Product : Wireless Access Point
Test Item : Peak Excursion
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps)

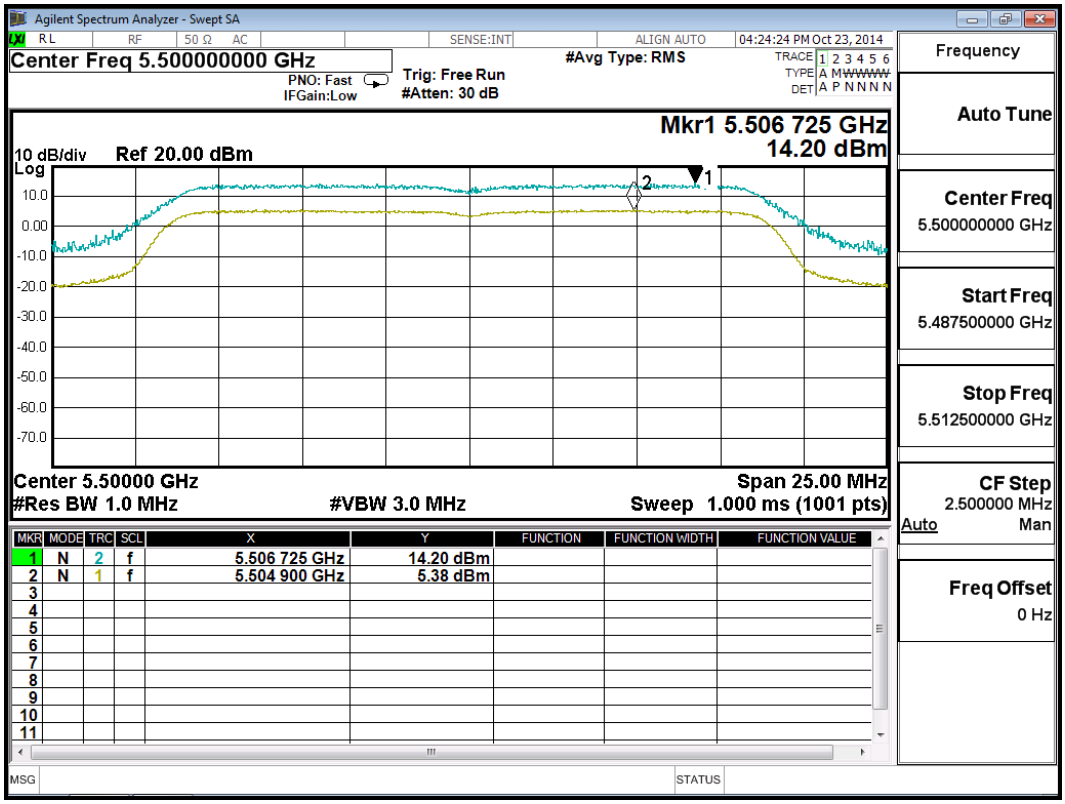
Chain A

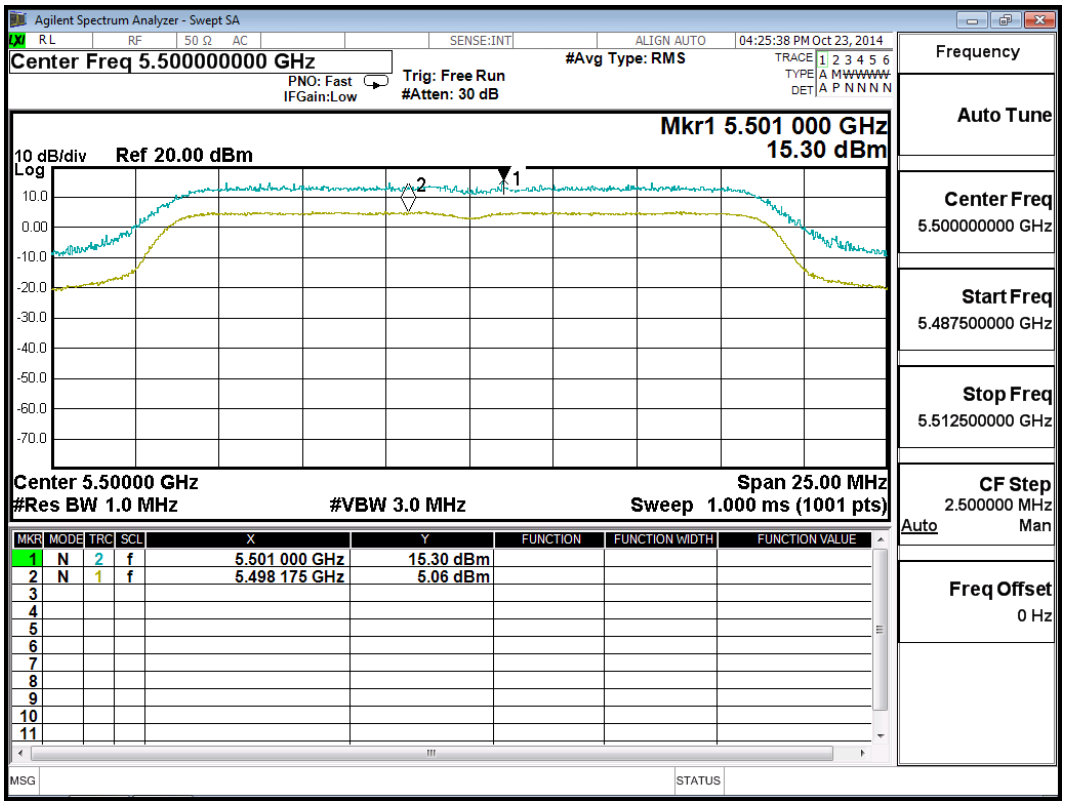
Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
100	5500	MCS (0)	8.820	<13	Pass
		MCS (2)	10.240	<13	Pass
		MCS (4)	10.490	<13	Pass
		MCS (7)	10.110	<13	Pass

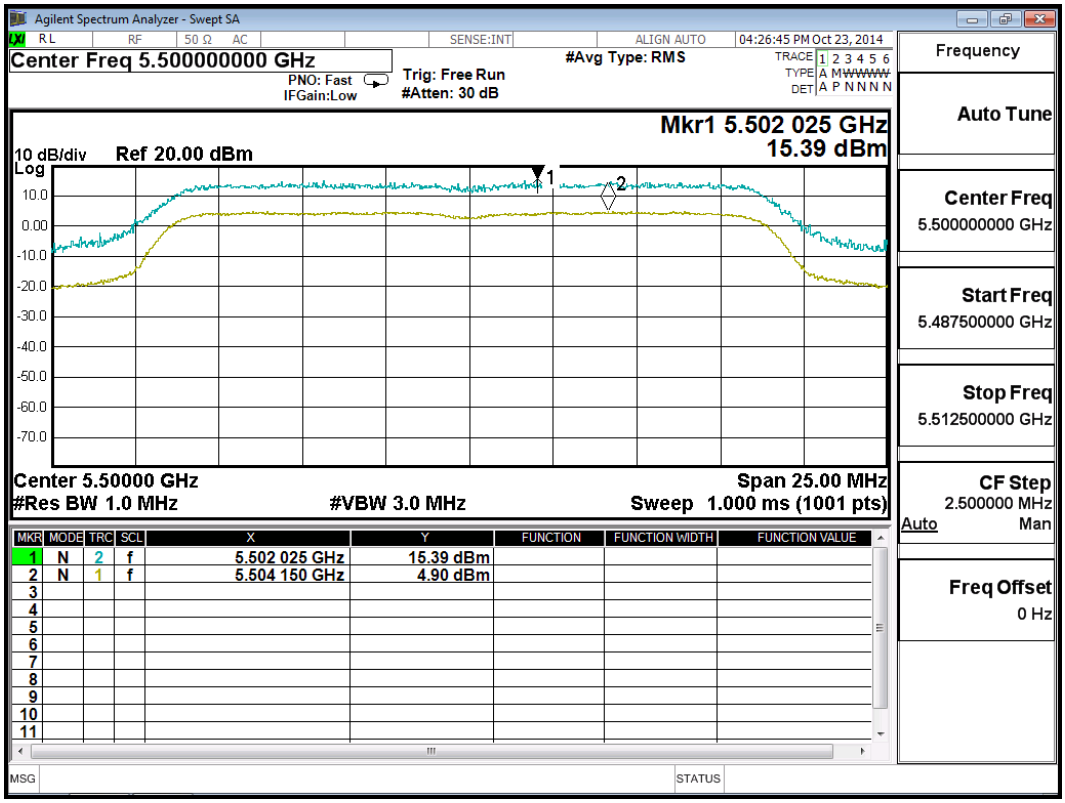
Chain B

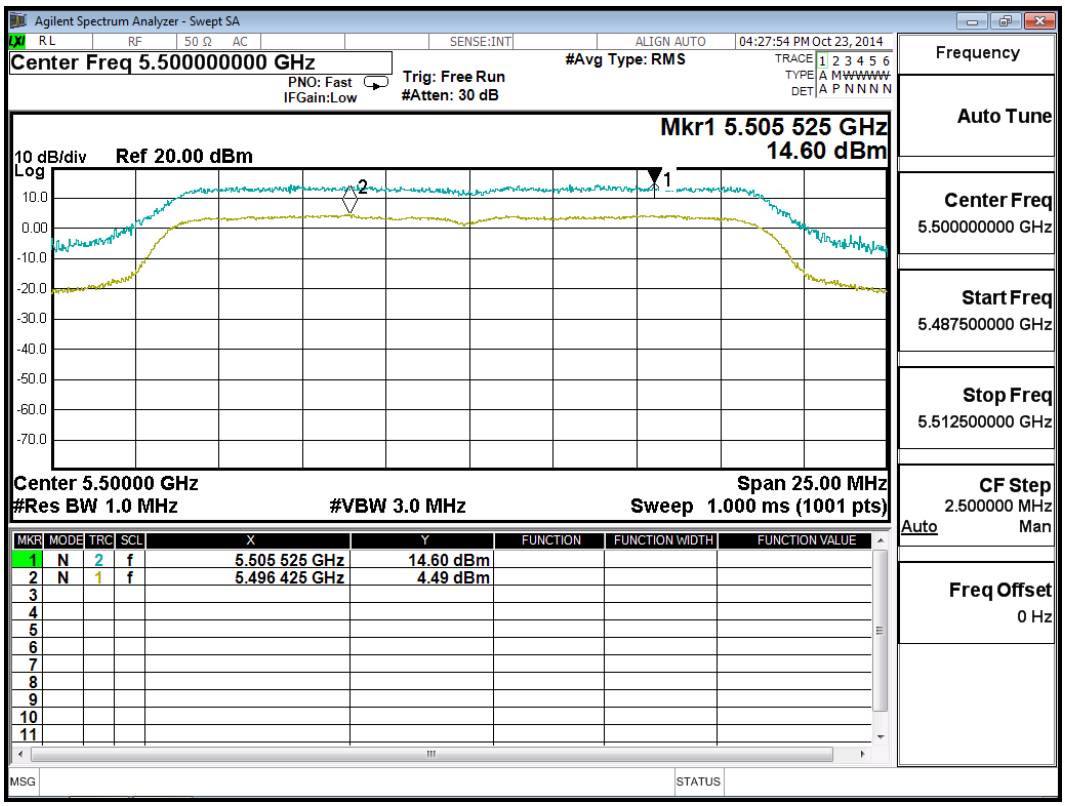
Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
100	5500	MCS (0)	9.610	<13	Pass
		MCS (2)	9.630	<13	Pass
		MCS (4)	9.910	<13	Pass
		MCS (7)	10.270	<13	Pass

Channel 100: Chain A

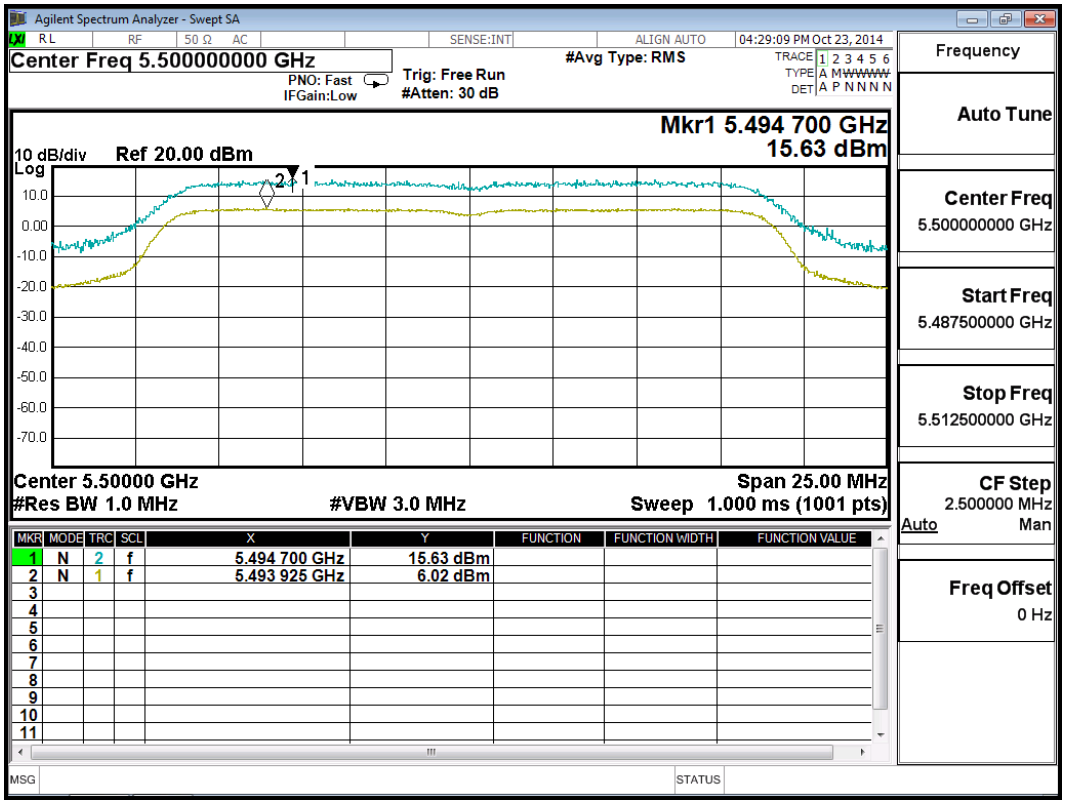


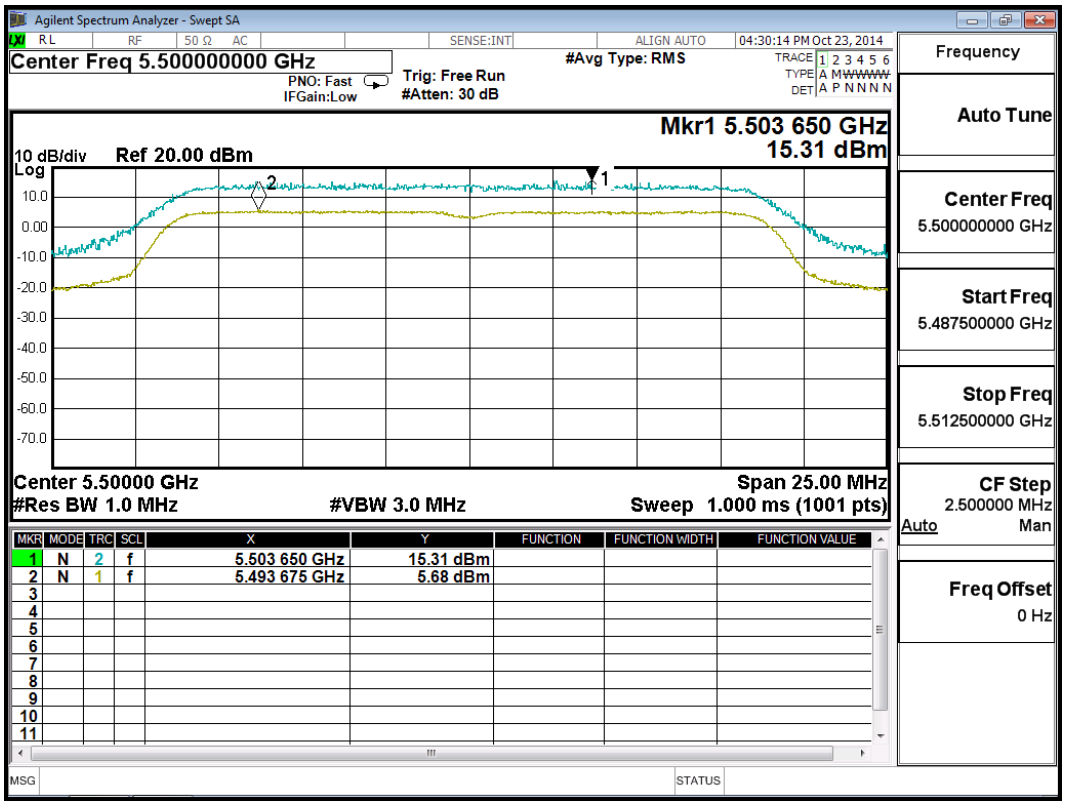


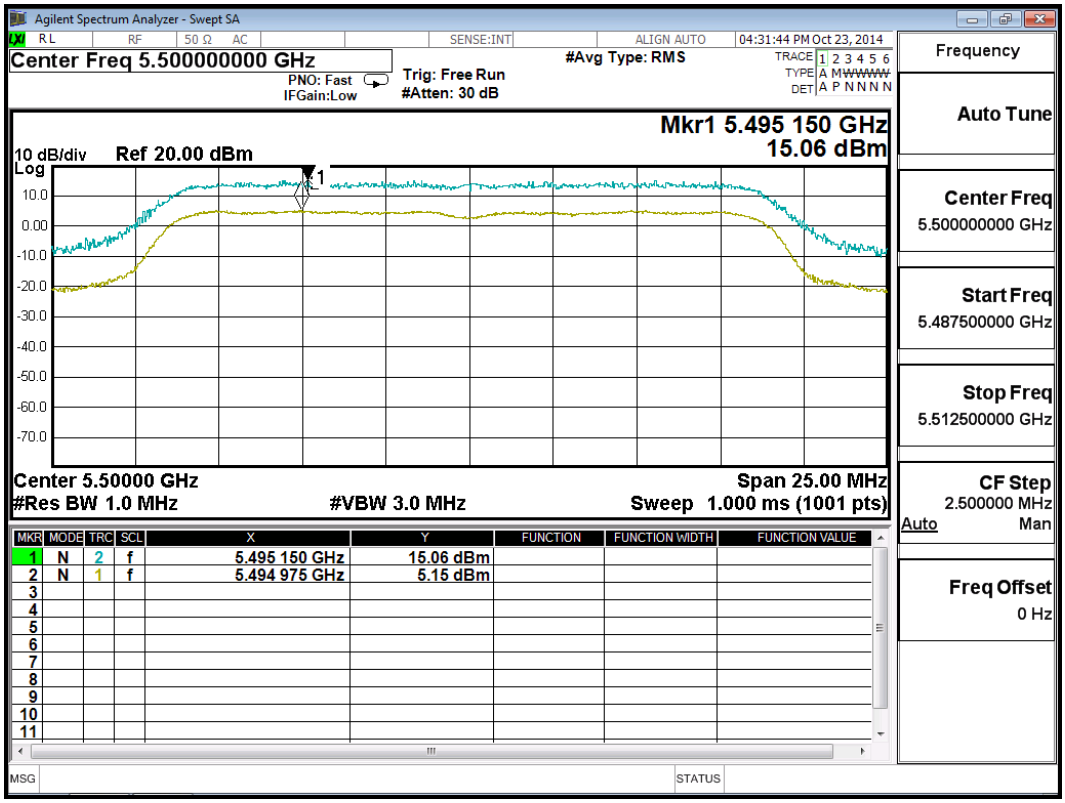

Agilent Spectrum Analyzer - Swept SA
Center Freq 5.500000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
04:26:45 PM Oct 23, 2014
Mkr1 5.502 025 GHz
15.39 dBm
10 dB/div Ref 20.00 dBm
Log
Center 5.50000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Span 25.00 MHz
Sweep 1.000 ms (1001 pts)
1 N 2 f 5.502 025 GHz 15.39 dBm
2 N 1 f 5.504 150 GHz 4.90 dBm
Frequency
Auto Tune
Center Freq 5.500000000 GHz
Start Freq 5.487500000 GHz
Stop Freq 5.512500000 GHz
CF Step 2.500000 MHz
Auto Man
Freq Offset 0 Hz

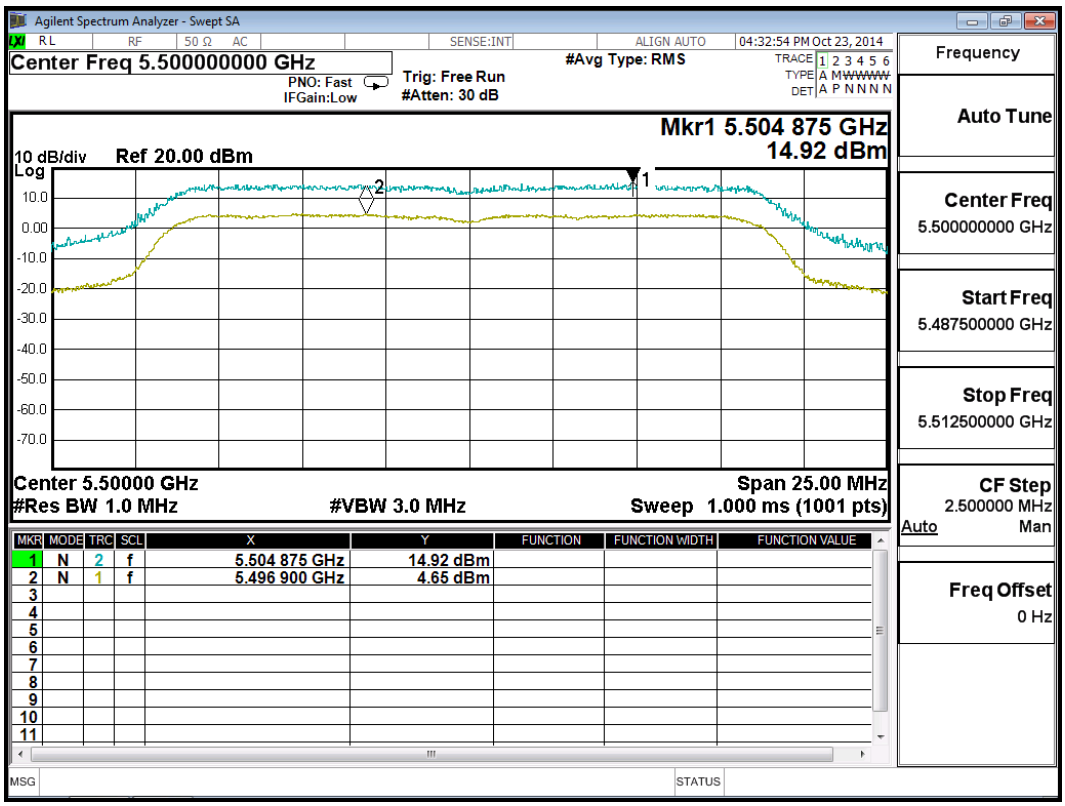

Agilent Spectrum Analyzer - Swept SA
Center Freq 5.500000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
04:27:54 PM Oct 23, 2014
Mkr1 5.505 525 GHz
14.60 dBm
10 dB/div Ref 20.00 dBm
Log
Center 5.50000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Span 25.00 MHz
Sweep 1.000 ms (1001 pts)
1 N 2 f 5.505 525 GHz 14.60 dBm
2 N 1 f 5.496 425 GHz 4.49 dBm
Frequency
Auto Tune
Center Freq 5.500000000 GHz
Start Freq 5.487500000 GHz
Stop Freq 5.512500000 GHz
CF Step 2.500000 MHz
Auto Man
Freq Offset 0 Hz

Channel 100: Chain B






Agilent Spectrum Analyzer - Swept SA
RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:31:44 PM Oct 23, 2014
Center Freq 5.500000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
TRACE 1 2 3 4 5 6
TYPE A MWWWWW
DET A P N N N N
Mkr1 5.495 150 GHz
15.06 dBm
10 dB/div Ref 20.00 dBm
Log
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 5.50000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Span 25.00 MHz
Sweep 1.000 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 2 f 5.495 150 GHz 15.06 dBm
2 N 1 f 5.494 975 GHz 5.15 dBm
Frequency
Auto Tune
Center Freq
5.500000000 GHz
Start Freq
5.487500000 GHz
Stop Freq
5.512500000 GHz
CF Step
2.500000 MHz
Auto Man
Freq Offset
0 Hz
MSG
STATUS


Agilent Spectrum Analyzer - Swept SA
RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:32:54 PM Oct 23, 2014
Center Freq 5.500000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
TRACE 1 2 3 4 5 6
TYPE A MWWWWW
DET A P N N N N
Mkr1 5.504 875 GHz
14.92 dBm
10 dB/div Ref 20.00 dBm
Log
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 5.50000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Span 25.00 MHz
Sweep 1.000 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 2 f 5.504 875 GHz 14.92 dBm
2 N 1 f 5.496 900 GHz 4.65 dBm
Frequency
Auto Tune
Center Freq
5.500000000 GHz
Start Freq
5.487500000 GHz
Stop Freq
5.512500000 GHz
CF Step
2.500000 MHz
Auto Man
Freq Offset
0 Hz
MSG
STATUS

Product : Wireless Access Point
Test Item : Peak Excursion
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps)

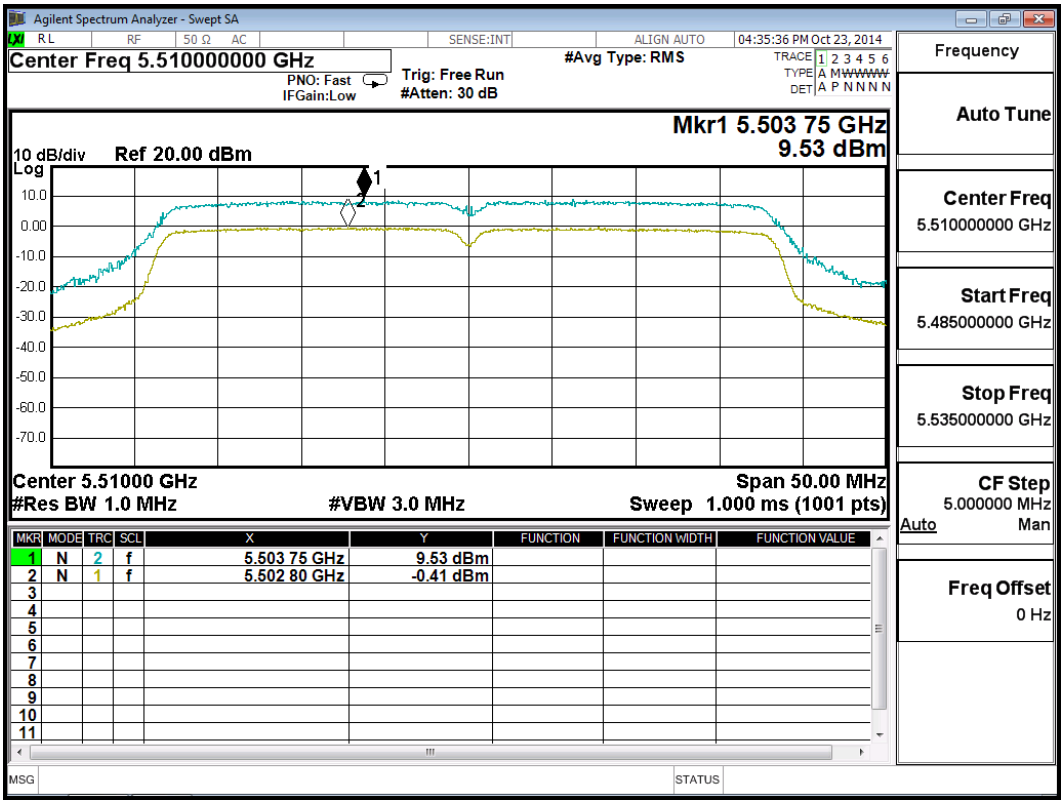
Chain A

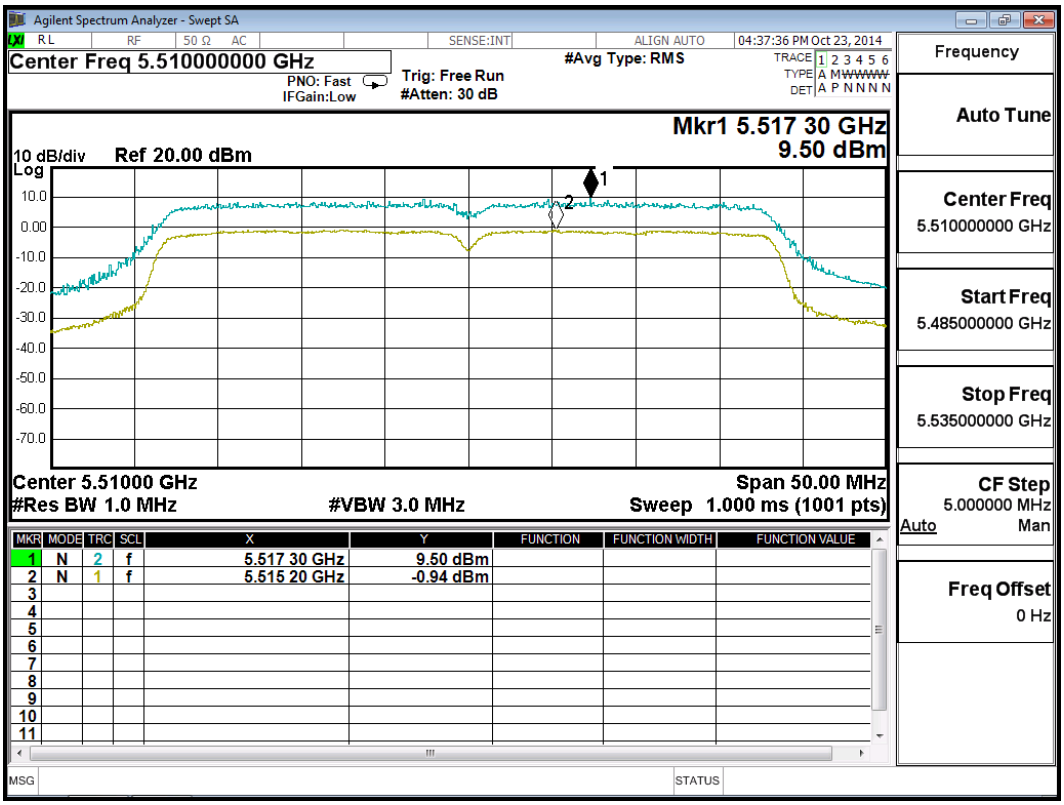
Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
102	5510	MCS (0)	9.940	<13	Pass
		MCS (2)	10.440	<13	Pass
		MCS (4)	10.710	<13	Pass
		MCS (7)	10.740	<13	Pass

