

Fauinment

Report No.: FR781425AN

FCC Test Report

Equipment	. Cili liot coozo outdooi
Brand Name	: Cambium Networks
Model No.	: cnPilot e502S Outdoor
FCC ID	: Z8H89FT0037
Standard	: 47 CFR FCC Part 15.407
Operating Band	: 5150 MHz – 5250 MHz 5725 MHz – 5850 MHz
Applicant / Manufacturer	: Cambium Networks Inc. 3800 Golf Road, Suite 360 Rolling Meadows, IL 60008 USA
Function	: ⊠ Outdoor; □ Indoor; □ Fixed P2P □ Client

cnPilot e5025 Outdoor

The product sample received on Aug. 16, 2017 and completely tested on Aug. 23, 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

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.





SPORTON INTERNATIONAL INC. : 1 of 26 Page No. TEL: 886-3-3273456 Report Version : Rev. 01 FAX: 886-3-3270973 Issued Date : Sep. 04, 2017



FCC Test Report

Table of Contents

1	GENERAL DESCRIPTION	5
1.1	Information	5
1.2	Testing Applied Standards	7
1.3	Testing Location Information	7
1.4	Measurement Uncertainty	7
2	TEST CONFIGURATION OF EUT	8
2.1	Test Condition	8
2.2	Test Channel Mode	9
2.3	The Worst Case Measurement Configuration	10
2.4	Support Equipment	11
2.5	Test Setup Diagram	12
3	TRANSMITTER TEST RESULT	14
3.1	AC Power-line Conducted Emissions	14
3.2	Emission Bandwidth	15
3.3	Maximum Conducted Output Power	16
3.4	Peak Power Spectral Density	18
3.5	Unwanted Emissions	
3.6	Frequency Stability	24
4	TEST EQUIPMENT AND CALIBRATION DATA	25
APP	ENDIX A. TEST RESULTS OF AC POWER-LINE CONDUCTED EMISSIONS	
APP	PENDIX B. TEST RESULTS OF EMISSION BANDWIDTH	
APP	PENDIX C.1 TEST RESULTS OF MAXIMUM CONDUCTED OUTPUT POWER	
APP	PENDIX C.2 MAX. E.I.R.P. AT ANY ELEVATION ANGLE ABOVE 30 DEGREES	
APP	PENDIX D. TEST RESULTS OF PEAK POWER SPECTRAL DENSITY	
APP	PENDIX E. TEST RESULTS OF UNWANTED EMISSIONS	
APP	PENDIX F. TEST RESULTS OF FREQUENCY STABILITY	
APP	PENDIX G. TEST PHOTOS	
РНО	OTOGRAPHS OF EUT V01	

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: Z8H89FT0037 Page No. : 2 of 26 Report Version : Rev. 01

Issued Date : Sep. 04, 2017



FCC Test Report

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 Comp			
3.2	15.407(a)	Emission Bandwidth Compl			
3.3	15.407(a)	Maximum Conducted Output Power Com			
3.4	15.407(a)	Peak Power Spectral Density	Complied		
3.5	15.407(b)	nwanted Emissions Complie			
3.6	15.407(g)	Frequency Stability	Complied		

SPORTON INTERNATIONAL INC. TEL: 886-3-3273456

FAX: 886-3-3270973 FCC ID: Z8H89FT0037 Page No. : 3 of 26
Report Version : Rev. 01
Issued Date : Sep. 04, 2017



Revision History

Report No.	Version	Description	Issued Date
FR781425AN	Rev. 01	Initial issue of report	Sep. 04, 2017

SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: Z8H89FT0037 Page No. : 4 of 26 Report Version : Rev. 01

Issued Date : Sep. 04, 2017



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]

Report No.: FR781425AN

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	2TX
5.725-5.85GHz	5.725-5.85GHz 802.11a		2TX
5.15-5.25GHz	802.11ac VHT20	20	2TX
5.725-5.85GHz	802.11ac VHT20	20	2TX
5.15-5.25GHz	802.11ac VHT40	40	2TX
5.725-5.85GHz	802.11ac VHT40	40	2TX
5.15-5.25GHz	802.11ac VHT80	80	2TX
5.725-5.85GHz	802.11ac VHT80	80	2TX

Note:

- 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- VHT20, VHT40, VHT80 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

	Ant.	Port	Brand	P/N	Antenna Type	Connector	Gain (dBi)
	1	1	Cambium	A005378	Sector antenna	I-PEX	16.4
Ī	2	2	Cambium	A005378	Sector antenna	I-PEX	16.9

Note 1: 802.11a/n/ac used two antennas are for signal transmitting and receiving.(2T2R Spatial Multiplexing MIMO configuration)

Note 2: Elevation angle above 30° Max gain (dBi): 1.5

 SPORTON INTERNATIONAL INC.
 Page No.
 : 5 of 26

 TEL: 886-3-3273456
 Report Version
 : Rev. 01

 FAX: 886-3-3270973
 Issued Date
 : Sep. 04, 2017



FCC Test Report

1.1.3 EUT Information

	Operational Condition						
EU	Γ Power T	уре	Fro	m POE			
Bea	amformin	g Function		With beamformi	ng [\boxtimes	Without beamforming
				-	Гуре of	EU	JT
\boxtimes	Stand-alc	ne					
	Combine	d (EUT where	e the	radio part is fully	/ integra	ated	d 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:						

Report No.: FR781425AN

: 6 of 26

: Rev. 01

: Sep. 04, 2017

1.1.4 Mode Test Duty Cycle

FCC ID: Z8H89FT0037

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.968	0.141	2.03m	1k
802.11ac VHT20	0.95	0.223	1.902m	1k
802.11ac VHT40	0.922	0.353	937.5u	3k
802.11ac VHT80	0.839	0.762	459.375u	3k

SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456

FAX: 886-3-3270973

Report Version
Issued Date

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
- KDB 789033 D02 v01r04
- KDB 644545 D03 v01
- KDB 662911 D01 v02r01

1.3 Testing Location Information

	Testing Location						
\boxtimes	HWA YA	ADD	:	No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)			
		TEL	: 886-3-327-3456 FAX : 886-3-327-0973				
				Test site Designation	n 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	n No. TW0006 with FCC.		

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH07-HY	Ryan	24.5°C / 65%	23/Aug/2017
Radiated	03CH09-HY	Jerry	26.5°C / 45%	21/Aug/2017
AC Conduction	CO04-HY	Bear	22°C / 56%	21/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%

SPORTON INTERNATIONAL INC.
TEL: 886-3-3273456

FAX: 886-3-3270973 FCC ID: Z8H89FT0037 Page No. : 7 of 26
Report Version : Rev. 01

Issued Date : Sep. 04, 2017



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
-40°C	-	-
-30°C	-	-
-20°C	-	-
-10°C	-	-
0°C	-	-
10°C	-	-
20°C	-	-
30°C	-	-
40°C	-	-
50°C	-	-
60°C	-	-
70°C	-	-
138V	-	-
120V	-	-
102V	-	-

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: Z8H89FT0037 Page No. : 8 of 26
Report Version : Rev. 01
Issued Date : Sep. 04, 2017



FCC Test Report

Test Channel Mode 2.2

Test Software	ART2
---------------	------

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5180MHz	13.5
5200MHz	13.5
5240MHz	13.5
5745MHz	15.5
5785MHz	15.5
5825MHz	16.5
802.11ac VHT20_Nss1,(MCS0)_2TX	-
5180MHz	13.5
5200MHz	13.5
5240MHz	13.5
5745MHz	15.5
5785MHz	15.5
5825MHz	15.5
802.11ac VHT40_Nss1,(MCS0)_2TX	-
5190MHz	17
5230MHz	16.5
5755MHz	16
5795MHz	16
802.11ac VHT80_Nss1,(MCS0)_2TX	-
5210MHz	12
5775MHz	16.5

SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: Z8H89FT0037 Page No. : 9 of 26 Report Version Issued Date

: Rev. 01 : Sep. 04, 2017

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	Normal Link	
1	PoE Mode	

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	CTX	
1	PoE Mode	
	Y Plane	
Orthogonal Planes of EUT		
Worst Planes of EUT	V	

The Worst Case Mode for Following Conformance Tests		
Tests Item Simultaneous Transmission Analysis		
Operating Mode	СТХ	
1 WLAN 2.4GHz+WLAN 5GHz		
Refer to Sporton Test Report No.: FA781425 for Co-location RF Exposure Evaluation.		

SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: Z8H89FT0037 Page No. : 10 of 26
Report Version : Rev. 01

Issued Date : Sep. 04, 2017

2.4 Support Equipment

	Support Equipment – RF Conducted				
No.	o. Equipment Brand Name Model Name FCC ID				
1	Notebook	DELL	E5410	DoC	
2	Adapter for NB	DELL	HA65NM130	DoC	
3	AC Source	G.W	APS-9102	-	

Support Equipment – Radiated Emission				
No.	Equipment	Brand Name	Model Name	FCC ID
1	PoE	Cambium Networks	NET-P30-56IN	-

Note. Support equipment No.1 was provided by customer.

	Support Equipment – AC Conduction				
No.	Equipment Brand Name Model Name FCC ID				
Α	PoE	Cambium Networks	NET-P30-56IN	-	
Z	Notebook	DELL	Latitude E5430	DoC	
Z	Terminal (Client Provided)	TUV	MRLBB-1302	-	
Z	Notebook	DELL	P55G	DoC	
Z	Notebook	DELL	P55G	DoC	

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

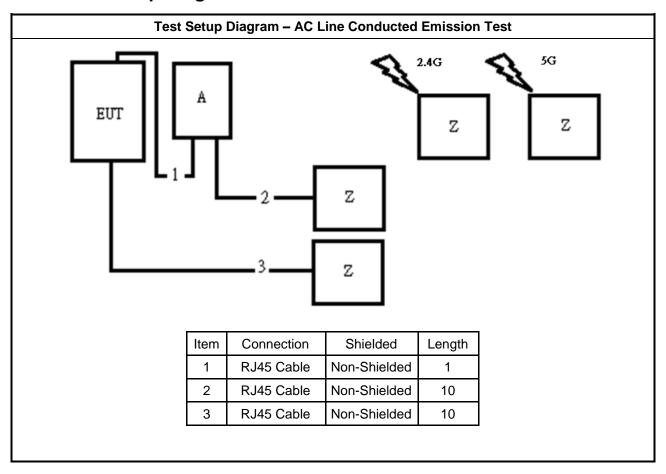
SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: Z8H89FT0037 Page No. : 11 of 26 Report Version : Rev. 01

Report Version : Rev. 01 Issued Date : Sep. 04, 2017



2.5 Test Setup Diagram



TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: Z8H89FT0037 Page No. : 12 of 26
Report Version : Rev. 01
Issued Date : Sep. 04, 2017

Test Setup Diagram - Radiated Test Power BOX EUT Turn table Shielded Item Connection Length RJ45 cable 1 No 3m 2 AC Power line No 0.8m 3 AC Power line No 1.8m

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: Z8H89FT0037 Page No. : 13 of 26
Report Version : Rev. 01
Issued Date : Sep. 04, 2017



3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

Report No.: FR781425AN

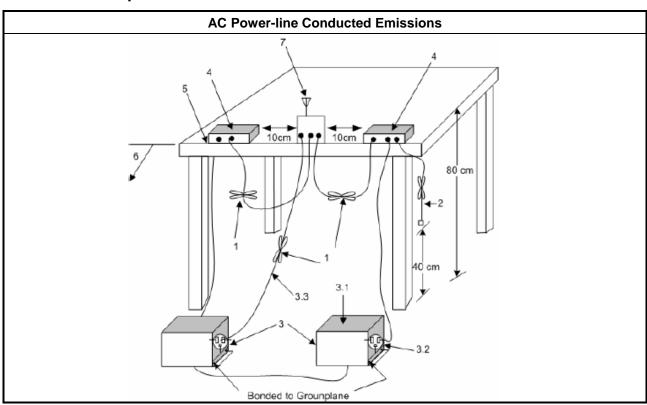
3.1.2 Measuring Instruments

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

 SPORTON INTERNATIONAL INC.
 Page No.
 : 14 of 26

 TEL: 886-3-3273456
 Report Version
 : Rev. 01

 FAX: 886-3-3270973
 Issued Date
 : Sep. 04, 2017

3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

	Emission Bandwidth Limit					
UN	II 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.					

Report No.: FR781425AN

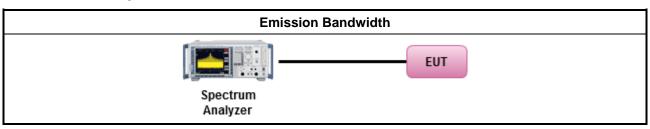
3.2.2 Measuring Instruments

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

 SPORTON INTERNATIONAL INC.
 Page No.
 : 15 of 26

 TEL: 886-3-3273456
 Report Version
 : Rev. 01

 FAX: 886-3-3270973
 Issued Date
 : Sep. 04, 2017

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.

SPORTON INTERNATIONAL INC. TEL: 886-3-3273456

FAX: 886-3-3270973 FCC ID: Z8H89FT0037 Page No. : 16 of 26

Report No.: FR781425AN

Report Version : Rev. 01 Issued Date : Sep. 04, 2017

3.3.2 Measuring Instruments

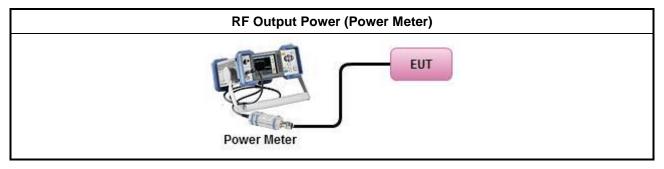
Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

	Test Method
•	Maximum Conducted Output Power
	Duty cycle ≥ 98%
	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

Report No.: FR781425AN

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C.1

3.3.6 Test Result of MAX. E.I.R.P. AT ANY ELEVATION ANGLE ABOVE 30 DEGREES

Refer as Appendix C.2

 SPORTON INTERNATIONAL INC.
 Page No.
 : 17 of 26

 TEL: 886-3-3273456
 Report Version
 : Rev. 01

 FAX: 886-3-3270973
 Issued Date
 : Sep. 04, 2017

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 $17 dBm/MHz$. 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.					
pow	PPSD = peak power spectral density that he same method as used to determine the conducted output power shall be used to determine the power spectral density. And power spectral density in dBm/MHz G_{TX} = the maximum transmitting antenna directional gain in dBi.					

Report No.: FR781425AN

3.4.2 Measuring Instruments

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

 SPORTON INTERNATIONAL INC.
 Page No.
 : 18 of 26

 TEL: 886-3-3273456
 Report Version
 : Rev. 01

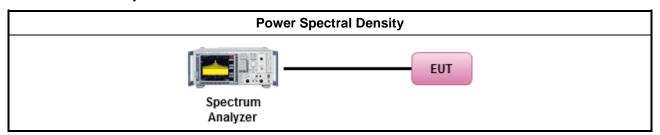
 FAX: 886-3-3270973
 Issued Date
 : Sep. 04, 2017

3.4.3 Test Procedures

		Test Method							
•	outpu funct	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	cycle < 98%							
	\boxtimes	Refer as KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)							
•	For c	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 $							

Report No.: FR781425AN

3.4.4 Test Setup



3.4.5 Test Result of Peak Power Spectral Density

Refer as Appendix D

 SPORTON INTERNATIONAL INC.
 Page No.
 : 19 of 26

 TEL: 886-3-3273456
 Report Version
 : Rev. 01

 FAX: 886-3-3270973
 Issued Date
 : Sep. 04, 2017



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).

SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: Z8H89FT0037 Page No. : 20 of 26

Report Version : Rev. 01

Issued Date : Sep. 04, 2017

3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method

Report No.: FR781425AN

- 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.

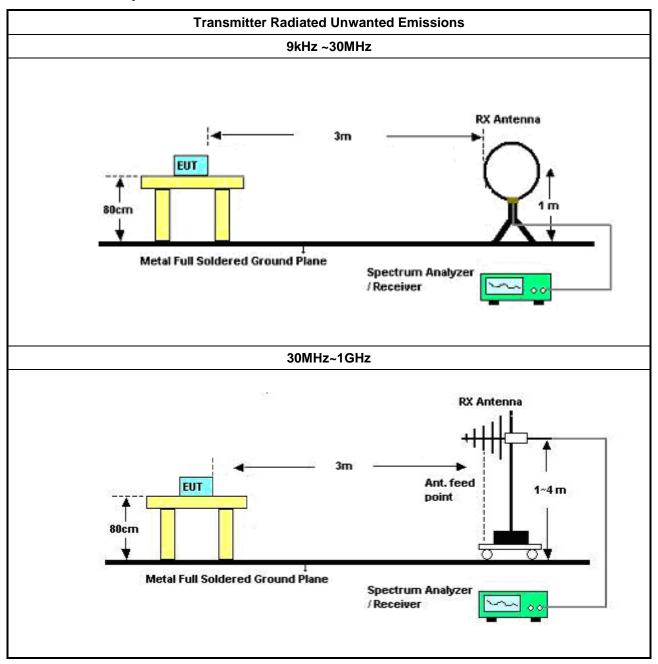
 SPORTON INTERNATIONAL INC.
 Page No.
 : 21 of 26

 TEL: 886-3-3273456
 Report Version
 : Rev. 01

 FAX: 886-3-3270973
 Issued Date
 : Sep. 04, 2017



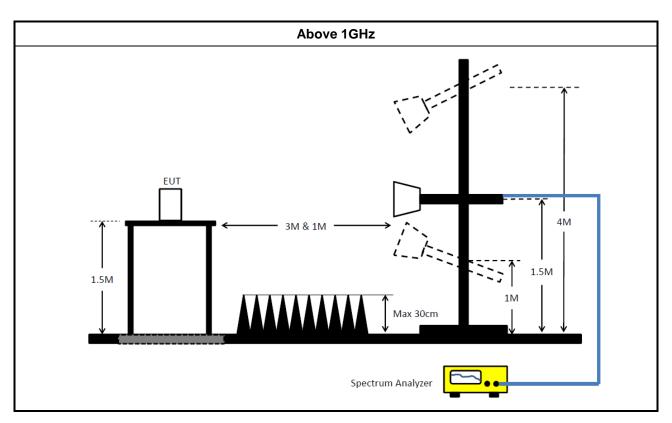
3.5.4 Test Setup



TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: Z8H89FT0037 Page No. : 22 of 26 Report Version : Rev. 01

Issued Date

: Sep. 04, 2017



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

SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: Z8H89FT0037 Page No. : 23 of 26
Report Version : Rev. 01

Issued Date : Sep. 04, 2017

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.

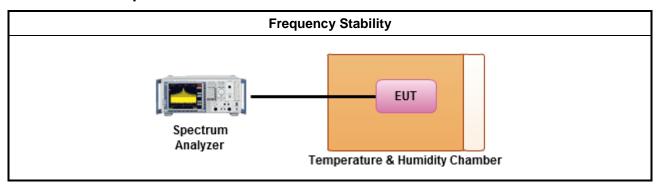
3.6.2 Measuring Instruments

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

SPORTON INTERNATIONAL INC. TEL: 886-3-3273456

FAX: 886-3-3270973 FCC ID: Z8H89FT0037 Page No. : 24 of 26

Report No.: FR781425AN

Report Version : Rev. 01 Issued Date : Sep. 04, 2017



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	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+SUHN ER	RG213/U	0761183202000 1	9kHz ~ 30MHz	24/Oct/2016	23/Oct/2017
Impedance Stabilization Network	TESEQ	ISN T800	30330	9kHz ~ 30MHz	13/Apr/2017	12/Apr/2018
Impuls Begrenzer Puls e Limiter	R&S	ESH3-Z2	100921	10 kHz ~ 30 MHz	20/Oct/2016	21/Oct/2017

Report No.: FR781425AN

: 25 of 26

: Rev. 01

: Sep. 04, 2017

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	SCHWARZBEC K	BBHA 9120D	BBHA9120D 1534	1GHz~18GHz	28/Apr/2017	27/Apr/2018
Horn Antenna	SCHWARZBEC K	BBHA9170	BBHA9170614	18GHz ~ 40GHz	06/Feb/2017	05/Feb/2018
Amplifier	EMC INSTRUMENTS	EMC184045B & PE7005-6	980192	18GHz ~ 40GHz	24/Aug/2016	23/Aug/2017
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

SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456

FAX: 886-3-3270973

Page No.

Report Version
Issued Date

FAX: 886-3-3270973 FCC ID: Z8H89FT0037



FCC Test Report

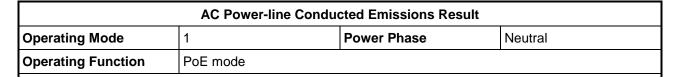
Instrument for Conducted Test

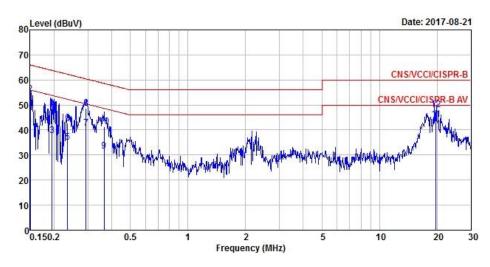
Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101500	9kHz~40GHz	28/Jun/2017	27/Jun/2018
Power Sensor	Anritsu	MA2411B	1339407	300MHz ~ 40GHz	27/Oct/2016	26/Oct/2017
Power Meter	Anritsu	ML2495A	1517010	300MHz ~ 40GHz	27/Oct/2016	26/Oct/2017
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℃	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 4	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

SPORTON INTERNATIONAL INC.
TEL: 886-3-3273456

FAX: 886-3-3270973 FCC ID: Z8H89FT0037 Page No. : 26 of 26
Report Version : Rev. 01
Issued Date : Sep. 04, 2017







				0ver	Limit	Read	LISN	Cable	
		Freq	Level	Limit	Line	Level	Factor	Loss	Remark
	<u> </u>	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.15	41.13	-14.87	56.00	31.31	9.60	0.22	Average
2		0.15	54.40	-11.60	66.00	44.58	9.60	0.22	QP
3		0.20	37.82	-15.98	53.80	27.87	9.66	0.29	Average
4		0.20	48.43	-15.37	63.80	38.48	9.66	0.29	QP
5		0.24	35.07	-17.19	52.26	25.16	9.66	0.25	Average
6		0.24	42.76	-19.50	62.26	32.85	9.66	0.25	QP
7		0.29	40.62	-9.79	50.41	30.78	9.65	0.19	Average
8		0.29	48.71	-11.70	60.41	38.87	9.65	0.19	QP
9		0.37	31.69	-16.92	48.61	21.92	9.64	0.13	Average
10		0.37	41.29	-17.32	58.61	31.52	9.64	0.13	QP
11	MAX	19.73	44.19	-5.81	50.00	34.10	9.89	0.20	Average
12		19.73	47.98	-12.02	60.00	37.89	9.89	0.20	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.)

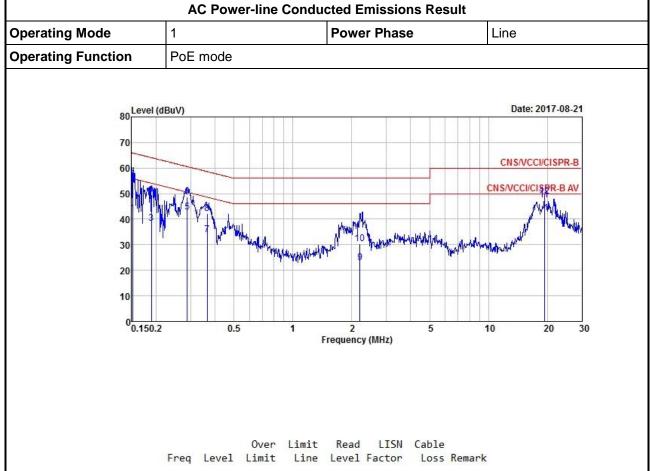
SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 Page No.

: A1 of A2

781425





	Freq	Level	Limit	Line	Level	Factor	Loss	Remark
¥ <u>9</u>	MHz	dBuV	dB	dBuV	dBuV	dB	dB	5
1	0.15	42.17	-13.74	55.91	32.29	9.66	0.22	Average
2	0.15	55.37	-10.54	65.91	45.49	9.66	0.22	QP
3	0.19	38.37	-15.69	54.06	28.43	9.65	0.29	Average
4	0.19	49.64	-14.42	64.06	39.70	9.65	0.29	QP
5	0.29	42.75	-7.84	50.59	32.88	9.67	0.20	Average
6	0.29	48.71	-11.88	60.59	38.84	9.67	0.20	QP
7	0.37	34.00	-14.61	48.61	24.19	9.68	0.13	Average
8	0.37	42.17	-16.44	58.61	32.36	9.68	0.13	QP
9	2.20	23.03	-22.97	46.00	12.97	9.79	0.27	Average
10	2.20	30.36	-25.64	56.00	20.30	9.79	0.27	QP
11 MAX	19.31	47.57	-2.43	50.00	37.48	9.89	0.20	Average
12	19.31	48.95	-11.05	60.00	38.86	9.89	0.20	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.)

SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 Page No.

: A2 of A2

781425



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)_2TX	-	-	-	-	-
5.15-5.25GHz	22.625M	16.542M	16M5D1D	22.075M	16.467M
5.725-5.85GHz	16.35M	16.542M	16M5D1D	16.275M	16.442M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-
5.15-5.25GHz	24.35M	17.716M	17M7D1D	22.925M	17.641M
5.725-5.85GHz	17.55M	17.741M	17M7D1D	16.65M	17.641M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-
5.15-5.25GHz	45.35M	36.282M	36M3D1D	43.6M	36.182M
5.725-5.85GHz	36.25M	36.332M	36M3D1D	35.5M	36.132M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-
5.15-5.25GHz	85.6M	75.762M	75M8D1D	84.8M	75.662M
5.725-5.85GHz	75.3M	75.662M	75M7D1D	73.4M	75.462M

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;

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 781425

Page No. : B1 of B8



Result

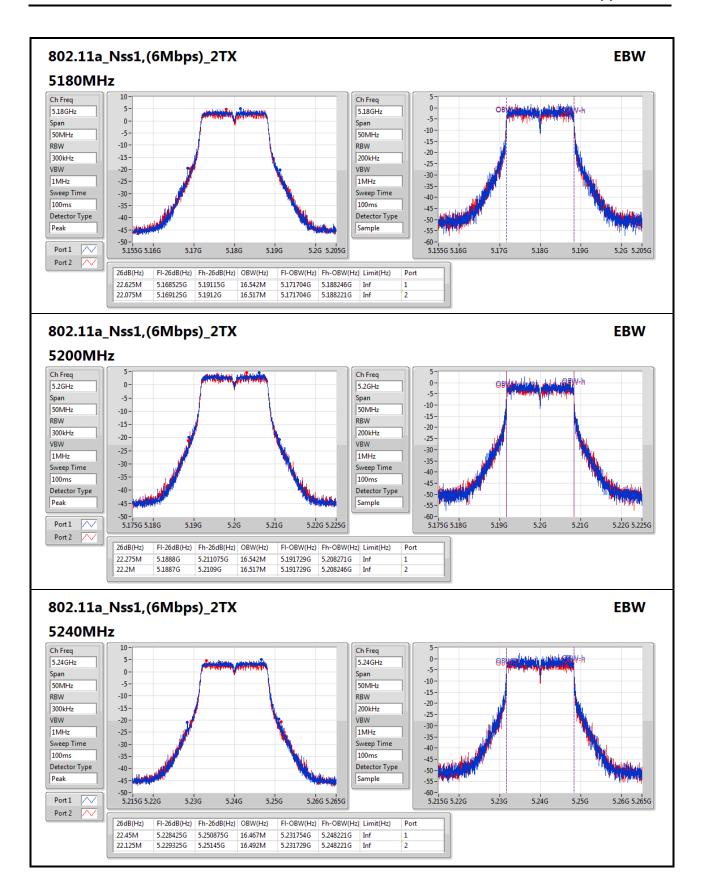
Mode	Result	Limit	Port 1-N dB	Port 1-OBW	Port 2-N dB	Port 2-OBW
		(Hz)	(Hz)	(Hz)	(Hz)	(Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	22.625M	16.542M	22.075M	16.517M
5200MHz	Pass	Inf	22.275M	16.542M	22.2M	16.517M
5240MHz	Pass	Inf	22.45M	16.467M	22.125M	16.492M
5745MHz	Pass	500k	16.275M	16.492M	16.275M	16.467M
5785MHz	Pass	500k	16.325M	16.542M	16.325M	16.492M
5825MHz	Pass	500k	16.35M	16.442M	16.325M	16.492M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	23.425M	17.716M	24.35M	17.691M
5200MHz	Pass	Inf	23.3M	17.691M	23.025M	17.691M
5240MHz	Pass	Inf	23.325M	17.691M	22.925M	17.641M
5745MHz	Pass	500k	17.125M	17.641M	16.65M	17.666M
5785MHz	Pass	500k	17.55M	17.666M	16.875M	17.666M
5825MHz	Pass	500k	17.25M	17.691M	17.55M	17.741M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	45.35M	36.282M	44.6M	36.282M
5230MHz	Pass	Inf	43.6M	36.182M	45.25M	36.232M
5755MHz	Pass	500k	35.75M	36.282M	35.5M	36.332M
5795MHz	Pass	500k	36.25M	36.132M	35.65M	36.232M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	85.6M	75.662M	84.8M	75.762M
5775MHz	Pass	500k	73.4M	75.462M	75.3M	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;

SPORTON INTERNATIONAL INC. Page No. : B2 of B8

781425

TEL: 886-3-327-3456 FAX: 886-3-327-0973



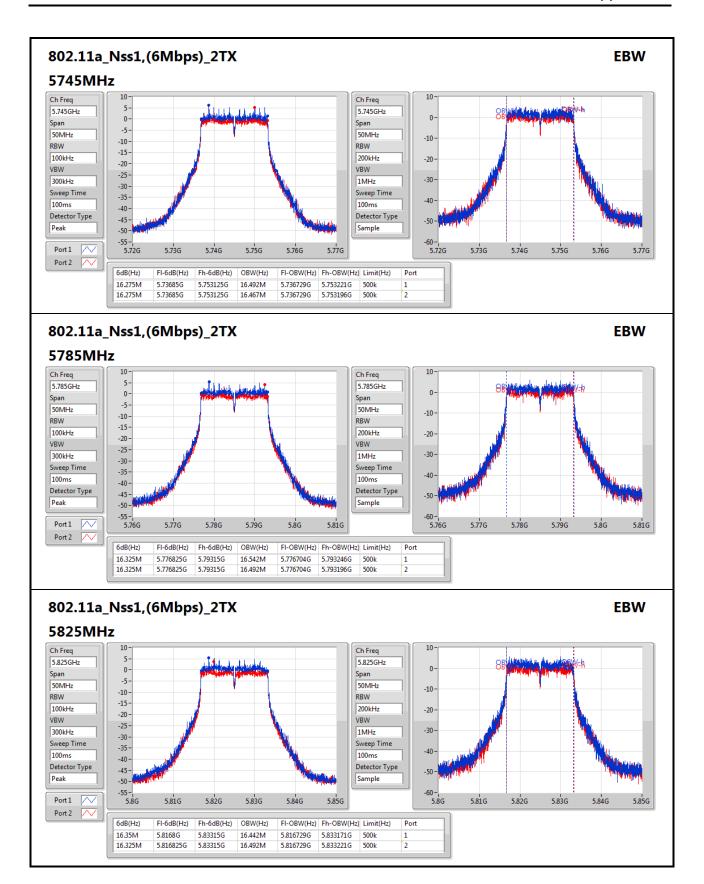
SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : B3 of B8

781425

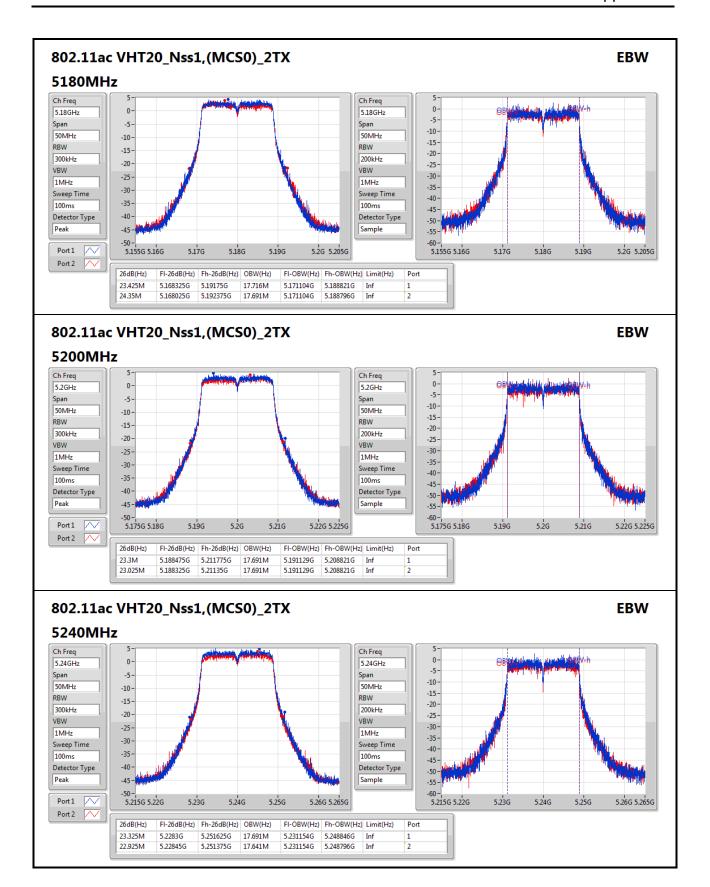
SPORTON LAB.

