





FCC ID : VYVRW10BX-37P

Equipment : Wi-Fi Module

Brand Name : ITON

Model Name : RW10BX-37P

Applicant : Iton Technology Corp.

7 Floor East, Building C, Shenzhen International

Innovation Center, No. 1006 Shennan Road,

Futian District, Shenzhen, China

Manufacturer : Longgang Branch of Iton Technology Corp.

Floor2~3,east side of building A,weixinda science and technologypark,NO.95,ainan

road, longgang street, longgang

district, shenzhen

Standard : 47 CFR FCC Part 15.247

The product was received on Aug. 14, 2019, and testing was started from Aug. 23, 2019 and completed on Sep. 10, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

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

Approved by: Allen Lin

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

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

TEL: 886-3-3273456 Page Number : 1 of 25 FAX: 886-3-3270973 Issued Date : Nov. 06, 2019

Report Template No.: HE1-C8 Ver3.6 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	
1.3	Testing Location Information	7
1.4	Measurement Uncertainty	7
2	TEST CONFIGURATION OF EUT	8
2.1	Test Condition	8
2.2	Test Channel Mode	8
2.3	The Worst Case Measurement Configuration	9
2.4	Support Equipment	10
2.5	Test Setup Diagram	11
3	TRANSMITTER TEST RESULT	13
3.1	AC Power-line Conducted Emissions	13
3.2	DTS Bandwidth	
3.3	Maximum Conducted Output Power	16
3.4	Power Spectral Density	
3.5	Emissions in Non-restricted Frequency Bands	
3.6	Emissions in Restricted Frequency Bands	20
4	TEST EQUIPMENT AND CALIBRATION DATA	24
APPI	ENDIX A. TEST RESULTS OF AC POWER-LINE CONDUCTED EMISSIONS	
APPI	ENDIX B. TEST RESULTS OF DTS BANDWIDTH	
APPI	ENDIX C. TEST RESULTS OF MAXIMUM CONDUCTED OUTPUT POWER	
APPI	ENDIX D. TEST RESULTS OF POWER SPECTRAL DENSITY	
APPI	ENDIX E. TEST RESULTS OF EMISSIONS IN NON-RESTRICTED FREQUENCY BANDS	
APPI	ENDIX F. TEST RESULTS OF EMISSIONS IN RESTRICTED FREQUENCY BANDS	
APPI	ENDIX G. TEST PHOTOS	
PHO	TOGRAPHS OF EUT V01	

TEL: 886-3-3273456 FAX: 886-3-3270973

Report Template No.: HE1-C8 Ver3.6

FCC ID: VYVRW10BX-37P

: 2 of 25 Page Number : Nov. 06, 2019 Issued Date

Report Version : 01



History of this test report

Report No.	Version	Description	Issued Date
FR973042AC	01	Initial issue of report	Nov. 06, 2019

TEL: 886-3-3273456 Page Number : 3 of 25 FAX: 886-3-3270973 Issued Date : Nov. 06

Report Template No.: HE1-C8 Ver3.6

FCC ID: VYVRW10BX-37P

Issued Date : Nov. 06, 2019 Report Version : 01

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	15.247(a)	DTS Bandwidth	PASS	-
3.3	15.247(b)	Maximum Conducted Output Power	PASS	-
3.4	15.247(e)	Power Spectral Density	PASS	-
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	-
3.6	15.247(d)	Emissions in Restricted Frequency Bands	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: Kate Lo

TEL: 886-3-3273456 : 4 of 25 Page Number FAX: 886-3-3270973

Report Template No.: HE1-C8 Ver3.6

FCC ID: VYVRW10BX-37P

: Nov. 06, 2019 Issued Date 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
2400-2483.5	b, g, n (HT20)	2412-2462	1-11 [11]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	1TX
2.4-2.4835GHz	802.11g	20	1TX
2.4-2.4835GHz	802.11n HT20	20	1TX
2.4-2.4835GHz	802.11n HT40	40	1TX

Note:

- 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- 11g, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	Walsin	RFANT3216120A5T	Multilayer ceramic antenna	N/A	2.12

For 2.4GHz function:

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

Ant. 1 could transmit/receive.

1.1.3 EUT Information

	Operational Condition						
EU	Γ Power T	уре	Fro	m host system(N	B)		
EU	Γ Functio	า	\boxtimes	Point-to-multipo	int [Point-to-point
Bea	mforming	Function		With beamformi	ng [\boxtimes	Without beamforming
				-	Type of	f EU	т
\boxtimes	Stand-alo	ne					
	Combine	d (EUT where	e the	radio part is fully	/ integra	atec	within another device)
	Combine	d Equipment	- Bra	and Name / Mode	el No.:		
	Plug-in radio (EUT intended for a variety of host systems)						
	Host System - Brand Name / Model No.:						
	Other:						

TEL: 886-3-3273456 Page Number : 5 of 25 FAX: 886-3-3270973 Issued Date : Nov. 06, 2019

Report Template No.: HE1-C8 Ver3.6

FCC ID: VYVRW10BX-37P

Issued Date : Nov.
Report Version : 01



FCC Test Report

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	1	0	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11g	1	0	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11n HT20	1	0	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11n HT40	1	0	n/a (DC>=0.98)	n/a (DC>=0.98)

Report No.:FR973042AC

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

TEL: 886-3-3273456 Page Number : 6 of 25
FAX: 886-3-3270973 Issued Date : Nov. 06, 2019

Report Template No.: HE1-C8 Ver3.6 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:

Report No.:FR973042AC

- 47 CFR FCC Part 15
- ANSI C63.10-2013
- KDB 558074 D01 v05r02
- KDB 414788 D01 v01r01

1.3 Testing Location Information

	Testing Location						
\boxtimes	HWA YA	ADD	:	No. 52, Huaya 1st Rd.,	No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)		
		TEL	:	886-3-327-3456	FAX : 886-3-327-0973		
				Test site Designation	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	TH01-HY	Andy	23.1~25.5°C / 63.5~66.5%	23/Aug/2019
Radiated	03CH02-HY	Edward	23.2~24.5°C / 61.2~65.8%	23/Aug/2019~ 10/Sep/2019
AC Conduction	CO04-HY	Edward	22.1~23.4°C / 64.5~67.9%	24/Aug/2019

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 Page Number : 7 of 25
FAX: 886-3-3270973 Issued Date : Nov. 06, 2019

Report Version

: 01

Report Template No.: HE1-C8 Ver3.6



Report No.:FR973042AC

Test Configuration of EUT 2

2.1 **Test Condition**

RF Conducted	Abbreviation	Remark
TnomVnom	Tnom	20°C
-	Vnom	5V

2.2 **Test Channel Mode**

Test Software Version	UI_mptool_1v15
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Mode	Power Setting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	33
2437MHz	33
2462MHz	34
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	59
2437MHz	63
2457MHz	63
2462MHz	62
802.11n HT20_Nss1,(MCS0)_1TX	-
2412MHz	59
2437MHz	63
2457MHz	63
2462MHz	59
802.11n HT40_Nss1,(MCS0)_1TX	-
2422MHz	59
2427MHz	63
2437MHz	63
2447MHz	59
2452MHz	57

TEL: 886-3-3273456 : 8 of 25 Page Number FAX: 886-3-3270973 : Nov. 06, 2019

: 01

Issued Date Report Template No.: HE1-C8 Ver3.6 Report Version



2.3 **The Worst Case Measurement Configuration**

The Worst Case Mode for Following Conformance Tests		
Tests Item	AC power-line conducted emissions	
Condition	AC power-line conducted measurement for line and neutral	
Operating Mode	СТХ	
1	USB mode	

The Worst Case Mode for Following Conformance Tests	
Tests Item	DTS Bandwidth Maximum Conducted Output Power Power Spectral Density Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests				
Tests Item	Emissions in Restricted Fr	Emissions in Restricted Frequency Bands		
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.			
Operating Mode < 1GHz	СТХ			
1	USB mode			
Operating Mode > 1GHz	СТХ			
	X Plane	Y Plane	Z Plane	
Orthogonal Planes of EUT				
Worst Planes of EUT			V	

TEL: 886-3-3273456 : 9 of 25 Page Number FAX: 886-3-3270973

Report Template No.: HE1-C8 Ver3.6

FCC ID: VYVRW10BX-37P

: Nov. 06, 2019 Issued Date

Report No.:FR973042AC

Report Version : 01 FCC Test Report No.:FR973042AC

2.4 Support Equipment

Support Equipment – AC Conduction				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E4300	-
2	Adapter	DELL	LA90PM111	-
3	Fixture	Xinkete	RW10BX-37P V1.3	-

Note: Support equipment No.3 was provided by customer.

	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	DC Power Supply	GW	GPS-3030DD	-	
4	Fixture	Xinkete	RW10BX-37P V1.3	-	

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

Support Equipment – Radiated Emission				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Power Cable	Power sync	PW-GPC180-3	-
2	Notebook	DELL	E4300	-
3	Adapter	DELL	LA90PM111	-
4	Fixture	Xinkete	RW10BX-37P V1.3	-

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

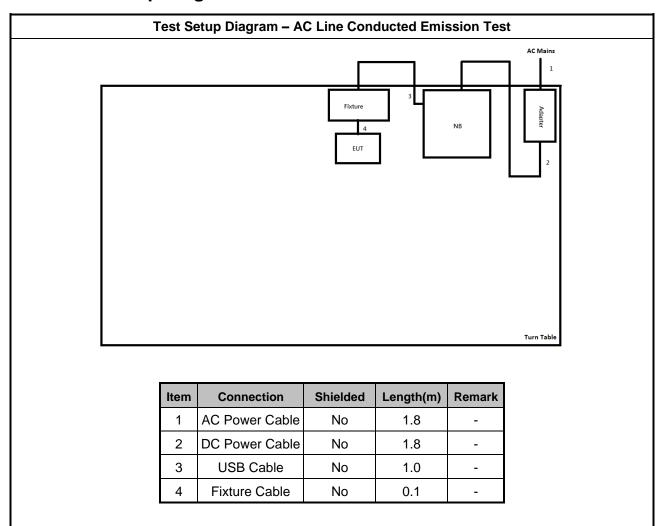
TEL: 886-3-3273456 Page Number : 10 of 25 FAX: 886-3-3270973 Issued Date : Nov. 06, 2019

Report Template No.: HE1-C8 Ver3.6 Report Version : 01 FCC ID: VYVRW10BX-37P



Report No. :FR973042AC

2.5 Test Setup Diagram



TEL: 886-3-3273456 Page Number : 11 of 25 FAX: 886-3-3270973 Issued Date : Nov. 06, 2019

Report Template No.: HE1-C8 Ver3.6

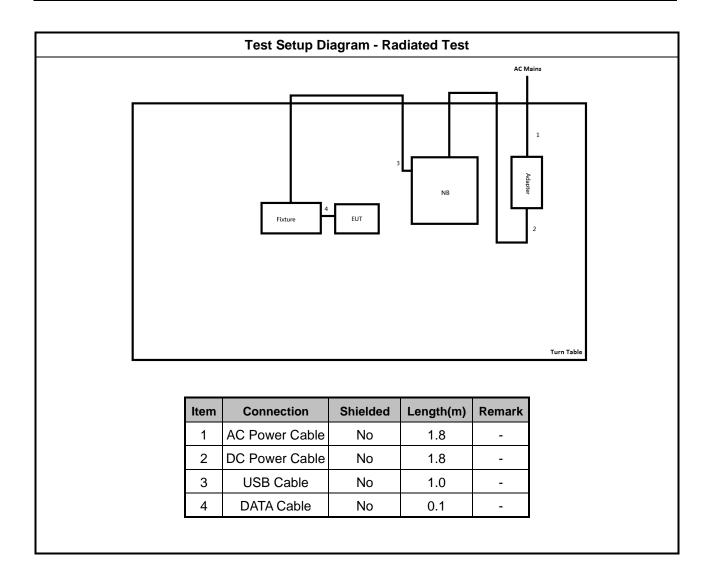
FCC ID: VYVRW10BX-37P

Issued Date : No Report Version : 01

Report No.:FR973042AC

: 01

Report Version



TEL: 886-3-3273456 Page Number : 12 of 25
FAX: 886-3-3270973 Issued Date : Nov. 06, 2019

Report Template No.: HE1-C8 Ver3.6



3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Powe	er-line Conducted Emissions L	imit
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
Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

TEL: 886-3-3273456 Page Number : 13 of 25
FAX: 886-3-3270973 Issued Date : Nov. 06, 2019

Report Template No.: HE1-C8 Ver3.6

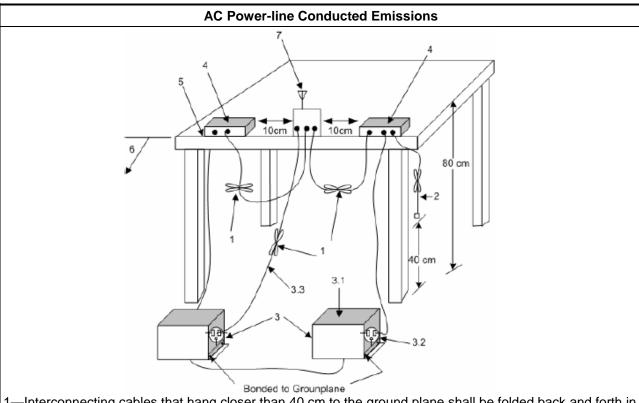
FCC ID: VYVRW10BX-37P

Report Version : 01



Report No.:FR973042AC

3.1.4 Test Setup



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

Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

FCC ID: VYVRW10BX-37P

TEL: 886-3-3273456 : 14 of 25 Page Number : Nov. 06, 2019 FAX: 886-3-3270973 Issued Date

Report Template No.: HE1-C8 Ver3.6 Report Version : 01 FCC Test Report No. :FR973042AC

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit
Systems using digital modulation techniques:
■ 6 dB bandwidth ≥ 500 kHz.

