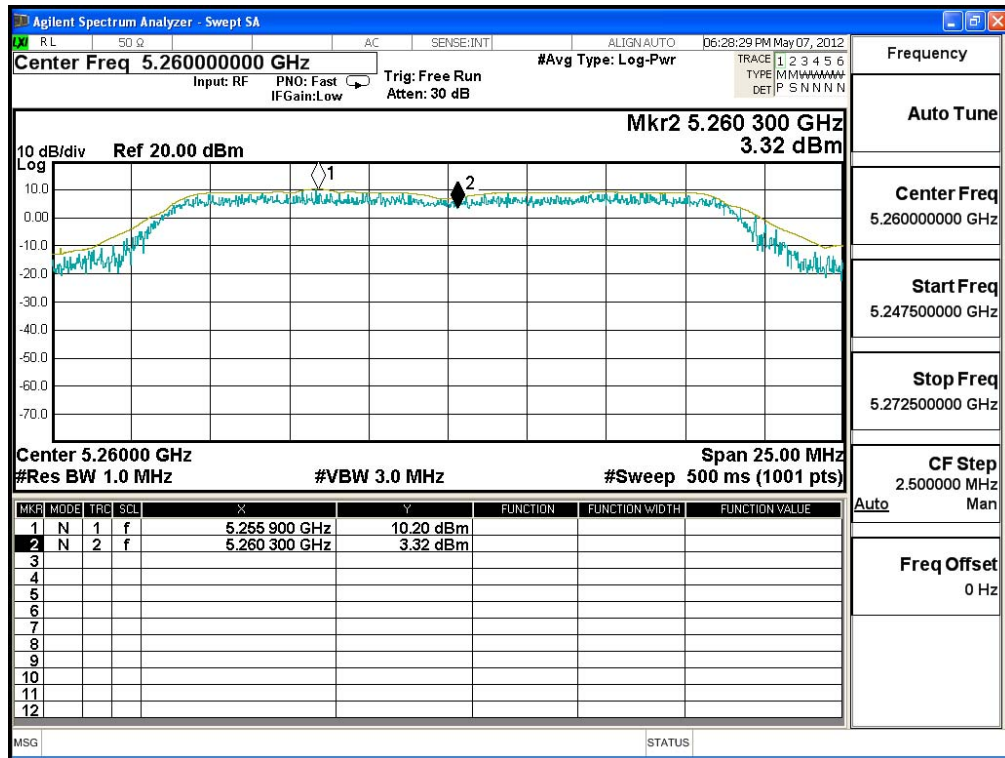
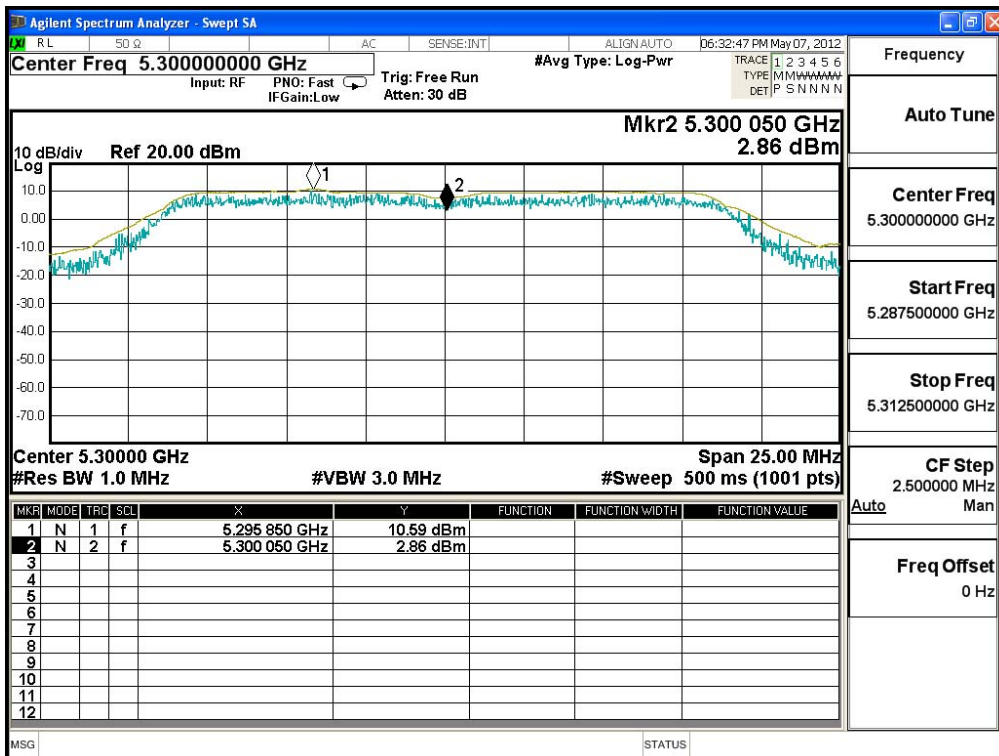


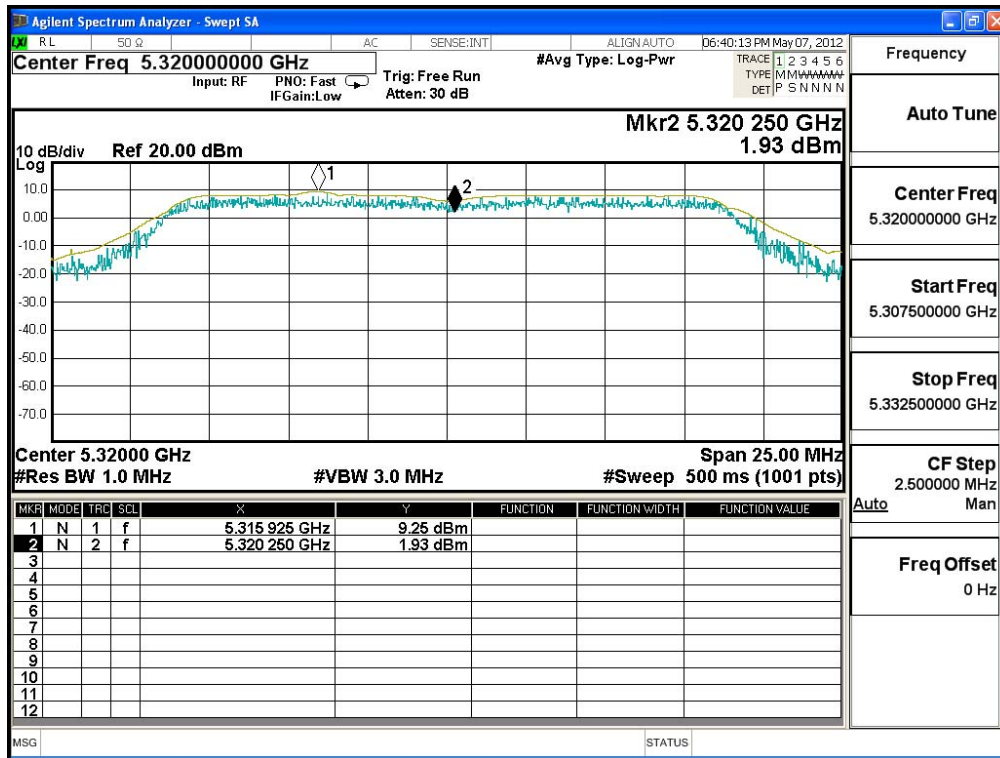
**Channel 52:**



**Channel 60:**

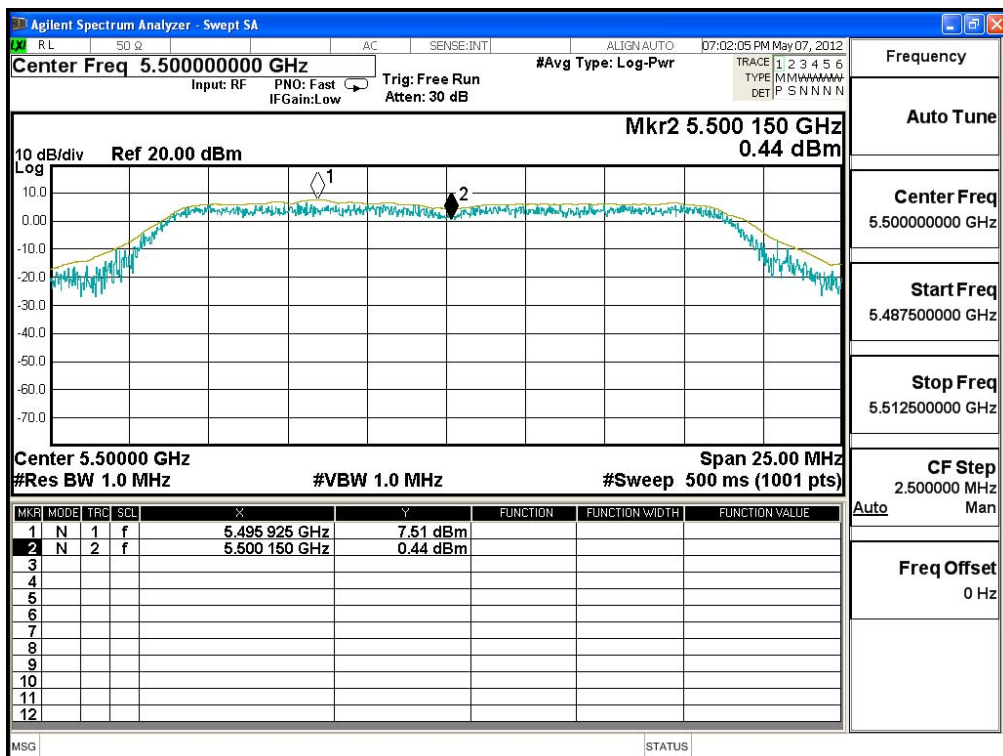


**Channel 64:**



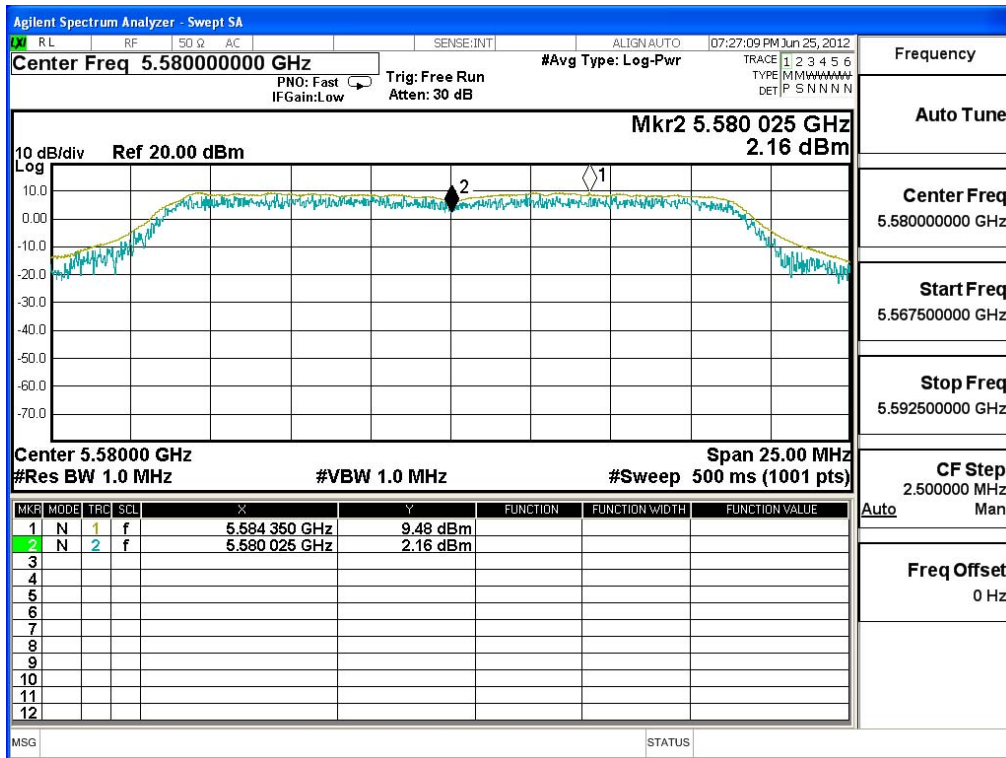
Frequency
Auto Tune
Center Freq 5.32000000 GHz
Start Freq 5.307500000 GHz
Stop Freq 5.332500000 GHz
CF Step 2.500000 MHz
Auto Man
Freq Offset 0 Hz

**Channel 100:**

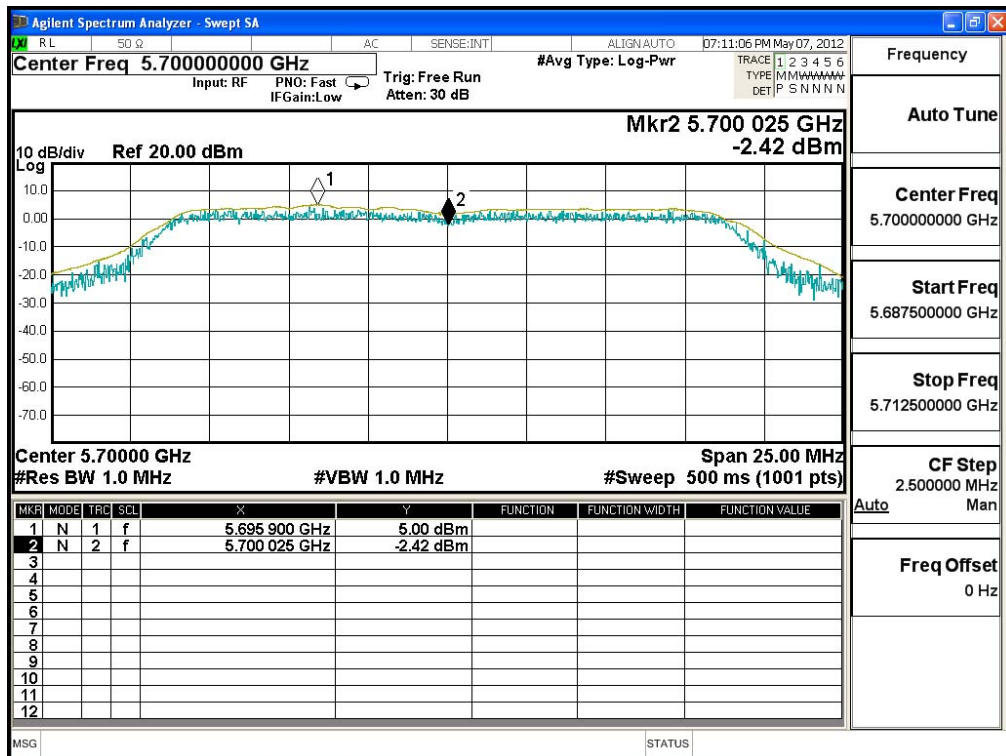


Frequency
Auto Tune
Center Freq 5.50000000 GHz
Start Freq 5.487500000 GHz
Stop Freq 5.512500000 GHz
CF Step 2.500000 MHz
Auto Man
Freq Offset 0 Hz

Channel 116:



Channel 140:

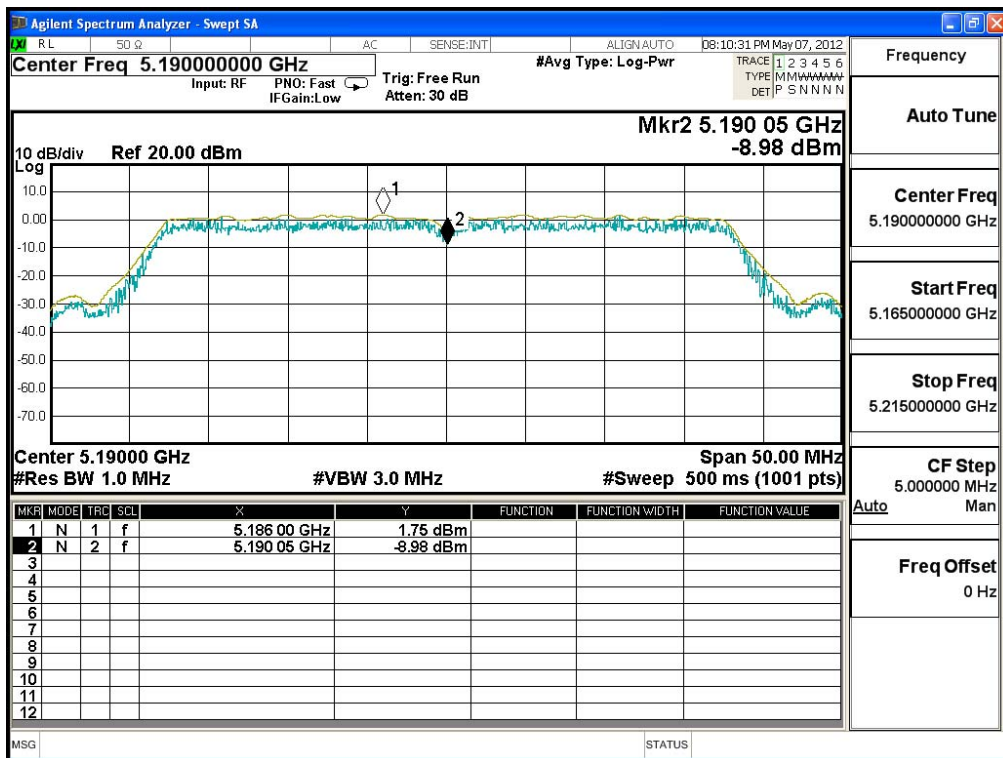


Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Peak Excursion  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps)

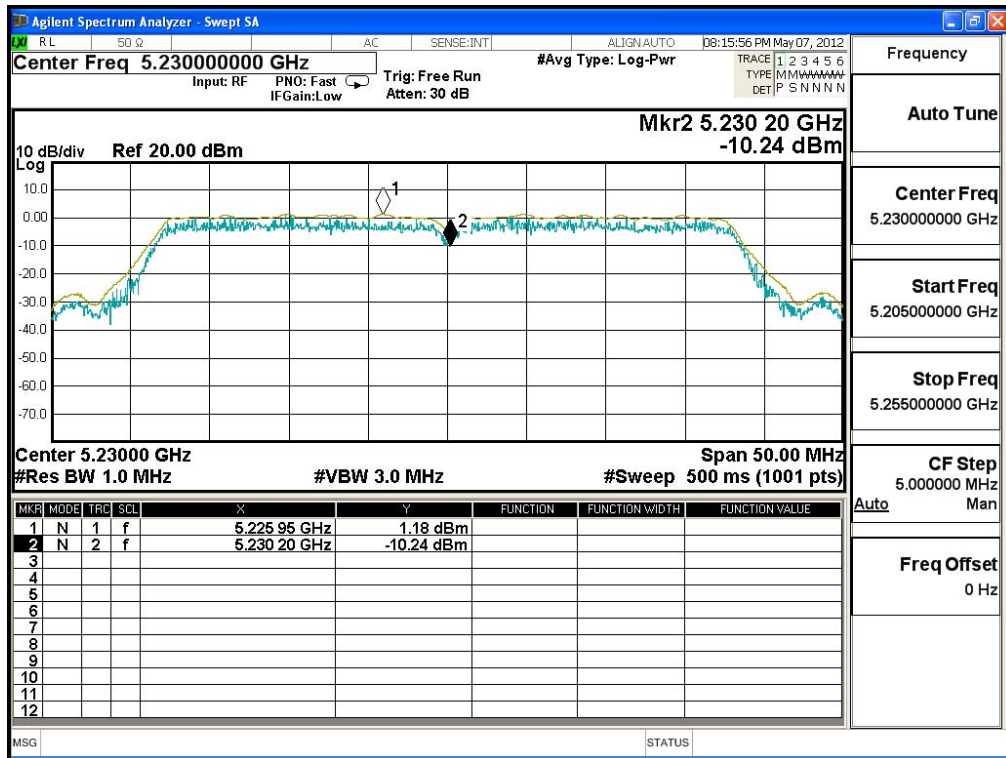
**Chain A**

Channel No.	Frequency (MHz)	Measurement Level (dB)	Required Limit (dB)	Result
38	5190	10.730	<13	Pass
46	5230	11.420	<13	Pass
54	5270	11.510	<13	Pass
62	5310	12.330	<13	Pass
102	5510	11.270	<13	Pass
110	5550	12.680	<13	Pass
134	5670	11.120	<13	Pass

