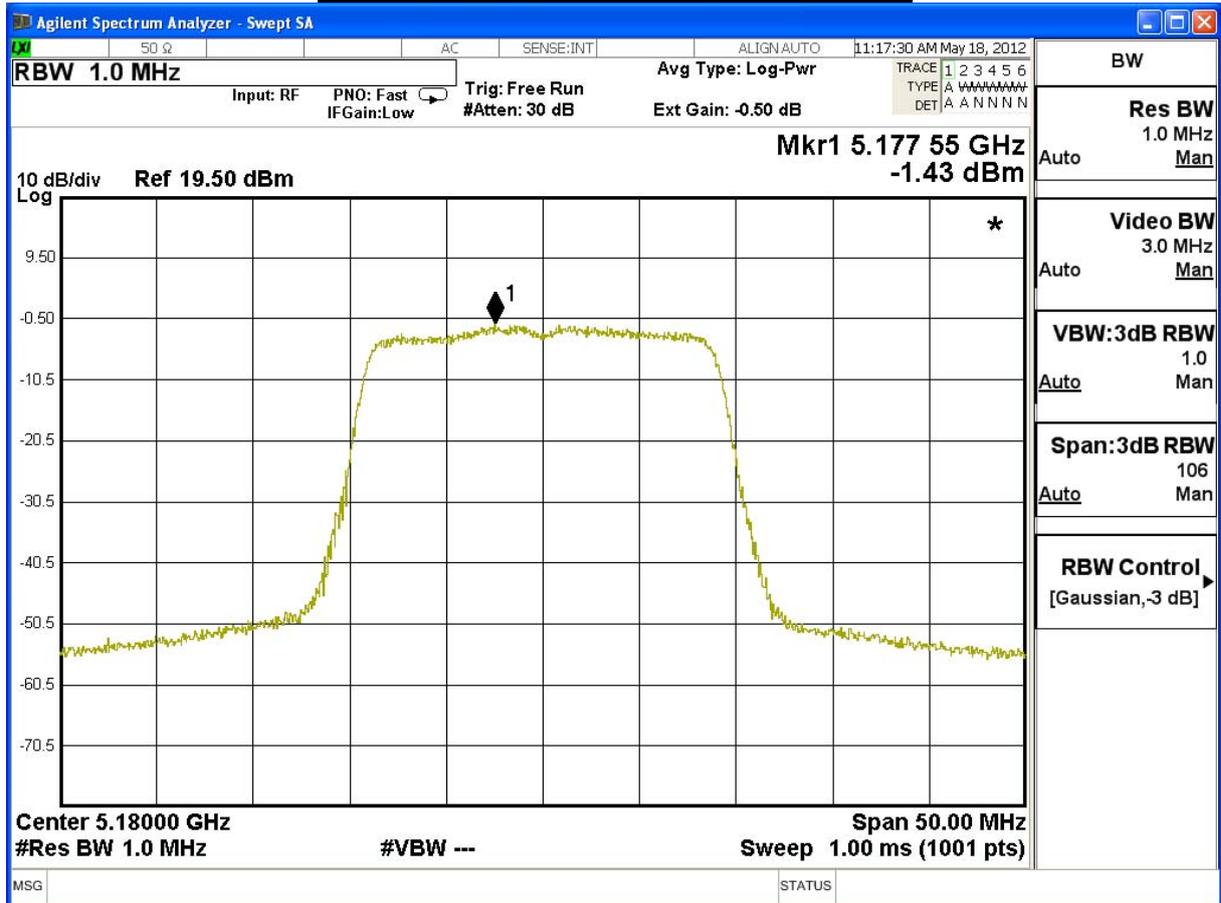
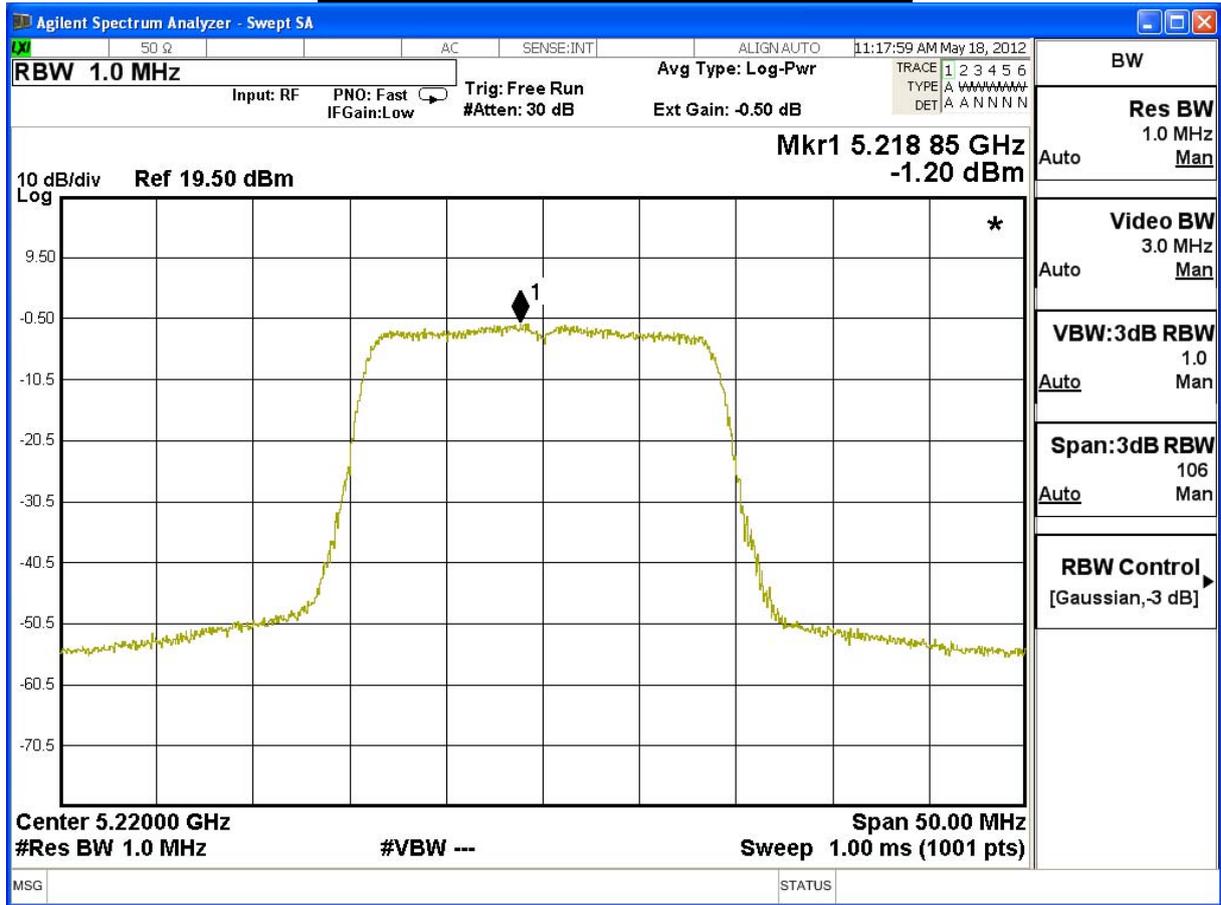


IEEE 802.11n_20M(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
36	5180	-1.43	≤ 4	Pass
44	5220	-1.20	≤ 4	Pass
48	5240	-1.62	≤ 4	Pass

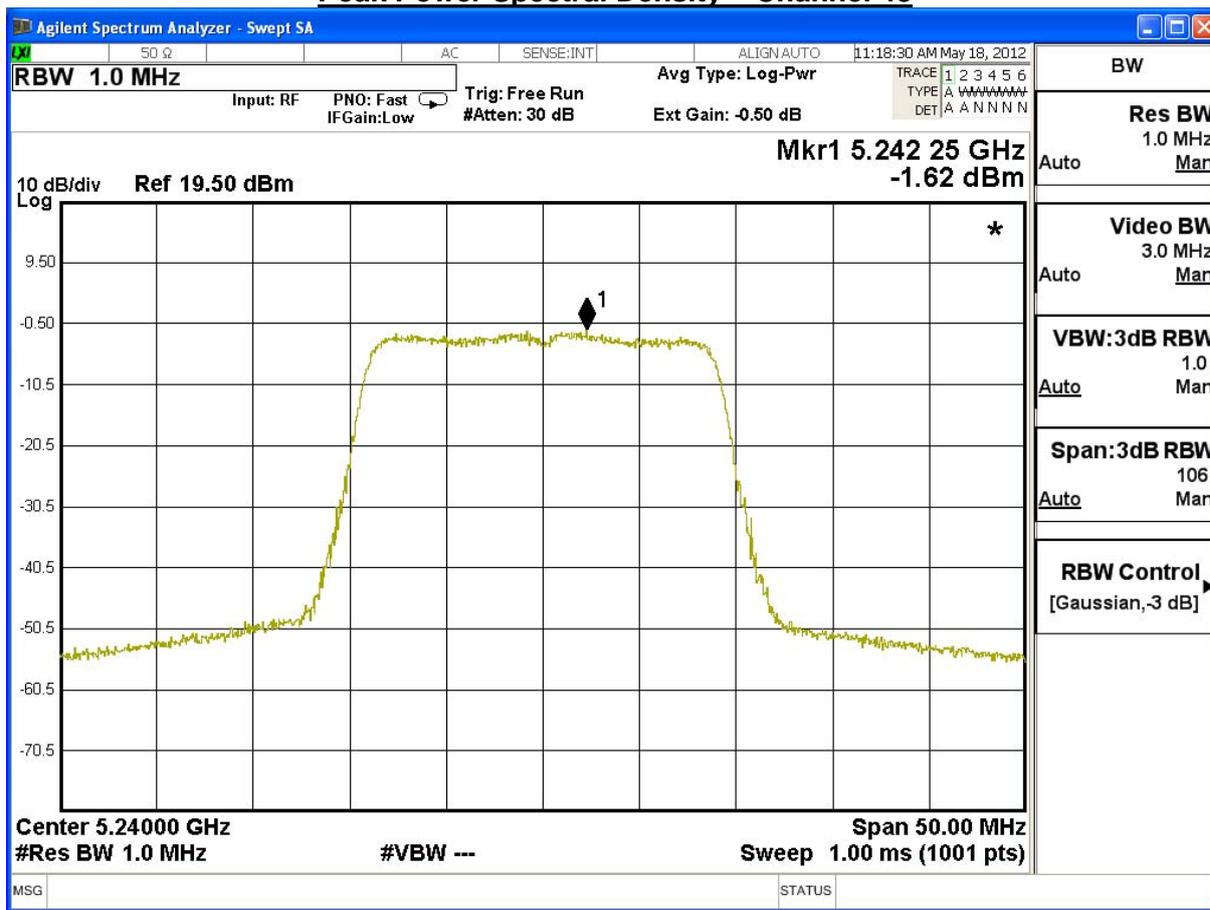
Peak Power Spectral Density – Channel 36



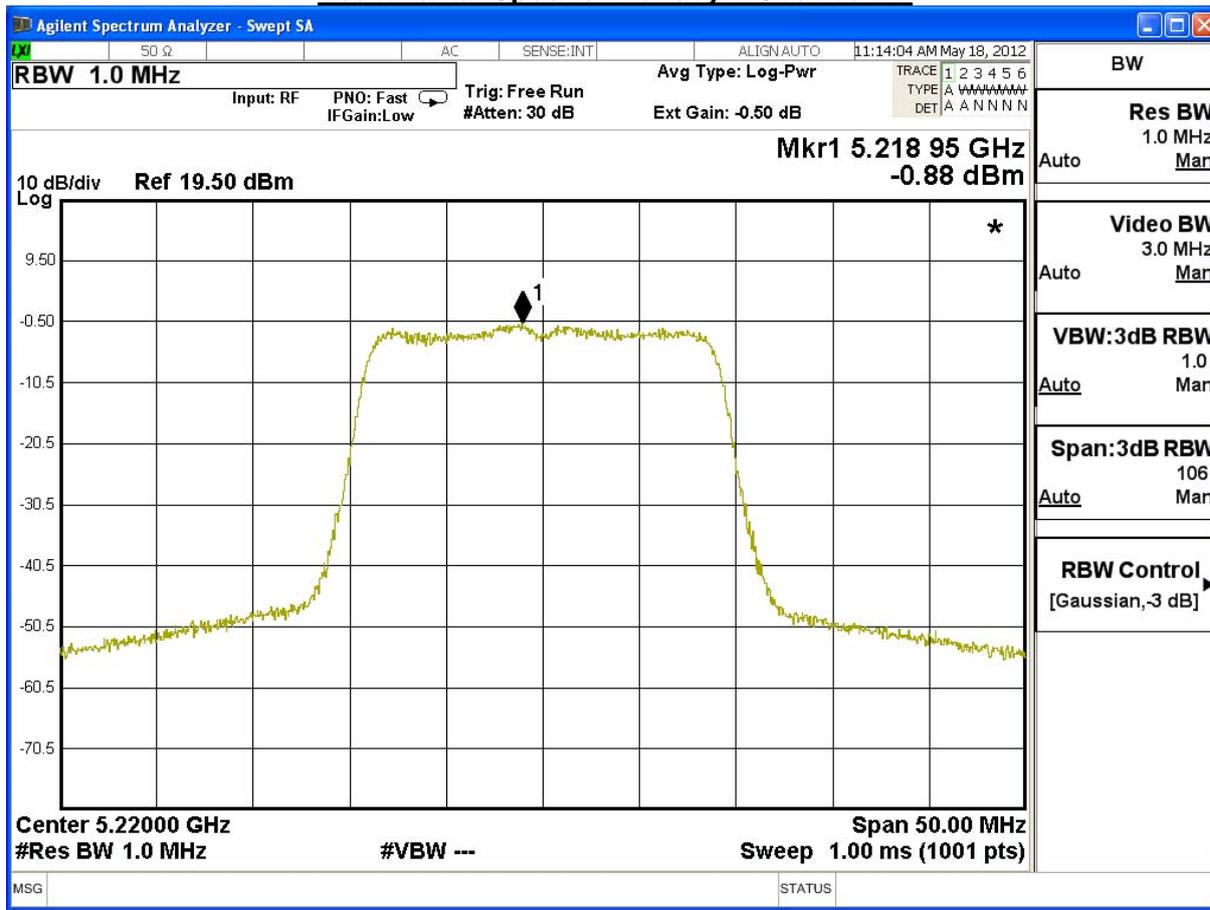
Peak Power Spectral Density – Channel 44



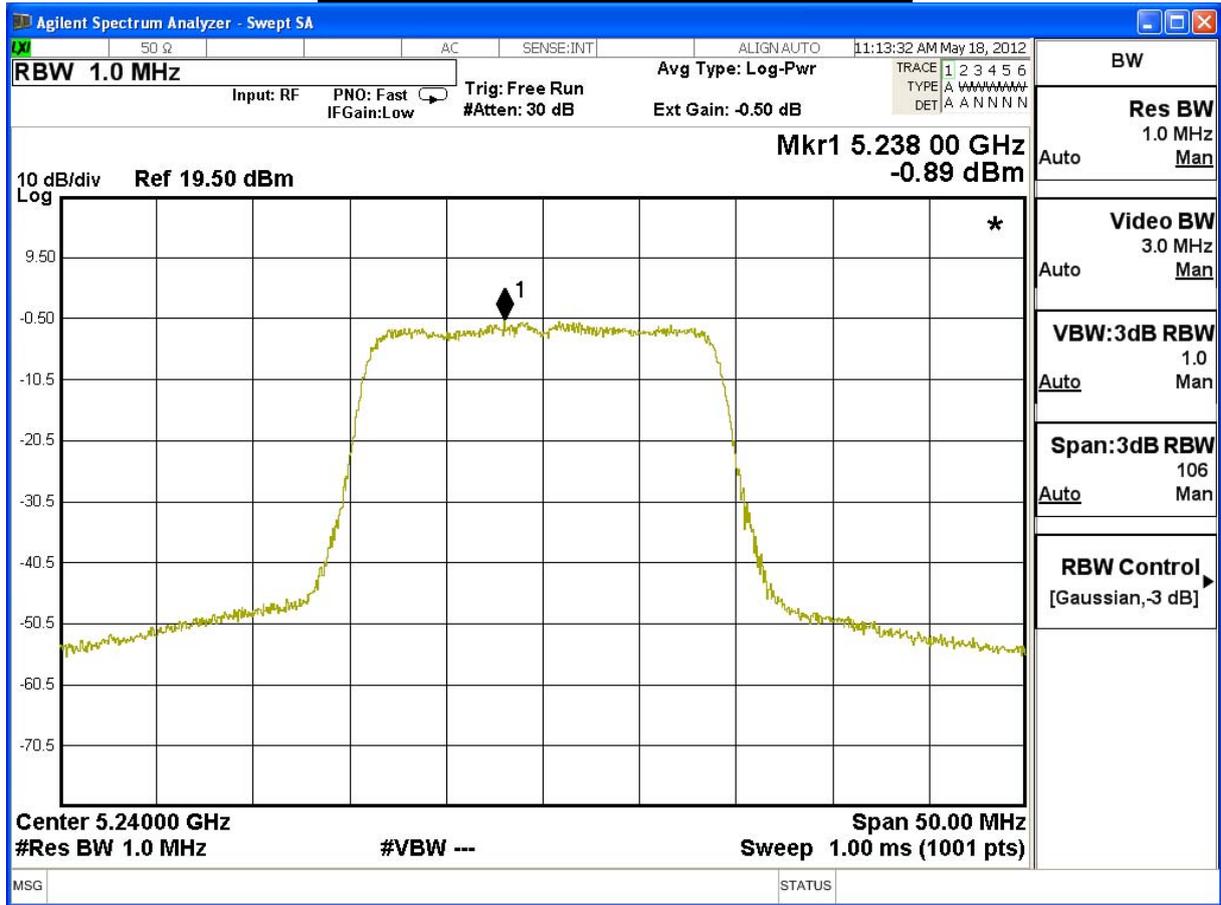
Peak Power Spectral Density – Channel 48



