

Report No.: FR782501AN

FCC Test Report

Equipment	:	WiFi Module
Brand Name	:	SKSPRUCE
Model No.	:	WIM1200-20
FCC ID	:	2ACKD-WIM1200-20-A
Standard	:	47 CFR FCC Part 15.407
Operating Band	:	5150 MHz – 5250 MHz 5725 MHz – 5850 MHz
Applicant	:	Skspruce Technologies Inc. 1885 Lundy Ave. Suite 270, San Jose, CA, United States, 95131
Function	:	☐ Outdoor;☐ Indoor;☐ Fixed P2P☐ Client

The product sample received on Aug. 25, 2017 and completely tested on Sep. 07, 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.

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Summary of Test Result

Conformance Test Specifications					
Report Clause	Ref. Std. Clause	Description	Result		
1.1.2	15.203	Antenna Requirement	Complied		
3.1	15.207	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
FR782501AN	Rev. 01	Initial issue of report	Sep. 20, 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	802.11a	20	1TX
5.725-5.85GHz	802.11a	20	1TX
5.15-5.25GHz	802.11an HT20	20	1TX
5.725-5.85GHz	802.11an HT20	20	1TX
5.15-5.25GHz	802.11an HT40	40	1TX
5.725-5.85GHz	802.11an HT40	40	1TX
5.15-5.25GHz	802.11ac VHT20	20	1TX
5.725-5.85GHz	802.11ac VHT20	20	1TX
5.15-5.25GHz	802.11ac VHT40	40	1TX
5.725-5.85GHz	802.11ac VHT40	40	1TX
5.15-5.25GHz	802.11ac VHT80	80	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.

1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	ALPHA	AW3509-11	Dipole	U.FL	9

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1.1.3 EUT Information

	Operational Condition						
EU	EUT Power Type 3.3 Vdc from host						
Bea	amformin	g Function		With beamformi	ng [\boxtimes	Without beamforming
	Type of EUT						
	Stand-alone						
\boxtimes	☐ Combined (EUT where the radio part is fully integrated within another device)						
	Combined Equipment - Brand Name / Model No.: N/A						
	Plug-in radio (EUT intended for a variety of host systems)						
	Host System - Brand Name / Model No.:						
	Other:						

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1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.872	0.595	1.441m	1k
802.11ac VHT20	0.867	0.62	1.361m	1k
802.11ac VHT40	0.746	1.273	670.313u	3k
802.11ac VHT80	0.58	2.366	330.313u	10k

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1.2 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

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- 47 CFR FCC Part 15
- ANSI C63.10-2013
- KDB 789033 D02 v01r04
- KDB 644545 D03 v01

1.3 Testing Location Information

	Testing Location						
\boxtimes	HWA YA	ADD	ADD : 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.)		
	TEL: 886-3-656-9065 FAX: 886-3-656-9085						
	Test site Designation No. TW0006 with FCC.						

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH07-HY	Ryan	24.6°C / 64%	28/Aug/2017
Radiated	03CH09-HY	Jerry	26.5°C / 55%	07/Sep/2017
AC Conduction	CO04-HY	Danie	24.8°C / 56%	31/Aug/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	MT76xxE_AP
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Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX	-
5180MHz	2D
5200MHz	2D
5240MHz	2D
5745MHz	26
5785MHz	27
5825MHz	27
802.11ac VHT20_Nss1,(MCS0)_1TX	-
5180MHz	2C
5200MHz	2C
5240MHz	2C
5745MHz	25
5785MHz	26
5825MHz	27
802.11ac VHT40_Nss1,(MCS0)_1TX	-
5190MHz	2C
5230MHz	2C
5755MHz	26
5795MHz	26
802.11ac VHT80_Nss1,(MCS0)_1TX	-
5210MHz	26
5775MHz	26

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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	AC power-line conducted measurement for line and neutral	
Operating Mode	СТХ	
1	Adapter Mode	

Т	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	

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	СТХ		
1	Adapter Mode		
Operating Mode > 1GHz	СТХ		
	X Plane	Y Plane	Z Plane
Orthogonal Planes of EUT			
Worst Planes of EUT			V

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

Refer to Sporton Test Report No.: FA782501 for Co-location RF Exposure Evaluation and Appendix G for Radiated Emission Co-location.

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2.4 Support Equipment

	Support Equipment - RF Conducted			
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E5410	R33002 / DOC
2	Adapter for NB	DELL	HA65NM130	R35737 / DOC
3	AC Source	G.W	APS-9102	-
4	Fixture	-	-	-

Note. Support equipment No.4 was provided by customer.

	Support Equipment – Radiated Emission				
No.	Equipment Brand Name Model Name FCC ID				
1	AC adapter	DVE	DSA-12GC-12 FUS	-	
2	Fixture	-	-	-	

Note. Support equipment No.2 was provided by customer.

	Support Equipment – AC Conduction				
No.	Equipment Brand Name Model Name FCC ID				
1	AC adapter	DVE	DSA-12GC-12 FUS	-	
2	Fixture	-	-	-	

Note. Support equipment No.2 was provided by customer.

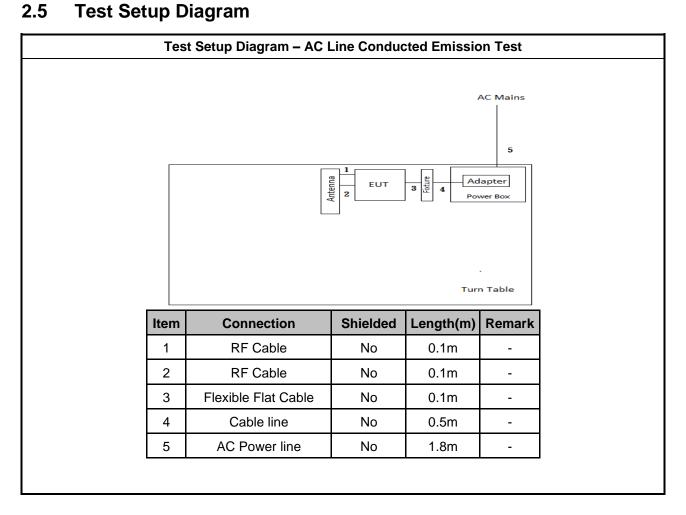
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N.F. - Tarak Oak - Diamond



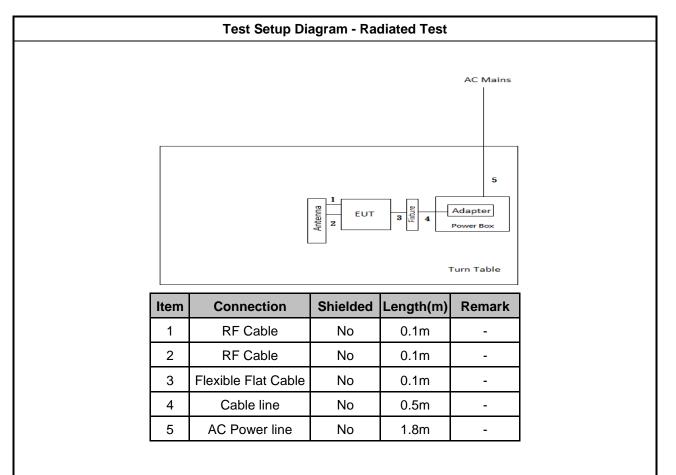
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3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Pow	er-line Conducted Emissions L	imit
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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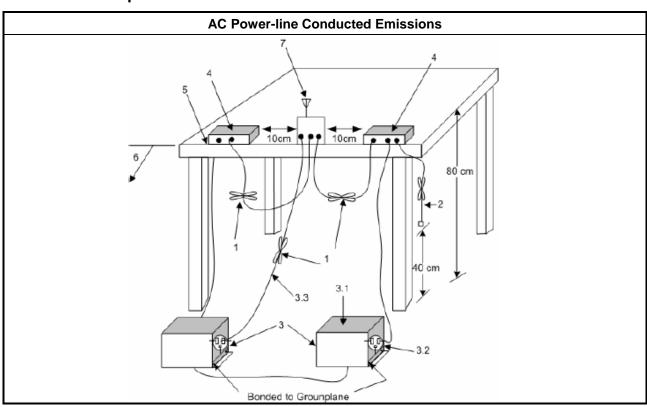
3.1.2 Measuring Instruments

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	JNII 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.					

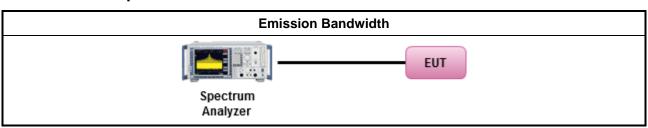
3.2.2 Measuring Instruments

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 789	033, clause C for EBW and clause D for OBW measurement.					
	☐ Refer as ANSI C6	3.10, clause 6.9.3 for occupied bandwidth testing.					
	Refer as IC RSS-0	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	I 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.
	= maximum conducted output power in dBm, = the maximum transmitting antenna directional gain in dBi.

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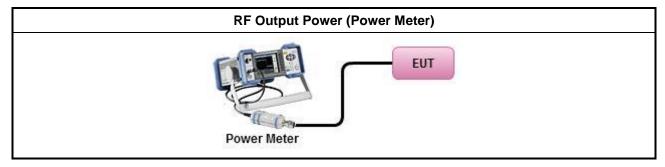
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

	Test Method
•	Maximum Conducted Output Power
	Duty cycle ≥ 98%
I	Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging).
Ī	Duty cycle < 98%
I	Refer as KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
I	Wideband RF power meter and average over on/off periods with duty factor
L	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} = P₁ + P₂ + + 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					
UNI	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) \leq 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.					
pow	SD = peak power spectral density that he same method as used to determine the conducted output er shall be used to determine the power spectral density. And power spectral density in dBm/MHz = the maximum transmitting antenna directional gain in dBi.					

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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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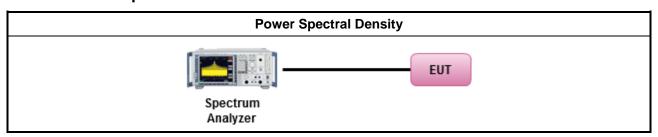
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3.4.3 Test Procedures

	Test Method								
•	Peak power spectral density procedures that the same method as used to determine the conducted output power shall be used to determine the peak power spectral density and use the peak search function on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density shall be measured using below options:								
	Refer as 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%							
		Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging).							
	Duty	r cycle < 98%							
	\boxtimes	Refer as KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)							
•	For	conducted measurement.							
	•	If the EUT supports multiple transmit chains using options given below:							
		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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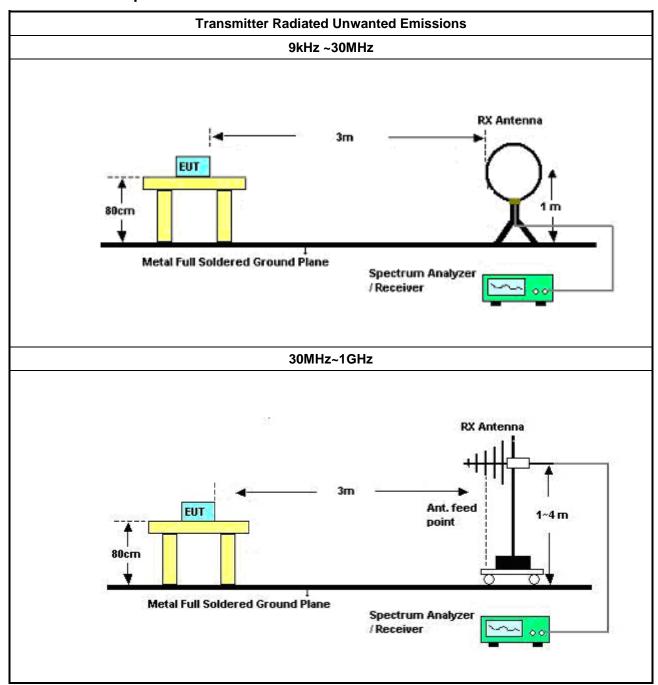
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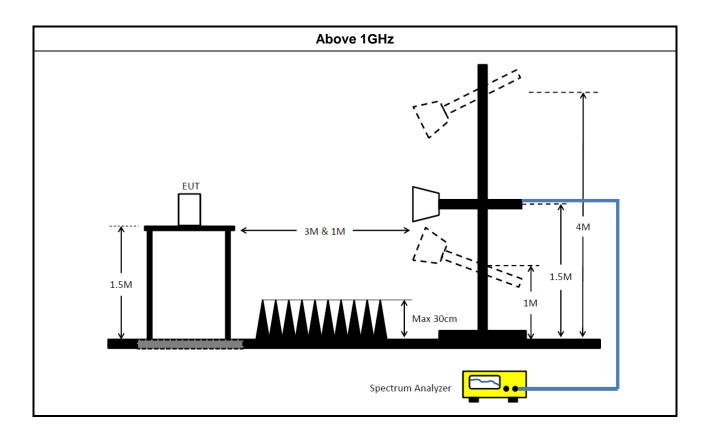
Test Setup 3.5.4



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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

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.

IEEE Std. 802.11

The transmitter center frequency tolerance shall be ± 20 ppm maximum for the 5 GHz band.

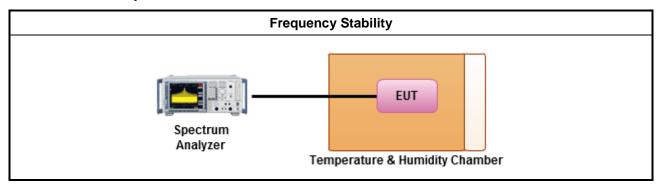
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

	Test Method					
-	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	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR3	102052	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
AC POWER	APC	AFC-11005G	F310050055	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Pulse Limiter	R&S	ESH3-Z2	100921	10 kHz ~ 30 MHz	21/Oct/2016	20/Oct/2017

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NCR : Non-Calibration Require

Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	30MHz ~ 1GHz	25/Apr/2017	24/Apr/2018
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz ~ 18GHz	28/Jun/2017	27/Jun/2018
Amplifier	Agilent	8449B	3008A02096	1GHz ~ 26.5GHz	25/Apr/2017	24/Apr/2018
Amplifier	EMC	EMC9135	980232	9KHz~1GHz	25/Apr/2017	24/Apr/2018
Spectrum Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz ~ 44GHz	20/Jul/2017	19/Jul/2018
Bilog Antenna	TESEQ	CBL 6111D	35418	30MHz~1GHz	01/Oct/2016	30/Sep/2017
Horn Antenna	SCHWARZBECK	BBHA 9120D	BBHA9120D 1534	1GHz~18GHz	28/Apr/2017	27/Apr/2018
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170614	18GHz ~ 40GHz	06/Feb/2017	05/Feb/2018
Amplifier	MITEQ	JS44-18004000 -33-8P	1840917	18GHz ~ 40GHz	06/Feb/2017	05/Feb/2018
Loop Antenna	R&S	HFH2-Z2	100330	9 kHz~30 MHz	10/Nov/2016	09/Nov/2017
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz ~ 1GHz	02/Feb/2017	01/Feb/2018
RF Cable-high	Jye Bao	RG142	03CH09-HY	1GHz ~ 40GHz	02/Feb/2017	01/Feb/2018
Receiver	R&S	ESU-26	100422/026	20Hz ~ 26.5GHz	21/Sep/2016	20/Sep/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	101500	9kHz~40GHz	28/Jun/2017	27/Jun/2018
Power Sensor	Anritsu	MA2411B	1339407	300MHz ~ 40GHz	27/Oct/2016	26/Oct/2017
Power Meter	Anritsu	ML2495A	1517010	300MHz ~ 40GHz	27/Oct/2016	26/Oct/2017
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	27/Jun/2017	26/Jun/2018
Temp. and Humidity Chamber	Giant Force	GTH-225-20-SP-SD	MAA1311-008	-40 ~ 100°C	10/May/2017	09/May/2018
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY10710/4	30MHz ~ 26.5GHz	02/Oct/2016	01/Oct/2017
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY10709/4	30MHz ~ 26.5GHz	02/Oct/2016	01/Oct/2017
RF Cable-0.5m	HUBER+SUHNER	SUCOFLEX_104	MY10713/4	30MHz ~ 26.5GHz	02/Oct/2016	01/Oct/2017
RF Cable-1.5m	HUBER+SUHNER	SUCOFLEX_104	MY12582/4	30MHz ~ 26.5GHz	02/Oct/2016	01/Oct/2017

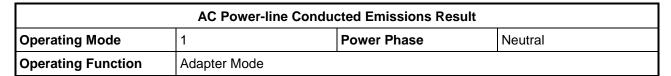
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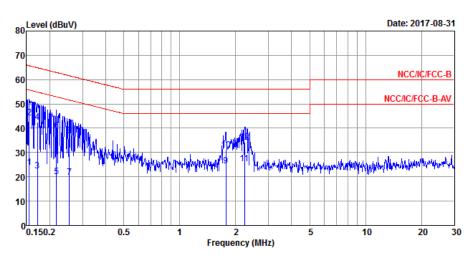
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Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.

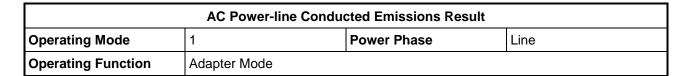
Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

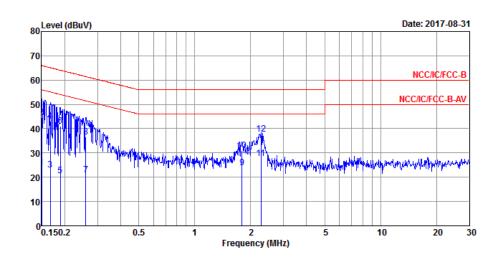
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			Over	Limit	Read	LISN	Cable	
	Freq	Level	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.15	24.22	-31.78	56.00	14.34	9.66	0.22	Average
2	0.15	44.61	-21.39	66.00	34.73	9.66	0.22	QP
3	0.17	22.99	-32.13	55.12	13.08	9.66	0.25	Average
4	0.17	42.97	-22.15	65.12	33.06	9.66	0.25	QP
5	0.19	20.78	-33.28	54.06	10.84	9.65	0.29	Average
6	0.19	41.07	-22.99	64.06	31.13	9.65	0.29	QP
7	0.26	20.87	-30.60	51.47	10.98	9.66	0.23	Average
8	0.26	36.50	-24.97	61.47	26.61	9.66	0.23	QP
9	1.80	23.81	-22.19	46.00	13.77	9.77	0.27	Average
10	1.80	31.04	-24.96	56.00	21.00	9.77	0.27	QP
11 MAX	2.27	27.82	-18.18	46.00	17.77	9.79	0.26	Average
12	2.27	37.77	-18.23	56.00	27.72	9.79	0.26	QP

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.)

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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	24.625M	16.492M	16M5D1D	22.425M	16.442M
5.725-5.85GHz	16.3M	16.492M	16M5D1D	16.3M	16.417M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
5.15-5.25GHz	21.025M	17.566M	17M6D1D	19.925M	17.541M
5.725-5.85GHz	16.875M	17.566M	17M6D1D	16.525M	17.541M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
5.15-5.25GHz	40.85M	36.182M	36M2D1D	40.8M	36.132M
5.725-5.85GHz	35.6M	36.182M	36M2D1D	35.3M	36.132M
802.11ac VHT80_Nss1,(MCS0)_1TX	-	-	-	-	-
5.15-5.25GHz	81.9M	75.462M	75M5D1D	81.9M	75.462M
5.725-5.85GHz	75.1M	75.662M	75M7D1D	75.1M	75.662M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
Max-OBW = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
Min-OBW = Minimum 99% occupied bandwidth;

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Result

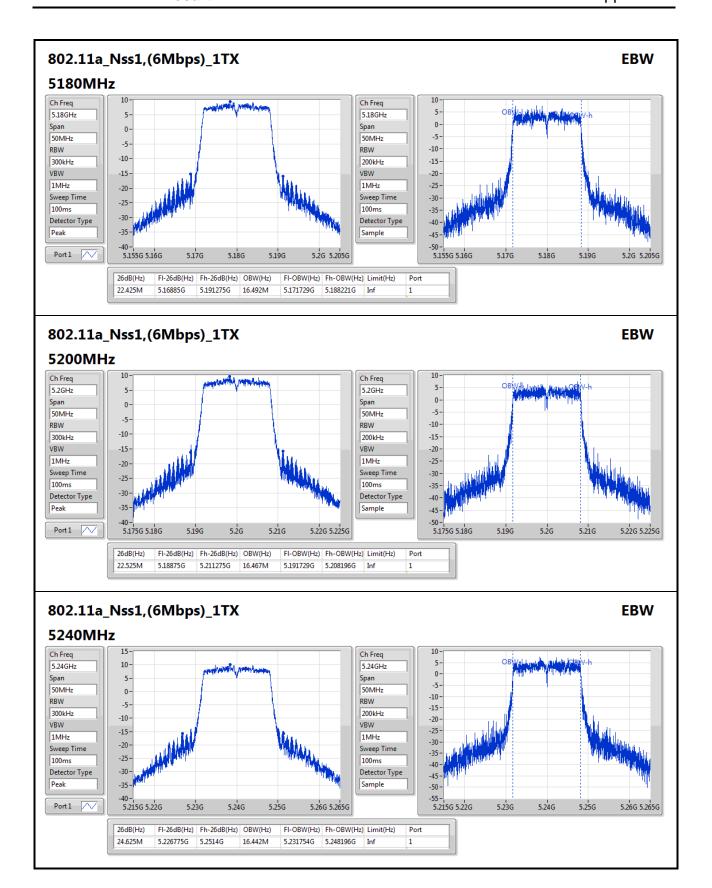
Mode	Result	Limit	Port 1-N dB	Port 1-OBW
		(Hz)	(Hz)	(Hz)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-
5180MHz	Pass	Inf	22.425M	16.492M
5200MHz	Pass	Inf	22.525M	16.467M
5240MHz	Pass	Inf	24.625M	16.442M
5745MHz	Pass	500k	16.3M	16.417M
5785MHz	Pass	500k	16.3M	16.467M
5825MHz	Pass	500k	16.3M	16.492M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-
5180MHz	Pass	Inf	21.025M	17.541M
5200MHz	Pass	Inf	20.525M	17.566M
5240MHz	Pass	Inf	19.925M	17.541M
5745MHz	Pass	500k	16.875M	17.566M
5785MHz	Pass	500k	16.525M	17.566M
5825MHz	Pass	500k	16.725M	17.541M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-
5190MHz	Pass	Inf	40.8M	36.182M
5230MHz	Pass	Inf	40.85M	36.132M
5755MHz	Pass	500k	35.6M	36.182M
5795MHz	Pass	500k	35.3M	36.132M
802.11ac VHT80_Nss1,(MCS0)_1TX	-	-	-	-
5210MHz	Pass	Inf	81.9M	75.462M
5775MHz	Pass	500k	75.1M	75.662M

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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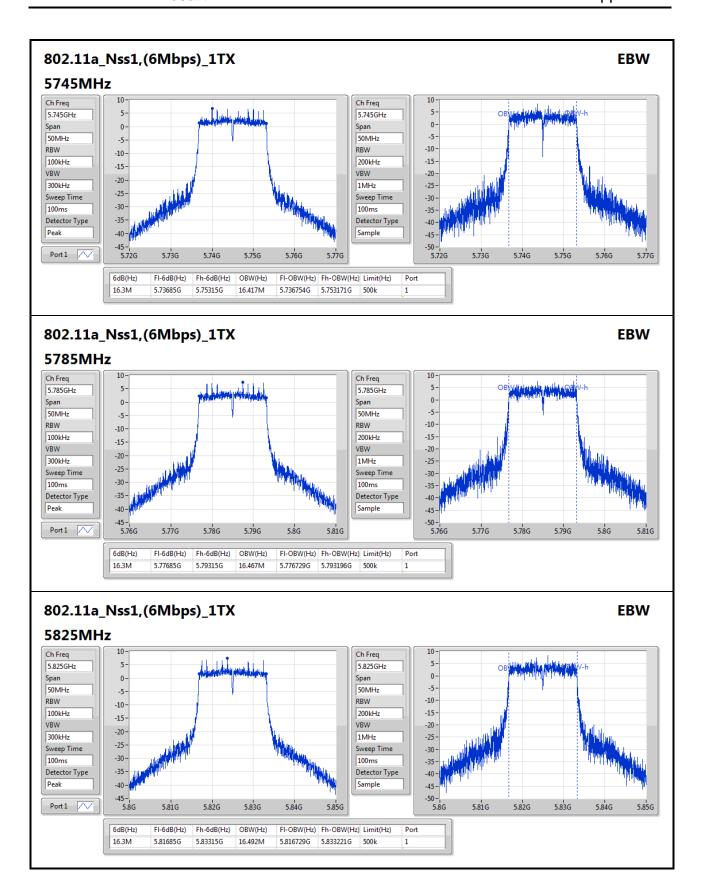
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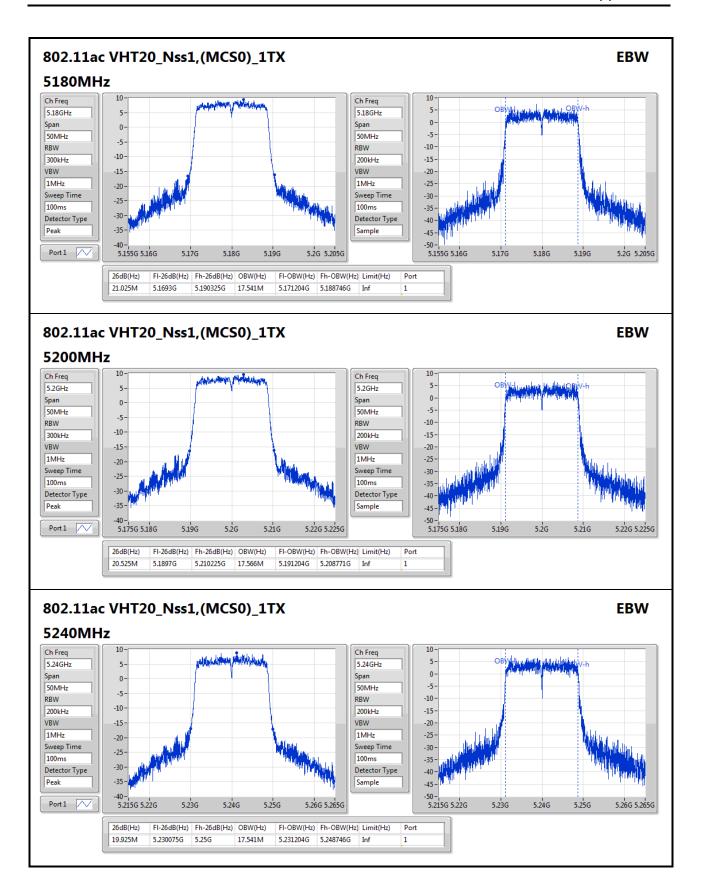
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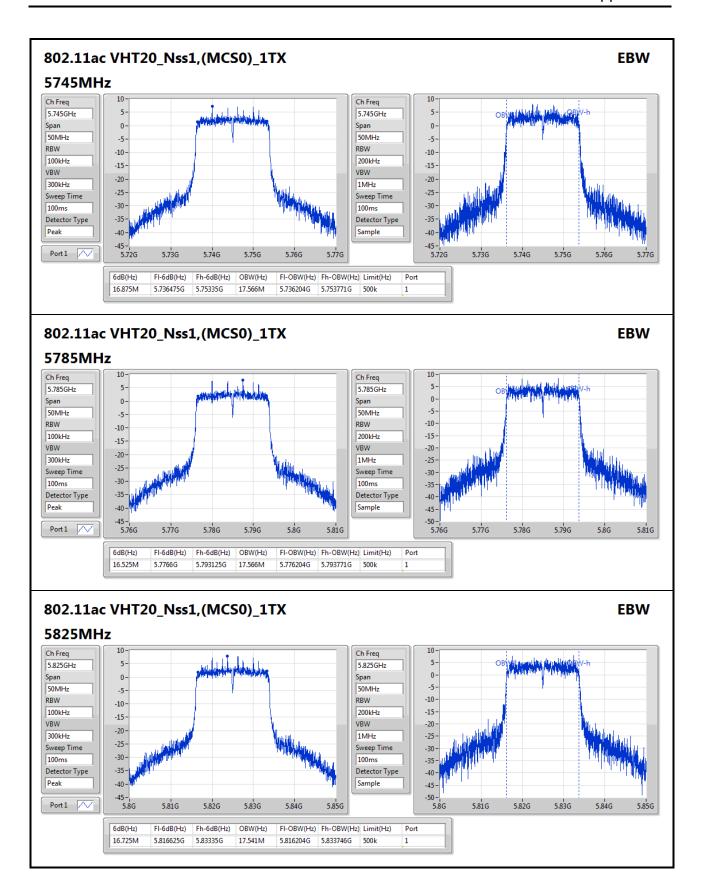
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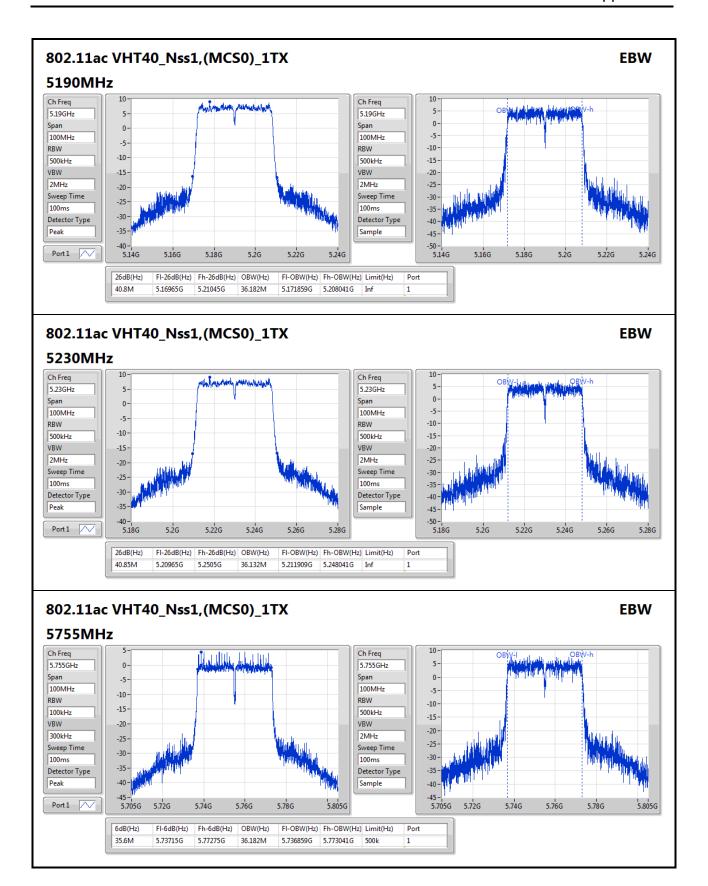
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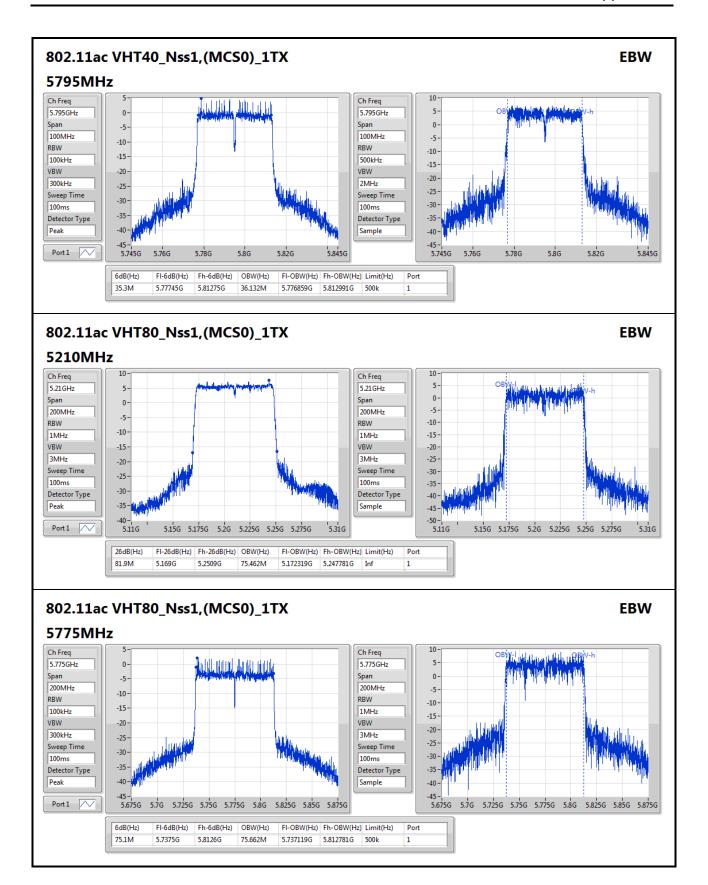
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Power Result Appendix C

