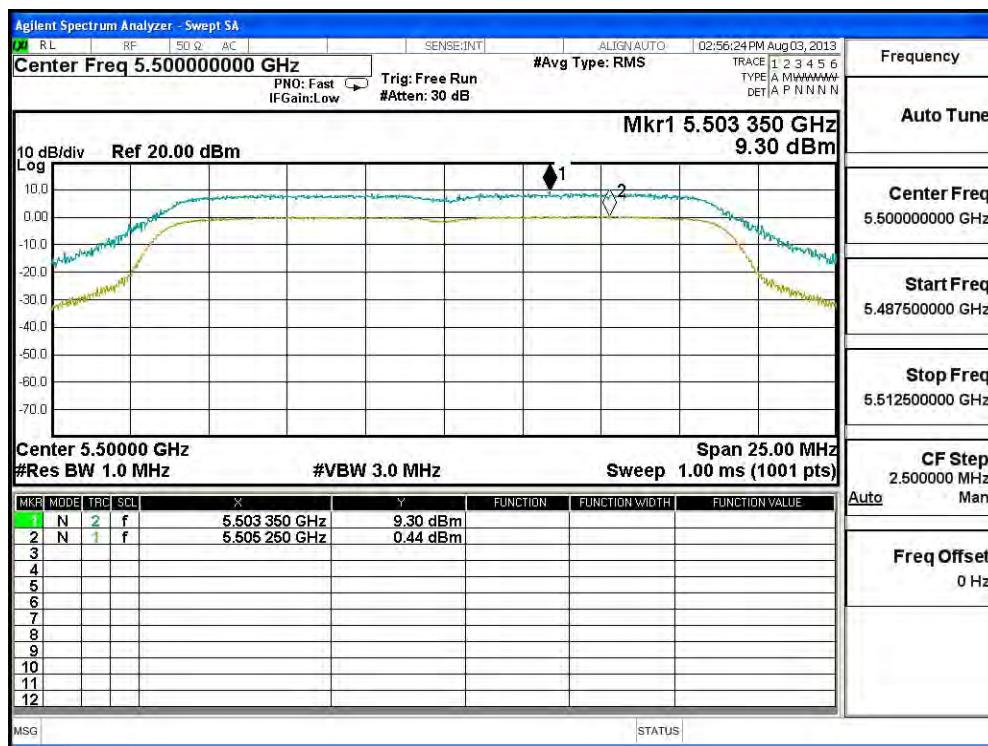


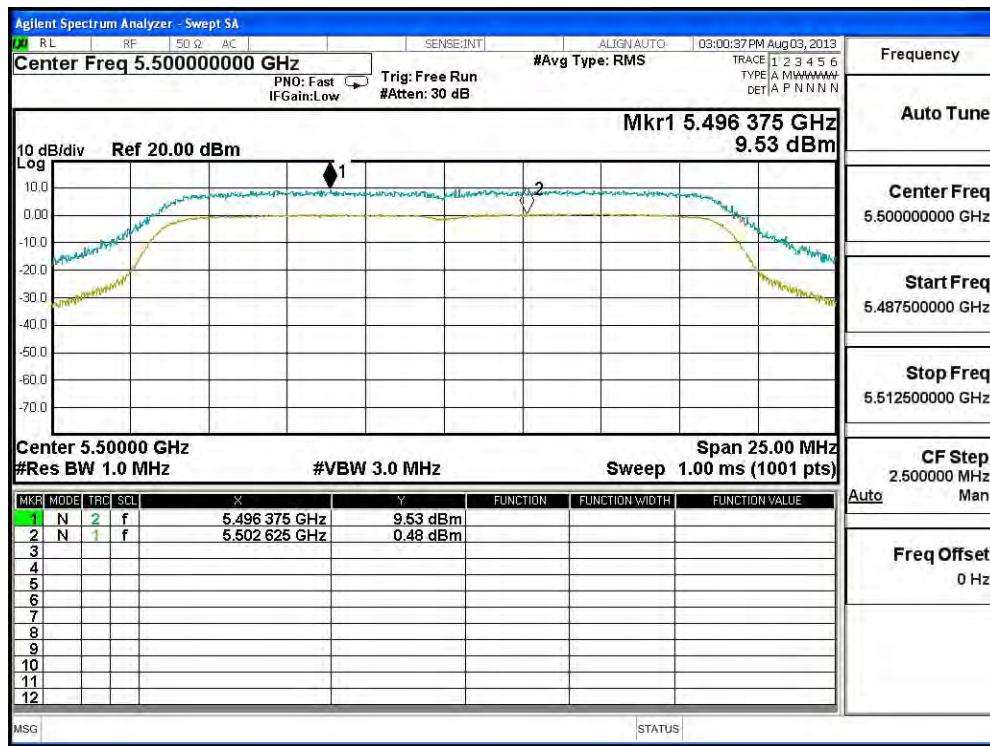
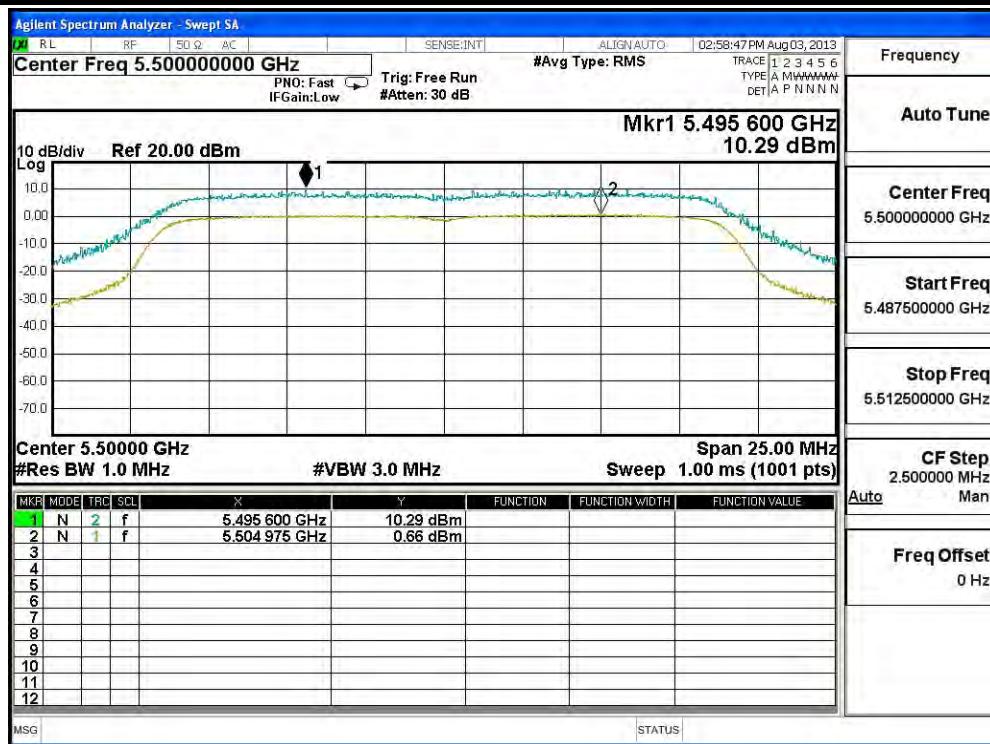
Product : SpectraGuard® Access Point / Sensor  
 Test Item : Peak Excursion  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps)(Dipole Antenna)

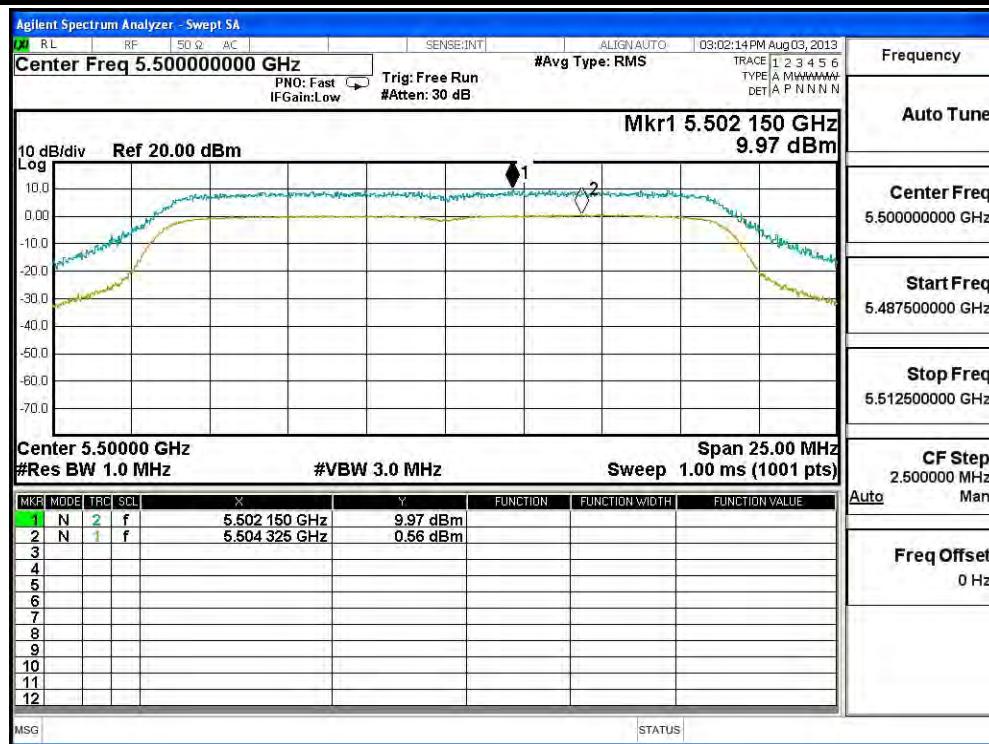
### CHAIN A

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
100	5500	MCS (0)	8.860	<13	Pass
		MCS (2)	9.630	<13	Pass
		MCS (4)	9.050	<13	Pass
		MCS (7)	9.410	<13	Pass

### Channel 100:

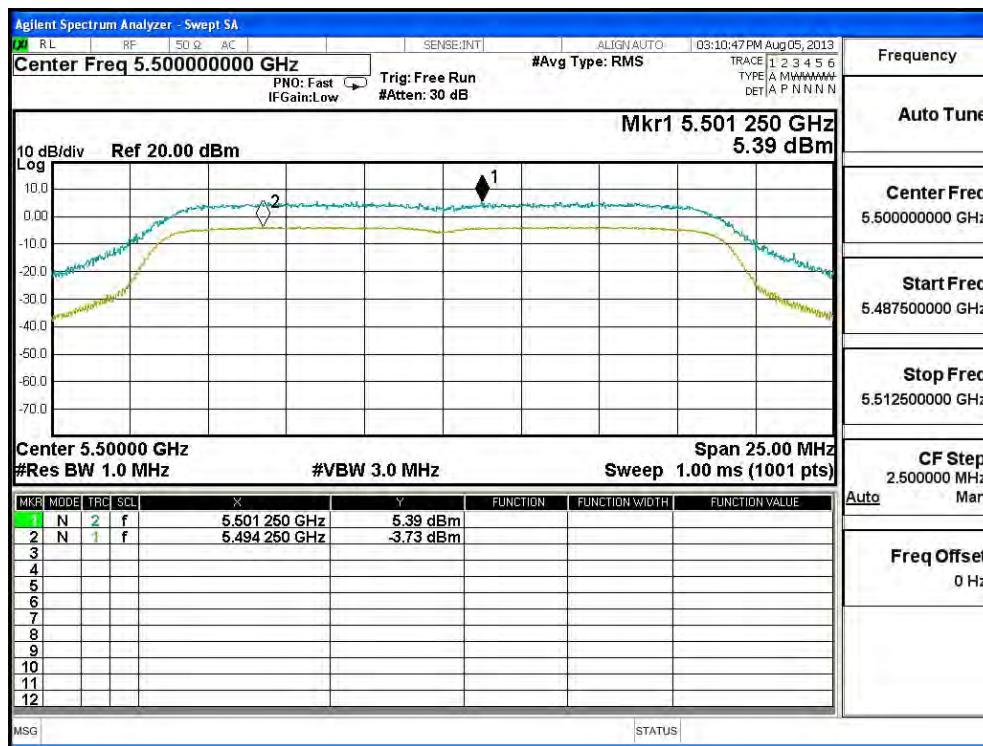


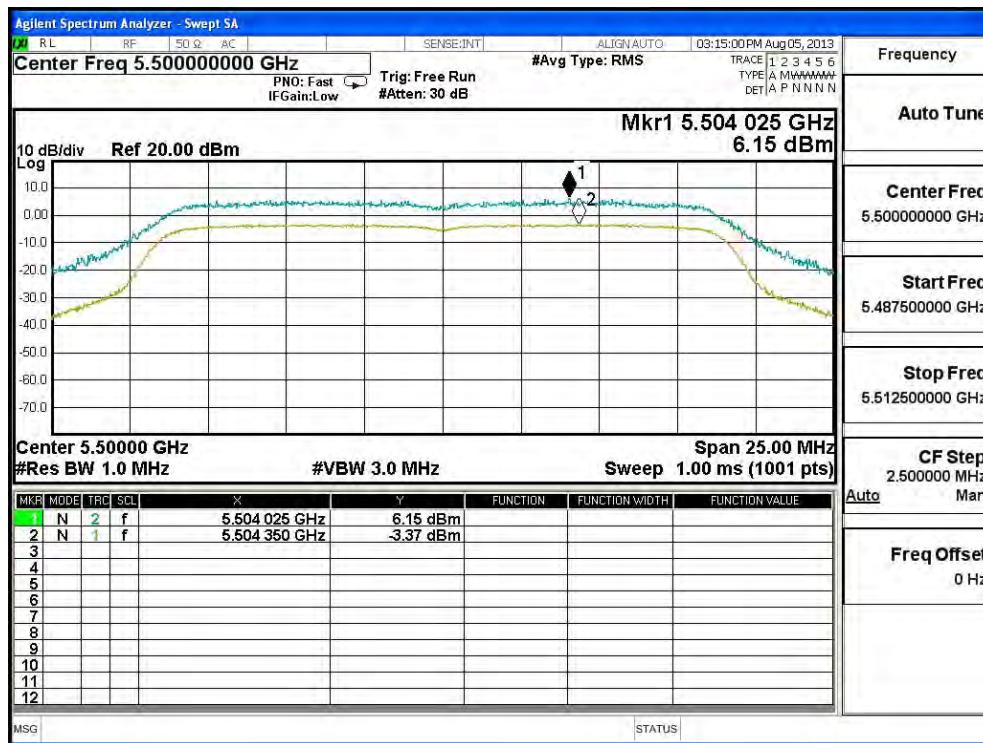
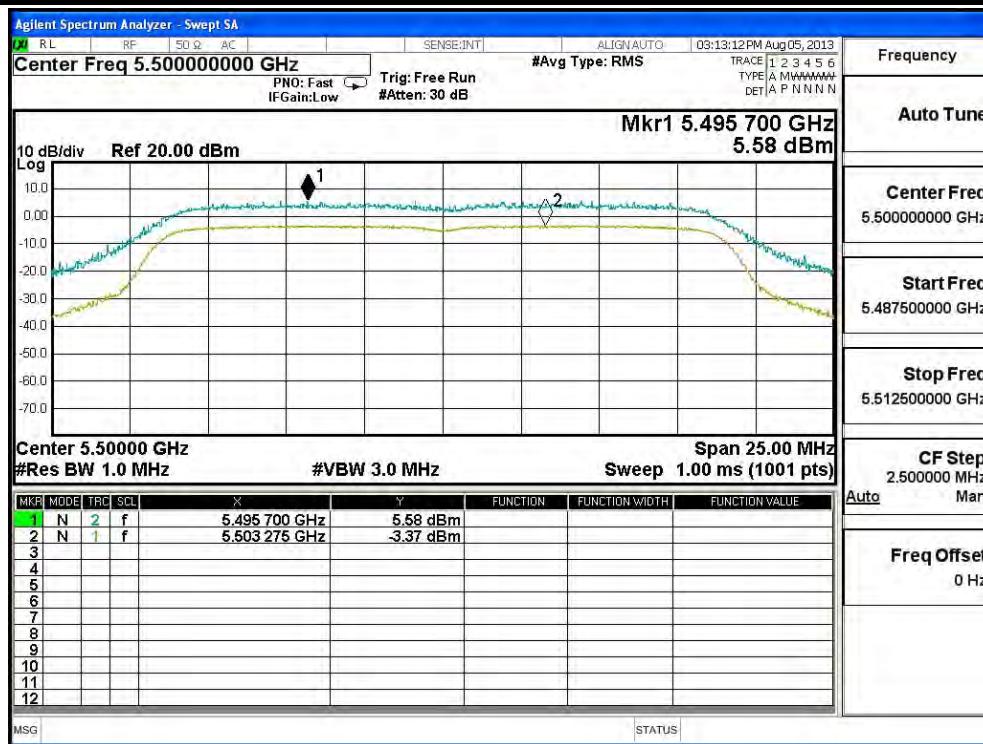


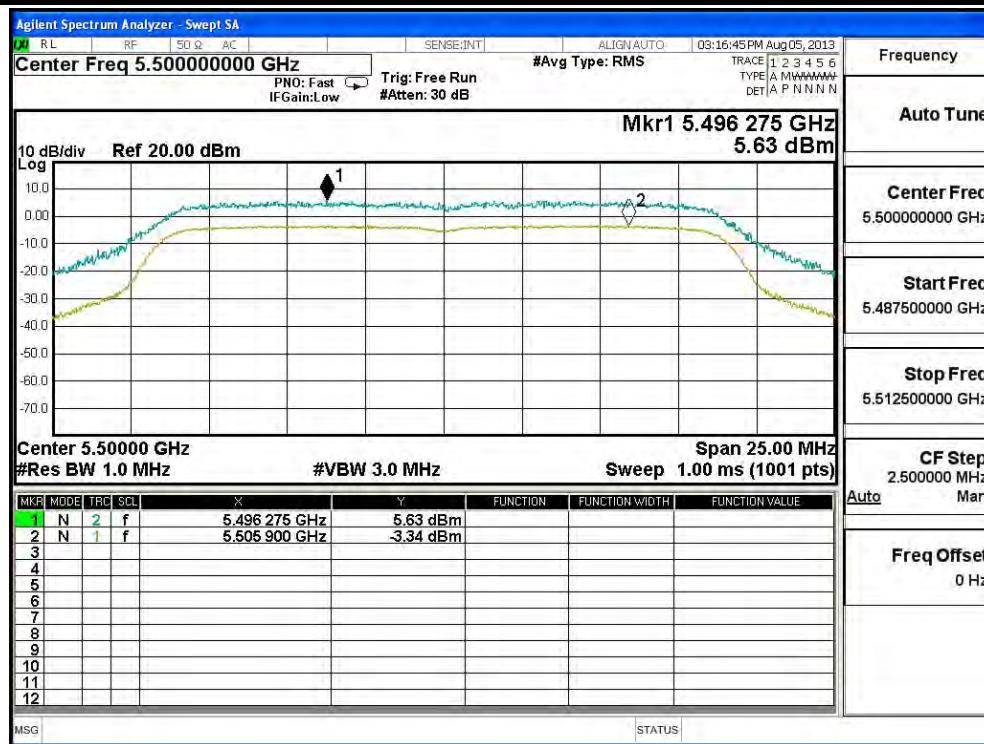


**CHAIN B**

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
100	5500	MCS (0)	9.120	<13	Pass
		MCS (2)	8.950	<13	Pass
		MCS (4)	9.520	<13	Pass
		MCS (7)	8.970	<13	Pass

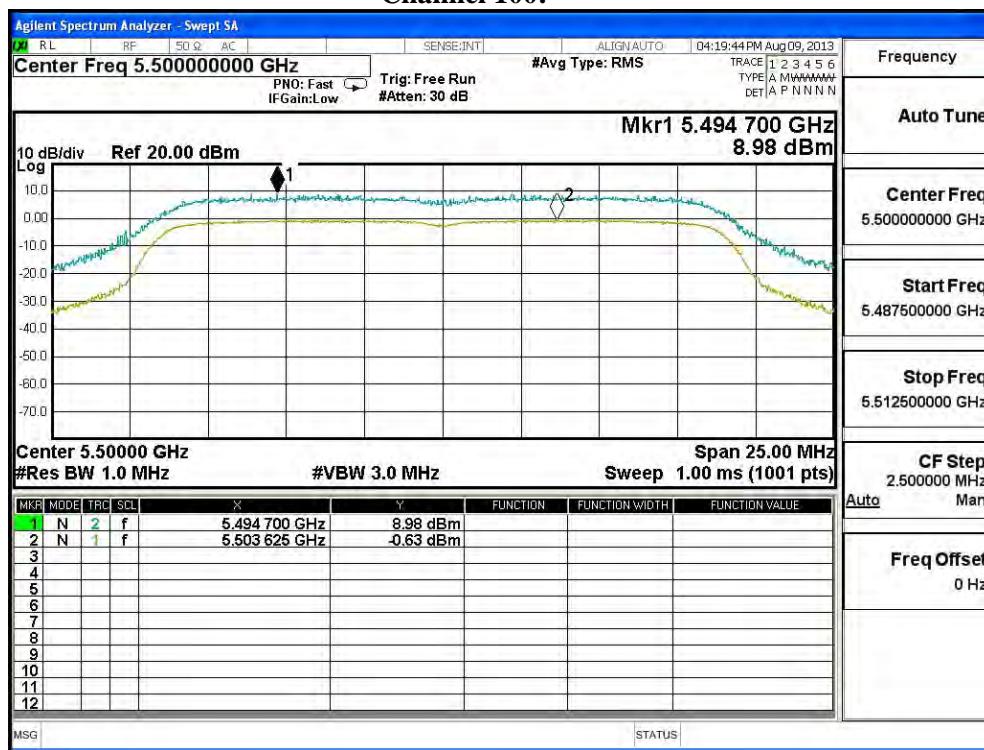
**Channel 100:**


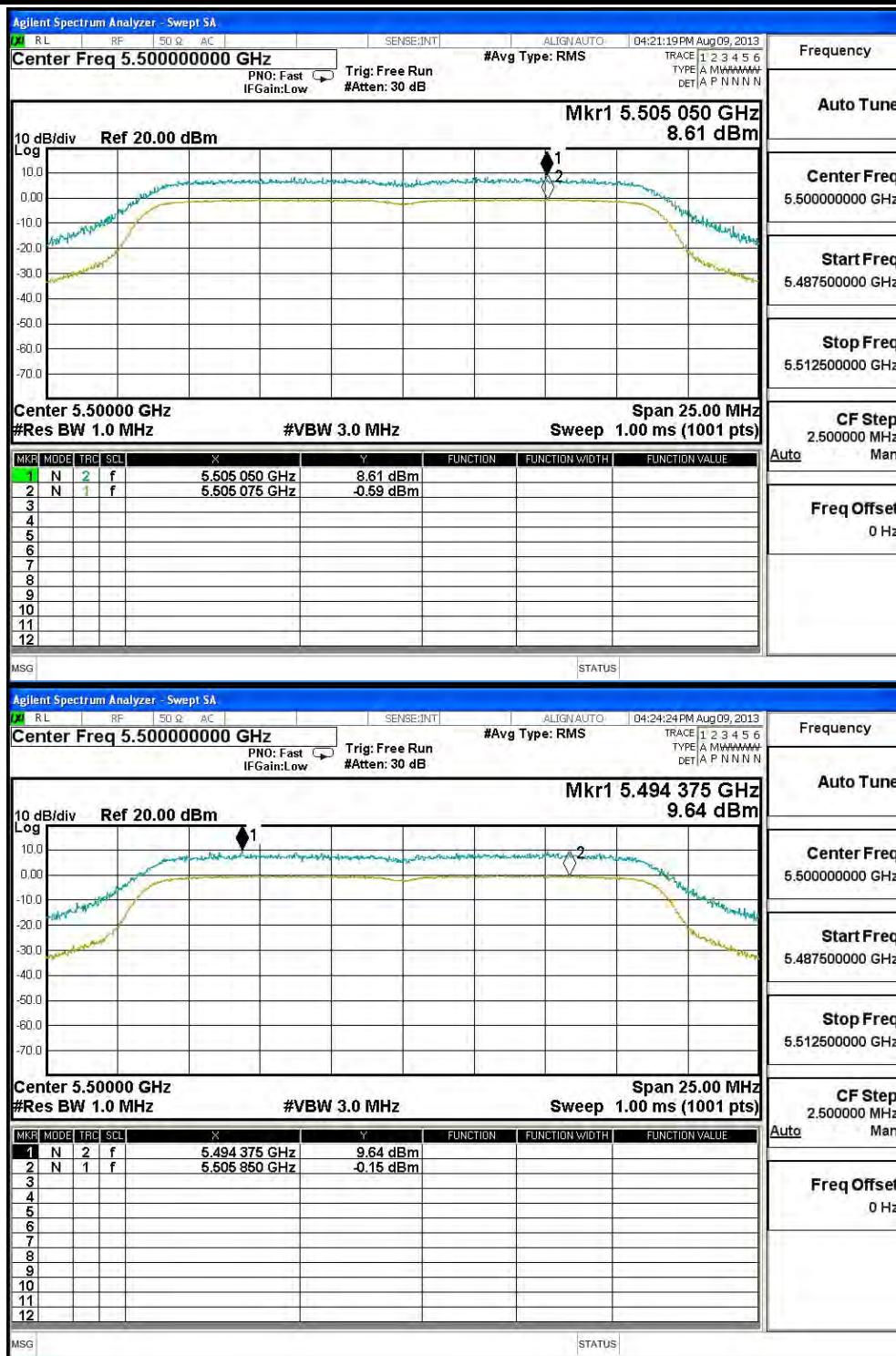


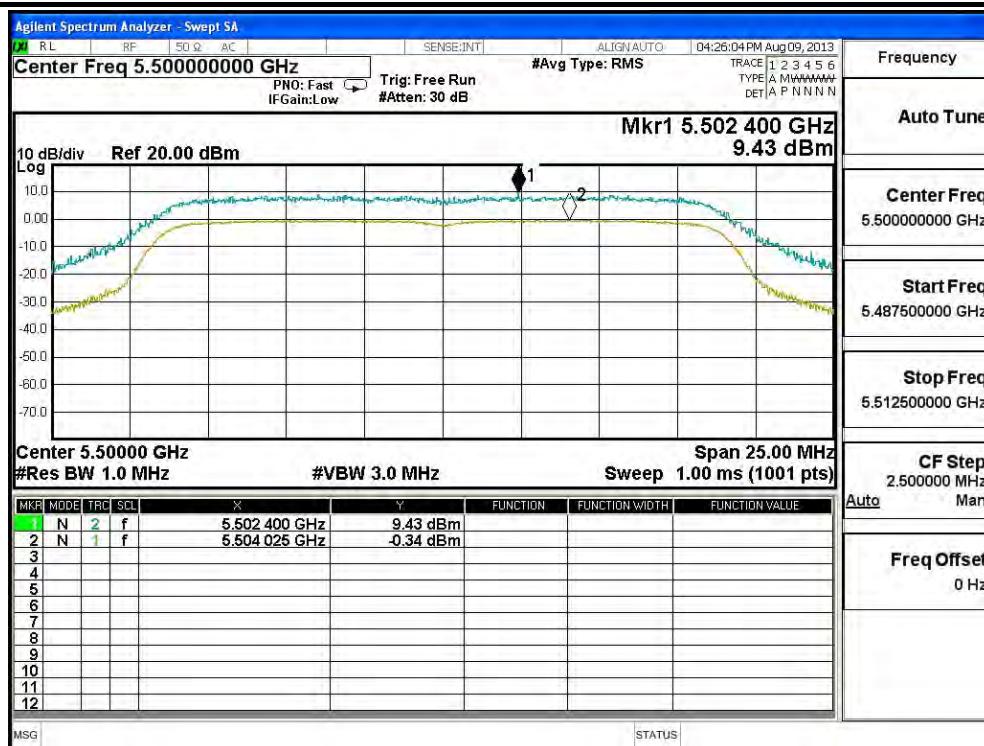


**CHAIN C**

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
100	5500	MCS (0)	9.610	<13	Pass
		MCS (2)	9.200	<13	Pass
		MCS (4)	9.790	<13	Pass
		MCS (7)	9.770	<13	Pass

**Channel 100:**


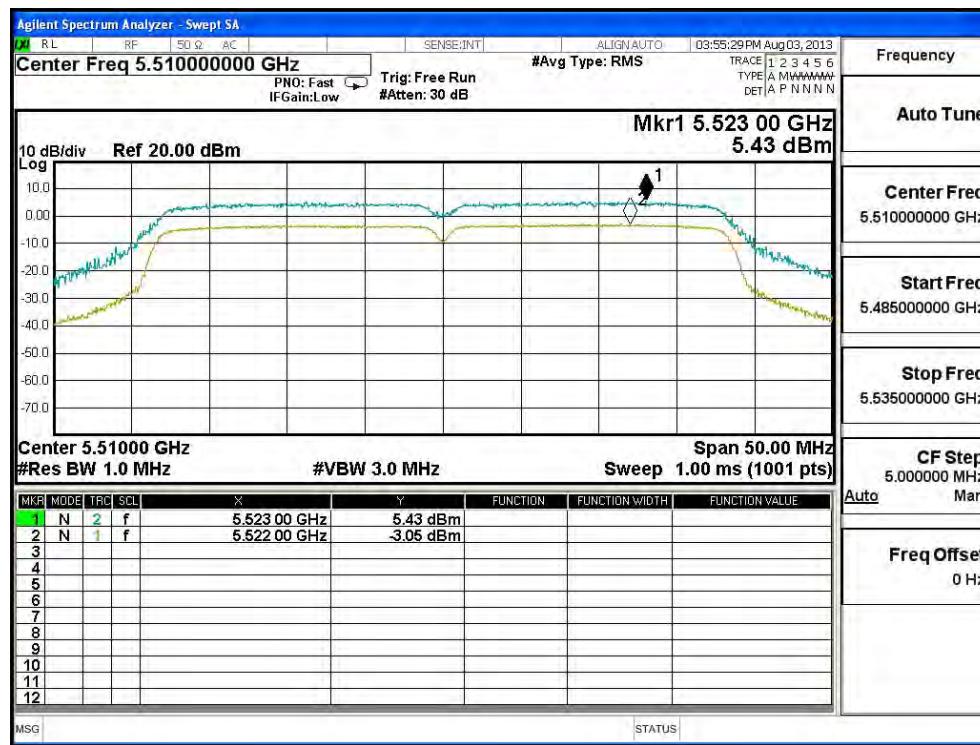


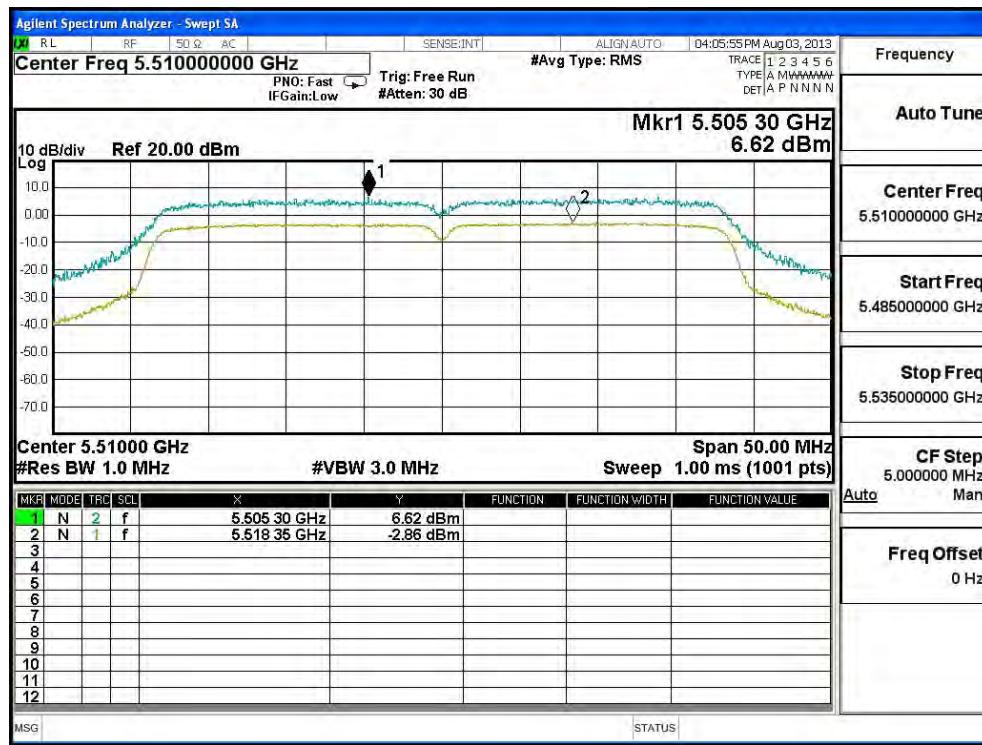
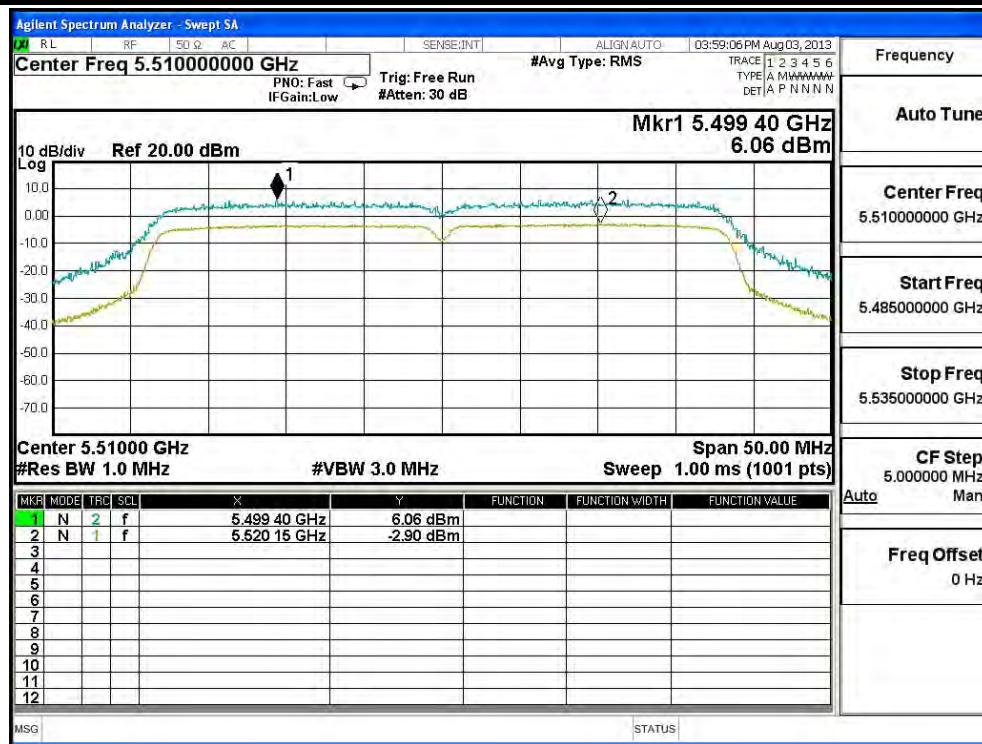


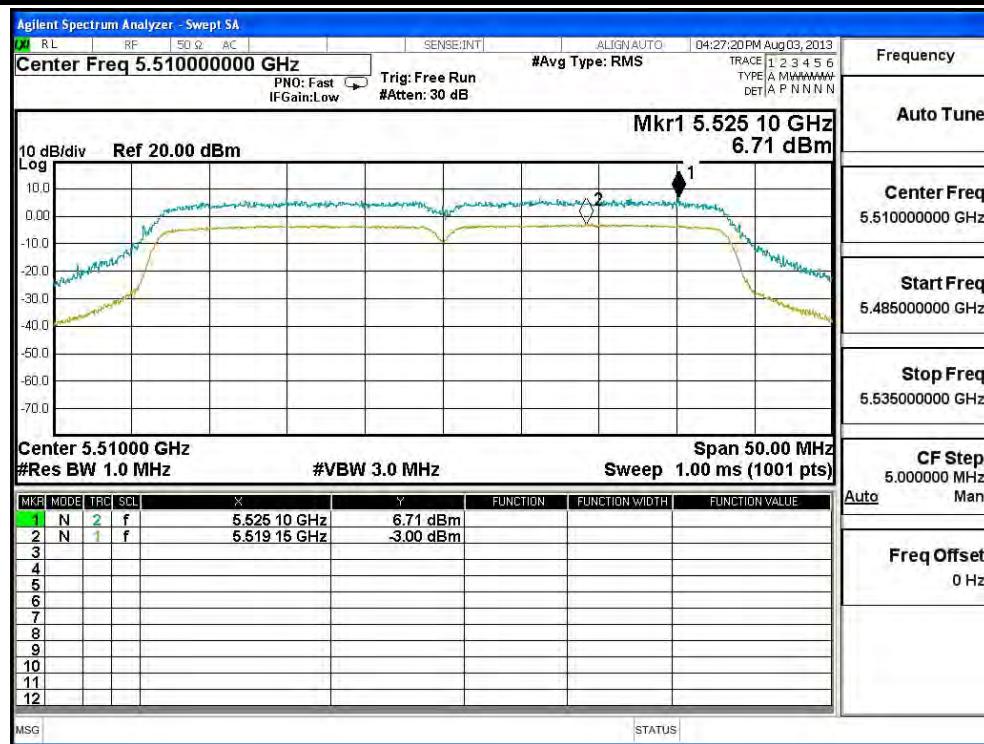
Product : SpectraGuard® Access Point / Sensor  
 Test Item : Peak Excursion  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps)(Dipole Antenna)

**Chain A**

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
102	5510	MCS (0)	8.480	<13	Pass
		MCS (2)	8.920	<13	Pass
		MCS (4)	9.480	<13	Pass
		MCS (7)	9.710	<13	Pass

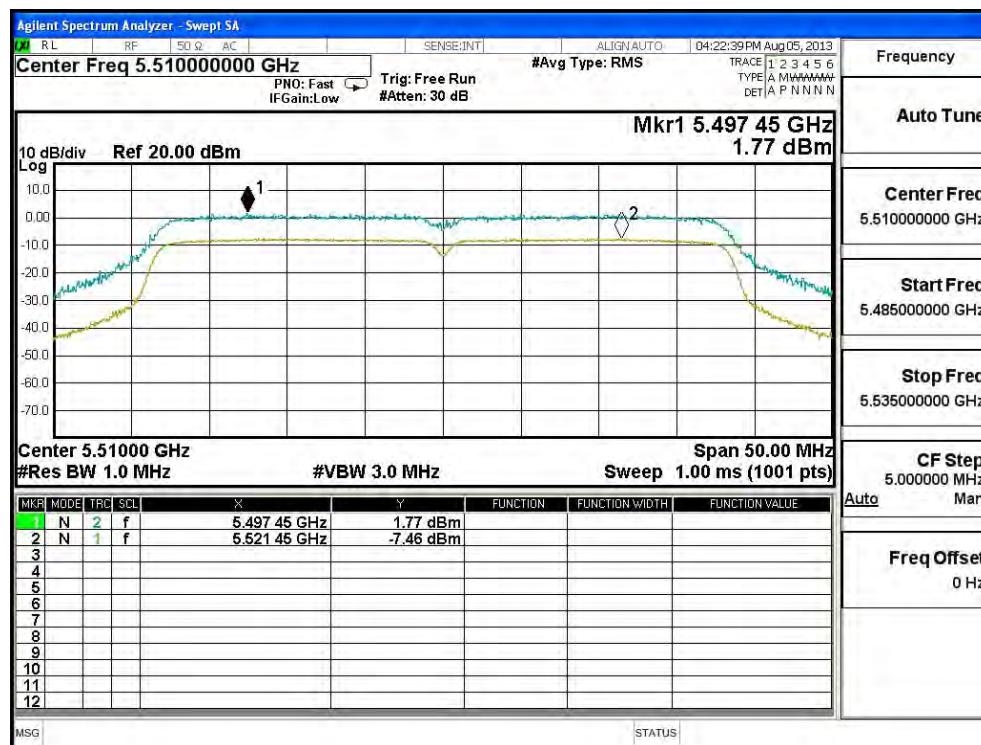
**Channel 102:**


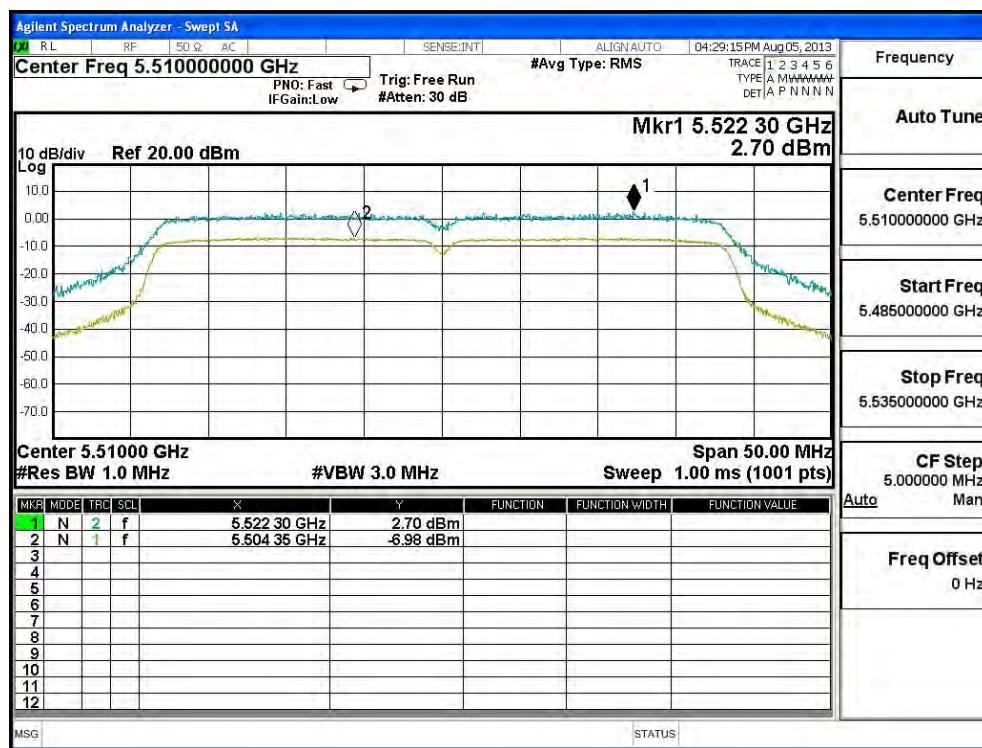
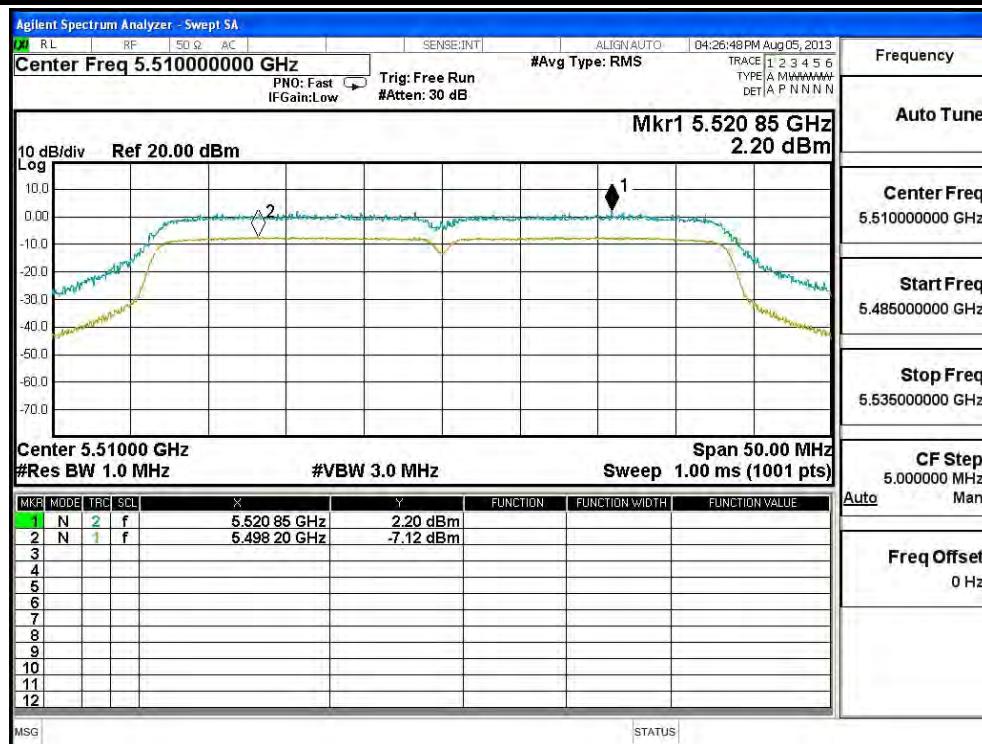