3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

	Test Method
•	For the emission bandwidth shall be measured using one of the options below:
	Refer as KDB 558074. clause 8.2 (11.8 of ANSI C63.10) DTS bandwidth measurement.
	Refer as RSS-Gen, clause 6.7 for occupied bandwidth testing.
	Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.

3.2.4 Test Setup

Emission Bandwidth				
Spectrum Analyzer				

3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

TEL: 886-3-3273456 Page Number : 15 of 25
FAX: 886-3-3270973 Issued Date : Nov. 06, 2019

Report Version

: 01

Report Template No.: HE1-C8 Ver3.6



3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Max	imu	m Conducted Output Power Limit					
	•	If $G_{TX} \le 6$ dBi, then $P_{Out} \le 30$ dBm (1 W)					
	■ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm						
	■ Point-to-point systems (P2P): If G _{TX} > 6 dBi, then P _{Out} = 30 – (G _{TX} – 6)/3 dBm						
		Smart antenna system (SAS):					
		- Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm					
		- Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm					
		- Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$ dB dBm					
e.i.r	.p. P	ower Limit:					
•	240	0-2483.5 MHz Band					
	•	Point-to-multipoint systems (P2M): P _{eirp} ≤ 36 dBm (4 W)					
	•	Point-to-point systems (P2P): $P_{eirp} \le MAX(36, [P_{Out} + G_{TX}]) dBm$					
	•	Smart antenna system (SAS)					
		- Single beam: P _{eirp} ≤ MAX(36, P _{Out} + G _{TX}) dBm					
		- Overlap beam: P _{eirp} ≤ MAX(36, P _{Out} + G _{TX}) dBm					
		- Aggregate power on all beams: P _{eirp} ≤ MAX(36, [P _{Out} + G _{TX} + 8]) dBm					
		aximum peak conducted output power or maximum conducted output power in dBm, e maximum transmitting antenna directional gain in dBi.					

Report No.:FR973042AC

3.3.2 Measuring Instruments

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

TEL: 886-3-3273456 Page Number : 16 of 25
FAX: 886-3-3270973 Issued Date : Nov. 06, 2019

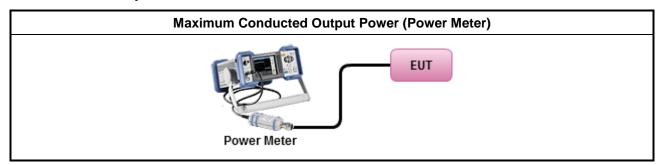
Report Template No.: HE1-C8 Ver3.6 Report Version : 01

3.3.3 Test Procedures

	Test Method
•	Maximum Peak Conducted Output Power
	☐ Refer as KDB 558074, clause 8.3.1.1 (11.9.1.1 of ANSI C63.10) RBW ≥ EBW method.
	Refer as KDB 558074, clause 8.3.1.2 (11.9.1.2 of ANSI C63.10) integrated band power method.
	Refer as KDB 558074, clause 8.3.1.3 (11.9.1.3 of ANSI C63.10) peak power meter.
•	Maximum Average Conducted Output Power
	Refer as KDB 558074, clause 8.3.2.2 (11.9.2.2 of ANSI C63.10) using a spectrum analyzer.
	Refer as KDB 558074, clause 8.3.2.3 (11.9.2.3 of ANSI C63.10) using a power meter.
•	For conducted measurement.
	If the EUT supports multiple transmit chains using options given below: Refer as KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
	If multiple transmit chains, EIRP calculation could be following as methods: P _{total} = P ₁ + P ₂ + + P _n (calculated in linear unit [mW] and transfer to log unit [dBm]) EIRP _{total} = P _{total} + DG

Report No.:FR973042AC

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

TEL: 886-3-3273456 Page Number : 17 of 25
FAX: 886-3-3270973 Issued Date : Nov. 06, 2019

Report Version

: 01

Report Template No.: HE1-C8 Ver3.6

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

Power Spectral Density Limit

Report No.:FR973042AC

Power Spectral Density (PSD) ≤ 8 dBm/3kHz

3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method

- Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).
 - Refer as KDB 558074, clause 8.4 (11.10 of ANSI C63.10) Method PKPSD.
- 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.

3.4.4 Test Setup



3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

TEL: 886-3-3273456 Page Number : 18 of 25
FAX: 886-3-3270973 Issued Date : Nov. 06, 2019

Report Template No.: HE1-C8 Ver3.6 Report Version : 01

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit				
RF output power procedure Limit (dB)				
Peak output power procedure	20			
Average output power procedure	30			

- Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak level.
- Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average level.

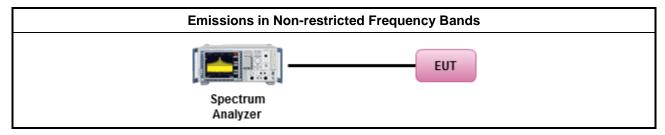
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

	Test Method
-	Refer as KDB 558074, clause 8.5 (11.11 of ANSI C63.10) for non-restricted frequency bands.

3.5.4 Test Setup



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

TEL: 886-3-3273456 Page Number : 19 of 25 FAX: 886-3-3270973 Issued Date : Nov. 06, 2019

Report Template No.: HE1-C8 Ver3.6 FCC ID: VYVRW10BX-37P

Report Version : 01

3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

Restricted Band Emissions Limit							
Frequency Range (MHz)	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				

Report No.:FR973042AC

- Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).
- Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.
- Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

3.6.2 Measuring Instruments

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

TEL: 886-3-3273456 Page Number : 20 of 25 FAX: 886-3-3270973 Issued Date : Nov. 06, 2019

Report Template No.: HE1-C8 Ver3.6 Report Version : 01

FCC Test Report No.:FR973042AC

3.6.3 Test Procedures

Test Method

- The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].
- Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.
- For the transmitter unwanted emissions shall be measured using following options below:
 - Refer as KDB 558074, clause 8.6 (11.12 of ANSI C63.10) for restricted frequency bands.
- For the transmitter band-edge emissions shall be measured using following options below:
 - Refer as KDB 558074 clause 8.7.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.
 - Refer as KDB 558074, clause 8.7.2 (6.10.6 of ANSI C63.10) for marker-delta method for band-edge measurements.
 - Refer as KDB 558074, clause 8.7.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels.
- Use the following spectrum analyzer settings:
 - Set RBW=100 kHz for f < 1 GHz; VBW=3 * RBW; Sweep = auto; Detector function = peak; Trace = max hold.</p>
 - Set RBW = 1 MHz, VBW= 3MHz for f ≥ 1 GHz for peak measurement. For average measurement, refer as 1.1.4.
- KDB 414788 Open-Field Test Sites and Chamber Correlation Justification.
 - Based on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in regulations; however, an attempt should be made to avoid making measurements in the near field.
 - Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

TEL: 886-3-3273456 Page Number : 21 of 25 FAX: 886-3-3270973 Issued Date : Nov. 06, 2019

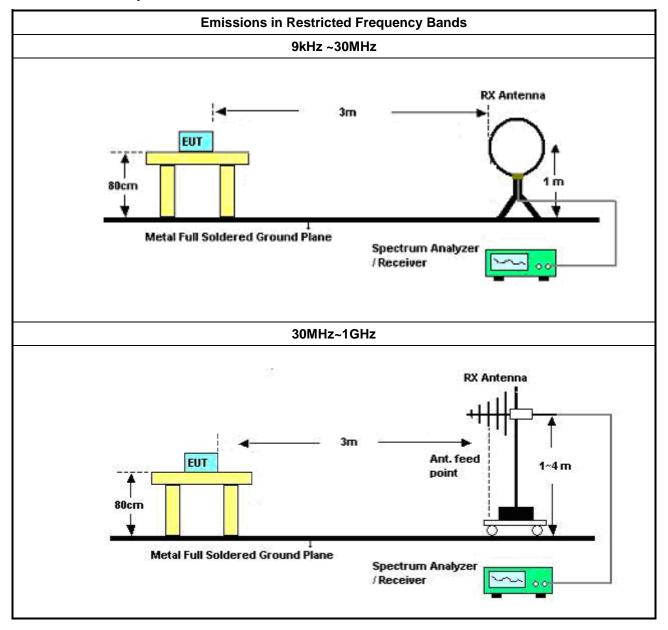
Report Version

: 01

Report Template No.: HE1-C8 Ver3.6

Report No.:FR973042AC

3.6.4 Test Setup



TEL: 886-3-3273456 FAX: 886-3-3270973

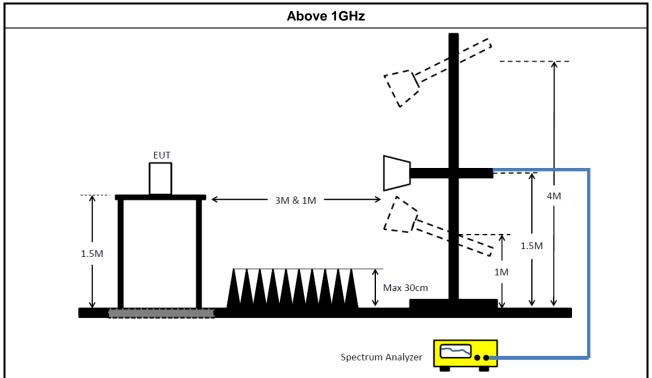
Report Template No.: HE1-C8 Ver3.6

FCC ID: VYVRW10BX-37P

Page Number : 22 of 25
Issued Date : Nov. 06, 2019

Report Version : 01

Report No. :FR973042AC



3.6.5 Test Result of Emissions in Restricted Frequency Bands (Below 30MHz)

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

3.6.6 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

TEL: 886-3-3273456 FAX: 886-3-3270973

Report Template No.: HE1-C8 Ver3.6

FCC ID: VYVRW10BX-37P

Page Number : 23 of 25 Issued Date : Nov. 06, 2019

Report Version : 01



4

Test Equipment and Calibration Data

Instrument for AC Conduction

isti dilletit 101 A						1
Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR3	102052	9kHz~3.6GHz	09/Apr/2019	08/Apr/2020
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	9kHz~30MHz	12/Oct/2018	11/Oct/2019

Report No.:FR973042AC

NCR : Non-Calibration Require
Instrument for Conducted Test

istrument for Conducted Test							
Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date	
Spectrum Analyzer	R&S	FSV 40	101013	10Hz~40GHz	13/Mar/2019	12/Mar/2020	
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	
Cable 0.2m	HUBER	MY10710/4	RF Cable - 01	30MHz~18G	10/Jan/2019	09/Jan/2020	
Cable 0.2m	HUBER	MY10711/4	RF Cable - 02	30MHz~18G	10/Jan/2019	09/Jan/2020	
Cable 0.5m	HUBER	MY39470/4	RF Cable - 29	30MHz~18G	10/Jan/2019	09/Jan/2020	
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	12/Nov/2018	10/Nov/2020	

TEL: 886-3-3273456 Page Number : 24 of 25 FAX: 886-3-3270973 Issued Date : Nov. 06, 2019

Report Version

: 01

Report Template No.: HE1-C8 Ver3.6



FCC Test Report

Report No.:FR973042AC

Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz~1GHz 3m	19/Oct/2018	18/Oct/2019
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz~18GHz 3m	17/Oct/2018	16/Oct/2019
Amplifier	Agilent	8447D	2944A11149	100kHz~1.3GHz	02Jul/2019	01/Jul/2020
Microwave Preamplifier	Agilent	8449B	3008A02373	1GHz~26.5GHz	23/Oct/2018	22/Oct/2019
Spectrum Analyzer	Rohde & Schwarz	FSP40	100593	9KHz~40GHz	27/Dec/2018	26/Dec/2019
EMI Test Receiver	R&S	ESR3	102052	9kHz~3.6GHz	09/Apr/2019	08/Apr/2020
RF Cable-R03m	Jye Bao	RG142	CB017	9kHz~1GHz	26/Mar/2019	25/Mar/2020
RF Cable-high 6m	SUHNER	SUCOFLEX104	10567868 / SN805193/4	1GHz~40GHz	9/Apr/2019	8/Apr/2020
RF Cable-high 7m	SUHNER	SUCOFLEX104	10567868 / SN805192/4	1GHz~40GHz	9/Apr/2019	8/Apr/2020
Bilog Antenna & 5db Attenuator	SCHAFFNER/MTJ	CBL6112D / MTJ6102-05	2678 / 001	30MHz~2GHz	6/Jul/2019	5/Jul/2020
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	15GHz~40GHz	22/Mar2019	21/Mar2020
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz~40GHz	05/Aug/2019	04/Aug/2020
Loop Antenna	TESEQ	HLA 6120	31244	9k~30MHz	15/Mar/2019	14/Mar/2020
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 01543	1GHz~18GHz	03/Jun/2019	02/Jun/2020

TEL: 886-3-3273456 Page Number : 25 of 25 FAX: 886-3-3270973 Issued Date : Nov. 06, 2019

