Product :	SpectraGuard® Access Point / Sensor
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Test Item	:	Peak Power Spectral Density
		1 2

Test Site : No.3 OATS

Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps)(Dipole Antenna)

Channel Number	Frequency (MHz)	Chain	PPSD/MHz (dBm)	Total PPSD/MHz (dBm)1	Required Limit (dBm)	Result
5.4	5270	А	-0.290	2.720	<11	Pass
54	5270	В	-0.590	2.420	<11	Pass
(2)		А	-7.850	-4.840	<11	Pass
62	5310	В	-7.850	-4.840	<11	Pass
102	5510	А	-6.470	-3.460	<11	Pass
102	5510	В	-6.080	-3.070	<11	Pass
110	5550	А	-4.220	-1.210	<11	Pass
110 5:	5550	В	-2.970	0.040	<11	Pass
124	5(70)	А	-0.140	2.870	<11	Pass
134	5670	В	0.430	3.440	<11	Pass

Note 1: The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01



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Agilent Spectrum Analyzer - Swept	SA.						
<mark>μα</mark> RL RF 50 Ω		SENSE:INT		LIGNAUTO		AM Aug 02, 2013	Established
Center Freq 5.270000	000 GHz		#Avg Type	: RMS	TRA	CE 1 2 3 4 5 6	Frequency
10 dB/div Ref 20.00 dB	PNO: Fast 🧔 IFGain:Low	⁷ Trig: Free Run #Atten: 30 dB		Mkr	ء 1 5.278	45 GHz 29 dBm	
Log							
							Center Freq
10.0						-	5.270000000 GHz
			. ▲1				
0.00					And and a local diversity of the local divers	-	
					- Aller		Start Free
-10.0		1			1		5.245000000 GHz
10:0							
					1	1, 100 1	-
-20.0					1		Stop Free
						and	5.29500000 GHz
-30.0			-			Nyme	0.2000000000
						and a	
-40.0						4	CF Step
40.0							5.000000 MHz
and the second se							Auto Mar
-50.0			1				
							From Office
-60.0							Freq Offset
						1.1.1	0 Hz
-70.0							-
10.0		1	(1)			1	
Center 5.27000 GHz	1	1.		1	Snan 5	0.00 MHz	
#Res BW 1.0 MHz	#VBW	3.0 MHz		Sweep		(1001 pts)	
MSG				STATUS			
M03				STATUS			

Channel 54 – Chain A

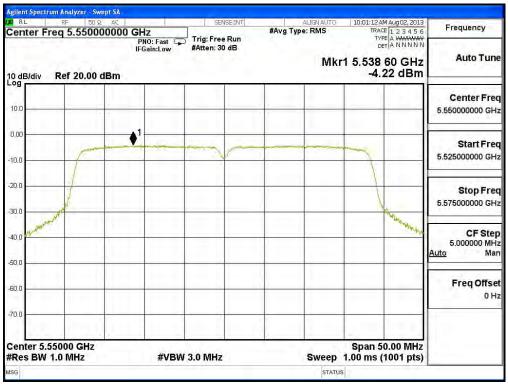
Channel 62 – Chain A

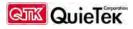


gilent Spectrum Analyzer - Swept SA RL RF 50 Q AC	SENSE:INT	ALIGNAUTO	09:46:33 AM Aug 02, 2013	1
enter Freq 5.510000000	GHz	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A WANNAN	Frequency
0 dB/div Ref 20.00 dBm	PNO: Fast 🆵 Trig: Free Run IFGain:Low #Atten: 30 dB	Mki	^{DET A NNNNN} r1 5.520 75 GHz -6.47 dBm	
				Center Fred 5.510000000 GH;
1.00		• 1	-	Start Free 5.485000000 GH:
0.0				Stop Free 5.535000000 GH;
10.0 ppm//mm//m/			Martha Maria	CF Step 5.000000 MH Auto Mar
0.0				Freq Offse 0 H
enter 5.51000 GHz			Span 50.00 MHz	
Res BW 1.0 MHz	#VBW 3.0 MHz	Sweep	1.00 ms (1001 pts)	

Channel 102 – Chain A

Channel 110 – Chain A





			4 – Chain A		
Agilent Spectrum Analyzer - Swept SA RL RF 50 Q AC Center Freq 5.67000000	0 GHz	SENSE:INT	ALIGNAUTO #Avg Type: RMS	10:05:14 AM Aug 02, 2013 TRACE 1 2 3 4 5 6 TYPE A WARANAN	Frequency
10 dB/div Ref 20.00 dBm	PNO: Fast 🥌 IFGain:Low	#Atten: 30 dB	Mkr	1 5.660 45 GHz -0.14 dBm	Auto Tune
10.0	1				Center Free 5.670000000 GH
10.0			in the second		Start Free 5.645000000 GH
30.0				hourses	Stop Free 5.695000000 GH
10.0					CF Stej 5.000000 MH <u>Auto</u> Ma
60,0					Freq Offse 0 H
-70.0				Span 50.00 MHz	
#Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep	1.00 ms (1001 pts)	

Channel 134 – Chain A



						um Analyzer - Swept SA	
Francisco	02:56:01 PM Aug 02, 2013	ALIGN AUTO	1.	SENSE:INT		RF 50 Ω AC	UM RL
Frequency	TRACE 1 2 3 4 5 6 TYPE A WARAWAY	pe: RMS	#Avg Ty	Trig: Free Run	GHz PNO: Fast	req 5.27000000	Center F
Auto Tune	5.280 60 GHz -0.59 dBm	Mkr1		#Atten: 30 dB	IFGain:Low	Ref 20.00 dBm	10 dB/div
Center Freq							Log
5.270000000 GHz							10.0
		≜ 1		in the l		1.1.1.1.1.1.1.1	
Start Freq 5.245000000 GHz	1	-	-	V		1	0.00
	Ì					1	-10.0
Stop Freq							-20.0
5.295000000 GHz	North March		-			- Contraction	-30.0
CF Step							-40.0
5.000000 MHz Auto Man							
							-50,0
Freq Offset 0 Hz							-60.0
							-70.0
		1				i line i s	
	Span 50.00 MHz 0 ms (1001 pts)	Sween 1		3.0 MHz	#VBW	27000 GHz	Center 5. #Res BW
	a mo (1901 pto)	STATUS					MSG

Channel 54 – Chain B

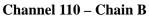
Channel 62 – Chain B

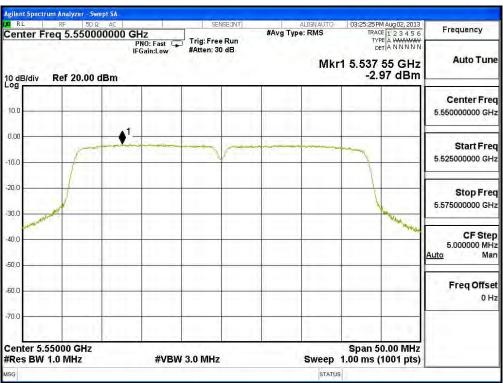


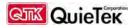


Agilent Spectrum Analyzer - Swept	SA.						
<mark>04</mark> RL RF 50Ω.		SENSE:INT				M Aug 02, 2013	Frequency
Center Freq 5.510000		Total Force Davis	#Avg Type: RI	MS		E 1 2 3 4 5 6 E A WWWWW	Frequency
10 dB/div Ref 20.00 dB	PNO: Fast 🖵 IFGain:Low	^J Trig: Free Run #Atten: 30 dB		Mkr1	DE 5.501	60 GHz 08 dBm	Auto Tune
209					1		Contra Franc
100							Center Freq
10.0				1			5.510000000 GHz
0.00						11.1	
0.00	▲ ¹						Start Freq
and the second		many man			-		5.485000000 GHz
-10.0					5		0.400000000000
					1	1100.1	
-20.0			1		1		Stop Freq
					X		5.535000000 GHz
-30.0					¥	¥.,	1.00000000000
-40.0 gastowiller hard		1000				Manut	05.04
-40.0						1 THULS	CF Step 5.000000 MHz
							Auto Man
-50,0			-				-
				-			Freq Offset
-60.0			-		_		0 Hz
							012
-70.0			-				
a Color & Denned	1 2 4 4 4 1 1 2	100 C		1990		1000	
Center 5.51000 GHz					Span 5	0.00 MHz	
#Res BW 1.0 MHz	#VBW	3.0 MHz	Sv			1001 pts)	
MSG				STATUS			

Channel 102 – Chain B







				- Chain B		
Agilent Spectrum A RL F Center Freq	RF 50 Ω AC		SENSE:INT	ALIGNAUTO #Avg Type: RMS	03:30:54 PM Aug 02, 2013 TRACE 1 2 3 4 5 6	Frequency
	ef 20.00 dBm	PNO: Fast 🦕 IFGain:Low	덧 Trig: Free Run #Atten: 30 dB	Mki	турей жиллом Det A NNNN 1 5.656 70 GHz 0.43 dBm	Auto Tune
10.0		1				Center Fred 5.670000000 GH;
0.00	1					Start Free 5.645000000 GH:
20.0 30.0						Stop Fred 5.695000000 GH;
40.0						CF Step 5.000000 MH Auto Mar
60.0						Freq Offse 0 H
-70.0 Center 5.670 #Res BW 1.0		#VBM	/ 3.0 MHz	Sweep	Span 50.00 MHz 1.00 ms (1001 pts)	
MSG				STATU		IL

Channel 134 – Chain B

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

Total Channel Frequency PPSD/MHz Required Limit Chain PPSD/MHz Result Number (MHz) (dBm) (dBm) (dBm)ı А 7.060 10.070 <11 Pass 52 5260 В 6.530 9.540 <11 Pass Α 6.110 9.120 <11 Pass 60 5300 В 6.010 9.020 <11 Pass 4.940 7.950 <11 A Pass 64 5320 В 4.630 7.640 <11 Pass А 4.170 7.180 <11 Pass 100 5500 В 3.850 6.860 <11 Pass 4.890 7.900 <11 А Pass 116 5580 В 4.790 7.800 <11 Pass А 7.420 10.430 <11 Pass 140 5700 В <11 6.7609.770 Pass

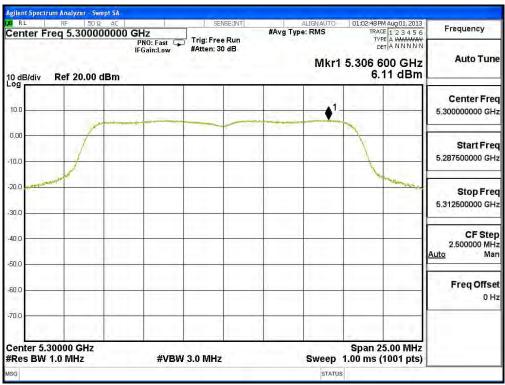
Note 1: The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01.



RL RF 50 Q AC		SENSE:INT	ALIGNAUTO #Avg Type: RMS	11:54:20 AM Aug 01, 2013 TRACE 1 2 3 4 5 6	
Center Freq 5.2600000	IU GHZ PNO: Fast ⊊ IFGain:Low	Trig: Free Run #Atten: 30 dB	2000	5.265 825 GHz	Auto Tune
0 dB/div Ref 20.00 dBm				7.06 dBm	
10.0			● ¹		Center Free 5.260000000 GH:
10.0					Start Free 5.247500000 GH:
20.0				and the second	Stop Free 5.272500000 GH
40.0					CF Step 2.500000 MH Auto Mar
60.0					Freq Offse 0 H
70.0					
Center 5.26000 GHz Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep	Span 25.00 MHz 1.00 ms (1001 pts)	

Channel 52: CHAIN A

Channel 60: CHAIN A





RL	RF 50 Ω AC		SENSE:INT	ALIGNAUTO	01:05:32 PM Aug 01, 2013	Contractor of the
enter F	req 5.3200000	PNO: Fast 💭	Trig: Free Run	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A WARAWAY DET A N N N N N	Frequency
0 dB/div	Ref 20.00 dBm	IFGain:Low	#Atten: 30 dB	Mkr1	5.324 850 GHz 4.94 dBm	Auto Tune
10.0			-			Center Free
						5.320000000 GH
1.00	1					Start Fre 5.307500000 GH
0.0 	and the second				Mines dentile another	Stop Fre 5.332500000 GH
0.0						CF Ste 2.500000 MH <u>Auto</u> Ma
0.0						Freq Offse 0 H
70.0						
	32000 GHz 1.0 MHz	#VBW	3.0 MHz	Sweep	Span 25.00 MHz 1.00 ms (1001 pts)	
SG				STATU		

Channel 64: CHAIN A

Channel 100: CHAIN A

Agilent Spectrum Analyzer - Swept S		SENSE:INT	ALIGNAUTO	01:08:14 PM Aug 01, 2013	
Center Freq 5.5000000	00 GHz		#Avg Type: RMS	TRACE 1 2 3 4 5 6	Frequency
10 dB/div Ref 20.00 dBn	PNO: Fast 🌩 IFGain:Low	⁷ Trig: Free Run #Atten: 30 dB	Mkr1	5.505 925 GHz 4.17 dBm	Auto Tune
					Center Free
10.0			↓ 1		5.500000000 GH
-10.0					Start Fre 5.487500000 GH
-20.0				and the second second	Stop Fre 5.512500000 GH
40.0					CF Ste 2.500000 MH <u>Auto</u> Ma
.60.0					Freq Offse 0 H
-70.0					
Center 5.50000 GHz #Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep	Span 25.00 MHz 1.00 ms (1001 pts)	
MSG			STATUS		



-	01:32:11 PM Aug 01, 2013	ALIGN AUTO		SENSE:INT		RF 50 Q AC	RL
Frequency	TRACE 1 2 3 4 5 6 TYPE A WARAWAY DET A N N N N N	ype: RMS		Trig: Free Run #Atten: 30 dB	GHz PNO: Fast 😱 IFGain:Low	eq 5.580000000	enter Fr
Auto Tur	5.577 575 GHz 4.89 dBm	Mkr1		Whiteh, oo up	IFGain:Low	Ref 20.00 dBm	0 dB/div
Center Fre							2
5.58000000 GH			_	.1			10.0
Start Fre						1	3.00
5.567500000 GH	1	-	-				io.o
	Hardhand					burner W	20.0
Stop Free 5.592500000 GH	and the second se						80.0
CF Ste							
2.500000 MH							10,0
		-	-				50,0
Freq Offs 0 H		-	-				ia.a
			-				/0.0
	Onen OS OO Balle				_	0000 00-	
	Span 25.00 MHZ 1.00 ms (1001 pts)	Sweep		3.0 MHz	#VBW		enter 5.5 Res BW
	Span 25.00 MHz 1.00 ms (1001 pts)	Sweep		3.0 MHz	#VBW :	8000 GHz 1.0 MHz	enter 5.5

Channel 120: CHAIN A

Channel 140: CHAIN A

XI RL	rum Analyzer - Swep RF 50 Ω	AC		SENSE:INT	ALIGN		48:15 PM Aug 01, 2013	Energy and
Center F	req 5.700000	PNC): Fast 😱 in:Low	Trig: Free Run #Atten: 30 dB	#Avg Type: RM	IS	TRACE 123456 TYPE A WARAWAY DET A N N N N N	Frequency
10 dB/div	Ref 20.00 dB		III.COW	and the of the	N	/kr1 5.6	93 975 GHz 7.42 dBm	Auto Tune
		À1					1.1.1.1	Center Free
10.0								5.70000000 GH;
0.00								Start Free
-10.0	and the second s						The second and the second	5.687500000 GHz
-20.0	-							Stop Free
-30.0	_						_	5.712500000 GH
-40,0							-	CF Ster 2,500000 MH
-50,0		<u></u>						<u>Auto</u> Mar
-60.0								Freq Offse
-70.0								0 H
	.70000 GHz 1.0 MHz		#VBW	3.0 MHz	Sw	Sp eep 1.00	an 25.00 MHz ms (1001 pts)	
ASG						STATUS		



3	03:44:31 PM Aug 01, 2013	ALIGNAUTO	SENSE:INT	AC	RF 50 Q AC	RL
Frequency	TRACE 1 2 3 4 5 6 TYPE A WARAWAY DET A N N N N N	#Avg Type: RMS	Trig: Free Run	PNO: Fast	Freq 5.26000000	Center F
z Auto Tune	5.266 175 GHz 6.53 dBm	Mkr1	#Atten: 30 dB		Ref 20.00 dBm	I0 dB/div
Center Free 5.260000000 GH	<u> </u>	↓ 1				10.0
Start Free 5.247500000 GH						10.0
Stop Fre 5.272500000 GH	The de al have a series				La Maria	20.0 30.0
CF Ste 2.500000 MH Auto Ma						io.o
Freq Offse						0.0
						70.0
2)	Span 25.00 MHz 1.00 ms (1001 pts)	Sweep	3.0 MHz	#VBW :	5.26000 GHz N 1.0 MHz	
		STATUS				ISG

Channel 52: CHAIN B

Channel 60: CHAIN B

Agilent Spect	rum Analyzer - Sw RF 50 S	Pept SA		SENSE	INT	ALT	GNAUTO	103-52-061	PM Aug 01, 2013	
	req 5.3000	00000 G	Hz		-	#Avg Type: I		TRA	CE 1 2 3 4 5 6	Frequency
10 dB/div	Ref 20.00	I	PNO: Fast 🍙 Gain:Low	^J Trig: Free R #Atten: 30 d			Mkr1	5.301	600 GHz 01 dBm	Auto Tune
10.0					•1-					Center Free 5.300000000 GH:
0.00	1	and						1		1
-10.0	1							1		Start Fred 5.287500000 GH:
-20.0	an appiel of the								104) yelinan dama dama ya	Stop Free 5.312500000 GH
-40.0										CF Step 2.500000 MH Auto Mar
-50,0			1							
-60.0	_									Freq Offse 0 H
-70.0	1								1	
	.30000 GHz 1.0 MHz		#VBW	3.0 MHz		S	weep	Span 2 1.00 ms	25.00 MHz (1001 pts)	
MSG							STATUS			L



RL RF 50.Q AC	SENSE:INT	ALIGNAUT	0 03:55:45 PM Aug 01, 2	2013
enter Freq 5.320000000 GH	10: Fast 💭 Trig: Free Run	#Avg Type: RMS	TRACE 1 2 3 4 TYPE A WWWA DET A N N N	56 Frequency
IFG 0 dB/div Ref 20.00 dBm	ain:Low #Atten: 30 dB	Mk	r1 5.324 575 GI 4.63 dB	Hz Auto Tune
	1+ S 1 (=			Center Free
			-	5.320000000 GH:
0.0			1	Start Free 5.307500000 GH
0.0			and the second sec	Stop Free 5.332500000 GH
00				CF Ste 2.500000 MH <u>Auto</u> Ma
0.0				Freq Offse
0.0				
enter 5.32000 GHz Res BW 1.0 MHz	#VBW 3.0 MHz	Swee	Span 25.00 M p 1.00 ms (1001 p	

Channel 64: CHAIN B

Channel 100: CHAIN B

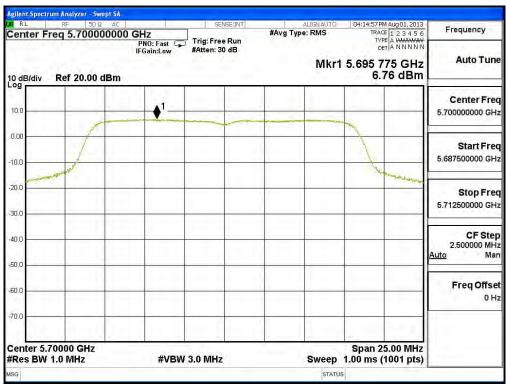
		-		0.1101			_
	PM Aug 01, 2013	03:58:21 F	ALIGNAUTO	SENSE:INT		nalyzer - Swept SA RF 50 Ω AC	lgilent Spectrum
Frequency	ACE 1 2 3 4 5 6	TRA	#Avg Type: RMS	Trig: Free Run	GHz	5.500000000	Center Fre
Auto Tun	900 GHz .85 dBm	5.504 9	Mkr1	#Atten: 30 dB	PNO: Fast 🖵 IFGain:Low	ef 20.00 dBm	10 dB/div I
Center Fre	1.2.2.5						
5.500000000 GH			1				10.0
Start Fre 5.487500000 GH		1					-10.0
Stop Fre 5.512500000 GH	Warrandown	J.				<i></i>	30.0
CF Stej 2.500000 MH <u>Auto</u> Ma							-40.0
Freq Offse 0 H							-60.0
	1						-70.0
	25.00 MHz (1001 pts)	Span 2 1.00 ms	Sweep	3.0 MHz	#VBW		Center 5.50 #Res BW 1.
		1	STATUS				ISG



RL	RF 50 Q AC		SENSE:INT	ALIGNAUTO	04:09:23 PM Aug 01, 2013	
enter Fre	q 5.58000000	PNO: Fast 💭	Trig: Free Run #Atten: 30 dB	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A WARAWA DET A N N N N N	Frequency
0 dB/div I	Ref 20.00 dBm	IFGain:Low	#Atten: 30 dB	Mki	1 5.573 125 GHz 4.79 dBm	Auto Tune
10.0						Center Free 5.580000000 GH:
1.00 10.0						Start Free 5.567500000 GH
20.0	www.				"That we are a series	Stop Free 5.592500000 GH
0.0						CF Stej 2.500000 MH <u>Auto</u> Ma
0.0						Freq Offse 0 H
70.0 Center 5.58	000 GHz				Span 25.00 MHz	
Res BW 1.		#VBW	3.0 MHz	Sweep	1.00 ms (1001 pts)	
sg				STA	ne	-

Channel 120: CHAIN B

Channel 140: CHAIN B



Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Peak Power Spectral Density
Test Site	:	No.3 OATS
Test Mode	:	Mode 5: Transmit (802.11n-20BW 14.4Mbps)(PIFA Antenna)

Channel Number	Frequency (MHz)	Chain	PPSD/MHz (dBm)	Total PPSD/MHz (dBm)1	Required Limit (dBm)	Result
50	52(0	А	7.070	10.080	<11	Pass
52	5260	В	6.900	9.910	<11	Pass
(0)	60 5300	А	6.930	9.940	<11	Pass
60		В	6.980	9.990	<11	Pass
<i>C</i> 1	5220	А	4.070	7.080	<11	Pass
64	5320	В	5.180	8.190	<11	Pass
100	5500	А	4.900	7.910	<11	Pass
100	5500	В	4.750	7.760	<11	Pass
116	5500	А	2.990	6.000	<11	Pass
116	5580	В	3.080	6.090	<11	Pass
140	5700	А	5.910	8.920	<11	Pass
140	5700	В	5.810	8.820	<11	Pass

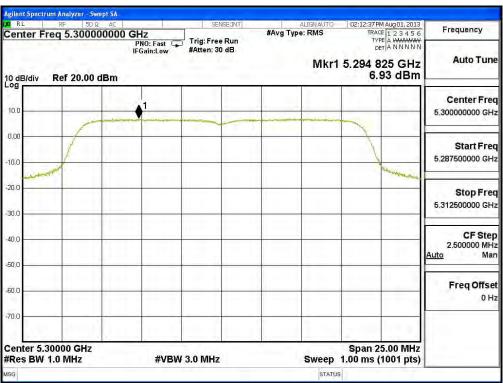
Note 1: The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01.



Frequency	02:04:04 PM Aug 01, 2013	ALIGNAUTO	SENSE:INT		RF 50 Q AC	RL
Troquency	TRACE 1 2 3 4 5 6 TYPE A WARAWAY DET A N N N N N	#Avg Type: RMS	Trig: Free Run #Atten: 30 dB	000 GHz PNO: Fast 😱 IFGain:Low	eq 5.2600000	enter Fr
Auto Tune	5.265 075 GHz 7.07 dBm	Mkr1		m	Ref 20.00 dBm	0 dB/div
Center Free	2. 1. 1. 1.		- 6			.og
5.260000000 GH	~					10.0
Start Free	1				1	0.00
5.247500000 GH:	June .					10.0
Stop Free	and the second se					20.0
5.272500000 GH			1.1.1			30.0
CF Ster						
2.500000 MH Auto Mar						40.0
						50,0
Freq Offse 0 H						60.0
						70.0
	Span 25.00 MHz 1.00 ms (1001 pts)	Sweep	3.0 MHz	#VBW	6000 GHz 1.0 MHz	Res BW
		STATUS				SG

Channel 52 – Chain A

Channel 60 – Chain A

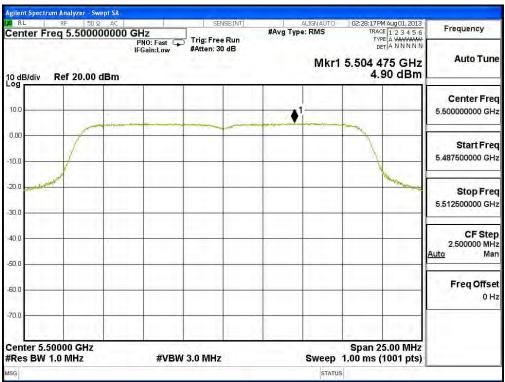




RL RF 50 Ω AC enter Freq 5.320000000	SENSE:INT	ALIGNAUTO #Avg Type: RMS	02:24:36 PM Aug 01, 20 TRACE 1 2 3 4 5	
) dB/div Ref 20.00 dBm	PNO: Fast Trig: Free Run IFGain:Low #Atten: 30 dB	2.7 20 7 40	5.325 475 GH 4.07 dB	Auto Tune
0.0		1		Center Fred 5.320000000 GH;
0.0				Start Free 5.307500000 GH
0.0			Contraction of the second seco	Stop Free 5.332500000 GH
00				CF Ster 2.500000 MH <u>Auto</u> Ma
0.0				Freq Offse
0.0				
enter 5.32000 GHz Res BW 1.0 MHz	#VBW 3.0 MHz	Sweep	Span 25.00 MH 1.00 ms (1001 pt	

Channel 64 – Chain A

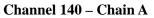
Channel 100 – Chain A

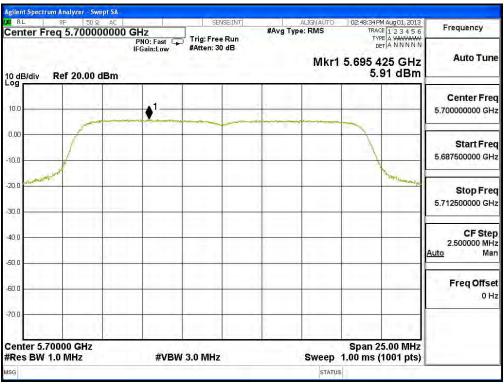




RL RF 50Ω		SENSE:INT	ALIGNAUTO #Avg Type: RMS	02:43:37 PM Aug 01, 2013 TRACE 1 2 3 4 5 6	Frequency
Center Freq 5.58000	PNO: Fast IFGain:Lov	Trig: Free Run #Atten: 30 dB	197 - 1976 1977	5.574 025 GHz 2.99 dBm	Auto Tune
10.0	•1				Center Free 5.580000000 GH:
10.0					Start Free 5.567500000 GH
20.0				Jan Ser and a series of a seri	Stop Fre 5.592500000 GH
10.0					CF Ste 2.500000 MH Auto Ma
50,0					Freq Offse 0 H
70.0					
Center 5.58000 GHz Res BW 1.0 MHz	#\	/BW 3.0 MHz	Sweep	Span 25.00 MHz 1.00 ms (1001 pts)	

Channel 120 – Chain A



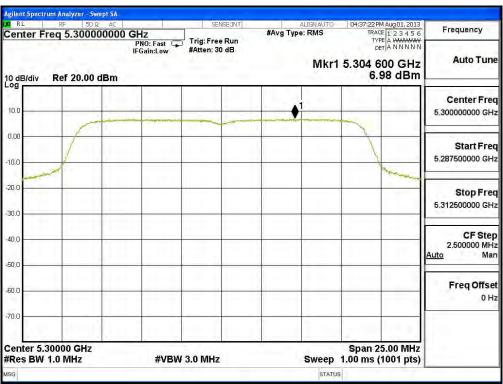




RL	m Analyzer - Swept SA RF 50 Ω AC		SENSE:INT	ALIGNAUTO	04:31:16 PM Aug 01, 2013	
Center Fro	eq 5.2600000	PNO: Fast	Trig: Free Run	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A WARAWAY DET A N N N N N	-
0 dB/div	Ref 20.00 dBm	IFGain:Low	#Atten: 30 dB	Mkr1	5.265 250 GHz 6.90 dBm	Auto Tune
10.0				1		Center Free 5.260000000 GH
10.0						Start Free 5.247500000 GH
30.0						Stop Fre 5.272500000 GH
0.0						CF Ste 2.500000 MH Auto Ma
id.0						Freq Offse 0 H
70.0						
Center 5.2 Res BW 1		#VBW	3.0 MHz	Sweep	Span 25.00 MHz 1.00 ms (1001 pts)	
sg				STATU		

Channel 52 – Chain B

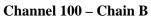
Channel 60 – Chain B





RL	rum Analyzer - Swept RF 50 Ω /		SENSE:INT	ALI	GNAUTO	05:02:15 PM Au	ıg 01, 2013	
Center F	req 5.320000	000 GHz	Trig: Free Run	#Avg Type: F		TRACE 1	23456	Frequency
0 dB/div	Ref 20.00 dB	PNO: Fast 🗣 IFGain:Low	#Atten: 30 dB		Mkr1	5.326 075	5 GHz dBm	Auto Tune
.og		2.5				2	11	Center Fred
10.0					A1-	-	-	5.320000000 GH
						-		
10.0						1		Start Free 5.307500000 GH:
20.0	manal						up mistoriust	Stop Free 5,332500000 GH
0.0							-	3.332300000 311
10.0								CF Stej 2.500000 MH <u>Auto</u> Ma
0.0					-		_	Freq Offse
							1	он
0.0						1		
	32000 GHz	#VBM	(3.0 MHz	s	weep	Span 25.0 .00 ms (10)0 MHz 01 pts)	
sg					STATUS			<u></u>

Channel 64 – Chain B

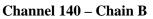


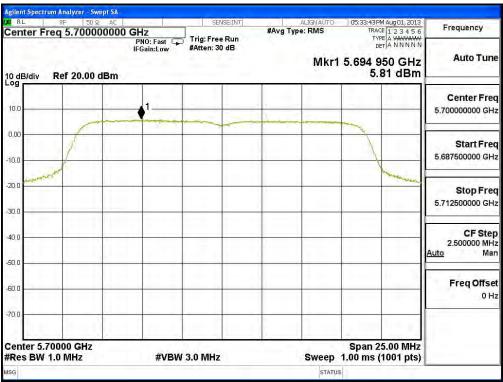




gilent Spectrum Analyzer - Swept SA RL RF 50 Ω AC		SENSE:INT	ALIGN AUTO	05:24:19PM Aug 01, 2013	
Center Freq 5.58000000) GHZ PNO: Fast ⊊ IFGain:Low	Trig: Free Run #Atten: 30 dB	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A WANAWAW DET A N N N N N	
0 dB/div Ref 20.00 dBm			Mkr1	5.576 275 GHz 3.08 dBm	
		- 1			Center Free
10.0					5.580000000 GH
0.00				A.	Start Fre 5.567500000 GH
10.0					5.567500000 GH
20.0				and a series of the series of	Stop Fre 5.592500000 GH
10,0					CF Ste 2.500000 MH
50.0					<u>Auto</u> Ma
50.0					Freq Offse 0 H
70.0					
Center 5.58000 GHz Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep	Span 25.00 MHz 1.00 ms (1001 pts)	
ISG			STATU	s	1

Channel 120 – Chain B





Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Peak Power Spectral Density

Test Site : No.3 OATS

Test Mode : Mode 6: Transmit (802.11n-40BW 30Mbps)(PIFA Antenna)

Channel Number	Frequency (MHz)	Chain	PPSD/MHz (dBm)	Total PPSD/MHz (dBm)1	Required Limit (dBm)	Result
5.4	5270	А	4.320	7.330	<11	Pass
54	5270	В	4.550	7.560	<11	Pass
(2)		А	-2.000	1.010	<11	Pass
62	5310	В	-1.830	1.180	<11	Pass
102	5510	А	-2.200	0.810	<11	Pass
102	5510	В	-2.040	0.970	<11	Pass
110	5550	А	-1.750	1.260	<11	Pass
110	0 5550	В	-1.600	1.410	<11	Pass
124	5(70)	А	-2.850	0.160	<11	Pass
134 5	5670	В	-2.270	0.740	<11	Pass

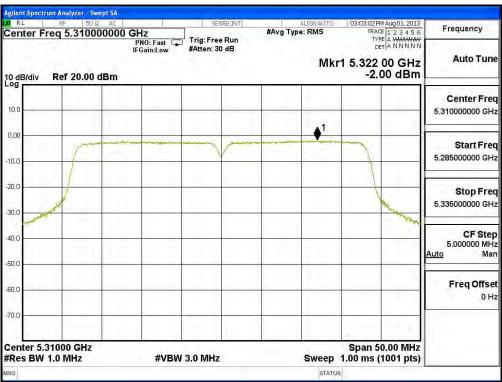
Note 1: The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01.



