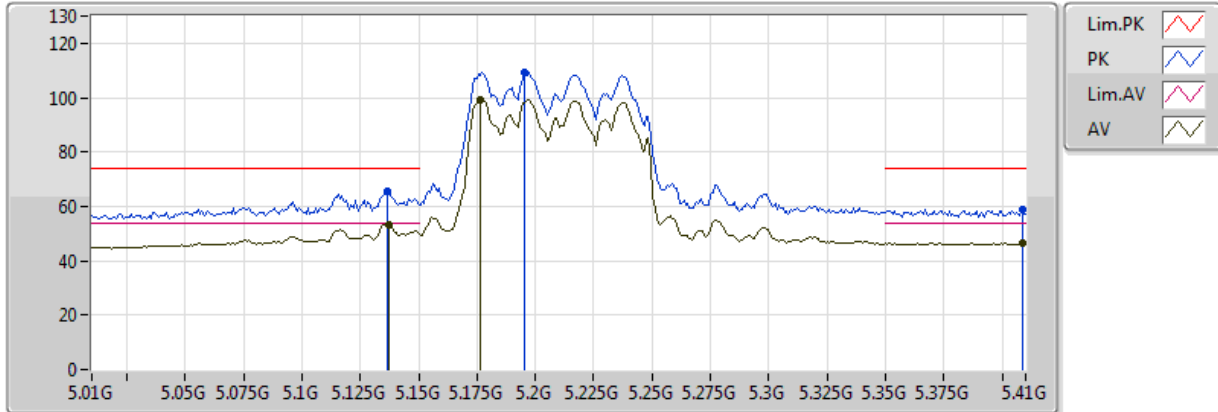
20180109
EUT_X_4TX
Setting 21
01-W-04
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.68618G	44.71	54.00	-9.29	15.68	3	Horizontal	290	1.05	-
PK	15.68984G	57.95	74.00	-16.05	15.68	3	Horizontal	290	1.05	-

802.11ac VHT80_Nss1,(MCS0)_4TX

5210MHz_TX

09/01/2018



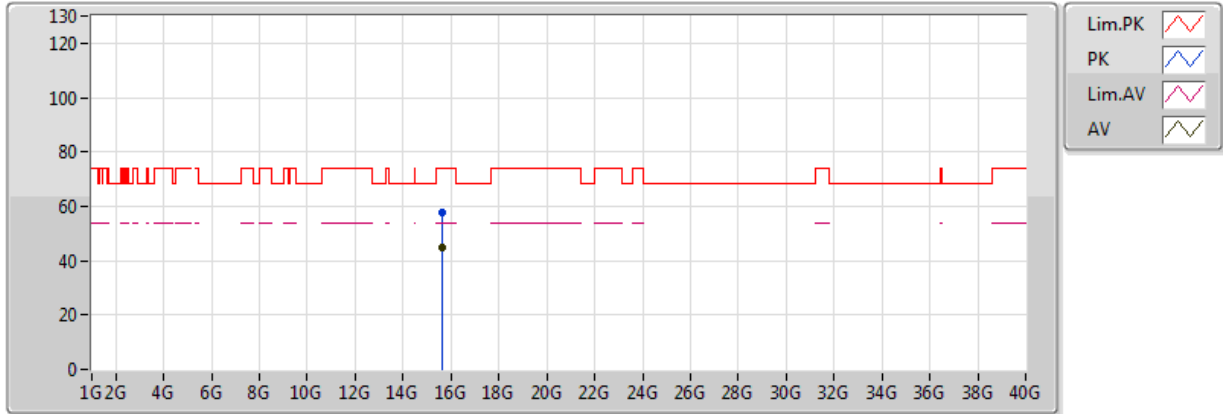
20180109
EUT_X_4TX
Setting 15
01-W-04
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.1372G	53.33	54.00	-0.67	6.34	3	Vertical	306	1.89	-
AV	5.1764G	99.42	Inf	-Inf	6.40	3	Vertical	306	1.89	-
AV	5.4084G	46.44	54.00	-7.56	7.34	3	Vertical	306	1.89	-
PK	5.1364G	65.60	74.00	-8.40	6.34	3	Vertical	306	1.89	-
PK	5.1956G	109.51	Inf	-Inf	6.42	3	Vertical	306	1.89	-
PK	5.4084G	58.88	74.00	-15.12	7.34	3	Vertical	306	1.89	-

802.11ac VHT80_Nss1,(MCS0)_4TX

5210MHz_TX

09/01/2018



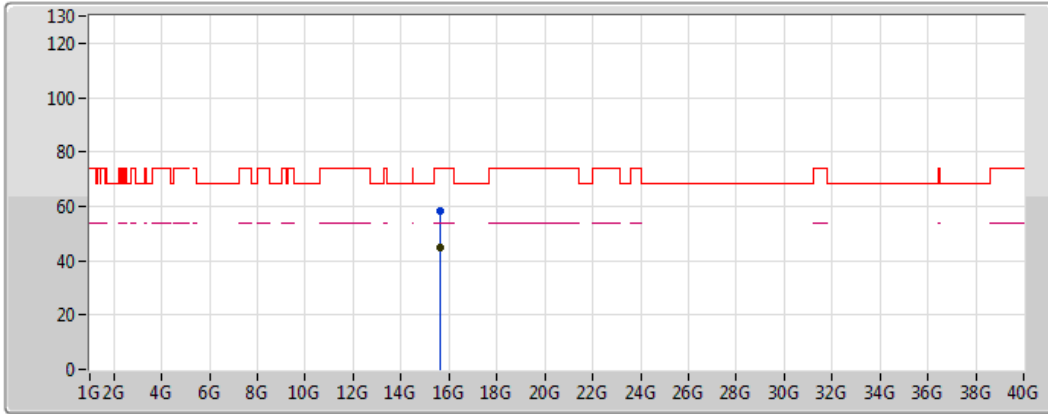
20180109
EUT_X_4TX
Setting 15
01-W-04
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.62984G	44.93	54.00	-9.07	15.77	3	Vertical	82	2.25	-
PK	15.62986G	57.97	74.00	-16.03	15.77	3	Vertical	82	2.25	-

802.11ac VHT80_Nss1,(MCS0)_4TX

5210MHz_TX

09/01/2018



Legend:

- Lim.PK (Red line)
- PK (Blue line)
- Lim.AV (Pink line)
- AV (Green line)

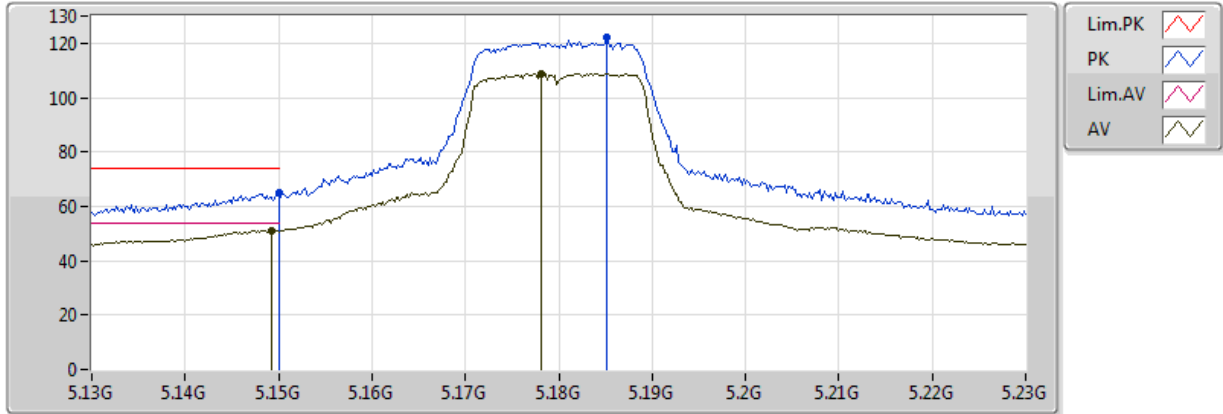
20180109
EUT_X_4TX
Setting 15
01-W-04
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.62996G	44.80	54.00	-9.20	15.77	3	Horizontal	63	2.19	-
PK	15.6304G	58.01	74.00	-15.99	15.77	3	Horizontal	63	2.19	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

5180MHz_TX

10/01/2018



20180109
EUT_X_4TX
Setting 26
01-N-2-10
FSP(100080)

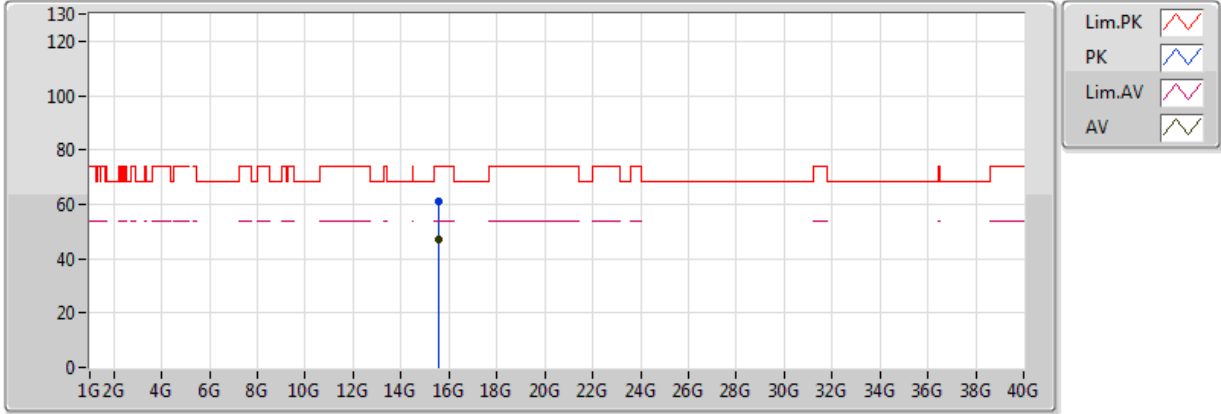
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.1492G	50.96	54.00	-3.04	6.36	3	Vertical	161	1.44	-
AV	5.1782G	108.95	Inf	-Inf	6.40	3	Vertical	161	1.44	-
PK	5.149995G	64.93	74.00	-9.07	6.36	3	Vertical	161	1.44	-
PK	5.1852G	122.22	Inf	-Inf	6.41	3	Vertical	161	1.44	-



802.11ac VHT20-BF_Nss1,(MCS0)_4TX

5180MHz_TX

10/01/2018



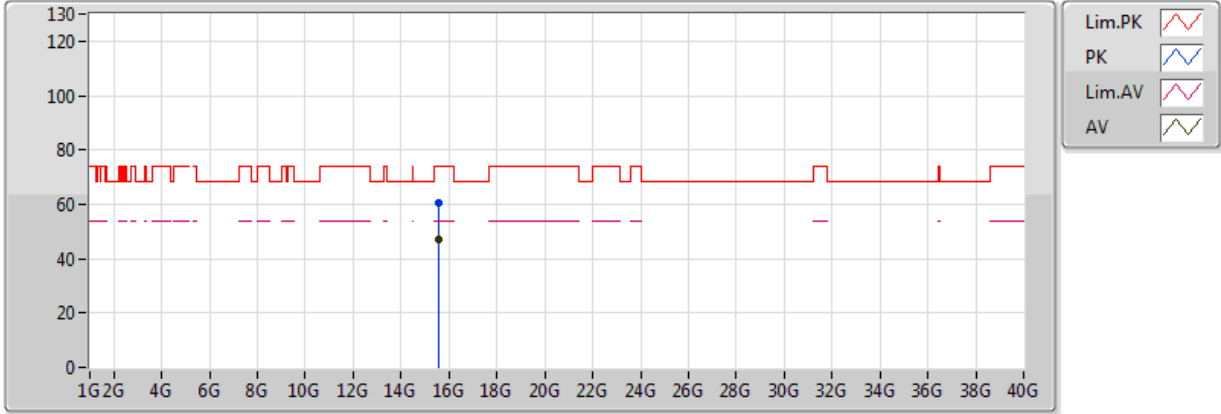
20180109
EUT_X_4TX
Setting 26
01-N-2
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.53878G	46.95	54.00	-7.05	15.62	3	Vertical	197	1.43	-
PK	15.54394G	61.15	74.00	-12.85	15.61	3	Vertical	197	1.43	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

5180MHz_TX

10/01/2018



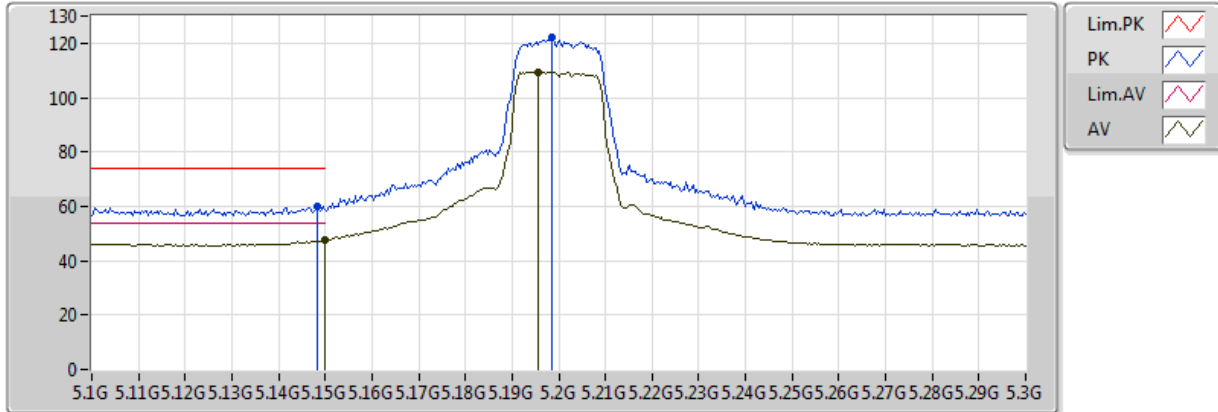
20180109
EUT_X_4TX
Setting 26
01-N-2
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.54196G	46.92	54.00	-7.08	15.91	3	Horizontal	313	1.90	-
PK	15.54324G	60.60	74.00	-13.40	15.90	3	Horizontal	313	1.90	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

5200MHz_TX

10/01/2018



20180109
EUT_X_4TX
Setting 26
01-N-2-10
FSP(100080)

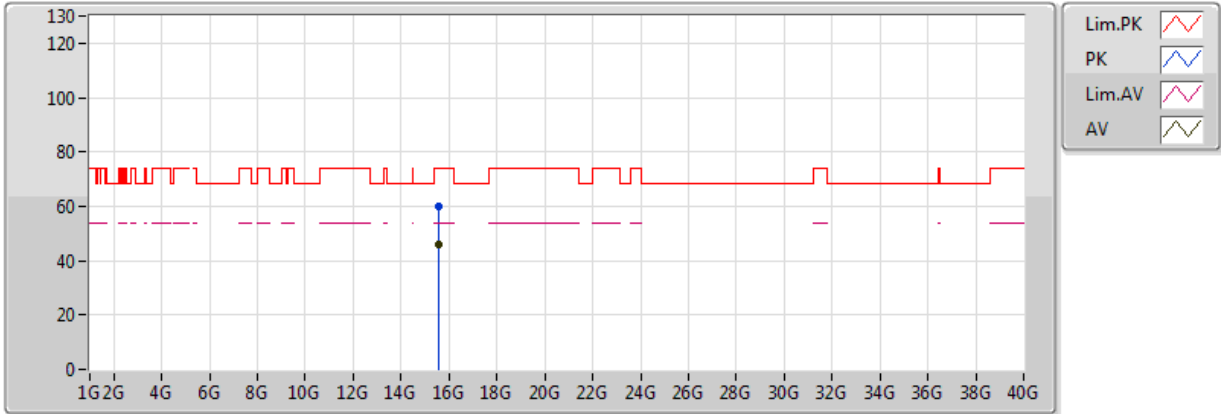
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.149995G	47.37	54.00	-6.63	6.36	3	Vertical	155	1.01	-
AV	5.1956G	109.54	Inf	-Inf	6.42	3	Vertical	155	1.01	-
PK	5.1484G	60.16	74.00	-13.84	6.36	3	Vertical	155	1.01	-
PK	5.1984G	122.09	Inf	-Inf	6.43	3	Vertical	155	1.01	-



802.11ac VHT20-BF_Nss1,(MCS0)_4TX

5200MHz_TX

10/01/2018



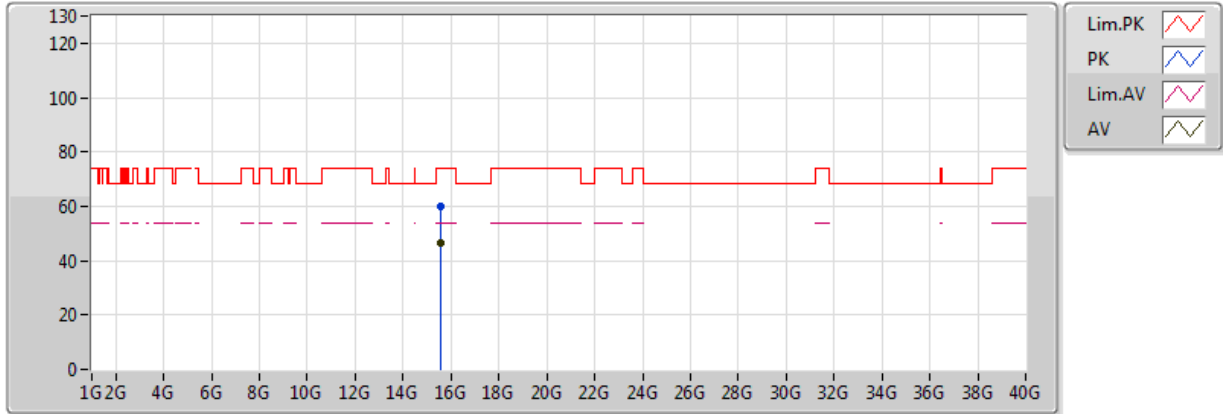
20180109
EUT_X_4TX
Setting 26
01-N-2
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.5962G	46.10	54.00	-7.90	15.58	3	Vertical	105	2.40	-
PK	15.59228G	59.98	74.00	-14.02	15.58	3	Vertical	105	2.40	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

