

Report No.: FR742738AN

FCC Test Report

Equipment	:	AC1900 Wi-Fi Router
Brand Name	:	Amped Wireless
Model No.	:	B1900RT
FCC ID	:	ZTT-B1900RT
Standard	:	47 CFR FCC Part 15.407
Operating Band	:	5150 MHz – 5250 MHz 5725 MHz – 5850 MHz
Applicant / Manufacturer	:	AMPED WIRELESS 13089 Peyton Dr. #C307, Chino Hills, CA 91709,USA
Function	:	☐ Outdoor;☐ Indoor;☐ Fixed P2P☐ Client
TPC Function	:	w/o TPC

The product sample received on Apr. 27, 2017 and completely tested on Jul. 05, 2017. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

Phoenix Chen

SPORTON INTERNATIONAL INC.





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Summary of Test Result

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

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Revision History

Report No.	Version	Description	Issued Date
FR742738AN	Rev. 01	Initial issue of report	Aug. 02, 2017

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1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5150-5250	a, n (HT20), ac (VHT20)	5180-5240	36-48 [4]
5725-5850		5745-5825	149-165 [5]
5150-5250	n (HT40), ac (VHT40)	5190-5230	38-46 [2]
5725-5850		5755-5795	151-159 [2]
5150-5250	ac (VHT80)	5210	42 [1]
5725-5850		5775	155 [1]

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	11a	20	1TX(Port 1)
5.725-5.85GHz	11a	20	1TX(Port 1)
5.15-5.25GHz	n (HT20)	20	3TX
5.725-5.85GHz	n (HT20)	20	3TX
5.15-5.25GHz	n (HT40)	20	3TX
5.725-5.85GHz	n (HT40)	20	3TX
5.15-5.25GHz	VHT20	20	3TX
5.725-5.85GHz	VHT20	20	3TX
5.15-5.25GHz	VHT40	40	3TX
5.725-5.85GHz	VHT40	40	3TX
5.15-5.25GHz	VHT80	80	3TX
5.725-5.85GHz	VHT80	80	3TX

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.

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1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
0	0	LYNwave	-	PIFA Antenna	I-PEX	2.10
1	1	Cortec	AN2450-50F26GBX	Dipole Antenna	I-PEX	3.20
2	2	Cortec	AN2450-50F27GGX	Dipole Antenna	I-PEX	2.80
3	3	Cortec	AN2450-50F26GBX	Dipole Antenna	I-PEX	3.20

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Note:

- 1. IEEE 802.11a only includes 1T/1R and Port 1 for emission.
- 2. IEEE 802.11n/ac supports 3T/4R and CDD function.

1.1.3 EUT Information

	Operational Condition						
EUT	Γ Power T	уре	Fro	m AC Adapter			
Bea	Beamforming Function With beamforming Without beamforming				Without beamforming		
				-	Туре о	f EU	т
\boxtimes	Stand-alone						
	Combined (EUT where the radio part is fully integrated within another device)						
	Combined Equipment - Brand Name / Model No.:						
	Plug-in radio (EUT intended for a variety of host systems)						
	Host System - Brand Name / Model No.:						
	Other:						

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
11a	0.996	0.017	n/a (DC>=0.98)	n/a (DC>=0.98)
VHT20	0.992	0.035	n/a (DC>=0.98)	n/a (DC>=0.98)
VHT40	0.973	0.119	20.001m	100
VHT80	0.989	0.048	n/a (DC>=0.98)	n/a (DC>=0.98)

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
- ANSI C63.4-2014
- KDB 789033 D02 v01r04
- KDB 644545 D03 v01
- KDB 662911 D01 v02r01

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1.3 Testing Location Information

	Testing Location							
\boxtimes	HWA YA	ADD	:	No. 52, Huaya 1st Rd.,	No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)			
		TEL	:	886-3-327-3456	FAX : 886-3-327-0973			
	Test site Designation No. TW1190 with FCC.							
	JHUBEI	ADD : No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County, Taiwan (R.O.C.)			, Zhubei City, Hsinchu County, Taiwan (R.O.C.)			
	TEL: 886-3-656-9065 FAX: 886-3-656-9085							
	Test site Designation No. TW0006 with FCC.							

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Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-HY	Gary	21.4°C / 65%	05/Jul/2017
Radiated (Below 1GHz)	03CH01-HY	Terry	23.2°C / 56%	05/Jul/2017
Radiated (Above 1GHz)	03CH09-HY	Terry	22.1°C / 58%	03/Jul/2017
AC Conduction	CO04-HY	Teddy	21°C / 57%	05/Jul/2017

1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	2.1 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	2.6 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	2.9 dB	Confidence levels of 95%
Conducted Emission	1.3 dB	Confidence levels of 95%

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2 Test Configuration of EUT

2.1 Test Condition

Condition Item	Abbreviation/Remark	Remark
RF Conducted	Abbreviation	Remark
TnomVnom	Tnom	20°C
-	Vnom	120V
Freq. Stability	Abbreviation	Remark
0°C	-	-
10°C	-	-
20°C	-	-
30°C	-	-
40°C	-	-
138V	-	-
120V	-	-
102V	-	-

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2.2 Test Channel Mode

Test Software Version	RTL819 x 3.4 -2016/01/15
-----------------------	--------------------------

Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX	-
5180MHz	38
5200MHz	51
5240MHz	39
5745MHz	63
5785MHz	63
5825MHz	63
802.11ac VHT20_Nss1,(MCS0)_3TX	-
5180MHz	32,41,37
5200MHz	40,50,47
5240MHz	43,56,55
5745MHz	63,63,63
5785MHz	63,63,63
5825MHz	63,63,63
802.11ac VHT40_Nss1,(MCS0)_3TX	-
5190MHz	28,38,36
5230MHz	42,54,54
5755MHz	62,63,63
5795MHz	63,63,63
802.11ac VHT80_Nss1,(MCS0)_3TX	-
5210MHz	29,39,37
5775MHz	52,56,58

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2.3 **The Worst Case Measurement Configuration**

The Worst Case Mode for Following Conformance Tests			
Tests Item AC power-line conducted emissions			
Condition	Condition AC power-line conducted measurement for line and neutral		
Operating Mode Normal link			
1	Router mode , WIFI 2.4G & 5G Link + Adapter, WAN 1Gbps,Lan 1Gbps (Y axis)		

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

Th	The Worst Case Mode for Following Conformance Tests				
Tests Item	Unwanted Emissions				
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.				
Operating Mode<1GHz	Normal link				
1	Adapter mode				
Operating Mode>1GHz	CTX				
	Y Plane				
Orthogonal Planes of EUT					
Worst Planes of EUT	V				

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The Worst Case Mode for Following Conformance Tests				
Tests Item	Tests Item Simultaneous Transmission Analysis			
Test Condition	Test Condition Radiated measurement			
Operating Mode	Normal Link			
1 2.4GHz+5GHz				

Refer to Sporton Test Report No.: FA742738 for Co-location RF Exposure Evaluation and Appendix G for Radiated Emission Co-location.

2.4 Accessories

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Accessories					
1011	Brand Name	APD	Model Name	WA-24Q12FU	
AC Adapter 1 (US Plug)	Power Rating	I/P: <u>100</u> - <u>240</u> Vac, <u>50-60</u> Hz, <u>0.7</u> A, O/P: <u>12</u> Vdc, <u>2 A</u>			
(COT lug)	Power Cord	1.5 meter, non-shield	led cable, w/o ferr	ite core	
Stand	Brand Name	-	Model Name	-	

Reminder: Regarding to more detail and other information, please refer to user manual.

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2.5 Support Equipment

Support Equipment - RF Conducted				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E5410	DoC
2	Adapter for NB	DELL	HA65NM130	DoC
3	AC Source	-	-	-

	Support Equipment – Radiated Emission Below 1G					
No.	No. Equipment Brand Name Model Name FCC ID					
1	Notebook	DELL	E5530	DoC		
2	Notebook	DELL	E5540	DoC		
3	Load	-	-	-		

	Support Equipment – Radiated Emission Above 1G					
No.	No. Equipment Brand Name Model Name FCC ID					
1	Notebook (Remote)	DELL	E5530	DoC		

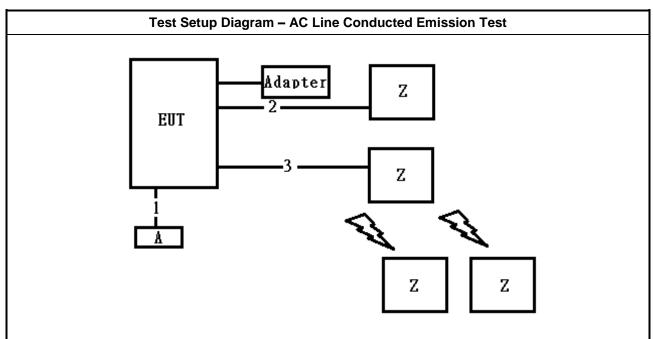
	Support Equipment – AC Conduction					
No.	Equipment	Brand Name	Model Name	FCC ID		
1	NoteBook 1(WAN Port) (Remote)	DELL	Latitude E5430	DoC		
2	NoteBook 2(LAN Port) (Remote)	DELL	Latitude E5430	DoC		
3	NoteBook *2 (Remote)	DELL	P55G	DoC		
4	Load	-	-	-		

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2.6 Test Setup Diagram

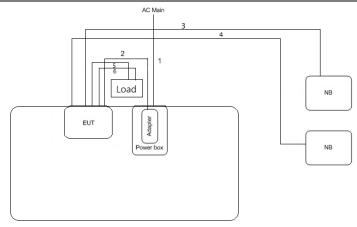


Item	Connection	Shielded	Length	Remark
1	DC Power line	No	1.5m	-
2	AC Power line	No	-	-
3	AC Power line	No	-	-
Α	Dummy Load	No	1m	-
Z	NoteBook 1(WAN Port)	No	10m	-
Z	NoteBook 2(LAN Port)	No	10m	-
Z	NoteBook *2	-	-	-

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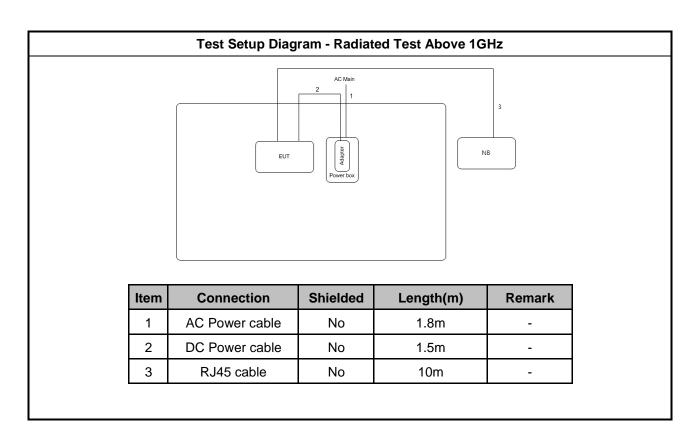
Test Setup Diagram - Radiated Test Below 1GHz



Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8m	-
2	DC Power cable	No	1.5m	-
3	RJ45 cable	No	10m	-
4	RJ45 cable	No	10m	-
5	RJ45 cable	No	0.8m	-
6	RJ45 cable	No	0.8m	-



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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

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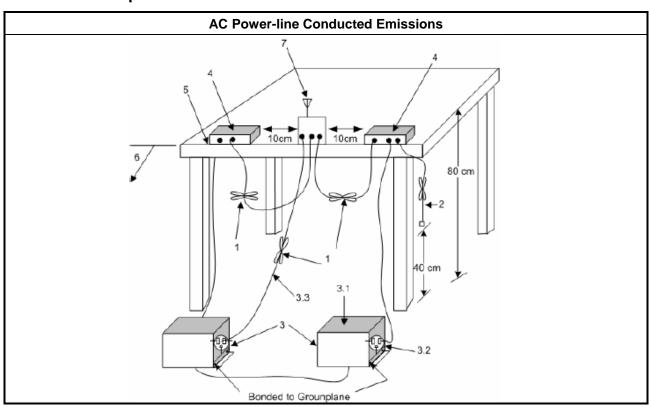
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

	Test Method
\boxtimes	Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Test Setup



3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

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3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

	Emission Bandwidth Limit		
UN	UNII Devices		
\boxtimes	For the 5.15-5.25 GHz band, N/A		
	For the 5.25-5.35 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.		
	For the $5.47-5.725$ GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.		
\boxtimes	For the 5.725-5.85 GHz band, 6 dB emission bandwidth ≥ 500kHz.		

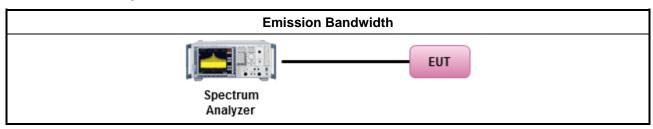
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

	Test Method		
•	For the emission bandwidth shall be measured using one of the options below:		
	Refer as KDB 789033, clause C for EBW and clause D for OBW measurement.		
	Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.		
	Refer as IC RSS-Gen, clause 6.6 for bandwidth testing.		

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

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3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

	Maximum Conducted Output Power Limit		
UNI	Il Devices		
\boxtimes	For the 5.15-5.25 GHz band:		
	Outdoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then $P_{Out} = 30 - (G_{TX} - 6)$. e.i.r.p. at any elevation angle above 30 degrees \leq 125mW [21dBm]		
	Indoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$		
	Point-to-point AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W If $G_{TX} > 23$ dBi, then $P_{Out} = 30 - (G_{TX} - 23)$.		
	■ Mobile or Portable Client: the maximum conducted output power (P _{Out}) shall not exceed the lesser of 250 mW. If G _{TX} > 6 dBi, then P _{Out} = 24 - (G _{TX} - 6).		
	For the 5.25-5.35 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.		
	For the 5.47-5.725 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.		
\boxtimes	For the 5.725-5.85 GHz band:		
	 Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 - (G_{TX} - 6). 		
	 Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. 		
	P _{out} = maximum conducted output power in dBm, G _{TX} = the maximum transmitting antenna directional gain in dBi.		

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3.3.2 Measuring Instruments

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

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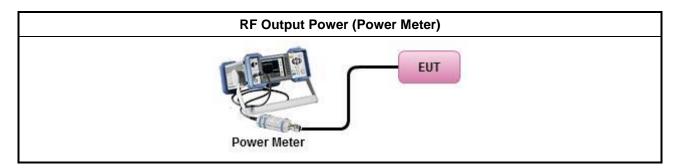
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3.3.3 Test Procedures

	Test Method		
•	Maximum Conducted Output Power		
	Duty cycle ≥ 98%		
	Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging).		
	Duty cycle < 98%		
	Refer as KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)		
	Wideband RF power meter and average over on/off periods with duty factor		
	Refer as KDB 789033, clause E Method PM (using an RF average power meter).		
•	For conducted measurement.		
	If the EUT supports multiple transmit chains using options given below: Refer as KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.		
	If multiple transmit chains, EIRP calculation could be following as methods: P _{total} = P ₁ + P ₂ + + P _n (calculated in linear unit [mW] and transfer to log unit [dBm]) EIRP _{total} = P _{total} + DG		

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

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3.4 Peak Power Spectral Density

3.4.1 Peak Power Spectral Density Limit

	Peak Power Spectral Density Limit		
UN	UNII Devices		
\boxtimes	For the 5.15-5.25 GHz band:		
	• Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$.		
	Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$.		
	Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 23$ dBi, then $P_{Out} = 17 - (G_{TX} - 23)$.		
	 Mobile or Portable Client: the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If G_{TX} > 6 dBi, then PPSD= 11 – (G_{TX} – 6) 		
	For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) \leq 11 dBm/MHz. If $G_{TX} >$ 6 dBi, then PPSD= 11 $-$ ($G_{TX} -$ 6).		
	For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) \leq 11 dBm/MHz. If $G_{TX} > 6$ dBi, then PPSD= 11 – $(G_{TX} - 6)$.		
\boxtimes	For the 5.725-5.85 GHz band:		
	Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) \leq 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then PPSD= $30 - (G_{TX} - 6)$.		
	 Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. 		

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3.4.2 Measuring Instruments

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

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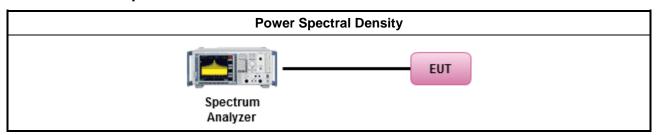
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3.4.3 Test Procedures

	Test Method		
•	outp func	c power spectral density procedures that the same method as used to determine the conducted out power shall be used to determine the peak power spectral density and use the peak search tion on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density be measured using below options:	
		Refer as KDB 789033, F)5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth	
	Duty	cycle ≥ 98%	
	\boxtimes	Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging).	
	Duty	cycle < 98%	
	\boxtimes	Refer as KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)	
•	Ford	conducted measurement.	
	•	If the EUT supports multiple transmit chains using options given below:	
		Measure and sum the spectra across the outputs. Refer as 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.	
	•	If multiple transmit chains, EIRP PPSD calculation could be following as methods: $ PPSD_{total} = PPSD_1 + PPSD_2 + + PPSD_n $ (calculated in linear unit [mW] and transfer to log unit [dBm]) $ EIRP_{total} = PPSD_{total} + DG $	

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3.4.4 Test Setup



3.4.5 Test Result of Peak Power Spectral Density

Refer as Appendix D

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3.5 Unwanted Emissions

3.5.1 Transmitter Radiated Unwanted Emissions Limit

Unwanted emissions below 1 GHz and restricted band emissions above 1GHz limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Un-restricted band emissions above 1GHz Limit		
Operating Band	Limit	
5.15 - 5.25 GHz	e.i.r.p27 dBm [68.2 dBuV/m@3m]	
5.25 - 5.35 GHz	e.i.r.p27 dBm [68.2 dBuV/m@3m]	
5.47 - 5.725 GHz	e.i.r.p27 dBm [68.2 dBuV/m@3m]	
5.725 - 5.85 GHz	5.650-5700 GHz: e.i.r.p27 ~ 10 dBm [68.2 ~ 105.2 dBuV/m@3m] 5.700-5720 GHz: e.i.r.p. 10 ~ 15.6 dBm [105.2 ~ 110.8 dBuV/m@3m] 5.720-5725 GHz: e.i.r.p. 15.6 ~ 27 dBm [110.8 ~ 122.2 dBuV/m@3m] 5.850-5.855 GHz: e.i.r.p. 27 ~ 15.6 dBm [122.2 ~ 110.8 dBuV/m@3m] 5.855-5.875 GHz: e.i.r.p. 15.6 ~ 10 dBm [110.8 ~ 105.2 dBuV/m@3m] 5.875-5.925 GHz: e.i.r.p. 10 ~ -27 dBm [105.2 ~ 68.2dBuV/m@3m] Other un-restricted band: e.i.r.p27 dBm [68.2 dBuV/m@3m]	

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).

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3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method

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- Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).
- The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].
- For the transmitter unwanted emissions shall be measured using following options below:
 - Refer as KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.
 - Refer as KDB 789033, clause G)1) for unwanted emissions into restricted bands.
 - Refer as KDB 789033, G)6) Method VB (ANSI C63.10, clause 4.1.4.2.3), Reduced VBW.
 - Refer as KDB 789033, clause G)5) (ANSI C63.10, clause 4.1.4.2.2), measurement procedure peak limit.
- For radiated measurement.
 - Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.
 - Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.
 - Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
- The any unwanted emissions level shall not exceed the fundamental emission level.
- All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

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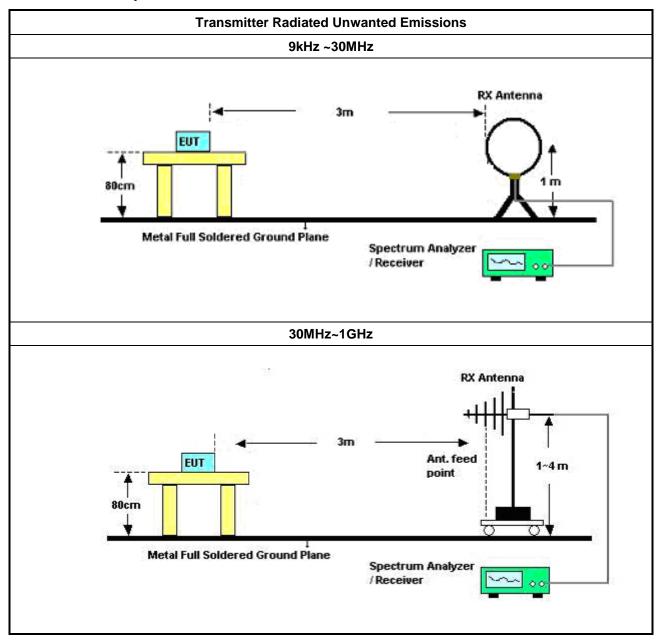
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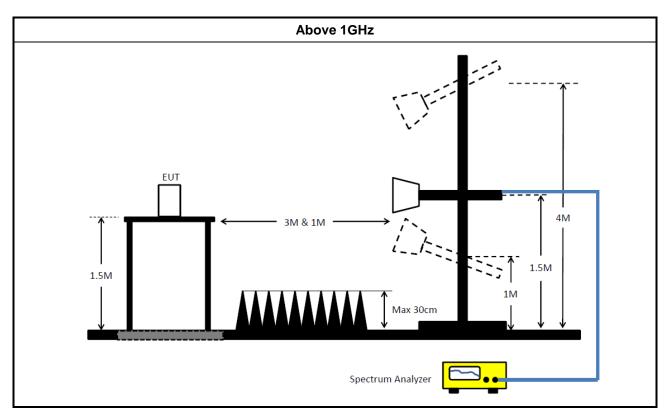
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3.5.4 Test Setup



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3.5.5 Transmitter Unwanted Emissions (Below 30MHz)

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

3.5.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E

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3.6 Frequency Stability

3.6.1 Frequency Stability Limit

UNII Devices In-band emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

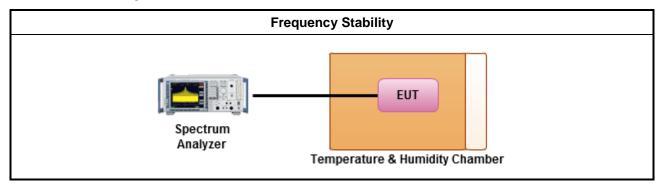
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

	Test Method								
•	■ Refer as ANSI C63.10, clause 6.8 for frequency stability tests								
	Frequency stability with respect to ambient temperature								
	•	Frequency stability when varying supply voltage							

3.6.4 Test Setup



3.6.5 Test Result of Frequency Stability

Refer as Appendix F

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4 Test Equipment and Calibration Data

Instrument for AC Conduction

instrument for AO conduction									
Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date			
EMC Receiver	R&S	ESR3	102051	9KHz ~ 3.6GHz	29/Apr/2017	28/Apr/2018			
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	15/Nov/2016	14/Nov/2017			
RF Cable-CON	HUBER+SUHNER	RG213/U	07611832020001	9kHz ~ 30MHz	24/Oct/2016	23/Oct/2017			
Impuls Begrenzer Pulse Limiter	R&S	ESH3-Z2	100921	10 kHz ~ 30 MHz	20/Oct/2016	19/Oct/2017			

Instrument for Radiated Test - Below 1GHz

istrument for Natiated Test - Delow 19112										
Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date				
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH01-HY	30 MHz ~ 1 GHz	15/Mar/2017	14/Mar/2018				
Amplifier	Amplifier COM-POWER PA-103		161050	1 MHz ~ 1 GHz	11/Jul/2016	10/Jul/2017				
Spectrum	R&S	FSV40	100593	9kHz ~ 40GHz	26/Oct/2016	25/Oct/2017				
Bilog Antenna with 5dB Attenuator	SCHAFFNER& MTJ	CBL6112D & MTJ6102-05	2678&001	30 MHz ~ 2 GHz	30/Jul/2016	29/Jul/2017				
Loop Antenna	TESEQ	HLA 6120	24155	9 kHz~30 MHz	02/Mar/2017	01/Mar/2018				
RF Cable-R03m	Jye Bao	RG142	CB019	9kHz ~ 1GHz	03/Jan/2017	02/Jan/2018				

Instrument for Radiated Test - Above 1GHz

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH01-HY	1GHz ~18 GHz	15/Mar/2017	15/Mar/2018
Amplifier	Agilent	8449B	3008A02326	1GHz ~ 26.5GHz	12/Jul/2016	11/Jul/2017
Spectrum	R&S	FSV40	100593	9kHz ~ 40GHz	26/Oct/2016	25/Oct/2017
Horn Antenna	SCHWARZBEC K	BBHA 9120	BBHA9120D113 0	1GHz ~ 18GHz	07/Oct2016	06/Oct/2017
Horn Antenna	SCHWARZBEC K	BBHA 9170	BBHA9170339	18GHz ~ 40GHz	10/Apr/2017	09/Apr/2018
Amplifier	EMC INSTRUMENTS	EMC184045B	980192	18GHz ~ 40GHz	24/Aug/2016	23/Aug/2017
RF Cable-HIGH	SUHNER	SUCOFLEX 106	CB069-HF	1GHz ~ 40GHz	05/Nov/2016	04/Nov/2017

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FCC Test Report

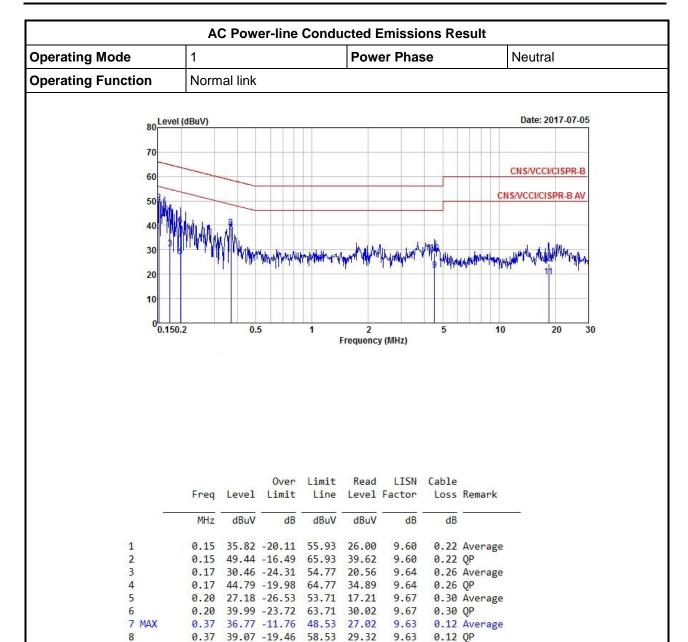
Instrument for Conducted Test

Instrument Manufacturer		Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	9kHz~40GHz	30/Dec/2016	29/Dec/2017
Power Sensor	Anritsu	MA2411B	0917017	300MHz ~ 40GHz	10/Feb/2017	09/Feb/2018
Power Meter	Anritsu	ML2495A	0949003	300MHz ~ 40GHz	10/Feb/2017	09/Feb/2018
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	21/Jul/2016	20/Jul/2017
Temp. and Humidity Chamber	Giant Force	GTH-225-20-SP -SD	MAA1112-007	-20 ~ 100℃	10/May/2017	09/May/2018
RF Cable-0.2m	HUBER+SUHN ER	SUCOFLEX_10 4	MY10710/4	30MHz ~ 26.5GHz	02/Oct/2016	01/Oct/2017
RF Cable-0.2m	HUBER+SUHN ER	SUCOFLEX_10 4	MY10709/4	30MHz ~ 26.5GHz	02/Oct/2016	01/Oct/2017
RF Cable-0.5m	HUBER+SUHN ER	SUCOFLEX_10	MY10713/4	30MHz ~ 26.5GHz	02/Oct/2016	01/Oct/2017
RF Cable-1.5m	HUBER+SUHN ER	SUCOFLEX_10 4	MY12582/4	30MHz ~ 26.5GHz	02/Oct/2016	01/Oct/2017