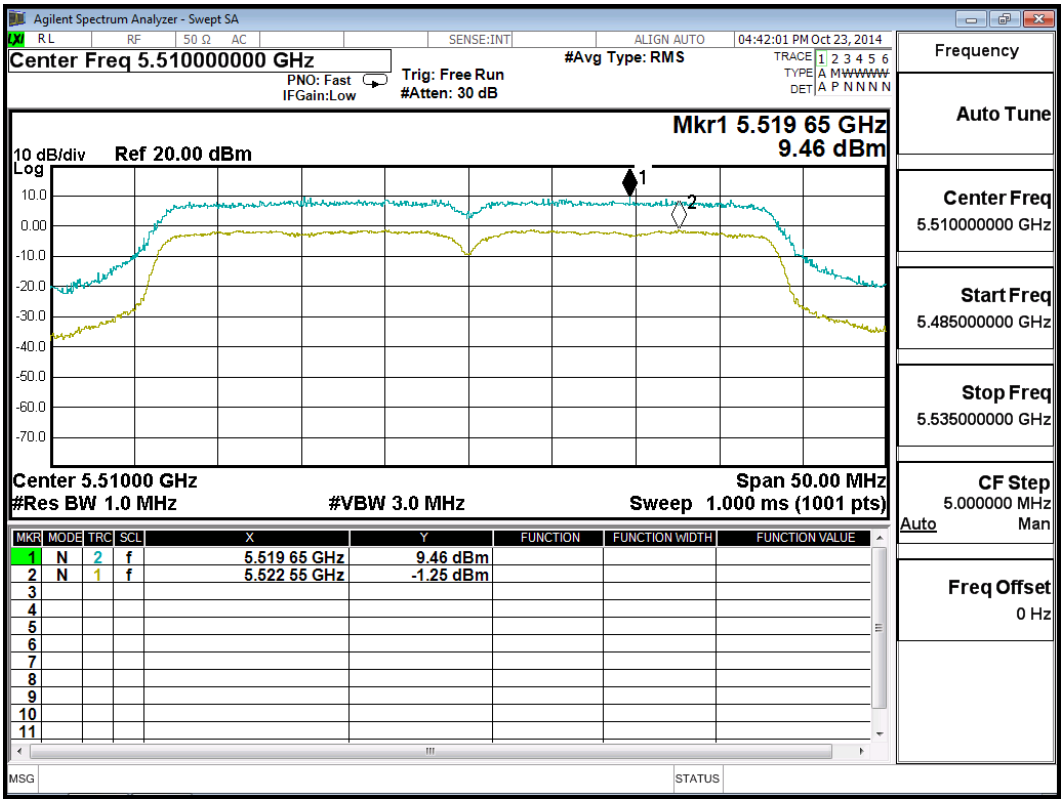
Chain B

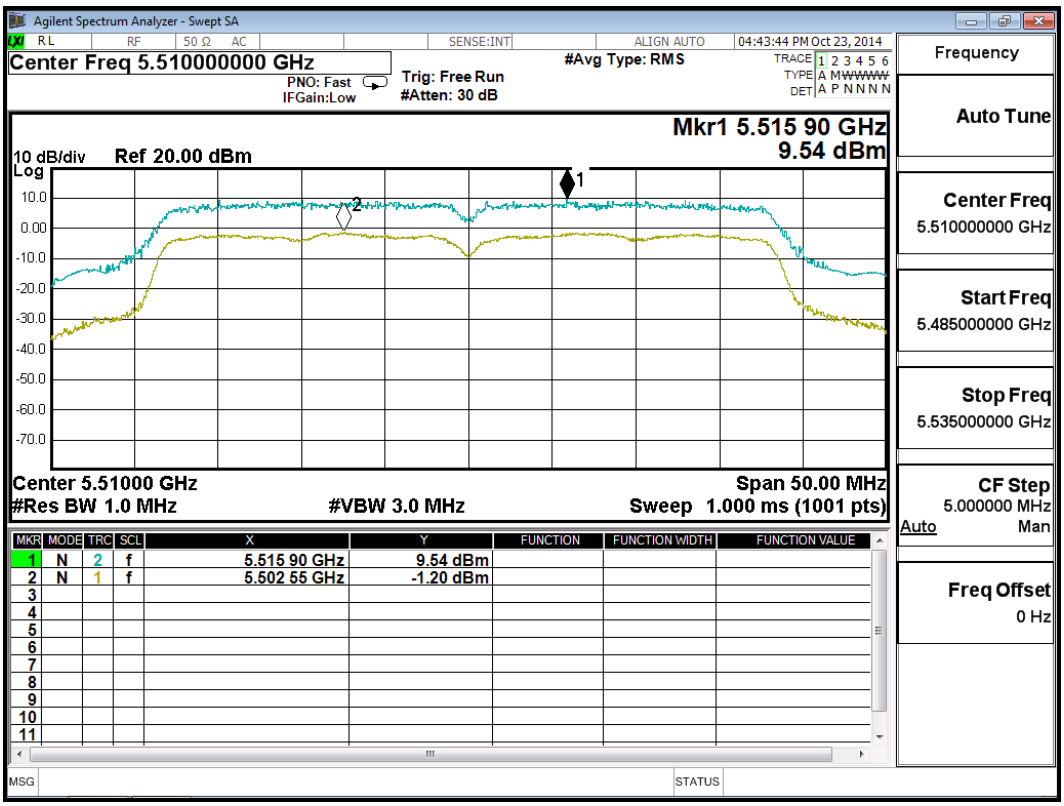
Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
102	5510	MCS (0)	9.740	<13	Pass
		MCS (2)	10.340	<13	Pass
		MCS (4)	11.200	<13	Pass
		MCS (7)	12.800	<13	Pass

Channel 102: Chain A

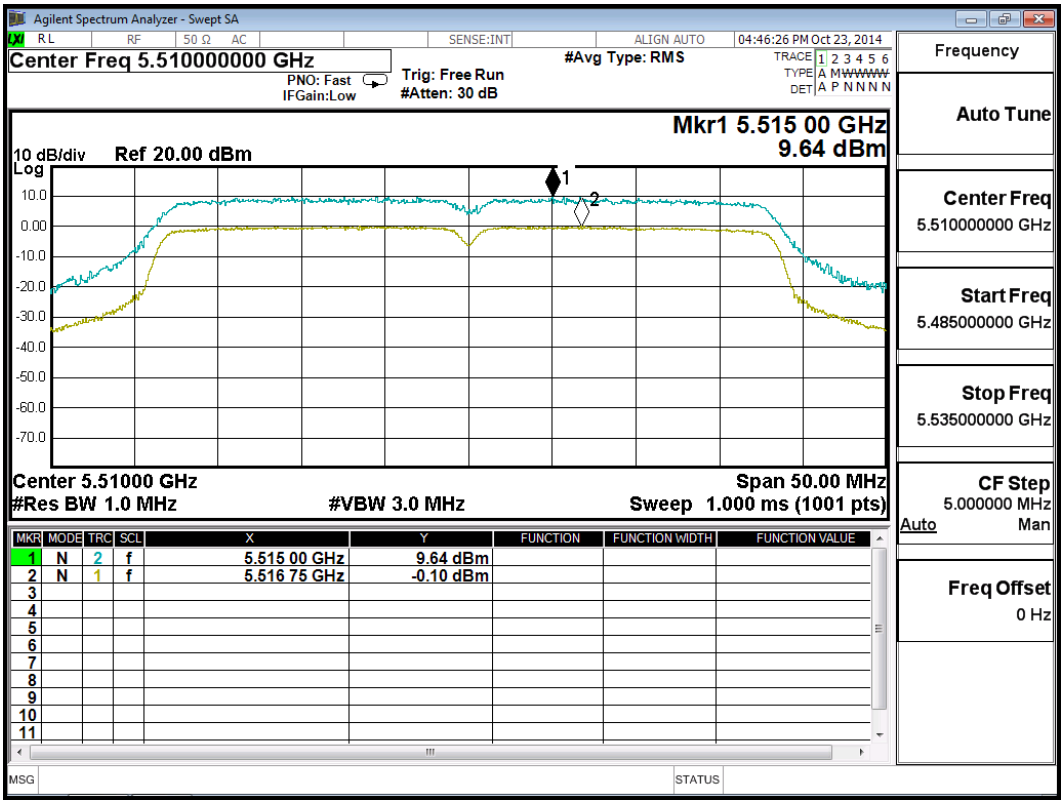


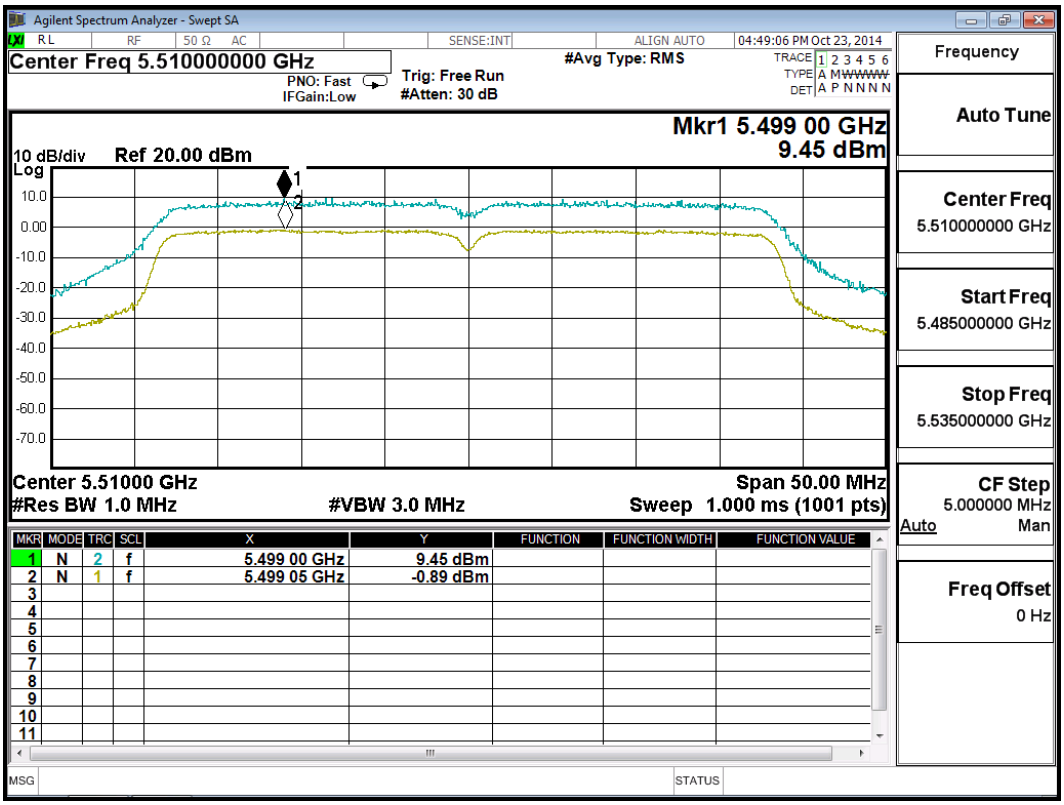


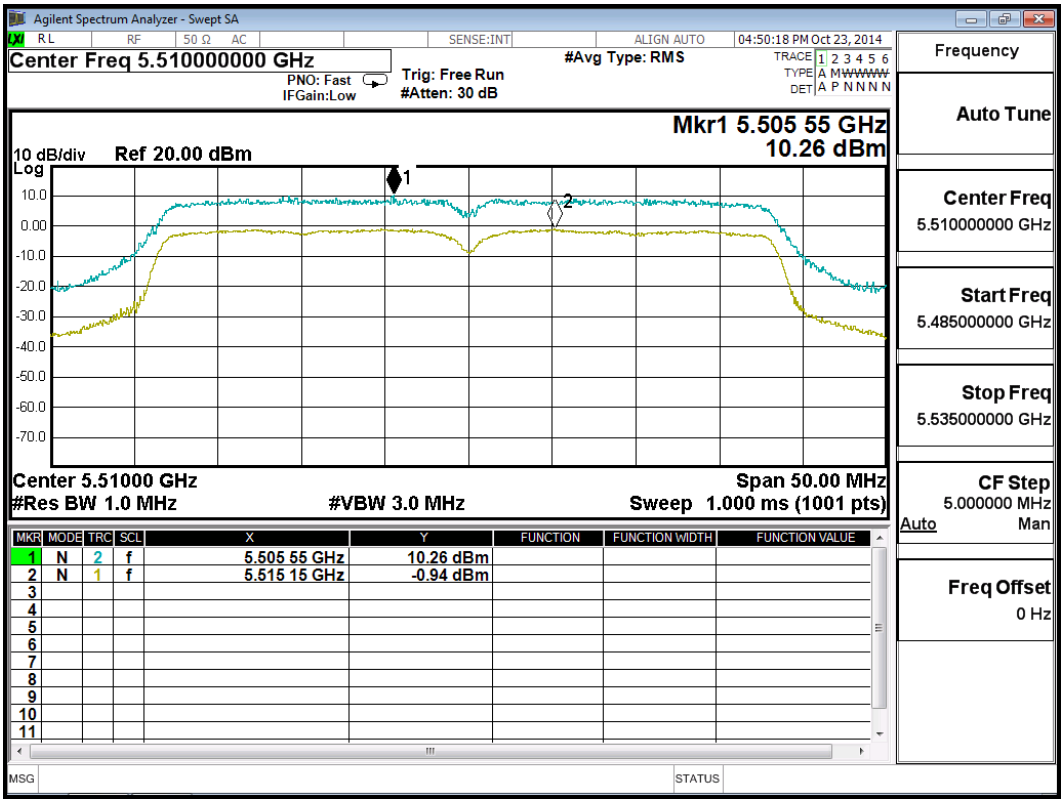

Agilent Spectrum Analyzer - Swept SA
Center Freq 5.510000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
04:42:01 PM Oct 23, 2014
Mkr1 5.519 65 GHz
9.46 dBm
10 dB/div
Ref 20.00 dBm
Log
Center 5.51000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Span 50.00 MHz
Sweep 1.000 ms (1001 pts)
1 N 2 f 5.519 65 GHz 9.46 dBm
2 N 1 f 5.522 55 GHz -1.25 dBm
Frequency
Auto Tune
Center Freq
5.510000000 GHz
Start Freq
5.485000000 GHz
Stop Freq
5.535000000 GHz
CF Step
5.000000 MHz
Auto
Man
Freq Offset
0 Hz

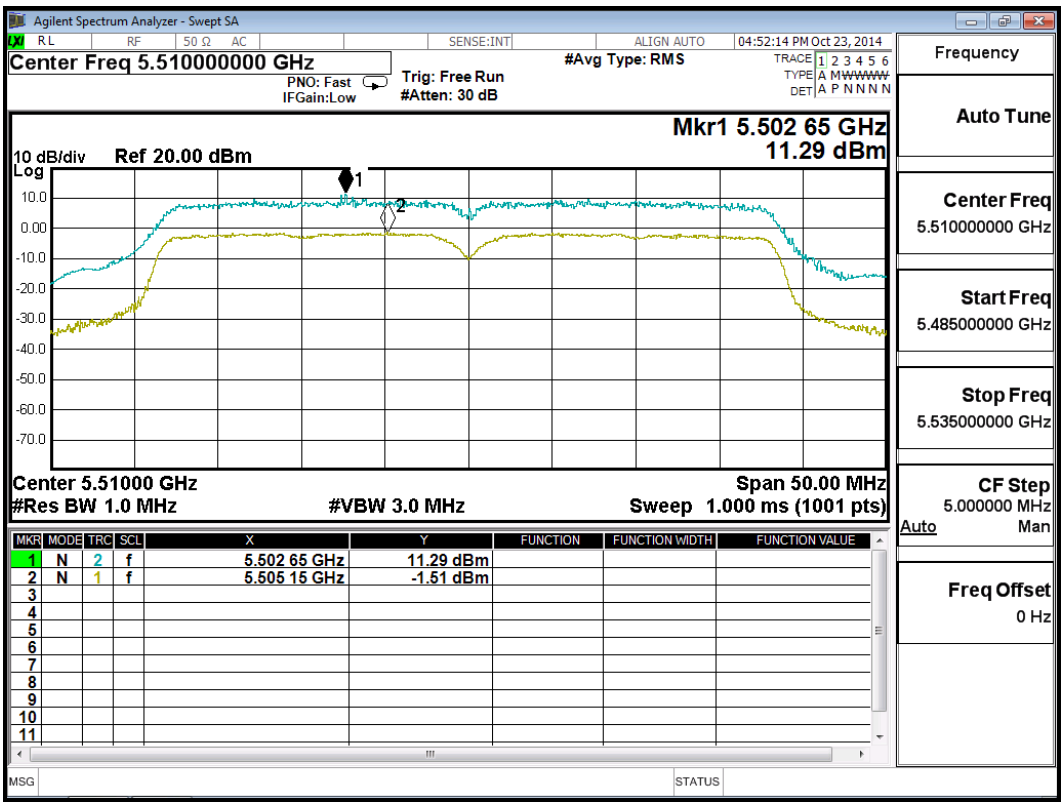

Agilent Spectrum Analyzer - Swept SA
Center Freq 5.510000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
04:43:44 PM Oct 23, 2014
Mkr1 5.515 90 GHz
9.54 dBm
10 dB/div
Ref 20.00 dBm
Log
Center 5.51000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Span 50.00 MHz
Sweep 1.000 ms (1001 pts)
1 N 2 f 5.515 90 GHz 9.54 dBm
2 N 1 f 5.502 55 GHz -1.20 dBm
Frequency
Auto Tune
Center Freq
5.510000000 GHz
Start Freq
5.485000000 GHz
Stop Freq
5.535000000 GHz
CF Step
5.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 102: Chain B






Agilent Spectrum Analyzer - Swept SA
Center Freq 5.510000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
04:50:18 PM Oct 23, 2014
Mkr1 5.505 55 GHz
10.26 dBm
10 dB/div Ref 20.00 dBm
Log
Center 5.51000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Span 50.00 MHz
Sweep 1.000 ms (1001 pts)
1 N 2 f 5.505 55 GHz 10.26 dBm
2 N 1 f 5.515 15 GHz -0.94 dBm
Frequency
Auto Tune
Center Freq 5.510000000 GHz
Start Freq 5.485000000 GHz
Stop Freq 5.535000000 GHz
CF Step 5.000000 MHz
Auto Man
Freq Offset 0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 5.510000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
04:52:14 PM Oct 23, 2014
Mkr1 5.502 65 GHz
11.29 dBm
10 dB/div Ref 20.00 dBm
Log
Center 5.51000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Span 50.00 MHz
Sweep 1.000 ms (1001 pts)
1 N 2 f 5.502 65 GHz 11.29 dBm
2 N 1 f 5.505 15 GHz -1.51 dBm
Frequency
Auto Tune
Center Freq 5.510000000 GHz
Start Freq 5.485000000 GHz
Stop Freq 5.535000000 GHz
CF Step 5.000000 MHz
Auto Man
Freq Offset 0 Hz

Product : Wireless Access Point
Test Item : Peak Excursion
Test Site : No.3 OATS
Test Mode : Mode 4 Transmit (802.11ac-80BW-65Mbps)

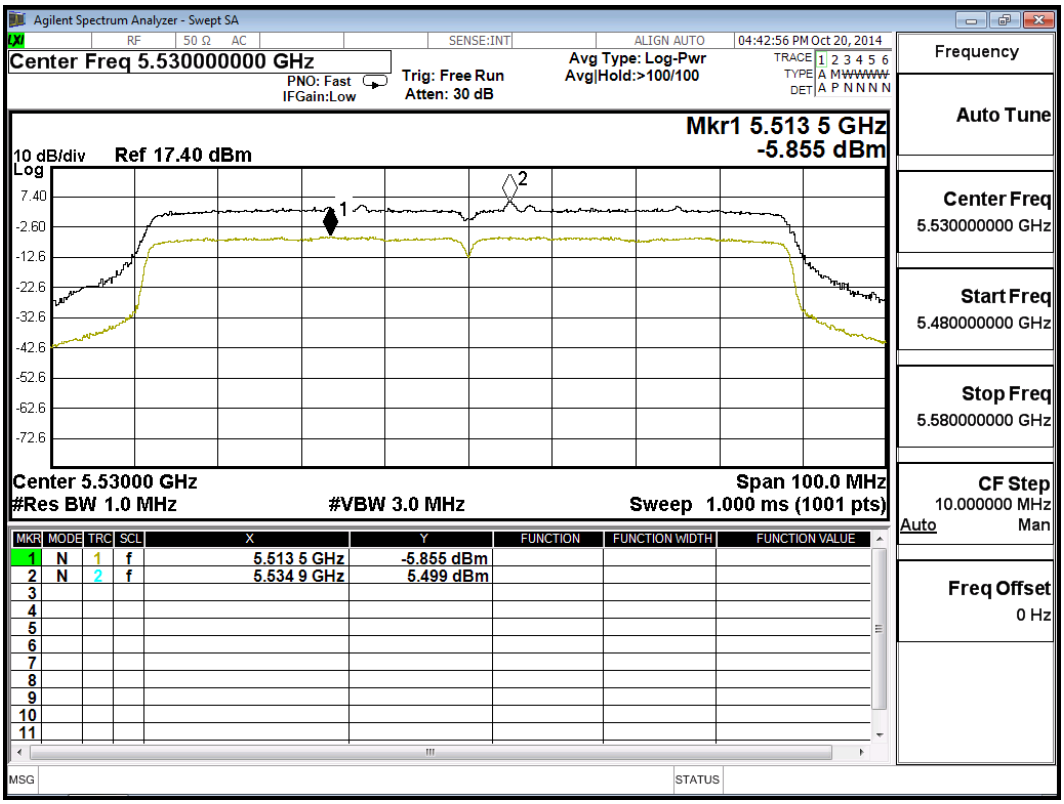
Chain A

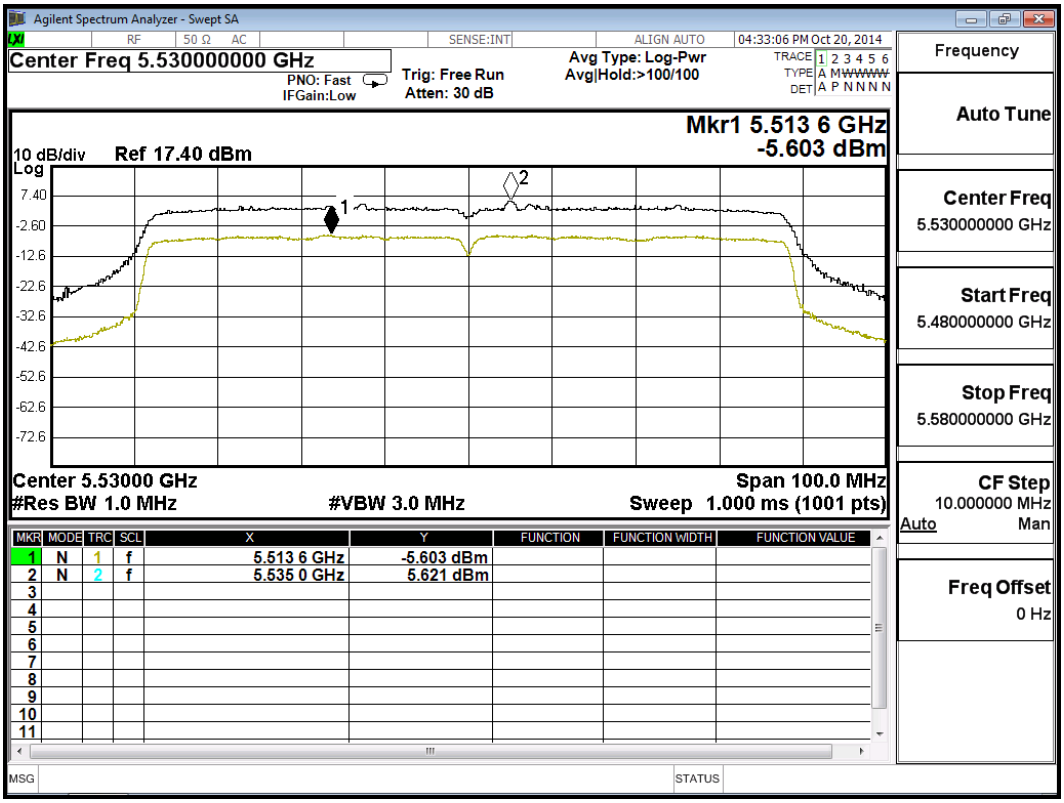
Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
106	5530	MCS (0)	11.354	<13	Pass
		MCS (2)	11.224	<13	Pass
		MCS (4)	11.052	<13	Pass
		MCS (7)	11.597	<13	Pass
		MCS (9)	10.922	<13	Pass

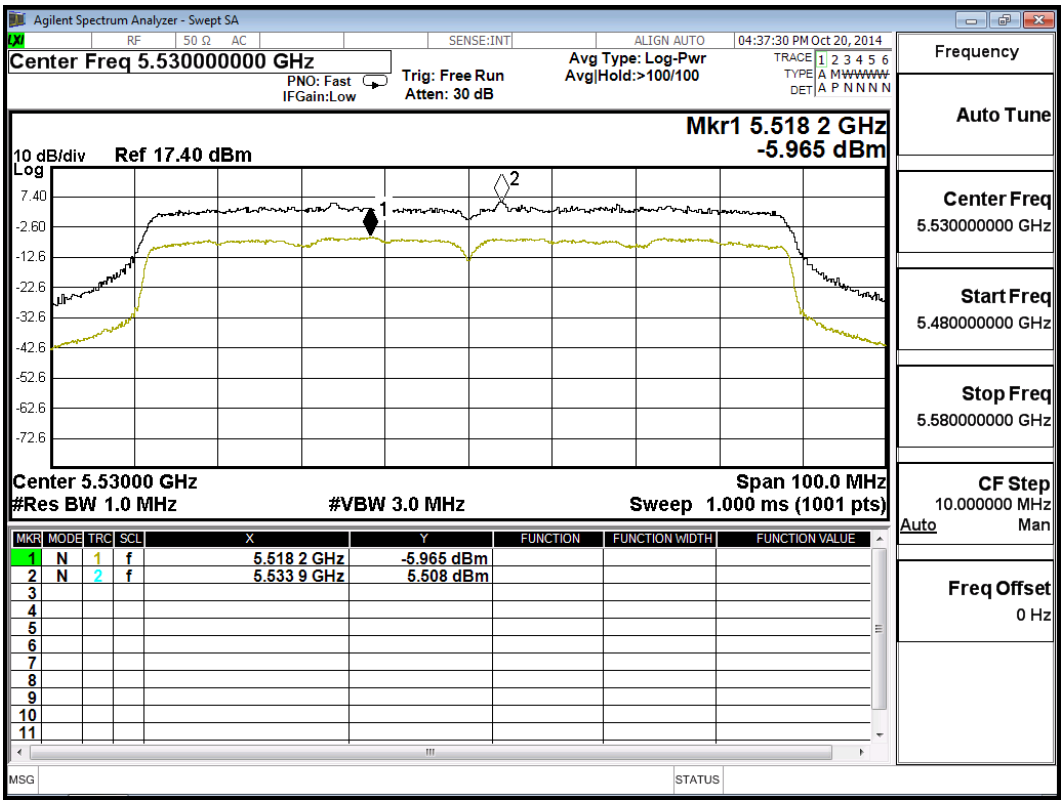
Chain B

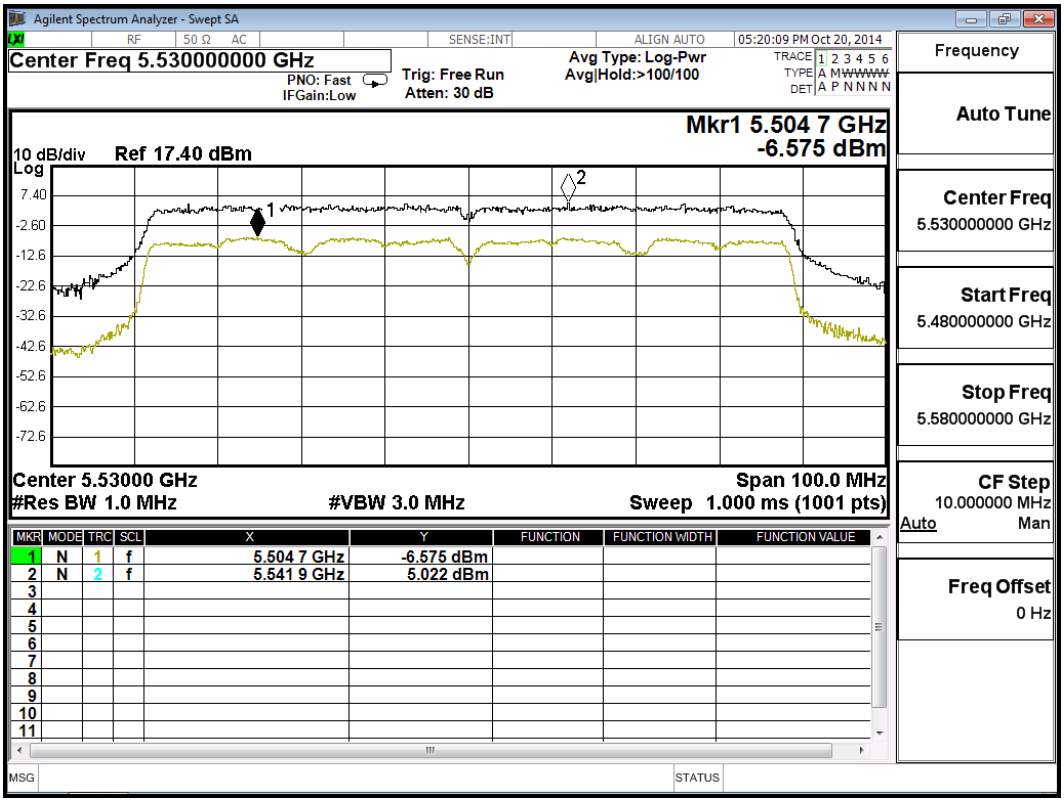
Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
106	5530	MCS (0)	11.056	<13	Pass
		MCS (2)	10.253	<13	Pass
		MCS (4)	10.760	<13	Pass
		MCS (7)	11.968	<13	Pass
		MCS (9)	11.258	<13	Pass

