

FCC Test Report

Equipment : Wireless Presentation System
Model No. : WGA-510P
FCC ID : SQ3WGA510P16
Standard : 47 CFR FCC Part 15.247
RF Specification : Wi-Fi
Frequency : 2400 MHz – 2483.5 MHz
FCC Classification : DTS
**Applicant /
Manufacturer** : Awind Inc.
33F., No. 16, Xinzhan Rd., Banqiao Dist., New Taipei City
220, Taiwan

The product sample received on Nov. 21, 2016 and completely tested on Dec. 23, 2016. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

Reviewed by:


Phoenix Chen / Assistant Manager





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APPENDIX I. TEST RESULT OF AC POWER-LINE CONDUCTED EMISSIONS

APPENDIX A. TEST RESULT OF EMISSION BANDWIDTH

APPENDIX B.1~B.2. TEST RESULT OF MAXIMUM CONDUCTED OUTPUT POWER

APPENDIX C. TEST RESULT OF POWER SPECTRAL DENSITY

APPENDIX D. TEST RESULT OF EMISSIONS IN NON-RESTRICTED FREQUENCY BANDS

APPENDIX E.1~E.2. TEST RESULT OF EMISSIONS IN RESTRICTED FREQUENCY BANDS

APPENDIX F. TEST PHOTOS

PHOTOGRAPHS OF EUT v01



Summary of Test Result

Conformance Test Specifications				
Report Clause	Ref. Std. Clause	Description	Limit	Result
1.1.3	15.203	Antenna Requirement	FCC 15.203	Complied
3.1	15.207	AC Power-line Conducted Emissions	FCC 15.207	Complied
3.2	15.247(a)	DTS Bandwidth	≥500kHz	Complied
3.3	15.247(b)	Fundamental Emission Output Power	Power [dBm]:30	Complied
3.4	15.247(e)	Power Spectral Density	PSD [dBm/3kHz]:8	Complied
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	Non-Restricted Bands: > 20 dBc	Complied
3.6	15.247(d)	Emissions in Restricted Frequency Bands	Restricted Bands: FCC 15.209	Complied



1 General Description

1.1 Information

1.1.1 Product Details

The difference between the report no. : FR6N1731AC	
The Difference	Enclosure is replaced

Evaluated Test Items	Transmitter Unwanted Emissions
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1.1.2 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]
2400-2483.5	n (HT40)	2422-2452	3-9 [7]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	2TX
2.4-2.4835GHz	802.11g	20	2TX
2.4-2.4835GHz	802.11n HT20	20	2TX
2.4-2.4835GHz	802.11n HT40	40	2TX

Note:
<ul style="list-style-type: none"> ◆ 2.4G is the 2.4GHz Band (2.4-2.4835GHz). ◆ 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.

1.1.3 Antenna Information

Antenna Category	
<input type="checkbox"/>	Integral antenna (antenna permanently attached)
<input type="checkbox"/>	Temporary RF connector provided
<input type="checkbox"/>	No temporary RF connector provided Transmit chains bypass antenna and soldered temporary RF connector provided for connected measurement. In case of conducted measurements the transmitter shall be connected to the measuring equipment via a suitable attenuator and correct for all losses in the RF path.
<input checked="" type="checkbox"/>	External antenna (dedicated antennas)
<input checked="" type="checkbox"/>	Single power level with corresponding antenna(s).
<input type="checkbox"/>	Multiple power level and corresponding antenna(s).

Antenna General Information			
No.	Ant. Cat.	Ant. Type	Gain (dBi)
1	External	Dipole	2
2	External	Dipole	2

1.1.4 Type of EUT

Identify EUT	
EUT Serial Number	N/A
Presentation of Equipment	<input checked="" type="checkbox"/> Production ; <input type="checkbox"/> Pre-Production ; <input type="checkbox"/> Prototype
Type of EUT	
<input checked="" type="checkbox"/>	Stand-alone
<input type="checkbox"/>	Combined (EUT where the radio part is fully integrated within another device) Combined Equipment - Brand Name / Model No.: ...
<input type="checkbox"/>	Plug-in radio (EUT intended for a variety of host systems) Host System - Brand Name / Model No.: ...
<input type="checkbox"/>	Other:

1.1.5 Mode Test Duty Cycle

Mode	DC	T(s)	VBW(Hz) ≥ 1/T
11b	1	n/a (DC>=0.98)	n/a (DC>=0.98)
11g	1	n/a (DC>=0.98)	n/a (DC>=0.98)
HT20	1	n/a (DC>=0.98)	n/a (DC>=0.98)
HT40	1	n/a (DC>=0.98)	n/a (DC>=0.98)

1.1.6 EUT Operational Condition

Supply Voltage	<input checked="" type="checkbox"/> AC mains	<input type="checkbox"/> DC	
Type of DC Source	<input checked="" type="checkbox"/> External AC Adapter	<input type="checkbox"/> From Host System	<input type="checkbox"/> Battery



1.1.7 EUT Operate Information

Items	Description			
Beamforming Function	<input type="checkbox"/>	With beamforming	<input checked="" type="checkbox"/>	Without beamforming
Operate Condition	<input checked="" type="checkbox"/>	Point-to-multipoint (P2M)	<input type="checkbox"/>	Point-to-point (P2P)

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 558074 D01 v03r05
- ♦ KDB 662911 D01 v02r01

1.3 Testing Location Information

Testing Location				
<input checked="" type="checkbox"/>	HWA YA	ADD : No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C. TEL : 886-3-327-3456 FAX : 886-3-327-0973		
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CO04-HY	Ryan	23°C / 58%	23/12/2016
RF Conducted	TH01-HY	Ryan	22.5°C / 62%	19/12/2016
Radiated	03CH02-HY	Edwen	22.9°C / 58%	07/12/2016

Test site registered number [553509] with FCC.

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))

Measurement Uncertainty		
Test Item		Uncertainty
AC power-line conducted emissions		±2.3 dB
Emission bandwidth, 6dB bandwidth		±0.6 %
RF output power, conducted		±0.1 dB
Power density, conducted		±0.6 dB
Unwanted emissions, conducted	9 – 150 kHz	±0.4 dB
	0.15 – 30 MHz	±0.4 dB
	30 – 1000 MHz	±0.6 dB
	1 – 18 GHz	±0.5 dB
	18 – 40 GHz	±0.5 dB
	40 – 200 GHz	N/A
All emissions, radiated	9 – 150 kHz	±2.5 dB
	0.15 – 30 MHz	±2.3 dB
	30 – 1000 MHz	±2.6 dB
	1 – 18 GHz	±3.6 dB
	18 – 40 GHz	±3.8 dB
	40 – 200 GHz	N/A
Temperature		±0.8 °C
Humidity		±5 %
DC and low frequency voltages		±0.9%
Time		±1.4 %
Duty Cycle		±0.6 %

2 Test Configuration of EUT

2.1 Test Condition




RF Conducted	Abbreviation	Remark
TN,VN	TN	20°C
-	VN	120V
TX-Radiated < 1G	Remark	-
AC Adapter	6A-161WP05	-
TX-Radiated > 1G	Remark	-
AC Adapter	6A-161WP05	-
RX-Radiated < 1G	Remark	-
AC Adapter	6A-161WP05	-
RX-Radiated > 1G	Remark	-
AC Adapter	6A-161WP05	-

2.2 Test Channel Mode




Test Software Version	RF Test/ver0.1
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Mode	Power Setting
802.11b_Nss1_2TX	-
2412MHz	23,15
2437MHz	26,19
2462MHz	25,20
802.11g_Nss1_2TX	-
2412MHz	20,17
2437MHz	20,17
2462MHz	19,18
802.11n HT20_Nss1,(MCS0)_2TX	-
2412MHz	18,14
2437MHz	19,16
2462MHz	17,16
802.11n HT40_Nss1,(MCS0)_2TX	-
2422MHz	12,9
2437MHz	18,16
2452MHz	11,9

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 Test Voltage: 120Vac / 60Hz		
Operating Mode	Operating Mode Description		
1	Adapter mode		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT	V		

The Worst Case Mode for Following Conformance Tests	
Tests Item	DTS Bandwidth, Fundamental Emission 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 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.		
User Position	<input type="checkbox"/> EUT will be placed in fixed position.		
	<input checked="" type="checkbox"/> EUT will be placed in mobile position and operating multiple positions.		
	<input type="checkbox"/> EUT will be a hand-held or body-worn battery-powered devices and operating multiple positions.		
Operating Mode < 1GHz	<input checked="" type="checkbox"/> Adapter mode		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT	V		



2.4 Accessories and Support Equipment

Accessories Information				
AC Adapter	Brand Name	ENG	Model Name	6A-161WP05
	Power Rating	I/P:100-240 Vac, 600mA,O/P: 5.0Vdc,2600 mA		
	Power Cord	1.53 meter, non-shielded cable, with ferrite core		

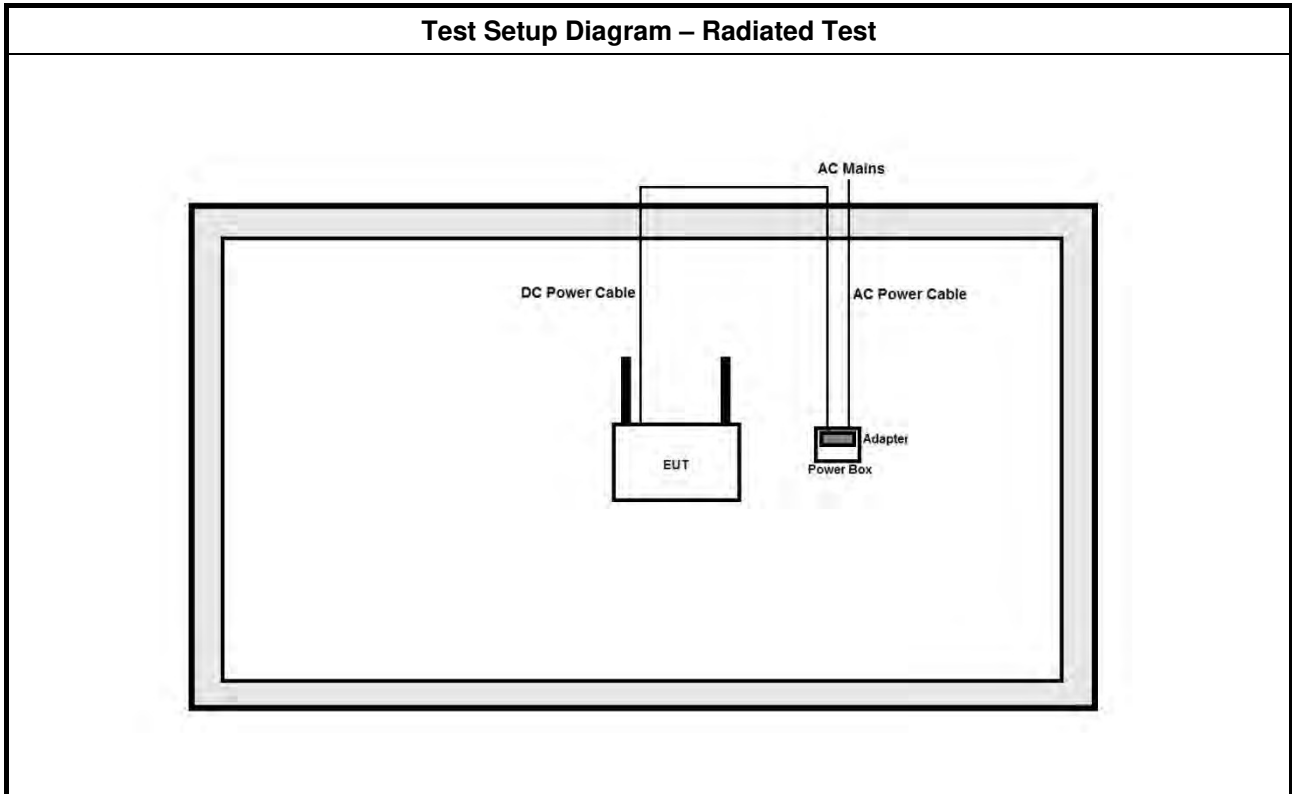
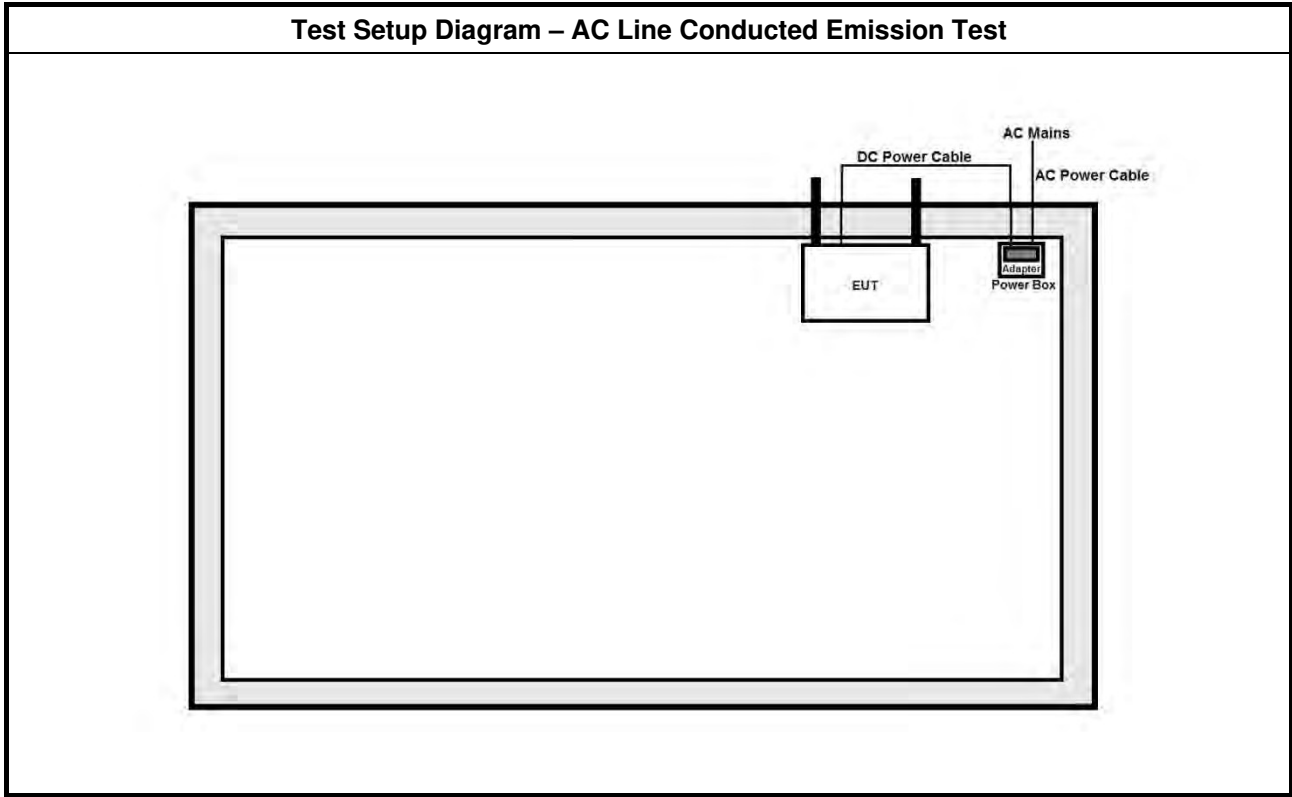
Reminder: Regarding to more detail and other information, please refer to user manual.