Peak Power Spectral Density – Channel 44

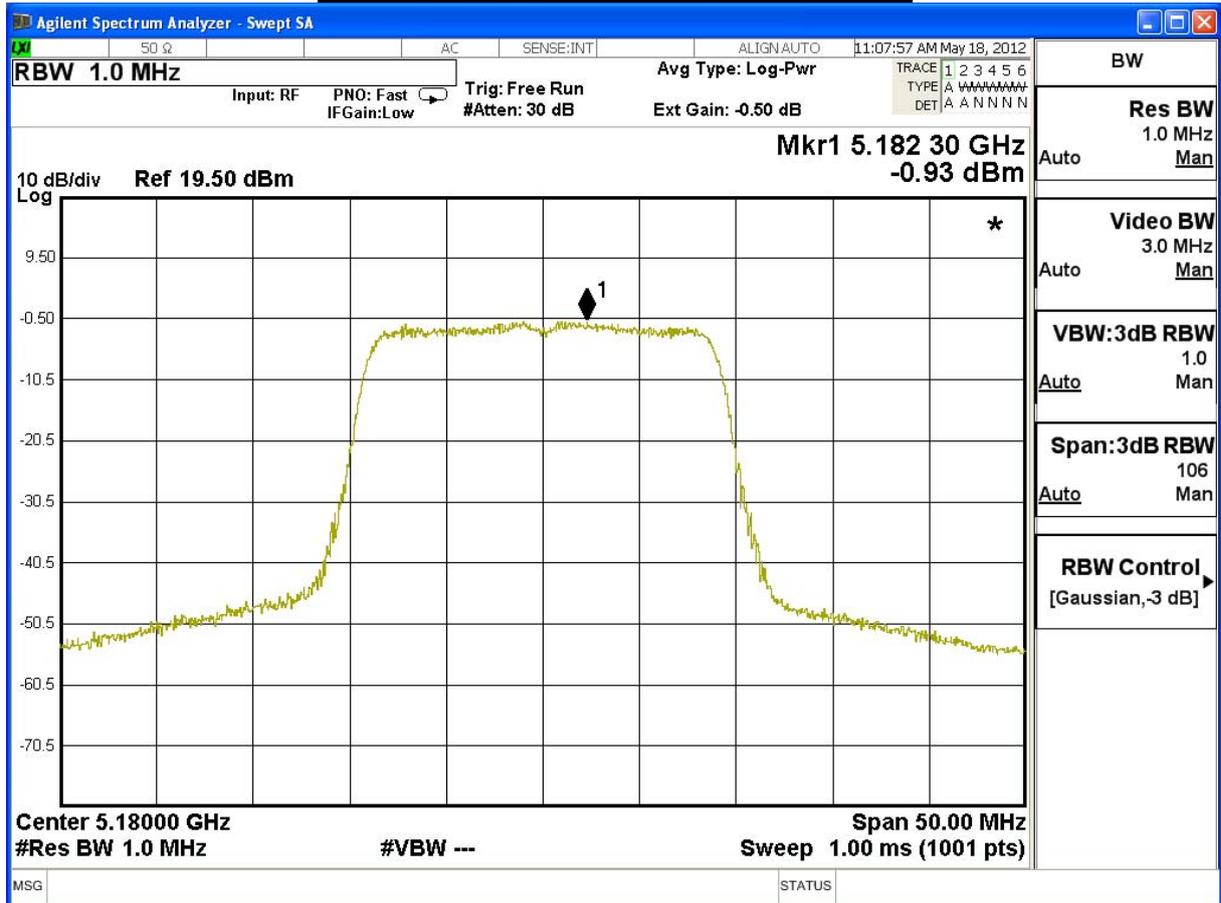


Peak Power Spectral Density – Channel 48

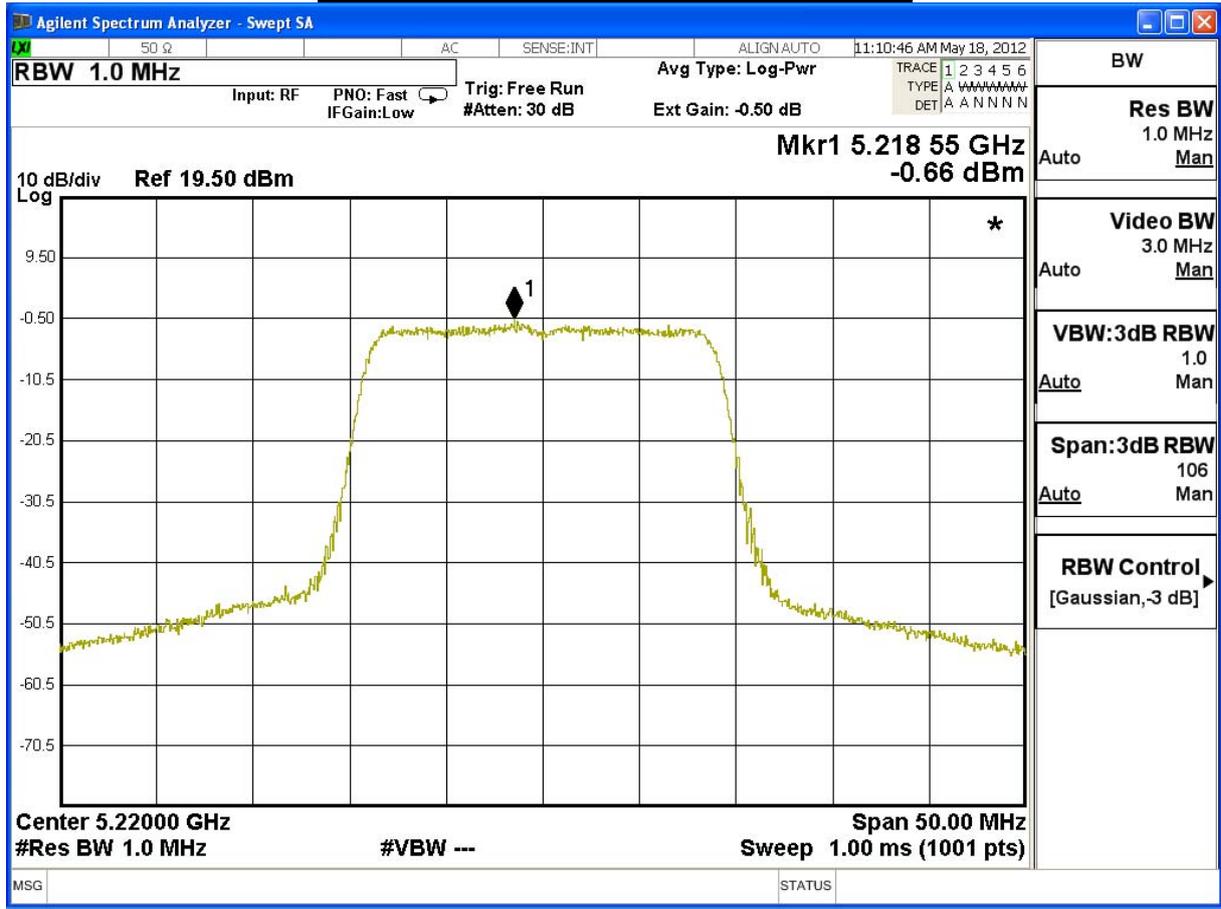


IEEE 802.11n_20M(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
36	5180	-0.93	≤ 4	Pass
44	5220	-0.66	≤ 4	Pass
48	5240	-0.86	≤ 4	Pass

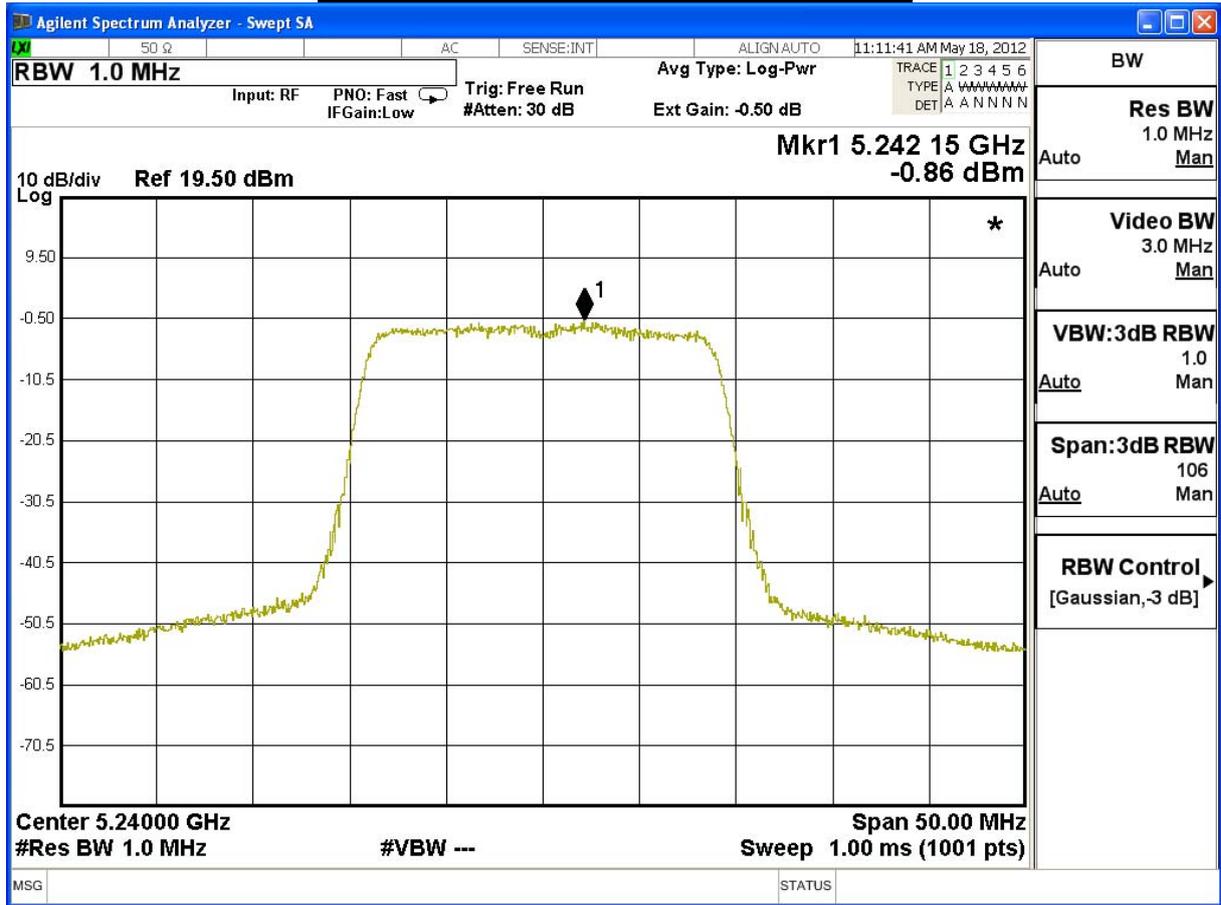
Peak Power Spectral Density – Channel 36



Peak Power Spectral Density – Channel 44



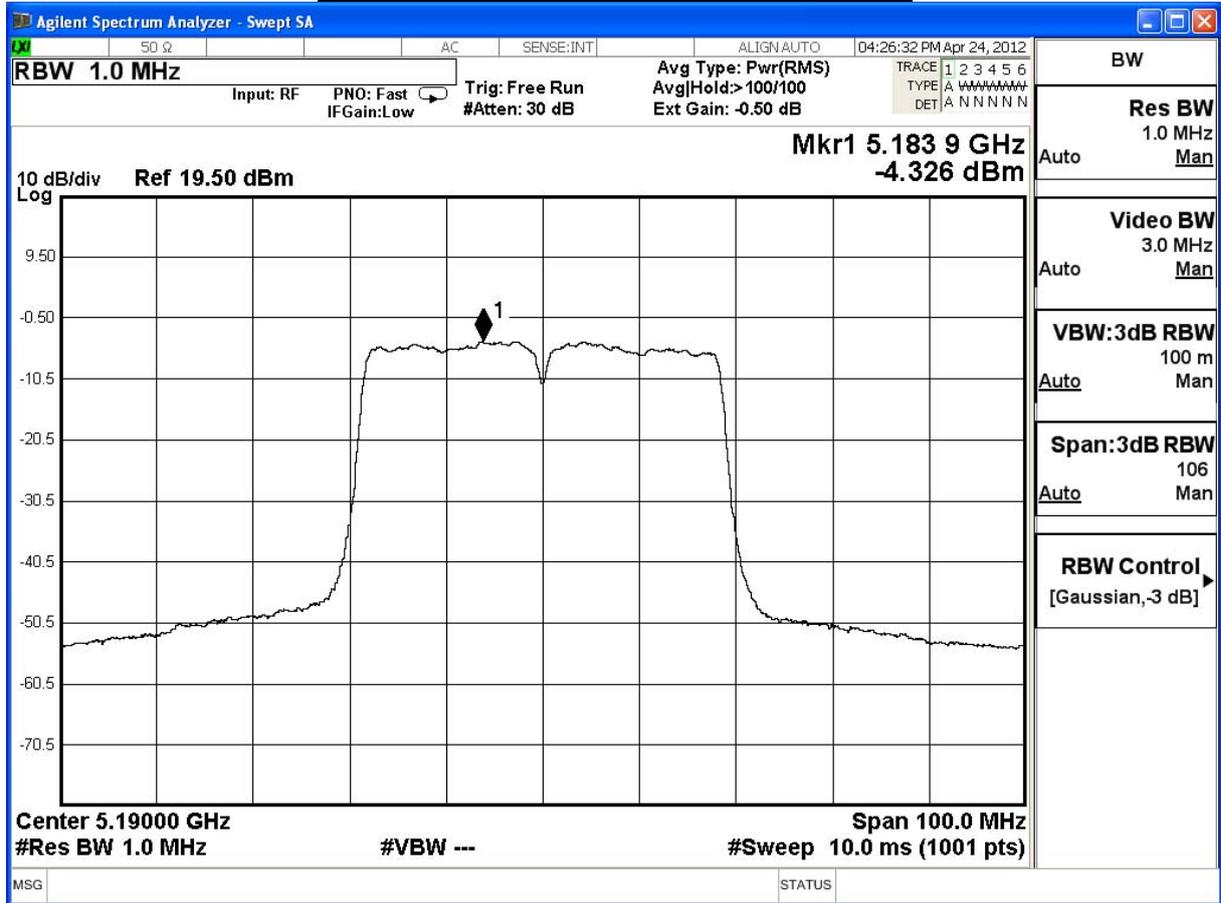
Peak Power Spectral Density – Channel 48



