# 4. Peak Power Spectral Density

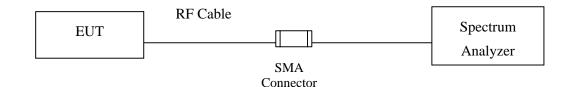
## 4.1. Test Equipment

	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.

# 4.2. Test Setup



## 4.3. Limits

- (4) For the band 5.15-5.25 GHz, the peak power spectral density shall not exceed 4 dBm in any 1-MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
- (5) For the band 5.25-5.35 GHz, the peak power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
- (6) For the band 5.725-5.825 GHz, the peak power spectral density shall not exceed 17 dBm in any 1-MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.

# 4.4. 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.

The Peak Power Spectral Density using KDB 789033 section F) procedure, Create an average power spectrum for the EUT operating mode being tested by following the instructions in section E)2) for measuring maximum conducted output power using a spectrum analyzer. SA-1 method is selected to run the test.

# 4.5. Uncertainty

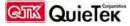
± 1.27 dB

# 4.6. Test Result of Peak Power Spectral Density

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

Channel No.	Frequency (MHz)	Chain (dBm)	PPSD/MHz (dBm)	Total PPSD/MHz (dBm)	Required Limit (dBm)	Result
		А	0.250	5.021	<11	Pass
52	5260	В	-2.380	2.391	<11	Pass
		С	0.420	5.191	<11	Pass
		А	1.910	6.681	<11	Pass
60	5300	В	-1.480	3.291	<11	Pass
		С	1.680	6.451	<11	Pass
		А	2.350	7.121	<11	Pass
64	5320	В	-1.260	3.511	<11	Pass
		С	1.830	6.601	<11	Pass
		А	0.320	5.091	<11	Pass
100	5500	В	-3.450	1.321	<11	Pass
		С	-1.040	3.731	<11	Pass
		А	0.760	5.531	<11	Pass
116	5580	В	-3.650	1.121	<11	Pass
		С	-1.180	3.591	<11	Pass
		А	0.110	4.881	<11	Pass
140	5700	В	-1.920	2.851	<11	Pass
		С	0.270	5.041	<11	Pass

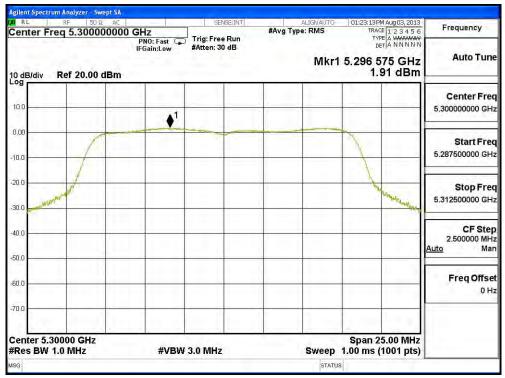
Note 1: The quantity 10\*log 3 (two antennas) is added to the spectrum peak value according to document 662911 D01.

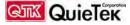


	12:22:11 PM Aug 03, 2013	ALIGN AUTO	1	SENSE:INT		n Analyzer - Swept SA RF 50 Q AC	igilent Spectru
Frequency	TRACE 1 2 3 4 5 6 TYPE A WAAAAAA	ype: RMS	#Avg T		) GHz	q 5.26000000	
Auto Tun	5.262 200 GHz 0.25 dBm	Mkr1		Trig: Free Run #Atten: 30 dB	PNO: Fast 🥌 IFGain:Low	Ref 20.00 dBm	10 dB/div
Center Fre 5.260000000 GH							10.0
Start Fre		-	<b>♦</b> <sup>1</sup>				0.00
5.247500000 GH	1		-			1	10.0
Stop Fre 5.272500000 GH	the second and the second					when	20.0 30.0
<b>CF Ste</b> 2.500000 MH <u>Auto</u> Ma							40.0 50.0
Freq Offse 0 H							60.0
		1					70.0
	Span 25.00 MHz 1.00 ms (1001 pts)	Sweep		3.0 MHz	#VBW		Center 5.2 Res BW
		STATUS					ISG

Channel 52: CHAIN A

#### Channel 60: CHAIN A

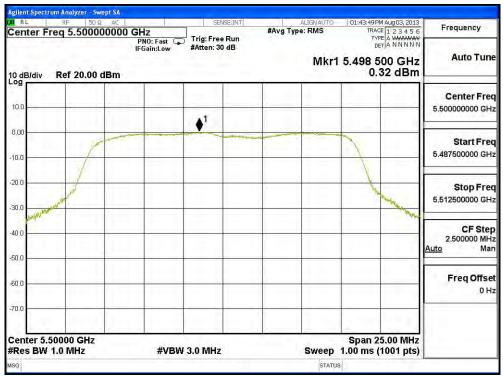


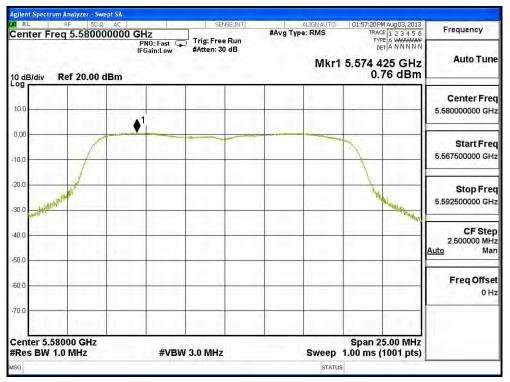


INKT 13.324 250 GHZ           10 dB/div         Ref 20.00 dBm         2.35 dBm           100         1         5.3200000           100         1         5.300000           100         1         5.305000           200         5.305000         5.3250000           300         5.33250000         5.33250000           400         600         CF	so	
INIT 15.324 250 GHz         Center           2.35 dBm         5.300000           000         1         1           000         1         5.30750000           000         5.33250000         5.33250000           000         5.33250000         5.33250000           000         600         600         600         600		
INIT 1: 3:24 250 GHz         2:35 dBm         100         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000 <th></th> <th></th>		
Initial Size 200 GHz       2.35 dBm       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100	70.0	U.
NIKET 5.324 250 GHZ       2.35 dBm       100       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00 <tr< td=""><td>50.0</td><td>Freq Offse</td></tr<>	50.0	Freq Offse
O dB/div         Ref 20.00 dBm         2.35 dBm           .00         .01         .01         .01           .00         .01         .01         .01         .01           .00         .01         .01         .01         .01         .01           .00         .01         .01         .01         .01         .01         .01           .00         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         .01         <	50,0	
O dB/div         Ref 20.00 dBm         2.35 dBm           00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         0		2.500000 MH
O dB/div     Ref 20.00 dBm     2.35 dBm       10.0     1     1       0.00     1     1       0.00     1     1       0.00     1     1       0.00     5.3200000       0.00     5.300000       0.00     5.300000       0.00     5.300000       0.00     5.300000       5.300000     5.300000	10.0	CF Ste
OdB/div         Ref 20.00 dBm         2.35 dBm           0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0 </td <td>30.0 manifestration</td> <td>5.332500000 GH</td>	30.0 manifestration	5.332500000 GH
OdB/div         Ref 20.00 dBm         2.35 dBm           00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00	20.0	Stop Fre
O dB/div         Ref 20.00 dBm         2.35 dBm           10.0         1         1         1           0.00         1         1         1         5.32000000	10.0	5.307500000 GH
10 dB/div Ref 20.00 dBm 2.35 dBm Center	0.00	Start Fre
10 dB/div Ref 20.00 dBm 2.35 dBm Center	10.0	5.320000000 GH
0 dB/div Ref 20.00 dBm 2.35 dBm		Center Fre
	0 dB/div Ref 20.00 dBm	Auto Tun
PNO: Fast Trig: Free Run Type A WAAAAAA IFGain:Low #Atten: 30 dB DerjA NNNN		A . A . The
		Frequency

Channel 64: CHAIN A

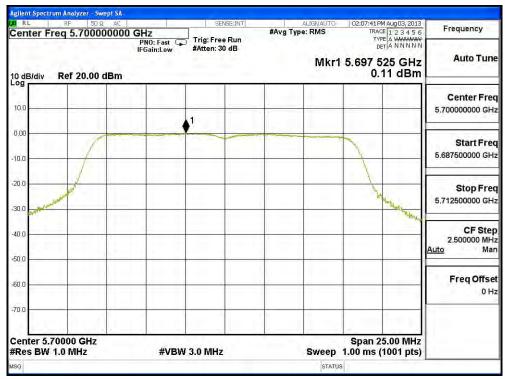
#### Channel 100: CHAIN A

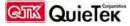




#### **Channel 116: CHAIN A**

#### Channel 140: CHAIN A

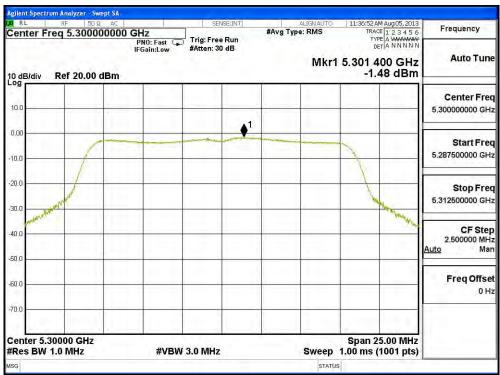


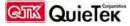


Fraguaday	11:28:40 AM Aug 05, 2013	ALIGNAUTO		SENSE:INT	1	50 Ω AC	ectrum Analyzer - Sv RF 50	RL
Frequency	TRACE 1 2 3 4 5 6 TYPE A WARAWAY DET A N N N N N	Type: RMS	#/	Trig: Free Run	SHz PNO: Fast 😱	0000000	Freq 5.2600	
Auto Tun	5.263 050 GHz -2.38 dBm	Mkr1		#Atten: 30 dB	IFGain:Low		v Ref 20.00	10 dB/di
Center Fre 5.260000000 GH			-					10.0
								0.00
Start Fre 5.247500000 GH	1					-	1	10.0 —
Stop Fre 5.272500000 GH	Ma						dant	20.0 —
CF Ster	Warentwaren						and and and and a start of the	30.0
2.500000 MH Auto Ma								40.0
Freq Offse 0 H								60.0
								70.0
	Span 25.00 MHz 1.00 ms (1001 pts)	Sweep		.0 MHz	#VBW :	Iz	5.26000 GHz	
	the state of the state of the state	STATUS				-		ISG

**Channel 52: CHAIN B** 

#### **Channel 60: CHAIN B**

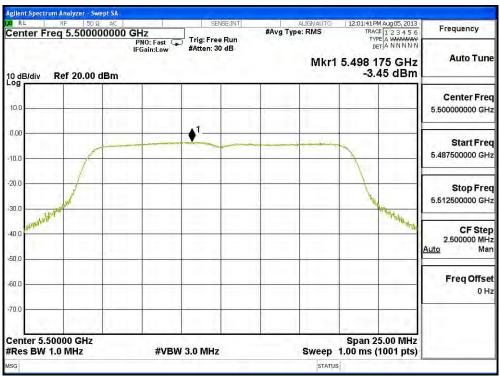


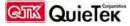


Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep	1.00 ms (1001 pts	5)
enter 5.32000 GHz		M. A. Con	r I	Span 25.00 MH	z
A Design Press 1	11.1			2.000	
0.0					
0.0					ОН
			· · · · · · · · ·	II	Freq Offse
0.0					<u>Auto</u> Ma
0.0					CF Ste 2.500000 MH
and the second				Hannah	CE Oto
0.0	1.1			When	5.332500000 GH
.0					Stop Fre
0.0				1	5.307500000 GH
.00				-	Start Fre
		<b>1</b>			5.52000000 GH
0.0			1		Center Fre 5.320000000 GH
) dB/div Ref 20.00 dBm			T	-1.26 dBr	n [
	IFGall.LUW	Witten, ov up	Mkr	1 5.318 400 GH	
enter Freq 5.3200000	DO GHZ PNO: Fast 🖵 IFGain:Low	Trig: Free Run #Atten: 30 dB	#Avg Type: RMS	TRACE 1 2 3 4 5 TYPE A WANNA DET A N N N N	W.
RL RF 50Ω AC		SENSE:INT	ALIGNAUTO		

**Channel 64: CHAIN B** 

#### Channel 100: CHAIN B

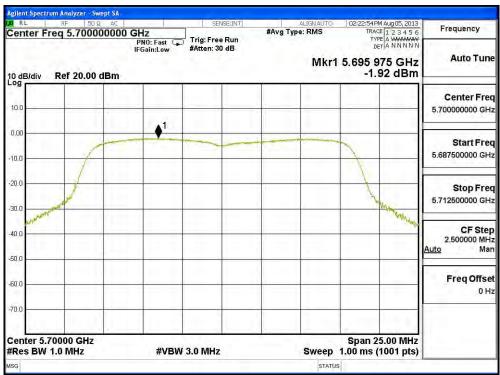


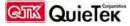


SG			STAT	JS	
Center 5.58000 GHz Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep	Span 25.00 MHz 1.00 ms (1001 pts)	
/0.0				2.000 1000	
70.0					0 H;
50.0				i	Freq Offse
40.0				- Andu	CF Step 2.500000 MH Auto Mar
30.0				The second second	Stop Free 5.592500000 GH
0.0					
10.0	-		<b>*</b>	- Se	Start Free 5.567500000 GH:
10.0					5.58000000 GH
.og					Center Free
0 dB/div Ref 20.00 dBn	PNO: Fast 🦕 IFGain:Low	#Atten: 30 dB	Mkr		
Center Freq 5.5800000	00 GHz	Trig: Free Run	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A WANAWA DET A N N N N N	Frequency
gilent Spectrum Analyzer - Swept S RL RF 50 Ω A		SENSE:INT	ALIGNAUTO	02:13:42 PM Aug 05, 2013	