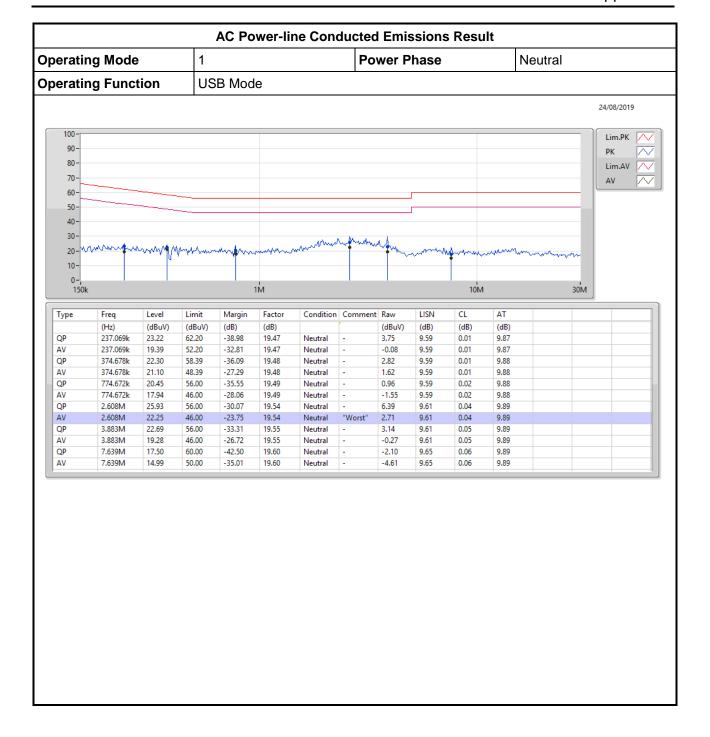
Report Template No.: HE1-C8 Ver3.6

FCC ID: VYVRW10BX-37P

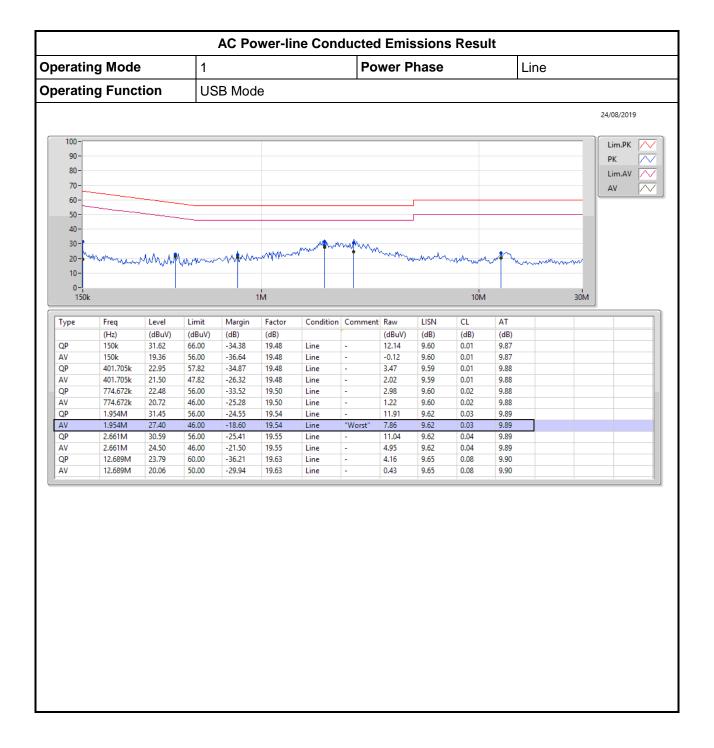
Report Version : 01



AC Power-line Conducted Emissions









Summary

Mode	Max-N dB	Max-OBW	ITU-Code	Min-N dB	Min-OBW
	(Hz)	(Hz)		(Hz)	(Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	10.075M	14.918M	14M9G1D	10.05M	14.843M
802.11g_Nss1,(6Mbps)_1TX	16.55M	16.767M	16M8D1D	16.525M	16.542M
802.11n HT20_Nss1,(MCS0)_1TX	17.8M	17.866M	17M9D1D	17.775M	17.741M
802.11n HT40_Nss1,(MCS0)_1TX	36.35M	36.032M	36M0D1D	36.3M	35.832M

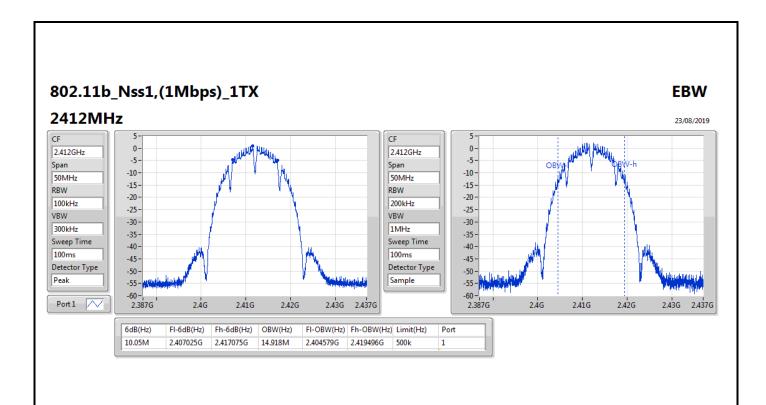
Max-N dB = Maximum 6dB down bandwidth; Max-OBW = Maximum 99% occupied bandwidth; Min-N dB = Minimum 6dB down bandwidth; Min-OBW = Minimum 99% occupied bandwidth;

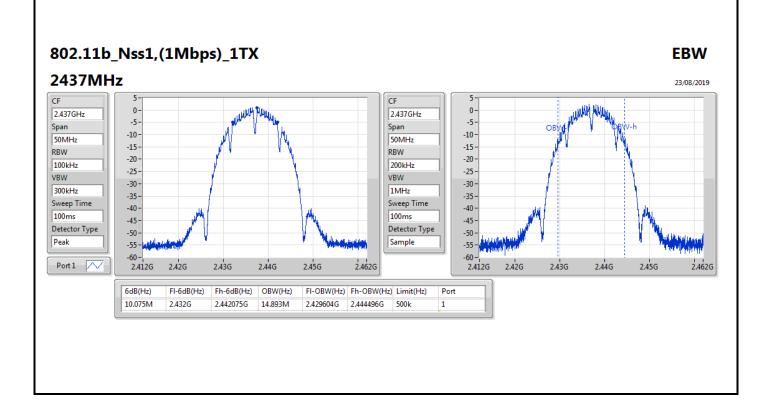


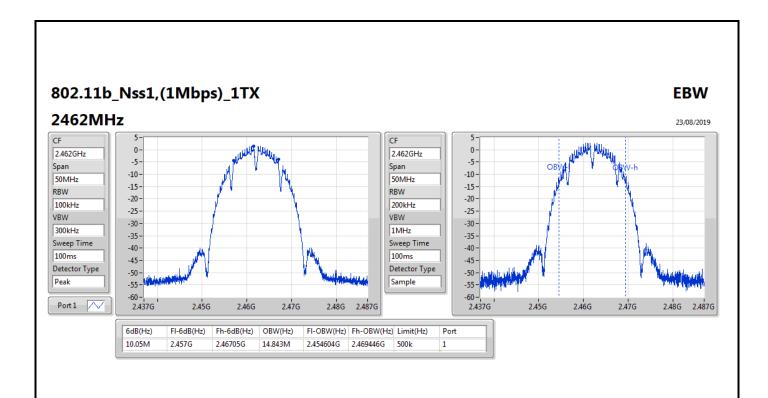
Result

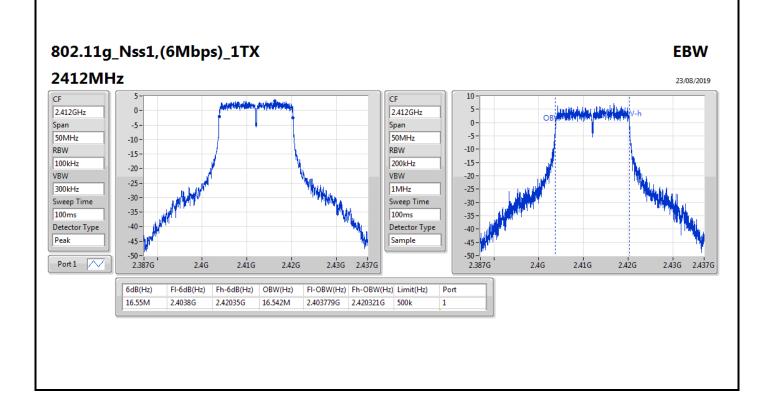
Mode	Result	Limit	Port 1-N dB	Port 1-OBW
		(Hz)	(Hz)	(Hz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-
2412MHz_TnomVnom	Pass	500k	10.05M	14.918M
2437MHz_TnomVnom	Pass	500k	10.075M	14.893M
2462MHz_TnomVnom	Pass	500k	10.05M	14.843M
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-
2412MHz_TnomVnom	Pass	500k	16.55M	16.542M
2437MHz_TnomVnom	Pass	500k	16.525M	16.742M
2462MHz_TnomVnom	Pass	500k	16.525M	16.767M
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz_TnomVnom	Pass	500k	17.775M	17.766M
2437MHz_TnomVnom	Pass	500k	17.8M	17.866M
2462MHz_TnomVnom	Pass	500k	17.775M	17.741M
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz_TnomVnom	Pass	500k	36.35M	35.882M
2437MHz_TnomVnom	Pass	500k	36.3M	36.032M
2452MHz_TnomVnom	Pass	500k	36.3M	35.832M

Port X-N dB = Port X 6dB down bandwidth; Port X-OBW = Port X 99% occupied bandwidth;

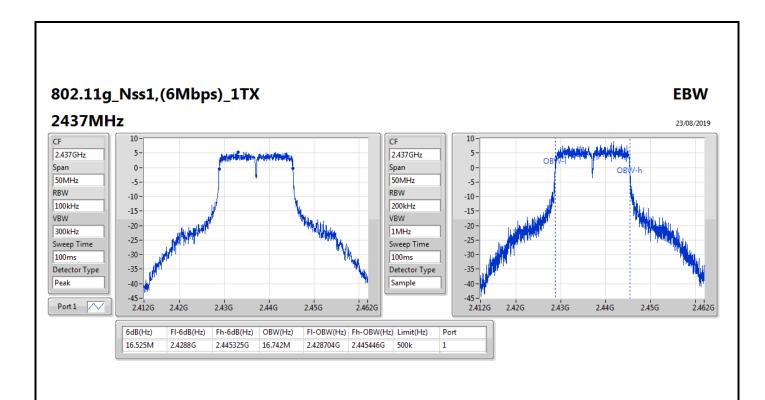


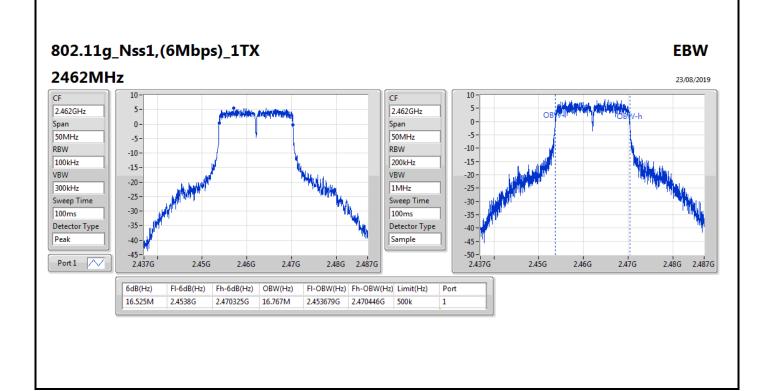


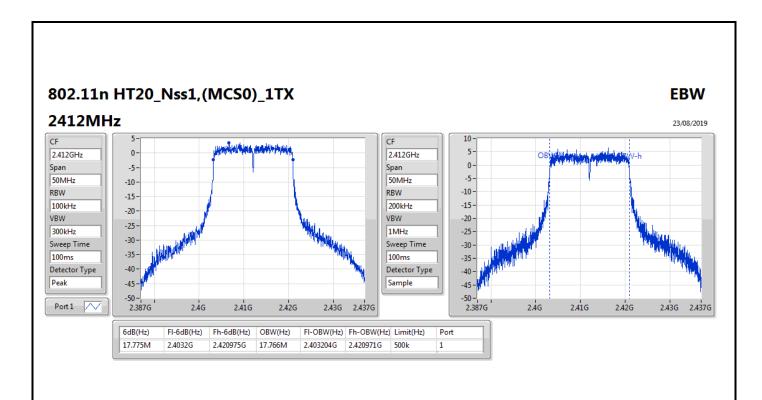


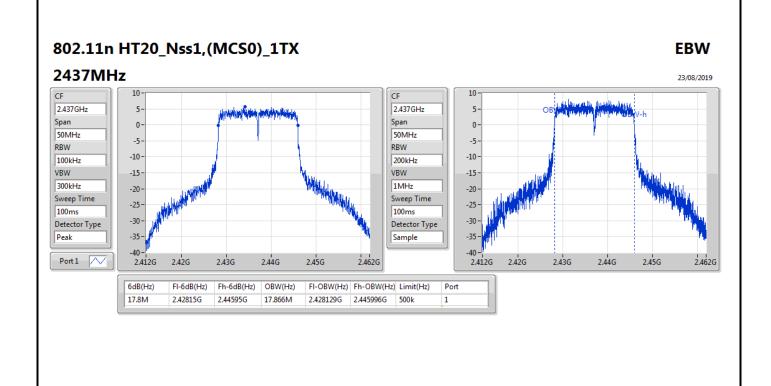


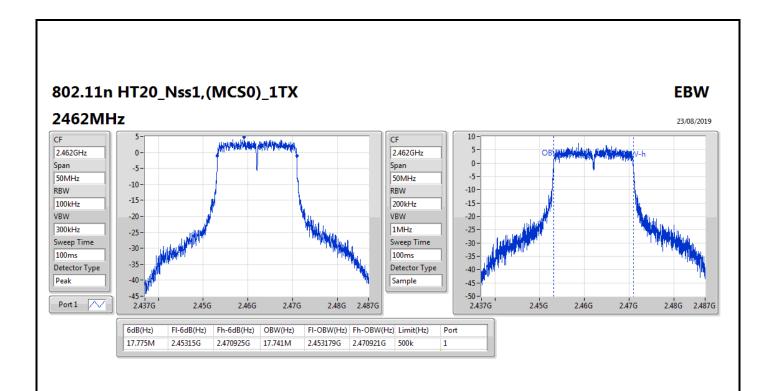
SPORTON INTERNATIONAL INC. Page No. : B4 of B8