EBW Result Appendix B



SPORTON INTERNATIONAL INC.

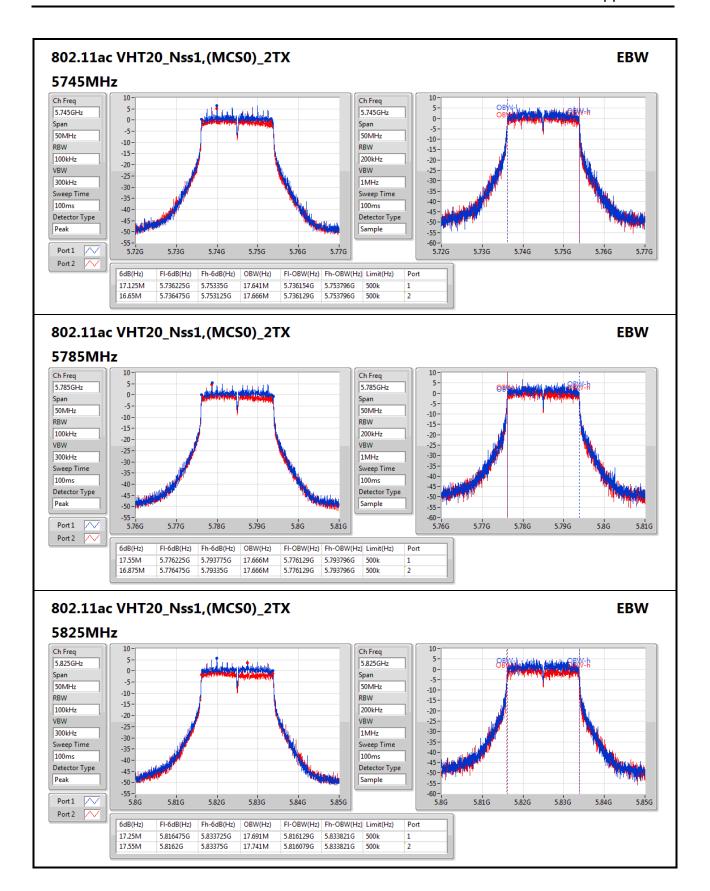
TEL: 886-3-327-3456 FAX: 886-3-327-0973



SPORTON INTERNATIONAL INC.

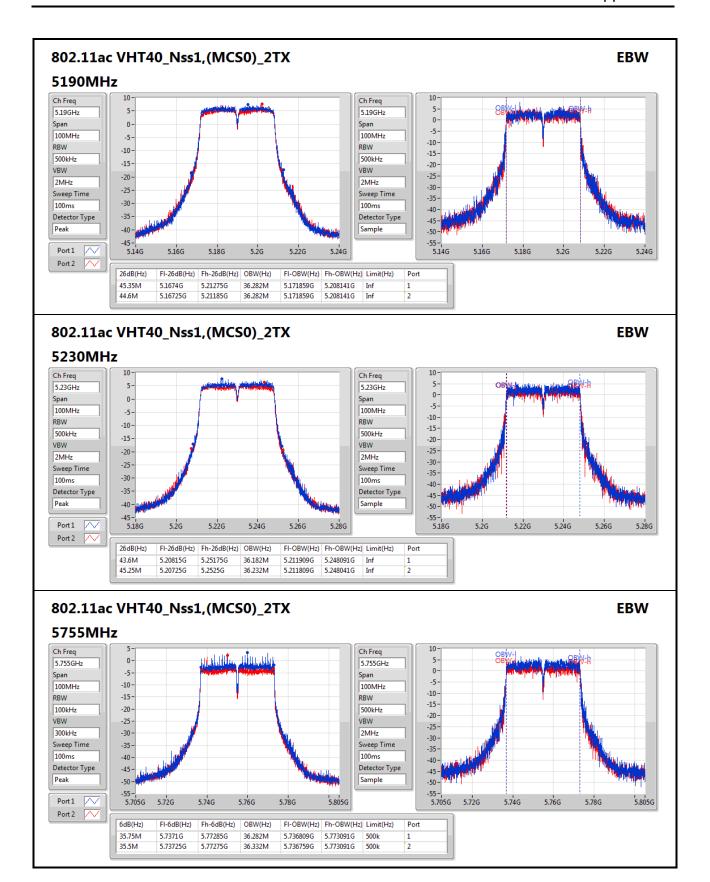
TEL: 886-3-327-3456 FAX: 886-3-327-0973

781425



SPORTON INTERNATIONAL INC.

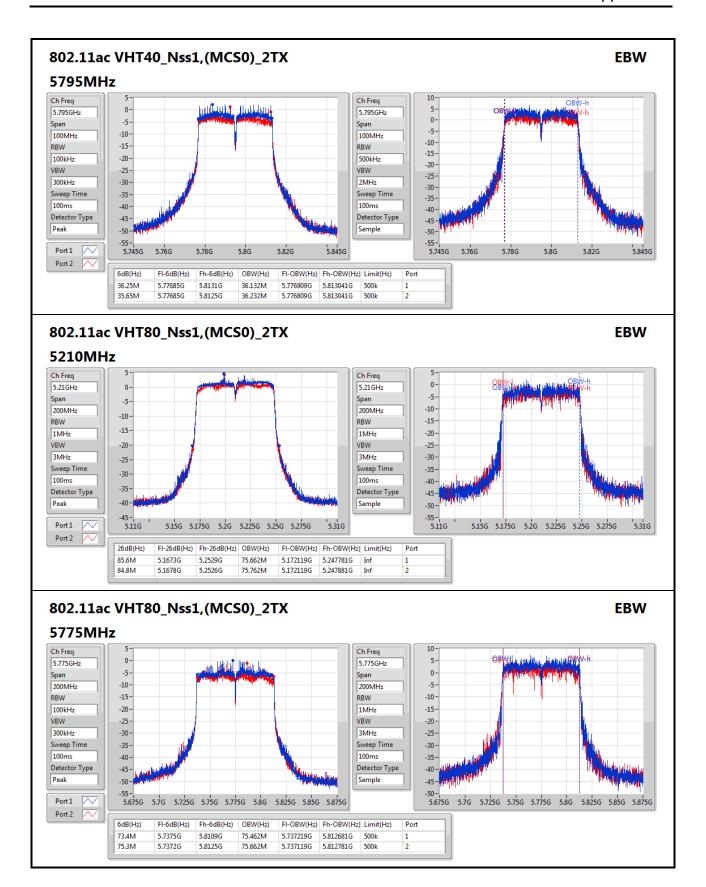
TEL: 886-3-327-3456 FAX: 886-3-327-0973



SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : B7 of B8

781425



SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : B8 of B8

781425



Power Result Appendix C.1

Summary

Mode	Total Power	Total Power	EIRP	EIRP
	(dBm)	(W)	(dBm)	(W)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-
5.15-5.25GHz	16.17	0.04140	33.07	2.02768
5.725-5.85GHz	19.06	0.08054	35.96	3.94457
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-
5.15-5.25GHz	15.97	0.03954	32.87	1.93642
5.725-5.85GHz	19.02	0.07980	35.92	3.90841
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-
5.15-5.25GHz	19.09	0.08110	35.99	3.97192
5.725-5.85GHz	18.87	0.07709	35.77	3.77572
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-
5.15-5.25GHz	13.62	0.02301	30.52	1.12720
5.725-5.85GHz	18.90	0.07762	35.80	3.80189

SPORTON INTERNATIONAL INC. Page No. : C1 of C2



Power Result Appendix C.1

Result

Mode	Result	DG	Port 1	Port 2	Total Power	Power Limit	EIRP	EIRP Limit
		(dBi)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	16.90	13.46	12.83	16.17	19.10	33.07	36.00
5200MHz	Pass	16.90	13.17	12.66	15.93	19.10	32.83	36.00
5240MHz	Pass	16.90	13.27	12.56	15.94	19.10	32.84	36.00
5745MHz	Pass	16.90	16.72	15.25	19.06	19.10	35.96	36.00
5785MHz	Pass	16.90	16.67	15.01	18.93	19.10	35.83	36.00
5825MHz	Pass	16.90	16.71	14.83	18.88	19.10	35.78	36.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	16.90	13.22	12.59	15.93	19.10	32.83	36.00
5200MHz	Pass	16.90	13.23	12.67	15.97	19.10	32.87	36.00
5240MHz	Pass	16.90	13.35	12.51	15.96	19.10	32.86	36.00
5745MHz	Pass	16.90	16.64	15.28	19.02	19.10	35.92	36.00
5785MHz	Pass	16.90	16.69	15.13	18.99	19.10	35.89	36.00
5825MHz	Pass	16.90	16.86	14.78	18.95	19.10	35.85	36.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	16.90	16.26	15.88	19.09	19.10	35.99	36.00
5230MHz	Pass	16.90	16.04	15.33	18.71	19.10	35.61	36.00
5755MHz	Pass	16.90	16.49	15.12	18.87	19.10	35.77	36.00
5795MHz	Pass	16.90	16.60	14.96	18.87	19.10	35.77	36.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	=	-	-	-	=	-	=
5210MHz	Pass	16.90	10.99	10.18	13.62	19.10	30.52	36.00
5775MHz	Pass	16.90	16.54	15.14	18.90	19.10	35.80	36.00

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

SPORTON INTERNATIONAL INC. Page No. : C2 of C2



Mode	Frequency	Modulation	Channel	Data Rate	Conducted Pass Setting	Ant. 0 (dBm)	Ant. 1 (dBm)	Total (dBm)	Elevation angle above 30 _° Max gain (dBi)	Elevation angle above 30° Max EIRP (dBm)	EIRP Power Limit (dBm)	Result
	5180MHz	OFDM	Ch36	6M	13.5	13.46	12.83	16.17	1.500	17.67	21.00	Pass
	5200MHz	OFDM	Ch40	6M	13.5	13.17	12.66	15.93	1.500	17.43	21.00	Pass
	5240MHz	OFDM	Ch48	6M	13.5	13.27	12.56	15.94	1.500	17.44	21.00	Pass
	5180MHz	VHT20	Ch36	MCS0-NSS1	13.5	13.22	12.59	15.93	1.500	17.43	21.00	Pass
Non BF	5200MHz	VHT20	Ch40	MCS0-NSS1	13.5	13.23	12.67	15.97	1.500	17.47	21.00	Pass
	5240MHz	VHT20	Ch48	MCS0-NSS1	13.5	13.35	12.51	15.96	1.500	17.46	21.00	Pass
	5190MHz	VHT40	Ch38	MCS0-NSS1	17	16.26	15.88	19.09	1.500	20.59	21.00	Pass
	5230MHz	VHT40	Ch46	MCS0-NSS1	16.5	16.04	15.33	18.71	1.500	20.21	21.00	Pass
	5210MHz	VHT80	Ch42	MCS0-NSS1	12	10.99	10.18	13.62	1.500	15.12	21.00	Pass

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

: C1 of C1



Summary

Mode	PD	EIRP PD
	(dBm/RBW)	(dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-
5.15-5.25GHz	3.14	22.80
5.725-5.85GHz	5.00	24.67
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-
5.15-5.25GHz	3.06	22.73
5.725-5.85GHz	4.72	24.38
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-
5.15-5.25GHz	3.30	22.96
5.725-5.85GHz	1.88	21.54
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-
5.15-5.25GHz	-5.04	14.63
5.725-5.85GHz	-0.84	18.83

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

SPORTON INTERNATIONAL INC. Page No. : D1 of D8

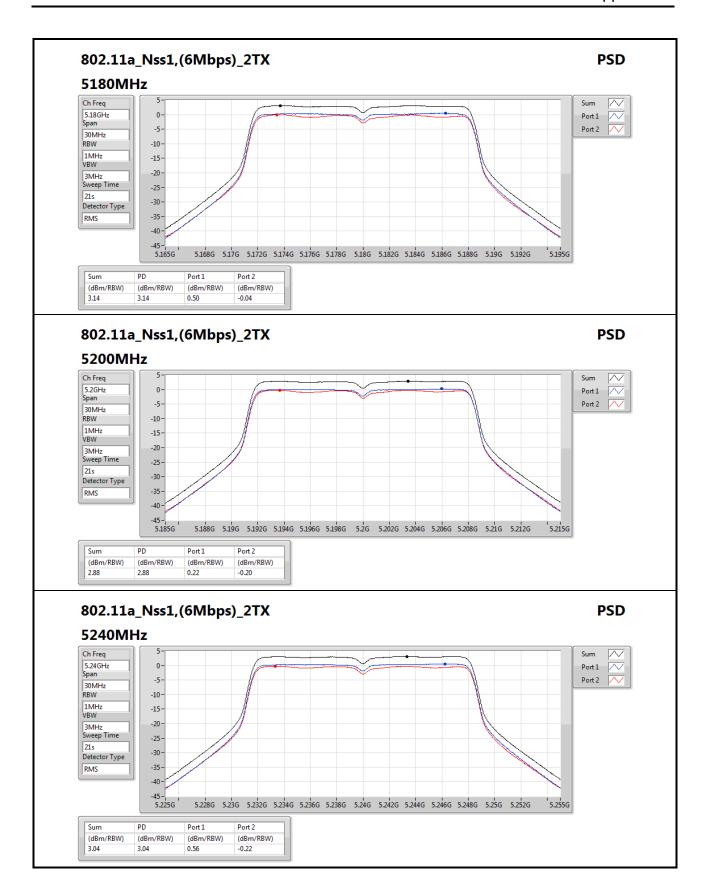


Result

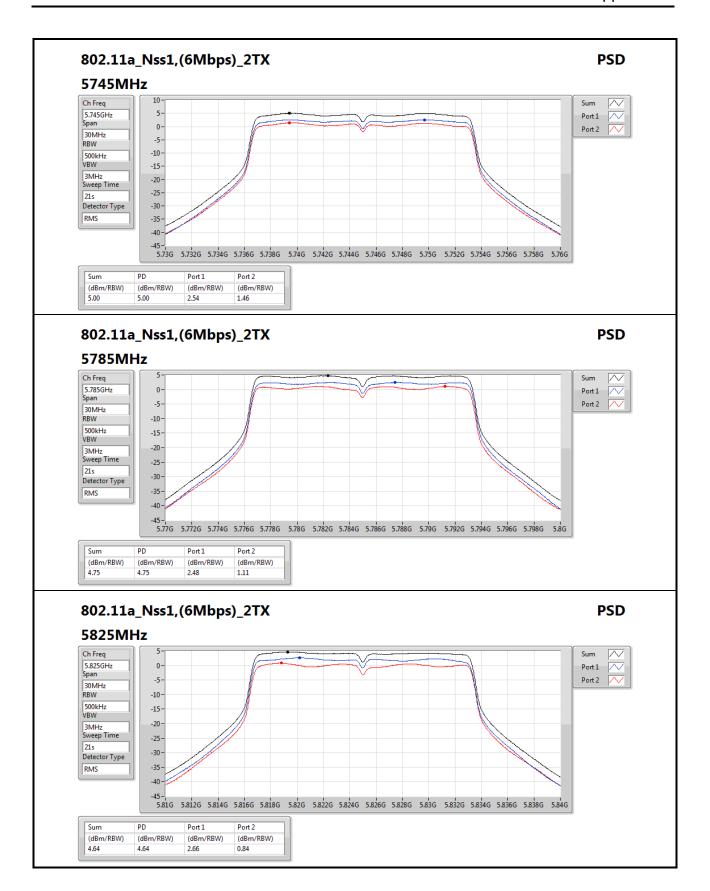
Mode	Result	DG	Port 1	Port 2	PD	PD Limit	EIRP PD	EIRP PD Limit
		(dBi)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	19.66	0.50	-0.04	3.14	3.34	22.80	Inf
5200MHz	Pass	19.66	0.22	-0.20	2.88	3.34	22.54	Inf
5240MHz	Pass	19.66	0.56	-0.22	3.04	3.34	22.70	Inf
5745MHz	Pass	19.66	2.54	1.46	5.00	16.34	24.67	Inf
5785MHz	Pass	19.66	2.48	1.11	4.75	16.34	24.41	Inf
5825MHz	Pass	19.66	2.66	0.84	4.64	16.34	24.30	Inf
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	=	=	-	-	-	-
5180MHz	Pass	19.66	0.08	-0.17	2.89	3.34	22.55	Inf
5200MHz	Pass	19.66	0.08	-0.26	2.90	3.34	22.57	Inf
5240MHz	Pass	19.66	0.43	-0.35	3.06	3.34	22.73	Inf
5745MHz	Pass	19.66	2.30	1.03	4.72	16.34	24.38	Inf
5785MHz	Pass	19.66	2.21	0.94	4.57	16.34	24.24	Inf
5825MHz	Pass	19.66	2.13	0.66	4.33	16.34	24.00	Inf
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	19.66	0.52	0.11	3.30	3.34	22.96	Inf
5230MHz	Pass	19.66	0.26	-0.46	2.82	3.34	22.48	Inf
5755MHz	Pass	19.66	-0.66	-2.03	1.72	16.34	21.38	Inf
5795MHz	Pass	19.66	-0.47	-1.79	1.88	16.34	21.54	Inf
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	19.66	-7.41	-8.24	-5.04	3.34	14.63	Inf
5775MHz	Pass	19.66	-3.08	-4.36	-0.84	16.34	18.83	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 Xpower density;

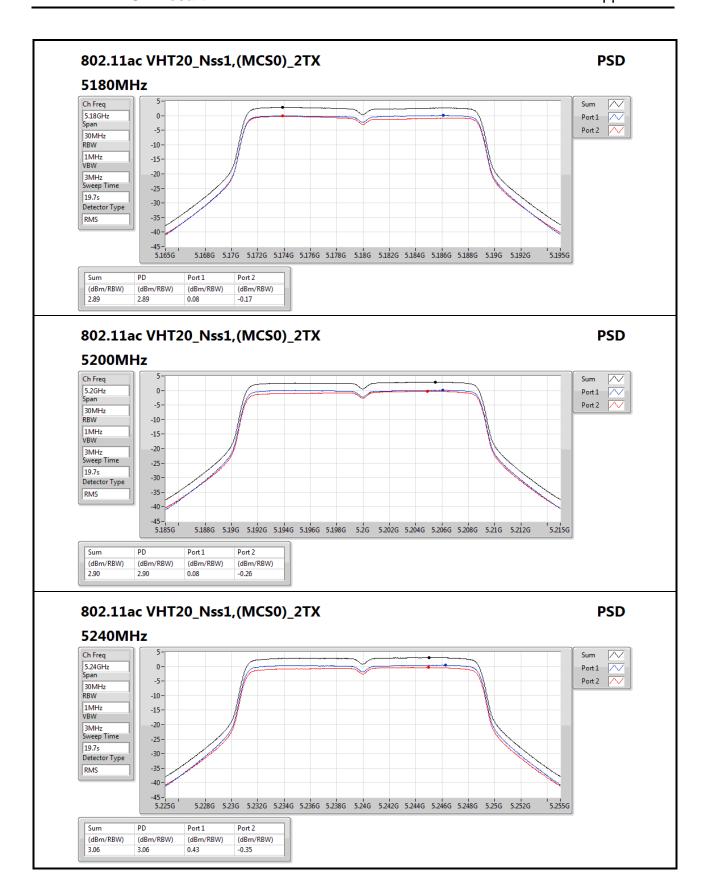


SPORTON INTERNATIONAL INC.

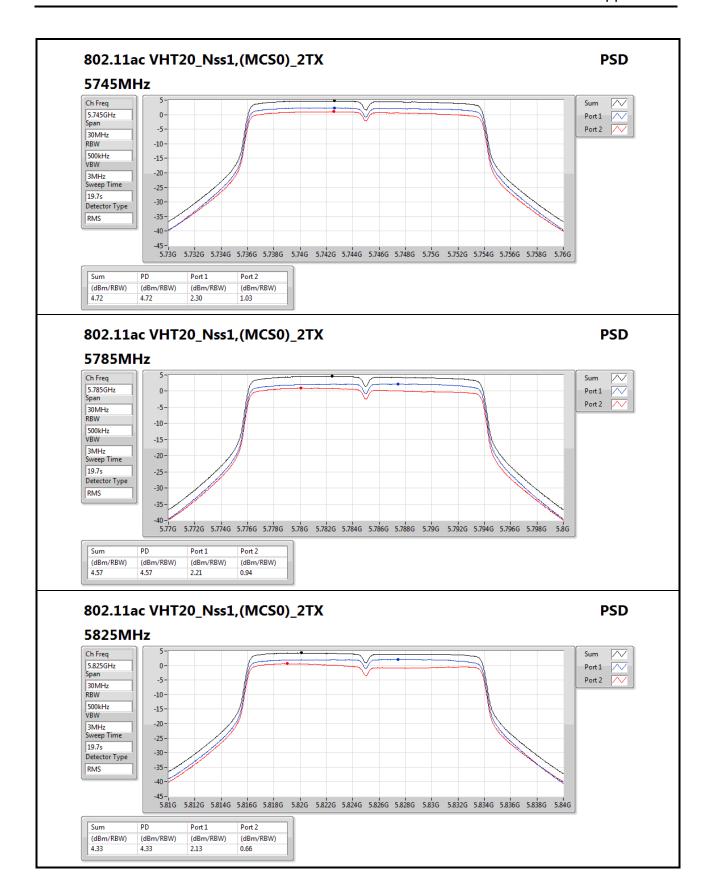


SPORTON INTERNATIONAL INC.

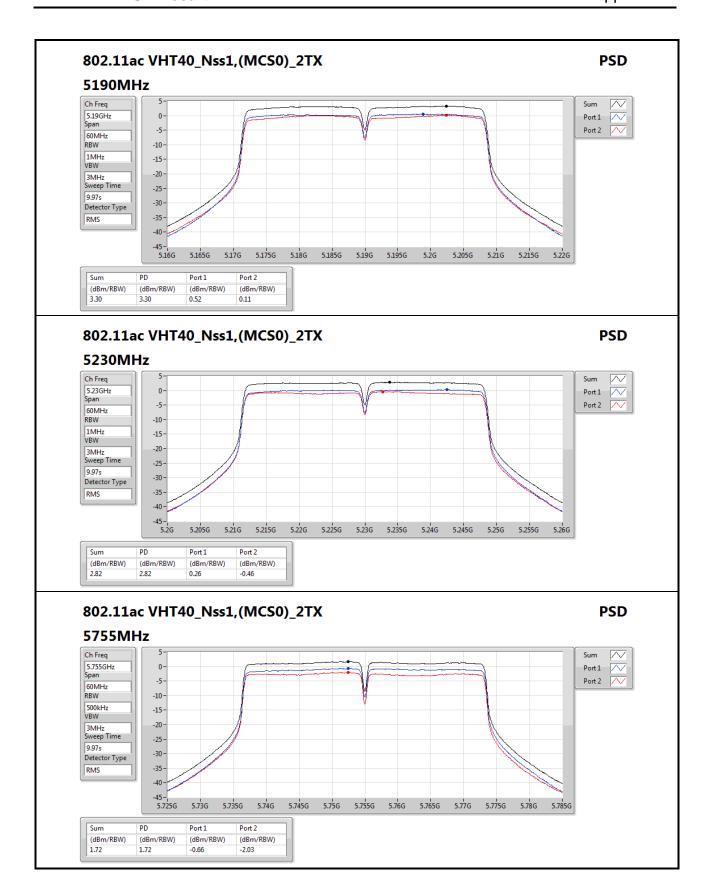
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : D4 of D8



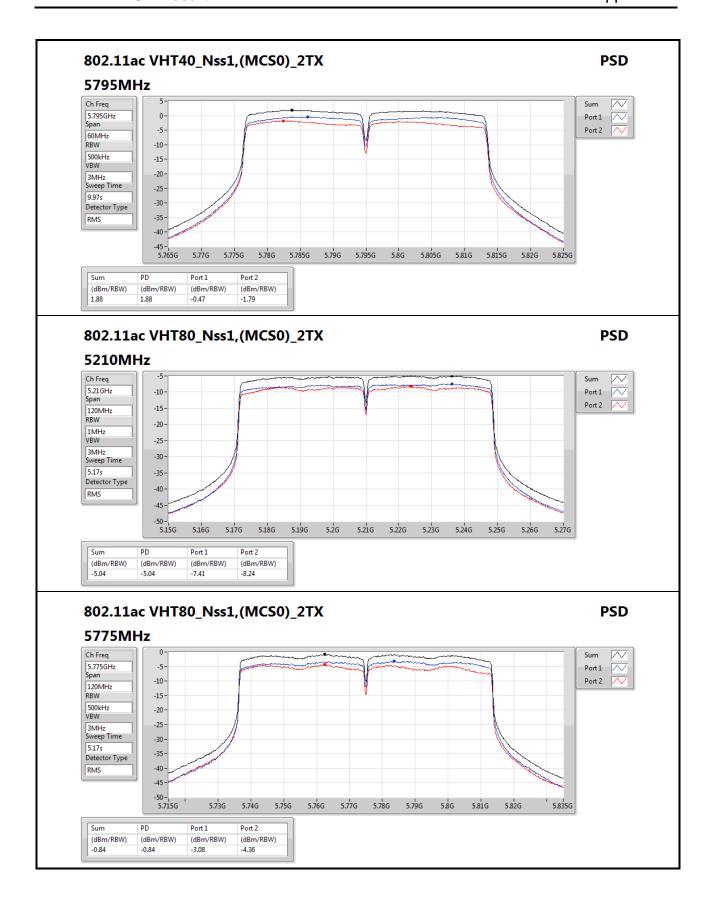
SPORTON INTERNATIONAL INC.



SPORTON INTERNATIONAL INC.



SPORTON INTERNATIONAL INC.



SPORTON INTERNATIONAL INC.



