## 6.4. Test Procedure

The EUT was setup according to ANSI C63.10, 2009 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 C63.10:2009 on radiated measurement.

The resolution bandwidth below 30MHz setting on the field strength meter is 9kHz and 30MHz~1GHz is 120kHz and above 1GHz is 1MHz.

Radiated emission measurements below 30MHz are made using Loop Antenna and 30MHz~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.

## 6.5. Uncertainty

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

# 6.6. Test Result of Radiated Emission

Product	:	802.11a/b/g/n 2T2R Wireless Lan USB Module
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) (5180MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
10360.000	12.930	38.100	51.030	-22.970	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
Vertical					
<b>Peak Detector:</b>					
10360.000	13.724	37.700	51.424	-22.576	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					

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- 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	: 802.11a/b/g/n 2T2R Wireless Lan USB Module					
Test Item	: Harmonic Radiated Emission Data					
Test Site	: No.3 OATS					
Test Mode	: Mode 1:	Transmit (802.11	la-6Mbps) (5220MHz	2)		
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level	C		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m	
Horizontal						
<b>Peak Detector:</b>						
10440.000	13.322	38.560	51.882	-22.118	74.000	
15660.000	*	*	*	*	74.000	
20880.000	*	*	*	*	74.000	
26100.000	*	*	*	*	74.000	
Average						
<b>Detector:</b>						
Vertical						
<b>Peak Detector:</b>						
10440.000	14.245	37.880	52.125	-21.875	74.000	
15660.000	*	*	*	*	74.000	
20880.000	*	*	*	*	74.000	
26100.000	*	*	*	*	74.000	
Average						
Detector:						

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- 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	: 802.11a/b/g/n 2T2R Wireless Lan USB Module							
Test Item	: Harmonic Radiated Emission Data							
Test Site	: No.3 OA	: No.3 OATS						
Test Mode	: Mode 1:	Transmit (802.11	la-6Mbps) (5240MHz	2)				
Frequency	Correct	Reading	Measurement	Margin	Limit			
	Factor	Level	Level	8				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m			
Horizontal								
<b>Peak Detector:</b>								
10480.000	13.693	37.890	51.584	-22.416	74.000			
15720.000	*	*	*	*	74.000			
20960.000	*	*	*	*	74.000			
26200.000	*	*	*	*	74.000			
Average								
<b>Detector:</b>								
Vertical								
<b>Peak Detector:</b>								
10480.000	14.620	37.980	52.601	-21.399	74.000			
15720.000	*	*	*	*	74.000			
20960.000	*	*	*	*	74.000			
26200.000	*	*	*	*	74.000			
Average								
<b>Detector:</b>								

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- 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	: 802.11a/b/g/n 2T2R Wireless Lan USB Module						
Test Item	: Harmonic Radiated Emission Data						
Test Site	: No.3 OATS						
Test Mode	: Mode 1:	Transmit (802.11	la-6Mbps) (5260MHz	2)			
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
10360.000	12.930	37.590	50.520	-23.480	74.000		
15780.000	*	*	*	*	74.000		
21040.000	*	*	*	*	74.000		
26300.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							
Vertical							
Peak Detector:							
10360.000	13.724	37.980	51.704	-22.296	74.000		
15780.000	*	*	*	*	74.000		
21040.000	*	*	*	*	74.000		
26300.000	*	*	*	*	74.000		
Average							

# Detector:

- 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	: 802.11a/b/g/n 2T2R Wireless Lan USB Module						
Test Item	: Harmonic Radiated Emission Data						
Test Site	: No.3 OATS						
Test Mode	: Mode 1:	Transmit (802.11	a-6Mbps) (5300MHz	z)			
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
10600.000	14.550	37.590	52.139	-21.861	74.000		
15900.000	*	*	*	*	74.000		
21200.000	*	*	*	*	74.000		
26500.000	*	*	*	*	74.000		
Average							
Detector:							
Vertical							
Peak Detector:							
10600.000	14.881	38.150	53.031	-20.969	74.000		
15900.000	*	*	*	*	74.000		
21200.000	*	*	*	*	74.000		
26500.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							

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- 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	: 802.11a/b/g/n 2T2R Wireless Lan USB Module						
Test Item	: Harmonic Radiated Emission Data						
Test Site	: No.3 OATS						
Test Mode	: Mode 1:	Transmit (802.11	a-6Mbps) (5320MHz	z)			
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
10640.000	14.690	37.890	52.580	-21.420	74.000		
15960.000	*	*	*	*	74.000		
21280.000	*	*	*	*	74.000		
26600.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							
Vertical							
Peak Detector:							
10640.000	15.083	37.560	52.643	-21.357	74.000		
15960.000	*	*	*	*	74.000		
21280.000	*	*	*	*	74.000		
26600.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							

- 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	: 802.11a/b/g/n 2T2R Wireless Lan USB Module						
Test Item	: Harmonic Radiated Emission Data						
Test Site	ite : No.3 OATS						
Test Mode	: Mode 1:	Transmit (802.11	a-6Mbps) (5500MHz	z)			
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
11000.000	16.399	37.390	53.789	-20.211	74.000		
16500.000	*	*	*	*	74.000		
22000.000	*	*	*	*	74.000		
27500.000	*	*	*	*	74.000		
Average							
Detector:							
Vertical							
Peak Detector:							
11000.000	17.132	36.810	53.942	-20.058	74.000		
16500.000	*	*	*	*	74.000		
22000.000	*	*	*	*	74.000		
27500.000	*	*	*	*	74.000		
Average							
Detector:							

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- 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	: 802.11a/b/g/n 2T2R Wireless Lan USB Module						
Test Item	: Harmonic Radiated Emission Data						
Test Site	: No.3 OATS						
Test Mode	: Mode 1:	Transmit (802.11	a-6Mbps) (5580MHz	z)			
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
11160.000	16.664	37.180	53.845	-20.155	74.000		
16800.000	*	*	*	*	74.000		
22400.000	*	*	*	*	74.000		
28000.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							
Vertical							
Peak Detector:							
11160.000	17.643	36.350	53.993	-20.007	74.000		
16800.000	*	*	*	*	74.000		
22400.000	*	*	*	*	74.000		
28000.000	*	*	*	*	74.000		
Average							
Detector:							

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- 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	: 802.11a/b/g/n 2T2R Wireless Lan USB Module						
Test Item	: Harmonic Radiated Emission Data						
Test Site	: No.3 OATS						
Test Mode	: Mode 1:	Transmit (802.11	a-6Mbps) (5700MHz	z)			
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
11400.000	16.530	37.410	53.941	-20.059	74.000		
17100.000	*	*	*	*	74.000		
22800.000	*	*	*	*	74.000		
28500.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							
Vertical							
<b>Peak Detector:</b>							
11400.000	17.138	36.710	53.848	-20.152	74.000		
17100.000	*	*	*	*	74.000		
22800.000	*	*	*	*	74.000		
28500.000	*	*	*	*	74.000		
Average							
Detector:							

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- 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	: 802.11a/b/g/n 2T2R Wireless Lan USB Module					
Test Item	: Harmonic Radiated Emission Data					
Test Site	: No.3 OATS					
Test Mode	: Mode 2:	Transmit (802.11	n-20BW 14.4Mbps)	(5180MHz)		
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m	
Horizontal						
Peak Detector:						
10360.000	12.930	36.150	49.080	-24.920	74.000	
15540.000	*	*	*	*	74.000	
20720.000	*	*	*	*	74.000	
25900.000	*	*	*	*	74.000	
Average						
<b>Detector:</b>						
Vertical						
<b>Peak Detector:</b>						
10360.000	13.724	37.040	50.764	-23.236	74.000	
15540.000	*	*	*	*	74.000	
20720.000	*	*	*	*	74.000	
25900.000	*	*	*	*	74.000	
Average Detector:						

- 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 Test Item Test Site Test Mode	<ul> <li>802.11a/b/g/n 2T2R Wireless Lan USB Module</li> <li>Harmonic Radiated Emission Data</li> <li>No.3 OATS</li> <li>Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5220MHz)</li> </ul>					
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m	
Horizontal						
Peak Detector:						
10440.000	13.322	37.150	50.472	-23.528	74.000	
15660.000	*	*	*	*	74.000	
20880.000	*	*	*	*	74.000	
26100.000	*	*	*	*	74.000	
Average Detector: 						
Vertical Peak Detector:						
10440.000	14.245	37.140	51.385	-22.615	74.000	
15660.000	*	*	*	*	74.000	
20880.000	*	*	*	*	74.000	
26100.000	*	*	*	*	74.000	
Average Detector:						

- 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	: 802.11a/b/g/n 2T2R Wireless Lan USB Module							
Test Item	: Harmonic Radiated Emission Data							
Test Site	: No.3 OATS							
Test Mode	: Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5240MHz)							
Frequency	Correct	Reading	Measurement	Margin	Limit			
	Factor	Level	Level					
MHz	dB	dBuV	dBuV/m	dB	dBuV/m			
Horizontal								
Peak Detector:								
10480.000	13.693	36.480	50.174	-23.826	74.000			
15720.000	*	*	*	*	74.000			
20960.000	*	*	*	*	74.000			
26200.000	*	*	*	*	74.000			
Average								
<b>Detector:</b>								
Vertical								
Peak Detector:								
10480.000	14.620	37.150	51.771	-22.229	74.000			
15720.000	*	*	*	*	74.000			
20960.000	*	*	*	*	74.000			
26200.000	*	*	*	*	74.000			
Average Detector:								

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- 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	: 802.11a/b/g/n 2T2R Wireless Lan USB Module							
Test Item	: Harmonic Radiated Emission Data							
Test Site	: No.3 OA	: No.3 OATS						
Test Mode	: Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5260MHz)							
Frequency	Correct	Reading	Measurement	Margin	Limit			
	Factor	Level	Level					
MHz	dB	dBuV	dBuV/m	dB	dBuV/m			
Horizontal								
Peak Detector:								
10520.000	14.015	37.260	51.275	-22.725	74.000			
15780.000	*	*	*	*	74.000			
21040.000	*	*	*	*	74.000			
26300.000	*	*	*	*	74.000			
Average								
<b>Detector:</b>								
Vertical								
Peak Detector:								
10520.000	14.818	37.290	52.108	-21.892	74.000			
15780.000	*	*	*	*	74.000			
21040.000	*	*	*	*	74.000			
26300.000	*	*	*	*	74.000			
Average Detector:								