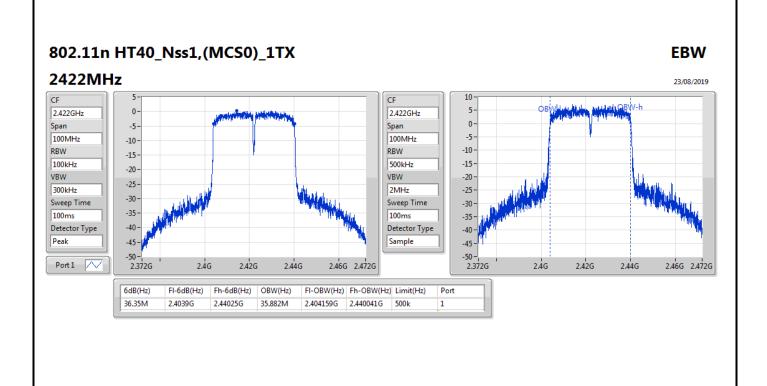




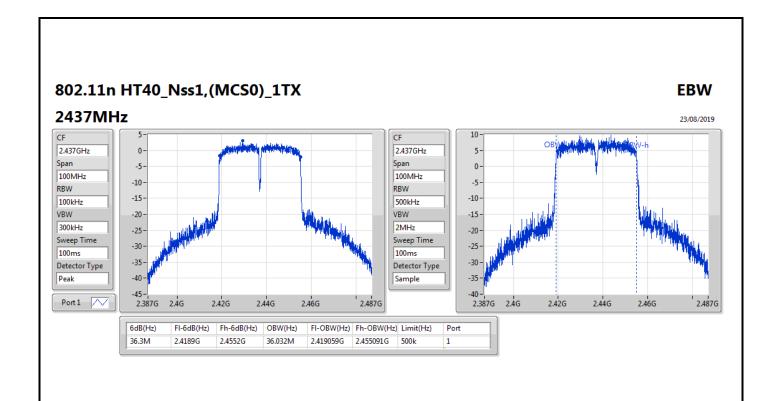


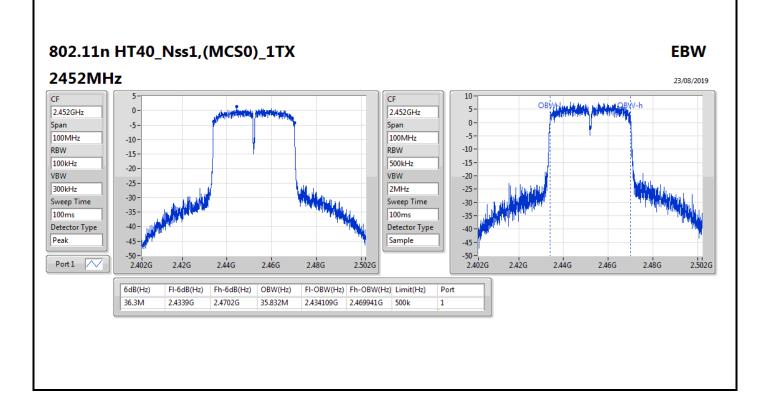






SPORTON INTERNATIONAL INC. Page No. : B7 of B8







Average Power Appendix C

Summary

Mode	Total Power	Total Power
	(dBm)	(W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX	11.69	0.01476
802.11g_Nss1,(6Mbps)_1TX	19.91	0.09795
802.11n HT20_Nss1,(MCS0)_1TX	19.98	0.09954
802.11n HT40_Nss1,(MCS0)_1TX	19.73	0.09397



Average Power Appendix C

Result

Mode	Result	DG	Port 1	Total Power	Power Limit
		(dBi)	(dBm)	(dBm)	(dBm)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.12	11.03	11.03	30.00
2437MHz_TnomVnom	Pass	2.12	11.21	11.21	30.00
2462MHz_TnomVnom	Pass	2.12	11.69	11.69	30.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.12	17.73	17.73	30.00
2437MHz_TnomVnom	Pass	2.12	19.84	19.84	30.00
2457MHz_TnomVnom	Pass	2.12	19.91	19.91	30.00
2462MHz_TnomVnom	Pass	2.12	19.66	19.66	30.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.12	17.62	17.62	30.00
2437MHz_TnomVnom	Pass	2.12	19.98	19.98	30.00
2457MHz_TnomVnom	Pass	2.12	19.72	19.72	30.00
2462MHz_TnomVnom	Pass	2.12	18.43	18.43	30.00
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2422MHz_TnomVnom	Pass	2.12	17.60	17.60	30.00
2427MHz_TnomVnom	Pass	2.12	19.73	19.73	30.00
2437MHz_TnomVnom	Pass	2.12	19.59	19.59	30.00
2447MHz_TnomVnom	Pass	2.12	19.11	19.11	30.00
2452MHz_TnomVnom	Pass	2.12	17.86	17.86	30.00

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



Summary

Mode	PD
	(dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_1TX	-15.15
802.11g_Nss1,(6Mbps)_1TX	-9.19
802.11n HT20_Nss1,(MCS0)_1TX	-8.90
802.11n HT40_Nss1,(MCS0)_1TX	-10.09

RBW=3 kHz.

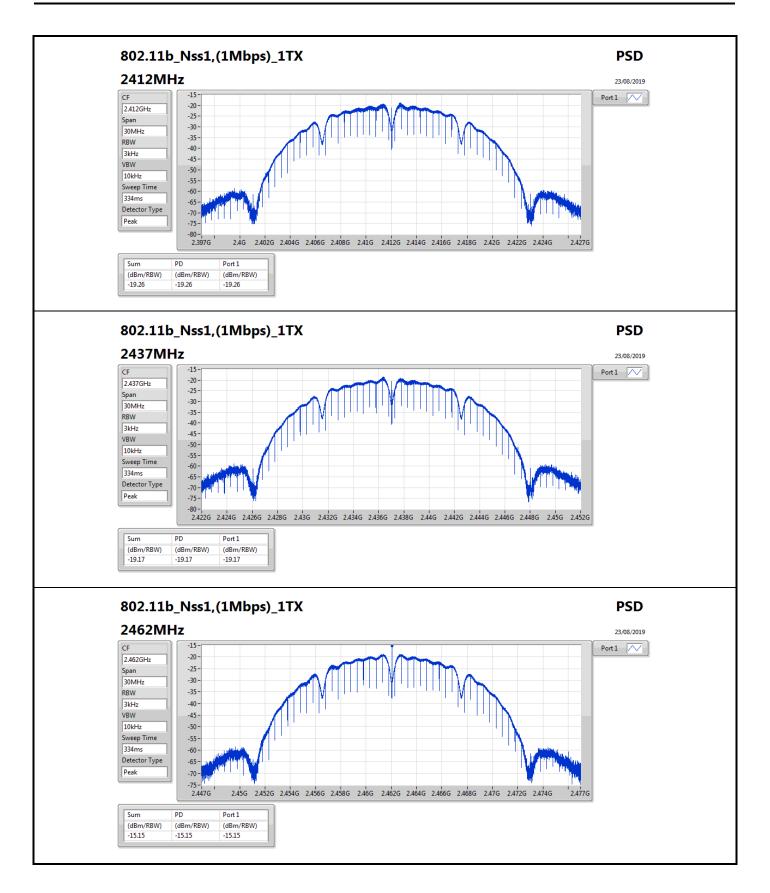


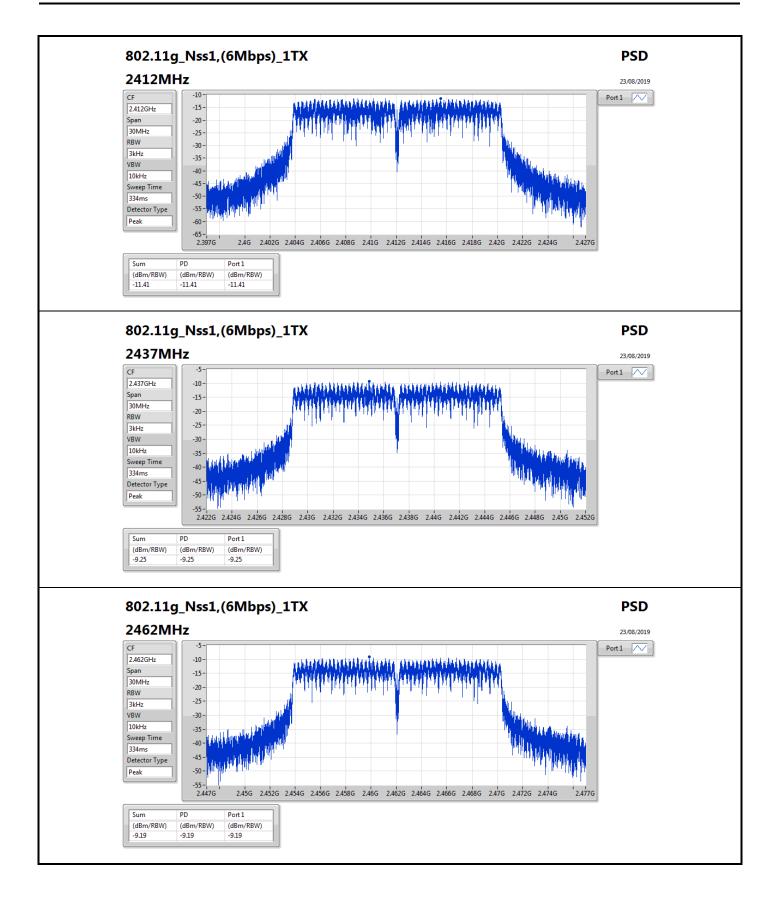
Appendix D **PSD**

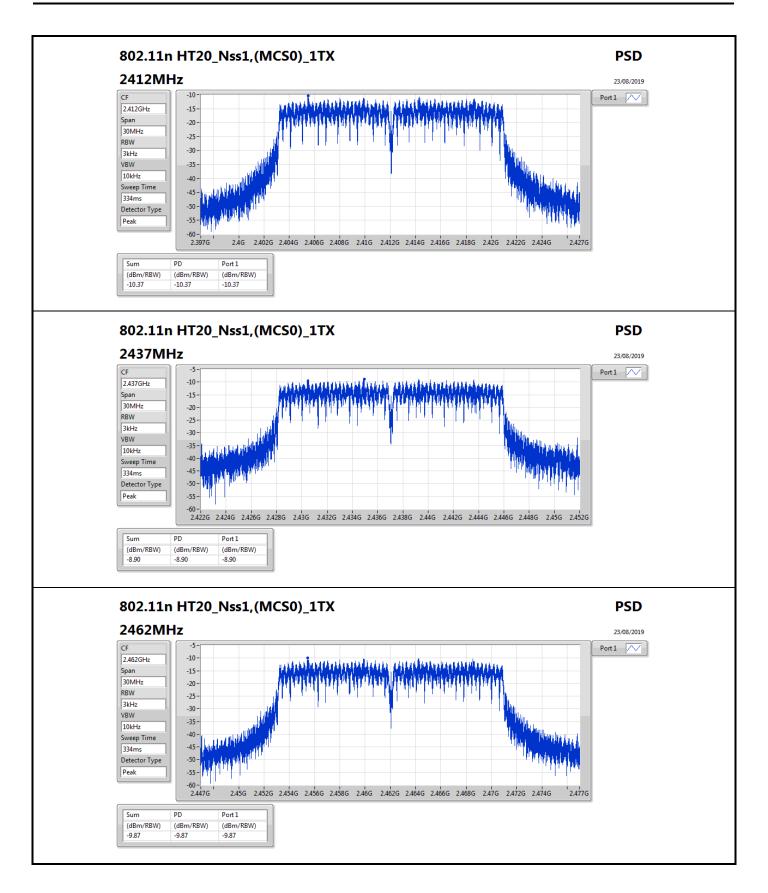
Result

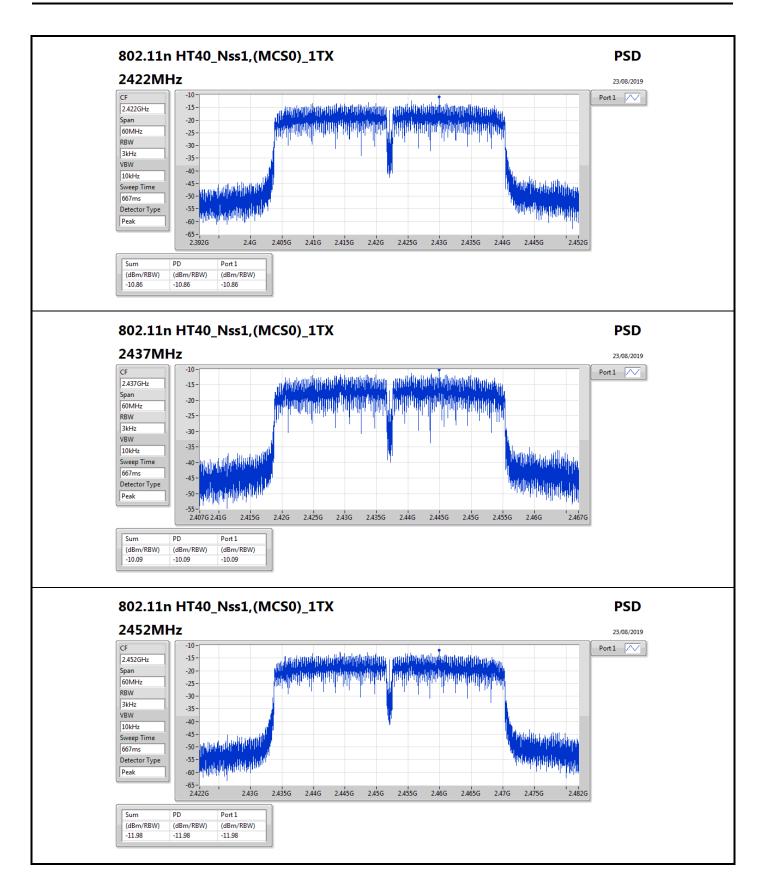
Mode	Result	DG	Port 1	PD	PD Limit
		(dBi)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.12	-19.26	-19.26	8.00
2437MHz_TnomVnom	Pass	2.12	-19.17	-19.17	8.00
2462MHz_TnomVnom	Pass	2.12	-15.15	-15.15	8.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.12	-11.41	-11.41	8.00
2437MHz_TnomVnom	Pass	2.12	-9.25	-9.25	8.00
2462MHz_TnomVnom	Pass	2.12	-9.19	-9.19	8.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.12	-10.37	-10.37	8.00
2437MHz_TnomVnom	Pass	2.12	-8.90	-8.90	8.00
2462MHz_TnomVnom	Pass	2.12	-9.87	-9.87	8.00
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2422MHz_TnomVnom	Pass	2.12	-10.86	-10.86	8.00
2437MHz_TnomVnom	Pass	2.12	-10.09	-10.09	8.00
2452MHz_TnomVnom	Pass	2.12	-11.98	-11.98	8.00

