



# FCC RADIO TEST REPORT

**FCC ID** : 2ALCB-HG-W-B03-0001  
**Equipment** : Smart Speakerphone  
**Brand Name** : InnoMedia  
**Model Name** : ABCDEF (Refer to 1.1.5 for more details)  
**Applicant** : INNOMEDIA TECHNOLOGY INC  
                  3RD FL HSINCHU SCIENCE-BASED INDUSTRIAL PARK 3  
                  INDUSTRIAL E RD IX HSINCHU 300 TAIWAN  
**Manufacturer** : LUEN HUEI ELECTRONICS CO.,LTD  
                  17 Kuang Fu Rd.,Hsinchu Industrial Park Hsinchu Hsien  
                  303,Taiwan  
**Standard** : 47 CFR FCC Part 15.407

The product was received on Dec. 25, 2018, and testing was started from Jan. 24, 2019 and completed on Feb. 12, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

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



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Approved by: Sam Chen

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



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**Appendix A. Test Results of AC Power-line Conducted Emissions****Appendix B. Test Results of Emission Bandwidth****Appendix C. Test Results of Maximum Conducted Output Power****Appendix D. Test Results of Peak Power Spectral Density****Appendix E. Test Results of Unwanted Emissions****Appendix F. Test Photos****Photographs of EUT v01**



## History of this test report



## Summary of Test Result

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

**Declaration of Conformity:**

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

**Comments and Explanations:**

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Sam Chen

Report Producer: Sandy Chuang



# 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]
5250-5350		5260-5320	52-64 [4]
5470-5725		5500-5720	100-144 [12]
5725-5850		5745-5825	149-165 [5]
5150-5250	n (HT40), ac (VHT40)	5190-5230	38-46 [2]
5250-5350		5270-5310	54-62 [2]
5470-5725		5510-5710	102-142 [6]
5725-5850		5755-5795	151-159 [2]
5150-5250	ac (VHT80)	5210	42 [1]
5250-5350		5290	58 [1]
5470-5725		5530-5690	106-138 [3]
5725-5850		5775	155 [1]



Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	1TX
5.15-5.25GHz	802.11n HT20	20	1TX
5.15-5.25GHz	802.11ac VHT20	20	1TX
5.15-5.25GHz	802.11n HT40	40	1TX
5.15-5.25GHz	802.11ac VHT40	40	1TX
5.15-5.25GHz	802.11ac VHT80	80	1TX
5.25-5.35GHz	802.11a	20	1TX
5.25-5.35GHz	802.11n HT20	20	1TX
5.25-5.35GHz	802.11ac VHT20	20	1TX
5.25-5.35GHz	802.11n HT40	40	1TX
5.25-5.35GHz	802.11ac VHT40	40	1TX
5.25-5.35GHz	802.11ac VHT80	80	1TX
5.47-5.725GHz	802.11a	20	1TX
5.47-5.725GHz	802.11n HT20	20	1TX
5.47-5.725GHz	802.11ac VHT20	20	1TX
5.47-5.725GHz	802.11n HT40	40	1TX
5.47-5.725GHz	802.11ac VHT40	40	1TX
5.47-5.725GHz	802.11ac VHT80	80	1TX
5.725-5.85GHz	802.11a	20	1TX
5.725-5.85GHz	802.11n HT20	20	1TX
5.725-5.85GHz	802.11ac VHT20	20	1TX
5.725-5.85GHz	802.11n HT40	40	1TX
5.725-5.85GHz	802.11ac VHT40	40	1TX
5.725-5.85GHz	802.11ac VHT80	80	1TX

## Note:

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



### 1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	
						2.4GHz	5GHz
1	1	LYNwave	ALT140-222020-01	PIFA Antenna	I-PEX	2	3

Note1: The above information was declared by manufacturer.

Note2:

<For 2.4GHz Band>

For IEEE 802.11b/g/n mode (1TX/1RX):

Only Port 1 can be used as transmitting/receiving antenna.

<For 5GHz Band>

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

Only Port 1 can be used as transmitting/receiving antenna.

### 1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.957	0.191	2.068m	1k
802.11ac VHT20	0.953	0.209	1.935m	1k
802.11ac VHT40	0.907	0.424	955u	3k
802.11ac VHT80	0.824	0.841	462.5u	3k

### 1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter			
Beamforming Function	<input type="checkbox"/>	With beamforming	<input checked="" type="checkbox"/>	Without beamforming
Weather Band	<input checked="" type="checkbox"/>	With 5600~5650MHz	<input type="checkbox"/>	Without 5600~5650MHz
Function	<input type="checkbox"/>	Outdoor P2M	<input type="checkbox"/>	Indoor P2M
	<input type="checkbox"/>	Fixed P2P	<input checked="" type="checkbox"/>	Client
TPC Function	<input checked="" type="checkbox"/>	With TPC	<input type="checkbox"/>	Without TPC
Test Software Version	SecureCRT(virsion 1.0.1.111A-audio_wifi Mon Jan 14 15:30:17 2019)			

Note: The above information was declared by manufacturer.



### 1.1.5 Table for Multiple Listing

The model names: ABCDEF are defined as below information:

- ✓ A : Two letter Series identifier
- ✓ B : Number 0~9 and 4 digit is optional
- ✓ C : Use G (Google) or A (Amazon) or other letters for designation letter from A~Z for another customer offering
- ✓ D: - or empty
- ✓ E : 1 or empty
- ✓ F : W or empty

Character	Number	Description
A	HG	Home Gateway Series Identifier for marketing needs
	SP	Smart Phone Series Identifier for marketing needs
	BT	BuddyTalk Series Identifier for marketing needs
	SC	SmartCommunicator Series Identifier for marketing needs
B	0~9	This can be changed with Software configuration
C	G (Google)	Optional designation letter from A~Z for another customer offering, marketing needs
	A (Amazon)	
	other letters	
D	-	a field separator
	empty	No separator
E	1	1 port FXS
	empty	No FXS port
F	W	Wifi used
	empty	Without Wifi used

From the above models, model: HG8328-1W was selected as representative model for the test and its data was recorded in this report.



## 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 412172 D01 v01r01

## 1.3 Testing Location Information

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

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Eason Chen	22~24°C / 54~56%	Jan. 28, 2019~ Jan. 30, 2019
Radiated	03CH01-CB	Stim Sung	22~24°C / 52~55%	Jan. 24, 2019~ Feb. 11, 2019
AC Conduction	CO02-CB	Wei Li	26.3~26.7°C / 60.1~60.7%	Feb. 12, 2019

Test site Designation No. TW0006 with FCC

Test site registered number IC 4086D with Industry Canada.

## 1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	2.0 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.7 dB	Confidence levels of 95%
Output Power Measurement	1.33 dB	Confidence levels of 95%
Power Density Measurement	1.27 dB	Confidence levels of 95%
Bandwidth Measurement	$9.74 \times 10^{-8}$	Confidence levels of 95%



## 2 Test Configuration of EUT

### 2.1 Test Channel Mode

Mode	PowerSetting
802.11a_Nss1,(6Mbps)_1TX	-
5180MHz	63
5200MHz	63
5240MHz	61
5260MHz	61
5300MHz	62
5320MHz	62
5500MHz	63
5580MHz	63
5700MHz	60
5720MHz Straddle 5.47-5.725GHz	62
5720MHz Straddle 5.725-5.85GHz	62
5745MHz	63
5785MHz	63
5825MHz	63
802.11ac VHT20_Nss1,(MCS0)_1TX	-
5180MHz	62
5200MHz	63
5240MHz	60
5260MHz	61
5300MHz	61
5320MHz	62
5500MHz	63
5580MHz	62
5700MHz	58
5720MHz Straddle 5.47-5.725GHz	62
5720MHz Straddle 5.725-5.85GHz	62
5745MHz	63
5785MHz	63
5825MHz	63
802.11ac VHT40_Nss1,(MCS0)_1TX	-
5190MHz	51
5230MHz	59
5270MHz	59
5310MHz	47
5510MHz	47



Mode	PowerSetting
5550MHz	61
5670MHz	58
5710MHz Straddle 5.47-5.725GHz	62
5710MHz Straddle 5.725-5.85GHz	62
5755MHz	63
5795MHz	63
802.11ac VHT80_Nss1,(MCS0)_1TX	-
5210MHz	48
5290MHz	46
5530MHz	46
5610MHz	61
5690MHz Straddle 5.47-5.725GHz	62
5690MHz Straddle 5.725-5.85GHz	62
5775MHz	63

## Note:

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



## 2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	AC power-line conducted emissions
<b>Condition</b>	AC power-line conducted measurement for line and neutral
<b>Operating Mode</b>	CTX
1	CTX + 2.4GHz
2	CTX + 5GHz

For operating mode 1 is the worst case and it was record in this test report.

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

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	Unwanted Emissions
<b>Test Condition</b>	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.
<b>Operating Mode &lt; 1GHz</b>	CTX
1	CTX + 2.4GHz
2	CTX + 5GHz

For operating mode 2 is the worst case and it was record in this test report.

**Operating Mode > 1GHz** | CTX

Note: The EUT can only be used in Z-axis position.

## 2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.



## 2.4 Accessories

Accessories				
No.	Equipment Name	Brand Name	Model Name	Rating
1	Adapter	AtechOEM	ADS0248T-W120200	Input: 100-240V~50-60Hz, 0.6A Output: 12V, 2.0A

## 2.5 Support Equipment

For Test Site No: CO02-CB

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Flash disk3.0	Transcend	JetFlash-700	N/A
B	Earphone	e-Power	S90W	N/A

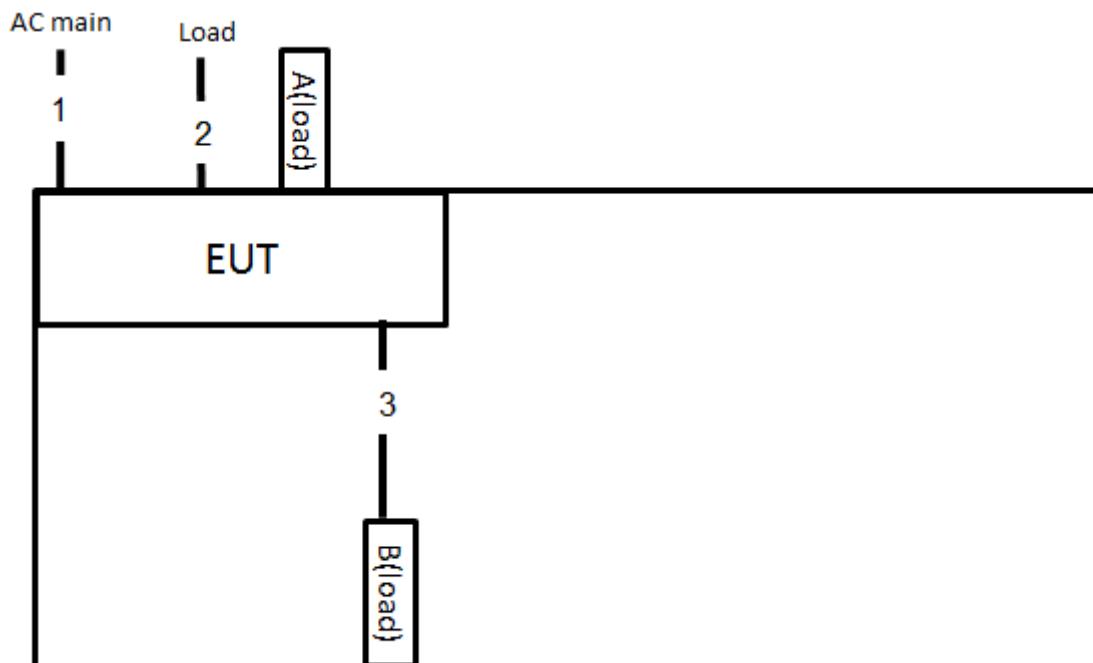
For Test Site No: 03CH01-CB and TH01-CB

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



## 2.6 Test Setup Diagram

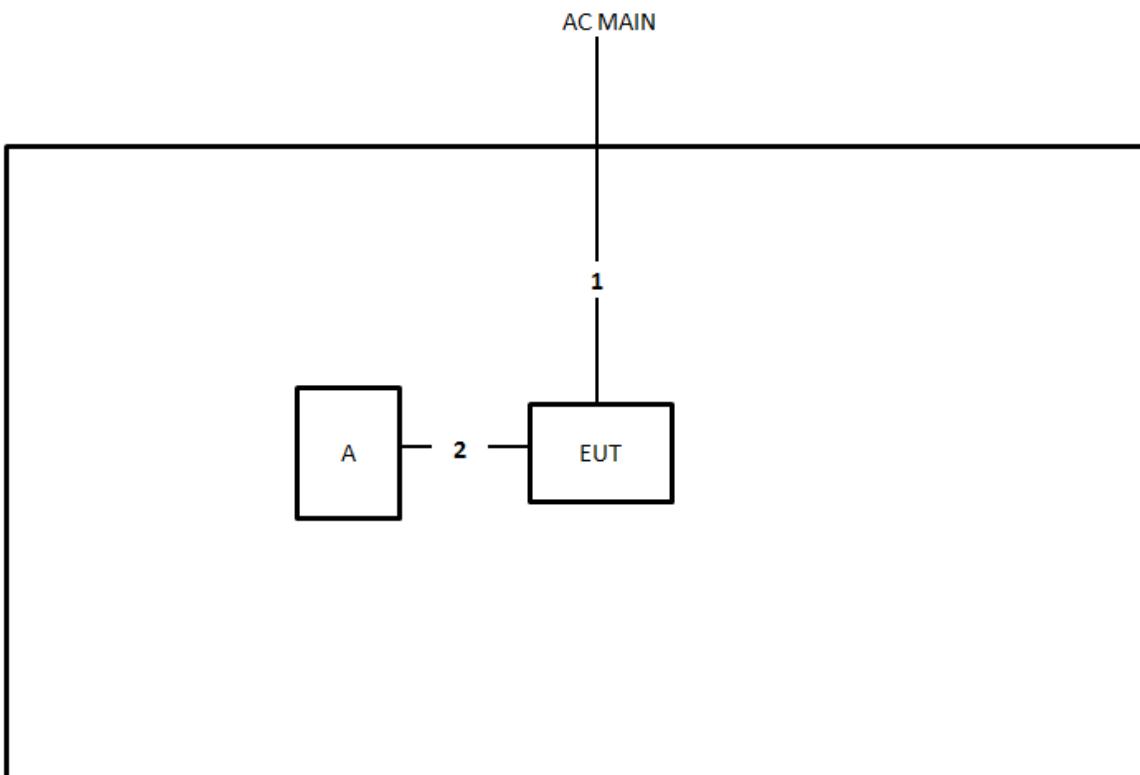
Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-11 cable	No	1.5m
3	Audio cable	No	1.4m



## Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	Console cable	Yes	0.7m



### 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.

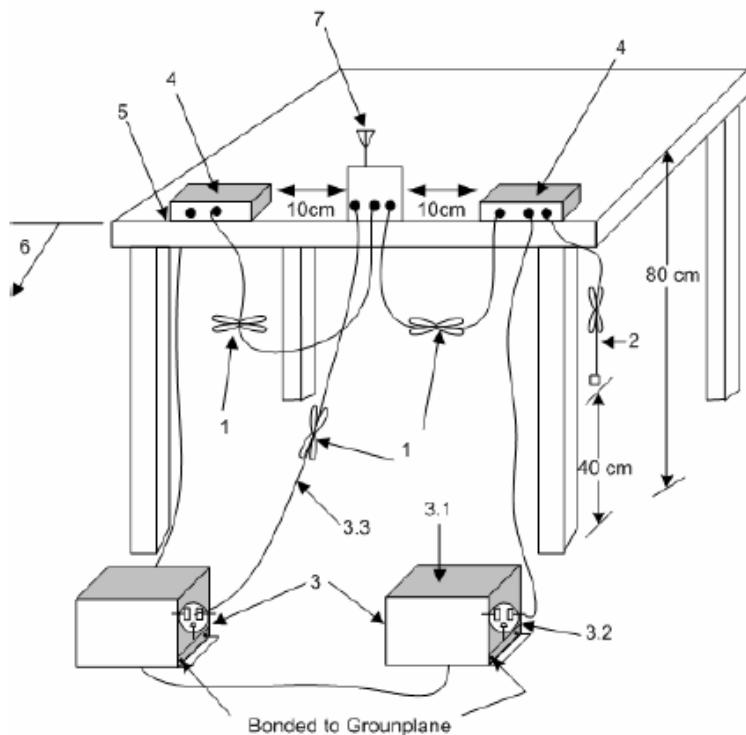
##### 3.1.3 Test Procedures

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

#### AC Power-line Conducted Emissions



- 1—Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 cm to 40 cm long.
- 2—The I/O cables that are not connected to an accessory shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- 3—EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in  $50 \Omega$  loads. LISN may be placed on top of, or immediately beneath, reference ground plane.
- 3.1—All other equipment powered from additional LISN(s).
- 3.2—A multiple-outlet strip may be used for multiple power cords of non-EUT equipment.
- 3.3—LISN at least 80 cm from nearest part of EUT chassis.
- 4—Non-EUT components of EUT system being tested.
- 5—Rear of EUT, including peripherals, shall all be aligned and flush with edge of tabletop.
- 6—Edge of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.
- 7—Antenna can be integral or detachable. If detachable, then the antenna shall be attached for this test.

### 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	
<b>UNII Devices</b>	
<input checked="" type="checkbox"/>	For the 5.15-5.25 GHz band, N/A
<input checked="" type="checkbox"/>	For the 5.25-5.35 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$ , where B is the 26 dB emission bandwidth in MHz.
<input checked="" type="checkbox"/>	For the 5.47-5.725 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$ , 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 $\geq 500\text{kHz}$ .
<b>LE-LAN Devices</b>	
<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 $\geq 500\text{kHz}$ .

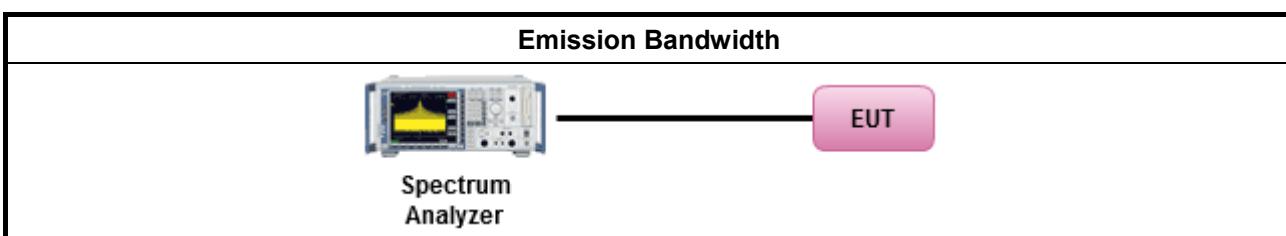
### 3.2.2 Measuring Instruments

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

### 3.2.3 Test Procedures

Test Method	
▪	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	
<b>UNII Devices</b>	
<input checked="" type="checkbox"/> For the 5.15-5.25 GHz band:	<ul style="list-style-type: none"><li>▪ Outdoor AP: the maximum conducted output power (<math>P_{out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{out} = 30 - (G_{TX} - 6)</math>. e.i.r.p. at any elevation angle above 30 degrees <math>\leq 125</math>mW [21dBm]</li><li>▪ Indoor AP: the maximum conducted output power (<math>P_{out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{out} = 30 - (G_{TX} - 6)</math></li><li>▪ Point-to-point AP: the maximum conducted output power (<math>P_{out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 23</math> dBi, then <math>P_{out} = 30 - (G_{TX} - 23)</math>.</li><li>▪ Mobile or Portable Client: the maximum conducted output power (<math>P_{out}</math>) shall not exceed the lesser of 250 mW. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{out} = 24 - (G_{TX} - 6)</math>.</li></ul>
<input checked="" 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 checked="" 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"><li>▪ Point-to-multipoint systems (P2M): the maximum conducted output power (<math>P_{out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{out} = 30 - (G_{TX} - 6)</math>.</li><li>▪ Point-to-point systems (P2P): the maximum conducted output power (<math>P_{out}</math>) shall not exceed the lesser of 1 W.</li></ul>
<b>LE-LAN Devices</b>	
<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"><li>▪ Point-to-multipoint systems (P2M): the maximum conducted output power (<math>P_{out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{out} = 30 - (G_{TX} - 6)</math>.</li><li>▪ Point-to-point systems (P2P): the maximum conducted output power (<math>P_{out}</math>) shall not exceed the lesser of 1 W.</li></ul>
<b><math>P_{out}</math> = maximum conducted output power in dBm, <math>G_{TX}</math> = the maximum transmitting antenna directional gain in dBi.</b>	



### 3.3.2 Measuring Instruments

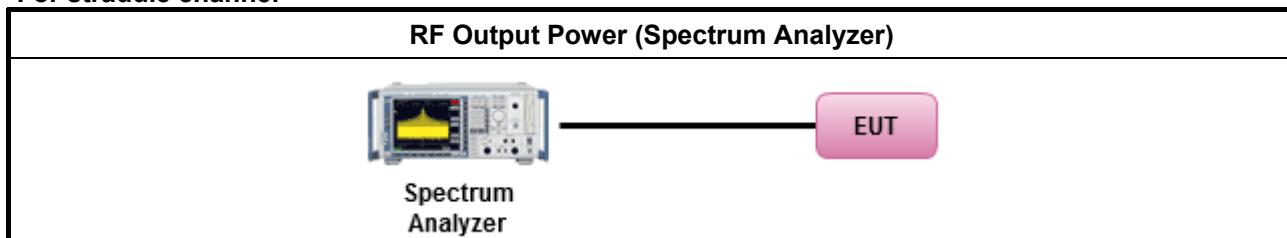
Refer a test equipment and calibration data table in this test report.

### 3.3.3 Test Procedures

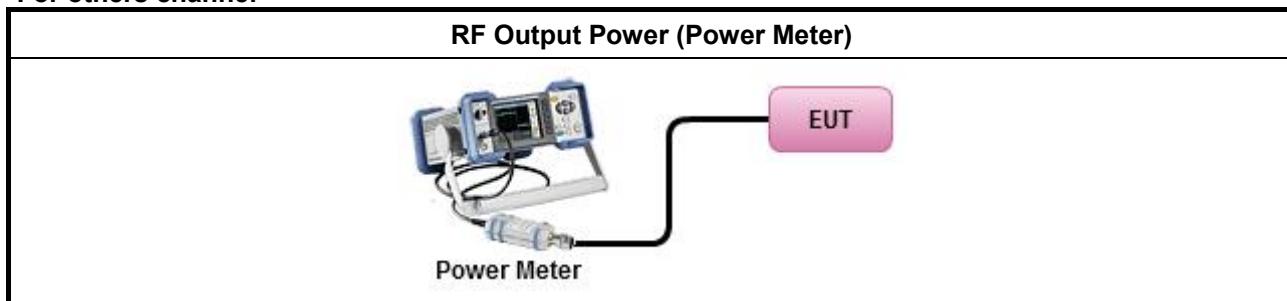
Test Method	
▪ Maximum Conducted Output Power	
	Average over on/off periods with duty factor
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow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

### 3.3.4 Test Setup

#### For straddle channel



#### For others channel



### 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	
<b>UNII Devices</b>	
<input checked="" type="checkbox"/> For the 5.15-5.25 GHz band:	<ul style="list-style-type: none"><li>▪ Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 17 - (G_{TX} - 6)</math>.</li><li>▪ Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 17 - (G_{TX} - 6)</math>.</li><li>▪ Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If <math>G_{TX} &gt; 23</math> dBi, then <math>P_{Out} = 17 - (G_{TX} - 23)</math>.</li><li>▪ Mobile or Portable Client: the peak power spectral density (PPSD) <math>\leq 11</math> dBm/MHz. If <math>G_{TX} &gt; 6</math> dBi, then PPSD= <math>11 - (G_{TX} - 6)</math>.</li></ul>
<input checked="" type="checkbox"/> For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) $\leq 11$ dBm/MHz. If $G_{TX} > 6$ dBi, then PPSD= $11 - (G_{TX} - 6)$ .	
<input checked="" type="checkbox"/> For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) $\leq 11$ 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"><li>▪ Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) <math>\leq 30</math> dBm/500kHz. If <math>G_{TX} &gt; 6</math> dBi, then PPSD= <math>30 - (G_{TX} - 6)</math>.</li><li>▪ Point-to-point systems (P2P): the peak power spectral density (PPSD) <math>\leq 30</math> dBm/500kHz.</li></ul>
<b>LE-LAN Devices</b>	
<input type="checkbox"/> For the 5.15-5.25 GHz band, the e.i.r.p. peak power spectral density (PPSD) $\leq 10$ dBm/MHz.	
<input type="checkbox"/> For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) $\leq 11$ dBm/MHz.	
<input type="checkbox"/> For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the peak power spectral density (PPSD) $\leq 11$ dBm/MHz.	<ul style="list-style-type: none"><li>▪ e.i.r.p. greater than 200 mW shall comply with the following e.i.r.p. at different elevations, where <math>\theta</math> is the angle above the local horizontal plane (of the Earth) as shown below: -13 dBW/MHz for <math>0^\circ \leq \theta &lt; 8^\circ</math> ; -13 – 0.716 (<math>\theta</math>-8) dBW/MHz for <math>8^\circ \leq \theta &lt; 40^\circ</math> -35.9 – 1.22 (<math>\theta</math>-40) dBW/MHz for <math>40^\circ \leq \theta \leq 45^\circ</math> ; -42 dBW/MHz for <math>\theta &gt; 45^\circ</math></li></ul>
<input type="checkbox"/> For the 5.725-5.85 GHz band:	<ul style="list-style-type: none"><li>▪ Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) <math>\leq 30</math> dBm/500kHz. If <math>G_{TX} &gt; 6</math> dBi, then PPSD= <math>30 - (G_{TX} - 6)</math>.</li><li>▪ Point-to-point systems (P2P): the peak power spectral density (PPSD) <math>\leq 30</math> dBm/500kHz.</li></ul>
<b>PPSD</b> = 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 <b>G<sub>TX</sub></b> = the maximum transmitting antenna directional gain in dBi.	

### 3.4.2 Measuring Instruments

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

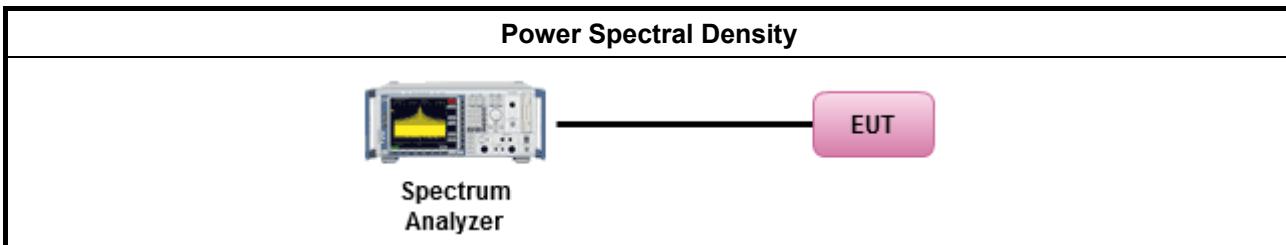


### 3.4.3 Test Procedures

Test Method	
<ul style="list-style-type: none"><li>▪ 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:</li></ul>	
<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 $\geq$ 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"><li>▪ For conducted measurement.</li></ul>	
<ul style="list-style-type: none"><li>▪ If the EUT supports multiple transmit chains using options given below:</li></ul>	
<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"><li>▪ If multiple transmit chains, EIRP PPSD calculation could be following as methods: <math>PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n</math> (calculated in linear unit [mW] and transfer to log unit [dBm]) <math>EIRP_{total} = PPSD_{total} + DG</math></li></ul>	



### 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 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 checked="" type="checkbox"/> 5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
<input checked="" 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).



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

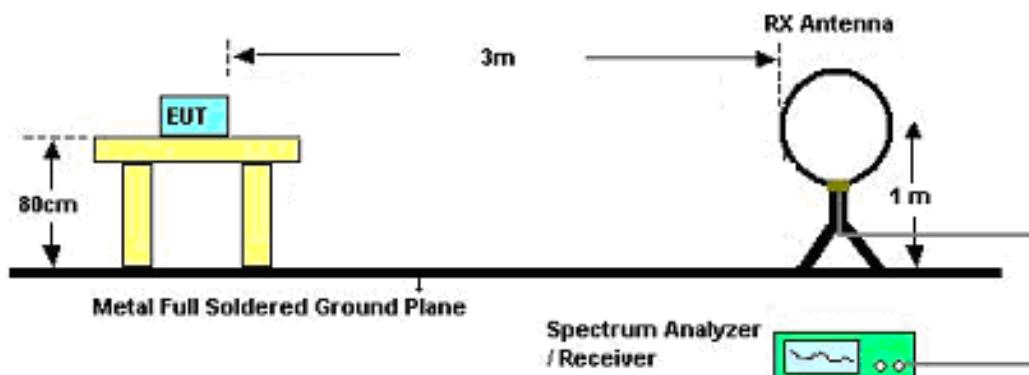
Test Method
<ul style="list-style-type: none"><li>▪ Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance 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).</li></ul>
<ul style="list-style-type: none"><li>▪ The average emission levels shall be measured in [duty cycle <math>\geq</math> 98 or duty factor].</li></ul>
<ul style="list-style-type: none"><li>▪ For the transmitter unwanted emissions shall be measured using following options below:</li></ul>
<ul style="list-style-type: none"><li>▪ Refer as FCC KDB 789033, clause G2) for unwanted emissions into non-restricted bands.</li><li>▪ Refer as FCC KDB 789033, clause G1) for unwanted emissions into restricted bands.<ul style="list-style-type: none"><li><input type="checkbox"/> Refer as FCC KDB 789033, G)6) Method AD (Trace Averaging).</li><li><input checked="" type="checkbox"/> Refer as FCC KDB 789033, G)6) Method VB (Reduced VBW).</li><li><input type="checkbox"/> Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW <math>\geq</math> 1/T, where T is pulse time.</li><li><input type="checkbox"/> Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.</li><li><input checked="" type="checkbox"/> Refer as FCC KDB 789033, clause G)5) measurement procedure peak limit.</li><li><input type="checkbox"/> Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.</li></ul></li></ul>
<ul style="list-style-type: none"><li>▪ For radiated measurement.<ul style="list-style-type: none"><li>▪ Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.</li><li>▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.</li><li>▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.</li></ul></li></ul>
<ul style="list-style-type: none"><li>▪ The any unwanted emissions level shall not exceed the fundamental emission level.</li><li>▪ All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.</li></ul>



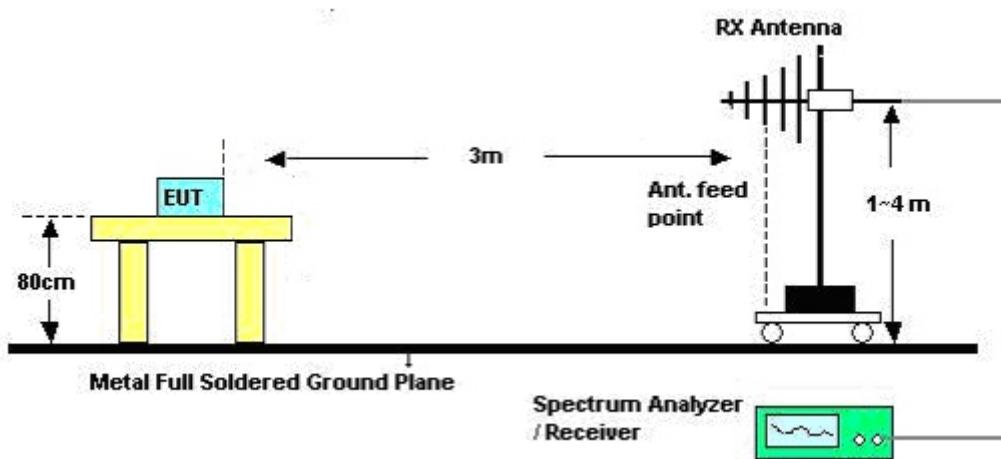
### 3.5.4 Test Setup

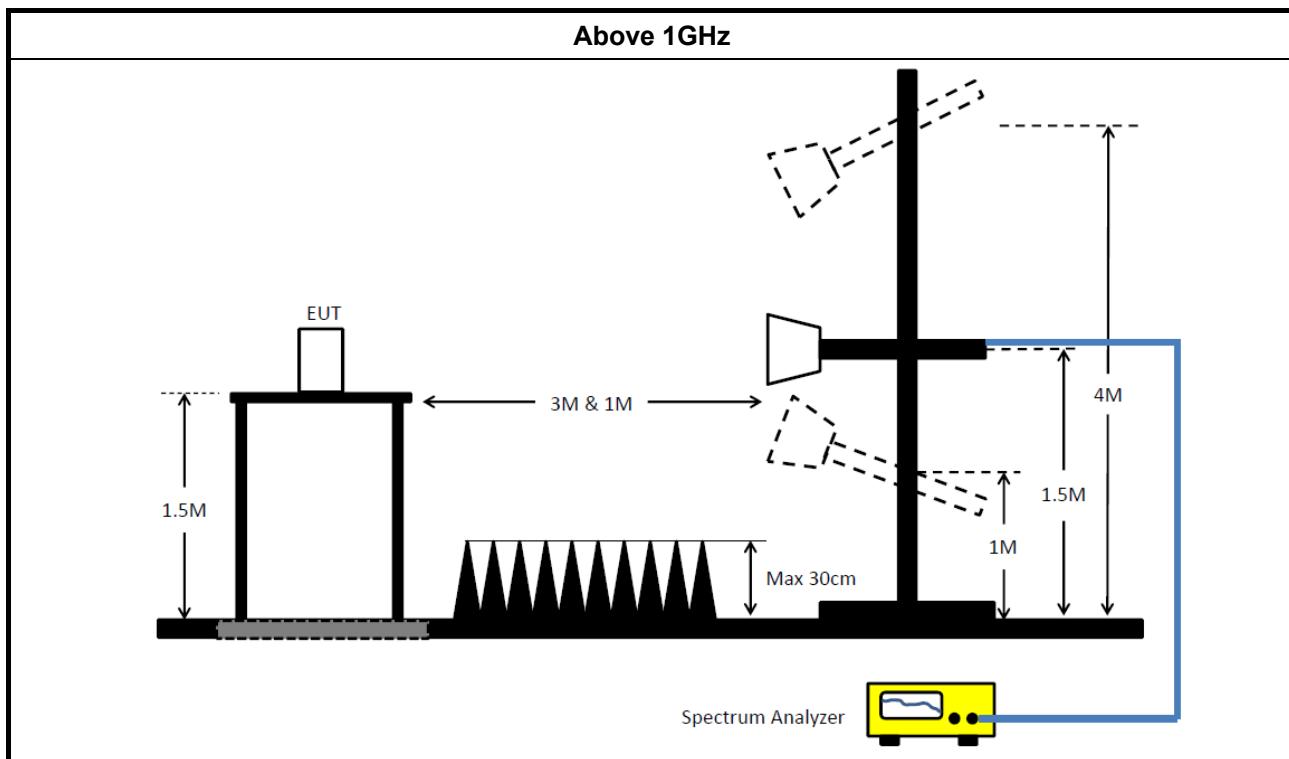
#### Radiated - Emissions in Restricted Frequency Bands

9kHz ~30MHz



30MHz~1GHz





### 3.5.5 Transmitter Unwanted Emissions (Below 30MHz)

All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

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

### 3.5.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E



## 4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
LISN	Schwarzbeck	NSLK 8127	8127650	9kHz ~ 30MHz	Nov. 21, 2018	Nov. 20, 2019	Conduction (CO02-CB)
LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Nov. 05, 2018	Nov. 04, 2019	Conduction (CO02-CB)
EMI Receiver	Agilent	N9038A	MY52260140	9kHz ~ 8.4GHz	Jan. 16, 2019	Jan. 15, 2020	Conduction (CO02-CB)
COND Cable	Woken	Cable	2	0.15MHz ~ 30MHz	Nov. 06, 2018	Nov. 05, 2019	Conduction (CO02-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO02-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2018	Mar. 15, 2019	Radiation (03CH01-CB)
BILOG ANTENNA with 6dB Attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37880 & AT-N0609	20MHz ~ 2GHz	Aug. 27, 2018	Aug. 26, 2019	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Nov. 13, 2018	Nov. 12, 2019	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jun. 28, 2018	Jun. 27, 2019	Radiation (03CH01-CB)
Pre-Amplifier	EMCI	EMC330N	980332	20MHz ~ 3GHz	May 02, 2018	May 01, 2019	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 08, 2019	Jan. 07, 2020	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 04, 2018	Jul. 03, 2019	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100080	9kHz~40GHz	Oct. 03, 2018	Oct. 02, 2019	Radiation (03CH01-CB)
EMI Test Receiver	R&S	ESCS	100359	9kHz ~ 2.75GHz	Jul. 03, 2018	Jul. 02, 2019	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-16+17	N/A	30 MHz ~ 1 GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#1	N/A	18GHz ~ 40 GHz	Jul. 27, 2018	Jul. 26, 2019	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Jul. 27, 2018	Jul. 26, 2019	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	101027	9kHz~40GHz	Jun. 22, 2018	Jun. 21, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz – 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz – 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)

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Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-08	1 GHz –26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz –26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-28	1 GHz –26.5 GHz	Nov. 19, 2018	Nov. 18, 2019	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 05, 2018	Nov. 04, 2019	Conducted (TH01-CB)

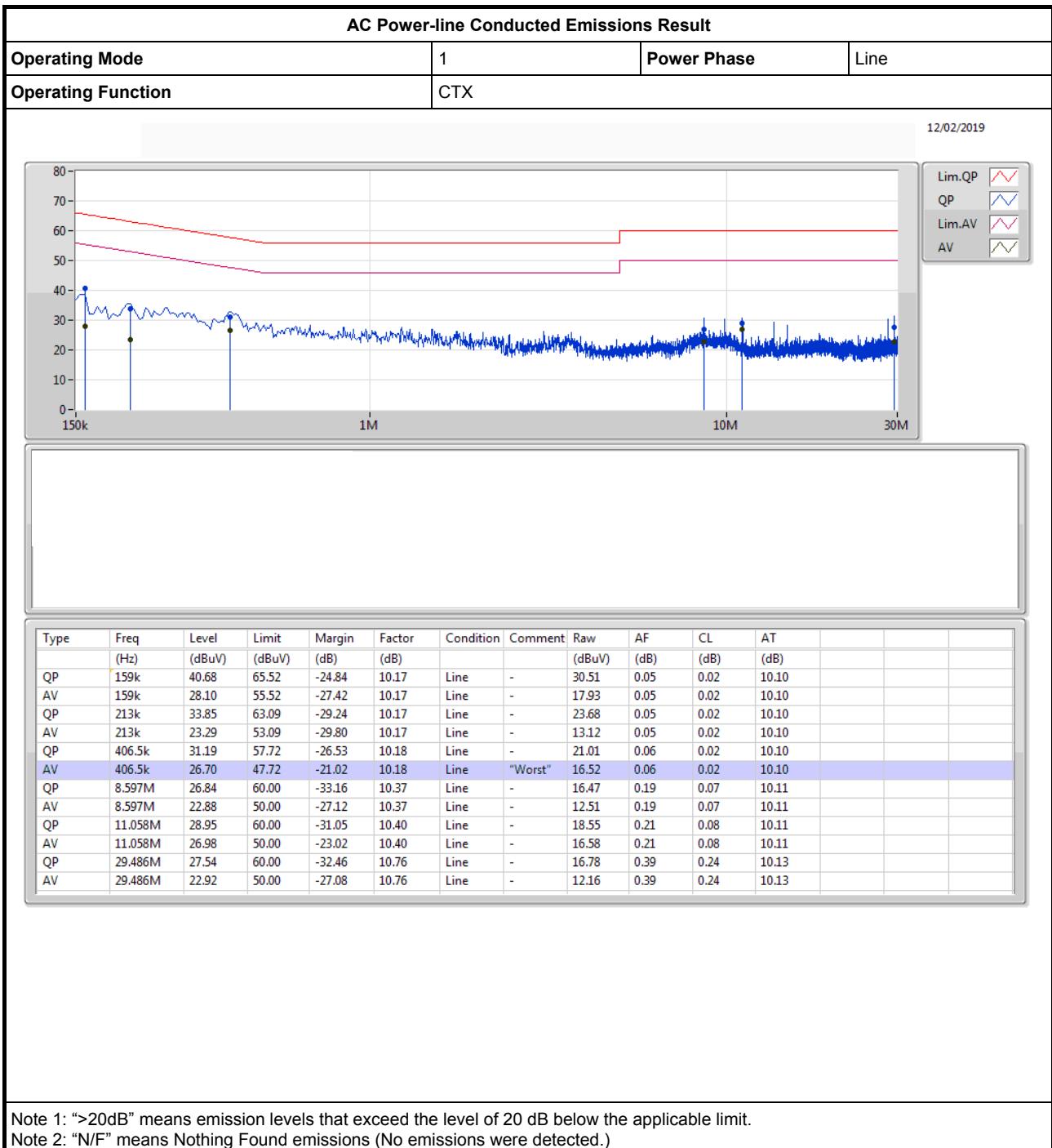
Note: Calibration Interval of instruments listed above is one year.

NCR means Non-Calibration required.



## AC Power-line Conducted Emissions Result

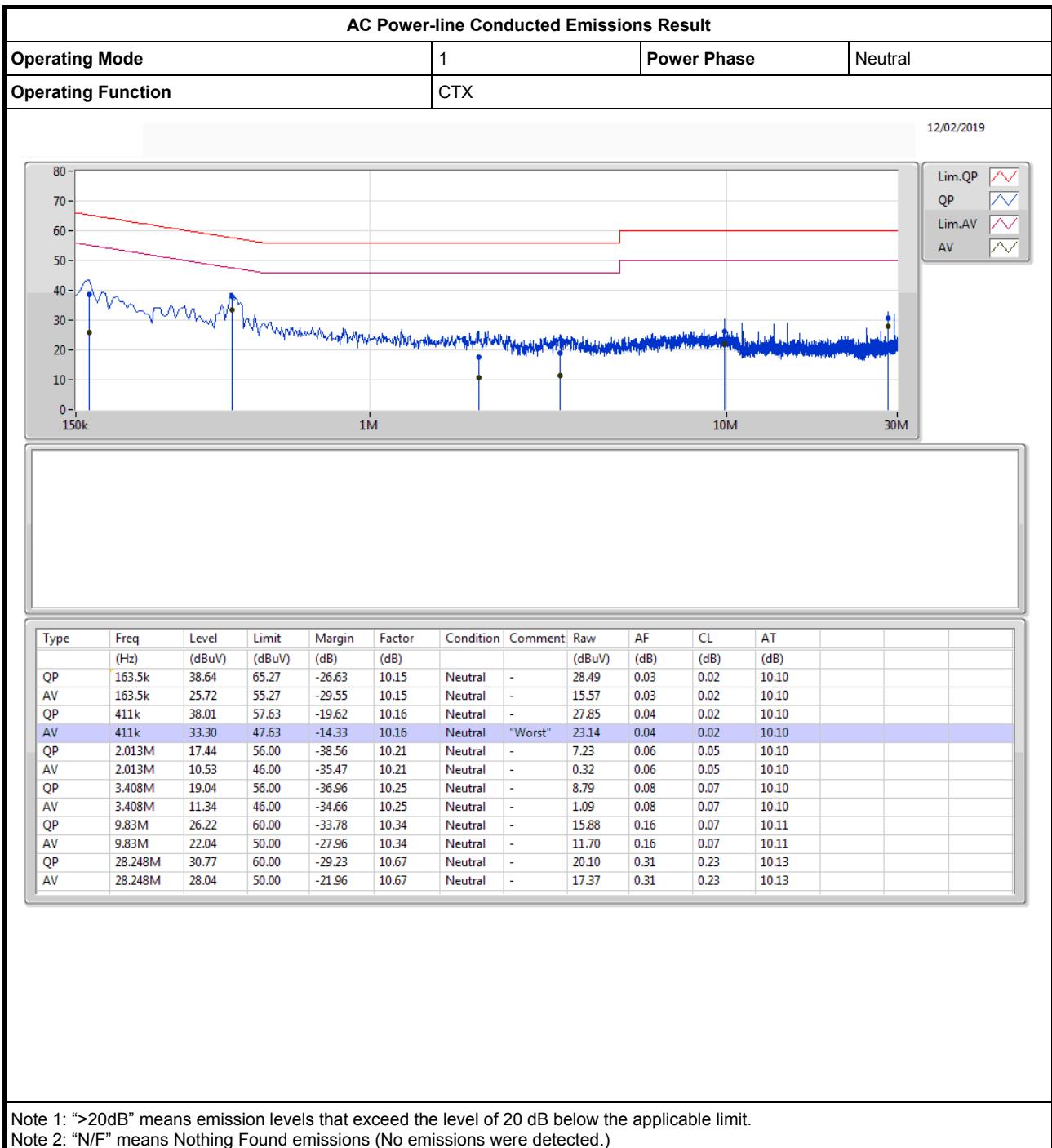
Appendix A





## AC Power-line Conducted Emissions Result

Appendix A



**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	42.625M	21.664M	21M7D1D	41.425M	18.941M
802.11ac VHT20_Nss1,(MCS0)_1TX	47.075M	22.739M	22M7D1D	42.7M	18.941M
802.11ac VHT40_Nss1,(MCS0)_1TX	89M	37.831M	37M8D1D	67.1M	36.232M
802.11ac VHT80_Nss1,(MCS0)_1TX	83.6M	75.062M	75M1D1D	83.6M	75.062M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	42.375M	19.49M	19M5D1D	41M	18.941M
802.11ac VHT20_Nss1,(MCS0)_1TX	44.975M	19.715M	19M7D1D	40.65M	18.841M
802.11ac VHT40_Nss1,(MCS0)_1TX	84.85M	37.731M	37M7D1D	45.05M	36.132M
802.11ac VHT80_Nss1,(MCS0)_1TX	82M	75.262M	75M3D1D	82M	75.262M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	42.7M	18.841M	18M8D1D	24.435M	14.873M
802.11ac VHT20_Nss1,(MCS0)_1TX	44.5M	18.841M	18M8D1D	24.465M	14.918M
802.11ac VHT40_Nss1,(MCS0)_1TX	89.1M	38.131M	38M1D1D	42.75M	34.003M
802.11ac VHT80_Nss1,(MCS0)_1TX	186.3M	77.761M	77M8D1D	81.7M	73.013M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	16.275M	19.14M	19M1D1D	3.16M	10.655M
802.11ac VHT20_Nss1,(MCS0)_1TX	17.475M	20.265M	20M3D1D	3.34M	11.294M
802.11ac VHT40_Nss1,(MCS0)_1TX	35.3M	40.28M	40M3D1D	2.9M	25.387M
802.11ac VHT80_Nss1,(MCS0)_1TX	72.5M	84.558M	84M6D1D	2.56M	36.942M

**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

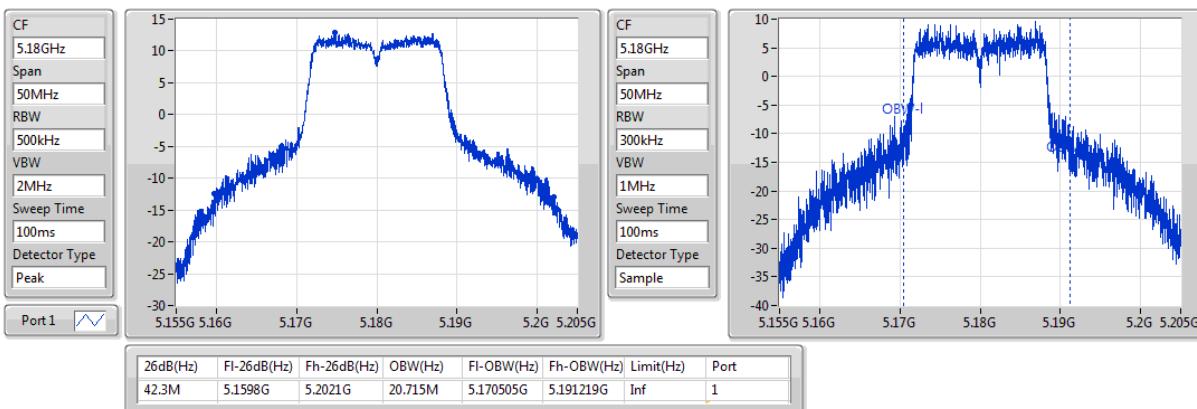
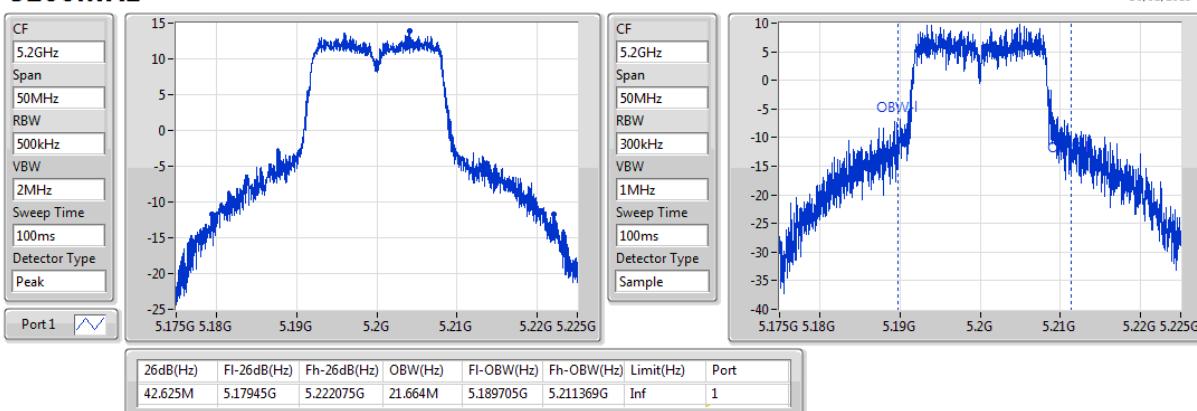
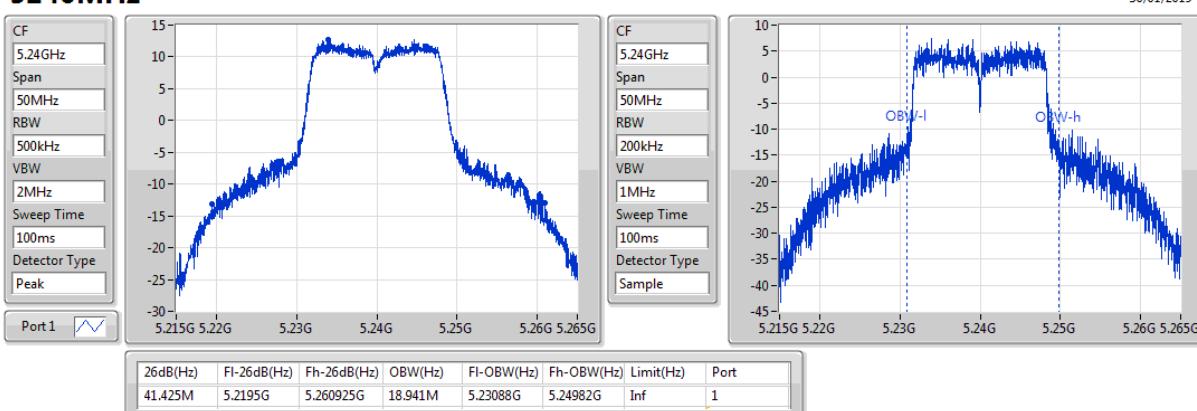
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-
5180MHz	Pass	Inf	42.3M	20.715M
5200MHz	Pass	Inf	42.625M	21.664M
5240MHz	Pass	Inf	41.425M	18.941M
5260MHz	Pass	Inf	41M	18.941M
5300MHz	Pass	Inf	42.375M	19.04M
5320MHz	Pass	Inf	41.075M	19.49M
5500MHz	Pass	Inf	40.875M	18.166M
5580MHz	Pass	Inf	42.7M	18.841M
5700MHz	Pass	Inf	41.525M	17.666M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	24.435M	14.873M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.16M	10.655M
5745MHz	Pass	500k	16.275M	19.015M
5785MHz	Pass	500k	16.25M	19.14M
5825MHz	Pass	500k	16.05M	18.366M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-
5180MHz	Pass	Inf	44.475M	21.439M
5200MHz	Pass	Inf	47.075M	22.739M
5240MHz	Pass	Inf	42.7M	18.941M
5260MHz	Pass	Inf	40.65M	19.015M
5300MHz	Pass	Inf	43.75M	18.841M
5320MHz	Pass	Inf	44.975M	19.715M
5500MHz	Pass	Inf	43.9M	18.366M
5580MHz	Pass	Inf	44.5M	18.841M
5700MHz	Pass	Inf	40.75M	18.091M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	24.465M	14.918M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.34M	11.294M
5745MHz	Pass	500k	16.65M	20.265M
5785MHz	Pass	500k	17.475M	19.49M
5825MHz	Pass	500k	16.7M	19.09M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-
5190MHz	Pass	Inf	67.1M	36.232M
5230MHz	Pass	Inf	89M	37.831M
5270MHz	Pass	Inf	84.85M	37.731M
5310MHz	Pass	Inf	45.05M	36.132M
5510MHz	Pass	Inf	42.75M	36.182M
5550MHz	Pass	Inf	89.1M	38.131M
5670MHz	Pass	Inf	83.4M	36.532M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	61.285M	34.003M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	2.9M	25.387M
5755MHz	Pass	500k	35.1M	39.33M
5795MHz	Pass	500k	35.3M	40.28M
802.11ac VHT80_Nss1,(MCS0)_1TX	-	-	-	-
5210MHz	Pass	Inf	83.6M	75.062M

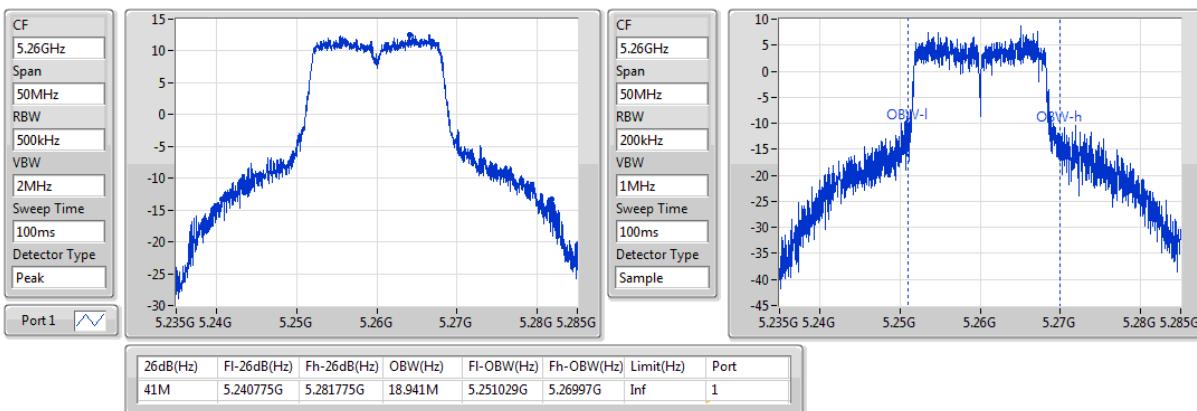
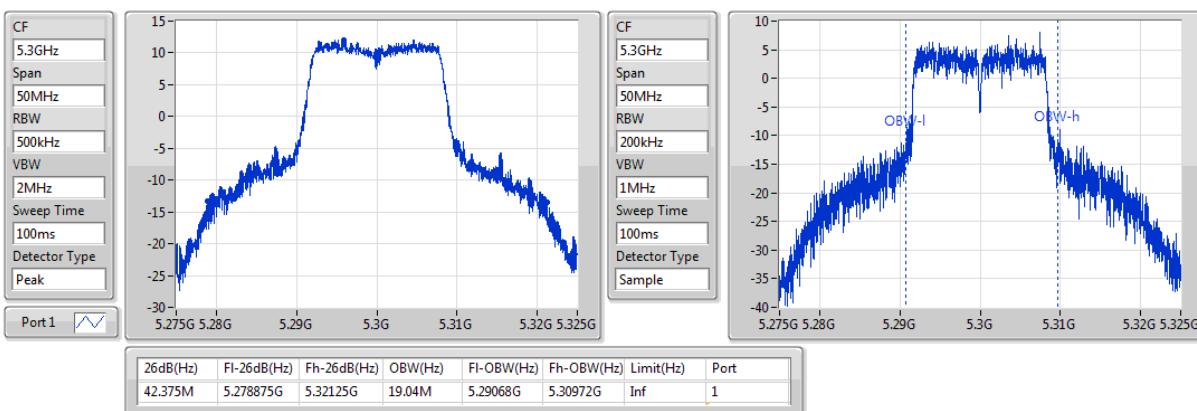
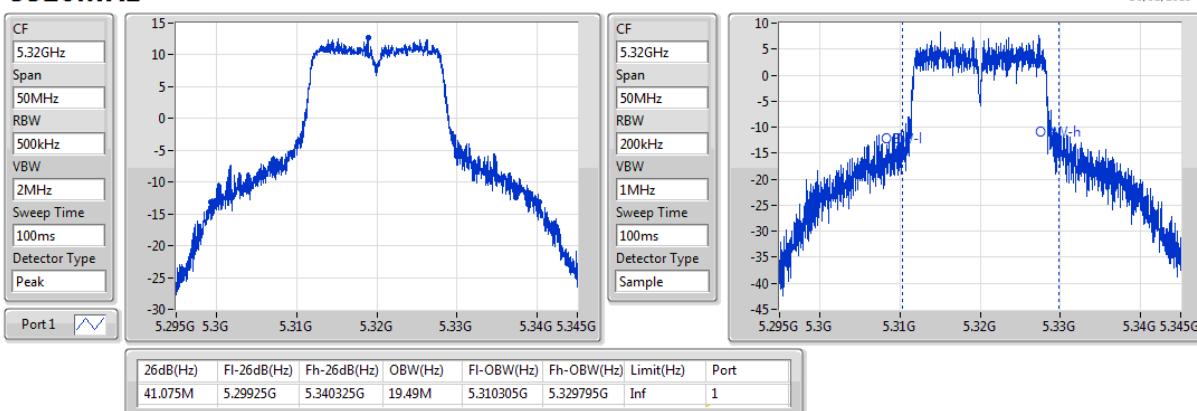


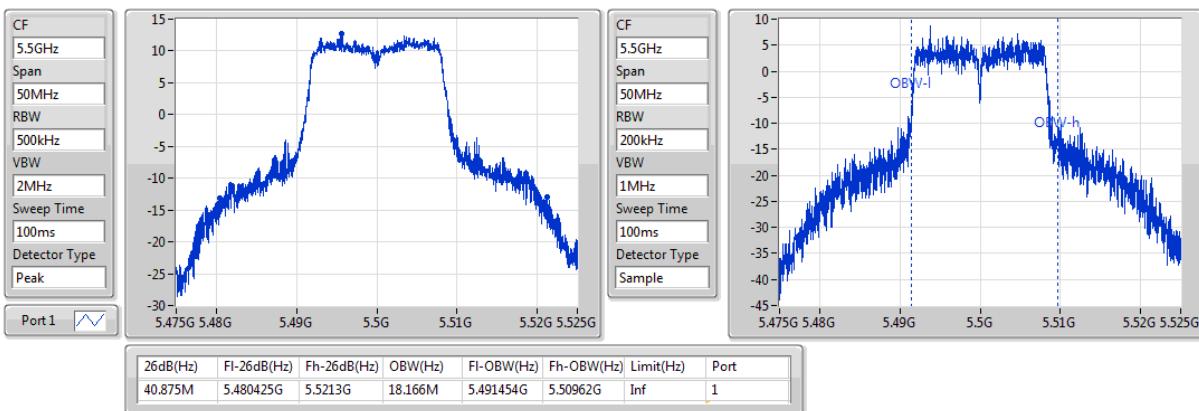
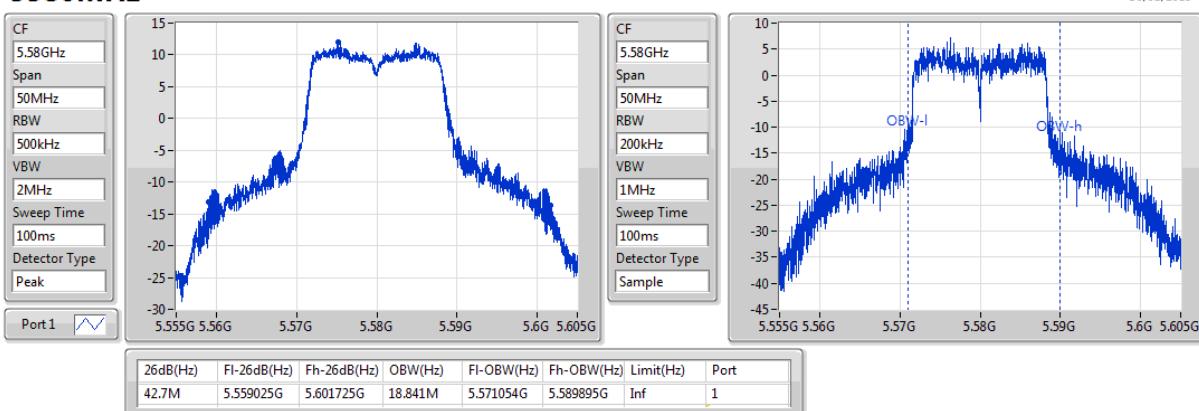
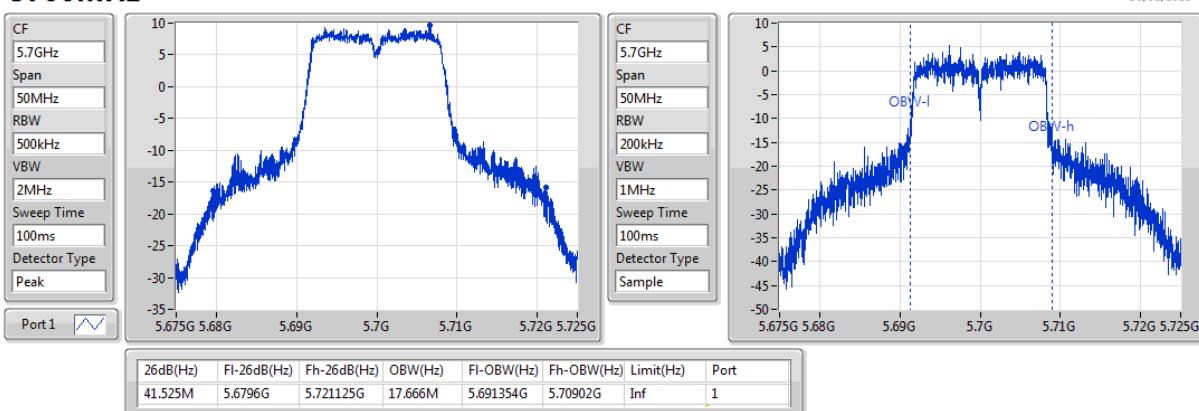
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
5290MHz	Pass	Inf	82M	75.262M
5530MHz	Pass	Inf	81.7M	74.963M
5610MHz	Pass	Inf	186.3M	77.761M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	130.725M	73.013M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	2.56M	36.942M
5775MHz	Pass	500k	72.5M	84.558M

