





FCC Test Report

FCC ID : 2AIBX-NIU5L

Equipment : NIU5 WiFi / BLE Module

Brand Name : Electrolux

Model Name : NIU5-50

Applicant : ELECTROLUX ITALIA S.p.A.

Corso Lino Zanussi 24 / 33080 Porcia (PN), Italy

Manufacturer : LITE-ON Technology (Changzhou) CO.LTD

> No.88, Yanghu Road, Wujin Hi-Tech Industrial Development Zone, Jiangsu Province, China

Zip Code: 213166

: 47 CFR FCC Part 15.407 Standard

The product was received on Oct. 31, 2018, and testing was started from Nov. 19, 2018 and completed on Nov. 21, 2018. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

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

Approved by: Phoenix Chen

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

TEL: 886-3-3273456 : 1 of 27 Page Number

FAX: 886-3-3270973 Issued Date : Jan. 10, 2019

Report Template No.: HE1-D1 Ver2.1 Report Version : 01





Table of Contents

HIST	ORY OF THIS TEST REPORT	3
SUM	MARY OF TEST RESULT	4
1	GENERAL DESCRIPTION	5
1.1	Information	5
1.2	Testing Applied Standards	8
1.3	Testing Location Information	8
1.4	Measurement Uncertainty	8
2	TEST CONFIGURATION OF EUT	9
2.1	Test Condition	9
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	16
3.3	Maximum Conducted Output Power	17
3.4	Peak Power Spectral Density	19
3.5	Unwanted Emissions	21
3.6	Test Equipment and Calibration Data	26

APPENDIX A. TEST RESULTS OF AC POWER-LINE CONDUCTED EMISSIONS

APPENDIX B. TEST RESULTS OF EMISSION BANDWIDTH

APPENDIX C. TEST RESULTS OF MAXIMUM CONDUCTED OUTPUT POWER

APPENDIX D. TEST RESULTS OF PEAK POWER SPECTRAL DENSITY

APPENDIX E. TEST RESULTS OF UNWANTED EMISSIONS

APPENDIX F. TEST PHOTOS

PHOTOGRAPHS OF EUT V01

FAX: 886-3-3270973

Report Template No.: HE1-D1 Ver2.1

FCC ID: 2AIBX-NIU5L

TEL: 886-3-3273456

Page Number

: 2 of 27

Issued Date

: Jan. 10, 2019

Report Version

: 01

Report No.: FR8O3112AN



History of this test report

Report No.	Version	Description	Issued Date
FR8O3112AN	01	Initial issue of report	Jan. 10, 2019

TEL: 886-3-3273456 Page Number : 3 of 27
FAX: 886-3-3270973 Issued Date : Jan. 10, 2019

Report Template No.: HE1-D1 Ver2.1

FCC ID: 2AIBX-NIU5L

Report Version : 01

Report No.: FR8O3112AN



Summary of Test Result

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

Declaration of Conformity:

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

Comments and explanations:

None

Reviewed by: Jackson Tsai

Report Producer: Jenny Yang

TEL: 886-3-3273456 Page Number : 4 of 27 : Jan. 10, 2019 FAX: 886-3-3270973 Issued Date

Report Template No.: HE1-D1 Ver2.1 Report Version : 01



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		5180-5240	36-48 [4]
5250-5350		5260-5320	52-64 [4]
5470-5725	a, n (HT20)	5500-5700	100-140 [8]
Straddle 5720		5720	144 [1]
5725-5850		5745-5825	149-165 [5]

Report No.: FR8O3112AN

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	1TX
5.25-5.35GHz	802.11a	20	1TX
5.47-5.725GHz	802.11a	20	1TX
5.725-5.85GHz	802.11a	20	1TX
5.15-5.25GHz	802.11n HT20	20	1TX
5.25-5.35GHz	802.11n HT20	20	1TX
5.47-5.725GHz	802.11n HT20	20	1TX
5.725-5.85GHz	802.11n HT20	20	1TX

Note:

• 11a, HT20 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.

• BWch is the nominal channel bandwidth.

TEL: 886-3-3273456 Page Number : 5 of 27
FAX: 886-3-3270973 Issued Date : Jan. 10, 2019

Report Template No.: HE1-D1 Ver2.1 Report Version : 01



FCC Test Report

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector
1	LITE-ON	-	Printed Antenna	-
2	LITE-ON	-	Printed Antenna	-

Report No.: FR8O3112AN

Ant.	Port	Gain (dBi)			
Ant.	Port	2.4G	5G	ВТ	
1	1	1.7	3.2	-	
2	1	-	-	1.5	

Note 1: The EUT has two antennas.

For 2.4GHz function:

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

Only Ant. 1 (port 1) can be used as transmitting/receiving antenna.

For 5GHz function:

For IEEE 802.11 a/an mode (1TX/1RX)

Only Ant. 1 (port 1) can be used as transmitting/receiving antenna.

For BT function:

For IEEE 802.15.1 Bluetooth mode (1TX/1RX)

Only Ant. 2 (port 1) can be used as transmitting/receiving antenna.

TEL: 886-3-3273456 Page Number : 6 of 27
FAX: 886-3-3270973 Issued Date : Jan. 10, 2019

Report Template No.: HE1-D1 Ver2.1 Report Version : 01



FCC Test Report No.: FR803112AN

1.1.3 EUT Information

	Operational Condition				
EUT	From host system				
E117	Function		Outdoor		Indoor
EU	runction		Fixed P2P	\boxtimes	Client
Bea	mforming Function	ı 🗆	With beamforming	\boxtimes	Without beamforming
Wea	ather Band		With 5600~5650MHz	\boxtimes	Without 5600~5650MHz
			Туре	of EU	І Т
\boxtimes	Stand-alone				
	Combined (EUT wh	ere the	radio part is fully integ	grated	within another device)
	Combined Equipme	nt - Br	and Name / Model No.	:	
	Plug-in radio (EUT intended for a variety of host systems)				
	Host System - Brand Name / Model No.:				
	Other:				

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.985	0.066	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11n HT20	0.983	0.074	n/a (DC>=0.98)	n/a (DC>=0.98)

TEL: 886-3-3273456 Page Number : 7 of 27
FAX: 886-3-3270973 Issued Date : Jan. 10, 2019

Report Template No.: HE1-D1 Ver2.1 Report Version : 01



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 v02r01

Testing Location Information 1.3

Testing Location					
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	on 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	TH06-HY	Dexter	25°C / 57%	21/Nov/2018
Radiated	03CH09-HY	Kevin	21.6°C / 64%	20/Nov/2018
AC Conduction	CO04-HY	Andy	23.3°C / 61%	21/Nov/2018

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)	3.54 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	1.6 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.9 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.3 dB	Confidence levels of 95%
Temperature	0.7 °C	Confidence levels of 95%
Humidity	4 %	Confidence levels of 95%

TEL: 886-3-3273456 : 8 of 27 Page Number FAX: 886-3-3270973 Issued Date : Jan. 10, 2019

Report Template No.: HE1-D1 Ver2.1

FCC ID: 2AIBX-NIU5L

Report Version : 01



Test Configuration of EUT 2

2.1 **Test Condition**

Condition Item	Abbreviation/Remark	Remark
RF Conducted	Abbreviation	Remark
TnomVnom	Tnom	20°C
	Vnom	120V

Test Channel Mode 2.2

Test Software Version	QSPR 5.0-00163
-----------------------	----------------

Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX	-
5180MHz	16
5200MHz	16
5240MHz	16
5260MHz	16
5300MHz	19
5320MHz	19
5500MHz	17
5580MHz	16
5700MHz	17
5720MHz Straddle 5.47-5.725GHz	16.5
5720MHz Straddle 5.725-5.85GHz	16.5
5745MHz	18
5785MHz	18
5825MHz	16.5
802.11n HT20_Nss1,(MCS0)_1TX	-
5180MHz	18
5200MHz	17
5240MHz	17
5260MHz	16
5300MHz	16.5
5320MHz	19
5500MHz	17

TEL: 886-3-3273456 Page Number : 9 of 27 FAX: 886-3-3270973 Issued Date : Jan. 10, 2019

Report Version

: 01

Report Template No.: HE1-D1 Ver2.1



Mode	Power Setting
5580MHz	15
5700MHz	16
5720MHz Straddle 5.47-5.725GHz	15.5
5720MHz Straddle 5.725-5.85GHz	15.5
5745MHz	16
5785MHz	17
5825MHz	16.5

The Worst Case Measurement Configuration 2.3

Т	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	USB mode	

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

Th	e Worst Case Mode for Fo	ollowing Conformance Te	sts
Tests Item	Unwanted Emissions		
Test Condition	regardless of spatial multi	antenna assembly (multiple plexing MIMO configuratior antenna gain of each anter	n), the radiated test should
Operating Mode < 1GHz	CTX		
1	USB mode		
Operating Mode > 1GHz	CTX		
	X Plane	Y Plane	Z Plane
Orthogonal Planes of EUT			
Worst Planes of EUT		V	

TEL: 886-3-3273456 Page Number : 10 of 27 FAX: 886-3-3270973 Issued Date : Jan. 10, 2019 Report Version : 01

Report Template No.: HE1-D1 Ver2.1



The Worst Case Mode for Following Conformance Tests		
Tests Item	Simultaneous Transmission Analysis	
Operating Mode	CTX	
1	Bluetooth+WLAN 2.4GHz	
2	Bluetooth+WLAN 5GHz	
Refer to Sporton Test Rep	port No.: FA8O3112 for Co-location RF Exposure Evaluation.	

2.4 Support Equipment

	Support Equipment - RF Conducted			
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E5410	DoC
2	Adapter for NB	DELL	HA65NM130	DoC
3	AC Power Source	GW	APS-9102	-
4	Test Fixture	LITE-ON	WCBN3512A_EVB	-

Note: Support equipment No.4 was provided by customer, and it can be able to wake up the transmit/receive to complete the RF function test.

	Support Equipment – Radiated Emission				
No.	Equipment	Brand Name	Model Name	FCC ID	
1	Notebook	DELL	E5410	-	
2	Adapter	DELL	LA90PS0-00	-	
3	Test Fixture	LITE-ON	WCBN3512A_EVB	-	
4	USB Cable	-	-	-	
5	Mouse(USB)	DELL	MS 111-L	-	
6	iPod	APPLE	A1199	-	

Note: Support equipment No.3 was provided by customer, and it can be able to wake up the transmit/receive to complete the RF function test.

	Support Equipment – AC Conduction				
No.	Equipment	Brand Name	Model Name	FCC ID	
1	Notebook	DELL	E5410	-	
2	Adapter	DELL	AA90PM111	-	
3	Test Fixture	LITE-ON	WCBN3512A_EVB	-	
4	USB Cable	-	-	-	
5	Mouse(USB)	DELL	MS 111-L	-	
6	iPod	APPLE	A1199	-	

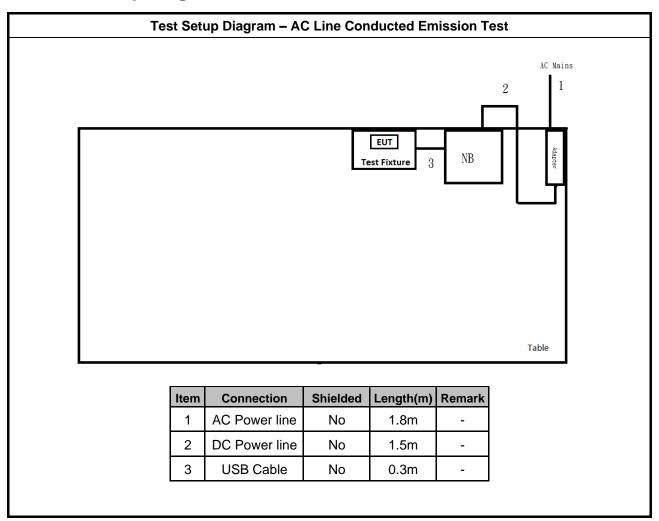
Note: Support equipment No.3 was provided by customer, and it can be able to wake up the transmit/receive to complete the RF function test.

TEL: 886-3-3273456 Page Number : 11 of 27
FAX: 886-3-3270973 Issued Date : Jan. 10, 2019

Report Template No.: HE1-D1 Ver2.1 Report Version : 01



Test Setup Diagram 2.5

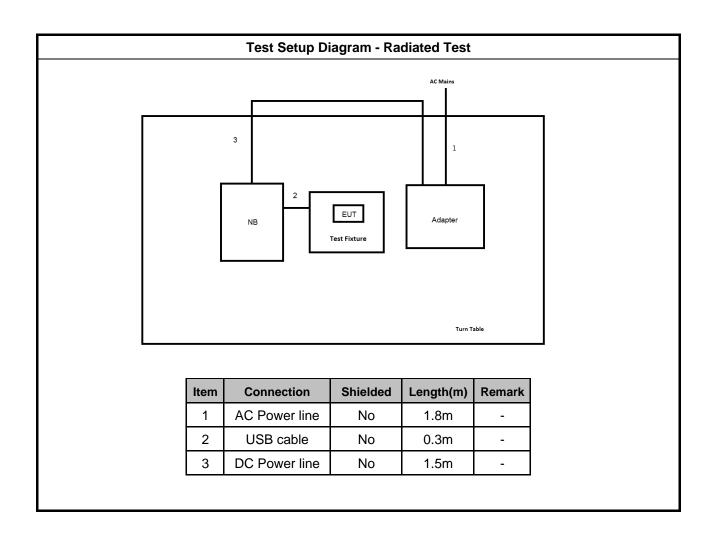


TEL: 886-3-3273456 Page Number : 12 of 27 : Jan. 10, 2019 FAX: 886-3-3270973 Issued Date

Report Version

: 01

Report Template No.: HE1-D1 Ver2.1



TEL: 886-3-3273456 Page Number : 13 of 27 FAX: 886-3-3270973 Issued Date : Jan. 10, 2019

: 01

Report Version Report Template No.: HE1-D1 Ver2.1



3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

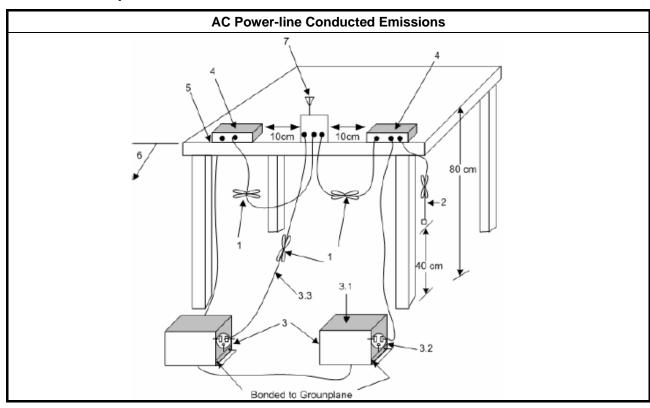
3.1.2 Measuring Instruments

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



TEL: 886-3-3273456 Page Number : 14 of 27
FAX: 886-3-3270973 Issued Date : Jan. 10, 2019

Report Version

: 01

Report Template No.: HE1-D1 Ver2.1



FCC Test Report

3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

TEL: 886-3-3273456 Page Number : 15 of 27
FAX: 886-3-3270973 Issued Date : Jan. 10, 2019

Report Template No.: HE1-D1 Ver2.1

FCC ID: 2AIBX-NIU5L

Report Version : 01

Report No.: FR8O3112AN



3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

Emission Bandwidth Limit					
UNII Devices					
☐ For the 5.15-5.25 GHz band, N/A					
☐ For the 5.25-5.35 GHz band, N/A					
☐ For the 5.47-5.725 GHz band, N/A					
For the 5.725-5.85 GHz band, 6 dB emission bandwidth ≥ 500kHz.					

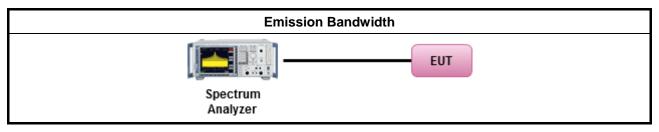
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

	Test Method						
•	For the emission bandwidth shall be measured using one of the options below:						
	Refer as KDB 789033, clause C for EBW and clause D for OBW measurement.						
	Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.						
	Refer as IC RSS-Gen, clause 6.7 for bandwidth testing.						

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

TEL: 886-3-3273456 Page Number : 16 of 27
FAX: 886-3-3270973 Issued Date : Jan. 10, 2019

Report Template No.: HE1-D1 Ver2.1 Report Version : 01



3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit

Report No.: FR8O3112AN

UNII Devices

- 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 $P_{Out} = 24 (G_{TX} 6)$.
- For the 5.725-5.85 GHz band:
 - Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 (G_{TX} 6)$.
 - Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W.

P_{Out} = maximum conducted output power in dBm,

 G_{TX} = the maximum transmitting antenna directional gain in dBi.

TEL: 886-3-3273456 Page Number : 17 of 27

FAX: 886-3-3270973 Issued Date : Jan. 10, 2019

Report Template No.: HE1-D1 Ver2.1 Report Version : 01



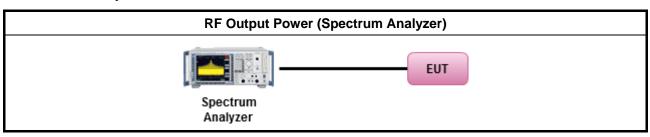
3.3.2 **Measuring Instruments**

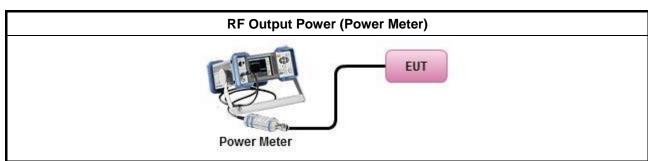
Refer a test equipment and calibration data table in this test report.

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							

3.3.4 **Test Setup**





Test Result of Maximum Conducted Output Power 3.3.5

Refer as Appendix C

TEL: 886-3-3273456 Page Number : 18 of 27 FAX: 886-3-3270973 Issued Date : Jan. 10, 2019

Report Template No.: HE1-D1 Ver2.1

FCC ID: 2AIBX-NIU5L

Report Version : 01



3.4 Peak Power Spectral Density

3.4.1 Peak Power Spectral Density Limit

Peak Power Spectral Density Limit

UNII Devices

- 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 $P_{Out} = 17 (G_{TX} 6)$.

Report No.: FR8O3112AN

- 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 ($G_{TX} 6$)..
- \boxtimes For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then PPSD= 11 ($G_{TX} 6$).
- \boxtimes For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then PPSD= 11 ($G_{TX} 6$).
- 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.

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.

3.4.2 Measuring Instruments

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

TEL: 886-3-3273456 Page Number : 19 of 27
FAX: 886-3-3270973 Issued Date : Jan. 10, 2019

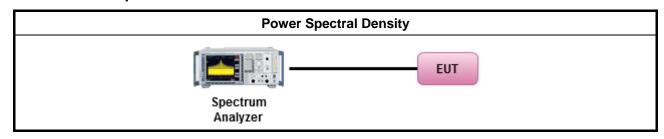
Report Template No.: HE1-D1 Ver2.1 Report Version : 01



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	y cycle ≥ 98%						
		Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging).						
	Duty	y 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						

Test Setup 3.4.4



Test Result of Peak Power Spectral Density 3.4.5

Refer as Appendix D

TEL: 886-3-3273456 Page Number : 20 of 27 FAX: 886-3-3270973 Issued Date : Jan. 10, 2019

Report Version

: 01

Report Template No.: HE1-D1 Ver2.1



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

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

TEL: 886-3-3273456 Page Number : 21 of 27 FAX: 886-3-3270973 Issued Date : Jan. 10, 2019

: 01

Report Template No.: HE1-D1 Ver2.1 Report Version

	Un-restricted band emissions above 1GHz Limit					
Operating Band	Limit					
5.15 - 5.25 GHz	6.15 - 5.25 GHz e.i.r.p27 dBm [68.2 dBuV/m@3m]					
5.25 - 5.35 GHz	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).

TEL: 886-3-3273456 Page Number : 22 of 27
FAX: 886-3-3270973 Issued Date : Jan. 10, 2019

Report Template No.: HE1-D1 Ver2.1 Report Version : 01

FCC Test Report No.: FR803112AN

3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method

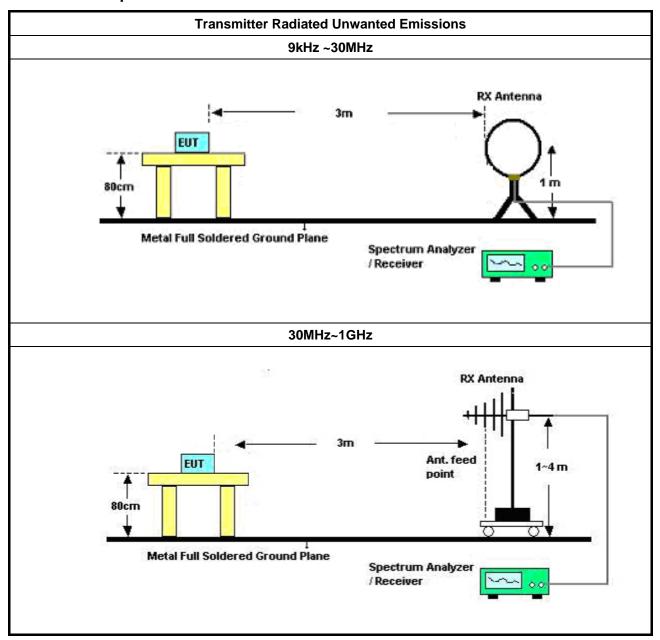
- Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, 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.

TEL: 886-3-3273456 Page Number : 23 of 27
FAX: 886-3-3270973 Issued Date : Jan. 10, 2019

Report Template No.: HE1-D1 Ver2.1 Report Version : 01



3.5.4 **Test Setup**

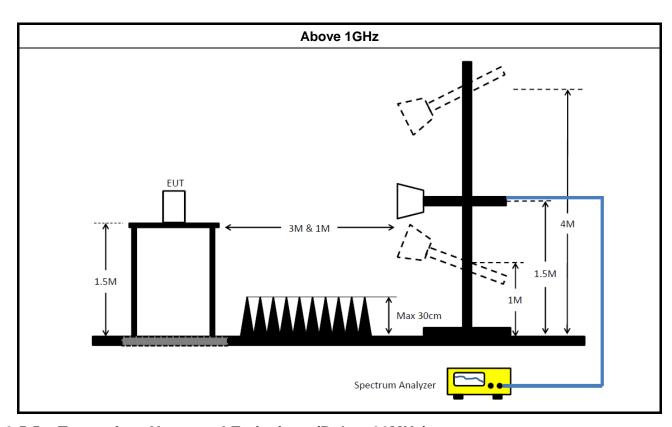


TEL: 886-3-3273456 Page Number : 24 of 27 FAX: 886-3-3270973 **Issued Date** : Jan. 10, 2019

Report Version

: 01

Report Template No.: HE1-D1 Ver2.1



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.

3.5.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E

TEL: 886-3-3273456 Page Number : 25 of 27
FAX: 886-3-3270973 Issued Date : Jan. 10, 2019

Report Version

: 01

Report Template No.: HE1-D1 Ver2.1



3.6 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	ESR	102051	9KHz ~ 3.6GHz	03/May/2018	02/May/2019
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	08/Nov/2018	07/Nov/2019
RF Cable-CON	MTJ	RG142	CB002-CO	9kHz ~ 200MHz	17/Sep/2018	16/Sep/2019
AC POWER	APC	AFC-11005G	F310050055	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9 kHz ~ 30 MHz	12/Oct/2018	11/Oct/2019

Report No.: FR8O3112AN

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	23/Apr/2018	22/Apr/2019
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz ~ 18GHz	14/Jun/2018	13/Jun/2019
Microwave Preamplifier	Agilent	8449B	3008A02096	1GHz ~ 26.5GHz	10/May/2018	09/May/2019
Amplifier	EMC	EMC9135	980232	9KHz~1GHz	27/Apr/2018	26/Apr/2019
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz ~ 44GHz	31/Jul/2018	30/Jul/2019
EMI Test Receiver	Rohde & Schwarz	ESCS 30	100354	9kHz ~ 2.75GHz	08/Dec/2017	07/Dec/2018
Bilog Antenna & 5dB Attenuator	TESEQ & MTJ	CBL6111D & MTJ6102-05	35418 / 3	30MHz~1GHz	02/Oct/2018	03/Oct/2019
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120 D 1534	1GHz~18GHz	30/Apr/2018	29/Apr/2019
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170614	18GHz~40GHz	09/Feb/2018	08/Feb/2019
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz ~ 40GHz	24/Aug/2018	23/Aug/2019
Loop Antenna	TESEQ	HLA 6120	31244	9k-30MHz	29/Mar/2018	28/Mar/2019
RF Cable-R03m	Jye Bao	RG142	CB031	9kHz ~ 1GHz	01/Feb/2018	31/Jan/2019
RF Cable-high	HUBER+SUHNER	SUCOFLEX104	SN 556626/4 + 556627	1GHz ~ 40GHz	14/Mar/2018	13/Mar/2019

TEL: 886-3-3273456 Page Number : 26 of 27
FAX: 886-3-3270973 Issued Date : Jan. 10, 2019

Report Template No.: HE1-D1 Ver2.1 Report Version : 01



FCC Test Report

Instrument for Conducted Test

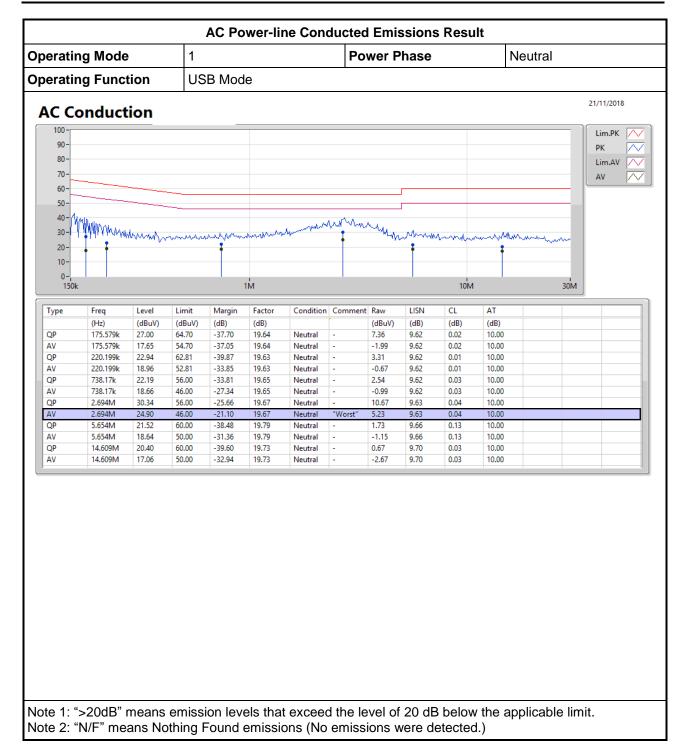
Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV40	101500	10Hz ~ 40GHz	18/Jul/2018	17/Jul/2019
Power Sensor	Anritsu	MA2411B	1339407	300MHz ~ 40GHz	17/Nov/2018	16/Nov/2019
Power Meter	Anritsu	ML2495A	1517010	300MHz ~ 40GHz	17/Nov/2018	16/Nov/2019
RF Cable-1.5m	HUBER+ SUHNER	SUCOFLEX_104	MY12585/4	30MHz ~ 26.5GHz	26/Jan/2018	25/Jan/2019
RF Cable-0.2m	HUBER+ SUHNER	SUCOFLEX_104	MY10710/4	30MHz ~ 26.5GHz	26/Jan/2018	25/Jan/2019
RF Cable-0.2m	HUBER+ SUHNER	SUCOFLEX_104	MY10709/4	30MHz ~ 26.5GHz	26/Jan/2018	25/Jan/2019
Signal Generator	R&S	SMB100A	175727	100kHz~40GHz	26/Oct/2018	25/Oct/2019

Report No.: FR8O3112AN

TEL: 886-3-3273456 Page Number : 27 of 27
FAX: 886-3-3270973 Issued Date : Jan. 10, 2019

Report Template No.: HE1-D1 Ver2.1 Report Version : 01

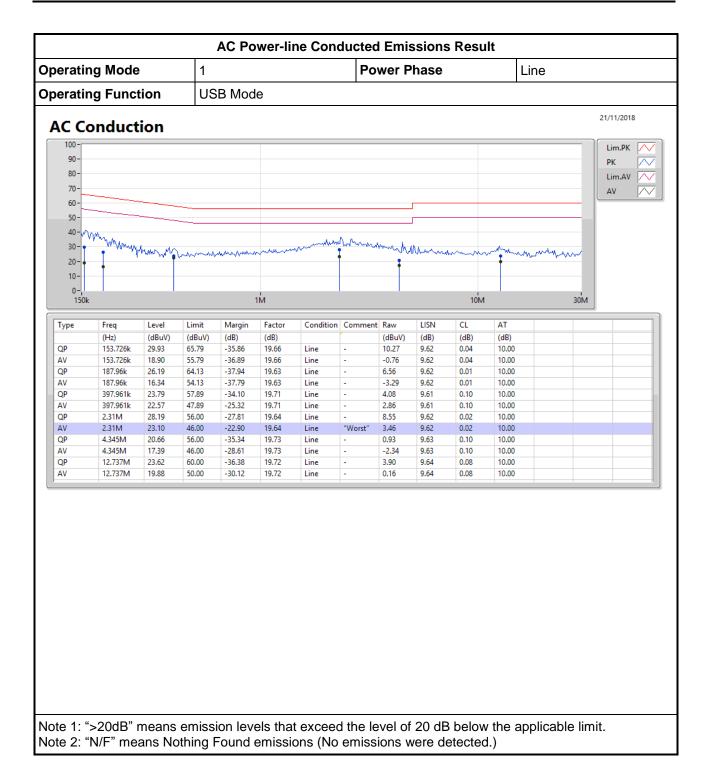




TEL: 886-3-327-3456 Page Number : A1 of A2

FAX: 886-3-327-0973





TEL: 886-3-327-3456 Page Number : A2 of A2

FAX: 886-3-327-0973



Appendix B EBW Result

Summary

Mode	Max-N dB	Max-OBW	ITU-Code	Min-N dB	Min-OBW
	(Hz)	(Hz)		(Hz)	(Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	22.9M	16.492M	16M5D1D	22.275M	16.467M
802.11n HT20_Nss1,(MCS0)_1TX	28.075M	17.666M	17M7D1D	23.25M	17.641M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	36.8M	16.942M	16M9D1D	21.975M	16.442M
802.11n HT20_Nss1,(MCS0)_1TX	36.6M	17.791M	17M8D1D	22.275M	17.616M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	40.725M	17.941M	17M9D1D	22.965M	13.973M
802.11n HT20_Nss1,(MCS0)_1TX	31M	17.766M	17M8D1D	20.76M	13.958M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	16.325M	20.015M	20M0D1D	3.1M	7.876M
802.11n HT20_Nss1,(MCS0)_1TX	17.275M	20.615M	20M6D1D	3.72M	5.337M

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. Page No. : B1 of B12

803112



EBW Result Appendix B

Result

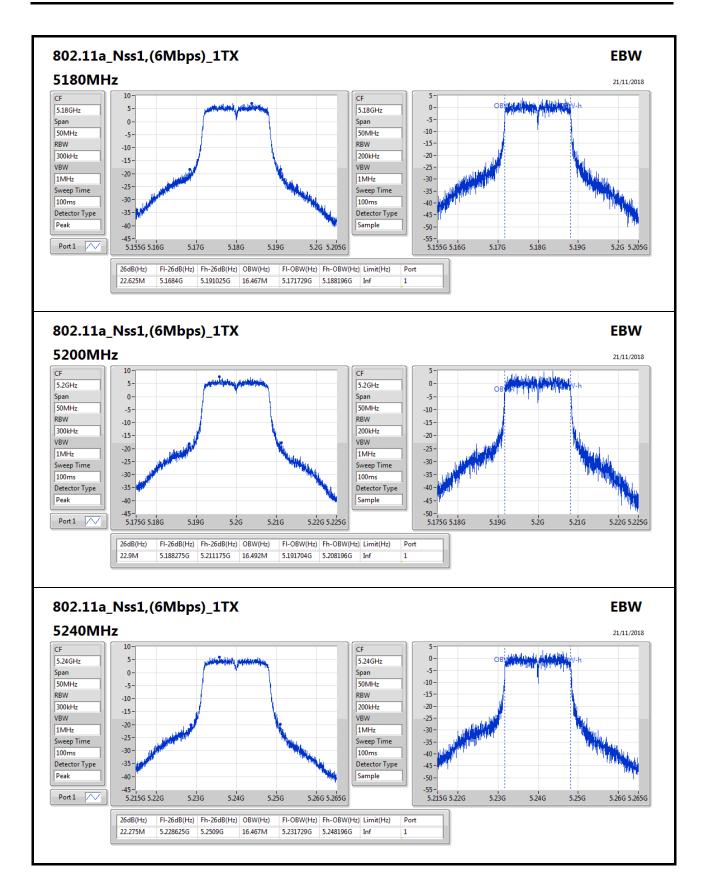
Mode	Result	Limit	Port 1-N dB	Port 1-OBW
		(Hz)	(Hz)	(Hz)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-
5180MHz_TnomVnom	Pass	Inf	22.625M	16.467M
5200MHz_TnomVnom	Pass	Inf	22.9M	16.492M
5240MHz_TnomVnom	Pass	Inf	22.275M	16.467M
5260MHz_TnomVnom	Pass	Inf	21.975M	16.442M
5300MHz_TnomVnom	Pass	Inf	36.75M	16.867M
5320MHz_TnomVnom	Pass	Inf	36.8M	16.942M
5500MHz_TnomVnom	Pass	Inf	33.625M	16.642M
5580MHz_TnomVnom	Pass	Inf	25.925M	16.542M
5700MHz_TnomVnom	Pass	Inf	40.725M	17.941M
5720MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	Inf	22.965M	13.973M
5720MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	500k	3.1M	7.876M
5745MHz_TnomVnom	Pass	500k	15.925M	19.89M
5785MHz_TnomVnom	Pass	500k	16.325M	18.891M
5825MHz_TnomVnom	Pass	500k	16.05M	20.015M
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-
5180MHz_TnomVnom	Pass	Inf	28.075M	17.666M
5200MHz_TnomVnom	Pass	Inf	23.25M	17.641M
5240MHz_TnomVnom	Pass	Inf	25.325M	17.641M
5260MHz_TnomVnom	Pass	Inf	22.675M	17.616M
5300MHz_TnomVnom	Pass	Inf	22.275M	17.616M
5320MHz_TnomVnom	Pass	Inf	36.6M	17.791M
5500MHz_TnomVnom	Pass	Inf	26.675M	17.741M
5580MHz_TnomVnom	Pass	Inf	22.425M	17.616M
5700MHz_TnomVnom	Pass	Inf	31M	17.766M
5720MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	Inf	20.76M	13.958M
5720MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	500k	3.72M	5.337M
5745MHz_TnomVnom	Pass	500k	17.275M	17.741M
5785MHz_TnomVnom	Pass	500k	16.55M	17.966M
5825MHz_TnomVnom	Pass	500k	16.875M	20.615M

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;

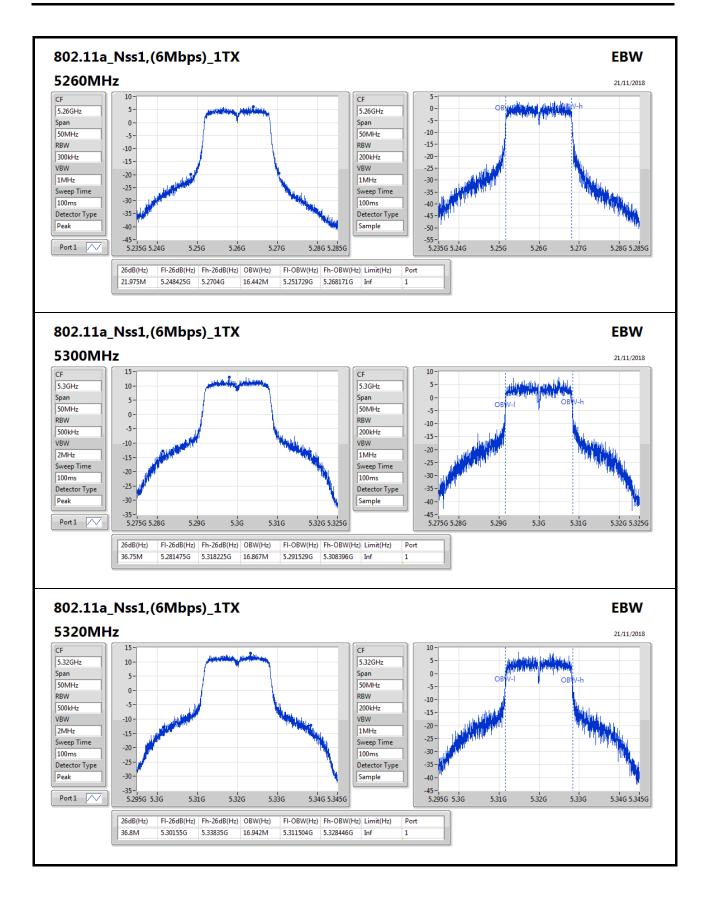
SPORTON INTERNATIONAL INC. Page No. : B2 of B12

803112

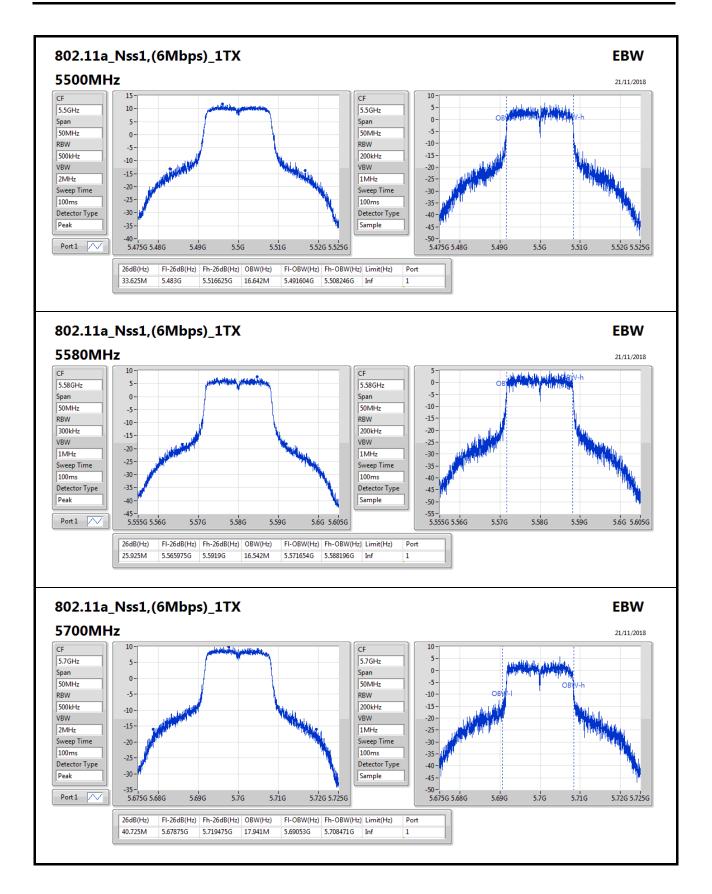








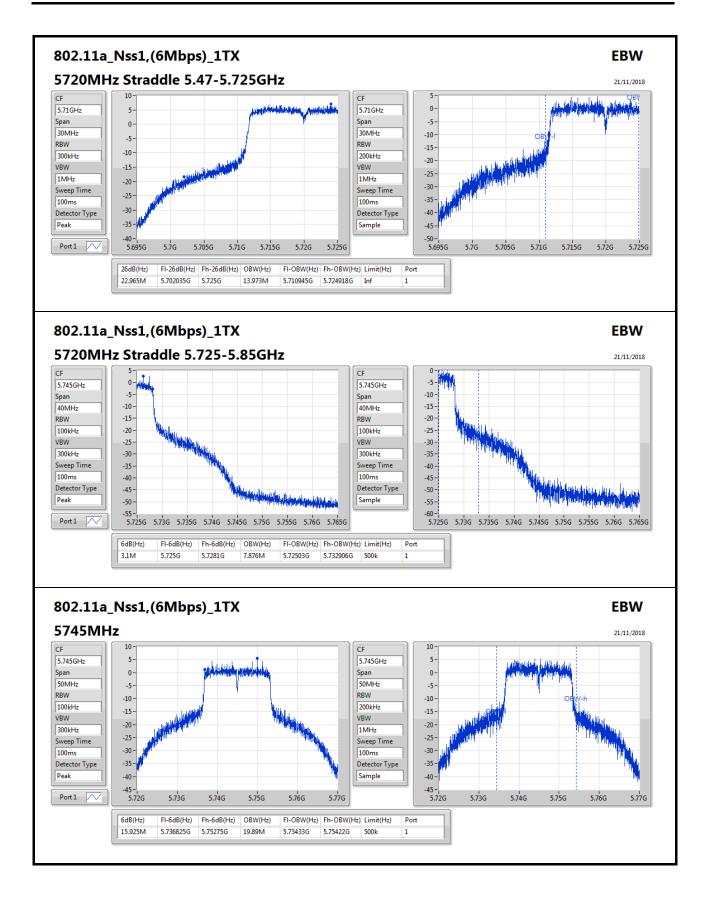




TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : B5 of B12

803112

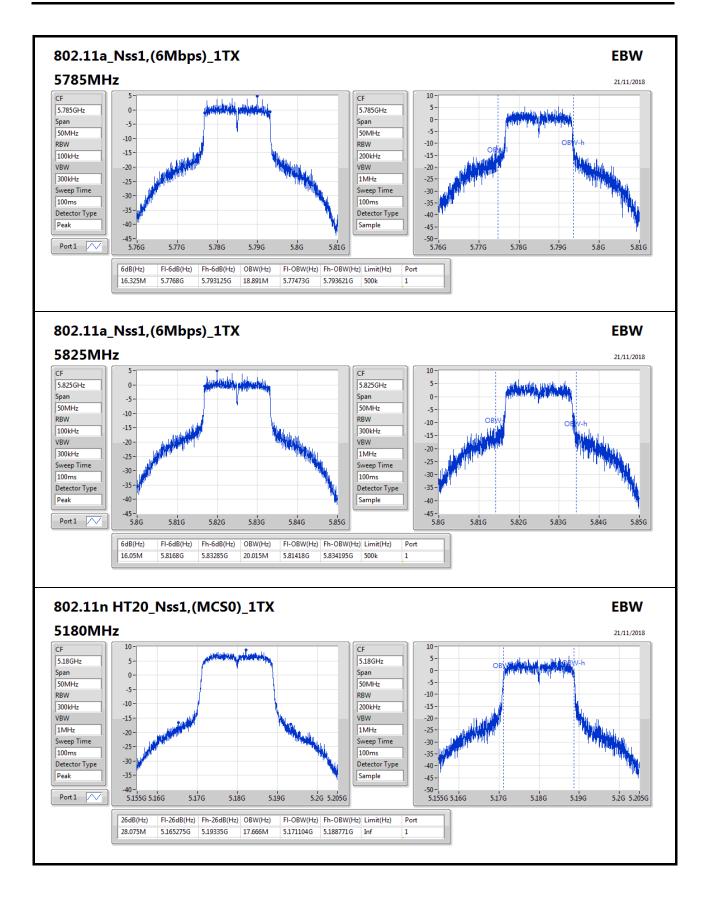




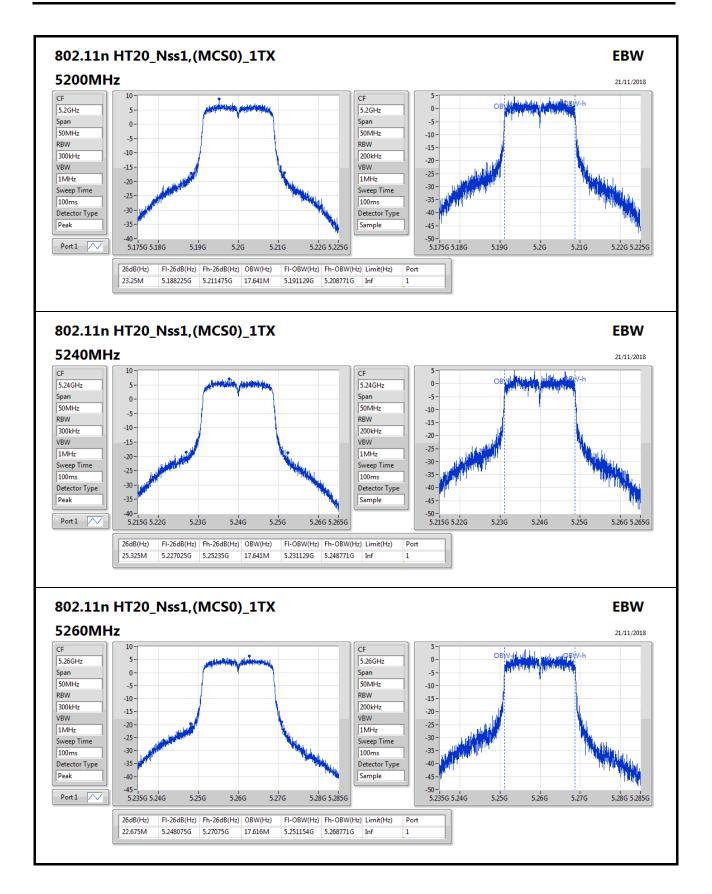
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : B6 of B12