#### **Channel 116: CHAIN B**

#### **Channel 140: CHAIN B**

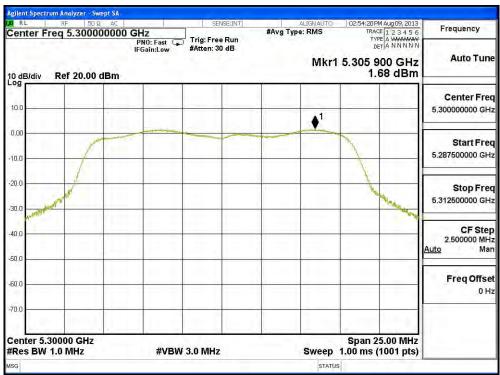




Agilent Spectrum Analyzer - Swept R RL RF 50 Ω A		SENSE:INT	ALIGNAUTO	02:46:36 PM Aug 09, 2013		
Center Freq 5.260000		Trig: Free Run	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A WAAMAA DET A N N N N N	Frequency	
10 dB/div Ref 20.00 dBi	IFGain:Low	#Atten: 30 dB	Mkr	<sub>Derl</sub> A NNNN Mkr1 5.261 625 GHz 0.42 dBm		
10.0					Center Free 5.260000000 GH	
0.00		••••••••••••••••••••••••••••••••••••••			Start Free 5.247500000 GH	
20.0					Stop Free 5.272500000 GH	
40,0				and sold	CF Ste 2.500000 MH <u>Auto</u> Ma	
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)		
ISG			STATU			

#### Channel 52: CHAIN C

## Channel 60: CHAIN C

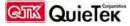


SENSE:INT	ALIGNAUTO	03:00:18PM Aug 09:2013	
Trig: Free Run	#Avg Type: RMS	TRACE 1 2 3 4 5 6	Frequency
#Atten: 30 dB	Mkr1		Auto Tune
			Center Free 5.320000000 GH
			Start Free 5.307500000 GH
		and the second	Stop Free 5.332500000 GH
			CF Ste 2.500000 MH Auto Ma
			Freq Offse 0 H
3W 3.0 MHz	Sweep	Span 25.00 MHz 1.00 ms (1001 pts)	
	#Atten: 30 dB	#Avg Type: RMS #Avg Type: RMS Mkr1	#Avg Type: RMS TEACE 12.3.4.5 E Trig: Free Run #Atten: 30 dB Mkr1 5.316 250 GHz 1.83 dBm

Channel 64: CHAIN C

## Channel 100: CHAIN C

Frequency	03:05:15 PM Aug 09, 2013	ALIGN AUTO		SENSE:INT	_		AC		RL
	TRACE 1 2 3 4 5 6 TYPE A WWWWW DET A N N N N N	rpe: RMS	#A	Free Run n: 30 dB		Hz PNO: Fast 🖵 Gain:Low	00000	5.5000	nter Fre
	5.502 900 GHz -1.04 dBm	Mkr1		e texte			dBm	ef 20.00	dB/div
Center Fre 5,50000000 GH									0
5.50000000 GP	in the second		•1			1.1			0
Start Fre 5.487500000 GH	7							1	α
Stop Fre 5.512500000 GH								and the second second	0
CF Ste 2.500000 MH Auto Ma	and a second								0
Freq Offse									a
									0
	Span 25.00 MHz 1.00 ms (1001 pts)	Sweep		IHz	13.	#VBW	1		nter 5.50 es BW 1
		STATUS		2011					9 0 0 0 T T 10



		1			gilent Spectrum Analyzer - Swept S
Frequency	03:20:21 PM Aug 09, 2013 TRACE 1 2 3 4 5 6 TYPE A WAWWAY DET A N N N N N	ALIGNAUTO	SENSE:INT	50 Ω AC 0000000 GHz	RL RF 50 Ω AT Center Freq 5.5800000
Auto Tune	5.584 775 GHz -1.18 dBm	Mkr1	#Atten: 30 dB	PNO: Fast 🖵 IFGain:Low	0 dB/div Ref 20.00 dBn
Center Fred 5.58000000 GH:					10.0
Start Free 5.567500000 GH:			art		10.0
Stop Free 5.592500000 GH					30.0
<b>CF Ste</b> j 2.500000 MH <u>Auto</u> Ma	Market .				40.0
Freq Offse 0 H					50.0
110	2.000		-		70.0
	Span 25.00 MHz 1.00 ms (1001 pts)	Sweep	3.0 MHz		Center 5.58000 GHz Res BW 1.0 MHz
		STATUS			sg

#### **Channel 116: CHAIN C**

#### **Channel 140: CHAIN C**



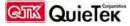
Product :	SpectraGuard® Access Point / Sensor
-----------	-------------------------------------

- Test Item : Peak Power Spectral Density
- Test Site : No.3 OATS

Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps)(Dipole Antenna)

Channel No.	Frequency (MHz)	Chain (dBm)	PPSD/MHz (dBm)	Total PPSD/MHz (dBm)	Required Limit (dBm)	Result
		А	0.100	4.871	<11	Pass
52	5260	В	-2.570	2.201	<11	Pass
		С	-0.160	4.611	<11	Pass
		А	1.520	6.291	<11	Pass
60	5300	В	-1.840	2.931	<11	Pass
		С	0.830	5.601	<11	Pass
		А	2.000	6.771	<11	Pass
64	5320	В	-2.620	2.151	<11	Pass
		С	0.480	5.251	<11	Pass
		А	0.440	5.211	<11	Pass
100	5500	В	-3.730	1.041	<11	Pass
		С	-0.630	4.141	<11	Pass
		А	1.200	5.971	<11	Pass
116	5580	В	-3.320	1.451	<11	Pass
		С	-1.150	3.621	<11	Pass
		А	0.850	5.621	<11	Pass
140	5700	В	-1.630	3.141	<11	Pass
		С	1.300	6.071	<11	Pass

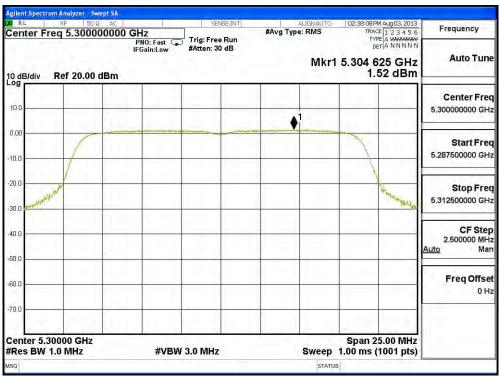
Note 1: The quantity 10\*log 3 (two antennas) is added to the spectrum peak value according to document 662911 D01.



RL   RF   50 Ω AC   Center Freq 5.260000000		ALIGNAUTO #Avg Type: RMS	02:29:08 PM Aug 03, 2013 TRACE 1 2 3 4 5 6 TYPE & MARMAN	Frequency
0 dB/div Ref 20.00 dBm	PNO: Fast 🏹 Trig: Free Run IFGain:Low #Atten: 30 dB	Mkr1	TYPE & WANNAN DET A NNNN 1 5.265 150 GHz 0.10 dBm	Auto Tune
0.0				Center Free 5,260000000 GH:
				Start Free 5.247500000 GH
0.0			An and a second	Stop Free 5.272500000 GH
20				CF Stej 2.500000 MH <u>Auto</u> Ma
0.0				Freq Offse 0 H
enter 5.26000 GHz Res BW 1.0 MHz	#VBW 3.0 MHz	Sweep	Span 25.00 MHz 1.00 ms (1001 pts)	

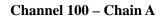
Channel 52 – Chain A

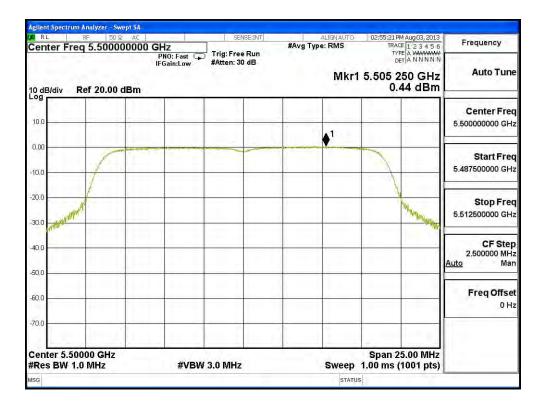
Channel 60 – Chain A



RL	RF 50 Ω A		SENSE:INT	ALIGNAUTO #Avg Type: RMS	02:41:32 PM Aug03, 2013 TRACE 1 2 3 4 5 6	Frequency
enter F	req 5.3200000	IUU GHZ PNO: Fast G IFGain:Low	Trig: Free Run #Atten: 30 dB	1000	TYPE A WARMAN DET A NNNN 1 5.324 900 GHz	
dB/div	Ref 20.00 dBr	n		and a second	2.00 dBm	
0.0				1	1	Center Fre 5.320000000 GH
.00				• • • • • • • • • • • • • • • • • • •		1
D.0	1					Start Fre 5.307500000 GH
0.0	No.				A A A A A A A A A A A A A A A A A A A	Stop Fre
LO WWWWWW		_			Theyman	5.332500000 GH
0.0					2	CF Step
0,0						2.500000 MH <u>Auto</u> Ma
0.0		1.1.1.1.1			1 II _ 1	Freq Offse
0.0						он
0.0						-
	32000 GHz 1.0 MHz	#VBW	3.0 MHz	Sweep	Span 25.00 MHz 1.00 ms (1001 pts)	
G				STATU		

Channel 64 – Chain A

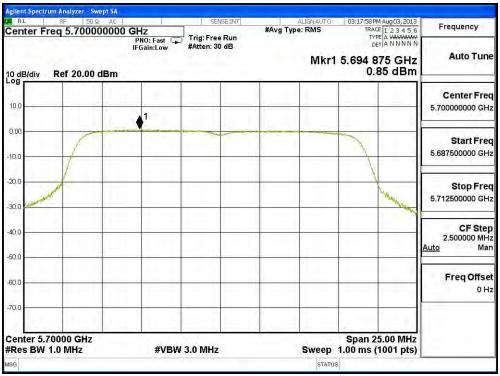


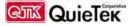


Agilent Spect	rum Analyzer - Swept SA							
Center F	RF 50 Ω AC req 5.580000000	GH7	SENSE:INT	#Avg Type	LIGN AUTO	TRA	M Aug 03, 2013	Frequency
10 dB/div	Ref 20.00 dBm	PNO: Fast 🖵 IFGain:Low	Trig: Free Run #Atten: 30 dB		Mkr1	5.584 8	er A NNNNN 575 GHz 20 dBm	Auto Tune
10.0		_						Center Freq 5.580000000 GHz
-10.0	1			-		to the		Start Freq 5.567500000 GHz
-20.0							and an and the second	Stop Freq 5.592500000 GHz
-40.0								CF Step 2.500000 MHz <u>Auto</u> Man
-60.0								Freq Offset 0 Hz
-70.0 Center 5. #Res BW	58000 GHz	#VBM	3.0 MHz		Sweep		5.00 MHz (1001 pts)	
MSG			010 IIII IL		STATUS		1001 pto)	

Channel 116 – Chain A

## Channel 140 – Chain A

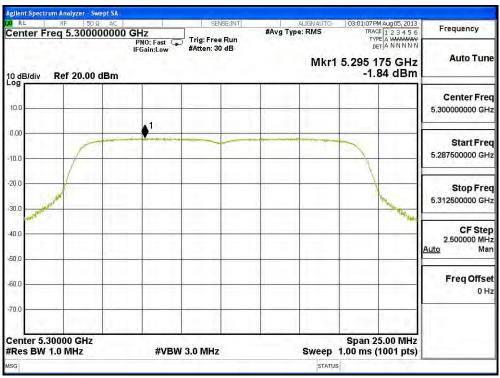




ilent Spectrum Analyzer - Swept SA RL RF 50 Ω AC	Ĩ	SENSE:INT	ALIGNAUTO	02:43:05 PM Aug 05, 2013	
enter Freg 5.26000000		Trig: Free Run	#Avg Type: RMS	TRACE 1 2 3 4 5 6	Frequency
o dB/div Ref 20.00 dBm	PNO: Fast 🖵 IFGain:Low	#Atten: 30 dB	Mkr1	5.260 000 GHz -4.58 dBm	Auto Tune
0.0			4 4		Center Freq 5.26000000 GHz
0.0			+1	1	Start Freq 5.247500000 GHz
0.0				Marca	Stop Freq 5.272500000 GHz
0.0					CF Step 2.500000 MH: Auto Mar
0.0					Freq Offsel 0 Ha
0.0					
enter 5.26000 GHz Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep	Span 25.00 MHz 1.00 ms (1001 pts)	
G			STATU	Control of the second second second	

Channel 52 – Chain B

Channel 60 – Chain B



Agilent Spectrum Ar								
Center Freq		GHz	SENSE:INT	AL #Avg Type:	IGN AUTO RMS	TRAC	M Aug 05, 2013 E 1 2 3 4 5 6	Frequency
	f 20.00 dBm	PNO: Fast 😱 IFGain:Low	Trig: Free Run #Atten: 30 dB		Mkr1	5.315 0	050 GHz 62 dBm	Auto Tune
10.0			_					Center Freq 5.320000000 GHz
-10.0	-	<b>↓</b> <sup>1</sup>	are the second		-	1		<b>Start Freq</b> 5.307500000 GHz
-20.0							Warman Street	Stop Freq 5.332500000 GHz
-40.0						_		CF Step 2.500000 MHz <u>Auto</u> Man
-60.0					-			Freq Offset 0 Hz
-70.0 Center 5.3200 #Res BW 1.0		#VBW	3.0 MHz		Sweep	Span 2 1.00 ms (	5.00 MHz 1001 pts)	
MSG					STATUS			