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- 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	: 802.11a/b/g/n 2T2R Wireless Lan USB Module								
Test Item	: Harmonic Radiated Emission Data								
Test Site	: No.3 OATS								
Test Mode	: Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5300MHz)								
Frequency	Correct	Reading	Measurement	Margin	Limit				
	Factor	Level	Level						
MHz	dB	dBuV	dBuV/m	dB	dBuV/m				
Horizontal									
Peak Detector:									
10600.000	14.550	37.260	51.809	-22.191	74.000				
15900.000	*	*	*	*	74.000				
21200.000	*	*	*	*	74.000				
26500.000	*	*	*	*	74.000				
Average									
<b>Detector:</b>									
Vertical									
Peak Detector:									
10600.000	14.881	38.140	53.021	-20.979	74.000				
15900.000	*	*	*	*	74.000				
21200.000	*	*	*	*	74.000				
26500.000	*	*	*	*	74.000				
Average									
Detector:									

- 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	: 802.11a/b/g/n 2T2R Wireless Lan USB Module							
Test Item	: Harmonic Radiated Emission Data							
Test Site	: No.3 OATS							
Test Mode	: Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5320MHz)							
Frequency	Correct	Reading	Measurement	Margin	Limit			
	Factor	Level	Level					
MHz	dB	dBuV	dBuV/m	dB	dBuV/m			
Horizontal								
Peak Detector:								
10640.000	14.690	37.150	51.840	-22.160	74.000			
15960.000	*	*	*	*	74.000			
21280.000	*	*	*	*	74.000			
26600.000	*	*	*	*	74.000			
Average								
<b>Detector:</b>								
Vertical								
Peak Detector:								
10640.000	15.083	37.140	52.223	-21.777	74.000			
15960.000	*	*	*	*	74.000			
21280.000	*	*	*	*	74.000			
26600.000	*	*	*	*	74.000			
Average								
<b>Detector:</b>								

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- 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 Test Item Test Site Test Mode	<ul> <li>802.11a/b/g/n 2T2R Wireless Lan USB Module</li> <li>Harmonic Radiated Emission Data</li> <li>No.3 OATS</li> <li>Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5500MHz)</li> </ul>					
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m	
Horizontal						
Peak Detector:						
11000.000	16.399	36.150	52.549	-21.451	74.000	
16500.000	*	*	*	*	74.000	
22000.000	*	*	*	*	74.000	
27500.000	*	*	*	*	74.000	
Average						
Detector:						
Vertical						
Peak Detector:						
11000.000	17.132	36.760	53.892	-20.108	74.000	
16500.000	*	*	*	*	74.000	
22000.000	*	*	*	*	74.000	
27500.000	*	*	*	*	74.000	
Average Detector:						

- 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 Test Item Test Site Test Mode	<ul> <li>802.11a/b/g/n 2T2R Wireless Lan USB Module</li> <li>Harmonic Radiated Emission Data</li> <li>No.3 OATS</li> <li>Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5580MHz)</li> </ul>					
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m	
Horizontal						
Peak Detector:						
11160.000	16.664	36.890	53.555	-20.445	74.000	
16800.000	*	*	*	*	74.000	
22400.000	*	*	*	*	74.000	
28000.000	*	*	*	*	74.000	
Average Detector:						
Vertical						
Peak Detector:						
11160.000	17.643	36.210	53.853	-20.147	74.000	
16800.000	*	*	*	*	74.000	
22400.000	*	*	*	*	74.000	
28000.000	*	*	*	*	74.000	
Average Detector:						

- 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	: 802.11a/b/g/n 2T2R Wireless Lan USB Module						
Test Item	: Harmonic Radiated Emission Data						
Test Site	: No.3 OATS e : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5700MHz)						
Test Mode							
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
11400.000	16.530	36.020	52.551	-21.449	74.000		
17100.000	*	*	*	*	74.000		
22800.000	*	*	*	*	74.000		
28500.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							
Vertical							
Peak Detector:							
11400.000	17.138	36.060	53.198	-20.802	74.000		
17100.000	*	*	*	*	74.000		
22800.000	*	*	*	*	74.000		
28500.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							

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- 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 Test Item Test Site Test Mode	<ul> <li>802.11a/b/g/n 2T2R Wireless Lan USB Module</li> <li>Harmonic Radiated Emission Data</li> <li>No.3 OATS</li> <li>Mode 3: Transmit (802.11n-40BW 30Mbps) (5190MHz)</li> </ul>					
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m	
Horizontal						
Peak Detector:						
10380.000	12.939	37.290	50.229	-23.771	74.000	
15570.000	*	*	*	*	74.000	
20760.000	*	*	*	*	74.000	
25950.000	*	*	*	*	74.000	
Average Detector:						
Vertical						
Peak Detector:						
10380.000	13.796	37.530	51.326	-22.674	74.000	
15570.000	*	*	*	*	74.000	
20760.000	*	*	*	*	74.000	
25950.000	*	*	*	*	74.000	
Average Detector:						

- 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	: 802.11a/b/g/n 2T2R Wireless Lan USB Module							
Test Item	: Harmonic Radiated Emission Data							
Test Site	: No.3 OATS							
Test Mode	: Mode 3: Transmit (802.11n-40BW 30Mbps) (5230MHz)							
Frequency	Correct	Reading	Measurement	Margin	Limit			
	Factor	Level	Level					
MHz	dB	dBuV	dBuV/m	dB	dBuV/m			
Horizontal								
Peak Detector:								
10460.000	13.508	37.150	50.658	-23.342	74.000			
15690.000	*	*	*	*	74.000			
20920.000	*	*	*	*	74.000			
26150.000	*	*	*	*	74.000			
Average								
<b>Detector:</b>								
Vertical								
<b>Peak Detector:</b>								
10460.000	14.433	37.140	51.573	-22.427	74.000			
15690.000	*	*	*	*	74.000			
20920.000	*	*	*	*	74.000			
26150.000	*	*	*	*	74.000			
Average								
<b>Detector:</b>								

- 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 Test Item Test Site Test Mode	<ul> <li>802.11a/b/g/n 2T2R Wireless Lan USB Module</li> <li>Harmonic Radiated Emission Data</li> <li>No.3 OATS</li> <li>Mode 3: Transmit (802.11n-40BW 30Mbps) (5270MHz)</li> </ul>						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
10540.000	14.151	37.260	51.410	-22.590	74.000		
15810.000	*	*	*	*	74.000		
21080.000	*	*	*	*	74.000		
26350.000	*	*	*	*	74.000		
Average Detector:							
 Vartical							
Peak Detector							
10540.000	14.829	36.150	50.978	-23.022	74.000		
15810.000	*	*	*	*	74.000		
21080.000	*	*	*	*	74.000		
26350.000 Average Detector:	*	*	*	*	74.000		

- 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 Test Item Test Site Test Mode	<ul> <li>802.11a/b/g/n 2T2R Wireless Lan USB Module</li> <li>Harmonic Radiated Emission Data</li> <li>No.3 OATS</li> <li>Mode 3: Transmit (802.11n-40BW 30Mbps) (5310MHz)</li> </ul>						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
10620.000	14.623	37.140	51.763	-22.237	74.000		
15930.000	*	*	*	*	74.000		
21240.000	*	*	*	*	74.000		
26550.000	*	*	*	*	74.000		
Average Detector:							
Vertical							
Peak Detector:							
10620.000	14.970	37.260	52.230	-21.770	74.000		
15930.000	*	*	*	*	74.000		
21240.000	*	*	*	*	74.000		
26550.000	*	*	*	*	74.000		
Average Detector:							

- 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 Test Item Test Site Test Mode	<ul> <li>802.11a/b/g/n 2T2R Wireless Lan USB Module</li> <li>Harmonic Radiated Emission Data</li> <li>No.3 OATS</li> <li>Mode 3: Transmit (802.11n-40BW 30Mbps) (5510MHz)</li> </ul>						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
11020.000	16.474	37.180	53.653	-20.347	74.000		
15930.000	*	*	*	*	74.000		
21240.000	*	*	*	*	74.000		
26550.000	*	*	*	*	74.000		
Average Detector: 							
Vertical							
Peak Detector:							
11020.000	17.224	36.100	53.324	-20.676	74.000		
15930.000	*	*	*	*	74.000		
21240.000	*	*	*	*	74.000		
26550.000 Average Detector:	*	*	*	*	74.000		

- 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	: 802.11a/b/g/n 2T2R Wireless Lan USB Module						
Test Item	: Harmonic Radiated Emission Data						
Test Site	: No.3 OATS						
Test Mode	: Mode 3:	Transmit (802.11	n-40BW 30Mbps) (5	590MHz)			
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
11100.000	16.681	36.260	52.941	-21.059	74.000		
16770.000	*	*	*	*	74.000		
22360.000	*	*	*	*	74.000		
27950.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							
Vertical							
<b>Peak Detector:</b>							
11100.000	17.523	36.410	53.933	-20.067	74.000		
16770.000	*	*	*	*	74.000		
22360.000	*	*	*	*	74.000		
27950.000	*	*	*	*	74.000		
Average							
Delector:							

- 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 Test Item Test Site Test Mode	<ul> <li>802.11a/b/g/n 2T2R Wireless Lan USB Module</li> <li>Harmonic Radiated Emission Data</li> <li>No.3 OATS</li> <li>Mode 3: Transmit (802.11n-40BW 30Mbps) (5670MHz)</li> </ul>					
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m	
Horizontal						
Peak Detector:						
11340.000	16.408	36.480	52.887	-21.113	74.000	
17010.000	*	*	*	*	74.000	
22680.000	*	*	*	*	74.000	
28350.000	*	*	*	*	74.000	
Average Detector:						
Vertical Peak Detector:						
11340.000	17.167	36.230	53.397	-20.603	74.000	
17010.000	*	*	*	*	74.000	
22680.000	*	*	*	*	74.000	
28350.000	*	*	*	*	74.000	
Average Detector:						

- 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	: 802.11a/b/g/n 2T2R Wireless Lan USB Module						
Test Item	: General Radiated Emission						
Test Site	: No.3 OATS						
Test Mode	: Mode 1:	Transmit (802.11	a-6Mbps) (5220MHz	:)			
_	_						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
<b>Peak Detector</b>							
125.060	-7.335	42.032	34.697	-8.803	43.500		
274.440	-6.417	41.800	35.383	-10.617	46.000		
466.500	3.156	32.730	35.886	-10.114	46.000		
577.080	3.221	28.345	31.566	-14.434	46.000		
809.880	6.266	25.368	31.634	-14.366	46.000		
945.680	6.910	26.089	32.999	-13.001	46.000		
Vertical							
<b>Peak Detector</b>							
123.120	-3.630	32.989	29.359	-14.141	43.500		
245.340	-5.908	35.864	29.956	-16.044	46.000		
386.960	-0.708	27.237	26.529	-19.471	46.000		
493.660	-1.656	37.822	36.167	-9.833	46.000		
769.140	2.558	29.121	31.679	-14.321	46.000		
928.220	3.640	28.875	32.515	-13.485	46.000		

- 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.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.