Summary

Mode	Total Power	Total Power	EIRP	EIRP
	(dBm)	(W)	(dBm)	(W)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-
5.15-5.25GHz	18.44	0.06982	27.44	0.55463
5.725-5.85GHz	18.49	0.07063	27.49	0.56105
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-
5.15-5.25GHz	18.41	0.06934	27.41	0.55081
5.725-5.85GHz	18.44	0.06982	27.44	0.55463
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-
5.15-5.25GHz	18.29	0.06745	27.29	0.53580
5.725-5.85GHz	18.45	0.06998	27.45	0.55590
802.11ac VHT80_Nss1,(MCS0)_1TX	-	-	-	-
5.15-5.25GHz	15.68	0.03698	24.68	0.29376
5.725-5.85GHz	18.44	0.06982	27.44	0.55463

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Power Result Appendix C

Result

Mode	Result	DG	Port 1	Total Power	Power Limit	EIRP	EIRP Limit
		(dBi)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-
5180MHz	Pass	9.00	18.44	18.44	27.00	27.44	36.00
5200MHz	Pass	9.00	18.41	18.41	27.00	27.41	36.00
5240MHz	Pass	9.00	18.37	18.37	27.00	27.37	36.00
5745MHz	Pass	9.00	18.27	18.27	27.00	27.27	36.00
5785MHz	Pass	9.00	18.49	18.49	27.00	27.49	36.00
5825MHz	Pass	9.00	18.32	18.32	27.00	27.32	36.00
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
5180MHz	Pass	9.00	18.21	18.21	27.00	27.21	36.00
5200MHz	Pass	9.00	18.25	18.25	27.00	27.25	36.00
5240MHz	Pass	9.00	18.41	18.41	27.00	27.41	36.00
5745MHz	Pass	9.00	18.44	18.44	27.00	27.44	36.00
5785MHz	Pass	9.00	18.44	18.44	27.00	27.44	36.00
5825MHz	Pass	9.00	18.42	18.42	27.00	27.42	36.00
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	=	-	-
5190MHz	Pass	9.00	18.29	18.29	27.00	27.29	36.00
5230MHz	Pass	9.00	18.28	18.28	27.00	27.28	36.00
5755MHz	Pass	9.00	18.45	18.45	27.00	27.45	36.00
5795MHz	Pass	9.00	18.25	18.25	27.00	27.25	36.00
802.11ac VHT80_Nss1,(MCS0)_1TX	-	-	-	-	=	=	=
5210MHz	Pass	9.00	15.68	15.68	27.00	24.68	36.00
5775MHz	Pass	9.00	18.44	18.44	27.00	27.44	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	6.05	15.05
5.725-5.85GHz	4.55	13.55
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-
5.15-5.25GHz	5.84	14.84
5.725-5.85GHz	4.35	13.35
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-
5.15-5.25GHz	2.53	11.53
5.725-5.85GHz	1.31	10.31
802.11ac VHT80_Nss1,(MCS0)_1TX	-	-
5.15-5.25GHz	-2.35	6.65
5.725-5.85GHz	-0.55	8.45

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

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Appendix D **PSD Result**

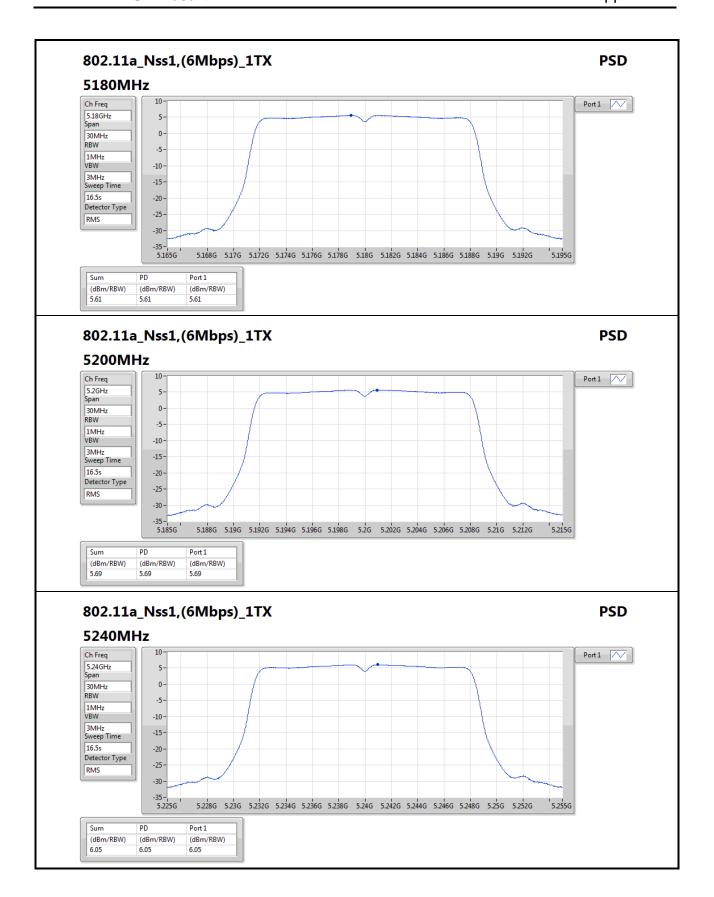
Result

Mode	Result	DG	Port 1	PD	PD Limit	EIRP PD	EIRP PD Limit
		(dBi)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-
5180MHz	Pass	9.00	5.61	5.61	14.00	14.61	Inf
5200MHz	Pass	9.00	5.69	5.69	14.00	14.69	Inf
5240MHz	Pass	9.00	6.05	6.05	14.00	15.05	Inf
5745MHz	Pass	9.00	4.13	4.13	27.00	13.13	Inf
5785MHz	Pass	9.00	4.55	4.55	27.00	13.55	Inf
5825MHz	Pass	9.00	4.15	4.15	27.00	13.15	Inf
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
5180MHz	Pass	9.00	5.38	5.38	14.00	14.38	Inf
5200MHz	Pass	9.00	5.50	5.50	14.00	14.50	Inf
5240MHz	Pass	9.00	5.84	5.84	14.00	14.84	Inf
5745MHz	Pass	9.00	4.16	4.16	27.00	13.16	Inf
5785MHz	Pass	9.00	4.35	4.35	27.00	13.35	Inf
5825MHz	Pass	9.00	4.29	4.29	27.00	13.29	Inf
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
5190MHz	Pass	9.00	2.42	2.42	14.00	11.42	Inf
5230MHz	Pass	9.00	2.53	2.53	14.00	11.53	Inf
5755MHz	Pass	9.00	1.31	1.31	27.00	10.31	Inf
5795MHz	Pass	9.00	1.16	1.16	27.00	10.16	Inf
802.11ac VHT80_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
5210MHz	Pass	9.00	-2.35	-2.35	14.00	6.65	Inf
5775MHz	Pass	9.00	-0.55	-0.55	27.00	8.45	Inf

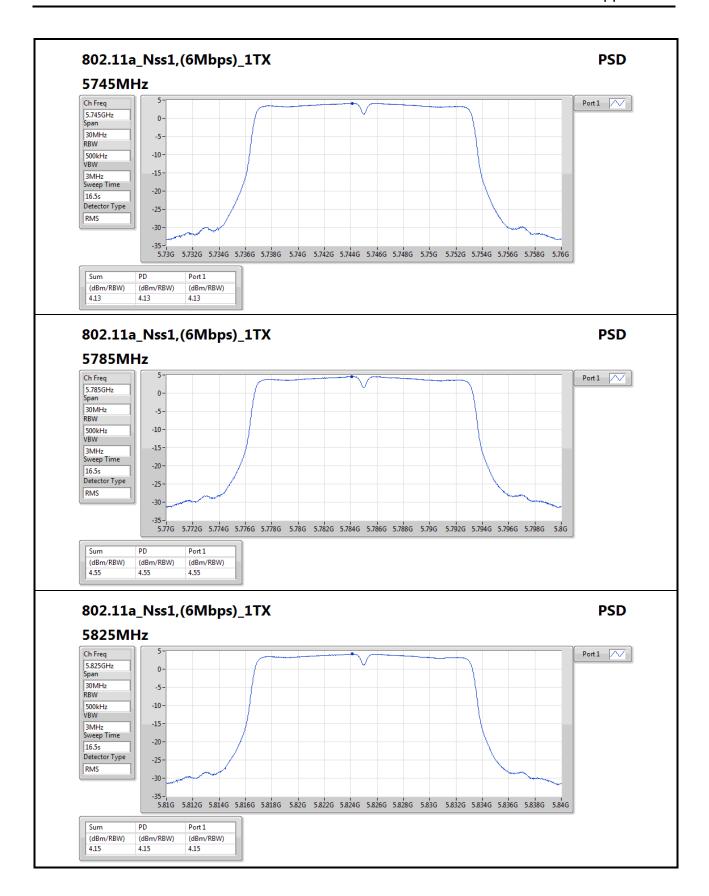
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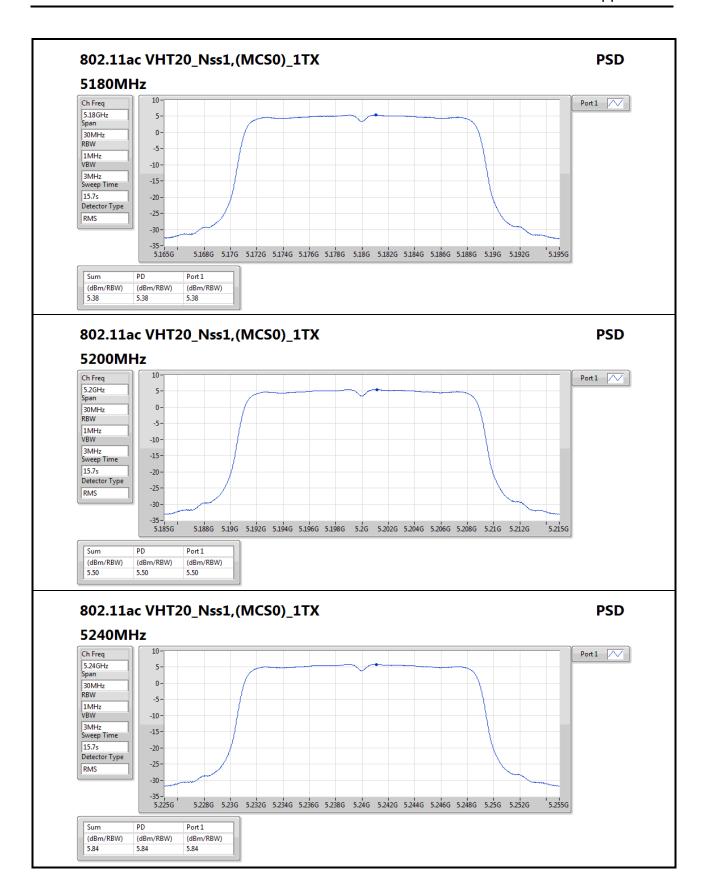
DG = Directional Gain; RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port Xpower density;



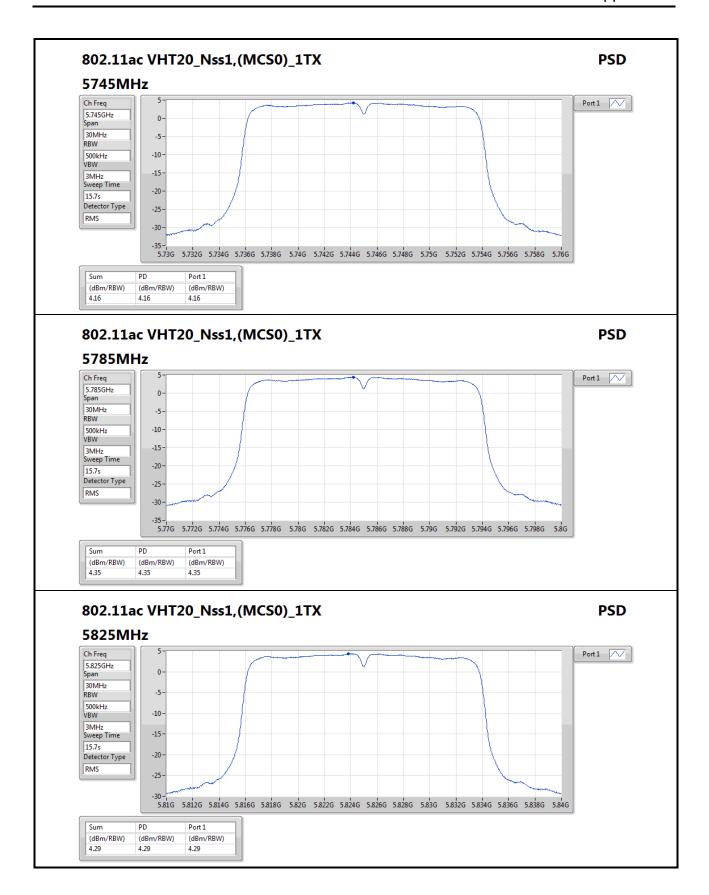
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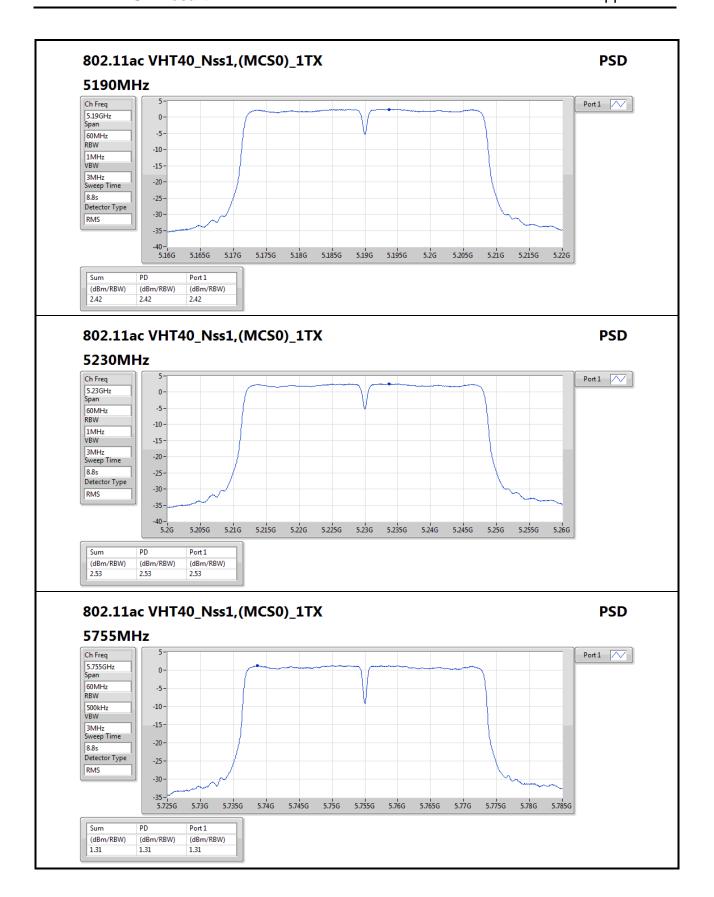


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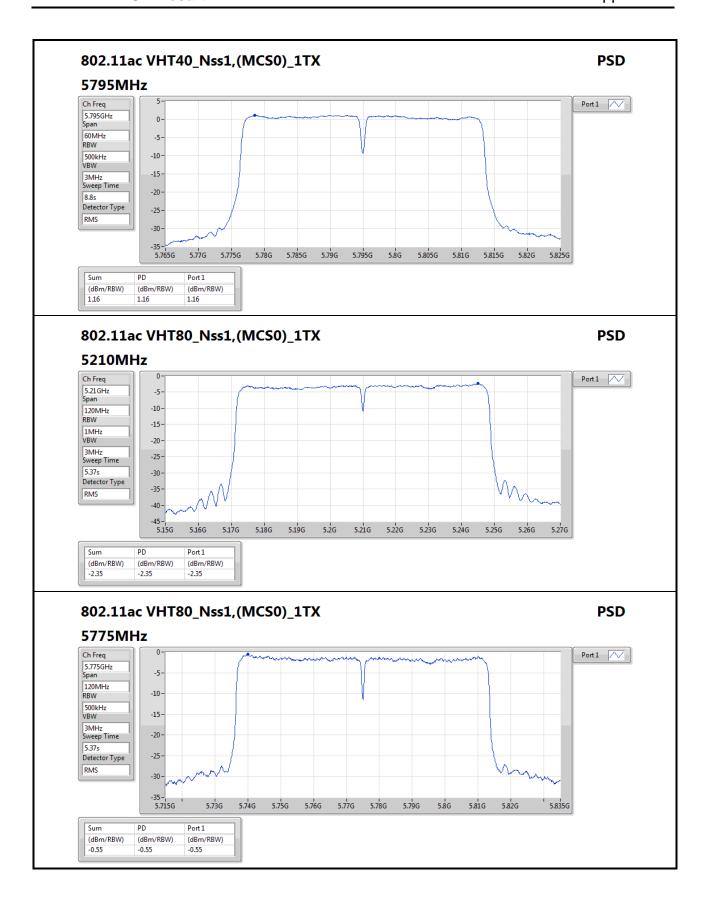


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RSE TX below 1GHz Result

Appendix E.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)	
VHT80_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
5.725-5.85GHz	Pass	PK	239.52M	40.29	46.00	-5.71	-8.78	3	Horizontal	0	1.00	-

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RSE TX below 1GHz Result

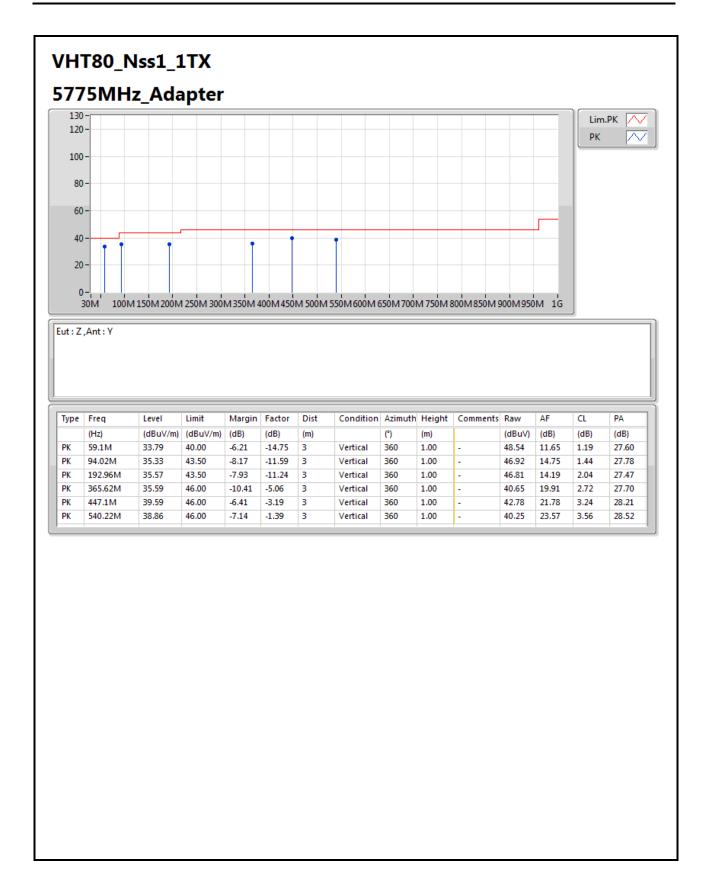
Appendix E.1

Result

Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
VHT80_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
5775MHz	Pass	PK	39.7M	33.64	40.00	-6.36	-9.07	3	Horizontal	0	1.00	-
5775MHz	Pass	PK	74.62M	33.77	40.00	-6.23	-14.82	3	Horizontal	0	1.00	-
5775MHz	Pass	PK	239.52M	40.29	46.00	-5.71	-8.78	3	Horizontal	0	1.00	-
5775MHz	Pass	PK	404.42M	35.70	46.00	-10.30	-3.97	3	Horizontal	0	1.00	-
5775MHz	Pass	PK	456.8M	35.68	46.00	-10.32	-3.07	3	Horizontal	0	1.00	-
5775MHz	Pass	PK	617.82M	36.06	46.00	-9.94	-1.03	3	Horizontal	0	1.00	-
5775MHz	Pass	PK	59.1M	33.79	40.00	-6.21	-14.75	3	Vertical	360	1.00	-
5775MHz	Pass	PK	94.02M	35.33	43.50	-8.17	-11.59	3	Vertical	360	1.00	-
5775MHz	Pass	PK	192.96M	35.57	43.50	-7.93	-11.24	3	Vertical	360	1.00	-
5775MHz	Pass	PK	365.62M	35.59	46.00	-10.41	-5.06	3	Vertical	360	1.00	-
5775MHz	Pass	PK	447.1M	39.59	46.00	-6.41	-3.19	3	Vertical	360	1.00	-
5775MHz	Pass	PK	540.22M	38.86	46.00	-7.14	-1.39	3	Vertical	360	1.00	-

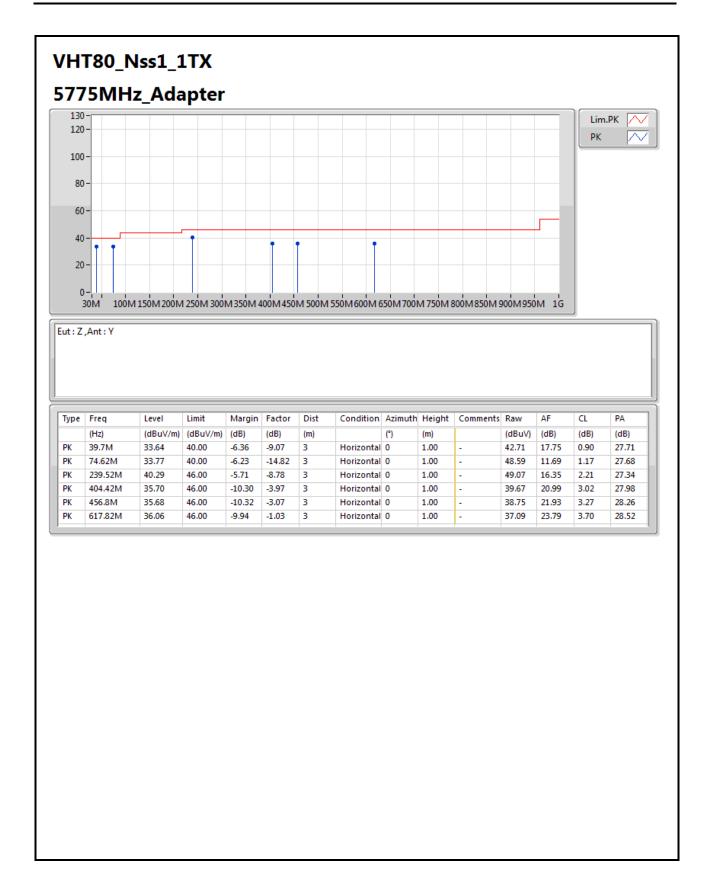
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Appendix E.2

Summary

Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
VHT40_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
5.15-5.25GHz	Pass	AV	5.149995G	53.87	54.00	-0.13	2.90	3	Horizontal	184	1.02	-
VHT80_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
5.725-5.85GHz	Pass	PK	5.6502G	67.81	68.35	-0.54	3.40	3	Horizontal	357	1.01	-

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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)	
11a_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	AV	5.1494G	53.48	54.00	-0.52	2.90	3	Horizontal	6	1.00	-
5180MHz	Pass	AV	5.181G	101.36	Inf	-Inf	2.93	3	Horizontal	6	1.00	-
5180MHz	Pass	PK	5.1498G	67.63	74.00	-6.37	2.90	3	Horizontal	6	1.00	-
5180MHz	Pass	PK	5.183G	109.55	Inf	-Inf	2.93	3	Horizontal	6	1.00	-
5180MHz	Pass	AV	5.1496G	47.55	54.00	-6.45	2.90	3	Vertical	301	1.04	-
5180MHz	Pass	AV	5.1814G	91.30	Inf	-Inf	2.93	3	Vertical	301	1.04	-
5180MHz	Pass	PK	5.1498G	59.31	74.00	-14.69	2.90	3	Vertical	301	1.04	-
5180MHz	Pass	PK	5.183G	99.13	Inf	-Inf	2.93	3	Vertical	301	1.04	-
5180MHz	Pass	AV	15.54G	47.31	54.00	-6.69	14.65	3	Horizontal	204	1.50	-
5180MHz	Pass	PK	15.54G	59.39	74.00	-14.61	14.65	3	Horizontal	204	1.50	-
5180MHz	Pass	AV	15.54G	47.28	54.00	-6.72	14.65	3	Vertical	227	3.24	-
5180MHz	Pass	PK	15.54G	59.13	74.00	-14.87	14.65	3	Vertical	227	3.24	-
5200MHz	Pass	AV	5.1472G	47.80	54.00	-6.20	2.90	3	Horizontal	353	1.32	-
5200MHz	Pass	AV	5.1988G	100.71	Inf	-Inf	2.95	3	Horizontal	353	1.32	-
5200MHz	Pass	PK	5.1492G	59.22	74.00	-14.78	2.90	3	Horizontal	353	1.32	-
5200MHz	Pass	PK	5.2028G	109.03	Inf	-Inf	2.95	3	Horizontal	353	1.32	-
5200MHz	Pass	AV	5.1156G	46.40	54.00	-7.60	2.87	3	Vertical	300	1.01	-
5200MHz	Pass	AV	5.1988G	90.00	Inf	-Inf	2.95	3	Vertical	300	1.01	-
5200MHz	Pass	PK	5.1176G	57.78	74.00	-16.22	2.87	3	Vertical	300	1.01	-
5200MHz	Pass	PK	5.1952G	98.04	Inf	-Inf	2.95	3	Vertical	300	1.01	-
5200MHz	Pass	AV	15.6G	50.79	54.00	-3.21	14.43	3	Horizontal	119	1.09	-
5200MHz	Pass	PK	15.6G	64.26	74.00	-9.74	14.43	3	Horizontal	119	1.09	-
5200MHz	Pass	AV	15.6G	50.64	54.00	-3.36	14.43	3	Vertical	73	3.65	-
5200MHz	Pass	PK	15.6G	63.78	74.00	-10.22	14.43	3	Vertical	73	3.65	-
5240MHz	Pass	AV	5.1416G	46.61	54.00	-7.39	2.89	3	Horizontal	358	1.14	-
5240MHz	Pass	AV	5.2412G	91.86	Inf	-Inf	3.00	3	Horizontal	358	1.14	-
5240MHz	Pass	AV	5.372G	46.07	54.00	-7.93	3.13	3	Horizontal	358	1.14	-
5240MHz	Pass	PK	5.1476G	56.93	74.00	-17.07	2.90	3	Horizontal	358	1.14	-
5240MHz	Pass	PK	5.2412G	99.94	Inf	-Inf	3.00	3	Horizontal	358	1.14	-
5240MHz	Pass	PK	5.3786G	56.65	74.00	-17.35	3.14	3	Horizontal	358	1.14	-
5240MHz	Pass	AV	5.0912G	46.39	54.00	-7.61	2.84	3	Vertical	296	1.05	-
5240MHz	Pass	AV	5.2412G	82.07	Inf	-Inf	3.00	3	Vertical	296	1.05	-
5240MHz	Pass	AV	5.3696G	45.68	54.00	-8.32	3.13	3	Vertical	296	1.05	_
5240MHz	Pass	PK	5.12G	57.06	74.00	-16.94	2.87	3	Vertical	296	1.05	-
5240MHz	Pass	PK	5.243G	90.38	Inf	-Inf	3.00	3	Vertical	296	1.05	-
5240MHz	Pass	PK	5.3798G	56.86	74.00	-17.14	3.14	3	Vertical	296	1.05	-
5240MHz	Pass	AV	15.72G	50.52	54.00	-3.48	13.99	3	Horizontal	119	1.11	-
5240MHz	Pass	PK	15.72G	63.47	74.00	-10.53	13.99	3	Horizontal	119	1.11	-
5240MHz	Pass	AV	15.72G	48.98	54.00	-5.02	13.99	3	Vertical	72	3.67	-
5240MHz	Pass	PK	15.72G	63.06	74.00	-10.94	13.99	3	Vertical	72	3.67	-
5745MHz	Pass	AV	5.7462G	105.06	Inf	-Inf	3.47	3	Horizontal	356	1.01	-
5745MHz	Pass	PK	5.6478G	59.90	68.20	-8.30	3.39	3	Horizontal	356	1.01	-
5745MHz	Pass	PK	5.7462G	114.14	Inf	-Inf	3.47	3	Horizontal	356	1.01	-
5745MHz	Pass	PK	5.9502G	57.20	68.20	-11.00	3.64	3	Horizontal	356	1.01	-
5745MHz	Pass	AV	5.7438G	103.51	Inf	-Inf	3.47	3	Vertical	247	3.42	-
5745MHz	Pass	PK	5.5902G	58.26	68.20	-9.94	3.34	3	Vertical	247	3.42	-
5745MHz	Pass	PK	5.7414G	111.76	Inf	-Inf	3.47	3	Vertical	247	3.42	-