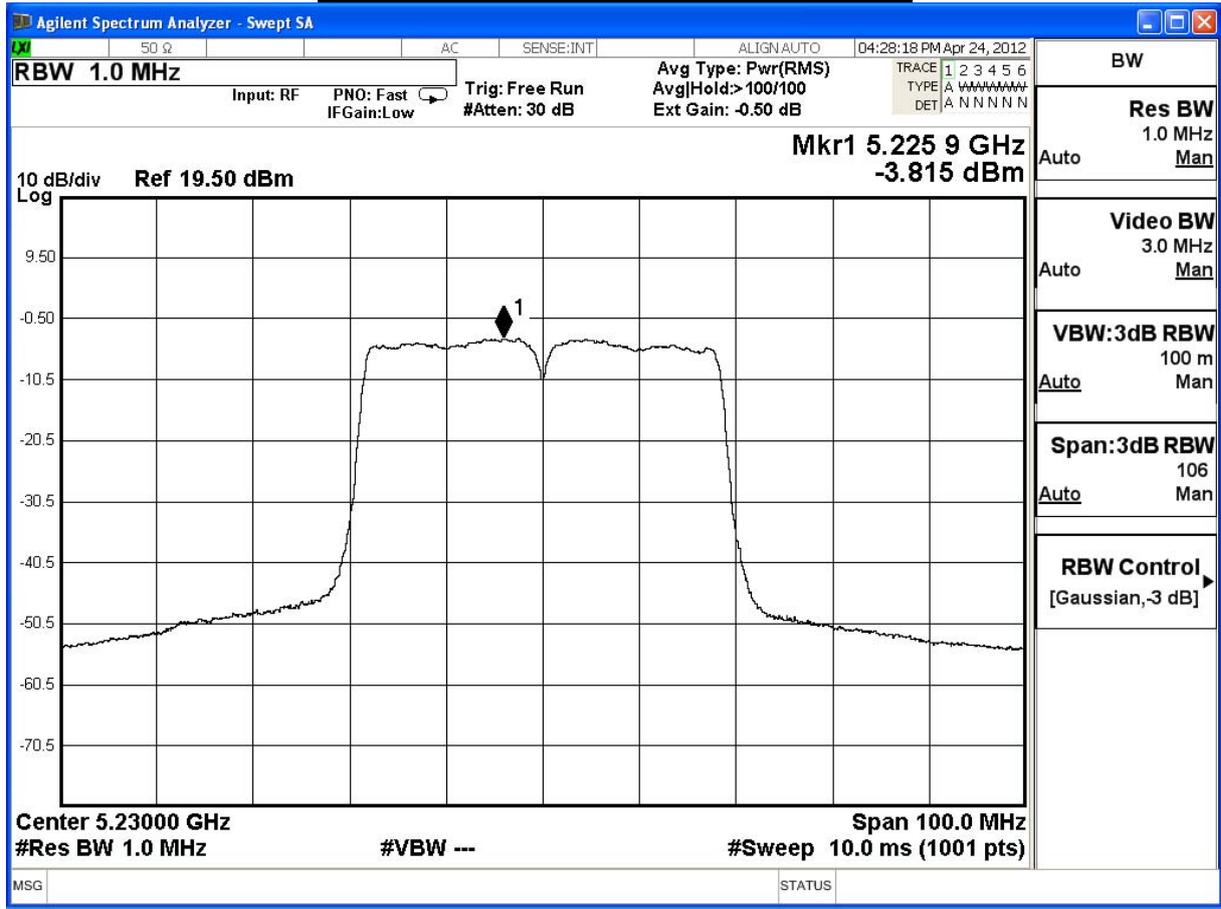
IEEE 802.11n_20M(ANT 0+1+2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
36	5180	3.69	≤ 4	Pass
44	5220	3.86	≤ 4	Pass
48	5240	3.66	≤ 4	Pass

IEEE 802.11n_40M(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
38	5190	-4.32	≤ 4	Pass
46	5230	-3.81	≤ 4	Pass

Peak Power Spectral Density – Channel 38

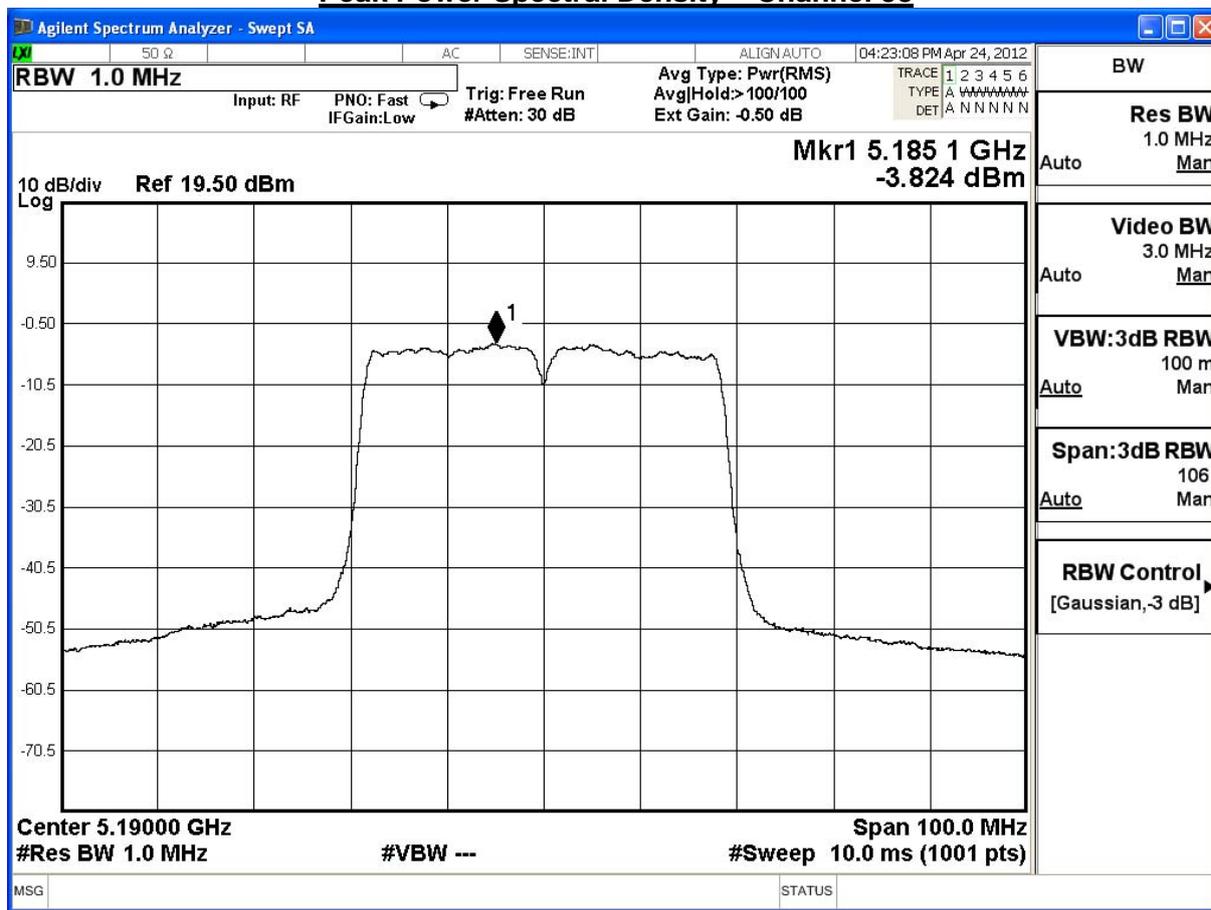


Peak Power Spectral Density – Channel 46

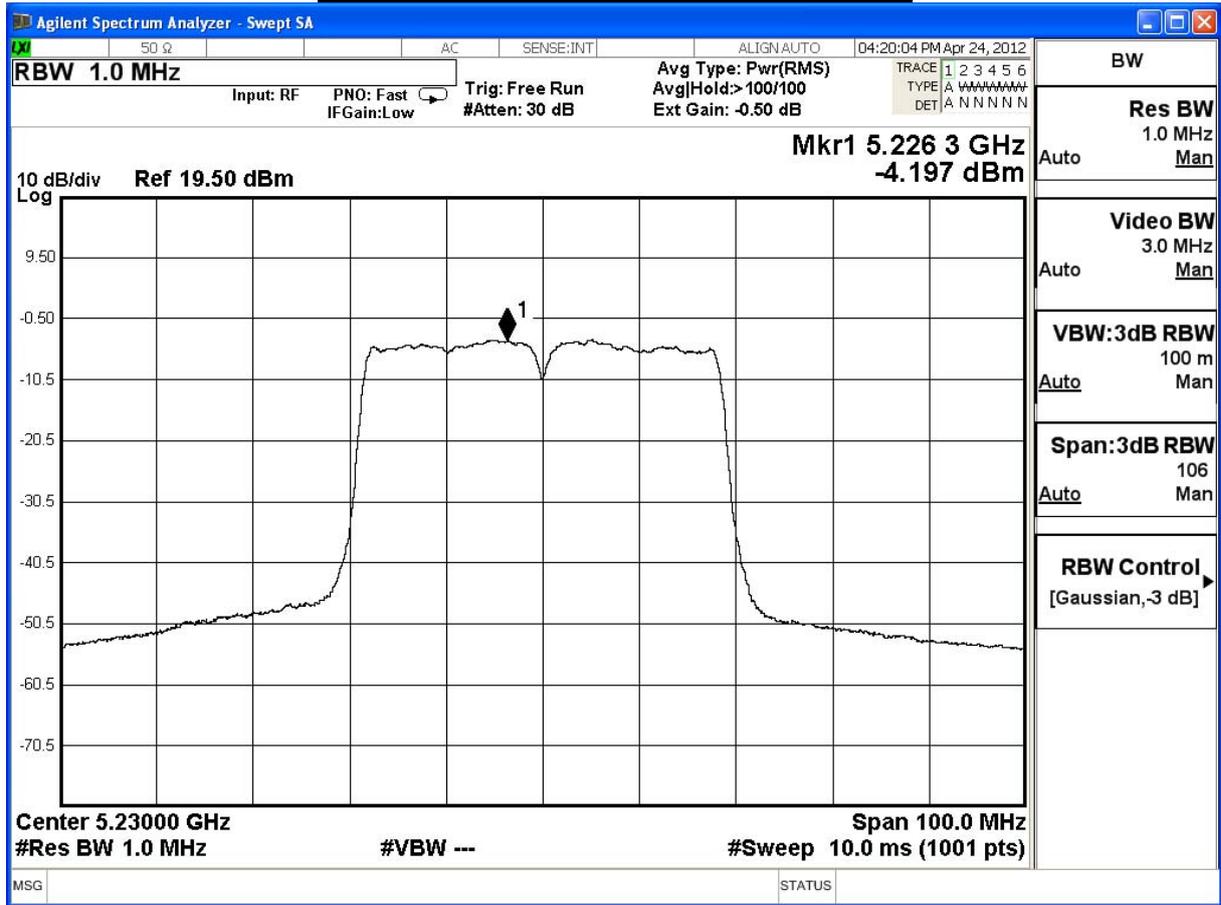


IEEE 802.11n_40M(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
38	5190	-3.82	≤ 4	Pass
46	5230	-4.19	≤ 4	Pass

Peak Power Spectral Density – Channel 38

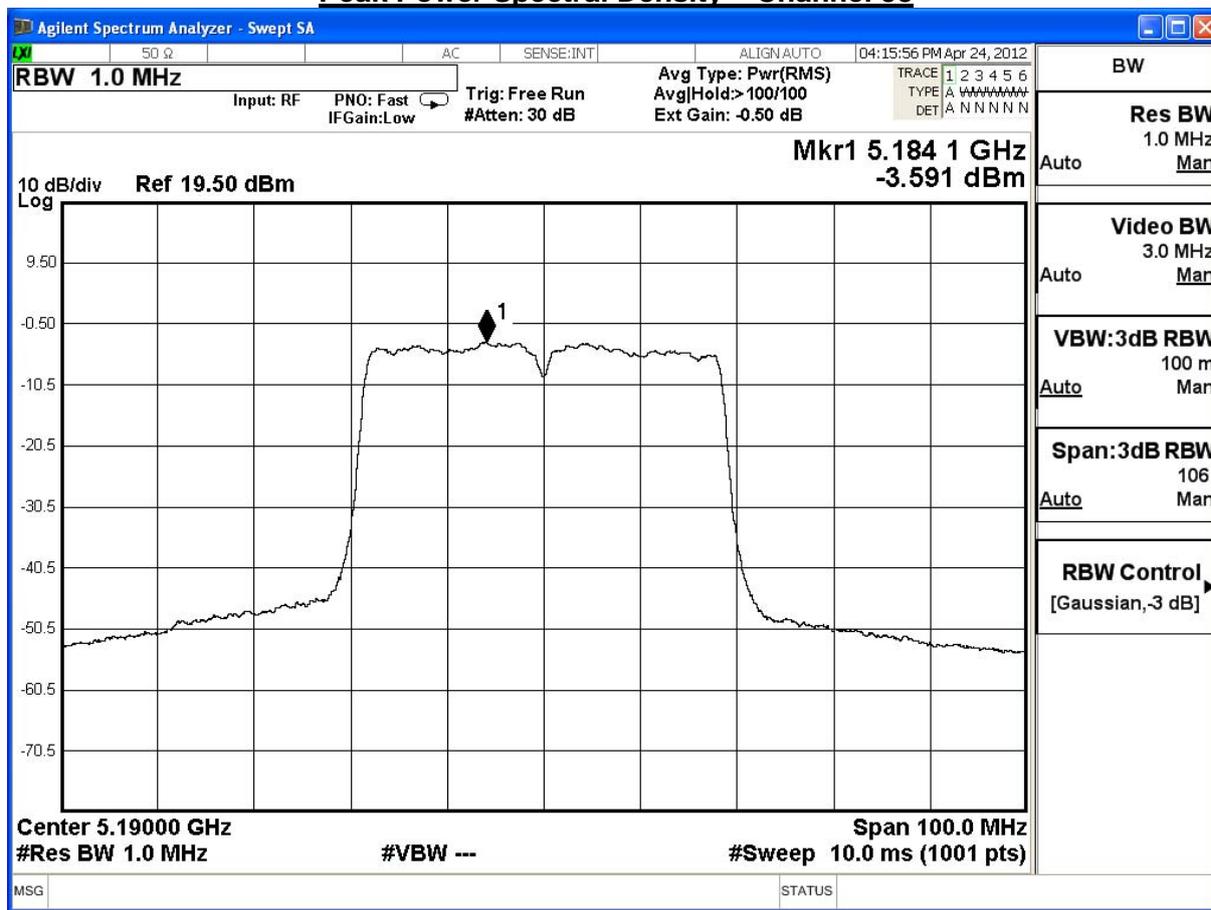


Peak Power Spectral Density – Channel 46

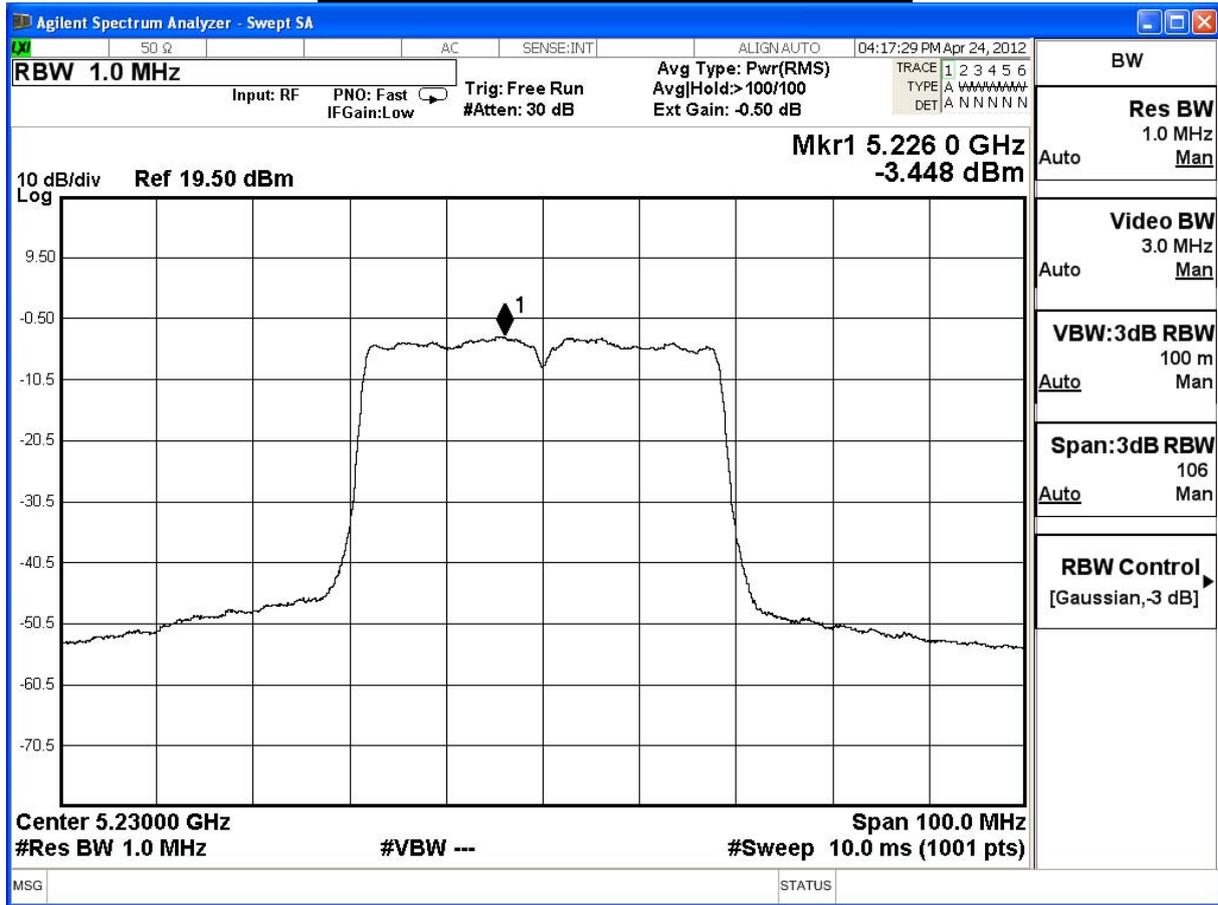


IEEE 802.11n_40M(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
38	5190	-3.59	≤ 4	Pass
46	5230	-3.44	≤ 4	Pass