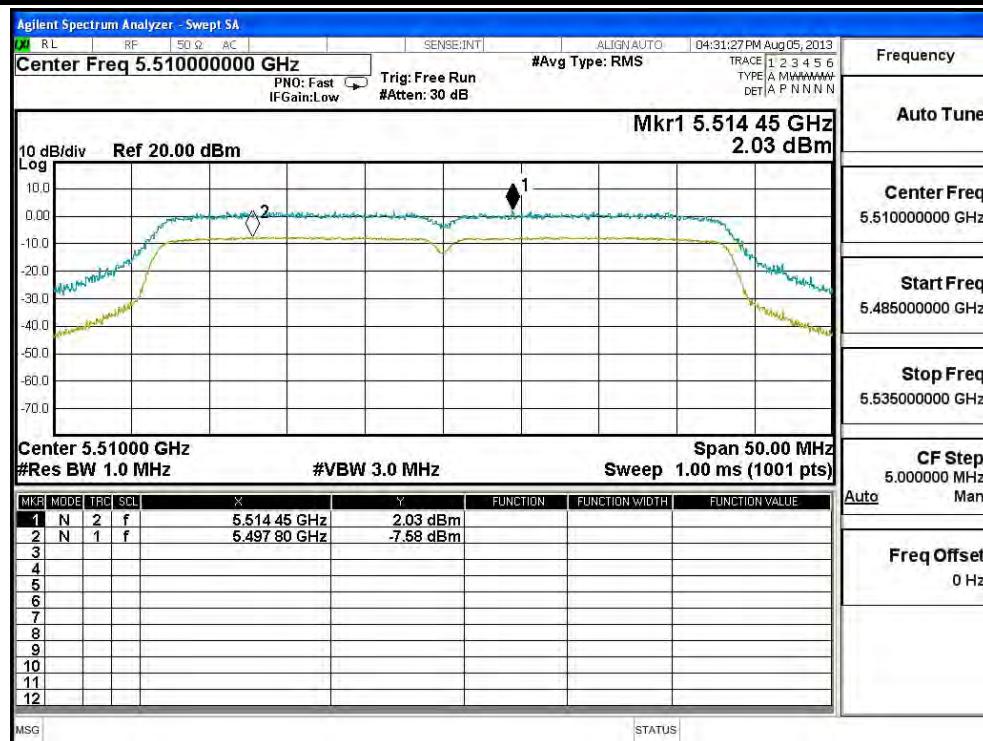


**Chain B**

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
102	5510	MCS (0)	9.230	<13	Pass
		MCS (2)	9.320	<13	Pass
		MCS (4)	9.680	<13	Pass
		MCS (7)	9.610	<13	Pass

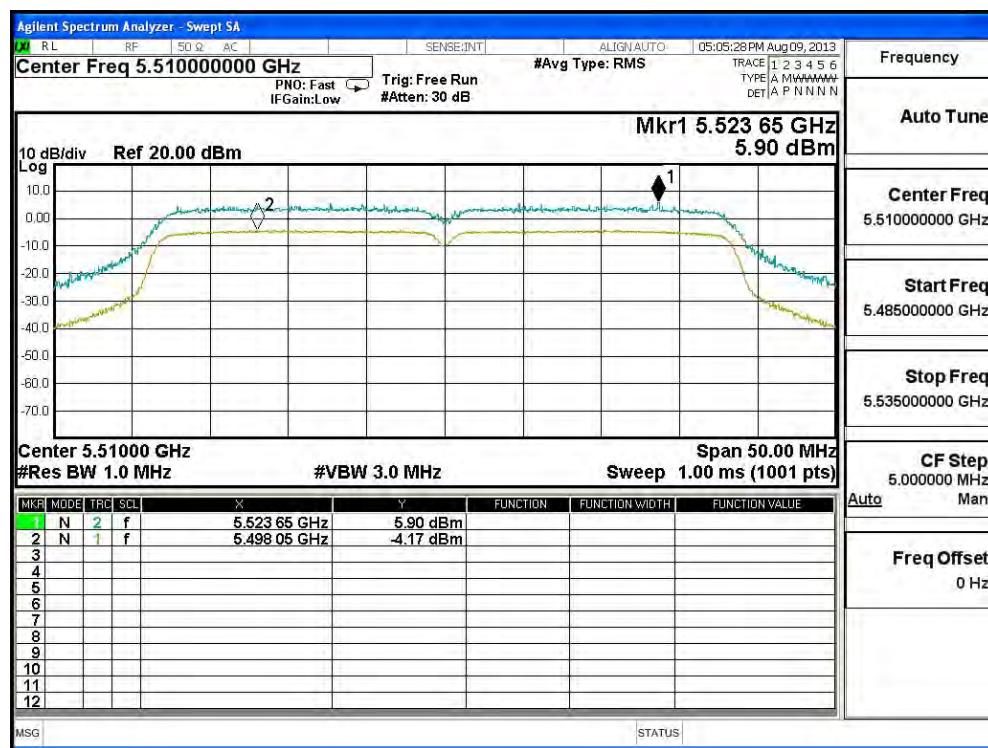
**Channel 102:**


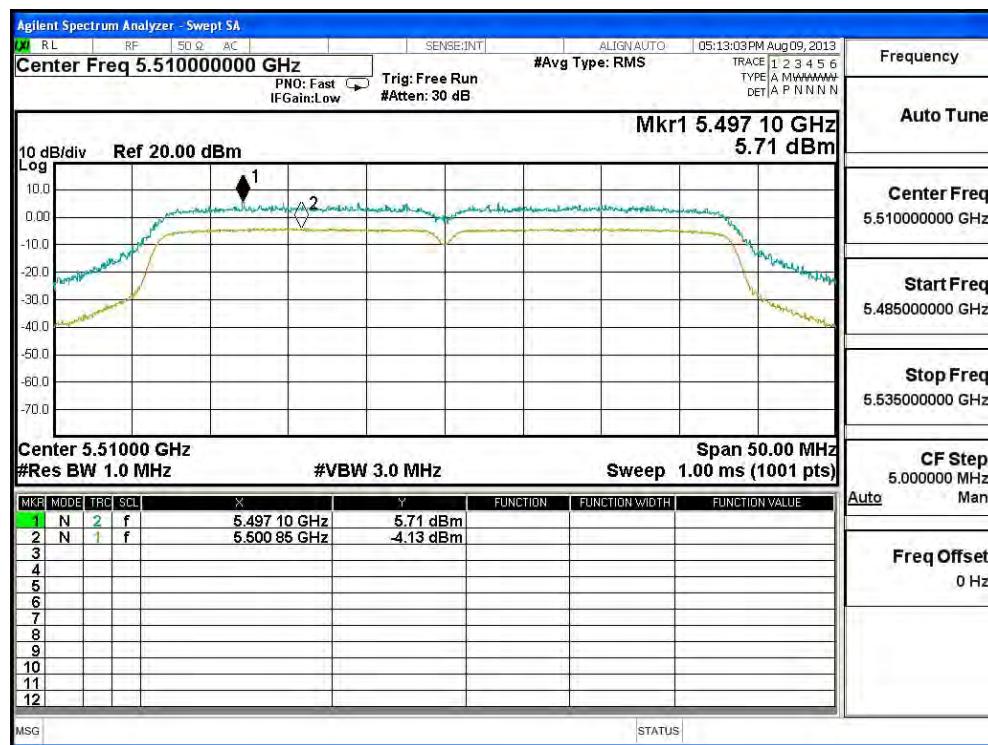
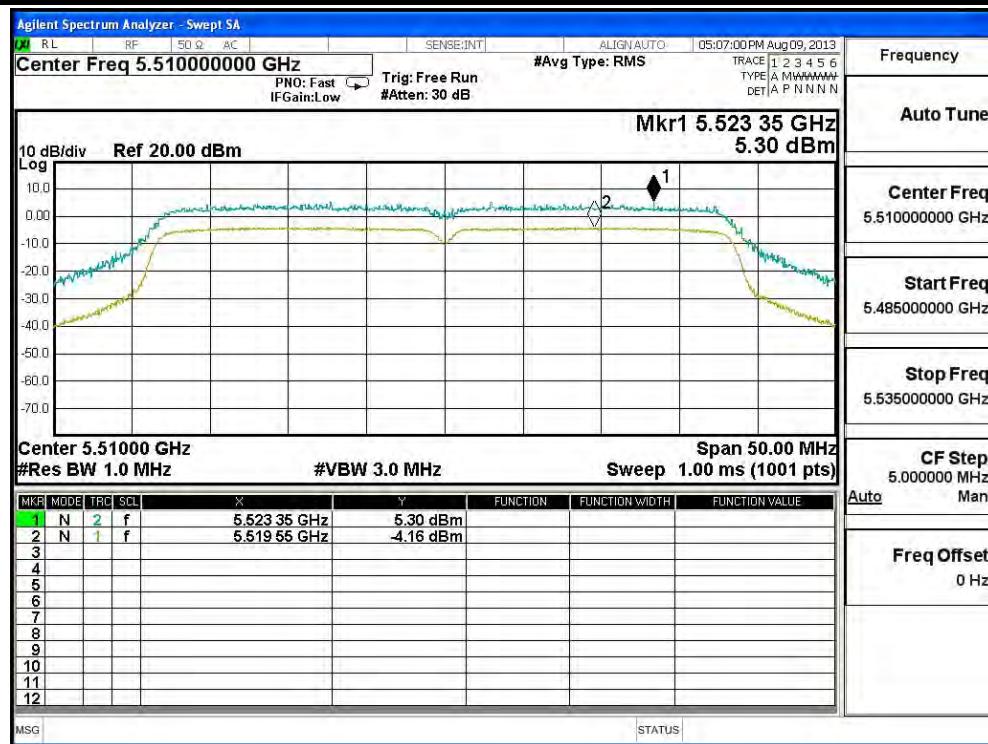


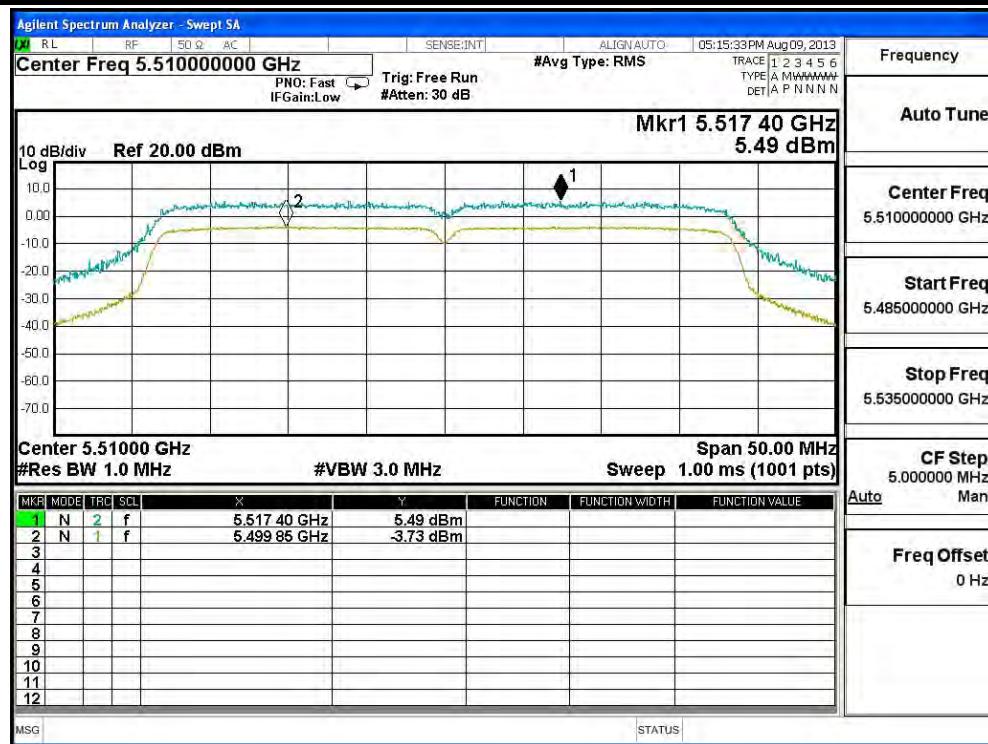


**Chain C**

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
102	5510	MCS (0)	10.070	<13	Pass
		MCS (2)	9.460	<13	Pass
		MCS (4)	9.840	<13	Pass
		MCS (7)	9.220	<13	Pass

**Channel 102:**


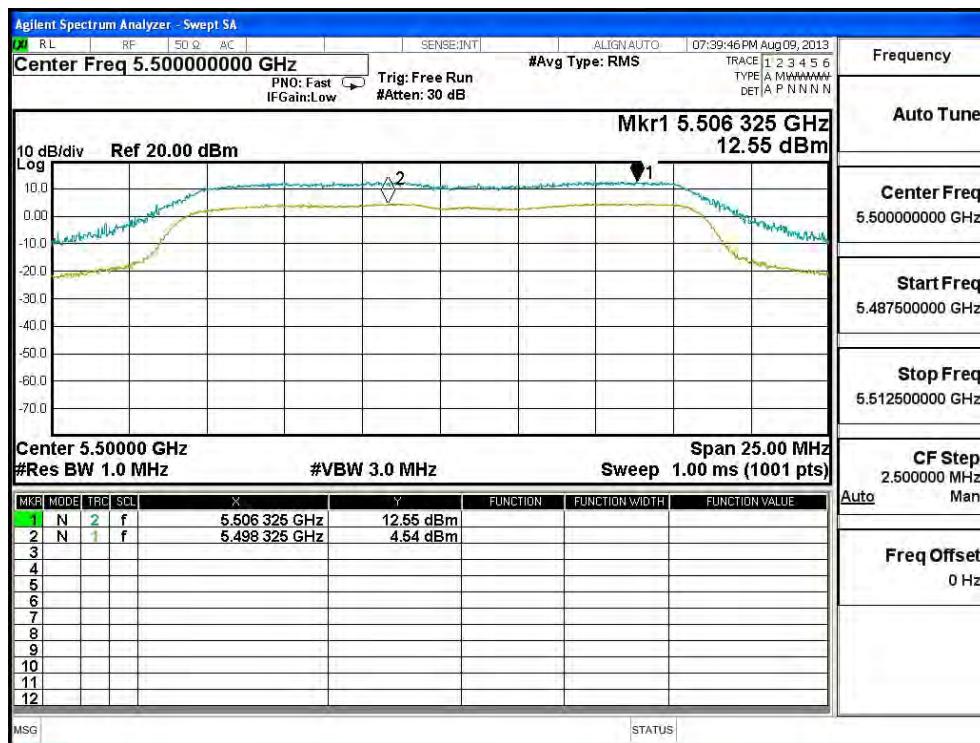


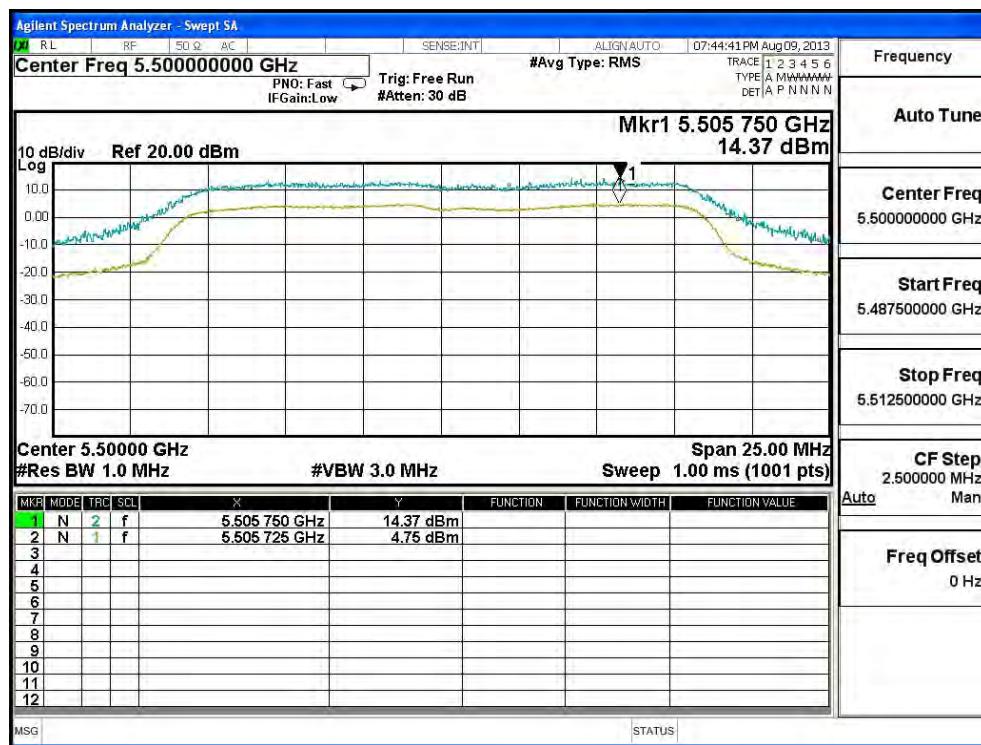
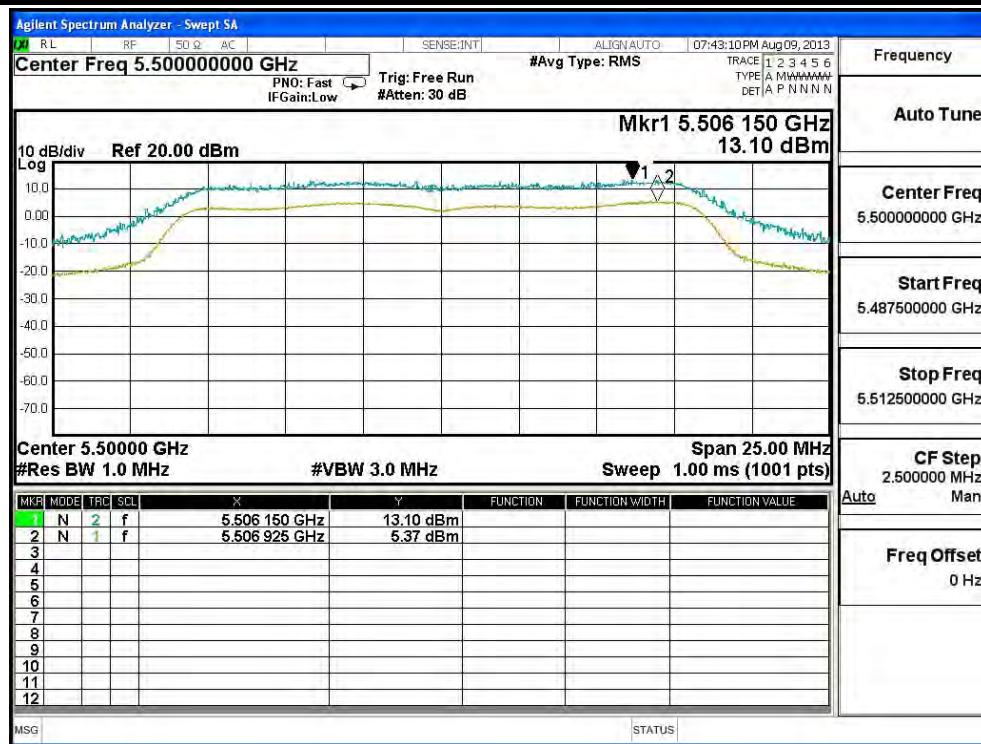


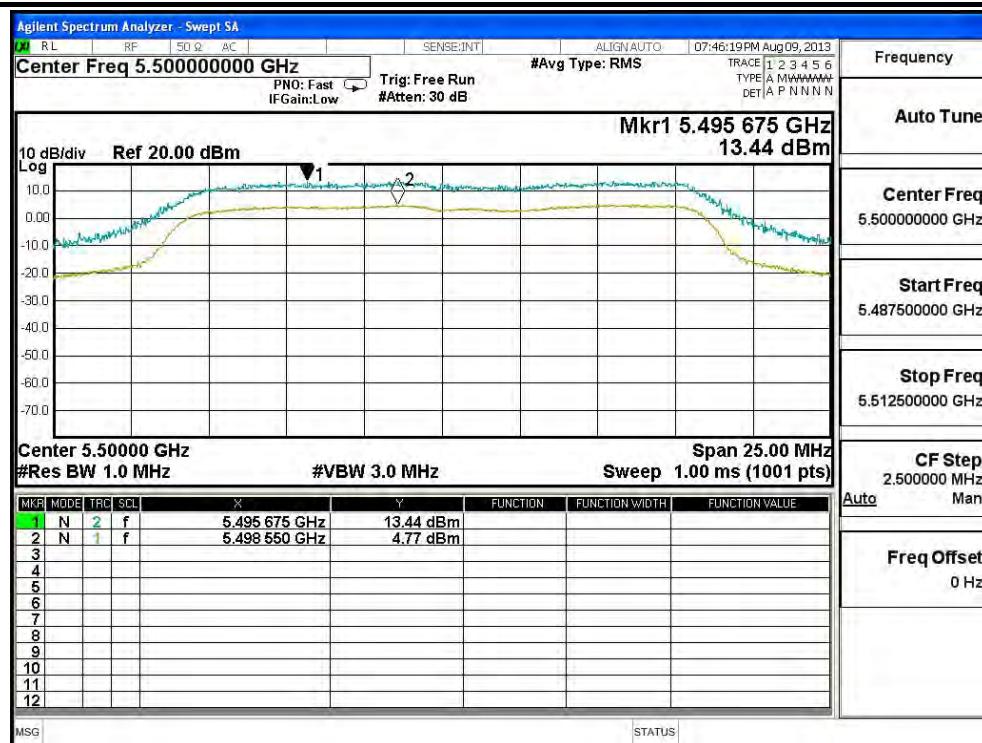
Product : SpectraGuard® Access Point / Sensor  
 Test Item : Peak Excursion  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna)

**CHAIN A**

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
100	5500	MCS (0)	8.010	<13	Pass
		MCS (2)	7.730	<13	Pass
		MCS (4)	9.620	<13	Pass
		MCS (7)	8.670	<13	Pass

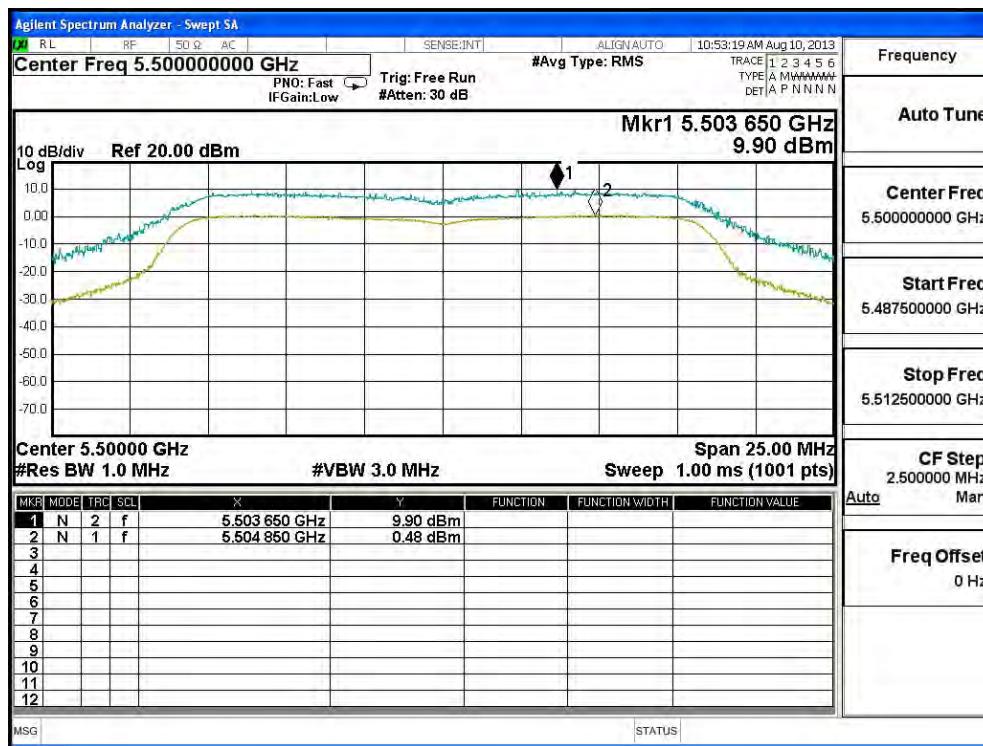
**Channel 100:**


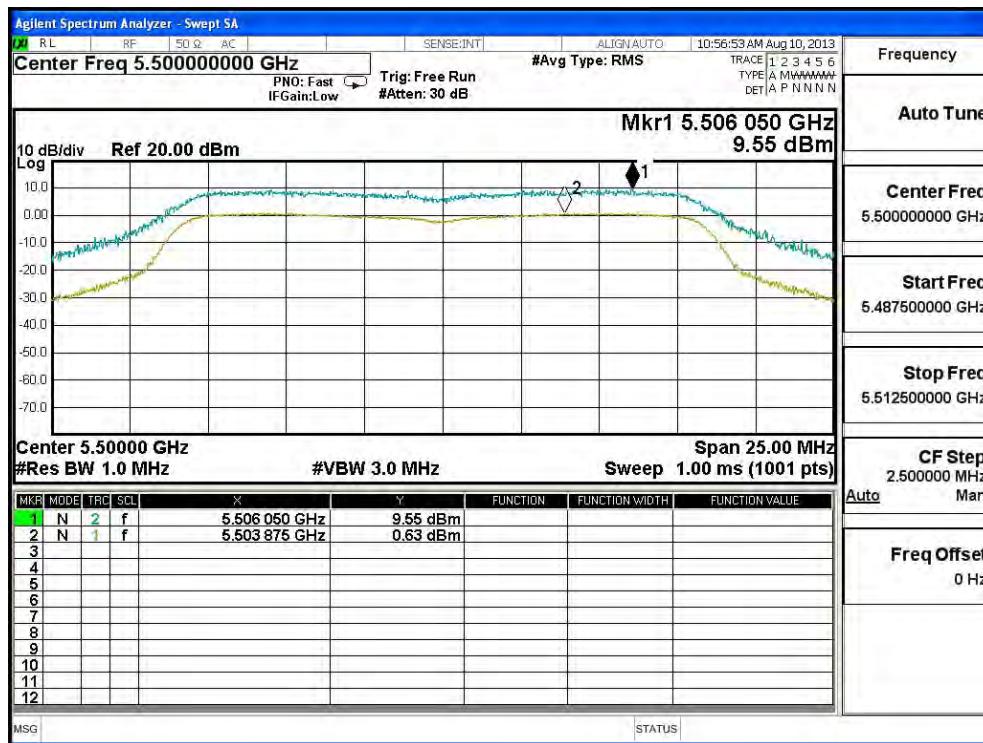
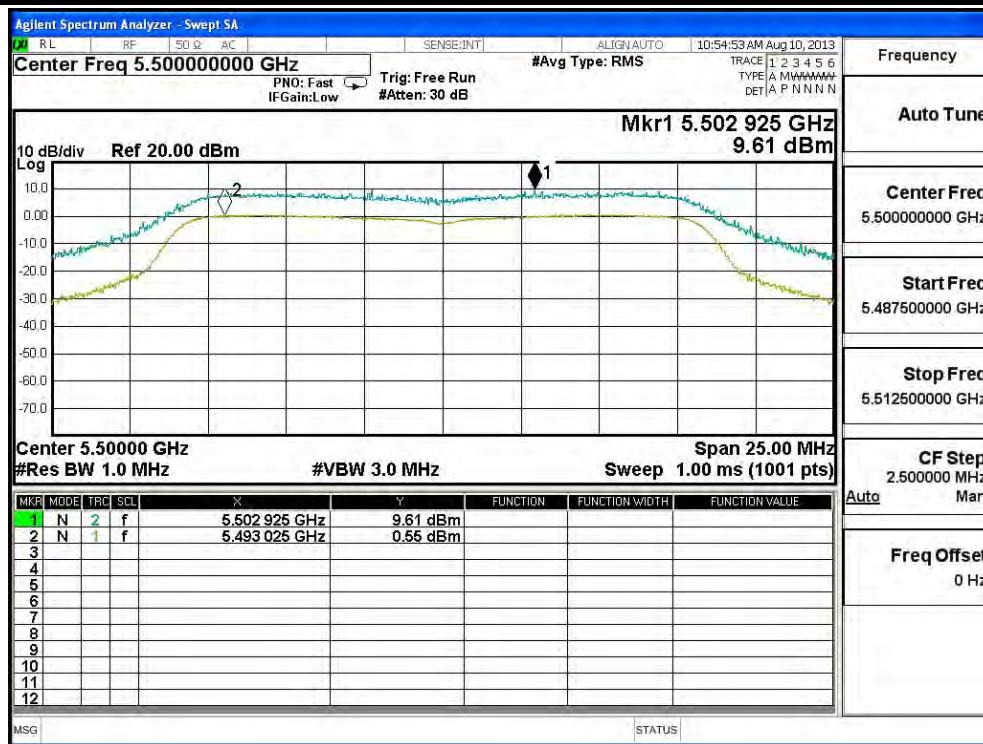


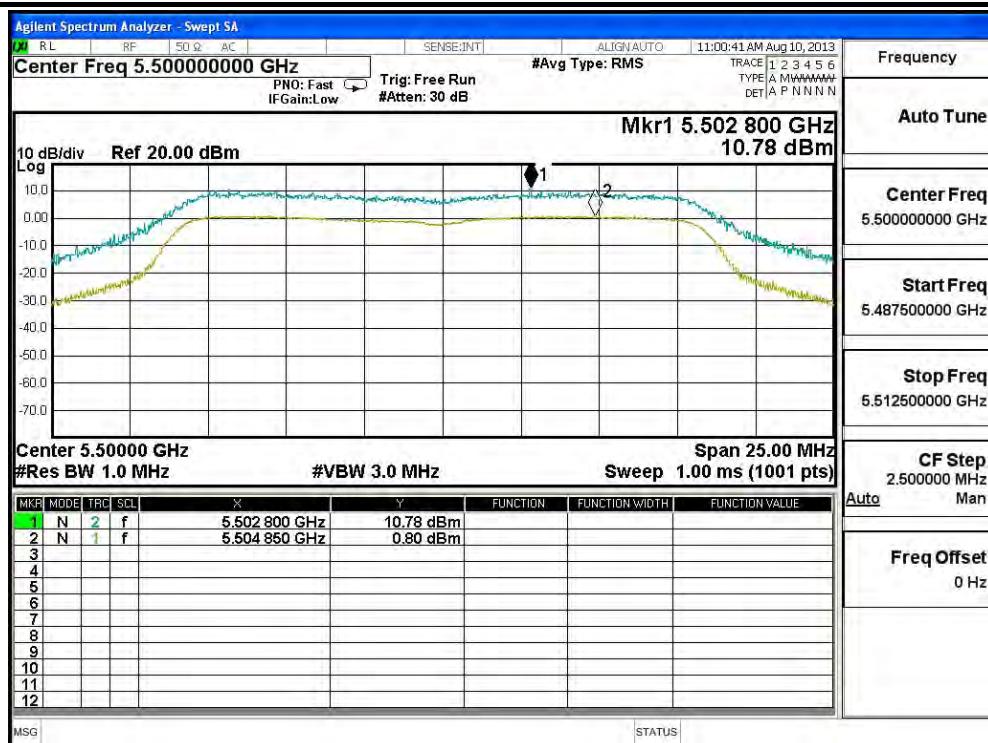


**CHAIN B**

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
100	5500	MCS (0)	9.420	<13	Pass
		MCS (2)	9.060	<13	Pass
		MCS (4)	8.920	<13	Pass
		MCS (7)	9.980	<13	Pass

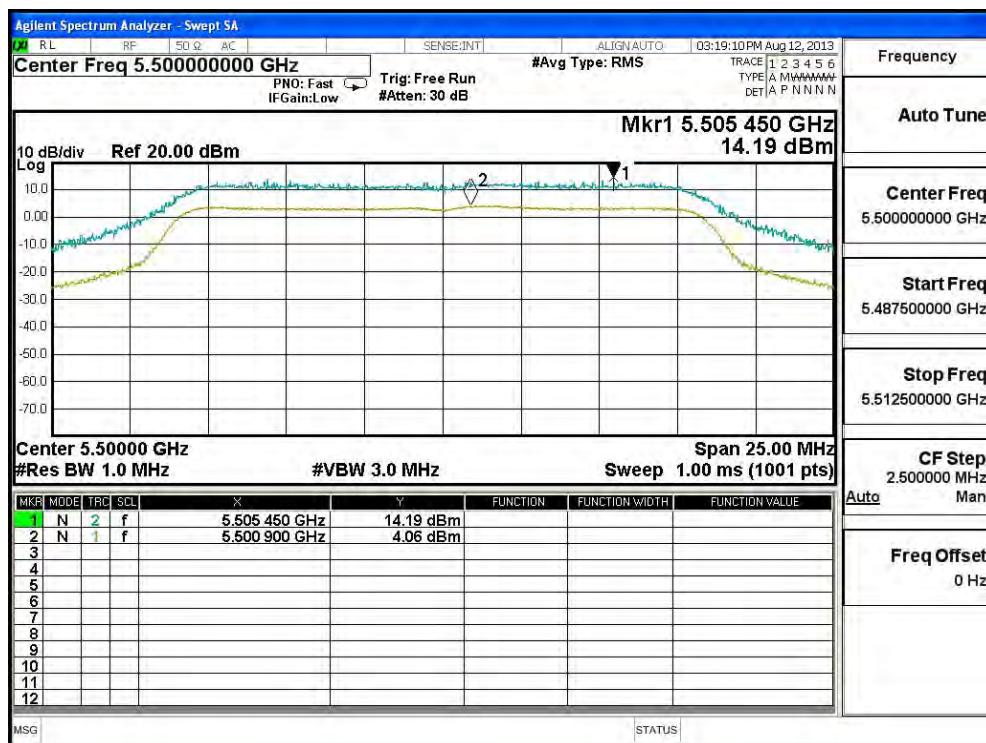
**Channel 100:**


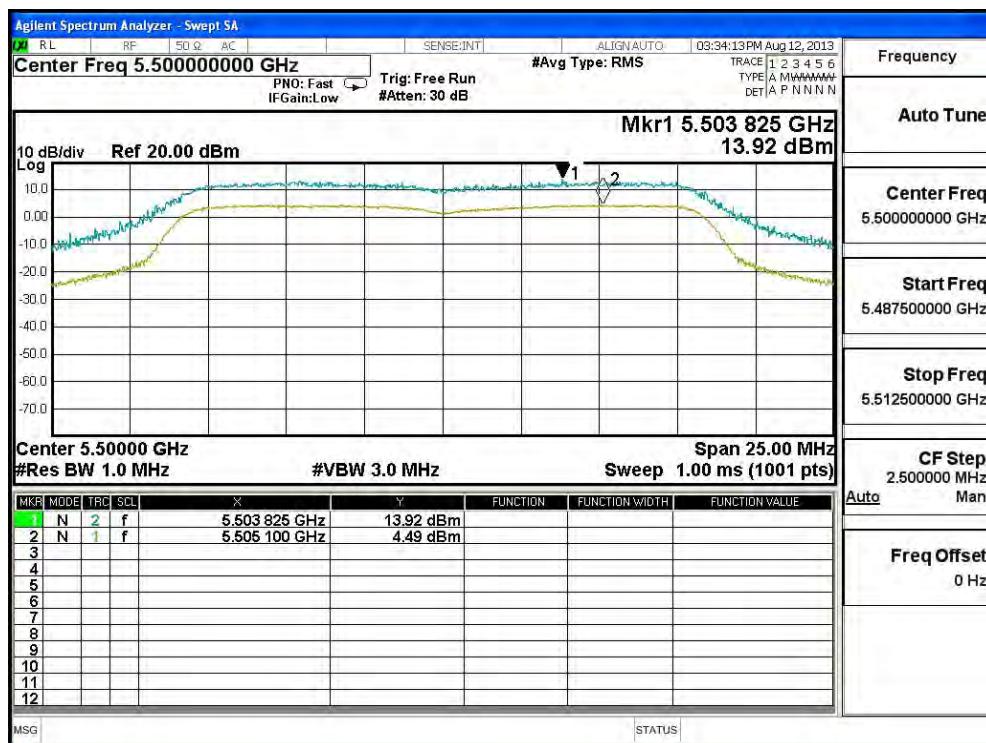
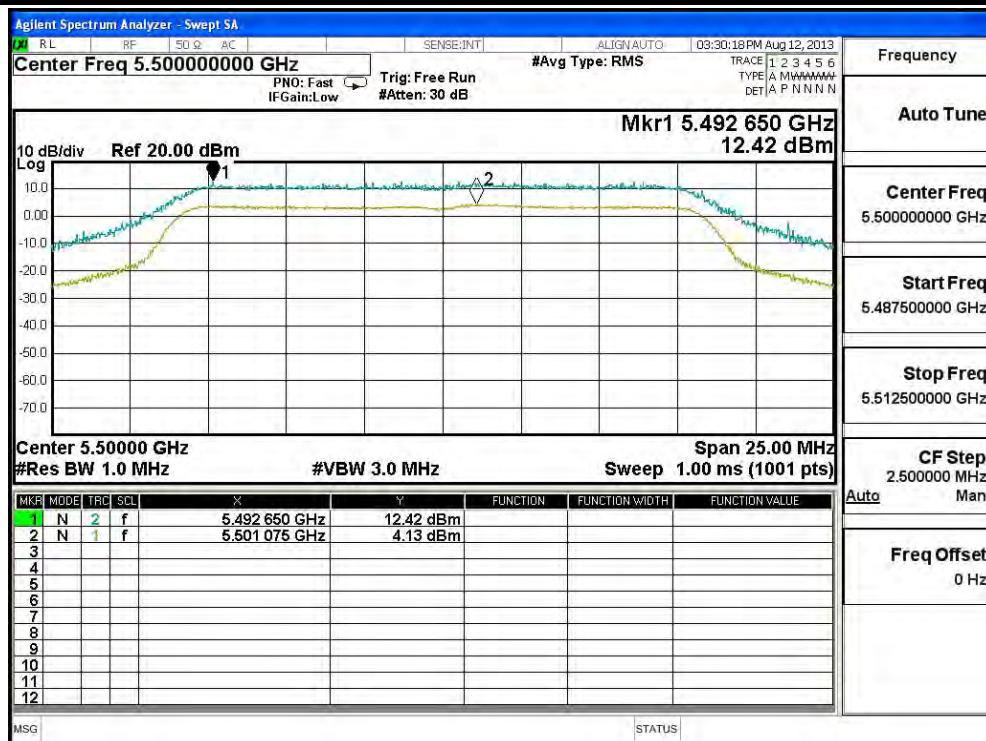


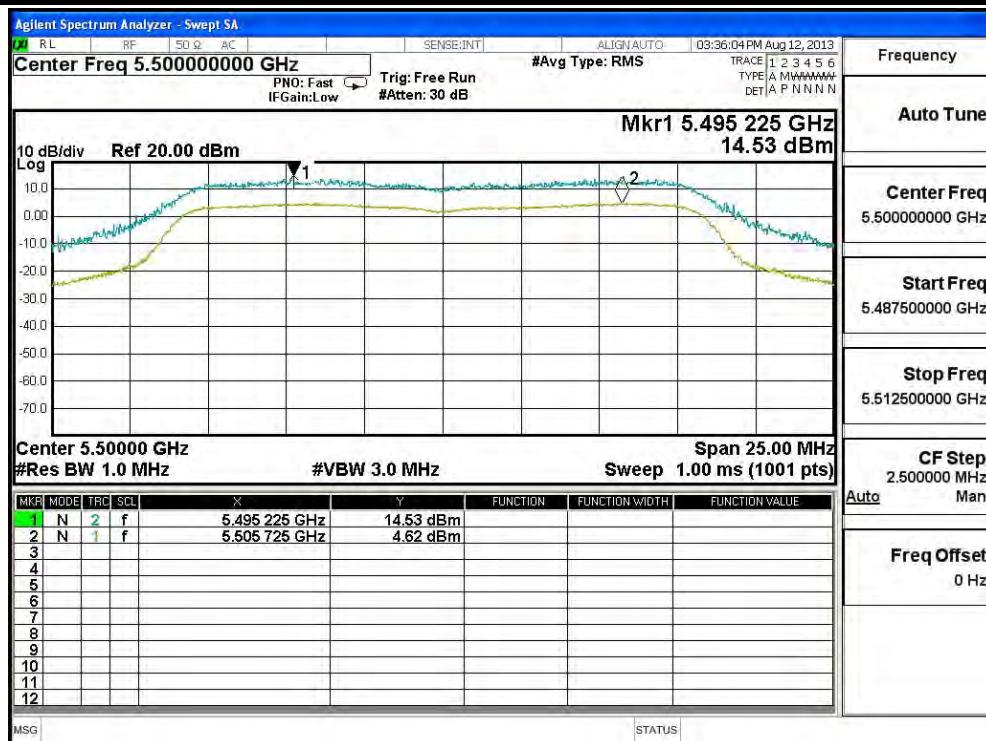


**CHAIN C**

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
100	5500	MCS (0)	10.130	<13	Pass
		MCS (2)	8.290	<13	Pass
		MCS (4)	9.430	<13	Pass
		MCS (7)	9.910	<13	Pass

**Channel 100:**




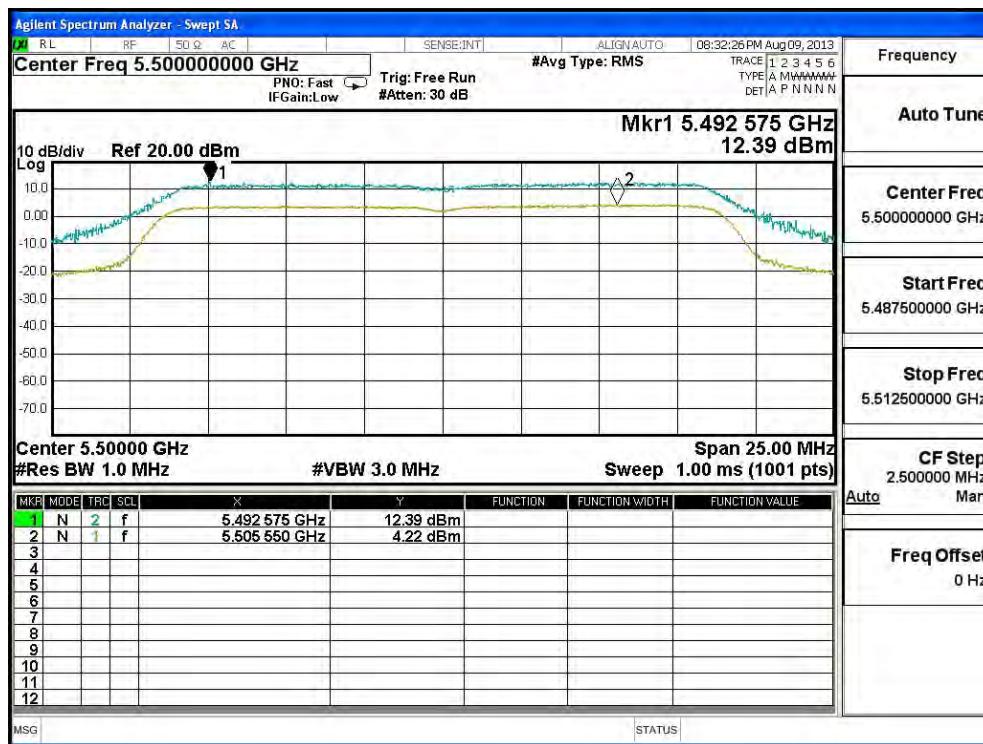


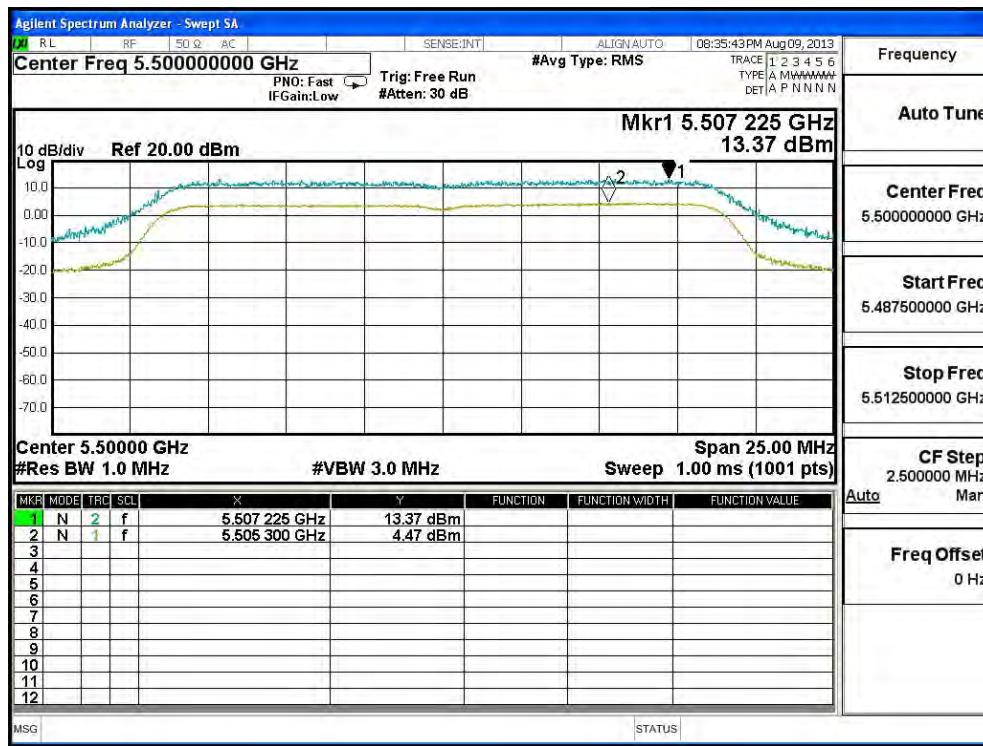
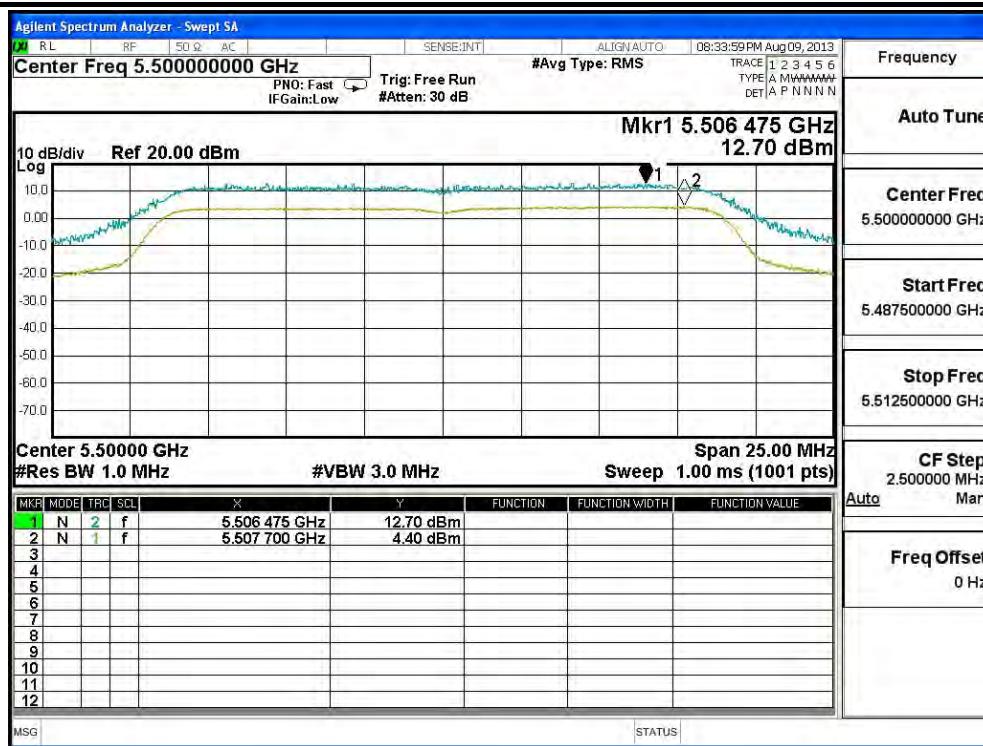
Product : SpectraGuard® Access Point / Sensor  
 Test Item : Peak Excursion  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmit (802.11n-20BW 21.7Mbps)(PIFA Antenna)

