

# FCC Test Report

**Equipment** : Greenpacket Wi-Fi 11ac/b/g/n Router  
**Brand Name** : Greenpacket  
**Model No.** : WA-1200  
**FCC ID** : W9V-WA1200-GP  
**Standard** : 47 CFR FCC Part 15.247  
**RF Specification** : Wi-Fi  
**Frequency** : 2400 MHz – 2483.5 MHz  
**FCC Classification** : DTS  
**Applicant** : Green Packet Berhad, Taiwan  
6F, No.21, Lane 583, Rueiguang Rd. Neihu District,  
Taipei City 11492, Taiwan  
**Manufacturer** : Green Packet Berhad, Taiwan  
1. 6F, No.21, Lane 583, Rueiguang Rd. Neihu District,  
Taipei City 11492, Taiwan  
2. Room A68, 3F., 151, Keyuan Road,  
Zhangjiang Hi-Tech Park, Pudong New Area,  
Shanghai 201203, P.R.China

The product sample received on Sep. 06, 2016 and completely tested on Nov. 24, 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:

  
Kevin Liang / 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

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#### Appendix D. Test Result of Emissions in Non-restricted Frequency Bands

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## 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



SPORTON INTERNATIONAL INC.  
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# 1 General Description

## 1.1 Information

### 1.1.1 Product Details

The difference between the report no. : N/A	
The Difference	N/A

Evaluated Test Items	N/A
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### 1.1.2 RF General Information

Band	Mode	BWch (MHz)	Channel Number	Nss-Min	Nant
2.4G	11b	20	1-11[11]	1	2
2.4G	11g	20	1-11[11]	1	2
2.4G	HT20	20	1-11[11]	1,(M8-15)	2
2.4G	HT40	40	3-9[7]	1,(M8-15)	2

**Note:**

- ♦ 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.
- ♦ Nss-Min is the minimum number of spatial streams.
- ♦ Nant is the number of outputs. e.g., 2(2,3) means have 2 outputs for port 2 and port 3. 2 means have 2 outputs for port 1 and port 2.

**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	Model No.	Gain (dBi)
A	External	Dipole	DIP 11a/b/g/n 5dBi/5dBi d13*198mm BLACK D1.13 150mm GRAY I-PEX	5
B	External	Dipole	DIP 11a/b/g/n 5dBi/3dBi d13*198mm BLACK D1.13 200mm GRAY I-PEX	5

**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) $\geq 1/T$
11b	0.998	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
11g	0.99	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
HT20	0.985	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
HT40	0.979	276.875u	10k

### 1.1.6 EUT Operational Condition

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

### 1.1.7 EUT Operate Information

Items	Description			
<b>Beamforming Function</b>	<input type="checkbox"/>	With beamforming	<input checked="" type="checkbox"/>	Without beamforming
<b>Operate Condition</b>	<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 D01v02r01

## 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 : 886-3-327-6973		
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CO04-HY	Ryan	24°C / 56%	17/11/2016
RF Conducted	TH01-HY	Ryan	24.5°C / 65%	18/11/2016
Radiated	03CH09-HY	Terry	22.5°C / 59%	24/11/2016

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
<b>TX-Radiated &lt; 1G</b>	<b>Remark</b>	-
AC Adapter 1	WA-24Q12R	-
AC Adapter 2	S024AMM1200200	-
<b>TX-Radiated &gt; 1G</b>	<b>Remark</b>	-
AC Adapter 1	WA-24Q12R	-

### 2.2 Test Channel Mode

<b>Test Software Version</b>	MT7603 QA V0.0.0.68
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Band	Mode	BWch (MHz)	Nss-Min	Nant	Ch. (MHz)	Range	Power Setting
2.4G	11b	20	1	2	2412	L	24
2.4G	11b	20	1	2	2437	M	29
2.4G	11b	20	1	2	2462	H	26
2.4G	11g	20	1	2	2412	L	17
2.4G	11g	20	1	2	2437	M	27
2.4G	11g	20	1	2	2462	H	19
2.4G	HT20	20	1,(M8)	2	2412	L	16
2.4G	HT20	20	1,(M8)	2	2437	M	27
2.4G	HT20	20	1,(M8)	2	2462	H	18
2.4G	HT40	40	1,(M8)	2	2422	L	12
2.4G	HT40	40	1,(M8)	2	2437	M	1D
2.4G	HT40	40	1,(M8)	2	2452	H	13

#### Abbreviation Explanation

Band	Mode	BWch (MHz)	Nss-Min	Nant	Ch. (MHz)	Range	Test Cond.	Abbreviation
2.4G	HT20	20	1,(M8-15)	2	2412	L	TN,VN	2.4G;HT20;20;1,(M8);2;2412;L;TN,VN
2.4G	HT40	40	1,(M8-15)	2	2437	M	TN,VN	2.4G;HT40;40;1,(M8);2;2437;M;TN,VN




Note:

- ♦ Test range channel consist of L (Low Ch.), M (Middle Ch.), H (High Ch.).

## 2.3 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	AC power-line conducted emissions
<b>Condition</b>	AC power-line conducted measurement for line and neutral Test Voltage: 120Vac / 60Hz
<b>Operating Mode</b>	Operating Mode Description
1	Adapter 1 Mode(WA-24Q12R)
2	Adapter 2 Mode(S024AMM1200200)

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	DTS Bandwidth, Fundamental Emission Output Power, Power Spectral Density, Emissions in Non-restricted Frequency Bands
<b>Test Condition</b>	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests			
<b>Tests Item</b>	Emissions in Restricted Frequency Bands		
<b>Test Condition</b>	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.		
<b>User Position</b>	<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.		
<b>Operating Mode &lt; 1GHz</b>	<input checked="" type="checkbox"/> 1. Adapter 1 Mode(WA-24Q12R)		
	<input checked="" type="checkbox"/> 2. Adapter 2 Mode(S024AMM1200200)		
<b>Orthogonal Planes of EUT</b>	<b>X Plane</b>	<b>Y Plane</b>	<b>Z Plane</b>
			
<b>Worst Planes of EUT</b>	V		
<b>Worst Planes of Ant.</b>			V

## 2.4 Accessories and Support Equipment

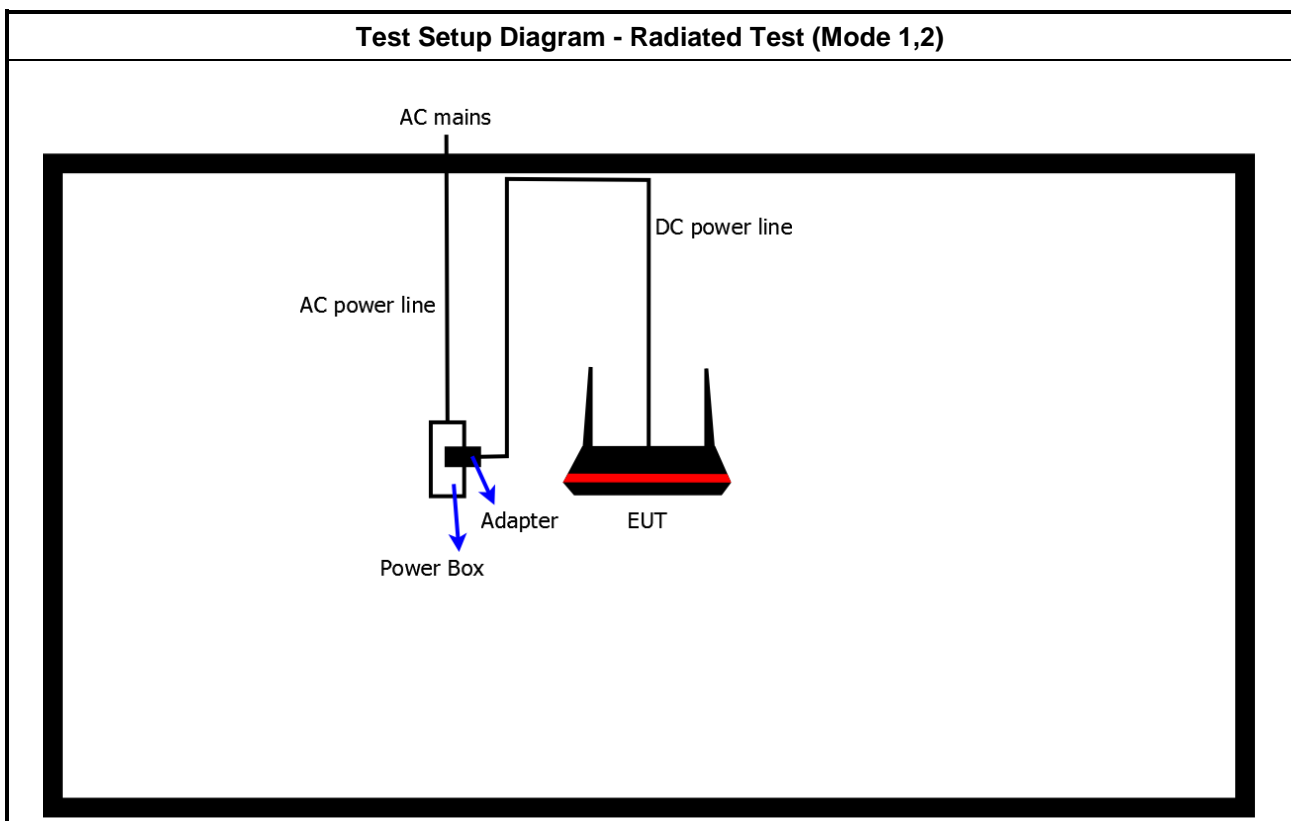
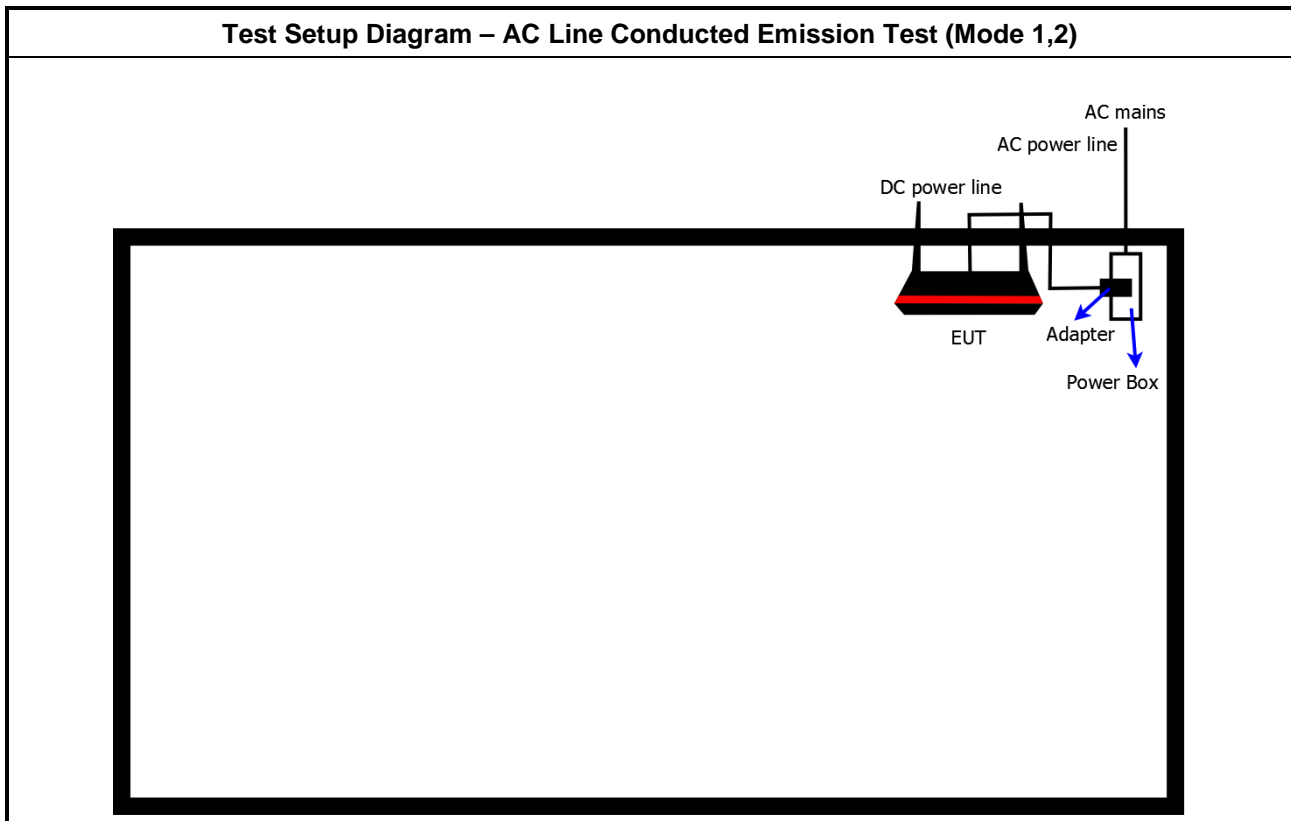
Accessories				
AC Adapter 1	<b>Brand Name</b>	Asian Power Device	<b>Model Name</b>	WA-24Q12R
	<b>Power Rating</b>	I/P: 100 - 240V ~50/60Hz, 0.7A, O/P: 12Vdc, 2A		
	<b>Power Cord</b>	1.14 meter, non-shielded cable, w/o ferrite core		
AC Adapter 2	<b>Brand Name</b>	SWITCHING POWER SUPPLY	<b>Model Name</b>	S024AMM1200200
	<b>Power Rating</b>	I/P: 100 - 240V ~50/60Hz, 600mA, O/P: 12Vdc, 2000mA		
	<b>Power Cord</b>	1.2 meter, non-shielded cable, w/o ferrite core		
RJ45 Cable 1	<b>Category</b>	5E	<b>Model Name</b>	E473734
	<b>Power Cord</b>	1.5 meter, shield or non-shielded cable		
RJ45 Cable 2	<b>Category</b>	5E	<b>Model Name</b>	E485131
	<b>Power Cord</b>	1.5 meter, shield or non-shielded cable		

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

Support Equipment - RF Conducted				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	5540-05	DOC
2	AC Adapter for Notebook	DELL	HA65NM130	DOC

Support Equipment - AC Conduction and Radiated Emission				
No.	Equipment	Brand Name	Model Name	FCC ID
	-	-	-	-

## 2.5 Test Setup Diagram



### 3 Transmitter Test Result

### 3.1 AC Power-line Conducted Emissions

### 3.1.1 AC Power-line Conducted Emissions Limit

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

Note 1: \* Decreases with the logarithm of the frequency.

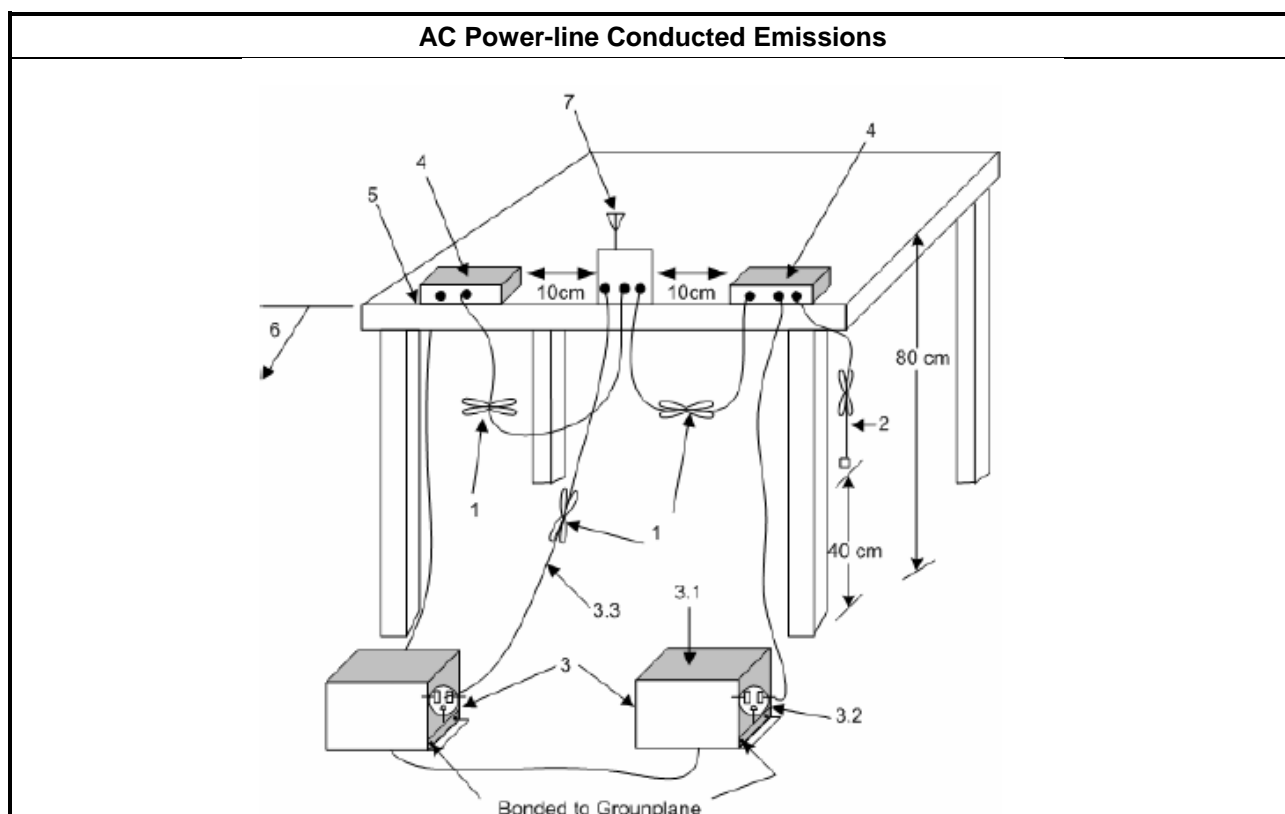
### 3.1.2 Measuring Instruments

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

### 3.1.3 Test Procedures

Test Method
<ul style="list-style-type: none"> <li>Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.</li> </ul>

### 3.1.4 Test Setup



### 3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix I

## 3.2 DTS Bandwidth

### 3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit	
<b>Systems using digital modulation techniques:</b>	
▪	6 dB bandwidth $\geq$ 500 kHz.