Peak Power Spectral Density – Channel 38



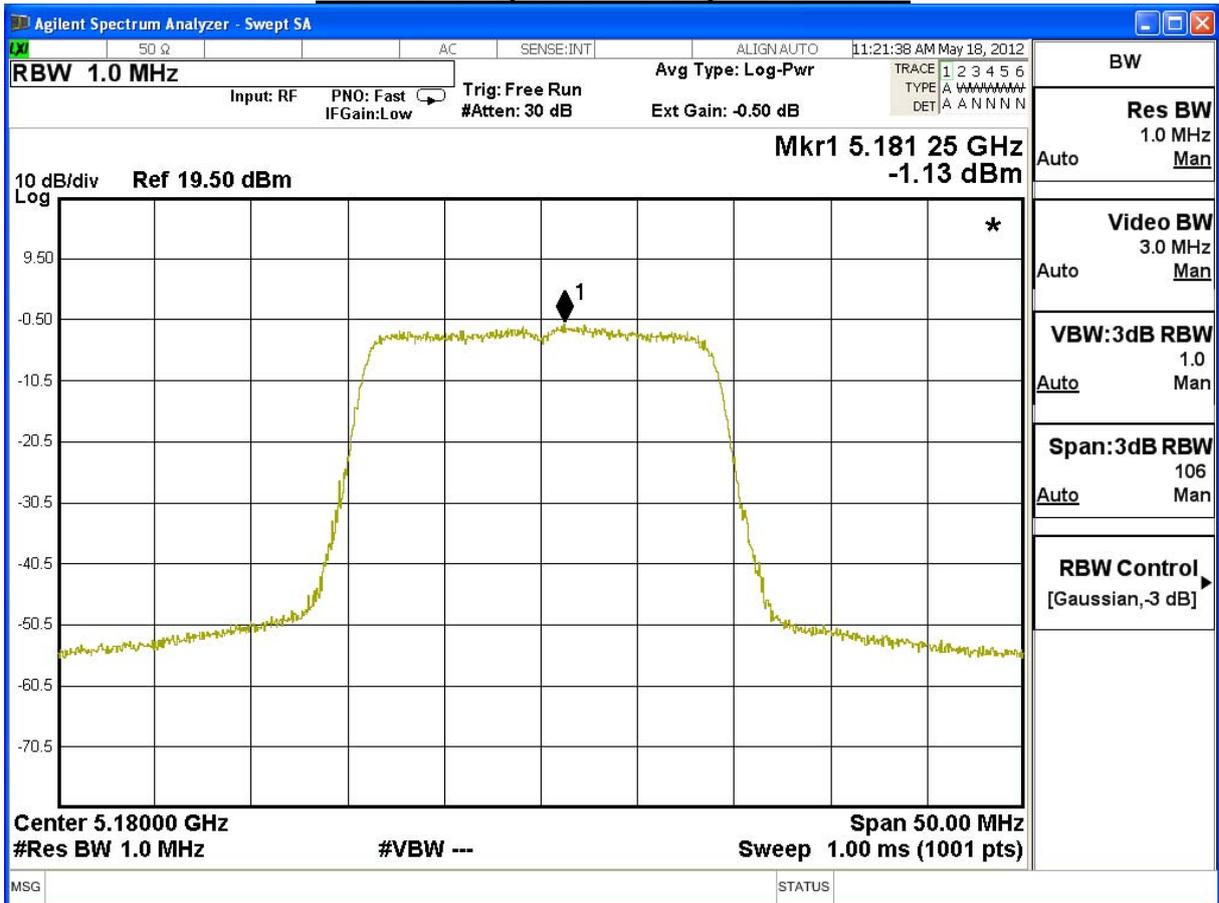
Peak Power Spectral Density – Channel 46



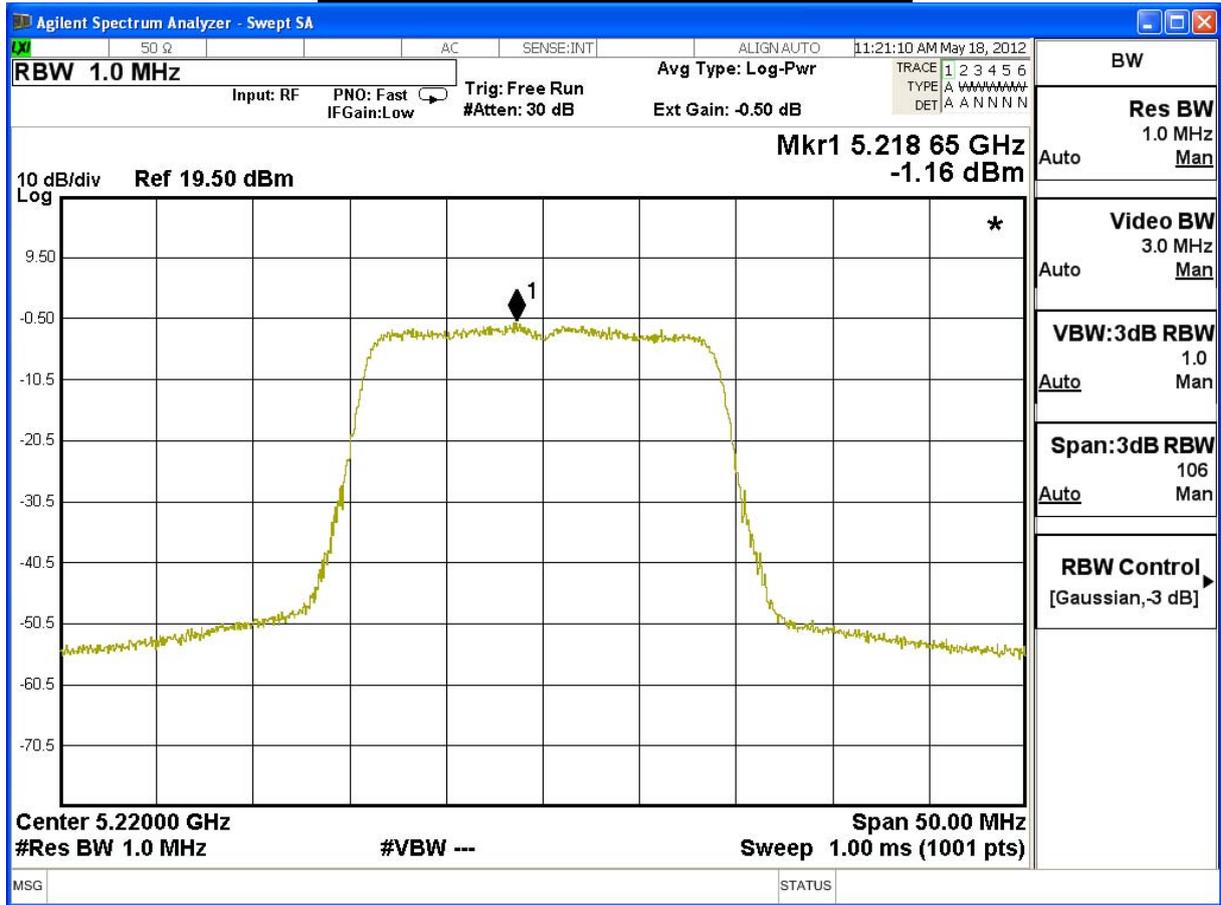
IEEE 802.11n_40M(ANT 0+1+2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
38	5190	0.87	≤ 4	Pass
46	5230	0.96	≤ 4	Pass

IEEE 802.11ac_20M(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
36	5180	-1.13	≤ 4	Pass
44	5220	-1.16	≤ 4	Pass
48	5240	-1.54	≤ 4	Pass

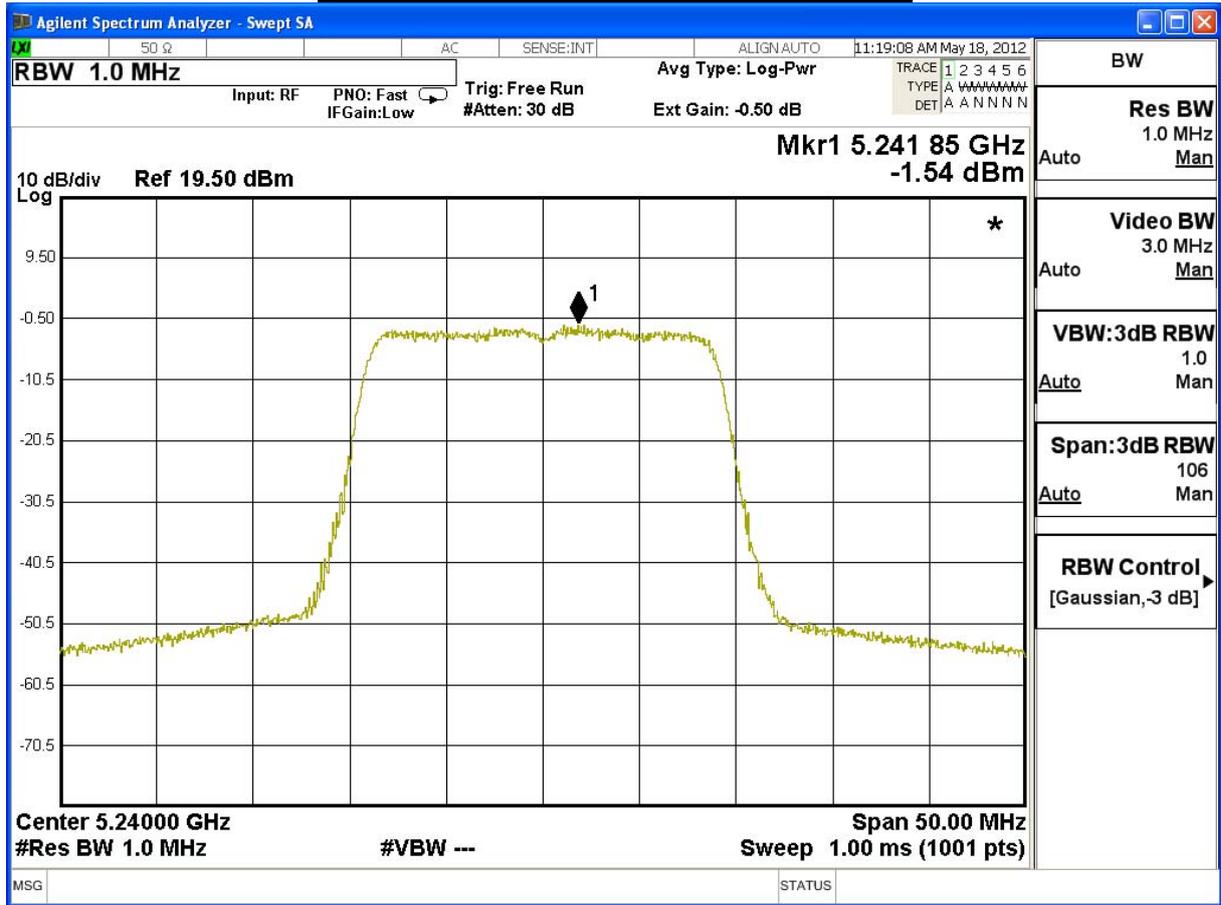
Peak Power Spectral Density – Channel 36



Peak Power Spectral Density – Channel 44

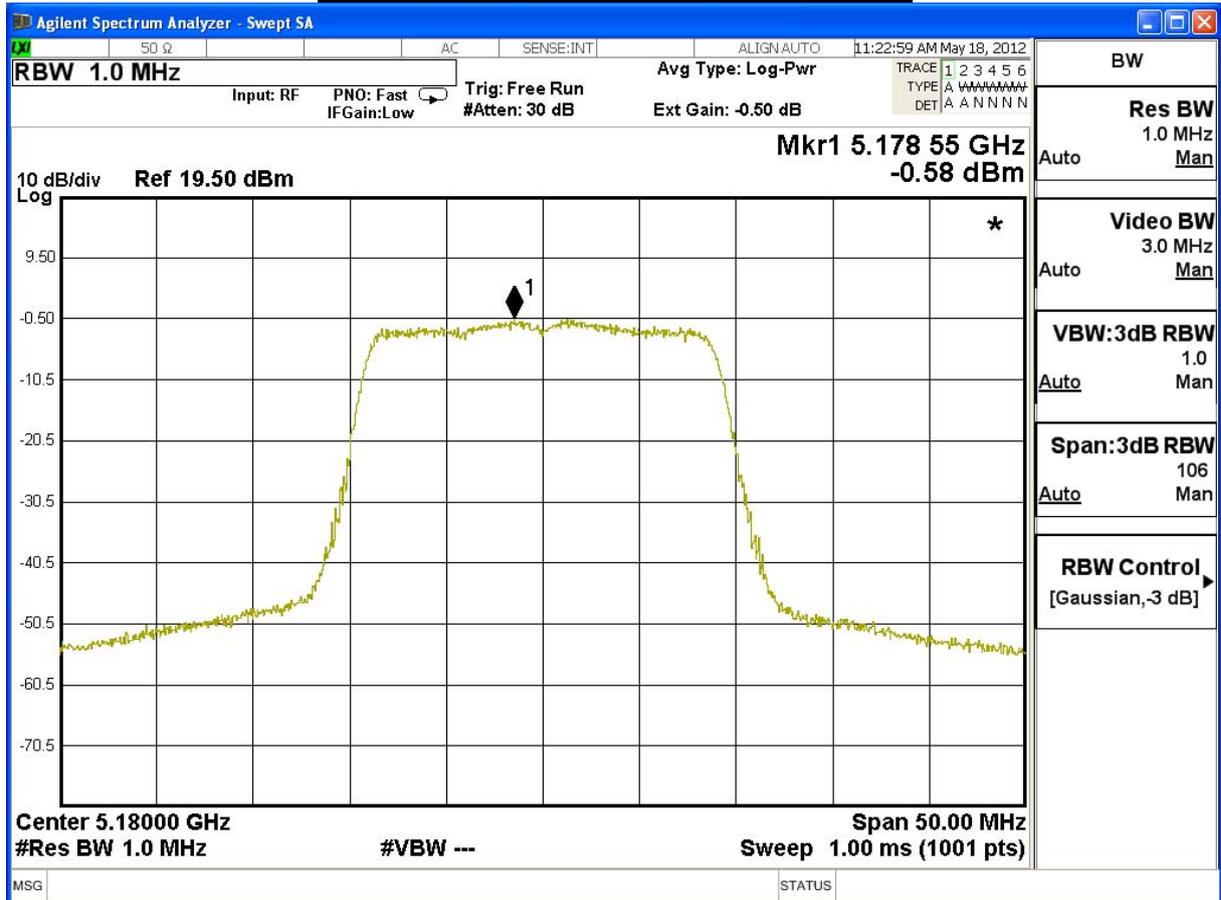


Peak Power Spectral Density – Channel 48

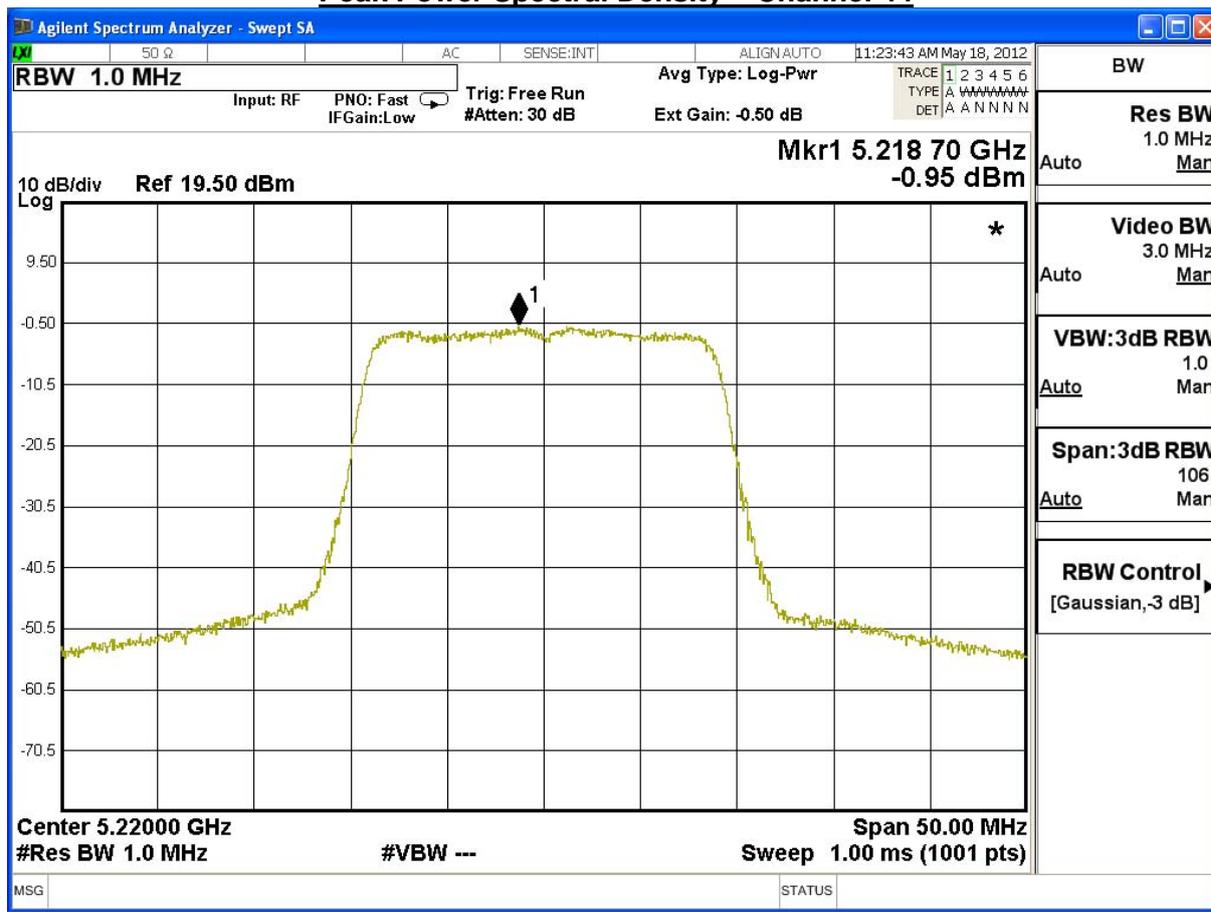


IEEE 802.11ac_20M(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
36	5180	-0.58	≤ 4	Pass
44	5220	-0.95	≤ 4	Pass
48	5240	-1.40	≤ 4	Pass