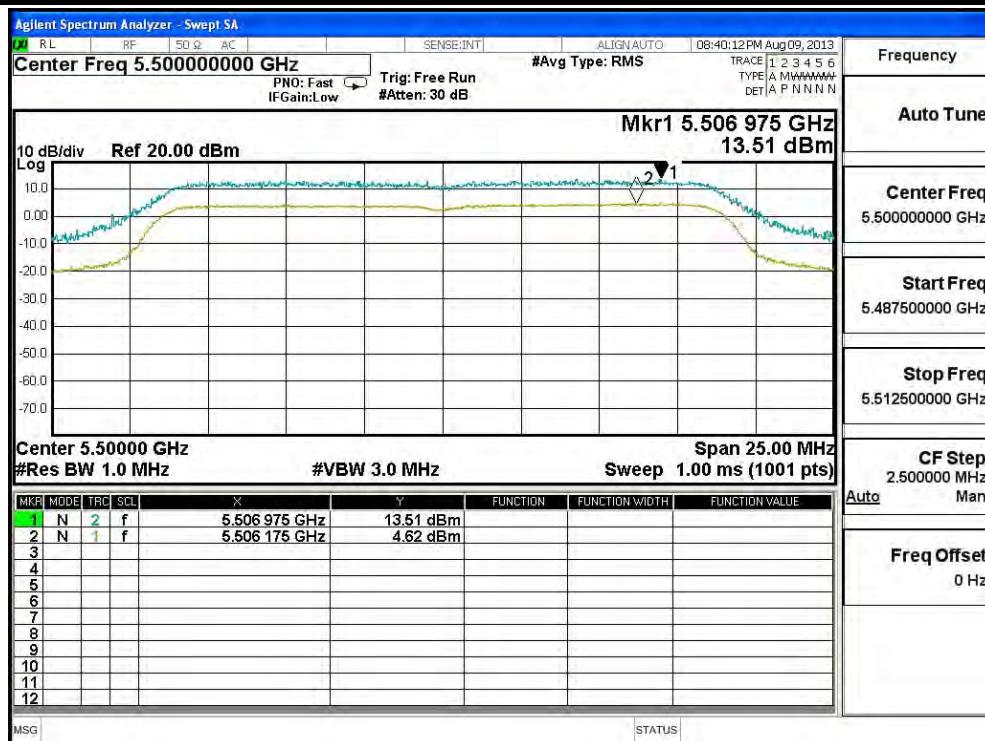
### CHAIN A

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
100	5500	MCS (0)	8.170	<13	Pass
		MCS (2)	8.300	<13	Pass
		MCS (4)	8.900	<13	Pass
		MCS (7)	8.890	<13	Pass

### Channel 100:

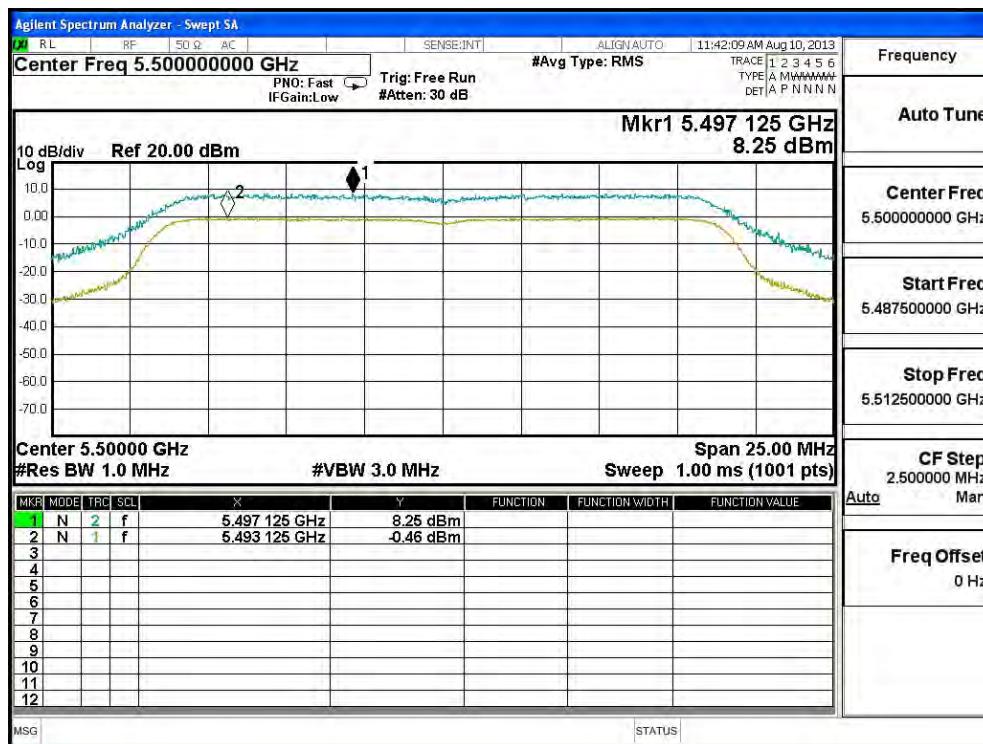


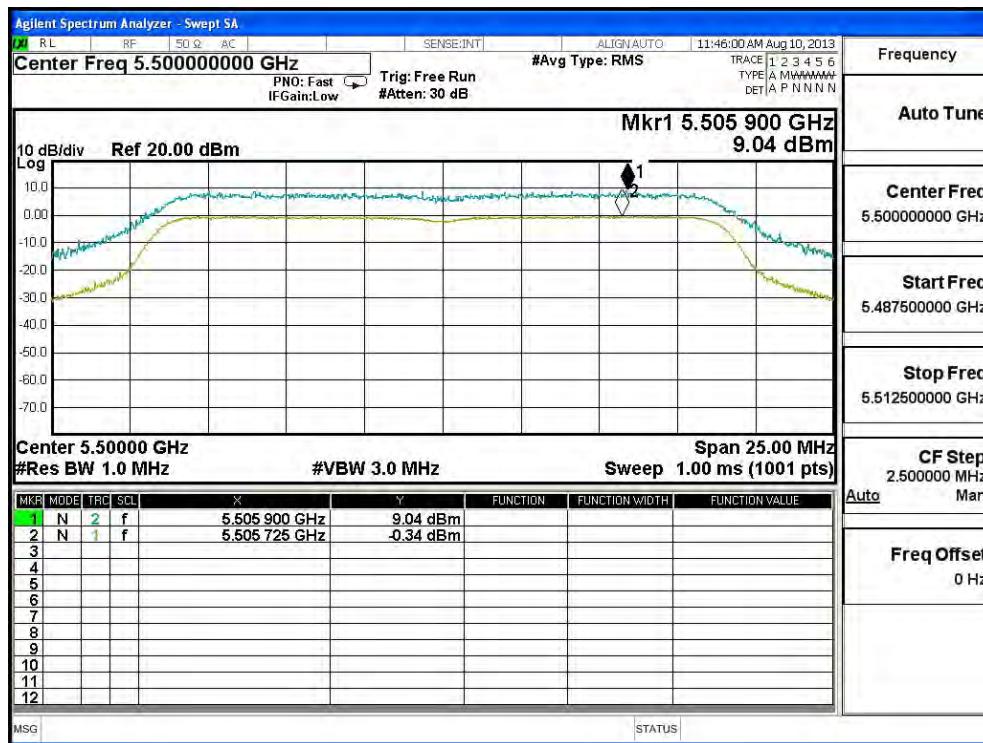
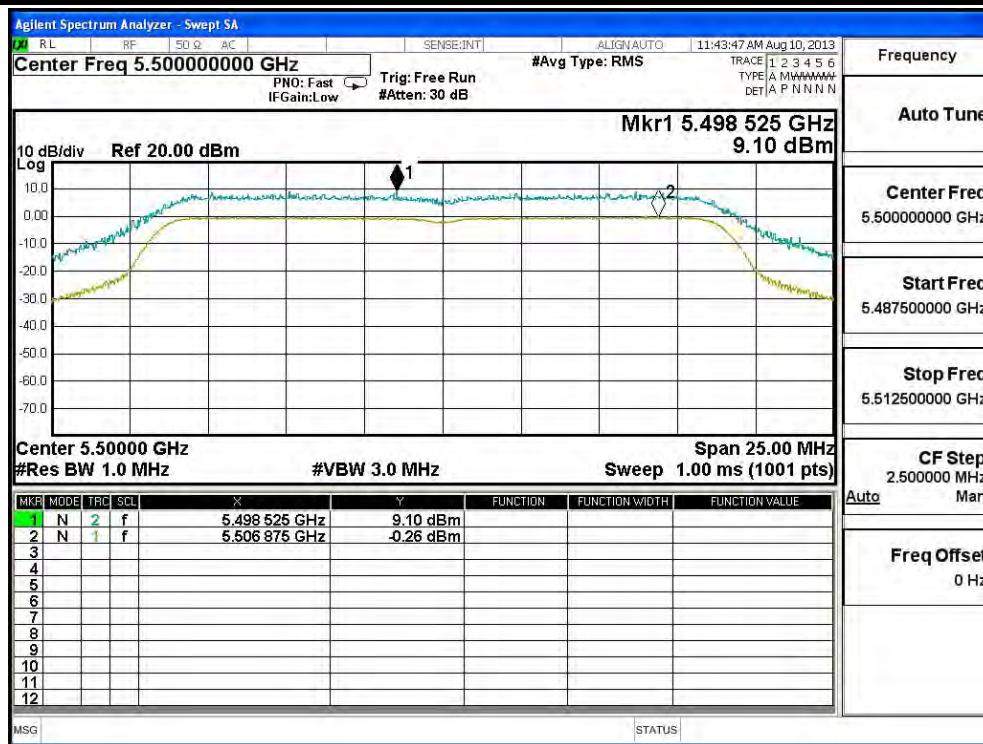


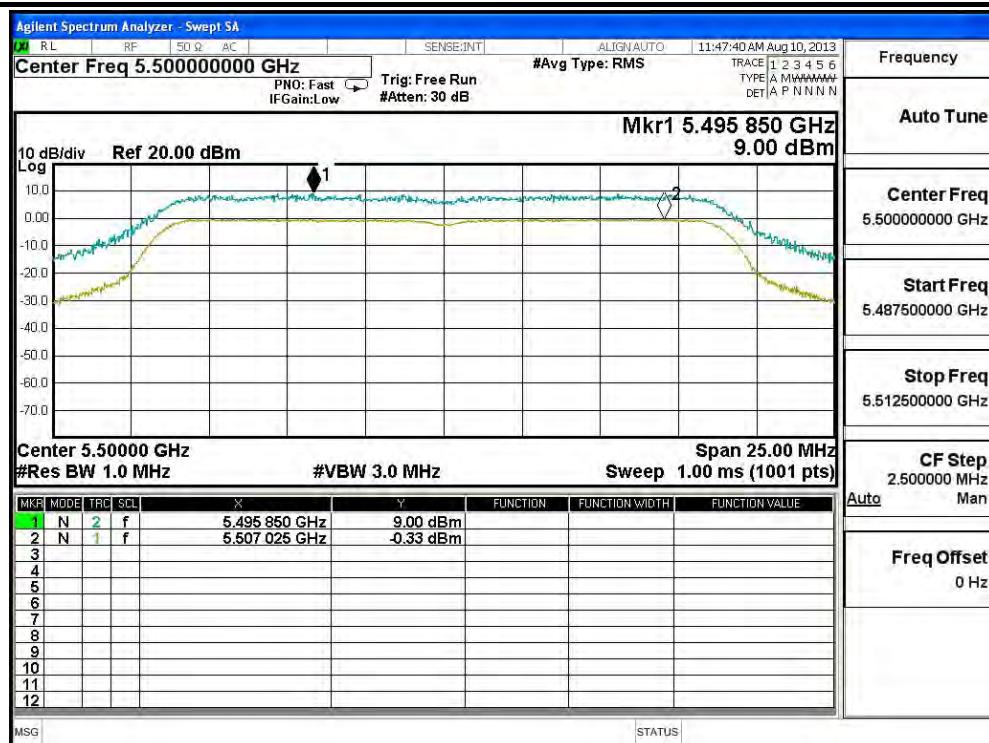


**CHAIN B**

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
100	5500	MCS (0)	8.710	<13	Pass
		MCS (2)	9.360	<13	Pass
		MCS (4)	9.380	<13	Pass
		MCS (7)	9.330	<13	Pass

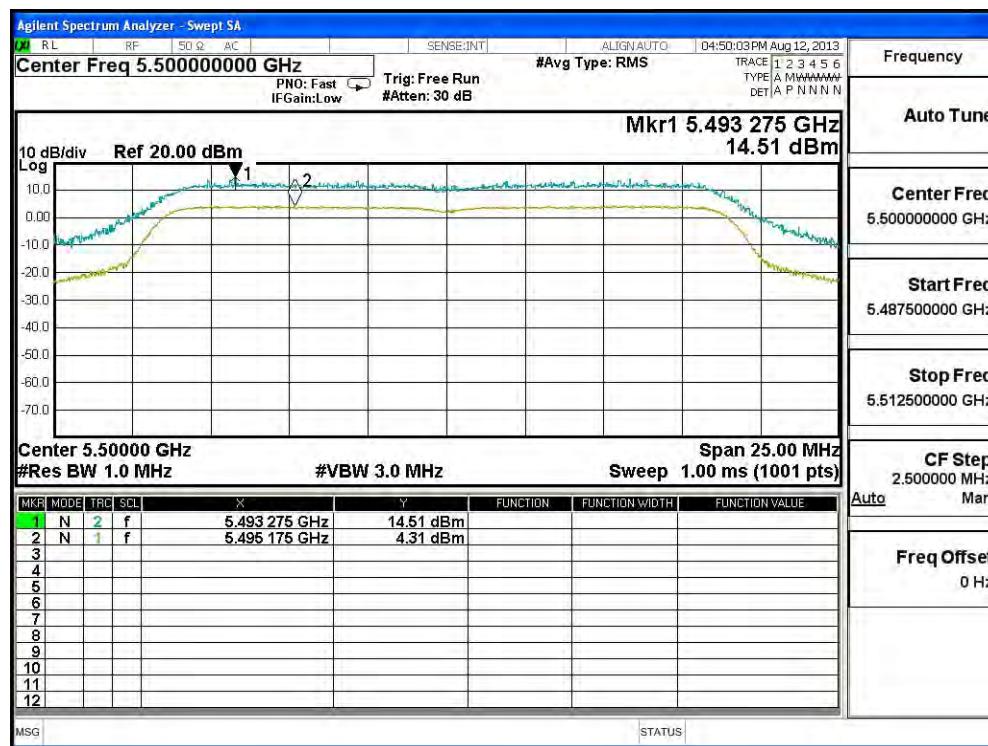
**Channel 100:**


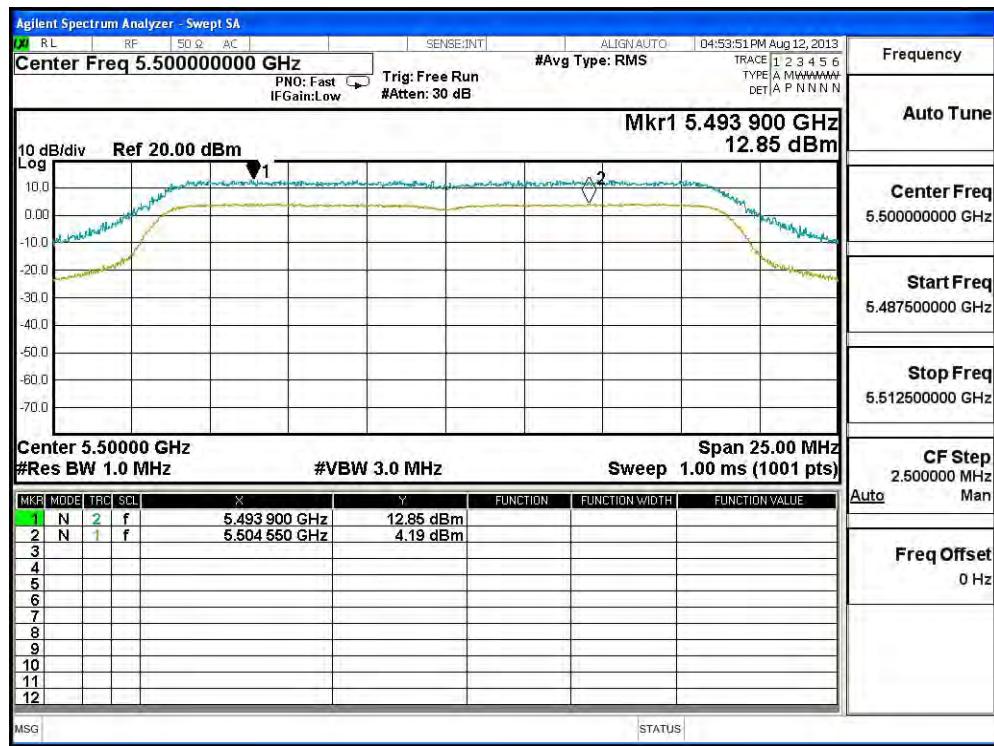
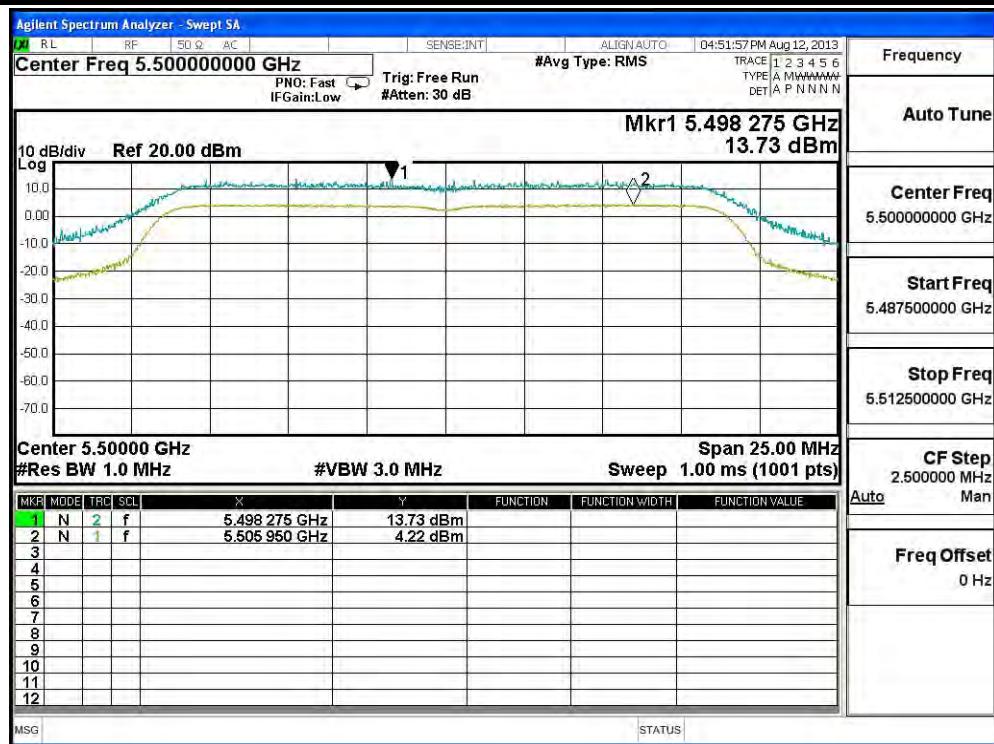


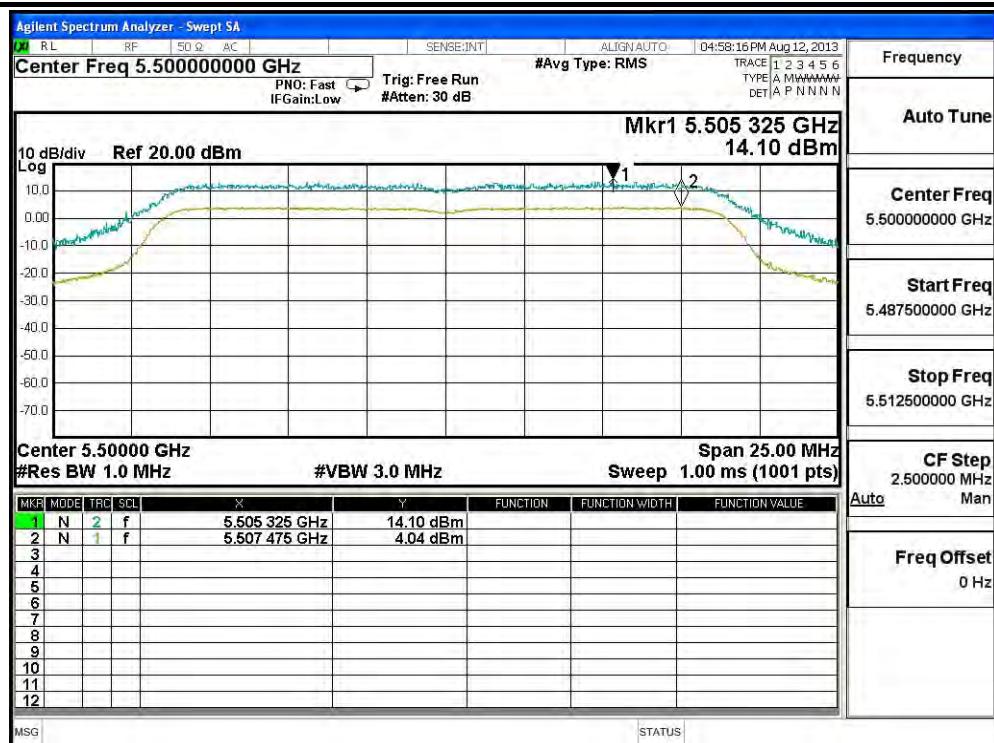


**CHAIN C**

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
100	5500	MCS (0)	10.200	<13	Pass
		MCS (2)	9.510	<13	Pass
		MCS (4)	8.660	<13	Pass
		MCS (7)	10.060	<13	Pass

**Channel 100:**


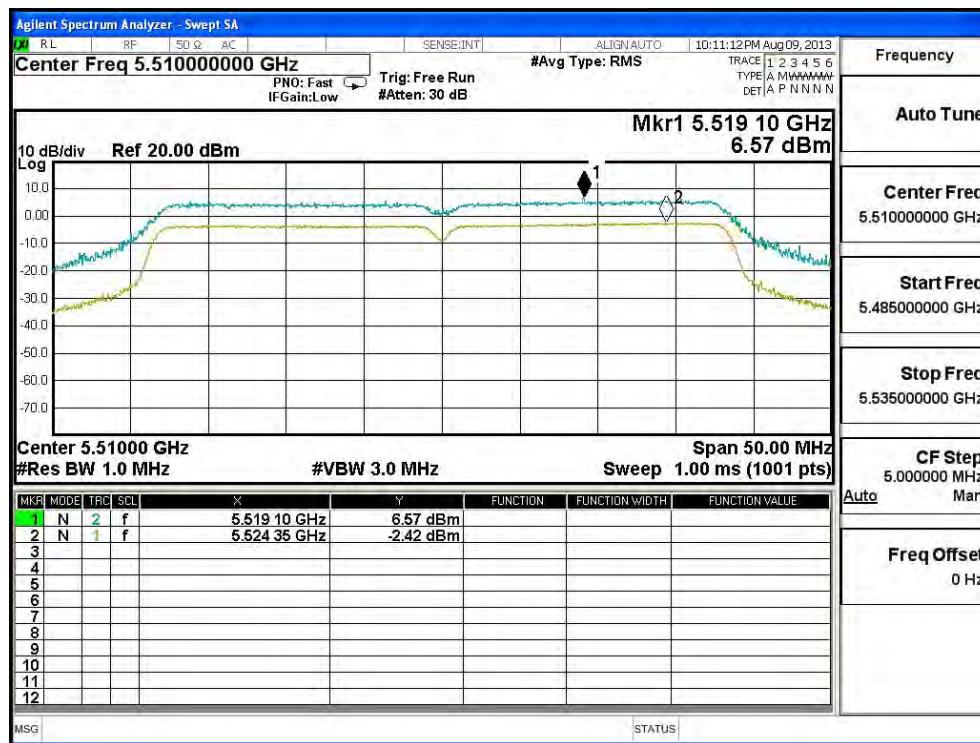


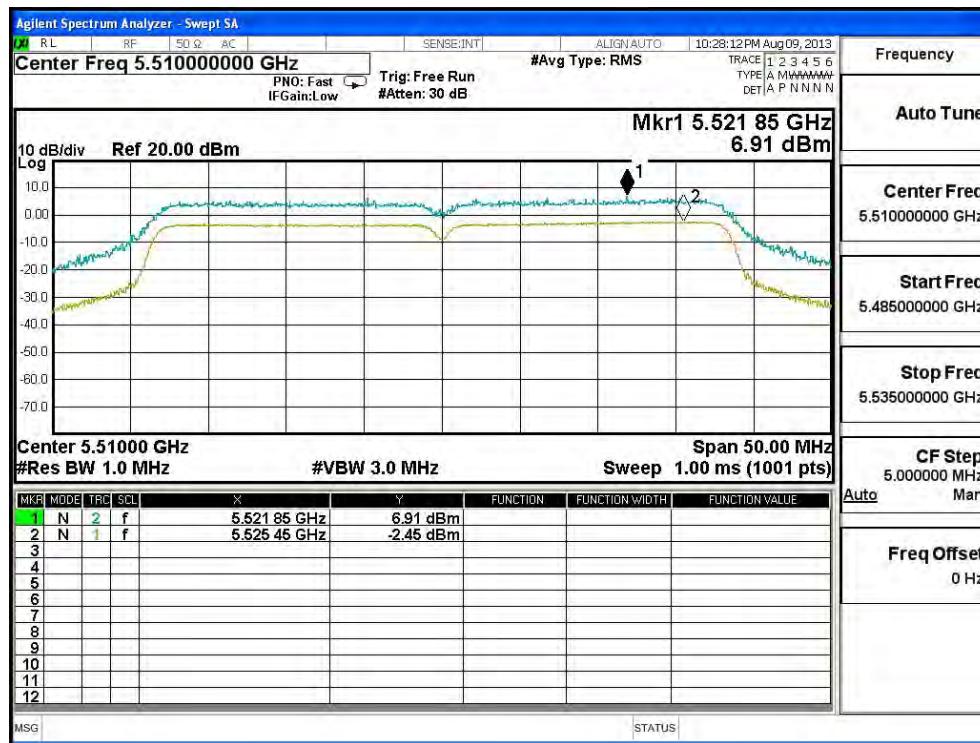
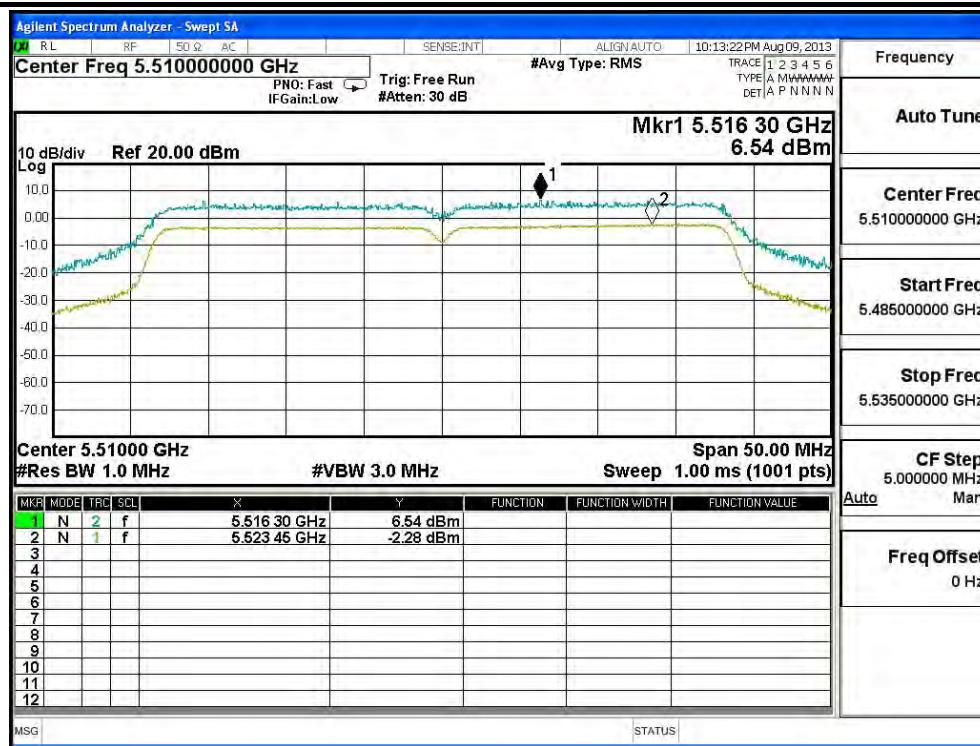


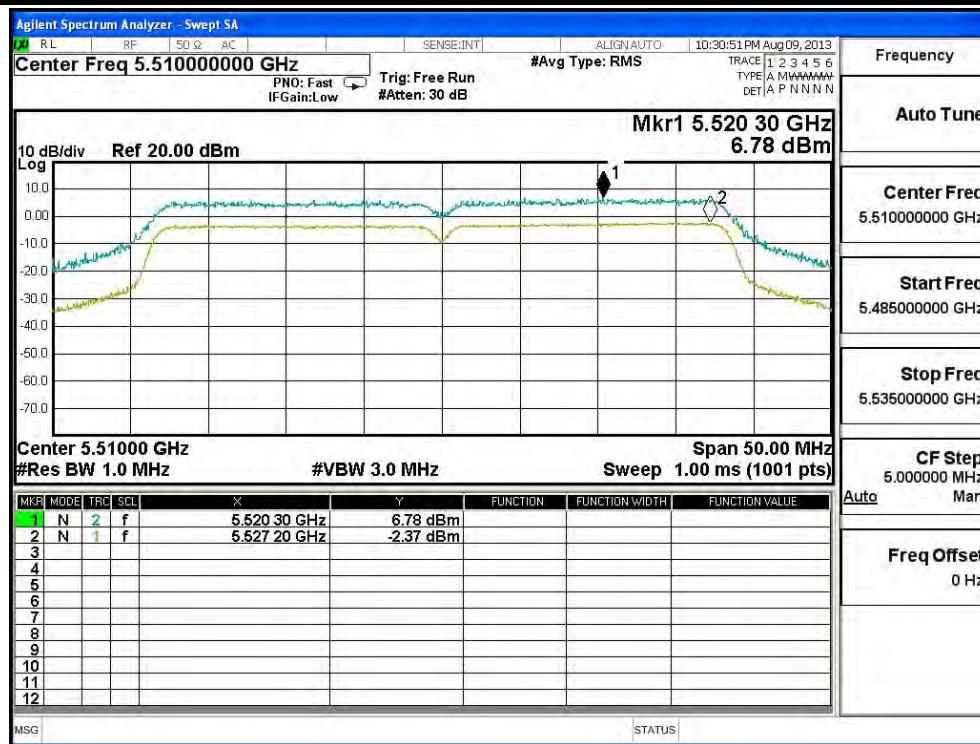
Product : SpectraGuard® Access Point / Sensor  
 Test Item : Peak Excursion  
 Test Site : No.3 OATS  
 Test Mode : Mode 6 Transmit (802.11n-40BW 45Mbps)(PIFA Antenna)

**Chain A**

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
102	5510	MCS (0)	8.990	<13	Pass
		MCS (2)	8.820	<13	Pass
		MCS (4)	9.360	<13	Pass
		MCS (7)	9.150	<13	Pass

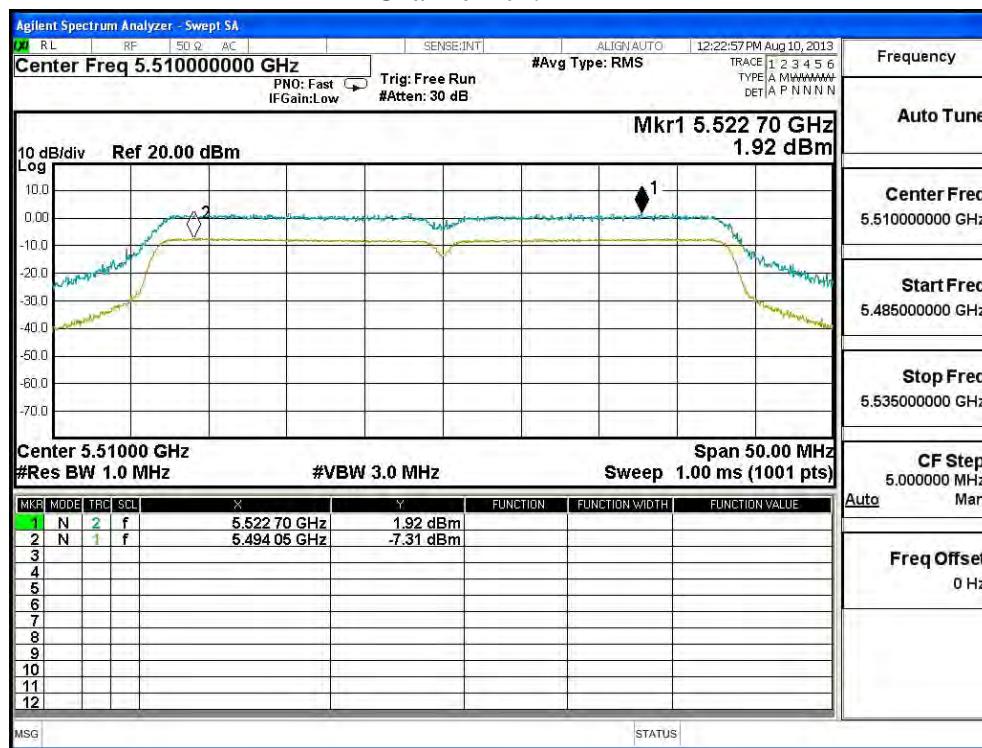
**Channel 102:**


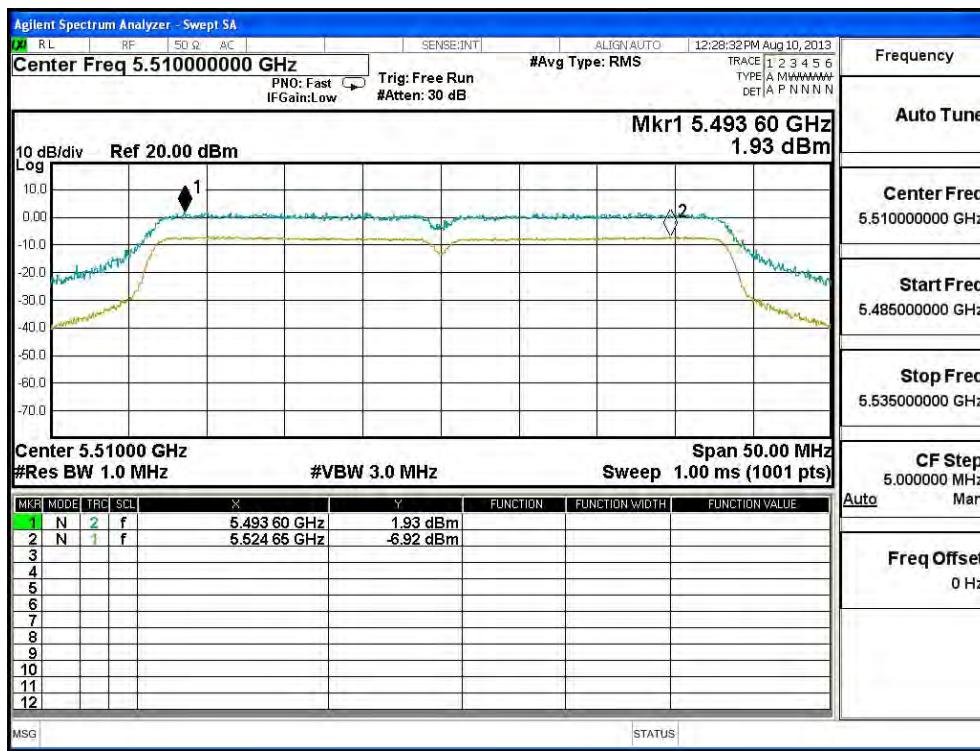
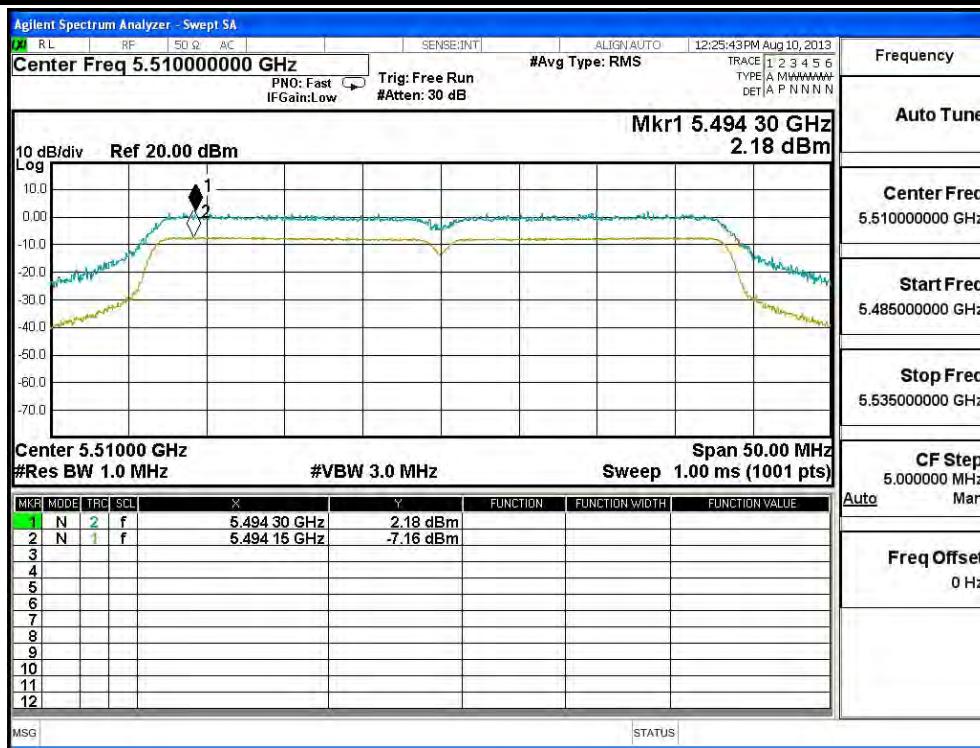


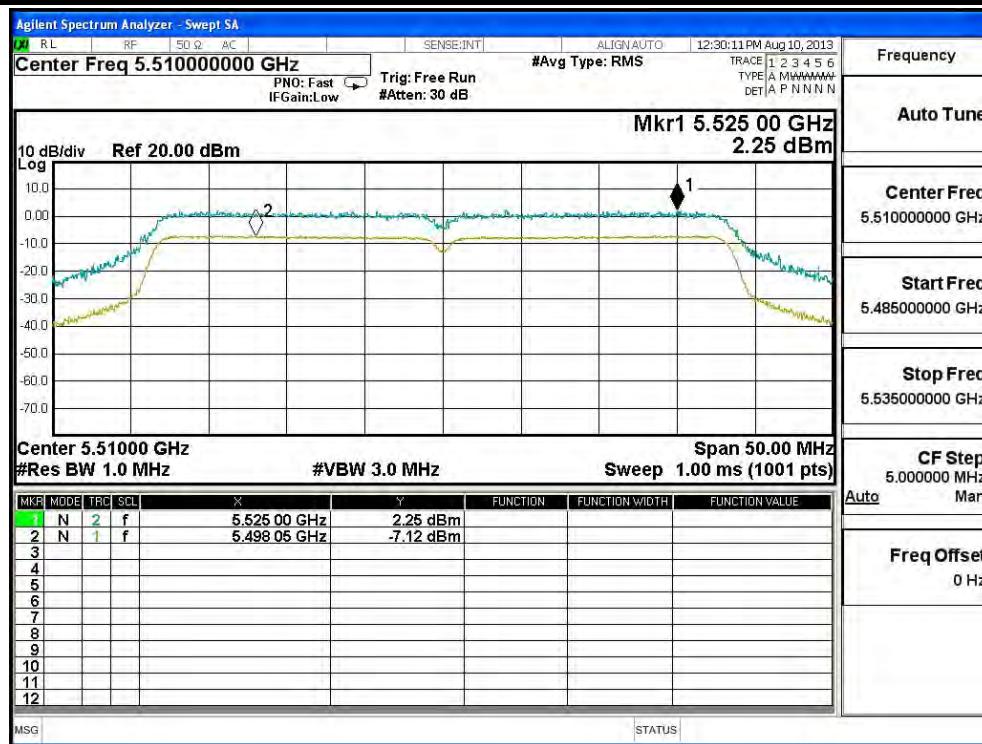


**Chain B**

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
102	5510	MCS (0)	9.230	<13	Pass
		MCS (2)	9.340	<13	Pass
		MCS (4)	8.850	<13	Pass
		MCS (7)	9.370	<13	Pass