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

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

**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5180MHz**

**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5200MHz**

**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5240MHz**


**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5260MHz**

**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5300MHz**

**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5320MHz**


**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5500MHz**

**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5580MHz**

**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5700MHz**


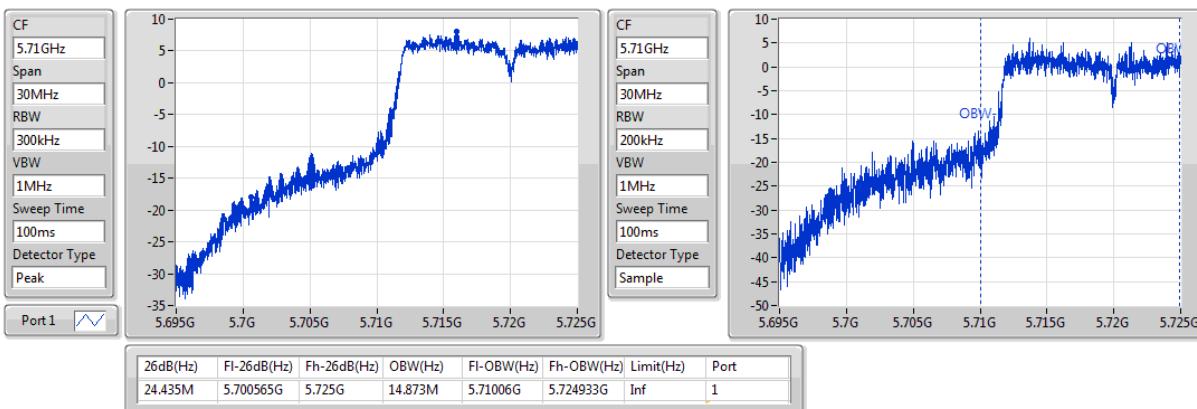


## 802.11a\_Nss1,(6Mbps)\_1TX

EBW

## 5720MHz Straddle 5.47-5.725GHz

30/01/2019

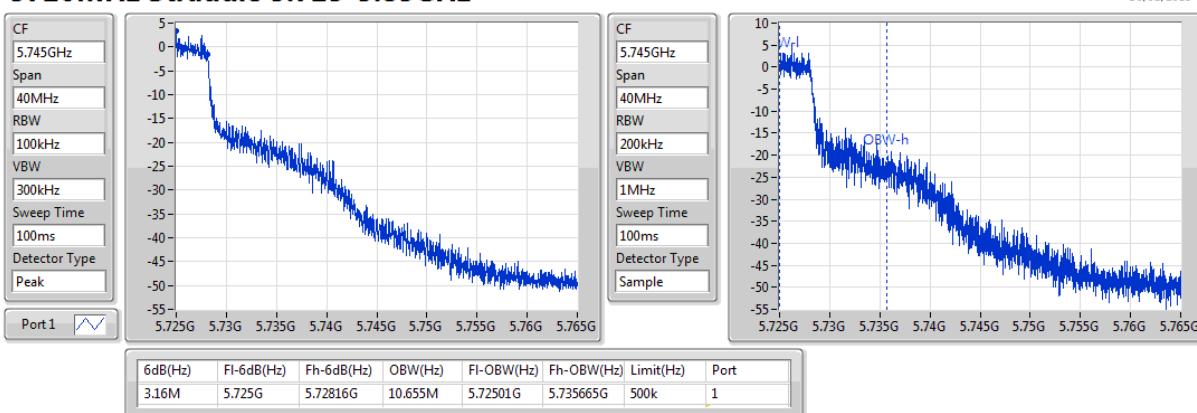


## 802.11a\_Nss1,(6Mbps)\_1TX

EBW

## 5720MHz Straddle 5.725-5.85GHz

30/01/2019

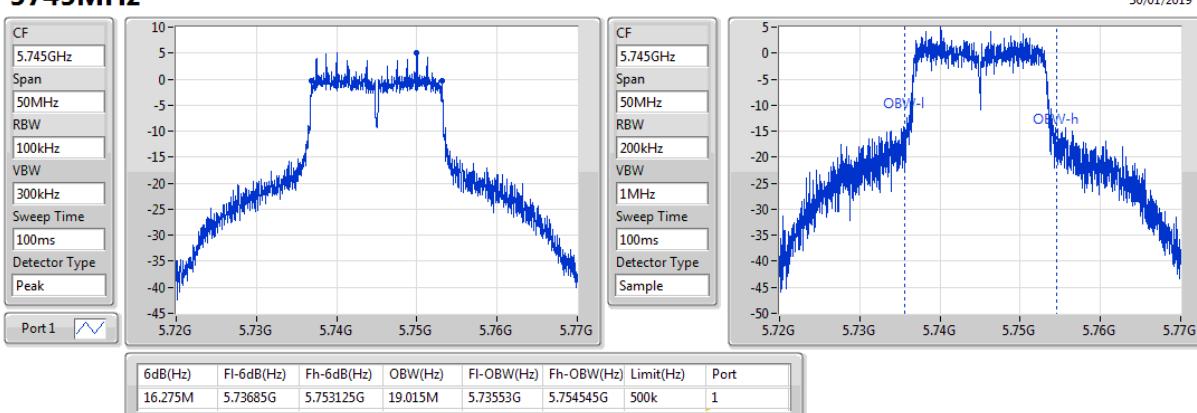


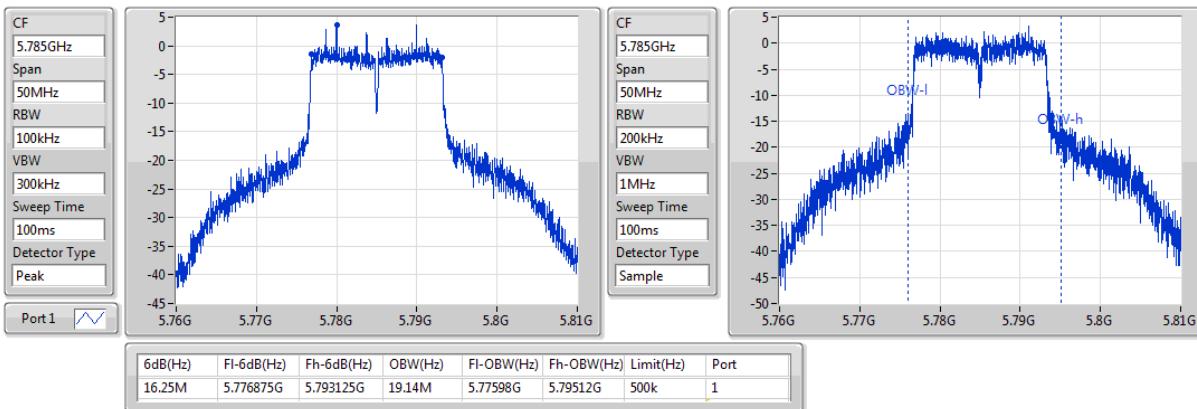
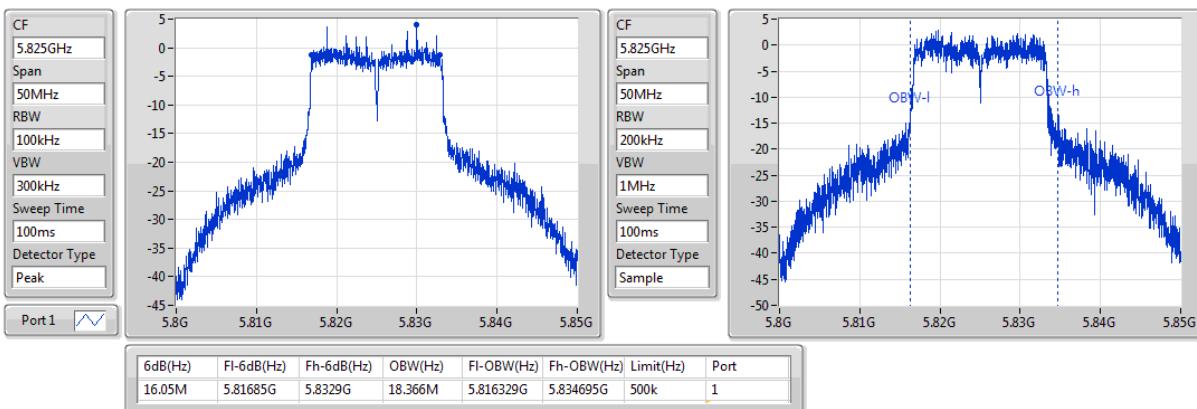
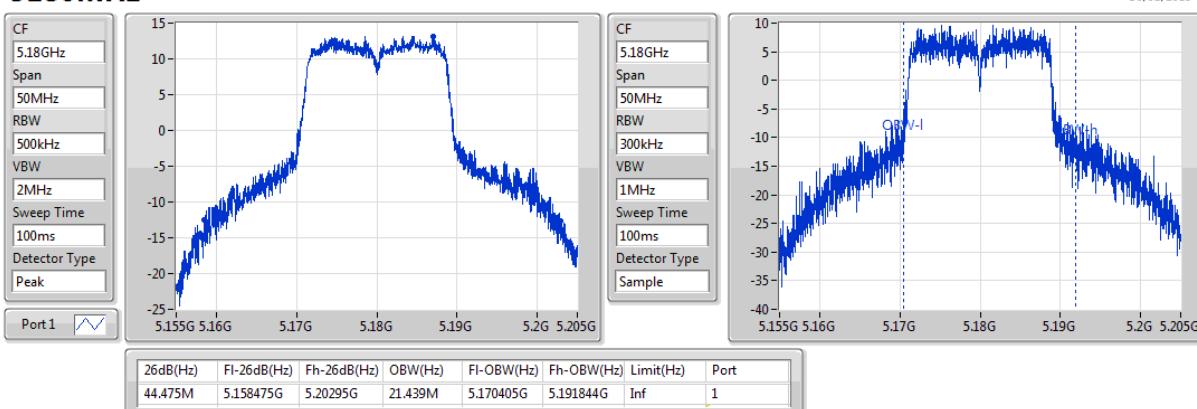
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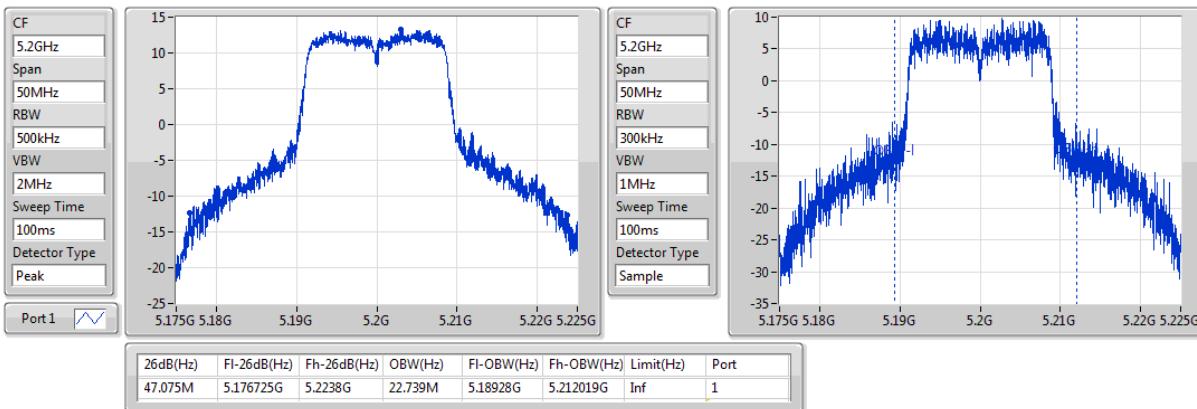
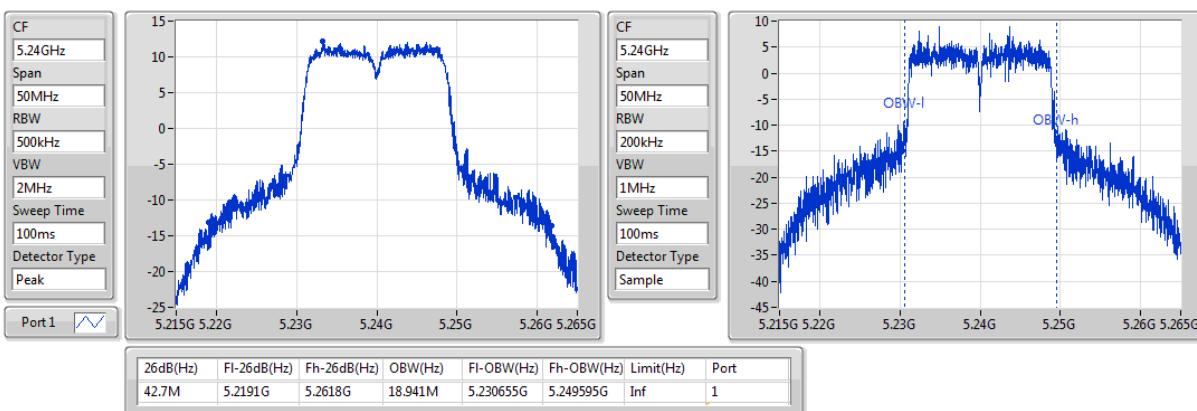
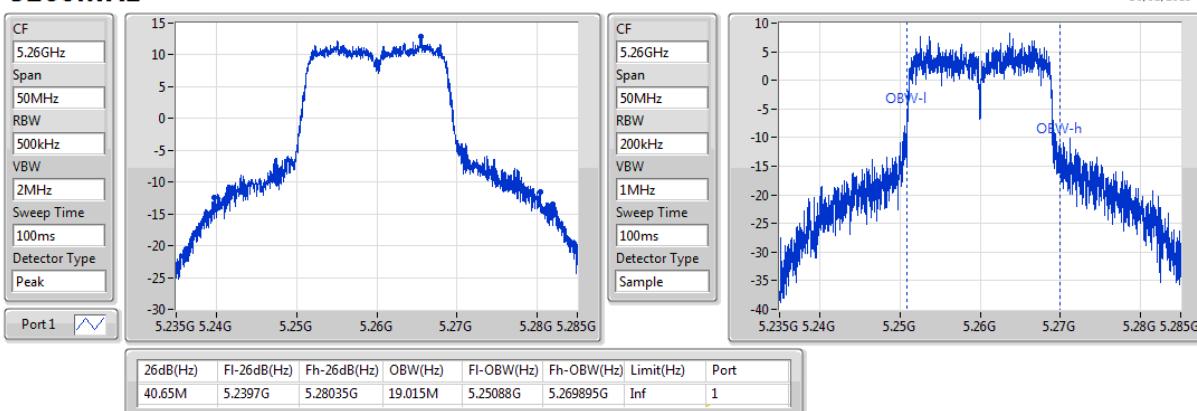
EBW

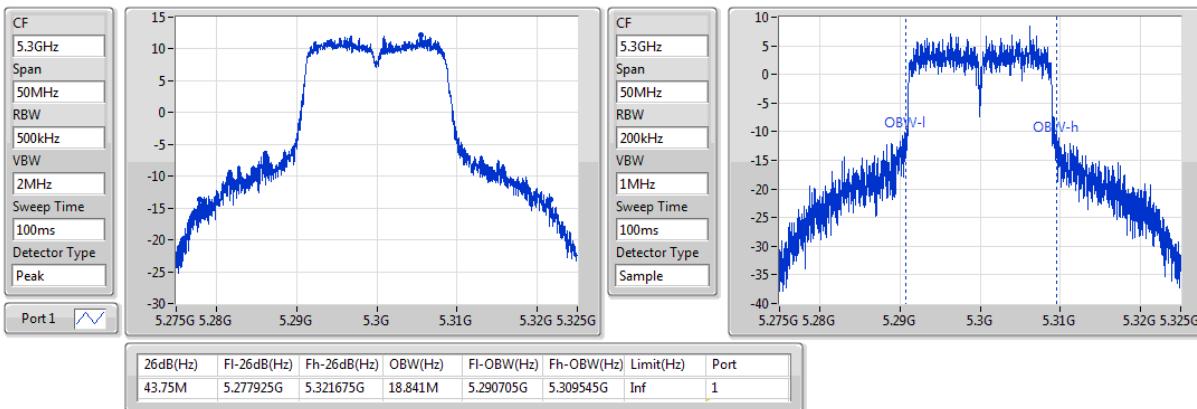
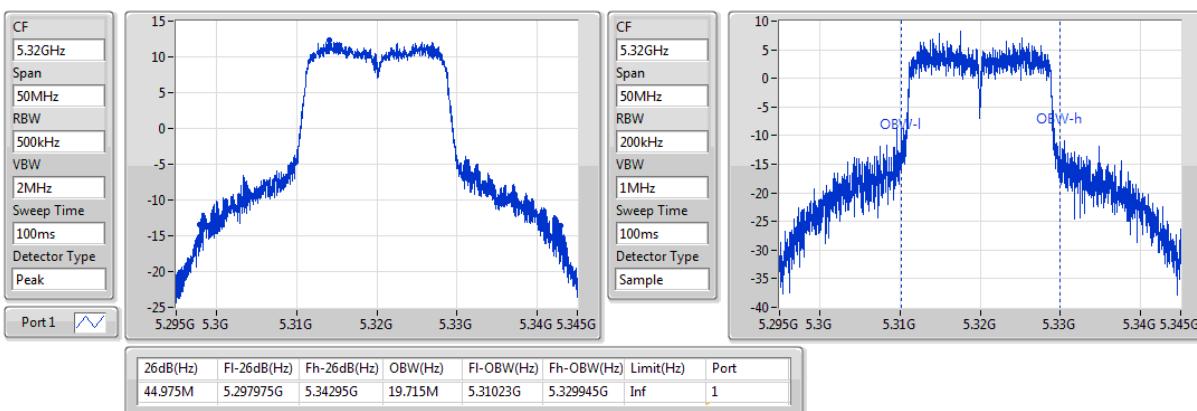
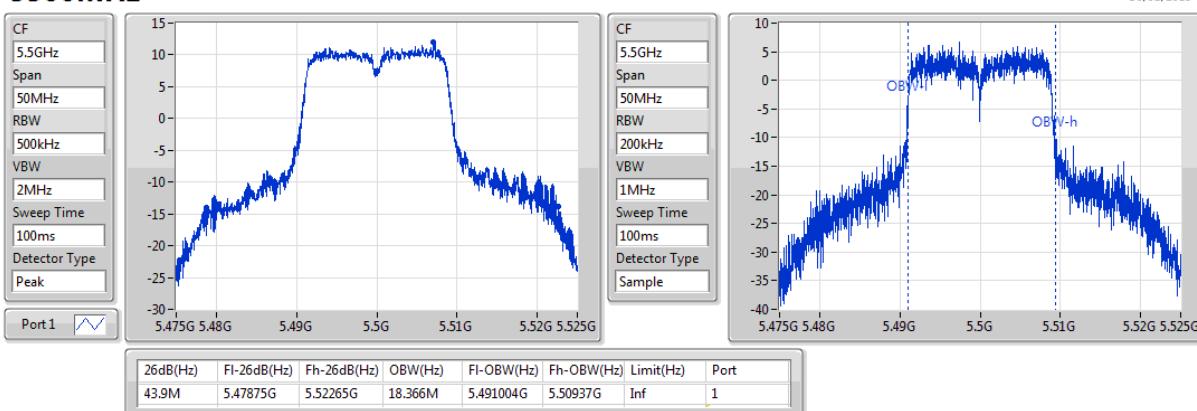
## 5745MHz

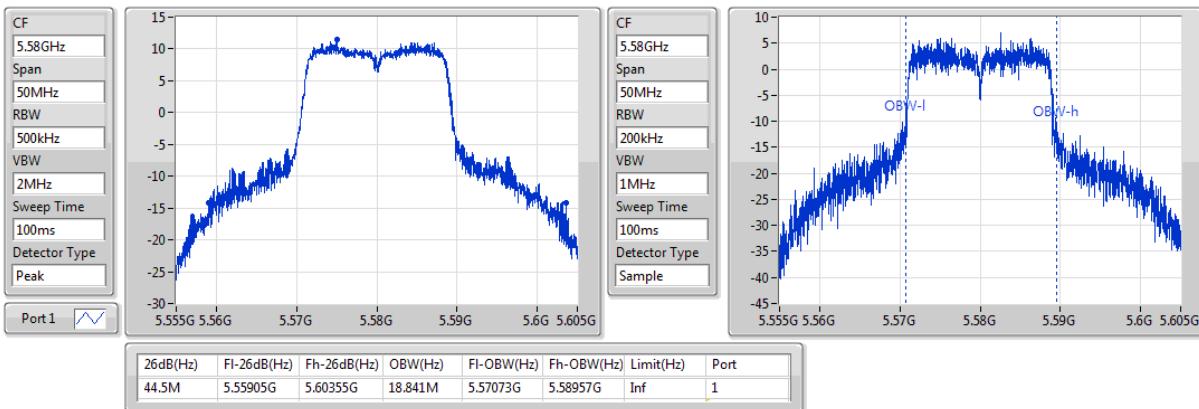
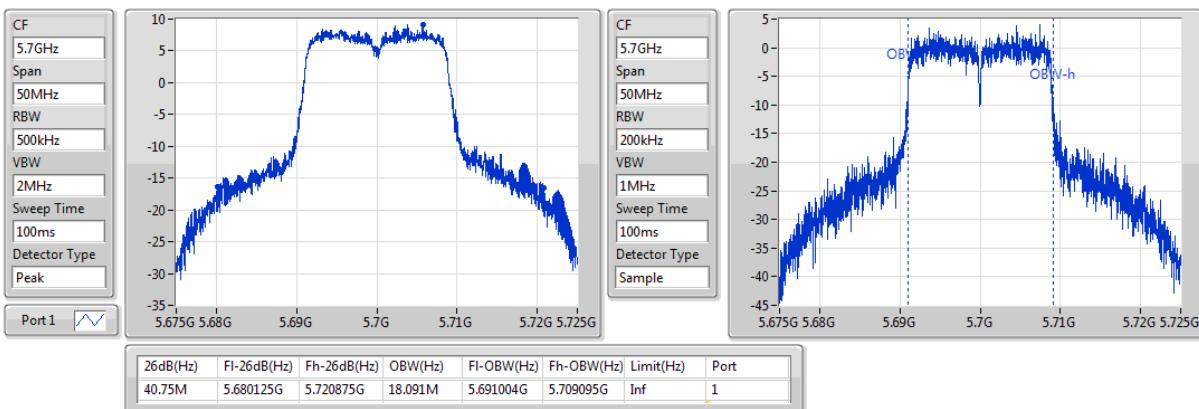
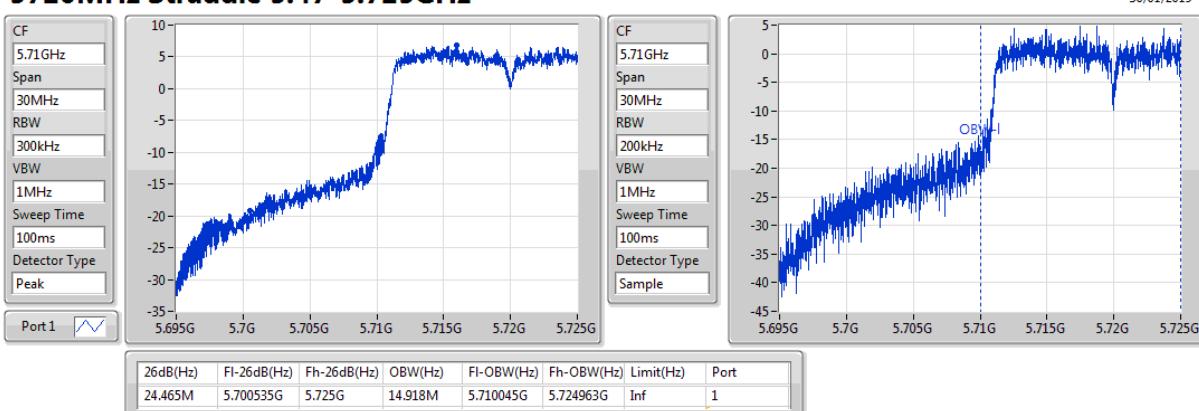
30/01/2019



**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5785MHz**

**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5825MHz**

**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5180MHz**


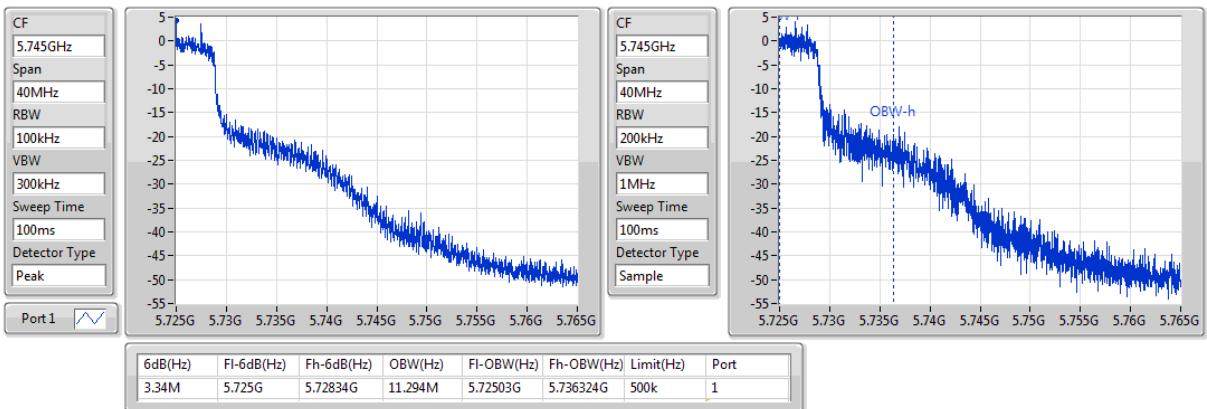
**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5200MHz**

**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5240MHz**

**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5260MHz**


**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5300MHz**

**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5320MHz**

**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5500MHz**


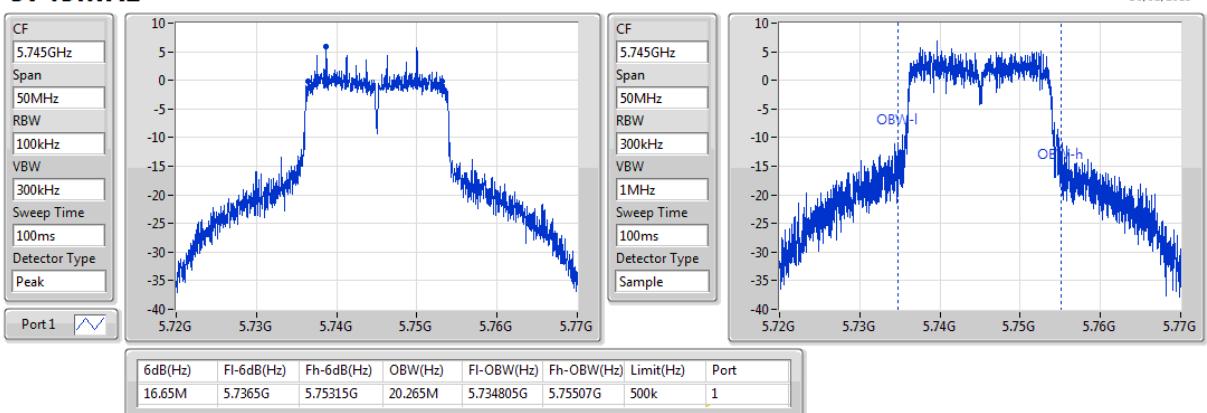
**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5580MHz**

**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5700MHz**

**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5720MHz Straddle 5.47-5.725GHz**
**30/01/2019**


**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5720MHz Straddle 5.725-5.85GHz**

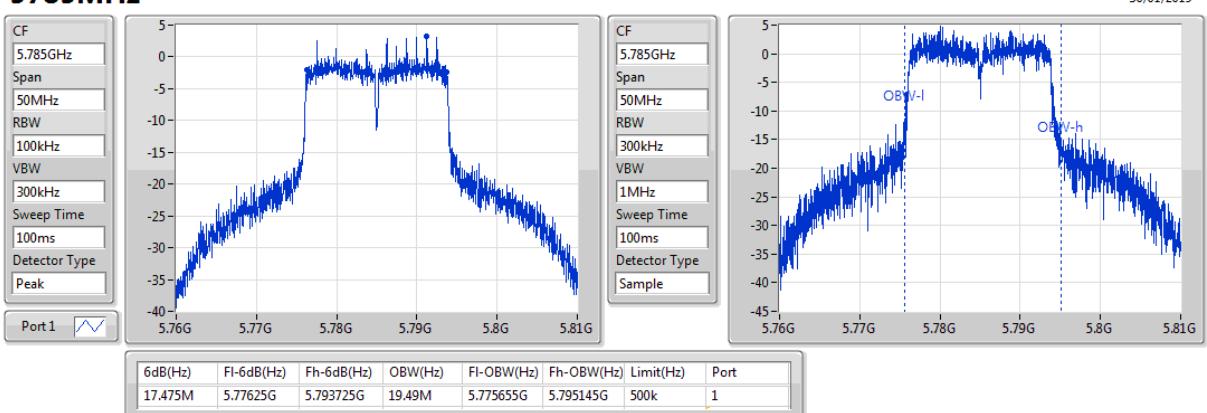
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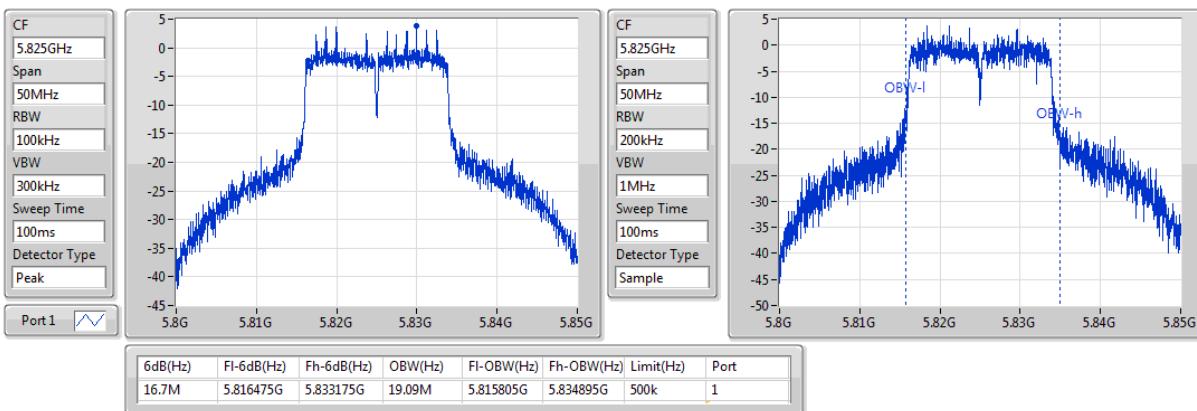
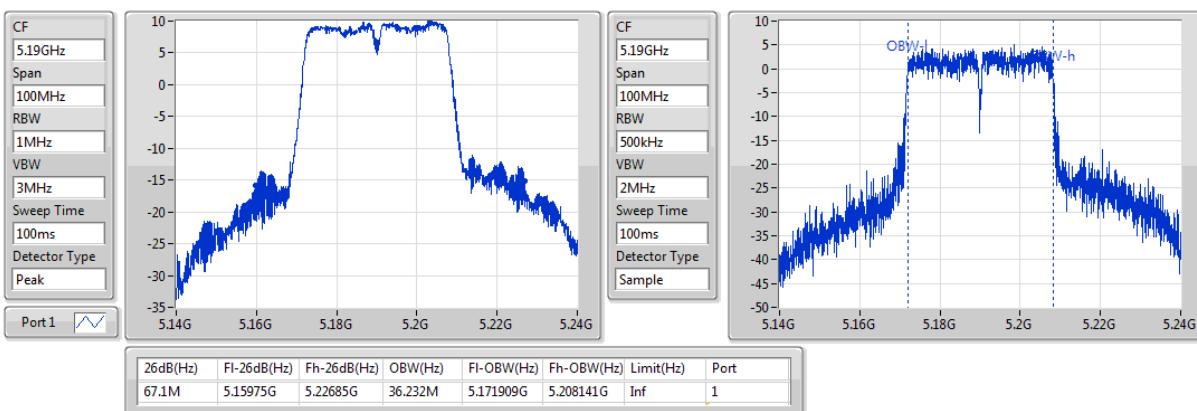
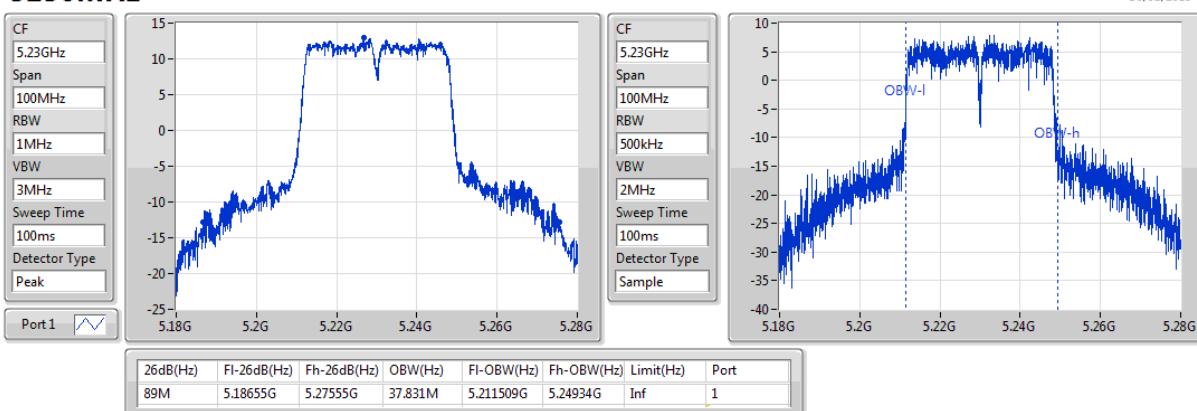

**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5745MHz**

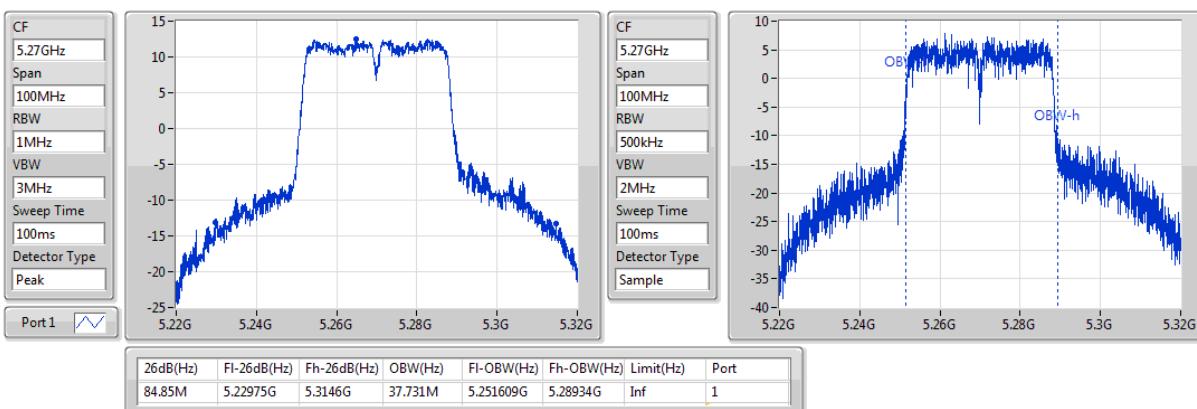
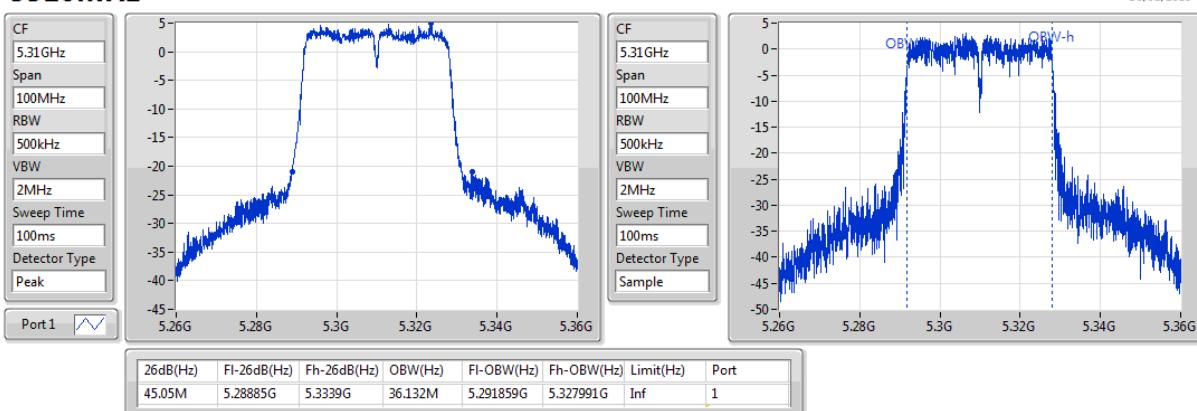
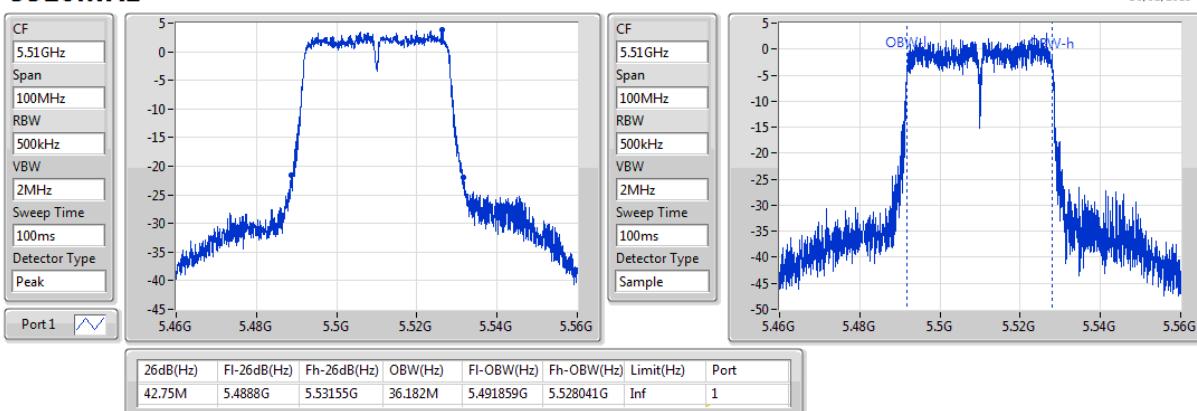
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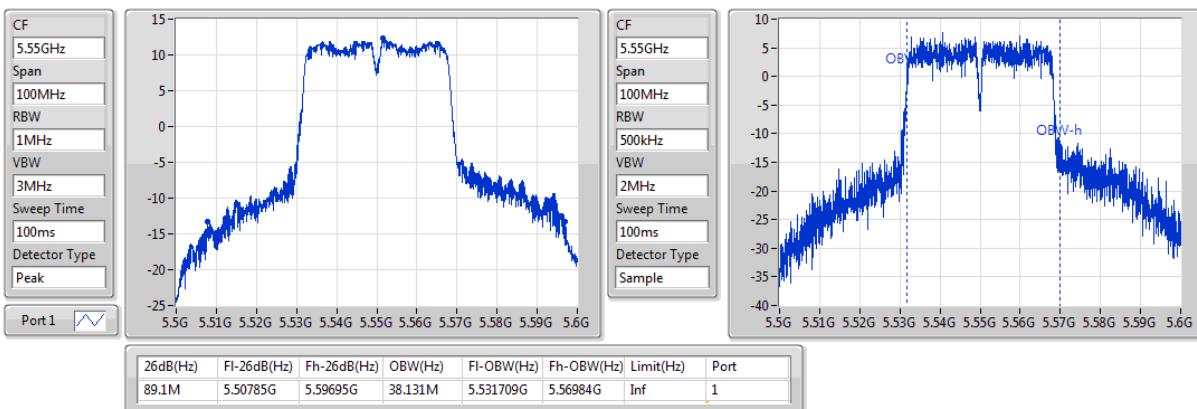
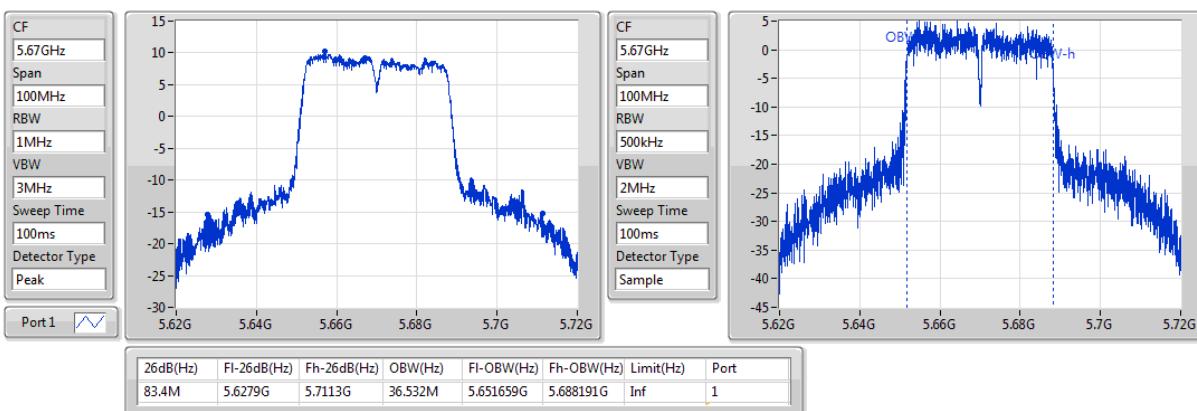

**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5785MHz**

30/01/2019

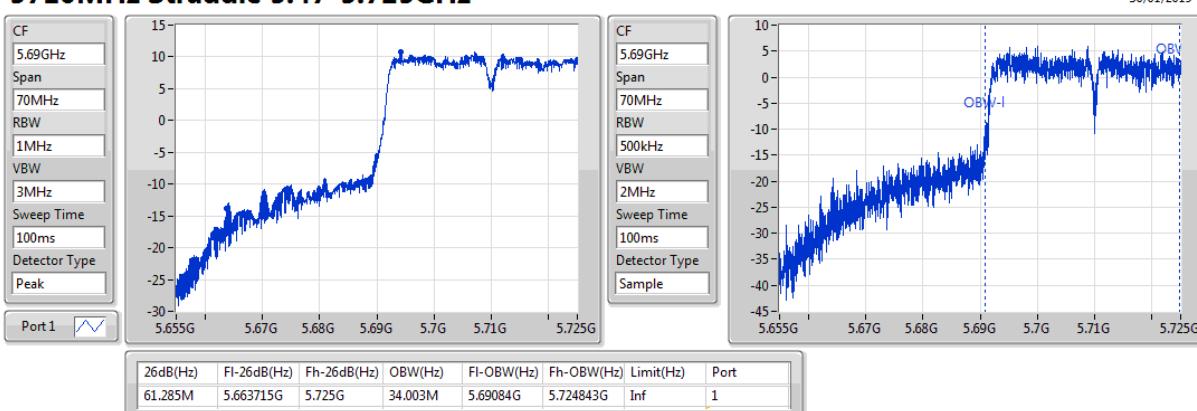


**802.11ac VHT20\_Nss1,(MCS0)\_1TX****EBW****5825MHz****802.11ac VHT40\_Nss1,(MCS0)\_1TX****EBW****5190MHz****802.11ac VHT40\_Nss1,(MCS0)\_1TX****EBW****5230MHz**

**802.11ac VHT40\_Nss1,(MCS0)\_1TX****EBW****5270MHz****802.11ac VHT40\_Nss1,(MCS0)\_1TX****EBW****5310MHz****802.11ac VHT40\_Nss1,(MCS0)\_1TX****EBW****5510MHz**

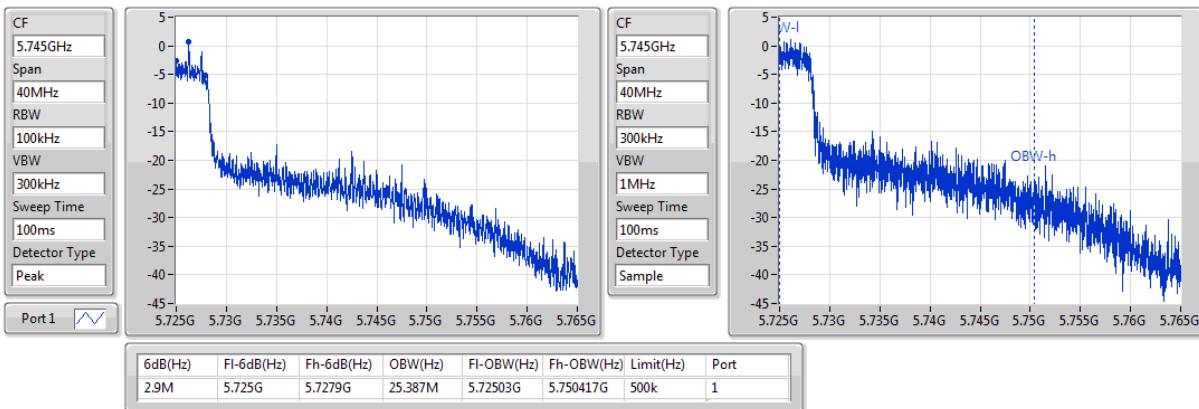
**802.11ac VHT40\_Nss1,(MCS0)\_1TX****EBW****5550MHz****802.11ac VHT40\_Nss1,(MCS0)\_1TX****EBW****5670MHz****802.11ac VHT40\_Nss1,(MCS0)\_1TX****EBW****5710MHz Straddle 5.47-5.725GHz**

30/01/2019

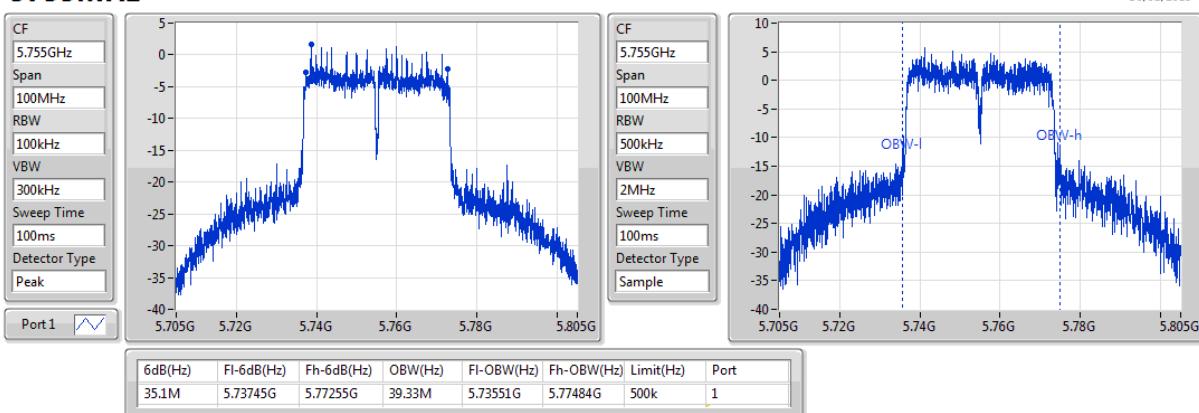


**802.11ac VHT40\_Nss1,(MCS0)\_1TX****EBW****5710MHz Straddle 5.725-5.85GHz**

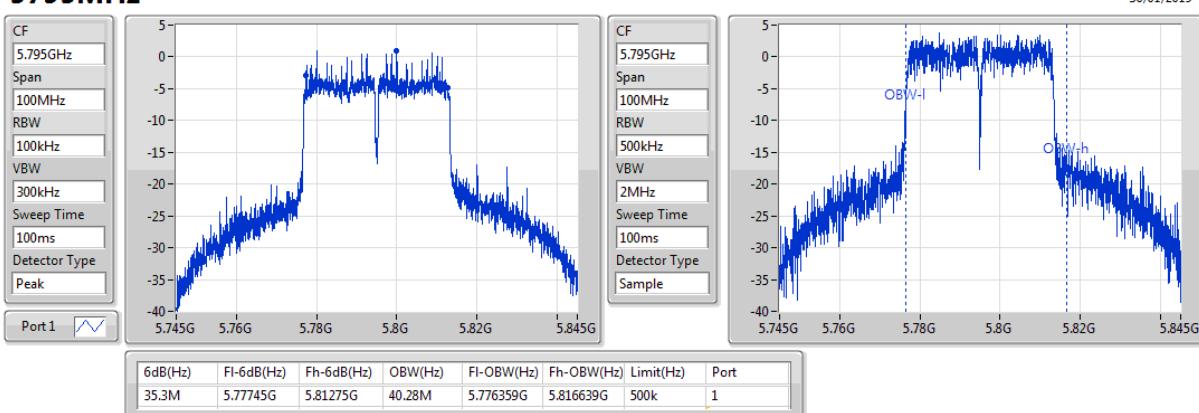
30/01/2019

**802.11ac VHT40\_Nss1,(MCS0)\_1TX****EBW****5755MHz**

30/01/2019

**802.11ac VHT40\_Nss1,(MCS0)\_1TX****EBW****5795MHz**

30/01/2019

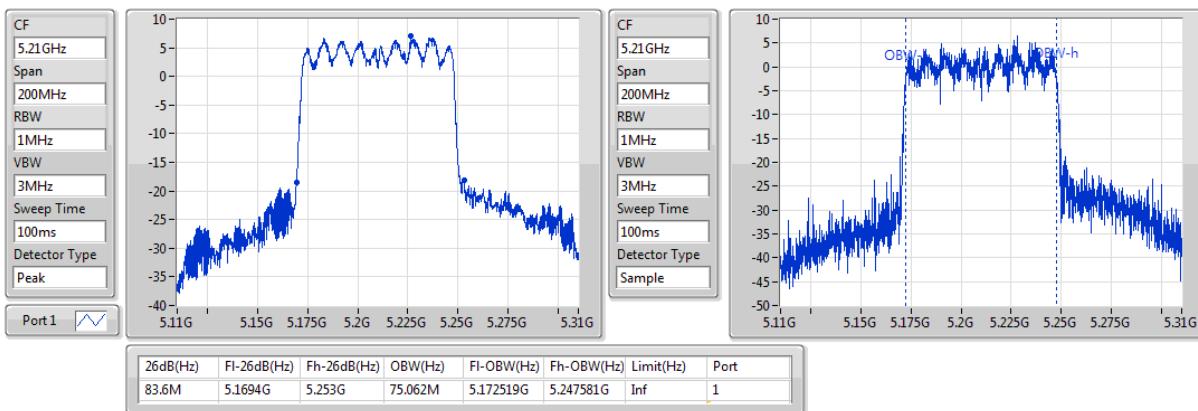




## 802.11ac VHT80\_Nss1,(MCS0)\_1TX

EBW

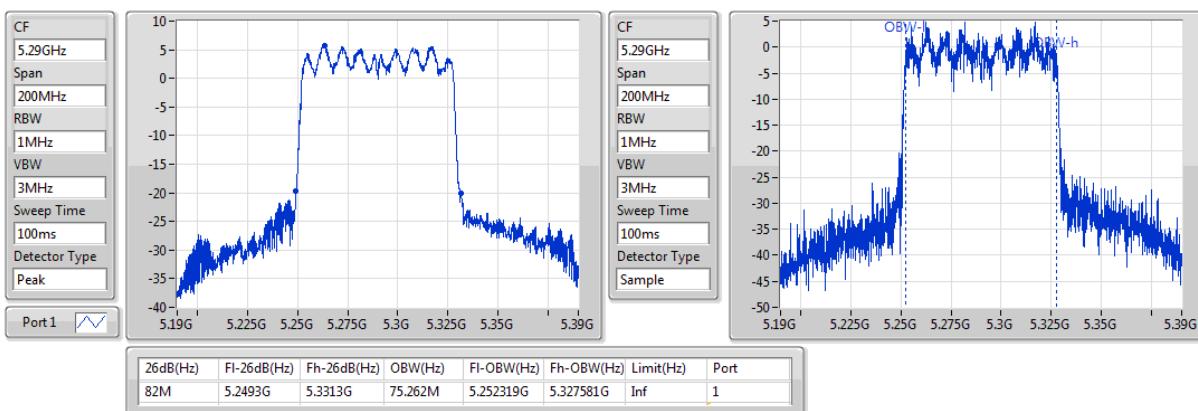
5210MHz



## 802.11ac VHT80\_Nss1,(MCS0)\_1TX

EBW

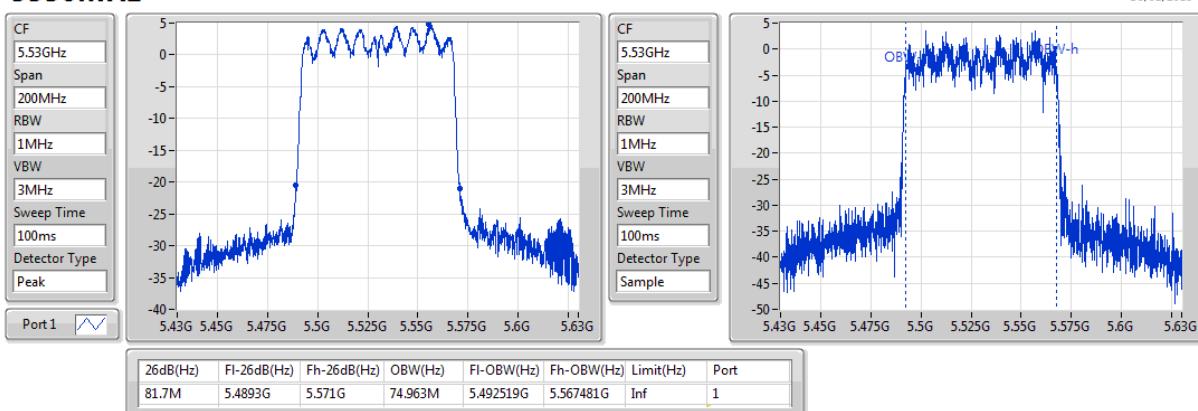
5290MHz

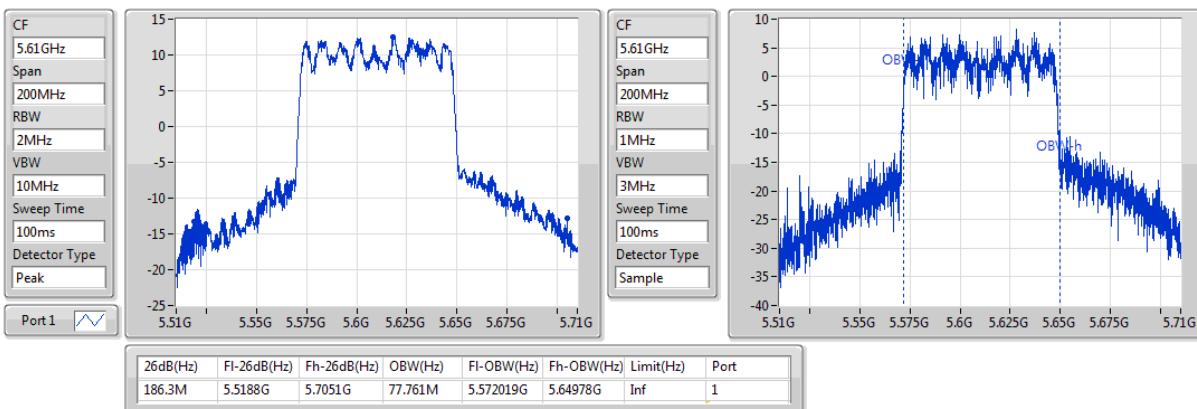


## 802.11ac VHT80\_Nss1,(MCS0)\_1TX

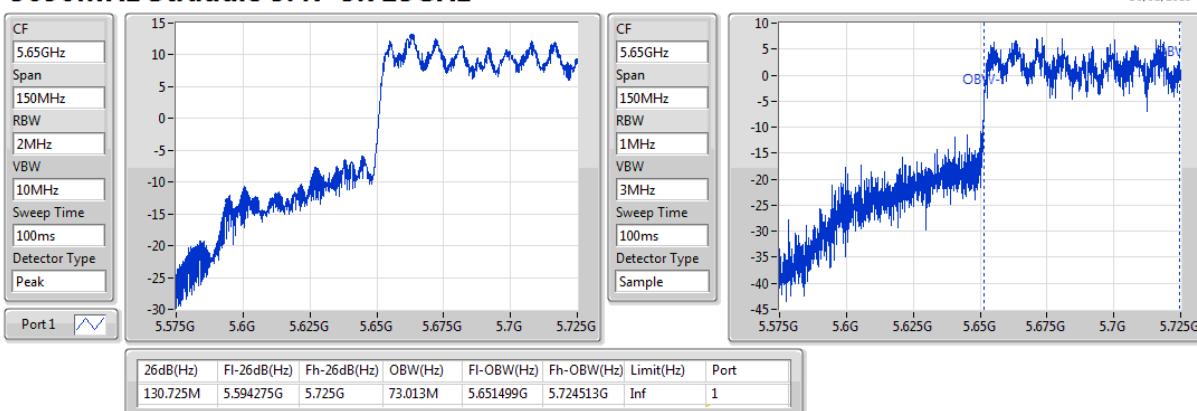
EBW

5530MHz

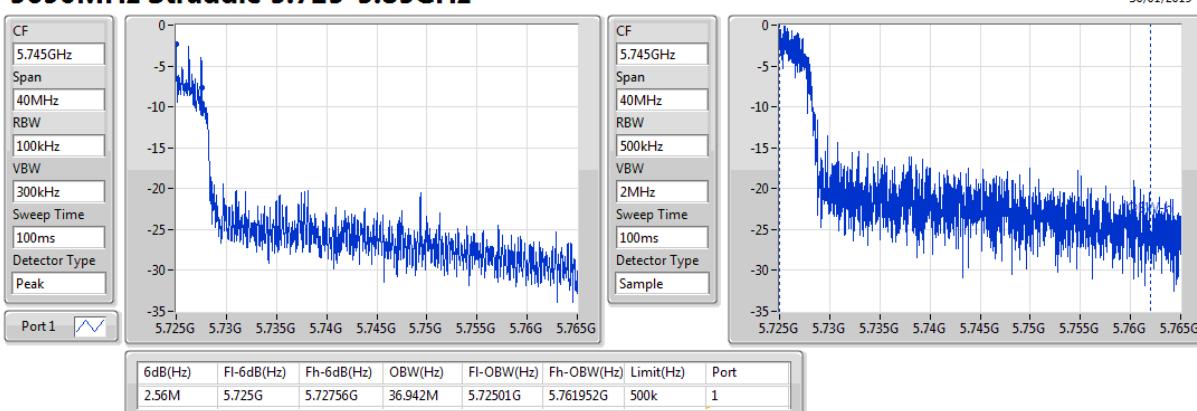


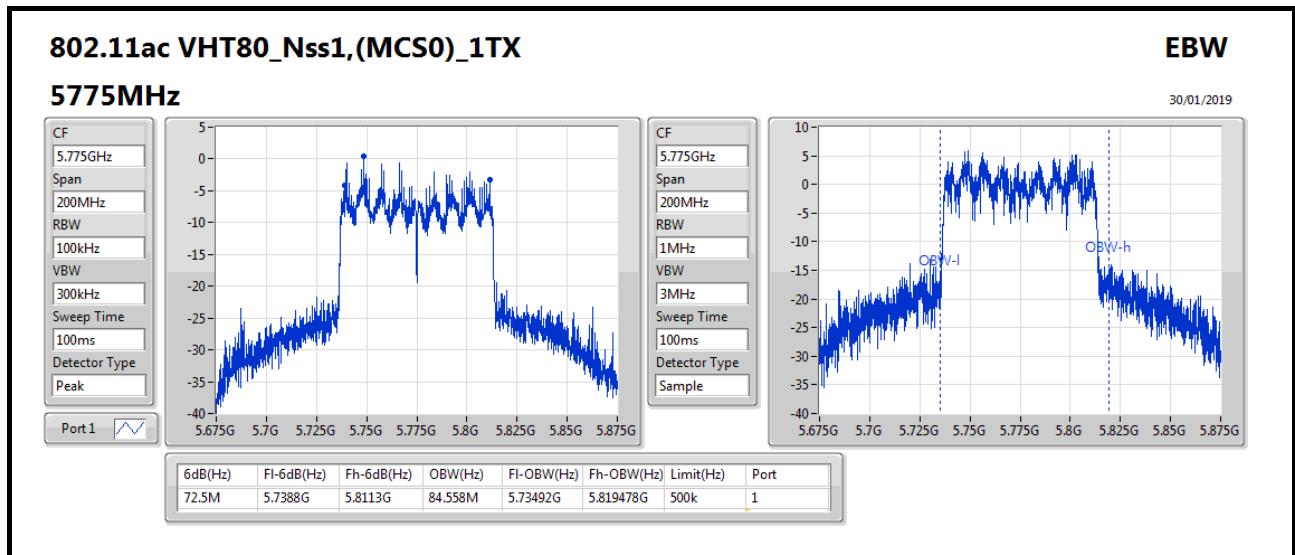
**802.11ac VHT80\_Nss1,(MCS0)\_1TX**
**EBW**
**5610MHz**

**802.11ac VHT80\_Nss1,(MCS0)\_1TX**
**EBW**
**5690MHz Straddle 5.47-5.725GHz**

30/01/2019


**802.11ac VHT80\_Nss1,(MCS0)\_1TX**
**EBW**
**5690MHz Straddle 5.725-5.85GHz**

30/01/2019





**Summary**

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	19.68	0.09290	22.68	0.18535
802.11ac VHT20_Nss1,(MCS0)_1TX	19.98	0.09954	22.98	0.19861
802.11ac VHT40_Nss1,(MCS0)_1TX	18.93	0.07816	21.93	0.15596
802.11ac VHT80_Nss1,(MCS0)_1TX	14.74	0.02979	17.74	0.05943
5.25-5.35GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	18.95	0.07852	21.95	0.15668
802.11ac VHT20_Nss1,(MCS0)_1TX	18.85	0.07674	21.85	0.15311
802.11ac VHT40_Nss1,(MCS0)_1TX	18.41	0.06934	21.41	0.13836
802.11ac VHT80_Nss1,(MCS0)_1TX	13.67	0.02328	16.67	0.04645
5.47-5.725GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	18.71	0.07430	21.71	0.14825
802.11ac VHT20_Nss1,(MCS0)_1TX	18.33	0.06808	21.33	0.13583
802.11ac VHT40_Nss1,(MCS0)_1TX	18.13	0.06501	21.13	0.12972
802.11ac VHT80_Nss1,(MCS0)_1TX	17.09	0.05117	20.09	0.10209
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	15.56	0.03597	18.56	0.07178
802.11ac VHT20_Nss1,(MCS0)_1TX	16.02	0.03999	19.02	0.07980
802.11ac VHT40_Nss1,(MCS0)_1TX	15.33	0.03412	18.33	0.06808
802.11ac VHT80_Nss1,(MCS0)_1TX	14.87	0.03069	17.87	0.06124

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-
5180MHz	Pass	3.00	19.39	19.39	23.98
5200MHz	Pass	3.00	19.68	19.68	23.98
5240MHz	Pass	3.00	19.11	19.11	23.98
5260MHz	Pass	3.00	18.95	18.95	23.98
5300MHz	Pass	3.00	18.76	18.76	23.98
5320MHz	Pass	3.00	18.75	18.75	23.98
5500MHz	Pass	3.00	18.71	18.71	23.98
5580MHz	Pass	3.00	18.32	18.32	23.98
5700MHz	Pass	3.00	16.01	16.01	23.98
5720MHz Straddle 5.47-5.725GHz	Pass	3.00	15.16	15.16	23.98
5720MHz Straddle 5.725-5.85GHz	Pass	3.00	8.79	8.79	30.00
5745MHz	Pass	3.00	15.56	15.56	30.00
5785MHz	Pass	3.00	14.26	14.26	30.00
5825MHz	Pass	3.00	14.57	14.57	30.00
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
5180MHz	Pass	3.00	19.70	19.70	23.98
5200MHz	Pass	3.00	19.98	19.98	23.98
5240MHz	Pass	3.00	18.95	18.95	23.98
5260MHz	Pass	3.00	18.83	18.83	23.98
5300MHz	Pass	3.00	18.65	18.65	23.98
5320MHz	Pass	3.00	18.85	18.85	23.98
5500MHz	Pass	3.00	18.33	18.33	23.98
5580MHz	Pass	3.00	18.20	18.20	23.98
5700MHz	Pass	3.00	15.52	15.52	23.98
5720MHz Straddle 5.47-5.725GHz	Pass	3.00	14.62	14.62	23.98
5720MHz Straddle 5.725-5.85GHz	Pass	3.00	8.77	8.77	30.00
5745MHz	Pass	3.00	16.02	16.02	30.00
5785MHz	Pass	3.00	14.30	14.30	30.00
5825MHz	Pass	3.00	14.47	14.47	30.00
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
5190MHz	Pass	3.00	16.03	16.03	23.98
5230MHz	Pass	3.00	18.93	18.93	23.98
5270MHz	Pass	3.00	18.41	18.41	23.98
5310MHz	Pass	3.00	14.25	14.25	23.98
5510MHz	Pass	3.00	13.35	13.35	23.98
5550MHz	Pass	3.00	18.13	18.13	23.98
5670MHz	Pass	3.00	15.66	15.66	23.98
5710MHz Straddle 5.47-5.725GHz	Pass	3.00	15.97	15.97	23.98
5710MHz Straddle 5.725-5.85GHz	Pass	3.00	4.98	4.98	30.00
5755MHz	Pass	3.00	15.33	15.33	30.00
5795MHz	Pass	3.00	14.69	14.69	30.00
802.11ac VHT80_Nss1,(MCS0)_1TX	-	-	-	-	-
5210MHz	Pass	3.00	14.74	14.74	23.98



## Power Result

## Appendix C

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
5290MHz	Pass	3.00	13.67	13.67	23.98
5530MHz	Pass	3.00	12.34	12.34	23.98
5610MHz	Pass	3.00	17.09	17.09	23.98
5690MHz Straddle 5.47-5.725GHz	Pass	3.00	16.68	16.68	23.98
5690MHz Straddle 5.725-5.85GHz	Pass	3.00	1.72	1.72	30.00
5775MHz	Pass	3.00	14.87	14.87	30.00

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

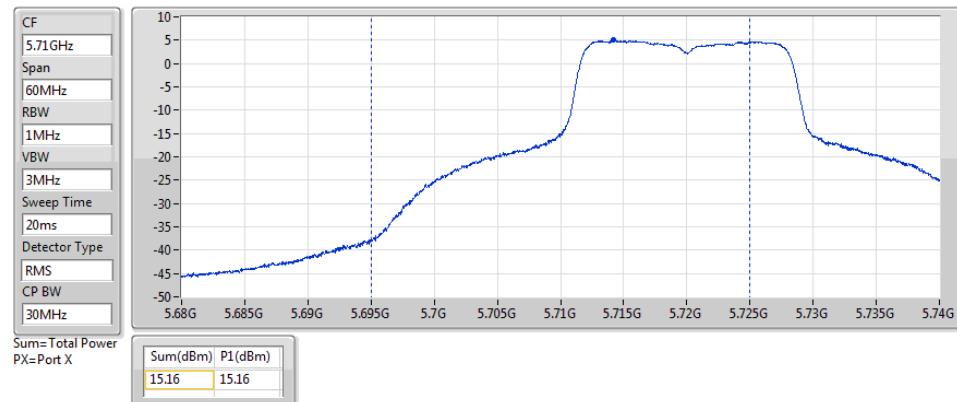


**802.11a\_Nss1,(6Mbps)\_1TX**  
**5720MHz Straddle 5.47-5.725GHz**

AV Power

30/01/2019

Port 1



**802.11a\_Nss1,(6Mbps)\_1TX**  
**5720MHz Straddle 5.725-5.85GHz**

AV Power

30/01/2019

Port 1

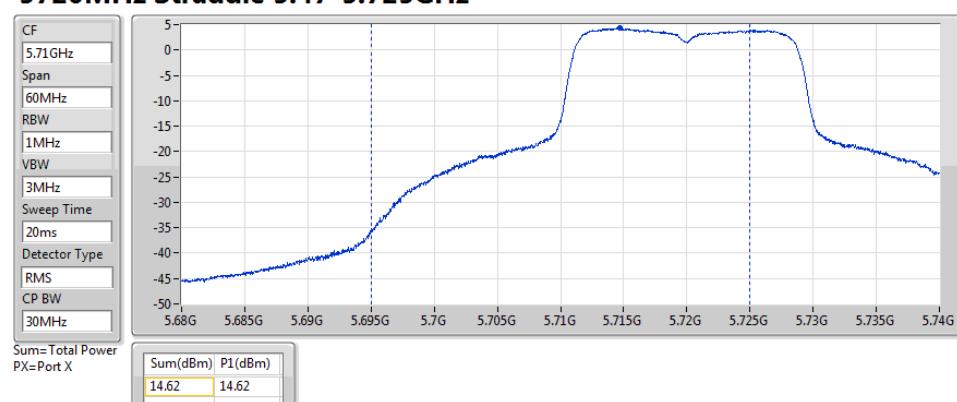


**802.11ac VHT20\_Nss1,(MCS0)\_1TX**  
**5720MHz Straddle 5.47-5.725GHz**

AV Power

30/01/2019

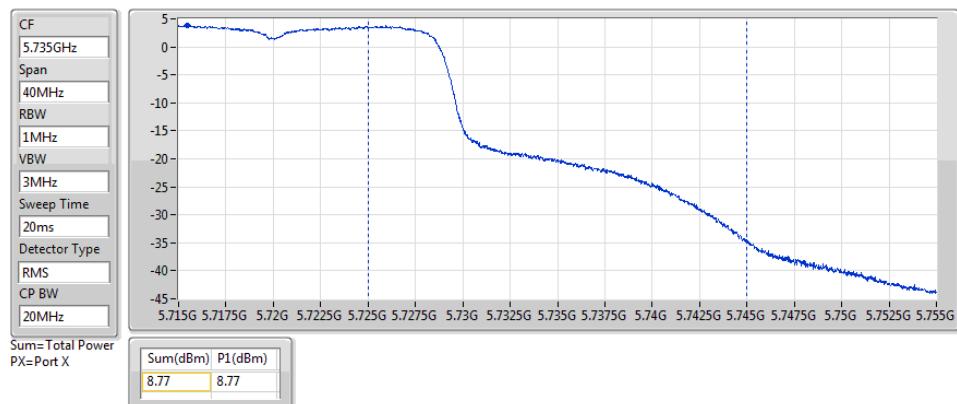
Port 1



**802.11ac VHT20\_Nss1,(MCS0)\_1TX****AV Power****5720MHz Straddle 5.725-5.85GHz**

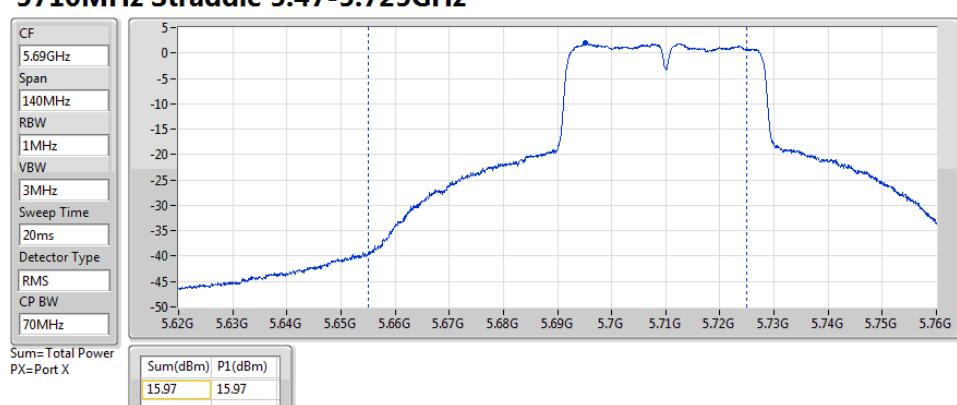
30/01/2019

Port 1

**802.11ac VHT40\_Nss1,(MCS0)\_1TX****AV Power****5710MHz Straddle 5.47-5.725GHz**

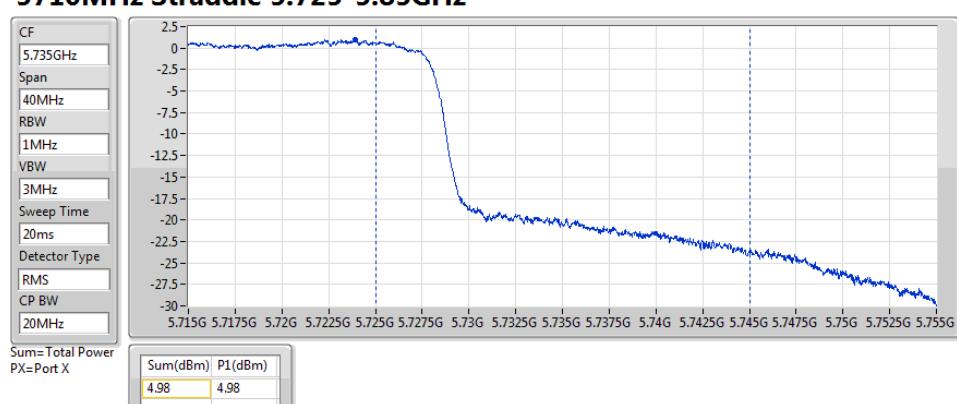
30/01/2019

Port 1

**802.11ac VHT40\_Nss1,(MCS0)\_1TX****AV Power****5710MHz Straddle 5.725-5.85GHz**

30/01/2019

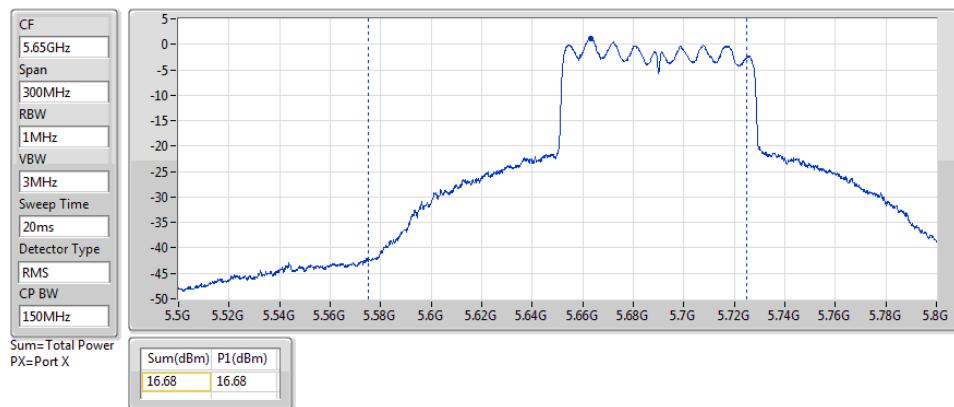
Port 1



**802.11ac VHT80\_Nss1,(MCS0)\_1TX****AV Power****5690MHz Straddle 5.47-5.725GHz**

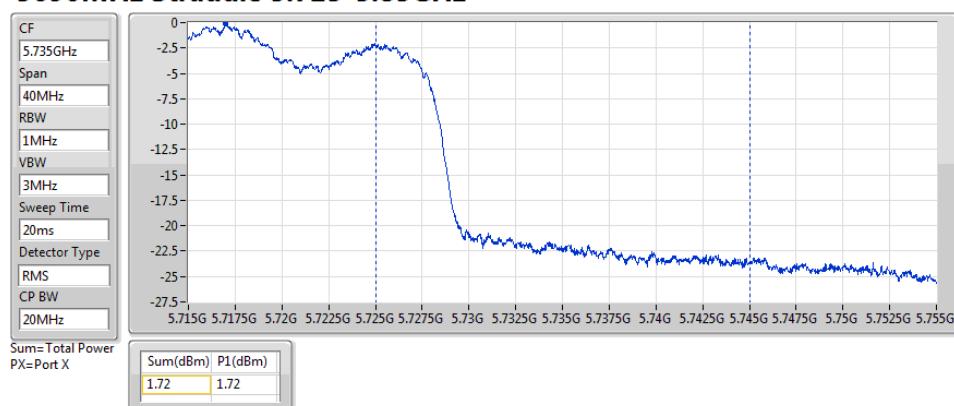
30/01/2019

Port 1

**802.11ac VHT80\_Nss1,(MCS0)\_1TX****AV Power****5690MHz Straddle 5.725-5.85GHz**

30/01/2019

Port 1



**Summary**

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
802.11a_Nss1,(6Mbps)_1TX	6.84
802.11ac VHT20_Nss1,(MCS0)_1TX	7.04
802.11ac VHT40_Nss1,(MCS0)_1TX	2.85
802.11ac VHT80_Nss1,(MCS0)_1TX	-2.50
5.25-5.35GHz	-
802.11a_Nss1,(6Mbps)_1TX	6.19
802.11ac VHT20_Nss1,(MCS0)_1TX	5.96
802.11ac VHT40_Nss1,(MCS0)_1TX	2.75
802.11ac VHT80_Nss1,(MCS0)_1TX	-3.79
5.47-5.725GHz	-
802.11a_Nss1,(6Mbps)_1TX	5.87
802.11ac VHT20_Nss1,(MCS0)_1TX	5.38
802.11ac VHT40_Nss1,(MCS0)_1TX	2.36
802.11ac VHT80_Nss1,(MCS0)_1TX	-0.10
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_1TX	1.38
802.11ac VHT20_Nss1,(MCS0)_1TX	1.62
802.11ac VHT40_Nss1,(MCS0)_1TX	-1.57
802.11ac VHT80_Nss1,(MCS0)_1TX	-3.50