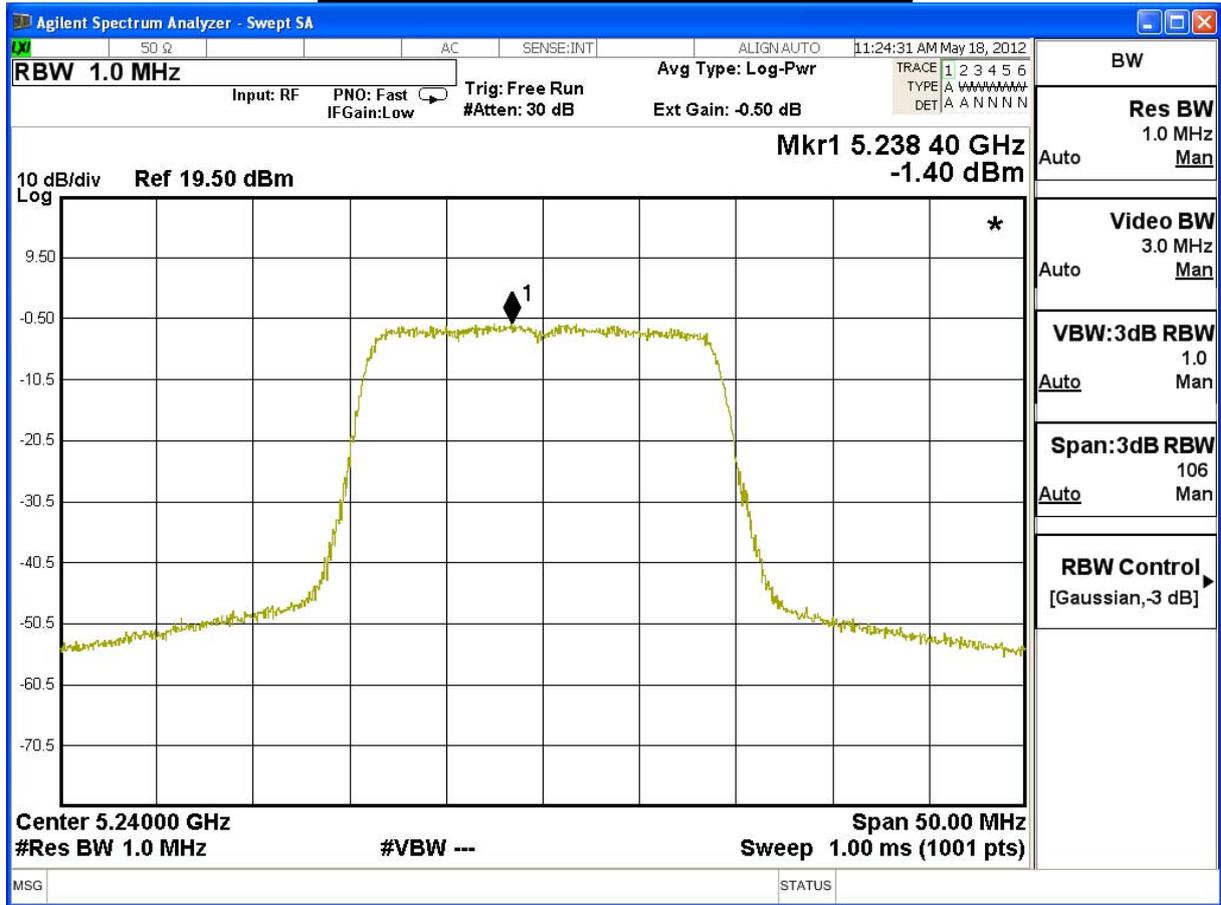
Peak Power Spectral Density – Channel 36



Peak Power Spectral Density – Channel 44

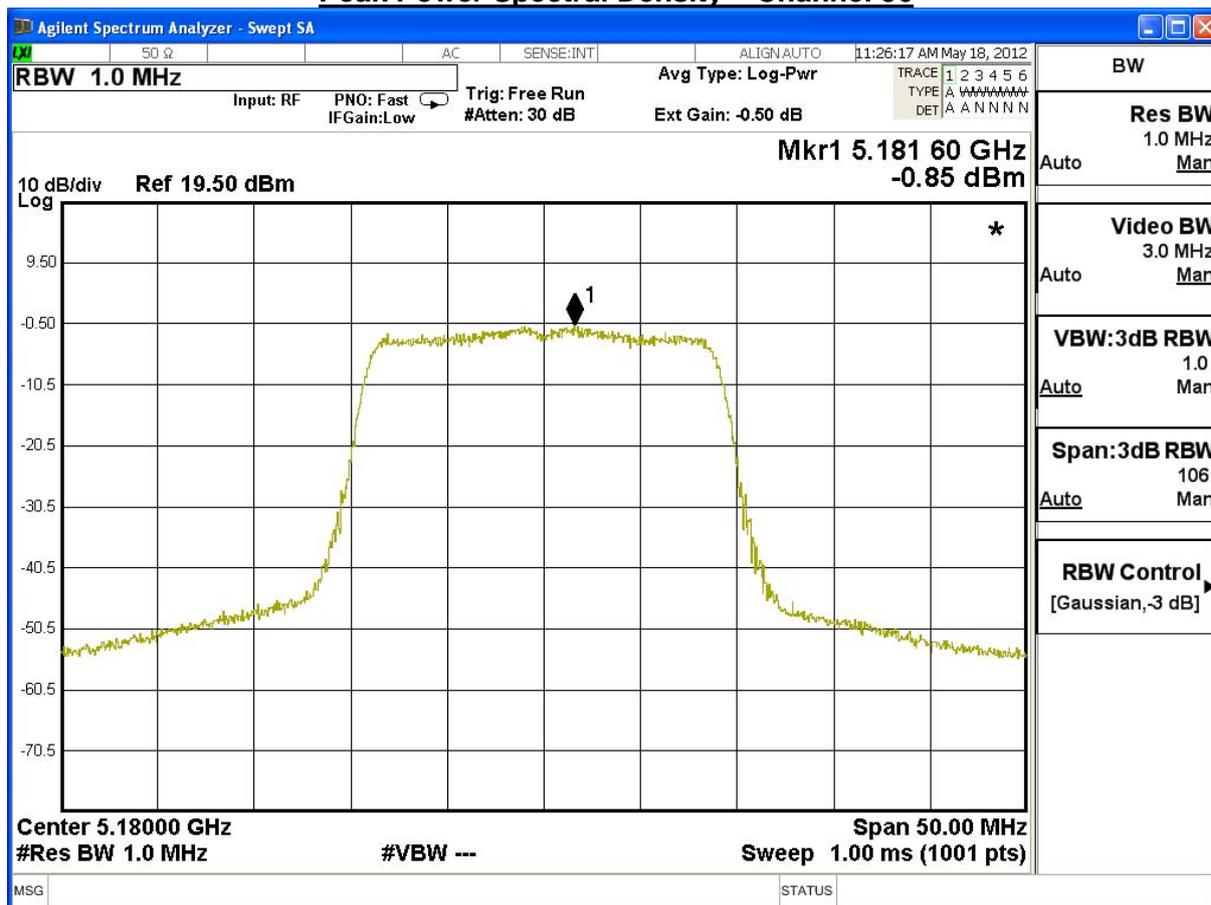


Peak Power Spectral Density – Channel 48

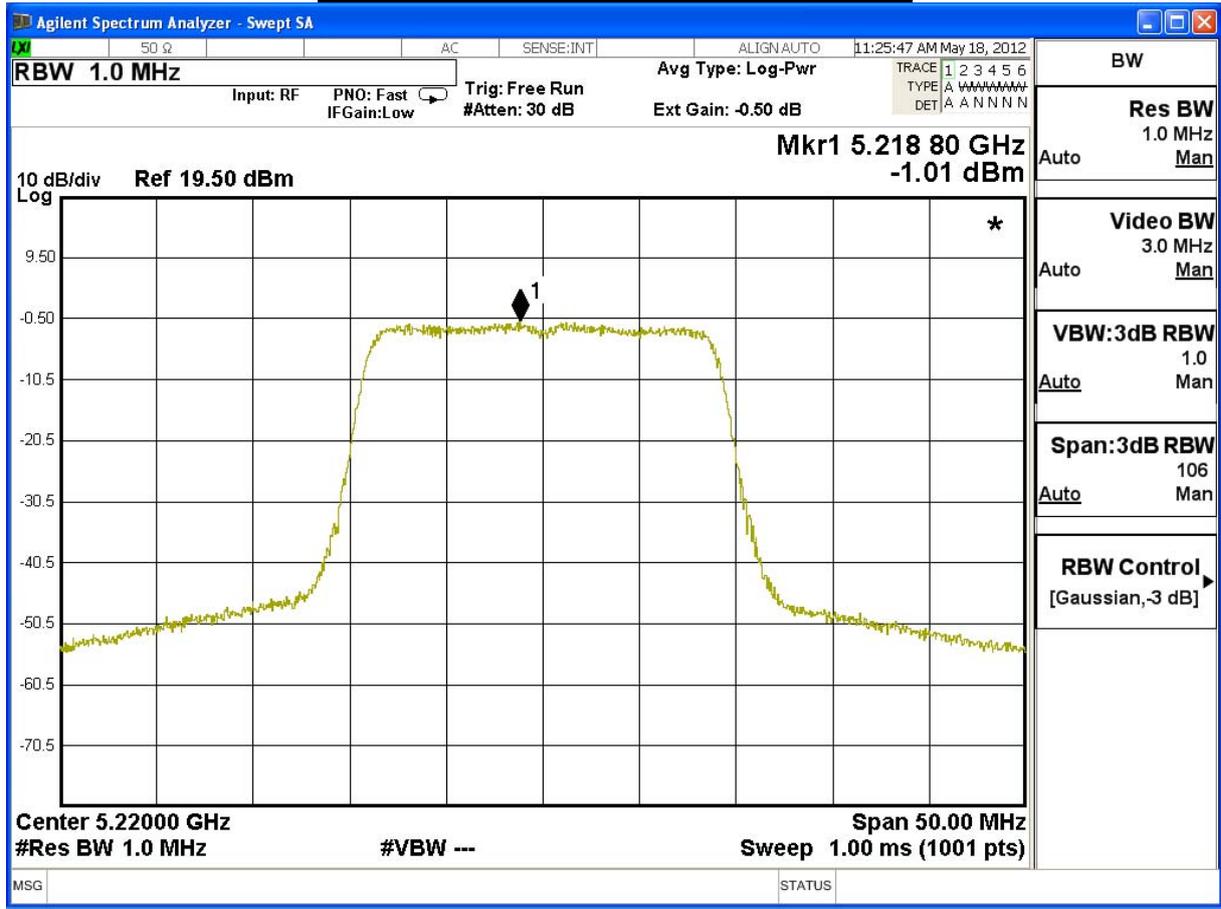


IEEE 802.11ac_20M(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
36	5180	-0.85	≤ 4	Pass
44	5220	-1.01	≤ 4	Pass
48	5240	-0.96	≤ 4	Pass

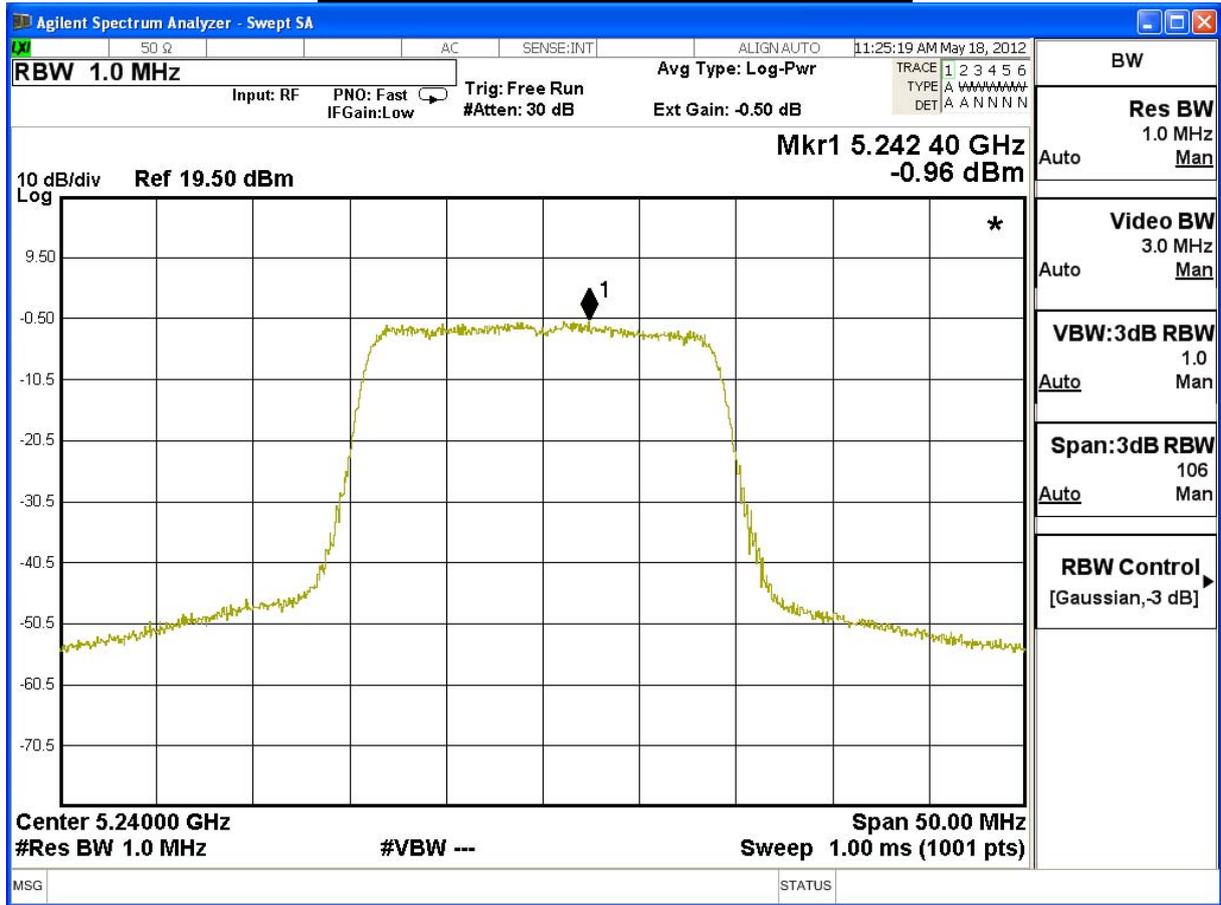
Peak Power Spectral Density – Channel 36