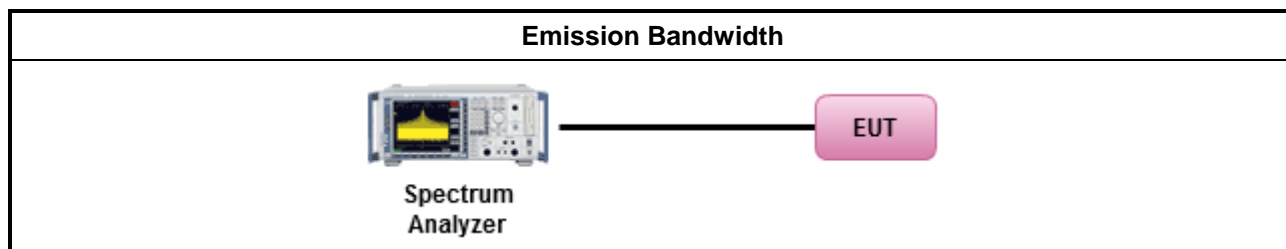
### 3.2.2 Measuring Instruments

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

### 3.2.3 Test Procedures

Test Method	
▪	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		
▪ 2400-2483.5 MHz Band:		
	▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ 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. Power Limit:		
▪ 2400-2483.5 MHz Band		
	▪ Point-to-multipoint systems (P2M): $P_{eirp} \leq 36$ dBm (4 W)	
	▪ Point-to-point systems (P2P): $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX}])$ dBm	
	▪ Smart antenna system (SAS)	
		- Single beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
		- Overlap beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
		- 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.		

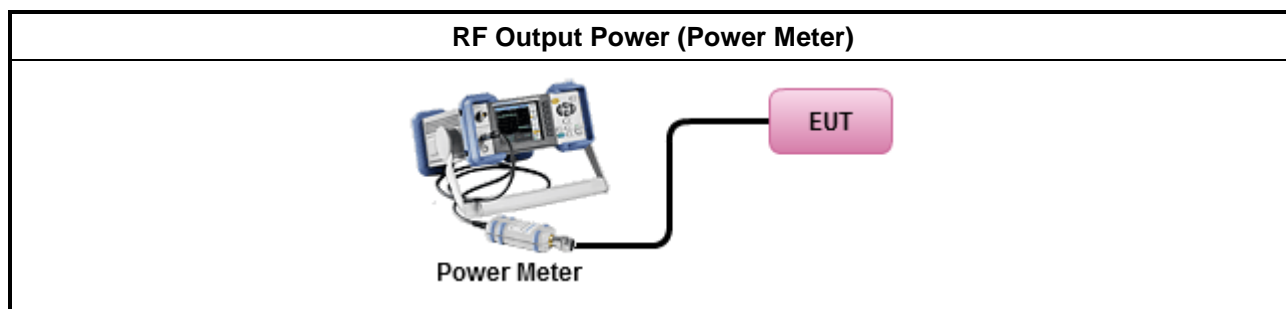
#### 3.3.2 Measuring Instruments

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"> <li>Maximum Peak Conducted Output Power</li> </ul>	
<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"> <li>Maximum Average Conducted Output Power</li> </ul>	
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 Method AVGPM. (using an RF average power meter)
<ul style="list-style-type: none"> <li>For conducted measurement.</li> </ul>	
<ul style="list-style-type: none"> <li>If the EUT supports multiple transmit chains using options given below: Refer as FCC 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.</li> </ul>	
<ul style="list-style-type: none"> <li>If multiple transmit chains, EIRP calculation could be following as methods:  <math>P_{total} = P_1 + P_2 + \dots + P_n</math>                      (calculated in linear unit [mW] and transfer to log unit [dBm])  <math>EIRP_{total} = P_{total} + DG</math> </li> </ul>	

### 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	
▪	Power Spectral Density (PSD) $\leq$ 8 dBm/3kHz

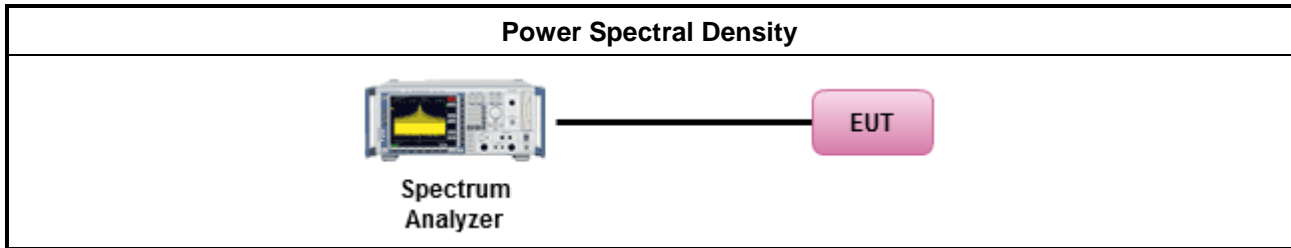
#### 3.4.2 Measuring Instruments

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

#### 3.4.3 Test Procedures

Test Method	
▪	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)
▪	For conducted measurement.
▪	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 FCC 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 <sub>TX</sub> 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 FCC 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
<p>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.</p> <p>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.</p>	

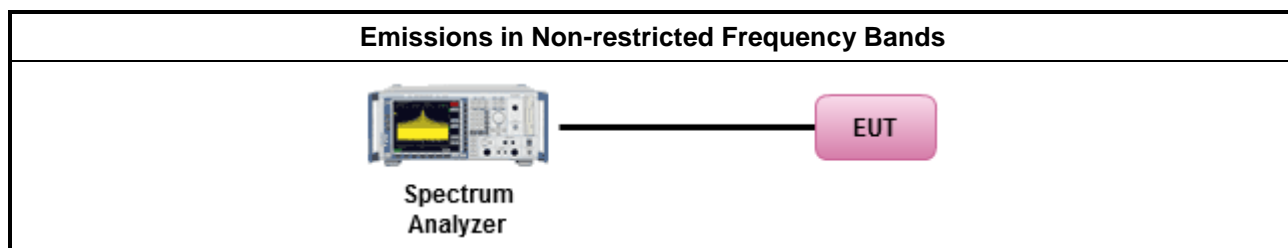
#### 3.5.2 Measuring Instruments

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"> <li>Refer as KDB 558074, clause 11 for unwanted emissions into non-restricted bands.</li> </ul>

#### 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

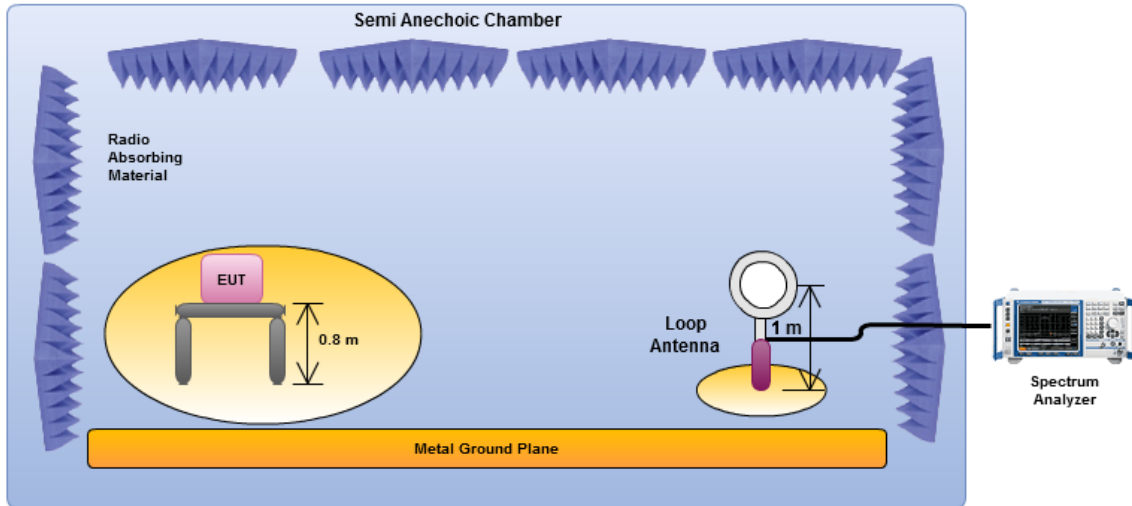
Refer a test equipment and calibration data table in this test report.

### 3.6.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> <li>The average emission levels shall be measured in [duty cycle <math>\geq 98</math> or duty factor].</li> </ul>	
<ul style="list-style-type: none"> <li>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.</li> </ul>	
<ul style="list-style-type: none"> <li>For the transmitter unwanted emissions shall be measured using following options below:</li> </ul>	
	<ul style="list-style-type: none"> <li>Refer as KDB 558074, clause 12 for unwanted emissions into restricted bands.</li> </ul>
	<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"> <li>For the transmitter band-edge emissions shall be measured using following options below:</li> </ul>	
	<ul style="list-style-type: none"> <li>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.</li> </ul>
	<ul style="list-style-type: none"> <li>Refer as KDB 558074, clause 13.2 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.</li> </ul>
	<ul style="list-style-type: none"> <li>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).</li> </ul>
<ul style="list-style-type: none"> <li>For conducted and cabinet radiation measurement, refer as KDB 558074, clause 12.2.2.</li> </ul>	
	<ul style="list-style-type: none"> <li>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</li> </ul>
	<ul style="list-style-type: none"> <li>For FCC 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.</li> </ul>

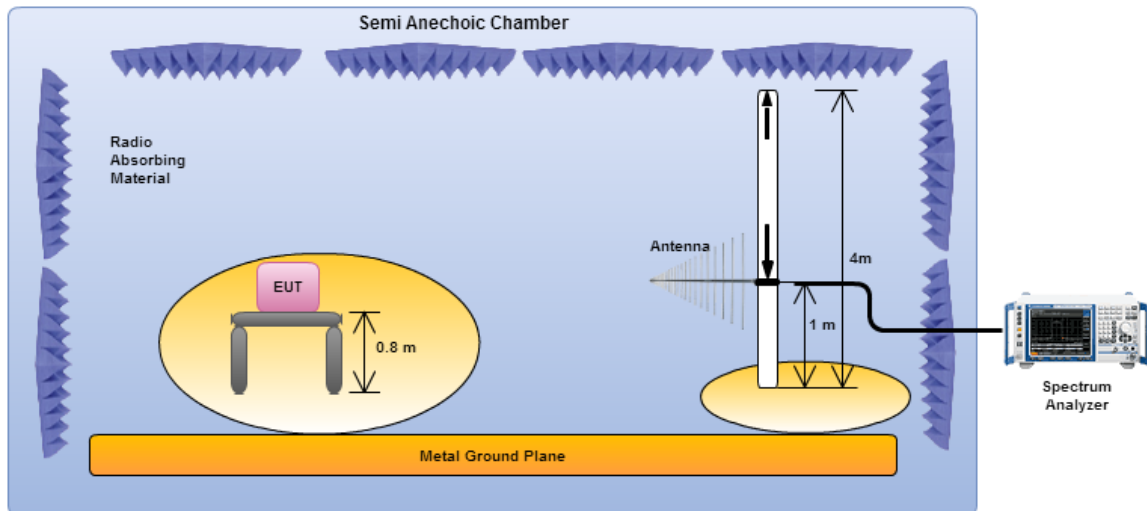
### 3.6.4 Test Setup

#### Transmitter Spurious and Out of Band Emissions (9 kHz - 30 MHz)

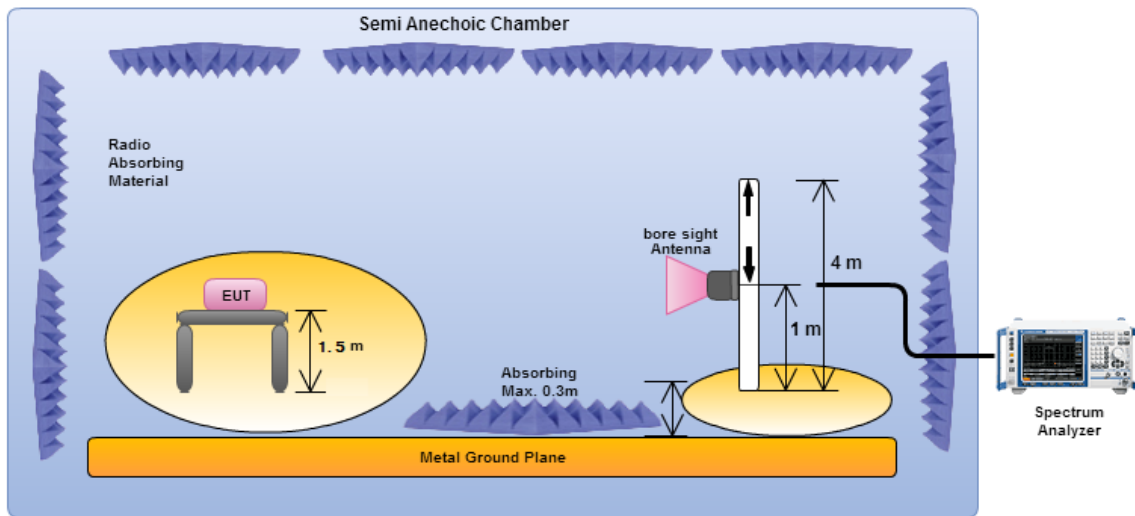


Magnetic field tests shall be performed in the frequency range of 9 kHz to 30 MHz using a calibrated loop antenna.

#### Transmitter Radiated Unwanted Emissions (below 1GHz)



Electric field tests shall be performed in the frequency range of 30 MHz to 1000 MHz using a calibrated bi-log antenna.