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

56.00 18.83

8.77

9.71

9.71

9.87

9.87

0.11 Average

0.11 QP 0.20 Average

0.20 QP

4.53 21.48 -24.52 46.00 11.66

18.43 24.11 -35.89 60.00 14.04

28.65 -27.35

18.43 18.84 -31.16 50.00

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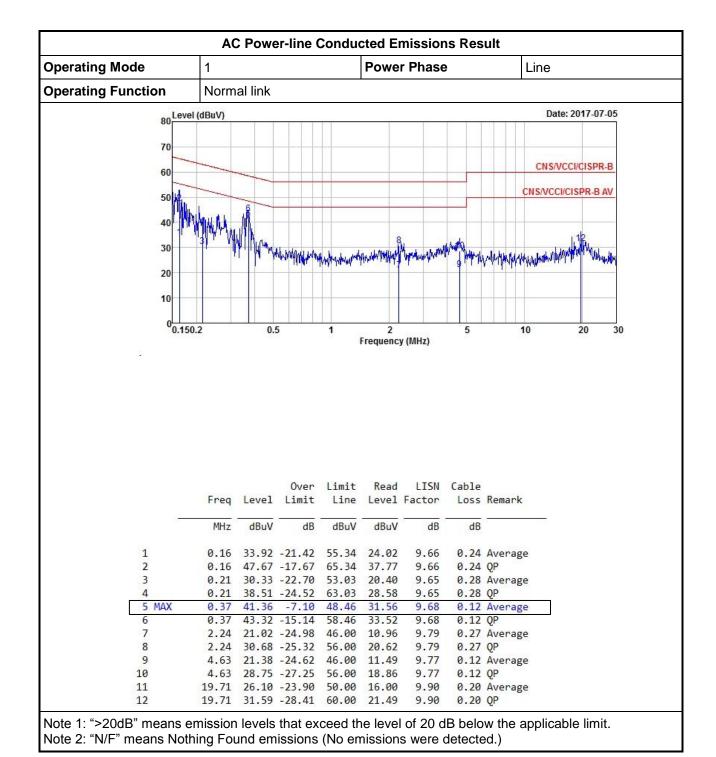
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10

11

4.53





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Appendix B EBW Result

Summary

Mode	Max-N dB	Max-OBW	ITU-Code	Min-N dB	Min-OBW	
	(Hz)	(Hz)		(Hz)	(Hz)	
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-	
5.15-5.25GHz	48.6M	31.709M	31M7D1D	35.25M	16.842M	
5.725-5.85GHz	16.475M	34.933M	34M9D1D	16.425M	33.358M	
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-	-	-	-	
5.15-5.25GHz	43.525M	20.94M	20M9D1D	33.475M	17.741M	
5.725-5.85GHz	17.725M	34.258M	34M3D1D	16.275M	19.14M	
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-	-	-	-	
5.15-5.25GHz	90.2M	39.48M	39M5D1D	73.4M	36.232M	
5.725-5.85GHz	36.35M	64.768M	64M8D1D	35.3M	37.231M	
802.11ac VHT80_Nss1,(MCS0)_3TX	-	-	-	-	-	
5.15-5.25GHz	115.9M	74.563M	74M6D1D	110.5M	74.463M	
5.725-5.85GHz	73.7M	80.36M	80M4D1D	72M	74.863M	

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;

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EBW Result Appendix B

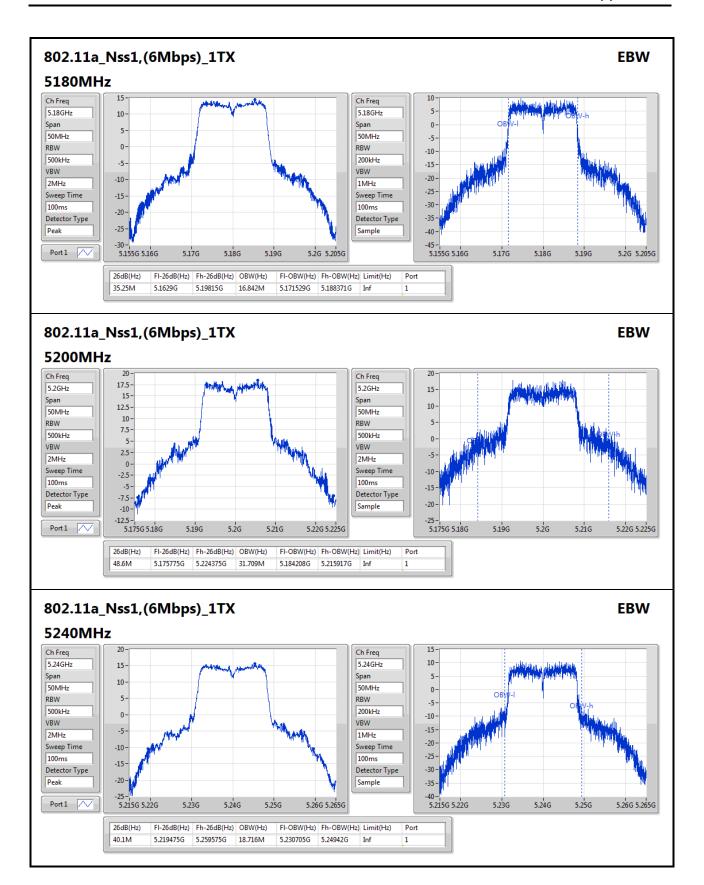
Result

Mode	Result	Limit	Port 1-N dB	Port 1-OBW	Port 2-N dB	Port 2-OBW	Port 3-N dB	Port 3-OBW
		(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-
5180MHz_TnomVnom	Pass	Inf	35.25M	16.842M				
5200MHz_TnomVnom	Pass	Inf	48.6M	31.709M				
5240MHz_TnomVnom	Pass	Inf	40.1M	18.716M				
5745MHz_TnomVnom	Pass	500k	16.475M	34.933M				
5785MHz_TnomVnom	Pass	500k	16.425M	33.933M				
5825MHz_TnomVnom	Pass	500k	16.425M	33.358M				
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5180MHz_TnomVnom	Pass	Inf	33.475M	17.741M	34.05M	17.816M	34.2M	17.866M
5200MHz_TnomVnom	Pass	Inf	39.05M	18.716M	35.05M	17.941M	43.525M	20.94M
5240MHz_TnomVnom	Pass	Inf	40.45M	19.69M	38.325M	18.916M	40.9M	20.39M
5745MHz_TnomVnom	Pass	500k	16.275M	34.258M	17.575M	30.085M	17.625M	20.79M
5785MHz_TnomVnom	Pass	500k	17.55M	33.008M	17.575M	27.636M	17.6M	19.34M
5825MHz_TnomVnom	Pass	500k	17.55M	31.959M	17.65M	25.012M	17.725M	19.14M
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5190MHz_TnomVnom	Pass	Inf	75.3M	36.232M	73.4M	36.482M	74.55M	36.382M
5230MHz_TnomVnom	Pass	Inf	90.05M	38.231M	90.2M	38.281M	88.55M	39.48M
5755MHz_TnomVnom	Pass	500k	35.7M	64.768M	36.35M	47.726M	36.35M	37.231M
5795MHz_TnomVnom	Pass	500k	35.3M	64.168M	36.35M	47.676M	36.35M	38.881M
802.11ac VHT80_Nss1,(MCS0)_3TX	-	-	-	-	-	-	=	-
5210MHz_TnomVnom	Pass	Inf	115.9M	74.563M	113.7M	74.563M	110.5M	74.463M
5775MHz_TnomVnom	Pass	500k	73.6M	80.36M	73.7M	75.562M	72M	74.863M

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;

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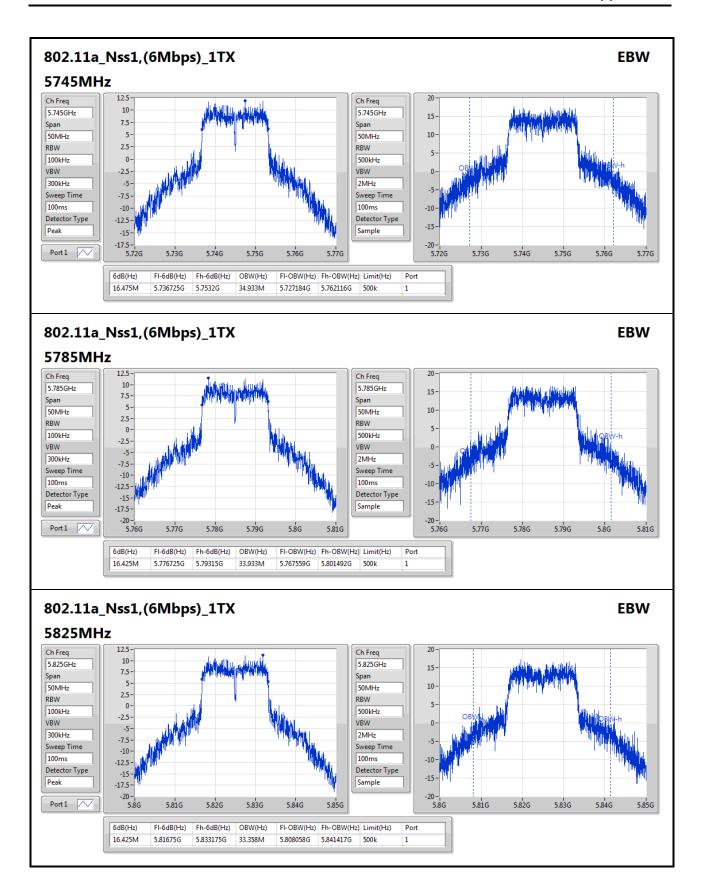
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EBW Result Appendix B

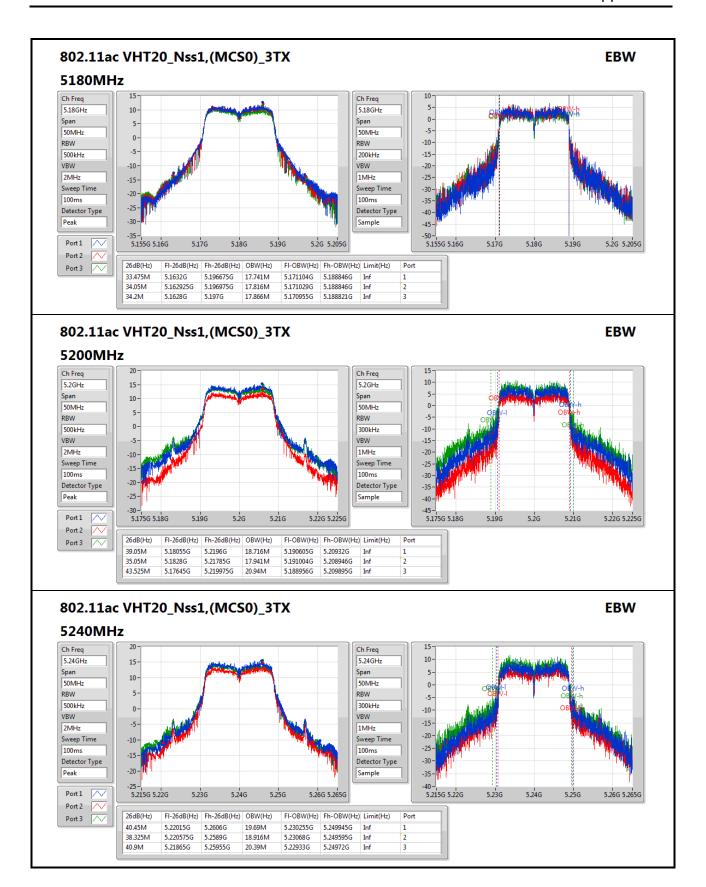


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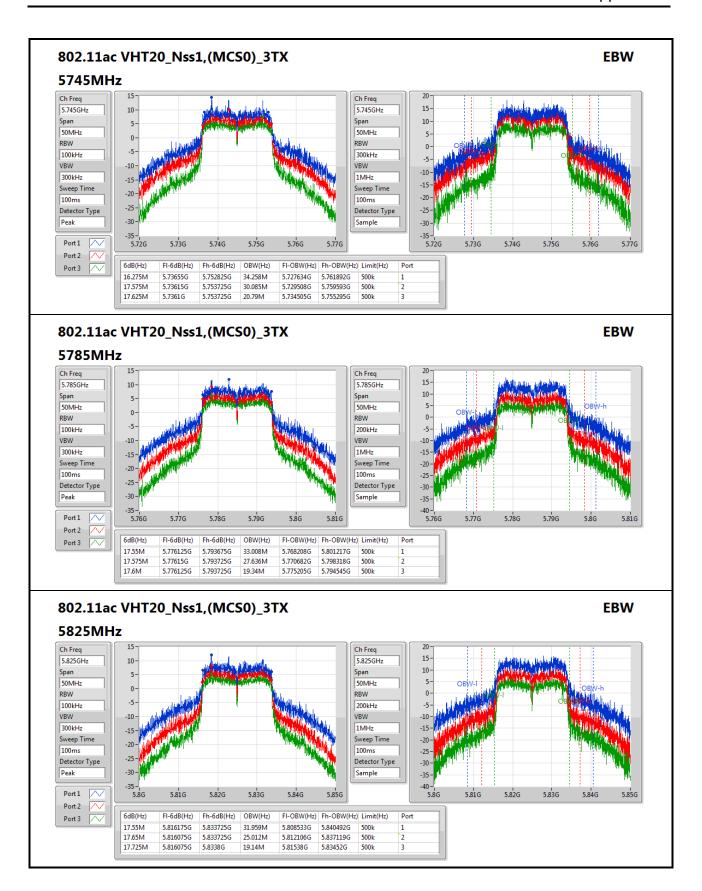
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EBW Result Appendix B



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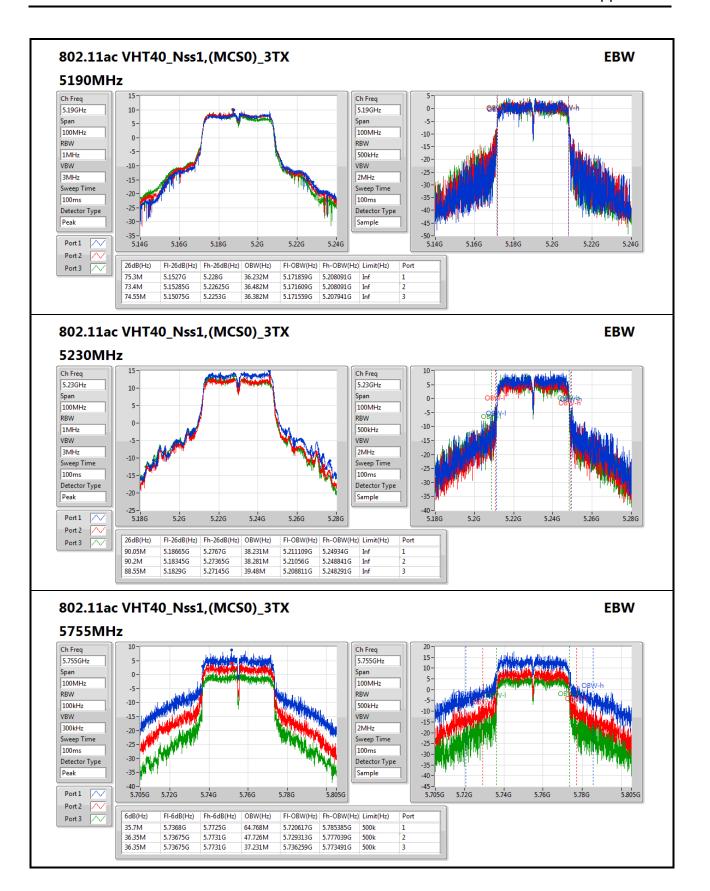
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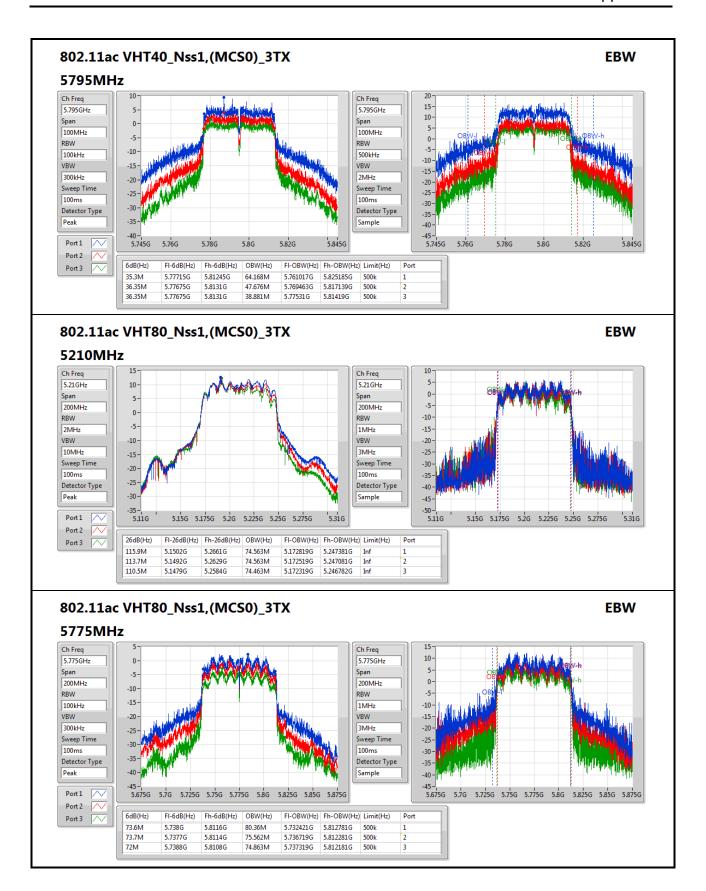
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EBW Result Appendix B



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EBW Result Appendix B



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Power Result Appendix C

Summary

Mode	Total Power	Total Power	EIRP	EIRP
	(dBm)	(W)	(dBm)	(W)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-
5.15-5.25GHz	26.64	0.46132	29.84	0.96383
5.725-5.85GHz	26.38	0.43451	29.58	0.90782
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-	-	-
5.15-5.25GHz	26.81	0.47973	30.01	1.00231
5.725-5.85GHz	28.49	0.70632	31.69	1.47571
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-	-	-
5.15-5.25GHz	24.97	0.31405	28.17	0.65615
5.725-5.85GHz	27.03	0.50466	30.23	1.05439
802.11ac VHT80_Nss1,(MCS0)_3TX	-	-	-	-
5.15-5.25GHz	18.95	0.07852	22.15	0.16406
5.725-5.85GHz	24.32	0.27040	27.52	0.56494

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Power Result Appendix C

Result

Mode	Result	DG	Port 1	Port 2	Port 3	Total Power	Power Limit	EIRP	EIRP Limit
		(dBi)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-	-
5180MHz_TnomVnom	Pass	3.20	22.51			22.51	30.00	25.71	36.00
5200MHz_TnomVnom	Pass	3.20	26.64			26.64	30.00	29.84	36.00
5240MHz_TnomVnom	Pass	3.20	23.90			23.90	30.00	27.10	36.00
5745MHz_TnomVnom	Pass	3.20	26.38			26.38	30.00	29.58	36.00
5785MHz_TnomVnom	Pass	3.20	25.81			25.81	30.00	29.01	36.00
5825MHz_TnomVnom	Pass	3.20	25.68			25.68	30.00	28.88	36.00
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-	-
5180MHz_TnomVnom	Pass	3.20	18.49	18.37	17.69	22.97	30.00	26.17	36.00
5200MHz_TnomVnom	Pass	3.20	21.94	19.11	21.24	25.69	30.00	28.89	36.00
5240MHz_TnomVnom	Pass	3.20	22.74	21.00	22.19	26.81	30.00	30.01	36.00
5745MHz_TnomVnom	Pass	3.20	25.49	23.29	21.44	28.49	30.00	31.69	36.00
5785MHz_TnomVnom	Pass	3.20	24.78	22.46	20.59	27.72	30.00	30.92	36.00
5825MHz_TnomVnom	Pass	3.20	24.46	22.25	20.12	27.41	30.00	30.61	36.00
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-	-
5190MHz_TnomVnom	Pass	3.20	14.49	14.76	14.26	19.28	30.00	22.48	36.00
5230MHz_TnomVnom	Pass	3.20	21.33	19.43	19.56	24.97	30.00	28.17	36.00
5755MHz_TnomVnom	Pass	3.20	24.67	21.59	18.28	27.03	30.00	30.23	36.00
5795MHz_TnomVnom	Pass	3.20	24.13	21.32	18.97	26.75	30.00	29.95	36.00
802.11ac VHT80_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-	-
5210MHz_TnomVnom	Pass	3.20	14.97	14.10	13.29	18.95	30.00	22.15	36.00
5775MHz_TnomVnom	Pass	3.20	21.55	19.26	16.36	24.32	30.00	27.52	36.00

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

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Summary

Mode	PD	EIRP PD
	(dBm/RBW)	(dBm/RBW)
802.11a_Nss1,(6Mbps)_1TX	-	-
5.15-5.25GHz	12.92	16.12
5.725-5.85GHz	11.02	14.22
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-
5.15-5.25GHz	12.98	20.82
5.725-5.85GHz	13.11	20.95
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-
5.15-5.25GHz	7.82	15.66
5.725-5.85GHz	8.13	15.97
802.11ac VHT80_Nss1,(MCS0)_3TX	-	-
5.15-5.25GHz	1.62	9.46
5.725-5.85GHz	4.90	12.74

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

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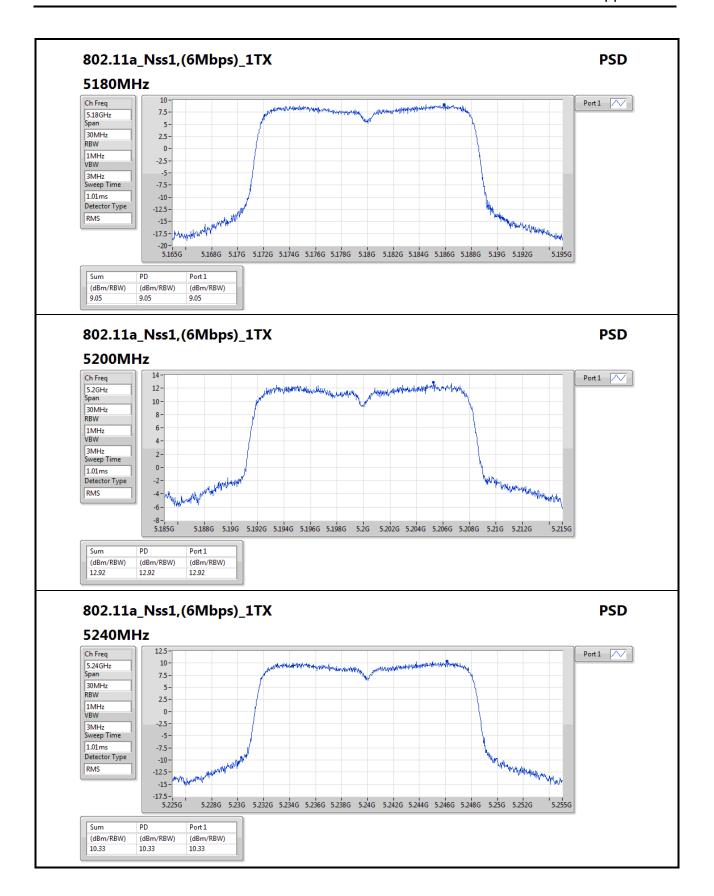