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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)	
5745MHz	Pass	PK	5.9874G	57.98	68.20	-10.22	3.67	3	Vertical	247	3.42	-
5745MHz	Pass	PK	17.235G	63.48	68.20	-5.77	18.05	3	Horizontal	30	1.09	-
5745MHz	Pass	PK	17.235G	63.48	68.20	-4.72	18.05	3	Vertical	49	1.01	-
5785MHz	Pass	AV	5.7838G	104.39	Inf	-Inf	3.50	3	Horizontal	356	1.01	-
5785MHz	Pass	PK	5.6158G	58.28	68.20	-9.92	3.36	3	Horizontal	356	1.01	-
5785MHz	Pass	PK	5.7862G	113.14	Inf	-Inf	3.50	3	Horizontal	356	1.01	-
5785MHz	Pass	PK	5.9794G	57.61	68.20	-10.59	3.66	3	Horizontal	356	1.01	-
5785MHz	Pass	AV	5.7862G	103.32	Inf	-Inf	3.50	3	Vertical	254	3.54	_
5785MHz	Pass	PK	5.6362G	58.19	68.20	-10.01	3.38	3	Vertical	254	3.54	_
5785MHz	Pass	PK	5.7862G	112.07	Inf	-Inf	3.50	3	Vertical	254	3.54	
		PK						3				-
5785MHz	Pass		5.9326G	58.10	68.20	-10.10	3.63		Vertical	254	3.54	-
5785MHz	Pass	AV	11.57G	45.34	54.00	-8.66	13.49	3	Horizontal	3	1.50	-
5785MHz	Pass	PK	11.57G	56.85	74.00	-17.15	13.49	3	Horizontal	3	1.50	-
5785MHz	Pass	AV	11.57G	45.33	54.00	-8.67	13.49	3	Vertical	0	1.50	-
5785MHz	Pass	PK	11.57G	57.15	74.00	-16.85	13.49	3	Vertical	0	1.50	-
5825MHz	Pass	AV	5.8262G	105.47	Inf	-Inf	3.53	3	Horizontal	187	2.50	-
5825MHz	Pass	PK	5.627G	59.49	68.20	-8.71	3.37	3	Horizontal	187	2.50	-
5825MHz	Pass	PK	5.8262G	114.07	Inf	-Inf	3.53	3	Horizontal	187	2.50	-
5825MHz	Pass	PK	5.9534G	58.71	68.20	-9.49	3.64	3	Horizontal	187	2.50	-
5825MHz	Pass	AV	5.8238G	102.51	Inf	-Inf	3.53	3	Vertical	277	3.66	-
5825MHz	Pass	PK	5.5646G	58.09	68.20	-10.11	3.32	3	Vertical	277	3.66	-
5825MHz	Pass	PK	5.8214G	111.18	Inf	-Inf	3.53	3	Vertical	277	3.66	-
5825MHz	Pass	PK	5.9234G	59.30	69.38	-10.09	3.62	3	Vertical	277	3.66	-
5825MHz	Pass	AV	11.65G	45.96	54.00	-8.04	13.35	3	Horizontal	3	1.50	-
5825MHz	Pass	PK	11.65G	58.03	74.00	-15.97	13.35	3	Horizontal	3	1.50	-
5825MHz	Pass	AV	11.65G	45.56	54.00	-8.44	13.35	3	Vertical	0	1.50	-
5825MHz	Pass	PK	11.65G	57.38	74.00	-16.62	13.35	3	Vertical	0	1.50	-
VHT20_Nss1_1TX	-		T.	-	1	1	-	1	-	1	-	-
5180MHz	Pass	AV	5.149995G	53.59	54.00	-0.41	2.90	3	Horizontal	4	1.00	-
5180MHz	Pass	AV	5.179G	100.95	Inf	-Inf	2.93	3	Horizontal	4	1.00	-
5180MHz	Pass	PK	5.1484G	69.11	74.00	-4.89	2.90	3	Horizontal	4	1.00	-
5180MHz	Pass	PK	5.1806G	108.47	Inf	-Inf	2.93	3	Horizontal	4	1.00	-
5180MHz	Pass	AV	5.149995G	50.01	54.00	-3.99	2.90	3	Vertical	292	3.52	-
5180MHz	Pass	AV	5.1808G	96.14	Inf	-Inf	2.93	3	Vertical	292	3.52	-
5180MHz	Pass	PK	5.148G	63.34	74.00	-10.66	2.90	3	Vertical	292	3.52	-
5180MHz	Pass	PK	5.1784G	104.32	Inf	-Inf	2.93	3	Vertical	292	3.52	-
5180MHz	Pass	AV	15.54G	43.68	54.00	-10.32	14.65	3	Horizontal	0	1.50	-
5180MHz	Pass	PK	15.54G	55.26	74.00	-18.74	14.65	3	Horizontal	0	1.50	-
5180MHz	Pass	AV	15.54G	43.69	54.00	-10.31	14.65	3	Vertical	360	1.50	-
5180MHz	Pass	PK	15.54G	55.16	74.00	-18.84	14.65	3	Vertical	360	1.50	-
5200MHz	Pass	AV	5.149995G	53.45	54.00	-0.55	2.90	3	Horizontal	2	1.09	_
5200MHz	Pass	AV	5.1992G	104.33	Inf	-Inf	2.95	3	Horizontal	2	1.09	_
5200MHz	Pass	PK	5.1468G	67.97	74.00	-6.03	2.90	3	Horizontal	2	1.09	_
5200MHz	Pass	PK	5.1976G	112.04	Inf	-0.03 -Inf	2.95	3	Horizontal	2	1.09	_
5200MHz	Pass	AV	5.149995G	49.16	54.00	-4.84	2.90	3	Vertical	279	3.69	_
5200MHz		AV						3				-
	Pass		5.2028G	100.01	Inf	-Inf	2.95	3	Vertical	279	3.69	-
5200MHz	Pass	PK	5.1488G	63.11	74.00	-10.89	2.90		Vertical	279	3.69	-
5200MHz	Pass	PK	5.2036G	107.73	Inf	-Inf	2.95	3	Vertical	279	3.69	-
5200MHz	Pass	AV	15.6G	44.32	54.00	-9.68	13.99	3	Horizontal	332	1.50	-

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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)	
5200MHz	Pass	PK	15.6G	56.24	74.00	-17.76	14.06	3	Horizontal	332	1.50	-
5200MHz	Pass	AV	15.6G	46.30	54.00	-7.70	14.43	3	Vertical	0	1.50	-
5200MHz	Pass	PK	15.6G	57.86	74.00	-16.14	14.43	3	Vertical	0	1.50	-
5240MHz	Pass	AV	5.147G	47.13	54.00	-6.87	2.90	3	Horizontal	358	1.10	-
5240MHz	Pass	AV	5.2406G	102.02	Inf	-Inf	2.99	3	Horizontal	358	1.10	-
5240MHz	Pass	AV	5.3546G	46.57	54.00	-7.43	3.11	3	Horizontal	358	1.10	-
5240MHz	Pass	PK	5.129G	58.23	74.00	-15.77	2.88	3	Horizontal	358	1.10	-
5240MHz	Pass	PK	5.2418G	109.52	Inf	-Inf	3.00	3	Horizontal	358	1.10	-
5240MHz	Pass	PK	5.354G	57.22	74.00	-16.78	3.11	3	Horizontal	358	1.10	-
5240MHz	Pass	AV	5.1344G	46.54	54.00	-7.46	2.88	3	Vertical	284	3.11	_
5240MHz	Pass	AV	5.2394G	96.28	Inf	-Inf	2.99	3	Vertical	284	3.11	-
5240MHz	Pass	AV	5.3888G	45.94	54.00	-8.06	3.15	3	Vertical	284	3.11	_
5240MHz	Pass	PK	5.0996G	58.26	74.00	-15.74	2.85	3	Vertical	284	3.11	_
5240MHz	Pass	PK	5.2358G	104.18	Inf	-10.74 -Inf	2.99	3	Vertical	284	3.11	_
5240MHz	Pass	PK	5.36G	57.62	74.00	-16.38	3.12	3	Vertical	284	3.11	
5240MHz	Pass	AV	15.72G	48.90	54.00	-5.10	13.99	3	Horizontal	120	1.05	
5240MHz	Pass	PK	15.72G	62.81	74.00	-11.19	13.99	3	Horizontal	120	1.05	
5240MHz	Pass	AV	15.72G	50.09	54.00	-3.91	13.99	3	Vertical	76	3.66	_
5240MHz	Pass	PK	15.72G	63.42	74.00	-10.58	13.99	3	Vertical	76	3.66	_
5745MHz	Pass	AV	5.7462G	104.65	Inf	-10.30 -Inf	3.47	3	Horizontal	339	1.03	-
		PK										-
5745MHz	Pass		5.6502G	62.64	68.35	-5.70	3.40	3	Horizontal	339	1.03	-
5745MHz	Pass	PK	5.7462G	113.34	Inf	-Inf	3.47	3	Horizontal	339	1.03	-
5745MHz	Pass	PK	5.9514G	58.06	68.20	-10.14	3.64	3	Horizontal	339	1.03	-
5745MHz	Pass	AV	5.7462G	102.53	Inf	-Inf	3.47	3	Vertical	269	3.36	-
5745MHz	Pass	PK	5.6478G	59.91	68.20	-8.29	3.39	3	Vertical	269	3.36	-
5745MHz	Pass	PK	5.7462G	111.13	Inf	-Inf	3.47	3	Vertical	269	3.36	-
5745MHz	Pass	PK	5.943G	57.36	68.20	-10.84	3.63	3	Vertical	269	3.36	-
5745MHz	Pass	PK	17.235G	64.00	68.20	-4.20	18.05	3	Horizontal	140	3.52	-
5745MHz	Pass	PK	17.235G	64.65	68.20	-3.55	18.05	3	Vertical	195	1.03	-
5785MHz	Pass	AV	5.7862G	104.08	Inf	-Inf	3.50	3	Horizontal	353	1.10	-
5785MHz	Pass	PK	5.5906G	57.69	68.20	-10.51	3.34	3	Horizontal	353	1.10	-
5785MHz	Pass	PK	5.7862G	111.47	Inf	-Inf	3.50	3	Horizontal	353	1.10	-
5785MHz	Pass	PK	5.9314G	56.34	68.20	-11.86	3.63	3	Horizontal	353	1.10	-
5785MHz	Pass	AV	5.7862G	103.38	Inf	-Inf	3.50	3	Vertical	261	3.69	-
5785MHz	Pass	PK	5.629G	57.25	68.20	-10.95	3.38	3	Vertical	261	3.69	-
5785MHz	Pass	PK	5.7874G	110.52	Inf	-Inf	3.50	3	Vertical	261	3.69	-
5785MHz	Pass	PK	5.9722G	56.80	68.20	-11.40	3.66	3	Vertical	261	3.69	-
5785MHz	Pass	PK	17.235G	63.45	68.20	-4.75	18.05	3	Horizontal	130	1.01	-
5785MHz	Pass	PK	17.235G	65.06	68.20	-3.14	18.05	3	Vertical	195	1.05	-
5825MHz	Pass	AV	5.8262G	104.18	Inf	-Inf	3.53	3	Horizontal	348	1.01	-
5825MHz	Pass	PK	5.597G	57.17	68.20	-11.03	3.35	3	Horizontal	348	1.01	-
5825MHz	Pass	PK	5.8262G	112.68	Inf	-Inf	3.53	3	Horizontal	348	1.01	-
5825MHz	Pass	PK	5.927G	58.81	68.20	-9.39	3.62	3	Horizontal	348	1.01	-
5825MHz	Pass	AV	5.8238G	101.83	Inf	-Inf	3.53	3	Vertical	229	3.29	-
5825MHz	Pass	PK	5.6054G	56.77	68.20	-11.43	3.35	3	Vertical	229	3.29	-
5825MHz	Pass	PK	5.8214G	109.03	Inf	-Inf	3.53	3	Vertical	229	3.29	-
5825MHz	Pass	PK	5.927G	55.71	68.20	-12.49	3.62	3	Vertical	229	3.29	-
5825MHz	Pass	PK	17.475G	64.05	68.20	-4.15	19.85	3	Horizontal	203	2.92	-
5825MHz	Pass	PK	17.475G	64.95	68.20	-3.25	19.85	3	Vertical	5	1.00	-

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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)	
VHT40_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	AV	5.1496G	53.23	54.00	-0.77	2.90	3	Horizontal	192	2.16	-
5190MHz	Pass	AV	5.1932G	96.14	Inf	-Inf	2.94	3	Horizontal	192	2.16	-
5190MHz	Pass	PK	5.1492G	70.93	74.00	-3.07	2.90	3	Horizontal	192	2.16	-
5190MHz	Pass	PK	5.1944G	104.75	Inf	-Inf	2.94	3	Horizontal	192	2.16	-
5190MHz	Pass	AV	5.149995G	47.67	54.00	-6.33	2.90	3	Vertical	202	2.30	-
5190MHz	Pass	AV	5.2064G	87.53	Inf	-Inf	2.96	3	Vertical	202	2.30	-
5190MHz	Pass	PK	5.1496G	61.98	74.00	-12.02	2.90	3	Vertical	202	2.30	-
5190MHz	Pass	PK	5.1952G	95.13	Inf	-Inf	2.95	3	Vertical	202	2.30	-
5190MHz	Pass	AV	15.57G	46.60	54.00	-7.40	14.54	3	Horizontal	221	1.50	-
5190MHz	Pass	PK	15.57G	58.23	74.00	-15.77	14.54	3	Horizontal	221	1.50	-
5190MHz	Pass	AV	15.57G	46.44	54.00	-7.56	14.54	3	Vertical	0	1.50	-
5190MHz	Pass	PK	15.57G	58.26	74.00	-15.74	14.54	3	Vertical	0	1.50	-
5230MHz	Pass	AV	5.149995G	53.87	54.00	-0.13	2.90	3	Horizontal	184	1.02	-
5230MHz	Pass	AV	5.2464G	100.82	Inf	-Inf	3.00	3	Horizontal	184	1.02	-
5230MHz	Pass	PK	5.149995G	65.77	74.00	-8.23	2.90	3	Horizontal	184	1.02	-
5230MHz	Pass	PK	5.2424G	108.91	Inf	-Inf	3.00	3	Horizontal	184	1.02	-
5230MHz	Pass	AV	5.149995G	47.70	54.00	-6.30	2.90	3	Vertical	200	2.44	-
5230MHz	Pass	AV	5.2336G	92.69	Inf	-Inf	2.99	3	Vertical	200	2.44	-
5230MHz	Pass	PK	5.1472G	58.94	74.00	-15.06	2.90	3	Vertical	200	2.44	-
5230MHz	Pass	PK	5.232G	101.16	Inf	-Inf	2.99	3	Vertical	200	2.44	_
5230MHz	Pass	AV	15.69G	49.76	54.00	-4.24	14.10	3	Horizontal	122	2.87	_
5230MHz	Pass	PK	15.69G	60.60	74.00	-13.40	14.10	3	Horizontal	122	2.87	_
5230MHz	Pass	AV	15.69G	49.94	54.00	-4.06	14.10	3	Vertical	48	1.05	_
5230MHz	Pass	PK	15.69G	61.80	74.00	-12.20	14.10	3	Vertical	48	1.05	_
5755MHz	Pass	AV	5.7514G	100.47	Inf	-Inf	3.48	3	Horizontal	336	1.01	_
5755MHz	Pass	PK	5.6542G	70.39	71.31	-0.91	3.40	3	Horizontal	336	1.01	-
5755MHz	Pass	PK	5.7562G	109.84	Inf	-Inf	3.48	3	Horizontal	336	1.01	-
5755MHz	Pass	PK	5.9266G	60.75	68.20	-7.45	3.62	3	Horizontal	336	1.01	_
5755MHz	Pass	AV	5.7514G	99.36	Inf	-Inf	3.48	3	Vertical	263	3.21	_
5755MHz	Pass	PK	5.6434G	63.34	68.20	-4.86	3.39	3	Vertical	263	3.21	_
5755MHz	Pass	PK	5.7538G	108.47	Inf	-Inf	3.48	3	Vertical	263	3.21	_
5755MHz	Pass	PK	5.9278G	59.02	68.20	-9.18	3.62	3	Vertical	263	3.21	_
5755MHz	Pass	PK	17.265G	63.78	68.20	-4.42	18.28	3	Horizontal	125	1.07	_
5755MHz	Pass	PK	17.265G	64.49	68.20	-3.71	18.28	3	Vertical	198	1.11	_
5795MHz	Pass	AV	5.7782G	100.38	Inf	-Inf	3.49	3	Horizontal	3	1.01	_
5795MHz	Pass	PK	5.639G	61.62	68.20	-6.58	3.39	3	Horizontal	3	1.01	_
5795MHz	Pass	PK	5.7938G	109.49	Inf	-Inf	3.51	3	Horizontal	3	1.01	_
5795MHz	Pass	PK	5.9306G	63.31	68.20	-4.89	3.62	3	Horizontal	3	1.01	
5795MHz	Pass	AV	5.7902G	99.81	Inf	-Inf	3.50	3	Vertical	259	3.69	_
5795MHz	Pass	PK	5.6426G	60.99	68.20	-7.21	3.39	3	Vertical	259	3.69	_
5795MHz	Pass	PK	5.7878G	109.16	Inf	-Inf	3.50	3	Vertical	259	3.69	_
5795MHz	Pass	PK	5.9246G	64.02	68.50	-4.48	3.62	3	Vertical	259	3.69	
5795MHz	Pass	PK	17.385G	63.79	68.20	-4.41	19.18	3	Horizontal	123	2.80	_
5795MHz	Pass	PK	17.385G	65.09	68.20	-3.11	19.18	3	Vertical	40	1.01	
VHT80_Nss1_1TX	-	-	-	-	-	-5.11	-	-	- vertical	-	-	
5210MHz	Pass	AV	5.149995G	53.41	54.00	-0.59	2.90	3	Horizontal	355	1.00	-
5210MHz	Pass	AV	5.149995G 5.245G	92.41	54.00 Inf	-0.59 -Inf	3.00	3	Horizontal	355	1.00	
5210MHz	Pass	AV	5.413G	47.73	54.00	-6.27	3.17	3	Horizontal	355	1.00	_

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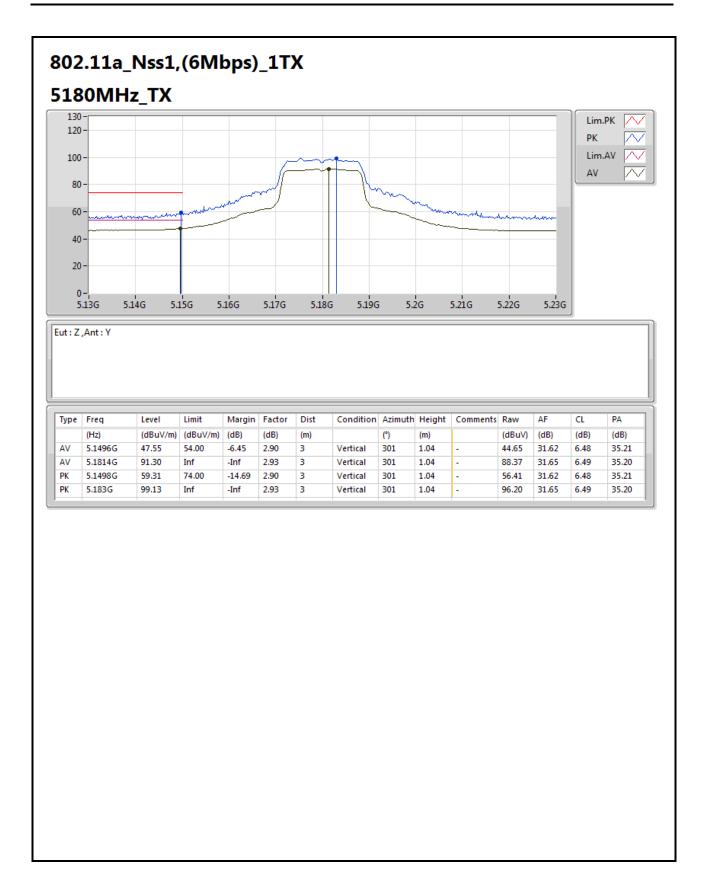


Appendix E.2

Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
5210MHz	Pass	PK	5.149G	65.22	74.00	-8.78	2.90	3	Horizontal	355	1.00	-
5210MHz	Pass	PK	5.243G	101.16	Inf	-Inf	3.00	3	Horizontal	355	1.00	-
5210MHz	Pass	PK	5.395G	58.13	74.00	-15.87	3.15	3	Horizontal	355	1.00	-
5210MHz	Pass	AV	5.142G	47.99	54.00	-6.01	2.89	3	Vertical	267	3.46	-
5210MHz	Pass	AV	5.246G	85.88	Inf	-Inf	3.00	3	Vertical	267	3.46	-
5210MHz	Pass	AV	5.451G	47.07	54.00	-6.93	3.22	3	Vertical	267	3.46	-
5210MHz	Pass	PK	5.147G	57.98	74.00	-16.02	2.90	3	Vertical	267	3.46	-
5210MHz	Pass	PK	5.243G	94.65	Inf	-Inf	3.00	3	Vertical	267	3.46	-
5210MHz	Pass	PK	5.363G	56.75	74.00	-17.25	3.12	3	Vertical	267	3.46	-
5210MHz	Pass	AV	15.63G	46.72	54.00	-7.28	14.32	3	Horizontal	0	1.50	-
5210MHz	Pass	PK	15.63G	58.32	74.00	-15.68	14.32	3	Horizontal	0	1.50	-
5210MHz	Pass	AV	15.63G	46.51	54.00	-7.49	14.32	3	Vertical	153	1.50	-
5210MHz	Pass	PK	15.63G	58.20	74.00	-15.80	14.32	3	Vertical	153	1.50	-
5775MHz	Pass	AV	5.7534G	95.89	Inf	-Inf	3.48	3	Horizontal	357	1.01	-
5775MHz	Pass	PK	5.6502G	67.81	68.35	-0.54	3.40	3	Horizontal	357	1.01	-
5775MHz	Pass	PK	5.7486G	105.01	Inf	-Inf	3.47	3	Horizontal	357	1.01	-
5775MHz	Pass	PK	5.925G	63.83	68.20	-4.37	3.62	3	Horizontal	357	1.01	-
5775MHz	Pass	AV	5.7402G	95.67	Inf	-Inf	3.47	3	Vertical	263	3.23	-
5775MHz	Pass	PK	5.6502G	63.60	68.35	-4.75	3.40	3	Vertical	263	3.23	-
5775MHz	Pass	PK	5.7486G	104.54	Inf	-Inf	3.47	3	Vertical	263	3.23	-
5775MHz	Pass	PK	5.925G	62.15	68.20	-6.05	3.62	3	Vertical	263	3.23	-
5775MHz	Pass	AV	11.55G	44.81	54.00	-9.19	13.52	3	Horizontal	73	1.50	-
5775MHz	Pass	PK	11.55G	56.37	74.00	-17.62	13.52	3	Horizontal	73	1.50	-
5775MHz	Pass	AV	11.55G	44.52	54.00	-9.48	13.52	3	Vertical	299	1.50	-
5775MHz	Pass	PK	11.55G	56.59	74.00	-17.41	13.52	3	Vertical	299	1.50	-