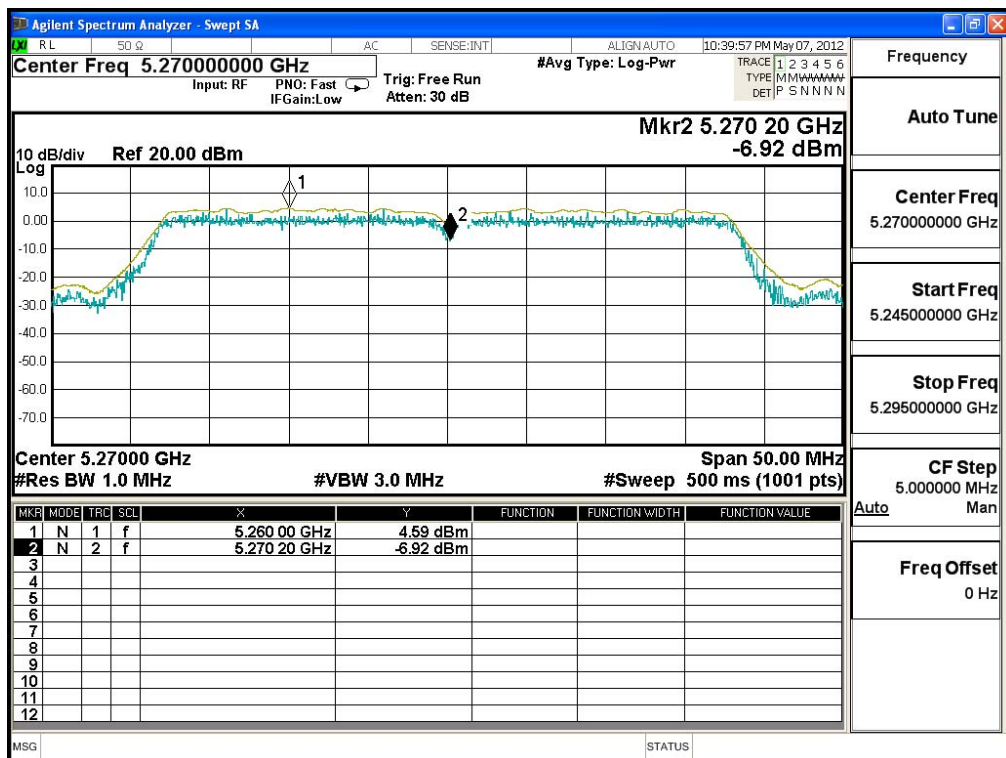
**Channel 38:**



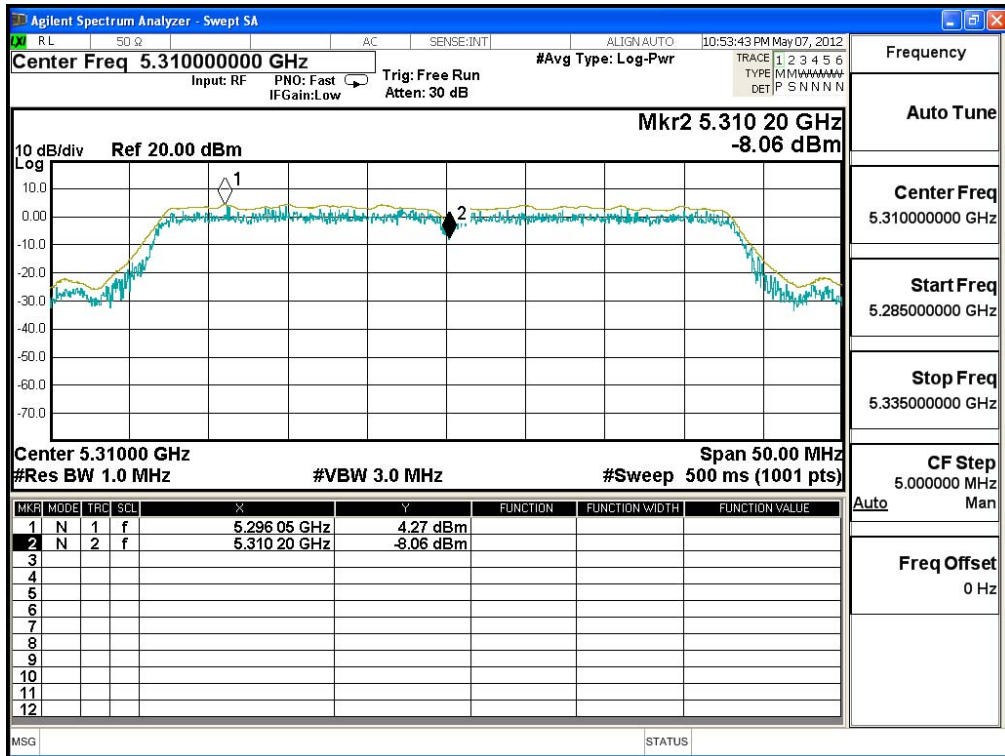
**Channel 46:**



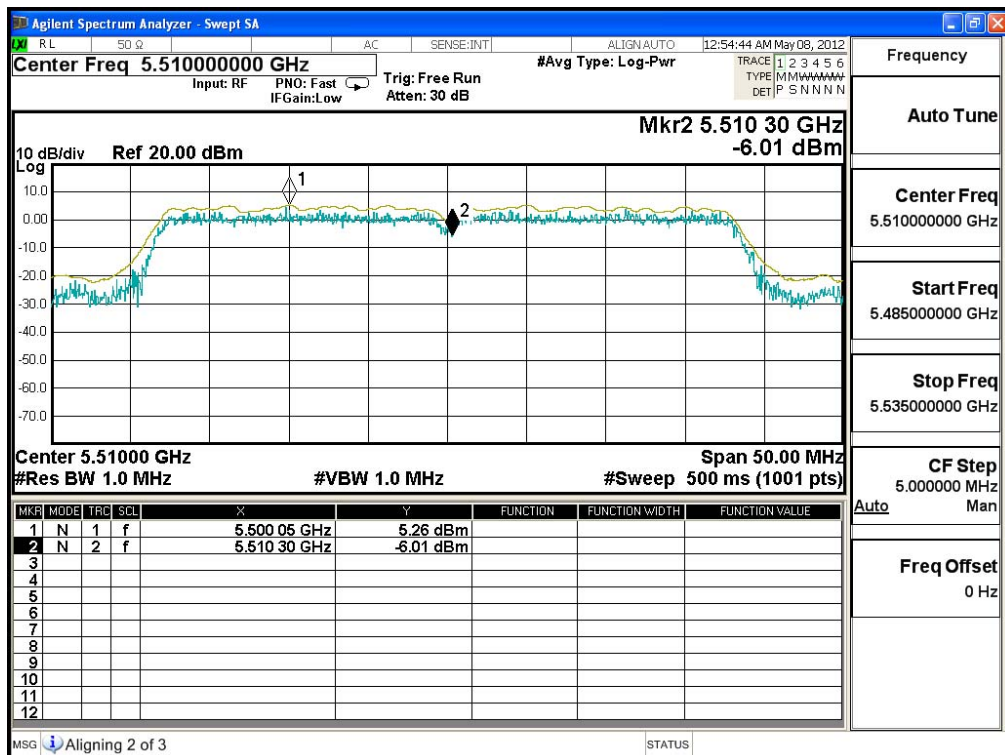
**Channel 54:**



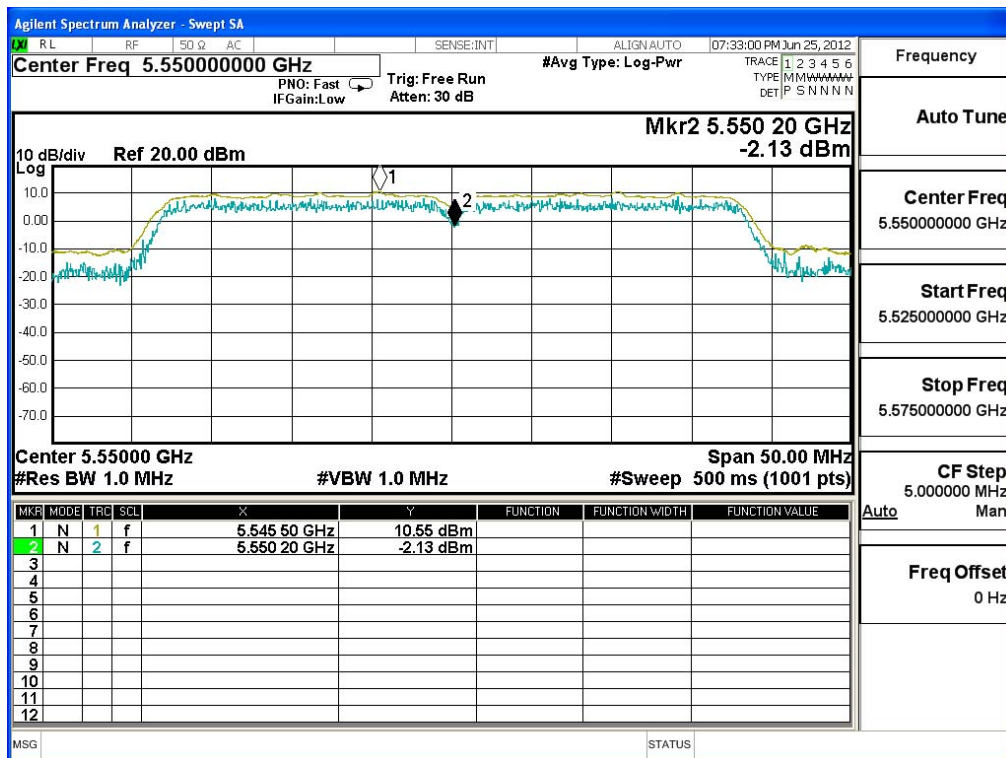
Channel 62:



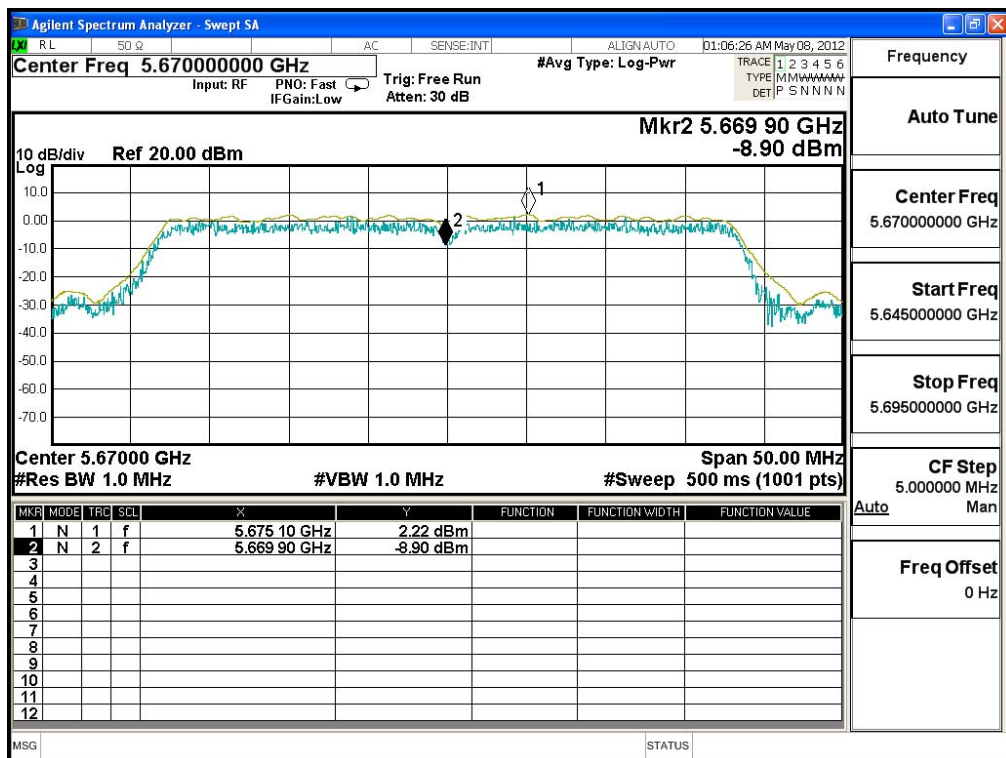
Channel 102:



**Channel 110:**



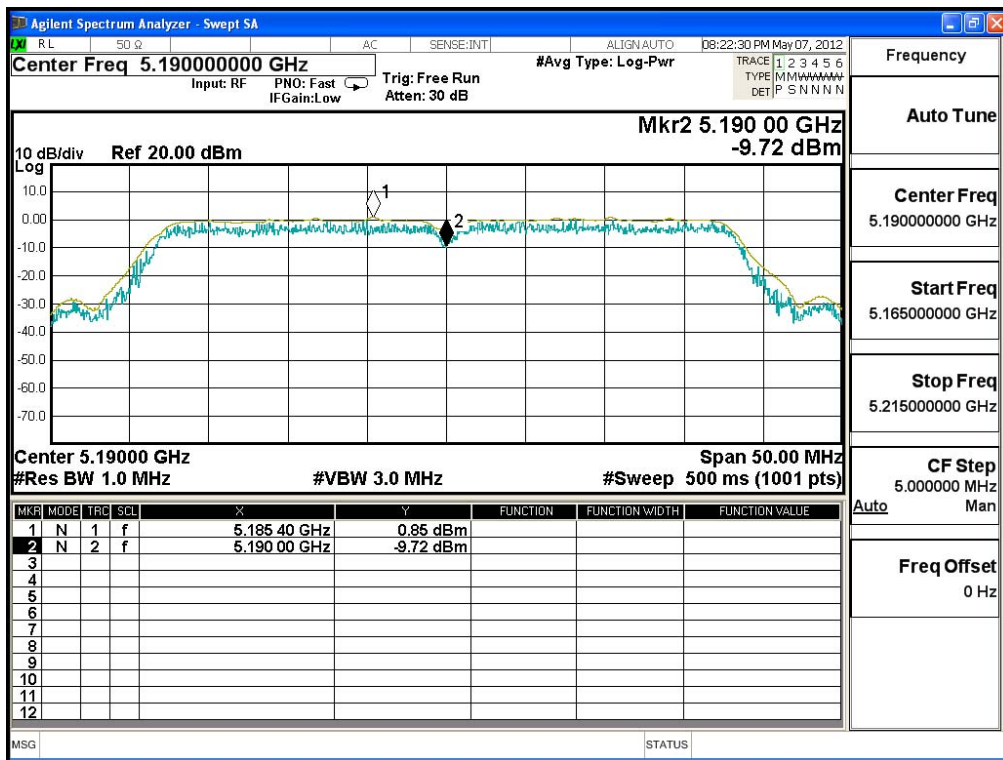
**Channel 134:**



**Chain B**

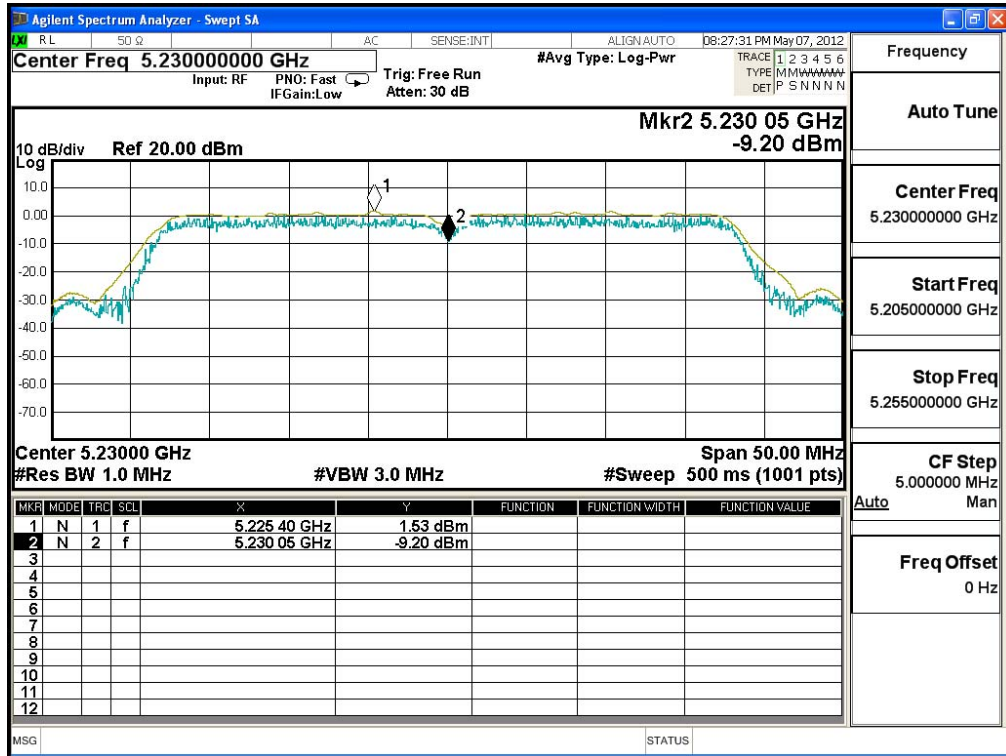
Channel No.	Frequency (MHz)	Measurement Level (dB)	Required Limit (dB)	Result
38	5190	10.570	<13	Pass
46	5230	10.730	<13	Pass
54	5270	10.660	<13	Pass
62	5310	10.750	<13	Pass
102	5510	10.890	<13	Pass
110	5550	11.360	<13	Pass
134	5670	11.600	<13	Pass