5200MHz_TX

10/01/2018



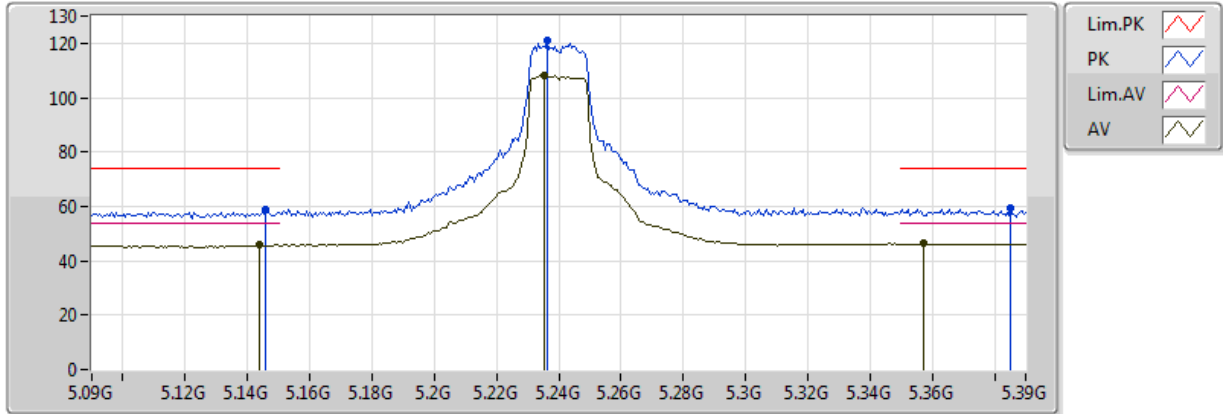
20180109
EUT_X_4TX
Setting 26
01-N-2
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.59104G	46.45	54.00	-7.55	15.83	3	Horizontal	355	2.37	-
PK	15.5942G	59.86	74.00	-14.14	15.82	3	Horizontal	355	2.37	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

5240MHz_TX

10/01/2018



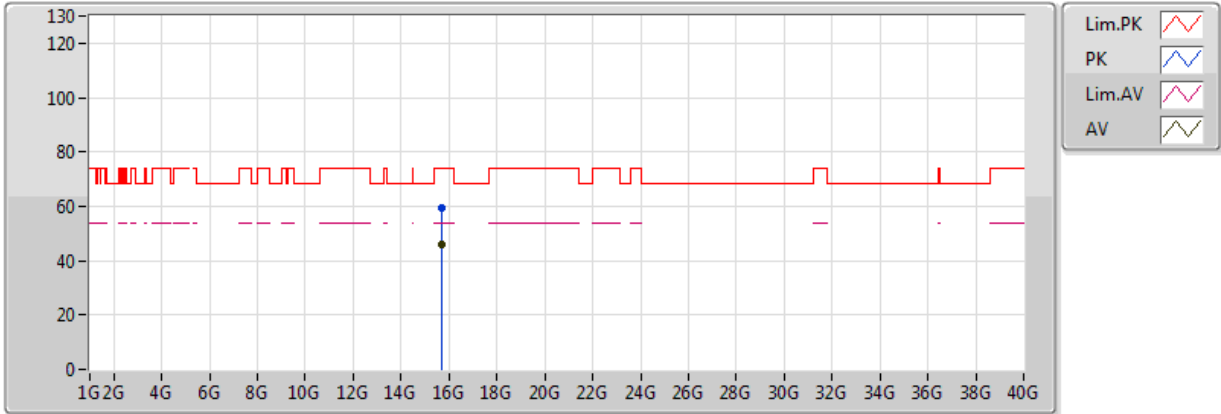
20180109
EUT_X_4TX
Setting 26
01-N-2-10
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.144G	45.73	54.00	-8.27	6.35	3	Vertical	284	1.70	-
AV	5.2352G	107.93	Inf	-Inf	6.60	3	Vertical	284	1.70	-
AV	5.357G	46.24	54.00	-7.76	7.14	3	Vertical	284	1.70	-
PK	5.1458G	58.97	74.00	-15.03	6.35	3	Vertical	284	1.70	-
PK	5.2364G	120.81	Inf	-Inf	6.60	3	Vertical	284	1.70	-
PK	5.3852G	59.21	74.00	-14.79	7.26	3	Vertical	284	1.70	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

5240MHz_TX

10/01/2018



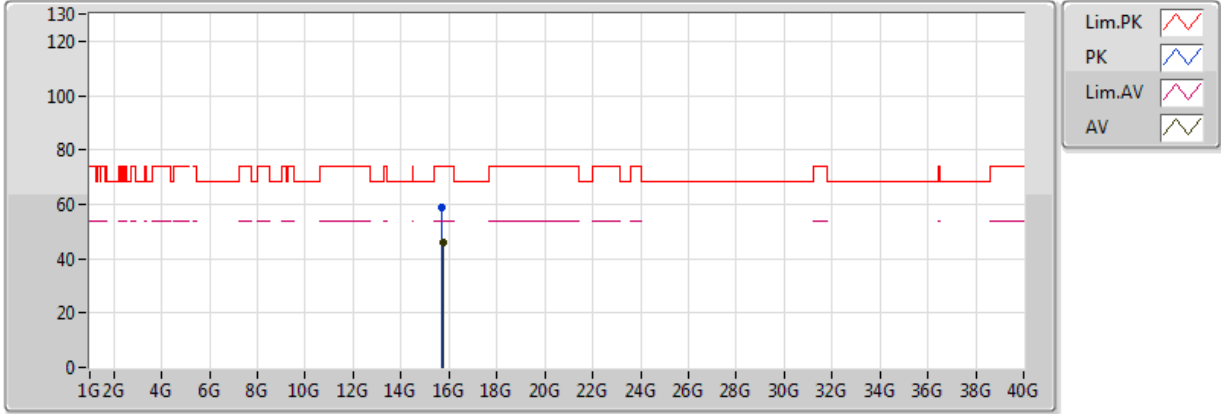
20180109
EUT_X_4TX
Setting 26
01-N-2
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.72504G	45.74	54.00	-8.26	15.49	3	Vertical	167	2.09	-
PK	15.71016G	59.35	74.00	-14.65	15.50	3	Vertical	167	2.09	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

5240MHz_TX

10/01/2018



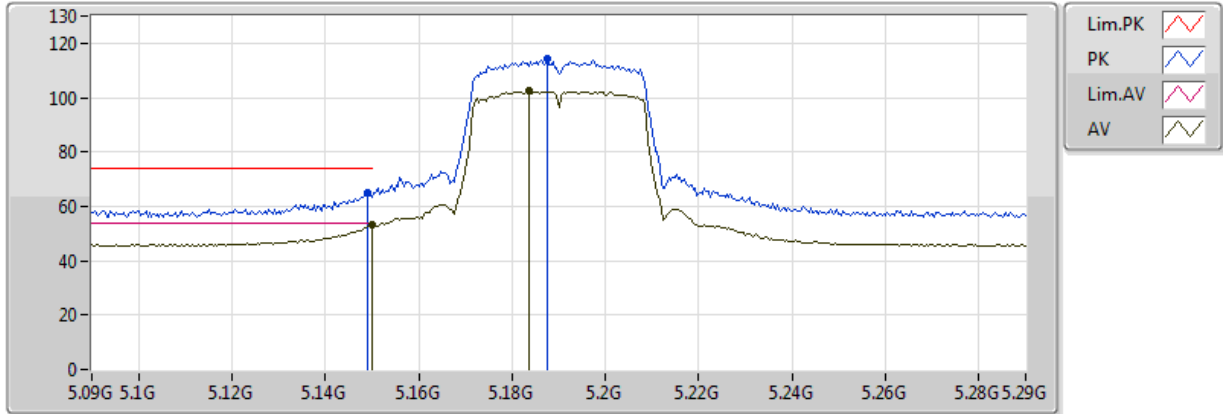
20180109
EUT_X_4TX
Setting 26
01-N-2
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.72912G	45.76	54.00	-8.24	15.62	3	Horizontal	304	1.22	-
PK	15.72084G	59.07	74.00	-14.93	15.63	3	Horizontal	304	1.22	-

VHT40.BF_Nss1,(MCS0)_4TX

5190MHz_TX

10/01/2018



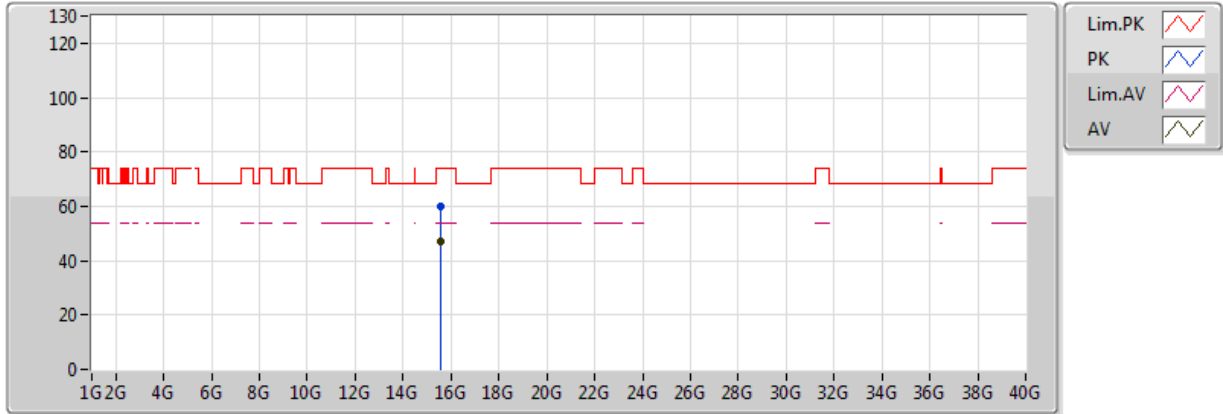
20180109
EUT_X_4TX
Setting 22
01-N-2-10
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.149995G	53.10	54.00	-0.90	6.36	3	Vertical	284	1.71	-
AV	5.1836G	102.30	Inf	-Inf	6.41	3	Vertical	284	1.71	-
PK	5.1492G	65.21	74.00	-8.79	6.36	3	Vertical	284	1.71	-
PK	5.1876G	114.21	Inf	-Inf	6.41	3	Vertical	284	1.71	-

VHT40.BF_Nss1,(MCS0)_4TX

5190MHz_TX

10/01/2018



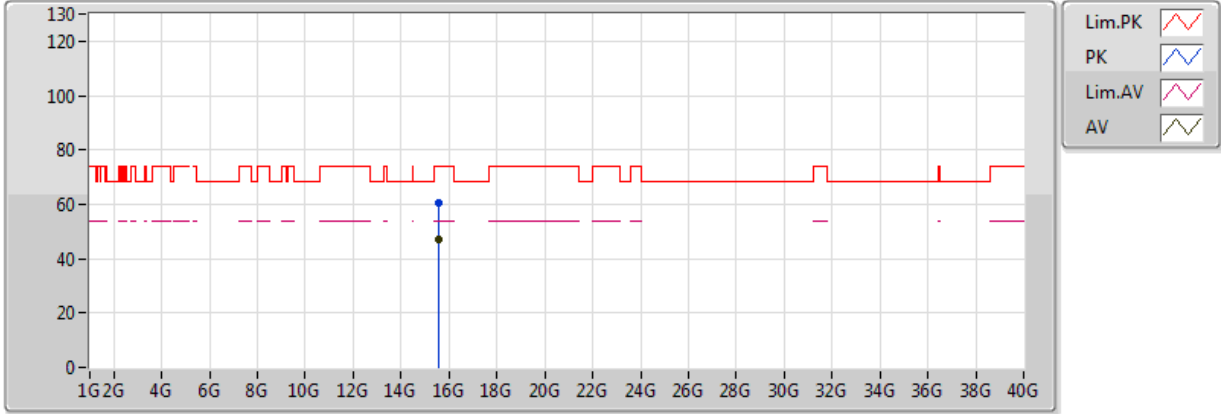
20180109
EUT_X_4TX
Setting 22
01-N-2
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.56188G	46.98	54.00	-7.02	15.60	3	Vertical	262	1.98	-
PK	15.5618G	59.73	74.00	-14.27	15.60	3	Vertical	262	1.98	-

VHT40.BF_Nss1,(MCS0)_4TX

5190MHz_TX

10/01/2018



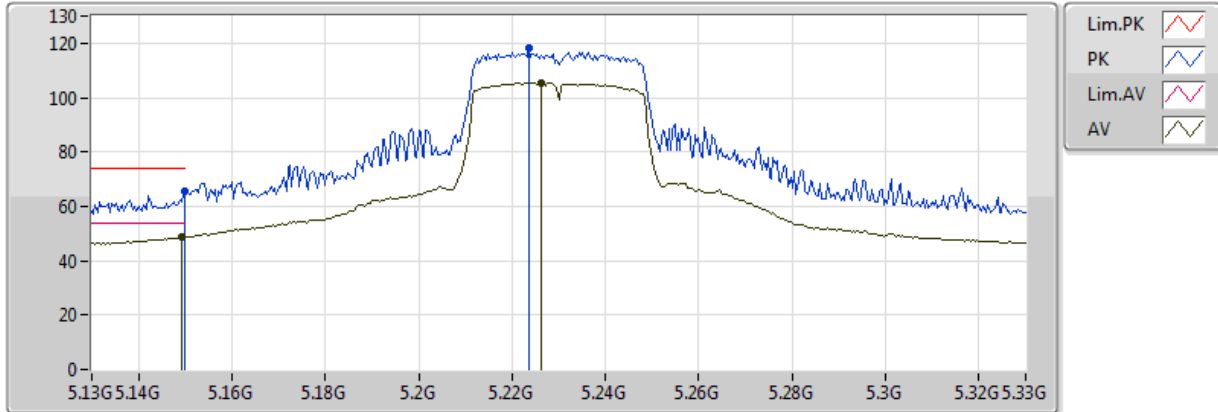
20180109
EUT_X_4TX
Setting 22
01-N-2
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.56592G	47.05	54.00	-6.95	15.87	3	Horizontal	328	1.46	-
PK	15.57216G	60.63	74.00	-13.37	15.86	3	Horizontal	328	1.46	-

VHT40.BF_Nss1,(MCS0)_4TX

5230MHz_TX

10/01/2018



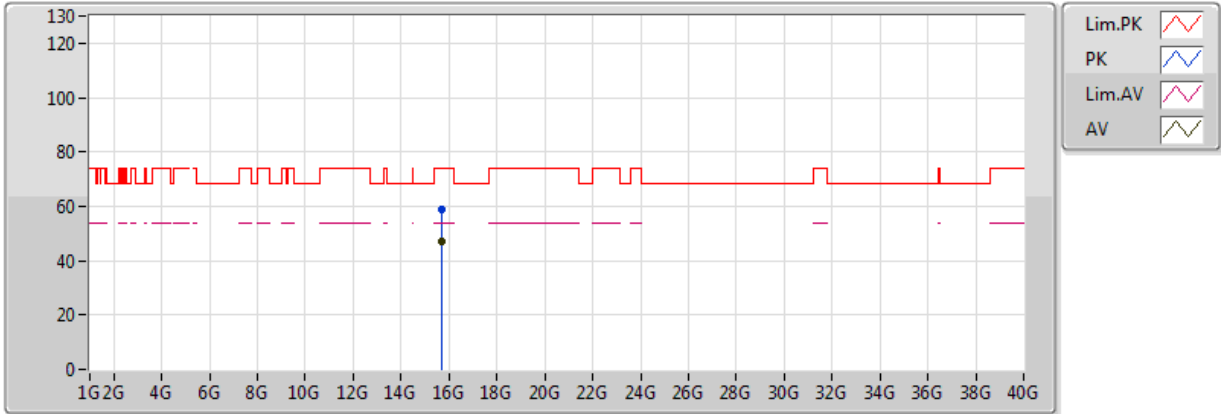
20180109
EUT_X_4TX
Setting 26
01-N-2-10
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.1492G	48.68	54.00	-5.32	6.36	3	Vertical	284	1.73	-
AV	5.2264G	105.33	Inf	-Inf	6.56	3	Vertical	284	1.73	-
PK	5.149995G	65.61	74.00	-8.39	6.36	3	Vertical	284	1.73	-
PK	5.2236G	118.04	Inf	-Inf	6.54	3	Vertical	284	1.73	-