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



## Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-
5180MHz	Pass	3.00	6.57	6.57	11.00
5200MHz	Pass	3.00	6.84	6.84	11.00
5240MHz	Pass	3.00	6.22	6.22	11.00
5260MHz	Pass	3.00	6.19	6.19	11.00
5300MHz	Pass	3.00	5.94	5.94	11.00
5320MHz	Pass	3.00	6.00	6.00	11.00
5500MHz	Pass	3.00	5.87	5.87	11.00
5580MHz	Pass	3.00	5.54	5.54	11.00
5700MHz	Pass	3.00	3.10	3.10	11.00
5720MHz Straddle 5.47-5.725GHz	Pass	3.00	3.48	3.48	11.00
5720MHz Straddle 5.725-5.85GHz	Pass	3.00	1.23	1.23	30.00
5745MHz	Pass	3.00	1.38	1.38	30.00
5785MHz	Pass	3.00	0.06	0.06	30.00
5825MHz	Pass	3.00	0.24	0.24	30.00
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
5180MHz	Pass	3.00	6.85	6.85	11.00
5200MHz	Pass	3.00	7.04	7.04	11.00
5240MHz	Pass	3.00	5.98	5.98	11.00
5260MHz	Pass	3.00	5.96	5.96	11.00
5300MHz	Pass	3.00	5.64	5.64	11.00
5320MHz	Pass	3.00	5.85	5.85	11.00
5500MHz	Pass	3.00	5.38	5.38	11.00
5580MHz	Pass	3.00	5.31	5.31	11.00
5700MHz	Pass	3.00	2.51	2.51	11.00
5720MHz Straddle 5.47-5.725GHz	Pass	3.00	2.71	2.71	11.00
5720MHz Straddle 5.725-5.85GHz	Pass	3.00	0.80	0.80	30.00
5745MHz	Pass	3.00	1.62	1.62	30.00
5785MHz	Pass	3.00	-0.13	-0.13	30.00
5825MHz	Pass	3.00	0.01	0.01	30.00
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
5190MHz	Pass	3.00	0.27	0.27	11.00
5230MHz	Pass	3.00	2.85	2.85	11.00
5270MHz	Pass	3.00	2.75	2.75	11.00
5310MHz	Pass	3.00	-1.56	-1.56	11.00
5510MHz	Pass	3.00	-2.32	-2.32	11.00
5550MHz	Pass	3.00	2.36	2.36	11.00
5670MHz	Pass	3.00	0.20	0.20	11.00
5710MHz Straddle 5.47-5.725GHz	Pass	3.00	0.41	0.41	11.00
5710MHz Straddle 5.725-5.85GHz	Pass	3.00	-2.38	-2.38	30.00
5755MHz	Pass	3.00	-1.57	-1.57	30.00
5795MHz	Pass	3.00	-2.56	-2.56	30.00
802.11ac VHT80_Nss1,(MCS0)_1TX	-	-	-	-	-
5210MHz	Pass	3.00	-2.50	-2.50	11.00



Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
5290MHz	Pass	3.00	-3.79	-3.79	11.00
5530MHz	Pass	3.00	-4.48	-4.48	11.00
5610MHz	Pass	3.00	-0.10	-0.10	11.00
5690MHz Straddle 5.47-5.725GHz	Pass	3.00	-0.67	-0.67	11.00
5690MHz Straddle 5.725-5.85GHz	Pass	3.00	-5.45	-5.45	30.00
5775MHz	Pass	3.00	-3.50	-3.50	30.00

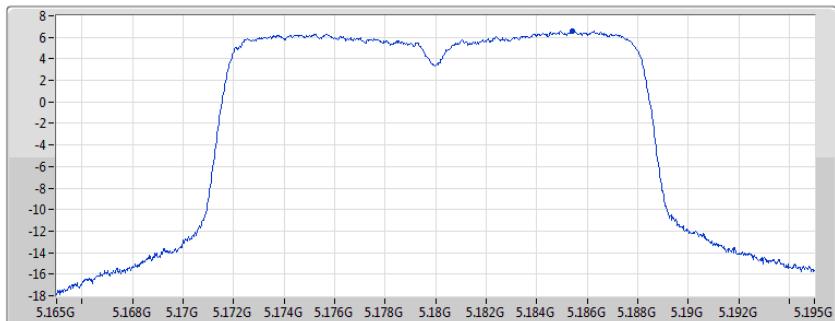
**DG** = Directional Gain; **RBW** = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

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

**802.11a\_Nss1,(6Mbps)\_1TX**
**PSD**
**5180MHz**

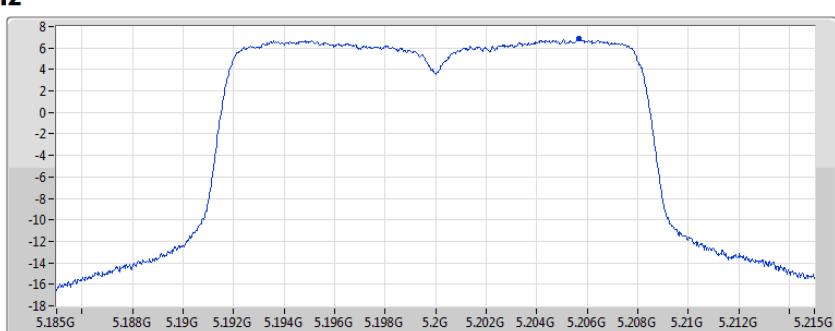
30/01/2019

CF	5.18GHz
Span	30MHz
RBW	1MHz
VBW	3MHz
Sweep Time	20ms
Detector Type	RMS


**802.11a\_Nss1,(6Mbps)\_1TX**
**PSD**
**5200MHz**

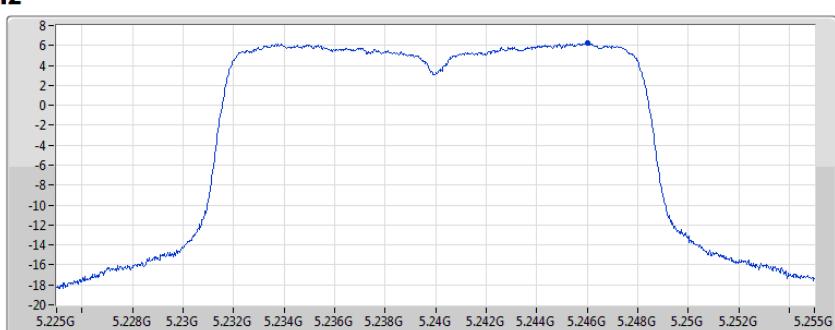
30/01/2019

CF	5.2GHz
Span	30MHz
RBW	1MHz
VBW	3MHz
Sweep Time	20ms
Detector Type	RMS


**802.11a\_Nss1,(6Mbps)\_1TX**
**PSD**
**5240MHz**

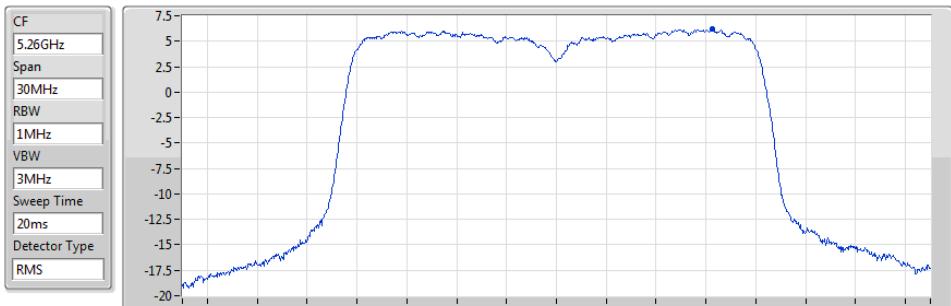
30/01/2019

CF	5.24GHz
Span	30MHz
RBW	1MHz
VBW	3MHz
Sweep Time	20ms
Detector Type	RMS



**802.11a\_Nss1,(6Mbps)\_1TX**
**5260MHz**
**PSD**

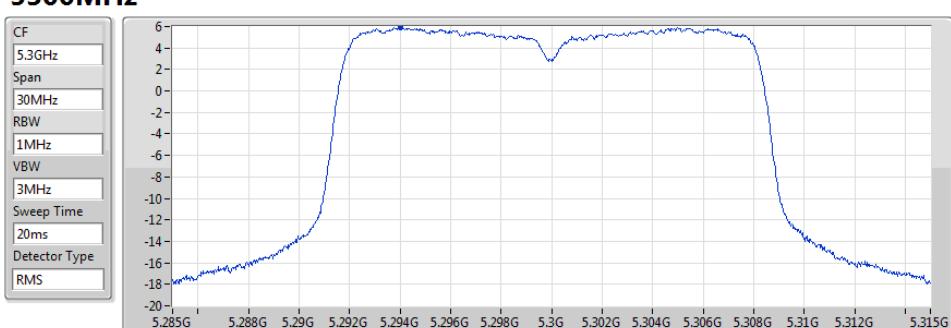
30/01/2019

Port 1 


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.19	6.19	6.19

**802.11a\_Nss1,(6Mbps)\_1TX**
**5300MHz**
**PSD**

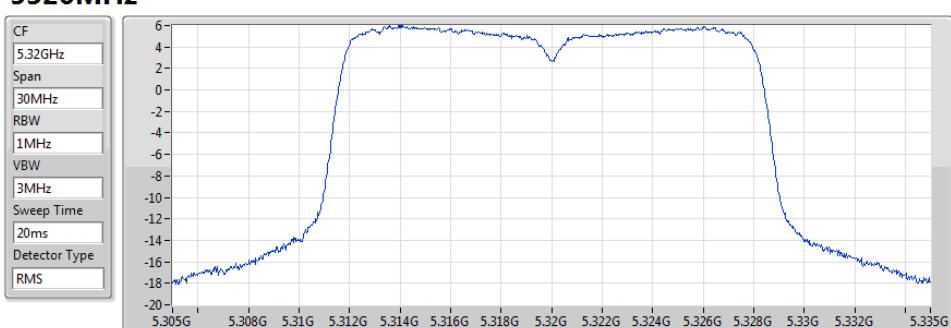
30/01/2019

Port 1 


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.94	5.94	5.94

**802.11a\_Nss1,(6Mbps)\_1TX**
**5320MHz**
**PSD**

30/01/2019

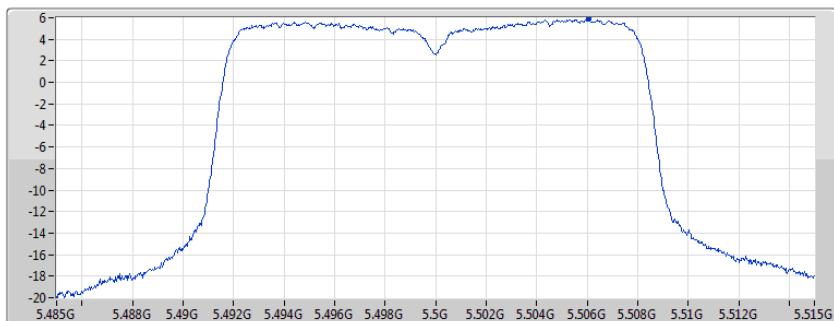
Port 1 


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.00	6.00	6.00

**802.11a\_Nss1,(6Mbps)\_1TX**
**PSD**
**5500MHz**

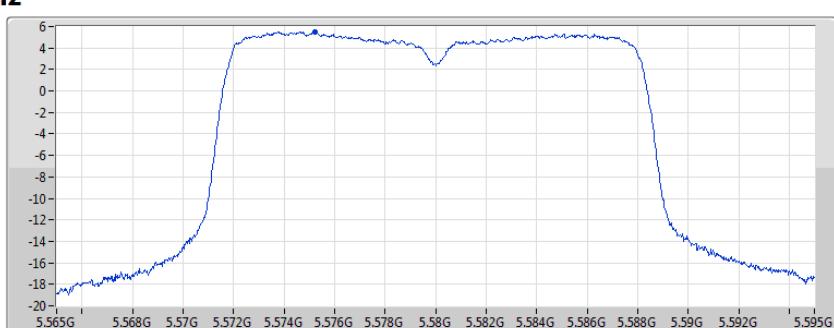
30/01/2019

CF  
5.5GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
20ms  
Detector Type  
RMS


**802.11a\_Nss1,(6Mbps)\_1TX**
**PSD**
**5580MHz**

30/01/2019

CF  
5.58GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
20ms  
Detector Type  
RMS


**802.11a\_Nss1,(6Mbps)\_1TX**
**PSD**
**5700MHz**

30/01/2019

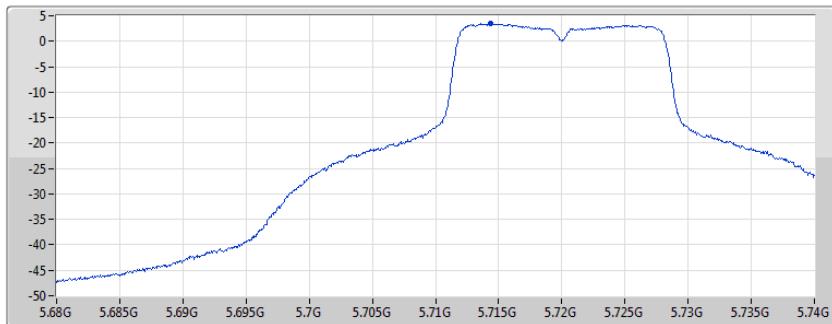
CF  
5.7GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
20ms  
Detector Type  
RMS



**802.11a\_Nss1,(6Mbps)\_1TX****PSD****5720MHz Straddle 5.47-5.725GHz**

30/01/2019

CF  
5.71GHz  
Span  
60MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
20ms  
Detector Type  
RMS

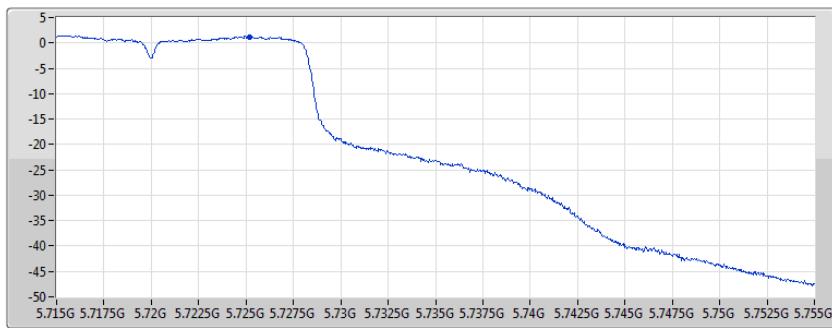


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.48	3.48	3.48

**802.11a\_Nss1,(6Mbps)\_1TX****PSD****5720MHz Straddle 5.725-5.85GHz**

30/01/2019

CF  
5.735GHz  
Span  
40MHz  
RBW  
500kHz  
VBW  
3MHz  
Sweep Time  
20ms  
Detector Type  
RMS

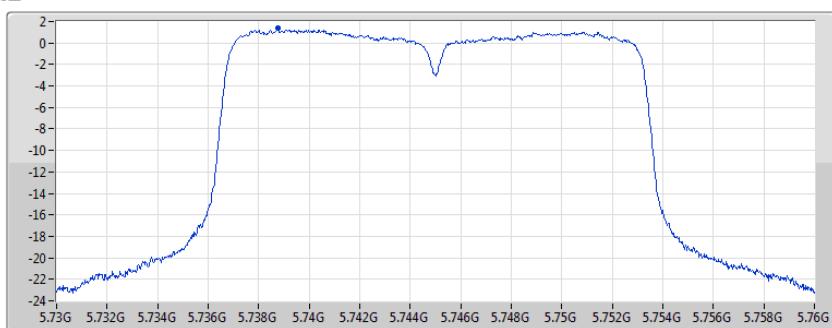


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.23	1.23	1.23

**802.11a\_Nss1,(6Mbps)\_1TX****PSD****5745MHz**

30/01/2019

CF  
5.745GHz  
Span  
30MHz  
RBW  
500kHz  
VBW  
3MHz  
Sweep Time  
20ms  
Detector Type  
RMS



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.38	1.38	1.38

**802.11a\_Nss1,(6Mbps)\_1TX****PSD****5785MHz**

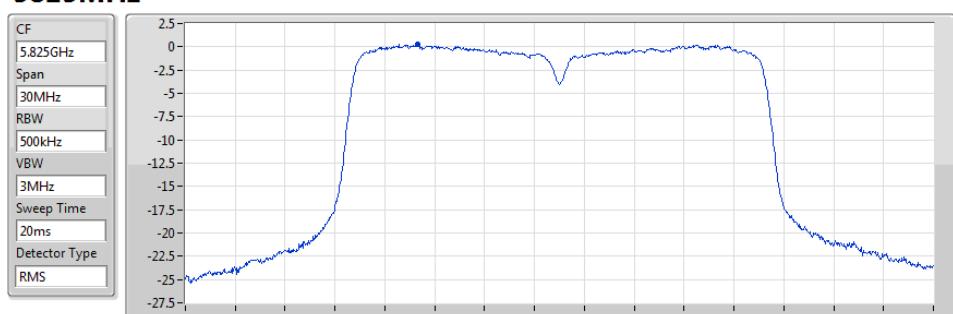
30/01/2019

Port 1 

Sum (dBm/RBW)	PD (dBm/RBW)	Port 1 (dBm/RBW)
0.06	0.06	0.06

**802.11a\_Nss1,(6Mbps)\_1TX****PSD****5825MHz**

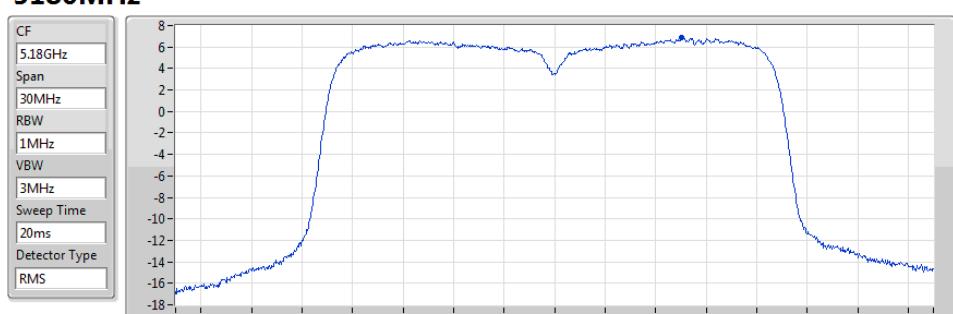
30/01/2019

Port 1 

Sum (dBm/RBW)	PD (dBm/RBW)	Port 1 (dBm/RBW)
0.24	0.24	0.24

**802.11ac VHT20\_Nss1,(MCS0)\_1TX****PSD****5180MHz**

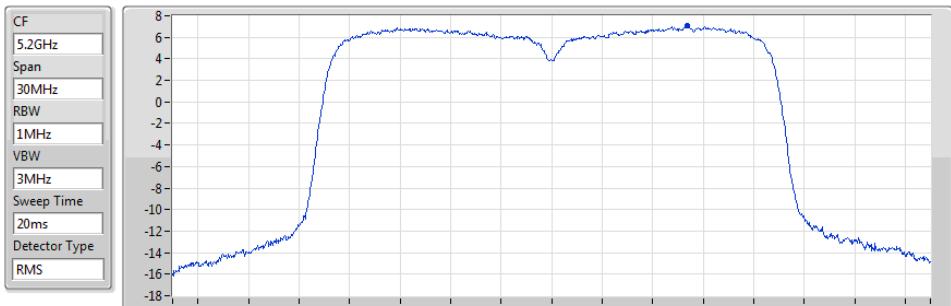
30/01/2019

Port 1 

Sum (dBm/RBW)	PD (dBm/RBW)	Port 1 (dBm/RBW)
6.85	6.85	6.85

**802.11ac VHT20\_Nss1,(MCS0)\_1TX****PSD****5200MHz**

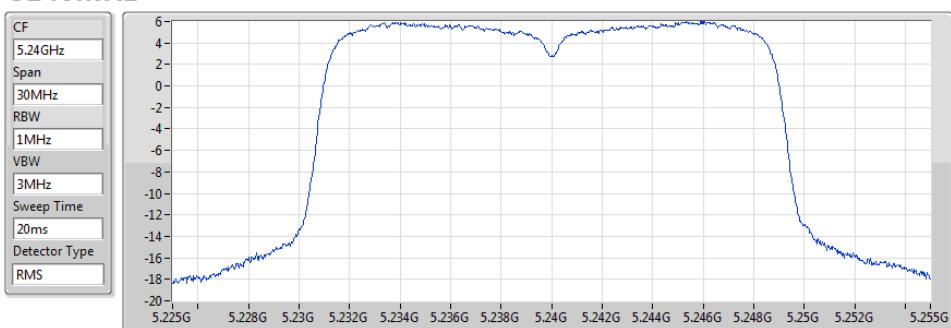
30/01/2019



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.04	7.04	7.04

**802.11ac VHT20\_Nss1,(MCS0)\_1TX****PSD****5240MHz**

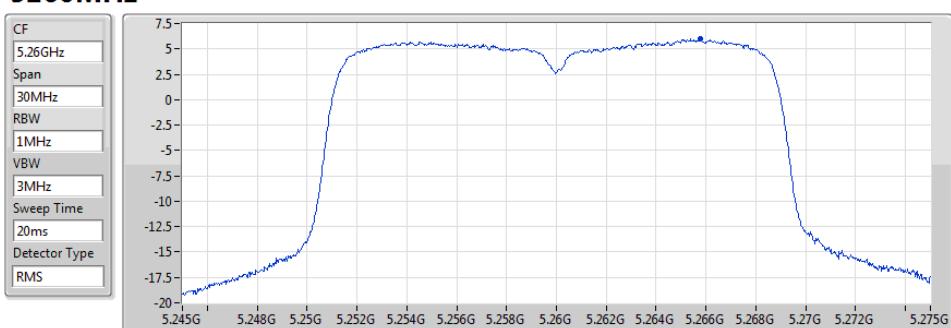
30/01/2019



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.98	5.98	5.98

**802.11ac VHT20\_Nss1,(MCS0)\_1TX****PSD****5260MHz**

30/01/2019

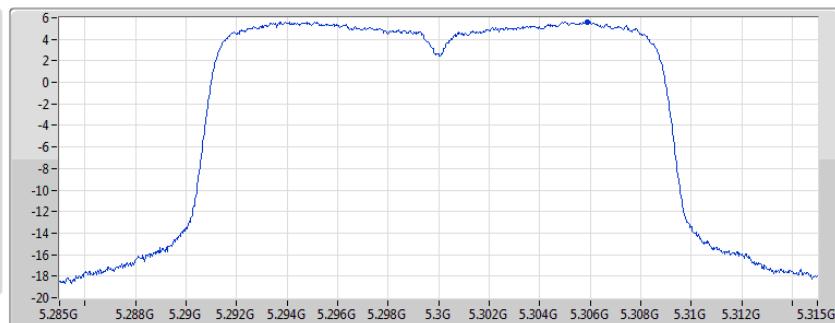


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.96	5.96	5.96

**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**PSD**
**5300MHz**

30/01/2019

CF  
5.3GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
20ms  
Detector Type  
RMS

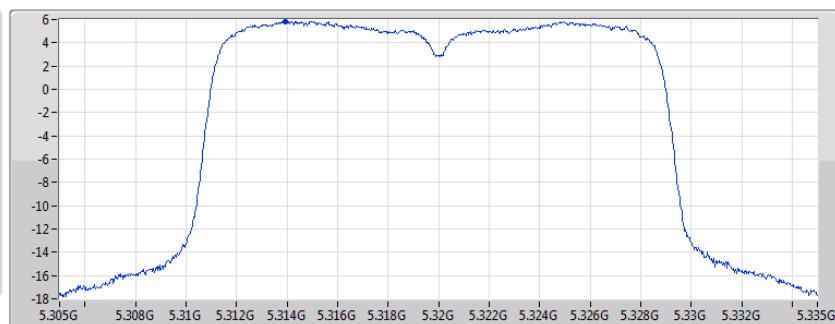


Port 1


**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**PSD**
**5320MHz**

30/01/2019

CF  
5.32GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
20ms  
Detector Type  
RMS

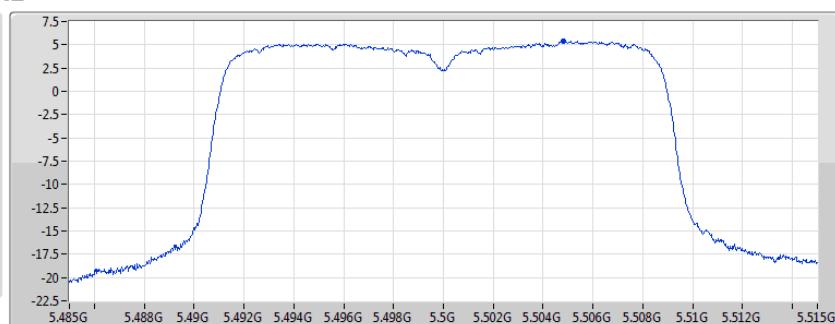


Port 1


**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**PSD**
**5500MHz**

30/01/2019

CF  
5.5GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
20ms  
Detector Type  
RMS

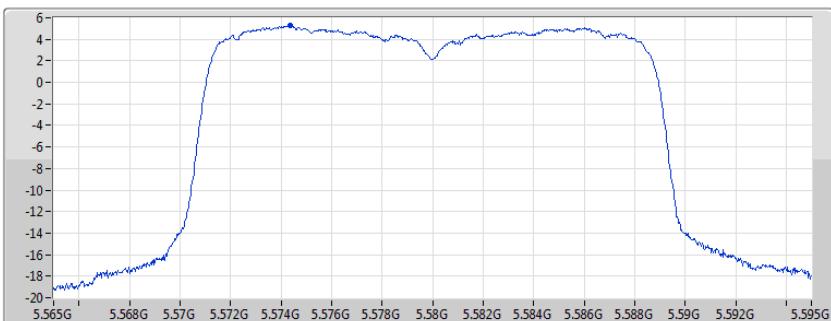


Port 1



**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**5580MHz**

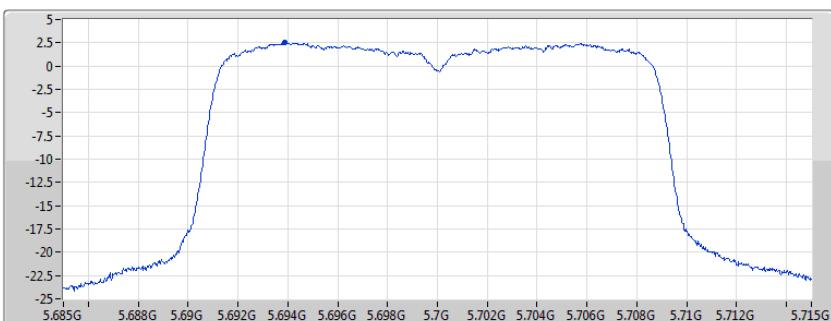
CF  
5.58GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
20ms  
Detector Type  
RMS


**PSD**

30/01/2019

Port 1 
**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**5700MHz**

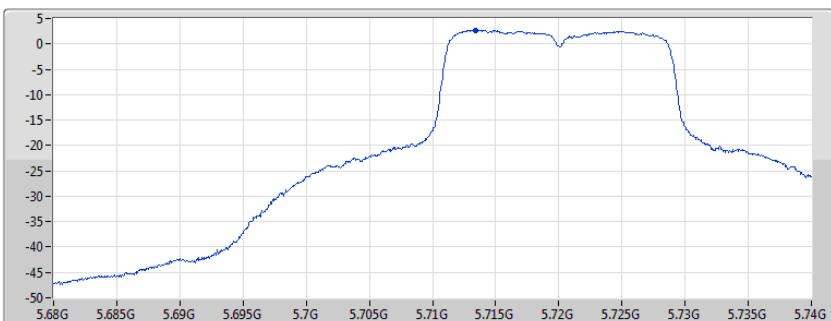
CF  
5.7GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
20ms  
Detector Type  
RMS


**PSD**

30/01/2019

Port 1 
**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**5720MHz Straddle 5.47-5.725GHz**

CF  
5.71GHz  
Span  
60MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
20ms  
Detector Type  
RMS


**PSD**

30/01/2019

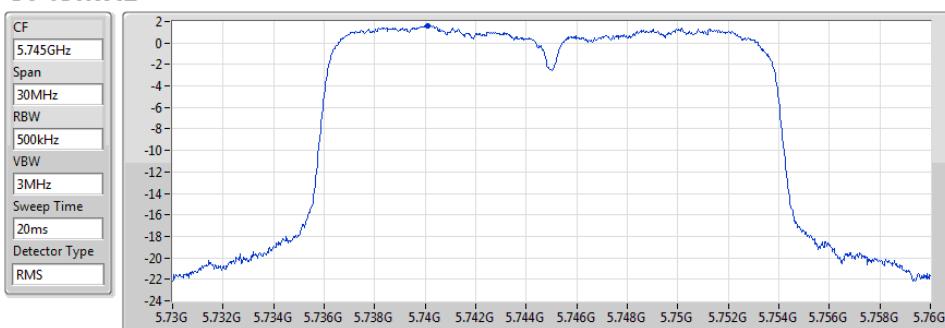
Port 1

**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**PSD**
**5720MHz Straddle 5.725-5.85GHz**

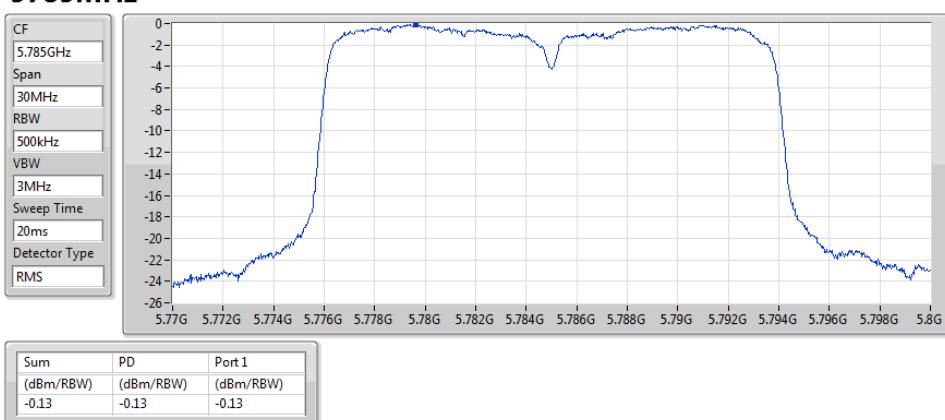
30/01/2019


**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**PSD**
**5745MHz**

30/01/2019


**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**PSD**
**5785MHz**

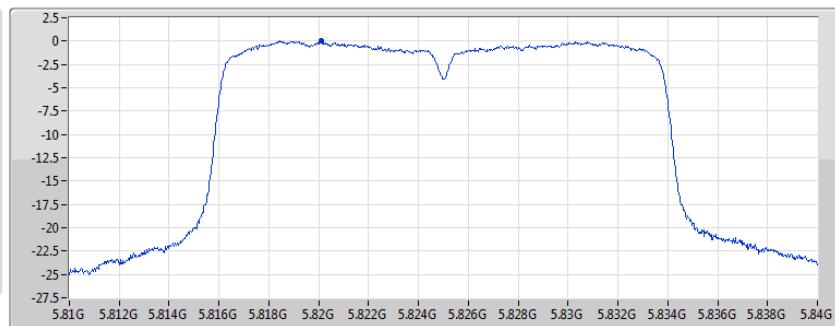
30/01/2019



**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**PSD**
**5825MHz**

30/01/2019

CF  
5.825GHz  
Span  
30MHz  
RBW  
500kHz  
VBW  
3MHz  
Sweep Time  
20ms  
Detector Type  
RMS

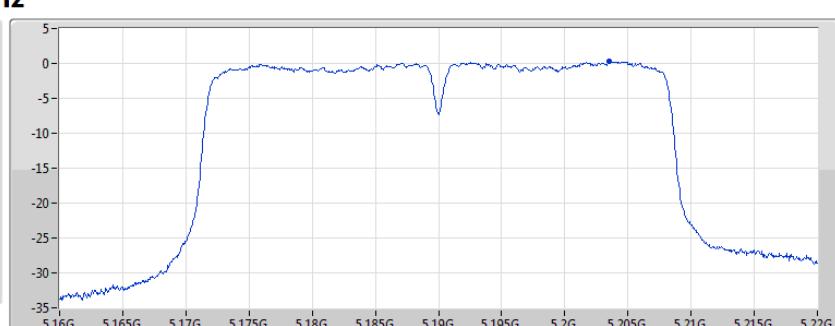


Port 1


**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**PSD**
**5190MHz**

30/01/2019

CF  
5.19GHz  
Span  
60MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
20ms  
Detector Type  
RMS

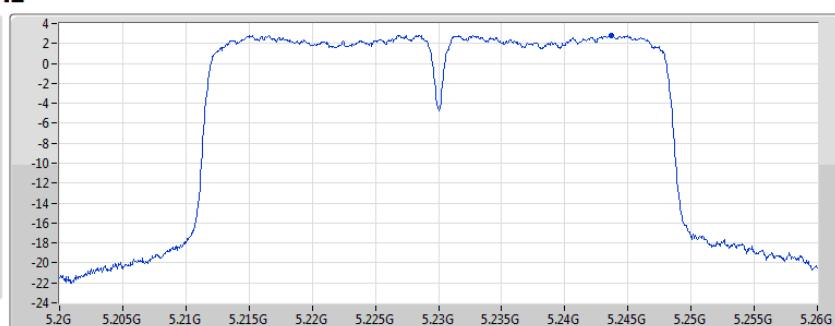


Port 1


**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**PSD**
**5230MHz**

30/01/2019

CF  
5.23GHz  
Span  
60MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
20ms  
Detector Type  
RMS

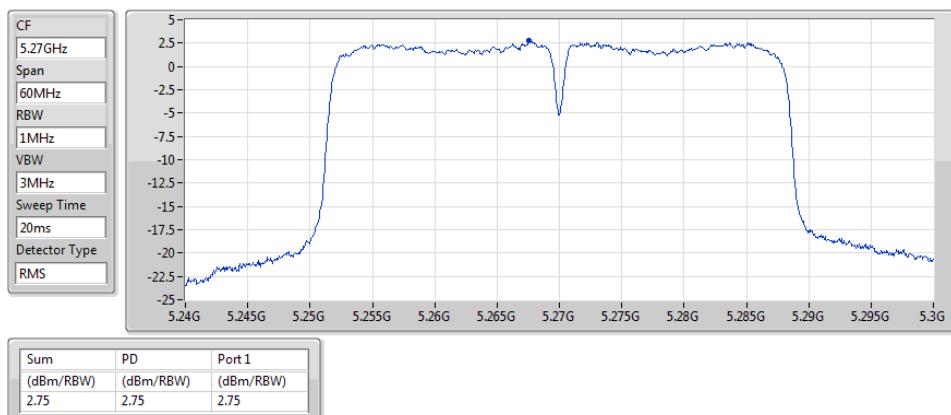


Port 1

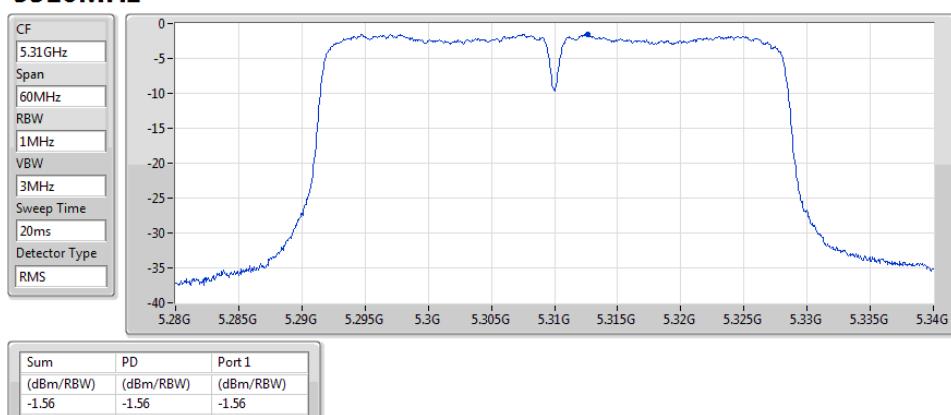


**802.11ac VHT40\_Nss1,(MCS0)\_1TX****PSD****5270MHz**

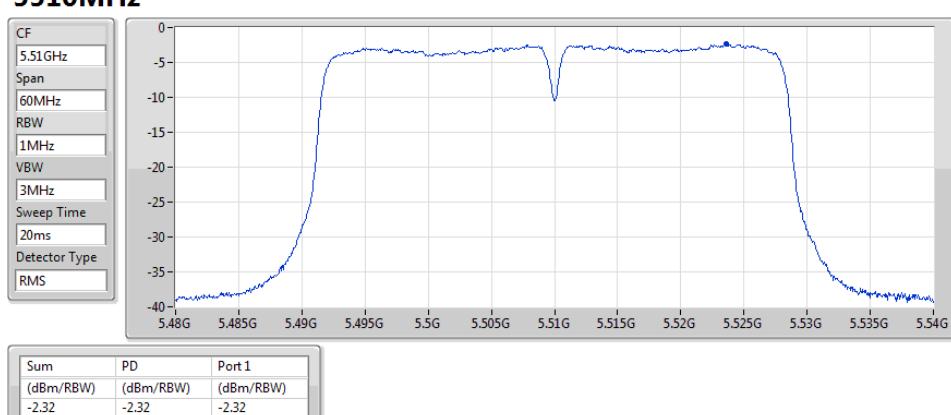
30/01/2019

Port 1 **802.11ac VHT40\_Nss1,(MCS0)\_1TX****PSD****5310MHz**

30/01/2019

Port 1 **802.11ac VHT40\_Nss1,(MCS0)\_1TX****PSD****5510MHz**

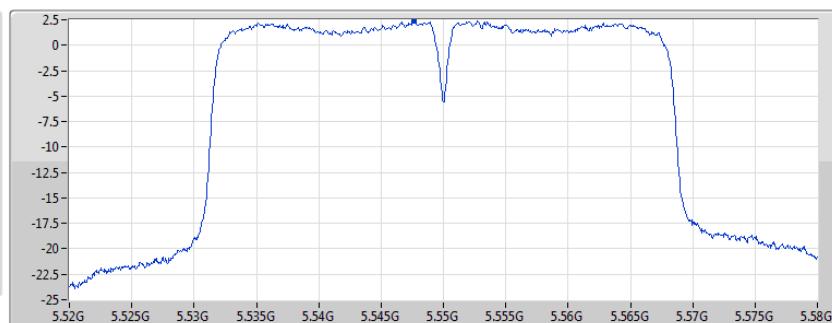
30/01/2019

Port 1 

**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**PSD**
**5550MHz**

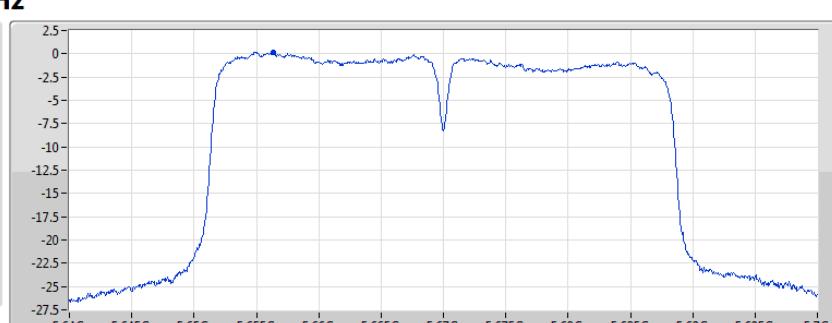
30/01/2019

CF
5.55GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS


Port 1 
**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**PSD**
**5670MHz**

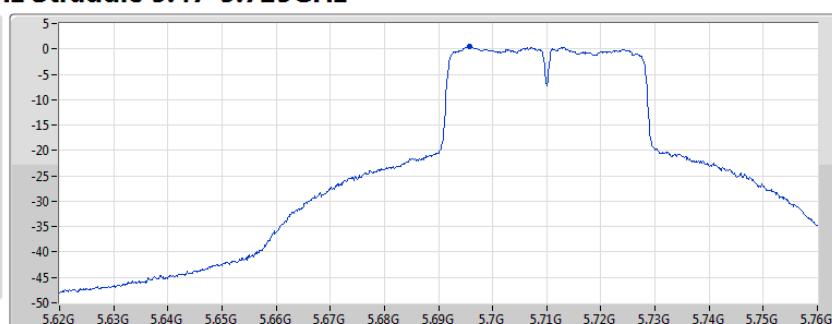
30/01/2019

CF
5.67GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS


Port 1 
**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**PSD**
**5710MHz Straddle 5.47-5.725GHz**

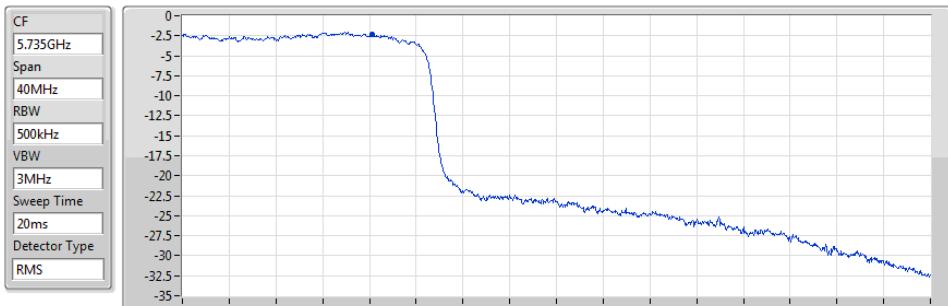
30/01/2019

CF
5.69GHz
Span
140MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS

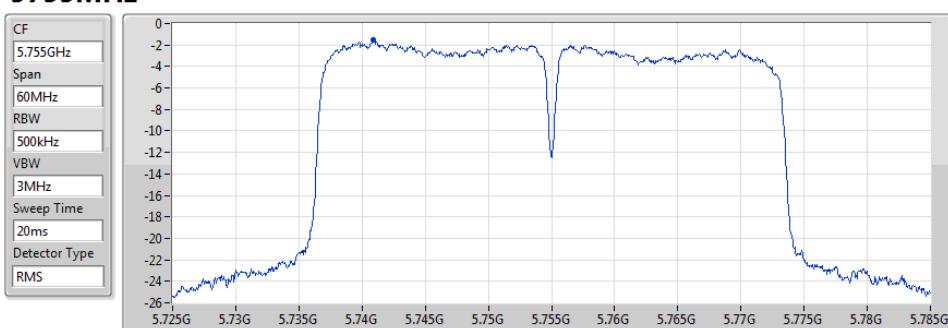

Port 1

**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**PSD**
**5710MHz Straddle 5.725-5.85GHz**

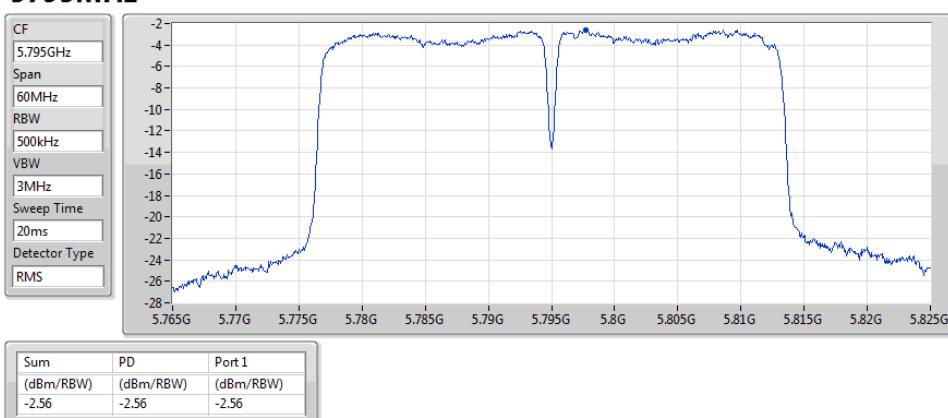
30/01/2019


**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**PSD**
**5755MHz**

30/01/2019


**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**PSD**
**5795MHz**

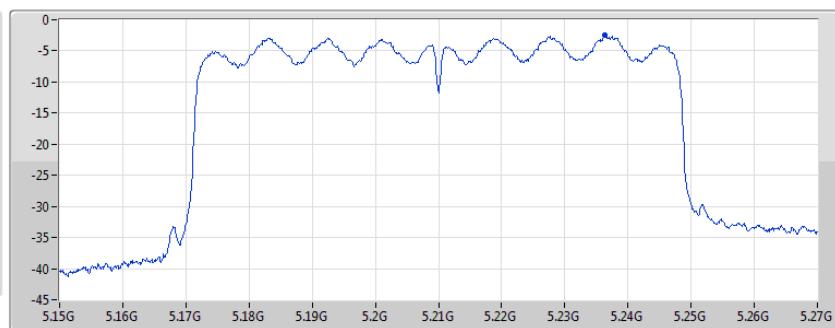
30/01/2019



**802.11ac VHT80\_Nss1,(MCS0)\_1TX**
**PSD**
**5210MHz**

30/01/2019

CF  
5.21GHz  
Span  
120MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
20ms  
Detector Type  
RMS

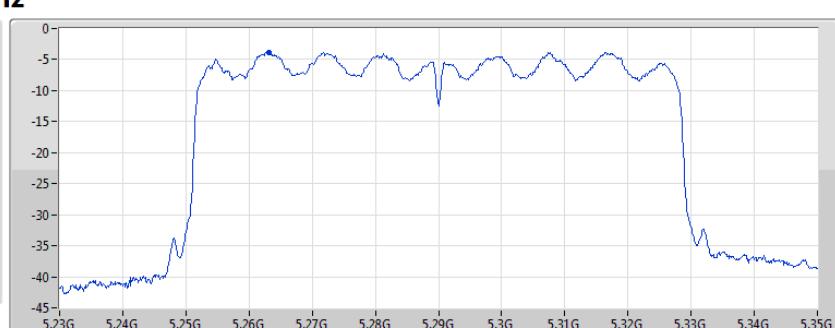


Port 1


**802.11ac VHT80\_Nss1,(MCS0)\_1TX**
**PSD**
**5290MHz**

30/01/2019

CF  
5.29GHz  
Span  
120MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
20ms  
Detector Type  
RMS

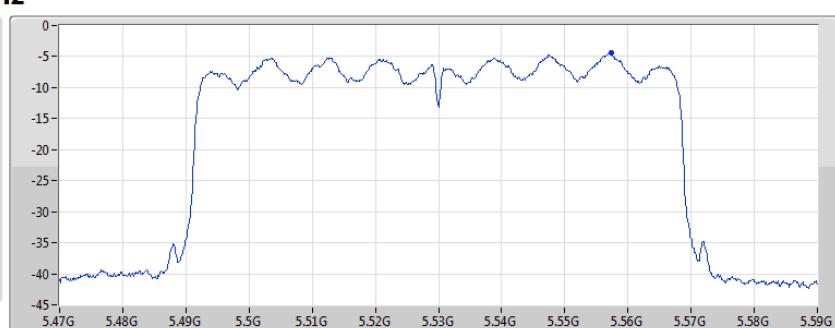


Port 1


**802.11ac VHT80\_Nss1,(MCS0)\_1TX**
**PSD**
**5530MHz**

30/01/2019

CF  
5.53GHz  
Span  
120MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
20ms  
Detector Type  
RMS

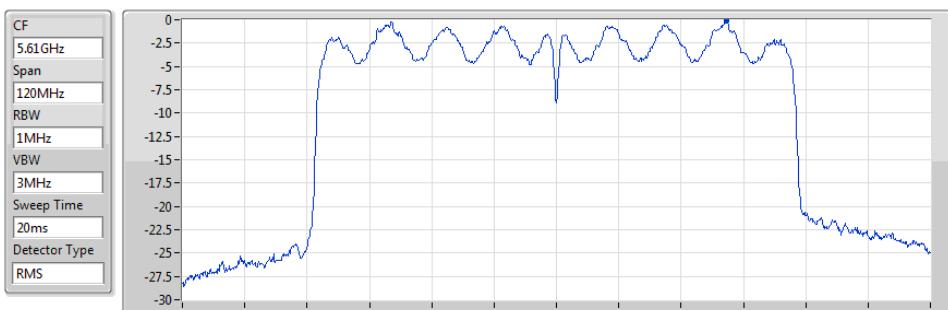


Port 1

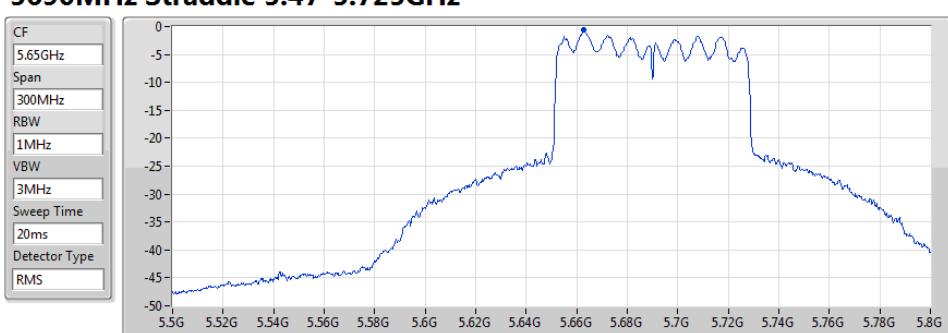


**802.11ac VHT80\_Nss1,(MCS0)\_1TX**
**PSD**
**5610MHz**

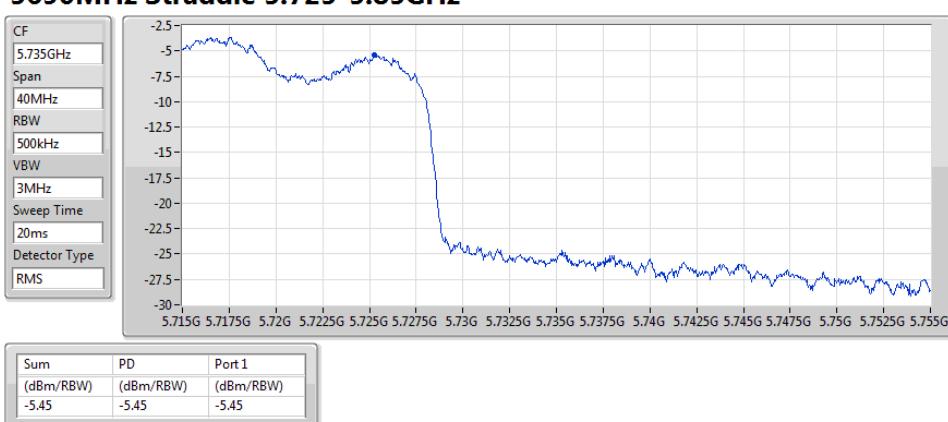
30/01/2019

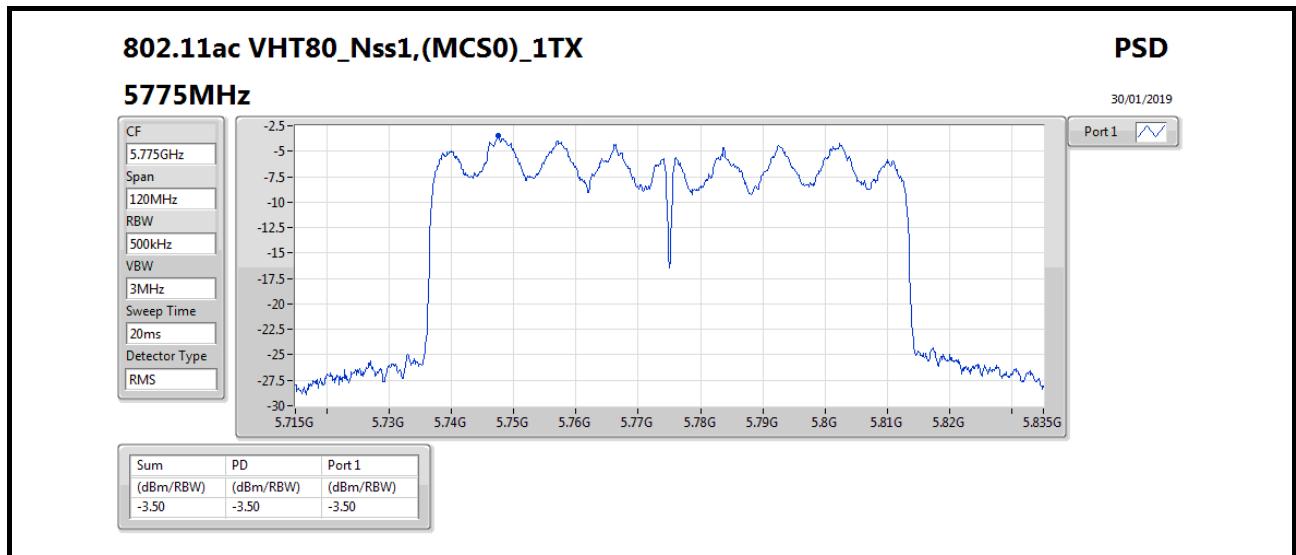

**802.11ac VHT80\_Nss1,(MCS0)\_1TX**
**PSD**
**5690MHz Straddle 5.47-5.725GHz**

30/01/2019


**802.11ac VHT80\_Nss1,(MCS0)\_1TX**
**PSD**
**5690MHz Straddle 5.725-5.85GHz**

30/01/2019

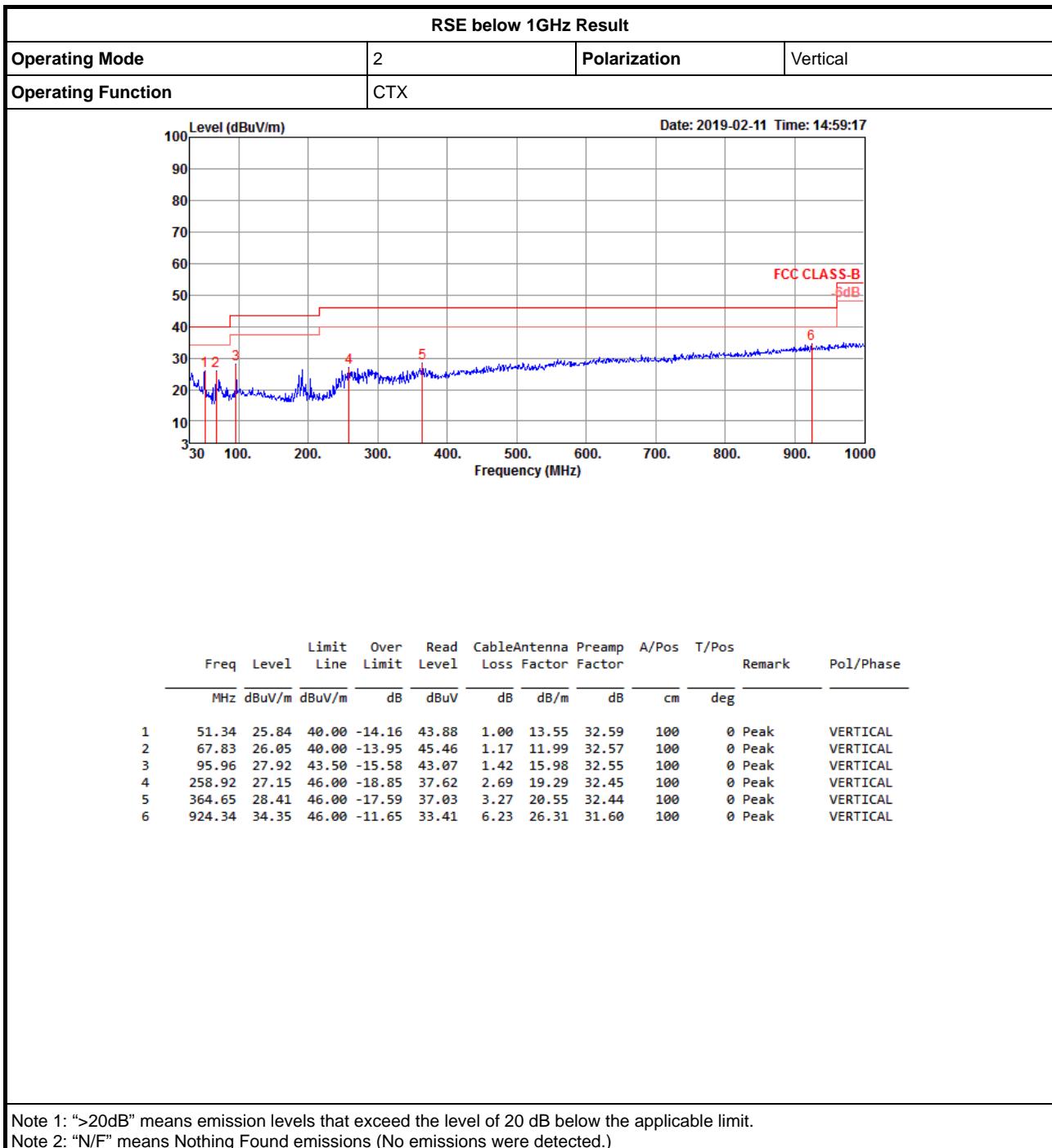






## RSE below 1GHz Result

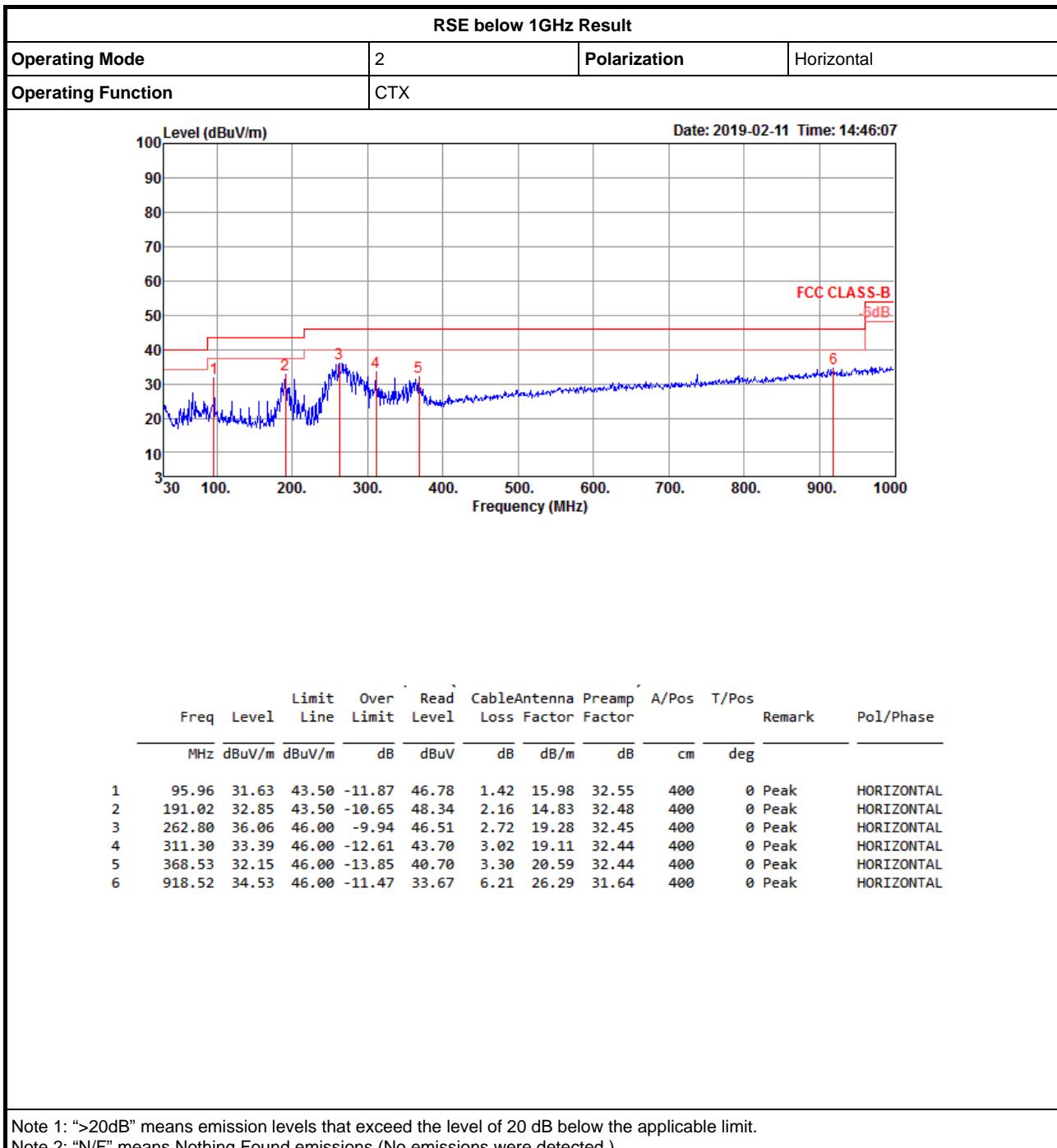
Appendix E.1





## RSE below 1GHz Result

Appendix E.1





## RSE TX above 1GHz Result

Appendix E.2

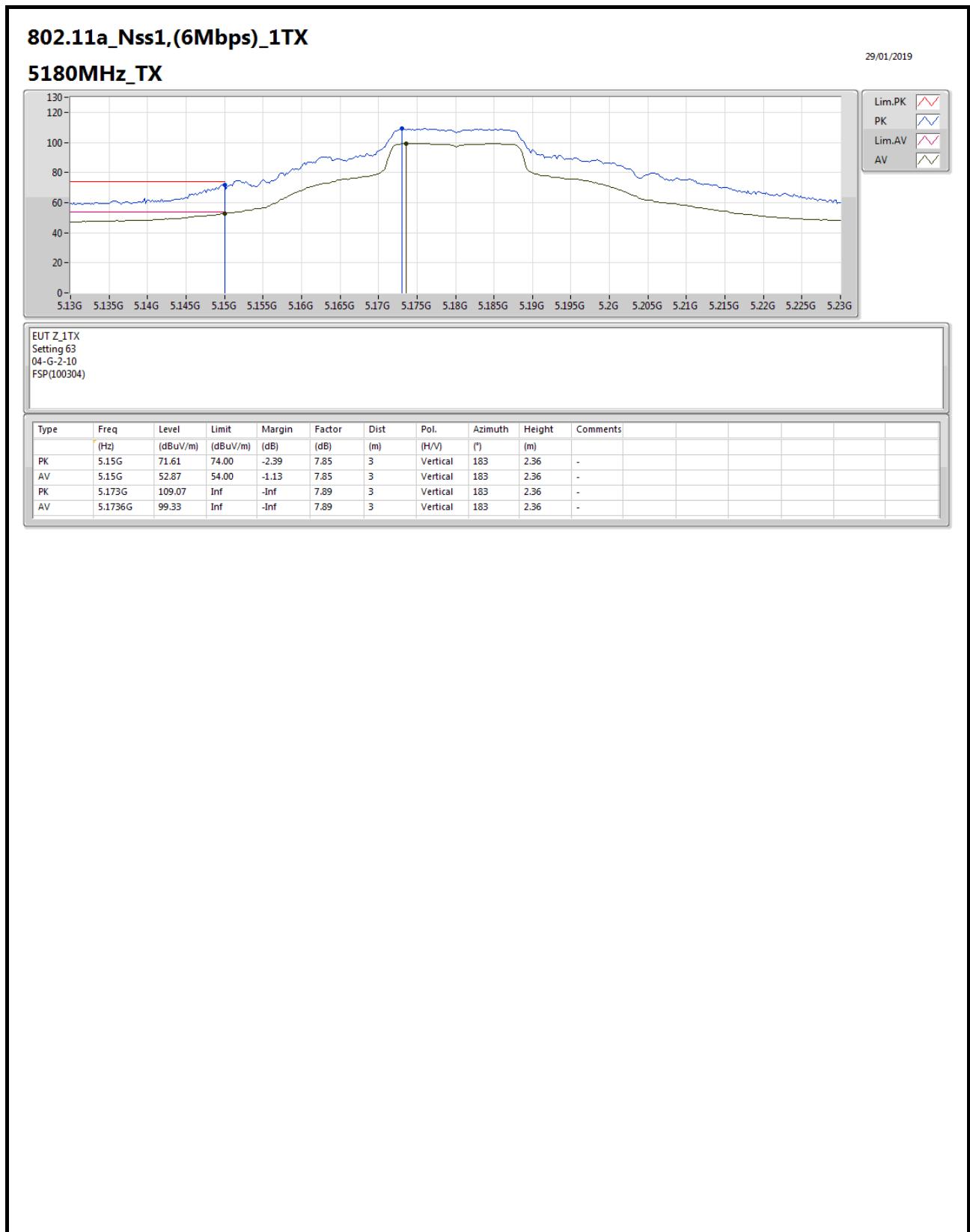
### Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
5.47-5.725GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	Pass	PK	5.7252G	68.19	68.20	-0.01	9.34	3	Horizontal	55	2.36	-



## RSE TX above 1GHz Result

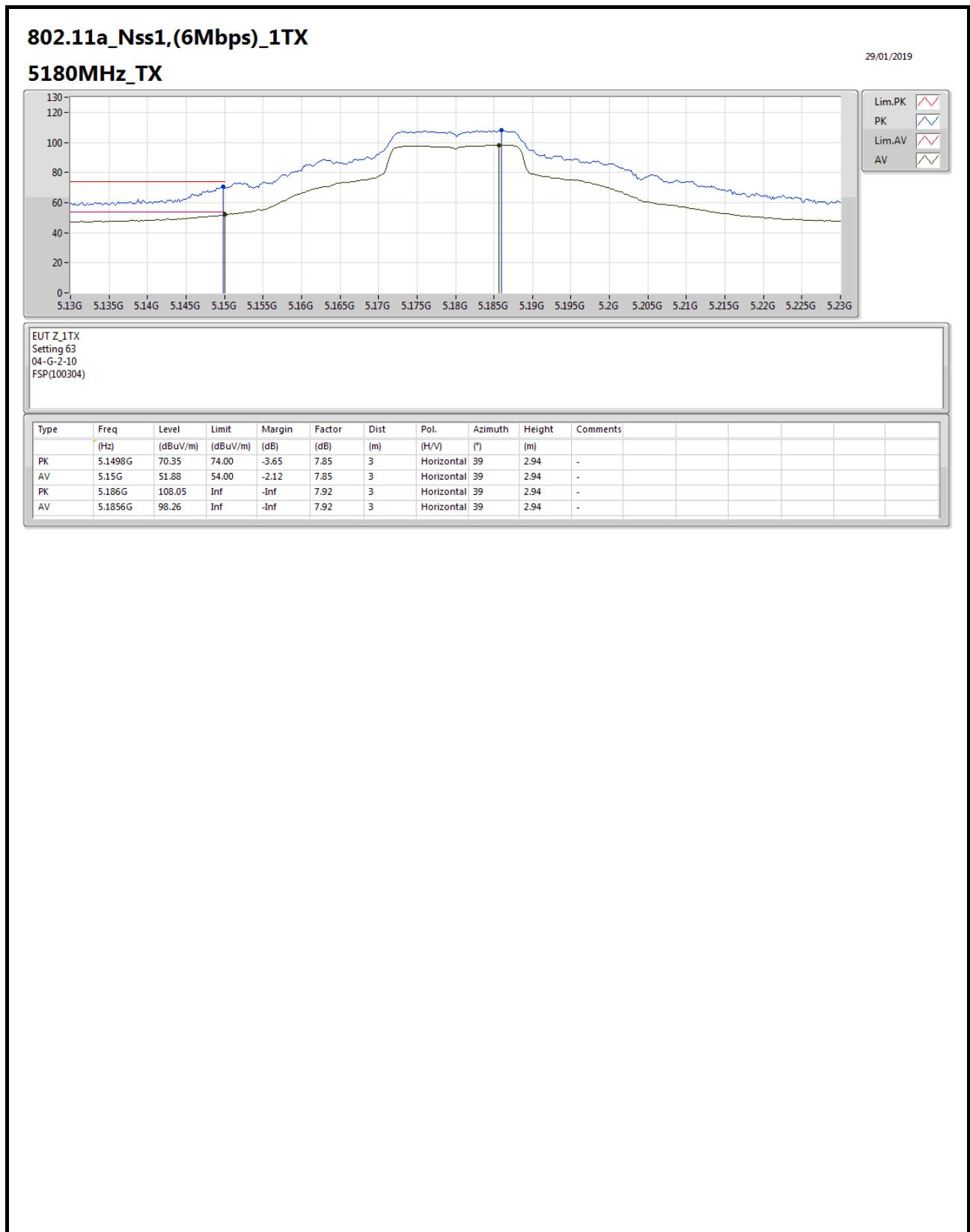
Appendix E.2





## RSE TX above 1GHz Result

Appendix E.2





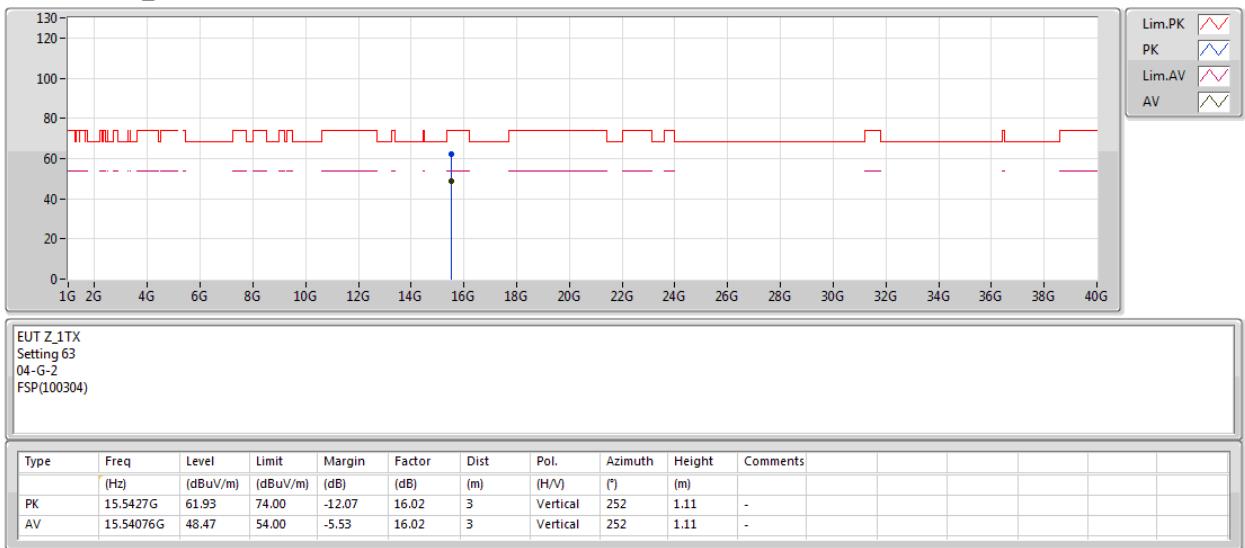
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5180MHz\_TX