803112



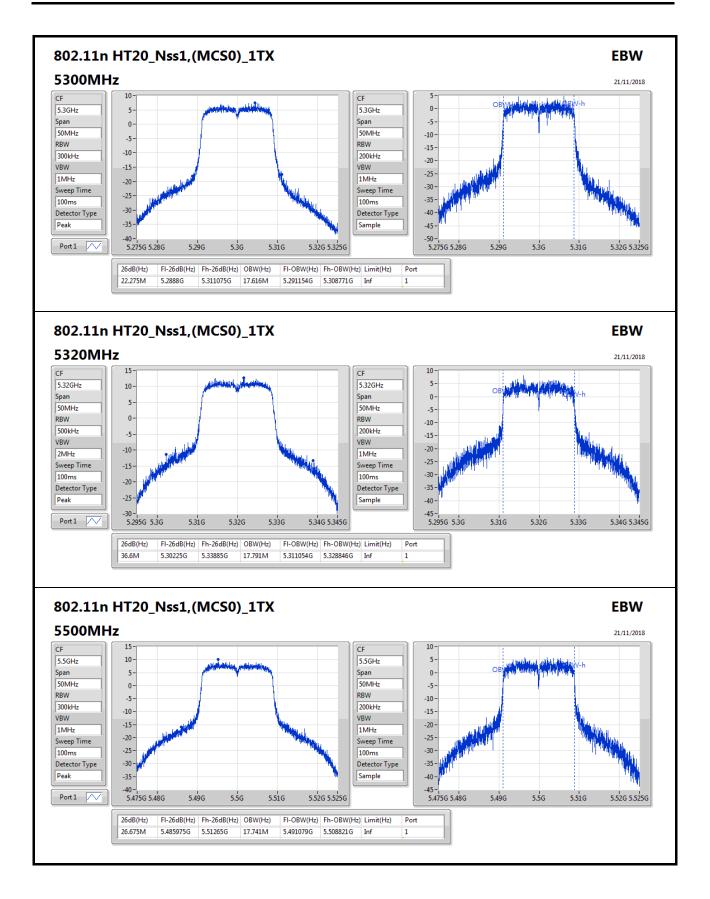






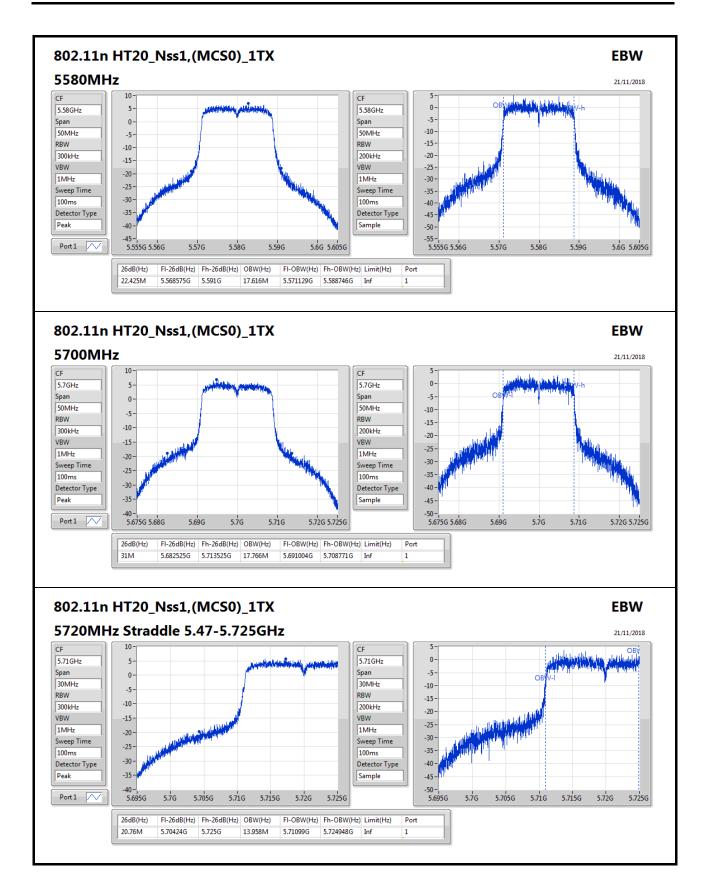
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : B8 of B12



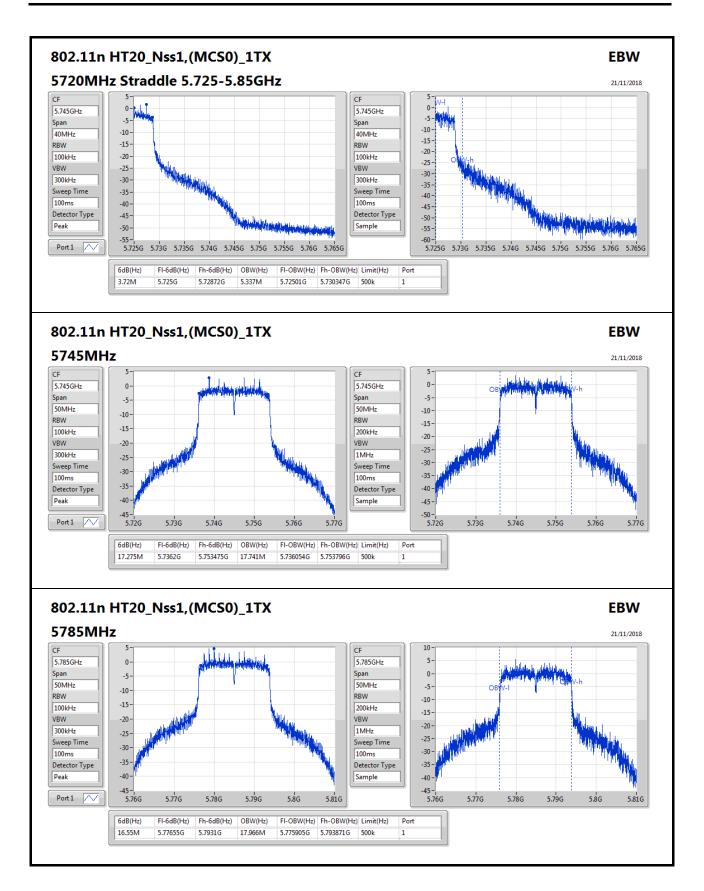


TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : B9 of B12





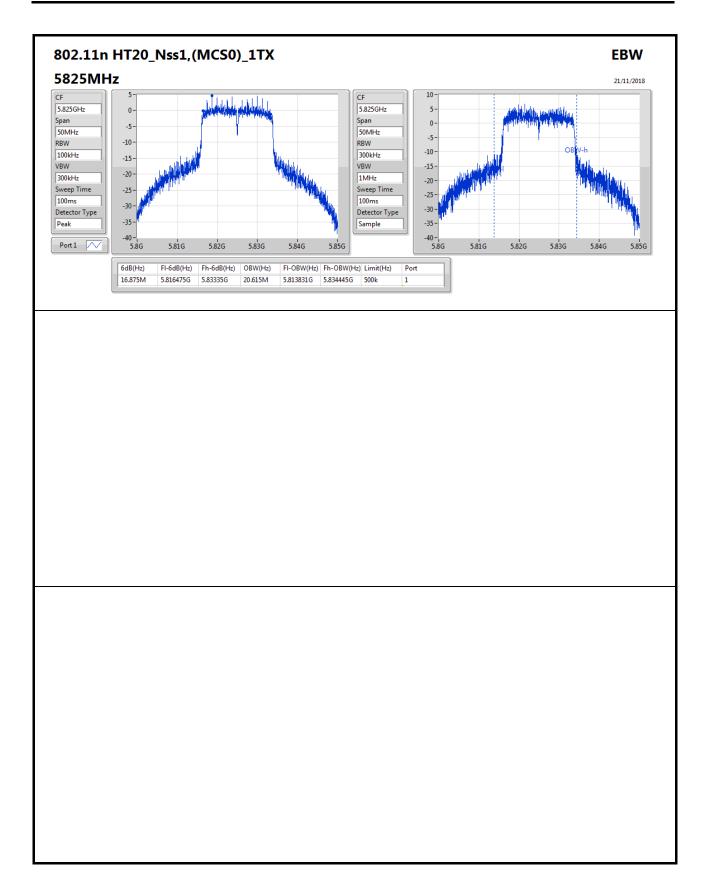
TEL: 886-3-327-3456 FAX: 886-3-327-0973



TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : B11 of B12

SPORTON LAB.

Appendix B



SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : B12 of B12



Power Result Appendix C

Summary

Mode	Total Power	Total Power	EIRP	EIRP
	(dBm)	(W)	(dBm)	(W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	15.06	0.03206	18.26	0.06699
802.11n HT20_Nss1,(MCS0)_1TX	16.45	0.04416	19.65	0.09226
5.25-5.35GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	18.45	0.06998	21.65	0.14622
802.11n HT20_Nss1,(MCS0)_1TX	18.29	0.06745	21.49	0.14093
5.47-5.725GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	17.61	0.05768	20.81	0.12050
802.11n HT20_Nss1,(MCS0)_1TX	17.46	0.05572	20.66	0.11641
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	16.02	0.03999	19.22	0.08356
802.11n HT20_Nss1,(MCS0)_1TX	15.73	0.03741	18.93	0.07816

SPORTON INTERNATIONAL INC. Page No. : C1 of C4



Power Result Appendix C

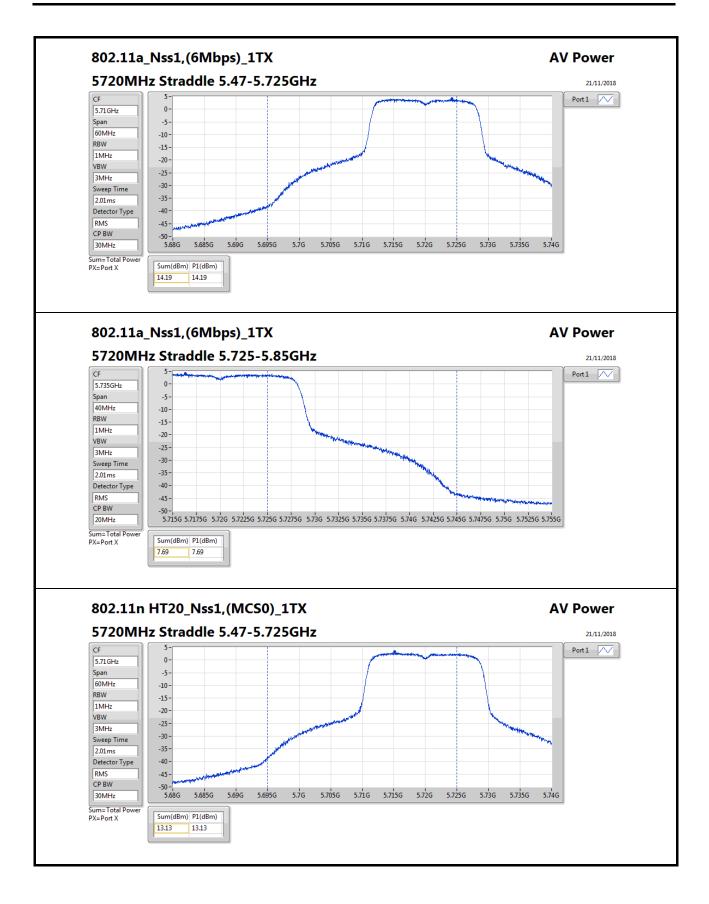
Result

Mode	Result	DG	Port 1	Total Power	Power Limit	EIRP	EIRP Limit
		(dBi)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-
5180MHz_TnomVnom	Pass	3.20	14.97	14.97	30.00	18.17	36.00
5200MHz_TnomVnom	Pass	3.20	15.06	15.06	30.00	18.26	36.00
5240MHz_TnomVnom	Pass	3.20	14.04	14.04	30.00	17.24	36.00
5260MHz_TnomVnom	Pass	3.20	14.17	14.17	24.00	17.37	30.00
5300MHz_TnomVnom	Pass	3.20	18.13	18.13	24.00	21.33	30.00
5320MHz_TnomVnom	Pass	3.20	18.45	18.45	24.00	21.65	30.00
5500MHz_TnomVnom	Pass	3.20	17.61	17.61	24.00	20.81	30.00
5580MHz_TnomVnom	Pass	3.20	15.70	15.70	24.00	18.90	30.00
5700MHz_TnomVnom	Pass	3.20	15.87	15.87	24.00	19.07	30.00
5720MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	3.20	14.19	14.19	24.00	17.39	30.00
5720MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	3.20	7.69	7.69	30.00	10.89	36.00
5745MHz_TnomVnom	Pass	3.20	16.02	16.02	30.00	19.22	36.00
5785MHz_TnomVnom	Pass	3.20	15.66	15.66	30.00	18.86	36.00
5825MHz_TnomVnom	Pass	3.20	15.67	15.67	30.00	18.87	36.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
5180MHz_TnomVnom	Pass	3.20	16.45	16.45	30.00	19.65	36.00
5200MHz_TnomVnom	Pass	3.20	15.72	15.72	30.00	18.92	36.00
5240MHz_TnomVnom	Pass	3.20	15.29	15.29	30.00	18.49	36.00
5260MHz_TnomVnom	Pass	3.20	14.12	14.12	24.00	17.32	30.00
5300MHz_TnomVnom	Pass	3.20	15.43	15.43	24.00	18.63	30.00
5320MHz_TnomVnom	Pass	3.20	18.29	18.29	24.00	21.49	30.00
5500MHz_TnomVnom	Pass	3.20	17.46	17.46	24.00	20.66	30.00
5580MHz_TnomVnom	Pass	3.20	14.99	14.99	24.00	18.19	30.00
5700MHz_TnomVnom	Pass	3.20	14.60	14.60	24.00	17.80	30.00
5720MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	3.20	13.13	13.13	24.00	16.33	30.00
5720MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	3.20	6.98	6.98	30.00	10.18	36.00
5745MHz_TnomVnom	Pass	3.20	14.12	14.12	30.00	17.32	36.00
5785MHz_TnomVnom	Pass	3.20	15.25	15.25	30.00	18.45	36.00
5825MHz_TnomVnom	Pass	3.20	15.73	15.73	30.00	18.93	36.00

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

SPORTON INTERNATIONAL INC. Page No. : C2 of C4



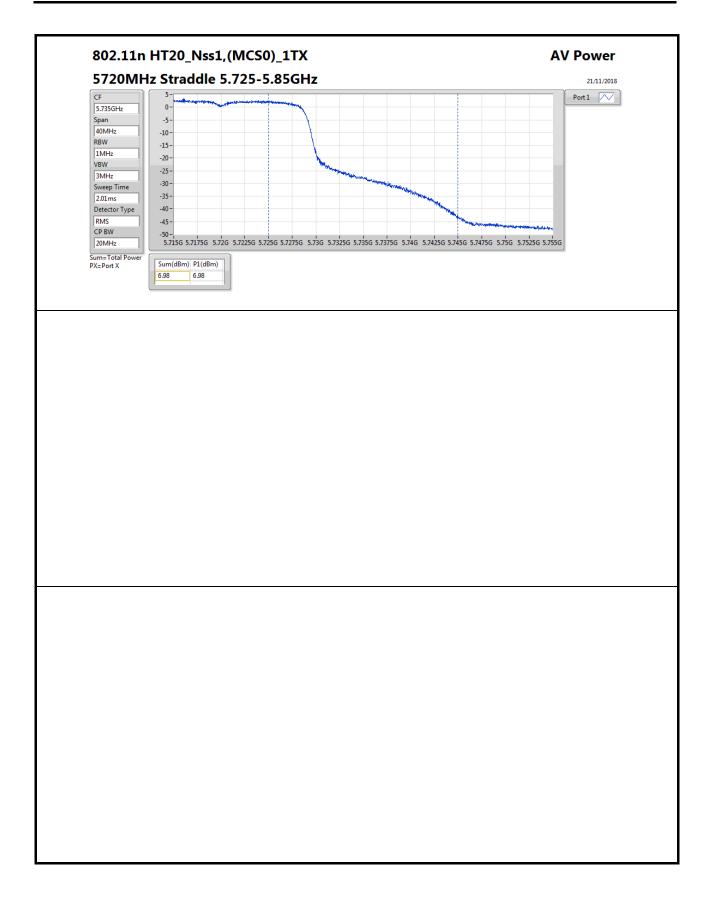


TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : C3 of C4



SPORTON LAB.

Power Result Appendix C



SPORTON INTERNATIONAL INC.



PSD Result Appendix D

Summary

Mode	PD	EIRP PD
	(dBm/RBW)	(dBm/RBW)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_1TX	3.27	6.47
802.11n HT20_Nss1,(MCS0)_1TX	4.60	7.80
5.25-5.35GHz	-	-
802.11a_Nss1,(6Mbps)_1TX	6.39	9.59
802.11n HT20_Nss1,(MCS0)_1TX	6.15	9.35
5.47-5.725GHz	-	-
802.11a_Nss1,(6Mbps)_1TX	5.54	8.74
802.11n HT20_Nss1,(MCS0)_1TX	5.15	8.35
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_1TX	2.65	5.85
802.11n HT20_Nss1,(MCS0)_1TX	2.02	5.22

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

SPORTON INTERNATIONAL INC. Page No. : D1 of D12



Appendix D **PSD Result**

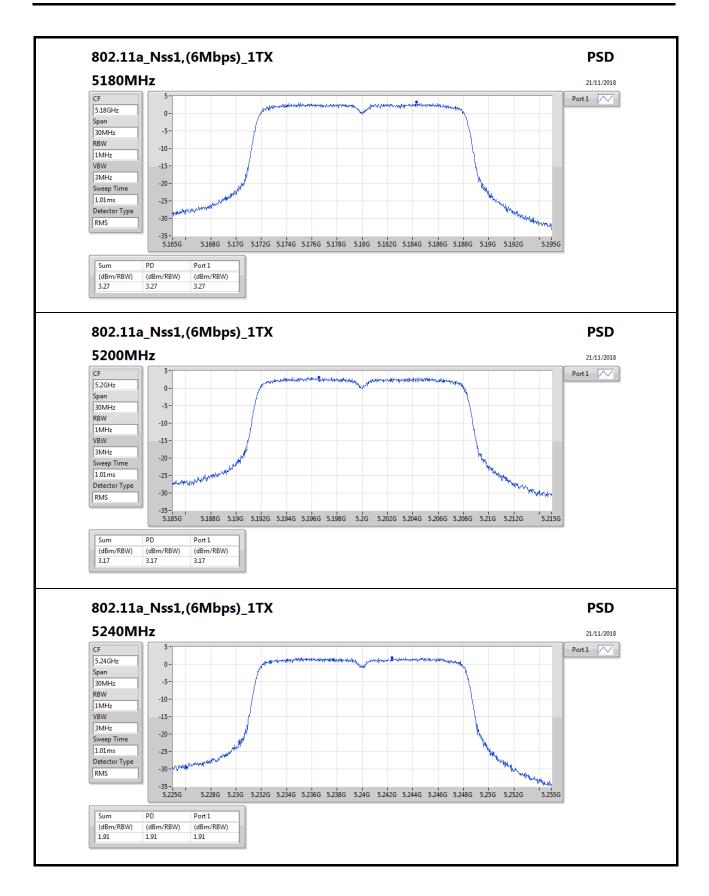
Result

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_TnomVnom	Pass	3.20	3.27	3.27	17.00	6.47	23.00
5200MHz_TnomVnom	Pass	3.20	3.17	3.17	17.00	6.37	23.00
5240MHz_TnomVnom	Pass	3.20	1.91	1.91	17.00	5.11	23.00
5260MHz_TnomVnom	Pass	3.20	2.12	2.12	11.00	5.32	17.00
5300MHz_TnomVnom	Pass	3.20	5.97	5.97	11.00	9.17	17.00
5320MHz_TnomVnom	Pass	3.20	6.39	6.39	11.00	9.59	17.00
5500MHz_TnomVnom	Pass	3.20	5.54	5.54	11.00	8.74	17.00
5580MHz_TnomVnom	Pass	3.20	3.62	3.62	11.00	6.82	17.00
5700MHz_TnomVnom	Pass	3.20	3.71	3.71	11.00	6.91	17.00
5720MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	3.20	2.64	2.64	11.00	5.84	17.00
5720MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	3.20	0.95	0.95	30.00	4.15	36.00
5745MHz_TnomVnom	Pass	3.20	2.48	2.48	30.00	5.68	36.00
5785MHz_TnomVnom	Pass	3.20	2.65	2.65	30.00	5.85	36.00
5825MHz_TnomVnom	Pass	3.20	1.86	1.86	30.00	5.06	36.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
5180MHz_TnomVnom	Pass	3.20	4.60	4.60	17.00	7.80	23.00
5200MHz_TnomVnom	Pass	3.20	3.40	3.40	17.00	6.60	23.00
5240MHz_TnomVnom	Pass	3.20	2.94	2.94	17.00	6.14	23.00
5260MHz_TnomVnom	Pass	3.20	1.80	1.80	11.00	5.00	17.00
5300MHz_TnomVnom	Pass	3.20	3.11	3.11	11.00	6.31	17.00
5320MHz_TnomVnom	Pass	3.20	6.15	6.15	11.00	9.35	17.00
5500MHz_TnomVnom	Pass	3.20	5.15	5.15	11.00	8.35	17.00
5580MHz_TnomVnom	Pass	3.20	2.60	2.60	11.00	5.80	17.00
5700MHz_TnomVnom	Pass	3.20	2.46	2.46	11.00	5.66	17.00
5720MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	3.20	1.85	1.85	11.00	5.05	17.00
5720MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	3.20	-0.55	-0.55	30.00	2.65	36.00
5745MHz_TnomVnom	Pass	3.20	0.38	0.38	30.00	3.58	36.00
5785MHz_TnomVnom	Pass	3.20	1.48	1.48	30.00	4.68	36.00
5825MHz_TnomVnom	Pass	3.20	2.02	2.02	30.00	5.22	36.00

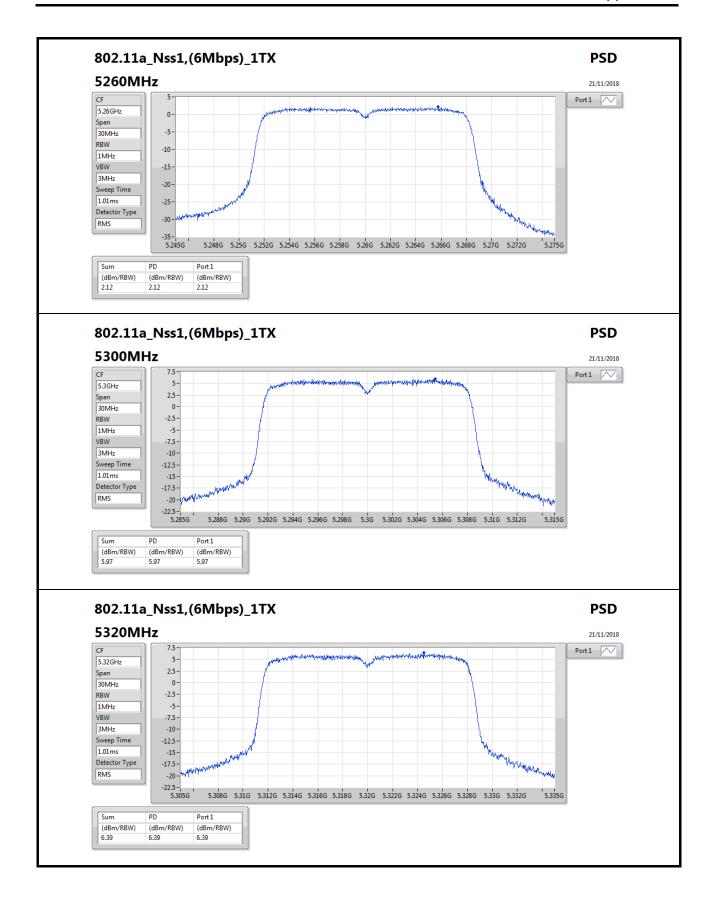
DG = Directional Gain; RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port Xpower density;

SPORTON INTERNATIONAL INC. Page No. : D2 of D12

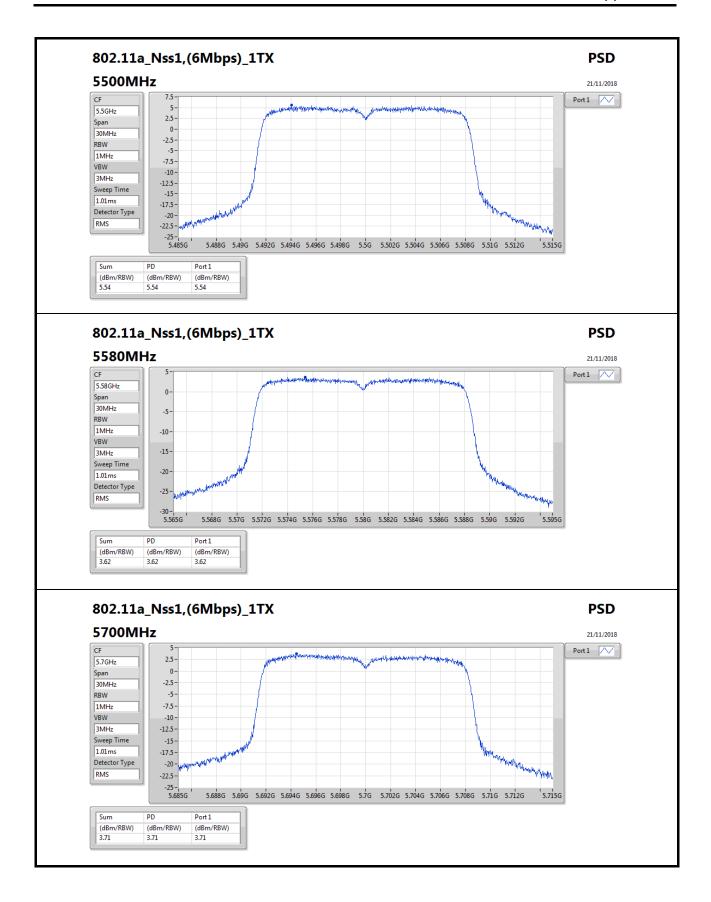




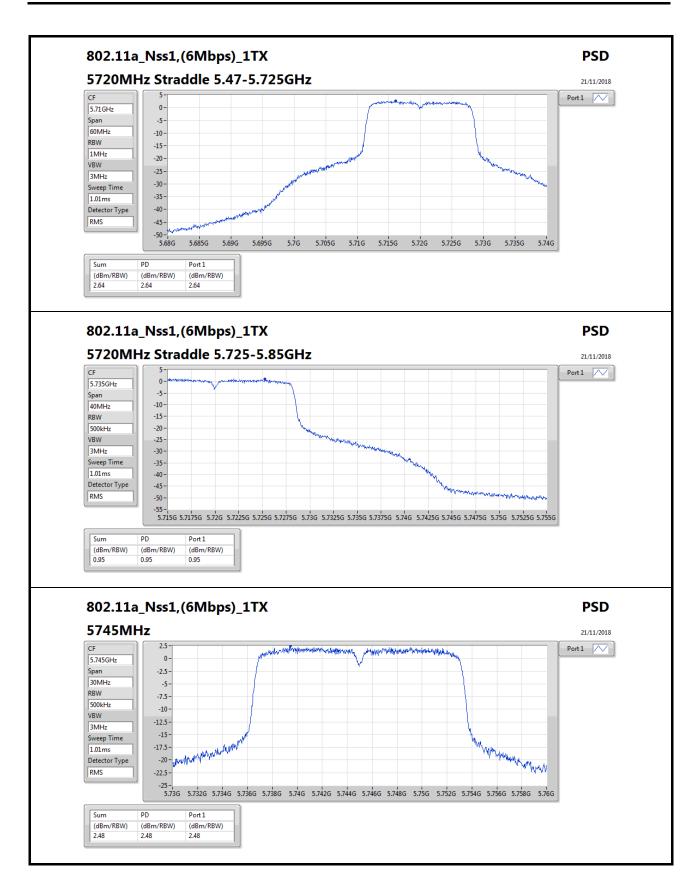






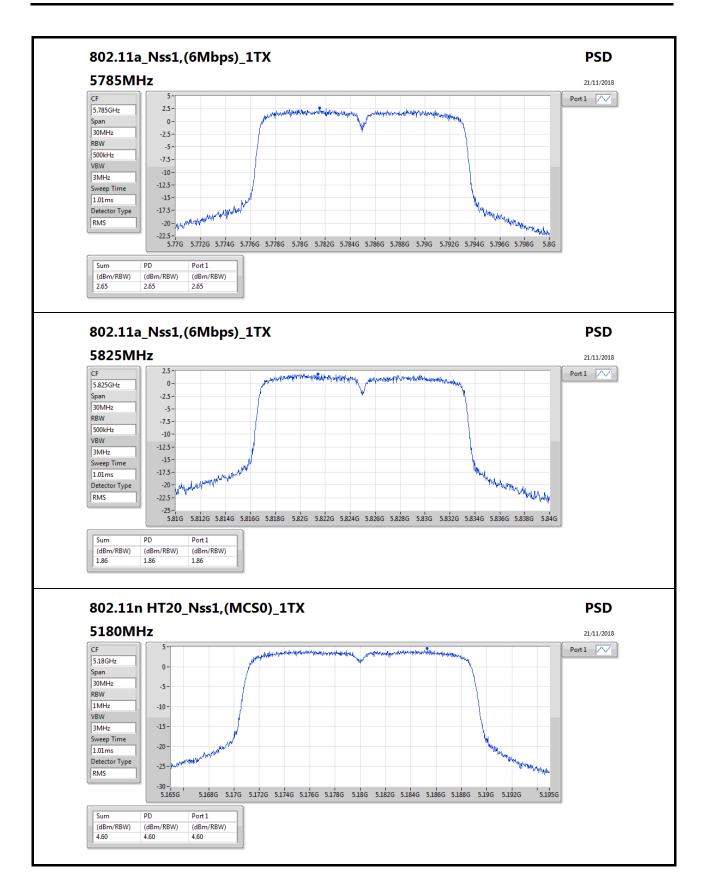


Appendix D

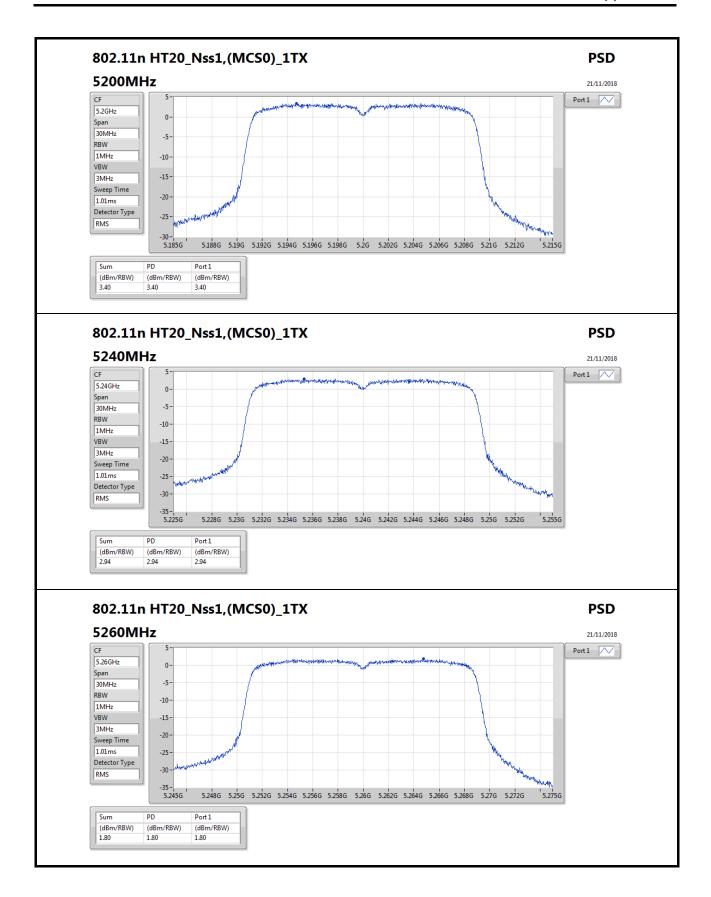


SPORTON INTERNATIONAL INC.

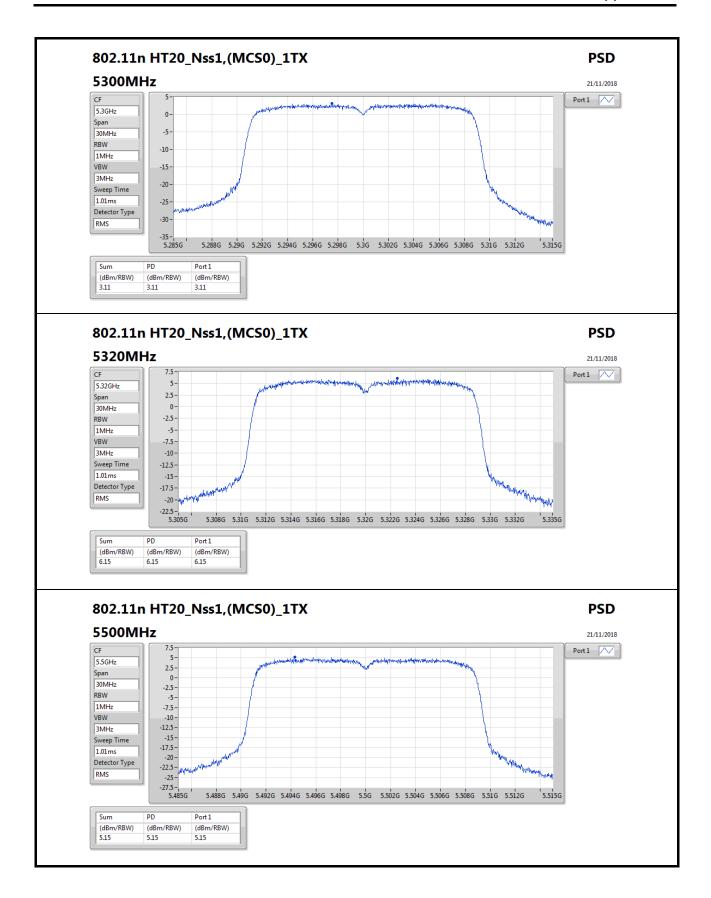






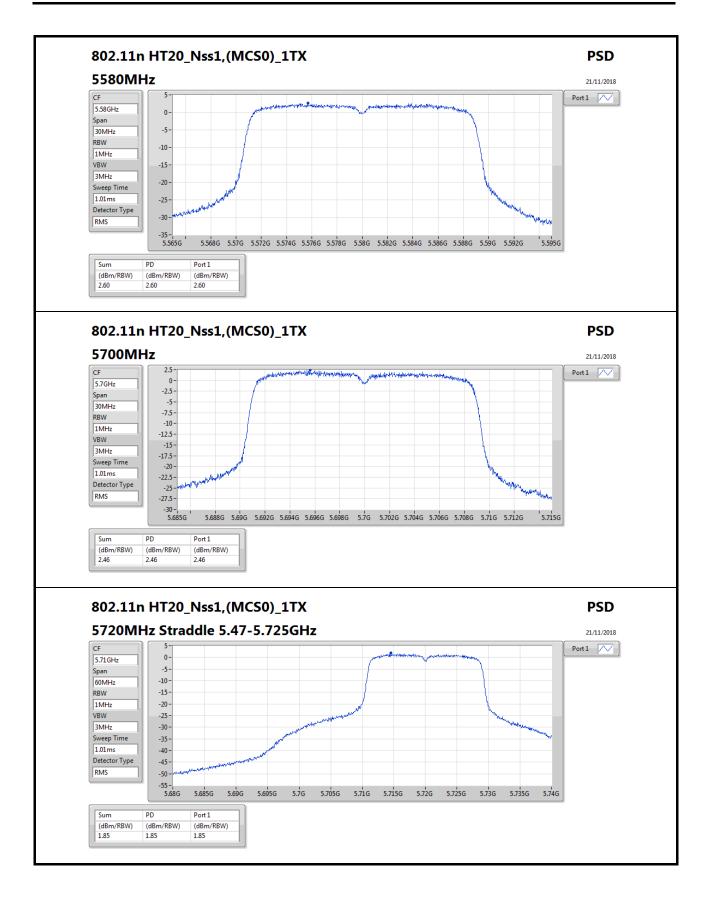






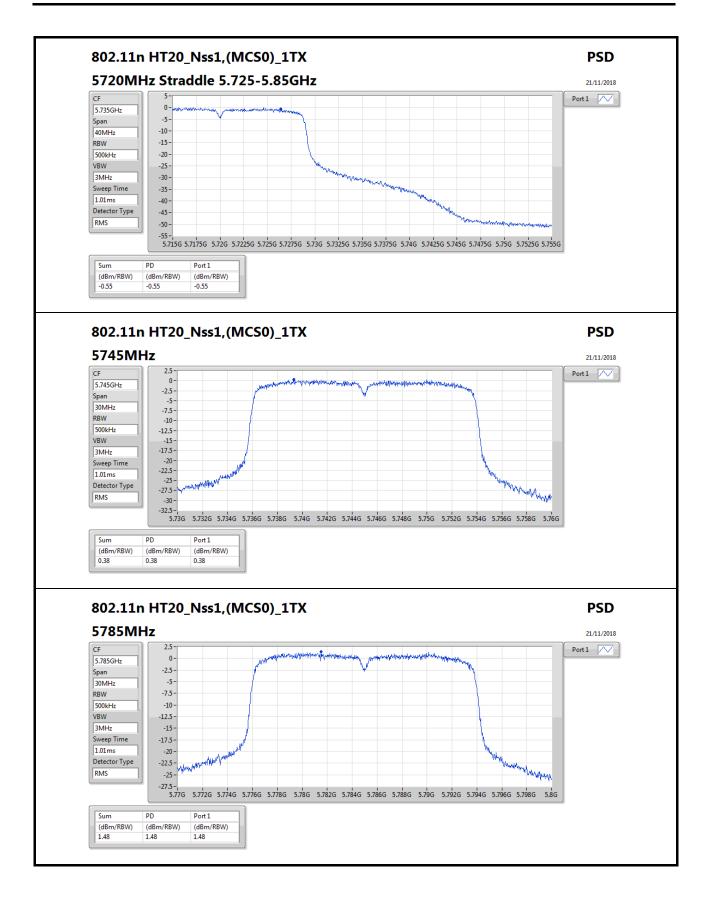
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : D9 of D12



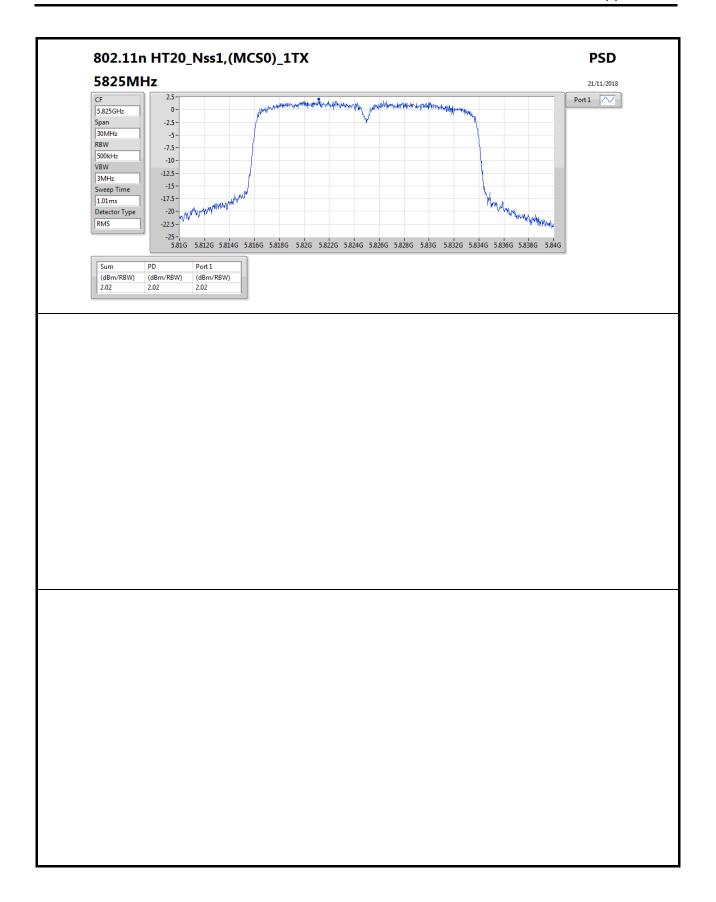


TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : D10 of D12





PSD Result Appendix D



SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : D12 of D12



RSE TX below 1GHz Result

Appendix E.1

Summary

Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
5.725-5.85GHz	-	-	-	-	-		-	-	-	-	-	-
802.11n HT20_Nss1,(MCS0)_1TX	Pass	PK	31.94M	22.30	40.00	-17.70	-14.36	3	Horizontal	360	3.00	-