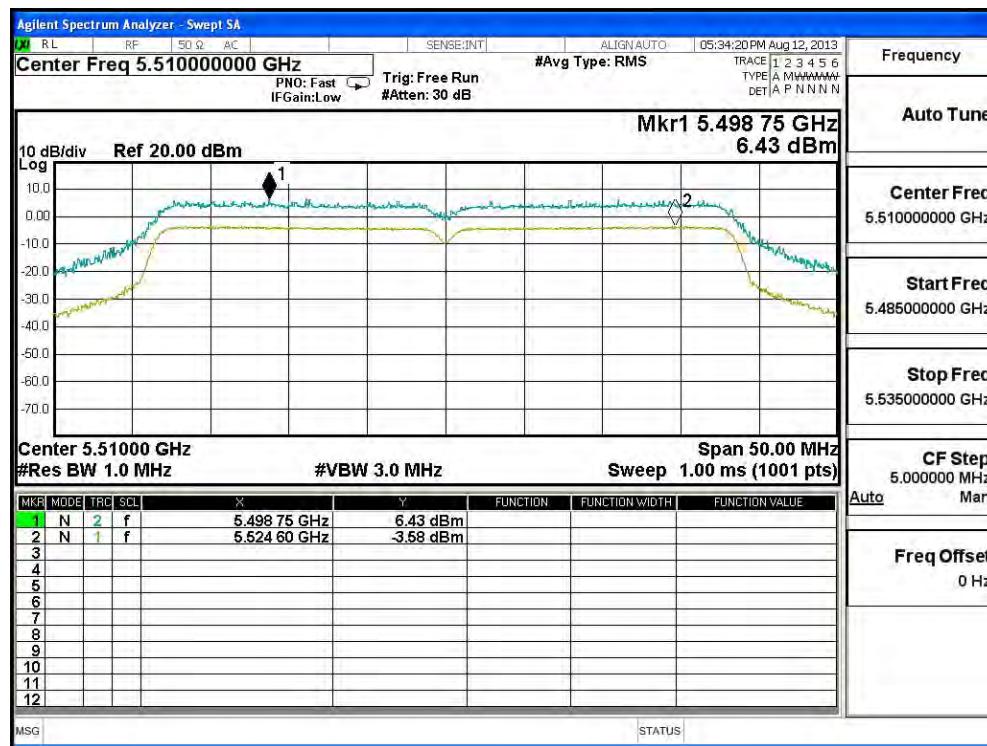
**Channel 102:**

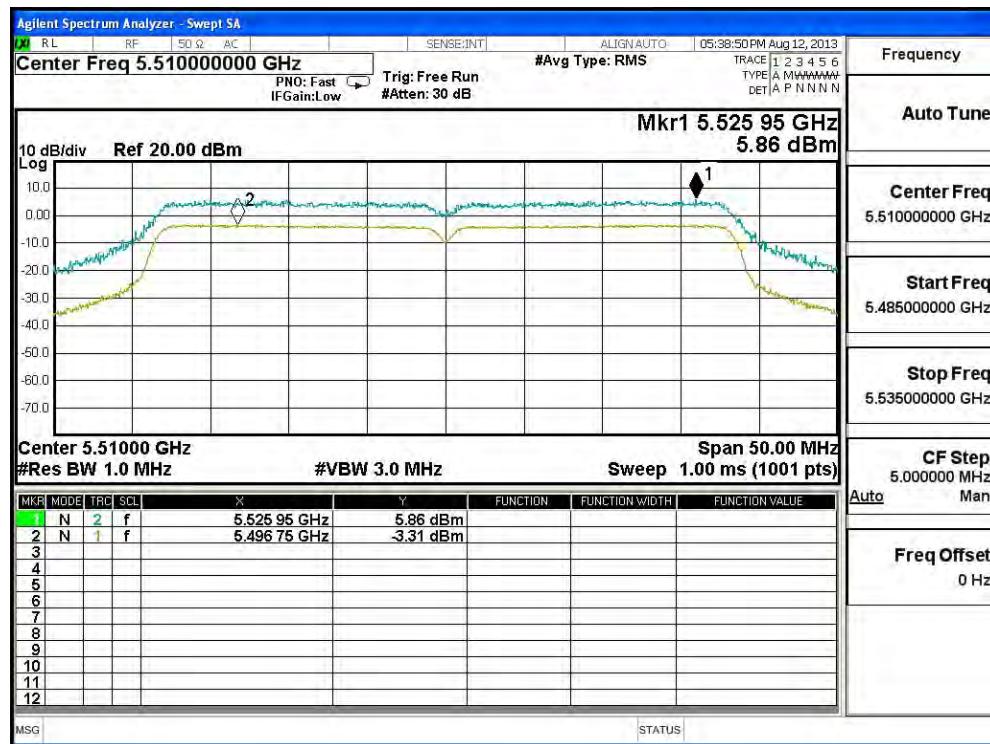
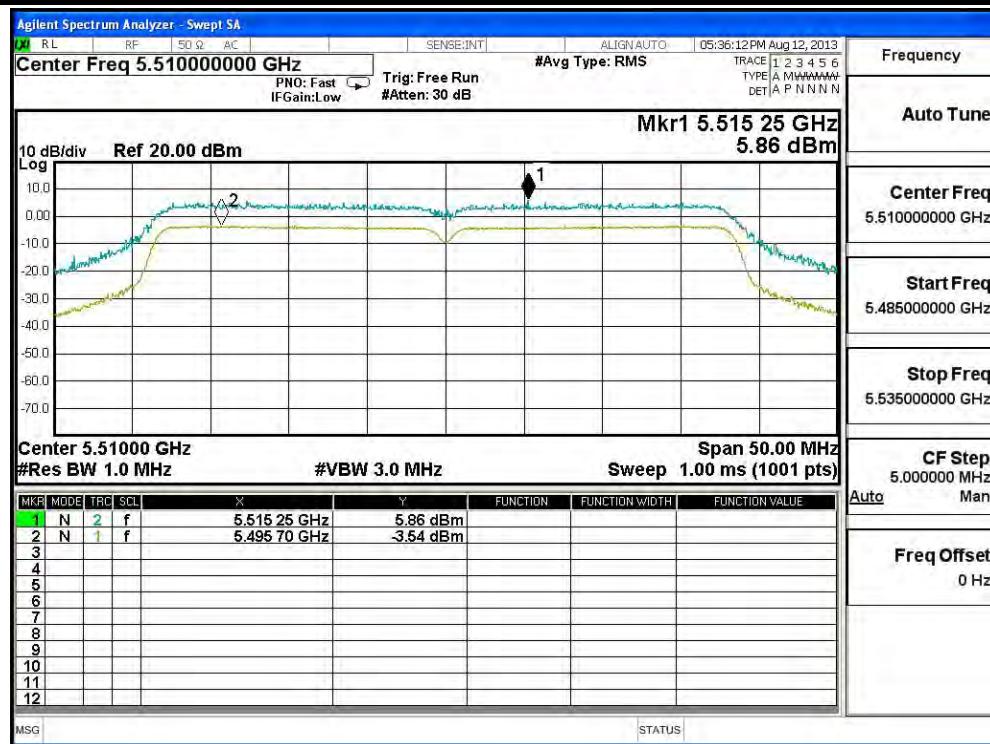


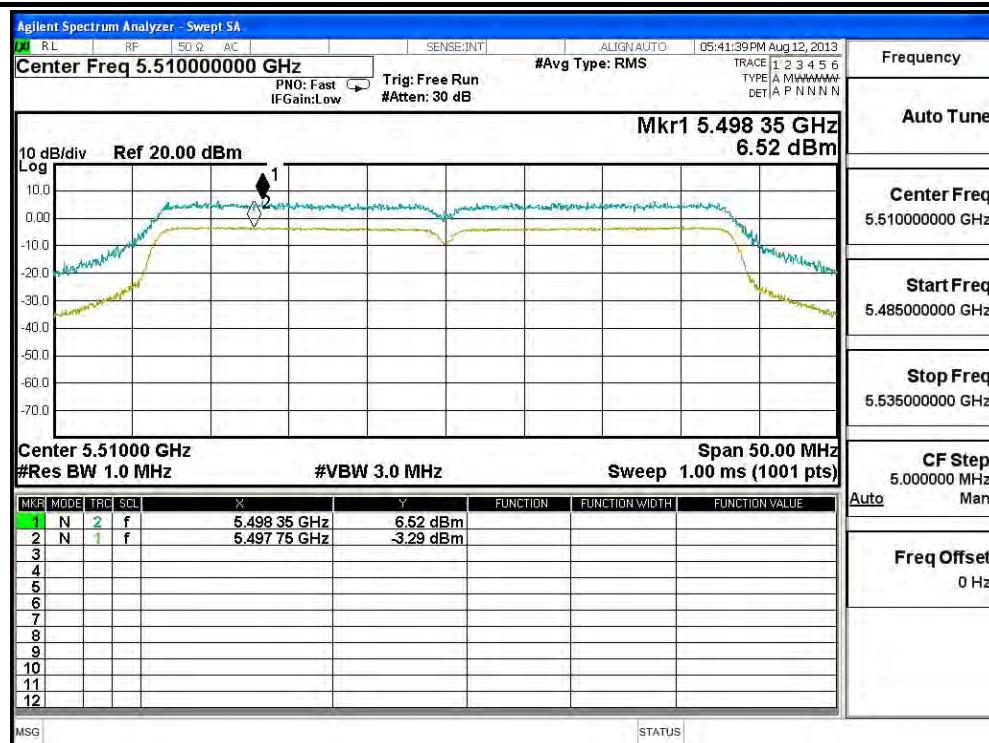


**Chain C**

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
102	5510	MCS (0)	10.010	<13	Pass
		MCS (2)	9.400	<13	Pass
		MCS (4)	9.170	<13	Pass
		MCS (7)	9.810	<13	Pass

**Channel 102:**





## 6. Radiated Emission

### 6.1. Test Equipment

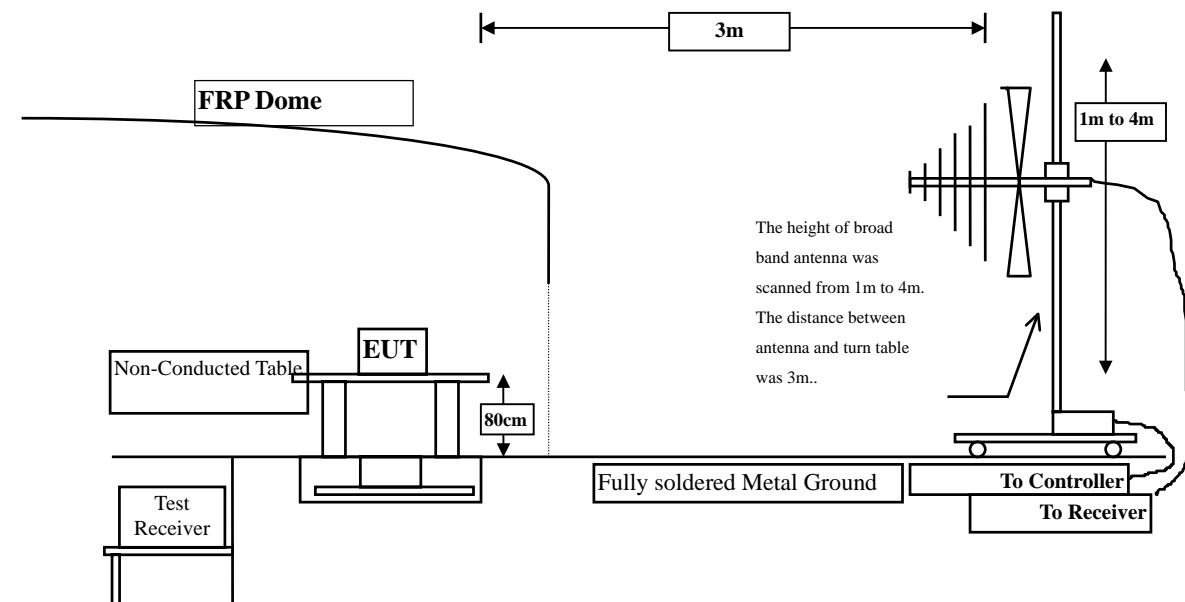
The following test equipments are used during the radiated emission test:

Test Site	Equipment		Manufacturer	Model No./Serial No.	Last Cal.
☒Site # 3	X	Loop Antenna	Teseq	HLA6120 / 26739	Jul., 2013
	X	Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2012
	X	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2012
	X	Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2012
	X	Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2012
	X	Pre-Amplifier	QTK	AP-180C / CHM_0906076	Sep., 2012
	X	Pre-Amplifier	MITEQ	AMF-4D-180400-45-6P/ 925975	Mar, 2012
	X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2012
	X	Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2012
	X	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2012
	X	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	X	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

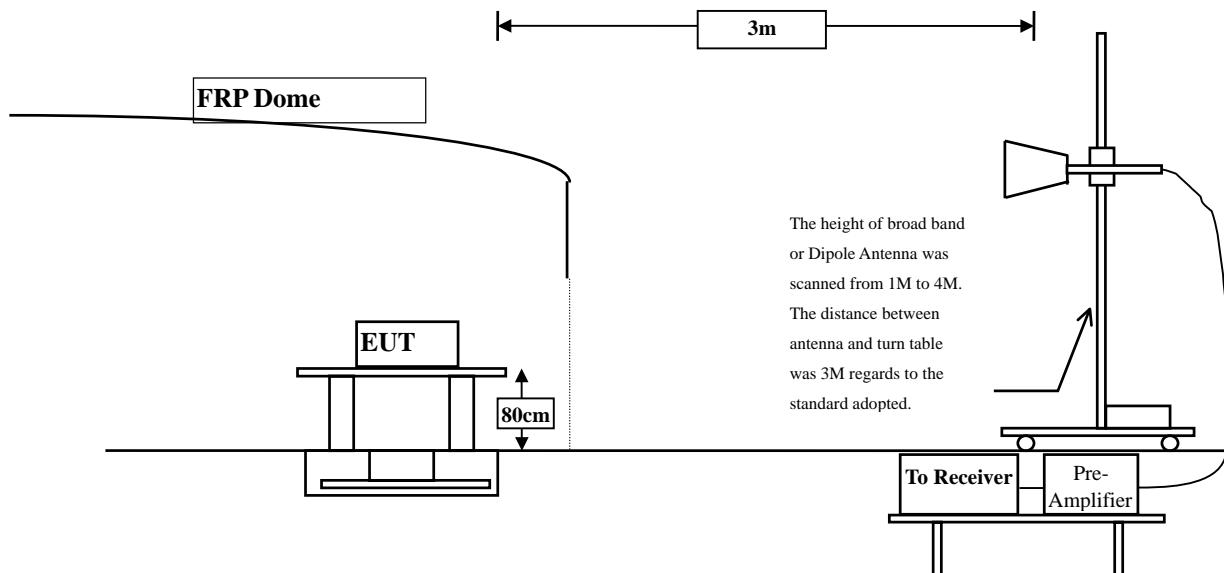
Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.  
 2. The test instruments marked with "X" are used to measure the final test results.

### 6.2. Test Setup

#### Radiated Emission Below 1GHz



### Radiated Emission Above 1GHz



### 6.3. Limits

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

FCC Part 15 Subpart C Paragraph 15.209(a) Limits		
Frequency MHz	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: E field strength (dBuV/m) = 20 log E field strength (uV/m)

## 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.

The measurement frequency range from 9KHz - 10th Harmonic of fundamental was investigated.

## 6.5. Uncertainty

± 3.8 dB below 1GHz

± 3.9 dB above 1GHz

## 6.6. Test Result of Radiated Emission

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)(Dipole Antenna) (5260MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

10520.000	14.015	36.430	50.445	-23.555	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
31560.000	*	*	*	*	74.000
36820.000	*	*	*	*	74.000

### Average

#### Detector:

--

### Vertical

#### Peak Detector:

10520.000	14.818	36.950	51.768	-22.232	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
31560.000	*	*	*	*	74.000
36820.000	*	*	*	*	74.000

### Average

#### Detector:

--

#### Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)(Dipole Antenna) (5300MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

10600.000	14.550	37.170	51.719	-22.281	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500.000	*	*	*	*	74.000
31800.000	*	*	*	*	74.000
37100.000	*	*	*	*	74.000

#### Average

#### Detector:

--

### Vertical

#### Peak Detector:

10600.000	14.881	36.660	51.541	-22.459	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500.000	*	*	*	*	74.000
31800.000	*	*	*	*	74.000
37100.000	*	*	*	*	74.000

#### Average

#### Detector:

--

#### Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)(Dipole Antenna) (5320MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

**Horizontal****Peak Detector:**

10640.000	14.690	35.830	50.520	-23.480	74.000
15960.000	*	*	*	*	74.000
21280.000	*	*	*	*	74.000
26600.000	*	*	*	*	74.000
31920.000	*	*	*	*	74.000
37240.000	*	*	*	*	74.000

**Average****Detector:**

--

**Vertical****Peak Detector:**

10640.000	15.083	36.020	51.103	-22.897	74.000
15960.000	*	*	*	*	74.000
21280.000	*	*	*	*	74.000
26600.000	*	*	*	*	74.000
31920.000	*	*	*	*	74.000
37240.000	*	*	*	*	74.000

**Average****Detector:**

--

**Note:**

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)(Dipole Antenna) (5500MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

**Horizontal****Peak Detector:**

11000.000	16.399	36.500	52.899	-21.101	74.000
16500.000	*	*	*	*	74.000
22000.000	*	*	*	*	74.000
27500.000	*	*	*	*	74.000
33000.000	*	*	*	*	74.000
38500.000	*	*	*	*	74.000

**Average****Detector:**

--

**Vertical****Peak Detector:**

11000.000	17.132	36.420	53.552	-20.448	74.000
16500.000	*	*	*	*	74.000
22000.000	*	*	*	*	74.000
27500.000	*	*	*	*	74.000
33000.000	*	*	*	*	74.000
38500.000	*	*	*	*	74.000

**Average****Detector:**

--

**Note:**

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)(Dipole Antenna) (5580MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

**Peak Detector:**

11160.000	16.664	35.130	51.795	-22.205	74.000
16740.000	*	*	*	*	74.000
22320.000	*	*	*	*	74.000
27900.000	*	*	*	*	74.000
33480.000	*	*	*	*	74.000
39060.000	*	*	*	*	74.000

**Average**

**Detector:**

--

### Vertical

**Peak Detector:**

11160.000	17.643	34.830	52.473	-21.527	74.000
16740.000	*	*	*	*	74.000
22320.000	*	*	*	*	74.000
27900.000	*	*	*	*	74.000
33480.000	*	*	*	*	74.000
39060.000	*	*	*	*	74.000

**Average**

**Detector:**

--

**Note:**

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)(Dipole Antenna) (5700MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

11400.000	16.530	35.590	52.121	-21.879	74.000
17100.000	*	*	*	*	74.000
22800.000	*	*	*	*	74.000
28500.000	*	*	*	*	74.000
34200.000	*	*	*	*	74.000
39900.000	*	*	*	*	74.000

#### Average

#### Detector:

--

### Vertical

#### Peak Detector:

11400.000	17.138	35.310	52.448	-21.552	74.000
17100.000	*	*	*	*	74.000
22800.000	*	*	*	*	74.000
28500.000	*	*	*	*	74.000
34200.000	*	*	*	*	74.000
39900.000	*	*	*	*	74.000

#### Average

#### Detector:

--

#### Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps)(Dipole Antenna) (5260MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

10520.000	14.015	37.000	51.015	-22.985	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
31560.000	*	*	*	*	74.000
36820.000	*	*	*	*	74.000

#### Average

#### Detector:

--

### Vertical

#### Peak Detector:

10520.000	14.818	36.590	51.408	-22.592	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
31560.000	*	*	*	*	74.000
36820.000	*	*	*	*	74.000

#### Average

#### Detector:

--

#### Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps)(Dipole Antenna) (5300MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

10600.000	14.550	36.160	50.709	-23.291	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500000	*	*	*	*	74.000
31800.000	*	*	*	*	74.000
37100.000	*	*	*	*	74.000

### Average

#### Detector:

--

### Vertical

#### Peak Detector:

10600.000	14.881	36.040	50.921	-23.079	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500000	*	*	*	*	74.000
31800.000	*	*	*	*	74.000
37100.000	*	*	*	*	74.000

### Average

#### Detector:

--

#### Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps)(Dipole Antenna) (5320MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

**Horizontal****Peak Detector:**

10640.000	14.690	36.440	51.130	-22.870	74.000
15960.000	*	*	*	*	74.000
21280.000	*	*	*	*	74.000
26600.000	*	*	*	*	74.000
31920.000	*	*	*	*	74.000
37240.000	*	*	*	*	74.000

**Average****Detector:**

--

**Vertical****Peak Detector:**

10640.000	15.083	36.140	51.223	-22.777	74.000
15960.000	*	*	*	*	74.000
21280.000	*	*	*	*	74.000
26600.000	*	*	*	*	74.000
31920.000	*	*	*	*	74.000
37240.000	*	*	*	*	74.000

**Average****Detector:**

--

**Note:**

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps)(Dipole Antenna) (5500MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

11000.000	16.399	36.290	52.689	-21.311	74.000
16500.000	*	*	*	*	74.000
22000.000	*	*	*	*	74.000
27500.000	*	*	*	*	74.000
33000.000	*	*	*	*	74.000
38500.000	*	*	*	*	74.000

#### Average

#### Detector:

--

### Vertical

#### Peak Detector:

11000.000	17.132	36.460	53.592	-20.408	74.000
16500.000	*	*	*	*	74.000
22000.000	*	*	*	*	74.000
27500.000	*	*	*	*	74.000
33000.000	*	*	*	*	74.000
38500.000	*	*	*	*	74.000

#### Average

#### Detector:

--

#### Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps)(Dipole Antenna) (5580MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

11160.000	16.664	34.940	51.605	-22.395	74.000
16740.000	*	*	*	*	74.000
22320.000	*	*	*	*	74.000
27900.000	*	*	*	*	74.000
33480.000	*	*	*	*	74.000
39060.000	*	*	*	*	74.000

#### Average

#### Detector:

--

### Vertical

#### Peak Detector:

11160.000	17.643	35.480	53.123	-20.877	74.000
16740.000	*	*	*	*	74.000
22320.000	*	*	*	*	74.000
27900.000	*	*	*	*	74.000
33480.000	*	*	*	*	74.000
39060.000	*	*	*	*	74.000

#### Average

#### Detector:

--

#### Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps)(Dipole Antenna) (5700MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

11400.000	16.530	35.380	51.911	-22.089	74.000
17100.000	*	*	*	*	74.000
22800.000	*	*	*	*	74.000
28500.000	*	*	*	*	74.000
34200.000	*	*	*	*	74.000
39900.000	*	*	*	*	74.000

#### Average

#### Detector:

--

### Vertical

#### Peak Detector:

11400.000	17.138	35.530	52.668	-21.332	74.000
17100.000	*	*	*	*	74.000
22800.000	*	*	*	*	74.000
28500.000	*	*	*	*	74.000
34200.000	*	*	*	*	74.000
39900.000	*	*	*	*	74.000

#### Average

#### Detector:

--

#### Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps)(Dipole Antenna) (5270MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

**Horizontal****Peak Detector:**

10540.000	14.151	36.830	50.980	-23.020	74.000
15810.000	*	*	*	*	74.000
21080.000	*	*	*	*	74.000
26350.000	*	*	*	*	74.000
31620.000	*	*	*	*	74.000
36890.000	*	*	*	*	74.000

**Average****Detector:**

--

**Vertical****Peak Detector:**

10540.000	14.829	36.500	51.328	-22.672	74.000
15810.000	*	*	*	*	74.000
21080.000	*	*	*	*	74.000
26350.000	*	*	*	*	74.000
31620.000	*	*	*	*	74.000
36890.000	*	*	*	*	74.000

**Average****Detector:**

--

**Note:**

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps)(Dipole Antenna) (5310MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

10620.000	14.623	36.510	51.133	-22.867	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
31860.000	*	*	*	*	74.000
37170.000	*	*	*	*	74.000

#### Average

#### Detector:

--

### Vertical

#### Peak Detector:

10620.000	14.970	37.170	52.140	-21.860	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
31860.000	*	*	*	*	74.000
37170.000	*	*	*	*	74.000

#### Average

#### Detector:

--

#### Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps)(Dipole Antenna) (5510MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

11020.000	16.474	36.160	52.633	-21.367	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
31860.000	*	*	*	*	74.000
37170.000	*	*	*	*	74.000

### Average

#### Detector:

--

### Vertical

#### Peak Detector:

11020.000	17.224	36.300	53.524	-20.476	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
31860.000	*	*	*	*	74.000
37170.000	*	*	*	*	74.000

### Average

#### Detector:

--

#### Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps)(Dipole Antenna) (5550MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

11100.000	16.681	36.670	53.351	-20.649	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
31860.000	*	*	*	*	74.000
37170.000	*	*	*	*	74.000

### Average

#### Detector:

--

### Vertical

#### Peak Detector:

11100.000	17.523	36.250	53.773	-20.227	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
31860.000	*	*	*	*	74.000
37170.000	*	*	*	*	74.000

### Average

#### Detector:

--

#### Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps)(Dipole Antenna) (5670MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

11340.000	16.408	36.240	52.647	-21.353	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
31860.000	*	*	*	*	74.000
37170.000	*	*	*	*	74.000

### Average

#### Detector:

--

### Vertical

#### Peak Detector:

11340.000	17.167	36.630	53.797	-20.203	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
31860.000	*	*	*	*	74.000
37170.000	*	*	*	*	74.000

### Average

#### Detector:

--

#### Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna) (5260MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

**Horizontal****Peak Detector:**

10520.000	14.015	37.090	51.105	-22.895	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
31560.000	*	*	*	*	74.000
36820.000	*	*	*	*	74.000

**Average****Detector:**

--

**Vertical****Peak Detector:**

10520.000	14.818	36.770	51.588	-22.412	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
31560.000	*	*	*	*	74.000
36820.000	*	*	*	*	74.000

**Average****Detector:**

--

**Note:**

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna) (5300MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

10600.000	14.550	36.220	50.769	-23.231	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500.000	*	*	*	*	74.000
31800.000	*	*	*	*	74.000
37100.000	*	*	*	*	74.000

#### Average

#### Detector:

--

### Vertical

#### Peak Detector:

10600.000	14.881	35.680	50.561	-23.439	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500.000	*	*	*	*	74.000
31800.000	*	*	*	*	74.000
37100.000	*	*	*	*	74.000

#### Average

#### Detector:

--

#### Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna) (5320MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

10640.000	14.690	36.420	51.110	-22.890	74.000
15960.000	*	*	*	*	74.000
21280.000	*	*	*	*	74.000
26600.000	*	*	*	*	74.000
31920.000	*	*	*	*	74.000
37240.000	*	*	*	*	74.000

#### Average

#### Detector:

--

### Vertical

#### Peak Detector:

10640.000	15.083	35.310	50.393	-23.607	74.000
15960.000	*	*	*	*	74.000
21280.000	*	*	*	*	74.000
26600.000	*	*	*	*	74.000
31920.000	*	*	*	*	74.000
37240.000	*	*	*	*	74.000

#### Average

#### Detector:

--

#### Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna) (5500MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

**Horizontal****Peak Detector:**

11000.000	16.399	36.210	52.609	-21.391	74.000
16500.000	*	*	*	*	74.000
22000.000	*	*	*	*	74.000
27500.000	*	*	*	*	74.000
33000.000	*	*	*	*	74.000
38500.000	*	*	*	*	74.000

**Average****Detector:**

--

**Vertical****Peak Detector:**

11000.000	17.132	35.520	52.652	-21.348	74.000
16500.000	*	*	*	*	74.000
22000.000	*	*	*	*	74.000
27500.000	*	*	*	*	74.000
33000.000	*	*	*	*	74.000
38500.000	*	*	*	*	74.000

**Average****Detector:**

--

**Note:**

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna) (5580MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

**Horizontal****Peak Detector:**

11160.000	16.664	34.870	51.535	-22.465	74.000
16740.000	*	*	*	*	74.000
22320.000	*	*	*	*	74.000
27900.000	*	*	*	*	74.000
33480.000	*	*	*	*	74.000
39060.000	*	*	*	*	74.000

**Average****Detector:**

--

**Vertical****Peak Detector:**

11160.000	17.643	35.880	53.523	-20.477	74.000
16740.000	*	*	*	*	74.000
22320.000	*	*	*	*	74.000
27900.000	*	*	*	*	74.000
33480.000	*	*	*	*	74.000
39060.000	*	*	*	*	74.000

**Average****Detector:**

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**Note:**

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna) (5700MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

**Horizontal****Peak Detector:**

11400.000	16.530	39.710	56.241	-17.759	74.000
17100.000	*	*	*	*	74.000
22800.000	*	*	*	*	74.000
28500.000	*	*	*	*	74.000
34200.000	*	*	*	*	74.000
39900.000	*	*	*	*	74.000

**Average****Detector:**

11400.000	16.530	25.050	41.581	-12.419	54.000
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**Vertical****Peak Detector:**

11400.000	17.138	37.970	55.108	-18.892	74.000
17100.000	*	*	*	*	74.000
22800.000	*	*	*	*	74.000
28500.000	*	*	*	*	74.000
34200.000	*	*	*	*	74.000
39900.000	*	*	*	*	74.000

**Average****Detector:**

11400.000	17.138	23.340	40.478	-13.522	54.000
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## Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmit (802.11n-20BW 21.7Mbps)(PIFA Antenna) (5260MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

**Horizontal****Peak Detector:**

10520.000	14.015	36.290	50.305	-23.695	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
31560.000	*	*	*	*	74.000
36820.000	*	*	*	*	74.000

**Average****Detector:**

--

**Vertical****Peak Detector:**

10520.000	14.818	36.290	51.108	-22.892	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
31560.000	*	*	*	*	74.000
36820.000	*	*	*	*	74.000

**Average****Detector:**

--

**Note:**

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmit (802.11n-20BW 21.7Mbps)(PIFA Antenna) (5300MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

**Horizontal****Peak Detector:**

10600.000	14.550	36.530	51.079	-22.921	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500000	*	*	*	*	74.000
31800.000	*	*	*	*	74.000
37100.000	*	*	*	*	74.000

**Average****Detector:**

--

**Vertical****Peak Detector:**

10600.000	14.881	36.520	51.401	-22.599	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500000	*	*	*	*	74.000
31800.000	*	*	*	*	74.000
37100.000	*	*	*	*	74.000

**Average****Detector:**

--

**Note:**

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmit (802.11n-20BW 21.7Mbps)(PIFA Antenna) (5320MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

10640.000	14.690	36.500	51.190	-22.810	74.000
15960.000	*	*	*	*	74.000
21280.000	*	*	*	*	74.000
26600.000	*	*	*	*	74.000
31920.000	*	*	*	*	74.000
37240.000	*	*	*	*	74.000

#### Average

#### Detector:

--

### Vertical

#### Peak Detector:

10640.000	15.083	36.350	51.433	-22.567	74.000
15960.000	*	*	*	*	74.000
21280.000	*	*	*	*	74.000
26600.000	*	*	*	*	74.000
31920.000	*	*	*	*	74.000
37240.000	*	*	*	*	74.000

#### Average

#### Detector:

--

#### Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmit (802.11n-20BW 21.7Mbps)(PIFA Antenna) (5500MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

11000.000	16.399	37.130	53.529	-20.471	74.000
16500.000	*	*	*	*	74.000
22000.000	*	*	*	*	74.000
27500.000	*	*	*	*	74.000
33000.000	*	*	*	*	74.000
38500.000	*	*	*	*	74.000

#### Average

#### Detector:

--

### Vertical

#### Peak Detector:

11000.000	17.132	35.960	53.092	-20.908	74.000
16500.000	*	*	*	*	74.000
22000.000	*	*	*	*	74.000
27500.000	*	*	*	*	74.000
33000.000	*	*	*	*	74.000
38500.000	*	*	*	*	74.000

#### Average

#### Detector:

--

#### Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmit (802.11n-20BW 21.7Mbps)(PIFA Antenna) (5580MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

11160.000	16.664	35.050	51.715	-22.285	74.000
16740.000	*	*	*	*	74.000
22320.000	*	*	*	*	74.000
27900.000	*	*	*	*	74.000
33480.000	*	*	*	*	74.000
39060.000	*	*	*	*	74.000

#### Average

#### Detector:

--

### Vertical

#### Peak Detector:

11160.000	17.643	34.540	52.183	-21.817	74.000
16740.000	*	*	*	*	74.000
22320.000	*	*	*	*	74.000
27900.000	*	*	*	*	74.000
33480.000	*	*	*	*	74.000
39060.000	*	*	*	*	74.000

#### Average

#### Detector:

--

#### Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmit (802.11n-20BW 21.7Mbps)(PIFA Antenna) (5700MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

11400.000	16.530	36.550	53.081	-20.919	74.000
17100.000	*	*	*	*	74.000
22800.000	*	*	*	*	74.000
28500.000	*	*	*	*	74.000
34200.000	*	*	*	*	74.000
39900.000	*	*	*	*	74.000

#### Average

#### Detector:

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### Vertical

#### Peak Detector:

11400.000	17.138	35.940	53.078	-20.922	74.000
17100.000	*	*	*	*	74.000
22800.000	*	*	*	*	74.000
28500.000	*	*	*	*	74.000
34200.000	*	*	*	*	74.000
39900.000	*	*	*	*	74.000

#### Average

#### Detector:

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#### Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 6 Transmit (802.11n-40BW 45Mbps)(PIFA Antenna) (5270MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

**Horizontal****Peak Detector:**

10540.000	14.151	36.210	50.360	-23.640	74.000
15810.000	*	*	*	*	74.000
21080.000	*	*	*	*	74.000
26350.000	*	*	*	*	74.000
31620.000	*	*	*	*	74.000
36890.000	*	*	*	*	74.000

**Average****Detector:**

--

**Vertical****Peak Detector:**

10540.000	14.829	36.220	51.048	-22.952	74.000
15810.000	*	*	*	*	74.000
21080.000	*	*	*	*	74.000
26350.000	*	*	*	*	74.000
31620.000	*	*	*	*	74.000
36890.000	*	*	*	*	74.000

**Average****Detector:**

--

**Note:**

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 6 Transmit (802.11n-40BW 45Mbps)(PIFA Antenna) (5310MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

**Horizontal****Peak Detector:**

10620.000	14.623	35.710	50.333	-23.667	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
31860.000	*	*	*	*	74.000
37170.000	*	*	*	*	74.000

**Average****Detector:**

--

**Vertical****Peak Detector:**

10620.000	14.970	36.380	51.350	-22.650	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
31860.000	*	*	*	*	74.000
37170.000	*	*	*	*	74.000

**Average****Detector:**

--

**Note:**

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 6 Transmit (802.11n-40BW 45Mbps)(PIFA Antenna) (5510MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

11020.000	16.474	35.760	52.233	-21.767	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
31860.000	*	*	*	*	74.000
37170.000	*	*	*	*	74.000

#### Average

#### Detector:

--

### Vertical

#### Peak Detector:

11020.000	17.224	36.670	53.894	-20.106	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
31860.000	*	*	*	*	74.000
37170.000	*	*	*	*	74.000

#### Average

#### Detector:

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#### Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 6 Transmit (802.11n-40BW 45Mbps)(PIFA Antenna) (5550MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

11100.000	16.681	35.110	51.791	-22.209	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
31860.000	*	*	*	*	74.000
37170.000	*	*	*	*	74.000

### Average

#### Detector:

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### Vertical

#### Peak Detector:

11100.000	17.523	35.470	52.993	-21.007	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
31860.000	*	*	*	*	74.000
37170.000	*	*	*	*	74.000

### Average

#### Detector:

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#### Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 6 Transmit (802.11n-40BW 45Mbps)(PIFA Antenna) (5670MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

**Horizontal****Peak Detector:**

11340.000	16.408	35.960	52.367	-21.633	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
31860.000	*	*	*	*	74.000
37170.000	*	*	*	*	74.000

**Average****Detector:**

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**Vertical****Peak Detector:**

11340.000	17.167	35.620	52.787	-21.213	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
31860.000	*	*	*	*	74.000
37170.000	*	*	*	*	74.000

**Average****Detector:**

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**Note:**

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)(Dipole Antenna) (5300MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
<b>Horizontal</b>					
<b>Peak Detector</b>					
132.820	-10.230	46.453	36.223	-7.277	43.500
338.460	-3.925	41.698	37.773	-8.227	46.000
450.980	-1.756	42.451	40.696	-5.304	46.000
600.360	3.977	32.774	36.751	-9.249	46.000
664.380	2.062	34.343	36.405	-9.595	46.000
800.180	5.141	32.866	38.007	-7.993	46.000
<b>Vertical</b>					
<b>Peak Detector</b>					
200.720	-7.835	43.100	35.265	-8.235	43.500
297.720	-7.143	43.648	36.506	-9.494	46.000
450.980	-7.106	41.175	34.070	-11.930	46.000
666.320	-1.809	35.185	33.377	-12.623	46.000
747.800	2.166	34.179	36.345	-9.655	46.000
875.840	1.621	34.640	36.261	-9.739	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : SpectraGuard® Access Point / Sensor  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)(Dipole Antenna) (5580MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
<b>Horizontal</b>					
<b>Peak Detector</b>					
297.720	-3.633	41.685	38.053	-7.947	46.000
352.040	-2.403	41.424	39.021	-6.979	46.000
406.360	-2.500	42.480	39.980	-6.020	46.000
499.480	0.048	35.825	35.873	-10.127	46.000
600.360	3.977	31.372	35.349	-10.651	46.000
802.120	5.091	34.740	39.831	-6.169	46.000
<b>Vertical</b>					
<b>Peak Detector</b>					
148.340	-6.244	36.506	30.262	-13.238	43.500
258.920	-7.490	40.940	33.450	-12.550	46.000
400.540	-5.156	38.517	33.362	-12.638	46.000
499.480	-0.852	35.500	34.648	-11.352	46.000
666.320	-1.809	35.558	33.750	-12.250	46.000
749.740	2.510	34.756	37.266	-8.734	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : SpectraGuard® Access Point / Sensor  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps)(Dipole Antenna) (5300MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
<b>Horizontal</b>					
<b>Peak Detector</b>					
266.680	-4.963	40.650	35.687	-10.313	46.000
367.560	-1.205	39.856	38.651	-7.349	46.000
499.480	0.048	34.653	34.701	-11.299	46.000
600.360	3.977	31.152	35.129	-10.871	46.000
664.380	2.062	33.498	35.560	-10.440	46.000
802.120	5.091	33.516	38.607	-7.393	46.000
<b>Vertical</b>					
<b>Peak Detector</b>					
128.940	-4.128	37.995	33.867	-9.633	43.500
276.380	-8.653	44.954	36.301	-9.699	46.000
348.160	-3.458	42.946	39.488	-6.512	46.000
450.980	-7.106	40.339	33.234	-12.766	46.000
664.380	-1.918	36.798	34.880	-11.120	46.000
747.800	2.166	34.992	37.158	-8.842	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : SpectraGuard® Access Point / Sensor  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps)(Dipole Antenna) (5580MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector

266.680	-4.963	42.341	37.378	-8.622	46.000
379.200	-1.005	40.390	39.384	-6.616	46.000
499.480	0.048	37.188	37.236	-8.764	46.000
664.380	2.062	33.267	35.329	-10.671	46.000
802.120	5.091	31.902	36.993	-9.007	46.000
914.640	6.083	29.650	35.733	-10.267	46.000

### Vertical

#### Peak Detector

146.400	-6.248	36.407	30.159	-13.341	43.500
249.220	-7.634	47.957	40.323	-5.677	46.000
332.640	-4.914	43.795	38.881	-7.119	46.000
400.540	-5.156	39.699	34.544	-11.456	46.000
534.400	-0.571	32.042	31.471	-14.529	46.000
749.740	2.510	34.147	36.657	-9.343	46.000

#### Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : SpectraGuard® Access Point / Sensor  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps)(Dipole Antenna) (5270MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
<b>Horizontal</b>					
<b>Peak Detector</b>					
245.340	-6.346	43.465	37.119	-8.881	46.000
377.260	-1.115	36.103	34.988	-11.012	46.000
499.480	0.048	34.447	34.495	-11.505	46.000
600.360	3.977	32.572	36.549	-9.451	46.000
664.380	2.062	35.808	37.870	-8.130	46.000
802.120	5.091	32.341	37.432	-8.568	46.000
<b>Vertical</b>					
<b>Peak Detector</b>					
200.720	-7.835	42.392	34.557	-8.943	43.500
278.320	-8.739	48.210	39.471	-6.529	46.000
361.740	-3.129	42.192	39.063	-6.937	46.000
499.480	-0.852	35.701	34.849	-11.151	46.000
664.380	-1.918	35.697	33.779	-12.221	46.000
749.740	2.510	35.124	37.634	-8.366	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : SpectraGuard® Access Point / Sensor  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps)(Dipole Antenna) (5550MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
<b>Horizontal</b>					
<b>Peak Detector</b>					
344.280	-2.591	31.917	29.327	-16.673	46.000
425.760	-3.093	34.896	31.803	-14.197	46.000
507.240	0.759	32.445	33.204	-12.796	46.000
608.120	4.384	26.575	30.959	-15.041	46.000
747.800	3.296	31.521	34.817	-11.183	46.000
809.880	5.049	31.098	36.147	-9.853	46.000
<b>Vertical</b>					
<b>Peak Detector</b>					
210.420	-7.882	44.396	36.515	-6.985	43.500
303.540	-6.794	39.563	32.769	-13.231	46.000
450.980	-7.106	40.434	33.329	-12.671	46.000
664.380	-1.918	35.638	33.720	-12.280	46.000
749.740	2.510	35.175	37.685	-8.315	46.000
875.840	1.621	27.030	28.651	-17.349	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : SpectraGuard® Access Point / Sensor  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna) (5300MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
<b>Horizontal</b>					
<b>Peak Detector</b>					
239.520	-6.851	43.823	36.973	-9.027	46.000
350.100	-2.332	42.424	40.092	-5.908	46.000
450.980	-1.756	42.498	40.743	-5.257	46.000
600.360	3.977	30.693	34.670	-11.330	46.000
666.320	2.031	33.283	35.315	-10.685	46.000
800.180	5.141	32.698	37.839	-8.161	46.000
<b>Vertical</b>					
<b>Peak Detector</b>					
146.400	-6.248	35.361	29.113	-14.387	43.500
255.040	-7.648	47.100	39.452	-6.548	46.000
369.500	-2.868	38.069	35.201	-10.799	46.000
450.980	-7.106	40.852	33.747	-12.253	46.000
664.380	-1.918	36.557	34.639	-11.361	46.000
802.120	3.161	31.791	34.952	-11.048	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : SpectraGuard® Access Point / Sensor  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna) (5580MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
<b>Horizontal</b>					
<b>Peak Detector</b>					
346.220	-2.213	39.756	37.543	-8.457	46.000
418.000	-3.234	39.022	35.788	-10.212	46.000
532.460	1.957	30.433	32.390	-13.610	46.000
600.360	3.977	32.153	36.130	-9.870	46.000
710.940	3.596	30.386	33.982	-12.018	46.000
809.880	5.049	32.344	37.393	-8.607	46.000
<b>Vertical</b>					
<b>Peak Detector</b>					
161.920	-6.696	36.734	30.039	-13.461	43.500
255.040	-7.648	45.221	37.573	-8.427	46.000
450.980	-7.106	39.748	32.643	-13.357	46.000
499.480	-0.852	35.277	34.425	-11.575	46.000
664.380	-1.918	35.638	33.720	-12.280	46.000
802.120	3.161	32.042	35.203	-10.797	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : SpectraGuard® Access Point / Sensor  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmit (802.11n-20BW 21.7Mbps)(PIFA Antenna) (5300MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
<b>Horizontal</b>					
<b>Peak Detector</b>					
357.860	-2.084	33.316	31.232	-14.768	46.000
499.480	0.048	34.610	34.658	-11.342	46.000
600.360	3.977	30.207	34.184	-11.816	46.000
664.380	2.062	33.132	35.194	-10.806	46.000
712.880	3.569	31.610	35.179	-10.821	46.000
800.180	5.141	32.073	37.214	-8.786	46.000

### Vertical

Peak Detector					
295.780	-7.455	39.852	32.397	-13.603	46.000
499.480	-0.852	36.090	35.238	-10.762	46.000
664.380	-1.918	36.557	34.639	-11.361	46.000
747.800	2.166	35.642	37.808	-8.192	46.000
800.180	2.801	32.255	35.056	-10.944	46.000
918.520	4.126	33.245	37.371	-8.629	46.000

### Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : SpectraGuard® Access Point / Sensor  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmit (802.11n-20BW 21.7Mbps)(PIFA Antenna) (5580MHz)

Frequency MHz	Correct Factor	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector</b>					
338.460	-3.925	42.367	38.442	-7.558	46.000
408.300	-2.866	34.815	31.949	-14.051	46.000
499.480	0.048	34.963	35.011	-10.989	46.000
600.360	3.977	30.878	34.855	-11.145	46.000
707.060	2.919	33.936	36.855	-9.145	46.000
800.180	5.141	33.114	38.255	-7.745	46.000
<b>Vertical</b>					
<b>Peak Detector</b>					
224.000	-8.699	46.356	37.657	-8.343	46.000
348.160	-3.458	38.938	35.480	-10.520	46.000
499.480	-0.852	35.593	34.741	-11.259	46.000
664.380	-1.918	35.617	33.699	-12.301	46.000
802.120	3.161	31.812	34.973	-11.027	46.000
899.120	3.063	27.621	30.684	-15.316	46.000

**Note:**

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : SpectraGuard® Access Point / Sensor  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 6 Transmit (802.11n-40BW 45Mbps)(PIFA Antenna) (5270MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
<b>Horizontal</b>					
<b>Peak Detector</b>					
105.660	-6.673	44.172	37.499	-6.001	43.500
340.400	-3.859	39.137	35.278	-10.722	46.000
425.760	-3.093	35.551	32.458	-13.542	46.000
582.900	3.445	28.894	32.339	-13.661	46.000
714.820	3.562	31.466	35.028	-10.972	46.000
800.180	5.141	32.689	37.830	-8.170	46.000
<b>Vertical</b>					
<b>Peak Detector</b>					
130.880	-4.239	42.454	38.215	-5.285	43.500
286.080	-8.097	44.311	36.214	-9.786	46.000
400.540	-5.156	38.129	32.974	-13.026	46.000
499.480	-0.852	35.055	34.203	-11.797	46.000
664.380	-1.918	36.167	34.249	-11.751	46.000
800.180	2.801	32.197	34.998	-11.002	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : SpectraGuard® Access Point / Sensor  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 6 Transmit (802.11n-40BW 45Mbps)(PIFA Antenna) (5550MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector</b>					
97.900	-7.650	42.583	34.932	-8.568	43.500
373.380	-1.163	36.898	35.735	-10.265	46.000
499.480	0.048	34.843	34.891	-11.109	46.000
600.360	3.977	30.602	34.579	-11.421	46.000
664.380	2.062	32.788	34.850	-11.150	46.000
800.180	5.141	31.561	36.702	-9.298	46.000
<b>Vertical</b>					
<b>Peak Detector</b>					
140.580	-6.241	37.737	31.496	-12.004	43.500
249.220	-7.634	48.498	40.864	-5.136	46.000
386.960	-3.064	37.909	34.845	-11.155	46.000
507.240	-0.471	34.745	34.274	-11.726	46.000
666.320	-1.809	35.868	34.060	-11.940	46.000
802.120	3.161	32.277	35.438	-10.562	46.000

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

## 7. Band Edge

### 7.1. Test Equipment

#### RF Conducted Measurement

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

Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2013
Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2013
X 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:

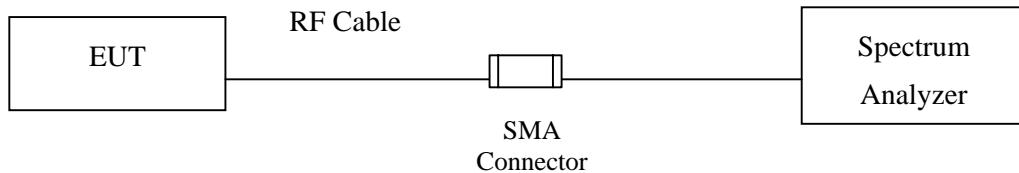
The following test equipments are used during the band edge tests:

Test Site	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒Site # 3	Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2012
	X Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2012
	Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2013
	Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2013
	X Pre-Amplifier	QTK	AP-180C / CHM_0906076	Sep., 2012
	Pre-Amplifier	MITEQ	AMF-4D-180400-45-6P/925975	Mar, 2013
	X Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2013
	Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2012
	X Coaxial Cable	Quietek	QTK-CABLE/ CAB5	Feb., 2013
	X Controller	Quietek	QTK-CONTROLLER/ CTRL3	N/A
	X Coaxial Switch	Anritsu	MP59B/6200265729	N/A

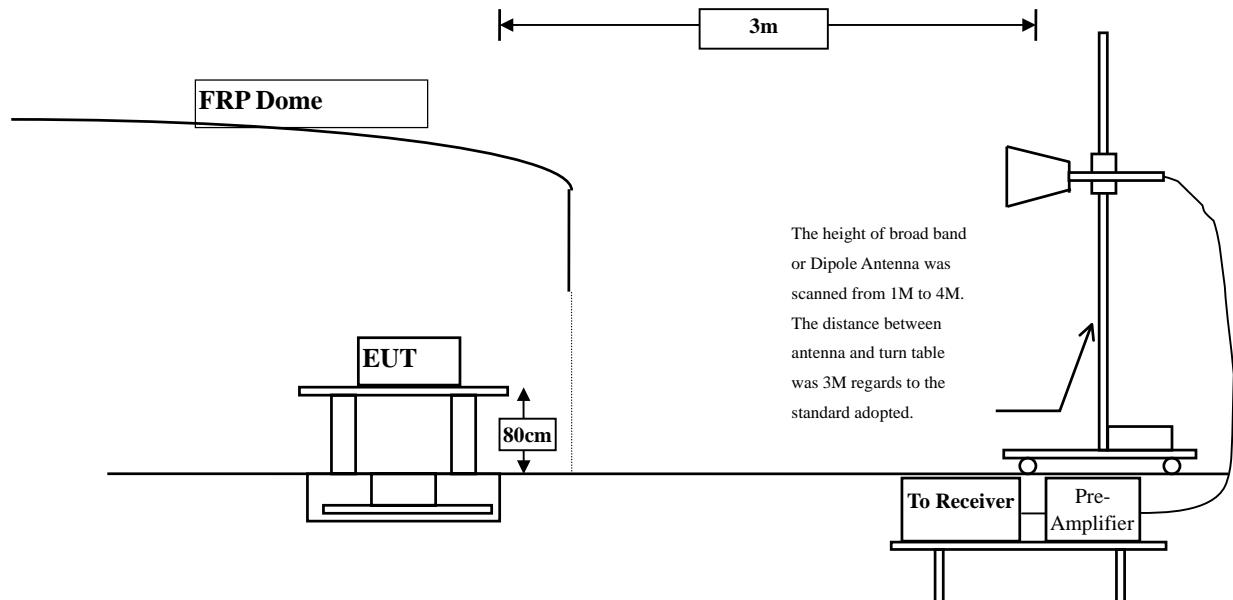
- Note:
1. All instruments are calibrated every one year.
  2. The test instruments marked by "X" are used to measure the final test results.