Product	: 802.11a/b/g/n 2T2R Wireless Lan USB Module							
Test Item	: General I	: General Radiated Emission						
Test Site	: No.3 OA	: No.3 OATS						
Test Mode	: Mode 1: '	Transmit (802.11	a-6Mbps) (5300MHz	)				
Frequency	Correct	Reading	Measurement	Margin	Limit			
	Factor	Level	Level					
MHz	dB	dBuV	dBuV/m	dB	dBuV/m			
Horizontal								
<b>Peak Detector</b>								
55.220	-11.767	40.007	28.240	-11.760	40.000			
169.680	-9.726	44.994	35.268	-8.232	43.500			
274.440	-6.417	41.498	35.081	-10.919	46.000			
427.700	0.210	29.023	29.233	-16.767	46.000			
577.080	3.221	28.030	31.251	-14.749	46.000			
784.660	5.526	24.677	30.203	-15.797	46.000			
Vertical								
<b>Peak Detector</b>								
204.600	-5.473	40.996	35.523	-7.977	43.500			
328.760	-2.407	36.233	33.826	-12.174	46.000			
480.080	-3.390	32.760	29.370	-16.630	46.000			
658.560	-1.778	31.090	29.312	-16.688	46.000			
769.140	2.558	27.884	30.442	-15.558	46.000			
949.560	3.156	25.907	29.063	-16.937	46.000			

- 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.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.

Product	: 802.11a/b/g/n 2T2R Wireless Lan USB Module						
Test Item	: General Radiated Emission						
Test Site	: No.3 OATS						
Test Mode	: Mode 1: Transmit (802.11a-6Mbps) (5580MHz)						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector							
132.820	-7.442	42.668	35.226	-8.274	43.500		
274.440	-6.417	41.627	35.210	-10.790	46.000		
439.340	0.749	35.523	36.272	-9.728	46.000		
549.920	3.662	31.981	35.642	-10.358	46.000		
769.140	5.118	28.631	33.749	-12.251	46.000		
904.940	6.009	29.204	35.213	-10.787	46.000		
Vertical							
Peak Detector							
125.060	-3.725	33.989	30.264	-13.236	43.500		
284.140	-5.517	35.823	30.306	-15.694	46.000		
460.680	-1.930	30.849	28.919	-17.081	46.000		
685.720	2.254	27.197	29.451	-16.549	46.000		
769.140	2.558	30.053	32.611	-13.389	46.000		
934.040	2.986	31.132	34.118	-11.882	46.000		

- 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.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.

Product	: 802.11a/b/g/n 2T2R Wireless Lan USB Module						
Test Item	: General Radiated Emission						
Test Site	: No.3 OA	: No.3 OATS					
Test Mode	: Mode 2:	Transmit (802.11	n-20BW 14.4Mbps) (	(5220MHz)			
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector							
109.540	-7.537	42.598	35.060	-8.440	43.500		
196.840	-10.321	43.559	33.238	-10.262	43.500		
332.640	-3.895	42.047	38.152	-7.848	46.000		
547.980	4.028	31.776	35.804	-10.196	46.000		
769.140	5.118	28.027	33.145	-12.855	46.000		
934.040	6.956	30.180	37.136	-8.864	46.000		
Vertical							
<b>Peak Detector</b>							
43.580	-10.919	39.800	28.881	-11.119	40.000		
134.760	-4.093	36.539	32.446	-11.054	43.500		
229.820	-6.141	42.341	36.200	-9.800	46.000		
460.680	-1.930	30.492	28.562	-17.438	46.000		
685.720	2.254	27.592	29.846	-16.154	46.000		
928.220	3.640	28.034	31.674	-14.326	46.000		

- 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.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.

Product	: 802.11a/b/g/n 2T2R Wireless Lan USB Module						
Test Item	: General Radiated Emission						
Test Site	: No.3 OATS						
Test Mode	: Mode 2:	Transmit (802.11)	n-20BW 14.4Mbps) (	(5300MHz)			
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
<b>Peak Detector</b>							
167.740	-9.816	46.080	36.264	-7.236	43.500		
274.440	-6.417	39.900	33.483	-12.517	46.000		
466.500	3.156	32.699	35.855	-10.145	46.000		
658.560	1.892	33.139	35.031	-10.969	46.000		
821.520	7.116	25.748	32.864	-13.136	46.000		
974.780	7.039	26.216	33.255	-20.745	54.000		
Vertical							
<b>Peak Detector</b>							
41.640	-11.715	40.556	28.842	-11.158	40.000		
152.220	-5.306	40.402	35.096	-8.404	43.500		
256.980	-5.004	34.602	29.598	-16.402	46.000		
460.680	-1.930	30.348	28.418	-17.582	46.000		
769.140	2.558	29.656	32.214	-13.786	46.000		
957.320	3.015	29.630	32.645	-13.355	46.000		

- 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.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.

# QuieTer

Product Test Item	<ul> <li>802.11a/b/g/n 2T2R Wireless Lan USB Module</li> <li>General Radiated Emission</li> </ul>						
Test Site	: No.3 OA	: No.3 OATS					
Test Mode	: Mode 2:	Transmit (802.11	n-20BW 14.4Mbps) (	(5580MHz)			
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector							
173.560	-2.713	39.596	36.883	-6.617	43.500		
301.600	-3.985	39.398	35.413	-10.587	46.000		
466.500	-3.594	39.766	36.172	-9.828	46.000		
658.560	-1.778	38.368	36.590	-9.410	46.000		
769.140	2.558	32.407	34.965	-11.035	46.000		
974.780	-2.051	36.690	34.639	-19.361	54.000		
Vertical							
Peak Detector							
109.540	-3.507	35.712	32.204	-11.296	43.500		
210.420	-5.657	42.244	36.587	-6.913	43.500		
363.680	0.079	29.878	29.957	-16.043	46.000		
439.340	-6.981	35.423	28.442	-17.558	46.000		
664.380	-0.978	36.503	35.525	-10.475	46.000		
926.280	3.342	29.208	32.550	-13.450	46.000		

- 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.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.

# QuieTer

Product Test Item Test Site Test Mode	<ul> <li>802.11a/b/g/n 2T2R Wireless Lan USB Module</li> <li>General Radiated Emission</li> <li>No.3 OATS</li> <li>Mode 3: Transmit (802.11n-40BW 30Mbps) (5190MHz)</li> </ul>						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector							
142.520	-7.627	40.326	32.699	-10.801	43.500		
274.440	-6.417	40.865	34.448	-11.552	46.000		
439.340	0.749	35.223	35.972	-10.028	46.000		
577.080	3.221	26.440	29.661	-16.339	46.000		
780.780	5.259	28.462	33.721	-12.279	46.000		
928.220	7.230	26.607	33.837	-12.163	46.000		
Vertical							
Peak Detector							
134.760	-4.093	36.579	32.486	-11.014	43.500		
239.520	-6.138	40.085	33.947	-12.053	46.000		
460.680	-1.930	29.767	27.837	-18.163	46.000		
691.540	2.092	26.886	28.978	-17.022	46.000		
806.000	3.686	24.008	27.694	-18.306	46.000		
934.040	2.986	31.056	34.042	-11.958	46.000		

- 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.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.

Product	: 802.11a/b/g/n 2T2R Wireless Lan USB Module					
Test Item	: General Radiated Emission					
Test Site	: No.3 OA	ГS				
Test Mode	: Mode 3: 7	Fransmit (802.11	n-40BW 30Mbps) (52	270MHz)		
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m	
Horizontal						
Peak Detector						
173.560	-9.543	45.554	36.011	-7.489	43.500	
301.600	-4.465	39.748	35.283	-10.717	46.000	
466.500	3.156	31.438	34.594	-11.406	46.000	
693.480	3.608	31.089	34.697	-11.303	46.000	
823.460	7.241	29.868	37.109	-8.891	46.000	
984.480	8.098	28.625	36.723	-17.277	54.000	
Vertical						
<b>Peak Detector</b>						
152.220	-5.306	41.220	35.914	-7.586	43.500	
301.600	-3.985	35.098	31.113	-14.887	46.000	
412.180	-5.121	36.909	31.788	-14.212	46.000	
547.980	0.228	31.868	32.096	-13.904	46.000	
769.140	2.558	30.137	32.695	-13.305	46.000	
968.960	3.936	28.670	32.606	-21.394	54.000	

- 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.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.

Product	: 802.11a/b/g/n 2T2R Wireless Lan USB Module					
Test Item	: General Radiated Emission					
Test Site	: No.3 OATS					
Test Mode	: Mode 3:	Transmit (802.11	n-40BW 30Mbps) (5	590MHz)		
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m	
Horizontal						
Peak Detector						
183.260	-12.325	46.683	34.358	-9.142	43.500	
274.440	-6.417	40.645	34.228	-11.772	46.000	
464.560	2.914	32.494	35.408	-10.592	46.000	
613.940	3.132	29.731	32.863	-13.137	46.000	
780.780	5.259	30.193	35.452	-10.548	46.000	
906.880	6.149	30.730	36.879	-9.121	46.000	
Vertical						
Peak Detector						
109.540	-3.507	35.792	32.284	-11.216	43.500	
241.460	-6.000	35.744	29.744	-16.256	46.000	
493.660	-1.656	37.060	35.405	-10.595	46.000	
612.000	1.943	31.060	33.002	-12.998	46.000	
755.560	2.829	22.816	25.645	-20.355	46.000	
945.680	3.300	29.420	32.720	-13.280	46.000	

- 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.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.