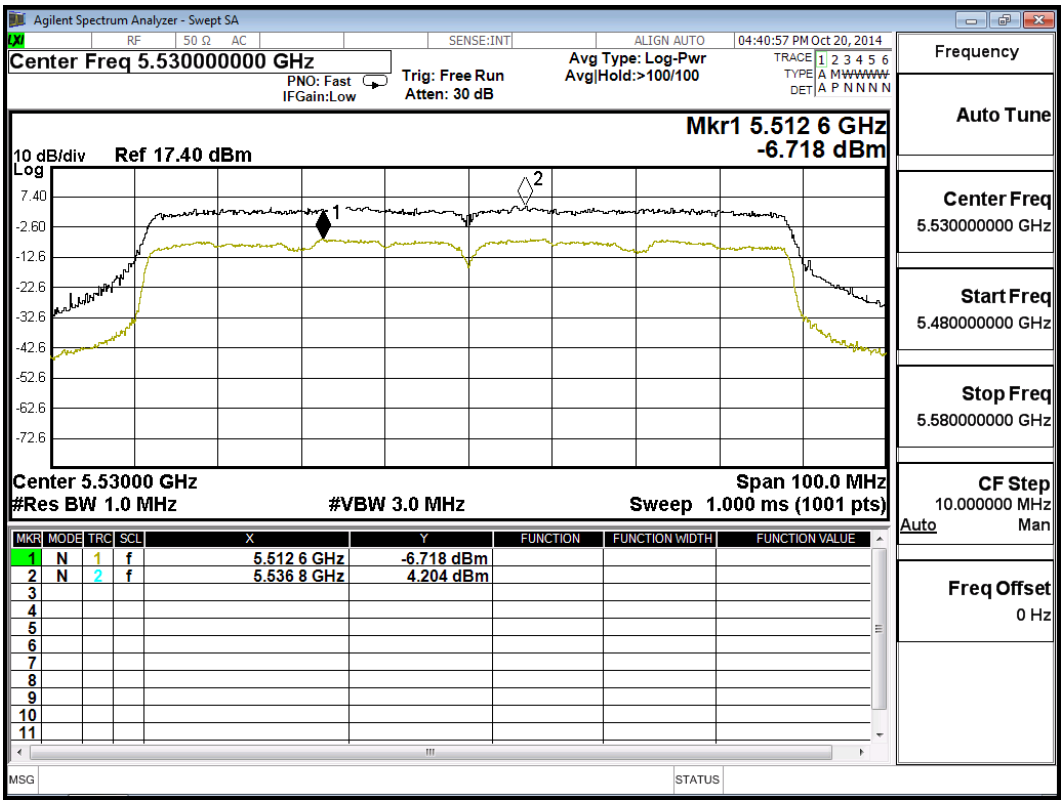
Channel 106: Chain A



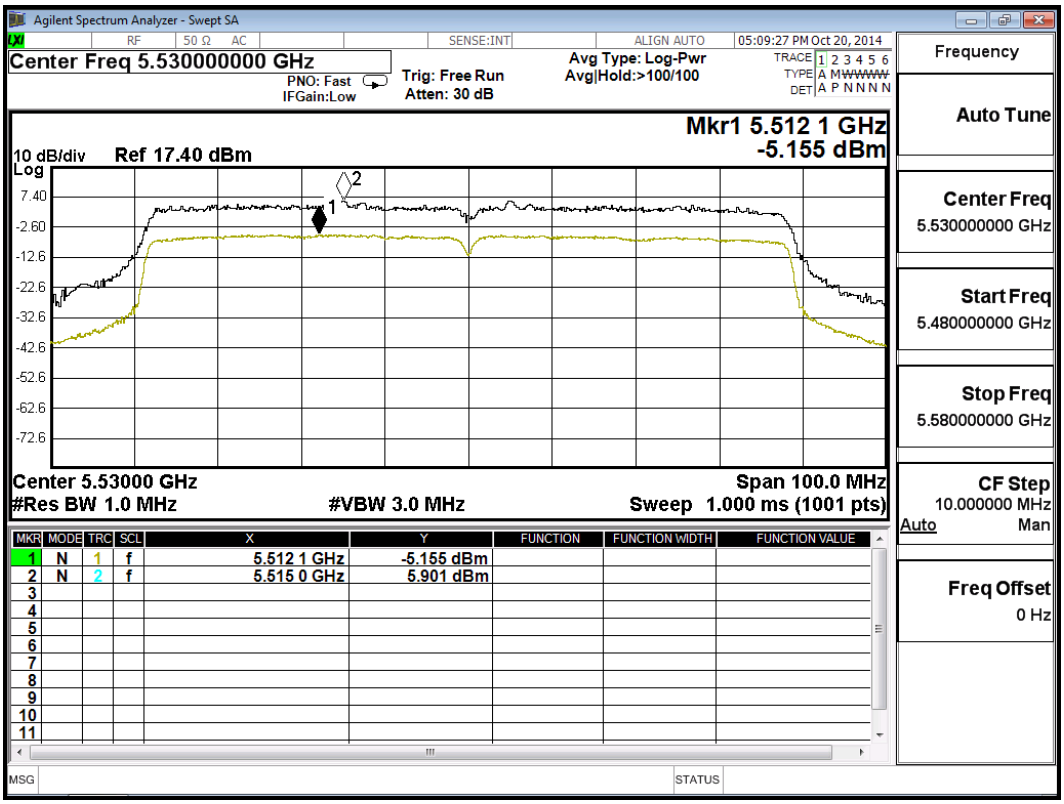


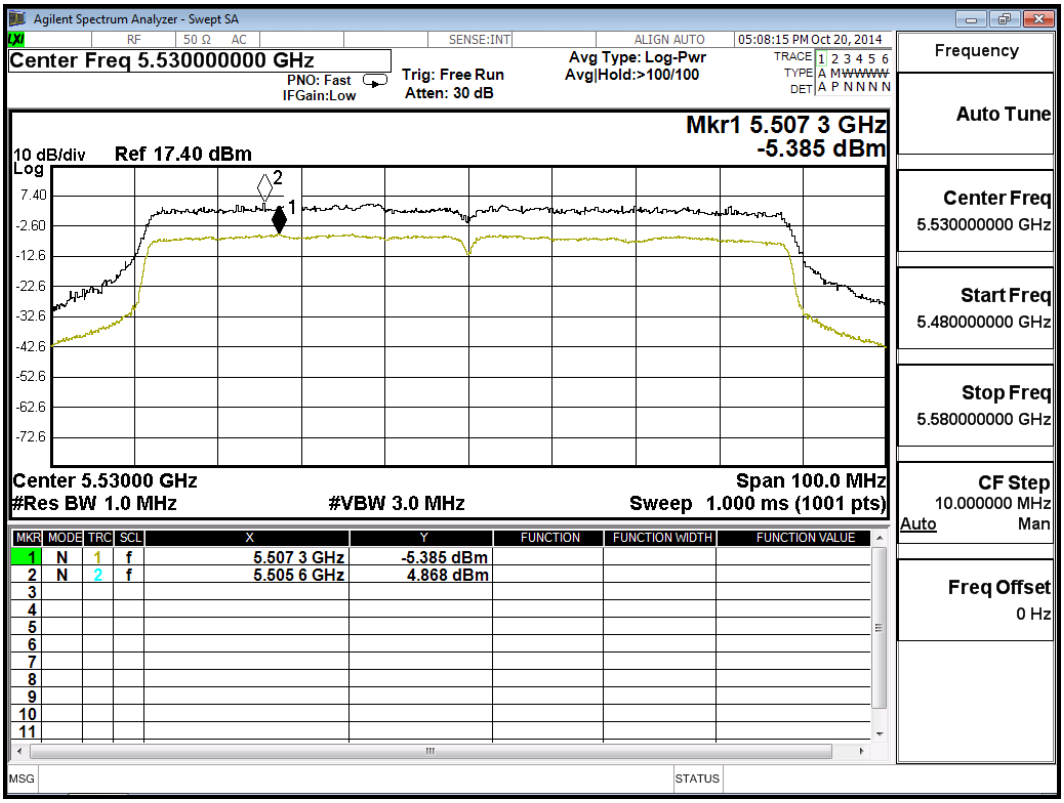

Agilent Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
04:37:30 PM Oct 20, 2014
Center Freq 5.530000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
TRACE 1 2 3 4 5 6
TYPE A M W W W W W
DET A P N N N N
Mkr1 5.518 2 GHz
-5.965 dBm
10 dB/div Ref 17.40 dBm
Log
7.40
-2.60
-12.6
-22.6
-32.6
-42.6
-52.6
-62.6
-72.6
Center 5.53000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Span 100.0 MHz
Sweep 1.000 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 5.518 2 GHz -5.965 dBm
2 N 2 f 5.533 9 GHz 5.508 dBm
Frequency
Auto Tune
Center Freq
5.530000000 GHz
Start Freq
5.480000000 GHz
Stop Freq
5.580000000 GHz
CF Step
10.000000 MHz
Auto Man
Freq Offset
0 Hz
MSG
STATUS

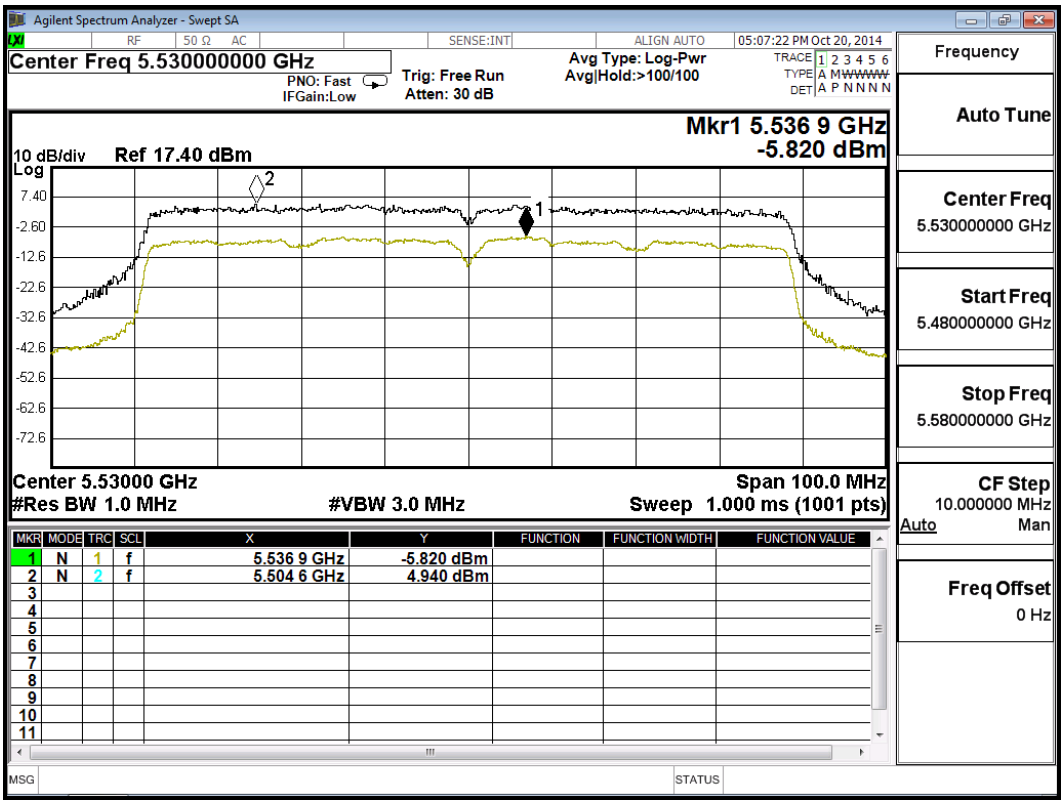

Agilent Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
05:20:09 PM Oct 20, 2014
Center Freq 5.530000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
TRACE 1 2 3 4 5 6
TYPE A M W W W W W
DET A P N N N N
Mkr1 5.504 7 GHz
-6.575 dBm
10 dB/div Ref 17.40 dBm
Log
7.40
-2.60
-12.6
-22.6
-32.6
-42.6
-52.6
-62.6
-72.6
Center 5.53000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Span 100.0 MHz
Sweep 1.000 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 5.504 7 GHz -6.575 dBm
2 N 2 f 5.541 9 GHz 5.022 dBm
Frequency
Auto Tune
Center Freq
5.530000000 GHz
Start Freq
5.480000000 GHz
Stop Freq
5.580000000 GHz
CF Step
10.000000 MHz
Auto Man
Freq Offset
0 Hz
MSG
STATUS

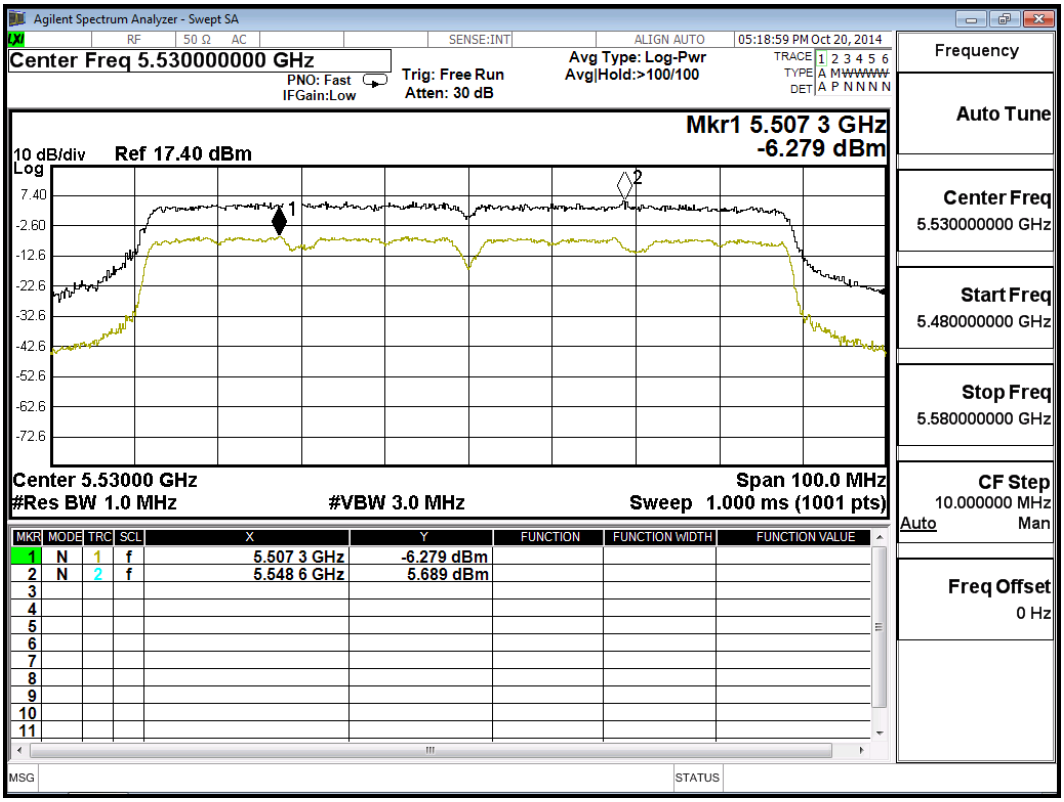

Agilent Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
04:40:57 PM Oct 20, 2014
Center Freq 5.530000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
TRACE 1 2 3 4 5 6
TYPE A M W W W W W
DET A P N N N N
Mkr1 5.512 6 GHz
-6.718 dBm
10 dB/div Ref 17.40 dBm
Log
7.40
-2.60
-12.6
-22.6
-32.6
-42.6
-52.6
-62.6
-72.6
Center 5.53000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Span 100.0 MHz
Sweep 1.000 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 5.512 6 GHz -6.718 dBm
2 N 2 f 5.536 8 GHz 4.204 dBm
Frequency
Auto Tune
Center Freq
5.530000000 GHz
Start Freq
5.480000000 GHz
Stop Freq
5.580000000 GHz
CF Step
10.000000 MHz
Auto Man
Freq Offset
0 Hz
MSG
STATUS

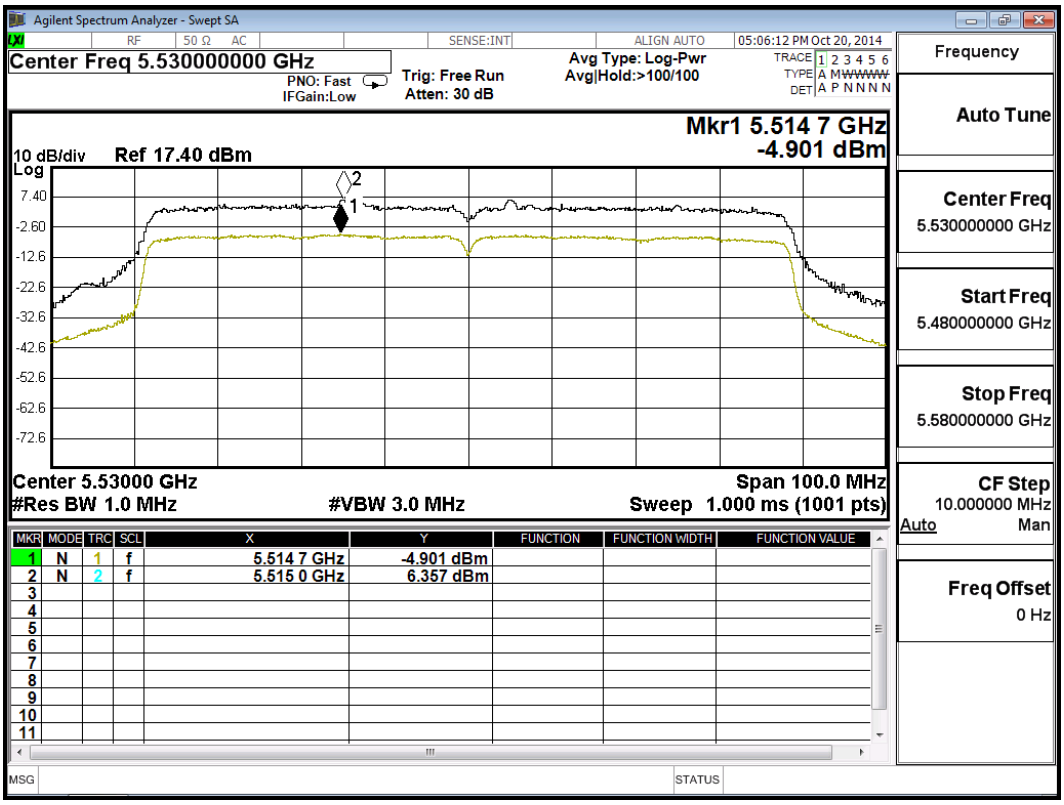
Channel 106: Chain B






Agilent Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
05:07:22 PM Oct 20, 2014
Center Freq 5.530000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
TRACE 1 2 3 4 5 6
TYPE A M W W W W W
DET A P N N N N
Mkr1 5.536 9 GHz
-5.820 dBm
10 dB/div Ref 17.40 dBm
Log
7.40
-2.60
-12.6
-22.6
-32.6
-42.6
-52.6
-62.6
-72.6
Center 5.53000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Span 100.0 MHz
Sweep 1.000 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 5.536 9 GHz -5.820 dBm
2 N 2 f 5.504 6 GHz 4.940 dBm
Frequency
Auto Tune
Center Freq
5.530000000 GHz
Start Freq
5.480000000 GHz
Stop Freq
5.580000000 GHz
CF Step
10.000000 MHz
Auto Man
Freq Offset
0 Hz
MSG
STATUS


Agilent Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
05:18:59 PM Oct 20, 2014
Center Freq 5.530000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
TRACE 1 2 3 4 5 6
TYPE A M W W W W W
DET A P N N N N
Mkr1 5.507 3 GHz
-6.279 dBm
10 dB/div Ref 17.40 dBm
Log
7.40
-2.60
-12.6
-22.6
-32.6
-42.6
-52.6
-62.6
-72.6
Center 5.53000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Span 100.0 MHz
Sweep 1.000 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 5.507 3 GHz -6.279 dBm
2 N 2 f 5.548 6 GHz 5.689 dBm
Frequency
Auto Tune
Center Freq
5.530000000 GHz
Start Freq
5.480000000 GHz
Stop Freq
5.580000000 GHz
CF Step
10.000000 MHz
Auto Man
Freq Offset
0 Hz
MSG
STATUS


Agilent Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
05:06:12 PM Oct 20, 2014
Center Freq 5.530000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
TRACE 1 2 3 4 5 6
TYPE A M W W W W W
DET A P N N N N N
Mkr1 5.514 7 GHz
-4.901 dBm
10 dB/div Ref 17.40 dBm
Log
7.40
-2.60
-12.6
-22.6
-32.6
-42.6
-52.6
-62.6
-72.6
Center 5.53000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Span 100.0 MHz
Sweep 1.000 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 5.514 7 GHz -4.901 dBm
2 N 2 f 5.515 0 GHz 6.357 dBm
3
4
5
6
7
8
9
10
11
Frequency
Auto Tune
Center Freq
5.530000000 GHz
Start Freq
5.480000000 GHz
Stop Freq
5.580000000 GHz
CF Step
10.000000 MHz
Auto Man
Freq Offset
0 Hz
MSG
STATUS

6. Radiated Emission

6.1. Test Equipment

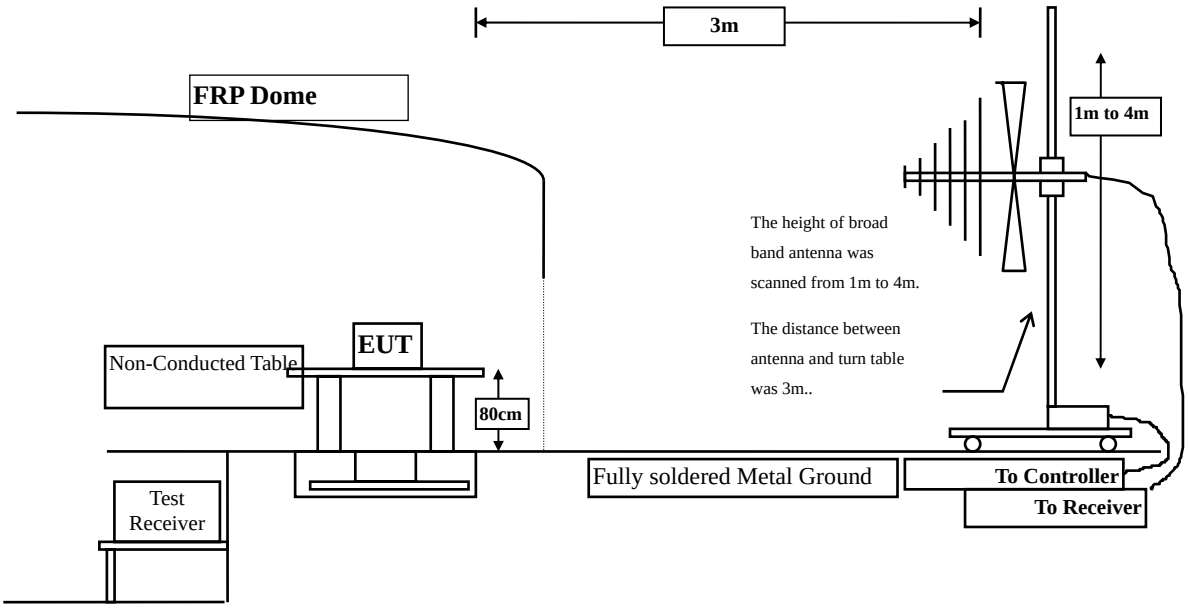
The following test equipments are used during the radiated emission test:

Test Site	Equipment		Manufacturer	Model No./Serial No.	Last Cal.
☒Site # 3	X	Loop Antenna	Teseq	HLA6120 / 26739	Jul., 2014
	X	Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2014
	X	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2014
	X	Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2014
	X	Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2014
	X	Pre-Amplifier	QTK	AP-180C / CHM_0906076	Sep., 2014
	X	Pre-Amplifier	MITEQ	AMF-4D-180400-45-6P/ 925975	Mar., 2014
	X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2014
	X	Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2014
	X	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2014
	X	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	X	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

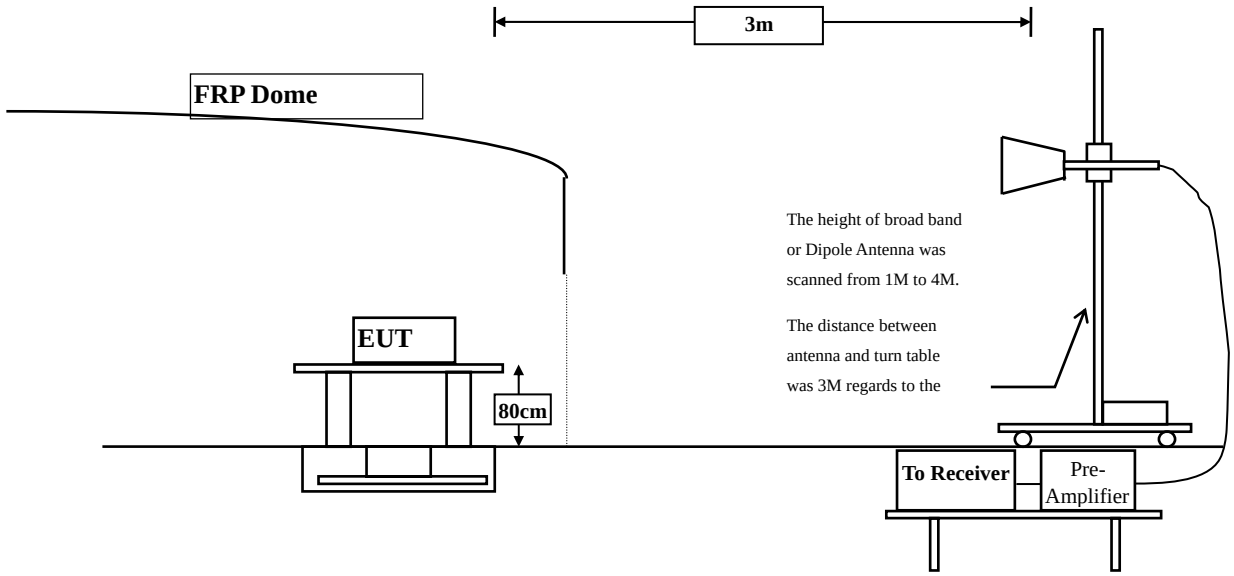
1. All equipment is calibrated once a year or as required by manufacturer.
2. All equipment is calibrated to traceable calibration procedures.
3. The test instruments marked by "X" are used to measure the final test results.

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 (dBμV/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 form 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 : Wireless Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5260MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal Peak Detector:					
6230.000	7.494	49.170	56.664	-17.336	74.000
10520.000	14.015	37.350	51.365	-22.635	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
31560.000	*	*	*	*	74.000
36820.000	*	*	*	*	74.000
Average Detector:					
6230.000	7.494	24.690	32.184	-21.816	54.000
Vertical Peak Detector:					
6230.000	9.410	53.680	63.090	-10.910	74.000
10520.000	14.818	36.980	51.798	-22.202	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
31560.000	*	*	*	*	74.000
36820.000	*	*	*	*	74.000
Average Detector:					
6230.000	9.410	25.790	35.200	-18.800	54.000

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

Product : Wireless Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5300MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
6230.000	7.494	48.890	56.384	-17.616	74.000
10600.000	14.550	36.750	51.299	-22.701	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500.000	*	*	*	*	74.000
31800.000	*	*	*	*	74.000
37100.000	*	*	*	*	74.000
Average					
Detector:					
6230.000	7.494	24.880	32.374	-21.626	54.000
Vertical					
Peak Detector:					
6230.000	9.410	53.870	63.280	-10.720	74.000
10600.000	14.881	37.040	51.921	-22.079	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500.000	*	*	*	*	74.000
31800.000	*	*	*	*	74.000
37100.000	*	*	*	*	74.000
Average					
Detector:					
6230.000	9.410	25.370	34.780	-19.220	54.000

Note:

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

Product : Wireless Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5320MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal Peak Detector:					
10640.000	14.690	36.930	51.620	-22.380	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	36.870	51.953	-22.047	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 + Correction Factor.
5. Correction Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.
7. The emission levels of other frequencies are greater then 10db under the limit and not shown in test report.

Product : Wireless Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5500MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
6230.000	7.494	49.000	56.494	-17.506	74.000
11000.000	16.399	36.650	53.049	-20.951	74.000
16500.000	*	*	*	*	74.000
22000.000	*	*	*	*	74.000
27500.000	*	*	*	*	74.000
33000.000	*	*	*	*	74.000
38500.000	*	*	*	*	74.000
Average Detector:					
6230.000	7.494	24.390	31.884	-22.116	54.000
Vertical					
Peak Detector:					
6230.000	9.410	54.680	64.090	-9.910	74.000
11000.000	17.132	36.440	53.572	-20.428	74.000
16500.000	*	*	*	*	74.000
22000.000	*	*	*	*	74.000
27500.000	*	*	*	*	74.000
33000.000	*	*	*	*	74.000
38500.000	*	*	*	*	74.000
Average Detector:					
6230.000	9.410	26.340	35.750	-18.250	54.000

Note:

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

Product : Wireless Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5580MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal Peak Detector:					
6230.000	7.494	48.470	55.964	-18.036	74.000
11160.000	16.664	36.660	53.325	-20.675	74.000
16740.000	*	*	*	*	74.000
22320.000	*	*	*	*	74.000
27900.000	*	*	*	*	74.000
33480.000	*	*	*	*	74.000
39060.000	*	*	*	*	74.000
Average Detector:					
6230.000	7.494	24.350	31.844	-22.156	54.000
Vertical Peak Detector:					
6230.000	9.410	54.130	63.540	-10.460	74.000
11160.000	17.643	34.470	52.113	-21.887	74.000
16740.000	*	*	*	*	74.000
22320.000	*	*	*	*	74.000
27900.000	*	*	*	*	74.000
33480.000	*	*	*	*	74.000
39060.000	*	*	*	*	74.000
Average Detector:					
6230.000	9.410	25.680	35.090	-18.910	54.000

Note:

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

Product : Wireless Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5700MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
11400.000	16.530	36.820	53.351	-20.649	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	35.730	52.868	-21.132	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 + Correction Factor.
5. Correction Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.
7. The emission levels of other frequencies are greater then 10db under the limit and not shown in test report.