RSE TX below 1GHz Result

Appendix E.1

781425

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 VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
5.725-5.85GHz	Pass	QP	375.32M	44.66	46.00	-1.34	-4.78	3	Horizontal	302	1.00	-

SPORTON INTERNATIONAL INC. Page No. : E1 of E4

FAX: 886-3-327-0973

TEL: 886-3-327-3456



RSE TX below 1GHz Result

Appendix E.1

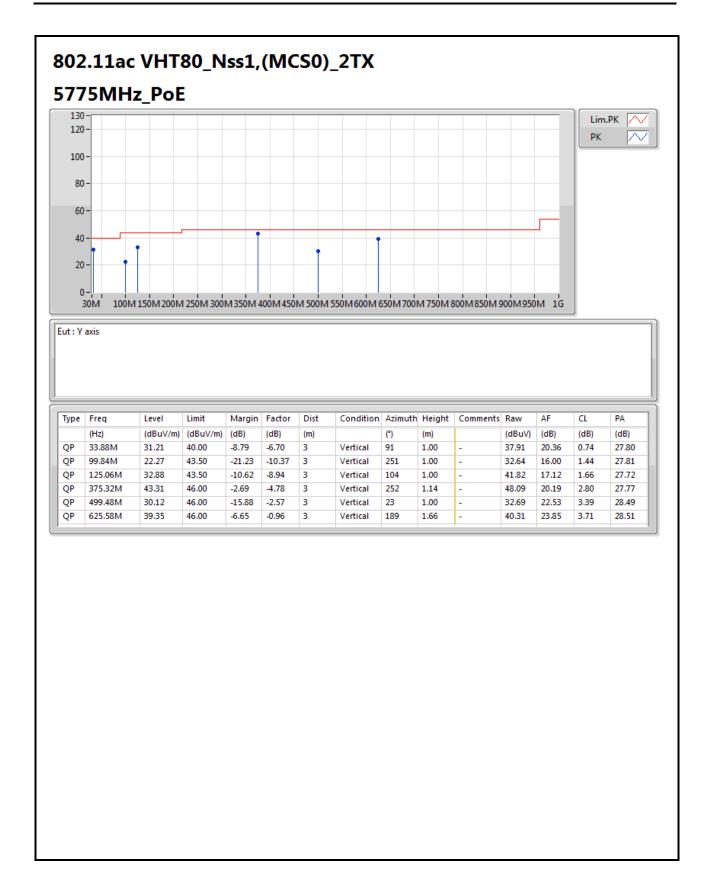
781425

Result

Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
5775MHz	Pass	QP	31.94M	28.60	40.00	-11.40	-5.94	3	Horizontal	77	2.89	-
5775MHz	Pass	QP	125.06M	33.18	43.50	-10.32	-8.94	3	Horizontal	305	2.76	-
5775MHz	Pass	QP	249.22M	22.07	46.00	-23.93	-7.80	3	Horizontal	81	1.00	-
5775MHz	Pass	QP	375.32M	44.66	46.00	-1.34	-4.78	3	Horizontal	302	1.00	-
5775MHz	Pass	QP	625.58M	36.75	46.00	-9.25	-0.96	3	Horizontal	306	1.32	-
5775MHz	Pass	QP	712.88M	37.41	46.00	-8.59	-0.08	3	Horizontal	236	1.00	-
5775MHz	Pass	QP	33.88M	31.21	40.00	-8.79	-6.70	3	Vertical	91	1.00	-
5775MHz	Pass	QP	99.84M	22.27	43.50	-21.23	-10.37	3	Vertical	251	1.00	-
5775MHz	Pass	QP	125.06M	32.88	43.50	-10.62	-8.94	3	Vertical	104	1.00	-
5775MHz	Pass	QP	375.32M	43.31	46.00	-2.69	-4.78	3	Vertical	252	1.14	-
5775MHz	Pass	QP	499.48M	30.12	46.00	-15.88	-2.57	3	Vertical	23	1.00	-
5775MHz	Pass	QP	625.58M	39.35	46.00	-6.65	-0.96	3	Vertical	189	1.66	-

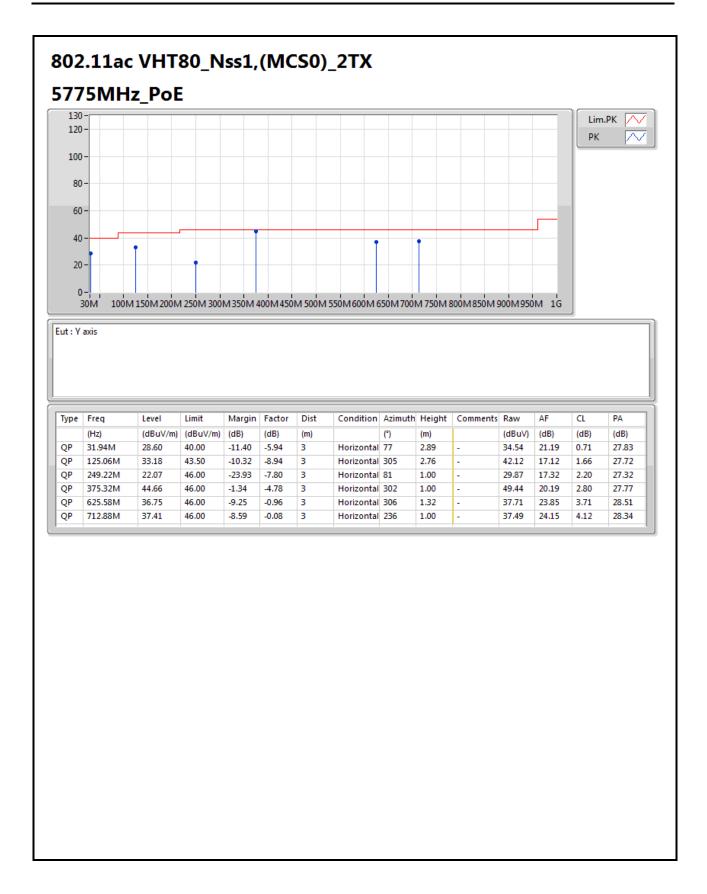
SPORTON INTERNATIONAL INC. Page No. : E2 of E4





TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E3 of E4





TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E4 of E4



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 VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	1	-	-	-	-	-	-
5.15-5.25GHz	Pass	AV	5.149995G	53.82	54.00	-0.18	2.90	3	Horizontal	351	1.50	-
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
5.725-5.85GHz	Pass	PK	5.331G	64.68	68.20	-3.52	3.09	3	Horizontal	358	1.50	-

SPORTON INTERNATIONAL INC. Page No. : E1 of E78



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)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	AV	5.1496G	53.53	54.00	-0.47	2.90	3	Horizontal	4	1.50	-
5180MHz	Pass	AV	5.1854G	110.51	Inf	-Inf	2.94	3	Horizontal	4	1.50	-
5180MHz	Pass	PK	5.1484G	65.25	74.00	-8.75	2.90	3	Horizontal	4	1.50	-
5180MHz	Pass	PK	5.177G	119.62	Inf	-Inf	2.93	3	Horizontal	4	1.50	-
5180MHz	Pass	AV	5.149995G	52.76	54.00	-1.24	2.90	3	Vertical	1	1.50	-
5180MHz	Pass	AV	5.1864G	110.45	Inf	-Inf	2.94	3	Vertical	1	1.50	-
5180MHz	Pass	PK	5.1498G	62.93	74.00	-11.07	2.90	3	Vertical	1	1.50	-
5180MHz	Pass	PK	5.1774G	118.44	Inf	-Inf	2.93	3	Vertical	1	1.50	-
5180MHz	Pass	AV	15.54G	46.08	54.00	-7.92	14.65	3	Horizontal	360	1.50	-
5180MHz	Pass	PK	15.54G	57.77	74.00	-16.23	14.65	3	Horizontal	360	1.50	-
5180MHz	Pass	AV	15.54G	46.10	54.00	-7.90	14.65	3	Vertical	0	1.50	-
5180MHz	Pass	PK	15.54G	58.04	74.00	-15.96	14.65	3	Vertical	0	1.50	-
5200MHz	Pass	AV	5.149995G	52.60	54.00	-1.40	2.90	3	Horizontal	3	1.50	-
5200MHz	Pass	AV	5.1936G	113.63	Inf	-Inf	2.94	3	Horizontal	3	1.50	-
5200MHz	Pass	PK	5.1244G	62.71	74.00	-11.29	2.87	3	Horizontal	3	1.50	-
5200MHz	Pass	PK	5.2072G	122.37	Inf	-Inf	2.96	3	Horizontal	3	1.50	-
5200MHz	Pass	AV	5.149995G	52.15	54.00	-1.85	2.90	3	Vertical	360	1.50	-
5200MHz	Pass	AV	5.194G	113.29	Inf	-Inf	2.94	3	Vertical	360	1.50	-
5200MHz	Pass	PK	5.142G	62.70	74.00	-11.30	2.89	3	Vertical	360	1.50	-
5200MHz	Pass	PK	5.1944G	121.23	Inf	-Inf	2.94	3	Vertical	360	1.50	-
5200MHz	Pass	AV	15.6G	46.31	54.00	-7.69	14.43	3	Horizontal	0	1.50	-
5200MHz	Pass	PK	15.6G	58.09	74.00	-15.91	14.43	3	Horizontal	0	1.50	-
5200MHz	Pass	AV	15.6G	46.32	54.00	-7.68	14.43	3	Vertical	360	1.50	-
5200MHz	Pass	PK	15.6G	58.33	74.00	-15.67	14.43	3	Vertical	360	1.50	-
5240MHz	Pass	AV	5.1488G	51.85	54.00	-2.15	2.90	3	Horizontal	1	1.50	-
5240MHz	Pass	AV	5.234G	115.10	Inf	-Inf	2.99	3	Horizontal	1	1.50	-
5240MHz	Pass	AV	5.3708G	51.29	54.00	-2.71	3.13	3	Horizontal	1	1.50	-
5240MHz	Pass	PK	5.1476G	63.30	74.00	-10.70	2.90	3	Horizontal	1	1.50	-
5240MHz	Pass	PK	5.2418G	124.00	Inf	-Inf	3.00	3	Horizontal	1	1.50	-
5240MHz	Pass	PK	5.3678G	63.72	74.00	-10.28	3.13	3	Horizontal	1	1.50	-
5240MHz	Pass	AV	5.1494G	53.05	54.00	-0.95	2.90	3	Vertical	0	1.50	-
5240MHz	Pass	AV	5.2448G	114.71	Inf	-Inf	3.00	3	Vertical	0	1.50	-
5240MHz	Pass	AV	5.3738G	52.67	54.00	-1.33	3.13	3	Vertical	0	1.50	-
5240MHz	Pass	PK	5.1458G	65.66	74.00	-8.34	2.90	3	Vertical	0	1.50	-
5240MHz	Pass	PK	5.2346G	123.19	Inf	-Inf	2.99	3	Vertical	0	1.50	-
5240MHz	Pass	PK	5.3762G	63.38	74.00	-10.62	3.14	3	Vertical	0	1.50	-
5240MHz	Pass	AV	15.72G	46.03	54.00	-7.97	13.99	3	Horizontal	360	1.50	-
5240MHz	Pass	PK	15.72G	57.29	74.00	-16.71	13.99	3	Horizontal	360	1.50	-
5240MHz	Pass	AV	15.72G	45.71	54.00	-8.29	13.99	3	Vertical	18	1.50	-
5240MHz	Pass	PK	15.72G	57.20	74.00	-16.80	13.99	3	Vertical	18	1.50	-
5745MHz	Pass	AV	5.739G	109.28	Inf	-Inf	3.47	3	Horizontal	360	1.50	-
5745MHz	Pass	PK	5.265G	64.42	68.20	-3.78	3.02	3	Horizontal	360	1.50	-
5745MHz	Pass	PK	5.739G	118.19	Inf	-Inf	3.47	3	Horizontal	360	1.50	-
5745MHz	Pass	PK	5.929G	59.64	68.20	-8.56	3.62	3	Horizontal	360	1.50	-
5745MHz	Pass	AV	5.739G	111.00	Inf	-Inf	3.47	3	Vertical	358	1.50	-
5745MHz	Pass	PK	5.507G	62.78	68.20	-5.42	3.28	3	Vertical	358	1.50	-
5745MHz	Pass	PK	5.749G	119.22	Inf	-Inf	3.47	3	Vertical	358	1.50	-

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E2 of E78



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	5.933G	58.56	68.20	-9.64	3.63	3	Vertical	358	1.50	-
5745MHz	Pass	AV	11.49G	44.19	54.00	-9.81	13.63	3	Horizontal	3	1.50	-
5745MHz	Pass	PK	11.49G	55.80	74.00	-18.20	13.63	3	Horizontal	3	1.50	-
5745MHz	Pass	AV	11.49G	44.06	54.00	-9.94	13.63	3	Vertical	360	1.50	-
5745MHz	Pass	PK	11.49G	55.68	74.00	-18.32	13.63	3	Vertical	360	1.50	-
5785MHz	Pass	AV	5.783G	108.73	Inf	-Inf	3.50	3	Horizontal	360	1.50	-
5785MHz	Pass	PK	5.461G	64.53	68.20	-3.67	3.23	3	Horizontal	360	1.50	-
5785MHz	Pass	PK	5.787G	117.46	Inf	-Inf	3.50	3	Horizontal	360	1.50	_
5785MHz	Pass	PK	5.937G	59.43	68.20	-8.77	3.63	3	Horizontal	360	1.50	_
5785MHz	Pass	AV	5.783G	110.35	Inf	-Inf	3.50	3	Vertical	360	1.50	_
		PK		63.22				3				-
5785MHz	Pass		5.303G		68.20	-4.98	3.06		Vertical	360	1.50	-
5785MHz	Pass	PK	5.783G	117.84	Inf	-Inf	3.50	3	Vertical	360	1.50	-
5785MHz	Pass	PK	5.933G	58.65	68.20	-9.55	3.63	3	Vertical	360	1.50	-
5785MHz	Pass	AV	11.57G	44.37	54.00	-9.63	13.35	3	Horizontal	360	1.50	-
5785MHz	Pass	PK	11.57G	56.23	74.00	-17.77	13.35	3	Horizontal	360	1.50	-
5785MHz	Pass	AV	11.57G	43.65	54.00	-10.35	13.35	3	Vertical	360	1.50	-
5785MHz	Pass	PK	11.57G	55.34	74.00	-18.66	13.35	3	Vertical	360	1.50	-
5825MHz	Pass	AV	5.819G	108.27	Inf	-Inf	3.53	3	Horizontal	360	1.50	-
5825MHz	Pass	PK	5.333G	63.71	68.20	-4.49	3.09	3	Horizontal	360	1.50	-
5825MHz	Pass	PK	5.823G	117.06	Inf	-Inf	3.53	3	Horizontal	360	1.50	-
5825MHz	Pass	PK	5.929G	59.69	68.20	-8.51	3.62	3	Horizontal	360	1.50	-
5825MHz	Pass	AV	5.819G	110.30	Inf	-Inf	3.53	3	Vertical	360	1.50	-
5825MHz	Pass	PK	5.555G	63.43	68.20	-4.77	3.31	3	Vertical	360	1.50	-
5825MHz	Pass	PK	5.823G	117.78	Inf	-Inf	3.53	3	Vertical	360	1.50	-
5825MHz	Pass	PK	5.983G	58.38	68.20	-9.82	3.67	3	Vertical	360	1.50	-
5825MHz	Pass	AV	11.65G	44.21	54.00	-9.79	13.35	3	Horizontal	3	1.50	-
5825MHz	Pass	PK	11.65G	56.47	74.00	-17.53	13.35	3	Horizontal	3	1.50	-
5825MHz	Pass	AV	11.65G	43.99	54.00	-10.01	13.35	3	Vertical	360	1.50	-
5825MHz	Pass	PK	11.65G	55.42	74.00	-18.58	13.35	3	Vertical	360	1.50	-
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	AV	5.149995G	53.82	54.00	-0.18	2.90	3	Horizontal	351	1.50	-
5180MHz	Pass	AV	5.1864G	108.84	Inf	-Inf	2.94	3	Horizontal	351	1.50	-
5180MHz	Pass	PK	5.149995G	64.46	74.00	-9.54	2.90	3	Horizontal	351	1.50	-
5180MHz	Pass	PK	5.1842G	117.07	Inf	-Inf	2.93	3	Horizontal	351	1.50	-
5180MHz	Pass	AV	5.149995G	52.49	54.00	-1.51	2.90	3	Vertical	349	1.67	-
5180MHz	Pass	AV	5.1852G	108.32	Inf	-Inf	2.94	3	Vertical	349	1.67	-
5180MHz	Pass	PK	5.1442G	65.33	74.00	-8.67	2.89	3	Vertical	349	1.67	-
5180MHz	Pass	PK	5.1878G	118.37	Inf	-Inf	2.94	3	Vertical	349	1.67	_
5180MHz	Pass	AV	15.54G	45.66	54.00	-8.34	14.65	3	Horizontal	3	1.50	-
5180MHz	Pass	PK	15.54G	57.52	74.00	-16.48	14.65	3	Horizontal	3	1.50	_
5180MHz	Pass	AV	15.54G	45.67	54.00	-8.33	14.65	3	Vertical	0	1.50	_
5180MHz	Pass	PK	15.54G	57.90	74.00	-16.10	14.65	3	Vertical	0	1.50	-
5200MHz	Pass	AV	5.1496G	53.62	54.00	-0.38	2.90	3	Horizontal	359	1.50	
												-
5200MHz	Pass	AV	5.2064G	112.80	Inf	-Inf	2.96	3	Horizontal	359	1.50	-
5200MHz	Pass	PK	5.1484G	64.38	74.00	-9.62	2.90	3	Horizontal	359	1.50	-
5200MHz	Pass	PK	5.196G	121.05	Inf	-Inf	2.95	3	Horizontal	359	1.50	-
5200MHz	Pass	AV	5.149995G	53.26	54.00	-0.74	2.90	3	Vertical	360	1.50	-
5200MHz	Pass	AV	5.206G	111.82	Inf	-Inf	2.96	3	Vertical	360	1.50	-
5200MHz	Pass	PK	5.1496G	65.81	74.00	-8.19	2.90	3	Vertical	360	1.50	-

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E3 of E78



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	5.2032G	119.58	Inf	-Inf	2.95	3	Vertical	360	1.50	-
5200MHz	Pass	AV	15.6G	45.99	54.00	-8.01	14.43	3	Horizontal	3	1.50	-
5200MHz	Pass	PK	15.6G	57.85	74.00	-16.15	14.43	3	Horizontal	3	1.50	-
5200MHz	Pass	AV	15.6G	45.97	54.00	-8.03	14.43	3	Vertical	0	1.50	-
5200MHz	Pass	PK	15.6G	58.96	74.00	-15.04	14.43	3	Vertical	0	1.50	-
5240MHz	Pass	AV	5.1494G	52.55	54.00	-1.45	2.90	3	Horizontal	360	1.50	-
5240MHz	Pass	AV	5.2466G	114.82	Inf	-Inf	3.00	3	Horizontal	360	1.50	-
5240MHz	Pass	AV	5.351G	52.08	54.00	-1.92	3.11	3	Horizontal	360	1.50	-
5240MHz	Pass	PK	5.1452G	63.52	74.00	-10.48	2.90	3	Horizontal	360	1.50	-
5240MHz	Pass	PK	5.2448G	123.23	Inf	-Inf	3.00	3	Horizontal	360	1.50	-
5240MHz	Pass	PK	5.3564G	63.62	74.00	-10.38	3.12	3	Horizontal	360	1.50	-
5240MHz	Pass	AV	5.149995G	53.50	54.00	-0.50	2.90	3	Vertical	360	1.50	-
5240MHz	Pass	AV	5.2448G	114.37	Inf	-Inf	3.00	3	Vertical	360	1.50	-
5240MHz	Pass	AV	5.3516G	53.52	54.00	-0.48	3.11	3	Vertical	360	1.50	-
5240MHz	Pass	PK	5.149995G	65.39	74.00	-8.61	2.90	3	Vertical	360	1.50	-
5240MHz	Pass	PK	5.2418G	122.90	Inf	-Inf	3.00	3	Vertical	360	1.50	-
5240MHz	Pass	PK	5.3666G	64.26	74.00	-9.74	3.13	3	Vertical	360	1.50	-
5240MHz	Pass	AV	15.72G	45.76	54.00	-8.24	13.99	3	Horizontal	3	1.50	-
5240MHz	Pass	PK	15.72G	57.80	74.00	-16.20	13.99	3	Horizontal	3	1.50	-
5240MHz	Pass	AV	15.72G	45.61	54.00	-8.39	13.99	3	Vertical	0	1.50	-
5240MHz	Pass	PK	15.72G	57.55	74.00	-16.45	13.99	3	Vertical	0	1.50	-
5745MHz	Pass	AV	5.743G	108.88	Inf	-Inf	3.47	3	Horizontal	0	1.76	-
5745MHz	Pass	PK	5.461G	63.89	68.20	-4.31	3.23	3	Horizontal	0	1.76	-
5745MHz	Pass	PK	5.747G	117.00	Inf	-Inf	3.47	3	Horizontal	0	1.76	-
5745MHz	Pass	PK	5.927G	59.53	68.20	-8.67	3.62	3	Horizontal	0	1.76	-
5745MHz	Pass	AV	5.741G	110.32	Inf	-Inf	3.47	3	Vertical	0	1.50	-
5745MHz	Pass	PK	5.485G	63.49	68.20	-4.71	3.25	3	Vertical	0	1.50	-
5745MHz	Pass	PK	5.747G	118.78	Inf	-Inf	3.47	3	Vertical	0	1.50	-
5745MHz	Pass	PK	5.985G	58.74	68.20	-9.46	3.67	3	Vertical	0	1.50	-
5745MHz	Pass	AV	11.49G	44.13	54.00	-9.87	13.63	3	Horizontal	3	1.50	-
5745MHz	Pass	PK	11.49G	56.05	74.00	-17.95	13.63	3	Horizontal	3	1.50	-
5745MHz	Pass	AV	11.49G	44.27	54.00	-9.73	13.63	3	Vertical	0	1.50	-
5745MHz	Pass	PK	11.49G	56.11	74.00	-17.89	13.63	3	Vertical	0	1.50	-
5785MHz	Pass	AV	5.777G	108.52	Inf	-Inf	3.49	3	Horizontal	5	1.71	-
5785MHz	Pass	PK	5.463G	64.00	68.20	-4.20	3.23	3	Horizontal	5	1.71	-
5785MHz	Pass	PK	5.777G	116.68	Inf	-Inf	3.49	3	Horizontal	5	1.71	-
5785MHz	Pass	PK	5.983G	59.22	68.20	-8.98	3.67	3	Horizontal	5	1.71	-
5785MHz	Pass	AV	5.791G	109.85	Inf	-Inf	3.50	3	Vertical	1	1.50	-
5785MHz	Pass	PK	5.337G	62.57	68.20	-5.63	3.10	3	Vertical	1	1.50	-
5785MHz	Pass	PK	5.779G	117.74	Inf	-Inf	3.50	3	Vertical	1	1.50	-
5785MHz	Pass	PK	5.929G	58.78	68.20	-9.42	3.62	3	Vertical	1	1.50	-
5785MHz	Pass	AV	11.57G	43.87	54.00	-10.13	13.49	3	Horizontal	3	1.50	-
5785MHz	Pass	PK	11.57G	55.81	74.00	-18.19	13.49	3	Horizontal	3	1.50	-
5785MHz	Pass	AV	11.57G	44.09	54.00	-9.91	13.49	3	Vertical	0	1.50	-
5785MHz	Pass	PK	11.57G	55.61	74.00	-18.39	13.49	3	Vertical	0	1.50	-
5825MHz	Pass	AV	5.821G	107.98	Inf	-Inf	3.53	3	Horizontal	0	1.81	_
5825MHz	Pass	PK	5.325G	63.55	68.20	-4.65	3.08	3	Horizontal	0	1.81	_
5825MHz	Pass	PK	5.819G	115.86	Inf	-Inf	3.53	3	Horizontal	0	1.81	_
5825MHz	Pass	PK	5.989G	58.70	68.20	-9.50	3.67	3	Horizontal	0	1.81	
JUZJIVITZ	F d 5 5	ΓN	J.303G	30.70	00.20	-9.00	3.07	٥	rionzonial	U	1.01	-

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E4 of E78



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)	
5825MHz	Pass	AV	5.819G	108.61	Inf	-Inf	3.53	3	Vertical	359	1.56	_
5825MHz	Pass	PK	5.503G	63.12	68.20	-5.08	3.27	3	Vertical	359	1.56	-
5825MHz	Pass	PK	5.829G	116.25	Inf	-Inf	3.54	3	Vertical	359	1.56	_
5825MHz	Pass	PK	5.929G	58.86	68.20	-9.34	3.62	3	Vertical	359	1.56	_
5825MHz	Pass	AV	11.65G	43.94	54.00	-10.06	13.35	3	Horizontal	3	1.50	_
5825MHz	Pass	PK	11.65G	55.57	74.00	-18.43	13.35	3	Horizontal	3	1.50	_
5825MHz	Pass	AV	11.65G	44.00	54.00	-10.00	13.35	3	Vertical	0	1.50	_
5825MHz	Pass	PK	11.65G	56.11	74.00	-17.89	13.35	3	Vertical	0	1.50	-
802.11ac VHT40_Nss1,(MCS0)_2TX	-	_	-	-	-	-	-	-	-	-	-	_
5190MHz	Pass	AV	5.1496G	53.77	54.00	-0.23	2.90	3	Horizontal	359	1.50	-
5190MHz	Pass	AV	5.1964G	101.99	Inf	-Inf	2.95	3	Horizontal	359	1.50	_
5190MHz	Pass	PK	5.1492G	62.45	74.00	-11.55	2.90	3	Horizontal	359	1.50	_
5190MHz	Pass	PK	5.1752G	109.61	Inf	-Inf	2.93	3	Horizontal	359	1.50	_
5190MHz	Pass	AV	5.149995G	52.01	54.00	-1.99	2.90	3	Vertical	1	1.50	_
5190MHz	Pass	AV	5.149995G 5.1976G	101.35	Inf	-1.99 -Inf	2.95	3	Vertical	1	1.50	-
5190MHz	Pass	PK	5.1976G 5.1448G	60.45	74.00	-13.55	2.89	3	Vertical	1	1.50	_
5190MHz	Pass	PK	5.1446G 5.1948G	108.20	74.00 Inf	-13.55 -Inf	2.09	3	Vertical	1	1.50	_
5190MHz	Pass	AV	15.57G	45.95	54.00	-8.05	14.54	3	Horizontal	360	1.50	
5190MHz	Pass	PK	15.57G	57.76	74.00	-16.24	14.54	3	Horizontal	360	1.50	-
												-
5190MHz	Pass	AV	15.57G	46.01	54.00	-7.99	14.54	3	Vertical	0	1.50	-
5190MHz	Pass	PK	15.57G	57.97	74.00	-16.03	14.54	3	Vertical	0	1.50	-
5230MHz	Pass	AV	5.1484G	51.34	54.00	-2.66	2.90	3	Horizontal	359	1.50	-
5230MHz	Pass	AV	5.236G	107.84	Inf	-Inf	2.99	3	Horizontal	359	1.50	-
5230MHz	Pass	PK	5.149995G	59.35	74.00	-14.65	2.90	3	Horizontal	359	1.50	-
5230MHz	Pass	PK	5.2428G	116.30	Inf	-Inf	3.00	3	Horizontal	359	1.50	-
5230MHz	Pass	AV	5.149995G	52.71	54.00	-1.29	2.90	3	Vertical	360	1.50	-
5230MHz	Pass	AV	5.2392G	108.37	Inf	-Inf	2.99	3	Vertical	360	1.50	-
5230MHz	Pass	PK	5.1452G	61.07	74.00	-12.93	2.90	3	Vertical	360	1.50	-
5230MHz	Pass	PK	5.2196G	115.83	Inf	-Inf	2.97	3	Vertical	360	1.50	-
5230MHz	Pass	AV	15.69G	45.87	54.00	-8.13	14.10	3	Horizontal	360	1.50	-
5230MHz	Pass	PK	15.69G	57.12	74.00	-16.88	14.10	3	Horizontal	360	1.50	-
5230MHz	Pass	AV	15.69G	45.83	54.00	-8.17	14.10	3	Vertical	0	1.50	-
5230MHz	Pass	PK	15.69G	57.40	74.00	-16.60	14.10	3	Vertical	0	1.50	-
5755MHz	Pass	AV	5.751G	106.07	Inf	-Inf	3.48	3	Horizontal	359	1.50	-
5755MHz	Pass	PK	5.287G	62.91	68.20	-5.29	3.05	3	Horizontal	359	1.50	-
5755MHz	Pass	PK	5.745G	114.32	Inf	-Inf	3.47	3	Horizontal	359	1.50	-
5755MHz	Pass	PK	5.981G	58.85	68.20	-9.35	3.66	3	Horizontal	359	1.50	-
5755MHz	Pass	AV	5.753G	108.12	Inf	-Inf	3.48	3	Vertical	2	1.50	-
5755MHz	Pass	PK	5.597G	60.29	68.20	-7.91	3.35	3	Vertical	2	1.50	-
5755MHz	Pass	PK	5.751G	116.76	Inf	-Inf	3.48	3	Vertical	2	1.50	-
5755MHz	Pass	PK	5.979G	57.75	68.20	-10.45	3.66	3	Vertical	2	1.50	-
5755MHz	Pass	AV	11.51G	44.28	54.00	-9.72	13.59	3	Horizontal	360	1.50	-
5755MHz	Pass	PK	11.51G	56.04	74.00	-17.96	13.59	3	Horizontal	360	1.50	-
5755MHz	Pass	AV	11.51G	44.23	54.00	-9.77	13.59	3	Vertical	0	1.50	-
5755MHz	Pass	PK	11.51G	56.44	74.00	-17.56	13.59	3	Vertical	0	1.50	-
5795MHz	Pass	AV	5.783G	106.35	Inf	-Inf	3.50	3	Horizontal	358	1.69	-
5795MHz	Pass	PK	5.341G	61.16	68.20	-7.04	3.10	3	Horizontal	358	1.69	-
5795MHz	Pass	PK	5.783G	114.26	Inf	-Inf	3.50	3	Horizontal	358	1.69	-
5795MHz	Pass	PK	5.927G	58.47	68.20	-9.73	3.62	3	Horizontal	358	1.69	-