# 7. Band Edge

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### 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, 2013
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2013
Х	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2013

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., 2013
	Х	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2013
		Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2013
		Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2013
	Х	Pre-Amplifier	QTK	AP-180C / CHM_0906076	Sep., 2013
		Pre-Amplifier	MITEQ	AMF-4D-180400-45-6P/ 925975	Mar, 2013
	Х	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2013
		Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2013
	Х	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2013
	Χ	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:

FCC Part 15 Subpart C Paragraph 15.209(a) Limits							
Frequency MHz	Field strength (microvolts/meter)	Measurement distance (meter)					
0.009-0.490	2400/F(kHz)	300					
0.490-1.705	24000/F(kHz)	30					
1.705-30	30	30					
30-88	100	3					
88-216	150	3					
216-960	200	3					
Above 960	500	3					

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 C63.10:2009 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 C63.10, 2009; tested to DTS test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

# 7.5. Uncertainty

- $\pm$  3.8 dB below 1GHz
- $\pm$  3.9 dB above 1GHz

## 7.6. Test Result of Band Edge

Product	:	802.11a/b/g/n 2T2R Wireless Lan USB 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):**

Channal No.	Frequency	Correct Factor	Reading Level	<b>Emission Level</b>	Peak Limit	Average Limit	Docult
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
36 (Peak)	5150.000	3.340	49.768	53.108	74.00	54.00	Pass
36 (Peak)	5175.200	3.251	98.453	101.704			Pass
36 (Average)	5150.000	3.340	34.233	37.573	74.00	54.00	Pass
36 (Average)	5178.600	3.239	87.253	90.492			Pass

#### **Figure Channel 36:**

Horizontal (Peak)





Horizontal (Average)



- 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	:	802.11a/b/g/n 2T2R Wireless Lan USB 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):**

Channal No.	Frequency	Correct Factor	Reading Level	<b>Emission Level</b>	Peak Limit	Average Limit	Docult
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
36 (Peak)	5148.200	5.255	43.604	48.859	74.00	54.00	Pass
36 (Peak)	5150.000	5.260	42.487	47.747	74.00	54.00	Pass
36 (Peak)	5176.800	5.334	86.854	92.187			Pass
36 (Average)	5150.000	5.260	31.325	36.585	74.00	54.00	Pass
36 (Average)	5176.600	5.333	77.665	82.998			Pass

#### Figure Channel 36:

#### Vertical (Peak)



#### Figure Channel 36:

#### Vertical (Average)



- 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	:	802.11a/b/g/n 2T2R Wireless Lan USB Module
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) -Channel 64

Channal No.	Frequency	Correct Factor	Reading Level	<b>Emission Level</b>	Peak Limit	Average Limit	Docult
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
64 (Peak)	5317.400	3.820	101.306	105.127			Pass
64 (Peak)	5350.000	3.716	52.895	56.612	74.00	54.00	Pass
64 (Peak)	5352.200	3.710	53.607	57.316	74.00	54.00	Pass
64 (Average)	5318.600	3.817	92.057	95.874			Pass
64 (Average)	5350.000	3.716	38.678	42.395	74.00	54.00	Pass

#### Figure Channel 64:

#### Horizontal (Peak)





#### Horizontal (Average)



- 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	:	802.11a/b/g/n 212R wireless Lan USB Module
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) -Channel 64

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## **RF Radiated Measurement (Vertical):**

Channal No	Frequency	Correct Factor	Reading Level	<b>Emission Level</b>	Peak Limit	Average Limit	Docult
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
64 (Peak)	5316.800	5.733	92.444	98.177			Pass
64 (Peak)	5350.000	5.691	44.639	50.331	74.00	54.00	Pass
64 (Peak)	5351.400	5.690	45.422	51.112	74.00	54.00	Pass
64 (Average)	5316.600	5.733	83.191	88.924			Pass
64 (Average)	5350.000	5.691	32.307	37.999	74.00	54.00	Pass

#### Figure Channel 64:

#### Vertical (Peak)

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#### Vertical (Average)



- 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	:	802.11a/b/g/n 212R Wireless Lan USB Module
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) -Channel 100

Channal No.	Frequency	Correct Factor	Reading Level	<b>Emission Level</b>	Peak Limit	Average Limit	Docult
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
100 (Peak)	5456.200	4.303	57.741	62.044	74.00	54.00	Pass
100 (Peak)	5460.000	4.354	55.733	60.087	74.00	54.00	Pass
100 (Peak)	5497.000	4.794	103.543	108.337			Pass
100 (Average)	5447.800	4.191	42.748	46.940	74.00	54.00	Pass
100 (Average)	5460.000	4.354	39.363	43.717	74.00	54.00	Pass
100 (Average)	5498.600	4.805	94.357	99.162			Pass

#### Figure Channel 100:

#### Horizontal (Peak)





#### Horizontal (Average)



- 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	:	802.11a/b/g/n 2T2R Wireless Lan USB 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	Correct Factor	Reading Level	<b>Emission Level</b>	Peak Limit	Average Limit	Pagult
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
100 (Peak)	5457.000	6.020	47.761	53.781	74.00	54.00	Pass
100 (Peak)	5460.000	6.041	46.311	52.352	74.00	54.00	Pass
100 (Peak)	5497.000	6.266	92.716	98.982			Pass
100 (Average)	5448.000	5.958	33.968	39.926	74.00	54.00	Pass
100 (Average)	5460.000	6.041	32.680	38.721	74.00	54.00	Pass
100 (Average)	5498.600	6.271	83.564	89.835			

#### **Figure Channel 100:**

Vertical (Peak)





Vertical (Average)



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

Product	:	802.11a/b/g/n 2T2R Wireless Lan USB Module
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) -Channel 100

### **<u>RF</u>** Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5470.000	18.334	-75.400	-57.066	-30.066	-27.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5470.000	19.335	-78.050	-58.715	-31.715	-27.000	Pass

Product	:	802.11a/b/g/n 2T2R Wireless Lan USB Module
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) -Channel 140

### **<u>RF</u>** Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5725.000	18.649	-73.770	-55.121	-28.121	-27.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5725.000	19.372	-77.390	-58.018	-31.018	-27.000	Pass

Product	:	802.11a/b/g/n 212R Wireless Lan USB Module
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 36

Channel No.	Frequency	Correct Factor	Reading Level	<b>Emission Level</b>	Peak Limit	Average Limit	Decult
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
36 (Peak)	5150.000	3.340	55.722	59.062	74.00	54.00	Pass
36 (Peak)	5178.600	3.239	103.473	106.712			Pass
36 (Average)	5127.600	3.418	41.599	45.018	74.00	54.00	Pass
36 (Average)	5150.000	3.340	41.231	44.571	74.00	54.00	Pass
36 (Average)	5178.400	3.240	92.502	95.742			Pass

#### Figure Channel 36:

#### Horizontal (Peak)

....





- 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	:	802.11a/b/g/n 2T2R Wireless Lan USB 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	Correct Factor	Reading Level	<b>Emission Level</b>	Peak Limit	Average Limit	Dogult
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
36 (Peak)	5150.000	5.260	49.256	54.516	74.00	54.00	Pass
36 (Peak)	5181.400	5.345	95.369	100.714			Pass
36 (Average)	5128.200	5.199	35.142	40.342	74.00	54.00	Pass
36 (Average)	5150.000	5.260	34.518	39.778	74.00	54.00	Pass
36 (Average)	5178.800	5.338	84.947	90.285			Pass

#### Figure Channel 36:

#### Vertical (Peak)





## Vertical (Average)



- 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	:	802.11a/b/g/n 212R Wireless Lan USB Module
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 64

Channel No	Frequency	Correct Factor	Reading Level	<b>Emission Level</b>	Peak Limit	Average Limit	Docult
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
64 (Peak)	5316.400	3.823	102.020	105.844			Pass
64 (Peak)	5350.000	3.716	52.509	56.226	74.00	54.00	Pass
64 (Peak)	5354.200	3.703	52.748	56.451	74.00	54.00	Pass
64 (Average)	5317.600	3.820	91.588	95.408			Pass
64 (Average)	5350.000	3.716	38.715	42.432	74.00	54.00	Pass
64 (Average)	5371.600	3.645	39.843	43.488	74.00	54.00	Pass

#### Figure Channel 64:

#### Horizontal (Peak)





#### Horizontal (Average)



- 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	:	802.11a/b/g/n 2T2R Wireless Lan USB 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):

Channal No.	Frequency	Correct Factor	Reading Level	<b>Emission Level</b>	Peak Limit	Average Limit	Docult
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
64 (Peak)	5317.000	5.732	92.891	98.624			Pass
64 (Peak)	5350.000	5.691	43.845	49.537	74.00	54.00	Pass
64 (Average)	5317.800	5.732	82.068	87.800			Pass
64 (Average)	5350.000	5.691	32.320	38.012	74.00	54.00	Pass

#### Figure Channel 64:

#### Vertical (Peak)





#### Vertical (Average)



- 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	:	802.11a/b/g/n 2T2R Wireless Lan USB Module
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 100

Channal No.	Frequency	Correct Factor	Reading Level	<b>Emission Level</b>	Peak Limit	Average Limit	Docult
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
100 (Peak)	5458.600	4.335	55.361	59.696	74.00	54.00	Pass
100 (Peak)	5460.000	4.354	53.468	57.822	74.00	54.00	Pass
100 (Peak)	5496.800	4.793	103.923	108.715			Pass
100 (Average)	5448.400	4.199	42.265	46.465	74.00	54.00	Pass
100 (Average)	5460.000	4.354	38.796	43.150	74.00	54.00	Pass
100 (Average)	5497.800	4.799	93.543	98.342			Pass

#### **Figure Channel 100:**

#### Horizontal (Peak)





#### Horizontal (Average)



- 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.