Product : Wireless Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5260MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
6230.000	7.494	49.340	56.834	-17.166	74.000
10520.000	14.015	37.320	51.335	-22.665	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
31560.000	*	*	*	*	74.000
36820.000	*	*	*	*	74.000
Average					
Detector:					
6230.000	7.494	24.330	31.824	-22.176	54.000
Vertical					
Peak Detector:					
6230.000	9.410	54.930	64.340	-9.660	74.000
10520.000	14.818	37.170	51.988	-22.012	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
31560.000	*	*	*	*	74.000
36820.000	*	*	*	*	74.000
Average					
Detector:					
6230.000	9.410	25.430	34.840	-19.160	54.000

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

Product : Wireless Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5300MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal Peak Detector:					
6230.000	7.494	49.430	56.924	-17.076	74.000
10600.000	14.550	36.660	51.209	-22.791	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500000	*	*	*	*	74.000
31800.000	*	*	*	*	74.000
37100.000	*	*	*	*	74.000
Average Detector:					
6230.000	7.494	24.590	32.084	-21.916	54.000
Vertical Peak Detector:					
6230.000	9.410	54.790	64.200	-9.800	74.000
10600.000	14.881	37.070	51.951	-22.049	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500000	*	*	*	*	74.000
31800.000	*	*	*	*	74.000
37100.000	*	*	*	*	74.000
Average Detector:					
6230.000	9.410	25.170	34.580	-19.420	54.000

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

Product : Wireless Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5320MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal Peak Detector:					
10640.000	14.690	37.150	51.840	-22.160	74.000
15960.000	*	*	*	*	74.000
21280.000	*	*	*	*	74.000
26600.000	*	*	*	*	74.000
31920.000	*	*	*	*	74.000
37240.000	*	*	*	*	74.000
Average Detector:					
--					
Vertical Peak Detector:					
10640.000	15.083	36.580	51.663	-22.337	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 + Correction Factor.
5. Correction Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.
7. The emission levels of other frequencies are greater then 10db under the limit and not shown in test report.

Product : Wireless Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5500MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
6230.000	7.494	49.520	57.014	-16.986	74.000
11000.000	16.399	36.870	53.269	-20.731	74.000
16500.000	*	*	*	*	74.000
22000.000	*	*	*	*	74.000
27500.000	*	*	*	*	74.000
33000.000	*	*	*	*	74.000
38500.000	*	*	*	*	74.000
Average					
Detector:					
6230.000	7.494	24.580	32.074	-21.926	54.000
Vertical					
Peak Detector:					
6230.000	9.410	55.180	64.590	-9.410	74.000
11000.000	17.132	36.430	53.562	-20.438	74.000
16500.000	*	*	*	*	74.000
22000.000	*	*	*	*	74.000
27500.000	*	*	*	*	74.000
33000.000	*	*	*	*	74.000
38500.000	*	*	*	*	74.000
Average					
Detector:					
6230.000	9.410	25.390	34.800	-19.200	54.000

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

Product : Wireless Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5580MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
6230.000	7.494	49.010	56.504	-17.496	74.000
11160.000	16.664	35.570	52.235	-21.765	74.000
16740.000	*	*	*	*	74.000
22320.000	*	*	*	*	74.000
27900.000	*	*	*	*	74.000
33480.000	*	*	*	*	74.000
39060.000	*	*	*	*	74.000
Average					
Detector:					
6230.000	7.494	24.190	31.684	-22.316	54.000
Vertical					
Peak Detector:					
6230.000	9.410	54.440	63.850	-10.150	74.000
11160.000	17.643	34.980	52.623	-21.377	74.000
16740.000	*	*	*	*	74.000
22320.000	*	*	*	*	74.000
27900.000	*	*	*	*	74.000
33480.000	*	*	*	*	74.000
39060.000	*	*	*	*	74.000
Average					
Detector:					
6230.000	9.410	25.880	35.290	-18.710	54.000

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

Product : Wireless Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5700MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
6220.000	7.509	54.470	61.979	-12.021	74.000
11400.000	16.530	36.210	52.741	-21.259	74.000
17100.000	*	*	*	*	74.000
22800.000	*	*	*	*	74.000
28500.000	*	*	*	*	74.000
34200.000	*	*	*	*	74.000
39900.000	*	*	*	*	74.000
Average					
Detector:					
6220.000	7.509	27.110	34.619	-19.381	54.000
Vertical					
Peak Detector:					
6220.000	9.486	56.370	65.856	-8.144	74.000
11400.000	17.138	35.650	52.788	-21.212	74.000
17100.000	*	*	*	*	74.000
22800.000	*	*	*	*	74.000
28500.000	*	*	*	*	74.000
34200.000	*	*	*	*	74.000
39900.000	*	*	*	*	74.000
Average					
Detector:					
6220.000	9.486	27.040	36.526	-17.474	54.000

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

Product : Wireless Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5270MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
6200.000	7.758	51.790	59.549	-14.451	74.000
10540.000	14.151	37.670	51.820	-22.180	74.000
15810.000	*	*	*	*	74.000
21080.000	*	*	*	*	74.000
26350.000	*	*	*	*	74.000
31620.000	*	*	*	*	74.000
36890.000	*	*	*	*	74.000
Average					
Detector:					
6200.000	7.758	24.770	32.529	-21.471	54.000
Vertical					
Peak Detector:					
6200.000	9.827	53.880	63.707	-10.293	74.000
10540.000	14.829	36.940	51.768	-22.232	74.000
15810.000	*	*	*	*	74.000
21080.000	*	*	*	*	74.000
26350.000	*	*	*	*	74.000
31620.000	*	*	*	*	74.000
36890.000	*	*	*	*	74.000
Average					
Detector:					
6200.000	9.827	24.690	34.517	-19.483	54.000

Note:

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

Product : Wireless Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5310MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
6230.000	7.494	49.800	57.294	-16.706	74.000
10620.000	14.623	36.790	51.413	-22.587	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
31860.000	*	*	*	*	74.000
37170.000	*	*	*	*	74.000
Average					
Detector:					
6230.000	7.494	24.630	32.124	-21.876	54.000
Vertical					
Peak Detector:					
6230.000	9.410	55.570	64.980	-9.020	74.000
10620.000	14.970	36.840	51.810	-22.190	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
31860.000	*	*	*	*	74.000
37170.000	*	*	*	*	74.000
Average					
Detector:					
6230.000	9.410	24.920	34.330	-19.670	54.000

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

Product : Wireless Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5510MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
6230.000	7.494	49.790	57.284	-16.716	74.000
11020.000	16.474	36.720	53.193	-20.807	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
31860.000	*	*	*	*	74.000
37170.000	*	*	*	*	74.000
Average					
Detector:					
6230.000	7.494	24.370	31.864	-22.136	54.000
Vertical					
Peak Detector:					
6230.000	9.410	55.570	64.980	-9.020	74.000
11020.000	17.224	36.590	53.814	-20.186	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
31860.000	*	*	*	*	74.000
37170.000	*	*	*	*	74.000
Average					
Detector:					
6230.000	9.410	24.790	34.200	-19.800	54.000

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

Product : Wireless Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5550MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
6230.000	7.494	50.380	57.874	-16.126	74.000
11100.000	16.681	35.010	51.691	-22.309	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
31860.000	*	*	*	*	74.000
37170.000	*	*	*	*	74.000
Average					
Detector:					
6230.000	7.494	24.330	31.824	-22.176	54.000
Vertical					
Peak Detector:					
6230.000	9.410	55.530	64.940	-9.060	74.000
11100.000	17.523	35.190	52.713	-21.287	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
31860.000	*	*	*	*	74.000
37170.000	*	*	*	*	74.000
Average					
Detector:					
6230.000	9.410	25.300	34.710	-19.290	54.000

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

Product : Wireless Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5670MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal Peak Detector:					
11340.000	16.408	35.620	52.027	-21.973	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	35.550	52.717	-21.283	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 + Correction Factor.
5. Correction Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.
7. The emission levels of other frequencies are greater then 10db under the limit and not shown in test report.

Product : Wireless Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 5 Transmit (802.11ac-20BW-65Mbps) (5720MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
11440.000	16.779	36.920	53.699	-20.301	74.000
17160.000	*	*	*	*	74.000
22880.000	*	*	*	*	74.000
28600.000	*	*	*	*	74.000
34320.000	*	*	*	*	74.000
40040.000	*	*	*	*	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
11440.000	17.519	36.410	53.929	-20.071	74.000
17160.000	*	*	*	*	74.000
22880.000	*	*	*	*	74.000
28600.000	*	*	*	*	74.000
34320.000	*	*	*	*	74.000
40040.000	*	*	*	*	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 + Correction Factor.
5. Correction Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.
7. The emission levels of other frequencies are greater then 10db under the limit and not shown in test report.

Product : Wireless Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 6 Transmit (802.11ac-40BW-65Mbps) (5710MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal Peak Detector:					
11420.000	16.648	36.180	52.827	-21.173	74.000
17130.000	*	*	*	*	74.000
22840.000	*	*	*	*	74.000
28550.000	*	*	*	*	74.000
34260.000	*	*	*	*	74.000
39970.000	*	*	*	*	74.000
Average Detector:					
--					
Vertical Peak Detector:					
11420.000	17.311	36.240	53.550	-20.450	74.000
17130.000	*	*	*	*	74.000
22840.000	*	*	*	*	74.000
28550.000	*	*	*	*	74.000
34260.000	*	*	*	*	74.000
39970.000	*	*	*	*	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 + Correction Factor.
5. Correction Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.
7. The emission levels of other frequencies are greater then 10db under the limit and not shown in test report.

Product : Wireless Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4 Transmit (802.11ac-80BW-65Mbps) (5290MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal Peak Detector:					
10580.000	14.423	37.350	51.773	-22.227	74.000
15870.000	*	*	*	*	74.000
21160.000	*	*	*	*	74.000
26450.000	*	*	*	*	74.000
31740.000	*	*	*	*	74.000
37030.000	*	*	*	*	74.000
Average Detector:					
--					
Vertical Peak Detector:					
10580.000	14.849	37.890	52.739	-21.261	74.000
15870.000	*	*	*	*	74.000
21160.000	*	*	*	*	74.000
26450.000	*	*	*	*	74.000
31740.000	*	*	*	*	74.000
37030.000	*	*	*	*	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 + Correction Factor.
5. Correction Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.
7. The emission levels of other frequencies are greater then 10db under the limit and not shown in test report.

Product : Wireless Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4 Transmit (802.11ac-80BW-65Mbps) (5530MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
6230.000	7.494	49.480	56.974	-17.026	74.000
11060.000	16.580	36.010	52.590	-21.410	74.000
16590.000	*	*	*	*	74.000
22120.000	*	*	*	*	74.000
27650.000	*	*	*	*	74.000
33180.000	*	*	*	*	74.000
Average Detector:					
6230.000	7.494	24.350	31.844	-22.156	54.000
Vertical					
Peak Detector:					
6230.000	9.410	55.700	65.110	-8.890	74.000
11060.000	17.375	35.740	53.115	-20.885	74.000
11060.000	*	*	*	*	74.000
16590.000	*	*	*	*	74.000
22120.000	*	*	*	*	74.000
27650.000	*	*	*	*	74.000
33180.000	*	*	*	*	74.000
Average Detector:					
6230.000	9.410	24.650	34.060	-19.940	54.000

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

Product : Wireless Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4 Transmit (802.11ac-80BW-65Mbps) (5690MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
11380.000	16.480	35.600	52.081	-21.919	74.000
17070.000	*	*	*	*	74.000
22760.000	*	*	*	*	74.000
28450.000	*	*	*	*	74.000
34140.000	*	*	*	*	74.000
39830.000	*	*	*	*	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
11380.000	17.125	35.680	52.806	-21.194	74.000
17070.000	*	*	*	*	74.000
22760.000	*	*	*	*	74.000
28450.000	*	*	*	*	74.000
34140.000	*	*	*	*	74.000
39830.000	*	*	*	*	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 + Correction Factor.
5. Correction Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.
7. The emission levels of other frequencies are greater then 10db under the limit and not shown in test report.

Product : Wireless Access Point
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5300MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
222.060	-10.439	45.017	34.578	-11.422	46.000
505.300	0.308	31.268	31.576	-14.424	46.000
664.380	2.062	29.952	32.014	-13.986	46.000
747.800	3.296	29.620	32.916	-13.084	46.000
858.380	5.972	31.844	37.816	-8.184	46.000
961.200	6.450	43.202	49.652	-4.348	54.000
Vertical					
Peak Detector					
101.780	-0.021	34.656	34.634	-8.866	43.500
171.620	-8.752	41.884	33.132	-10.368	43.500
229.820	-8.512	44.640	36.128	-9.872	46.000
363.680	-2.393	37.978	35.585	-10.415	46.000
480.080	-4.359	32.641	28.282	-17.718	46.000
961.200	7.260	33.483	40.743	-13.257	54.000

Note:

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

Product : Wireless Access Point
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5580MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
152.220	-10.135	41.859	31.724	-11.776	43.500
402.480	-2.263	33.788	31.525	-14.475	46.000
513.060	1.550	30.172	31.722	-14.278	46.000
625.580	1.770	28.788	30.558	-15.442	46.000
697.360	3.171	27.379	30.550	-15.450	46.000
961.200	6.450	43.013	49.463	-4.537	54.000
Vertical					
Peak Detector					
134.760	-4.648	37.232	32.584	-10.916	43.500
355.920	-3.488	38.783	35.295	-10.705	46.000
480.080	-4.359	36.246	31.887	-14.113	46.000
600.360	-2.833	29.121	26.288	-19.712	46.000
747.800	2.166	29.746	31.912	-14.088	46.000
961.200	7.260	36.865	44.125	-9.875	54.000

Note:

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

Product : Wireless Access Point
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5300MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
148.340	-10.254	41.038	30.784	-12.716	43.500
408.300	-2.866	38.357	35.491	-10.509	46.000
474.260	0.024	36.979	37.002	-8.998	46.000
600.360	3.977	34.330	38.307	-7.693	46.000
720.640	3.511	32.508	36.019	-9.981	46.000
961.200	6.450	43.038	49.488	-4.512	54.000
Vertical					
Peak Detector					
111.480	-0.954	37.405	36.451	-7.049	43.500
235.640	-9.330	48.536	39.206	-6.794	46.000
390.840	-3.099	35.414	32.315	-13.685	46.000
480.080	-4.359	40.738	36.379	-9.621	46.000
666.320	-1.809	32.539	30.731	-15.269	46.000
961.200	7.260	36.131	43.391	-10.609	54.000

Note:

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

Product : Wireless Access Point
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5580MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
159.980	-11.775	43.334	31.559	-11.941	43.500
355.920	-2.528	40.571	38.043	-7.957	46.000
460.680	1.589	34.277	35.866	-10.134	46.000
600.360	3.977	35.394	39.371	-6.629	46.000
720.640	3.511	31.599	35.110	-10.890	46.000
825.400	6.250	24.043	30.293	-15.707	46.000
Vertical					
Peak Detector					
159.980	-6.185	41.531	35.346	-8.154	43.500
288.020	-8.189	43.397	35.208	-10.792	46.000
365.620	-2.179	40.213	38.034	-7.966	46.000
480.080	-4.359	36.693	32.334	-13.666	46.000
681.840	1.484	28.552	30.036	-15.964	46.000
961.200	7.260	36.174	43.434	-10.566	54.000

Note:

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

Product : Wireless Access Point
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5270MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
49.400	-11.018	44.021	33.003	-6.997	40.000
225.940	-9.878	45.873	35.994	-10.006	46.000
398.600	-2.268	36.141	33.873	-12.127	46.000
600.360	3.977	35.177	39.154	-6.846	46.000
747.800	3.296	29.772	33.068	-12.932	46.000
961.200	6.450	42.999	49.449	-4.551	54.000
Vertical					
Peak Detector					
165.800	-7.719	43.118	35.399	-8.101	43.500
276.380	-8.653	45.953	37.300	-8.700	46.000
369.500	-2.868	38.155	35.287	-10.713	46.000
480.080	-4.359	39.388	35.029	-10.971	46.000
664.380	-1.918	34.414	32.496	-13.504	46.000
961.200	7.260	36.736	43.996	-10.004	54.000

Note:

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

Product : Wireless Access Point
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5550MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
175.500	-10.017	46.537	36.519	-6.981	43.500
396.660	-2.296	35.982	33.686	-12.314	46.000
476.200	-0.252	39.170	38.918	-7.082	46.000
600.360	3.977	33.844	37.821	-8.179	46.000
666.320	2.031	31.468	33.500	-12.500	46.000
961.200	6.450	43.395	49.845	-4.155	54.000
Vertical					
Peak Detector					
169.680	-8.728	42.051	33.323	-10.177	43.500
299.660	-6.855	42.258	35.403	-10.597	46.000
373.380	-2.373	35.882	33.509	-12.491	46.000
503.360	-0.852	29.721	28.869	-17.131	46.000
637.220	-3.649	31.262	27.613	-18.387	46.000
961.200	7.260	34.913	42.173	-11.827	54.000

Note:

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

Product : Wireless Access Point
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 5 Transmit (802.11ac-20BW-65Mbps) (5720MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
103.720	-8.230	33.748	25.517	-17.983	43.500
241.460	-6.590	35.990	29.400	-16.600	46.000
445.160	-0.432	37.184	36.752	-9.248	46.000
593.570	3.492	34.900	38.392	-7.608	46.000
741.980	3.892	31.077	34.969	-11.031	46.000
890.390	6.515	30.232	36.747	-9.253	46.000
Vertical					
Peak Detector					
84.320	-4.204	32.854	28.650	-11.350	40.000
216.240	-6.051	37.313	31.262	-14.738	46.000
378.230	0.769	24.459	25.228	-20.772	46.000
593.570	-0.388	30.578	30.190	-15.810	46.000
741.980	-0.358	32.363	32.005	-13.995	46.000
940.830	3.480	26.738	30.218	-15.782	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 + Correction Factor.
5. Correction Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.
7. The emission levels of other frequencies are greater then 10db under the limit and not shown in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Wireless Access Point
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 6 Transmit (802.11ac-40BW-65Mbps) (5710MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
103.720	-8.230	33.292	25.061	-18.439	43.500
241.460	-6.590	36.001	29.411	-16.589	46.000
445.160	-0.432	38.900	38.468	-7.532	46.000
593.570	3.492	35.533	39.025	-6.975	46.000
741.980	3.892	34.004	37.896	-8.104	46.000
935.010	6.813	25.099	31.912	-14.088	46.000
Vertical					
Peak Detector					
102.750	-5.326	32.941	27.615	-15.885	43.500
216.240	-6.051	37.548	31.497	-14.503	46.000
374.350	0.224	26.101	26.325	-19.675	46.000
593.570	-0.388	29.926	29.538	-16.462	46.000
787.570	2.719	24.742	27.461	-18.539	46.000
890.390	1.095	29.445	30.540	-15.460	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 + Correction Factor.
5. Correction Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.
7. The emission levels of other frequencies are greater then 10db under the limit and not shown in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Wireless Access Point
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 4 Transmit (802.11ac-80BW-65Mbps) (5290MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
143.490	-7.665	25.649	17.984	-25.516	43.500
276.380	-6.526	35.418	28.892	-17.108	46.000
445.160	-0.432	37.276	36.844	-9.156	46.000
593.570	3.492	33.767	37.259	-8.741	46.000
741.980	3.892	33.804	37.696	-8.304	46.000
884.570	6.531	22.533	29.064	-16.936	46.000
Vertical					
Peak Detector					
82.380	-4.523	33.515	28.992	-11.008	40.000
126.030	-3.719	34.442	30.724	-12.776	43.500
288.990	-5.523	33.467	27.944	-18.056	46.000
505.300	0.056	27.333	27.389	-18.611	46.000
741.980	-0.358	33.804	33.446	-12.554	46.000
891.360	0.905	30.118	31.023	-14.977	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 + Correction Factor.
5. Correction Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.
7. The emission levels of other frequencies are greater then 10db under the limit and not shown in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Wireless Access Point
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 4 Transmit (802.11ac-80BW-65Mbps) (5690MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
126.030	-7.349	34.894	27.546	-15.954	43.500
288.990	-5.513	34.904	29.391	-16.609	46.000
445.160	-0.432	37.913	37.481	-8.519	46.000
593.570	3.492	34.947	38.439	-7.561	46.000
741.980	3.892	34.283	38.175	-7.825	46.000
891.360	6.265	28.993	35.258	-10.742	46.000
Vertical					
Peak Detector					
126.030	-3.719	34.894	31.176	-12.324	43.500
241.460	-6.000	38.481	32.481	-13.519	46.000
445.160	-6.402	38.227	31.825	-14.175	46.000
593.570	-0.388	34.947	34.559	-11.441	46.000
692.510	1.917	29.661	31.578	-14.422	46.000
891.360	0.905	29.746	30.651	-15.349	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 + Correction Factor.
5. Correction Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.
7. The emission levels of other frequencies are greater then 10db under the limit and not shown 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., 2014
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun., 2014
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2014

Note:

1. All equipment is calibrated once a year or as required by manufacturer.
2. All equipment is calibrated to traceable calibration procedures.
3. The test instruments marked by “X” are used to measure the final test results.

RF Radiated Measurement:

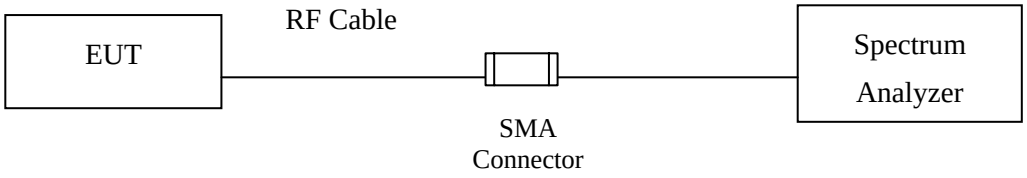
The following test equipments are used during the band edge tests:

Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒Site # 3		Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2014
	X	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2014
		Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2014
		Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2014
	X	Pre-Amplifier	QTK	AP-180C / CHM_0906076	Sep., 2014
		Pre-Amplifier	MITEQ	AMF-4D-180400-45-6P/ 925975	Mar., 2014
	X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2014
		Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2014
	X	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2014
	X	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	X	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

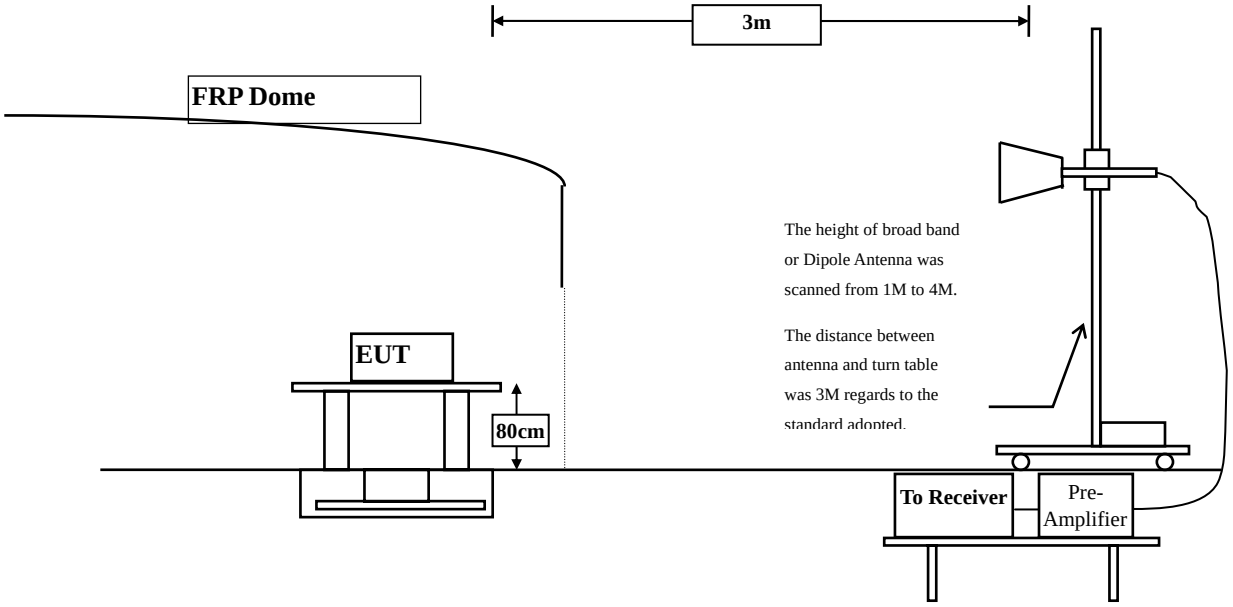
Note:
1. All equipment is calibrated once a year or as required by manufacturer.
2. All equipment is calibrated to traceable calibration procedures.
3. The test instruments marked by “X” are used to measure the final test results.

7.2. Test Setup

RF Conducted Measurement:



RF Radiated Measurement:



7.3. Limits

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

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

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

Remarks : 1. RF Voltage (dBμV) = 20 log RF Voltage (uV)

2. In the Above Table, the tighter limit applies at the band edges.

3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

7.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level.

The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10:2009 on radiated measurement.

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

The EUT was setup to ANSI C63.10, 2009; tested to DTS test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

7.5. Uncertainty

± 3.8 dB below 1GHz

± 3.9 dB above 1GHz

7.6. Test Result of Band Edge

Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) -Channel 64 (5320MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Arerage Limit (dBμV/m)	Result
64 (Peak)	5316.400	3.823	103.970	107.794	--	--	Pass
64 (Peak)	5350.000	3.716	56.954	60.671	74.00	54.00	Pass
64 (Peak)	5351.600	3.711	58.570	62.281	74.00	54.00	Pass
64 (Average)	5317.400	3.820	91.908	95.729	--	--	Pass
64 (Average)	5350.000	3.716	41.702	45.419	74.00	54.00	Pass

Figure Channel 64: Horizontal (Peak)

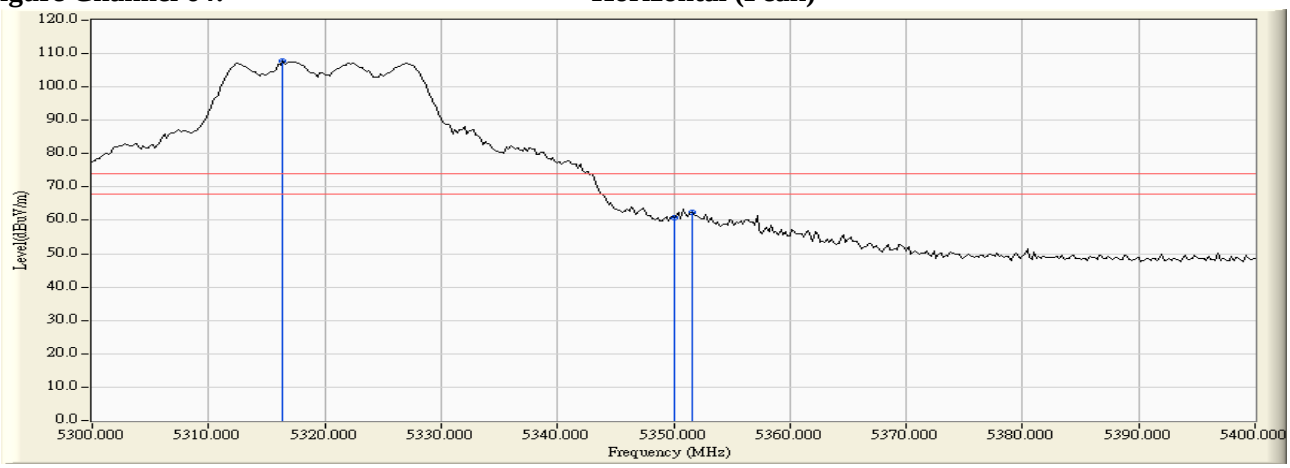
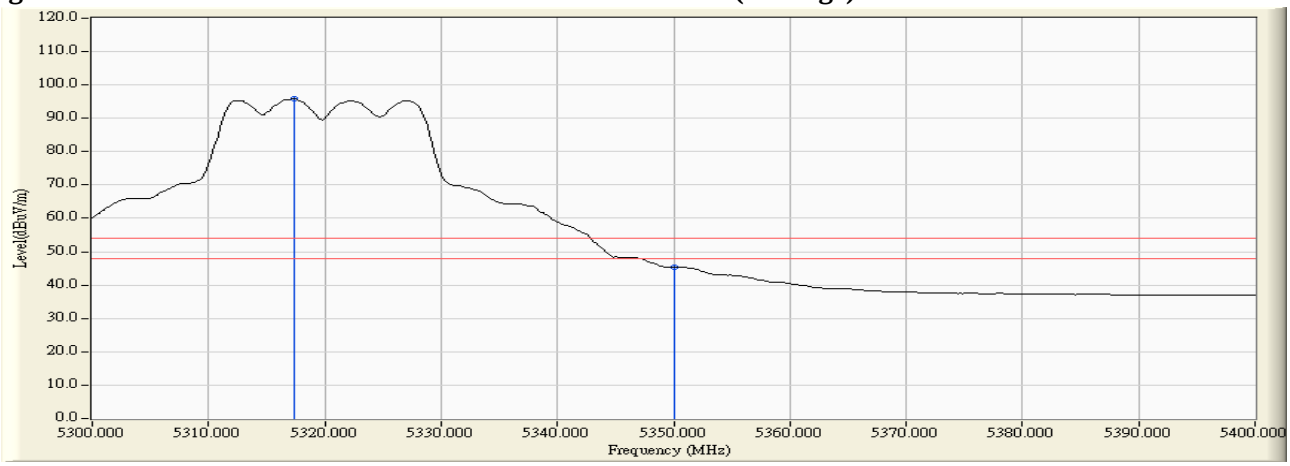


Figure Channel 64: Horizontal (Average)



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 + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