Peak Power Spectral Density – Channel 44



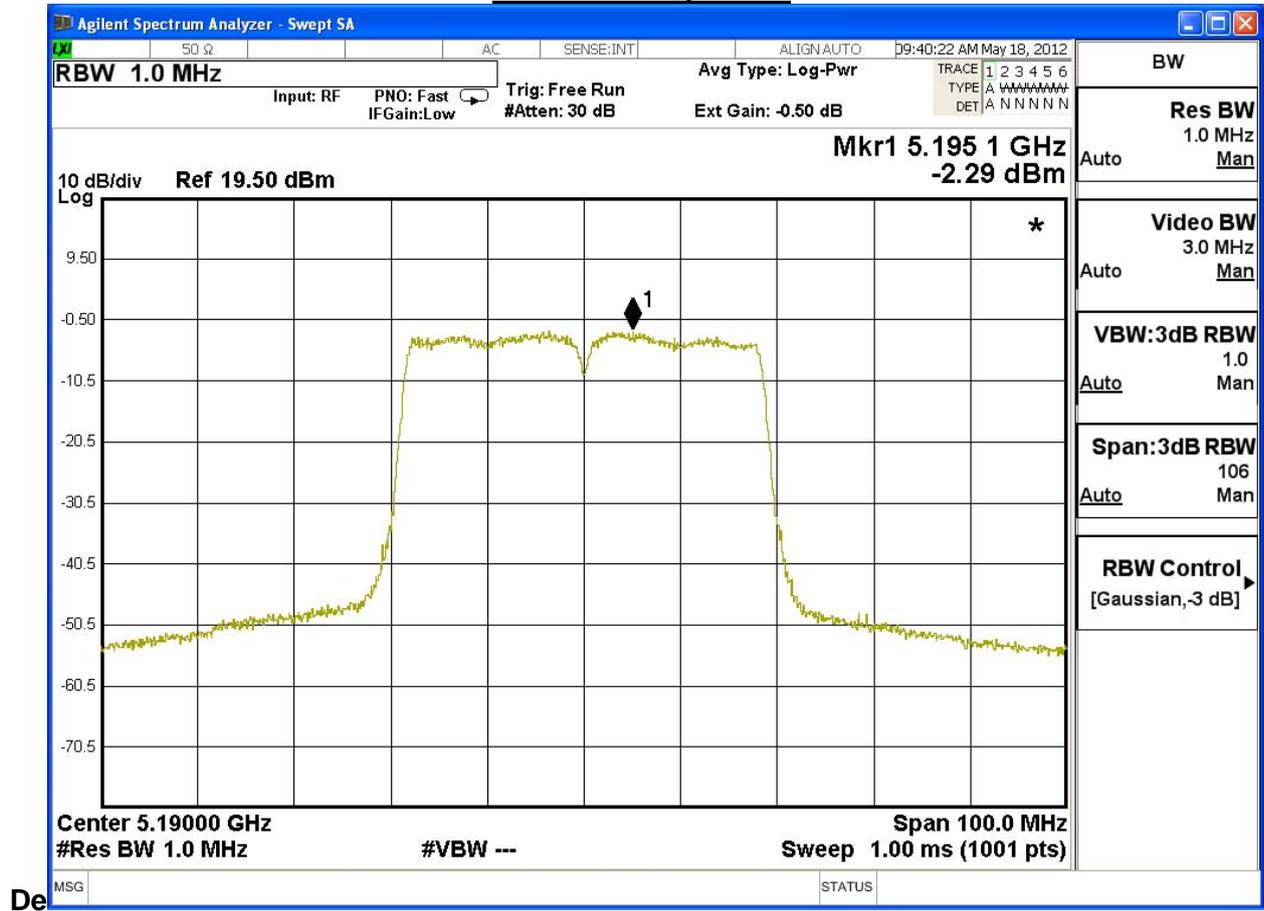
Peak Power Spectral Density – Channel 48



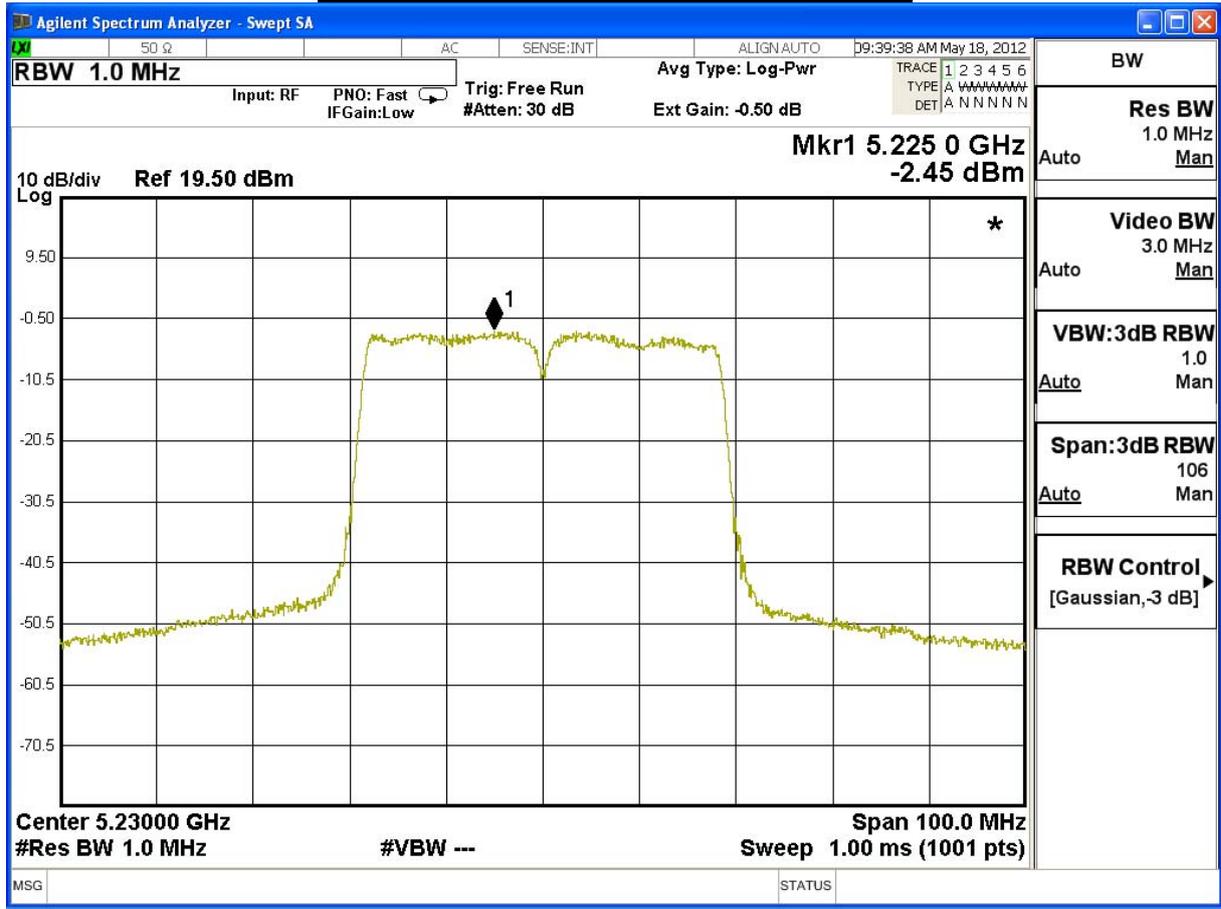
IEEE 802.11ac_20M(ANT 0+1+2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
36	5180	3.92	≤ 4	Pass
44	5220	3.73	≤ 4	Pass
48	5240	3.48	≤ 4	Pass

IEEE 802.11n_40M(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
38	5190	-2.29	≤ 4	Pass
46	5230	-2.45	≤ 4	Pass

Peak Power Spectral



Peak Power Spectral Density – Channel 46

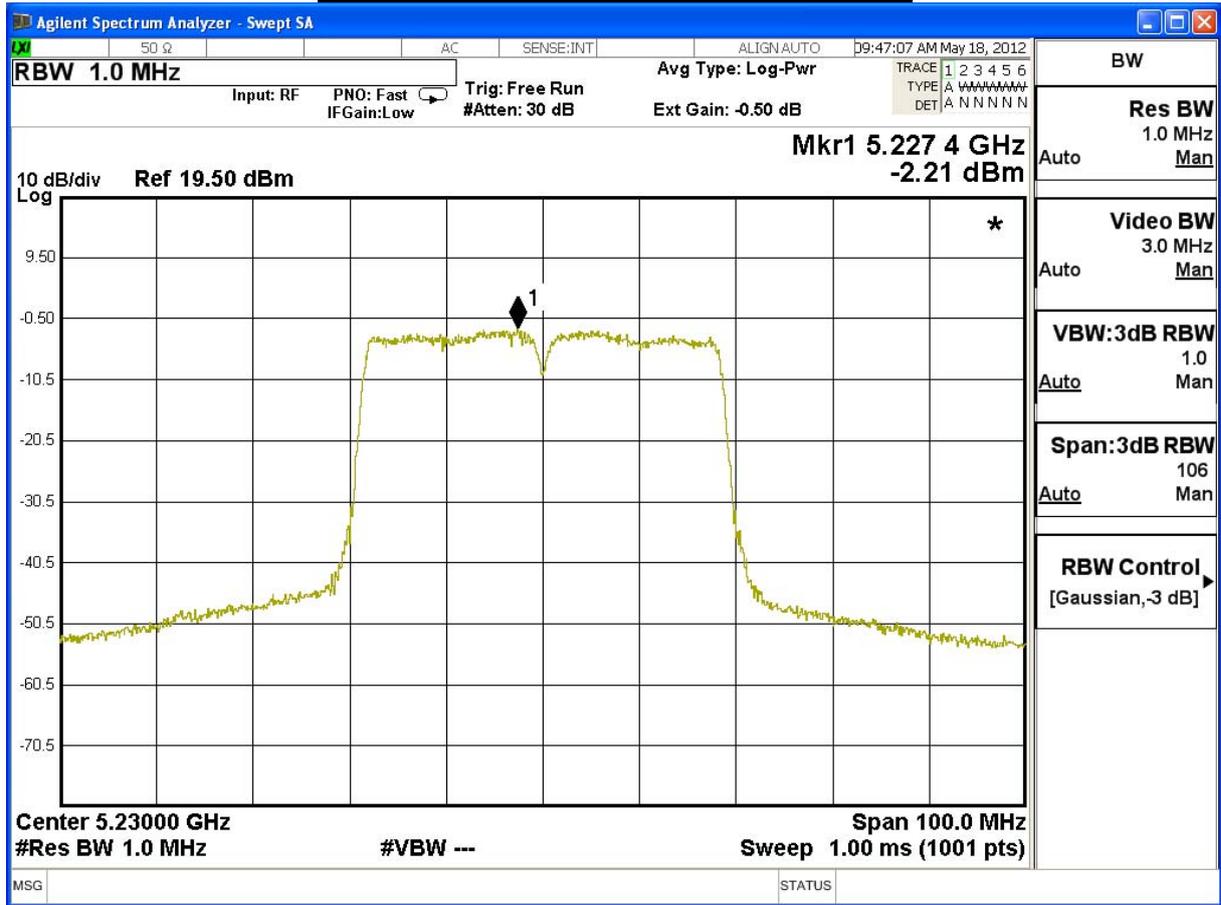


IEEE 802.11ac_40M(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
38	5190	-2.12	≤ 4	Pass
46	5230	-2.21	≤ 4	Pass

Peak Power Spectral Density – Channel 38



Peak Power Spectral Density – Channel 46



IEEE 802.11ac_40M(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
38	5190	-2.10	≤ 4	Pass
46	5230	-2.07	≤ 4	Pass

Peak Power Spectral Density – Channel 38



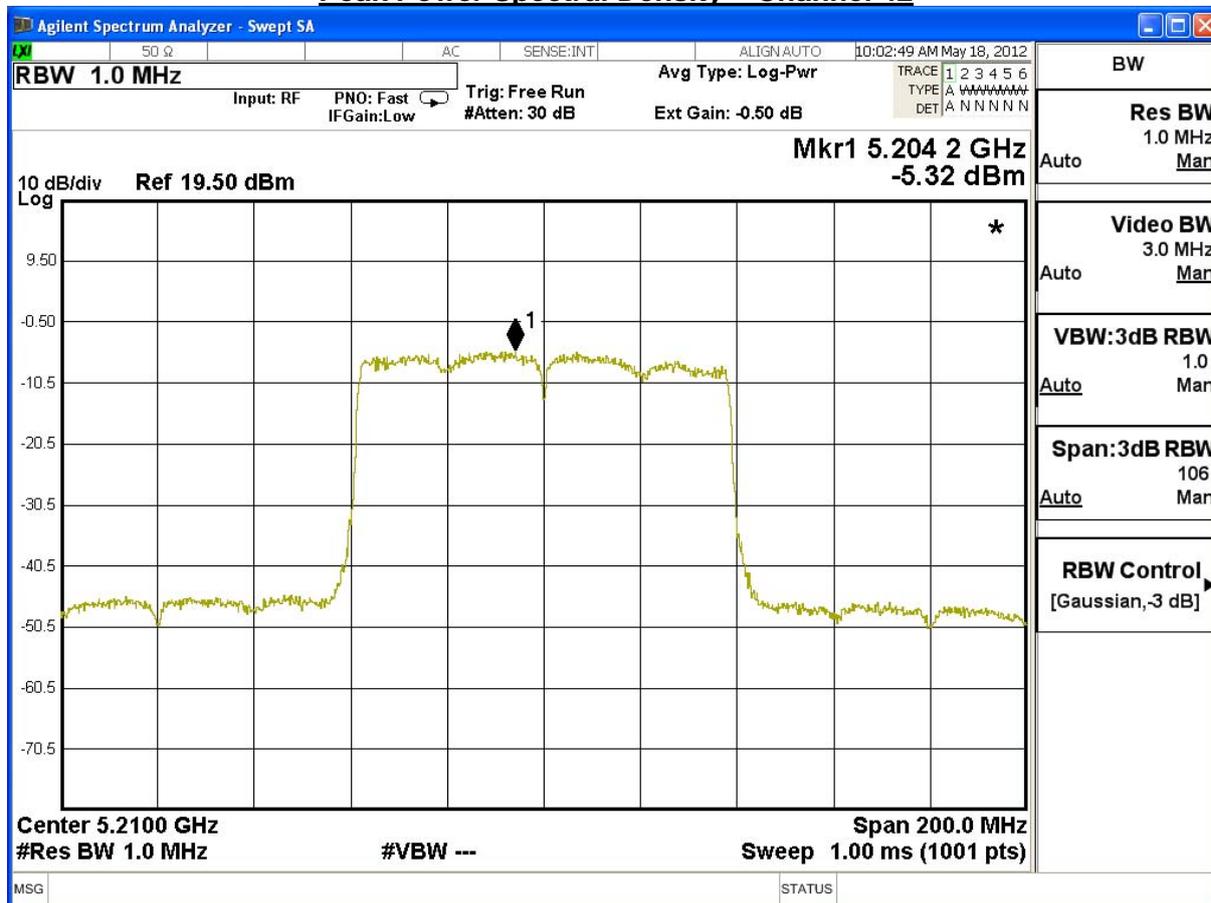
Peak Power Spectral Density – Channel 46



IEEE 802.11ac_40M(ANT 0+1+2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
38	5190	2.60	≤ 4	Pass
46	5230	2.53	≤ 4	Pass