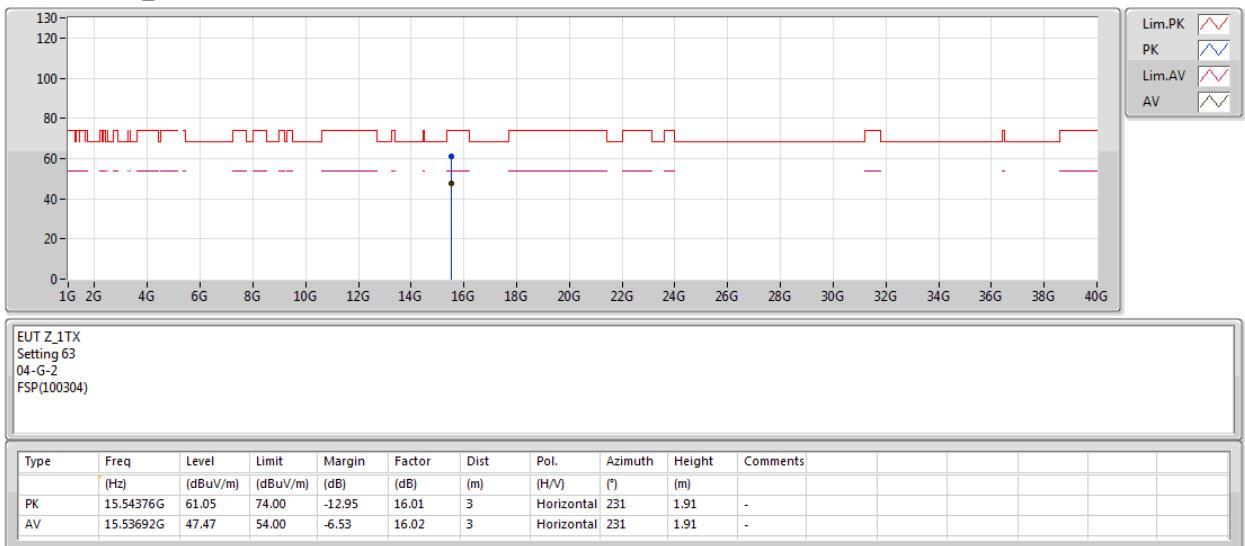
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5180MHz\_TX





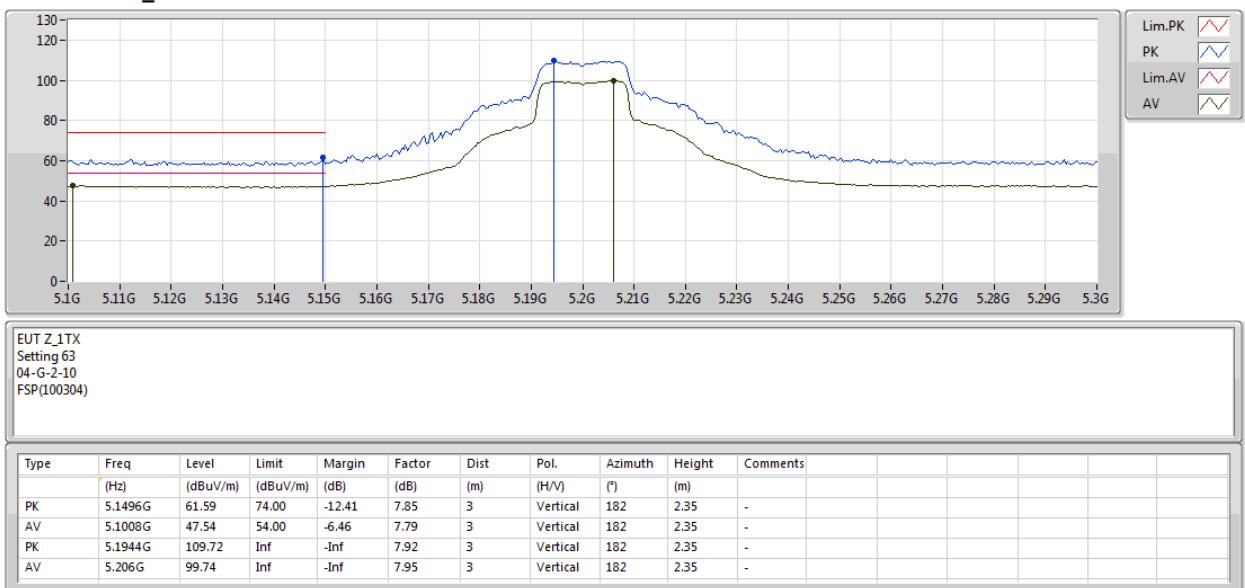
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5200MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5200MHz\_TX





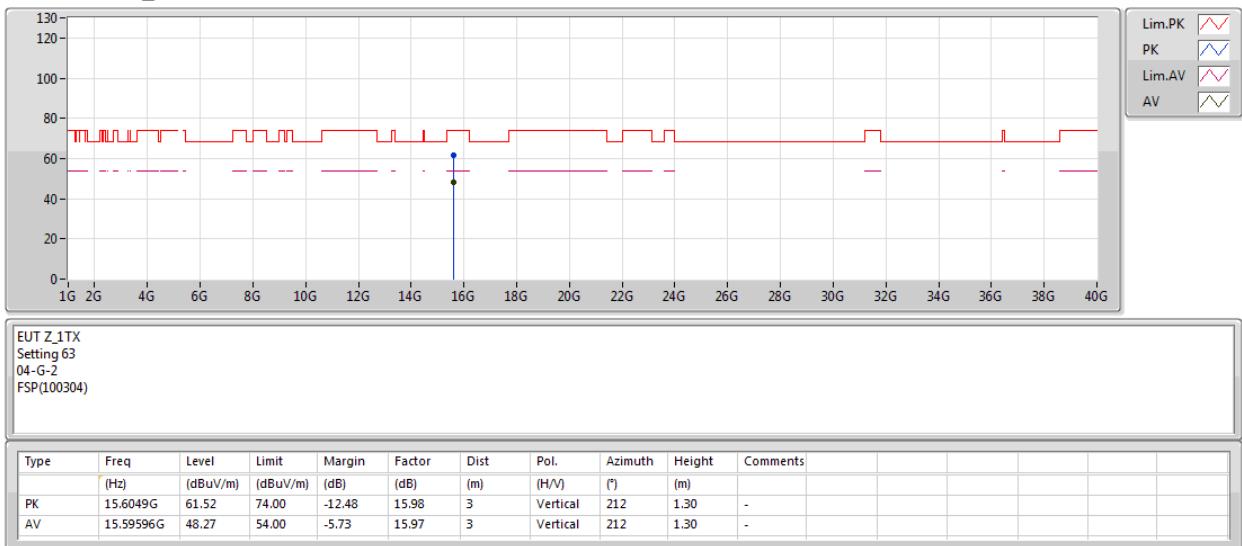
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5200MHz\_TX





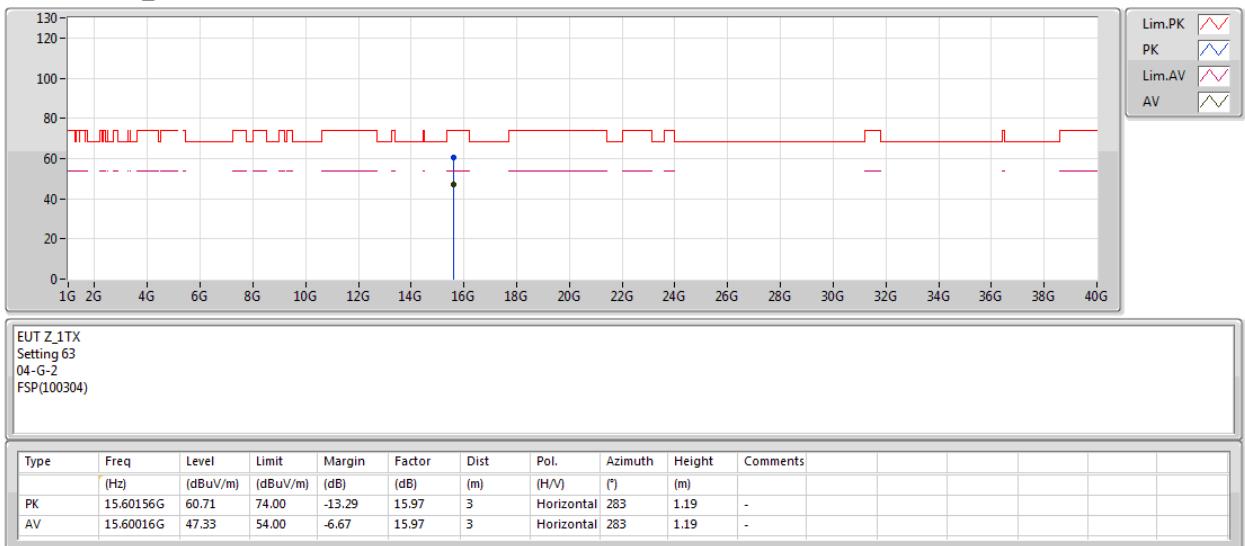
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5200MHz\_TX





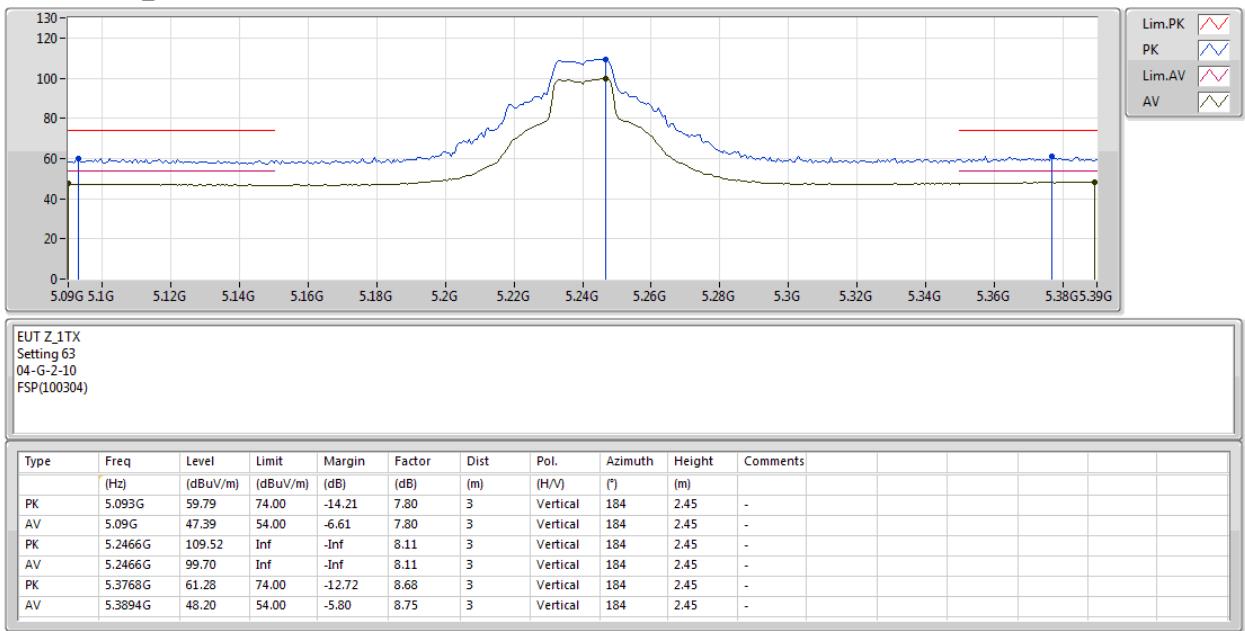
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5240MHz\_TX





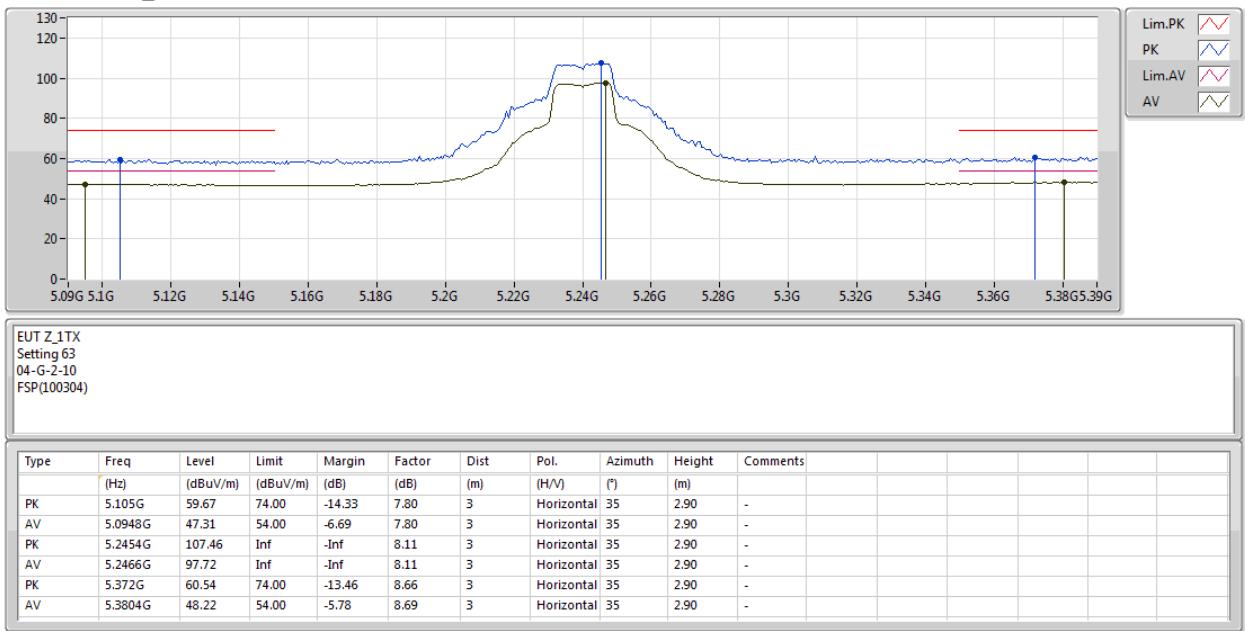
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5240MHz\_TX





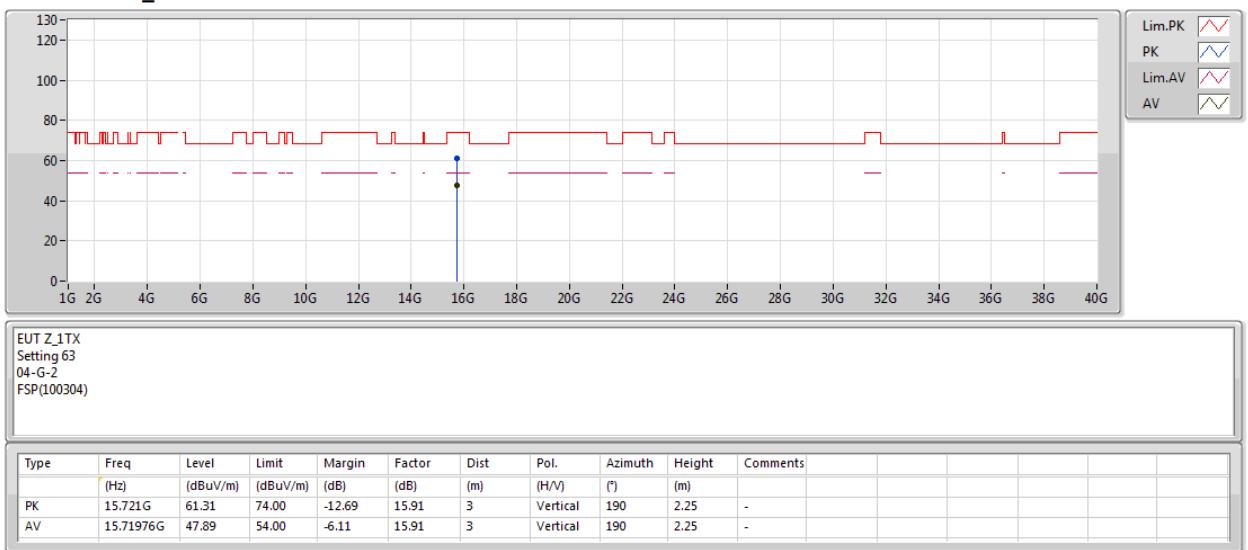
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5240MHz\_TX





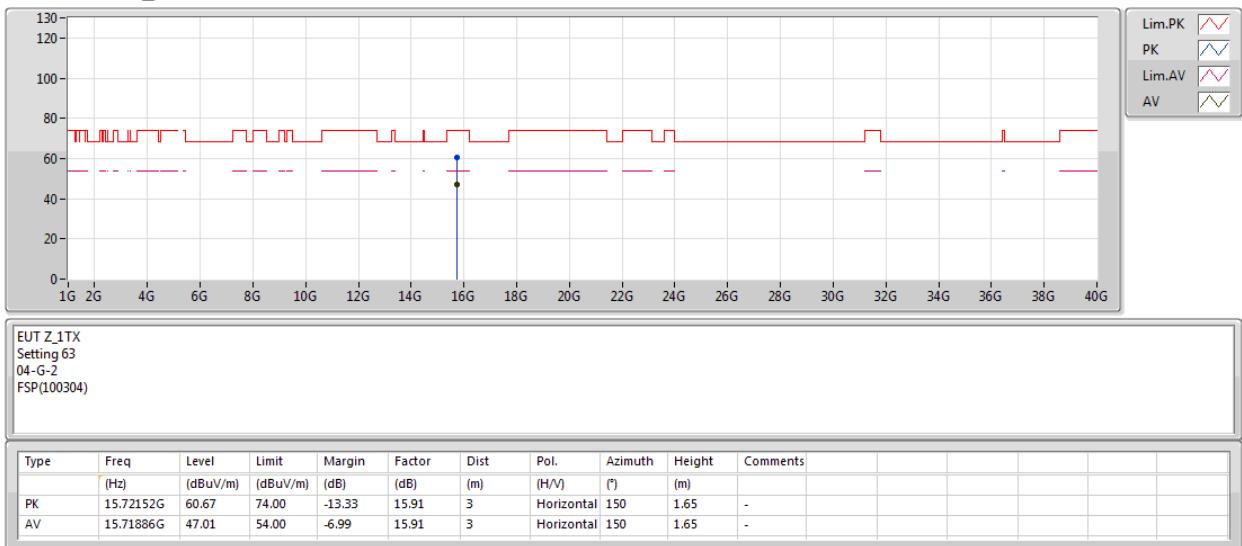
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5240MHz\_TX





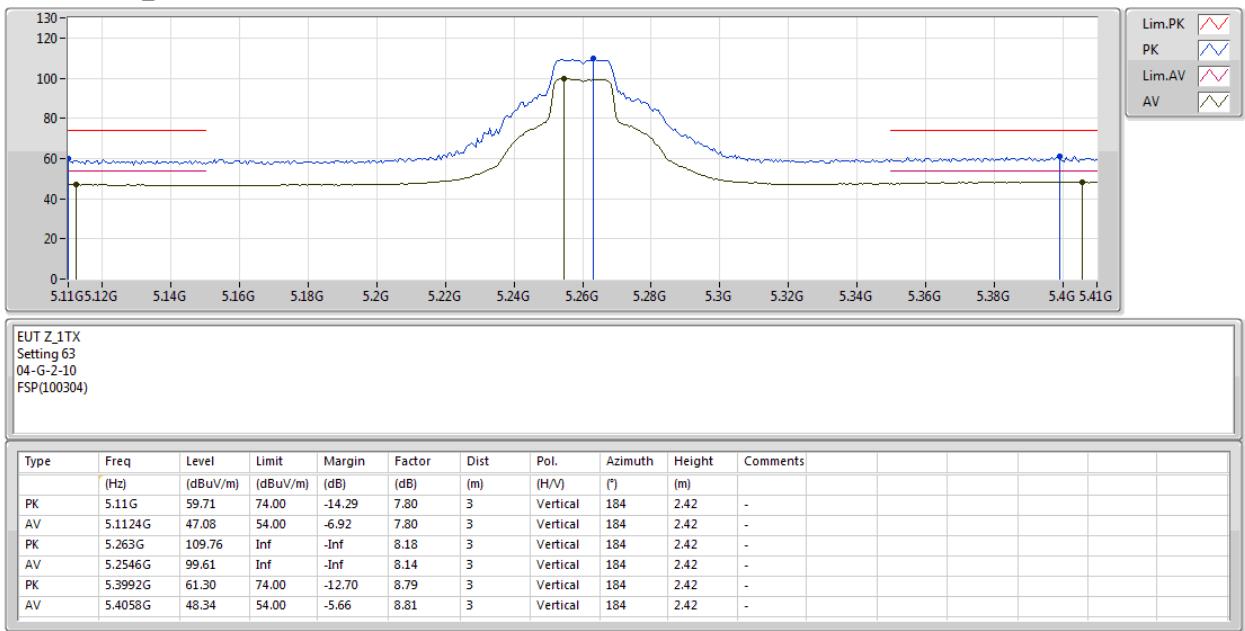
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5260MHz\_TX





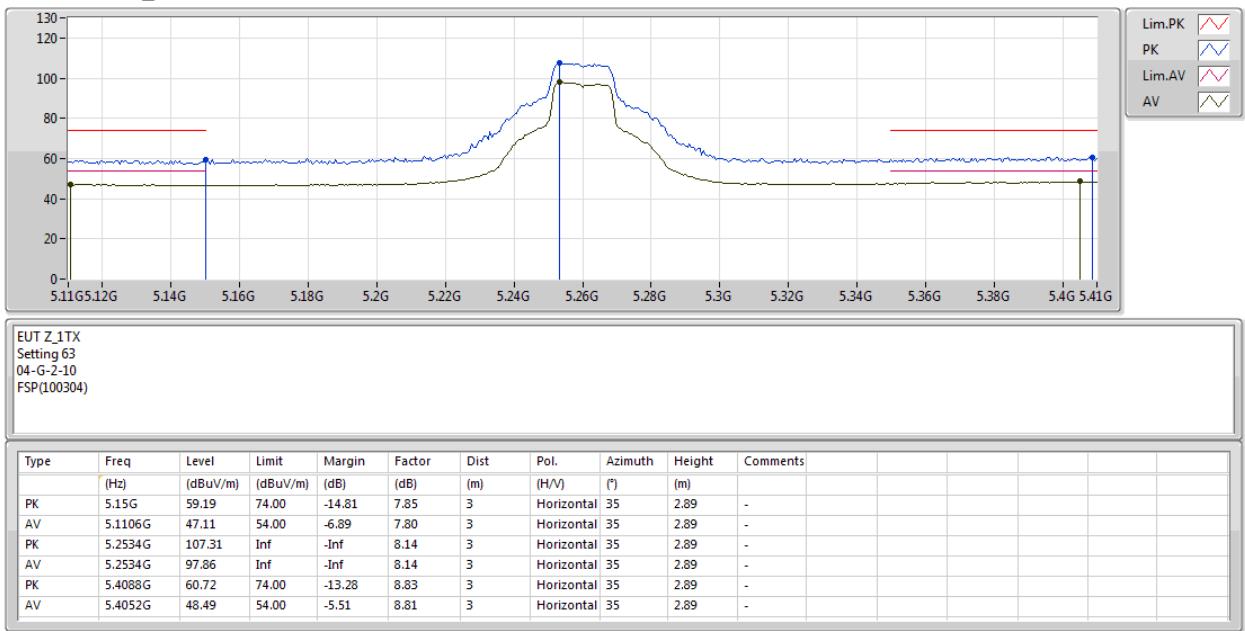
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5260MHz\_TX





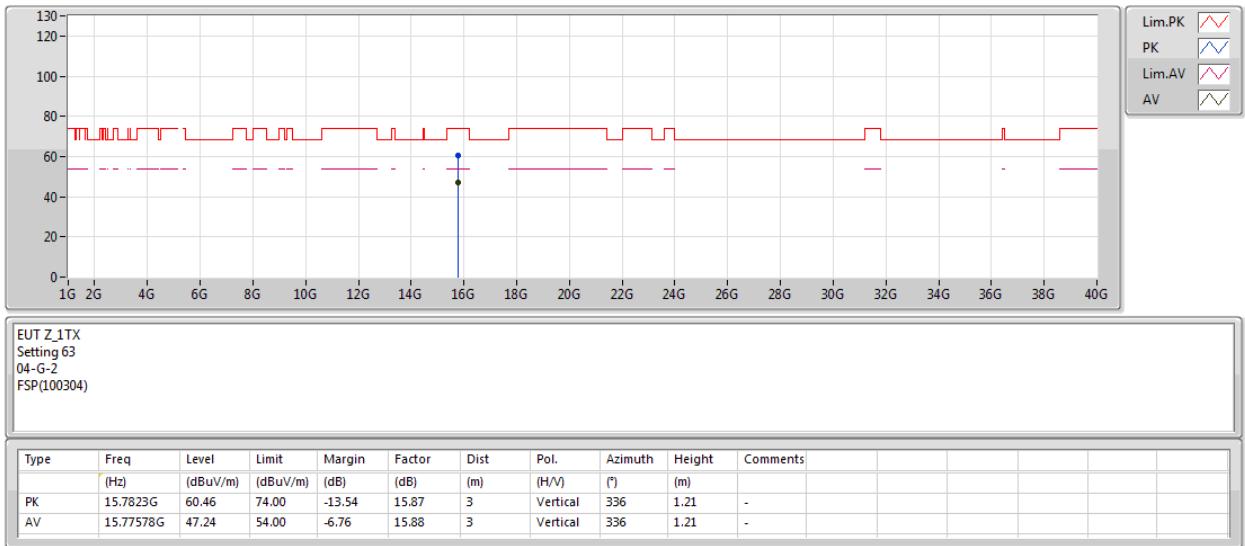
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5260MHz\_TX





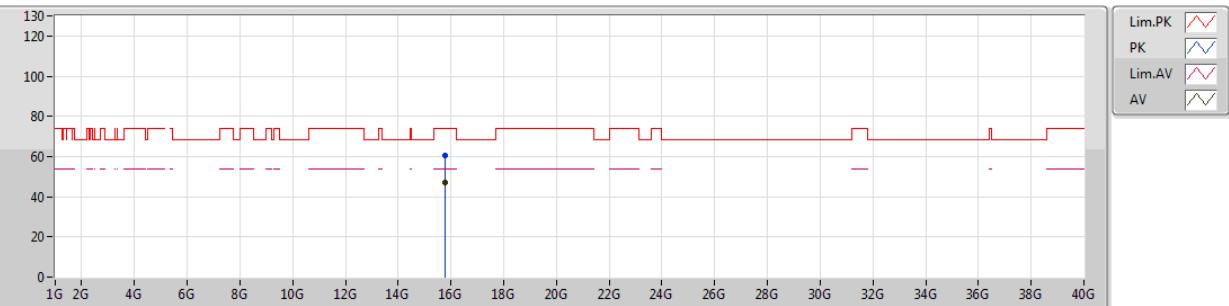
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5260MHz\_TX



EUT Z\_1TX  
Setting 63  
04-G-2  
FSP(100304)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments									
PK	15.78038G	60.62	74.00	-13.38	15.88	3	Horizontal	162	2.18	-									
AV	15.7848G	47.27	54.00	-6.73	15.88	3	Horizontal	162	2.18	-									



## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

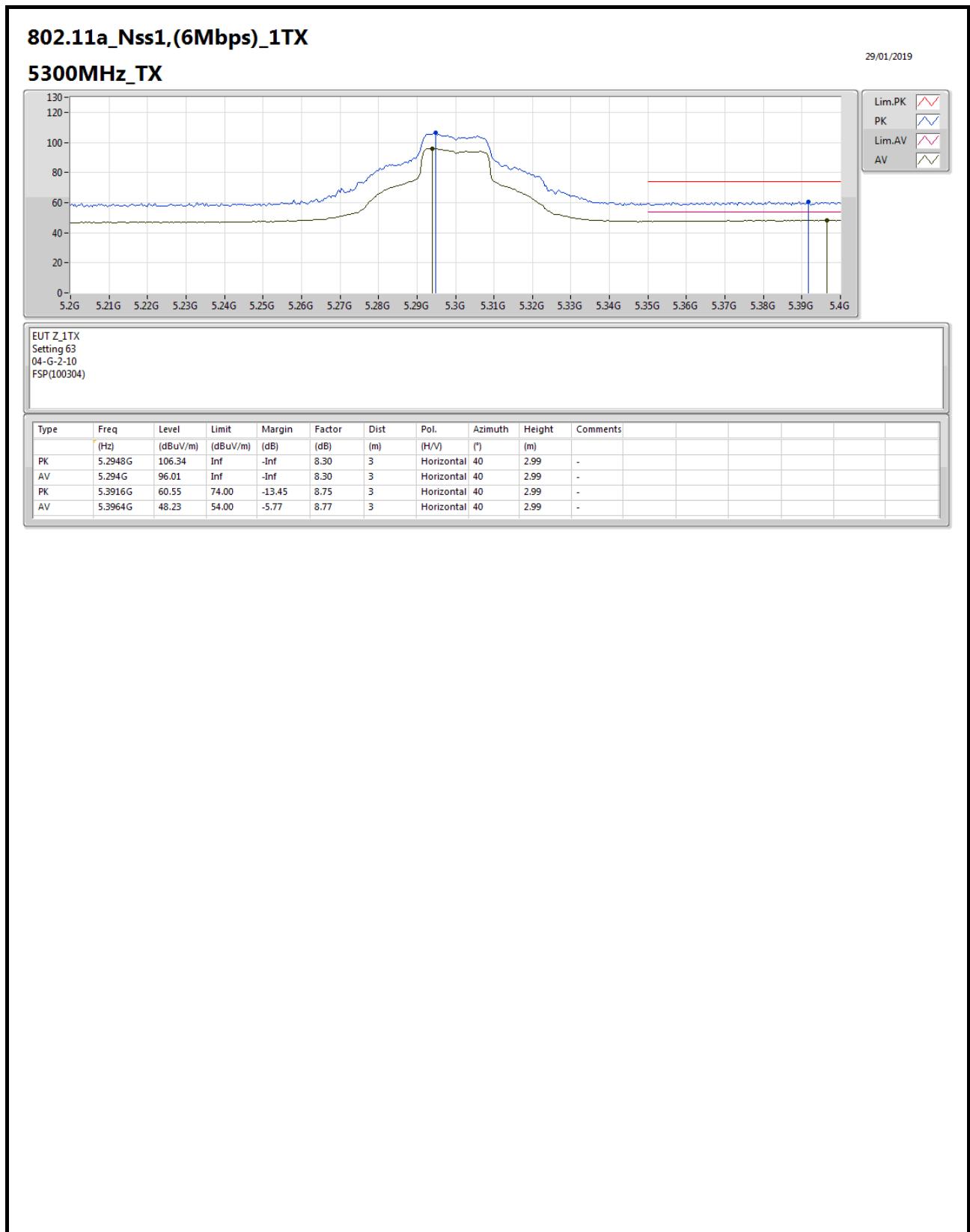
#### 5300MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2





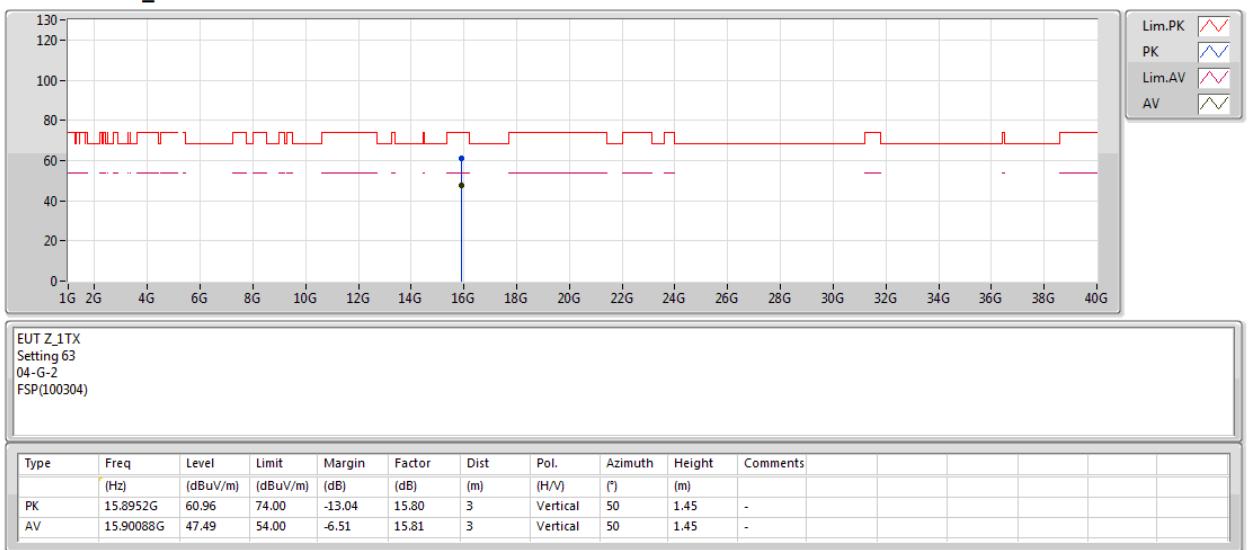
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5300MHz\_TX





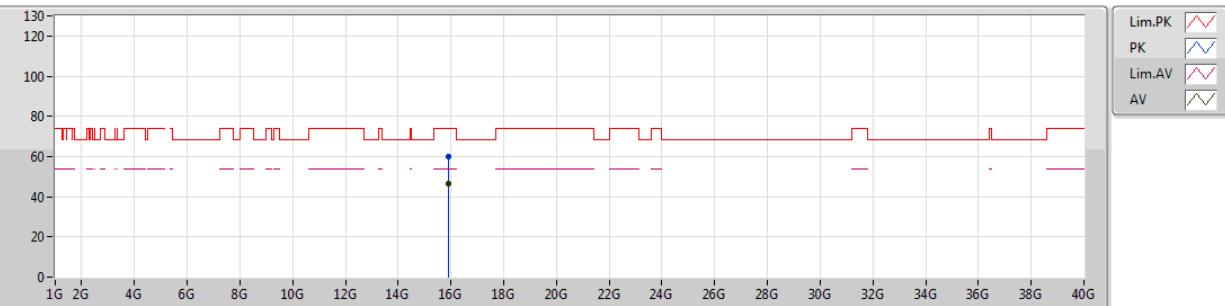
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5300MHz\_TX



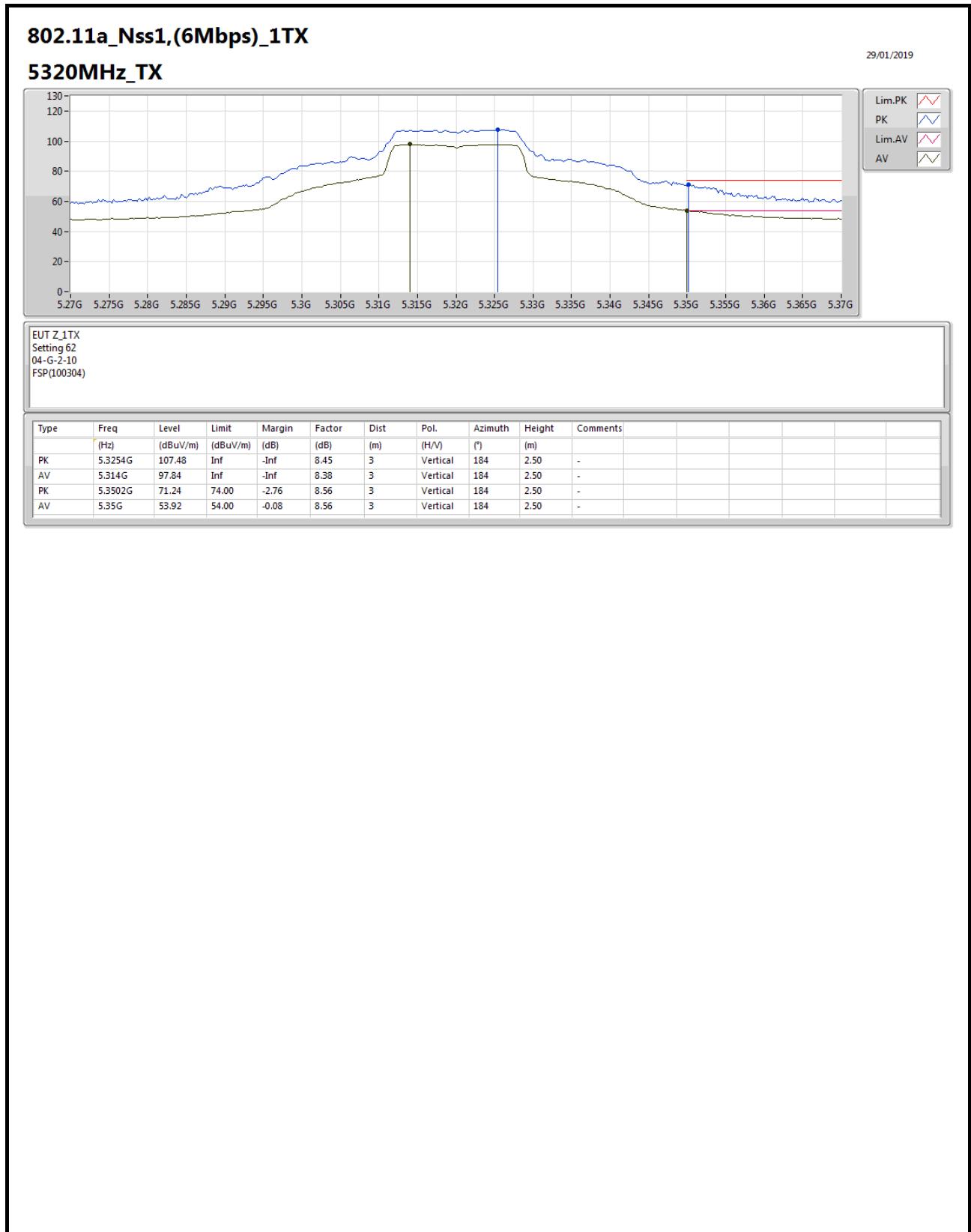
EUT Z\_1TX  
Setting 63  
04-G-2  
FSP(100304)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments								
PK	15.90316G	59.74	74.00	-14.26	15.81	3	Horizontal	226	2.28	-								
AV	15.89812G	46.35	54.00	-7.65	15.81	3	Horizontal	226	2.28	-								



## RSE TX above 1GHz Result

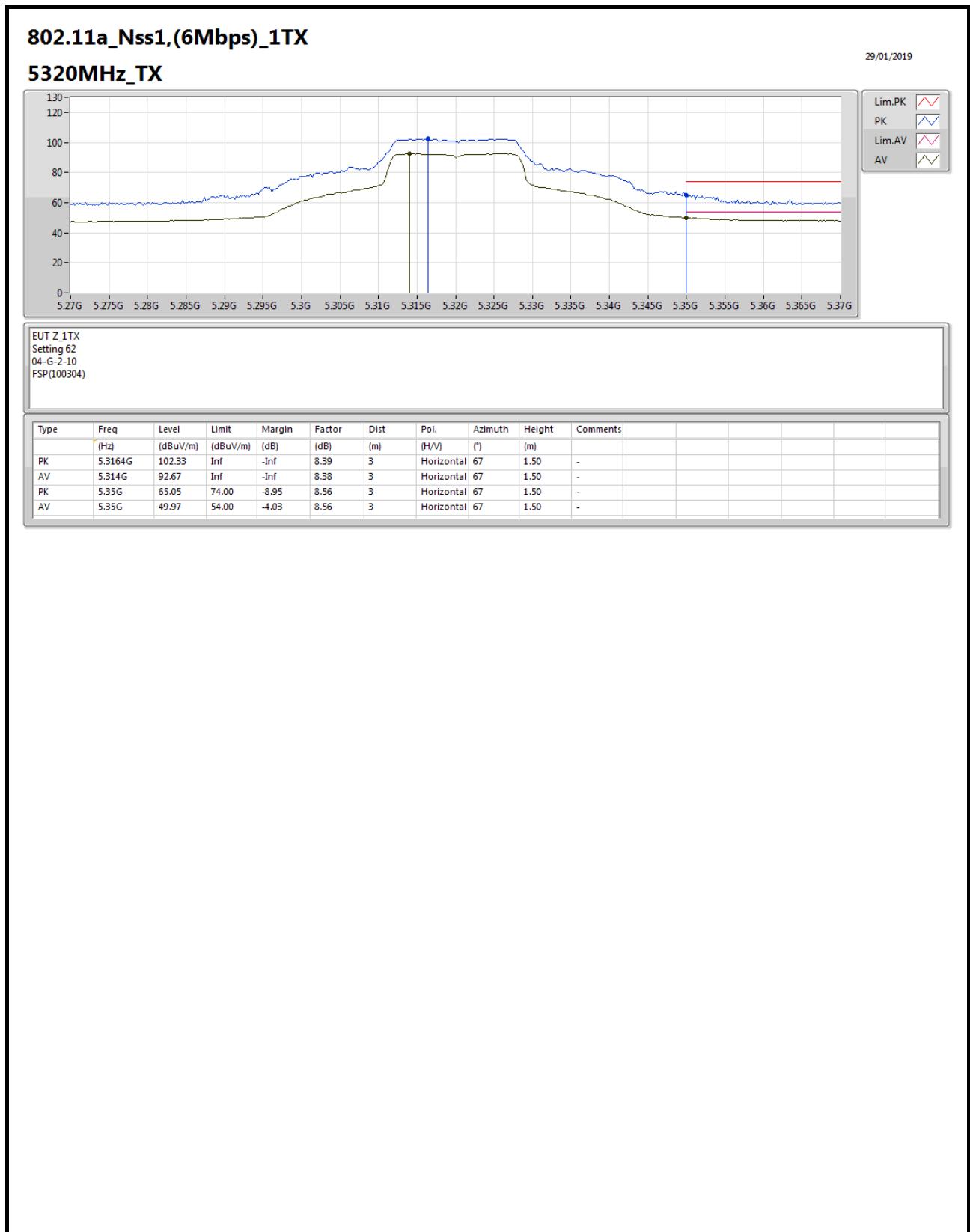
Appendix E.2





## RSE TX above 1GHz Result

Appendix E.2





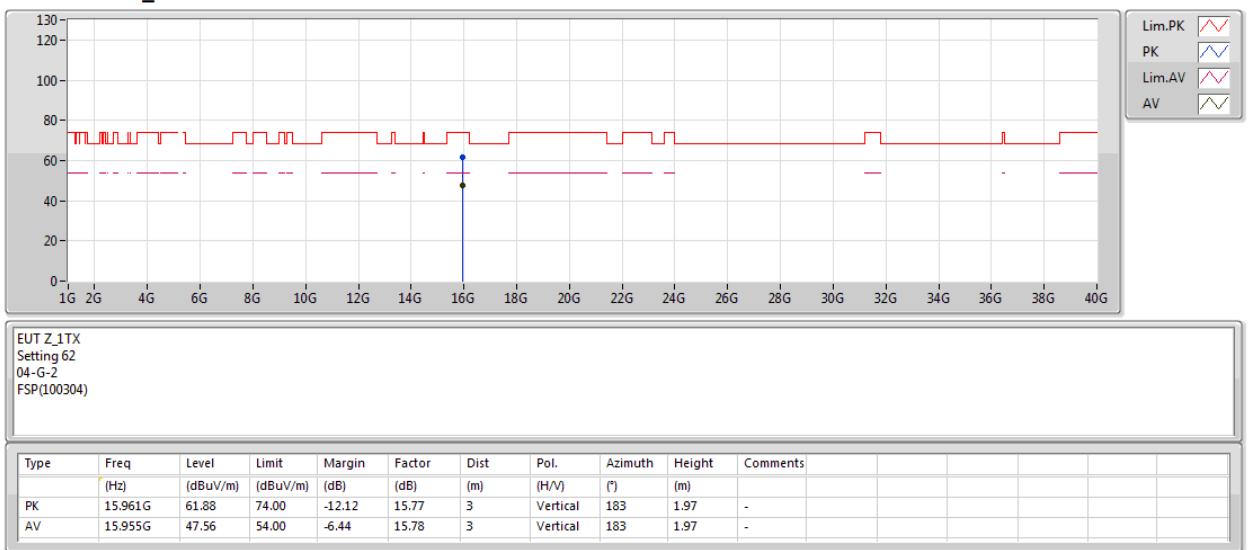
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5320MHz\_TX





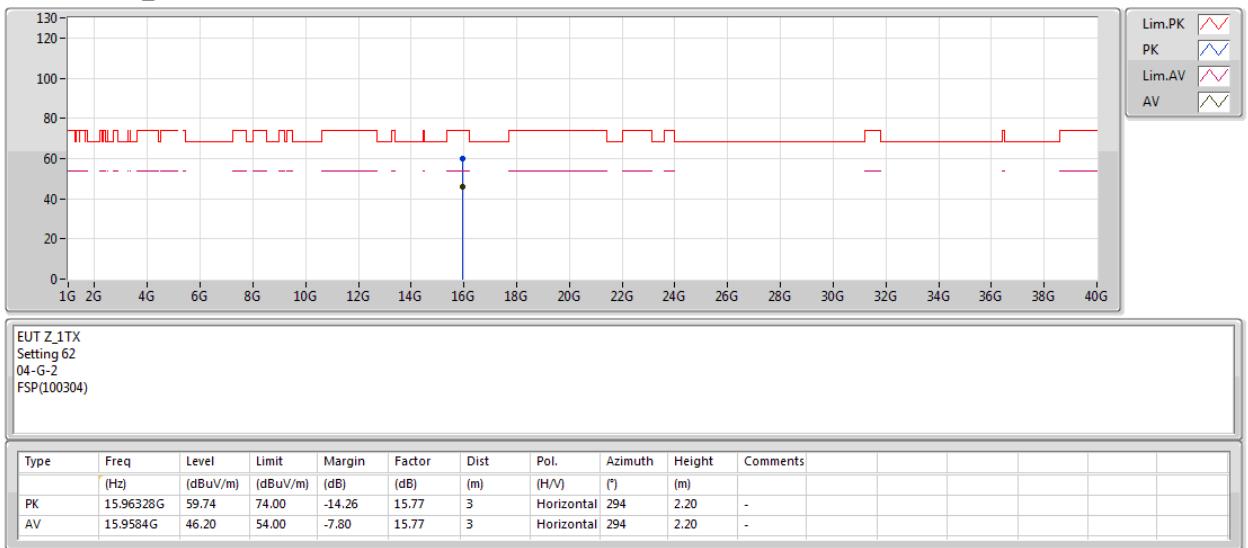
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5320MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

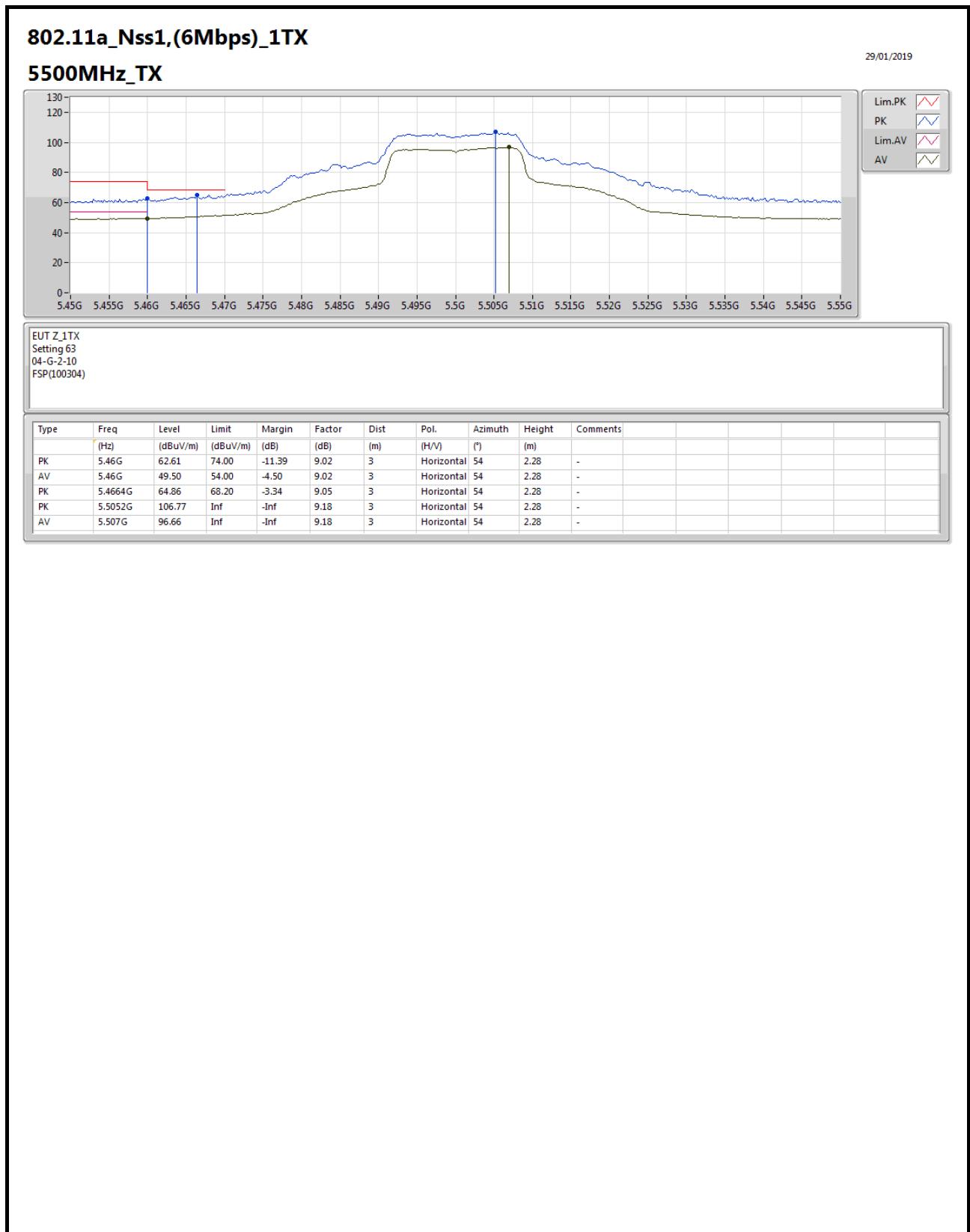
#### 5500MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2





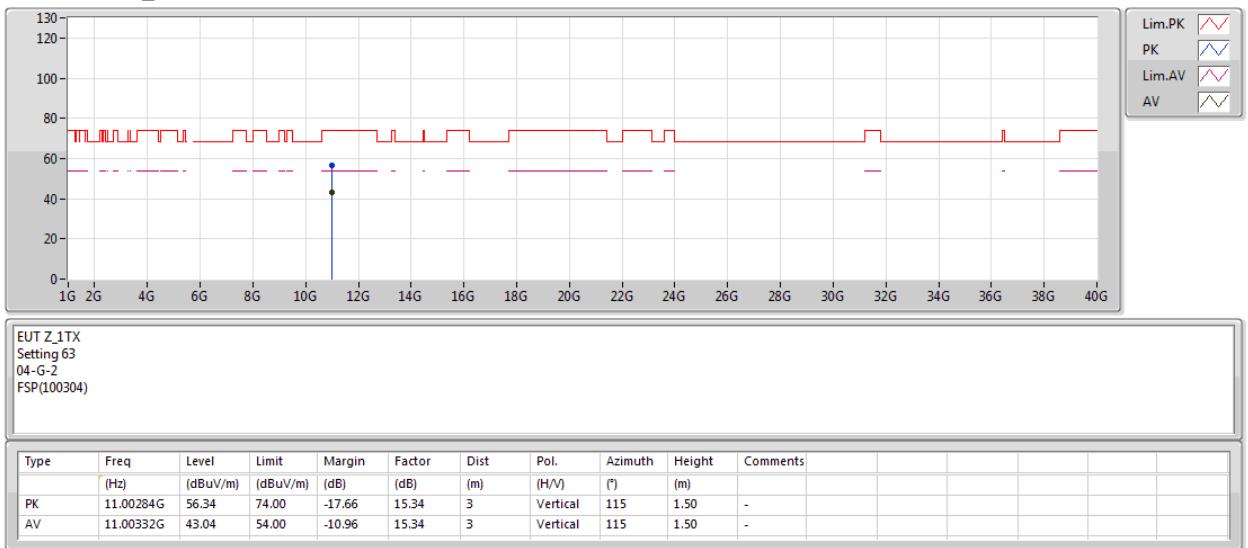
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5500MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2





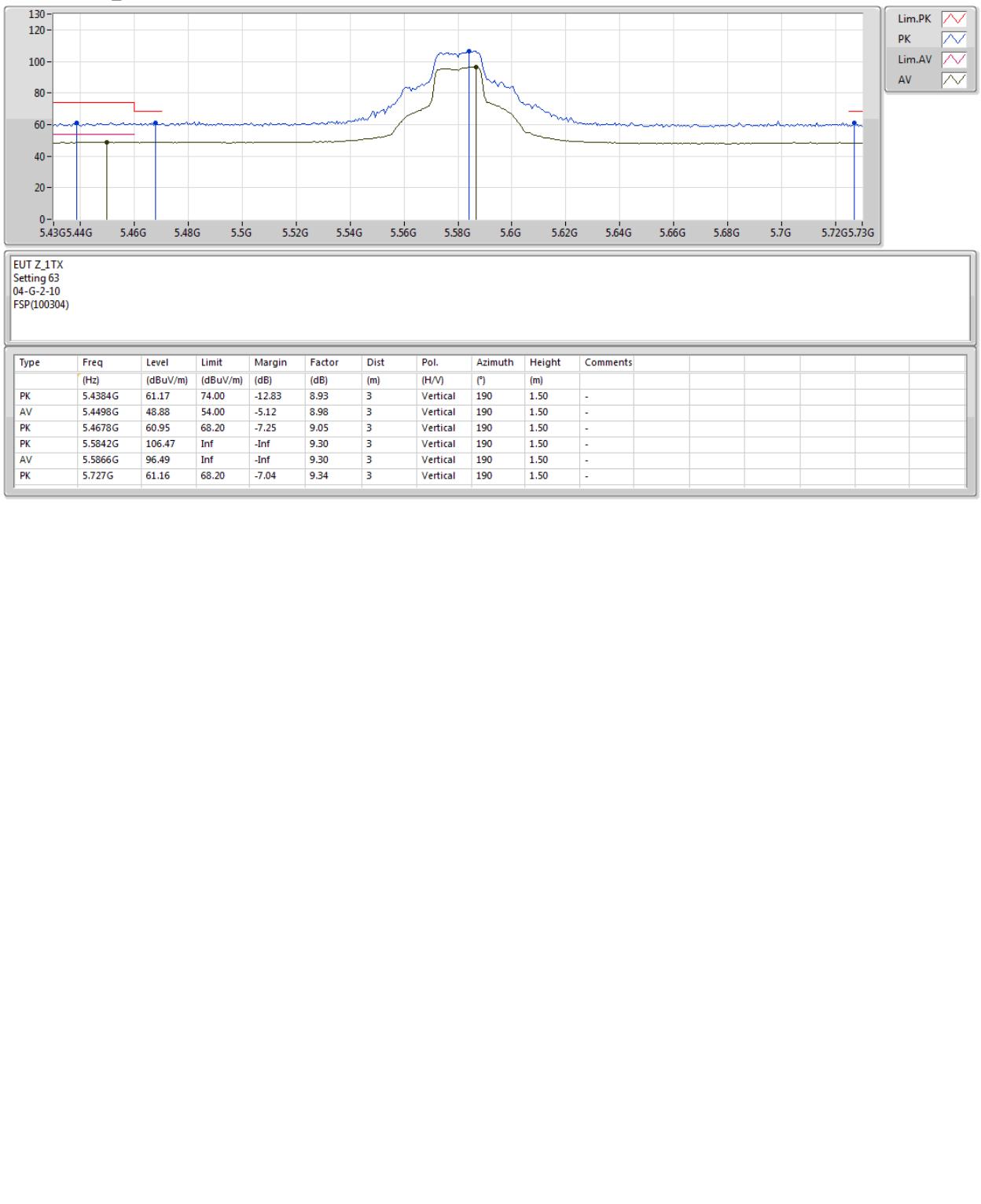
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5580MHz\_TX





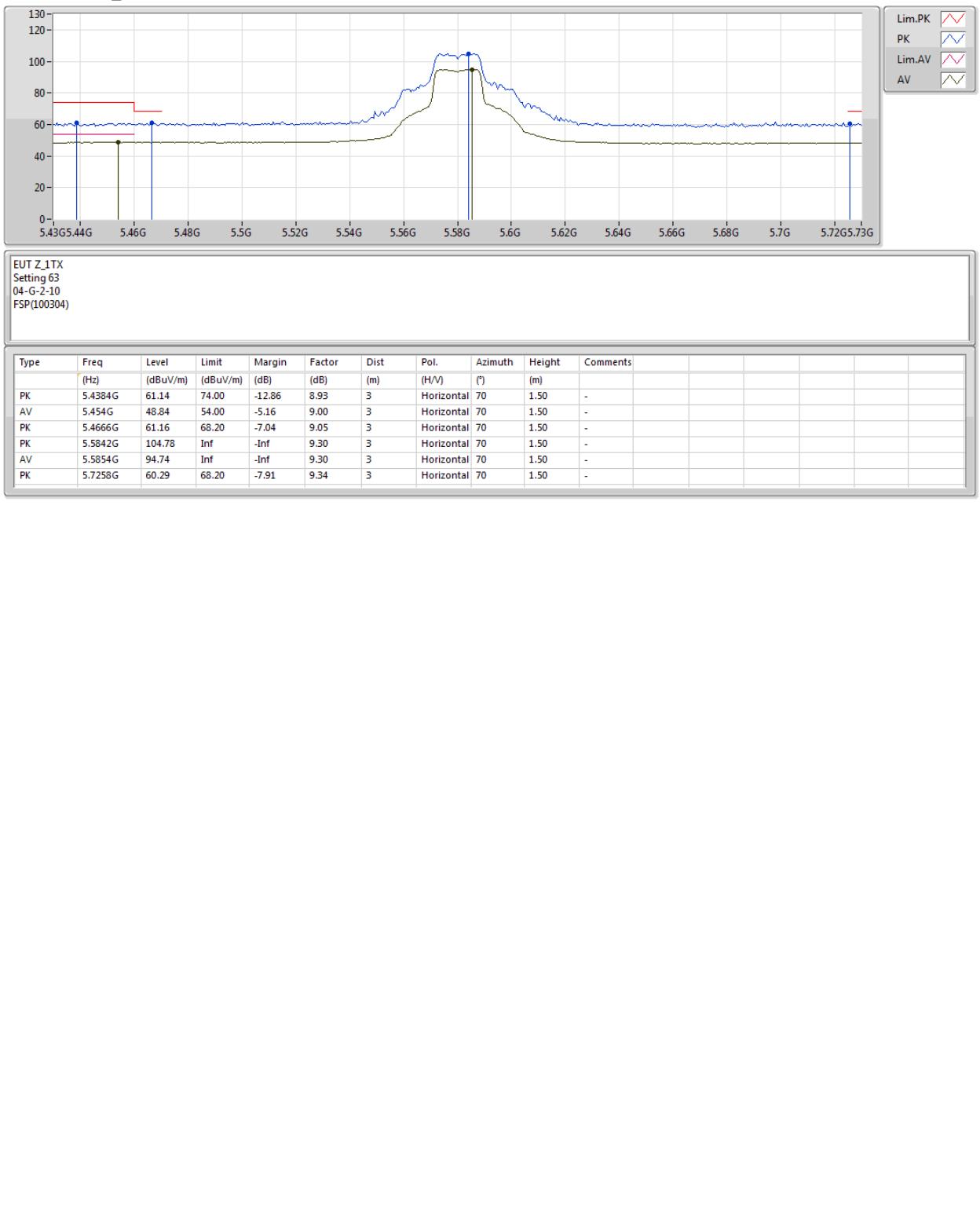
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5580MHz\_TX





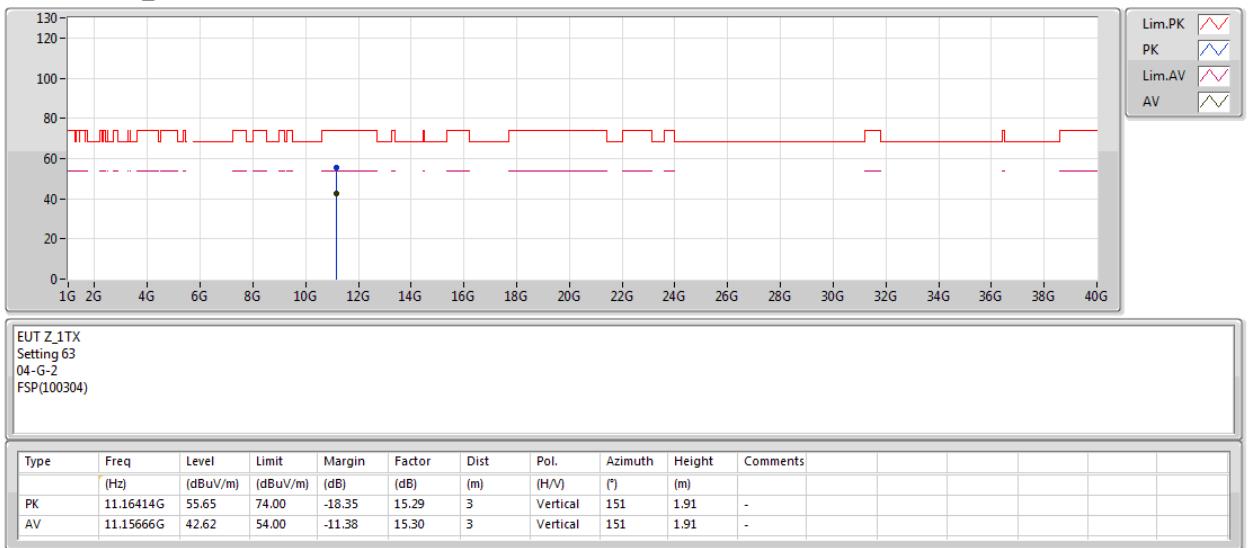
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5580MHz\_TX





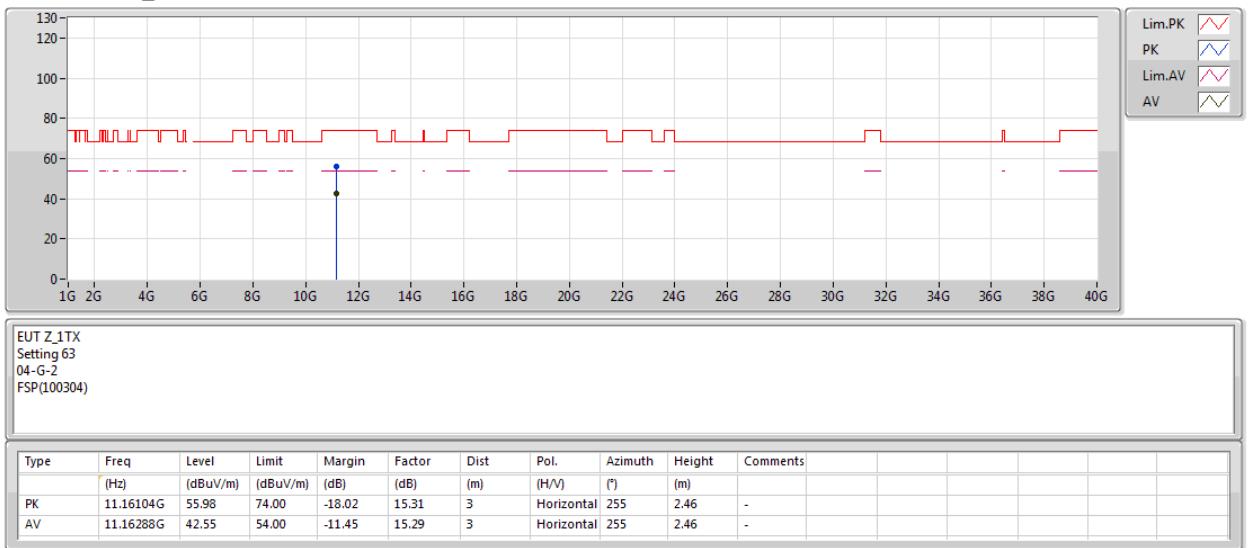
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5580MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

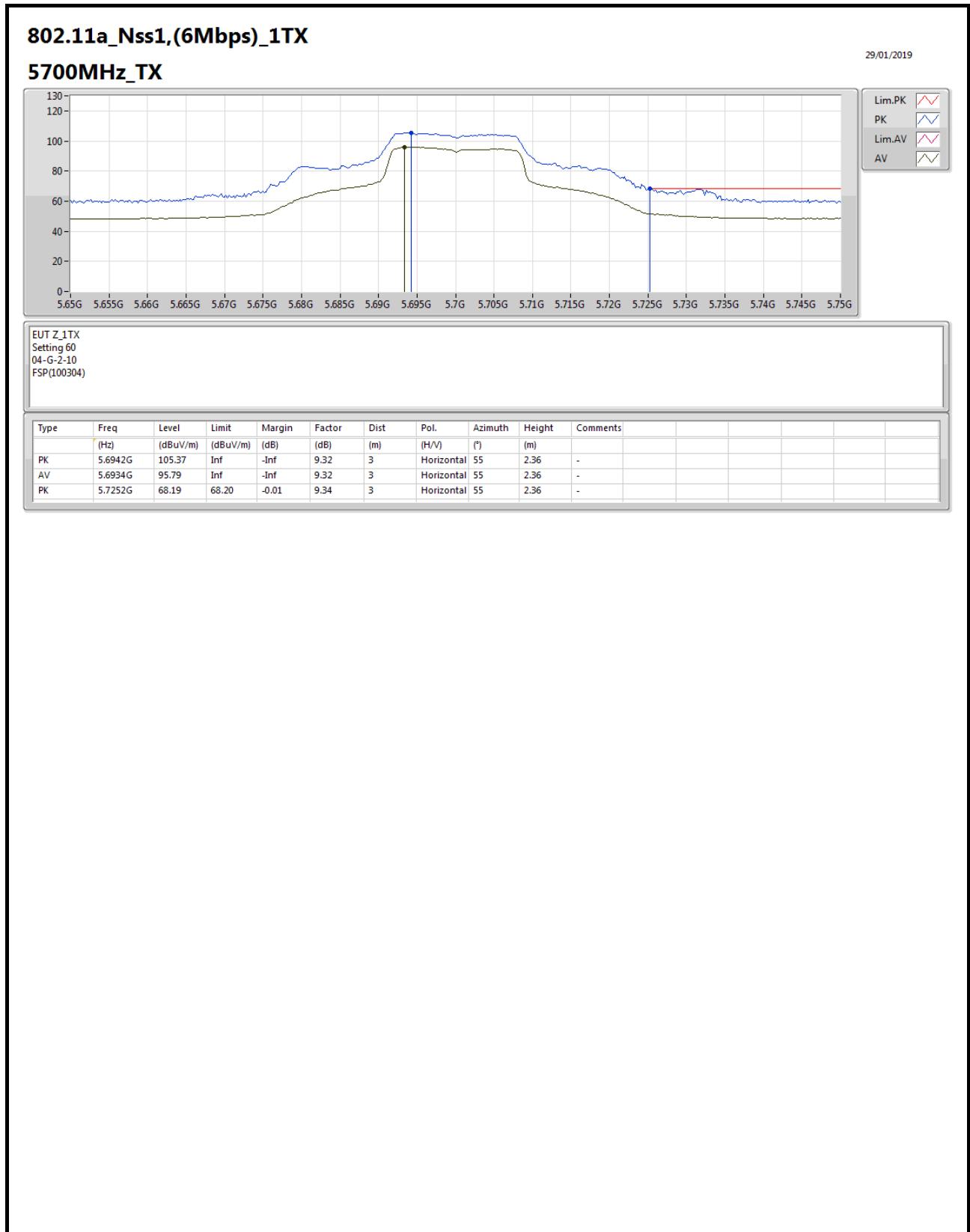
#### 5700MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2