VHT40.BF_Nss1,(MCS0)_4TX

5230MHz_TX

10/01/2018



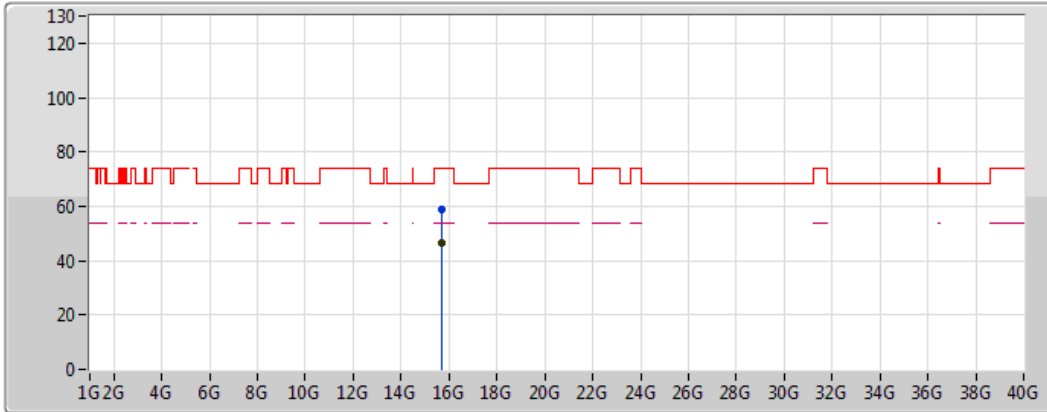
20180109
EUT_X_4TX
Setting 26
01-N-2
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.6888G	47.07	54.00	-6.93	15.51	3	Vertical	130	2.20	-
PK	15.6876G	58.65	74.00	-15.35	15.52	3	Vertical	130	2.20	-

VHT40.BF_Nss1,(MCS0)_4TX

5230MHz_TX

10/01/2018



Legend:

- Lim.PK (Red line)
- PK (Blue line)
- Lim.AV (Pink line)
- AV (Green line)

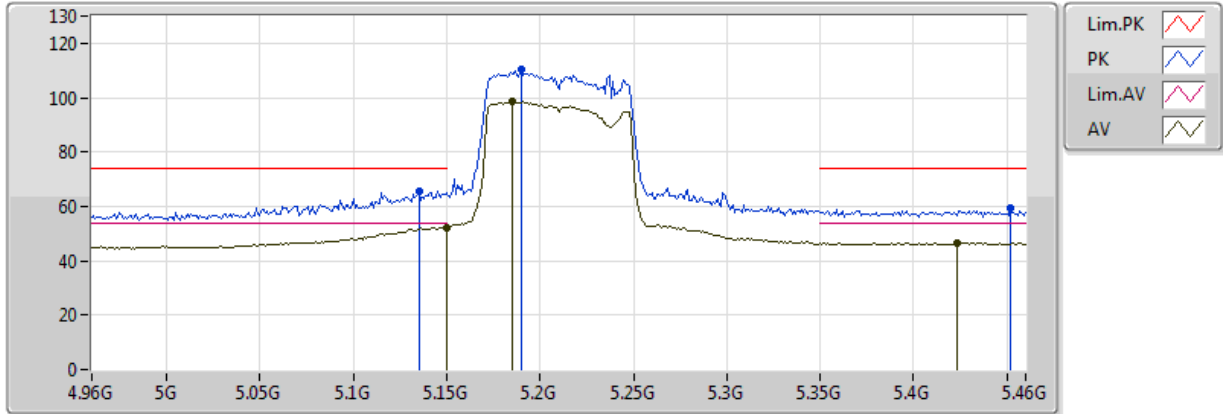
20180109
EUT_X_4TX
Setting 26
01-N-2
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.6864G	46.36	54.00	-7.64	15.68	3	Horizontal	66	1.61	-
PK	15.6928G	58.91	74.00	-15.09	15.67	3	Horizontal	66	1.61	-

VHT80.BF_Nss1,(MCS0)_4TX

5210MHz_TX

10/01/2018



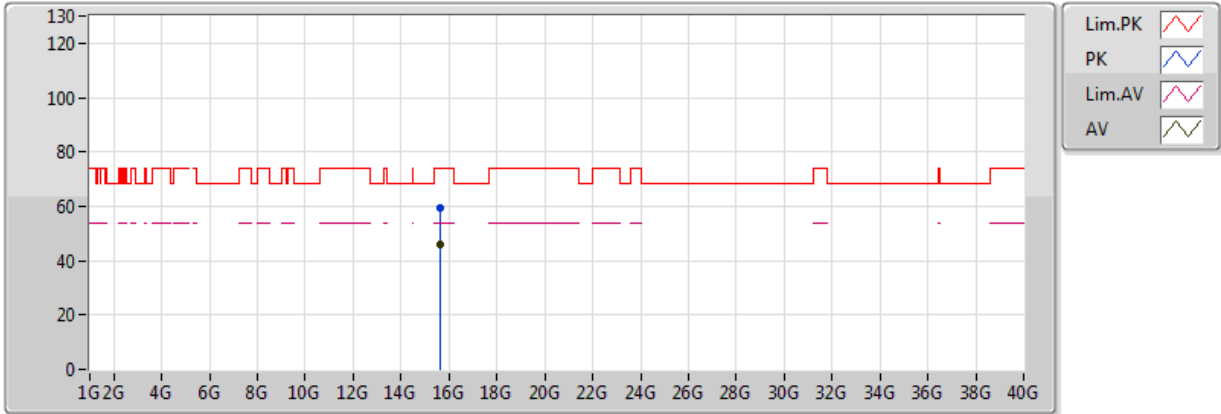
20180109
EUT_X_4TX
Setting 22
01-N-2-10
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.149995G	52.39	54.00	-1.61	6.36	3	Vertical	78	1.89	-
AV	5.185G	98.69	Inf	-Inf	6.41	3	Vertical	78	1.89	-
AV	5.423G	46.51	54.00	-7.49	7.37	3	Vertical	78	1.89	-
PK	5.135G	65.79	74.00	-8.21	6.34	3	Vertical	78	1.89	-
PK	5.19G	110.25	Inf	-Inf	6.42	3	Vertical	78	1.89	-
PK	5.452G	59.39	74.00	-14.61	7.44	3	Vertical	78	1.89	-

VHT80.BF_Nss1,(MCS0)_4TX

5210MHz_TX

10/01/2018



20180109
EUT_X_4TX
Setting 22
01-N-2
FSP(100080)

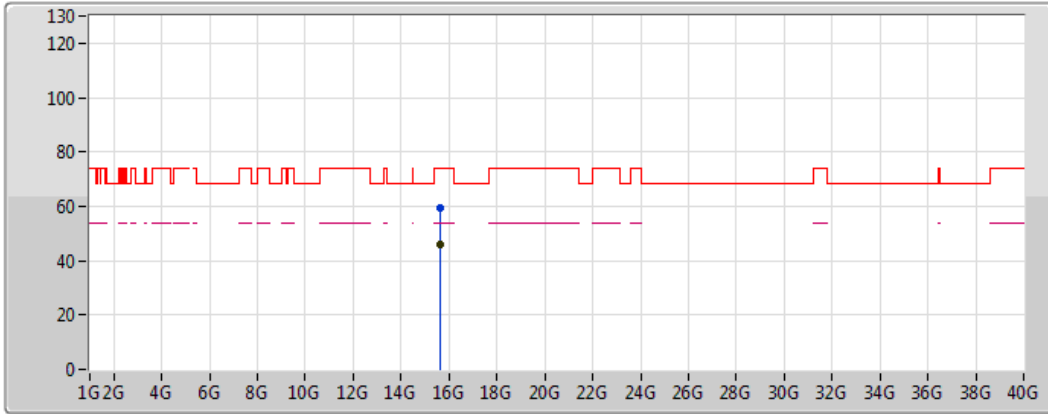
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.63436G	45.99	54.00	-8.01	15.55	3	Vertical	198	2.10	-
PK	15.63176G	59.37	74.00	-14.63	15.55	3	Vertical	198	2.10	-



VHT80.BF_Nss1,(MCS0)_4TX

5210MHz_TX

10/01/2018



Legend:

- Lim.PK (Red line)
- PK (Blue line)
- Lim.AV (Pink dashed line)
- AV (Black line)

20180109
EUT_X_4TX
Setting 22
01-N-2
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	15.6252G	46.12	54.00	-7.88	15.78	3	Horizontal	296	2.42	-
PK	15.622G	59.29	74.00	-14.71	15.78	3	Horizontal	296	2.42	-



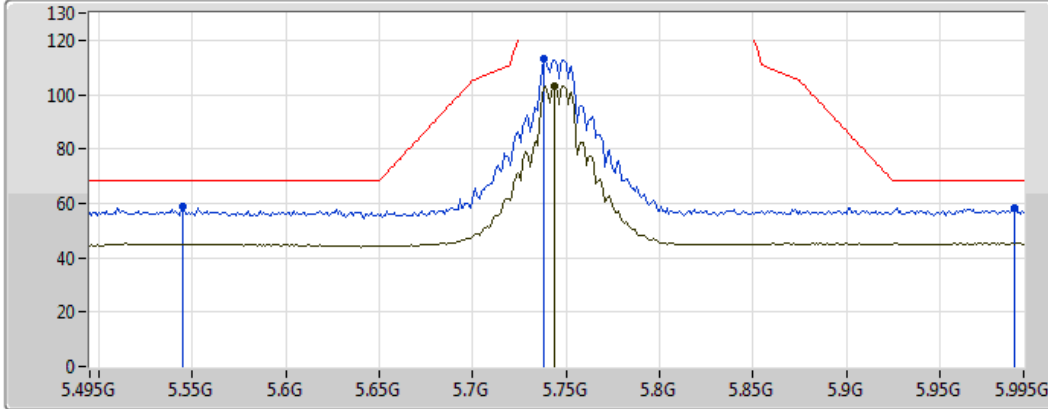
**For Radio 3
Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.725-5.85GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11ac VHT80_Nss1,(MCS0)_2TX	Pass	PK	5.643G	65.58	68.20	-2.62	6.36	3	Vertical	360	1.02	-

802.11a_Nss1,(6Mbps)_2TX

5745MHz_TX

03/01/2018



Legend for the spectrum plot:

- Lim.PK: Red line with a peak icon
- PK: Blue line with a peak icon
- Lim.AV: Red line with a valley icon
- AV: Green line with a valley icon

20180103
EUT_Z_2TX
Setting 25
01-M-01
FSP(100080)

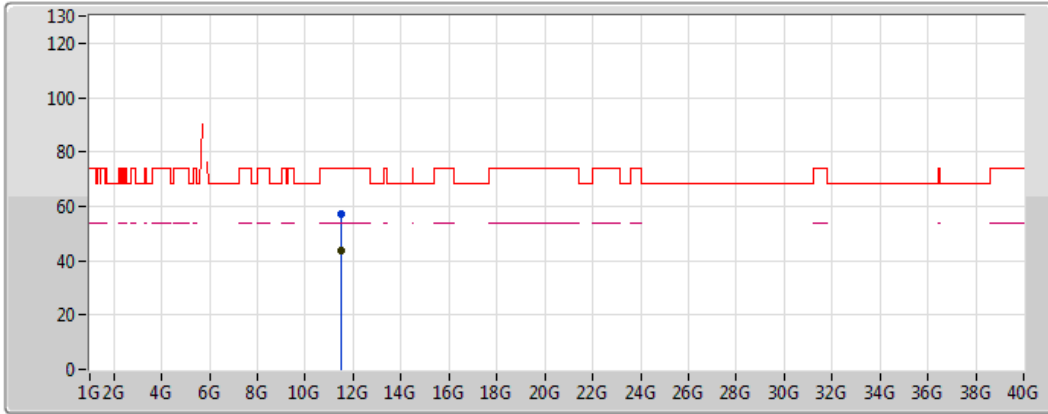
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.744G	103.22	Inf	-Inf	6.78	3	Vertical	0	1.01	-
PK	5.545G	59.04	68.20	-9.16	6.03	3	Vertical	0	1.01	-
PK	5.738G	113.33	Inf	-Inf	6.76	3	Vertical	0	1.01	-
PK	5.99G	58.16	68.20	-10.04	7.38	3	Vertical	0	1.01	-



802.11a_Nss1,(6Mbps)_2TX

5745MHz_TX

03/01/2018



Legend for plot:

- Lim.PK (Red line)
- PK (Blue line)
- Lim.AV (Pink dashed line)
- AV (Black line)

20180103
EUT_Z_2TX
Setting 25
01-M-01
FSP(100080)

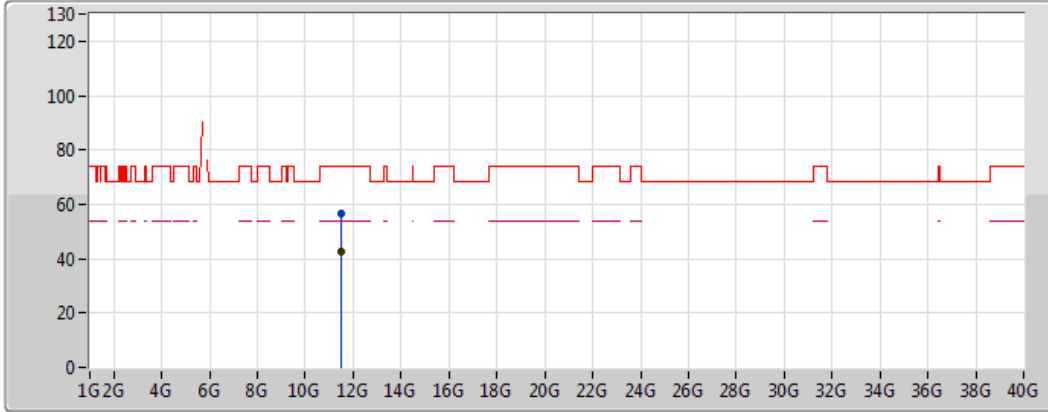
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.4898G	43.61	54.00	-10.39	13.18	3	Vertical	17	2.52	-
PK	11.4904G	57.30	74.00	-16.70	13.18	3	Vertical	17	2.52	-



802.11a_Nss1,(6Mbps)_2TX

5745MHz_TX

03/01/2018



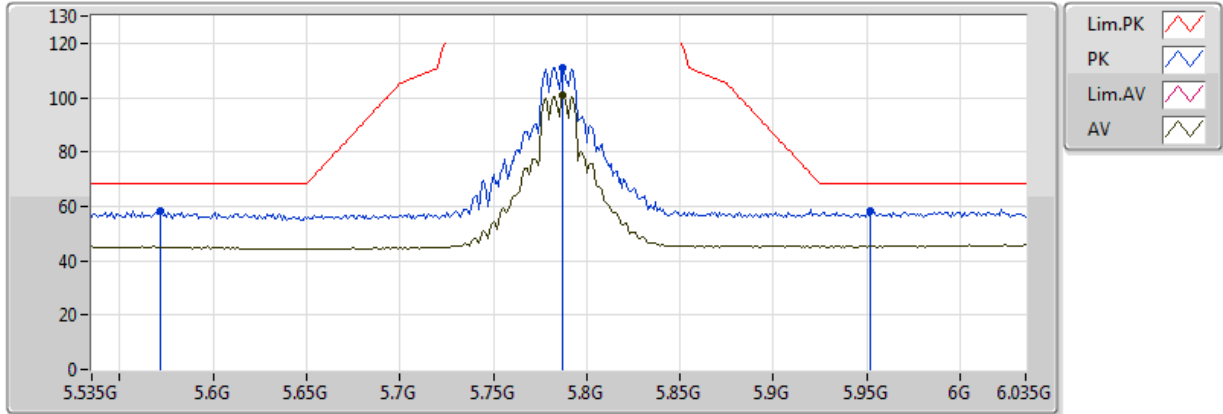
20180103
EUT_Z_2TX
Setting 25
01-M-01
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.48784G	42.66	54.00	-11.34	13.18	3	Horizontal	56	1.01	-
PK	11.49488G	56.48	74.00	-17.52	13.18	3	Horizontal	56	1.01	-

802.11a_Nss1,(6Mbps)_2TX

5785MHz_TX

03/01/2018



20180103
EUT_Z_2TX
Setting 25
01-M-01
FSP(100080)

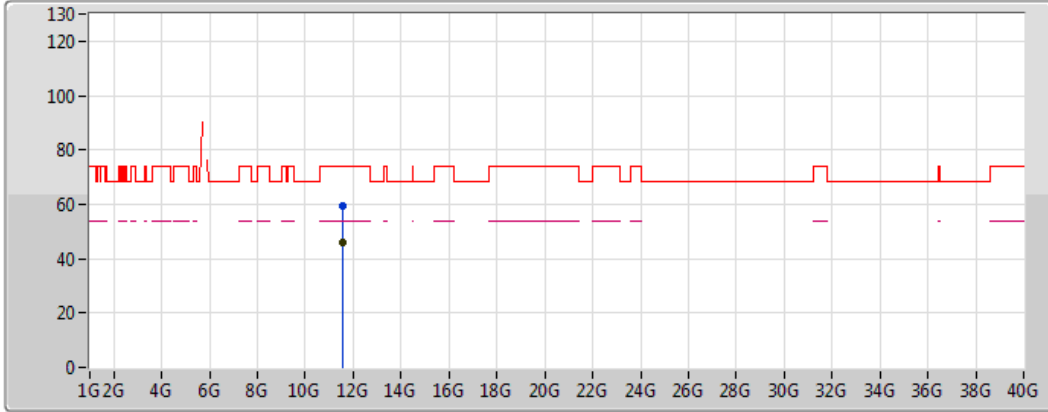
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.787G	100.74	Inf	-Inf	6.96	3	Vertical	3	1.01	-
PK	5.572G	58.05	68.20	-10.15	6.10	3	Vertical	3	1.01	-
PK	5.787G	110.76	Inf	-Inf	6.96	3	Vertical	3	1.01	-
PK	5.952G	58.03	68.20	-10.17	7.30	3	Vertical	3	1.01	-