Support Equipment - RF Conducted			
No.	Equipment	Brand Name	Model Name
1	Notebook	DELL	E6400
2	AC Adapter for Notebook	DELL	HA65NM130

Support Equipment - Radiated Emission			
No.	Equipment	Brand Name	Model Name
1	-	-	-

Support Equipment - AC Conduction			
No.	Equipment	Brand Name	Model Name
1	-	-	-

2.5 Test Setup Diagram



3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit	
Systems using digital modulation techniques:	
<ul style="list-style-type: none"> ▪ 6 dB bandwidth \geq 500 kHz. 	

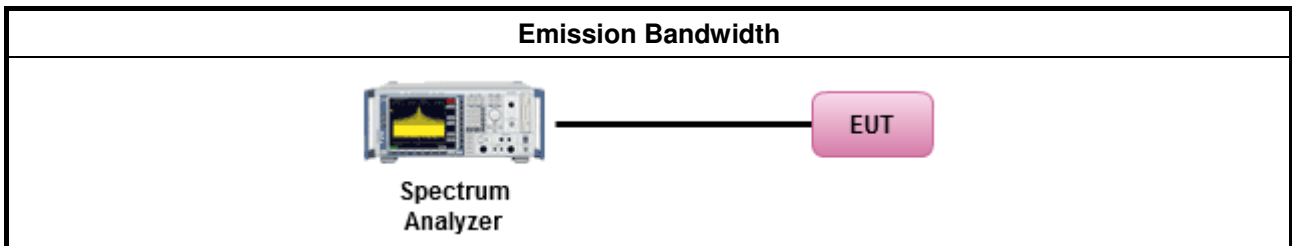
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ For the emission bandwidth shall be measured using one of the options below: 	
<input checked="" type="checkbox"/>	Refer as KDB 558074, clause 8.1 Option 1 for 6 dB bandwidth measurement.
<input type="checkbox"/>	Refer as KDB 558074, clause 8.2 Option 2 for 6 dB bandwidth measurement.
<input type="checkbox"/>	Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix A

3.3 Fundamental Emission Output Power

3.3.1 Fundamental Emission Output Power Limit

Maximum Peak Conducted Output Power or Maximum Conducted Output Power Limit	
<ul style="list-style-type: none"> ▪ 2400-2483.5 MHz Band: 	
	<ul style="list-style-type: none"> ▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)
	<ul style="list-style-type: none"> ▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm
	<ul style="list-style-type: none"> ▪ Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> ▪ Smart antenna system (SAS):
	<ul style="list-style-type: none"> - Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> - Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> - 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. Power Limit:	
<ul style="list-style-type: none"> ▪ 2400-2483.5 MHz Band 	
	<ul style="list-style-type: none"> ▪ Point-to-multipoint systems (P2M): $P_{eirp} \leq 36$ dBm (4 W)
	<ul style="list-style-type: none"> ▪ Point-to-point systems (P2P): $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX}])$ dBm
	<ul style="list-style-type: none"> ▪ Smart antenna system (SAS)
	<ul style="list-style-type: none"> - Single beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	<ul style="list-style-type: none"> - Overlap beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	<ul style="list-style-type: none"> - Aggregate power on all beams: $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX} + 8])$ dBm
P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi. P_{eirp} = e.i.r.p. Power in dBm.	

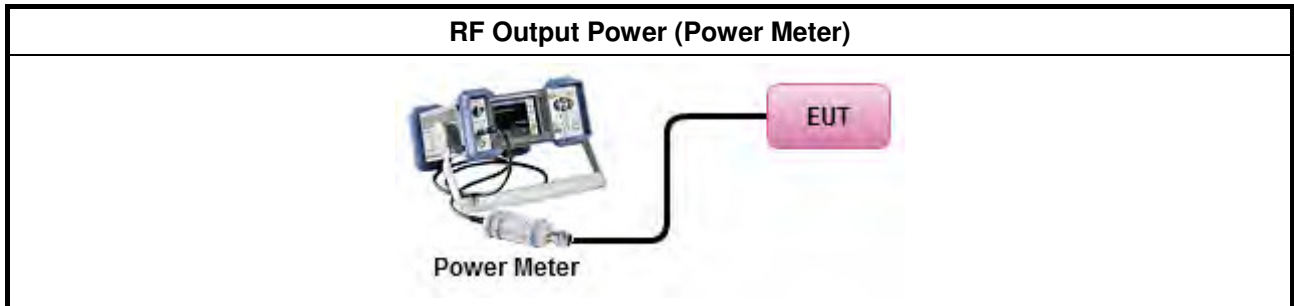
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ Maximum Peak Conducted Output Power 	
<input type="checkbox"/>	Refer as KDB 558074, clause 9.1.1 Option 1. (RBW ≥ EBW method)
<input checked="" type="checkbox"/>	Refer as KDB 558074, clause 9.1.2 Option 2. (peak power meter for VBW ≥ DTS BW)
<ul style="list-style-type: none"> ▪ Maximum Average Conducted Output Power 	
Duty cycle ≥ 98%	
<input type="checkbox"/>	Refer as KDB 558074, clause 9.2.2.4 Method AVGSA-2. (spectral trace averaging)
Duty cycle < 98%	
<input type="checkbox"/>	Refer as KDB 558074, clause 9.2.2.5 Method AVGSA-2 Alt. (slow sweep speed)
RF power meter and average over on/off periods with duty factor or gated trigger	
<input checked="" type="checkbox"/>	Refer as KDB 558074, clause 9.2.3.1 Method AVGPM. (using an RF average power meter)
<ul style="list-style-type: none"> ▪ For conducted measurement. 	
<ul style="list-style-type: none"> ▪ 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. 	
<ul style="list-style-type: none"> ▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$ 	

3.3.4 Test Setup



3.3.5 Test Result of Maximum Peak Conducted Output Power

Refer as Appendix B.1

3.3.6 Test Result of Maximum Average Conducted Output Power

Refer as Appendix B.2

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

Power Spectral Density Limit
<ul style="list-style-type: none"> ▪ Power Spectral Density (PSD) \leq 8 dBm/3kHz

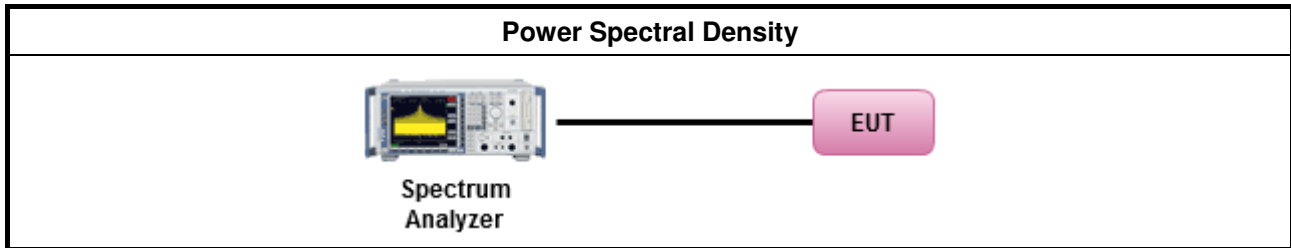
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ 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). 	
<input checked="" type="checkbox"/>	Refer as KDB 558074, clause 10.2 Method PKPSD. (RBW=3-100kHz; Detector=peak)
Duty cycle \geq 98%	
<input type="checkbox"/>	Refer as KDB 558074, clause 10.5 Method AVGPSD-2. (spectral trace averaging)
Duty cycle $<$ 98% and average over on/off periods with duty factor	
<input type="checkbox"/>	Refer as KDB 558074, clause 10.6 Method AVGPSD-2 Alt. (slow sweep speed)
<ul style="list-style-type: none"> ▪ For conducted measurement. 	
<ul style="list-style-type: none"> ▪ If The EUT supports multiple transmit chains using options given below: 	
<input checked="" type="checkbox"/>	Option 1: 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 N_{TX} 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.
<input type="checkbox"/>	Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,
<input type="checkbox"/>	Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.

3.4.4 Test Setup



3.4.5 Test Result of Power Spectral Density

Refer as Appendix C

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 PSD 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 PSD level.

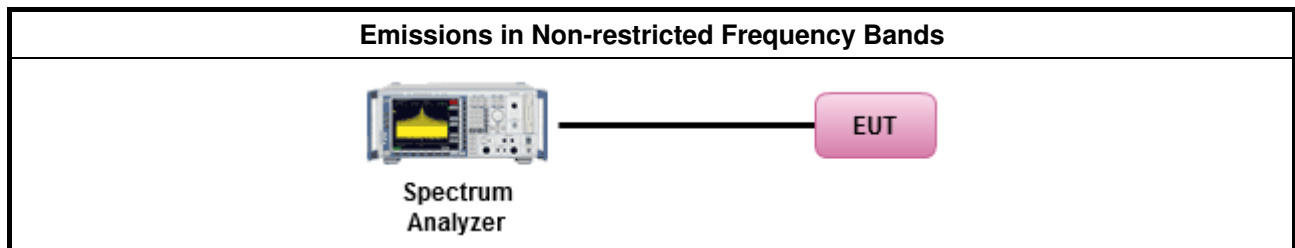
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method
<ul style="list-style-type: none"> Refer as KDB 558074, clause 11 for unwanted emissions into non-restricted bands.

3.5.4 Test Setup



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix D

3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

Restricted Band Emissions Limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

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

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

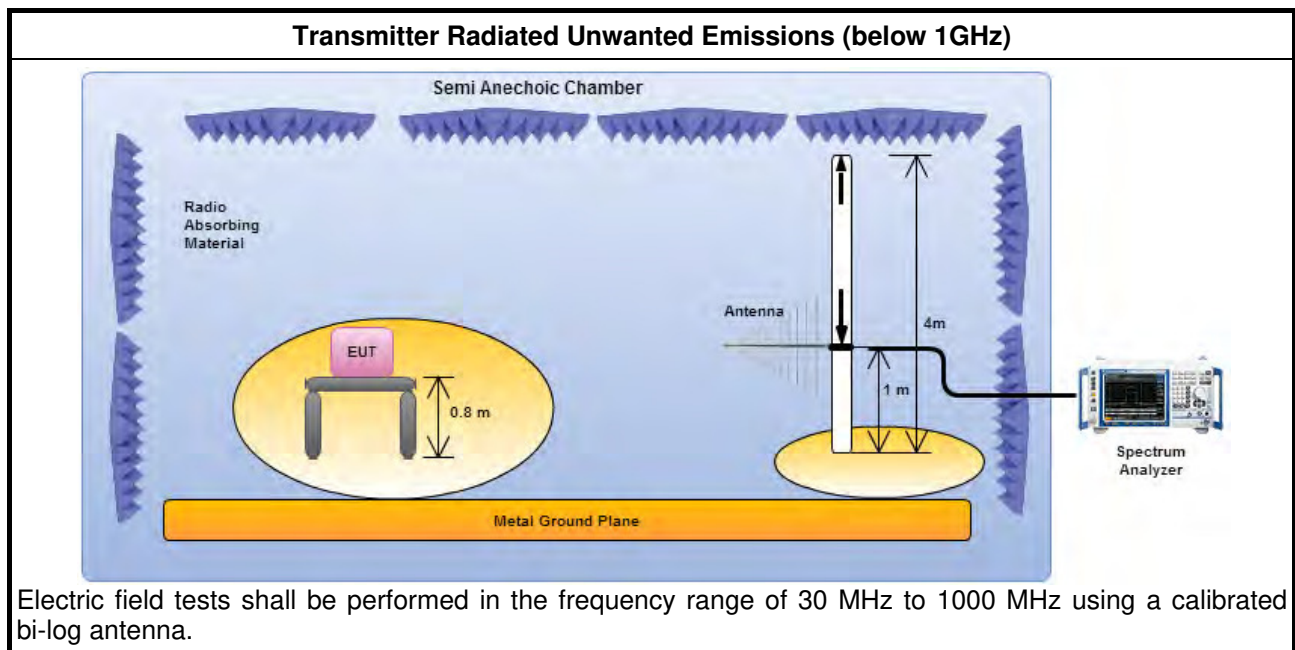
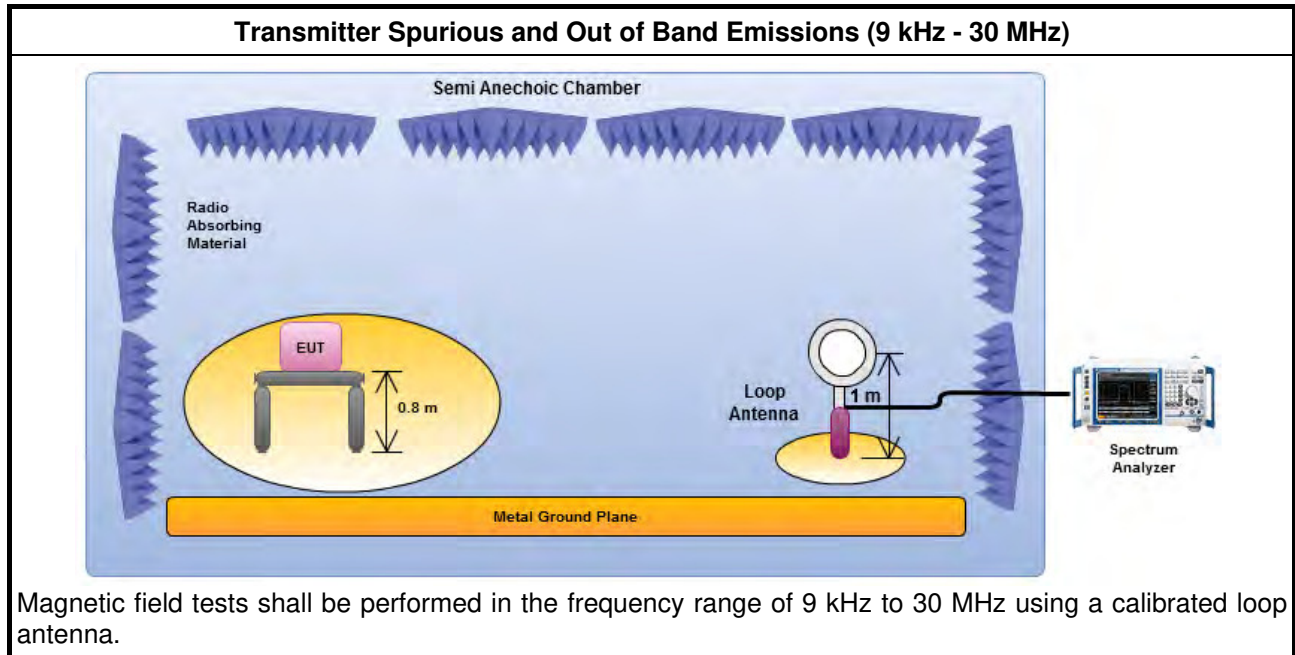
3.6.2 Measuring Instruments