SPORTON INTERNATIONAL INC. Page No. : E1 of E4



RSE TX below 1GHz Result

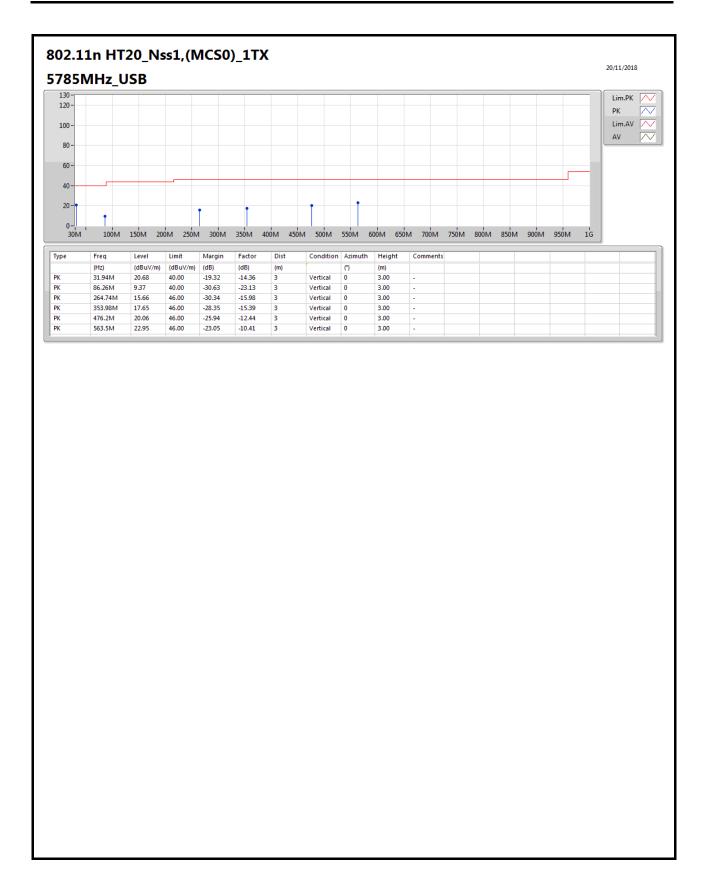
Appendix E.1

Result

Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-	-
5785MHz	Pass	PK	31.94M	20.68	40.00	-19.32	-14.36	3	Vertical	0	3.00	-
5785MHz	Pass	PK	86.26M	9.37	40.00	-30.63	-23.13	3	Vertical	0	3.00	-
5785MHz	Pass	PK	264.74M	15.66	46.00	-30.34	-15.98	3	Vertical	0	3.00	-
5785MHz	Pass	PK	353.98M	17.65	46.00	-28.35	-15.39	3	Vertical	0	3.00	-
5785MHz	Pass	PK	476.2M	20.06	46.00	-25.94	-12.44	3	Vertical	0	3.00	-
5785MHz	Pass	PK	563.5M	22.95	46.00	-23.05	-10.41	3	Vertical	0	3.00	-
5785MHz	Pass	PK	31.94M	22.30	40.00	-17.70	-14.36	3	Horizontal	360	3.00	-
5785MHz	Pass	PK	128.94M	12.78	43.50	-30.72	-19.18	3	Horizontal	360	3.00	-
5785MHz	Pass	PK	253.1M	15.59	46.00	-30.41	-16.67	3	Horizontal	360	3.00	-
5785MHz	Pass	PK	443.22M	20.16	46.00	-25.84	-12.99	3	Horizontal	360	3.00	-
5785MHz	Pass	PK	567.38M	22.82	46.00	-23.18	-10.54	3	Horizontal	360	3.00	-
5785MHz	Pass	PK	846.74M	26.77	46.00	-19.23	-7.10	3	Horizontal	360	3.00	-

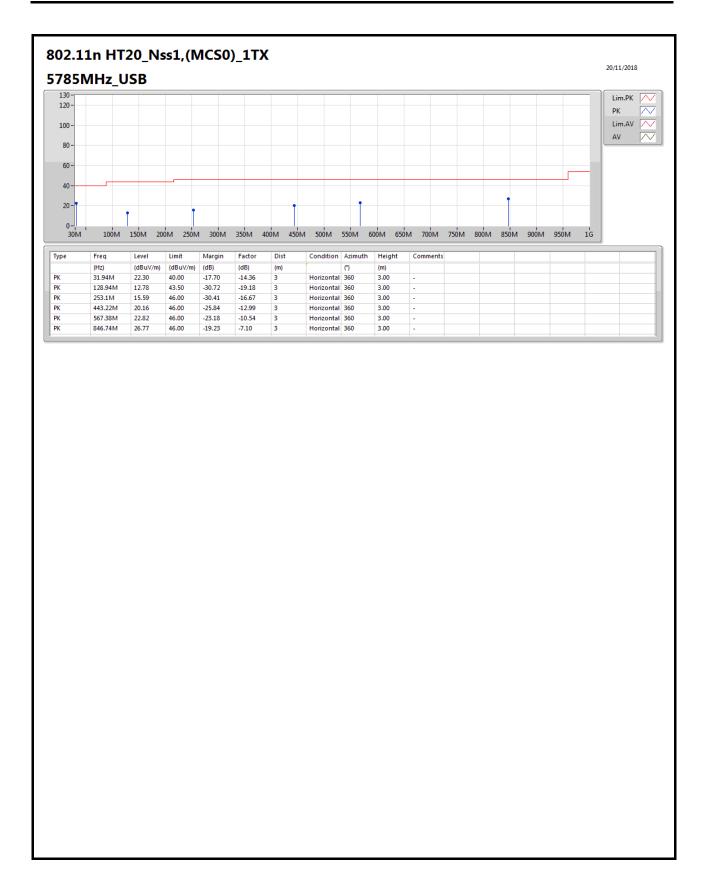
SPORTON INTERNATIONAL INC. Page No. : E2 of E4





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



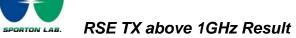
Appendix E.2

803112

Summary

Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
5.15-5.25GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	Pass	AV	10.47928G	51.53	54.00	-2.47	12.90	3	Horizontal	305	1.86	-
802.11n HT20_Nss1,(MCS0)_1TX	Pass	AV	10.4012G	51.98	54.00	-2.02	12.73	3	Horizontal	294	1.61	-
5.25-5.35GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	Pass	AV	10.60054G	51.71	54.00	-2.29	13.15	3	Horizontal	295	1.50	-
802.11n HT20_Nss1,(MCS0)_1TX	Pass	AV	5.3506G	51.78	54.00	-2.22	4.05	3	Vertical	245	2.77	-
5.47-5.725GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	Pass	PK	5.7252G	65.57	68.20	-2.63	3.59	3	Vertical	260	2.48	-
802.11n HT20_Nss1,(MCS0)_1TX	Pass	AV	11.40144G	51.94	54.00	-2.06	15.16	3	Horizontal	139	1.79	-
5.725-5.85GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	Pass	AV	11.65036G	51.96	54.00	-2.04	13.43	3	Horizontal	300	1.79	-
802.11n HT20_Nss1,(MCS0)_1TX	Pass	AV	11.6506G	51.87	54.00	-2.13	14.87	3	Vertical	15	1.01	-

SPORTON INTERNATIONAL INC. Page No. : E1 of E112



Appendix E.2

Result

Result												
Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	AV	5.15G	47.07	54.00	-6.93	2.74	3	Vertical	271	2.66	-
5180MHz	Pass	AV	5.1848G	94.98	Inf	-Inf	2.78	3	Vertical	271	2.66	-
5180MHz	Pass	PK	5.1498G	61.39	74.00	-12.61	2.74	3	Vertical	271	2.66	-
5180MHz	Pass	PK	5.1852G	104.63	Inf	-Inf	2.78	3	Vertical	271	2.66	-
5180MHz	Pass	AV	5.15G	46.08	54.00	-7.92	2.74	3	Horizontal	3	1.61	-
5180MHz	Pass	AV	5.186G	92.90	Inf	-Inf	2.78	3	Horizontal	3	1.61	-
5180MHz	Pass	PK	5.1498G	60.09	74.00	-13.91	2.74	3	Horizontal	3	1.61	-
5180MHz	Pass	PK	5.1832G	103.87	Inf	-Inf	2.78	3	Horizontal	3	1.61	-
5180MHz	Pass	AV	10.35778G	48.90	54.00	-5.10	12.63	3	Vertical	52	1.81	-
5180MHz	Pass	PK	10.36012G	63.26	74.00	-10.74	12.63	3	Vertical	52	1.81	-
5180MHz	Pass	AV	10.36132G	51.30	54.00	-2.70	12.64	3	Horizontal	305	1.78	-
5180MHz	Pass	PK	10.36018G	64.47	74.00	-9.53	12.63	3	Horizontal	305	1.78	-
5200MHz	Pass	AV	5.1072G	42.35	54.00	-11.65	2.69	3	Vertical	97	2.13	-
5200MHz	Pass	AV	5.1968G	90.73	Inf	-Inf	2.80	3	Vertical	97	2.13	-
5200MHz	Pass	PK	5.1452G	54.30	74.00	-19.70	2.74	3	Vertical	97	2.13	-
5200MHz	Pass	PK	5.202G	100.86	Inf	-Inf	2.80	3	Vertical	97	2.13	-
5200MHz	Pass	AV	5.1172G	42.32	54.00	-11.68	2.70	3	Horizontal	1	1.95	-
5200MHz	Pass	AV	5.2044G	93.72	Inf	-Inf	2.80	3	Horizontal	1	1.95	-
5200MHz	Pass	PK	5.1272G	55.38	74.00	-18.62	2.72	3	Horizontal	1	1.95	-
5200MHz	Pass	PK	5.2024G	103.15	Inf	-Inf	2.80	3	Horizontal	1	1.95	-
5200MHz	Pass	AV	10.39868G	48.62	54.00	-5.38	12.73	3	Vertical	55	1.81	-
5200MHz	Pass	PK	10.39856G	62.23	74.00	-11.77	12.73	3	Vertical	55	1.81	-
5200MHz	Pass	AV	10.4G	51.19	54.00	-2.81	12.73	3	Horizontal	308	1.66	-
5200MHz	Pass	PK	10.40006G	64.21	74.00	-9.79	12.73	3	Horizontal	308	1.66	-
5240MHz	Pass	AV	5.1446G	42.18	54.00	-11.82	2.74	3	Vertical	288	2.74	-
5240MHz	Pass	AV	5.2442G	93.55	Inf	-Inf	2.85	3	Vertical	288	2.74	-
5240MHz	Pass	AV	5.3678G	41.58	54.00	-12.42	2.99	3	Vertical	288	2.74	-
5240MHz	Pass	PK	5.1488G	54.78	74.00	-19.22	2.74	3	Vertical	288	2.74	-
5240MHz	Pass	PK	5.2436G	102.98	Inf	-Inf	2.85	3	Vertical	288	2.74	-
5240MHz	Pass	PK	5.3888G	53.41	74.00	-20.59	3.01	3	Vertical	288	2.74	-
5240MHz	Pass	AV	5.0948G	42.35	54.00	-11.65	2.68	3	Horizontal	359	1.85	-
5240MHz	Pass	AV	5.2448G	94.01	Inf	-Inf	2.85	3	Horizontal	359	1.85	-
5240MHz	Pass	AV	5.3618G	41.51	54.00	-12.49	2.98	3	Horizontal	359	1.85	-
5240MHz	Pass	PK	5.1002G	54.63	74.00	-19.37	2.68	3	Horizontal	359	1.85	
5240MHz	Pass	PK	5.2454G	102.89	Inf	-Inf	2.85	3	Horizontal	359	1.85	-
5240MHz	Pass	PK	5.3774G	53.92	74.00	-20.08	3.00	3	Horizontal	359	1.85	-
5240MHz	Pass	AV	10.47946G	50.25	54.00	-3.75	12.90	3	Vertical	359	1.87	-
5240MHz	Pass	PK	10.48054G	63.20	74.00	-10.80	12.90	3	Vertical	359	1.87	-
5240MHz	Pass	AV	10.47928G	51.53	54.00	-2.47	12.90	3	Horizontal	305	1.86	-
5240MHz	Pass	PK	10.4785G	64.38	74.00	-9.62	12.90	3	Horizontal	305	1.86	-
5260MHz	Pass	AV	5.1196G	42.16	54.00	-11.84	2.70	3	Vertical	271	2.71	-
5260MHz	Pass	AV	5.2642G	94.90	Inf	-Inf	2.87	3	Vertical	271	2.71	-
5260MHz	Pass	AV	5.4034G	41.71	54.00	-12.29	3.03	3	Vertical	271	2.71	-
5260MHz	Pass	PK	5.1424G	54.63	74.00	-19.37	2.74	3	Vertical	271	2.71	
5260MHz	Pass	PK	5.2624G	104.06	Inf	-17.57 -Inf	2.87	3	Vertical	271	2.71	<u> </u>
5260MHz	Pass	PK	5.4046G	53.47	74.00	-20.53	3.03	3	Vertical	271	2.71	-
5260MHz	Pass	AV	5.122G	42.29	54.00	-11.71	2.71	3	Horizontal	358	1.96	
SZOUIVITZ	L 422	AV	J. 122U	42.27	J4.00	-11./1	2./1	٥	HUHZUHIAI	330	1.90	

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E2 of E112

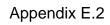




Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
5260MHz	Pass	AV	5.2642G	94.06	Inf	-Inf	2.87	3	Horizontal	358	1.96	-
5260MHz	Pass	AV	5.3902G	41.71	54.00	-12.29	3.01	3	Horizontal	358	1.96	-
5260MHz	Pass	PK	5.146G	54.44	74.00	-19.56	2.74	3	Horizontal	358	1.96	-
5260MHz	Pass	PK	5.2648G	103.24	Inf	-Inf	2.88	3	Horizontal	358	1.96	-
5260MHz	Pass	PK	5.398G	53.89	74.00	-20.11	3.03	3	Horizontal	358	1.96	-
5260MHz	Pass	AV	10.5194G	48.31	54.00	-5.69	12.98	3	Vertical	52	1.00	-
5260MHz	Pass	PK	10.52216G	61.23	74.00	-12.77	12.98	3	Vertical	52	1.00	-
5260MHz	Pass	AV	10.52054G	51.28	54.00	-2.72	12.98	3	Horizontal	307	1.71	-
5260MHz	Pass	PK	10.51826G	63.99	74.00	-10.01	12.98	3	Horizontal	307	1.71	-
5300MHz	Pass	AV	5.296G	97.46	Inf	-Inf	2.91	3	Vertical	282	2.83	-
5300MHz	Pass	AV	5.3744G	42.80	54.00	-11.20	2.99	3	Vertical	282	2.83	-
5300MHz	Pass	PK	5.3032G	107.08	Inf	-Inf	2.91	3	Vertical	282	2.83	-
5300MHz	Pass	PK	5.3732G	54.12	74.00	-19.88	2.99	3	Vertical	282	2.83	-
5300MHz	Pass	AV	5.3032G	97.95	Inf	-Inf	2.91	3	Horizontal	356	1.82	-
5300MHz	Pass	AV	5.3504G	42.97	54.00	-11.03	2.97	3	Horizontal	356	1.82	-
5300MHz	Pass	PK	5.3052G	107.48	Inf	-Inf	2.91	3	Horizontal	356	1.82	-
5300MHz	Pass	PK	5.3508G	56.27	74.00	-17.73	2.97	3	Horizontal	356	1.82	-
5300MHz	Pass	AV	10.60114G	50.11	54.00	-3.89	13.15	3	Vertical	46	1.83	
5300MHz	Pass	PK	10.60366G	63.17	74.00	-10.83	13.17	3	Vertical	46	1.83	-
5300MHz	Pass	AV	10.60054G	51.71	54.00	-2.29	13.15	3	Horizontal	295	1.50	-
5300MHz	Pass	PK	10.5988G	64.20	74.00	-9.80	13.15	3	Horizontal	295	1.50	-
5320MHz	Pass	AV	5.326G	95.93	Inf	-Inf	2.95	3	Vertical	284	1.76	-
5320MHz	Pass	AV	5.3502G	48.40	54.00	-5.60	2.97	3	Vertical	284	1.76	-
5320MHz	Pass	PK	5.3178G	105.48	Inf	-Inf	2.93	3	Vertical	284	1.76	-
5320MHz	Pass	PK	5.35G	62.54	74.00	-11.46	2.97	3	Vertical	284	1.76	-
5320MHz	Pass	AV	5.3166G	98.81	Inf	-Inf	2.93	3	Horizontal	351	1.78	-
5320MHz	Pass	AV	5.35G	50.24	54.00	-3.76	2.97	3	Horizontal	351	1.78	-
5320MHz	Pass	PK	5.3174G	108.60	Inf	-Inf	2.93	3	Horizontal	351	1.78	_
5320MHz	Pass	PK	5.3502G	63.42	74.00	-10.58	2.97	3	Horizontal	351	1.78	-
5320MHz	Pass	AV	10.6409G	49.57	54.00	-4.43	13.25	3	Vertical	31	1.79	_
5320MHz	Pass	PK	10.63838G	62.84	74.00	-11.16	13.24	3	Vertical	31	1.79	_
5320MHz	Pass	AV	10.64084G	51.52	54.00	-2.48	13.25	3	Horizontal	301	1.68	_
5320MHz	Pass	PK	10.64054G	63.75	74.00	-10.25	13.25	3	Horizontal	301	1.68	
5500MHz	Pass	AV	5.46G	45.80	54.00	-8.20	3.10	3	Vertical	263	2.64	
5500MHz	Pass	AV	5.4948G	98.05	Inf	-0.20 -Inf	3.14	3	Vertical	263	2.64	-
5500MHz	Pass	PK	5.4582G	58.48	74.00	-15.52	3.09	3	Vertical	263	2.64	
5500MHz	Pass	PK	5.4666G	64.37	68.20	-3.83	3.11	3	Vertical	263	2.64	
5500MHz	Pass	PK	5.4986G	107.67	Inf	-5.65 -Inf	3.14	3	Vertical	263	2.64	
5500MHz	Pass	AV	5.4596G	44.29	54.00	-9.71	3.10	3	Horizontal	351	1.72	
5500MHz	Pass	AV	5.5046G	94.90	Inf	-7.71 -Inf	3.15	3	Horizontal	351	1.72	-
5500MHz	Pass	PK	5.4594G	57.14	74.00	-16.86	3.10	3	Horizontal	351	1.72	
5500MHz	Pass	PK PK		62.09		-6.11	3.10	3	Horizontal		1.72	-
		PK PK	5.4698G 5.504G	105.32	68.20 Inf	-0.11 -Inf		3	Horizontal	351 351		-
5500MHz 5500MHz	Pass Pass	AV	10.9994G	51.34	54.00	-Ini -2.66	3.15 14.03	3	Vertical	258	1.72 1.71	-
		PK										-
5500MHz	Pass		11.00024G	64.59	74.00	-9.41	14.03	3	Vertical	258	1.71	-
5500MHz	Pass	AV	10.99952G	50.73	54.00	-3.27	14.03	3	Horizontal	330	1.59	-
5500MHz	Pass	PK	11.00558G	63.45	74.00	-10.55	14.02	3	Horizontal	330	1.59	-
5580MHz	Pass	AV	5.4432G	42.08	54.00	-11.92	3.08	3	Vertical	261	2.59	-
5580MHz	Pass	AV	5.5752G	96.97	Inf	-Inf	3.29	3	Vertical	261	2.59	-

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E3 of E112

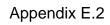




Mada	D It	T	F	11	1 1 14	Manada	Ft	Dist	0	A = !	II-l-b-	0
Mode	Result	Type	Freq	Level	Limit (dBu\//m)	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
- FERRINA	-	B1/	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
5580MHz	Pass	PK	5.466G	54.25	68.20	-13.95	3.11	3	Vertical	261	2.59	-
5580MHz	Pass	PK	5.586G	106.03	Inf	-Inf	3.31	3	Vertical	261	2.59	-
5580MHz	Pass	PK	5.7288G	53.98	74.00	-20.02	3.59	3	Vertical	261	2.59	-
5580MHz	Pass	AV	5.4576G	41.82	54.00	-12.18	3.09	3	Horizontal	358	1.48	-
5580MHz	Pass	AV	5.5752G	92.42	Inf	-Inf	3.29	3	Horizontal	358	1.48	-
5580MHz	Pass	PK	5.4636G	55.91	68.20	-12.29	3.10	3	Horizontal	358	1.48	-
5580MHz	Pass	PK	5.5758G	101.52	Inf	-Inf	3.29	3	Horizontal	358	1.48	-
5580MHz	Pass	PK	5.7288G	54.42	68.20	-13.78	3.59	3	Horizontal	358	1.48	-
5580MHz	Pass	AV	11.1597G	49.33	54.00	-4.67	13.89	3	Vertical	326	1.86	-
5580MHz	Pass	PK	11.15628G	62.09	74.00	-11.91	13.89	3	Vertical	326	1.86	-
5580MHz	Pass	AV	11.15934G	51.29	54.00	-2.71	13.89	3	Horizontal	119	1.72	-
5580MHz	Pass	PK	11.16012G	65.36	74.00	-8.64	13.89	3	Horizontal	119	1.72	-
5700MHz	Pass	AV	5.7056G	99.80	Inf	-Inf	3.55	3	Vertical	260	2.48	-
5700MHz	Pass	PK	5.6948G	109.53	Inf	-Inf	3.53	3	Vertical	260	2.48	-
5700MHz	Pass	PK	5.7252G	65.57	68.20	-2.63	3.59	3	Vertical	260	2.48	-
5700MHz	Pass	AV	5.6976G	94.65	Inf	-Inf	3.54	3	Horizontal	355	1.52	-
5700MHz	Pass	PK	5.6976G	104.14	Inf	-Inf	3.54	3	Horizontal	355	1.52	-
5700MHz	Pass	PK	5.7256G	61.14	68.20	-7.06	3.59	3	Horizontal	355	1.52	-
5700MHz	Pass	AV	11.39922G	49.81	54.00	-4.19	13.66	3	Vertical	16	1.74	-
5700MHz	Pass	PK	11.39814G	61.63	74.00	-12.37	13.66	3	Vertical	16	1.74	-
5700MHz	Pass	AV	11.39988G	51.37	54.00	-2.63	13.66	3	Horizontal	123	1.72	-
5700MHz	Pass	PK	11.40258G	63.51	74.00	-10.49	13.66	3	Horizontal	123	1.72	-
5720MHz Straddle 5.47-5.725GHz	Pass	AV	5.4452G	42.10	54.00	-11.90	3.08	3	Vertical	260	2.58	-
5720MHz Straddle 5.47-5.725GHz	Pass	AV	5.7236G	100.34	Inf	-Inf	3.59	3	Vertical	260	2.58	-
5720MHz Straddle 5.47-5.725GHz	Pass	PK	5.7224G	109.39	Inf	-Inf	3.59	3	Vertical	260	2.58	-
5720MHz Straddle 5.47-5.725GHz	Pass	PK	5.9684G	55.53	68.20	-12.67	4.07	3	Vertical	260	2.58	-
5720MHz Straddle 5.47-5.725GHz	Pass	PK	5.4668G	53.40	68.20	-14.80	3.11	3	Vertical	260	2.58	-
5720MHz Straddle 5.47-5.725GHz	Pass	AV	5.4596G	41.85	54.00	-12.15	3.10	3	Horizontal	355	1.60	-
5720MHz Straddle 5.47-5.725GHz	Pass	AV	5.7248G	95.08	Inf	-Inf	3.59	3	Horizontal	355	1.60	_
5720MHz Straddle 5.47-5.725GHz	Pass	PK	5.4644G	53.66	68.20	-14.54	3.11	3	Horizontal	355	1.60	
5720MHz Straddle 5.47-5.725GHz	Pass	PK	5.7248G	104.30	Inf	-Inf	3.59	3	Horizontal	355	1.60	_
			5.7248G 5.9144G					3				-
5720MHz Straddle 5.47-5.725GHz	Pass Pass	PK AV	11.44066G	55.56 50.59	68.20 54.00	-12.64 -3.41	3.96 13.62	3	Horizontal Vertical	355 10	1.60	-
5720MHz Straddle 5.47-5.725GHz		PK										-
5720MHz Straddle 5.47-5.725GHz	Pass		11.4406G	63.90	74.00	-10.10	13.62	3	Vertical	10	1.62	-
5720MHz Straddle 5.47-5.725GHz	Pass	AV	11.44096G	51.23	54.00	-2.77	13.62	3	Horizontal	122	1.71	-
5720MHz Straddle 5.47-5.725GHz	Pass	PK	11.44744G	63.93	74.00	-10.07	13.62	3	Horizontal	122	1.71	-
5745MHz	Pass	AV	5.7402G	101.00	Inf	-Inf	3.62	3	Vertical	259	2.57	-
5745MHz	Pass	PK	5.5674G	55.20	68.20	-13.00	3.27	3	Vertical	259	2.57	-
5745MHz	Pass	PK	5.7402G	110.23	Inf	-Inf	3.62	3	Vertical	259	2.57	-
5745MHz	Pass	PK	5.9586G	56.04	68.20	-12.16	4.04	3	Vertical	259	2.57	-
5745MHz	Pass	AV	5.7402G	92.94	Inf	-Inf	3.62	3	Horizontal	359	2.99	-
5745MHz	Pass	PK	5.5722G	55.09	68.20	-13.11	3.28	3	Horizontal	359	2.99	-
5745MHz	Pass	PK	5.7378G	102.35	Inf	-Inf	3.61	3	Horizontal	359	2.99	-
5745MHz	Pass	PK	5.985G	55.46	68.20	-12.74	4.10	3	Horizontal	359	2.99	-
5745MHz	Pass	AV	11.48964G	45.94	54.00	-8.06	13.58	3	Vertical	62	1.58	-
5745MHz	Pass	PK	11.48748G	60.09	74.00	-13.91	13.59	3	Vertical	62	1.58	-
5745MHz	Pass	AV	11.4897G	51.08	54.00	-2.92	13.58	3	Horizontal	359	1.82	-
5745MHz	Pass	PK	11.48892G	64.26	74.00	-9.74	13.59	3	Horizontal	359	1.82	-
5785MHz	Pass	AV	5.7802G	100.59	Inf	-Inf	3.69	3	Vertical	257	2.55	-

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E4 of E112





		Ι_	_				_					I _
Mode	Result	Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
5785MHz	Pass	PK	5.5654G	54.74	68.20	-13.46	3.27	3	Vertical	257	2.55	-
5785MHz	Pass	PK	5.7886G	110.62	Inf	-Inf	3.70	3	Vertical	257	2.55	-
5785MHz	Pass	PK	5.9686G	55.42	68.20	-12.78	4.07	3	Vertical	257	2.55	-
5785MHz	Pass	AV	5.7802G	95.14	Inf	-Inf	3.69	3	Horizontal	356	1.40	-
5785MHz	Pass	PK	5.641G	55.12	68.20	-13.08	3.43	3	Horizontal	356	1.40	-
5785MHz	Pass	PK	5.7886G	104.50	Inf	-Inf	3.70	3	Horizontal	356	1.40	-
5785MHz	Pass	PK	5.9614G	55.86	68.20	-12.34	4.05	3	Horizontal	356	1.40	-
5785MHz	Pass	AV	11.56892G	51.45	54.00	-2.55	13.50	3	Vertical	5	1.62	-
5785MHz	Pass	PK	11.57222G	64.66	74.00	-9.34	13.51	3	Vertical	5	1.62	-
5785MHz	Pass	AV	11.57066G	50.24	54.00	-3.76	13.51	3	Horizontal	298	1.74	-
5785MHz	Pass	PK	11.56892G	63.94	74.00	-10.06	13.50	3	Horizontal	298	1.74	-
5825MHz	Pass	AV	5.8202G	99.68	Inf	-Inf	3.77	3	Vertical	256	2.50	-
5825MHz	Pass	PK	5.6246G	54.96	68.20	-13.24	3.39	3	Vertical	256	2.50	-
5825MHz	Pass	PK	5.8286G	109.55	Inf	-Inf	3.79	3	Vertical	256	2.50	-
5825MHz	Pass	PK	5.9354G	55.35	68.20	-12.85	4.00	3	Vertical	256	2.50	-
5825MHz	Pass	AV	5.8202G	94.88	Inf	-Inf	3.77	3	Horizontal	355	1.81	-
5825MHz	Pass	PK	5.5562G	54.65	68.20	-13.55	3.25	3	Horizontal	355	1.81	-
5825MHz	Pass	PK	5.8214G	103.86	Inf	-Inf	3.77	3	Horizontal	355	1.81	-
5825MHz	Pass	PK	5.9534G	55.10	68.20	-13.10	4.03	3	Horizontal	355	1.81	-
5825MHz	Pass	AV	11.647G	51.58	54.00	-2.42	13.43	3	Vertical	359	1.50	-
5825MHz	Pass	PK	11.64844G	64.54	74.00	-9.46	13.43	3	Vertical	359	1.50	-
5825MHz	Pass	AV	11.65036G	51.96	54.00	-2.04	13.43	3	Horizontal	300	1.79	-
5825MHz	Pass	PK	11.65186G	64.49	74.00	-9.51	13.43	3	Horizontal	300	1.79	-
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	AV	5.15G	48.41	54.00	-5.59	2.74	3	Vertical	275	1.68	-
5180MHz	Pass	AV	5.1854G	92.47	Inf	-Inf	2.78	3	Vertical	275	1.68	-
5180MHz	Pass	PK	5.1496G	62.86	74.00	-11.14	2.74	3	Vertical	275	1.68	-
5180MHz	Pass	PK	5.1836G	102.58	Inf	-Inf	2.78	3	Vertical	275	1.68	-
5180MHz	Pass	AV	5.1496G	51.26	54.00	-2.74	2.74	3	Horizontal	348	1.77	-
5180MHz	Pass	AV	5.1846G	94.67	Inf	-Inf	2.78	3	Horizontal	348	1.77	-
5180MHz	Pass	PK	5.1496G	65.56	74.00	-8.44	2.74	3	Horizontal	348	1.77	-
5180MHz	Pass	PK	5.1822G	104.74	Inf	-Inf	2.78	3	Horizontal	348	1.77	_
5180MHz	Pass	AV	10.36126G	50.19	54.00	-3.81	12.64	3	Vertical	29	1.85	-
5180MHz	Pass	PK	10.36048G	64.13	74.00	-9.87	12.63	3	Vertical	29	1.85	_
5180MHz	Pass	AV	10.36144G	51.09	54.00	-2.91	12.64	3	Horizontal	6	1.66	_
5180MHz	Pass	PK	10.35922G	64.19	74.00	-9.81	12.63	3	Horizontal	6	1.66	_
5200MHz	Pass	AV	5.124G	42.64	54.00	-11.36	2.71	3	Vertical	257	2.75	
5200MHz		AV	5.124G 5.2052G	93.76				3		257		-
	Pass				Inf 74.00	-Inf	2.80		Vertical		2.75	-
5200MHz	Pass	PK	5.1184G	54.84	74.00	-19.16	2.70	3	Vertical	257	2.75	
5200MHz	Pass	PK	5.1976G	103.62	Inf	-Inf	2.80	3	Vertical	257	2.75	-
5200MHz	Pass	AV	5.1224G	42.52	54.00	-11.48	2.71	3	Horizontal	344	1.89	-
5200MHz	Pass	AV	5.196G	94.35	Inf	-Inf	2.80	3	Horizontal	344	1.89	-
5200MHz	Pass	PK	5.1088G	54.55	74.00	-19.45	2.70	3	Horizontal	344	1.89	-
5200MHz	Pass	PK	5.1984G	104.31	Inf	-Inf	2.80	3	Horizontal	344	1.89	-
5200MHz	Pass	AV	10.39904G	49.85	54.00	-4.15	12.73	3	Vertical	46	1.80	-
5200MHz	Pass	PK	10.39844G	62.55	74.00	-11.45	12.73	3	Vertical	46	1.80	-
5200MHz	Pass	AV	10.4012G	51.98	54.00	-2.02	12.73	3	Horizontal	294	1.61	-
5200MHz	Pass	PK	10.40084G	65.22	74.00	-8.78	12.73	3	Horizontal	294	1.61	-
5240MHz	Pass	AV	5.1404G	42.64	54.00	-11.36	2.73	3	Vertical	255	2.74	-

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E5 of E112





Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
		,	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
5240MHz	Pass	AV	5.2448G	95.77	Inf	-Inf	2.85	3	Vertical	255	2.74	-
5240MHz	Pass	AV	5.3564G	41.86	54.00	-12.14	2.97	3	Vertical	255	2.74	-
5240MHz	Pass	PK	5.1086G	54.69	74.00	-19.31	2.70	3	Vertical	255	2.74	-
5240MHz	Pass	PK	5.2454G	105.18	Inf	-Inf	2.85	3	Vertical	255	2.74	-
5240MHz	Pass	PK	5.3666G	53.85	74.00	-20.15	2.99	3	Vertical	255	2.74	-
5240MHz	Pass	AV	5.09G	42.51	54.00	-11.49	2.66	3	Horizontal	344	1.83	-
5240MHz	Pass	AV	5.2448G	95.22	Inf	-Inf	2.85	3	Horizontal	344	1.83	-
5240MHz	Pass	AV	5.3588G	41.82	54.00	-12.18	2.98	3	Horizontal	344	1.83	-
5240MHz	Pass	PK	5.1056G	54.98	74.00	-19.02	2.68	3	Horizontal	344	1.83	-
5240MHz	Pass	PK	5.2436G	104.61	Inf	-Inf	2.85	3	Horizontal	344	1.83	-
5240MHz	Pass	PK	5.3618G	53.52	74.00	-20.48	2.98	3	Horizontal	344	1.83	-
5240MHz	Pass	AV	10.47892G	49.55	54.00	-4.45	12.90	3	Vertical	27	1.83	-
5240MHz	Pass	PK	10.48072G	63.20	74.00	-10.80	12.90	3	Vertical	27	1.83	-
5240MHz	Pass	AV	10.48138G	51.55	54.00	-2.45	12.90	3	Horizontal	294	1.58	-
5240MHz	Pass	PK	10.4803G	64.86	74.00	-9.14	12.90	3	Horizontal	294	1.58	_
5260MHz	Pass	AV	5.1184G	42.53	54.00	-11.47	2.70	3	Vertical	254	2.73	_
5260MHz	Pass	AV	5.2642G	95.36	Inf	-Inf	2.87	3	Vertical	254	2.73	_
5260MHz	Pass	AV	5.4088G	41.91	54.00	-12.09	3.05	3	Vertical	254	2.73	_
5260MHz	Pass	PK	5.1382G	54.51	74.00	-19.49	2.73	3	Vertical	254	2.73	_
5260MHz	Pass	PK	5.2636G	105.52	Inf	-Inf	2.87	3	Vertical	254	2.73	-
5260MHz	Pass	PK	5.38G	54.17	74.00	-19.83	3.01	3	Vertical	254	2.73	
5260MHz	Pass	AV	5.1496G	42.36	54.00	-11.64	2.74	3	Horizontal	345	1.75	
5260MHz	Pass	AV	5.2648G	93.94	Inf	-11.04 -Inf	2.88	3	Horizontal	345	1.75	_
5260MHz	Pass	AV	5.3848G	41.81	54.00	-12.19	3.01	3	Horizontal	345	1.75	
5260MHz	Pass	PK	5.15G	54.14	74.00	-12.19	2.74	3	Horizontal	345	1.75	-
5260MHz	Pass	PK	5.2558G	103.52	Inf	-17.00 -Inf	2.86	3	Horizontal	345	1.75	
5260MHz	Pass	PK	5.395G	53.60	74.00	-20.40	3.03	3	Horizontal	345	1.75	-
5260MHz	Pass	AV	10.51898G	48.66	54.00	-5.34	12.98	3	Vertical	40	1.78	-
		PK					12.90					-
5260MHz 5260MHz	Pass Pass	AV	10.52432G	61.26 51.63	74.00	-12.74		3	Vertical	40	1.78	-
			10.51898G 10.52066G		54.00	-2.37	12.98	3	Horizontal Horizontal	286	1.78	-
5260MHz	Pass	PK AV	5.2944G	65.27 97.40	74.00	-8.73	12.98 3.95	3		286 245	1.78 2.68	-
5300MHz	Pass	AV			Inf 54.00	-Inf			Vertical	245		-
5300MHz	Pass		5.3848G	45.64		-8.36	4.11	3	Vertical		2.68	-
5300MHz	Pass	PK PK	5.3044G	107.59	74.00	-Inf	3.97	3	Vertical	245	2.68	-
5300MHz	Pass	AV	5.3856G 5.302G	57.72 93.98		-16.28	4.11	3	Vertical	245	2.68	-
5300MHz 5300MHz	Pass		5.302G 5.3768G		Inf 54.00	-Inf	3.96		Horizontal	1	1.50	-
	Pass	AV PK		45.23	54.00	-8.77	4.10	3	Horizontal	1	1.50	-
5300MHz	Pass		5.298G	104.81	Inf	-Inf	3.96	3	Horizontal		1.50	-
5300MHz	Pass	PK	5.378G	57.59	74.00	-16.41	4.10	3	Horizontal	1 12	1.50	-
5300MHz	Pass	AV	10.6003G	50.54	54.00	-3.46	14.80	3	Vertical	13	1.82	-
5300MHz	Pass	PK	10.59838G	64.78	74.00	-9.22	14.80	3	Vertical	13	1.82	-
5300MHz	Pass	AV	10.60096G	51.56	54.00	-2.44	14.80	3	Horizontal	301	1.78	-
5300MHz	Pass	PK	10.5991G	64.68	74.00	-9.32	14.80	3	Horizontal	301	1.78	-
5320MHz	Pass	AV	5.3228G	99.59	Inf	-Inf	4.00	3	Vertical	245	2.77	-
5320MHz	Pass	AV	5.3506G	51.78	54.00	-2.22	4.05	3	Vertical	245	2.77	-
5320MHz	Pass	PK	5.3162G	109.66	Inf	-Inf	3.99	3	Vertical	245	2.77	-
5320MHz	Pass	PK	5.3548G	65.22	74.00	-8.78	4.06	3	Vertical	245	2.77	-
5320MHz	Pass	AV	5.3172G	97.29	Inf	-Inf	3.99	3	Horizontal	8	2.77	-
5320MHz	Pass	AV	5.35G	50.01	54.00	-3.99	4.05	3	Horizontal	8	2.77	-

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E6 of E112





Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
		,,	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
5320MHz	Pass	PK	5.3168G	107.80	Inf	-Inf	3.99	3	Horizontal	8	2.77	-
5320MHz	Pass	PK	5.3522G	63.38	74.00	-10.62	4.05	3	Horizontal	8	2.77	-
5320MHz	Pass	AV	10.6403G	50.18	54.00	-3.82	14.89	3	Vertical	45	1.77	-
5320MHz	Pass	PK	10.63586G	63.50	74.00	-10.50	14.88	3	Vertical	45	1.77	-
5320MHz	Pass	AV	10.63898G	51.49	54.00	-2.51	14.89	3	Horizontal	302	1.78	_
5320MHz	Pass	PK	10.63778G	65.13	74.00	-8.87	14.89	3	Horizontal	302	1.78	_
5500MHz	Pass	AV	5.4598G	47.12	54.00	-6.88	4.25	3	Vertical	245	2.77	_
5500MHz	Pass	AV	5.495G	98.25	Inf	-Inf	4.31	3	Vertical	245	2.77	_
5500MHz	Pass	PK	5.4684G	65.23	68.20	-2.97	4.26	3	Vertical	245	2.77	_
5500MHz	Pass	PK	5.4958G	108.60	Inf	-Inf	4.31	3	Vertical	245	2.77	_
5500MHz	Pass	AV	5.46G	46.72	54.00	-7.28	4.25	3	Horizontal	2	2.99	_
5500MHz	Pass	AV	5.5038G	96.53	Inf	-1.20	4.33	3	Horizontal	2	2.99	
5500MHz	Pass	PK	5.4694G	64.86	68.20	-3.34	4.26	3	Horizontal	2	2.99	_
5500MHz	Pass	PK	5.5014G	107.20	Inf	-5.54 -Inf	4.32	3	Horizontal	2	2.99	-
5500MHz			10.99928G									-
	Pass	AV		49.30	54.00	-4.70	15.62	3	Vertical	277	1.70	-
5500MHz	Pass	PK	10.9955G	63.05	74.00	-10.95	15.61	3	Vertical	277	1.70	-
5500MHz	Pass	AV	11.0039G	51.93	54.00	-2.07	15.62	3	Horizontal	145	1.64	-
5500MHz	Pass	PK	11.00132G	65.65	74.00	-8.35	15.62	3	Horizontal	145	1.64	-
5580MHz	Pass	AV	5.4318G	44.85	54.00	-9.15	4.20	3	Vertical	247	2.56	-
5580MHz	Pass	AV	5.5752G	96.56	Inf	-Inf	4.44	3	Vertical	247	2.56	-
5580MHz	Pass	PK	5.463G	56.03	68.20	-12.17	4.26	3	Vertical	247	2.56	-
5580MHz	Pass	PK	5.5848G	107.26	Inf	-Inf	4.44	3	Vertical	247	2.56	-
5580MHz	Pass	PK	5.7282G	56.35	68.20	-11.85	4.67	3	Vertical	247	2.56	-
5580MHz	Pass	AV	5.4354G	44.59	54.00	-9.41	4.20	3	Horizontal	2	2.92	-
5580MHz	Pass	AV	5.5848G	94.75	Inf	-Inf	4.44	3	Horizontal	2	2.92	-
5580MHz	Pass	PK	5.466G	57.60	68.20	-10.60	4.26	3	Horizontal	2	2.92	-
5580MHz	Pass	PK	5.5818G	105.18	Inf	-Inf	4.44	3	Horizontal	2	2.92	-
5580MHz	Pass	PK	5.7294G	56.23	68.20	-11.97	4.67	3	Horizontal	2	2.92	-
5580MHz	Pass	AV	11.15922G	47.60	54.00	-6.40	15.43	3	Vertical	340	1.49	-
5580MHz	Pass	PK	11.16078G	61.11	74.00	-12.89	15.43	3	Vertical	340	1.49	-
5580MHz	Pass	AV	11.16126G	51.76	54.00	-2.24	15.43	3	Horizontal	137	1.75	-
5580MHz	Pass	PK	11.16768G	65.03	74.00	-8.97	15.43	3	Horizontal	137	1.75	-
5700MHz	Pass	AV	5.6936G	98.54	Inf	-Inf	4.62	3	Vertical	245	2.62	-
5700MHz	Pass	PK	5.6936G	108.94	Inf	-Inf	4.62	3	Vertical	245	2.62	-
5700MHz	Pass	PK	5.7252G	64.27	68.20	-3.93	4.67	3	Vertical	245	2.62	-
5700MHz	Pass	AV	5.6968G	95.90	Inf	-Inf	4.63	3	Horizontal	0	2.92	-
5700MHz	Pass	PK	5.6952G	105.86	Inf	-Inf	4.62	3	Horizontal	0	2.92	-
5700MHz	Pass	PK	5.7256G	63.25	68.20	-4.95	4.67	3	Horizontal	0	2.92	-
5700MHz	Pass	PK	11.40216G	62.30	74.00	-11.70	15.16	3	Vertical	347	1.73	-
5700MHz	Pass	AV	11.3988G	48.91	54.00	-5.09	15.16	3	Vertical	347	1.73	-
5700MHz	Pass	AV	11.40144G	51.94	54.00	-2.06	15.16	3	Horizontal	139	1.79	-
5700MHz	Pass	PK	11.40048G	65.33	74.00	-8.67	15.16	3	Horizontal	139	1.79	-
5720MHz Straddle 5.47-5.725GHz	Pass	AV	5.4524G	44.81	54.00	-9.19	4.23	3	Vertical	244	2.58	-
5720MHz Straddle 5.47-5.725GHz	Pass	AV	5.7164G	97.88	Inf	-Inf	4.66	3	Vertical	244	2.58	-
5720MHz Straddle 5.47-5.725GHz	Pass	PK	5.4644G	56.80	68.20	-11.40	4.26	3	Vertical	244	2.58	-
5720MHz Straddle 5.47-5.725GHz	Pass	PK	5.714G	108.03	Inf	-Inf	4.66	3	Vertical	244	2.58	-
5720MHz Straddle 5.47-5.725GHz	Pass	PK	5.9888G	57.51	68.20	-10.69	5.08	3	Vertical	244	2.58	-
5720MHz Straddle 5.47-5.725GHz	Pass	AV	5.4452G	44.71	54.00	-9.29	4.22	3	Horizontal	358	2.80	-
5720MHz Straddle 5.47-5.725GHz	Pass	AV	5.7152G	95.23	Inf	-Inf	4.66	3	Horizontal	358	2.80	