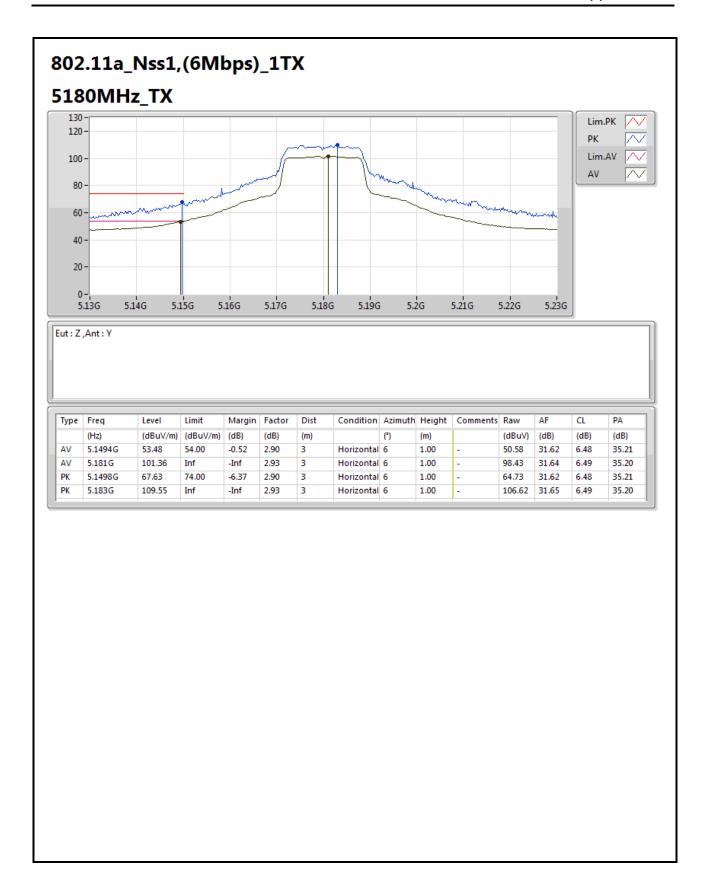
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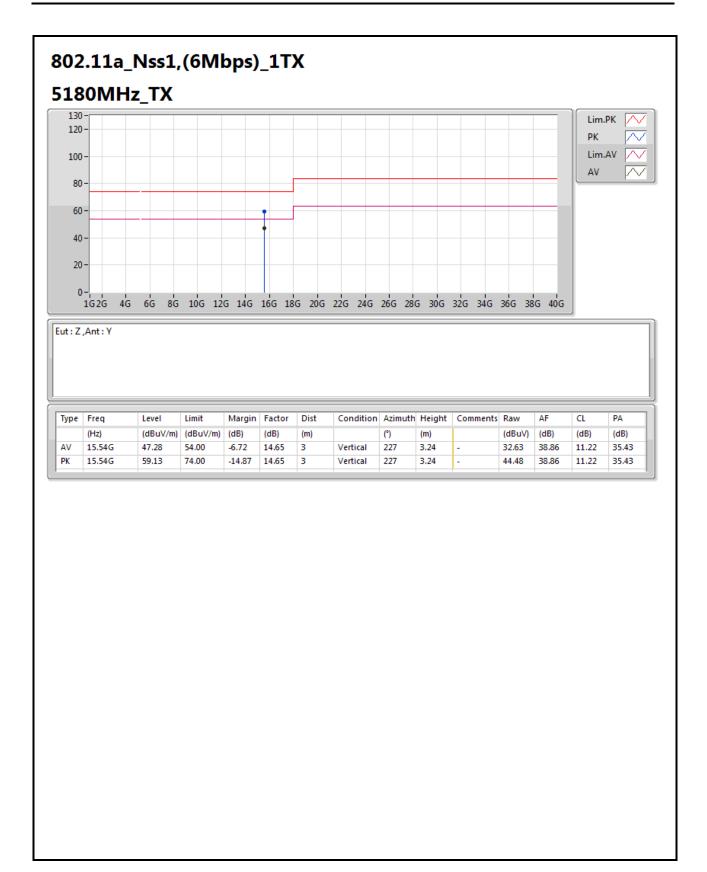
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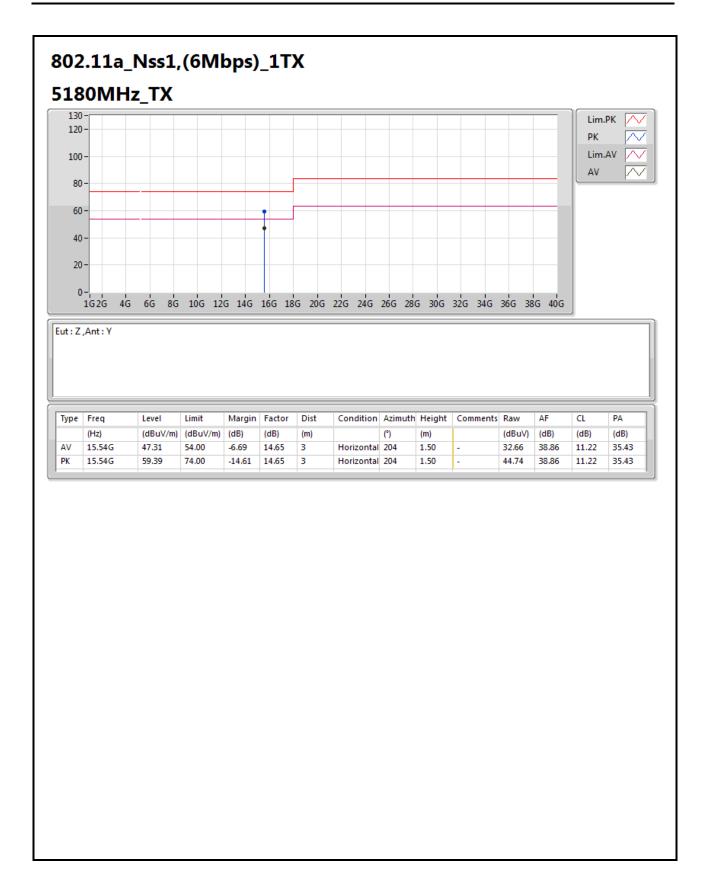
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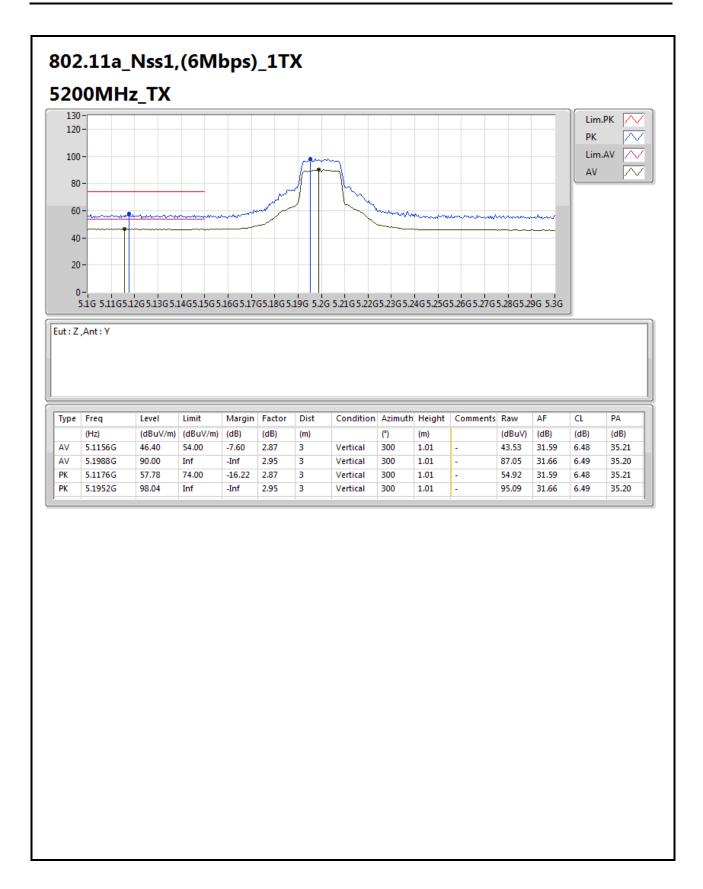
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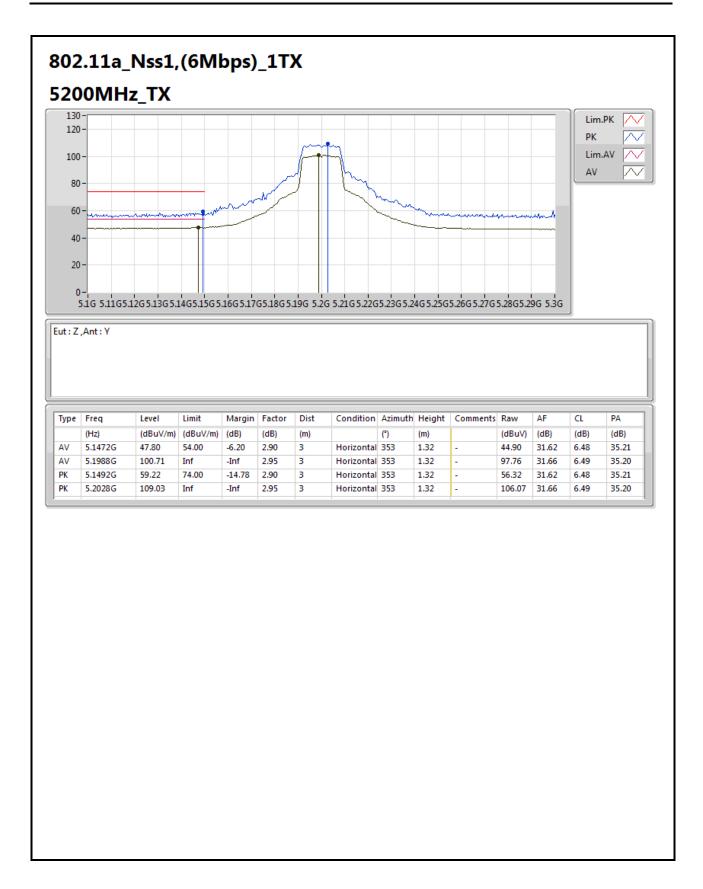
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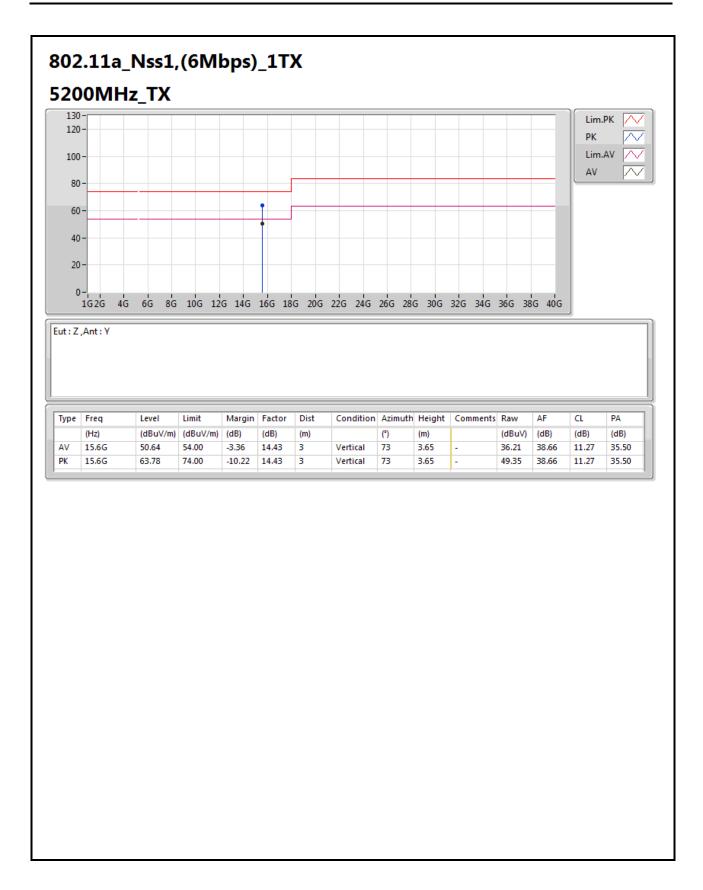
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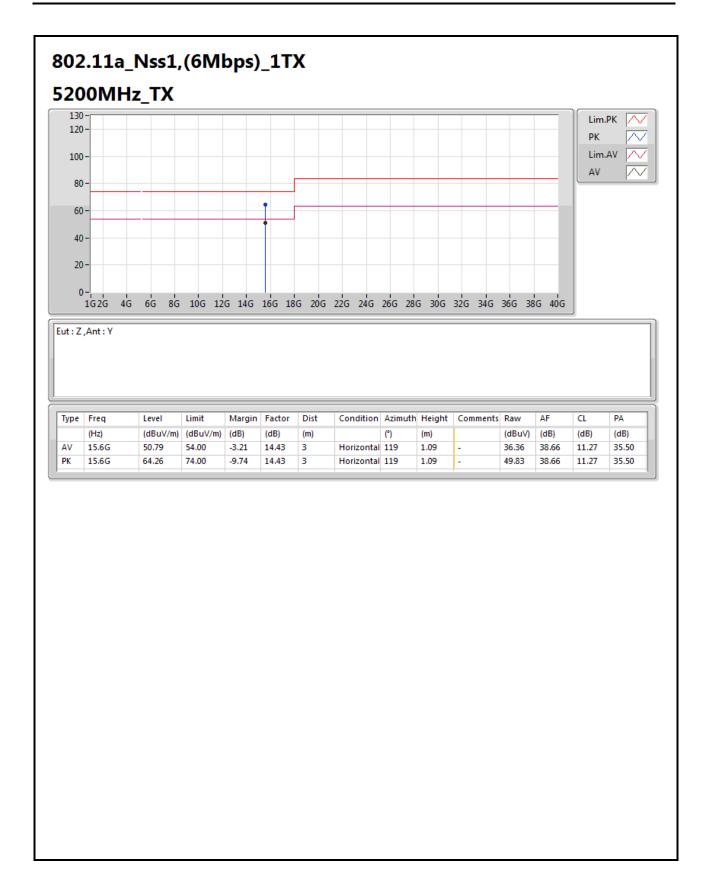
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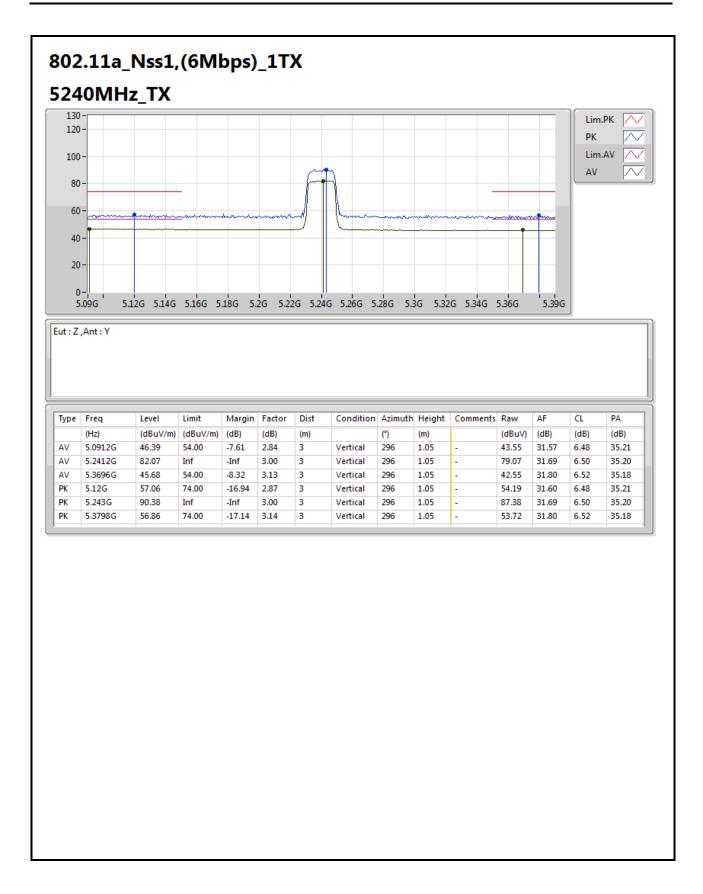
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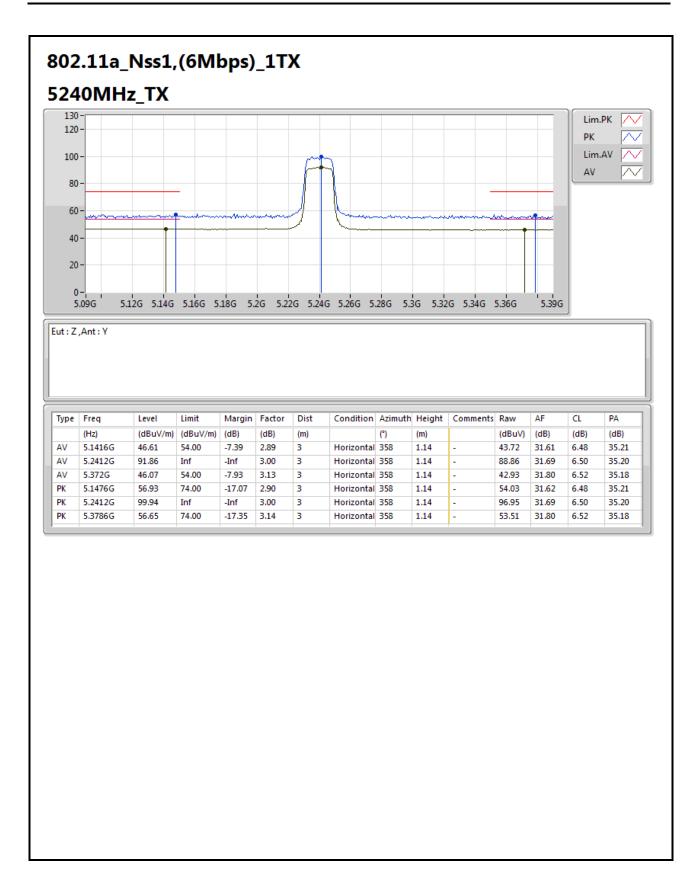


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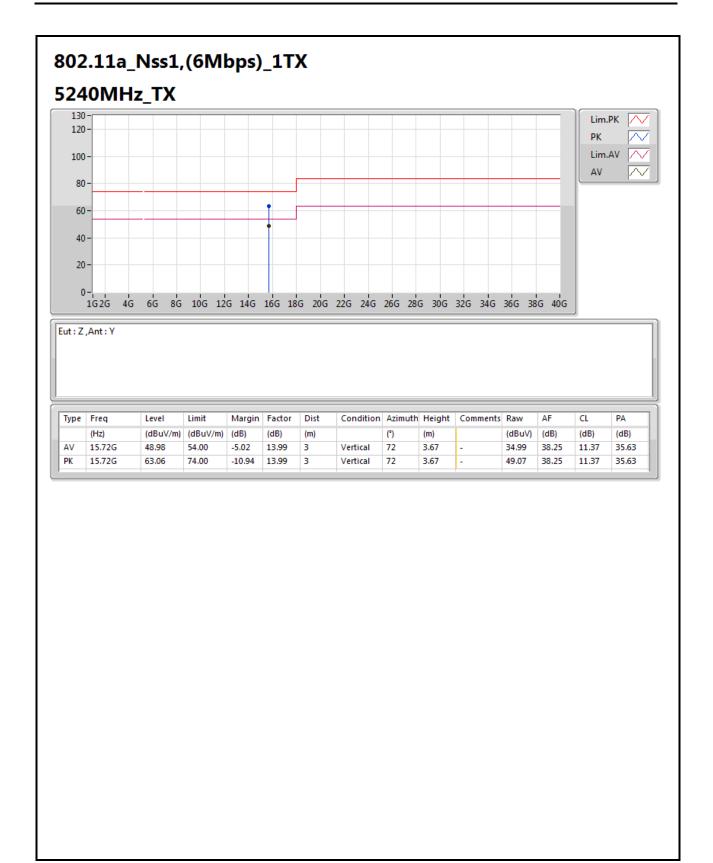