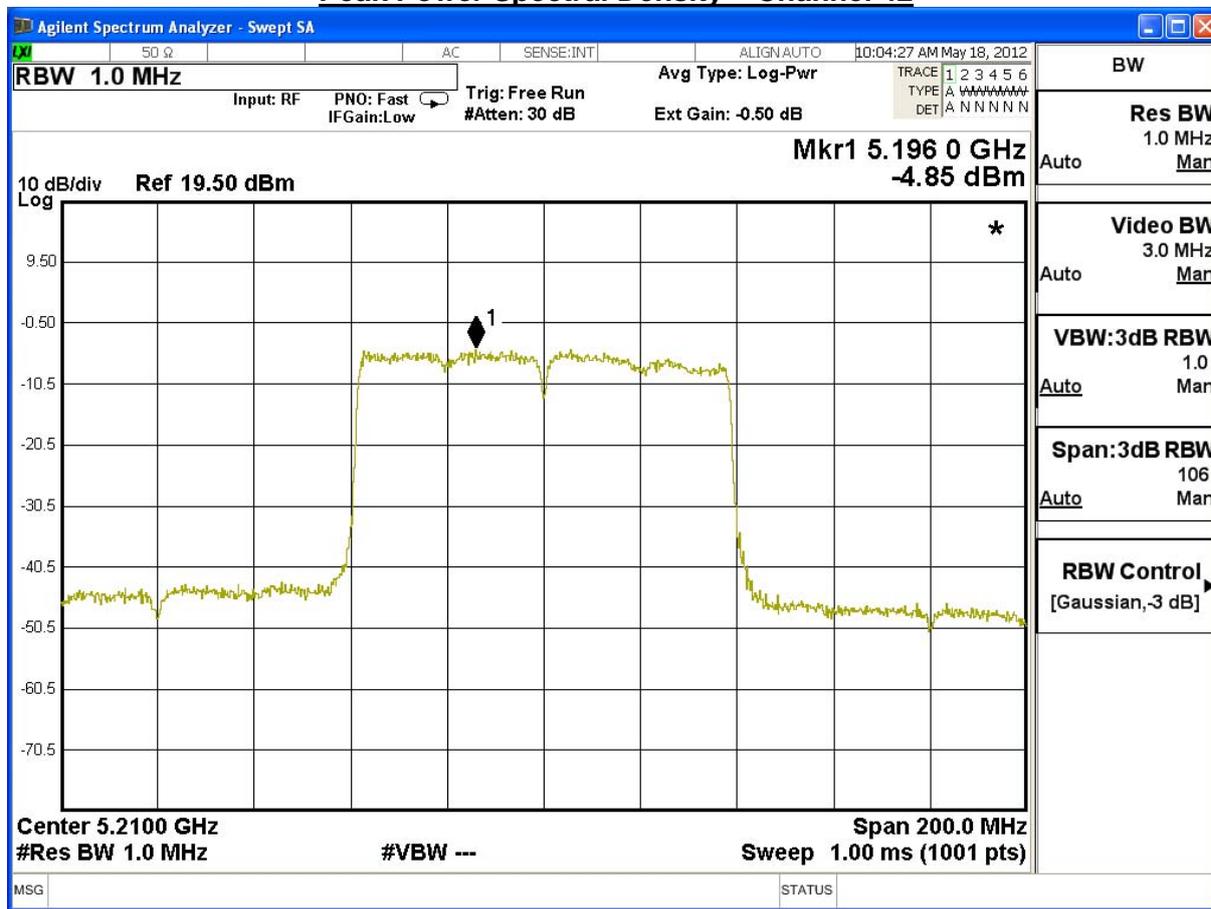
IEEE 802.11ac_80M(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
42	5210	-5.32	≤ 4	Pass

Peak Power Spectral Density – Channel 42



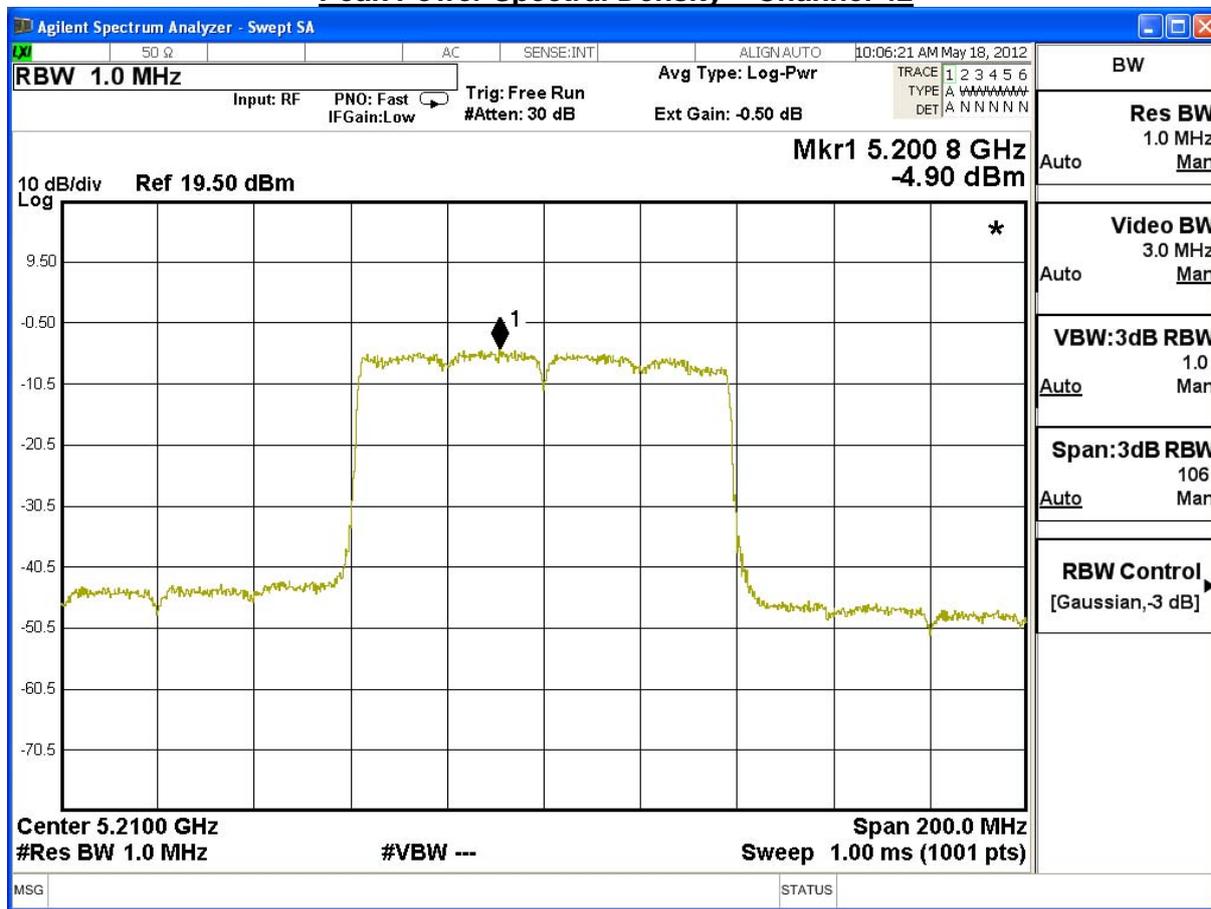
IEEE 802.11ac_80M(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
42	5210	-4.85	≤ 4	Pass

Peak Power Spectral Density – Channel 42



IEEE 802.11ac_80M(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
42	5210	-4.90	≤ 4	Pass

Peak Power Spectral Density – Channel 42



IEEE 802.11ac_80M(ANT 0+1+2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
42	5210	-0.25	≤ 4	Pass

6. Peak Excursion

6.1. Test Equipment

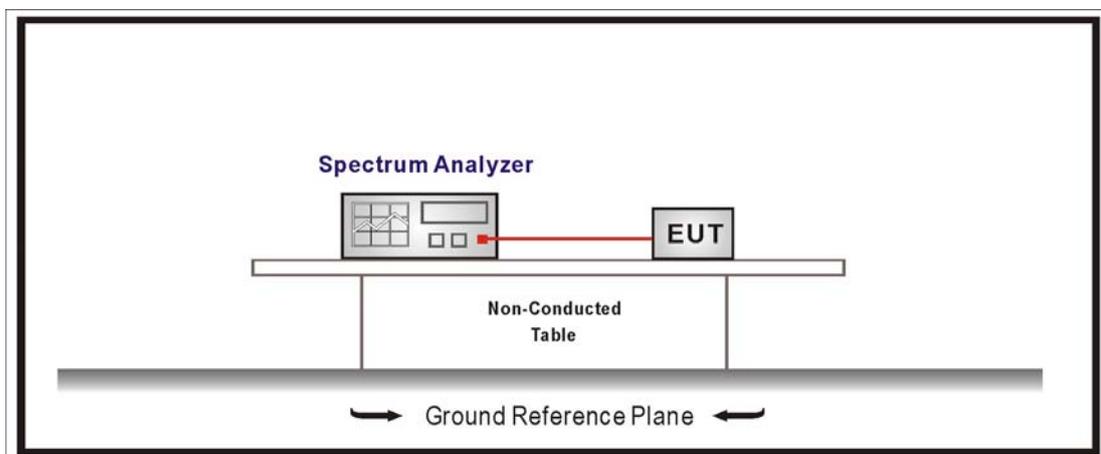
The following test equipments are used during the radiated emission tests:

Peak Excursion / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	R&S	FSP	100561	2013/02/19

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

6.2. Test Setup



6.3. Limits

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

6.4. Test Procedure

The EUT was setup to ANSI C63.4, 2009; tested to U-NII test procedure of March 2012 KDB 789033 for compliance to FCC 47CFR Subpart E requirements.

1st Trace:

Set RBW = 1MHz, VBW = 3MHz with peak detector and max-hold settings.

2nd Trace:

Set RBW = 1MHz, VBW = 3MHz with RMS detector and trace average 100 traces in power averaging mode.

6.5. Uncertainty

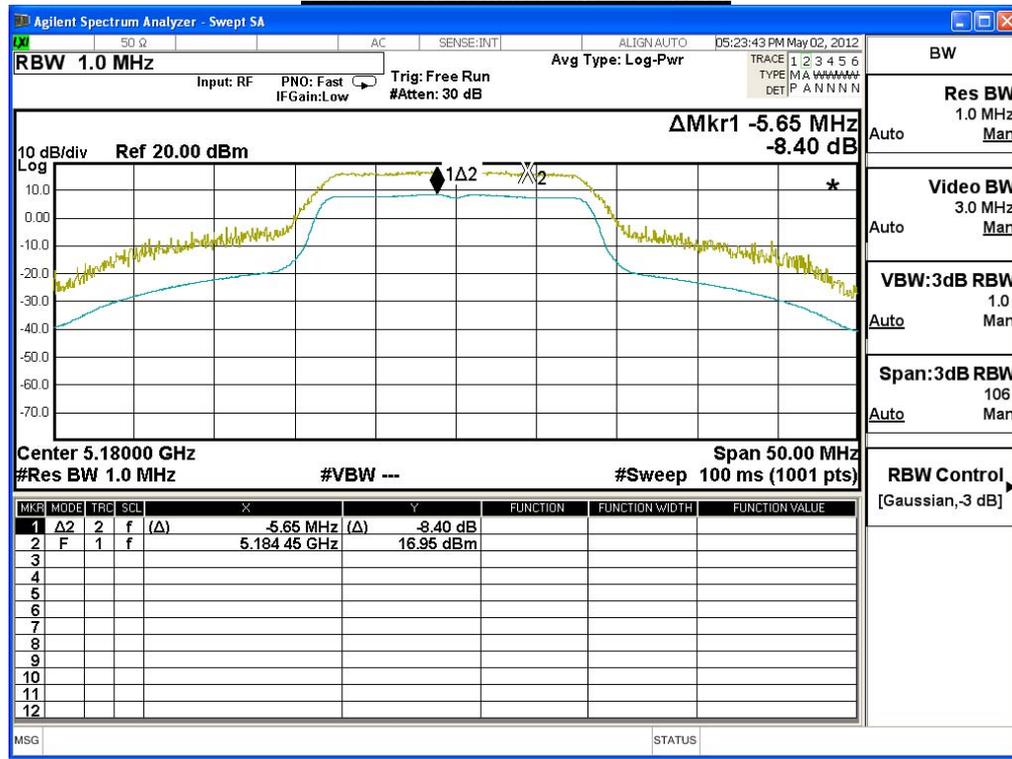
The measurement uncertainty is defined as ± 1.27 dB

6.6. Test Result

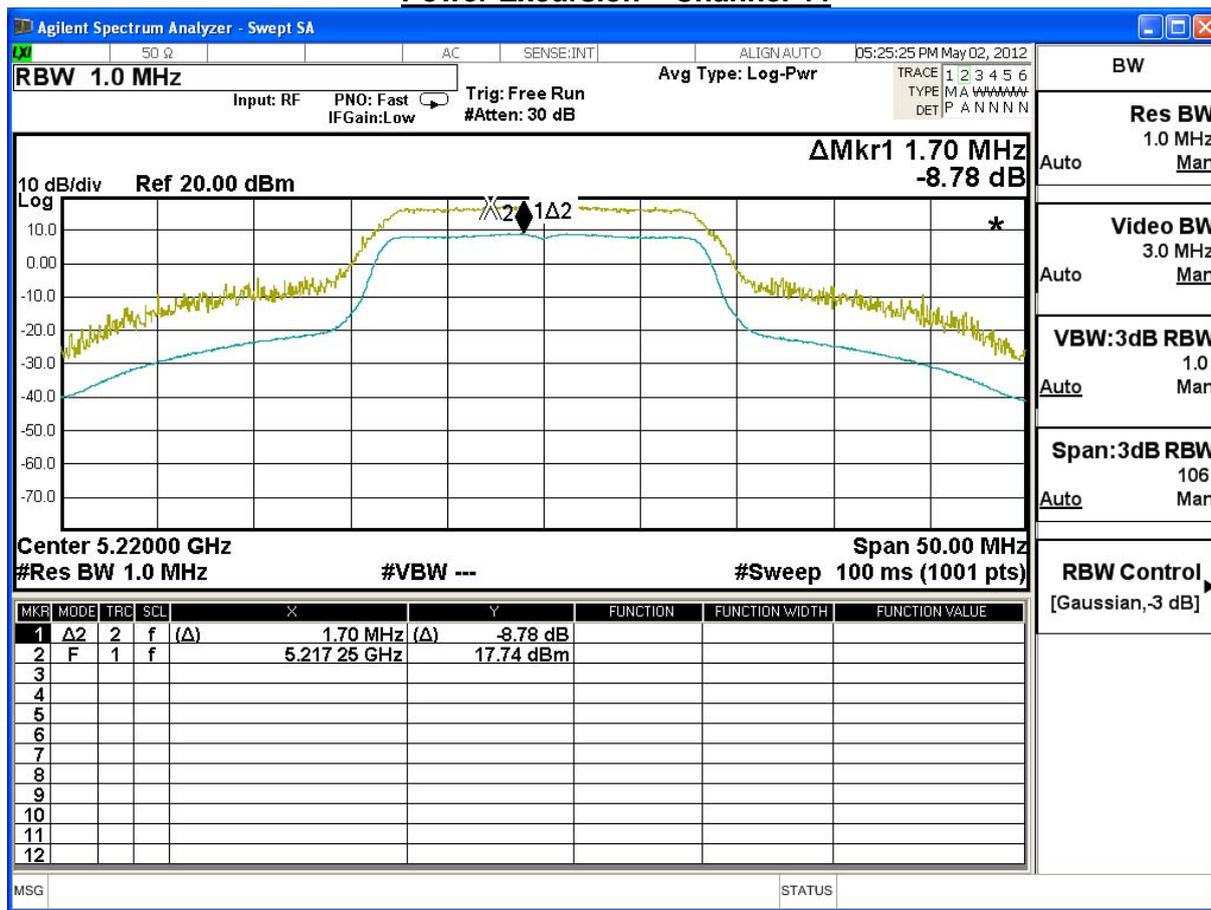
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Excursion		
Test Mode	Mode 1: Transmit (Adapter: EXA1004UH)		
Date of Test	2012/05/02	Test Site	SR7

IEEE 802.11a				
Channel No.	Frequency (MHz)	Measure Level (dB)	Required Limit (dB)	Result
36	5180	8.40	≤ 13	Pass
44	5220	8.78	≤ 13	Pass
48	5240	8.87	≤ 13	Pass