**Channel 38:**

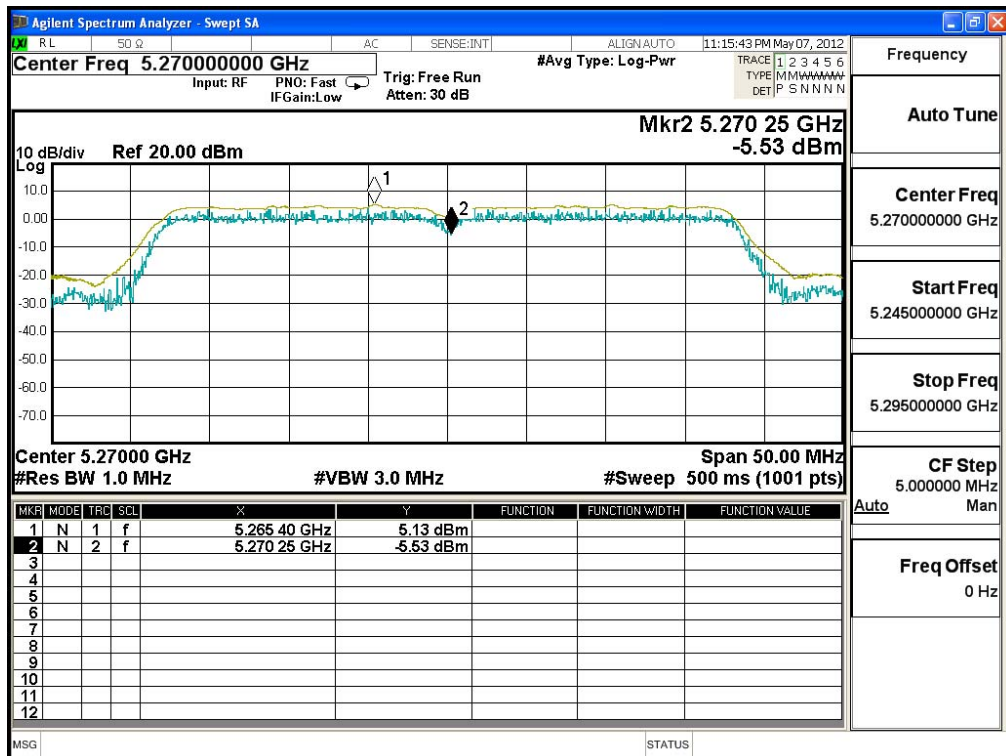




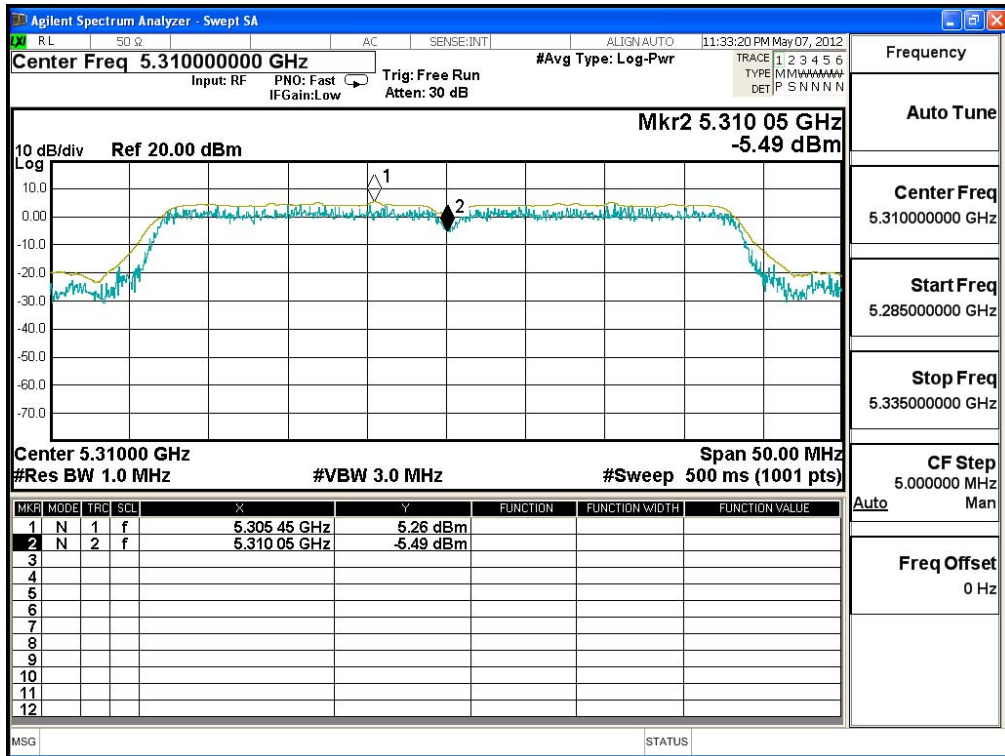
**Channel 46:**



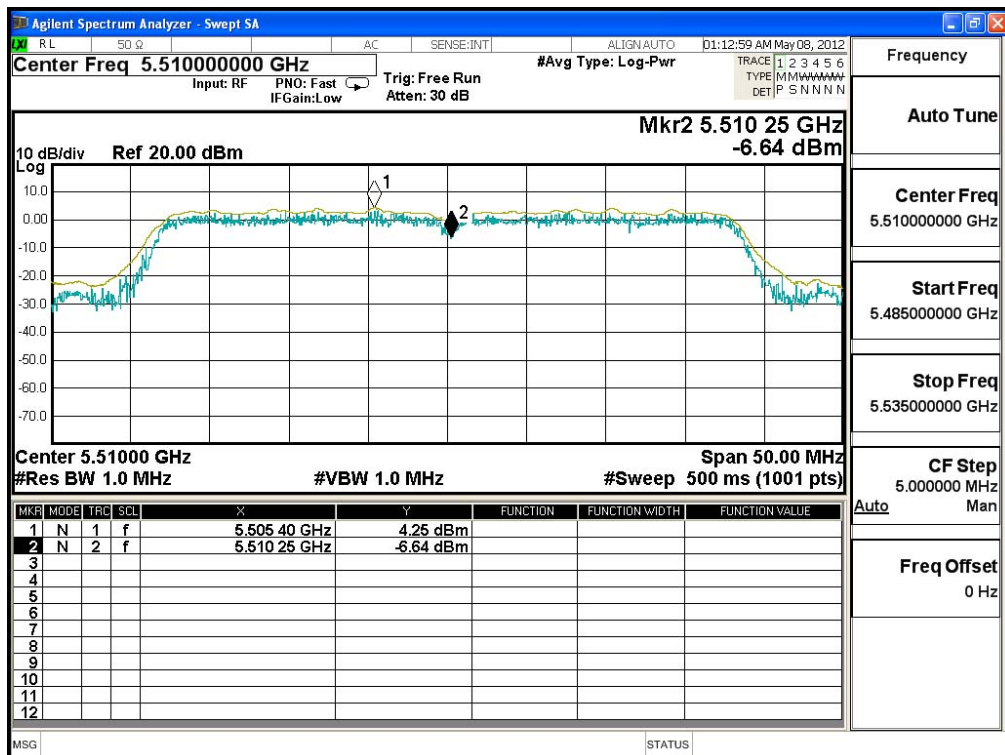
**Channel 54:**



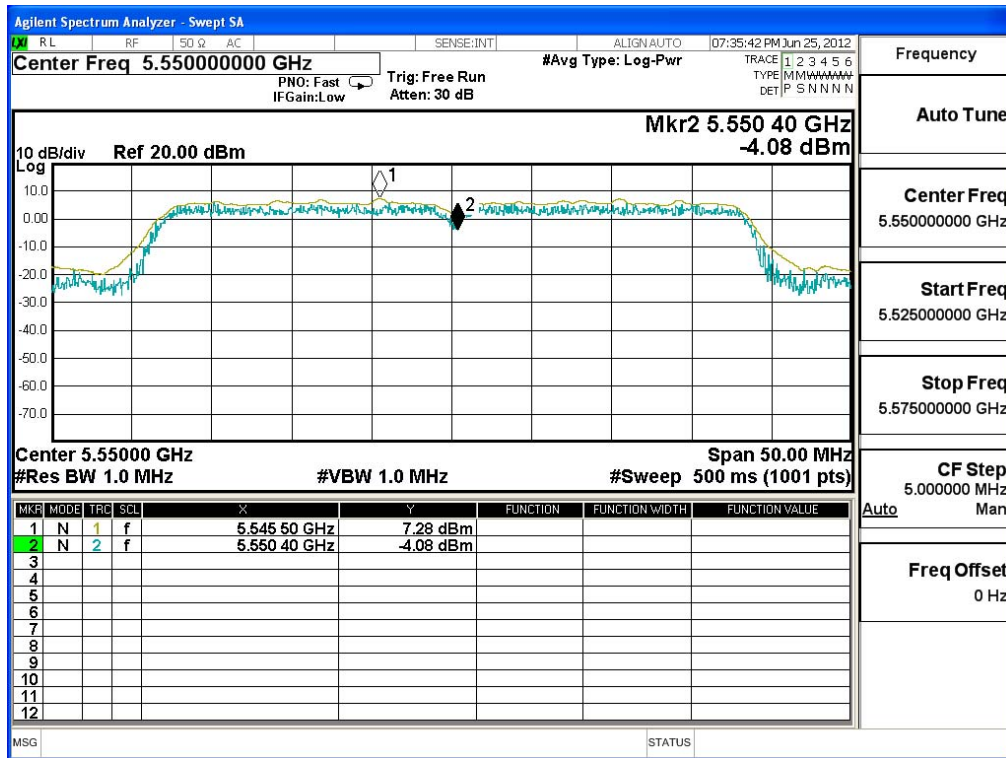
**Channel 62:**



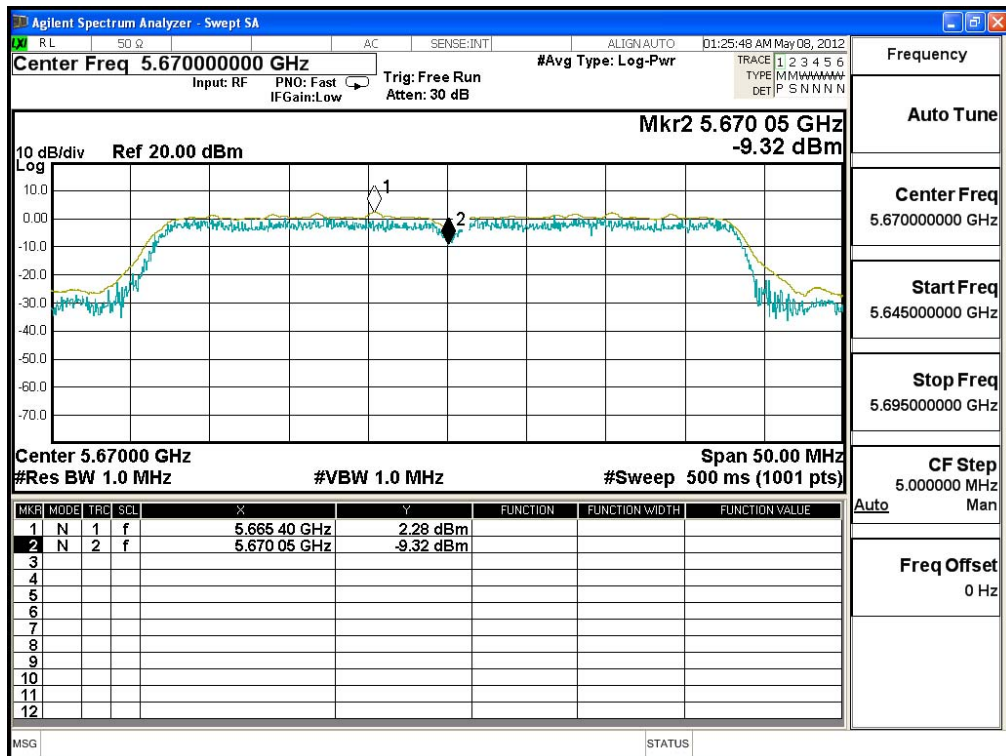
**Channel 102:**



**Channel 110:**



**Channel 134:**



## 6. Radiated Emission

### 6.1. Test Equipment

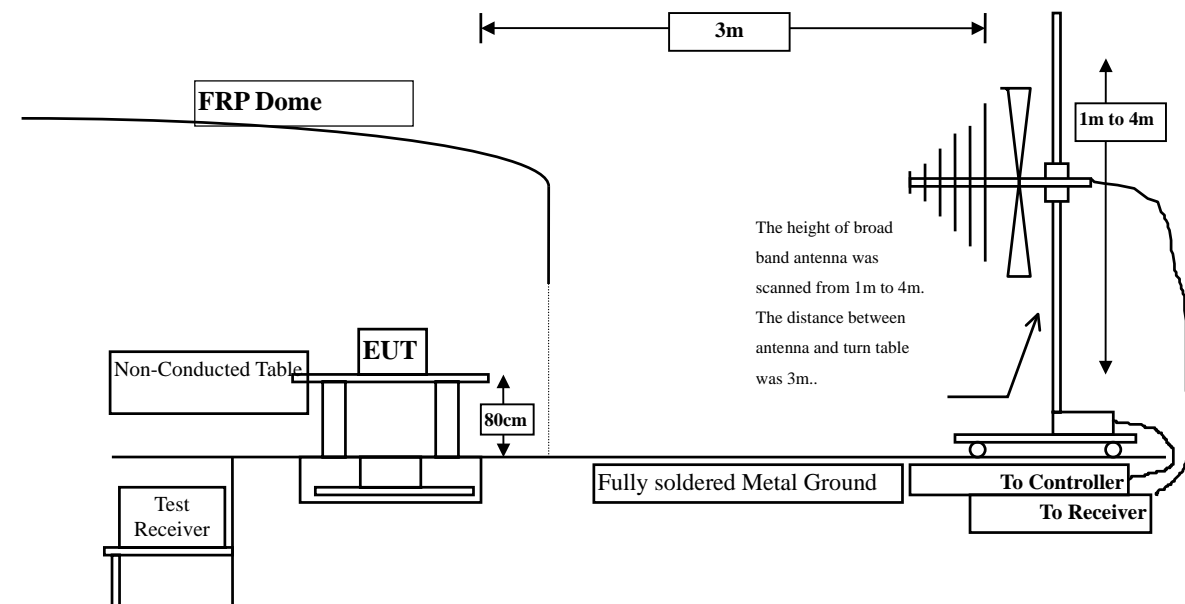
The following test equipments are used during the radiated emission test:

Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Site # 3	X	Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2011
	X	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2011
	X	Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2011
	X	Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2012
	X	Pre-Amplifier	QTK	AP-180C / CHM_0906076	Sep., 2011
	X	Pre-Amplifier	MITEQ	AMF-4D-180400-45-6P/ 925975	Mar, 2012
	X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2011
	X	Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2011
	X	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2012
	X	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	X	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

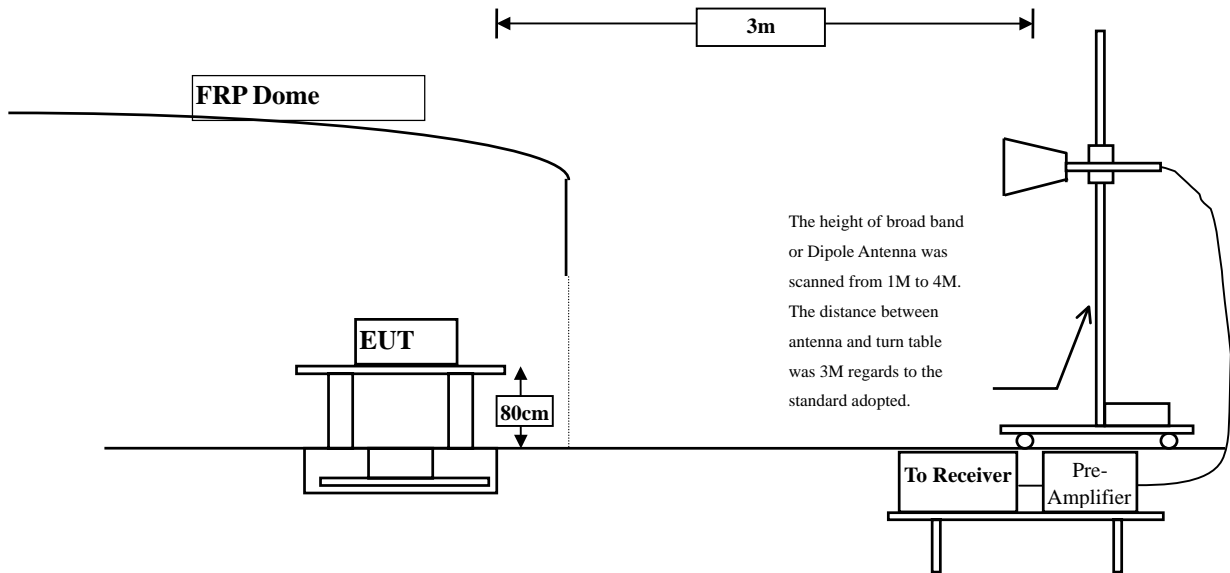
- Note:
1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
  2. The test instruments marked with "X" are used to measure the final test results.

### 6.2. Test Setup

Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



6.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209(a) Limits		
Frequency MHz	uV/m @ 3m	dBuV/m@3m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Remarks: E field strength (dBuV/m) = 20 log E field strength (uV/m)

#### **6.4. Test Procedure**

The EUT was setup according to ANSI C63.4, 2003 and tested according to FCC KDB-789033 test procedure for compliance to FCC 47CFR 15.407 requirements.

The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2003 on radiated measurement.

The resolution bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

Radiated emission measurements below 1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna.

The worst radiated emission is measured in the Open Area Test Site on the Final Measurement.

The measurement frequency range form 30MHz - 10th Harmonic of fundamental was investigated.

#### **6.5. Uncertainty**

± 3.8 dB below 1GHz

± 3.9 dB above 1GHz

## 6.6. Test Result of Radiated Emission

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5180MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
10360.000	12.930	37.430	50.360	-23.640	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
10360.000	13.724	36.910	50.634	-23.366	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5220MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
10440.000	13.322	37.510	50.832	-23.168	74.000
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					
10440.000	14.245	37.700	51.945	-22.055	74.000
<b>Vertical</b>					
<b>Peak Detector:</b>					
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.



Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11 a-6Mbps) (5240MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
10480.000	13.693	36.130	49.824	-24.176	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
10480.000	14.620	36.850	51.471	-22.529	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5260MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
10520.000	14.015	36.000	50.015	-23.985	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
<b>Average</b>					
<b>Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
10520.000	14.818	36.270	51.088	-22.912	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
<b>Average</b>					
<b>Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5300MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
10600.000	14.550	35.790	50.339	-23.661	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
10600.000	14.881	36.190	51.071	-22.929	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5320MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
10640.000	14.690	35.790	50.480	-23.520	74.000
15960.000	*	*	*	*	74.000
21280.000	*	*	*	*	74.000
26600.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
10640.000	15.083	36.810	51.893	-22.107	74.000
15960.000	*	*	*	*	74.000
21280.000	*	*	*	*	74.000
26600.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5500MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
11000.000	16.399	36.190	52.589	-21.411	74.000
16500.000	*	*	*	*	74.000
22000.000	*	*	*	*	74.000
27500.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
11000.000	17.132	35.790	52.922	-21.078	74.000
16500.000	*	*	*	*	74.000
22000.000	*	*	*	*	74.000
27500.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5580MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
11160.000	16.656	34.590	51.246	-22.754	74.000
16800.000	*	*	*	*	74.000
22400.000	*	*	*	*	74.000
28000.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
11160.000	17.726	34.720	52.446	-21.554	74.000
16800.000	*	*	*	*	74.000
22400.000	*	*	*	*	74.000
28000.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5700MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
11400.000	16.530	35.860	52.391	-21.609	74.000
17100.000	*	*	*	*	74.000
22800.000	*	*	*	*	74.000
28500.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
11400.000	17.138	34.870	52.008	-21.992	74.000
17100.000	*	*	*	*	74.000
22800.000	*	*	*	*	74.000
28500.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5180MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
10360.000	12.930	38.350	51.280	-22.720	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
10360.000	13.724	36.720	50.444	-23.556	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.



Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5220MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
10440.000	13.322	37.160	50.482	-23.518	74.000
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
10440.000	14.245	36.900	51.145	-22.855	74.000
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5240MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
10480.000	13.693	36.060	49.754	-24.246	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
10480.000	14.620	36.710	51.331	-22.669	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
<b>Average Detector:</b>					
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Note:

- All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- Measurement Level = Reading Level + Correct Factor.
- Correct Factor = Antenna factor + Cable loss – Amplifier gain.
- The average measurement was not performed when the peak measured data under the limit of average detection.
- The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5260MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
10520.000	14.015	36.180	50.195	-23.805	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
10520.000	14.818	36.360	51.178	-22.822	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
<b>Average Detector:</b>					
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Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5300MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
10600.000	14.550	36.120	50.669	-23.331	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
10600.000	14.881	36.120	51.001	-22.999	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500.000	*	*	*	*	74.000
<b>Average Detector:</b>					
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Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5320MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
10640.000	14.690	35.360	50.050	-23.950	74.000
15960.000	*	*	*	*	74.000
21280.000	*	*	*	*	74.000
26600.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
10640.000	15.083	35.790	50.873	-23.127	74.000
15960.000	*	*	*	*	74.000
21280.000	*	*	*	*	74.000
26600.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5500MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
11000.000	16.399	35.980	52.379	-21.621	74.000
16500.000	*	*	*	*	74.000
22000.000	*	*	*	*	74.000
27500.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
11000.000	17.132	35.970	53.102	-20.898	74.000
16500.000	*	*	*	*	74.000
22000.000	*	*	*	*	74.000
27500.000	*	*	*	*	74.000
<b>Average Detector:</b>					
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Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5580MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
11160.000	16.656	34.990	51.646	-22.354	74.000
16800.000	*	*	*	*	74.000
22400.000	*	*	*	*	74.000
28000.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
11160.000	17.726	35.210	52.936	-21.064	74.000
16800.000	*	*	*	*	74.000
22400.000	*	*	*	*	74.000
28000.000	*	*	*	*	74.000
<b>Average Detector:</b>					
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Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5700MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
11400.000	16.530	34.790	51.321	-22.679	74.000
17100.000	*	*	*	*	74.000
22800.000	*	*	*	*	74.000
28500.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
11400.000	17.138	34.720	51.858	-22.142	74.000
17100.000	*	*	*	*	74.000
22800.000	*	*	*	*	74.000
28500.000	*	*	*	*	74.000
<b>Average Detector:</b>					
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Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.



Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5190MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
10380.000	12.939	37.120	50.059	-23.941	74.000
15570.000	*	*	*	*	74.000
20760.000	*	*	*	*	74.000
25950.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
10380.000	13.796	36.650	50.446	-23.554	74.000
15570.000	*	*	*	*	74.000
20760.000	*	*	*	*	74.000
25950.000	*	*	*	*	74.000
<b>Average Detector:</b>					
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Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5230MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
10460.000	13.508	36.370	49.878	-24.122	74.000
15690.000	*	*	*	*	74.000
20920.000	*	*	*	*	74.000
26150.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
10460.000	14.433	36.910	51.343	-22.657	74.000
15690.000	*	*	*	*	74.000
20920.000	*	*	*	*	74.000
26150.000	*	*	*	*	74.000
<b>Average Detector:</b>					
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Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5270MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
10540.000	14.151	35.560	49.710	-24.290	74.000
15810.000	*	*	*	*	74.000
21080.000	*	*	*	*	74.000
26350.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
10540.000	14.829	36.690	51.518	-22.482	74.000
15810.000	*	*	*	*	74.000
21080.000	*	*	*	*	74.000
26350.000	*	*	*	*	74.000
<b>Average Detector:</b>					
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Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5310MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
10620.000	14.623	36.130	50.753	-23.247	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
10620.000	14.970	35.110	50.080	-23.920	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
<b>Average Detector:</b>					
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Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5510MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
11020.000	16.474	35.940	52.413	-21.587	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
11020.000	17.224	35.950	53.174	-20.826	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
<b>Average Detector:</b>					
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Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5550MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
11100.000	16.657	34.580	51.236	-22.764	74.000
16770.000	*	*	*	*	74.000
22360.000	*	*	*	*	74.000
27950.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
11100.000	17.681	34.120	51.800	-22.200	74.000
16770.000	*	*	*	*	74.000
22360.000	*	*	*	*	74.000
27950.000	*	*	*	*	74.000
<b>Average Detector:</b>					
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Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5670MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
11340.000	16.408	35.170	51.577	-22.423	74.000
17010.000	*	*	*	*	74.000
22680.000	*	*	*	*	74.000
28350.000	*	*	*	*	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
11340.000	17.167	34.570	51.737	-22.263	74.000
17010.000	*	*	*	*	74.000
22680.000	*	*	*	*	74.000
28350.000	*	*	*	*	74.000
<b>Average Detector:</b>					
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Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5220MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector</b>					
134.760	-10.298	47.611	37.313	-6.187	43.500
235.640	-8.540	42.262	33.722	-12.278	46.000
373.380	-1.163	34.525	33.362	-12.638	46.000
499.480	0.048	36.242	36.290	-9.710	46.000
792.420	5.209	28.911	34.120	-11.880	46.000
961.200	6.450	27.866	34.316	-19.684	54.000
<b>Vertical</b>					
<b>Peak Detector</b>					
64.920	-5.683	41.126	35.443	-4.557	40.000
105.660	-0.253	35.134	34.881	-8.619	43.500
272.500	-9.019	34.213	25.194	-20.806	46.000
499.480	-0.852	32.862	32.010	-13.990	46.000
749.740	2.510	29.274	31.784	-14.216	46.000
961.200	7.260	27.673	34.933	-19.067	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.



Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5300MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector</b>					
127.000	-10.017	47.275	37.258	-6.242	43.500
243.400	-6.441	39.859	33.418	-12.582	46.000
499.480	0.048	36.248	36.296	-9.704	46.000
600.360	3.977	29.308	33.285	-12.715	46.000
792.420	5.209	29.018	34.227	-11.773	46.000
961.200	6.450	27.451	33.901	-20.099	54.000
<b>Vertical</b>					
<b>Peak Detector</b>					
64.920	-5.683	39.654	33.971	-6.029	40.000
113.420	-1.849	37.030	35.181	-8.319	43.500
258.920	-7.490	32.110	24.620	-21.380	46.000
499.480	-0.852	33.428	32.576	-13.424	46.000
749.740	2.510	28.448	30.958	-15.042	46.000
961.200	7.260	27.552	34.812	-19.188	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5580MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector</b>					
127.000	-10.017	47.013	36.996	-6.504	43.500
237.580	-7.700	40.942	33.242	-12.758	46.000
375.320	-1.209	34.453	33.244	-12.756	46.000
549.920	2.943	33.976	36.919	-9.081	46.000
794.360	5.181	28.152	33.333	-12.667	46.000
961.200	6.450	25.940	32.390	-21.610	54.000
<b>Vertical</b>					
<b>Peak Detector</b>					
64.920	-5.683	38.997	33.314	-6.686	40.000
113.420	-1.849	37.738	35.889	-7.611	43.500
274.440	-8.718	33.848	25.130	-20.870	46.000
499.480	-0.852	33.357	32.505	-13.495	46.000
749.740	2.510	29.828	32.338	-13.662	46.000
961.200	7.260	27.876	35.136	-18.864	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5220MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector</b>					
144.460	-10.377	47.473	37.096	-6.404	43.500
233.700	-8.619	47.376	38.757	-7.243	46.000
499.480	0.048	35.372	35.420	-10.580	46.000
600.360	3.977	28.767	32.744	-13.256	46.000
798.240	5.148	28.802	33.950	-12.050	46.000
965.080	6.852	31.069	37.921	-16.079	54.000
<b>Vertical</b>					
<b>Peak Detector</b>					
59.100	-4.097	38.152	34.055	-5.945	40.000
105.660	-0.253	36.272	36.019	-7.481	43.500
272.500	-9.019	35.110	26.091	-19.909	46.000
499.480	-0.852	32.858	32.006	-13.994	46.000
749.740	2.510	28.375	30.885	-15.115	46.000
961.200	7.260	27.126	34.386	-19.614	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5300MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector</b>					
134.760	-10.298	46.880	36.582	-6.918	43.500
245.340	-6.346	40.279	33.933	-12.067	46.000
499.480	0.048	35.430	35.478	-10.522	46.000
600.360	3.977	29.412	33.389	-12.611	46.000
794.360	5.181	31.919	37.100	-8.900	46.000
968.960	6.981	29.528	36.509	-17.491	54.000
<b>Vertical</b>					
<b>Peak Detector</b>					
68.800	-6.305	39.567	33.262	-6.738	40.000
113.420	-1.849	38.430	36.581	-6.919	43.500
332.640	-4.914	31.353	26.439	-19.561	46.000
499.480	-0.852	33.117	32.265	-13.735	46.000
749.740	2.510	28.971	31.481	-14.519	46.000
961.200	7.260	27.086	34.346	-19.654	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5580MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector</b>					
132.820	-10.230	46.778	36.548	-6.952	43.500
241.460	-6.531	41.347	34.816	-11.184	46.000
371.440	-1.097	33.933	32.836	-13.164	46.000
600.360	3.977	28.373	32.350	-13.650	46.000
794.360	5.181	29.464	34.645	-11.355	46.000
961.200	6.450	27.708	34.158	-19.842	54.000
<b>Vertical</b>					
<b>Peak Detector</b>					
64.920	-5.683	39.005	33.322	-6.678	40.000
105.660	-0.253	37.022	36.769	-6.731	43.500
264.740	-7.681	35.141	27.460	-18.540	46.000
499.480	-0.852	34.205	33.353	-12.647	46.000
749.740	2.510	30.716	33.226	-12.774	46.000
961.200	7.260	26.652	33.912	-20.088	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5190MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector</b>					
127.000	-10.017	46.860	36.843	-6.657	43.500
243.400	-6.441	39.946	33.505	-12.495	46.000
367.560	-1.205	34.094	32.889	-13.111	46.000
600.360	3.977	30.162	34.139	-11.861	46.000
792.420	5.209	30.268	35.477	-10.523	46.000
961.200	6.450	26.545	32.995	-21.005	54.000
<b>Vertical</b>					
<b>Peak Detector</b>					
64.920	-5.683	39.698	34.015	-5.985	40.000
103.720	-0.151	37.707	37.555	-5.945	43.500
272.500	-9.019	34.903	25.884	-20.116	46.000
499.480	-0.852	32.871	32.019	-13.981	46.000
749.740	2.510	29.099	31.609	-14.391	46.000
961.200	7.260	26.975	34.235	-19.765	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5270MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector</b>					
127.000	-10.017	47.519	37.502	-5.998	43.500
241.460	-6.531	40.493	33.962	-12.038	46.000
499.480	0.048	36.485	36.533	-9.467	46.000
600.360	3.977	29.114	33.091	-12.909	46.000
784.660	4.452	29.072	33.524	-12.476	46.000
961.200	6.450	28.332	34.782	-19.218	54.000
<b>Vertical</b>					
<b>Peak Detector</b>					
64.920	-5.683	39.150	33.467	-6.533	40.000
103.720	-0.151	37.196	37.044	-6.456	43.500
272.500	-9.019	34.326	25.307	-20.693	46.000
499.480	-0.852	32.989	32.137	-13.863	46.000
749.740	2.510	29.500	32.010	-13.990	46.000
961.200	7.260	26.472	33.732	-20.268	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5550MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector</b>					
134.760	-10.298	46.586	36.288	-7.212	43.500
270.560	-5.007	38.530	33.523	-12.477	46.000
499.480	0.048	35.351	35.399	-10.601	46.000
720.640	3.511	29.512	33.023	-12.977	46.000
794.360	5.181	29.243	34.424	-11.576	46.000
961.200	6.450	26.791	33.241	-20.759	54.000
<b>Vertical</b>					
<b>Peak Detector</b>					
64.920	-5.683	39.522	33.839	-6.161	40.000
103.720	-0.151	36.073	35.921	-7.579	43.500
266.680	-8.213	34.777	26.564	-19.436	46.000
499.480	-0.852	32.802	31.950	-14.050	46.000
796.300	2.831	28.874	31.705	-14.295	46.000
961.200	7.260	27.392	34.652	-19.348	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.



## 7. Band Edge

### 7.1. Test Equipment

#### RF Conducted Measurement

The following test equipments are used during the band edge tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2012
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2012
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2012

Note:

1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with "X" are used to measure the final test results.

#### RF Radiated Measurement:

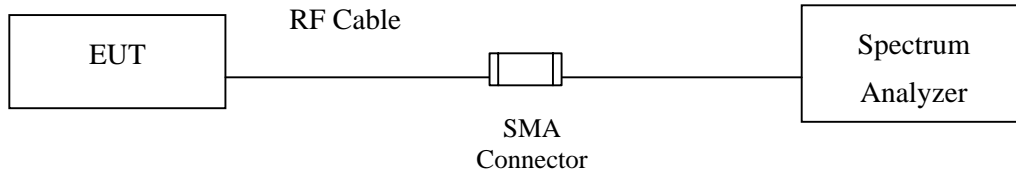
The following test equipments are used during the band edge tests:

Test Site	Equipment	Manufacturer	Model No./Serial No.	Last Cal.	
☒ Site # 3		Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2011
	X	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2011
		Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2011
		Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2012
	X	Pre-Amplifier	QTK	AP-180C / CHM_0906076	Sep., 2011
		Pre-Amplifier	MITEQ	AMF-4D-180400-45-6P/ 925975	Mar, 2012
	X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2011
		Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2011
	X	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2012
	X	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	X	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

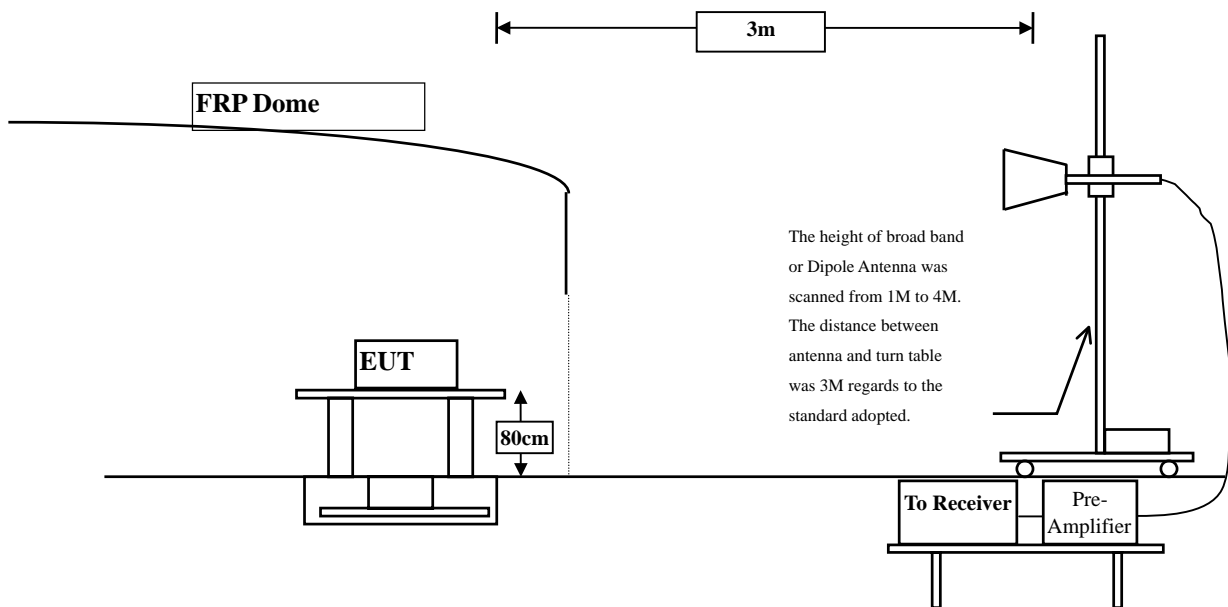
- Note:
1. All instruments are calibrated every one year.
  2. The test instruments marked by "X" are used to measure the final test results.

## 7.2. Test Setup

### RF Conducted Measurement



### RF Radiated Measurement:



**7.3. Limits**

The provisions of Section 15.205 of this part apply to intentional radiators operating under this section.

Radiated emissions which fall in the restricted bands, as defined in Section 15.205, must also comply with the radiated emission limits specified in Section 15.209:

<b>FCC Part 15 Subpart C Paragraph 15.209 Limits</b>		
Frequency MHz	uV/m @3m	dBuV/m@3m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

- Remarks :
1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
  2. In the Above Table, the tighter limit applies at the band edges.
  3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

**7.4. Test Procedure**

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4:2003 on radiated measurement.

The bandwidth below 1GHz setting on the field strength meter is 120 kHz, above 1GHz are 1 MHz. The EUT was setup to ANSI C63.4, 2003; tested to DTS test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

**7.5. Uncertainty**

- ± 3.8 dB below 1GHz
- ± 3.9 dB above 1GHz

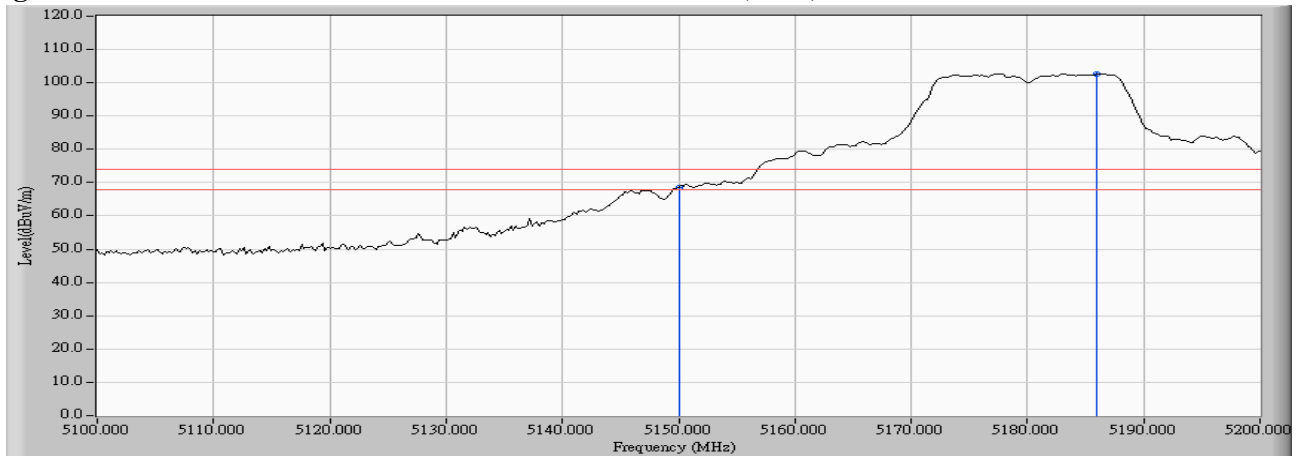
### 7.6. Test Result of Band Edge

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)-Channel 36

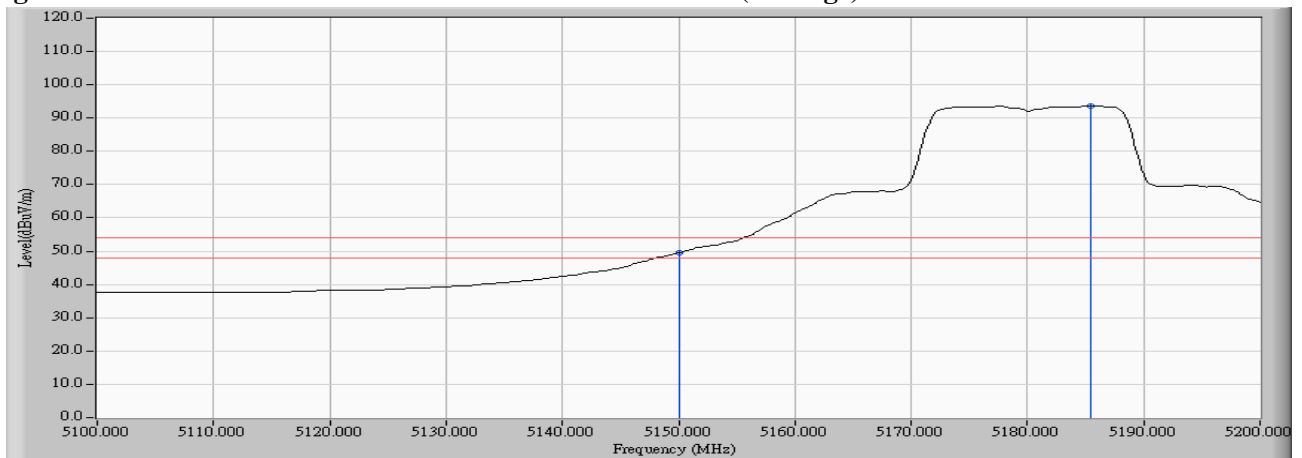
#### RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
36 (Peak)	5150.000	3.340	65.028	68.368	74.00	54.00	Pass
36 (Peak)	5186.000	3.214	99.529	102.742	--	--	Pass
36 (Average)	5150.000	3.340	65.028	68.368	74.00	54.00	Pass
36 (Average)	5186.000	3.214	99.529	102.742	--	--	Pass

**Figure Channel 36: Horizontal (Peak)**



**Figure Channel 36: Horizontal (Average)**



## Note:

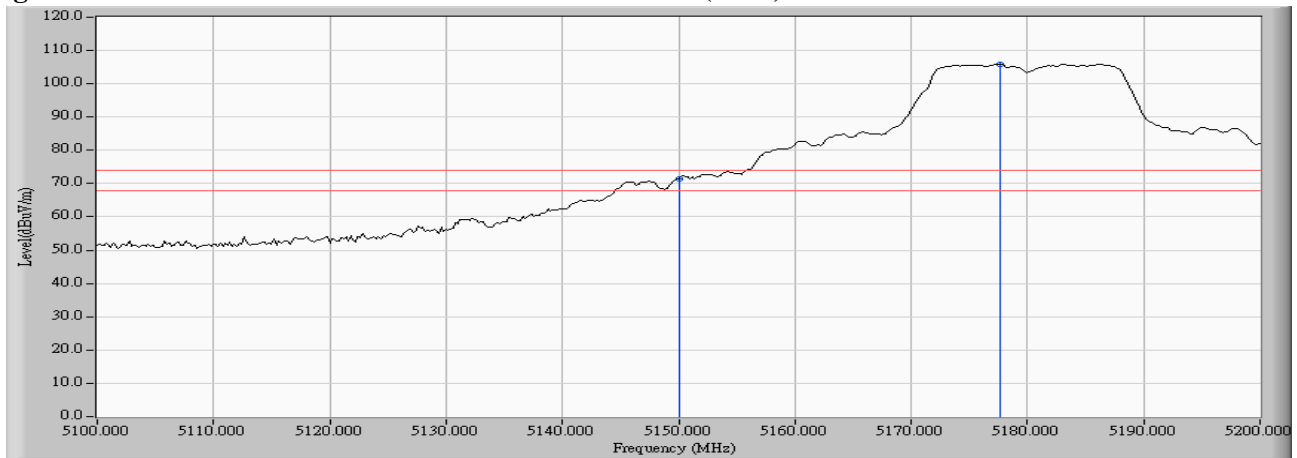
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)-Channel 36

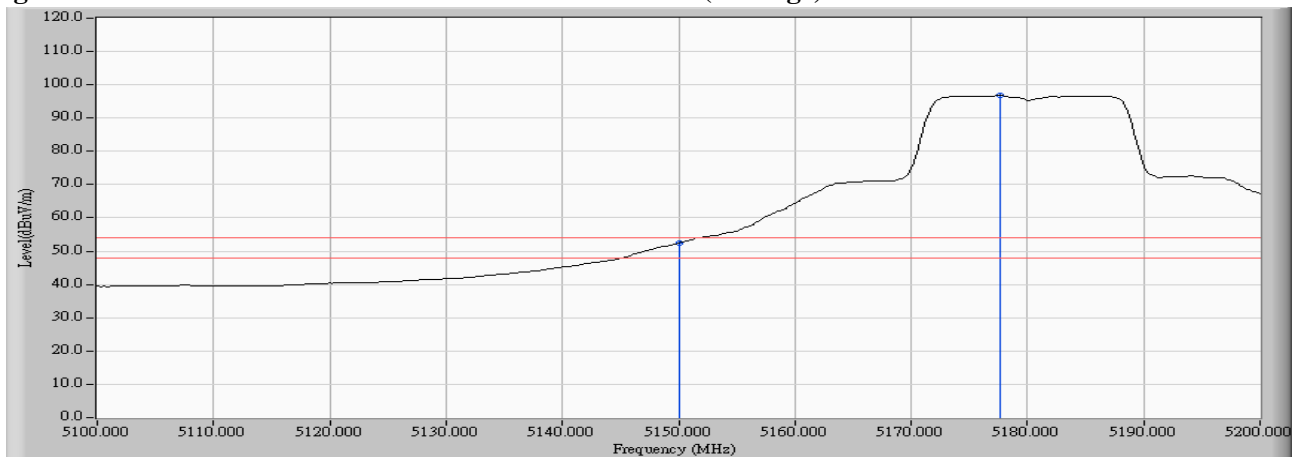
**RF Radiated Measurement (Vertical):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
36 (Peak)	5150.000	5.260	66.053	71.313	74.00	54.00	Pass
36 (Peak)	5177.600	5.336	100.525	105.860	--	--	Pass
36 (Average)	5150.000	5.260	47.094	52.354	74.00	54.00	Pass
36 (Average)	5177.600	5.336	91.398	96.733	--	--	Pass