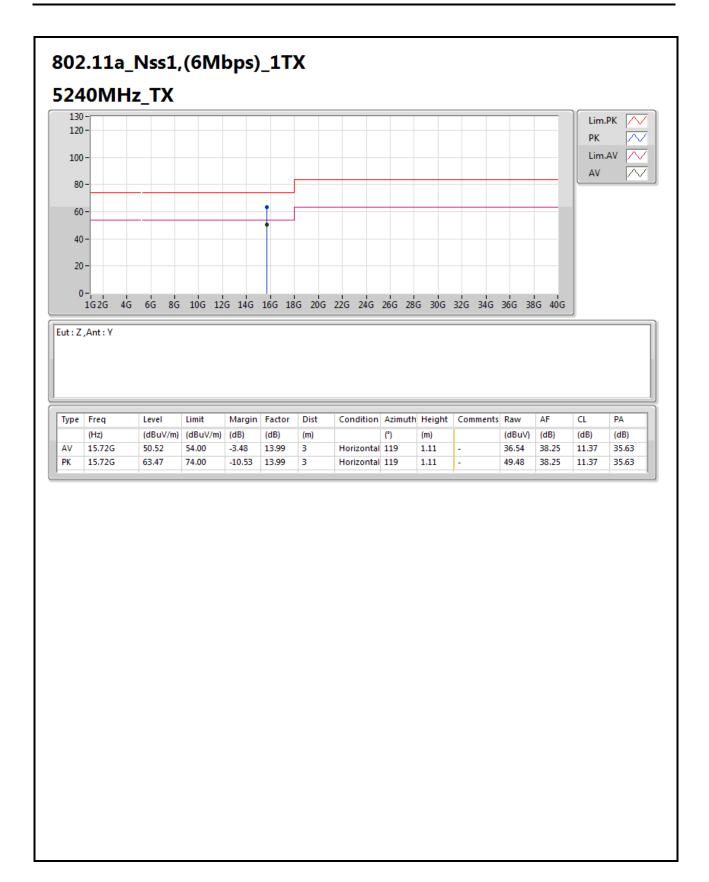
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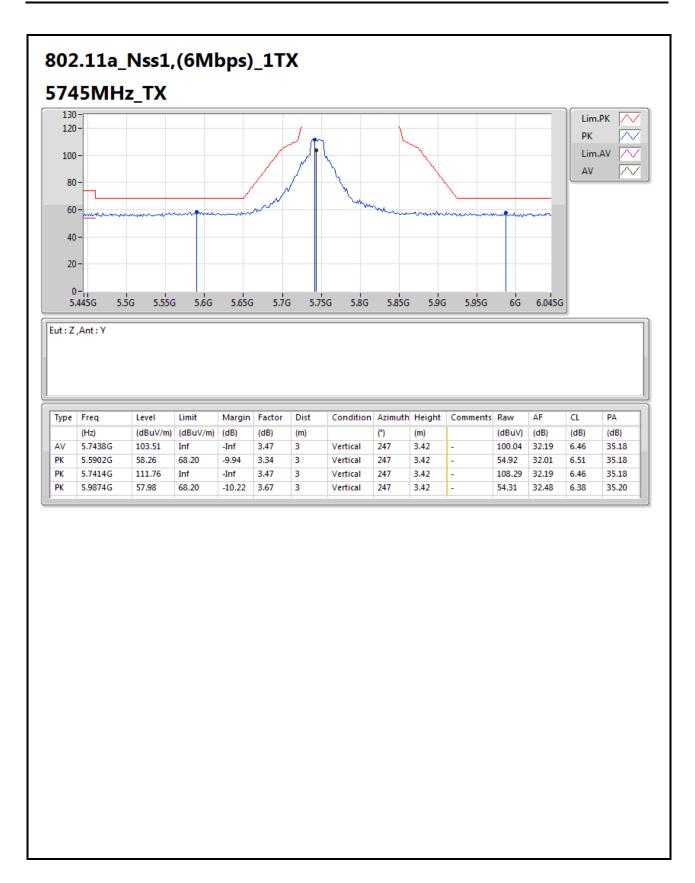
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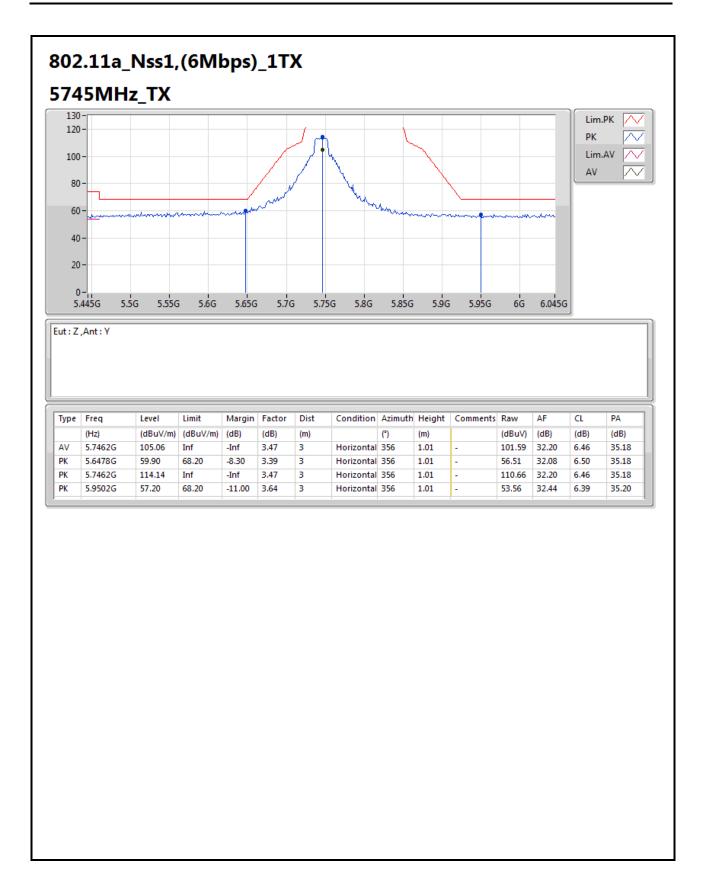
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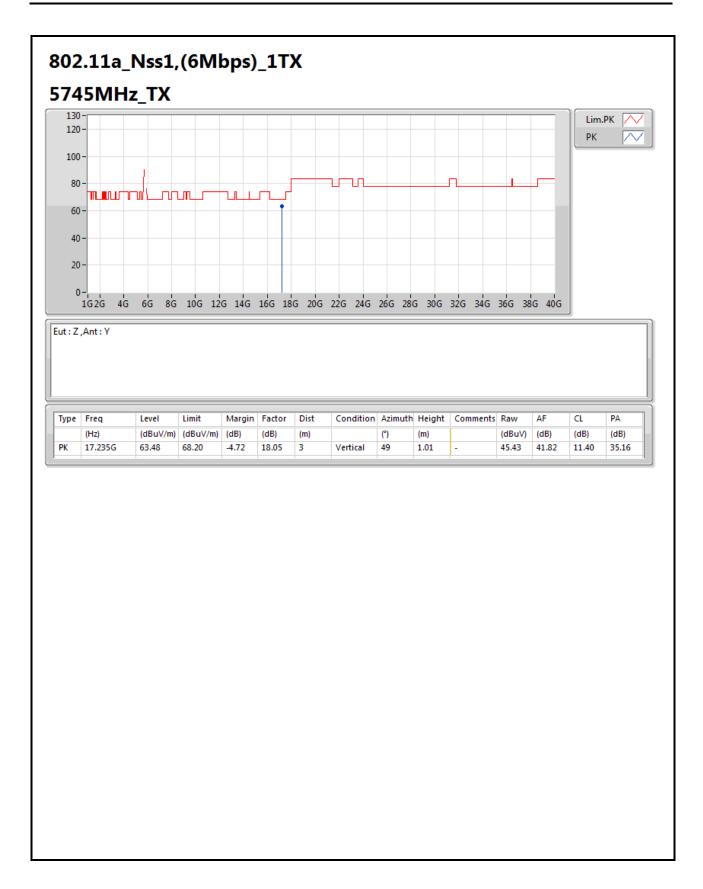
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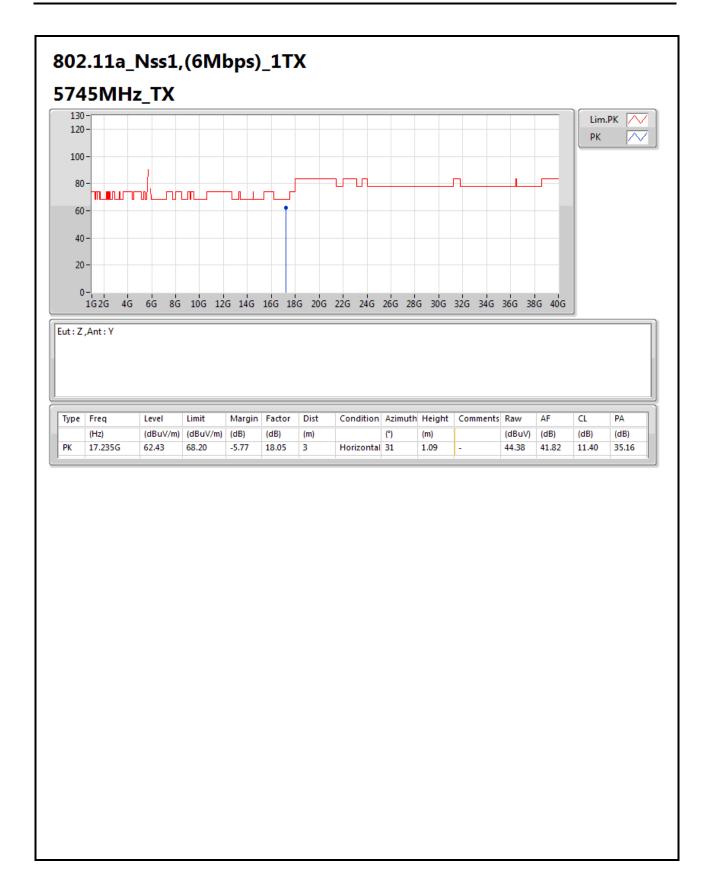
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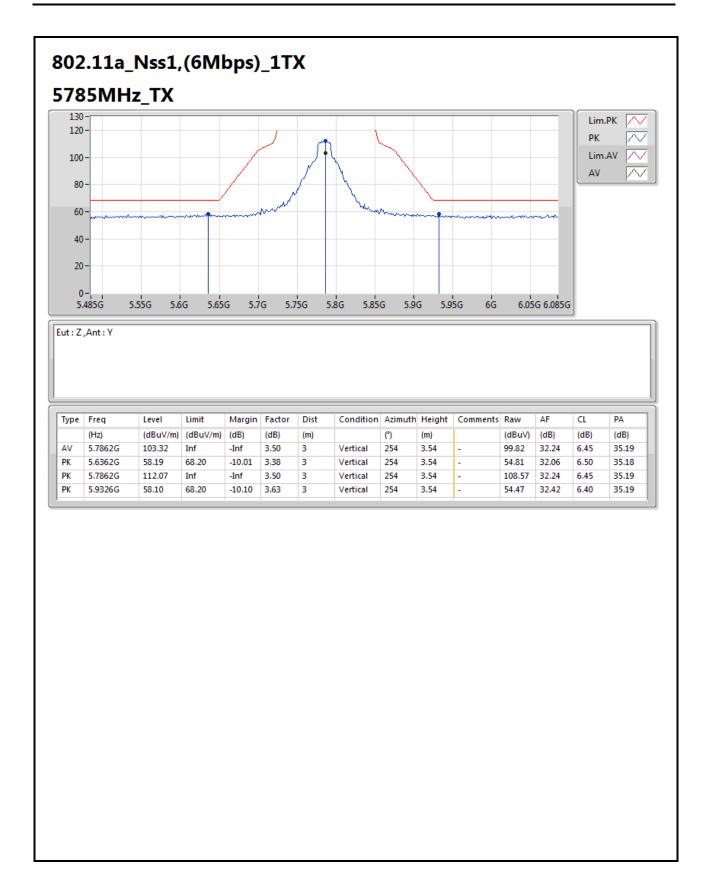
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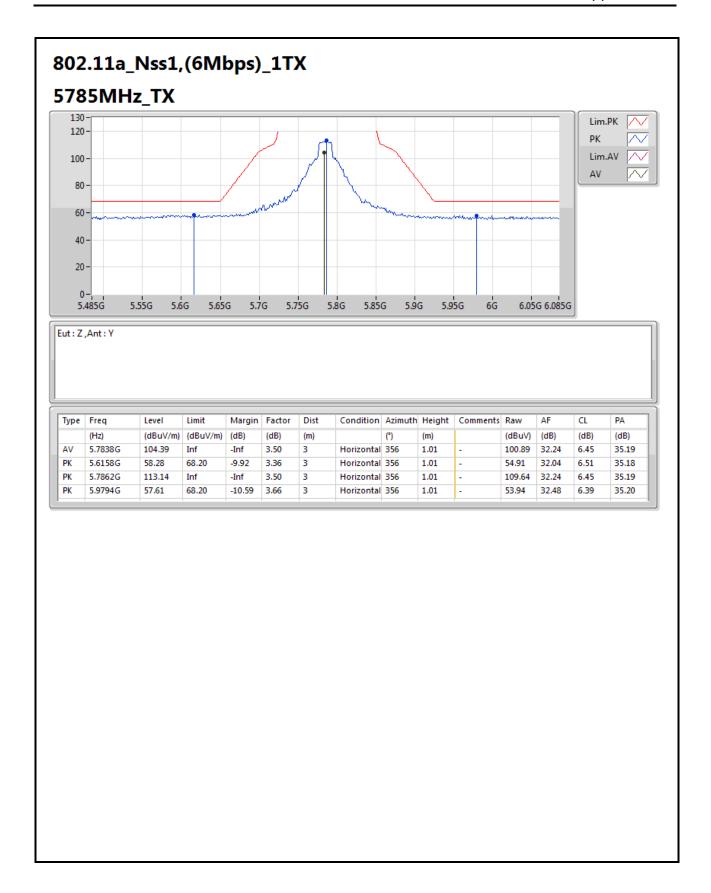
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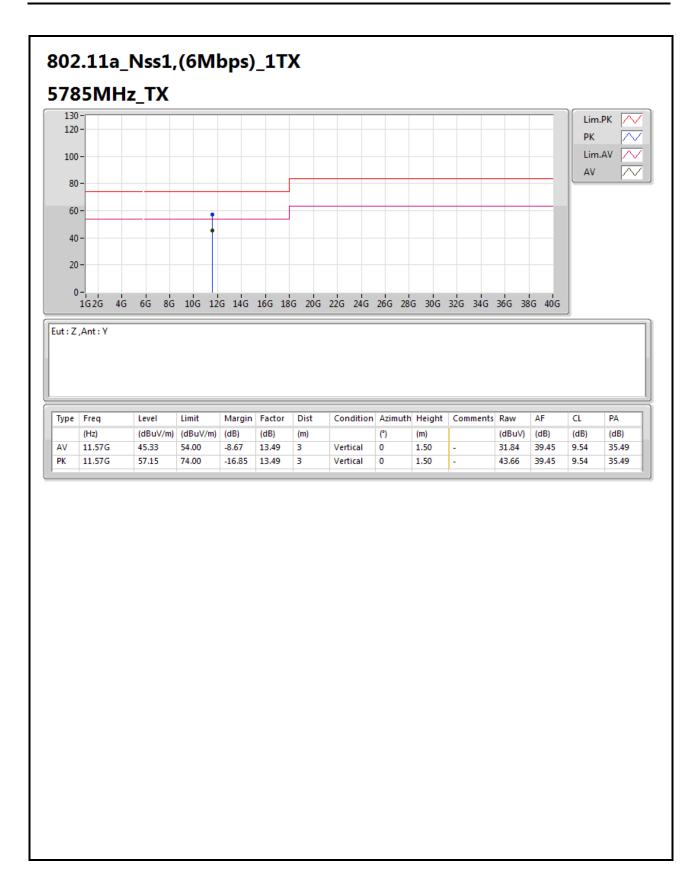
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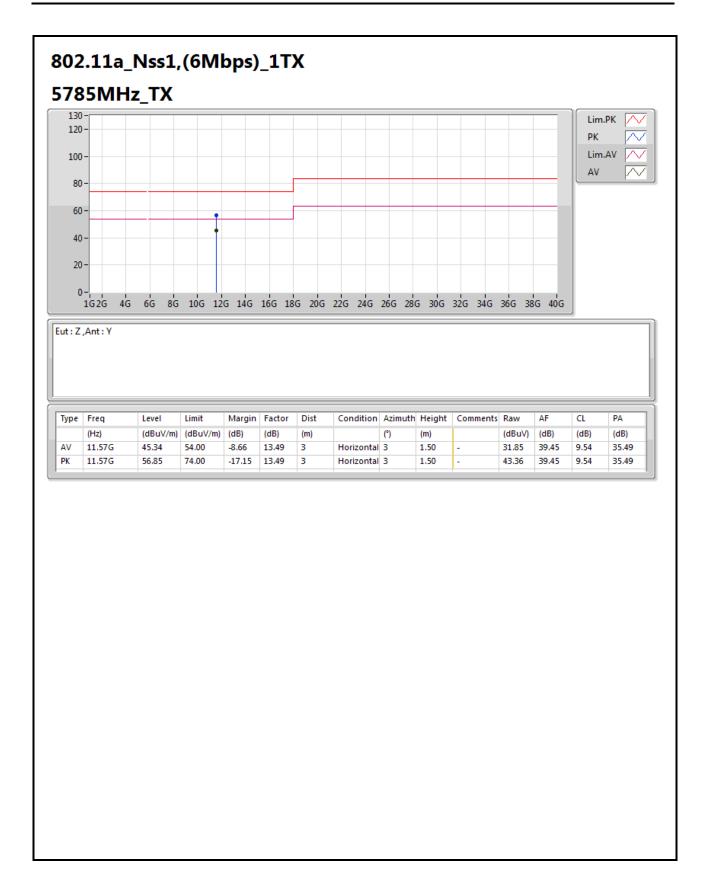
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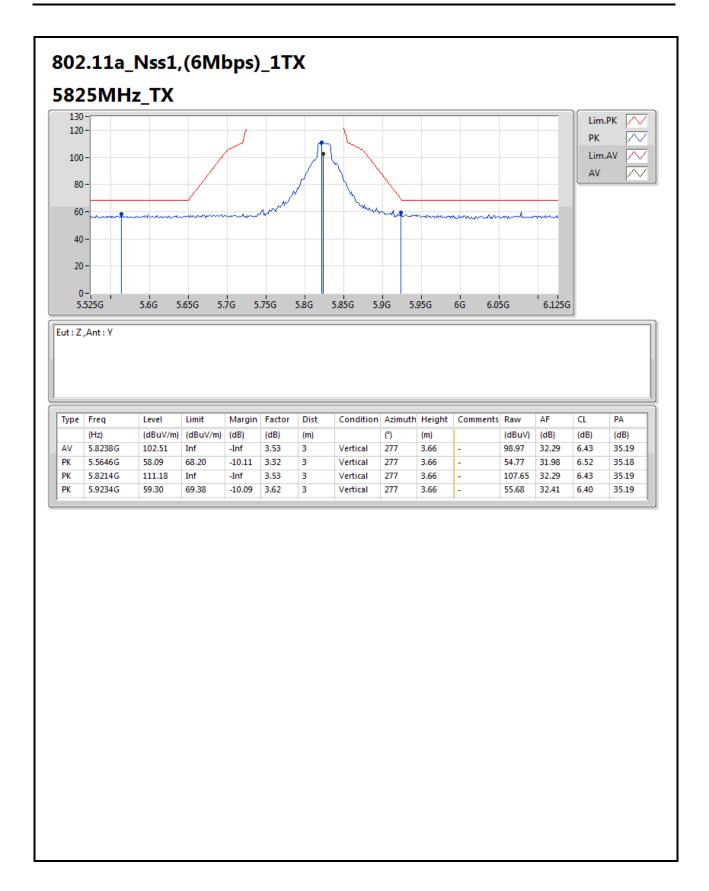
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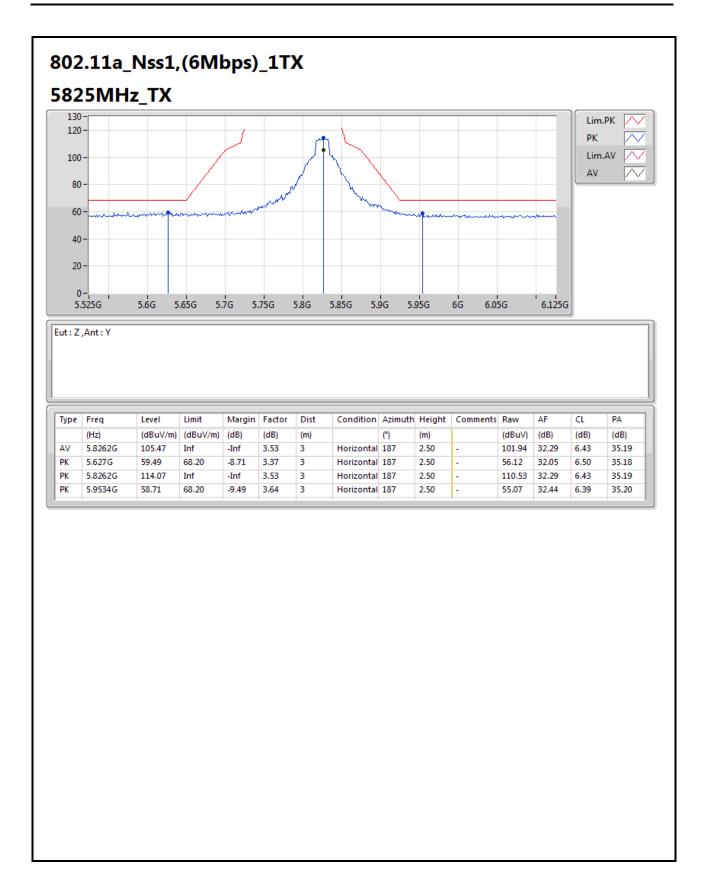
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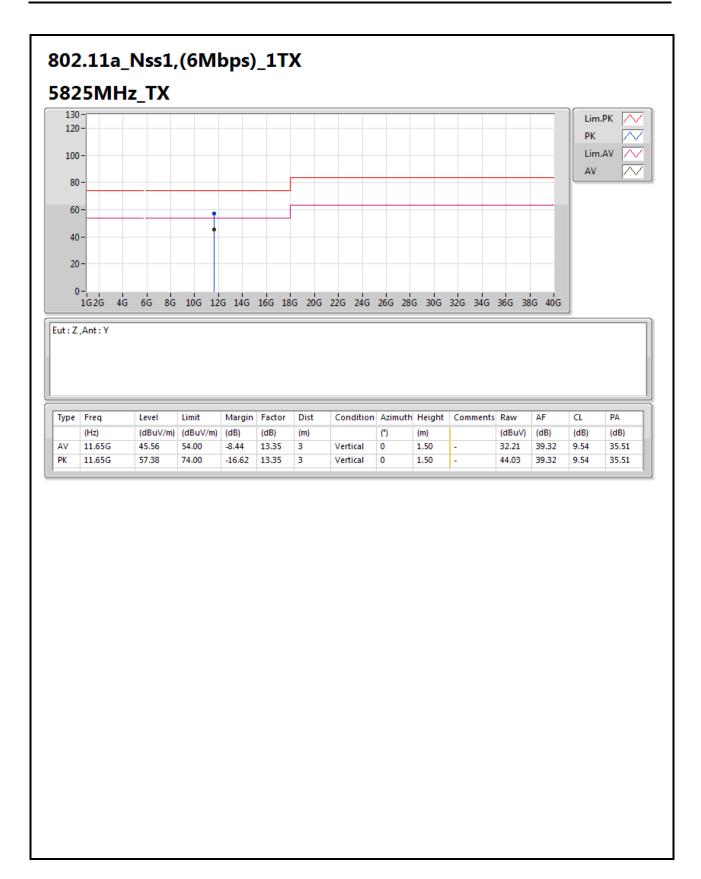
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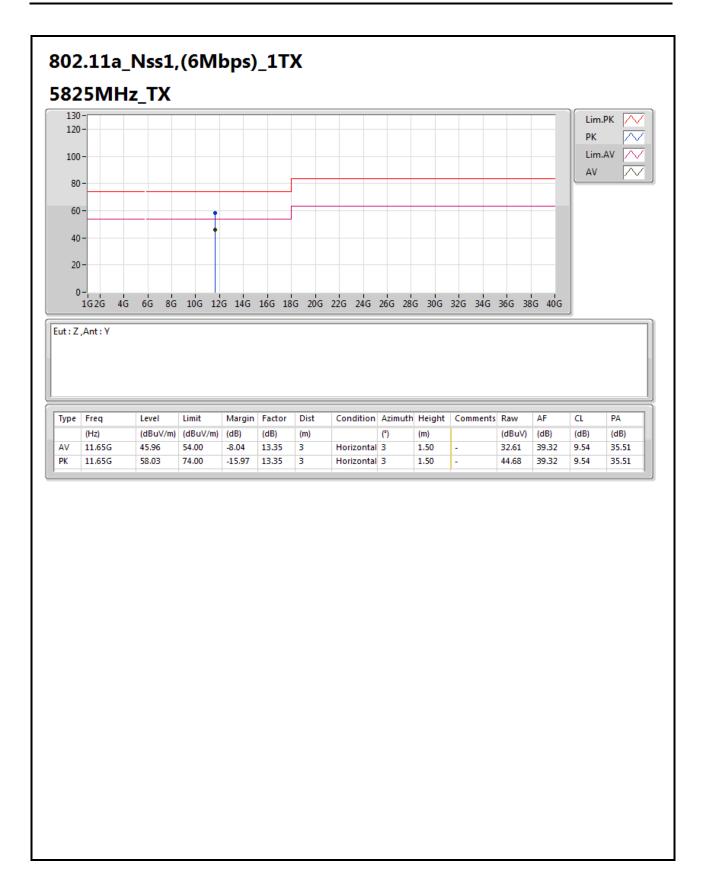
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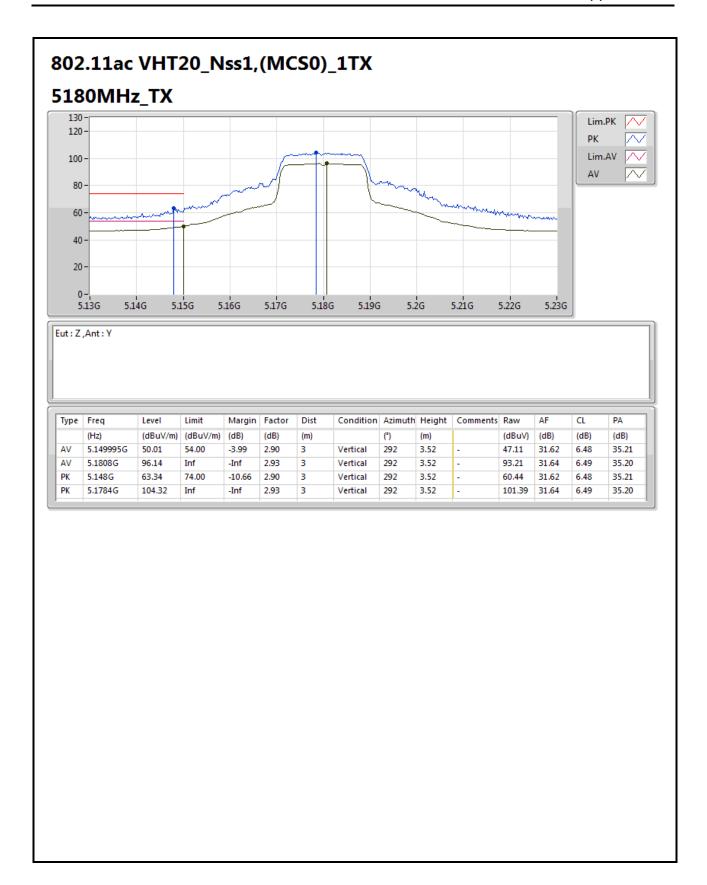
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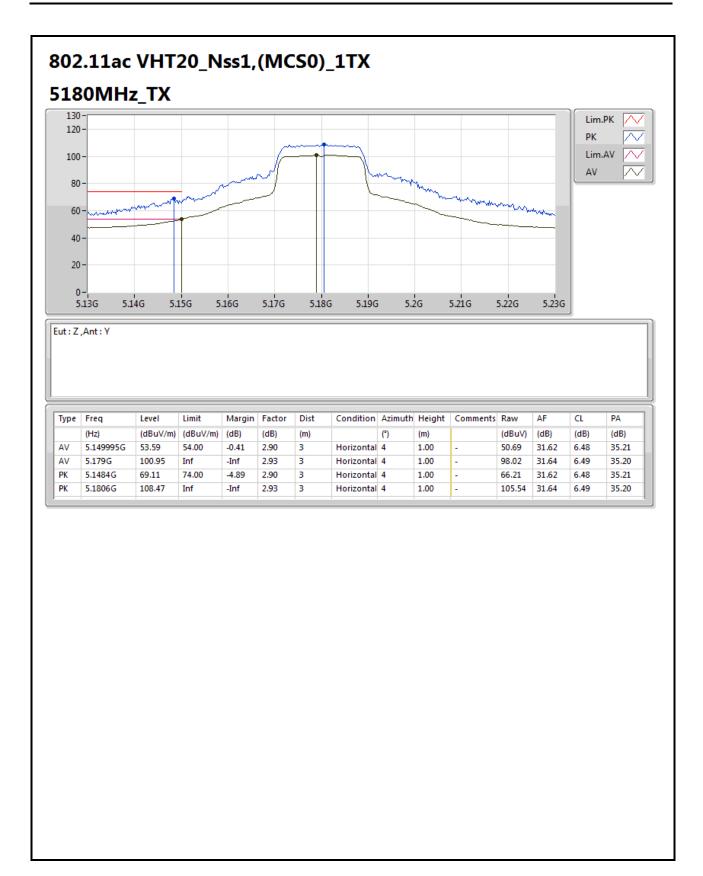
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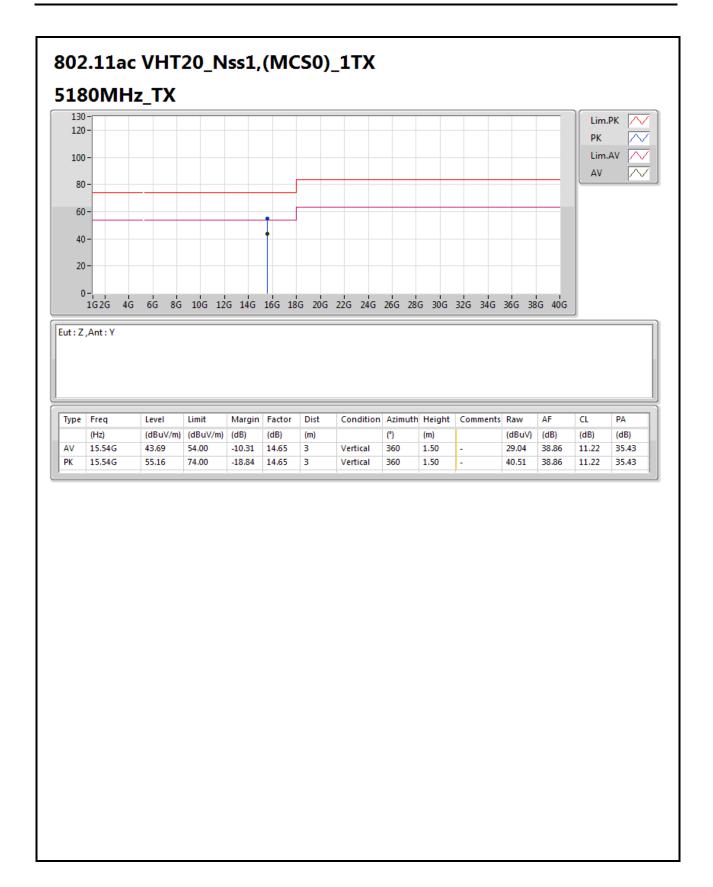
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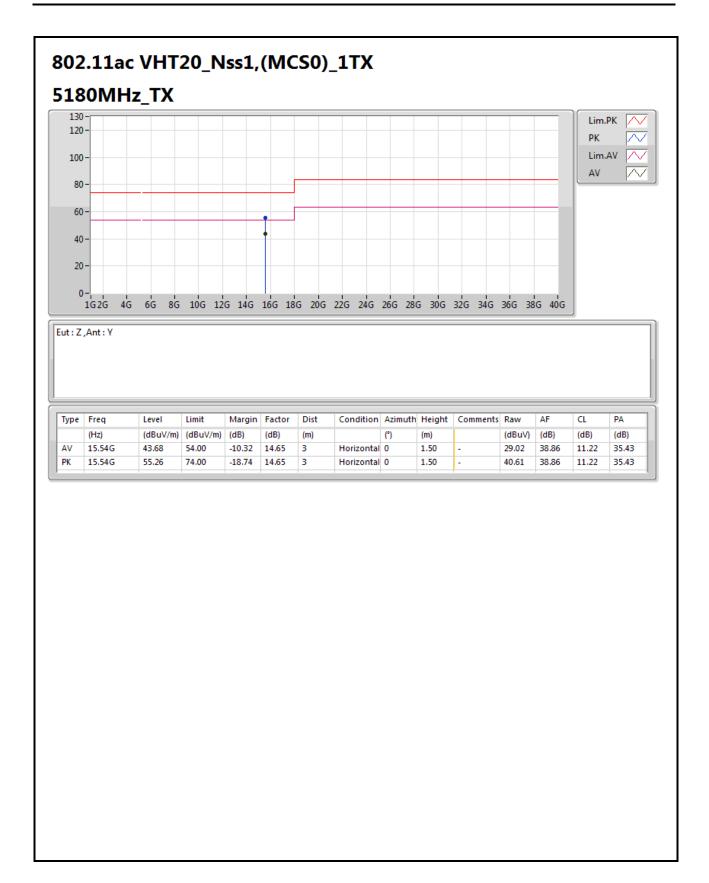
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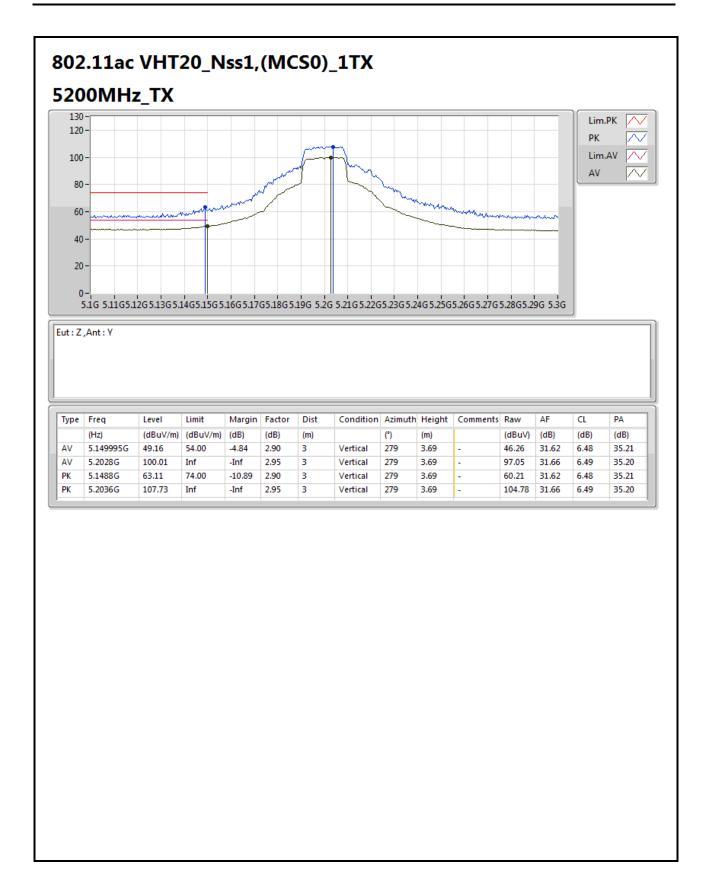
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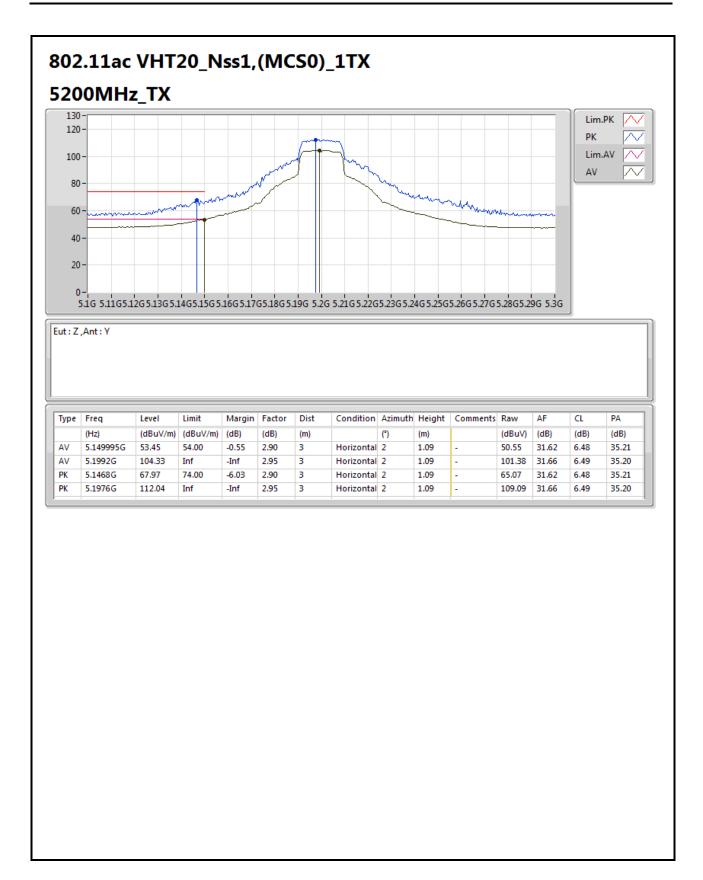
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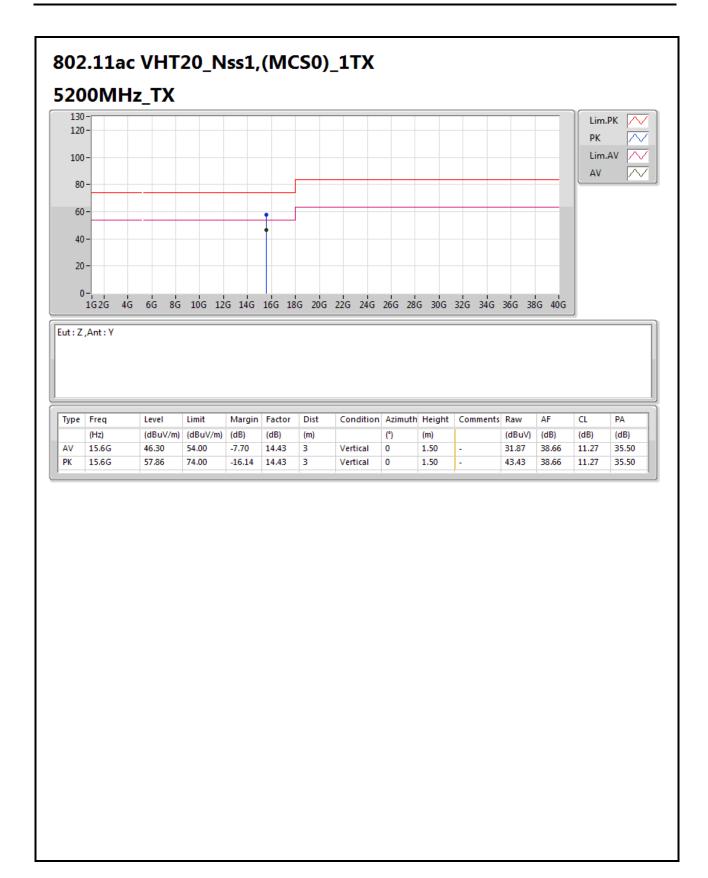
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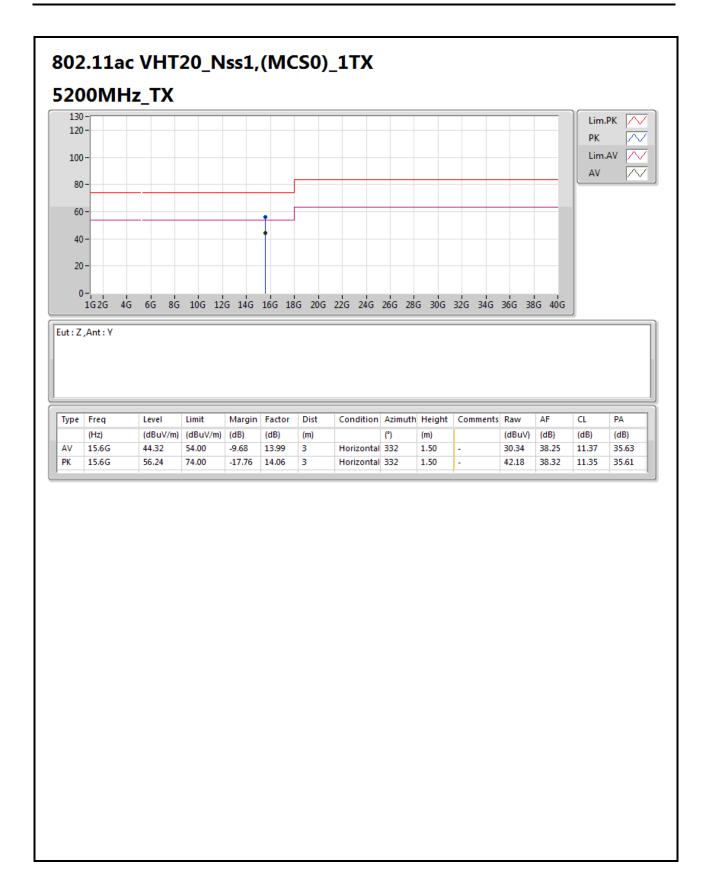
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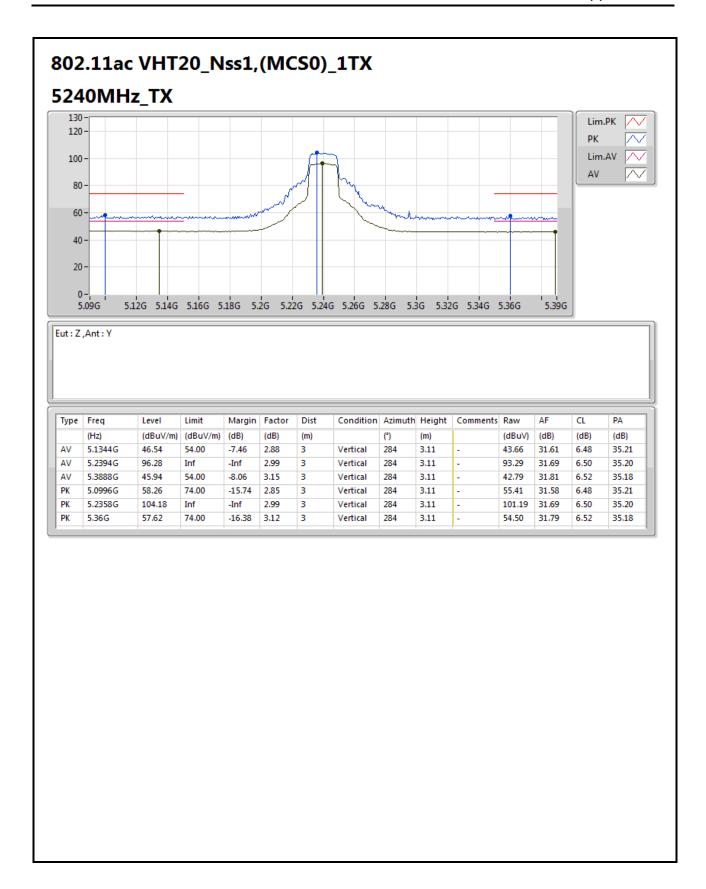
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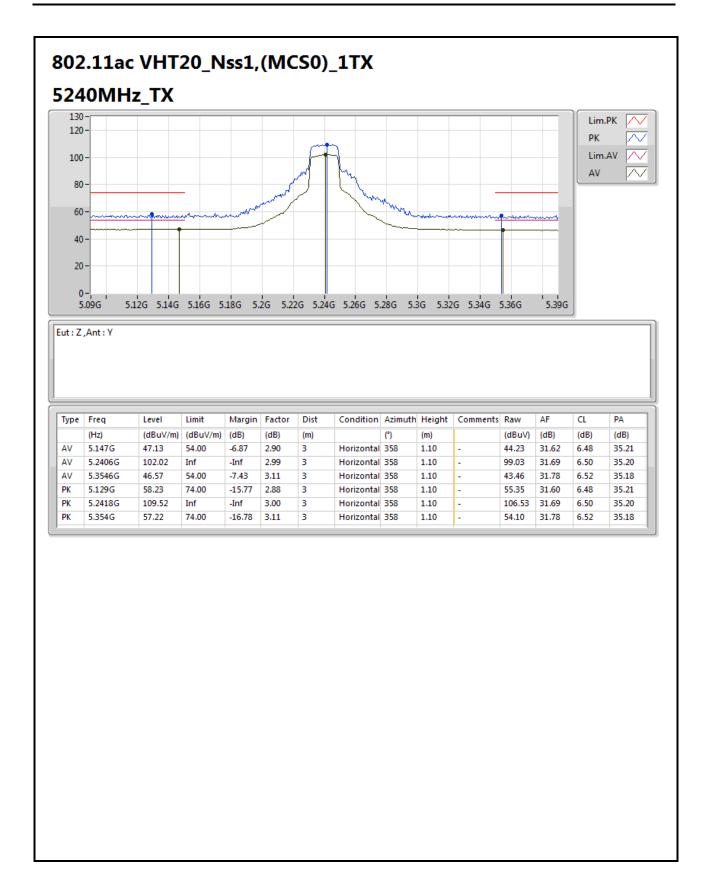
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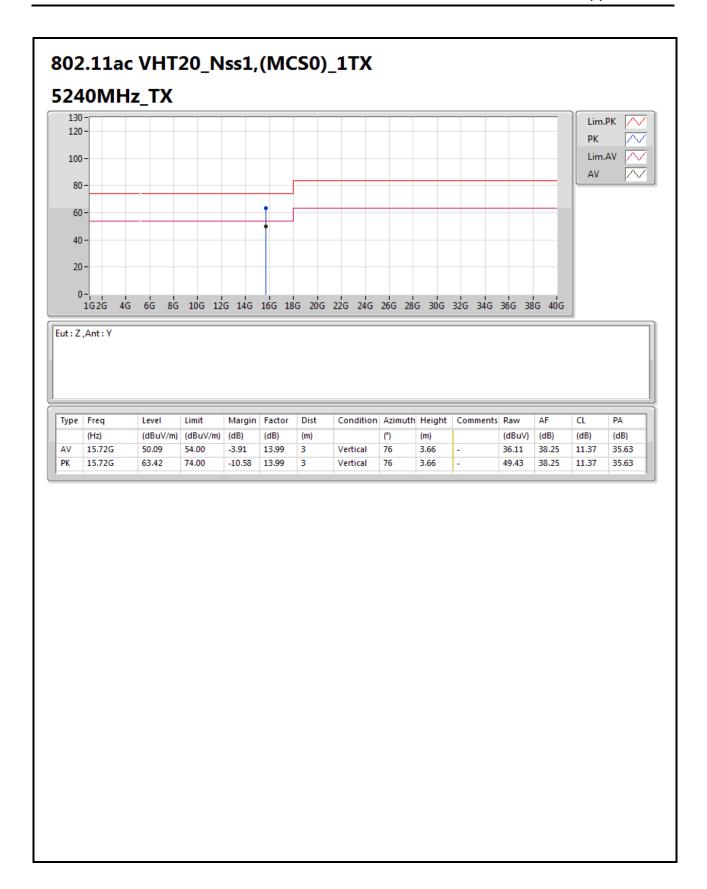
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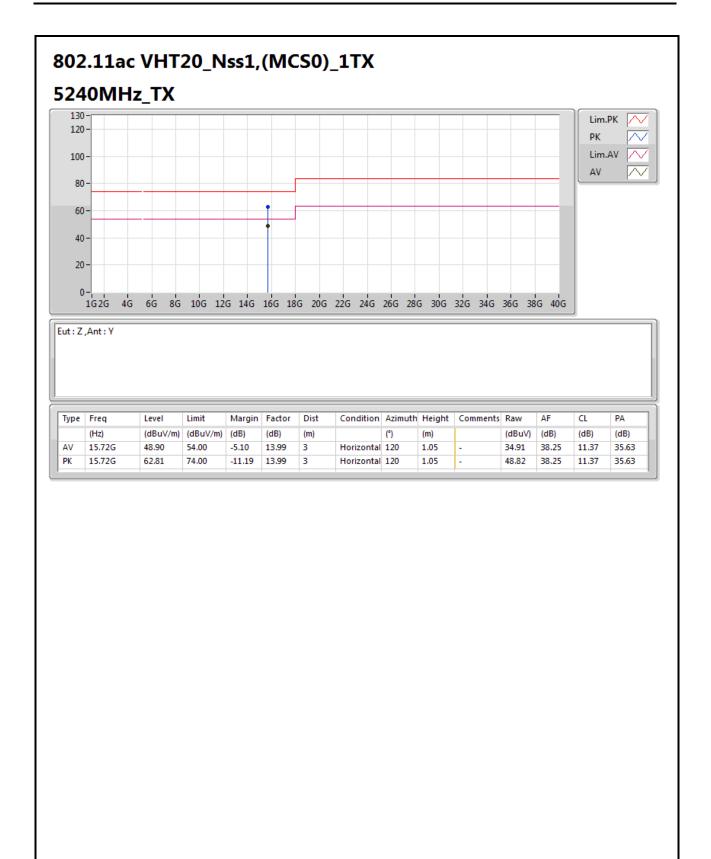
RSE TX above 1GHz Result