**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-ELEKTRONIK	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+SUHNER	RG213/U	07611832020001	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
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	30MHz ~ 1GHz	25/04/2016	24/04/2017
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz ~ 18GHz	21/06/2016	20/06/2017
Amplifier	Agilent	8449B	3008A02096	1GHz ~ 26.5GHz	11/04/2016	10/04/2017
Amplifier	EMC	EMC9135	980232	9KHz~1GHz	29/01/2016	28/01/2017
Spectrum Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz ~ 44GHz	04/07/2016	03/07/2017
Bilog Antenna	TESEQ	CBL 6111D	35418	30MHz~1GHz	01/10/2016	30/09/2017
Horn Antenna	SCHWARZBECK	BBHA 9120D	BBHA9120D 1534	1GHz~18GHz	22/04/2016	21/04/2017
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170154	18GHz ~ 40GHz	04/01/2016	03/01/2017
Loop Antenna	R&S	HFH2-Z2	100330	9 kHz~30 MHz	10/11/2016	09/11/2017

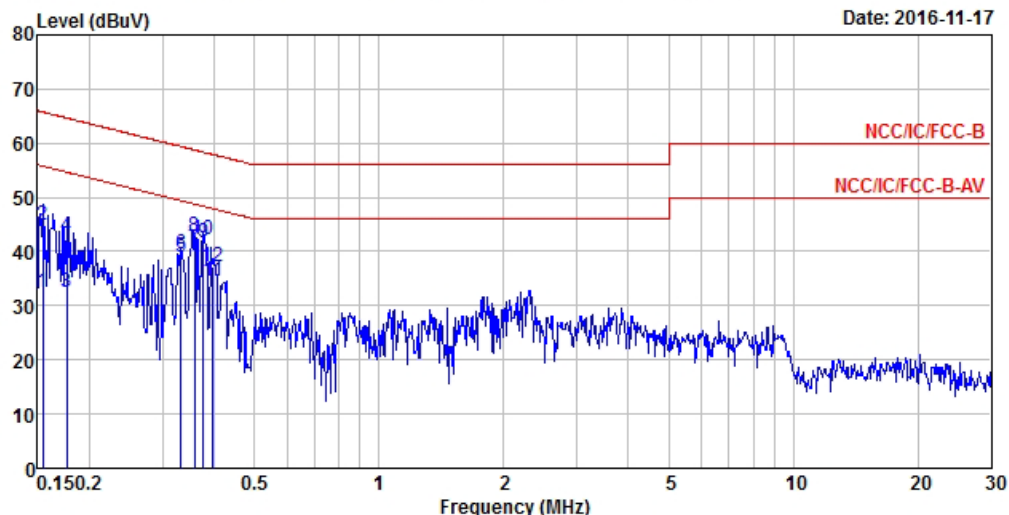
### Instrument for Conducted Test

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



### AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	Adapter 1 Mode		



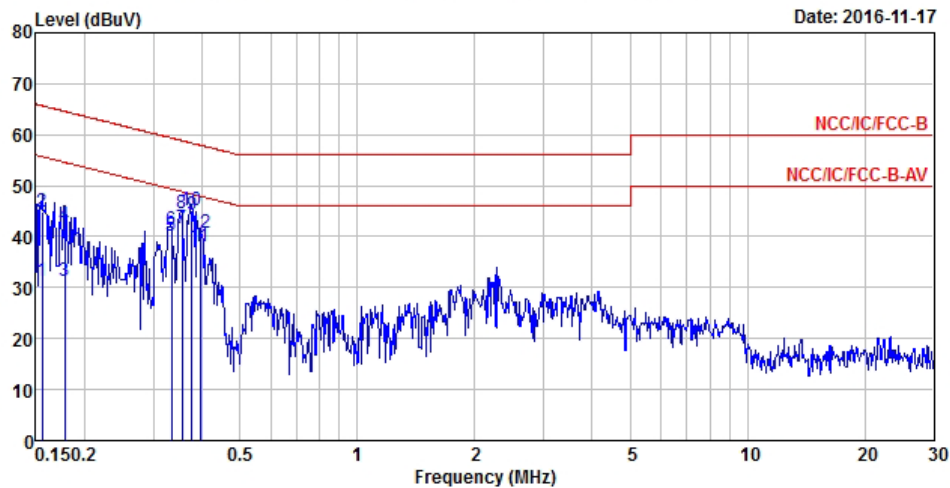
	Freq	Level	Over	Limit	Read	LISM	Cable	Aux	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Factor	Remark
			dB	dBuV	dBuV	dB	dB	dB	
1	0.15	32.58	-23.20	55.78	32.26	0.10	0.22	0.00	Average
2	0.15	44.86	-20.92	65.78	44.54	0.10	0.22	0.00	QP
3	0.18	32.44	-22.22	54.66	32.07	0.11	0.26	0.00	Average
4	0.18	42.66	-22.00	64.66	42.29	0.11	0.26	0.00	QP
5	0.33	39.06	-10.32	49.38	38.79	0.12	0.15	0.00	Average
6	0.33	39.48	-19.90	59.38	39.21	0.12	0.15	0.00	QP
7	0.36	40.43	-8.34	48.77	40.18	0.12	0.13	0.00	Average
8	0.36	42.70	-16.07	58.77	42.45	0.12	0.13	0.00	QP
9 MAX	0.38	41.54	-6.80	48.34	41.30	0.12	0.12	0.00	Average
10	0.38	42.30	-16.04	58.34	42.06	0.12	0.12	0.00	QP
11	0.40	34.55	-13.36	47.91	34.33	0.12	0.10	0.00	Average
12	0.40	37.31	-20.60	57.91	37.09	0.12	0.10	0.00	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

Operating Mode	1	Power Phase	Line
Operating Function	Adapter 1 Mode		

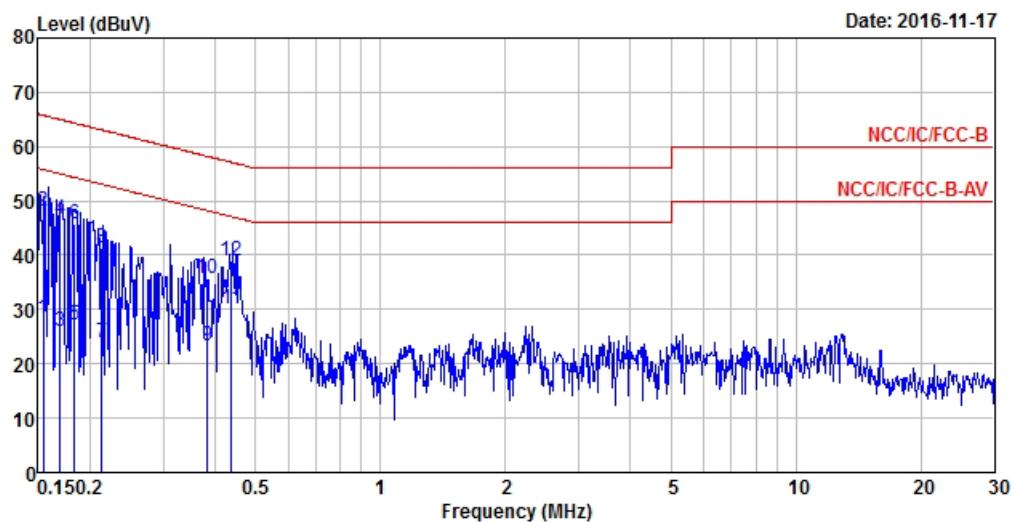


	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Aux Factor	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	dB	
1	0.16	31.41	-24.28	55.69	31.07	0.11	0.23	0.00	Average
2	0.16	45.01	-20.68	65.69	44.67	0.11	0.23	0.00	QP
3	0.18	31.25	-23.34	54.59	30.87	0.11	0.27	0.00	Average
4	0.18	42.23	-22.36	64.59	41.85	0.11	0.27	0.00	QP
5	0.33	40.18	-9.16	49.34	39.91	0.12	0.15	0.00	Average
6	0.33	41.20	-18.14	59.34	40.93	0.12	0.15	0.00	QP
7	0.36	41.72	-7.12	48.84	41.47	0.12	0.13	0.00	Average
8	0.36	44.56	-14.28	58.84	44.31	0.12	0.13	0.00	QP
9 MAX	0.38	44.30	-4.06	48.36	44.06	0.12	0.12	0.00	Average
10	0.38	45.13	-13.23	58.36	44.89	0.12	0.12	0.00	QP
11	0.40	38.00	-9.95	47.95	37.78	0.12	0.10	0.00	Average
12	0.40	40.65	-17.30	57.95	40.43	0.12	0.10	0.00	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

Operating Mode	2	Power Phase	Neutral
Operating Function	Adapter 2 Mode		

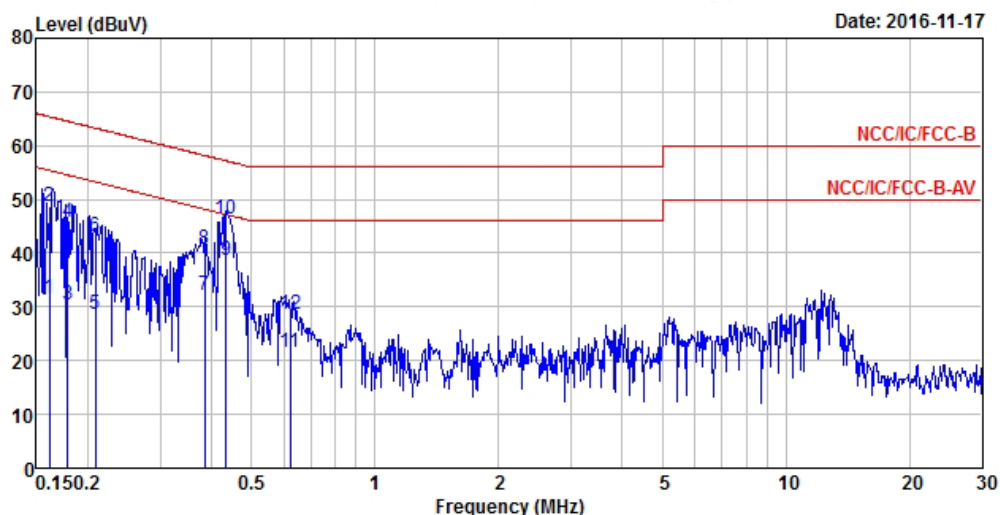


	Freq	Level	Over	Limit	Read	LISN	Cable	Aux	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Factor	Remark
			dB	dBuV	dBuV	dB	dB	dB	
1	0.15	28.42	-27.35	55.77	28.10	0.10	0.22	0.00	Average
2	0.15	48.23	-17.54	65.77	47.91	0.10	0.22	0.00	QP
3	0.17	25.91	-29.07	54.98	25.56	0.10	0.25	0.00	Average
4	0.17	46.54	-18.44	64.98	46.19	0.10	0.25	0.00	QP
5	0.18	27.01	-27.31	54.32	26.62	0.11	0.28	0.00	Average
6	0.18	45.67	-18.65	64.32	45.28	0.11	0.28	0.00	QP
7	0.21	23.95	-29.12	53.07	23.56	0.11	0.28	0.00	Average
8	0.21	41.36	-21.71	63.07	40.97	0.11	0.28	0.00	QP
9	0.38	23.42	-24.80	48.22	23.19	0.12	0.11	0.00	Average
10	0.38	35.81	-22.41	58.22	35.58	0.12	0.11	0.00	QP
11 MAX	0.44	30.14	-16.96	47.10	29.92	0.12	0.10	0.00	Average
12	0.44	38.93	-18.17	57.10	38.71	0.12	0.10	0.00	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

Operating Mode	2	Power Phase	Line
Operating Function	Adapter 2 Mode		



	Freq	Level	Over	Limit	Read	LISN	Cable	Aux	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Factor	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	dB	
1	0.16	31.67	-23.72	55.39	31.32	0.11	0.24	0.00	Average
2	0.16	48.68	-16.71	65.39	48.33	0.11	0.24	0.00	QP
3	0.18	30.31	-24.25	54.56	29.93	0.11	0.27	0.00	Average
4	0.18	45.85	-18.71	64.56	45.47	0.11	0.27	0.00	QP
5	0.21	28.57	-24.69	53.26	28.17	0.11	0.29	0.00	Average
6	0.21	43.02	-20.24	63.26	42.62	0.11	0.29	0.00	QP
7	0.38	32.26	-15.92	48.18	32.03	0.12	0.11	0.00	Average
8	0.38	40.71	-17.47	58.18	40.48	0.12	0.11	0.00	QP
9 MAX	0.43	38.71	-8.45	47.16	38.49	0.12	0.10	0.00	Average
10	0.43	46.41	-10.75	57.16	46.19	0.12	0.10	0.00	QP
11	0.62	21.45	-24.55	46.00	21.23	0.12	0.10	0.00	Average
12	0.62	28.73	-27.27	56.00	28.51	0.12	0.10	0.00	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.)