**Figure Channel 36: Vertical (Peak)**



**Figure Channel 36: Vertical (Average)**



**Note:**

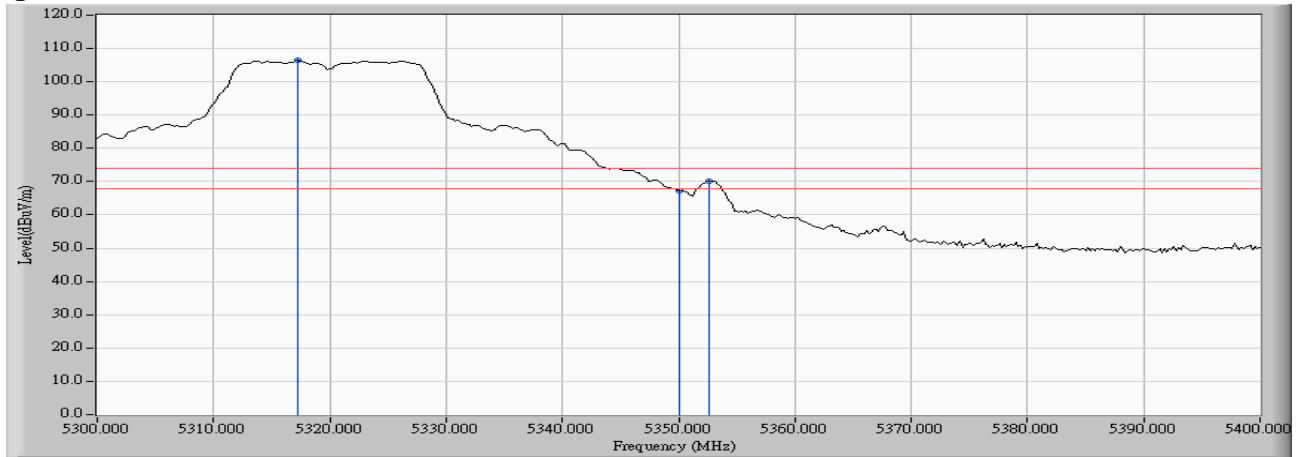
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) -Channel 64

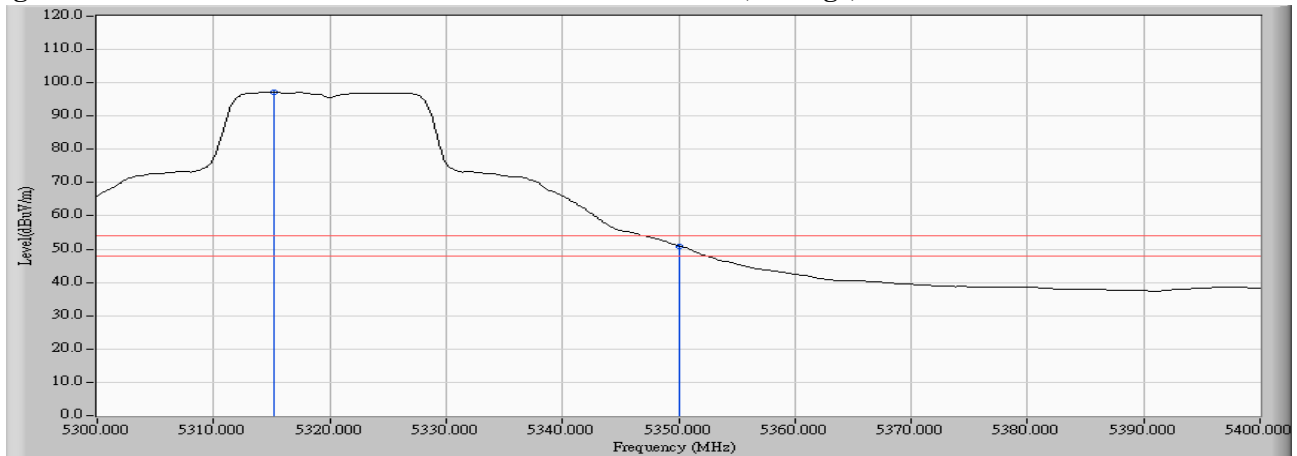
**RF Radiated Measurement (Horizontal):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
64 (Peak)	5317.200	3.821	102.524	106.345	--	--	Pass
64 (Peak)	5350.000	3.716	63.639	67.356	74.00	54.00	Pass
64 (Peak)	5352.600	3.708	66.486	70.194	--	--	
64 (Average)	5315.200	3.827	93.240	97.068	--	--	Pass
64 (Average)	5350.000	3.716	47.259	50.976	74.00	54.00	Pass

**Figure Channel 64: Horizontal (Peak)**



**Figure Channel 64: Horizontal (Average)**



Note:

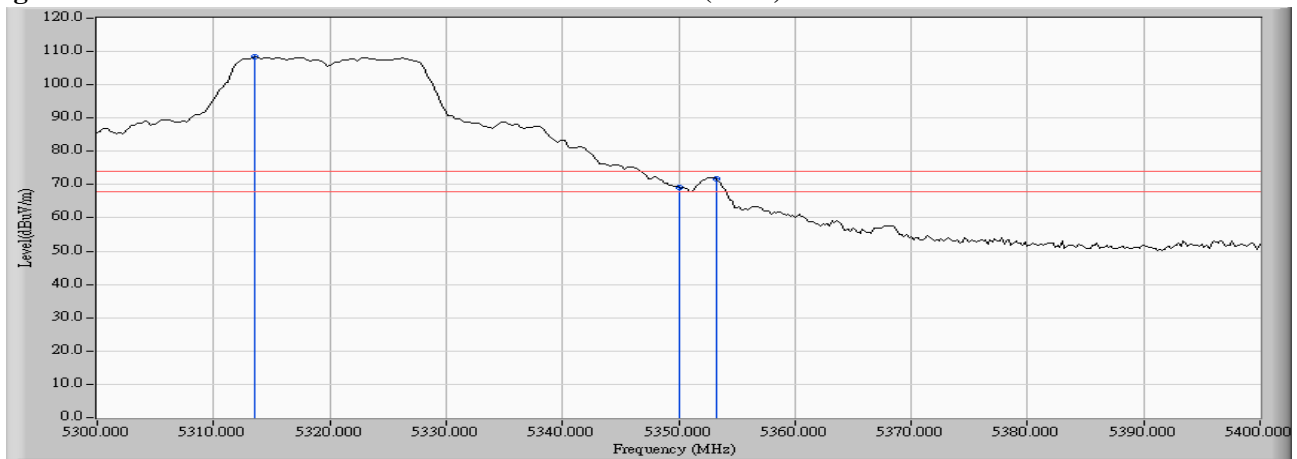
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) -Channel 64

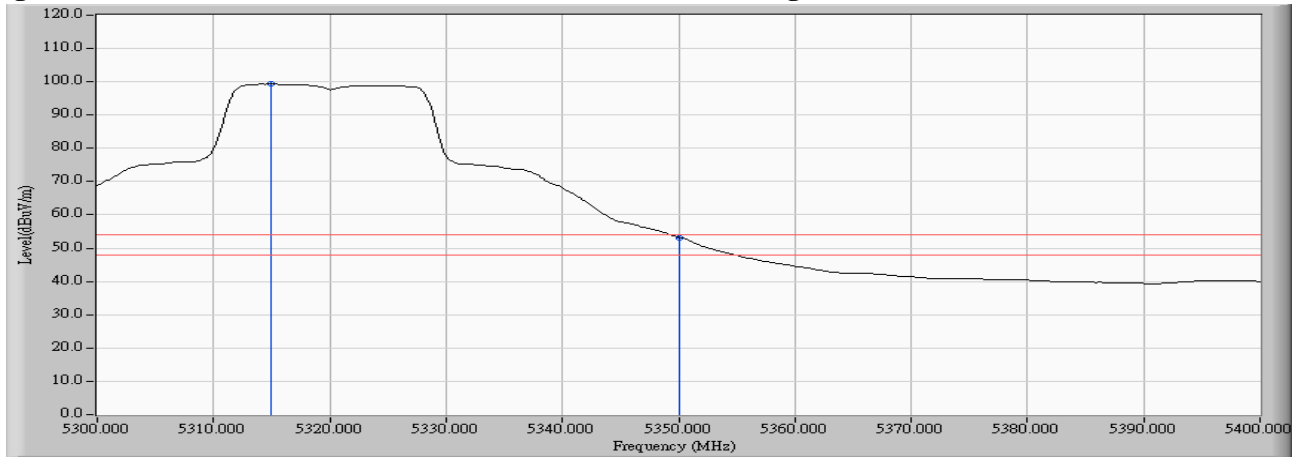
**RF Radiated Measurement (Vertical):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
64 (Peak)	5313.600	5.738	102.590	108.327	--	--	Pass
64 (Peak)	5350.000	5.691	63.388	69.080	74.00	54.00	Pass
64 (Peak)	5353.200	5.688	66.214	71.901	74.00	54.00	
64 (Average)	5315.000	5.736	93.541	99.277	--	--	Pass
64 (Average)	5350.000	5.691	47.544	53.236	74.00	54.00	Pass

**Figure Channel 64: Vertical (Peak)**



**Figure Channel 64: Vertical (Average)**



**Note:**

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

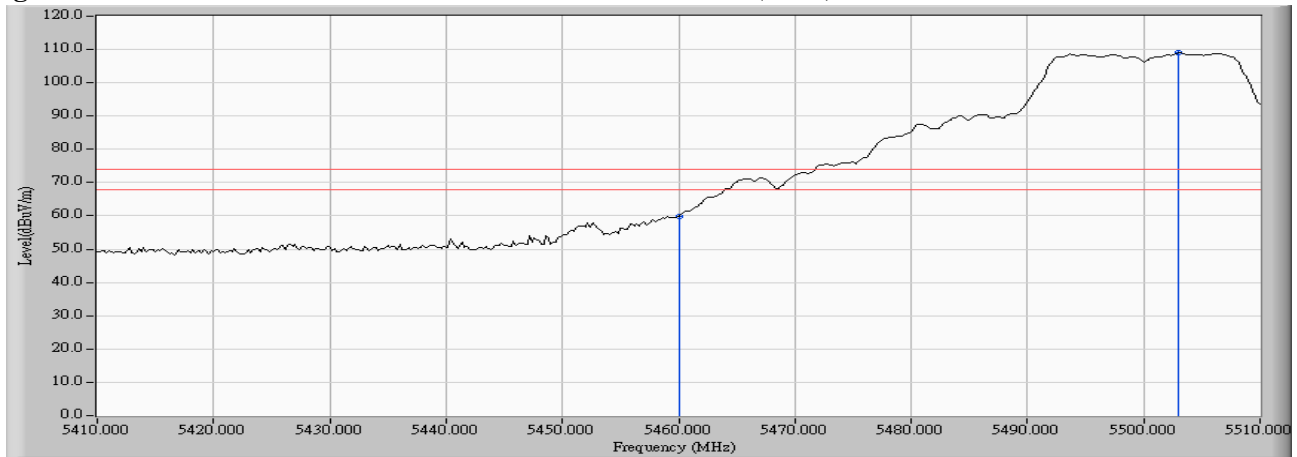


Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) -Channel 100

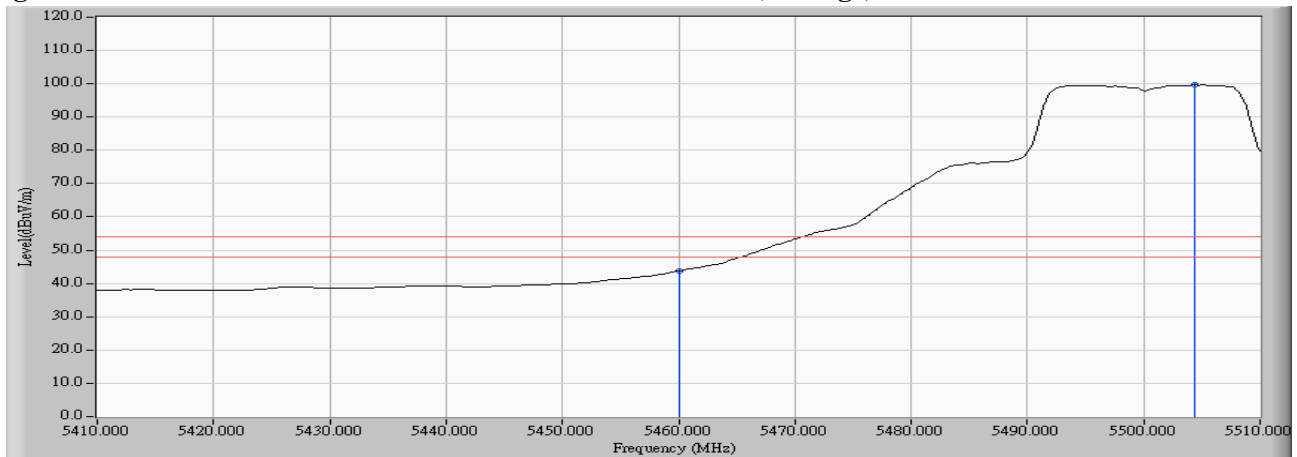
**RF Radiated Measurement (Horizontal):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
100 (Peak)	5460.000	4.354	55.534	59.888	74.00	54.00	Pass
100 (Peak)	5503.000	4.835	104.141	108.976	--	--	Pass
100 (Average)	5460.000	4.354	39.439	43.793	74.00	54.00	Pass
100 (Average)	5504.400	4.845	94.731	99.576	--	--	Pass

**Figure Channel 100: Horizontal (Peak)**



**Figure Channel 100: Horizontal (Average)**



**Note:**

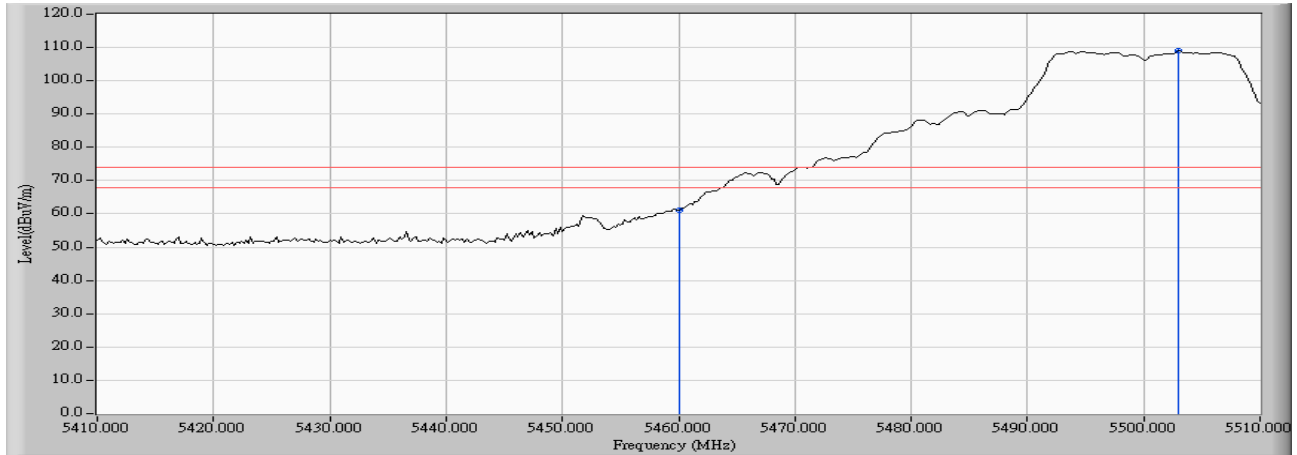
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) -Channel 100

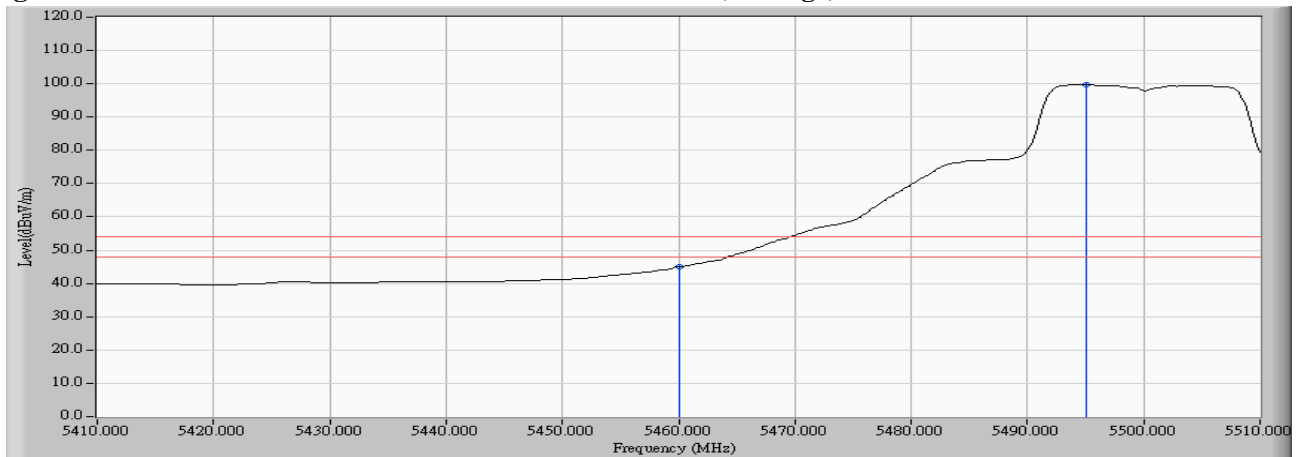
**RF Radiated Measurement (Vertical):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
100 (Peak)	5460.000	6.041	55.051	61.092	74.00	54.00	Pass
100 (Peak)	5503.000	6.284	102.634	108.918	--	--	Pass
100 (Average)	5460.000	6.041	38.934	44.975	74.00	54.00	Pass
100 (Average)	5495.000	6.260	93.410	99.670	--	--	Pass

**Figure Channel 100: Vertical (Peak)**



**Figure Channel 100: Vertical (Average)**



**Note:**

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : 802.11 a/b/g/n RTL8192DU Module  
Test Item : Band Edge Data  
Test Site : No.3 OATS  
Test Mode : Mode 1: Transmit (802.11a-6Mbps) -Channel 100

**RF Radiated Measurement:**

## Horizontal

Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
100	5470.000	18.334	-66.290	-47.956	-20.956	-27.000	Pass

## Vertical

Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
100	5470.000	19.335	-67.770	-48.435	-21.435	-27.000	Pass

Product : 802.11 a/b/g/n RTL8192DU Module  
Test Item : Band Edge Data  
Test Site : No.3 OATS  
Test Mode : Mode 1: Transmit (802.11a-6Mbps) -Channel 140

**RF Radiated Measurement:**

## Horizontal

Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
140	5725.000	18.649	-69.880	-51.231	-24.231	-27.000	Pass

## Vertical

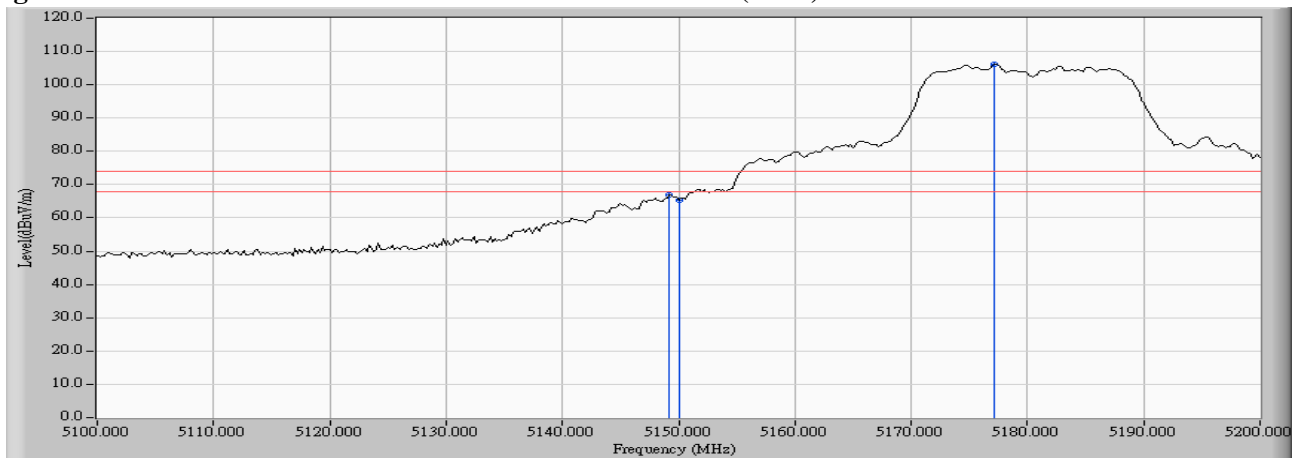
Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
140	5725.000	19.372	-70.700	-51.328	-24.328	-27.000	Pass