Result

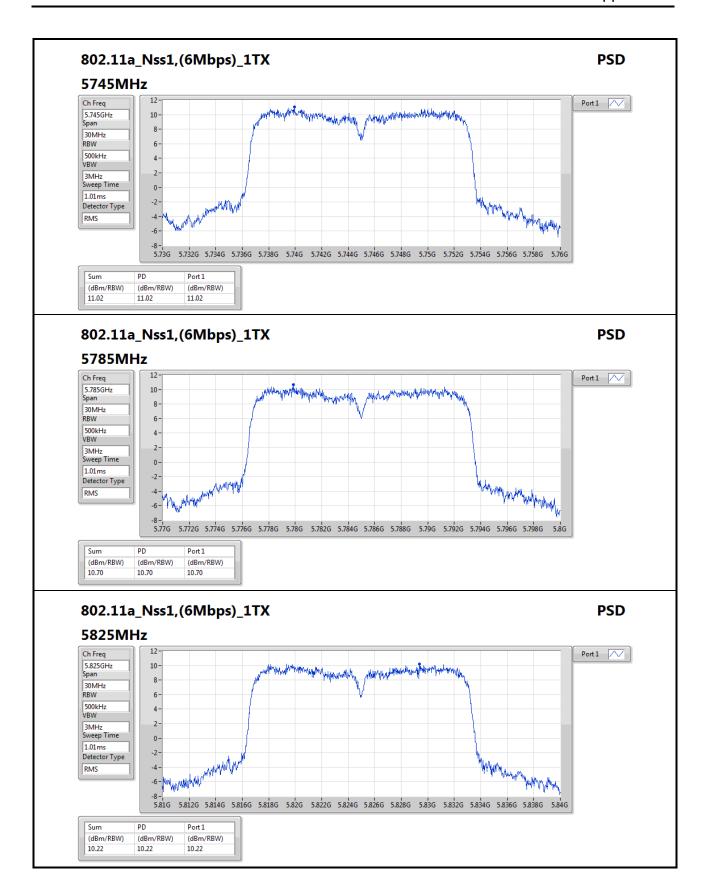
Mode	Result	DG	Port 1	Port 2	Port 3	PD	PD Limit	EIRP PD	EIRP PD Limit
		(dBi)	(dBm/RBW)						
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-	-
5180MHz_TnomVnom	Pass	3.20	9.05			9.05	17.00	12.25	Inf
5200MHz_TnomVnom	Pass	3.20	12.92			12.92	17.00	16.12	Inf
5240MHz_TnomVnom	Pass	3.20	10.33			10.33	17.00	13.53	Inf
5745MHz_TnomVnom	Pass	3.20	11.02			11.02	30.00	14.22	Inf
5785MHz_TnomVnom	Pass	3.20	10.70			10.70	30.00	13.90	Inf
5825MHz_TnomVnom	Pass	3.20	10.22			10.22	30.00	13.42	Inf
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-	-	=	-	-	-	-	-
5180MHz_TnomVnom	Pass	7.84	5.32	5.18	4.84	9.67	15.16	17.51	Inf
5200MHz_TnomVnom	Pass	7.84	8.61	6.08	8.29	12.15	15.16	19.99	Inf
5240MHz_TnomVnom	Pass	7.84	9.05	7.80	8.79	12.98	15.16	20.82	Inf
5745MHz_TnomVnom	Pass	7.84	10.20	8.46	6.49	13.11	28.16	20.95	Inf
5785MHz_TnomVnom	Pass	7.84	9.76	7.56	5.76	12.60	28.16	20.44	Inf
5825MHz_TnomVnom	Pass	7.84	9.22	7.29	5.34	12.05	28.16	19.89	Inf
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-	-
5190MHz_TnomVnom	Pass	7.84	-1.94	-1.97	-2.20	2.65	15.16	10.49	Inf
5230MHz_TnomVnom	Pass	7.84	4.26	2.34	2.49	7.82	15.16	15.66	Inf
5755MHz_TnomVnom	Pass	7.84	5.93	2.56	-0.79	8.12	28.16	15.96	Inf
5795MHz_TnomVnom	Pass	7.84	5.54	2.70	0.51	8.13	28.16	15.97	Inf
802.11ac VHT80_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-	-
5210MHz_TnomVnom	Pass	7.84	-2.33	-3.15	-2.97	1.62	15.16	9.46	Inf
5775MHz_TnomVnom	Pass	7.84	2.08	0.12	-2.24	4.90	28.16	12.74	Inf

SPORTON INTERNATIONAL INC. Page No. : D2 of D8

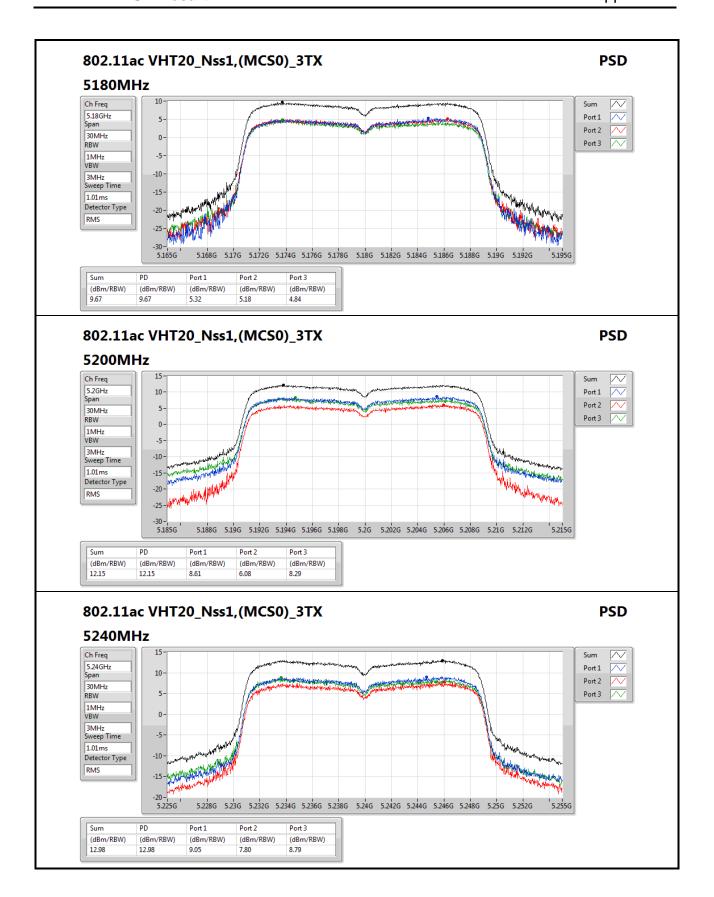
DG = Directional Gain; RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X power density;



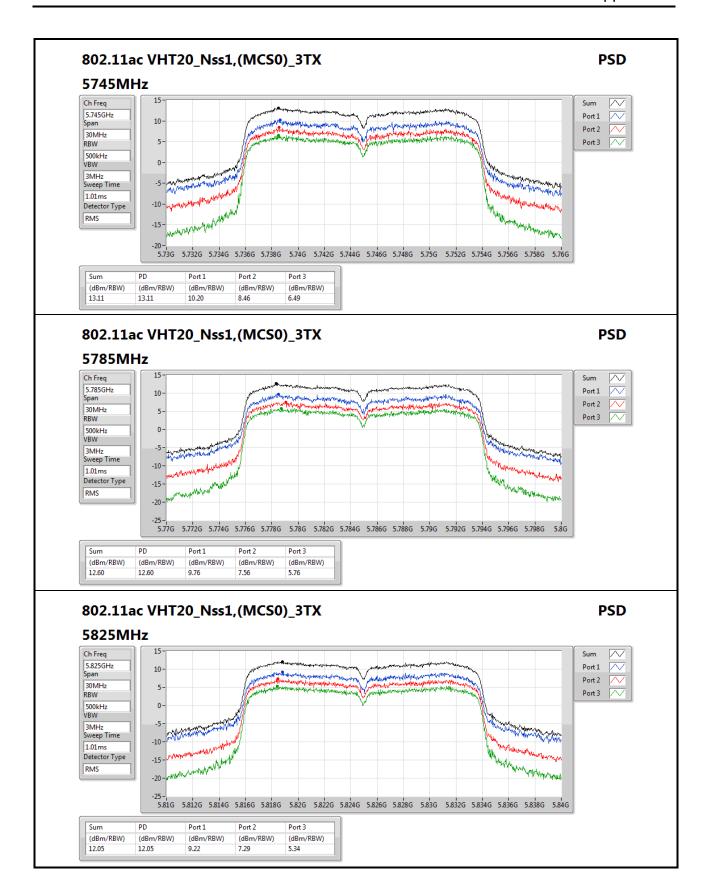
SPORTON INTERNATIONAL INC.



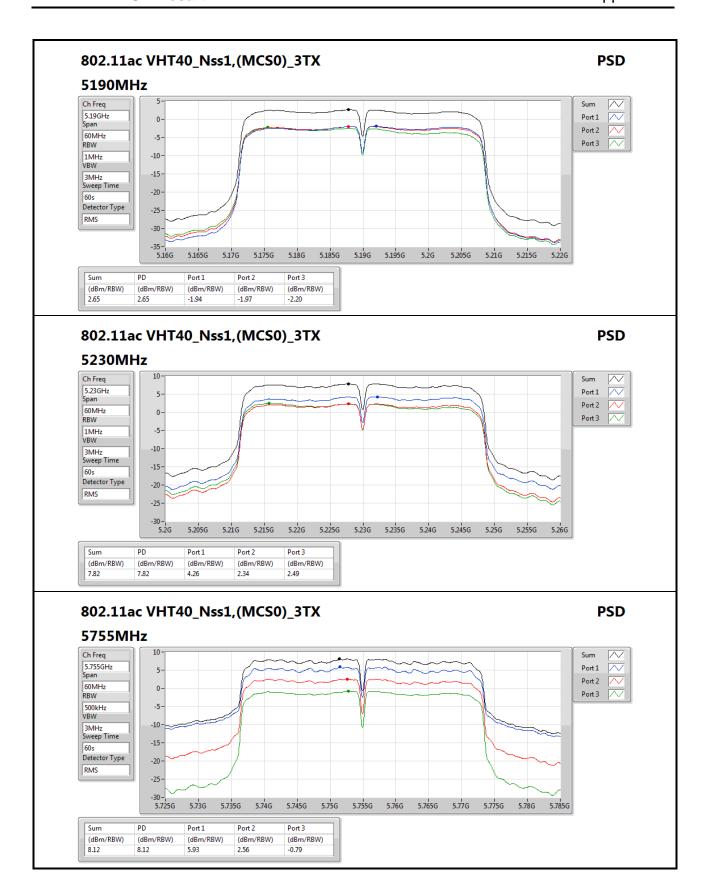
SPORTON INTERNATIONAL INC.



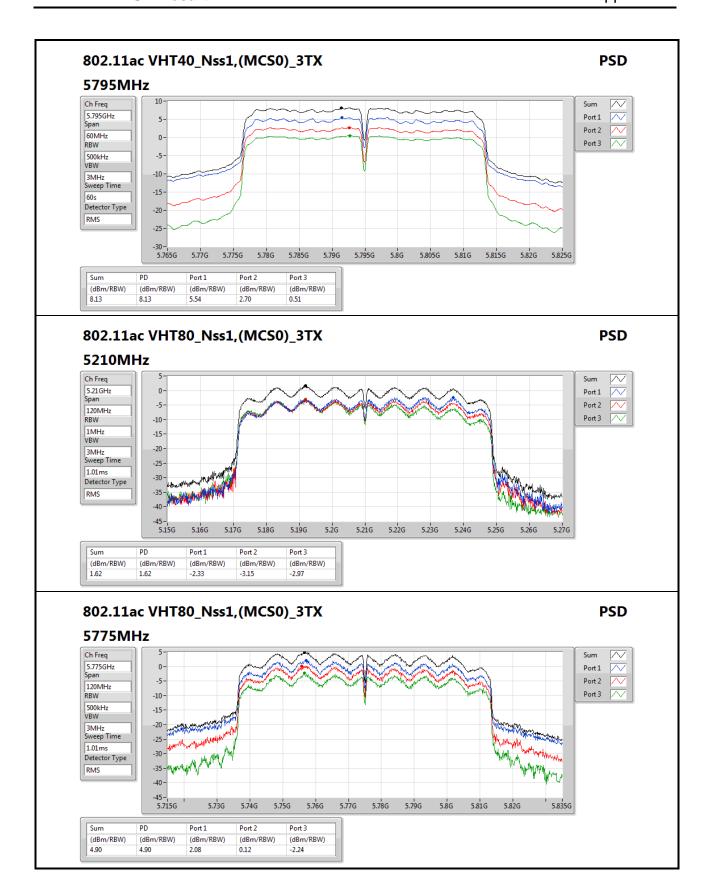
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RSE below 1GHz Result

Appendix E.1

742738

Summary

Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
Mode 1	Pass	PK	94.02M	38.86	43.50	-4.64	-21.08	3	Vertical	0	1.00	-

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RSE below 1GHz Result

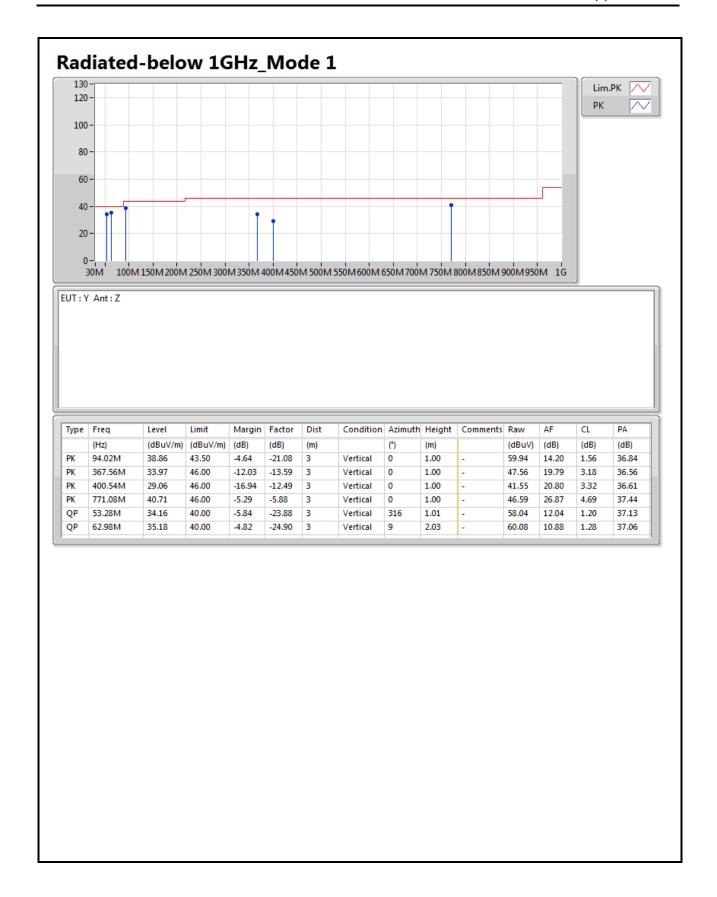
Appendix E.1

Result

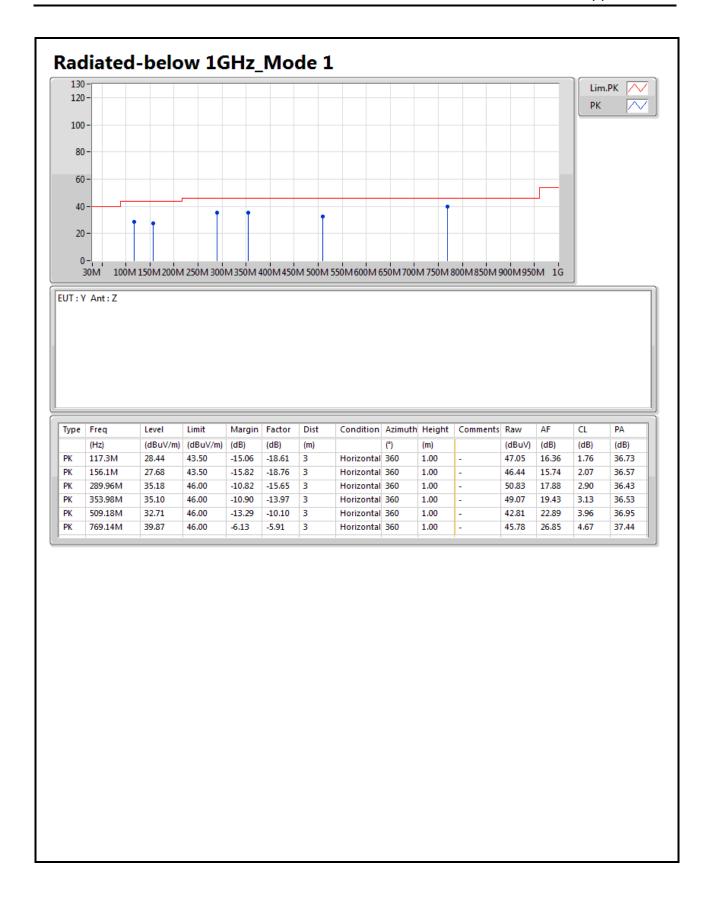
Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
Mode 1	Pass	PK	117.3M	28.44	43.50	-15.06	-18.61	3	Horizontal	360	1.00	-
Mode 1	Pass	PK	156.1M	27.68	43.50	-15.82	-18.76	3	Horizontal	360	1.00	-
Mode 1	Pass	PK	289.96M	35.18	46.00	-10.82	-15.65	3	Horizontal	360	1.00	-
Mode 1	Pass	PK	353.98M	35.10	46.00	-10.90	-13.97	3	Horizontal	360	1.00	-
Mode 1	Pass	PK	509.18M	32.71	46.00	-13.29	-10.10	3	Horizontal	360	1.00	-
Mode 1	Pass	PK	769.14M	39.87	46.00	-6.13	-5.91	3	Horizontal	360	1.00	-
Mode 1	Pass	PK	94.02M	38.86	43.50	-4.64	-21.08	3	Vertical	0	1.00	-
Mode 1	Pass	PK	367.56M	33.97	46.00	-12.03	-13.59	3	Vertical	0	1.00	-
Mode 1	Pass	PK	400.54M	29.06	46.00	-16.94	-12.49	3	Vertical	0	1.00	-
Mode 1	Pass	PK	771.08M	40.71	46.00	-5.29	-5.88	3	Vertical	0	1.00	-
Mode 1	Pass	QP	53.28M	34.16	40.00	-5.84	-23.88	3	Vertical	316	1.01	-
Mode 1	Pass	QP	62.98M	35.18	40.00	-4.82	-24.90	3	Vertical	9	2.03	-

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Appendix E.2

Summary

Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-	-	-	-	-
5.15-5.25GHz	Pass	AV	5.149995G	53.81	54.00	-0.19	2.90	3	Horizontal	99	1.50	-
802.11ac VHT80_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-	-	-	-	-
5.725-5.85GHz	Pass	PK	5.6442G	67.50	68.20	-0.70	3.39	3	Horizontal	251	1.87	-

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Appendix E.2

Result

Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	AV	5.149995G	53.60	54.00	-0.40	2.90	3	Horizontal	84	1.50	-
5180MHz	Pass	AV	5.186G	101.54	Inf	-Inf	2.94	3	Horizontal	84	1.50	-
5180MHz	Pass	PK	5.1476G	66.96	74.00	-7.04	2.90	3	Horizontal	84	1.50	-
5180MHz	Pass	PK	5.1858G	109.04	Inf	-Inf	2.94	3	Horizontal	84	1.50	-
5180MHz	Pass	AV	10.36G	46.91	54.00	-7.09	12.78	3	Horizontal	223	1.95	-
5180MHz	Pass	AV	15.54G	47.67	54.00	-6.33	14.65	3	Horizontal	201	1.83	-
5180MHz	Pass	PK	10.36G	56.25	74.00	-17.75	12.78	3	Horizontal	223	1.95	-
5180MHz	Pass	PK	15.54G	59.98	74.00	-14.02	14.65	3	Horizontal	201	1.83	-
5180MHz	Pass	AV	10.36G	44.46	54.00	-9.54	12.78	3	Vertical	43	2.76	-
5180MHz	Pass	AV	15.54G	46.36	54.00	-7.64	14.65	3	Vertical	265	1.92	-
5180MHz	Pass	PK	10.36G	55.89	74.00	-18.11	12.78	3	Vertical	43	2.76	-
5180MHz	Pass	PK	15.54G	58.22	74.00	-15.78	14.65	3	Vertical	265	1.92	-
5200MHz	Pass	AV	5.149995G	52.92	54.00	-1.08	2.90	3	Horizontal	84	1.50	-
5200MHz	Pass	AV	5.2056G	104.59	Inf	-Inf	2.96	3	Horizontal	84	1.50	-
5200MHz	Pass	PK	5.1496G	66.07	74.00	-7.93	2.90	3	Horizontal	84	1.50	-
5200MHz	Pass	PK	5.2028G	112.73	Inf	-Inf	2.95	3	Horizontal	84	1.50	-
5200MHz	Pass	AV	10.4G	46.64	54.00	-7.36	12.89	3	Horizontal	219	2.00	-
5200MHz	Pass	AV	15.6G	50.98	54.00	-3.02	14.43	3	Horizontal	199	1.79	-
5200MHz	Pass	PK	10.4G	56.34	74.00	-17.66	12.89	3	Horizontal	219	2.00	-
5200MHz	Pass	PK	15.6G	62.91	74.00	-11.09	14.43	3	Horizontal	199	1.79	-
5200MHz	Pass	AV	10.4G	45.06	54.00	-8.94	12.89	3	Vertical	53	3.01	_
5200MHz	Pass	AV	15.6G	48.67	54.00	-5.33	14.43	3	Vertical	205	1.08	_
5200MHz	Pass	PK	10.4G	55.57	74.00	-18.43	12.89	3	Vertical	53	3.01	_
5200MHz	Pass	PK	15.6G	61.15	74.00	-12.85	14.43	3	Vertical	205	1.08	_
5240MHz	Pass	AV	5.149995G	53.22	54.00	-0.78	2.90	3	Horizontal	86	1.50	_
5240MHz	Pass	AV	5.2346G	104.88	Inf	-Inf	2.99	3	Horizontal	86	1.50	_
5240MHz	Pass	AV	5.350005G	51.53	54.00	-2.47	3.11	3	Horizontal	86	1.50	_
5240MHz	Pass	PK	5.144G	66.42	74.00	-7.58	2.89	3	Horizontal	86	1.50	_
5240MHz	Pass	PK	5.2328G	113.37	Inf	-Inf	2.99	3	Horizontal	86	1.50	_
5240MHz	Pass	PK	5.350005G	64.67	74.00	-9.33	3.11	3	Horizontal	86	1.50	_
5240MHz	Pass	AV	10.48G	45.60	54.00	-8.40	13.10	3	Horizontal	204	3.01	_
5240MHz	Pass	AV	15.72G	52.67	54.00	-1.33	13.99	3	Horizontal	199	1.76	_
5240MHz	Pass	PK	10.48G	55.16	74.00	-18.84	13.10	3	Horizontal	204	3.01	_
5240MHz	Pass	PK	15.72G	64.49	74.00	-9.51	13.99	3	Horizontal	199	1.76	-
5240MHz	Pass	AV	10.48G	45.28	54.00	-8.72	13.10	3	Vertical	51	2.98	-
5240MHz	Pass	AV	15.72G	50.36	54.00	-3.64	13.99	3	Vertical	200	1.08	_
5240MHz	Pass	PK	10.48G	55.63	74.00	-18.37	13.10	3	Vertical	51	2.98	_
5240MHz	Pass	PK	15.72G	61.98	74.00	-12.02	13.99	3	Vertical	200	1.08	_
5745MHz	Pass	AV	5.751G	102.51	Inf	-Inf	3.48	3	Horizontal	275	3.66	-
5745MHz	Pass	AV	11.49G	47.43	54.00	-6.57	13.63	3	Horizontal	6	1.50	_
5745MHz	Pass	PK	5.6286G	60.46	68.20	-7.74	3.38	3	Horizontal	275	3.66	-
5745MHz	Pass	PK	5.7474G	110.87	Inf	-Inf	3.47	3	Horizontal	275	3.66	 -
5745MHz	Pass	PK	5.9718G	59.20	68.20	-9.00	3.66	3	Horizontal	275	3.66	
5745MHz	Pass	PK	11.49G	56.84	74.00	-17.16	13.63	3	Horizontal	6	1.50	
5745MHz	Pass	AV	11.49G	46.35	54.00	-7.65	13.63	3	Vertical	51	3.24	-
5745MHz	Pass	PK	11.49G	56.13	74.00	-17.87	13.63	3	Vertical	51	3.24	
5785MHz	Pass	AV	5.791G	101.58	Inf	-17.07 -Inf	3.50	3	Horizontal	273	3.59	-
37 OUNITZ	FdSS	AV	5.1816	101.00	1111	-1111	J.3U	ა	nunzontal	213	3.39	

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Appendix E.2

Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
5785MHz	Pass	AV	11.57G	47.41	54.00	-6.59	13.49	3	Horizontal	15	1.50	-
5785MHz	Pass	PK	5.5726G	59.02	68.20	-9.18	3.33	3	Horizontal	273	3.59	-
5785MHz	Pass	PK	5.7874G	109.66	Inf	-Inf	3.50	3	Horizontal	273	3.59	-
5785MHz	Pass	PK	5.9626G	58.37	68.20	-9.83	3.65	3	Horizontal	273	3.59	-
5785MHz	Pass	PK	11.57G	56.69	74.00	-17.31	13.49	3	Horizontal	15	1.50	-
5785MHz	Pass	AV	11.57G	45.51	54.00	-8.49	13.49	3	Vertical	53	3.69	-
5785MHz	Pass	PK	11.57G	55.81	74.00	-18.19	13.49	3	Vertical	53	3.69	-
5825MHz	Pass	AV	5.831G	102.75	Inf	-Inf	3.54	3	Horizontal	252	3.69	-
5825MHz	Pass	AV	11.65G	47.17	54.00	-6.83	13.35	3	Horizontal	5	1.50	-
5825MHz	Pass	PK	5.5814G	58.31	68.20	-9.89	3.34	3	Horizontal	252	3.69	_
5825MHz	Pass	PK	5.8274G	110.96	Inf	-Inf	3.53	3	Horizontal	252	3.69	_
5825MHz	Pass	PK	5.9594G	58.10	68.20	-10.10	3.65	3	Horizontal	252	3.69	-
5825MHz	Pass	PK	11.65G	57.46	74.00	-16.54	13.35	3		5	1.50	-
									Horizontal			-
5825MHz	Pass	AV	11.65G	45.31	54.00	-8.69	13.35	3	Vertical	52	3.64	-
5825MHz	Pass	PK	11.65G	56.56	74.00	-17.44	13.35	3	Vertical	52	3.64	-
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-		-	-	-	-	-	-	-	-	-
5180MHz	Pass	AV	5.149995G	53.71	54.00	-0.29	2.90	3	Horizontal	101	3.63	-
5180MHz	Pass	AV	5.1854G	103.55	Inf	-Inf	2.94	3	Horizontal	101	3.63	-
5180MHz	Pass	AV	15.54G	45.16	54.00	-8.84	14.65	3	Horizontal	0	1.50	-
5180MHz	Pass	PK	5.149995G	67.80	74.00	-6.20	2.90	3	Horizontal	101	3.63	-
5180MHz	Pass	PK	5.1744G	111.05	Inf	-Inf	2.92	3	Horizontal	101	3.63	-
5180MHz	Pass	PK	15.54G	58.05	74.00	-15.95	14.65	3	Horizontal	0	1.50	-
5180MHz	Pass	AV	15.54G	44.89	54.00	-9.11	14.65	3	Vertical	360	1.50	-
5180MHz	Pass	PK	15.54G	57.02	74.00	-16.98	14.65	3	Vertical	360	1.50	-
5200MHz	Pass	AV	5.149995G	53.68	54.00	-0.32	2.90	3	Horizontal	251	3.62	-
5200MHz	Pass	AV	5.2052G	109.21	Inf	-Inf	2.96	3	Horizontal	251	3.62	-
5200MHz	Pass	AV	15.54G	45.26	54.00	-8.74	14.65	3	Horizontal	360	1.50	-
5200MHz	Pass	PK	5.149995G	66.08	74.00	-7.92	2.90	3	Horizontal	251	3.62	-
5200MHz	Pass	PK	5.1948G	116.07	Inf	-Inf	2.94	3	Horizontal	251	3.62	-
5200MHz	Pass	PK	15.54G	58.07	74.00	-15.93	14.65	3	Horizontal	360	1.50	-
5200MHz	Pass	AV	15.6G	45.10	54.00	-8.90	14.43	3	Vertical	0	1.50	-
5200MHz	Pass	PK	15.6G	57.63	74.00	-16.37	14.43	3	Vertical	0	1.50	-
5240MHz	Pass	AV	5.1494G	52.95	54.00	-1.05	2.90	3	Horizontal	250	1.82	-
5240MHz	Pass	AV	5.2454G	104.53	Inf	-Inf	3.00	3	Horizontal	250	1.82	-
5240MHz	Pass	AV	5.3516G	52.13	54.00	-1.87	3.11	3	Horizontal	250	1.82	-
5240MHz	Pass	AV	15.72G	44.66	54.00	-9.34	13.99	3	Horizontal	0	1.50	-
5240MHz	Pass	PK	5.1476G	69.33	74.00	-4.67	2.90	3	Horizontal	250	1.82	-
5240MHz	Pass	PK	5.2364G	113.89	Inf	-Inf	2.99	3	Horizontal	250	1.82	-
5240MHz	Pass	PK	5.351G	68.46	74.00	-5.54	3.11	3	Horizontal	250	1.82	-
5240MHz	Pass	PK	15.72G	57.47	74.00	-16.53	13.99	3	Horizontal	0	1.50	-
5240MHz	Pass	AV	15.72G	44.23	54.00	-9.77	13.99	3	Vertical	360	1.50	-
5240MHz	Pass	PK	15.72G	56.94	74.00	-17.06	13.99	3	Vertical	360	1.50	-
5745MHz	Pass	AV	5.739G	108.90	Inf	-Inf	3.47	3	Horizontal	92	1.00	-
5745MHz	Pass	AV	11.49G	46.64	54.00	-7.36	13.63	3	Horizontal	8	1.50	-
5745MHz	Pass	PK	5.5434G	59.00	68.20	-9.20	3.30	3	Horizontal	92	1.00	_
5745MHz	Pass	PK	5.751G	116.84	Inf	-9.20 -Inf	3.48	3	Horizontal	92	1.00	_
5745MHz	Pass	PK	5.9742G	57.51	68.20	-10.69	3.66	3	Horizontal	92	1.00	-
		PK										
5745MHz	Pass		11.49G	57.13	74.00	-16.87	13.63	3	Horizontal	8	1.50	-
5745MHz	Pass	AV	11.49G	45.00	54.00	-9.00	13.63	3	Vertical	45	3.15	-

SPORTON INTERNATIONAL INC.