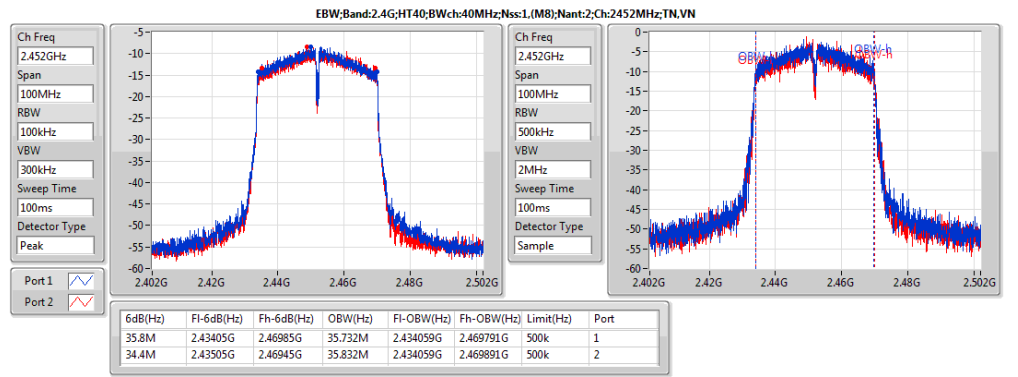
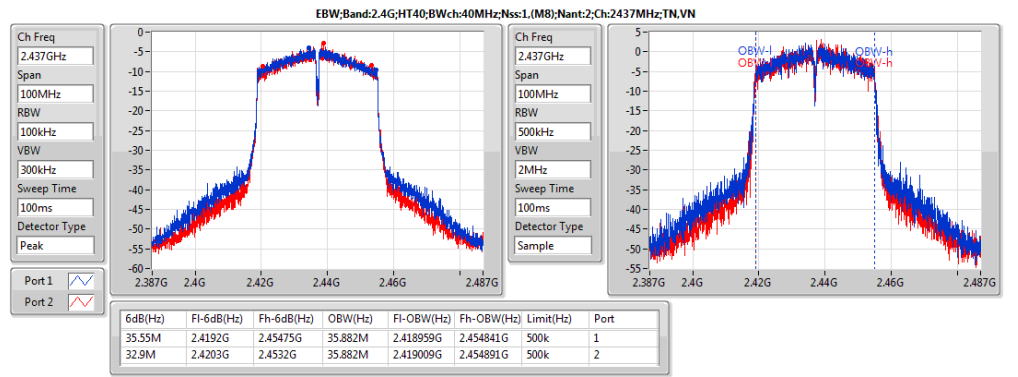
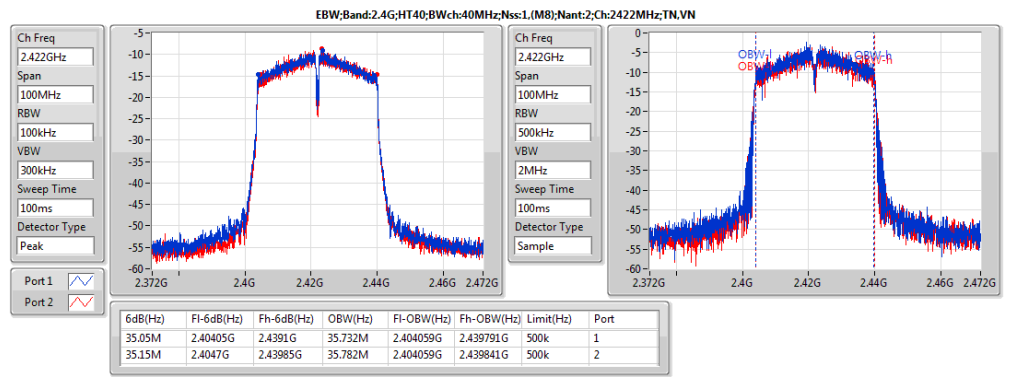
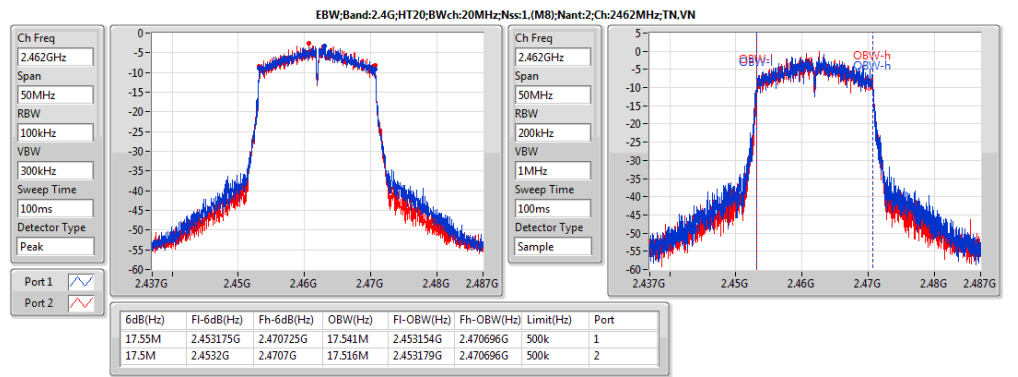
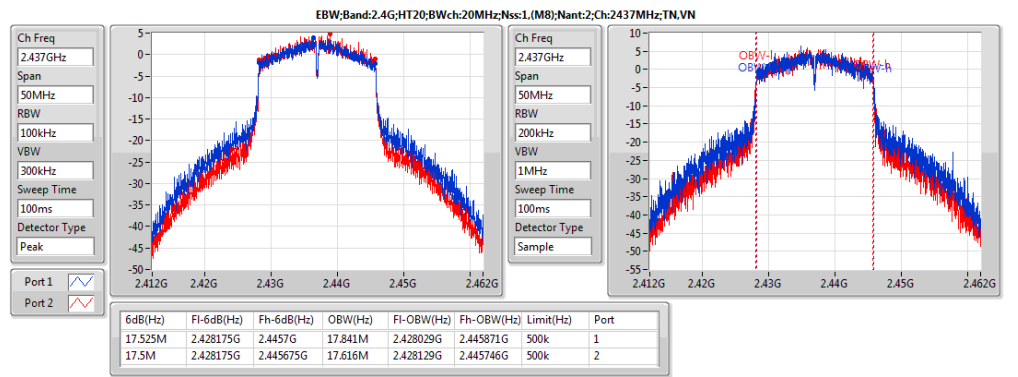
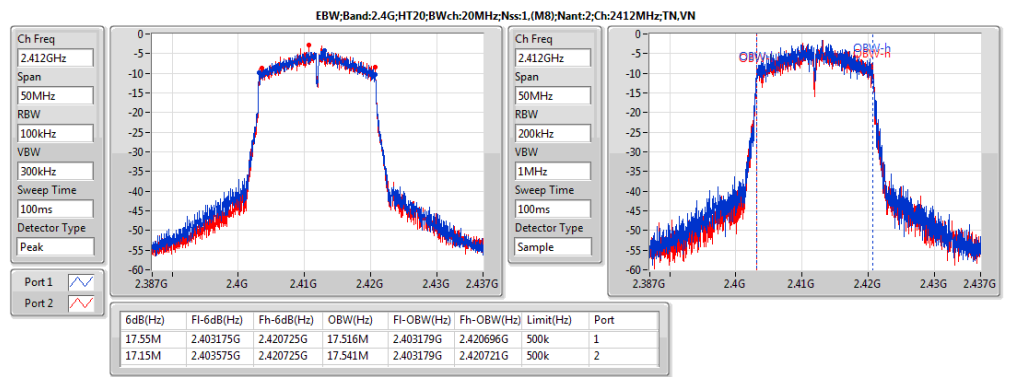
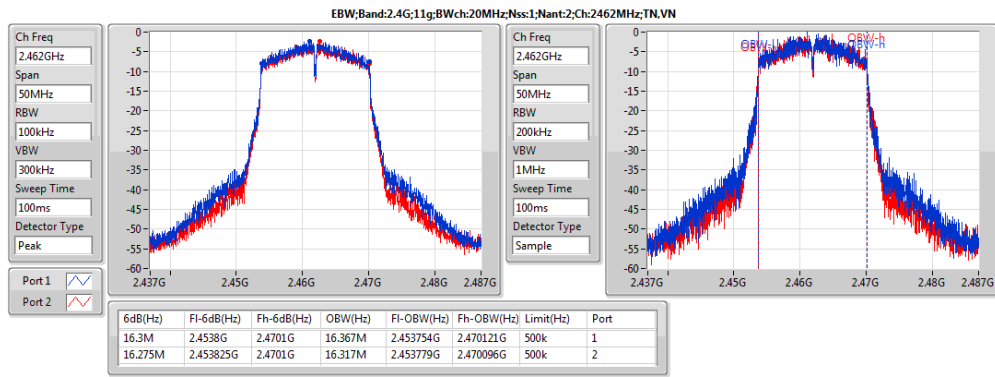
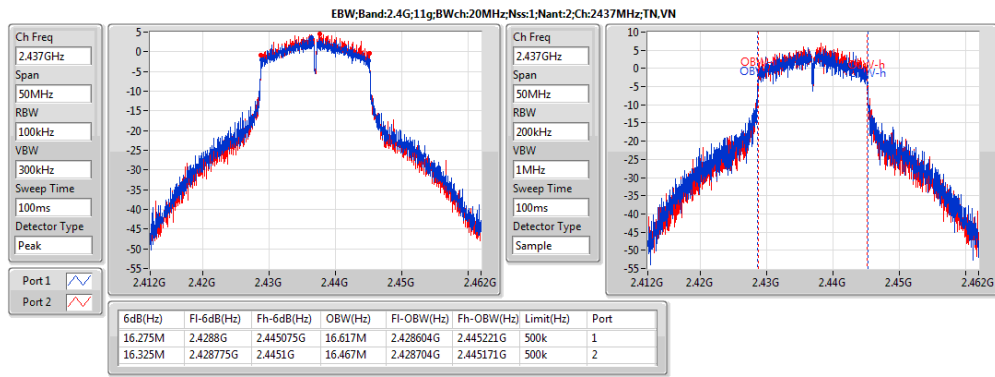
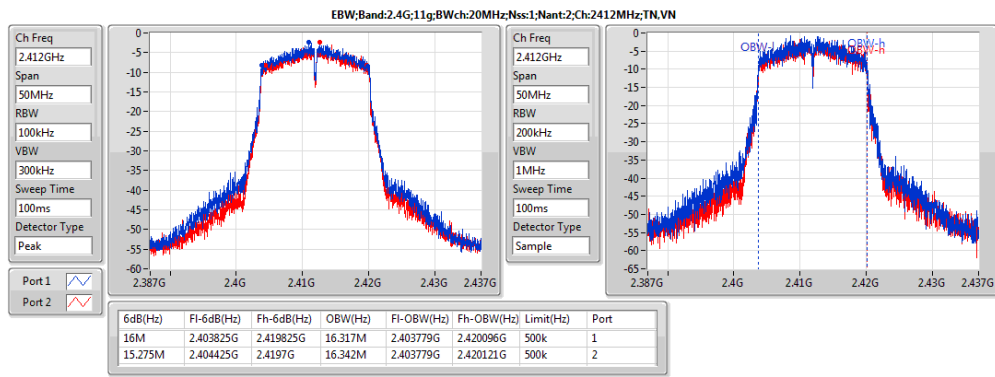
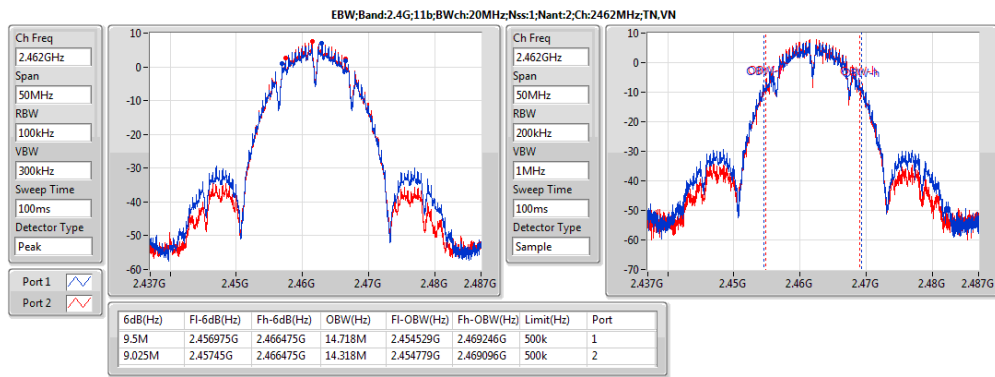
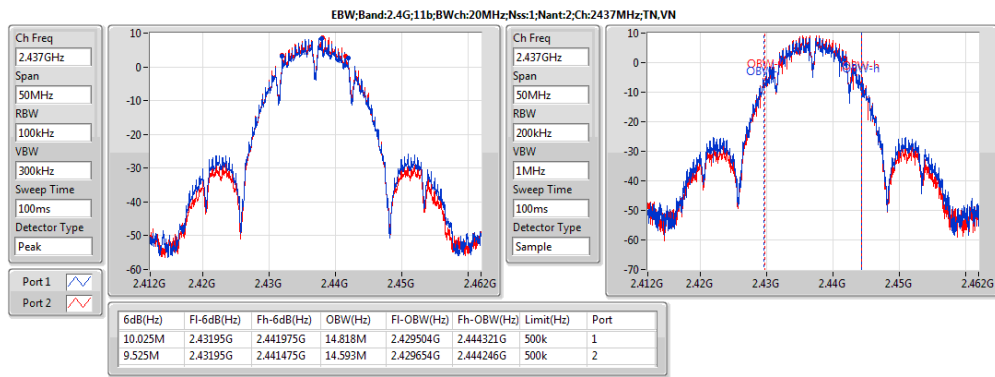
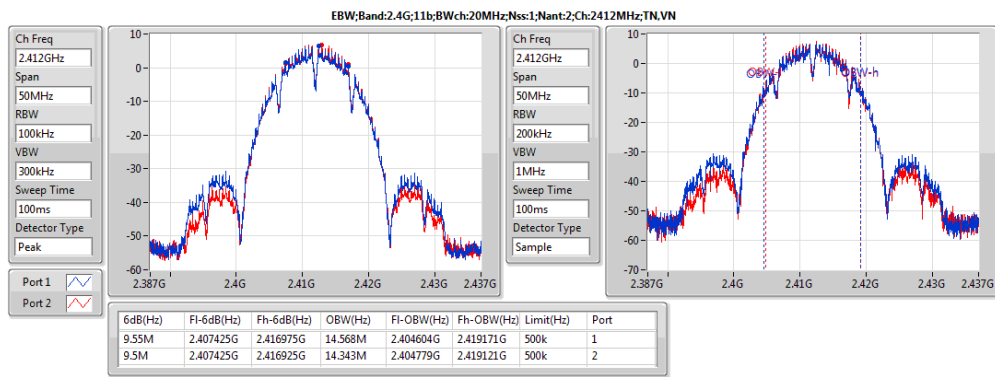
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4G;11b;20;1;2	10.025M	14.818M	14M8G1D	9.025M	14.318M
2.4G;11g;20;1;2	16.325M	16.617M	16M6D1D	15.275M	16.317M
2.4G;HT20;20;1,(M8);2	17.55M	17.841M	17M8D1D	17.15M	17.516M
2.4G;HT40;40;1,(M8);2	35.8M	35.882M	35M9D1D	32.9M	35.732M



Result

Mode	Result	Limit (Hz)	P1-N dB (Hz)	P1-OBW (Hz)	P2-N dB (Hz)	P2-OBW (Hz)
2.4G;11b;20;1;2;2412;L;TN,VN	Pass	500k	9.55M	14.568M	9.5M	14.343M
2.4G;11b;20;1;2;2437;M;TN,VN	Pass	500k	10.025M	14.818M	9.525M	14.593M
2.4G;11b;20;1;2;2462;H;TN,VN	Pass	500k	9.5M	14.718M	9.025M	14.318M
2.4G;11g;20;1;2;2412;L;TN,VN	Pass	500k	16M	16.317M	15.275M	16.342M
2.4G;11g;20;1;2;2437;M;TN,VN	Pass	500k	16.275M	16.617M	16.325M	16.467M
2.4G;11g;20;1;2;2462;H;TN,VN	Pass	500k	16.3M	16.367M	16.275M	16.317M
2.4G;HT20;20;1;(M8);2;2412;L;TN,VN	Pass	500k	17.55M	17.516M	17.15M	17.541M
2.4G;HT20;20;1;(M8);2;2437;M;TN,VN	Pass	500k	17.525M	17.841M	17.5M	17.616M
2.4G;HT20;20;1;(M8);2;2462;H;TN,VN	Pass	500k	17.55M	17.541M	17.5M	17.516M
2.4G;HT40;40;1;(M8);2;2422;L;TN,VN	Pass	500k	35.05M	35.732M	35.15M	35.782M
2.4G;HT40;40;1;(M8);2;2437;M;TN,VN	Pass	500k	35.55M	35.882M	32.9M	35.882M
2.4G;HT40;40;1;(M8);2;2452;H;TN,VN	Pass	500k	35.8M	35.732M	34.4M	35.832M





Summary

Mode	Sum (dBm)	Sum (W)	EIRP (dBm)	EIRP (W)
2.4G;11b;20;1;2	25.50	0.35481	33.51	2.24388
2.4G;11g;20;1;2	27.50	0.56234	35.51	3.55631
2.4G;HT20;20;1,(M8);2	27.18	0.5224	35.19	3.3037
2.4G;HT40;40;1,(M8);2	24.31	0.26977	32.32	1.70608





Result

Mode	Result	DG (dBi)	Sum (dBm)	Sum Lim. (dBm)	EIRP (dBm)	EIRP Lim. (dBm)	P1 (dBm)	P2 (dBm)
2.4G;11b;20;1;2;2412;L;TN,VN	Pass	8.01	22.68	27.99	30.69	36.00	18.07	20.84
2.4G;11b;20;1;2;2437;M;TN,VN	Pass	8.01	25.50	27.99	33.51	36.00	19.92	24.10
2.4G;11b;20;1;2;2462;H;TN,VN	Pass	8.01	23.36	27.99	31.37	36.00	18.52	21.64
2.4G;11g;20;1;2;2412;L;TN,VN	Pass	8.01	23.17	27.99	31.18	36.00	20.19	20.13
2.4G;11g;20;1;2;2437;M;TN,VN	Pass	8.01	27.50	27.99	35.51	36.00	24.34	24.64
2.4G;11g;20;1;2;2462;H;TN,VN	Pass	8.01	23.54	27.99	31.55	36.00	20.33	20.72
2.4G;HT20;20;1;(M8);2;2412;L;TN,VN	Pass	8.01	24.51	27.99	32.52	36.00	22.50	20.20
2.4G;HT20;20;1;(M8);2;2437;M;TN,VN	Pass	8.01	27.18	27.99	35.19	36.00	23.02	25.08
2.4G;HT20;20;1;(M8);2;2462;H;TN,VN	Pass	8.01	24.79	27.99	32.80	36.00	22.78	20.47
2.4G;HT40;40;1;(M8);2;2422;L;TN,VN	Pass	8.01	19.92	27.99	27.93	36.00	17.08	16.74
2.4G;HT40;40;1;(M8);2;2437;M;TN,VN	Pass	8.01	24.31	27.99	32.32	36.00	21.21	21.38
2.4G;HT40;40;1;(M8);2;2452;H;TN,VN	Pass	8.01	21.13	27.99	29.14	36.00	18.54	17.66



Summary

Mode	Sum (dBm)	Sum (W)	EIRP (dBm)	EIRP (W)
2.4G;11b;20;1;2	21.59	0.14421	29.60	0.91201
2.4G;11g;20;1;2	20.78	0.11967	28.79	0.75683
2.4G;HT20;20;1,(M8);2	20.79	0.11995	28.80	0.75858
2.4G;HT40;40;1,(M8);2	16.01	0.0399	24.02	0.25235



Result

Mode	Result	DG (dBi)	Sum (dBm)	Sum Lim. (dBm)	EIRP (dBm)	EIRP Lim. (dBm)	P1 (dBm)	P2 (dBm)
2.4G;11b;20;1;2;2412;L;TN,VN	Pass	8.01	19.51	27.99	27.52	36.00	16.23	16.76
2.4G;11b;20;1;2;2437;M;TN,VN	Pass	8.01	21.59	27.99	29.60	36.00	18.22	18.91
2.4G;11b;20;1;2;2462;H;TN,VN	Pass	8.01	20.01	27.99	28.02	36.00	16.66	17.31
2.4G;11g;20;1;2;2412;L;TN,VN	Pass	8.01	13.69	27.99	21.70	36.00	11.06	10.27
2.4G;11g;20;1;2;2437;M;TN,VN	Pass	8.01	20.78	27.99	28.79	36.00	17.37	18.13
2.4G;11g;20;1;2;2462;H;TN,VN	Pass	8.01	14.65	27.99	22.66	36.00	11.57	11.70
2.4G;HT20;20;1;(M8);2;2412;L;TN,VN	Pass	8.01	12.77	27.99	20.78	36.00	9.93	9.58
2.4G;HT20;20;1;(M8);2;2437;M;TN,VN	Pass	8.01	20.79	27.99	28.80	36.00	17.76	17.80
2.4G;HT20;20;1;(M8);2;2462;H;TN,VN	Pass	8.01	13.66	27.99	21.67	36.00	10.80	10.50
2.4G;HT40;40;1;(M8);2;2422;L;TN,VN	Pass	8.01	10.36	27.99	18.37	36.00	7.60	7.08
2.4G;HT40;40;1;(M8);2;2437;M;TN,VN	Pass	8.01	16.01	27.99	24.02	36.00	13.40	12.56
2.4G;HT40;40;1;(M8);2;2452;H;TN,VN	Pass	8.01	11.16	27.99	19.17	36.00	8.49	7.77



Summary

Mode	PD (dBm/RBW)	EIRP.PD (dBm/RBW)
2.4G;11b;20;1;2	-4.37	3.64
2.4G;11g;20;1;2	-6.21	1.80
2.4G;HT20;20;1,(M8);2	-7.08	0.93
2.4G;HT40;40;1,(M8);2	-12.94	-4.93