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

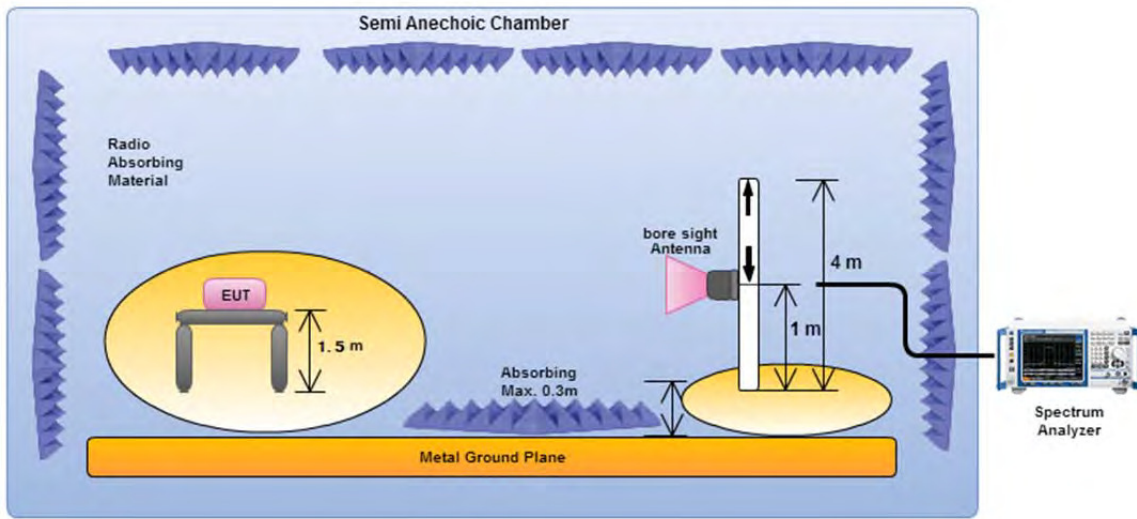
3.6.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ The average emission levels shall be measured in [duty cycle \geq 98 or duty factor]. 	
<ul style="list-style-type: none"> ▪ 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. 	
<ul style="list-style-type: none"> ▪ For the transmitter unwanted emissions shall be measured using following options below: 	
	<ul style="list-style-type: none"> ▪ Refer as KDB 558074, clause 12 for unwanted emissions into restricted bands.
	<input type="checkbox"/> Refer as KDB 558074, clause 12.2.5.1 Option 1 (trace averaging for duty cycle \geq 98%)
	<input type="checkbox"/> Refer as KDB 558074, clause 12.2.5.2 Option 2 (trace averaging + duty factor).
	<input checked="" type="checkbox"/> Refer as KDB 558074, clause 12.2.5.3 Option 3 (Reduced VBW \geq 1/T).
	<input type="checkbox"/> Refer as ANSI C63.10, clause 4.1.4.2.3 (Reduced VBW). VBW \geq 1/T, where T is pulse time.
	<input type="checkbox"/> Refer as ANSI C63.10, clause 4.1.4.2.4 average value of pulsed emissions.
	<input checked="" type="checkbox"/> Refer as KDB 558074, clause 11.3 and 12.2.4 measurement procedure peak limit.
	<input type="checkbox"/> Refer as KDB 558074, clause 12.2.3 measurement procedure Quasi-Peak limit.
<ul style="list-style-type: none"> ▪ For the transmitter band-edge emissions shall be measured using following options below: 	
	<ul style="list-style-type: none"> ▪ Refer as KDB 558074 clause 13.1, 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.
	<ul style="list-style-type: none"> ▪ Refer as KDB 558074, clause 13.2 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.
	<ul style="list-style-type: none"> ▪ Refer as KDB 558074, clause 13.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).
<ul style="list-style-type: none"> ▪ For conducted and cabinet radiation measurement, refer as KDB 558074, clause 12.2.2. 	
	<ul style="list-style-type: none"> ▪ For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB
	<ul style="list-style-type: none"> ▪ For KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.

3.6.4 Test Setup



Transmitter Radiated Unwanted Emissions (above 1GHz)



Electric field tests shall be performed in the frequency range of 1 GHz to 10th harmonic of highest fundamental frequency or 40 GHz using a calibrated horn antenna.

3.6.5 Transmitter Radiated 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. Any spurious which has more than 20 dB of margin compared to the applicable limit is not necessarily reported.

3.6.6 Transmitter Radiated Unwanted Emissions

Refer as Appendix E.1~E.2



4 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR-3	102051	9kHz ~ 3.6GHz	19/04/2016	18/04/2017
LISN	SCHWARZBECK MESS-ELEKTRO NIK	NSLK 8127	8127-477	9kHz ~ 30MHz	26/01/2016	25/01/2017
LISN (Support Unit)	R&S	ENV216	101295	9kHz ~ 30MHz	NCR	NCR
RF Cable-CON	HUBER+SUHN ER	RG213/U	0761183202000 1	9kHz ~ 30MHz	24/10/2016	23/10/2017
EMI Filter	LINDGREN	LRE-2030	2651	< 450 Hz	NCR	NCR

NCR : Non-Calibration Require

Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSP40	100593	9KHz - 40GHz	26/10/2016	25/10/2017
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz-1GHz 3M	03/06/2016	02/06/2017
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz-18GHz 3M	03/06/2016	02/06/2017
Amplifier	Agilent	8447D	2944A11149	100KHz-1.3GHz	01/07/2016	30/06/2017
Amplifier	Agilent	8449B	3008A02373	1GHz-26.5GHz	02/09/2016	01/09/2017
Horn Antenna	SCHWARZBEC K	BBHA9120D	BBHA9120D 01543	1GHz-18GHz	22/04/2016	21/04/2017
Horn Antenna	SCHWARZBEC K	BBHA9170	BBHA9170154	18GHz-40GHz	29/01/2016	28/01/2017
Bilog Antenna	SCHAFFNER	CBL6112B	2723	30MHz-1GHz	01/10/2016	30/09/2017
Loop Antenna	TESEQ	HLA 6120	31244	9KHz-30MHz	02/02/2015	01/02/2017
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz ~ 1GHz	05/11/2016	04/11/2017
RF Cable-high	SUHNER	SUCOFLEX106	MY17173/4	1GHz ~ 40GHz	03/03/2016	02/03/2017



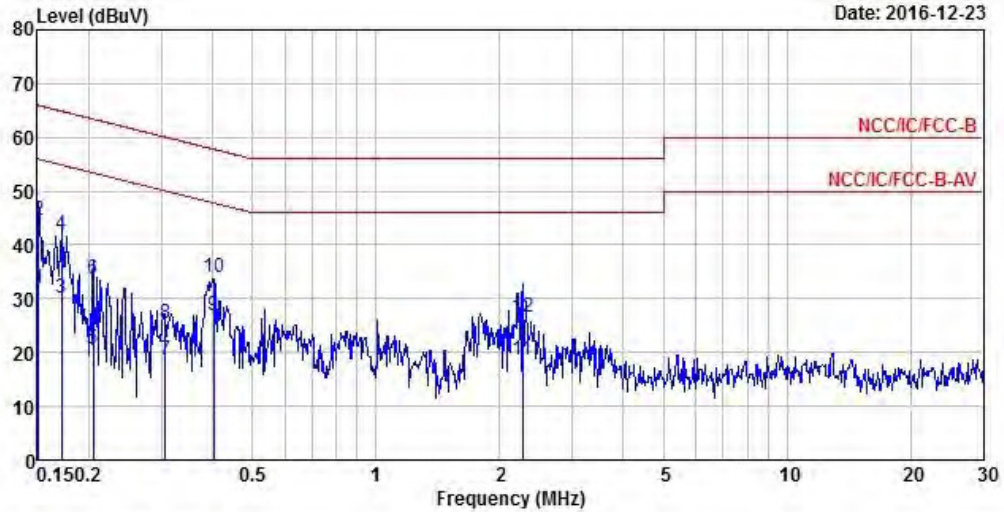
Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101500	9kHz~40GHz	12/05/2016	11/05/ 2017
Power Sensor	Anritsu	MA2411B	917017	300MHz ~ 40GHz	04/02/2016	03/02/2017
Power Meter	Anritsu	ML2495A	949003	300MHz ~ 40GHz	04/02/2016	03/02/2017
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	21/07/2016	20/07/2017
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY10709/4	30MHz ~ 26.5GHz	02/10/2016	01/10/2017
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY10710/4	30MHz ~ 26.5GHz	02/10/2016	01/10/2017
RF Cable-0.5m	HUBER+SUHNER	SUCOFLEX_104	MY10713/4	30MHz ~ 26.5GHz	02/10/2016	01/10/2017



AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	Adapter Mode		



	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	0.15	31.89	-24.07	55.96	31.57	0.10	0.22	Average
2	0.15	44.49	-21.47	65.96	44.17	0.10	0.22	QP
3	0.17	30.15	-24.75	54.90	29.79	0.10	0.26	Average
4	0.17	41.86	-23.04	64.90	41.50	0.10	0.26	QP
5	0.21	20.78	-32.62	53.40	20.38	0.11	0.29	Average
6	0.21	33.65	-29.75	63.40	33.25	0.11	0.29	QP
7	0.31	18.57	-31.49	50.06	18.27	0.12	0.18	Average
8	0.31	25.47	-34.59	60.06	25.17	0.12	0.18	QP
9 MAX	0.40	26.82	-20.98	47.80	26.60	0.12	0.10	Average
10	0.40	33.84	-23.96	57.80	33.62	0.12	0.10	QP
11	2.27	18.65	-27.35	46.00	18.23	0.16	0.26	Average
12	2.27	26.64	-29.36	56.00	26.22	0.16	0.26	QP

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



AC Power-line Conducted Emissions Result																																																																																																																																	
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Date: 2016-12-23																																																																																																																																	
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Freq</th> <th>Level</th> <th>Over Limit</th> <th>Limit Line</th> <th>Read Level</th> <th>LISN Factor</th> <th>Cable Loss</th> <th>Remark</th> </tr> <tr> <th></th> <th>MHz</th> <th>dBuV</th> <th>dB</th> <th>dBuV</th> <th>dBuV</th> <th>dB</th> <th>dB</th> <th></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>0.17</td> <td>32.03</td> <td>-23.09</td> <td>55.12</td> <td>31.67</td> <td>0.11</td> <td>0.25</td> <td>Average</td> </tr> <tr> <td>2</td> <td>0.17</td> <td>43.67</td> <td>-21.45</td> <td>65.12</td> <td>43.31</td> <td>0.11</td> <td>0.25</td> <td>QP</td> </tr> <tr> <td>3</td> <td>0.18</td> <td>28.92</td> <td>-25.45</td> <td>54.37</td> <td>28.54</td> <td>0.11</td> <td>0.27</td> <td>Average</td> </tr> <tr> <td>4</td> <td>0.18</td> <td>41.52</td> <td>-22.85</td> <td>64.37</td> <td>41.14</td> <td>0.11</td> <td>0.27</td> <td>QP</td> </tr> <tr> <td>5</td> <td>0.21</td> <td>21.74</td> <td>-31.44</td> <td>53.18</td> <td>21.35</td> <td>0.11</td> <td>0.28</td> <td>Average</td> </tr> <tr> <td>6</td> <td>0.21</td> <td>36.10</td> <td>-27.08</td> <td>63.18</td> <td>35.71</td> <td>0.11</td> <td>0.28</td> <td>QP</td> </tr> <tr> <td>7</td> <td>0.31</td> <td>26.08</td> <td>-23.80</td> <td>49.88</td> <td>25.79</td> <td>0.12</td> <td>0.17</td> <td>Average</td> </tr> <tr> <td>8</td> <td>0.31</td> <td>32.76</td> <td>-27.12</td> <td>59.88</td> <td>32.47</td> <td>0.12</td> <td>0.17</td> <td>QP</td> </tr> <tr style="border: 2px solid black;"> <td>9 MAX</td> <td>0.40</td> <td>32.68</td> <td>-15.11</td> <td>47.79</td> <td>32.46</td> <td>0.12</td> <td>0.10</td> <td>Average</td> </tr> <tr> <td>10</td> <td>0.40</td> <td>39.65</td> <td>-18.14</td> <td>57.79</td> <td>39.43</td> <td>0.12</td> <td>0.10</td> <td>QP</td> </tr> <tr> <td>11</td> <td>2.27</td> <td>21.91</td> <td>-24.09</td> <td>46.00</td> <td>21.50</td> <td>0.15</td> <td>0.26</td> <td>Average</td> </tr> <tr> <td>12</td> <td>2.27</td> <td>34.78</td> <td>-21.22</td> <td>56.00</td> <td>34.37</td> <td>0.15</td> <td>0.26</td> <td>QP</td> </tr> </tbody> </table>					Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark		MHz	dBuV	dB	dBuV	dBuV	dB	dB		1	0.17	32.03	-23.09	55.12	31.67	0.11	0.25	Average	2	0.17	43.67	-21.45	65.12	43.31	0.11	0.25	QP	3	0.18	28.92	-25.45	54.37	28.54	0.11	0.27	Average	4	0.18	41.52	-22.85	64.37	41.14	0.11	0.27	QP	5	0.21	21.74	-31.44	53.18	21.35	0.11	0.28	Average	6	0.21	36.10	-27.08	63.18	35.71	0.11	0.28	QP	7	0.31	26.08	-23.80	49.88	25.79	0.12	0.17	Average	8	0.31	32.76	-27.12	59.88	32.47	0.12	0.17	QP	9 MAX	0.40	32.68	-15.11	47.79	32.46	0.12	0.10	Average	10	0.40	39.65	-18.14	57.79	39.43	0.12	0.10	QP	11	2.27	21.91	-24.09	46.00	21.50	0.15	0.26	Average	12	2.27	34.78	-21.22	56.00	34.37	0.15	0.26	QP
	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark																																																																																																																									
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5	0.21	21.74	-31.44	53.18	21.35	0.11	0.28	Average																																																																																																																									
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7	0.31	26.08	-23.80	49.88	25.79	0.12	0.17	Average																																																																																																																									
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Summary

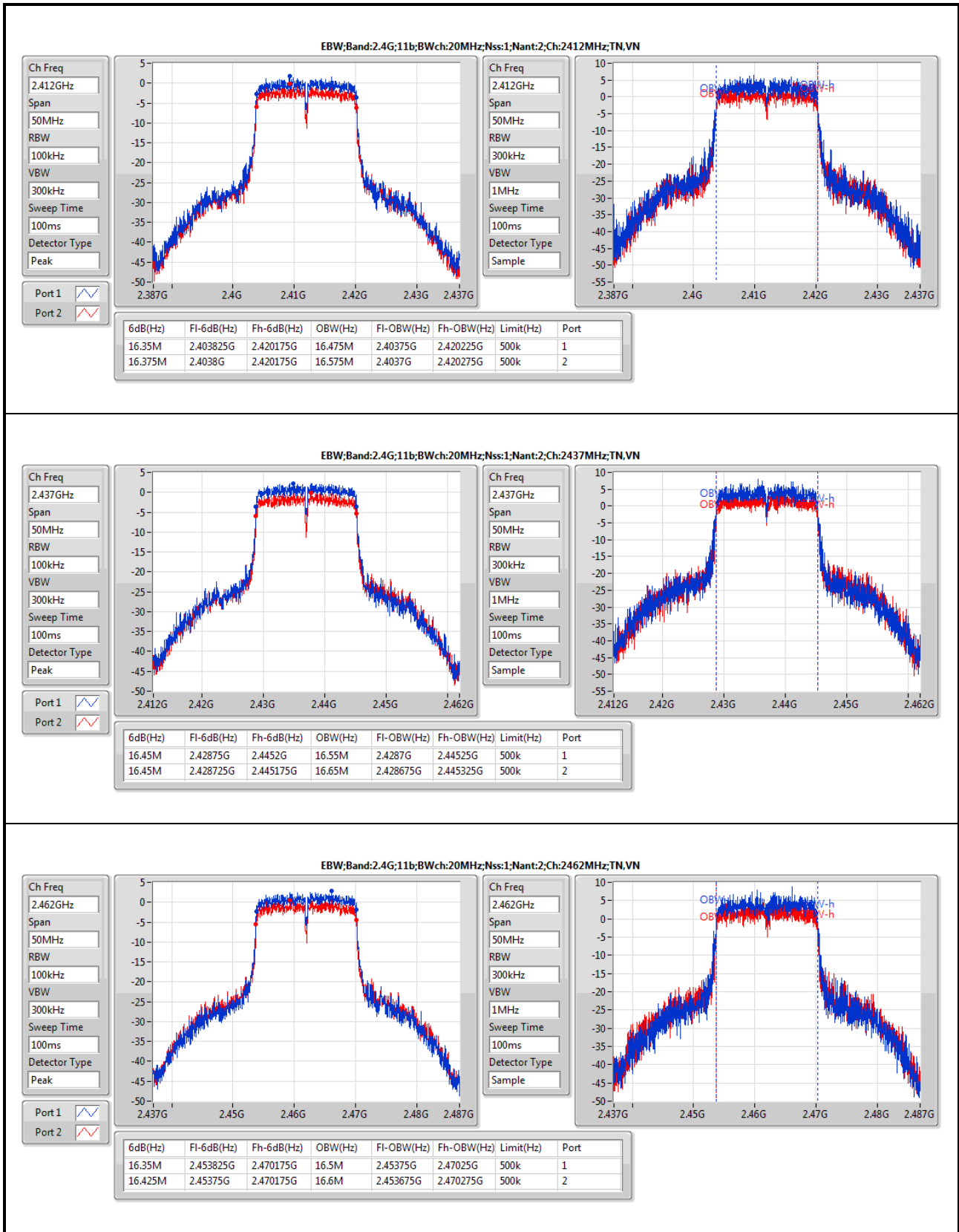
Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_Nss1_2TX	-	-	-	-	-
2.4-2.4835GHz	16.45M	16.65M	16M6G1D	16.35M	16.475M
802.11g_Nss1_2TX	-	-	-	-	-
2.4-2.4835GHz	16.475M	16.625M	16M6D1D	16.35M	16.475M
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	17.575M	17.625M	17M6D1D	17.55M	17.525M
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	36.35M	36.6M	36M6D1D	36.3M	36.25M