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E5 of E78

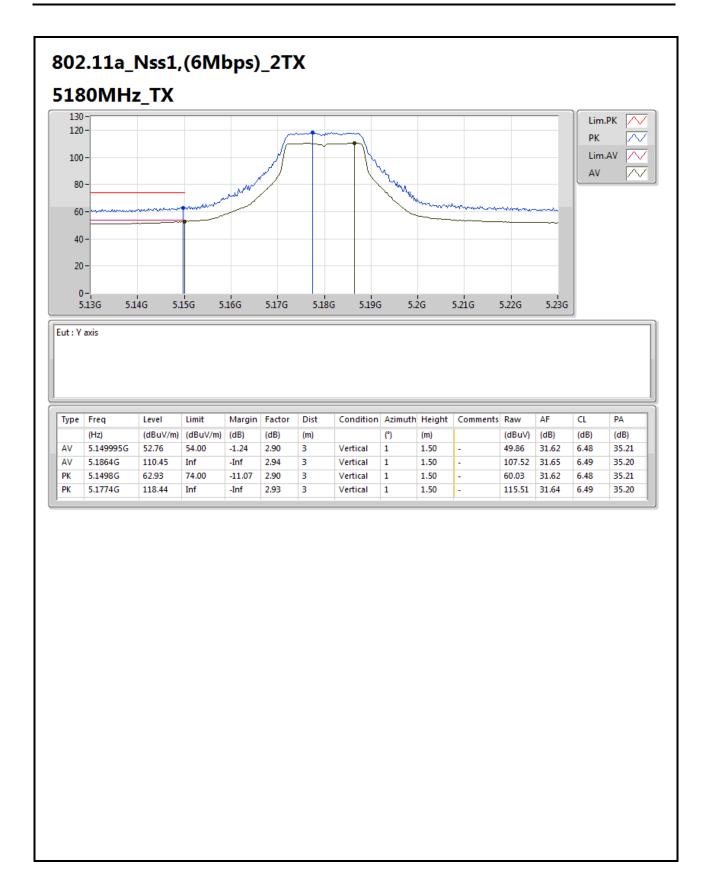


Appendix E.2

Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
5795MHz	Pass	AV	5.783G	106.48	Inf	-Inf	3.50	3	Vertical	358	1.50	-
5795MHz	Pass	PK	5.575G	60.25	68.20	-7.95	3.33	3	Vertical	358	1.50	-
5795MHz	Pass	PK	5.803G	115.22	Inf	-Inf	3.51	3	Vertical	358	1.50	-
5795MHz	Pass	PK	5.943G	57.57	68.20	-10.63	3.63	3	Vertical	358	1.50	-
5795MHz	Pass	AV	11.59G	44.06	54.00	-9.94	13.46	3	Horizontal	360	1.50	-
5795MHz	Pass	PK	11.59G	56.07	74.00	-17.93	13.46	3	Horizontal	360	1.50	-
5795MHz	Pass	AV	11.59G	44.23	54.00	-9.77	13.46	3	Vertical	0	1.50	-
5795MHz	Pass	PK	11.59G	55.84	74.00	-18.16	13.46	3	Vertical	0	1.50	-
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	AV	5.149995G	53.49	54.00	-0.51	2.90	3	Horizontal	358	1.50	-
5210MHz	Pass	AV	5.226G	93.73	Inf	-Inf	2.98	3	Horizontal	358	1.50	-
5210MHz	Pass	AV	5.355G	47.98	54.00	-6.02	3.11	3	Horizontal	358	1.50	-
5210MHz	Pass	PK	5.149G	64.36	74.00	-9.64	2.90	3	Horizontal	358	1.50	-
5210MHz	Pass	PK	5.199G	104.28	Inf	-Inf	2.95	3	Horizontal	358	1.50	-
5210MHz	Pass	PK	5.422G	58.16	74.00	-15.84	3.18	3	Horizontal	358	1.50	-
5210MHz	Pass	AV	5.149995G	52.75	54.00	-1.25	2.90	3	Vertical	356	1.50	-
5210MHz	Pass	AV	5.227G	93.72	Inf	-Inf	2.98	3	Vertical	356	1.50	-
5210MHz	Pass	AV	5.416G	48.74	54.00	-5.26	3.18	3	Vertical	356	1.50	-
5210MHz	Pass	PK	5.149G	62.12	74.00	-11.88	2.90	3	Vertical	356	1.50	-
5210MHz	Pass	PK	5.199G	102.38	Inf	-Inf	2.95	3	Vertical	356	1.50	-
5210MHz	Pass	PK	5.413G	58.45	74.00	-15.55	3.17	3	Vertical	356	1.50	-
5210MHz	Pass	AV	15.63G	46.29	54.00	-7.71	14.32	3	Horizontal	320	1.50	-
5210MHz	Pass	PK	15.63G	57.72	74.00	-16.28	14.32	3	Horizontal	320	1.50	-
5210MHz	Pass	AV	15.63G	46.17	54.00	-7.83	14.32	3	Vertical	0	1.50	-
5210MHz	Pass	PK	15.63G	58.06	74.00	-15.94	14.32	3	Vertical	0	1.50	-
5775MHz	Pass	AV	5.753G	102.72	Inf	-Inf	3.48	3	Horizontal	358	1.50	-
5775MHz	Pass	PK	5.331G	64.68	68.20	-3.52	3.09	3	Horizontal	358	1.50	-
5775MHz	Pass	PK	5.765G	113.98	Inf	-Inf	3.49	3	Horizontal	358	1.50	-
5775MHz	Pass	PK	5.929G	60.45	68.20	-7.75	3.62	3	Horizontal	358	1.50	-
5775MHz	Pass	AV	5.753G	104.46	Inf	-Inf	3.48	3	Vertical	357	1.50	-
5775MHz	Pass	PK	5.649G	63.81	68.20	-4.39	3.39	3	Vertical	357	1.50	-
5775MHz	Pass	PK	5.763G	114.59	Inf	-Inf	3.48	3	Vertical	357	1.50	-
5775MHz	Pass	PK	5.933G	58.72	68.20	-9.48	3.63	3	Vertical	357	1.50	-
5775MHz	Pass	AV	11.55G	44.31	54.00	-9.69	13.52	3	Horizontal	255	1.50	-
5775MHz	Pass	PK	11.55G	55.98	74.00	-18.02	13.52	3	Horizontal	255	1.50	-
5775MHz	Pass	AV	11.55G	44.27	54.00	-9.73	13.52	3	Vertical	0	1.50	-
5775MHz	Pass	PK	11.55G	56.20	74.00	-17.80	13.52	3	Vertical	0	1.50	-

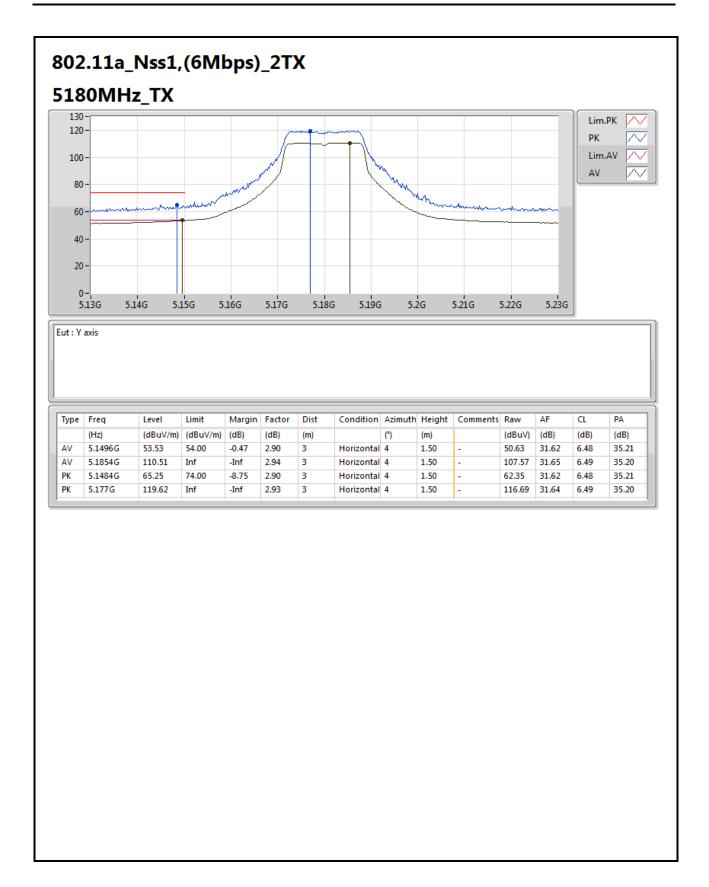
SPORTON INTERNATIONAL INC. Page No. : E6 of E78





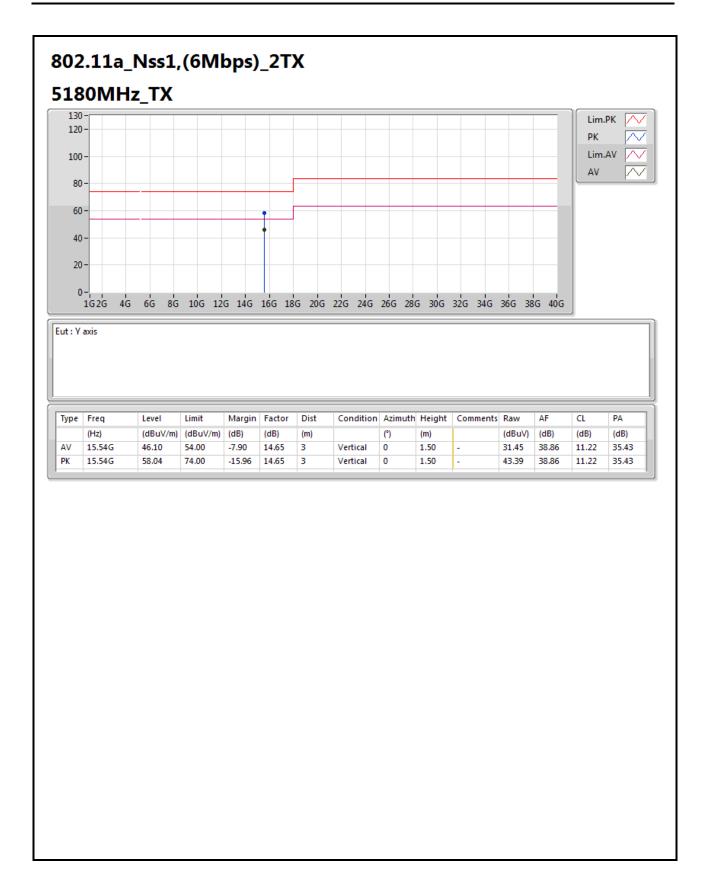
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E7 of E78





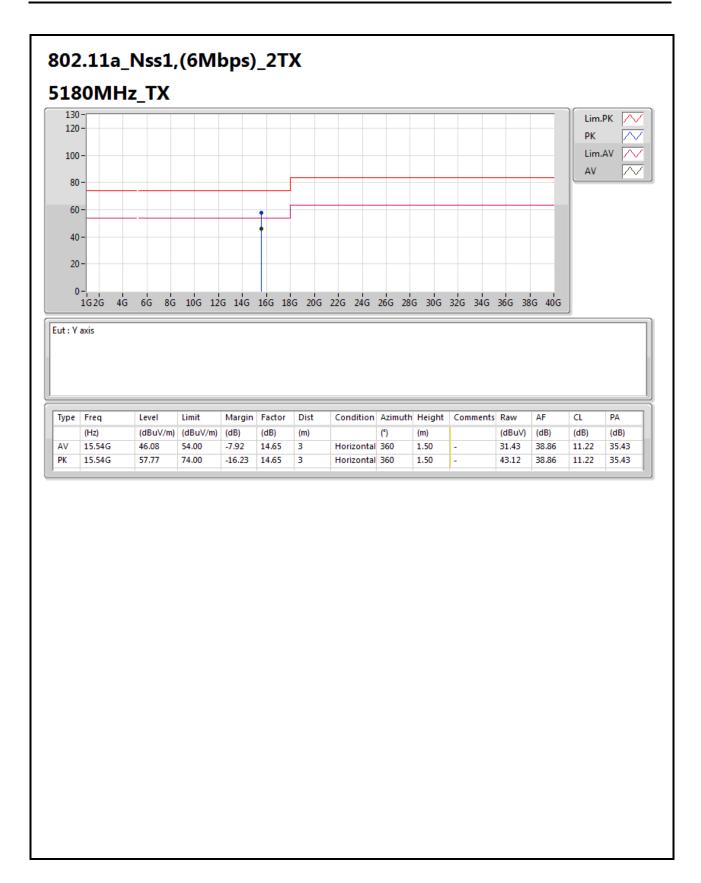
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E8 of E78





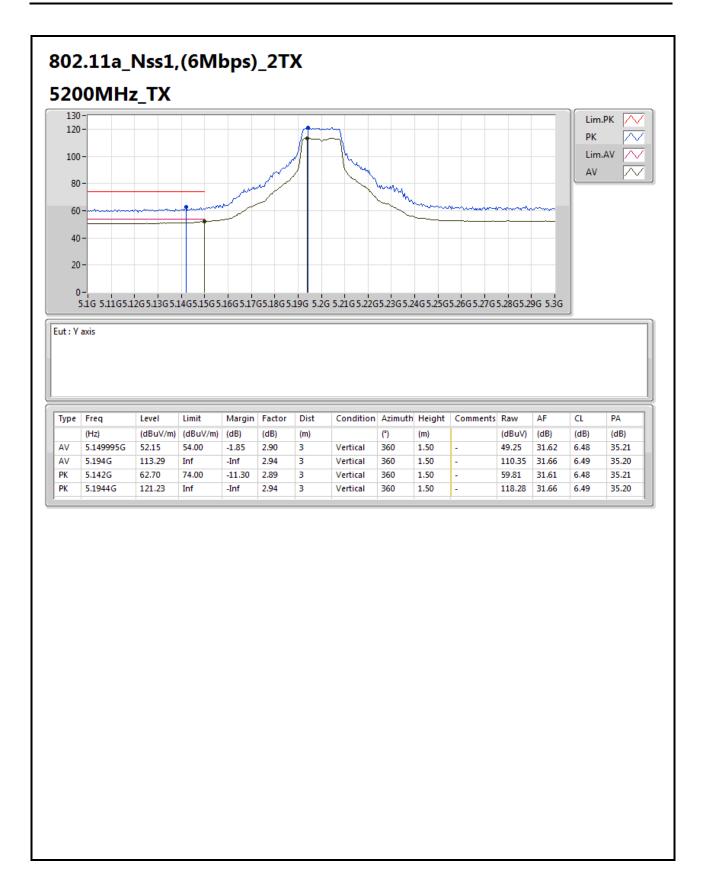
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E9 of E78





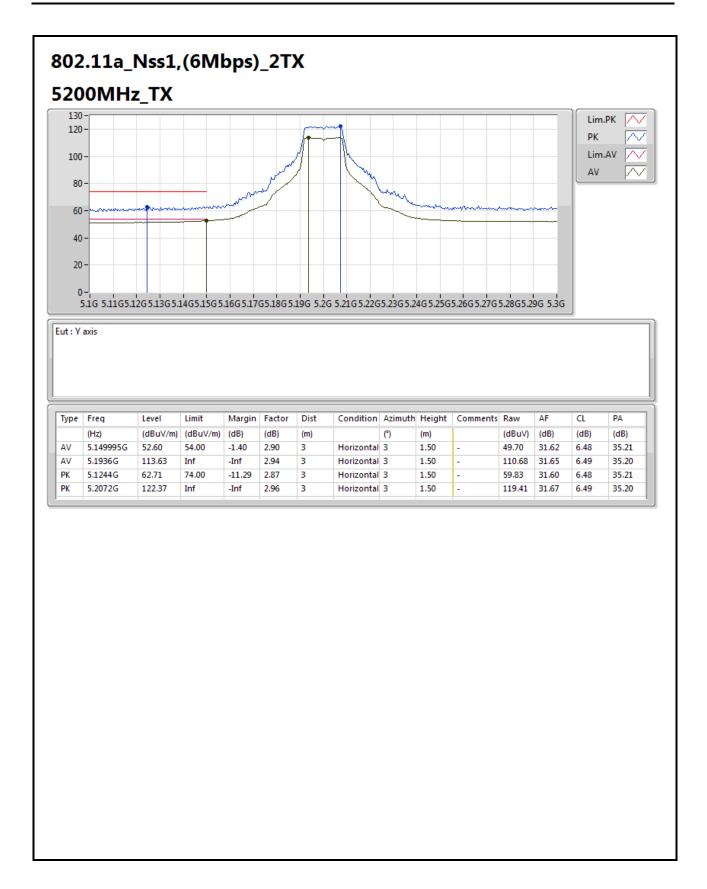
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E10 of E78





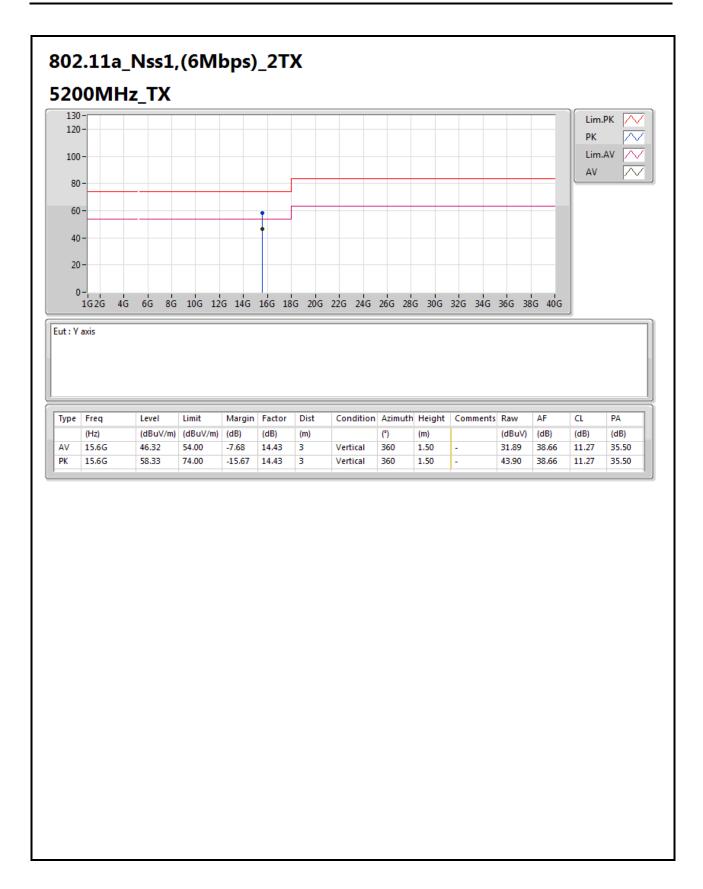
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E11 of E78





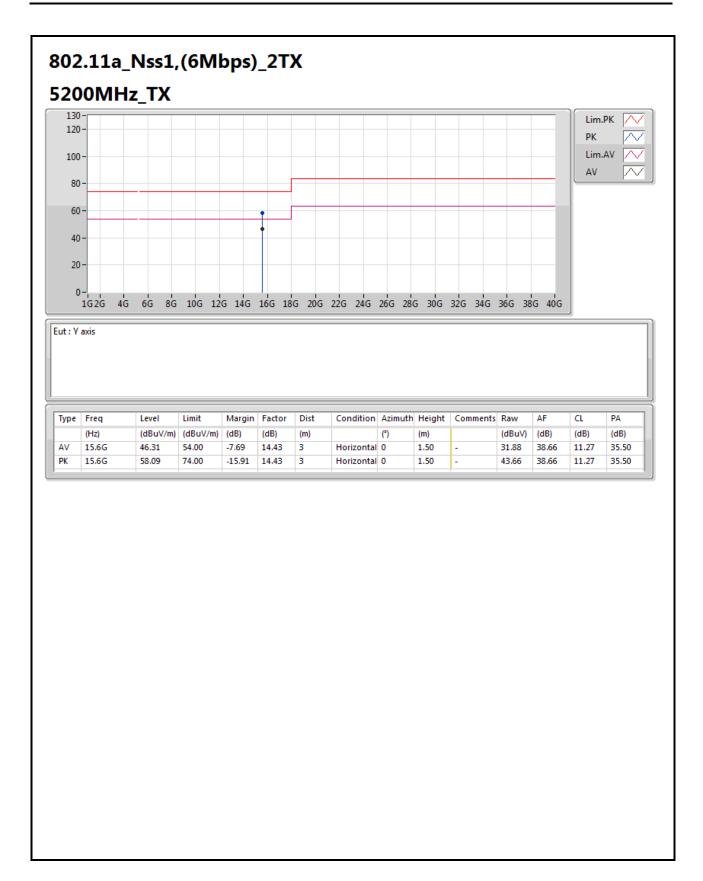
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E12 of E78





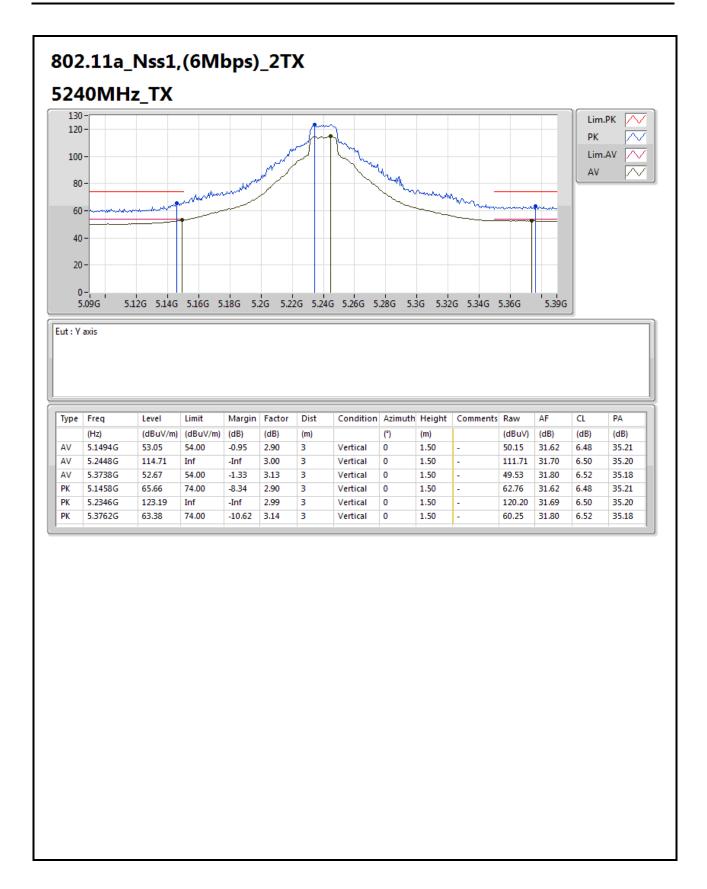
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E13 of E78





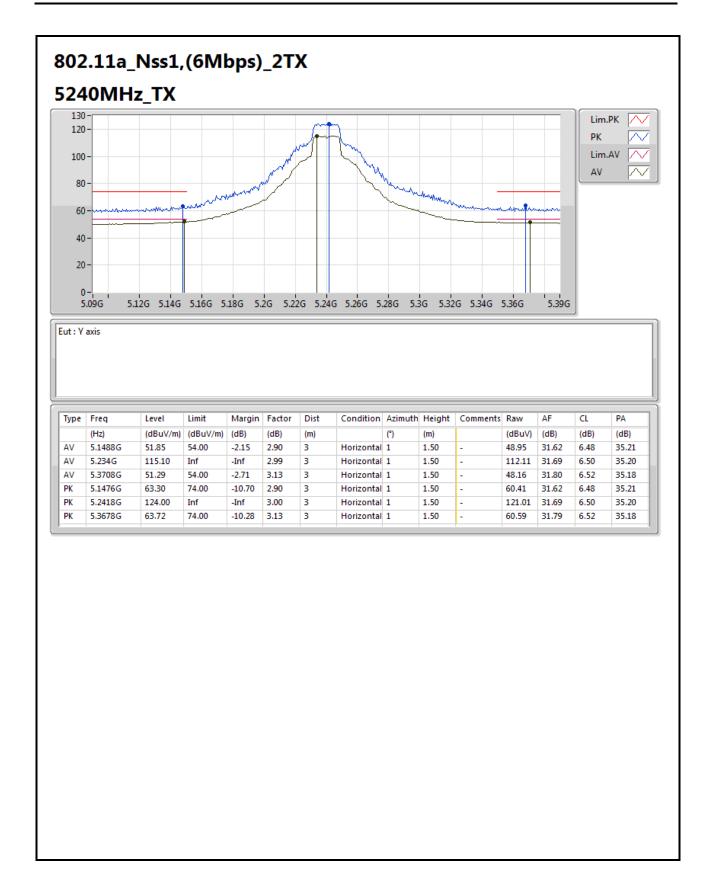
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E14 of E78





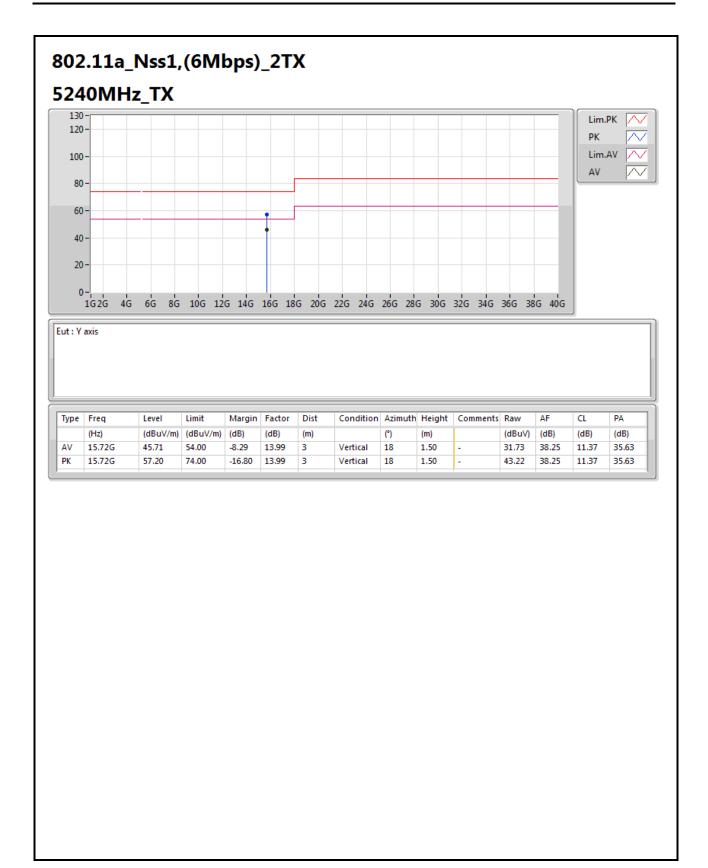
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E15 of E78



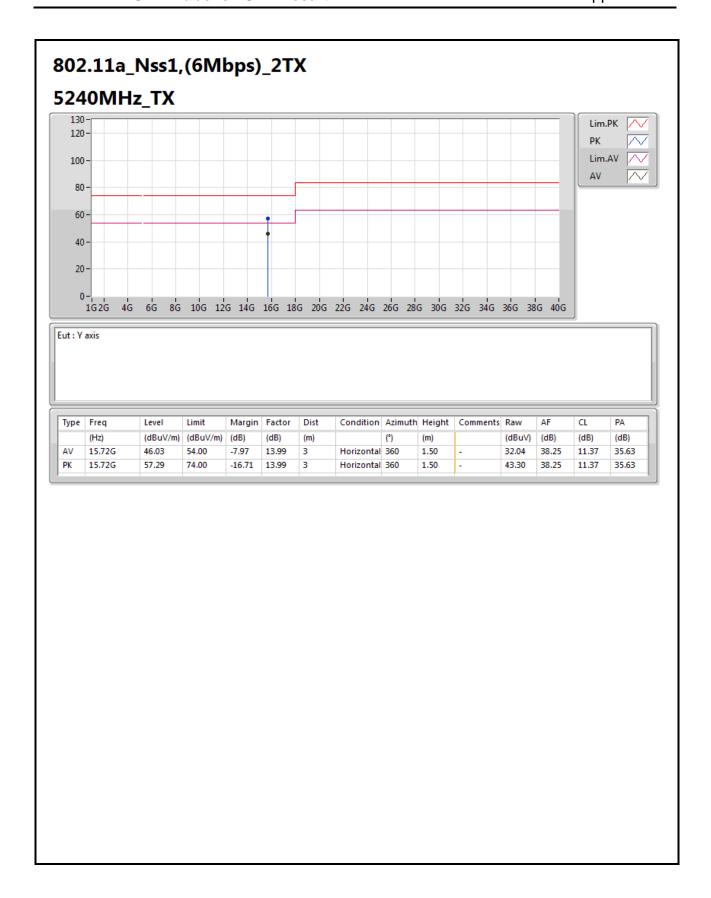


TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E16 of E78



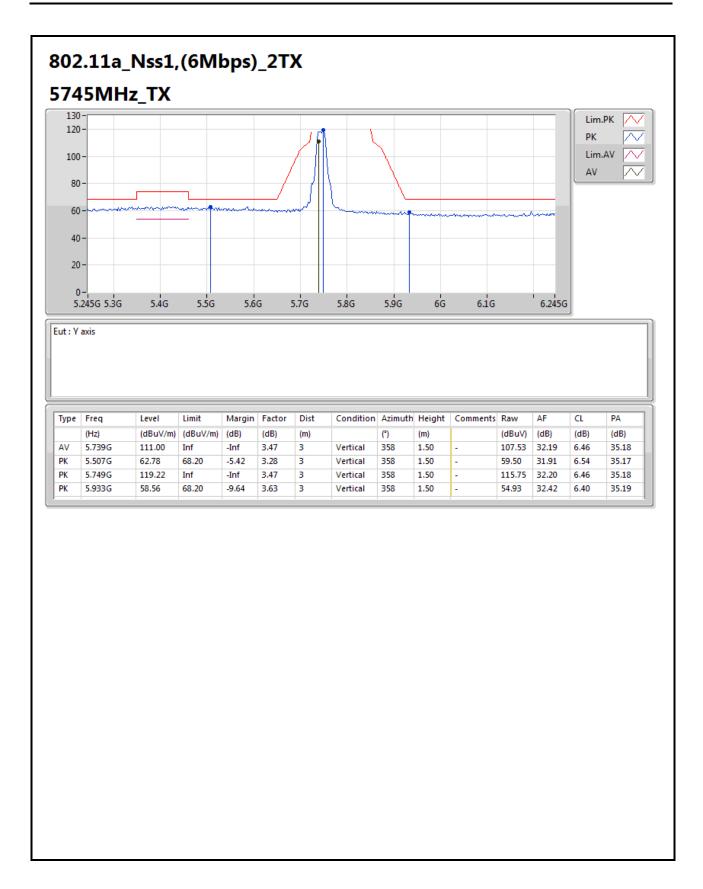


TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E17 of E78



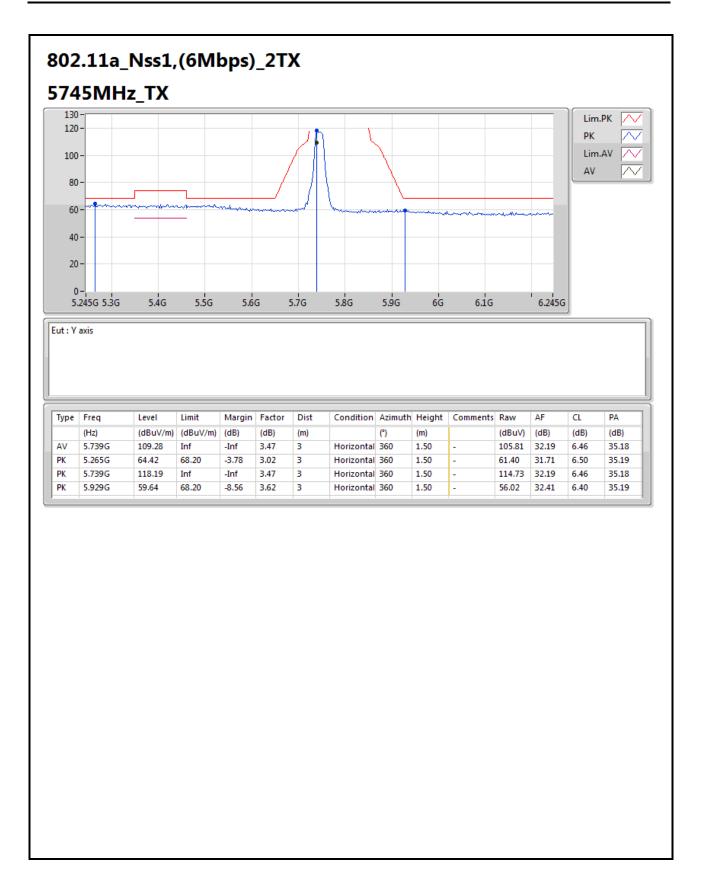
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E18 of E78