DG = Directional Gain; PD = Power Density  
P1 = Port 1 PD; P2 = Port 2 PD; P3 = Port 3 PD; P4 = Port 4 PD;



Result

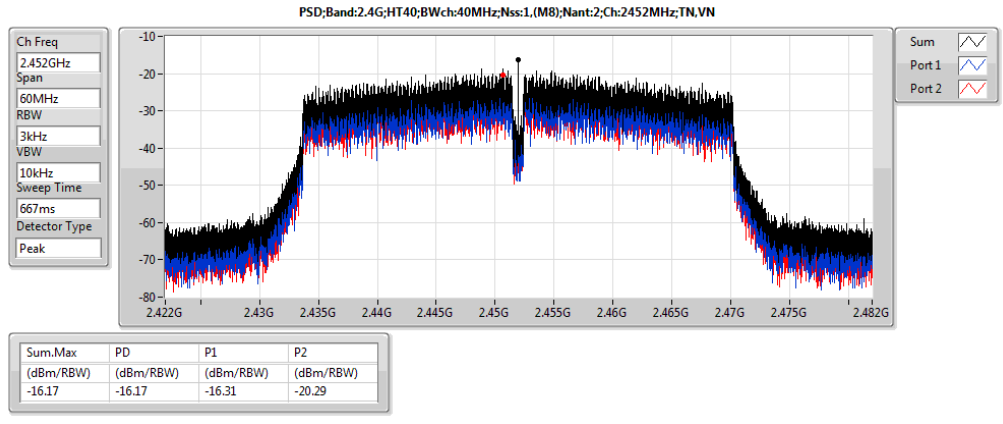
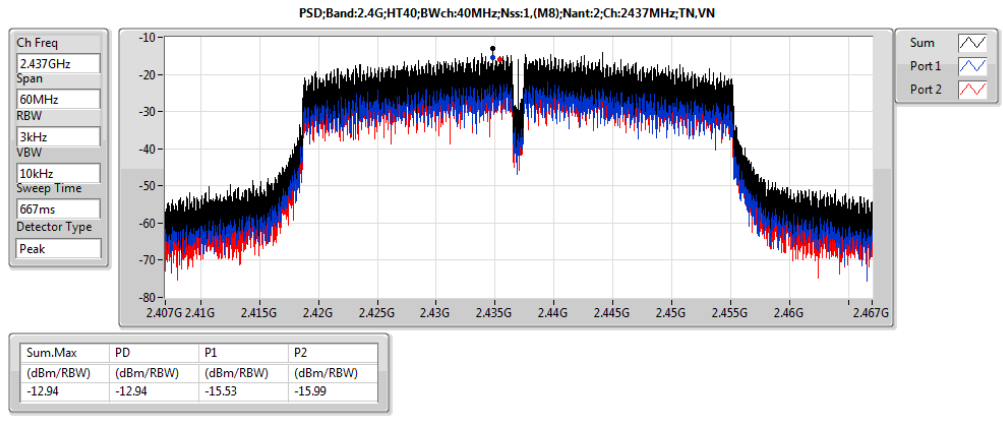
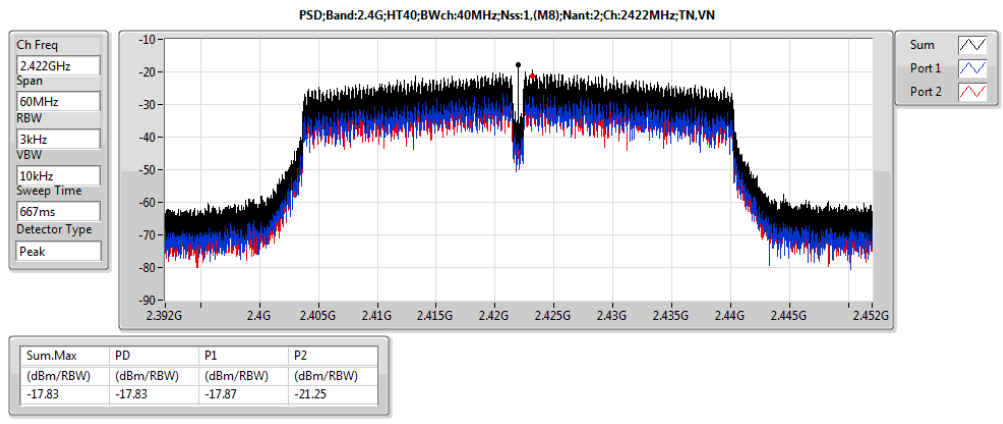
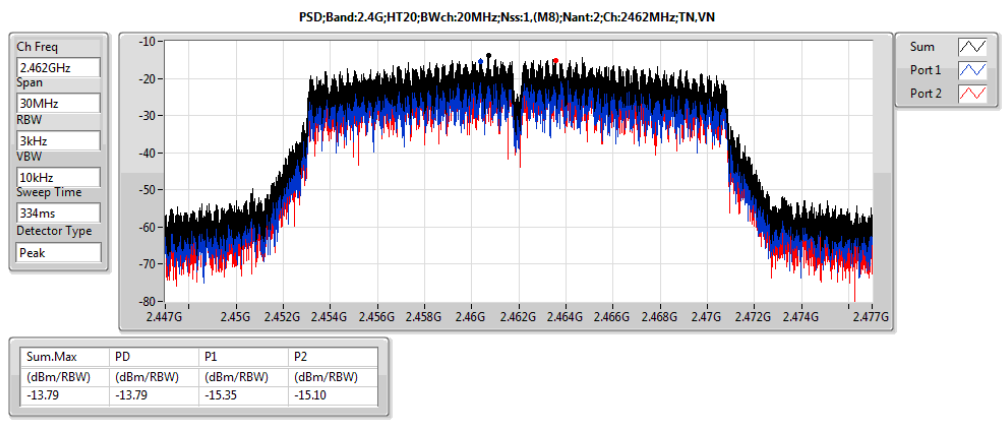
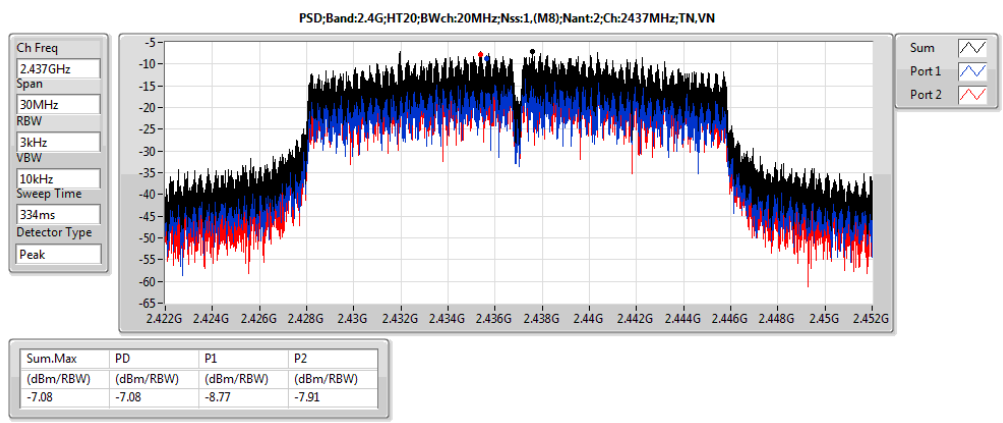
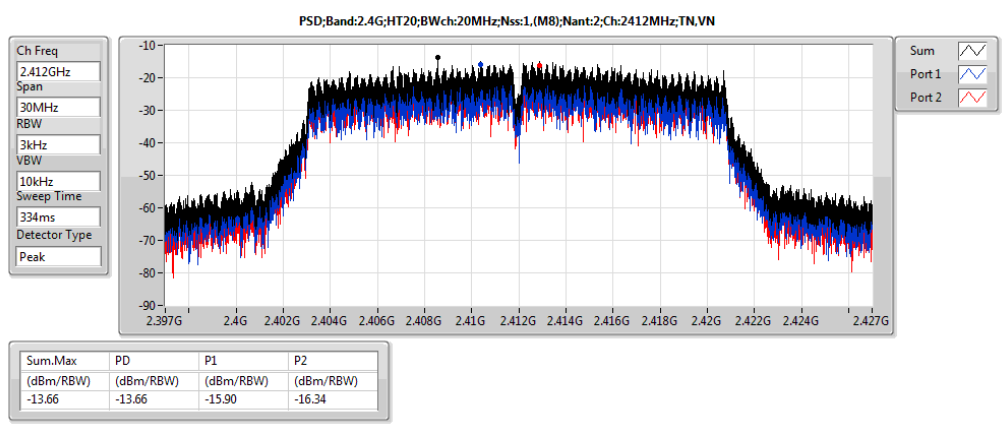
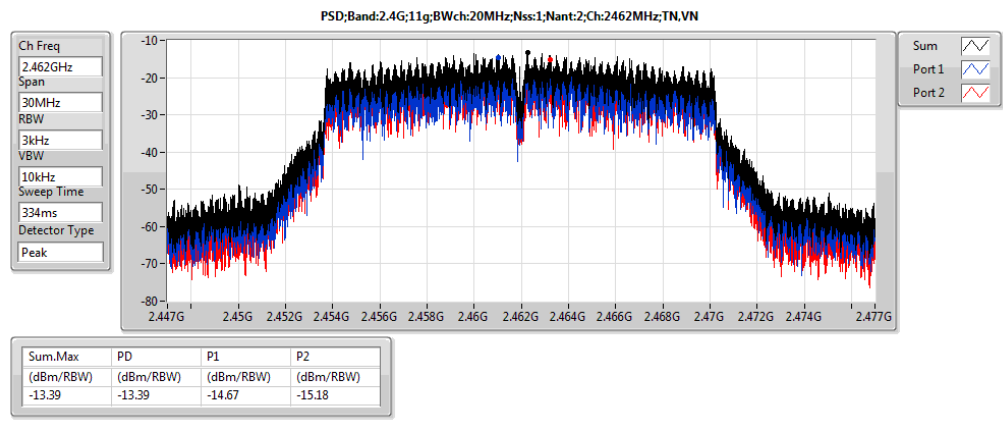
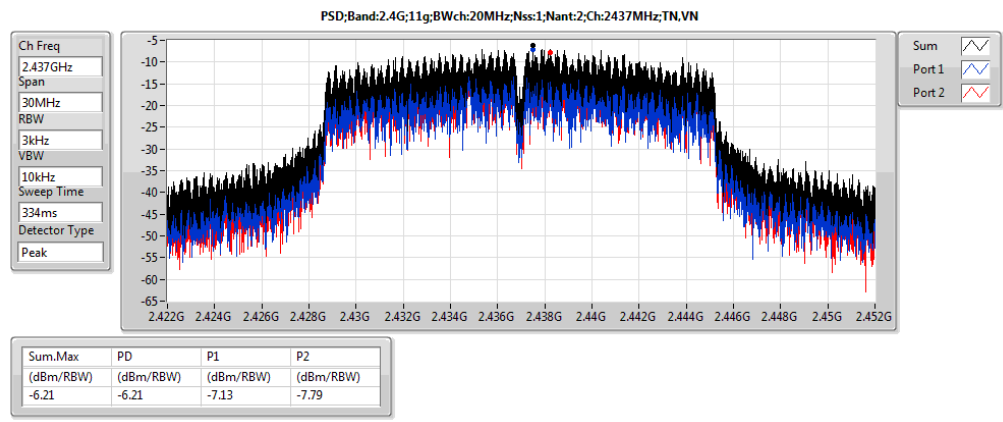
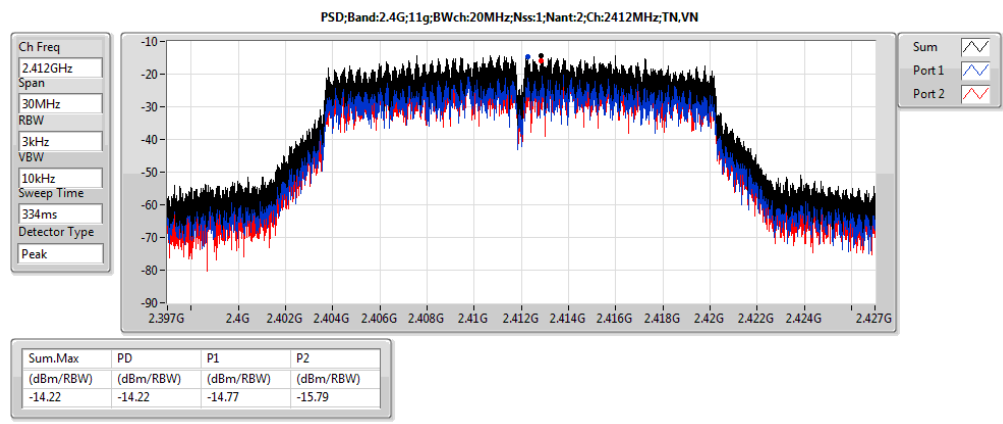
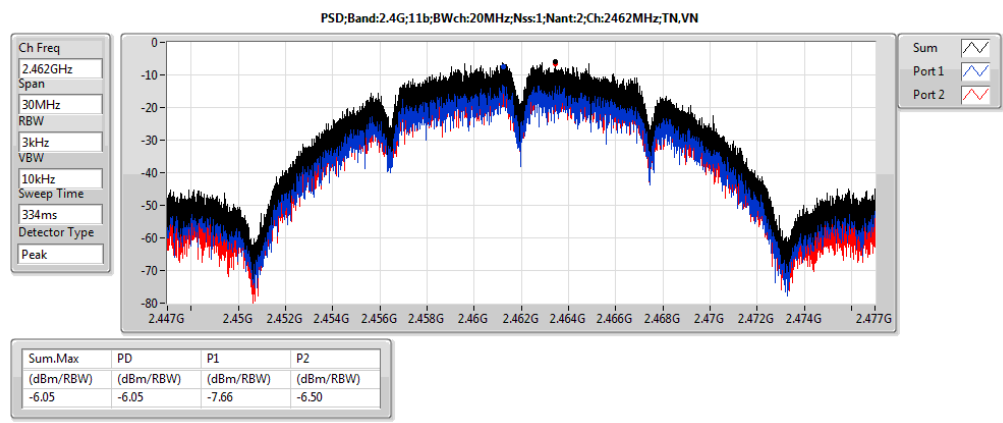
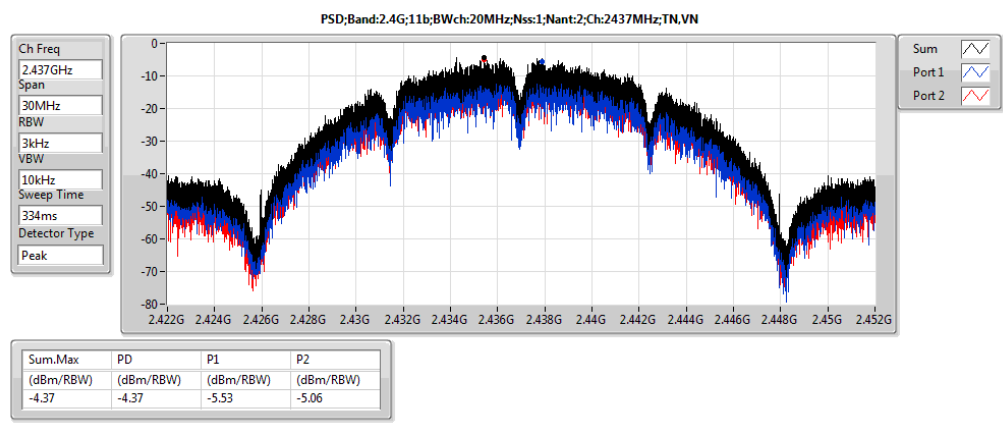
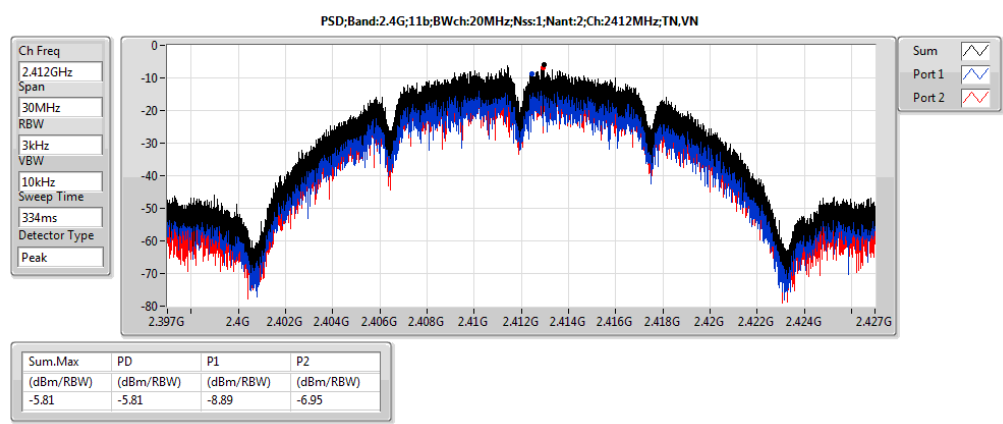
Mode	Result	Meas.RBW (Hz)	Lim.RBW (Hz)	BWCF (dB)	DG (dBi)	PD (dBm/RBW)	PD.Limit (dBm/RBW)	EIRP.PD (dBm/RBW)	EIRP.PD.Li m (dBm/RBW)	P1 (dBm/RBW)	P2 (dBm/RBW)
2.4G;11b;20;1;2;2412;L;TN,VN	Pass	3k	3k	0.00	8.01	-5.81	8.00	2.20	Inf	-8.89	-6.95
2.4G;11b;20;1;2;2437;M;TN,VN	Pass	3k	3k	0.00	8.01	-4.37	8.00	3.64	Inf	-5.53	-5.06
2.4G;11b;20;1;2;2462;H;TN,VN	Pass	3k	3k	0.00	8.01	-6.05	8.00	1.96	Inf	-7.66	-6.50
2.4G;11g;20;1;2;2412;L;TN,VN	Pass	3k	3k	0.00	8.01	-14.22	8.00	-6.21	Inf	-14.77	-15.79
2.4G;11g;20;1;2;2437;M;TN,VN	Pass	3k	3k	0.00	8.01	-6.21	8.00	1.80	Inf	-7.13	-7.79
2.4G;11g;20;1;2;2462;H;TN,VN	Pass	3k	3k	0.00	8.01	-13.39	8.00	-5.38	Inf	-14.67	-15.18
2.4G;HT20;20;1;(M8);2;2412;L;TN,VN	Pass	3k	3k	0.00	8.01	-13.66	8.00	-5.65	Inf	-15.90	-16.34
2.4G;HT20;20;1;(M8);2;2437;M;TN,VN	Pass	3k	3k	0.00	8.01	-7.08	8.00	0.93	Inf	-8.77	-7.91
2.4G;HT20;20;1;(M8);2;2462;H;TN,VN	Pass	3k	3k	0.00	8.01	-13.79	8.00	-5.78	Inf	-15.35	-15.10
2.4G;HT40;40;1;(M8);2;2422;L;TN,VN	Pass	3k	3k	0.00	8.01	-17.83	8.00	-9.82	Inf	-17.87	-21.25
2.4G;HT40;40;1;(M8);2;2437;M;TN,VN	Pass	3k	3k	0.00	8.01	-12.94	8.00	-4.93	Inf	-15.53	-15.99
2.4G;HT40;40;1;(M8);2;2452;H;TN,VN	Pass	3k	3k	0.00	8.01	-16.17	8.00	-8.16	Inf	-16.31	-20.29