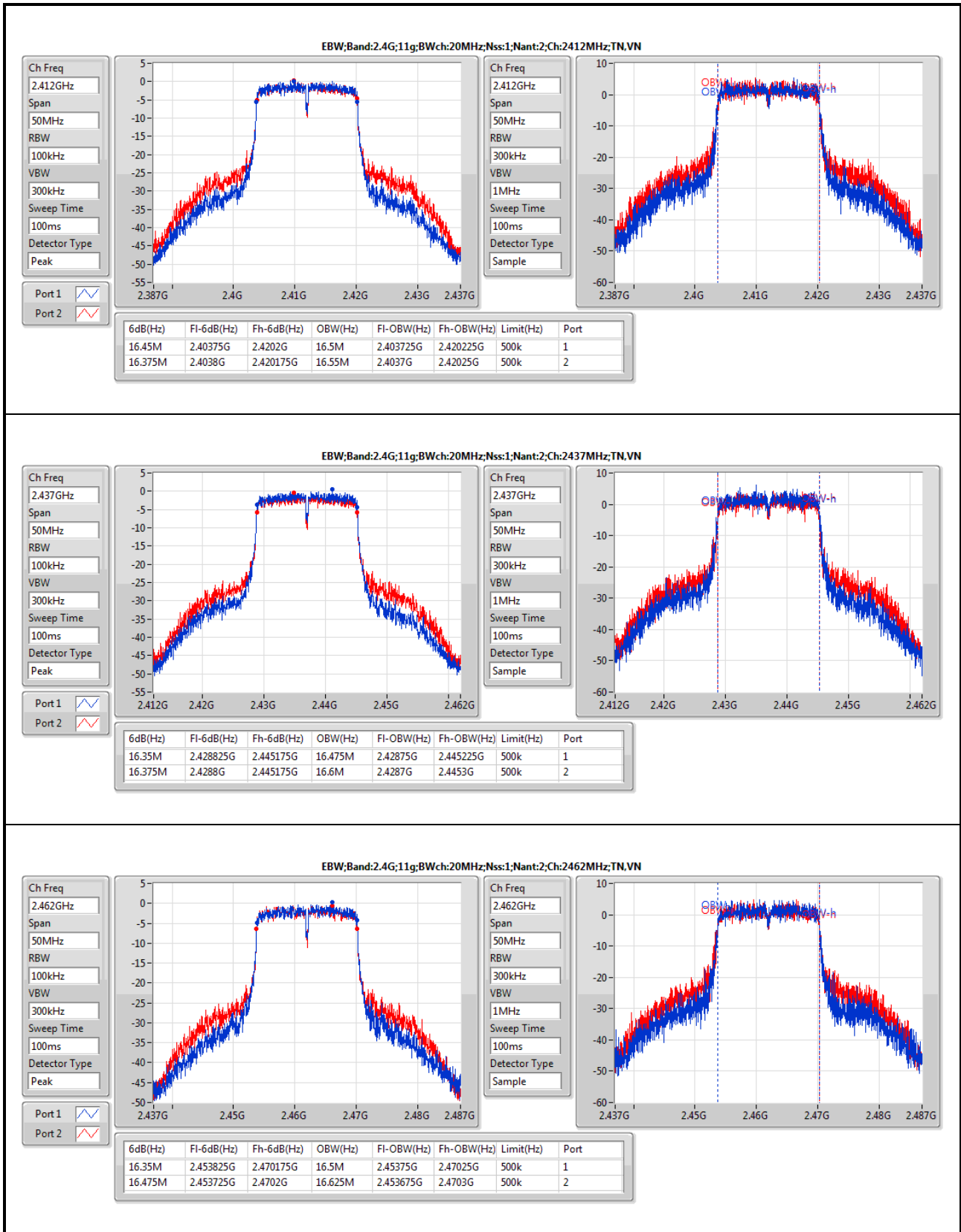
Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

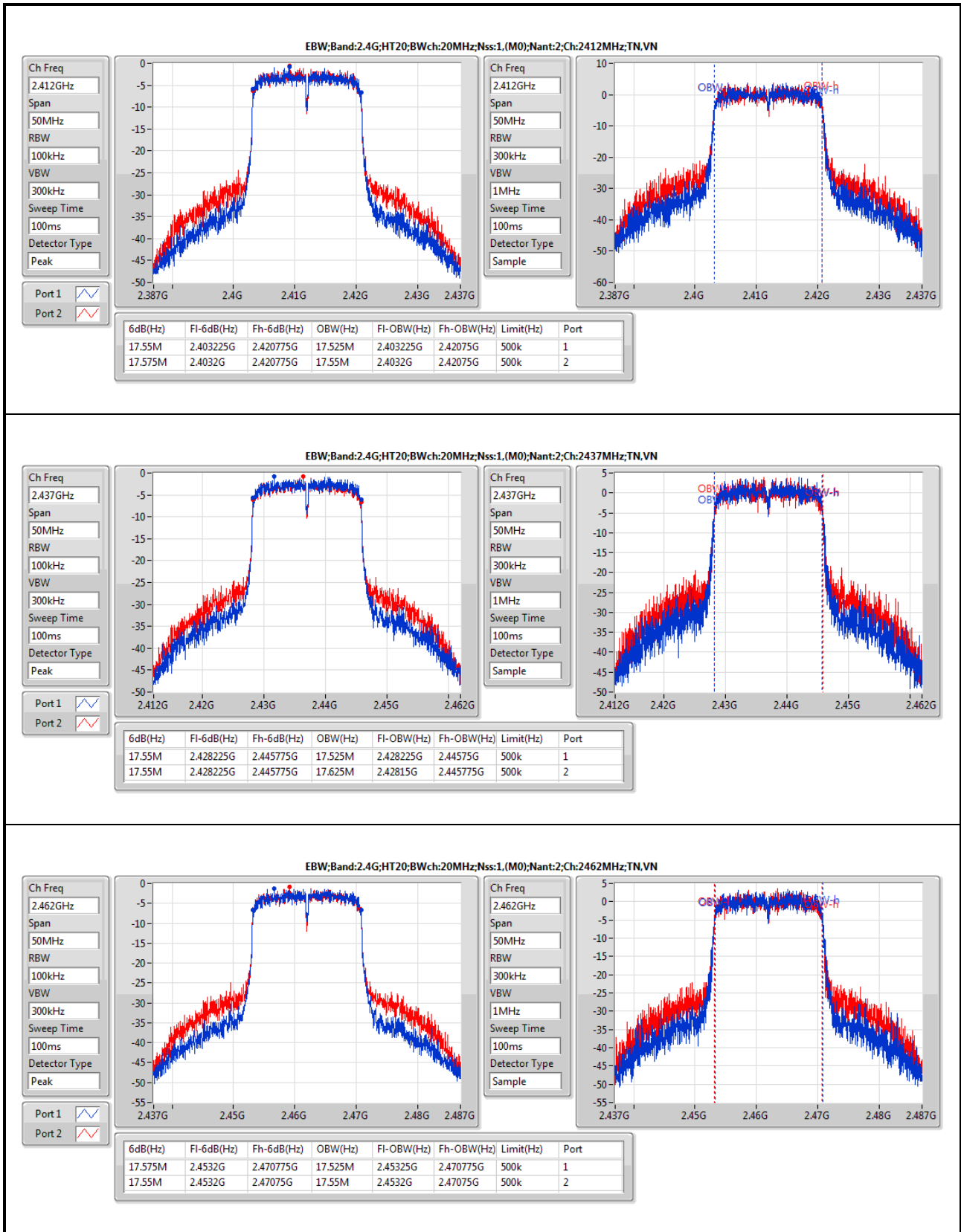
Result

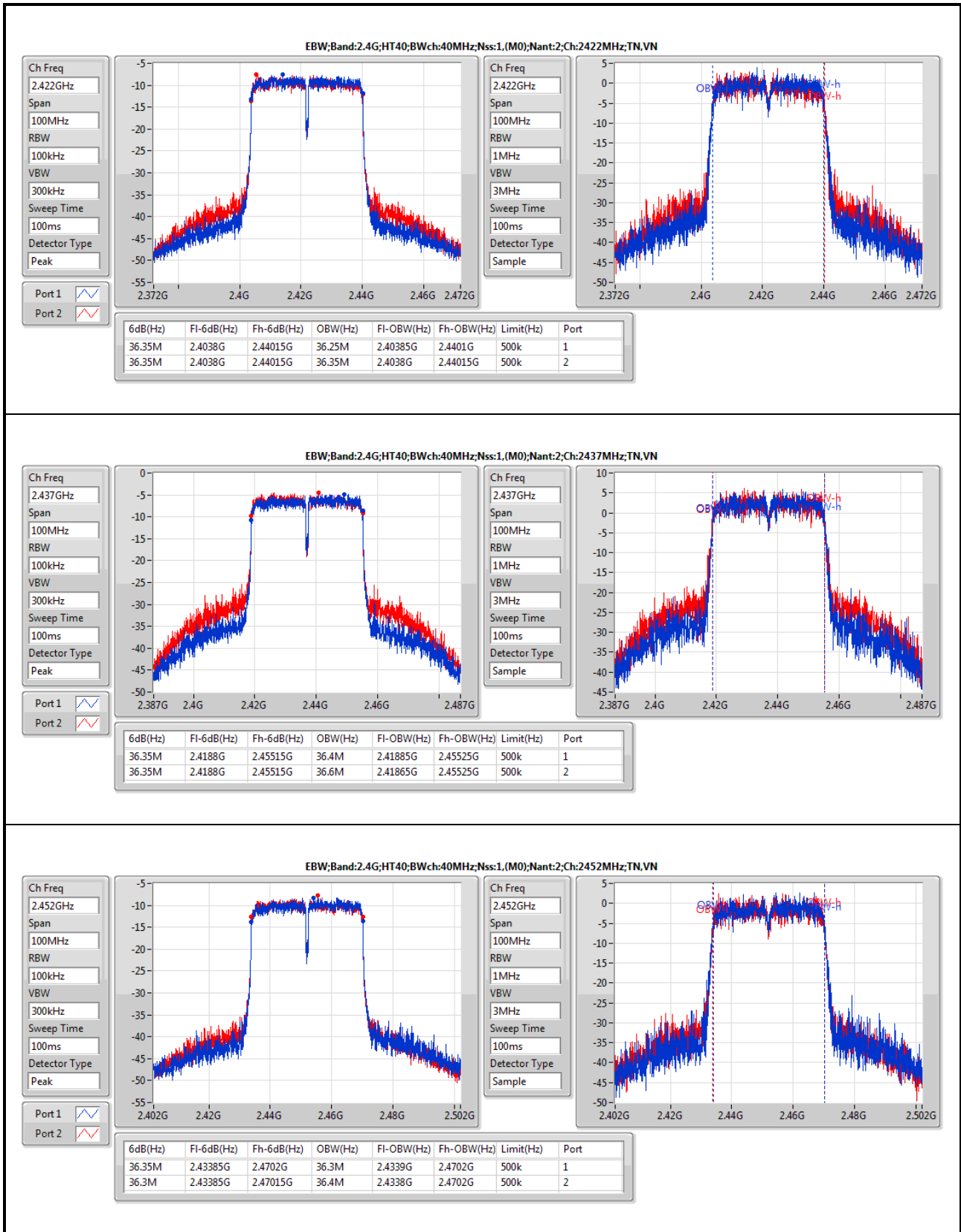
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_Nss1_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.35M	16.475M	16.375M	16.575M
2437MHz	Pass	500k	16.45M	16.55M	16.45M	16.65M
2462MHz	Pass	500k	16.35M	16.5M	16.425M	16.6M
802.11g_Nss1_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.45M	16.5M	16.375M	16.55M
2437MHz	Pass	500k	16.35M	16.475M	16.375M	16.6M
2462MHz	Pass	500k	16.35M	16.5M	16.475M	16.625M
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.55M	17.525M	17.575M	17.55M
2437MHz	Pass	500k	17.55M	17.525M	17.55M	17.625M
2462MHz	Pass	500k	17.575M	17.525M	17.55M	17.55M
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	36.35M	36.25M	36.35M	36.35M
2437MHz	Pass	500k	36.35M	36.4M	36.35M	36.6M
2452MHz	Pass	500k	36.35M	36.3M	36.3M	36.4M

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











Summary

Mode	Sum (dBm)	Total Power (W)
802.11b_Nss1_2TX	-	-
2.4-2.4835GHz	25.44	0.34995
802.11g_Nss1_2TX	-	-
2.4-2.4835GHz	23.98	0.25003
802.11n HT20_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	23.13	0.20559
802.11n HT40_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	22.82	0.19143

Result

Mode	Result	DG (dBi)	P1 (dBm)	P2 (dBm)	Sum (dBm)	Sum Lim. (dBm)
802.11b_Nss1_2TX	-	-	-	-	-	-
2412MHz	Pass	2.00	22.55	19.61	24.33	30.00
2437MHz	Pass	2.00	23.51	19.78	25.04	30.00
2462MHz	Pass	2.00	23.80	20.42	25.44	30.00
802.11g_Nss1_2TX	-	-	-	-	-	-
2412MHz	Pass	2.00	21.62	20.08	23.93	30.00
2437MHz	Pass	2.00	21.96	19.69	23.98	30.00
2462MHz	Pass	2.00	21.70	19.96	23.93	30.00
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	2.00	20.47	19.41	22.98	30.00
2437MHz	Pass	2.00	20.73	19.42	23.13	30.00
2462MHz	Pass	2.00	20.46	19.41	22.98	30.00
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	2.00	18.60	17.77	21.22	30.00
2437MHz	Pass	2.00	20.10	19.50	22.82	30.00
2452MHz	Pass	2.00	17.21	16.74	19.99	30.00

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



Summary

Mode	Sum (dBm)	Total Power (W)
802.11b_Nss1_2TX	-	-
2.4-2.4835GHz	18.45	0.06998
802.11g_Nss1_2TX	-	-
2.4-2.4835GHz	16.93	0.04932
802.11n HT20_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	15.97	0.03954
802.11n HT40_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	15.82	0.03819