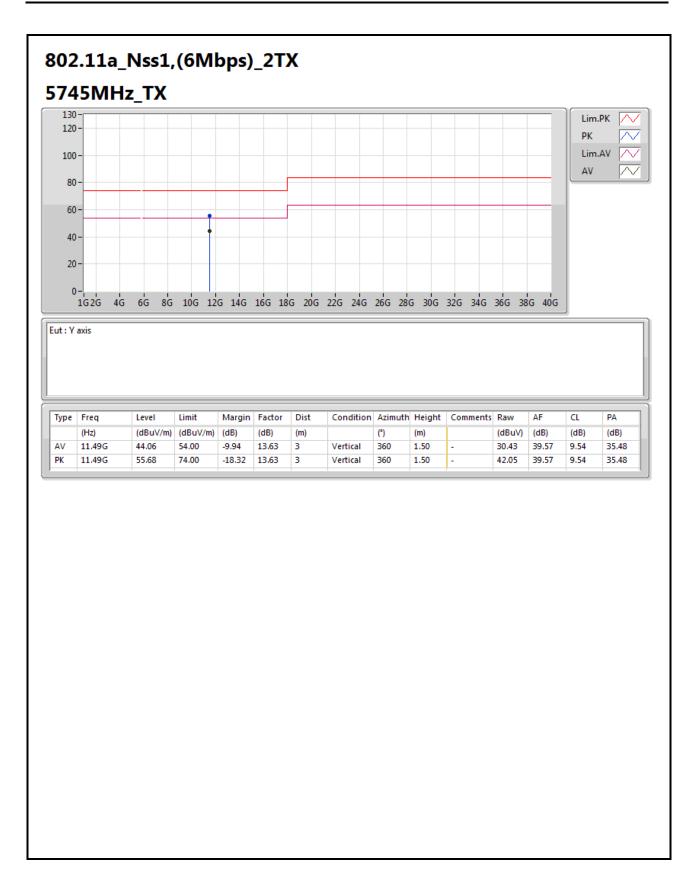
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E19 of E78





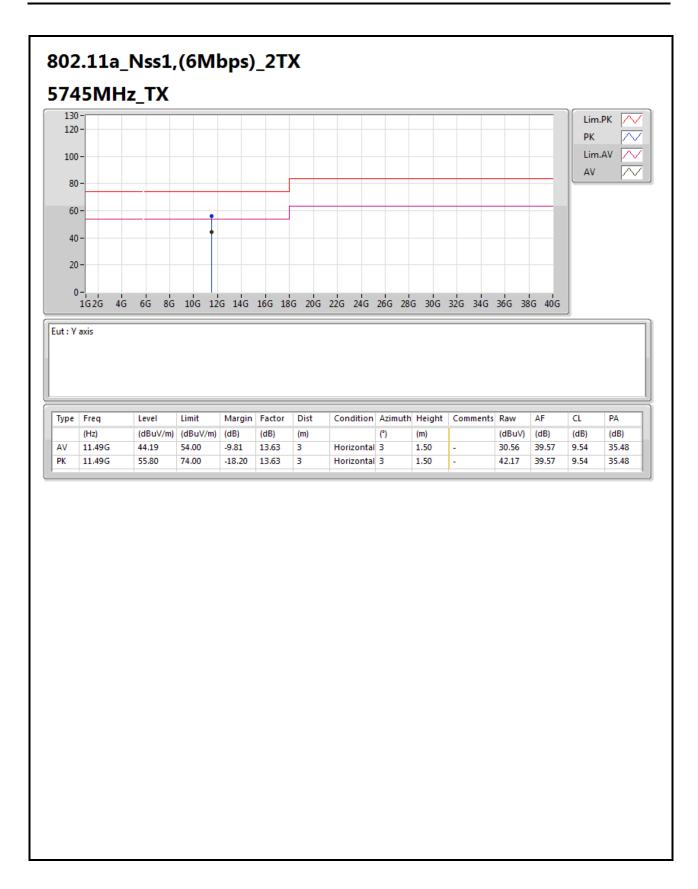
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E20 of E78





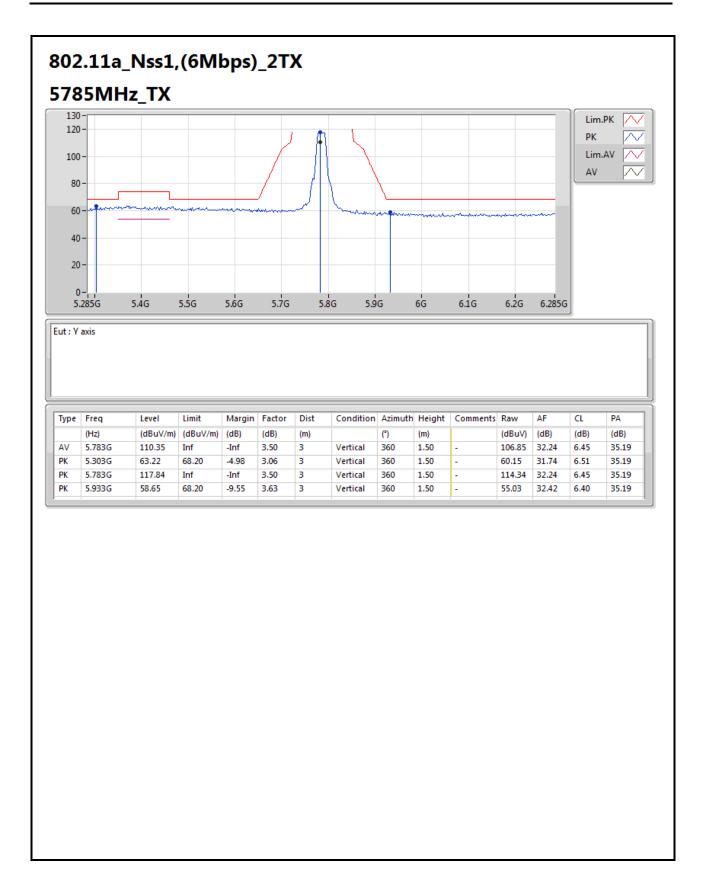
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E21 of E78





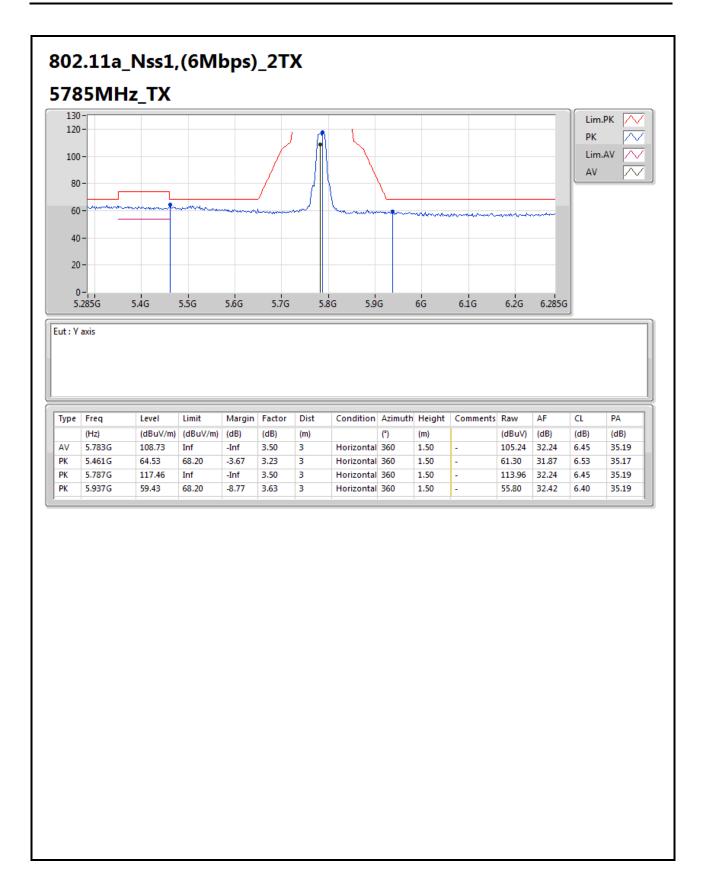
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E22 of E78





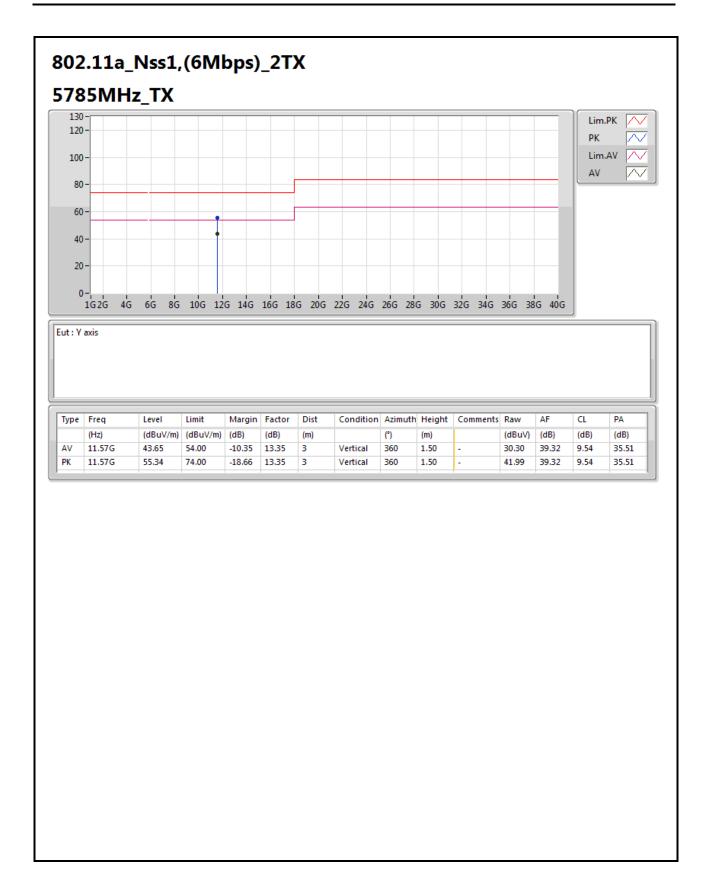
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E23 of E78





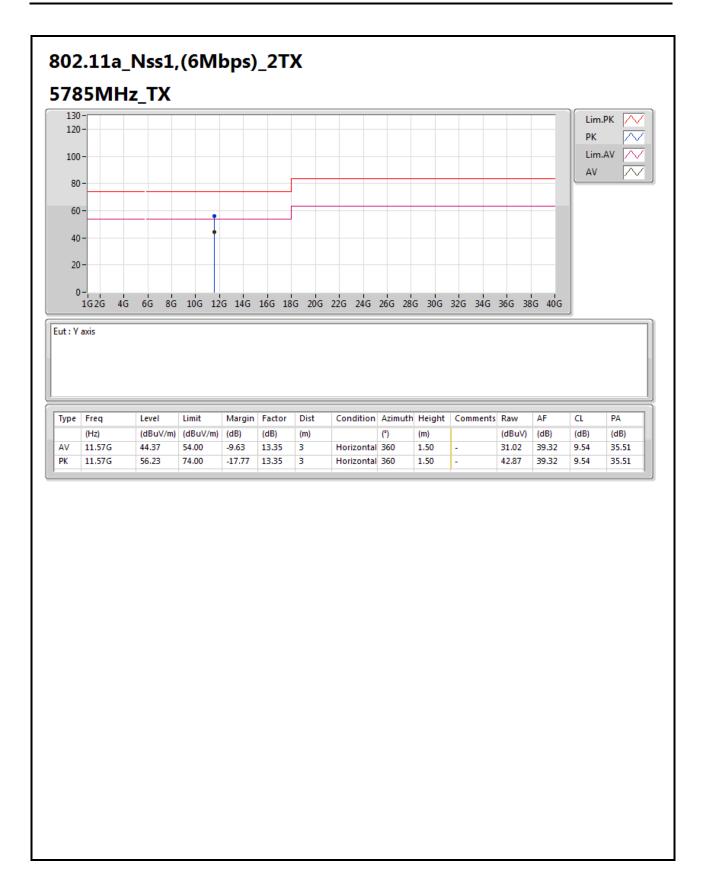
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E24 of E78





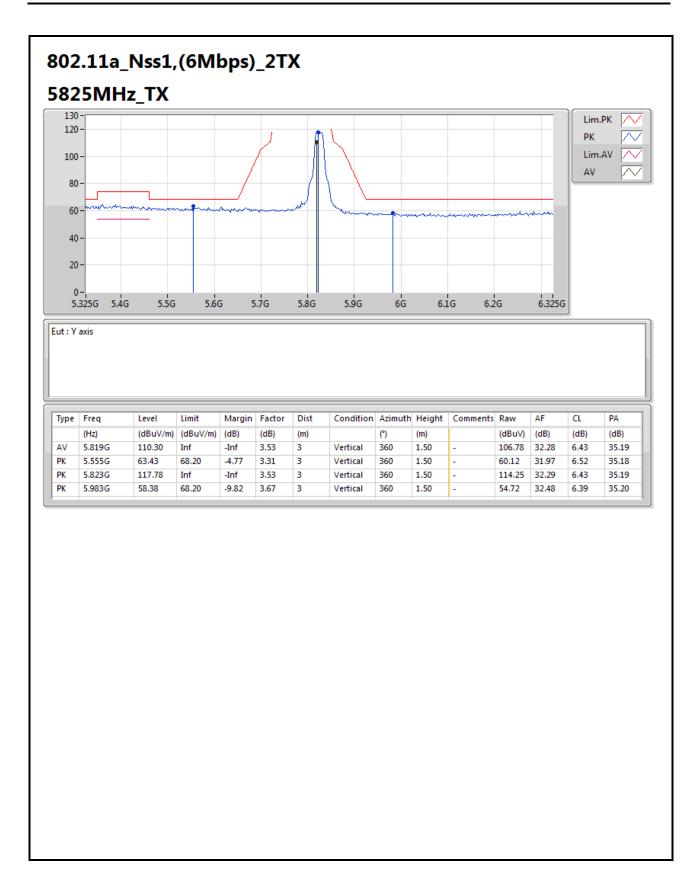
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E25 of E78





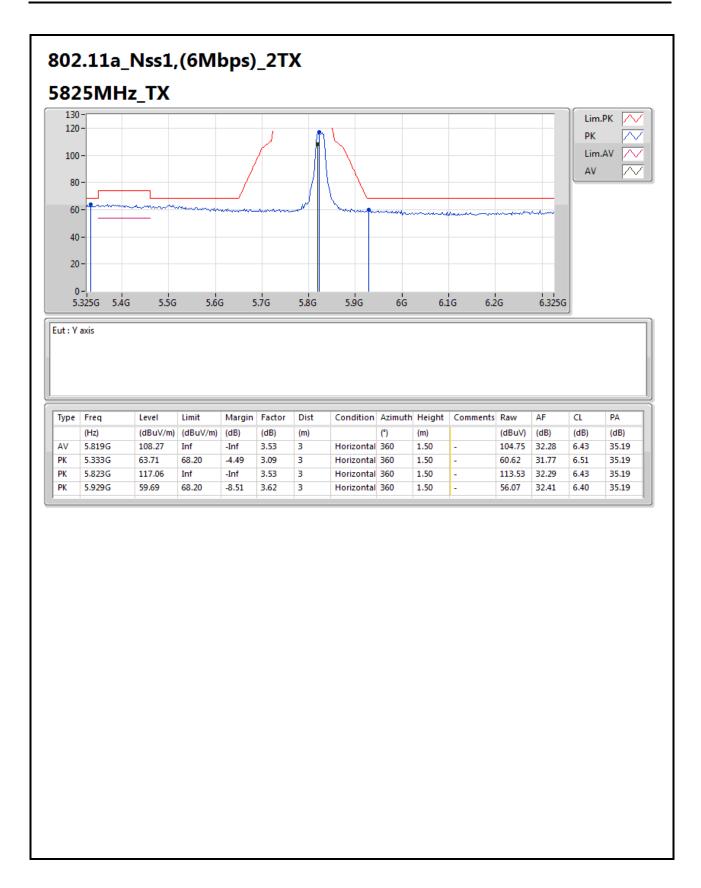
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E26 of E78





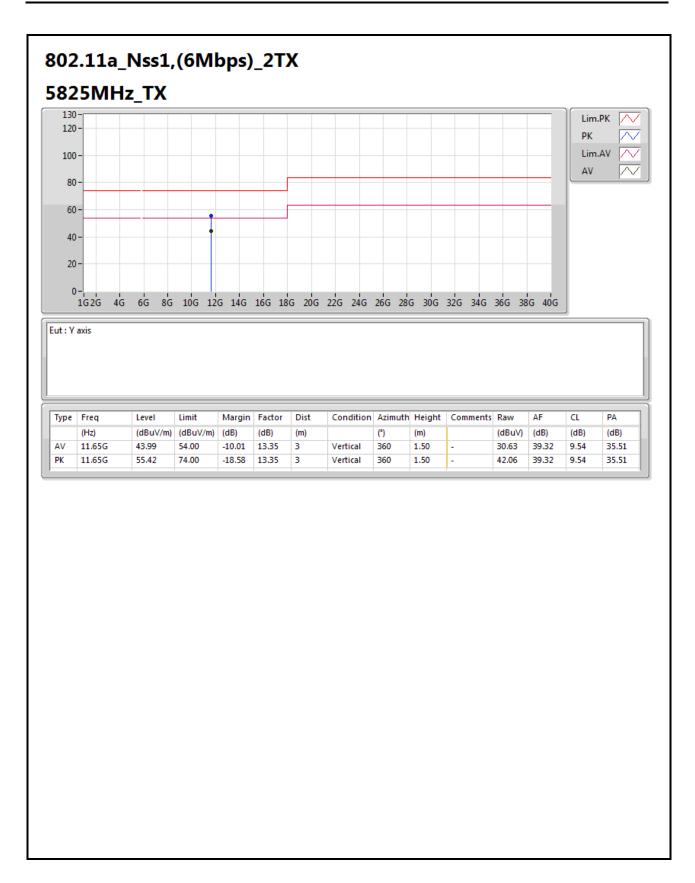
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E27 of E78





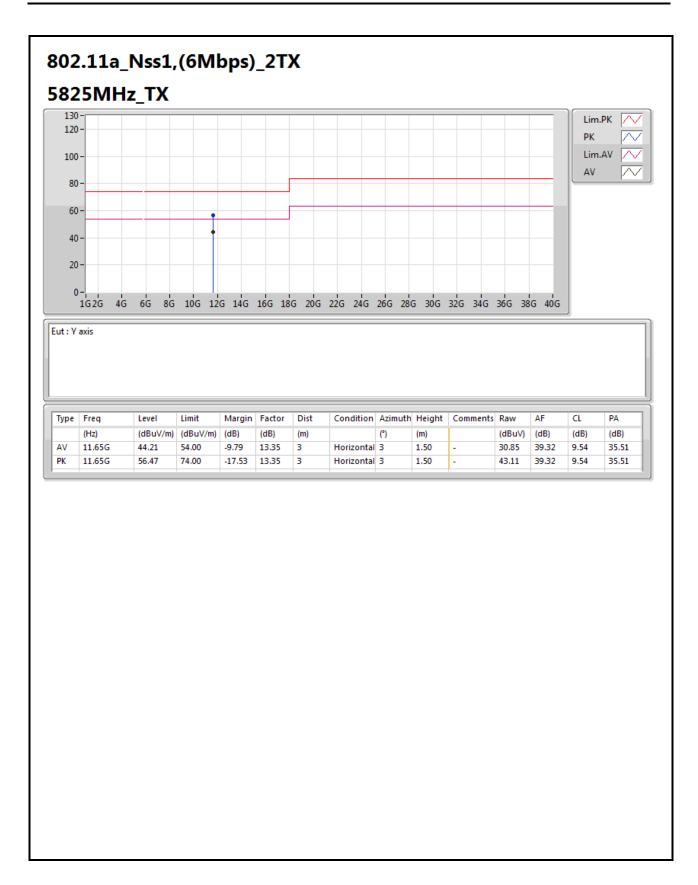
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E28 of E78





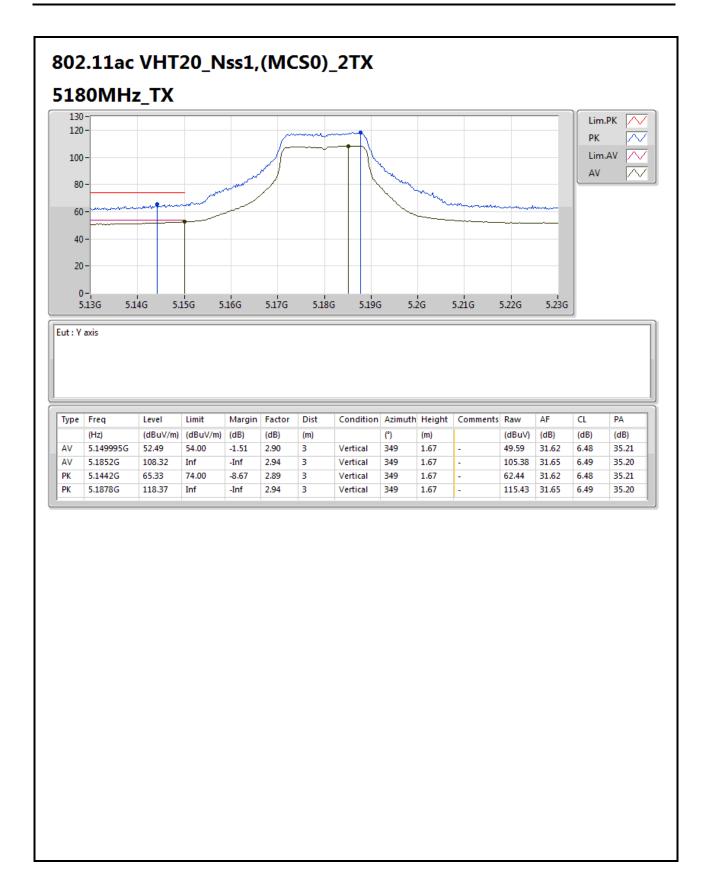
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E29 of E78





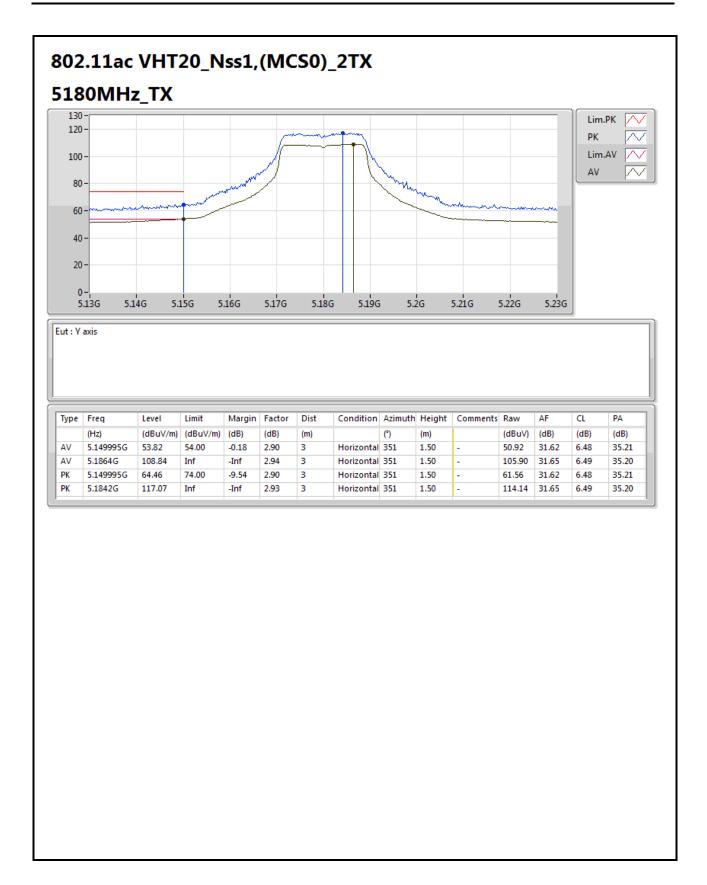
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E30 of E78





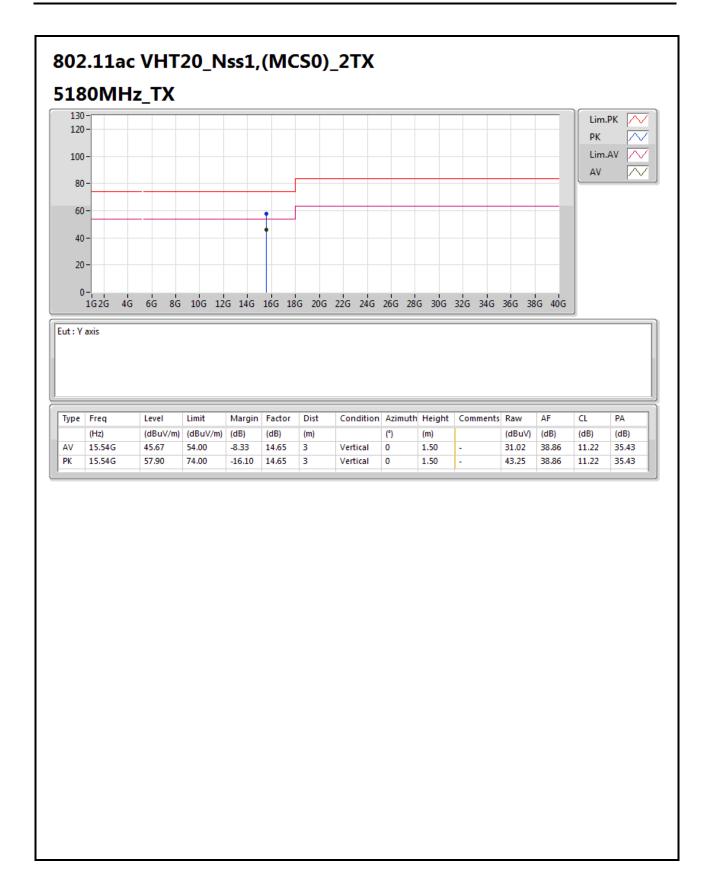
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E31 of E78





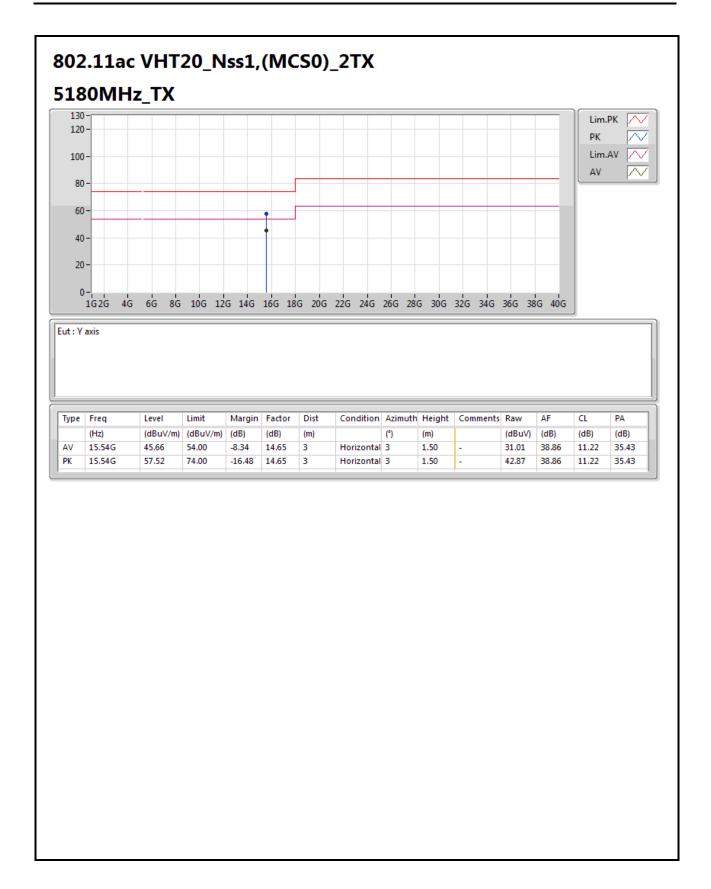
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E32 of E78





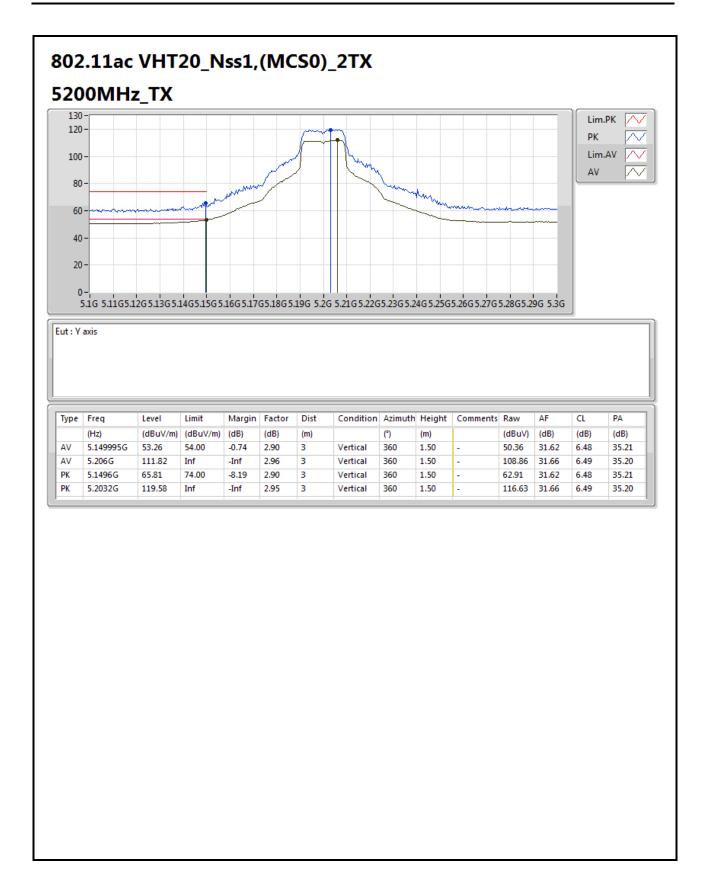
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E33 of E78





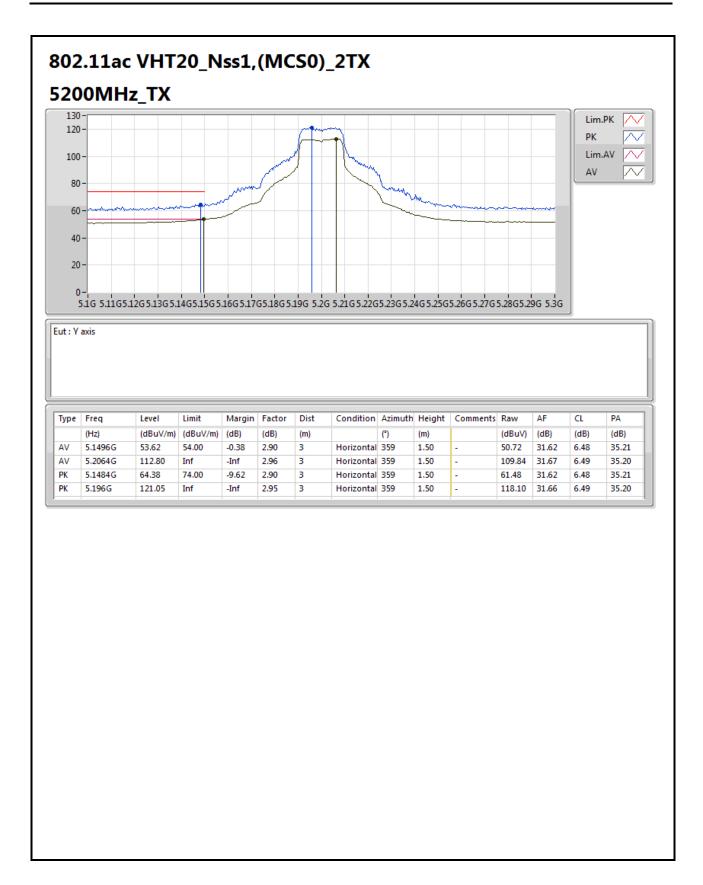
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E34 of E78