DG = Directional Gain; PD = Power Density  
P1 = Port 1 PD; P2 = Port 2 PD; P3 = Port 3 PD; P4 = Port 4 PD;



PSD Result

Appendix C





Summary

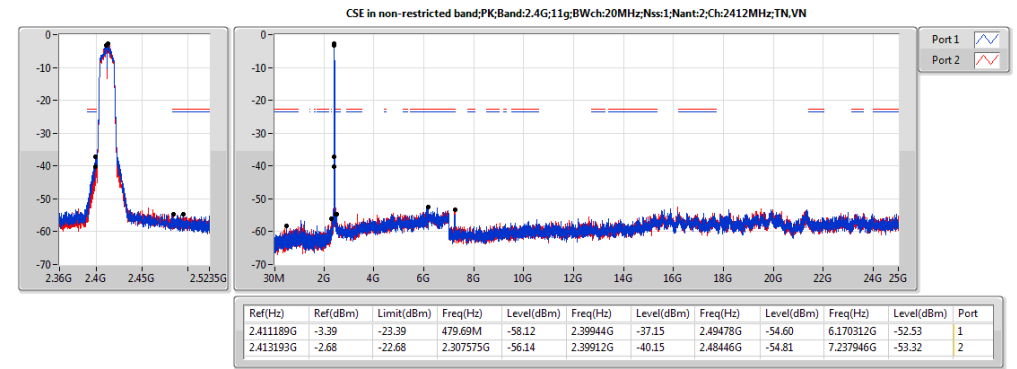
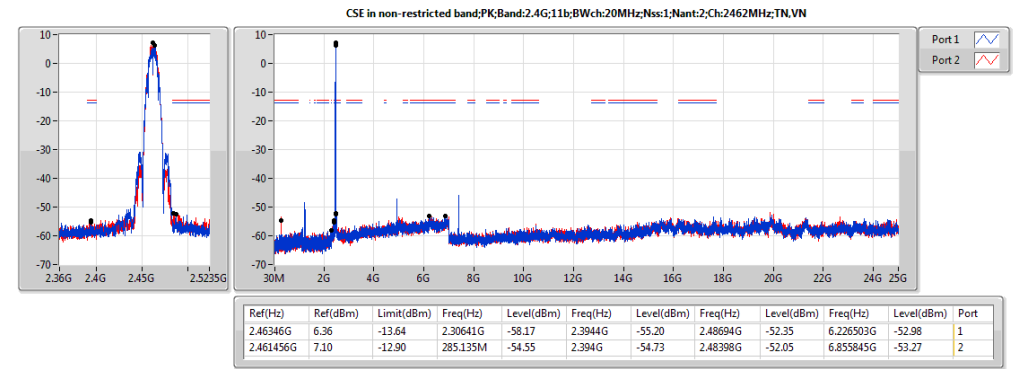
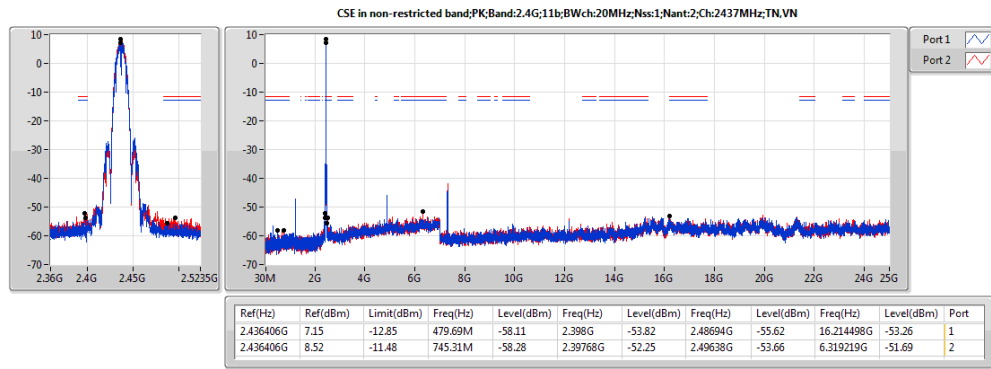
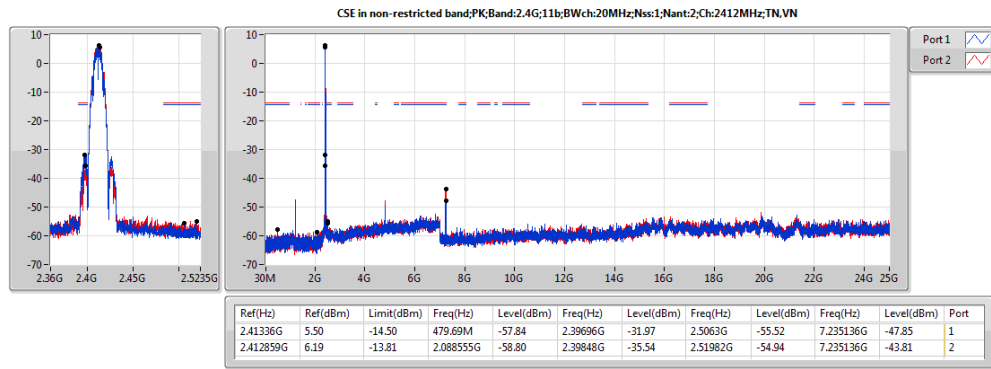
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4G:11g:20:1:2:2412:L;TN,VN	Pass	2.411189G	-3.39	-23.39	479.69M	-58.12	2.39944G	-37.15	2.49478G	-54.60	6.170312G	-52.53	1

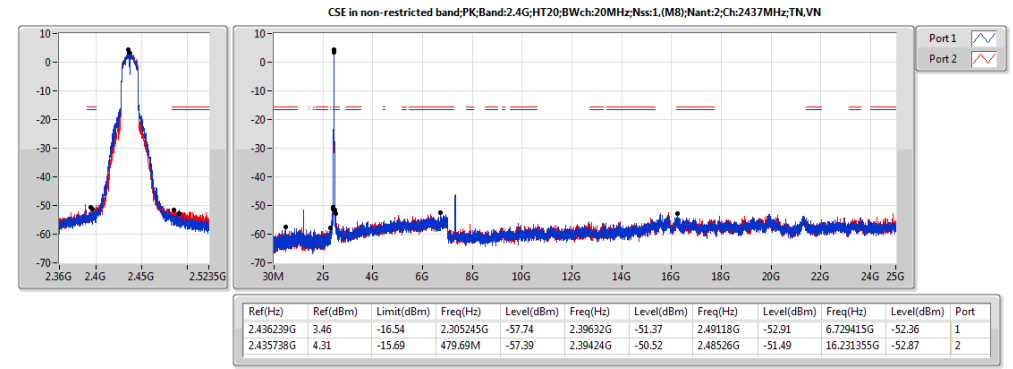
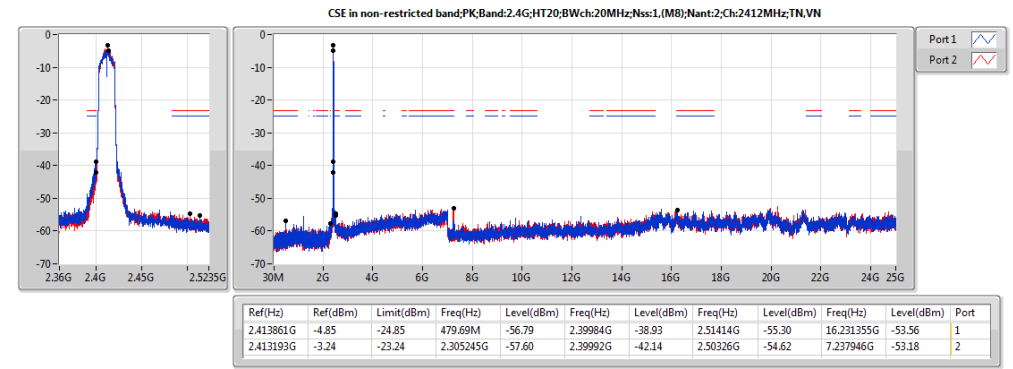
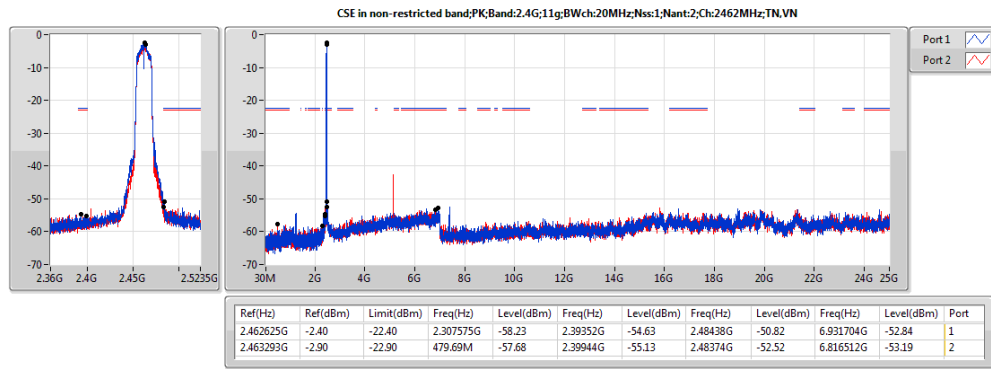
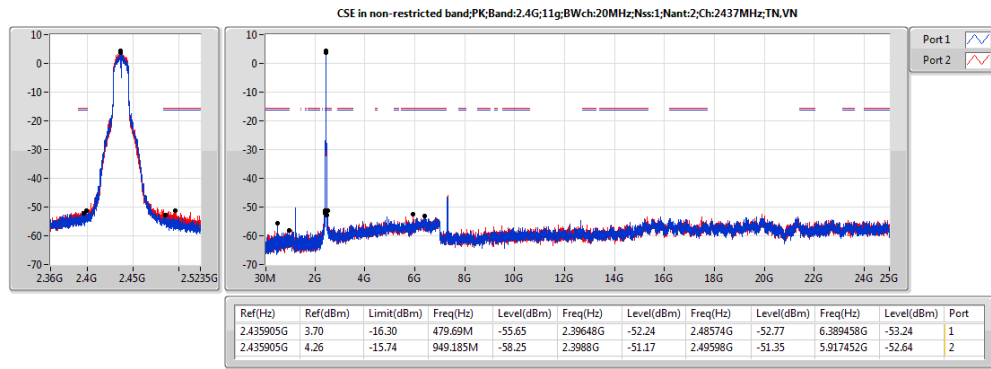


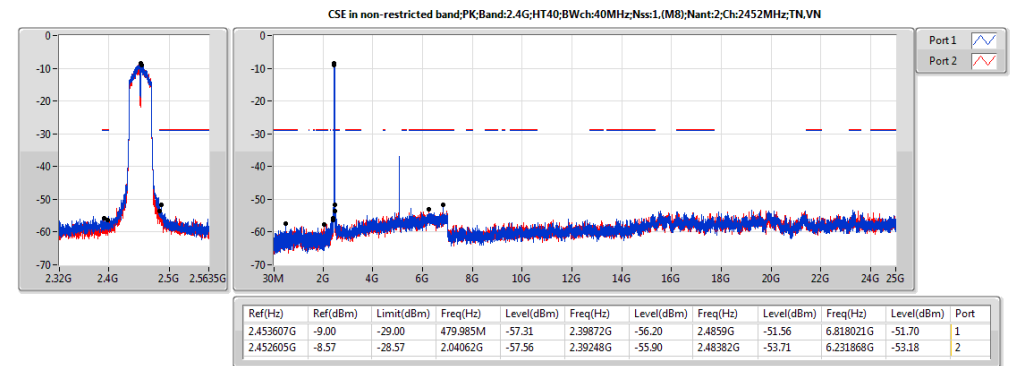
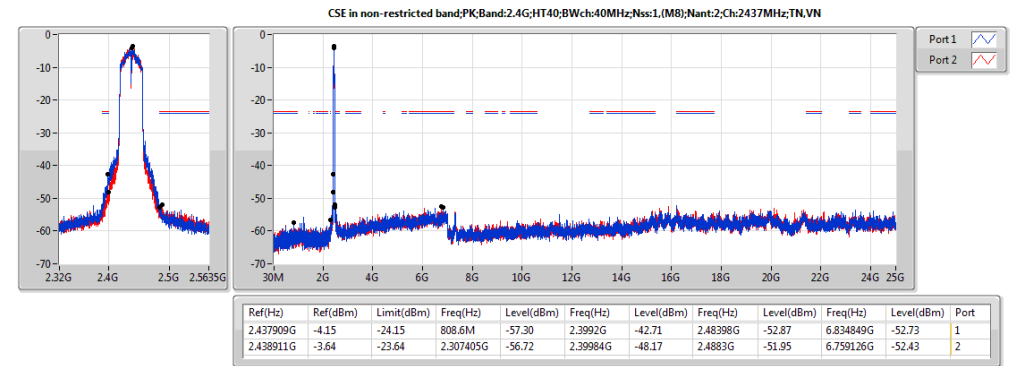
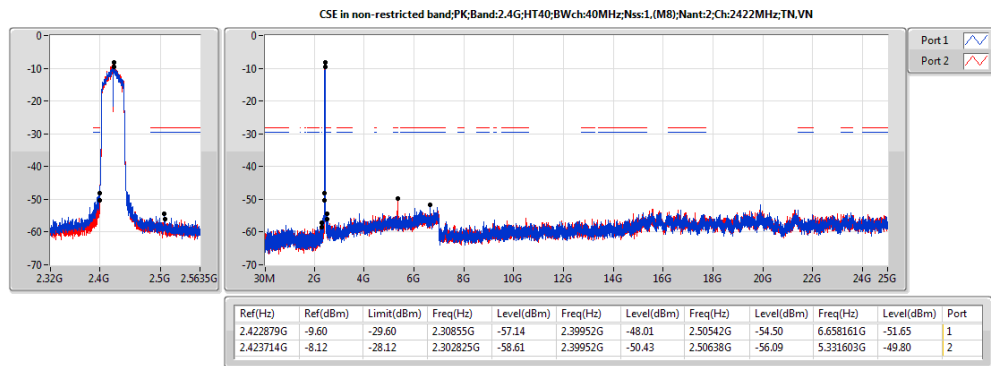
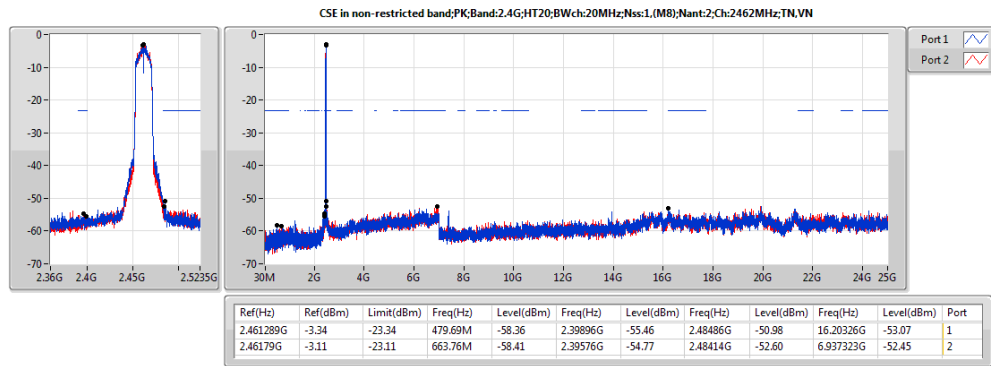
Result