Test Item:Band Edge DataTest Site:No.3 OATSTest Mode:Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 1000000000000000000000000000000000000	Product	:	802.11a/b/g/n 2T2R Wireless Lan USB Module
Test Site:No.3 OATSTest Mode:Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 10	Test Item	:	Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 1	Test Site	:	No.3 OATS
	Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 100

### **RF Radiated Measurement (Vertical):**

Channel No	Frequency	Correct Factor	Reading Level	<b>Emission Level</b>	Peak Limit	Average Limit	Docult
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
100 (Peak)	5447.000	5.951	47.163	53.114	74.00	54.00	Pass
100 (Peak)	5460.000	6.041	45.727	51.768	74.00	54.00	Pass
100 (Peak)	5495.800	6.262	94.942	101.204			Pass
100 (Average)	5448.200	5.959	33.426	39.385	74.00	54.00	Pass
100 (Average)	5460.000	6.041	32.231	38.272	74.00	54.00	Pass
100 (Average)	5497.000	6.266	84.078	90.344			Pass



Vertical (Peak)





Vertical (Average)



- 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	:	802.11a/b/g/n 2T2R Wireless Lan USB Module
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 100

### **<u>RF Radiated Measurement:</u>**

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5470.000	18.334	-75.450	-57.116	-30.116	-27.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5470.000	19.335	-77.940	-58.605	-31.605	-27.000	Pass

Product	:	802.11a/b/g/n 2T2R Wireless Lan USB 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:**

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5725.000	18.649	-60.630	-41.981	-14.981	-27.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5725.000	19.372	-67.320	-47.948	-20.948	-27.000	Pass

Product	:	802.11a/b/g/n 2T2R Wireless Lan USB Module
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 38

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)	5145.400	3.356	66.921	70.277	74.00	54.00	Pass
38 (Peak)	5150.000	3.340	64.027	67.367	74.00	54.00	Pass
38 (Peak)	5187.200	3.208	99.000	102.209			Pass
38 (Average)	5150.000	3.340	50.154	53.494	74.00	54.00	Pass

#### **Figure Channel 38:**

#### Horizontal (Peak)





#### Horizontal (Average)



- 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	:	802.11a/b/g/n 2T2R Wireless Lan USB 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	Correct Factor	Reading Level	<b>Emission Level</b>	Peak Limit	Average Limit	Decult
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
38 (Peak)	5147.800	5.254	57.530	62.784	74.00	54.00	Pass
38 (Peak)	5150.000	5.260	56.786	62.046	74.00	54.00	Pass
38 (Peak)	5194.800	5.375	91.295	96.670			Pass
38 (Average)	5150.000	5.260	42.445	47.705	74.00	54.00	Pass
38 (Average)	5186.600	5.360	80.385	85.745			Pass

#### Figure Channel 38:

#### Vertical (Peak)





- 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	:	802.11a/b/g/n 212R Wireless Lan USB Module
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 62

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
	(MITZ)	(UD)	(dbuv)	(ubu v/m)	(udu v/m)	(ubuv/III)	
62 (Peak)	5317.600	3.820	99.129	102.949			Pass
62 (Peak)	5350.000	3.716	65.153	68.870	74.00	54.00	Pass
62 (Average)	5315.600	3.826	88.469	92.295			Pass
62 (Average)	5350.000	3.716	49.389	53.106	74.00	54.00	Pass

#### Figure Channel 62:

#### Horizontal (Peak)

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#### Horizontal (Average)



- 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	:	802.11a/b/g/n 2T2R Wireless Lan USB 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	Correct Factor	Reading Level	<b>Emission Level</b>	Peak Limit	Average Limit	Docult
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
62 (Peak)	5319.800	5.730	90.143	95.872			Pass
62 (Peak)	5350.000	5.691	55.340	61.032	74.00	54.00	Pass
62 (Average)	5314.600	5.737	79.830	85.566			Pass
62 (Average)	5350.000	5.691	40.192	45.884	74.00	54.00	Pass

#### **Figure Channel 62:**

### Vertical (Peak)





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

Product	:	802.11a/b/g/n 2T2R Wireless Lan USB Module
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 102

Channel No.	Frequency	Correct Factor	Reading Level	<b>Emission Level</b>	Peak Limit	Average Limit	Docult
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
102 (Peak)	5460.000	4.354	60.729	65.083	74.00	54.00	Pass
102 (Peak)	5505.400	4.845	100.573	105.419			Pass
102 (Average)	5460.000	4.354	47.583	51.937	74.00	54.00	Pass
102 (Average)	5505.400	4.845	90.613	95.459			Pass

#### **Figure Channel 102:**

#### Horizontal (Peak)





Horizontal (Average)



- 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	:	802.11a/b/g/n 2T2R Wireless Lan USB 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):

Channal No.	Frequency	Correct Factor	Reading Level	<b>Emission Level</b>	Peak Limit	Average Limit	Docult
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
102 (Peak)	5460.000	6.041	49.792	55.833	74.00	54.00	Pass
102 (Peak)	5499.400	6.273	91.541	97.814			Pass
102 (Average)	5460.000	6.041	38.232	44.273	74.00	54.00	Pass
102 (Average)	5498.000	6.268	80.654	86.923			Pass

#### Figure Channel 102:

#### Vertical (Peak)





#### Vertical (Average)



- 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	:	802.11a/b/g/n 2T2R Wireless Lan USB 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:**

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5470.000	18.334	-68.450	-50.116	-23.116	-27.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5470.000	19.335	-74.240	-54.905	-27.905	-27.000	Pass

Product	:	802.11a/b/g/n 2T2R Wireless Lan USB 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:**

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5725.000	18.649	-76.450	-57.801	-30.801	-27.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5725.000	19.372	-78.700	-59.328	-32.328	-27.000	Pass

Product	:	802.11a/b/g/n 2T2R Wireless Lan USB Module[u82]
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps)

## Chain A

Test Frequency	Measurement Level (20dB BW)	Limit	Result
(MHz)	(MHz)	(MHz)	
5580	5589.25	<5600	PASS
5660	5650.65	>5650	PASS

NOTE: The 5600~5650MHz band is not used in accordance with 15.215 requirement.

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Product	:	802.11a/b/g/n 2T2R Wireless Lan USB Module[u83]
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps)

## Chain A

Test Frequency	Measurement Level (20dB BW)	Limit	Result
(MHz)	(MHz)	(MHz)	
5580	5589.40	<5600	PASS
5660	5650.35	>5650	PASS

NOTE: The 5600~5650MHz band is not used in accordance with 15.215 requirement.

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PHO: Fast         Image least of the state in: 30 dB         Mkr2 5.650 35 GHz         Auto Tune           10 dB/div         Ref 20.00 dBm         -26.94 dBm         -26.94 dBm         6.66000000 GHz           10 mm         0         1         0 </td <td>Center Freq 5.660000000 GHz</td> <td></td> <td>ALIGNAUTO Avg Type: Log-Pwr</td> <td>07:11:04 AM Sep 07, 2013</td> <td>Frequency</td>	Center Freq 5.660000000 GHz		ALIGNAUTO Avg Type: Log-Pwr	07:11:04 AM Sep 07, 2013	Frequency
Log         Center Freq           1mn         1         5.65600000 GHz           1mn         2         3850.000 GHz           300         2         3850.000 GHz           400         3         3           400         3         4           1         1         1           1	PNU: FAG IFGaIn:Lov 10 dB/div Ref 20.00 dBm	Auto Tune			
Mn         P         Mn         Start Freq           300         300         300         300         55500000 GHz           400         400         400         400         400         400         55500000 GHz           400         400         400         400         400         400         400         400         55500000 GHz           400         400         400         400         400         400         400         565500000 GHz         56500000 GHz         565000000 GHz         56500000 GHz         56500000 GHz         56500000 GHz         56500000 GHz         565000000 GHz         5650000000 GHz         5650000000 GHz	100	1	~~~~ <u> </u>		Center Freq 5.66000000 GHz
Contract         Contract         Contract         Stop Freq 5.68500000 GHz           Stop Freq 5.68500000 GHz         Stop Freq 5.68500000 GHz         Stop Freq 5.68500000 GHz           Center 5.66000 CHz         #VBW 1.0 MHz         #Sweep 500 ms (1001 pts)         CF Step 6.000000 MHz           Man         I         f         5.655 GHz         -6.30 dBm         Auto         Man           1         N         1         f         5.656 35 GHz         -26.94 dBm         Freq Offset         0 Hz           3         1         1         5         1 <t< td=""><td>2000 -400</td><td></td><td></td><td>28.30 dBo</td><td>Start Freq 5.635000000 GHz</td></t<>	2000 -400			28.30 dBo	Start Freq 5.635000000 GHz
Center 5.66000 GHz         Span 50.00 MHz         CF Step           #Res BW 300 kHz         #VBW 1.0 MHz         #Sweep 500 ms (1001 pts)         CF Step           1 N         1         1         5.555 GHz         -6.30 dBm         Auto         Man           2 N         1         1         5.555 GHz         -25.94 dBm         Function monthlem         Function monthlem         Function monthlem         Man           3         1         f         5.650 35 GHz         -25.94 dBm         Freq Offset         0 Hz           5	-50.0			and the second	<b>Stop Freq</b> 5.685000000 GHz
Card Words Hind Got         X         Y         Prevention	Center 5.66000 GHz #Res BW 300 kHz #V	'BW 1.0 MHz	#Sweep	Span 50.00 MHz 500 ms (1001 pts)	CF Step 5.000000 MHz
12	No.1         f         5.656 55 GHz         3           1         N         1         f         5.656 35 GHz           3         4         5         5         6           5         6         7         7         8         9           9         10         11         12         11         12	-6.30 dBm -26.94 dBm			Freq Offset 0 Hz

Product	:	802.11a/b/g/n 2T2R Wireless Lan USB Module[u84]
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps)

### Chain B

Test Frequency	Measurement Level (20dB BW)	Limit	Result
(MHz)	(MHz)	(MHz)	
5580	5589.40	<5600	PASS
5660	5650.35	>5650	PASS

NOTE: The 5600~5650MHz band is not used in accordance with 15.215 requirement.