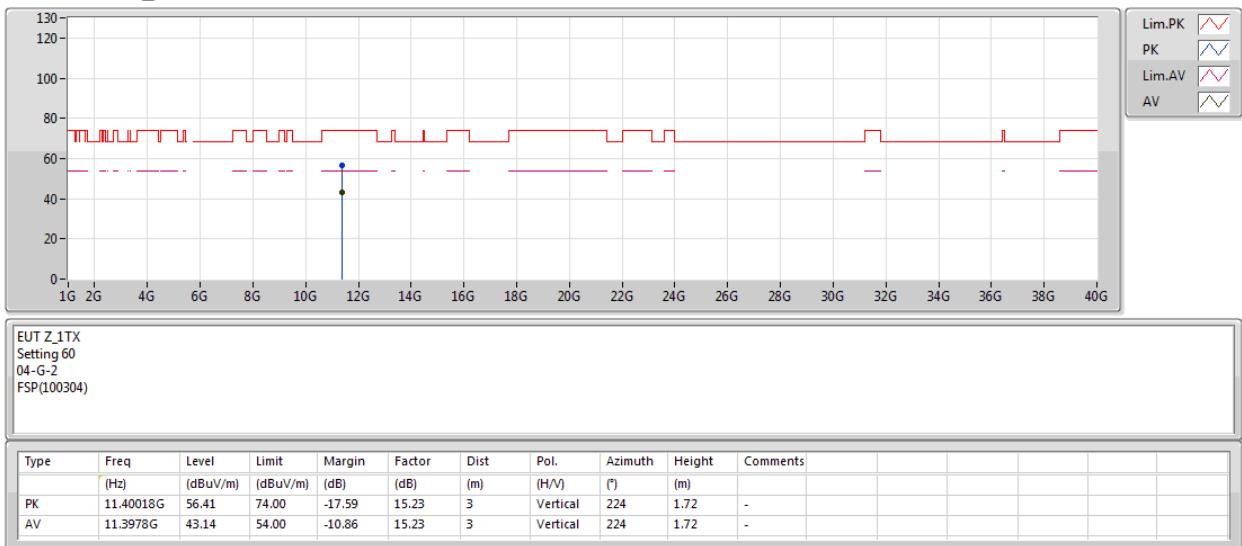
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5700MHz\_TX





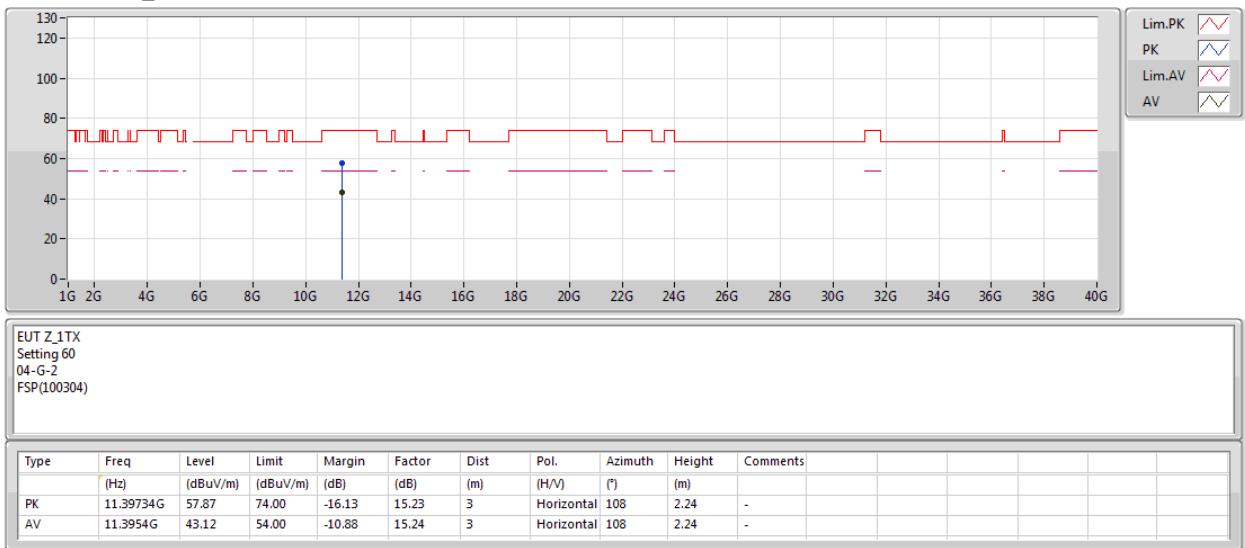
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5700MHz\_TX





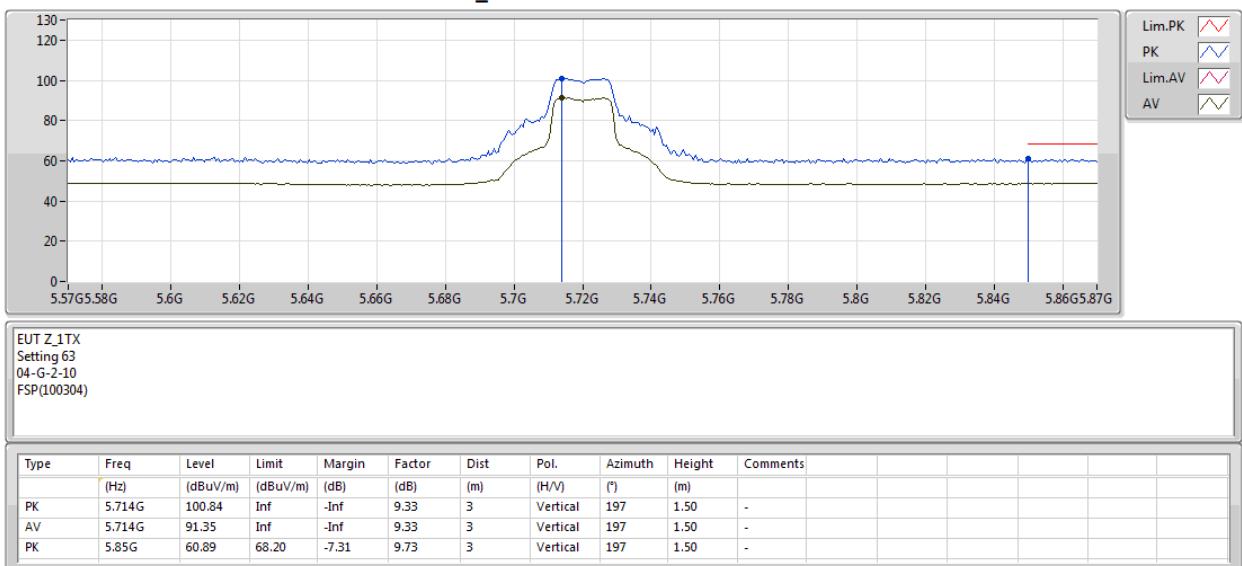
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

### 5720MHz Straddle 5.47-5.725GHz\_TX





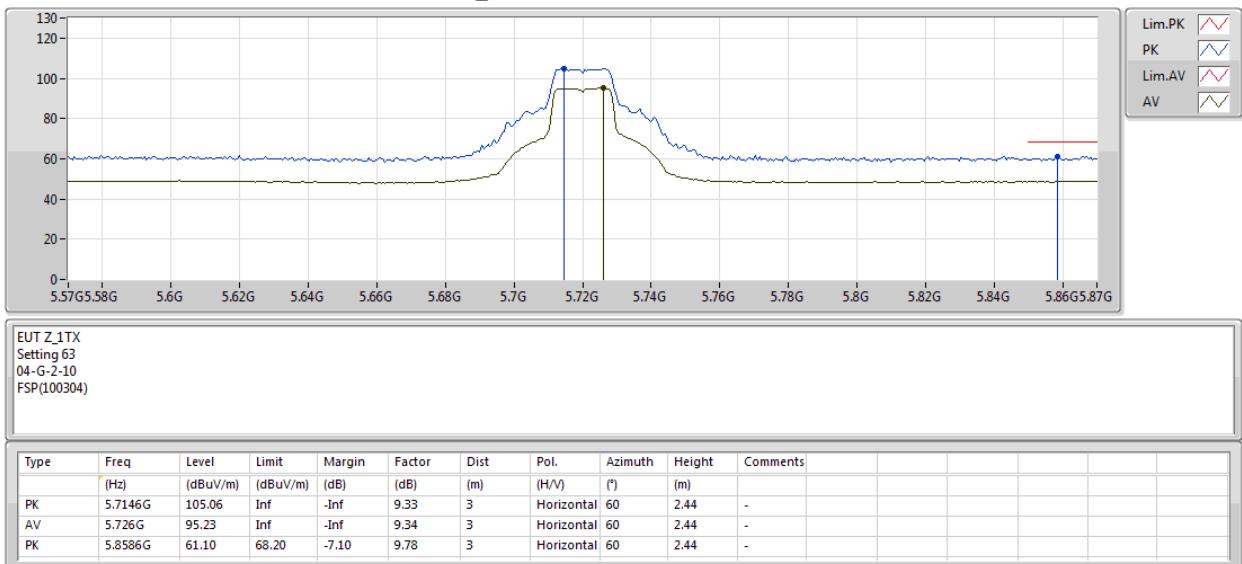
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

### 5720MHz Straddle 5.47-5.725GHz\_TX





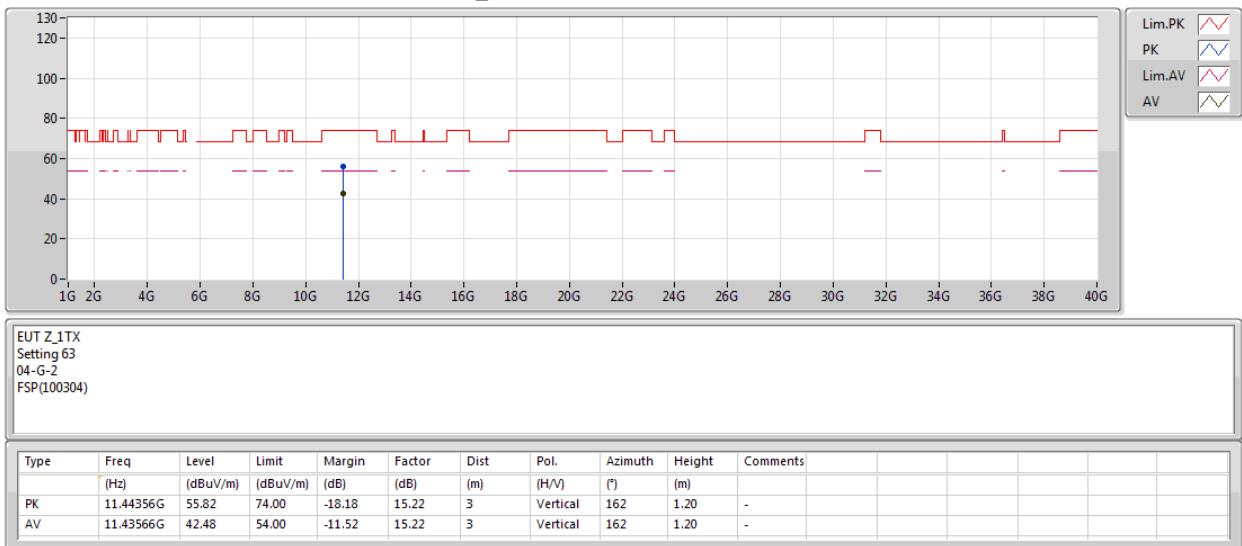
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

### 5720MHz Straddle 5.47-5.725GHz\_TX





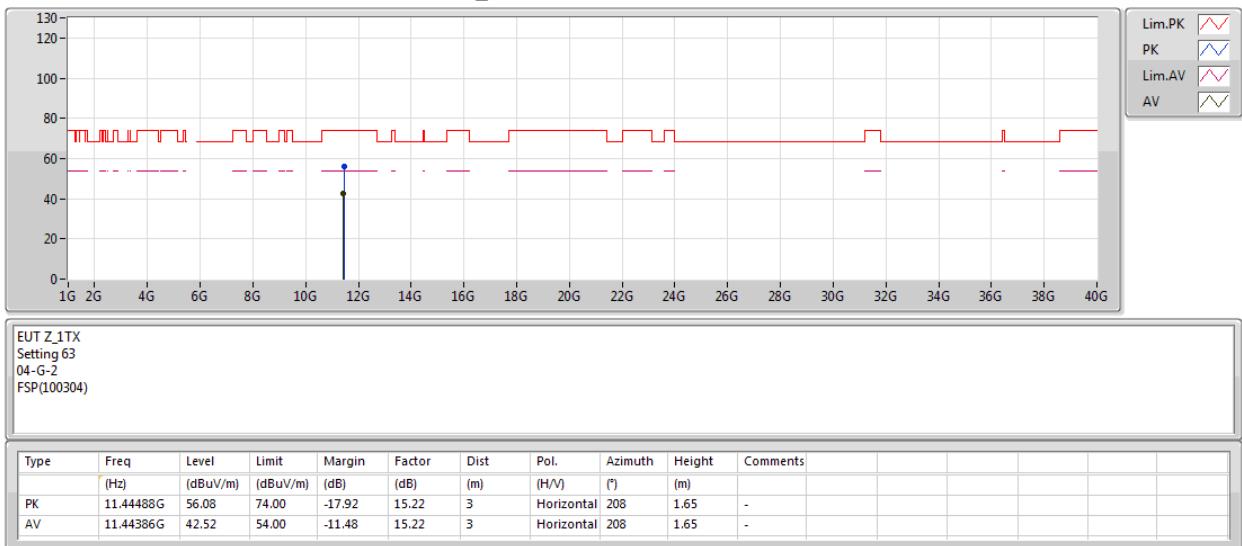
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

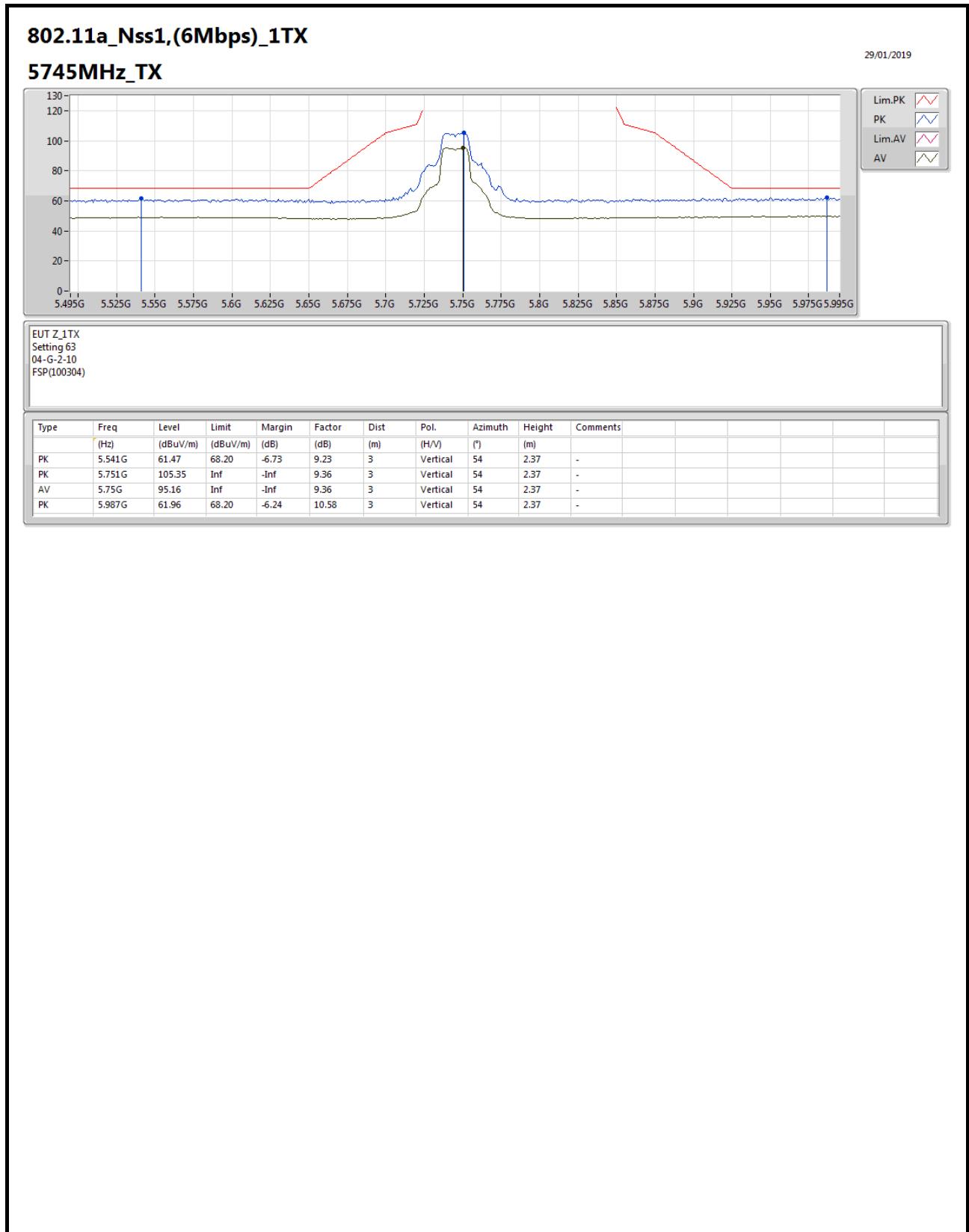
### 5720MHz Straddle 5.47-5.725GHz\_TX





## RSE TX above 1GHz Result

Appendix E.2





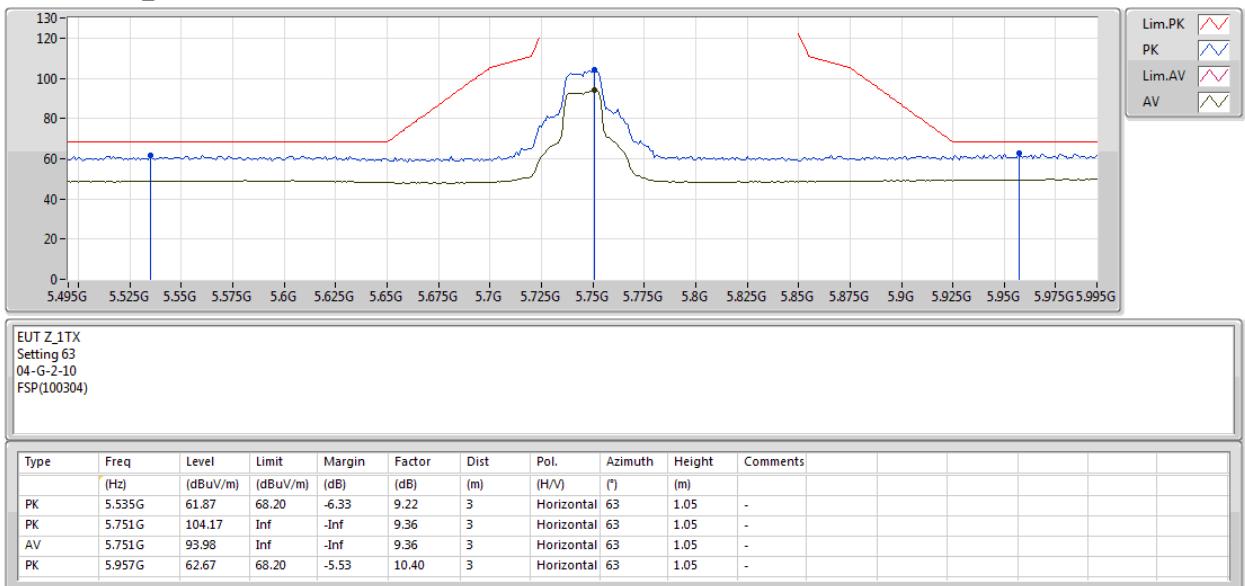
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5745MHz\_TX





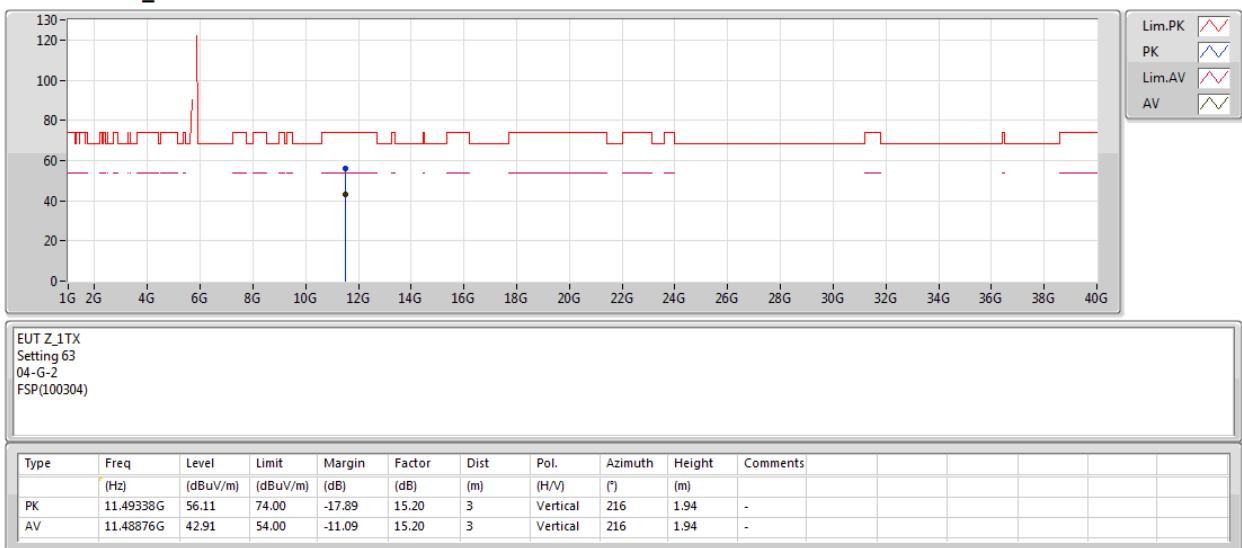
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5745MHz\_TX





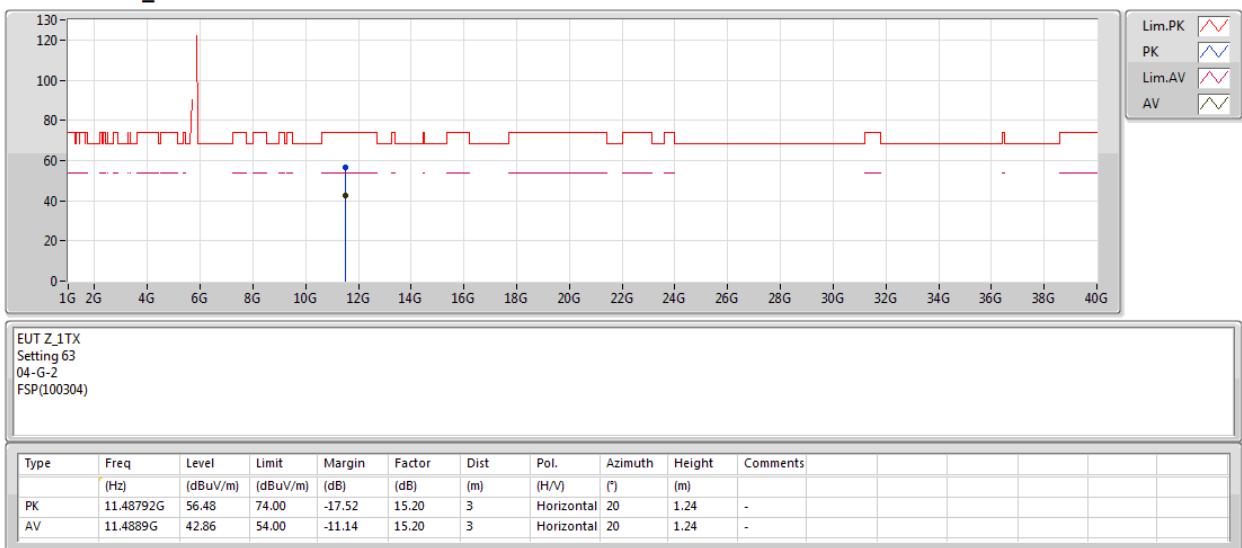
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5745MHz\_TX





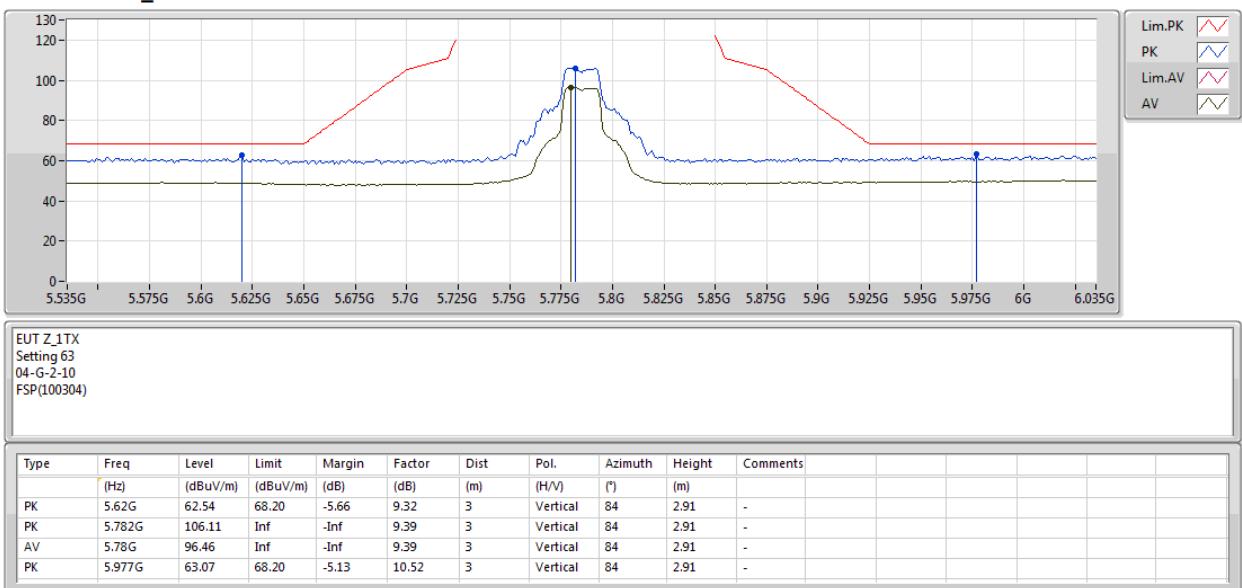
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5785MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5785MHz\_TX





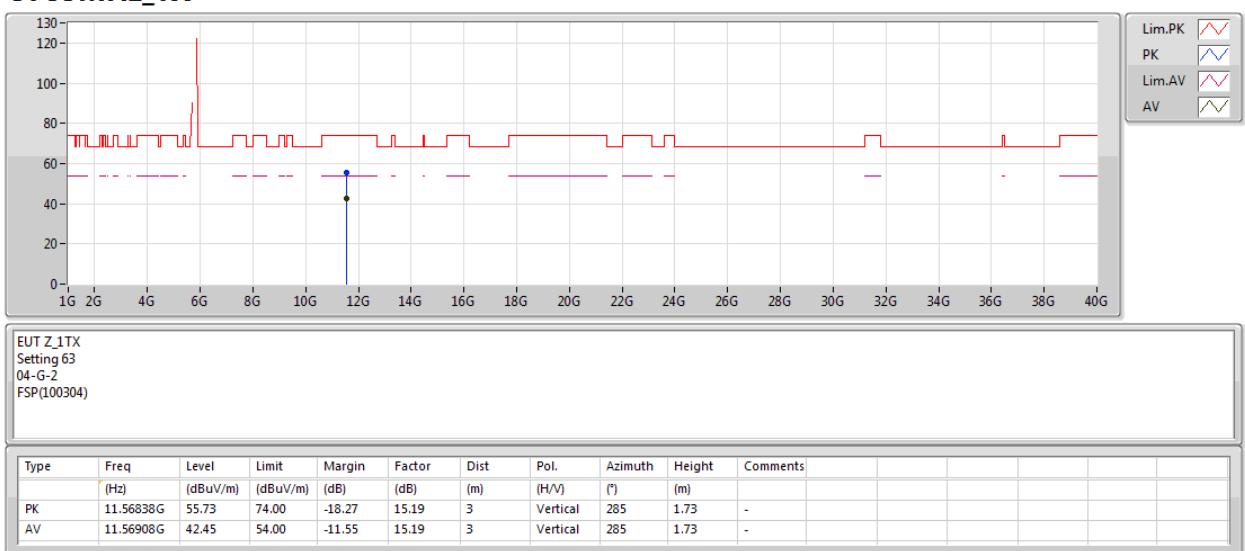
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5785MHz\_TX





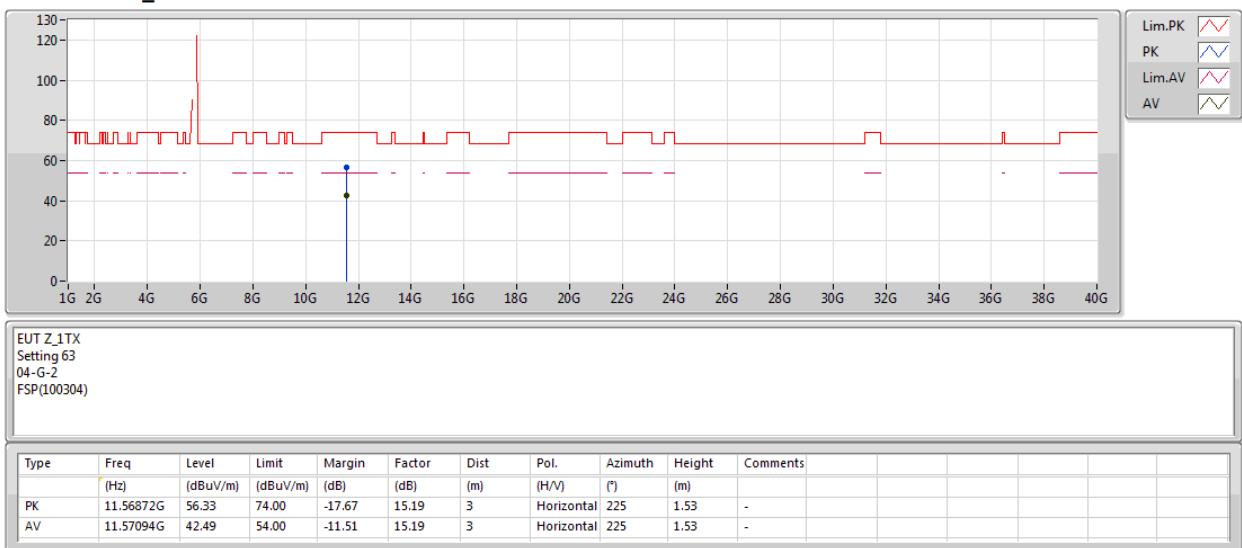
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5785MHz\_TX





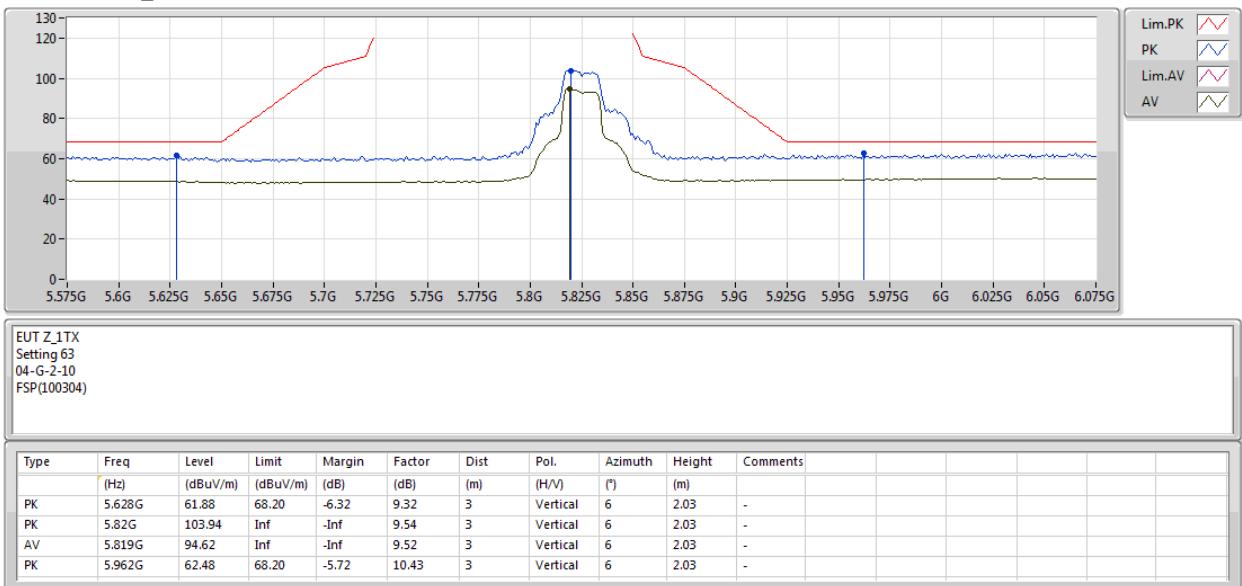
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

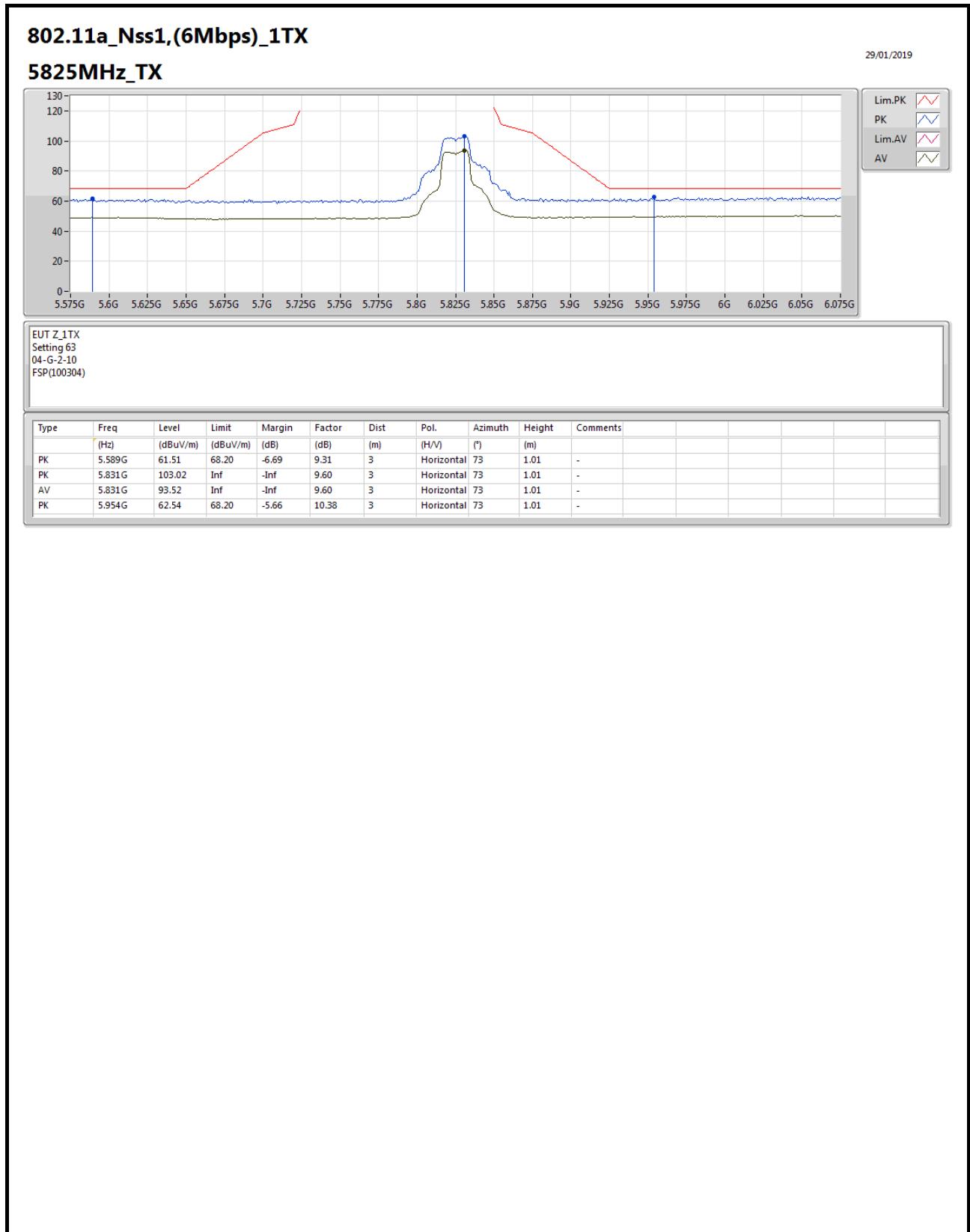
#### 5825MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2





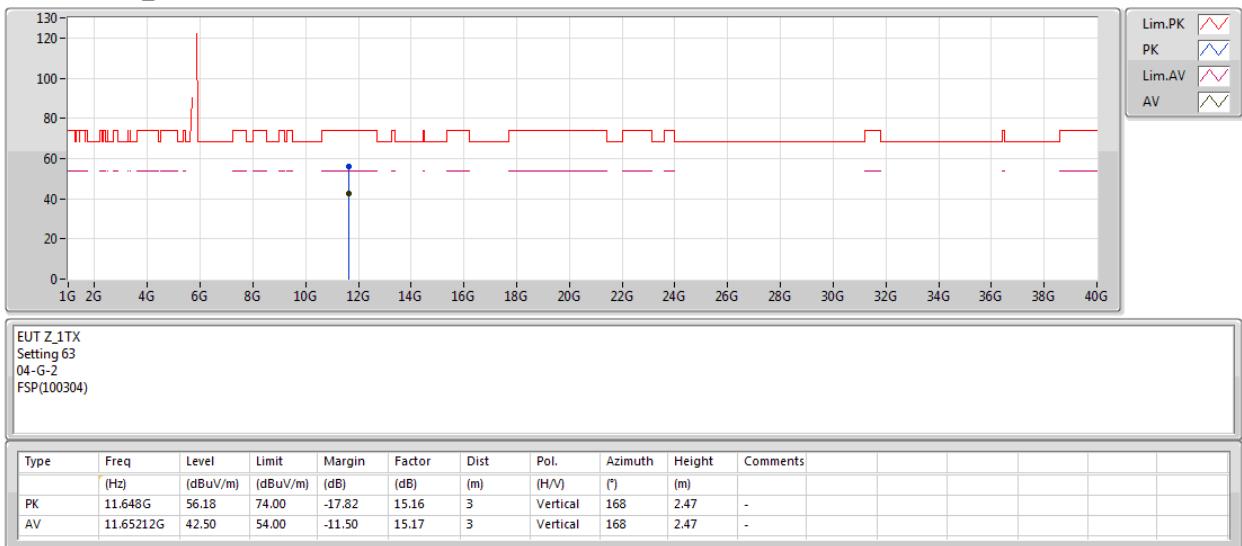
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5825MHz\_TX





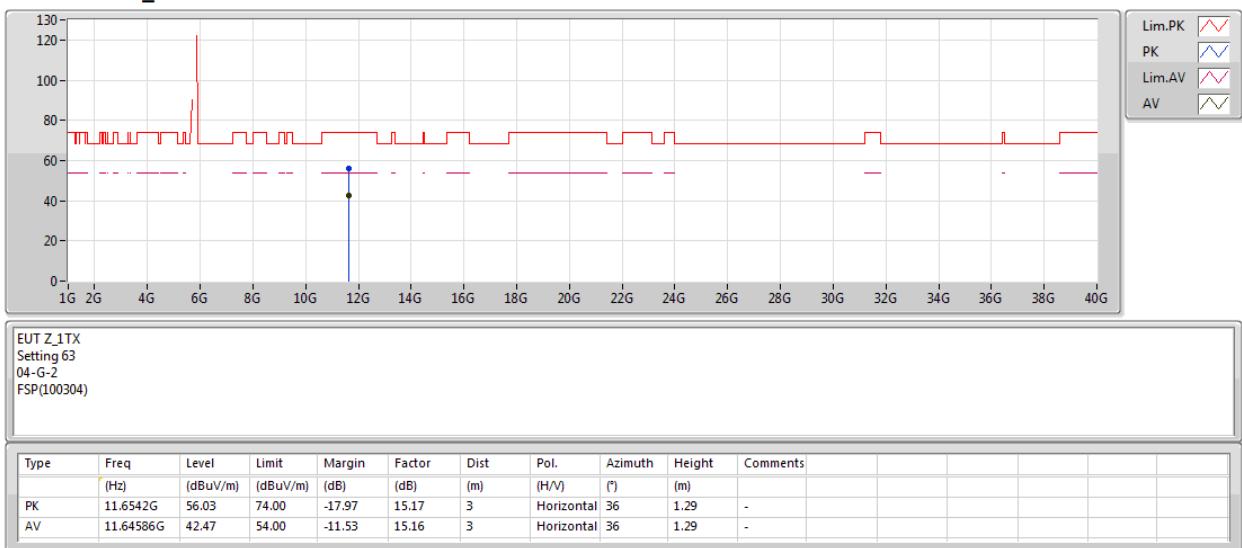
## RSE TX above 1GHz Result

Appendix E.2

### 802.11a\_Nss1,(6Mbps)\_1TX

29/01/2019

#### 5825MHz\_TX





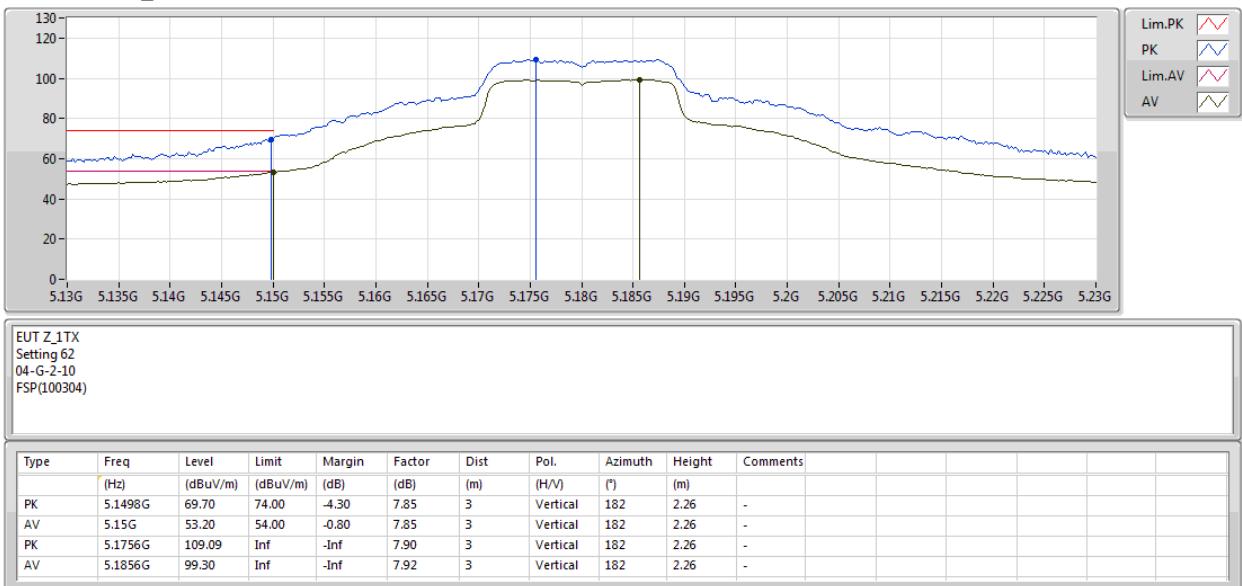
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

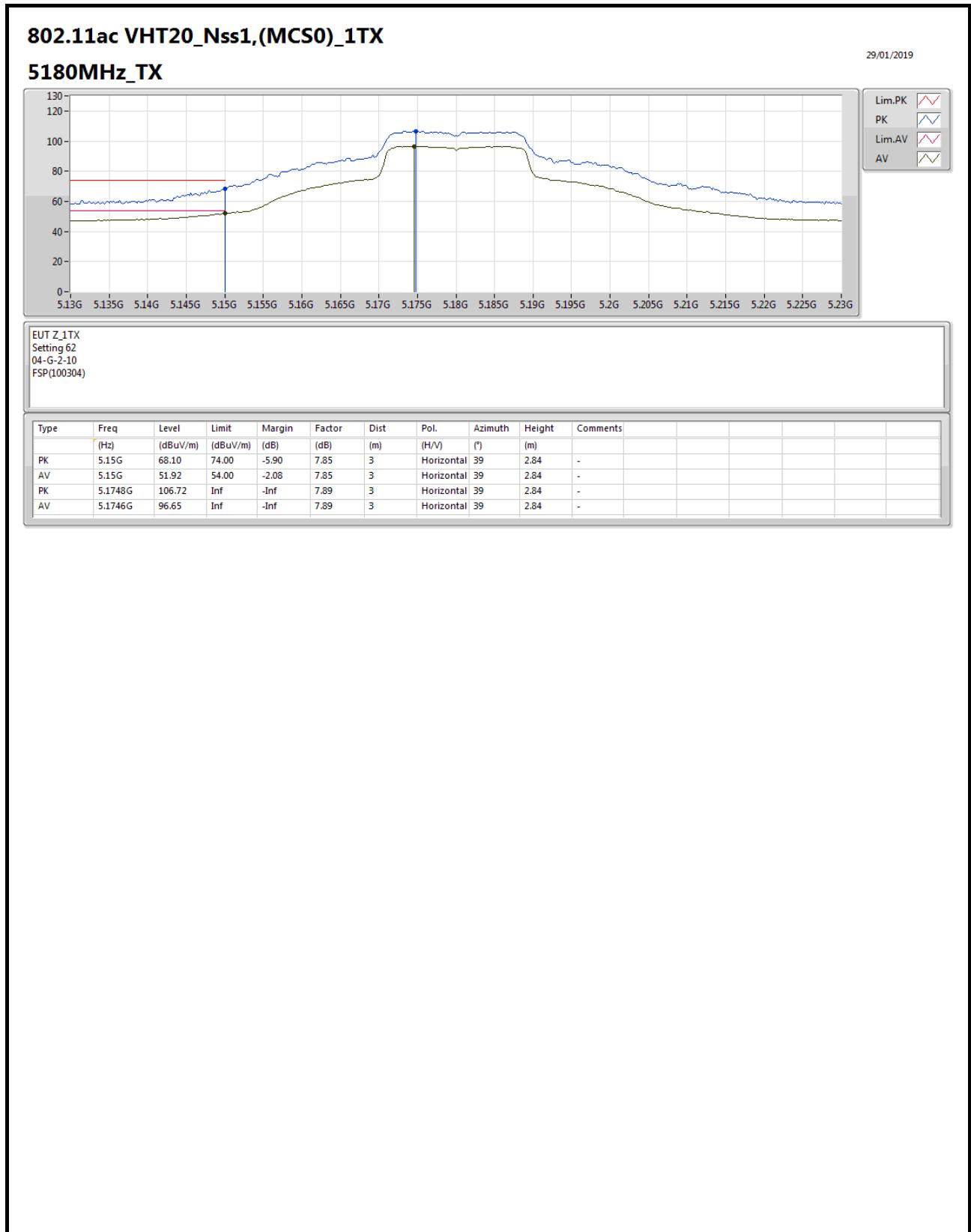
#### 5180MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2





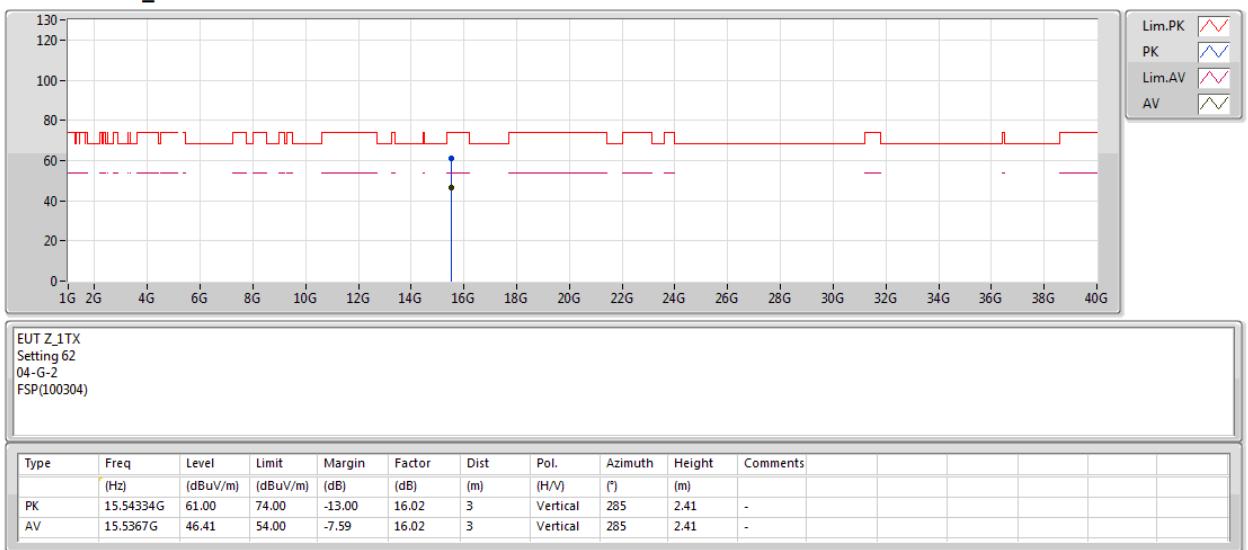
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5180MHz\_TX





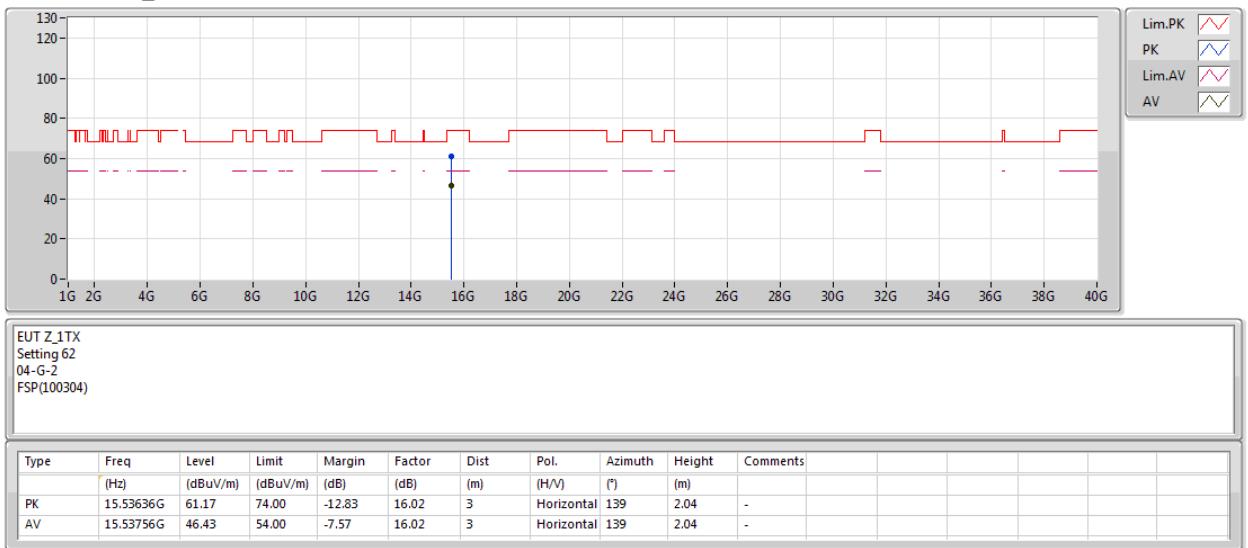
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5180MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5200MHz\_TX





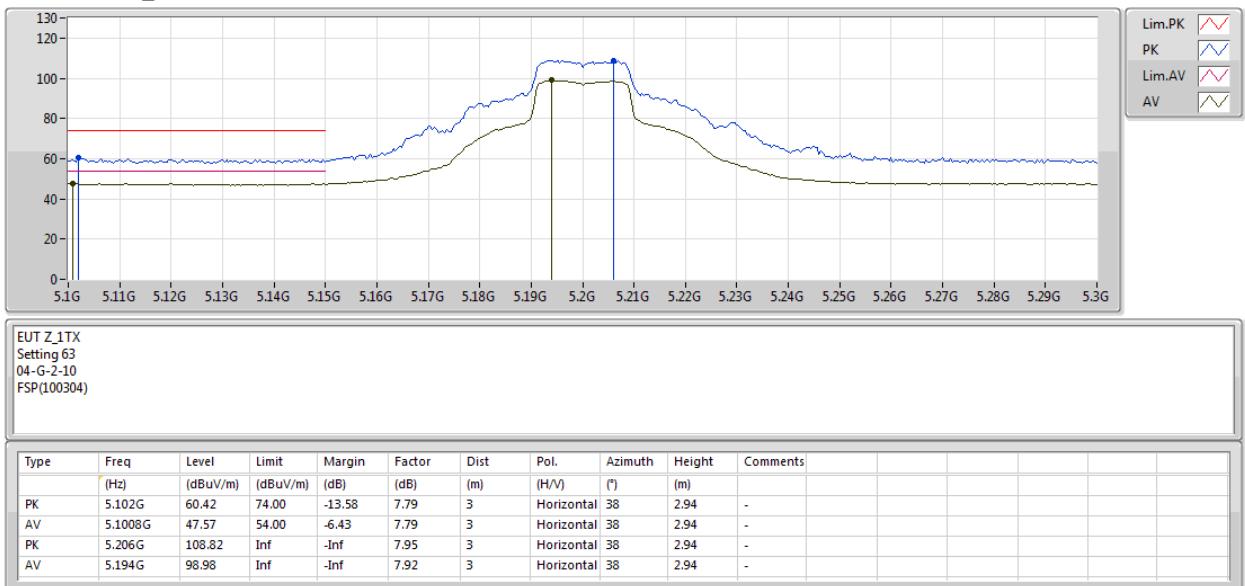
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5200MHz\_TX





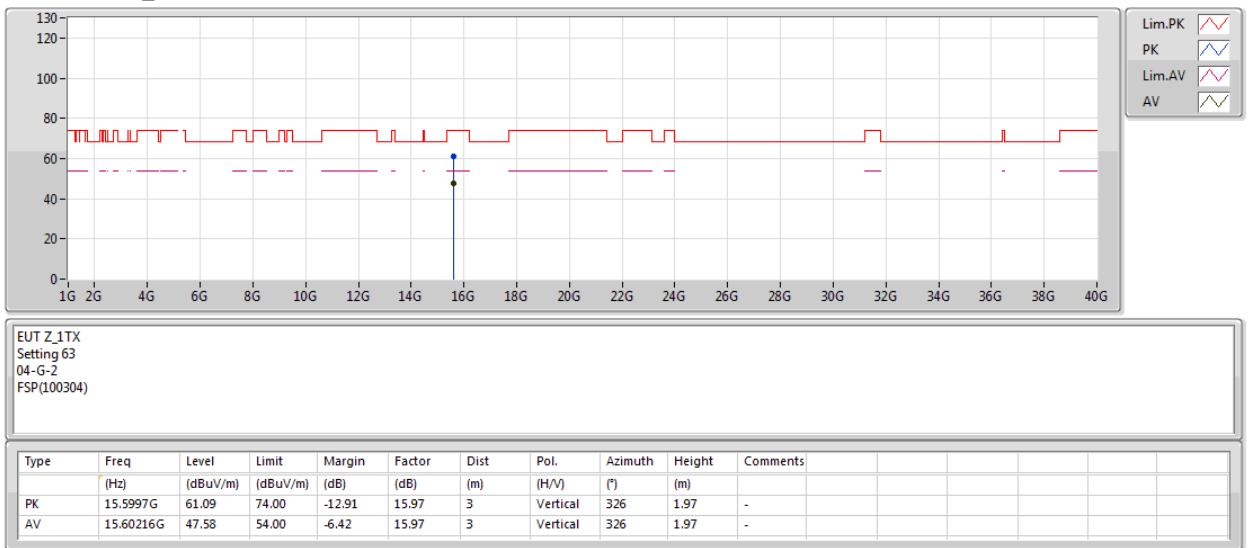
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5200MHz\_TX





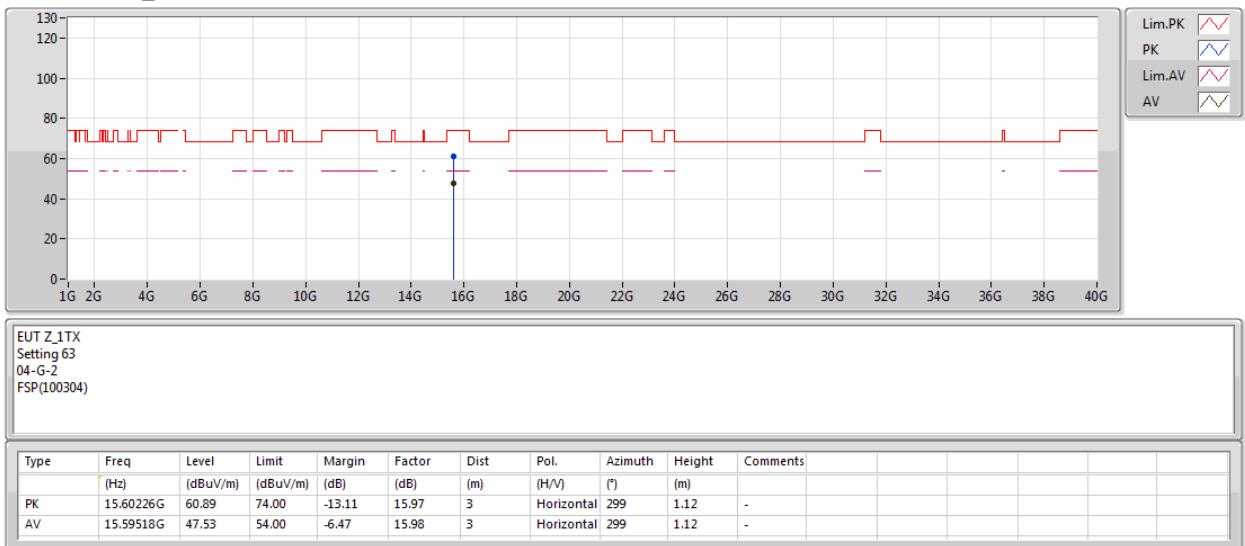
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5200MHz\_TX





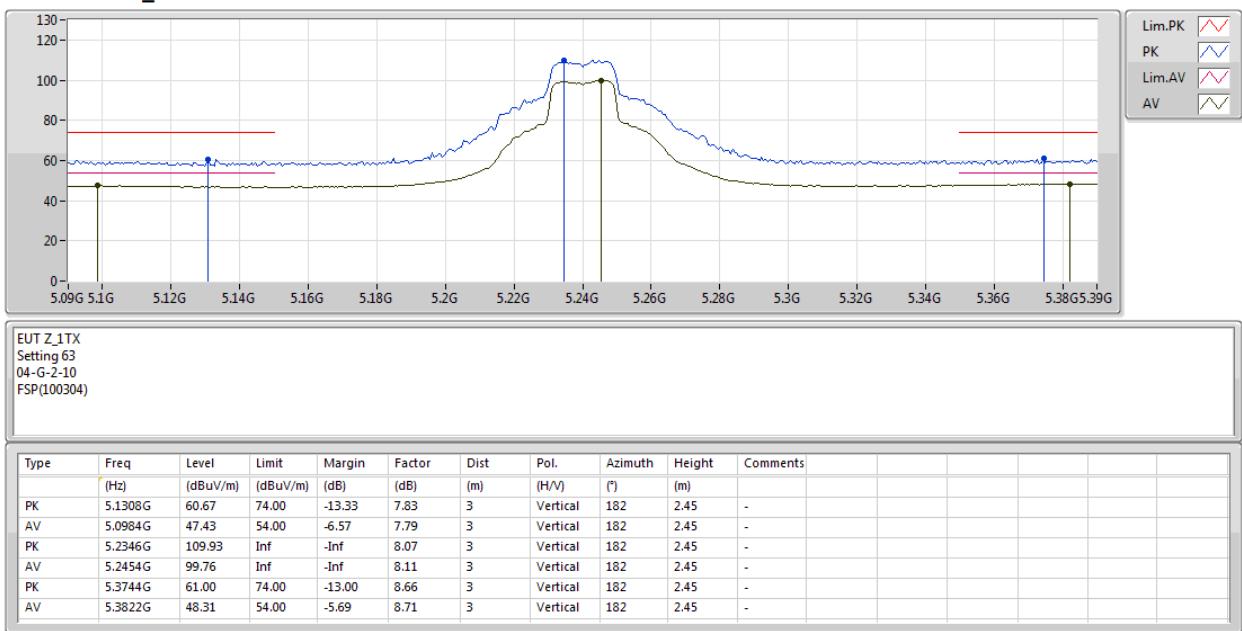
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5240MHz\_TX





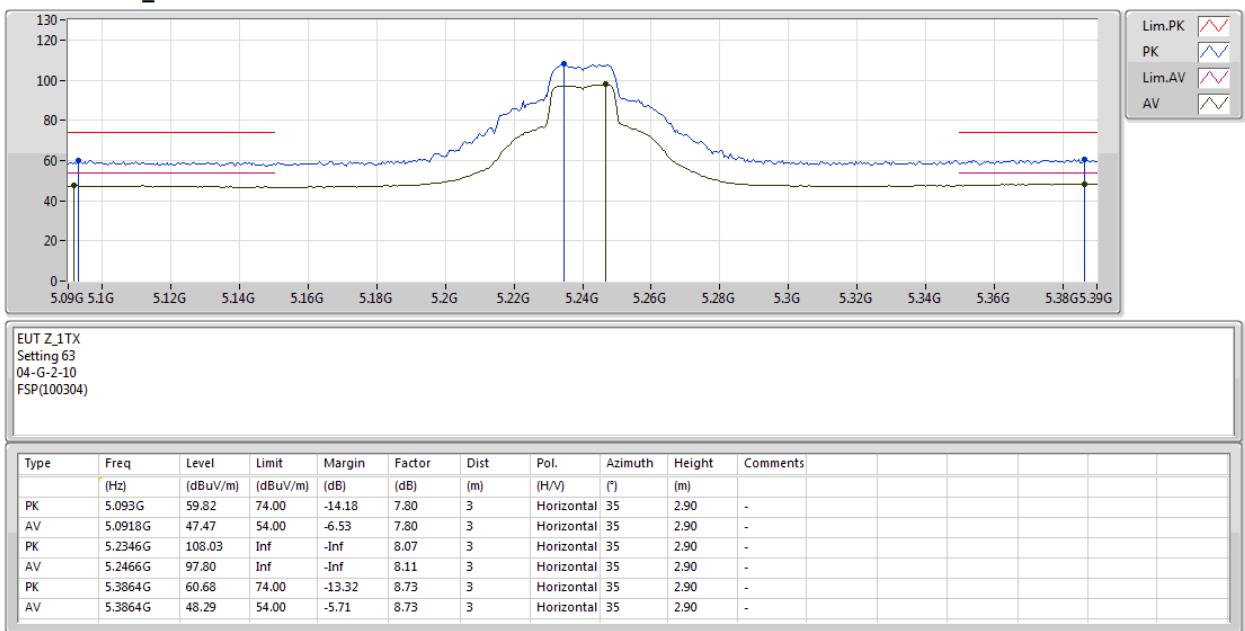
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5240MHz\_TX





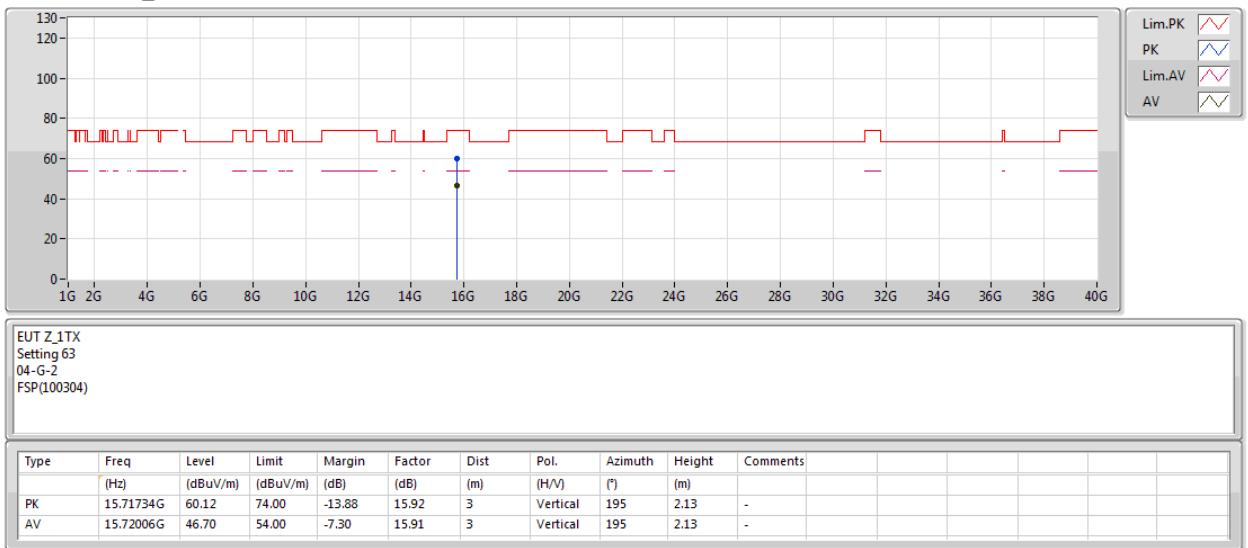
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5240MHz\_TX





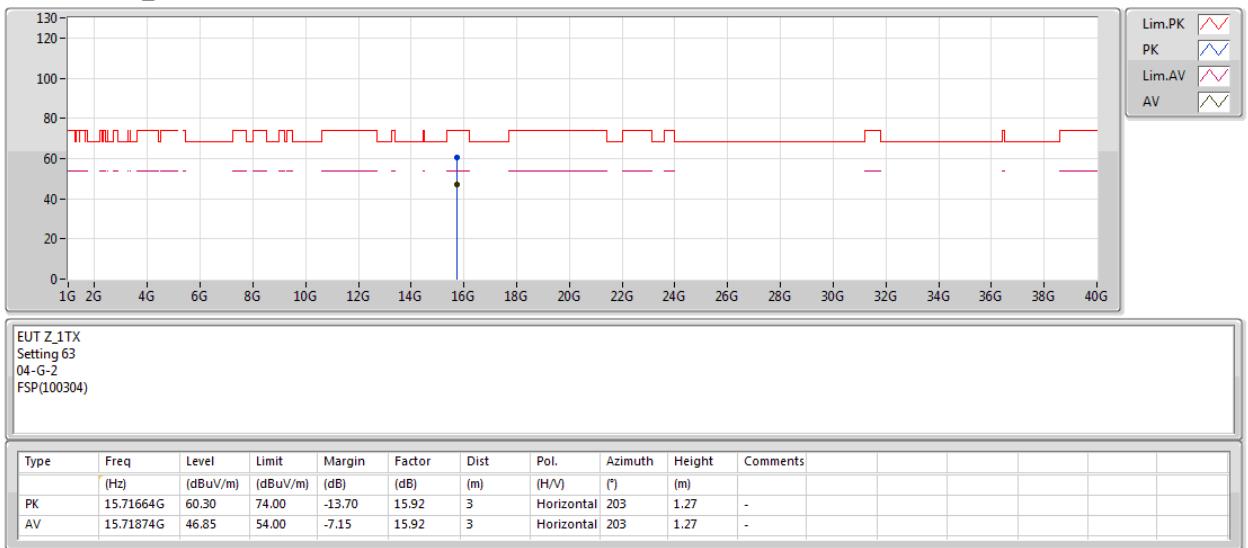
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5240MHz\_TX