802.11a_Nss1,(6Mbps)_2TX

5785MHz_TX

03/01/2018



- Lim.PK
- PK
- Lim.AV
- AV

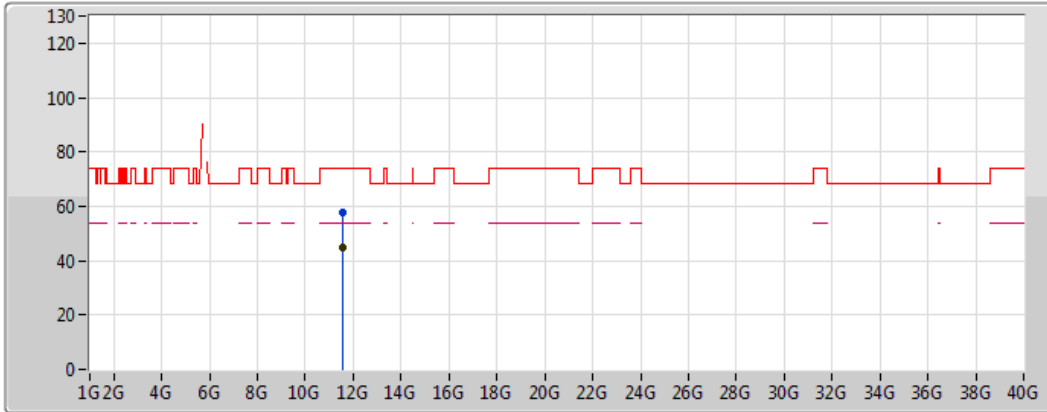
20180103
EUT_Z_2TX
Setting 25
01-J-5
FSP(100056)





Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.5715G	45.70	54.00	-8.30	13.18	3	Vertical	179	2.26	-
PK	11.5711G	59.63	74.00	-14.37	13.18	3	Vertical	179	2.26	-

802.11a_Nss1,(6Mbps)_2TX

5785MHz_TX

03/01/2018



- Lim.PK 
- PK 
- Lim.AV 
- AV 

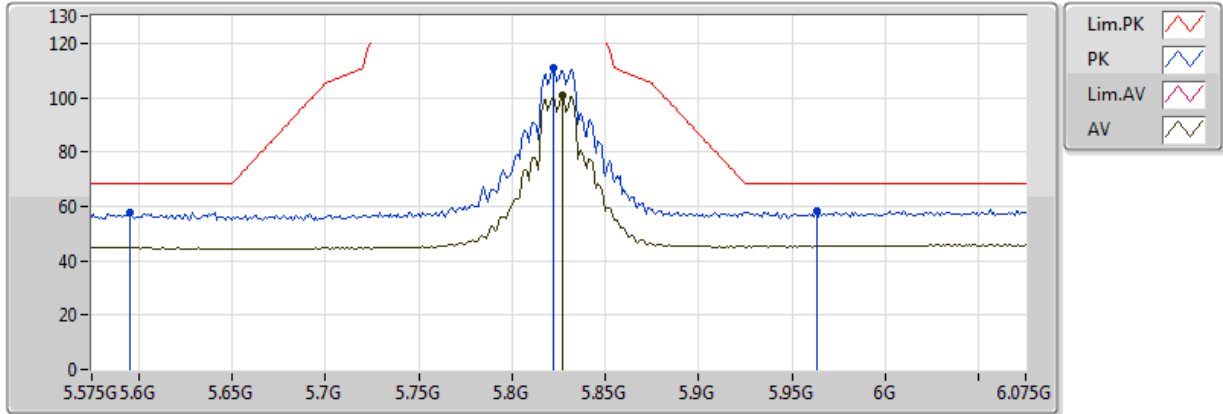
20180103
EUT_Z_2TX
Setting 25
01-J-5
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.57G	44.71	54.00	-9.29	13.18	3	Horizontal	186	2.22	-
PK	11.5712G	57.47	74.00	-16.53	13.18	3	Horizontal	186	2.22	-

802.11a_Nss1,(6Mbps)_2TX

5825MHz_TX

03/01/2018



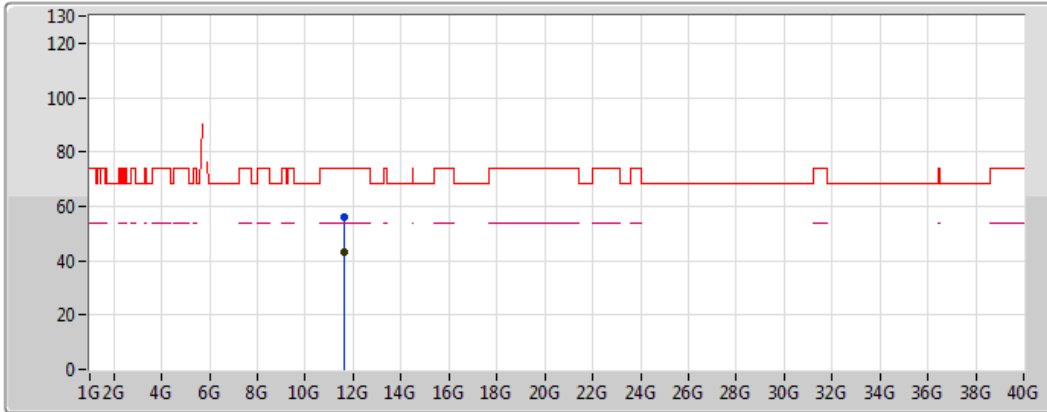
20180103
EUT_Z_2TX
Setting 25
01-M-01
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.827G	100.85	Inf	-Inf	7.06	3	Vertical	354	1.01	-
PK	5.595G	57.78	68.20	-10.42	6.17	3	Vertical	354	1.01	-
PK	5.822G	110.75	Inf	-Inf	7.05	3	Vertical	354	1.01	-
PK	5.963G	58.06	68.20	-10.14	7.33	3	Vertical	354	1.01	-

802.11a_Nss1,(6Mbps)_2TX

5825MHz_TX

03/01/2018



Legend for the spectrum plot:

- Lim.PK: Red line with a peak icon
- PK: Blue line with a peak icon
- Lim.AV: Pink dashed line with a peak icon
- AV: Black line with a peak icon

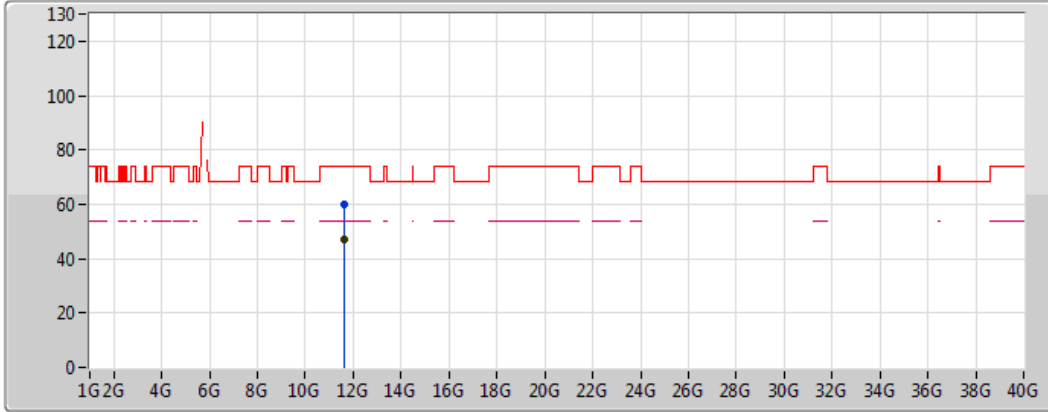
20180103
EUT_Z_2TX
Setting 25
01-J-5
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.6498G	43.27	54.00	-10.73	13.19	3	Vertical	344	2.79	-
PK	11.6501G	56.28	74.00	-17.72	13.19	3	Vertical	344	2.79	-

802.11a_Nss1,(6Mbps)_2TX

5825MHz_TX

03/01/2018



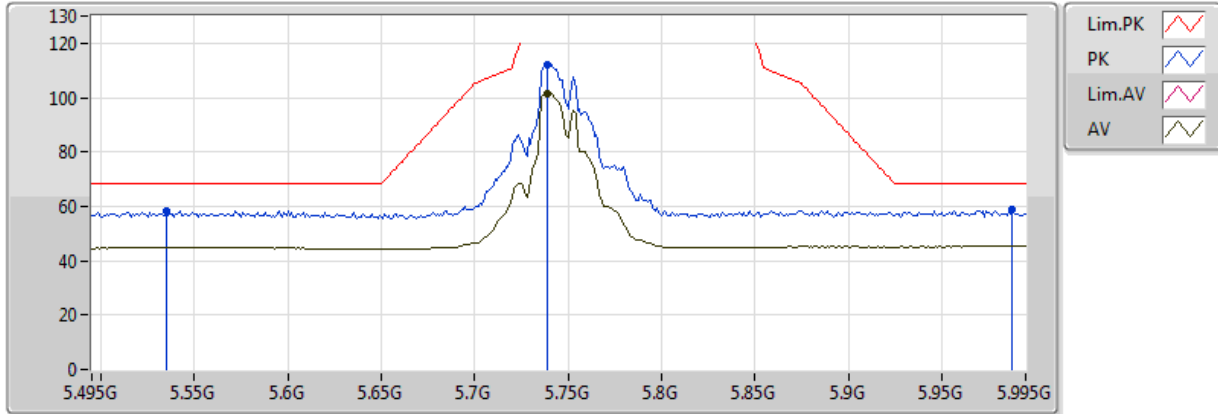
20180103
EUT_Z_2TX
Setting 25
01-J-5
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.6516G	46.80	54.00	-7.20	13.19	3	Horizontal	148	2.22	-
PK	11.6462G	60.11	74.00	-13.89	13.19	3	Horizontal	148	2.22	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

03/01/2018



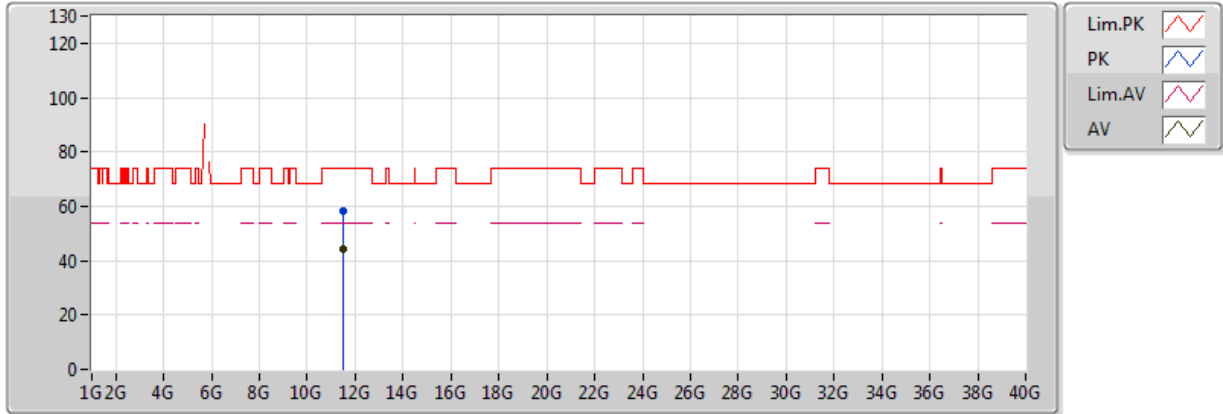
20180103
EUT_Z_2TX
Setting 25
01-J-5-10
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.739G	101.54	Inf	-Inf	6.76	3	Vertical	349	1.02	-
PK	5.535G	58.29	68.20	-9.91	6.00	3	Vertical	349	1.02	-
PK	5.739G	112.07	Inf	-Inf	6.76	3	Vertical	349	1.02	-
PK	5.988G	58.83	68.20	-9.37	7.38	3	Vertical	349	1.02	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

03/01/2018



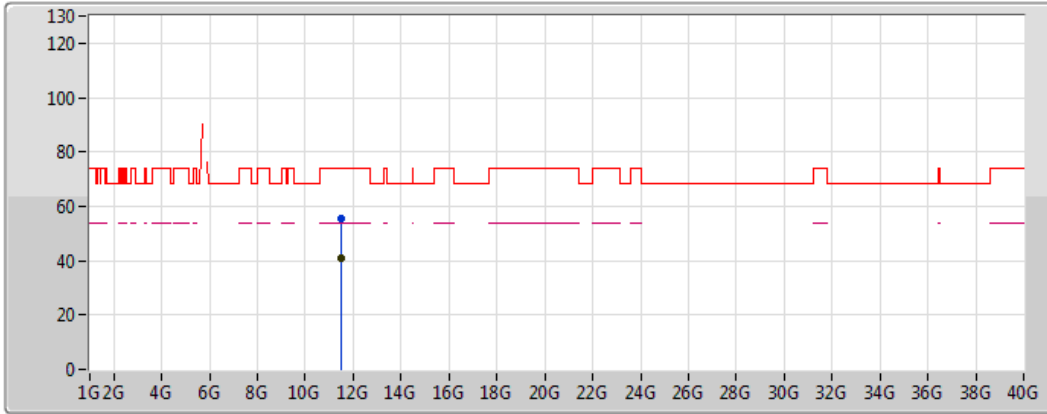
20180103
EUT_Z_2TX
Setting 25
01-J-5
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.4898G	44.04	54.00	-9.96	13.18	3	Vertical	164	2.24	-
PK	11.4906G	58.48	74.00	-15.52	13.18	3	Vertical	164	2.24	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

03/01/2018



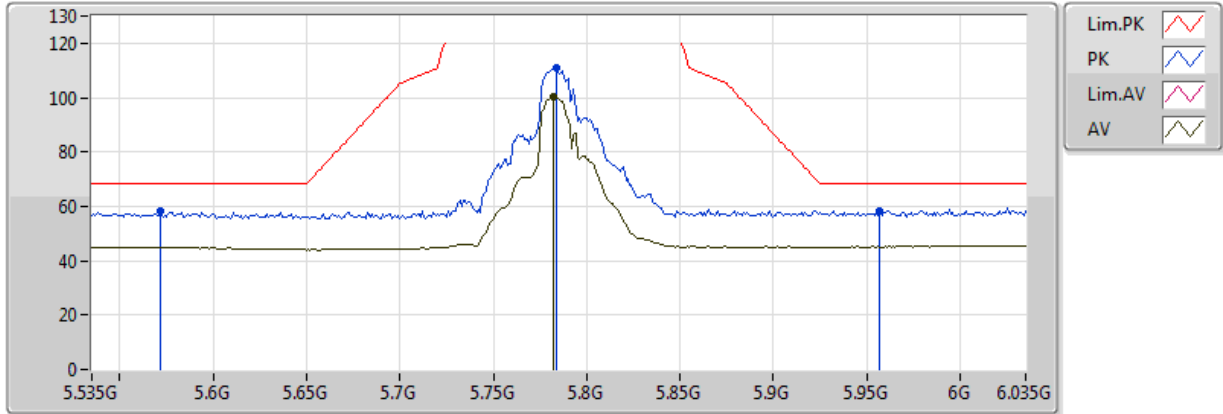
20180103
EUT_Z_2TX
Setting 25
01-J-5
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.4935G	41.04	54.00	-12.96	13.18	3	Horizontal	33	2.29	-
PK	11.4659G	55.36	74.00	-18.64	13.18	3	Horizontal	33	2.29	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

03/01/2018



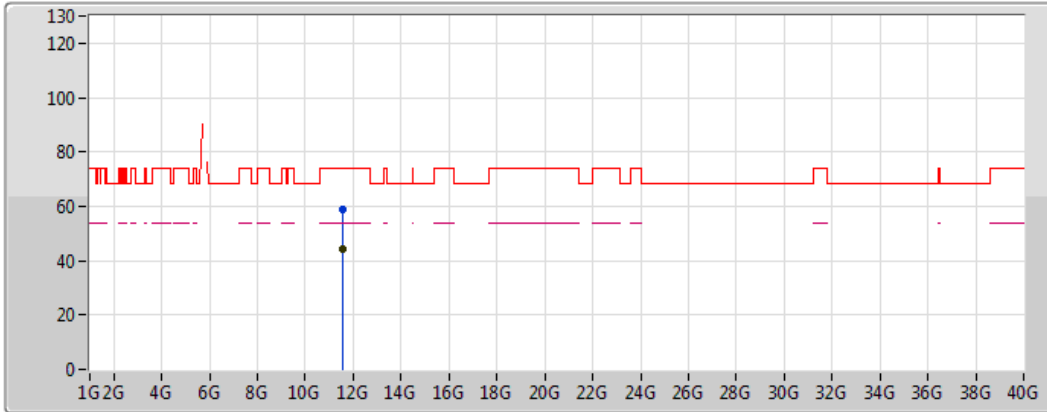
20180103
EUT_Z_2TX
Setting 25
01-J-5-10
FSP(100056)





Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.782G	100.47	Inf	-Inf	6.94	3	Vertical	360	1.03	-
PK	5.572G	58.40	68.20	-9.80	6.10	3	Vertical	360	1.03	-
PK	5.784G	110.94	Inf	-Inf	6.94	3	Vertical	360	1.03	-
PK	5.957G	58.41	68.20	-9.79	7.31	3	Vertical	360	1.03	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