Channel 64 – Chain B

Channel 100 – Chain B

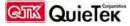


gilent Spectrum Analyzer - Swept S RL RF 50 Ω A		SENSE:INT	ALIGNAUTO	03:21:57 PM Aug 05, 2013	
enter Freq 5.5800000	00 GHz		#Avg Type: RMS	TRACE 1 2 3 4 5 6	Frequency
0 dB/div Ref 20.00 dBr	PNO: Fast 🖵 IFGain:Low	┘ Trig: Free Run #Atten: 30 dB	Mkr1	5.576 925 GHz -3.32 dBm	Auto Tune
10.0					Center Fred 5.580000000 GHz
0.00	^1				Start Free 5.567500000 GH:
80.0					Stop Free 5.592500000 GH
0.0					CF Ste 2.500000 MH <u>Auto</u> Ma
0.0					Freq Offse 0 H
70.0				2	
enter 5.58000 GHz Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep	Span 25.00 MHz 1.00 ms (1001 pts)	
sg			STATU	s	-

Channel 116 – Chain B

Channel 140 – Chain B

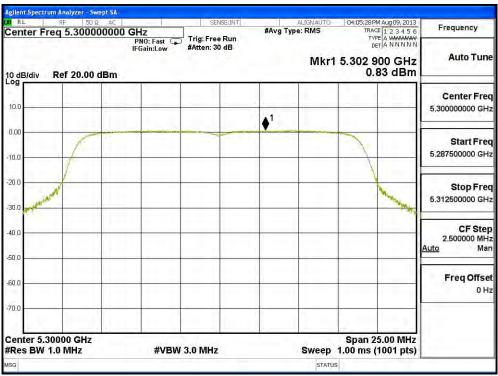




1	03:50:25 PM Aug 09, 2013	ALIGNAUTO		SENSE:INT		nalyzer - Swept SA F 50 Ω AC	
Frequency	TRACE 1 2 3 4 5 6		#Avg Typ	Trig: Free Run	00 GHz	5.26000000	
Auto Tun	5.264 225 GHz -0.16 dBm	Mkr1		#Atten: 30 dB	PNO: Fast 🧊 IFGain:Low	f 20.00 dBm	B/div R
Center Free 5.260000000 GH							
1	1. A					11.6	
Start Free 5.247500000 GH						F	
Stop Free 5.272500000 GH	Martin and						
CF Stej 2.500000 MH <u>Auto</u> Ma							Wants
Freq Offse							1
5	Span 25.00 MHz 1.00 ms (1001 pts)	Sweep		3.0 MHz	#VBW		ter 5.260 s BW 1.0
		STATUS					

Channel 52 – Chain C

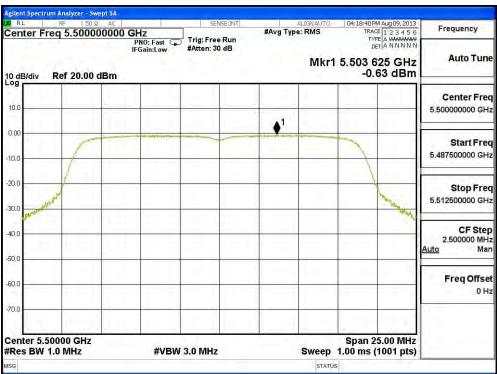
Channel 60 – Chain C



Agilent Spectrum Analyz	er - Swept SA							
CARL RF	50 Q AC		SENSE:INT	#Avg Type			M Aug 09, 2013	Frequency
Center Freq 5.3	PN	Z IO: Fast 😱 ain:Low	Trig: Free Run #Atten: 30 dB	#Avg Type		۳۷ ۵ 5.316 5	FT A NNNNN 575 GHz	Auto Tune
10 dB/div Ref 20	0.00 dBm				_	0.	48 dBm	
10.0								Center Freq 5.320000000 GHz
0.00								
-10.0						1		Start Freq 5.307500000 GHz
-20.0						1	1	Stop Freq 5.332500000 GHz
-30.0							10 still ma	CF Step 2.500000 MHz
-50.0		1.111			-			Auto Man
-60.0								Freq Offset 0 Hz
-70.0							$\log \left[ 1 + \frac{1}{2} \right]$	
Center 5.32000 G #Res BW 1.0 MH		#VBW :	3.0 MHz	1	Sweep		5.00 MHz (1001 pts)	
MSG					STATUS			

Channel 64 – Chain C

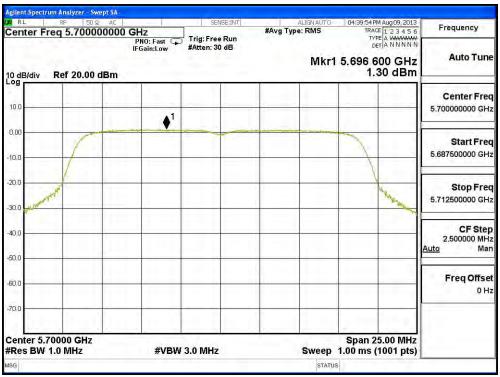
Channel 100 – Chain C



Agilent Spectrum Analyzer - Swept SA OF RL RF 50 & AC Center Freq 5.580000000 GHz				
RL RF 50 Q AC	SENSE;INT	ALIGNAUTO	04:32:03 PM Aug 09, 2013	
PNO: Fast 🖕	Trig: Free Run #Atten: 30 dB	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A WARMAN DET A N N N N N	and a second second
IFGain:Low	#Atten: 30 db	Mkr1	5.585 200 GHz -1.15 dBm	Auto Tune
10.0				Center Freq 5.58000000 GHz
0.00		1	hand here the	
-10.0			1	<b>Start Freq</b> 5.567500000 GHz
-20.0				<b>Stop Freq</b> 5.592500000 GHz
-40.0			and a second	CF Step 2.500000 MHz <u>Auto</u> Man
-60.0				Freq Offset 0 Hz
-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)	
MSG		STATUS		

Channel 116 – Chain C

### Channel 140 – Chain C



Product : SpectraGuard® Ac	ccess Point / Sensor
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Test Item	:	Peak Power Spectral Density
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Test Site : No.3 OATS

Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps)(Dipole Antenna)

Channel No.	Frequency (MHz)	Chain (dBm)	PPSD/MHz (dBm)	Total PPSD/MHz (dBm)	Required Limit (dBm)	Result
		А	-1.770	3.001	<11	Pass
54	5270	В	-4.890	-0.119	<11	Pass
		С	-2.370	2.401	<11	Pass
		А	-4.440	0.331	<11	Pass
62	5310	В	-8.260	-3.489	<11	Pass
		С	-5.300	-0.529	<11	Pass
		А	-3.050	1.721	<11	Pass
102	5510	В	-7.460	-2.689	<11	Pass
		С	-4.170	0.601	<11	Pass
		А	-0.010	4.761	<11	Pass
110	5550	В	-4.150	0.621	<11	Pass
		С	-1.380	3.391	<11	Pass
		А	-1.240	3.531	<11	Pass
134	5670	В	-4.320	0.451	<11	Pass
		С	-1.790	2.981	<11	Pass

Note 1: The quantity 10\*log 3 (two antennas) is added to the spectrum peak value according to document 662911 D01.

	um Analyzer - Swept SA					
Center Fi	RF 50 Q AC req 5.270000000	GHz	SENSE:INT	ALIGN AUTC #Avg Type: RMS	TRACE 1 2 3 4 5 6	Frequency
10 dB/div	Ref 20.00 dBm	PNO: Fast 🦕 IFGain:Low	Trig: Free Run #Atten: 30 dB	M	type A WWWW Det A NNNNN (r1 5.280 40 GHz -1.77 dBm	Auto Tune
10.0						Center Freq 5.270000000 GHz
-10.0		-		1 1		Start Freq 5.245000000 GHz
-20.0	and the second s					Stop Freq 5.295000000 GHz
-40.0						CF Step 5.000000 MHz <u>Auto</u> Man
-60.0						Freq Offset 0 Hz
-70.0					2	
Center 5.2 #Res BW	27000 GHz 1.0 MHz	#VBW	3.0 MHz	Sweep	Span 50.00 MHz 1.00 ms (1001 pts)	
MSG				STAT	us	

Channel 54 – Chain A

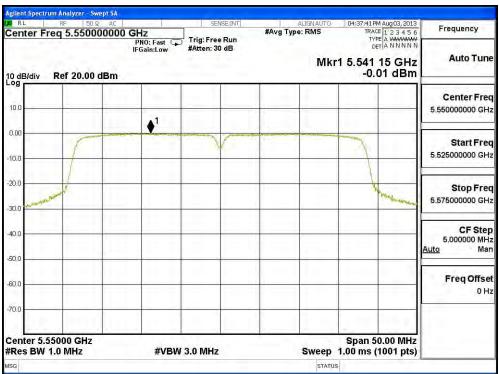
Channel 62 – Chain A



Agilent Spectrum Analyzer - Swept SA				
KI RE 50 Q AC	SENSE;INT	ALIGNAUTO	03:54:25 PM Aug 03, 2013	Frequency
Center Freq 5.510000000 GHz PNO: Fast 🖵	Trig: Free Run #Atten: 30 dB	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A WAWAAA DET A N N N N N	Frequency
10 dB/div Ref 20.00 dBm	#Atten: 30 db	Mkr	1 5.522 00 GHz -3.05 dBm	Auto Tune
				Center Freq
10.0				5.510000000 GHz
0.00		↓ <sup>1</sup>		Start Freq
-10.0				5.485000000 GHz
-20.0				Stop Freq
-30.0			W.	5.535000000 GHz
-40.0 puter of the rate			Mapul Fangel	CF Step
				5.000000 MHz <u>Auto</u> Man
-50.0			L	Essa Official
-60.0				Freq Offset 0 Hz
-70.0				
Center 5.51000 GHz #Res BW 1.0 MHz #VBW	3.0 MHz	Sween	Span 50.00 MHz 1.00 ms (1001 pts)	
MSG		STATUS		

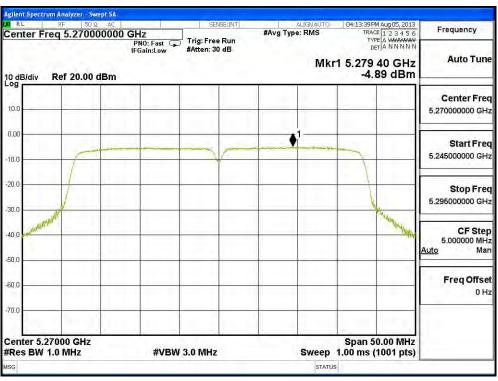
Channel 102 – Chain A

Channel 110 – Chain A



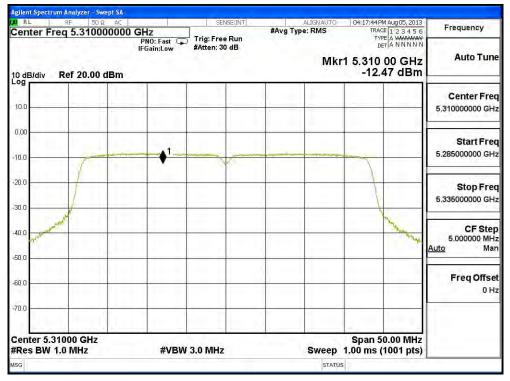
Agilent Spectrum Analyzer - Swept SA			-		
Center Freq 5.67000000	GH7	SENSE:INT	ALIGNAUTO #Avg Type: RMS	04:43:33 PM Aug 03, 2013 TRACE 1 2 3 4 5 6	
10 dB/div Ref 20.00 dBm	PNO: Fast 🖵 IFGain:Low	」Trig: Free Run #Atten: 30 dB		туре а шиллий Det A NNNN r1 5.658 20 GHz -1.24 dBm	Auto Tune
10.0	.1				Center Freq 5.670000000 GHz
-10.0	<b>↓</b> <sup>1</sup>	~~~		-	Start Freq 5.645000000 GHz
-20.0					Stop Freq 5.695000000 GHz
-40.0					CF Step 5.000000 MH: Auto Mar
60.0					Freq Offse 0 H;
-70.0					
Center 5.67000 GHz #Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep	Span 50.00 MHz 1.00 ms (1001 pts)	
MSG			STATU	IS	

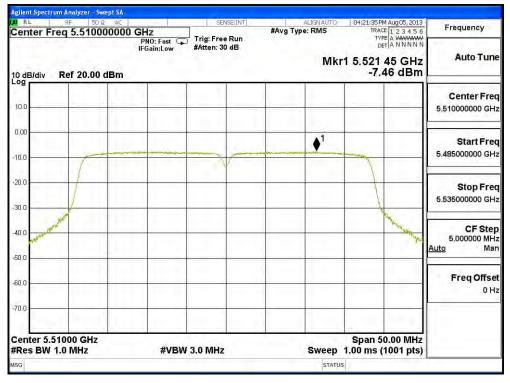
Channel 134 – Chain A



Channel 54 – Chain B

Channel 62 – Chain B

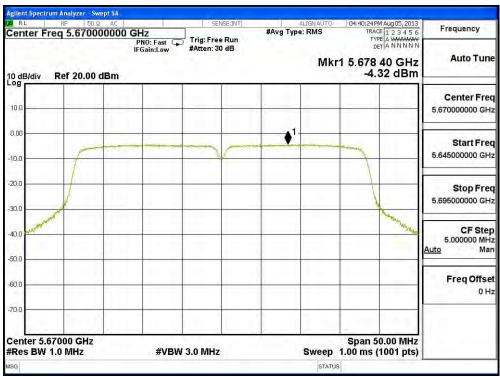




Channel 102 – Chain B

Channel 110 – Chain B

Agilent Spectrum Analyzer - Swept SA					
RL RF 50 Ω AC Center Freq 5.550000000	CHA	SENSE:INT	ALIGNAUTO #Avg Type: RMS	04:36:46 PM Aug 05, 2013 TRACE 1 2 3 4 5 6	Frequency
10 dB/div Ref 20.00 dBm	PNO: Fast 😱 IFGain:Low	Trig: Free Run #Atten: 30 dB		туре а билими Det A NNNNN r1 5.560 40 GHz -4.15 dBm	Auto Tune
-og					Center Fred 5.550000000 GHz
10.0			<sup>1</sup>		Start Free 5.525000000 GH:
30.0					Stop Free 5.575000000 GH;
40,0 armenter				and the second s	CF Stej 5.000000 MH <u>Auto</u> Ma
50,0					Freq Offse 0 H
70.0					
Center 5.55000 GHz #Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep	Span 50.00 MHz 1.00 ms (1001 pts)	
ISG			STATU	JS	