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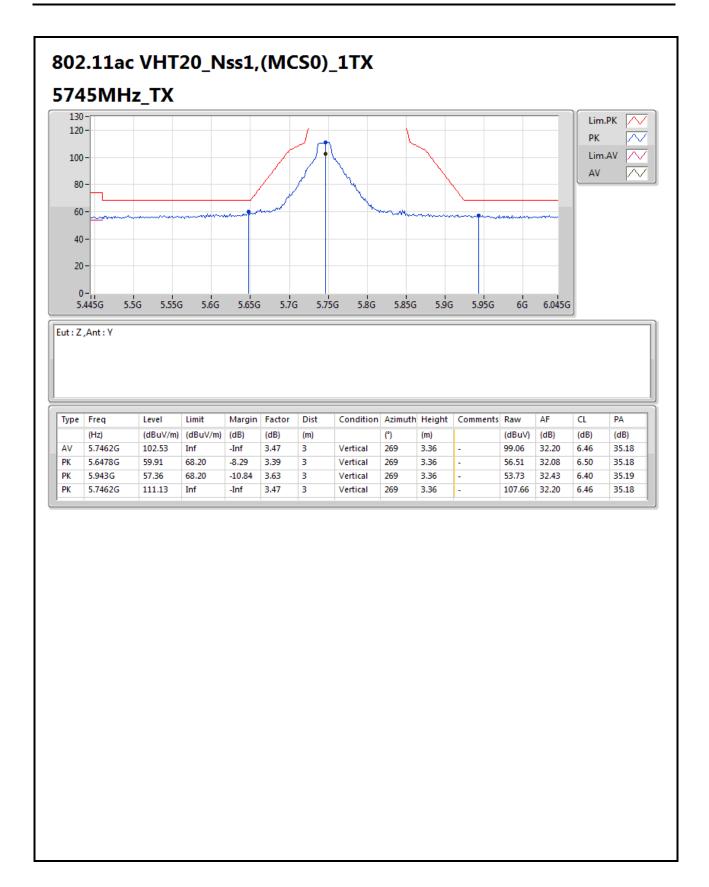
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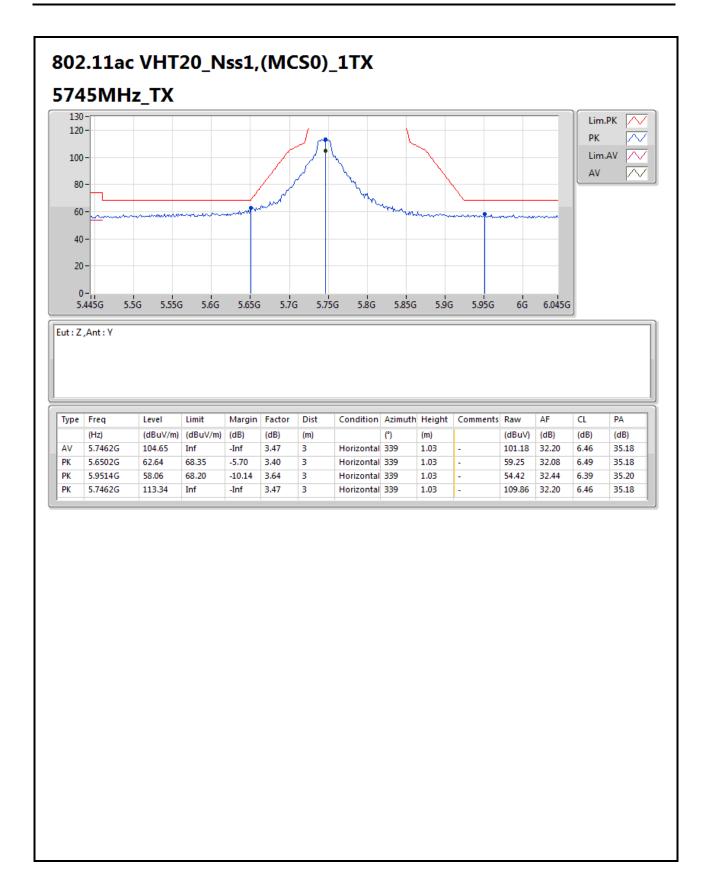
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E42 of E78





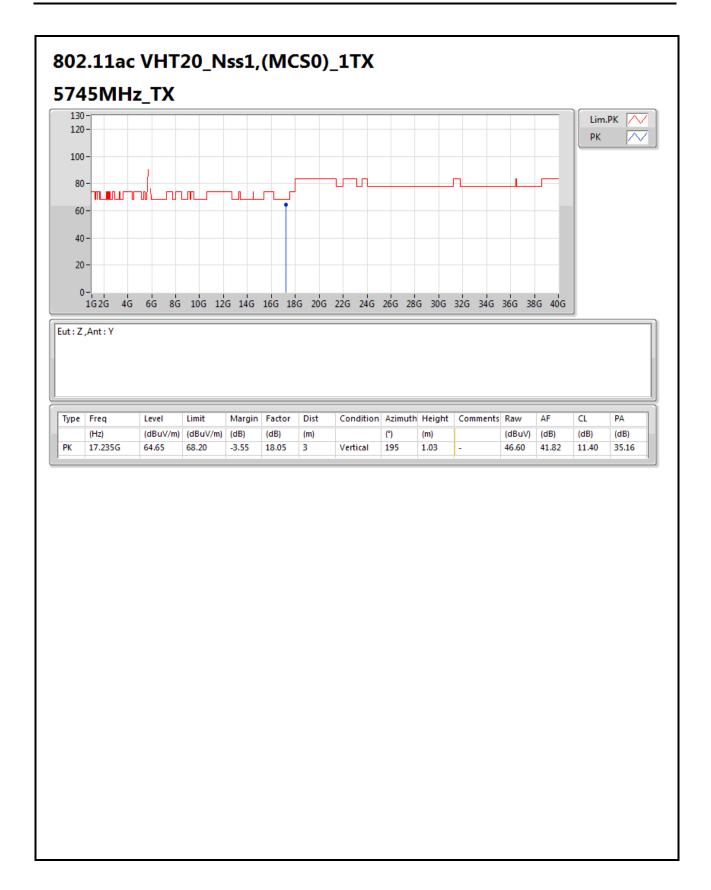
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E43 of E78





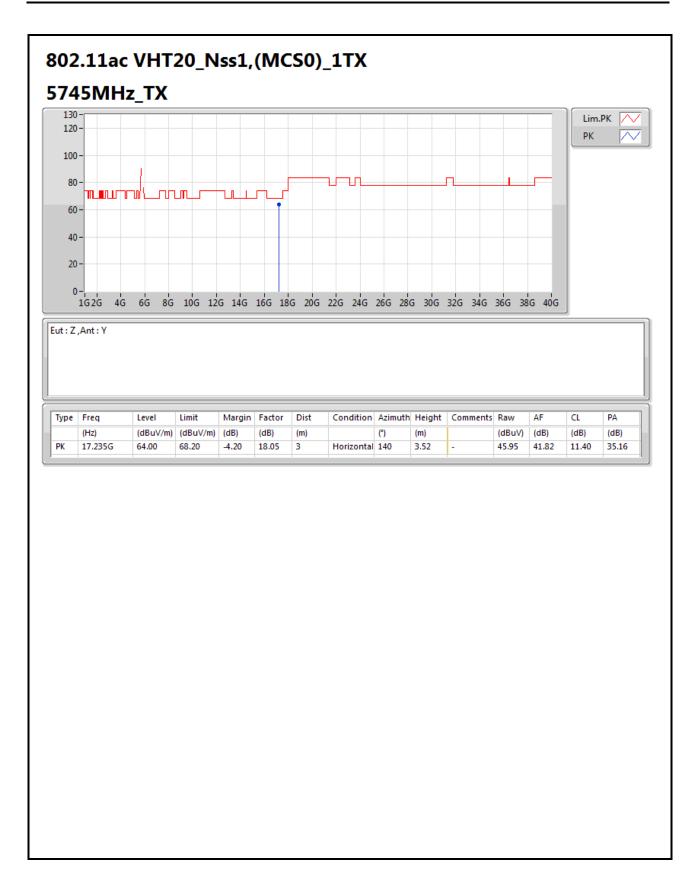
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E44 of E78





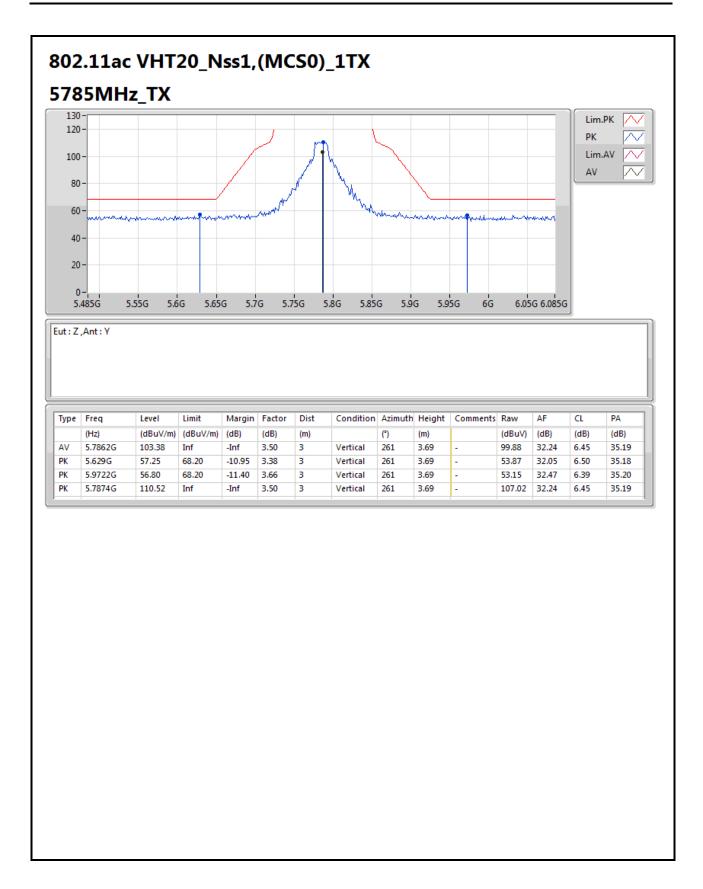
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E45 of E78





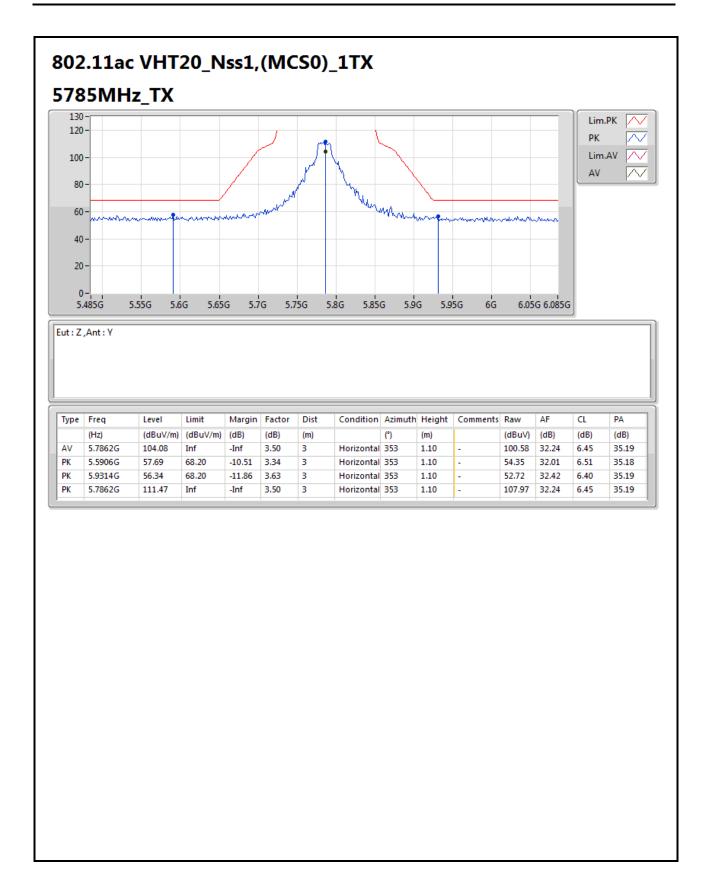
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E46 of E78





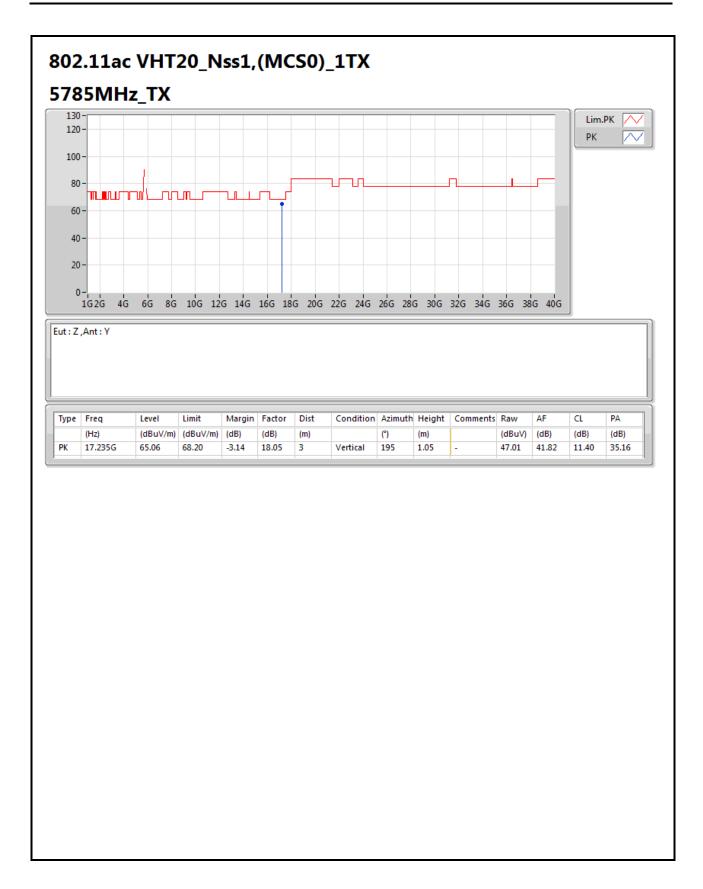
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E47 of E78





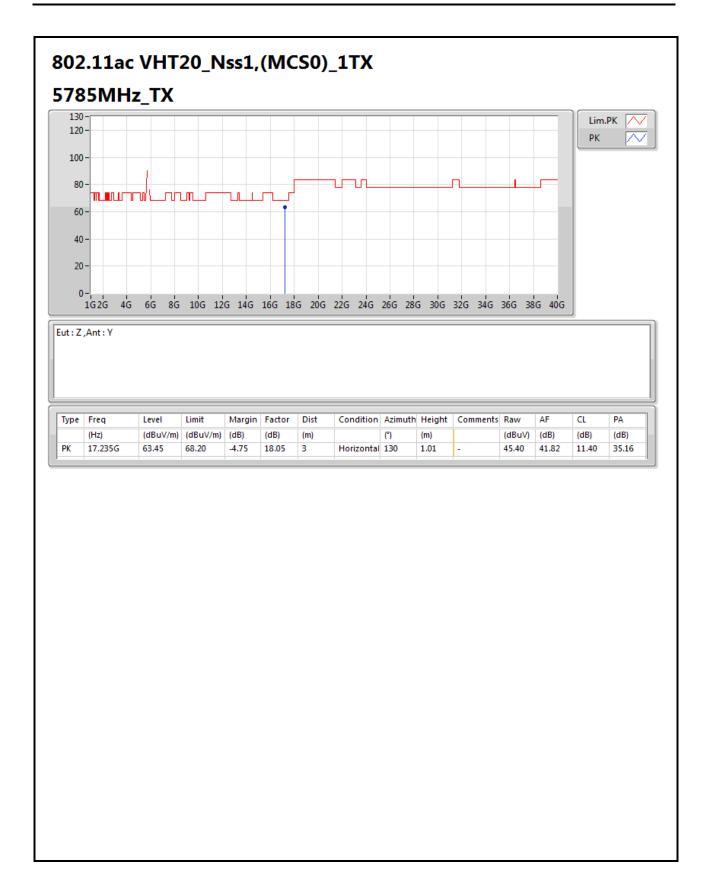
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E48 of E78





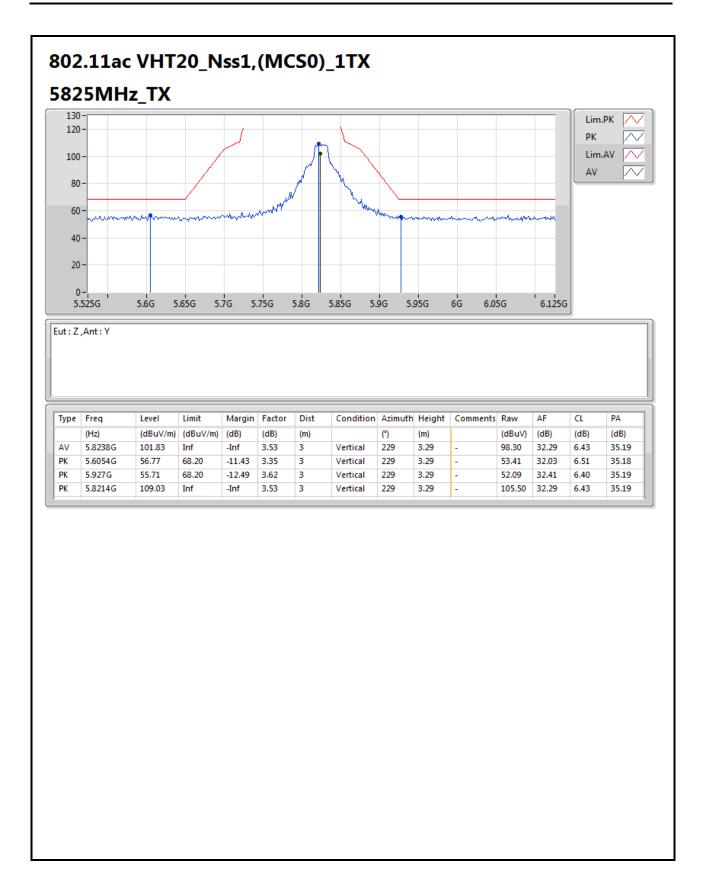
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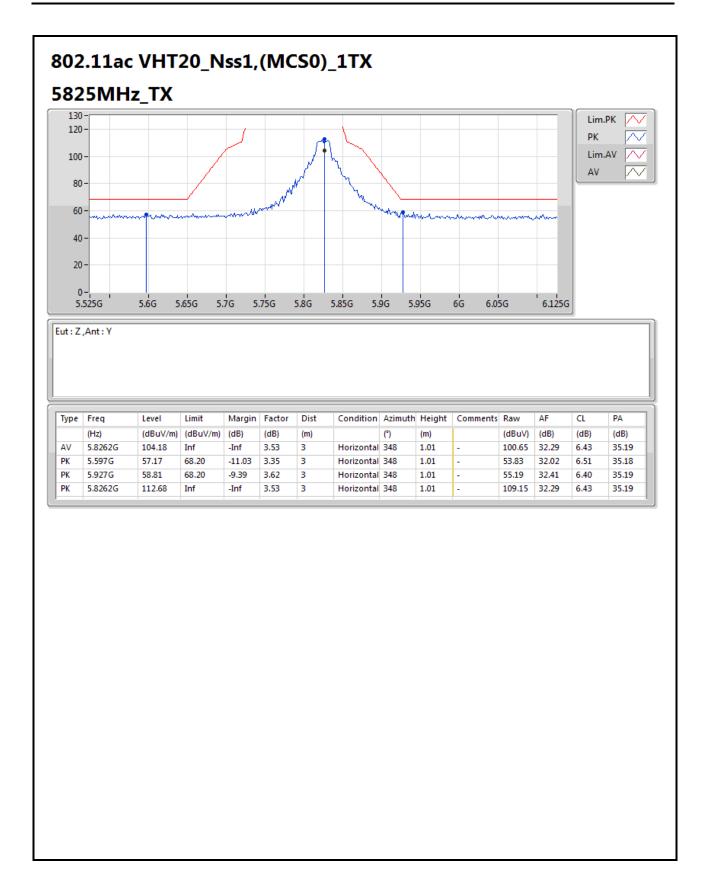
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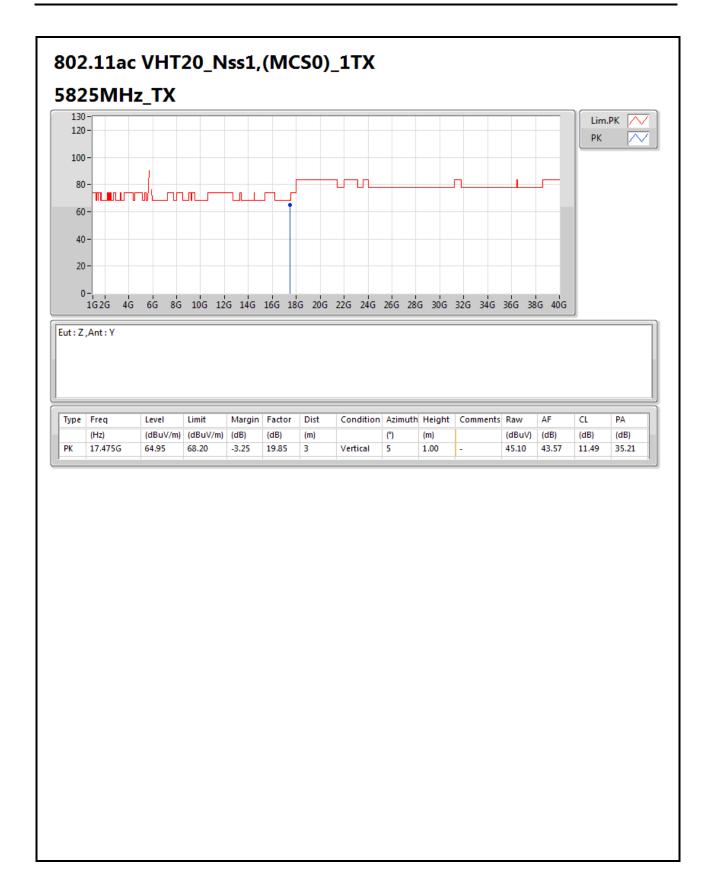
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E51 of E78