03/01/2018



- Lim.PK 
- PK 
- Lim.AV 
- AV 

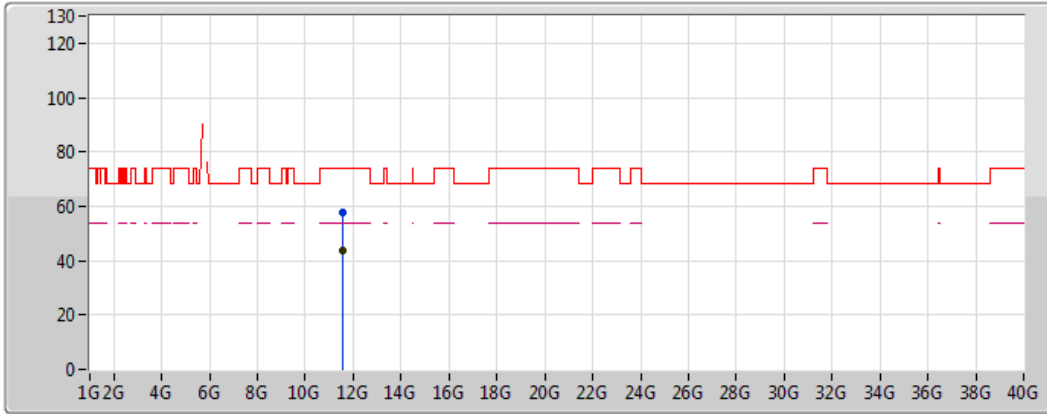
20180103
EUT_Z_2TX
Setting 25
01-J-5
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.5733G	44.13	54.00	-9.87	13.18	3	Vertical	348	2.28	-
PK	11.5723G	58.99	74.00	-15.01	13.18	3	Vertical	348	2.28	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

03/01/2018



Legend:

- Lim.PK (Red line)
- PK (Blue line)
- Lim.AV (Pink dashed line)
- AV (Black line)

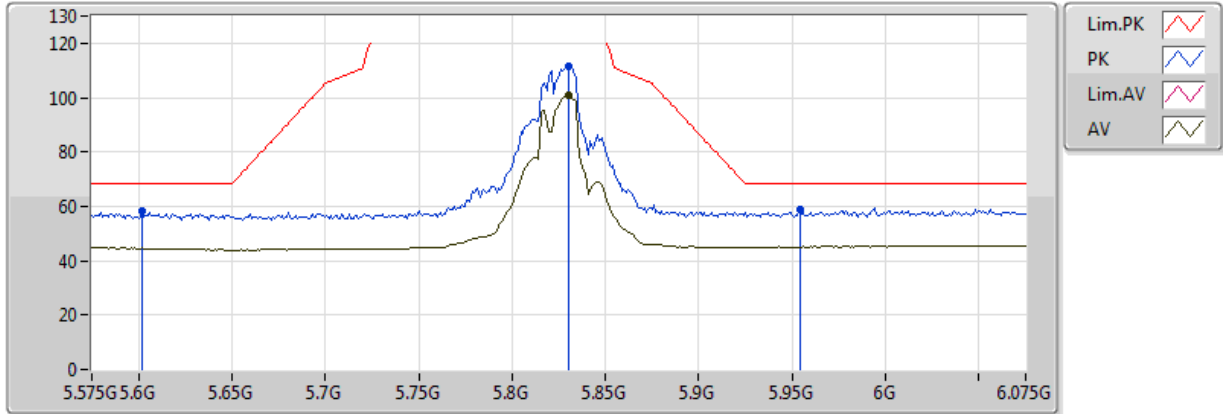
20180103
EUT_Z_2TX
Setting 25
01-J-5
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.5696G	43.78	54.00	-10.22	13.18	3	Horizontal	215	2.19	-
PK	11.569G	57.62	74.00	-16.38	13.18	3	Horizontal	215	2.19	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

03/01/2018



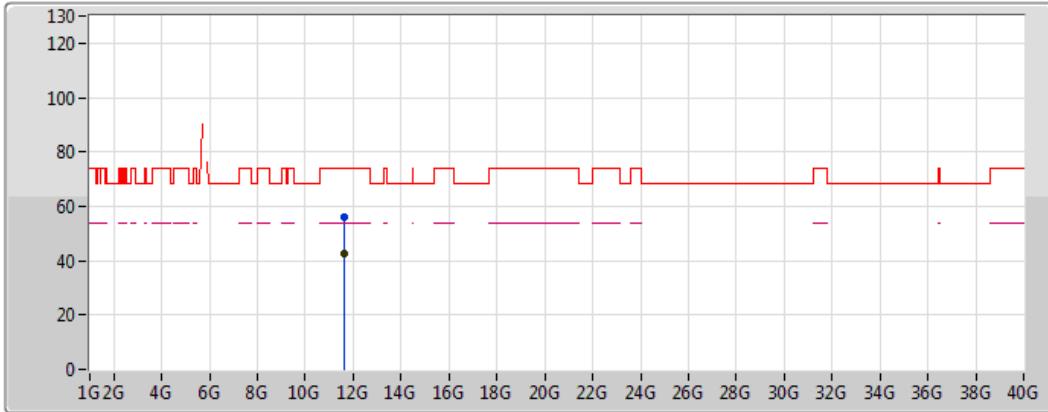
20180103
EUT_Z_2TX
Setting 25
01-J-5-10
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.83G	100.76	Inf	-Inf	7.07	3	Vertical	355	1.01	-
PK	5.602G	58.16	68.20	-10.04	6.19	3	Vertical	355	1.01	-
PK	5.83G	111.47	Inf	-Inf	7.07	3	Vertical	355	1.01	-
PK	5.954G	58.63	68.20	-9.57	7.31	3	Vertical	355	1.01	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

03/01/2018



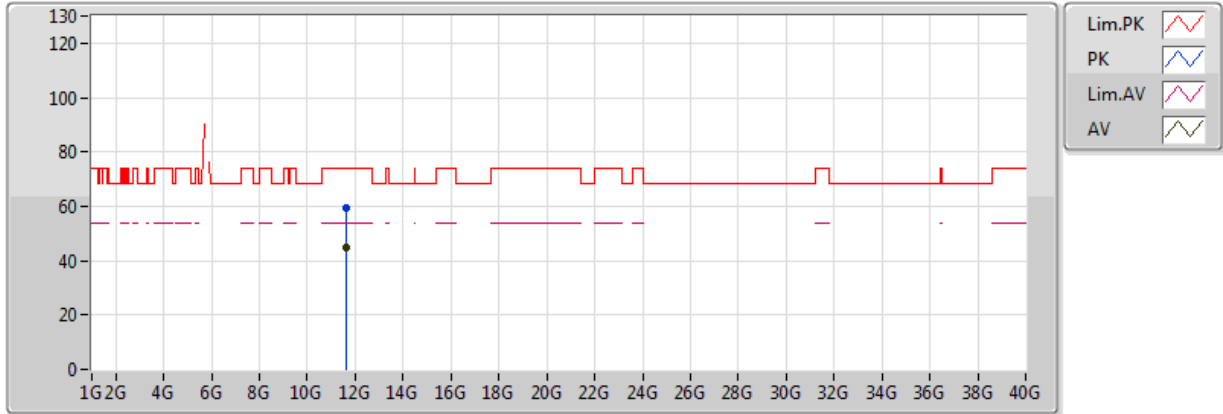
20180103
EUT_Z_2TX
Setting 25
01-J-5
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.6497G	42.32	54.00	-11.68	13.19	3	Vertical	358	2.84	-
PK	11.6525G	56.26	74.00	-17.74	13.19	3	Vertical	358	2.84	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

03/01/2018



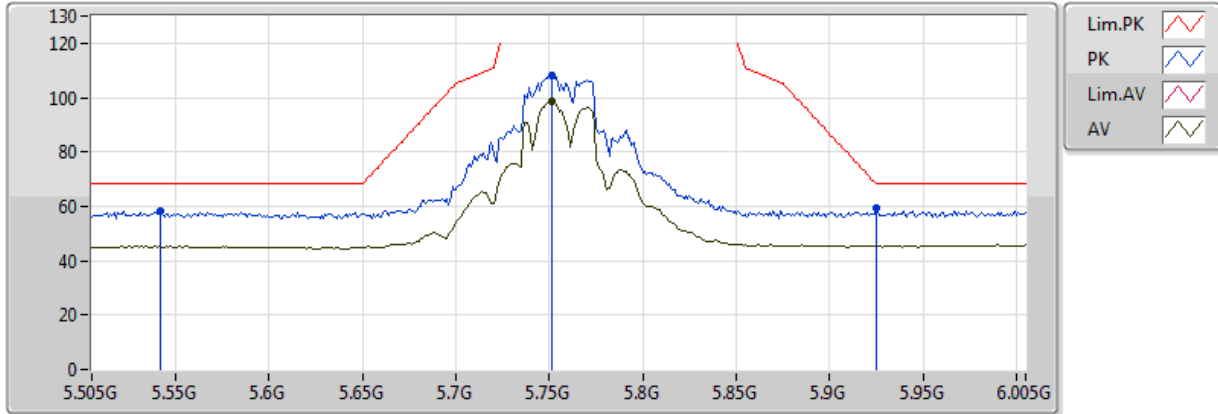
20180103
EUT_Z_2TX
Setting 25
01-J-5
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.6538G	45.00	54.00	-9.00	13.19	3	Horizontal	150	2.24	-
PK	11.6556G	59.13	74.00	-14.87	13.19	3	Horizontal	150	2.24	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz_TX

03/01/2018



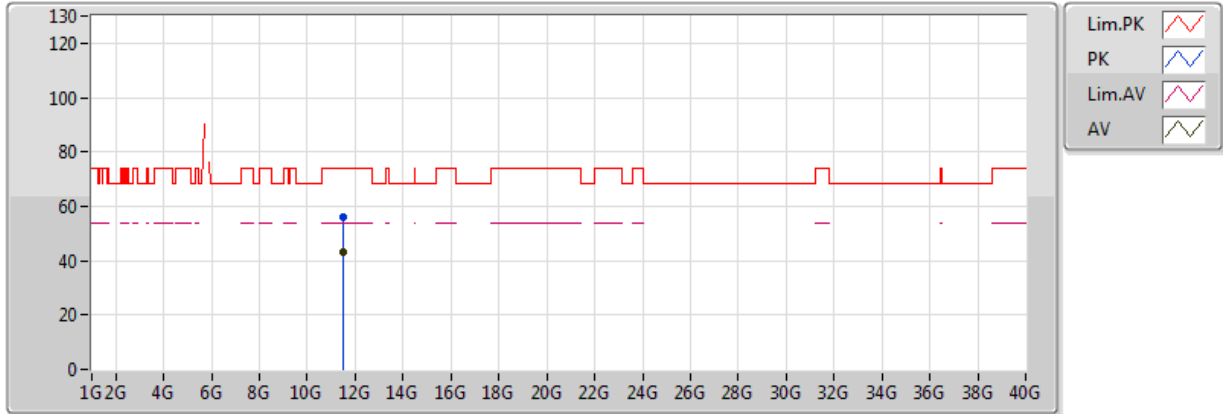
20180103
EUT_Z_2TX
Setting 25
01-J-5-10
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.751G	98.43	Inf	-Inf	6.81	3	Vertical	360	1.01	-
PK	5.542G	58.29	68.20	-9.91	6.02	3	Vertical	360	1.01	-
PK	5.751G	108.39	Inf	-Inf	6.81	3	Vertical	360	1.01	-
PK	5.925G	59.26	68.20	-8.94	7.25	3	Vertical	360	1.01	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz_TX

03/01/2018



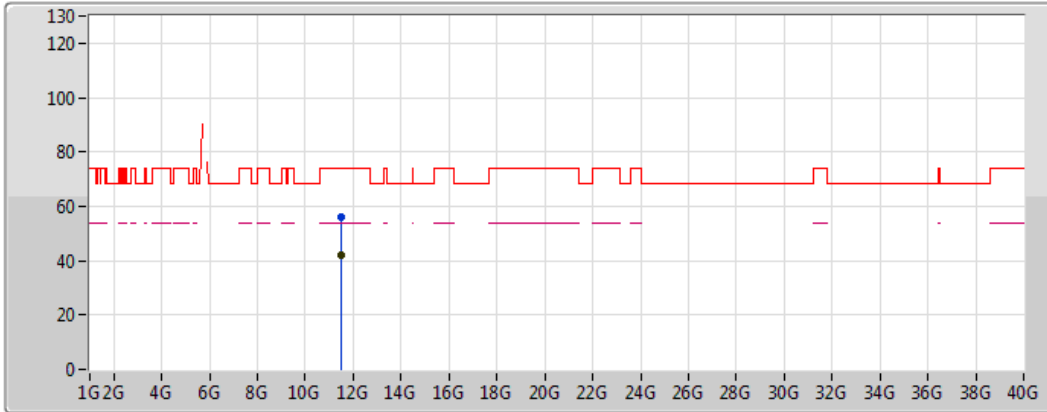
20180103
EUT_Z_2TX
Setting 25
01-J-5
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.5098G	43.10	54.00	-10.90	13.18	3	Vertical	166	2.23	-
PK	11.5126G	55.92	74.00	-18.08	13.18	3	Vertical	166	2.23	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz_TX

03/01/2018



Legend:

- Lim.PK (Red line)
- PK (Blue line)
- Lim.AV (Magenta line)
- AV (Green line)

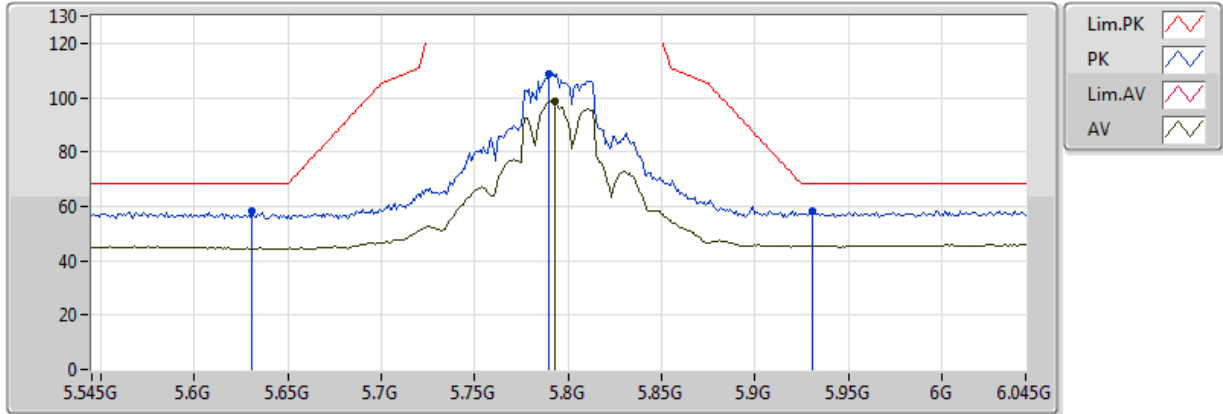
20180103
EUT_Z_2TX
Setting 25
01-J-5
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.5099G	42.05	54.00	-11.95	13.18	3	Horizontal	140	2.20	-
PK	11.5206G	56.19	74.00	-17.81	13.18	3	Horizontal	140	2.20	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

03/01/2018



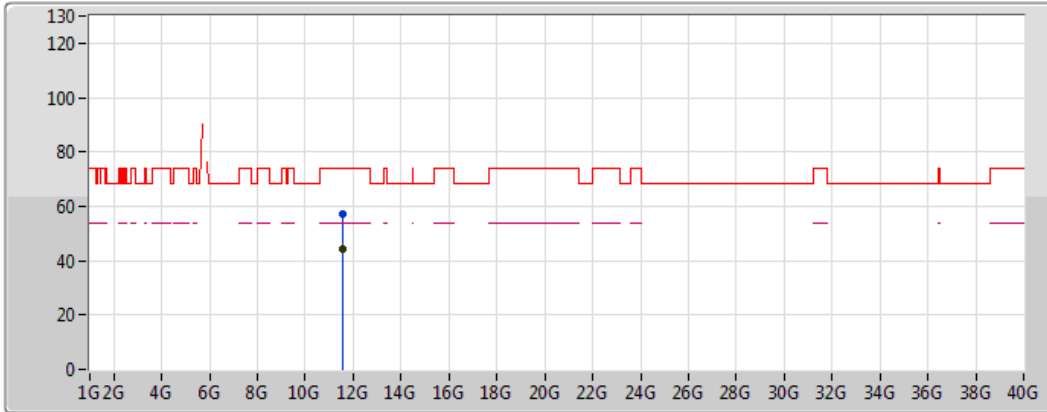
20180103
EUT_Z_2TX
Setting 25
01-J-5-10
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.793G	98.77	Inf	-Inf	6.98	3	Vertical	360	1.02	-
PK	5.631G	58.21	68.20	-9.99	6.31	3	Vertical	360	1.02	-
PK	5.79G	108.65	Inf	-Inf	6.97	3	Vertical	360	1.02	-
PK	5.931G	58.31	68.20	-9.89	7.26	3	Vertical	360	1.02	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

03/01/2018



Legend:

- Lim.PK (Red line)
- PK (Blue line)
- Lim.AV (Pink line)
- AV (Green line)