RL RF 50 Ω AC	SENSE:INT	ALIGNAUTO #Avg Type: RMS	03:00:18PM Aug 01, 2013 TRACE 1 2 3 4 5 6	Frequency
0 dB/div Ref 20.00 dBm	PN0: Fast Trig: Free Run IFGain:Low #Atten: 30 dB	10 m 10 m	TYPE A WARNAW DET A NNNNN 1 5.281 20 GHz 4.32 dBm	Auto Tune
10.0		1		Center Free 5.270000000 GH
0.0				Start Fre 5.245000000 GH
0.0				Stop Fre 5.295000000 GH
10				CF Ste 5.000000 MH Auto Ma
ao				Freq Offse
70.0			2 m 1 m 1	
enter 5.27000 GHz Res BW 1.0 MHz	#VBW 3.0 MHz	Sweep	Span 50.00 MHz 1.00 ms (1001 pts)	

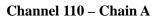
Channel 54 – Chain A

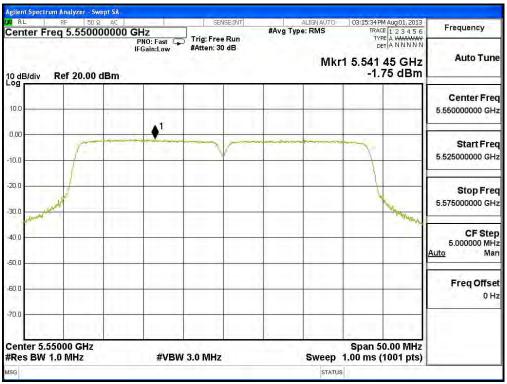
Channel 62 – Chain A



Agilent Spectru	um Analyzer - Swept SA	2				
KA RL	RF 50 Ω AC		SENSE:INT	ALIGN AUT	0 03:05:46 PM Aug 01, 2013	Factoria
Center Fr	eq 5.51000000	IO GHz PNO: Fast 🖵 IFGain:Low	Trig: Free Run #Atten: 30 dB	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A WARAWAY DET A N N N N N	Frequency
10 dB/div	Ref 20.00 dBm		WALLEIN. SO GE	М	kr1 5.499 90 GHz -2.20 dBm	Auto Tune
Log		- 6 1 - 6				
10.0						Center Freq
10.0						5.510000000 GHz
0.00		1				
0.00	and the second se		many james		unvindent laiters	Start Freq
-10.0	1-		V			5.485000000 GH
-10.0		1 1				
-20.0	1					
-20.0						Stop Freq
-30.0	umulte				Manue	5.535000000 GHz
-SU.U.					MAN WINKLAN	<u> </u>
10.0						CF Step
-40,0						5.000000 MHz
	 I.I. State in the second s					<u>Auto</u> Man
-50,0						
						Freq Offset
-60.0						0 Hz
1000						
-70.0				() · · · · · · · · · · · · · · · · · ·		
1.1						
Center 5.5			and they		Span 50.00 MHz	
#Res BW	1.0 MHz	#VBW	3.0 MHz	Swee	p 1.00 ms (1001 pts)	
MSG				ST/	NTUS	

Channel 102 – Chain A

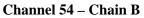


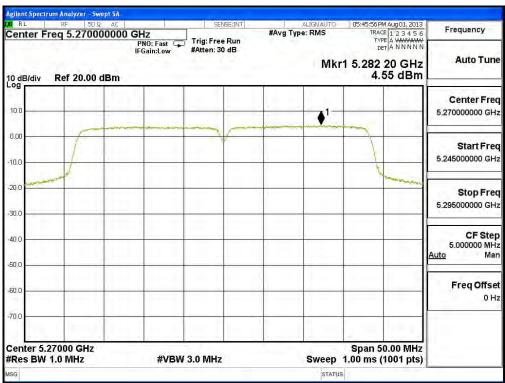




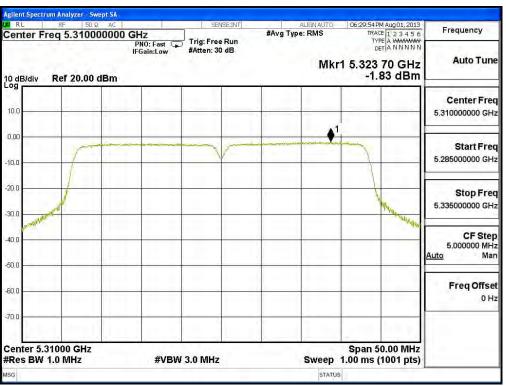
Agilent Spectrum Analyzer - Sw	vept SA				
RL RF 50 S		SENSE:INT	ALIGNAUTO #Avg Type: RMS	03:18:24 PM Aug 01, 2013 TRACE 1 2 3 4 5 6	
Center Freq 5.6700	PNO: Fast 🧔 IFGain:Low	Trig: Free Run #Atten: 30 dB		r1 5.657 40 GHz -2.85 dBm	Auto Tune
10.0					Center Freq 5.67000000 GHz
-10.0					Start Freq 5.645000000 GHz
-20.0					Stop Freq 5.695000000 GHz
-40.0				and the second s	CF Step 5.000000 MH: Auto Mar
-60.0					Freq Offset 0 Hz
-70.0				Span 50.00 MHz	
#Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep	1.00 ms (1001 pts)	
MSG			STATU	s	

Channel 134 – Chain A



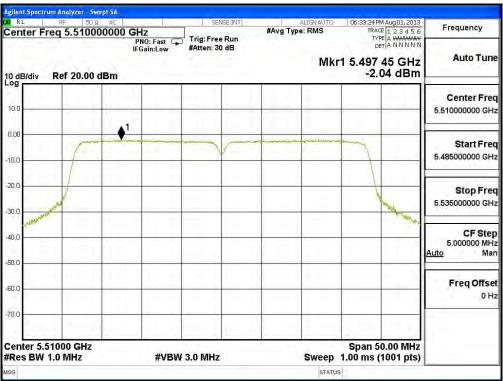






Channel 62 – Chain B

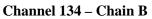
Channel 102 – Chain B

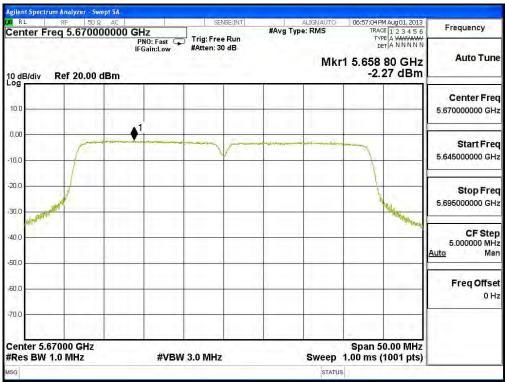




ent Spectrum Analyzer - Swept SA RL RF 50 Ω AC		SENSE:INT	ALIGNAUTO	06:49:45 PM Aug 01, 2013	
nter Freq 5.55000000	O GHz		#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A WARMAN	Frequency
dB/div Ref 20.00 dBm		: Free Run en: 30 dB	Mł	r1 5.545 15 GHz -1.60 dBm	Auto Tune
					Center Fred 5.550000000 GH;
	¹	V			Start Free 5.525000000 GH:
					Stop Free 5.575000000 GH:
					CF Stej 5.000000 MH <u>Auto</u> Ma
					Freq Offse 0 H
0					
L nter 5.55000 GHz es BW 1.0 MHz	#VBW 3.0 I	WHz	Sweep	Span 50.00 MHz 1.00 ms (1001 pts)	
			STAT	US	F

Channel 110 – Chain B





5. Peak Excursion

5.1. Test Equipment

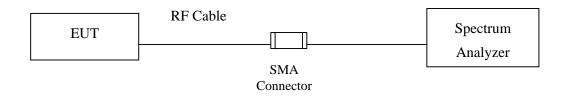
	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2013
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2013
Х	Spectrum Analyzer	Agilent	N9010A/MY48030495	Apr., 2013

Note:

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

5.2. Test Setup

Conduction Power Measurement



5.3. Limits

The ratio of the peak excursion of the modulation envelope (measured suing a peak hold function) to the Maximum conducted output power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

5.4. 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.

Step 1: Set the spectrum analyzer or EMI receiver span to view the entire emission bandwidth.

Step 2: Find the maximum of the peak-max-hold spectrum.

(Set RBW = 1 MHz, VBW \geq 3 MHz, Detector = peak, Trace mode = max-hold, Allow the sweeps to continue until the trace stabilizes,Use the peak search function to find the peak of the spectrum.)

Step 3: Use the procedure found under KDB-789033 F) to measure the PPSD.

Step 4: Compute the ratio of the maximum of the peak-max-hold spectrum to the PPSD.

5.5. Uncertainty

± 1.27 dB

5.6. Test Result of Peak Excursion

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

CHAIN A

Channel No.	Frequency	Data Rate	Measurement Level	Required Limit	Docult	
Chaimer No.	(MHz)	(Mbps)	(dB)	(dB)	Result	
		MCS (0)	8.860	<13	Pass	
100		MCS (2)	8.660	<13	Pass	
100	5500	MCS (4)	8.660	<13	Pass	
		MCS (7)	9.450	<13	Pass	

Channel 100:

Frequency	M Aug 01, 2013		ALIGNAUTO		SENSE:INT		AC	50 Ω	RF		L
Frequency	CE 123456 PE A MWHWW ET A P N N N N	TY	e: RMS	#Avg 1	Trig: Free Run #Atten: 30 dB	Z O: Fast 😱 ain:Low	0000 GH PN IFG	.50000	eq 5.	Fre	ter
Auto Tun	375 GHz 38 dBm		Mkr1			La Columb	Bm	20.00 c	Ref	,	B/div
Center Fre			2 minute	-	1	In Subschilling work of	-lefterstellarter				
5.50000000 GH	Atmin	Month March		-				past when a	-		
Start Fre	and a stream of the	the second se						-	www.A.s	and and	mm
5.487500000 GH	- And									-	-
Stop Fre											
5.512500000 GH											2 5.
CF Ste 2.500000 MH	25.00 MHz (1001 pts)		Sweep		3.0 MHz	#VBW	-	GHz IHz	0000 .0 M		
<u>Auto</u> Ma	ON VALUE	FUNCTIO	ICTION WIDTH	NCTION			×				MODE
					10.38 dBm 1.52 dBm		5.498 375 5.504 650		f f	2	N
Freq Offs 0 H											
											-
		-									
								_			

									zer - Swe		etrun		
Frequency	PM Aug 01, 2013 CE 1 2 3 4 5 6 PE A MWWWW	TRA	ALIGNAUTO e: RMS	#Avg T	BUN	SEN		0000 GH	50 Ω 50000	RF eq 5.	Fre		R Cer
Auto Tune	100 GHz	C	Mkr1			#Atten: 30	10: Fast Ģ Sain:Low						
	59 dBm		0000 9					Bm	0.00 d	Ref 2	1	B/div	10 d Log
Center Freq		andres .	- sold marticular as	manuel	NA. Marian	and a second with the second with the second s	and the standard	what me was	_				10.0
5.50000000 GHz	und.	-rul manal						1	The state of the s	Jasen			0.00
1. 1	And the Anti- with the second								1		Ar In	winish	-10.0
Start Freq 5.487500000 GHz	The House and and		1	1	-			-		-	and the second	-	-30.0 -40.0
Stop Fred					1						-		-50.0 -60.0
5.512500000 GHz											-	1.2.	-70.0
CF Step 2.500000 MHz	25.00 MHz (1001 pts)	Span 2 1.00 ms	Sweep	1		3.0 MHz	#VBV			0000 .0 M			
<u>Auto</u> Man	ON VALUE	FUNCTI	ICTION WIDTH	NCTION		Y		×					MKR
		_				10.59 dB 1.93 dB		5.504 10 5.504 35		f f	2	N	2
Freq Offset 0 Hz		-								-			4
					-								6
													8
		-									_		10 11
			STATUS						_	_		-	12 MSG

ent Spectrum A RL R	F 50 Ω	AC		SENSE:INT		ALIGNAUTO	08:33:50 PM Aug (01.2013
nter Freq	5.50000	0000 GHz			#Avg Typ	e: RMS	TRACE 1 2	3456 Frequency
	1.000	PNO: IFGai	Fast 😱 n:Low	J Trig: Free Run #Atten: 30 dB			TYPE A M DET A P	NNNN
dB/div Re	ef 20.00 d	Bm				Mkr1	5.494 775 10.20 c	GHz Auto T IBm
9		•1					1.	Contor
	Round	anter a state of the state of t	and an and a second second	- manufacture and the first and the	2	a none dranks	and the second	5.500000000
	when						and have been and and and and and and and and and an	
0 mglad-above	1	· · · · · · ·					1 mar	- May
0		1-1-1-1			4.4	4	- and	Start F
		1 - 1						5.487500000
.0								
.0								Stop F
.0							· · · · · · · · · · · · · · · · · · ·	5.512500000
nter 5.500 es BW 1.0			#VBW	3.0 MHz		Sweep	Span 25.00 1.00 ms (1001	MHz CF S (pts) 2.500000
R MODE TRC SO	u (x		Y	FUNCTION	INCTION WIDTH	FUNCTION VALU	
N 2 f		5.494 775 G 5.504 175 G		10.20 dBm 1.54 dBm				
		0.004 170 0	12	1.04 0.011			-	Freq Of
				*				-
						STATU	2	

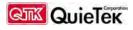
ELCONDUCTOR	M Aug 01, 2013		ALIGNAUTO		NSE:INT	SEI			50 Ω	RF		RL
Frequency	DE 1 2 3 4 5 6 PE A MWAAWAA	TRA	: RMS	#Avg T		Tulur Fue	Hz	00000 G	.50000	eq 5.	r Fr	nte
	ETAPNNNN	C	-			Trig: Free #Atten: 30	PNO: Fast (IFGain:Low					
Auto Tun	025 GHz 06 dBm		Mkr1					dBm	20.00	Ref	liv	dB/
Center Fre		-	1	Come control (1)	and the state of the	No. Contraction		and the second second second				
5.500000000 GH		Mar Werk		Y			-		10W Arman	-	_	- 0
1	When a bill any when	- fr							1	W. Carrow	underfor	
Start Fre	and the second	- And			1			1	al.	(Berny and	ment	
5.487500000 GH					-			1				
Stop Fre										-		0
5.512500000 GH		-										0
CF Ste 2.500000 MH	5.00 MHz 1001 pts)		Sweep			V 3.0 MHz	#VB) GHz 1Hz	0000 .0 M		
<u>Auto</u> Ma		FUNCTIO	CTION WIDTH	ICTION F		Y		×			E TRO	
100.460						11.06 di 1.61 di	25 GHz 25 GHz			f f		N
Freq Offse 0 H					-							
UH												
							4					
							1					
			STATUS							-	0	

CHAIN B

Channel No.	Frequency	Data Rate	Measurement Level	Required Limit	Decult	
Channel No.	(MHz)	(Mbps)	(dB)	(dB)	Result	
		MCS (0)	8.360	<13	Pass	
100		MCS (2)	8.630	<13	Pass	
100	5500	MCS (4)	8.690	<13	Pass	
	-	MCS (7)	9.350	<13	Pass	

Channel 100:

Frequency	M Aug 02, 2013	TRAC	ALIGNAUTO	#Avg	ENSE:INT		GHz	2 AC		RF	Fre		R I en
A. Starter	ET A P N N N N	TYP				Trig: Fre #Atten: 3	PNO: Fast (IFGain:Low	00000		990	110	iter	CIII
Auto Tur		D dB/div Ref 20.00 dBm 10.02 dBm 10.02 dBm											
					1		2						og 0.0
Center Free 5.50000000 GH		white .	and the second second		man	and the second second	V.		ame				217
5.50000000 GH	WULL	-order to say							And a start	Jacon Start	A		0.0
14.7.4.4	Martin Martin Mart	F					-		de la compañía de la	al al a	Harve	nous	0.0
Start Free 5.487500000 GH	Watty with made and			+ +	-		-	-	-	and and a second	mar	- idea	0.0
5.487500000 GH		_		_					1 1			1	0.0
		_		-	-		_	-		_		-	0.0
Stop Free	-			-	-					-		-	0.O
5.512500000 GH		-		-							-		0.0
CF Ster 2.500000 MH	5.00 MHz 1001 pts)		Sweep	- 11: - 11:	z	W 3.0 MHz	#VB		0 GHz /IHz	0000 .0 M			
Auto Mar	IN VALUE	FUNCTIO	FUNCTION WIDTH	UNCTION		Y		Х	-	SCL	TRC	MODE	KR
						10.02 d	800 GHz 025 GHz			f	2	NN	1
	-					1.00 0	020 0112	0.430				14	3
Freq Offse													4 5
Freq Offse 0 H												-	6 7
				1									
					-							-	8
													8 9 0 1



RL		RF	50 Ω	AC		SE	NSE:INT		ALIGNAUTO	11:37:17	AM Aug 02, 2013	- contractory
nter	Fre	q 5.50	0000	0000 G	SHz	Trig: Fre	- Dun	#Avg	Type: RMS		ACE 1 2 3 4 5 6	Frequency
					PNO: Fast IFGain:Low	#Atten: 3			-	7.10	DET A P N N N N	
dB/di	v	Ref 20.	.00 dl	Bm					Mkr1		850 GHz .45 dBm	Auto Tune
a 					5		2	AD	1		100	Contor From
			al low	apartal lise and north	the second s	and the second second of the	Var Billing mark Lange U.M.	M	and a second second second	and the second		Center Free 5.50000000 GH
	philade	malalina	1							1 mg		0.000000000000
.0 hiters	p. M. Const.	1		10 m 10 m	1.					1	The share was	1
0	man	with			-		-	4.4			The survey wind and the	Start Free
.0	_											5.487500000 GH
.0		-			-		-		-		-	Ctop Ero
.0		1										Stop Fre 5.512500000 GH
2.5		1.					1			1	0	
		000 GI .0 MHz			#VB	W 3.0 MH:			Sweep		25.00 MHz (1001 pts)	CF Ste 2.500000 MH
MODE				х		Y		INCTION	FUNCTION WIDTH	FUNCT	ION VALUE	<u>Auto</u> Ma
N	2	f			50 GHz	10.45 d						
	-			2.46								Freq Offse
										h		0 H
1							_			-		
1												
	0						0		STATU	_		

0000000 GHz				
PNO: Fast IFGain:Low	Trig: Free Run #Atten: 30 dB	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A MWWWW DET A P N N N N	Frequency
00 dBm		Auto Tun		
2	an a	And a first second s	The state of the s	Center Fre 5.500000000 GH
		4	and the second second	Start Fre 5.487500000 GH
				Stop Fre 5.512500000 GH
	3.0 MHz	Sweep	Span 25.00 MHz 1.00 ms (1001 pts)	CF Ste 2.500000 MH
5.493 525 GHz 5.495 400 GHz	10.48 dBm	INCTION FUNCTION WIDTH	FUNCTION VALUE	<u>Auto</u> Ma
				Freq Offs 0 F
	IFGain:Low	2 #Atten: 30 dB 0 dBm 1 2 #VBW 3.0 MHz 5.493 525 GHz 10.48 dBm	IFGain:Low #Atten: 30 dB Mkr1 00 dBm 1 2 1	If Gain:Low #Atten: 30 dB DertA P NNN Mkr1 5.493 525 GHz 10.48 dBm 1 2 10.48 dBm 1 2 10.49 dBm 1 2 10.48 dBm

-	11:40:35 AM Aug 02, 2013	ALIGNAUTO	1	VSE:INT	SE	_		yzer - Swe 50 Ω	RF	opee
Frequency	TRACE 1 2 3 4 5 6 TYPE A MWWWW DET A P N N N N	e: RMS	#Avg 1		Trig: Fre	NO: Fast G		50000	req 5	ter l
Auto Tune	5.496 175 GHz 11.05 dBm	Mkr1		0 dB	#Atten: 3	Gain:Low				10.
	11.00 0.011			2	.2.	●1	Bm	20.00 c	Ret	8/div
Center Freq 5.50000000 GHz	and the age would be a set of the				2		and the providence of	Windund	in a second	-
11. 	Marking and			-			1	1		have
Start Freq 5.487500000 GHz	The second secon			1					NAME OF T	and the second second
Stop Freq										
5.512500000 GHz								_	-	1. L
CF Step 2.500000 MHz	Span 25.00 MHz 1.00 ms (1001 pts)	Sweep	1		V 3.0 MHz	#VBN			50000 1.0 N	
<u>Auto</u> Man	FUNCTION VALUE	NCTION WIDTH	NCTION		Y 11.05 dl	S CHal	× 5.496 17		ic sci	
Freq Offset 0 Hz			1	Bm.	1.70 dl	5 GHz	5.497 62		f	N
-										
										-
		STATUS		-				_		-

Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Peak Excursion
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps)(Dipole Antenna)

Chain A

Channel No.	Frequency	Data Rate	Measurement Level	Required Limit	Dogult	
Channel No.	(MHz)	(Mbps)	(dB)	(dB)	Result	
		MCS (0)	9.250	<13	Pass	
100	5500	MCS (2)	9.250	<13	Pass	
100	5500 MCS (4		9.680	<13	Pass	
		MCS (7)	10.390	<13	Pass	



Frequency	M Aug01, 2013	TRAC	ERMS	#Avg Typ	NSE:INT	I SED	Hz	AC	50 Ω	RF	Fre		R
ale ar	ET A P N N N N	TY				Trig: Free #Atten: 30	PNO: Fast G FGain:Low			-q 0.	110	itor	
	75 GHz 59 dBm		Mkr1					dBm	20.00	Dof.		B/div	
				×1		_	0		20.00	Rei	<i>.</i>		og
		ana ta	and the second second second second	ali seriman /	moninguist	nation and the second	popular seat while			-		-	10.0
5.50000000 GH	1			V					Martin	al a	-	-	0,00
	Mandor Maker you	T.		_					1	they	US IN THE REAL		10.0
Start Fre	- sulphy	>			-		-		_	THE Z.	USP	Com	20.0
5.487500000 GH	" ANT THE STREET			-	-		-	-	_	10d	Contract of	Laborer	80.0
0.4010000000					-	_						-	40.0
- D							-	-	-	-		_	50.0
Stop Fre	- C									_		-	50.O
5.512500000 GH	_		1		_					-		-	70.0
					1								J.
CF Ste 2.500000 MH	5.00 MHz 1001 pts)		Sweep		4.	3.0 MHz	#VBV		GHz Hz	.0 M			
<u>Auto</u> Ma	IN VALUE	FUNCTIO	TION WIDTH	TION FU	FU	Y		×		SCL	TRC	MODE	KR
		_				8.59 dE		5.502 5	-	f	2	NN	1 2
Freq Offs					2111	-0.00 aL	10 0112	0.004 0				14	3
01	-	-			-							-	4
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									ialyzer - Sw		
Frequency	M Aug 01, 2013 CE 1 2 3 4 5 6 PE A MWWWW	TRA TY	ALIGNAUTO e: RMS	#Avg T	e Run	and the second	Hz NO: Fast G	00000 GI		Freq	nter
Auto Tune	50 GHz	1000	Milerd			#Atten: 3	Gain:Low				_
	74 dBm	5.500 / 8.	WINT					dBm	f 20.00	Re	B/div
Center Fred			mare work	man and an	1 mar		- the states	- manufacture Nelline			
5.500000000 GHz	P.D.	- Alanan		-					10 mm		
	and the second of the second of the second s	1			1				1	Attender	Wath
Start Fred 5.487500000 GHz	When the Party of			1	-					- Contraction of the Contraction	1
Stop Fred 5.512500000 GHz											
	25.00 MHz	Snan (1		-		0 GHz	5 5000	2.1.
CF Step 2.500000 MHz	(1001 pts)		Sweep		1	3.0 MHz	#VB۱			N 1.0	
<u>Auto</u> Mar	DN VALUE	FUNCTI	ICTION WIDTH	NCTION		¥ 8.74 di	0 GHz	× 5.500 75		TRC SC 2 f	MODE N
Freq Offse						-0.51 di		5.504 22	-	1 f	Ň
0 Ha											
									-		
		-			-						1
		_		1		_		_			
		i l	STATUS								

RL	B	F 50 S	2 AC		SENSE:	INT	ALIGNAUTO	09:41:53PM	Aug 01, 2013	and the second second
nter	Freq	5.5000		NO: Fast 🗔	Trig: Free Ri #Atten: 30 di	In	g Type: RMS	TYPE	123456 A M W////// A P N N N N	Frequency
1.1	1	2.85.0	IFO	Gain:Low	#Atten: 30 di	3	Mkr1	5.495 5	25 GHz	Auto Tune
dB/div	R	ef 20.00	dBm		-	1	-	9.0	6 dBm	/
.o .o		Manune Mar	warehourstad	2	and a property of the second	open and the second second	are and a second se	manan		Center Free 5.50000000 GH
0	WINDOWN	and the second s						- Mary	Though Markey	5.50000000 611
		1							- no gener from	Start Free 5.487500000 GH:
0 0							_			Stop Free
		00 GHz		en fa svi					5.00 MHz	CF Step
	N 1.0	000-		#VBV	/ 3.0 MHz			1.00 ms (1		2.500000 MH Auto Ma
N	TRC SD		5.495 52		9.06 dBm	FUNCTION	FUNCTION WIDTH	FUNCTION	I VALUE	Auto Mar
	1 r		5.496 10	UGHZ	-0.62 dBm					Freq Offse 0 Hi
							STATU			

RL	RF 50	Ω AC		SENSE:INT	1	ALIGN AUTO	09:43:37 P	M Aug 01, 2013	
enter Fr	eq 5.5000	DOOOOO GHz PNO: F IEGain:	ast 😱	Trig: Free Run #Atten: 30 dB	#Avg Type	RMS	TY	CE 1 2 3 4 5 6 PE A M WAMAN ET A P N N N N	Frequency
) dB/div	Ref 20.00					Mkr1		575 GHz 54 dBm	Auto Tune
0.0 1.00 0.0	- And and -	an secondar and the second		have the second and t	an in the manufactures of	42 mptumpu	and the second	Hardersterauture	Center Fre 5.50000000 GH
0.0 0.0 0.0 0.0	and the second second							and the second and	Start Fre 5.487500000 GH
0.0 0.0 0.0									Stop Fre 5.512500000 GH
Res BW			#VBW	3.0 MHz			1.00 ms (5.00 MHz 1001 pts)	CF Ste 2.500000 MH Auto Ma
REMODETE	f	× 5.494 575 GH 5.505 075 GH		9.54 dBm -0.58 dBm	FUNCTION	CTION WIDTH	FUNCTIO	IN VALUE	Auto Ma
3 4 5 6									Freq Offse 0 ⊦
7 8 9 0									
1									