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E7 of E112

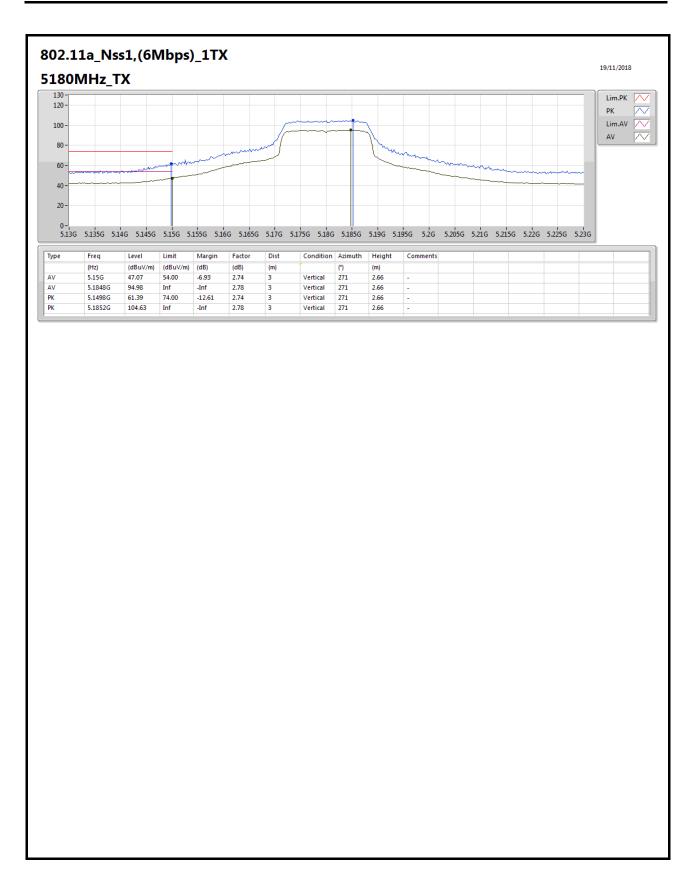




Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
5720MHz Straddle 5.47-5.725GHz	Pass	PK	5.4656G	56.84	68.20	-11.36	4.26	3	Horizontal	358	2.80	-
5720MHz Straddle 5.47-5.725GHz	Pass	PK	5.7152G	104.67	Inf	-Inf	4.66	3	Horizontal	358	2.80	-
5720MHz Straddle 5.47-5.725GHz	Pass	PK	5.9504G	57.48	68.20	-10.72	5.02	3	Horizontal	358	2.80	-
5720MHz Straddle 5.47-5.725GHz	Pass	AV	11.44138G	49.24	54.00	-4.76	15.11	3	Vertical	342	1.77	-
5720MHz Straddle 5.47-5.725GHz	Pass	PK	11.43652G	63.04	74.00	-10.96	15.12	3	Vertical	342	1.77	-
5720MHz Straddle 5.47-5.725GHz	Pass	AV	11.44162G	51.74	54.00	-2.26	15.11	3	Horizontal	137	1.69	-
5720MHz Straddle 5.47-5.725GHz	Pass	PK	11.43886G	65.01	74.00	-8.99	15.11	3	Horizontal	137	1.69	-
5745MHz	Pass	AV	5.7498G	97.98	Inf	-Inf	4.71	3	Vertical	249	2.56	-
5745MHz	Pass	PK	5.463G	57.68	68.20	-10.52	4.26	3	Vertical	249	2.56	-
5745MHz	Pass	PK	5.7462G	107.86	Inf	-Inf	4.70	3	Vertical	249	2.56	-
5745MHz	Pass	PK	5.943G	57.55	68.20	-10.65	5.02	3	Vertical	249	2.56	-
5745MHz	Pass	AV	5.7474G	95.12	Inf	-Inf	4.71	3	Horizontal	359	2.78	-
5745MHz	Pass	PK	5.559G	57.97	68.20	-10.23	4.40	3	Horizontal	359	2.78	-
5745MHz	Pass	PK	5.7474G	105.20	Inf	-Inf	4.71	3	Horizontal	359	2.78	-
5745MHz	Pass	PK	5.9622G	57.62	68.20	-10.58	5.04	3	Horizontal	359	2.78	-
5745MHz	Pass	AV	11.48868G	50.36	54.00	-3.64	15.05	3	Vertical	345	1.94	-
5745MHz	Pass	PK	11.48886G	64.03	74.00	-9.97	15.05	3	Vertical	345	1.94	-
5745MHz	Pass	AV	11.49048G	51.83	54.00	-2.17	15.05	3	Horizontal	139	1.75	-
5745MHz	Pass	PK	11.49126G	65.13	74.00	-8.87	15.05	3	Horizontal	139	1.75	-
5785MHz	Pass	AV	5.7802G	98.33	Inf	-Inf	4.75	3	Vertical	250	2.53	-
5785MHz	Pass	PK	5.5798G	57.72	68.20	-10.48	4.44	3	Vertical	250	2.53	-
5785MHz	Pass	PK	5.779G	108.77	Inf	-Inf	4.75	3	Vertical	250	2.53	-
5785MHz	Pass	PK	5.9494G	57.85	68.20	-10.35	5.03	3	Vertical	250	2.53	-
5785MHz	Pass	AV	5.7802G	95.92	Inf	-Inf	4.75	3	Horizontal	1	2.99	-
5785MHz	Pass	PK	5.563G	57.74	68.20	-10.46	4.42	3	Horizontal	1	2.99	-
5785MHz	Pass	PK	5.7838G	105.92	Inf	-Inf	4.76	3	Horizontal	1	2.99	-
5785MHz	Pass	PK	5.9638G	58.71	68.20	-9.49	5.05	3	Horizontal	1	2.99	-
5785MHz	Pass	AV	11.56916G	51.65	54.00	-2.35	14.96	3	Vertical	30	2.99	-
5785MHz	Pass	PK	11.56796G	65.46	74.00	-8.54	14.96	3	Vertical	30	2.99	-
5785MHz	Pass	AV	11.5721G	48.83	54.00	-5.17	14.95	3	Horizontal	12	1.72	-
5785MHz	Pass	PK	11.57942G	63.45	74.00	-10.55	14.95	3	Horizontal	12	1.72	-
5825MHz	Pass	AV	5.8202G	98.25	Inf	-Inf	4.82	3	Vertical	244	2.52	-
5825MHz	Pass	PK	5.6078G	57.47	68.20	-10.73	4.48	3	Vertical	244	2.52	-
5825MHz	Pass	PK	5.8262G	108.42	Inf	-Inf	4.83	3	Vertical	244	2.52	-
5825MHz	Pass	PK	5.9738G	58.24	68.20	-9.96	5.06	3	Vertical	244	2.52	-
5825MHz	Pass	AV	5.8202G	95.53	Inf	-Inf	4.82	3	Horizontal	359	2.83	-
5825MHz	Pass	PK	5.5838G	57.64	68.20	-10.56	4.44	3	Horizontal	359	2.83	-
5825MHz	Pass	PK	5.8202G	105.75	Inf	-Inf	4.82	3	Horizontal	359	2.83	-
5825MHz	Pass	PK	5.9882G	57.35	68.20	-10.85	5.08	3	Horizontal	359	2.83	-
5825MHz	Pass	AV	11.6506G	51.87	54.00	-2.13	14.87	3	Vertical	15	1.01	-
5825MHz	Pass	PK	11.65036G	66.36	74.00	-7.64	14.87	3	Vertical	15	1.01	-
5825MHz	Pass	AV	11.64958G	50.59	54.00	-3.41	14.87	3	Horizontal	315	1.78	-
5825MHz	Pass	PK	11.65096G	64.25	74.00	-9.75	14.87	3	Horizontal	315	1.78	-

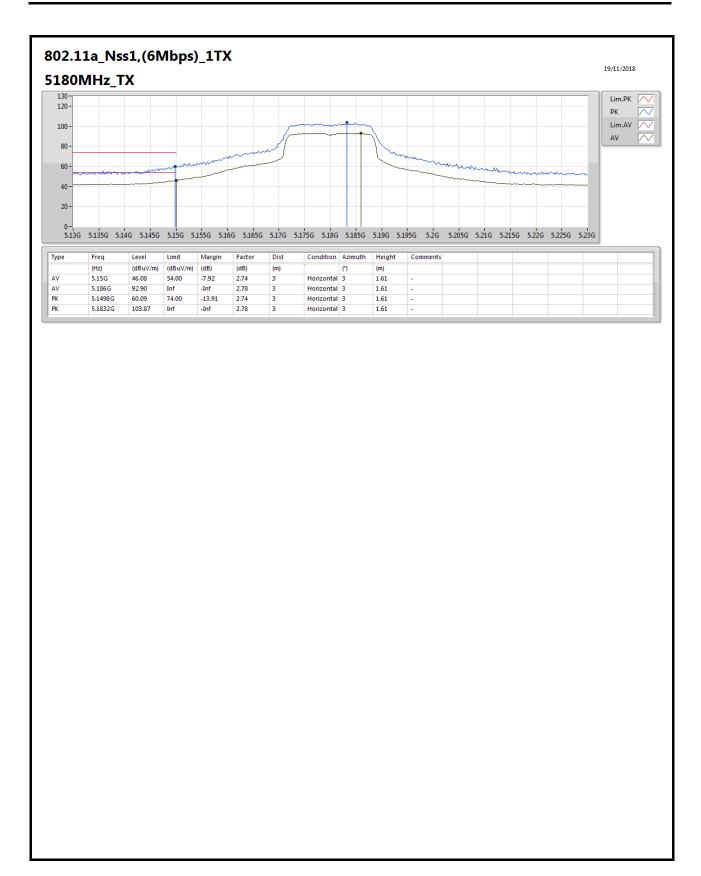
SPORTON INTERNATIONAL INC. Page No. : E8 of E112





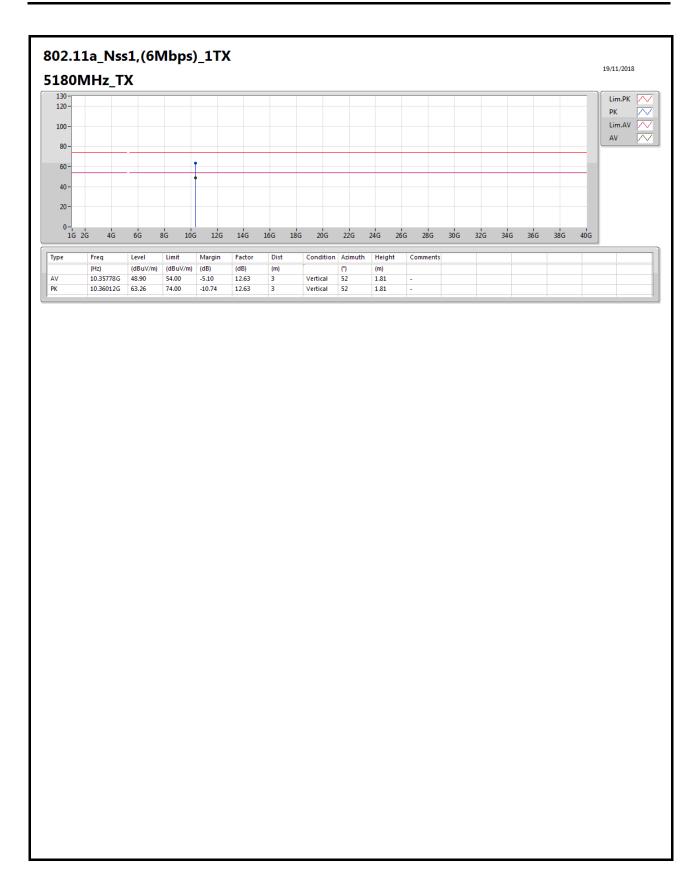
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E9 of E112





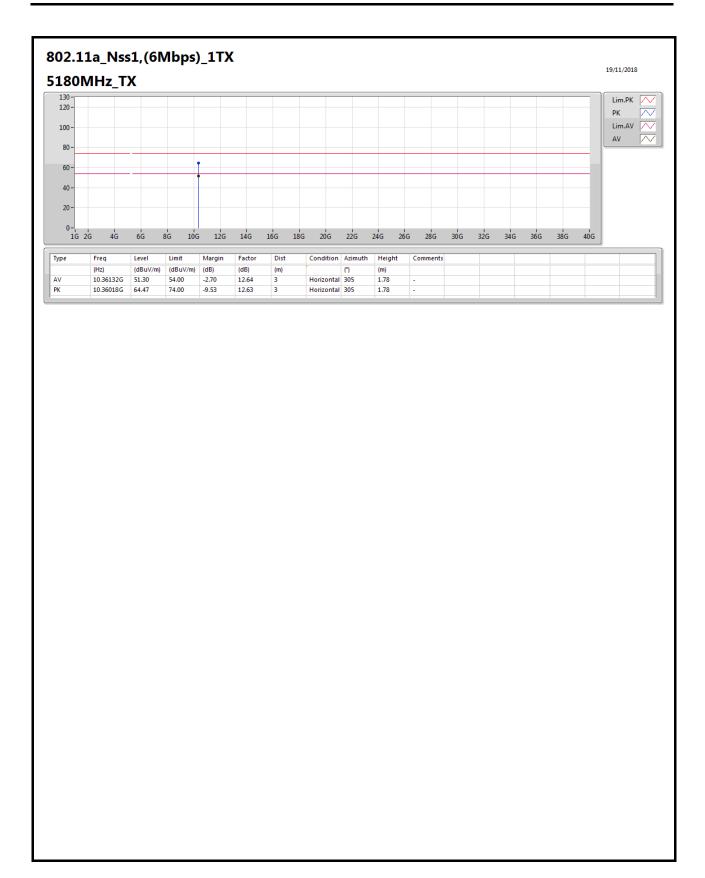
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E10 of E112





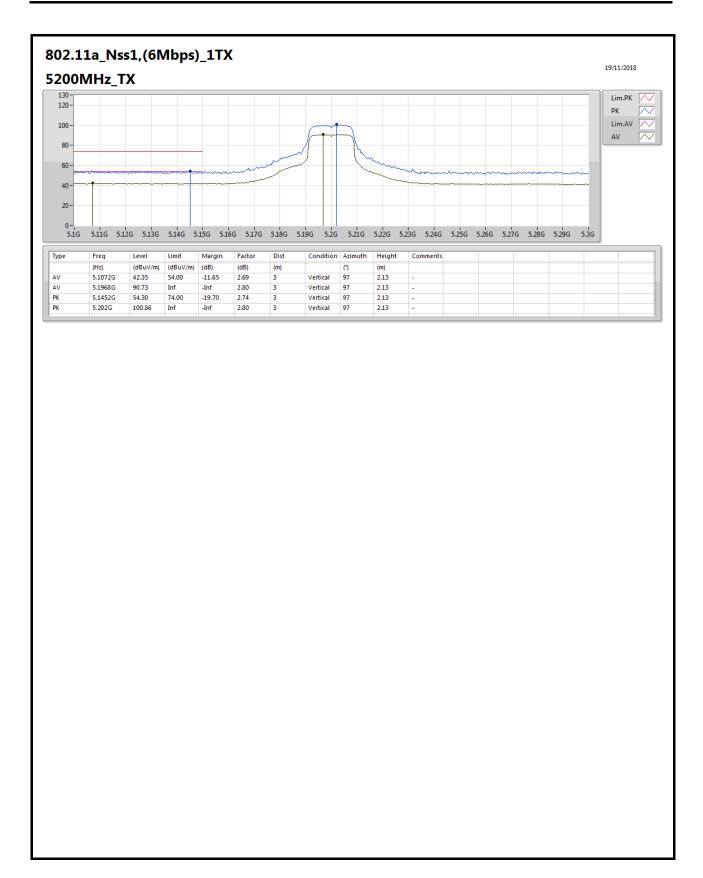
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E11 of E112





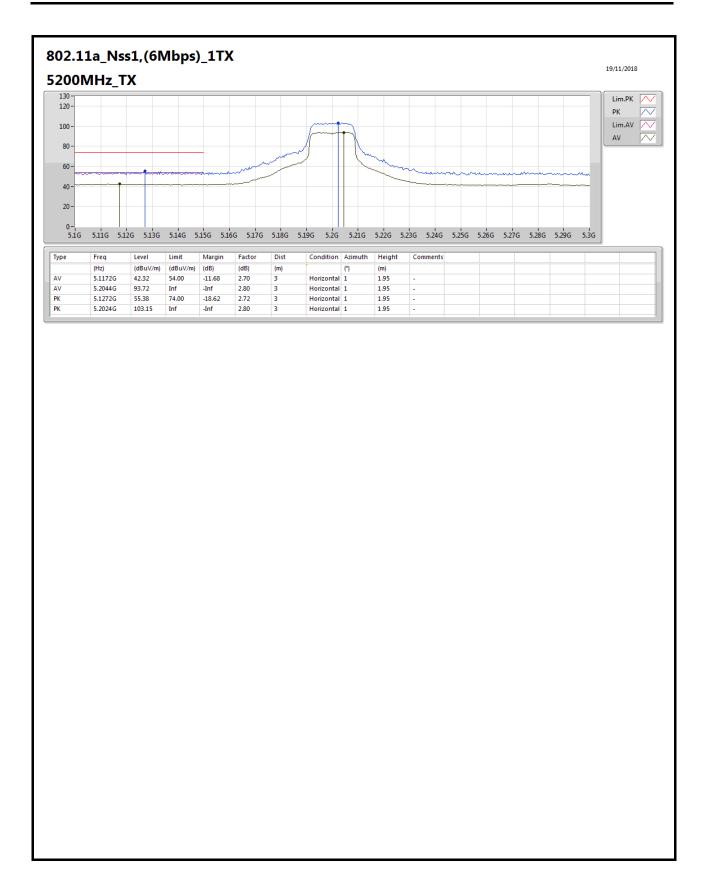
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E12 of E112





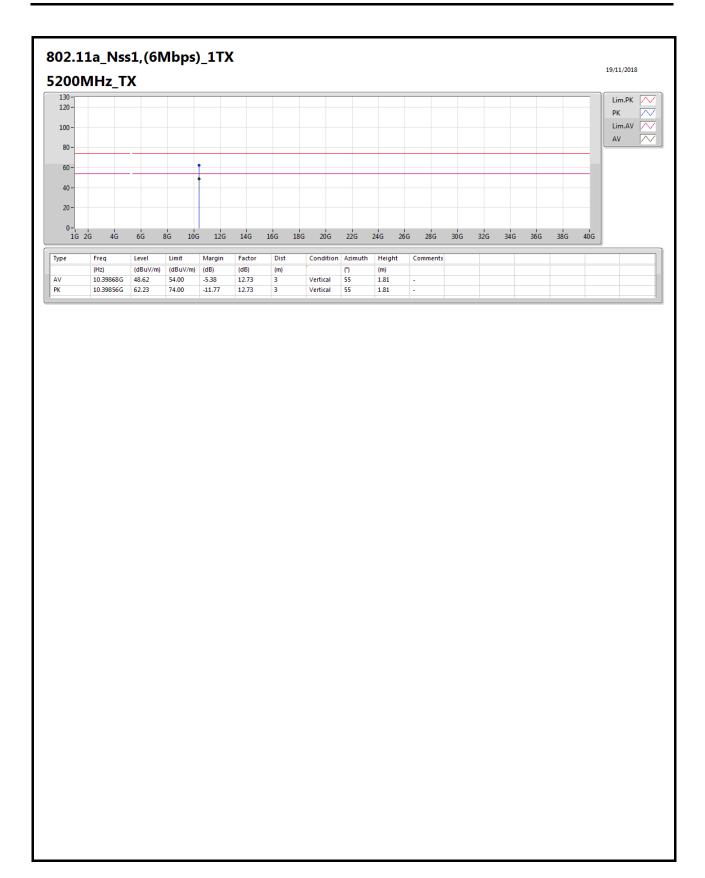
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E13 of E112





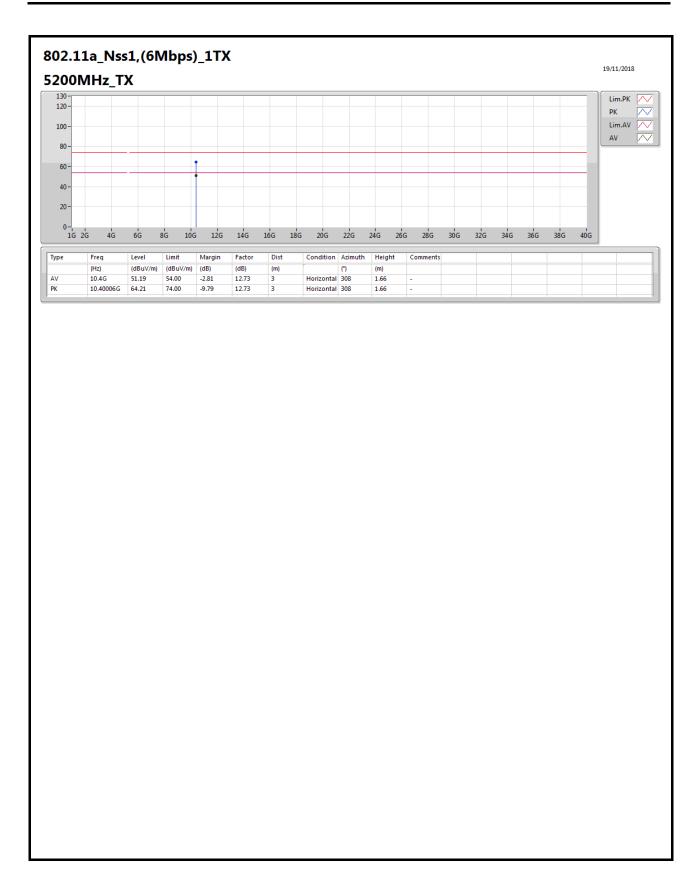
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E14 of E112





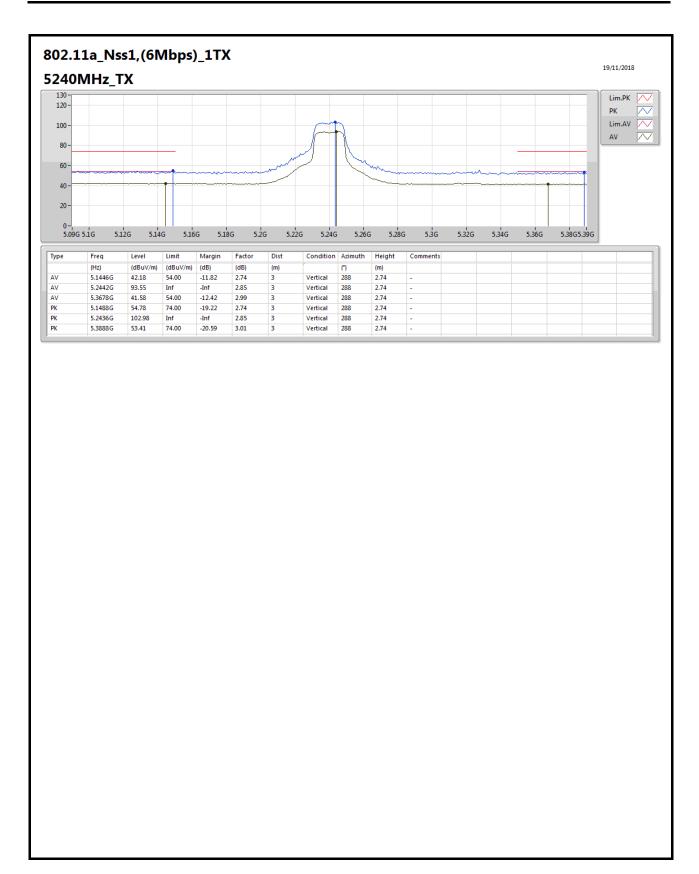
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E15 of E112





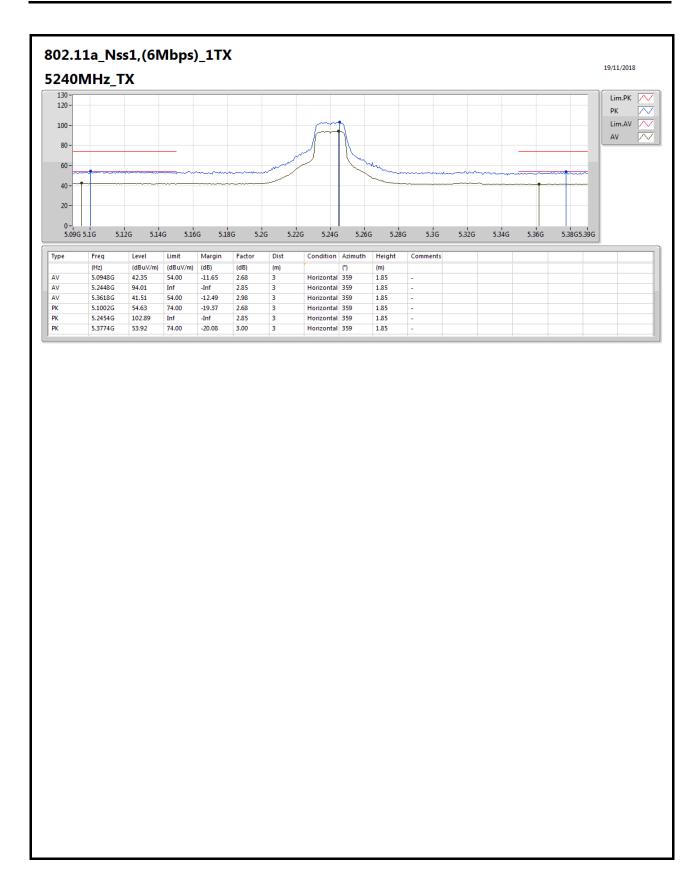
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E16 of E112





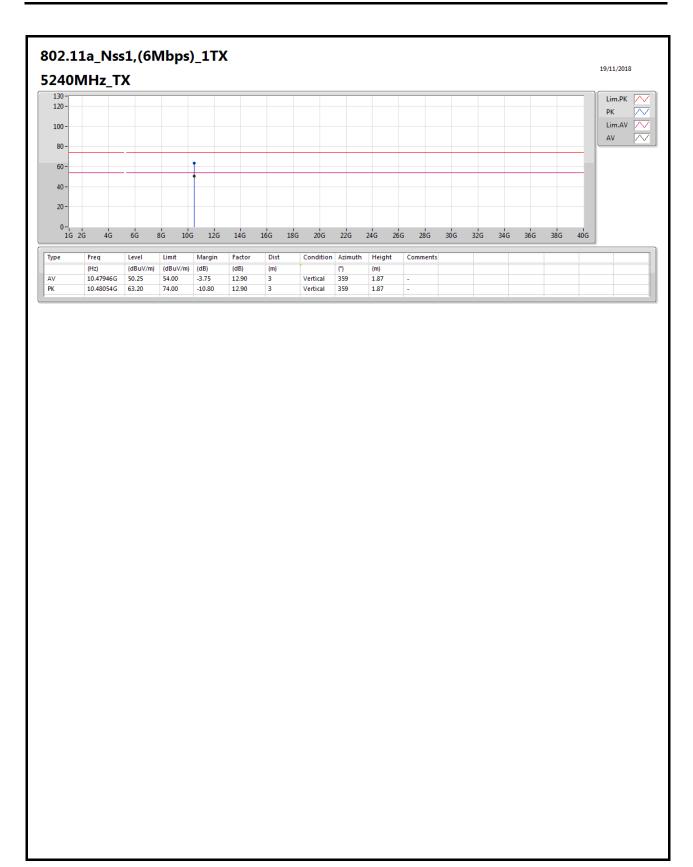
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E17 of E112





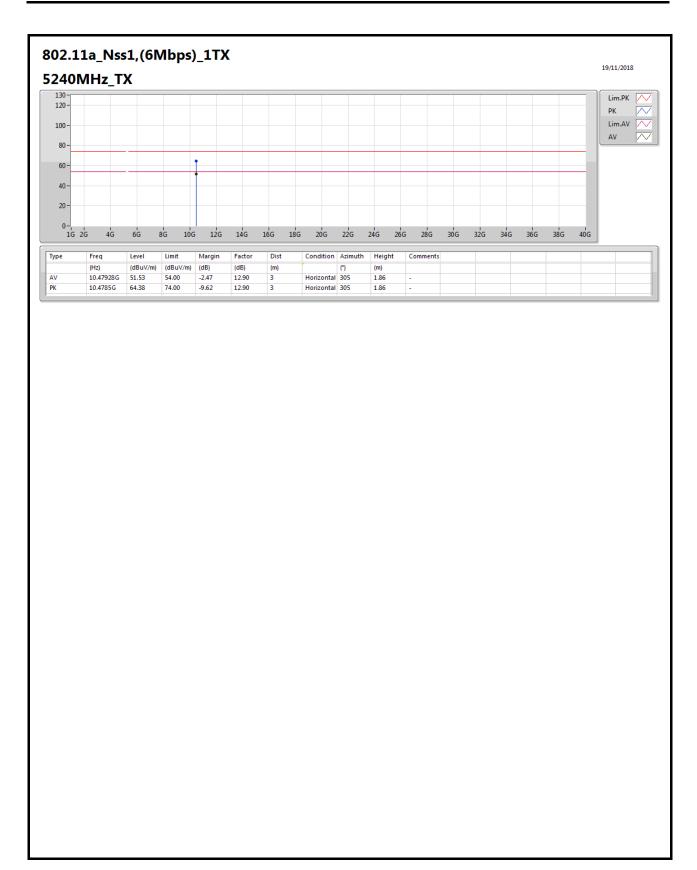
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E18 of E112





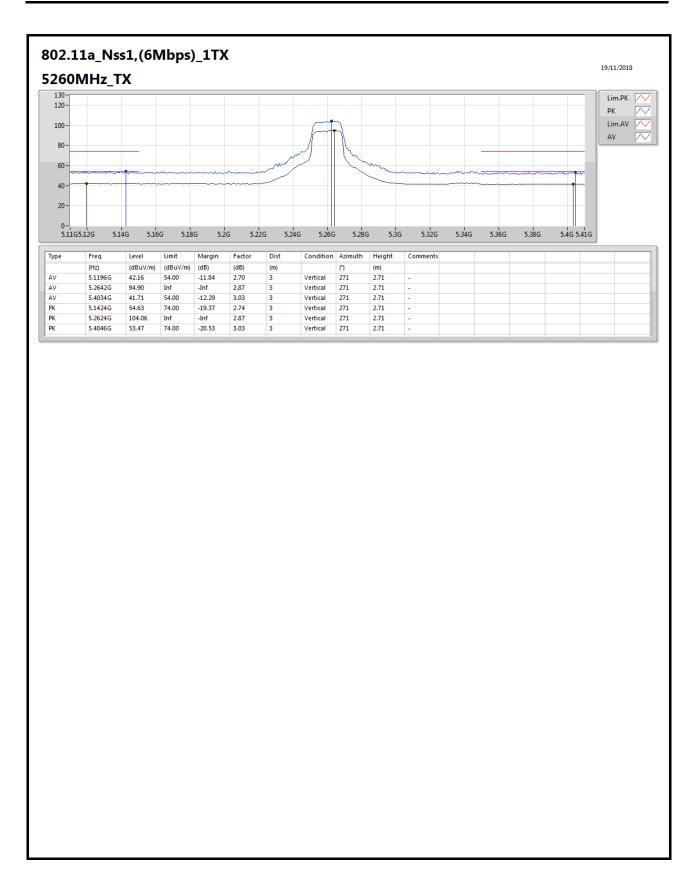
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E19 of E112



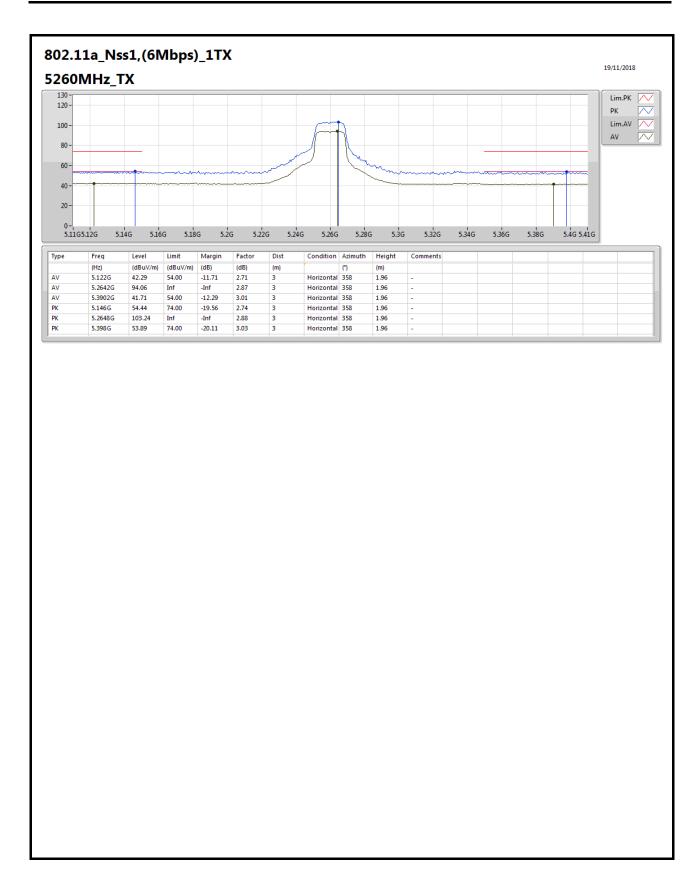


TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E20 of E112



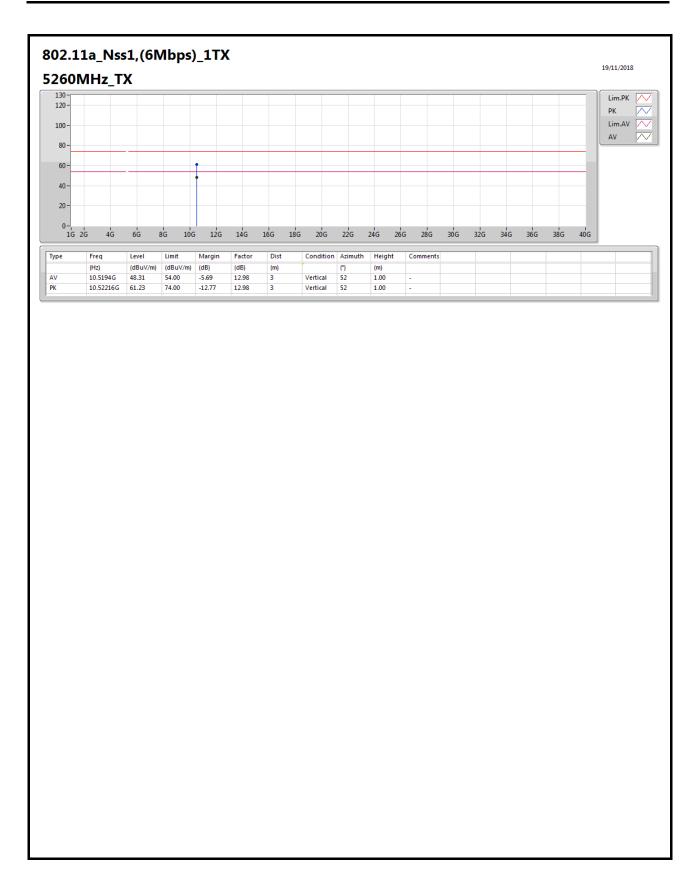






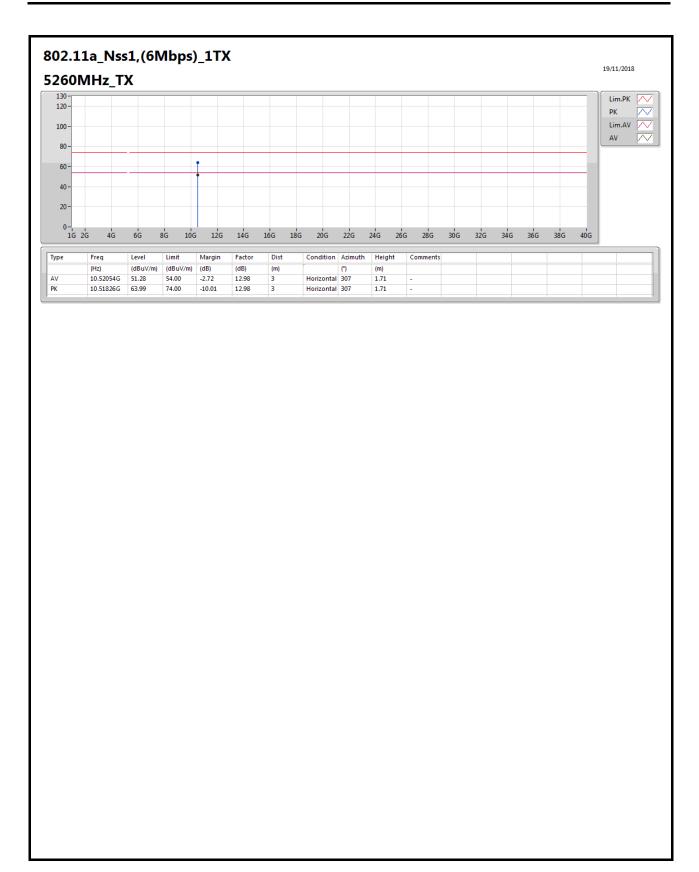
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E22 of E112



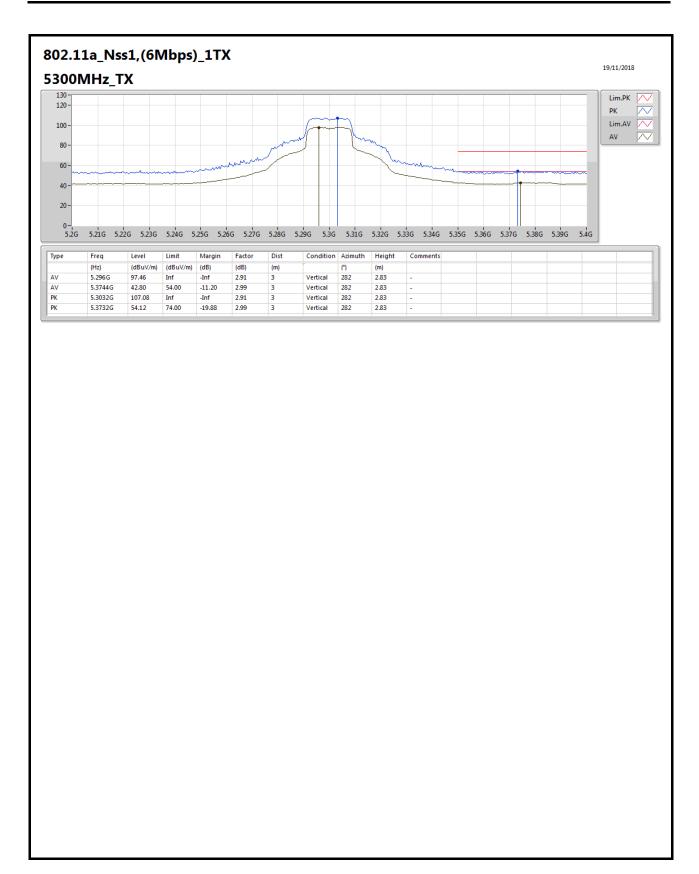


TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E23 of E112



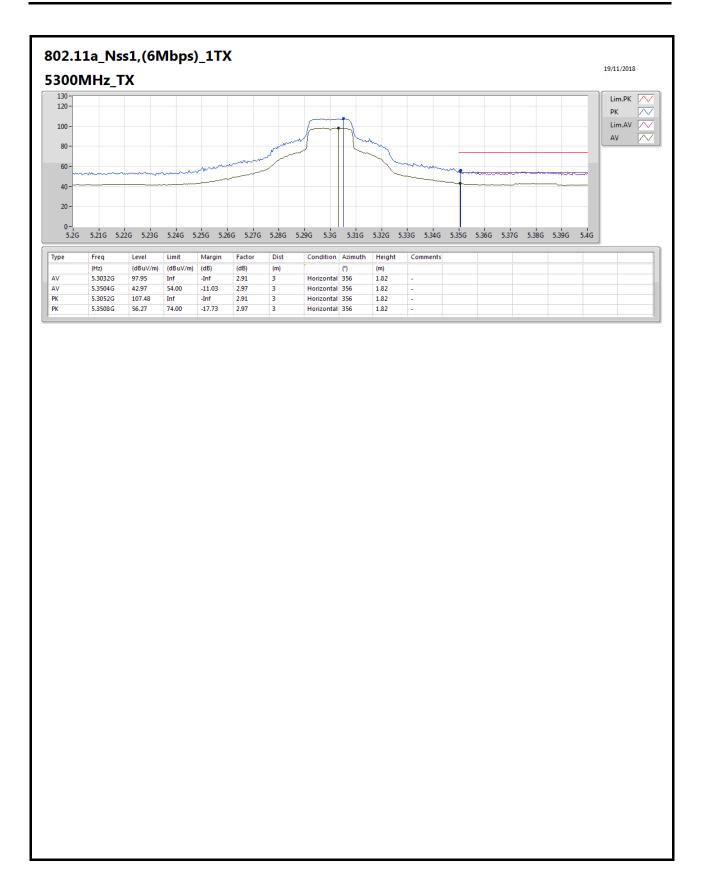






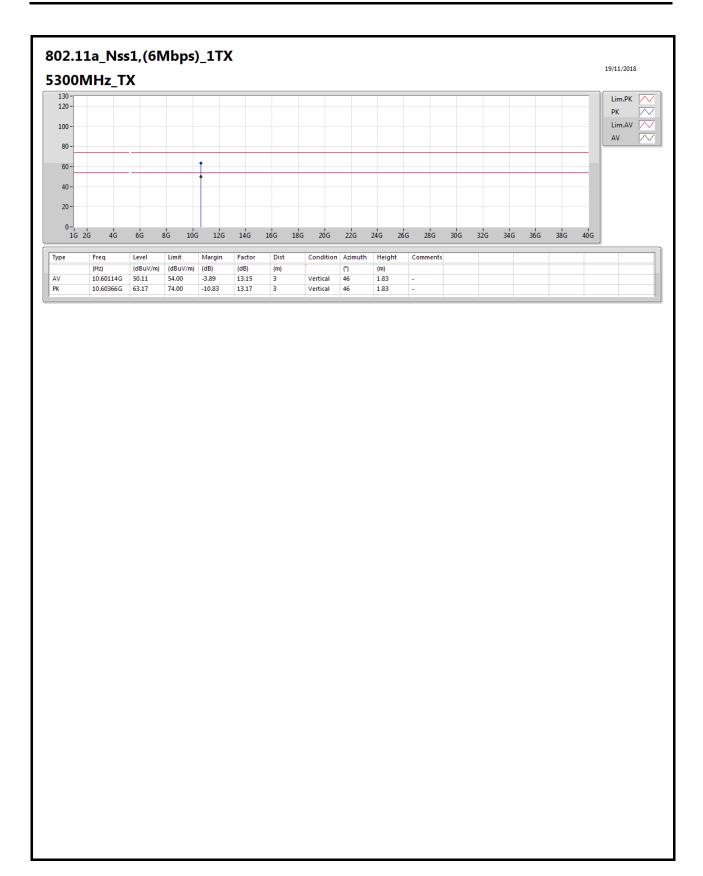
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E25 of E112