## 7.2. Test Setup

### RF Conducted Measurement:



### RF Radiated Measurement:



### 7.3. Limits

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

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

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

- Remarks :
1. RF Voltage (dBuV) =  $20 \log_{10}$  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

± 3.8 dB below 1GHz

± 3.9 dB above 1GHz

## 7.6. Test Result of Band Edge

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)(Dipole Antenna) -Channel 64

### RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
64 (Peak)	5320.800	3.810	107.827	111.637	--	--	Pass
64 (Peak)	5350.000	3.716	62.840	66.557	74.00	54.00	Pass
64 (Average)	5320.600	3.810	97.768	101.578	--	--	Pass
64 (Average)	5350.000	3.716	42.876	46.593	74.00	54.00	Pass

Figure Channel 64:

Horizontal (Peak)

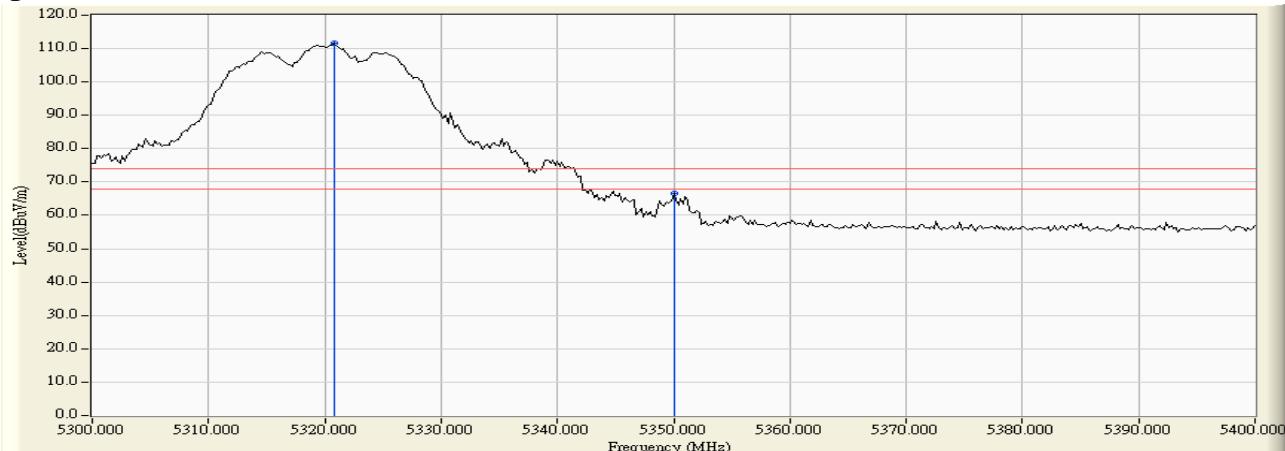
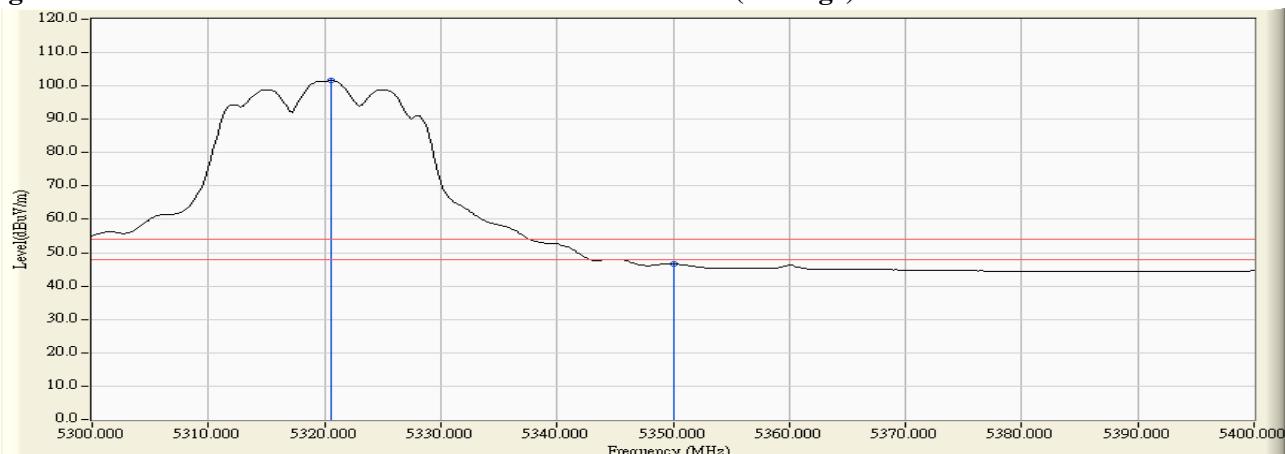


Figure Channel 64:

Horizontal (Average)



#### Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)(Dipole Antenna) -Channel 64

#### RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
64 (Peak)	5318.000	5.732	96.288	102.020	--	--	Pass
64 (Peak)	5350.000	5.691	48.001	53.693	74.00	54.00	Pass
64 (Average)	5318.200	5.731	86.151	91.882	--	--	Pass
64 (Average)	5350.000	5.691	32.536	38.228	74.00	54.00	Pass

Figure Channel 64:

Vertical (Peak)

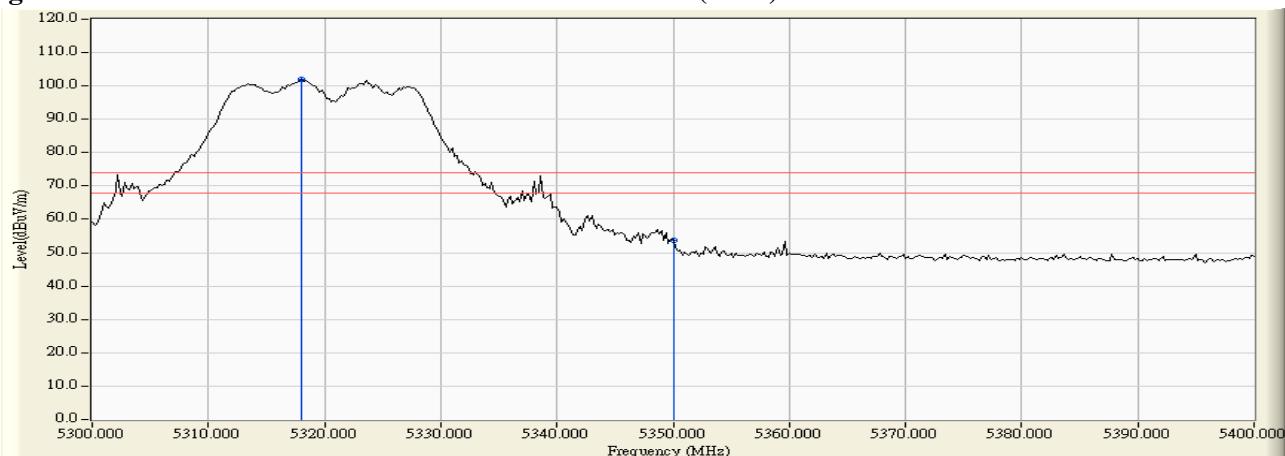
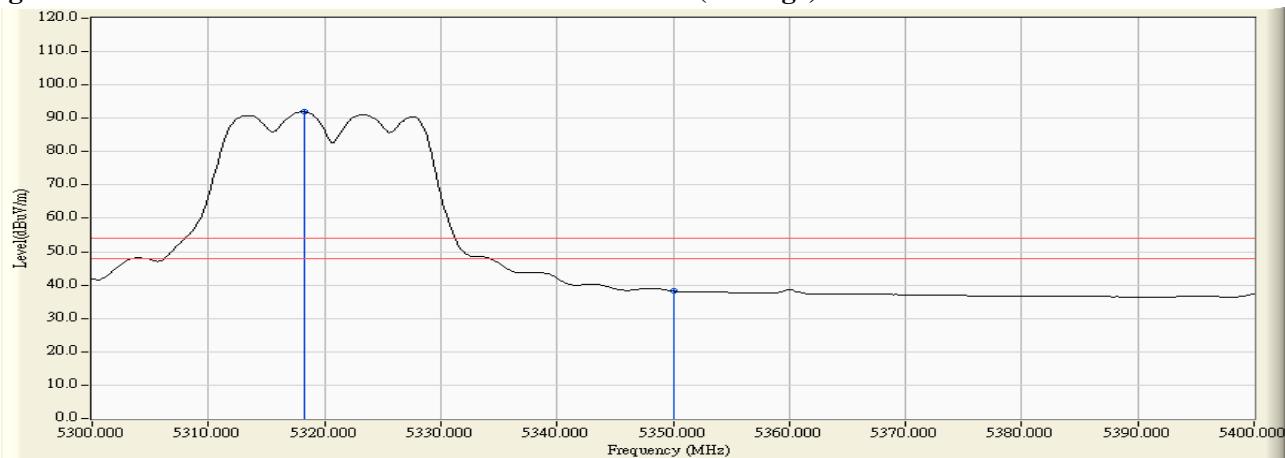


Figure Channel 64:

Vertical (Average)



Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)(Dipole Antenna) -Channel 100

#### RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
100 (Peak)	5460.000	4.354	45.089	49.443	74.00	54.00	Pass
100 (Peak)	5493.400	4.769	100.976	105.745	--	--	Pass
100 (Average)	5460.000	4.354	33.407	37.761	74.00	54.00	Pass
100 (Average)	5493.400	4.769	90.873	95.642	--	--	Pass

Figure Channel 100:

Horizontal (Peak)

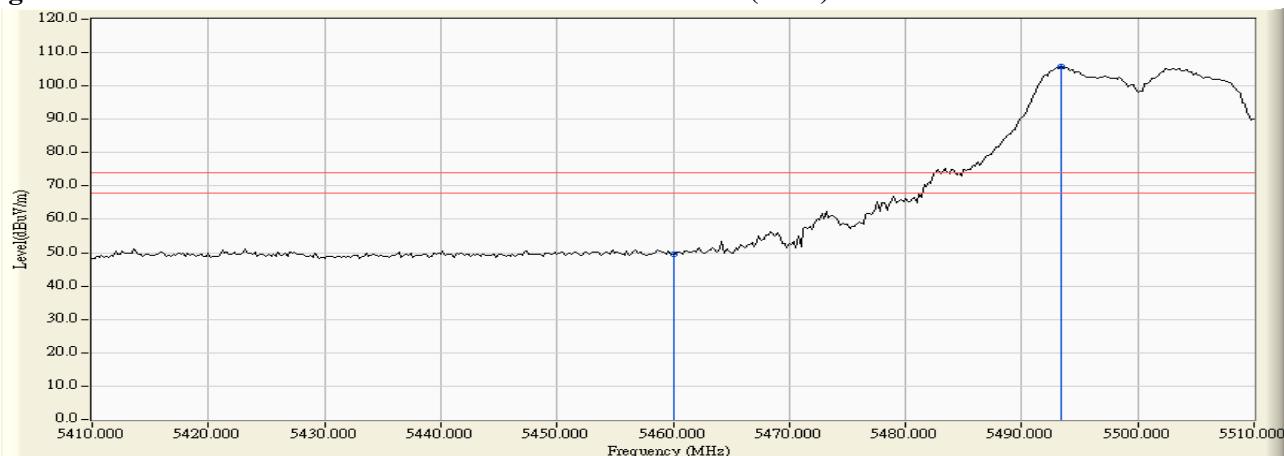
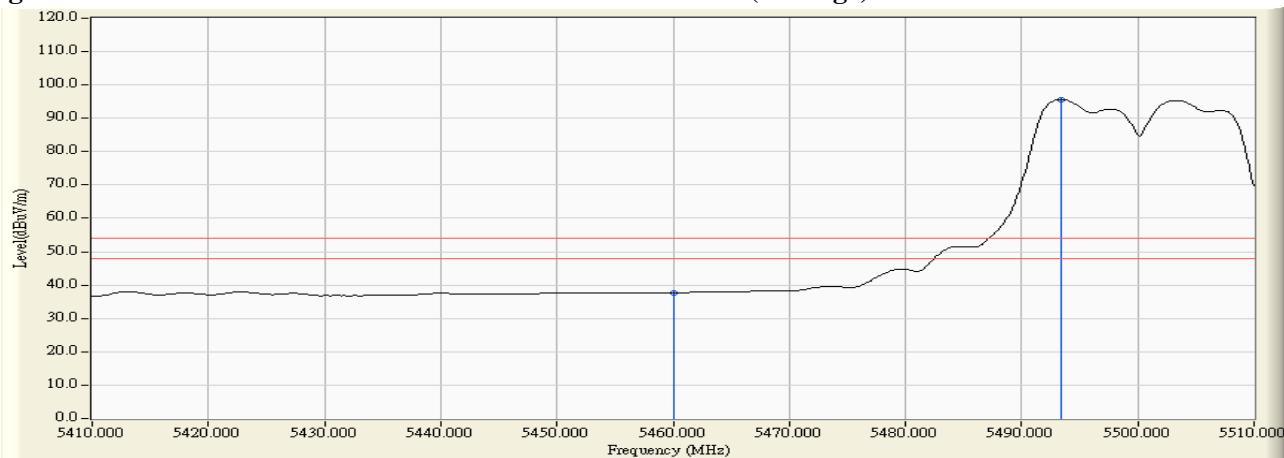


Figure Channel 100:

Horizontal (Average)



Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)(Dipole Antenna) -Channel 100

#### RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
100 (Peak)	5460.000	6.041	43.547	49.588	74.00	54.00	Pass
100 (Peak)	5495.200	6.260	95.490	101.750	--	--	Pass
100 (Average)	5460.000	6.041	30.796	36.837	74.00	54.00	Pass
100 (Average)	5495.600	6.261	84.754	91.016	--	--	Pass

Figure Channel 100:

Vertical (Peak)

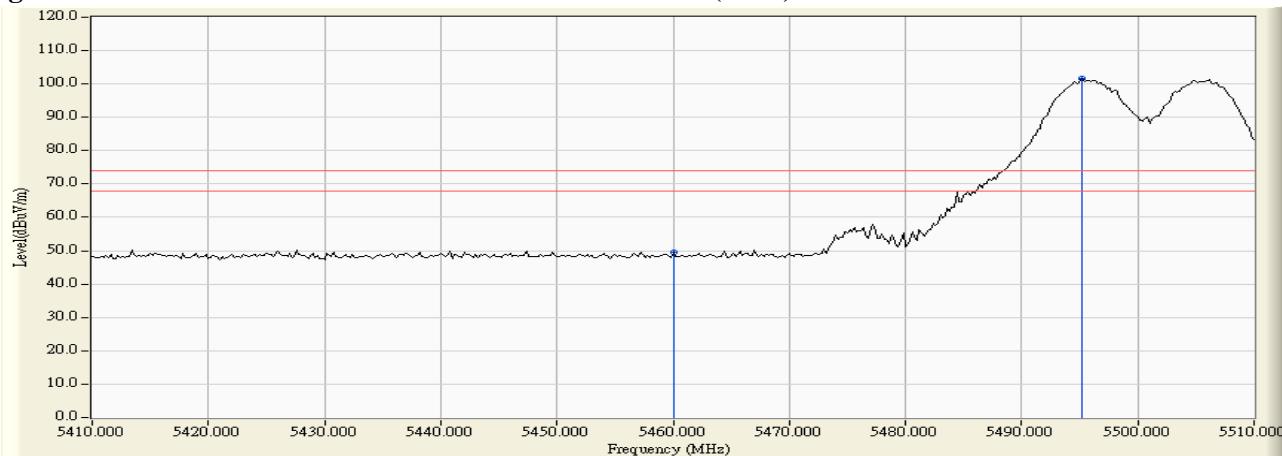
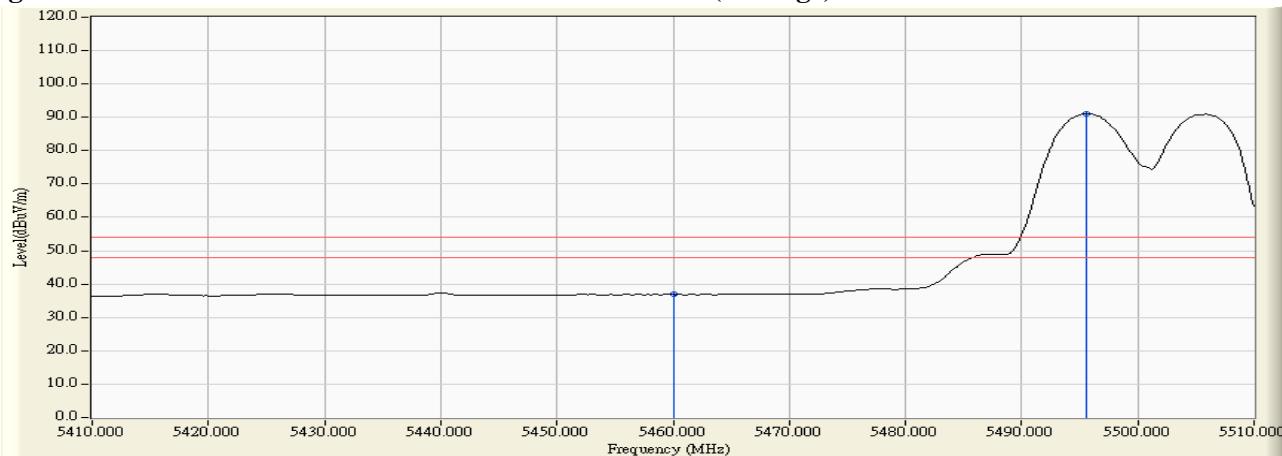


Figure Channel 100:

Vertical (Average)



Note:

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

Product : SpectraGuard® Access Point / Sensor  
Test Item : Band Edge Data  
Test Site : No.3 OATS  
Test Mode : Mode 1: Transmit (802.11a-6Mbps)(Dipole Antenna) -Channel 100

**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	-66.620	-48.286	-21.286	-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	-68.480	-49.145	-22.145	-27.000	Pass

Product : SpectraGuard® Access Point / Sensor  
Test Item : Band Edge Data  
Test Site : No.3 OATS  
Test Mode : Mode 1: Transmit (802.11a-6Mbps)(Dipole Antenna) -Channel 140

**RF Radiated Measurement:**

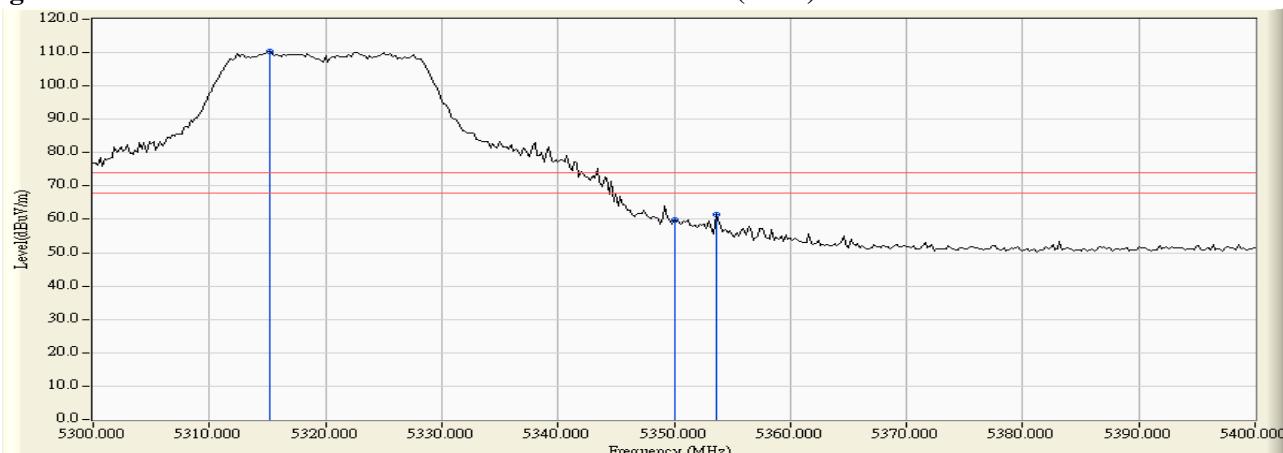
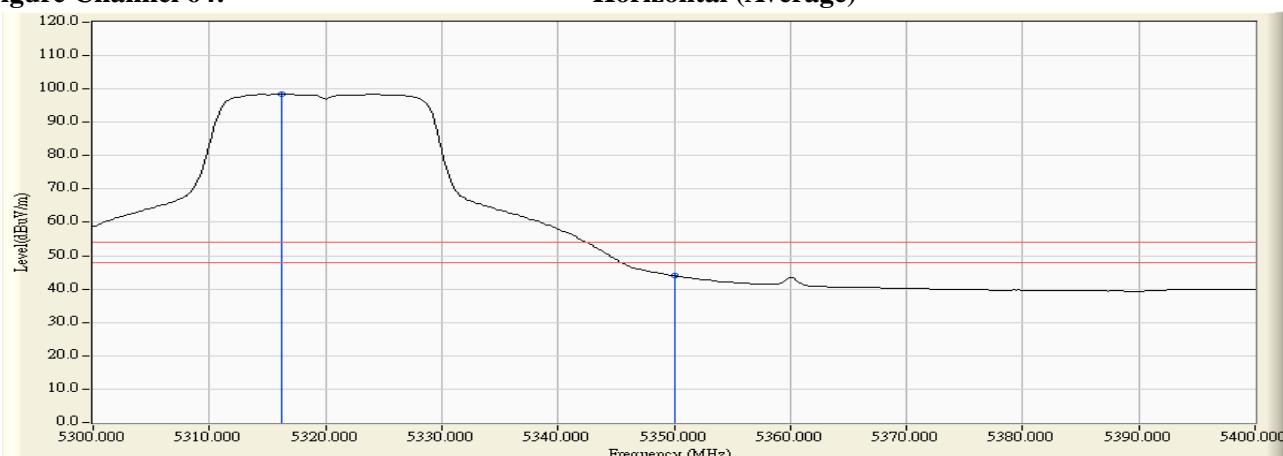
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5725.000	18.649	-65.670	-47.021	-20.021	-27.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5725.000	19.372	-68.970	-49.598	-22.598	-27.000	Pass

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps)(Dipole Antenna) -Channel 64

#### RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
64 (Peak)	5315.200	3.827	106.534	110.362	--	--	Pass
64 (Peak)	5350.000	3.716	56.075	59.792	74.00	54.00	Pass
64 (Peak)	5353.600	3.705	57.713	61.418	74.00	54.00	Pass
64 (Average)	5316.200	3.824	94.598	98.422	--	--	Pass
64 (Average)	5350.000	3.716	40.303	44.020	74.00	54.00	Pass

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

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


Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps)(Dipole Antenna) -Channel 64

#### RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
64 (Peak)	5317.600	5.732	97.612	103.344	--	--	Pass
64 (Peak)	5350.000	5.691	49.353	55.045	74.00	54.00	Pass
64 (Average)	5316.200	5.733	85.408	91.142	--	--	Pass
64 (Average)	5350.000	5.691	33.986	39.678	74.00	54.00	Pass

Figure Channel 64:

Vertical (Peak)

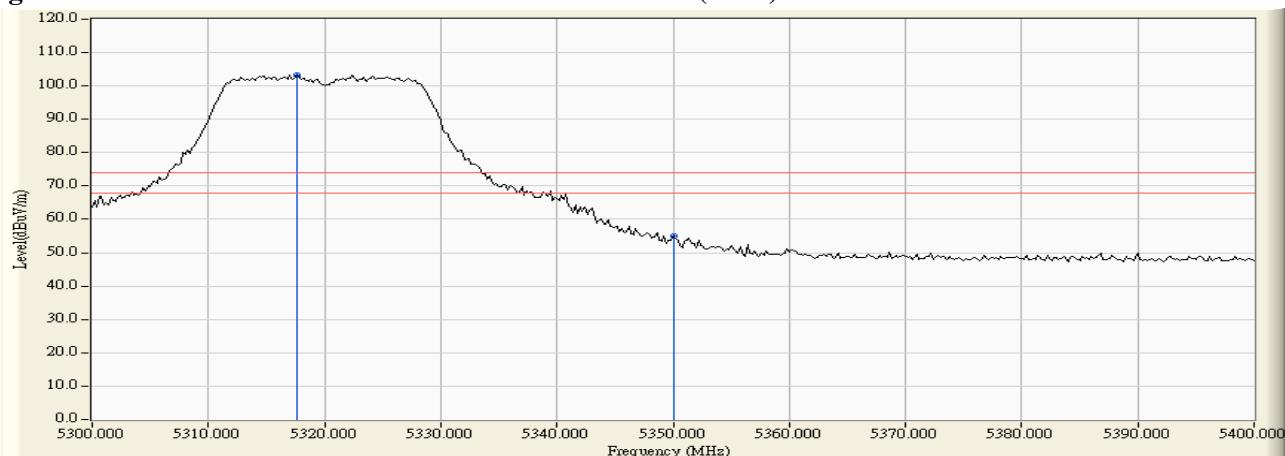
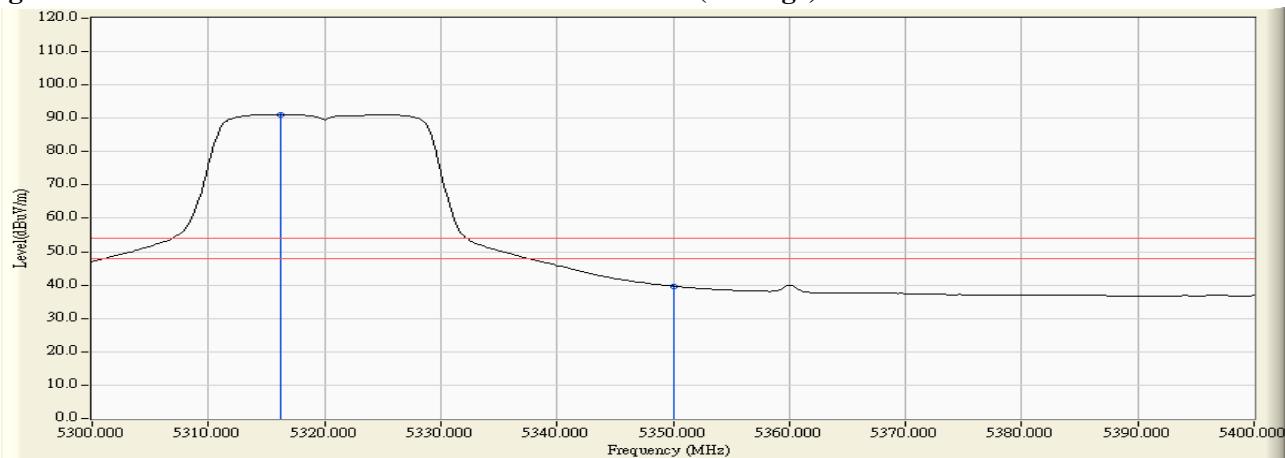


Figure Channel 64:

Vertical (Average)



Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps)(Dipole Antenna) -Channel 100

#### RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
100 (Peak)	5456.400	4.305	51.217	55.523	74.00	54.00	Pass
100 (Peak)	5460.000	4.354	49.274	53.628	74.00	54.00	Pass
100 (Peak)	5496.200	4.788	105.852	110.640	--	--	Pass
100 (Average)	5460.000	4.354	36.386	40.740	74.00	54.00	Pass
100 (Average)	5496.400	4.789	93.884	98.674	--	--	Pass

Figure Channel 100:

Horizontal (Peak)

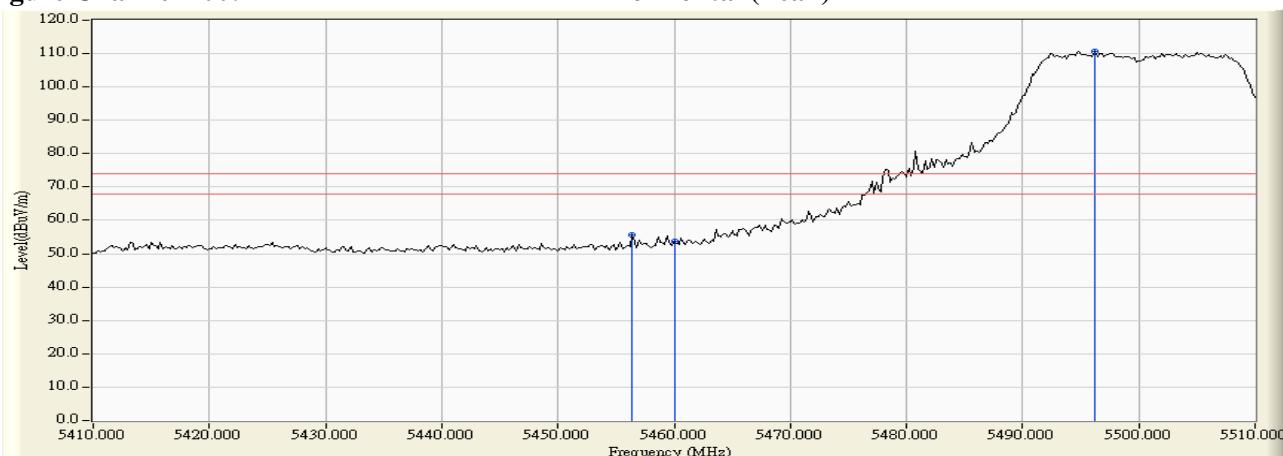
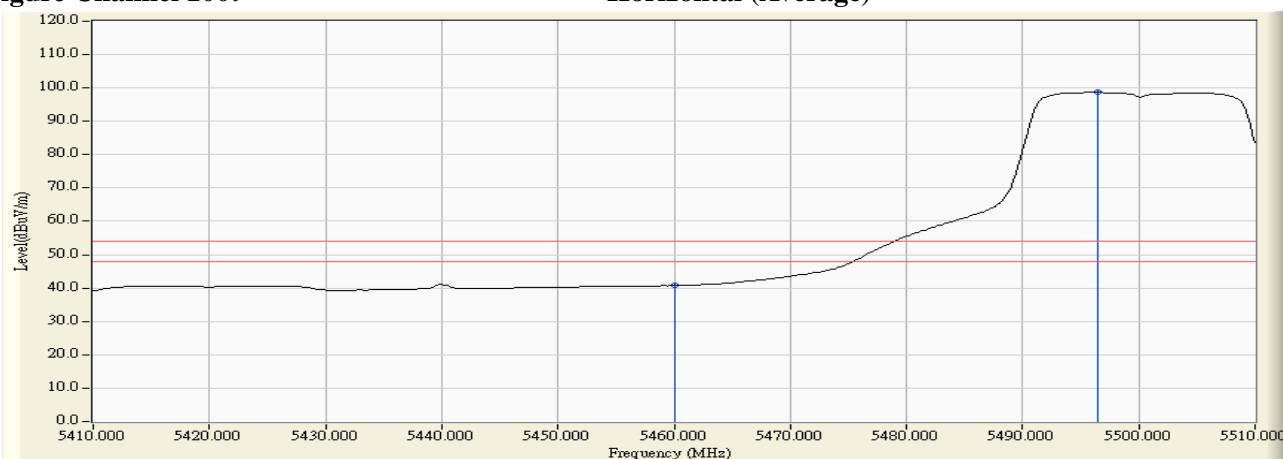


Figure Channel 100:

Horizontal (Average)



Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps)(Dipole Antenna) -Channel 100

#### RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
100 (Peak)	5460.000	6.041	43.394	49.435	74.00	54.00	Pass
100 (Peak)	5495.000	6.260	95.159	101.419	--	--	Pass
100 (Average)	5460.000	6.041	31.253	37.294	74.00	54.00	Pass
100 (Average)	5495.400	6.261	82.886	89.147	--	--	Pass

Figure Channel 100:

Vertical (Peak)

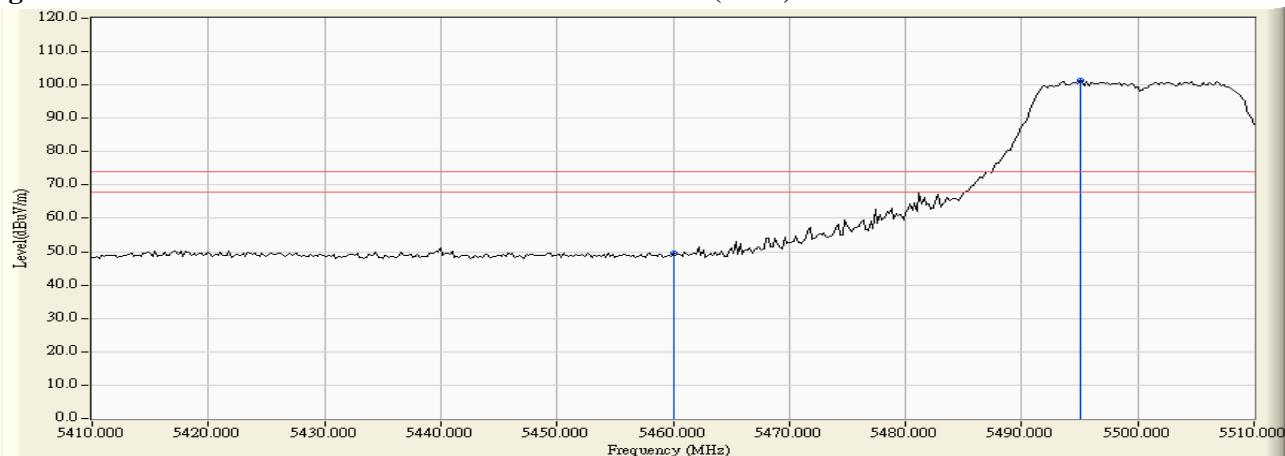
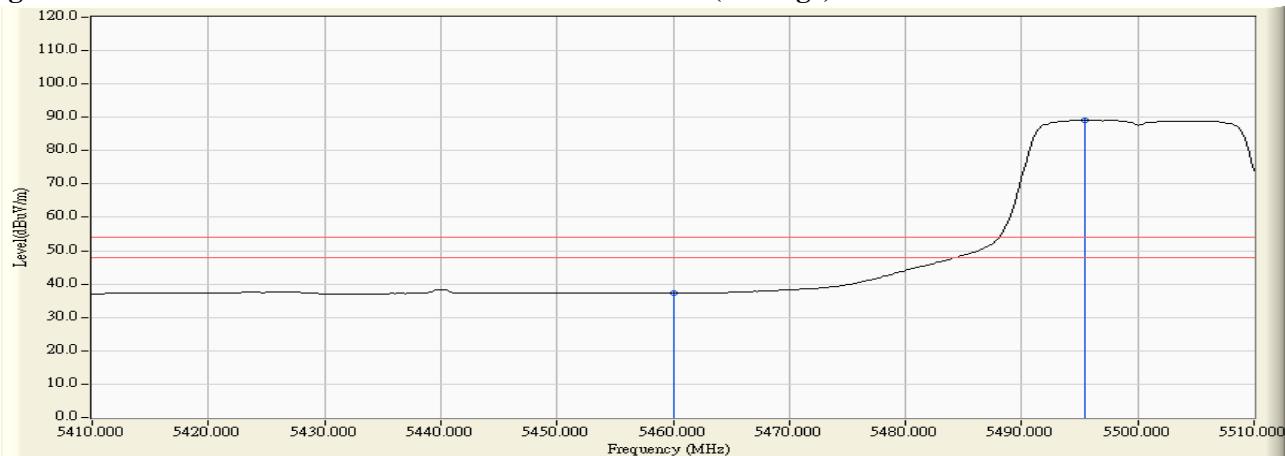


Figure Channel 100:

Vertical (Average)



Note:

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

Product : SpectraGuard® Access Point / Sensor  
Test Item : Band Edge Data  
Test Site : No.3 OATS  
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps)(Dipole Antenna) -Channel 100

**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	-66.180	-47.846	-20.846	-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	-68.600	-49.265	-22.265	-27.000	Pass

Product : SpectraGuard® Access Point / Sensor  
Test Item : Band Edge Data  
Test Site : No.3 OATS  
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps)(Dipole Antenna) -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	-64.010	-45.361	-18.361	-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	-68.910	-49.538	-22.538	-27.000	Pass

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps)(Dipole Antenna) -Channel 62

#### RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
62 (Peak)	5318.600	3.817	101.068	104.885	--	--	Pass
62 (Peak)	5350.000	3.716	63.921	67.638	74.00	54.00	Pass
62 (Average)	5321.200	3.809	88.714	92.523	--	--	Pass
62 (Average)	5350.000	3.716	43.563	47.280	74.00	54.00	Pass

Figure Channel 62:

Horizontal (Peak)

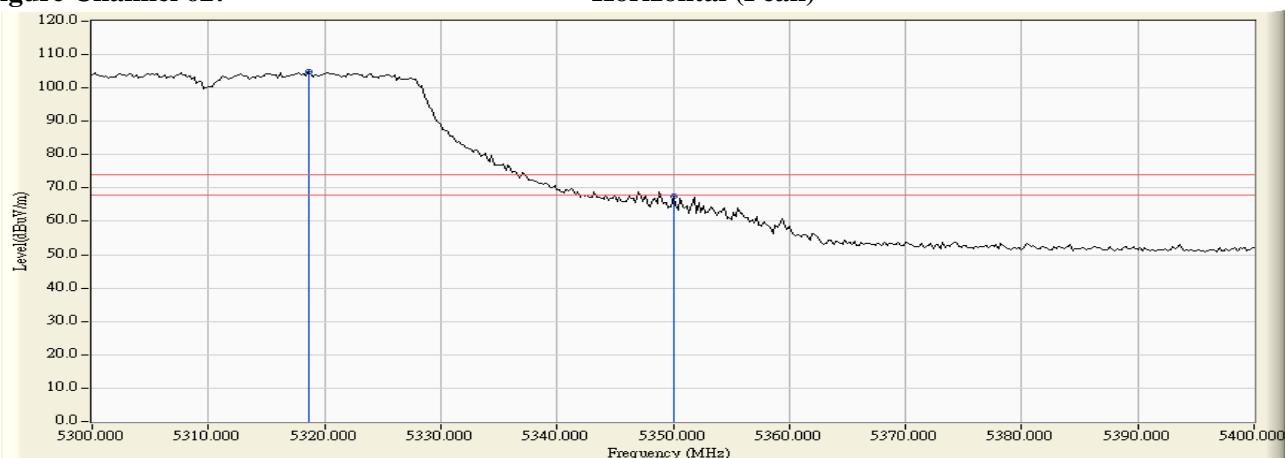
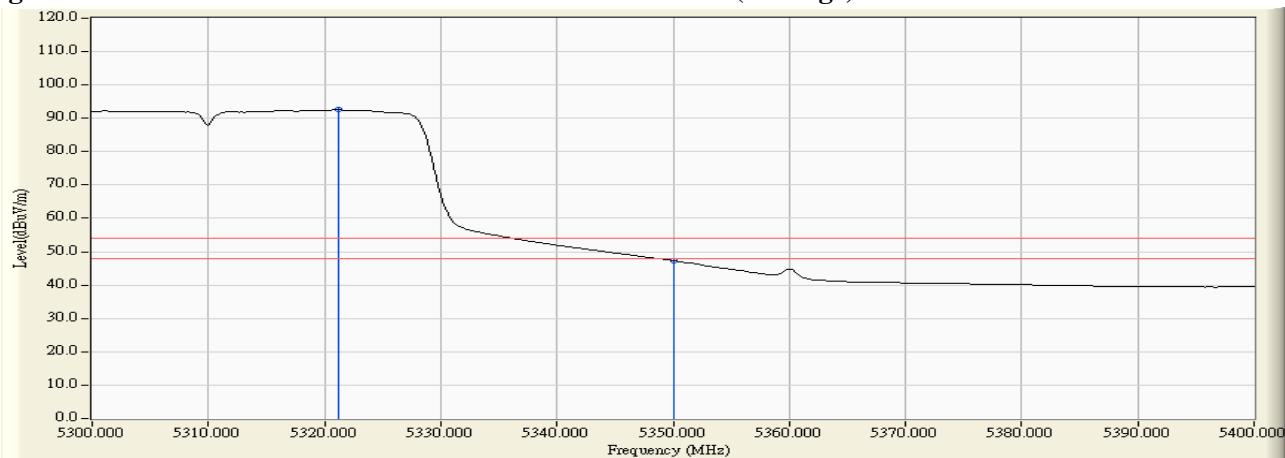


Figure Channel 62:

Horizontal (Average)



Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps)(Dipole Antenna) -Channel 62

#### RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
62 (Peak)	5312.000	5.739	91.152	96.891	--	--	Pass
62 (Peak)	5350.000	5.691	48.916	54.608	74.00	54.00	Pass
62 (Average)	5317.800	5.732	78.985	84.717	--	--	Pass
62 (Average)	5350.000	5.691	33.124	38.816	74.00	54.00	Pass

Figure Channel 62:

Vertical (Peak)