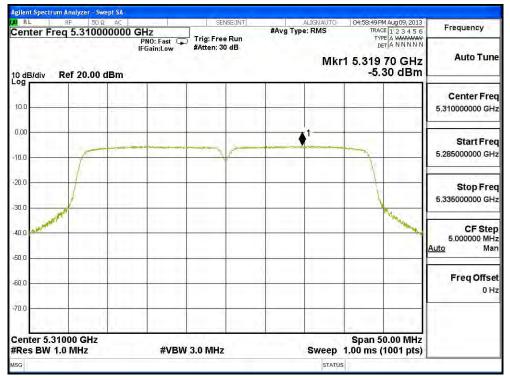


Channel 134 – Chain B

KI RE 50 Q AC		SENSE:INT	ALIGN AUTO	04:54:58 PM Aug 09, 2013	1
Center Freq 5.270000000 G	PNO: Fast	Trig: Free Run	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A WANANAN DET A N N N N N	Frequency
10 dB/div Ref 20.00 dBm	FGain:Low	#Atten: 30 dB	Mki	r1 5.280 40 GHz -2.37 dBm	Auto Tune
10.0					Center Fred 5,270000000 GHz
0,00			↓ 1	~	Start Free 5.245000000 GH:
20.0					Stop Free 5.295000000 GH;
10.0				and the second s	CF Stej 5.000000 MH <u>Auto</u> Ma
i0.0					Freq Offse 0 H
70.0					
Center 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 C

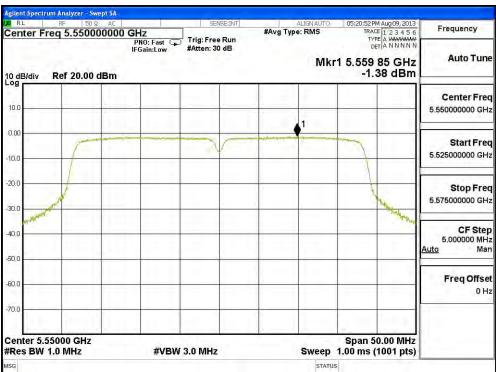
Channel 62 – Chain C



Agilent Spectrum Analyzer - Swept SA				
K RL RF 50 Q AC	SENSE:INT	ALIGNAUTO	05:04:24 PM Aug 09, 2013	Frequency
Center Freq 5.510000000 GHz PNO: Fast	Trig: Free Run	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A WAAWAA	Frequency
IFGain:Low	#Atten: 30 dB	Mkr	DET A NNNN 5.498 05 GHz -4.17 dBm	Auto Tune
10.0				Center Freq 5.510000000 GHz
-10.0			~	Start Freq 5.48500000 GHz
-20.0				Stop Freq 5.535000000 GHz
-40.0			all and a second and	CF Step 5.000000 MHz <u>Auto</u> Man
-60.0				Freq Offset 0 Hz
-70.0				
Center 5.51000 GHz #Res BW 1.0 MHz #VBW	3.0 MHz	Sweep	Span 50.00 MHz .00 ms (1001 pts)	
MSG		STATUS		

Channel 102 – Chain C

Channel 110 – Chain C



RL RF 50Ω AC Center Freq 5.670000000	GHz	SENSE:INT	ALIGNAUTO #Avg Type: RMS	05:24:22 PM Aug 09, 2013 TRACE 1 2 3 4 5 6	Frequency
0 dB/div Ref 20.00 dBm	PNO: Fast 🏳 IFGain:Low	<sup>7</sup> Trig: Free Run #Atten: 30 dB	Mkr	1 5.658 05 GHz -1.79 dBm	Auto Tune
10.0	1				Center Free 5.670000000 GH
10.0				7	Start Free 5.645000000 GH
30.0				have	Stop Free 5.695000000 GH
40.0					CF Ste 5.000000 MH <u>Auto</u> Ma
60.0					Freq Offse 0 H
70.0			1	, I-+ a.	
Center 5.67000 GHz Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep	Span 50.00 MHz 1.00 ms (1001 pts)	
SG			STATUS	5	E

# Channel 134 – Chain C

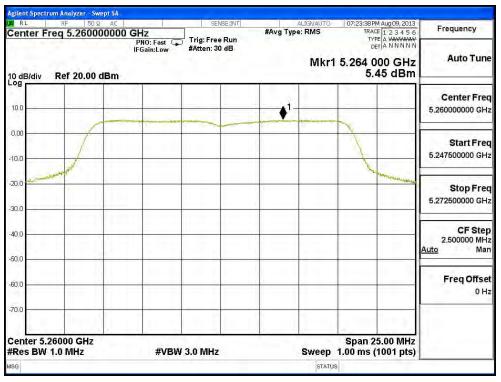
Product :	SpectraGuard® Access Point / Sensor
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- Test Item : Peak Power Spectral Density
- Test Site : No.3 OATS

Test Mode : Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna)

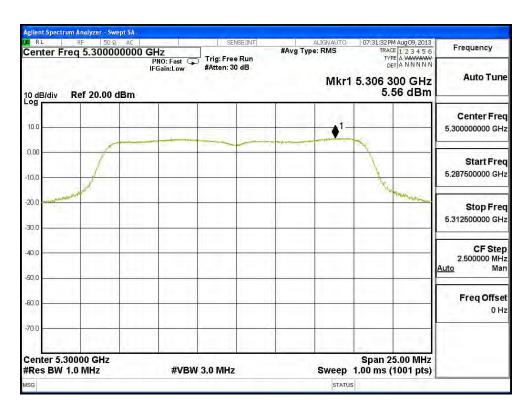
Channel No.	Frequency (MHz)	Chain (dBm)	PPSD/MHz (dBm)	Total PPSD/MHz (dBm)	Required Limit (dBm)	Result
		А	5.450	10.221	<11	Pass
52	5260	В	1.700	6.471	<11	Pass
		С	4.280	9.051	<11	Pass
		А	5.560	10.331	<11	Pass
60	5300	В	2.130	6.901	<11	Pass
		С	4.240	9.011	<11	Pass
		А	5.840	10.611	<11	Pass
64	5320	В	1.070	5.841	<11	Pass
		С	4.080	8.851	<11	Pass
		А	4.540	9.311	<11	Pass
100	5500	В	0.480	5.251	<11	Pass
		С	4.060	8.831	<11	Pass
		А	5.600	10.371	<11	Pass
116	5580	В	0.200	4.971	<11	Pass
		С	3.740	8.511	<11	Pass
		А	5.720	10.491	<11	Pass
140	5700	В	2.980	7.751	<11	Pass
		С	5.340	10.111	<11	Pass

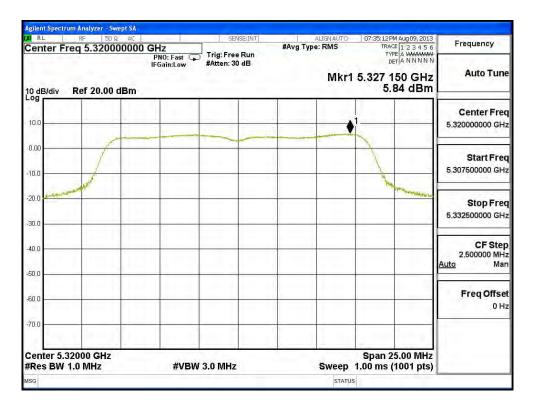
Note 1: The quantity 10\*log 3 (two antennas) is added to the spectrum peak value according to document 662911 D01.



Channel 52: CHAIN A

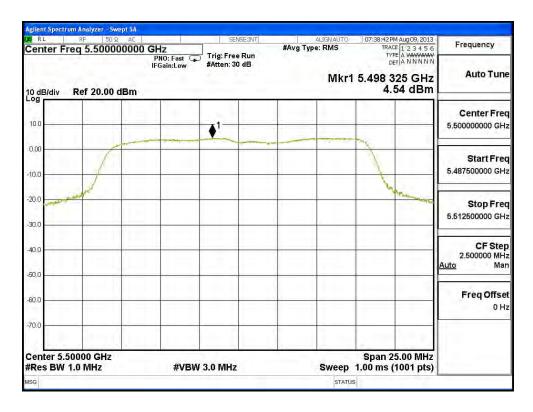
## Channel 60: CHAIN A

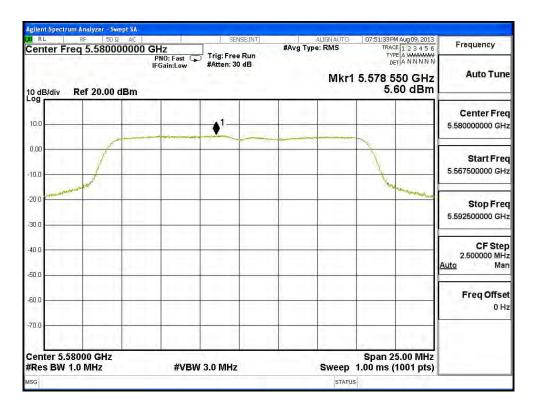




Channel 64: CHAIN A

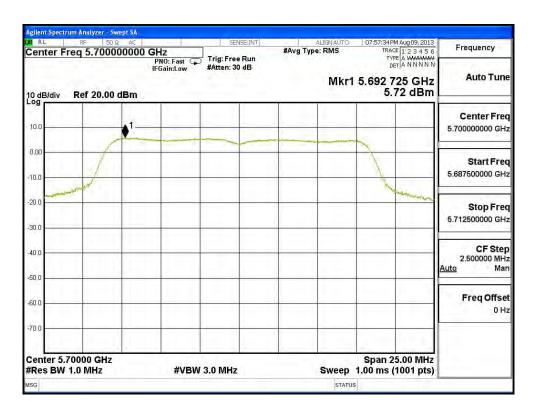
## Channel 100: CHAIN A





## Channel 116: CHAIN A

## Channel 140: CHAIN A

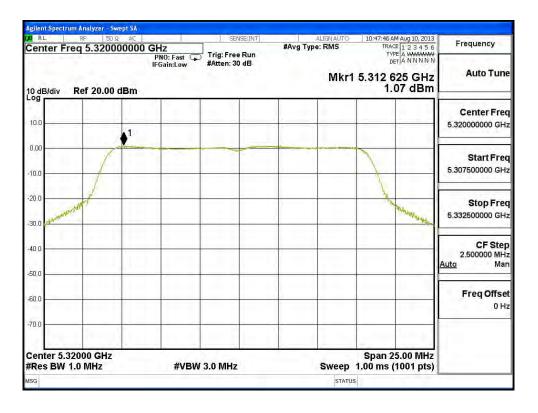


RL RF 50Ω AC	0115	SENSE:INT	ALIGNAUTO #Avg Type: RMS		ug 10, 2013	Frequency
Center Freq 5.26000000	PNO: Fast IFGain:Low	Trig: Free Run #Atten: 30 dB	#Avg Type, RMS	TYPE A		
0 dB/div Ref 20.00 dBm	IFGain:Low	#Atten: 30 dB	Mkr	1 5.267 20	- 18 Y A	Auto Tune
og						Center Fred
10.0				1		5.260000000 GH
0.00						Start Free
10.0						5.247500000 GH
20.0				1		Stop Free
30.0 petrone April M				2	Wridglewithday	5.272500000 GH
40.0						CF Ster
50.0					2	2.500000 MH <u>Auto</u> Mar
00					ſ	
50.0						Freq Offse 0 H
70.0						
Center 5.26000 GHz				Span 25.		
Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep	1.00 ms (10	01 pts)	

Channel 52: CHAIN B

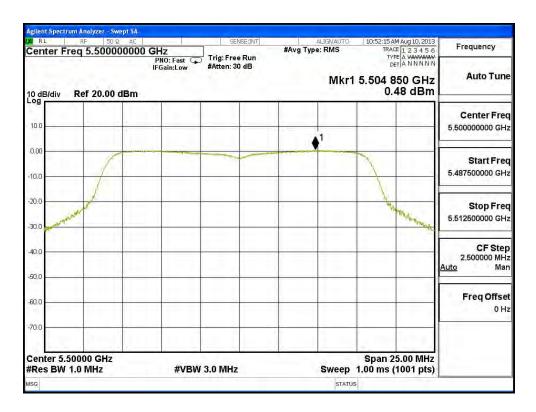
Channel 60: CHAIN B

RL RF 50 Ω AC Center Freq 5.30000000		SENSE;INT	ALIGNAUTO #Avg Type: RMS	10:44:22 AM Aug 10, 20 TRACE 1 2 3 4 5	Frequency
10 dB/div Ref 20.00 dBm	PNO: Fast 🖵 IFGain:Low	J Trig: Free Run #Atten: 30 dB		5.296 125 GH 2.13 dBr	Auto Tune
10.0	1				Center Free 5.300000000 GH
10.0		~			Start Fre 5.287500000 GH
20.0				Antonio Marile	Stop Fre
40.0					CF Ste 2.500000 MH Auto Ma
60.0					Freq Offse
70.0		en Elect	1	2	
Center 5.30000 GHz #Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep	Span 25.00 MH 1.00 ms (1001 pt	lz s)