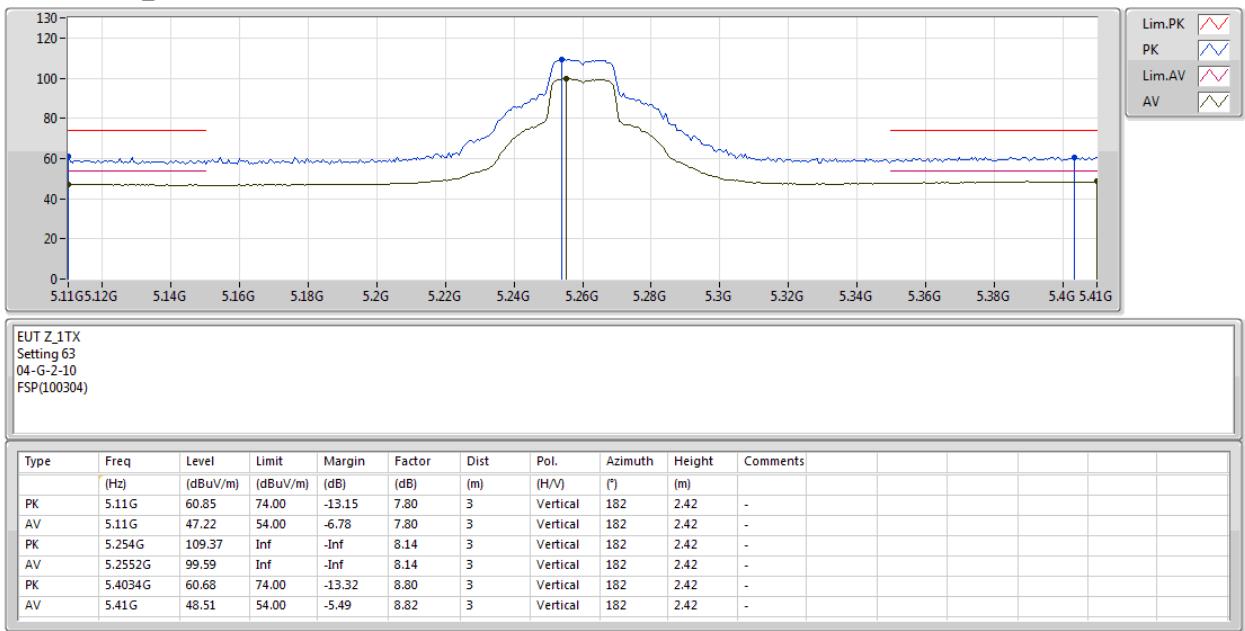
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5260MHz\_TX





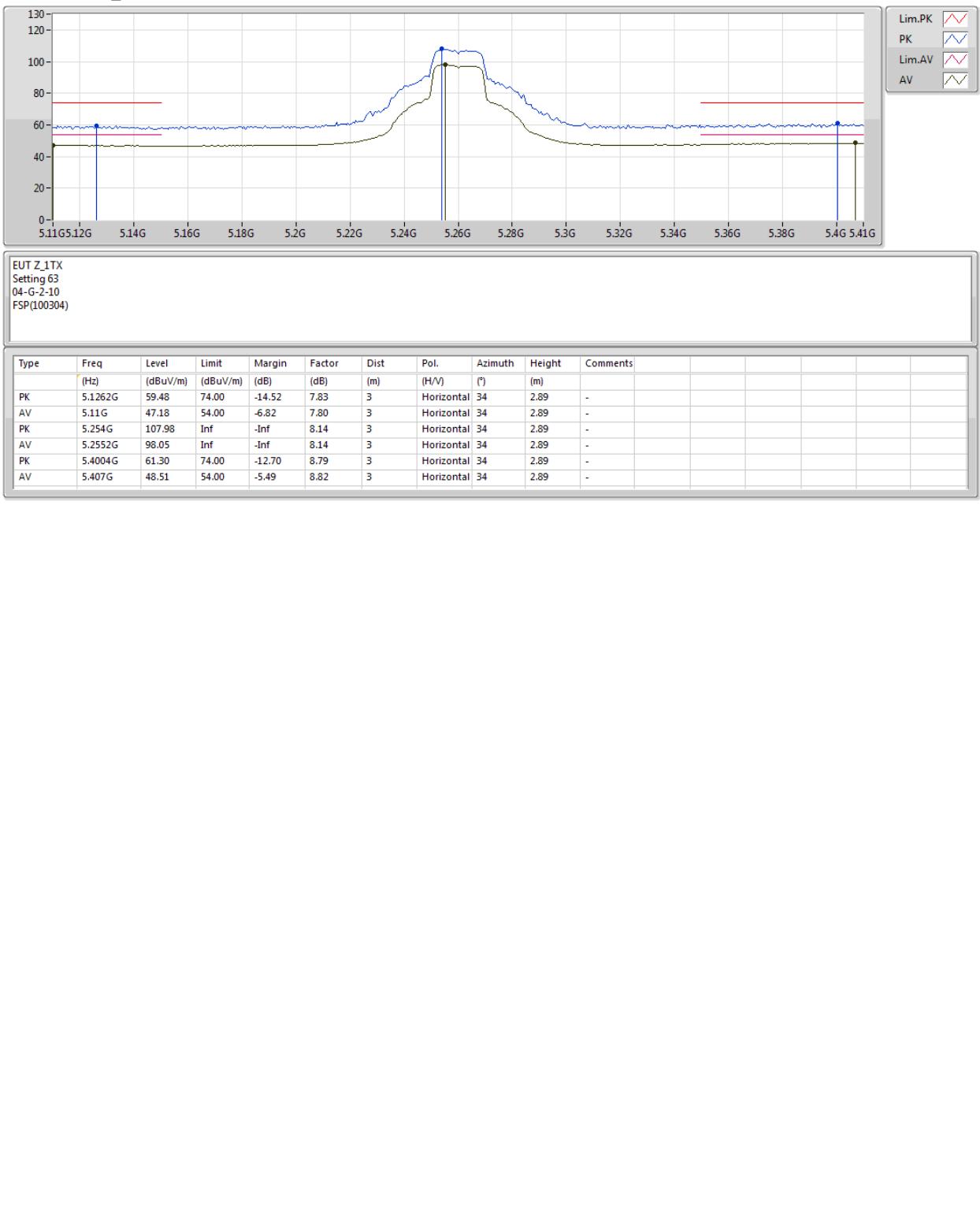
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5260MHz\_TX





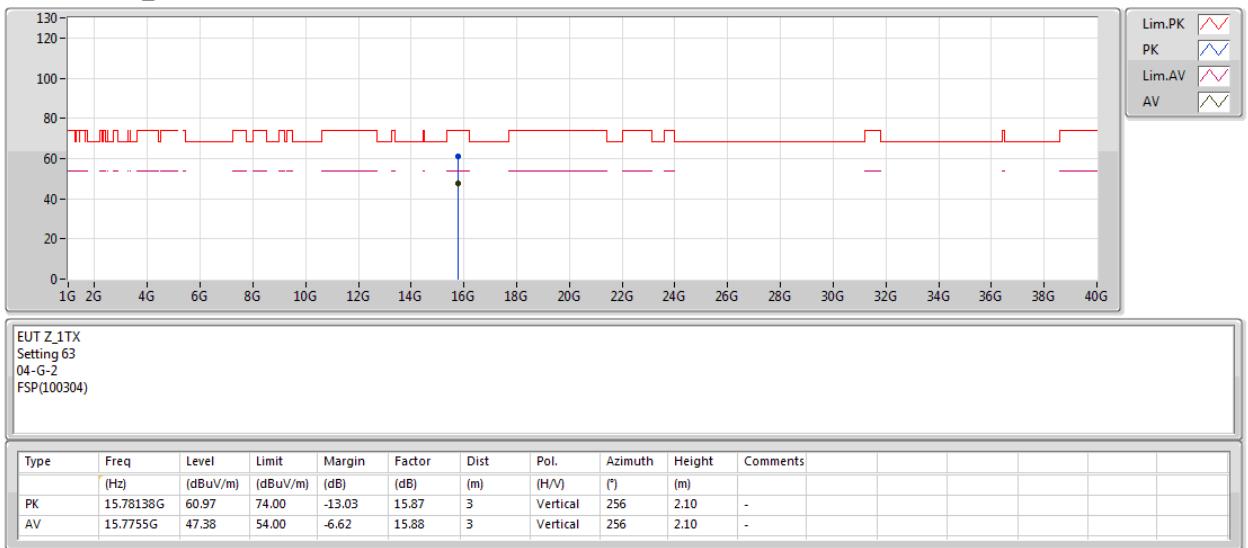
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5260MHz\_TX





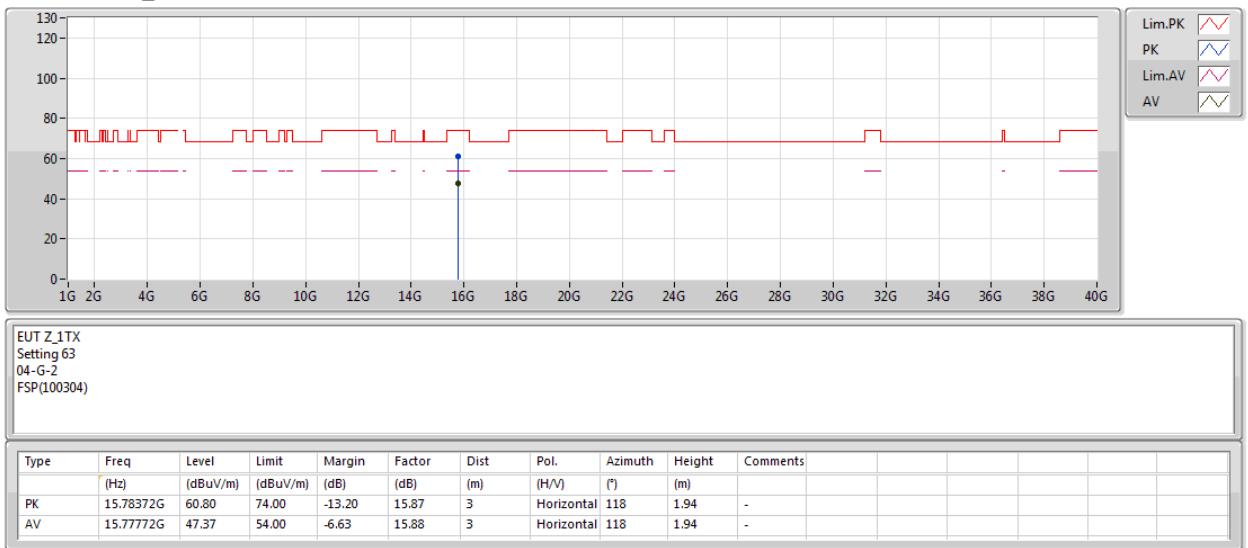
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5260MHz\_TX





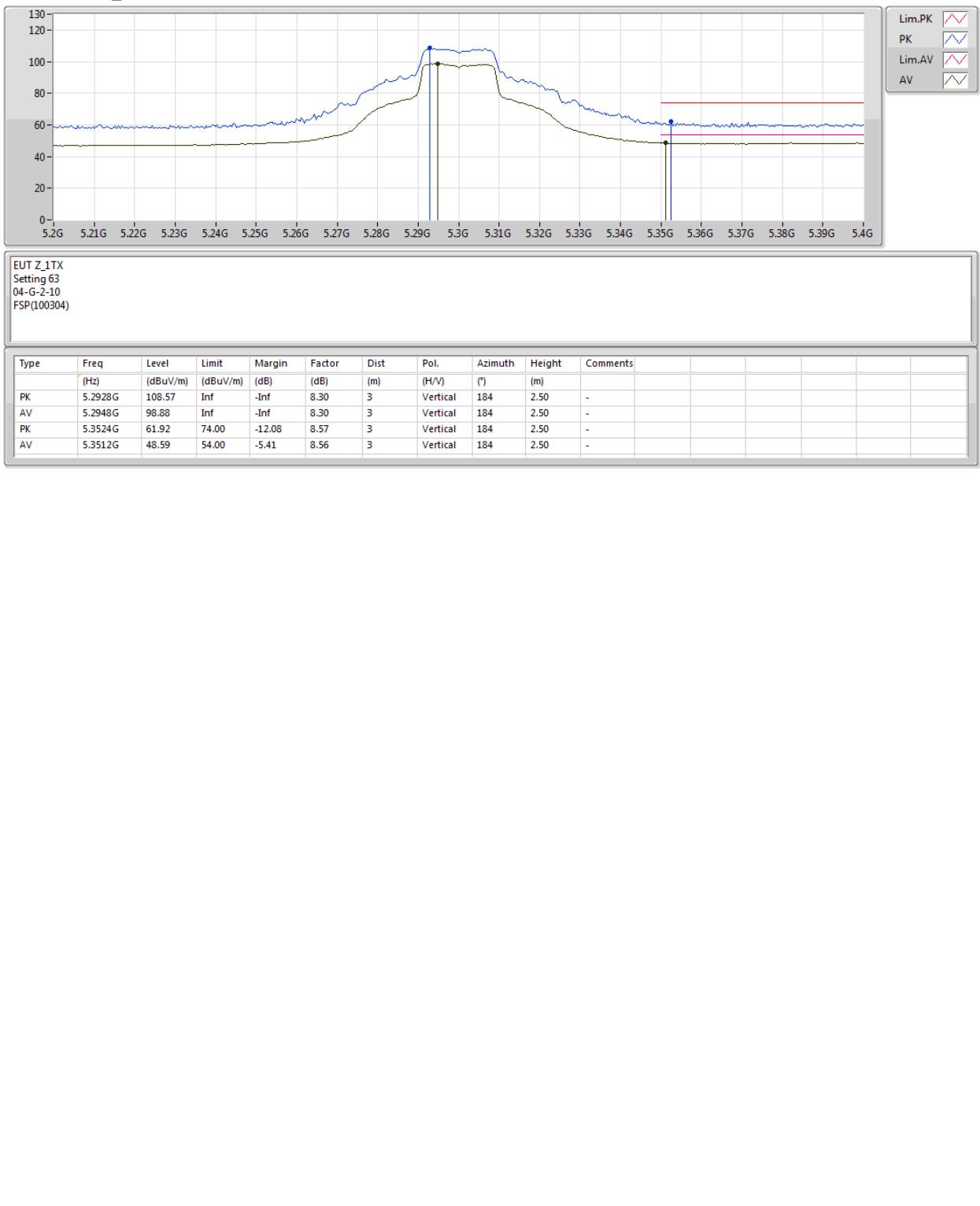
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

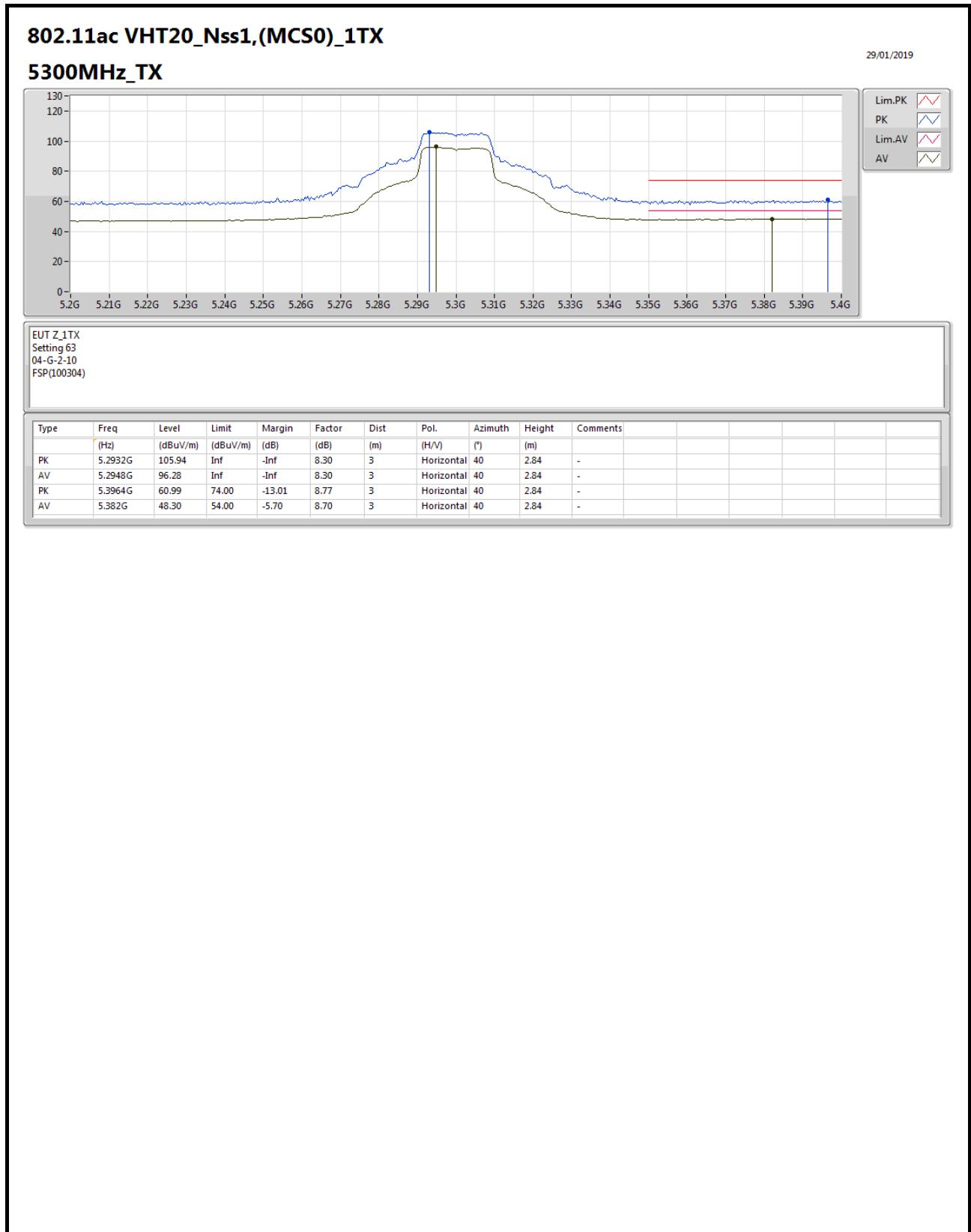
#### 5300MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2





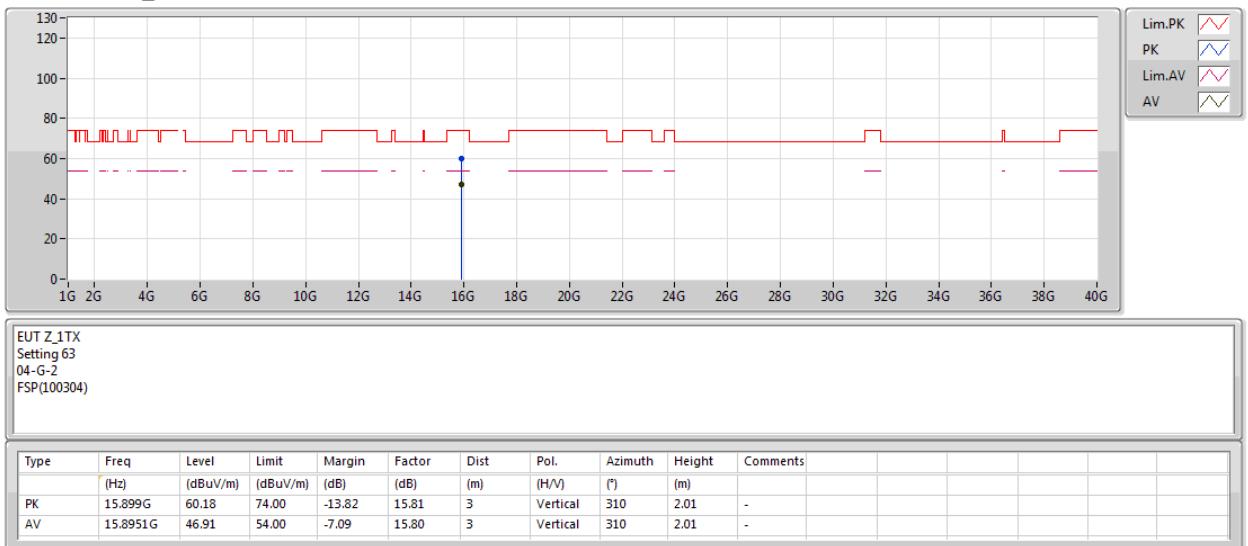
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5300MHz\_TX





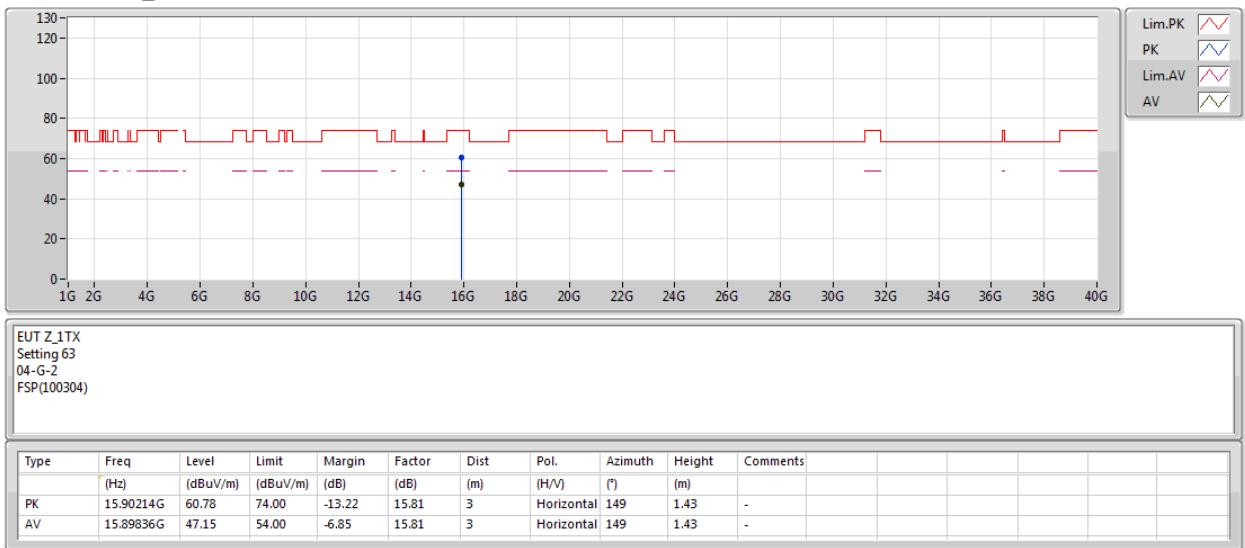
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

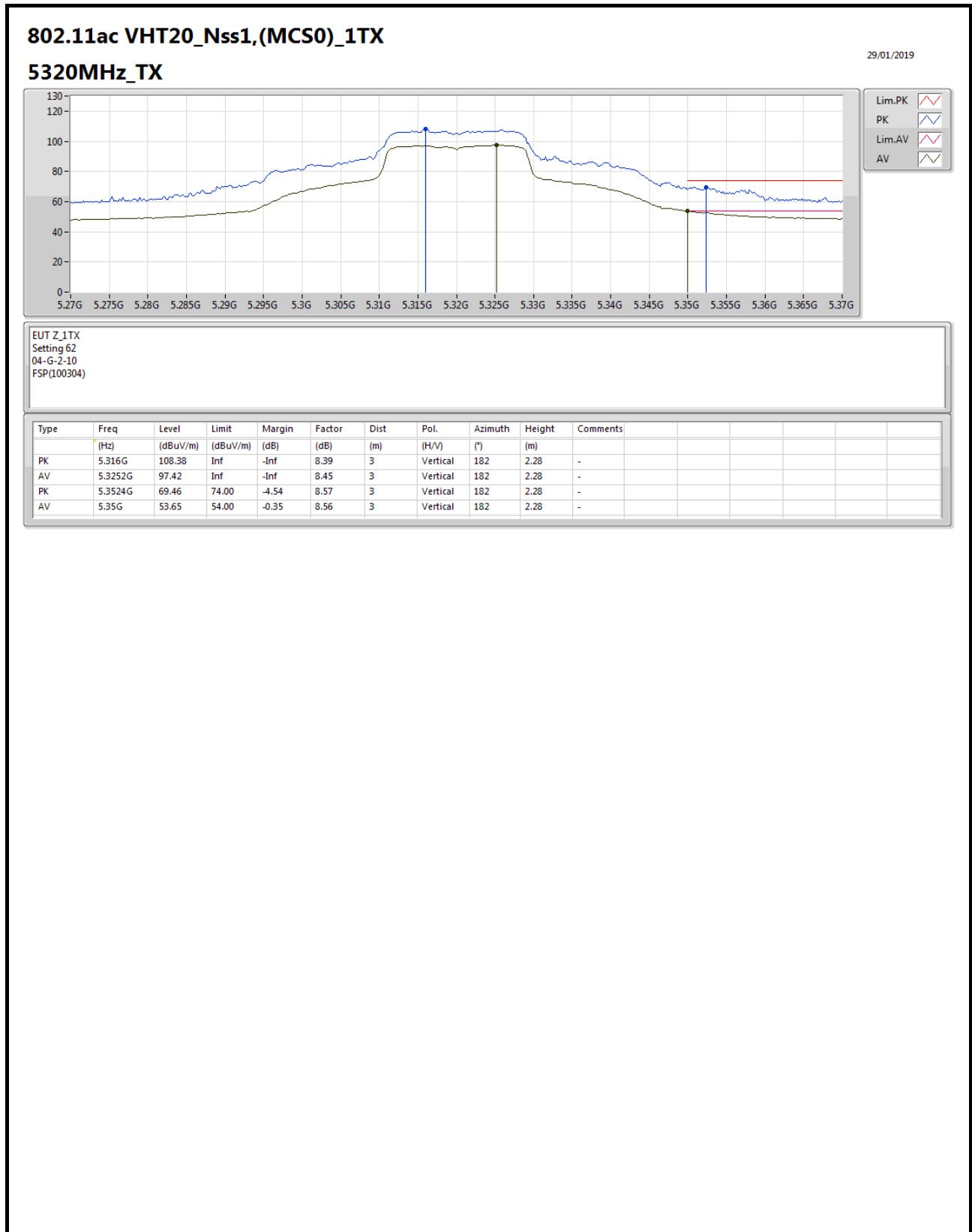
#### 5300MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2





## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5320MHz\_TX





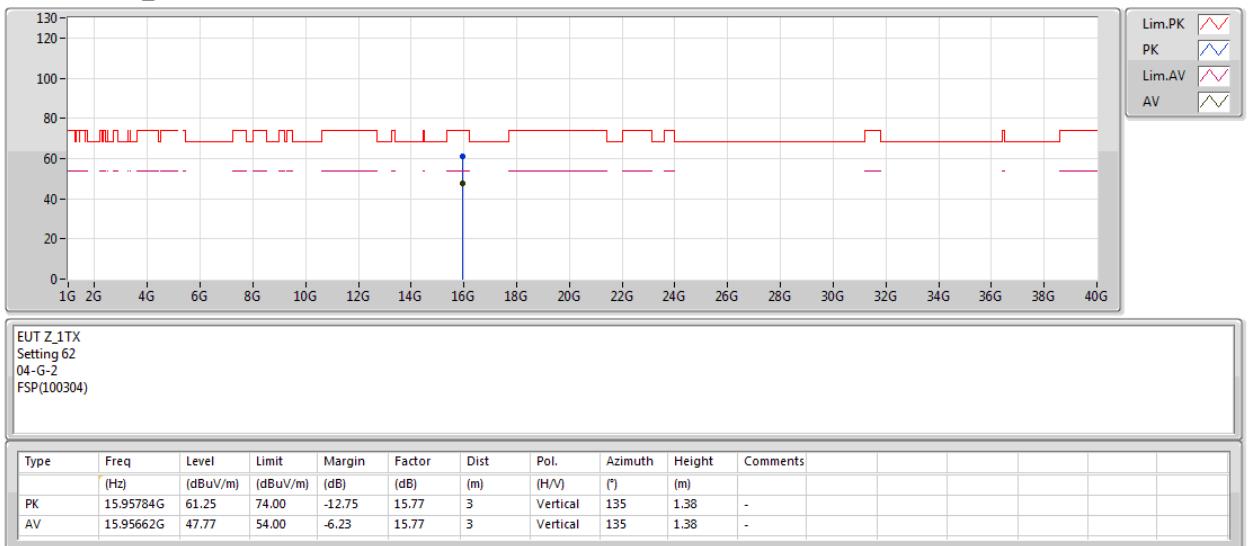
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5320MHz\_TX





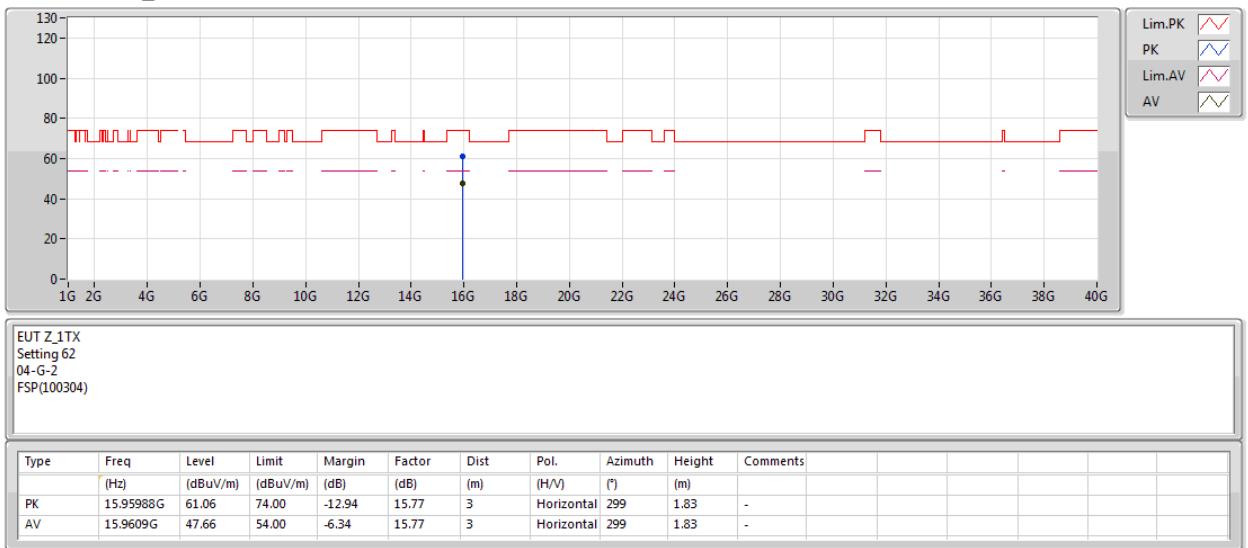
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5320MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5500MHz\_TX





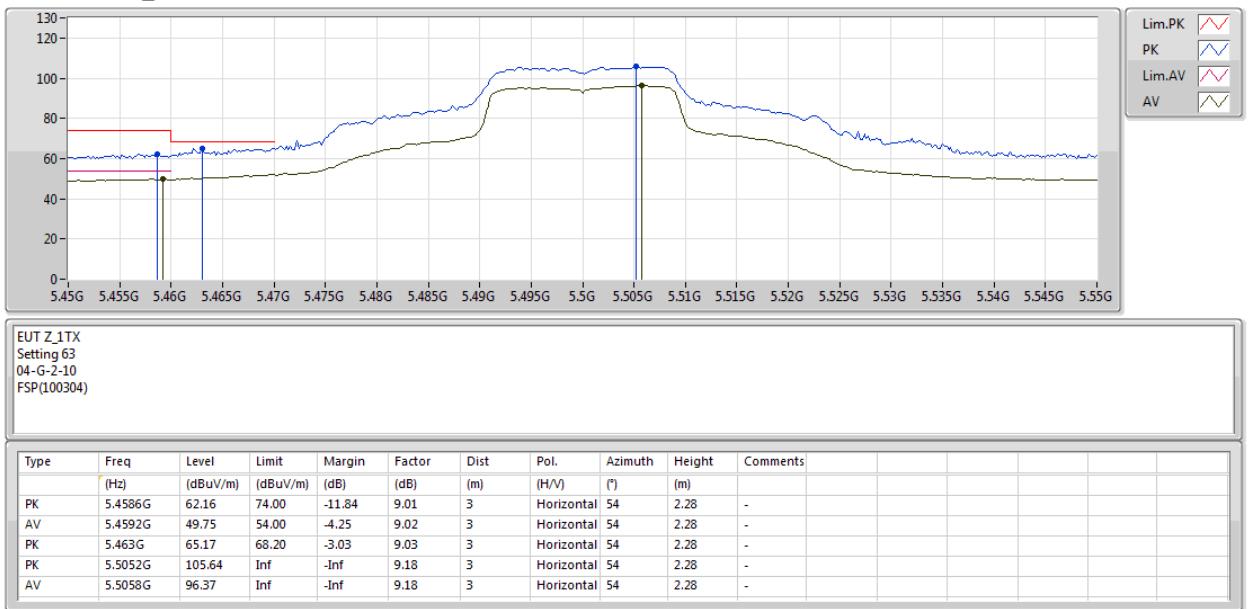
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5500MHz\_TX





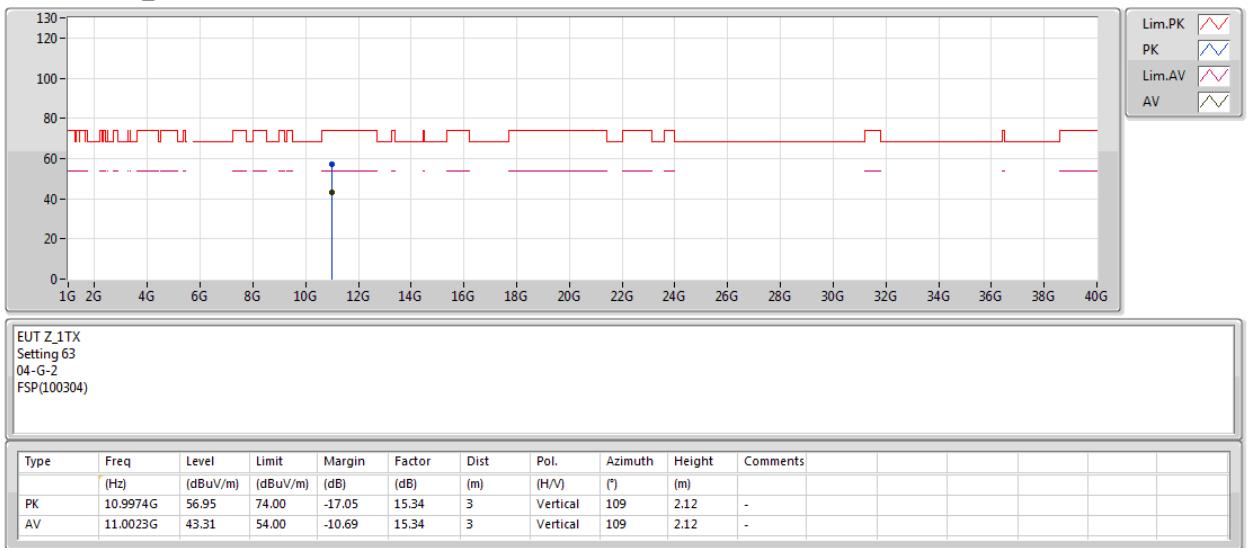
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5500MHz\_TX





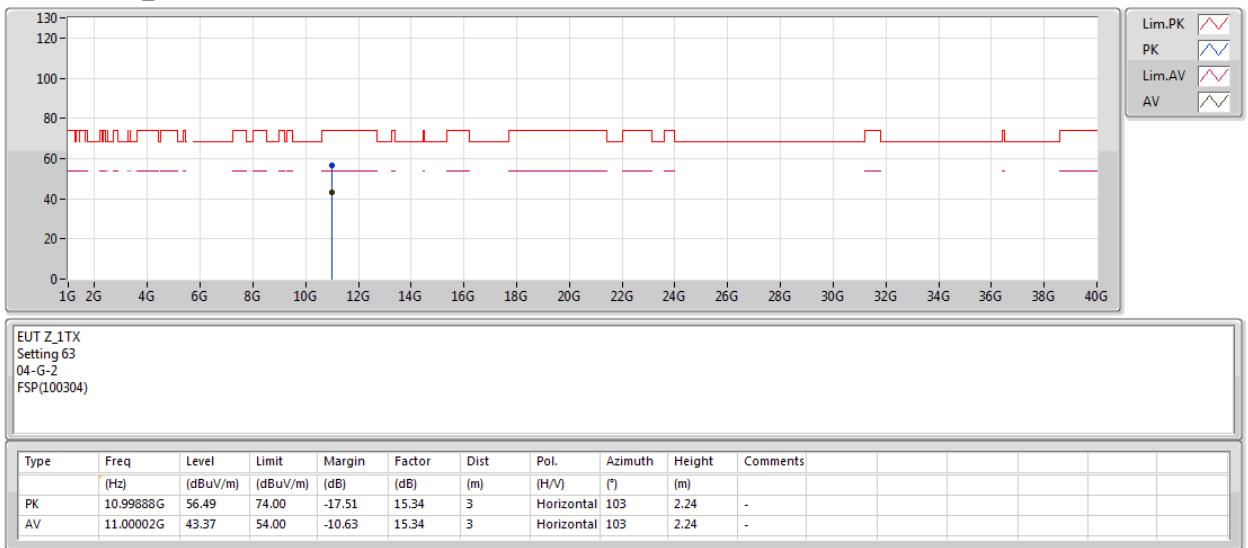
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5500MHz\_TX





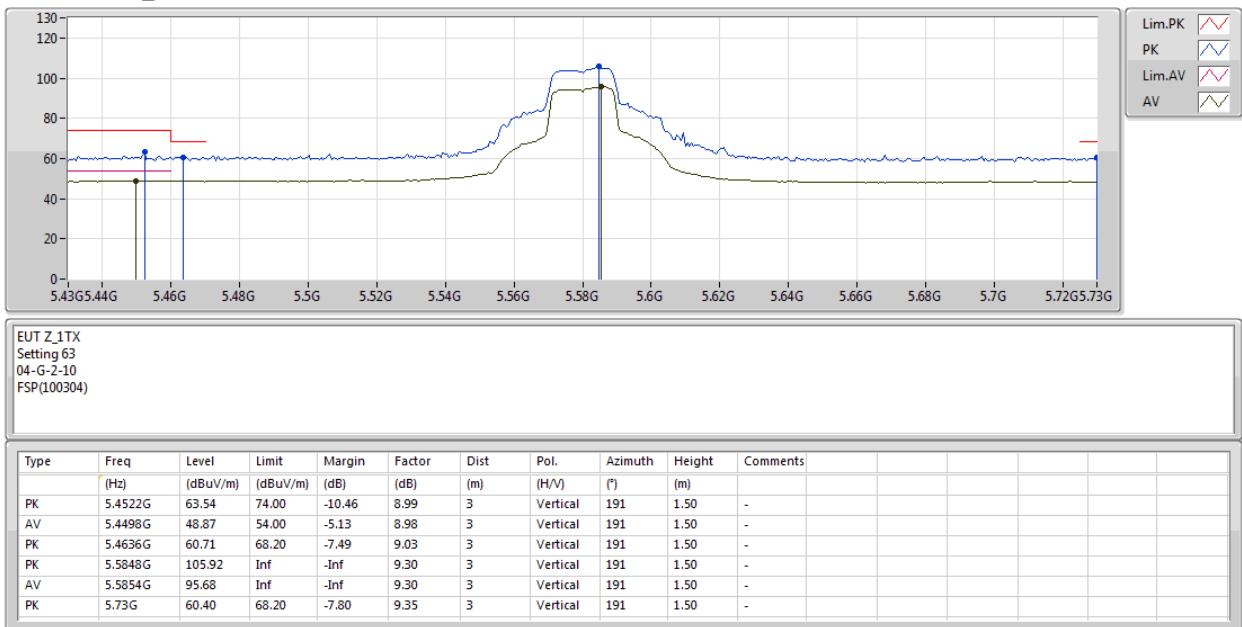
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5580MHz\_TX





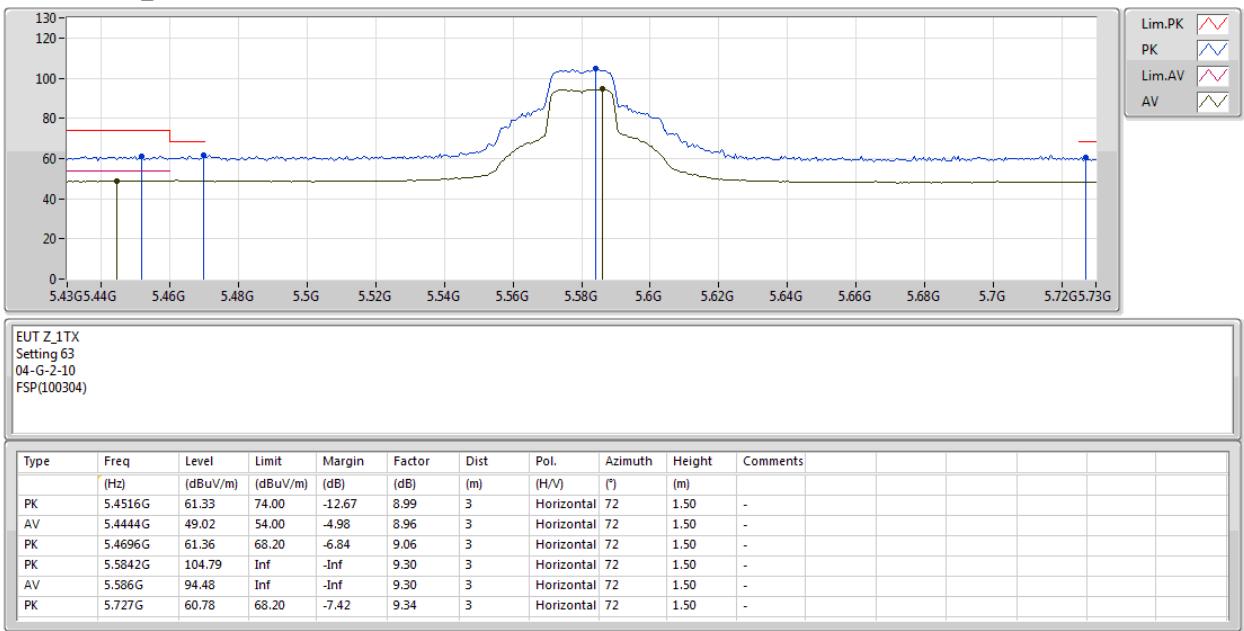
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5580MHz\_TX





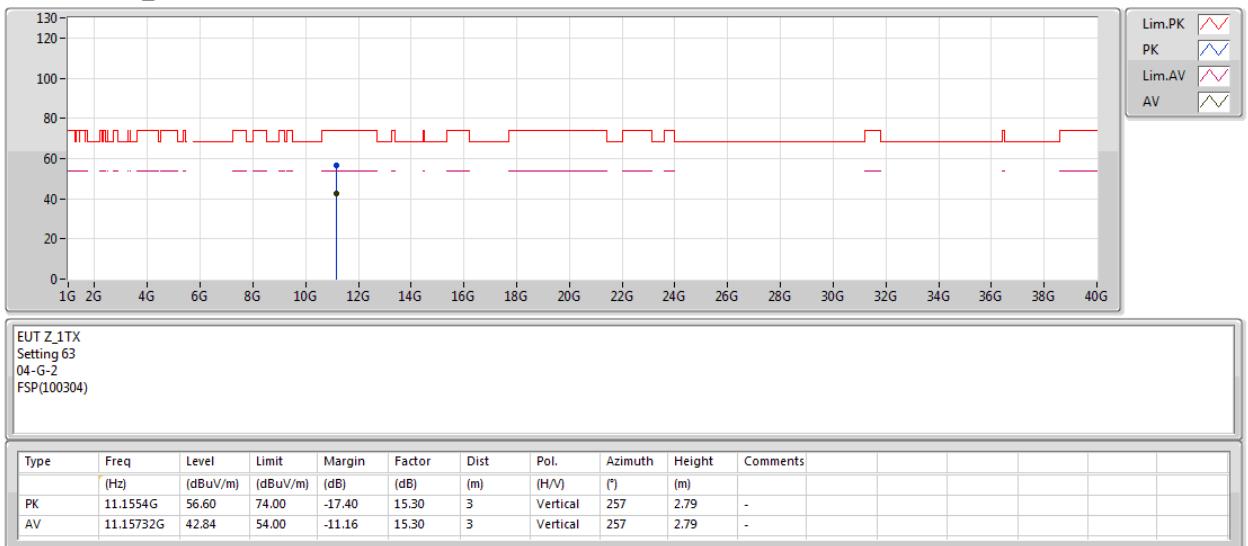
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5580MHz\_TX





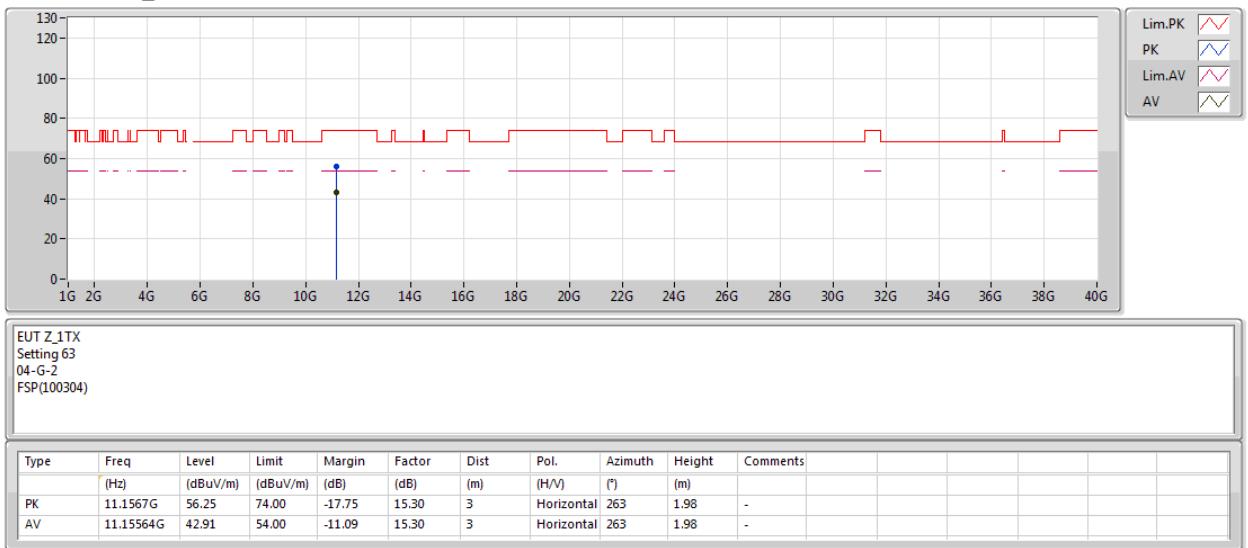
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

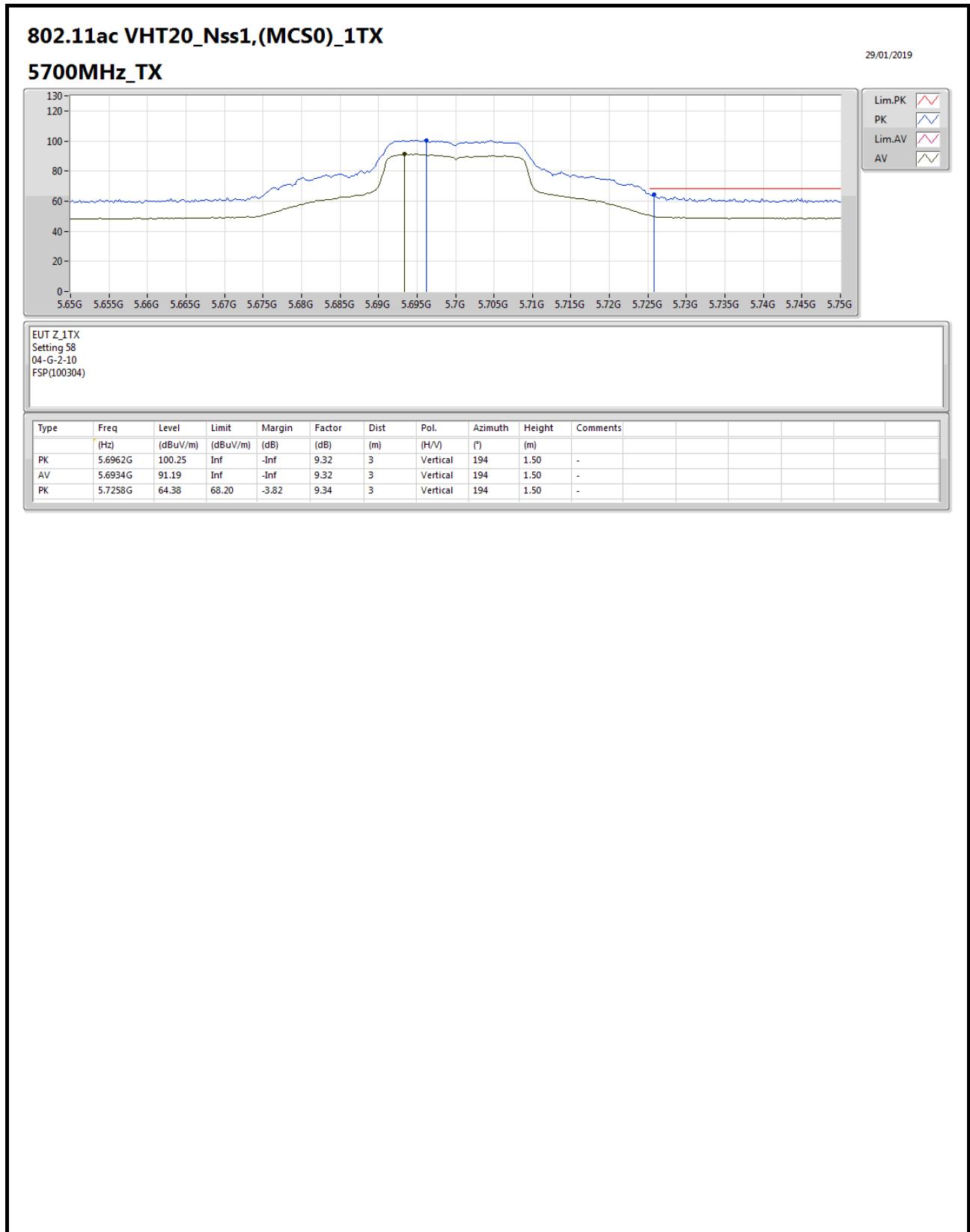
#### 5580MHz\_TX





## RSE TX above 1GHz Result

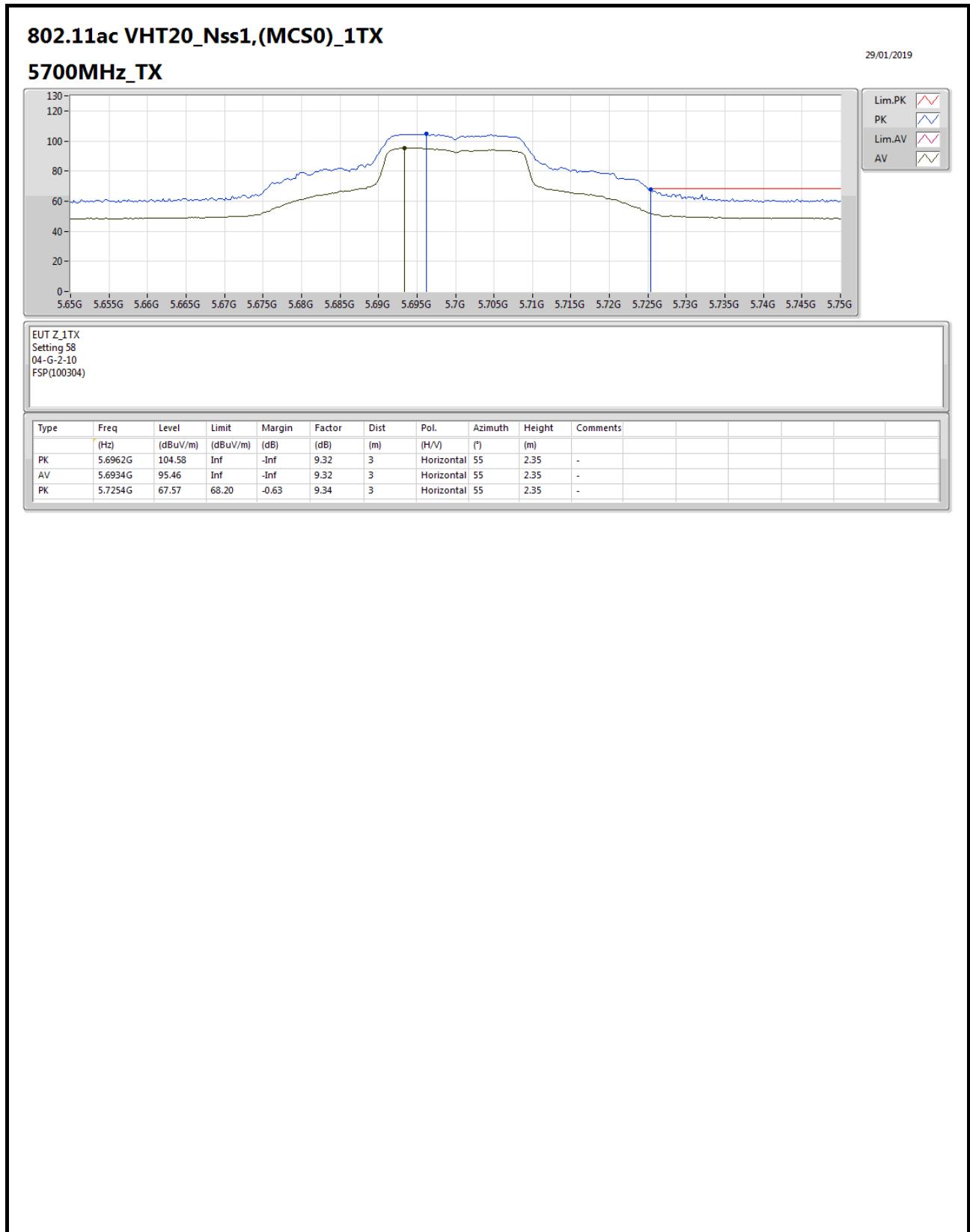
Appendix E.2





## RSE TX above 1GHz Result

Appendix E.2





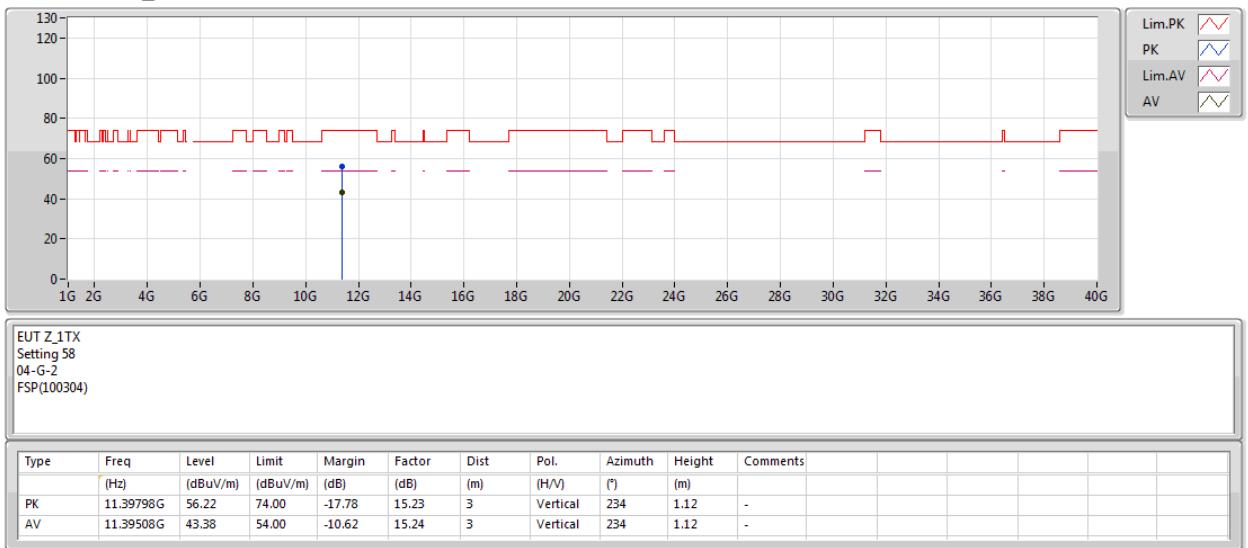
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5700MHz\_TX





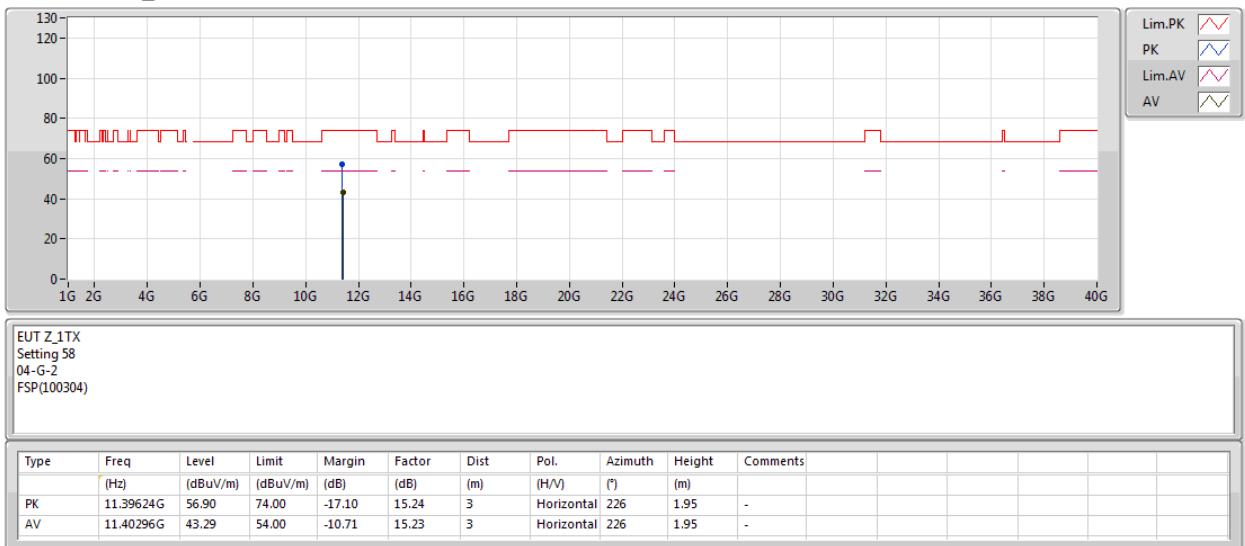
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5700MHz\_TX





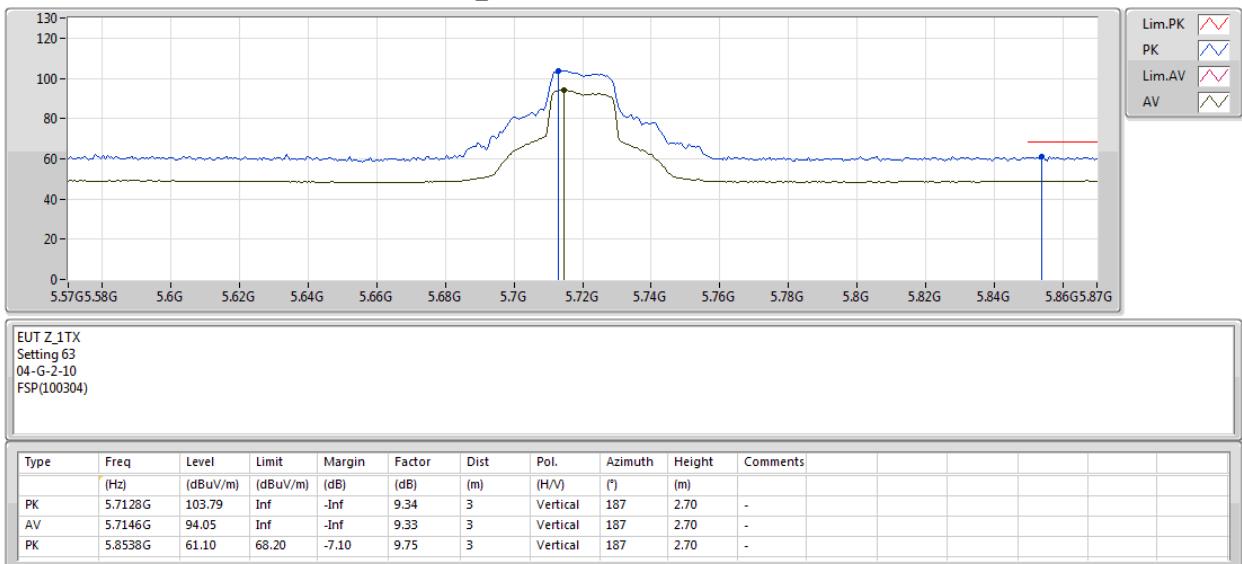
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

### 5720MHz Straddle 5.47-5.725GHz\_TX





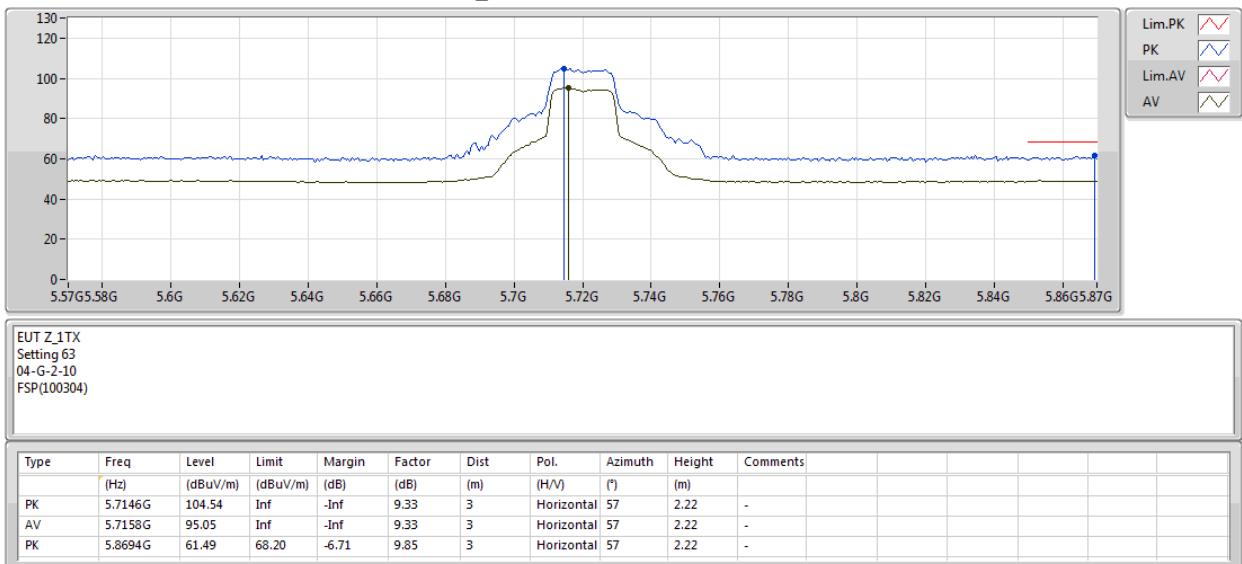
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

### 5720MHz Straddle 5.47-5.725GHz\_TX





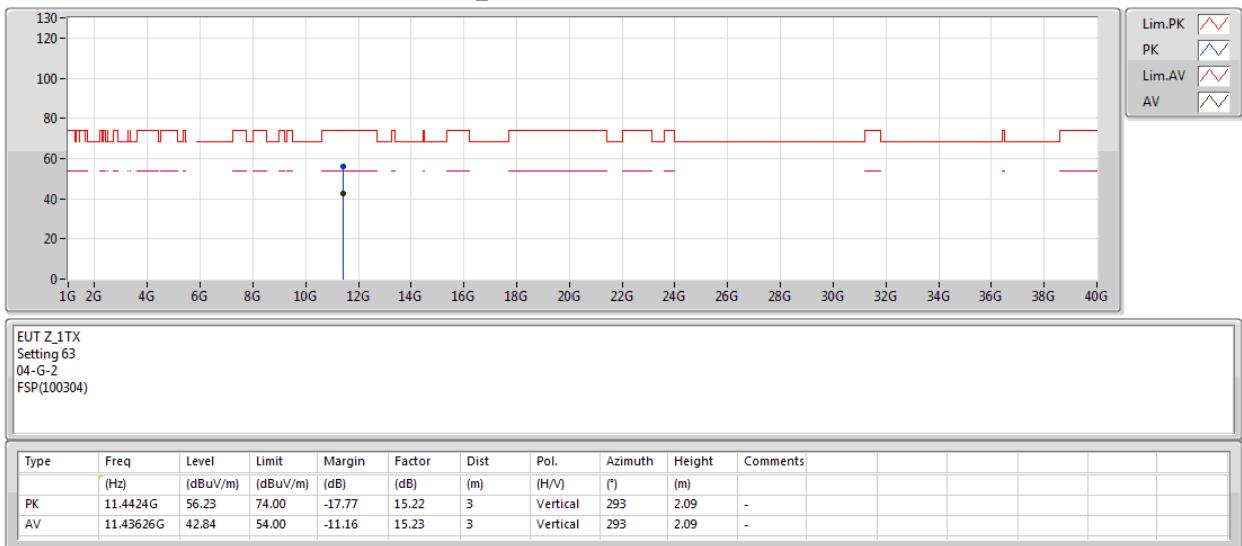
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

### 5720MHz Straddle 5.47-5.725GHz\_TX





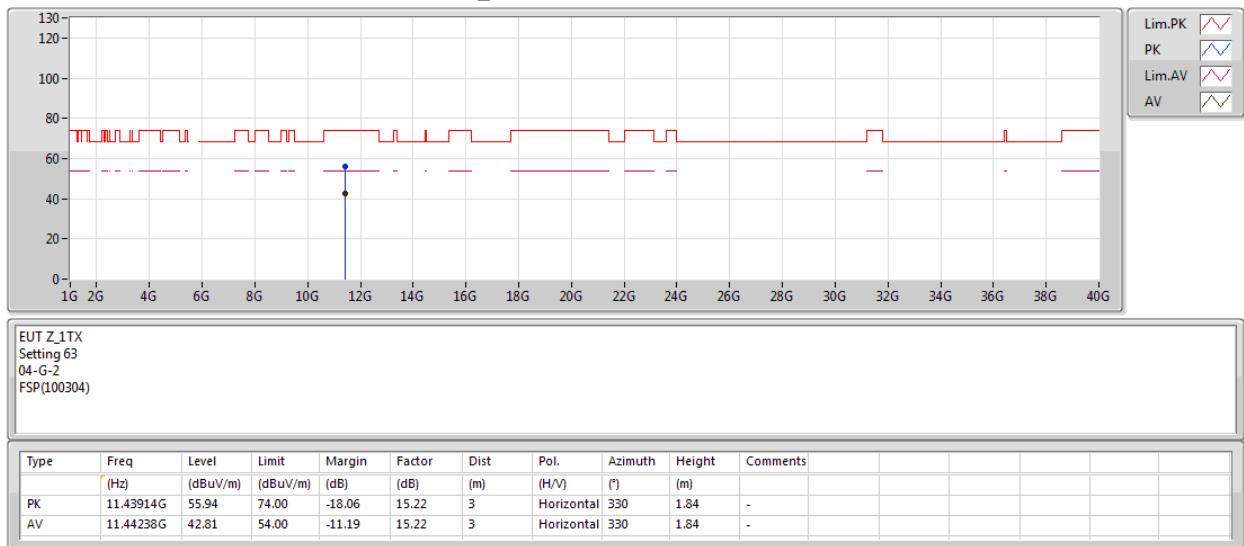
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

### 5720MHz Straddle 5.47-5.725GHz\_TX





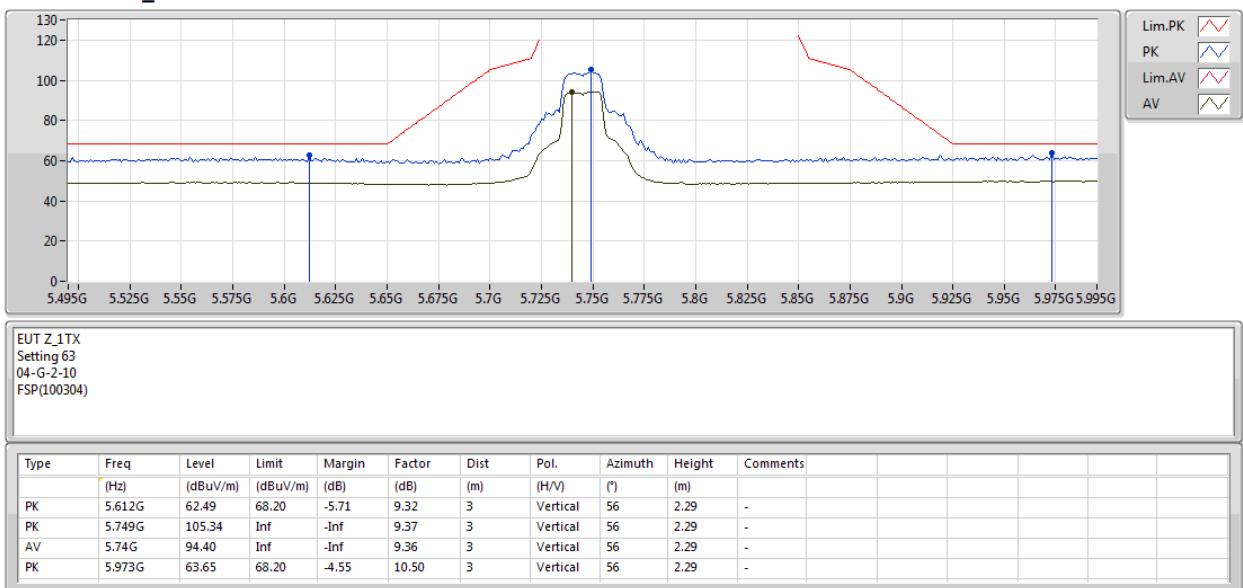
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5745MHz\_TX