Appendix E.2

Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
5745MHz	Pass	PK	11.49G	56.06	74.00	-17.94	13.63	3	Vertical	45	3.15	-
5785MHz	Pass	AV	5.779G	109.79	Inf	-Inf	3.50	3	Horizontal	250	1.93	-
5785MHz	Pass	AV	11.57G	46.73	54.00	-7.27	13.49	3	Horizontal	9	1.66	-
5785MHz	Pass	PK	5.6314G	58.35	68.20	-9.85	3.38	3	Horizontal	250	1.93	-
5785MHz	Pass	PK	5.7814G	117.65	Inf	-Inf	3.50	3	Horizontal	250	1.93	-
5785MHz	Pass	PK	5.971G	57.94	68.20	-10.26	3.66	3	Horizontal	250	1.93	-
5785MHz	Pass	PK	11.57G	57.56	74.00	-16.44	13.49	3	Horizontal	9	1.66	-
5785MHz	Pass	AV	11.57G	44.79	54.00	-9.21	13.49	3	Vertical	46	3.17	-
5785MHz	Pass	PK	11.57G	56.59	74.00	-17.41	13.49	3	Vertical	46	3.17	-
5825MHz	Pass	AV	5.819G	108.96	Inf	-Inf	3.53	3	Horizontal	251	1.88	-
5825MHz	Pass	AV	11.65G	46.89	54.00	-7.11	13.35	3	Horizontal	10	1.50	-
5825MHz	Pass	PK	5.6006G	58.85	68.20	-9.35	3.35	3	Horizontal	251	1.88	-
5825MHz	Pass	PK	5.8214G	117.13	Inf	-Inf	3.53	3	Horizontal	251	1.88	_
5825MHz	Pass	PK	5.939G	58.38	68.20	-9.82	3.63	3	Horizontal	251	1.88	_
5825MHz	Pass	PK	11.65G	56.66	74.00	-17.34	13.35	3	Horizontal	10	1.50	_
5825MHz	Pass	AV	11.65G	45.14	54.00	-8.86	13.35	3	Vertical	45	3.20	_
5825MHz	Pass	PK	11.65G	55.81	74.00	-18.19	13.35	3	Vertical	45	3.20	_
802.11ac VHT40_Nss1,(MCS0)_3TX	- 1 433	-	11.000	-	-	-10.13	10.00	-	- vertical	-	0.20	-
5190MHz	Pass	AV	5.149995G	53.81	54.00	-0.19	2.90	3	Horizontal	99	1.50	-
5190MHz	Pass	AV	5.1884G	97.13	Inf	-0.19 -Inf	2.94	3		99	1.50	-
									Horizontal			-
5190MHz	Pass	AV	15.57G	44.87	54.00	-9.13	14.54	3	Horizontal	0	1.50	-
5190MHz	Pass	PK	5.149995G	65.07	74.00	-8.93	2.90	3	Horizontal	99	1.50	-
5190MHz	Pass	PK	5.1748G	105.00	Inf	-Inf	2.92	3	Horizontal	99	1.50	-
5190MHz	Pass	PK	15.57G	58.49	74.00	-15.51	14.54	3	Horizontal	0	1.50	-
5190MHz	Pass	AV	15.57G	44.62	54.00	-9.38	14.54	3	Vertical	360	1.50	-
5190MHz	Pass	PK	15.57G	58.14	74.00	-15.86	14.54	3	Vertical	360	1.50	-
5230MHz	Pass	AV	5.149995G	53.15	54.00	-0.85	2.90	3	Horizontal	81	2.80	-
5230MHz	Pass	AV	5.2276G	104.33	Inf	-Inf	2.98	3	Horizontal	81	2.80	-
5230MHz	Pass	AV	10.46G	45.17	54.00	-8.83	13.05	3	Horizontal	219	1.86	-
5230MHz	Pass	AV	15.69G	44.70	54.00	-9.30	14.10	3	Horizontal	0	1.50	-
5230MHz	Pass	PK	5.1468G	63.64	74.00	-10.36	2.90	3	Horizontal	81	2.80	-
5230MHz	Pass	PK	5.226G	112.31	Inf	-Inf	2.98	3	Horizontal	81	2.80	-
5230MHz	Pass	PK	10.46G	56.10	74.00	-17.90	13.05	3	Horizontal	219	1.86	-
5230MHz	Pass	PK	15.69G	57.38	74.00	-16.62	14.10	3	Horizontal	0	1.50	-
5230MHz	Pass	AV	15.69G	44.60	54.00	-9.40	14.10	3	Vertical	360	1.50	-
5230MHz	Pass	PK	15.69G	57.05	74.00	-16.95	14.10	3	Vertical	360	1.50	-
5755MHz	Pass	AV	5.743G	103.15	Inf	-Inf	3.47	3	Horizontal	250	1.32	-
5755MHz	Pass	AV	11.51G	46.62	54.00	-7.38	13.59	3	Horizontal	7	1.68	-
5755MHz	Pass	PK	5.6494G	67.27	68.20	-0.93	3.39	3	Horizontal	250	1.32	-
5755MHz	Pass	PK	5.7406G	111.02	Inf	-Inf	3.47	3	Horizontal	250	1.32	-
5755MHz	Pass	PK	5.9662G	58.05	68.20	-10.15	3.65	3	Horizontal	250	1.32	-
5755MHz	Pass	PK	11.51G	57.19	74.00	-16.81	13.59	3	Horizontal	7	1.68	-
5755MHz	Pass	AV	11.51G	44.73	54.00	-9.27	13.59	3	Vertical	52	3.08	-
5755MHz	Pass	PK	11.51G	55.94	74.00	-18.06	13.59	3	Vertical	52	3.08	-
5795MHz	Pass	AV	5.8082G	104.35	Inf	-Inf	3.52	3	Horizontal	248	3.69	-
5795MHz	Pass	AV	11.59G	47.07	54.00	-6.93	13.46	3	Horizontal	8	1.60	-
5795MHz	Pass	PK	5.651G	60.61	68.94	-8.33	3.40	3	Horizontal	248	3.69	-
5795MHz	Pass	PK	5.807G	112.74	Inf	-Inf	3.52	3	Horizontal	248	3.69	-
5795MHz	Pass	PK	5.9534G	58.01	68.20	-10.19	3.64	3	Horizontal	248	3.69	-

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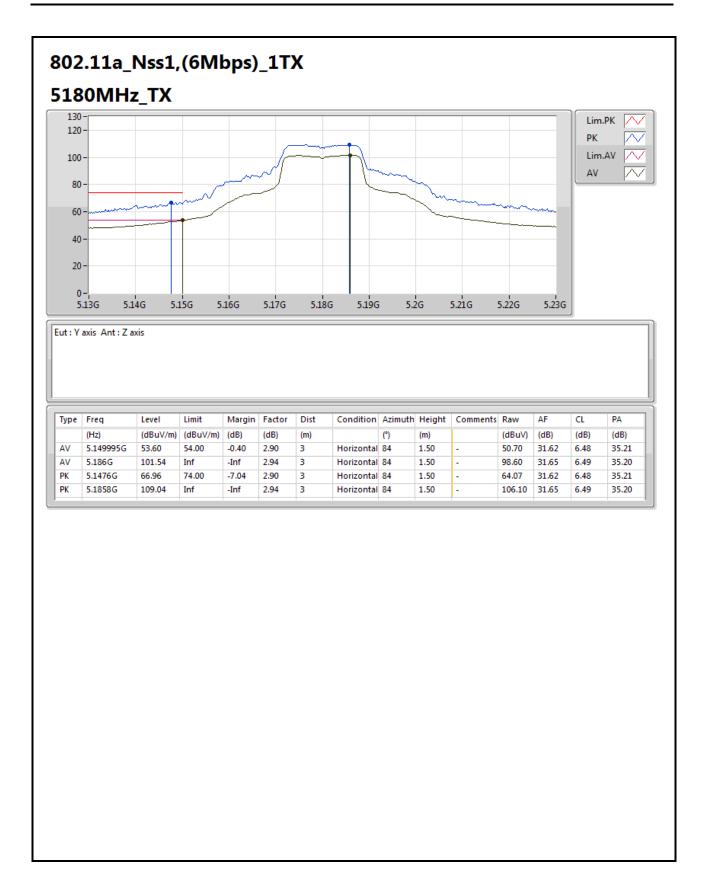


Appendix E.2

Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
5795MHz	Pass	PK	11.59G	57.30	74.00	-16.70	13.46	3	Horizontal	8	1.60	-
5795MHz	Pass	AV	11.59G	44.85	54.00	-9.15	13.46	3	Vertical	49	3.10	-
5795MHz	Pass	PK	11.59G	56.41	74.00	-17.59	13.46	3	Vertical	49	3.10	-
802.11ac VHT80_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	AV	5.148G	53.27	54.00	-0.73	2.90	3	Horizontal	83	3.36	-
5210MHz	Pass	AV	5.228G	96.07	Inf	-Inf	2.98	3	Horizontal	83	3.36	-
5210MHz	Pass	AV	5.374G	45.87	54.00	-8.13	3.13	3	Horizontal	83	3.36	-
5210MHz	Pass	AV	15.63G	45.06	54.00	-8.94	14.32	3	Horizontal	0	1.50	-
5210MHz	Pass	PK	5.149995G	64.44	74.00	-9.56	2.90	3	Horizontal	83	3.36	-
5210MHz	Pass	PK	5.228G	103.83	Inf	-Inf	2.98	3	Horizontal	83	3.36	-
5210MHz	Pass	PK	5.433G	56.65	74.00	-17.35	3.20	3	Horizontal	83	3.36	-
5210MHz	Pass	PK	15.63G	57.88	74.00	-16.12	14.32	3	Horizontal	0	1.50	-
5210MHz	Pass	AV	15.63G	44.94	54.00	-9.06	14.32	3	Vertical	360	1.50	-
5210MHz	Pass	PK	15.63G	57.50	74.00	-16.50	14.32	3	Vertical	360	1.50	-
5775MHz	Pass	AV	5.757G	103.66	Inf	-Inf	3.48	3	Horizontal	251	1.87	-
5775MHz	Pass	AV	11.55G	46.50	54.00	-7.50	13.52	3	Horizontal	8	1.50	-
5775MHz	Pass	PK	5.6442G	67.50	68.20	-0.70	3.39	3	Horizontal	251	1.87	-
5775MHz	Pass	PK	5.7558G	111.16	Inf	-Inf	3.48	3	Horizontal	251	1.87	-
5775MHz	Pass	PK	5.979G	58.90	68.20	-9.30	3.66	3	Horizontal	251	1.87	-
5775MHz	Pass	PK	11.55G	56.63	74.00	-17.37	13.52	3	Horizontal	8	1.50	-
5775MHz	Pass	AV	11.55G	44.51	54.00	-9.49	13.52	3	Vertical	46	3.59	-
5775MHz	Pass	PK	11.55G	55.47	74.00	-18.53	13.52	3	Vertical	46	3.59	-