Channal No.	Frequency	Data Rate	Measurement Level	Required Limit	Decult
Channel No.	(MHz)	(Mbps)	(dB)	(dB)	Result
		MCS (0)	9.150	<13	Pass
100	5500	MCS (2)	9.790	<13	Pass
100	5500	MCS (4)	9.630	<13	Pass
		MCS (7)	9.840	<13	Pass

-	PM Aug 02, 2013	02:11:40 P	ALIGN AUTO		SENSE:INT		AC	50 Ω	RF		L	RI
Frequency	CE 123456 PE A MINIMU	TY	e: RMS	#Avg T	Trig: Free Run	iHz PNO: Fast C	00000 G	50000	eq 5.	Fre	ter	en
Auto Tui	APNNNN		-		#Atten: 30 dB	FGain:Low					_	1
Auto Tu	400 GHz 01 dBm		Mkr1				dBm	20.00	Ref 2		B/div	
Center Fre			2	∳1		1			11 (1			9 0.0
5.50000000 GI		and and	1 Comment	manentania	and a second second second second	number - wat	in malina in	No. Contraction	đ		2	00
001000000000000000000000000000000000000	Marin Marine	and the stimulation						1	4Mm	in and	M	D.O
Start Fre	The states						-	_	and I	-	hopen	<u>.</u> 0
5.487500000 GI	The states									di ma	- and	0.0 0.0
Stop Fre									-		-	0.0
5.512500000 GI						1	1					0.0 0.0
CF Ste 2.500000 MI	25.00 MHz (1001 pts)		Sweep		3.0 MHz	#VB			0000 .0 MI			
Auto Ma	ON VALUE	FUNCTIO	INCTION WIDTH	NCTION			×			TRC	MODE	R
					9.01 dBm -0.14 dBm		5.503 4		f	2	NN	1
Freq Offs		-										3
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RL	E.	RF			115		SENS	E:INT	#Aug T	ALIGNAUTO		PM Aug 02, 2013	Frequency
enter	Fre	ed o.	50000		FIZ PNO: Fast FGain:Low	₩	ig: Free l tten: 30		wayy i	ype. KWS	T` I	PE A MWWWW DET A P N N N N	
dB/di	v	Ref	20.00 d		Guineon		00000			Mkr		800 GHz 57 dBm	Auto Tur
				-	1								Contra Fra
	1	~	per wound	Broger and were	and amounty	2 min	the man we	winnin	and a second second	white the second s	Marken and Marken		Center Fre 5.50000000 GH
.0	white	Wat -	1								1	With Marine Marine	in the second
	-	Mart	_					-			2	and the second	Start Fre
.0	h/Ph						-						5.487500000 GI
.0								_	1	-			
.0		-					-			-	-		Stop Fr 5.512500000 G
.0													5.512500000 G
			GHz		-411	BW 2 0	BALLS			Curson		25.00 MHz	CF Ste
es B	-		ΠZ	~	#V	BW 3.0			INCTION	Sweep		(1001 pts)	2.500000 MI Auto Mi
N N	2	f		5.494 8 5.496 6			9.57 dBr 0.22 dBr	n					
				0.430 0	70 0112		J.22 (10)						Freq Offs
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r I													
						-							
											-		
2	ectrur	n Anal	yzer - Swe	pt SA						STAT	IS		
lent Spi RL	1	RF	50 Ω	AC 0000 G	PNO: Fast		ig: Free l		#Avg 1	ALIGNAUTO Ype: RMS	02:18:57	PM Aug 02, 2013 CE 1 2 3 4 5 6 PPE A MWAWWY DETA P N N N N	Frequency
lent Spr RL Phter	Fre	RF eq 5.	50 Q 50000	AC 0000 G II			1	Run	#Avg 1	ALIGNAUTO	02:18:57 TRA TY 1 5.504 (ACE 1 2 3 4 5 6 PE A MUMMAN DET A P N N N N 325 GHz	Frequency Auto Tur
ent Spr RL enter dB/di g	Fre	RF eq 5.	50 Ω	AC 0000 G II	PNO: Fast FGain:Low		ig: Free l	Run	#Avg 1	ALIGNAUTO	02:18:57 TRA TY 1 5.504 (CE 123456 (PE A M WWWW) DET A P N N N N	Auto Tur
lent Spr RL enter	Fre	RF eq 5.	50 Q 50000	AC 0000 G II	PNO: Fast		ig: Free l	Run	T average and the second secon	ALIGNAUTO	02:18:57 TRA TY 1 5.504 (ACE 1 2 3 4 5 6 PE A MUMMAN DET A P N N N N 325 GHz	Auto Tur Center Fre
dB/di	Fre	RF eq 5.	50 Q 50000	AC 0000 G II	PNO: Fast FGain:Low		ig: Free l	Run dB	#Avg T	ALIGNAUTO	02:18:57 TRA TY 1 5.504 (CE 123456 (PE A MUMANA) DET A P NNN 325 GHz 59 dBm	Auto Tur
dB/di 9 1.0	Fre	RF eq 5.	50 Q 50000	AC 0000 G II	PNO: Fast FGain:Low		ig: Free l	Run dB	#Avg T	ALIGNAUTO	02:18:57 TRA TY 1 5.504 (ACE 1 2 3 4 5 6 A MARAANAN DET A P N N N N 325 GHz	Auto Tur Center Fre
dB/di 9 9 0 0 0 0 0	Fre	RF eq 5.	50 Q 50000	AC 0000 G II	PNO: Fast FGain:Low		ig: Free l	Run dB	#Avg T	ALIGNAUTO	02:18:57 TRA TY 1 5.504 (CE 123456 (PE A MUMANA) DET A P NNN 325 GHz 59 dBm	Auto Tur Center Fra 5.50000000 Gi
dB/di 9 1.0	Fre	RF eq 5.	50 Q 50000	AC 0000 G II	PNO: Fast FGain:Low		ig: Free l	Run dB	#Avg T	ALIGNAUTO	02:18:57 TRA TY 1 5.504 (CE 123456 (PE A MUMANA) DET A P NNN 325 GHz 59 dBm	Auto Tur Center Fro 5.50000000 Gi Start Fro
dB/di RL ent Sp. RL enter	Fre	RF eq 5.	50 Q 50000	AC 0000 G II	PNO: Fast FGain:Low		ig: Free l	Run dB	#Avg T	ALIGNAUTO	02:18:57 TRA TY 1 5.504 (CE 123456 (PE A MUMANA) DET A P NNN 325 GHz 59 dBm	Auto Tur Center Fro 5.50000000 Gi Start Fro 5.487500000 Gi Stop Fro
dB/di c dB/di c dB/di c c c c c c c c c c c c c	Fre	RF eq 5.	50 Q 50000	AC 0000 G II	PNO: Fast FGain:Low		ig: Free l	Run dB	#Avg T	ALIGNAUTO	02:18:57 TRA TY 1 5.504 (CE 123456 (PE A MUMANA) DET A P NNN 325 GHz 59 dBm	Auto Tur Center Fri 5.50000000 Gi Start Fri 5.487500000 Gi Stop Fri
dB/di 9 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Fre	Ref (50000 20.00 d	AC 0000 G II	PNO: Fast FGain:Lov		ig: Free I tten: 30	Run dB	#Avg T	ALIGNAUTO ype: RMS	02:18:57 TRA T 1 1 5.504 : 9. 9. 9. 9. 9.	25.00 MHz	Auto Tur Center Fri 5.50000000 Gi Start Fri 5.48750000 Gi Stop Fri 5.512500000 Gi
dB/di 9 9 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Fre v	Ref :	50000 20.00 d	AC 00000 G	#V	BW 3.0	ig: Free I itten: 30	Run dB		ALIGNAUTO ype: RMS	02:18:57 TRA T T 1 5.504 : 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 1.00 ms	325 GHz 59 dBm	Auto Tur Center Fri 5.50000000 G Start Fri 5.487500000 G Stop Fri 5.512500000 G CF Sta 2.500000 M
dB/di g dB/di g g dB/di g g dB/di g g dB/di g g dB/di g g dB/di g g dB/di g g dB/di g g dB/di g g dB/di g g dB/di g dB/di g g dB/di g g dB/di g g dB/di g g dB/di g g g dB/di g dB/di g dB/di g dB/di g dB/di g dB/di g dB/di g dB/di g dB/di g dB/di g dB/di D/di D/di D/di D/di D/di D/di D/di	5.50	Ref :	50000 20.00 d	AC 0000 G II	PN0: Fast FGain:Low 2 2 #V 25 GHz	#A	ig: Free I tten: 30	Run dB m m n		ALIGNAUTO ype: RMS	02:18:57 TRA T T 1 5.504 : 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 1.00 ms	25.00 MHz (1001 pts)	Auto Tur Center Fro 5.50000000 Gi Start Fro 5.48750000 Gi Stop Fro 5.51250000 Gi CF Ste 2.50000 Mi Auto Mi
dB/di 9 00 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5.50 W 1	Ref (50000 20.00 d	AC 00000 G	PN0: Fast FGain:Low 2 2 #V 25 GHz	#A	Ig: Free I ttten: 30	Run dB m m n		ALIGNAUTO ype: RMS	02:18:57 TRA T T 1 5.504 : 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 1.00 ms	25.00 MHz (1001 pts)	Auto Tur <u>Center Fri</u> 5.50000000 Gi <u>Start Fri</u> 5.487500000 Gi <u>Stop Fri</u> 5.512500000 Gi <u>CF Sta</u> <u>2.500000 Mi</u> <u>Auto Mi</u>
dB/di adB/di	5.50 W 1	Ref (50000 20.00 d	AC 00000 G	PN0: Fast FGain:Low 2 2 #V 25 GHz	#A	Ig: Free I ttten: 30	Run dB m m n		ALIGNAUTO ype: RMS	02:18:57 TRA T T 1 5.504 : 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 1.00 ms	25.00 MHz (1001 pts)	Auto Tur <u>Center Fri</u> 5.50000000 Gi <u>Start Fri</u> 5.487500000 Gi <u>Stop Fri</u> 5.512500000 Gi <u>CF Sta</u> <u>2.500000 Mi</u> <u>Auto Mi</u>
dB/di 9 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5.50 W 1	Ref (50000 20.00 d	AC 00000 G	PN0: Fast FGain:Low 2 2 #V 25 GHz	#A	Ig: Free I ttten: 30	Run dB m m n		ALIGNAUTO ype: RMS	02:18:57 TRA T T 1 5.504 : 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 1.00 ms	25.00 MHz (1001 pts)	Auto Tur <u>Center Fri</u> 5.50000000 Gi <u>Start Fri</u> 5.487500000 Gi <u>Stop Fri</u> 5.512500000 Gi <u>CF Sta</u> <u>2.500000 Mi</u> <u>Auto Mi</u>
dB/di 9 9 00 00 00 00 00 00 00 00 00 00 00 00	5.50 W 1	Ref (50000 20.00 d	AC 00000 G	PN0: Fast FGain:Low 2 2 #V 25 GHz	#A	Ig: Free I ttten: 30	Run dB m m n		ALIGNAUTO ype: RMS	02:18:57 TRA T T 1 5.504 : 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 1.00 ms	25.00 MHz (1001 pts)	Auto Tur Center Fro 5.50000000 Gi Start Fro 5.487500000 Gi Stop Fro 5.512500000 Gi CF Ste 2.500000 Mi



2 AC	SENSE:INT	ALIGNAUTO	02:21:13PM Aug 02, 2013	Terrista and
00000 GHz PNO: Fast G	Trig: Free Run	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A MWAMMAN DET A P N N N N	Frequency
dBm	#Atten: 30 dB	Mkr1		Auto Tune
1 	and an and the second		and and a start an	Center Fre 5.500000000 GH
				Start Fre 5.487500000 GH
				Stop Fre 5.512500000 GH
#VBV	V 3.0 MHz	Sweep	Span 25.00 MHz 1.00 ms (1001 pts)	CF Ste 2.500000 MH
X		UNCTION FUNCTION WIDTH	FUNCTION VALUE	<u>Auto</u> Ma
5.495 050 GHz 5.504 700 GHz	9.89 dBm 0.05 dBm			Freq Offse 0 H
				1
	00000 GHz PN0: Fast IFGain:Low dBm 1 4 4 4 4 4 4 4 4 4 4 4 4 4	00000 GHz Trig: Free Run IFGain:Low #Atten: 30 dB dBm • 1 • 1 • 1	00000 GHz #Avg Type: RMS PN0: Fast IFGain:Low Trig: Free Run #Atten: 30 dB dBm Mkr1 dBm 1 4 1 5 1 4 1 5 1	More Real and a second

Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Peak Excursion
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps)(Dipole Antenna)

Chain A

Channel No.	Frequency	Data Rate	Measurement Level	Required Limit	Result
Channel No.	(MHz)	(Mbps)	(dB)	(dB)	Kesun
		MCS (0)	10.120	<13	Pass
102	5510	MCS (2)	9.620	<13	Pass
102	5510	MCS (4)	9.830	<13	Pass
		MCS (7)	10.130	<13	Pass

RL	-	RF	50 Ω AC	-		SENS	E:INT	-	ALIGN AUTO	09:47:37#	AM Aug 02, 2013	FULLIAND
enter	Fre	q 5.51	000000	0 GHz PNO: I IFGain:	ast 🖵	Trig: Free I #Atten: 30		#Avg T	ype: RMS	TRA TY E	CE 1 2 3 4 5 6 PE A M WWWW DET A P N N N N	Frequency
0 dB/di	v F	Ref 20.	00 dBm	0.0000	LUW	written. oo			Mkr	1 5.521 3.	30 GHz 65 dBm	Auto Tune
og 10.0		K	con the second	dulley flynn a wrw	g, and years	a montra spec		-	2 ¹	- Long to an		Center Fre 5.510000000 GH
20.0 30.0 40.0	NAT PARA							-		/	and the state of the second state of the secon	Start Fre 5.485000000 GH
50.0 50.0 70.0												Stop Fre 5.535000000 GH
Res B	W 1.	2.000	Iz	- 2 5	#VBW	3.0 MHz	_		Sweep	1.00 ms	50.00 MHz (1001 pts)	CF Ste 5.000000 MH
KR MODE	1RC 2	f		.521 30 GH		3.65 dBr	n	NCTION	UNCTION WIDTH	FUNCTI	ON VALUE	<u>Auto</u> Ma
2 N 3 4 5 6	1	f	.5	.520 75 Gł	1z	-6.47 dBr	n					Freq Offs 0 F
8 9												
10					11111							

	AM Aug 02, 2013	09:49:41 A	ALIGN AUTO		E:INT	SENSE		AC	50 Ω	RF	
Frequency	CE 123456 YPE A MWAAWAA DET A P N N N N	TY	e: RMS	#Avg Ty	Run dB	Trig: Free F #Atten: 30 d	lz NO: Fast ⊊ Gain:Low		.51000	req 5	er Fr
Auto Tun	95 GHz 15 dBm		Mkr	-					20.00 0	Pof	div
Center Fr				1	-				20.00 (Rei	
5.510000000 GH		nound	monthemations	1	manne	www.news.	mare a public	antime and has	F		
	When for the star	- Au				~			1	and the second	an and the first
Start Fre 5.485000000 GH	Therest wint months			-						working her	agraphine a
Stop Fre											
5.535000000 GH											
CF Ste 5.000000 MH	50.00 MHz (1001 pts)		Sweep			3.0 MHz	#VBW) GHz 1Hz	51000 1.0 N	
<u>Auto</u> Ma	ON VALUE	FUNCTIO	CTION WIDTH	CTION FL		Y		X			DE TR
Freq Offse					m	3.15 dBn -6.47 dBn		5.514 9 5.518 3		f	V 2 V 1
0 H											

	AM Aug 02, 2013	09:51:16 A	ALIGN AUTO	1	ENSE:INT	S		AC	50 \$	RF		L	R1
Frequency	CE 123456 /PE A MWWWW DET A P N N N N	TRAC	pe: RMS	#Avg	e Run		HZ NO:Fast ⊊ Gain:Low	00000 G	.5100	eq 5.	Fre	ter	en
Auto Tur	85 GHz 53 dBm		Mkr				ounicon.		20.00	Ref		3/div	d
Center Fre			1		2				20.00				0.0
5.510000000 GH		Minter The	2m	alloginistri	- And	بهالمراس معاليات	mightender	under national support	1 agreed				.00
Start Fre	Huberton and	1 x			Y		1		1	MA	Martin	-	0.0 0.0
5.485000000 GH	a source and the second	4								mand -	مرانع الم	(Jedia	0.0 0.0
Stop Fre										-			0.0
5.535000000 GH										-		1. E.,	0.0 0.0
CF Ste 5.000000 MH	50.00 MHz (1001 pts)		Sweep '		z	1 3.0 MH	#VBV		GHz Hz	1000 .0 M			
<u>luto</u> Ma	ON VALUE	FUNCTIO	UNCTION WIDTH	NCTION		¥ 3.53 c	5 GHz	×		SCL f		MODE	KR I
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1			-			-6.30 c	60 GHz			f	1	N	
Freq Offs		_		_							-		3 4 5
		_										_	6
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		_		1	-								1



RL	B	F 50 \$	2 AC		SENSE:IN	T	ALIGN AUTO	09:52:49.	AM Aug 02, 2013	
nter	Freq	5.5100		−lz 'NO: Fast G Gain:Low	Trig: Free Rur #Atten: 30 dB		Type: RMS	TY	CE 123456 /PE A MWWWWW DET A P N N N N	Frequency
dB/div	R	ef 20.00	alan -				Mk		25 GHz 78 dBm	Auto Tun
		Palas	an light water Athrop	- Contraction of the Martin Contraction of the Cont	a hadroston to be a star	ng maring to mar As	12	monsonge		Center Fre 5.510000000 G⊦
	and a state of the	T							a hard and a start and a	Start Fre 5.48500000 GH
0 0 0										Stop Fre 5.535000000 GH
	5.510 W 1.0	00 GHz MHz		#VBV	/ 3.0 MHz		Sweep		50.00 MHz (1001 pts)	CF Ste 5.000000 MI
MODE	TRC SU		× 5.517 2	25 GHz	¥ 3.78 dBm	FUNCTION	FUNCTION WIDTH	FUNCTI	ON VALUE	Auto Mi
N	1 f		5.522 0	15 GHz	-6.35 dBm					Freq Offs 0 F
<u> </u>		1					STATU			

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
	(11112)	MCS (0)	9.880	<13	Pass
100		MCS (2)	9.930	<13	Pass
102	5510	MCS (4)	10.680	<13	Pass
		MCS (7)	9.800	<13	Pass

Frequency	M Aug 02, 2013		ALIGN AUTO		NSE:INT	SE			50 Ω	RF		Ľ,
Frequency	E 123456	TR	e: RMS	#Avg T	-			00000 GI	51000	eq 5.	Fre	ter
1.00	PE A M WAAAA ET A P N N N N	,				Trig: Fre #Atten: 3	PNO: Fast C Gain:Low					
Auto Tu	90 GHz 80 dBm		Mkr				11	dBm	20.00	Ref 2	v	B/div
Contra Fr	2000		<u>1</u>		2		1.1	1				11
Center Fr		unter an	internet strates strate		marante	upropplantours.	man 2 mar	monorismonia	and with a	11		11
5.510000000 G					WP		V		1	1		
	What -	1			V.				1	NI	- 1	1
Start Fr	hour of the second	1				-				1	WHILP	-
5.485000000 G	The		-	-		-	-			NOT	i.	
	ale stands			- Y	-	-					AND AND	mell-m
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Stop Fr	-		-			-				_	_	1
5.535000000 G			1			10.000	1.000					
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CF Ste 5.000000 M	0.00 MHz 1001 pts)		Sweep			N 3.0 MHz	#VB			1000 .0 MI		
uto M			NCTION WIDTH	NCTION F		v		×	-	0.000	TRC	-
	N VALUE	PONG	NCTION WIDTH			3.80 d	0 GHz	5.521 9		f	2	N
1.46					Bm	-6.08 d	50 GHz	5.501 6		f	1	N
Freq Offs												-
0												
					-							-

		ectru		lyzer - Sv												-	
Cei	2	Fre	RF eq 5	.5100	2 AC				SEN	SE:IN	1	#Avg Ty	ALIGNAUTO	03:1	TRAC	M Aug 02, 2013 E 1 2 3 4 5 6 E A MWAAMAA	Frequency
			-				IO: Fast ain:Low	ц.	#Atten: 30		_				DE	APNNNN	Auto Tune
	B/di	v	Ref	20.00	dBm								MK	r1 5.5		40 GHz 42 dBm	Active contraction
Log 10.1	2.1			1		1			1	2	_				-	****	Center Freq
0.0	-	_	-	5 menunna	and the state	owner	2million	adnia	mericani	-	embran	مەلەرەر _ا مۇمىلەرلەردى.	eso-hypothismoles	winner	Y		5.510000000 GHz
-10.0 -20.0		parate	with	1		1.1				1					14	a was more thank	
-20.0		-	and the		-	1							-		1	and a state	Start Freq
-40.0	-	No market									-					Strate and and	5.485000000 GHz
-50.0													-	1			Stop Freq
-60.0							ē										5.535000000 GHz
	nter es B			GHz			#VE	3W	3.0 MHz			-	Sweep	Sp: 1.00 r	an 5 ns (0.00 MHz 1001 pts)	CF Step 5.000000 MHz
MKR	MODE	TRC	SCL		Х				Y		FUNCTIO	JN F	UNCTION WIDTH	I) FL	INCTIO	N VALUE	Auto Man
1 2 3	NN	2	f			502 40 499 90			5.42 dE -4.51 dE							-	
3 4 5															_		Freq Offset 0 Hz
4567	_																
8																	
10 11	-	-															
12								_						-	_		
MSG													STATU	JS			

RL RF 50	2 80	SENSE:INT	ALIGNAUTO	03:18:02 PM Aug 02, 2013	Contractory and
nter Freq 5.5100	00000 GHz		#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A MWRMW	Frequency
	PNO: Fast G IFGain:Low	#Atten: 30 dB		DET A P N N N N	
dB/div Ref 20.00	dBm		Mkr	1 5.496 05 GHz 5.68 dBm	Auto Tun
0	↓ 1	S		1	Center Fre
10 Jun	eneliseuriseurismussia	menoning prismit	under the second of the second	manning	5.510000000 GH
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0 months and a second s				Man Marine Marine	5.485000000 GH
0					Stop Fre
0					5.535000000 GH
nter 5.51000 GHz es BW 1.0 MHz	#VB\	V 3.0 MHz	Sweep	Span 50.00 MHz 1.00 ms (1001 pts)	CF Ste 5.000000 MI
MODE TRC SCL	×		JNCTION FUNCTION WIDTH	FUNCTION VALUE	Auto Mi
N 2 f N 1 f	5.496 05 GHz 5.519 05 GHz	5.68 dBm -5.00 dBm			
					Freq Offs
					01



and the second s	M Aug 02, 2013	03:20:24 PI	ALIGNAUTO	1	ENSE:INT	SE		AC	50 Ω	RF		L
Frequency	CE 123456 PE A MWAAAAA DET A P N N N N	TYP	pe: RMS	#Avg	ee Run 30 dB	Trig: Fre #Atten: 3	Z IO: Fast 🕞 Jain:Low	10000 GI	.51000	eq 5.	Fre	ter
Auto Tun	60 GHz 50 dBm		Mkr1		1947 E 65				20.00	Pof		3/div
				1	1		1		20.00	Kei /	V	
Center Fre 5.510000000 GH		Howard	howing	velocity again	ton since	up on the service and	ม ^{ุล} ามมีระกา ใหม่มีมุม	2	1 martine later		_	
4.4.5.	Mary worker	- A							F	MY THE SAL	webser	
Start Fre 5.485000000 GH	Wincollinger Warman			-	-					and the second	RUBLERED	antur a
Stop Fre					-					-		
5.535000000 GH											-	
CF Ste	50.00 MHz (1001 pts)		Sweep 1		z	3.0 MHz	#VBN		GHz	1000 I.0 M		
<u>Auto</u> Ma	ON VALUE	FUNCTIO	INCTION WIDTH	UNCTION		Y		х		SCL		
Freg Offse					IBm IBm	4.50 d -5.30 d		5.501 (5.496 s		f f	2	NN
0 H												
										1		

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

CHAIN A

Channel No.	Frequency	Data Rate	Measurement Level	Required Limit	Result
	(MHz)	(Mbps)	(dB)	(dB)	
		MCS (0)	8.960	<13	Pass
100	5500	MCS (2)	8.970	<13	Pass
100	5500	MCS (4)	9.790	<13	Pass
		MCS (7)	9.110	<13	Pass

RL		RF	50 Ω	AC		SEN	SE:INT		ALIGNAUTO	01:08:44	PM Aug 01, 2013	and the second second
ente	er Fi	req {	.50000	00000 G	Hz PNO: Fast C IFGain:Low	Trig: Free #Atten: 30		#Avg Ty	pe: RMS	TRA T	ACE 1 2 3 4 5 6 YPE A MINIMUM DET A P N N N N	Frequency
0 dB/d	div	Ref	20.00 0		iFGain:Low	#Atten. 50	40		Mkr1		500 GHz 13 dBm	Auto Tune
.og 10.0 0.00		munor	Reference -						^h 1 2	A Standard	mreindent-mas	Center Free 5.500000000 GHa
20.0		-						4 4		1		Start Free 5.487500000 GH:
50.0												Stop Free 5.512500000 GH
Res	BW	1.0 M) GHz 1Hz		#VBI	N 3.0 MHz			1	1.00 ms	25.00 MHz (1001 pts)	CF Step 2.500000 MH
MKR MOI	2				500 GHz	13.13 dE	m	NCTION FL	INCTION WIDTH	FUNCTI	ON VALUE	<u>Auto</u> Mar
2 N 3 4 5 6		r		5.505 5	925 GHz	4.17 dE	m.					Freq Offset 0 Hz
7												
9 10 11	_											



- Contraction from the	M Aug 01, 2013		ALIGNAUTO		E:INT	SENSE:		AC	50 Ω	RF	-	<u>1</u>
Frequency	E 1 2 3 4 5 6 E A MWAWA	TYP	e: RMS	#Avg Typ		Trig: Free R	Hz PNO: Fast (0000 GI	.50000	q 5.	Fre	ter
Auto Tui	25 GHz	5.505 3	Mkr1	-	dB	#Atten: 30 dl	-Gain:Low	IF	£1.0.			
-	43 dBm	13.4	1	Tra	_		-	IBm	20.00 c	Ref :	() -	3/div
Center Fre		No. S. W.	Vilene unter com	- phate 2 dans		une inner war		hours	with	-	-	
5.500000000 GI	What we have been to	- Arter				1			and the second	works	when	OpenA
Start Fre	Constraction majored	Mun			-				/	Manalupik	-Laboration	-nui
5.487500000 GI												
Stop Fre					-					-	-	-
5.512500000 GI		-										
CF Ste 2.500000 MI	5.00 MHz 1001 pts)		Sweep 1			V 3.0 MHz	#VB		GHz Hz	000 .0 M		
Auto Mi	IN VALUE	FUNCTIO	ICTION WIDTH	NCTION FU		13.43 dBm	25 GHz	× 5.505 32		SCL	1EC 2	MODE
Eron Offe				-		4.46 dBm		5.503 22		f	1	N
Freq Offs 01			_								-	
		_			-							
					-							_
				1	-							
						-					-	

	50 Q AC	SENSE:INT	ALIGNAUTO	01:24:47 PM Aug 01, 2013	Frankling
Center Freq 5.	500000000 GHz PNO: Fast C IFGain:Low	Trig: Free Run #Atten: 30 dB	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A MWWWW DET A P N N N N	Frequency
0 dB/div Ref 2	20.00 dBm	WAILEN, SO UL	Mkr1	5.505 700 GHz 14.12 dBm	Auto Tune
.og 10.0	w///	hannantartartara Lassantartar		and the start way to a start of the start of	Center Free 5.500000000 GH
10.0 powelly were were were were were were were wer					Start Free 5.487500000 GH
50.0 60.0 70.0					Stop Fre 5.512500000 GH
Center 5.50000		N 3.0 MHz	Sweep	Span 25.00 MHz 1.00 ms (1001 pts)	CF Ste 2.500000 MH
Res BW 1.0 MI		- 4-3 C. A. B.			Auto Mo
Res BW 1.0 MI	5.505 700 GHz 5.495 625 GHz	7 14.12 dBm 4.33 dBm	JNCTION FUNCTION WIDTH	FUNCTION VALUE	<u>Auto</u> Ma
#Res BW 1.0 MI 1 N 2 f 2 N 1 f 3 - - - 4 - - - 5 - - - 6 - - - -	× 5.505 700 GHz	14.12 dBm	UNCTION FUNCTION WIDTH	FUNCTION VALUE	Freq Offse
#Res BW 1.0 MI MKR MODE TRC SCL 1 N 2 f 2 N 1 f 3 - - - 4 - - - 5 - - -	× 5.505 700 GHz	14.12 dBm	UNCTION FUNCTION WIDTH	FUNCTION VALUE	Auto Mar Freq Offse 0 H:



E-C-SCORE ST	M Aug 01, 2013		ALIGNAUTO		E:INT	SENSE			50 Ω	RF	
Frequency	2E 1 2 3 4 5 6 PE A M WAAWA T A P N N N N	TRA TY	e: RMS	#Avg T		Trig: Free R	Hz PNO: Fast 0	0000 G	5.50000	req 5	ter F
Auto Tu	12000000	7. 1. 1. 1.			dB	#Atten: 30 d	FGain:Low				
	00 GHz 49 dBm		WKr1					IBm	20.00 0	Ref	3/div
Center Fr		Mar and Ma	2	northwarepoints	man	with month ad a series	an and the second	anyugutahakni ^{ng}	un		
5.50000000 G	Murhamphan the	Martin							niteline	within	worker
	- And	Tray					1		Will	minut	Versiller
Start Fre 5.487500000 G	and the second se		-	-	_						and a second
	-										1
Stop Fre	1										
5.512500000 G		1		-							
CF Ste 2.500000 M	5.00 MHz 1001 pts)		Sweep	4		/ 3.0 MHz	#VB) GHz IHz		ter 5. s BW
<u>Auto</u> M	IN VALUE	FUNCTIO	ICTION WIDTH	ICTION		Y		X			MODE T
0.049						13.49 dBm 4.38 dBm		5.494 7 5.506 7		f f	N I
Freq Offs 01		_									
		-			-						
									-		_
	-									-	_

CHAIN B

Channel No.	Frequency	Data Rate	Measurement Level	Required Limit	Decult
Channel No.	(MHz)	(Mbps)	(dB)	(dB)	Result
		MCS (0)	8.450	<13	Pass
100	5500	MCS (2)	9.240	<13	Pass
100	5500	MCS (4)	10.020	<13	Pass
		MCS (7)	9.640	<13	Pass

Frequency	58:51 PM Aug 01, 2013	0 0	ALIGNAUT		E:INT	SENS		AC		RF			R
Hz Auto Tune 3m Center Fred	TRACE 1 2 3 4 5 6 TYPE A MWAWAW DET A P N N N N		Type: RMS	#Avg		Trig: Free I #Atten: 30	Hz PNO: Fast 😱 Gain:Low	00000 G	.50000	eq 5	Fre	nter	en
	02 825 GHz 12.30 dBm	r1 5.	Mk	1					20.00 0	Ref	v	B/div) di
	M.	-	¢2	•1					with				og 10.0
5.50000000 GH	Manual March								ALL CONTRACTOR	Mar Dyn	Ameri	NAPS-1	0.00 0.0
Start Fre 5.487500000 GH	and an and an and an an										agree in	-	10.0 10.0 10.0
Stop Fre 5.512500000 GH											_		0.0 0.0 0.0
CF Ste 2.500000 MH	oan 25.00 MHz ms (1001 pts)		Sweej		-	3.0 MHz	#VBW		GHz Hz	1.0 N	W 1	s B	Re
<u>Nuto</u> Ma	UNCTION VALUE	TH I	FUNCTION WID	ICTION	m	12.30 dBr 3.85 dBr		5.502 8 5.504 9		f	2	NODE N	KR 2
Freq Offs 0 H						0.00 UBI		0.004 5				IN	3 4 5
				_									6 7 8 9
				-							-	-	0



Frequency	M Aug 01, 2013		ALIGNAUTO		INT	SENSE		AC	50 Q	RF		<u>.</u>
Frequency		TRAC	e: RMS	#Avg Ty	un	Trig: Free R	Hz	0000 G	.50000	q 5.	Fre	ter
Auto Tu	PE A M WWWW ET A P N N N N	2501	-			#Atten: 30 d	PNO: Fast (FGain:Low					
Auto Tu	75 GHz 24 dBm		Mkr1					Bm	20.00 d	Ref		3/div
Center Fr			the second second	mp2.	حالان		1 min	maria	KAN			71
5.500000000 G		- JUYIMM		V					And ballen			
0.0000000000	Ny Margine and Margines	1 miles							1	with a fear	anorta A	RAP
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5.487500000 G		-						-				
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Stop Fr							1				-	1
5.512500000 G							1					
10.2.00.0.0	-	1						1				10
CF Ste 2.500000 M	5.00 MHz 1001 pts)		Sweep			V 3.0 MHz	#VB	_	GHz Hz	0000 .0 M		
<u>Auto</u> M	IN VALUE	FUNCTIO	ICTION WIDTH	CTION F		Y		Х			TRC	
1.10						13.24 dBm 4.00 dBm	75 GHz 00 GHz		-	f	2	NN
Freq Offs											_	
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		RP 50	Ω AC		SENSE:INT		IGNAUTO		M Aug 01, 2013	- Contraction of
enter	Fre	q 5.5000	00000 GH	IO: Fast 🗔	Trig: Free Run #Atten: 30 dB	#Avg Type:	RMS	TYP	E 1 2 3 4 5 6 E A M WAMM T A P N N N N	Frequency
0 dB/di	v F	Ref 20.00		Sain:Low	#Atten: 30 db		Mkr1 5	.504 4	25 GHz 98 dBm	Auto Tun
og 10.0		and the second	per contraction of the second	yulling and the	no much	1	¢ ²	Now Beer Look		Center Free 5.50000000 GH;
	and the second							A. A	manuadalan	Start Free 5.487500000 GH:
0.0 0.0 0.0										Stop Free 5.512500000 GH
Res B	W 1.	000 GHz 0 MHz		#VBW	(3.0 MHz			00 ms (5.00 MHz 1001 pts)	CF Step 2.500000 MH Auto Ma
		f f	5.504 425 5.505 650		13.98 dBm 3.96 dBm	FUNCTION	ION WIDTH	FUNCTIO	N VALUE	<u>Hato</u> Mar
1 N 2 N				7 2 1					-	Freq Offset
1 N 2 N 3 4 5										011.
2 N 3 4										



Frequency	M Aug 01, 2013		ALIGNAUTO		BE:INT	SENS		AC	50 Q	RF		R L
Frequency	2E 1 2 3 4 5 6 PE A M WWWW T A P N N N N	TRAC TYP	e: RMS	#Avg T	Run	Trig: Free I	Hz NO: Fast G	0000 G	.50000	eq 5	er Fr	n
	ET A P N N N N	DE				#Atten: 30	Gain:Low		_			
Auto Tu	00 GHz 02 dBm	5.502 7 14.0	Mkr1					Bm	20.00 d	Ref	/div	
Center Fr	1. A A A A A A A A A A A A A A A A A A A	No.	unnum	11.12	Anthentering		-	Marcana Martina				g .0
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5.487500000 G				1					: :			0
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Stop Fr	-			-	-						-	0
5.512500000 G	-			-	-					-	_	0
CF Ste	5.00 MHz 1001 pts)		Sween	1	-	3.0 MHz	#VB)) GHz		er 5.5 BW	
2.500000 M uto M		FUNCING	ICTION WIDTH	ICTION	Î	Y		×			DDE TR	-
					m	14.02 dBr	0 GHz	5.502 70		f	N 2	
Freq Offs					m	4.38 dBr	5 GHz	5.503 62		f	N 1	
0		-										
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					1						1	

Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Peak Excursion
Test Site	:	No.3 OATS
Test Mode	:	Mode 5: Transmit (802.11n-20BW 14.4Mbps)(PIFA Antenna)

Chain A

Channel No.	Frequency	Data Rate	Measurement Level	Required Limit	Result
Channel No.	(MHz)	(Mbps)	(dB)	(dB)	Result
		MCS (0)	9.450	<13	Pass
100	5500	MCS (2)	8.550	<13	Pass
100	5500	MCS (4)	9.620	<13	Pass
		MCS (7)	9.260	<13	Pass

E-training and	M Aug 01, 2013		ALIGN AUTO		SENSE:INT	SE		2 AC	50 Ω	RF		L,
Frequency	2E 1 2 3 4 5 6 PE A M W/W/W ET A P N N N N	TYP	: RMS	#Avg Ty		Trig: Fre #Atten: 3	i Hz PNO: Fast G FGain:Low	00000 G	50000	eq 5.	Fre	ter
Auto Tur	00 GHz 35 dBm	5.503 1 14.3	Mkr1	15		whiten. o	FGain:Low	100	20.00	Ref		B/div
Center Fre		- marine	AN THE REAL AND AND A		1911 - March March Marchan	instrum	and the second	-	اسماليس			
5.50000000 GH	Whicher Aller you have	- And							-	Mart and	you	W
Start Fre	manument	Å					1			week	de-second	
5.487500000 GH	-	-		-	1		-		-			
Stop Fre										-		1
5.512500000 GH		-					-			-	-	
CF Ste 2.500000 MH	5.00 MHz 1001 pts)		Sweep		łz	/ 3.0 MHz	#VB		GHz Hz	0000 .0 MI		
<u>Auto</u> Ma	IN VALUE	FUNCTIO	CTION WIDTH	NCTION F		Y 14.35 d	00 GHz	×		SCL f	TRC 2	MODE
Freq Offs						4.90 d	75 GHz			f	1	N
01												
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		_										
			STATUS								-	-

- Colorista Color	M Aug 01, 2013	02:34:31 P	ALIGN AUTO		SENSE:INT		AC	50 Ω	RF	1	
Frequency	E 1 2 3 4 5 6 E A MWWWW	TRAC	e: RMS	#Avg T	Trig: Free Run	Hz PNO: Fast G	00000 GI		q 5.	Fre	ter
Auto Tu	at granders		Miland		#Atten: 30 dB	Gain:Low	IF				
	25 GHz 37 dBm		WIKFT				dBm	20.00	Ref	-	3/div
Center Fre		when process	ap 1 monor	2	-perminent and a perminent	manage	but reasons	Janet			1
5.500000000 GI	ee muland	and the second s		V					and and	the Pharman	
	- Wider	1		-				-	and	and the second	or free
Start Fre							1				
5.487500000 GI	-		1								
Stop Fre			-						-		
5.512500000 GI	-										h 1
CF Ste 2.500000 MI	5.00 MHz 1001 pts)		Sweep		3.0 MHz	#VBV		GHz Hz	0000 .0 M		
Auto Mi	N VALUE	FUNCTIO	NCTION WIDTH	NCTION	Y		×				NODE
1. 1.16 1.16					14.37 dBm 5.82 dBm		5.505 12 5.503 70		f	2	N N
Freq Offs 01											
				-							
											-
											_
			STATUS					_	-	-	

RL	RF	50 Ω	AC		SEN	SE:INT	- 1	ALIGNAUTO	02:35:37	PM Aug 01, 2013	- College
nter	Freq	5.50000	00000 Gł	lz	THURPON		#Avg T	ype: RMS	TRA	CE 1 2 3 4 5 6	Frequency
			P	NO: Fast G Gain:Low	Trig: Free #Atten: 30				Ē	PE A MWWWW DET A P N N N N	2.1
dB/div	Re	f 20.00	dBm	1				Mkr1		350 GHz 21 dBm	Auto Tun
a			and the second second	1	mun munules.	1 danksterreit.	minemen	12mm		10000	1.5.5.1
.0		AND MARKED						<u>y</u>	mu		Center Fre
00	IN MANUE	1					-		1	Manual Market Market	5.50000000 GH
.0		£						-	1	C PW	11
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.0	-	-	-		-	-	1	-		-	5.487500000 GH
.0		1 1									5.487500000 Gr
.0											
.0											Stop Fre
						1.00		1			5.512500000 GH
			1						1		
nter 5 es BV		0 GHz VIHz		#VB	N 3.0 MHz			Sweep		25.00 MHz (1001 pts)	CF Ste 2.500000 MH
RMODE	TRC SCL	1	×		Y) FU	NCTION	FUNCTION WIDTH	FUNCTI	ON VALUE	Auto Ma
	2 f		5.496 35		15.21 dE			1.1			
N	1 f		5.504 72	5 GHZ	5.59 dE	m			-		Freq Offse
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0 0						0		STATUS			

ALIGN AUTO		SENSE:INT	SE		AC	50 Ω	RF		-
: RMS	#Avg Ty			NO: Fast G	F	50000	q 5.	Fre	ter
Mkr1 {					Bm	20.00	Ref 2		3/div
Lana al	Mannas		V 1	1.0	2	20.00 1	NCI 2		Signa
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Sweep 1			#Avg Ty ee Run 20 dB	V 3.0 MHz	Hz #Avg Ty NO: Fast Trig: Free Run Gain:Low #Atten: 30 dB #1 #VBW 3.0 MHz #VBW 3.0 MHz	10000 GHz #Avg Ti PNO: Fast Trig: Free Run IFGain:Low #Atten: 30 dB IBm # </td <td>500000000 GHz #Avg Ty PN0: Fast Trig: Free Run #Atten: 30 dB 20.00 dBm 20.00 dBm 44ten: 30 dB 30.00 dBm 44ten: 30 dB 44ten: 44 dBm 44ten: 44 dBm 44ten: 44 dBm 44ten: 44 dBm 44ten: 44 dBm 44 dBm</td> <td>q 5.50000000 GHz #Avg Ti PN0: Fast Trig: Free Run IFGain:Low #Atten: 30 dB</td> <td>Freq 5.50000000 GHz #Avg Ty PN0: Fast Trig: Free Run IFGain:Low #Atten: 30 dB</td>	500000000 GHz #Avg Ty PN0: Fast Trig: Free Run #Atten: 30 dB 20.00 dBm 20.00 dBm 44ten: 30 dB 30.00 dBm 44ten: 30 dB 44ten: 44 dBm 44ten: 44 dBm 44ten: 44 dBm 44ten: 44 dBm 44ten: 44 dBm 44 dBm	q 5.50000000 GHz #Avg Ti PN0: Fast Trig: Free Run IFGain:Low #Atten: 30 dB	Freq 5.50000000 GHz #Avg Ty PN0: Fast Trig: Free Run IFGain:Low #Atten: 30 dB

Channal No.	Frequency	Data Rate	Measurement Level	Required Limit	Decult
Channel No.	(MHz)	(Mbps)	(dB)	(dB)	Result
		MCS (0)	9.190	<13	Pass
100	5500	MCS (2)	9.420	<13	Pass
100	5500	MCS (4)	9.570	<13	Pass
		MCS (7)	10.040	<13	Pass

Frequency	M Aug 01, 2013		ALIGN AUTO		SE:INT	SEM			50 9	RF	-		R
Frequency	E 1 2 3 4 5 6 E A M WWWW		e: RMS	#Avg Ty	-		Hz	00000 G	.5000	eq 5	Fre	nter	en
		DE	Contraction of the			Trig: Free #Atten: 30	PNO: Fast IFGain:Low			-			
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Stop Fre	-						-					-	Ō.O
5.512500000 GI							-				-	-	0.0
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11	Miner	1								and a	-	-
Start Fre								1		1		
5.487500000 GH			1					1.	-			-
		-			-							-
Stop Fre 5.512500000 GH	-											1
5.512500000 GP		1								-	-	100.0
CF Ste 2.500000 MH	5.00 MHz 1001 pts)		Sweep		2	/ 3.0 MHz	#VB			000 0 MI		
<u>Auto</u> Ma	N VALUE	FUNCTIO	ICTION WIDTH	ICTION F		¥		×			-	MODE
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ente	er F	req	5.500	000000	GHz PNO: Fast IFGain:Low	Trig: Fr		#Avg T	ype: RMS	TY	CE 1 2 3 4 5 6 PE A M WAMM ET A P N N N N	Frequency
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30.0 40.0												Start Fre 5.487500000 GH
50.0 60.0 —												Stop Fre
70.0												5.512500000 GH
Cente Res I)0 GHz MHz		#VE	W 3.0 MH	z	чр.	Sweep		25.00 MHz (1001 pts)	CF Ste 2.500000 MH
MKR MOD				5.50	3 000 GHz	Y 14.39 (NCTION	UNCTION WIDTH	FUNCTIO	ON VALUE	<u>Auto</u> Ma
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7		-						-				
9 10 11												
12	1		_					_		_		
SG									STATUS			



E-training and	M Aug 01, 2013		ALIGN AUTO		SE:INT	SEN		AC	50 Ω	RF	L	
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Auto Tur	00 GHz	IFGain:Low #Atten: 30 dB DETAPNINN Mkr1 5.495 100 GHz dB/div Ref 20.00 dBm 15.12 dBm										
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5.487500000 GH		_										
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						15.12 dE 5.08 dE		5.495 10 5.505 52		2 f 1 f	N	
Freq Offs					-							
01					_							
				- 1	-						-	

Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Peak Excursion
Test Site	:	No.3 OATS
Test Mode	:	Mode 6: Transmit (802.11n-40BW 30Mbps)(PIFA Antenna)

Chain A

Channel No.	Frequency	Data Rate	Measurement Level	Required Limit	Docult	
Channel No.	(MHz)	(Mbps)	(dB)	(dB)	Result	
		MCS (0)	9.700	<13	Pass	
102	5510	MCS (2)	9.160	<13	Pass	
102	5510	MCS (4)	9.490	<13	Pass	
		MCS (7)	10.370	<13	Pass	

RL RF 50 Q AC	SENSE:	#Avg Type: RMS	03:06:16 PM Aug 01, 2013 TRACE 1 2 3 4 5 6	Frequency
	PNO: Fast Trig: Free Ru IFGain:Low #Atten: 30 dE		TYPE A MWWWW DET A P N N N N	1 37. See
10 dB/div Ref 20.00 dBm		Mkr	1 5.514 20 GHz 7.50 dBm	Auto Tune
10.0 10.0 10.0 10.0 10.0			acon My	Center Free 5.510000000 GH;
-10.0 -20.0 Harland Mint Dr. / -30.0			The March Market	Start Free 5.485000000 GH2
-50.0				Stop Free 5.535000000 GH
Center 5.51000 GHz #Res BW 1.0 MHz	#VBW 3.0 MHz	Sweep	Span 50.00 MHz 1.00 ms (1001 pts)	CF Stej 5.000000 MH
		FUNCTION FUNCTION WIDTH	FUNCTION VALUE	<u>Auto</u> Ma
2 N 1 f 5.4 3 4 5 1	14 20 GHz 7.50 dBm 199 90 GHz -2.20 dBm			Freq Offse 0 H:
7 8 9 10				
#Res BW 1.0 MHz MMR MODE TRC SCL X 1 N 2 f 5.5 2 N f 5.4 3 - - - 4 - - - 5 - - - 6 - - - 7 - - - 9 - - -	514 20 GHz 7.50 dBm		1.00 ms (1001 pts)	5.000000 M Auto

RL		RF	50 Ω	AC		9	ENSE:INT	-	ALIGNAUTO	03:07:41F	M Aug 01, 2013	and the second		
ente	r Fr	eq 5	51000	00000	GHz PNO: Fast IFGain:Low	Trig: Fr #Atten:		#Avg	Type: RMS	TRACE 1 2 3 4 5 6 TYPE A MWWWW DET A P N N N N		Frequency		
) dB/d	liv	Ref	20.00	dBm	II Galil.Low		Mkr1 5.515 10 GHz 6.99 dBm							
og 0.0 1.00		M	1 mar	0 ²	h farger part in go	n-2antral-ind	Nathan Station	1				Center Fre 5.510000000 GH		
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0.0 0.0 0.0												Stop Fre 5.535000000 GH		
enter Res E			GHz Hz		#VE	W 3.0 MH	z		Sweep		50.00 MHz (1001 pts)	CF Ste 5.000000 MH		
KR MOC				Х	م البيجيج	Y		INCTION	FUNCTION WIDTH	FUNCTI	ON VALUE	<u>Auto</u> Ma		
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6 7 8 9 0 1														
2			_		1				STATUS			1		

ALIGN AUTO 03:08:58 PM Aug 01, 2013	ALIGNAUTO	BE:INT	SEN		AC	50 Ω	RF			RL		
	g Type: RMS	Run	Trig: Free #Atten: 30	IZ NO: Fast ♀ Gain:Low	0000 G	.51000	q 5	Fre	ter	en		
Mkr1 5.521 75 GHz Auto 7.92 dBm	Mkr	an accin. ou	dB/div Ref 20.00 dBm									
Center 5.5100000	when you when more	yourseement	an sound of the Reason	ana tiloga serveda	1	and the second				9 3.0 00		
5.48500000						<u></u>		AN CONTRACTOR	- ANN	0.0 1.0 1.0		
5.53500000).0).0).0		
Span 50.00 MHz Sweep 1.00 ms (1001 pts) 5.00000			3.0 MHz	#VBW		GHz Hz	.0 M	N 1	s BN	les		
	FUNCTION WIDTH	m	7.92 dE		5.521 7 5.520 (f f		N N	1		
FreqC			-2.20 42		0.020			-		3 4 5 5 5		
										7 3 9 0		



RL	B	F 50 Ω	AC		SENS	BE:INT		ALIGNAUTO	03:11:32 P	M Aug 01, 2013	- contraction	
Center	Freq	5.51000			-	-	#Avg Typ	e: RMS	TRA	E123456	Frequency	
	-			'NO: Fast 🔾 Gain:Low	Trig: Free #Atten: 30		A. 4	-	D	PE A MWWWWW ET A P N N N N	Auto Tune	
I0 dB/di												
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40.0						-					5.485000000 GH	
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30.0 <u></u> 70.0	-		ii (1			5.535000000 GH	
enter Res B		00 GHz MHz		#VBV	V 3.0 MHz			Sweep		0.00 MHz 1001 pts)	CF Ste	
IKR MODE			Х		Y		NCTION FU	NCTION WIDTH	FUNCTIO	IN VALUE	<u>Auto</u> Ma	
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Channel No.	Frequency	Data Rate	Measurement Level	Required Limit	Result
Channel No.	(MHz)	(Mbps)	(dB)	(dB)	Kesun
		MCS (0)	9.500	<13	Pass
102	5510	MCS (2)	9.850	<13	Pass
102	5510	MCS (4)	9.850	<13	Pass
		MCS (7)	10.970	<13	Pass

	6:33:54 PM Aug 01, 2013			VSE:INT	SEN		AC		RF		RL	
Frequency	TRACE 1 2 3 4 5 6 TYPE A MWAMMY	RMS	#Avg Type	Run	Trig: Free	Hz PNO: Fast G	00000 G	.51000	eq 5.	r Fre	nter	Cer
and and	DET A P N N N N				#Atten: 30	Gain:Low						
Auto Tune	.497 00 GHz 7.46 dBm	Mkr1 5.4					dBm	20.00	Ref	liv	dB/di	
Center Free	21000	1		2		1	♦ 1				- 1	10.C
5.510000000 GH	the state of the s	and the second	alout-Jakonstaneur	www.washingham	an survey and the	How was a start of the	and the	Sperinkle	1111		Ŭ D	0.00
5.5 1000000 GH	- May			.F				1				-10.0
	Have when by have			ā	1	-		-	Harry /	wayned	n	-20.0
Start Free	an and a second								wind			-20.0
5.485000000 GH	-cermenter									Wennes	w	-30.0
				1								-40.0
Stop Fre												-60.0
5.535000000 GH		1	1	1		1					2111	-70.0
	1.							1				
CF Ster 5.000000 MH	pan 50.00 MHz 0 ms (1001 pts)		1	4	/ 3.0 MHz	#VB	-) GHz IHz	1000 1.0 M			
uto Ma	FUNCTION VALUE	TION WIDTH F	CTION FUNC		Y		×			E TRC		MKR
					7.46 dE	00 GHz 45 GHz			f		N	1
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ОH												5
	1			-						-		6
								-		1		8
			11 11					-				
				-								9

	SENSE:INT		06:36:11 PM Aug 01, 2013	
DOOOO GHz PNO: Fast G IFGain:Low	Trig: Free Run #Atten: 30 dB	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A M WWWW DET A P N N N N	Frequency
		Mkr	1 5.518 70 GHz 8.15 dBm	Auto Tune
ang 2 mar mar mar	widestloulute and some	ul come la farmante		Center Free 5.510000000 GH;
				Start Free 5.485000000 GH:
				Stop Free 5.535000000 GH
#VBV	/ 3.0 MHz	Sweep	Span 50.00 MHz 1.00 ms (1001 pts)	CF Ster 5.000000 MH
		JNCTION FUNCTION WIDTH	FUNCTION VALUE	<u>Auto</u> Ma
5.518 /0 GHZ 5.496 35 GHz	-1.70 dBm			Freq Offse 0 H:
	PNO: Fast IFGain:Low dBm 2 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	PNO: Fast Trig: Free Run IFGain:Low #Atten: 30 dB dBm #VEW 3.0 MHz #VBW 3.0 MHz	PNO: Fast Trig: Free Run IFGain:Low #Atten: 30 dB Mkr dBm 2 4 4 4 4 4 4 4 4 4 4 4 4 4	PNO: Fast Trig: Free Run #Atten: 30 dB PNO: Fast #Atten: 30 dB Mkr1 5.518 70 GHz 8.15 dBm

and the second second	M Aug 01, 2013	06:39:07 Pf	ALIGN AUTO		SE:INT	SEI	-	2 AC	50 9	RF		L	R1
Frequency	2E 1 2 3 4 5 6 PE A M WAWW ET A P N N N N	TRAC	Type: RMS	#Avg	Run	Trig: Free #Atten: 3	−lz NO: Fast G Gain:Low	00000 G	.5100	eq 5	Fre	ter	en
Auto Tune	90 GHz 10 dBm		Mkr				Gameen		20.00	Ref	v	3/div) dE
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Start Free 5.485000000 GH	monorman and	1			-				/	- Alayor	harden	a special	0.0 0.0 0.0
Stop Fre 5.535000000 GH													0.0 0.0 0.0
CF Stej 5.000000 MH uto Ma	0.00 MHz 1001 pts)	1.00 ms (3.0 MHz	#VBW) GHz 1Hz	1.0 N	W 1	s Bl	Re
<u>uto</u> Ma	IN VALUE	FUNCTIO	FUNCTION WIDTH	INCTION	3m	8.10 di -1.75 di	0 GHz	5.520 5.497		f	TRC 2	NNN	1
Freq Offse 0 H								0.431					3 4 5 6
													7 8 9
													1



RL		RF 50 \$	2 AC		SEN	SE:INT		ALIGN AUTO	06:42:32 P	M Aug 01, 2013	- and a state
Center	Frec	5.5100	00000 GH		Trig: Free	Due	#Avg Typ	e: RMS	TRA	CE 1 2 3 4 5 6	Frequency
		1.1		10: Fast 🔾 Gain:Low	#Atten: 30				D	PE A M MAMAN ET A P N N N N	
0 dB/di										Auto Tune	
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D.00	-	war		and affectives and an	and a second way	start man		and a strengthered	the second	-	5.510000000 GH
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50.0	-		-					-	-		Stop Fre
60.0 70.0	-		- i- i i								5.535000000 GH
12	5 510	00 GHz	1 1			1			Cnan A	0.00 MHz	
Res B				#VBV	V 3.0 MHz			Sweep		1001 pts)	CF Ste 5.000000 MF
IKR MODE			× 5.508 30		9.05 dE		NCTION FUI	ICTION WIDTH	FUNCTIO	IN VALUE	<u>Auto</u> Ma
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3 4 5									-		Freq Offse
5 6 7											
8									-		
10											
12		1			_				_		
G								STATUS		1	

6. Radiated Emission

6.1. Test Equipment

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

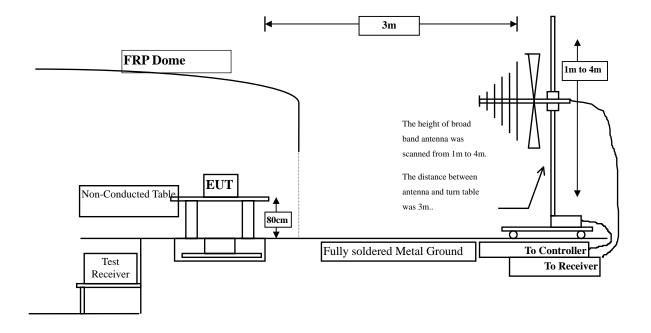
Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Site # 3	Х	Loop Antenna	Teseq	HLA6120 / 26739	Jul., 2013
	Х	Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2012
	X Horn Antenna		Schwarzbeck	BBHA9120D/D305	Sep., 2012
	Х	Horn Antenna	Schwarzbeck	beck BBHA9170/208	
	Х	Pre-Amplifier	QTK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

Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

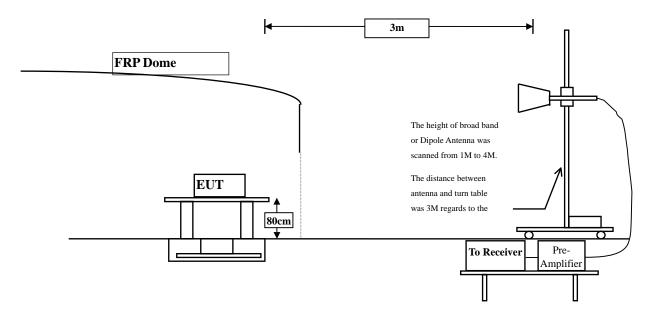
2. The test instruments marked with "X" are used to measure the final test results.

6.2. Test Setup

Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



6.3. Limits

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

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

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

6.4. Test Procedure

The EUT was setup according to ANSI C63.10, 2009 and tested according to FCC KDB-789033 test procedure for compliance to FCC 47CFR 15. 407 requirements.

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

The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10, 2009 on radiated measurement.

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

Radiated emission measurements below 30MHz are made using Loop Antenna and 30MHz~1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas. The measurement is divided into the Preliminary Measurement and the Final Measurement. The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna. The worst radiated emission is measured in the Open Area Test Site on the Final Measurement.