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 36

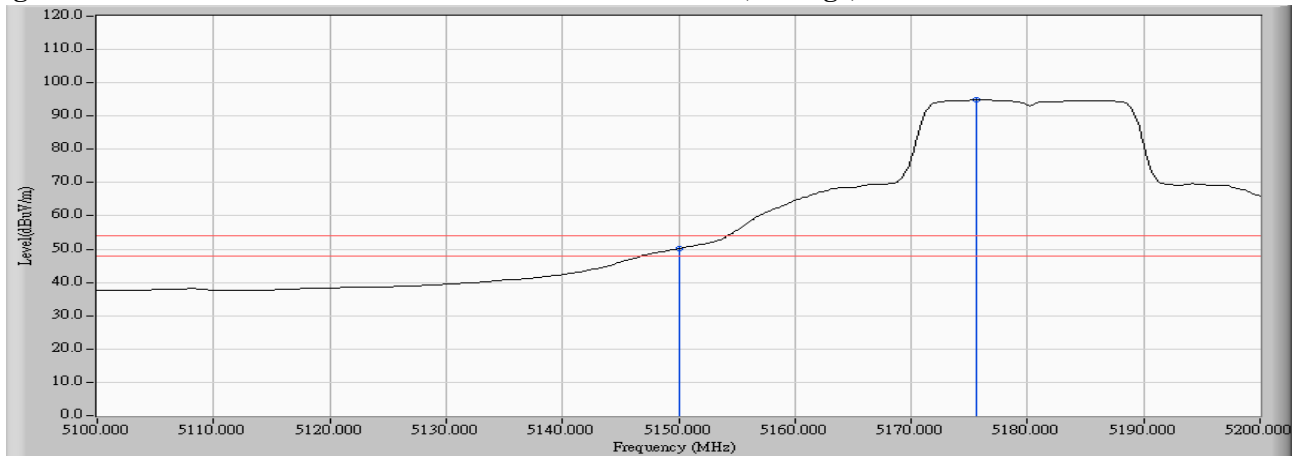
**RF Radiated Measurement (Horizontal):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
36 (Peak)	5149.200	3.343	63.686	67.029	74.00	54.00	Pass
36 (Peak)	5150.000	3.340	62.076	65.416	74.00	54.00	Pass
36 (Peak)	5177.200	3.244	102.908	106.152	--	--	Pass
36 (Average)	5150.000	3.340	46.786	50.126	74.00	54.00	Pass
36 (Average)	5175.600	3.251	91.570	94.820	--	--	Pass

**Figure Channel 36: Horizontal (Peak)**



**Figure Channel 36: Horizontal (Average)**



**Note:**

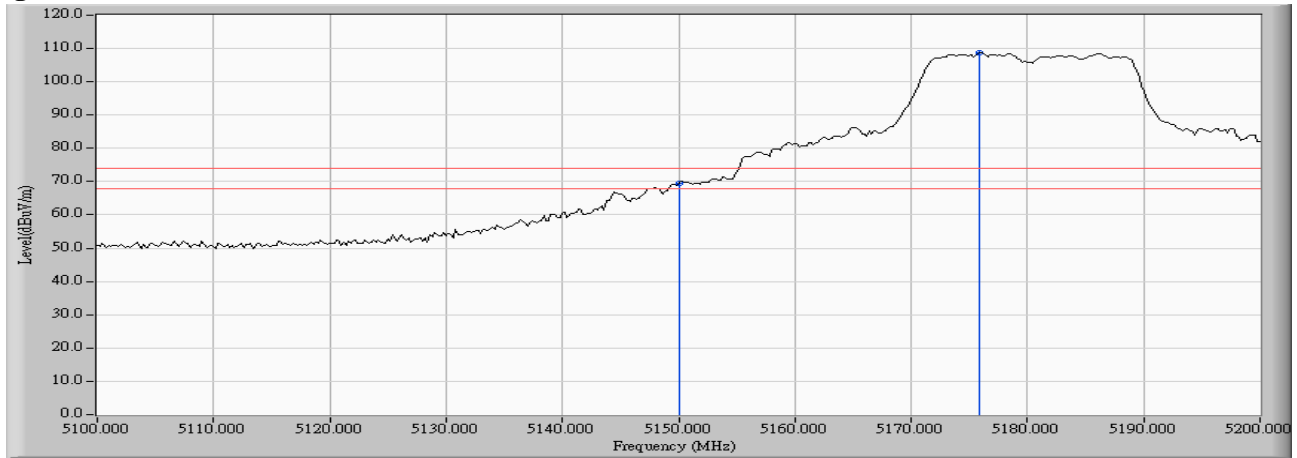
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 36

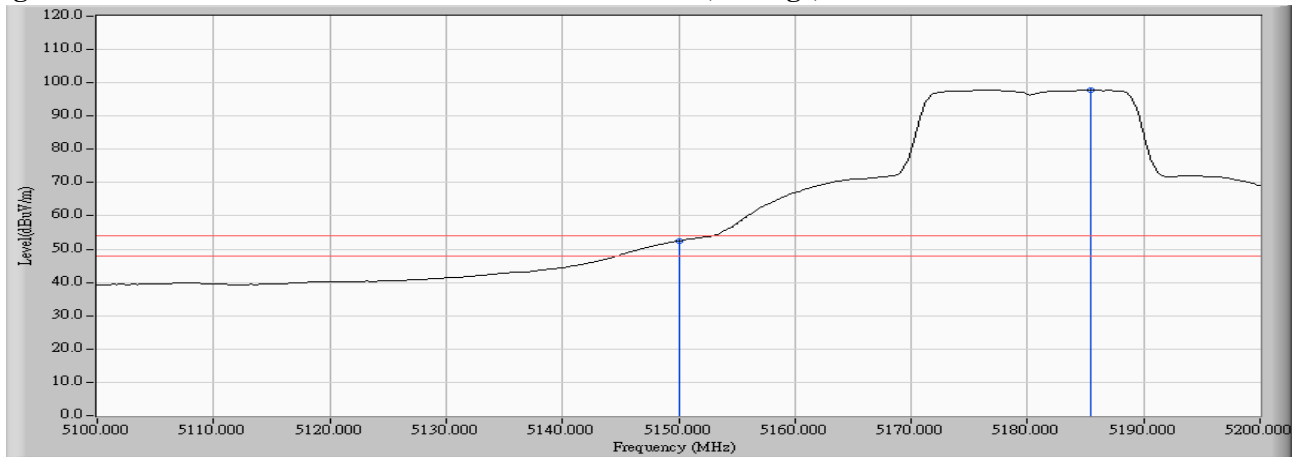
**RF Radiated Measurement (Vertical):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
36 (Peak)	5150.000	5.260	64.100	69.360	74.00	54.00	Pass
36 (Peak)	5175.800	5.331	103.429	108.760	--	--	Pass
36 (Average)	5150.000	5.260	47.150	52.410	74.00	54.00	Pass
36 (Average)	5185.400	5.357	92.489	97.846	--	--	Pass

**Figure Channel 36: Vertical (Peak)**



**Figure Channel 36: Vertical (Average)**



**Note:**

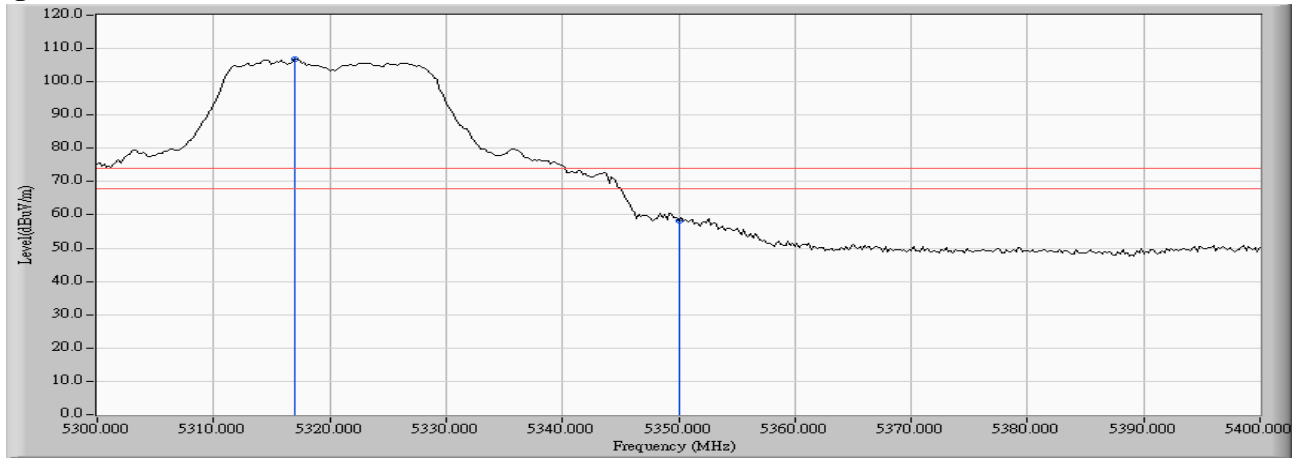
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 64

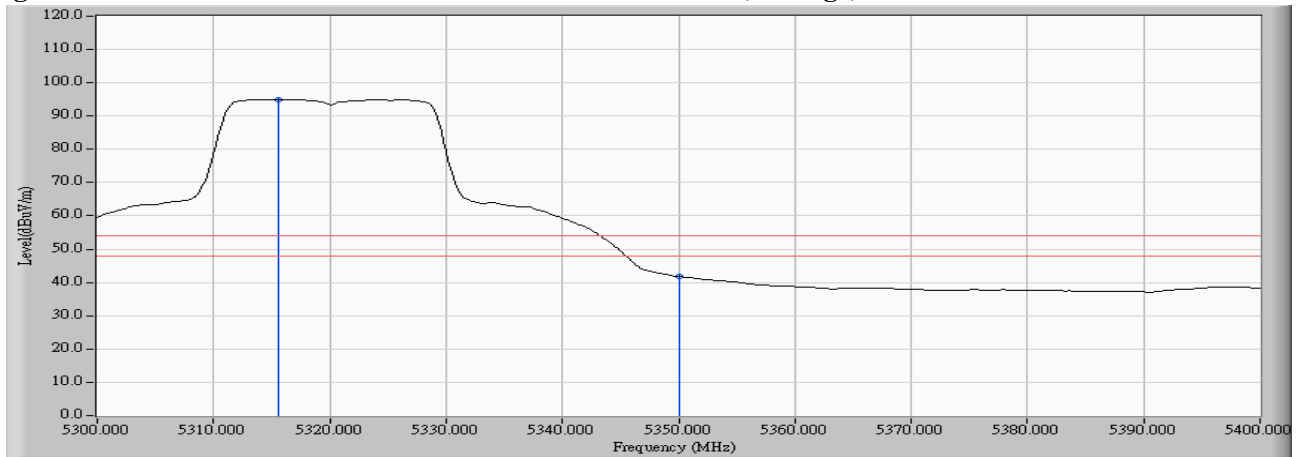
**RF Radiated Measurement (Horizontal):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
64 (Peak)	5317.000	3.821	102.929	106.751	--	--	Pass
64 (Peak)	5350.000	3.716	54.578	58.295	74.00	54.00	Pass
64 (Average)	5315.600	3.826	91.169	94.995	--	--	Pass
64 (Average)	5350.000	3.716	38.062	41.779	74.00	54.00	Pass

**Figure Channel 64: Horizontal (Peak)**



**Figure Channel 64: Horizontal (Average)**



Note:

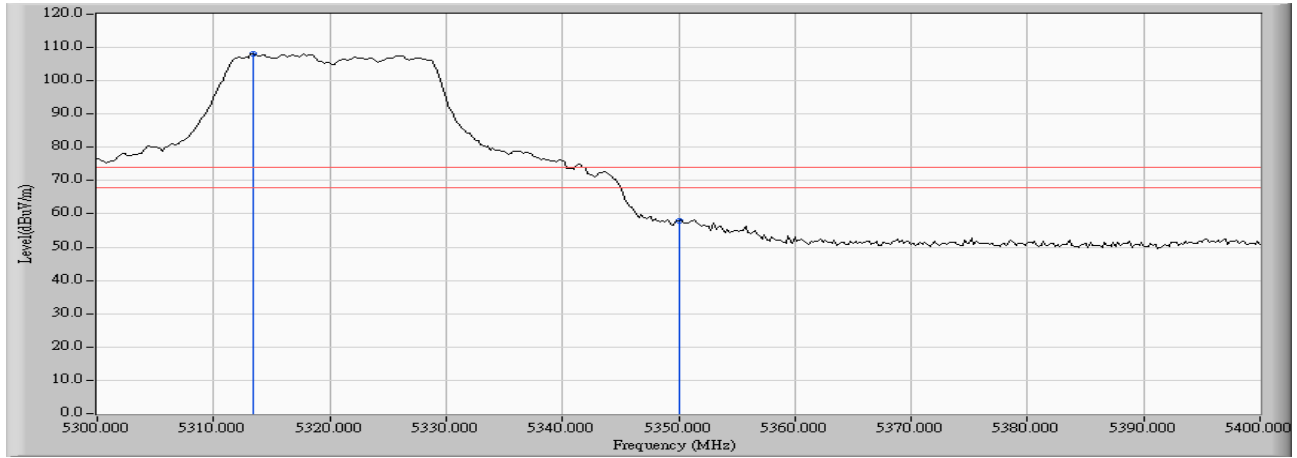
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 64

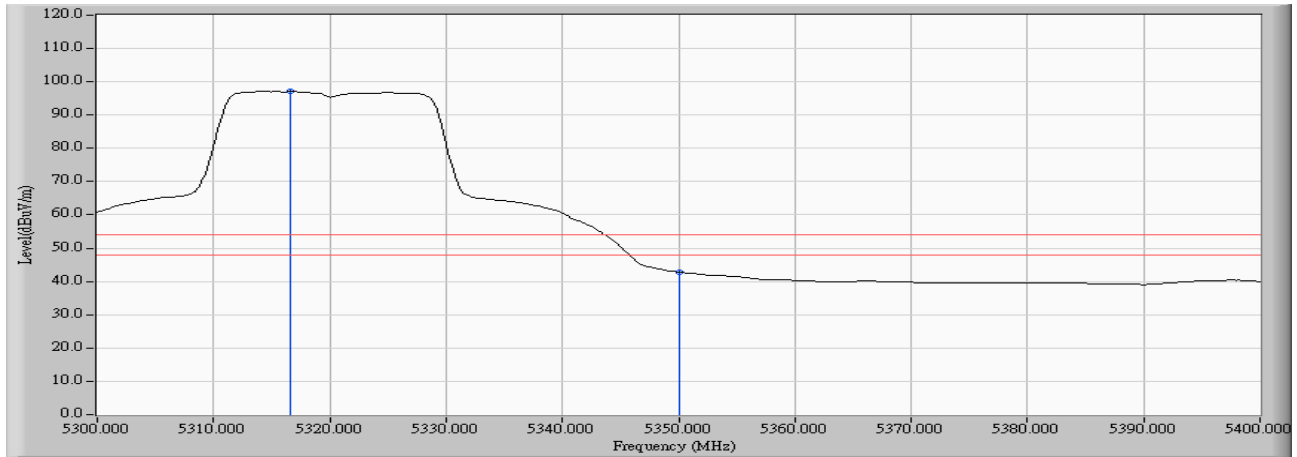
**RF Radiated Measurement (Vertical):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
64 (Peak)	5313.400	5.738	102.406	108.144	--	--	Pass
64 (Peak)	5350.000	5.691	52.202	57.894	74.00	54.00	Pass
64 (Average)	5316.600	5.733	91.316	97.049	--	--	Pass
64 (Average)	5350.000	5.691	37.121	42.813	74.00	54.00	Pass

**Figure Channel 64: Vertical (Peak)**



**Figure Channel 64: Vertical (Average)**



**Note:**

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

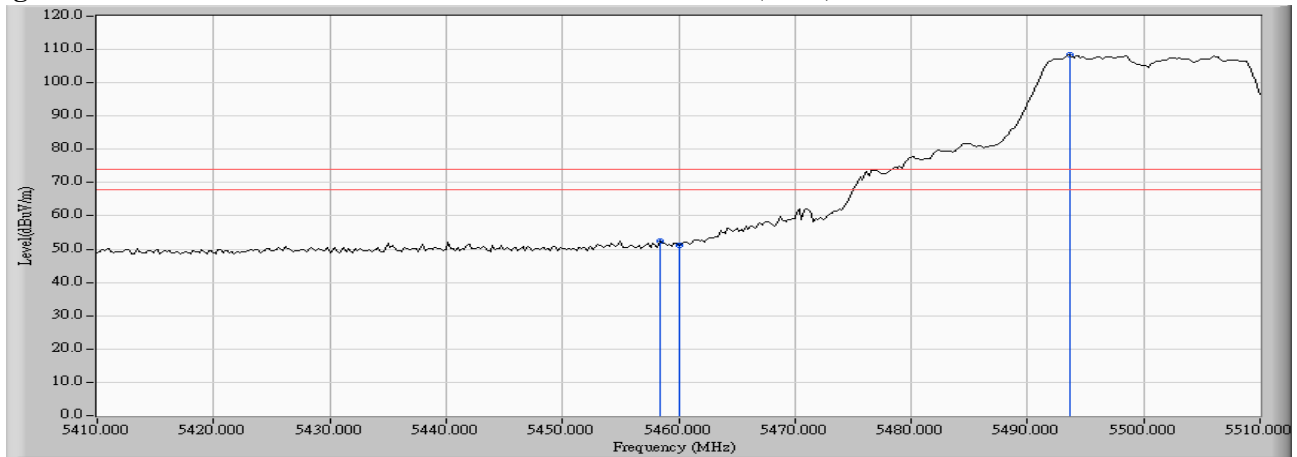


Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 100

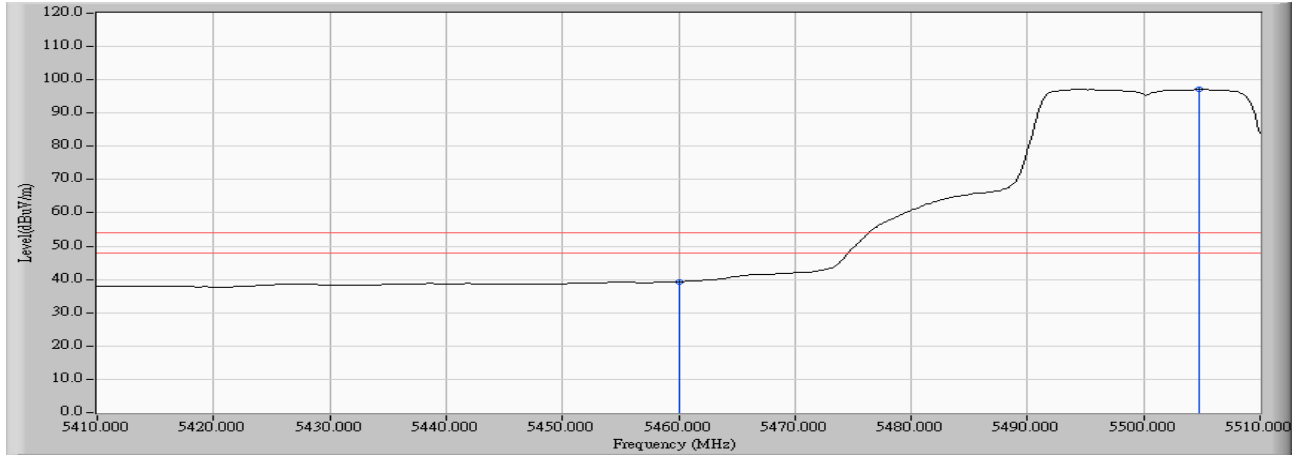
**RF Radiated Measurement (Horizontal):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
100 (Peak)	5458.400	4.332	48.015	52.347	74.00	54.00	Pass
100 (Peak)	5460.000	4.354	46.742	51.096	74.00	54.00	Pass
100 (Peak)	5493.600	4.770	103.671	108.441	--	--	Pass
100 (Average)	5460.000	4.354	34.975	39.329	74.00	54.00	Pass
100 (Average)	5504.800	4.848	92.263	97.111	--	--	Pass