Result

Mode	Result	DG (dBi)	P1 (dBm)	P2 (dBm)	Sum (dBm)	Sum Lim. (dBm)
802.11b_Nss1_2TX	-	-	-	-	-	-
2412MHz	Pass	2.00	15.14	13.22	17.30	30.00
2437MHz	Pass	2.00	16.17	13.93	18.20	30.00
2462MHz	Pass	2.00	16.28	14.40	18.45	30.00
802.11g_Nss1_2TX	-	-	-	-	-	-
2412MHz	Pass	2.00	13.95	13.89	16.93	30.00
2437MHz	Pass	2.00	13.95	13.29	16.64	30.00
2462MHz	Pass	2.00	13.76	13.61	16.70	30.00
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	2.00	12.87	12.85	15.87	30.00
2437MHz	Pass	2.00	13.06	12.86	15.97	30.00
2462MHz	Pass	2.00	12.77	12.78	15.79	30.00
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	2.00	9.94	9.81	12.89	30.00
2437MHz	Pass	2.00	12.71	12.90	15.82	30.00
2452MHz	Pass	2.00	9.18	9.20	12.20	30.00

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



Summary

Mode	PD (dBm/RBW)
802.11b_Nss1_2TX	-
2.4-2.4835GHz	-9.72
802.11g_Nss1_2TX	-
2.4-2.4835GHz	-10.95
802.11n HT20_Nss1,(MCS0)_2TX	-
2.4-2.4835GHz	-11.59
802.11n HT40_Nss1,(MCS0)_2TX	-
2.4-2.4835GHz	-14.51

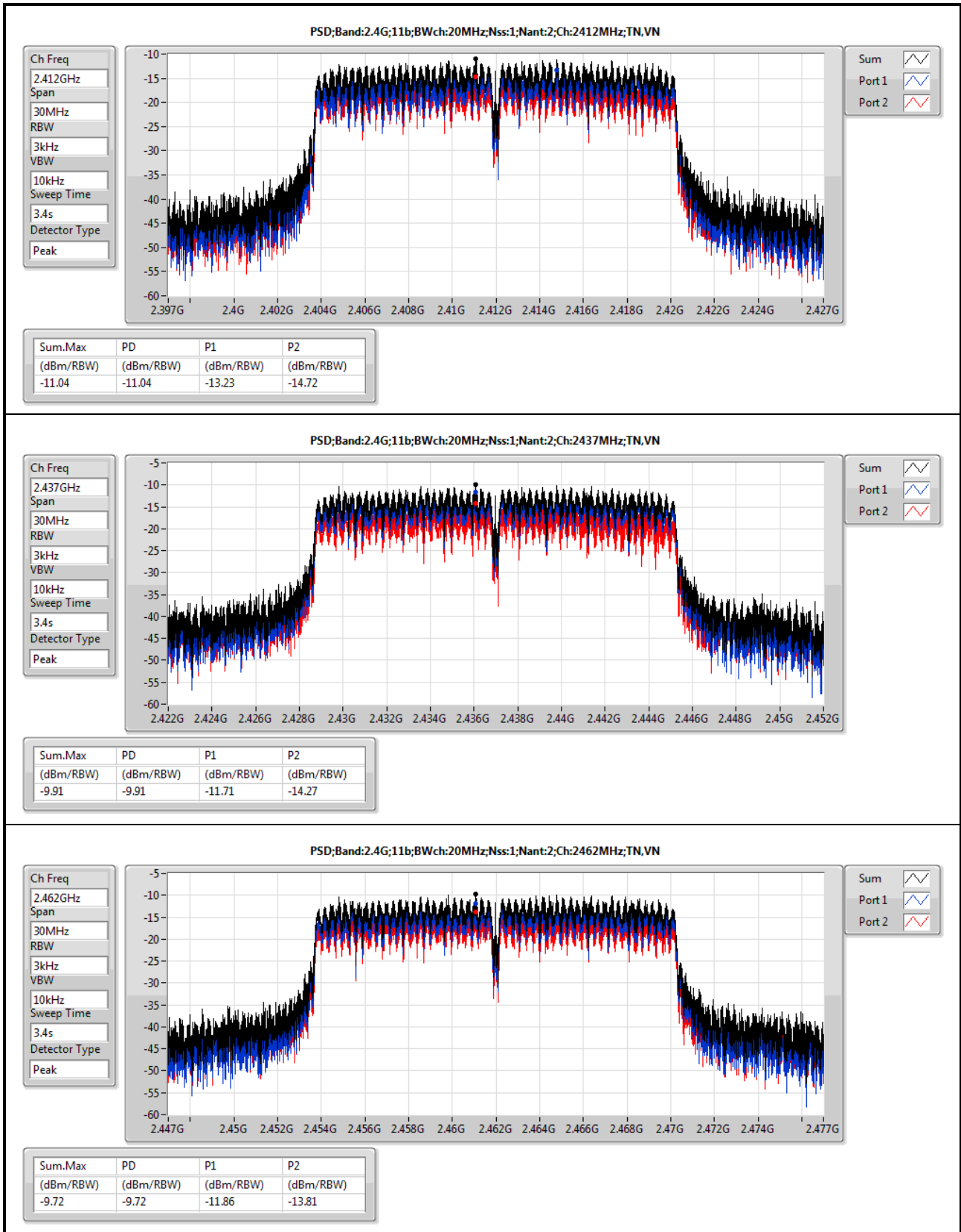
RBW=3kHz.

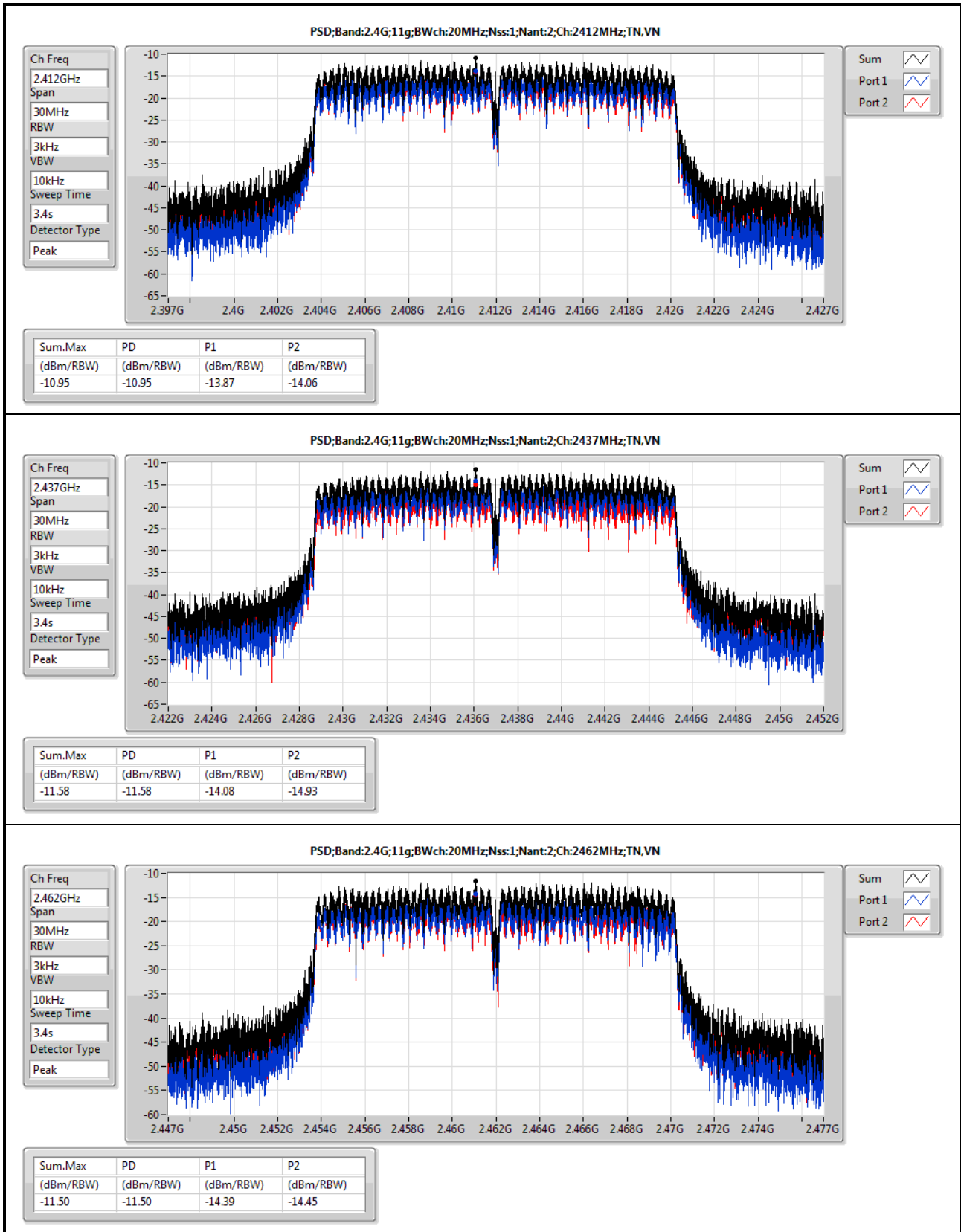
Result

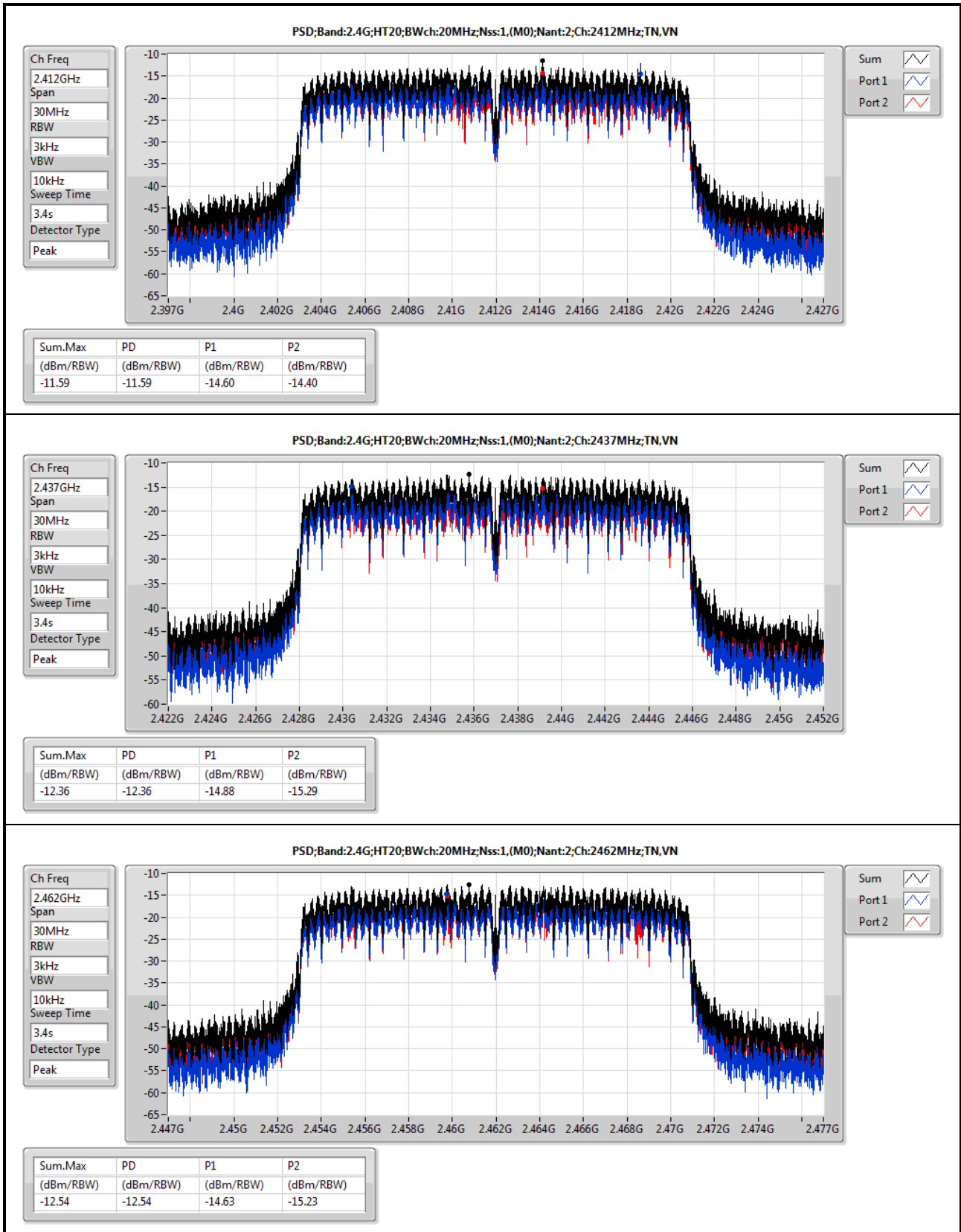
Mode	Result	DG (dBi)	PD (dBm/RBW)	PD.Limit (dBm/RBW)	P1 (dBm/RBW)	P2 (dBm/RBW)
802.11b_Nss1_2TX	-	-	-	-	-	-
2412MHz	Pass	5.01	-11.04	8.00	-13.23	-14.72
2437MHz	Pass	5.01	-9.91	8.00	-11.71	-14.27
2462MHz	Pass	5.01	-9.72	8.00	-11.86	-13.81
802.11g_Nss1_2TX	-	-	-	-	-	-
2412MHz	Pass	5.01	-10.95	8.00	-13.87	-14.06
2437MHz	Pass	5.01	-11.58	8.00	-14.08	-14.93
2462MHz	Pass	5.01	-11.50	8.00	-14.39	-14.45
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.01	-11.59	8.00	-14.60	-14.40
2437MHz	Pass	5.01	-12.36	8.00	-14.88	-15.29
2462MHz	Pass	5.01	-12.54	8.00	-14.63	-15.23
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	5.01	-17.73	8.00	-20.42	-20.81
2437MHz	Pass	5.01	-14.51	8.00	-17.06	-16.86
2452MHz	Pass	5.01	-18.63	8.00	-20.46	-21.49

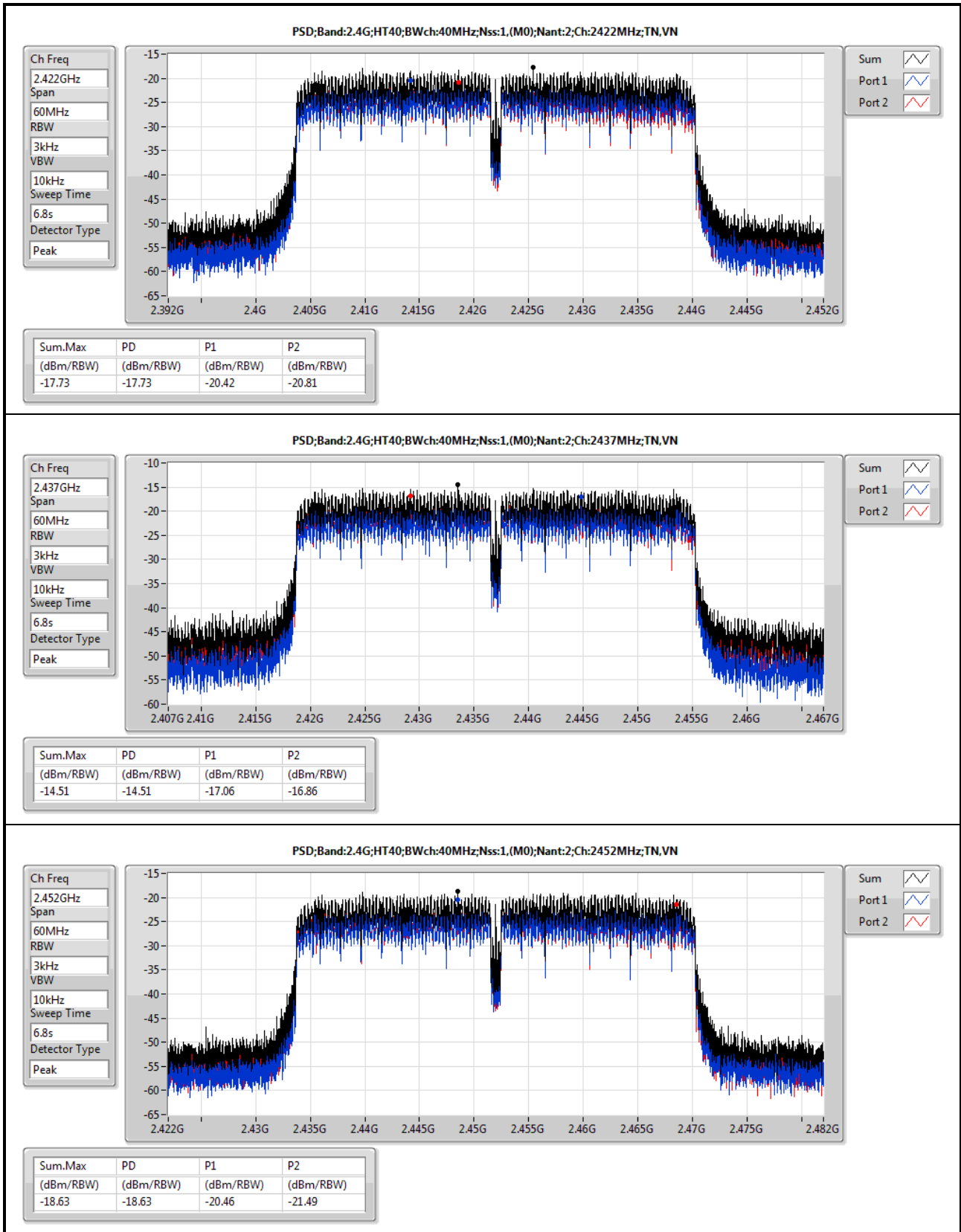
DG = Directional Gain; RBW=3kHz;

PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;









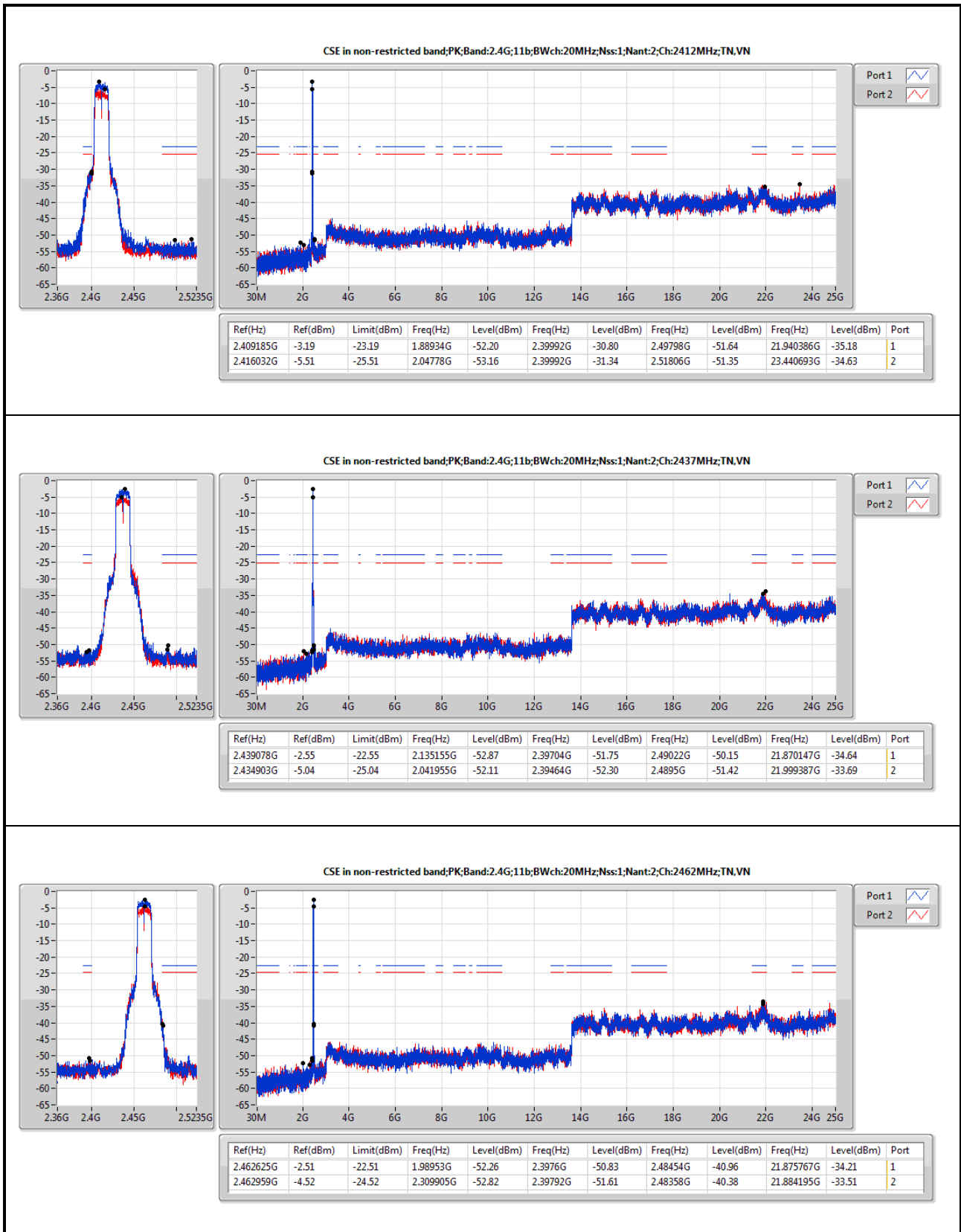


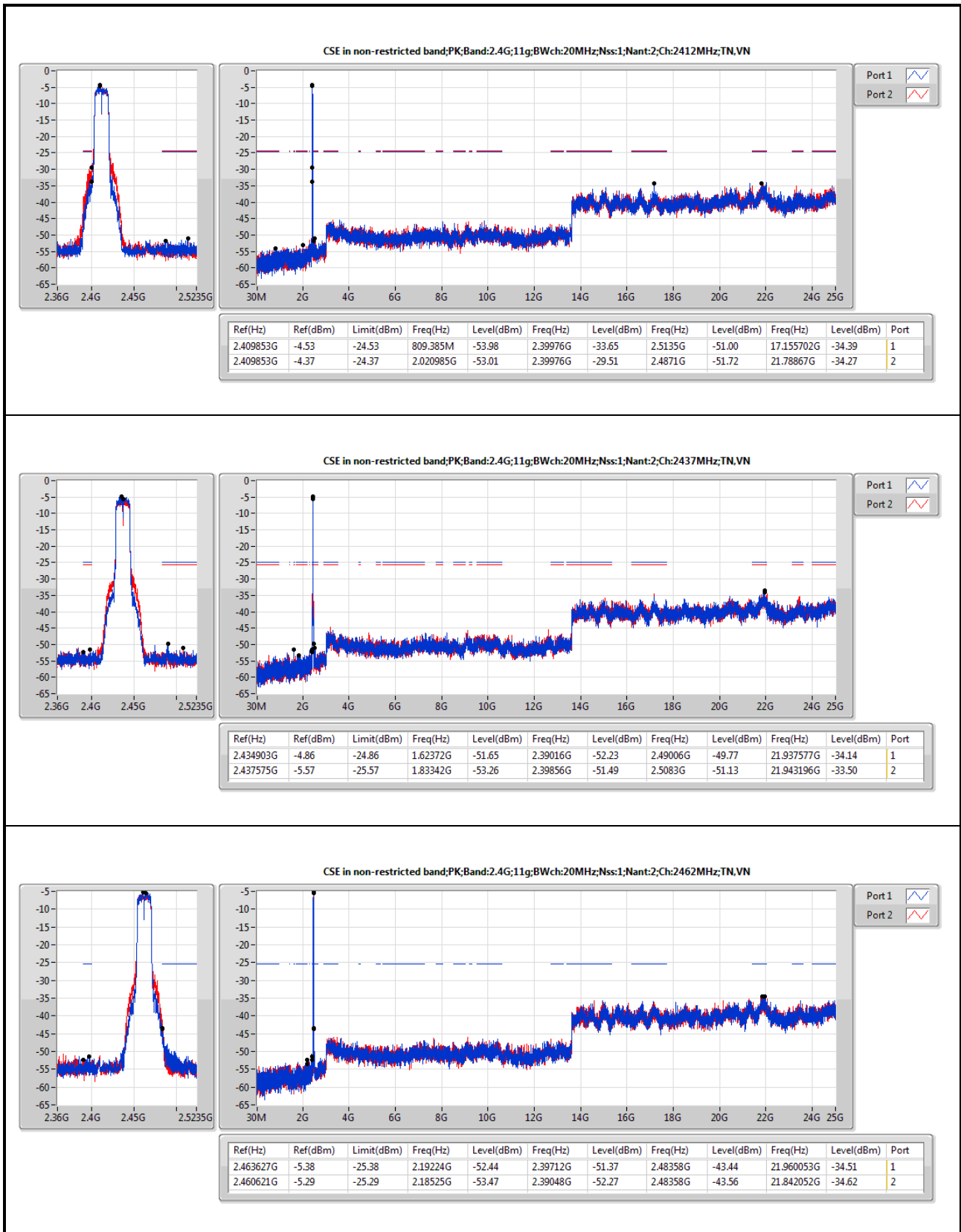
Summary

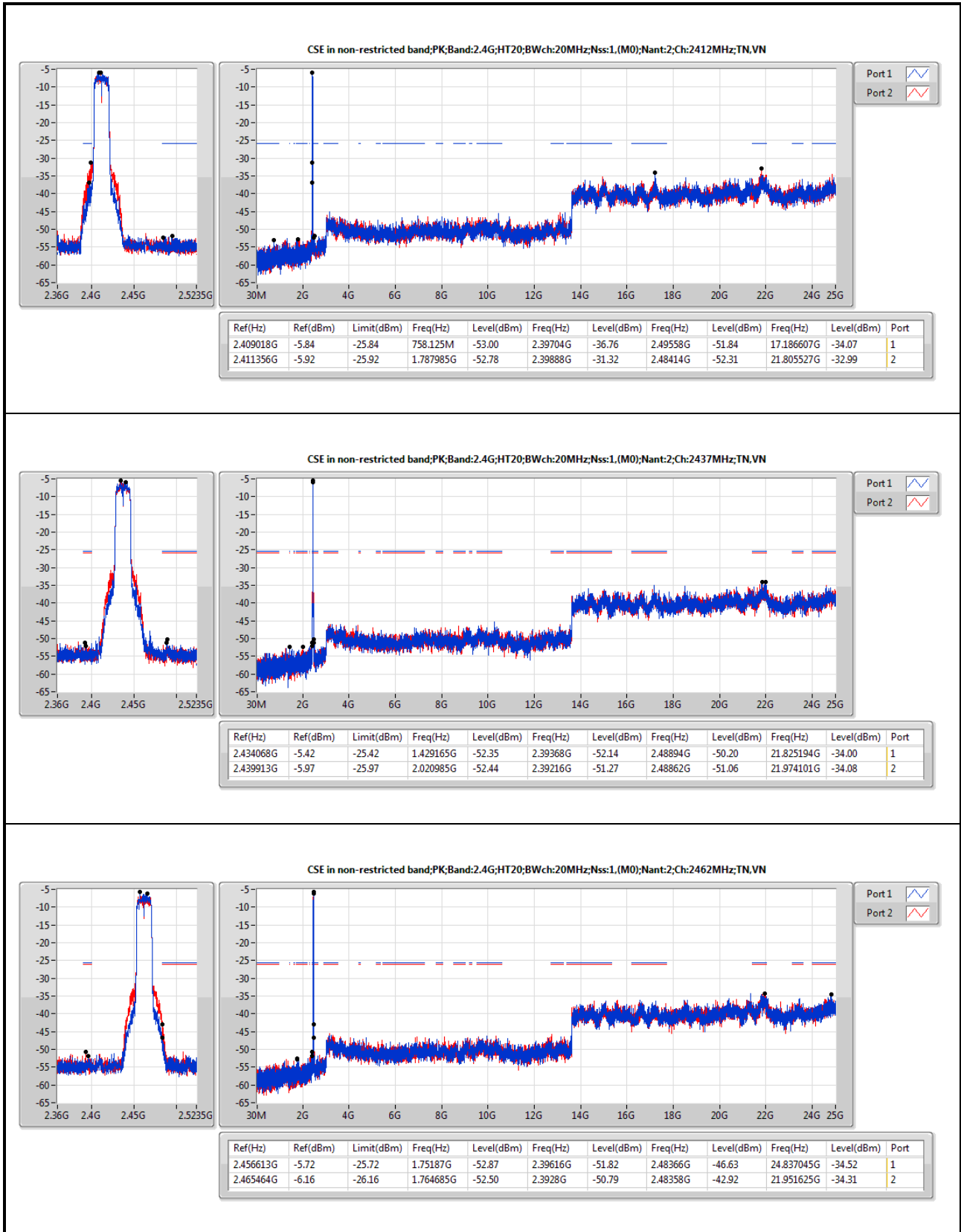
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2.4-2.4835GHz	Pass	2.424048G	-12.47	-32.47	1.83452G	-53.71	2.39888G	-43.78	2.52702G	-51.77	21.82804G	-33.58	1

Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.409185G	-3.19	-23.19	1.88934G	-52.20	2.39992G	-30.80	2.49798G	-51.64	21.940386G	-35.18	1
2412MHz	Pass	2.416032G	-5.51	-25.51	2.04778G	-53.16	2.39992G	-31.34	2.51806G	-51.35	23.440693G	-34.63	2
2437MHz	Pass	2.439078G	-2.55	-22.55	2.135155G	-52.87	2.39704G	-51.75	2.49022G	-50.15	21.870147G	-34.64	1
2437MHz	Pass	2.434903G	-5.04	-25.04	2.041955G	-52.11	2.39464G	-52.30	2.4895G	-51.42	21.999387G	-33.69	2
2462MHz	Pass	2.462625G	-2.51	-22.51	1.98953G	-52.26	2.3976G	-50.83	2.48454G	-40.96	21.875767G	-34.21	1
2462MHz	Pass	2.462959G	-4.52	-24.52	2.309905G	-52.82	2.39792G	-51.61	2.48358G	-40.38	21.884195G	-33.51	2
802.11g_Nss1_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.409853G	-4.53	-24.53	809.385M	-53.98	2.39976G	-33.65	2.5135G	-51.00	17.155702G	-34.39	1
2412MHz	Pass	2.409853G	-4.37	-24.37	2.020985G	-53.01	2.39976G	-29.51	2.4871G	-51.72	21.78867G	-34.27	2
2437MHz	Pass	2.434903G	-4.86	-24.86	1.62372G	-51.65	2.39016G	-52.23	2.49006G	-49.77	21.937577G	-34.14	1
2437MHz	Pass	2.437575G	-5.57	-25.57	1.83342G	-53.26	2.39856G	-51.49	2.5083G	-51.13	21.943196G	-33.50	2
2462MHz	Pass	2.463627G	-5.38	-25.38	2.19224G	-52.44	2.39712G	-51.37	2.48358G	-43.44	21.960053G	-34.51	1
2462MHz	Pass	2.460621G	-5.29	-25.29	2.18525G	-53.47	2.39048G	-52.27	2.48358G	-43.56	21.842052G	-34.62	2
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.409018G	-5.84	-25.84	758.125M	-53.00	2.39704G	-36.76	2.49558G	-51.84	17.186607G	-34.07	1
2412MHz	Pass	2.411356G	-5.92	-25.92	1.787985G	-52.78	2.39888G	-31.32	2.48414G	-52.31	21.805527G	-32.99	2
2437MHz	Pass	2.434068G	-5.42	-25.42	1.429165G	-52.35	2.39368G	-52.14	2.48894G	-50.20	21.825194G	-34.00	1
2437MHz	Pass	2.439913G	-5.97	-25.97	2.020985G	-52.44	2.39216G	-51.27	2.48862G	-51.06	21.974101G	-34.08	2
2462MHz	Pass	2.456613G	-5.72	-25.72	1.75187G	-52.87	2.39616G	-51.82	2.48366G	-46.63	24.837045G	-34.52	1
2462MHz	Pass	2.465464G	-6.16	-26.16	1.764685G	-52.50	2.3928G	-50.79	2.48358G	-42.92	21.951625G	-34.31	2
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.424048G	-12.47	-32.47	1.83452G	-53.71	2.39888G	-43.78	2.52702G	-51.77	21.82804G	-33.58	1
2422MHz	Pass	2.410354G	-12.59	-32.59	1.766965G	-53.31	2.39792G	-39.38	2.48558G	-51.74	21.996314G	-34.90	2
2437MHz	Pass	2.440748G	-9.49	-29.49	2.032605G	-53.25	2.39712G	-41.33	2.48446G	-47.40	21.85889G	-34.23	1
2437MHz	Pass	2.425384G	-9.39	-29.39	2.309695G	-51.88	2.39936G	-37.89	2.48446G	-45.09	21.771949G	-34.19	2
2452MHz	Pass	2.456446G	-13.20	-33.20	1.821925G	-53.91	2.39648G	-52.59	2.48494G	-44.27	21.836454G	-34.56	1
2452MHz	Pass	2.450601G	-13.21	-33.21	507.465M	-52.69	2.39008G	-52.64	2.48414G	-45.55	21.749512G	-34.38	2