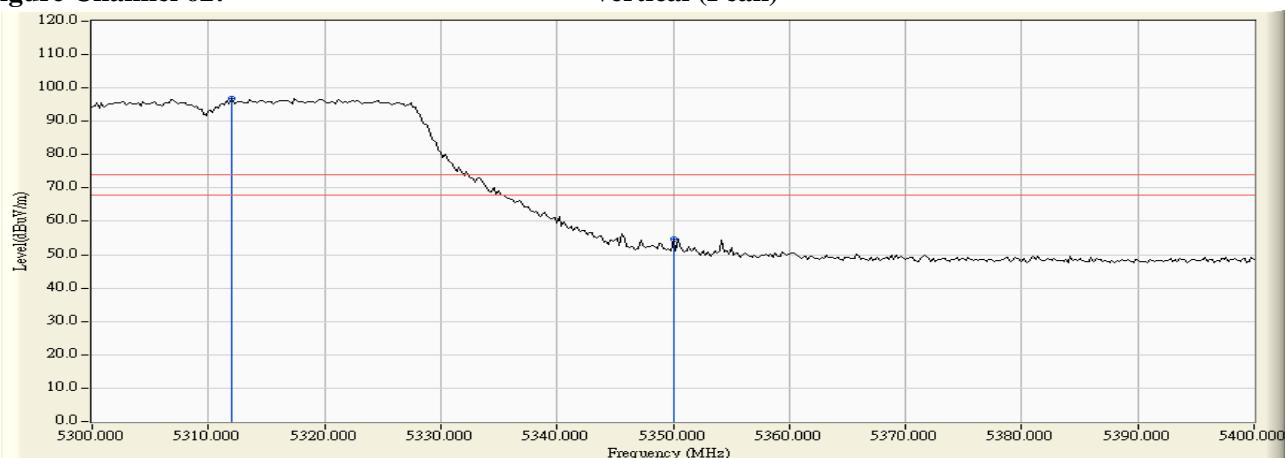
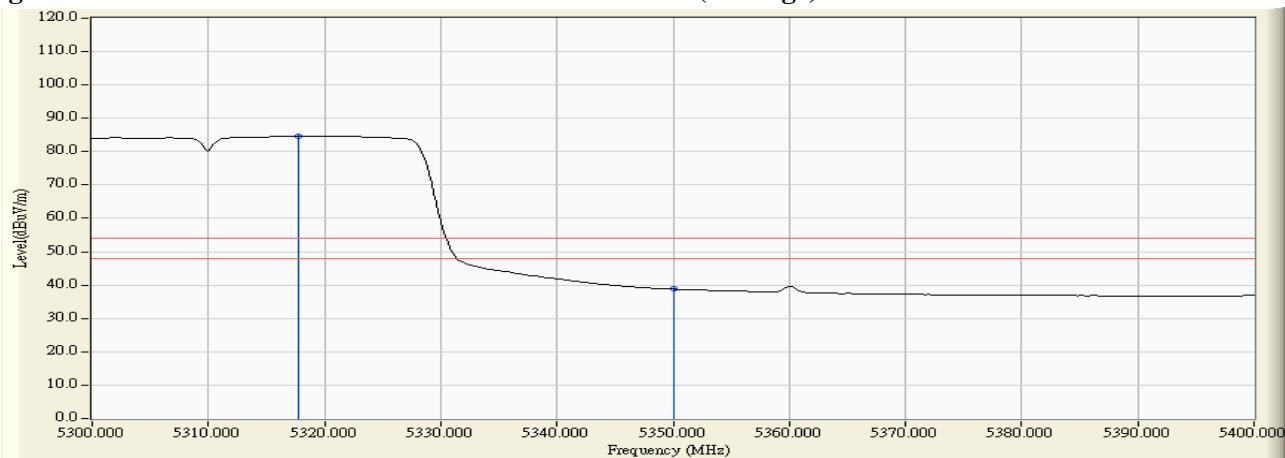


Figure Channel 62:

Vertical (Average)



Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps)(Dipole Antenna) -Channel 102

#### RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
102 (Peak)	5460.000	4.354	57.271	61.625	74.00	54.00	Pass
102 (Peak)	5521.800	4.714	103.016	107.730	--	--	Pass
102 (Average)	5460.000	4.354	40.107	44.461	74.00	54.00	Pass
102 (Average)	5521.500	4.717	90.448	95.165	--	--	Pass

Figure Channel 102:

Horizontal (Peak)

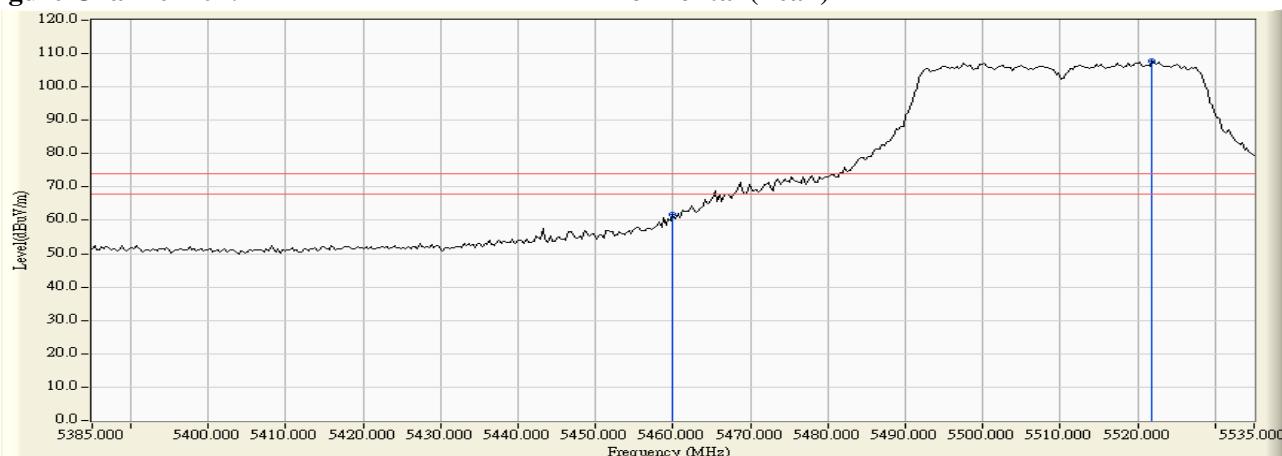
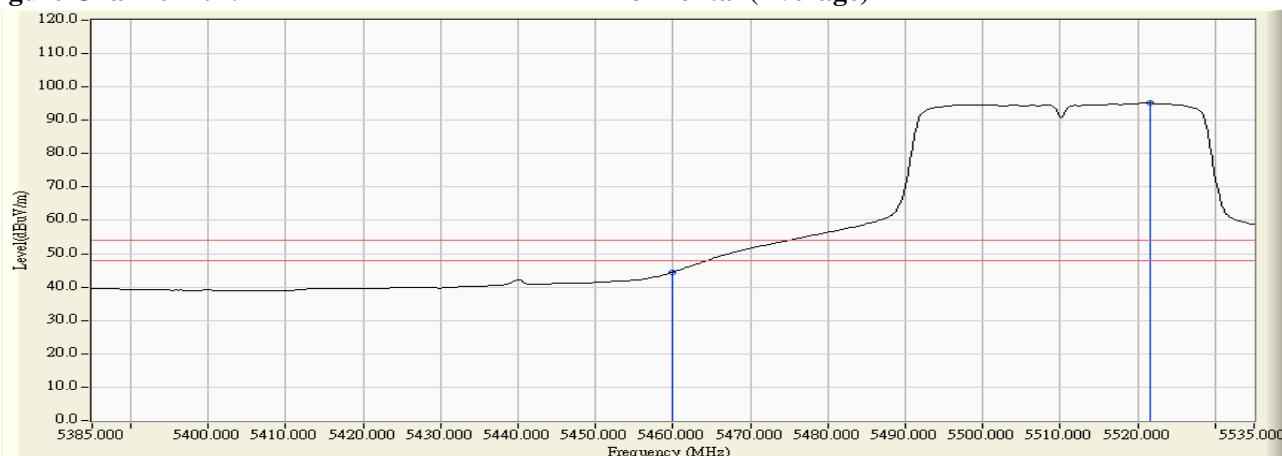


Figure Channel 102:

Horizontal (Average)



Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps)(Dipole Antenna) -Channel 102

#### RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
102 (Peak)	5460.000	6.041	44.747	50.788	74.00	54.00	Pass
102 (Peak)	5499.600	6.274	90.931	97.205	--	--	Pass
102 (Average)	5460.000	6.041	32.476	38.517	74.00	54.00	Pass
102 (Average)	5498.400	6.270	78.930	85.200	--	--	Pass

Figure Channel 102:

Vertical (Peak)

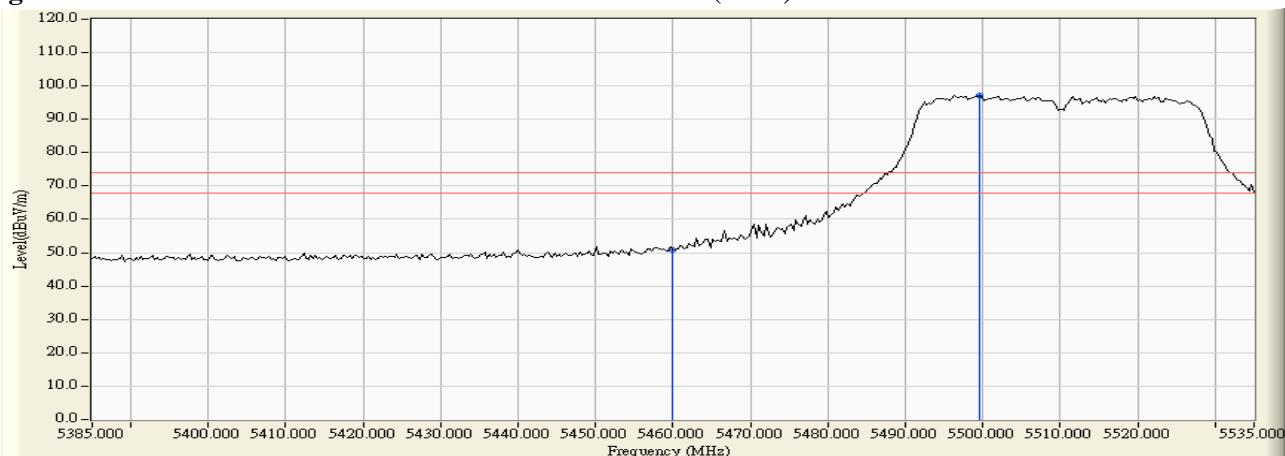
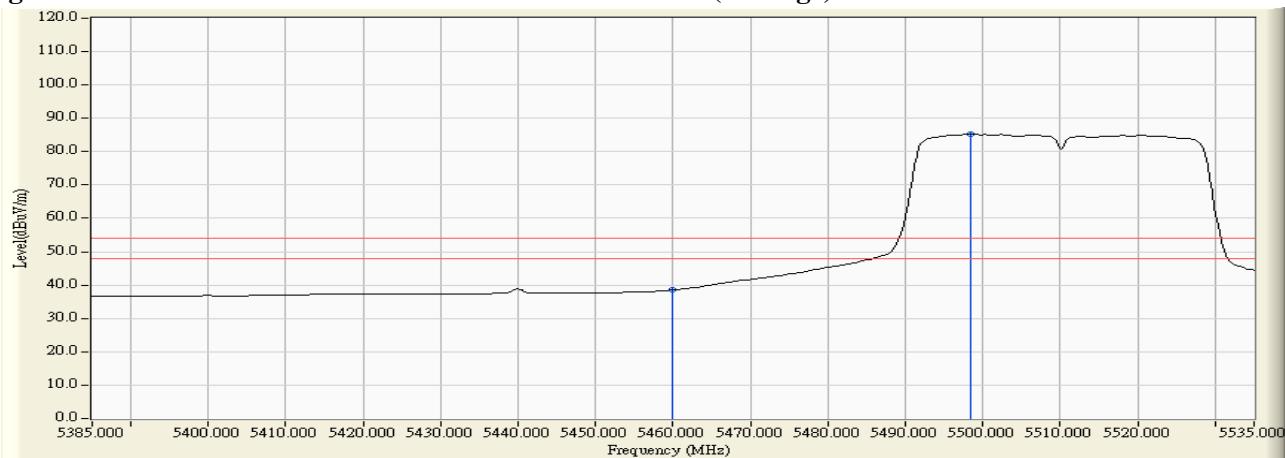


Figure Channel 102:

Vertical (Average)



Note:

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

Product : SpectraGuard® Access Point / Sensor  
Test Item : Band Edge Data  
Test Site : No.3 OATS  
Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps)(Dipole Antenna) -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	-61.560	-43.226	-16.226	-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	-68.280	-48.945	-21.945	-27.000	Pass

Product : SpectraGuard® Access Point / Sensor  
Test Item : Band Edge Data  
Test Site : No.3 OATS  
Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps)(Dipole Antenna) -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	-66.560	-47.911	-20.911	-27.000	Pass

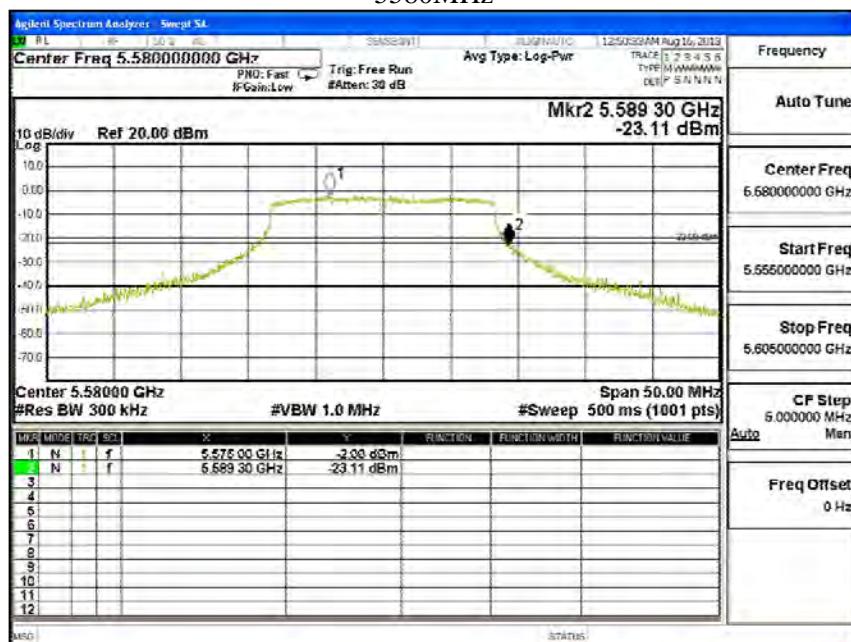
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5725.000	19.372	-69.070	-49.698	-22.698	-27.000	Pass

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)(Dipole Antenna)

**Chain A**

Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5580	5589.30	<5600	PASS
5660	5650.55	>5650	PASS

NOTE: The 5600~5650MHz band is not used in accordance with 15.215 requirement.  
5580MHz


**5660MHz**


Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)(Dipole Antenna)

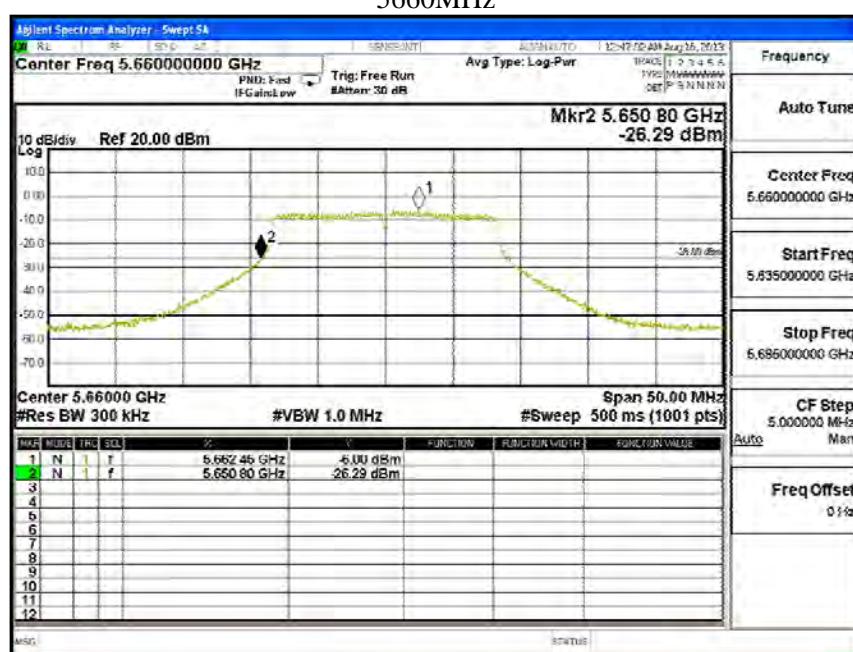
**Chain B**

Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5580	5589.35	<5600	PASS
5660	5650.80	>5650	PASS

NOTE: The 5600~5650MHz band is not used in accordance with 15.215 requirement.  
5580MHz



5660MHz

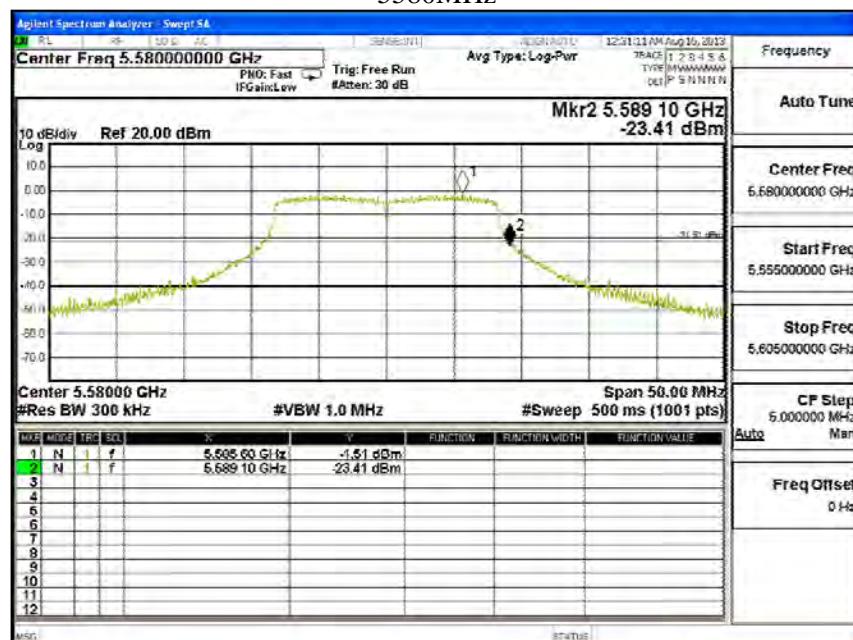


Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)(Dipole Antenna)

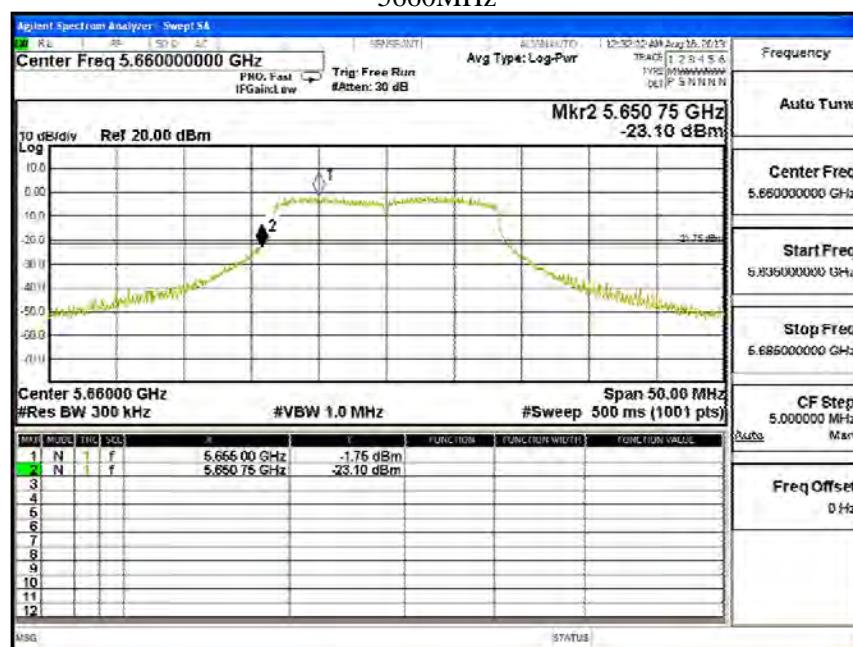
**Chain C**

Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5580	5589.10	<5600	PASS
5660	5650.75	>5650	PASS

NOTE: The 5600~5650MHz band is not used in accordance with 15.215 requirement.  
5580MHz



5660MHz

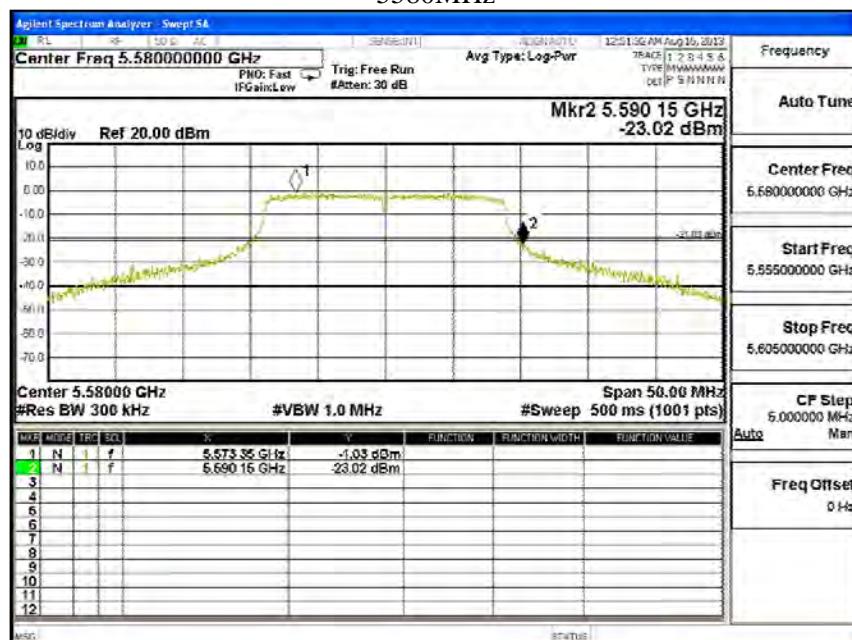


Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps)(Dipole Antenna)

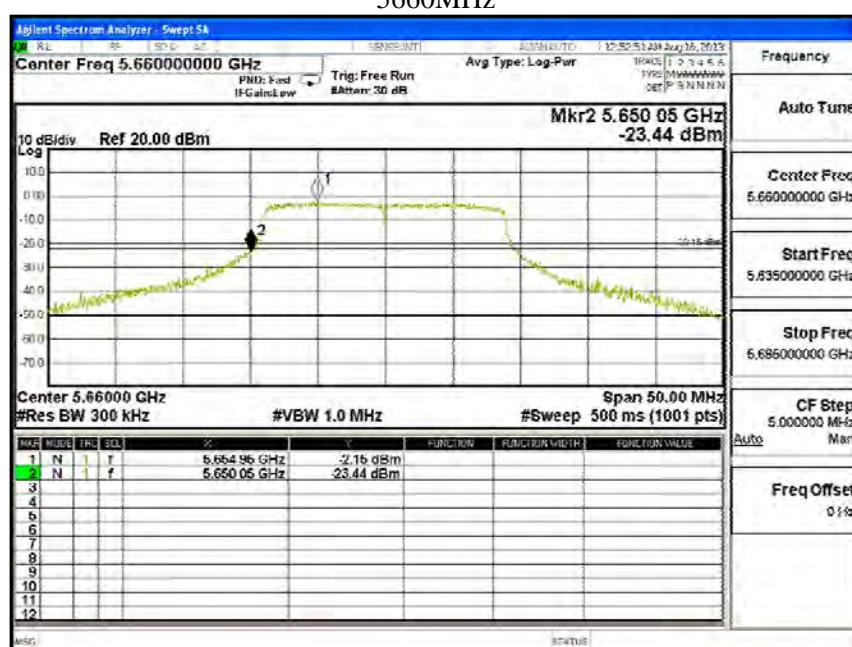
**Chain A**

Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5580	5590.15	<5600	PASS
5660	5650.05	>5650	PASS

NOTE: The 5600~5650MHz band is not used in accordance with 15.215 requirement.  
5580MHz



5660MHz

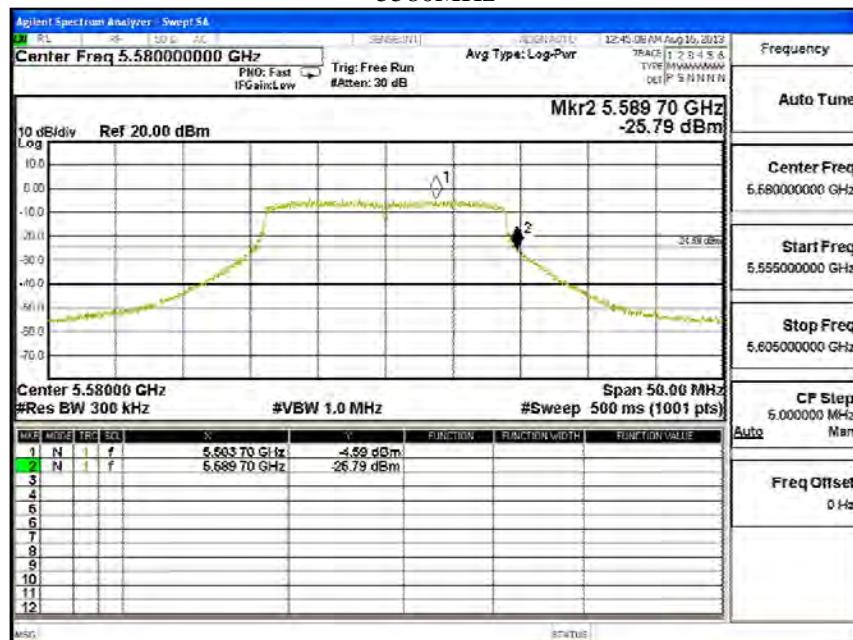


Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps)(Dipole Antenna)

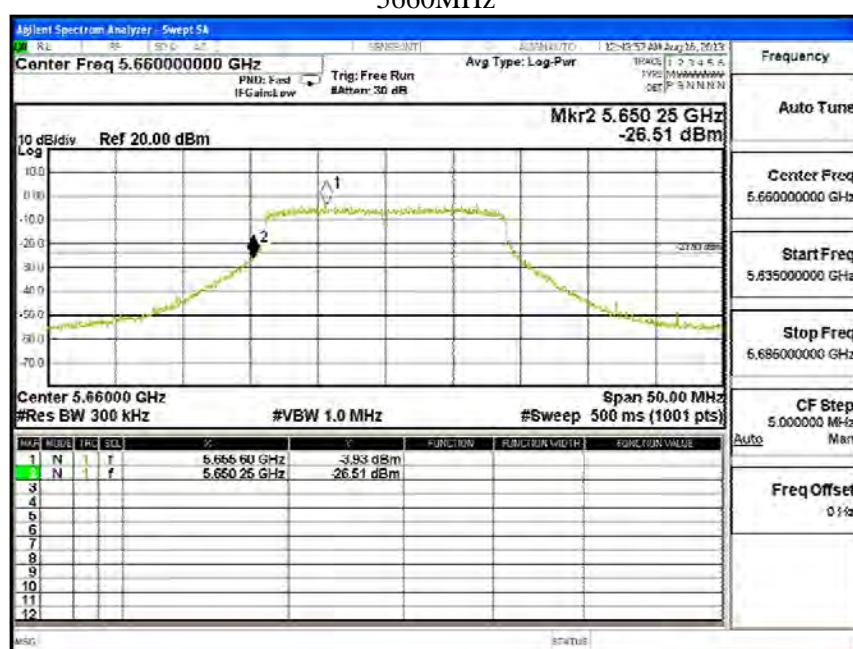
**Chain B**

Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5580	5589.70	<5600	PASS
5660	5650.25	>5650	PASS

NOTE: The 5600~5650MHz band is not used in accordance with 15.215 requirement.  
5580MHz



5660MHz

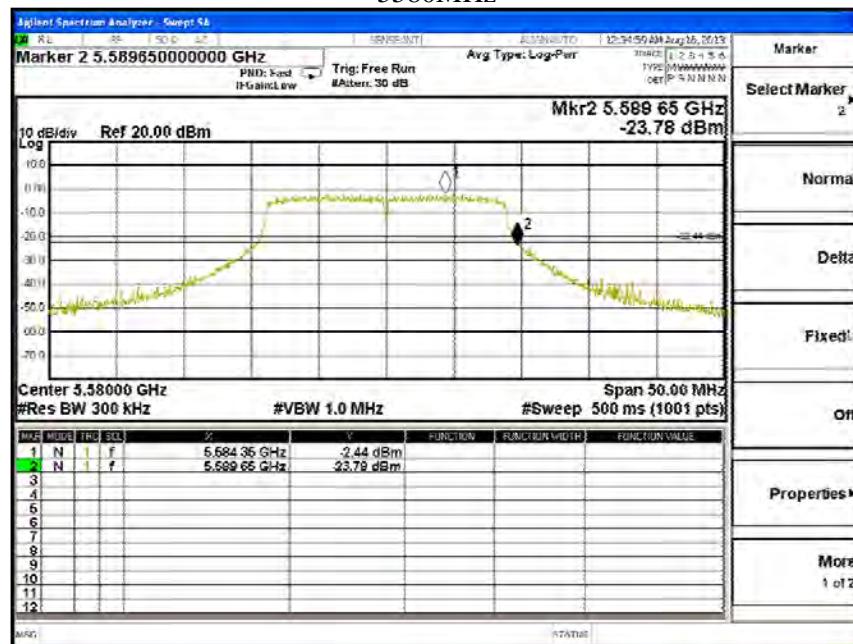


Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps)(Dipole Antenna)

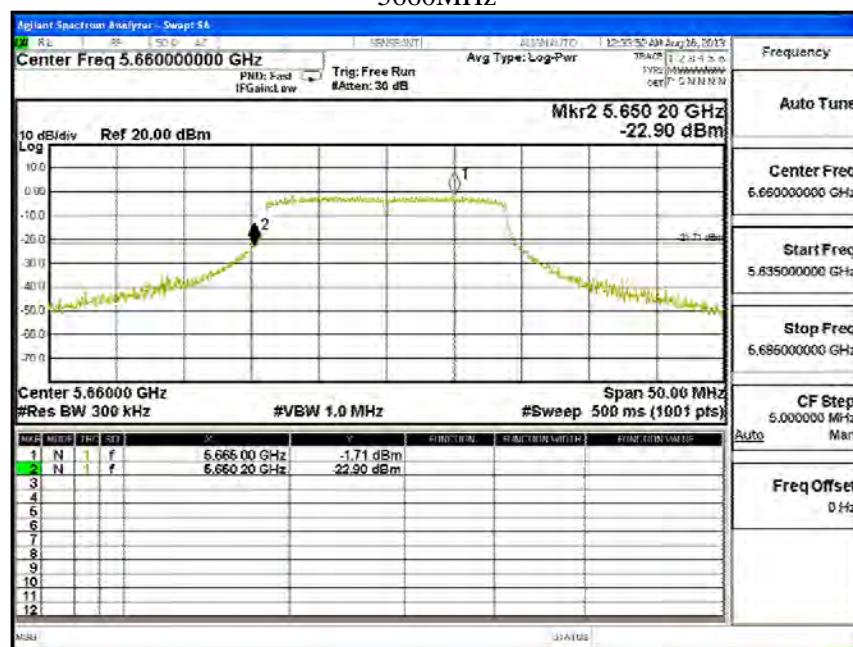
### Chain C

Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5580	5589.65	<5600	PASS
5660	5650.20	>5650	PASS

NOTE: The 5600~5650MHz band is not used in accordance with 15.215 requirement.  
5580MHz



5660MHz

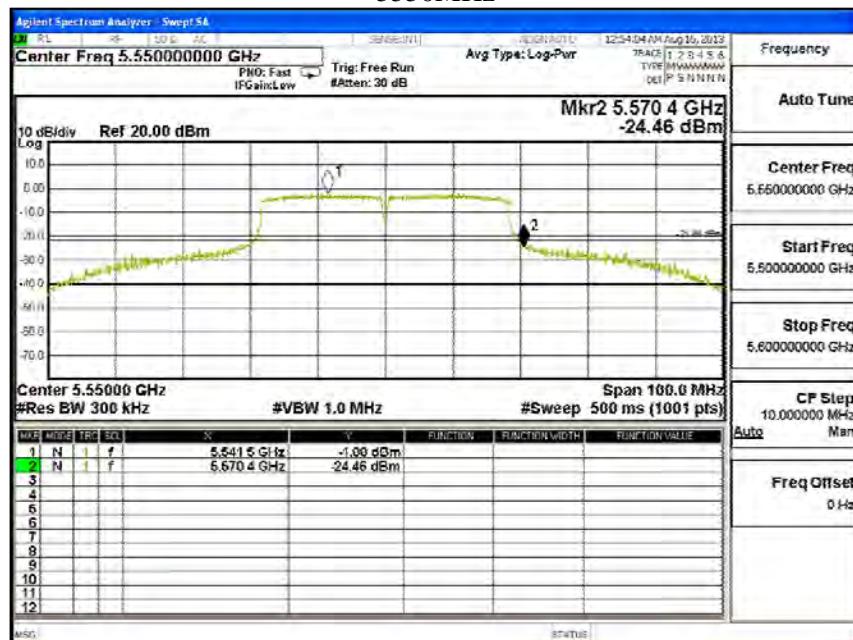


Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps)(Dipole Antenna)

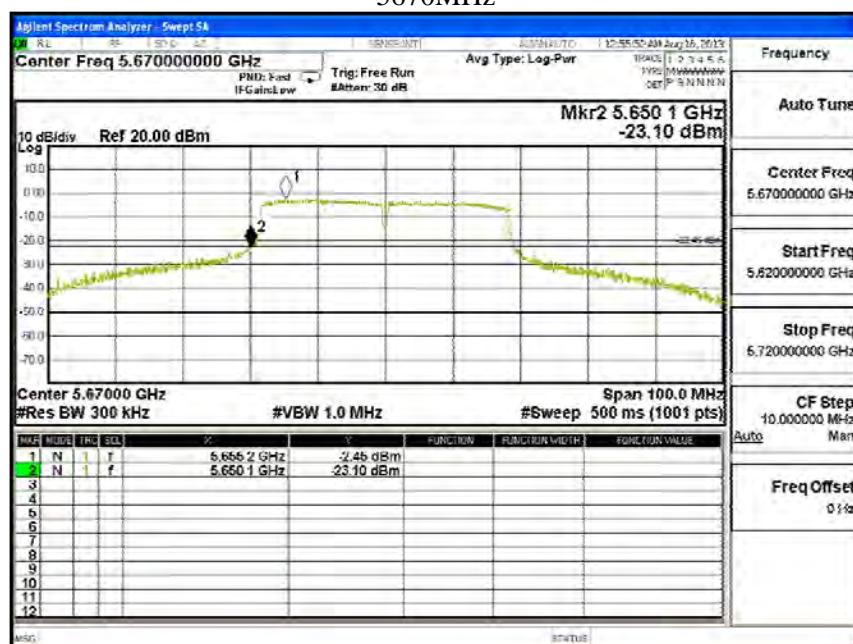
**Chain A**

Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5550	5570.40	<5600	PASS
5670	5650.10	>5650	PASS

NOTE: The 5600~5650MHz band is not used in accordance with 15.215 requirement.  
5550MHz



5670MHz

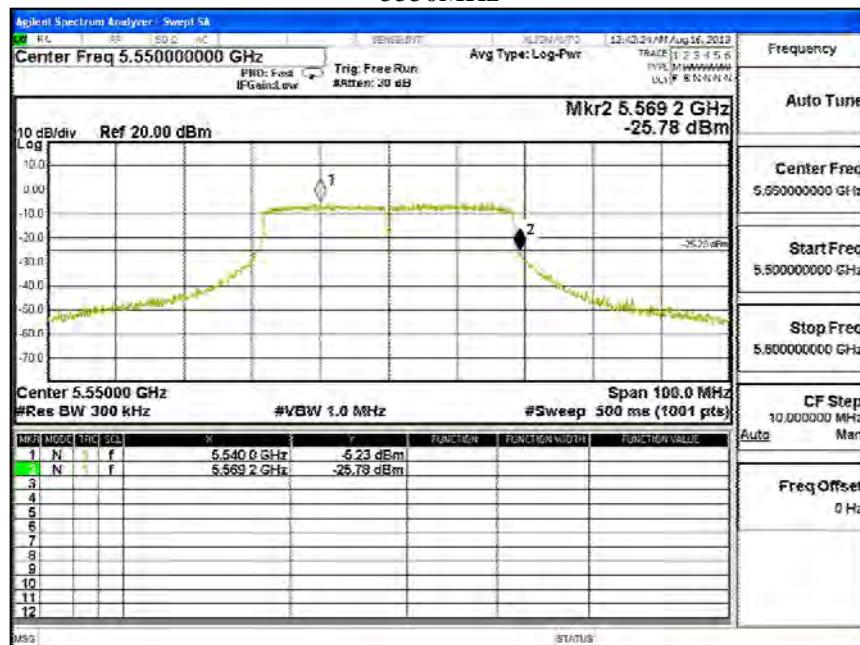


Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps)(Dipole Antenna)

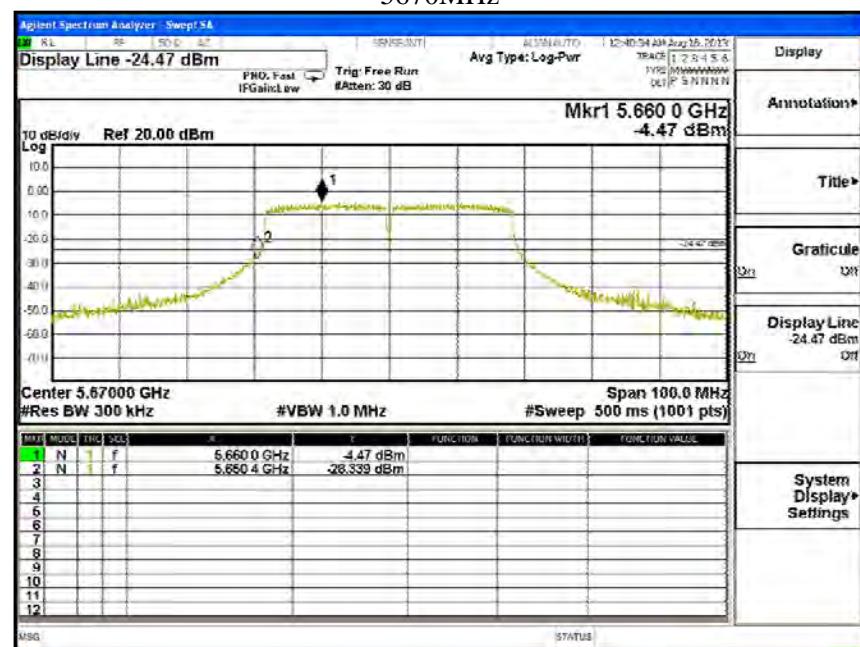
**Chain B**

Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5550	5569.20	<5600	PASS
5670	5650.40	>5650	PASS

NOTE: The 5600~5650MHz band is not used in accordance with 15.215 requirement.  
5550MHz



5670MHz

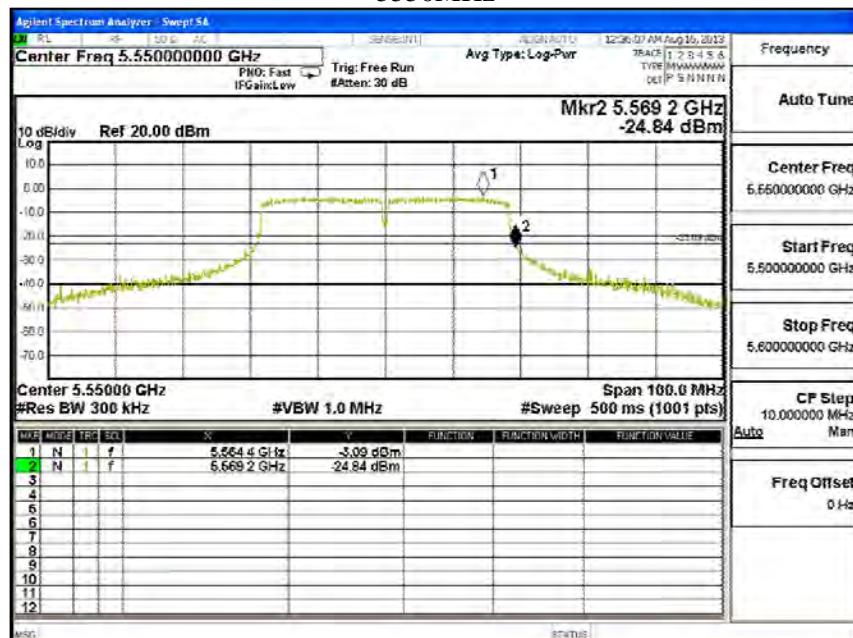


Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps)(Dipole Antenna)

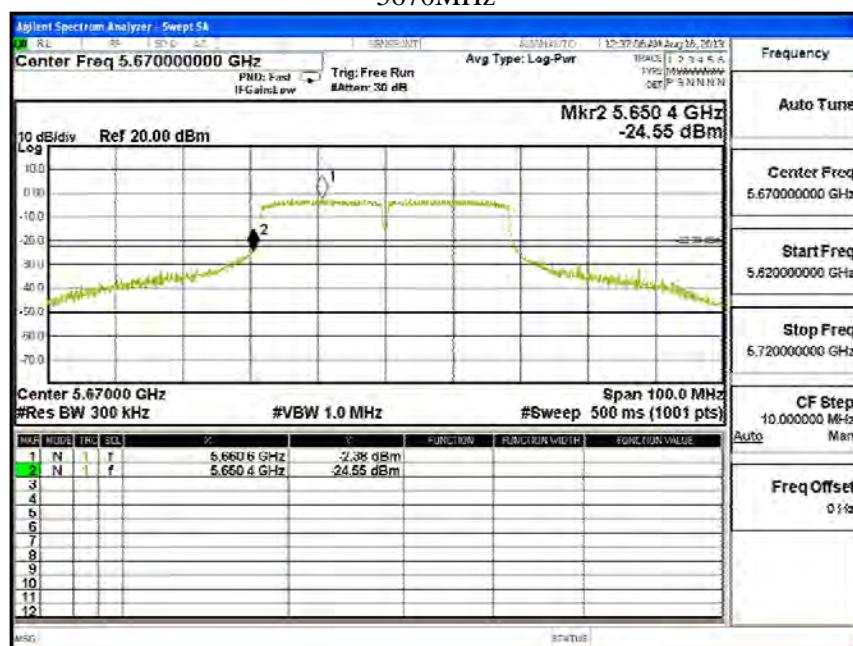
**Chain C**

Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5550	5569.20	<5600	PASS
5670	5650.40	>5650	PASS

NOTE: The 5600~5650MHz band is not used in accordance with 15.215 requirement.  
5550MHz



5670MHz



Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna) -Channel 64

#### RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
64 (Peak)	5325.200	3.796	108.893	112.689	--	--	Pass
64 (Peak)	5350.000	3.716	64.986	68.703	74.00	54.00	Pass
64 (Average)	5325.600	3.795	99.249	103.044	--	--	Pass
64 (Average)	5350.000	3.716	45.929	49.646	74.00	54.00	Pass

Figure Channel 64:

Horizontal (Peak)

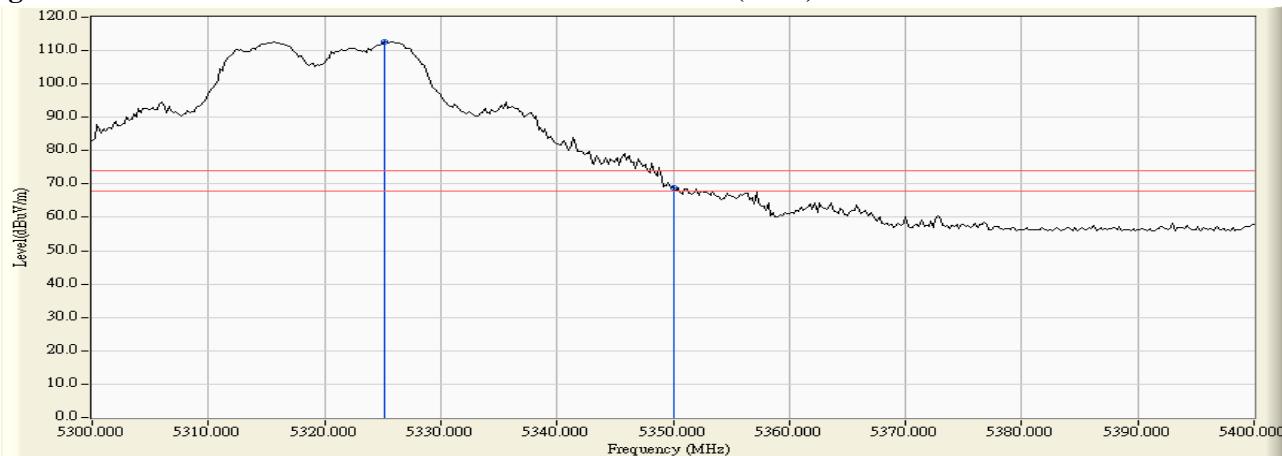
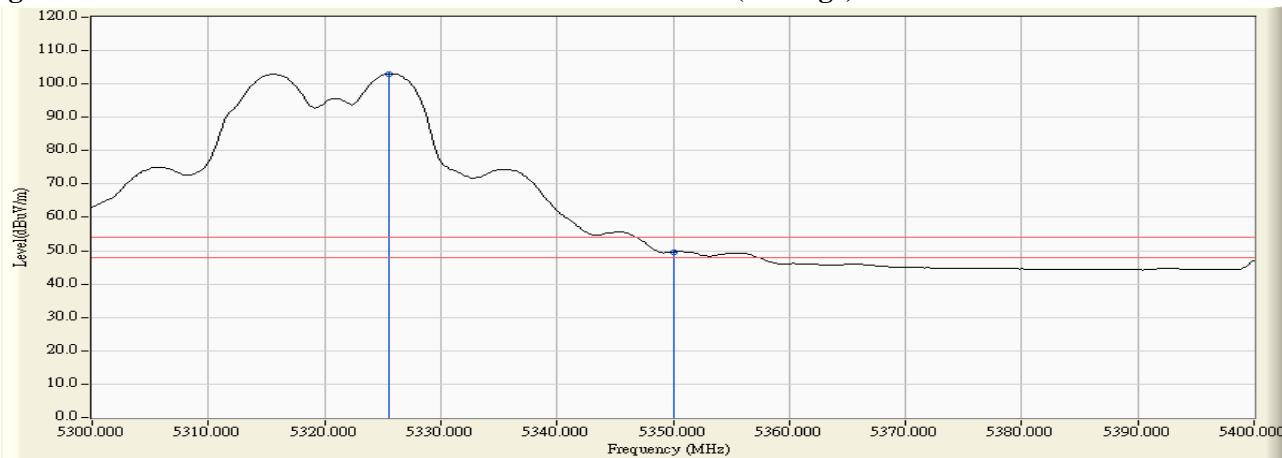