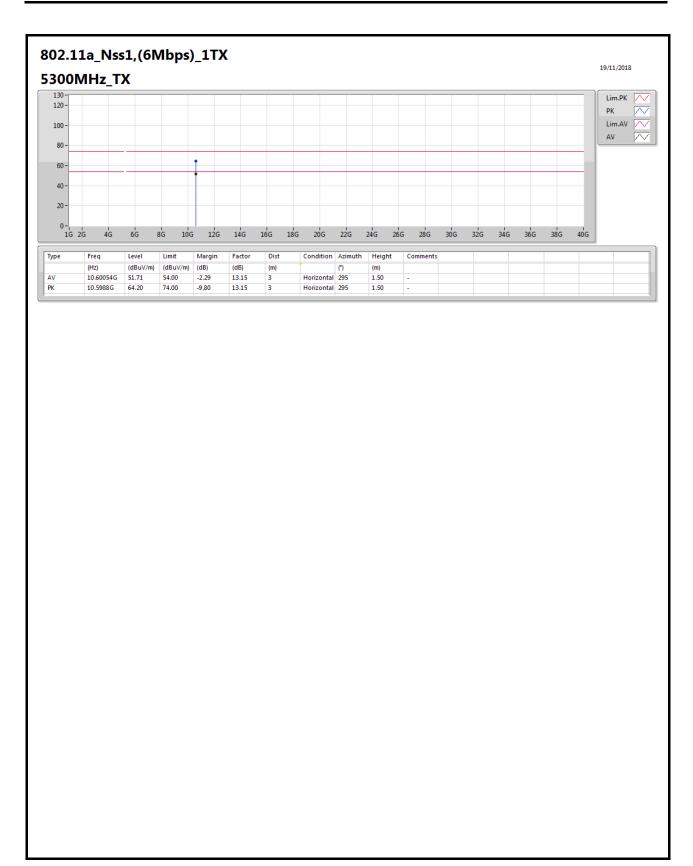
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E26 of E112



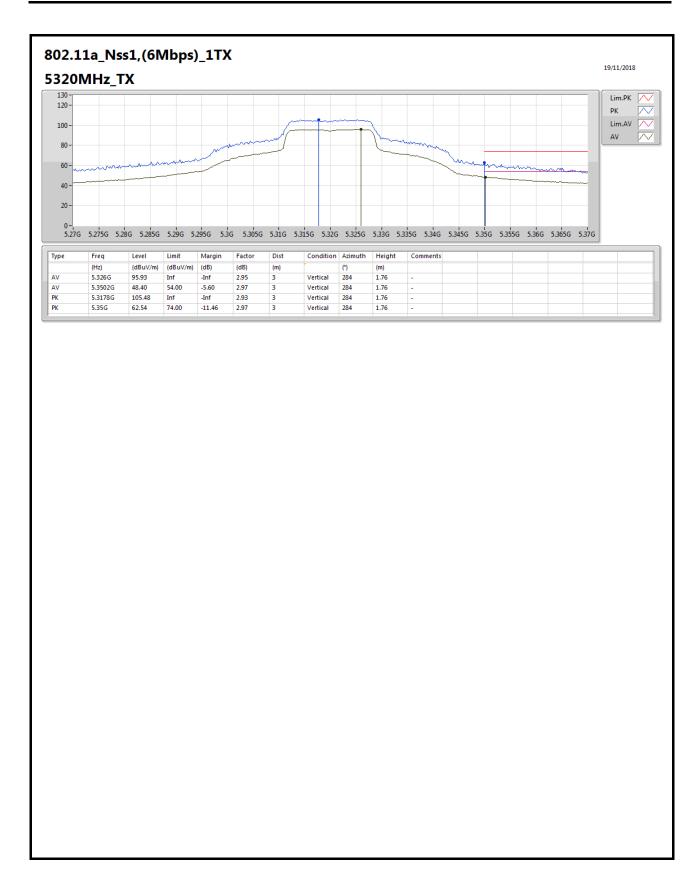


TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E27 of E112



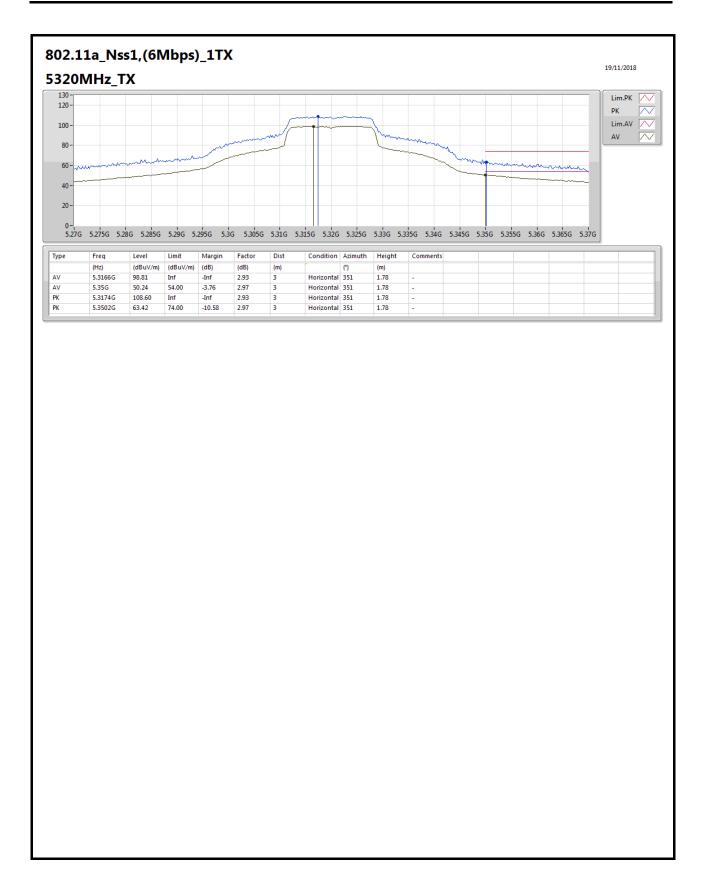






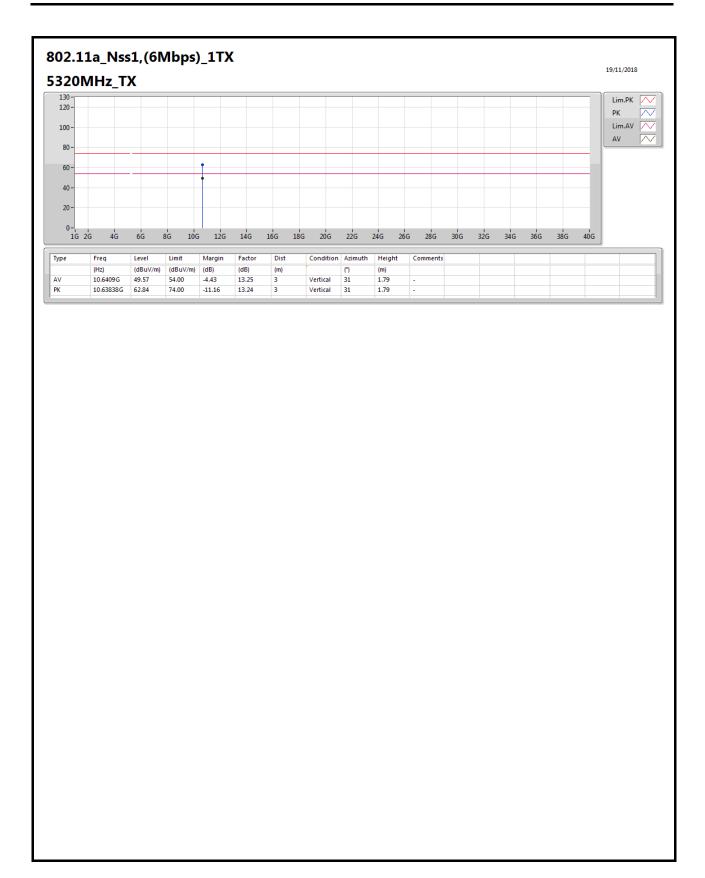
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E29 of E112



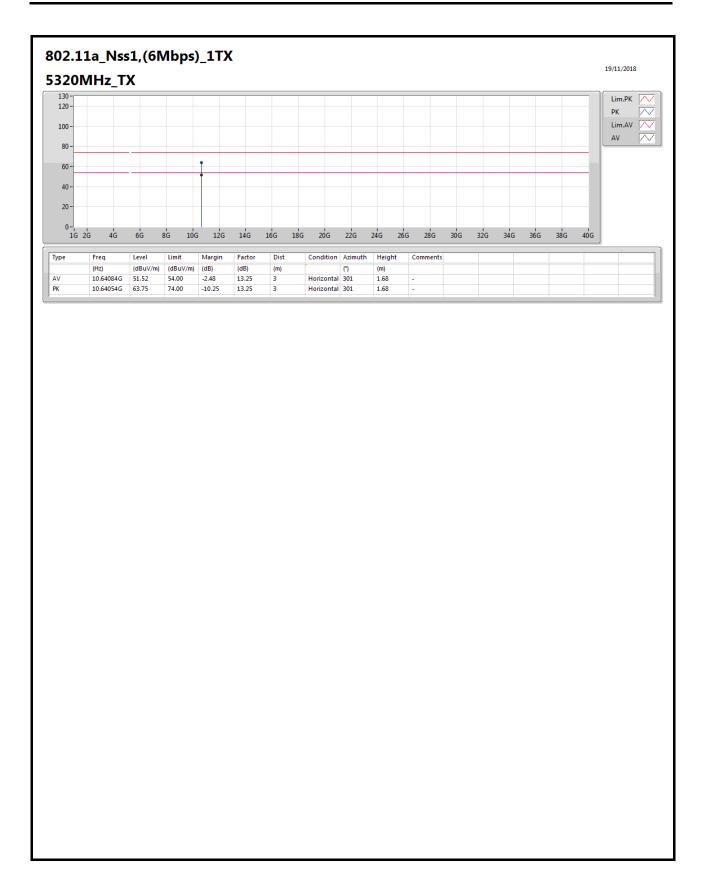


TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E30 of E112



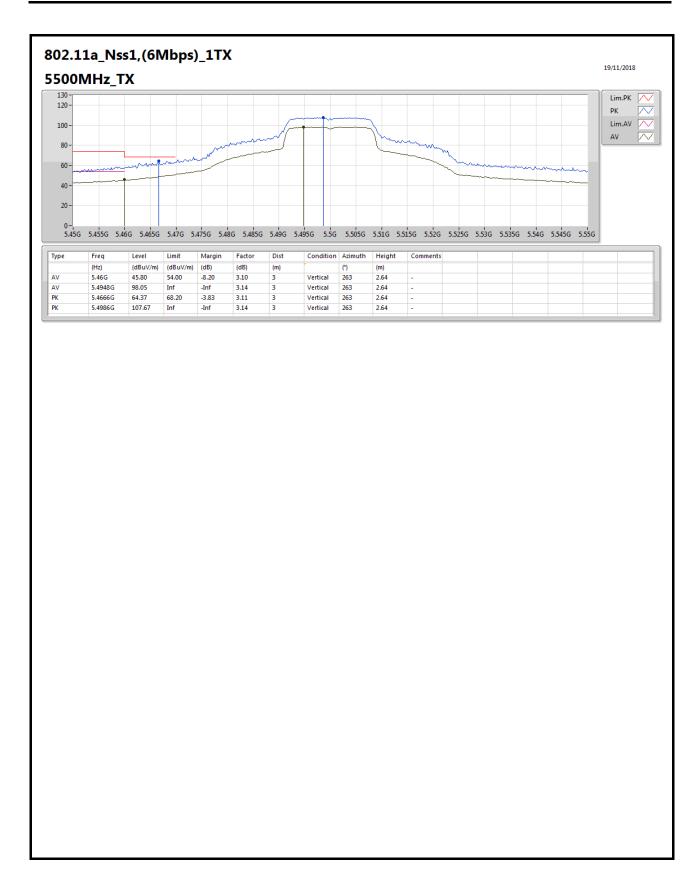






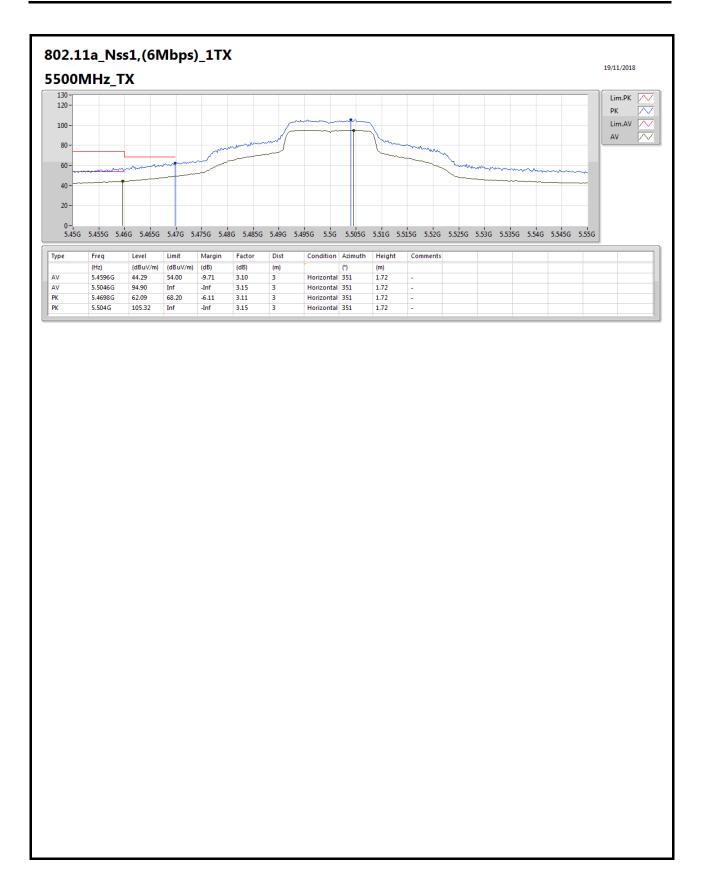
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E32 of E112





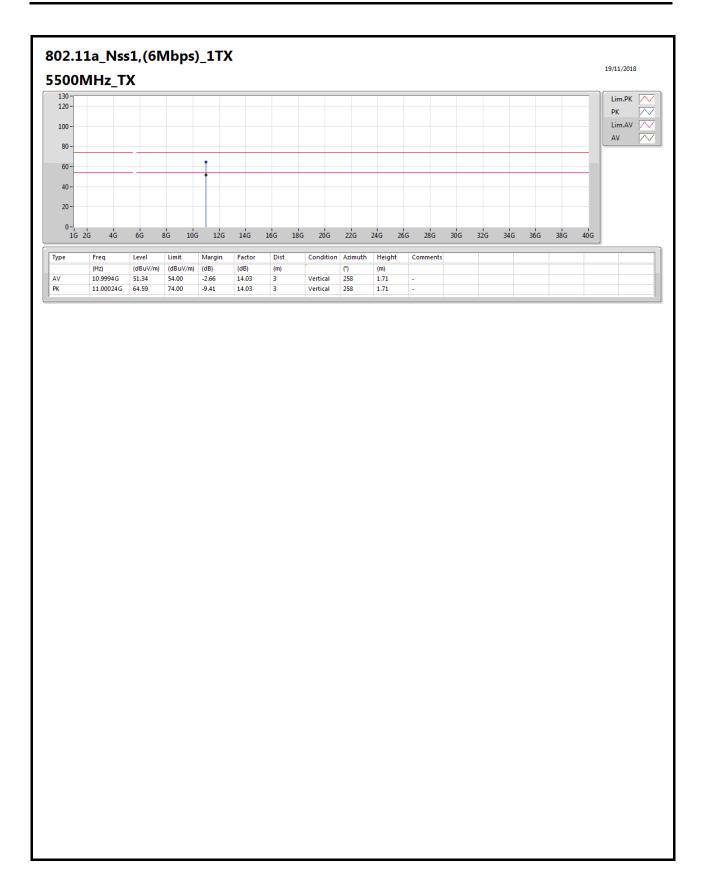
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E33 of E112





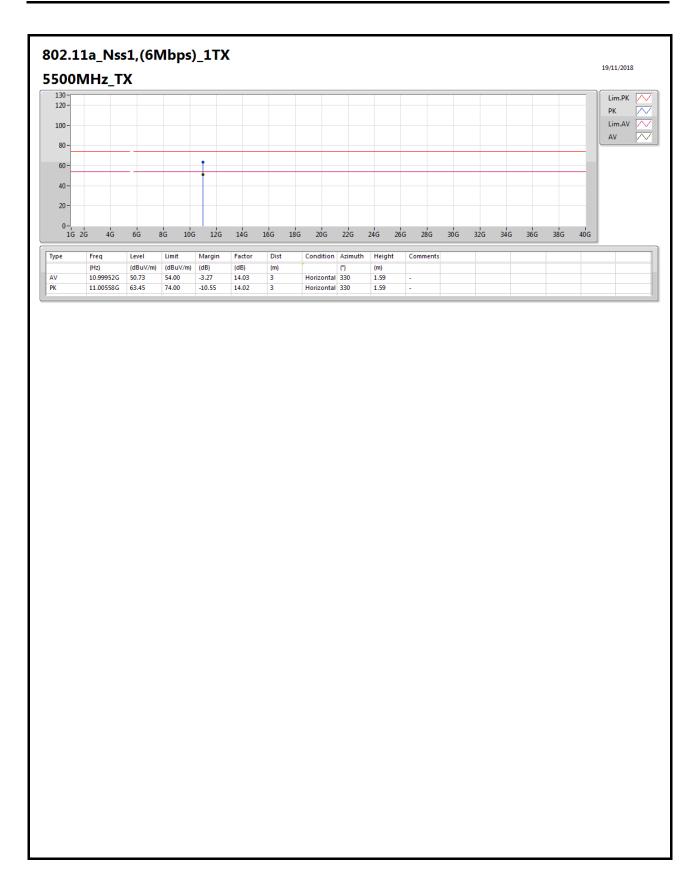
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E34 of E112



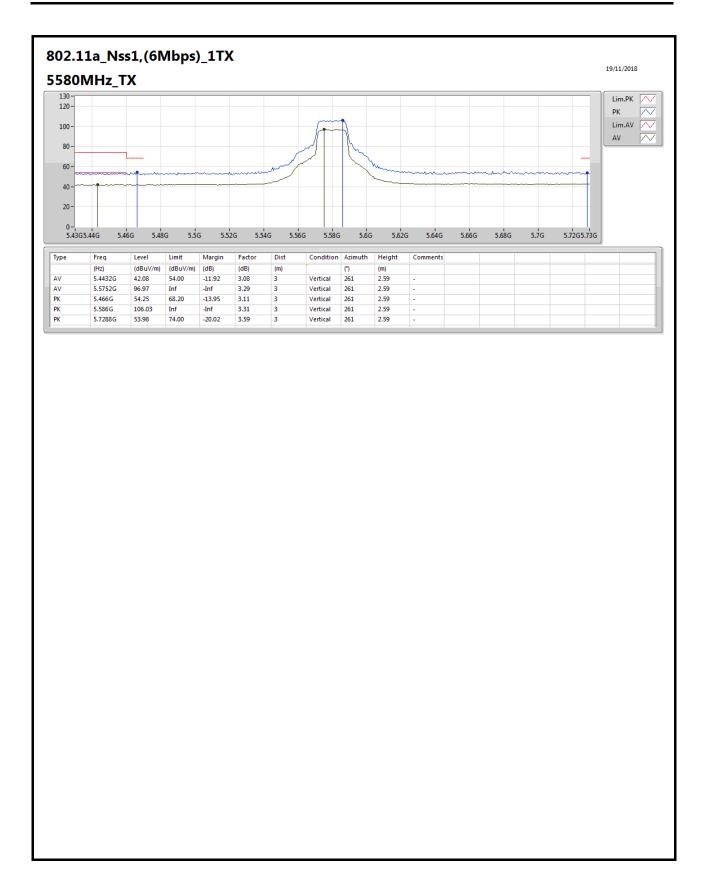


TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E35 of E112



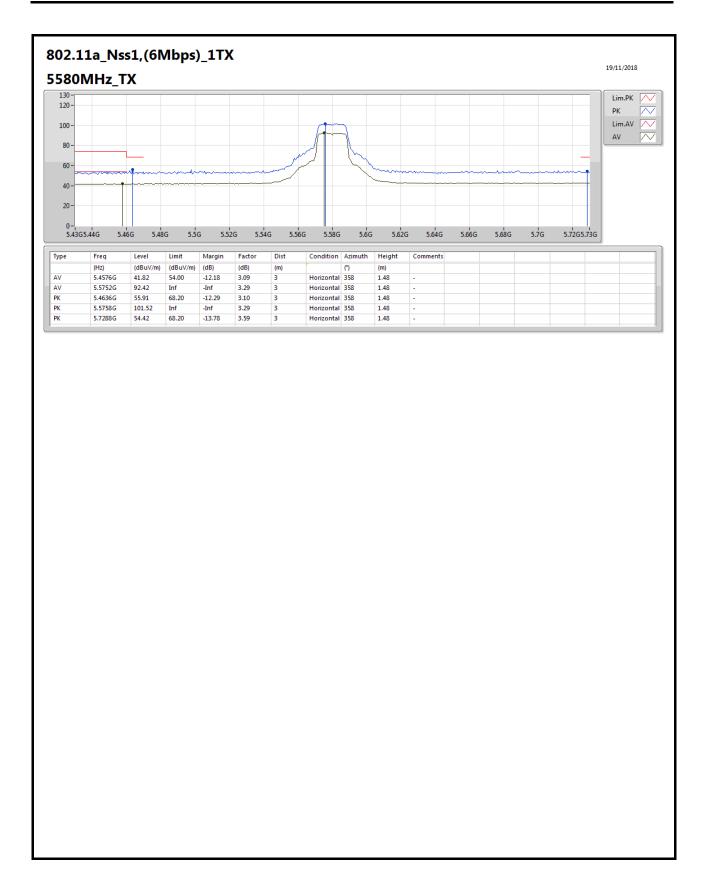




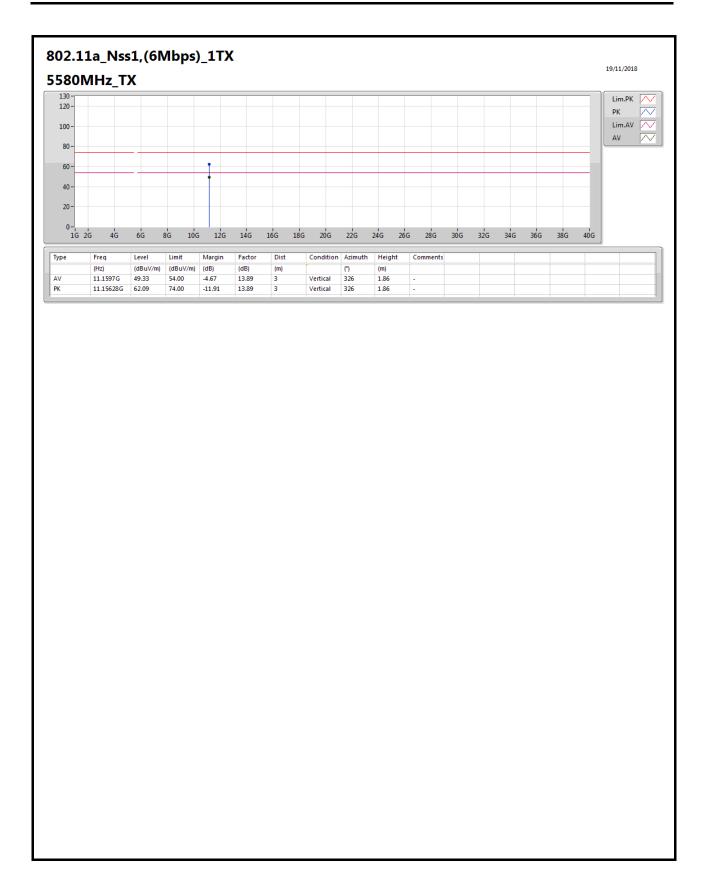


TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E37 of E112



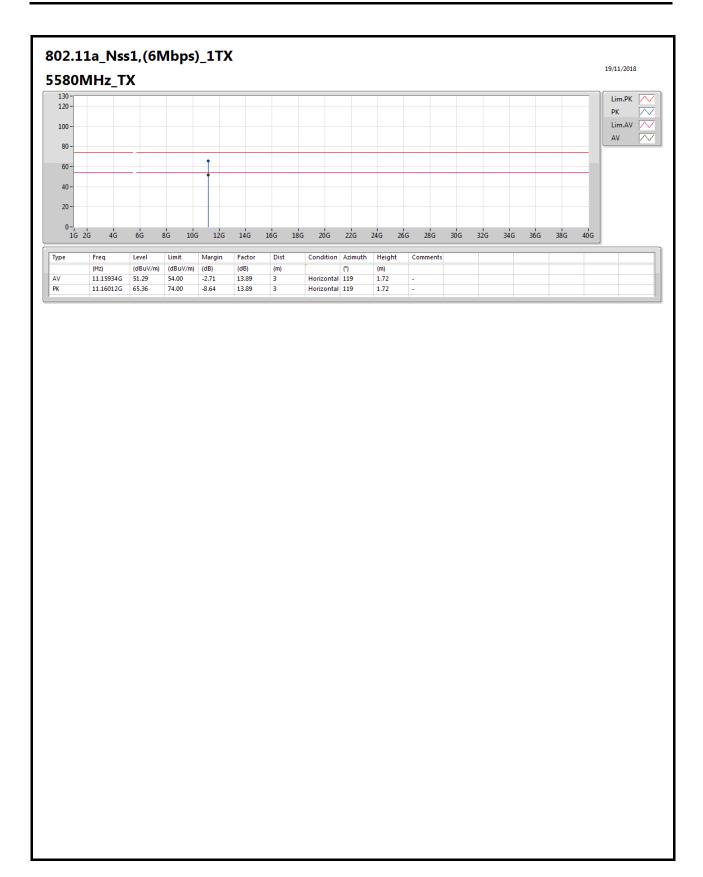






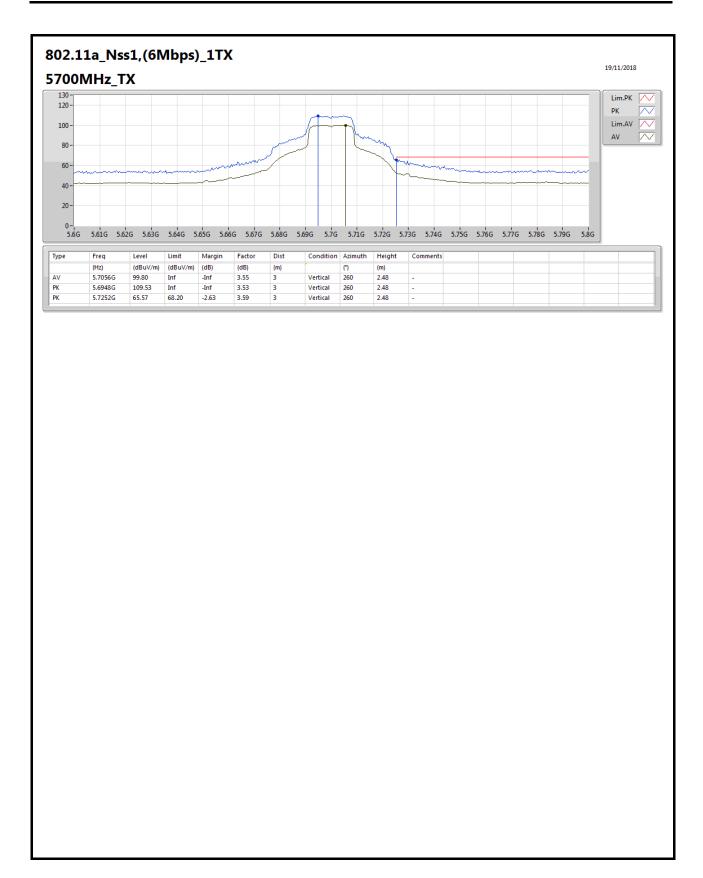
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E39 of E112





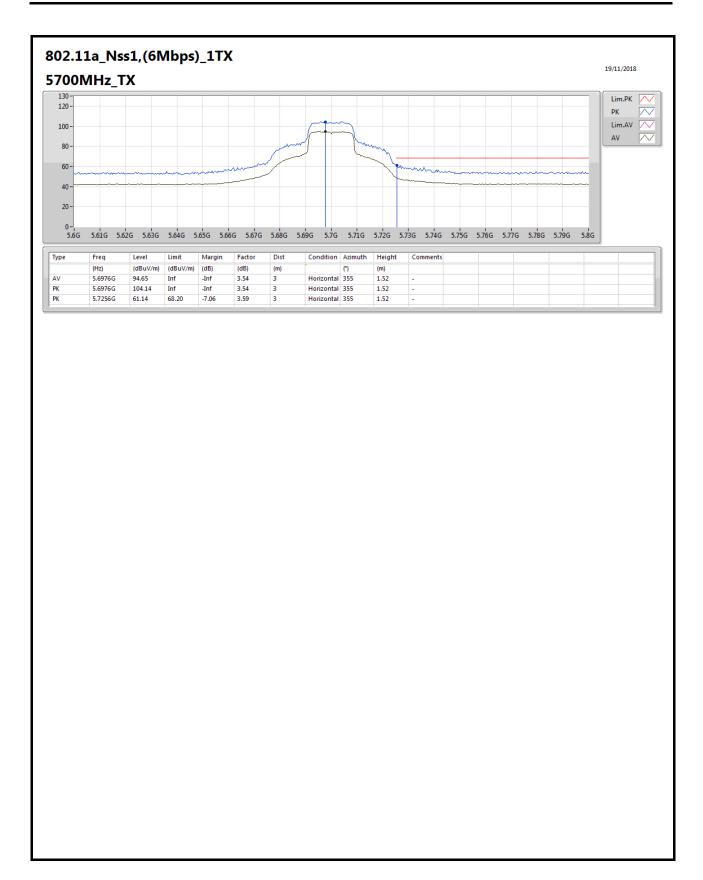
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E40 of E112





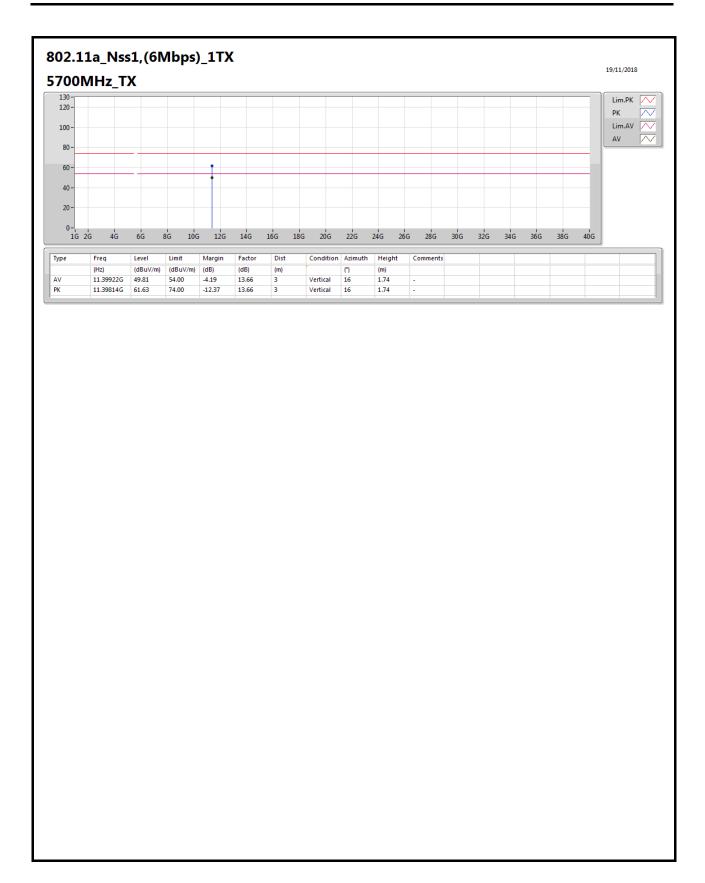
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E41 of E112



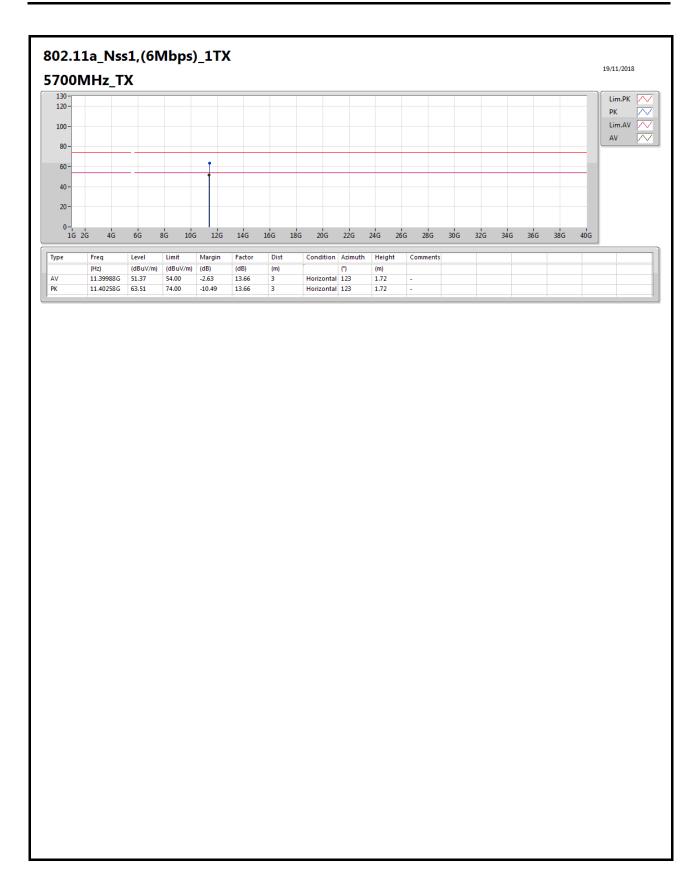


TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E42 of E112



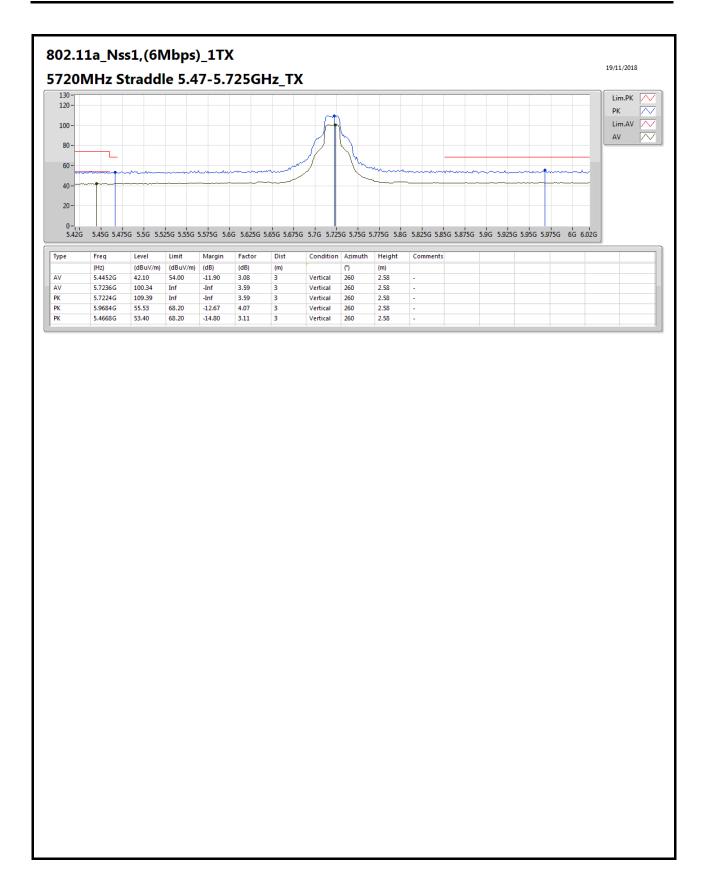






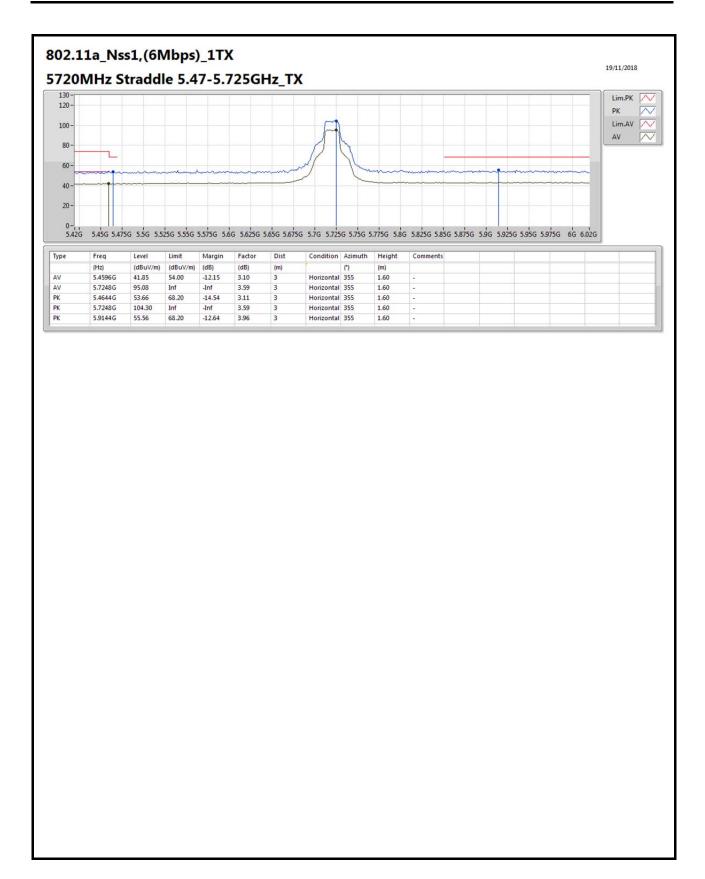
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E44 of E112





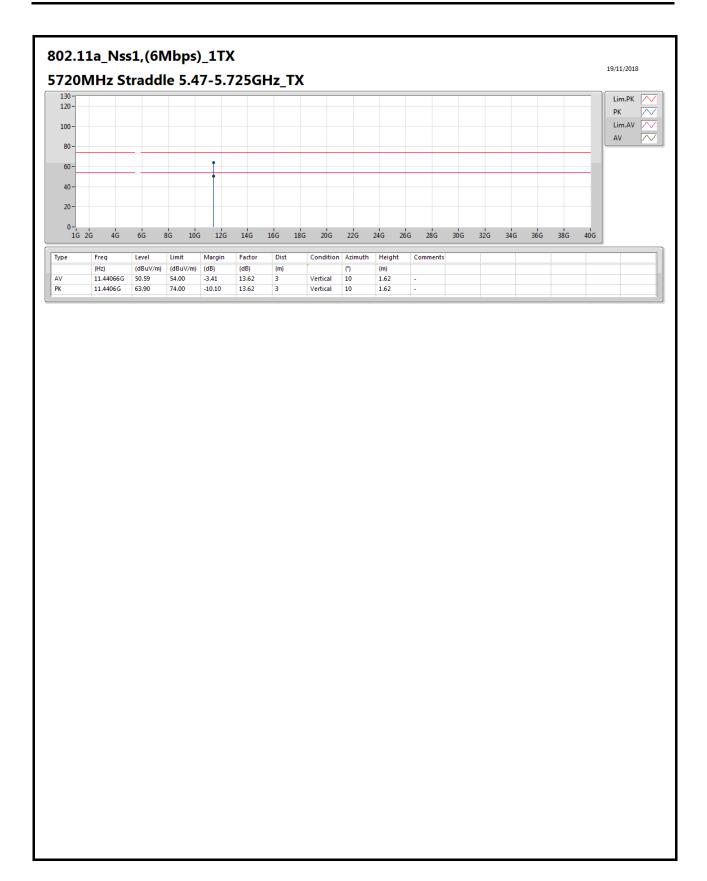
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E45 of E112