			OTHER		
Agilent Spectrum Analyzer - S	iwept SA				
Center Freq 5.5800	Ω AC 000000 GHz	SENSE:IN	T ALIGNAUTO Avg Type: Log-Pwr	07:00:47 AM Sep 07, 2013 IRACL 1 2 3 4 5 6	Frequency
	PNO: Fast II Gain:Low	#Atten: 30 dB			Auto Tune
10 dB/div Ref 20.00	) dBm		MKr	2 5.589 40 GHz -23.95 dBm	
10.0		.1			Center Free
0.00	يعسر ا	m minut	man		5.58000000 GHz
-20.0			2	-225.04 (Ph)	
-30.0	11				5.555000000 GH:
-40.0				and more many lines	
-60.0					Stop Free
70.0					6.605000000 GH:
Center 5.58000 GHz #Res BW 300 kHz	#VE	SW 1.0 MHz	#Sweep	Span 50.00 MHz 500 ms (1001 pts)	CF Step
MAN MODE THE SEL	X	Y	FUNCTION FUNCTION WIDTH	FUNCTION VALUE	Auto Mar
1 N 1 F 2 N 1 F	5.589 40 GHz	-3.94 dBm -23.95 dBm			
4					Freq Offse
6					
8					
10					
MSG	1		STATUS		I

## 5580MHz

Agilent Spect	rum Analyzer - S	wept SA						
Center F	∾r ∣so req 5.6600	Ω AC   000000 GHz		C:INT  Avg Run	ALIGNAUTO Type: Log-Pwr	07:11:51A) IRAG	M Sep 07, 2010	Frequency
10 dB/div	Ref 20.00	IFGain:Low	#Atten: 30 d	IB	Mkr	2 5.650 -25.	35 GHz 77 dBm	Auto Tune
10.0 10.0 10.0			1					Center Freq 5.66000000 GHz
20.0 -30.0 -4U.U		2			- How		25.53 dBhi	Start Freq 5.635000000 GHz
-50.0 -50.0 -60.0 -70.0							Wine and the second	Stop Freq 5.68500000 GHz
Center 5. #Res BW	66000 GHz 300 kHz	#V	BW 1.0 MHz		#Sweep	Span 5 500 ms (	0.00 MHz 1001 pts)	CF Step 5.000000 MHz
1         N         1           1         N         1           2         N         1           3         4         -           5         -         -           6         -         -           7         -         -           8         -         -           9         10         -           11         12         -		5.657 00 GHz 5.650 35 GHz	¥ <u>5,53 dBr</u> -25.77 dBr	runction n n				Auto Man Freq Offset 0 Hz
MSG				-	STATUS	ŝ		

Product	:	802.11a/b/g/n 2T2R Wireless Lan USB Module[u85]
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps)

## Chain A

Test Frequency	Measurement Level (20dB BW)	Limit	Result
(MHz)	(MHz)	(MHz)	
5550	5568.90	<5600	PASS
5670	5650.30	>5650	PASS

NOTE: The 5600~5650MHz band is not used in accordance with 15.215 requirement.

			0	00011					
Agilent Spectrur	n Analyzer - Sw	ept SA							
Center Fre	nr   50 û eq 5.55000	AC DOODO GHZ PNO: Fast	Trig: Free	Run	Avg Type	ALIGNAUTO E Log-Pwr	00:06:27 A IRAC 114	M Dep 07, 2010 1 1 2 3 4 5 6 1 M WHITTO	Frequency
		ll Gain:Lov	v #Atten: 30	dB		Mk	r2 5 568		Auto Tune
10 dB/div	Ref 20.00 (	dBm					-25.4	41 dBm	
10.0	_								Center Freq
-10.0			- Par	never man	mana				5.550000000 GHz
-20.0			V			2		25.20 dLin	Ctort Eron
-30.0									5.500000000 GHz
-50.0	In and the second	All and a lot of the l				www	manna	H	
-60.0									Stop Freq
70.0									6.60000000 GH2
Center 5.5 #Res BW 3	5000 CHz 00 kHz	#V	'BW 1.0 MHz			#Sweep	Span 1 500 ms (	00.0 MHz 1001 pts)	CF Step
	1	X 5.544.7 GHz	Y .5.23 dF	run Sm	TION FUI	NCTION WIDTH	FUNCTIO	IN VALUE	<u>Auto</u> Man
2 N 1 3	f	5.568 9 GHz	-25.41 dB	m					Eron Offent
4 5				_					0 Hz
7 8				-					
9 10									
11 12									
NSG						STATUS	i i		

## 5550MHz

Agilent Spo	ectrum	Analy	rzer Swa	ept SA								
Center	Fre	<sup>Ŗ⊊</sup>	50 Ω 67000	AC   00000 G	Hz		NSE:INT	Avg	ALIGNAUTO Type: Log-Pwi	11:56:3	000 9.007,2013	Frequency
	PND: Exat ( ) Trig: Free Run ( ) PND: Exat ( ) Trig: Free Run ( ) PND: Exat ( ) PND: E										Auto Tune	
10 dB/dl Log 10 0	V	Ref	20.00 (	1Bm		1	,		<b>649</b>	-2		Center Freq 5.67000000 GHz
-20.0 .30 n 40 n 40/1	(ologo)	g 111	and the second	ini del finante de	<b>∳</b> ′					tal in fining of	-21 EL APA	Start Freq 5.620000000 GHz
-50.0 -60.0 70.0												Stop Freq 5.720000000 GHz
Center #Res B	5.67 W 30	000 00 ki	GHZ Hz	x	#V	BW 1.0 MH2	2	EINEIIIN	#Swee	Spar 500 m	n 100.0 MHz s (1001 pts)	CF Step 10.000000 MHz Auto Man
1 N 2 N 3 4 5 6 7 8 9 10 11 12	1	f		5.663	37 GHz 13 GHz	-0.60 d -21.07 d	Bm					Freq Offset 0 Hz
MSC									STAT	us		

Product	:	802.11a/b/g/n 2T2R Wireless Lan USB Module[u86]
Test Item		Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps)

### Chain B

Test Frequency	Measurement Level (20dB BW)	Limit	Result
(MHz)	(MHz)	(MHz)	
5550	5568.90	<5600	PASS
5670	5650.80	>5650	PASS

NOTE: The 5600~5650MHz band is not used in accordance with 15.215 requirement.

		55501	11112		
Agilent Spectrum Analyzer - Swe	pt SA				
Center Freq 5.55000	AC 0000 GHz PN0: Fast (	) Trig: Free Run	ALIGNAUTO Avg Type: Log-Pwr	00:10:11 AM Sep 07, 2013 IKALL 1 2 3 4 5 6 IYPE M	Frequency
	II Gain:Low	#Atten: 30 dB	Mk	12 5.568 9 GHz	Auto Tune
10 dB/div Ref 20.00 d	IBm			-25.38 dBm	
10.0		1			Center Freq
-10.0	, mar	wonder more	n.		5.550000000 GHz
-20 N			<b>↓</b> <sup>2</sup>	24.09 dBm	Start Fred
-30.0	and the				5.500000000 GHz
-SUU Internet and and	with a state		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	mon man man	
-60.0					Stop Freq 5.60000000 GHz
				Onen 100 0 Mile	
#Res BW 300 kHz	#VBV	V 1.0 MHz	#Sweep	500 ms (1001 pts)	CF Step 10.000000 MHz
MKN MODE THE SEL	X 5.544 6 GHz	Y TU -4.79 dBm	NCTION FUNCTION WIDTH	FUNCTION VALUE	<u>Auto</u> Man
2 N 1 f 3	5.568 9 GHz	-25.38 dBm			Freg Offset
4 5 6					0 Hz
7 8					
9					
12					
MSG			STATUS		

## 5550MHz

Agilent Spectrum Analyz	zer - Swept SA					
Center Freq 5.6	50 Q AC 670000000 GHz	SENSE: IN	ா    Avg Type	ALIGNAUTO 2: Log-Pwr	11:57:51PM Sup 07, 201	Frequency
10 dB/dlv Ref 2	PNO: Fas IFGain:1 or 0.00 dBm	# (,) Ing:ree Kur w #Atten: 30 dB	n	Mk	r2 5.650 8 GH: -27.15 dBn	Auto Tune
10 0 0.00 -10.0		Whiters for the second second				Center Freq 5.670000000 GHz
-20.0	2			a sharping	-25 15 alfe	Start Freq 6.62000000 GHz
-50.0 -60.0 70.0					an and the state of the state o	Stop Freq 5.72000000 GHz
Center 5.67000 ( #Res BW 300 kH	GHz Iz #\	/BW 1.0 MHz	FUNCTION	#Sweep	Span 100.0 MH 500 ms (1001 pts	CF Step 10.000000 MHz Auto Man
1         N         1         f           3         4         -         -           6         -         -         -           7         -         -         -           8         -         -         -           9         -         -         -           11         -         -         -           12         -         -         -	5.676 2 GHz 5.650 8 GHz	-3.13 dBm -27.15 dBm				Freq Offset 0 Hz
MSG				STATUS		

## 8. Frequency Stability

## 8.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2013
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2013
Х	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2013

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 C63.10, 2009; 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	:	802.11a/b/g/n 2T2R Wireless Lan USB Module
Test Item	:	Frequency Stability
Test Site	:	Temperature Chamber
Test Mode	:	Carrier Wave