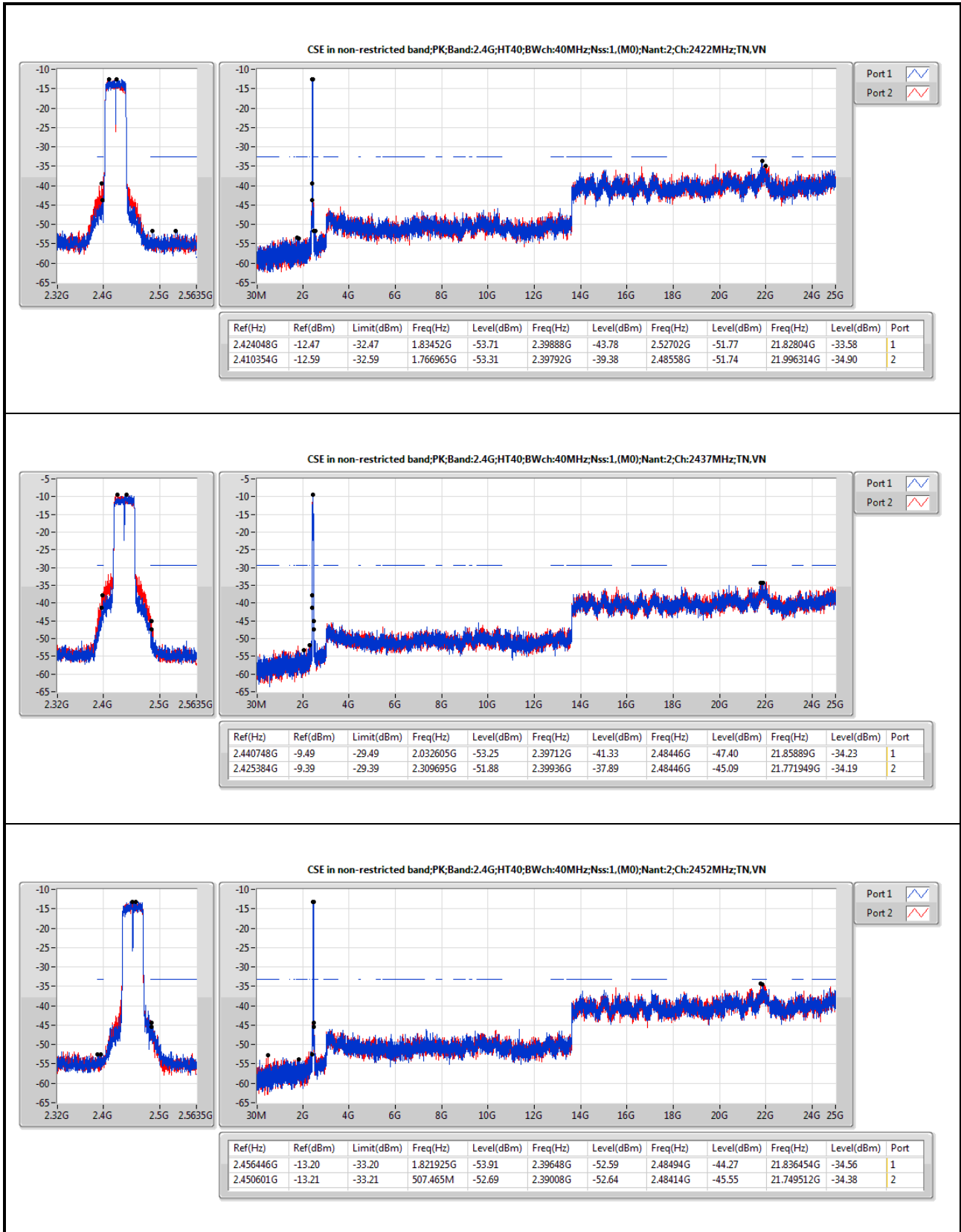








CSE 20dB/30dB Down Result





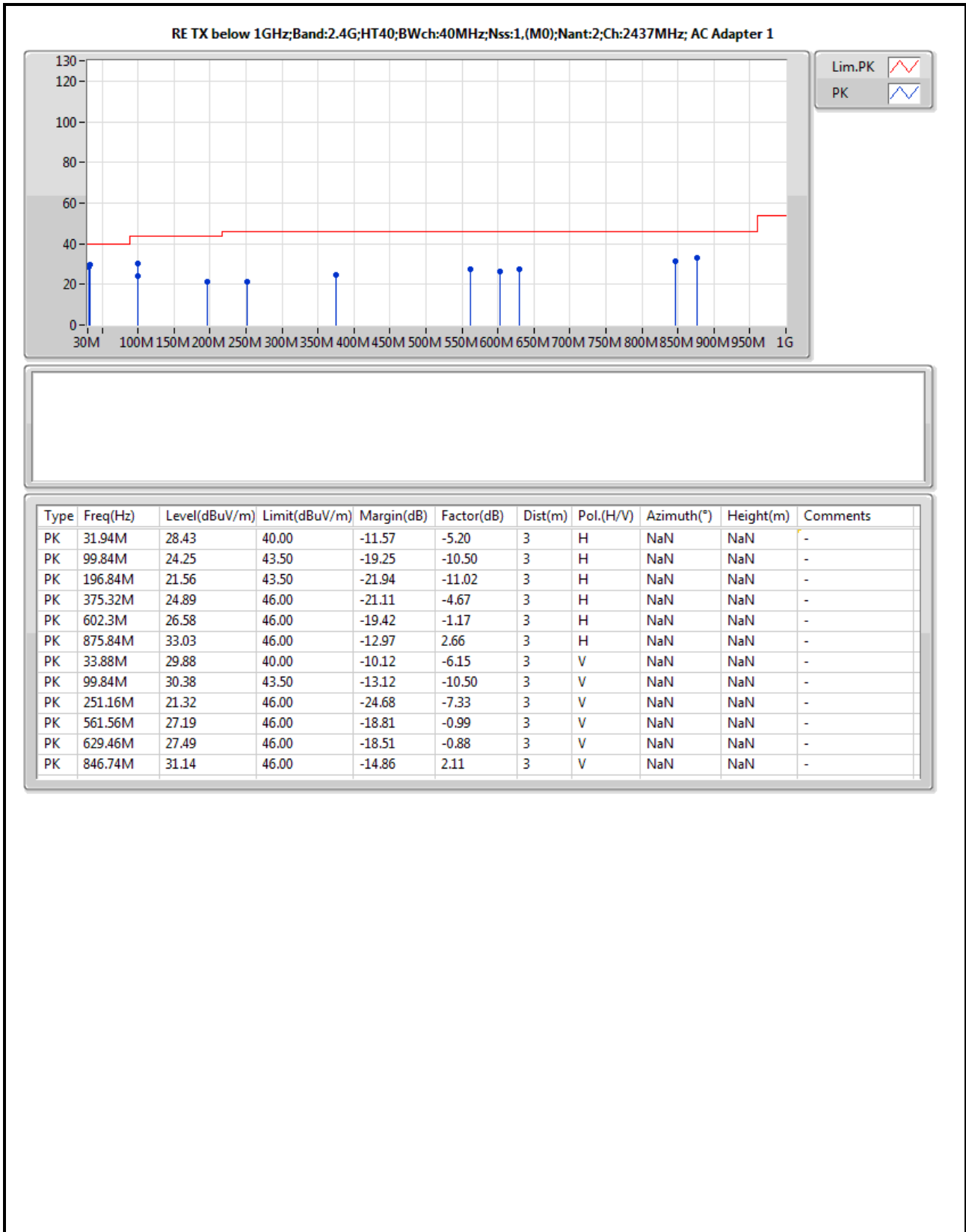
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
2.4-2.4835GHz	Pass	PK	33.88M	29.88	40.00	-10.12	-6.15	3	V	NaN	NaN	-



Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
2437MHz	Pass	PK	31.94M	28.43	40.00	-11.57	-5.20	3	H	NaN	NaN	-
2437MHz	Pass	PK	99.84M	24.25	43.50	-19.25	-10.50	3	H	NaN	NaN	-
2437MHz	Pass	PK	196.84M	21.56	43.50	-21.94	-11.02	3	H	NaN	NaN	-
2437MHz	Pass	PK	375.32M	24.89	46.00	-21.11	-4.67	3	H	NaN	NaN	-
2437MHz	Pass	PK	602.3M	26.58	46.00	-19.42	-1.17	3	H	NaN	NaN	-
2437MHz	Pass	PK	875.84M	33.03	46.00	-12.97	2.66	3	H	NaN	NaN	-
2437MHz	Pass	PK	33.88M	29.88	40.00	-10.12	-6.15	3	V	NaN	NaN	-
2437MHz	Pass	PK	99.84M	30.38	43.50	-13.12	-10.50	3	V	NaN	NaN	-
2437MHz	Pass	PK	251.16M	21.32	46.00	-24.68	-7.33	3	V	NaN	NaN	-
2437MHz	Pass	PK	561.56M	27.19	46.00	-18.81	-0.99	3	V	NaN	NaN	-
2437MHz	Pass	PK	629.46M	27.49	46.00	-18.51	-0.88	3	V	NaN	NaN	-
2437MHz	Pass	PK	846.74M	31.14	46.00	-14.86	2.11	3	V	NaN	NaN	-





Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
802.11g_Nss1_2TX	-	-	-	-	-	-	-	-	-	-	-	-
2.4-2.4835GHz	Pass	AV	2.483502G	52.97	54.00	-1.03	30.53	3	H	NaN	NaN	-



Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
802.11b_Nss1_2TX	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.356592G	43.72	54.00	-10.28	30.13	3	H	NaN	NaN	-
2412MHz	Pass	AV	2.413936G	102.84	Inf	-Inf	30.30	3	H	NaN	NaN	-
2412MHz	Pass	PK	2.318512G	54.51	74.00	-19.49	30.01	3	H	NaN	NaN	-
2412MHz	Pass	PK	2.414608G	106.62	Inf	-Inf	30.31	3	H	NaN	NaN	-
2412MHz	Pass	AV	4.824G	43.38	54.00	-10.62	0.95	3	H	NaN	NaN	-
2412MHz	Pass	PK	4.824G	47.64	74.00	-26.36	0.95	3	H	NaN	NaN	-
2412MHz	Pass	PK	7.236G	47.50	Inf	-Inf	6.26	3	H	NaN	NaN	-
2412MHz	Pass	PK	9.648G	51.47	Inf	-Inf	9.49	3	H	NaN	NaN	-
2412MHz	Pass	AV	4.824G	52.66	54.00	-1.34	0.95	3	V	NaN	NaN	-
2412MHz	Pass	PK	4.824G	54.59	74.00	-19.41	0.95	3	V	NaN	NaN	-
2412MHz	Pass	PK	7.236G	47.74	Inf	-Inf	6.26	3	V	NaN	NaN	-
2412MHz	Pass	PK	9.648G	51.78	Inf	-Inf	9.49	3	V	NaN	NaN	-
2437MHz	Pass	AV	2.37308G	43.42	54.00	-10.58	30.18	3	H	NaN	NaN	-
2437MHz	Pass	AV	2.4354G	104.19	Inf	-Inf	30.37	3	H	NaN	NaN	-
2437MHz	Pass	AV	2.49278G	46.73	54.00	-7.27	30.56	3	H	NaN	NaN	-
2437MHz	Pass	PK	2.37232G	56.05	74.00	-17.95	30.17	3	H	NaN	NaN	-
2437MHz	Pass	PK	2.43464G	107.74	Inf	-Inf	30.37	3	H	NaN	NaN	-
2437MHz	Pass	PK	2.49924G	56.24	74.00	-17.76	30.58	3	H	NaN	NaN	-
2437MHz	Pass	AV	4.874G	47.95	54.00	-6.05	1.06	3	H	NaN	NaN	-
2437MHz	Pass	AV	7.311G	34.46	54.00	-19.54	6.44	3	H	NaN	NaN	-
2437MHz	Pass	PK	4.874G	50.79	74.00	-23.21	1.06	3	H	NaN	NaN	-
2437MHz	Pass	PK	7.311G	48.03	74.00	-25.97	6.44	3	H	NaN	NaN	-
2437MHz	Pass	PK	9.748G	51.56	Inf	-Inf	9.60	3	H	NaN	NaN	-
2437MHz	Pass	AV	4.874G	52.62	54.00	-1.38	1.06	3	V	NaN	NaN	-
2437MHz	Pass	AV	7.311G	34.87	54.00	-19.13	6.44	3	V	NaN	NaN	-
2437MHz	Pass	PK	4.874G	54.09	74.00	-19.91	1.06	3	V	NaN	NaN	-
2437MHz	Pass	PK	7.311G	48.06	74.00	-25.94	6.44	3	V	NaN	NaN	-
2437MHz	Pass	PK	9.748G	52.17	Inf	-Inf	9.60	3	V	NaN	NaN	-
2462MHz	Pass	AV	2.4646G	104.64	Inf	-Inf	30.47	3	H	NaN	NaN	-
2462MHz	Pass	AV	2.483502G	45.98	54.00	-8.02	30.53	3	H	NaN	NaN	-
2462MHz	Pass	PK	2.4644G	108.44	Inf	-Inf	30.47	3	H	NaN	NaN	-
2462MHz	Pass	PK	2.4882G	56.22	74.00	-17.78	30.54	3	H	NaN	NaN	-
2462MHz	Pass	AV	4.924G	50.42	54.00	-3.58	1.17	3	H	NaN	NaN	-
2462MHz	Pass	AV	7.386G	35.08	54.00	-18.92	6.62	3	H	NaN	NaN	-
2462MHz	Pass	PK	4.924G	52.52	74.00	-21.48	1.17	3	H	NaN	NaN	-
2462MHz	Pass	PK	7.386G	49.09	74.00	-24.91	6.62	3	H	NaN	NaN	-
2462MHz	Pass	PK	9.848G	51.29	Inf	-Inf	9.71	3	H	NaN	NaN	-
2462MHz	Pass	AV	4.924G	52.47	54.00	-1.53	1.17	3	V	NaN	NaN	-
2462MHz	Pass	AV	7.386G	35.06	54.00	-18.94	6.62	3	V	NaN	NaN	-
2462MHz	Pass	PK	4.924G	54.37	74.00	-19.63	1.17	3	V	NaN	NaN	-
2462MHz	Pass	PK	7.386G	48.49	74.00	-25.51	6.62	3	V	NaN	NaN	-
2462MHz	Pass	PK	9.848G	52.09	Inf	-Inf	9.71	3	V	NaN	NaN	-
802.11g_Nss1_2TX	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.389998G	52.09	54.00	-1.91	30.23	3	H	NaN	NaN	-
2412MHz	Pass	AV	2.409008G	97.76	Inf	-Inf	30.29	3	H	NaN	NaN	-
2412MHz	Pass	PK	2.389998G	68.97	74.00	-5.03	30.23	3	H	NaN	NaN	-
2412MHz	Pass	PK	2.408112G	107.09	Inf	-Inf	30.29	3	H	NaN	NaN	-