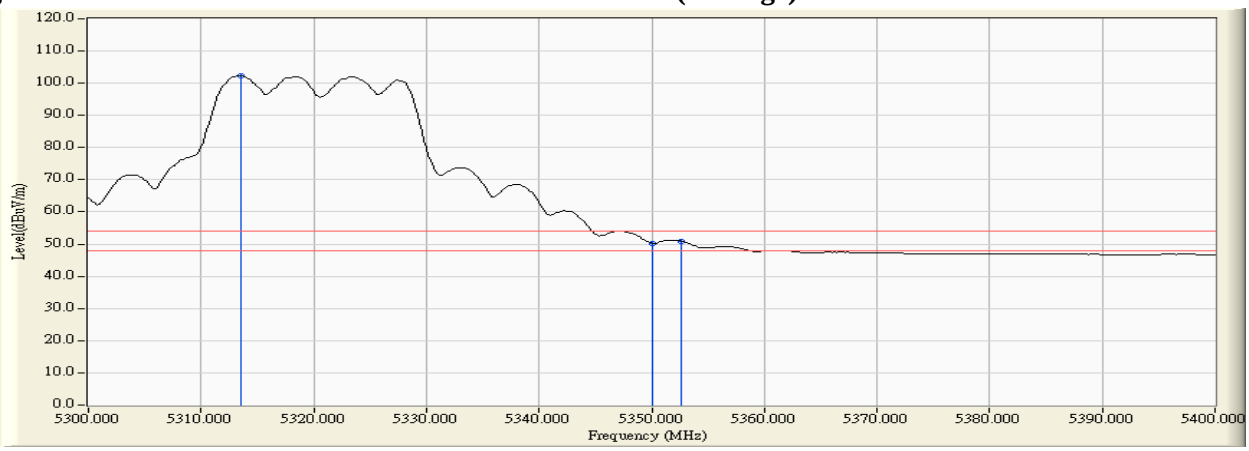
Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) -Channel 64 (5320MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Arerage Limit (dBμV/m)	Result
64 (Peak)	5313.800	5.737	108.501	114.238	--	--	Pass
64 (Peak)	5350.000	5.691	60.709	66.401	74.00	54.00	Pass
64 (Peak)	5353.400	5.687	62.952	68.639	74.00	54.00	Pass
64 (Average)	5313.600	5.738	96.581	102.318	--	--	Pass
64 (Average)	5350.000	5.691	44.620	50.312	74.00	54.00	Pass
	5352.600	5.688	45.207	50.895	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 + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

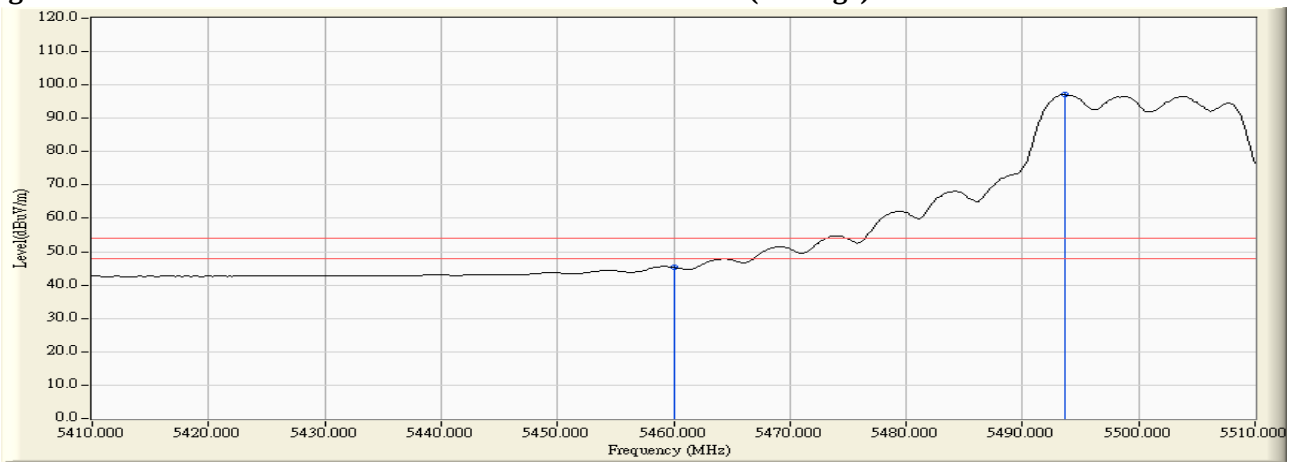
Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) -Channel 100 (5500MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Arerage Limit (dBμV/m)	Result
100 (Peak)	5459.400	4.347	57.435	61.781	74.00	54.00	Pass
100 (Peak)	5460.000	4.354	56.453	60.807	74.00	54.00	Pass
100 (Peak)	5493.800	4.771	104.876	109.648	--	--	Pass
100 (Average)	5460.000	4.354	41.057	45.411	74.00	54.00	Pass
100 (Average)	5493.600	4.770	92.327	97.097	--	--	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 + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) -Channel 100 (5500MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Arerage Limit (dBμV/m)	Result
100 (Peak)	5459.200	6.035	62.987	69.022	74.00	54.00	Pass
100 (Peak)	5460.000	6.041	60.846	66.887	74.00	54.00	Pass
100 (Peak)	5493.200	6.255	110.572	116.826	--	--	Pass
100 (Average)	5460.000	6.041	45.217	51.258	74.00	54.00	Pass
100 (Average)	5493.800	6.256	98.518	104.774	--	--	Pass

Figure Channel 100: Vertical (Peak)

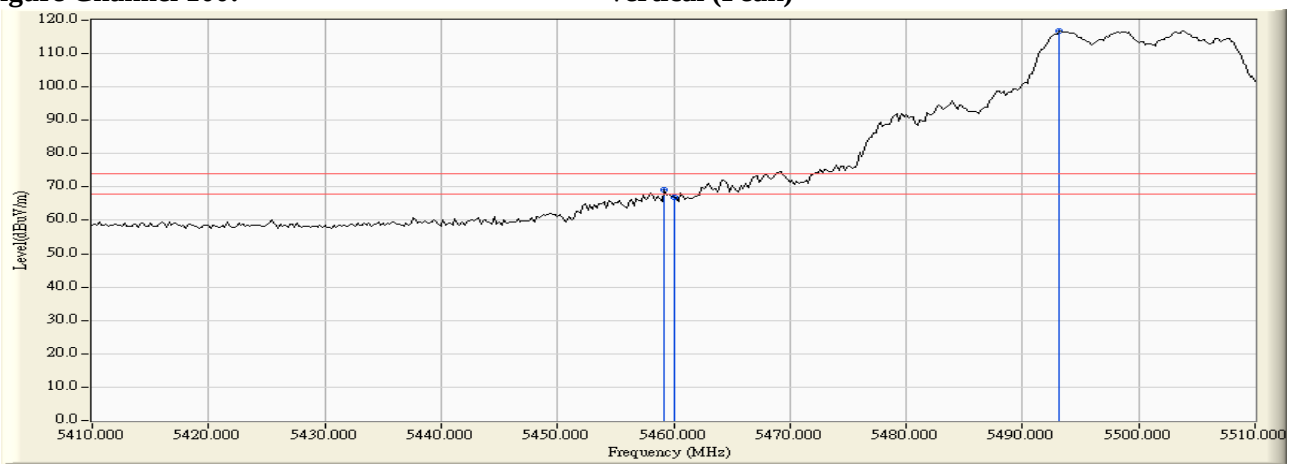
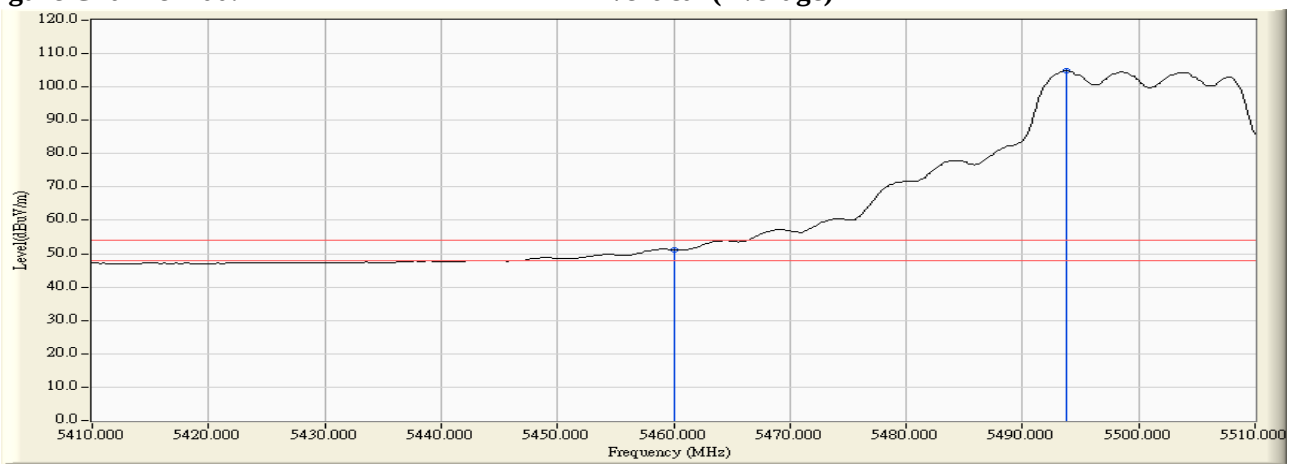


Figure Channel 100: Vertical (Average)



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 + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) -Channel 100 (5500MHz)

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	-67.580	-49.246	-22.246	-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	-65.420	-46.085	-19.085	-27.000	Pass

Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) -Channel 140 (5700MHz)

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	-69.490	-50.841	-23.841	-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	-67.260	-47.888	-20.888	-27.000	Pass

Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 64 (5320MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Arerage Limit (dBμV/m)	Result
64 (Peak)	5316.000	3.824	102.698	106.523	--	--	Pass
64 (Peak)	5350.000	3.716	56.269	59.986	74.00	54.00	Pass
64 (Peak)	5350.400	3.714	58.815	62.530	74.00	54.00	Pass
64 (Average)	5314.800	3.829	88.852	92.681	--	--	Pass
64 (Average)	5350.000	3.716	43.673	47.390	74.00	54.00	Pass

Figure Channel 64: Horizontal (Peak)

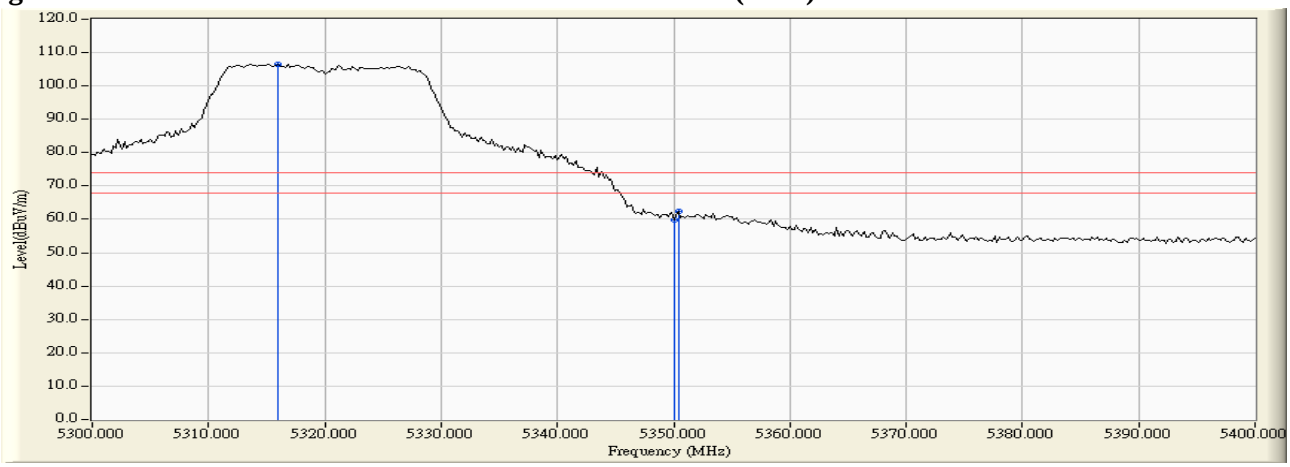
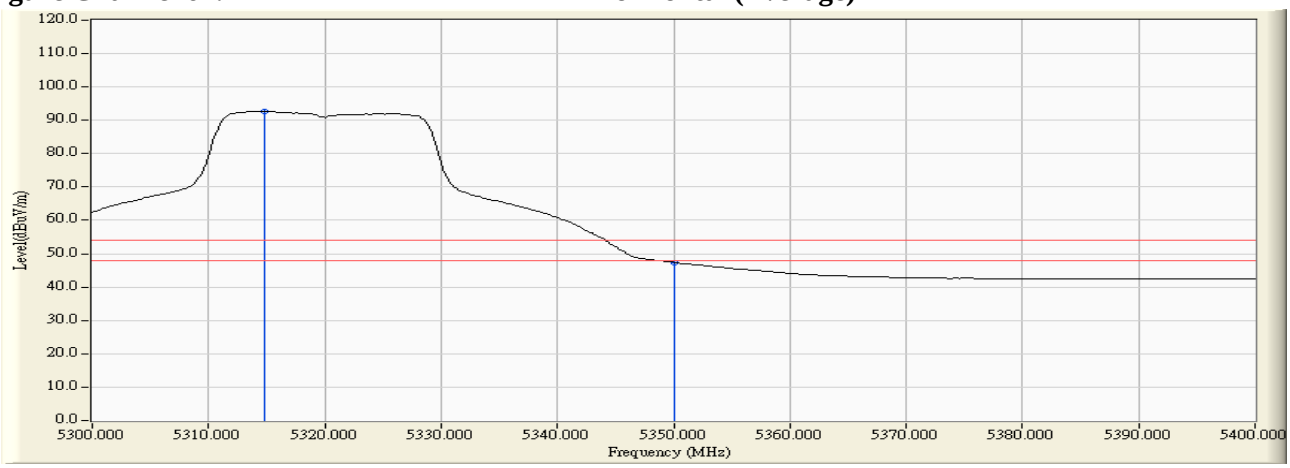


Figure Channel 64: Horizontal (Average)



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 + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 64 (5320MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Arerage Limit (dBμV/m)	Result
64 (Peak)	5325.600	5.722	107.241	112.963	--	--	Pass
64 (Peak)	5350.000	5.691	59.423	65.115	74.00	54.00	Pass
64 (Peak)	5352.000	5.689	60.579	66.268	74.00	54.00	Pass
64 (Average)	5314.800	5.736	92.072	97.808	--	--	Pass
64 (Average)	5350.000	5.691	46.136	51.828	74.00	54.00	Pass

Figure Channel 64: Vertical (Peak)

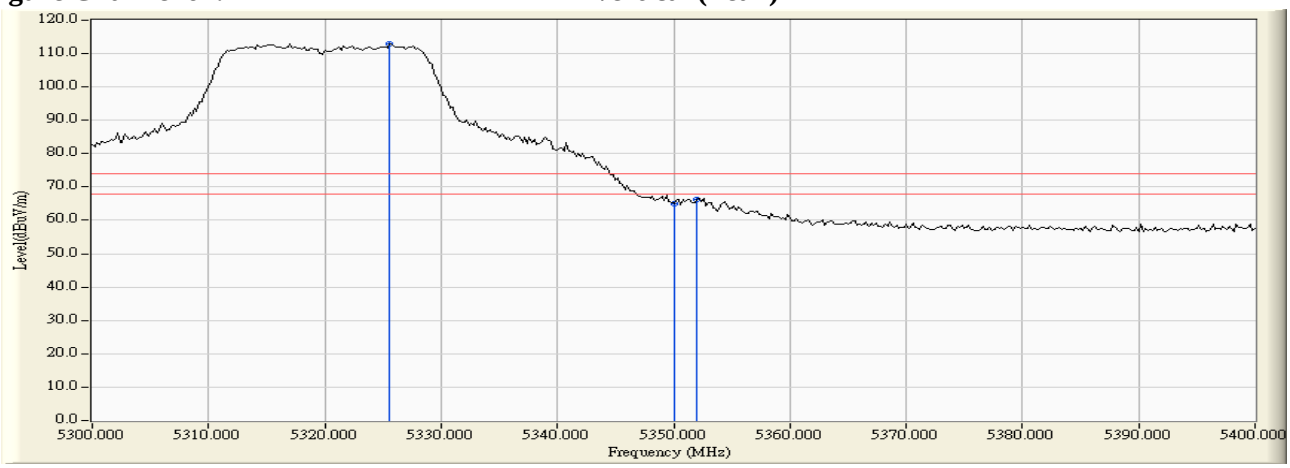
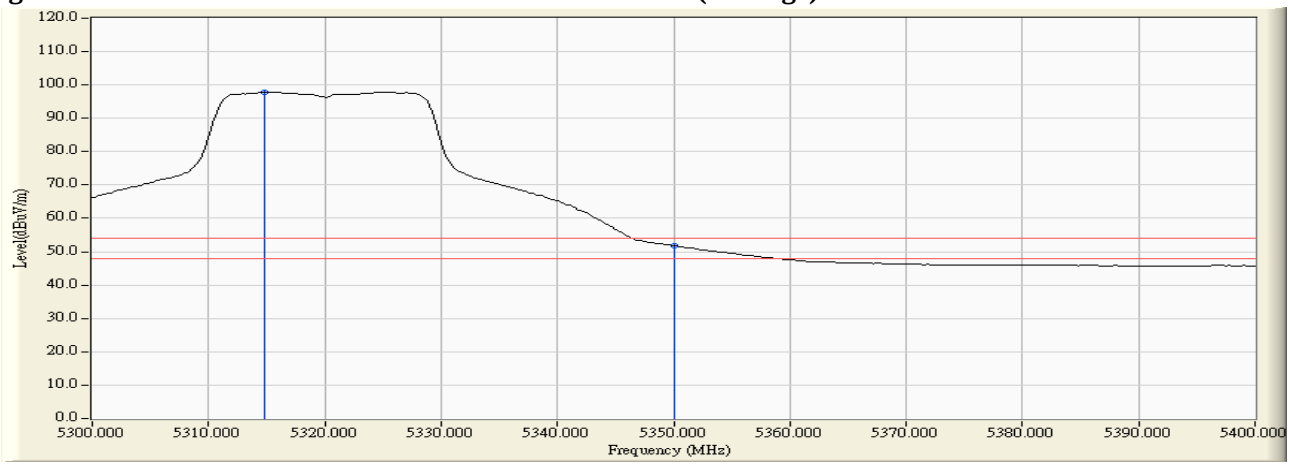


Figure Channel 64: Vertical (Average)



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 + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 100 (5500MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Arerage Limit (dBμV/m)	Result
100 (Peak)	5459.200	4.343	54.917	59.260	74.00	54.00	Pass
100 (Peak)	5460.000	4.354	54.237	58.591	74.00	54.00	Pass
100 (Peak)	5494.800	4.779	102.390	107.169	--	--	Pass
100 (Average)	5460.000	4.354	39.475	43.829	74.00	54.00	Pass
100 (Average)	5496.600	4.792	87.561	92.352	--	--	Pass

Figure Channel 100: Horizontal (Peak)

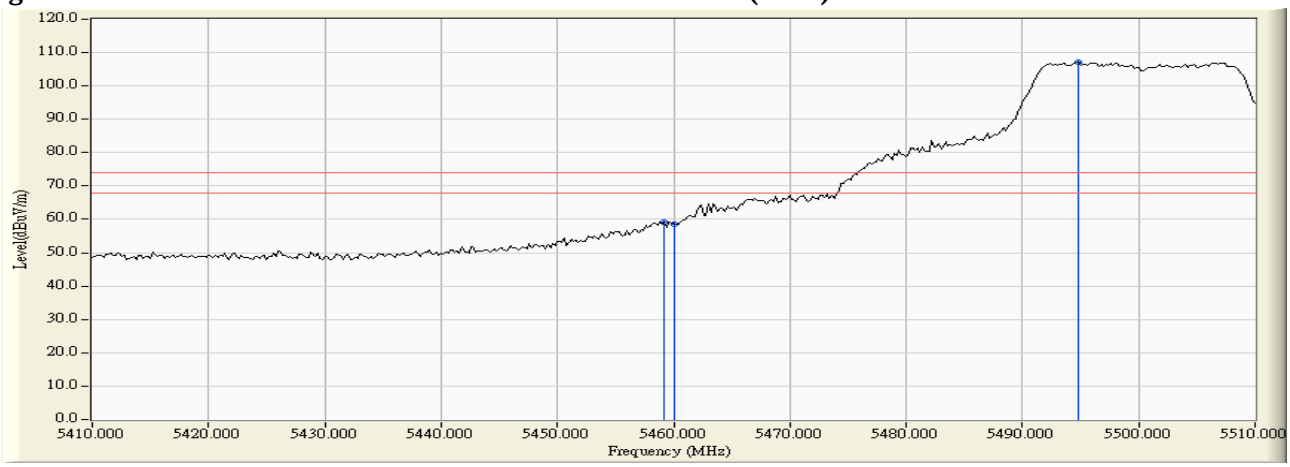
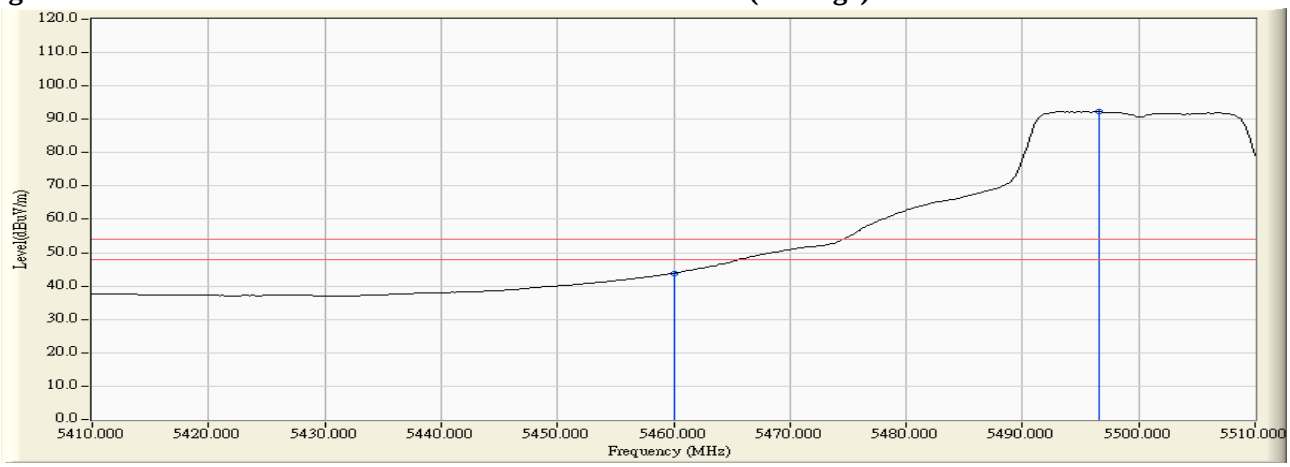


Figure Channel 100: Horizontal (Average)



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 + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 100 (5500MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Arerage Limit (dBμV/m)	Result
100 (Peak)	5460.000	6.041	62.093	68.134	74.00	54.00	Pass
100 (Peak)	5496.000	6.263	109.885	116.148	--	--	Pass
100 (Average)	5460.000	6.041	45.787	51.828	74.00	54.00	Pass
100 (Average)	5494.000	6.256	94.858	101.115	--	--	Pass

Figure Channel 100: Vertical (Peak)

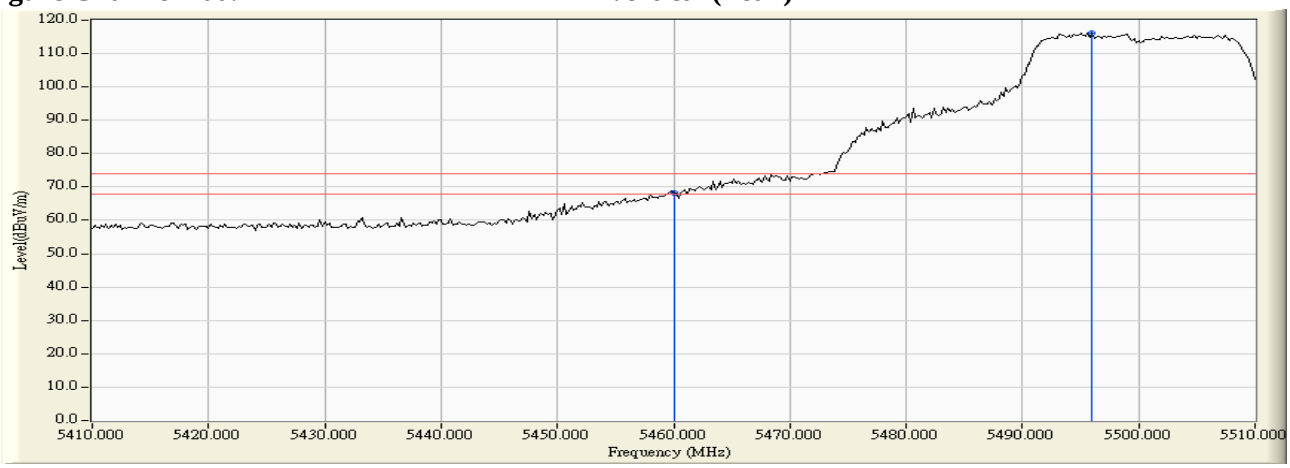
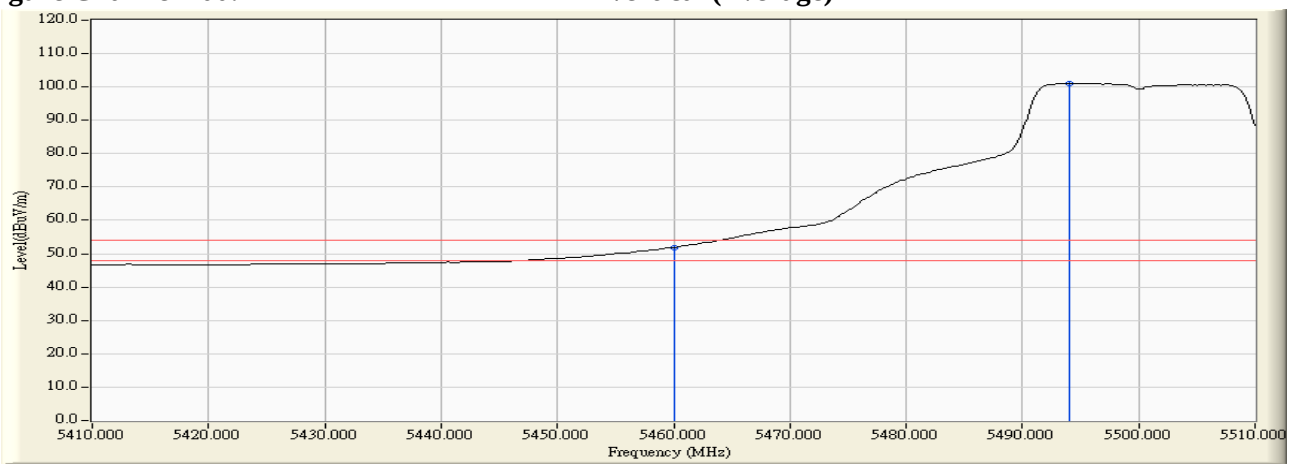


Figure Channel 100: Vertical (Average)



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 + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 100 (5500MHz)

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	-67.770	-49.436	-22.436	-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	-65.390	-46.055	-19.055	-27.000	Pass

Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 140 (5700MHz)

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	-67.260	-48.611	-21.611	-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	-64.570	-45.198	-18.198	-27.000	Pass

Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 62 (5310MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Arerage Limit (dBμV/m)	Result
62 (Peak)	5316.200	3.824	98.126	101.950	--	--	Pass
62 (Peak)	5350.000	3.716	61.186	64.903	74.00	54.00	Pass
62 (Average)	5300.600	3.871	80.052	83.923	--	--	Pass
62 (Average)	5350.000	3.716	44.312	48.029	74.00	54.00	Pass

Figure Channel 62: Horizontal (Peak)

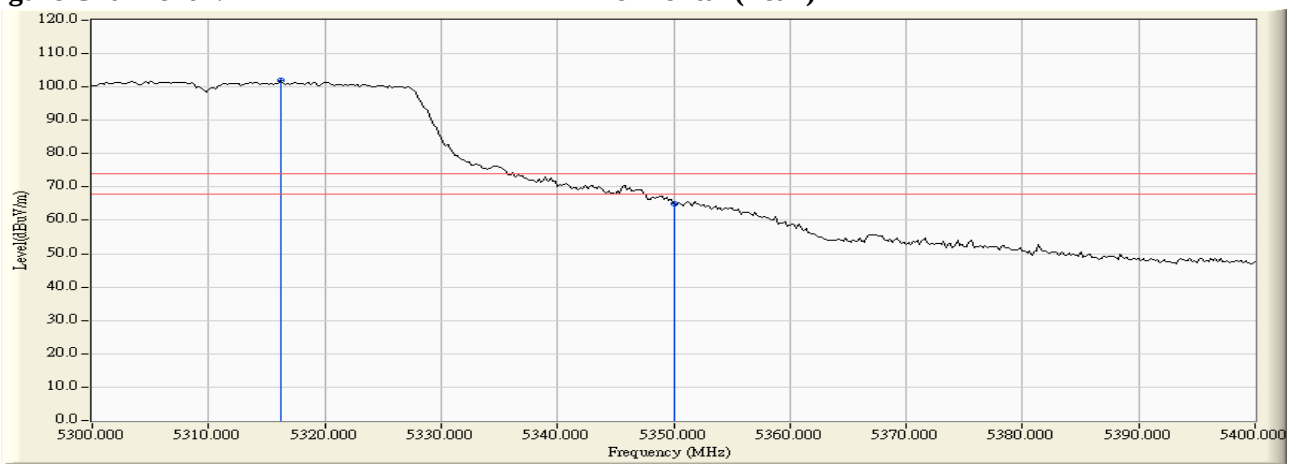
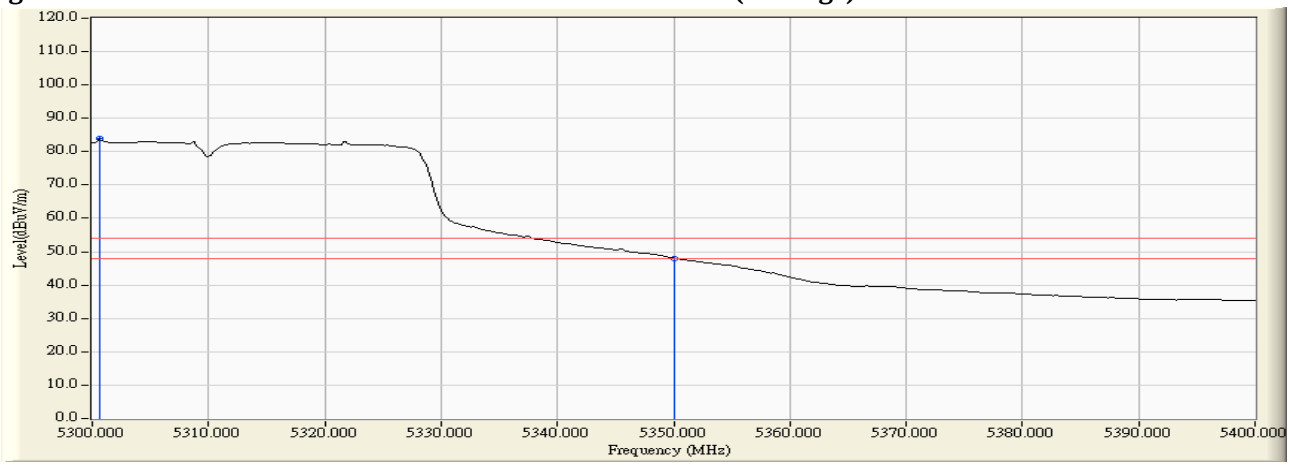