DG = Directional Gain; RBW=3 kHz;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X power density;











CSE(Non-restricted Band)

Appendix E

Summary

Mode	Result	Ref	Ref	Limit	Freq	Level	Freq	Level	Freq	Level	Freq	Level	Port
		(Hz)	(dBm)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	Pass	2.46154G	1.42	-28.58	2.16428G	-53.66	2.39466G	-52.50	2.49248G	-51.08	24.44933G	-38.24	1
802.11g_Nss1,(6Mbps)_1TX	Pass	2.43933G	5.24	-24.76	159.9M	-54.07	2.39992G	-24.99	2.50992G	-50.48	24.09813G	-38.89	1
802.11n HT20_Nss1,(MCS0)_1TX	Pass	2.43419G	5.44	-24.56	159.9M	-53.04	2.39956G	-25.40	2.50218G	-51.04	24.44652G	-38.56	1
802.11n HT40_Nss1,(MCS0)_1TX	Pass	2.42931G	2.76	-27.24	32M	-47.66	2.39796G	-27.29	2.49046G	-46.68	24.45311G	-38.69	1

SPORTON INTERNATIONAL INC. Page No. : E1 of E8



CSE(Non-restricted Band)

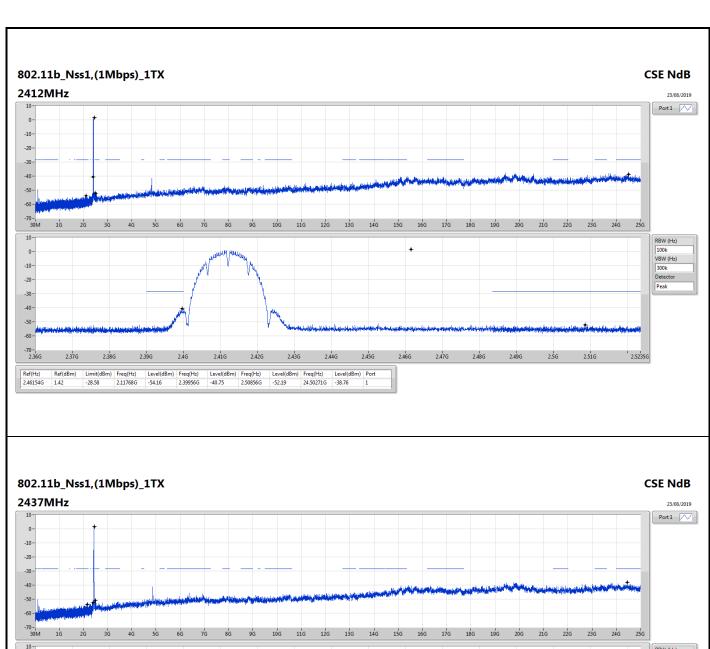
Appendix E

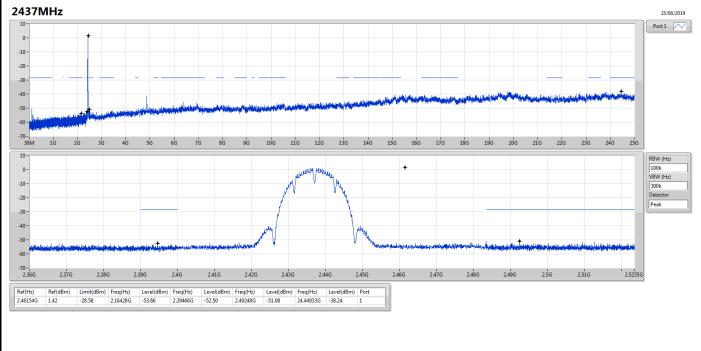
Result

Mode	Result	Ref	Ref	Limit	Freq	Level	Freq	Level	Freq	Level	Freq	Level	Port
		(Hz)	(dBm)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	ĺ
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.46154G	1.42	-28.58	2.11768G	-54.16	2.39956G	-40.75	2.50856G	-52.19	24.50271G	-38.76	1
2437MHz_TnomVnom	Pass	2.46154G	1.42	-28.58	2.16428G	-53.66	2.39466G	-52.50	2.49248G	-51.08	24.44933G	-38.24	1
2462MHz_TnomVnom	Pass	2.46154G	1.42	-28.58	2.14739G	-53.28	2.39378G	-52.55	2.48782G	-50.44	24.43528G	-39.06	1
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.43933G	5.24	-24.76	159.9M	-54.07	2.39992G	-24.99	2.50992G	-50.48	24.09813G	-38.89	1
2437MHz_TnomVnom	Pass	2.43933G	5.24	-24.76	2.30117G	-53.21	2.3998G	-45.21	2.4842G	-47.98	24.50271G	-38.67	1
2462MHz_TnomVnom	Pass	2.43933G	5.24	-24.76	159.9M	-52.63	2.39208G	-51.35	2.48418G	-30.21	24.06442G	-39.08	1
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.43419G	5.44	-24.56	159.9M	-53.04	2.39956G	-25.40	2.50218G	-51.04	24.44652G	-38.56	1
2437MHz_TnomVnom	Pass	2.43419G	5.44	-24.56	2.30554G	-53.20	2.39972G	-45.14	2.48438G	-45.64	24.48023G	-39.04	1
2462MHz_TnomVnom	Pass	2.43419G	5.44	-24.56	2.17884G	-51.84	2.39238G	-51.54	2.484G	-32.88	24.12061G	-38.44	1
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz_TnomVnom	Pass	2.42931G	2.76	-27.24	32M	-47.66	2.39796G	-27.29	2.49046G	-46.68	24.45311G	-38.69	1
2437MHz_TnomVnom	Pass	2.42931G	2.76	-27.24	30.86M	-44.06	2.39708G	-27.65	2.48454G	-32.42	24.45311G	-38.73	1
2452MHz_TnomVnom	Pass	2.42931G	2.76	-27.24	30.86M	-45.86	2.39928G	-47.30	2.48362G	-31.47	24.8177G	-38.26	1

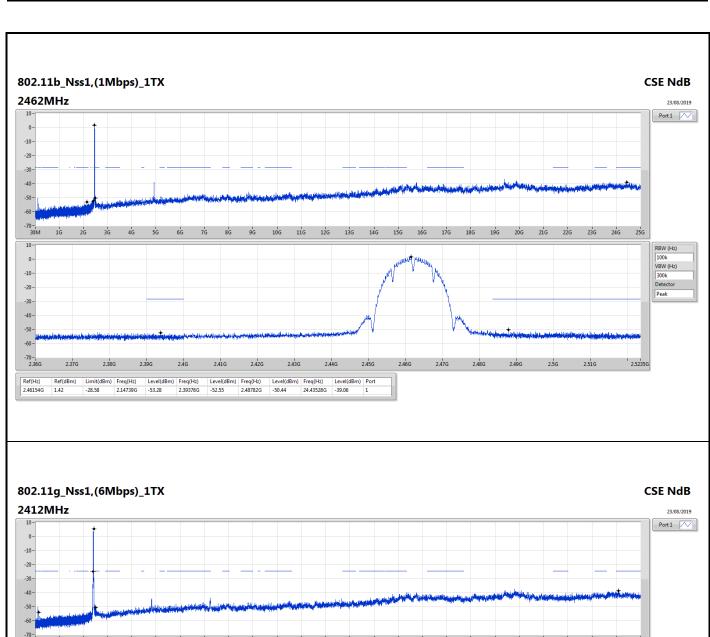
SPORTON INTERNATIONAL INC. Page No. : E2 of E8