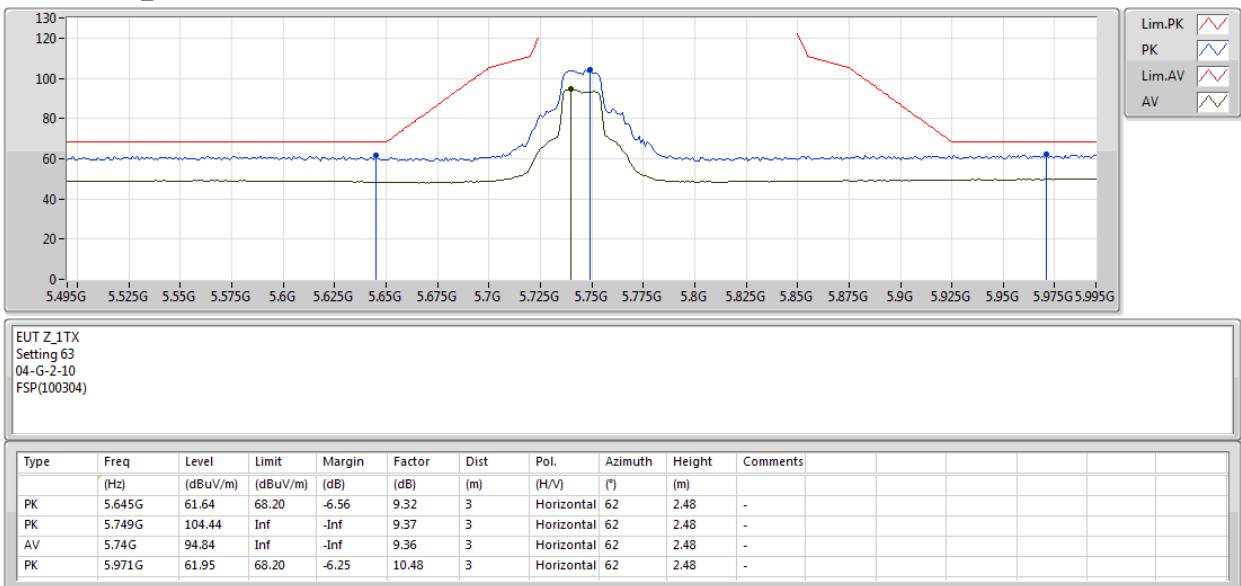
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5745MHz\_TX





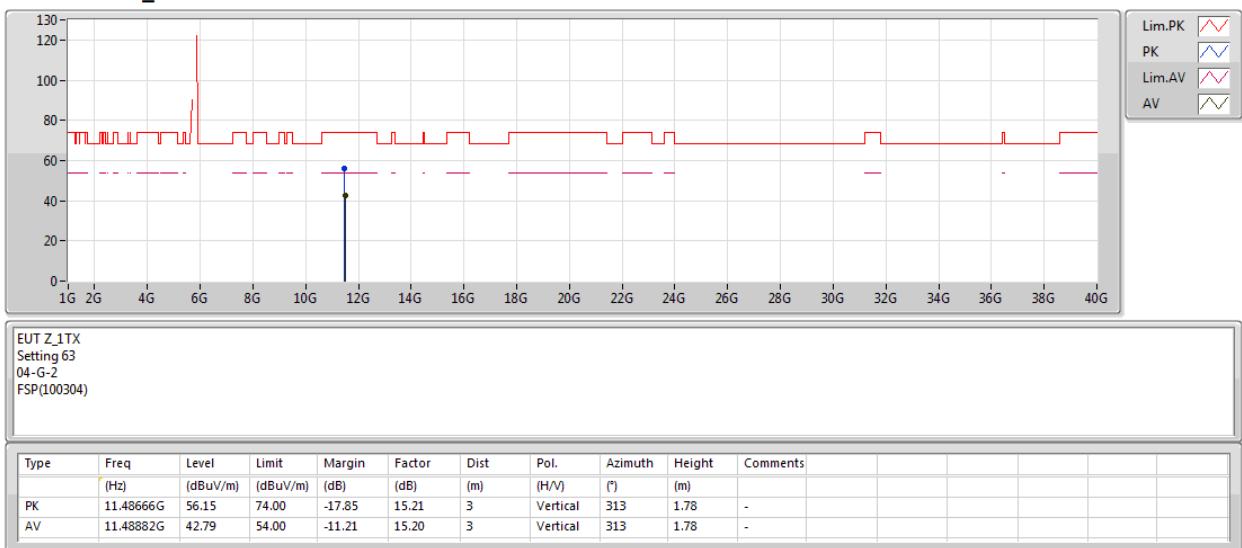
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5745MHz\_TX





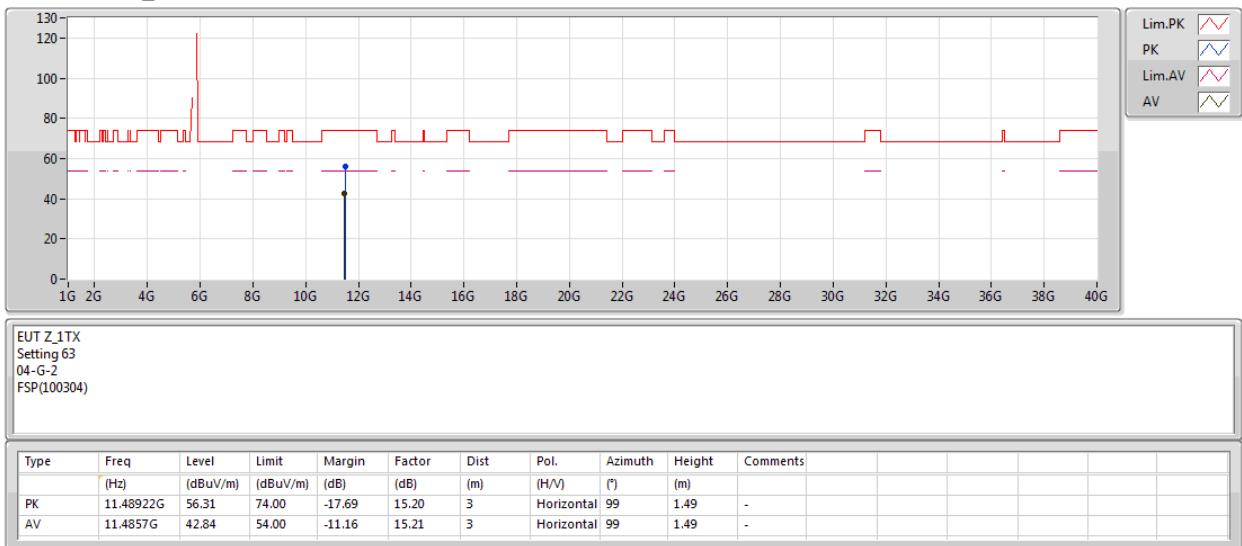
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5745MHz\_TX





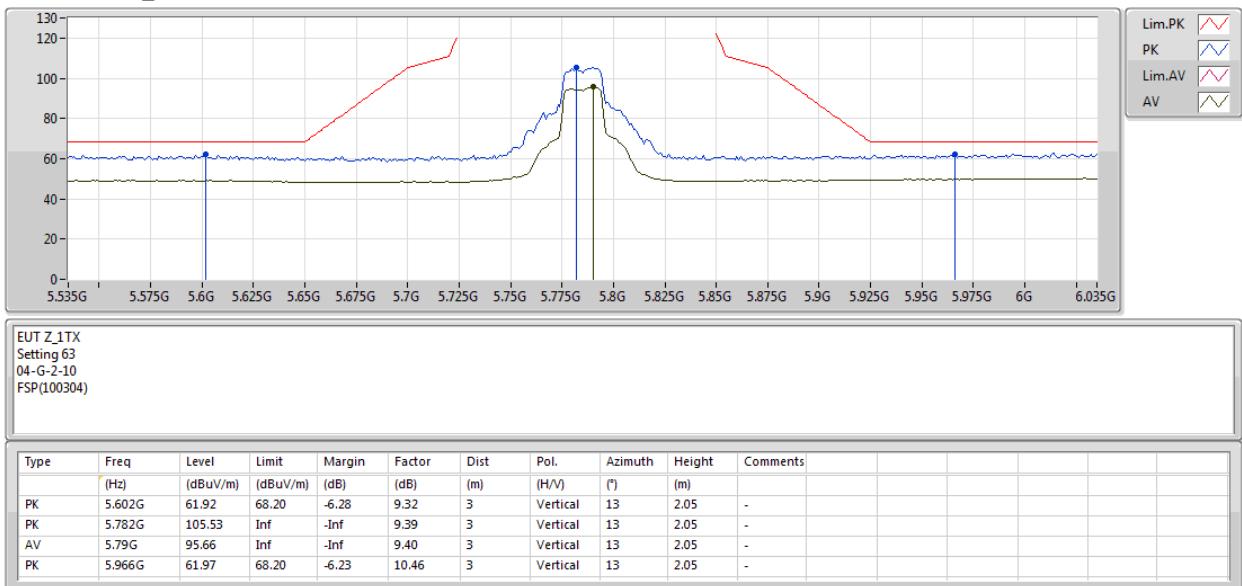
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5785MHz\_TX





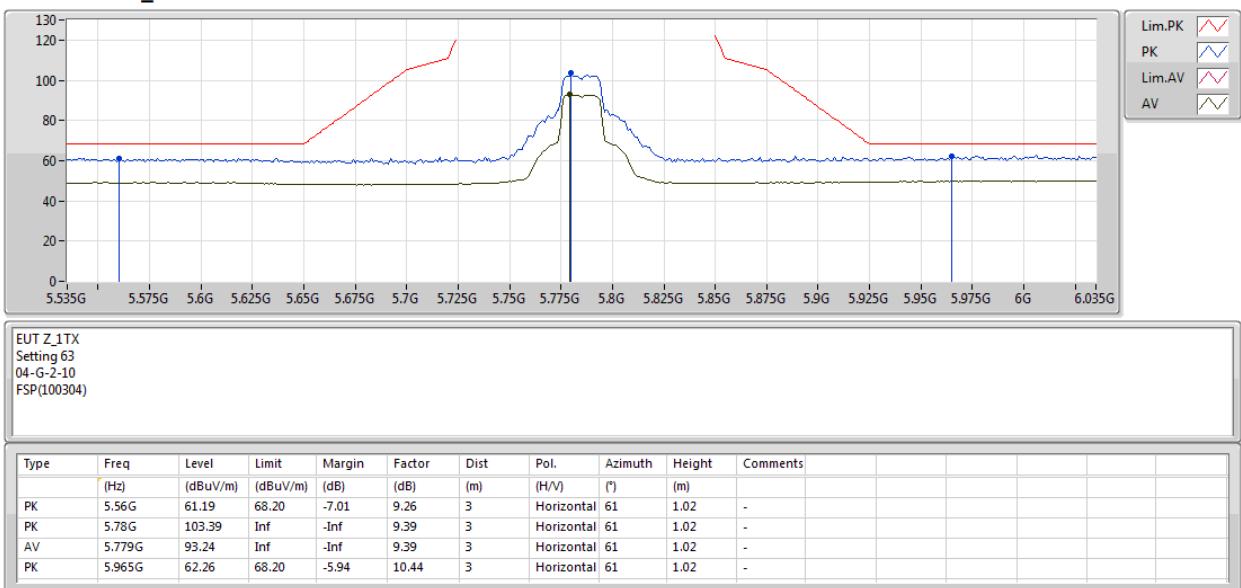
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5785MHz\_TX





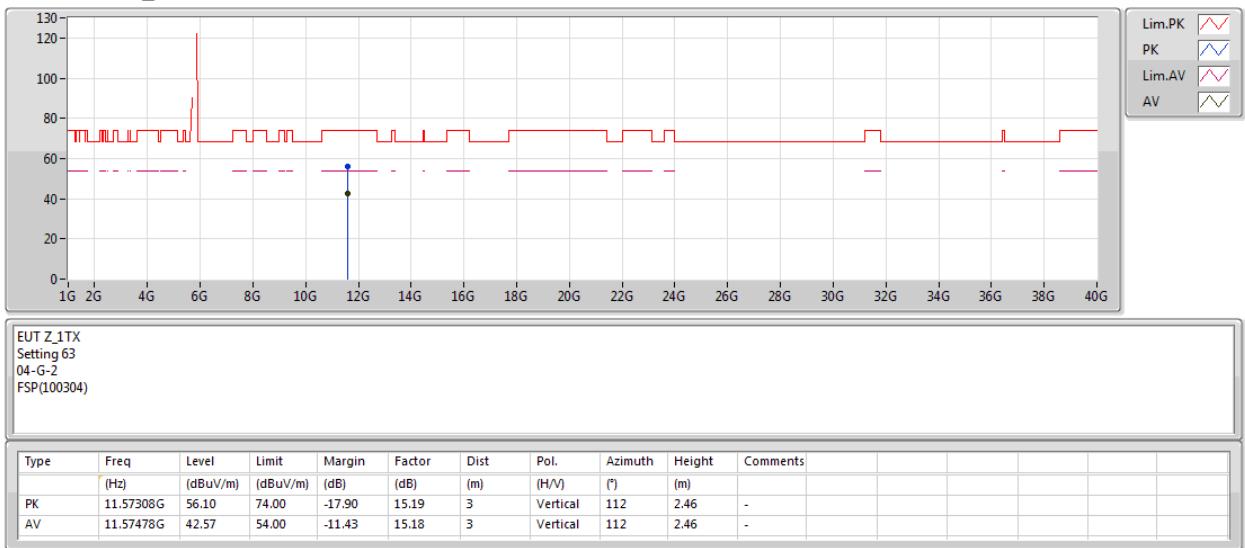
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5785MHz\_TX





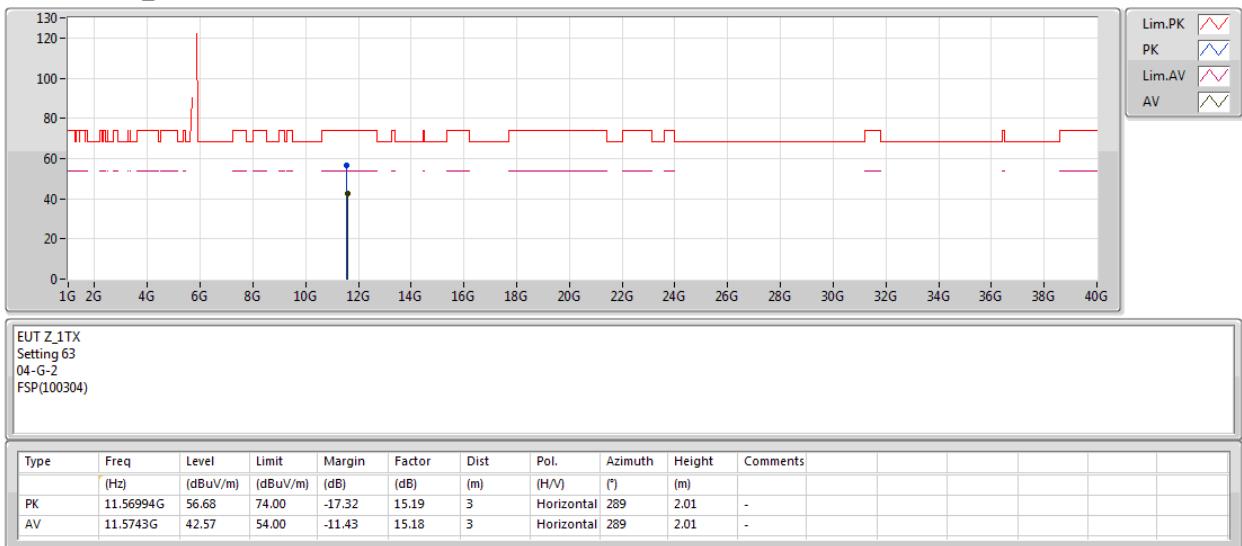
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5785MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5825MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5825MHz\_TX





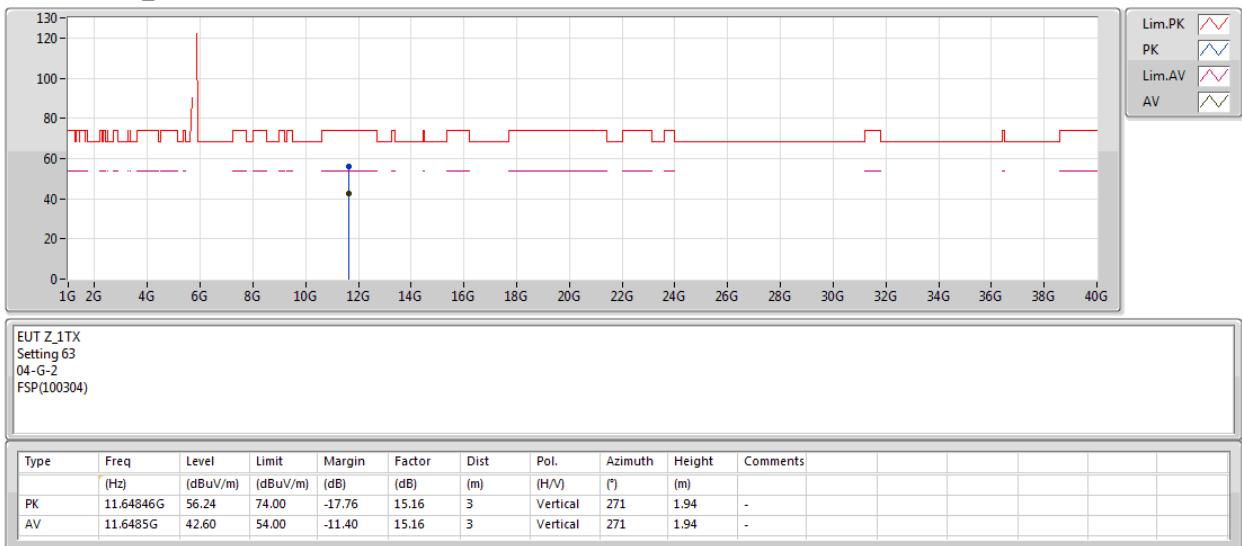
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5825MHz\_TX





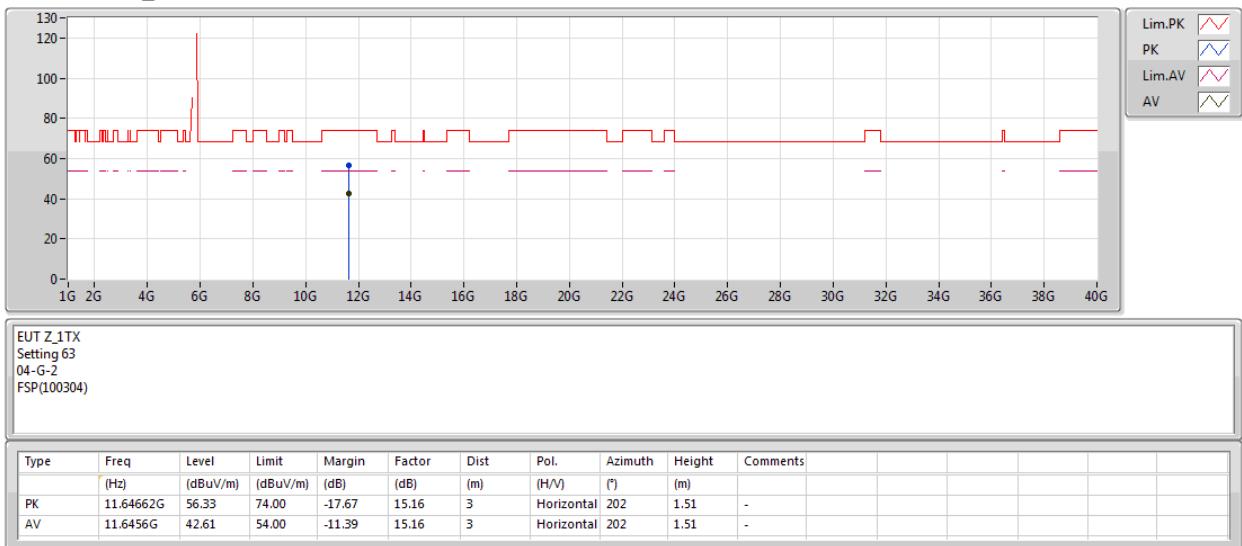
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5825MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5190MHz\_TX





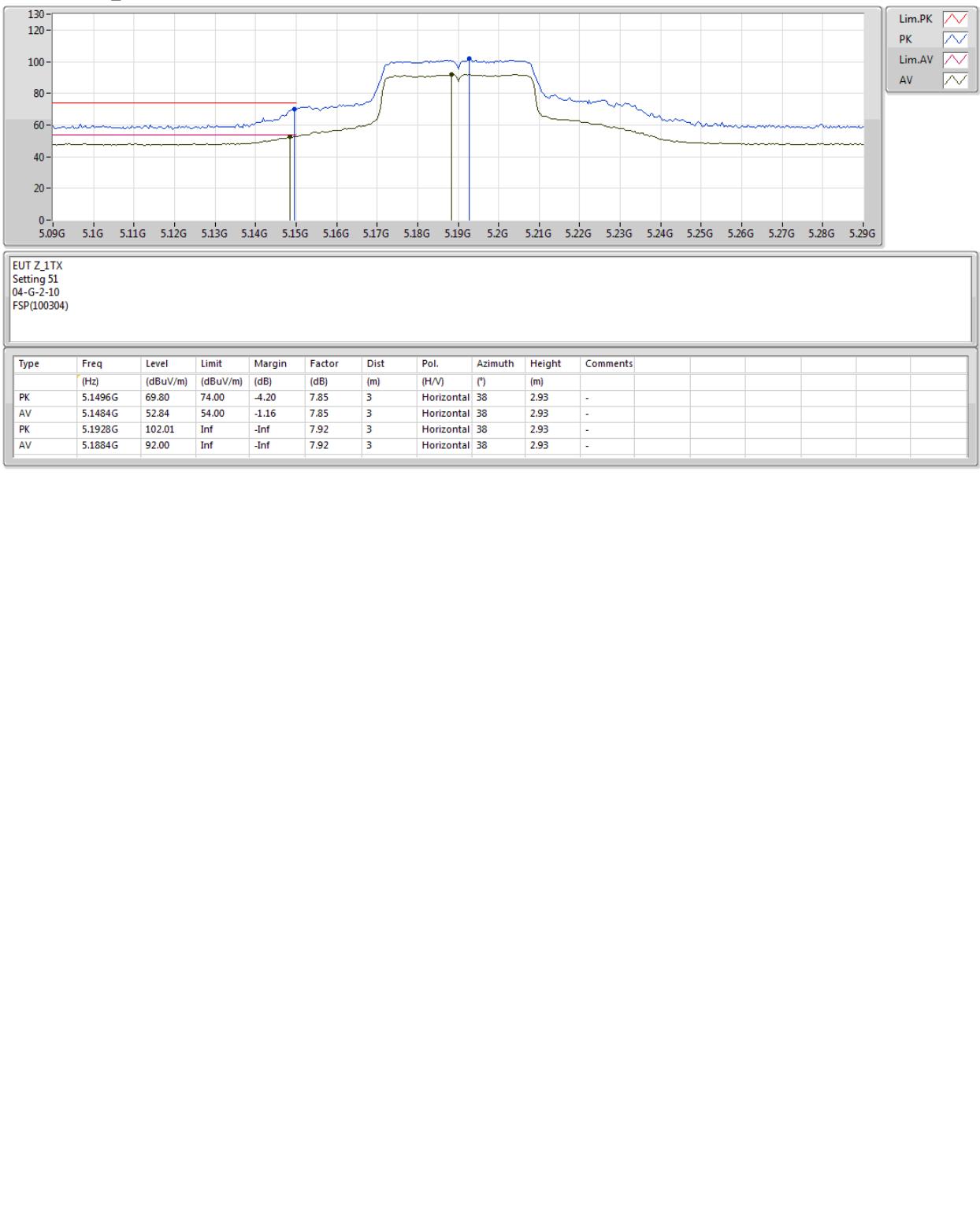
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5190MHz\_TX





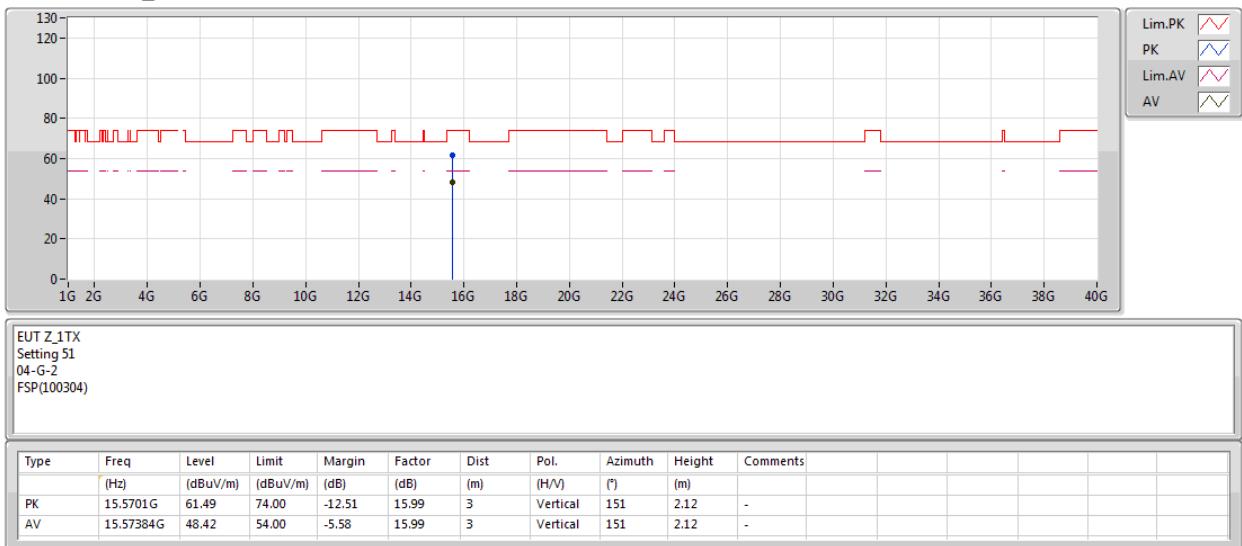
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5190MHz\_TX





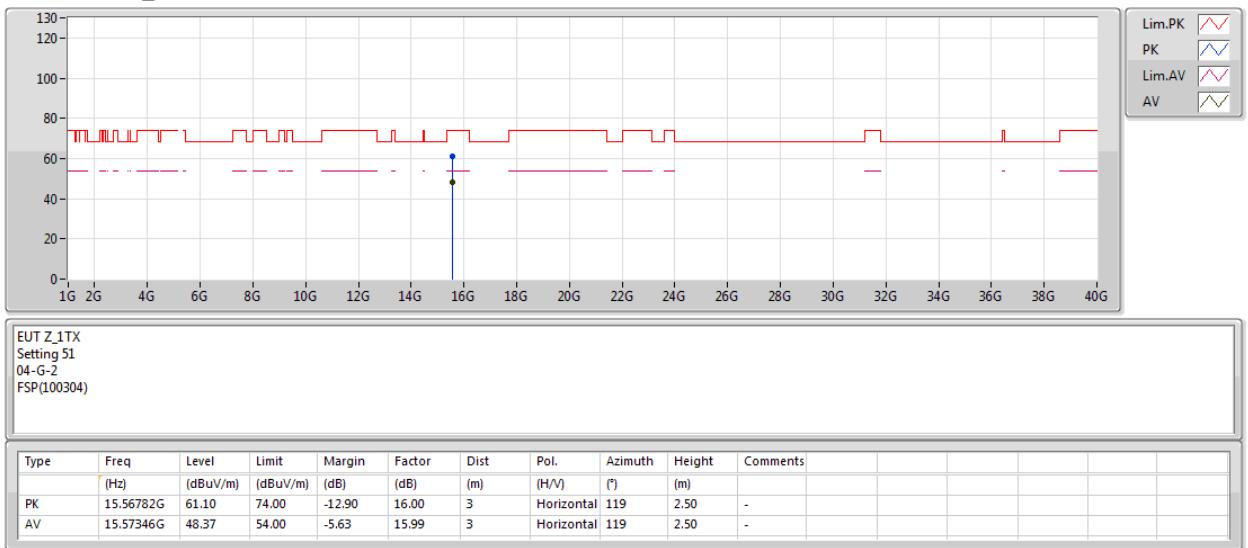
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5190MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5230MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5230MHz\_TX





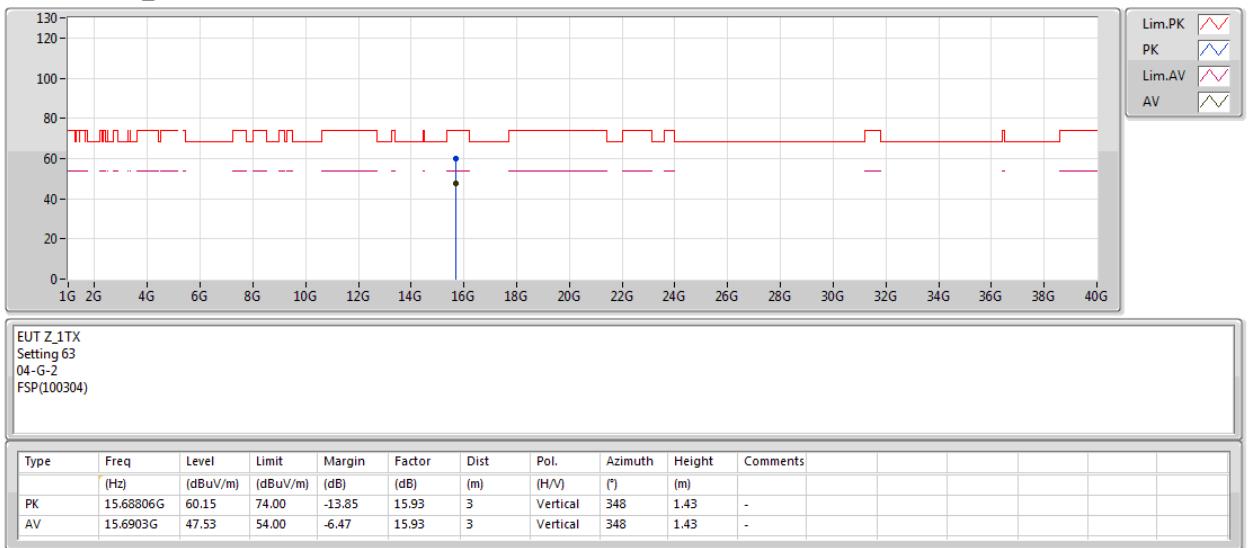
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5230MHz\_TX





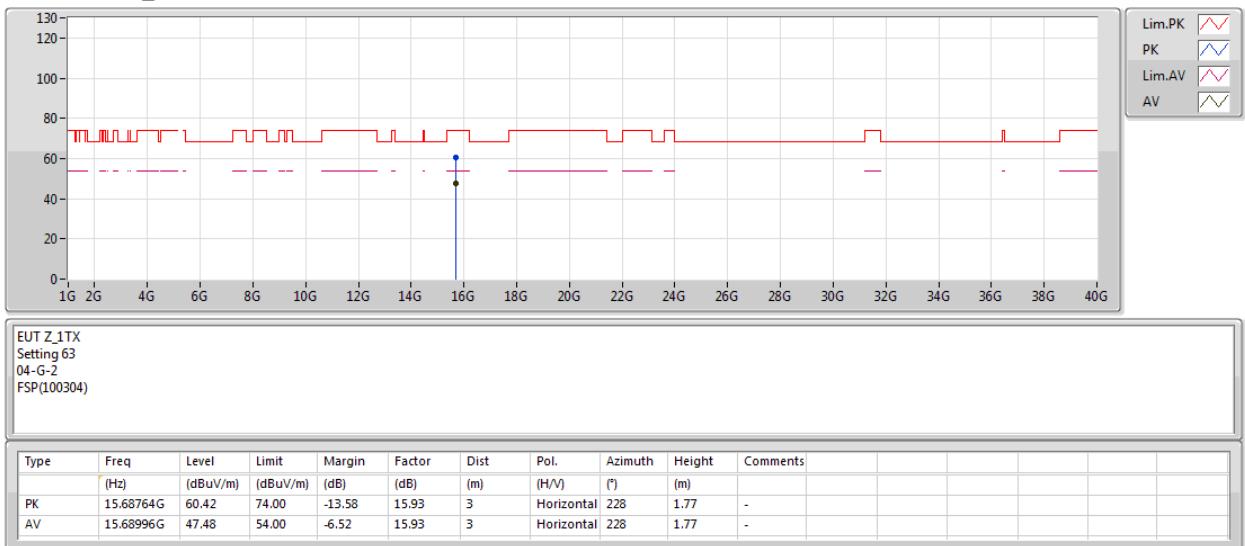
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5230MHz\_TX





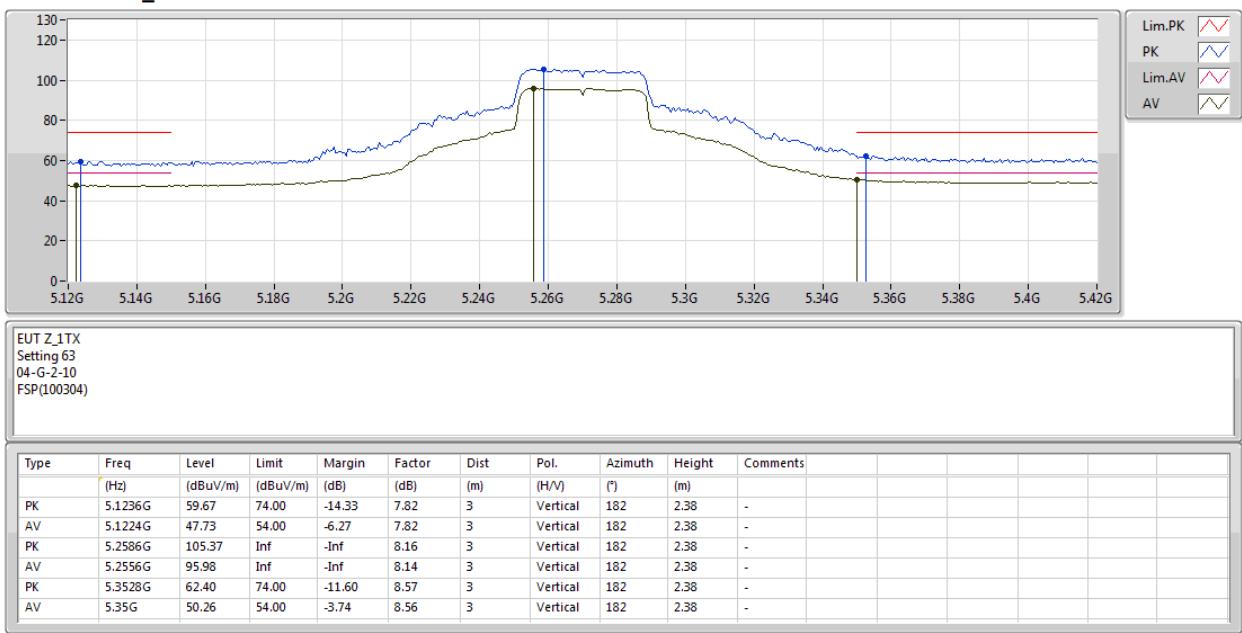
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5270MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5270MHz\_TX





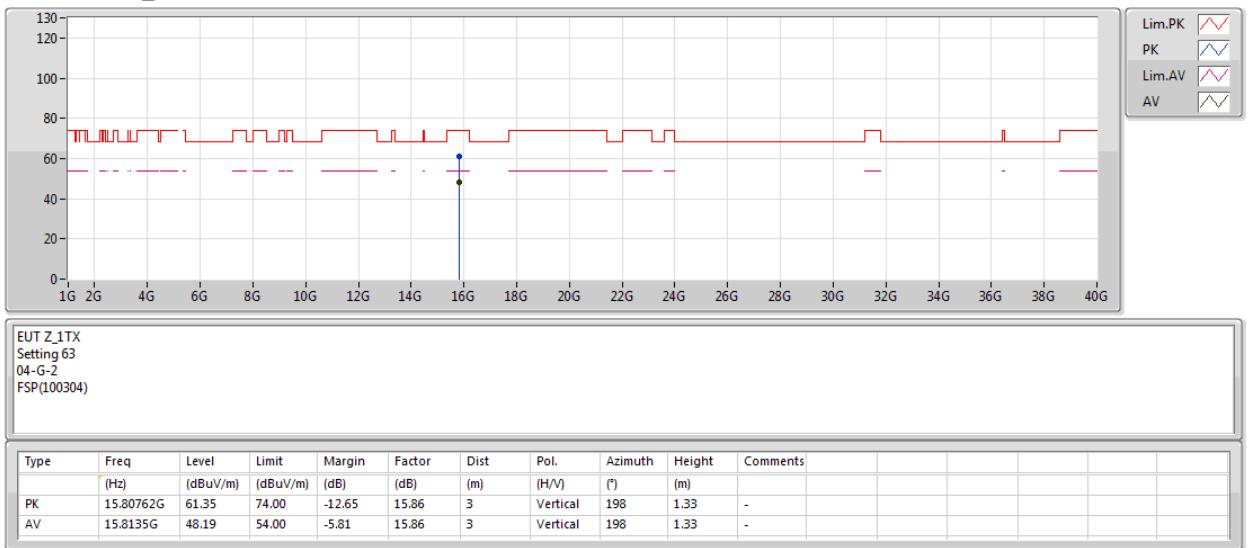
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5270MHz\_TX





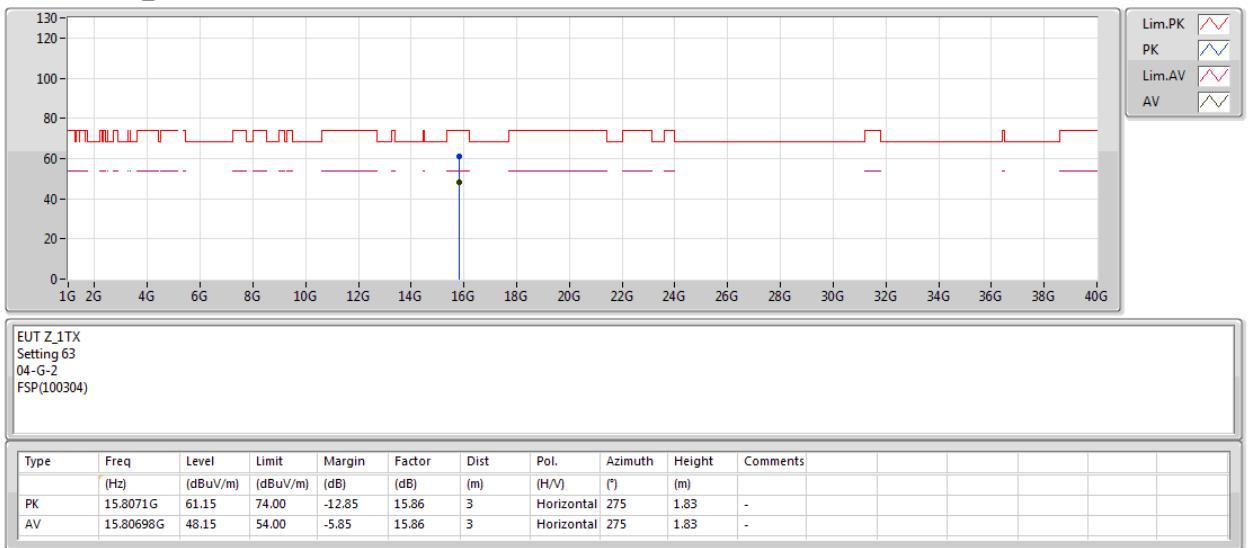
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5270MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5310MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5310MHz\_TX





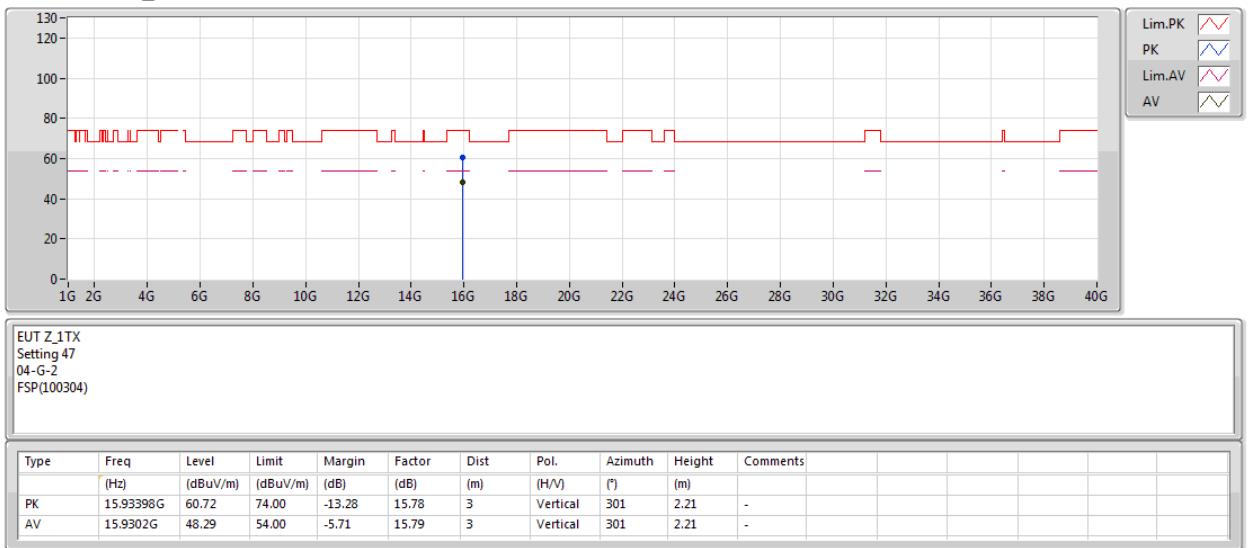
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5310MHz\_TX





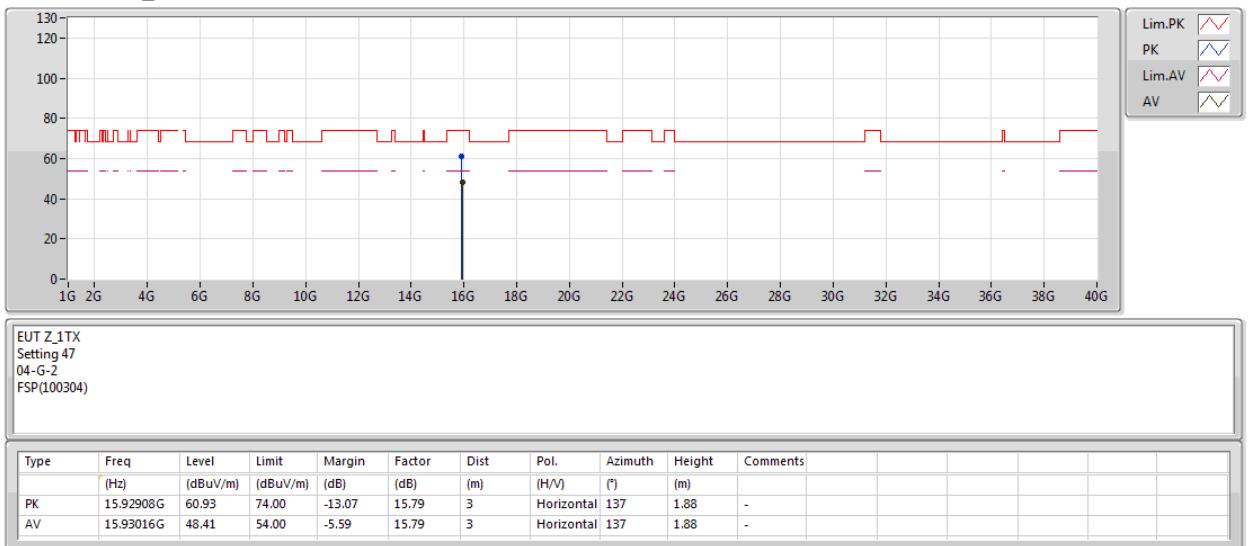
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5310MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5510MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5510MHz\_TX





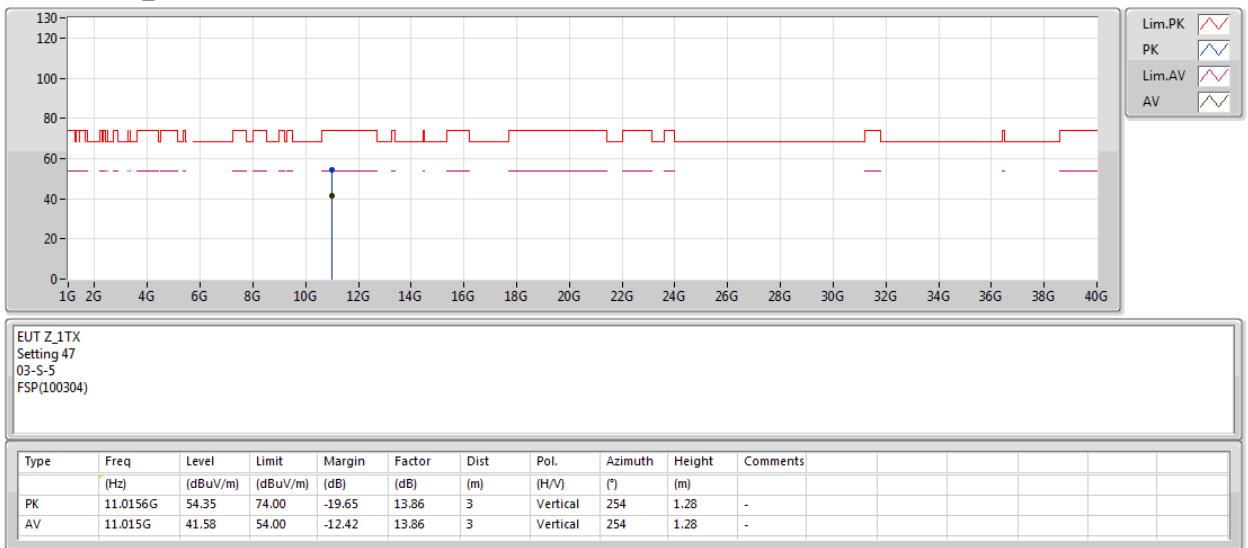
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5510MHz\_TX





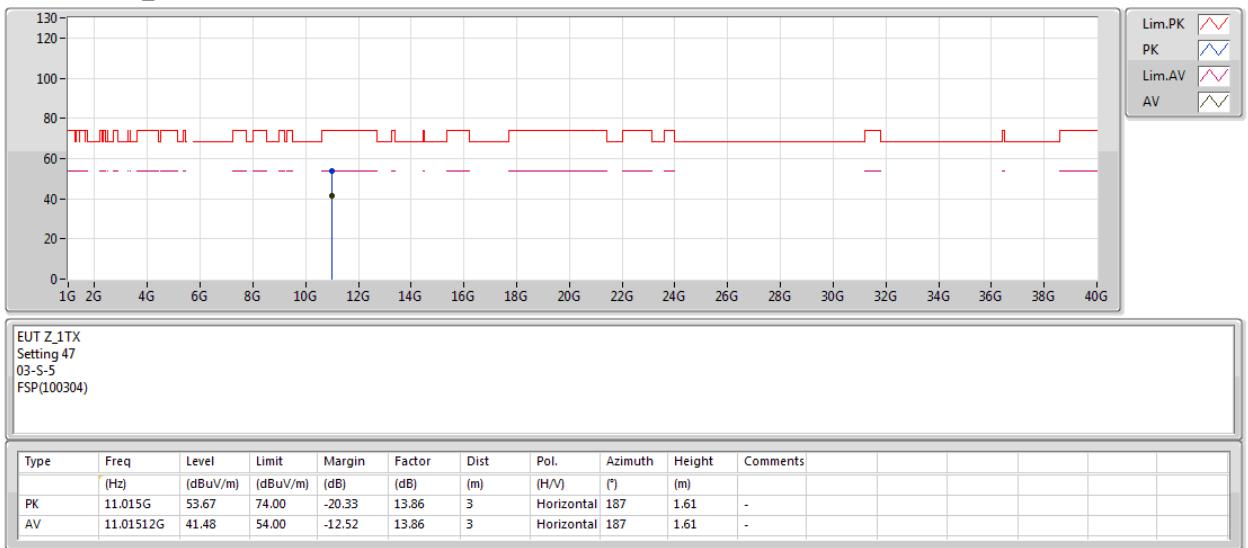
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5510MHz\_TX





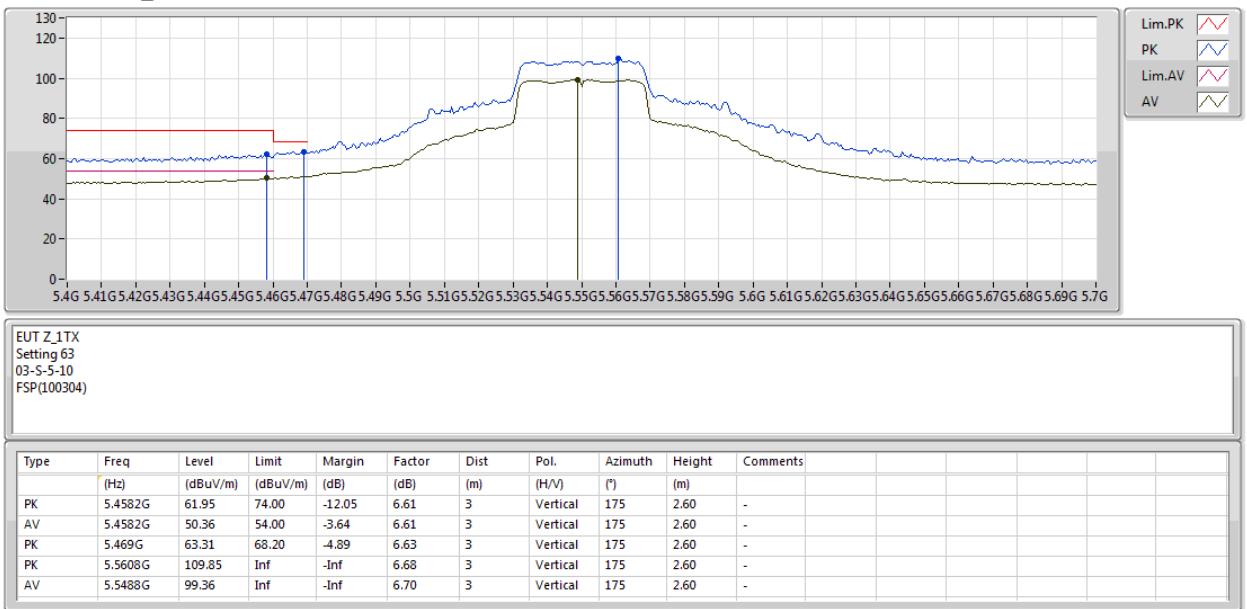
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5550MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5550MHz\_TX





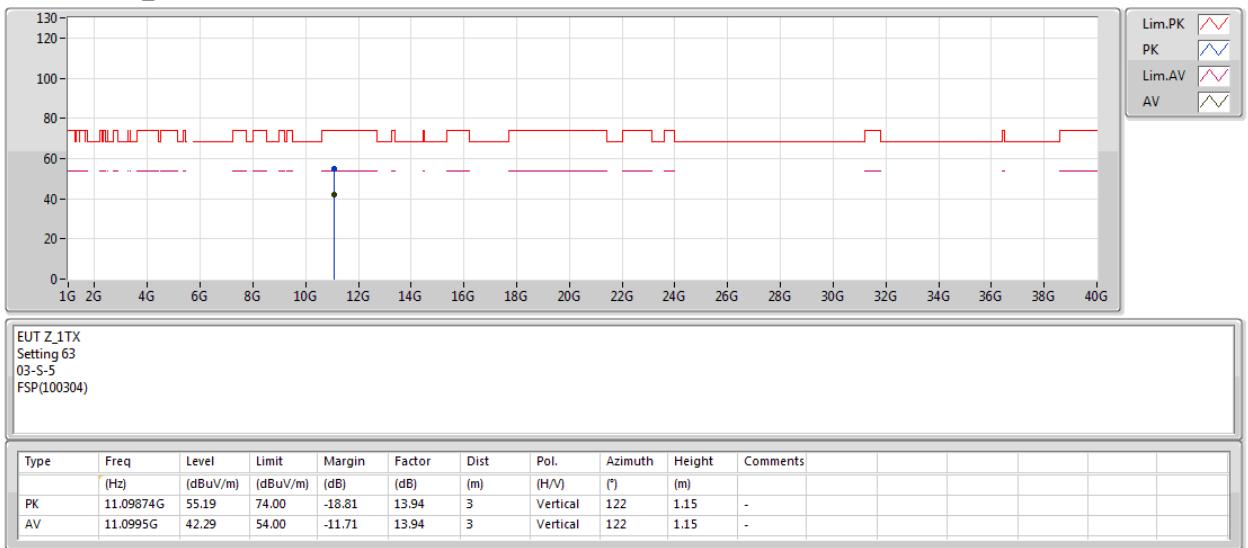
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5550MHz\_TX





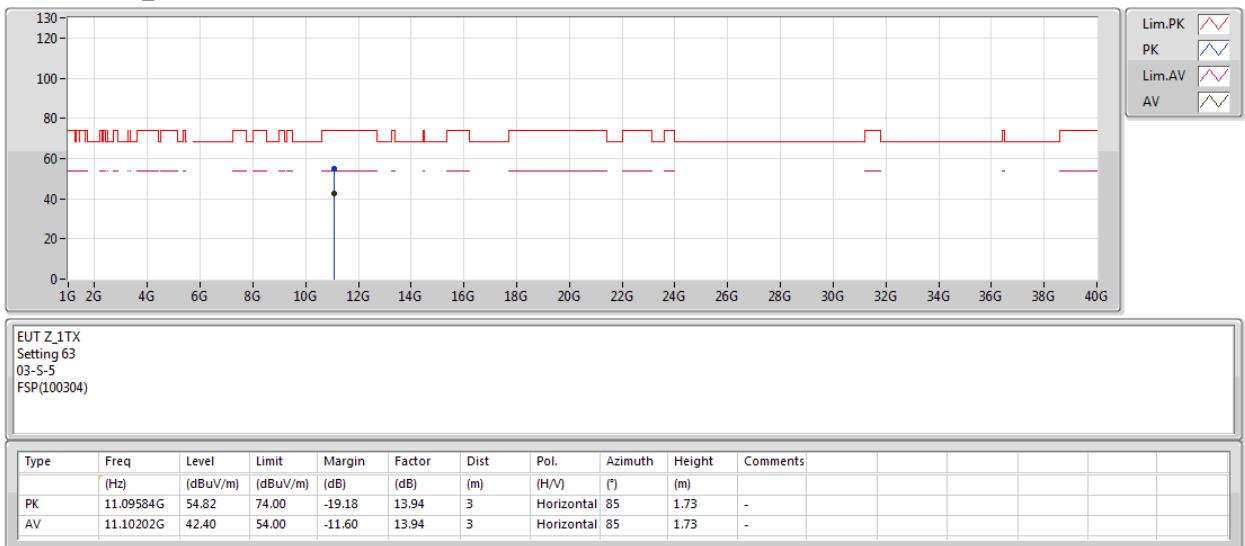
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5550MHz\_TX





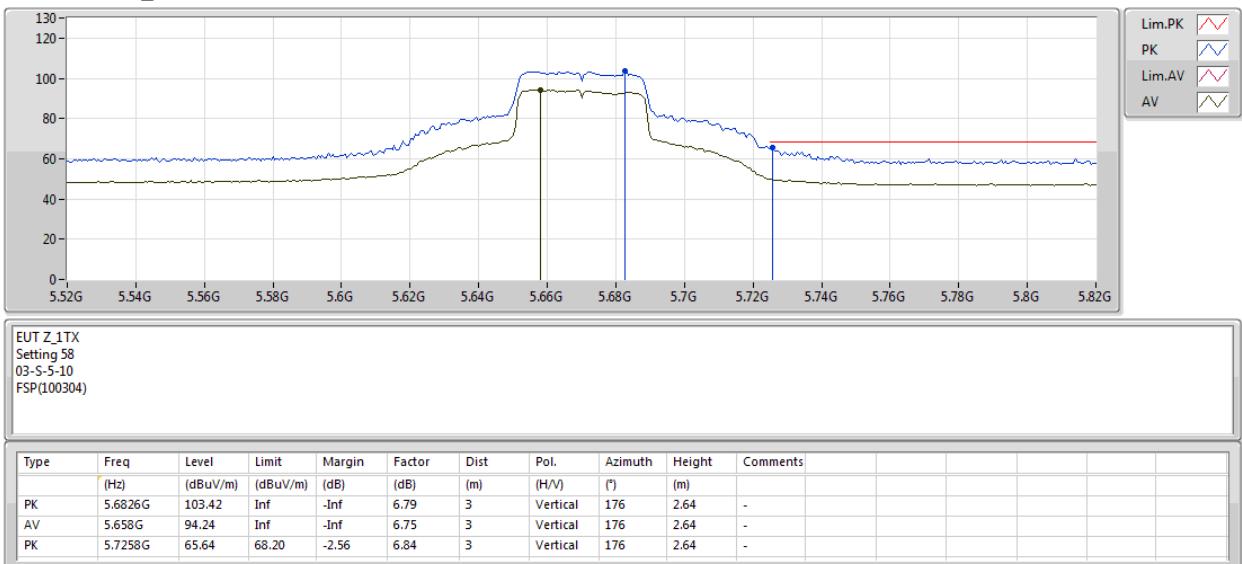
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5670MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2





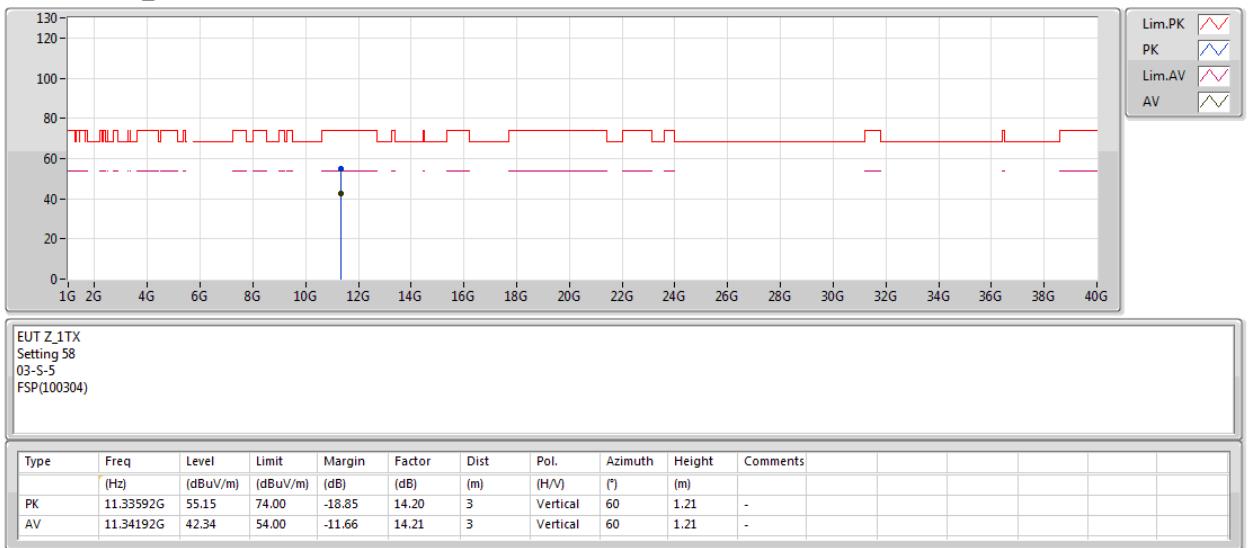
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5670MHz\_TX





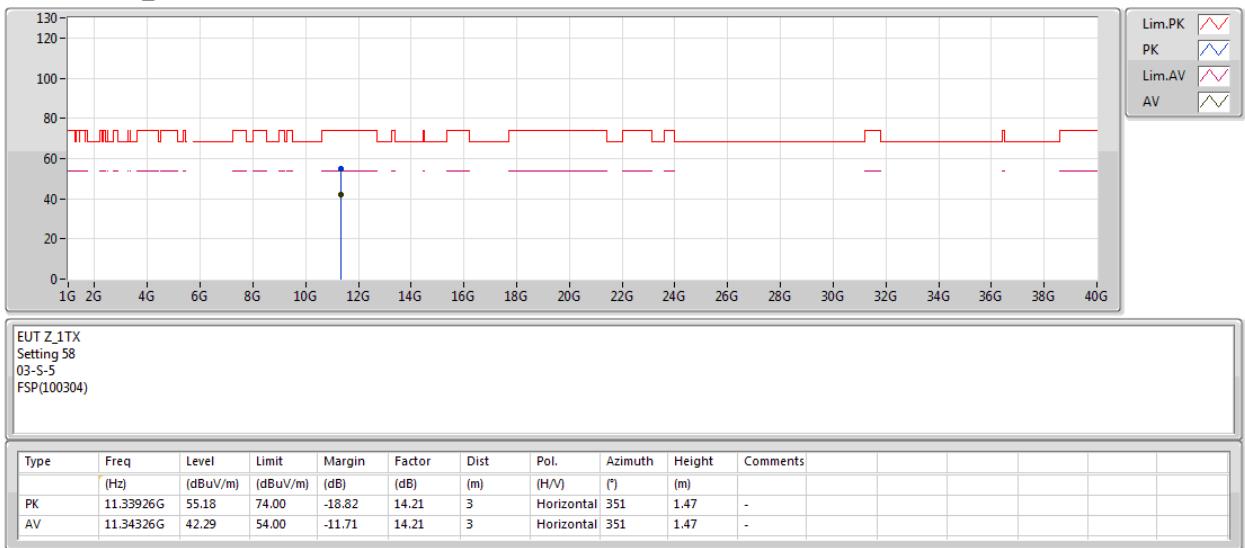
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5670MHz\_TX





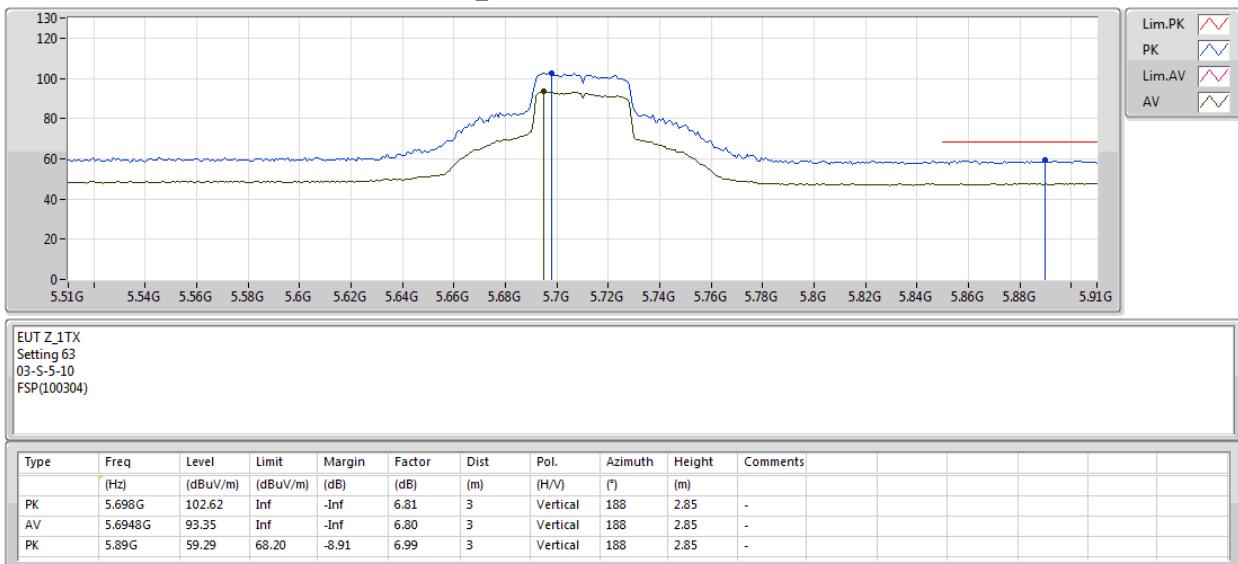
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

### 5710MHz Straddle 5.47-5.725GHz\_TX





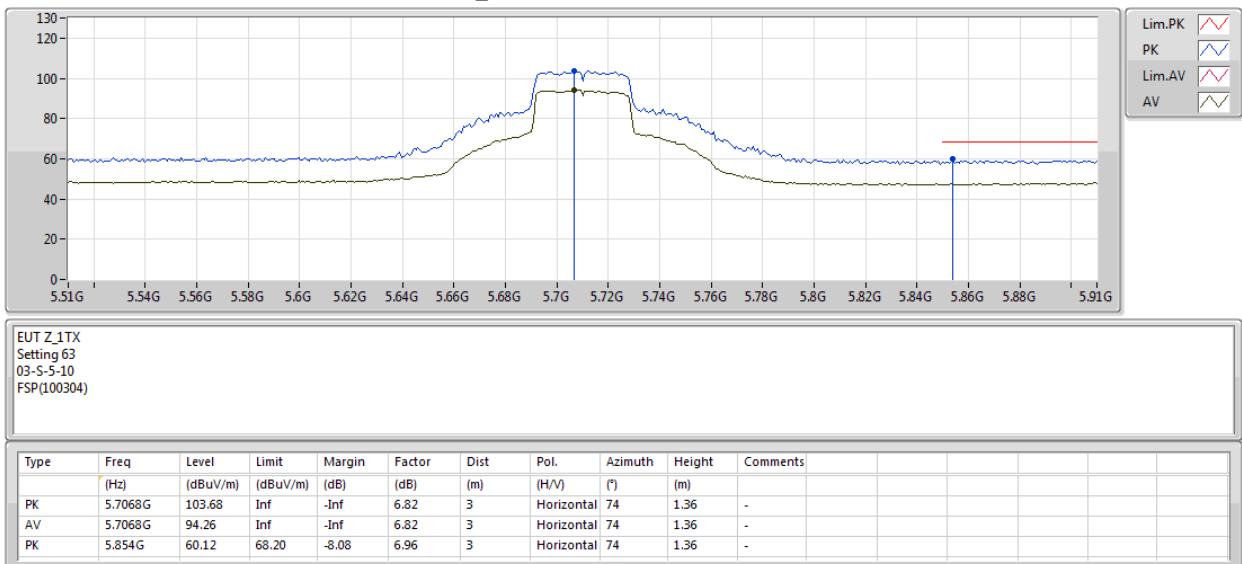
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

### 5710MHz Straddle 5.47-5.725GHz\_TX





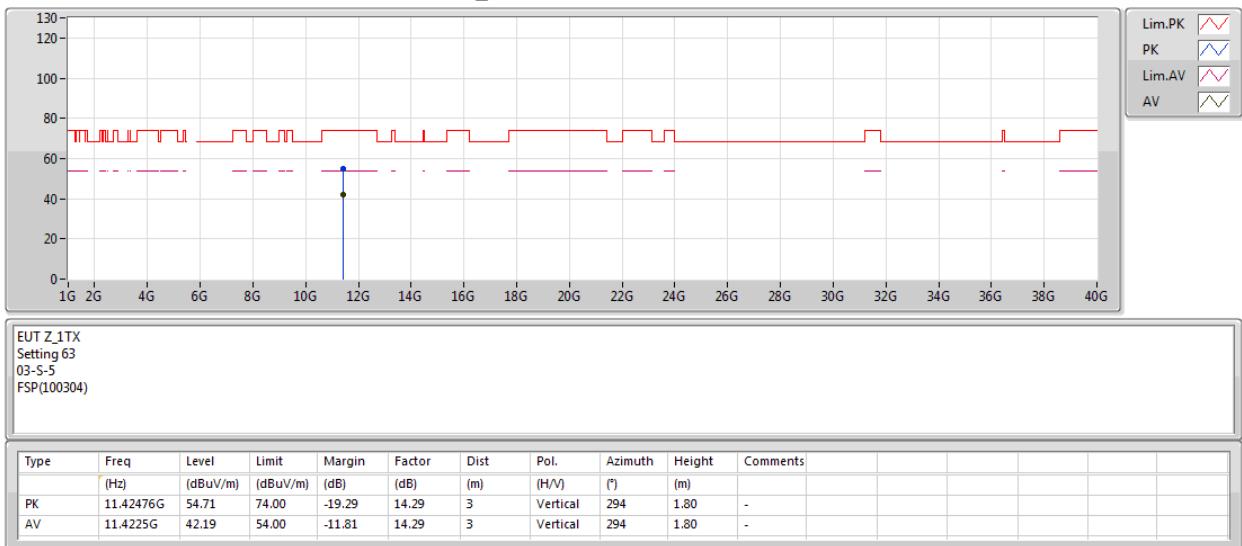
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