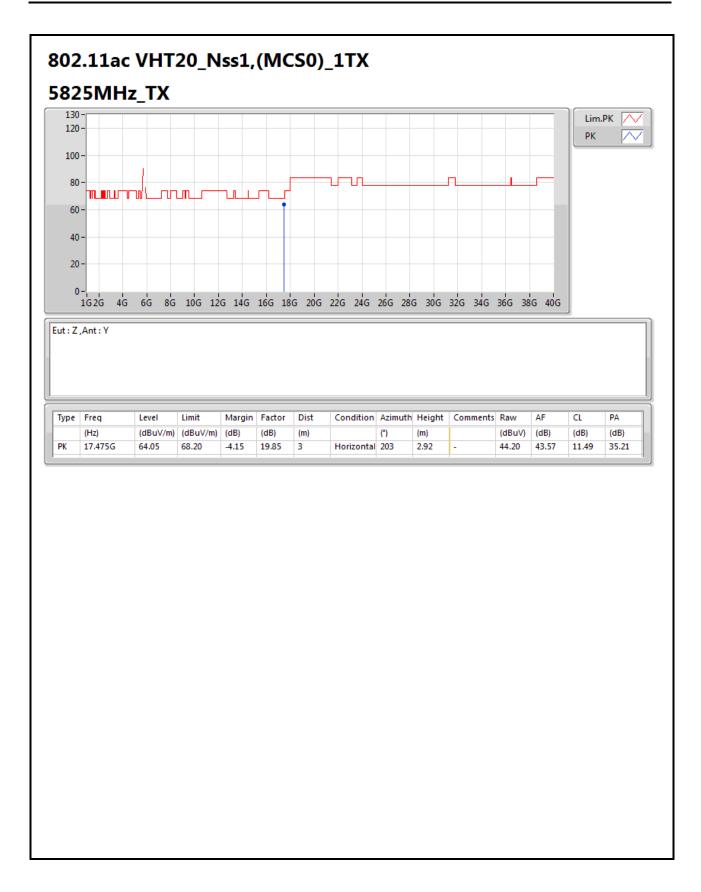
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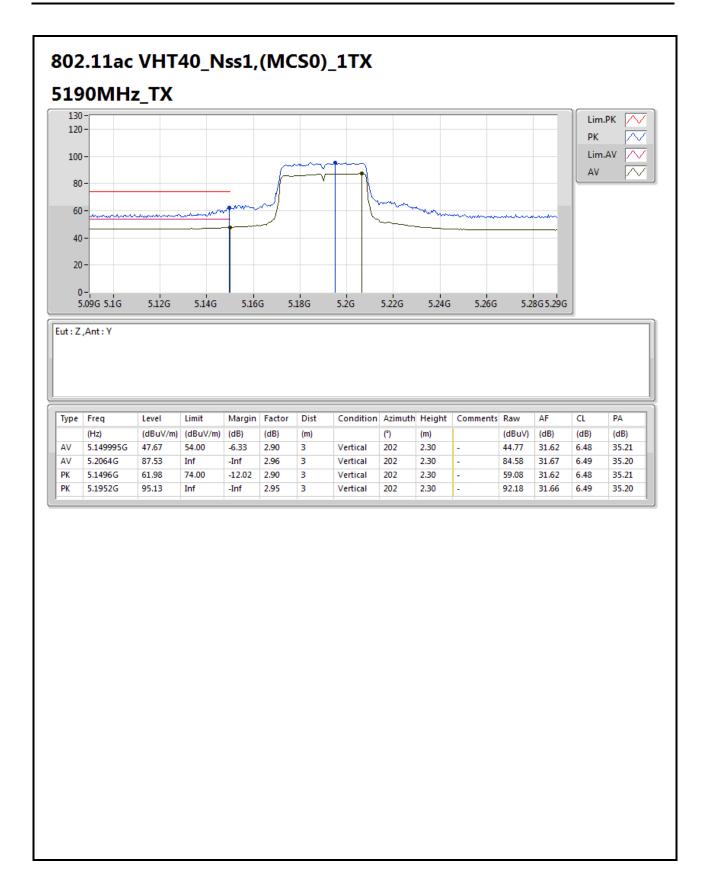
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E53 of E78





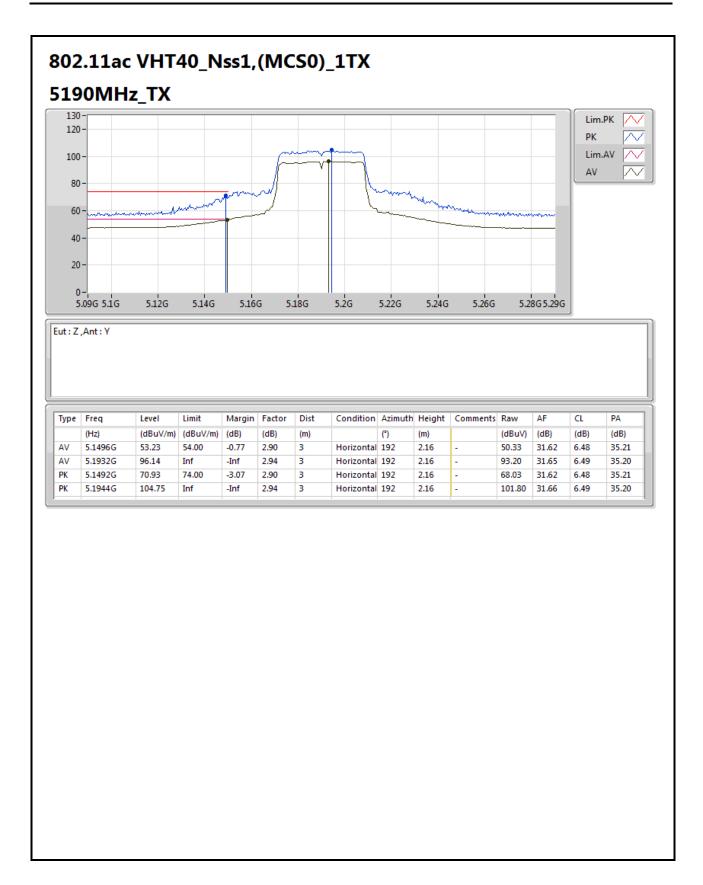
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E54 of E78





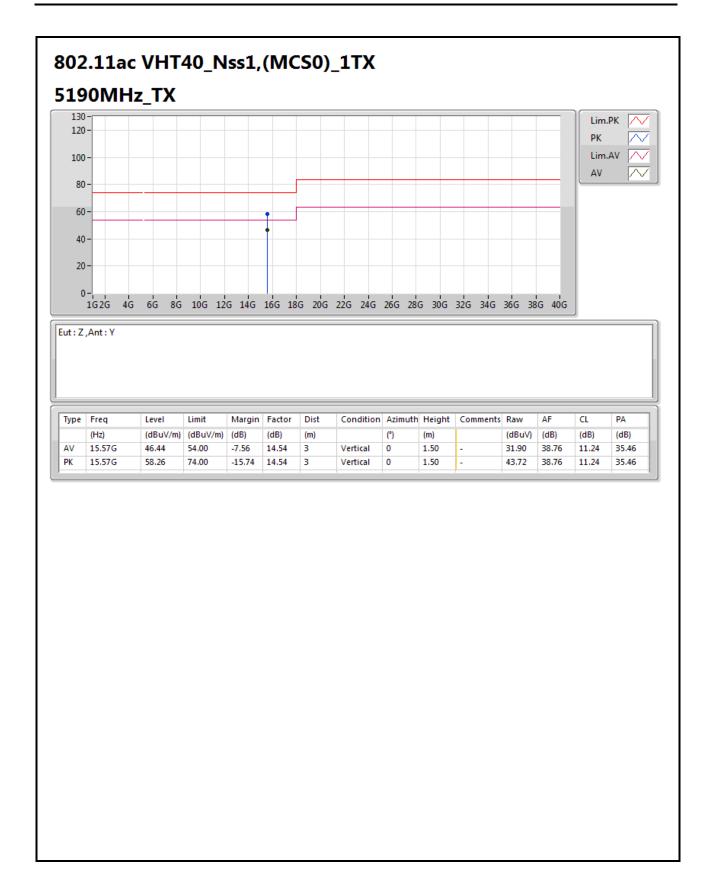
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E55 of E78





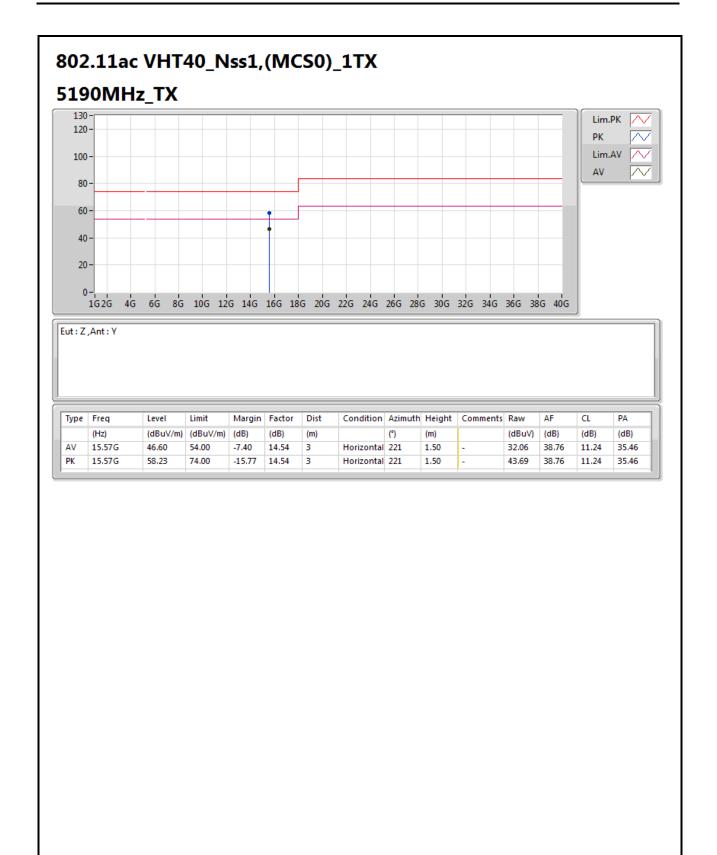
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E56 of E78





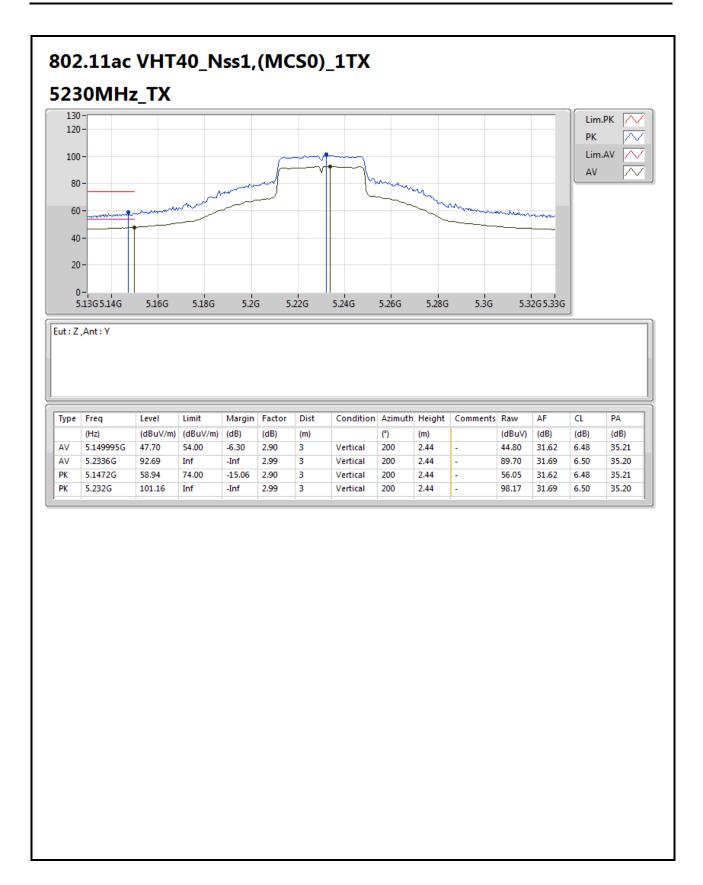
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E57 of E78





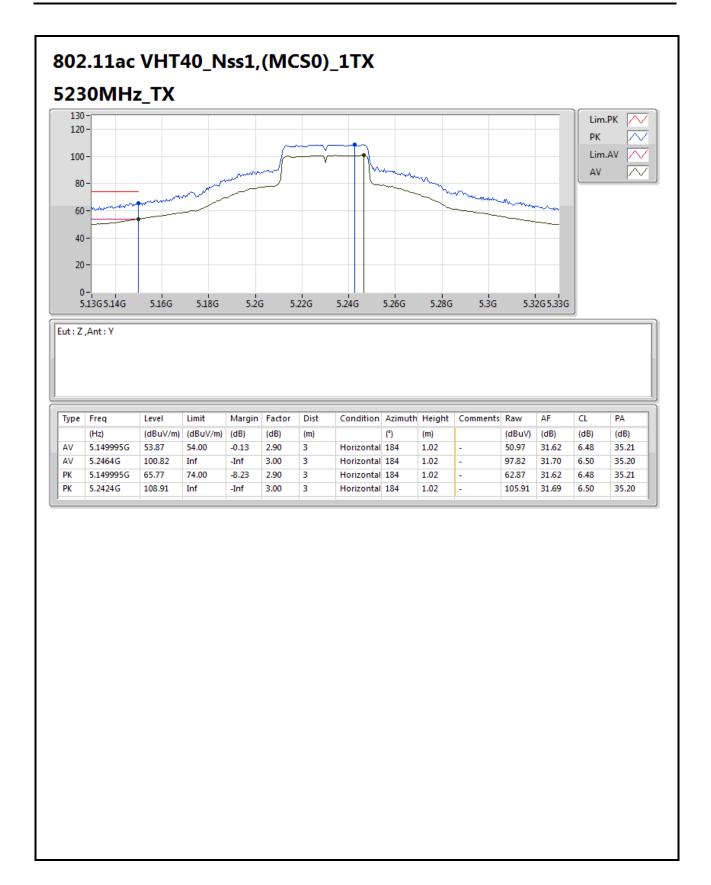
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E58 of E78





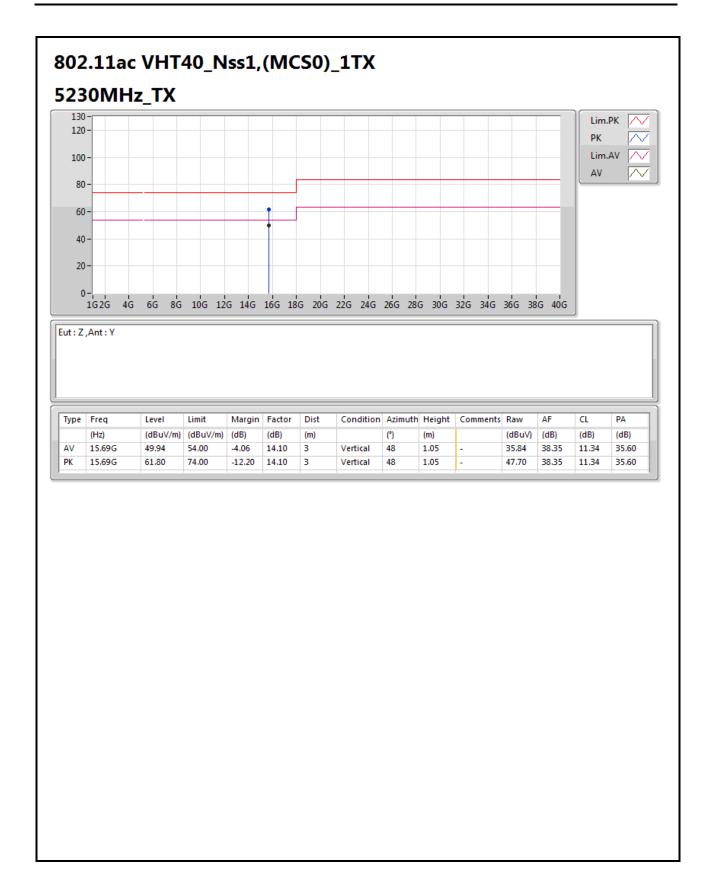
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E59 of E78





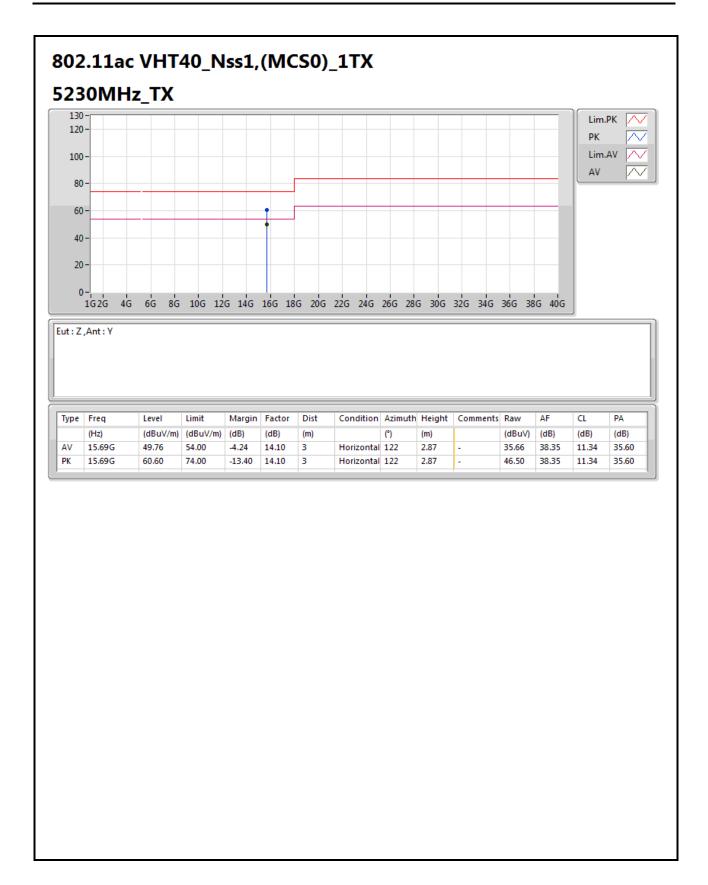
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E60 of E78





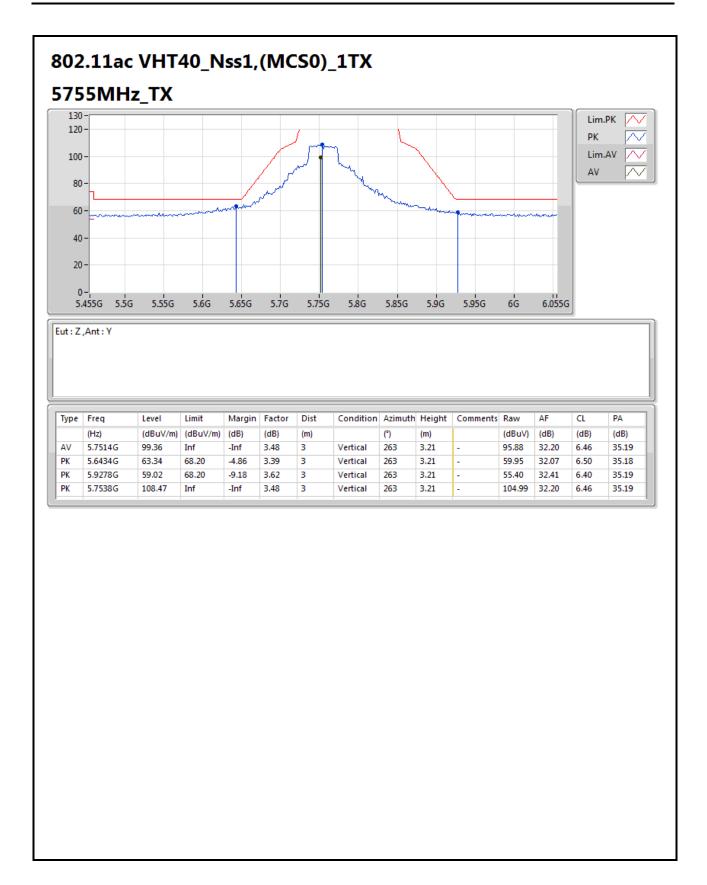
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E61 of E78





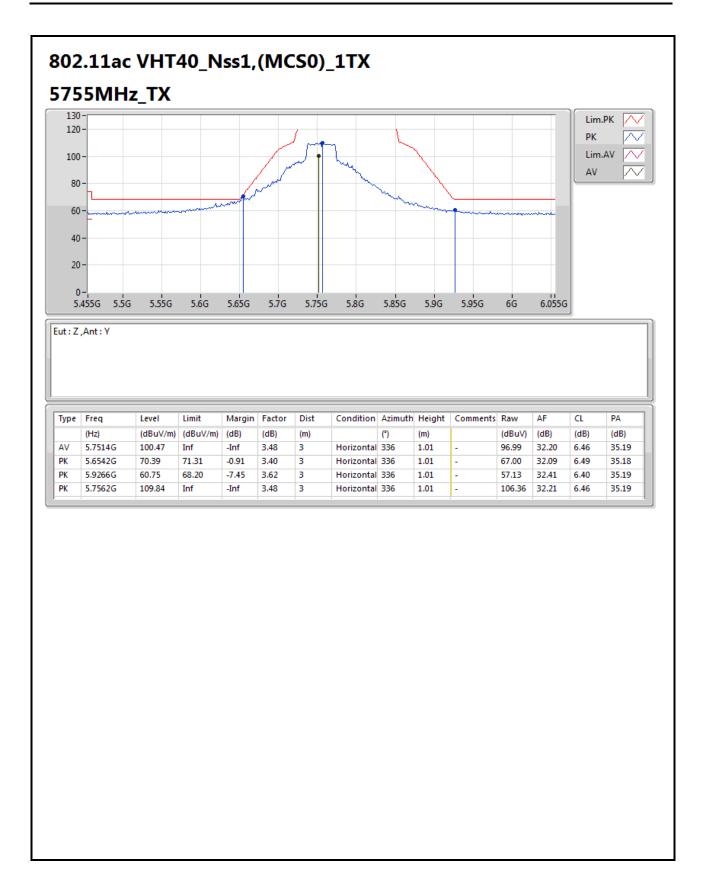
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E62 of E78





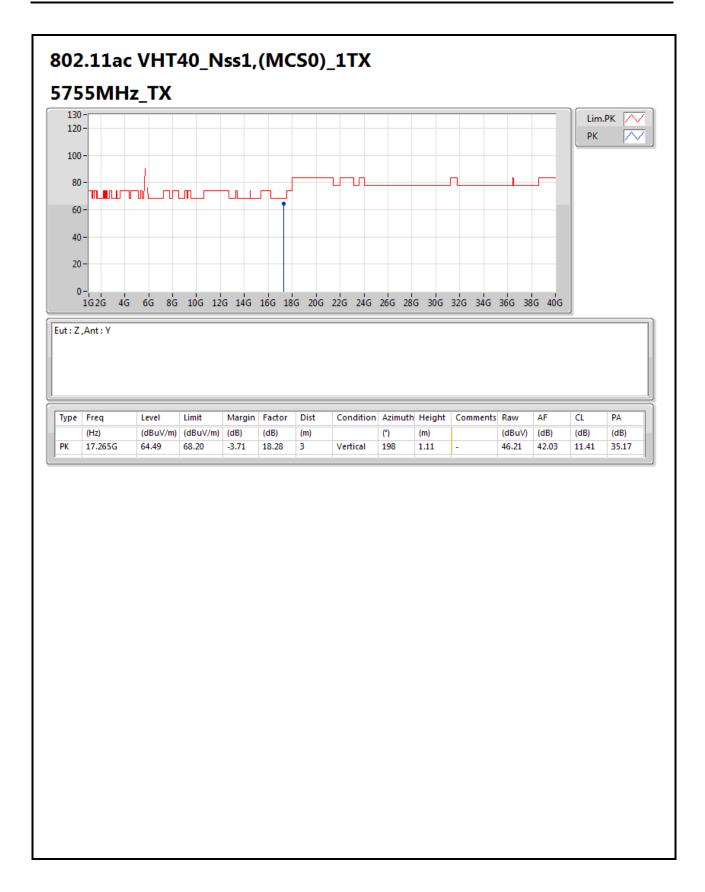
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E63 of E78





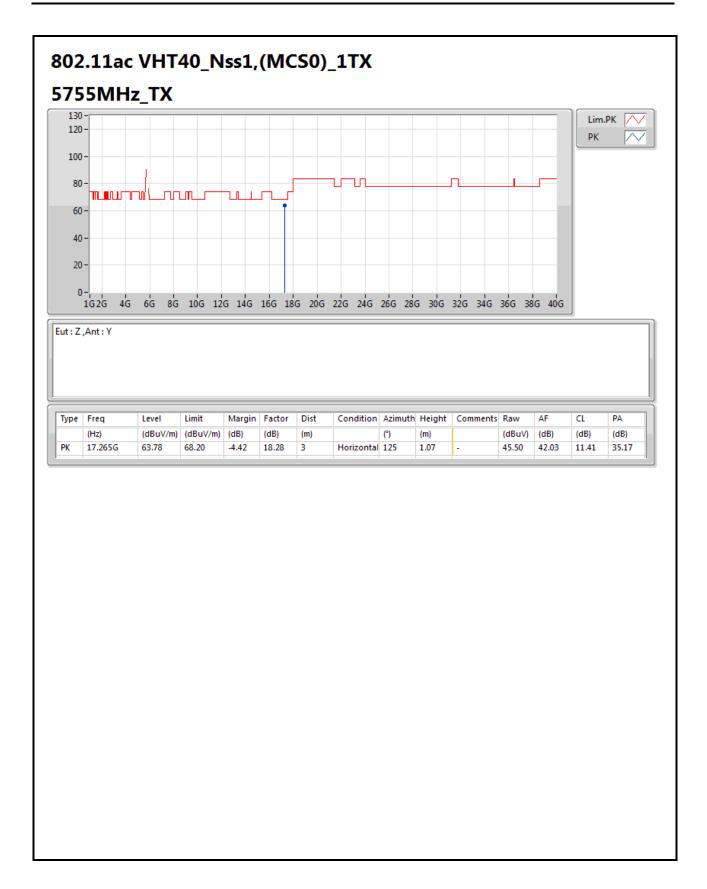
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E64 of E78





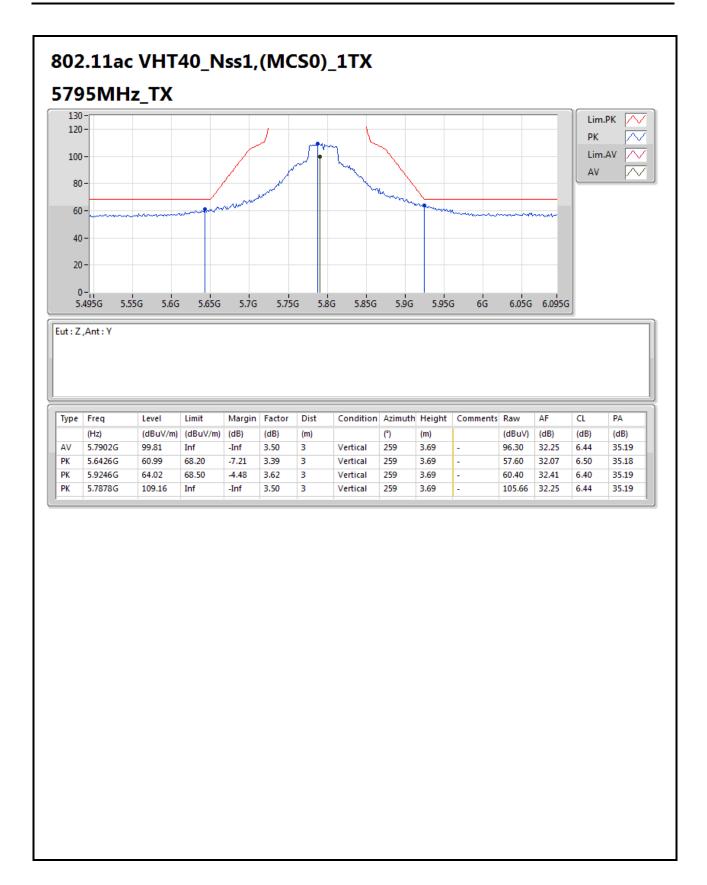
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E65 of E78





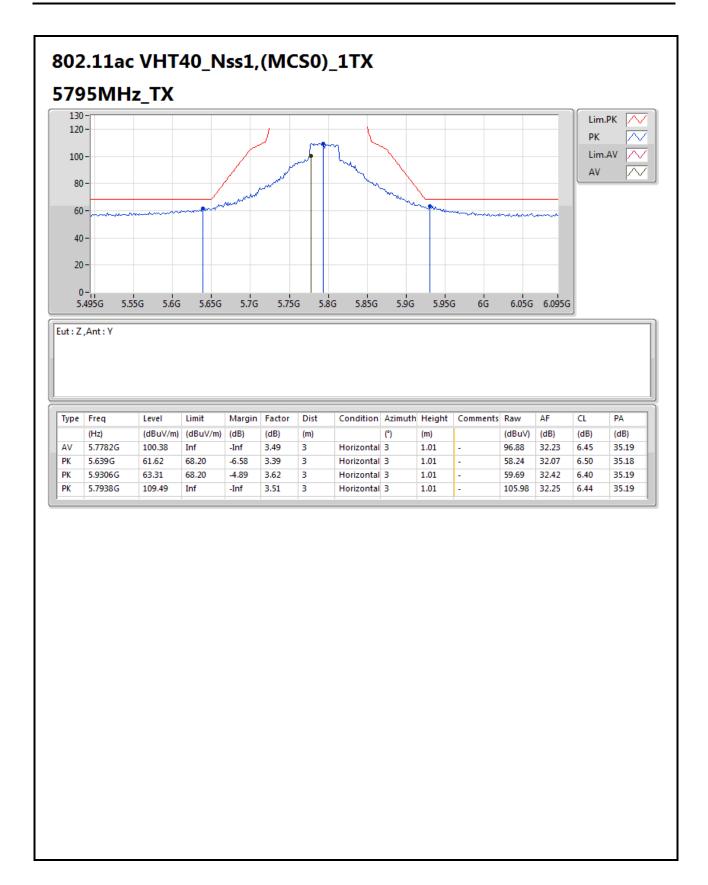
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E66 of E78