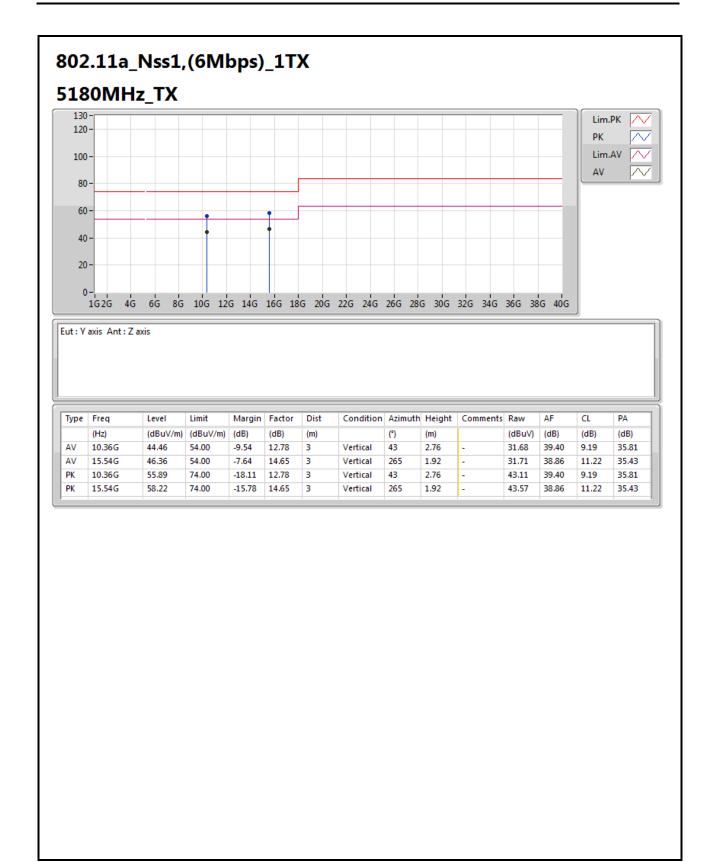
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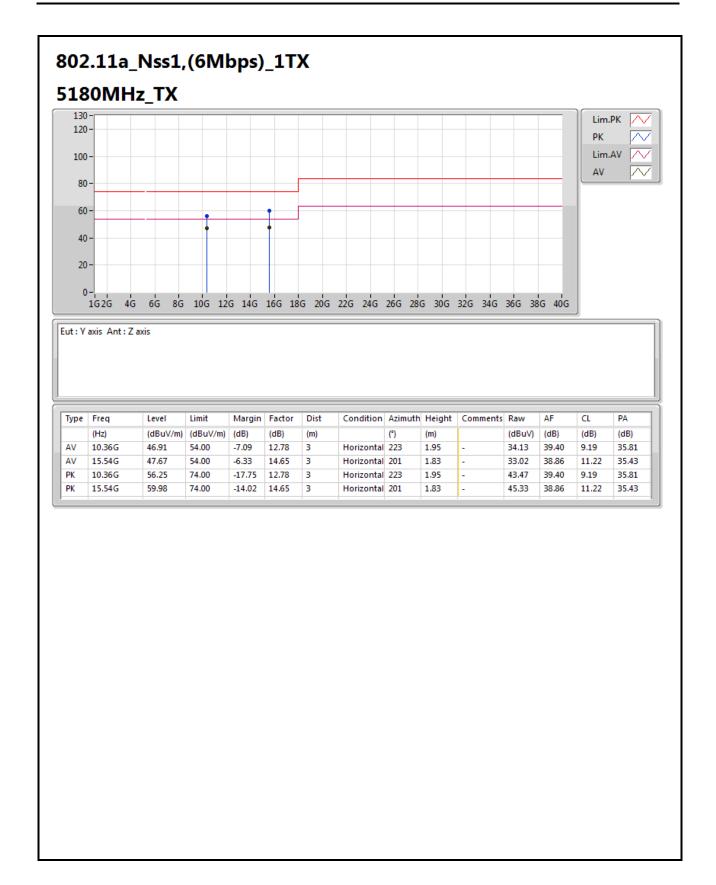
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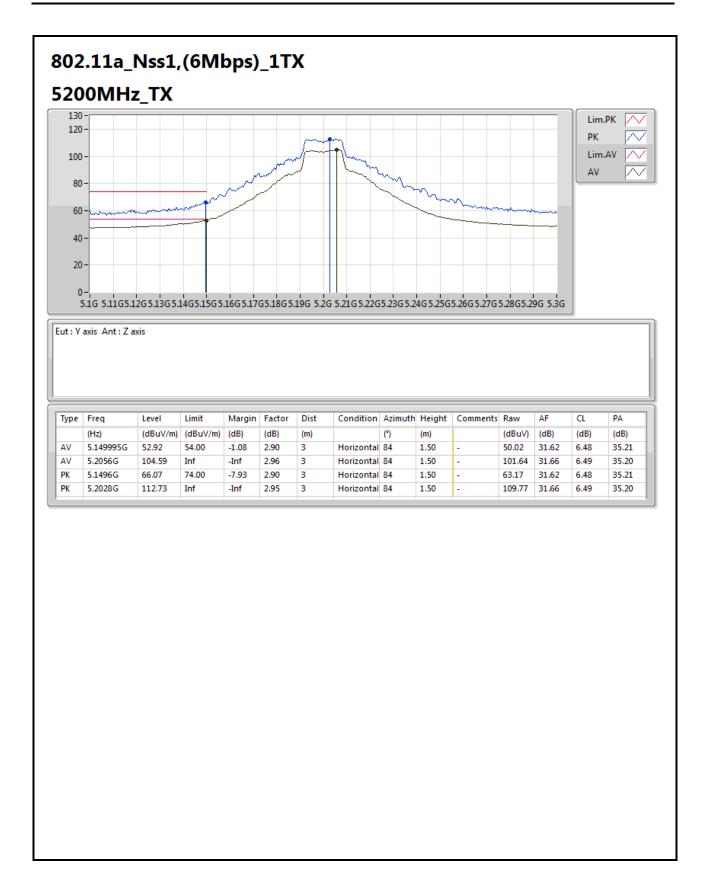
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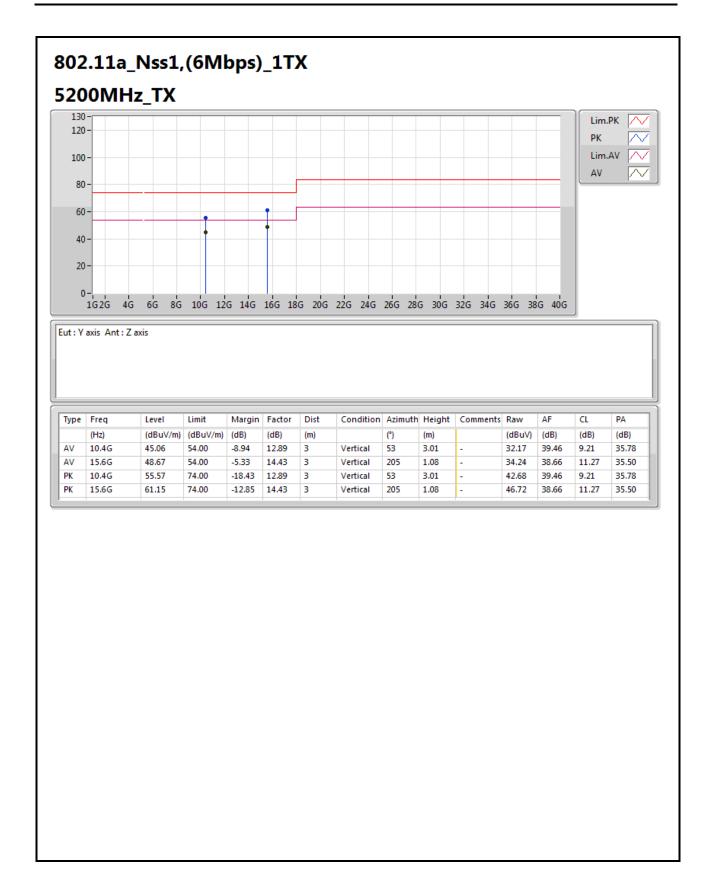
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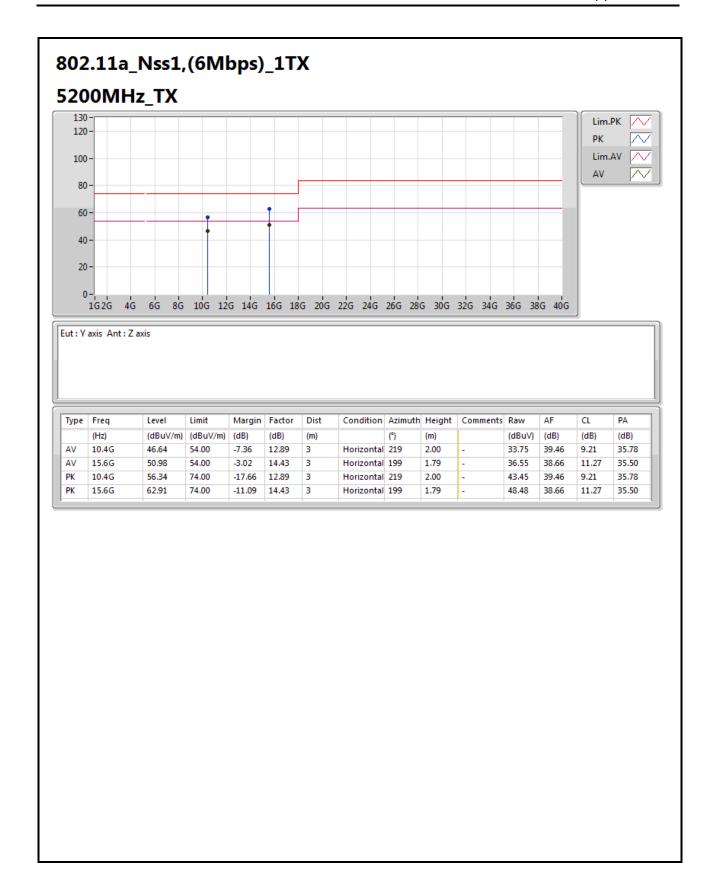
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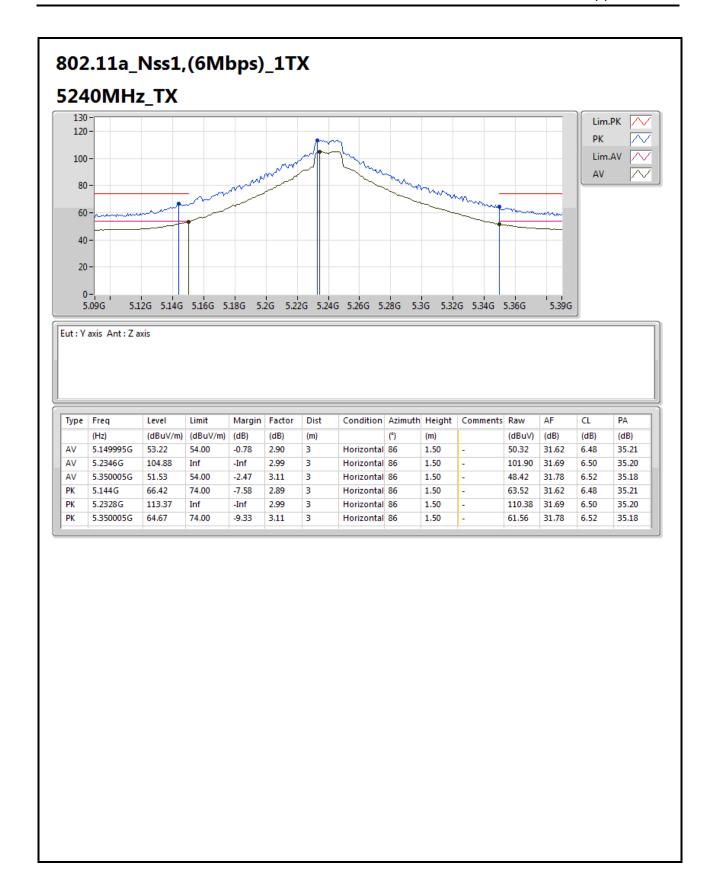
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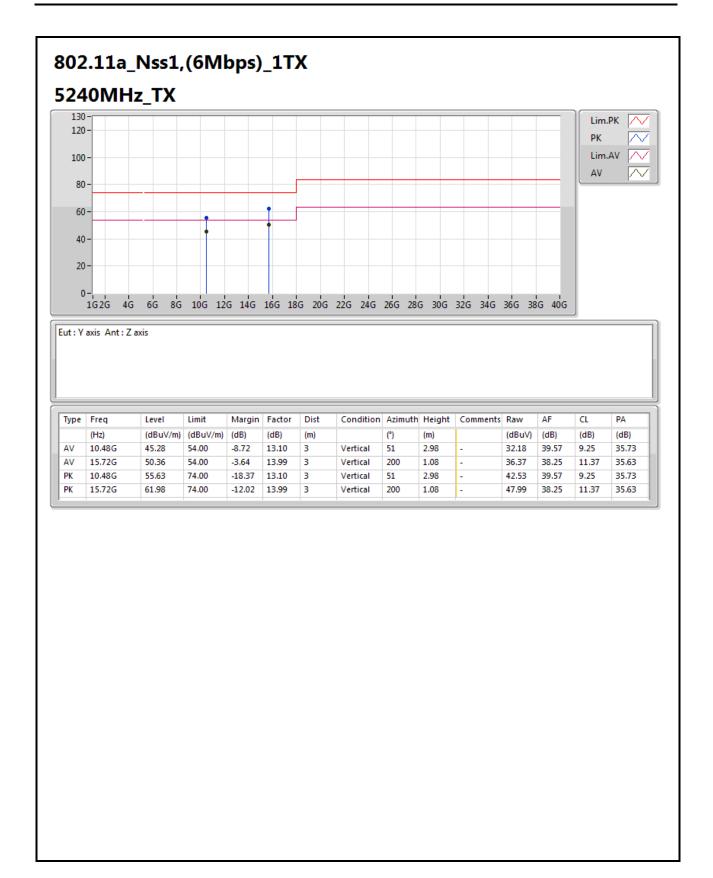
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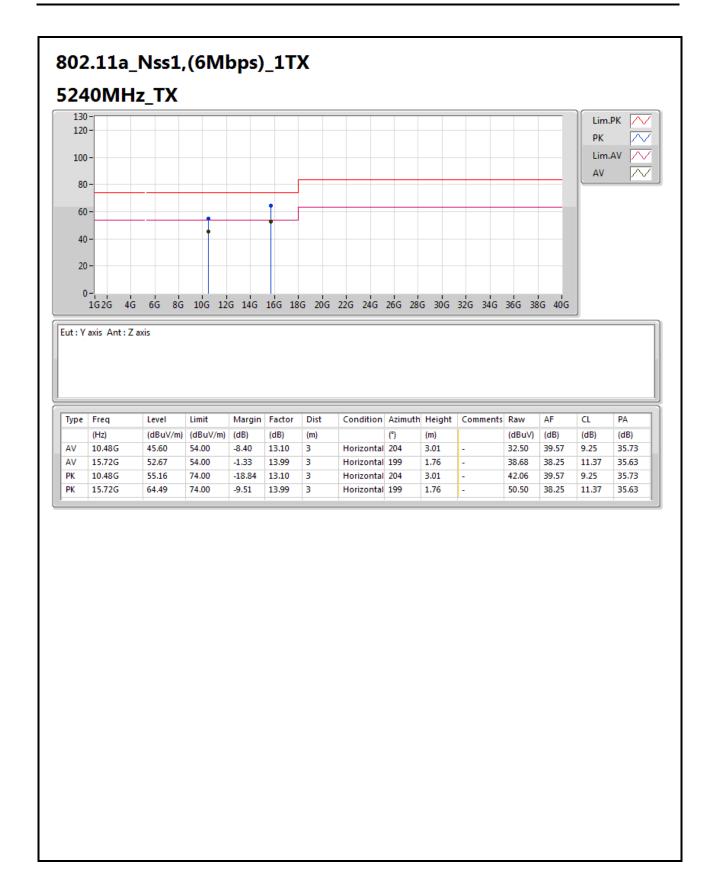
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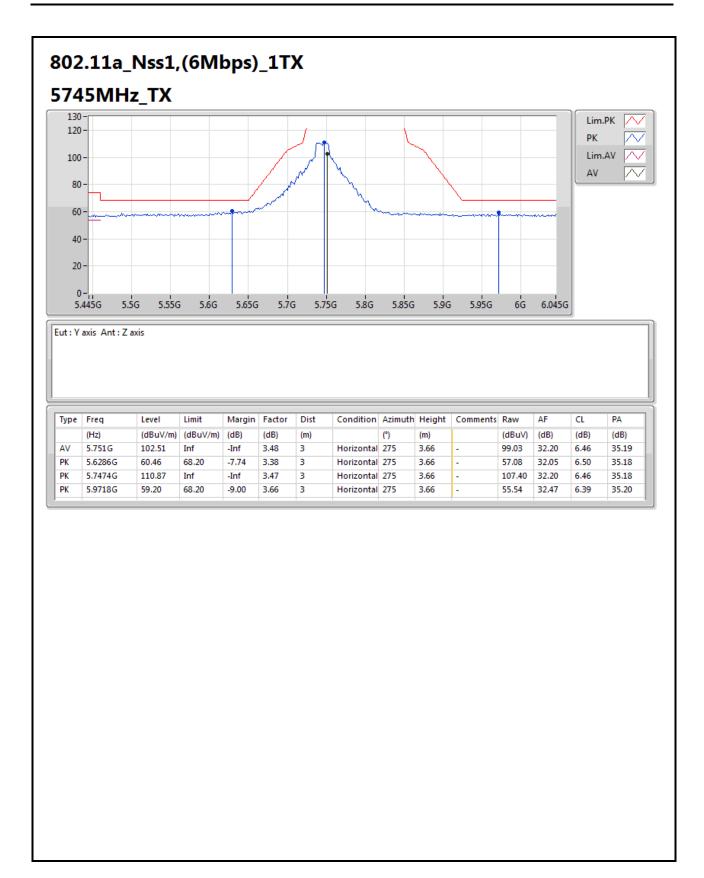
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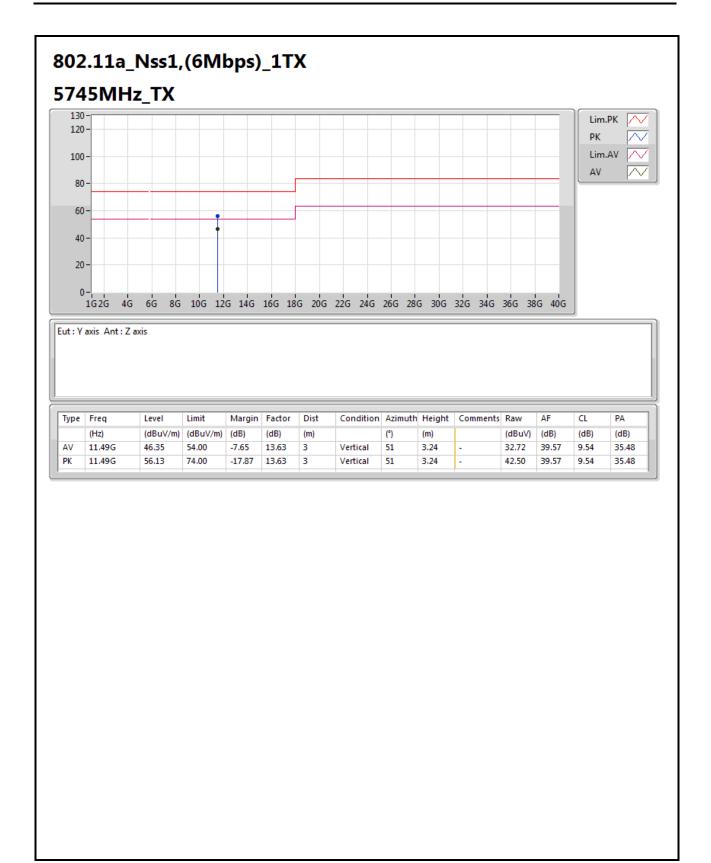
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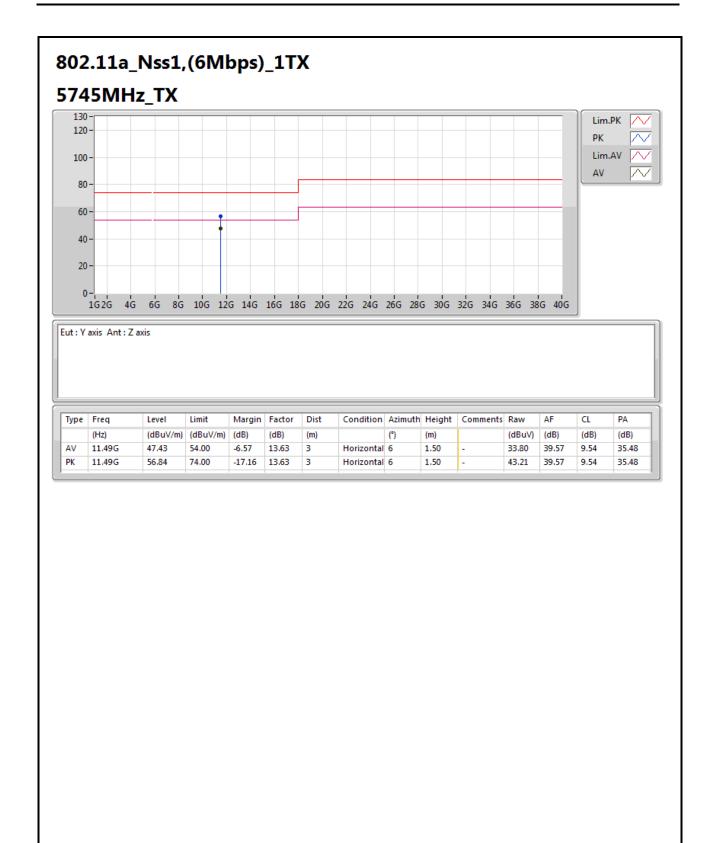
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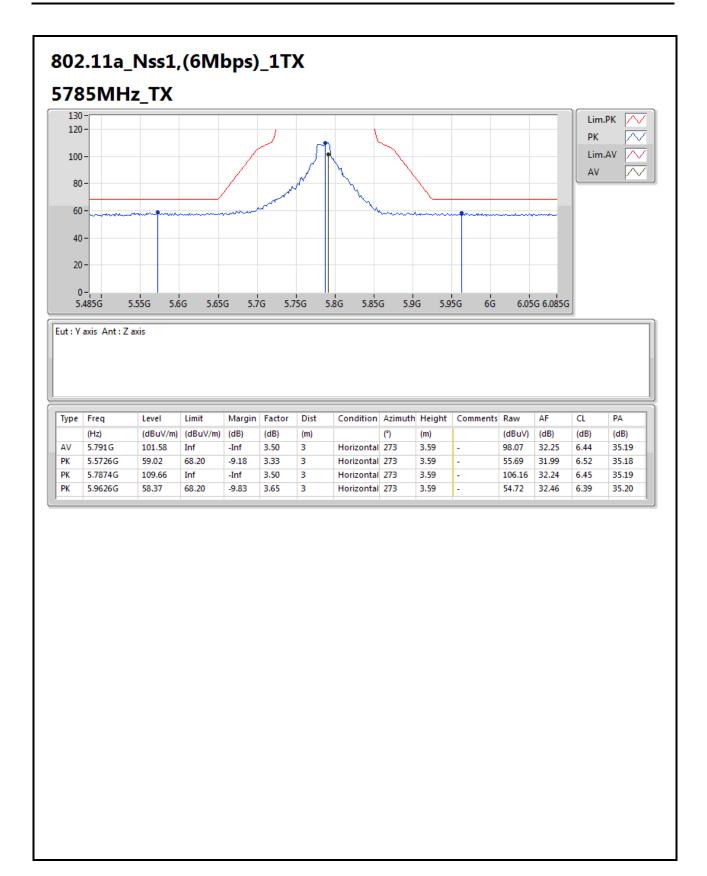
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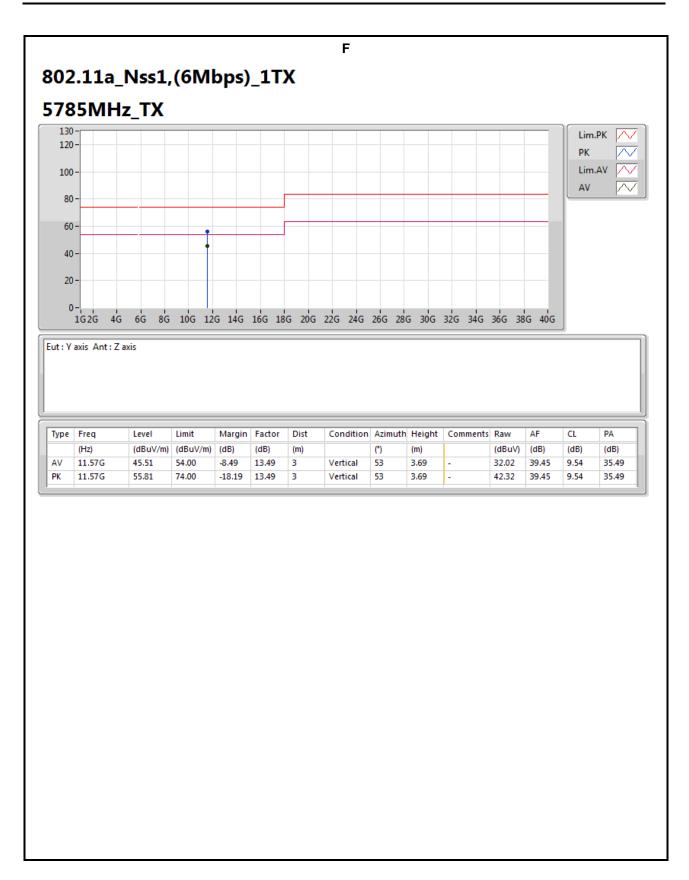
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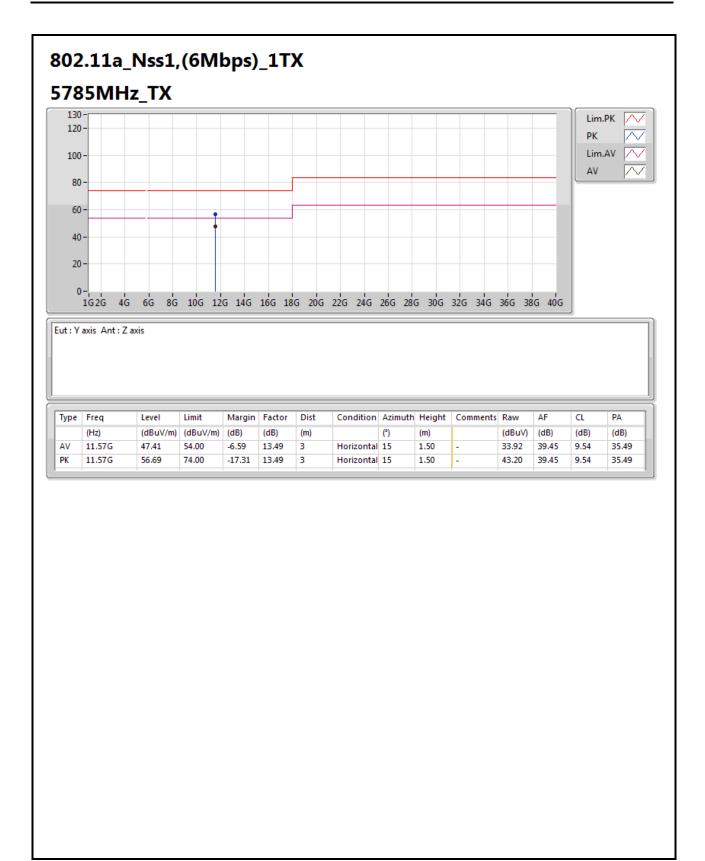
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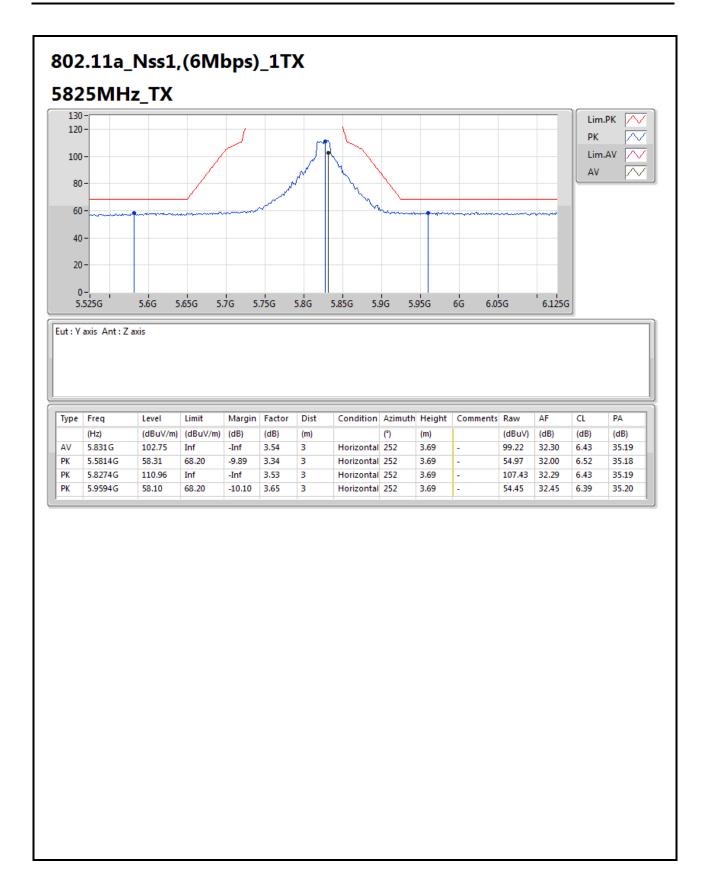
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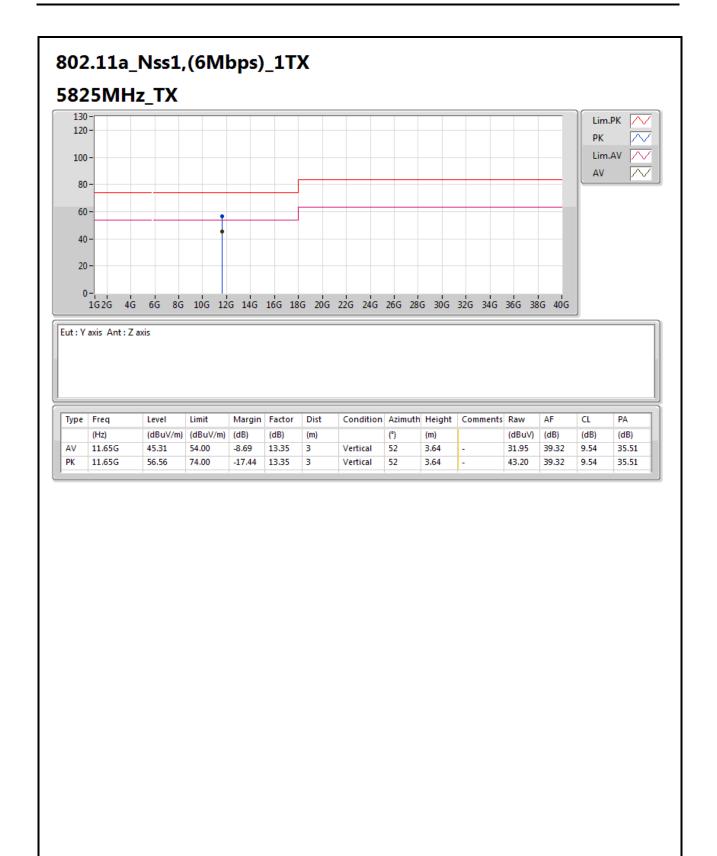
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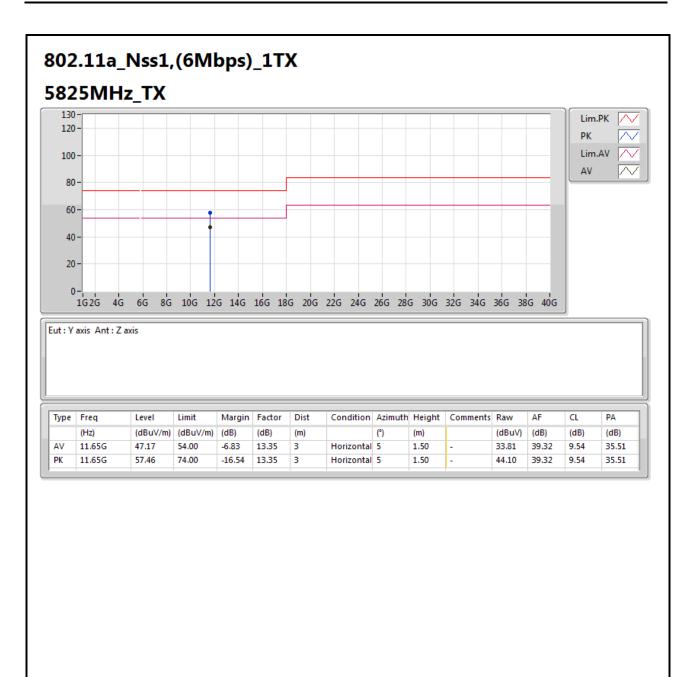
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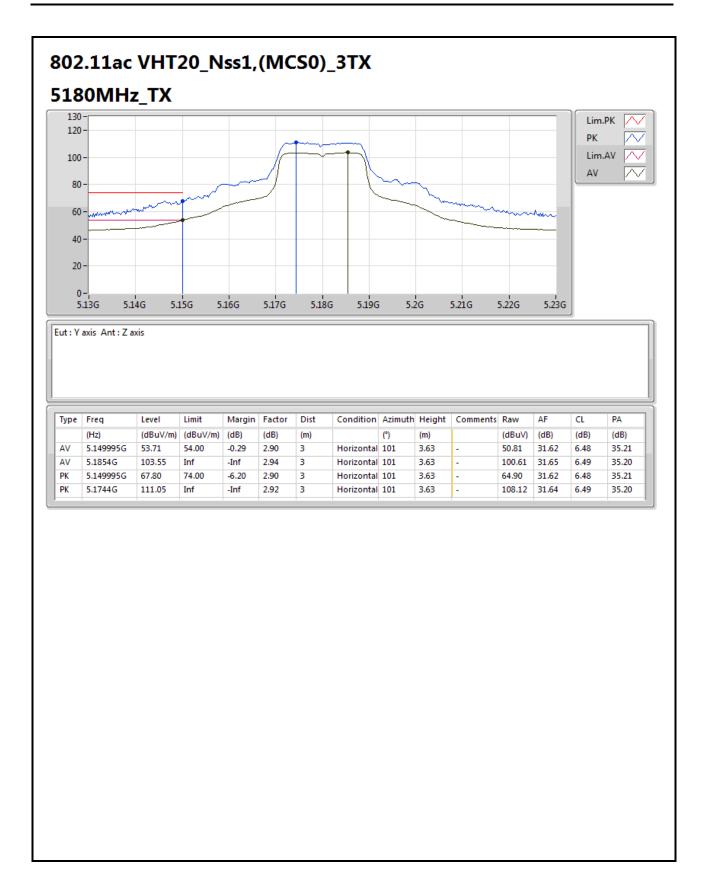
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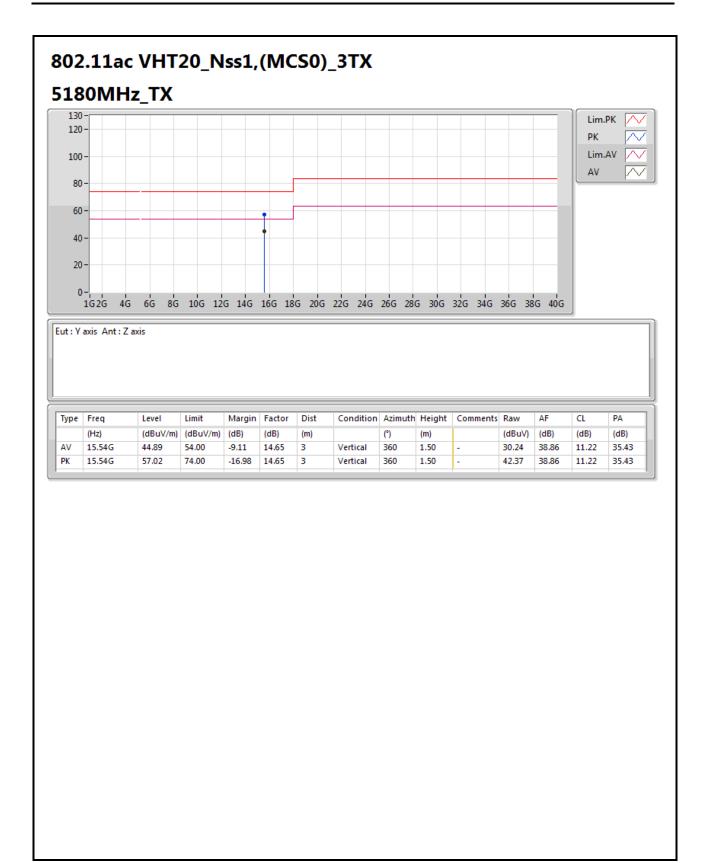
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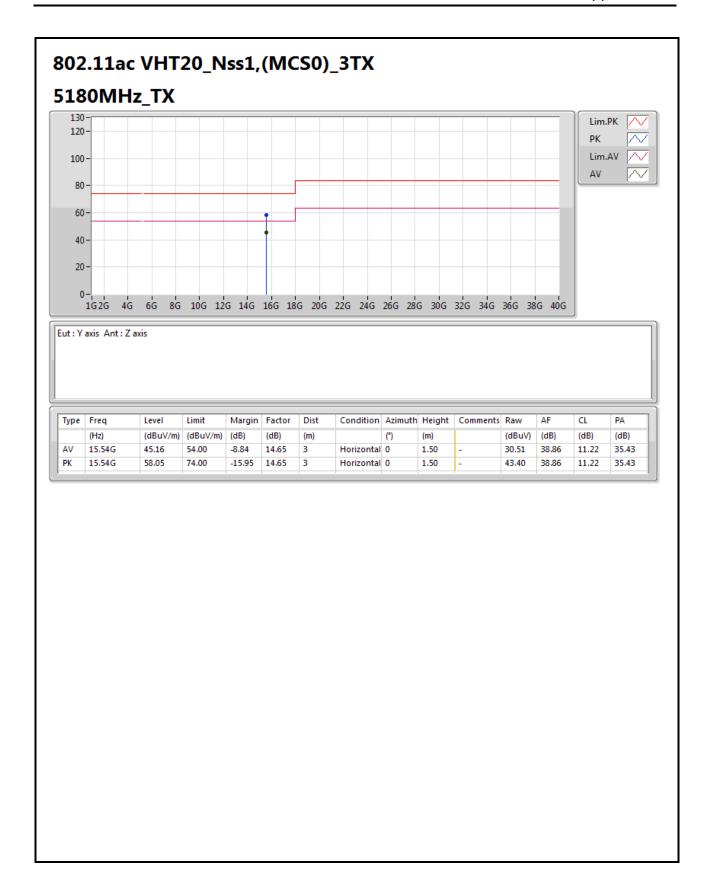
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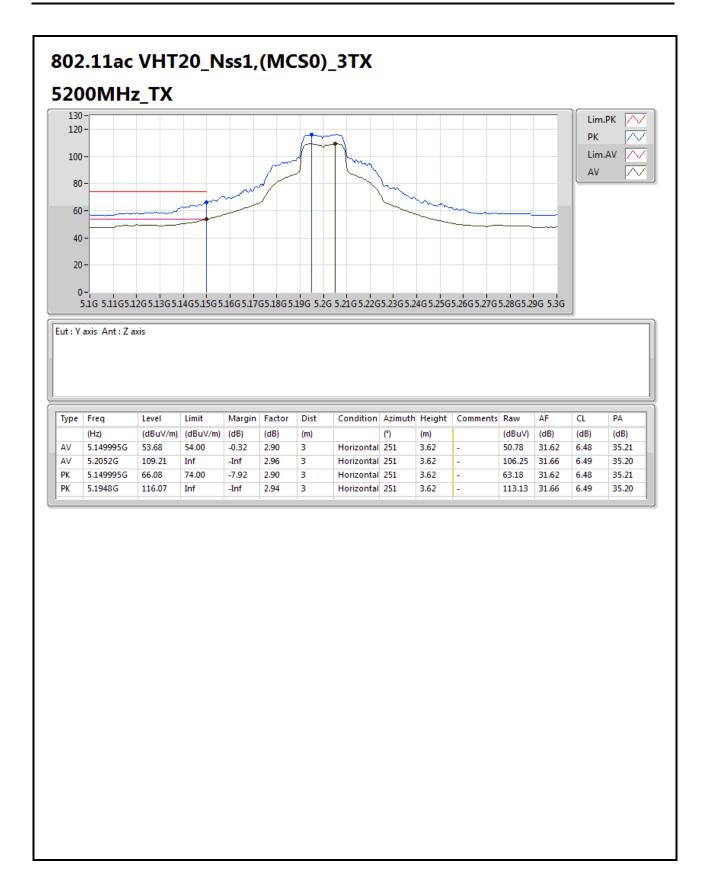
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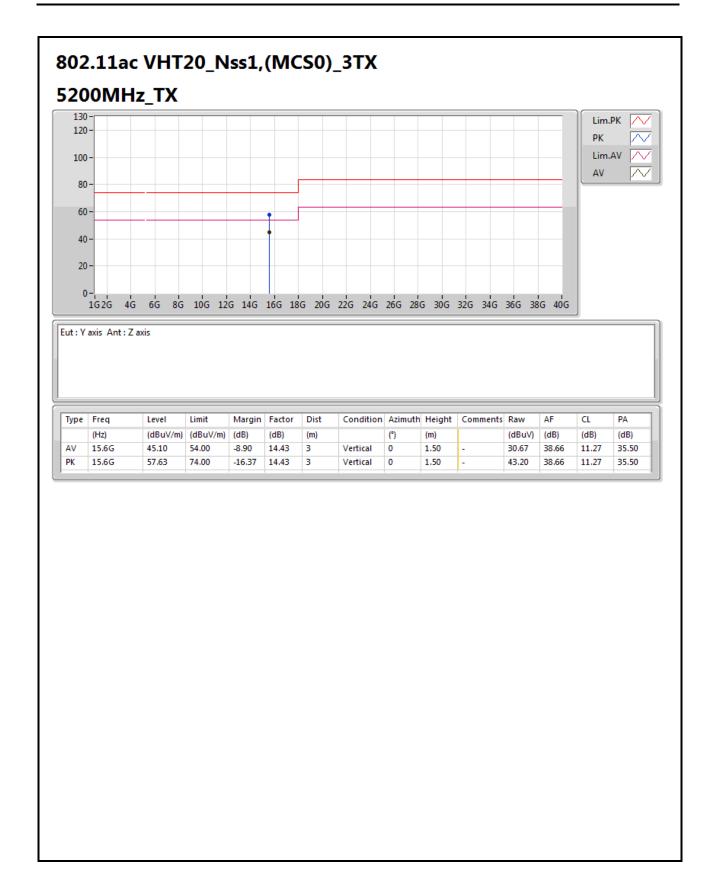
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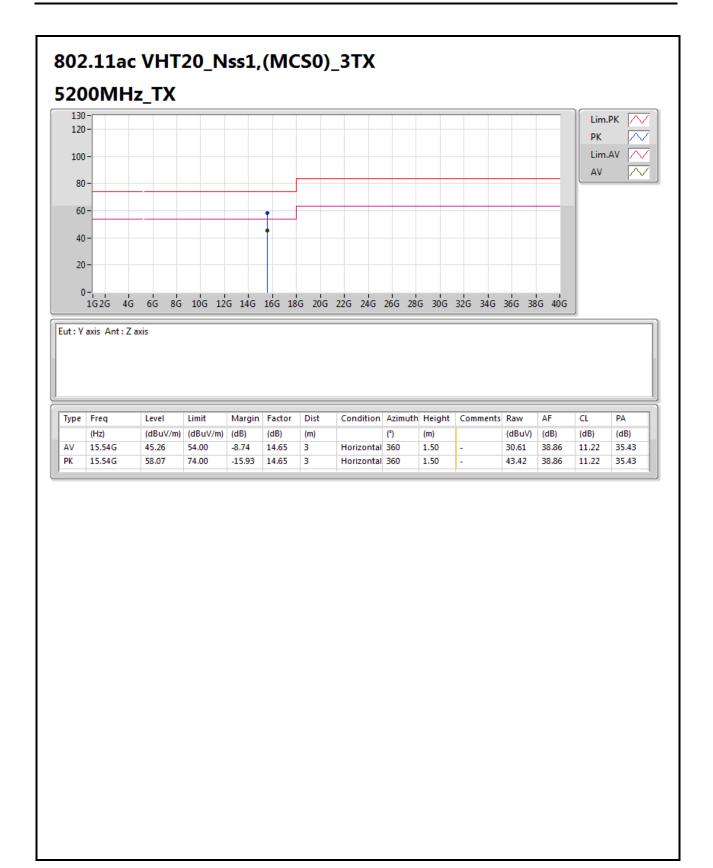
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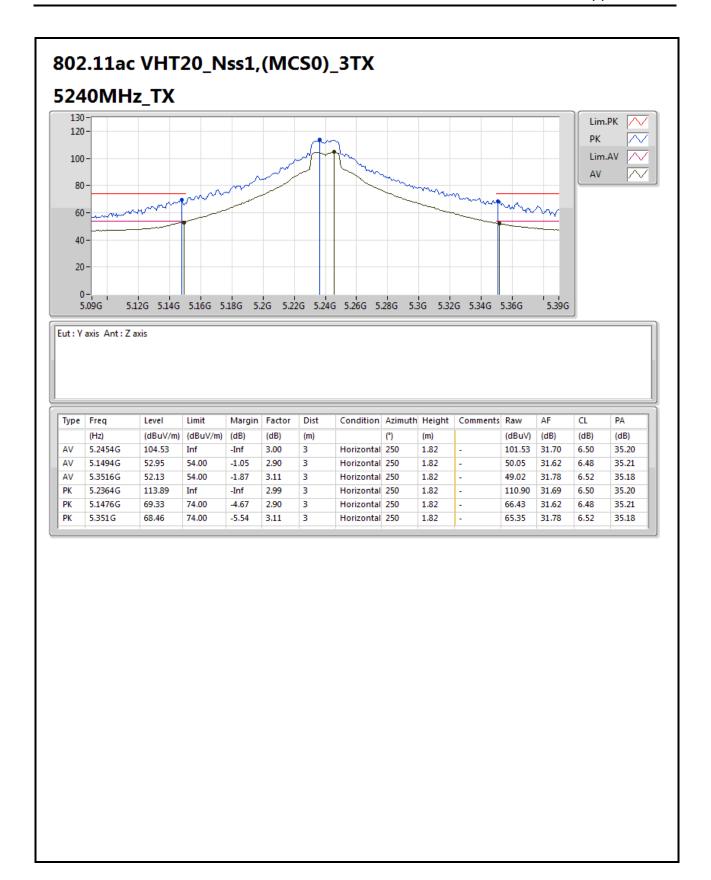
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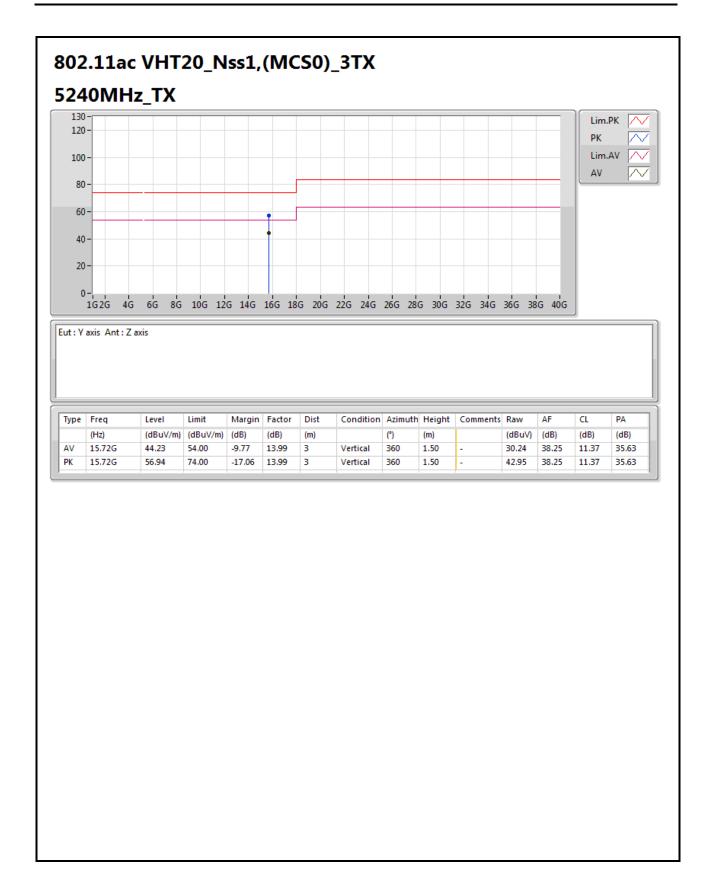
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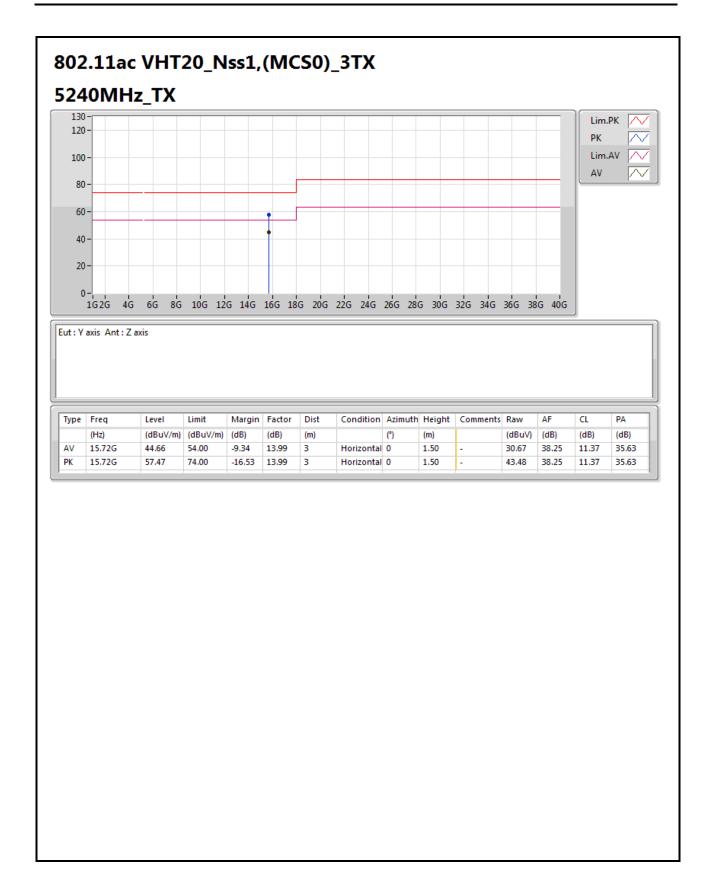
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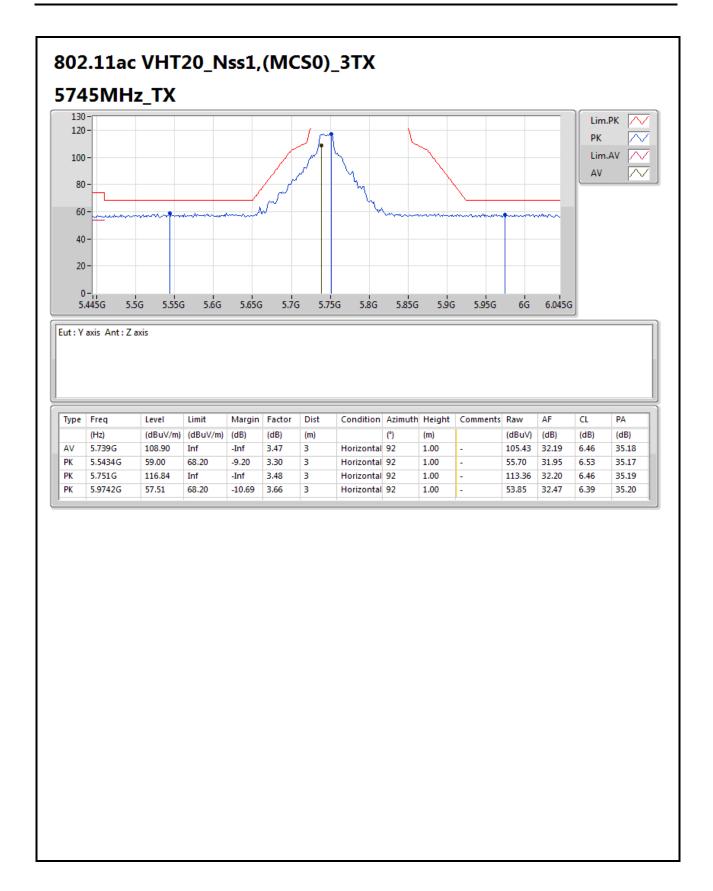
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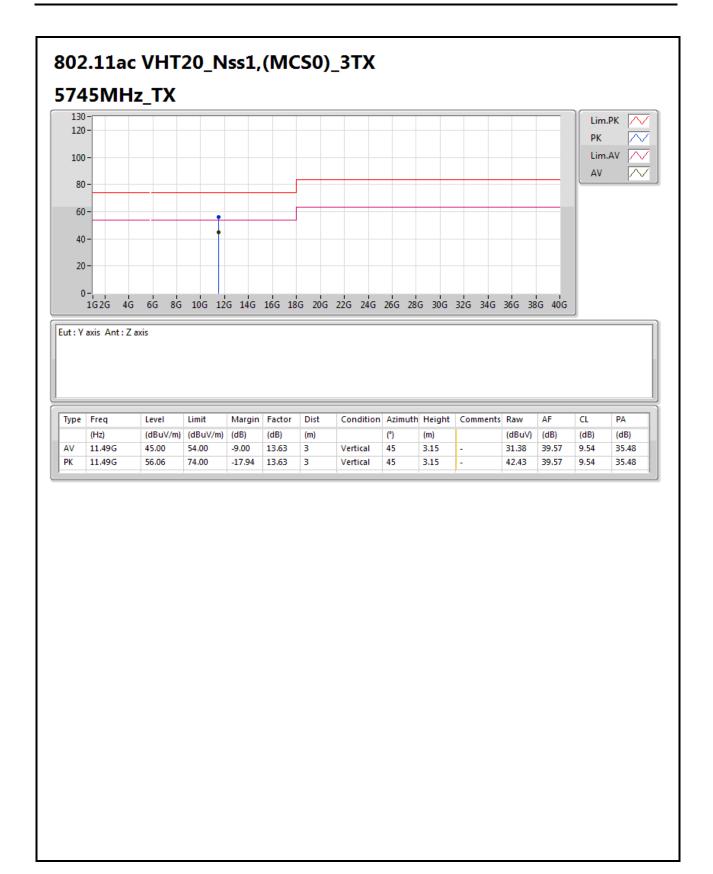
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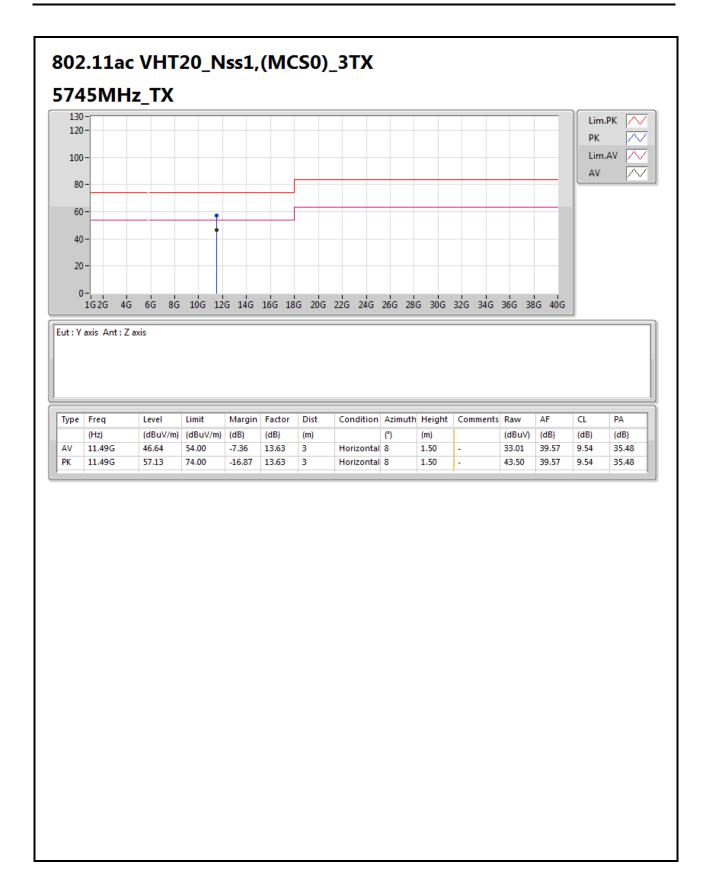
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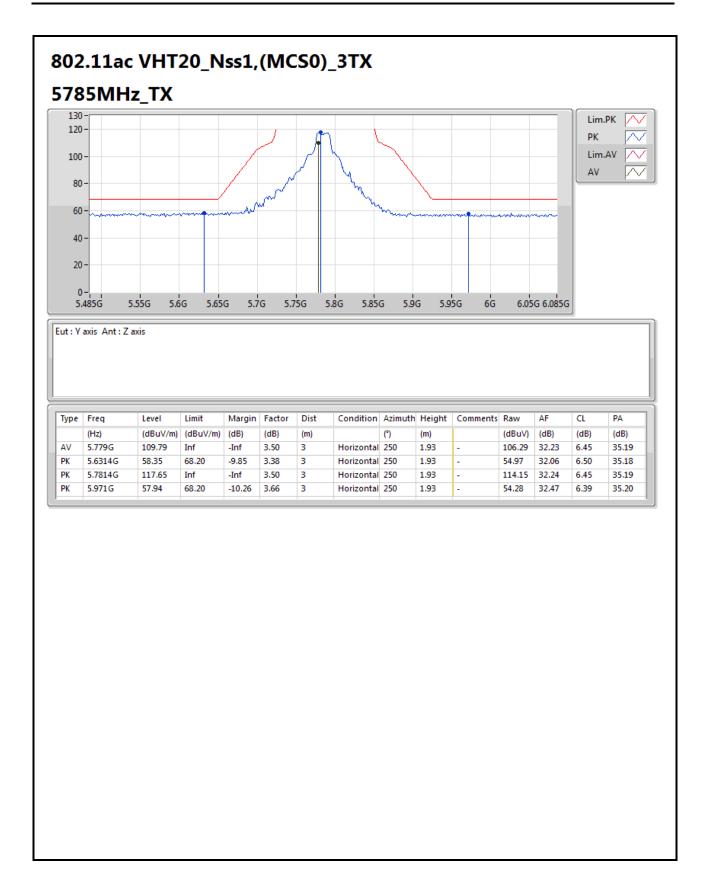
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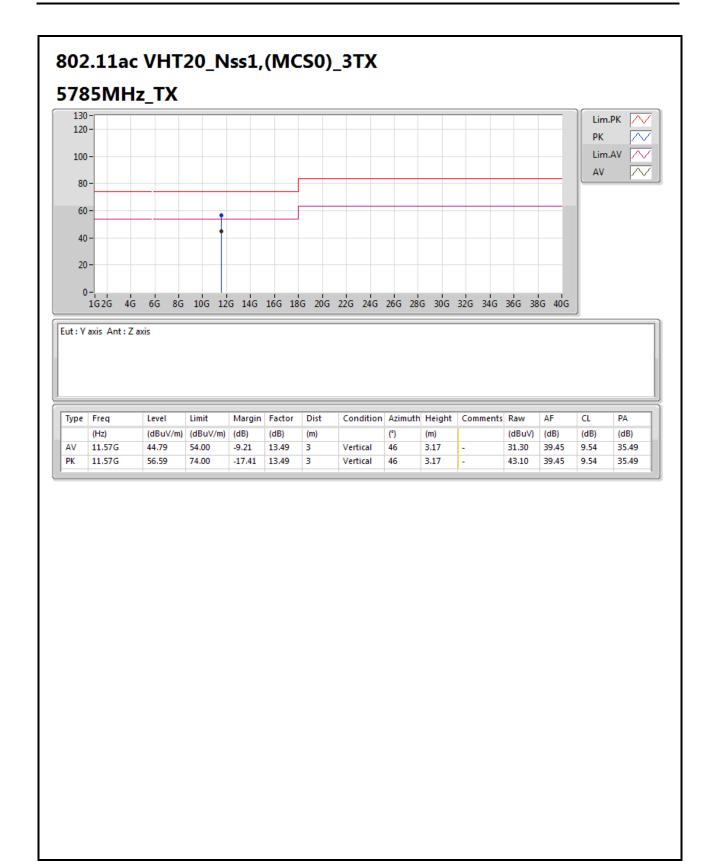
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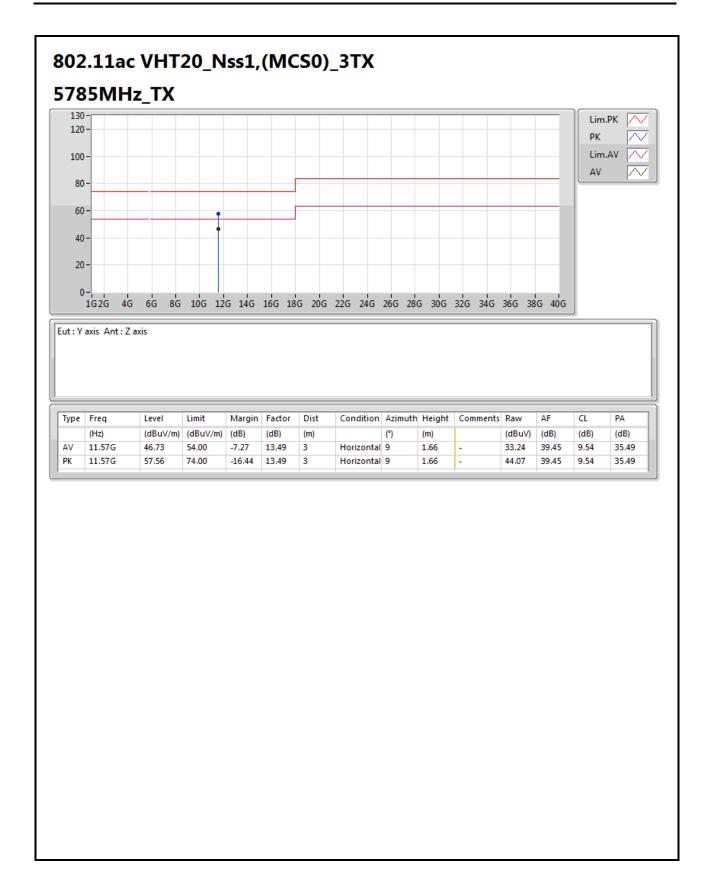
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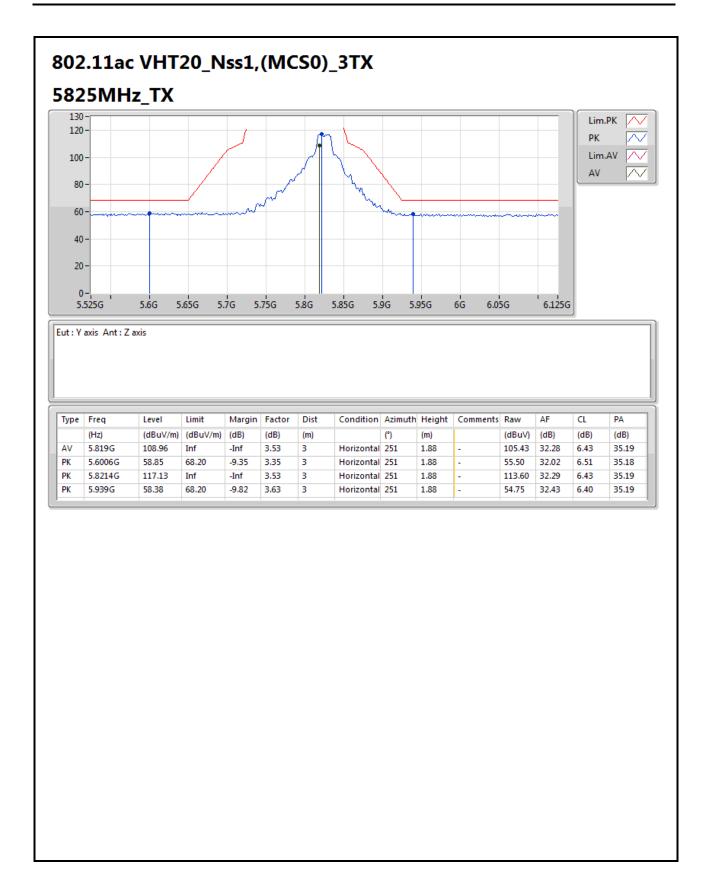
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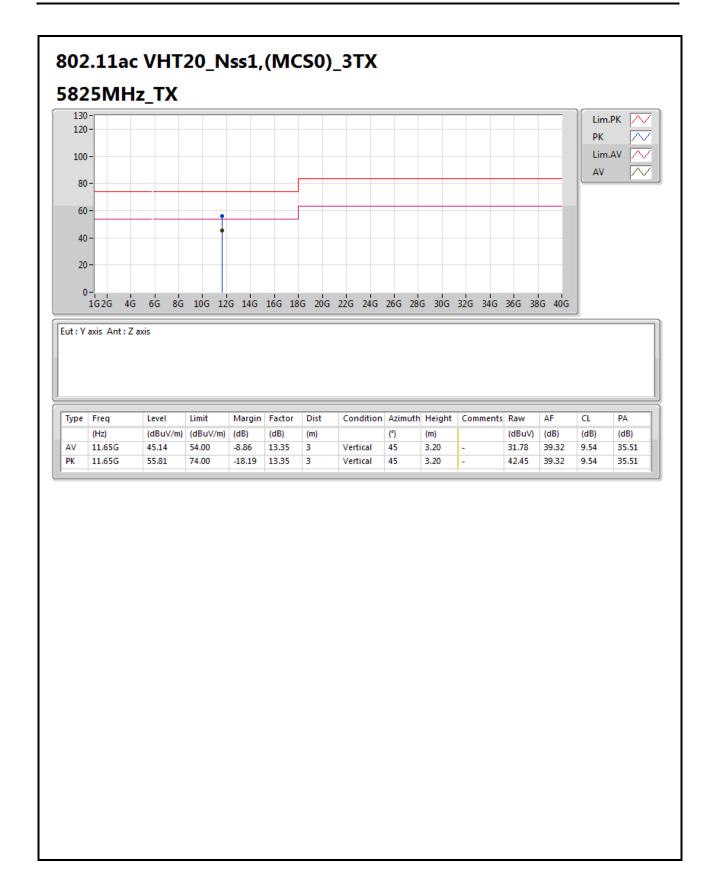
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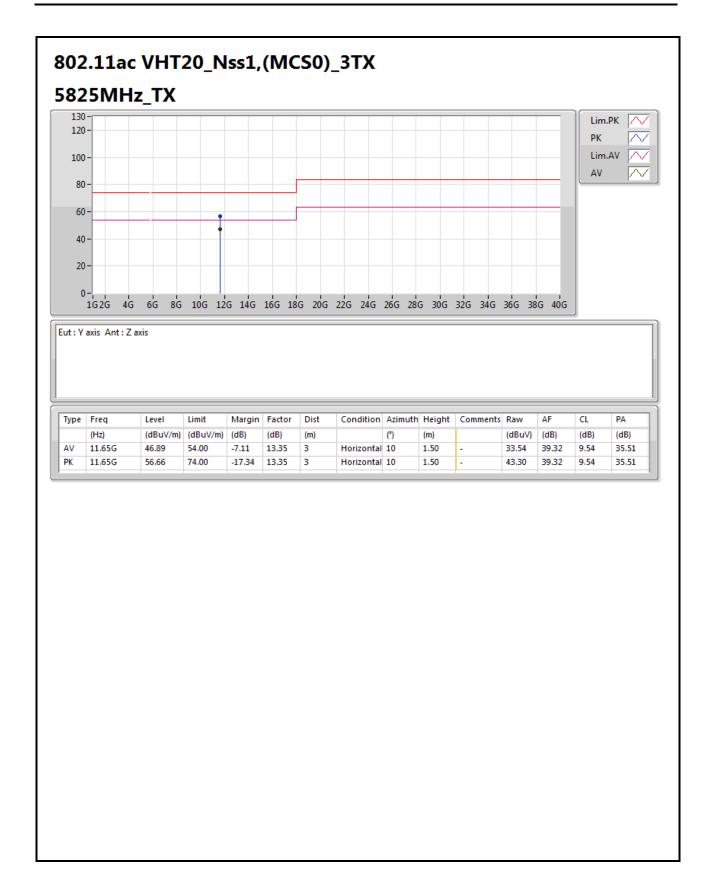
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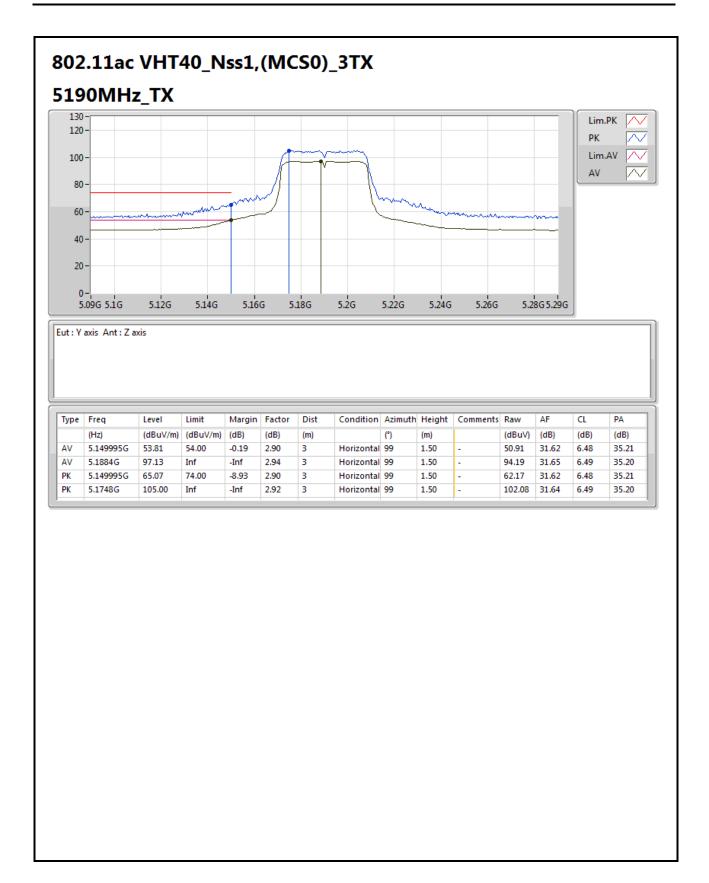
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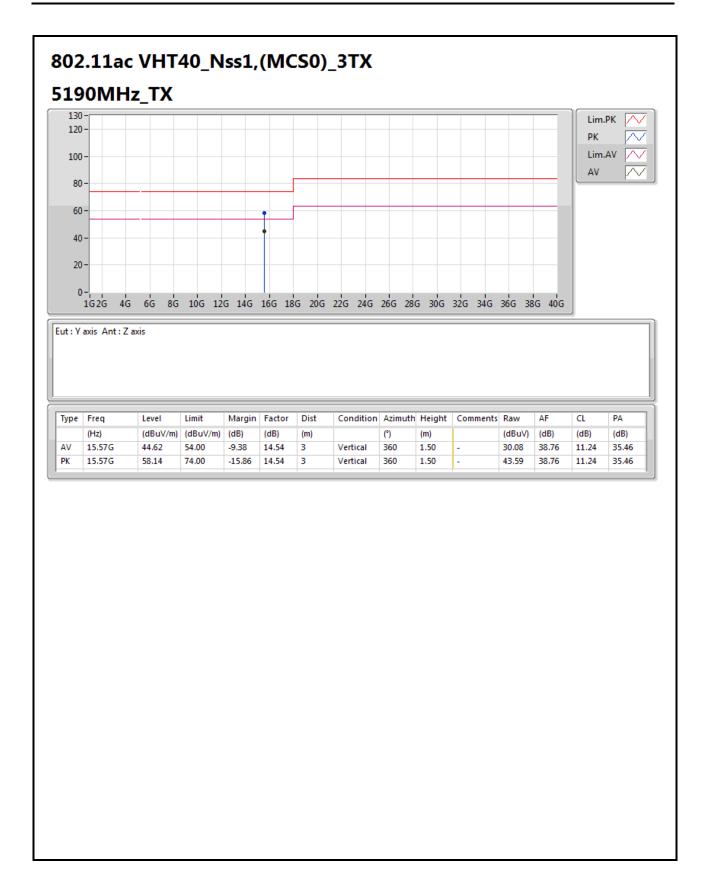
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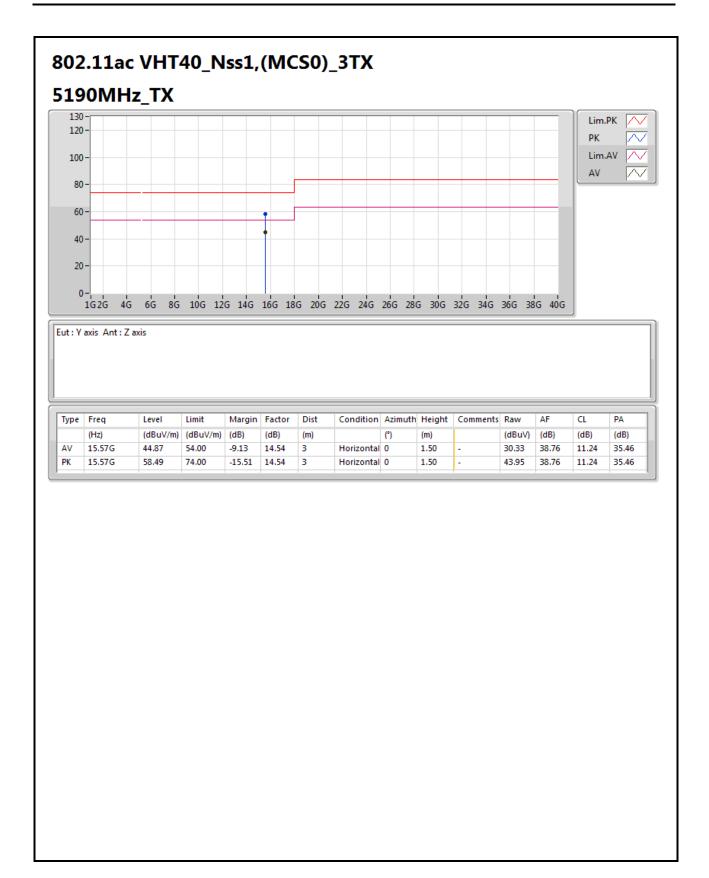
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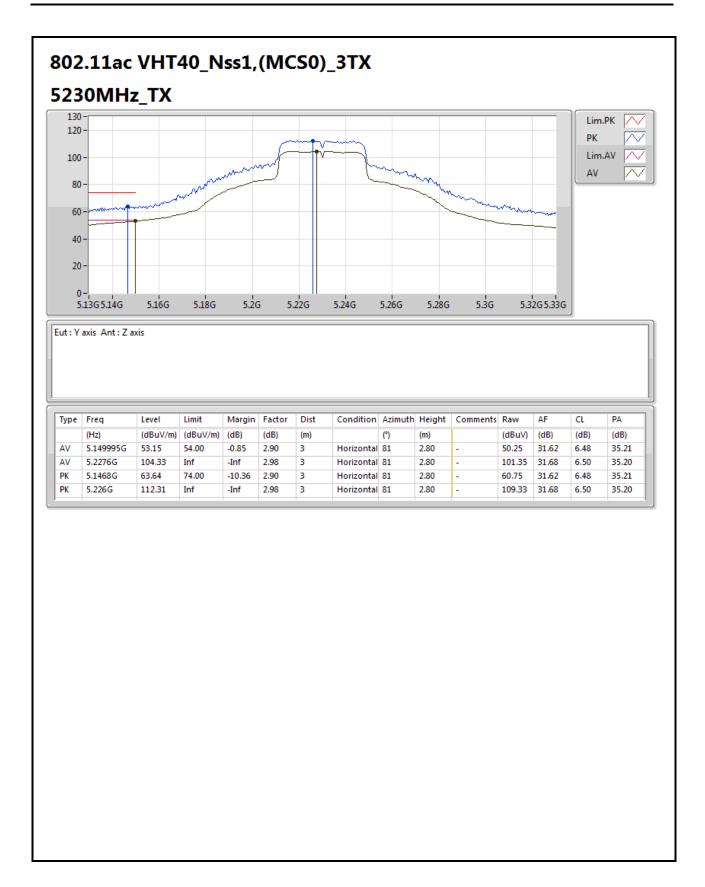
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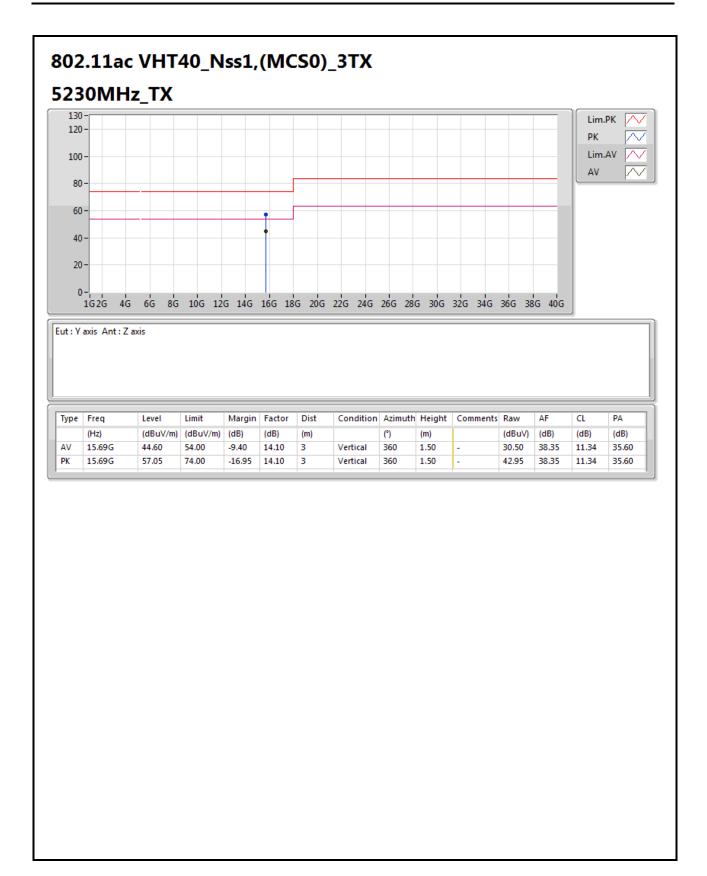
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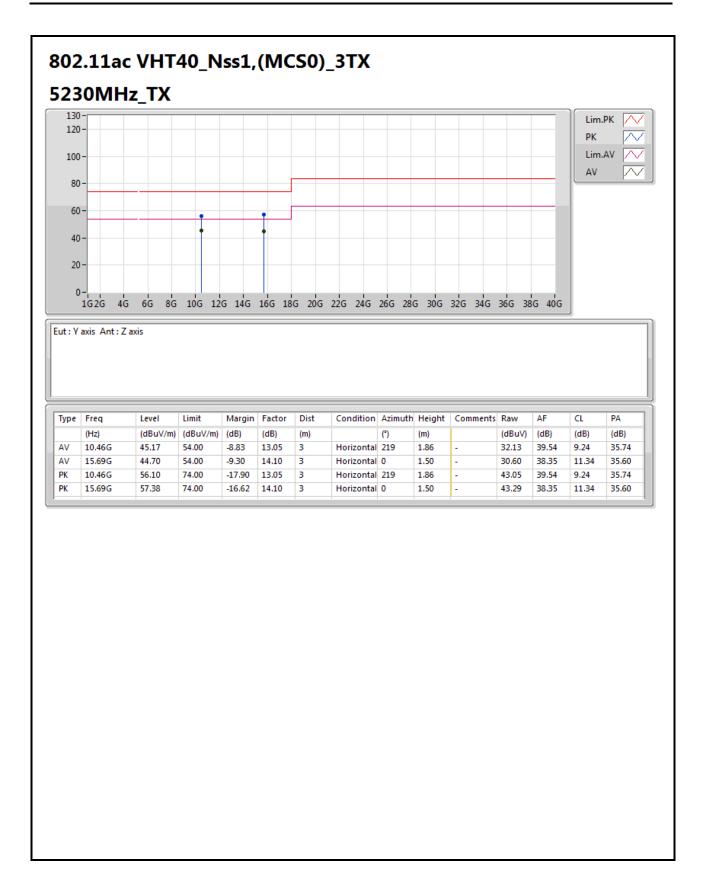
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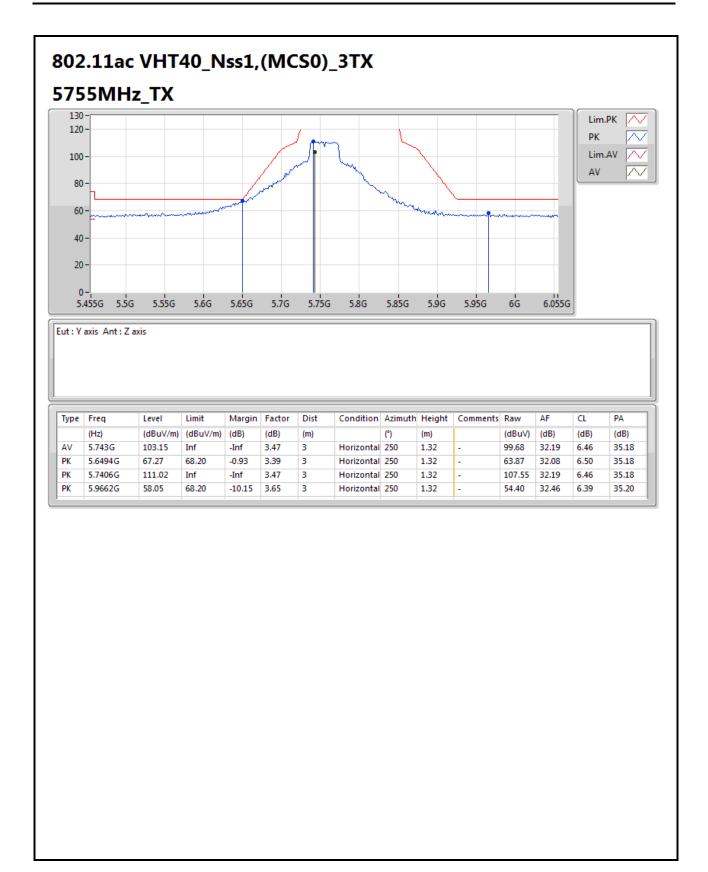
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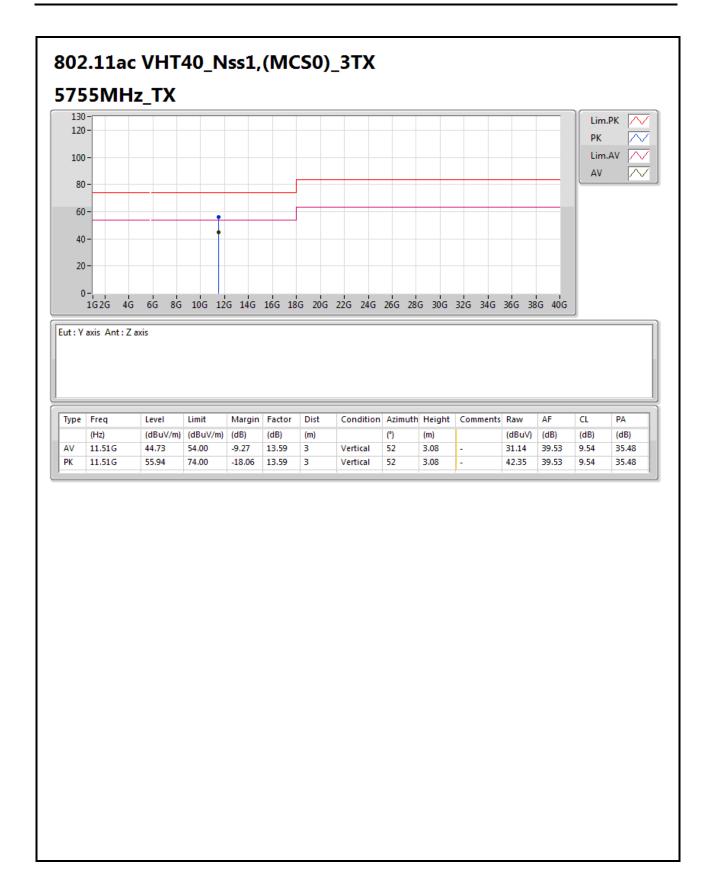
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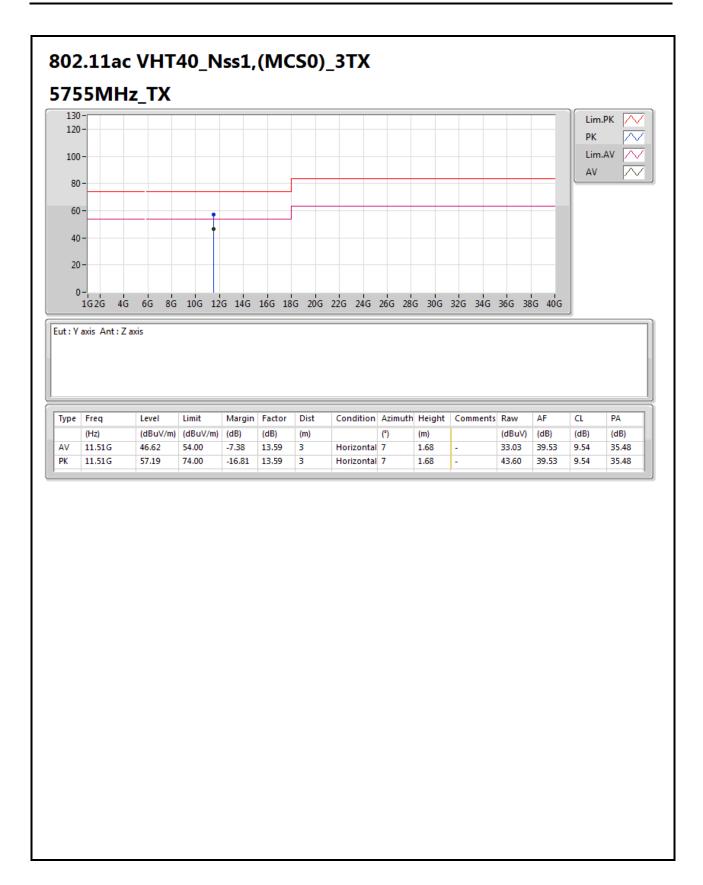
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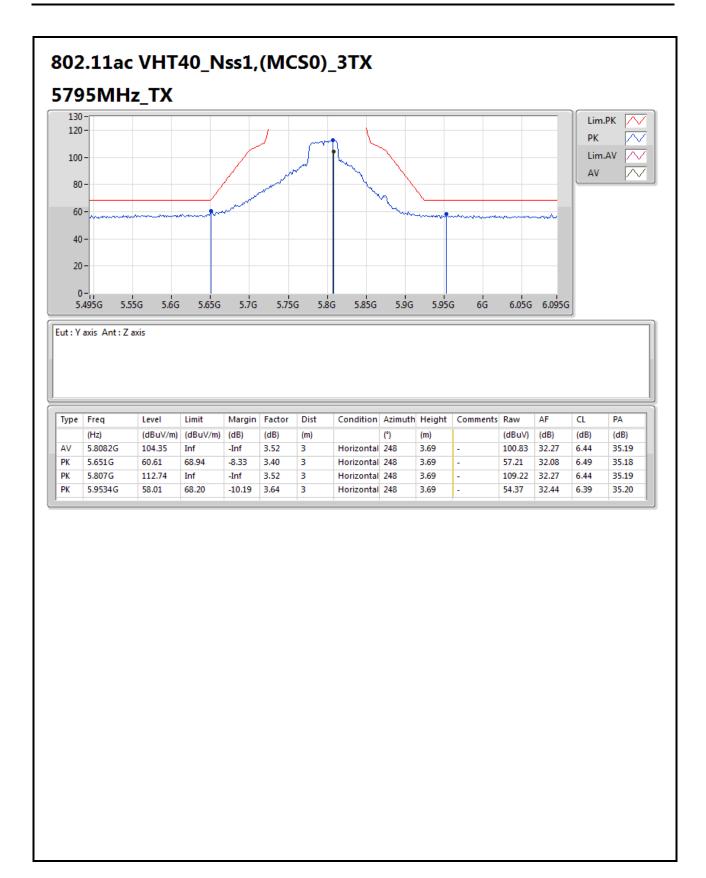
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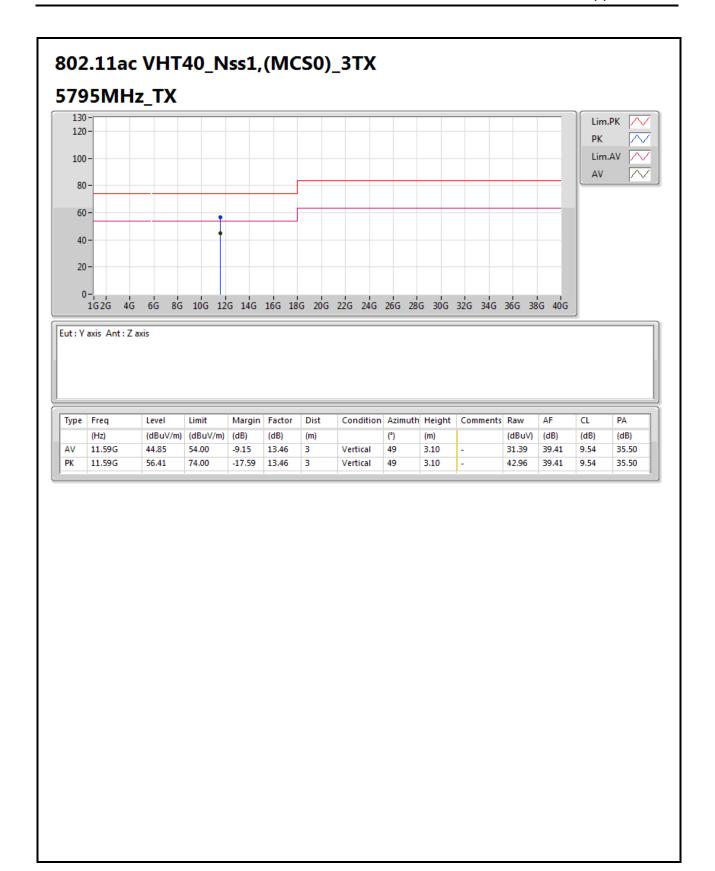
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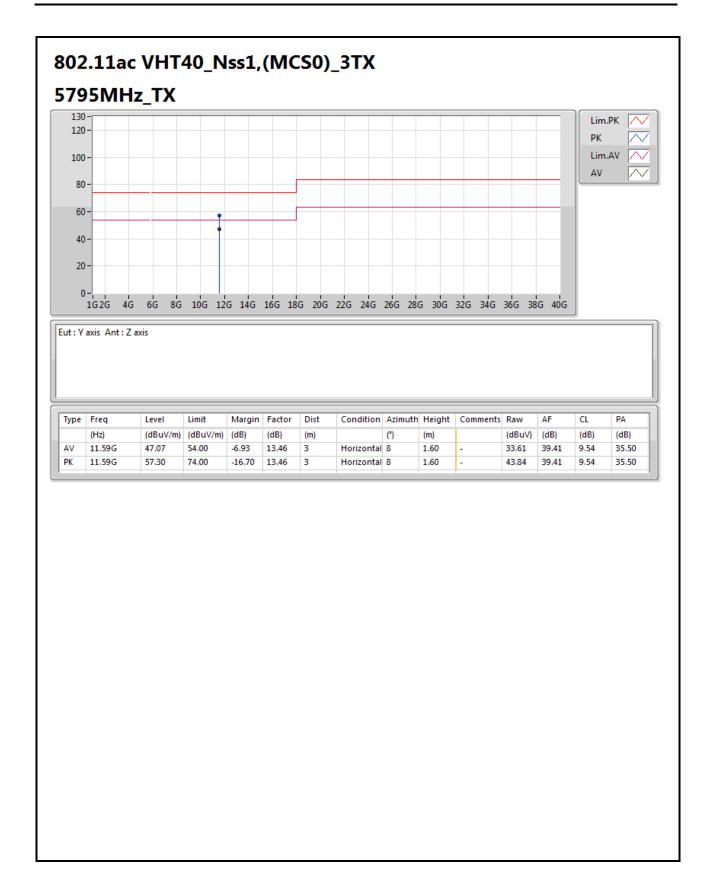
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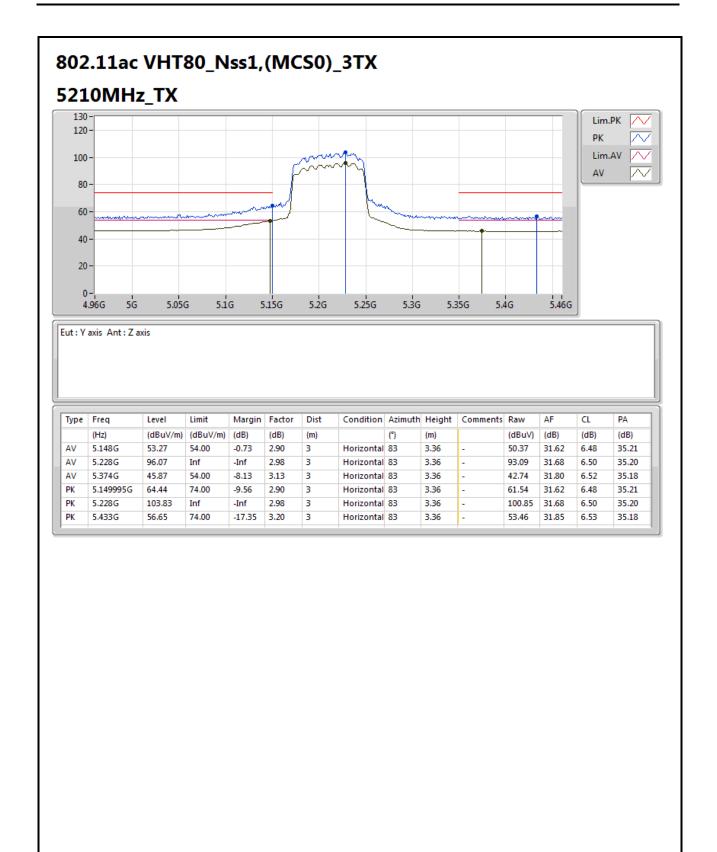
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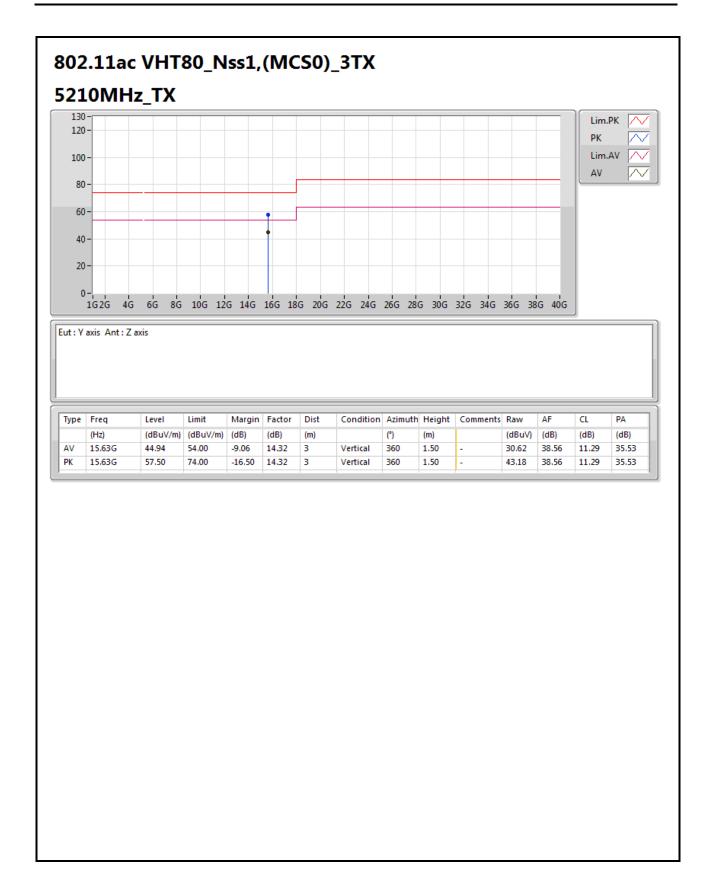
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E53 of E59