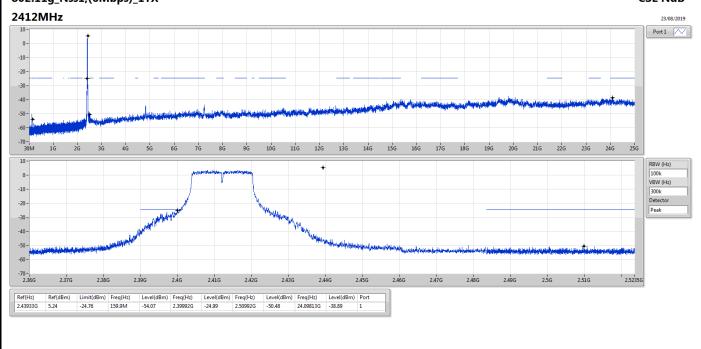




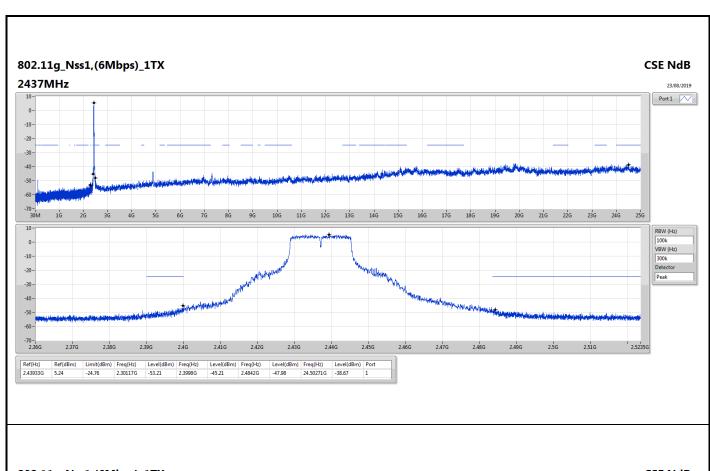


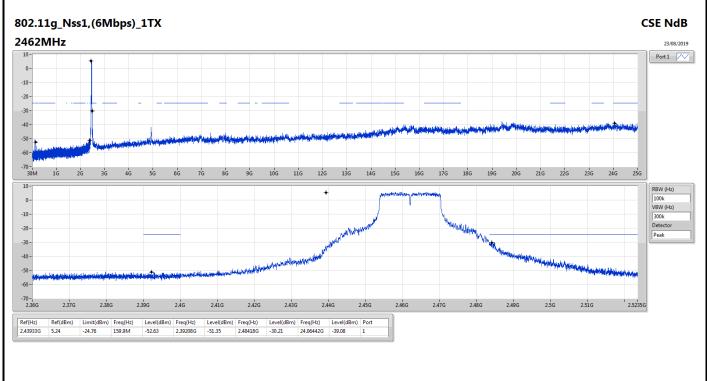




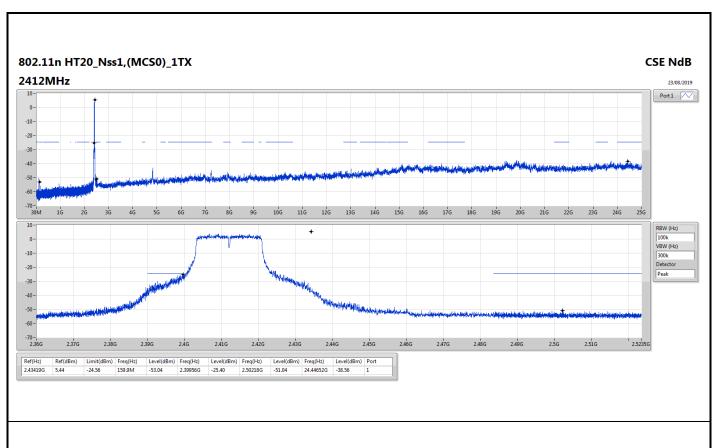


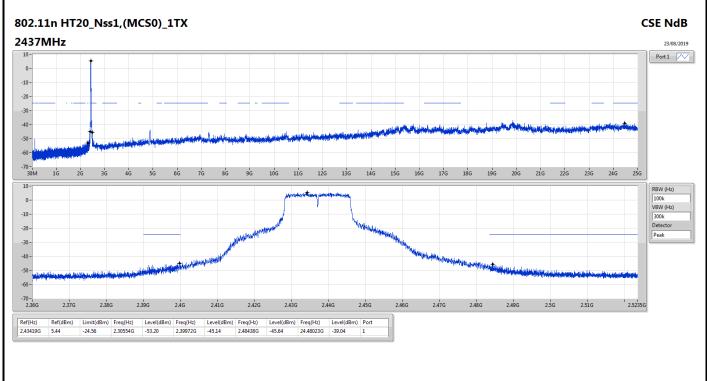




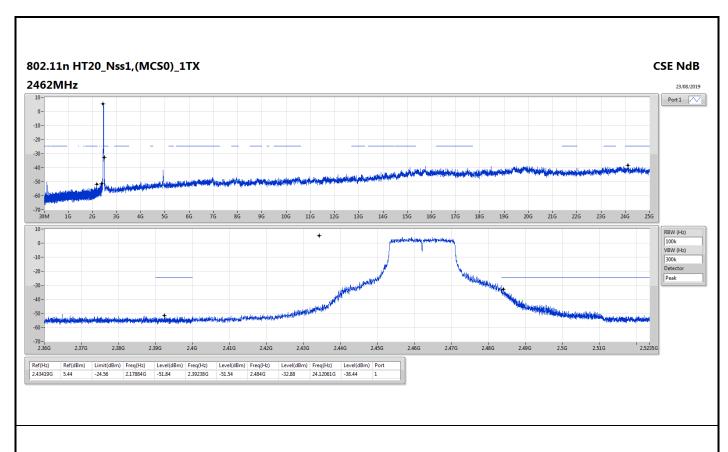


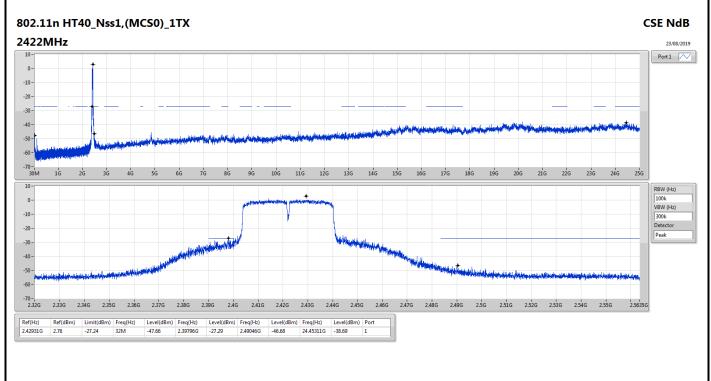




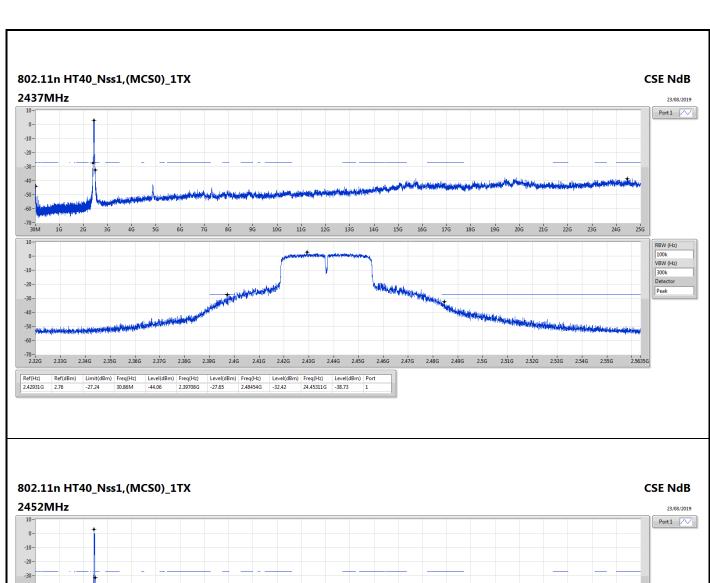


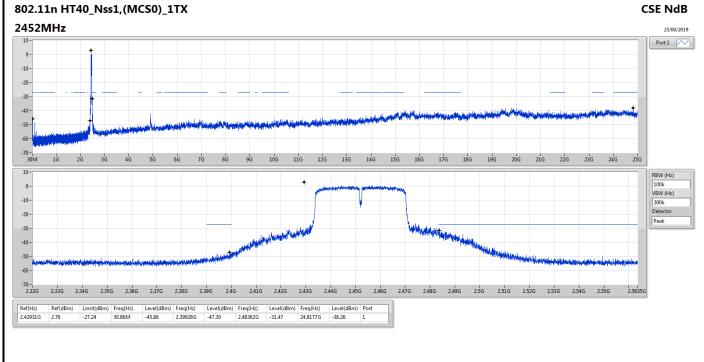














RSE TX below 1GHz

Appendix F.1

Summary

Mode	Result	Туре	Freq	Level	Limit	Margin	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(m)		(°)	(m)	
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11n HT40_Nss1,(MCS0)_1TX	Pass	PK	289.96M	42.08	46.00	-3.92	3	Horizontal	360	1.00	-

SPORTON INTERNATIONAL INC. Page No. : F1 of F4

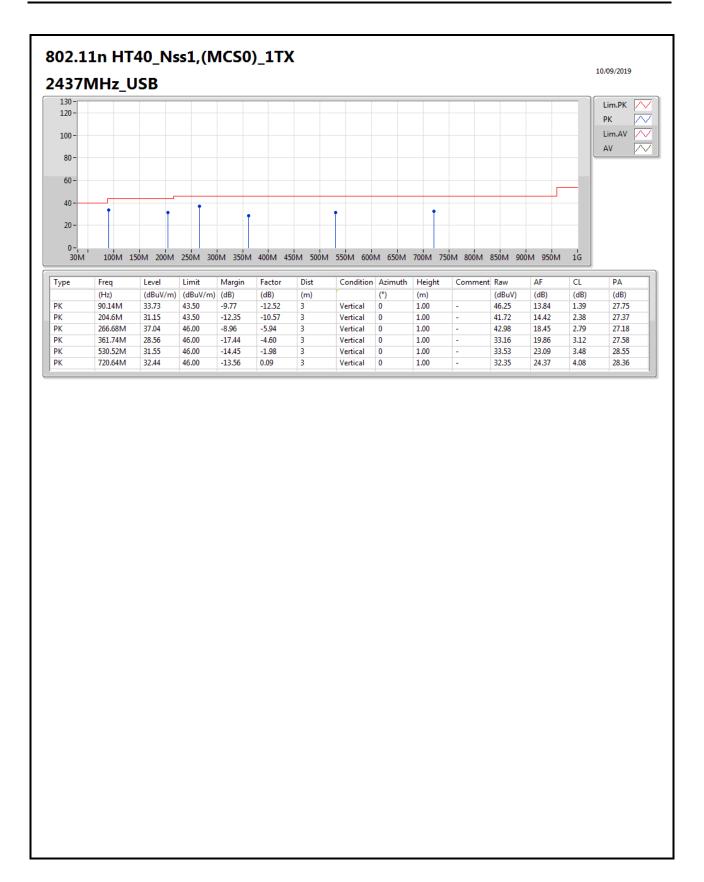


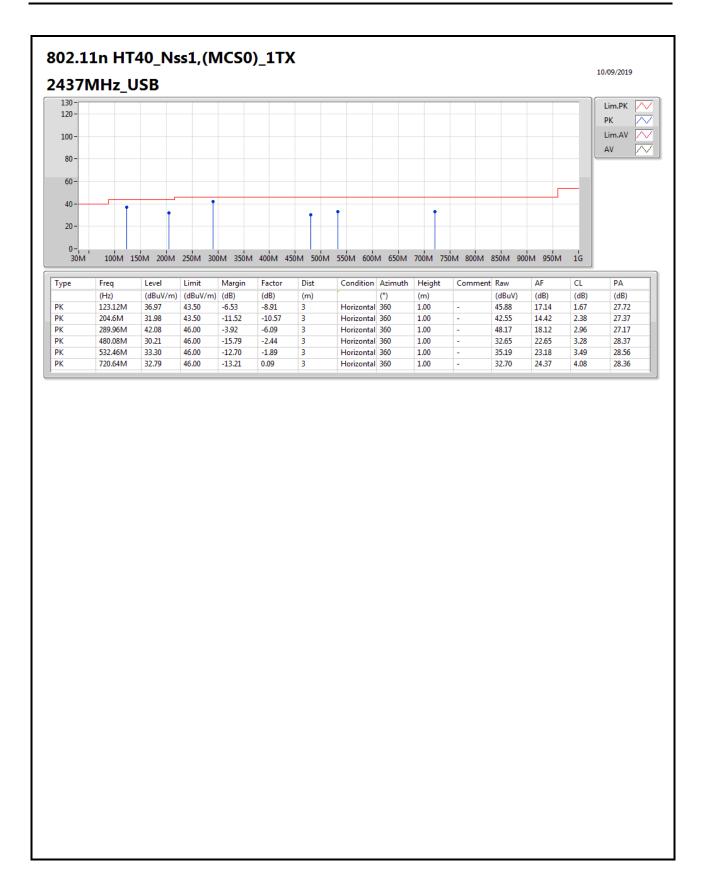
RSE TX below 1GHz

Appendix F.1

Result

Mode	Result	Туре	Freq	Level	Limit	Margin	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(m)		(°)	(m)	
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-
2437MHz	Pass	PK	90.14M	33.73	43.50	-9.77	3	Vertical	0	1.00	-
2437MHz	Pass	PK	204.6M	31.15	43.50	-12.35	3	Vertical	0	1.00	-
2437MHz	Pass	PK	266.68M	37.04	46.00	-8.96	3	Vertical	0	1.00	-
2437MHz	Pass	PK	361.74M	28.56	46.00	-17.44	3	Vertical	0	1.00	-
2437MHz	Pass	PK	530.52M	31.55	46.00	-14.45	3	Vertical	0	1.00	-
2437MHz	Pass	PK	720.64M	32.44	46.00	-13.56	3	Vertical	0	1.00	-
2437MHz	Pass	PK	123.12M	36.97	43.50	-6.53	3	Horizontal	360	1.00	-
2437MHz	Pass	PK	204.6M	31.98	43.50	-11.52	3	Horizontal	360	1.00	-
2437MHz	Pass	PK	289.96M	42.08	46.00	-3.92	3	Horizontal	360	1.00	-
2437MHz	Pass	PK	480.08M	30.21	46.00	-15.79	3	Horizontal	360	1.00	-
2437MHz	Pass	PK	532.46M	33.30	46.00	-12.70	3	Horizontal	360	1.00	-
2437MHz	Pass	PK	720.64M	32.79	46.00	-13.21	3	Horizontal	360	1.00	-







Appendix F.2

Summary

Mode	Result	Туре	Freq	Level	Limit	Margin	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(m)		(°)	(m)	
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	Pass	AV	4.824G	53.97	54.00	-0.03	3	Horizontal	308	1.00	-
802.11g_Nss1,(6Mbps)_1TX	Pass	AV	2.4835G	53.75	54.00	-0.25	3	Horizontal	191	1.88	-
802.11n HT20_Nss1,(MCS0)_1TX	Pass	AV	2.4835G	53.96	54.00	-0.04	3	Horizontal	190	1.89	-
802.11n HT40_Nss1,(MCS0)_1TX	Pass	AV	2.4835G	53.80	54.00	-0.20	3	Horizontal	190	1.86	-