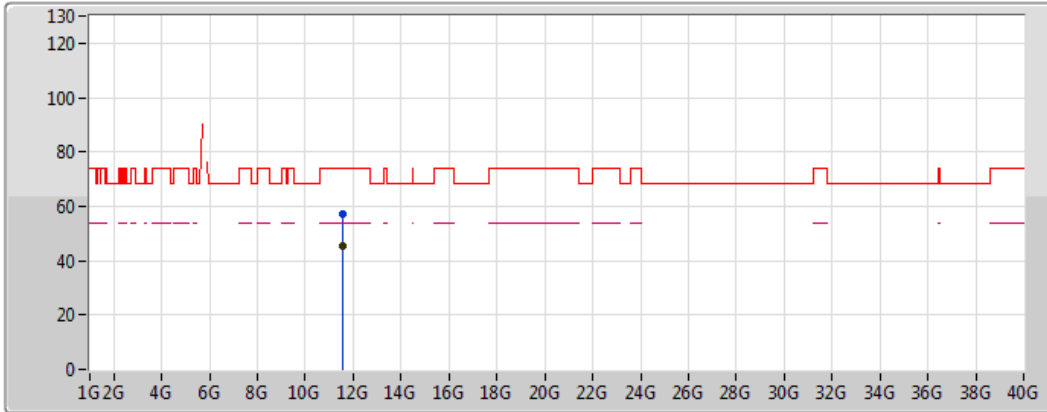
20180103
EUT_Z_2TX
Setting 25
01-J-5
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.5899G	44.10	54.00	-9.90	13.18	3	Vertical	348	2.37	-
PK	11.59G	57.00	74.00	-17.00	13.18	3	Vertical	348	2.37	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

03/01/2018



Legend:

- Lim.PK (Red line)
- PK (Blue line)
- Lim.AV (Pink line)
- AV (Black line)

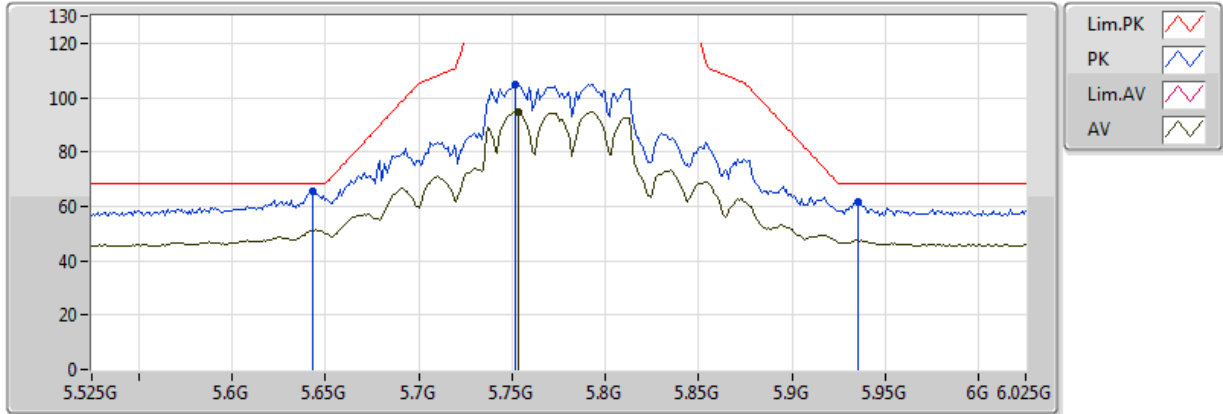
20180103
EUT_Z_2TX
Setting 25
01-J-5
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.5898G	45.24	54.00	-8.76	13.18	3	Horizontal	139	2.20	-
PK	11.5891G	57.11	74.00	-16.89	13.18	3	Horizontal	139	2.20	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX

03/01/2018



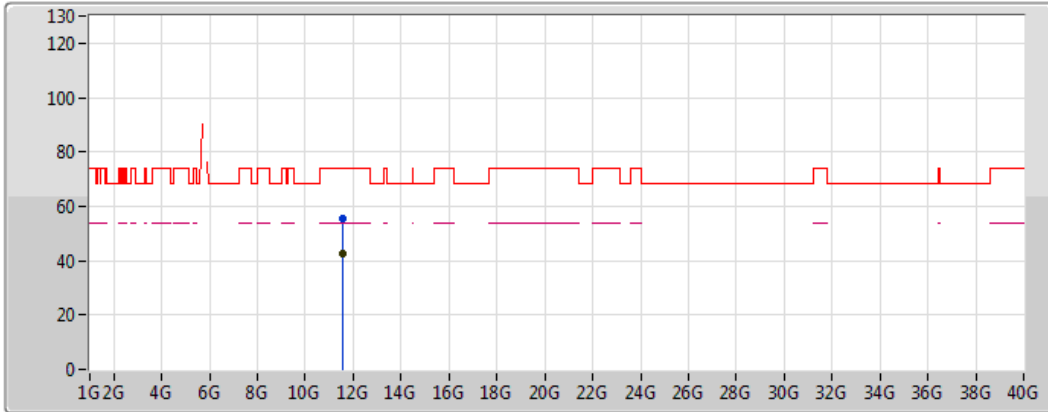
20180103
EUT_Z_2TX
Setting 25
01-J-5-10
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.753G	94.78	Inf	-Inf	6.82	3	Vertical	360	1.02	-
PK	5.643G	65.58	68.20	-2.62	6.36	3	Vertical	360	1.02	-
PK	5.752G	104.75	Inf	-Inf	6.81	3	Vertical	360	1.02	-
PK	5.935G	61.63	68.20	-6.57	7.27	3	Vertical	360	1.02	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX

03/01/2018



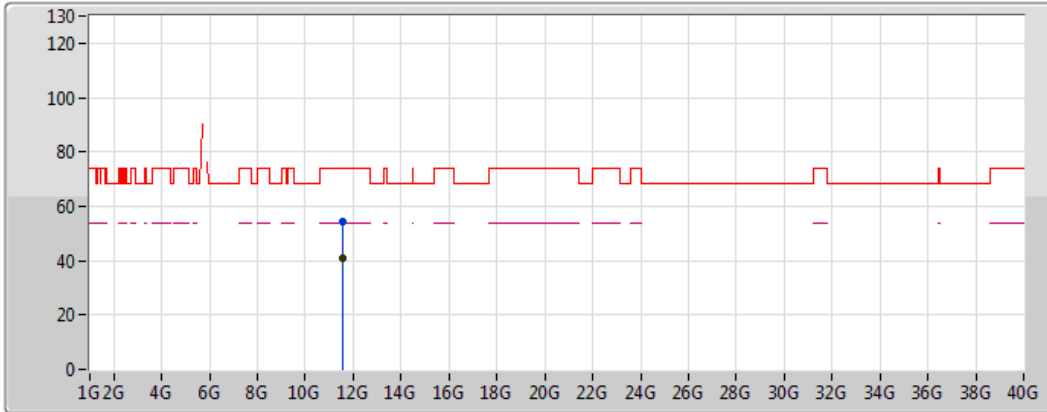
20180103
EUT_Z_2TX
Setting 25
01-J-5
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.5498G	42.49	54.00	-11.51	13.18	3	Vertical	348	2.31	-
PK	11.5532G	55.69	74.00	-18.31	13.18	3	Vertical	348	2.31	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX

03/01/2018



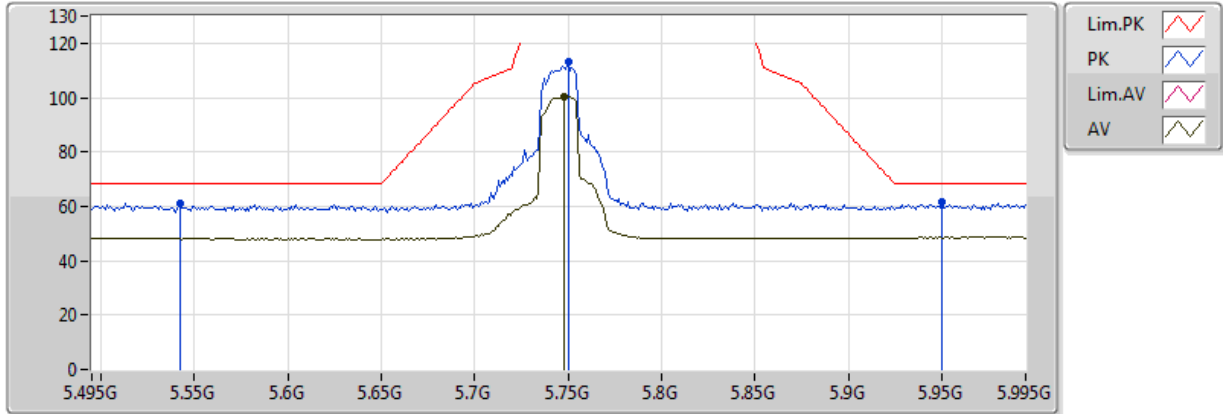
20180103
EUT_Z_2TX
Setting 25
01-J-5
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.5308G	40.99	54.00	-13.01	13.18	3	Horizontal	69	1.50	-
PK	11.5412G	54.28	74.00	-19.72	13.18	3	Horizontal	69	1.50	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5745MHz_TX

06/01/2018



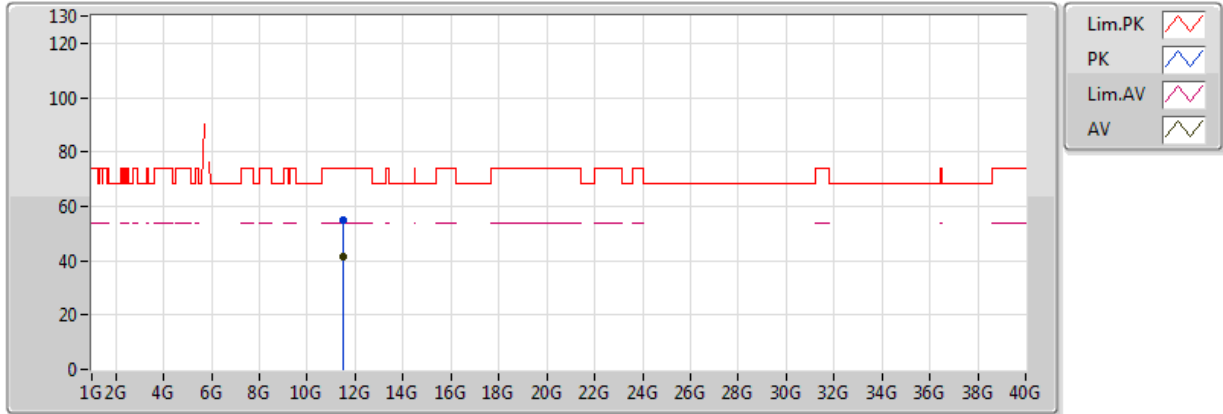
20180103
EUT_Z_2TX
Setting 25
02-M-01
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.748G	100.52	Inf	-Inf	10.67	3	Vertical	34	2.53	-
PK	5.542G	60.87	68.20	-7.33	10.77	3	Vertical	34	2.53	-
PK	5.75G	112.95	Inf	-Inf	10.67	3	Vertical	34	2.53	-
PK	5.95G	61.54	68.20	-6.66	11.14	3	Vertical	34	2.53	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5745MHz_TX

06/01/2018



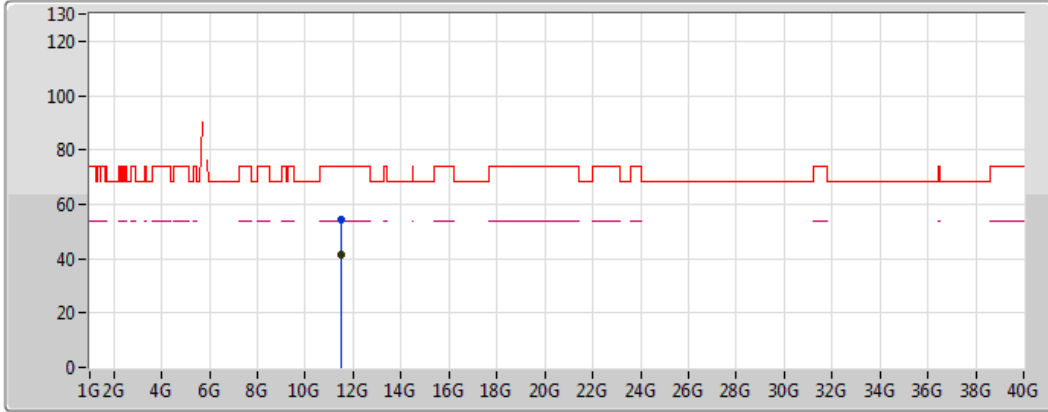
20180106
EUT_Z_2TX
Setting 25
02-M-01
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.48816G	41.52	54.00	-12.48	15.44	3	Vertical	183	1.85	-
PK	11.48514G	54.97	74.00	-19.03	15.43	3	Vertical	183	1.85	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5745MHz_TX

06/01/2018



Legend for plot:

- Lim.PK (Red line)
- PK (Blue line)
- Lim.AV (Pink dashed line)
- AV (Black line)

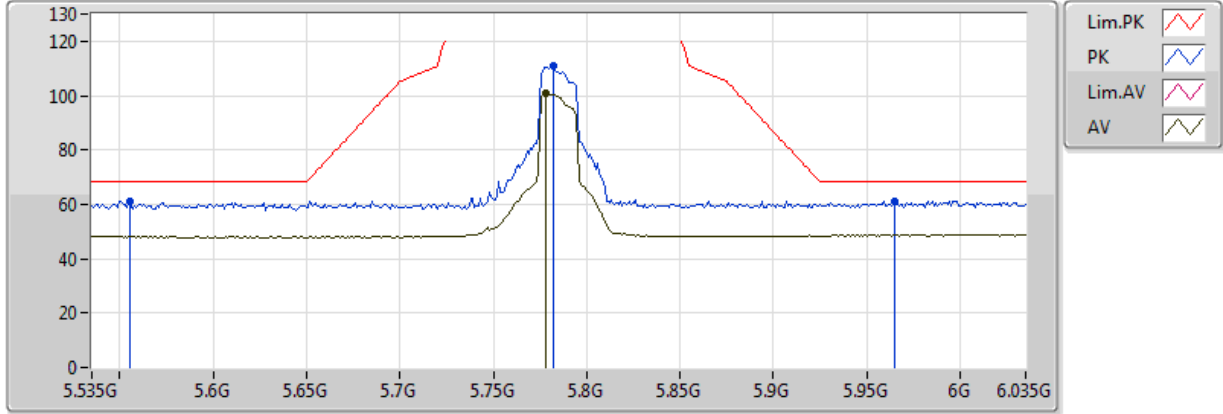
20180106
EUT_Z_2TX
Setting 25
02-M-01
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.48824G	41.36	54.00	-12.64	15.44	3	Horizontal	282	1.76	-
PK	11.4892G	54.51	74.00	-19.49	15.44	3	Horizontal	282	1.76	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5785MHz_TX

06/01/2018



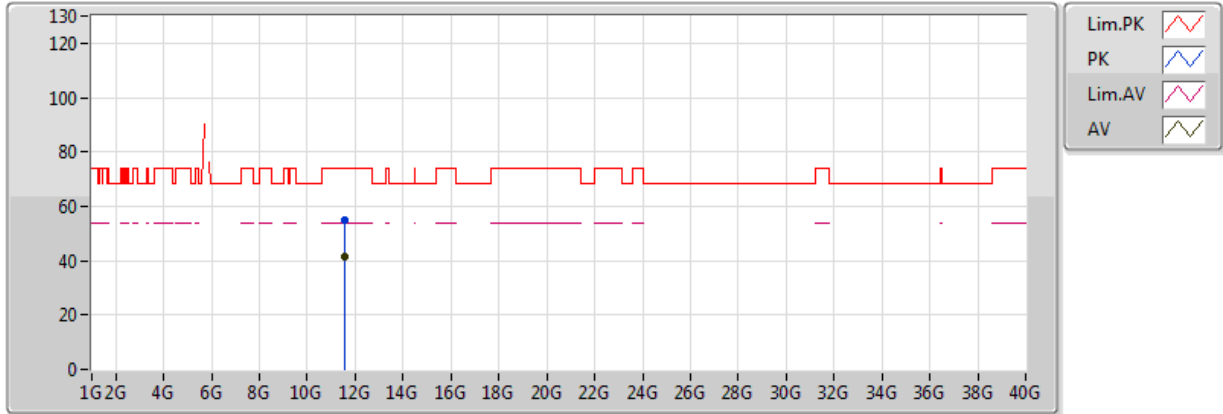
20180106
EUT_Z_2TX
Setting 25
02-M-01
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.778G	100.77	Inf	-Inf	10.71	3	Vertical	82	2.69	-
PK	5.555G	61.26	68.20	-6.94	10.71	3	Vertical	82	2.69	-
PK	5.782G	111.17	Inf	-Inf	10.71	3	Vertical	82	2.69	-
PK	5.965G	61.23	68.20	-6.97	11.18	3	Vertical	82	2.69	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5785MHz_TX

06/01/2018



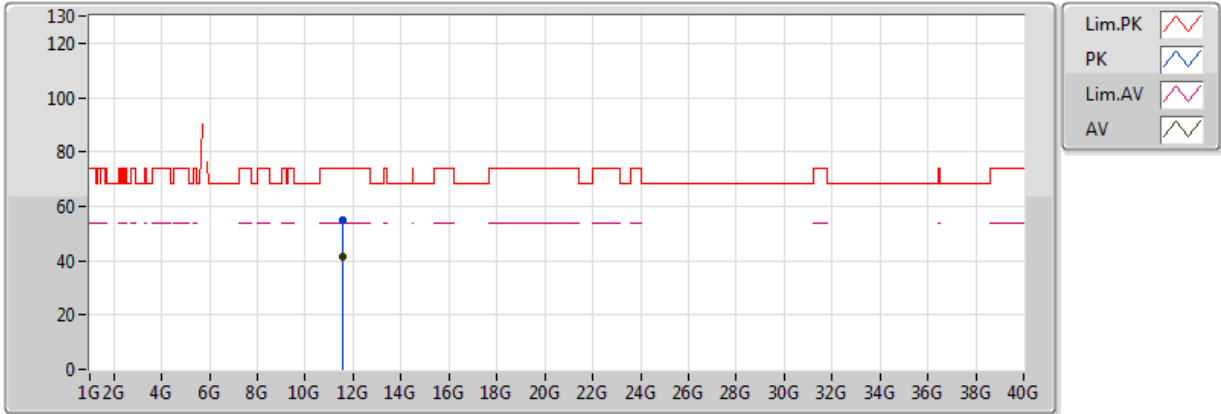
20180106
EUT_Z_2TX
Setting 25
02-M-01
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.57038G	41.24	54.00	-12.76	15.55	3	Vertical	300	2.29	-
PK	11.5688G	54.87	74.00	-19.13	15.55	3	Vertical	300	2.29	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5785MHz_TX