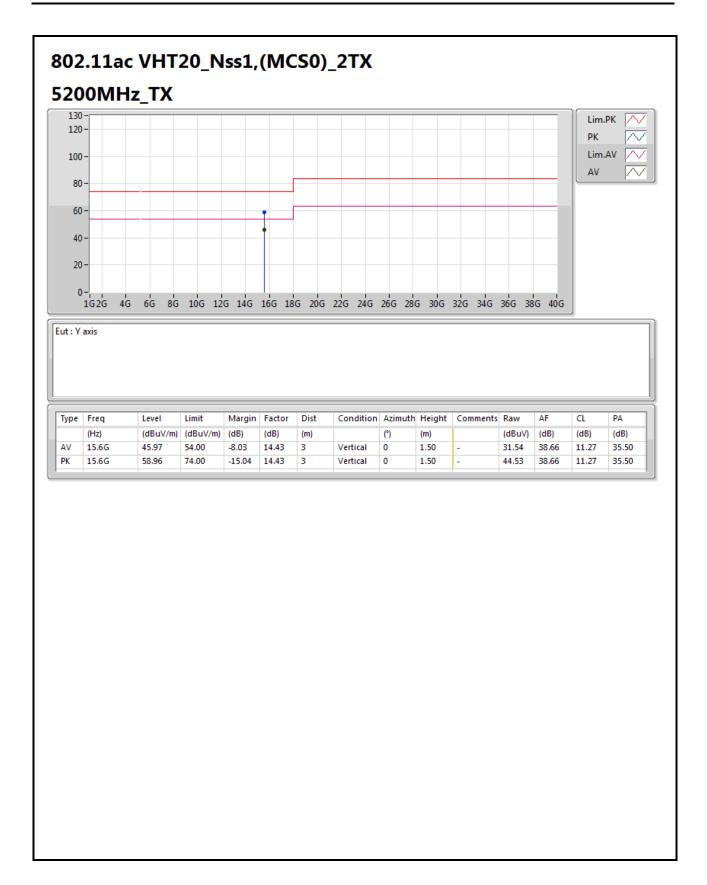
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E35 of E78





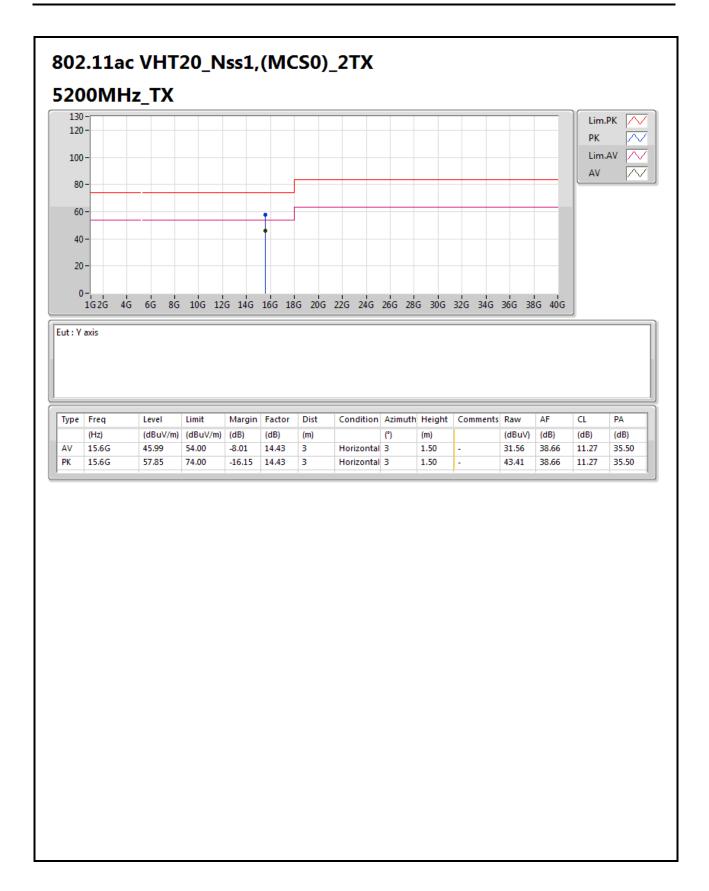
TEL: 886-3-327-3456 FAX: 886-3-327-0973





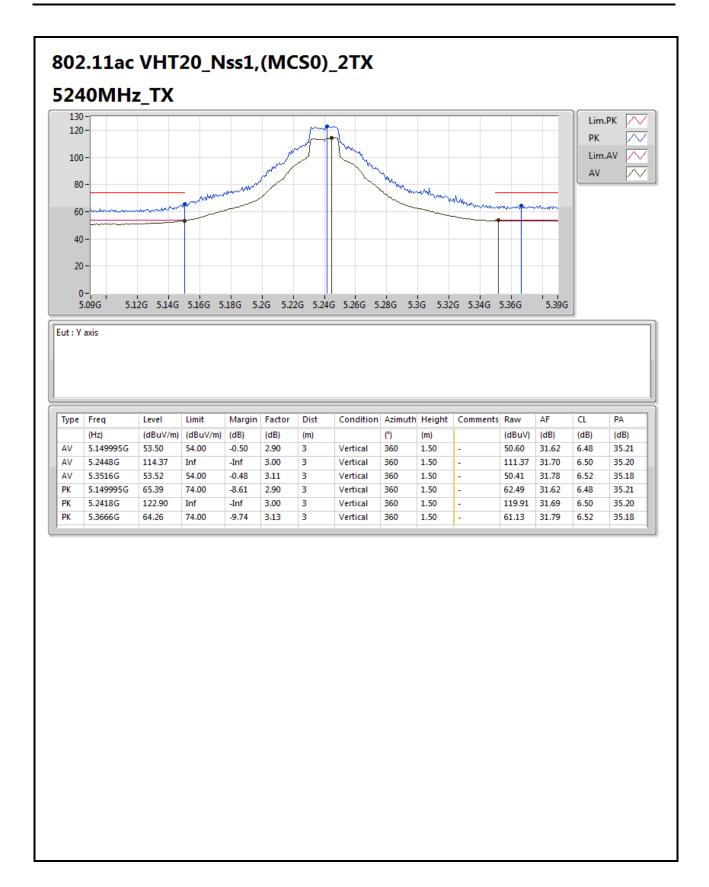
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E37 of E78





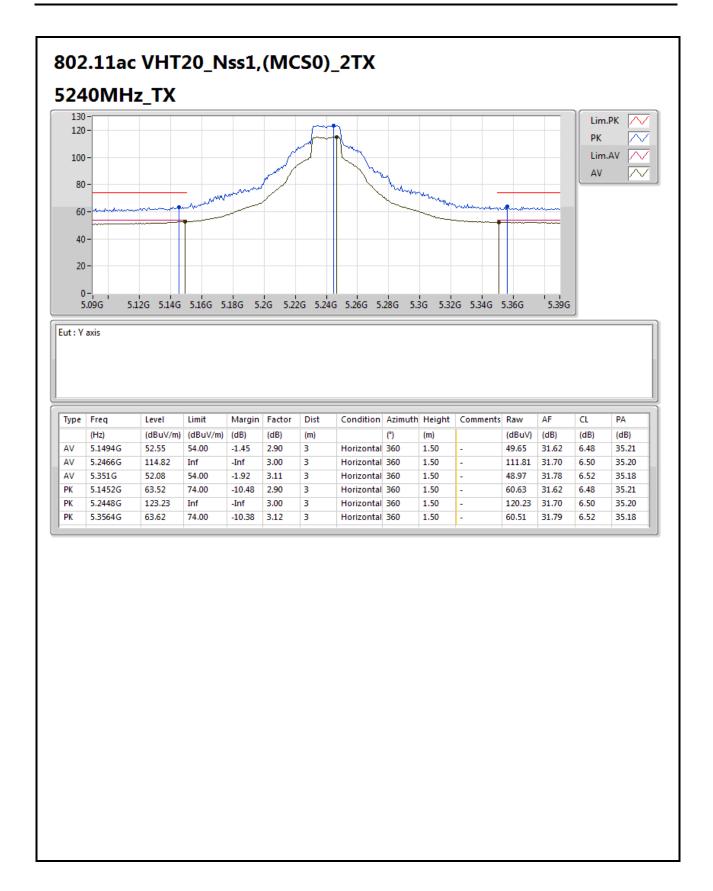
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E38 of E78





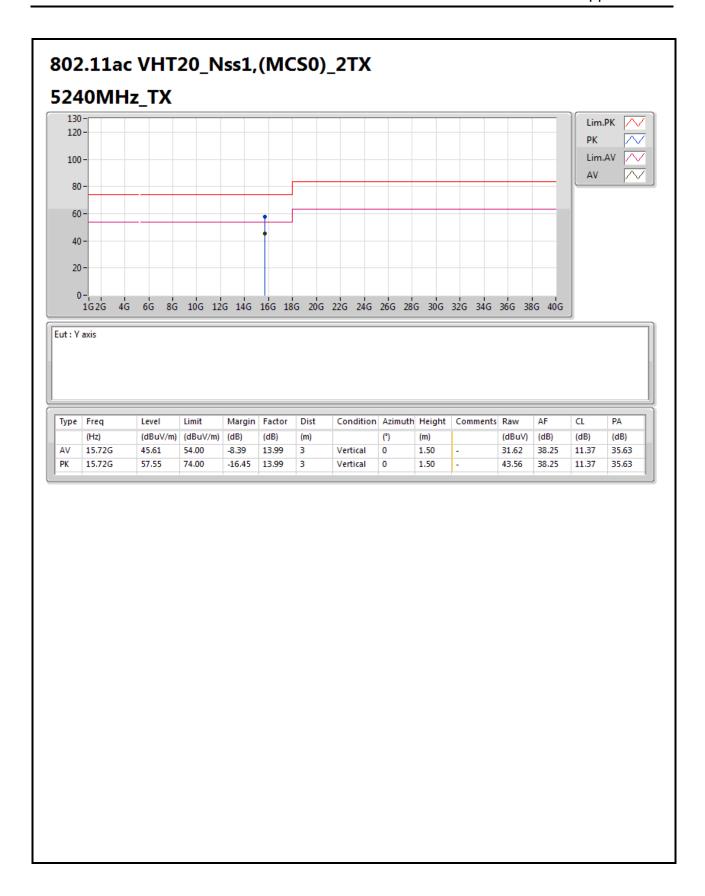
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E39 of E78





TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E40 of E78

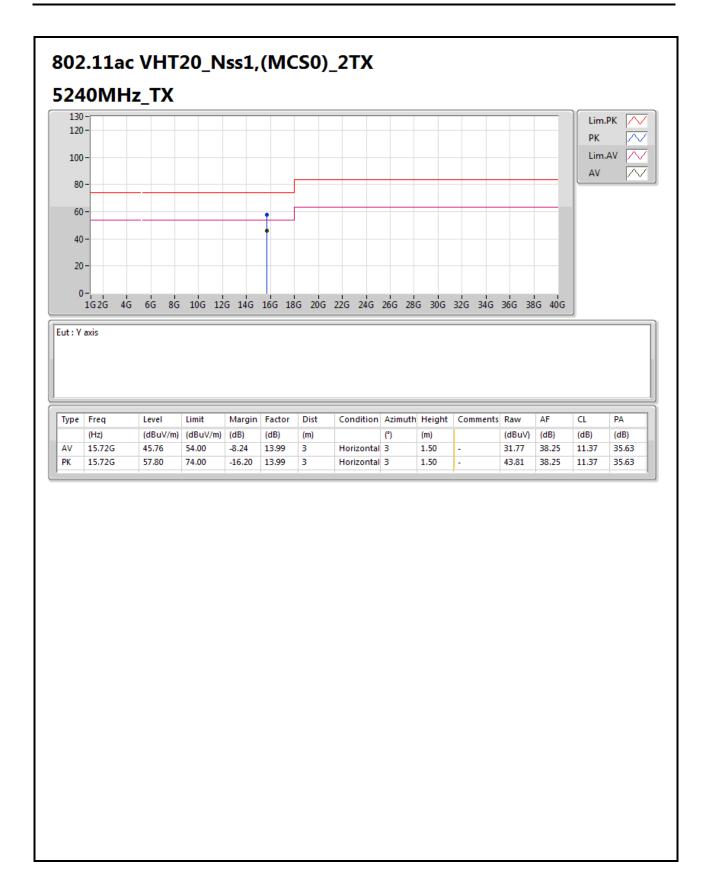
RSE TX above 1GHz Result



SPORTON INTERNATIONAL INC.

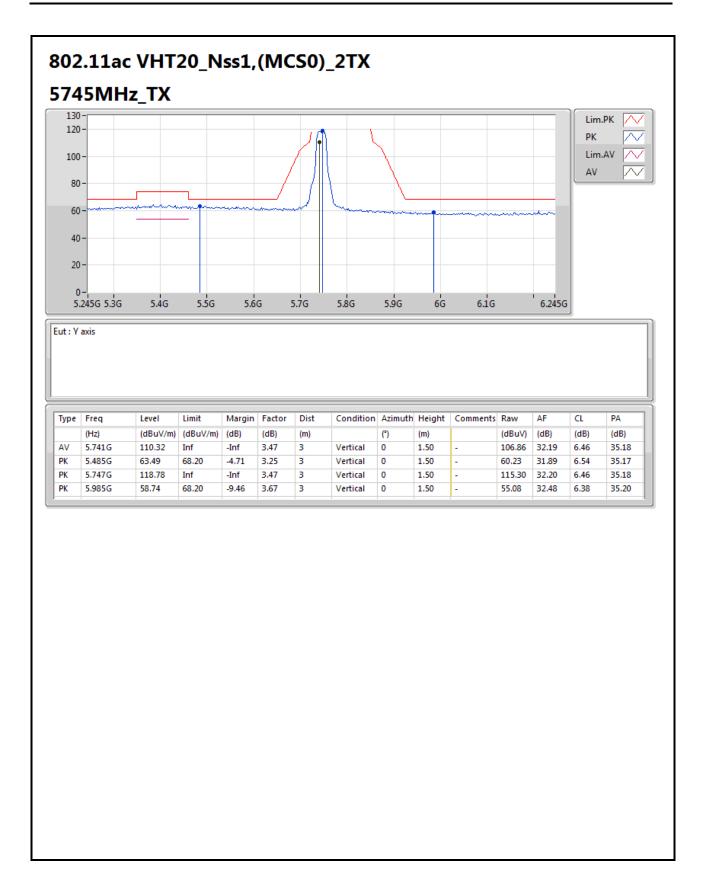
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E41 of E78





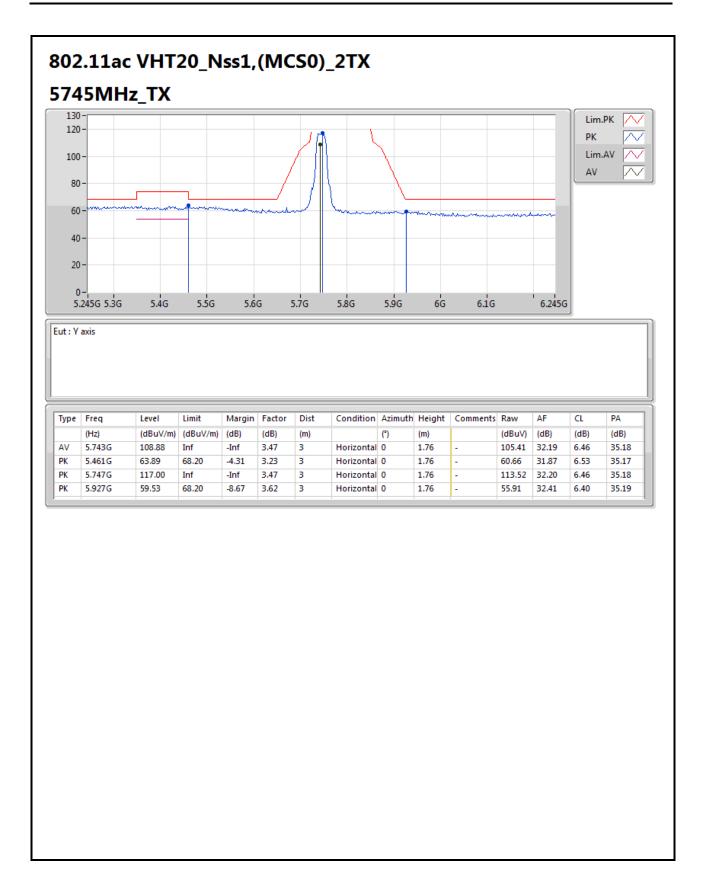
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E42 of E78





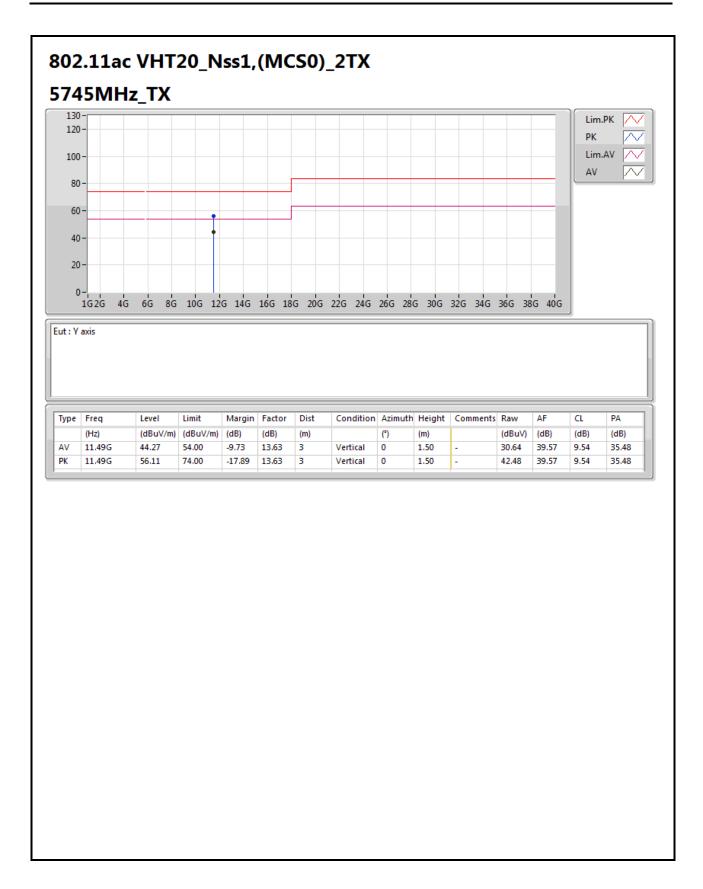
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E43 of E78





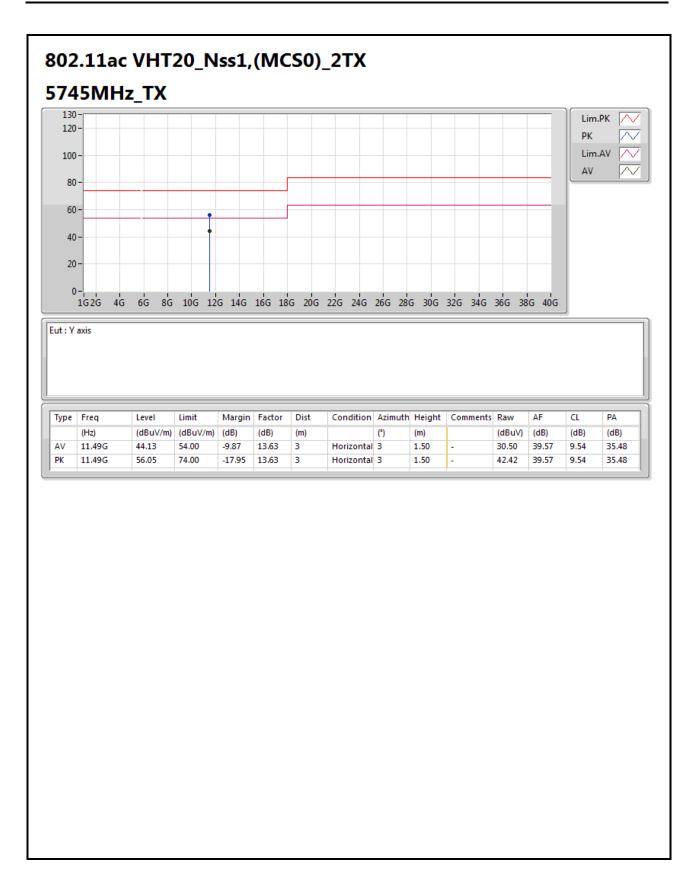
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E44 of E78





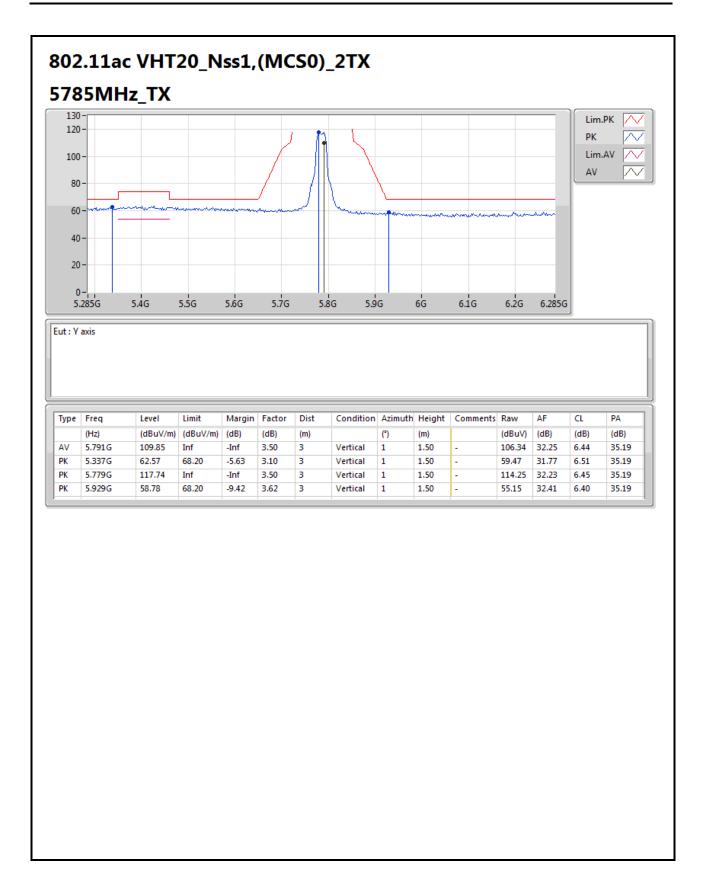
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E45 of E78





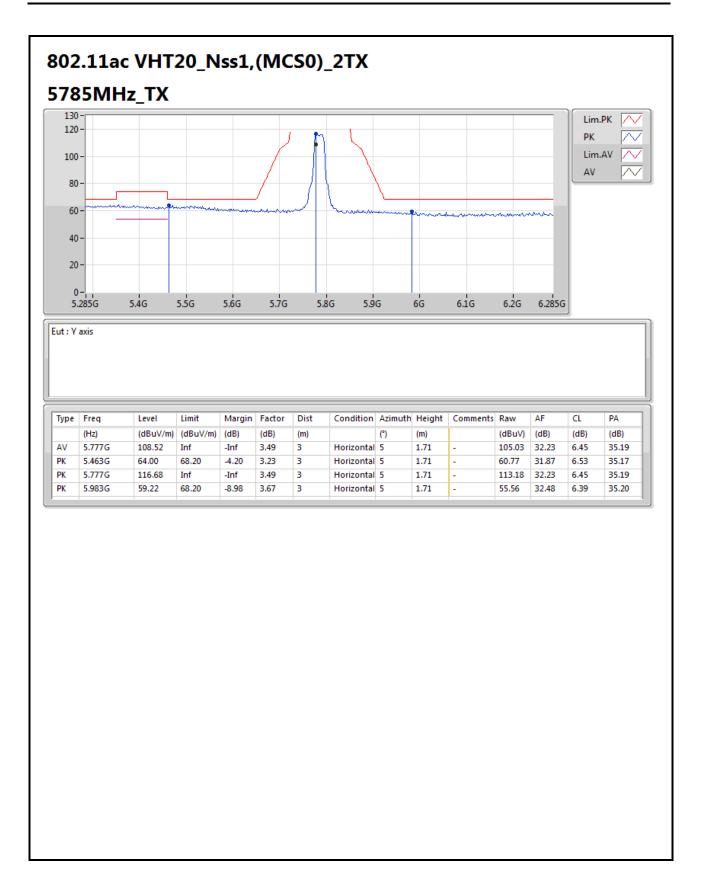
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E46 of E78





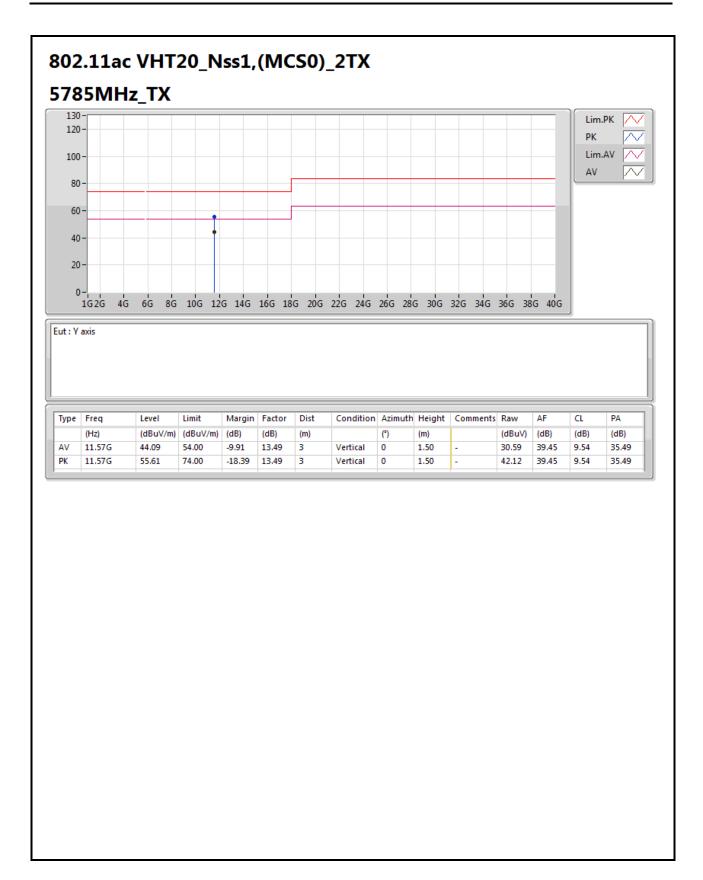
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E47 of E78





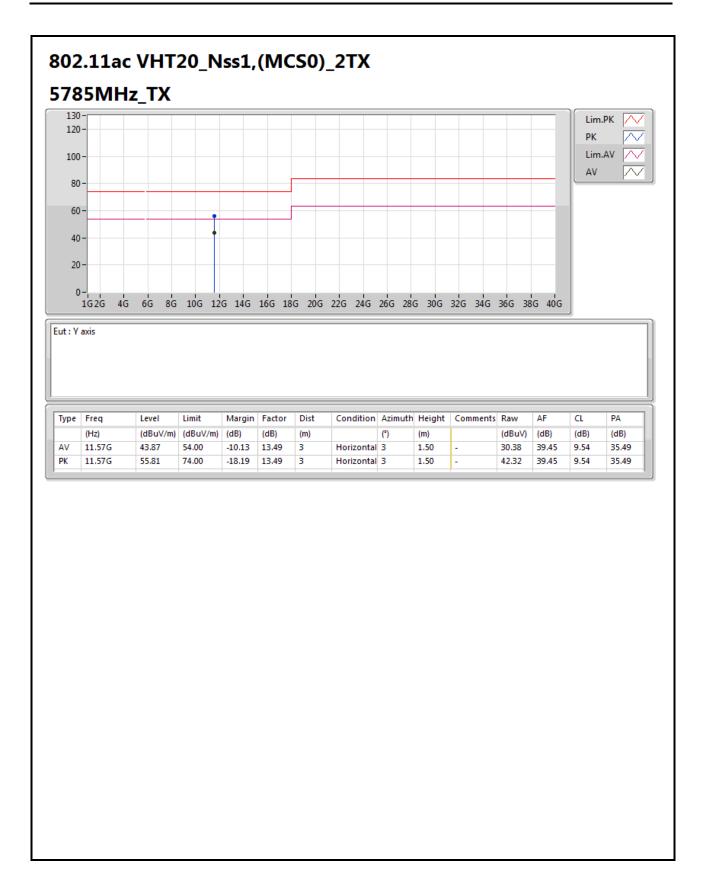
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E48 of E78





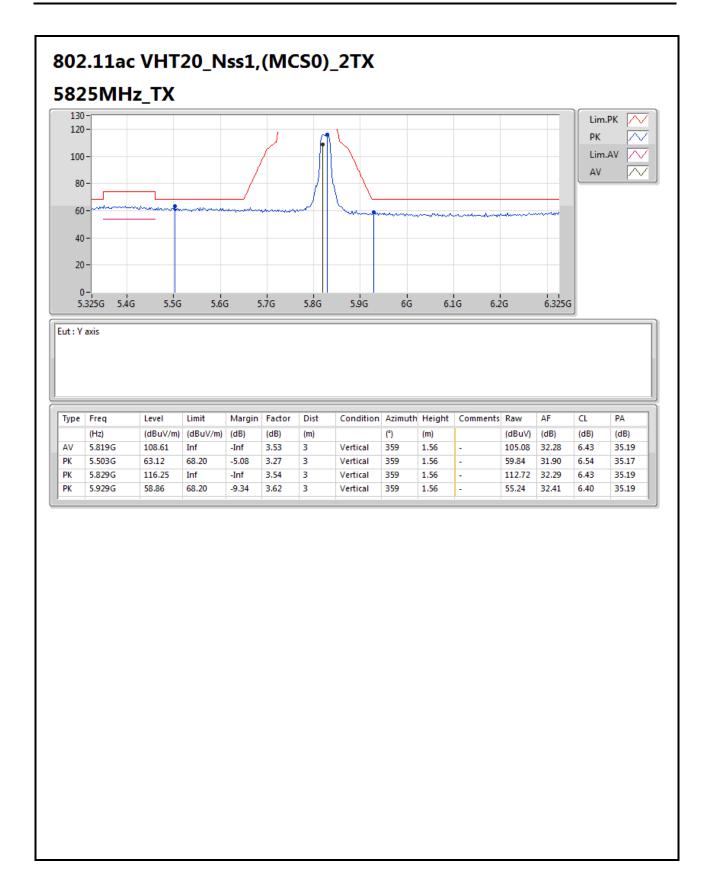
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E49 of E78