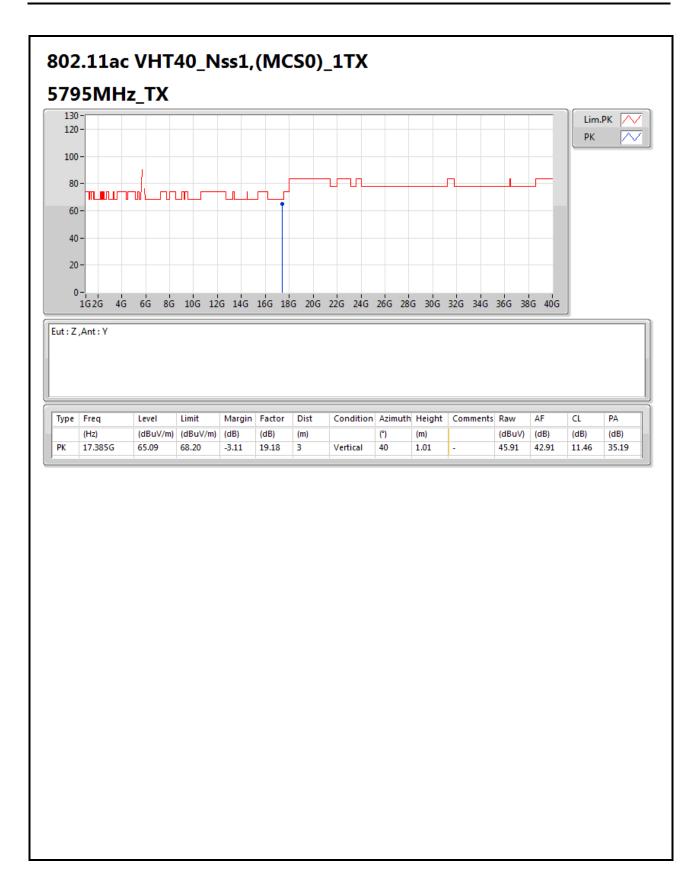
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E67 of E78





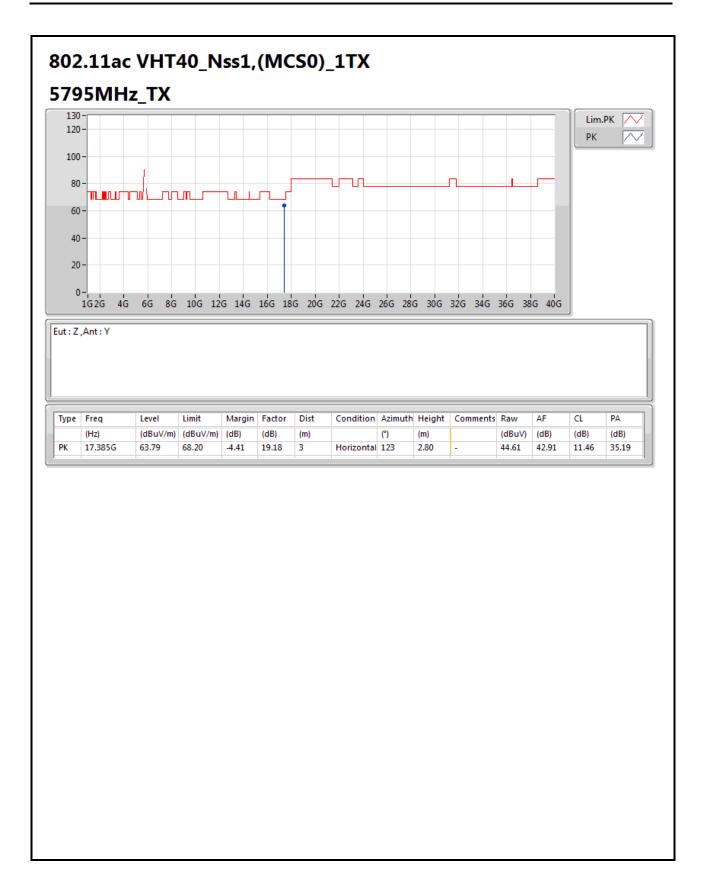
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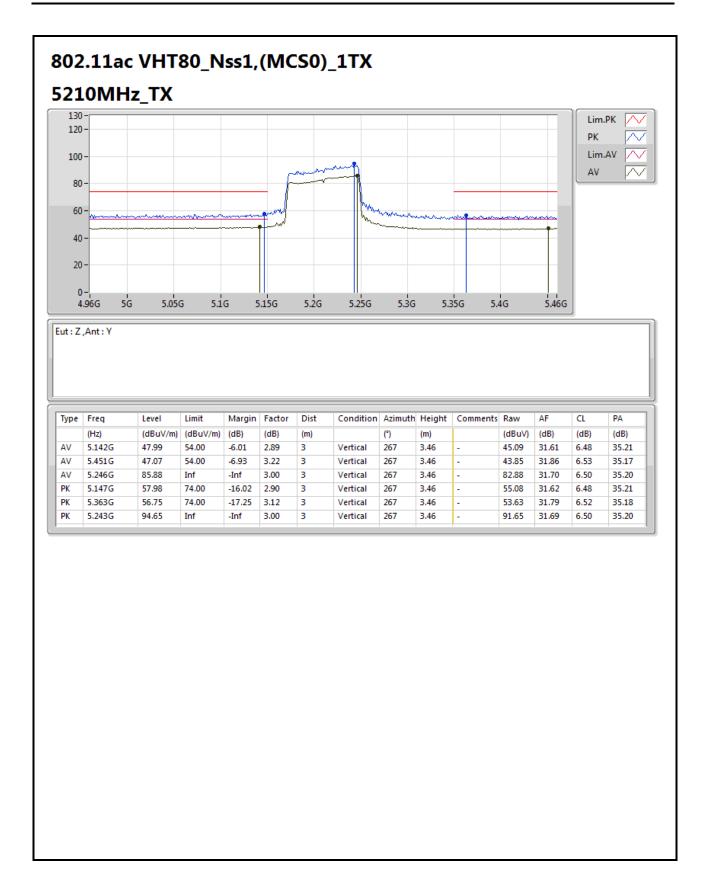
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E69 of E78





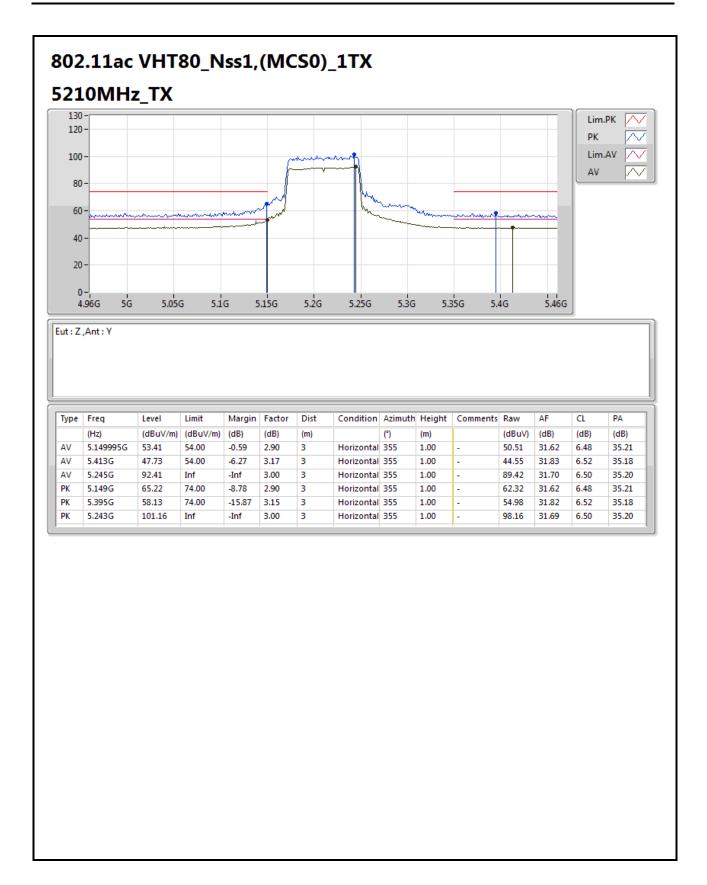
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E70 of E78





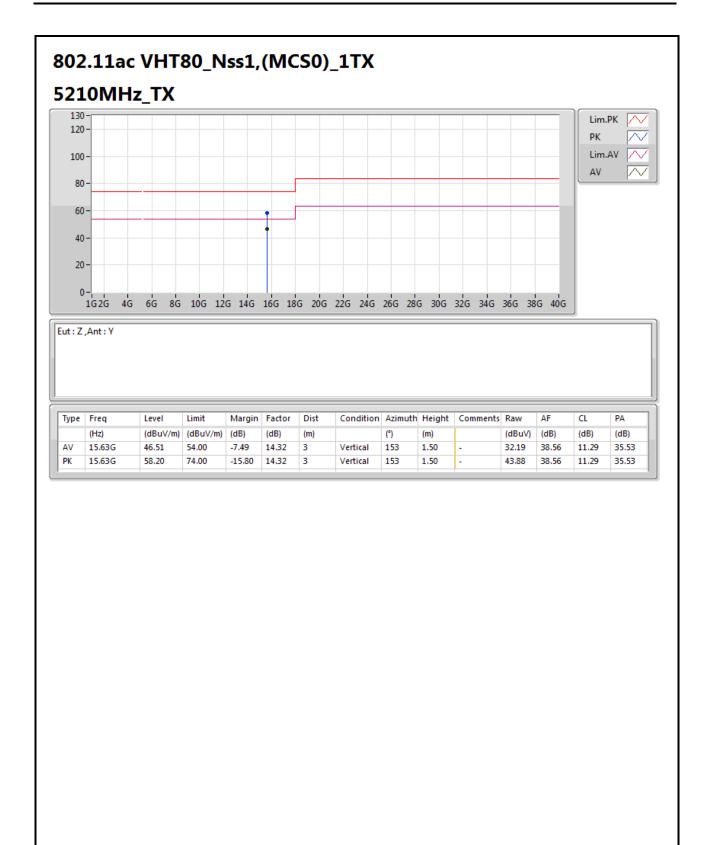
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E71 of E78





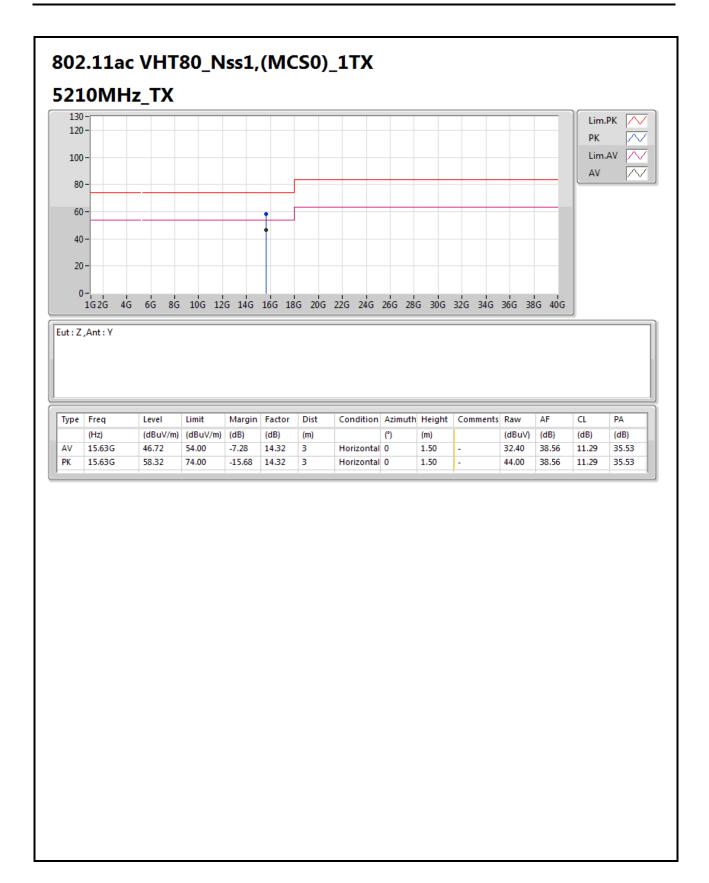
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E72 of E78





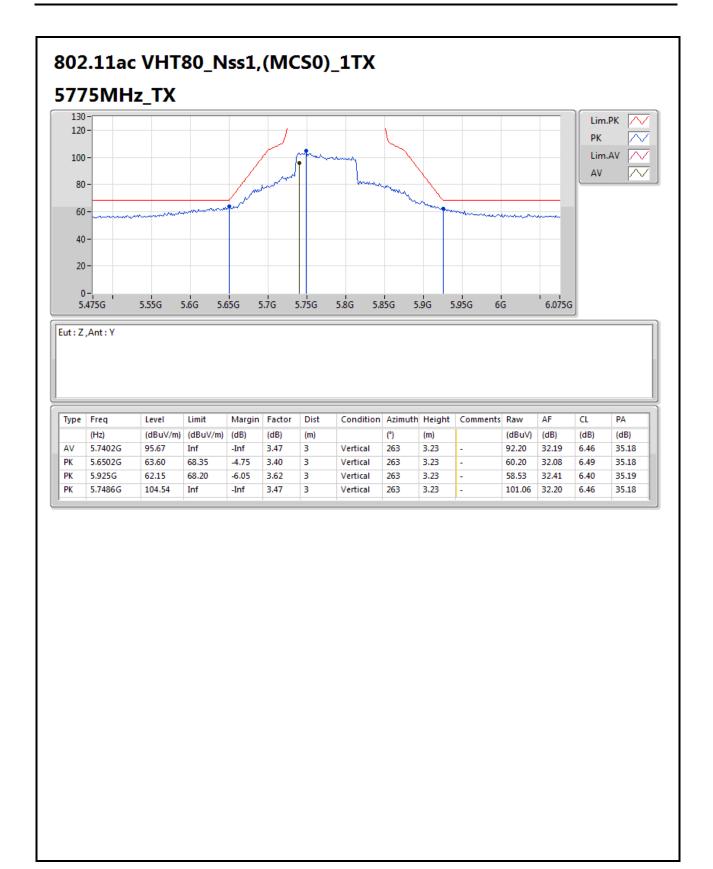
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E73 of E78





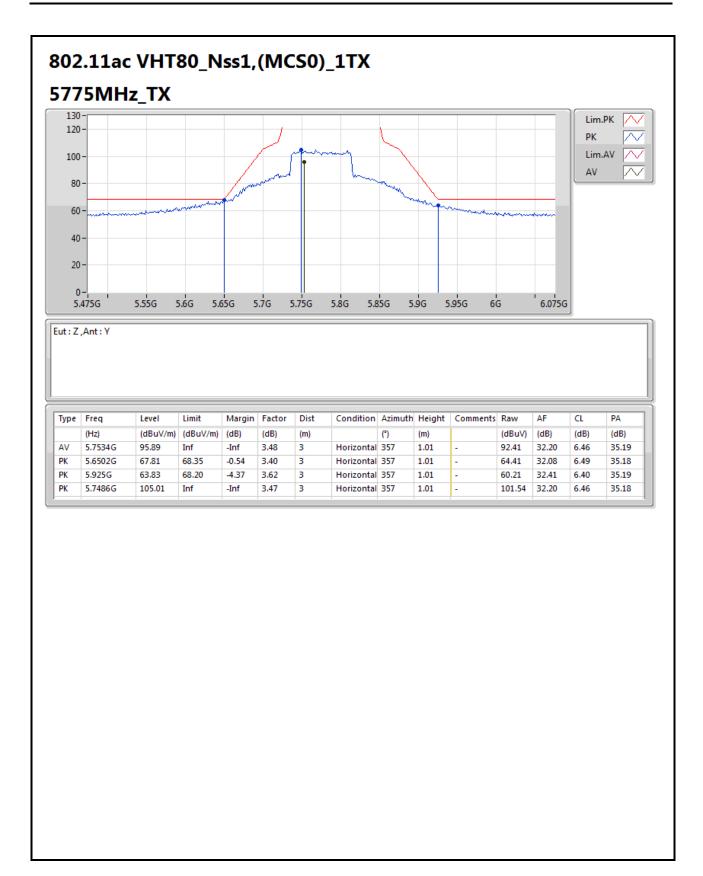
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E74 of E78





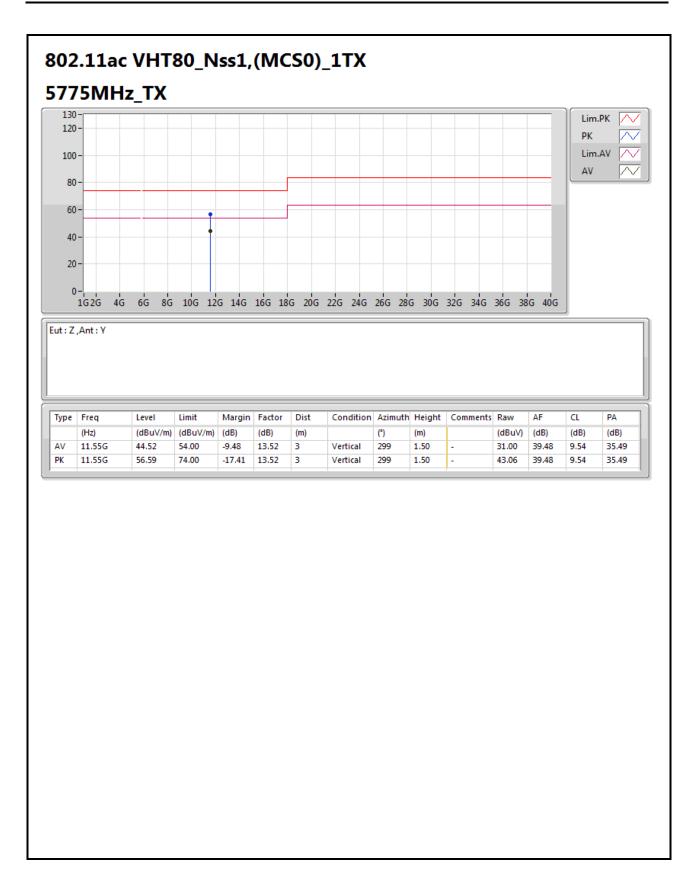
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E75 of E78





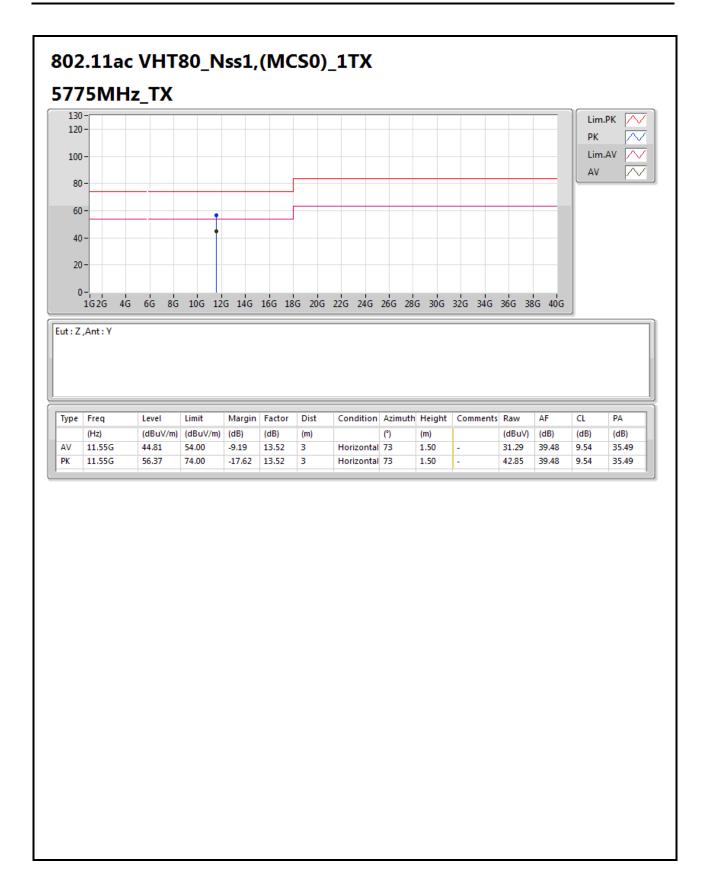
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Frequency Stability Result

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	5.20001992G	3.831	20	1	0 min

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Frequency Stability Result

Appendix F

Result

Mode	Result	Ch	Center	ppm	Limit	Port	Remark	
		(Hz)	(Hz)		(ppm)			
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	
5200MHz_0°C	Pass	5.2G	5.20001992G	3.831	20	1	0 min	
5200MHz_0°C	Pass	5.2G	5.20001989G	3.825	20	1	2 min	
5200MHz_0°C	Pass	5.2G	5.20001986G	3.82	20	1	5 min	
5200MHz_0°C	Pass	5.2G	5.20001984G	3.816	20	1	10 min	
5200MHz_10°C	Pass	5.2G	5.20001244G	2.392	20	1	0 min	
5200MHz_10°C	Pass	5.2G	5.2000124G	2.385	20	1	2 min	
5200MHz_10°C	Pass	5.2G	5.20001236G	2.376	20	1	5 min	
5200MHz_10°C	Pass	5.2G	5.20001231G	2.367	20	1	10 min	
5200MHz_20°C	Pass	5.2G	5.20000104G	0.2	20	1	0 min	
5200MHz_20°C	Pass	5.2G	5.20000098G	0.188	20	1	2 min	
5200MHz_20°C	Pass	5.2G	5.20000096G	0.185	20	1	5 min	
5200MHz_20°C	Pass	5.2G	5.20000089G	0.17	20	1	10 min	
5200MHz_30°C	Pass	5.2G	5.19999297G	1.351	20	1	0 min	
5200MHz_30°C	Pass	5.2G	5.19999291G	1.363	20	1	2 min	
5200MHz_30°C	Pass	5.2G	5.19999289G	1.367	20	1	5 min	
5200MHz_30°C	Pass	5.2G	5.19999284G	1.376	20	1	10 min	
5200MHz_40°C	Pass	5.2G	5.19998722G	2.457	20	1	0 min	
5200MHz_40°C	Pass	5.2G	5.19998721G	2.46	20	1	2 min	
5200MHz_40°C	Pass	5.2G	5.19998721G	2.46	20	1	5 min	
5200MHz_40°C	Pass	5.2G	5.1999872G	2.461	20	1	10 min	
5200MHz_138V	Pass	5.2G	5.20000024G	0.046	20	1	0 min	
5200MHz_138V	Pass	5.2G	5.20000019G	0.037	20	1	2 min	
5200MHz_138V	Pass	5.2G	5.20000015G	0.028	20	1	5 min	
5200MHz_138V	Pass	5.2G	5.20000008G	0.015	20	1	10 min	
5200MHz_120V	Pass	5.2G	5.20000178G	0.342	20	1	0 min	
5200MHz_120V	Pass	5.2G	5.20000175G	0.336	20	1	2 min	
5200MHz_120V	Pass	5.2G	5.20000171G	0.329	20	1	5 min	
5200MHz_120V	Pass	5.2G	5.20000165G	0.317	20	1	10 min	
5200MHz_102V	Pass	5.2G	5.20000385G	0.741	20	1	0 min	
5200MHz_102V	Pass	5.2G	5.2000038G	0.73	20	1	2 min	
5200MHz_102V	Pass	5.2G	5.20000376G	0.722	20	1	5 min	
5200MHz_102V	Pass	5.2G	5.20000371G	0.712	20	1	10 min	

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Radiated Emission Co-location

Appendix G

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	2.388G	45.98	54.00	-8.02	-4.02	3	Horizontal	3	1.04	-

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Radiated Emission Co-location

Appendix G

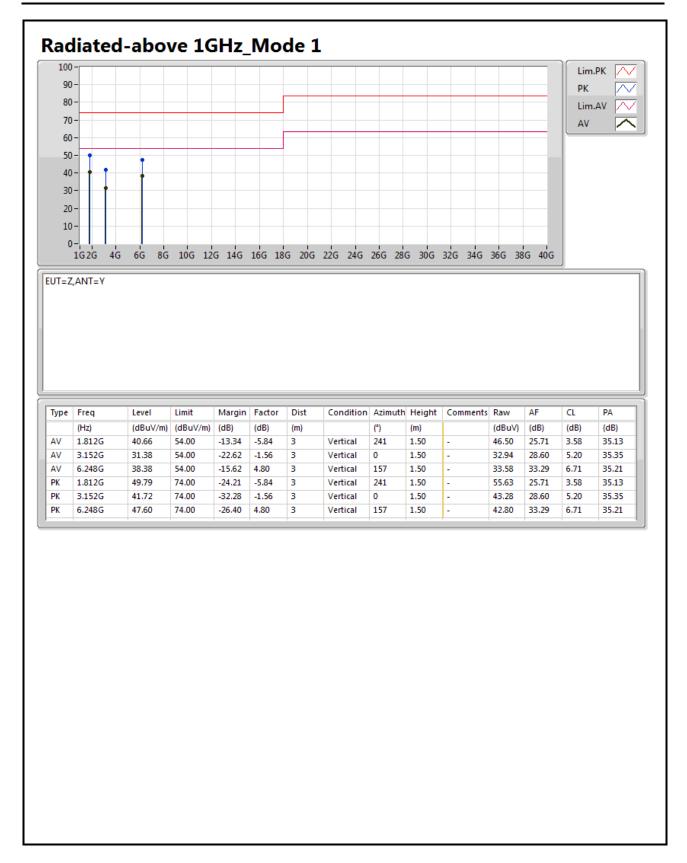
Result

Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
Radiated-above 1GHz	-	-	-	-	-	-	-	-	-	-	-	-
Mode 1	Pass	AV	2.388G	45.98	54.00	-8.02	-4.02	3	Horizontal	3	1.04	-
Mode 1	Pass	AV	3.344G	32.62	54.00	-21.38	-0.96	3	Horizontal	360	1.50	-
Mode 1	Pass	AV	6.877G	39.38	54.00	-14.62	7.50	3	Horizontal	139	1.50	-
Mode 1	Pass	PK	2.388G	60.61	74.00	-13.39	-4.02	3	Horizontal	3	1.04	-
Mode 1	Pass	PK	3.344G	42.84	74.00	-31.16	-0.96	3	Horizontal	360	1.50	-
Mode 1	Pass	PK	6.877G	51.42	74.00	-22.58	7.50	3	Horizontal	139	1.50	-
Mode 1	Pass	AV	1.812G	40.66	54.00	-13.34	-5.84	3	Vertical	241	1.50	-
Mode 1	Pass	AV	3.152G	31.38	54.00	-22.62	-1.56	3	Vertical	0	1.50	-
Mode 1	Pass	AV	6.248G	38.38	54.00	-15.62	4.80	3	Vertical	157	1.50	-
Mode 1	Pass	PK	1.812G	49.79	74.00	-24.21	-5.84	3	Vertical	241	1.50	-
Mode 1	Pass	PK	3.152G	41.72	74.00	-32.28	-1.56	3	Vertical	0	1.50	-
Mode 1	Pass	PK	6.248G	47.60	74.00	-26.40	4.80	3	Vertical	157	1.50	-

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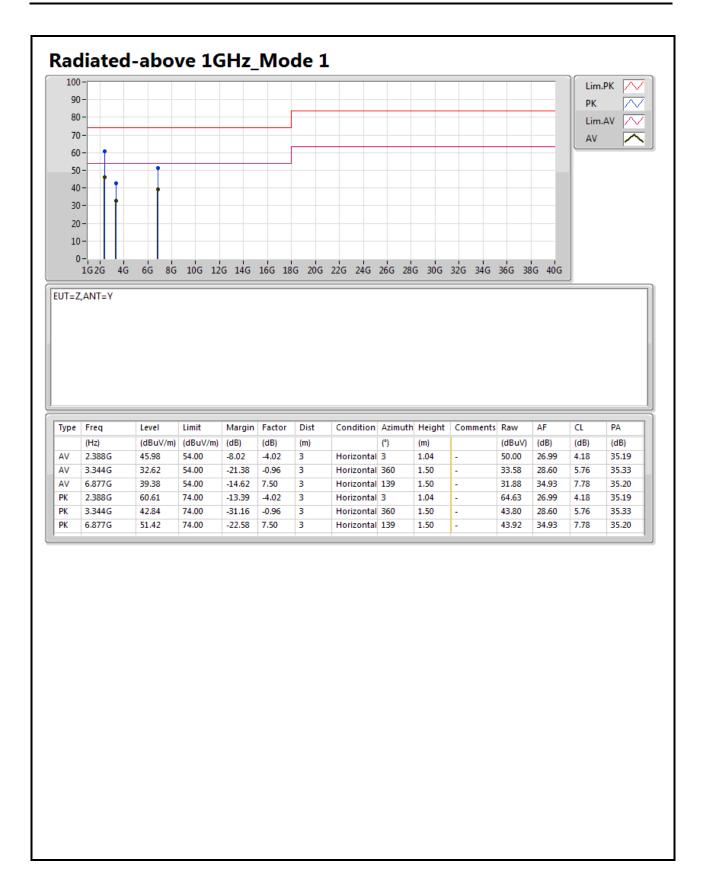
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