**Figure Channel 100: Horizontal (Peak)**



**Figure Channel 100: Horizontal (Average)**



**Note:**

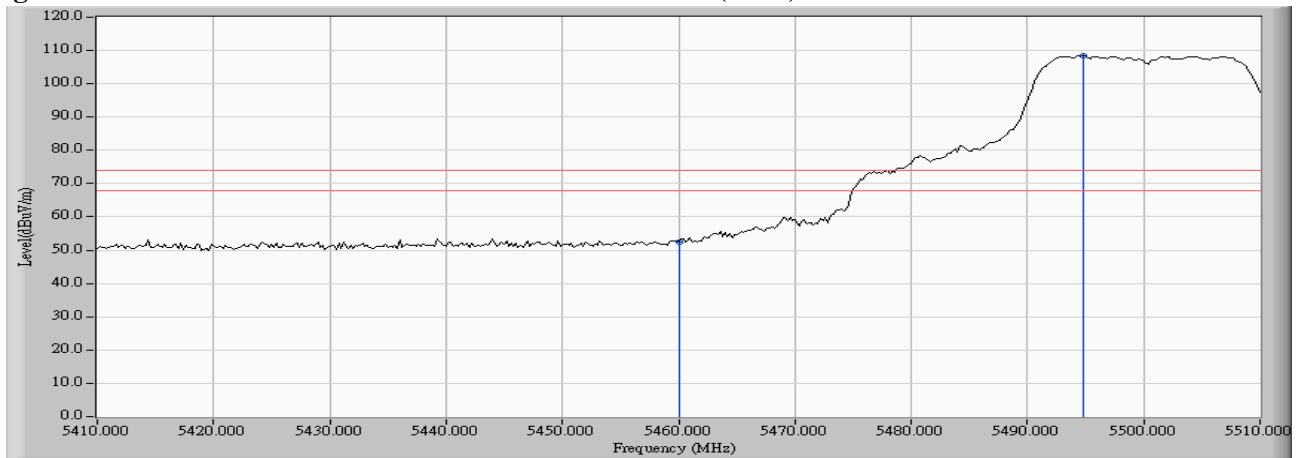
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 100

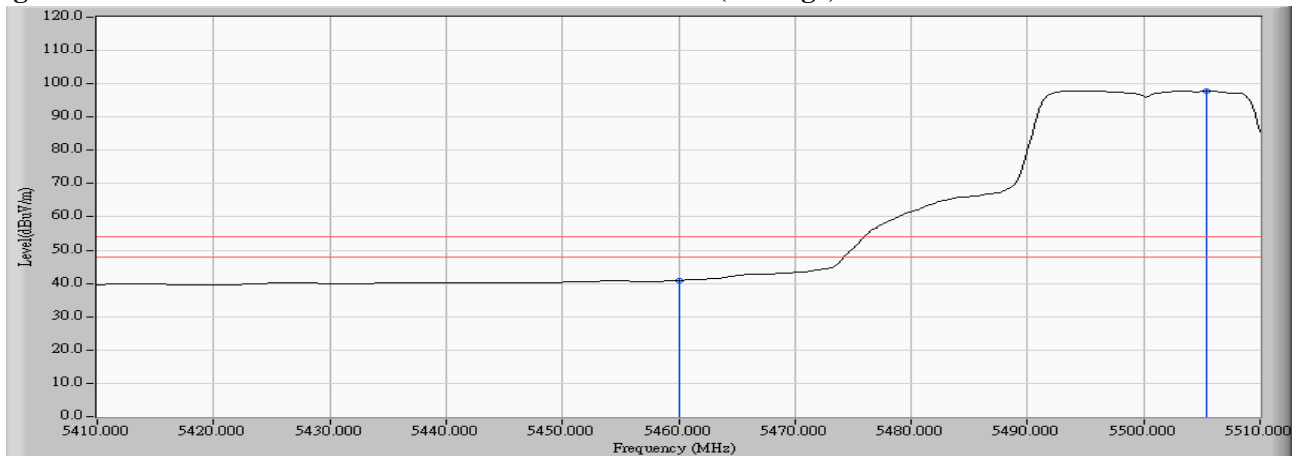
**RF Radiated Measurement (Vertical):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
100 (Peak)	5460.000	6.041	46.497	52.538	74.00	54.00	Pass
100 (Peak)	5494.800	6.259	102.311	108.570	--	--	Pass
100 (Average)	5460.000	6.041	34.854	40.895	74.00	54.00	Pass
100 (Average)	5505.400	6.287	91.574	97.861	--	--	Pass

**Figure Channel 100: Vertical (Peak)**



**Figure Channel 100: Vertical (Average)**



**Note:**

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 100

**RF Radiated Measurement:**

## Horizontal

Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
100	5470.000	18.334	-74.260	-55.926	-28.926	-27.000	Pass

## Vertical

Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
100	5470.000	19.335	-74.670	-55.335	-28.335	-27.000	Pass

Product : 802.11 a/b/g/n RTL8192DU Module  
Test Item : Band Edge Data  
Test Site : No.3 OATS  
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 140

**RF Radiated Measurement:**

## Horizontal

Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
140	5725.000	18.649	-72.550	-53.901	-26.901	-27.000	Pass

## Vertical

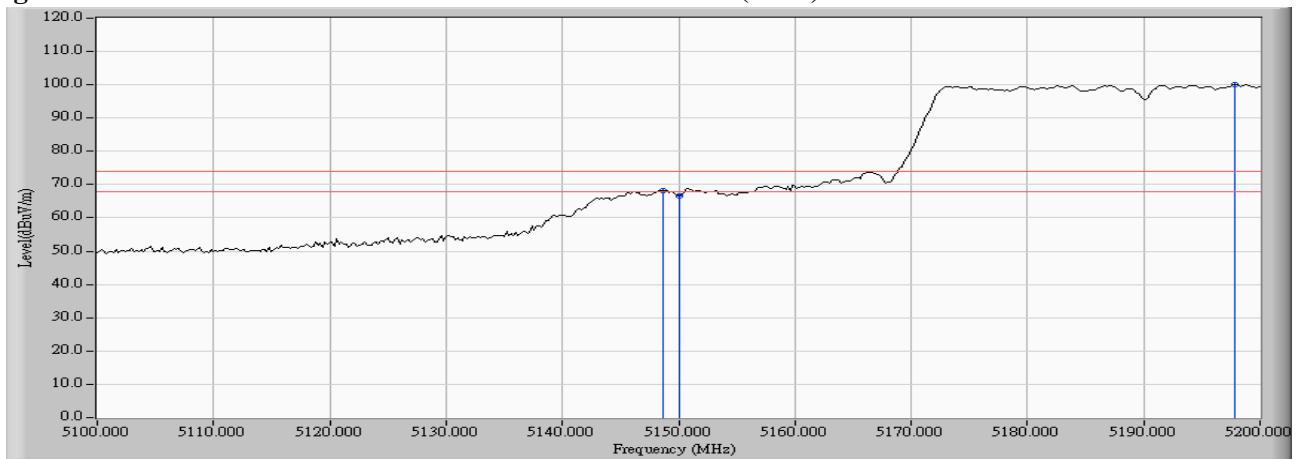
Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
140	5725.000	19.372	-73.790	-54.418	-27.418	-27.000	Pass

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 38

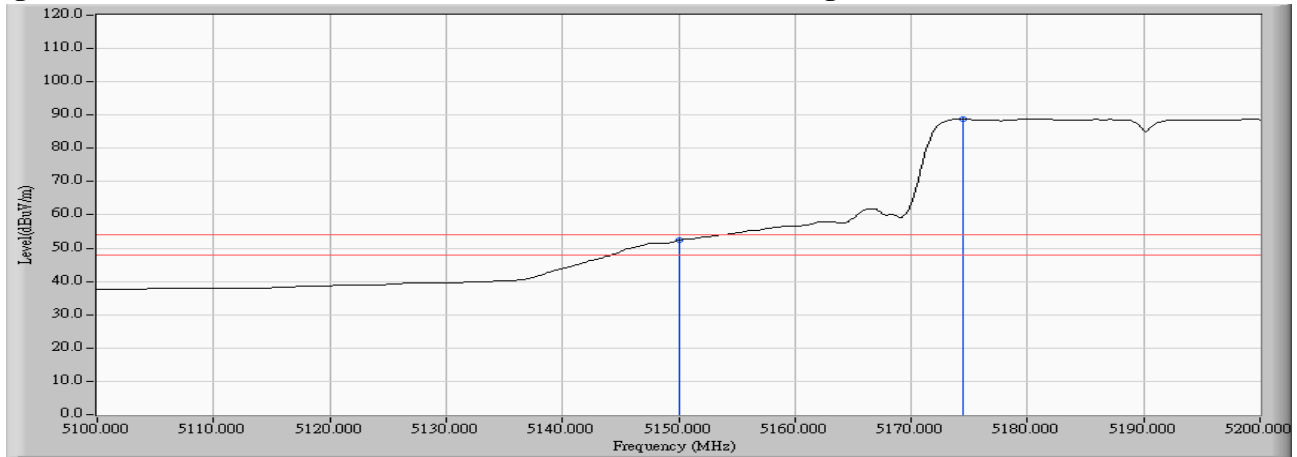
**RF Radiated Measurement (Horizontal):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
38 (Peak)	5148.600	3.345	65.018	68.363	74.00	54.00	Pass
38 (Peak)	5150.000	3.340	63.332	66.672	74.00	54.00	Pass
38 (Peak)	5197.800	3.161	96.839	100.000	--	--	Pass
38 (Average)	5150.000	3.340	49.047	52.387	74.00	54.00	Pass
38 (Average)	5174.400	3.254	85.601	88.855	--	--	Pass

**Figure Channel 38: Horizontal (Peak)**



**Figure Channel 38: Horizontal (Average)**



**Note:**

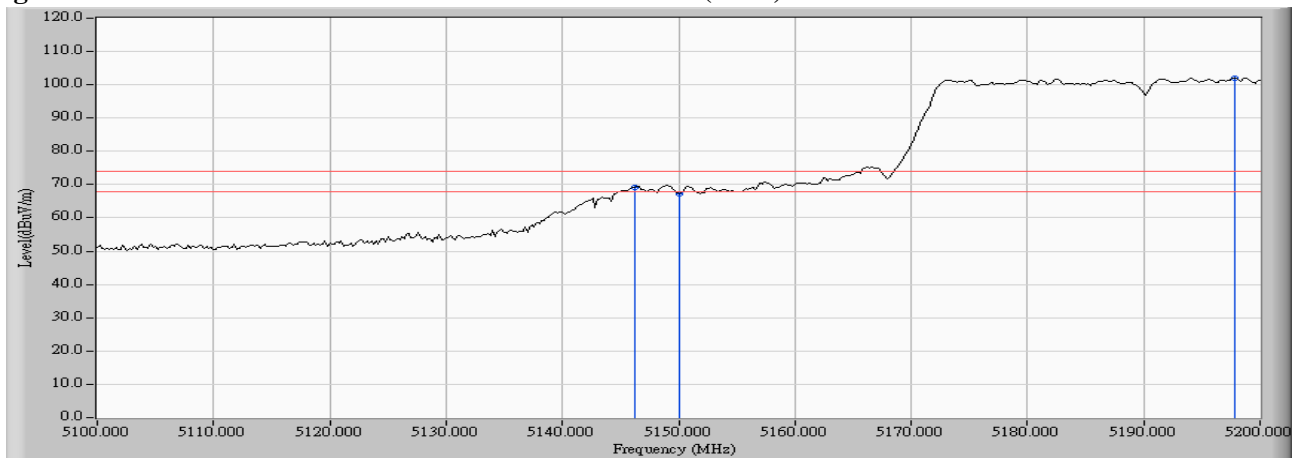
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 38

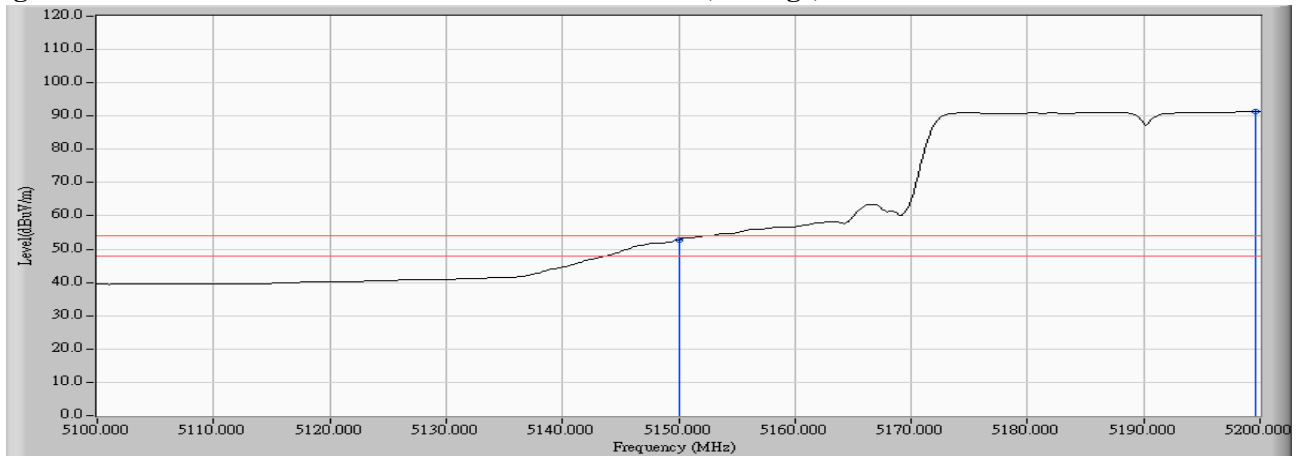
**RF Radiated Measurement (Vertical):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
38 (Peak)	5146.200	5.249	64.063	69.313	74.00	54.00	Pass
38 (Peak)	5150.000	5.260	62.036	67.296	74.00	54.00	Pass
38 (Peak)	5197.800	5.381	96.565	101.946	--	--	Pass
38 (Average)	5150.000	5.260	47.654	52.914	74.00	54.00	Pass
38 (Average)	5199.600	5.387	85.995	91.381	--	--	Pass

**Figure Channel 38: Vertical (Peak)**



**Figure Channel 38: Vertical (Average)**



**Note:**

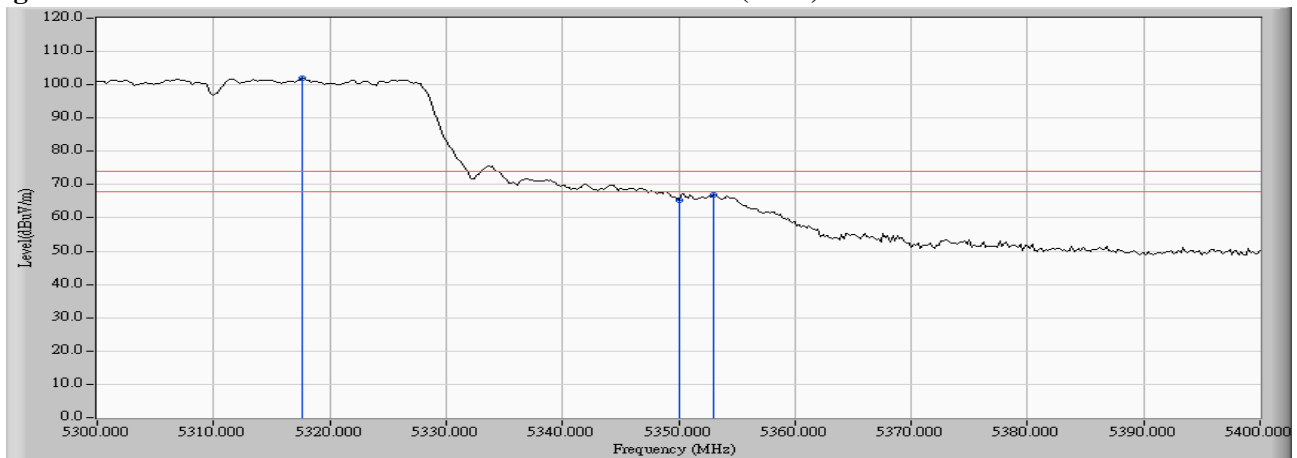
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 62

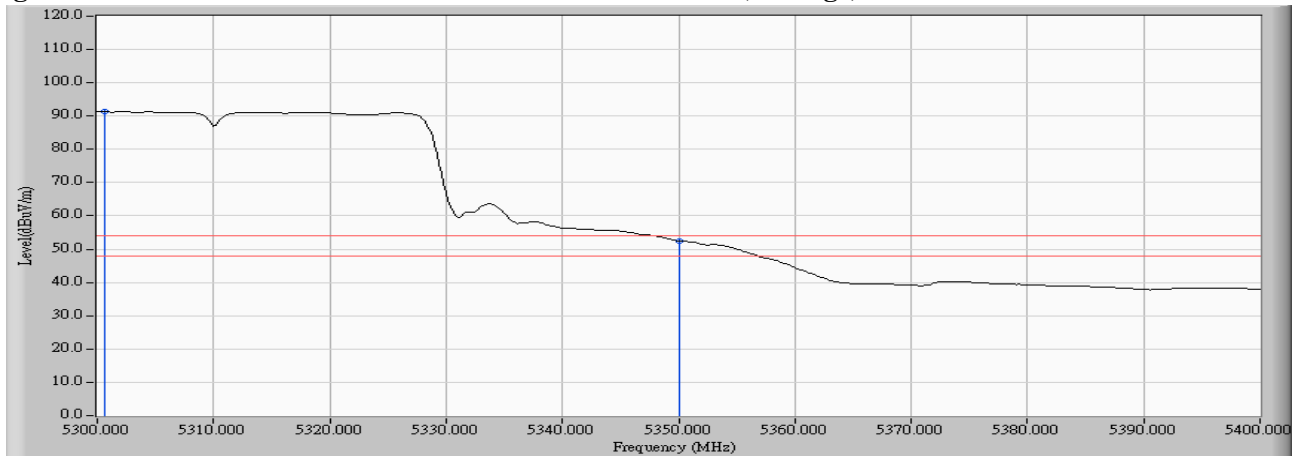
**RF Radiated Measurement (Horizontal):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
62 (Peak)	5317.600	3.820	98.152	101.972	--	--	Pass
62 (Peak)	5350.000	3.716	61.465	65.182	74.00	54.00	Pass
62 (Peak)	5353.000	3.707	63.151	66.858	74.00	54.00	Pass
62 (Average)	5300.600	3.871	87.587	91.458	--	--	Pass
62 (Average)	5350.000	3.716	48.771	52.488	74.00	54.00	Pass

**Figure Channel 62: Horizontal (Peak)**



**Figure Channel 62: Horizontal (Average)**



**Note:**

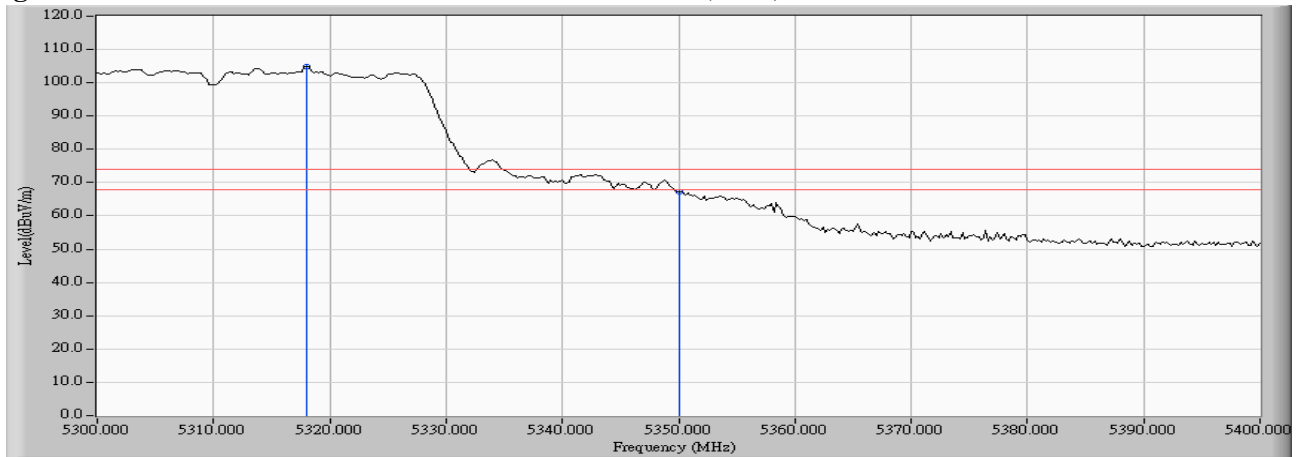
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 62

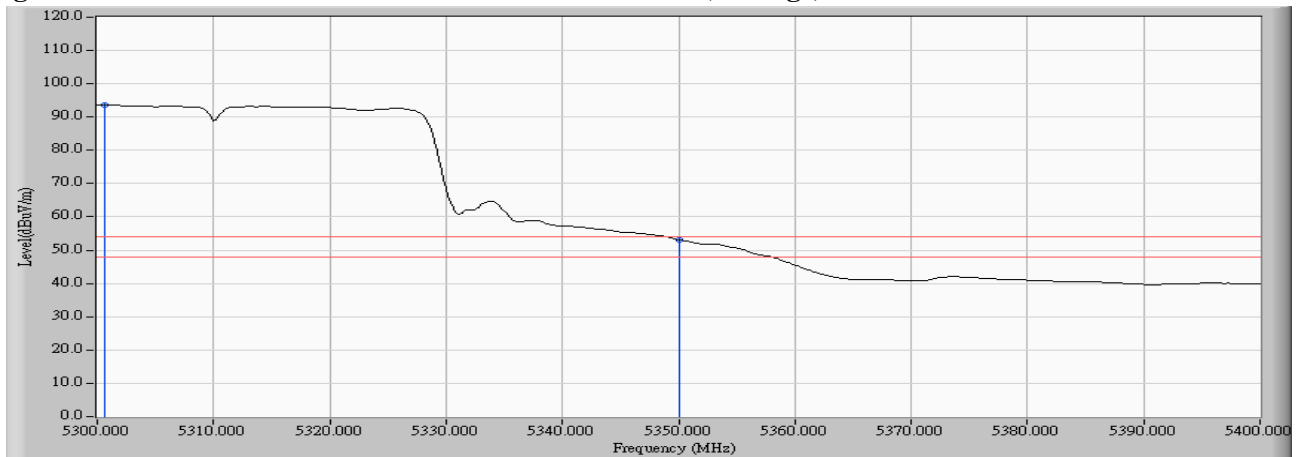
**RF Radiated Measurement (Vertical):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
62 (Peak)	5318.000	5.732	99.286	105.018	--	--	Pass
62 (Peak)	5350.000	5.691	61.575	67.267	74.00	54.00	Pass
62 (Average)	5300.600	5.752	87.849	93.602	--	--	Pass
62 (Average)	5350.000	5.691	47.368	53.060	74.00	54.00	Pass