06/01/2018



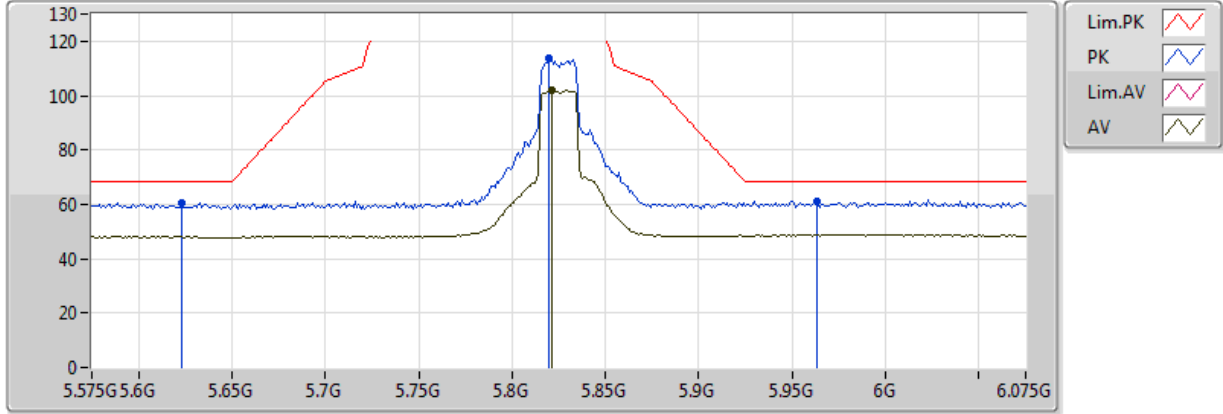
20180106
EUT_Z_2TX
Setting 25
02-M-01
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.57094G	41.34	54.00	-12.66	15.55	3	Horizontal	135	1.76	-
PK	11.56892G	54.72	74.00	-19.28	15.55	3	Horizontal	135	1.76	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5825MHz_TX

06/01/2018



20180106
EUT_Z_2TX
Setting 25
02-M-01
FSP(100080)

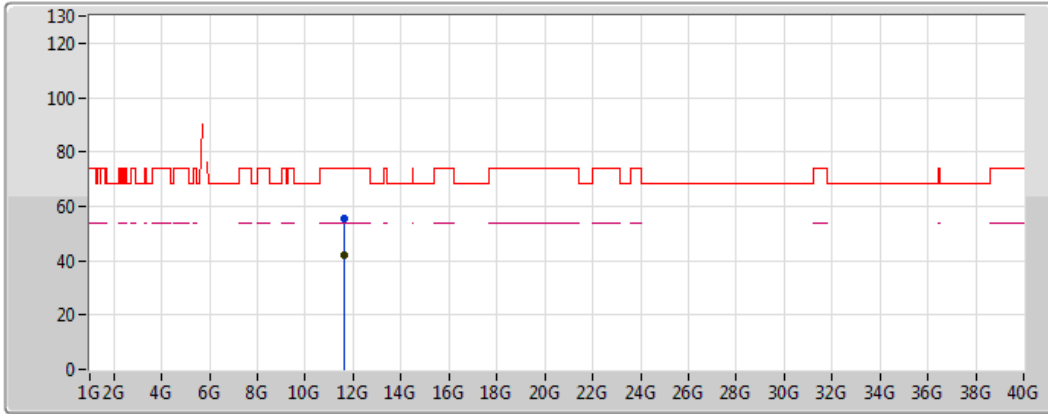
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.821G	102.12	Inf	-Inf	10.80	3	Vertical	358	2.53	-
PK	5.623G	60.75	68.20	-7.45	10.52	3	Vertical	358	2.53	-
PK	5.82G	113.83	Inf	-Inf	10.79	3	Vertical	358	2.53	-
PK	5.963G	61.22	68.20	-6.98	11.17	3	Vertical	358	2.53	-



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5825MHz_TX

06/01/2018



Legend:

- Lim.PK (Red line)
- PK (Blue line)
- Lim.AV (Pink dashed line)
- AV (Black line)

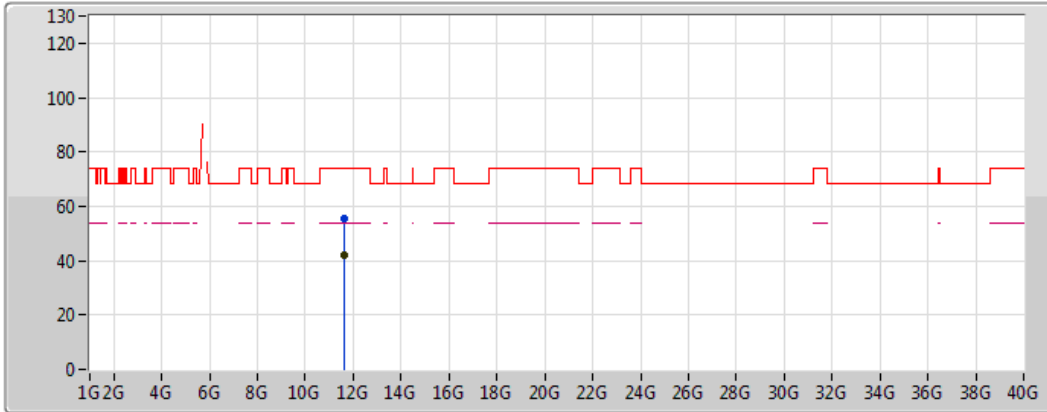
20180106
EUT_Z_2TX
Setting 25
02-M-01
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.6545G	41.82	54.00	-12.18	15.67	3	Vertical	199	2.48	-
PK	11.65016G	55.28	74.00	-18.72	15.66	3	Vertical	199	2.48	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5825MHz_TX

06/01/2018



Legend:

- Lim.PK (Red line)
- PK (Blue line)
- Lim.AV (Pink dashed line)
- AV (Black line)

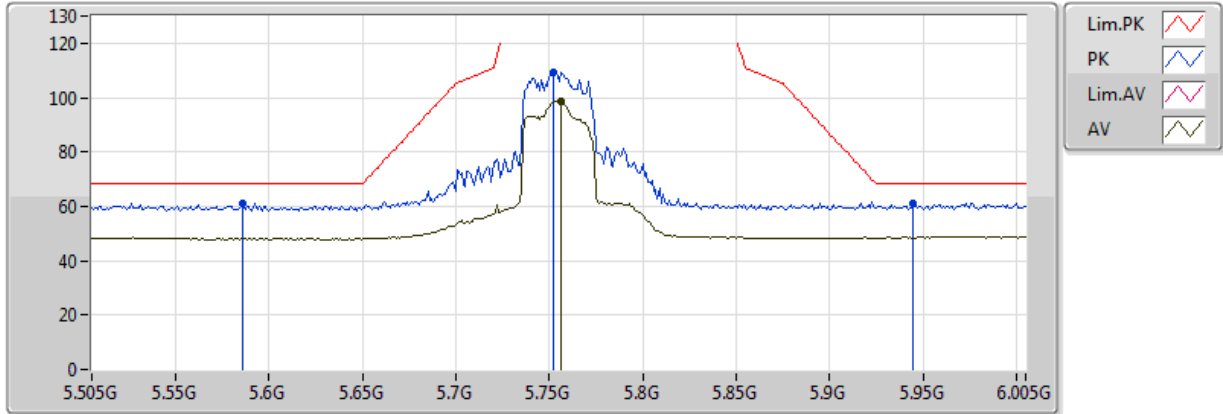
20180106
EUT_Z_2TX
Setting 25
02-M-01
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.6463G	41.84	54.00	-12.16	15.66	3	Horizontal	334	1.27	-
PK	11.65038G	55.44	74.00	-18.56	15.66	3	Horizontal	334	1.27	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5755MHz_TX

06/01/2018



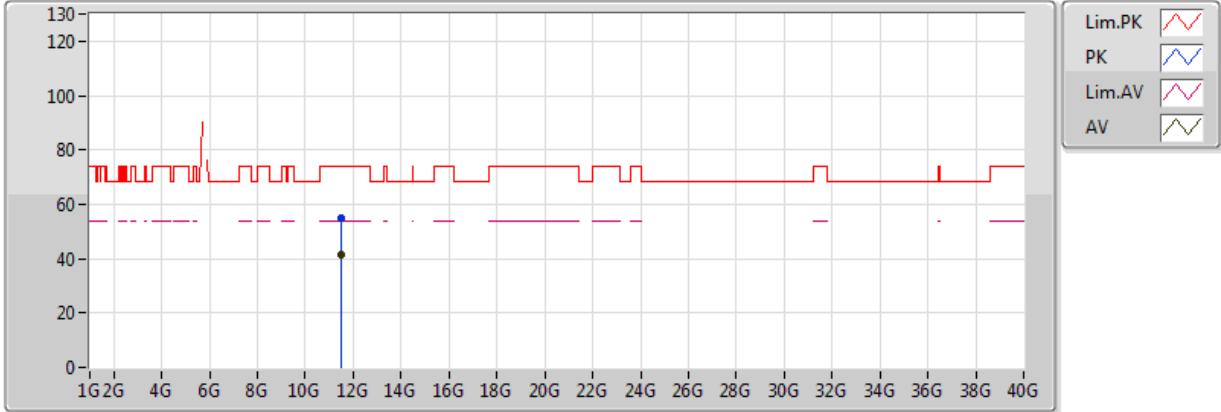
20180106
EUT_Z_2TX
Setting 25
02-M-01
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.756G	98.85	Inf	-Inf	10.68	3	Vertical	307	2.22	-
PK	5.586G	61.04	68.20	-7.16	10.56	3	Vertical	307	2.22	-
PK	5.752G	109.51	Inf	-Inf	10.67	3	Vertical	307	2.22	-
PK	5.945G	61.22	68.20	-6.98	11.13	3	Vertical	307	2.22	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5755MHz_TX

06/01/2018



20180106
EUT_Z_2TX
Setting 25
02-M-01
FSP(100080)

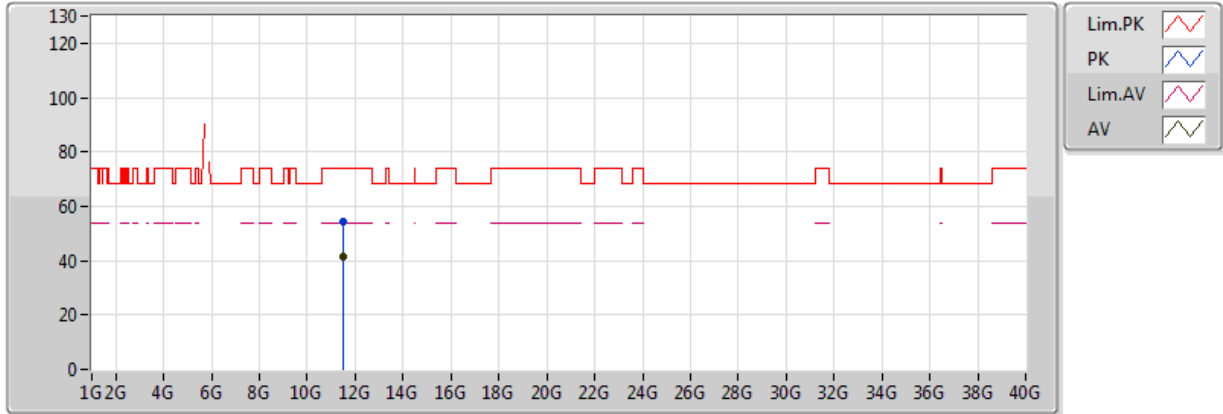
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.506G	41.48	54.00	-12.52	15.46	3	Vertical	133	1.55	-
PK	11.50902G	55.19	74.00	-18.81	15.47	3	Vertical	133	1.55	-



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5755MHz_TX

06/01/2018



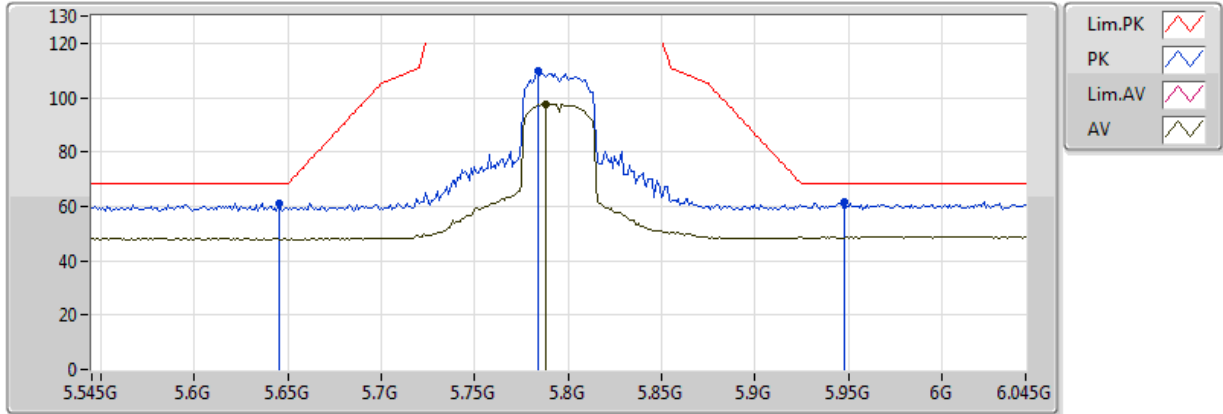
20180106
EUT_Z_2TX
Setting 25
02-M-01
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.51038G	41.53	54.00	-12.47	15.47	3	Horizontal	56	1.29	-
PK	11.50774G	54.59	74.00	-19.41	15.47	3	Horizontal	56	1.29	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5795MHz_TX

06/01/2018



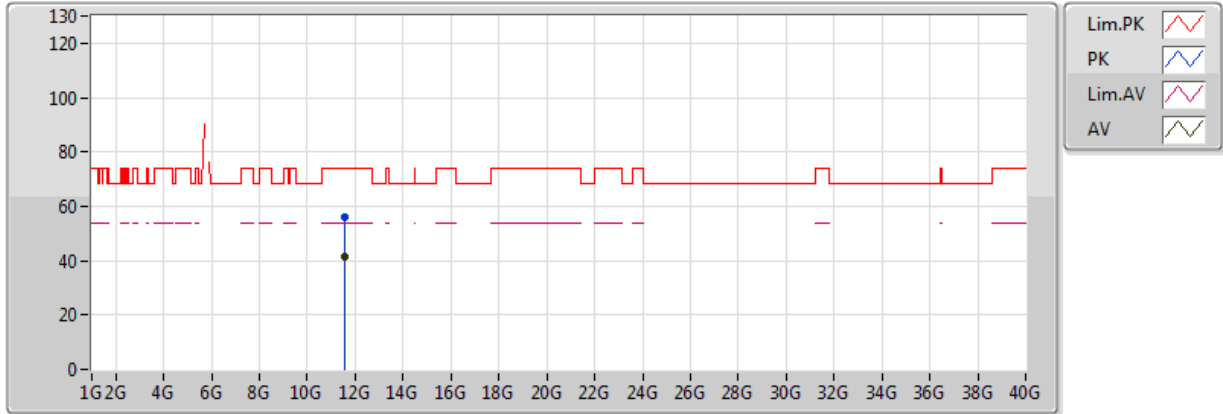
20180106
EUT_Z_2TX
Setting 25
02-M-01
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.788G	97.74	Inf	-Inf	10.72	3	Vertical	325	2.15	-
PK	5.645G	61.02	68.20	-7.18	10.54	3	Vertical	325	2.15	-
PK	5.784G	109.87	Inf	-Inf	10.72	3	Vertical	325	2.15	-
PK	5.948G	61.40	68.20	-6.80	11.13	3	Vertical	325	2.15	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5795MHz_TX

06/01/2018



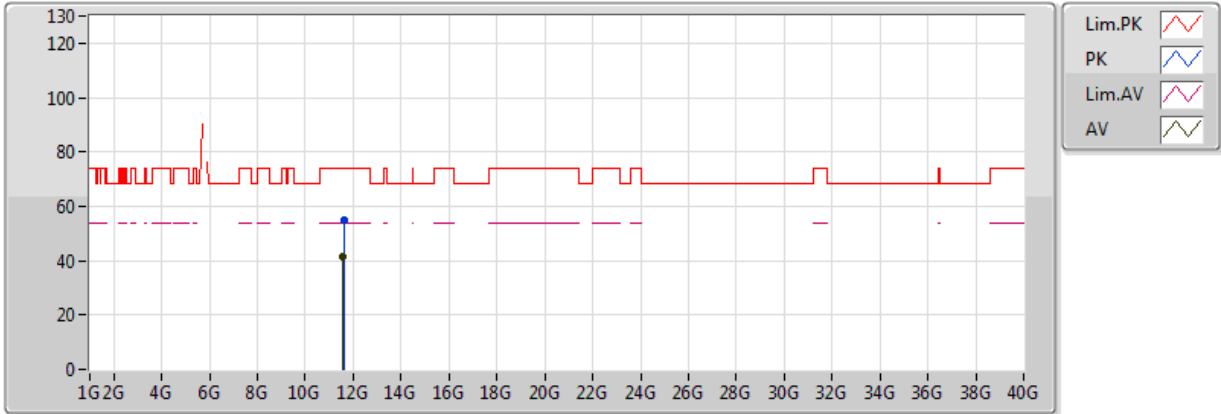
20180106
EUT_Z_2TX
Setting 25
02-M-01
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.59278G	41.39	54.00	-12.61	15.58	3	Vertical	32	1.79	-
PK	11.589G	55.80	74.00	-18.20	15.58	3	Vertical	32	1.79	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5795MHz_TX