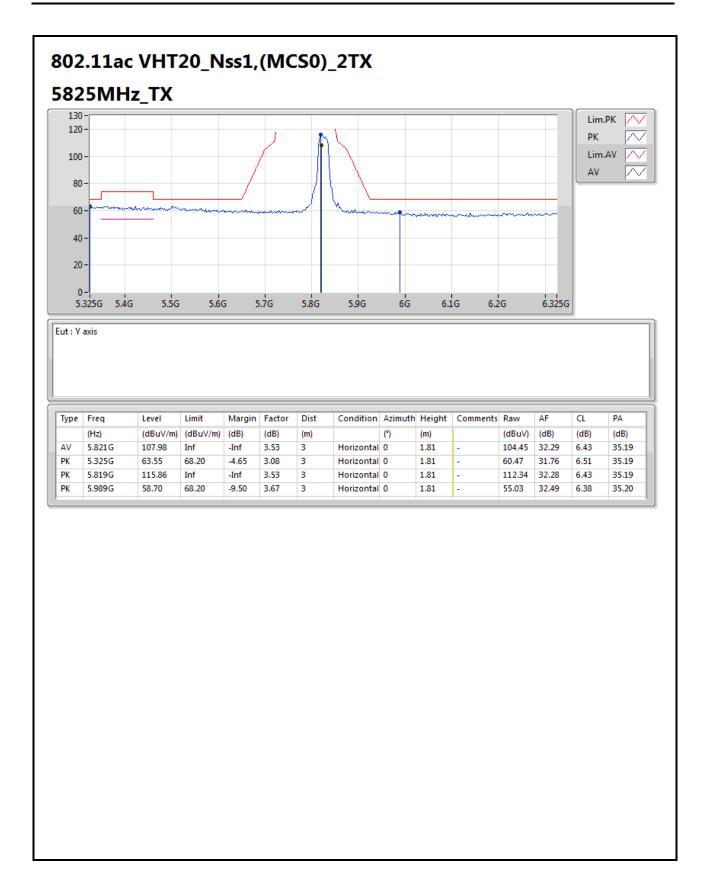
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E50 of E78





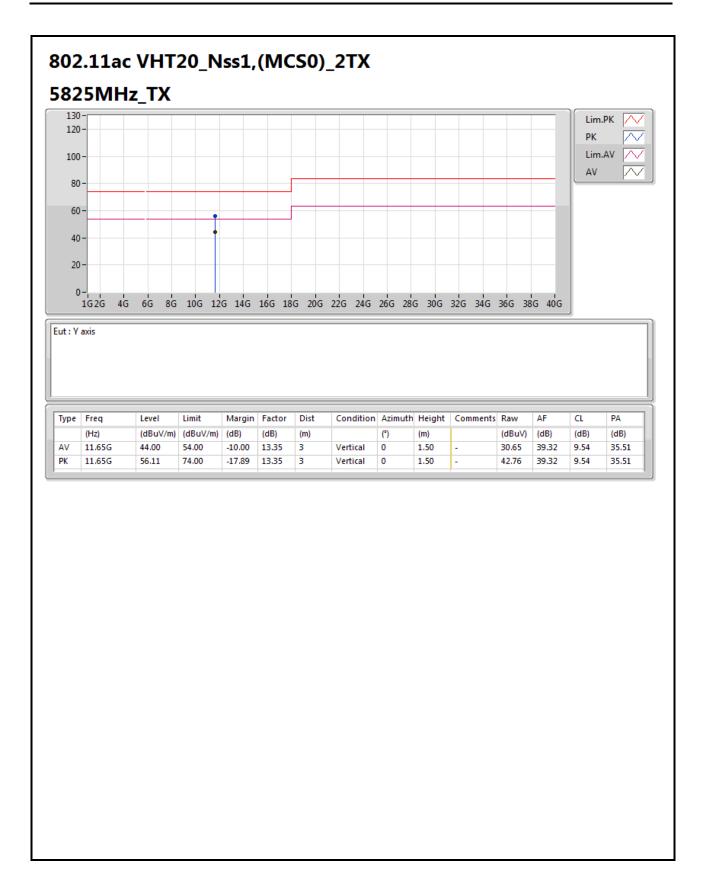
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E51 of E78





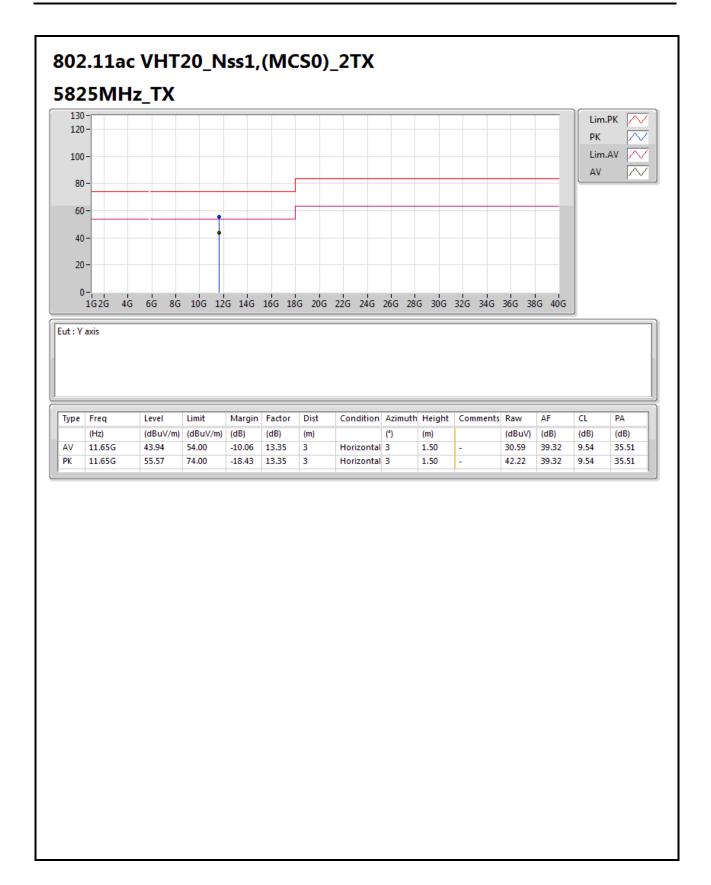
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E52 of E78





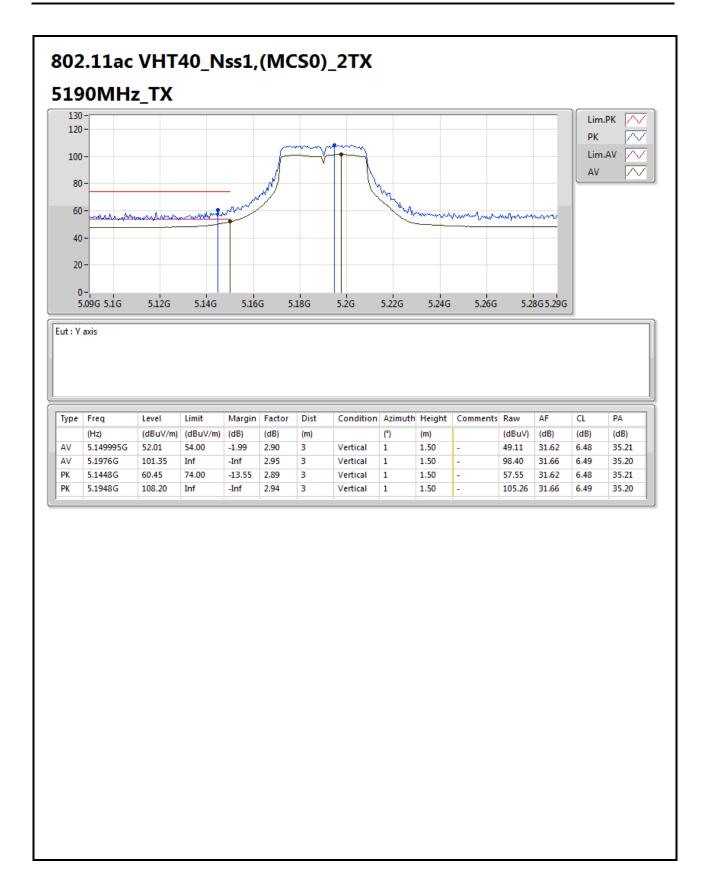
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E53 of E78





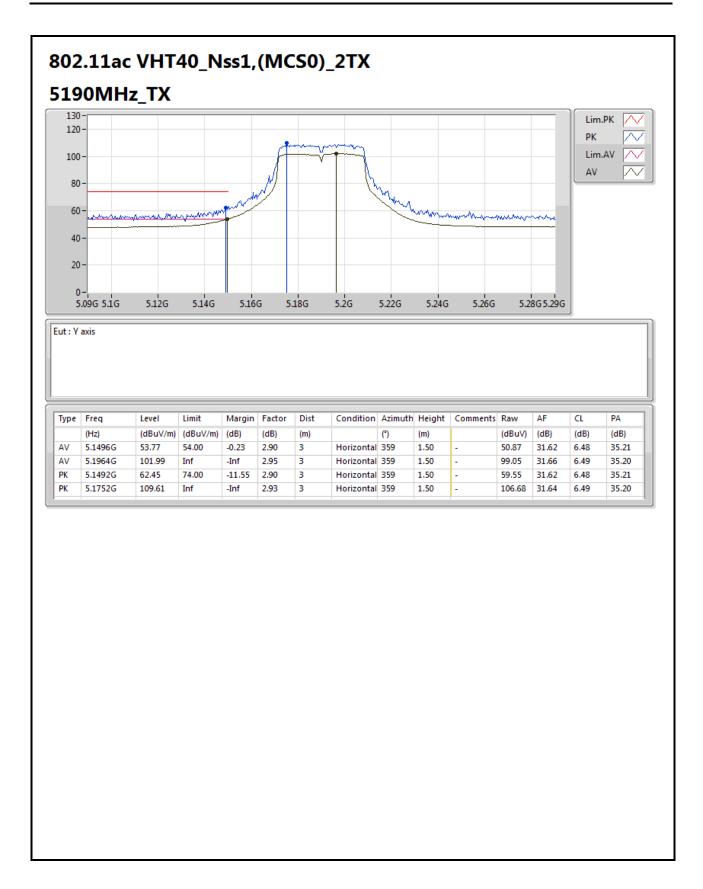
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E54 of E78





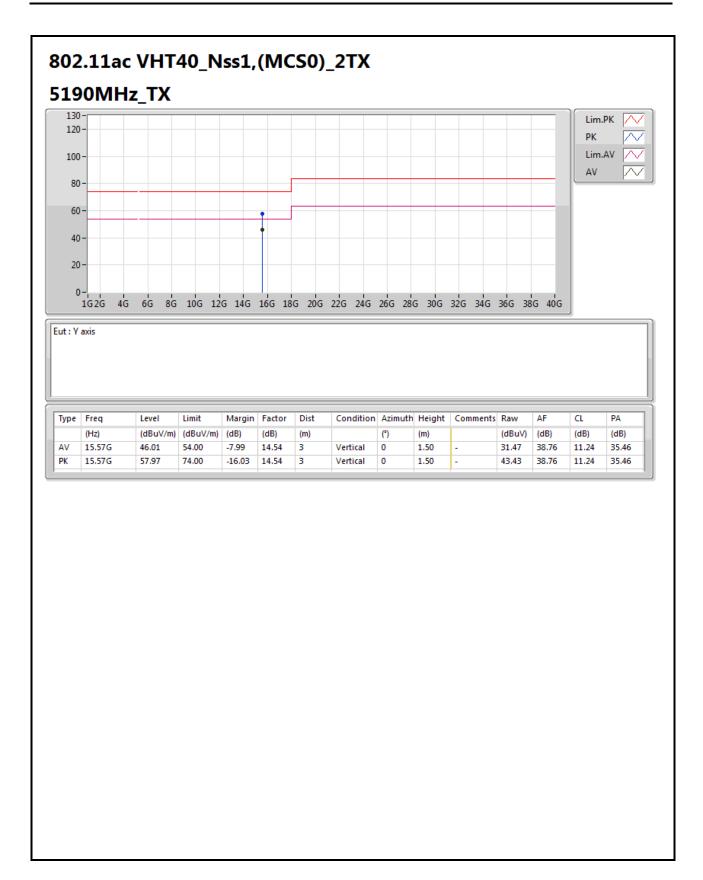
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E55 of E78





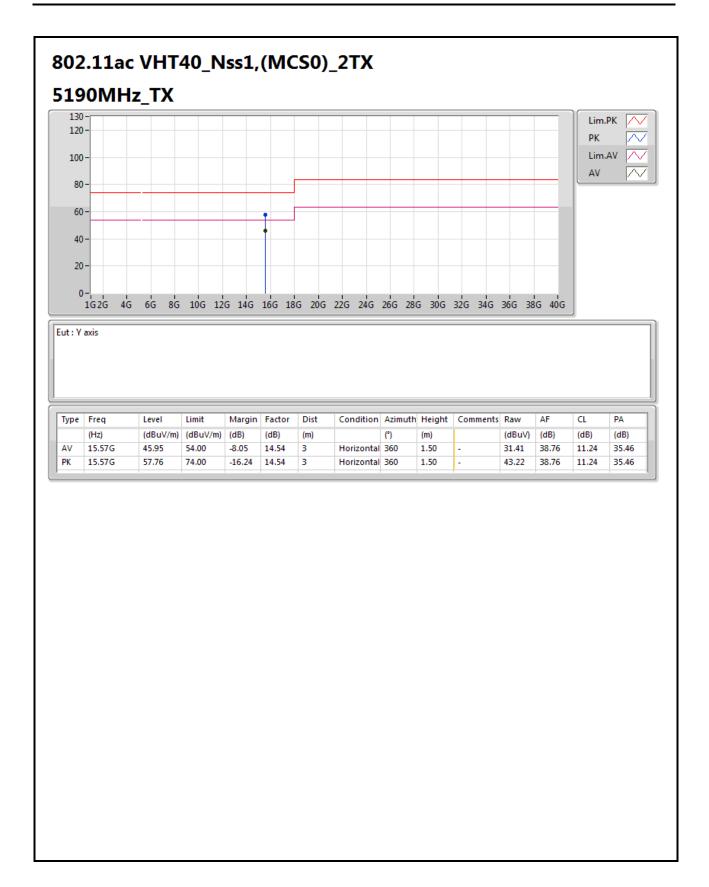
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E56 of E78





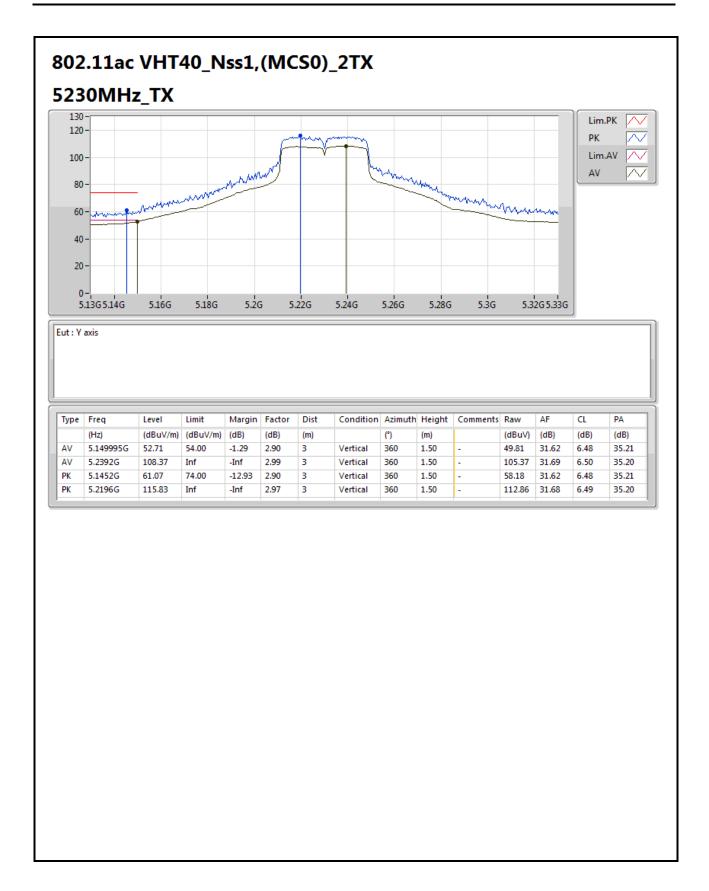
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E57 of E78





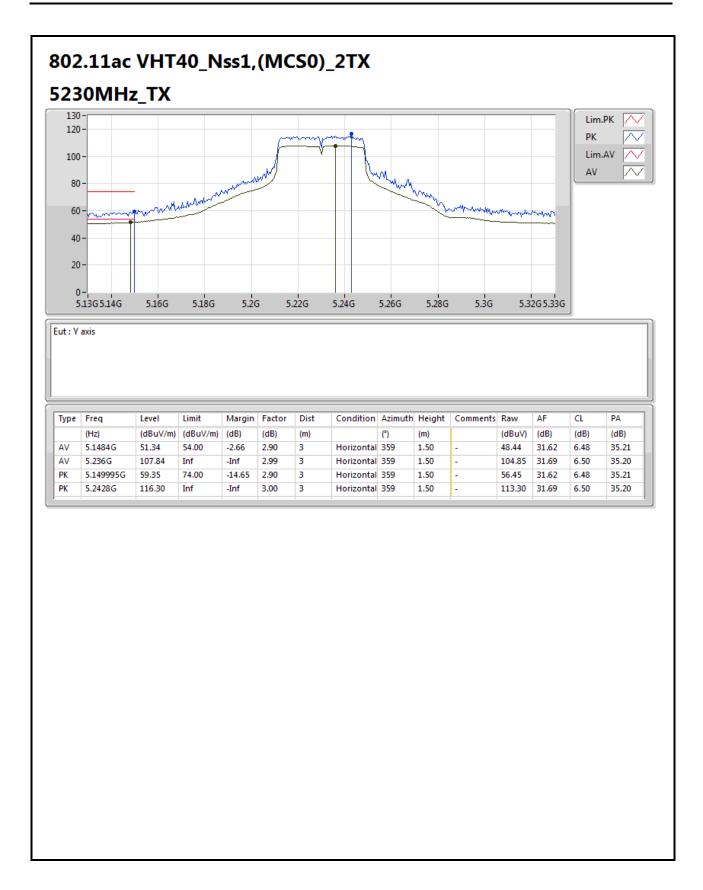
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E58 of E78





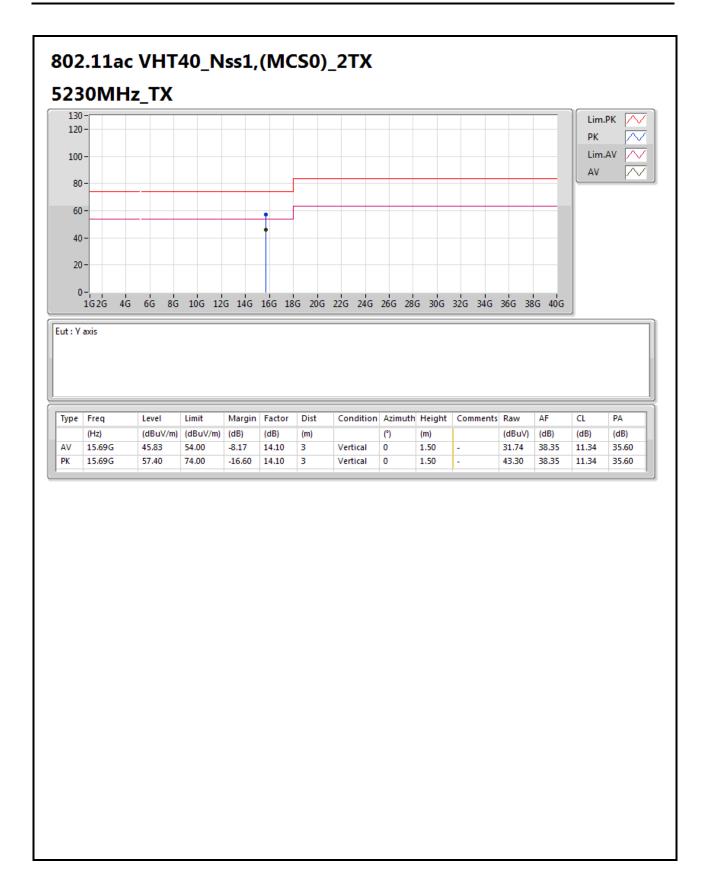
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E59 of E78





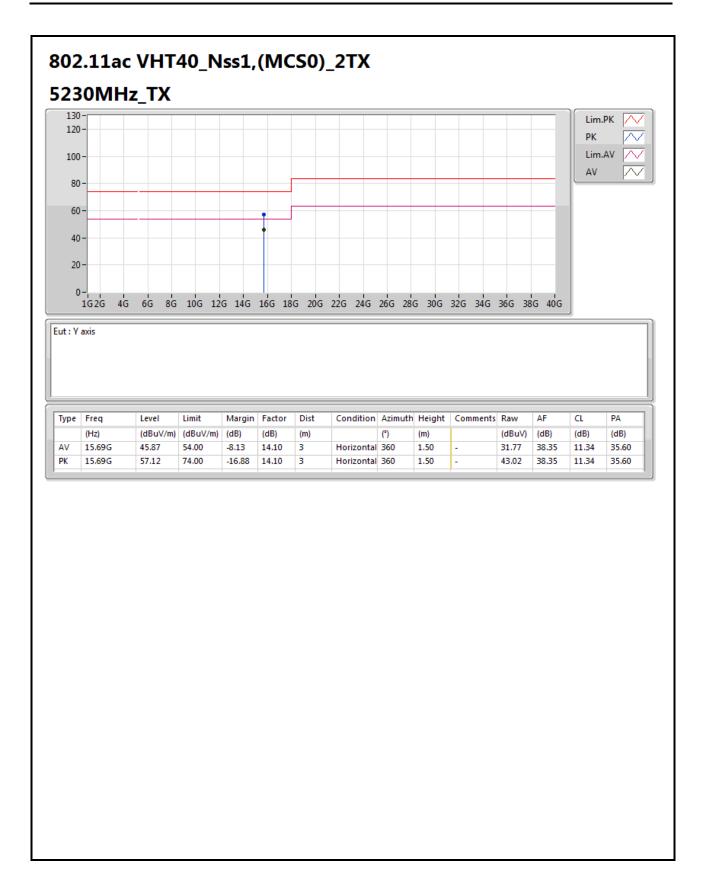
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E60 of E78





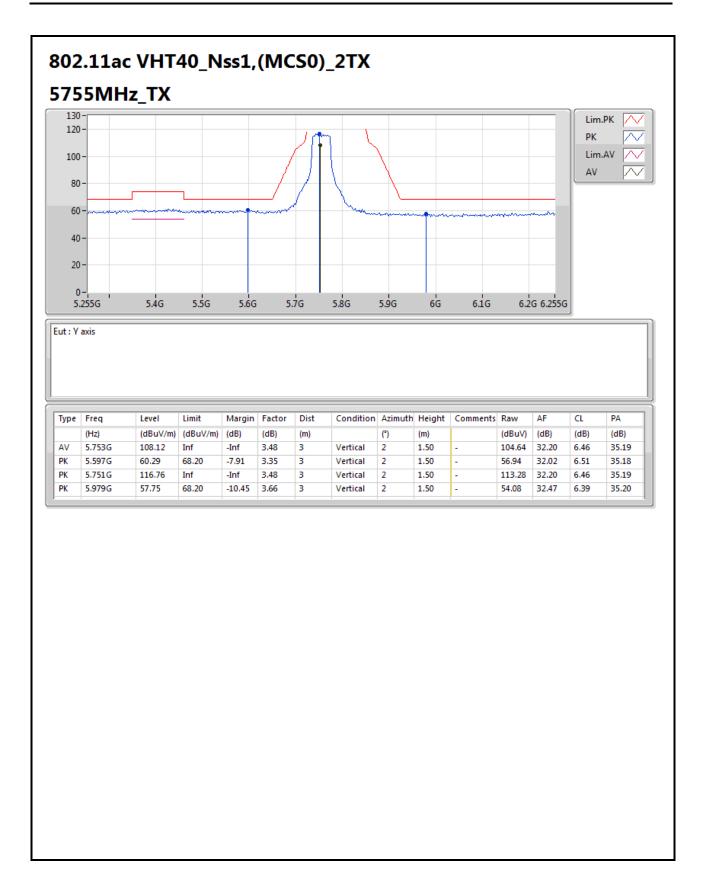
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E61 of E78





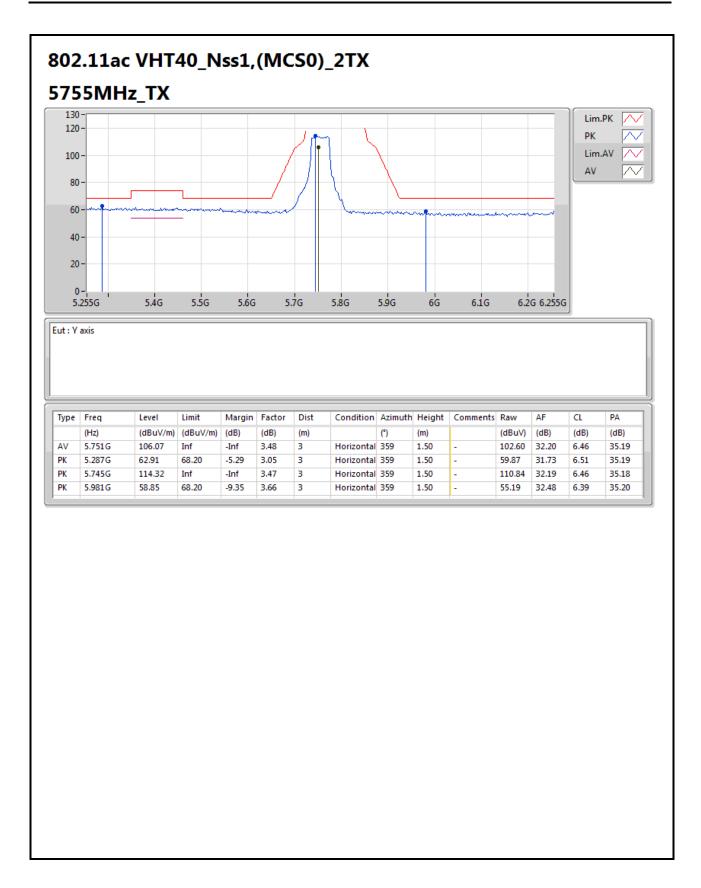
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E62 of E78





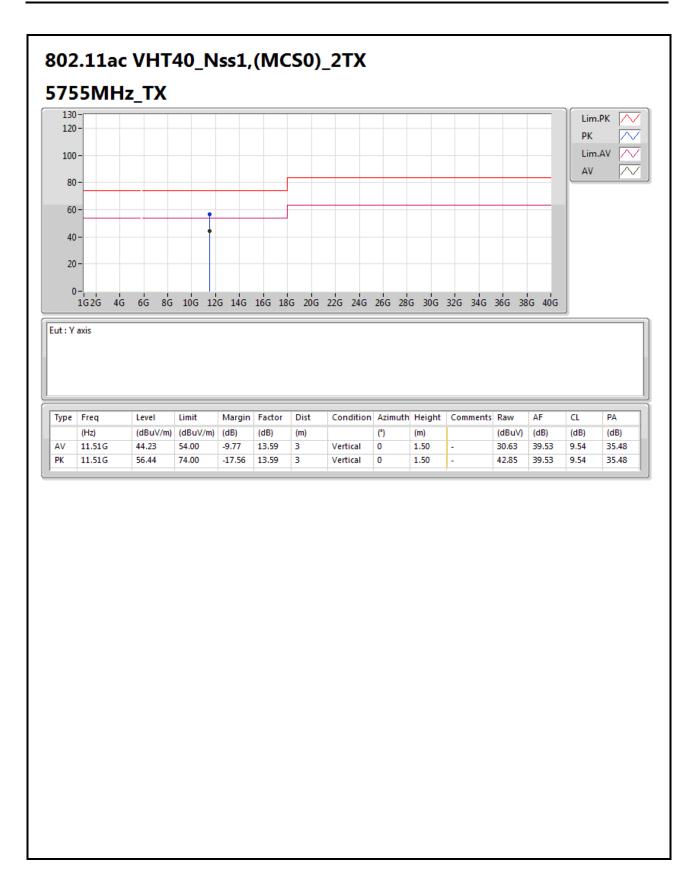
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E63 of E78





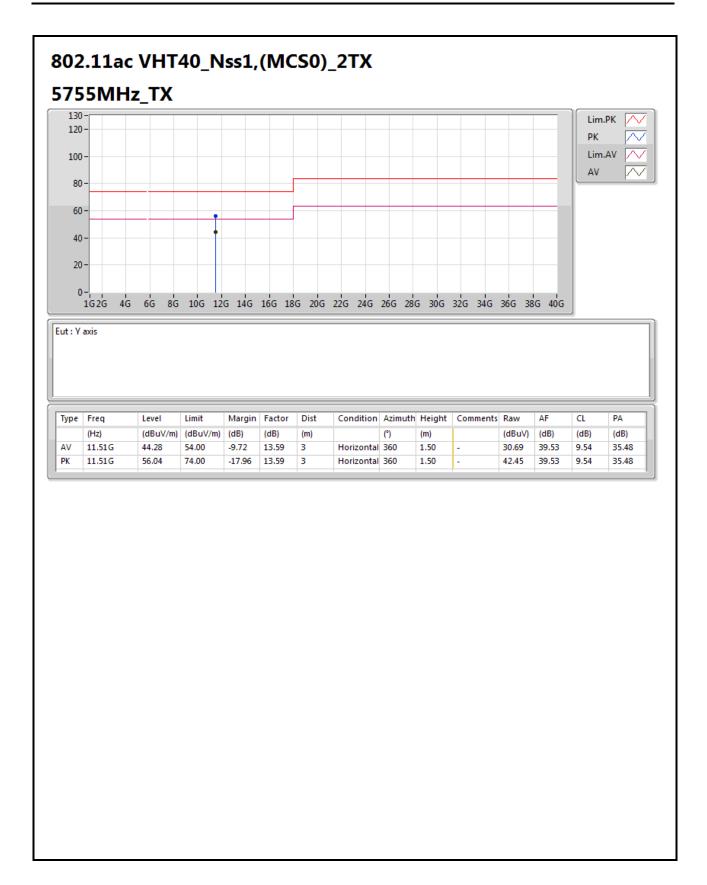
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E64 of E78