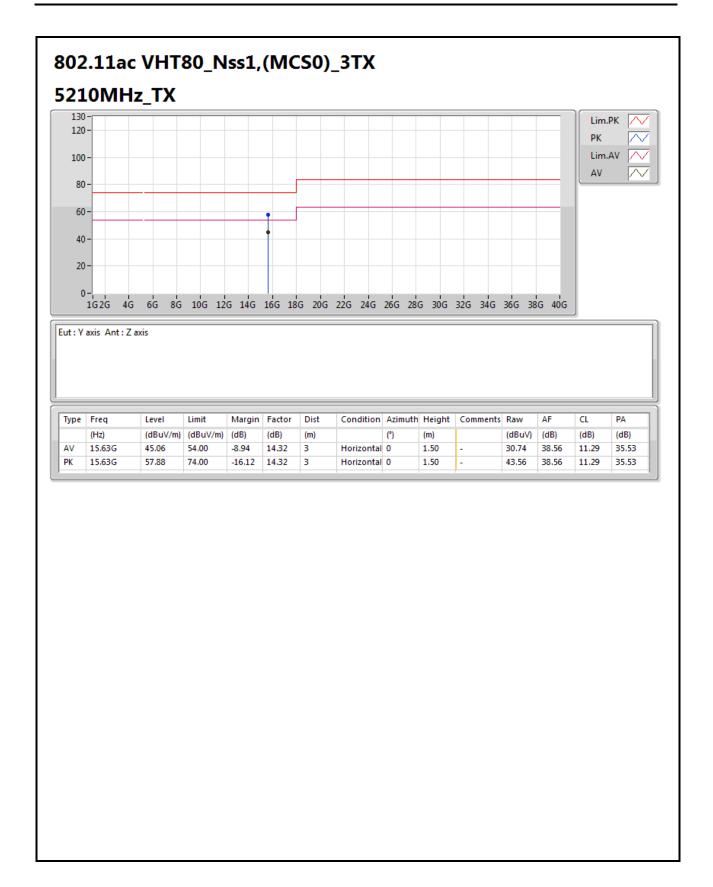
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E54 of E59