Figure Channel 64:

Horizontal (Average)



Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna) -Channel 64

#### RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
64 (Peak)	5323.000	5.725	110.067	115.792	--	--	Pass
64 (Peak)	5350.000	5.691	65.125	70.817	74.00	54.00	Pass
64 (Average)	5312.800	5.738	99.862	105.600	--	--	Pass
64 (Average)	5350.000	5.691	46.894	52.586	74.00	54.00	Pass

Figure Channel 64:

Vertical (Peak)

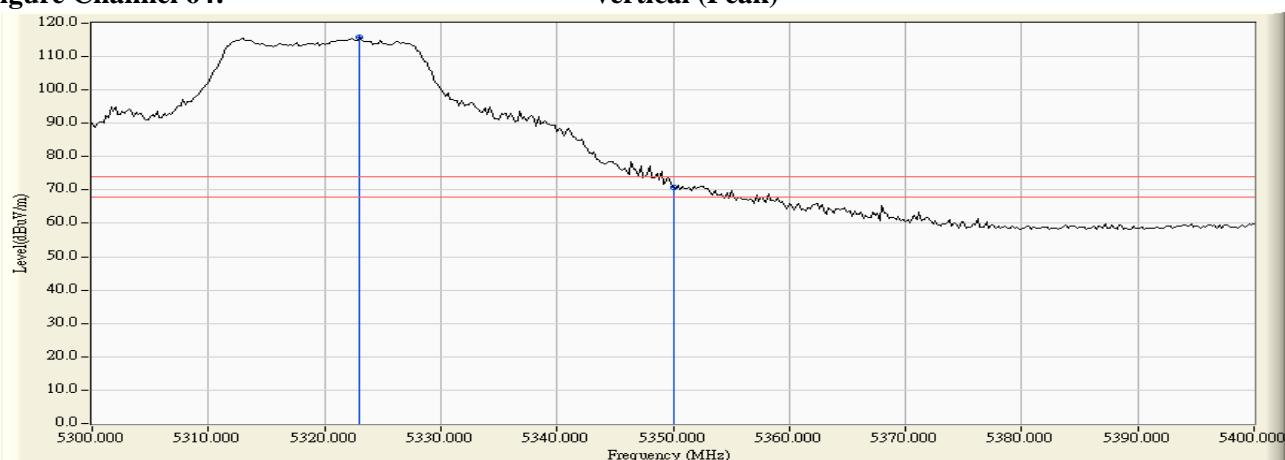
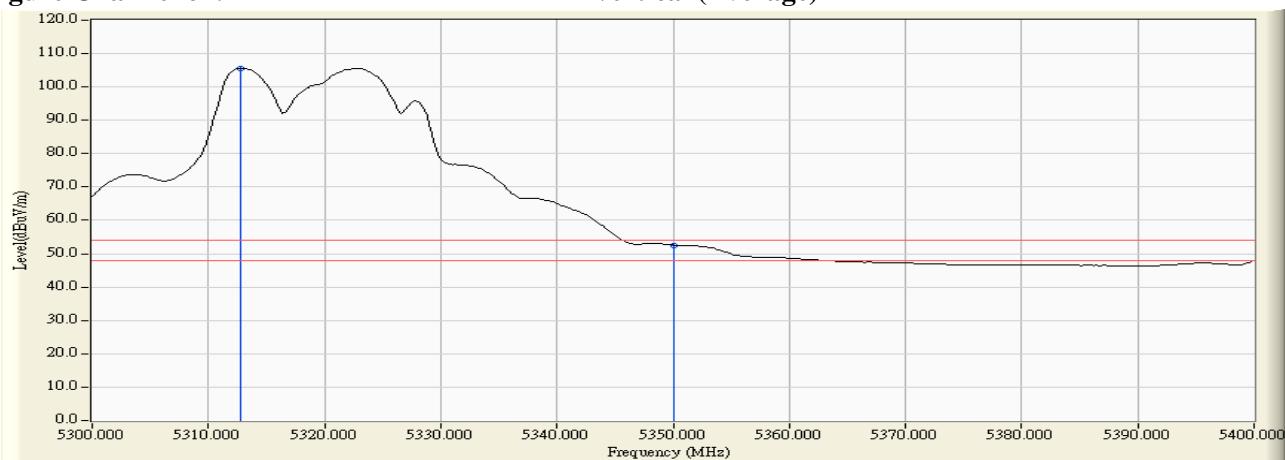


Figure Channel 64:

Vertical (Average)



Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna) -Channel 100

#### RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
100 (Peak)	5460.000	4.354	62.267	66.621	74.00	54.00	Pass
100 (Peak)	5502.000	4.829	109.484	114.312	--	--	Pass
100 (Average)	5460.000	4.354	43.623	47.977	74.00	54.00	Pass
100 (Average)	5502.200	4.830	99.492	104.322	--	--	Pass

Figure Channel 100:

Horizontal (Peak)

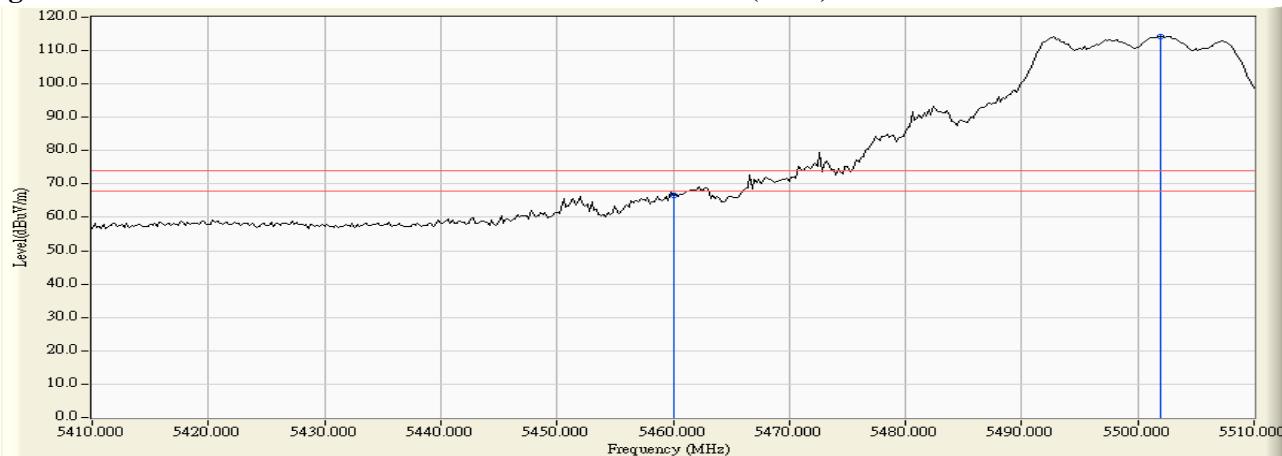
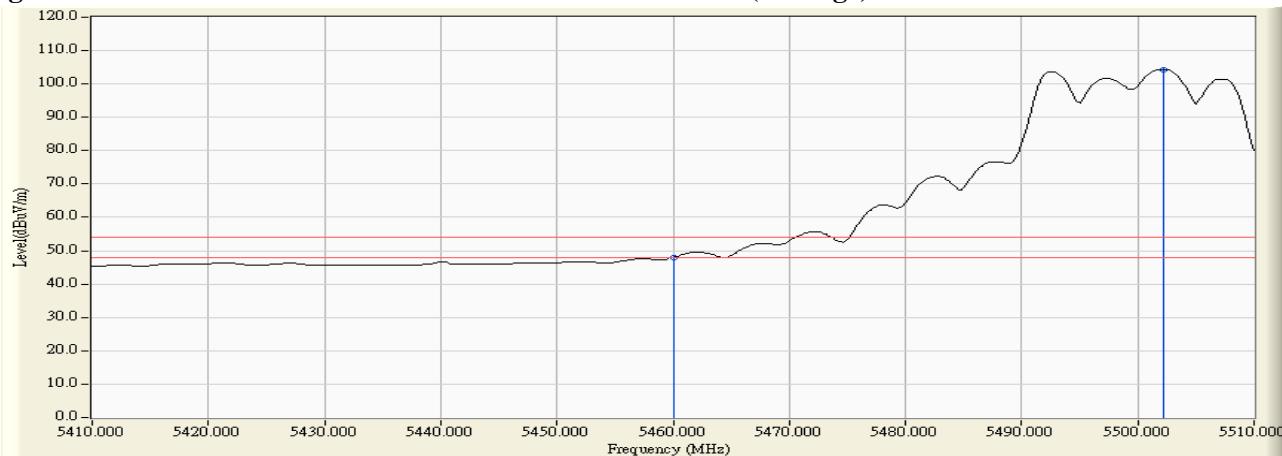


Figure Channel 100:

Horizontal (Average)



Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna) -Channel 100

#### RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
100 (Peak)	5458.000	6.027	64.418	70.445	74.00	54.00	Pass
100 (Peak)	5460.000	6.041	62.119	68.160	74.00	54.00	Pass
100 (Peak)	5497.600	6.267	111.172	117.440	--	--	Pass
100 (Average)	5460.000	6.041	44.401	50.442	74.00	54.00	Pass
100 (Average)	5507.200	6.276	101.015	107.291	--	--	Pass

Figure Channel 100:

Vertical (Peak)

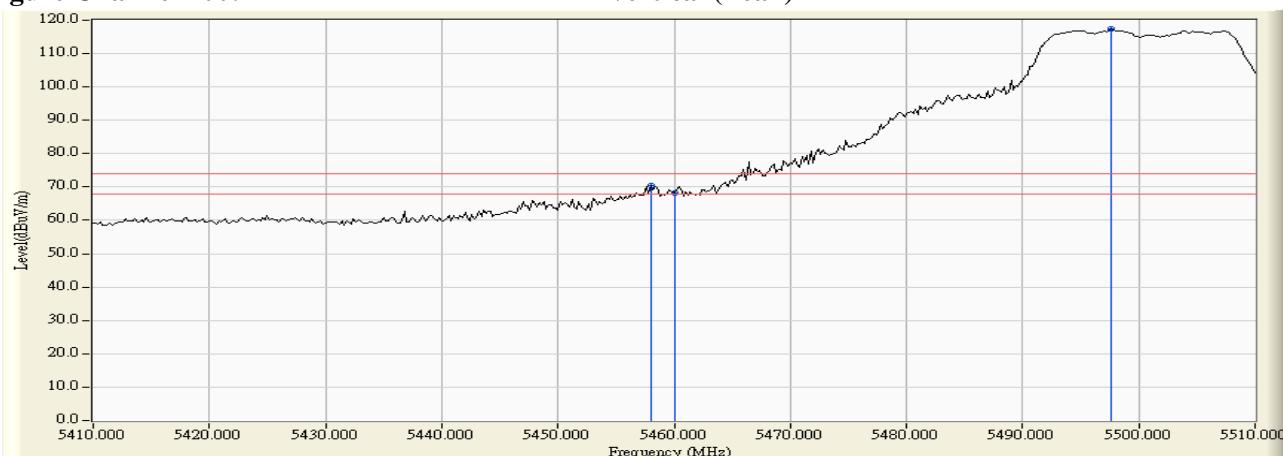
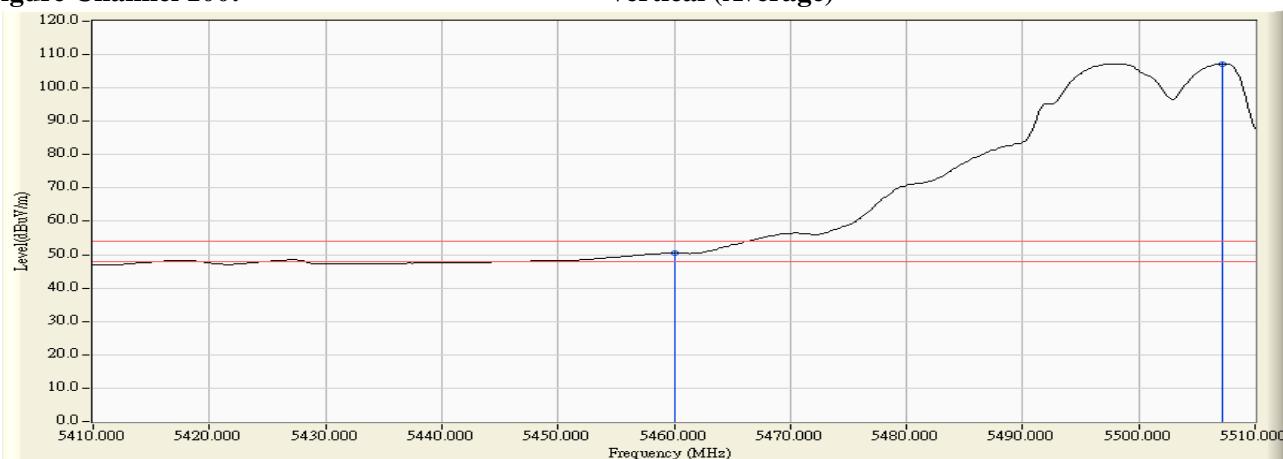


Figure Channel 100:

Vertical (Average)



Note:

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

Product : SpectraGuard® Access Point / Sensor  
Test Item : Band Edge Data  
Test Site : No.3 OATS  
Test Mode : Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna) -Channel 100

**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	-61.570	-43.236	-16.236	-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	-59.770	-40.435	-13.435	-27.000	Pass

Product : SpectraGuard® Access Point / Sensor  
Test Item : Band Edge Data  
Test Site : No.3 OATS  
Test Mode : Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna) -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	-55.490	-36.841	-9.841	-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	-58.960	-39.588	-12.588	-27.000	Pass

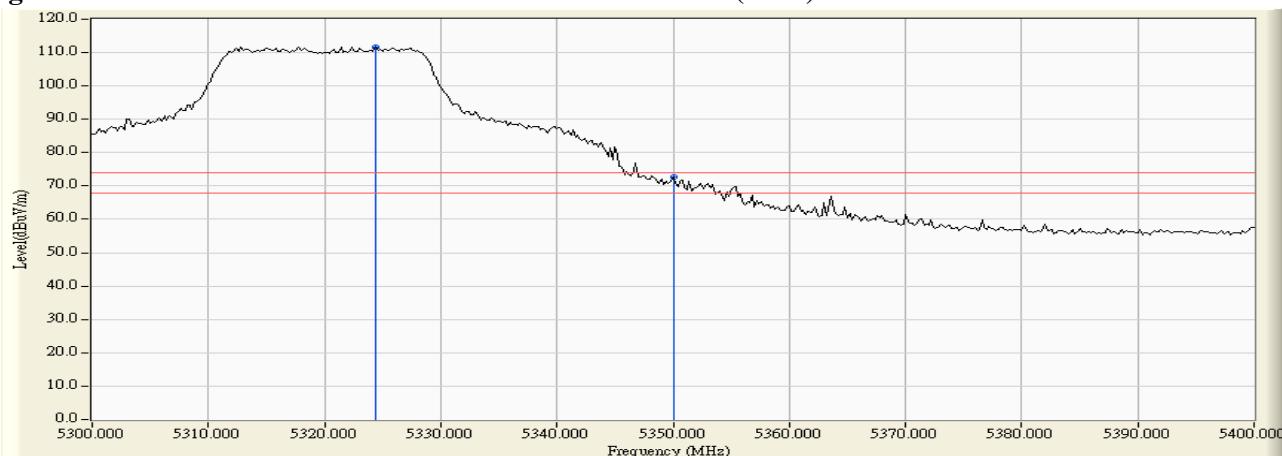
Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmit (802.11n-20BW 21.7Mbps)(PIFA Antenna) -Channel 64

#### RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
64 (Peak)	5324.400	3.798	107.917	111.716	--	--	Pass
64 (Peak)	5350.000	3.716	68.999	72.716	74.00	54.00	Pass
64 (Average)	5326.400	3.792	95.428	99.220	--	--	Pass
64 (Average)	5350.000	3.716	49.712	53.429	74.00	54.00	Pass

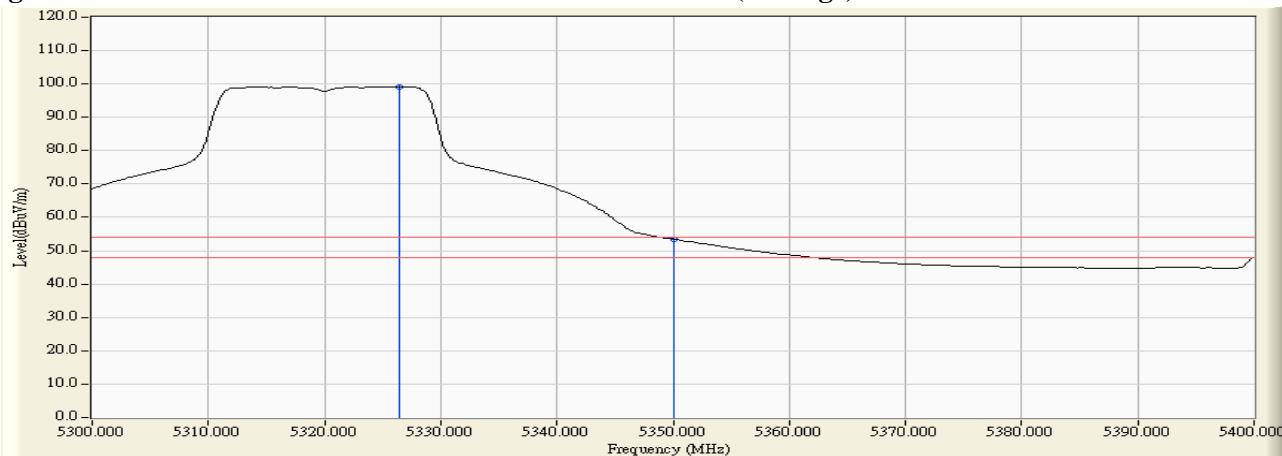
**Figure Channel 64:**

**Horizontal (Peak)**



**Figure Channel 64:**

**Horizontal (Average)**



Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmit (802.11n-20BW 21.7Mbps)(PIFA Antenna) -Channel 64

#### RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
64 (Peak)	5314.200	5.737	106.619	112.356	--	--	Pass
64 (Peak)	5350.000	5.691	65.669	71.361	74.00	54.00	Pass
64 (Average)	5325.800	5.722	94.662	100.384	--	--	Pass
64 (Average)	5350.000	5.691	44.869	50.561	74.00	54.00	Pass

Figure Channel 64:

Vertical (Peak)

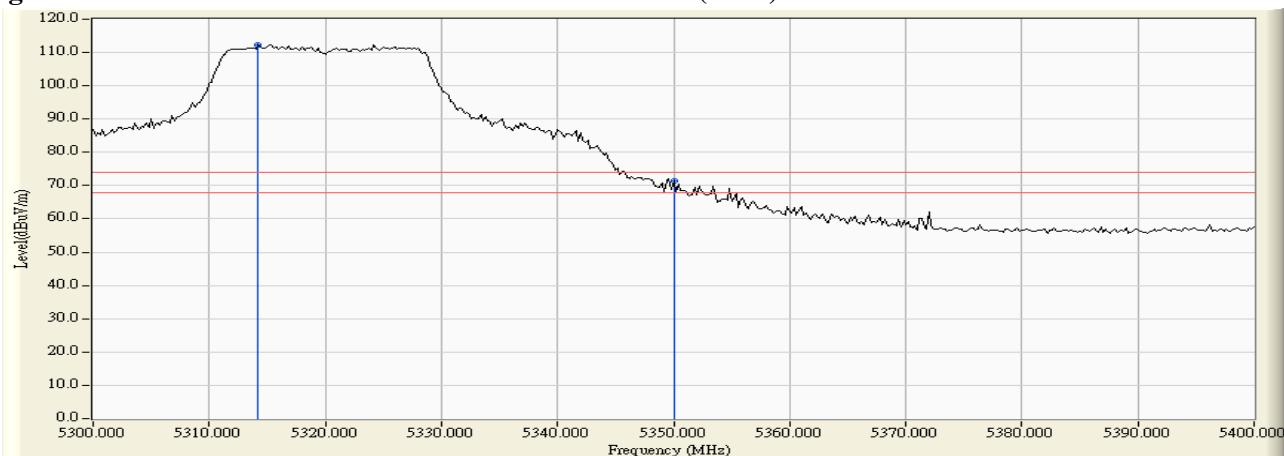
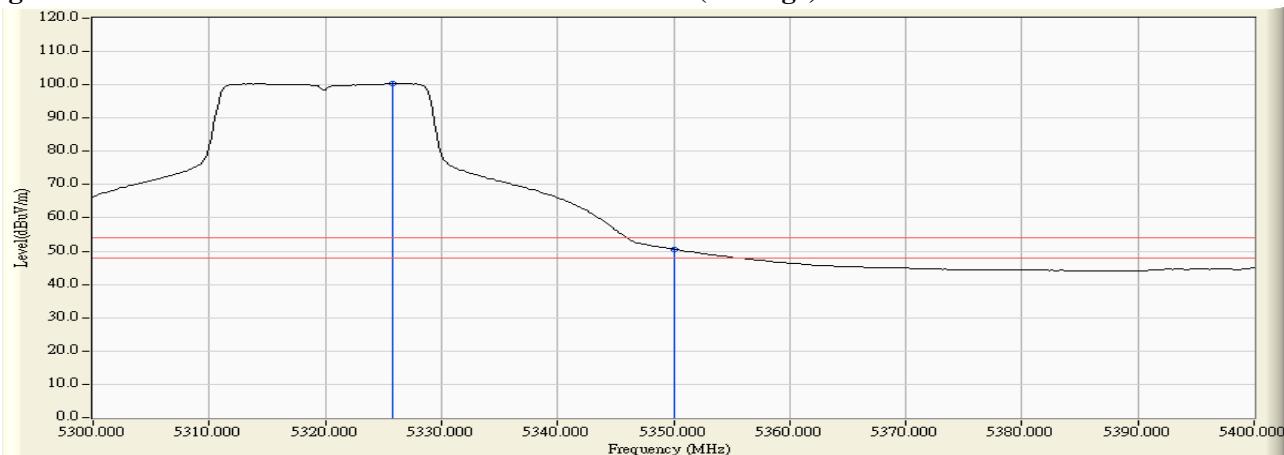


Figure Channel 64:

Vertical (Average)



Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmit (802.11n-20BW 21.7Mbps)(PIFA Antenna) -Channel 100

#### RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
100 (Peak)	5460.000	4.354	60.198	64.552	74.00	54.00	Pass
100 (Peak)	5492.200	4.761	108.243	113.004	--	--	Pass
100 (Average)	5460.000	4.354	43.761	48.115	74.00	54.00	Pass
100 (Average)	5493.600	4.770	96.101	100.871	--	--	Pass

Figure Channel 100:

Horizontal (Peak)

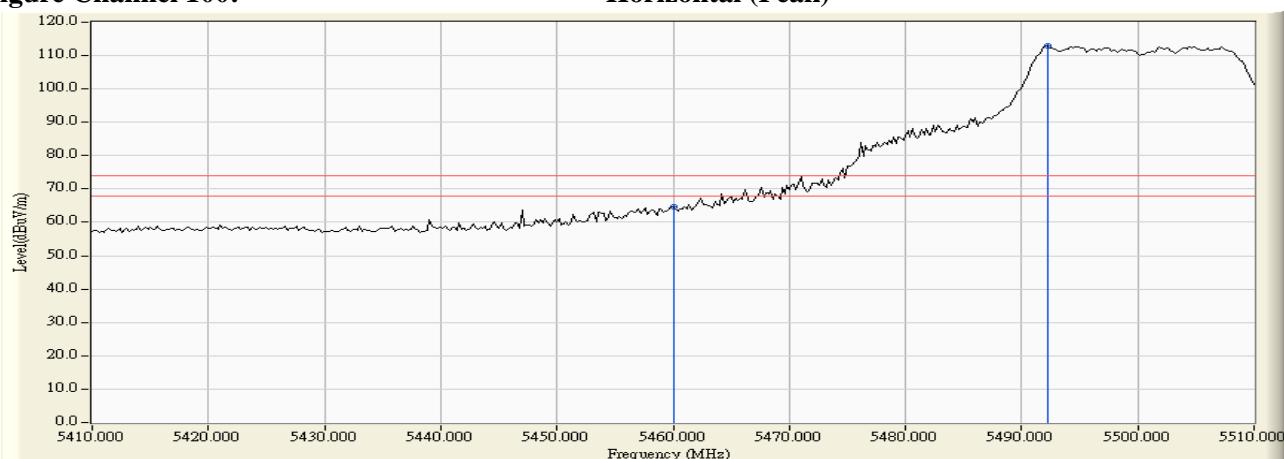


Figure Channel 100:

Horizontal (Average)



Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmit (802.11n-20BW 21.7Mbps)(PIFA Antenna) -Channel 100

#### RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
100 (Peak)	5457.400	6.023	62.002	68.024	74.00	54.00	Pass
100 (Peak)	5460.000	6.041	60.917	66.958	74.00	54.00	Pass
100 (Peak)	5493.000	6.253	109.624	115.878	--	--	Pass
100 (Average)	5460.000	6.041	44.924	50.965	74.00	54.00	Pass
100 (Average)	5506.800	6.279	98.068	104.347	--	--	Pass

Figure Channel 100:

Vertical (Peak)

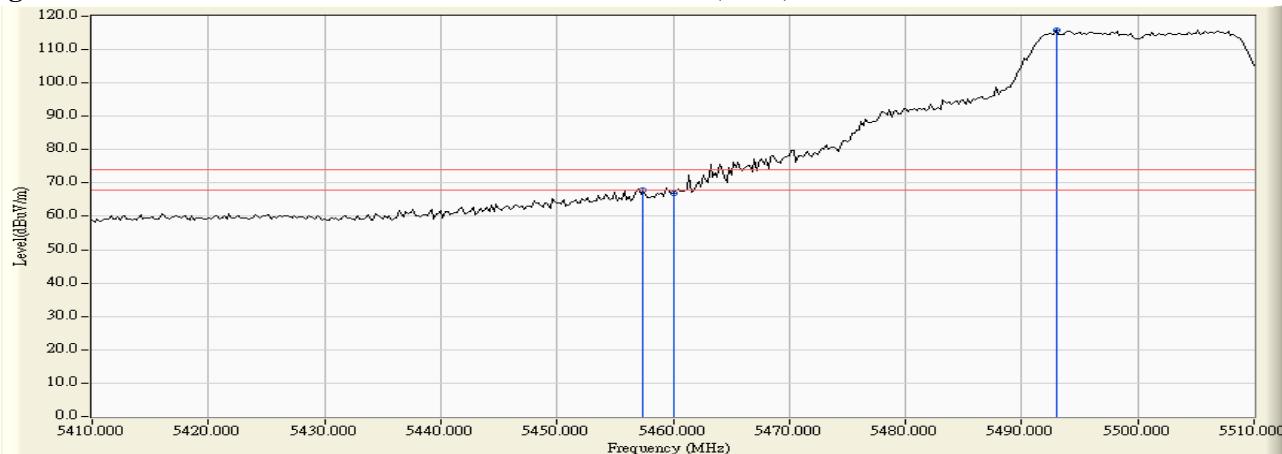
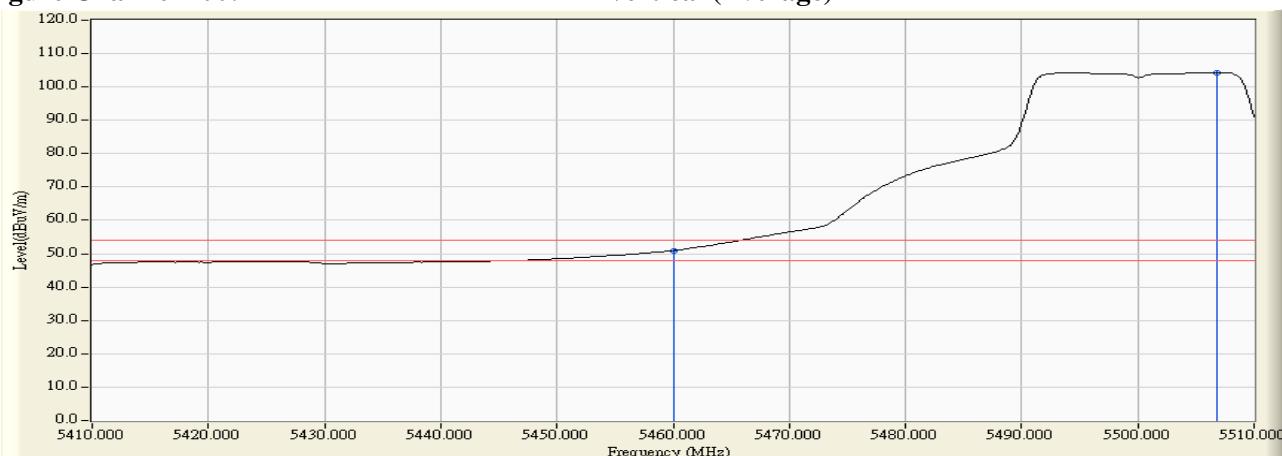


Figure Channel 100:

Vertical (Average)



Note:

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

Product : SpectraGuard® Access Point / Sensor  
Test Item : Band Edge Data  
Test Site : No.3 OATS  
Test Mode : Mode 5: Transmit (802.11n-20BW 21.7Mbps)(PIFA Antenna) -Channel 100

**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	-59.660	-41.326	-14.326	-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	-59.680	-40.345	-13.345	-27.000	Pass

Product : SpectraGuard® Access Point / Sensor  
Test Item : Band Edge Data  
Test Site : No.3 OATS  
Test Mode : Mode 5: Transmit (802.11n-20BW 21.7Mbps)(PIFA Antenna) -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	-53.870	-35.221	-8.221	-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	-56.320	-36.948	-9.948	-27.000	Pass

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 6 Transmit (802.11n-40BW 45Mbps)(PIFA Antenna) -Channel 62

#### RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
62 (Peak)	5319.600	3.814	101.945	105.759	--	--	Pass
62 (Peak)	5350.000	3.716	67.343	71.060	74.00	54.00	Pass
62 (Average)	5324.200	3.799	89.275	93.074	--	--	Pass
62 (Average)	5350.000	3.716	48.709	52.426	74.00	54.00	Pass

Figure Channel 62:

Horizontal (Peak)

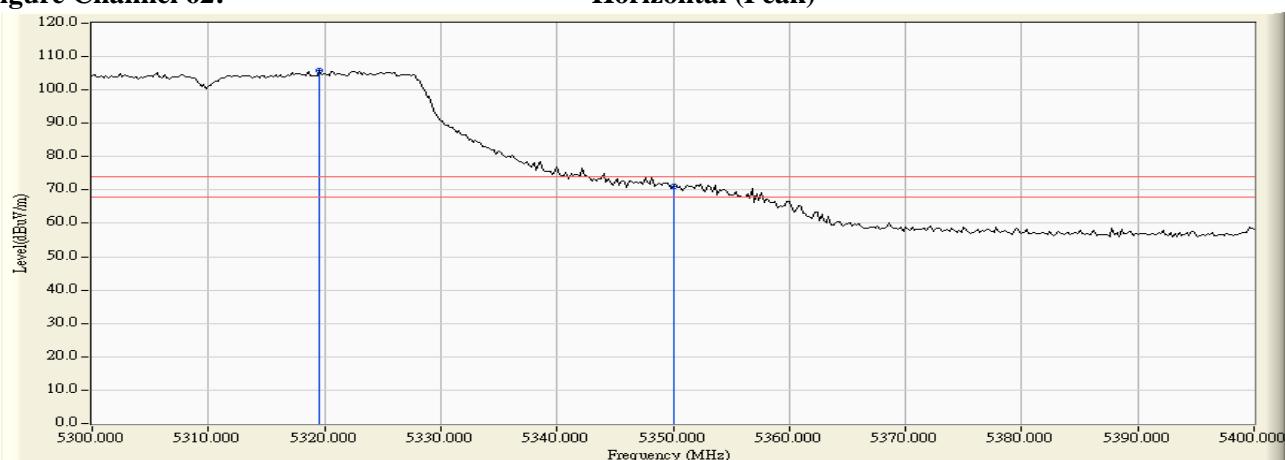
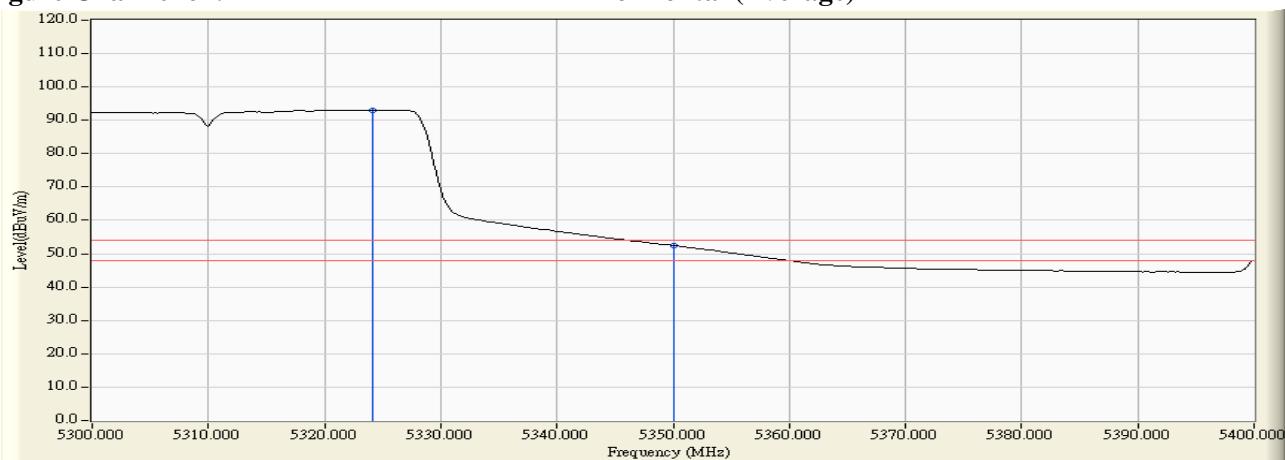


Figure Channel 62:

Horizontal (Average)



Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 6 Transmit (802.11n-40BW 45Mbps)(PIFA Antenna) -Channel 62

#### RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
62 (Peak)	5327.000	5.720	101.261	106.981	--	--	Pass
62 (Peak)	5350.000	5.691	64.748	70.440	74.00	54.00	Pass
62 (Peak)	5351.400	5.690	67.184	72.874	74.00	54.00	Pass
62 (Average)	5326.000	5.721	88.760	94.482	--	--	Pass
62 (Average)	5350.000	5.691	46.470	52.162	74.00	54.00	Pass

Figure Channel 62:

Vertical (Peak)

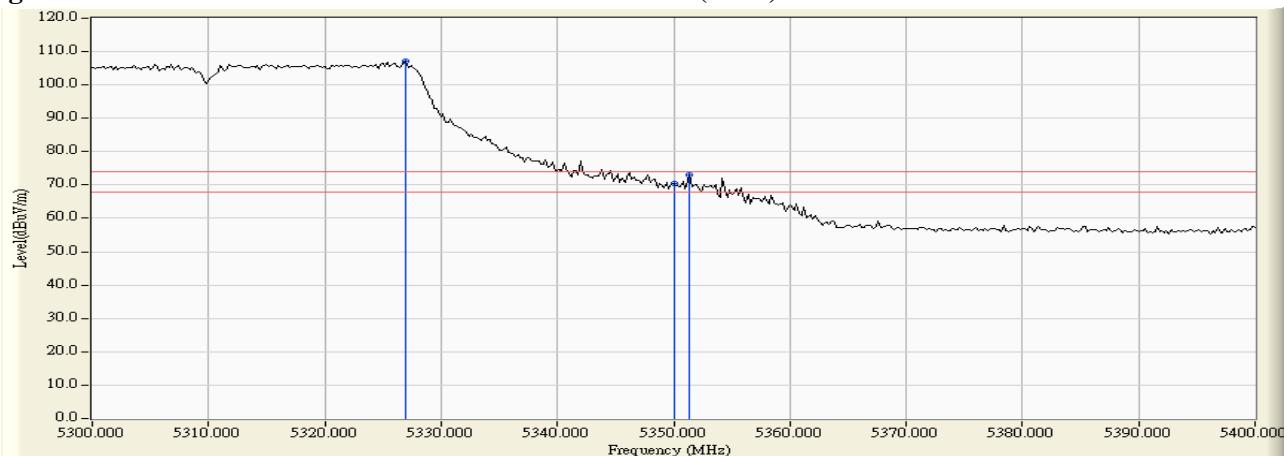
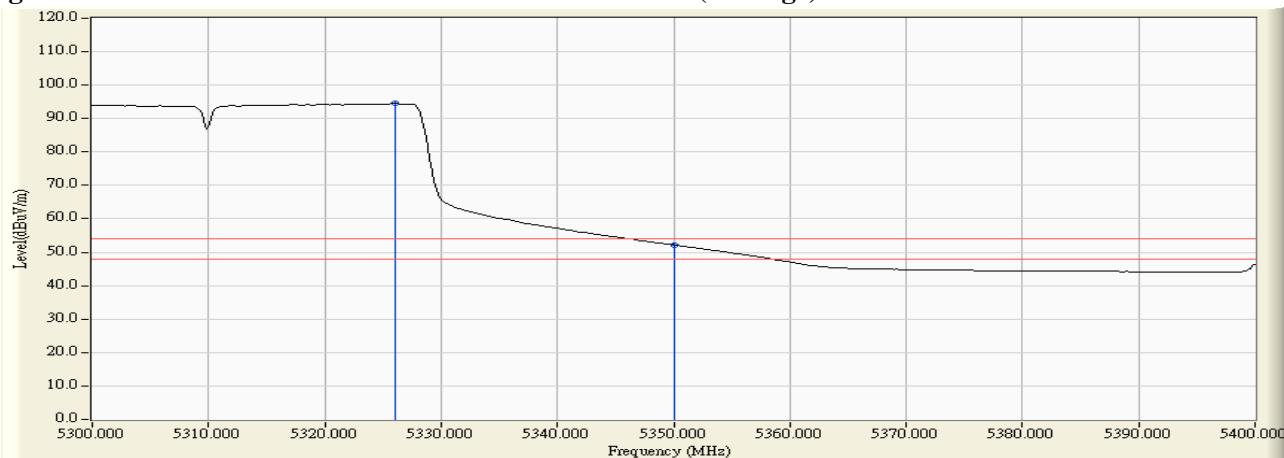


Figure Channel 62:

Vertical (Average)



Note:

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

detection.