Figure Channel 62: Horizontal (Average)



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 + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 62 (5310MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Arerage Limit (dBμV/m)	Result
62 (Peak)	5316.200	5.733	103.589	109.323	--	--	Pass
62 (Peak)	5350.000	5.691	63.516	69.208	74.00	54.00	Pass
62 (Peak)	5353.000	5.688	64.331	70.019	74.00	54.00	Pass
62 (Average)	5323.200	5.725	84.032	89.757	--	--	Pass
62 (Average)	5350.000	5.691	46.778	52.470	74.00	54.00	Pass

Figure Channel 62: Vertical (Peak)

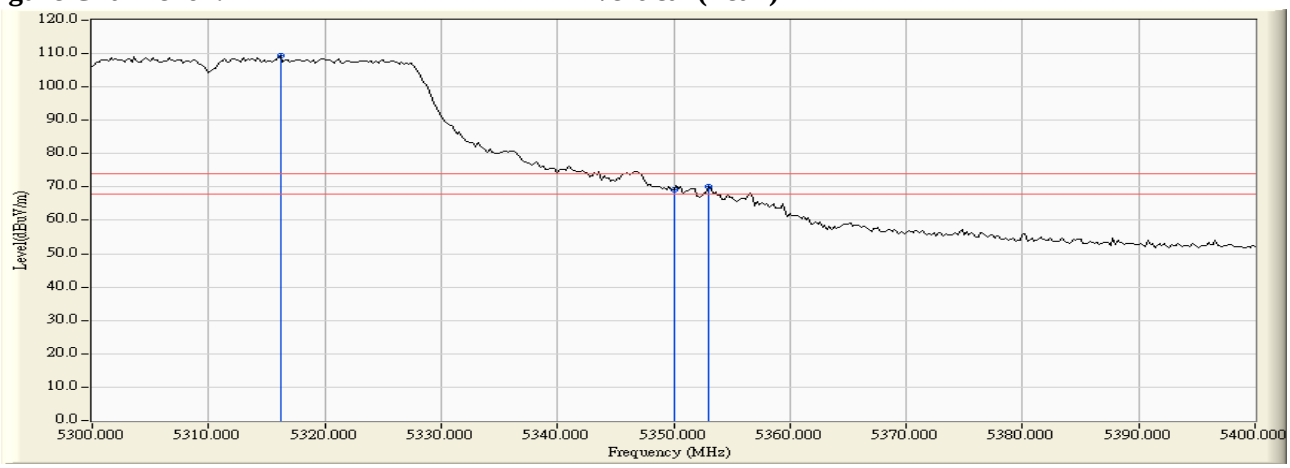
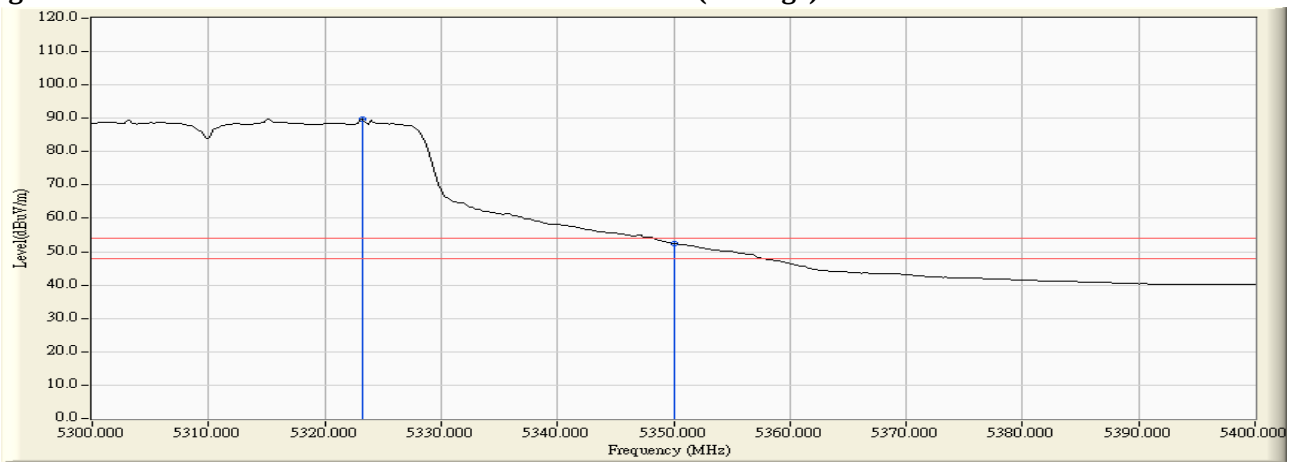


Figure Channel 62: Vertical (Average)



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 + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 102 (5510MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Arerage Limit (dBμV/m)	Result
102 (Peak)	5458.600	4.335	55.940	60.275	74.00	54.00	Pass
102 (Peak)	5460.000	4.354	54.813	59.167	74.00	54.00	Pass
102 (Peak)	5501.200	4.823	99.220	104.043	--	--	Pass
102 (Average)	5460.000	4.354	39.540	43.894	74.00	54.00	Pass
102 (Average)	5495.400	4.782	80.089	84.872	--	--	Pass

Figure Channel 102: Horizontal (Peak)

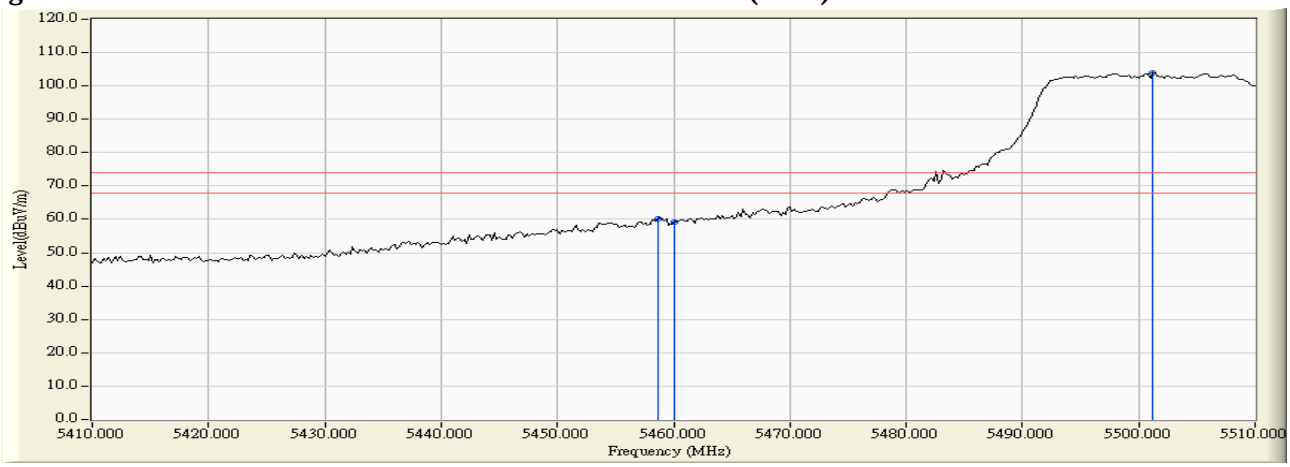
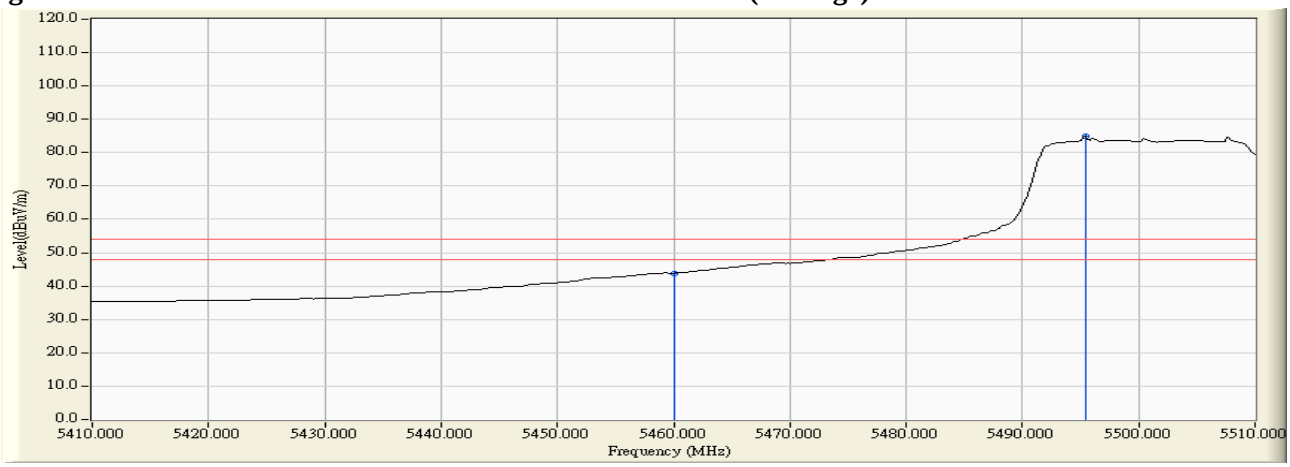


Figure Channel 102: Horizontal (Average)



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 + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 102 (5510MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Arerage Limit (dBμV/m)	Result
102 (Peak)	5460.000	6.041	64.856	70.897	74.00	54.00	Pass
102 (Peak)	5505.800	6.284	106.110	112.395	--	--	Pass
102 (Average)	5460.000	6.041	46.245	52.286	74.00	54.00	Pass
102 (Average)	5494.800	6.259	86.287	92.546	--	--	Pass

Figure Channel 102: Vertical (Peak)

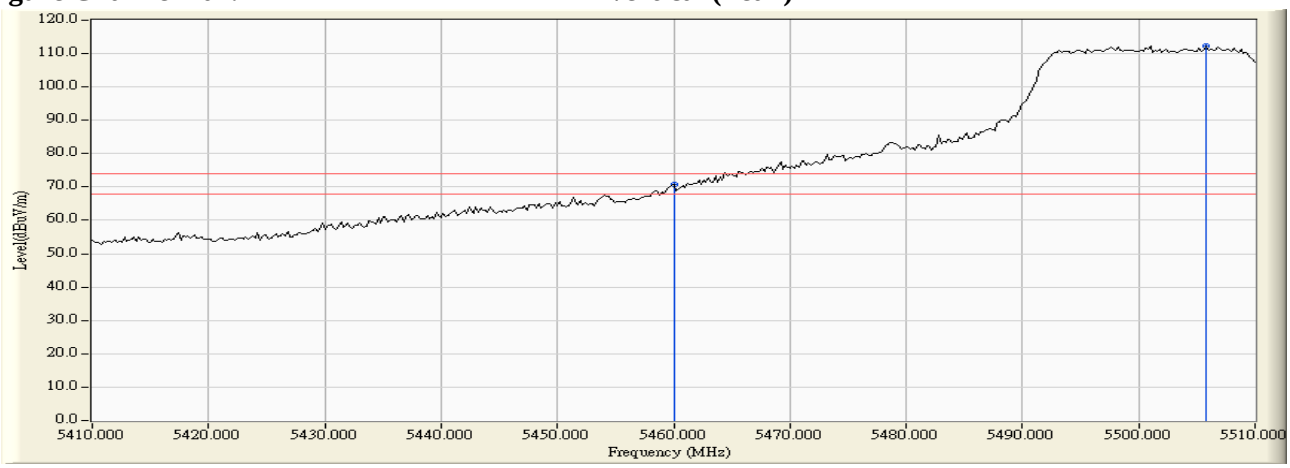
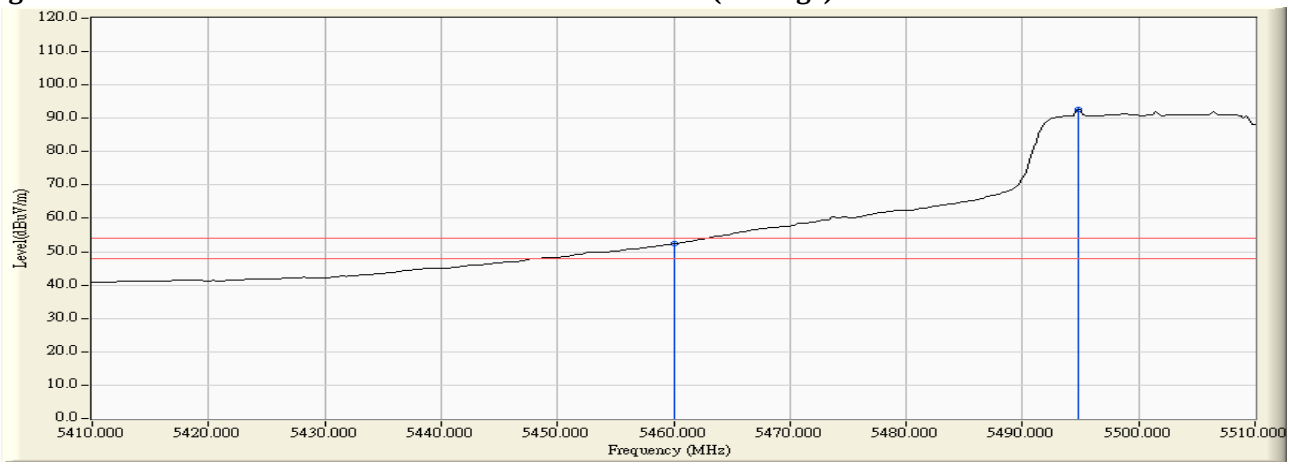


Figure Channel 102: Vertical (Average)



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 + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 102 (5510MHz)

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	-66.390	-48.056	-21.056	-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	-63.370	-44.035	-17.035	-27.000	Pass

Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 134 (5670MHz)

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	-66.370	-47.721	-20.721	-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	-62.290	-42.918	-15.918	-27.000	Pass

Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 4 Transmit (802.11ac-80BW-65Mbps) -Channel 58 (5290MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Arerage Limit (dBμV/m)	Result
58 (Peak)	5316.600	3.823	93.575	97.398	--	--	Pass
58 (Peak)	5350.000	3.716	61.072	64.789	74.00	54.00	Pass
58 (Average)	5313.400	3.834	73.047	76.881	--	--	Pass
58 (Average)	5350.000	3.716	42.197	45.914	74.00	54.00	Pass

Figure Channel 58: Horizontal (Peak)

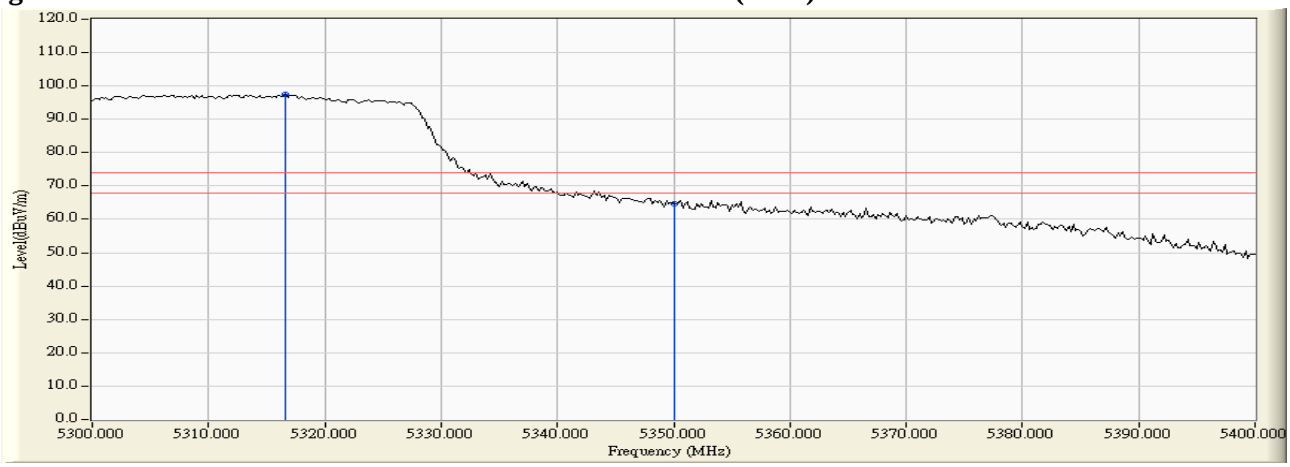
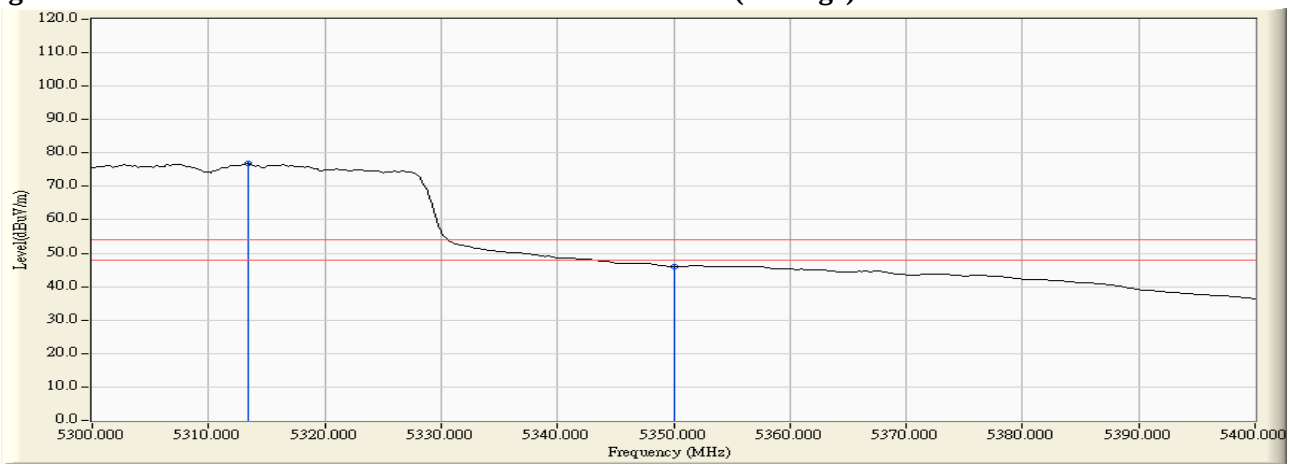


Figure Channel 58: Horizontal (Average)



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 + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 4 Transmit (802.11ac-80BW-65Mbps) -Channel 58 (5290MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Arerage Limit (dBμV/m)	Result
58 (Peak)	5314.400	5.737	98.056	103.792	--	--	Pass
58 (Peak)	5350.000	5.691	64.296	69.988	74.00	54.00	Pass
58 (Average)	5313.200	5.738	75.748	81.486	--	--	Pass
58 (Average)	5350.000	5.691	44.696	50.388	74.00	54.00	Pass

Figure Channel 58: Vertical (Peak)

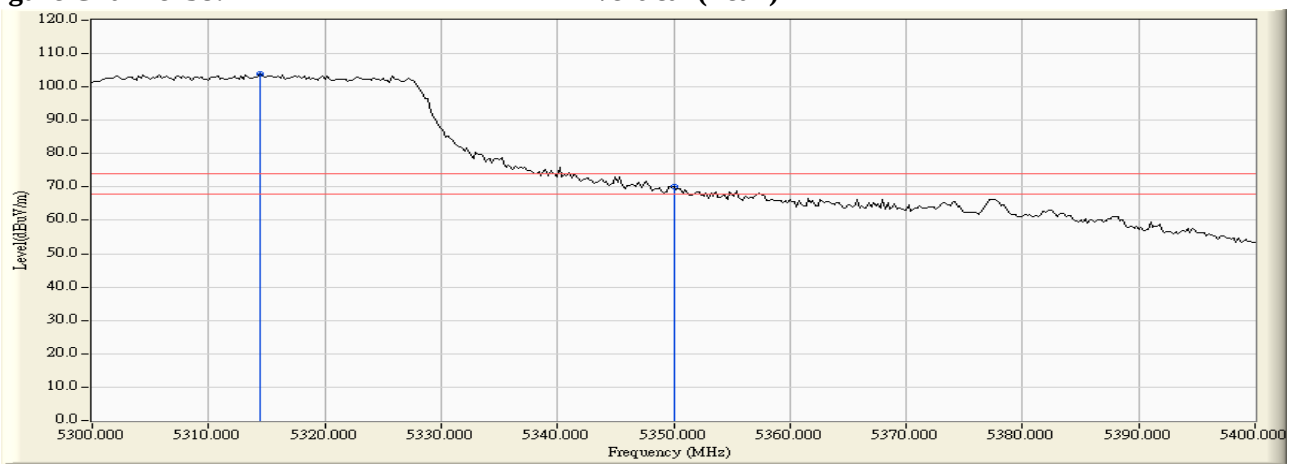
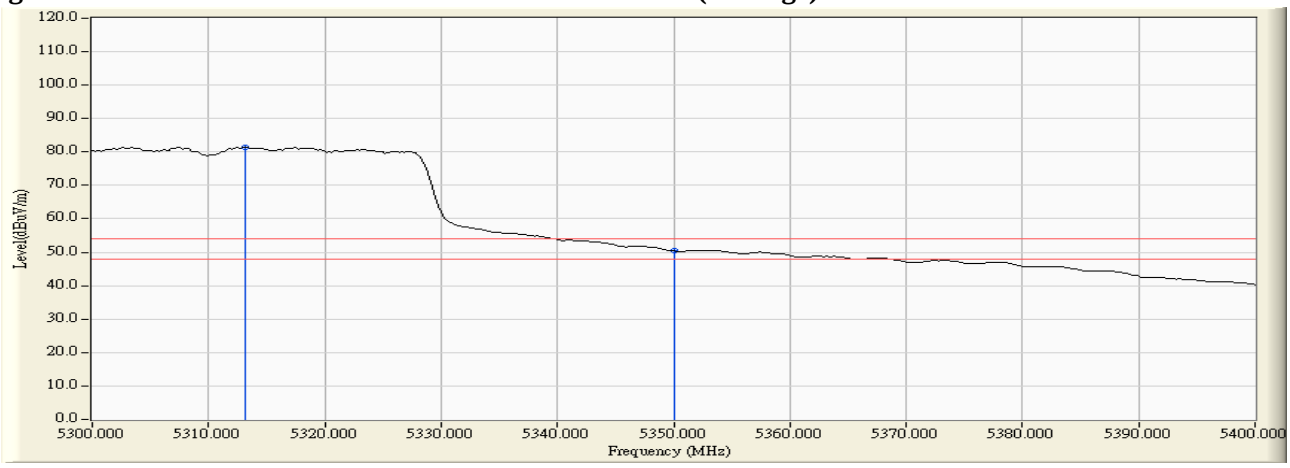


Figure Channel 58: Vertical (Average)



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 + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 4 Transmit (802.11ac-80BW-65Mbps) -Channel 106 (5530MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Arerage Limit (dBμV/m)	Result
106 (Peak)	5460.000	4.354	55.478	59.832	74.00	54.00	Pass
106 (Peak)	5507.200	4.831	92.761	97.592	--	--	Pass
106 (Average)	5460.000	4.354	39.669	44.023	74.00	54.00	Pass
106 (Average)	5499.000	4.808	71.457	76.265	--	--	Pass

Figure Channel 106: Horizontal (Peak)

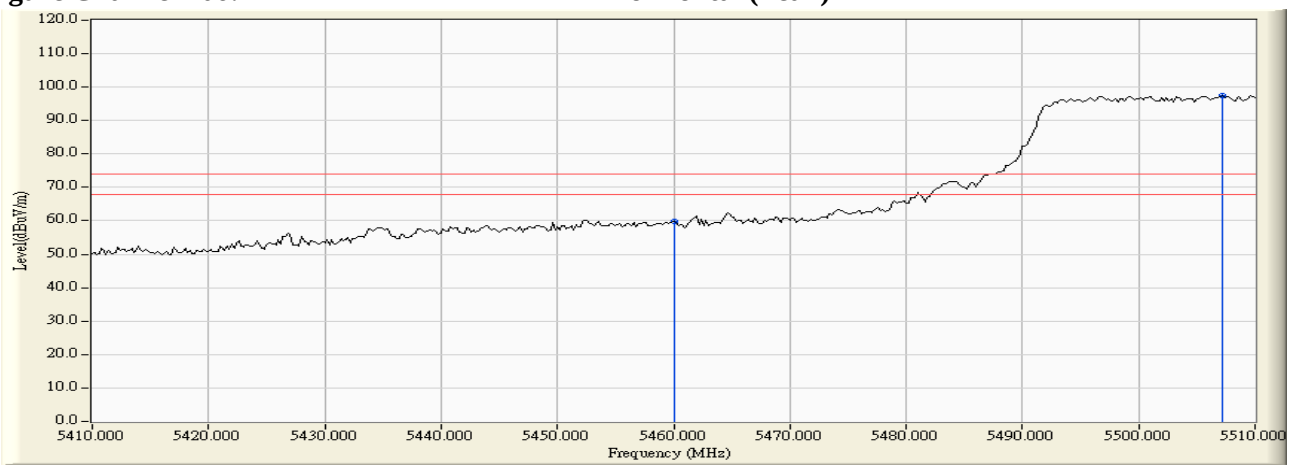
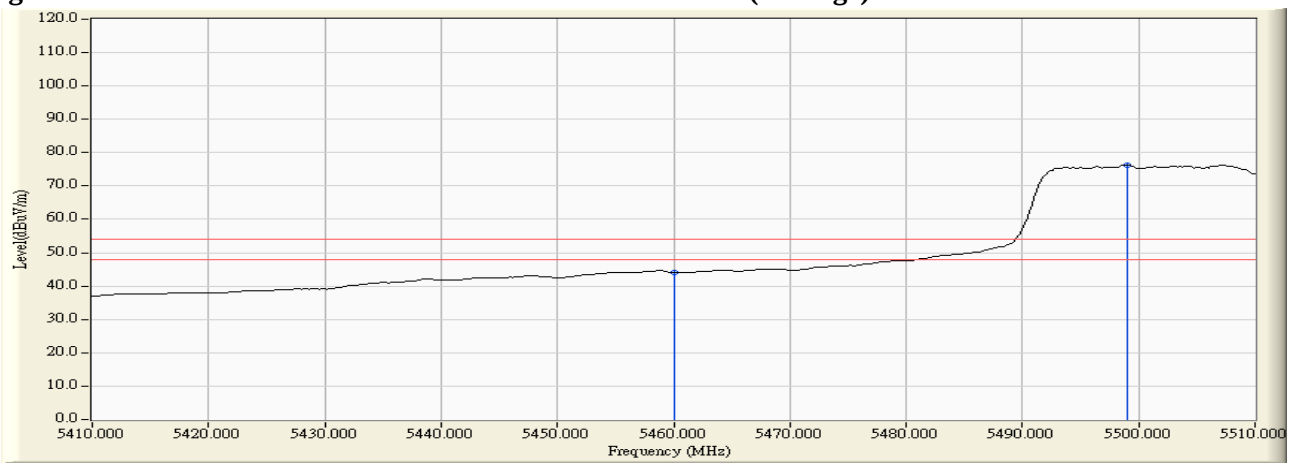


Figure Channel 106: Horizontal (Average)



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 + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 4 Transmit (802.11ac-80BW-65Mbps) -Channel 106 (5530MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Arerage Limit (dBμV/m)	Result
106 (Peak)	5460.000	6.041	63.141	69.182	--	--	Pass
106 (Peak)	5507.000	6.278	100.162	106.439	74.00	54.00	Pass
106 (Average)	5458.400	6.029	46.308	52.338	74.00	54.00	Pass
106 (Average)	5460.000	6.041	45.787	51.828	74.00	54.00	Pass
106 (Average)	5508.000	6.270	77.315	83.586	--	--	Pass

Figure Channel 106: Vertical (Peak)