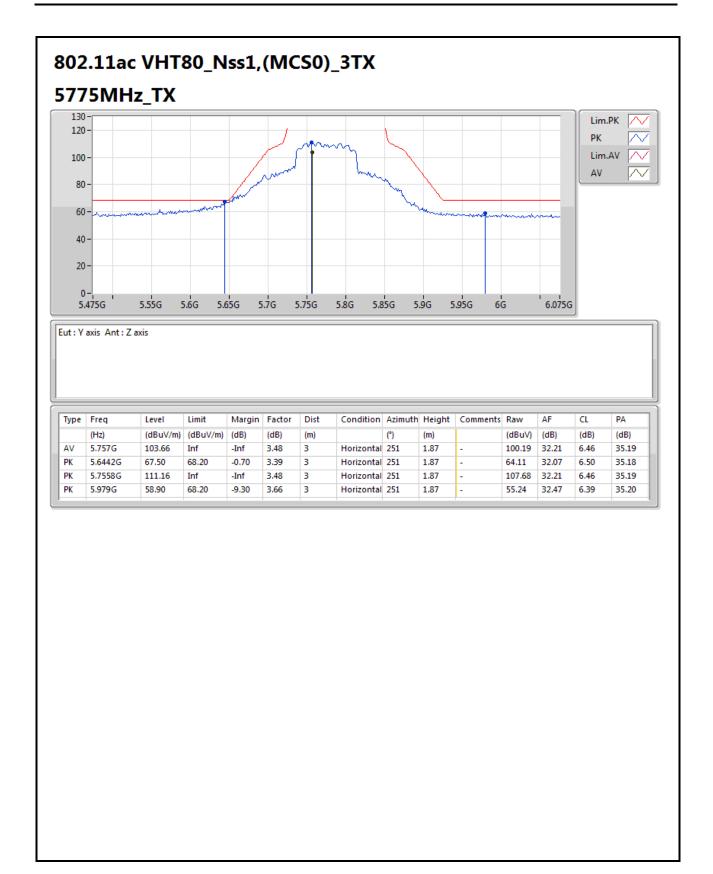
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E55 of E59