RSE TX above 1GHz Result

Appendix E.2

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
2412MHz	Pass	AV	4.824G	37.37	54.00	-16.63	0.95	3	H	NaN	NaN	-
2412MHz	Pass	PK	4.824G	52.58	74.00	-21.42	0.95	3	H	NaN	NaN	-
2412MHz	Pass	PK	7.236G	48.14	Inf	-Inf	6.26	3	H	NaN	NaN	-
2412MHz	Pass	PK	9.648G	50.60	Inf	-Inf	9.49	3	H	NaN	NaN	-
2412MHz	Pass	AV	4.824G	42.48	54.00	-11.52	0.95	3	V	NaN	NaN	-
2412MHz	Pass	PK	4.824G	57.50	74.00	-16.50	0.95	3	V	NaN	NaN	-
2412MHz	Pass	PK	7.236G	47.07	Inf	-Inf	6.26	3	V	NaN	NaN	-
2412MHz	Pass	PK	9.648G	52.09	Inf	-Inf	9.49	3	V	NaN	NaN	-
2437MHz	Pass	AV	2.38486G	47.46	54.00	-6.54	30.21	3	H	NaN	NaN	-
2437MHz	Pass	AV	2.44414G	96.65	Inf	-Inf	30.40	3	H	NaN	NaN	-
2437MHz	Pass	AV	2.48936G	47.73	54.00	-6.27	30.55	3	H	NaN	NaN	-
2437MHz	Pass	PK	2.3841G	57.62	74.00	-16.38	30.21	3	H	NaN	NaN	-
2437MHz	Pass	PK	2.44452G	105.57	Inf	-Inf	30.40	3	H	NaN	NaN	-
2437MHz	Pass	PK	2.48974G	57.42	74.00	-16.58	30.55	3	H	NaN	NaN	-
2437MHz	Pass	AV	4.874G	36.29	54.00	-17.71	1.06	3	H	NaN	NaN	-
2437MHz	Pass	AV	7.311G	34.00	54.00	-20.00	6.44	3	H	NaN	NaN	-
2437MHz	Pass	PK	4.874G	50.31	74.00	-23.69	1.06	3	H	NaN	NaN	-
2437MHz	Pass	PK	7.311G	48.31	74.00	-25.69	6.44	3	H	NaN	NaN	-
2437MHz	Pass	PK	9.748G	50.98	Inf	-Inf	9.60	3	H	NaN	NaN	-
2437MHz	Pass	AV	4.874G	37.10	54.00	-16.90	1.06	3	V	NaN	NaN	-
2437MHz	Pass	AV	7.311G	33.84	54.00	-20.16	6.44	3	V	NaN	NaN	-
2437MHz	Pass	PK	4.874G	51.12	74.00	-22.88	1.06	3	V	NaN	NaN	-
2437MHz	Pass	PK	7.311G	47.70	74.00	-26.30	6.44	3	V	NaN	NaN	-
2437MHz	Pass	PK	9.748G	52.43	Inf	-Inf	9.60	3	V	NaN	NaN	-
2462MHz	Pass	AV	2.466G	97.22	Inf	-Inf	30.47	3	H	NaN	NaN	-
2462MHz	Pass	AV	2.483502G	52.97	54.00	-1.03	30.53	3	H	NaN	NaN	-
2462MHz	Pass	PK	2.466G	106.92	Inf	-Inf	30.47	3	H	NaN	NaN	-
2462MHz	Pass	PK	2.4848G	69.81	74.00	-4.19	30.53	3	H	NaN	NaN	-
2462MHz	Pass	AV	4.924G	36.83	54.00	-17.17	1.17	3	H	NaN	NaN	-
2462MHz	Pass	AV	7.386G	34.64	54.00	-19.36	6.62	3	H	NaN	NaN	-
2462MHz	Pass	PK	4.924G	51.37	74.00	-22.63	1.17	3	H	NaN	NaN	-
2462MHz	Pass	PK	7.386G	49.49	74.00	-24.51	6.62	3	H	NaN	NaN	-
2462MHz	Pass	PK	9.848G	52.46	Inf	-Inf	9.71	3	H	NaN	NaN	-
2462MHz	Pass	AV	4.924G	38.12	54.00	-15.88	1.17	3	V	NaN	NaN	-
2462MHz	Pass	AV	7.386G	34.80	54.00	-19.20	6.62	3	V	NaN	NaN	-
2462MHz	Pass	PK	4.924G	51.85	74.00	-22.15	1.17	3	V	NaN	NaN	-
2462MHz	Pass	PK	7.386G	48.45	74.00	-25.55	6.62	3	V	NaN	NaN	-
2462MHz	Pass	PK	9.848G	51.94	Inf	-Inf	9.71	3	V	NaN	NaN	-
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.389998G	51.26	54.00	-2.74	30.23	3	H	0	0.00	-
2412MHz	Pass	AV	2.408784G	96.73	Inf	-Inf	30.29	3	H	0	0.00	-
2412MHz	Pass	PK	2.389744G	72.62	74.00	-1.38	30.23	3	H	0	0.00	-
2412MHz	Pass	PK	2.409008G	106.66	Inf	-Inf	30.29	3	H	0	0.00	-
2412MHz	Pass	AV	4.824G	33.98	54.00	-20.02	0.95	3	H	NaN	NaN	-
2412MHz	Pass	PK	4.824G	49.55	74.00	-24.45	0.95	3	H	NaN	NaN	-
2412MHz	Pass	PK	7.236G	47.40	Inf	-Inf	6.26	3	H	NaN	NaN	-
2412MHz	Pass	PK	9.648G	51.16	Inf	-Inf	9.49	3	H	NaN	NaN	-
2412MHz	Pass	AV	4.824G	38.13	54.00	-15.87	0.95	3	V	NaN	NaN	-
2412MHz	Pass	PK	4.824G	53.67	74.00	-20.33	0.95	3	V	NaN	NaN	-



RSE TX above 1GHz Result

Appendix E.2

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
2412MHz	Pass	PK	7.236G	48.65	Inf	-Inf	6.26	3	V	NaN	NaN	-
2412MHz	Pass	PK	9.648G	51.85	Inf	-Inf	9.49	3	V	NaN	NaN	-
2437MHz	Pass	AV	2.38524G	45.13	54.00	-8.87	30.21	3	H	NaN	NaN	-
2437MHz	Pass	AV	2.43388G	98.20	Inf	-Inf	30.37	3	H	NaN	NaN	-
2437MHz	Pass	AV	2.48936G	47.15	54.00	-6.85	30.55	3	H	NaN	NaN	-
2437MHz	Pass	PK	2.38562G	55.60	74.00	-18.40	30.22	3	H	NaN	NaN	-
2437MHz	Pass	PK	2.43198G	107.79	Inf	-Inf	30.36	3	H	NaN	NaN	-
2437MHz	Pass	PK	2.48898G	57.43	74.00	-16.57	30.54	3	H	NaN	NaN	-
2437MHz	Pass	AV	4.874G	35.69	54.00	-18.31	1.06	3	H	NaN	NaN	-
2437MHz	Pass	AV	7.311G	33.78	54.00	-20.22	6.44	3	H	NaN	NaN	-
2437MHz	Pass	PK	4.874G	50.86	74.00	-23.14	1.06	3	H	NaN	NaN	-
2437MHz	Pass	PK	7.311G	48.11	74.00	-25.89	6.44	3	H	NaN	NaN	-
2437MHz	Pass	PK	9.748G	52.30	Inf	-Inf	9.60	3	H	NaN	NaN	-
2437MHz	Pass	AV	4.874G	39.99	54.00	-14.01	1.06	3	V	NaN	NaN	-
2437MHz	Pass	AV	7.311G	33.85	54.00	-20.15	6.44	3	V	NaN	NaN	-
2437MHz	Pass	PK	4.874G	54.70	74.00	-19.30	1.06	3	V	NaN	NaN	-
2437MHz	Pass	PK	7.311G	48.02	74.00	-25.98	6.44	3	V	NaN	NaN	-
2437MHz	Pass	PK	9.748G	51.35	Inf	-Inf	9.60	3	V	NaN	NaN	-
2462MHz	Pass	AV	2.465G	96.14	Inf	-Inf	30.47	3	H	NaN	NaN	-
2462MHz	Pass	AV	2.483502G	51.82	54.00	-2.18	30.53	3	H	NaN	NaN	-
2462MHz	Pass	PK	2.4648G	105.70	Inf	-Inf	30.47	3	H	NaN	NaN	-
2462MHz	Pass	PK	2.483502G	71.83	74.00	-2.17	30.53	3	H	NaN	NaN	-
2462MHz	Pass	AV	4.924G	35.17	54.00	-18.83	1.17	3	H	NaN	NaN	-
2462MHz	Pass	AV	7.386G	34.49	54.00	-19.51	6.62	3	H	NaN	NaN	-
2462MHz	Pass	PK	4.924G	50.20	74.00	-23.80	1.17	3	H	NaN	NaN	-
2462MHz	Pass	PK	7.386G	48.53	74.00	-25.47	6.62	3	H	NaN	NaN	-
2462MHz	Pass	PK	9.848G	51.81	Inf	-Inf	9.71	3	H	NaN	NaN	-
2462MHz	Pass	AV	4.924G	40.27	54.00	-13.73	1.17	3	V	NaN	NaN	-
2462MHz	Pass	AV	7.386G	34.97	54.00	-19.03	6.62	3	V	NaN	NaN	-
2462MHz	Pass	PK	4.924G	53.44	74.00	-20.56	1.17	3	V	NaN	NaN	-
2462MHz	Pass	PK	7.386G	49.20	74.00	-24.80	6.62	3	V	NaN	NaN	-
2462MHz	Pass	PK	9.848G	51.59	Inf	-Inf	9.71	3	V	NaN	NaN	-
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	AV	2.389998G	52.76	54.00	-1.24	30.23	3	H	NaN	NaN	-
2422MHz	Pass	AV	2.43144G	90.56	Inf	-Inf	30.36	3	H	NaN	NaN	-
2422MHz	Pass	PK	2.388936G	68.96	74.00	-5.04	30.23	3	H	NaN	NaN	-
2422MHz	Pass	PK	2.432232G	100.83	Inf	-Inf	30.36	3	H	NaN	NaN	-
2422MHz	Pass	AV	4.844G	29.26	54.00	-24.74	0.99	3	H	NaN	NaN	-
2422MHz	Pass	AV	7.266G	33.87	54.00	-20.13	6.33	3	H	NaN	NaN	-
2422MHz	Pass	PK	4.844G	43.53	74.00	-30.47	0.99	3	H	NaN	NaN	-
2422MHz	Pass	PK	7.266G	48.11	74.00	-25.89	6.33	3	H	NaN	NaN	-
2422MHz	Pass	PK	9.688G	51.10	Inf	-Inf	9.54	3	H	NaN	NaN	-
2422MHz	Pass	AV	4.844G	29.87	54.00	-24.13	0.99	3	V	NaN	NaN	-
2422MHz	Pass	AV	7.266G	33.87	54.00	-20.13	6.33	3	V	NaN	NaN	-
2422MHz	Pass	PK	4.844G	46.35	74.00	-27.65	0.99	3	V	NaN	NaN	-
2422MHz	Pass	PK	7.266G	48.57	74.00	-25.43	6.33	3	V	NaN	NaN	-
2422MHz	Pass	PK	9.688G	52.25	Inf	-Inf	9.54	3	V	NaN	NaN	-
2437MHz	Pass	AV	2.389998G	49.09	54.00	-4.91	30.23	3	H	NaN	NaN	-
2437MHz	Pass	AV	2.44642G	93.79	Inf	-Inf	30.41	3	H	NaN	NaN	-



RSE TX above 1GHz Result

Appendix E.2

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
2437MHz	Pass	AV	2.48366G	49.68	54.00	-4.32	30.53	3	H	NaN	NaN	-
2437MHz	Pass	AV	4.874G	30.19	54.00	-23.81	1.06	3	H	NaN	NaN	-
2437MHz	Pass	AV	7.311G	33.86	54.00	-20.14	6.44	3	H	NaN	NaN	-
2437MHz	Pass	PK	2.38904G	64.01	74.00	-9.99	30.23	3	H	NaN	NaN	-
2437MHz	Pass	PK	2.44718G	104.00	Inf	-Inf	30.41	3	H	NaN	NaN	-
2437MHz	Pass	PK	2.48518G	64.16	74.00	-9.84	30.53	3	H	NaN	NaN	-
2437MHz	Pass	PK	4.874G	44.18	74.00	-29.82	1.06	3	H	NaN	NaN	-
2437MHz	Pass	PK	7.311G	47.86	74.00	-26.14	6.44	3	H	NaN	NaN	-
2437MHz	Pass	PK	9.748G	51.71	Inf	-Inf	9.60	3	H	NaN	NaN	-
2437MHz	Pass	AV	4.874G	33.96	54.00	-20.04	1.06	3	V	NaN	NaN	-
2437MHz	Pass	AV	7.311G	34.07	54.00	-19.93	6.44	3	V	NaN	NaN	-
2437MHz	Pass	PK	4.874G	48.56	74.00	-25.44	1.06	3	V	NaN	NaN	-
2437MHz	Pass	PK	7.311G	48.26	74.00	-25.74	6.44	3	V	NaN	NaN	-
2437MHz	Pass	PK	9.748G	51.28	Inf	-Inf	9.60	3	V	NaN	NaN	-
2452MHz	Pass	AV	2.44616G	89.77	Inf	-Inf	30.41	3	H	NaN	NaN	-
2452MHz	Pass	AV	2.48384G	52.43	54.00	-1.57	30.53	3	H	NaN	NaN	-
2452MHz	Pass	PK	2.44496G	99.05	Inf	-Inf	30.40	3	H	NaN	NaN	-
2452MHz	Pass	PK	2.486G	70.27	74.00	-3.73	30.54	3	H	NaN	NaN	-
2452MHz	Pass	AV	4.904G	29.92	54.00	-24.08	1.12	3	H	NaN	NaN	-
2452MHz	Pass	AV	7.356G	34.28	54.00	-19.72	6.54	3	H	NaN	NaN	-
2452MHz	Pass	PK	4.904G	43.98	74.00	-30.02	1.12	3	H	NaN	NaN	-
2452MHz	Pass	PK	7.356G	48.59	74.00	-25.41	6.54	3	H	NaN	NaN	-
2452MHz	Pass	PK	9.808G	51.19	Inf	-Inf	9.67	3	H	NaN	NaN	-
2452MHz	Pass	AV	4.904G	31.66	54.00	-22.34	1.12	3	V	NaN	NaN	-
2452MHz	Pass	AV	7.356G	34.39	54.00	-19.61	6.54	3	V	NaN	NaN	-
2452MHz	Pass	PK	4.904G	43.73	74.00	-30.27	1.12	3	V	NaN	NaN	-
2452MHz	Pass	PK	7.356G	48.39	74.00	-25.61	6.54	3	V	NaN	NaN	-
2452MHz	Pass	PK	9.808G	51.60	Inf	-Inf	9.67	3	V	NaN	NaN	-