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
2.4G;11b;20;1;2;2412;L;TN,VN	Pass	2.41336G	5.50	-14.50	479.69M	-57.84	2.39696G	-31.97	2.5063G	-55.52	7.235136G	-47.85	1
2.4G;11b;20;1;2;2412;L;TN,VN	Pass	2.412859G	6.19	-13.81	2.088555G	-58.80	2.39848G	-35.54	2.51982G	-54.94	7.235136G	-43.81	2
2.4G;11b;20;1;2;2437;M;TN,VN	Pass	2.436406G	7.15	-12.85	479.69M	-58.11	2.398G	-53.82	2.48694G	-55.62	16.214498G	-53.26	1
2.4G;11b;20;1;2;2437;M;TN,VN	Pass	2.436406G	8.52	-11.48	745.31M	-58.28	2.39768G	-52.25	2.49638G	-53.66	6.319219G	-51.69	2
2.4G;11b;20;1;2;2462;H;TN,VN	Pass	2.46346G	6.36	-13.64	2.30641G	-58.17	2.3944G	-55.20	2.48694G	-52.35	6.226503G	-52.98	1
2.4G;11b;20;1;2;2462;H;TN,VN	Pass	2.461456G	7.10	-12.90	285.135M	-54.55	2.394G	-54.73	2.48398G	-52.05	6.855845G	-53.27	2
2.4G;11g;20;1;2;2412;L;TN,VN	Pass	2.411189G	-3.39	-23.39	479.69M	-58.12	2.39944G	-37.15	2.49478G	-54.60	6.170312G	-52.53	1
2.4G;11g;20;1;2;2412;L;TN,VN	Pass	2.413193G	-2.68	-22.68	2.307575G	-56.14	2.39912G	-40.15	2.48446G	-54.81	7.237946G	-53.32	2
2.4G;11g;20;1;2;2437;M;TN,VN	Pass	2.435905G	3.70	-16.30	479.69M	-55.65	2.39648G	-52.24	2.48574G	-52.77	6.389458G	-53.24	1
2.4G;11g;20;1;2;2437;M;TN,VN	Pass	2.435905G	4.26	-15.74	949.185M	-58.25	2.3988G	-51.17	2.49598G	-51.35	5.917452G	-52.64	2
2.4G;11g;20;1;2;2462;H;TN,VN	Pass	2.462625G	-2.40	-22.40	2.307575G	-58.23	2.39352G	-54.63	2.48438G	-50.82	6.931704G	-52.84	1
2.4G;11g;20;1;2;2462;H;TN,VN	Pass	2.463293G	-2.90	-22.90	479.69M	-57.68	2.39944G	-55.13	2.48374G	-52.52	6.816512G	-53.19	2
2.4G;HT20;20;1,(M8);2;2412;L;TN,VN	Pass	2.413861G	-4.85	-24.85	479.69M	-56.79	2.39984G	-38.93	2.51414G	-55.30	16.231355G	-53.56	1
2.4G;HT20;20;1,(M8);2;2412;L;TN,VN	Pass	2.413193G	-3.24	-23.24	2.305245G	-57.60	2.39992G	-42.14	2.50326G	-54.62	7.237946G	-53.18	2
2.4G;HT20;20;1,(M8);2;2437;M;TN,VN	Pass	2.436239G	3.46	-16.54	2.305245G	-57.74	2.39632G	-51.37	2.49118G	-52.91	6.729415G	-52.36	1
2.4G;HT20;20;11,(M8);2;2437;M;TN,VN	Pass	2.435738G	4.31	-15.69	479.69M	-57.39	2.39424G	-50.52	2.48526G	-51.49	16.231355G	-52.87	2
2.4G;HT20;20;1,(M8);2;2462;H;TN,VN	Pass	2.461289G	-3.34	-23.34	479.69M	-58.36	2.39896G	-55.46	2.48486G	-50.98	16.20326G	-53.07	1
2.4G;HT20;20;1,(M8);2;2462;H;TN,VN	Pass	2.46179G	-3.11	-23.11	663.76M	-58.41	2.39576G	-54.77	2.48414G	-52.60	6.937323G	-52.45	2
2.4G;HT40;40;1,(M8);2;2422;L;TN,VN	Pass	2.422879G	-9.60	-29.60	2.30855G	-57.14	2.39952G	-48.01	2.50542G	-54.50	6.658161G	-51.65	1
2.4G;HT40;40;1,(M8);2;2422;L;TN,VN	Pass	2.423714G	-8.12	-28.12	2.302825G	-58.61	2.39952G	-50.43	2.50638G	-56.09	5.331603G	-49.80	2
2.4G;HT40;40;1,(M8);2;2437;M;TN,VN	Pass	2.437909G	-4.15	-24.15	808.6M	-57.30	2.3992G	-42.71	2.48398G	-52.87	6.834849G	-52.73	1
2.4G;HT40;40;1,(M8);2;2437;M;TN,VN	Pass	2.438911G	-3.64	-23.64	2.307405G	-56.72	2.39984G	-48.17	2.4883G	-51.95	6.759126G	-52.43	2
2.4G;HT40;40;1,(M8);2;2452;H;TN,VN	Pass	2.453607G	-9.00	-29.00	479.985M	-57.31	2.39872G	-56.20	2.4859G	-51.56	6.818021G	-51.70	1
2.4G;HT40;40;1,(M8);2;2452;H;TN,VN	Pass	2.452605G	-8.57	-28.57	2.04062G	-57.56	2.39248G	-55.90	2.48382G	-53.71	6.231868G	-53.18	2











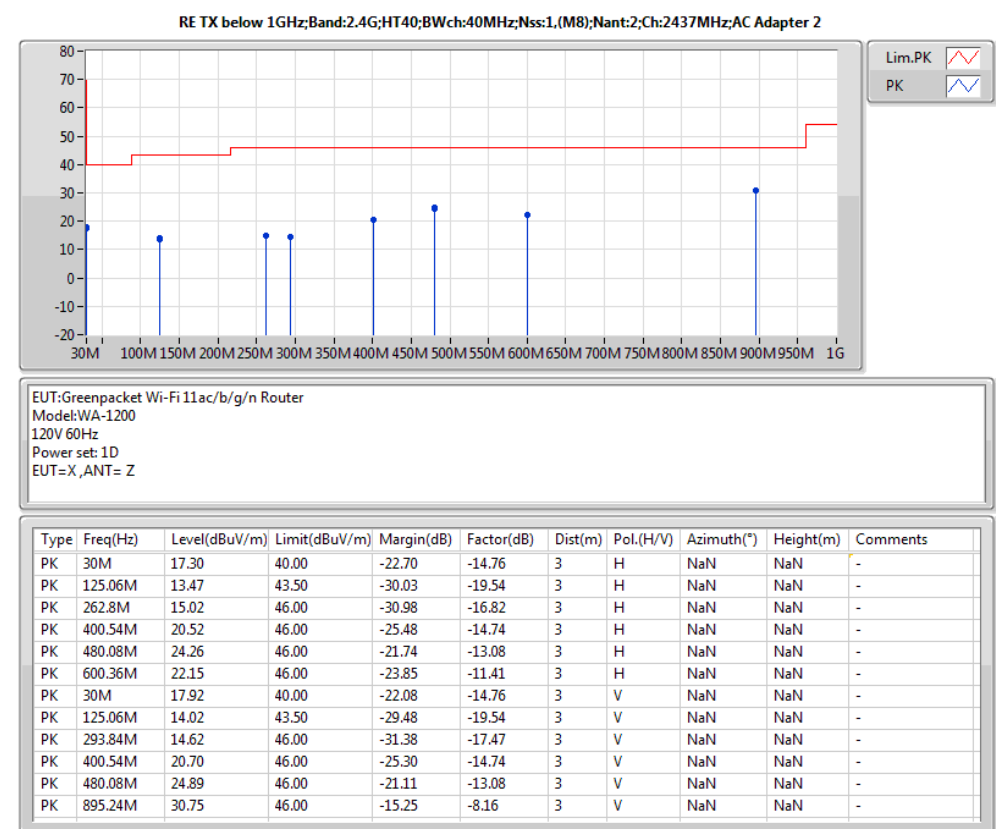
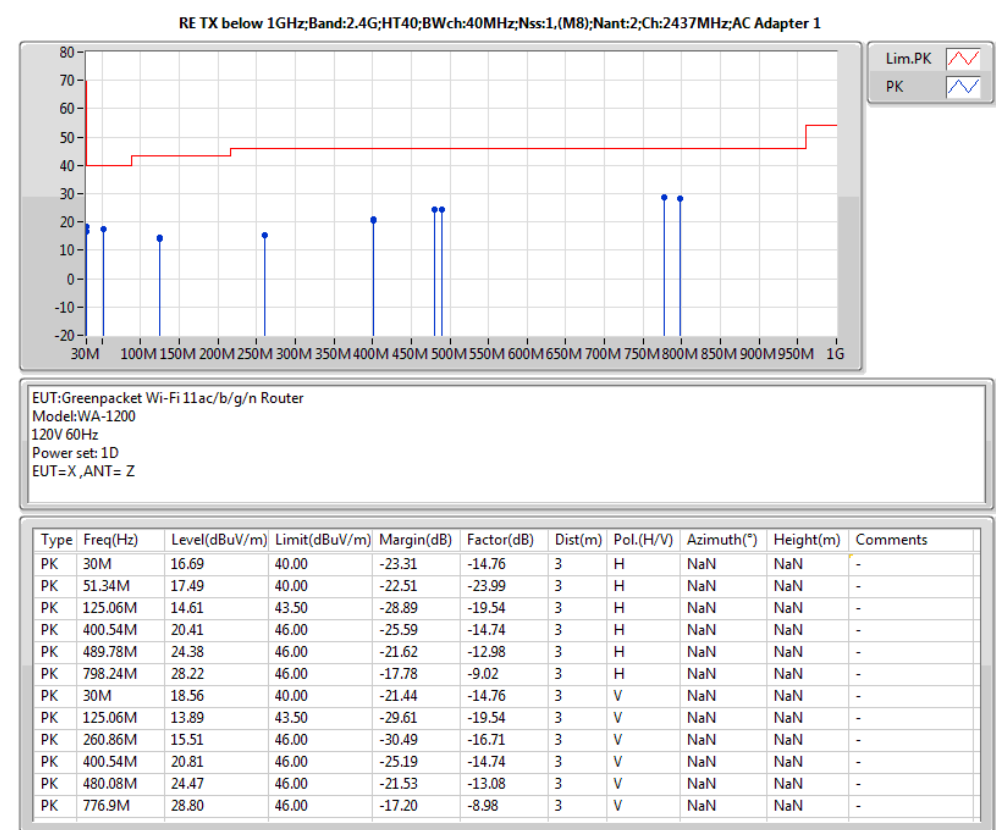
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
2.4G;HT40;40;1,(M8);2:2437;M;AC Adapter 2	Pass	PK	895.24M	30.75	46.00	-15.25	-8.16	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
2.4G:HT40:40:1,(M8):2:2437:M:AC Adapter 1	Pass	PK	30M	16.69	40.00	-23.31	-14.76	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M:AC Adapter 1	Pass	PK	51.34M	17.49	40.00	-22.51	-23.99	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M:AC Adapter 1	Pass	PK	125.06M	14.61	43.50	-28.89	-19.54	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M:AC Adapter 1	Pass	PK	400.54M	20.41	46.00	-25.59	-14.74	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M:AC Adapter 1	Pass	PK	489.78M	24.38	46.00	-21.62	-12.98	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M:AC Adapter 1	Pass	PK	798.24M	28.22	46.00	-17.78	-9.02	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M:AC Adapter 1	Pass	PK	30M	18.56	40.00	-21.44	-14.76	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M:AC Adapter 1	Pass	PK	125.06M	13.89	43.50	-29.61	-19.54	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M:AC Adapter 1	Pass	PK	260.86M	15.51	46.00	-30.49	-16.71	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M:AC Adapter 1	Pass	PK	400.54M	20.81	46.00	-25.19	-14.74	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M:AC Adapter 1	Pass	PK	480.08M	24.47	46.00	-21.53	-13.08	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M:AC Adapter 1	Pass	PK	776.9M	28.80	46.00	-17.20	-8.98	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M:AC Adapter 2	Pass	PK	30M	17.30	40.00	-22.70	-14.76	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M:AC Adapter 2	Pass	PK	125.06M	13.47	43.50	-30.03	-19.54	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M:AC Adapter 2	Pass	PK	262.8M	15.02	46.00	-30.98	-16.82	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M:AC Adapter 2	Pass	PK	400.54M	20.52	46.00	-25.48	-14.74	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M:AC Adapter 2	Pass	PK	480.08M	24.26	46.00	-21.74	-13.08	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M:AC Adapter 2	Pass	PK	600.36M	22.15	46.00	-23.85	-11.41	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M:AC Adapter 2	Pass	PK	30M	17.92	40.00	-22.08	-14.76	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M:AC Adapter 2	Pass	PK	125.06M	14.02	43.50	-29.48	-19.54	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M:AC Adapter 2	Pass	PK	293.84M	14.62	46.00	-31.38	-17.47	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M:AC Adapter 2	Pass	PK	400.54M	20.70	46.00	-25.30	-14.74	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M:AC Adapter 2	Pass	PK	480.08M	24.89	46.00	-21.11	-13.08	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M:AC Adapter 2	Pass	PK	895.24M	30.75	46.00	-15.25	-8.16	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
2.4G;11g;20:1:2:2462:H;TX	Pass	AV	2.4836G	52.91	54.00	-1.09	31.60	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
2.4G;11b;20;1;2;2412;L;TX	Pass	AV	2.38616G	52.74	54.00	-1.26	31.27	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2412;L;TX	Pass	AV	2.411024G	110.37	Inf	-Inf	31.36	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2412;L;TX	Pass	PK	2.38728G	61.50	74.00	-12.50	31.27	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2412;L;TX	Pass	PK	2.41192G	113.33	Inf	-Inf	31.36	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2412;L;TX	Pass	AV	4.824G	46.20	54.00	-7.80	2.10	3	H	NaN	NaN	-
2.4G;11b;20;1;2;2412;L;TX	Pass	PK	4.824G	49.86	74.00	-24.14	2.10	3	H	NaN	NaN	-
2.4G;11b;20;1;2;2412;L;TX	Pass	PK	7.236G	50.82	Inf	-Inf	8.07	3	H	NaN	NaN	-
2.4G;11b;20;1;2;2412;L;TX	Pass	PK	9.648G	54.72	Inf	-Inf	11.53	3	H	NaN	NaN	-
2.4G;11b;20;1;2;2412;L;TX	Pass	AV	4.824G	50.45	54.00	-3.55	2.10	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2412;L;TX	Pass	PK	4.824G	52.93	74.00	-21.07	2.10	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2412;L;TX	Pass	PK	7.236G	51.30	Inf	-Inf	8.07	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2412;L;TX	Pass	PK	9.648G	54.97	Inf	-Inf	11.53	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2437;M;TX	Pass	AV	2.3841G	48.39	54.00	-5.61	31.26	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2437;M;TX	Pass	AV	2.43578G	113.16	Inf	-Inf	31.44	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2437;M;TX	Pass	AV	2.48936G	48.89	54.00	-5.11	31.61	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2437;M;TX	Pass	PK	2.37764G	58.49	74.00	-15.51	31.24	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2437;M;TX	Pass	PK	2.43692G	116.59	Inf	-Inf	31.44	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2437;M;TX	Pass	PK	2.49848G	59.22	74.00	-14.78	31.64	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2437;M;TX	Pass	AV	4.874G	48.49	54.00	-5.51	2.21	3	H	NaN	NaN	-
2.4G;11b;20;1;2;2437;M;TX	Pass	AV	7.311G	38.85	54.00	-15.15	8.29	3	H	NaN	NaN	-
2.4G;11b;20;1;2;2437;M;TX	Pass	PK	4.874G	51.55	74.00	-22.45	2.21	3	H	NaN	NaN	-
2.4G;11b;20;1;2;2437;M;TX	Pass	PK	7.311G	50.81	74.00	-23.19	8.29	3	H	NaN	NaN	-
2.4G;11b;20;1;2;2437;M;TX	Pass	PK	9.748G	54.87	Inf	-Inf	11.71	3	H	NaN	NaN	-
2.4G;11b;20;1;2;2437;M;TX	Pass	AV	4.874G	52.82	54.00	-1.18	2.21	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2437;M;TX	Pass	AV	7.311G	39.14	54.00	-14.86	8.29	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2437;M;TX	Pass	PK	4.874G	55.16	74.00	-18.84	2.21	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2437;M;TX	Pass	PK	7.311G	51.19	74.00	-22.81	8.29	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2437;M;TX	Pass	PK	9.748G	55.09	Inf	-Inf	11.71	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2462;H;TX	Pass	AV	2.461G	112.45	Inf	-Inf	31.52	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2462;H;TX	Pass	AV	2.4868G	52.34	54.00	-1.66	31.61	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2462;H;TX	Pass	PK	2.462G	115.81	Inf	-Inf	31.52	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2462;H;TX	Pass	PK	2.4868G	61.36	74.00	-12.64	31.61	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2462;H;TX	Pass	AV	4.924G	48.27	54.00	-5.73	2.31	3	H	NaN	NaN	-
2.4G;11b;20;1;2;2462;H;TX	Pass	AV	7.386G	40.35	54.00	-13.65	8.50	3	H	NaN	NaN	-
2.4G;11b;20;1;2;2462;H;TX	Pass	PK	4.924G	52.44	74.00	-21.56	2.31	3	H	NaN	NaN	-
2.4G;11b;20;1;2;2462;H;TX	Pass	PK	7.386G	51.63	74.00	-22.37	8.50	3	H	NaN	NaN	-
2.4G;11b;20;1;2;2462;H;TX	Pass	PK	9.848G	55.68	Inf	-Inf	11.88	3	H	NaN	NaN	-
2.4G;11b;20;1;2;2462;H;TX	Pass	AV	4.924G	52.45	54.00	-1.55	2.31	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2462;H;TX	Pass	AV	7.386G	40.52	54.00	-13.48	8.50	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2462;H;TX	Pass	PK	4.924G	55.98	74.00	-18.02	2.31	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2462;H;TX	Pass	PK	7.386G	51.32	74.00	-22.68	8.50	3	V	NaN	NaN	-
2.4G;11b;20;1;2;2462;H;TX	Pass	PK	9.848G	55.75	Inf	-Inf	11.88	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2412;L;TX	Pass	AV	2.389968G	52.50	54.00	-1.50	31.28	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2412;L;TX	Pass	AV	2.411024G	103.77	Inf	-Inf	31.36	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2412;L;TX	Pass	PK	2.389968G	67.20	74.00	-6.80	31.28	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2412;L;TX	Pass	PK	2.411024G	111.74	Inf	-Inf	31.36	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2412;L;TX	Pass	AV	4.824G	35.71	54.00	-18.29	2.10	3	H	NaN	NaN	-
2.4G;11g;20;1;2;2412;L;TX	Pass	PK	4.824G	47.51	74.00	-26.49	2.10	3	H	NaN	NaN	-
2.4G;11g;20;1;2;2412;L;TX	Pass	PK	7.236G	52.01	Inf	-Inf	8.07	3	H	NaN	NaN	-
2.4G;11g;20;1;2;2412;L;TX	Pass	PK	9.648G	55.66	Inf	-Inf	11.53	3	H	NaN	NaN	-
2.4G;11g;20;1;2;2412;L;TX	Pass	AV	4.824G	39.25	54.00	-14.75	2.10	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2412;L;TX	Pass	PK	4.824G	46.30	74.00	-27.70	2.10	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2412;L;TX	Pass	PK	7.236G	52.88	Inf	-Inf	8.08	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2412;L;TX	Pass	PK	9.648G	56.05	Inf	-Inf	11.53	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2437;M;TX	Pass	AV	2.3898G	49.31	54.00	-4.69	31.28	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2437;M;TX	Pass	AV	2.43578G	111.47	Inf	-Inf	31.44	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2437;M;TX	Pass	AV	2.48366G	50.14	54.00	-3.86	31.60	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2437;M;TX	Pass	PK	2.38676G	61.08	74.00	-12.92	31.27	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2437;M;TX	Pass	PK	2.4354G	119.54	Inf	-Inf	31.44	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2437;M;TX	Pass	PK	2.48404G	62.25	74.00	-11.75	31.60	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2437;M;TX	Pass	AV	4.874G	36.76	54.00	-17.24	2.21	3	H	NaN	NaN	-





Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
2.4G;11g;20;1;2;2437;M;TX	Pass	AV	7.311G	40.90	54.00	-13.10	8.29	3	H	NaN	NaN	-
2.4G;11g;20;1;2;2437;M;TX	Pass	PK	4.874G	49.24	74.00	-24.76	2.21	3	H	NaN	NaN	-
2.4G;11g;20;1;2;2437;M;TX	Pass	PK	7.311G	52.01	74.00	-21.99	8.29	3	H	NaN	NaN	-
2.4G;11g;20;1;2;2437;M;TX	Pass	PK	9.748G	55.69	Inf	-Inf	11.71	3	H	NaN	NaN	-
2.4G;11g;20;1;2;2437;M;TX	Pass	AV	4.874G	40.35	54.00	-13.65	2.21	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2437;M;TX	Pass	AV	7.311G	40.95	54.00	-13.05	8.29	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2437;M;TX	Pass	PK	4.874G	51.16	74.00	-22.84	2.21	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2437;M;TX	Pass	PK	7.311G	52.45	74.00	-21.55	8.29	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2437;M;TX	Pass	PK	9.748G	56.59	Inf	-Inf	11.71	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2462;H;TX	Pass	AV	2.4598G	103.55	Inf	-Inf	31.52	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2462;H;TX	Pass	AV	2.4836G	52.91	54.00	-1.09	31.60	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2462;H;TX	Pass	PK	2.4598G	110.95	Inf	-Inf	31.52	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2462;H;TX	Pass	PK	2.4842G	66.78	74.00	-7.22	31.60	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2462;H;TX	Pass	AV	4.924G	34.47	54.00	-19.53	2.31	3	H	NaN	NaN	-
2.4G;11g;20;1;2;2462;H;TX	Pass	AV	7.386G	40.09	54.00	-13.91	8.50	3	H	NaN	NaN	-
2.4G;11g;20;1;2;2462;H;TX	Pass	PK	4.924G	46.06	74.00	-27.94	2.31	3	H	NaN	NaN	-
2.4G;11g;20;1;2;2462;H;TX	Pass	PK	7.386G	51.45	74.00	-22.55	8.50	3	H	NaN	NaN	-
2.4G;11g;20;1;2;2462;H;TX	Pass	PK	9.848G	55.57	Inf	-Inf	11.88	3	H	NaN	NaN	-
2.4G;11g;20;1;2;2462;H;TX	Pass	AV	4.924G	38.19	54.00	-15.81	2.31	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2462;H;TX	Pass	AV	7.386G	40.81	54.00	-13.19	8.50	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2462;H;TX	Pass	PK	4.924G	47.85	74.00	-26.15	2.31	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2462;H;TX	Pass	PK	7.386G	51.84	74.00	-22.16	8.50	3	V	NaN	NaN	-
2.4G;11g;20;1;2;2462;H;TX	Pass	PK	9.848G	55.90	Inf	-Inf	11.88	3	V	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2412;L;TX	Pass	AV	2.389968G	52.70	54.00	-1.30	31.28	3	V	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2412;L;TX	Pass	AV	2.409904G	101.75	Inf	-Inf	31.35	3	V	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2412;L;TX	Pass	PK	2.389968G	71.06	74.00	-2.94	31.28	3	V	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2412;L;TX	Pass	PK	2.40968G	109.73	Inf	-Inf	31.35	3	V	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2412;L;TX	Pass	AV	4.824G	34.54	54.00	-19.46	2.10	3	H	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2412;L;TX	Pass	PK	4.824G	45.48	74.00	-28.52	2.10	3	H	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2412;L;TX	Pass	PK	7.236G	51.49	Inf	-Inf	8.07	3	H	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2412;L;TX	Pass	PK	9.648G	55.03	Inf	-Inf	11.53	3	H	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2412;L;TX	Pass	AV	4.824G	34.97	54.00	-19.03	2.10	3	V	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2412;L;TX	Pass	PK	4.824G	46.23	74.00	-27.77	2.10	3	V	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2412;L;TX	Pass	PK	7.236G	51.73	Inf	-Inf	8.07	3	V	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2412;L;TX	Pass	PK	9.648G	55.01	Inf	-Inf	11.53	3	V	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2437;M;TX	Pass	AV	2.3898G	49.08	54.00	-4.92	31.28	3	V	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2437;M;TX	Pass	AV	2.43616G	110.28	Inf	-Inf	31.44	3	V	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2437;M;TX	Pass	AV	2.48556G	49.85	54.00	-4.15	31.60	3	V	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2437;M;TX	Pass	PK	2.3803G	60.85	74.00	-13.15	31.25	3	V	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2437;M;TX	Pass	PK	2.43844G	118.08	Inf	-Inf	31.45	3	V	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2437;M;TX	Pass	PK	2.48366G	61.93	74.00	-12.07	31.60	3	V	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2437;M;TX	Pass	AV	4.874G	36.70	54.00	-17.30	2.21	3	H	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2437;M;TX	Pass	AV	7.311G	40.04	54.00	-13.96	8.29	3	H	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2437;M;TX	Pass	PK	4.874G	46.18	74.00	-27.82	2.21	3	H	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2437;M;TX	Pass	PK	7.311G	52.24	74.00	-21.76	8.29	3	H	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2437;M;TX	Pass	PK	9.748G	54.90	Inf	-Inf	11.71	3	H	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2437;M;TX	Pass	AV	4.874G	39.52	54.00	-14.48	2.21	3	V	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2437;M;TX	Pass	AV	7.311G	39.95	54.00	-14.05	8.29	3	V	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2437;M;TX	Pass	PK	4.874G	50.71	74.00	-23.29	2.21	3	V	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2437;M;TX	Pass	PK	7.311G	51.15	74.00	-22.85	8.29	3	V	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2437;M;TX	Pass	PK	9.748G	55.45	Inf	-Inf	11.71	3	V	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2462;H;TX	Pass	AV	2.463G	101.24	Inf	-Inf	31.53	3	V	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2462;H;TX	Pass	AV	2.4836G	52.84	54.00	-1.16	31.60	3	V	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2462;H;TX	Pass	PK	2.463G	109.13	Inf	-Inf	31.53	3	V	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2462;H;TX	Pass	PK	2.4836G	65.78	74.00	-8.22	31.60	3	V	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2462;H;TX	Pass	AV	4.924G	34.71	54.00	-19.29	2.31	3	H	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2462;H;TX	Pass	AV	7.386G	40.36	54.00	-13.64	8.50	3	H	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2462;H;TX	Pass	PK	4.924G	45.62	74.00	-28.38	2.31	3	H	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2462;H;TX	Pass	PK	7.386G	52.02	74.00	-21.98	8.50	3	H	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2462;H;TX	Pass	PK	9.848G	55.53	Inf	-Inf	11.88	3	H	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2462;H;TX	Pass	AV	4.924G	37.13	54.00	-16.87	2.31	3	V	NaN	NaN	-
2.4G;HT20;20;1;(M8);2;2462;H;TX	Pass	AV	7.386G	40.46	54.00	-13.54	8.50	3	V	NaN	NaN	-



Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
2.4G:HT20:20:1,(M8):2:2462:H;TX	Pass	PK	4.924G	46.44	74.00	-27.56	2.31	3	V	NaN	NaN	-
2.4G:HT20:20:1,(M8):2:2462:H;TX	Pass	PK	7.386G	51.38	74.00	-22.62	8.50	3	V	NaN	NaN	-
2.4G:HT20:20:1,(M8):2:2462:H;TX	Pass	PK	9.848G	55.86	Inf	-Inf	11.88	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2422:L;TX	Pass	AV	2.389728G	52.45	54.00	-1.55	31.28	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2422:L;TX	Pass	AV	2.419824G	96.35	Inf	-Inf	31.39	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2422:L;TX	Pass	PK	2.389992G	64.87	74.00	-9.13	31.28	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2422:L;TX	Pass	PK	2.41956G	103.79	Inf	-Inf	31.38	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2422:L;TX	Pass	AV	4.844G	34.2	54.00	-19.80	2.14	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2422:L;TX	Pass	AV	7.266G	39.39	54.00	-14.61	8.16	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2422:L;TX	Pass	PK	4.844G	44.11	74.00	-29.89	2.14	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2422:L;TX	Pass	PK	7.266G	50.76	74.00	-23.24	8.16	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2422:L;TX	Pass	PK	9.688G	54.63	Inf	-Inf	11.59	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2422:L;TX	Pass	AV	4.844G	34.80	54.00	-19.20	2.14	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2422:L;TX	Pass	AV	7.266G	39.95	54.00	-14.05	8.16	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2422:L;TX	Pass	PK	4.844G	44.65	74.00	-29.35	2.14	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2422:L;TX	Pass	PK	7.266G	51.29	74.00	-22.71	8.16	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2422:L;TX	Pass	PK	9.688G	55.32	Inf	-Inf	11.59	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M;TX	Pass	AV	2.38942G	52.52	54.00	-1.48	31.28	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M;TX	Pass	AV	2.43464G	101.18	Inf	-Inf	31.43	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M;TX	Pass	AV	2.48442G	51.13	54.00	-2.87	31.60	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M;TX	Pass	PK	2.3898G	66.14	74.00	-7.86	31.28	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M;TX	Pass	PK	2.43502G	108.86	Inf	-Inf	31.44	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M;TX	Pass	PK	2.4848G	63.61	74.00	-10.39	31.60	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M;TX	Pass	AV	4.874G	33.89	54.00	-20.11	2.21	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M;TX	Pass	AV	7.311G	39.59	54.00	-14.41	8.29	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M;TX	Pass	PK	4.874G	45.07	74.00	-28.93	2.21	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M;TX	Pass	PK	7.311G	51.05	74.00	-22.95	8.29	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M;TX	Pass	PK	9.748G	55.68	Inf	-Inf	11.71	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M;TX	Pass	AV	4.874G	35.48	54.00	-18.52	2.21	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M;TX	Pass	AV	7.311G	40.18	54.00	-13.82	8.29	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M;TX	Pass	PK	4.874G	45.22	74.00	-28.78	2.21	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M;TX	Pass	PK	7.311G	51.88	74.00	-22.12	8.29	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2437:M;TX	Pass	PK	9.748G	55.58	Inf	-Inf	11.71	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2452:H;TX	Pass	AV	2.4536G	97.64	Inf	-Inf	31.50	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2452:H;TX	Pass	AV	2.4836G	52.68	54.00	-1.32	31.60	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2452:H;TX	Pass	PK	2.44856G	105.00	Inf	-Inf	31.48	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2452:H;TX	Pass	PK	2.48408G	65.09	74.00	-8.91	31.60	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2452:H;TX	Pass	AV	4.904G	34.11	54.00	-19.89	2.27	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2452:H;TX	Pass	AV	7.356G	40.36	54.00	-13.64	8.50	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2452:H;TX	Pass	PK	4.904G	44.91	74.00	-29.09	2.27	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2452:H;TX	Pass	PK	7.356G	51.19	74.00	-22.81	8.50	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2452:H;TX	Pass	PK	9.808G	54.42	Inf	-Inf	11.82	3	H	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2452:H;TX	Pass	AV	4.904G	34.06	54.00	-19.94	2.27	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2452:H;TX	Pass	AV	7.356G	40.31	54.00	-13.69	8.42	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2452:H;TX	Pass	PK	4.904G	45.86	74.00	-28.14	2.27	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2452:H;TX	Pass	PK	7.356G	51.40	74.00	-22.60	8.42	3	V	NaN	NaN	-
2.4G:HT40:40:1,(M8):2:2452:H;TX	Pass	PK	9.808G	56.10	Inf	-Inf	11.82	3	V	NaN	NaN	-