#### Chain A

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
		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
	Vnom (120)V	52	5260.0000	5260.0101	-0.0101
		54	5270.0000	5270.0098	-0.0098
		60	5300.0000	5300.0089	-0.0089
Tnom (20) °C		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)	△F (MHz)
		36	5180.0000	5180.0058	-0.0058
		38	5190.0000	5190.0099	-0.0099
		44	5220.0000	5220.0056	-0.0056
		46	5230.0000	5230.0054	-0.0054
		48	5240.0000	5240.0024	-0.0024
		52	5260.0000	5260.0048	-0.0048
		54	5270.0000	5270.0095	-0.0095
	N (120)N	60	5300.0000	5300.0012	-0.0012
T max $(50)$ <sup>o</sup> C	$V \max(138)V$	62	5310.0000	5310.0098	-0.0098
		64	5320.0000	5320.0065	-0.0065
		100	5500.0000	5500.0093	-0.0093
		102	5510.0000	5510.0059	-0.0059
		110	5550.0000	5550.0065	-0.0065
		116	5580.0000	5580.0026	-0.0026
		134	5670.0000	5670.0048	-0.0048
		140	5700.0000	5700.0054	-0.0054
Test C	onditions	Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
		36	5180.0000	5180.0022	-0.0022
		38	5190.0000	5190.0065	-0.0065
		44	5220.0000	5220.0033	-0.0033
		46	5230.0000	5230.0065	-0.0065
		48	5240.0000	5240.0036	-0.0036
		52	5260.0000	5260.0032	-0.0032
		54	5270.0000	5270.0036	-0.0036
		60	5300.0000	5300.0069	-0.0069
Tmax (50) °C	Vmin (102)V	62	5310.0000	5310.0054	-0.0054
		64	5320.0000	5320.0021	-0.0021
		100	5500.0000	5500.0054	-0.0054
		102	5510.0000	5510.0052	-0.0052
		110	5550.0000	5550.0062	-0.0062
		116	5580.0000	5580.0014	-0.0014
		134	5670.0000	5670.0014	-0.0014
		140	5700.0000	5700.0069	-0.0069

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
		36	5180.0000	5180.0026	-0.0026
		38	5190.0000	5190.0065	-0.0065
		44	5220.0000	5220.0032	-0.0032
		46	5230.0000	5230.0051	-0.0051
		48	5240.0000	5240.0025	-0.0025
		52	5260.0000	5260.0059	-0.0059
		54	5270.0000	5270.0059	-0.0059
$T_{min} (0) {}^{0}C$	V	60	5300.0000	5300.0014	-0.0014
$1 \min(0) C$	v max (138) v	62	5310.0000	5310.0026	-0.0026
		64	5320.0000	5320.0057	-0.0057
		100	5500.0000	5500.0059	-0.0059
		102	5510.0000	5510.0054	-0.0054
		110	5550.0000	5550.0069	-0.0069
		116	5580.0000	5580.0026	-0.0026
		134	5670.0000	5670.0047	-0.0047
		140	5700.0000	5700.0059	-0.0059
Test C	onditions	Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
		36	5180.0000	5180.0026	-0.0026
		38	5190,0000	5100 0065	
			5170.0000	5190.0005	-0.0065
		44	5220.0000	5220.0032	-0.0065 -0.0032
		44 46	5220.0000 5230.0000	5220.0032 5230.0051	-0.0065 -0.0032 -0.0051
		44 46 48	5130.0000           5220.0000           5230.0000           5240.0000	5220.0032 5230.0051 5240.0025	-0.0065 -0.0032 -0.0051 -0.0025
		44 46 48 52	5130.0000           5220.0000           5230.0000           5240.0000           5260.0000	5190.0003           5220.0032           5230.0051           5240.0025           5260.0059	-0.0065 -0.0032 -0.0051 -0.0025 -0.0059
		44 46 48 52 54	5170.0000         5220.0000         5230.0000         5240.0000         5260.0000         5270.0000	5190.0003         5220.0032         5230.0051         5240.0025         5260.0059         5270.0059	-0.0065 -0.0032 -0.0051 -0.0025 -0.0059 -0.0059
T (0) %C	V (100).V.	44 46 48 52 54 60	5130.0000         5220.0000         5230.0000         5240.0000         5260.0000         5270.0000         5300.0000	5190.0003         5220.0032         5230.0051         5240.0025         5260.0059         5270.0059         5300.0014	-0.0065 -0.0032 -0.0051 -0.0025 -0.0059 -0.0059 -0.0014
Tmin (0) °C	Vmin (102)V	44 46 48 52 54 60 62	5130.0000         5220.0000         5230.0000         5240.0000         5260.0000         5270.0000         5300.0000         5310.0000	5190.0003         5220.0032         5230.0051         5240.0025         5260.0059         5270.0059         5300.0014         5310.0026	-0.0065 -0.0032 -0.0051 -0.0025 -0.0059 -0.0059 -0.0014 -0.0026
Tmin (0) °C	Vmin (102)V	44 46 48 52 54 60 62 64	5170.0000         5220.0000         5230.0000         5240.0000         5260.0000         5270.0000         5300.0000         5310.0000         5320.0000	5190.0003         5220.0032         5230.0051         5240.0025         5260.0059         5270.0059         5300.0014         5310.0026         5320.0057	-0.0065 -0.0032 -0.0051 -0.0025 -0.0059 -0.0059 -0.0014 -0.0026 -0.0057
Tmin (0) °C	Vmin (102)V	44         46         48         52         54         60         62         64         100	5170.0000         5220.0000         5230.0000         5240.0000         5260.0000         5270.0000         5300.0000         5310.0000         5320.0000         5500.0000	5190.0003         5220.0032         5230.0051         5240.0025         5260.0059         5270.0059         5300.0014         5310.0026         5320.0057         5500.0059	-0.0065 -0.0032 -0.0051 -0.0025 -0.0059 -0.0059 -0.0014 -0.0026 -0.0057 -0.0059
Tmin (0) °C	Vmin (102)V	44 46 48 52 54 60 62 64 100 102	5130.0000         5220.0000         5230.0000         5240.0000         5260.0000         5270.0000         5310.0000         5320.0000         5320.0000         5510.0000	5190.0003         5220.0032         5230.0051         5240.0025         5260.0059         5270.0059         5300.0014         5310.0026         5320.0057         5500.0059         5510.0054	-0.0065 -0.0032 -0.0051 -0.0025 -0.0059 -0.0059 -0.0014 -0.0026 -0.0057 -0.0059 -0.0059 -0.0054
Tmin (0) ℃	Vmin (102)V	$ \begin{array}{r}     44 \\     46 \\     48 \\     52 \\     54 \\     60 \\     62 \\     64 \\     100 \\     102 \\     110 \\ \end{array} $	5170.0000         5220.0000         5230.0000         5240.0000         5260.0000         5270.0000         5300.0000         5310.0000         5320.0000         5550.0000         5550.0000	5190.0003         5220.0032         5230.0051         5240.0025         5260.0059         5270.0059         5300.0014         5310.0026         5320.0057         5500.0059         5510.0054         5550.0069	-0.0065 -0.0032 -0.0051 -0.0025 -0.0059 -0.0059 -0.0014 -0.0026 -0.0057 -0.0059 -0.0059 -0.0054 -0.0069
Tmin (0) °C	Vmin (102)V	$ \begin{array}{r}     44 \\     46 \\     48 \\     52 \\     54 \\     60 \\     62 \\     64 \\     100 \\     102 \\     110 \\     116 \\   \end{array} $	5130.0000         5220.0000         5230.0000         5240.0000         5260.0000         5270.0000         5300.0000         5310.0000         5520.0000         5550.0000         5550.0000         5580.0000	5190.0003         5220.0032         5230.0051         5240.0025         5260.0059         5270.0059         5300.0014         5310.0026         5320.0057         55500.0059         55510.0054         5580.0026	-0.0065 -0.0032 -0.0051 -0.0025 -0.0059 -0.0059 -0.0014 -0.0026 -0.0057 -0.0059 -0.0054 -0.0069 -0.0026
Tmin (0) °C	Vmin (102)V	44         46         48         52         54         60         62         64         100         102         110         116         134	5170.0000         5220.0000         5230.0000         5240.0000         5260.0000         5270.0000         5300.0000         5310.0000         5320.0000         5550.0000         5550.0000         5580.0000         5670.0000	5190.0003         5220.0032         5230.0051         5240.0025         5260.0059         5270.0059         5300.0014         5310.0026         5320.0057         55500.0059         5550.0069         5580.0026         5670.0047	-0.0065 -0.0032 -0.0051 -0.0025 -0.0059 -0.0059 -0.0014 -0.0026 -0.0057 -0.0059 -0.0054 -0.0054 -0.0069 -0.0026 -0.0026 -0.0047
## Chain B

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
Tnom (20) °C	Vnom (120)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	5580.0101	-0.0101
		134	5670.0000	5670.0054	-0.0054
		140	5700.0000	5700.0097	-0.0097