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 6 Transmit (802.11n-40BW 45Mbps)(PIFA Antenna) -Channel 102

#### RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
102 (Peak)	5460.000	4.354	61.468	65.822	74.00	54.00	Pass
102 (Peak)	5496.600	4.792	102.335	107.126	--	--	Pass
102 (Average)	5460.000	4.354	43.992	48.346	74.00	54.00	Pass
102 (Average)	5495.400	4.782	90.195	94.978	--	--	Pass

Figure Channel 102:

Horizontal (Peak)

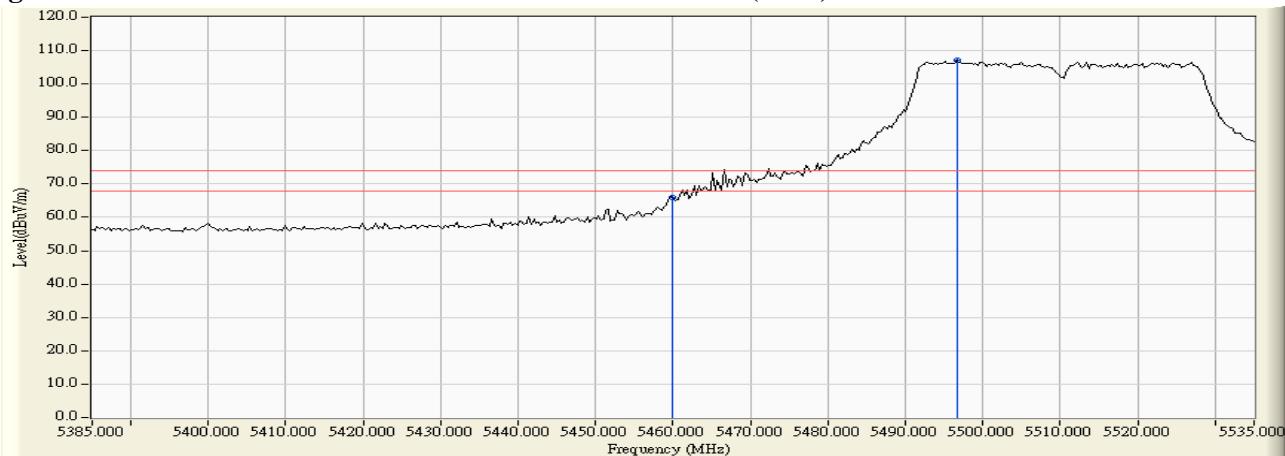
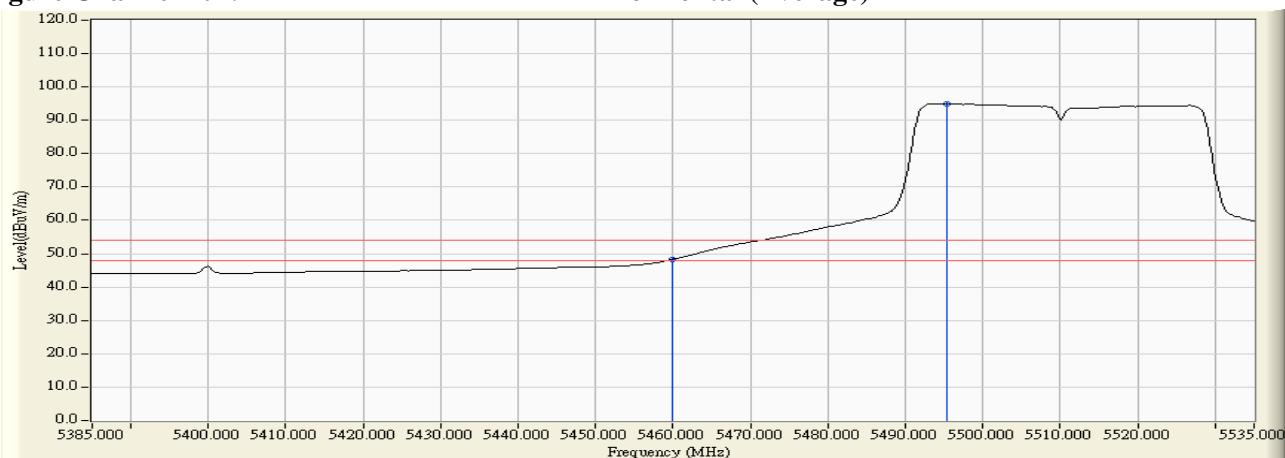


Figure Channel 102:

Horizontal (Average)



Note:

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

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 6 Transmit (802.11n-40BW 45Mbps)(PIFA Antenna) -Channel 102

#### RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
102 (Peak)	5460.000	6.041	64.229	70.270	74.00	54.00	Pass
102 (Peak)	5526.300	6.155	103.051	109.205	--	--	Pass
102 (Average)	5460.000	6.041	45.671	51.712	74.00	54.00	Pass
102 (Average)	5523.900	6.170	91.320	97.489	--	--	Pass

Figure Channel 102:

Vertical (Peak)

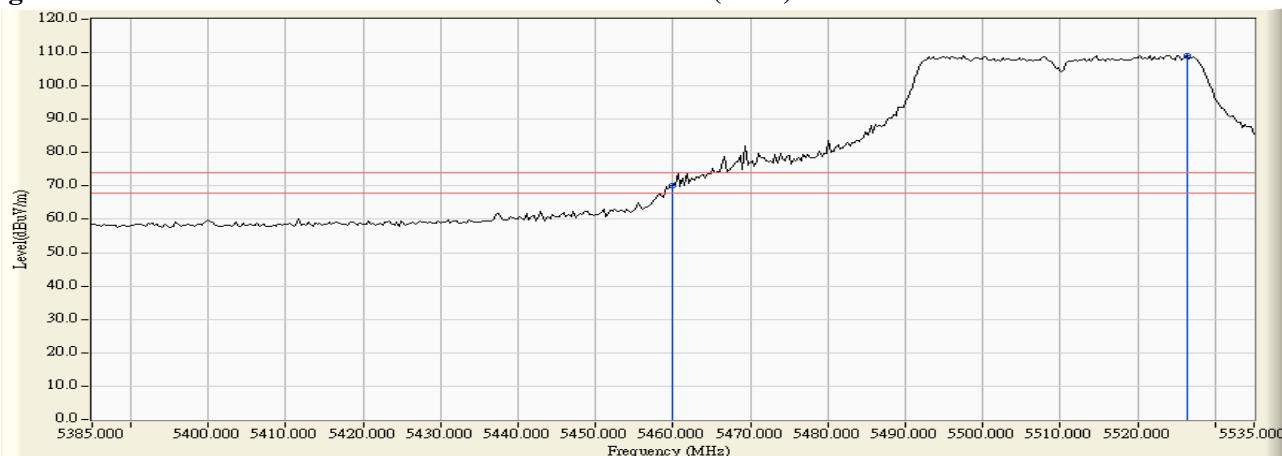
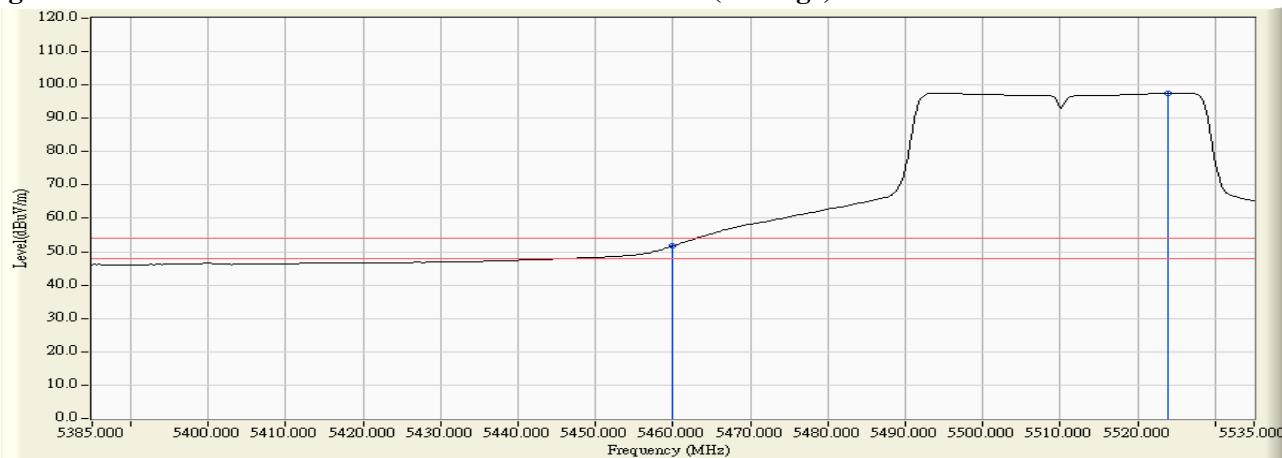


Figure Channel 102:

Vertical (Average)



Note:

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

Product : SpectraGuard® Access Point / Sensor  
Test Item : Band Edge Data  
Test Site : No.3 OATS  
Test Mode : Mode 6 Transmit (802.11n-40BW 45Mbps)(PIFA Antenna) -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	-60.720	-42.386	-15.386	-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	-59.150	-39.815	-12.815	-27.000	Pass

Product : SpectraGuard® Access Point / Sensor  
Test Item : Band Edge Data  
Test Site : No.3 OATS  
Test Mode : Mode 6 Transmit (802.11n-40BW 45Mbps)(PIFA Antenna) -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	-61.880	-43.231	-16.231	-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	-64.690	-45.318	-18.318	-27.000	Pass

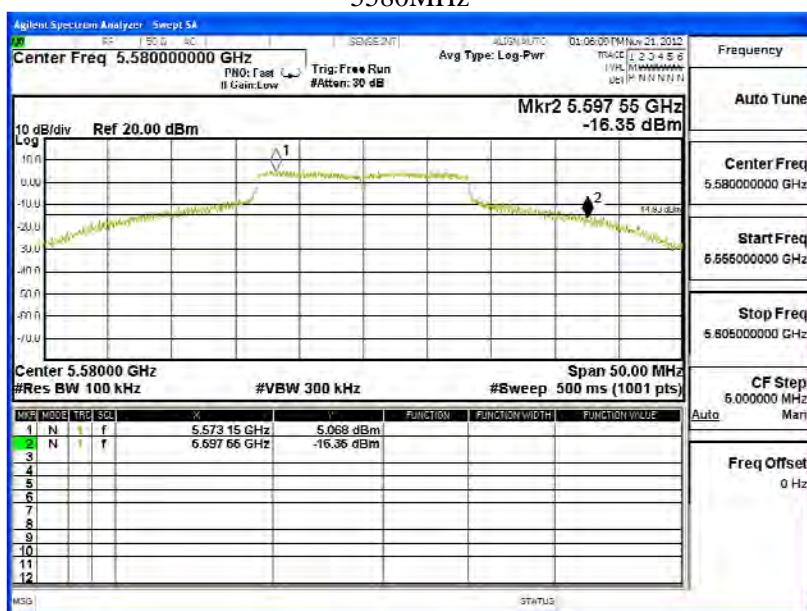
Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna)

### Chain A

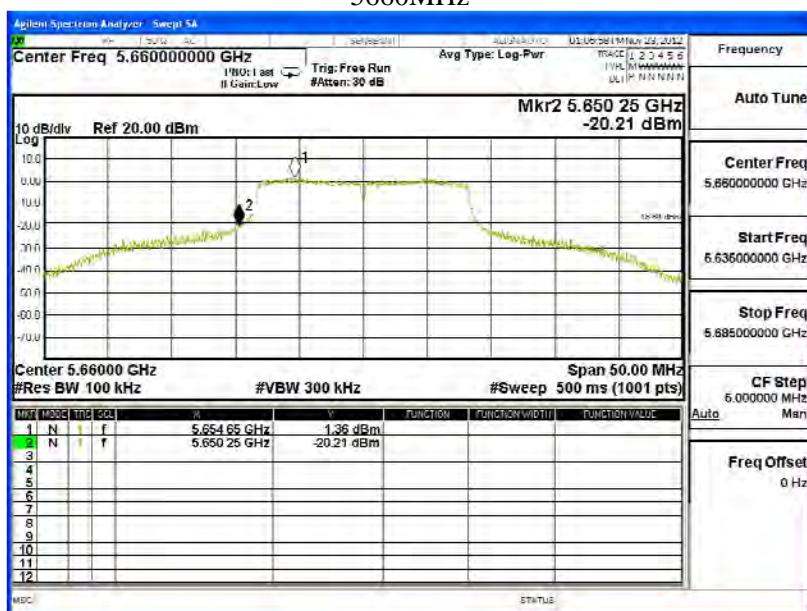
Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5580	5592.15	<5600	PASS
5660	5650.55	>5650	PASS

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

### 5580MHz



### 5660MHz



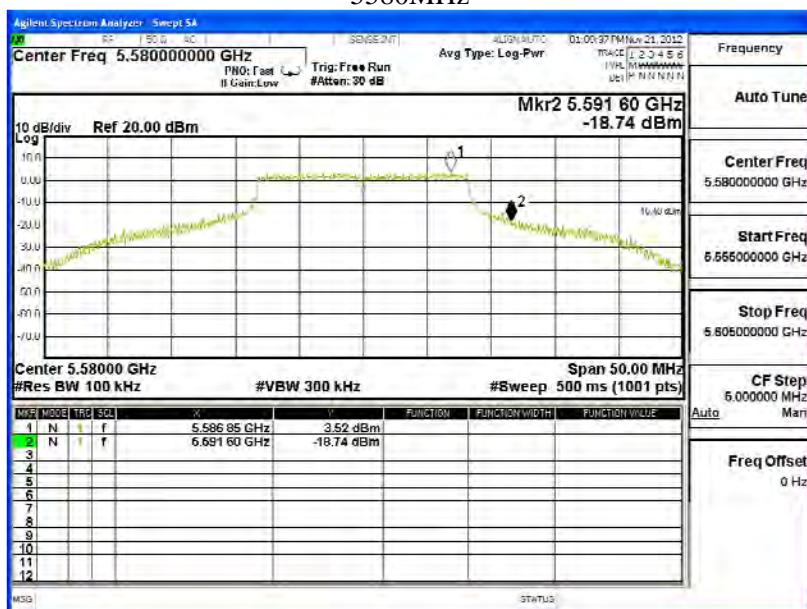
Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna)

### Chain B

Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5580	5589.10	<5600	PASS
5660	5650.85	>5650	PASS

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

### 5580MHz



### 5660MHz



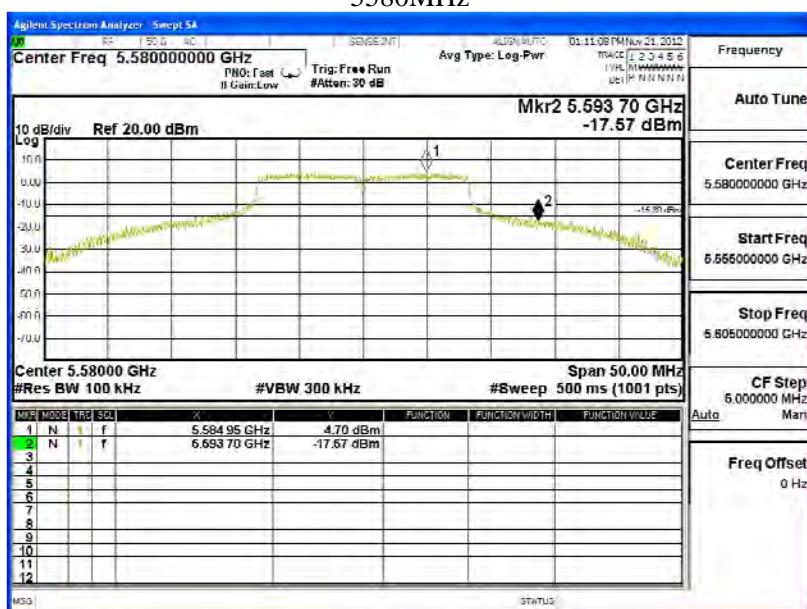
Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna)

### Chain C

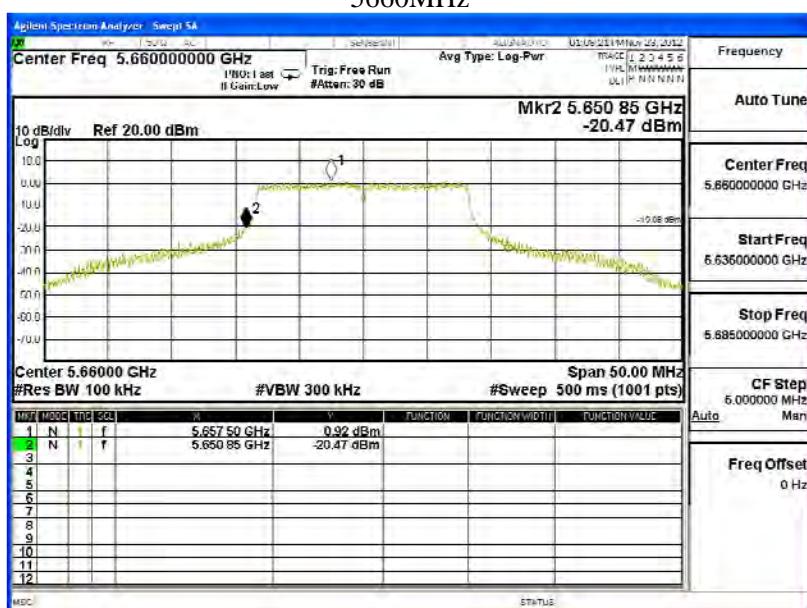
Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5580	5589.10	<5600	PASS
5660	5650.95	>5650	PASS

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

5580MHz



5660MHz



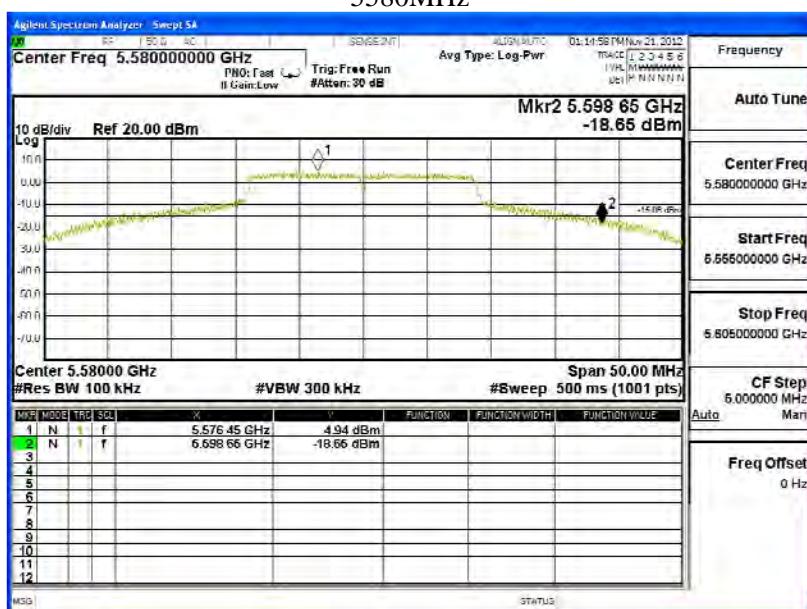
Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmit (802.11n-20BW 21.7Mbps)(PIFA Antenna)

### Chain A

Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5580	5590.40	<5600	PASS
5660	5650.20	>5650	PASS

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

5580MHz



5660MHz



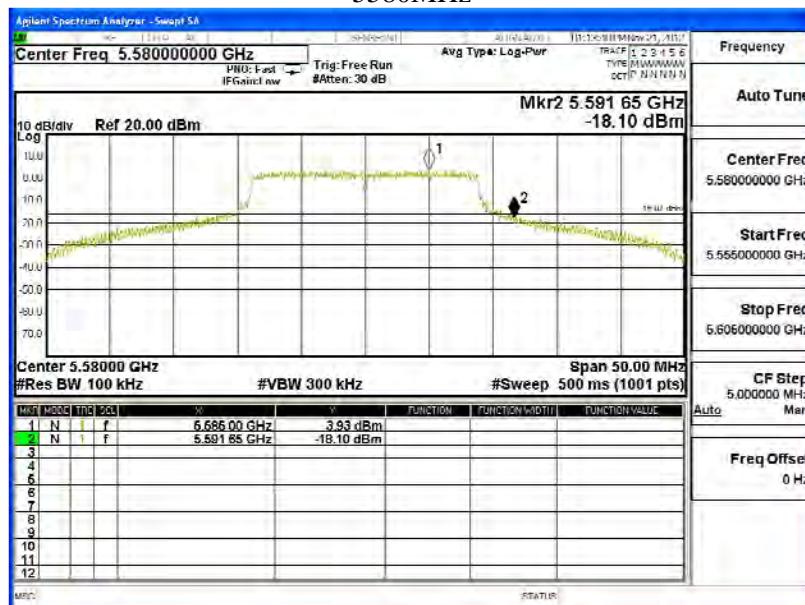
Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmit (802.11n-20BW 21.7Mbps)(PIFA Antenna)

**Chain B**

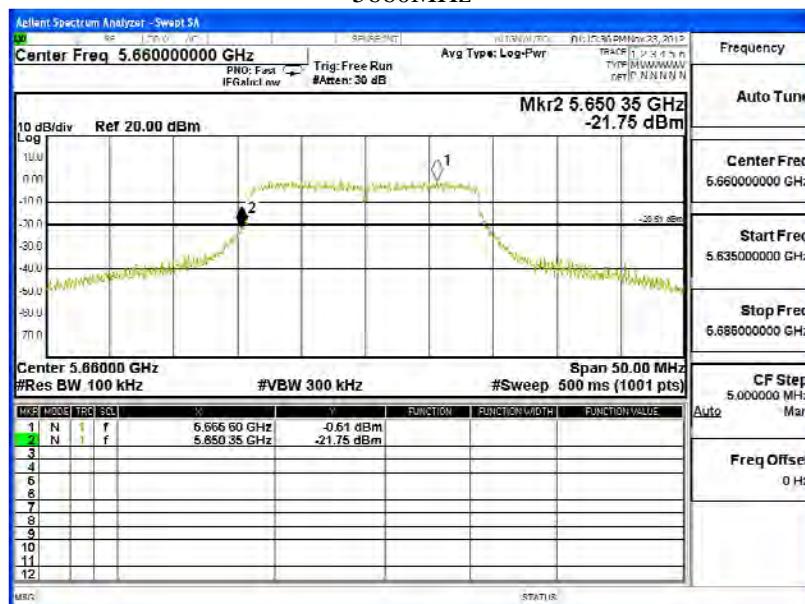
Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5580	5589.70	<5600	PASS
5660	5650.20	>5650	PASS

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

5580MHz



5660MHz



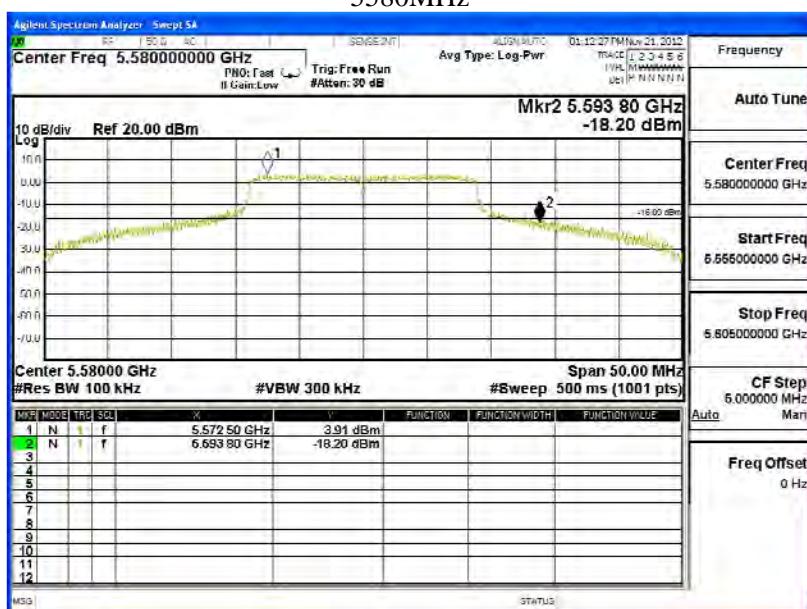
Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmit (802.11n-20BW 21.7Mbps)(PIFA Antenna)

### Chain C

Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5580	5589.55	<5600	PASS
5660	5650.20	>5650	PASS

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

### 5580MHz



### 5660MHz



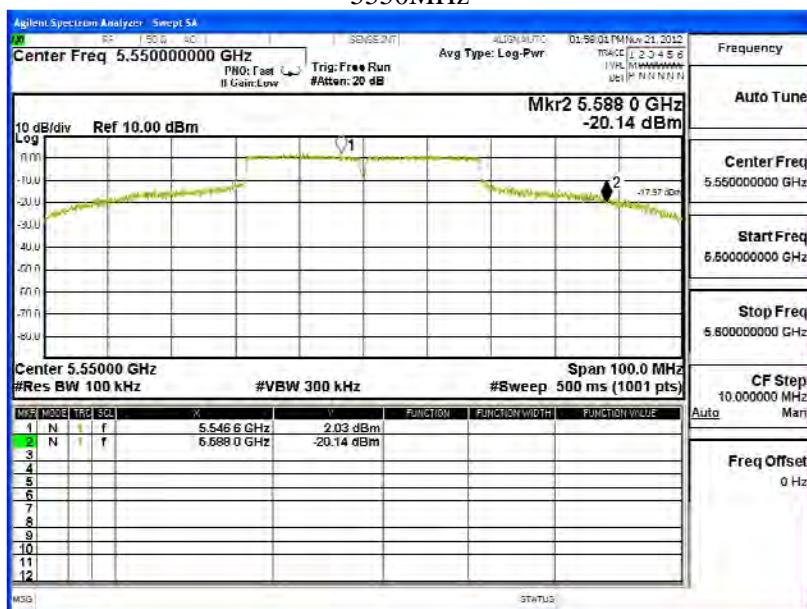
Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 6 Transmit (802.11n-40BW 45Mbps)(PIFA Antenna)

### Chain A

Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5550	5572.90	<5600	PASS
5670	5650.30	>5650	PASS

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

### 5550MHz



### 5670MHz



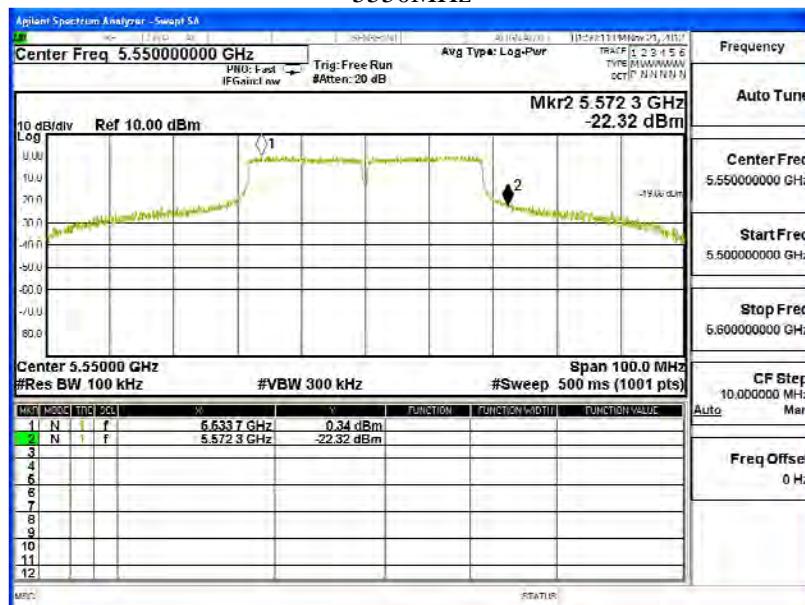
Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 6 Transmit (802.11n-40BW 45Mbps)(PIFA Antenna)

### Chain B

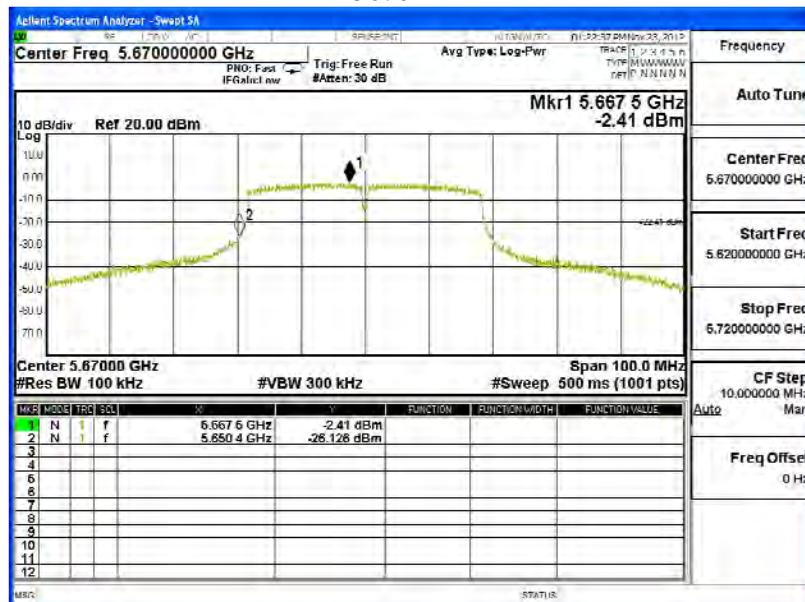
Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5550	5569.10	<5600	PASS
5670	5650.80	>5650	PASS

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

5550MHz



5670MHz



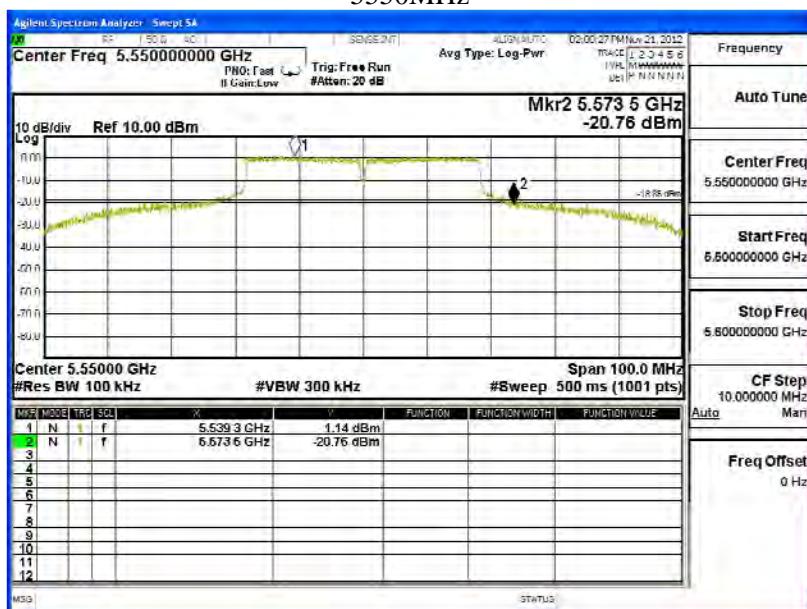
Product : SpectraGuard® Access Point / Sensor  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 6 Transmit (802.11n-40BW 45Mbps)(PIFA Antenna)

### Chain C

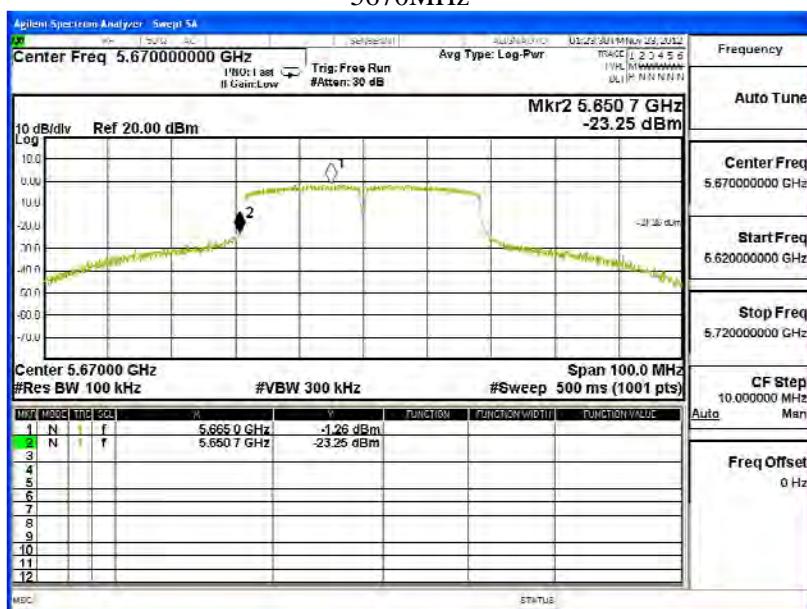
Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5550	5569.10	<5600	PASS
5670	5650.90	>5650	PASS

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

### 5550MHz



### 5670MHz



## 8. Frequency Stability

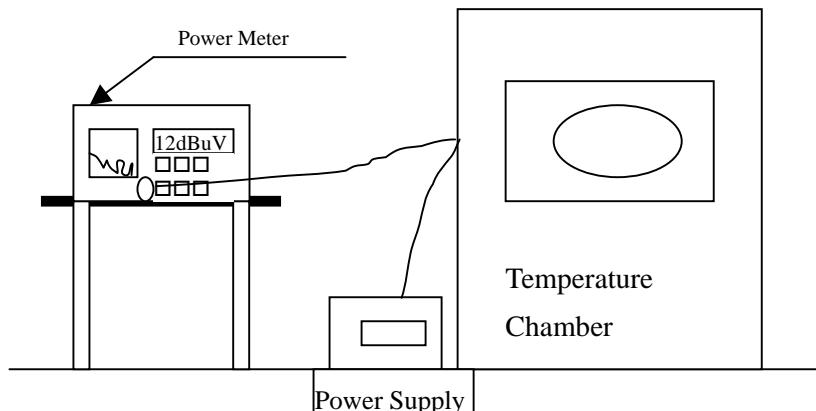
### 8.1. Test Equipment

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

Manufacturers 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 : SpectraGuard® Access Point / Sensor  
 Test Item : Frequency Stability  
 Test Site : Temperature Chamber  
 Test Mode : Carrier Wave (Dipole Antenna)

**Chain A**

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\Delta F$ (MHz)
T <sub>nom</sub> (20) °C	V <sub>nom</sub> (120)V	52	5260.0000	5260.0085	-0.0085
		54	5270.0000	5270.0098	-0.0098
		60	5300.0000	5300.0089	-0.0089
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0100	-0.0100
		100	5500.0000	5500.0096	-0.0096
		102	5510.0000	5510.0100	-0.0100
		110	5550.0000	5550.0100	-0.0100
		116	5580.0000	5580.0099	-0.0099
		134	5670.0000	5670.0100	-0.0100
		140	5700.0000	5700.0095	-0.0095
T <sub>max</sub> (50) °C	V <sub>max</sub> (138)V	52	5260.0000	5260.0085	-0.0085
		54	5270.0000	5270.0098	-0.0098
		60	5300.0000	5300.0085	-0.0085
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0100	-0.0100
		100	5500.0000	5500.0068	-0.0068
		102	5510.0000	5510.0100	-0.0100
		110	5550.0000	5550.0098	-0.0098
		116	5580.0000	5580.0087	-0.0087
		134	5670.0000	5670.0099	-0.0099
		140	5700.0000	5700.0095	-0.0095
T <sub>max</sub> (50) °C	V <sub>min</sub> (102)V	52	5260.0000	5260.0085	-0.0085
		54	5270.0000	5270.0098	-0.0098
		60	5300.0000	5300.0085	-0.0085
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0100	-0.0100
		100	5500.0000	5500.0068	-0.0068
		102	5510.0000	5510.0100	-0.0100
		110	5550.0000	5550.0580	-0.0580
		116	5580.0000	5580.0097	-0.0097
		134	5670.0000	5670.0099	-0.0099
		140	5700.0000	5700.0095	-0.0095

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\Delta F$ (MHz)
Tmin (0) °C	Vmax (138)V	52	5260.0000	5260.0085	-0.0085
		54	5270.0000	5270.0098	-0.0098
		60	5300.0000	5300.0089	-0.0089
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0100	-0.0100
		100	5500.0000	5500.0093	-0.0093
		102	5510.0000	5510.0096	-0.0096
		110	5550.0000	5550.0100	-0.0100
		116	5580.0000	5580.0098	-0.0098
		134	5670.0000	5670.0100	-0.0100
Tmin (0) °C	Vmin (102)V	140	5700.0000	5700.0095	-0.0095
		52	5260.0000	5260.0085	-0.0085
		54	5270.0000	5270.0098	-0.0098
		60	5300.0000	5300.0089	-0.0089
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0100	-0.0100
		100	5500.0000	5500.0093	-0.0093
		102	5510.0000	5510.0096	-0.0096
		110	5550.0000	5550.0100	-0.0100
		116	5580.0000	5580.0097	-0.0097
		134	5670.0000	5670.0100	-0.0100
		140	5700.0000	5700.0095	-0.0095

**Chain B**

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\Delta F$ (MHz)
T <sub>nom</sub> (20) °C	V <sub>nom</sub> (120)V	52	5260.0000	5260.0086	-0.0086
		54	5270.0000	5270.0101	-0.0101
		60	5300.0000	5300.0090	-0.0090
		62	5310.0000	5310.0103	-0.0103
		64	5320.0000	5320.0102	-0.0102
		100	5500.0000	5500.0098	-0.0098
		102	5510.0000	5510.0103	-0.0103
		110	5550.0000	5550.0102	-0.0102
		116	5580.0000	5580.0102	-0.0102
		134	5670.0000	5670.0102	-0.0102
T <sub>max</sub> (50) °C	V <sub>max</sub> (138)V	140	5700.0000	5700.0097	-0.0097
		52	5260.0000	5260.0086	-0.0086
		54	5270.0000	5270.0101	-0.0101
		60	5300.0000	5300.0086	-0.0086
		62	5310.0000	5310.0103	-0.0103
		64	5320.0000	5320.0102	-0.0102
		100	5500.0000	5500.0070	-0.0070
		102	5510.0000	5510.0103	-0.0103
		110	5550.0000	5550.0100	-0.0100
		116	5580.0000	5580.0100	-0.0100
T <sub>max</sub> (50) °C	V <sub>min</sub> (102)V	134	5670.0000	5670.0101	-0.0101
		140	5700.0000	5700.0097	-0.0097
		52	5260.0000	5260.0086	-0.0086
		54	5270.0000	5270.0101	-0.0101
		60	5300.0000	5300.0086	-0.0086
		62	5310.0000	5310.0103	-0.0103
		64	5320.0000	5320.0102	-0.0102
		100	5500.0000	5500.0070	-0.0070
		102	5510.0000	5510.0103	-0.0103
		110	5550.0000	5550.0100	-0.0100

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\Delta F$ (MHz)
Tmin (0) °C	Vmax (138)V	52	5260.0000	5260.0086	-0.0086
		54	5270.0000	5270.0101	-0.0101
		60	5300.0000	5300.0090	-0.0090
		62	5310.0000	5310.0103	-0.0103
		64	5320.0000	5320.0102	-0.0102
		100	5500.0000	5500.0095	-0.0095
		102	5510.0000	5510.0099	-0.0099
		110	5550.0000	5550.0102	-0.0102
		116	5580.0000	5580.0100	-0.0100
		134	5670.0000	5670.0102	-0.0102
Tmin (0) °C	Vmin (102)V	140	5700.0000	5700.0097	-0.0097
		52	5260.0000	5260.0086	-0.0086
		54	5270.0000	5270.0101	-0.0101
		60	5300.0000	5300.0090	-0.0090
		62	5310.0000	5310.0103	-0.0103
		64	5320.0000	5320.0102	-0.0102
		100	5500.0000	5500.0095	-0.0095
		102	5510.0000	5510.0099	-0.0099
		110	5550.0000	5550.0102	-0.0102
		116	5580.0000	5580.0100	-0.0100
		134	5670.0000	5670.0102	-0.0102
		140	5700.0000	5700.0097	-0.0097

**Chain C**

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\Delta F$ (MHz)
T <sub>nom</sub> (20) °C	V <sub>nom</sub> (120)V	52	5260.0000	5260.0085	-0.0085
		54	5270.0000	5270.0098	-0.0098
		60	5300.0000	5300.0089	-0.0089
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0100	-0.0100
		100	5500.0000	5500.0096	-0.0096
		102	5510.0000	5510.0100	-0.0100
		110	5550.0000	5550.0100	-0.0100
		116	5580.0000	5580.0099	-0.0099
		134	5670.0000	5670.0100	-0.0100
T <sub>max</sub> (50) °C	V <sub>max</sub> (138)V	140	5700.0000	5700.0095	-0.0095
		52	5260.0000	5260.0085	-0.0085
		54	5270.0000	5270.0098	-0.0098
		60	5300.0000	5300.0085	-0.0085
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0100	-0.0100
		100	5500.0000	5500.0068	-0.0068
		102	5510.0000	5510.0100	-0.0100
		110	5550.0000	5550.0098	-0.0098
		116	5580.0000	5580.0087	-0.0087
T <sub>max</sub> (50) °C	V <sub>min</sub> (102)V	134	5670.0000	5670.0099	-0.0099
		140	5700.0000	5700.0095	-0.0095
		52	5260.0000	5260.0085	-0.0085
		54	5270.0000	5270.0098	-0.0098
		60	5300.0000	5300.0085	-0.0085
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0100	-0.0100
		100	5500.0000	5500.0068	-0.0068
		102	5510.0000	5510.0100	-0.0100
		110	5550.0000	5550.0580	-0.0580

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\Delta F$ (MHz)
Tmin (0) °C	Vmax (138)V	52	5260.0000	5260.0085	-0.0085
		54	5270.0000	5270.0098	-0.0098
		60	5300.0000	5300.0089	-0.0089
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0100	-0.0100
		100	5500.0000	5500.0093	-0.0093
		102	5510.0000	5510.0096	-0.0096
		110	5550.0000	5550.0100	-0.0100
		116	5580.0000	5580.0098	-0.0098
		134	5670.0000	5670.0100	-0.0100
Tmin (0) °C	Vmin (102)V	140	5700.0000	5700.0095	-0.0095
		52	5260.0000	5260.0085	-0.0085
		54	5270.0000	5270.0098	-0.0098
		60	5300.0000	5300.0089	-0.0089
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0100	-0.0100
		100	5500.0000	5500.0093	-0.0093
		102	5510.0000	5510.0096	-0.0096
		110	5550.0000	5550.0100	-0.0100
		116	5580.0000	5580.0097	-0.0097
		134	5670.0000	5670.0100	-0.0100
		140	5700.0000	5700.0095	-0.0095

Product : SpectraGuard® Access Point / Sensor  
 Test Item : Frequency Stability  
 Test Site : Temperature Chamber  
 Test Mode : Carrier Wave (PIFA Antenna)

**Chain A**

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\Delta F$ (MHz)
T <sub>nom</sub> (20) °C	V <sub>nom</sub> (120)V	52	5260.0000	5260.0085	-0.0085
		54	5270.0000	5270.0098	-0.0098
		60	5300.0000	5300.0089	-0.0089
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0100	-0.0100
		100	5500.0000	5500.0096	-0.0096
		102	5510.0000	5510.0100	-0.0100
		110	5550.0000	5550.0100	-0.0100
		116	5580.0000	5580.0099	-0.0099
		134	5670.0000	5670.0100	-0.0100
T <sub>max</sub> (50) °C	V <sub>max</sub> (138)V	140	5700.0000	5700.0095	-0.0095
		52	5260.0000	5260.0085	-0.0085
		54	5270.0000	5270.0098	-0.0098
		60	5300.0000	5300.0085	-0.0085
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0100	-0.0100
		100	5500.0000	5500.0068	-0.0068
		102	5510.0000	5510.0100	-0.0100
		110	5550.0000	5550.0098	-0.0098
		116	5580.0000	5580.0087	-0.0087
T <sub>max</sub> (50) °C	V <sub>min</sub> (102)V	134	5670.0000	5670.0099	-0.0099
		140	5700.0000	5700.0095	-0.0095
		52	5260.0000	5260.0085	-0.0085
		54	5270.0000	5270.0098	-0.0098
		60	5300.0000	5300.0085	-0.0085
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0100	-0.0100
		100	5500.0000	5500.0068	-0.0068
		102	5510.0000	5510.0100	-0.0100
		110	5550.0000	5550.0580	-0.0580

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\Delta F$ (MHz)
Tmin (0) °C	Vmax (138)V	52	5260.0000	5260.0085	-0.0085
		54	5270.0000	5270.0098	-0.0098
		60	5300.0000	5300.0089	-0.0089
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0100	-0.0100
		100	5500.0000	5500.0093	-0.0093
		102	5510.0000	5510.0096	-0.0096
		110	5550.0000	5550.0100	-0.0100
		116	5580.0000	5580.0098	-0.0098
		134	5670.0000	5670.0100	-0.0100
Tmin (0) °C	Vmin (102)V	140	5700.0000	5700.0095	-0.0095
		52	5260.0000	5260.0085	-0.0085
		54	5270.0000	5270.0098	-0.0098
		60	5300.0000	5300.0089	-0.0089
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0100	-0.0100
		100	5500.0000	5500.0093	-0.0093
		102	5510.0000	5510.0096	-0.0096
		110	5550.0000	5550.0100	-0.0100
		116	5580.0000	5580.0097	-0.0097
		134	5670.0000	5670.0100	-0.0100
		140	5700.0000	5700.0095	-0.0095

**Chain B**

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\Delta F$ (MHz)
T <sub>nom</sub> (20) °C	V <sub>nom</sub> (120)V	52	5260.0000	5260.0086	-0.0086
		54	5270.0000	5270.0101	-0.0101
		60	5300.0000	5300.0090	-0.0090
		62	5310.0000	5310.0103	-0.0103
		64	5320.0000	5320.0102	-0.0102
		100	5500.0000	5500.0098	-0.0098
		102	5510.0000	5510.0103	-0.0103
		110	5550.0000	5550.0102	-0.0102
		116	5580.0000	5580.0102	-0.0102
		134	5670.0000	5670.0102	-0.0102
T <sub>max</sub> (50) °C	V <sub>max</sub> (138)V	140	5700.0000	5700.0097	-0.0097
		52	5260.0000	5260.0086	-0.0086
		54	5270.0000	5270.0101	-0.0101
		60	5300.0000	5300.0086	-0.0086
		62	5310.0000	5310.0103	-0.0103
		64	5320.0000	5320.0102	-0.0102
		100	5500.0000	5500.0070	-0.0070
		102	5510.0000	5510.0103	-0.0103
		110	5550.0000	5550.0100	-0.0100
		116	5580.0000	5580.0100	-0.0100
T <sub>max</sub> (50) °C	V <sub>min</sub> (102)V	134	5670.0000	5670.0101	-0.0101
		140	5700.0000	5700.0097	-0.0097
		52	5260.0000	5260.0086	-0.0086
		54	5270.0000	5270.0101	-0.0101
		60	5300.0000	5300.0086	-0.0086
		62	5310.0000	5310.0103	-0.0103
		64	5320.0000	5320.0102	-0.0102
		100	5500.0000	5500.0070	-0.0070
		102	5510.0000	5510.0103	-0.0103
		110	5550.0000	5550.0100	-0.0100

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\Delta F$ (MHz)
Tmin (0) °C	Vmax (138)V	52	5260.0000	5260.0086	-0.0086
		54	5270.0000	5270.0101	-0.0101
		60	5300.0000	5300.0090	-0.0090
		62	5310.0000	5310.0103	-0.0103
		64	5320.0000	5320.0102	-0.0102
		100	5500.0000	5500.0095	-0.0095
		102	5510.0000	5510.0099	-0.0099
		110	5550.0000	5550.0102	-0.0102
		116	5580.0000	5580.0100	-0.0100
		134	5670.0000	5670.0102	-0.0102
Tmin (0) °C	Vmin (102)V	140	5700.0000	5700.0097	-0.0097
		52	5260.0000	5260.0086	-0.0086
		54	5270.0000	5270.0101	-0.0101
		60	5300.0000	5300.0090	-0.0090
		62	5310.0000	5310.0103	-0.0103
		64	5320.0000	5320.0102	-0.0102
		100	5500.0000	5500.0095	-0.0095
		102	5510.0000	5510.0099	-0.0099
		110	5550.0000	5550.0102	-0.0102
		116	5580.0000	5580.0100	-0.0100
		134	5670.0000	5670.0102	-0.0102
		140	5700.0000	5700.0097	-0.0097

**Chain C**

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\Delta F$ (MHz)
T <sub>nom</sub> (20) °C	V <sub>nom</sub> (120)V	52	5260.0000	5260.0085	-0.0085
		54	5270.0000	5270.0098	-0.0098
		60	5300.0000	5300.0089	-0.0089
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0100	-0.0100
		100	5500.0000	5500.0096	-0.0096
		102	5510.0000	5510.0100	-0.0100
		110	5550.0000	5550.0100	-0.0100
		116	5580.0000	5580.0099	-0.0099
		134	5670.0000	5670.0100	-0.0100
T <sub>max</sub> (50) °C	V <sub>max</sub> (138)V	140	5700.0000	5700.0095	-0.0095
		52	5260.0000	5260.0089	-0.0089
		54	5270.0000	5270.0100	-0.0100
		60	5300.0000	5300.0089	-0.0089
		62	5310.0000	5310.0106	-0.0106
		64	5320.0000	5320.0100	-0.0100
		100	5500.0000	5500.0099	-0.0099
		102	5510.0000	5510.0105	-0.0105
		110	5550.0000	5550.0099	-0.0099
		116	5580.0000	5580.0104	-0.0104
T <sub>max</sub> (50) °C	V <sub>min</sub> (102)V	134	5670.0000	5670.0101	-0.0101
		140	5700.0000	5700.0098	-0.0098
		52	5260.0000	5260.0089	-0.0089
		54	5270.0000	5270.0099	-0.0099
		60	5300.0000	5300.0091	-0.0091
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0100	-0.0100
		100	5500.0000	5500.0101	-0.0101
		102	5510.0000	5510.0105	-0.0105
		110	5550.0000	5550.0101	-0.0101

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\Delta F$ (MHz)
Tmin (0) °C	Vmax (138)V	52	5260.0000	5260.0088	-0.0088
		54	5270.0000	5270.0099	-0.0099
		60	5300.0000	5300.0091	-0.0091
		62	5310.0000	5310.0106	-0.0106
		64	5320.0000	5320.0100	-0.0100
		100	5500.0000	5500.0099	-0.0099
		102	5510.0000	5510.0105	-0.0105
		110	5550.0000	5550.0101	-0.0101
		116	5580.0000	5580.0103	-0.0103
		134	5670.0000	5670.0104	-0.0104
Tmin (0) °C	Vmin (102)V	140	5700.0000	5700.0094	-0.0094
		52	5260.0000	5260.0083	-0.0083
		54	5270.0000	5270.0098	-0.0098
		60	5300.0000	5300.0091	-0.0091
		62	5310.0000	5310.0102	-0.0102
		64	5320.0000	5320.0104	-0.0104
		100	5500.0000	5500.0097	-0.0097
		102	5510.0000	5510.0105	-0.0105
		110	5550.0000	5550.0100	-0.0100
		116	5580.0000	5580.0105	-0.0105
		134	5670.0000	5670.0105	-0.0105
		140	5700.0000	5700.0094	-0.0094

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

No modification was made during testing.