**Figure Channel 62: Vertical (Peak)**



**Figure Channel 62: Vertical (Average)**



**Note:**

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

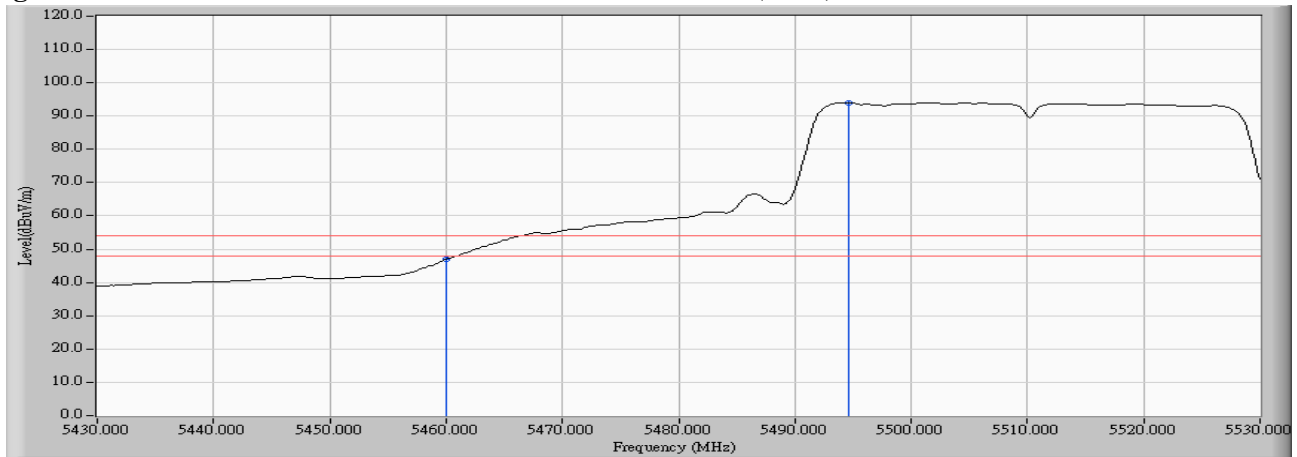


Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 102

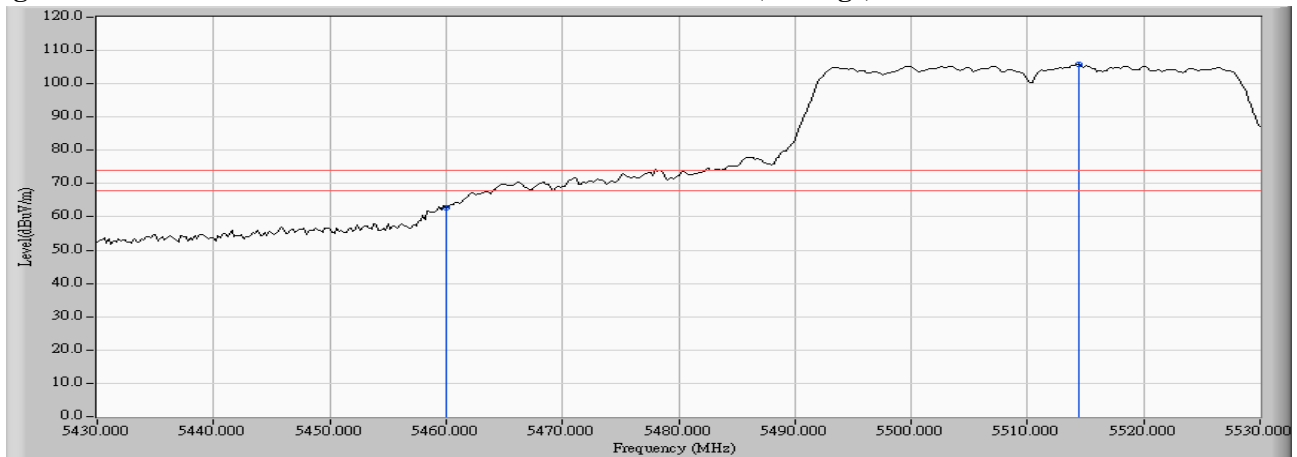
**RF Radiated Measurement (Horizontal):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
102 (Peak)	5460.000	6.041	56.645	62.686	74.00	54.00	Pass
102 (Peak)	5514.400	6.230	99.504	105.734	--	--	Pass
102 (Average)	5460.000	4.354	42.547	46.901	74.00	54.00	Pass
102 (Average)	5494.600	4.777	89.222	93.999	--	--	Pass

**Figure Channel 102: Horizontal (Peak)**



**Figure Channel 102: Horizontal (Average)**



**Note:**

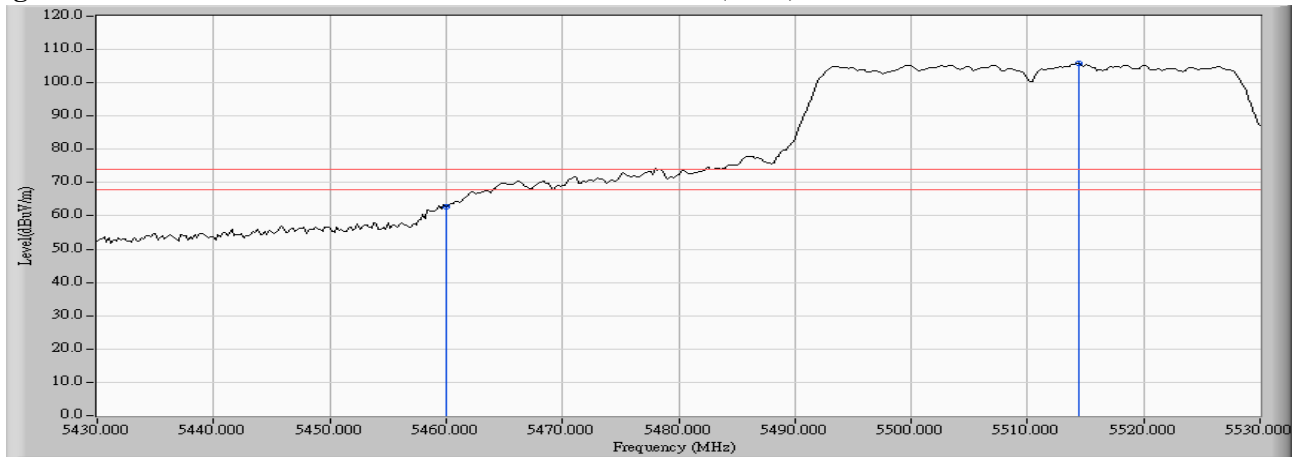
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 102

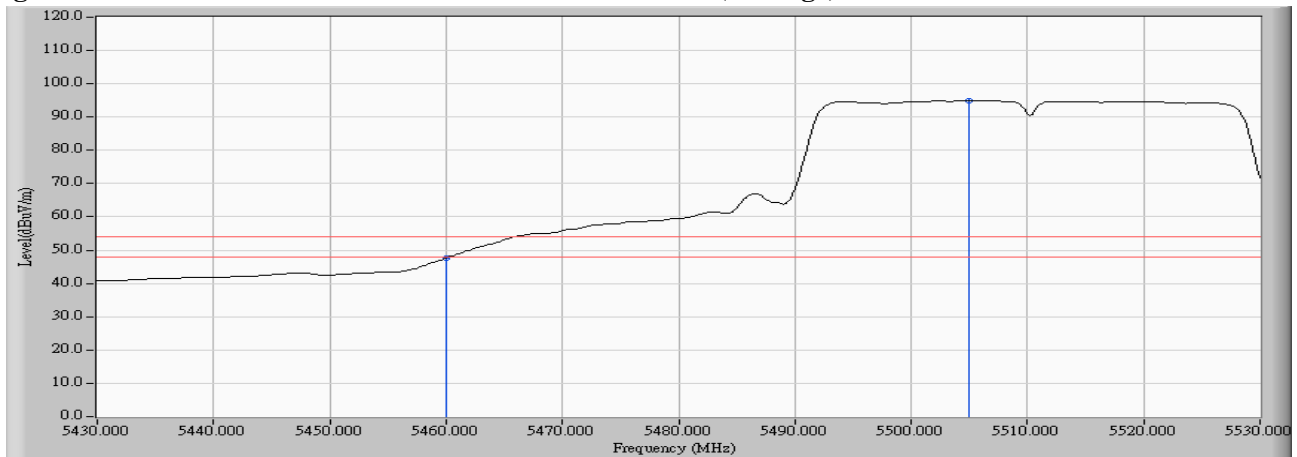
**RF Radiated Measurement (Vertical):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
102 (Peak)	5460.000	6.041	56.645	62.686	74.00	54.00	Pass
102 (Peak)	5514.400	6.230	99.504	105.734	--	--	Pass
102 (Average)	5460.000	6.041	41.590	47.631	74.00	54.00	Pass
102 (Average)	5505.000	6.290	88.617	94.907	--	--	Pass

**Figure Channel 102: Vertical (Peak)**



**Figure Channel 102: Vertical (Average)**



**Note:**

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 102

**RF Radiated Measurement:**

## Horizontal

Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
102	5470.000	18.334	-62.400	-44.066	-17.066	-27.000	Pass

## Vertical

Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
102	5470.000	19.335	-65.320	-45.985	-18.985	-27.000	Pass

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 134

**RF Radiated Measurement:**

## Horizontal

Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
134	5725.000	18.649	-76.760	-58.111	-31.111	-27.000	Pass

## Vertical

Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
134	5725.000	19.372	-77.450	-58.078	-31.078	-27.000	Pass

## 8. Frequency Stability

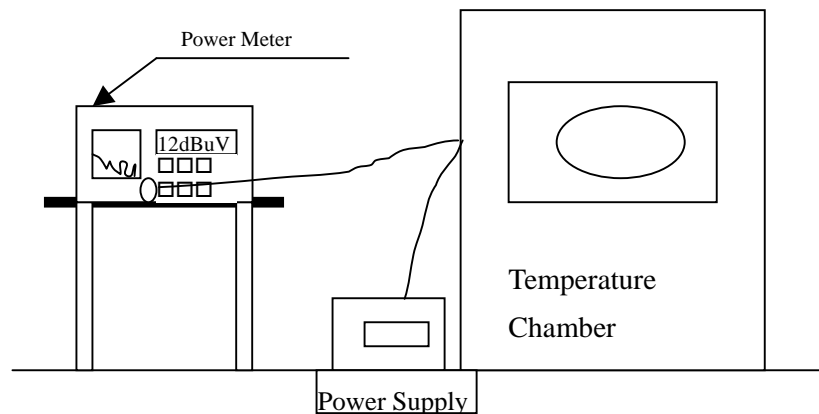
### 8.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2012
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2012
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2012

Note:

1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with “X” are used to measure the final test results.

### 8.2. Test Setup



### 8.3. Limits

Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified

### 8.4. Test Procedure

The EUT was setup to ANSI C63.4, 2003; tested to DTS test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

### 8.5. Uncertainty

± 150 Hz

### 8.6. Test Result of Frequency Stability

Product : 802.11 a/b/g/n RTL8192DU Module  
 Test Item : Frequency Stability  
 Test Site : Temperature Chamber  
 Test Mode : Carrier Wave

#### Chain A

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\Delta F$ (MHz)
Tnom (20) °C	Vnom (120)V	36	5180.0000	5180.0064	-0.0064
		38	5190.0000	5190.0089	-0.0089
		44	5220.0000	5220.0095	-0.0095
		46	5230.0000	5230.0085	-0.0085
		48	5240.0000	5240.0099	-0.0099
		52	5260.0000	5260.0085	-0.0085
		54	5270.0000	5270.0098	-0.0098
		60	5300.0000	5300.0089	-0.0089
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0100	-0.0100
		100	5500.0000	5500.0096	-0.0096
		102	5510.0000	5510.0100	-0.0100
		110	5550.0000	5550.0100	-0.0100
		116	5580.0000	5580.0099	-0.0099
		134	5670.0000	5670.0100	-0.0100
		140	5700.0000	5700.0095	-0.0095

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\Delta F$ (MHz)
Tmax (50) °C	Vmax (126.5)V	36	5180.0000	5180.0058	-0.0058
		38	5190.0000	5190.0099	-0.0099
		44	5220.0000	5220.0095	-0.0095
		46	5230.0000	5230.0085	-0.0085
		48	5240.0000	5240.0098	-0.0098
		52	5260.0000	5260.0085	-0.0085
		54	5270.0000	5270.0098	-0.0098
		60	5300.0000	5300.0085	-0.0085
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0100	-0.0100
		100	5500.0000	5500.0068	-0.0068
		102	5510.0000	5510.0100	-0.0100
		110	5550.0000	5550.0098	-0.0098
		116	5580.0000	5580.0087	-0.0087
		134	5670.0000	5670.0099	-0.0099
140	5700.0000	5700.0095	-0.0095		
Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\Delta F$ (MHz)
Tmax (50) °C	Vmin (93.5)V	36	5180.0000	5180.0058	-0.0058
		38	5190.0000	5190.0099	-0.0099
		44	5220.0000	5220.0095	-0.0095
		46	5230.0000	5230.0085	-0.0085
		48	5240.0000	5240.0098	-0.0098
		52	5260.0000	5260.0085	-0.0085
		54	5270.0000	5270.0098	-0.0098
		60	5300.0000	5300.0085	-0.0085
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0100	-0.0100
		100	5500.0000	5500.0068	-0.0068
		102	5510.0000	5510.0100	-0.0100
		110	5550.0000	5550.0580	-0.0580
		116	5580.0000	5580.0097	-0.0097
		134	5670.0000	5670.0099	-0.0099
140	5700.0000	5700.0095	-0.0095		

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\Delta F$ (MHz)
Tmin (0) °C	Vmax (126.5)V	36	5180.0000	5180.0100	-0.0100
		38	5190.0000	5190.0089	-0.0089
		44	5220.0000	5220.0095	-0.0095
		46	5230.0000	5230.0098	-0.0098
		48	5240.0000	5240.0094	-0.0094
		52	5260.0000	5260.0085	-0.0085
		54	5270.0000	5270.0098	-0.0098
		60	5300.0000	5300.0089	-0.0089
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0100	-0.0100
		100	5500.0000	5500.0093	-0.0093
		102	5510.0000	5510.0096	-0.0096
		110	5550.0000	5550.0100	-0.0100
		116	5580.0000	5580.0098	-0.0098
		134	5670.0000	5670.0100	-0.0100
		140	5700.0000	5700.0095	-0.0095
Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\Delta F$ (MHz)
Tmin (0) °C	Vmin (93.5)V	36	5180.0000	5180.0100	-0.0100
		38	5190.0000	5190.0089	-0.0089
		44	5220.0000	5220.0095	-0.0095
		46	5230.0000	5230.0098	-0.0098
		48	5240.0000	5240.0094	-0.0094
		52	5260.0000	5260.0085	-0.0085
		54	5270.0000	5270.0098	-0.0098
		60	5300.0000	5300.0089	-0.0089
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0100	-0.0100
		100	5500.0000	5500.0093	-0.0093
		102	5510.0000	5510.0096	-0.0096
		110	5550.0000	5550.0100	-0.0100
		116	5580.0000	5580.0098	-0.0098
		134	5670.0000	5670.0100	-0.0100
		140	5700.0000	5700.0095	-0.0095



**Chain B**

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\Delta F$ (MHz)
Tnom (20) °C	Vnom (110)V	36	5180.0000	5180.0065	-0.0065
		38	5190.0000	5190.0091	-0.0091
		44	5220.0000	5220.0098	-0.0098
		46	5230.0000	5230.0087	-0.0087
		48	5240.0000	5240.0101	-0.0101
		52	5260.0000	5260.0086	-0.0086
		54	5270.0000	5270.0101	-0.0101
		60	5300.0000	5300.0090	-0.0090
		62	5310.0000	5310.0103	-0.0103
		64	5320.0000	5320.0102	-0.0102
		100	5500.0000	5500.0098	-0.0098
		102	5510.0000	5510.0103	-0.0103
		110	5550.0000	5550.0102	-0.0102
		116	5580.0000	5580.0102	-0.0102
		134	5670.0000	5670.0102	-0.0102
		140	5700.0000	5700.0097	-0.0097

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\Delta F$ (MHz)
Tmax (50) °C	Vmax (126.5)V	36	5180.0000	5180.0059	-0.0059
		38	5190.0000	5190.0101	-0.0101
		44	5220.0000	5220.0098	-0.0098
		46	5230.0000	5230.0087	-0.0087
		48	5240.0000	5240.0100	-0.0100
		52	5260.0000	5260.0086	-0.0086
		54	5270.0000	5270.0101	-0.0101
		60	5300.0000	5300.0086	-0.0086
		62	5310.0000	5310.0103	-0.0103
		64	5320.0000	5320.0102	-0.0102
		100	5500.0000	5500.0070	-0.0070
		102	5510.0000	5510.0103	-0.0103
		110	5550.0000	5550.0100	-0.0100
		116	5580.0000	5580.0100	-0.0100
		134	5670.0000	5670.0101	-0.0101
140	5700.0000	5700.0097	-0.0097		
Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\Delta F$ (MHz)
Tmax (50) °C	Vmin (93.5)V	36	5180.0000	5180.0059	-0.0059
		38	5190.0000	5190.0101	-0.0101
		44	5220.0000	5220.0098	-0.0098
		46	5230.0000	5230.0087	-0.0087
		48	5240.0000	5240.0100	-0.0100
		52	5260.0000	5260.0086	-0.0086
		54	5270.0000	5270.0101	-0.0101
		60	5300.0000	5300.0086	-0.0086
		62	5310.0000	5310.0103	-0.0103
		64	5320.0000	5320.0102	-0.0102
		100	5500.0000	5500.0070	-0.0070
		102	5510.0000	5510.0103	-0.0103
		110	5550.0000	5550.0100	-0.0100
		116	5580.0000	5500.0100	79.9900
		134	5670.0000	5670.0101	-0.0101
140	5700.0000	5700.0097	-0.0097		

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\Delta F$ (MHz)
Tmin (0) °C	Vmax (126.5)V	36	5180.0000	5180.0101	-0.0101
		38	5190.0000	5190.0091	-0.0091
		44	5220.0000	5220.0098	-0.0098
		46	5230.0000	5230.0100	-0.0100
		48	5240.0000	5240.0096	-0.0096
		52	5260.0000	5260.0086	-0.0086
		54	5270.0000	5270.0101	-0.0101
		60	5300.0000	5300.0090	-0.0090
		62	5310.0000	5310.0103	-0.0103
		64	5320.0000	5320.0102	-0.0102
		100	5500.0000	5500.0095	-0.0095
		102	5510.0000	5510.0099	-0.0099
		110	5550.0000	5550.0102	-0.0102
		116	5580.0000	5580.0100	-0.0100
		134	5670.0000	5670.0102	-0.0102
140	5700.0000	5700.0097	-0.0097		
Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\Delta F$ (MHz)
Tmin (0) °C	Vmin (93.5)V	36	5180.0000	5180.0101	-0.0101
		38	5190.0000	5190.0091	-0.0091
		44	5220.0000	5220.0098	-0.0098
		46	5230.0000	5230.0100	-0.0100
		48	5240.0000	5240.0096	-0.0096
		52	5260.0000	5260.0086	-0.0086
		54	5270.0000	5270.0101	-0.0101
		60	5300.0000	5300.0090	-0.0090
		62	5310.0000	5310.0103	-0.0103
		64	5320.0000	5320.0102	-0.0102
		100	5500.0000	5500.0095	-0.0095
		102	5510.0000	5510.0099	-0.0099
		110	5550.0000	5550.0102	-0.0102
		116	5580.0000	5580.0100	-0.0100
		134	5670.0000	5670.0102	-0.0102
140	5700.0000	5700.0097	-0.0097		

## **9. EMI Reduction Method During Compliance Testing**

No modification was made during testing.

## Attachment 1: EUT Test Photographs

## Attachment 2: EUT Detailed Photographs