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
Tmax (50) °C		36	5180.0000	5180.0065	-0.0065
	Vmax (138)V	38	5190.0000	5190.0098	-0.0098
		44	5220.0000	5220.0054	-0.0054
		46	5230.0000	5230.0052	-0.0052
		48	5240.0000	5240.0032	-0.0032
		52	5260.0000	5260.0048	-0.0048
		54	5270.0000	5270.0062	-0.0062
		60	5300.0000	5300.0023	-0.0023
		62	5310.0000	5310.0056	-0.0056
		64	5320.0000	5320.0014	-0.0014
		100	5500.0000	5500.0098	-0.0098
		102	5510.0000	5510.0065	-0.0065
		110	5550.0000	5550.0036	-0.0036
		116	5580.0000	5580.0026	-0.0026
		134	5670.0000	5670.0063	-0.0063
		140	5700.0000	5700.0052	-0.0052
Test Conditions					
Test C	Conditions	Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
Test C	Conditions	Channel 36	Frequency (MHz) 5180.0000	Frequency (MHz) 5180.0051	△F (MHz)
Test C	Conditions	Channel 36 38	Frequency (MHz) 5180.0000 5190.0000	Frequency (MHz) 5180.0051 5190.0023	△F (MHz) -0.0051 -0.0023
Test C	Conditions	Channel 36 38 44	Frequency (MHz) 5180.0000 5190.0000 5220.0000	Frequency (MHz) 5180.0051 5190.0023 5220.0051	△F (MHz) -0.0051 -0.0023 -0.0051
Test C	Conditions	Channel 36 38 44 46	Frequency (MHz) 5180.0000 5190.0000 5220.0000 5230.0000	Frequency (MHz) 5180.0051 5190.0023 5220.0051 5230.0054	<ul> <li>△F (MHz)</li> <li>-0.0051</li> <li>-0.0023</li> <li>-0.0051</li> <li>-0.0054</li> </ul>
Test C	Conditions	Channel 36 38 44 46 48	Frequency (MHz) 5180.0000 5190.0000 5220.0000 5230.0000 5240.0000	Frequency (MHz) 5180.0051 5190.0023 5220.0051 5230.0054 5240.0036	<ul> <li>△F (MHz)</li> <li>-0.0051</li> <li>-0.0023</li> <li>-0.0051</li> <li>-0.0054</li> <li>-0.0036</li> </ul>
Test C	Conditions	Channel 36 38 44 46 48 52	Frequency (MHz) 5180.0000 5190.0000 5220.0000 5230.0000 5240.0000 5260.0000	Frequency (MHz) 5180.0051 5190.0023 5220.0051 5230.0054 5240.0036 5260.0052	<ul> <li>△F (MHz)</li> <li>-0.0051</li> <li>-0.0023</li> <li>-0.0051</li> <li>-0.0054</li> <li>-0.0036</li> <li>-0.0052</li> </ul>
Test C	Conditions	Channel 36 38 44 46 48 52 54	Frequency (MHz) 5180.0000 5190.0000 5220.0000 5230.0000 5240.0000 5260.0000 5270.0000	Frequency (MHz) 5180.0051 5190.0023 5220.0051 5230.0054 5240.0036 5260.0052 5270.0057	<ul> <li>△F (MHz)</li> <li>-0.0051</li> <li>-0.0023</li> <li>-0.0051</li> <li>-0.0054</li> <li>-0.0036</li> <li>-0.0052</li> <li>-0.0057</li> </ul>
Test C	Conditions	Channel 36 38 44 46 48 52 54 60	Frequency (MHz) 5180.0000 5190.0000 5220.0000 5230.0000 5240.0000 5260.0000 5270.0000 5300.0000	Frequency (MHz) 5180.0051 5190.0023 5220.0051 5230.0054 5240.0036 5260.0052 5270.0057 5300.0059	<ul> <li>△F (MHz)</li> <li>-0.0051</li> <li>-0.0023</li> <li>-0.0051</li> <li>-0.0054</li> <li>-0.0036</li> <li>-0.0052</li> <li>-0.0057</li> <li>-0.0059</li> </ul>
Test C Tmax (50) °C	Conditions Vmin (102)V	Channel 36 38 44 46 48 52 54 60 62	Frequency (MHz) 5180.0000 5190.0000 5220.0000 5230.0000 5240.0000 5260.0000 5270.0000 5300.0000 5310.0000	Frequency (MHz) 5180.0051 5190.0023 5220.0051 5230.0054 5240.0036 5260.0052 5270.0057 5300.0059 5310.0096	<ul> <li>△F (MHz)</li> <li>-0.0051</li> <li>-0.0023</li> <li>-0.0051</li> <li>-0.0054</li> <li>-0.0054</li> <li>-0.0052</li> <li>-0.0057</li> <li>-0.0059</li> <li>-0.0096</li> </ul>
Test C Tmax (50) °C	Conditions Vmin (102)V	Channel 36 38 44 46 48 52 54 60 62 64	Frequency (MHz) 5180.0000 5190.0000 5220.0000 5220.0000 5230.0000 5260.0000 5270.0000 5310.0000 5310.0000 5320.0000	Frequency (MHz) 5180.0051 5190.0023 5220.0051 5230.0054 5240.0036 5260.0052 5270.0057 5300.0059 5310.0096 5320.0025	<ul> <li>△F (MHz)</li> <li>-0.0051</li> <li>-0.0023</li> <li>-0.0051</li> <li>-0.0054</li> <li>-0.0036</li> <li>-0.0052</li> <li>-0.0057</li> <li>-0.0059</li> <li>-0.0096</li> <li>-0.0025</li> </ul>
Test C Tmax (50) °C	Conditions Vmin (102)V	Channel 36 38 44 46 48 52 54 60 62 64 100	Frequency (MHz) 5180.0000 5190.0000 5220.0000 5220.0000 5240.0000 5260.0000 5270.0000 5310.0000 5310.0000 5320.0000 5320.0000	Frequency (MHz) 5180.0051 5190.0023 5220.0051 5230.0054 5240.0036 5260.0052 5270.0057 5300.0059 5310.0096 5320.0025 55500.0063	<ul> <li>△F (MHz)</li> <li>-0.0051</li> <li>-0.0023</li> <li>-0.0051</li> <li>-0.0054</li> <li>-0.0036</li> <li>-0.0052</li> <li>-0.0057</li> <li>-0.0059</li> <li>-0.0096</li> <li>-0.0025</li> <li>-0.0063</li> </ul>
Test C	Conditions	Channel 36 38 44 46 48 52 54 60 62 64 100 102	Frequency (MHz) 5180.0000 5190.0000 5220.0000 5220.0000 5230.0000 5240.0000 5270.0000 5310.0000 5310.0000 5320.0000 5510.0000 5510.0000	Frequency (MHz) 5180.0051 5190.0023 5220.0051 5230.0054 5240.0036 5260.0052 5270.0057 5300.0059 5310.0096 5320.0025 5500.0063 5510.0085	<ul> <li>△F (MHz)</li> <li>-0.0051</li> <li>-0.0023</li> <li>-0.0051</li> <li>-0.0054</li> <li>-0.0036</li> <li>-0.0052</li> <li>-0.0057</li> <li>-0.0059</li> <li>-0.0096</li> <li>-0.0025</li> <li>-0.0063</li> <li>-0.0085</li> </ul>
Test C Tmax (50) °C	Conditions Vmin (102)V	Channel 36 38 44 46 48 52 54 60 62 64 100 102 110	Frequency (MHz) 5180.0000 5190.0000 5220.0000 5220.0000 5240.0000 5260.0000 5270.0000 5310.0000 5310.0000 5320.0000 5550.0000 55510.0000	Frequency (MHz) 5180.0051 5190.0023 5220.0051 5220.0054 5240.0036 5260.0052 5270.0057 5300.0059 5310.0096 5320.0025 55500.0063 55510.0085 5550.0064	<ul> <li>△F (MHz)</li> <li>-0.0051</li> <li>-0.0023</li> <li>-0.0051</li> <li>-0.0054</li> <li>-0.0054</li> <li>-0.0052</li> <li>-0.0057</li> <li>-0.0059</li> <li>-0.0059</li> <li>-0.0096</li> <li>-0.0025</li> <li>-0.0063</li> <li>-0.0085</li> <li>-0.0064</li> </ul>
Test C Tmax (50) °C	Conditions Vmin (102)V	Channel 36 38 44 46 48 52 54 60 62 64 100 102 110 116	Frequency (MHz) 5180.0000 5190.0000 5220.0000 5220.0000 5240.0000 5240.0000 5260.0000 5270.0000 5310.0000 5310.0000 5320.0000 55500.0000 5550.0000 5550.0000 55580.0000	Frequency (MHz) 5180.0051 5190.0023 5220.0051 5230.0054 5240.0036 5260.0052 5270.0057 5300.0059 5310.0096 5320.0025 5550.0063 55510.0085 5550.0064 5580.0052	$ \bigtriangleup F (MHz) $ -0.0051 -0.0023 -0.0051 -0.0054 -0.0054 -0.0052 -0.0057 -0.0057 -0.0059 -0.0096 -0.0096 -0.0025 -0.0063 -0.0085 -0.0064 -0.0052
Test C Tmax (50) °C	Vmin (102)V	Channel 36 38 44 46 48 52 54 60 62 64 100 102 110 116 134	Frequency (MHz) 5180.0000 5190.0000 5220.0000 5220.0000 5230.0000 5240.0000 5270.0000 5310.0000 5310.0000 5310.0000 5550.0000 5550.0000 55580.0000 55580.0000 55670.0000	Frequency (MHz) 5180.0051 5190.0023 5220.0051 5230.0054 5240.0036 5260.0052 5270.0057 5300.0059 5310.0096 5320.0025 5550.0063 5550.0064 5580.0052 5670.0065	$ \bigtriangleup F (MHz) $ -0.0051 -0.0023 -0.0051 -0.0054 -0.0052 -0.0057 -0.0057 -0.0059 -0.0096 -0.0096 -0.0025 -0.0063 -0.0085 -0.0064 -0.0052 -0.0064 -0.0052 -0.0065

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	∆F (MHz)
		36	5180.0000	5180.0056	-0.0056
		38	5190.0000	5190.0015	-0.0015
		44	5220.0000	5220.0035	-0.0035
		46	5230.0000	5230.0021	-0.0021
		48	5240.0000	5240.0064	-0.0064
		52	5260.0000	5260.0098	-0.0098
		54	5270.0000	5270.0015	-0.0015
T · (0) %C		60	5300.0000	5300.0098	-0.0098
$1 \min(0)$ C	Vmax (138)V	62	5310.0000	5310.0026	-0.0026
		64	5320.0000	5320.0059	-0.0059
		100	5500.0000	5500.0064	-0.0064
		102	5510.0000	5510.0015	-0.0015
		110	5550.0000	5550.0065	-0.0065
		116	5580.0000	5580.0025	-0.0025
		134	5670.0000	5670.0059	-0.0059
		140	5700.0000	5700.0065	-0.0065
Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	∆F (MHz)
		36	5180.0000	5180.0059	-0.0059
		38	5190.0000	5190.0058	-0.0058
Tmin (0) °C	Vmin (102)V	44	5220.0000	5220.0047	-0.0047
		46	5230.0000	5230.0014	-0.0014
		48	5240.0000	5240.0078	-0.0078
		52	5260.0000	5260.0045	-0.0045
		54	5270.0000	5270.0051	-0.0051
		60	5300.0000	5300.0054	-0.0054
		62	5310.0000	5310.0055	-0.0055
		64	5320.0000	5320.0069	-0.0069
		100	5500.0000	5500.0069	-0.0069
		102	5510.0000	5510.0054	-0.0054
		110	5550.0000	5550.0058	-0.0058
		116	5580.0000	5580.0074	-0.0074
		134	5670.0000	5670.0058	-0.0058
				<b>57</b> 00 00 00	0.00.00

## 9. EMI Reduction Method During Compliance Testing

No modification was made during testing.