06/01/2018



20180106
EUT_Z_2TX
Setting 25
02-M-01
FSP(100080)

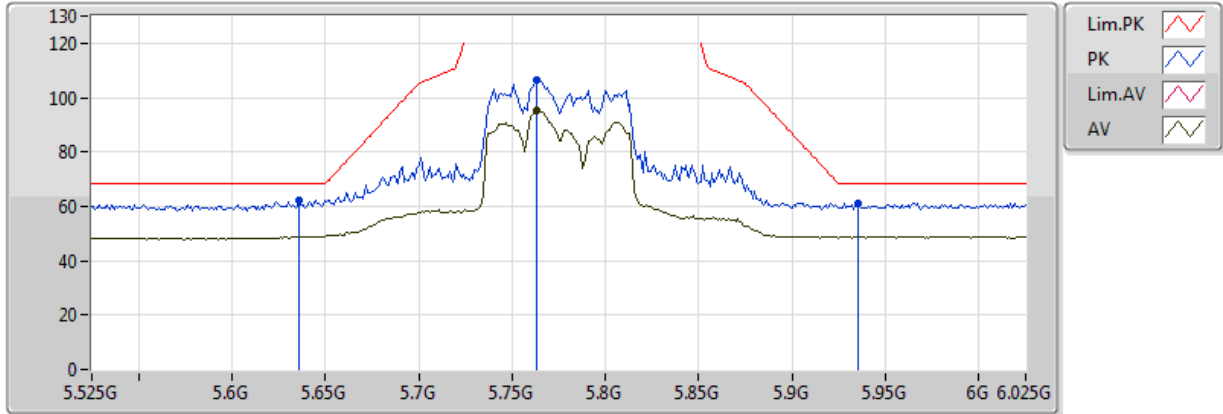
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.5928G	41.21	54.00	-12.79	15.58	3	Horizontal	273	1.83	-
PK	11.593G	54.73	74.00	-19.27	15.58	3	Horizontal	273	1.83	-



802.11ac VHT80-BF_Nss1,(MCS0)_2TX

5775MHz_TX

06/01/2018



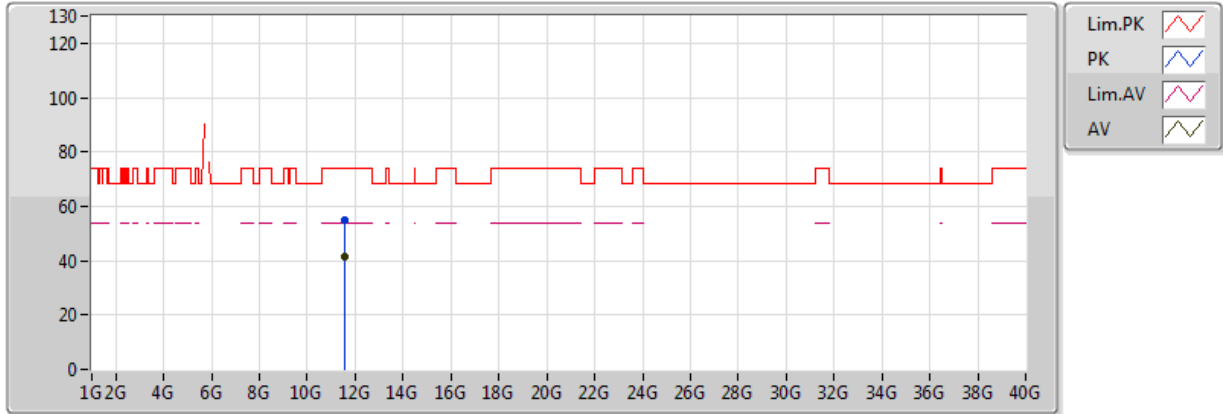
20180106
EUT_Z_2TX
Setting 25
02-M-01
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.763G	95.16	Inf	-Inf	10.69	3	Vertical	326	2.32	-
PK	5.636G	62.40	68.20	-5.80	10.54	3	Vertical	326	2.32	-
PK	5.763G	106.48	Inf	-Inf	10.69	3	Vertical	326	2.32	-
PK	5.935G	61.13	68.20	-7.07	11.10	3	Vertical	326	2.32	-

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

5775MHz_TX

06/01/2018



20180106
EUT_Z_2TX
Setting 25
02-M-01
FSP(100080)

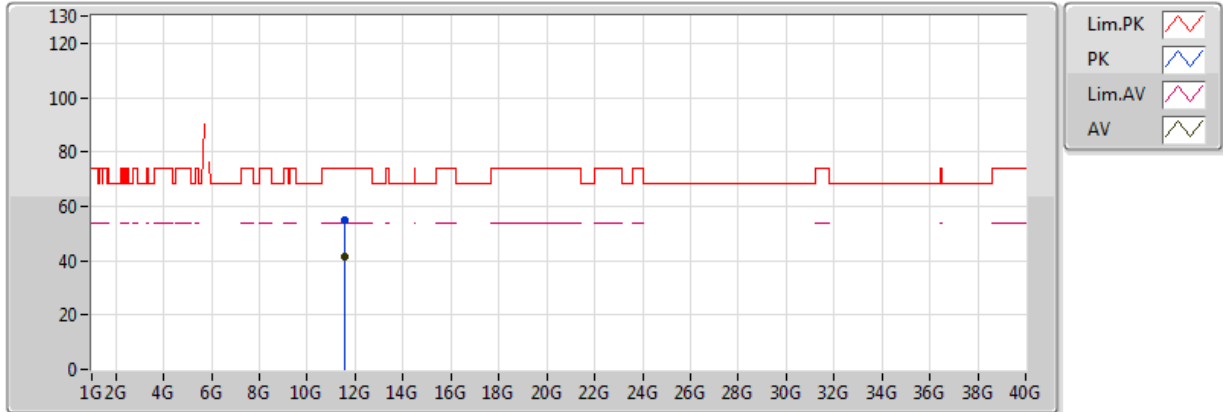
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.54892G	41.47	54.00	-12.53	15.52	3	Vertical	31	1.55	-
PK	11.55364G	54.72	74.00	-19.28	15.53	3	Vertical	31	1.55	-



802.11ac VHT80-BF_Nss1,(MCS0)_2TX

5775MHz_TX

06/01/2018



20180106
EUT_Z_2TX
Setting 25
02-M-01
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.5477G	41.27	54.00	-12.73	15.52	3	Horizontal	219	2.16	-
PK	11.55188G	54.94	74.00	-19.06	15.53	3	Horizontal	219	2.16	-



Mode: 20 MHz / Port 2
Voltage vs. Frequency Stability

Voltage (V)	Measurement Frequency (MHz)			
	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5199.9969	5199.9968	5199.9965	5199.9961
110.00	5199.9963	5199.9957	5199.9954	5199.9949
93.50	5199.9961	5199.9953	5199.9951	5199.9941
Max. Deviation (MHz)	0.0039	0.0047	0.0049	0.0059
Max. Deviation (ppm)	0.75	0.90	0.94	1.13
Result	Pass			

Temperature vs. Frequency Stability

Temperature (°C)	Measurement Frequency (MHz)			
	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5199.9944	5199.9936	5199.9935	5199.9925
10	5199.9948	5199.9943	5199.9940	5199.9934
20	5199.9963	5199.9955	5199.9951	5199.9946
30	5199.9984	5199.9980	5199.9973	5199.9971
40	5200.0002	5199.9995	5199.9993	5199.9986
Max. Deviation (MHz)	0.0089	0.0096	0.0100	0.0107
Max. Deviation (ppm)	1.71	1.85	1.92	2.06
Result	Pass			

Voltage vs. Frequency Stability

Voltage (V)	Measurement Frequency (MHz)			
	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5784.9889	5784.9881	5784.9877	5784.9872
110.00	5784.9879	5784.9874	5784.9872	5784.9868
93.50	5784.9874	5784.9864	5784.9859	5784.9854
Max. Deviation (MHz)	0.0126	0.0136	0.0141	0.0146
Max. Deviation (ppm)	2.18	2.35	2.44	2.52
Result	Pass			

Temperature vs. Frequency Stability

Temperature (°C)	Measurement Frequency (MHz)			
	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5784.9859	5784.9858	5784.9855	5784.9849
10	5784.9863	5784.9856	5784.9852	5784.9843
20	5784.9879	5784.9878	5784.9877	5784.9870
30	5784.9981	5784.9980	5784.9972	5784.9963
40	5784.9998	5784.9994	5784.9992	5784.9989
Max. Deviation (MHz)	0.0168	0.0173	0.0180	0.0184
Max. Deviation (ppm)	2.90	2.99	3.11	3.18
Result	Pass			



Mode: 40 MHz / Port 2

Voltage vs. Frequency Stability

Voltage (V)	Measurement Frequency (MHz)			
	5190 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5189.9972	5189.9968	5189.9967	5189.9965
110.00	5189.9963	5189.9960	5189.9956	5189.9954
93.50	5189.9953	5189.9944	5189.9942	5189.9939
Max. Deviation (MHz)	0.0047	0.0056	0.0058	0.0061
Max. Deviation (ppm)	0.91	1.08	1.12	1.18
Result	Pass			

Temperature vs. Frequency Stability

Temperature (°C)	Measurement Frequency (MHz)			
	5190 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5189.9935	5189.9931	5189.9927	5189.9925
10	5189.9951	5189.9950	5189.9944	5189.9942
20	5189.9963	5189.9959	5189.9957	5189.9956
30	5189.9984	5189.9981	5189.9972	5189.9967
40	5190.0003	5189.9996	5189.9995	5189.9985
Max. Deviation (MHz)	0.0104	0.0112	0.0120	0.0122
Max. Deviation (ppm)	2.00	2.16	2.31	2.35
Result	Pass			

Voltage vs. Frequency Stability

Voltage (V)	Measurement Frequency (MHz)			
	5755 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5754.9882	5754.9876	5754.9873	5754.9870
110.00	5754.9879	5754.9869	5754.9863	5754.9856
93.50	5754.9874	5754.9870	5754.9867	5754.9866
Max. Deviation (MHz)	0.0126	0.0131	0.0137	0.0144
Max. Deviation (ppm)	2.19	2.28	2.38	2.50
Result	Pass			

Temperature vs. Frequency Stability

Temperature (°C)	Measurement Frequency (MHz)			
	5755 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5754.9867	5754.9864	5754.9861	5754.9852
10	5754.9873	5754.9865	5754.9860	5754.9852
20	5754.9879	5754.9874	5754.9864	5754.9854
30	5754.9981	5754.9977	5754.9975	5754.9970
40	5754.9993	5754.9987	5754.9979	5754.9976
Max. Deviation (MHz)	0.0152	0.0156	0.0162	0.0165
Max. Deviation (ppm)	2.64	2.71	2.81	2.87
Result	Pass			



Mode: 80 MHz / Port 2
Voltage vs. Frequency Stability

Voltage (V)	Measurement Frequency (MHz)			
	5210 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5209.9967	5209.9964	5209.9961	5209.9958
110.00	5209.9963	5209.9959	5209.9955	5209.9946
93.50	5209.9957	5209.9951	5209.9947	5209.9945
Max. Deviation (MHz)	0.0043	0.0049	0.0053	0.0055
Max. Deviation (ppm)	0.83	0.94	1.02	1.06
Result	Pass			

Temperature vs. Frequency Stability

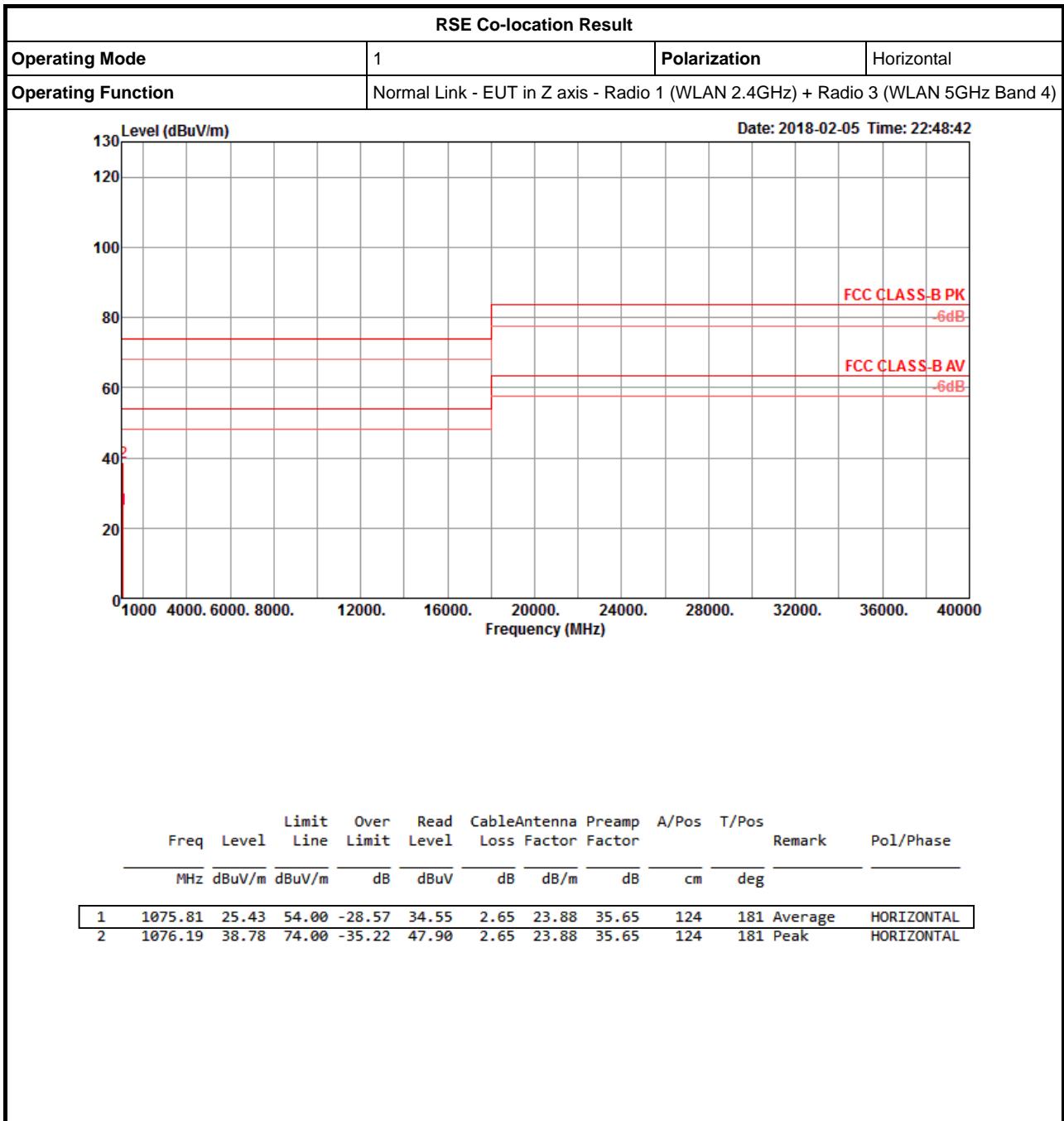
Temperature (°C)	Measurement Frequency (MHz)			
	5210 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5209.9938	5209.9930	5209.9923	5209.9913
10	5209.9949	5209.9943	5209.9942	5209.9935
20	5209.9963	5209.9959	5209.9958	5209.9949
30	5209.9984	5209.9983	5209.9979	5209.9970
40	5209.9987	5209.9985	5209.9983	5209.9978
Max. Deviation (MHz)	0.0075	0.0082	0.0088	0.0094
Max. Deviation (ppm)	1.44	1.57	1.69	1.80
Result	Pass			

Voltage vs. Frequency Stability

Voltage (V)	Measurement Frequency (MHz)			
	5775 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5774.9880	5774.9877	5774.9876	5774.9872
110.00	5774.9879	5774.9875	5774.9871	5774.9870
93.50	5774.9873	5774.9871	5774.9867	5774.9857
Max. Deviation (MHz)	0.0127	0.0129	0.0133	0.0143
Max. Deviation (ppm)	2.20	2.23	2.30	2.48
Result	Pass			

Temperature vs. Frequency Stability

Temperature (°C)	Measurement Frequency (MHz)			
	5775 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5774.9861	5774.9853	5774.9847	5774.9837
10	5774.9874	5774.9864	5774.9855	5774.9847
20	5774.9879	5774.9872	5774.9865	5774.9863
30	5774.9981	5774.9971	5774.9964	5774.9961
40	5774.9998	5774.9990	5774.9986	5774.9976
Max. Deviation (MHz)	0.0161	0.0168	0.0174	0.0183
Max. Deviation (ppm)	2.79	2.91	3.01	3.17
Result	Pass			





RSE Co-location Result

Appendix G