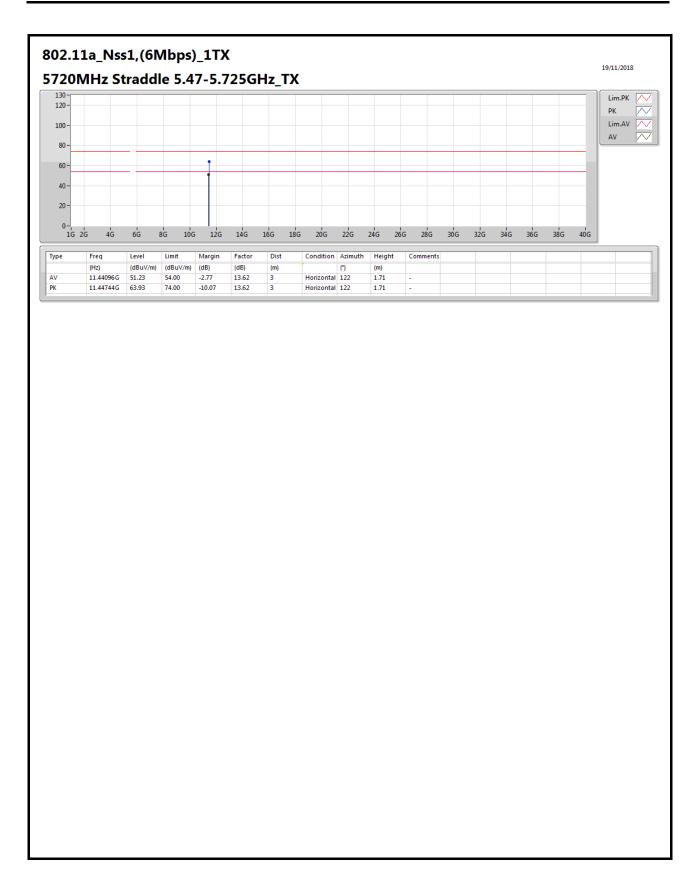


TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E46 of E112



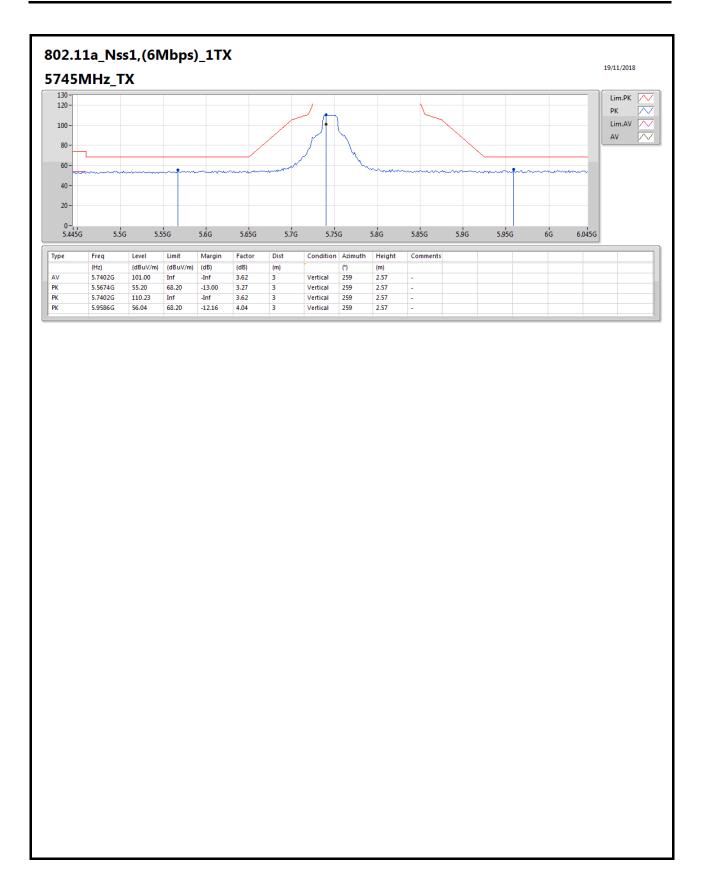






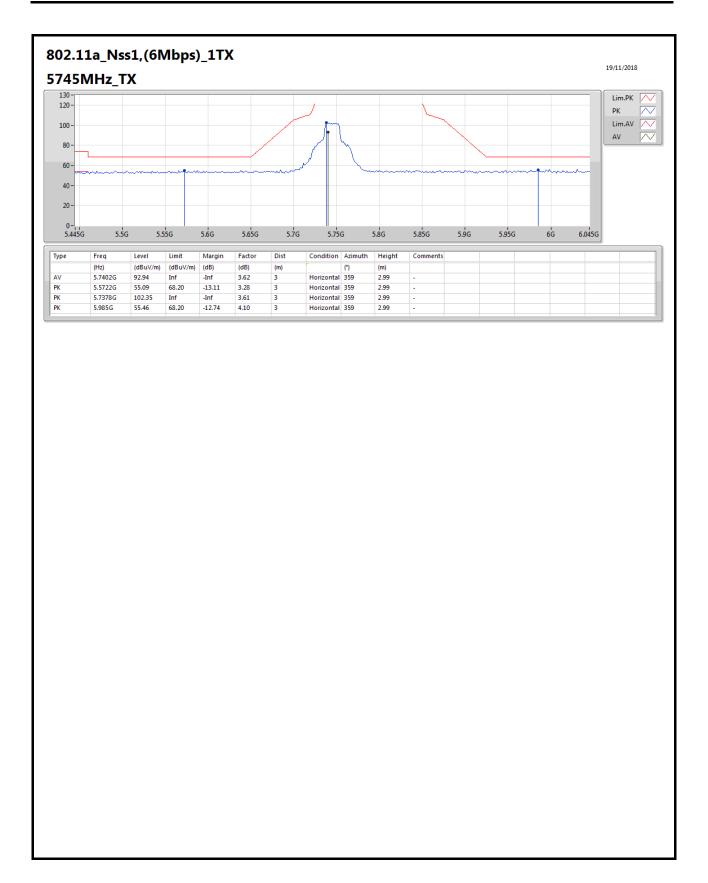
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E48 of E112



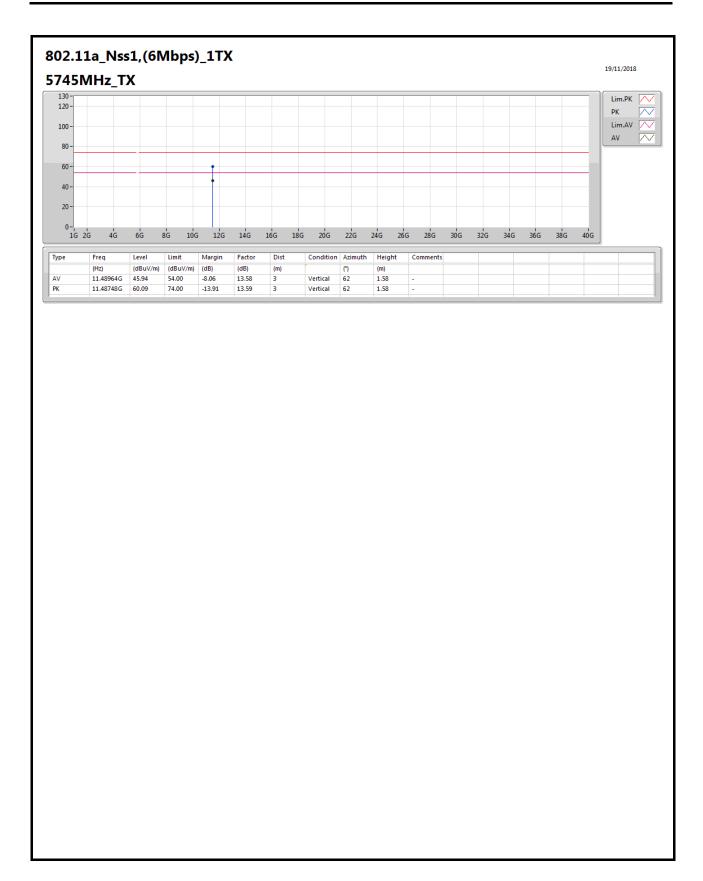


TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E49 of E112



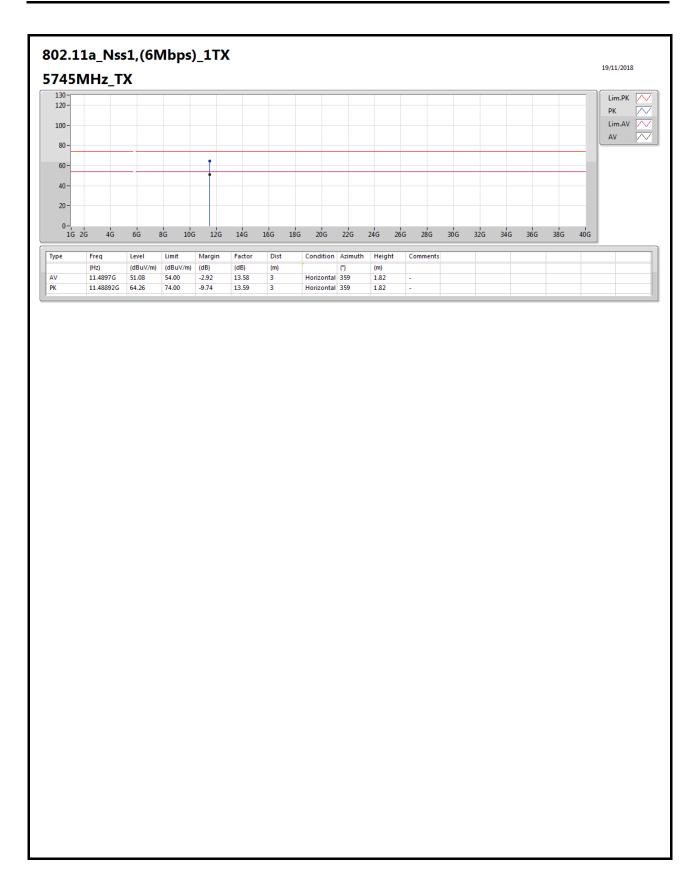






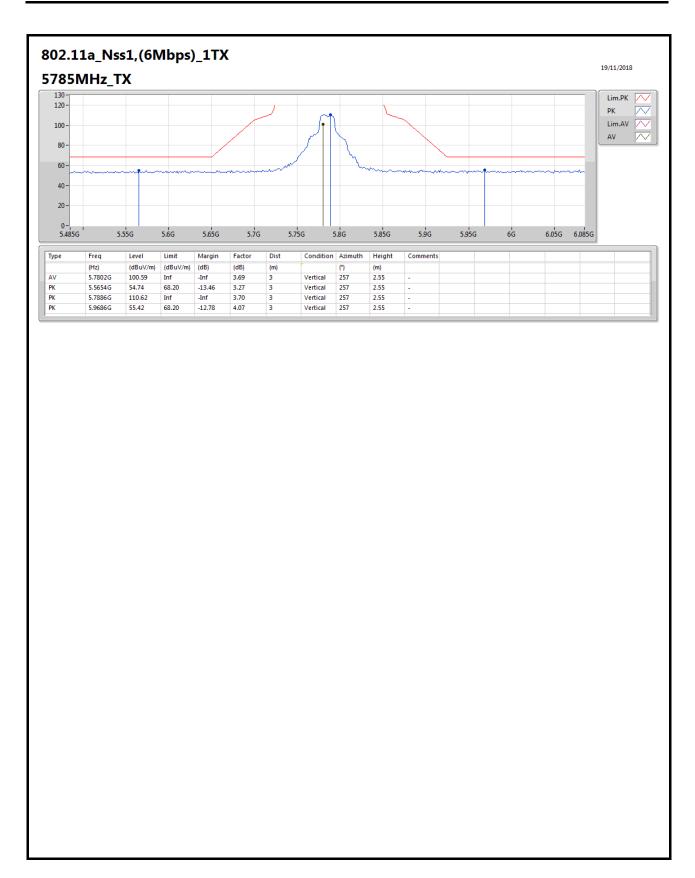
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E51 of E112



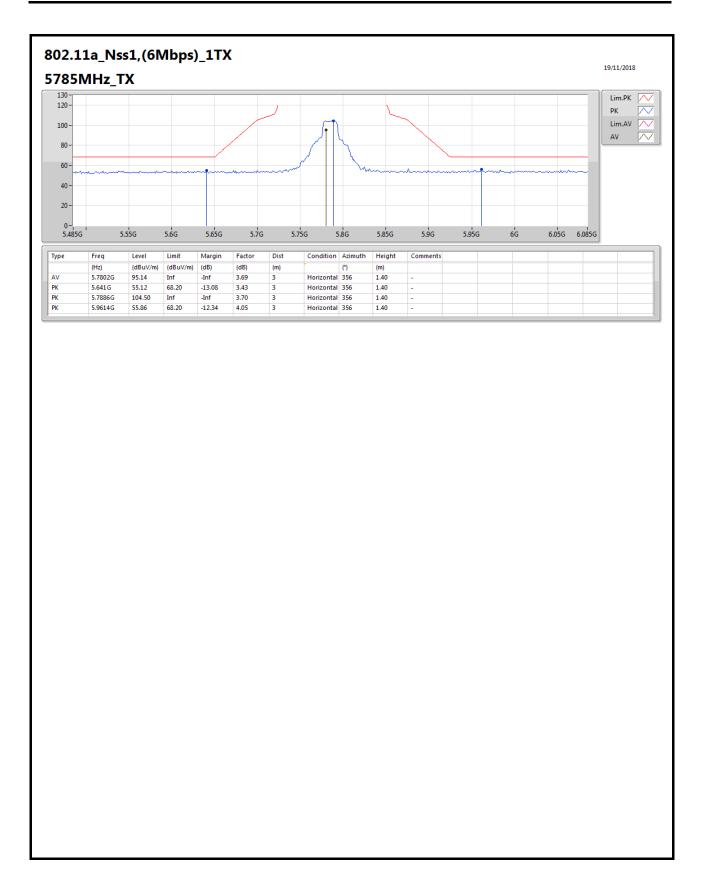


TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E52 of E112



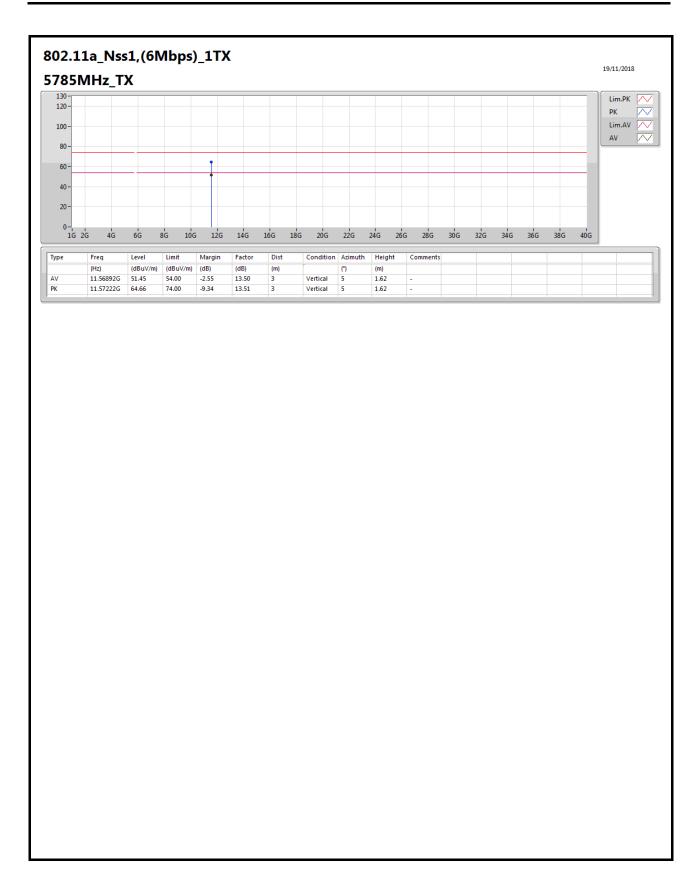




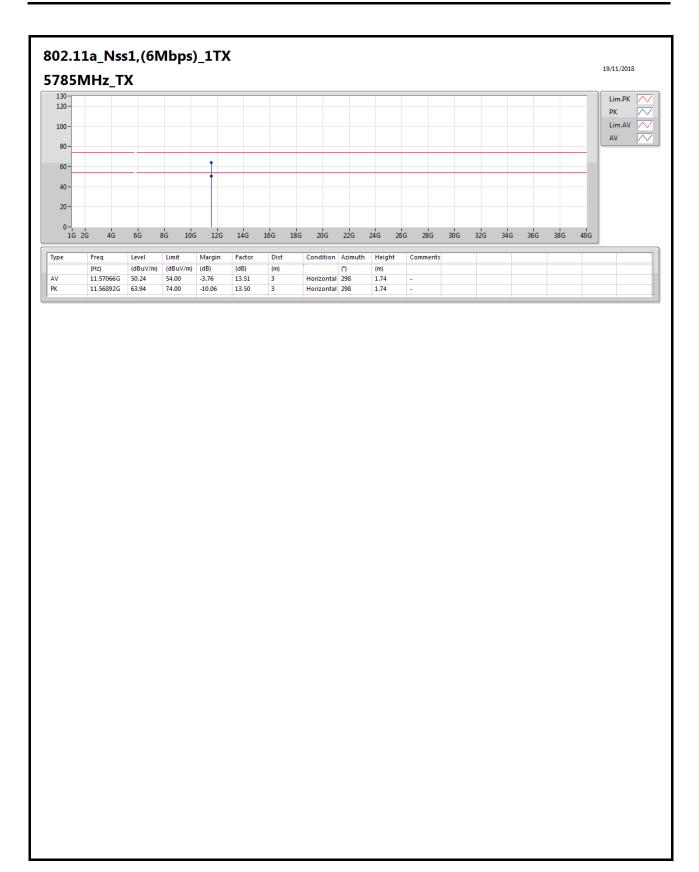


TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E54 of E112



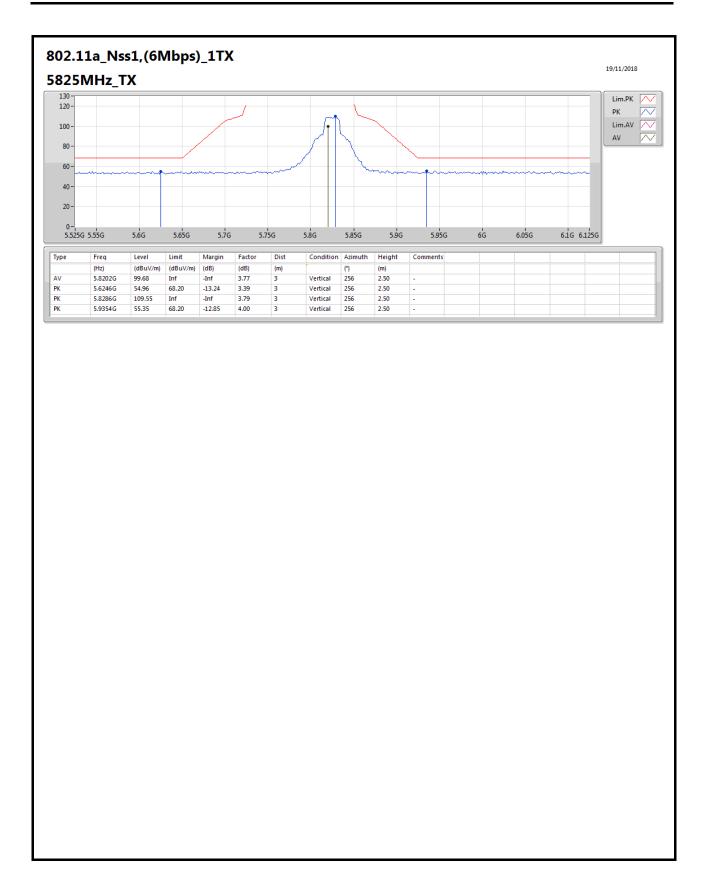






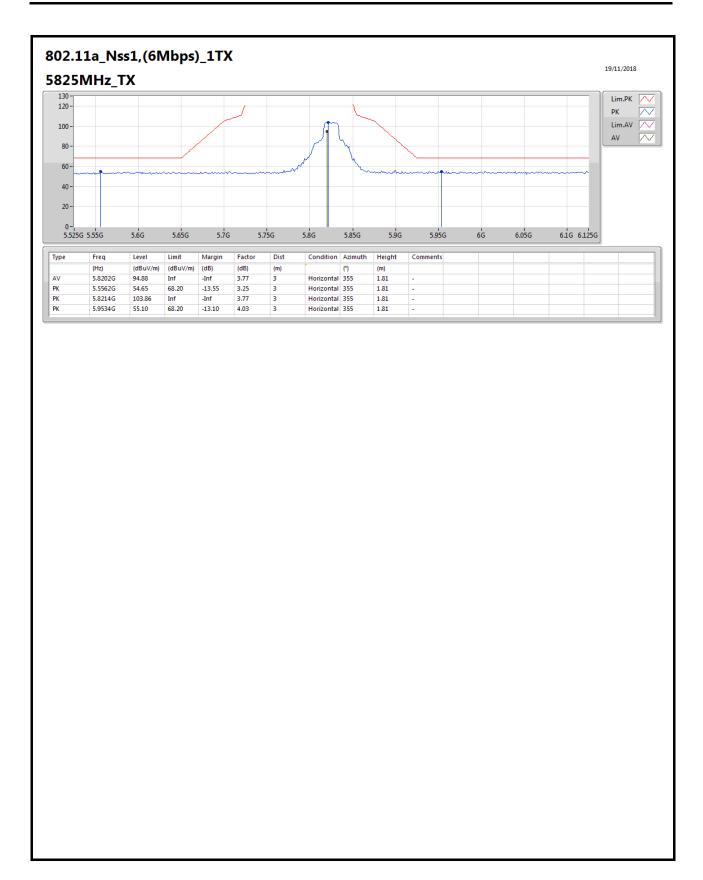
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E56 of E112





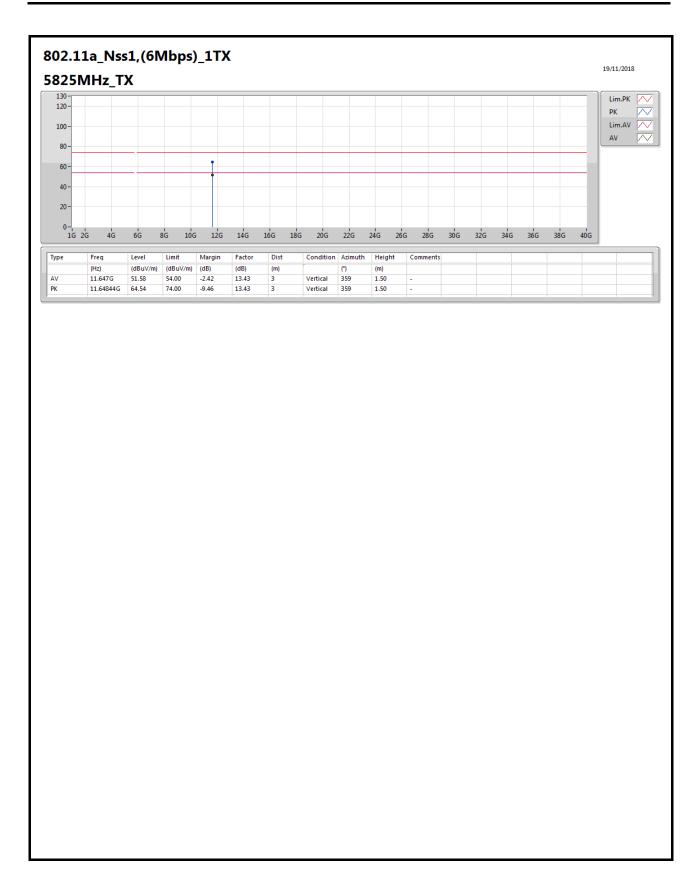
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E57 of E112



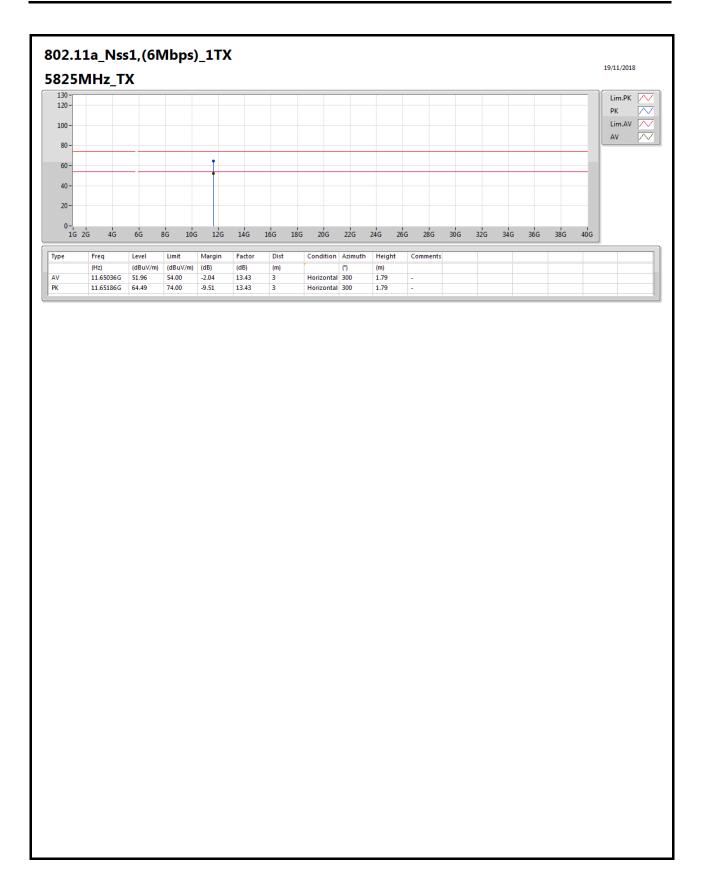


TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E58 of E112



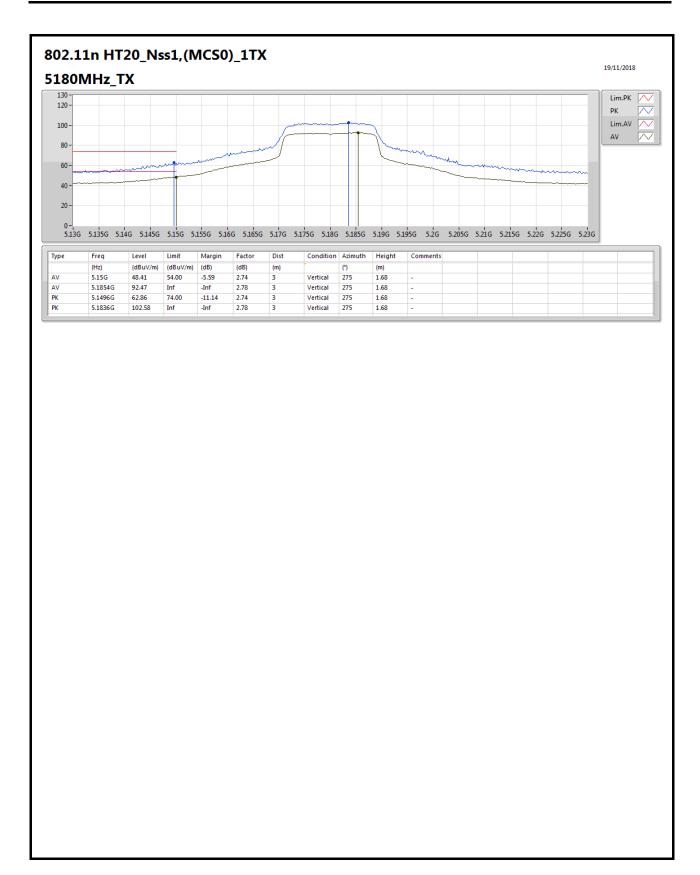






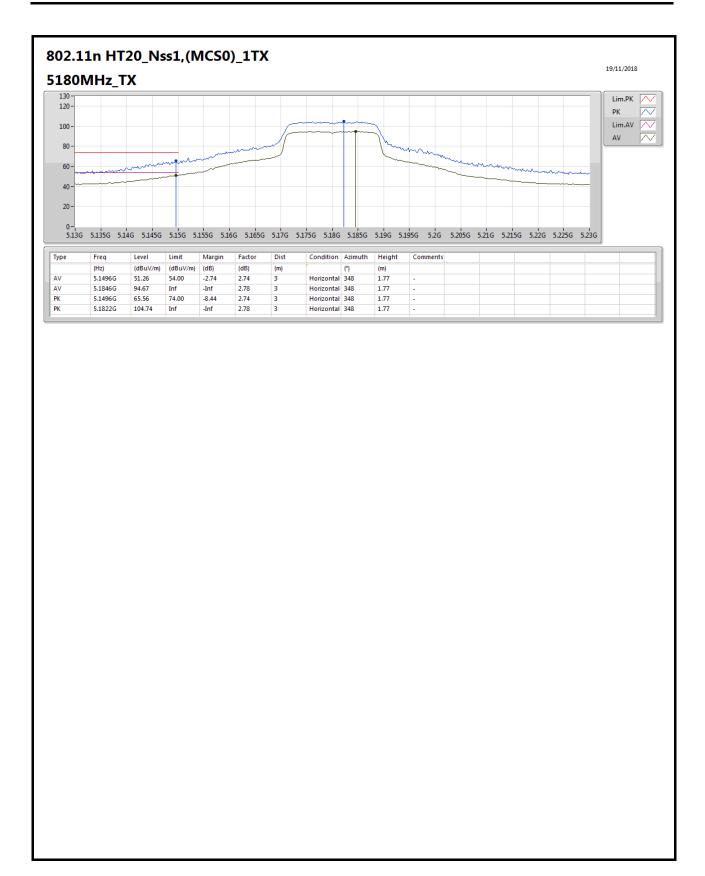
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E60 of E112





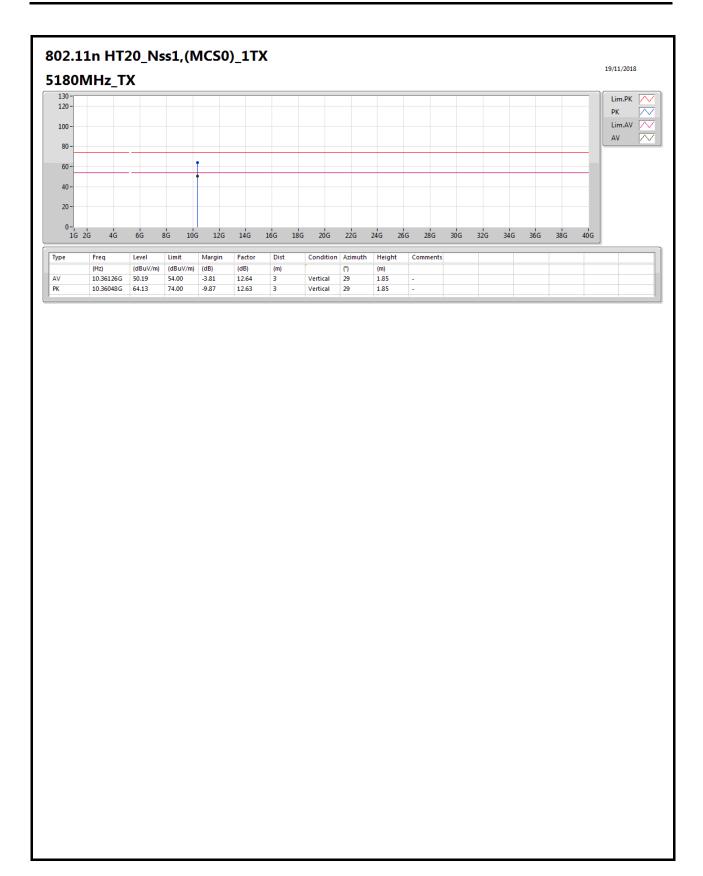
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E61 of E112





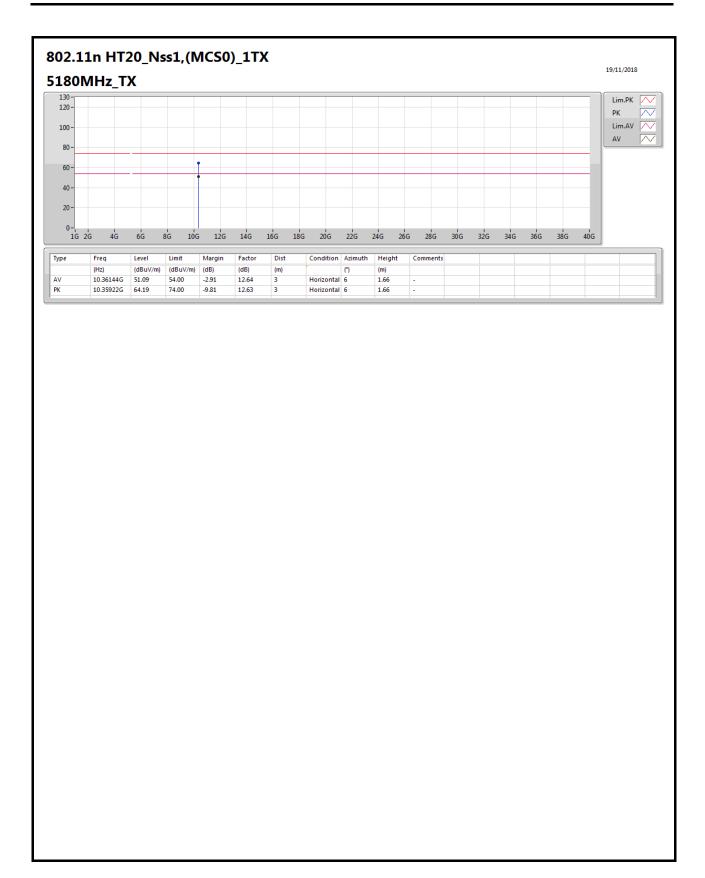
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E62 of E112





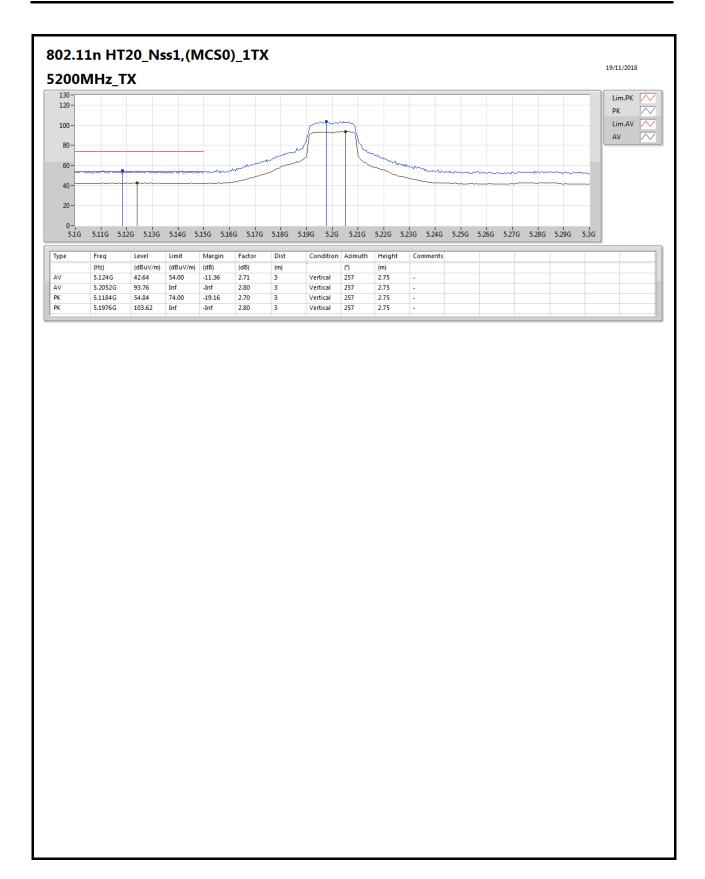
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E63 of E112



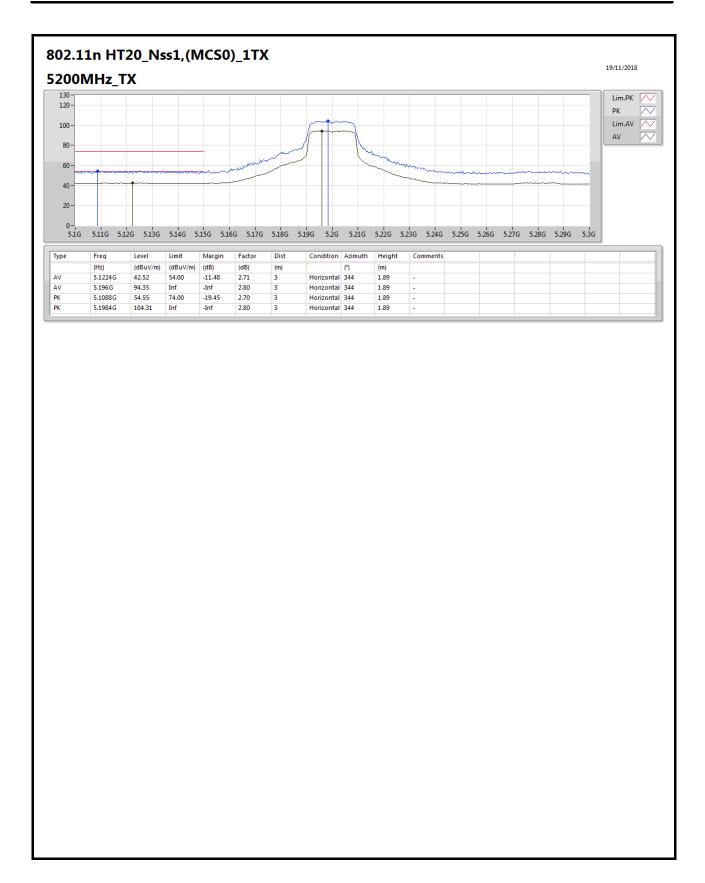


TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E64 of E112



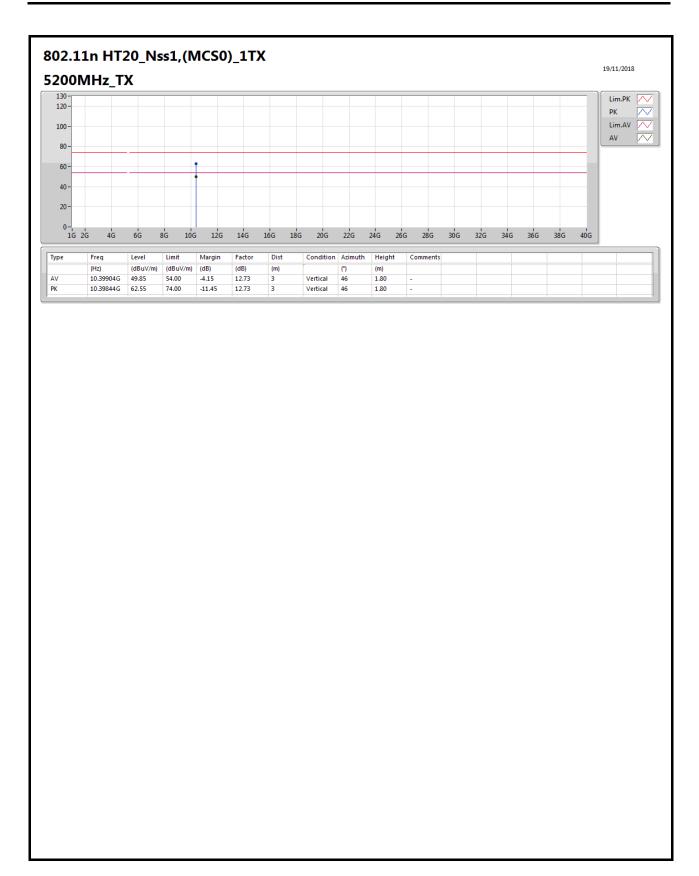






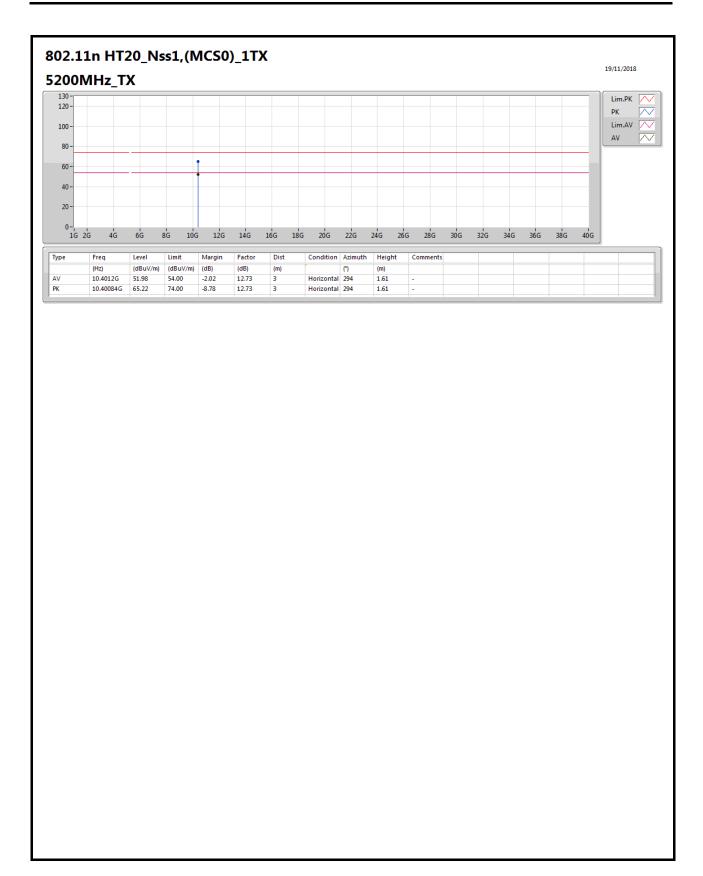
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E66 of E112





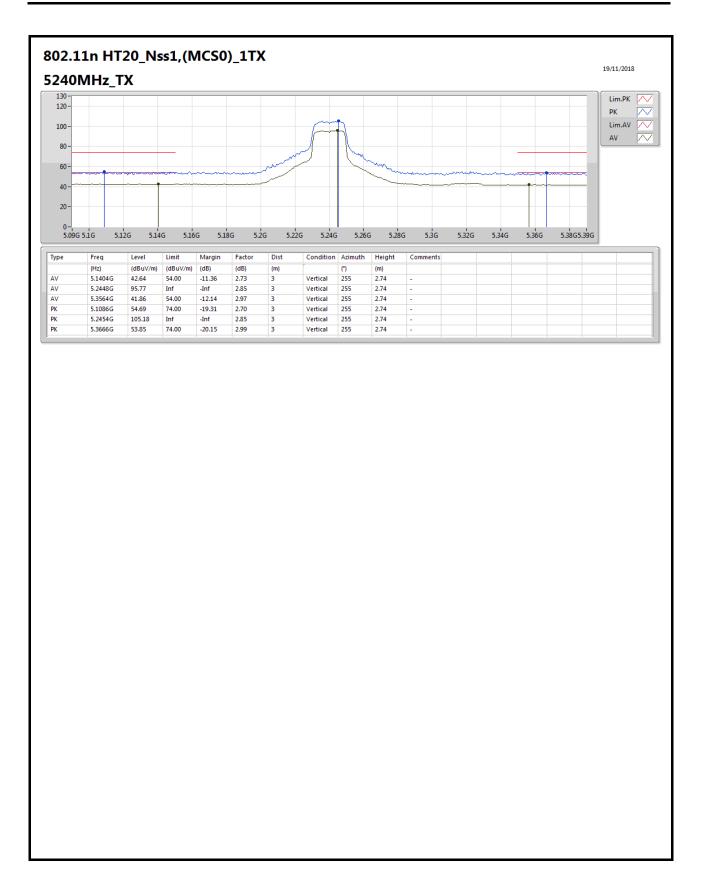
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E67 of E112