Channel 64: CHAIN B

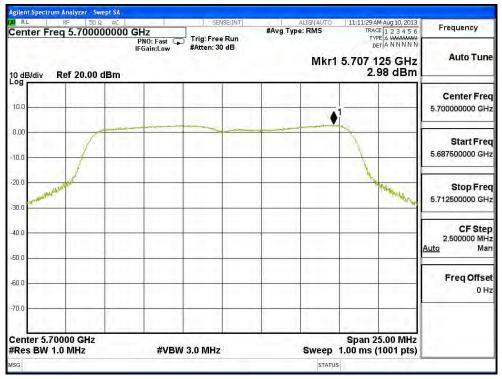
### **Channel 100: CHAIN B**

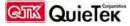




### Channel 116: CHAIN B

Channel 140: CHAIN B

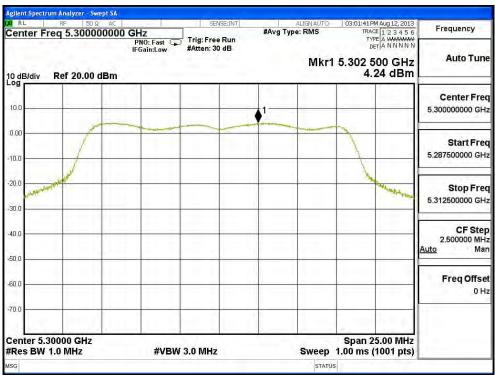


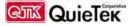


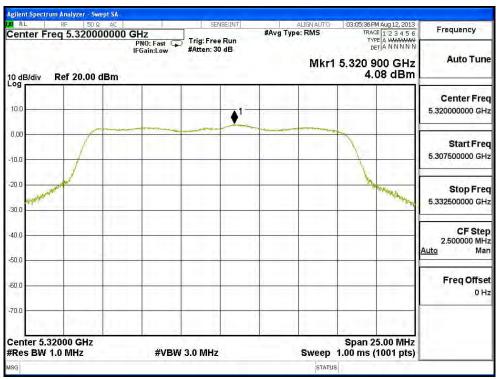
gilent Spectrum Analyzer - Swep					
RL RF 50 Ω Center Freq 5.260000		SENSE(INT	ALIGNAUTO #Avg Type: RMS	02:34:53 PM Aug 12, 2013 TRACE 1 2 3 4 5 6	Frequency
0 dB/div Ref 20.00 dE	PNO: Fast 🖵 IFGain:Low	<sup>7</sup> Trig: Free Run #Atten: 30 dB	Mkr	TYPE A WARAWAA DET A NNNN 1 5.261 775 GHz 4.28 dBm	Auto Tune
10.0		•	1		Center Freq 5.260000000 GHz
10.0					Start Free 5.247500000 GHa
20.0 http://www.white				Manage and Man	Stop Free 5.272500000 GH;
40.0					CF Step 2.500000 MH Auto Mar
60.0					Freq Offse 0 Hi
70.0				Span 25.00 MHz	
Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep	1.00 ms (1001 pts)	
SG			STATU	JS	

#### Channel 52: CHAIN C

### Channel 60: CHAIN C

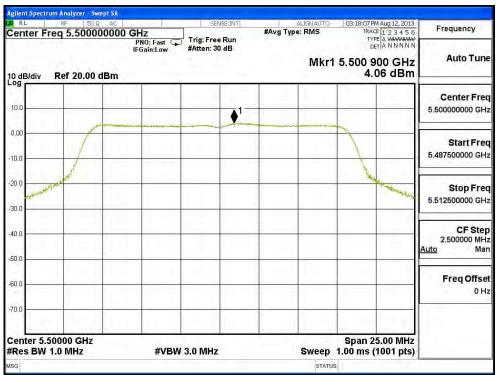


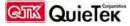




Channel 64: CHAIN C

#### Channel 100: CHAIN C





					um Analyzer - Swept SA	
Frequency	03:41:11 PM Aug 12, 2013 TRACE 1 2 3 4 5 6	ALIGNAUTO #Avg Type: RMS	SENSE;INT	AC DOOD GHZ	RP 50 Ω AC req 5.58000000	a RL Center Fr
Auto Tune	5.585 075 GHz 3.74 dBm	Mkr1	Trig: Free Run #Atten: 30 dB	PNO: Fast 🖵 IFGain:Low	Ref 20.00 dBm	10 dB/div
Center Free 5.58000000 GH:		1				10.0
Start Free 5.567500000 GH:						0.00
Stop Free 5.592500000 GH	Josephine and a second				and all a second and a second	20.0 30.0
CF Stej 2.500000 MH <u>Auto</u> Ma						40.0
Freq Offse 0 H						60.0
	2		in film		1 1-1	-70.0
	Span 25.00 MHz 1.00 ms (1001 pts)	Sweep	3.0 MHz	#VBW	58000 GHz 1.0 MHz	Center 5.5 #Res BW
		STATUS				ISG

#### **Channel 116: CHAIN C**

#### **Channel 140: CHAIN C**



Product :	SpectraGuard® Access Point / Sensor
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- Test Item : Peak Power Spectral Density
- Test Site : No.3 OATS

Test Mode : Mode 5: Transmit (802.11n-20BW 21.7Mbps)(PIFA Antenna)

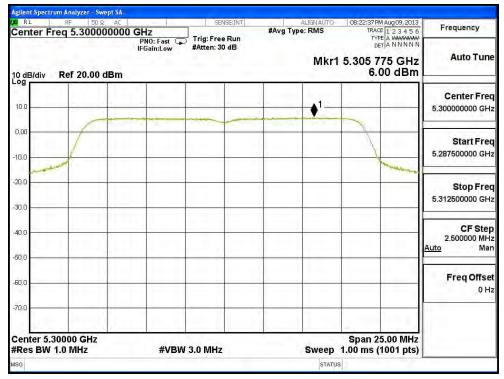
Channel No.	Frequency (MHz)	Chain (dBm)	PPSD/MHz (dBm)	Total PPSD/MHz (dBm)	Required Limit (dBm)	Result
		А	5.100	9.871	<11	Pass
52	5260	В	1.470	6.241	<11	Pass
		С	3.680	8.451	<11	Pass
		А	6.000	10.771	<11	Pass
60	5300	В	2.770	7.541	<11	Pass
		С	4.870	9.641	<11	Pass
		А	5.860	10.631	<11	Pass
64	5320	В	1.410	6.181	<11	Pass
		С	4.140	8.911	<11	Pass
		А	4.220	8.991	<11	Pass
100	5500	В	-0.460	4.311	<11	Pass
		С	4.310	9.081	<11	Pass
		А	5.220	9.991	<11	Pass
116	5580	В	-0.160	4.611	<11	Pass
		С	3.070	7.841	<11	Pass
		А	5.100	9.871	<11	Pass
140	5700	В	1.470	6.241	<11	Pass
		С	4.640	9.411	<11	Pass

Note 1: The quantity 10\*log 3 (two antennas) is added to the spectrum peak value according to document 662911 D01.

Agilent Spectrum Analyzer - Swept SA					
RL RF 50 Q AC Center Freq 5.260000000	GHz	SENSE:INT	ALIGNAU #Avg Type: RMS	TRACE 1 2 3 4 5 6	Frequency
10 dB/div Ref 20.00 dBm	PNO: Fast 🗭 IFGain:Low	Trig: Free Run #Atten: 30 dB	М	type مسلمی Det A NNNN kr1 5.264 000 GHz 5.10 dBm	Auto Tune
10.0			<b>↓</b> <sup>1</sup>		Center Freq 5.260000000 GHz
10.0					Start Freq 5.247500000 GHz
20.0				No have a second and	Stop Freq 5.272500000 GHz
10.0					CF Step 2.500000 MH <u>Auto</u> Mar
50.0					Freq Offse 0 H:
-70.0 Center 5.26000 GHz #Res BW 1.0 MHz	#\/P\//	3.0 MHz		Span 25.00 MHz ep 1.00 ms (1001 pts)	
ISG	#VDVV	3.0 19162		ratus	

Channel 52 – Chain A

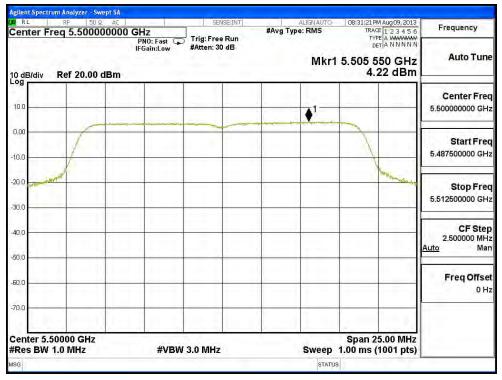
Channel 60 – Chain A



	08:27:12 PM Aug 09, 2013	ALIGNAUTO	SENSE:INT	SA.	RF 50 Q AC
Frequency	TRACE 1 2 3 4 5 6 TYPE A WWWWW DET A NNNNN	#Avg Type: RMS	Trig: Free Run	PNO: Fast	reg 5.3200000
Auto Tune	5.324 875 GHz 5.86 dBm	Mkr1	#Atten: 30 dB	IFGain:Low	Ref 20.00 dBm
Center Fred 5.320000000 GH;		•1			
Start Free 5.307500000 GH					
Stop Free 5.332500000 GH	manyle blageneral				President and a second s
CF Ste 2.500000 MH <u>Auto</u> Ma					
Freq Offse 0 H					
	,				i had
	Span 25.00 MHz 1.00 ms (1001 pts)	Sweep	3.0 MHz	#VBW :	.32000 GHz / 1.0 MHz
		STATUS			

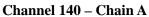
Channel 64 – Chain A

Channel 100 – Chain A

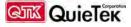


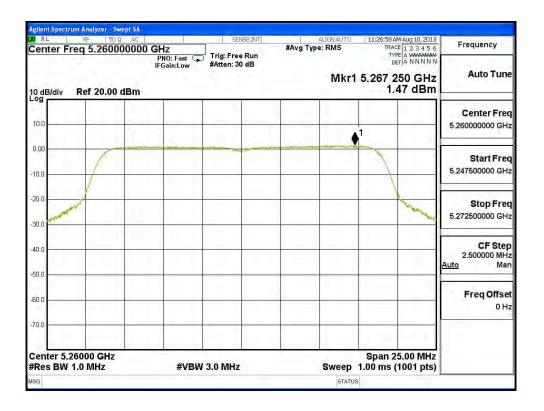
Agilent Spectrum Analyzer - Swept SA KI RL RF 50 Ω AC		SENSE:INT	ALIGNAUTO	08:46:56 PM Aug 09, 2013	
Center Freq 5.5800000	D GHz	Trig: Free Run	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A WANNAN DET A N N N N N	Frequency
10 dB/div Ref 20.00 dBm	PNO: Fast 🦕 IFGain:Low	#Atten: 30 dB	Mkr1	5.573 850 GHz 5.22 dBm	Acres Trees
10.0	1				Center Freq 5.580000000 GHz
10.0					Start Freq 5.567500000 GHz
30.0				and a start and a start	Stop Freq 5.592500000 GHz
40.0					CF Step 2.500000 MH <u>Auto</u> Mar
60.0					Freq Offse 0 Hi
-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	04.5.5.4.5	Constanting.	STATU		

Channel 120 – Chain A









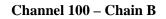
Channel 52 – Chain B

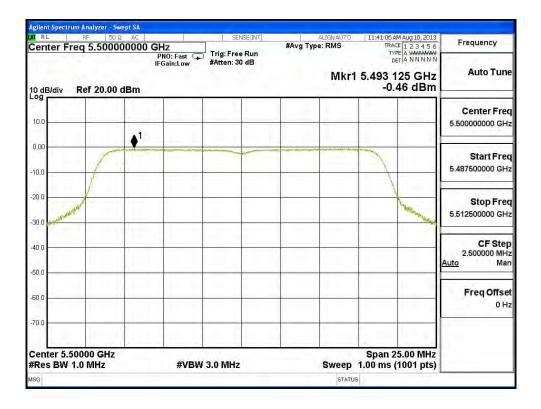
Channel 60 – Chain B

Image: RMS     Image: RMS     Frequency       Image: RMS     Image: RMS     Frequency       Image: RMS     Image: RMS     Frequency       Image: RMS     Image: RMS     Image: RMS       Image: RMS     Image:
Mkr1 5.295 575 GHz 2.77 dBm Center Fre
and the first manual water and the second seco
5.287500000 GH
Stop Fre 5.312500000 GH
CF Ste 2.50000 MH Auto Ma
Freq Offso 0 H
Span 25.00 MHz Sweep 1.00 ms (1001 pts)

M/RL RF 50Ω A	C	SENSE;INT	ALIGNAUTO	11:37:32 AM Aug 10, 2013	
Center Freq 5.3200000	PNO: Fast	Trig: Free Run	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A WANNAW DET A N N N N	Frequency
10 dB/div Ref 20.00 dBr	IFGain:Low	#Atten: 30 dB	Mkr1	5.314 325 GHz 1.41 dBm	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
10.0	▲ <sup>1</sup>				Center Free 5.320000000 GH
0,00					Start Fre 5.307500000 GH
20.0				N Stranger and	Stop Fre 5.332500000 GH
10.0					CF Ste 2.500000 MH Auto Ma
50.0					Freq Offse 0 H
70.0					
Center 5.32000 GHz #Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep	Span 25.00 MHz 1.00 ms (1001 pts)	
ISG			STATUS		