6.5. Uncertainty

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

6.6. Test Result of Radiated Emission

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

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
10520.000	14.015	39.850	53.865	-20.135	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
31560.000	*	*	*	*	74.000
36820.000	*	*	*	*	74.000
Average					
Detector:					
X 7 4• 1					
Vertical Peak Detector:					
					74.000
10520.000	14.818	41.460	56.278	-17.722	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
31560.000	*	*	*	*	74.000
36820.000	*	*	*	*	74.000
Average					
Detector:					

Note:

10520.000

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

43.218

-10.782

54.000

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.

28.400

4. Measurement Level = Reading Level + Correct Factor.

14.818

- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor Harmonic Radiated Emission Data No.3 OATS Mode 1: Transmit (802.11a-6Mbps)(Dipole Antenna) (5300MHz) 						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
10600.000	14.550	39.320	53.869	-20.131	74.000		
15900.000	*	*	*	*	74.000		
21200.000	*	*	*	*	74.000		
26500.000	*	*	*	*	74.000		
31800.000	*	*	*	*	74.000		
37100.000	*	*	*	*	74.000		
Average							
Detector:							
Vertical							
Peak Detector:							
10600.000	14.881	39.100	53.981	-20.019	74.000		
15900.000	*	*	*	*	74.000		
21200.000	*	*	*	*	74.000		
26500.000	*	*	*	*	74.000		
31800.000	*	*	*	*	74.000		
37100.000	*	*	*	*	74.000		
Average							

Detector:

Note:

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

Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor Harmonic Radiated Emission Data No.3 OATS Mode 1: Transmit (802.11a-6Mbps)(Dipole Antenna) (5320MHz) 						
Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
10640.000	14.690	38.870	53.560	-20.440	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	37.360	52.443	-21.557	74.000		
15960.000	*	*	*	*	74.000		
21280.000	*	*	*	*	74.000		
26600.000	*	*	*	*	74.000		
31920.000	*	*	*	*	74.000		
37240.000	*	*	*	*	74.000		
Average							

Detector:

Note:

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

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Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor Harmonic Radiated Emission Data No.3 OATS Mode 1: Transmit (802.11a-6Mbps)(Dipole Antenna) (5500MHz) 						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level	C			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
11000.000	16.399	36.810	53.209	-20.791	74.000		
16500.000	*	*	*	*	74.000		
22000.000	*	*	*	*	74.000		
27500.000	*	*	*	*	74.000		
33000.000	*	*	*	*	74.000		
38500.000	*	*	*	*	74.000		
Average							
Detector:							
Vertical							
Peak Detector:							
11000.000	17.132	36.220	53.352	-20.648	74.000		
16500.000	*	*	*	*	74.000		
22000.000	*	*	*	*	74.000		
27500.000	*	*	*	*	74.000		
33000.000	*	*	*	*	74.000		
38500.000	*	*	*	*	74.000		
Average							

Detector:

Note:

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

Product Test Item Test Site Test Mode	Test Item:Harmonic Radiated Emission DataTest Site:No.3 OATS						
Frequency	Correct	Reading	Measurement	Margin	Limit		
MII-	Factor	Level	Level	٦Ŀ	dD V/m		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:					74.000		
11160.000	16.664	37.300	53.965	-20.035	74.000		
16740.000	*	*	*	*	74.000		
22320.000	*	*	*	*	74.000		
27900.000	*	*	*	*	74.000		
33480.000	*	*	*	*	74.000		
39060.000	*	*	*	*	74.000		
Average							
Detector:							
Vertical							
Peak Detector:							
11160.000	17.643	38.680	56.323	-17.677	74.000		
16740.000	*	*	*	*	74.000		
22320.000	*	*	*	*	74.000		
27900.000	*	*	*	*	74.000		
33480.000	*	*	*	*	74.000		
39060.000	*	*	*	*	74.000		
Average							
Detector:							
11160.000 Note:	17.643	24.490	42.133	-11.867	54.000		

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

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Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor Harmonic Radiated Emission Data No.3 OATS Mode 1: Transmit (802.11a-6Mbps)(Dipole Antenna) (5700MHz) 						
Frequency	Correct	Reading	Measurement	Margin	Limit		
1	Factor	Level	Level	C			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
11400.000	16.530	48.420	64.951	-9.049	74.000		
17100.000	*	*	*	*	74.000		
22800.000	*	*	*	*	74.000		
28500.000	*	*	*	*	74.000		
34200.000	*	*	*	*	74.000		
39900.000	*	*	*	*	74.000		
Average							
Detector:							
11400.000	16.530	34.450	50.981	-3.019	54.000		
Vertical							
Peak Detector:							
11400.000	17.138	40.660	57.798	-16.202	74.000		
17100.000	*	*	*	*	74.000		
22800.000	*	*	*	*	74.000		
28500.000	*	*	*	*	74.000		
34200.000	*	*	*	*	74.000		
39900.000	*	*	*	*	74.000		
Average							
Detector:							
11400.000	17.138	27.940	45.078	-8.922	54.000		
Nata.							

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.

3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.

4. Measurement Level = Reading Level + Correct Factor.

5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.

- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

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Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor Harmonic Radiated Emission Data No.3 OATS Mode 2: Transmit (802.11n-20BW 14.4Mbps)(Dipole Antenna) (5260MHz) 						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
10520.000	14.015	40.340	54.355	-19.645	74.000		
15780.000	*	*	*	*	74.000		
21040.000	*	*	*	*	74.000		
26300.000	*	*	*	*	74.000		
31560.000	*	*	*	*	74.000		
36820.000	*	*	*	*	74.000		
Average							
Detector:							
10520.000	14.015	30.570	44.585	-9.415	54.000		
Vertical							
Peak Detector:							
10520.000	14.818	39.420	54.238	-19.762	74.000		
15780.000	*	*	*	*	74.000		
21040.000	*	*	*	*	74.000		
26300.000	*	*	*	*	74.000		
31560.000	*	*	*	*	74.000		
36820.000	*	*	*	*	74.000		
Average							
Detector:							
10520.000	14.818	26.320	41.138	-12.862	54.000		
NT /							

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

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

Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor Harmonic Radiated Emission Data No.3 OATS Mode 2: Transmit (802.11n-20BW 14.4Mbps)(Dipole Antenna) (5300MHz) 					
Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit	
MHz	dB	dBuV	dBuV/m	dB	dBuV/m	
Horizontal Peak Detector:						
10600.000	14.550	40.280	54.829	-19.171	74.000	
15900.000	*	*	*	*	74.000	
21200.000	*	*	*	*	74.000	
26500000	*	*	*	*	74.000	
31800.000	*	*	*	*	74.000	
37100.000	*	*	*	*	74.000	
Average						
Detector:						
10600.000	14.550	27.680	42.229	-11.771	54.000	
Vertical						
Peak Detector:						
10600.000	14.881	38.560	53.441	-20.559	74.000	
15900.000	*	*	*	*	74.000	
21200.000	*	*	*	*	74.000	
26500000	*	*	*	*	74.000	
31800.000	*	*	*	*	74.000	
37100.000	*	*	*	*	74.000	
Average						
Detector:						

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

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Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor Harmonic Radiated Emission Data No.3 OATS Mode 2: Transmit (802.11n-20BW 14.4Mbps)(Dipole Antenna) (5320MHz) 						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level	C			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
10640.000	14.690	38.630	53.320	-20.680	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	36.550	51.633	-22.367	74.000		
15960.000	*	*	*	*	74.000		
21280.000	*	*	*	*	74.000		
26600.000	*	*	*	*	74.000		
31920.000	*	*	*	*	74.000		
37240.000	*	*	*	*	74.000		
Average							

Dotootom

Detector:

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

Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor Harmonic Radiated Emission Data No.3 OATS Mode 2: Transmit (802.11n-20BW 14.4Mbps)(Dipole Antenna) (5500MHz) 						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
11000.000	16.399	36.320	52.719	-21.281	74.000		
16500.000	*	*	*	*	74.000		
22000.000	*	*	*	*	74.000		
27500.000	*	*	*	*	74.000		
33000.000	*	*	*	*	74.000		
38500.000	*	*	*	*	74.000		
Average							
Detector:							
Vertical							
Peak Detector:							
11000.000	17.132	36.830	53.962	-20.038	74.000		
16500.000	*	*	*	*	74.000		
22000.000	*	*	*	*	74.000		
27500.000	*	*	*	*	74.000		
33000.000	*	*	*	*	74.000		
38500.000	*	*	*	*	74.000		

Average

Detector:

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

Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor Harmonic Radiated Emission Data No.3 OATS Mode 2: Transmit (802.11n-20BW 14.4Mbps)(Dipole Antenna) (5580MHz) 						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
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:							
Vertical							
Peak Detector:							
11160.000	17.643	36.100	53.743	-20.257	74.000		
16740.000	*	*	*	*	74.000		
22320.000	*	*	*	*	74.000		
27900.000	*	*	*	*	74.000		
33480.000	*	*	*	*	74.000		
39060.000	*	*	*	*	74.000		

Average

Detector:

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

Product Test Item Test Site Test Mode	: No.3 OATS						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
11400.000	16.530	45.570	62.101	-11.899	74.000		
17100.000	*	*	*	*	74.000		
22800.000	*	*	*	*	74.000		
28500.000	*	*	*	*	74.000		
34200.000	*	*	*	*	74.000		
39900.000	*	*	*	*	74.000		
Average							
Detector:							
11400.000	16.530	31.570	48.101	-5.899	54.000		
Vertical							
Peak Detector:							
11400.000	17.138	39.170	56.308	-17.692	74.000		
17100.000	*	*	*	*	74.000		
22800.000	*	*	*	*	74.000		
28500.000	*	*	*	*	74.000		
34200.000	*	*	*	*	74.000		
39900.000	*	*	*	*	74.000		
Average							
Detector:							
11,400,000	15 100	20,400	15 (20)	0.070	5 4 000		

11400.000

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

45.628

-8.372

54.000

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.

28.490

4. Measurement Level = Reading Level + Correct Factor.

17.138

- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor Harmonic Radiated Emission Data No.3 OATS Mode 3: Transmit (802.11n-40BW 30Mbps)(Dipole Antenna) (5270MHz) 						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level	-			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
10540.000	14.151	36.740	50.890	-23.110	74.000		
15810.000	*	*	*	*	74.000		
21080.000	*	*	*	*	74.000		
26350.000	*	*	*	*	74.000		
31620.000	*	*	*	*	74.000		
36890.000	*	*	*	*	74.000		
Average							
Detector:							
Vertical							
Peak Detector:							
10540.000	14.829	35.880	50.708	-23.292	74.000		
15810.000	*	*	*	*	74.000		
21080.000	*	*	*	*	74.000		
26350.000	*	*	*	*	74.000		
31620.000	*	*	*	*	74.000		
36890.000	*	*	*	*	74.000		
Average							

Average

Detector:

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

Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor Harmonic Radiated Emission Data No.3 OATS Mode 3: Transmit (802.11n-40BW 30Mbps)(Dipole Antenna) (5310MHz) 						
Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
10620.000	14.623	36.430	51.053	-22.947	74.000		
15930.000	*	*	*	*	74.000		
21240.000	*	*	*	*	74.000		
26550.000	*	*	*	*	74.000		
31860.000	*	*	*	*	74.000		
37170.000	*	*	*	*	74.000		
Average							
Detector:							
Vertical							
Peak Detector:							
10620.000	14.970	36.240	51.210	-22.790	74.000		
15930.000	*	*	*	*	74.000		
21240.000	*	*	*	*	74.000		
26550.000	*	*	*	*	74.000		
31860.000	*	*	*	*	74.000		
37170.000	*	*	*	*	74.000		
Average							

Detector:

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

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Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor Harmonic Radiated Emission Data No.3 OATS Mode 3: Transmit (802.11n-40BW 30Mbps)(Dipole Antenna) (5510MHz) 						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level	-			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
11020.000	16.474	35.710	52.183	-21.817	74.000		
15930.000	*	*	*	*	74.000		
21240.000	*	*	*	*	74.000		
26550.000	*	*	*	*	74.000		
31860.000	*	*	*	*	74.000		
37170.000	*	*	*	*	74.000		
Average							
Detector:							
Vertical							
Peak Detector:							
11020.000	17.224	36.310	53.534	-20.466	74.000		
15930.000	*	*	*	*	74.000		
21240.000	*	*	*	*	74.000		
26550.000	*	*	*	*	74.000		
31860.000	*	*	*	*	74.000		
37170.000	*	*	*	*	74.000		
Average							

Detector:

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

Product	: SpectraGuard® Access Point / Sensor						
Test Item	: Harmonic Radiated Emission Data						
Test Site	: No.3 OATS						
Test Mode	: Mode 3:	Transmit (802.11	n-40BW 30Mbps)(D	ipole Antenna) (5	5550MHz)		
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
11020.000	46.058	36.310	53.534	-20.466	74.000		
15930.000	*	*	*	*	74.000		
21240.000	*	*	*	*	74.000		
26550.000	*	*	*	*	74.000		
31860.000	*	*	*	*	74.000		
37170.000	*	*	*	*	74.000		
Average							
Detector:							
Vertical							
Peak Detector:							
11100.000	17.523	35.060	52.583	-21.417	74.000		
15930.000	*	*	*	*	74.000		
21240.000	*	*	*	*	74.000		
26550.000	*	*	*	*	74.000		
31860.000	*	*	*	*	74.000		
37170.000	*	*	*	*	74.000		
Average							

Detector:

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

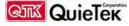
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Product Test Item Test Site Test Mode	Item:Harmonic Radiated Emission DataSite:No.3 OATS						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
11340.000	16.408	43.750	60.157	-13.843	74.000		
15930.000	*	*	*	*	74.000		
21240.000	*	*	*	*	74.000		
26550.000	*	*	*	*	74.000		
31860.000	*	*	*	*	74.000		
37170.000	*	*	*	*	74.000		
Average							
Detector:							
11340.000	16.408	29.760	46.167	-7.833	54.000		
Vertical							
Peak Detector:							
11340.000	17.167	38.000	55.167	-18.833	74.000		
15930.000	*	*	*	*	74.000		
21240.000	*	*	*	*	74.000		
26550.000	*	*	*	*	74.000		
31860.000	*	*	*	*	74.000		
37170.000	*	*	*	*	74.000		
Average							
Detector:							
11340.000	17.167	25.290	42.457	-11.543	54.000		
NT .							

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

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



Product:SpectraGuard® Access Point / SensorTest Item:Harmonic Radiated Emission DataTest Site:No.3 OATSTest Mode:Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna) (5260MHz)						
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m	
Horizontal						
Peak Detector:						
10520.000	14.015	38.410	52.425	-21.575	74.000	
15780.000	*	*	*	*	74.000	
21040.000	*	*	*	*	74.000	
26300.000	*	*	*	*	74.000	
31560.000	*	*	*	*	74.000	
36820.000	*	*	*	*	74.000	
Average						
Detector:						
Vertical						
Peak Detector:						
10520.000	14.818	41.600	56.418	-17.582	74.000	
15780.000	*	*	*	*	74.000	
21040.000	*	*	*	*	74.000	
26300.000	*	*	*	*	74.000	
31560.000	*	*	*	*	74.000	
36820.000	*	*	*	*	74.000	
Average						
Detector:						
10520.000	14.818	29.560	44.378	-9.622	54.000	
Note:						

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

Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor Harmonic Radiated Emission Data No.3 OATS Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna) (5300MHz) 						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level	-			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
10600.000	14.550	38.130	52.679	-21.321	74.000		
15900.000	*	*	*	*	74.000		
21200.000	*	*	*	*	74.000		
26500.000	*	*	*	*	74.000		
31800.000	*	*	*	*	74.000		
37100.000	*	*	*	*	74.000		
Average							
Detector:							
Vertical							
Peak Detector:							
10600.000	14.881	38.750	53.631	-20.369	74.000		
15900.000	*	*	*	*	74.000		
21200.000	*	*	*	*	74.000		
26500.000	*	*	*	*	74.000		
31800.000	*	*	*	*	74.000		
37100.000	*	*	*	*	74.000		
Average							

Detector:

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

Product Test Item Test Site Test Mode	Test Item:Harmonic Radiated Emission DataTest Site:No.3 OATS						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level	C			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
10640.000	14.690	37.080	51.770	-22.230	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	38.900	53.983	-20.017	74.000		
15960.000	*	*	*	-20.017	74.000		
21280.000	*	*	*	*	74.000		
26600.000	*	*	*	*	74.000		
31920.000	*	*	*	*	74.000		
37240.000	*	*	*	*	74.000		
Average					74.000		

Average

Detector:

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

Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor Harmonic Radiated Emission Data No.3 OATS Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna) (5500MHz) 							
Frequency	Correct	Reading	Measurement	Margin	Limit			
	Factor	Level	Level					
MHz	dB	dBuV	dBuV/m	dB	dBuV/m			
Horizontal								
Peak Detector:								
11000.000	16.399	36.920	53.319	-20.681	74.000			
16500.000	*	*	*	*	74.000			
22000.000	*	*	*	*	74.000			
27500.000	*	*	*	*	74.000			
33000.000	*	*	*	*	74.000			
38500.000	*	*	*	*	74.000			
Average								
Detector:								
Vertical								
Peak Detector:								
11000.000	17.132	38.050	55.182	-18.818	74.000			
16500.000	*	*	*	*	74.000			
22000.000	*	*	*	*	74.000			
27500.000	*	*	*	*	74.000			
33000.000	*	*	*	*	74.000			
38500.000	*	*	*	*	74.000			
Average								
Detector:								
11000.000	17.132	26.090	43.222	-10.778	54.000			

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.

3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.

4. Measurement Level = Reading Level + Correct Factor.

5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.

- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	Test Item:Harmonic Radiated Emission DataTest Site:No.3 OATS						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
11160.000	16.664	36.470	53.135	-20.865	74.000		
16740.000	*	*	*	*	74.000		
22320.000	*	*	*	*	74.000		
27900.000	*	*	*	*	74.000		
33480.000	*	*	*	*	74.000		
39060.000	*	*	*	*	74.000		
Average							
Detector:							
Vertical							
Peak Detector:							
11160.000	17.643	38.980	56.623	-17.377	74.000		
16740.000	*	*	*	*	74.000		
22320.000	*	*	*	*	74.000		
27900.000	*	*	*	*	74.000		
33480.000	*	*	*	*	74.000		
39060.000	*	*	*	*	74.000		
Average							
Detector:							
11160.000	17.643	25.390	43.033	-10.967	54.000		
Note:							

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

Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor Harmonic Radiated Emission Data No.3 OATS Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna) (5700MHz) 						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level	C			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
11400.000	16.530	37.090	53.621	-20.379	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	39.530	56.668	-17.332	74.000		
17100.000	*	*	*	*	74.000		
22800.000	*	*	*	*	74.000		
28500.000	*	*	*	*	74.000		
34200.000	*	*	*	*	74.000		
39900.000	*	*	*	*	74.000		
Average							
Detector:							
11400.000	17.138	27.050	44.188	-9.812	54.000		

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.

3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.

4. Measurement Level = Reading Level + Correct Factor.

5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.

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

7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product:SpectraGuard® Access Point / SensorTest Item:Harmonic Radiated Emission DataTest Site:No.3 OATSTest Mode:Mode 5: Transmit (802.11n-20BW 14.4Mbps)(PIFA Antenna) (5260MHz)							
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
10520.000	14.015	38.600	52.615	-21.385	74.000		
15780.000	*	*	*	*	74.000		
21040.000	*	*	*	*	74.000		
26300.000	*	*	*	*	74.000		
31560.000	*	*	*	*	74.000		
36820.000	*	*	*	*	74.000		
Average							
Detector:							
Vertical							
Peak Detector:							
10520.000	14.818	43.560	58.378	-15.622	74.000		
15780.000	*	*	*	*	74.000		
21040.000	*	*	*	*	74.000		
26300.000	*	*	*	*	74.000		
31560.000	*	*	*	*	74.000		
36820.000	*	*	*	*	74.000		
Average							
Detector:							
10520.000	14.818	28.130	42.948	-11.052	54.000		
Note:							

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

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

Product Test Item Test Site Test Mode	Item : Harmonic Radiated Emission Data Site : No.3 OATS						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
10600.000	14.550	38.480	53.029	-20.971	74.000		
15900.000	*	*	*	*	74.000		
21200.000	*	*	*	*	74.000		
26500000	*	*	*	*	74.000		
31800.000	*	*	*	*	74.000		
37100.000	*	*	*	*	74.000		
Average							
Detector:							
Vertical							
Peak Detector:							
10600.000	14.881	41.370	56.251	-17.749	74.000		
15900.000	*	*	*	*	74.000		
21200.000	*	*	*	*	74.000		
26500000	*	*	*	*	74.000		
31800.000	*	*	*	*	74.000		
37100.000	*	*	*	*	74.000		
Average							
Detector:							
10600.000	14.881	28.370	43.251	-10.749	54.000		
Note:							

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

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

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Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor Harmonic Radiated Emission Data No.3 OATS Mode 5: Transmit (802.11n-20BW 14.4Mbps)(PIFA Antenna) (5320MHz) 						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level	C			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
10640.000	14.690	38.190	52.880	-21.120	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	38.190	53.273	-20.727	74.000		
15960.000	*	*	*	*	74.000		
21280.000	*	*	*	*	74.000		
26600.000	*	*	*	*	74.000		
31920.000	*	*	*	*	74.000		
37240.000	*	*	*	*	74.000		
Average							

Detector:

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

Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor Harmonic Radiated Emission Data No.3 OATS Mode 5: Transmit (802.11n-20BW 14.4Mbps)(PIFA Antenna) (5500MHz) 						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level	C			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
11000.000	16.399	36.930	53.329	-20.671	74.000		
16500.000	*	*	*	*	74.000		
22000.000	*	*	*	*	74.000		
27500.000	*	*	*	*	74.000		
33000.000	*	*	*	*	74.000		
38500.000	*	*	*	*	74.000		
Average							
Detector:							
Vertical							
Peak Detector:							
11000.000	17.132	39.390	56.522	-17.478	74.000		
16500.000	*	*	*	*	74.000		
22000.000	*	*	*	*	74.000		
27500.000	*	*	*	*	74.000		
33000.000	*	*	*	*	74.000		
38500.000	*	*	*	*	74.000		
Average							
Detector:							
11000.000	17.132	26.120	43.252	-10.748	54.000		

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

Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor Harmonic Radiated Emission Data No.3 OATS Mode 5: Transmit (802.11n-20BW 14.4Mbps)(PIFA Antenna) (5580MHz) 						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
11160.000	16.664	36.030	52.695	-21.305	74.000		
16740.000	*	*	*	*	74.000		
22320.000	*	*	*	*	74.000		
27900.000	*	*	*	*	74.000		
33480.000	*	*	*	*	74.000		
39060.000	*	*	*	*	74.000		
Average							
Detector:							
Vertical							
Peak Detector:							
11160.000	17.643	36.310	53.953	-20.047	74.000		
16740.000	*	*	*	*	74.000		
22320.000	*	*	*	*	74.000		
27900.000	*	*	*	*	74.000		
33480.000	*	*	*	*	74.000		
39060.000	*	*	*	*	74.000		

Average

Detector:

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

Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor Harmonic Radiated Emission Data No.3 OATS Mode 5: Transmit (802.11n-20BW 14.4Mbps)(PIFA Antenna) (5700MHz) 						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level	C			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
11400.000	16.530	37.260	53.791	-20.209	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	38.560	55.698	-18.302	74.000		
17100.000	*	*	*	*	74.000		
22800.000	*	*	*	*	74.000		
28500.000	*	*	*	*	74.000		
34200.000	*	*	*	*	74.000		
39900.000	*	*	*	*	74.000		
Average							
Detector:							
11400.000	17.138	28.000	45.138	-8.862	54.000		

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

Product Test Item	 SpectraGuard® Access Point / Sensor Harmonic Radiated Emission Data 							
Test Site	: No.3 OATS							
Test Mode			n-40BW 30Mbps)(Pl	IFA Antenna) (52	70MHz)			
_	a				.			
Frequency	Correct	Reading	Measurement	Margin	Limit			
	Factor	Level	Level	-				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m			
Horizontal								
Peak Detector:								
10540.000	14.151	37.050	51.200	-22.800	74.000			
15810.000	*	*	*	*	74.000			
21080.000	*	*	*	*	74.000			
26350.000	*	*	*	*	74.000			
31620.000	*	*	*	*	74.000			
36890.000	*	*	*	*	74.000			
Average								
Detector:								
Vertical								
Peak Detector:								
10540.000	14.829	40.790	55.618	-18.382	74.000			
15810.000	*	*	*	*	74.000			
21080.000	*	*	*	*	74.000			
26350.000	*	*	*	*	74.000			
31620.000	*	*	*	*	74.000			
36890.000	*	*	*	*	74.000			
Average								
Detector:								
10540.000	14.829	27.650	42.478	-11.522	54.000			
Note:								

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

Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor Harmonic Radiated Emission Data No.3 OATS Mode 6: Transmit (802.11n-40BW 30Mbps)(PIFA Antenna) (5310MHz) 						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level	-			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
10620.000	14.623	36.120	50.743	-23.257	74.000		
15930.000	*	*	*	*	74.000		
21240.000	*	*	*	*	74.000		
26550.000	*	*	*	*	74.000		
31860.000	*	*	*	*	74.000		
37170.000	*	*	*	*	74.000		
Average							
Detector:							
Vertical							
Peak Detector:							
10620.000	14.970	36.520	51.490	-22.510	74.000		
15930.000	*	*	*	*	74.000		
21240.000	*	*	*	*	74.000		
26550.000	*	*	*	*	74.000		
31860.000	*	*	*	*	74.000		
37170.000	*	*	*	*	74.000		
Average							

Average Detector:

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Delecti

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

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Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor Harmonic Radiated Emission Data No.3 OATS Mode 6: Transmit (802.11n-40BW 30Mbps)(PIFA Antenna) (5510MHz) 						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level	C			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
11020.000	16.474	35.740	52.213	-21.787	74.000		
15930.000	*	*	*	*	74.000		
21240.000	*	*	*	*	74.000		
26550.000	*	*	*	*	74.000		
31860.000	*	*	*	*	74.000		
37170.000	*	*	*	*	74.000		
Average							
Detector:							
Vertical							
Peak Detector:							
11020.000	17.224	35.570	52.794	-21.206	74.000		
15930.000	*	*	*	*	74.000		
21240.000	*	*	*	*	74.000		
26550.000	*	*	*	*	74.000		
31860.000	*	*	*	*	74.000		
37170.000	*	*	*	*	74.000		
Average							

Detector:

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

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Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor Harmonic Radiated Emission Data No.3 OATS Mode 6: Transmit (802.11n-40BW 30Mbps)(PIFA Antenna) (5550MHz) 						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level	-			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
11100.000	16.681	35.690	52.371	-21.629	74.000		
15930.000	*	*	*	*	74.000		
21240.000	*	*	*	*	74.000		
26550.000	*	*	*	*	74.000		
31860.000	*	*	*	*	74.000		
37170.000	*	*	*	*	74.000		
Average							
Detector:							
Vertical							
Peak Detector:							
11100.000	17.523	35.150	52.673	-21.327	74.000		
15930.000	*	*	*	*	74.000		
21240.000	*	*	*	*	74.000		
26550.000	*	*	*	*	74.000		
31860.000	*	*	*	*	74.000		
37170.000	*	*	*	*	74.000		
Average							

Detector:

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

Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor Harmonic Radiated Emission Data No.3 OATS Mode 6: Transmit (802.11n-40BW 30Mbps)(PIFA Antenna) (5670MHz) 					
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Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m	
Horizontal						
Peak Detector:						
11340.000	16.408	35.770	52.177	-21.823	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	35.270	52.437	-21.563	74.000	
15930.000	*	*	*	*	74.000	
21240.000	*	*	*	*	74.000	
26550.000	*	*	*	*	74.000	
31860.000	*	*	*	*	74.000	
37170.000	*	*	*	*	74.000	
Average						

Detector:

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



Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor General Radiated Emission No.3 OATS Mode 1: Transmit (802.11a-6Mbps)(Dipole Antenna) (5300MHz) 						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector							
202.660	-10.889	48.206	37.317	-6.183	43.500		
386.960	-1.524	40.843	39.319	-6.681	46.000		
474.260	0.024	35.568	35.591	-10.409	46.000		
641.100	1.348	27.119	28.467	-17.533	46.000		
722.580	3.496	27.484	30.980	-15.020	46.000		
852.560	6.342	30.680	37.022	-8.978	46.000		
Vertical							
Peak Detector							
121.180	-3.814	34.323	30.509	-12.991	43.500		
224.000	-8.699	42.825	34.126	-11.874	46.000		
400.540	-5.156	40.875	35.720	-10.280	46.000		
567.380	-5.426	34.233	28.807	-17.193	46.000		
800.180	2.801	33.430	36.231	-9.769	46.000		
965.080	7.932	26.622	34.554	-19.446	54.000		

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

Product Test Item	 SpectraGuard® Access Point / Sensor General Radiated Emission 						
Test Site	: No.3 OATS						
Test Mode	: Mode 1	: Transmit (802.11	a-6Mbps)(Dipole Ant	tenna) (5580MHz	2)		
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector							
156.100	-10.461	40.092	29.630	-13.870	43.500		
280.260	-5.507	40.878	35.371	-10.629	46.000		
418.000	-3.234	29.883	26.649	-19.351	46.000		
596.480	4.017	29.863	33.880	-12.120	46.000		
773.020	4.206	25.889	30.095	-15.905	46.000		
934.040	6.612	30.253	36.865	-9.135	46.000		
Vertical							
Peak Detector							
177.440	-8.339	39.806	31.467	-12.033	43.500		
276.380	-8.653	46.520	37.867	-8.133	46.000		
447.100	-7.746	28.484	20.738	-25.262	46.000		
542.160	-0.269	35.314	35.045	-10.955	46.000		
701.240	0.198	33.185	33.383	-12.617	46.000		
809.880	3.279	34.800	38.079	-7.921	46.000		