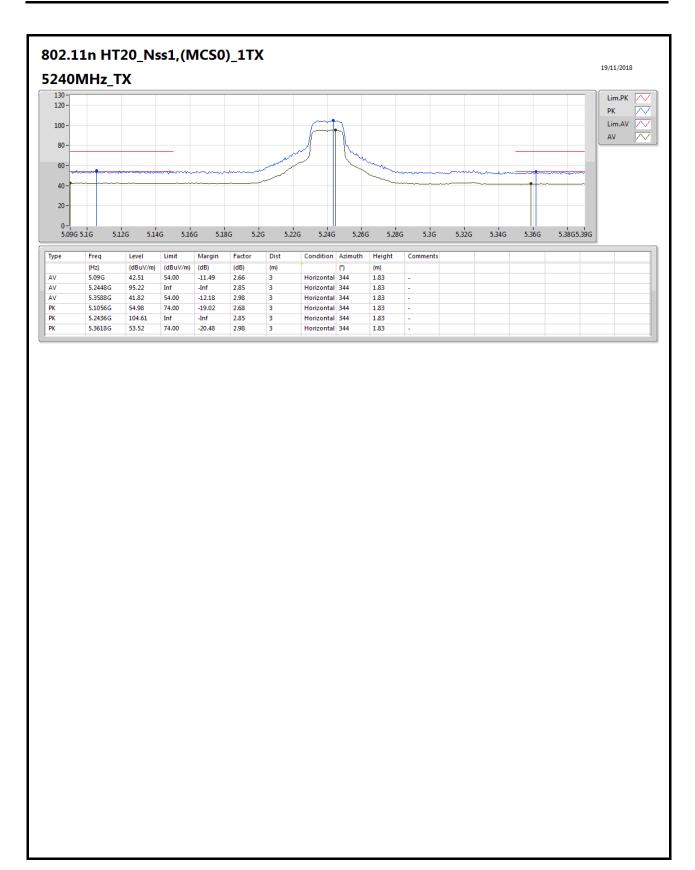


TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E68 of E112



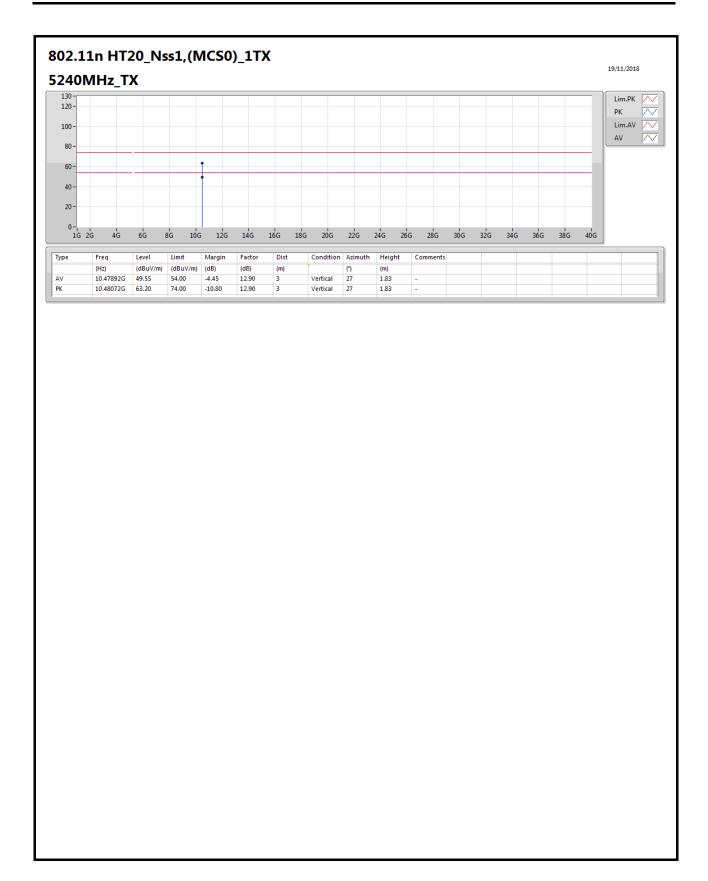






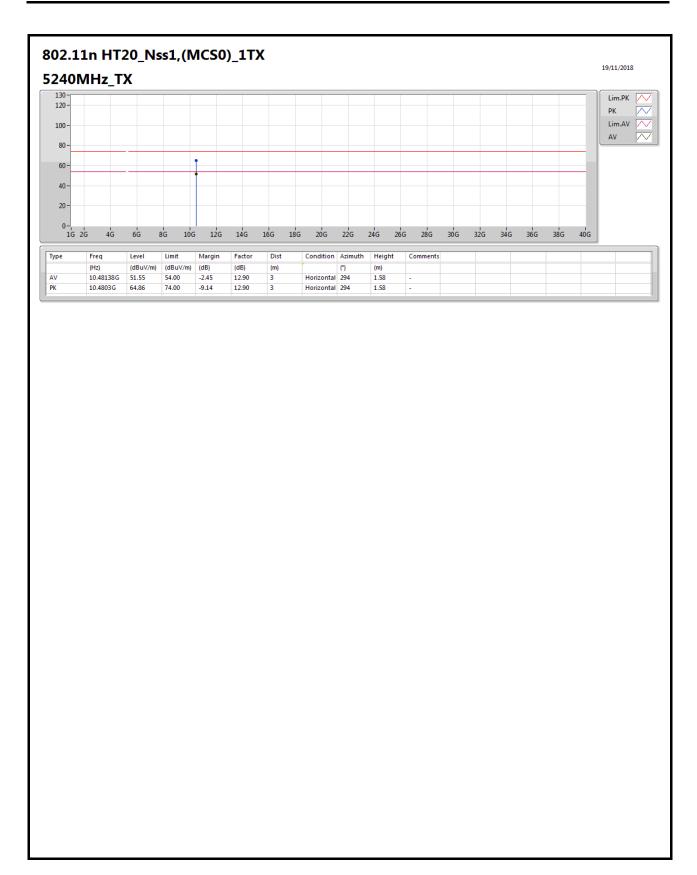
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E70 of E112





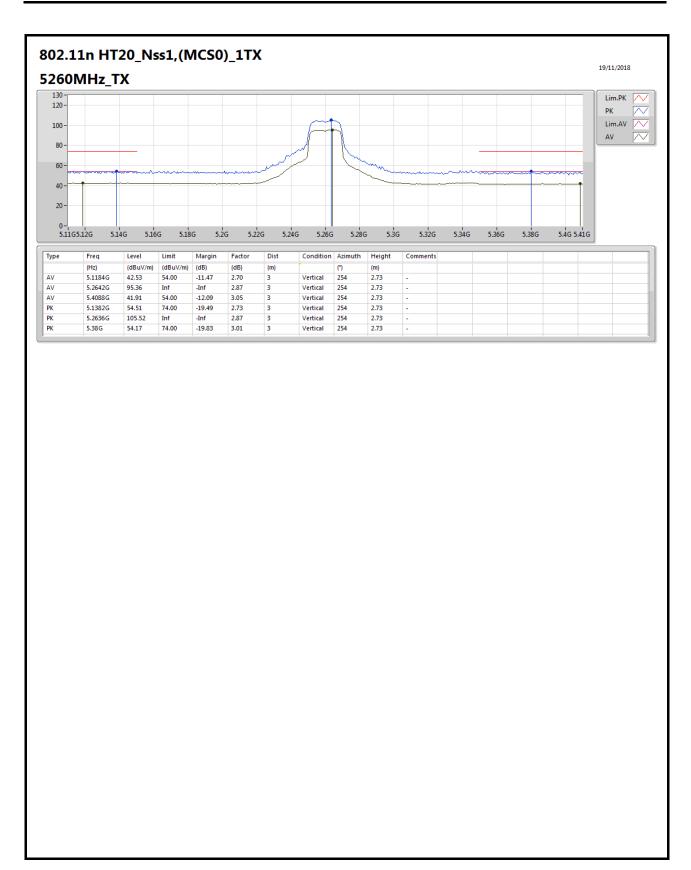
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E71 of E112



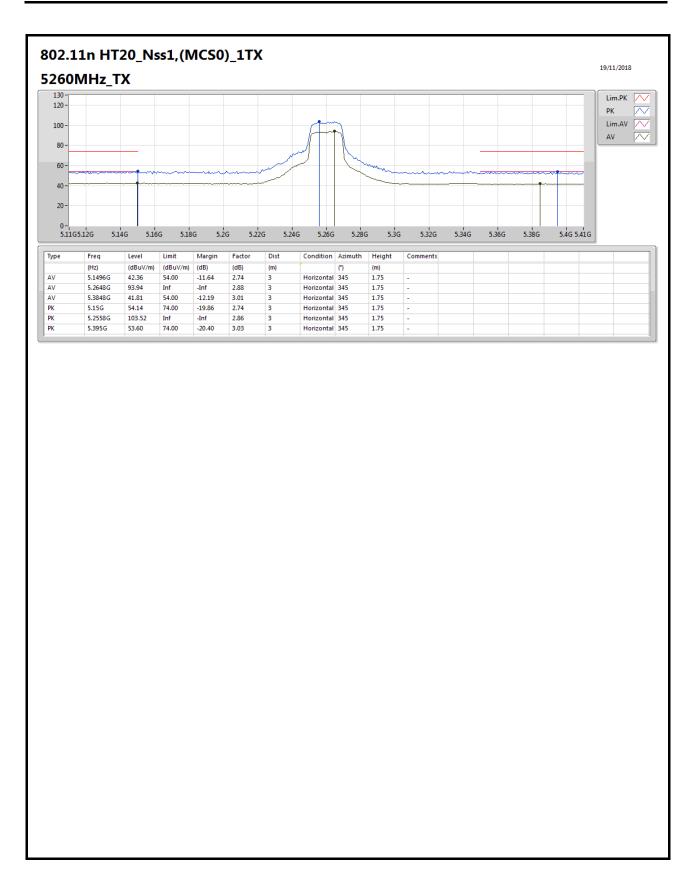


TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E72 of E112



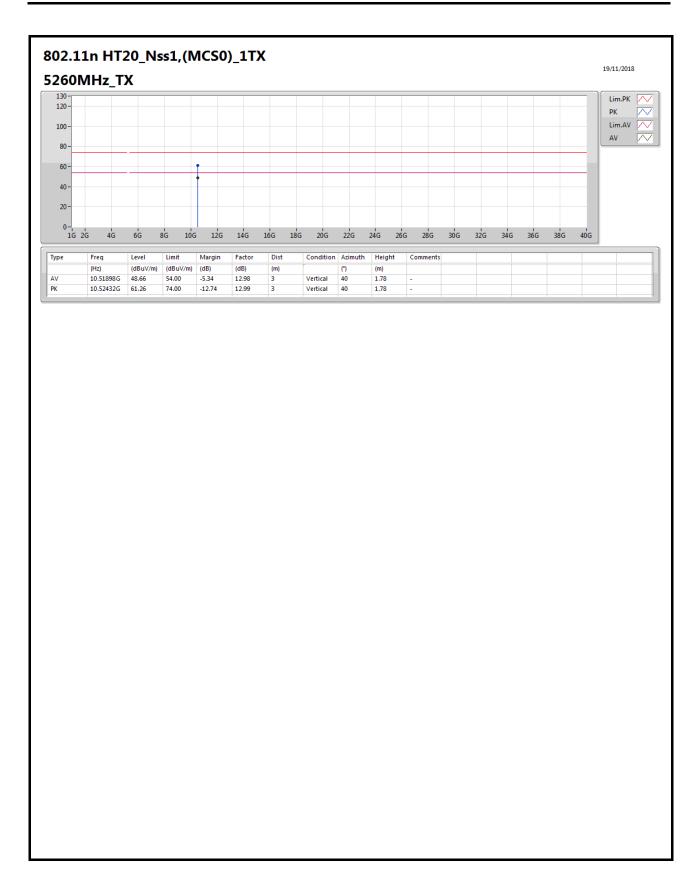






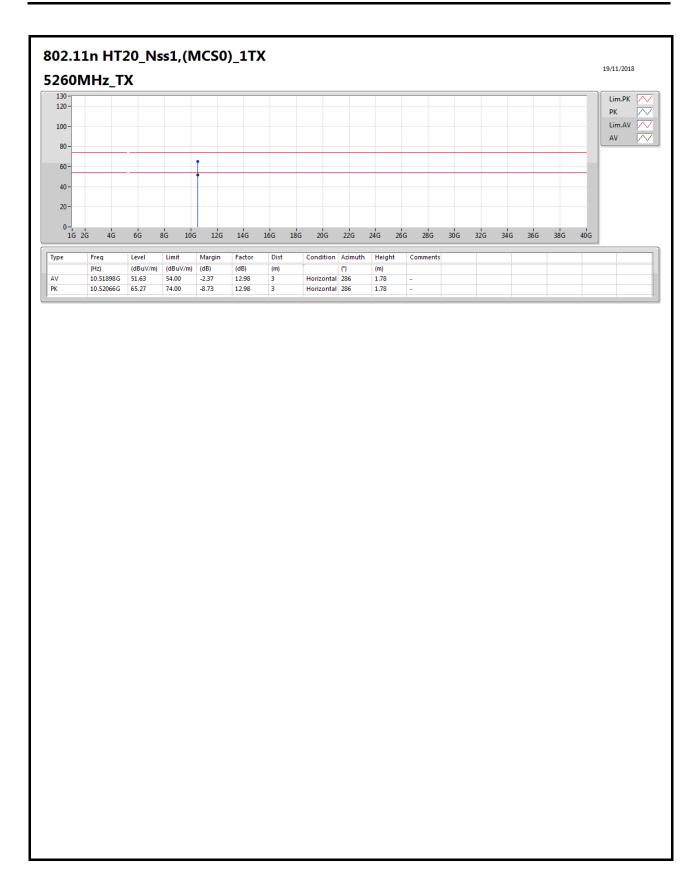
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E74 of E112





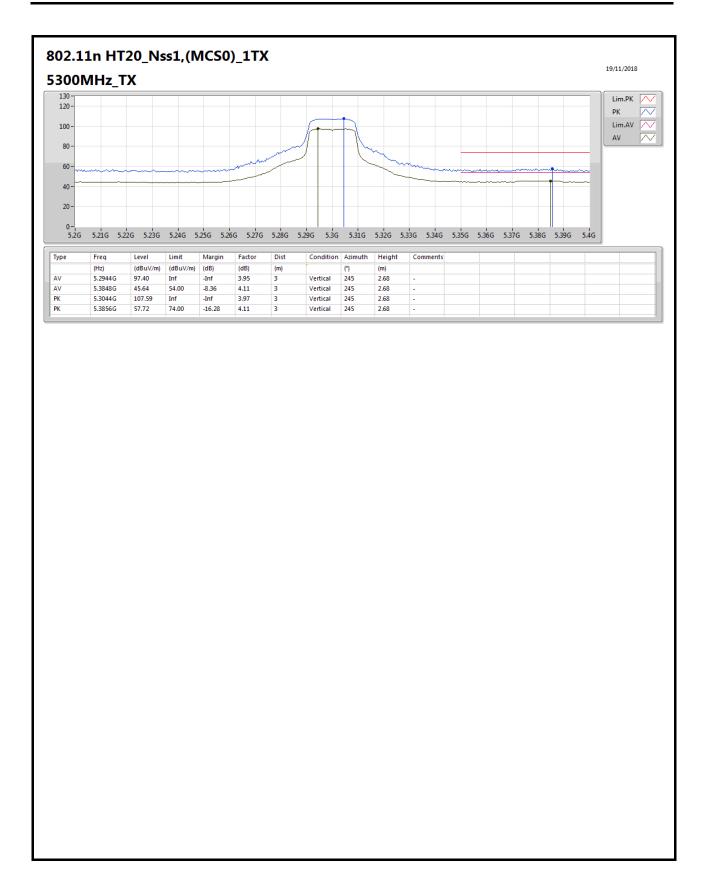
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E75 of E112





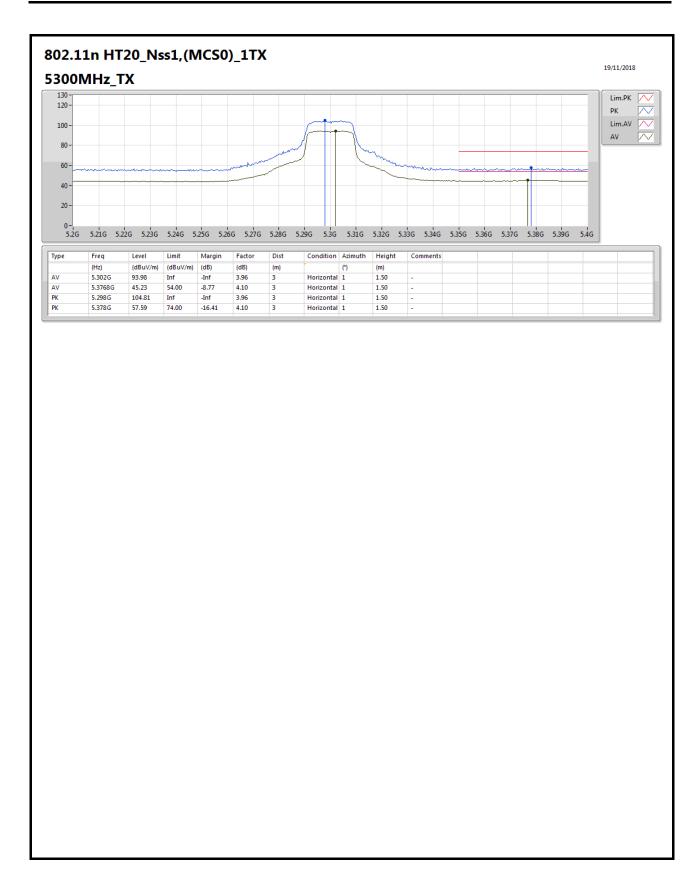
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E76 of E112





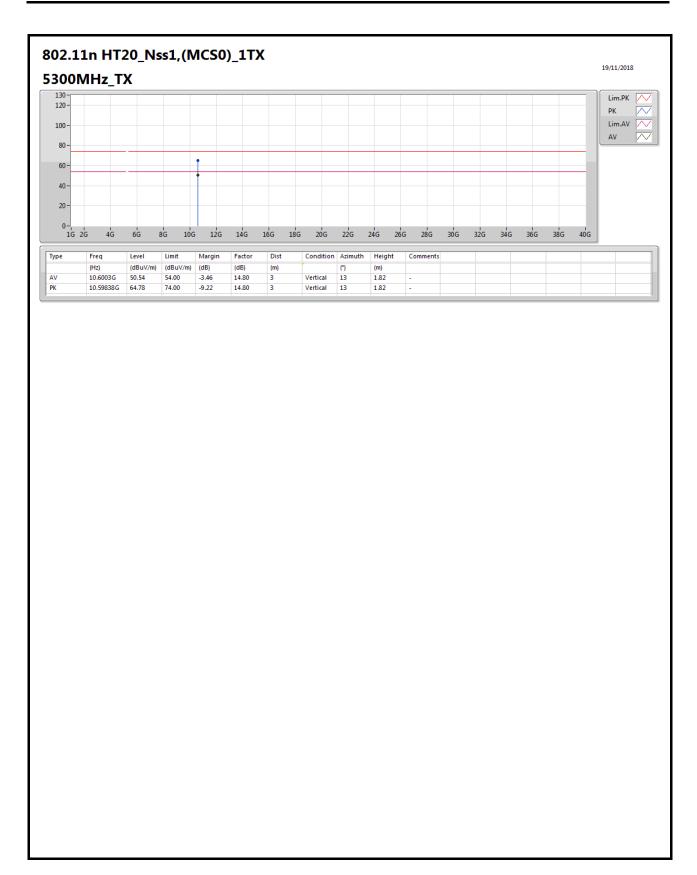
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E77 of E112



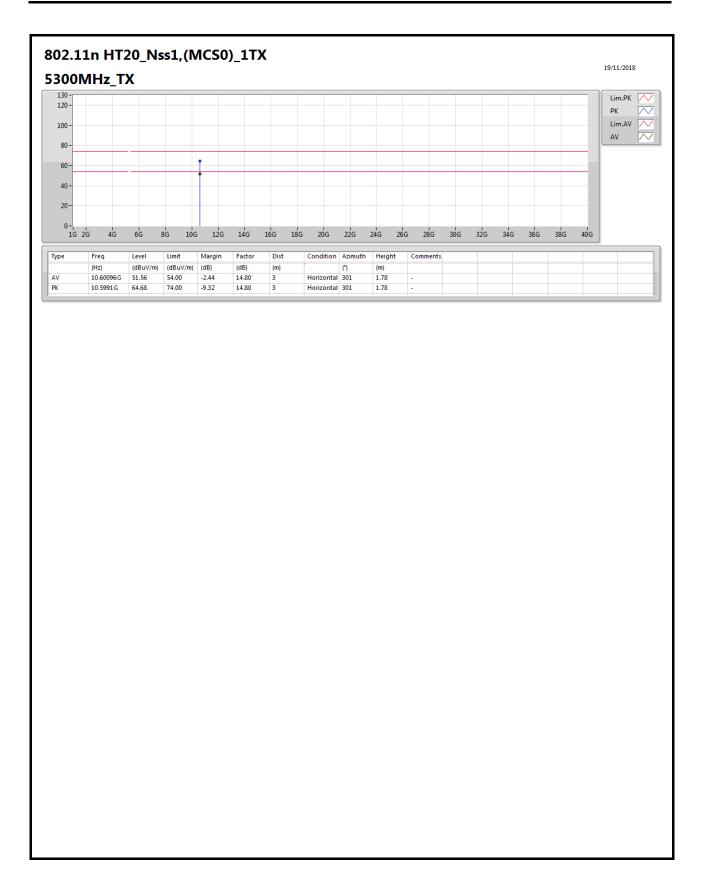


TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E78 of E112



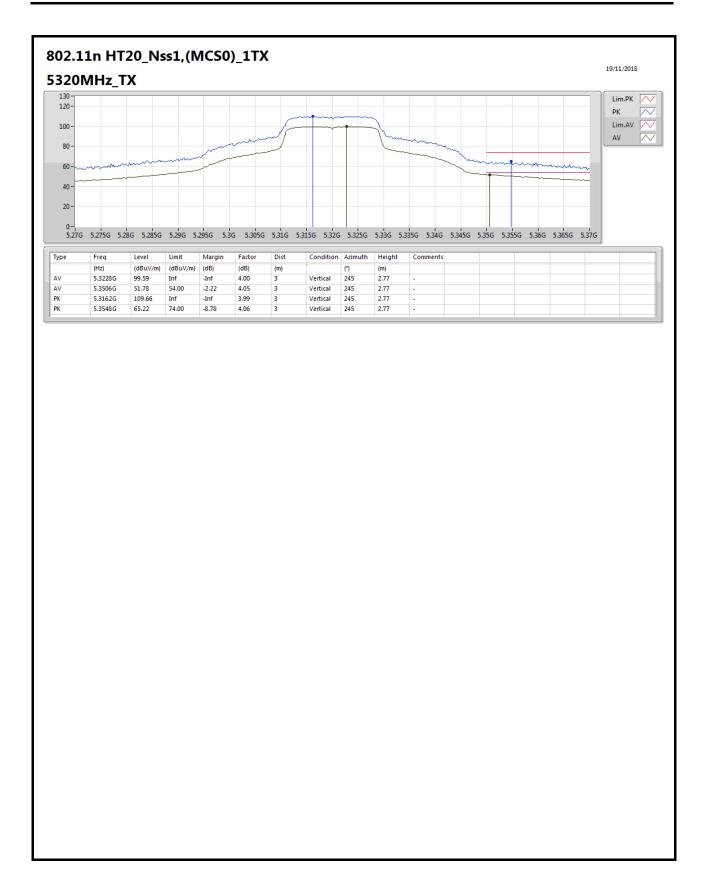






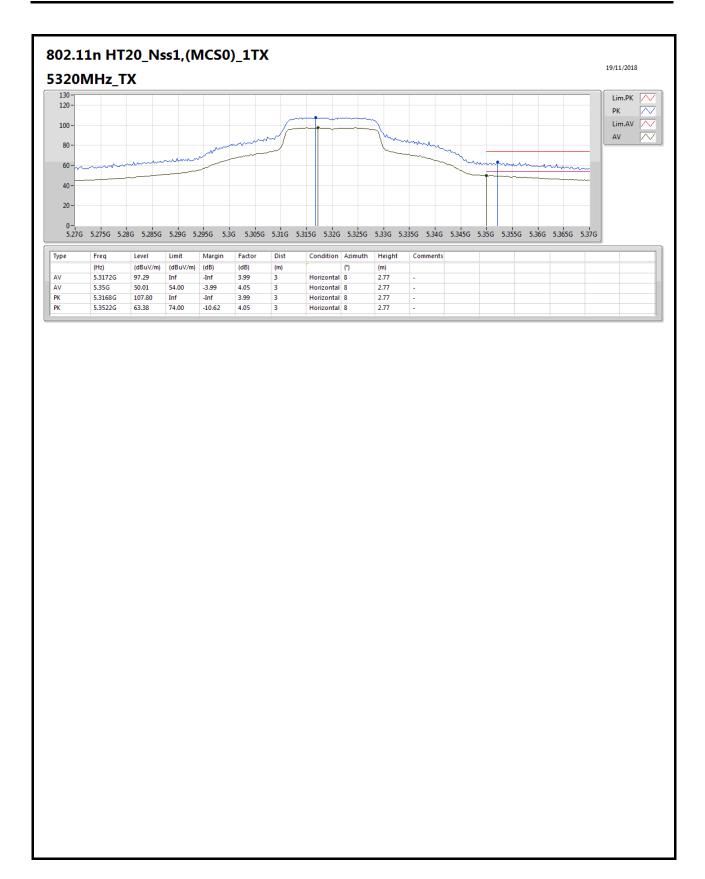
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E80 of E112





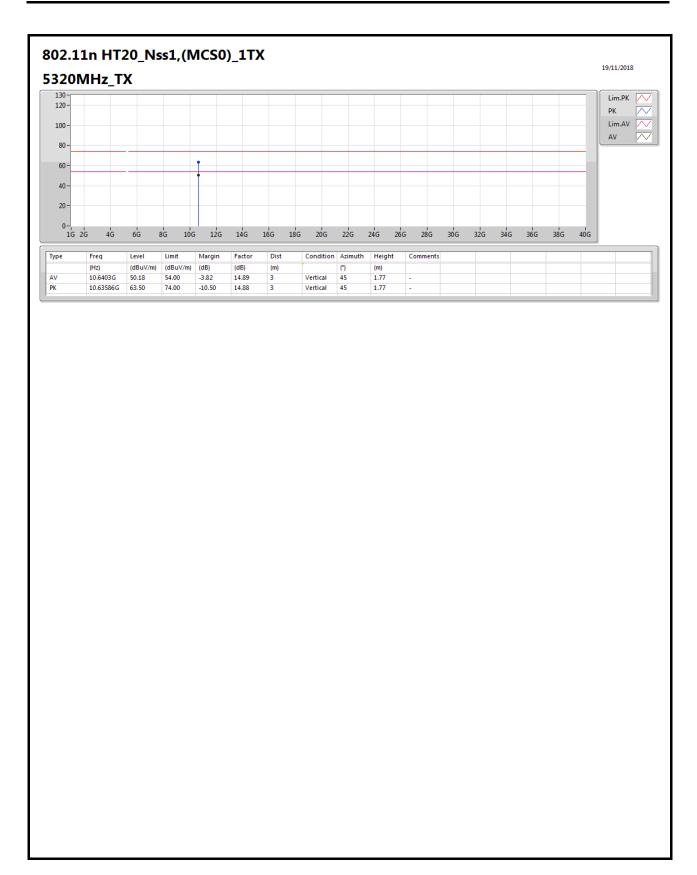
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E81 of E112





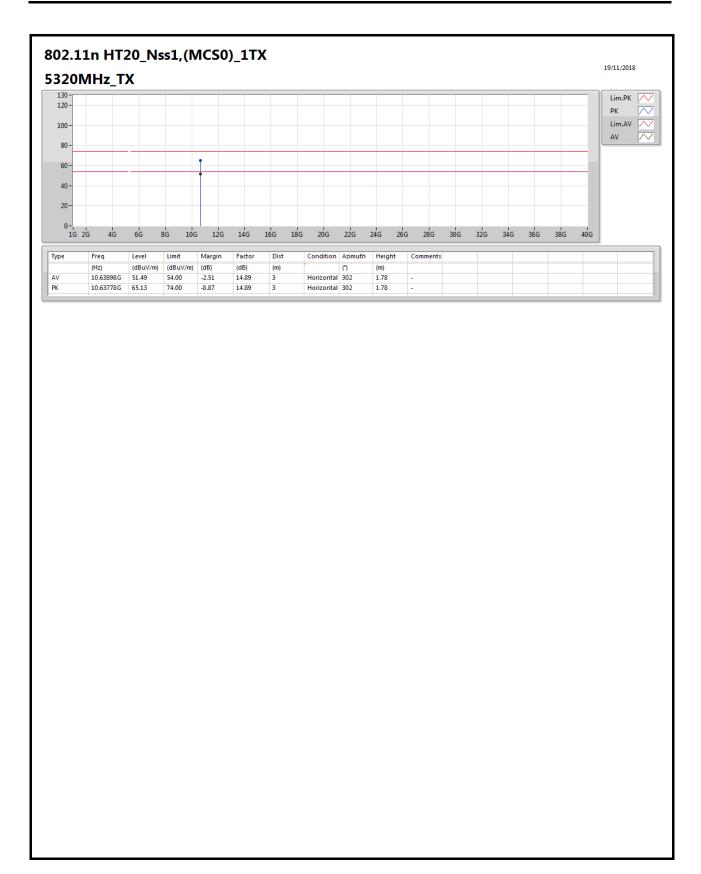
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E82 of E112





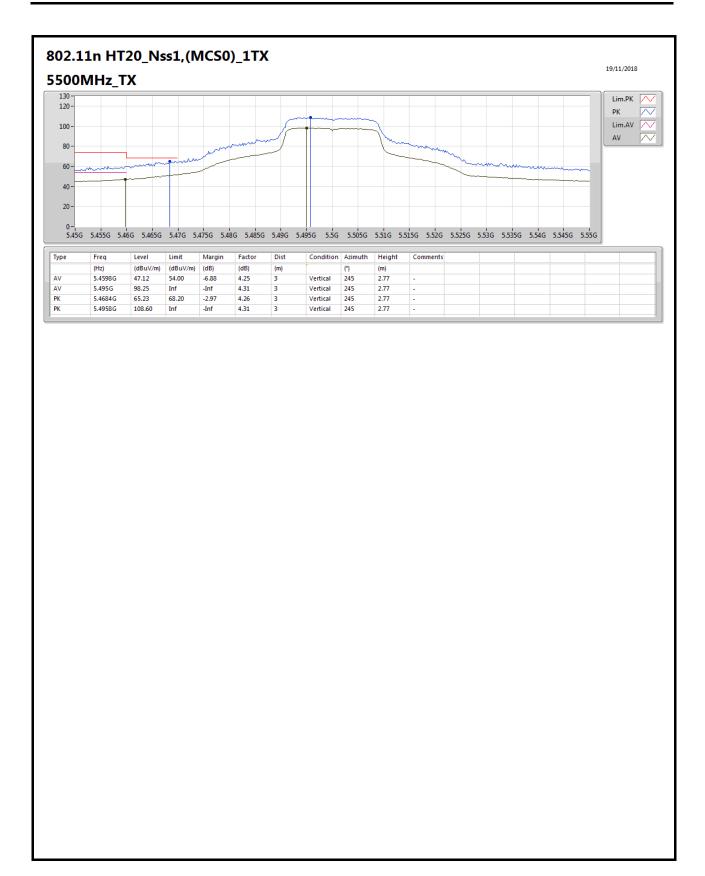
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E83 of E112





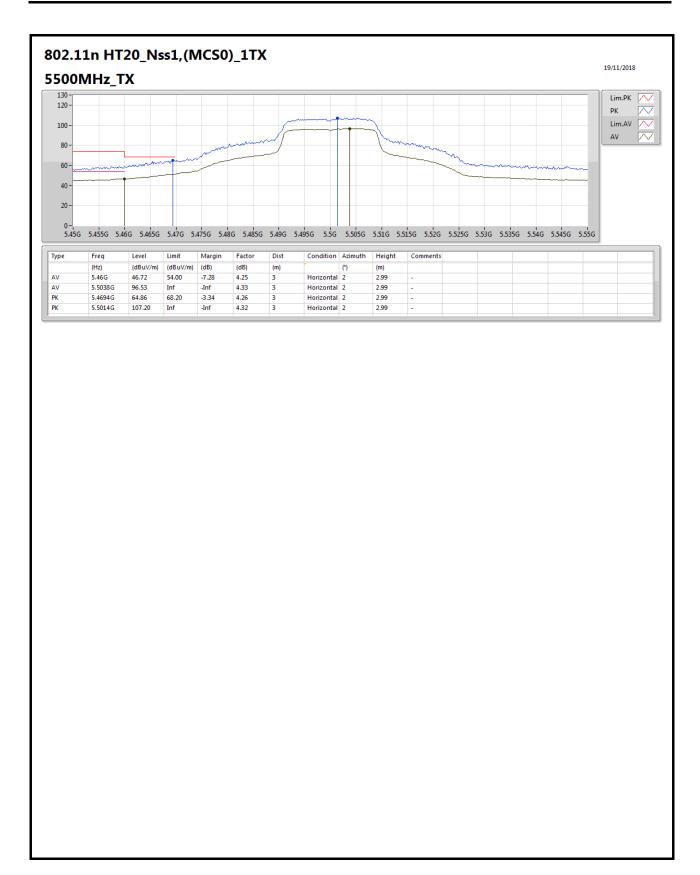
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E84 of E112





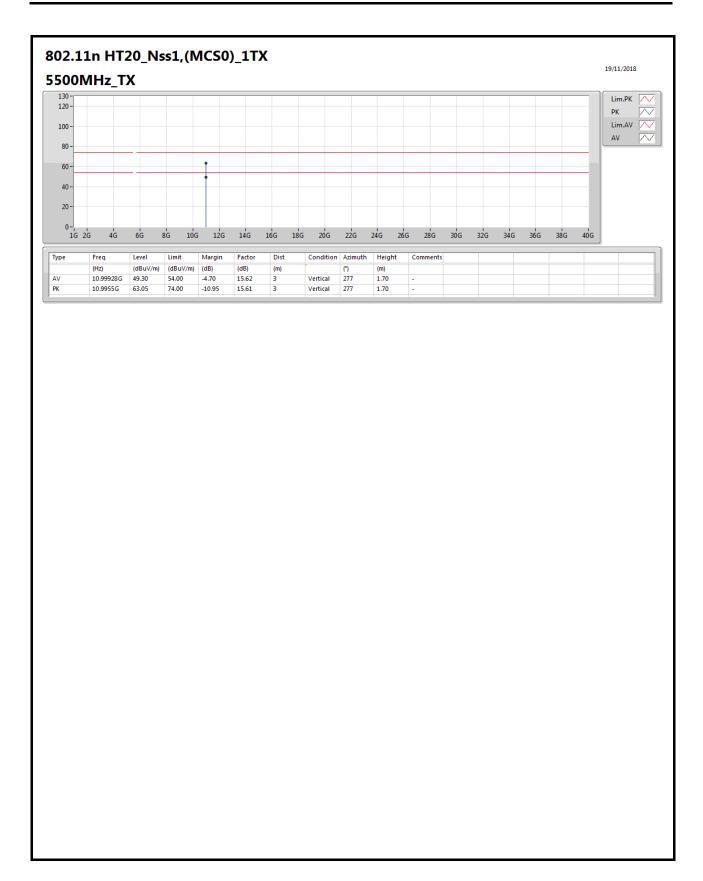
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E85 of E112





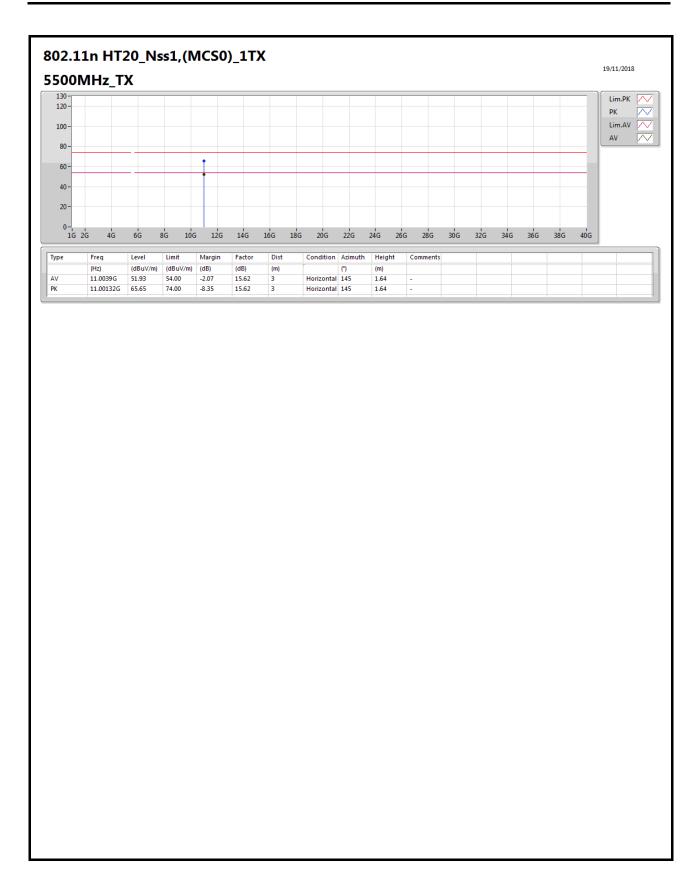
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E86 of E112





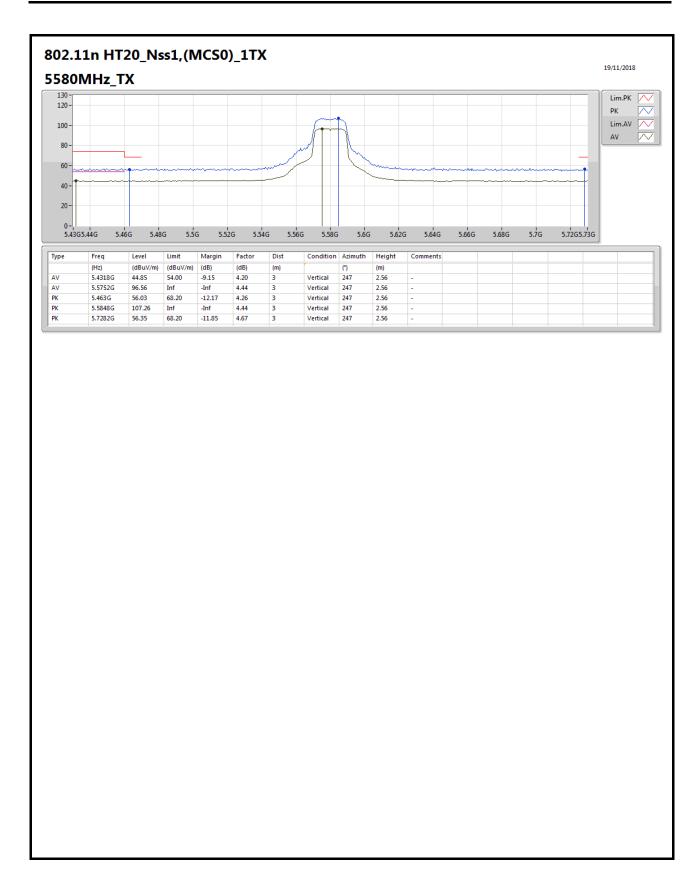
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E87 of E112





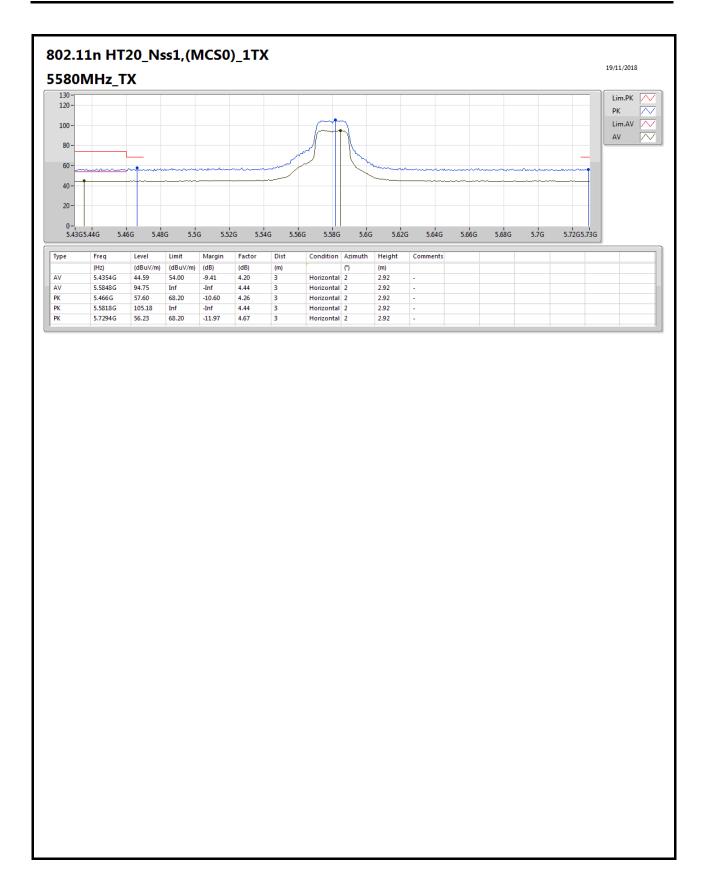
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E88 of E112