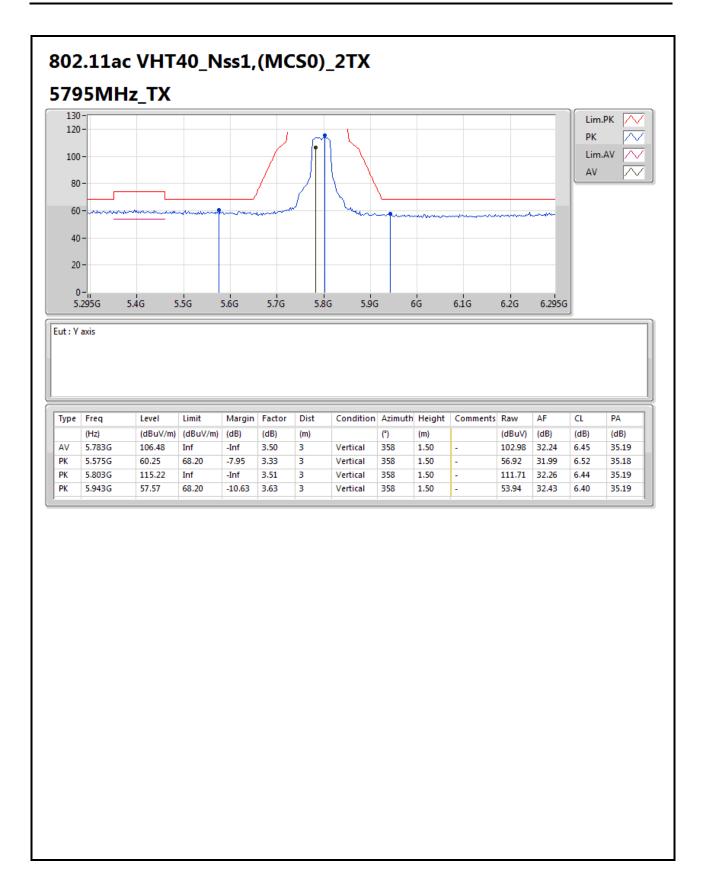
TEL: 886-3-327-3456 FAX: 886-3-327-0973





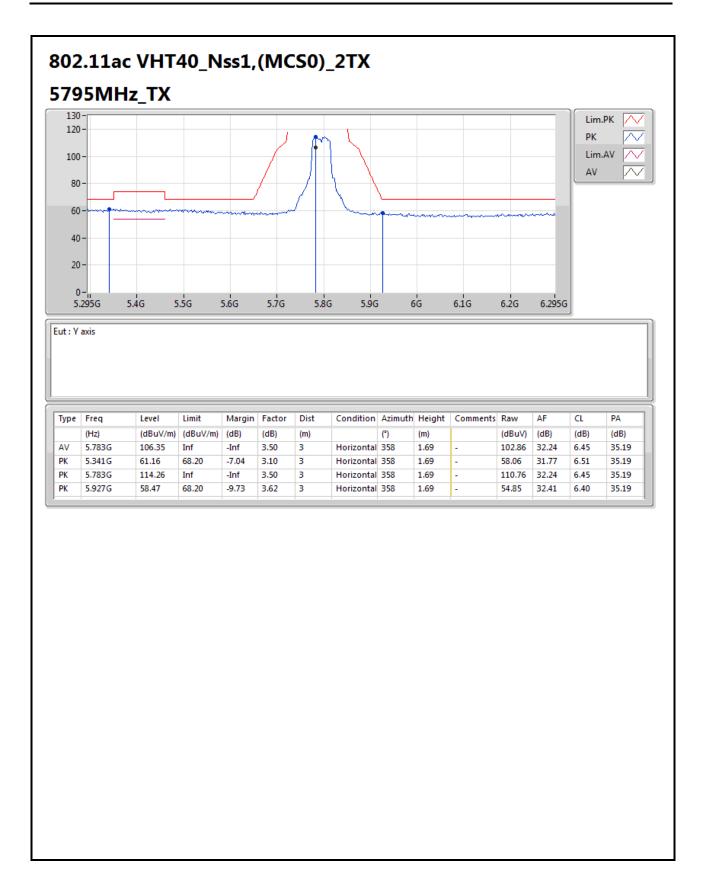
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E66 of E78





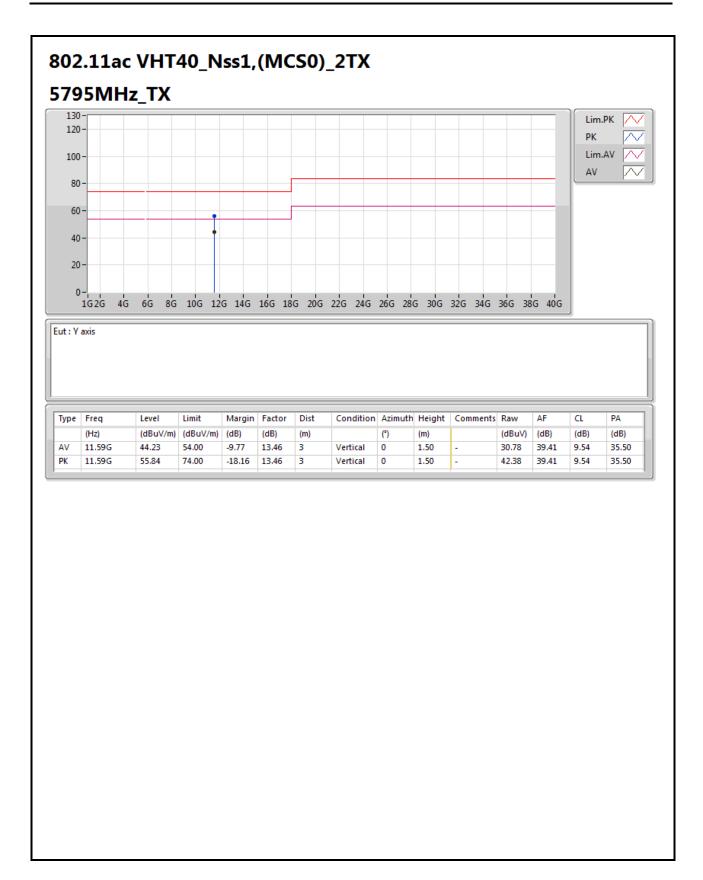
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E67 of E78





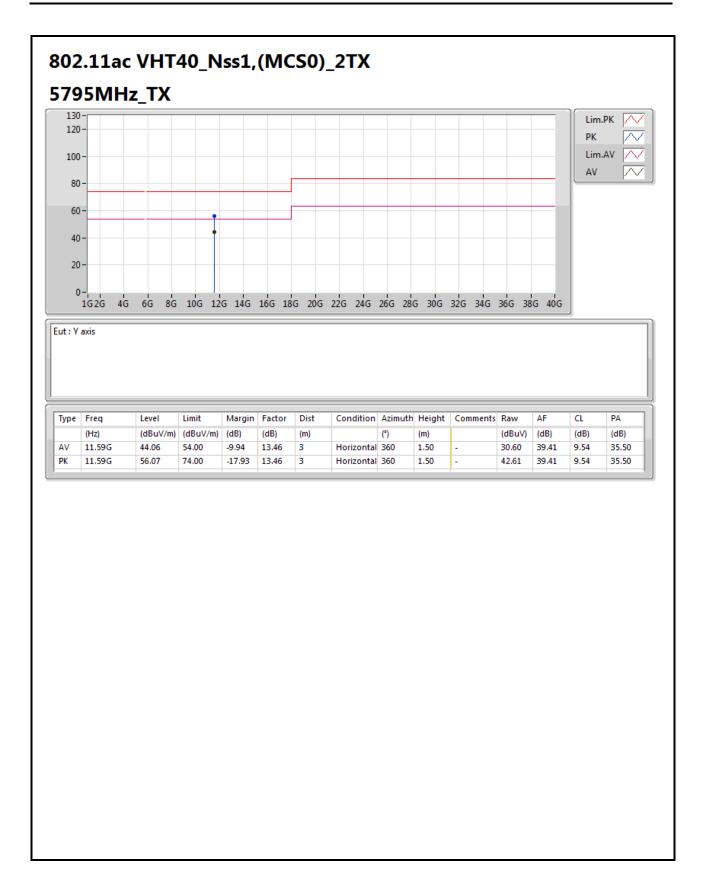
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E68 of E78





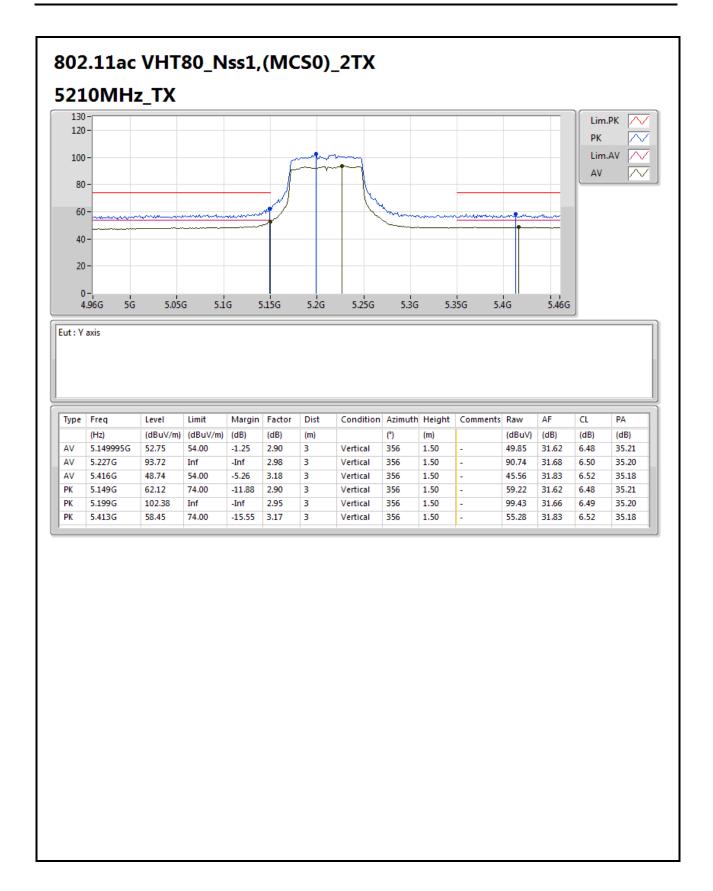
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E69 of E78





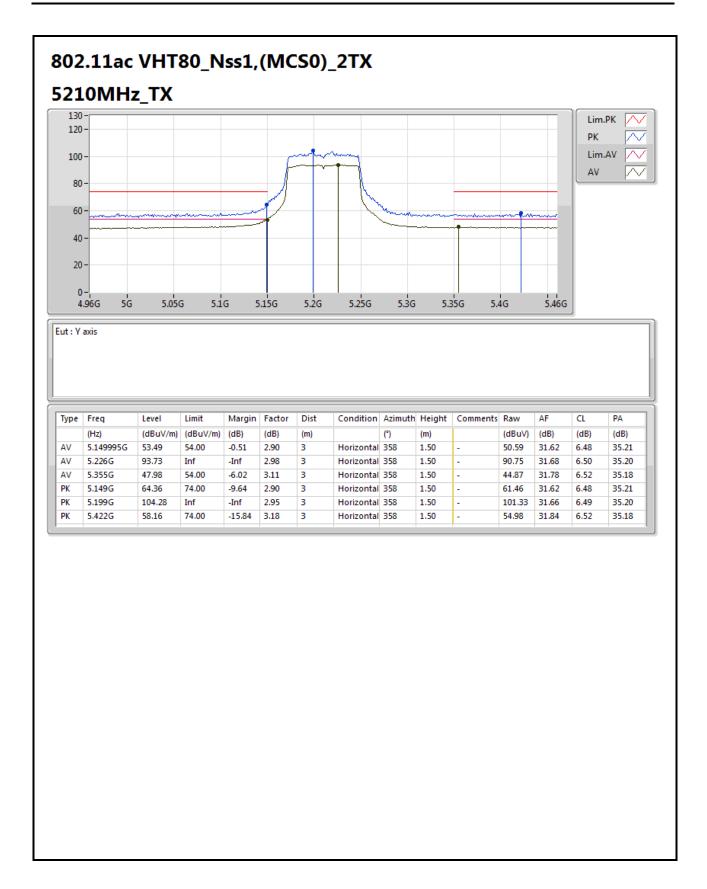
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E70 of E78





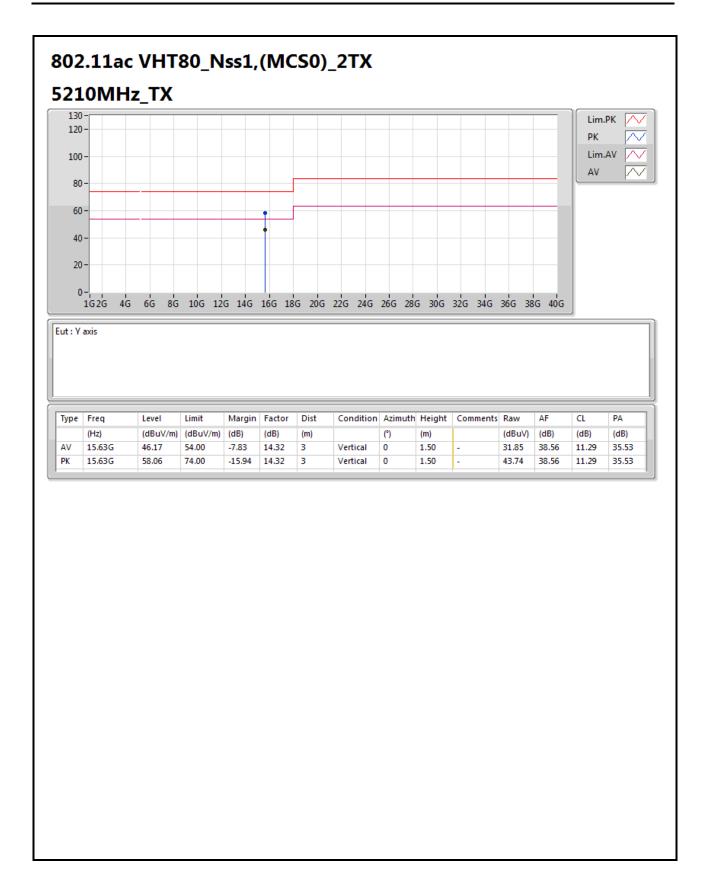
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E71 of E78





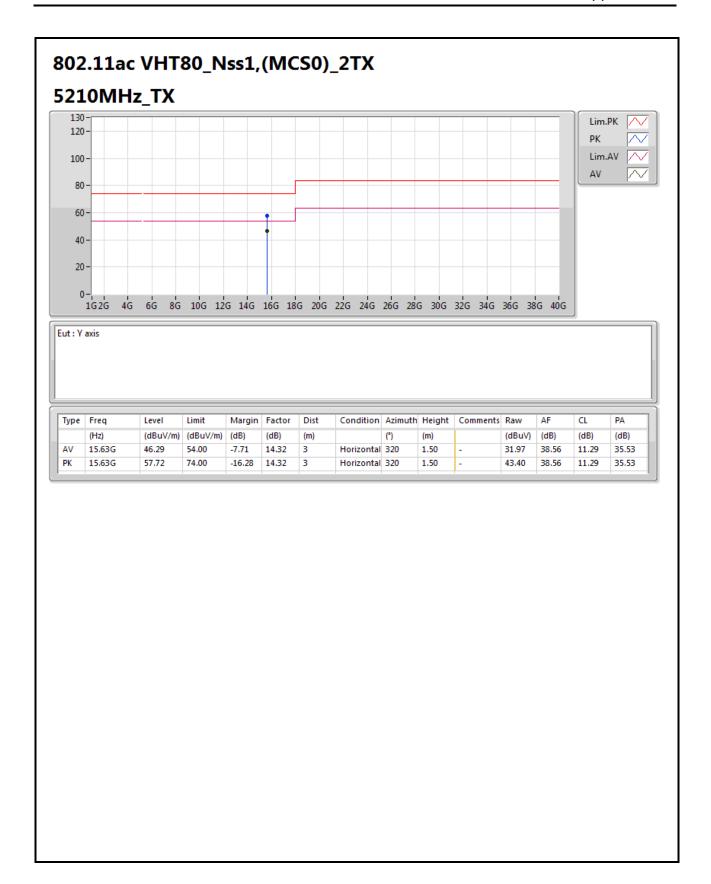
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E72 of E78





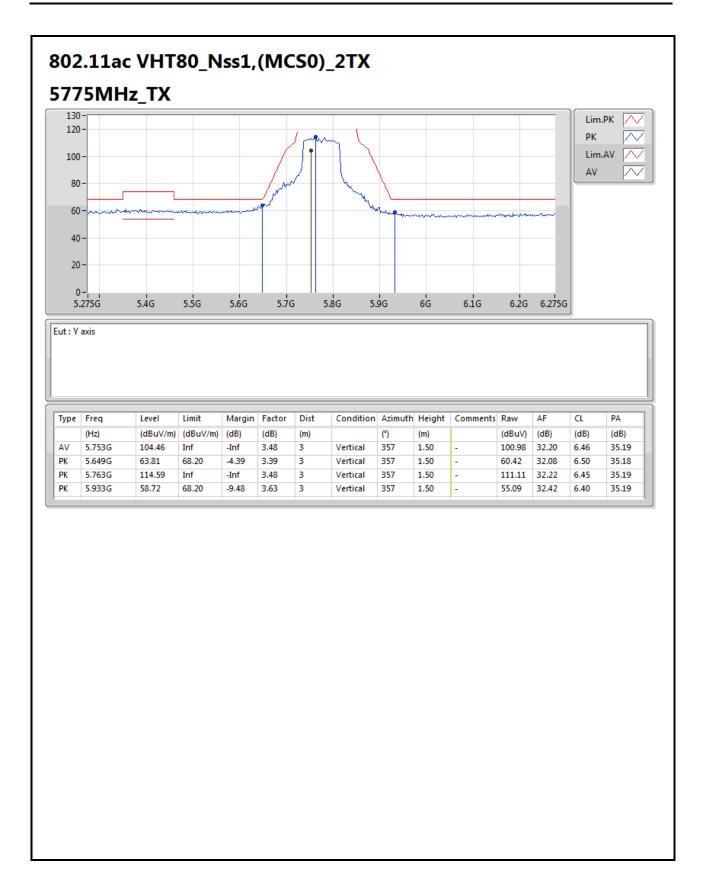
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E73 of E78





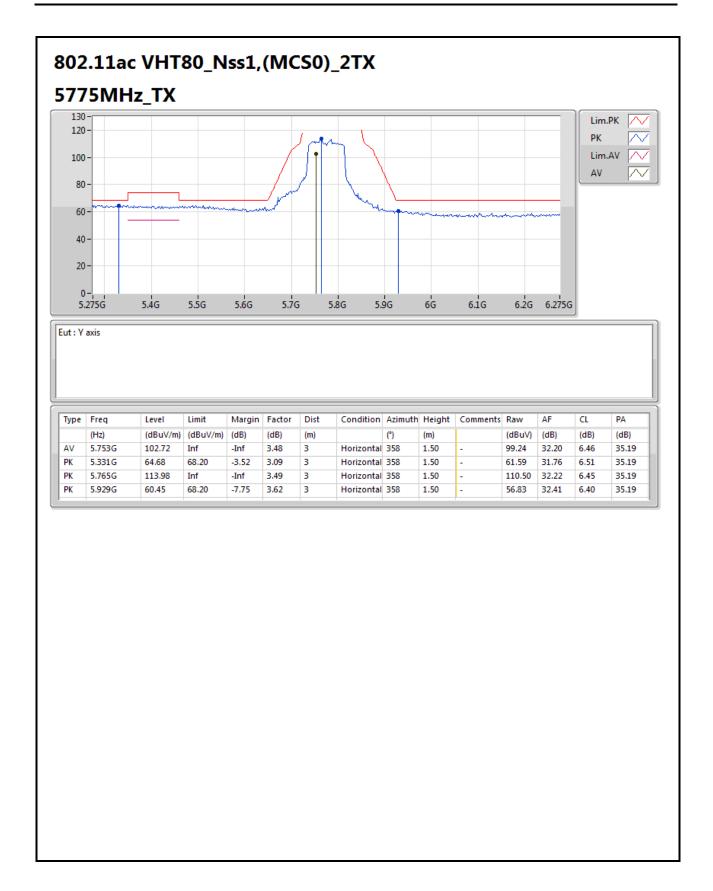
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E74 of E78





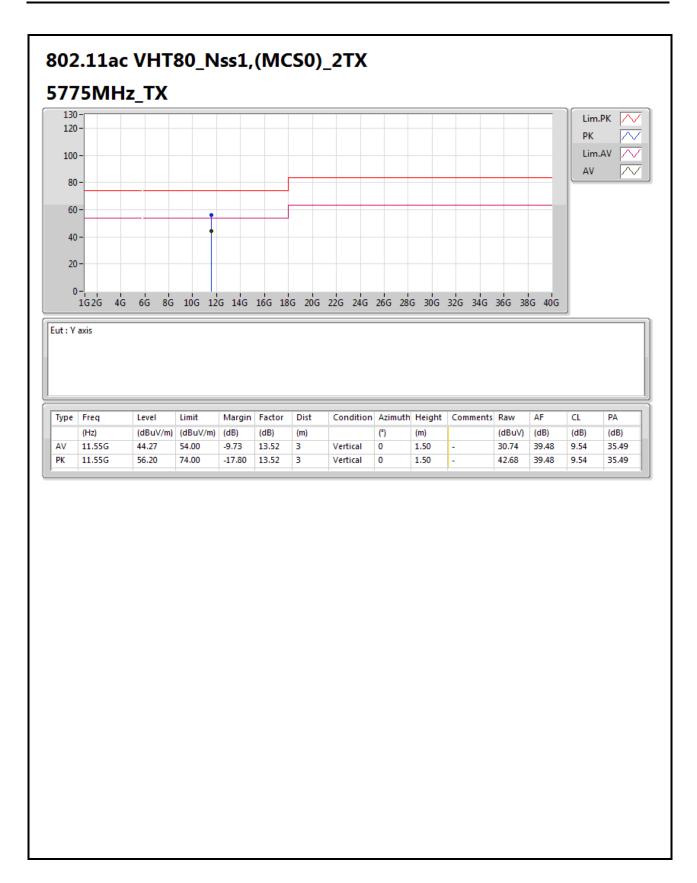
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E75 of E78





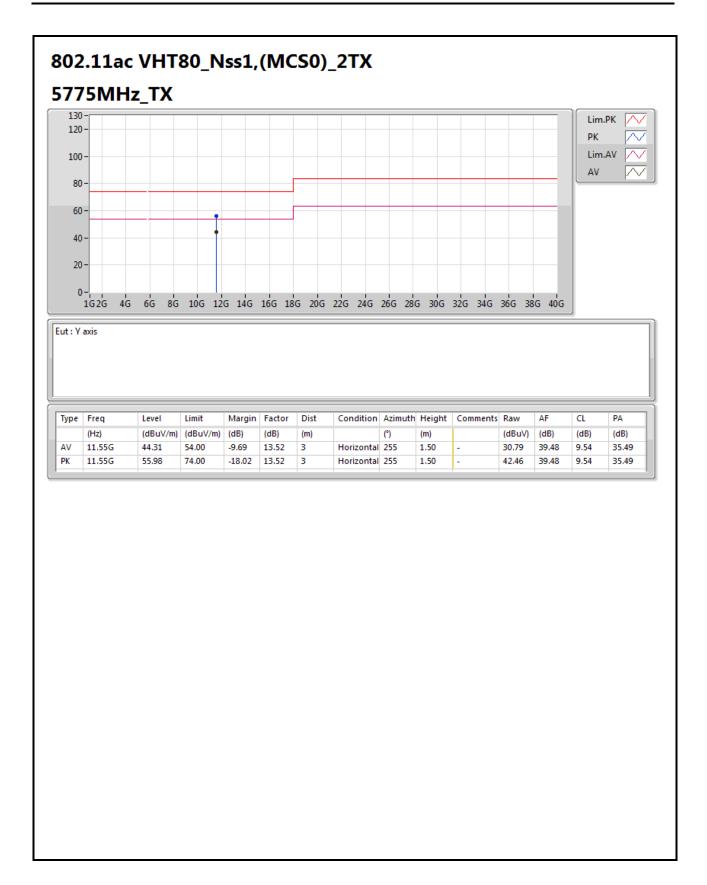
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E76 of E78





TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E77 of E78





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



Frequency Stability Result

Appendix F

Summary

Mode	Result	Ch	Center	ppm	Limit	Port	Remark
		(Hz)	(Hz)		(ppm)		
802.11a_Nss1,(6Mbps)_2TX	-	-	-	=	-	-	-
5.725-5.85GHz	Pass	5.785G	5.78505482G	9.477	20	1	10 min

SPORTON INTERNATIONAL INC. Page No. : F1 of F3

TEL: 886-3-327-3456 FAX: 886-3-327-0973 781425



Frequency Stability Result

Appendix F

Result

Result Mode	Result	Ch	Center	ppm	Limit	Port	Remark
		(Hz)	(Hz)	•••	(ppm)		
802.11a_Nss1,(6Mbps)_2TX	-	-	-	=	-	-	-
5785MHz40°C	Pass	5.785G	5.78501741G	3.009	20	1	0 min
5785MHz40°C	Pass	5.785G	5.78501739G	3.006	20	1	2 min
5785MHz40°C	Pass	5.785G	5.78501739G	3.006	20	1	5 min
5785MHz40°C	Pass	5.785G	5.7850174G	3.007	20	1	10 min
5785MHz30°C	Pass	5.785G	5.78502593G	4.482	20	1	0 min
5785MHz30°C	Pass	5.785G	5.7850259G	4.478	20	1	2 min
5785MHz30°C	Pass	5.785G	5.7850259G	4.478	20	1	5 min
5785MHz30°C	Pass	5.785G	5.78502588G	4.474	20	1	10 min
5785MHz20°C	Pass	5.785G	5.78501904G	3.291	20	1	0 min
5785MHz20°C	Pass	5.785G	5.78501905G	3.293	20	1	2 min
 5785MHz20°C	Pass	5.785G	5.78501906G	3.294	20	1	5 min
5785MHz -20°C	Pass	5.785G	5.78501903G	3.29	20	1	10 min
 5785MHz -10°C	Pass	5.785G	5.78501286G	2.223	20	1	0 min
5785MHz10°C	Pass	5.785G	5.78501283G	2.218	20	1	2 min
5785MHz10°C	Pass	5.785G	5.78501283G	2.218	20	1	5 min
5785MHz10°C	Pass	5.785G	5.78501284G	2.219	20	1	10 min
 5785MHz_0°C	Pass	5.785G	5.78500839G	1.45	20	1	0 min
 5785MHz_0°C	Pass	5.785G	5.78500838G	1.449	20	1	2 min
 5785MHz_0°C	Pass	5.785G	5.78500838G	1.448	20	1	5 min
5785MHz_0°C	Pass	5.785G	5.78500835G	1.443	20	1	10 min
5785MHz_10°C	Pass	5.785G	5.78500303G	0.524	20	1	0 min
5785MHz_10°C	Pass	5.785G	5.78500299G	0.517	20	1	2 min
5785MHz_10°C	Pass	5.785G	5.78500299G	0.516	20	1	5 min
5785MHz_10°C	Pass	5.785G	5.78500297G	0.513	20	1	10 min
5785MHz_20°C	Pass	5.785G	5.78499505G	0.856	20	1	0 min
5785MHz_20°C	Pass	5.785G	5.78499504G	0.858	20	1	2 min
5785MHz_20°C	Pass	5.785G	5.78499501G	0.863	20	1	5 min
5785MHz_20°C	Pass	5.785G	5.78499501G	0.863	20	1	10 min
5785MHz_30°C	Pass	5.785G	5.78498501G	2.591	20	1	0 min
5785MHz_30°C	Pass	5.785G	5.784985G	2.593	20	1	2 min
5785MHz_30°C	Pass	5.785G	5.78498499G	2.595	20	1	5 min
5785MHz_30°C	Pass	5.785G	5.78498498G	2.596	20	1	10 min
5785MHz_40°C	Pass	5.785G	5.7849859G	2.438	20	1	0 min
5785MHz_40°C	Pass	5.785G	5.78498591G	2.436	20	1	2 min
5785MHz_40°C	Pass	5.785G	5.78498593G	2.432	20	1	5 min
5785MHz_40°C	Pass	5.785G	5.78498592G	2.433	20	1	10 min
5785MHz_50°C	Pass	5.785G	5.78499192G	1.397	20	1	0 min
5785MHz_50°C	Pass	5.785G	5.78499192G	1.396	20	1	2 min
5785MHz_50°C	Pass	5.785G	5.78499194G	1.394	20	1	5 min
5785MHz_50°C	Pass	5.785G	5.78499195G	1.392	20	1	10 min
5785MHz_60°C	Pass	5.785G	5.78500613G	1.059	20	1	0 min
5785MHz_60°C	Pass	5.785G	5.78500615G	1.063	20	1	2 min
5785MHz_60°C	Pass	5.785G	5.78500619G	1.07	20	1	5 min

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : F2 of F3



Frequency Stability Result

Appendix F

781425

Mode	Result	Ch	Center	ppm	Limit	Port	Remark
		(Hz)	(Hz)		(ppm)		
5785MHz_60°C	Pass	5.785G	5.78500622G	1.076	20	1	10 min
5785MHz_70°C	Pass	5.785G	5.78505462G	9.442	20	1	0 min
5785MHz_70°C	Pass	5.785G	5.78505468G	9.453	20	1	2 min
5785MHz_70°C	Pass	5.785G	5.78505477G	9.467	20	1	5 min
5785MHz_70°C	Pass	5.785G	5.78505482G	9.477	20	1	10 min
5785MHz_138V	Pass	5.785G	5.78499466G	0.922	20	1	0 min
5785MHz_138V	Pass	5.785G	5.78499464G	0.926	20	1	2 min
5785MHz_138V	Pass	5.785G	5.78499462G	0.929	20	1	5 min
5785MHz_138V	Pass	5.785G	5.78499461G	0.932	20	1	10 min
5785MHz_120V	Pass	5.785G	5.78499481G	0.897	20	1	0 min
5785MHz_120V	Pass	5.785G	5.78499478G	0.902	20	1	2 min
5785MHz_120V	Pass	5.785G	5.78499478G	0.902	20	1	5 min
5785MHz_120V	Pass	5.785G	5.78499476G	0.905	20	1	10 min
5785MHz_102V	Pass	5.785G	5.78499452G	0.947	20	1	0 min
5785MHz_102V	Pass	5.785G	5.7849945G	0.95	20	1	2 min
5785MHz_102V	Pass	5.785G	5.7849945G	0.95	20	1	5 min
5785MHz_102V	Pass	5.785G	5.78499448G	0.955	20	1	10 min

SPORTON INTERNATIONAL INC. Page No. : F3 of F3

TEL: 886-3-327-3456 FAX: 886-3-327-0973