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

Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor General Radiated Emission No.3 OATS Mode 2: Transmit (802.11n-20BW 14.4Mbps)(Dipole Antenna) (5300MHz) 						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector							
136.700	-10.363	35.659	25.296	-18.204	43.500		
222.060	-10.439	41.836	31.397	-14.603	46.000		
425.760	-3.093	35.273	32.180	-13.820	46.000		
567.380	1.664	24.385	26.049	-19.951	46.000		
749.740	3.320	31.202	34.522	-11.478	46.000		
910.760	6.164	26.820	32.985	-13.015	46.000		
Vertical							
Peak Detector							
130.880	-4.239	35.214	30.975	-12.525	43.500		
282.200	-8.461	45.043	36.582	-9.418	46.000		
429.640	-9.902	34.149	24.247	-21.753	46.000		
530.520	-0.517	33.072	32.555	-13.445	46.000		
709.000	0.058	30.925	30.983	-15.017	46.000		
889.420	2.512	25.993	28.505	-17.495	46.000		

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

Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor General Radiated Emission No.3 OATS Mode 2: Transmit (802.11n-20BW 14.4Mbps)(Dipole Antenna) (5580MHz) 					
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m	
Horizontal						
Peak Detector						
119.240	-9.621	32.607	22.986	-20.514	43.500	
210.420	-10.972	46.914	35.943	-7.557	43.500	
406.360	-2.500	34.579	32.079	-13.921	46.000	
666.320	2.031	33.729	35.761	-10.239	46.000	
806.000	4.968	26.525	31.493	-14.507	46.000	
875.840	5.271	28.651	33.922	-12.078	46.000	
Vertical						
Peak Detector						
152.220	-6.215	35.585	29.370	-14.130	43.500	
266.680	-8.213	45.321	37.108	-8.892	46.000	
408.300	-6.606	36.060	29.454	-16.546	46.000	
528.580	-0.462	33.601	33.139	-12.861	46.000	
703.180	0.139	30.311	30.449	-15.551	46.000	
811.820	3.121	32.733	35.853	-10.147	46.000	

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

Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor General Radiated Emission No.3 OATS Mode 3: Transmit (802.11n-40BW 30Mbps)(Dipole Antenna) (5270MHz) 						
Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector							
97.900	-7.650	36.671	29.020	-14.480	43.500		
280.260	-5.507	39.746	34.239	-11.761	46.000		
419.940	-3.234	28.649	25.415	-20.585	46.000		
646.920	1.793	23.698	25.491	-20.509	46.000		
749.740	3.320	33.250	36.570	-9.430	46.000		
875.840	5.271	28.511	33.782	-12.218	46.000		
Vertical							
Peak Detector							
138.640	-5.795	33.871	28.076	-15.424	43.500		
288.020	-8.189	43.253	35.064	-10.936	46.000		
416.060	-8.415	32.983	24.568	-21.432	46.000		
542.160	-0.269	32.401	32.132	-13.868	46.000		
809.880	3.279	32.038	35.317	-10.683	46.000		
920.460	5.517	28.083	33.600	-12.400	46.000		

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

Product Test Item	 SpectraGuard® Access Point / Sensor General Radiated Emission 						
Test Site Test Mode	 No.3 OATS Mode 3: Transmit (802.11n-40BW 30Mbps)(Dipole Antenna) (5550MHz) 						
Frequency	Correct	Reading	Measurement	Margin	Limit		
Trequency	Factor	Level	Level	Margin	Linit		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector							
121.180	-9.834	32.280	22.446	-21.054	43.500		
210.420	-10.972	45.638	34.667	-8.833	43.500		
385.020	-1.350	32.284	30.934	-15.066	46.000		
582.900	3.445	30.872	34.317	-11.683	46.000		
738.100	2.826	24.620	27.446	-18.554	46.000		
914.640	6.083	30.464	36.547	-9.453	46.000		
Vertical							
Peak Detector							
187.140	-11.507	39.855	28.348	-15.152	43.500		
319.060	-6.897	44.684	37.787	-8.213	46.000		
474.260	-4.556	36.640	32.083	-13.917	46.000		
608.120	-1.576	37.723	36.147	-9.853	46.000		
774.960	2.337	26.611	28.948	-17.052	46.000		
926.280	5.821	26.724	32.545	-13.455	46.000		

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

Product Test Item Test Site	 SpectraGuard® Access Point / Sensor General Radiated Emission No.3 OATS 				
Test Mode	: Mode 4:	Transmit (802.11	a-6Mbps)(PIFA Ante	nna) (5300MHz)	
Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
123.120	-9.891	31.990	22.099	-21.401	43.500
383.080	-1.164	33.499	32.335	-13.665	46.000
493.660	-0.536	29.768	29.232	-16.768	46.000
641.100	1.348	29.293	30.641	-15.359	46.000
765.260	4.253	30.812	35.065	-10.935	46.000
916.580	6.144	29.094	35.238	-10.762	46.000
Vertical					
Peak Detector					
165.800	-7.719	35.105	27.386	-16.114	43.500
470.380	-4.674	32.366	27.692	-18.308	46.000
598.420	-2.979	35.098	32.119	-13.881	46.000
718.700	-0.313	31.821	31.508	-14.492	46.000
844.800	3.181	30.560	33.741	-12.259	46.000
916.580	1.524	28.598	30.122	-15.878	46.000

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

Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor General Radiated Emission No.3 OATS Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna) (5580MHz) 				
Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
185.200	-12.336	39.784	27.448	-16.052	43.500
400.540	-2.276	40.098	37.822	-8.178	46.000
480.080	-0.329	31.934	31.605	-14.395	46.000
641.100	1.348	29.466	30.814	-15.186	46.000
774.960	4.187	29.422	33.609	-12.391	46.000
920.460	6.467	30.123	36.590	-9.410	46.000
Vertical					
Peak Detector					
175.500	-8.257	37.700	29.442	-14.058	43.500
423.820	-9.517	30.939	21.422	-24.578	46.000
532.460	-0.563	36.458	35.895	-10.105	46.000
699.300	0.695	30.312	31.007	-14.993	46.000
829.280	2.864	31.002	33.866	-12.134	46.000
916.580	1.524	29.718	31.242	-14.758	46.000

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

Product Test Item Test Site Test Mode	: General : No.3 OA			PIFA Antenna) (5	300MHz)
Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
57.160	-13.583	39.702	26.119	-13.881	40.000
419.940	-3.234	31.730	28.496	-17.504	46.000
505.300	0.308	31.642	31.950	-14.050	46.000
683.780	2.828	29.645	32.473	-13.527	46.000
840.920	5.191	30.114	35.305	-10.695	46.000
943.740	6.492	29.038	35.531	-10.469	46.000
Vertical					
Peak Detector					
192.960	-9.878	40.172	30.294	-13.206	43.500
416.060	-8.415	34.399	25.984	-20.016	46.000
542.160	-0.269	34.669	34.400	-11.600	46.000
646.920	-4.957	29.623	24.666	-21.334	46.000
823.460	3.462	29.811	33.274	-12.726	46.000
968.960	8.191	29.061	37.252	-16.748	54.000

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

Product Test Item Test Site Test Mode	: General : No.3 OA			PIFA Antenna) (5	580MHz)
Test Widde	. 101000 5	Transmit (002.11)		()	500000000000000000000000000000000000000
Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
119.240	-9.621	33.357	23.736	-19.764	43.500
224.000	-10.339	43.149	32.810	-13.190	46.000
418.000	-3.234	32.062	28.828	-17.172	46.000
643.040	1.441	30.513	31.954	-14.046	46.000
786.600	4.712	28.926	33.638	-12.362	46.000
951.500	6.641	29.593	36.234	-9.766	46.000
Vertical					
Peak Detector					
163.860	-7.204	35.884	28.680	-14.820	43.500
427.700	-10.022	31.496	21.474	-24.526	46.000
515.000	-1.090	33.261	32.171	-13.829	46.000
681.840	1.484	29.571	31.055	-14.945	46.000
809.880	3.279	30.312	33.591	-12.409	46.000
928.220	6.203	29.895	36.098	-9.902	46.000

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

Product Test Item Test Site Test Mode	: General : No.3 OA			EA Antonno) (52)	70MHz)
Test Mode	: Mode 6:	11ansinit (802.11	11-40B w 50100ps)(P1	FA Antenna) (32	/UNITZ)
Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
115.360	-8.770	34.437	25.667	-17.833	43.500
181.320	-12.152	39.665	27.513	-15.987	43.500
398.600	-2.268	32.547	30.279	-15.721	46.000
559.620	1.664	28.992	30.656	-15.344	46.000
687.660	3.294	29.475	32.769	-13.231	46.000
873.900	5.200	29.315	34.515	-11.485	46.000
Vertical					
Peak Detector					
142.520	-6.267	35.557	29.290	-14.210	43.500
421.880	-9.024	32.024	23.000	-23.000	46.000
524.700	-0.379	33.074	32.695	-13.305	46.000
695.420	1.878	30.664	32.542	-13.458	46.000
825.400	3.430	30.053	33.483	-12.517	46.000
918.520	4.126	30.332	34.458	-11.542	46.000

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

Product Test Item Test Site Test Mode	 SpectraGuard® Access Point / Sensor General Radiated Emission No.3 OATS Mode 6: Transmit (802.11n-40BW 30Mbps)(PIFA Antenna) (5550MHz) 				
Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
119.240	-9.621	30.447	20.826	-22.674	43.500
194.900	-11.012	40.604	29.592	-13.908	43.500
418.000	-3.234	29.431	26.197	-19.803	46.000
612.000	3.819	27.610	31.429	-14.571	46.000
782.720	4.325	28.113	32.438	-13.562	46.000
934.040	6.612	29.038	35.650	-10.350	46.000
Vertical Peak Detector					
169.680	-8.728	37.968	29.240	-14.260	43.500
369.500	-2.868	35.363	32.495	-13.505	46.000
536.340	-0.305	28.128	27.823	-18.177	46.000
753.620	3.187	29.139	32.326	-13.674	46.000
856.440	0.562	28.189	28.751	-17.249	46.000
920.460	5.517	27.952	33.469	-12.531	46.000

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

7. Band Edge

7.1. **Test Equipment**

RF Conducted Measurement

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

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

Note:

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

RF Radiated Measurement:

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

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

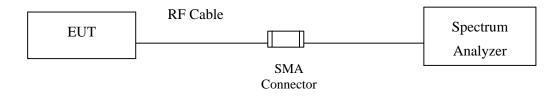
Note:

1. All instruments are calibrated every one year.

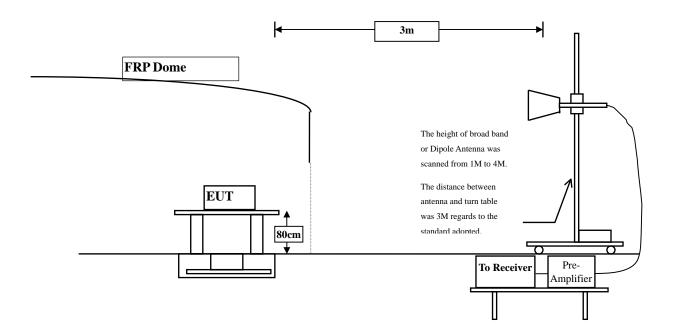
2. The test instruments marked by "X" are used to measure the final test results.

7.2. Test Setup

RF Conducted Measurement:



RF Radiated Measurement:



7.3. Limits

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

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

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

Remarks : 1. RF Voltage $(dBuV) = 20 \log RF$ Voltage (uV)

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

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

7.4. Test Procedure

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

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

The bandwidth below 1GHz setting on the field strength meter is 120 kHz, above 1GHz are 1 MHz. The EUT was setup to ANSI C63.10, 2009; tested to DTS test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

7.5. Uncertainty

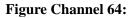
- \pm 3.8 dB below 1GHz
- \pm 3.9 dB above 1GHz

7.6. **Test Result of Band Edge**

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

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
64 (Peak)	5325.800	3.794	108.667	112.461			Pass
64 (Peak)	5350.000	3.716	58.040	61.757	74.00	54.00	Pass
64 (Peak)	5351.000	3.713	59.102	62.815	74.00	54.00	Pass
64 (Average)	5316.000	3.824	99.077	102.902			Pass
64 (Average)	5350.000	3.716	43.314	47.031	74.00	54.00	Pass
64 (Average)	5351.000	3.713	43.686	47.399	74.00	54.00	Pass



Horizontal (Peak)

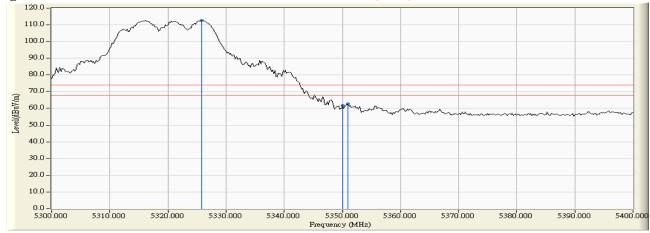


Figure Channel 64:

Horizontal (Average)



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

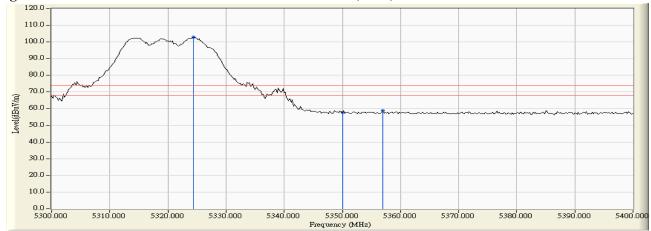
Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps)(Dipole Antenna) - Channel 64

RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Kesult
64 (Peak)	5324.400	5.723	97.132	102.856			Pass
64 (Peak)	5350.000	5.691	51.951	57.643	74.00	54.00	Pass
64 (Peak)	5357.000	5.682	53.246	58.928	74.00	54.00	Pass
64 (Average)	5324.400	5.723	86.924	92.648			Pass
64 (Average)	5350.000	5.691	40.000	45.692	74.00	54.00	Pass

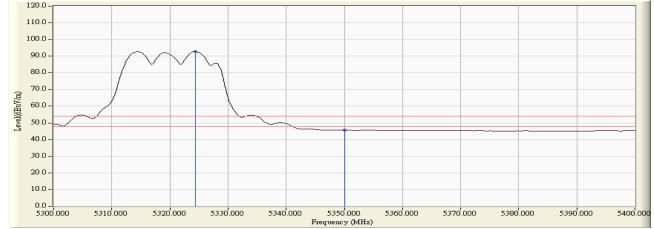
Figure Channel 64:

Vertical (Peak)





Vertical (Average)



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

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

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
Channel NO.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
100 (Peak)	5424.200	3.877	57.451	61.329	74.00	54.00	Pass
100 (Peak)	5460.000	4.354	52.771	57.125	74.00	54.00	Pass
100 (Peak)	5503.400	4.837	105.928	110.766			Pass
100 (Average)	5423.800	3.872	46.239	50.111	74.00	54.00	Pass
100 (Average)	5460.000	4.354	41.044	45.398	74.00	54.00	Pass
100 (Average)	5503.800	4.842	95.496	100.337			Pass

Figure Channel 100:

Horizontal (Peak)

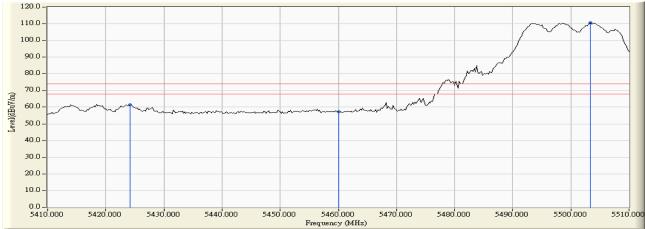
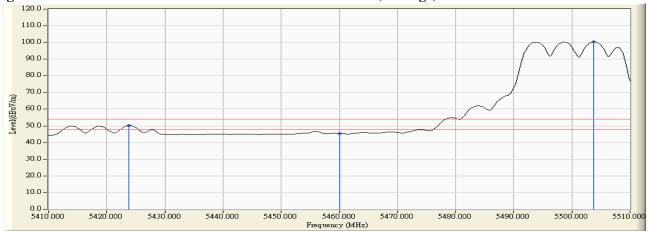


Figure Channel 100:

Horizontal (Average)



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

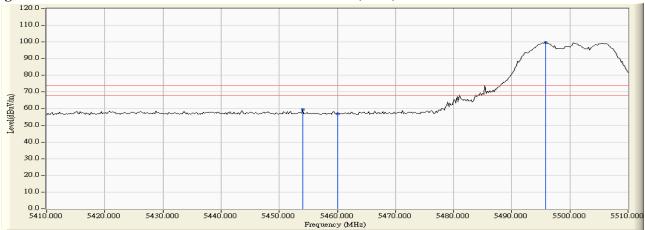
Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps)(Dipole Antenna) -Channel 100

RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Kesuit
100 (Peak)	5454.000	5.999	53.460	59.459	74.00	54.00	Pass
100 (Peak)	5460.000	6.041	50.753	56.794	74.00	54.00	Pass
100 (Peak)	5495.800	6.262	93.457	99.719			Pass
100 (Average)	5460.000	6.041	39.564	45.605	74.00	54.00	Pass
100 (Average)	5495.600	6.261	83.848	90.110			Pass

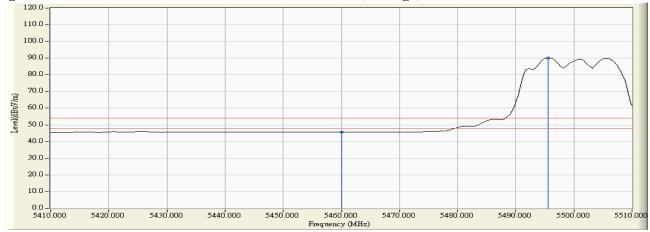
Figure Channel 100:

Vertical (Peak)





Vertical (Average)



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

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

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5470.000	18.334	-66.670	-48.336	-21.336	-27.000	Pass

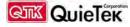
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5470.000	19.335	-68.420	-49.085	-22.085	-27.000	Pass

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

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5725.000	18.649	-62.300	-43.651	-16.651	-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	-67.350	-47.978	-20.978	-27.000	Pass



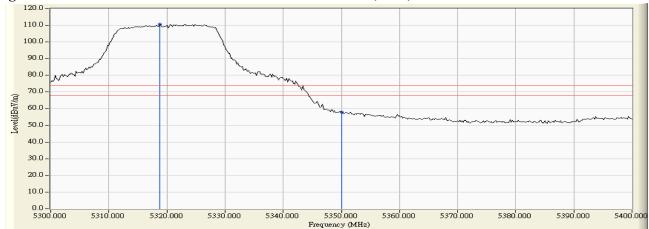
Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps)(Dipole Antenna) -Channel 64

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
	· /	· · ·	· · · ·	· · · · ·	(uDu v/III)	(uDu v/III)	
64 (Peak)	5318.800	3.816	106.735	110.551			Pass
64 (Peak)	5350.000	3.716	54.296	58.013	74.00	54.00	Pass
64 (Average)	5315.400	3.827	95.186	99.013			Pass
64 (Average)	5350.000	3.716	40.471	44.188	74.00	54.00	Pass
64 (Average)	5360.000	3.684	40.844	44.528	74.00	54.00	Pass

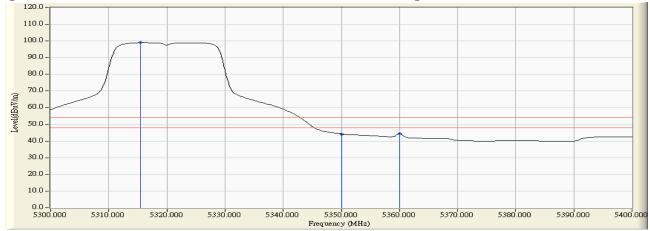
Figure Channel 64:

Horizontal (Peak)





Horizontal (Average)



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

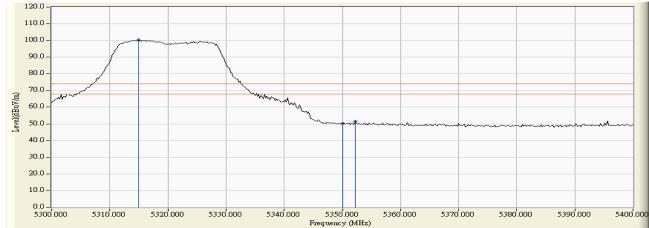
Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps)(Dipole Antenna) -Channel 64

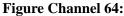
RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Decult
Channel No.	(MHz)	(dB)	44.465 50.157 74.00 54.00 Pas 45.842 51.531 74.00 54.00 Pas 82.324 88.059 Pas	Result			
64 (Peak)	5315.000	5.736	94.564	100.300			Pass
64 (Peak)	5350.000	5.691	44.465	50.157	74.00	54.00	Pass
64 (Peak)	5352.200	5.689	45.842	51.531	74.00	54.00	Pass
64 (Average)	5315.200	5.735	82.324	88.059			Pass
64 (Average)	5350.000	5.691	31.812	37.504	74.00	54.00	Pass

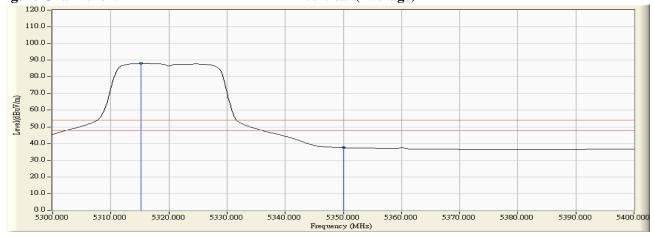
Figure Channel 64:

Vertical (Peak)





Vertical (Average)



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

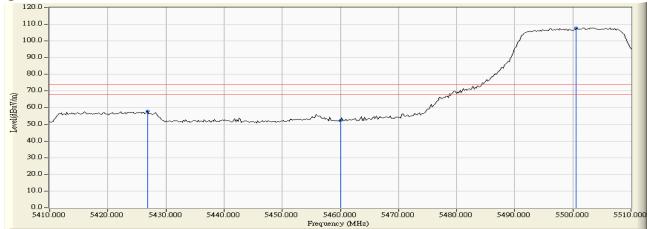
Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps)(Dipole Antenna) -Channel 100

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
100 (Peak)	5426.800	3.913	53.973	57.886	74.00	54.00	Pass
100 (Peak)	5460.000	4.354	48.229	52.583	74.00	54.00	Pass
100 (Peak)	5500.600	4.818	103.067	107.886			Pass
100 (Average)	5423.800	3.872	41.565	45.437	74.00	54.00	Pass
100 (Average)	5460.000	4.354	35.929	40.283	74.00	54.00	Pass
100 (Average)	5495.800	4.786	91.452	96.237			Pass

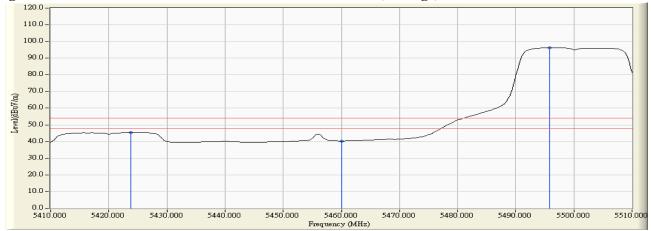
Figure Channel 100:

Horizontal (Peak)





Horizontal (Average)



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

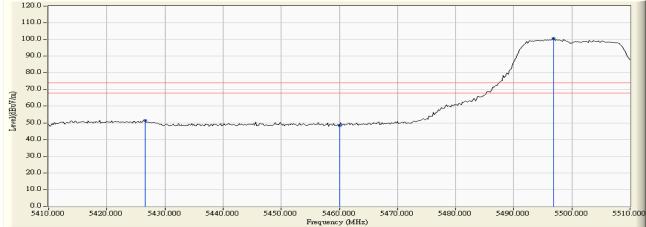
Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps)(Dipole Antenna) -Channel 100

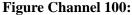
RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
100 (Peak)	5426.600	5.810	45.503	51.314	74.00	54.00	Pass
100 (Peak)	5460.000	6.041	42.361	48.402	74.00	54.00	Pass
100 (Peak)	5496.800	6.266	94.342	100.607			Pass
100 (Average)	5424.400	5.795	33.112	38.907	74.00	54.00	Pass
100 (Average)	5460.000	6.041	31.017	37.058	74.00	54.00	Pass
100 (Average)	5504.600	6.289	81.901	88.190			Pass

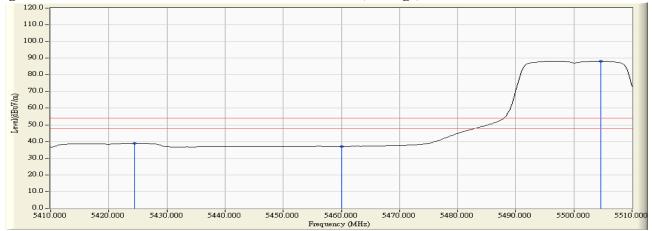
Figure Channel 100:

Vertical (Peak)





Vertical (Average)



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

Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps)(Dipole Antenna) -Channel 100

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5470.000	18.334	-66.710	-48.376	-21.376	-27.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5470.000	19.335	-68.230	-48.895	-21.895	-27.000	Pass

Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps)(Dipole Antenna) -Channel 140

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5725.000	18.649	-60.070	-41.421	-14.421	-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	-67.630	-48.258	-21.258	-27.000	Pass

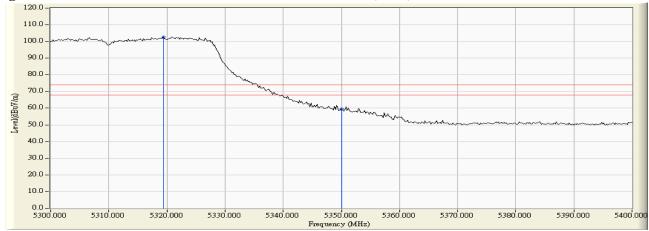
Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps)(Dipole Antenna) -Channel 62

RF Radiated Measurement (Horizontal):

Channel Ma	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
Channel No.	0. (MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
62 (Peak)	5319.400	3.814	98.905	102.719			Pass
62 (Peak)	5350.000	3.716	55.640	59.357	74.00	54.00	Pass
62 (Average)	5318.600	3.817	86.875	90.692			Pass
62 (Average)	5350.000	3.716	41.581	45.298	74.00	54.00	Pass

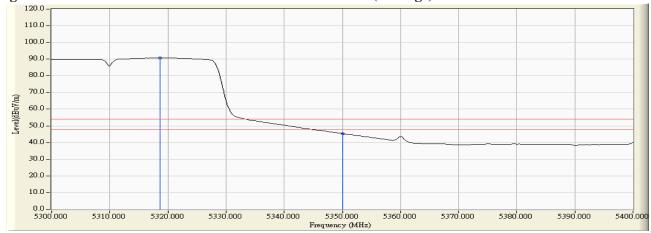
Figure Channel 62:

Horizontal (Peak)





Horizontal (Average)



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



Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps)(Dipole Antenna) -Channel 62

RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
62 (Peak)	5319.000	5.731	87.871	93.601			Pass
62 (Peak)	5350.000	5.691	44.898	50.590	74.00	54.00	Pass
62 (Peak)	5353.000	5.688	46.322	52.010	74.00	54.00	Pass
62 (Average)	5321.600	5.727	75.936	81.663			Pass
62 (Average)	5350.000	5.691	33.073	38.765	74.00	54.00	Pass

Figure Channel 62:

Vertical (Peak)

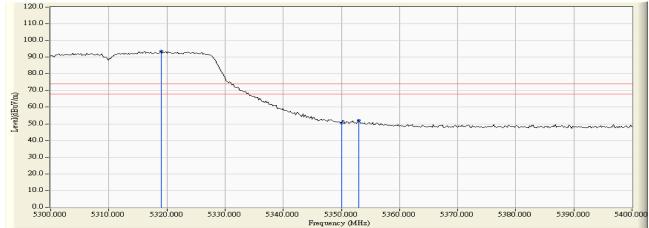
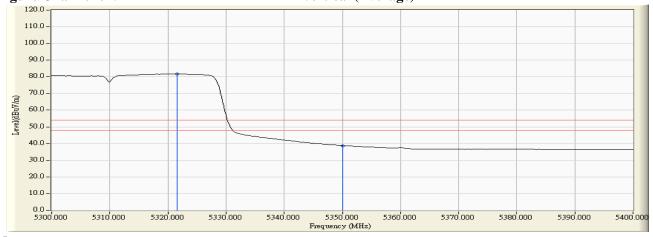


Figure Channel 62:

Vertical (Average)



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

Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps)(Dipole Antenna) -Channel 102

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
102 (Peak)	5456.100	4.302	50.111	54.413	74.00	54.00	Pass
102 (Peak)	5460.000	4.354	49.362	53.716	74.00	54.00	Pass
102 (Peak)	5521.200	4.719	98.528	103.247			Pass
102 (Average)	5456.100	4.302	39.250	43.552	74.00	54.00	Pass
102 (Average)	5460.000	4.354	36.458	40.812	74.00	54.00	Pass
102 (Average)	5520.000	4.729	86.033	90.762			Pass

Figure Channel 102:

Horizontal (Peak)