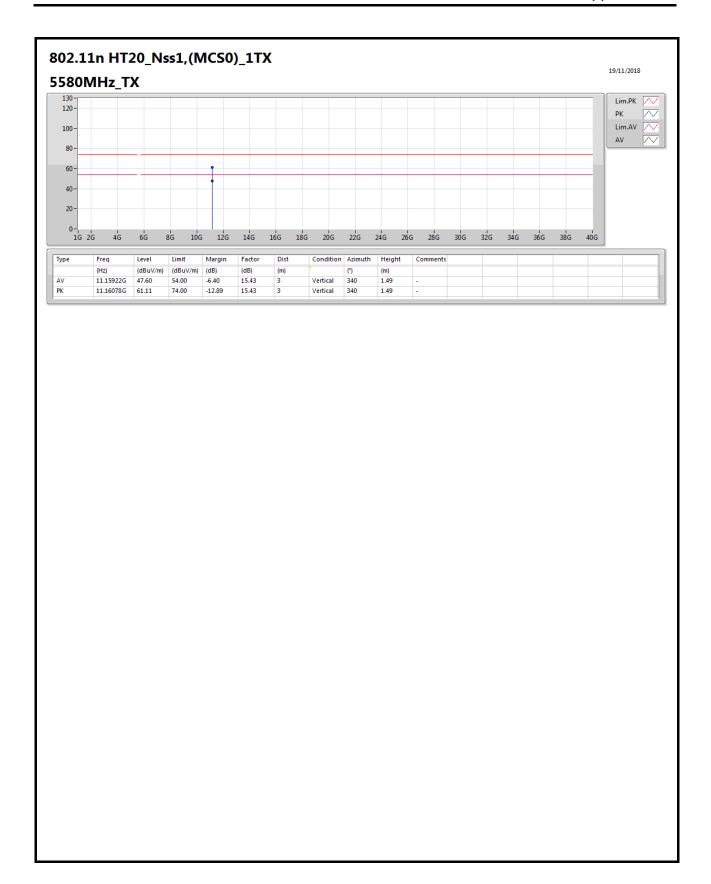
TEL: 886-3-327-3456 FAX: 886-3-327-0973





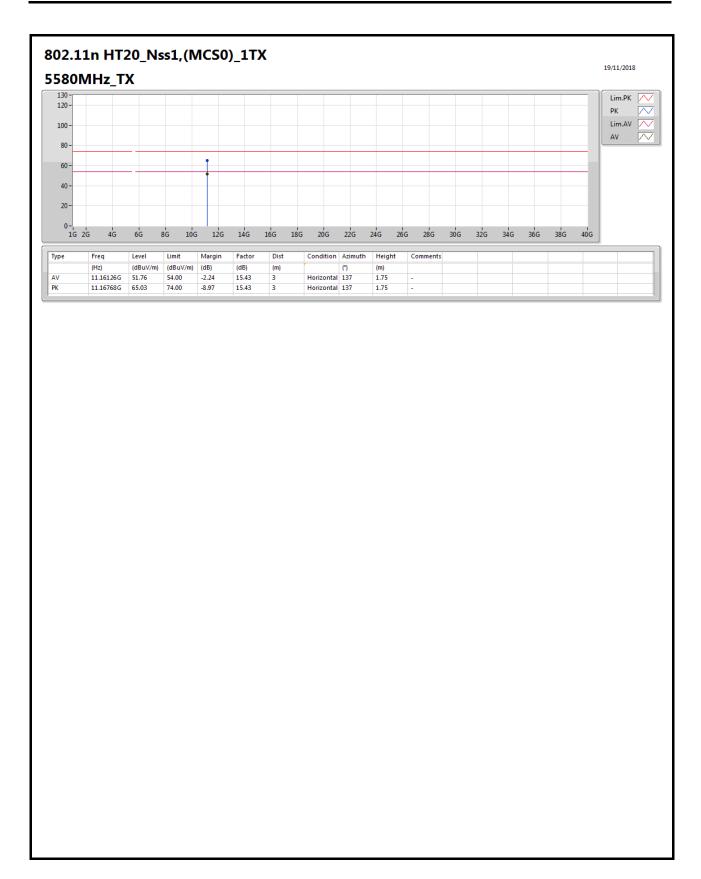
TEL: 886-3-327-3456 FAX: 886-3-327-0973





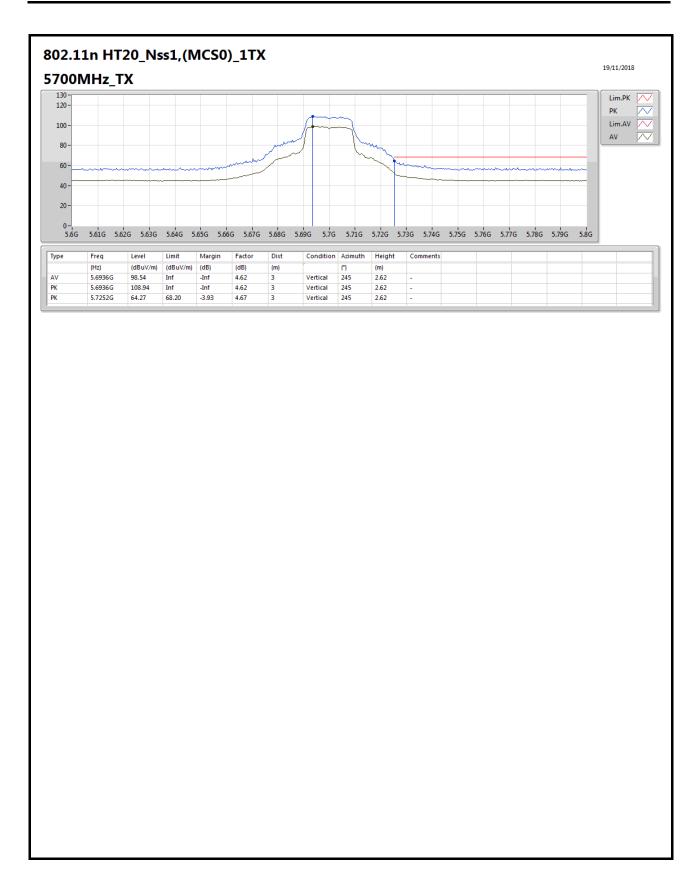
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E91 of E112





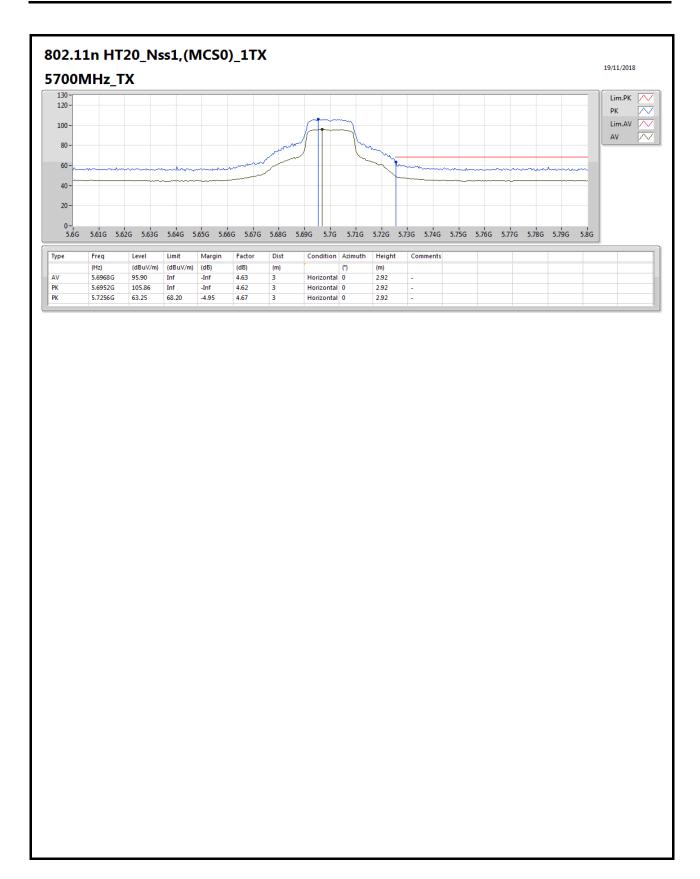
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E92 of E112





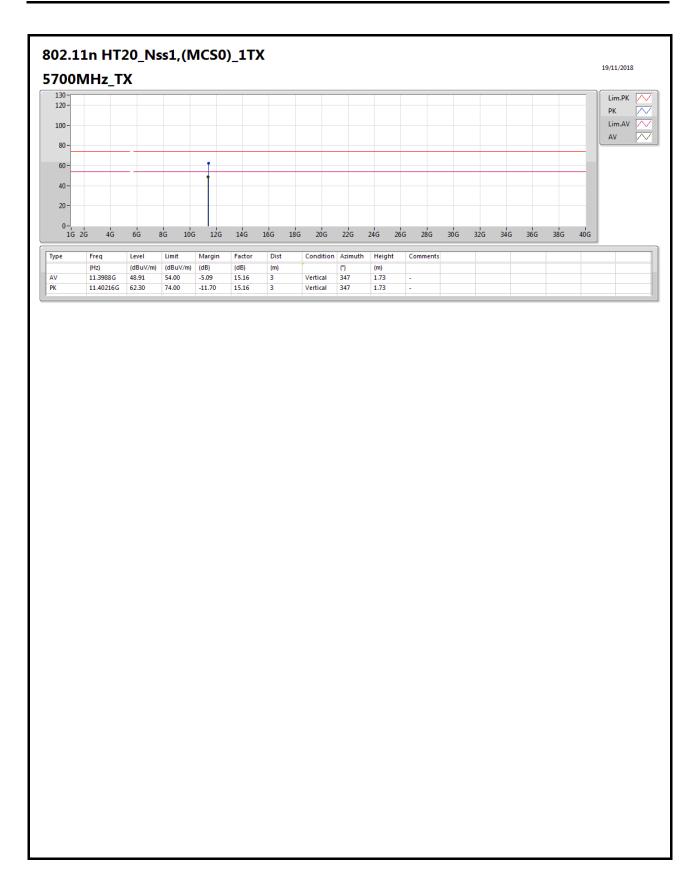
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E93 of E112





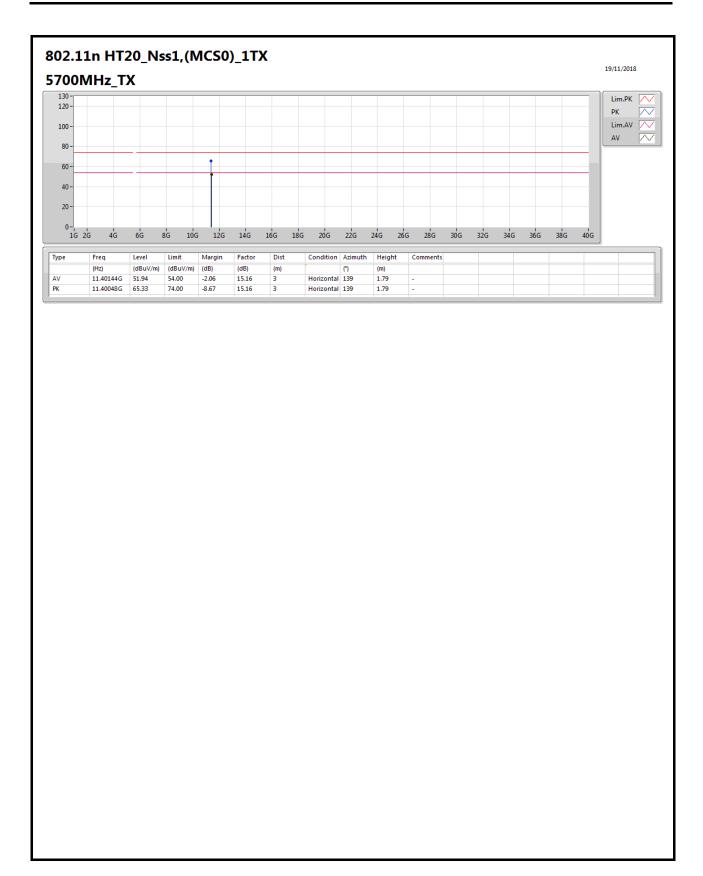
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E94 of E112





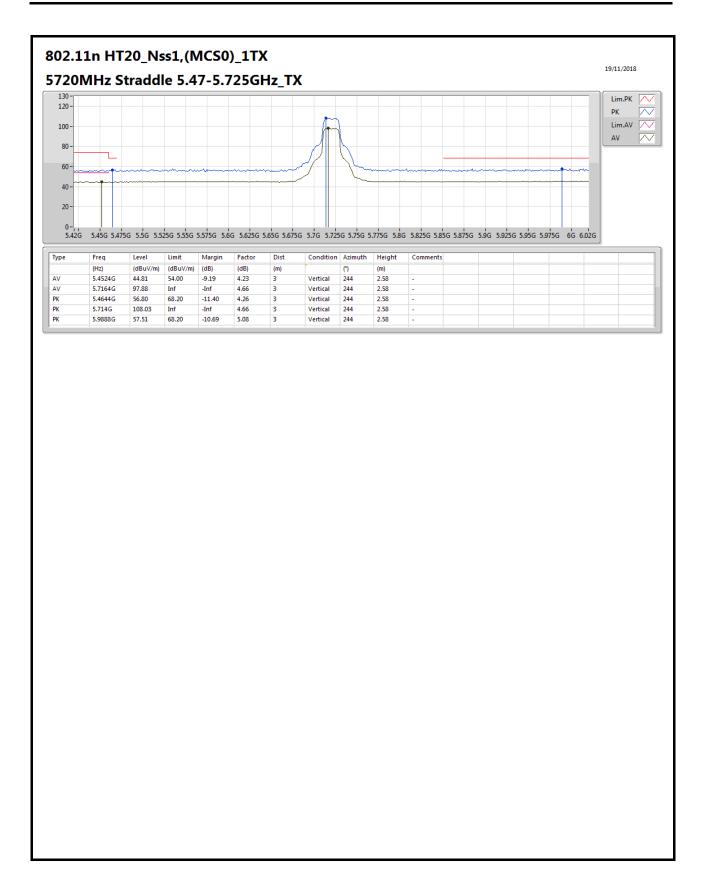
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E95 of E112





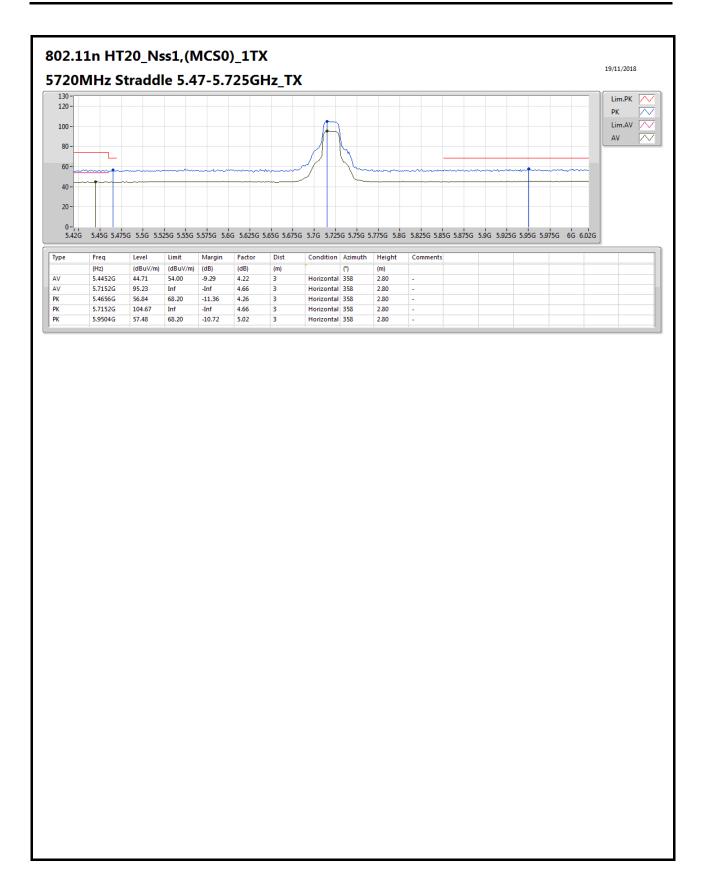
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E96 of E112





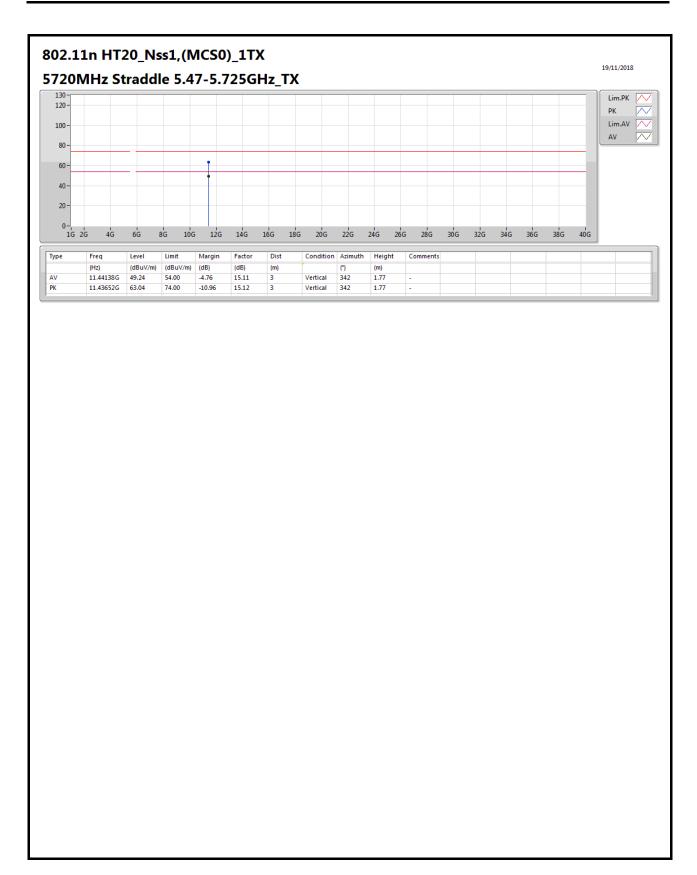
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E97 of E112





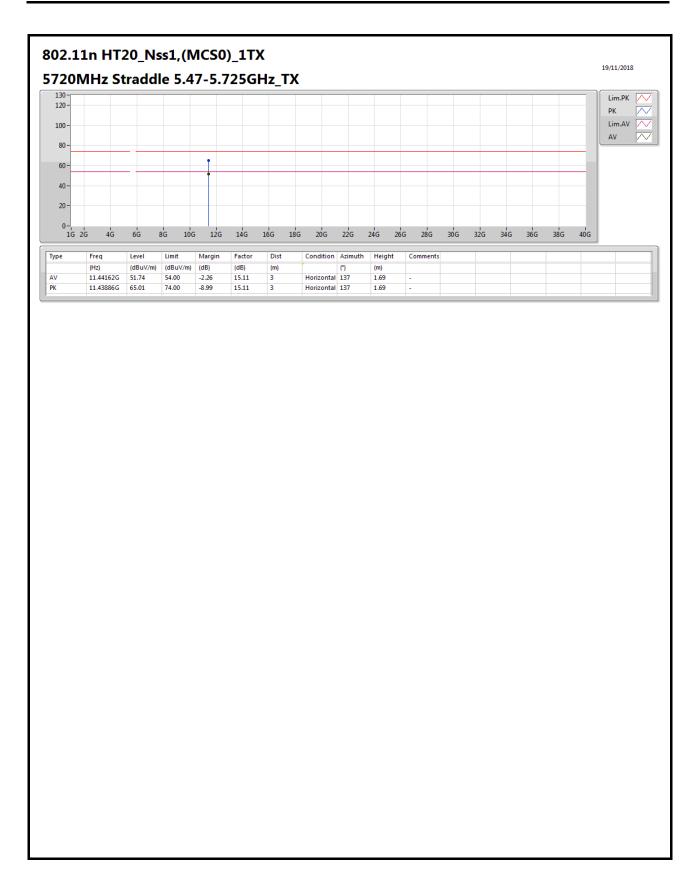
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E98 of E112





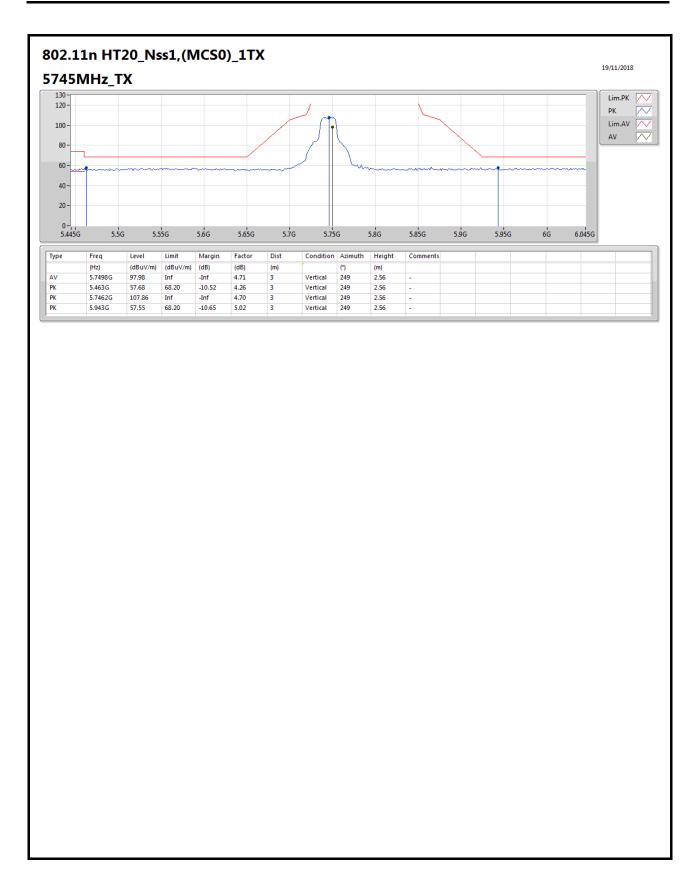
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E99 of E112





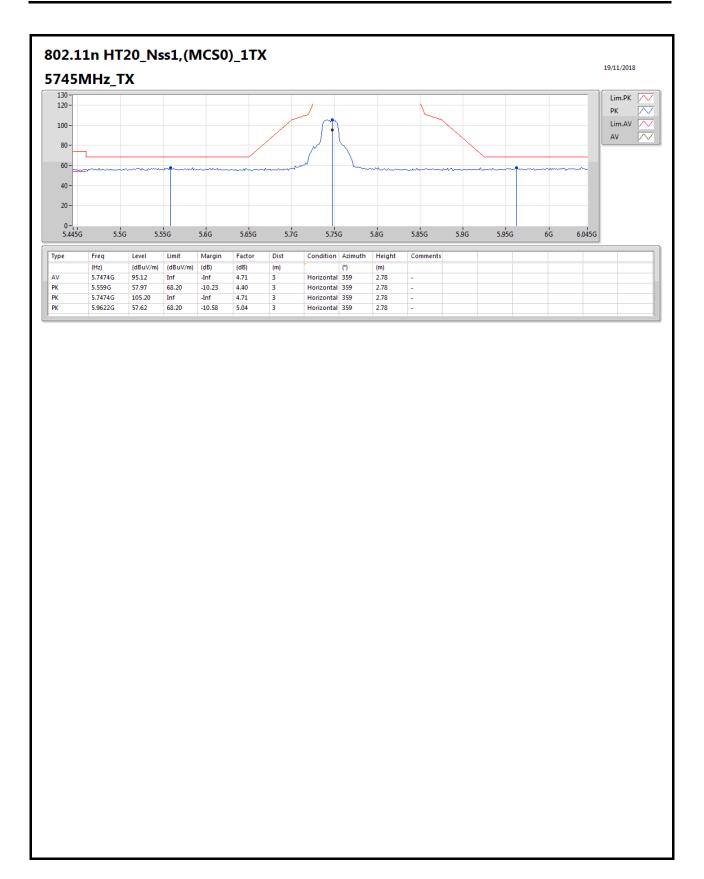
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E100 of E112





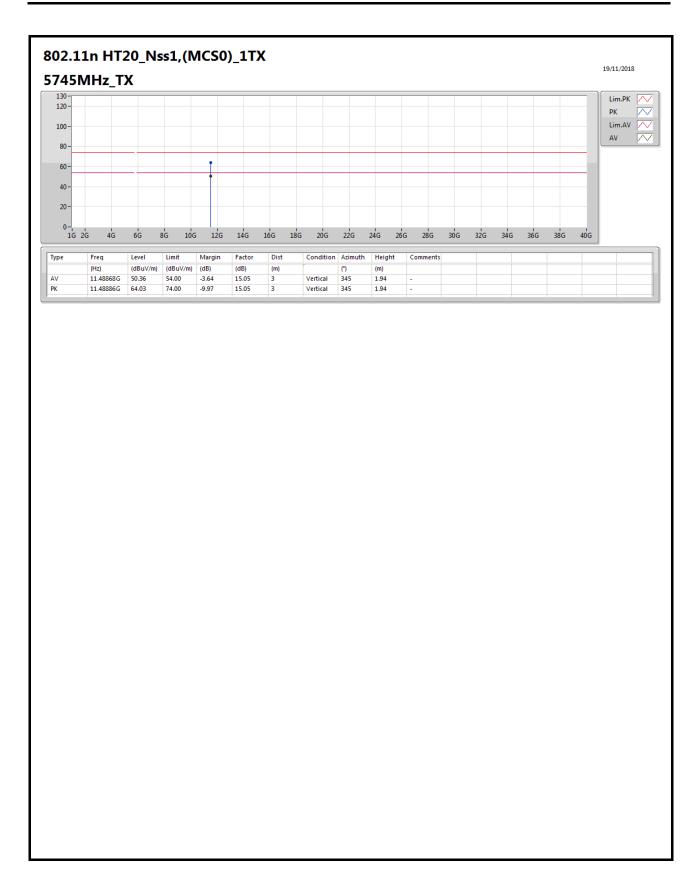
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E101 of E112





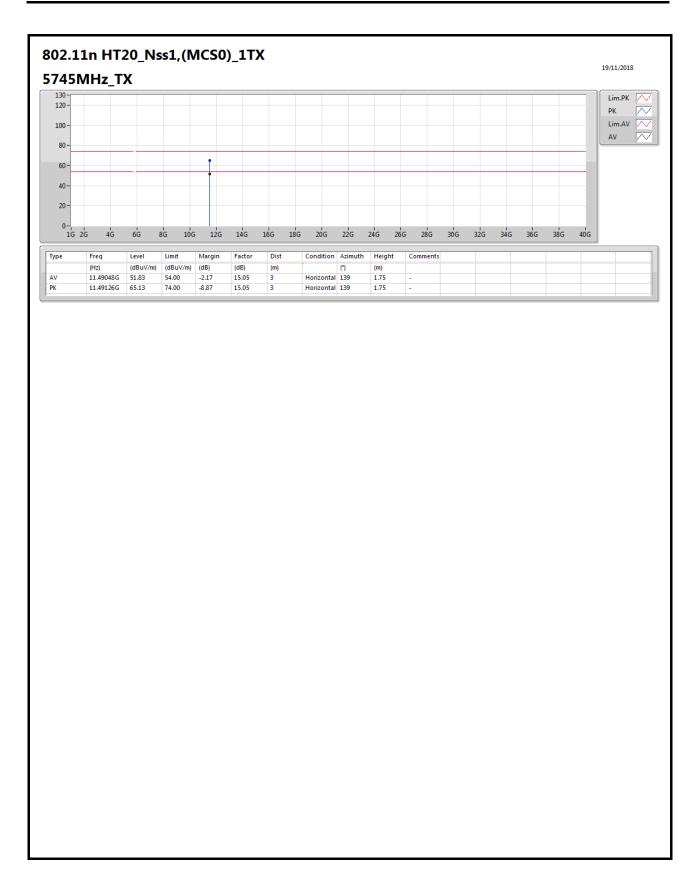
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E102 of E112





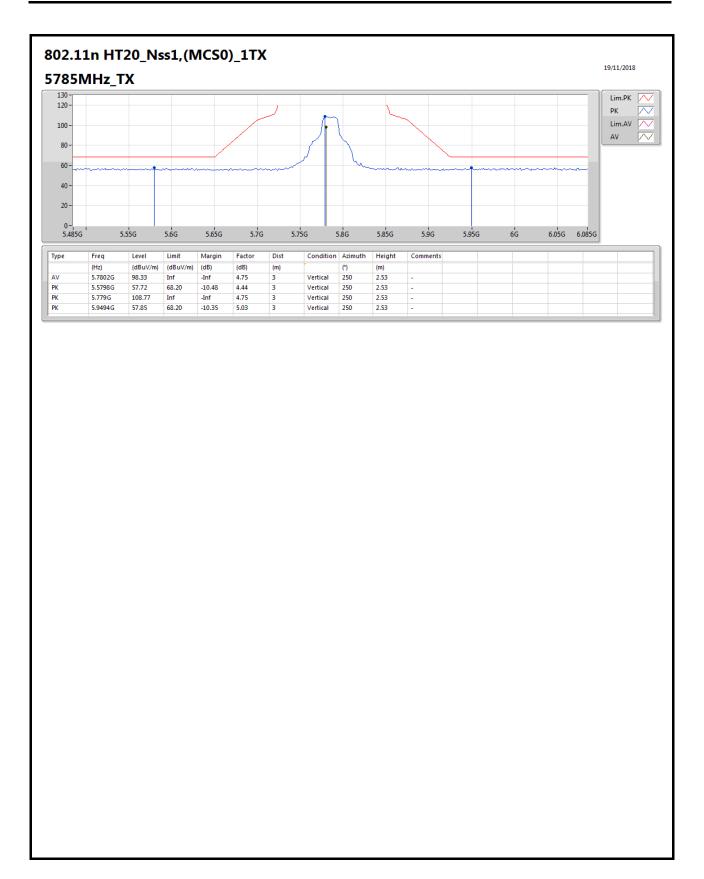
TEL: 886-3-327-3456 FAX: 886-3-327-0973





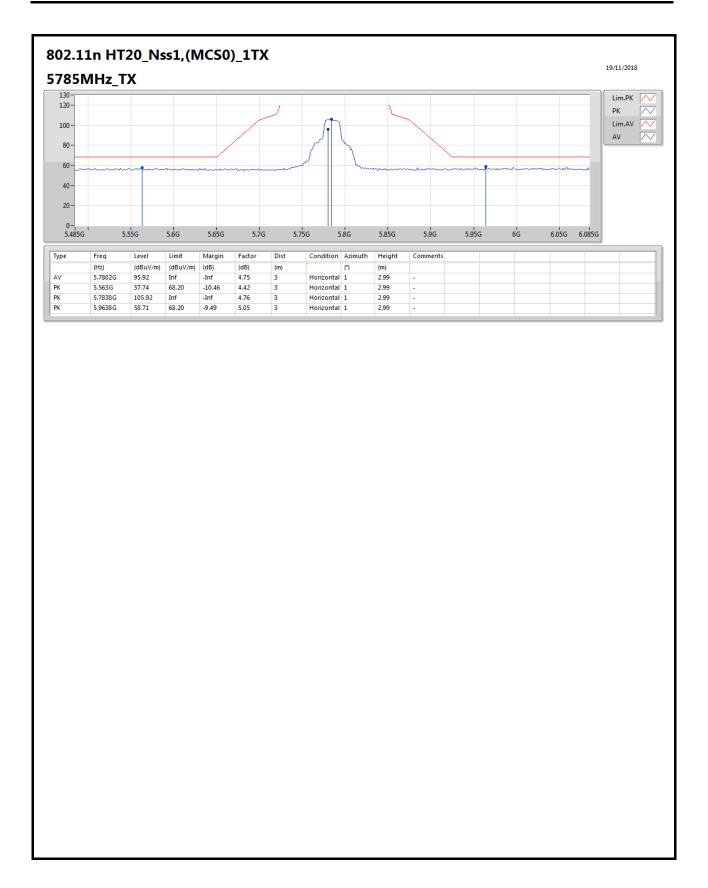
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E104 of E112





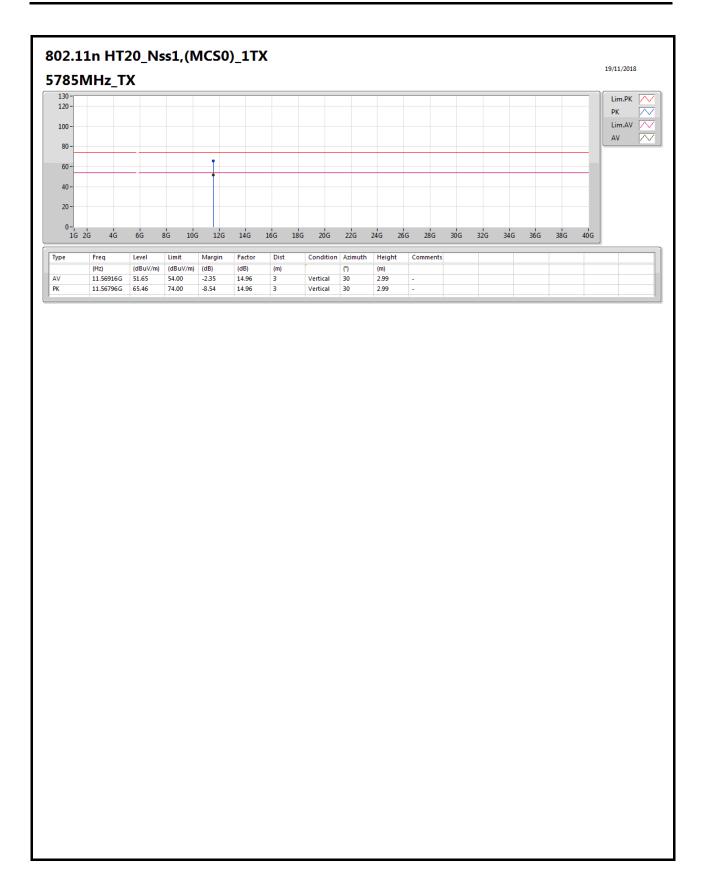
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E105 of E112





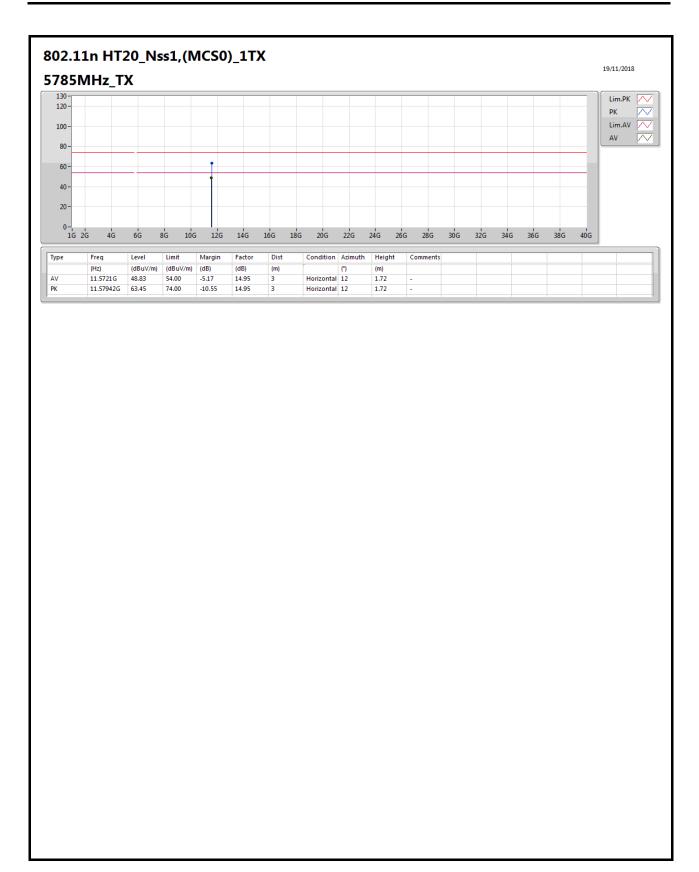
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E106 of E112





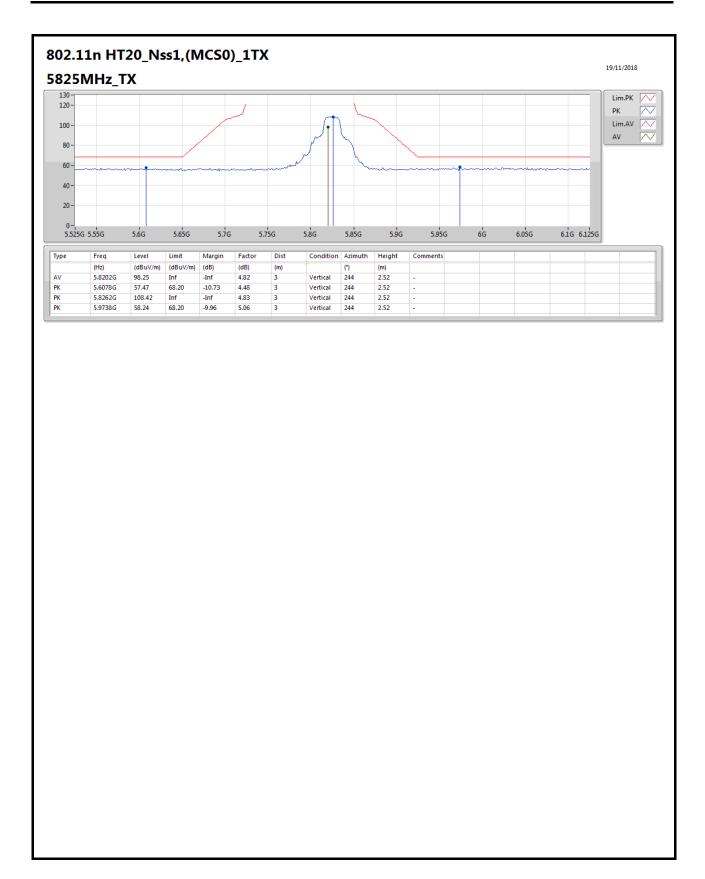
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E107 of E112





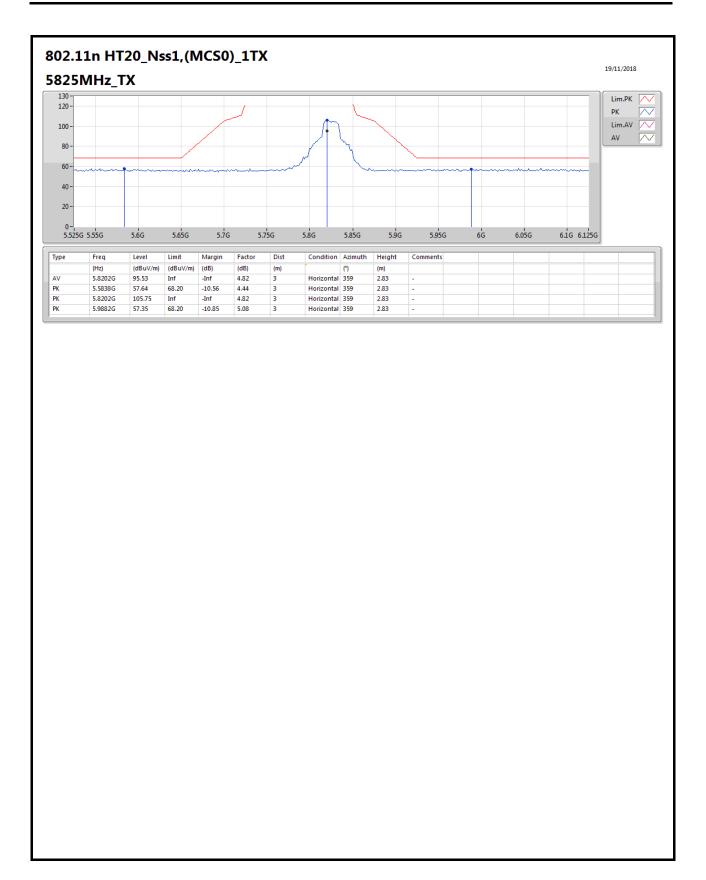
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E108 of E112





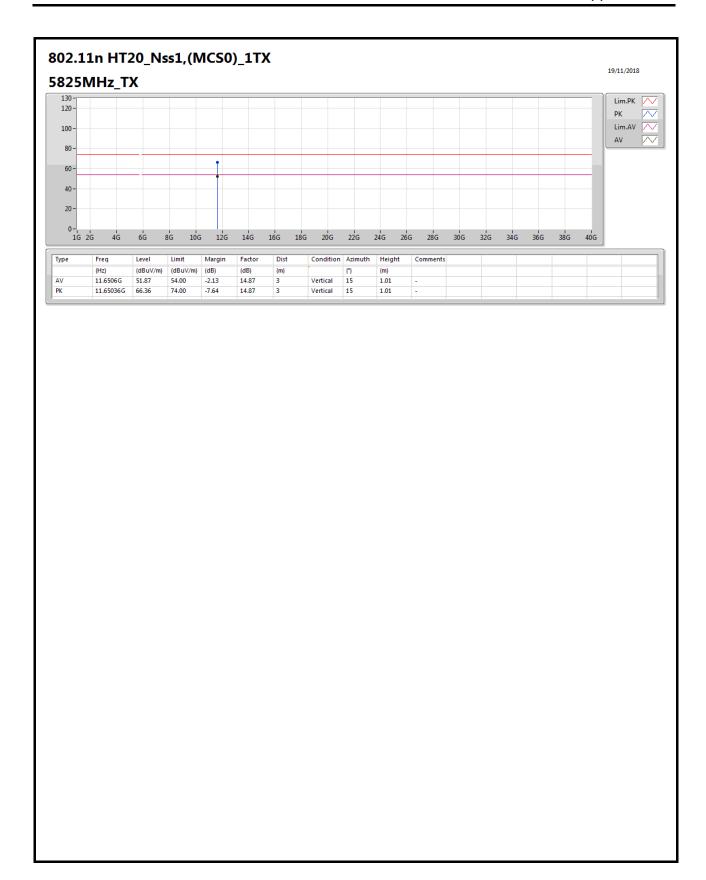
TEL: 886-3-327-3456 FAX: 886-3-327-0973





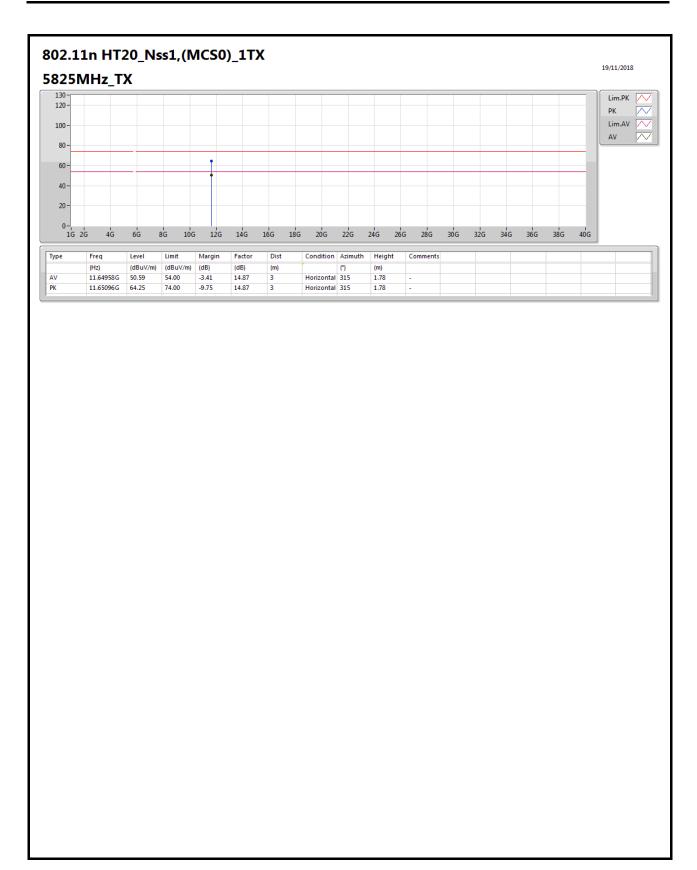
TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E110 of E112





TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E111 of E112





TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : E112 of E112