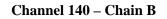
Channel 64 – Chain B

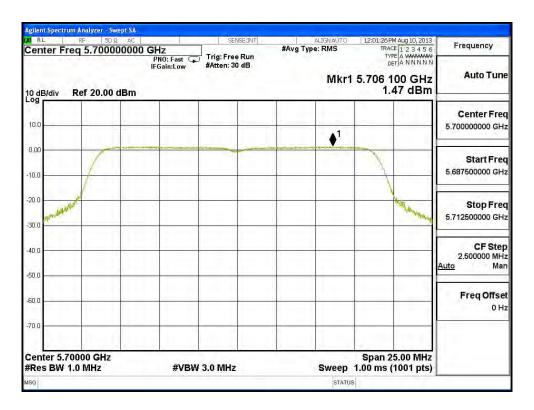




RL RF 50 Q AC		SENSE:INT	ALIGNAUTO	11:52:42 AM Aug 10, 2013	
enter Freq 5.58000000	GHz PNO: Fast 😱 IFGain:Low	Trig: Free Run #Atten: 30 dB	#Avg Type: RMS	TRACE 1 2 3 4 5 E TYPE A WWWWW DET A N N N N N	
0 dB/div Ref 20.00 dBm	IFGain:Low	#Atten: 30 dB	Mkr1	l 5.586 225 GHz -0.16 dBm	Auto Tune
					Center Free
10.0			•1		5.580000000 GH;
10.0				1	Start Free 5.567500000 GH
20.0				The second secon	Stop Free 5.592500000 GH
40.0					CF Stej 2.500000 MH <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)	

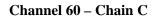
Channel 120 – Chain B



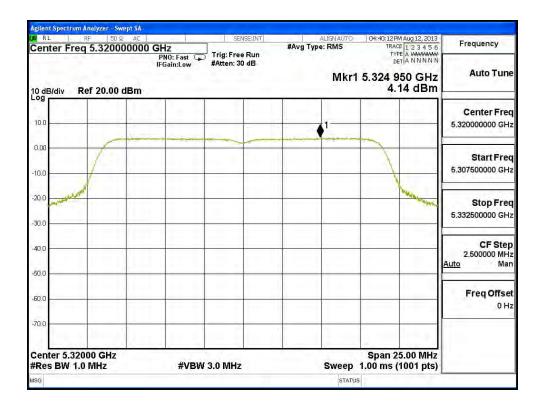


enter Freq 5.2600000	0 GHz	SENSE;INT	ALIGNAUTO #Avg Type: RMS	04:28:16 PM Aug 12, 2013 TRACE 1 2 3 4 5 6	Frequency
) dB/div Ref 20.00 dBm	PNO East	Trig: Free Run ¥Atten: 30 dB	Mkr	TYPE & WANNAN DETA NNNNN 1 5.264 750 GHz 3.68 dBm	Acres Trees
0.0			1		Center Free 5.260000000 GH:
0.0					Start Free 5.247500000 GH
0.0				Marines and make	Stop Free 5.272500000 GH
00					CF Stej 2.500000 MH <u>Auto</u> Ma
0.0					Freq Offse 0 H
enter 5.26000 GHz Res BW 1.0 MHz	#VBW 3	0.001		Span 25.00 MHz 1.00 ms (1001 pts)	

Channel 52 – Chain C

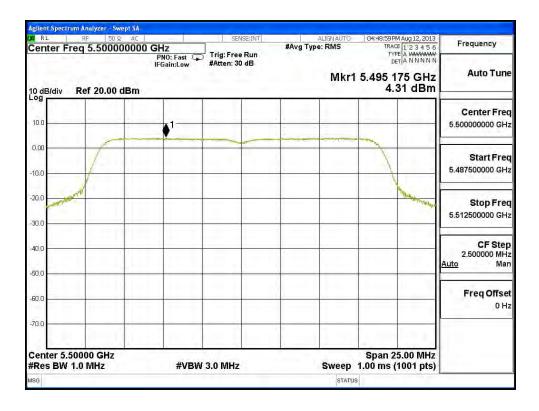






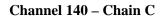
Channel 64 – Chain C

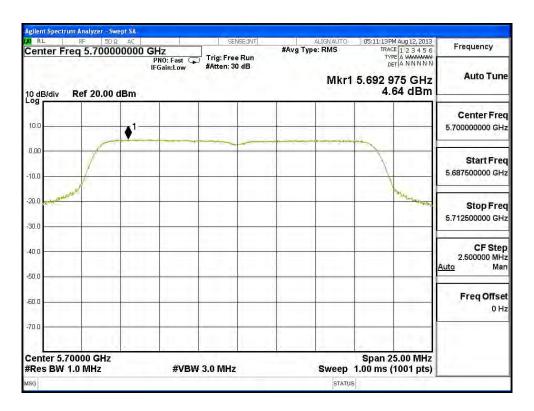
Channel 100 – Chain C



					pectrum Analyzer - Swept	
Frequency	05:05:02 PM Aug 12, 2013 TRACE 1 2 3 4 5 6	ALIGNAUTO #Avg Type: RMS	SENSE:INT	0000 GHz	RF 50 Q A	M RL Center
Auto Tune	5.574 125 GHz 3.07 dBm	Mkr1	Trig: Free Run #Atten: 30 dB	PNO: Fast 🥌 IFGain:Low	liv Ref 20.00 dBi	10 dB/di
Center Fred 5.580000000 GH;				<b>▲</b> 1		10.0
Start Free 5.567500000 GH:						0,00 10.0
Stop Fred 5.592500000 GH;	The state of the s				menalement	20.0
CF Stej 2.500000 MH <u>Auto</u> Ma						40.0
Freq Offse 0 H						60.0
					te t iter t	-70.0
	Span 25.00 MHz 1.00 ms (1001 pts)	Sweep	3.0 MHz	#VBW	r 5.58000 GHz BW 1.0 MHz	
		STATUS				MSG

Channel 120 – Chain C





Product : SpectraGuard® Access Point / Sensor	
-----------------------------------------------	--

Test Item : Peak Power Spectral Density

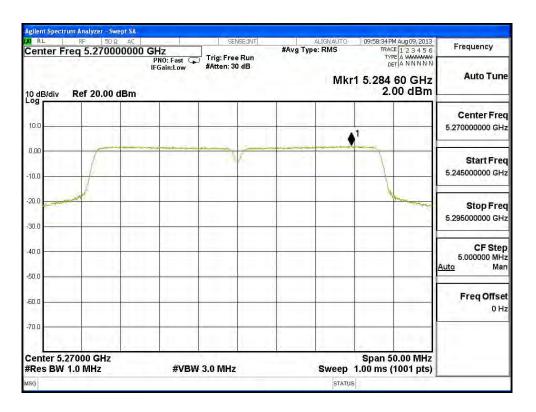
Test Site : No.3 OATS

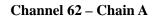
Test Mode : Mode 6 Transmit (802.11n-40BW 45Mbps)(PIFA Antenna)

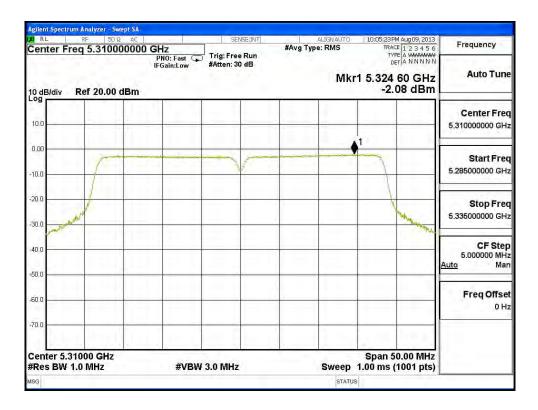
Channel No.	Frequency (MHz)	Chain (dBm)	PPSD/MHz (dBm)	Total PPSD/MHz (dBm)	Required Limit (dBm)	Result
		А	2.000	6.771	<11	Pass
54	5270	В	-1.340	3.431	<11	Pass
		С	1.060	5.831	<11	Pass
		А	-2.080	2.691	<11	Pass
62	5310	В	-6.110	-1.339	<11	Pass
		С	-3.190	1.581	<11	Pass
		А	-2.420	2.351	<11	Pass
102	5510	В	-7.310	-2.539	<11	Pass
		С	-3.580	1.191	<11	Pass
		А	1.450	6.221	<11	Pass
110	5550	В	-3.630	1.141	<11	Pass
		С	0.350	5.121	<11	Pass
		А	1.600	6.371	<11	Pass
134	5670	В	-2.550	2.221	<11	Pass
		С	1.150	5.921	<11	Pass

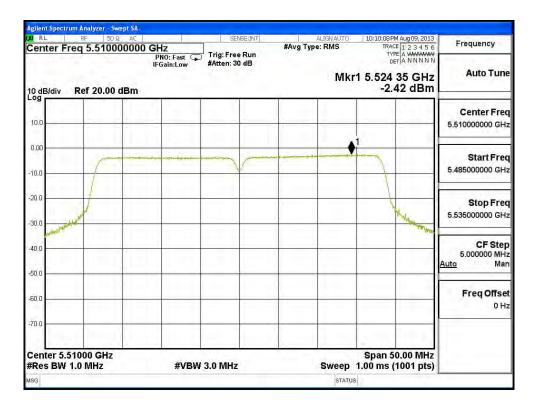
Note 1: The quantity 10\*log 3 (two antennas) is added to the spectrum peak value according to document 662911 D01.

Channel	54 –	Chain	A









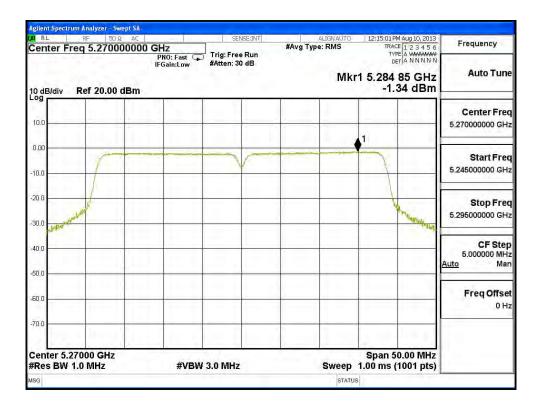
Channel 102 – Chain A

Channel 110 – Chain A

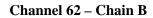
sg		and the second	STAT		1
Center 5.55000 GHz Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep	Span 50.00 MHz 1.00 ms (1001 pts)	
4					
70.0					
60.0					0 H
				i	Freq Offse
50.0					<u>Auto</u> Ma
40.0					CF Ste 5.000000 MH
30.0					
				and the second second	Stop Fre 5.575000000 GH
20.0				here	
10.0					5.525000000 GH
0.00		V		N N	Start Free
T. I. I. I. I. T.	1				0.0000000000
10.0					Center Free 5.55000000 GH
	ubm				
0 dB/div Ref 20.00		and the second second	Mk	r1 5.535 30 GHz 1.45 dBm	
Center Freq 5.5500	DUUUU GHZ PNO: Fast G IFGain:Low	Trig: Free Run #Atten: 30 dB	#Avg Type: RMS	TYPE A WAAWAAA DET A NNNNN	
	AC CIL	SENSE:INT	ALIGNAUTO #Avg Type: RMS	10:40:40 PM Aug 09, 2013 TRACE 1 2 3 4 5 6	

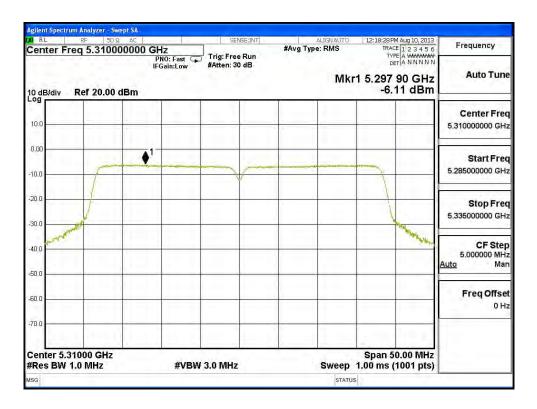
RL RF 50Ω AC		SENSE:INT	ALIGNAUTO	10:46:56 PM Aug 09, 2013	Frequency
Center Freq 5.67000000	PNO: Fast 🆵 IFGain:Low	Trig: Free Run #Atten: 30 dB	#Avg Type: RMS Mki	TRACE 1 2 3 4 5 E TYPE A WWWWW DET A NNNN 1 5.654 45 GHz 1.60 dBm	Auto Tune
					Center Fred
10.0					5.670000000 GH
10.0		V			Start Free 5.645000000 GH
30.0				Mandonewine	Stop Free 5.695000000 GH
40.0					CF Stej 5.000000 MH <u>Auto</u> Ma
60.0					Freq Offse 0 H
70.0					
Center 5.67000 GHz Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep	Span 50.00 MHz 1.00 ms (1001 pts)	