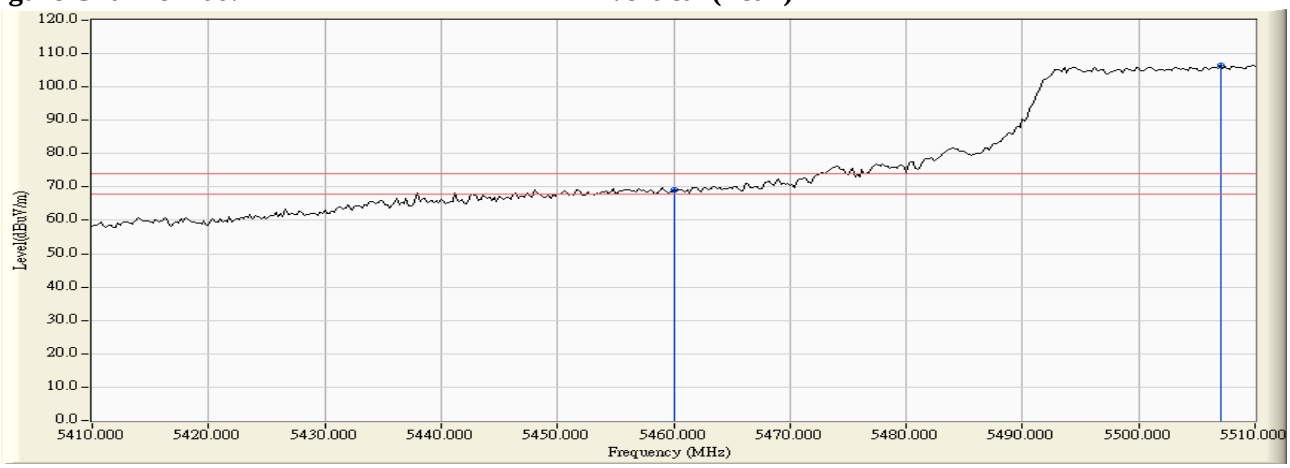
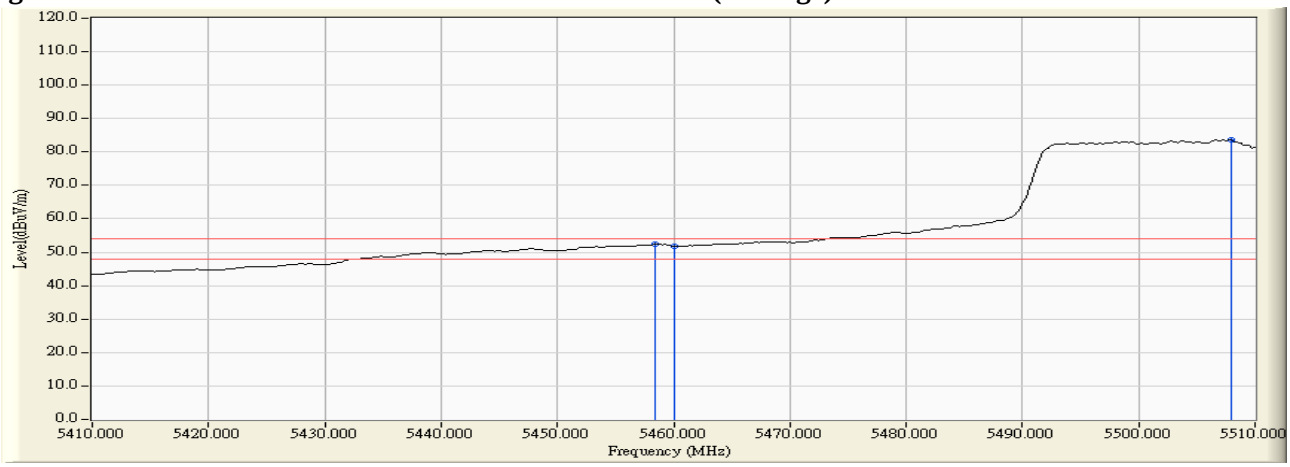


Figure Channel 106: Vertical (Average)



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 + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 4 Transmit (802.11ac-80BW-65Mbps) -Channel 106 (5530MHz)

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5470.000	18.334	-68.490	-50.156	-23.156	-27.000	Pass

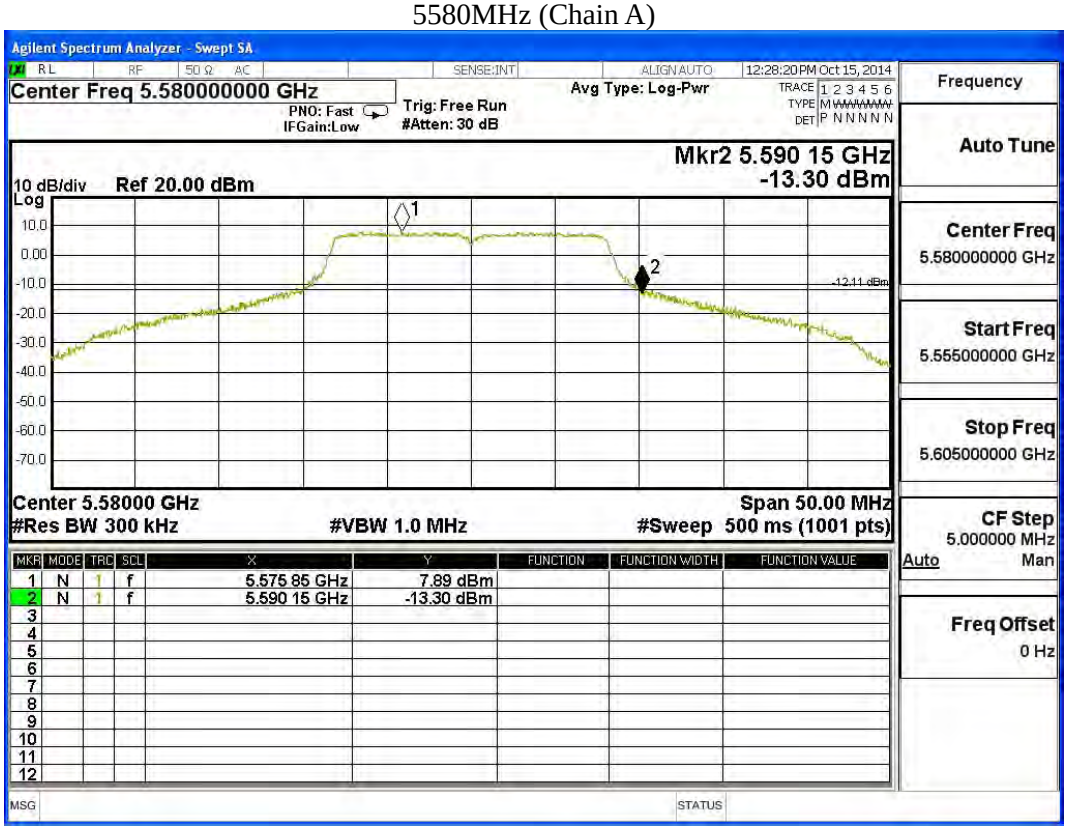
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5470.000	19.335	-67.270	-47.935	-20.935	-27.000	Pass

Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps)

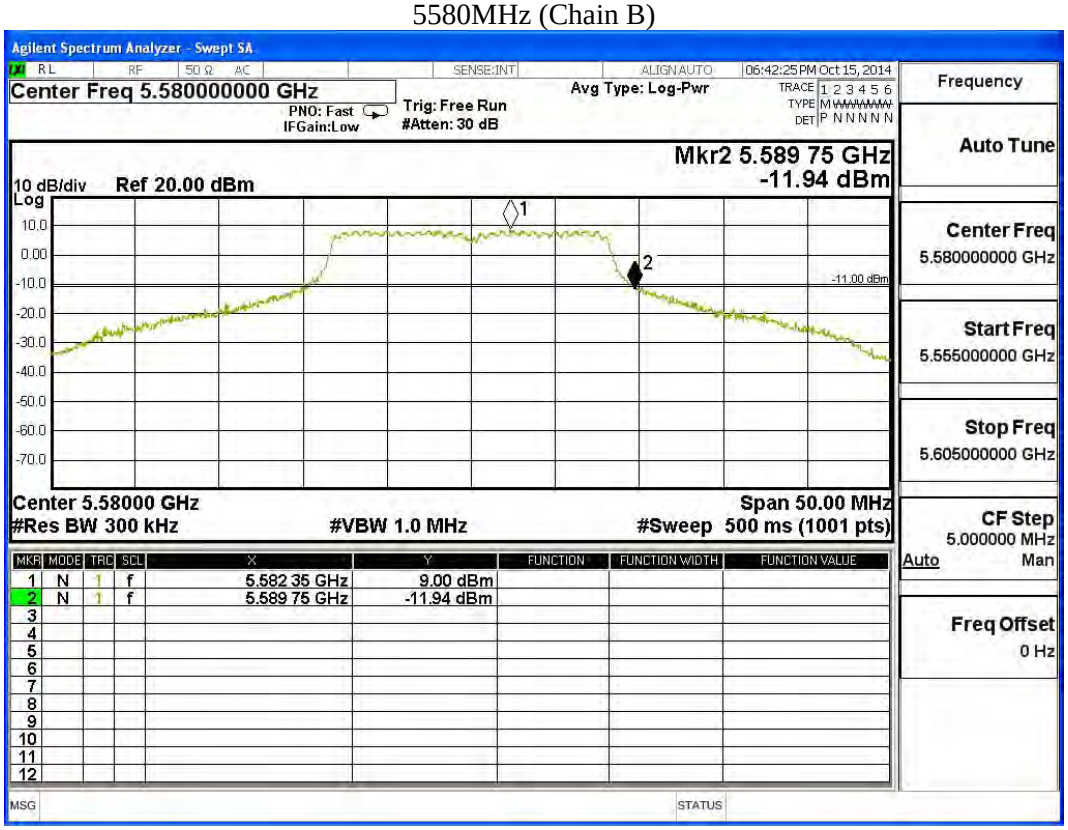
Test Frequency (MHz)	Chain	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5580	A	5590.15	<5600	PASS
	B	5589.75	<5600	PASS
5660	A	5651.00	>5650	PASS
	B	5650.95	>5650	PASS

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

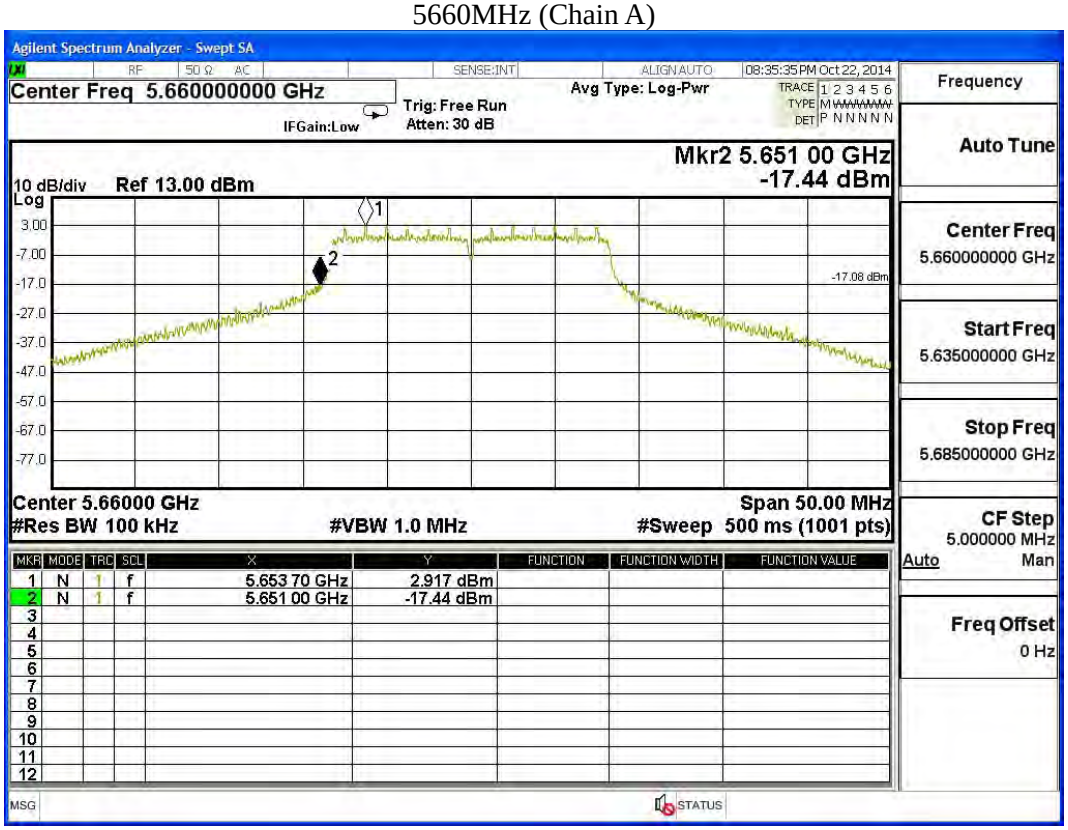
5580MHz (Chain A)



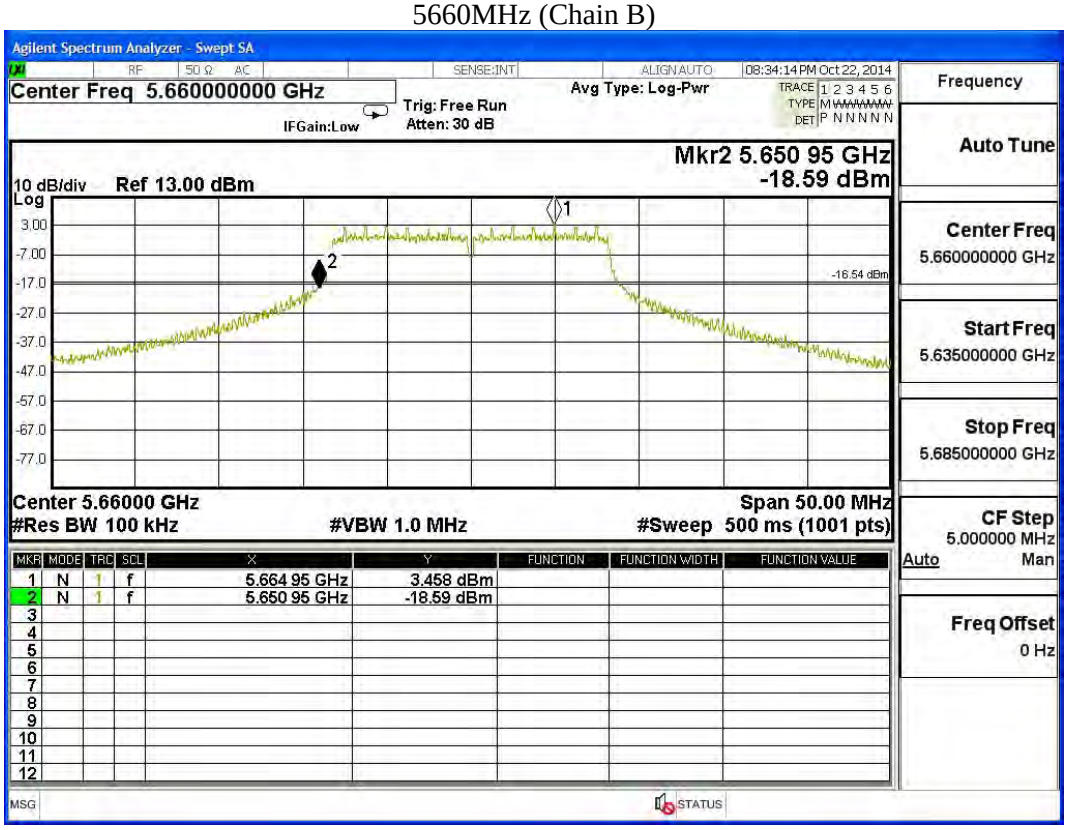
5580MHz (Chain B)



5660MHz (Chain A)



5660MHz (Chain B)

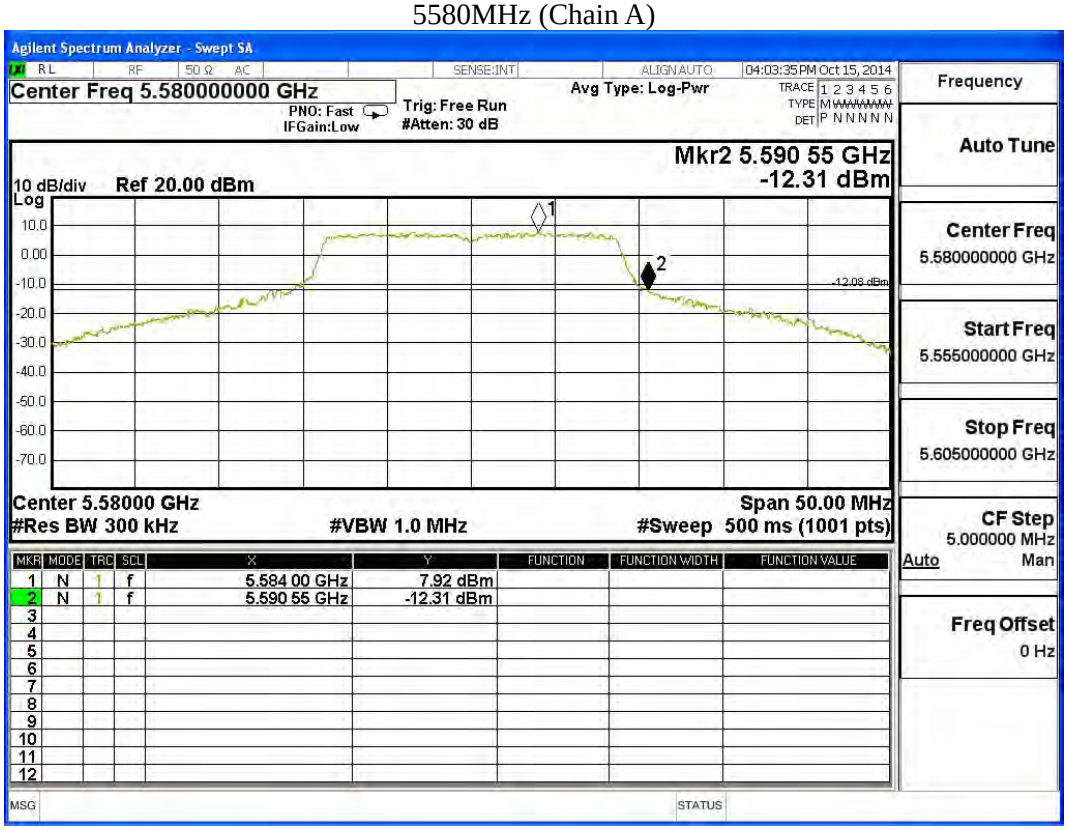


Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps)

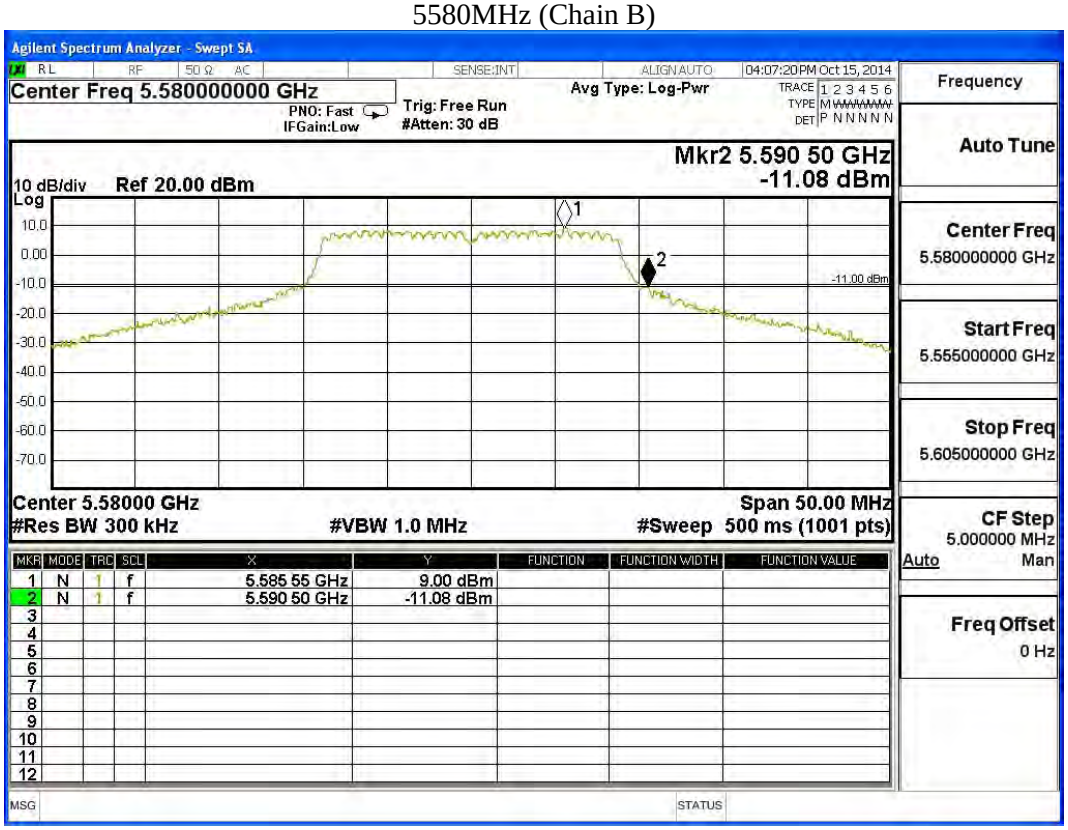
Test Frequency (MHz)	Chain	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5580	A	5590.55	<5600	PASS
	B	5590.50	<5600	PASS
5660	A	5650.40	>5650	PASS
	B	5650.30	>5650	PASS

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

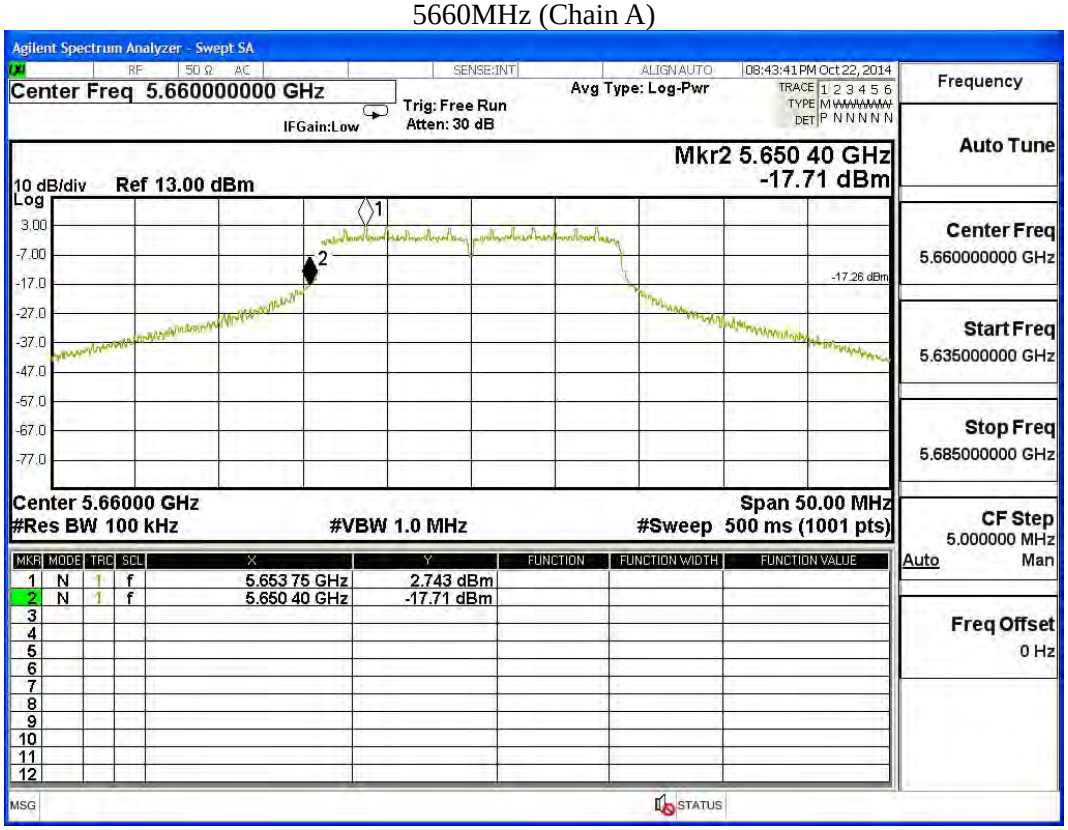
5580MHz (Chain A)



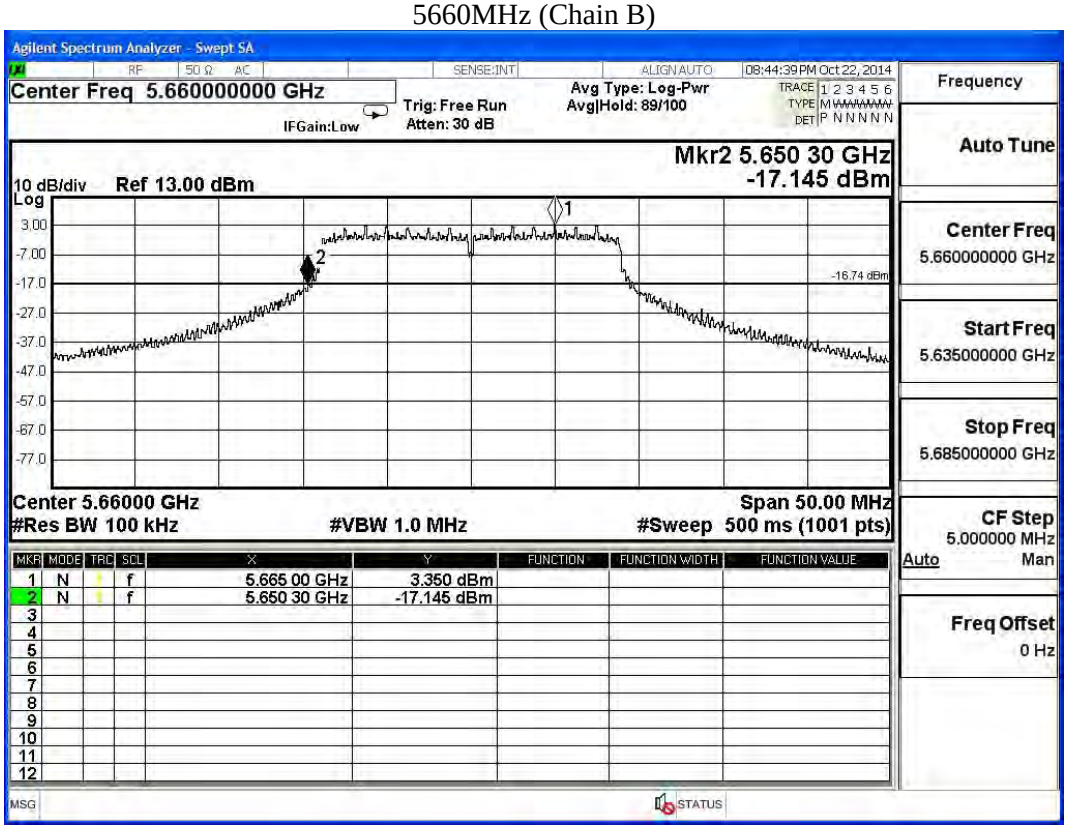
5580MHz (Chain B)



5660MHz (Chain A)



5660MHz (Chain B)

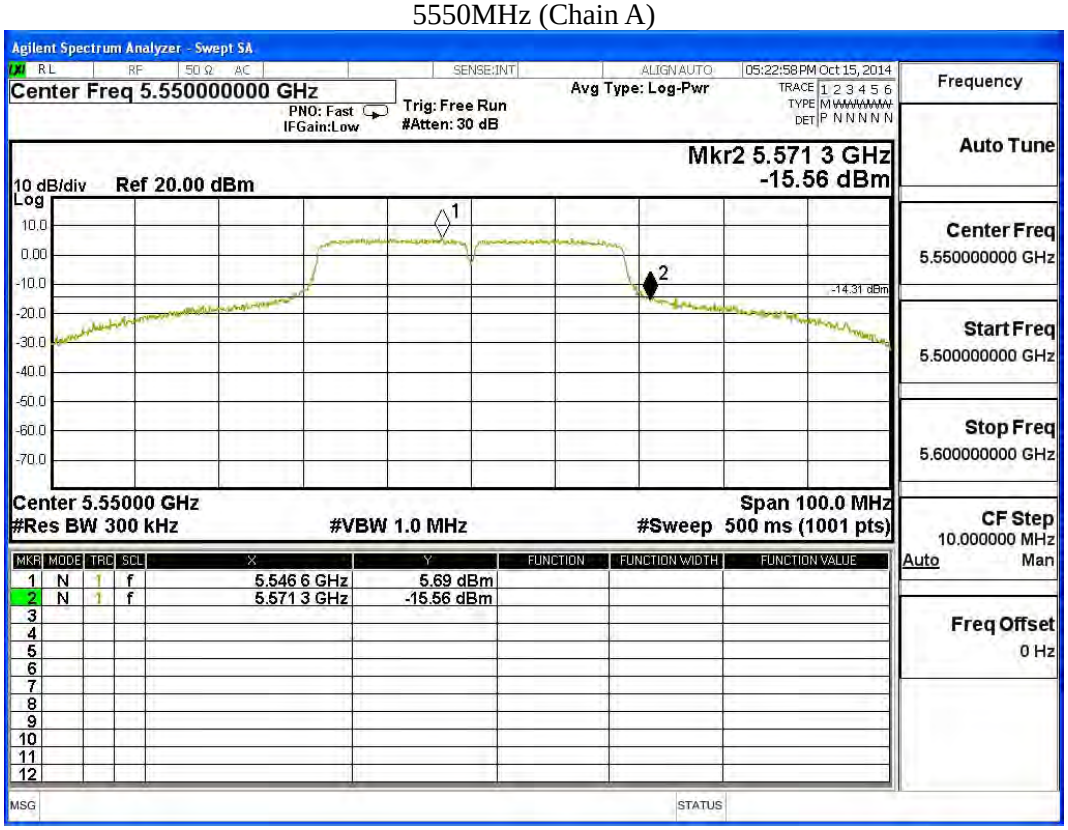


Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps)