Appendix F.2



Result											
Mode	Result	Туре	Freq	Level	Limit	Margin	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(m)		(°)	(m)	
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.3702G	44.20	54.00	-9.80	3	Vertical	164	1.09	-
2412MHz	Pass	AV	2.4112G	77.69	Inf	-Inf	3	Vertical	164	1.09	-
2412MHz	Pass	PK	2.367G	56.72	74.00	-17.28	3	Vertical	164	1.09	-
2412MHz	Pass	PK	2.411G	81.85	Inf	-Inf	3	Vertical	164	1.09	-
2412MHz	Pass	AV	2.3658G	44.21	54.00	-9.79	3	Horizontal	189	1.89	-
2412MHz	Pass	AV	2.4138G	76.84	Inf	-Inf	3	Horizontal	189	1.89	-
2412MHz	Pass	PK	2.3772G	56.34	74.00	-17.66	3	Horizontal	189	1.89	-
2412MHz	Pass	PK	2.413G	81.07	Inf	-Inf	3	Horizontal	189	1.89	-
2412MHz	Pass	AV	4.824G	47.33	54.00	-6.67	3	Vertical	108	1.03	-
2412MHz	Pass	PK	4.82406G	50.68	74.00	-23.32	3	Vertical	108	1.03	-
2412MHz	Pass	AV	4.824G	53.97	54.00	-0.03	3	Horizontal	308	1.00	-
2412MHz	Pass	PK	4.82394G	56.15	74.00	-17.85	3	Horizontal	308	1.00	-
2437MHz	Pass	AV	2.3494G	44.21	54.00	-9.79	3	Vertical	167	1.22	-
2437MHz	Pass	AV	2.4378G	78.57	Inf	-Inf	3	Vertical	167	1.22	
2437MHz	Pass	AV	2.4998G	44.67	54.00	-9.33	3	Vertical	167	1.22	-
2437MHz	Pass	PK	2.351G	56.63	74.00	-17.37	3	Vertical	167	1.22	-
2437MHz	Pass	PK	2.4378G	82.75	Inf	-Inf	3	Vertical	167	1.22	-
2437MHz	Pass	PK	2.4874G	56.50	74.00	-17.50	3	Vertical	167	1.22	-
2437MHz	Pass	AV	2.349G	44.21	54.00	-9.79	3	Horizontal	189	1.94	-
2437MHz	Pass	AV	2.4362G	78.54	Inf	-Inf	3	Horizontal	189	1.94	-
2437MHz	Pass	AV	2.4974G	44.67	54.00	-9.33	3	Horizontal	189	1.94	_
2437MHz	Pass	PK	2.371G	57.06	74.00	-16.94	3	Horizontal	189	1.94	
2437MHz	Pass	PK	2.4362G	82.43	Inf	-Inf	3	Horizontal	189	1.94	
2437MHz	Pass	PK	2.4862G	57.02	74.00	-16.98	3	Horizontal	189	1.94	_
2437MHz	Pass	AV	4.87398G	46.76	54.00	-7.24	3	Vertical	25	1.78	-
2437MHz	Pass	AV	7.31172G	38.38	54.00	-15.62	3	Vertical	193	2.79	-
2437MHz	Pass	PK	4.87398G	50.27	74.00	-23.73	3	Vertical	25	1.78	_
2437MHz	Pass	PK	7.31172G	49.86	74.00	-24.14	3	Vertical	193	2.79	_
2437MHz	Pass	AV	4.87398G	52.29	54.00	-1.71	3	Horizontal	309	1.10	
2437MHz	Pass	AV	7.31028G	39.08	54.00	-14.92	3	Horizontal	75	1.01	-
2437MHz	Pass	PK	4.87399G	54.81	74.00	-19.19	3	Horizontal	309	1.10	_
2437MHz	Pass	PK	7.31154G	50.76	74.00	-23.24	3	Horizontal	75	1.01	_
2462MHz	Pass	AV	2.4612G	79.67	Inf	-Inf	3	Vertical	165	1.02	_
2462MHz	Pass	AV	2.5G	44.69	54.00	-9.31	3	Vertical	165	1.02	
2462MHz	Pass	PK	2.461G	83.77	Inf	-Inf	3	Vertical	165	1.02	-
2462MHz	Pass	PK	2.4962G	56.62	74.00	-17.38	3	Vertical	165	1.02	-
2462MHz	Pass	AV	2.4612G	81.00	Inf	-Inf	3	Horizontal	190	1.87	-
2462MHz	Pass	AV	2.4998G	44.71	54.00	-9.29	3	Horizontal	190	1.87	_
2462MHz	Pass	PK	2.463G	85.38	Inf	-Inf	3	Horizontal	190	1.87	_
2462MHz	Pass	PK	2.4836G	57.73	74.00	-16.27	3	Horizontal	190	1.87	-
2462MHz	Pass	AV	4.92399G	49.01	54.00	-4.99	3	Vertical	170	1.96	-
2462MHz	Pass	AV	7.38672G	38.50	54.00	-15.50	3	Vertical	192	2.95	
2462MHz	Pass	PK	4.92399G	52.25	74.00	-21.75	3	Vertical	172	1.96	
2462MHz	Pass	PK	7.38576G	50.82	74.00	-23.18	3	Vertical	192	2.95	-
2462MHz	Pass	AV	4.92397G	53.79	54.00	-23.18	3	Horizontal	307	1.21	+ -
											
2462MHz	Pass	AV	7.3869G	37.48	54.00	-16.52	3	Horizontal	327	2.53	+ -
2462MHz	Pass	PK	4.92395G	56.17	74.00	-17.83	3	Horizontal	307	1.21	-



Appendix F.2

Mode	Result	Туре	Freq	Level	Limit	Margin	Dist	Condition	Azimuth	Height	Comments
Wode	Result	Туре			(dBuV/m)	_		Condition		-	Comments
04/04/1		DI	(Hz)	(dBuV/m)		(dB)	(m)		(°)	(m)	
2462MHz	Pass	PK	7.38666G	50.09	74.00	-23.91	3	Horizontal	327	2.53	-
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-		-	-	-	-	-	-
2412MHz	Pass	AV	2.39G	49.92	54.00	-4.08	3	Vertical	165	1.08	-
2412MHz	Pass	AV	2.4096G	81.49	Inf	-Inf	3	Vertical	165	1.08	-
2412MHz	Pass	PK	2.3896G	64.58	74.00	-9.42	3	Vertical	165	1.08	-
2412MHz	Pass	PK	2.415G	91.19	Inf	-Inf	3	Vertical	165	1.08	-
2412MHz	Pass	AV	2.39G	48.33	54.00	-5.67	3	Horizontal	36	1.02	-
2412MHz	Pass	AV	2.4172G	77.69	Inf	-Inf	3	Horizontal	36	1.02	-
2412MHz	Pass	PK	2.3898G	62.51	74.00	-11.49	3	Horizontal	36	1.02	-
2412MHz	Pass	PK	2.416G	87.89	Inf	-Inf	3	Horizontal	36	1.02	-
2412MHz	Pass	AV	4.82412G	50.21	54.00	-3.79	3	Vertical	108	1.03	-
2412MHz	Pass	PK	4.82466G	63.27	74.00	-10.73	3	Vertical	108	1.03	-
2412MHz	Pass	AV	4.82406G	51.36	54.00	-2.64	3	Horizontal	290	1.19	-
2412MHz	Pass	PK	4.8246G	64.12	74.00	-9.88	3	Horizontal	290	1.19	-
2437MHz	Pass	AV	2.3898G	44.51	54.00	-9.49	3	Vertical	168	1.22	-
2437MHz	Pass	AV	2.4422G	82.88	Inf	-Inf	3	Vertical	168	1.22	-
2437MHz	Pass	AV	2.4835G	45.04	54.00	-8.96	3	Vertical	168	1.22	-
2437MHz	Pass	PK	2.3858G	57.33	74.00	-16.67	3	Vertical	168	1.22	-
2437MHz	Pass	PK	2.4402G	92.83	Inf	-Inf	3	Vertical	168	1.22	-
2437MHz	Pass	PK	2.4862G	58.15	74.00	-15.85	3	Vertical	168	1.22	-
2437MHz	Pass	AV	2.389G	44.30	54.00	-9.70	3	Horizontal	32	1.00	-
2437MHz	Pass	AV	2.4422G	79.68	Inf	-Inf	3	Horizontal	32	1.00	-
2437MHz	Pass	AV	2.4838G	44.82	54.00	-9.18	3	Horizontal	32	1.00	-
2437MHz	Pass	PK	2.337G	56.58	74.00	-17.42	3	Horizontal	32	1.00	-
2437MHz	Pass	PK	2.4398G	89.62	Inf	-Inf	3	Horizontal	32	1.00	-
2437MHz	Pass	PK	2.4954G	56.79	74.00	-17.21	3	Horizontal	32	1.00	-
2437MHz	Pass	AV	4.87412G	51.12	54.00	-2.88	3	Vertical	104	1.14	-
2437MHz	Pass	AV	7.30986G	46.82	54.00	-7.18	3	Vertical	190	2.90	-
2437MHz	Pass	PK	4.8746G	64.97	74.00	-9.03	3	Vertical	104	1.14	-
2437MHz	Pass	PK	7.31076G	59.75	74.00	-14.25	3	Vertical	190	2.90	-
2437MHz	Pass	AV	4.87412G	50.37	54.00	-3.63	3	Horizontal	289	1.17	-
2437MHz	Pass	AV	7.30974G	45.42	54.00	-8.58	3	Horizontal	324	1.20	-
2437MHz	Pass	PK	4.87454G	63.81	74.00	-10.19	3	Horizontal	289	1.17	-
2437MHz	Pass	PK	7.31094G	58.10	74.00	-15.90	3	Horizontal	324	1.20	-
2457MHz	Pass	AV	2.452G	82.15	Inf	-Inf	3	Vertical	169	1.64	-
2457MHz	Pass	AV	2.4835G	49.16	54.00	-4.84	3	Vertical	169	1.64	-
2457MHz	Pass	PK	2.4506G	92.11	Inf	-Inf	3	Vertical	169	1.64	-
2457MHz	Pass	PK	2.4838G	62.61	74.00	-11.39	3	Vertical	169	1.64	-
2457MHz	Pass	AV	2.4604G	83.40	Inf	-Inf	3	Horizontal	188	2.66	-
2457MHz	Pass	AV	2.4835G	49.66	54.00	-4.34	3	Horizontal	188	2.66	-
2457MHz	Pass	PK	2.4602G	93.48	Inf	-Inf	3	Horizontal	188	2.66	-
2457MHz	Pass	PK	2.4838G	62.73	74.00	-11.27	3	Horizontal	188	2.66	-
2462MHz	Pass	AV	2.457G	82.47	Inf	-Inf	3	Vertical	165	1.09	-
2462MHz	Pass	AV	2.4835G	51.55	54.00	-2.45	3	Vertical	165	1.09	-
2462MHz	Pass	PK	2.4556G	92.41	Inf	-Inf	3	Vertical	165	1.09	-
2462MHz	Pass	PK	2.4835G	64.25	74.00	-9.75	3	Vertical	165	1.09	-
2462MHz	Pass	AV	2.4652G	83.74	Inf	-Inf	3	Horizontal	191	1.88	-
2462MHz	Pass	AV	2.4835G	53.75	54.00	-0.25	3	Horizontal	191	1.88	-
2462MHz	Pass	PK	2.465G	93.94	Inf	-Inf	3	Horizontal	191	1.88	-



RSE TX above 1GHz Appendix F.2

Mode	Result	Туре	Freq	Level	Limit	Margin	Dist	Condition	Azimuth	Height	Comments
Wode	Result	Турс	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(m)	Condition	(°)	(m)	Comments
2462MHz	Daga	PK		-				Harizantal	191	1.88	
	Pass		2.4835G	67.51	74.00	-6.49	3	Horizontal		-	-
2462MHz	Pass	AV	4.92406G	50.84	54.00	-3.16	3	Vertical	105	1.17	-
2462MHz	Pass	AV	7.3833G	46.41	54.00	-7.59	3	Vertical	193	1.50	-
2462MHz	Pass	PK	4.9246G	64.48	74.00	-9.52	3	Vertical	105	1.17	-
2462MHz	Pass	PK	7.38576G	59.48	74.00	-14.52	3	Vertical	193	1.50	-
2462MHz	Pass	AV	4.92406G	50.55	54.00	-3.45	3	Horizontal	322	1.05	-
2462MHz	Pass	AV	7.38342G	46.63	54.00	-7.37	3	Horizontal	340	2.48	-
2462MHz	Pass	PK	4.92466G	64.35	74.00	-9.65	3	Horizontal	322	1.05	-
2462MHz	Pass	PK	7.38582G	59.34	74.00	-14.66	3	Horizontal	340	2.48	-
802.11n HT20_Nss1,(MCS0)_1TX	-	-	•	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.39G	51.62	54.00	-2.38	3	Vertical	167	1.08	-
2412MHz	Pass	AV	2.4088G	81.48	Inf	-Inf	3	Vertical	167	1.08	-
2412MHz	Pass	PK	2.39G	68.98	74.00	-5.02	3	Vertical	167	1.08	-
2412MHz	Pass	PK	2.4082G	91.22	Inf	-Inf	3	Vertical	167	1.08	-
2412MHz	Pass	AV	2.39G	51.14	54.00	-2.86	3	Horizontal	188	1.89	-
2412MHz	Pass	AV	2.4174G	81.76	Inf	-Inf	3	Horizontal	188	1.89	-
2412MHz	Pass	PK	2.3898G	68.32	74.00	-5.68	3	Horizontal	188	1.89	-
2412MHz	Pass	PK	2.417G	91.52	Inf	-Inf	3	Horizontal	188	1.89	-
2412MHz	Pass	AV	4.824G	49.20	54.00	-4.80	3	Vertical	106	1.04	-
2412MHz	Pass	PK	4.8222G	64.09	74.00	-9.91	3	Vertical	106	1.04	
2412MHz	Pass	AV	4.82406G	50.60	54.00	-3.40	3	Horizontal	292	1.20	-
2412MHz	Pass	PK	4.82226G	65.10	74.00	-8.90	3	Horizontal	292	1.20	-
2437MHz	Pass	AV	2.3898G	44.57	54.00	-9.43	3	Vertical	165	1.21	-
2437MHz	Pass	AV	2.4422G	82.29	Inf	-Inf	3	Vertical	165	1.21	-
2437MHz	Pass	AV	2.4835G	45.04	54.00	-8.96	3	Vertical	165	1.21	-
2437MHz	Pass	PK	2.387G	56.44	74.00	-17.56	3	Vertical	165	1.21	-
2437MHz	Pass	PK	2.4434G	92.06	Inf	-Inf	3	Vertical	165	1.21	-
2437MHz	Pass	PK	2.485G	56.99	74.00	-17.01	3	Vertical	165	1.21	-
2437MHz	Pass	AV	2.3898G	44.49	54.00	-9.51	3	Horizontal	189	1.69	-
2437MHz	Pass	AV	2.4422G	82.43	Inf	-Inf	3	Horizontal	189	1.69	-
2437MHz	Pass	AV	2.4835G	45.15	54.00	-8.85	3	Horizontal	189	1.69	-
2437MHz	Pass	PK	2.3846G	56.62	74.00	-17.38	3	Horizontal	189	1.69	-
2437MHz	Pass	PK	2.443G	92.20	Inf	-Inf	3	Horizontal	189	1.69	-
2437MHz	Pass	PK	2.489G	57.61	74.00	-16.39	3	Horizontal	189	1.69	-
2437MHz	Pass	AV	4.874G	50.04	54.00	-3.96	3	Vertical	109	1.03	-
2437MHz	Pass	AV	7.31202G	45.93	54.00	-8.07	3	Vertical	190	2.91	-
2437MHz	Pass	PK	4.87214G	65.42	74.00	-8.58	3	Vertical	109	1.03	-
2437MHz	Pass	PK	7.3179G	60.09	74.00	-13.91	3	Vertical	190	2.91	_
2437MHz	Pass	AV	4.874G	49.18	54.00	-4.82	3	Horizontal	288	1.16	_
2437MHz	Pass	AV	7.30926G	44.73	54.00	-9.27	3	Horizontal	324	1.19	-
2437MHz	Pass	PK	4.87214G	64.50	74.00	-9.50	3	Horizontal	288	1.16	_
2437MHz	Pass	PK	7.3179G	58.97	74.00	-15.03	3	Horizontal	324	1.19	_
2457MHz	Pass	AV	2.46G	82.77	Inf	-13.03 -Inf	3	Vertical	165	1.17	
2457MHz	Pass	AV	2.4835G	49.14	54.00	-4.86	3	Vertical	165	1.21	-
											-
2457MHz	Pass	PK	2.4584G	92.43	Inf	-Inf	3	Vertical	165	1.21	-
2457MHz	Pass	PK	2.4842G	62.80	74.00	-11.20	3	Vertical	165	1.21	-
2457MHz	Pass	AV	2.46G	83.20	Inf	-Inf	3	Horizontal	190	1.89	-
2457MHz	Pass	AV	2.4835G	50.16	54.00	-3.84	3	Horizontal	190	1.89	-
2457MHz	Pass	PK	2.4588G	92.91	Inf	-Inf	3	Horizontal	190	1.89	-