Channel 134 – Chain A



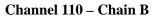
Channel 54 – Chain B

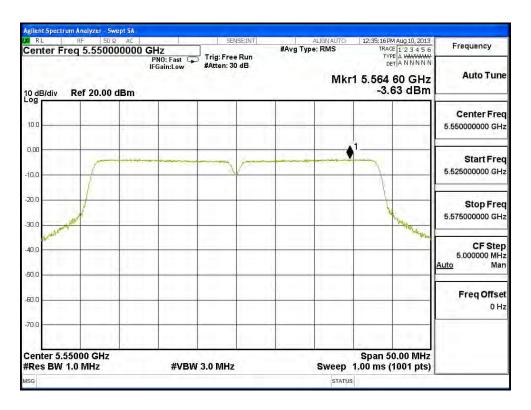






Channel 102 – Chain B





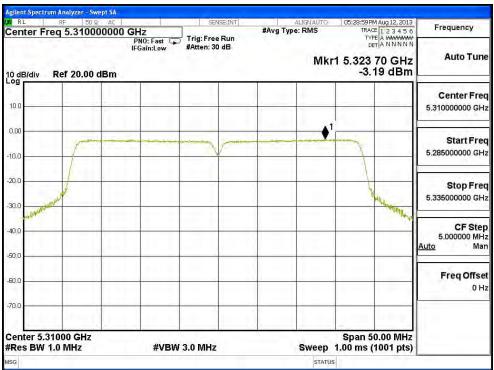
gilent Spectrum Analyzer - Swept SA	-	SENSE:INT		IGNAUTO	12:39:48 PM Aug 10, 201	3
Center Freq 5.67000000	0 GHz	Trig: Free Run	#Avg Type:		TRACE 1 2 3 4 5	Frequency
0 dB/div Ref 20.00 dBm	PNO: Fast 🧊 IFGain:Low	#Atten: 30 dB		Mkr	1 5.682 35 GH: -2.55 dBn	Auto Tune
10.0						Center Free 5.670000000 GH
10.0				<b>♦</b> <sup>1</sup>	7	Start Fre 5.645000000 GH
20.0						Stop Fre 5.695000000 GH
00						CF Ste 5.000000 MF Auto Ma
0.0						Freq Offso 0 H
70.0				1		
Center 5.67000 GHz Res BW 1.0 MHz	#VBW	3.0 MHz		Sweep	Span 50.00 MH: 1.00 ms (1001 pts	
ISG		Com Marin M		STATUS	1997 C. S.	·

Channel 134 – Chain B

ISG			STAT	and to service and a set	
Center 5.27000 GHz #Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep	Span 50.00 MHz 1.00 ms (1001 pts)	
a long to be a long					
70.0					
60.0					Freq Offse 0 Hi
50,0				i	Eron Offer
50.0					<u>Auto</u> Mar
40.0					CF Step 5.000000 MH
30.0					1
20:0				and a state of the	Stop Free 5.29500000 GH
20.0					
10.0				1	5.245000000 GH
0.00				Y	Start Fred
10.0					5.270000000 GH;
10.0					Center Free
0 dB/div Ref 20.00 dBn	n			1.06 dBm	
	IFGain:Low	#Atten: 30 dB	Mk	r1 5.284 20 GHz	
Center Freq 5.2700000	00 GHz PNO: Fast 😱 IFGain:Low	Trig: Free Run	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A WANNAM DET A N N N N N	Frequency
RL RF 50 Q A		SENSE:INT	ALIGNAUTO		

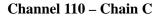
Channel 54 – Chain C

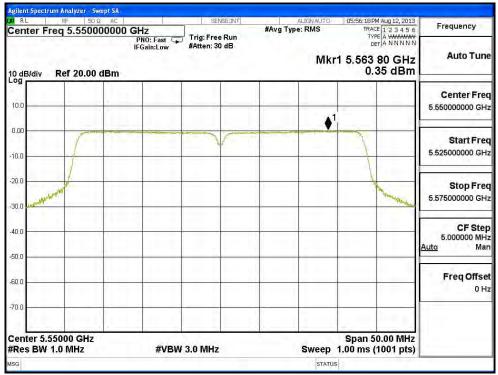
#### Channel 62 – Chain C



gilent Spectrum Analyzer - Swept SA RL RF 50 Q AC		SENSE:INT	ALIGNAUTO	05:33:16 PM Aug 12, 2013	
enter Freq 5.51000000		rig: Free Run	#Avg Type: RMS	TRACE 1 2 3 4 5 6	Frequency
0 dB/div Ref 20.00 dBm		Atten: 30 dB	Mkr	TYPE & WWWWW DET A NNNNN 1 5.524 60 GHz -3.58 dBm	
0.0					Center Free 5.510000000 GH
0.00		~		1	Start Fre 5.485000000 GH
0.0				and the second	Stop Fre 5.535000000 GH
20				and the second se	CF Ste 5.000000 MH Auto Ma
0.0				1	Freq Offse 0 H
enter 5.51000 GHz			1	Chan 50 00 Mile	
Res BW 1.0 MHz	#VBW 3.0	0 MHz	Sweep	Span 50.00 MHz 1.00 ms (1001 pts)	
SG		0.00000	STATUS		L

Channel 102 – Chain C





RL	RF 50 Ω	AC		SENSE:INT	A	LIGNAUTO	06:00:53P	M Aug 12, 2013	Exclusion
Center Fred	5.670000	PNO:		Trig: Free Run #Atten: 30 dB	#Avg Type	RMS	TRAC TYP	E 1 2 3 4 5 6 E A WWWWW T A N N N N N	Frequency
10 dB/div R	ef 20.00 dE	IFGain <b>3m</b>	:Low	#Allen, SU dB		Mkr	1 5.659	00 GHz 15 dBm	A
-09		$1 \le 1$							Center Fred
10.0		<b>A</b> 1			-				5.670000000 GH
10.00	1			V			1		Start Free 5.645000000 GH
20.0	/							Washington and a start of	Stop Free 5.69500000 GH
-30.0									0.0000000000
-40.0									CF Ster 5.000000 MH <u>Auto</u> Ma
-60.0									Freq Offse
70.0						1		1	
Center 5.670 #Res BW 1.0			#VBW 3	.0 MHz		Sweep		0.00 MHz 1001 pts)	
ISG			0.0000000			STATUS		2020 P34/	L

Channel 134 – Chain C

# 5. Peak Excursion

## 5.1. Test Equipment

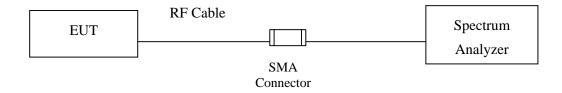
	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2013
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2013
Х	Spectrum Analyzer	Agilent	N9010A/MY48030495	Apr., 2013

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	Result
Channel No.	(MHz)	(Mbps)	(dB)	(dB)	Kesult
		MCS (0)	8.290	<13	Pass
100	5500	MCS (2)	9.090	<13	Pass
100		MCS (4)	9.900	<13	Pass
		MCS (7)	9.290	<13	Pass

### Channel 100:

RL RF	50 Q AC	SENSE:INT	ALIGNAUTO	01:44:53PM Aug 03, 2013	Frequency
enter Freq 5.50	PNO: Fast	Trig: Free Run	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A MWAMAAA DET A P N N N N	Frequency
dB/div Ref 20.0	IFGain:Low	#Atten: 30 dB	Mkr1	5.493 750 GHz 8.61 dBm	Auto Tune
0,0	1 with the second	2 pm		The second second	Center Free 5.500000000 GH;
0.0 0.0 0.0 0.0 0.0				And a strange and a strange	Start Free 5.487500000 GH:
0.0 0.0 0.0					Stop Free 5.512500000 GH
enter 5.50000 GH Res BW 1.0 MHz	#VB\	V 3.0 MHz		Span 25.00 MHz 1.00 ms (1001 pts)	CF Step 2.500000 MH Auto Ma
KR MODE TRC SCL 1 N 2 F 2 N 1 F 3 4	× 5.493 750 GHz 5.498 500 GHz	Y F 8.61 dBm 0.32 dBm	UNCTION FUNCTION WIDTH	FUNCTION VALUE	Freq Offse
5 6 7					ŰH
8 9 0 1					



-	4 Aug 03, 2013	01:46:43P	LIGNAUTO		EINT	SENSE		AC	7zer - Swe 50 Ω	RF		E,	RI
Frequency	E 1 2 3 4 5 6 E A MWWWW	TYP	RMS	#Avg Type	Run	] Trig: Free R	Z 10: Fast G	0000 GH	50000	eq 5	Fre	ter	en
Auto Tur	TAPNNNN	1.1.1				#Atten: 30 d	ain:Low	IFO					
, and the	75 GHZ 97 dBm	0 dB/div Ref 20.00 dBm 9.97 dBm 9.97 dBm											
Center Fre			1	<b>1</b>				1.21					og 10.0
5.50000000 GH		- the	and an and a start of the start	V	and and a set		nallshard and		Marrial		_		0.00
i	Hotel and the second state	mar							1	AN HALL	uthhow	and M	Ö.Ö
Start Fre	and the second of the second o	ita.							( <u> </u>	- and a series			0.0
5.487500000 GI	and the state of t							- 71.1		1	Nº.	NewW	0.0
									_	-		_	0.0
Stop Fre 5.512500000 GH	_							1		-	_	1.1.	60.0
	1	7 1										10	70.0
CF Ste 2.500000 MH	5.00 MHz 1001 pts)		Sweep			3.0 MHz	#VB		GHz Hz	0000 .0 M			
<u>kuto</u> Ma	N VALUE	FUNCTIO	CTION WIDTH	TION		Y		Х			TRC		KR I
			_		n n	9.97 dBm 0.88 dBm	5 GHz 5 GHz	5.504 07 5.504 57		f f	2	N	2
Freq Offs					_						-		3
U													5 6 7
					-								89
					-								0
		_			-					-	-		1

L RF 50 Ω AC	SENSE:INT	ALIGNAUTO	01:49:13PM Aug 03, 2013	- contractor
nter Freq 5.500000000 GHz PNO: Fast	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
IFGain:Low B/div Ref 20.00 dBm	Auto Tune			
المراجع	mar 2 marine			Center Free
and the second s			Angler to the the state of the state	Start Free 5.487500000 GH:
				Stop Free 5.512500000 GH
	W 3.0 MHz		Span 25.00 MHz 1.00 ms (1001 pts)	2.500000 MH
MODE         TRC         SCL         X           N         2         f         5.504 125 GHz           N         1         f         5.498 550 GHz	10.26 dBm 0.36 dBm	NCTION FUNCTION WIDT	FUNCTION VALUE	<u>Auto</u> Ma
				Freq Offse 0 H



RF 50Ω A nter Freq 5.5000000	C GHz	SENSE:INT	ALIGNAUTO #Avg Type: RMS	TRACE 1 2 3 4 5 6	Frequency
	PNO: Fast G IFGain:Low	Trig: Free Run #Atten: 30 dB		TYPE A MWWWW DET A P N N N N	1.00
Bidiv Ref 20.00 dBr	Auto Tune				
	مانىيەر ئەسىرىيە مەرىيەر سەرىيەر سەرىي	an writing 2 man and a work	1		Center Fre
)				Mary Mary	5.500000000 GH
and manual and and and				Martin Burn Moone	
Ment-Mananderenter				The and the and the and the and	Start Fre 5.487500000 G
) 	_				Stop Fre
					5.512500000 GH
nter 5.50000 GHz es BW 1.0 MHz	#VBV	V 3.0 MHz	Sweep	Span 25.00 MHz 1.00 ms (1001 pts)	CF Ste 2.500000 MH
MODE TRC SCL			UNCTION FUNCTION WIDTH	FUNCTION VALUE	<u>Auto</u> Ma
	.505 475 GHz .499 000 GHz	9.73 dBm 0.44 dBm			
					Freq Offse 0 H

### CHAIN B

Channel No.	Frequency	Data Rate	Measurement Level	Required Limit	Result
Channel No.	(MHz)	(Mbps)	(dB)	(dB)	Kesun
		MCS (0)	8.870	<13	Pass
100	5500	MCS (2)	9.140	<13	Pass
100	5500	MCS (4)	9.720	<13	Pass
		MCS (7)	8.820	<13	Pass

### Channel 100:

	50 Q AC	SENSE:INT	ALIGNAUTO	12:02:45 PM Aug 05, 2013	
enter Freq 5.50	DOOOOOOO GHz PNO: Fast IFGain:Low	Trig: Free Run #Atten: 30 dB	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A MWAMWA DET A P N N N N	
0 dB/div Ref 20.0	00 dBm		Mkr1	5.496 375 GHz 5.42 dBm	Auto Tun
00	1		non fallen and the second state of the second	and the state of t	Center Fre 5.500000000 GH
00.0 Horand Charles and the second se				and the second s	Start Fre 5.487500000 GH
0.0					Stop Fre 5.512500000 GH
enter 5.50000 GH Res BW 1.0 MHz		W 3.0 MHz	Sweep	Span 25.00 MHz 1.00 ms (1001 pts)	
KR MODE TRC SCL 1 N 2 f 2 N 1 f	5.496 375 GHz	5.42 dBm	FUNCTION FUNCTION WIDTH	FUNCTION VALUE	Auto Ma
2 N 1 f 3 4 5 6	5.498 175 GHz	-3.45 dBm			Freq Offs 0 F
7					
9 0 1					