### 5710MHz Straddle 5.47-5.725GHz\_TX





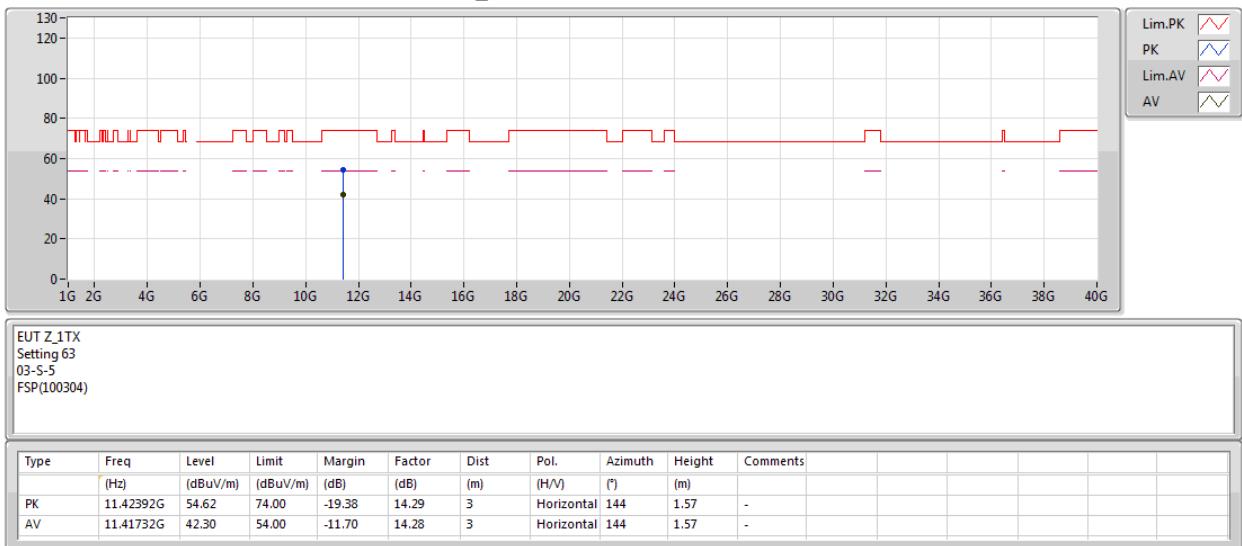
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

### 5710MHz Straddle 5.47-5.725GHz\_TX





## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

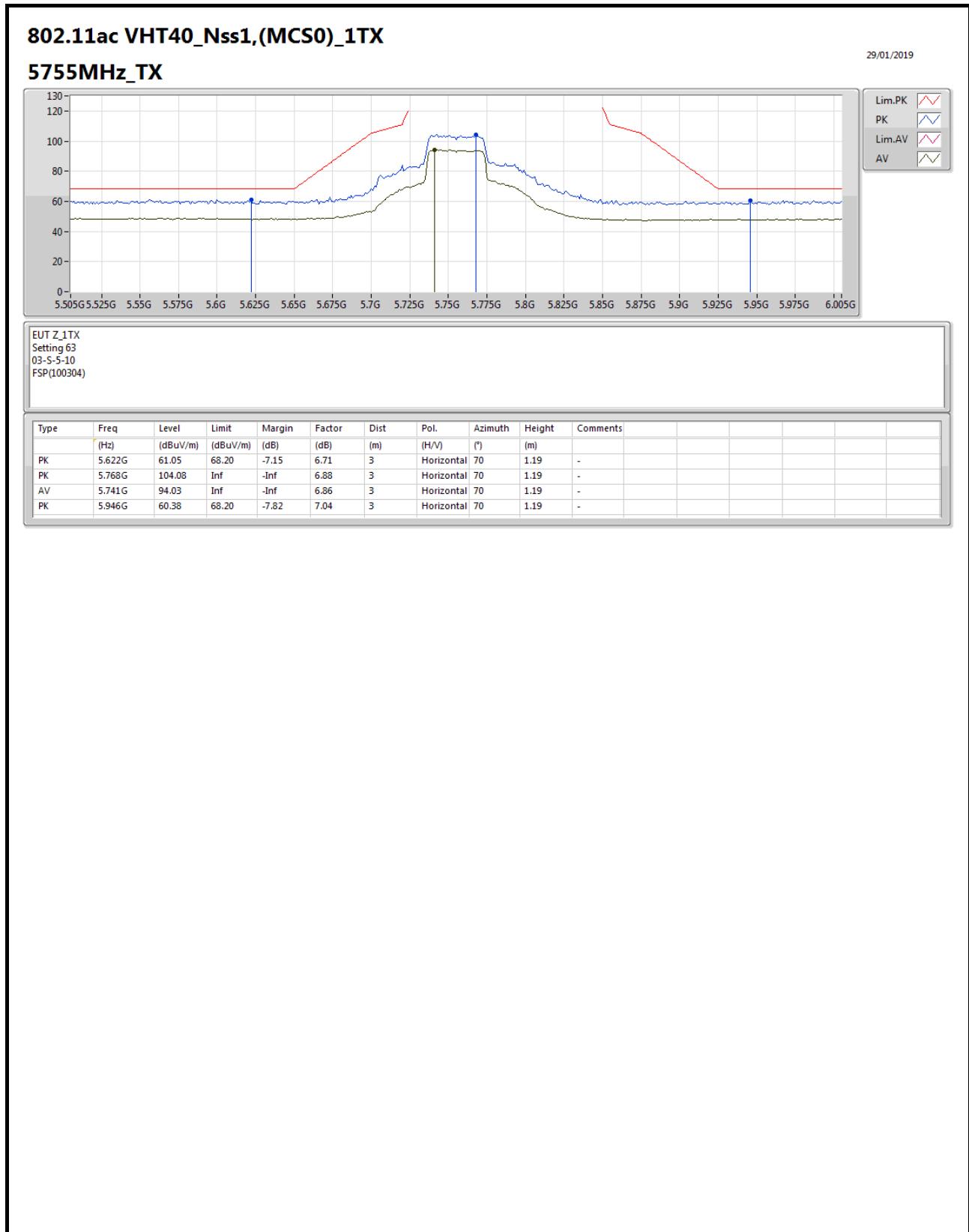
#### 5755MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2





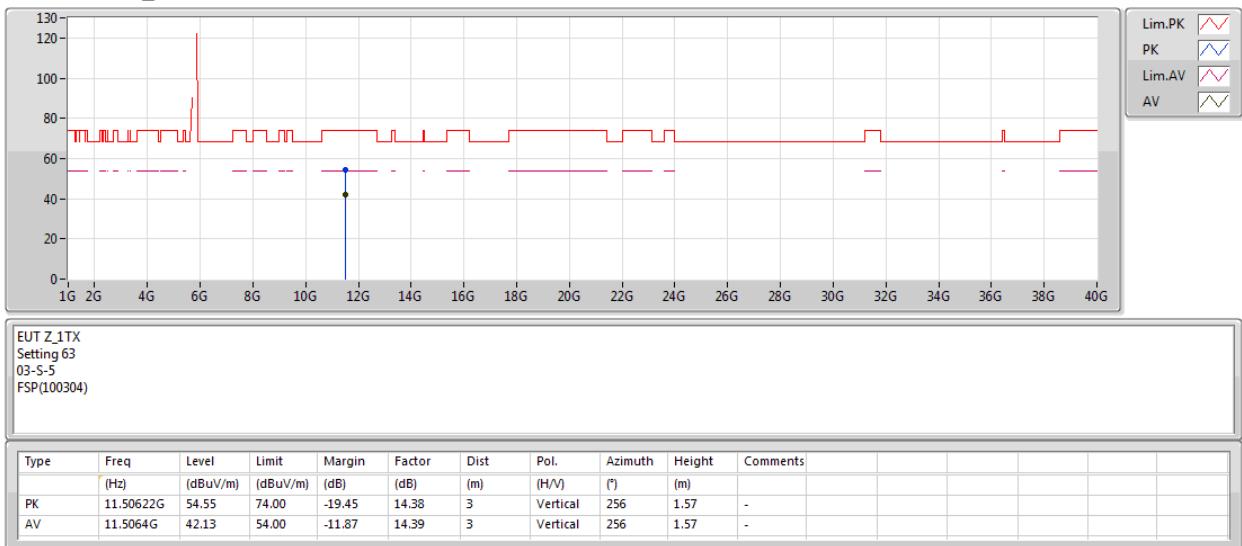
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5755MHz\_TX





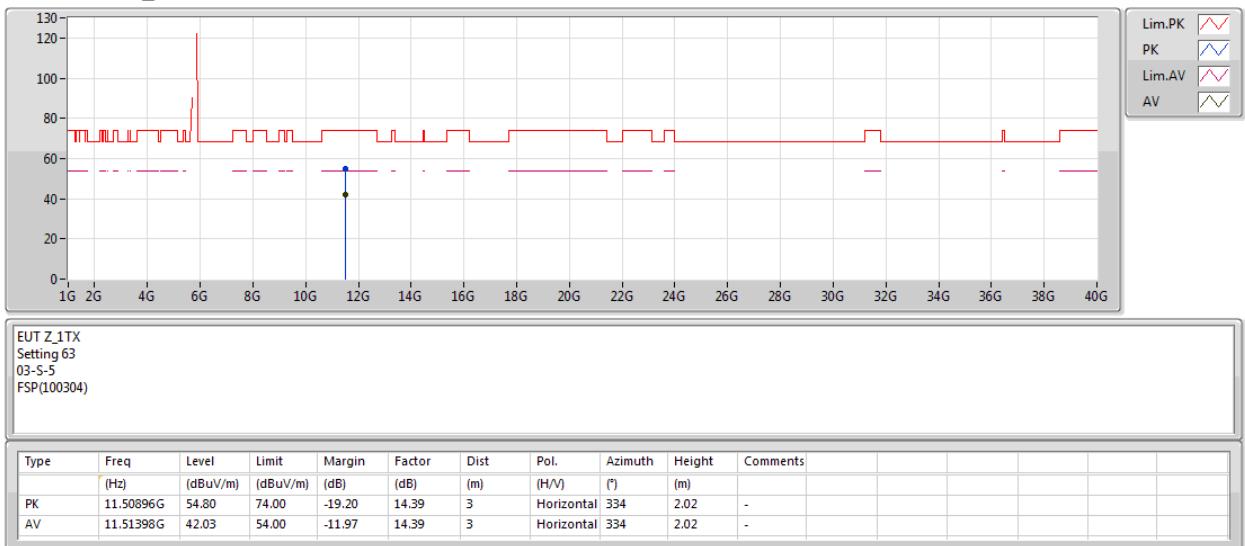
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5755MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5795MHz\_TX





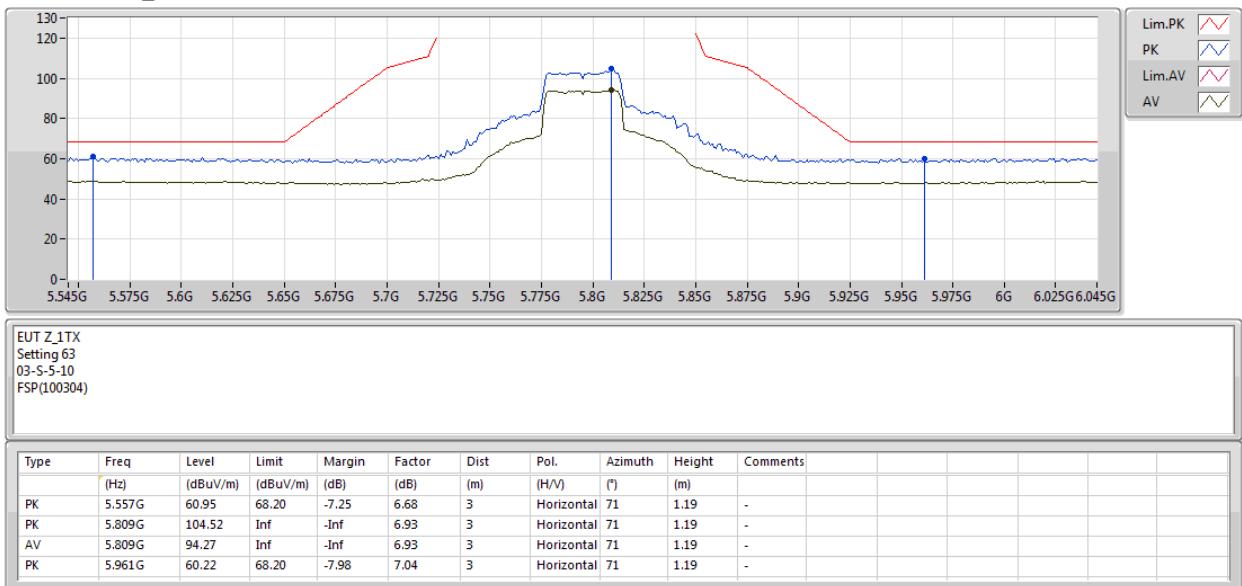
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5795MHz\_TX





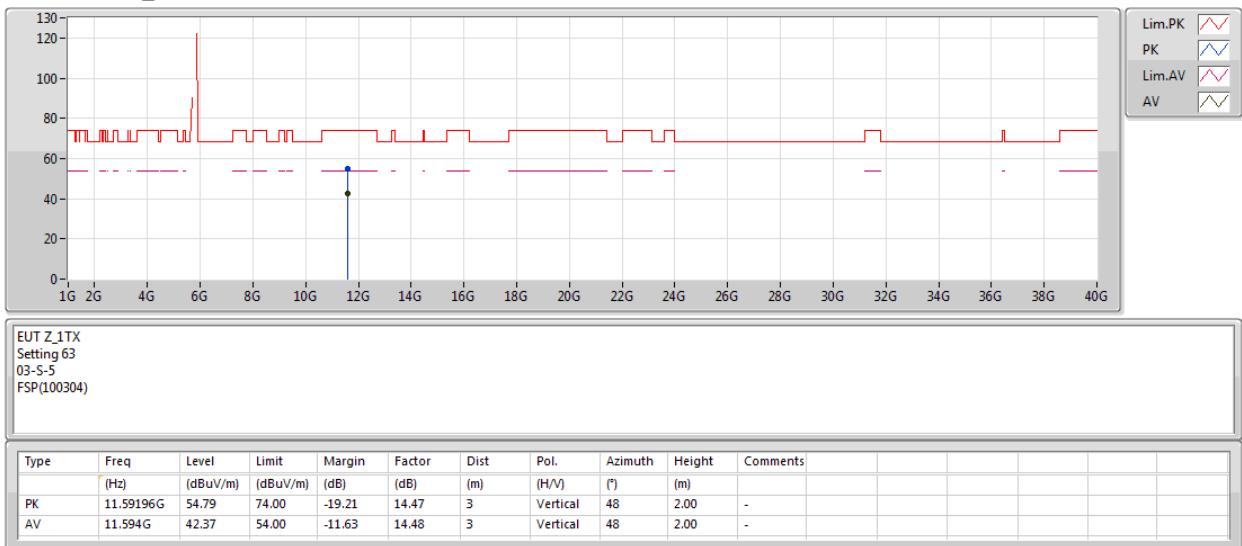
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5795MHz\_TX





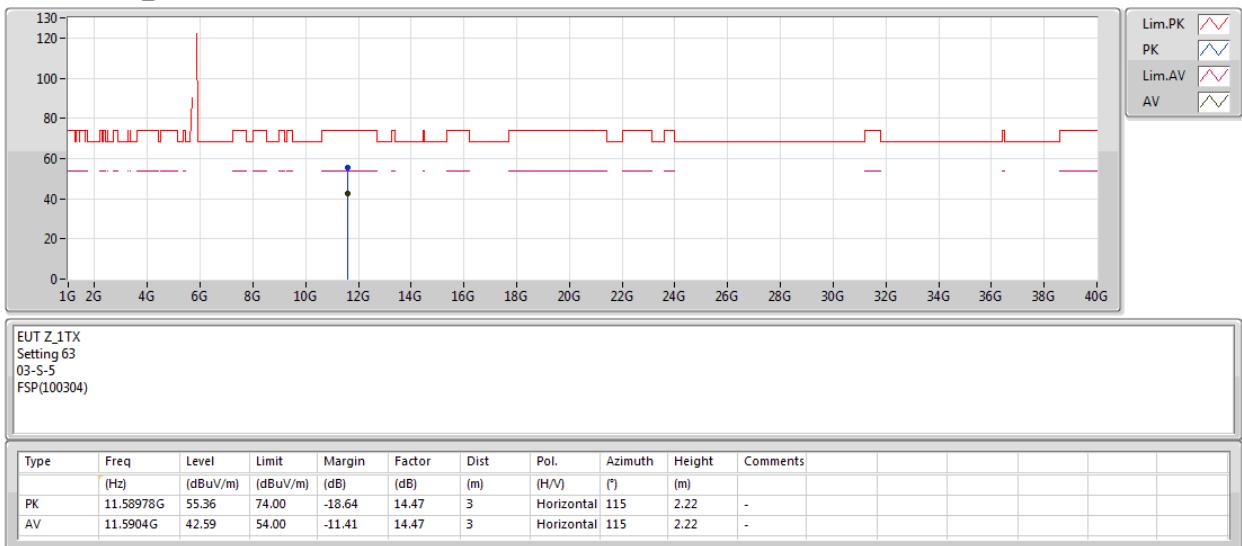
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5795MHz\_TX





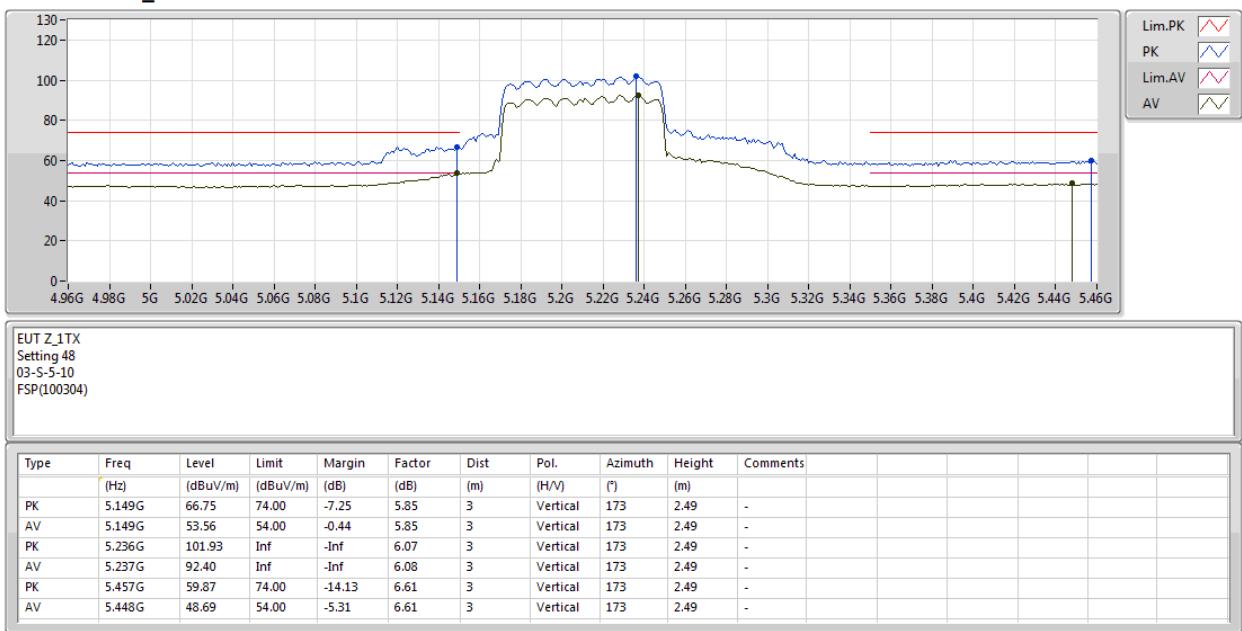
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT80\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5210MHz\_TX





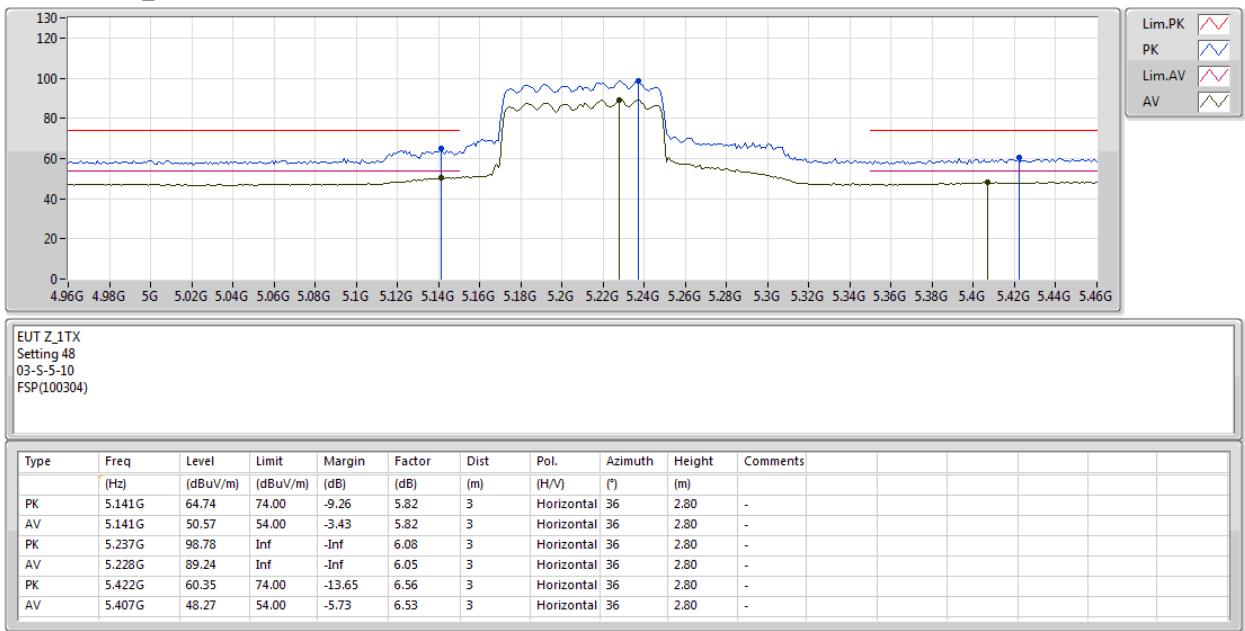
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT80\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5210MHz\_TX





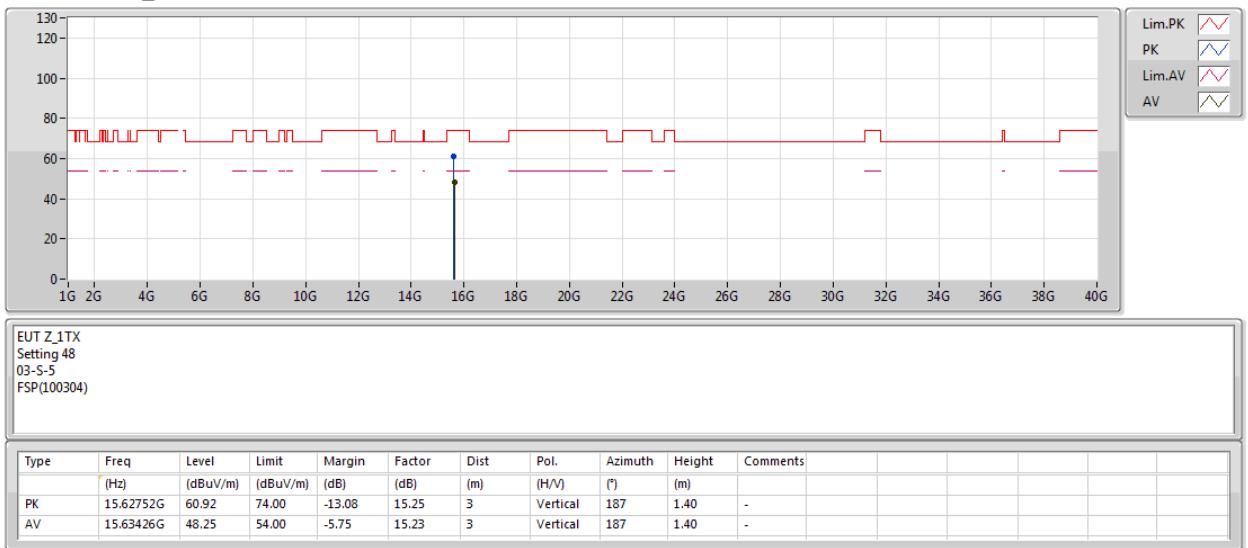
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT80\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5210MHz\_TX





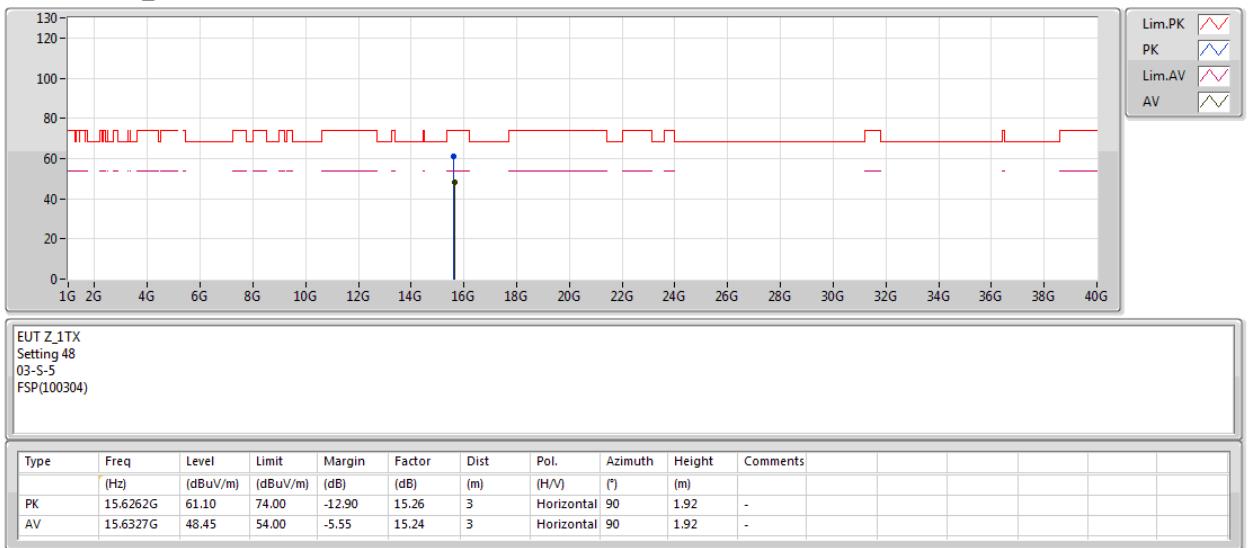
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT80\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5210MHz\_TX





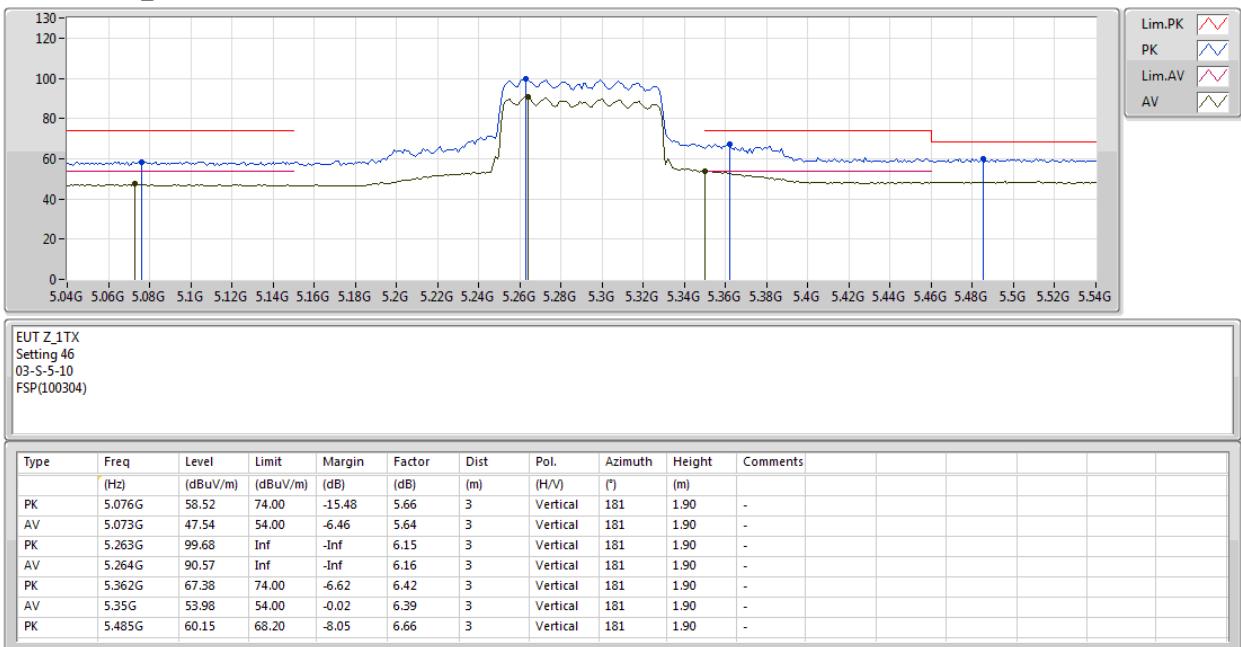
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT80\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5290MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT80\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5290MHz\_TX





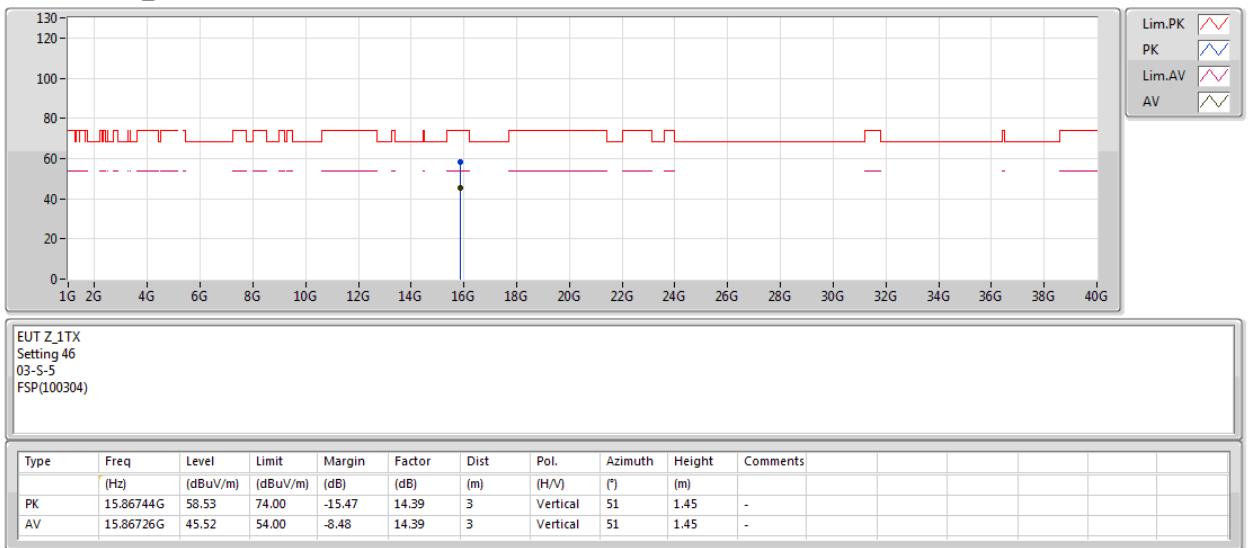
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT80\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5290MHz\_TX





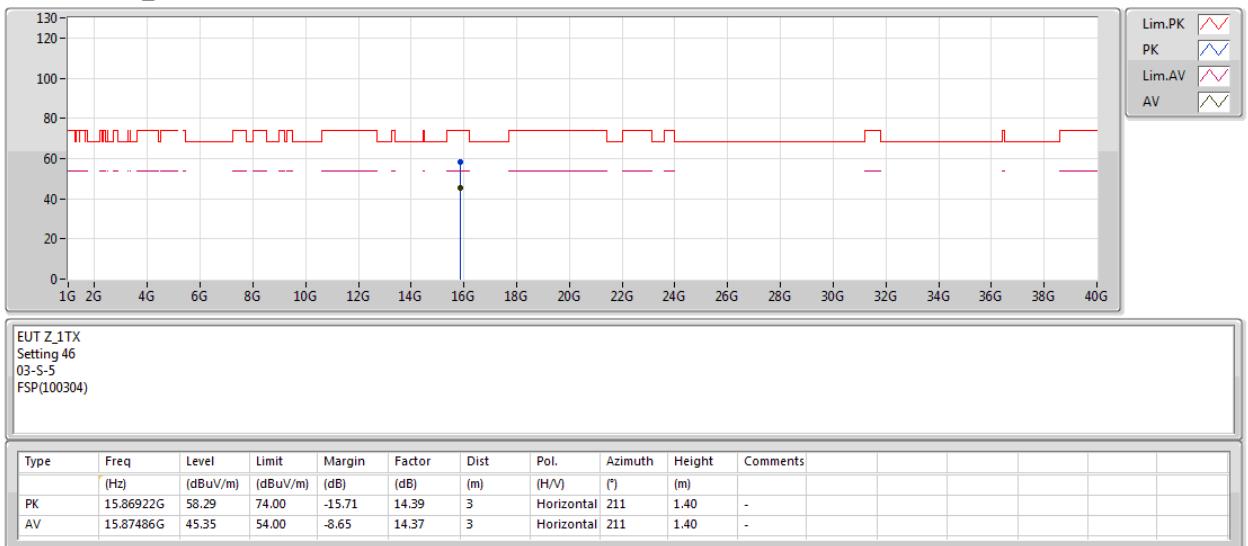
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT80\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5290MHz\_TX





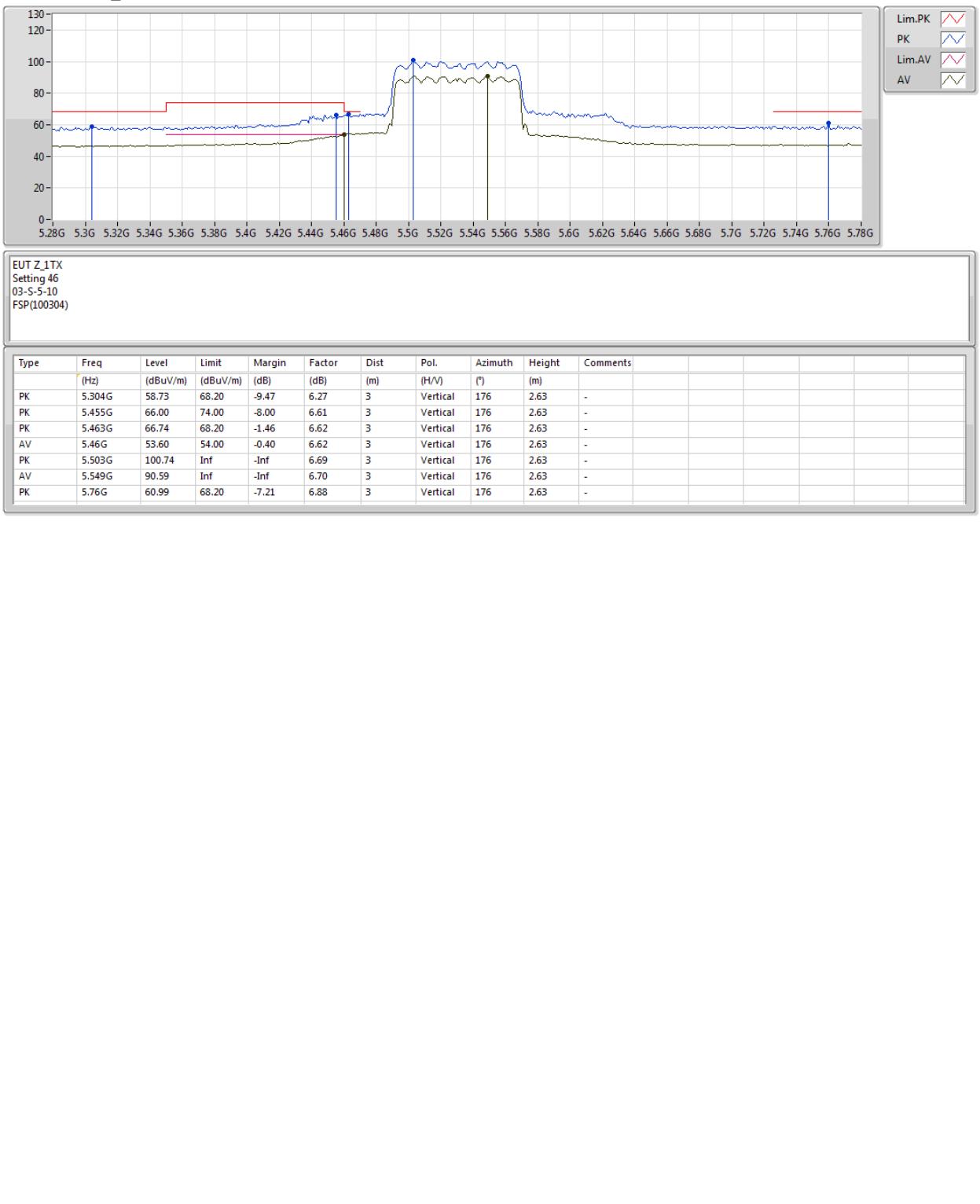
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT80\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5530MHz\_TX





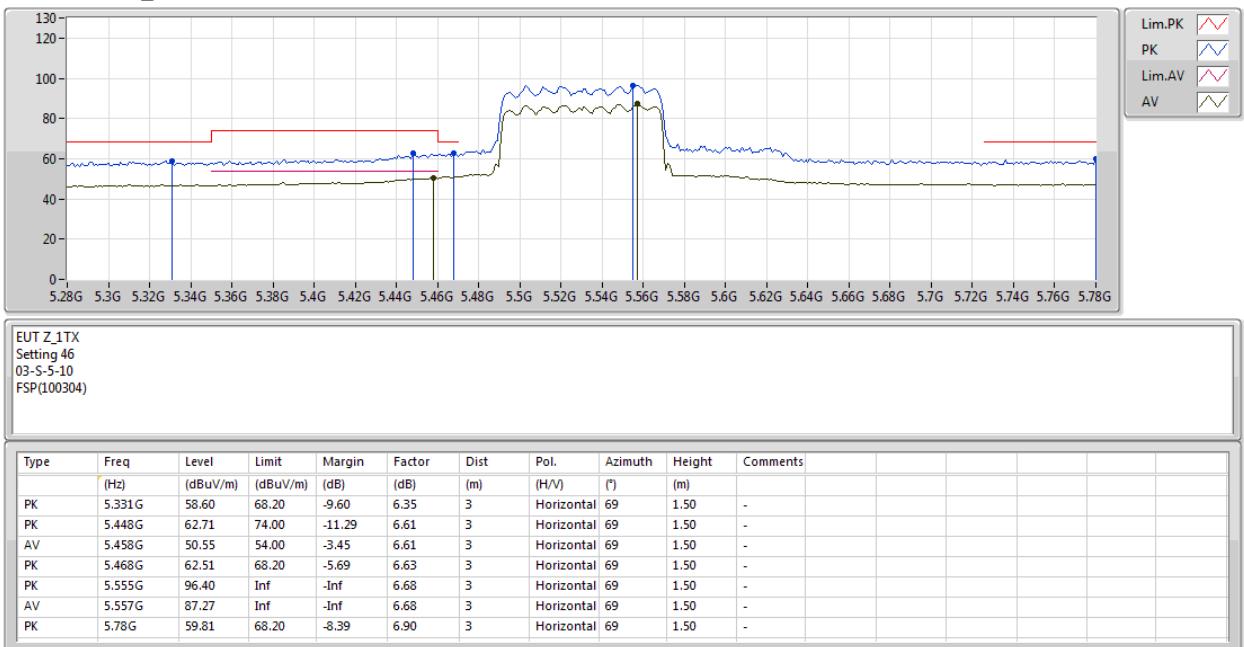
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT80\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5530MHz\_TX





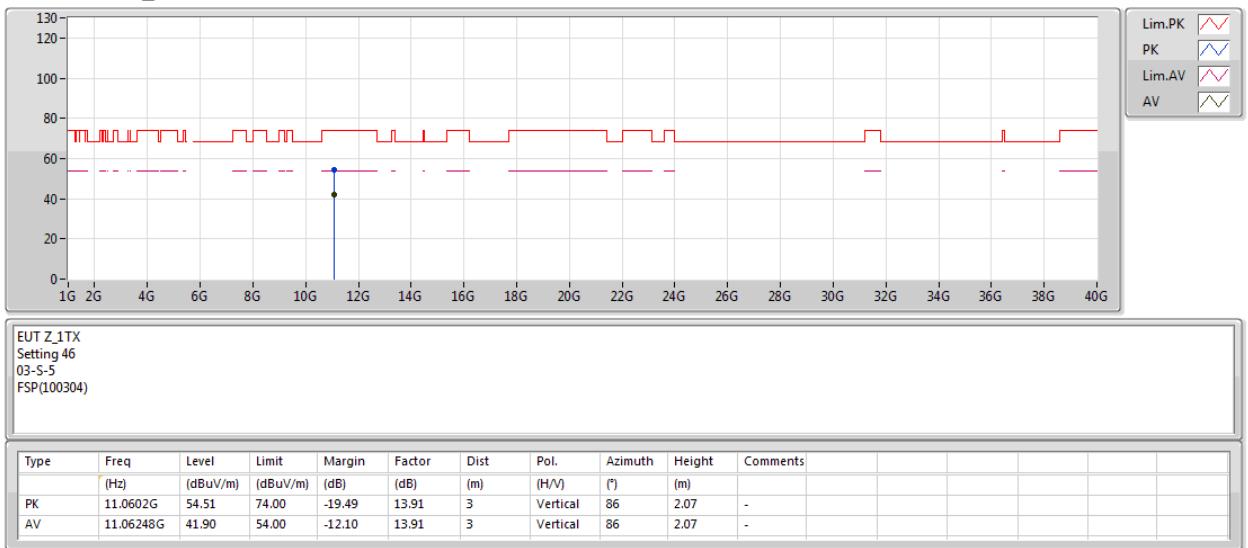
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT80\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5530MHz\_TX





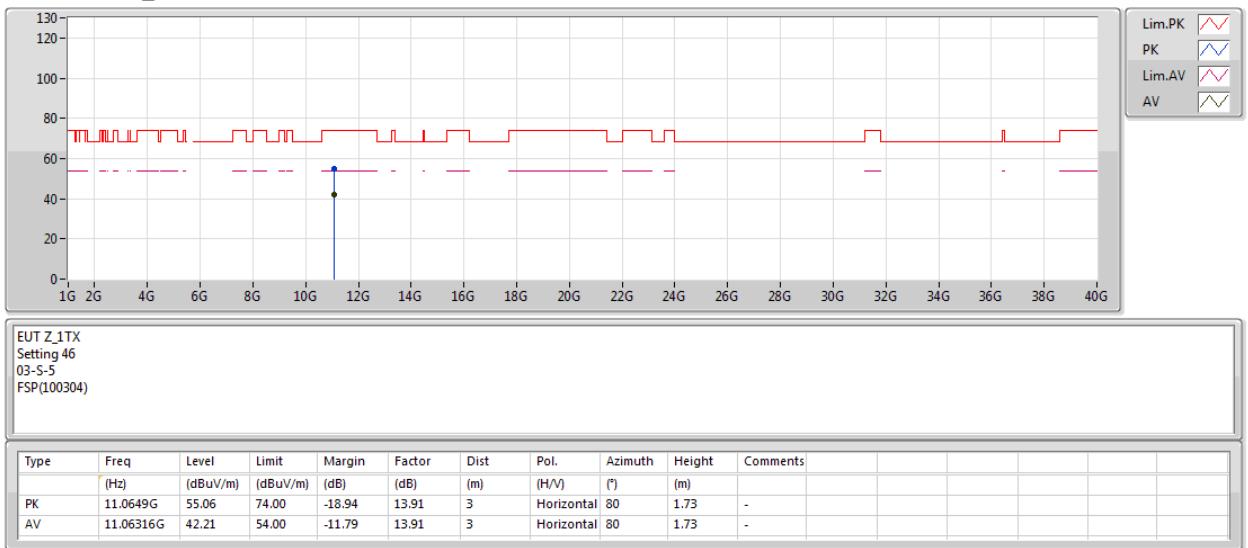
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT80\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5530MHz\_TX





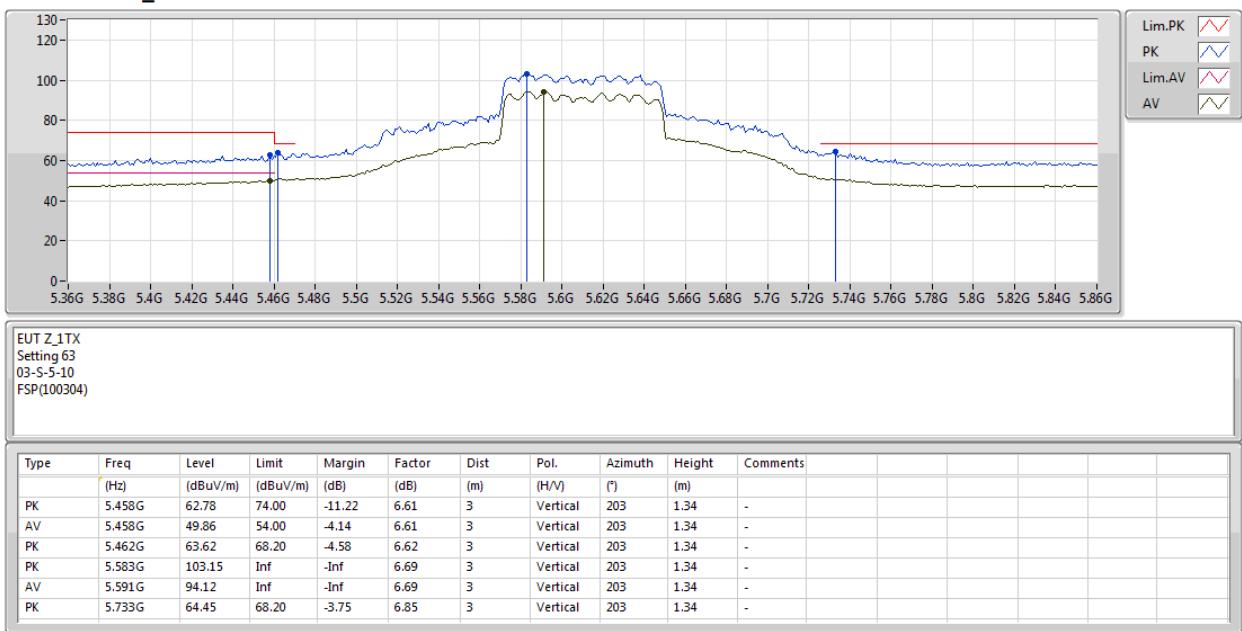
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT80\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5610MHz\_TX





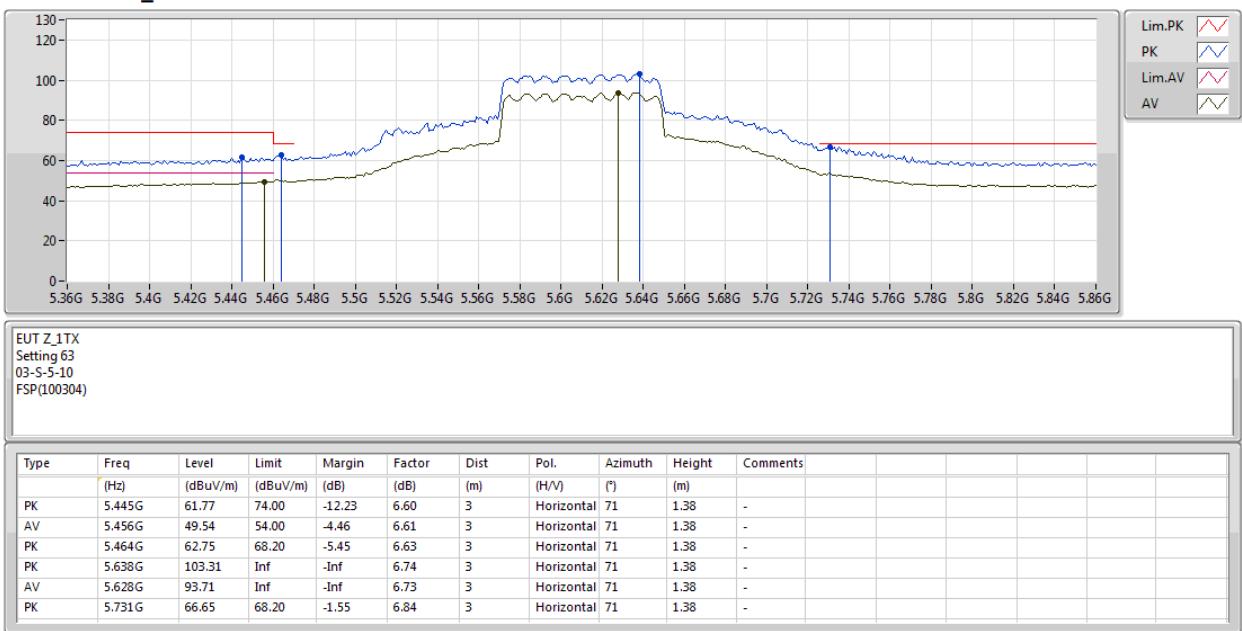
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT80\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5610MHz\_TX





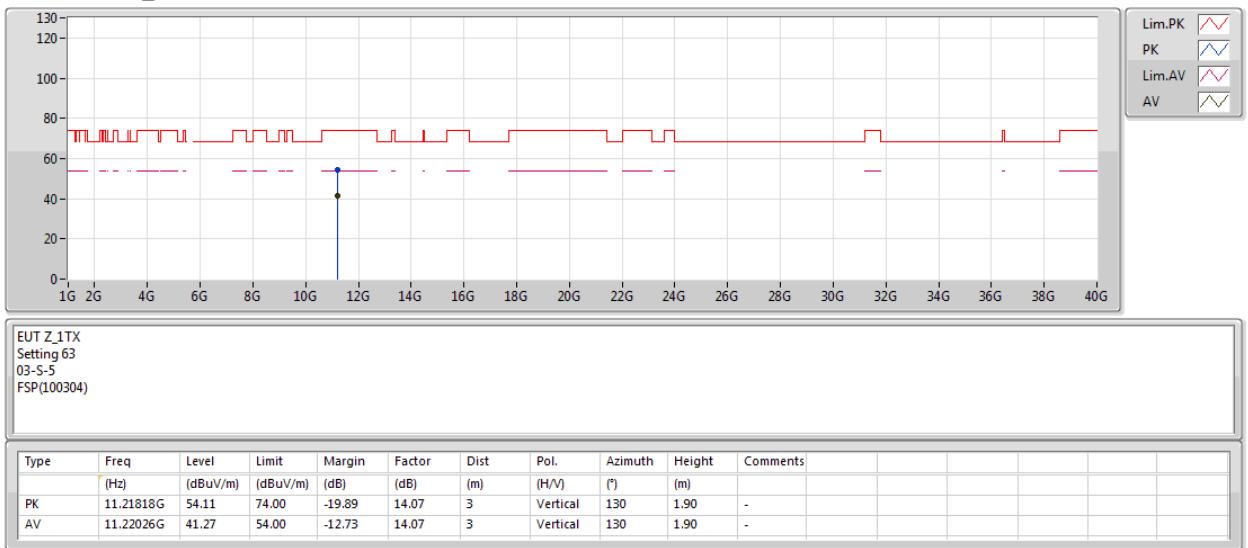
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT80\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5610MHz\_TX





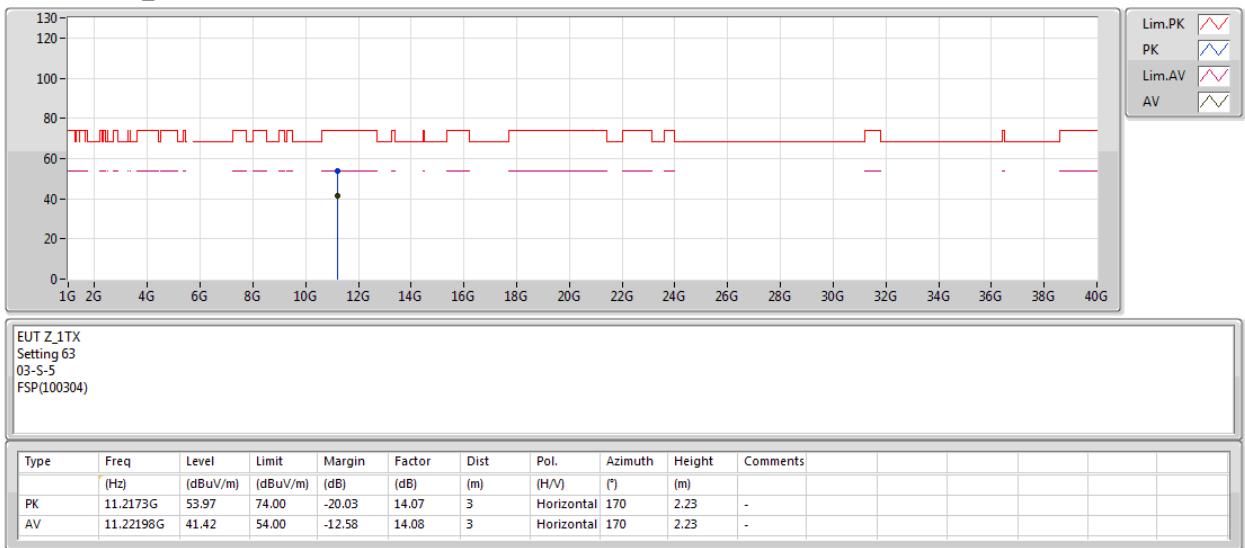
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT80\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5610MHz\_TX





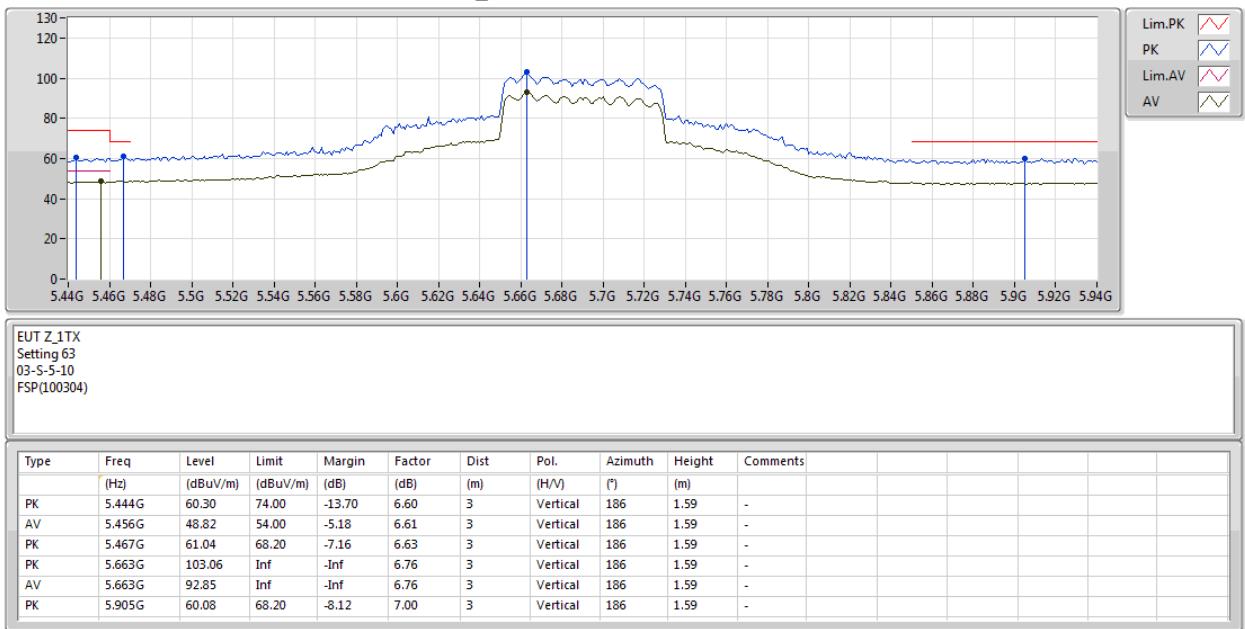
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT80\_Nss1,(MCS0)\_1TX

29/01/2019

### 5690MHz Straddle 5.47-5.725GHz\_TX





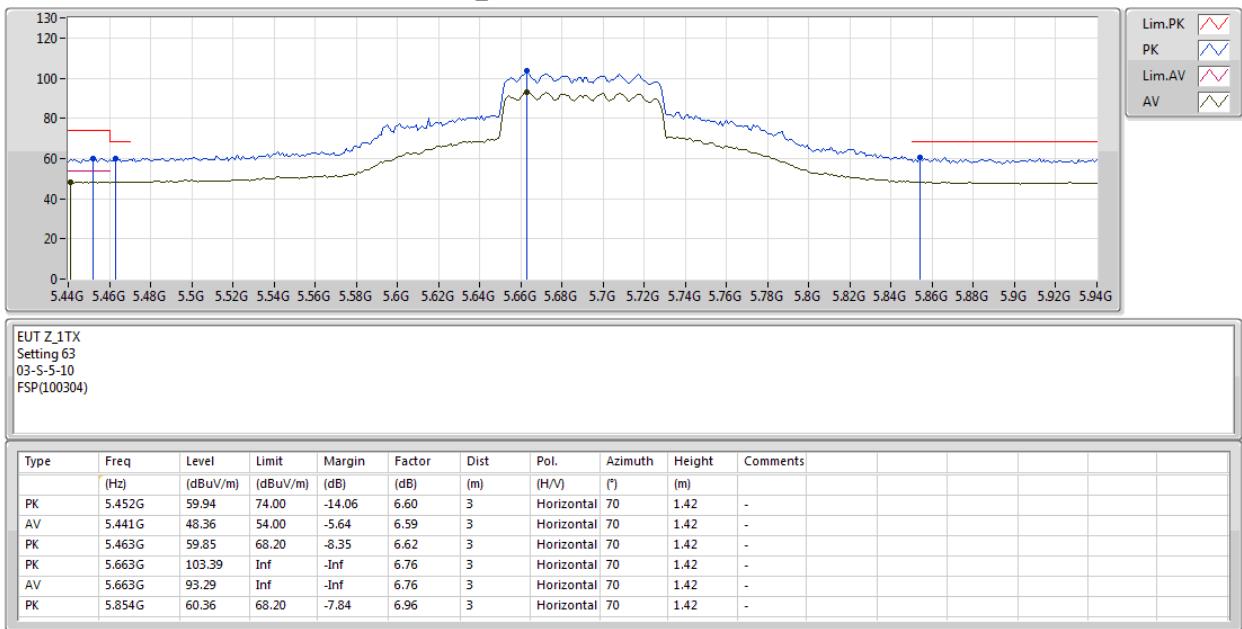
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT80\_Nss1,(MCS0)\_1TX

29/01/2019

### 5690MHz Straddle 5.47-5.725GHz\_TX





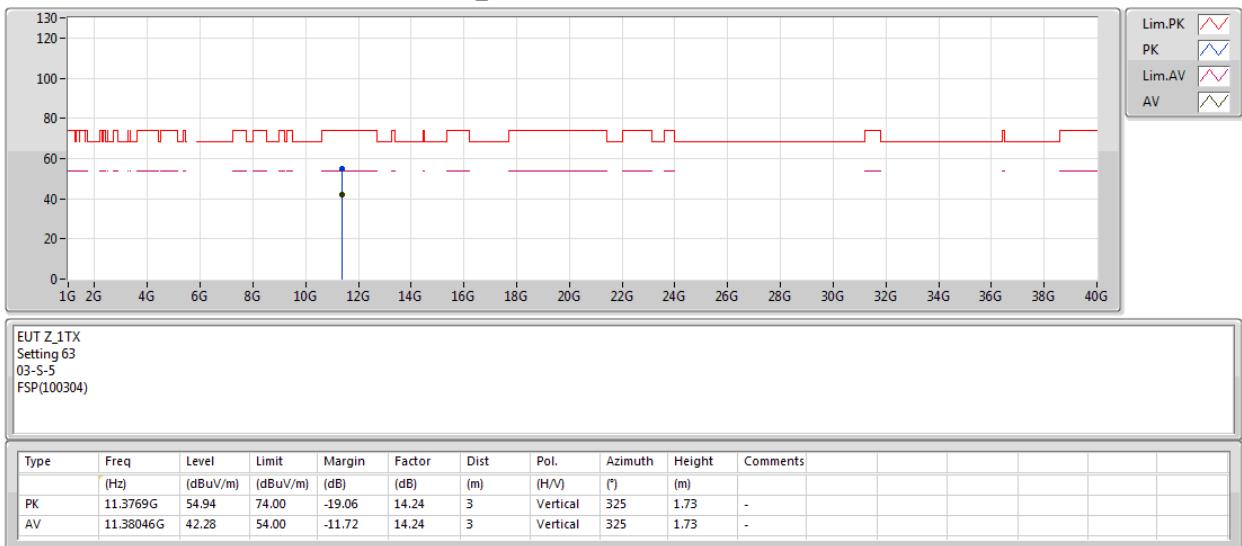
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT80\_Nss1,(MCS0)\_1TX

29/01/2019

### 5690MHz Straddle 5.47-5.725GHz\_TX





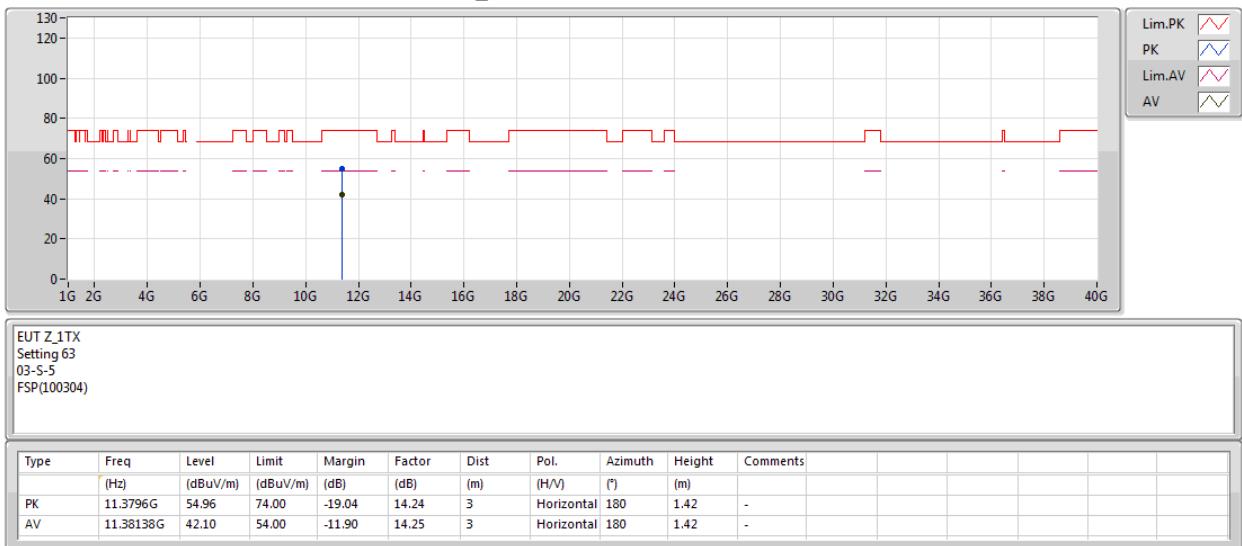
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT80\_Nss1,(MCS0)\_1TX

29/01/2019

### 5690MHz Straddle 5.47-5.725GHz\_TX





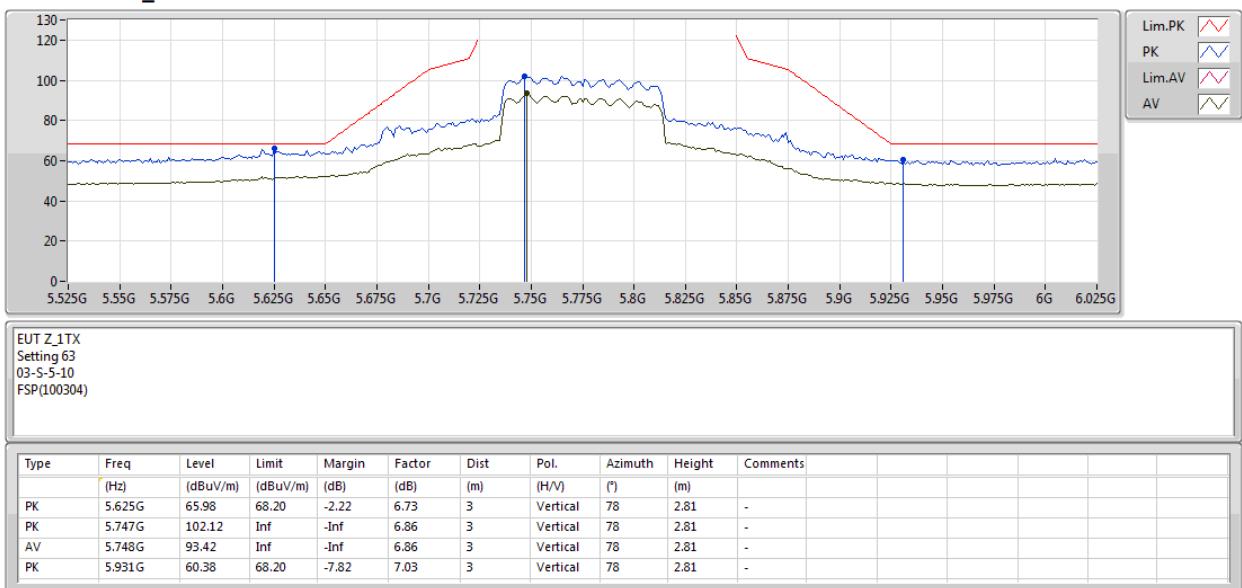
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT80\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5775MHz\_TX





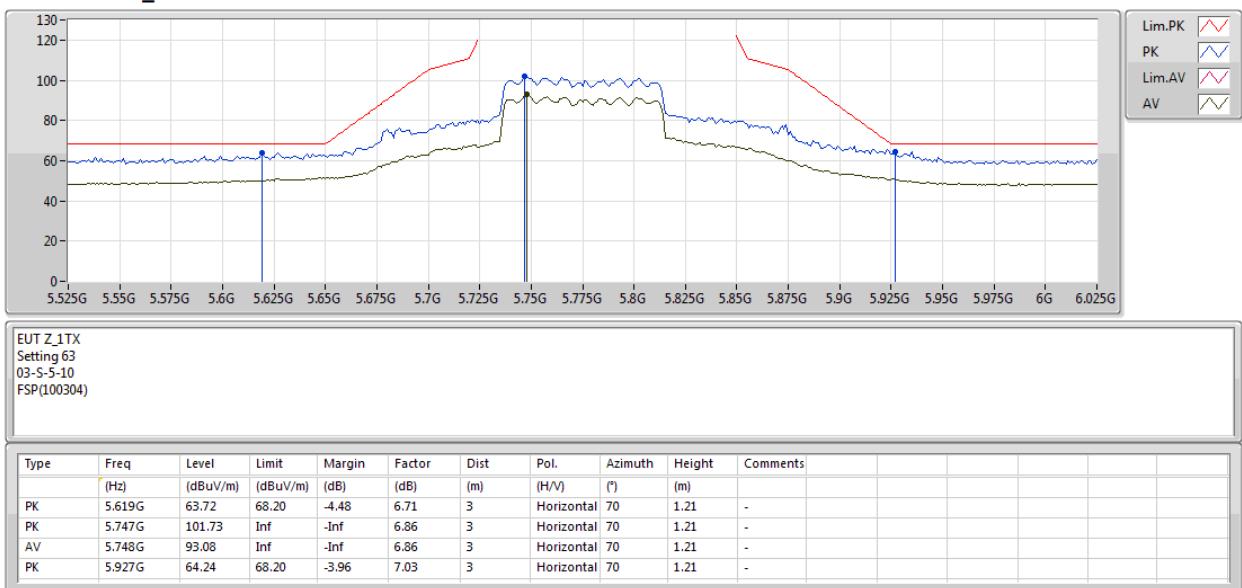
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT80\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5775MHz\_TX





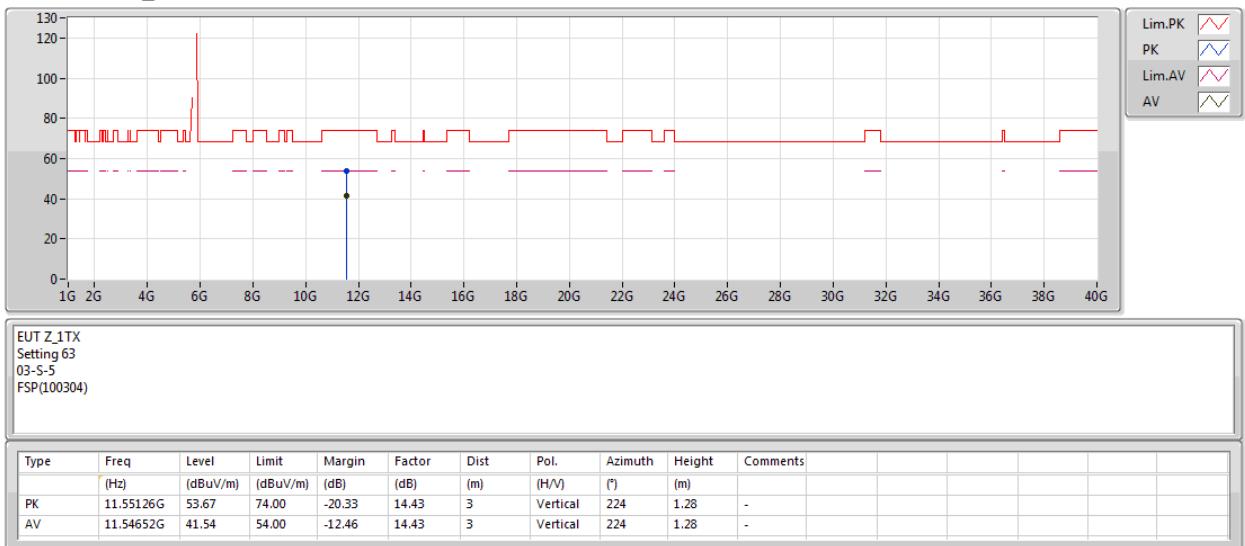
## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT80\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5775MHz\_TX





## RSE TX above 1GHz Result

Appendix E.2

### 802.11ac VHT80\_Nss1,(MCS0)\_1TX

29/01/2019

#### 5775MHz\_TX