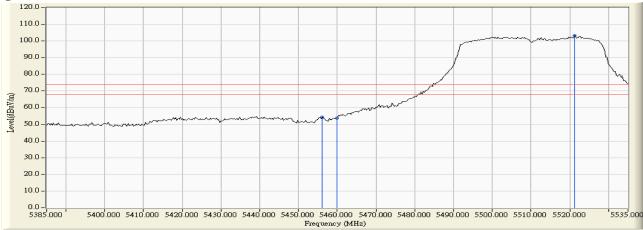
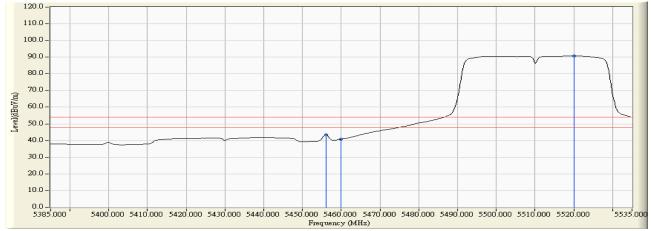


Figure Channel 102:

Horizontal (Average)



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

Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps)(Dipole Antenna) -Channel 102

RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
102 (Peak)	5460.000	6.041	42.679	48.720	74.00	54.00	Pass
102 (Peak)	5498.400	6.270	86.741	93.011			Pass
102 (Average)	5460.000	6.041	30.775	36.816	74.00	54.00	Pass
102 (Average)	5498.400	6.270	74.113	80.383			Pass

Figure Channel 102:

Vertical (Peak)

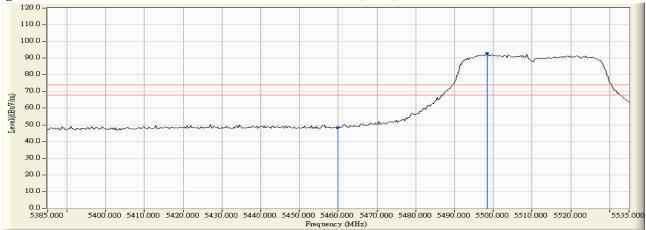
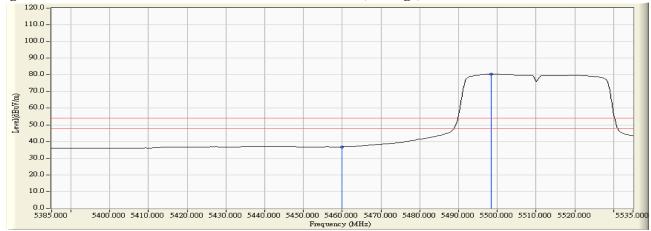


Figure Channel 102:

Vertical (Average)



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

:	SpectraGuard® Access Point / Sensor
:	Band Edge Data
:	No.3 OATS
:	Mode 3: Transmit (802.11n-40BW 30Mbps)(Dipole Antenna) -Channel 102
	:

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5470.000	18.334	-64.460	-46.126	-19.126	-27.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5470.000	19.335	-68.220	-48.885	-21.885	-27.000	Pass

Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps)(Dipole Antenna) -Channel 134

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5725.000	18.649	-63.540	-44.891	-17.891	-27.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5725.000	19.372	-68.710	-49.338	-22.338	-27.000	Pass

Antenna)

Chain A

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

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

PNO: Fast (Trig: Free Run	Avg Type: Log-Pwr	02:57:32PM Aug 15, 2013 TRACE 1 2 3 1 3 1 TVE MWWAWAY	Frequency
	#Atten: 30 dB	Mkr2	5.589 25 GHz	Auto Tune
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		* ²	-12,09 GDm	5.58000000 GH
				Stop Fre 5.60500000 GH
#VB	W 1.0 MHz	#Sweep	Span 50.00 MHz 500 ms (1001 pts)	CF Ste 5.000000 MH
5.576 60 GHz 5.589 25 GHz	7.114 dBm -12.95 dBm	RETION FUNCTION WIDTH	FUNCTION VALUE	Auto Ma FreqOffse 0 H
	dBm #UC: hert in fGain.tow dBm #VB #VB 5.576 60 GHz	dBm #VBW 1.0 MHz *X5560 GHz 7,114 dBm	Avg Type: Leg.Pur OD0000 GHz IFGuintow Trig: Free Run IFGuintow MKr2 dBm MKr2 dBm #VEW 1.0 MHz #Sweep : X X Trig: Free Run IFGuintow MKr2 dBm #VEW 1.0 MHz #Sweep : X Towendow Revendow	OD0000 GHz IFGsinituw Trig: Free Run Akten: 30 dB Avg Type: Log-Pwr Type: Log-Pwr Mkr2 5.589 25 GHz -12.95 dBm dBm 01 -12.95 dBm dBm 2 -12.95 dBm dBm 9 2 dBm 9 -12.95 dBm dBm 9 -12.95 dBm dBm 9 -12.95 dBm dBm 9 9 dB

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

Chain B

Test Frequency	Measurement Level (20dB BW)	Limit	Result
(MHz)	(MHz)	(MHz)	
5580	5589.00	<5600	PASS
5660	5650.80	>5650	PASS

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

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		and a second		
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			Stop Free 5.68500000 GH	
		r	5.68500000 GH	
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	Atten: 30 dB	Avg Type: Log-Pvr Avg Type: Log-Pvr Avg Type: Log-Pvr Mkr Wkr Wkr Wkr Wkr Wkr Wkr Wkr W	Trig: Free Run # date:: 30 dB Avg Type: Log-Pvr 	

Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps)(Dipole Antenna)

Chain A

Test Frequency	Measurement Level (20dB BW)	Limit	Result
(MHz)	(MHz)	(MHz)	
5580	5589.65	<5600	PASS
5660	5650.25	>5650	PASS

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

Center	Fre		00000 GH	Z IO: Fast C	Trig: Free Ri #Atten: 30 di	Avg	Type: Log-Pwr	03 L2/32 PM Aug 15, 2013 HARP 1 -> 3 3 5 6 TVPF MUMAAAAA DET P N N N N N	Frequency
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50.0 60.0 -/0.0	-								Stop Fre 5.605000000 GH
Center : #Res B\		000 GHz 10 kHz		#VB	W 1.0 MHz		#Sweep	Span 50.00 MHz 500 ms (1001 pts)	5.000000 MH
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CF Step 5.000000 MH	Span 50.00 MHz 500 ms (1001 pts)	#Sweep		1.0 MHz	#VBW			66000 300 k		
Auto Mar	I UNCTION VALUE	TUNETUNWIDET	19/03/8/	ð.	_	ă.		10 200		
				9.00 dBm		5.658 30 5.650 25	-	1.		A N
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	1									

:	SpectraGuard® Access Point / Sensor
:	Band Edge Data
:	No.3 OATS
:	Mode 2: Transmit (802.11n-20BW 14.4Mbps)(Dipole Antenna)
	:

Chain B

Test Frequency	Measurement Level (20dB BW)	Limit	Result
(MHz)	(MHz)	(MHz)	
5580	5589.60	<5600	PASS
5660	5650.25	>5650	PASS

NOTE: The $5600 \sim 5650 \text{MHz}$ band is not used in accordance with 15.215 requirement.

											_
							lyzer Swa	m Anal	ectris	ant Spo	gile
Frequency	US11201MA025,2019 TRACE 1 2 3 4 5 6	Type: Log-Pwr		/laev/ac	-			10-	11	1	
	DET P N N N N N	Type: Log-Pwr		Trig: Free Run #Atten: 30 dB	PNO: Fast (,) Il Gain:Low	00000 GI P	.58000	ed 2	Fre	nter	cer
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Stop Free						-		1	-	1	soi
5.605000000 GH											
	1 [P									1	70,6
CF Ster	Span 50.00 MHz			100			GHz	8000	5.5	nter	Cei
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Auto Mar	HINICITINI VALUE	ENDINGMOTH	HINDING	r I		x		511	THE	MIDE	miles
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Freq Offse				-12.04 dBm	60 GHz	5.589 6		f	1	N	2 3
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		SHORE									DEN

5660MHz

		2	500011						
						lyrer Swep	ini Anal	pectru	ient
Frequency	03:09:25PM Aug 15, 2013 11/2/01 1 2 3 4 5 6 7/9F MUNICIPAL	attohauro Type: Log-Pwr	Avg Type: Log-Pwr Trig: Free Run		00000 GHz			er En	ent
40.20	DET IT NNNNN		en: 30 dB	d nw	IFGain:1 ow				
Auto Tun	2 5.650 25 GHz -13.02 dBm	Mkr			3m	20.00 dE	Ref	div	dB
Center Free				Q1			1	_	30
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5.635000000 GH	and the have and	_	_		- 1			In Small	1.0
and and		_	-						0.0
Stop Fre 5.68500000 GH			1000						10- 191
CF Ster	Span 50.00 MHz			-	-	GHz			
5.000000 MH	500 ms (1001 pts)	#Sweep	ViHz	#VBW 1	#V	Hz	300 K	BW 3	les
Auto Ma	1 UNCTION VALUE	TENCTENWIDTI					E	01 1 00	
			41 dBm 02 dBm	Hz	6.663 70 GHz 5.650 25 GHz	-	F		
Freq Offse		++	- Aug 1	-	100014	_		-	3
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		5110155							1

Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps)(Dipole Antenna)

Chain A

Test Frequency	Measurement Level (20dB BW)	Limit	Result
(MHz)	(MHz)	(MHz)	
5550	5568.80	<5600	PASS
5670	5651.00	>5650	PASS

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

		Z	DOMH	202					
						Swept SA	Analyzer	etrum	nt Spe
Frequency	U3:18:2014(Act) 15, 2013 TRACE 1 2 3 4 5 6 10:21 M 10:2014 0 FT F N N N N N	g Type: Log-Pwr	Av	Trig: Free Run	NO: Fast C.				nter
Auto Tune	r2 5.568 8 GHz -16.92 dBm	Mk		#Atten: 30 dB	Gain:Low	2.5	Ref 20.0		B/div
Center Free 6.66000000 GH		-		<u>0</u> 1				_	F
Start Fre	The All carety	¢ ²	-		1		-	-	-
5.50000000 GH		Contraction of the local division of the loc				- ALL	-	lik	-
Stop Free 5.60000000 GH	- C								
CF Stej 10.000000 MH	Span 100.0 MHz 500 ms (1001 pts)	#Sweep	1	1.0 MHz	#VEV	· · · ·	000 GHz		
Auto Ma	HINDOWN VALUE	FONDINGWOTH	FORCH IN.	3.64 dBm		5,543	511 7 f		NI DE N
Freq Offse 0 H				-10.32 0Dm		3.300			N
	1								
					-		-		
		SIMILIS							

5670MHz	
J07011112	

enter Fi	eq 5.6	70000000 0	SHZ PNO: Fast (IEGaintlow	Trig: Free Run	Avg Type: Log-Pwr	03:23:14PM Aug 15, 2013 IV/VL 1, 2, 3, 4, 5, 6, TVPF MUSEUM DET P N N N N N	Frequency
	Auto Tune						
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100 10.0			¢ ²			-104340m	6.67000000 GH
91.0 91.0 91.0	- se alve	and de entre				and a stand and the stand and	Start Free 5.620000000 GH
0.0 nn wu	-						Stop Fre 5.72000000 GH
enter 5.0 Res BW			#VB	W 1.0 MHz	#Sweep	Span 100.0 MHz 500 ms (1001 pts)	CF Step 10.000000 MH
KO MUDI I	u suu	ň			UNCHUN TUNCTUNWIDTH	I UNUTUN VALUE	Auto Ma
1 N 2 N 3	f		26 GHz 10 GHz	6.65 dBm -13.49 dBm			- Territory
4 5 6			1				Freq Offse 0 H
7	-	_					
8 9 10 11							
<u> </u>							

Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps)(Dipole Antenna)

Chain B

Test Frequency	Measurement Level (20dB BW)	Limit	Result
(MHz)	(MHz)	(MHz)	
5550	5568.90	<5600	PASS
5670	5651.00	>5650	PASS

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

							alyrer Se	trum An	r Spei	gilen	
	U3:19:531M Aug 15, 2013	ALIGNACIYO		sel/sel/	L-	4 HG.		HP-	1	u 11 A	
	Center Freq 5.550000000 GHz PMD: Fast (p) In Game Low Attan: 30 dB Avg Type: Log-Pwr Trig: Frae Run Attan: 30 dB										
	Mkr2 5.568 9 GH: 30 dB/div Ref 20.00 dBm -18.54 dBm										
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5.550000000 GH			- marine	X						0.00	
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and the second s	-10.14 dQm				1			1.1		20.0	
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5.50000000 GH						1.00				1.11	
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Stop Free		-	_	-	-	-	_	-	-	en n	
5.60000000 GH										70.ė.	
	A		- 1-	1	()iii			1.1.1			
CF Stej 10.000000 MH	Span 100.0 MHz 500 ms (1001 pts)	#Sweep	-	V 1.0 MHz	#VB	1	0 GHz kHz	.5500 / 300			
Auto Ma	HUNICITINI MALTIN	FONDERWOOTH	HOMESTING	* 1		x	1	1612 512	(TIDE)	105	
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Freq Offse				-18.54 dBm	89 GHz	5.568		1 1	N	2 3	
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UH										56	
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		BTUNE								isti -	

5670MHz

							lyrer Swe	Analy	etrun	nt Spe	<u>s</u> ile
Frequency	03:21:50 PM Aug 15, 2013 (12/01) 1 > 3 3 5 6 TYPE MUNICUST	Type: Log-Pwr	Avg Type:		ter Freq 5.670000000 GHz		er				
40.00	DET P NNNN N		1	#Atten: 30 d	Gain:1 nw	UF					
Auto Tun	r2 5.651 0 GHz -13.81 dBm	Mk	- 1			IBm	20.00 c	Ref		B/div	0 d
1			_	A			1				og
Center Free			and the	manue 1	-			- 1			
6.67000000 GH		1			A2			1		+ 1	
	-10 A2, dDm	1	-							111	0.0
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5.620000000 GH	and the second s		_					-	int	-	9J.U
	1		-					1		SHAV-	0.0
Stop Fre			-		-	-		1		1	0.0
5.72000000 GH		1	-	-							n n
5.72000000 011	1		_			-		10			10,0
05.00	Span 100.0 MHz		-		4 1	1	GHz	2000	5.67	ter	er
CF Stej 10.000000 MH	500 ms (1001 pts)	#Sweep		1.0 MHz	#VBW		Hz	00 KI	W 3	S BI	Re
Auto Ma	I UNICITUN VALUE	TENETENWIDEIT	1982	37		π.	-	SUL	TIC	MUDL	
			-	6.585 dBn -13.81 dBm	0 GHz			1	1	N	1
Freq Offse			1	-13.01 ((B))	U GHZ	5.051			1	14	3
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							70 pinge				

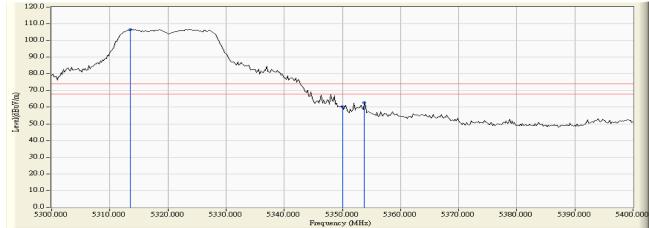
Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna) -Channel 64

RF Radiated Measurement (Horizontal):

Channel No.	· ·		•	Emission Level			Result
Chamler 100.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
64 (Peak)	5313.600	3.834	102.711	106.544			Pass
64 (Peak)	5350.000	3.716	56.458	60.175	74.00	54.00	Pass
64 (Peak)	5353.800	3.704	58.999	62.703	74.00	54.00	Pass
64 (Average)	5323.600	3.801	93.033	96.834			Pass
64 (Average)	5350.000	3.716	37.746	41.463	74.00	54.00	Pass
64 (Average)	5354.000	3.703	39.558	43.261	74.00	54.00	Pass

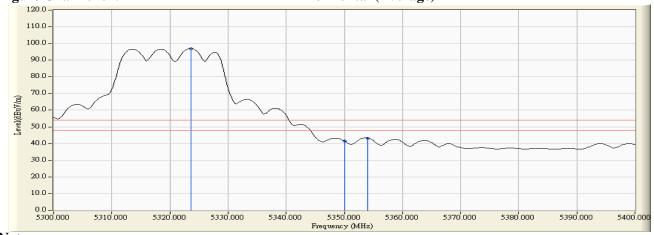
Figure Channel 64:

Horizontal (Peak)





Horizontal (Average)



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

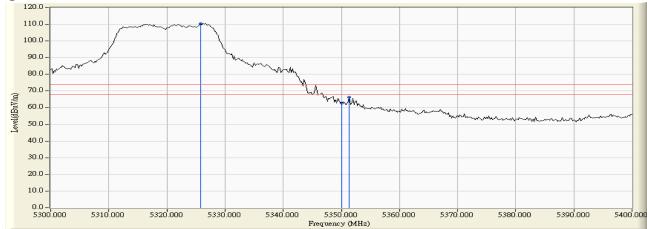
Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna) -Channel 64

RF Radiated Measurement (Vertical):

Channel No.	1 V	Correct Factor	0	Emission Level		0	Result
Chamiler 100.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
64 (Peak)	5325.800	5.722	104.595	110.317			Pass
64 (Peak)	5350.000	5.691	56.993	62.685	74.00	54.00	Pass
64 (Peak)	5351.400	5.690	60.615	66.305	74.00	54.00	Pass
64 (Average)	5326.400	5.721	94.175	99.896			Pass
64 (Average)	5350.000	5.691	38.916	44.608	74.00	54.00	Pass
64 (Average)	5356.000	5.683	40.125	45.808	74.00	54.00	Pass

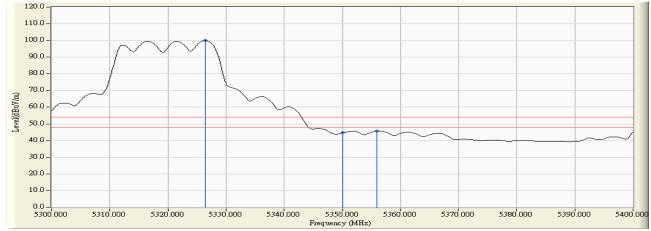
Figure Channel 64:

Vertical (Peak)

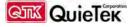




Vertical (Average)



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



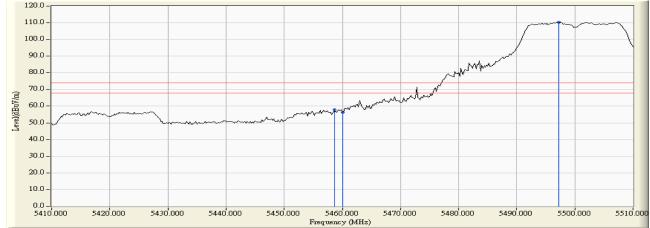
Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna) -Channel 100

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
100 (Peak)	5458.600	4.335	53.536	57.871	74.00	54.00	Pass
100 (Peak)	5460.000	4.354	51.987	56.341	74.00	54.00	Pass
100 (Peak)	5497.200	4.795	105.436	110.231			Pass
100 (Average)	5426.600	3.909	41.399	45.309	74.00	54.00	Pass
100 (Average)	5457.600	4.322	39.242	43.564	74.00	54.00	Pass
100 (Average)	5460.000	4.354	36.148	40.502	74.00	54.00	Pass
100 (Average)	5497.200	4.795	95.653	100.448			Pass

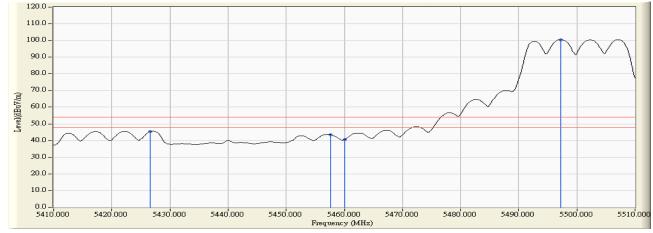
Figure Channel 100:

Horizontal (Peak)





Horizontal (Average)



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

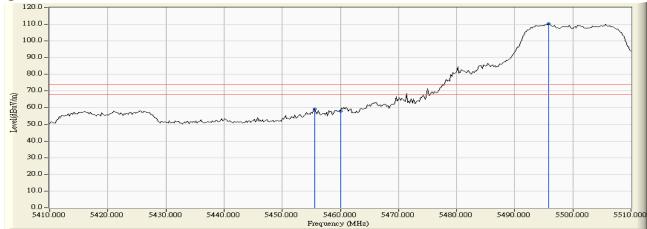
Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna) -Channel 100

RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
100 (Peak)	5455.600		53.159	59.169	74.00	54.00	Pass
100 (Peak)	5460.000	6.041	51.882	57.923	74.00	54.00	Pass
100 (Peak)	5495.800	6.262	104.104	110.366			Pass
100 (Average)	5426.000	5.806	40.001	45.807	74.00	54.00	Pass
100 (Average)	5455.600	6.010	37.768	43.778	74.00	54.00	Pass
100 (Average)	5460.000	6.041	37.264	43.305	74.00	54.00	Pass
100 (Average)	5495.600	6.261	93.408	99.670			Pass

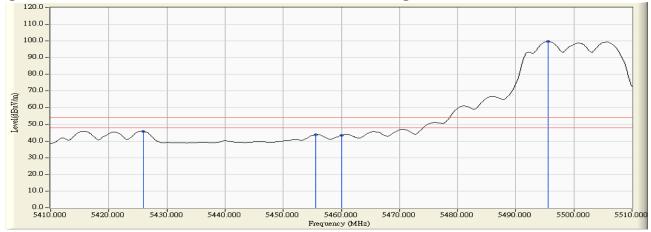
Figure Channel 100:

Vertical (Peak)





Vertical (Average)



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

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

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5470.000	18.334	-64.440	-46.106	-19.106	-27.000	Pass

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Verti	cal	5470.000	19.335	-67.430	-48.095	-21.095	-27.000	Pass

Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna) -Channel 140

<u>RF</u> Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5725.000	18.649	-58.740	-40.091	-13.091	-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	-59.290	-39.918	-12.918	-27.000	Pass

Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 5: Transmit (802.11n-20BW 14.4Mbps)(PIFA Antenna) -Channel 64

10

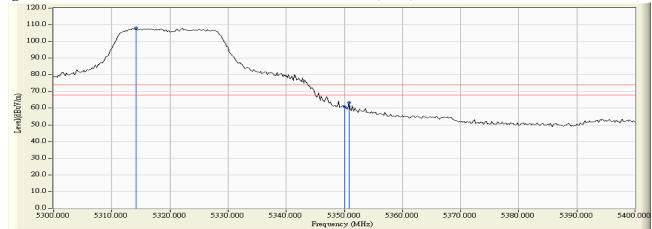
.

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
64 (Peak)	5314.200	3.831	104.250	108.081			Pass
64 (Peak)	5350.000	3.716	57.104	60.821	74.00	54.00	Pass
64 (Peak)	5350.800	3.714	59.625	63.339	74.00	54.00	Pass
64 (Average)	5326.200	3.793	92.067	95.860			Pass
64 (Average)	5350.000	3.716	39.584	43.301	74.00	54.00	Pass

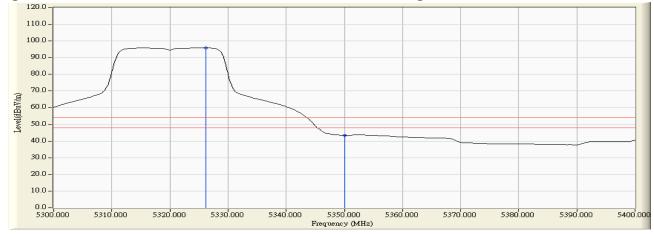
Figure Channel 64:

Horizontal (Peak)





Horizontal (Average)



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

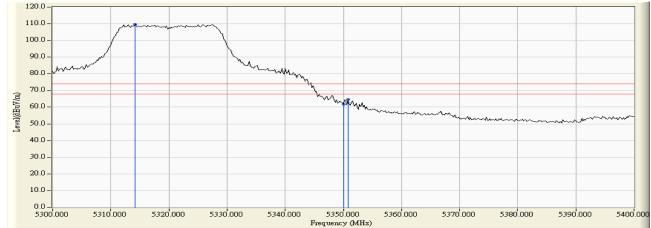
Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 5: Transmit (802.11n-20BW 14.4Mbps)(PIFA Antenna) -Channel 64

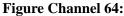
RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
64 (Peak)	5314.200	5.737	103.972	109.709			Pass
64 (Peak)	5350.000	5.691	56.081	61.773	74.00	54.00	Pass
64 (Peak)	5350.800	5.690	58.935	64.626	74.00	54.00	Pass
64 (Average)	5325.800	5.722	92.409	98.131			Pass
64 (Average)	5350.000	5.691	39.728	45.420	74.00	54.00	Pass

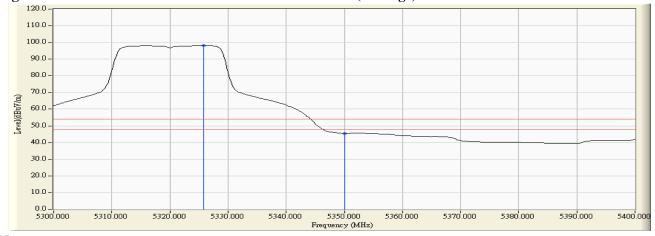
Figure Channel 64:

Vertical (Peak)





Vertical (Average)



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

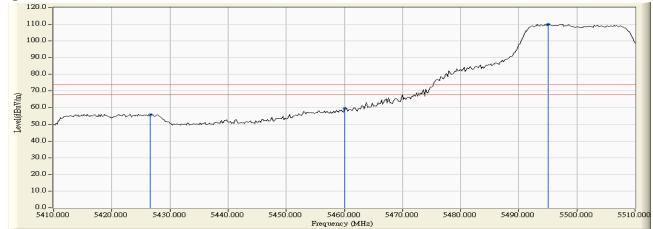
Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 5: Transmit (802.11n-20BW 14.4Mbps)(PIFA Antenna) -Channel 100

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
100 (Peak)	5426.600	3.909	51.853	55.763	74.00	54.00	Pass
100 (Peak)	5460.000	4.354	55.175	59.529	74.00	54.00	Pass
100 (Peak)	5495.000	4.780	105.355	110.135			Pass
100 (Average)	5426.000	3.902	40.212	44.114	74.00	54.00	Pass
100 (Average)	5460.000	4.354	38.988	43.342	74.00	54.00	Pass
100 (Average)	5495.000	4.780	93.292	98.072			Pass

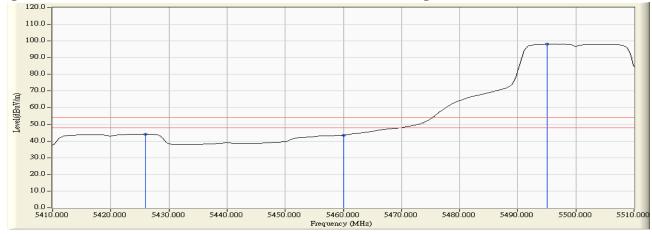
Figure Channel 100:

Horizontal (Peak)





Horizontal (Average)



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

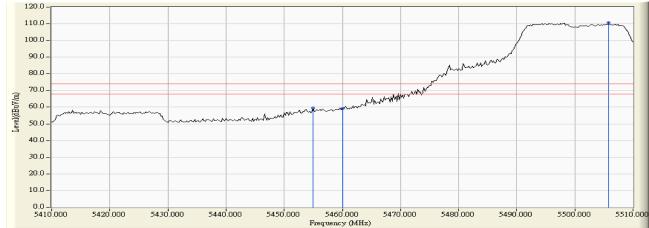
Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 5: Transmit (802.11n-20BW 14.4Mbps)(PIFA Antenna) -Channel 100

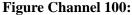
RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
100 (Peak)	5455.000	6.005	53.645	59.651	74.00	54.00	Pass
100 (Peak)	5460.000	6.041	53.056	59.097	74.00	54.00	Pass
100 (Peak)	5505.800	6.284	104.242	110.527			Pass
100 (Average)	5426.600	5.810	38.500	44.311	74.00	54.00	Pass
100 (Average)	5460.000	6.041	38.231	44.272	74.00	54.00	Pass
100 (Average)	5495.200	6.260	92.243	98.503			Pass

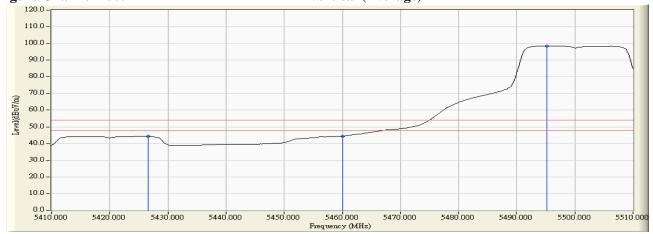
Figure Channel 100:

Vertical (Peak)





Vertical (Average)



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

Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 5: Transmit (802.11n-20BW 14.4Mbps)(PIFA Antenna) -Channel 100

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5470.000	18.334	-62.900	-44.566	-17.566	-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	-64.670	-45.335	-18.335	-27.000	Pass

Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 5: Transmit (802.11n-20BW 14.4Mbps)(PIFA Antenna) -Channel 140

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5725.000	18.649	-56.090	-37.441	-10.441	-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	-59.600	-40.228	-13.228	-27.000	Pass

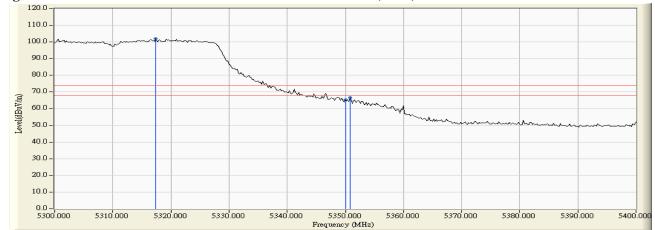
Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 6: Transmit (802.11n-40BW 30Mbps)(PIFA Antenna) -Channel 62