Frequency	M Aug 05, 2013			#Avg Ty	ISE:INT	SEN	115		50 Q	RF		Rl
	PEAMWWWW ETAPNNNN	TY	E. RINS	#Avg iv	Run	Trig: Free	PNO: Fast	0000 G	.50000	reqa	er F	n
Auto Tu	Mkr1 5.495 075 GHz											
-		э.		1	-	1	1	IBm	20.00	Ref	l/div	dE g
Center Fr 5.500000000 G		and the	my Alter when the	02	wallhalhan	ก.ค. <sub>เมริญ</sub> น ประกาณี 2016 กฎการจ	-	mahlm	wether			1.0 00
1	they was walked and	. An a she							Low	mmyhapp	-	0
Start Fr 5.487500000 G	and and and an in	70							(	-	parter that	0
Stop Fr												.0
5.512500000 G												.0
CF Sto 2.500000 M	5.00 MHz 1001 pts)		Sweep			V 3.0 MHz	#VB		GHz IHz	50000 1.0 N		
<u>Auto</u> M	IN VALUE	FUNCTI	CTION WIDTH	CTION FL		Y 5.77 dE	75 GHz	×			IDDE T	
Freq Offs 0						-3.37 dE		5.502 9		f	Ň	2
, i					-							5
					1							)
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01:07:39PM Aug 05, 2013	ALIGNAUTO	INT	SEN		AC	50 9	RF		R L	
TRACE 1 2 3 4 5 6 TYPE A MWWWW DET A P N N N N	1 Type: RMS	Run	Trig: Free	NO: Fast 😱	00000 G	5000	req 5	er Fr	nt	
5.497 525 GHz 5.80 dBm	Mkr1			Sumeow	. C	20.00	Ref	/div	dE	
and your where and	n Maleine String Inden	mensionalajaja	1		and the second	Stream & Decide			9 .0	
Standard and a standard								- Andrews	0	
									0	
	Sweep 1		3.0 MHz	#VBW						
FUNCTION VALUE	FUNCTION WIDTH	1				-	f	N 2		
			-3.92 dE		5.497 3		r	N 1		
	Span 25.00 MH 1.00 ms (1001 pts	Mkr1 5.497 525 GH: 5.80 dBn	Run dB         TYPE & MM- DEF & P NNN DEF & P NNNN DEF & P NNN DEF & P NNN DEF & P NNN DEF & P NNN DEF & P NNNN DEF & P NNN DEF & P NNNN DEF & P NNN DEF & P NNNN DEF	Trig: Free Run #Atten: 30 dB         TYPE A MWAND DET A P NNN           Mkr1 5.497 525 GH: 5.80 dBn           1           2           4           4           1           2           4           4           1           2           4           4           5           5           5           5           5           4           4           4           5           5           5           6           6           7           7           7           7           7           7           7           8           8           9           10           10           10           10           10           10           10           10           10           10           10           10           10           10 <td>Trig: Free Run Gain:Low         Trig: Free Run #Atten: 30 dB         TVPE A MUMOUS BANK Mkr1 5.497 525 GH; 5.80 dBm           1         Mkr1 5.497 525 GH; 5.80 dBm         5.80 dBm           1         Span 25.00 MH         Span 25.00 MH           #VBW 3.0 MHz         Sweep 1.00 ms (1001 pts           25 GHz         5.80 dBm</td> <td>OUDDOUR PINO: Fast       Trig: Free Run         Trig: Free Run         MKr1 5.497 525 GH:         GBm         Mkr1 5.497 525 GH:         Source Colspan="2"&gt;Mkr1 5.497 525 GH:         Source Colspan="2"&gt;Trig: Free Run         Mkr1 5.497 525 GH:         Source Colspan="2"&gt;Source Colspan="2"         X Source Colspan="2"       Source Colspan="2"       <td colspa<="" td=""><td>PNO: Fast Trig: Free Run #Atten: 30 dB PNO: Fast Trig: Free Run #Atten: 30 dB Mkr1 5.497 525 GHz 20.00 dBm 1 0 GHz #VBW 3.0 MHz S.497 525 GHz 5.80 dBm PNO: Fast Trig: Free Run Brite Run B</td><td>Image: Second constraints         Trig: Free Run MAtten: 30 dB         Trig: Free Run Der A P NNN           Ref 20.00 dBm         Mkr1 5.497 525 GH; 5.80 dBm         5.80 dBm           1         1         1         1           1         1         1         1           1         1         1         1         1           1         1         1         1         1         1           1         1         1         1         1         1         1           1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1&lt;</td><td>PN0: Fast         Trig: Free Run #Atten: 30 dB         Trig: Free Run #Atten: 30 dB           Mkr1 5.497 525 GHz         5.80 dBm</td></td></td>	Trig: Free Run Gain:Low         Trig: Free Run #Atten: 30 dB         TVPE A MUMOUS BANK Mkr1 5.497 525 GH; 5.80 dBm           1         Mkr1 5.497 525 GH; 5.80 dBm         5.80 dBm           1         Span 25.00 MH         Span 25.00 MH           #VBW 3.0 MHz         Sweep 1.00 ms (1001 pts           25 GHz         5.80 dBm	OUDDOUR PINO: Fast       Trig: Free Run         Trig: Free Run         MKr1 5.497 525 GH:         GBm         Mkr1 5.497 525 GH:         Source Colspan="2">Mkr1 5.497 525 GH:         Source Colspan="2">Trig: Free Run         Mkr1 5.497 525 GH:         Source Colspan="2">Source Colspan="2"         X Source Colspan="2"       Source Colspan="2" <td colspa<="" td=""><td>PNO: Fast Trig: Free Run #Atten: 30 dB PNO: Fast Trig: Free Run #Atten: 30 dB Mkr1 5.497 525 GHz 20.00 dBm 1 0 GHz #VBW 3.0 MHz S.497 525 GHz 5.80 dBm PNO: Fast Trig: Free Run Brite Run B</td><td>Image: Second constraints         Trig: Free Run MAtten: 30 dB         Trig: Free Run Der A P NNN           Ref 20.00 dBm         Mkr1 5.497 525 GH; 5.80 dBm         5.80 dBm           1         1         1         1           1         1         1         1           1         1         1         1         1           1         1         1         1         1         1           1         1         1         1         1         1         1           1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1&lt;</td><td>PN0: Fast         Trig: Free Run #Atten: 30 dB         Trig: Free Run #Atten: 30 dB           Mkr1 5.497 525 GHz         5.80 dBm</td></td>	<td>PNO: Fast Trig: Free Run #Atten: 30 dB PNO: Fast Trig: Free Run #Atten: 30 dB Mkr1 5.497 525 GHz 20.00 dBm 1 0 GHz #VBW 3.0 MHz S.497 525 GHz 5.80 dBm PNO: Fast Trig: Free Run Brite Run B</td> <td>Image: Second constraints         Trig: Free Run MAtten: 30 dB         Trig: Free Run Der A P NNN           Ref 20.00 dBm         Mkr1 5.497 525 GH; 5.80 dBm         5.80 dBm           1         1         1         1           1         1         1         1           1         1         1         1         1           1         1         1         1         1         1           1         1         1         1         1         1         1           1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1&lt;</td> <td>PN0: Fast         Trig: Free Run #Atten: 30 dB         Trig: Free Run #Atten: 30 dB           Mkr1 5.497 525 GHz         5.80 dBm</td>	PNO: Fast Trig: Free Run #Atten: 30 dB PNO: Fast Trig: Free Run #Atten: 30 dB Mkr1 5.497 525 GHz 20.00 dBm 1 0 GHz #VBW 3.0 MHz S.497 525 GHz 5.80 dBm PNO: Fast Trig: Free Run Brite Run B	Image: Second constraints         Trig: Free Run MAtten: 30 dB         Trig: Free Run Der A P NNN           Ref 20.00 dBm         Mkr1 5.497 525 GH; 5.80 dBm         5.80 dBm           1         1         1         1           1         1         1         1           1         1         1         1         1           1         1         1         1         1         1           1         1         1         1         1         1         1           1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1<	PN0: Fast         Trig: Free Run #Atten: 30 dB         Trig: Free Run #Atten: 30 dB           Mkr1 5.497 525 GHz         5.80 dBm



Agilent Spectrum Analyze XI RL RF	50 Q AC	SENSE;INT	ALIGNAUTO	01:18:40 PM Aug 05, 2013	-	
Center Freq 5.5	00000000 GHz PNO: Fast IFGain:Lov		#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A MWWW DET A P N N N N	Frequency	
10 dB/div Ref 20	Auto Tune					
10.0 0.00	And the second	1 martine warms	m-salanse mannan fan far fin fa	and the state of t	Center Fred 5.50000000 GHz	
-10.0 -20.0				and and and and a set of a set	Start Freq 5.487500000 GHz	
-50.0 -60.0 -70.0					Stop Free 5.512500000 GH	
Center 5.50000 G #Res BW 1.0 MH:		BW 3.0 MHz	Sweep	Span 25.00 MHz 1.00 ms (1001 pts)	2.500000 MH	
MKR         MODE         TRC         SCL           1         N         2         f           2         N         1         f           3	× 5.498 900 GHz 5.498 025 GHz	¥ 5,23 dBm -3,59 dBm	FUNCTION FUNCTION WIDTI	H FUNCTION VALUE	Auto Man Freq Offset 0 Hz	
8 9 9 10 11 12						

# CHAIN C

Channel No.	Frequency	Data Rate	Measurement Level	Required Limit	Result
0.1.0.1	(MHz)	(Mbps)	(dB)	(dB)	100000
		MCS (0)	9.590	<13	Pass
100	5500	MCS (2)	8.540	<13	Pass
100	5500	MCS (4)	8.920	<13	Pass
		MCS (7)	8.790	<13	Pass

### Channel 100:

	AC	SENSE;INT			PM Aug 09, 2013	.3		
enter Freq 5.50000	Trig: Free Run #Atten: 30 dB	#Avg Type: I	T	CE 123456 PPE A MWWWW DET A P N N N N	Frequency Auto Tune			
IFGain:Low #Atten: 30 dB Mkr1 5.503 900 GHz 0 dB/div Ref 20.00 dBm 8.55 dBm								
0.0		and the property and	1 1 2 1 1	whenter		Center Fre		
0.0 0.0					Mr. Norwight Strange	5.500000000 GH		
				1	and the second and th	Start Fre 5.487500000 GH		
ο.ο ο.ο σ.ο						Stop Fre 5.512500000 GH		
enter 5.50000 GHz Res BW 1.0 MHz	#VBW	3.0 MHz	s	Span weep 1.00 ms	25.00 MHz (1001 pts)	CF Ste 2.500000 MH		
KR MODE TRC SCL	5.503 900 GHz	Y 8.55 dBm	UNCTION	ON WIDTH	ON VALUE	<u>Auto</u> Ma		
2 N 1 F 3 4 5 5	5.502 900 GHz	-1.04 dBm				Freq Offs 01		
6 7 8								
9								



Agilent Spo M RL		Analyzer - Sw	zept SA 2 AC							II.
			00000 GHz PNO: I	Fast G	SENSE:IM	#Av	ALIGNAUTO g Type: RMS	TRA TY	M Aug 09, 2013 CE 1 2 3 4 5 6 PE A MWWWW	Frequency
10 dB/di	v R	ef 20.00	IFGain	Low	#Atten: 30 dB		Mkr1	5.503 (	025 GHz 68 dBm	Auto Tune
10.0		Janana		manathante	a-mindubalishop Ha	<b>1</b>	Marshine Caroline Theorem	er man to be have		Center Free 5.500000000 GH
-10.0 -20.0 -30.0 -40.0	Anna Martin							1	WARN TO THE AND	Start Free 5.487500000 GH
-50.0 -60.0 -70.0										Stop Fre 5.512500000 GH
Center #Res B		000 GHz MHz		#VBW	3.0 MHz	4.	Sweep		25.00 MHz (1001 pts)	CF Ste 2.500000 MH
MKR MODE		f	× 5.503 025 GI 5.502 650 GI		7.68 dBm -0.86 dBm	FUNCTION	FUNCTION WIDTH	FUNCTI	ON VALUE	<u>Auto</u> Ma
3 4 5 6			5.502 650 Gr	72	-0.00 GBM				_	Freq Offse 0 H
7 8 9 10 11 12										
1Z ISG	t I				- 0	-	STATU	s		

Frequency Auto Tune	03:09:33 PM Aug 09, 2013	ALIGNAUTO	SENSE:INT	RL RF 50 Q AC				
	TRACE 1 2 3 4 5 6 TYPE A MWWWW DET A P N N N N	#Avg Type: RMS	Trig: Free Run #Atten: 30 dB	enter Freq 5.500000000 GHz PNO: Fast IFGain:Low				
	5.497 425 GHz 8.00 dBm	Mkr1	dB/div Ref 20.00 dBm					
Center Free 5.500000000 GH	No. of the second secon	Law and the second s	1		Street Rolling Star			
Start Free 5.487500000 GH	And a start and				1	WWW KAN	a day of the	
Stop Free 5.512500000 GH								
CF Ste 2.500000 MH	Span 25.00 MHz 1.00 ms (1001 pts)		3.0 MHz			V 1.0	s BV	
<u>luto</u> Ivia	FUNCTION VALUE	ON FUNCTION WIDTH	8.00 dBm -0.92 dBm	5.497 425 GHz 5.502 325 GHz		1180 SD 2 f 1 f		
Freq Offse 0 H								



	trum Analyz										
Center	RF Freq 5.5	50 Q	000 GHz		Trig: Free	E:INT	#Avg	ALIGNAUTO	TRA	PM Aug 09, 2013 CE 1 2 3 4 5 6 (PE A MIANANA)	Frequency
				D: Fast Ģ ain:Low	#Atten: 30			-	2.1	100 GHz	Auto Tune
10 dB/div Ref 20.00 dBm							Auto Tun				
10.0			constant so	mannelist	Mar - Hart & Margan descen to	1 2m	hardenument	water			Center Free
-10.0	minul	Mag Andrew							- Annu		5.50000000 GHz
-20.0	wwwwww	1							1	Werkang High Soft Dard	
-30.0	1000 Martine Mart								×	and a second and a s	Start Freq 5.487500000 GHz
-50.0											Stop Freq
-60.0	_										5.512500000 GHz
	5.50000 ( N 1.0 MH			#VBW	( 3.0 MHz			Sweep		25.00 MHz (1001 pts)	CF Step 2,500000 MHz
MKR MODE			х		Y		ICTION	FUNCTION WIDTH	FUNCT	ON VALUE	<u>Auto</u> Man
1 N 2 N	2 1			7.94 dB -0.85 dB				-		1	
3 4 5						_					Freq Offset 0 Hz
6 7											
8 9							-				
10 11 12							-				
MSG								STATU	2		