Appendix F.2

Mode	Result	Туре	Freq	Level	Limit	Margin	Dist	Condition	Azimuth	Height	Comments
		,	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(m)		(°)	(m)	
2457MHz	Pass	PK	2.4835G	64.64	74.00	-9.36	3	Horizontal	190	1.89	-
2462MHz	Pass	AV	2.4562G	81.62	Inf	-Inf	3	Vertical	170	1.64	-
2462MHz	Pass	AV	2.4835G	52.28	54.00	-1.72	3	Vertical	170	1.64	-
2462MHz	Pass	PK	2.459G	91.29	Inf	-Inf	3	Vertical	170	1.64	
2462MHz	Pass	PK	2.4835G	68.19	74.00	-5.81	3	Vertical	170	1.64	-
2462MHz	Pass	AV	2.4652G	83.32	Inf	-Inf	3	Horizontal	190	1.89	
2462MHz	Pass	AV	2.4835G	53.96	54.00	-0.04	3	Horizontal	190	1.89	_
2462MHz	Pass	PK	2.4638G	92.72	Inf	-0.04 -Inf	3	Horizontal	190	1.89	-
											-
2462MHz	Pass	PK	2.4835G	69.43	74.00	-4.57	3	Horizontal	190	1.89	-
2462MHz	Pass	AV	4.924G	50.59	54.00	-3.41	3	Vertical	105	1.16	-
2462MHz	Pass	AV	7.3815G	47.12	54.00	-6.88	3	Vertical	188	2.97	-
2462MHz	Pass	PK	4.92226G	65.90	74.00	-8.10	3	Vertical	105	1.16	-
2462MHz	Pass	PK	7.3818G	61.06	74.00	-12.94	3	Vertical	188	2.97	-
2462MHz	Pass	AV	4.924G	50.57	54.00	-3.43	3	Horizontal	322	1.04	-
2462MHz	Pass	AV	7.38156G	46.80	54.00	-7.20	3	Horizontal	337	2.47	-
2462MHz	Pass	PK	4.92232G	65.57	74.00	-8.43	3	Horizontal	322	1.04	-
2462MHz	Pass	PK	7.3929G	61.64	74.00	-12.36	3	Horizontal	337	2.47	-
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	AV	2.39G	53.40	54.00	-0.60	3	Vertical	167	1.00	-
2422MHz	Pass	AV	2.4276G	78.50	Inf	-Inf	3	Vertical	167	1.00	-
2422MHz	Pass	AV	2.4835G	46.06	54.00	-7.94	3	Vertical	167	1.00	-
2422MHz	Pass	PK	2.3884G	68.38	74.00	-5.62	3	Vertical	167	1.00	-
2422MHz	Pass	PK	2.4288G	89.10	Inf	-Inf	3	Vertical	167	1.00	-
2422MHz	Pass	PK	2.4856G	59.16	74.00	-14.84	3	Vertical	167	1.00	-
2422MHz	Pass	AV	2.39G	52.83	54.00	-1.17	3	Horizontal	189	1.92	-
2422MHz	Pass	AV	2.4312G	78.20	Inf	-Inf	3	Horizontal	189	1.92	-
2422MHz	Pass	AV	2.4835G	46.39	54.00	-7.61	3	Horizontal	189	1.92	-
2422MHz	Pass	PK	2.3888G	67.24	74.00	-6.76	3	Horizontal	189	1.92	-
2422MHz	Pass	PK	2.4288G	88.56	Inf	-Inf	3	Horizontal	189	1.92	-
2422MHz	Pass	PK	2.4892G	59.71	74.00	-14.29	3	Horizontal	189	1.92	-
2422MHz	Pass	AV	4.84407G	47.04	54.00	-6.96	3	Vertical	107	1.04	-
2422MHz	Pass	AV	7.26124G	42.37	54.00	-11.63	3	Vertical	190	2.93	-
2422MHz	Pass	PK	4.84385G	60.18	74.00	-13.82	3	Vertical	107	1.04	-
2422MHz	Pass	PK	7.26742G	56.06	74.00	-17.94	3	Vertical	190	2.93	-
2422MHz	Pass	AV	4.84404G	48.10	54.00	-5.90	3	Horizontal	290	1.04	-
2422MHz	Pass	AV	7.2612G	41.80	54.00	-12.20	3	Horizontal	325	1.19	-
2422MHz	Pass	PK	4.8441G	60.50	74.00	-13.50	3	Horizontal	290	1.04	-
2422MHz	Pass	PK	7.26548G	55.37	74.00	-18.63	3	Horizontal	325	1.19	-
2427MHz	Pass	AV	2.3898G	52.55	54.00	-1.45	3	Vertical	71	1.17	-
2427MHz	Pass	AV	2.4326G	78.95	Inf	-Inf	3	Vertical	71	1.17	-
2427MHz	Pass	AV	2.4842G	47.05	54.00	-6.95	3	Vertical	71	1.17	-
2427MHz	Pass	PK	2.3886G	66.53	74.00	-7.47	3	Vertical	71	1.17	-
2427MHz	Pass	PK	2.4338G	89.34	Inf	-Inf	3	Vertical	71	1.17	-
2427MHz	Pass	PK	2.4938G	59.50	74.00	-14.50	3	Vertical	71	1.17	-
2427MHz	Pass	AV	2.3898G	52.25	54.00	-1.75	3	Horizontal	188	1.93	-
2427MHz	Pass	AV	2.4346G	78.85	Inf	-Inf	3	Horizontal	188	1.93	-
2427MHz	Pass	AV	2.4838G	47.73	54.00	-6.27	3	Horizontal	188	1.93	-
2427MHz	Pass	PK	2.389G	65.94	74.00	-8.06	3	Horizontal	188	1.93	-
2427MHz	Pass	PK	2.4338G	89.01	Inf	-Inf	3	Horizontal	188	1.93	-
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Appendix F.2

Mode	Result	Туре	Freq	Level	Limit	Margin	Dist	Condition	Azimuth	Height	Comments
Wode	Result	Турс	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(m)	Condition	(°)	(m)	Comments
2427MHz	Dago	PK			74.00			Harizontal		-	
	Pass	AV	2.4858G 2.3898G	59.65		-14.35	3	Horizontal	188 168	1.93	-
2437MHz	Pass			47.78	54.00	-6.22	3	Vertical		1.23	-
2437MHz	Pass	AV	2.4446G	79.55	Inf	-Inf		Vertical	168	1.23	-
2437MHz	Pass	AV	2.4835G	50.97	54.00	-3.03	3	Vertical	168	1.23	-
2437MHz	Pass	PK	2.3894G	60.85	74.00	-13.15	3	Vertical	168	1.23	-
2437MHz	Pass	PK	2.4438G	89.84	Inf	-Inf	3	Vertical	168	1.23	-
2437MHz	Pass	PK	2.4835G	64.31	74.00	-9.69	3	Vertical	168	1.23	-
2437MHz	Pass	AV	2.3894G	47.67	54.00	-6.33	3	Horizontal	189	1.69	-
2437MHz	Pass	AV	2.4446G	79.61	Inf	-Inf	3	Horizontal	189	1.69	-
2437MHz	Pass	AV	2.4835G	51.61	54.00	-2.39	3	Horizontal	189	1.69	-
2437MHz	Pass	PK	2.389G	60.26	74.00	-13.74	3	Horizontal	189	1.69	-
2437MHz	Pass	PK	2.4438G	89.88	Inf	-Inf	3	Horizontal	189	1.69	-
2437MHz	Pass	PK	2.4835G	64.87	74.00	-9.13	3	Horizontal	189	1.69	-
2437MHz	Pass	AV	4.8743G	48.59	54.00	-5.41	3	Vertical	105	1.21	-
2437MHz	Pass	AV	7.31358G	44.52	54.00	-9.48	3	Vertical	189	3.00	-
2437MHz	Pass	PK	4.87394G	60.92	74.00	-13.08	3	Vertical	105	1.21	-
2437MHz	Pass	PK	7.31376G	57.21	74.00	-16.79	3	Vertical	189	3.00	-
2437MHz	Pass	AV	4.87408G	48.09	54.00	-5.91	3	Horizontal	288	1.08	-
2437MHz	Pass	AV	7.3062G	43.25	54.00	-10.75	3	Horizontal	323	1.11	-
2437MHz	Pass	PK	4.8739G	60.69	74.00	-13.31	3	Horizontal	288	1.08	-
2437MHz	Pass	PK	7.30524G	55.84	74.00	-18.16	3	Horizontal	323	1.11	-
2447MHz	Pass	AV	2.3894G	45.13	54.00	-8.87	3	Vertical	167	1.23	-
2447MHz	Pass	AV	2.4486G	78.89	Inf	-Inf	3	Vertical	167	1.23	-
2447MHz	Pass	AV	2.485G	52.48	54.00	-1.52	3	Vertical	167	1.23	-
2447MHz	Pass	PK	2.3694G	57.07	74.00	-16.93	3	Vertical	167	1.23	-
2447MHz	Pass	PK	2.4538G	88.91	Inf	-Inf	3	Vertical	167	1.23	-
2447MHz	Pass	PK	2.4835G	66.13	74.00	-7.87	3	Vertical	167	1.23	-
2447MHz	Pass	AV	2.3886G	44.94	54.00	-9.06	3	Horizontal	190	1.86	-
2447MHz	Pass	AV	2.4502G	79.16	Inf	-Inf	3	Horizontal	190	1.86	-
2447MHz	Pass	AV	2.4835G	53.80	54.00	-0.20	3	Horizontal	190	1.86	-
2447MHz	Pass	PK	2.3666G	57.07	74.00	-16.93	3	Horizontal	190	1.86	-
2447MHz	Pass	PK	2.4538G	89.60	Inf	-Inf	3	Horizontal	190	1.86	-
2447MHz	Pass	PK	2.4835G	68.67	74.00	-5.33	3	Horizontal	190	1.86	-
2452MHz	Pass	AV	2.3892G	44.64	54.00	-9.36	3	Vertical	169	1.22	-
2452MHz	Pass	AV	2.4488G	78.10	Inf	-Inf	3	Vertical	169	1.22	-
2452MHz	Pass	AV	2.4835G	52.50	54.00	-1.50	3	Vertical	169	1.22	-
2452MHz	Pass	PK	2.3688G	56.59	74.00	-17.41	3	Vertical	169	1.22	-
2452MHz	Pass	PK	2.4452G	88.36	Inf	-Inf	3	Vertical	169	1.22	-
2452MHz	Pass	PK	2.484G	65.81	74.00	-8.19	3	Vertical	169	1.22	-
2452MHz	Pass	AV	2.3872G	44.62	54.00	-9.38	3	Horizontal	189	1.89	-
2452MHz	Pass	AV	2.4588G	78.45	Inf	-Inf	3	Horizontal	189	1.89	-
2452MHz	Pass	AV	2.4835G	53.16	54.00	-0.84	3	Horizontal	189	1.89	-
2452MHz	Pass	PK	2.382G	56.58	74.00	-17.42	3	Horizontal	189	1.89	-
2452MHz	Pass	PK	2.4588G	88.82	Inf	-Inf	3	Horizontal	189	1.89	-
2452MHz	Pass	PK	2.484G	66.54	74.00	-7.46	3	Horizontal	189	1.89	-
2452MHz	Pass	AV	4.9041G	45.47	54.00	-8.53	3	Vertical	103	1.08	-
2452MHz	Pass	AV	7.35132G	43.36	54.00	-10.64	3	Vertical	191	2.99	-
2452MHz	Pass	PK	4.9045G	58.21	74.00	-15.79	3	Vertical	103	1.08	-
2452MHz	Pass	PK	7.34958G	56.30	74.00	-17.70	3	Vertical	191	2.99	-



Appendix F.2

Mode	Result	Туре	Freq	Level	Limit	Margin	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(m)		(°)	(m)	
2452MHz	Pass	AV	4.90398G	45.17	54.00	-8.83	3	Horizontal	282	1.00	-
2452MHz	Pass	AV	7.35984G	43.32	54.00	-10.68	3	Horizontal	338	2.47	-
2452MHz	Pass	PK	4.90424G	57.78	74.00	-16.22	3	Horizontal	282	1.00	-
2452MHz	Pass	PK	7.36662G	56.20	74.00	-17.80	3	Horizontal	338	2.47	-

SPORTON INTERNATIONAL INC. Page No. : F7 of F63