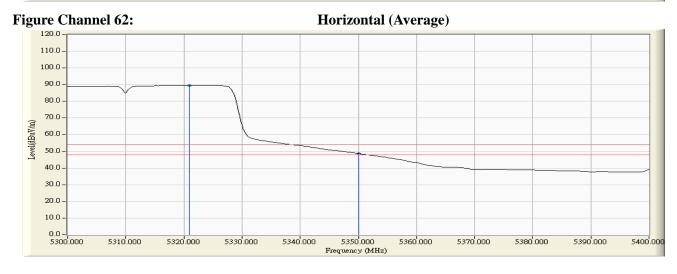
RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
62 (Peak)	5317.400	3.820	98.068	101.889	(uDu v/III)	(uDu v/III)	Pass
· · · · ·							
62 (Peak)	5350.000	3.716	61.740	65.457	74.00	54.00	Pass
62 (Peak)	5350.800	3.714	62.830	66.544	74.00	54.00	Pass
62 (Average)	5321.000	3.810	85.780	89.589			Pass
62 (Average)	5350.000	3.716	44.997	48.714	74.00	54.00	Pass

Figure Channel 62:

Horizontal (Peak)





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

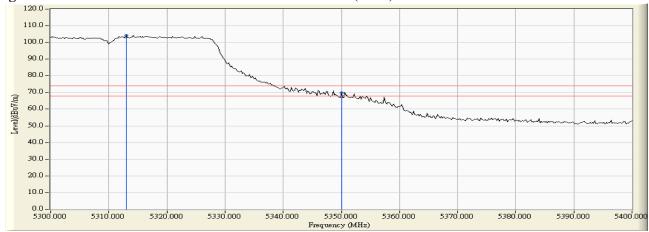
Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 6: Transmit (802.11n-40BW 30Mbps)(PIFA Antenna) -Channel 62

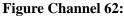
RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
62 (Peak)	5313.000	5.738	98.474	104.212			Pass
62 (Peak)	5350.000	5.691	64.150	69.842	74.00	54.00	Pass
62 (Average)	5302.400	5.753	86.071	91.823			Pass
62 (Average)	5350.000	5.691	45.593	51.285	74.00	54.00	Pass

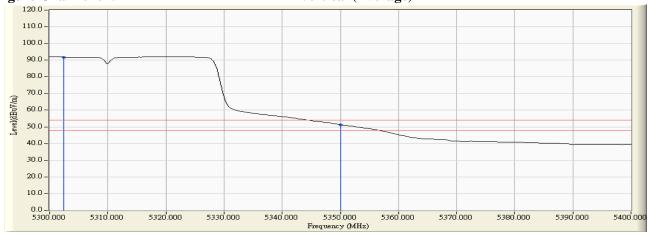
Figure Channel 62:

Vertical (Peak)





Vertical (Average)



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

Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 6: Transmit (802.11n-40BW 30Mbps)(PIFA Antenna) -Channel 102

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Descult
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
102 (Peak)	5460.000	4.354	59.115	63.469	74.00	54.00	Pass
102 (Peak)	5496.600	4.792	99.444	104.235			Pass
102 (Average)	5460.000	4.354	41.586	45.940	74.00	54.00	Pass
102 (Average)	5498.100	4.801	87.510	92.311			Pass

Figure Channel 102:

Horizontal (Peak)

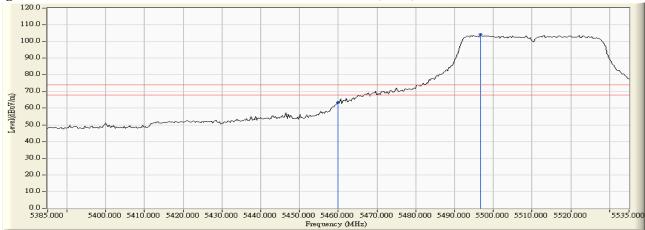
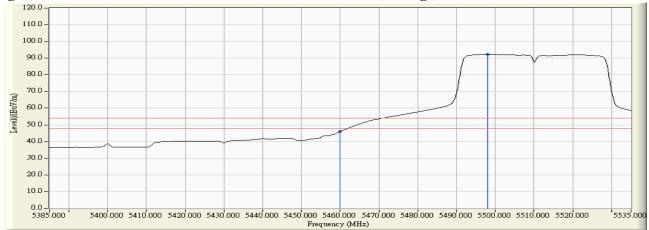


Figure Channel 102:

Horizontal (Average)



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

Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 6: Transmit (802.11n-40BW 30Mbps)(PIFA Antenna) -Channel 102

RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
102 (Peak)	5460.000	6.041	59.708	65.749	74.00	54.00	Pass
102 (Peak)	5499.300	6.273	98.643	104.916			Pass
102 (Average)	5460.000	6.041	39.910	45.951	74.00	54.00	Pass
102 (Average)	5498.400	6.270	86.418	92.688			Pass

Figure Channel 102:

Vertical (Peak)

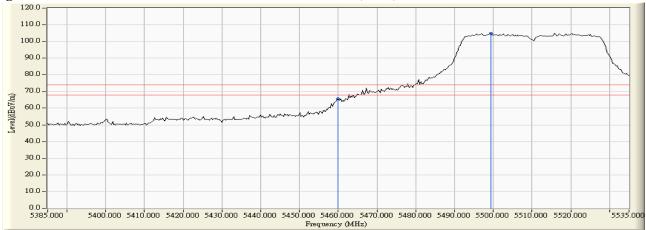
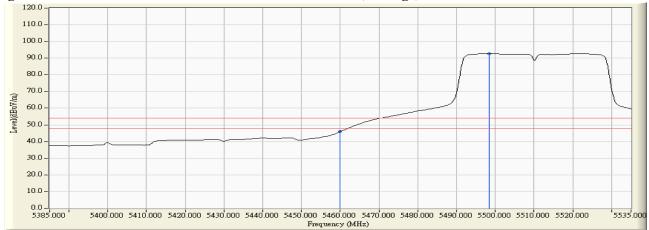


Figure Channel 102:

Vertical (Average)



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

Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 6: Transmit (802.11n-40BW 30Mbps)(PIFA Antenna) -Channel 102

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5470.000	18.334	-60.150	-41.816	-14.816	-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	-62.120	-42.785	-15.785	-27.000	Pass

Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 6: Transmit (802.11n-40BW 30Mbps)(PIFA Antenna) - Channel 134

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5725.000	18.649	-68.570	-49.921	-22.921	-27.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5725.000	19.372	-69.220	-49.848	-22.848	-27.000	Pass

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

Chain A

Test Frequency	Measurement Level (20dB BW)	Limit	Result
(MHz)	(MHz)	(MHz)	
5580	5589.45	<5600	PASS
5660	5650.50	>5650	PASS

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

Center Freq 5.58000	PNO: Fast C	Trig: Free Run	Avg Type: Log-Pwr	06H6:S2PM Aug 15, 2010 HARP 1 12 3 4 5 6 TVITE MUMAAAAW per IP N N N N N	Frequency
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50.0 					Stop Free 5.605000000 GH
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	5.577 20 GHz 5.589 45 GHz	7.649 dBm -13.41 dBm	NCTION FUNCTION WIDTH	FUNCTION VALUE	Auto Mar
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		Stop Free
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#Sweep	500 ms (1001 pts)	5.000000 MH
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:	SpectraGuard® Access Point / Sensor
:	Band Edge Data
:	No.3 OATS
:	Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna)
	:

Chain B

Test Frequency	Measurement Level (20dB BW)	Limit	Result
(MHz)	(MHz)	(MHz)	
5580	5589.25	<5600	PASS
5660	5650.60	>5650	PASS

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

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Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 5: Transmit (802.11n-20BW 14.4Mbps)(PIFA Antenna)

Chain A

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

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

Center Freq 5.5800	PNO: Fast C	Trig: Free Run	Avg Type: Log-Pwr	06:39:45 PM Aug 15, 2013 17:23 3 5 6 TVPF MVAWAAW DET P N N N N N	Frequency Auto Tune				
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Log 160 400	T	Q¹	2	-juid tur	Center Fred 5.58000000 GHz				
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-70.0 -70.0					Stop Free 5.605000000 GH				
Center 5.58000 GHz #Res BW 300 kHz		W 1.0 MHz		Span 50.00 MHz 500 ms (1001 pts)	CF Step 5.000000 MH Auto Mar				
	5.581 25 GHz	7.464 dBm	NETION FUNETION WOTH	TUNETION VALUE	Auto Mar				
2 N f 3 4 5 6	6.689 70 GHz	-13.21 dBm		1	Freq Offse 0 H				
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Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 5: Transmit (802.11n-20BW 14.4Mbps)(PIFA Antenna)

Chain B

Test Frequency	Measurement Level (20dB BW)	Limit	Result
(MHz)	(MHz)	(MHz)	
5580	5589.75	<5600	PASS
5660	5650.15	>5650	PASS

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

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-	-13.74 dBm	-	-	N T	T	dBm	ef 20.0	R	Bidiv	b 0
Center Fre				₽'				1	-	10.0
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-		-	-		1	1	-	-		'nл
Start Fre 5.55500000 GH	- metro	-				C MAN	-	-	-	30.0
0.00000000 GP				1				-	12.20	sh n
		-					-	-	_	9.9
Stop Fre 5.605000000 GH		-		-	-	-	-	_		'nń
			_		-		<u> </u>	_	-	70,ė
	Span 50.00 MHz				1		00 GH2		tor	-
CF Ste 5.000000 MH	500 ms (1001 pts)	#Sweep		V 1.0 MHz	#VB		D kHz			
Auto Ma	FINITINIVALITE	HINDOWWIDTH	HUNDON	+ 1		x		1612 51	MINE	168
Q		1		6.93 dBm -13.74 dBm		6.676 0 5.589 7		1	NN	1
Freq Offse				-13.74 4511	5 6112	9.000				345
	-						-		-	67
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										10
		· · · · ·			1		1	-		12
		SIMUS								i U

5660MHz

.66000000 GH		Trig: Free Bun	Aug Type: Log-Pwr	TYPE MULTICE	Frequency				
IF	Gain:1 nw	#Atten: 30 dB		- HOLE 3-0-1-7-2	Auto Tune				
IB/dly Ref 20.00 dBm -13.76 dBm									
	- And	1			Center Free				
	¢ ²			-1320 (Star	6.66000000 GH				
- Lawy or Marine			The second	- 410 spaning or alling	Start Fred 5.635000000 GH:				
					Stop Free 5.68500000 GH				
	#VBV	V 1.0 MHz	#Sweep	Span 50.00 MHz 500 ms (1001 pts)	CF Step 5.000000 MH				
ñ	ي زيرون		Inches Tescheswight	1 UNETION VALUE	Auto Mar				
		6.70 dBm -13.76 dBm			Freq Offse				
Iter Pred 5.660000000 CH2 Trig: Free Run PRO: Free (***********************************	0 H.								
	1								
			STATES						
	20.00 dBm	20.00 dBm 20.00 dBm 20.00 dBm CHz #VEV 6.665 00 CHz	20.00 dBm 400 dBm	State State State Addition .66000000 GHz PH0: Fact (**) Trig: Frae Run #Atten: 30 dB Arg Type: Log-Pvr 20.00 dBm Image: State Mkr 20.00 dBm Image: State Image: State Mkr 20.00 dBm Image: State Image: State Mkr 20.00 dBm Image: State Image: State Image: State Image: State 21 Image: State Image: St	State CONCUMINATION Addition Decrementation Decrementation <thdecrementation< th=""> Decrementation</thdecrementation<>				

ntenna)
1

Chain A

Test Frequency	Measurement Level (20dB BW)	Limit	Result
(MHz)	(MHz)	(MHz)	
5550	5569.00	<5600	PASS
5670	5650.90	>5650	PASS

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

5550MHz

			-									
							lyrer Swe	um Anal	ectr			
(Ferretrate etc.	Ub(30)311M Aug 25, 2013	ALLIGNAL INC.		Selver IV			150.4	HP-	11		1	
Frequency	TRACE 1 2 3 4 5 8 IVAL MWWWWWWW DET P NNNNN	Type: Log-Pwr		Trig: Free Run #Atten: 30 dB	Z (0: Fast ()	0000 GH	.55000	eq 5.	r Fi	nter	Ce	
Auto Tun	Mkr2 5.569 0 GHz											
-	-15.76 dBm			-	_	Bm	20.00 d	Ref	iv	dB/d	0	
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5.50000000 GH				-	¢				-	0	30/	
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5.60000000 GF		_	-				_	-	-	ė—	70)	
	Span 100.0 MHz	1	1			-	GHz	5000	5.		- 0	
Auto Tune Bm Center Freq 5.65000000 GHz 5.60000000 GHz 5.60000000 GHz Storp Freq 5.60000000 GHz MHz CF Step pts) 10.00000 MHz	500 ms (1001 pts)	#Sweep		.0 MHz	#VBW			300 k				
	FINISHINALIA	HUNDRINGWIDTH	HUNCOTIN	* 1		x		12 512	F TH	1 MT TO	MER	
		1	1	6,193 dBm		5.540 (5.569 (-	1	1	N	1	
Fred Offs				-15.76 05m	GHZ	5.568 (1	1		3	
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C.9							_				50	
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				-	100		6.00				12	
		SIMUS									nii ti	

		-		001								
								ijmer Swe	ni Anal	setti u		10 dB/ Log - inn UUU - -100 700 - -700 4000 - -700 Cente #Res
Frequency	06:20:45PM Aug 15, 2013 IRVNL 1 2 3 4 5 0 TVPF MUNICIPAL	ALTOMAUTO Type: Log-Pwr	1	30%C0/m g: Free Run	_	NO: Fast (0000 G	1504 .67000		Fre		
Auto Tune	1980 1997 1994	IFGaind new #Atten: 30 dB DEFIC WINNIN										
Auto Tulk	dB/div Ref 20.00 dBm -16.55 dBm											
Center Free					6			1				
6.67000000 GH					+	aller				-		0.00
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5.62000000 GH	- Manager	- Surger					-	a trans	-	-		
	and the second											50.0
Stop Free				-	-	-		_	-	_		rn n
5.72000000 GH									16			2029
CF Ster 10.000000 MH	Span 100.0 MHz 500 ms (1001 pts)	#Sweep	-	MHz	3W 1	#VB						
Auto Mar	TUNETION VALUE	TONCHON WIDTH	1945349			-	ñ			100		
				24 dBm 55 dBm		9 GHz		-	1	1	NN	2
Freq Offse				10. Aug 1	_							3
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												8 9 10
												11
					-	1.1				1	-	12
		ราคมปร										(BB)

Product	:	SpectraGuard® Access Point / Sensor
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 6: Transmit (802.11n-40BW 30Mbps)(PIFA Antenna)

Chain B

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

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

gilent Spectru	m Analyzer	Swept Sk									
81		dia inc	-	angertal.		ATTOMACIAN		Aug 15, 2013	Frequency		
Center Fr	eq 5.550	1000000 GHz PNO: F Il Galma		g: Free Run ten: 30 dB	Avg	Type: Log-Pwr	11043	L23456 MWWWWW	Hz Auto Tune		
0 dB/div	Mkr2 5.568 9 GHz Bildiv Ref 20.00 dBm -16.34 dBm										
-og	A				1			1. No.	1		
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(0.0	-				-			-15/11 (67)	-		
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30.0	-	1.00				-					
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hand a second				111							
70,0	1000			· · · · · · · · · · · · · · · · · · ·			A	A			
Center 5.5 Res BW 3			#VBW 1.0	MHz	-	#Sweep	Span 10 500 ms (1	0.0 MHz 001 pts)	Frequency Auto Tune Center Freq 5.66000000 GHz Start Freq 5.6000000 GHz Stop Freq S.6000000 GHz		
MEST MITTOR THI	1 511	x	dic a		HONG TIN .	FUNCTION	EDUCTION	IVAL THE			
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TYPE MULTINE	Avg Type: Log-Pwr		Trig: Free R	HZ	Freq 5.67000000 GHz						
1800 199 DO 1	-	8	#Atten: 30 d	Gain:l ow	IF	_		-			
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Span 100.0 MHz	#Swaan			#1/01/							
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			4.61 dBm			· · · · ·	1	1	1		
		1	-16.77 dBm	8 GHz	5.650		1	1	3		
	1 1			-		-			4		
	-	-						-	6		
		_							9		
						-			0		
		_	_	1.1		-			2		
	ราคมปร								4		
	12 5.650 8 GHz -16.77 dBm	Avg Type: Log-Pwr If with 12:5 a d on the term of	Avg Type: Log-Pwr IIV/L[1:2:3:4:5:6: Definition of the second of the s	Avg Type: Log-Pvr Trig: Free Run #Atten: 30 dB Mkr2 5:650 8 GHz -16.77 dBm -16.77 dBm -10.00 MHz \$pan 100.0 MHz \$pan 100.0 MHz #Sweep 500 ms (1001 pts) -16.77 dBm -16.77 dBm	12 Arg Type: Log-Pwr Trig: Free Run Seint now Seint now #Arter: 30 dB Mkr2 5:650 8 GHz -16.77 dBm 2 -10.77 dBm 2 -10.77 dBm 2 -10.77 dBm 3 -10.77 dBm	CONCURN Aug/March D62711FM Aug/March <thd62711fm aug="" march<="" th=""> <thd62711fm aug="" march<="" th=""></thd62711fm></thd62711fm>	SDE 20/00010 Arg Type: Log-Pur 0627114PM Aug.52 = 3 = 3 = 5 = 10000000 .670000000 GHz PMC: Fact (* 7) Trig: Fraa Run MArten: 30 dB Mkr2 5.650 B GHz 5 = 3 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 =	State CONCURN Aug Type: Log-Pyr D62714FM Aug: State State aq 5.670000000 GHz PRG: Faxt (***) IFGaind mu Trig: Fraa Run Matter: 30 dB Avg Type: Log-Pyr D62714FM Aug: State Trig: State Ref 20.00 dBm Mkr2 5.650 8 GHz -16.77 dBm -16.77 dBm 400 Hz #VBW 1.0 MHz Span 100.0 MHz 1029 Gm 7000 GHz #VBW 1.0 MHz Span 100.0 MHz Span 100.0 MHz 7000 GHz #VBW 1.0 MHz 100-100 Hz 100-100 Hz 7000 GHz 100 Hz 100-100 Hz 100-100 Hz 7000 GHz 100 Hz 100-100 Hz 100-100 Hz 7000 GHz 5.650 8 GHz -16.77 dBm 100-100 Hz	er Freq 5.670000000 GHz PH0: Free Run EFGeint nor (row finance) Avg Type: Log-Pvr Type Free Run Atten: 30 dB Mkr2 5.650 8 GHz -16.77 dBm (div Ref 20.00 dBm -16.77 dBm -16.77 dBm (div 2 -10.77 dBm -10.77 dBm (div 5.6719 0.612 Span 100.0 MHz Span 100.0 MHz (div 5.6719 0.612 -10.77 dBm -10.77 dBm (div 1 -10.77 dBm -10.77 dBm (div 5.6719 0.612 -10.77 dBm -10.77 dBm (div -10.77 dBm -10.77 dBm -10.77 dBm		

8. Frequency Stability

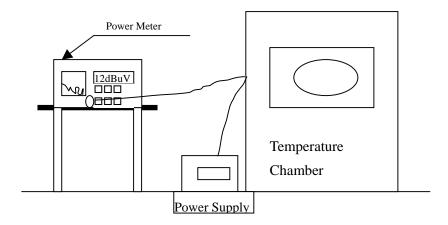
8.1. Test Equipment

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

Note:

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

8.2. Test Setup



8.3. Limits

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

8.4. Test Procedure

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

8.5. Uncertainty

± 150 Hz

8.6. Test Result of Frequency Stability

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

Chain A

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	∆F (MHz)
		52	5260.0000	5260.0085	-0.0085
		54	5270.0000	5270.0098	-0.0098
		60	5300.0000	5300.0089	-0.0089
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0100	-0.0100
Tnom (20) °C	Vnom (120)V	100	5500.0000	5500.0096	-0.0096
		102	5510.0000	5510.0100	-0.0100
		110	5550.0000	5550.0100	-0.0100
		116	5580.0000	5580.0099	-0.0099
		134	5670.0000	5670.0100	-0.0100
		140	5700.0000	5700.0095	-0.0095
		52	5260.0000	5260.0085	-0.0085
	Vmax (138)V	54	5270.0000	5270.0098	-0.0098
		60	5300.0000	5300.0085	-0.0085
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0100	-0.0100
Tmax (40) °C		100	5500.0000	5500.0068	-0.0068
		102	5510.0000	5510.0100	-0.0100
		110	5550.0000	5550.0098	-0.0098
		116	5580.0000	5580.0087	-0.0087
		134	5670.0000	5670.0099	-0.0099
		140	5700.0000	5700.0095	-0.0095
		52	5260.0000	5260.0085	-0.0085
		54	5270.0000	5270.0098	-0.0098
		60	5300.0000	5300.0085	-0.0085
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0100	-0.0100
Tmax (40) °C	Vmin (102)V	100	5500.0000	5500.0068	-0.0068
		102	5510.0000	5510.0100	-0.0100
		110	5550.0000	5550.0580	-0.0580
		116	5580.0000	5580.0097	-0.0097
		134	5670.0000	5670.0099	-0.0099
		140	5700.0000	5700.0095	-0.0095



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

Chain B

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	∆F (MHz)
		52	5260.0000	5260.0086	-0.0086
		54	5270.0000	5270.0101	-0.0101
		60	5300.0000	5300.0090	-0.0090
		62	5310.0000	5310.0103	-0.0103
		64	5320.0000	5320.0102	-0.0102
Tnom (20) °C	Vnom (120)V	100	5500.0000	5500.0098	-0.0098
		102	5510.0000	5510.0103	-0.0103
		110	5550.0000	5550.0102	-0.0102
		116	5580.0000	5580.0102	-0.0102
		134	5670.0000	5670.0102	-0.0102
		140	5700.0000	5700.0097	-0.0097
		52	5260.0000	5260.0086	-0.0086
	Vmax (138)V	54	5270.0000	5270.0101	-0.0101
		60	5300.0000	5300.0086	-0.0086
		62	5310.0000	5310.0103	-0.0103
		64	5320.0000	5320.0102	-0.0102
Tmax (40) °C		100	5500.0000	5500.0070	-0.0070
		102	5510.0000	5510.0103	-0.0103
		110	5550.0000	5550.0100	-0.0100
		116	5580.0000	5580.0100	-0.0100
		134	5670.0000	5670.0101	-0.0101
		140	5700.0000	5700.0097	-0.0097
		52	5260.0000	5260.0086	-0.0086
		54	5270.0000	5270.0101	-0.0101
		60	5300.0000	5300.0086	-0.0086
		62	5310.0000	5310.0103	-0.0103
		64	5320.0000	5320.0102	-0.0102
Tmax (40) °C	Vmin (102)V	100	5500.0000	5500.0070	-0.0070
		102	5510.0000	5510.0103	-0.0103
		110	5550.0000	5550.0100	-0.0100
		116	5580.0000	5580.0100	-0.0100
		134	5670.0000	5670.0101	-0.0101
		140	5700.0000	5700.0097	-0.0097



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

Product:SpectraGuard® Access Point / SensorTest Item:Frequency StabilityTest Site:Temperature ChamberTest Mode:Carrier Wave (PIFA Antenna)

Chain A

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	∆F (MHz)
		52	5260.0000	5260.0085	-0.0085
		54	5270.0000	5270.0099	-0.0099
		60	5300.0000	5300.0091	-0.0091
		62	5310.0000	5310.0101	-0.0101
		64	5320.0000	5320.0103	-0.0103
Tnom (20) °C	Vnom (120)V	100	5500.0000	5500.0099	-0.0099
		102	5510.0000	5510.0101	-0.0101
		110	5550.0000	5550.0100	-0.0100
		116	5580.0000	5580.0098	-0.0098
		134	5670.0000	5670.0101	-0.0101
		140	5700.0000	5700.0094	-0.0094
		52	5260.0000	5260.0086	-0.0086
	Vmax (138)V	54	5270.0000	5270.0097	-0.0097
		60	5300.0000	5300.0084	-0.0084
		62	5310.0000	5310.0101	-0.0101
		64	5320.0000	5320.0100	-0.0100
Tmax (40) °C		100	5500.0000	5500.0067	-0.0067
		102	5510.0000	5510.0101	-0.0101
		110	5550.0000	5550.0095	-0.0095
		116	5580.0000	5580.0088	-0.0088
		134	5670.0000	5670.0098	-0.0098
		140	5700.0000	5700.0096	-0.0096
		52	5260.0000	5260.0085	-0.0085
		54	5270.0000	5270.0097	-0.0097
		60	5300.0000	5300.0086	-0.0086
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0100	-0.0100
Tmax (40) °C	Vmin (102)V	100	5500.0000	5500.0068	-0.0068
		102	5510.0000	5510.0101	-0.0101
		110	5550.0000	5550.0095	-0.0095
		116	5580.0000	5580.0097	-0.0097
		134	5670.0000	5670.0099	-0.0099
		140	5700.0000	5700.0093	-0.0093



Test	Test Conditions		Frequency (MHz)	Frequency (MHz)	△F (MHz)
		52	5260.0000	5260.0083	-0.0083
		54	5270.0000	5270.0097	-0.0097
		60	5300.0000	5300.0088	-0.0088
		62	5310.0000	5310.0101	-0.0101
		64	5320.0000	5320.0101	-0.0101
Tmin (0) °C	Vmax (138)V	100	5500.0000	5500.0094	-0.0094
		102	5510.0000	5510.0095	-0.0095
		110	5550.0000	5550.0101	-0.0101
		116	5580.0000	5580.0097	-0.0097
		134	5670.0000	5670.0101	-0.0101
		140	5700.0000	5700.0096	-0.0096
		52	5260.0000	5260.0083	-0.0083
		54	5270.0000	5270.0097	-0.0097
		60	5300.0000	5300.0088	-0.0088
		62	5310.0000	5310.0101	-0.0101
		64	5320.0000	5320.0101	-0.0101
Tmin (0) °C	Vmin (102)V	100	5500.0000	5500.0094	-0.0094
		102	5510.0000	5510.0095	-0.0095
		110	5550.0000	5550.0101	-0.0101
		116	5580.0000	5580.0097	-0.0097
		134	5670.0000	5670.0101	-0.0101
		140	5700.0000	5700.0096	-0.0096

Chain B

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	∆F (MHz)
		52	5260.0000	5260.0087	-0.0087
		54	5270.0000	5270.0102	-0.0102
		60	5300.0000	5300.0094	-0.0094
		62	5310.0000	5310.0100	-0.0100
		64	5320.0000	5320.0104	-0.0104
Tnom (20) °C	Vnom (120)V	100	5500.0000	5500.0101	-0.0101
		102	5510.0000	5510.0103	-0.0103
		110	5550.0000	5550.0102	-0.0102
		116	5580.0000	5580.0102	-0.0102
		134	5670.0000	5670.0103	-0.0103
		140	5700.0000	5700.0096	-0.0096
		52	5260.0000	5260.0088	-0.0088
	Vmax (138)V	54	5270.0000	5270.0100	-0.0100
		60	5300.0000	5300.0085	-0.0085
		62	5310.0000	5310.0103	-0.0103
		64	5320.0000	5320.0102	-0.0102
Tmax (40) °C		100	5500.0000	5500.0071	-0.0071
		102	5510.0000	5510.0104	-0.0104
		110	5550.0000	5550.0098	-0.0098
		116	5580.0000	5580.0101	-0.0101
		134	5670.0000	5670.0102	-0.0102
		140	5700.0000	5700.0098	-0.0098
		52	5260.0000	5260.0086	-0.0086
		54	5270.0000	5270.0100	-0.0100
		60	5300.0000	5300.0087	-0.0087
		62	5310.0000	5310.0103	-0.0103
		64	5320.0000	5320.0102	-0.0102
Tmax (40) °C	Vmin (102)V	100	5500.0000	5500.0070	-0.0070
		102	5510.0000	5510.0104	-0.0104
		110	5550.0000	5550.0100	-0.0100
		116	5580.0000	5580.0099	-0.0099
		134	5670.0000	5670.0101	-0.0101
		140	5700.0000	5700.0096	-0.0096



Test	Test Conditions		Frequency (MHz)	Frequency (MHz)	∆F (MHz)
		52	5260.0000	5260.0085	-0.0085
		54	5270.0000	5270.0100	-0.0100
		60	5300.0000	5300.0091	-0.0091
		62	5310.0000	5310.0105	-0.0105
		64	5320.0000	5320.0101	-0.0101
Tmin (0) °C	Vmax (138)V	100	5500.0000	5500.0095	-0.0095
		102	5510.0000	5510.0098	-0.0098
		110	5550.0000	5550.0103	-0.0103
		116	5580.0000	5580.0101	-0.0101
		134	5670.0000	5670.0104	-0.0104
		140	5700.0000	5700.0099	-0.0099
		52	5260.0000	5260.0086	-0.0086
		54	5270.0000	5270.0101	-0.0101
		60	5300.0000	5300.0095	-0.0095
		62	5310.0000	5310.0104	-0.0104
		64	5320.0000	5320.0103	-0.0103
Tmin (0) °C	Vmin (102)V	100	5500.0000	5500.0099	-0.0099
		102	5510.0000	5510.0099	-0.0099
		110	5550.0000	5550.0102	-0.0102
		116	5580.0000	5580.0101	-0.0101
		134	5670.0000	5670.0102	-0.0102
		140	5700.0000	5700.0099	-0.0099

9. EMI Reduction Method During Compliance Testing

No modification was made during testing.