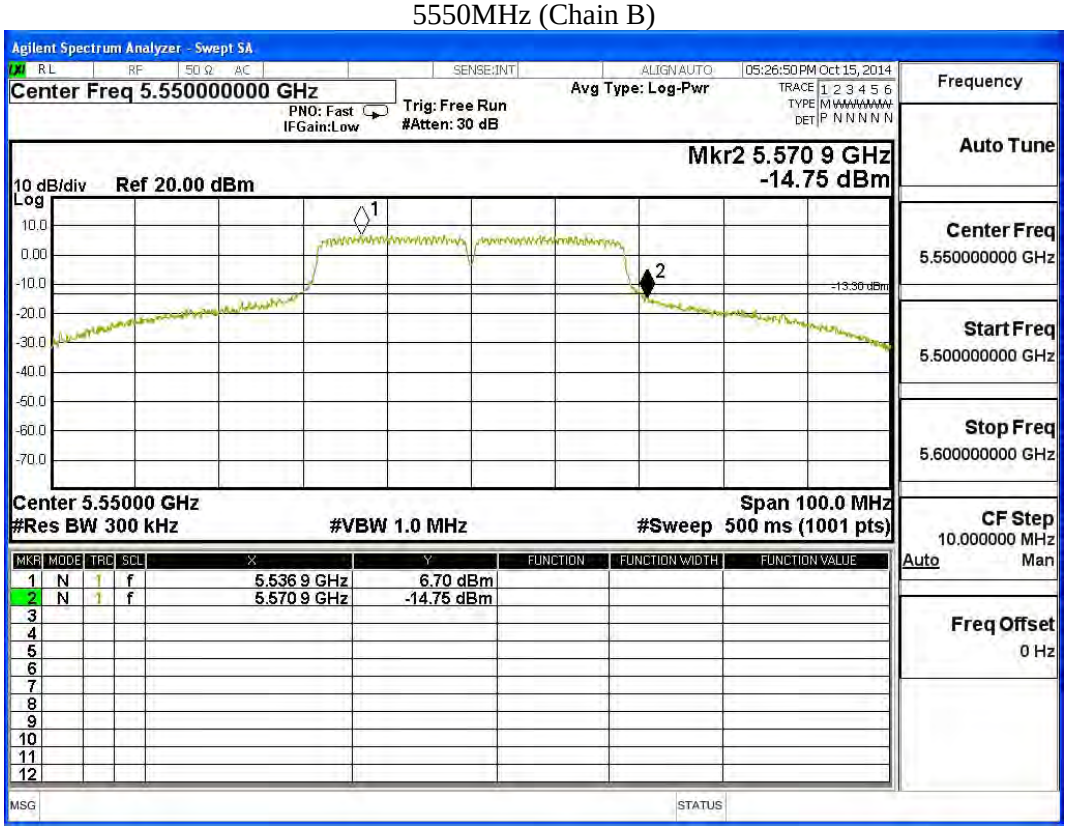
Test Frequency (MHz)	Chain	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5550	A	5571.30	<5600	PASS
	B	5570.90	<5600	PASS
5670	A	5650.90	>5650	PASS
	B	5650.90	>5650	PASS

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

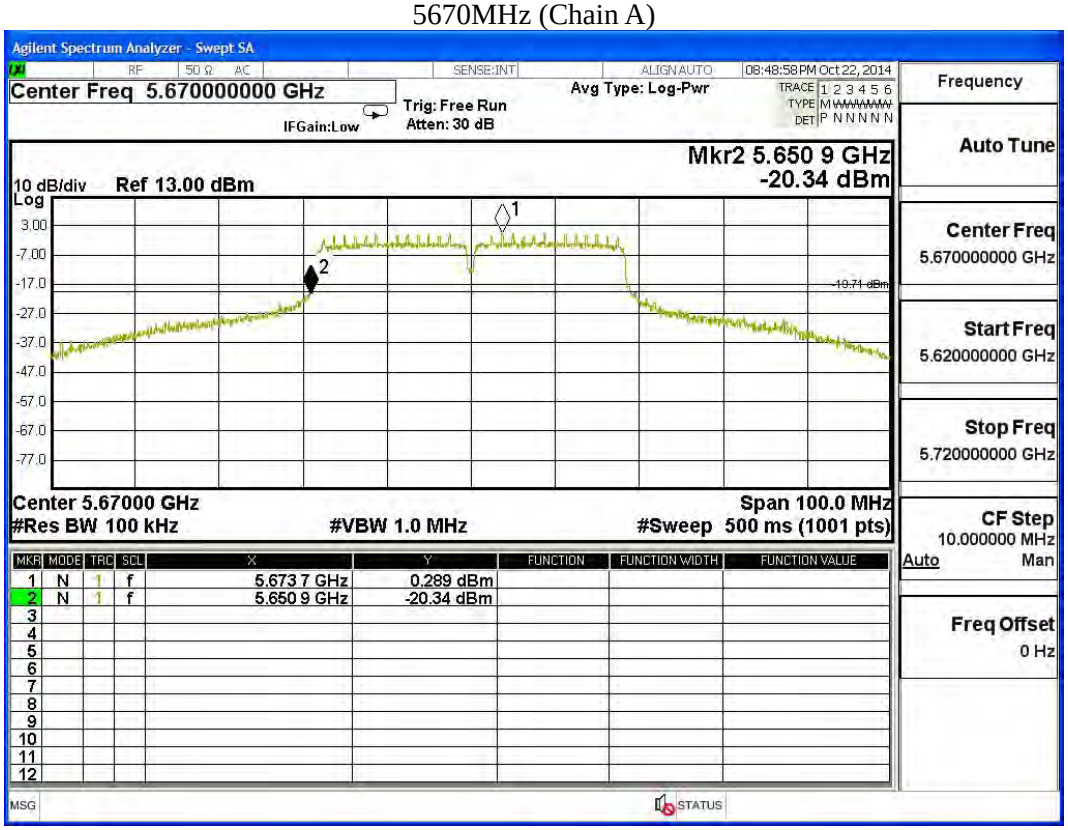
5550MHz (Chain A)



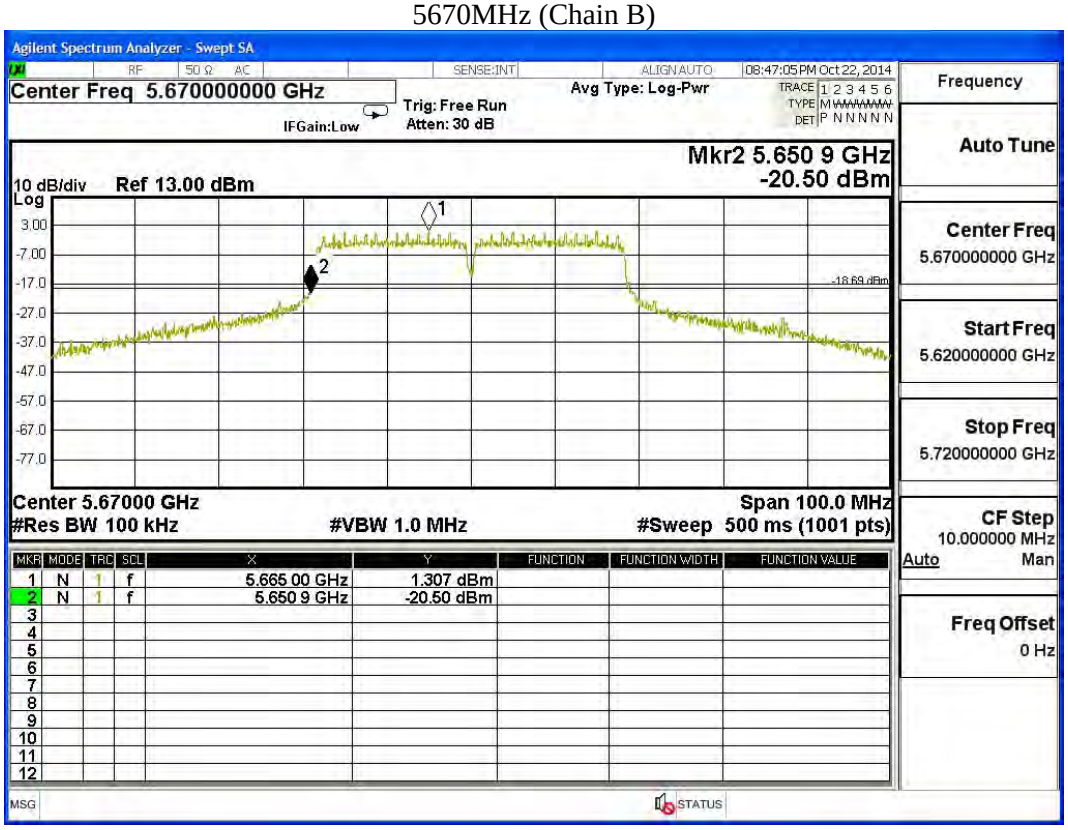
5550MHz (Chain B)



5670MHz (Chain A)



5670MHz (Chain B)

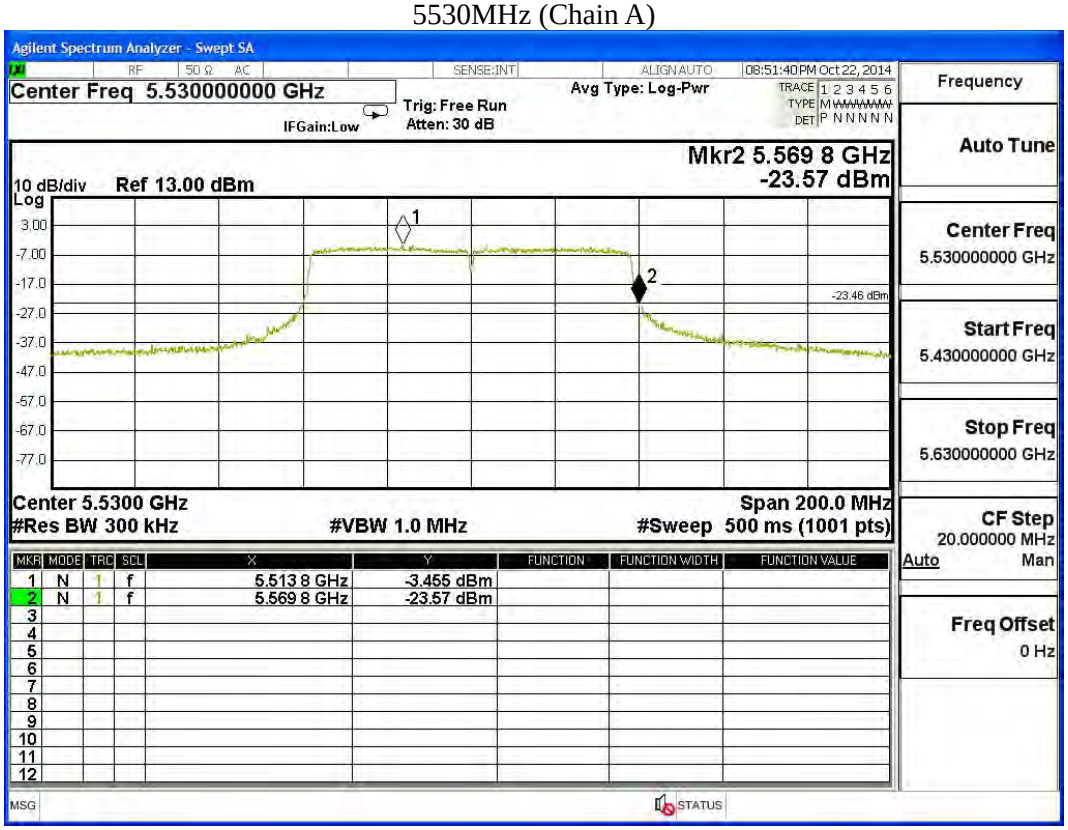


Product : Wireless Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 4 Transmit (802.11ac-80BW-65Mbps)

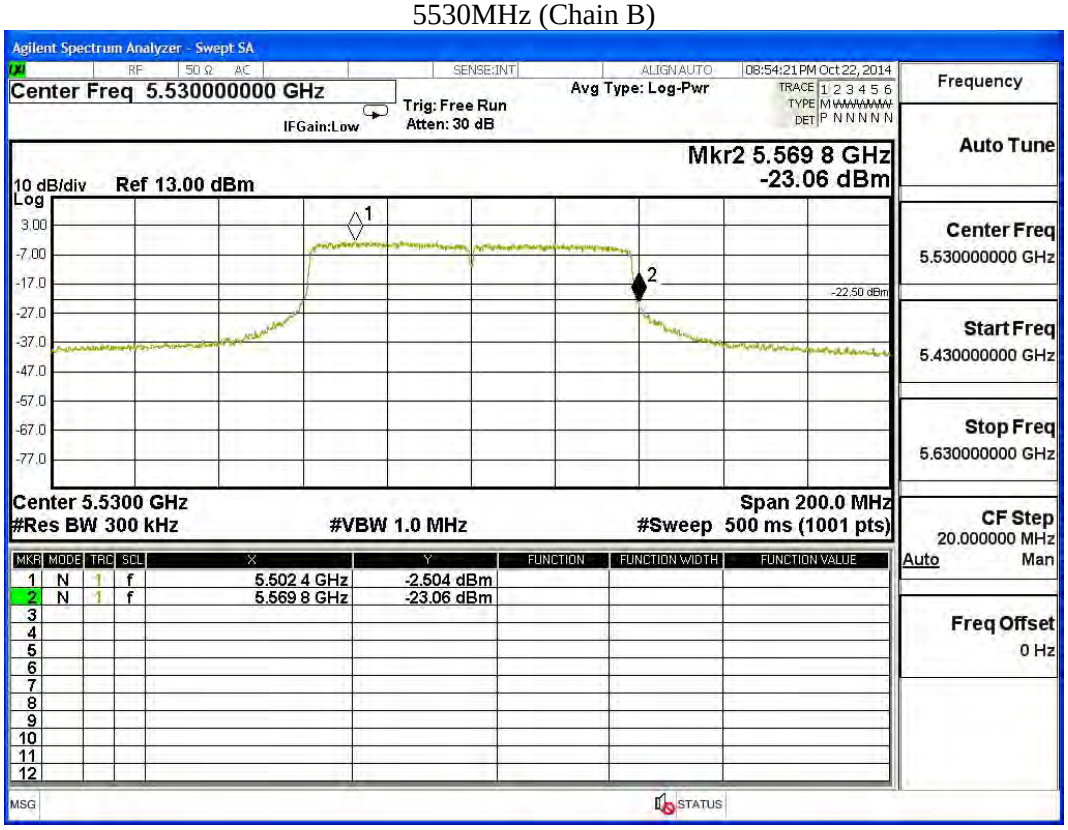
Test Frequency (MHz)	Chain	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5530	A	5569.80	<5600	PASS
	B	5569.80	<5600	PASS
5690	A	5650.20	>5650	PASS
	B	5650.30	>5650	PASS

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

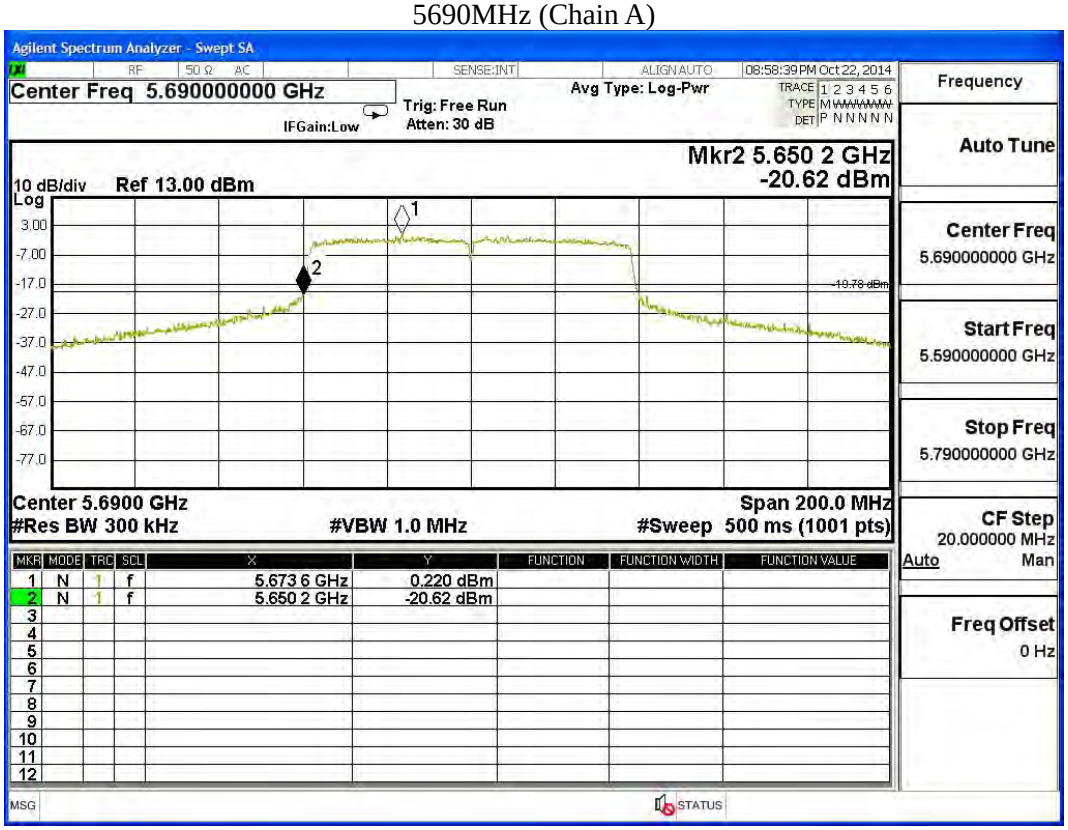
5530MHz (Chain A)



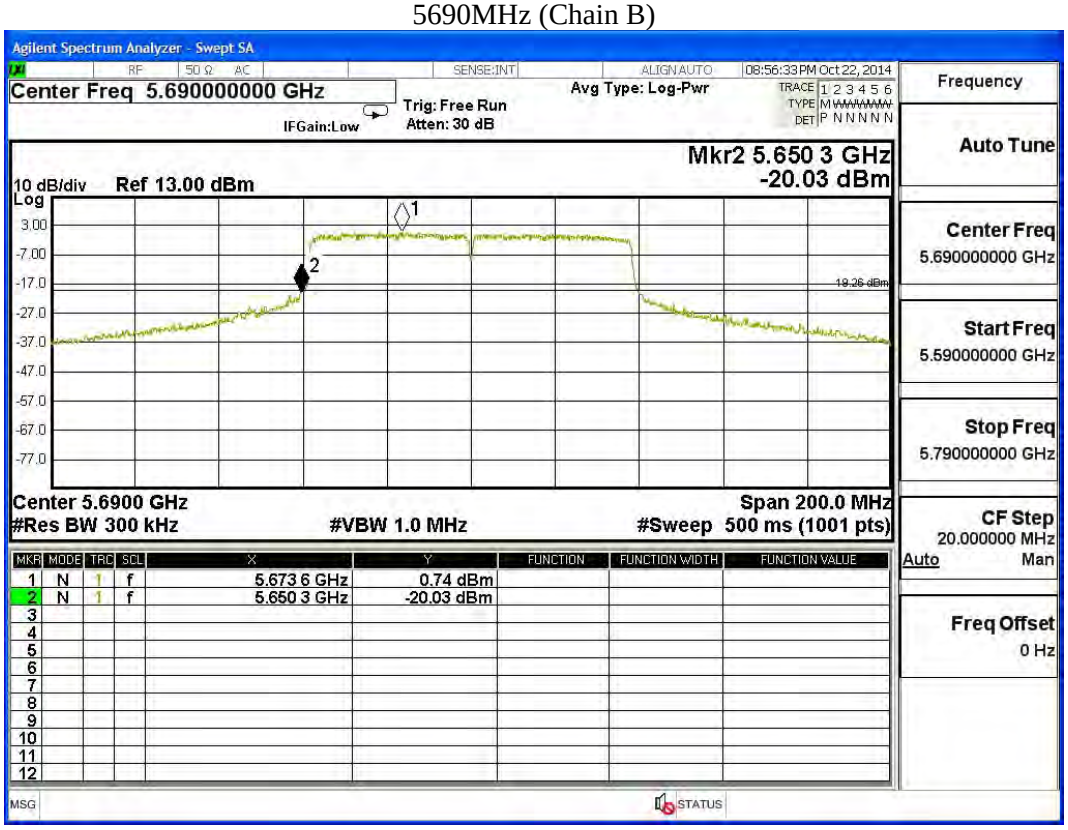
5530MHz (Chain B)



5690MHz (Chain A)



5690MHz (Chain B)



8. Frequency Stability

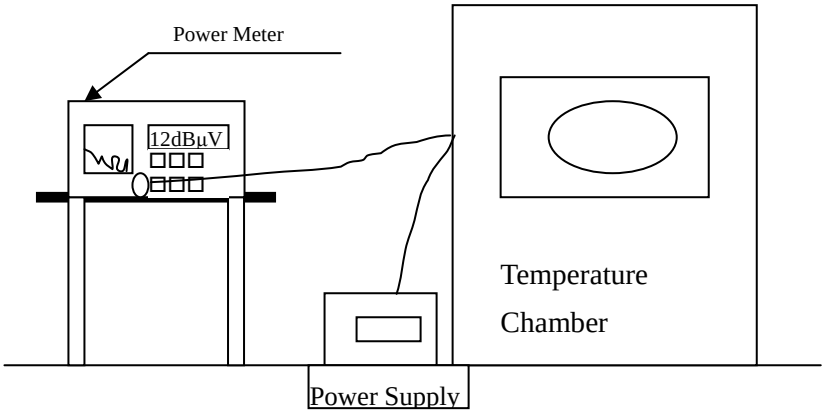
8.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun., 2014
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun., 2014
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2014

Note:

1. All equipment is calibrated once a year or as required by manufacturer.
2. All equipment is calibrated to traceable calibration procedures.
3. The test instruments marked by "X" are used to measure the final test results.

8.2. Test Setup



8.3. Limits

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

8.4. Test Procedure

The EUT was setup to ANSI C63.10, 2009; tested to DTS test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

8.5. Uncertainty

± 150 Hz

8.6. Test Result of Frequency Stability

Product : Wireless Access Point
Test Item : Frequency Stability
Test Site : Temperature Chamber
Test Mode : Carrier Wave

Chain A

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
Tnom (20) °C	Vnom (120)V	52	5260.0000	5260.0088	-0.0088
		54	5270.0000	5270.0034	-0.0034
		60	5300.0000	5300.0084	-0.0084
		62	5310.0000	5310.0020	-0.0020
		64	5320.0000	5320.0099	-0.0099
		100	5500.0000	5500.0013	-0.0013
		102	5510.0000	5510.0103	-0.0103
		110	5550.0000	5550.0089	-0.0089
		116	5580.0000	5580.0078	-0.0078
		134	5670.0000	5670.0100	-0.0100
		140	5700.0000	5700.0062	-0.0062
Tmax (50) °C	Vmax (138)V	52	5260.0000	5260.0026	-0.0026
		54	5270.0000	5270.0053	-0.0053
		60	5300.0000	5300.0077	-0.0077
		62	5310.0000	5310.0031	-0.0031
		64	5320.0000	5320.0028	-0.0028
		100	5500.0000	5500.0047	-0.0047
		102	5510.0000	5510.0023	-0.0023
		110	5550.0000	5550.0044	-0.0044
		116	5580.0000	5580.0066	-0.0066
		134	5670.0000	5670.0089	-0.0089
		140	5700.0000	5700.0102	-0.0102
Tmax (50) °C	Vmin (102)V	52	5260.0000	5260.0023	-0.0023
		54	5270.0000	5270.0073	-0.0073
		60	5300.0000	5300.0080	-0.0080
		62	5310.0000	5310.0107	-0.0107
		64	5320.0000	5320.0057	-0.0057
		100	5500.0000	5500.0083	-0.0083
		102	5510.0000	5510.0013	-0.0013
		110	5550.0000	5550.0036	-0.0036
		116	5580.0000	5580.0101	-0.0101
		134	5670.0000	5670.0069	-0.0069
		140	5700.0000	5700.0048	-0.0048

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
Tmin (0) °C	Vmax (138)V	52	5260.0000	5260.0074	-0.0074
		54	5270.0000	5270.0047	-0.0047
		60	5300.0000	5300.0041	-0.0041
		62	5310.0000	5310.0053	-0.0053
		64	5320.0000	5320.0097	-0.0097
		100	5500.0000	5500.0039	-0.0039
		102	5510.0000	5510.0020	-0.0020
		110	5550.0000	5550.0046	-0.0046
		116	5580.0000	5580.0060	-0.0060
		134	5670.0000	5670.0084	-0.0084
		140	5700.0000	5700.0038	-0.0038
Tmin (0) °C	Vmin (102)V	52	5260.0000	5260.0074	-0.0074
		54	5270.0000	5270.0047	-0.0047
		60	5300.0000	5300.0041	-0.0041
		62	5310.0000	5310.0053	-0.0053
		64	5320.0000	5320.0097	-0.0097
		100	5500.0000	5500.0039	-0.0039
		102	5510.0000	5510.0020	-0.0020
		110	5550.0000	5550.0046	-0.0046
		116	5580.0000	5580.0060	-0.0060
		134	5670.0000	5670.0084	-0.0084
		140	5700.0000	5700.0038	-0.0038

Chain B

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
Tnom (20) °C	Vnom (120)V	52	5260.0000	5260.0028	-0.0028
		54	5270.0000	5270.0123	-0.0123
		60	5300.0000	5300.0088	-0.0088
		62	5310.0000	5310.0044	-0.0044
		64	5320.0000	5320.0100	-0.0100
		100	5500.0000	5500.0073	-0.0073
		102	5510.0000	5510.0033	-0.0033
		110	5550.0000	5550.0141	-0.0141
		116	5580.0000	5580.0101	-0.0101
		134	5670.0000	5670.0105	-0.0105
		140	5700.0000	5700.0044	-0.0044
Tmax (50) °C	Vmax (138)V	52	5260.0000	5260.0033	-0.0033
		54	5270.0000	5270.0135	-0.0135
		60	5300.0000	5300.0029	-0.0029
		62	5310.0000	5310.0139	-0.0139
		64	5320.0000	5320.0178	-0.0178
		100	5500.0000	5500.0087	-0.0087
		102	5510.0000	5510.0162	-0.0162
		110	5550.0000	5550.0047	-0.0047
		116	5580.0000	5580.0046	-0.0046
		134	5670.0000	5670.0188	-0.0188
		140	5700.0000	5700.0064	-0.0064
Tmax (50) °C	Vmin (102)V	52	5260.0000	5260.0036	-0.0036
		54	5270.0000	5270.0093	-0.0093
		60	5300.0000	5300.0090	-0.0090
		62	5310.0000	5310.0151	-0.0151
		64	5320.0000	5320.0136	-0.0136
		100	5500.0000	5500.0172	-0.0172
		102	5510.0000	5510.0081	-0.0081
		110	5550.0000	5550.0049	-0.0049
		116	5580.0000	5580.0122	-0.0122
		134	5670.0000	5670.0153	-0.0153
		140	5700.0000	5700.0151	-0.0151

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
Tmin (0) °C	Vmax (138)V	52	5260.0000	5260.0092	-0.0092
		54	5270.0000	5270.0149	-0.0149
		60	5300.0000	5300.0097	-0.0097
		62	5310.0000	5310.0106	-0.0106
		64	5320.0000	5320.0194	-0.0194
		100	5500.0000	5500.0050	-0.0050
		102	5510.0000	5510.0105	-0.0105
		110	5550.0000	5550.0106	-0.0106
		116	5580.0000	5580.0119	-0.0119
		134	5670.0000	5670.0115	-0.0115
		140	5700.0000	5700.0070	-0.0070
Tmin (0) °C	Vmin (102)V	52	5260.0000	5260.0126	-0.0126
		54	5270.0000	5270.0111	-0.0111
		60	5300.0000	5300.0183	-0.0183
		62	5310.0000	5310.0095	-0.0095
		64	5320.0000	5320.0171	-0.0171
		100	5500.0000	5500.0138	-0.0138
		102	5510.0000	5510.0145	-0.0145
		110	5550.0000	5550.0100	-0.0100
		116	5580.0000	5580.0108	-0.0108
		134	5670.0000	5670.0098	-0.0098
		140	5700.0000	5700.0127	-0.0127

Product : Wireless Access Point
Test Item : Frequency Stability
Test Site : Temperature Chamber
Test Mode : Carrier Wave (AC)

Chain A

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
Tnom (20) oC	Vnom (120)V	58	5290.0000	5290.0046	-0.0046
		106	5530.0000	5530.0024	-0.0024
		138	5690.0000	5690.0046	-0.0046
		142	5710.0000	5710.0029	-0.0029
		144	5720.0000	5720.0064	-0.0064
Tnom (50) oC	Vnom (138)V	58	5290.0000	5290.0046	-0.0046
		106	5530.0000	5530.0016	-0.0016
		138	5690.0000	5690.0064	-0.0064
		142	5710.0000	5710.0044	-0.0044
		144	5720.0000	5720.0037	-0.0037
Tnom (50) oC	Vnom (102)V	58	5290.0000	5290.0046	-0.0046
		106	5530.0000	5530.0036	-0.0036
		138	5690.0000	5690.0027	-0.0027
		142	5710.0000	5710.0046	-0.0046
		144	5720.0000	5720.0033	-0.0033
Tnom (0) oC	Vnom (138)V	58	5290.0000	5290.0046	-0.0046
		106	5530.0000	5530.0025	-0.0025
		138	5690.0000	5690.0017	-0.0017
		142	5710.0000	5710.0039	-0.0039
		144	5720.0000	5720.0047	-0.0047
Tnom (0) oC	Vnom (102)V	58	5290.0000	5290.0046	-0.0046
		106	5530.0000	5530.0026	-0.0026
		138	5690.0000	5690.0021	-0.0021
		142	5710.0000	5710.0036	-0.0036
		144	5720.0000	5720.0039	-0.0039

Chain B

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
Tnom (20) oC	Vnom (120)V	58	5290.0000	5290.0046	-0.0046
		106	5530.0000	5530.0024	-0.0024
		138	5690.0000	5690.0046	-0.0046
		142	5710.0000	5710.0029	-0.0029
		144	5720.0000	5720.0064	-0.0064
Tnom (50) oC	Vnom (138)V	58	5290.0000	5290.0046	-0.0046
		106	5530.0000	5530.0016	-0.0016
		138	5690.0000	5690.0064	-0.0064
		142	5710.0000	5710.0044	-0.0044
		144	5720.0000	5720.0037	-0.0037
Tnom (50) oC	Vnom (102)V	58	5290.0000	5290.0046	-0.0046
		106	5530.0000	5530.0036	-0.0036
		138	5690.0000	5690.0027	-0.0027
		142	5710.0000	5710.0046	-0.0046
		144	5720.0000	5720.0033	-0.0033
Tnom (0) oC	Vnom (138)V	58	5290.0000	5290.0046	-0.0046
		106	5530.0000	5530.0025	-0.0025
		138	5690.0000	5690.0017	-0.0017
		142	5710.0000	5710.0039	-0.0039
		144	5720.0000	5720.0047	-0.0047
Tnom (0) oC	Vnom (102)V	58	5290.0000	5290.0046	-0.0046
		106	5530.0000	5530.0026	-0.0026
		138	5690.0000	5690.0021	-0.0021
		142	5710.0000	5710.0036	-0.0036
		144	5720.0000	5720.0039	-0.0039

9. EMI Reduction Method During Compliance Testing

No modification was made during testing.

Attachment 1: EUT Test Photographs

Attachment 2: EUT Detailed Photographs