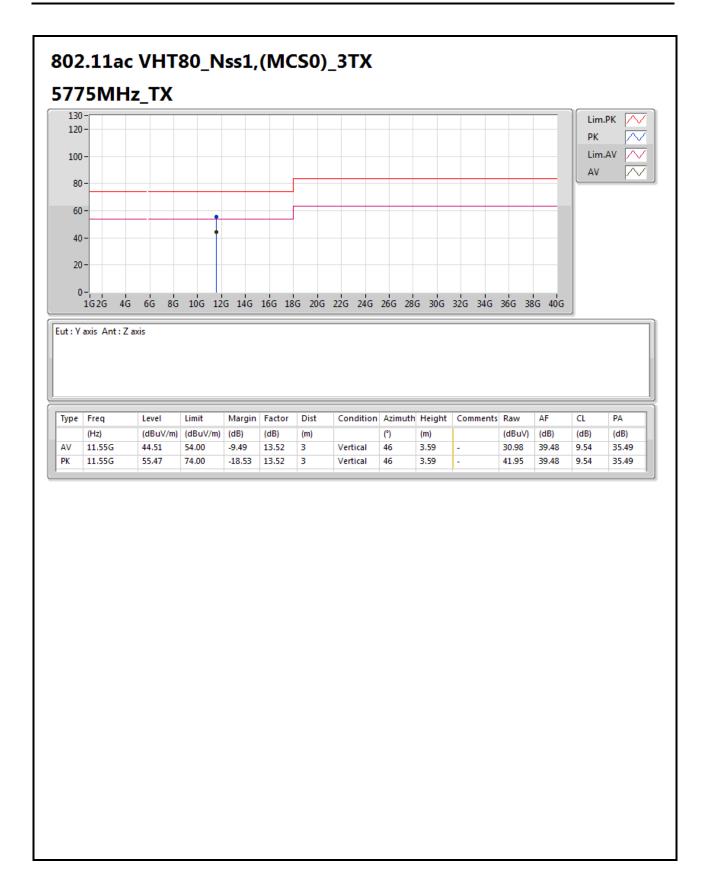
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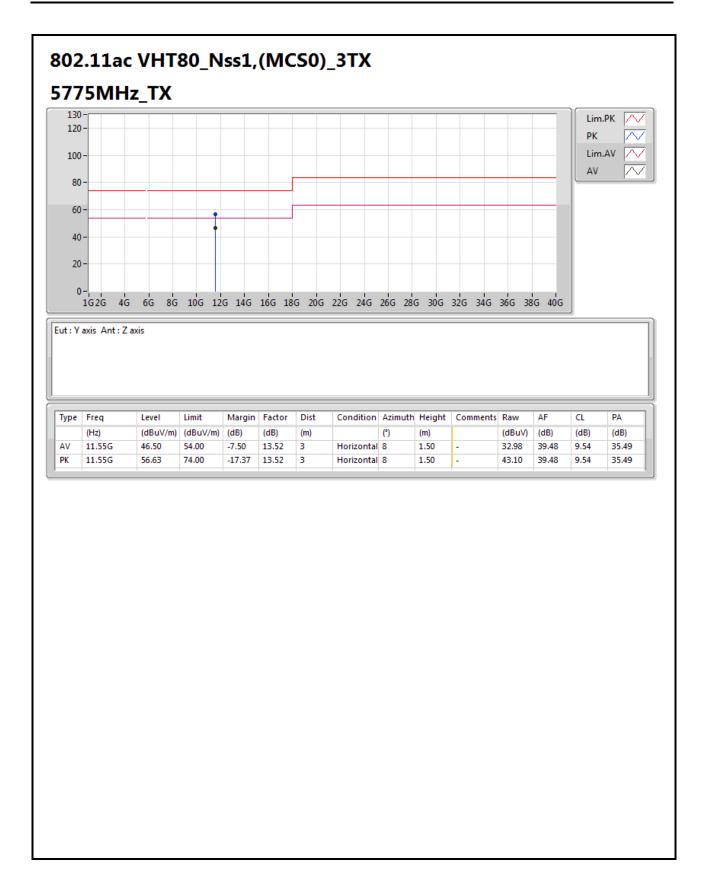
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Frequency Stability Result

Appendix F

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Summary

Mode	Result	Ch	Center	ppm	Limit	Port	Remark
		(Hz)	(Hz)		(ppm)		
802.11a_Nss1,(6Mbps)_1TX	-	-	=	-	-	-	-
5.15-5.25GHz	Pass	5.2G	5.199964G	6.85	20	1	10 min

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Frequency Stability Result

Appendix F

Result

Mode	Result	Ch	Center	ppm	Limit	Port	Remar
		(Hz)	(Hz)		(ppm)		
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-
5200MHz_0°C	Pass	5.2G	5.200026G	5.047	20	1	0 mir
5200MHz_0°C	Pass	5.2G	5.20003G	5.769	20	1	2 mir
5200MHz_0°C	Pass	5.2G	5.200034G	6.49	20	1	5 mir
5200MHz_0°C	Pass	5.2G	5.200028G	5.408	20	1	10 mi
5200MHz_10°C	Pass	5.2G	5.200022G	4.326	20	1	0 mir
5200MHz_10°C	Pass	5.2G	5.200015G	2.884	20	1	2 mir
5200MHz_10°C	Pass	5.2G	5.200019G	3.605	20	1	5 mir
5200MHz_10°C	Pass	5.2G	5.200013G	2.524	20	1	10 mi
5200MHz_20°C	Pass	5.2G	5.200004G	0.721	20	1	0 mir
5200MHz_20°C	Pass	5.2G	5.200004G	0.721	20	1	2 mir
5200MHz_20°C	Pass	5.2G	5.2G	0	20	1	5 mir
5200MHz_20°C	Pass	5.2G	5.200013G	2.524	20	1	10 mi
5200MHz_30°C	Pass	5.2G	5.199979G	3.966	20	1	0 mir
5200MHz_30°C	Pass	5.2G	5.199987G	2.524	20	1	2 mir
5200MHz_30°C	Pass	5.2G	5.199978G	4.326	20	1	5 mir
5200MHz_30°C	Pass	5.2G	5.199985G	2.884	20	1	10 mi
5200MHz_40°C	Pass	5.2G	5.19997G	5.769	20	1	0 mir
5200MHz_40°C	Pass	5.2G	5.199966G	6.49	20	1	2 mir
5200MHz_40°C	Pass	5.2G	5.19997G	5.769	20	1	5 mir
5200MHz_40°C	Pass	5.2G	5.199964G	6.85	20	1	10 mi
5200MHz_138V	Pass	5.2G	5.200002G	0.361	20	1	0 mir
5200MHz_138V	Pass	5.2G	5.199993G	1.442	20	1	2 mir
5200MHz_138V	Pass	5.2G	5.2G	0	20	1	5 mir
5200MHz_138V	Pass	5.2G	5.200006G	1.082	20	1	10 mi
5200MHz_120V	Pass	5.2G	5.200002G	0.361	20	1	0 mir
5200MHz_120V	Pass	5.2G	5.200002G	0.361	20	1	2 mir
5200MHz_120V	Pass	5.2G	5.200009G	1.803	20	1	5 mir
5200MHz_120V	Pass	5.2G	5.200004G	0.721	20	1	10 mi
5200MHz_102V	Pass	5.2G	5.199996G	0.721	20	1	0 mir
5200MHz_102V	Pass	5.2G	5.200004G	0.721	20	1	2 mir
5200MHz_102V	Pass	5.2G	5.200004G	0.721	20	1	5 mir
5200MHz 102V	Pass	5.2G	5.199993G	1.442	20	1	10 mi

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RSE below 1GHz Result CO-LOCATION

Appendix G.1

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Summary

Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
Mode 1	Pass	PK	94.02M	38.86	43.50	-4.64	-21.08	3	Vertical	0	1.00	-

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RSE below 1GHz Result CO-LOCATION

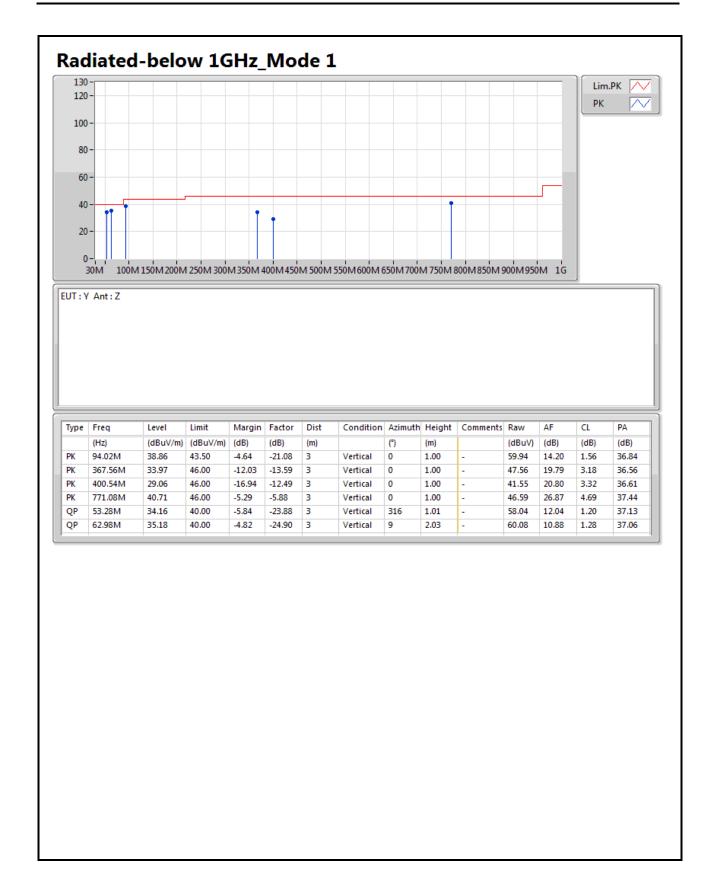
Appendix G.1

Result

Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
Mode 1	Pass	PK	117.3M	28.44	43.50	-15.06	-18.61	3	Horizontal	360	1.00	-
Mode 1	Pass	PK	156.1M	27.68	43.50	-15.82	-18.76	3	Horizontal	360	1.00	-
Mode 1	Pass	PK	289.96M	35.18	46.00	-10.82	-15.65	3	Horizontal	360	1.00	-
Mode 1	Pass	PK	353.98M	35.10	46.00	-10.90	-13.97	3	Horizontal	360	1.00	-
Mode 1	Pass	PK	509.18M	32.71	46.00	-13.29	-10.10	3	Horizontal	360	1.00	-
Mode 1	Pass	PK	769.14M	39.87	46.00	-6.13	-5.91	3	Horizontal	360	1.00	-
Mode 1	Pass	PK	94.02M	38.86	43.50	-4.64	-21.08	3	Vertical	0	1.00	-
Mode 1	Pass	PK	367.56M	33.97	46.00	-12.03	-13.59	3	Vertical	0	1.00	-
Mode 1	Pass	PK	400.54M	29.06	46.00	-16.94	-12.49	3	Vertical	0	1.00	-
Mode 1	Pass	PK	771.08M	40.71	46.00	-5.29	-5.88	3	Vertical	0	1.00	-
Mode 1	Pass	QP	53.28M	34.16	40.00	-5.84	-23.88	3	Vertical	316	1.01	-
Mode 1	Pass	QP	62.98M	35.18	40.00	-4.82	-24.90	3	Vertical	9	2.03	-

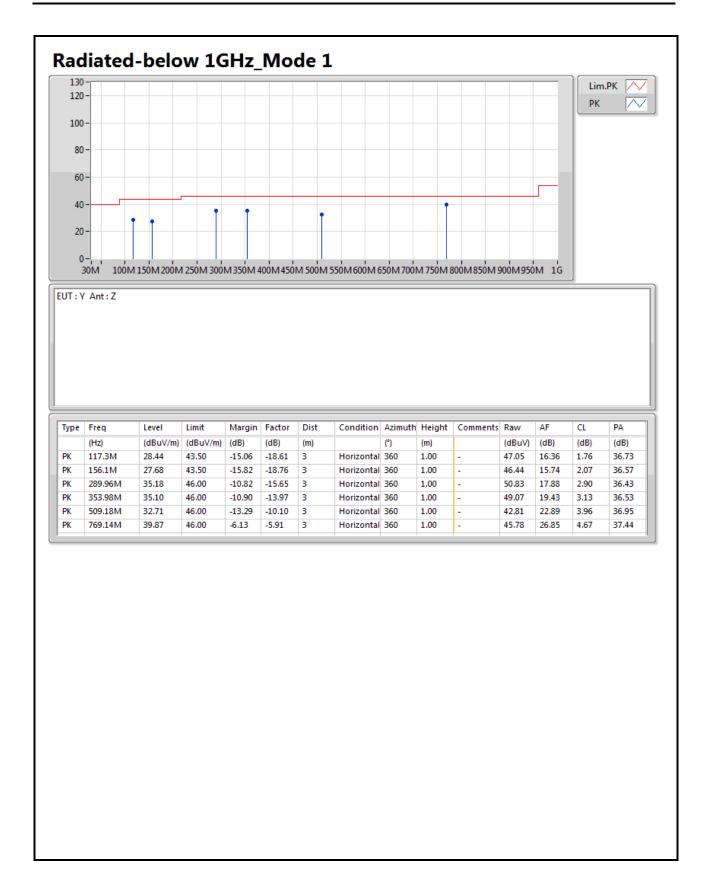
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RSE above 1GHz Result CO-LOCATION

Appendix G.2

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Summary

Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
Mode 1	Pass	AV	1.432G	38.81	54.00	-15.19	-6.94	3	Horizontal	0	1.00	-

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RSE above 1GHz Result CO-LOCATION

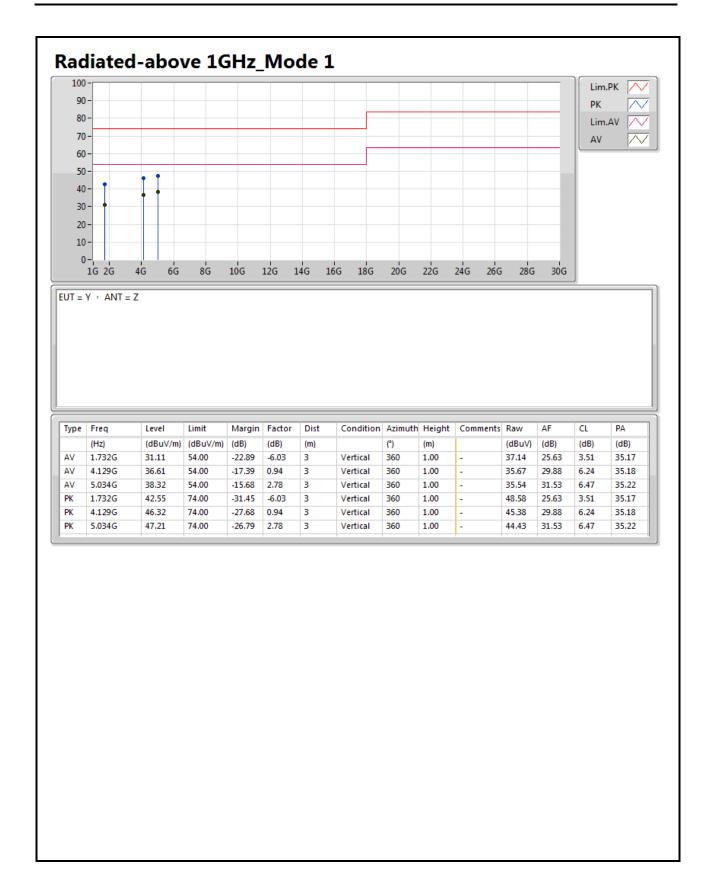
Appendix G.2

Result

Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
Mode 1	Pass	AV	1.432G	38.81	54.00	-15.19	-6.94	3	Horizontal	0	1.00	-
Mode 1	Pass	AV	5.034G	38.32	54.00	-15.68	2.78	3	Vertical	360	1.00	-
Mode 1	Pass	AV	5.304G	37.63	54.00	-16.37	3.06	3	Horizontal	0	1.00	-
Mode 1	Pass	AV	4.129G	36.61	54.00	-17.39	0.94	3	Vertical	360	1.00	-
Mode 1	Pass	AV	3.376G	35.03	54.00	-18.97	-0.86	3	Horizontal	0	1.00	-
Mode 1	Pass	AV	1.732G	31.11	54.00	-22.89	-6.03	3	Vertical	360	1.00	-
Mode 1	Pass	PK	5.304G	48.15	74.00	-25.85	3.06	3	Horizontal	0	1.00	-
Mode 1	Pass	PK	1.432G	47.87	74.00	-26.13	-6.94	3	Horizontal	0	1.00	-
Mode 1	Pass	PK	5.034G	47.21	74.00	-26.79	2.78	3	Vertical	360	1.00	-
Mode 1	Pass	PK	4.129G	46.32	74.00	-27.68	0.94	3	Vertical	360	1.00	-
Mode 1	Pass	PK	3.376G	44.23	74.00	-29.77	-0.86	3	Horizontal	0	1.00	-
Mode 1	Pass	PK	1.732G	42.55	74.00	-31.45	-6.03	3	Vertical	360	1.00	-

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