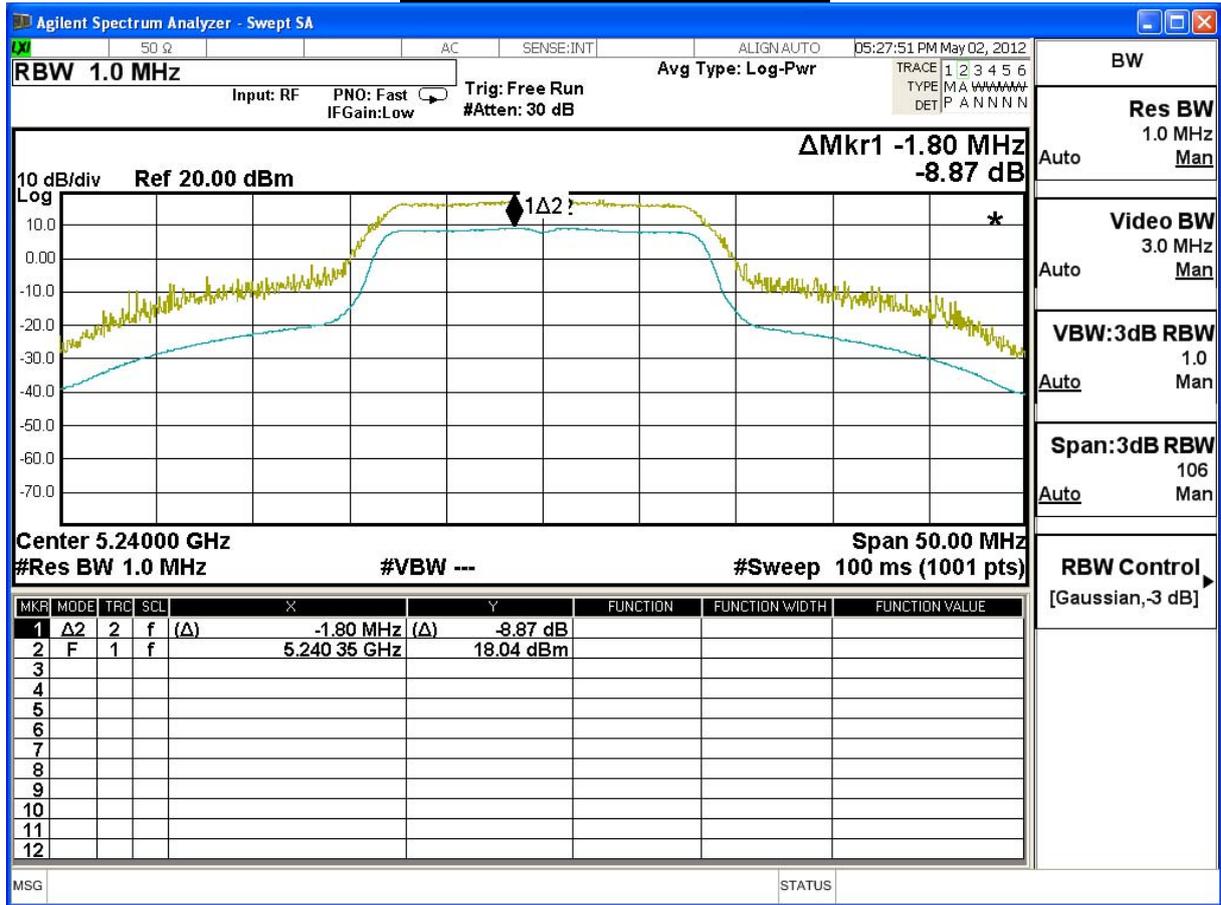
Power Excursion – Channel 36



Power Excursion – Channel 44



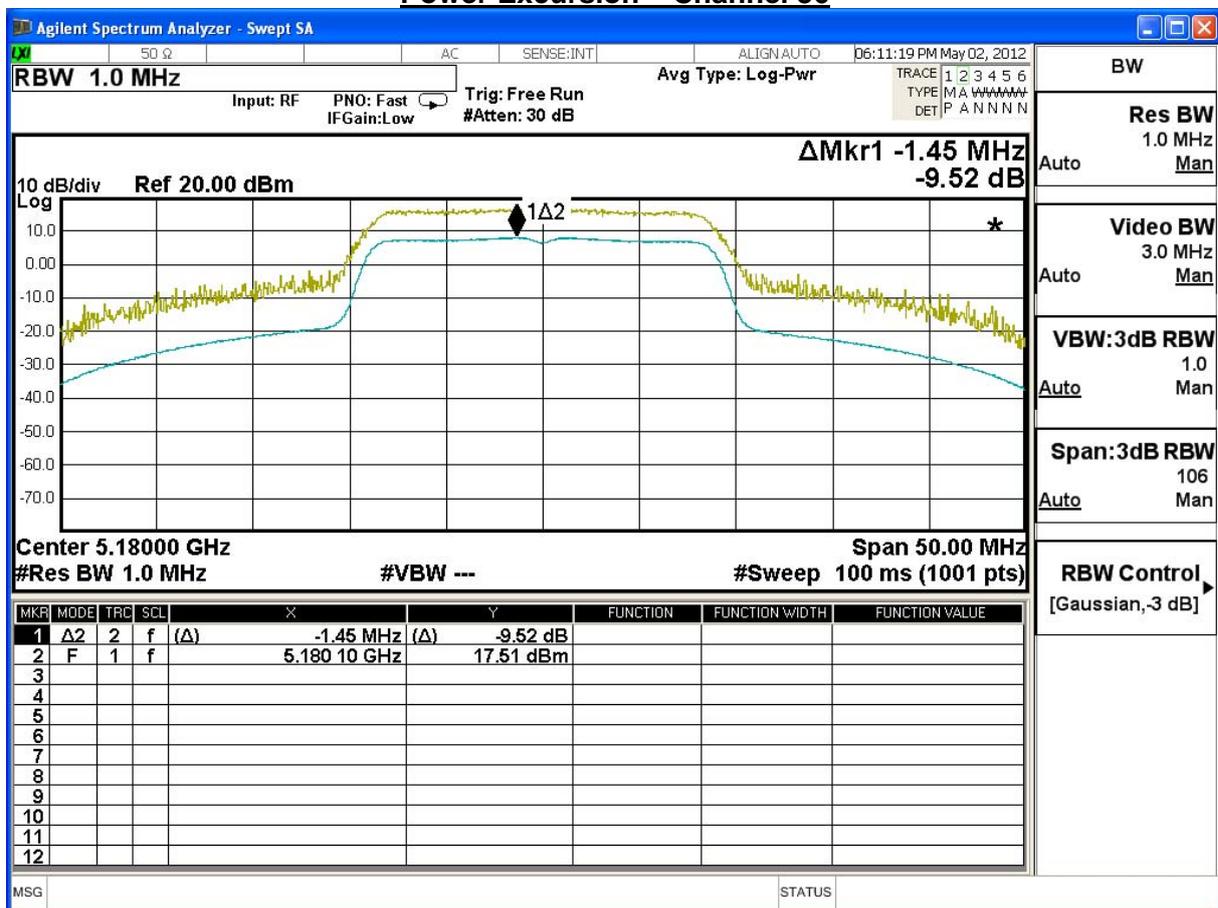
Power Excursion – Channel 48



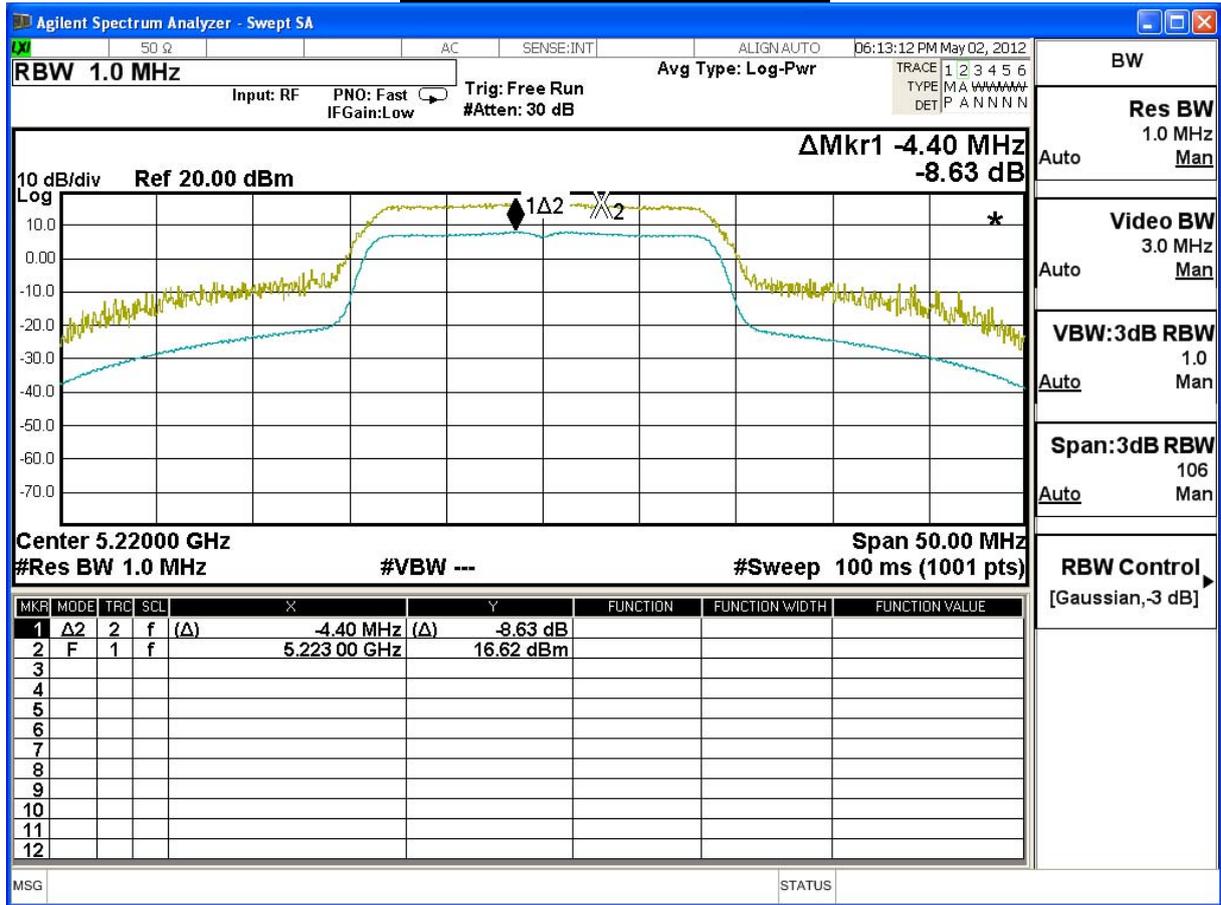
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Excursion		
Test Mode	Mode 1: Transmit (Adapter: EXA1004UH)		
Date of Test	2012/05/02	Test Site	SR7

IEEE 802.11n_20M(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dB)	Required Limit (dB)	Result
36	5180	9.52	≤ 13	Pass
44	5220	8.63	≤ 13	Pass
48	5240	9.36	≤ 13	Pass

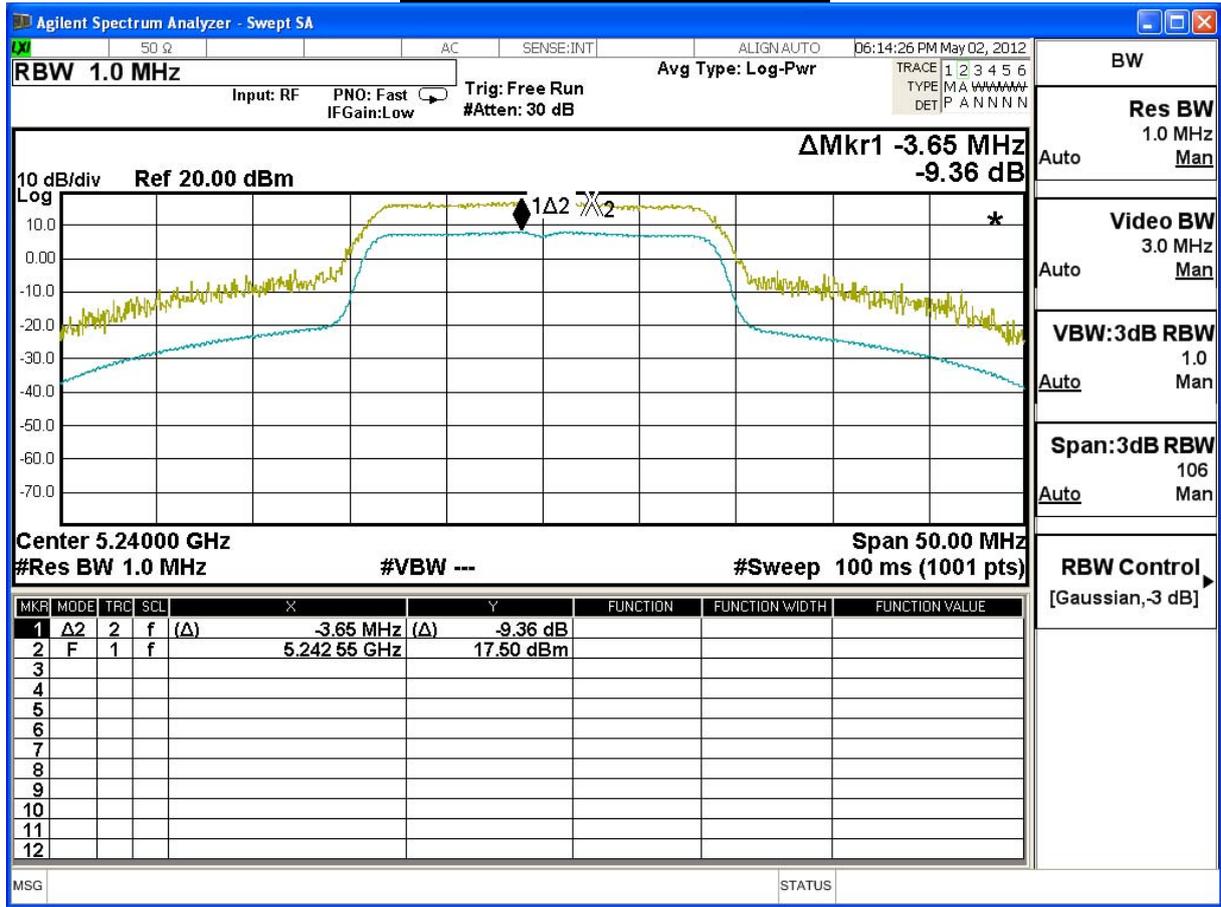
Power Excursion – Channel 36



Power Excursion – Channel 44



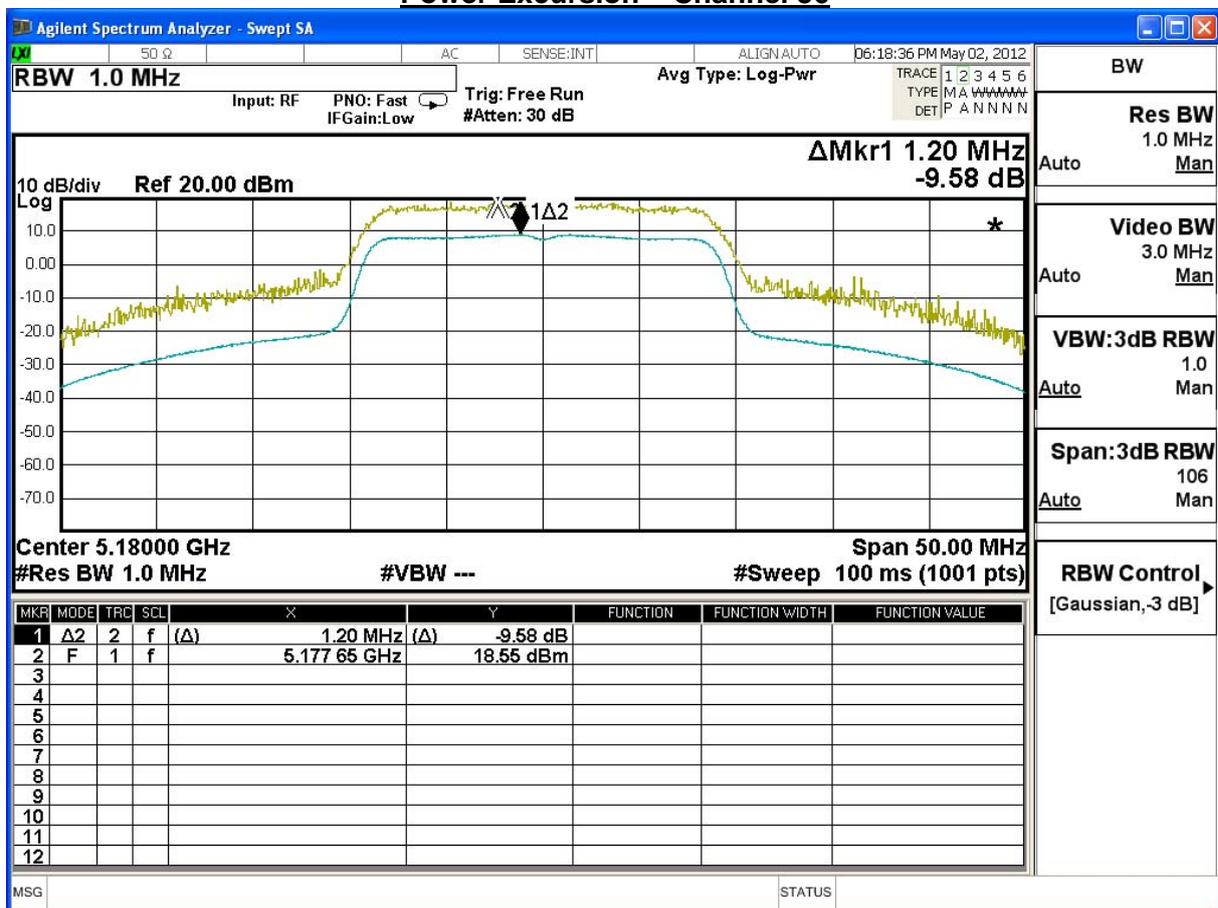
Power Excursion – Channel 48



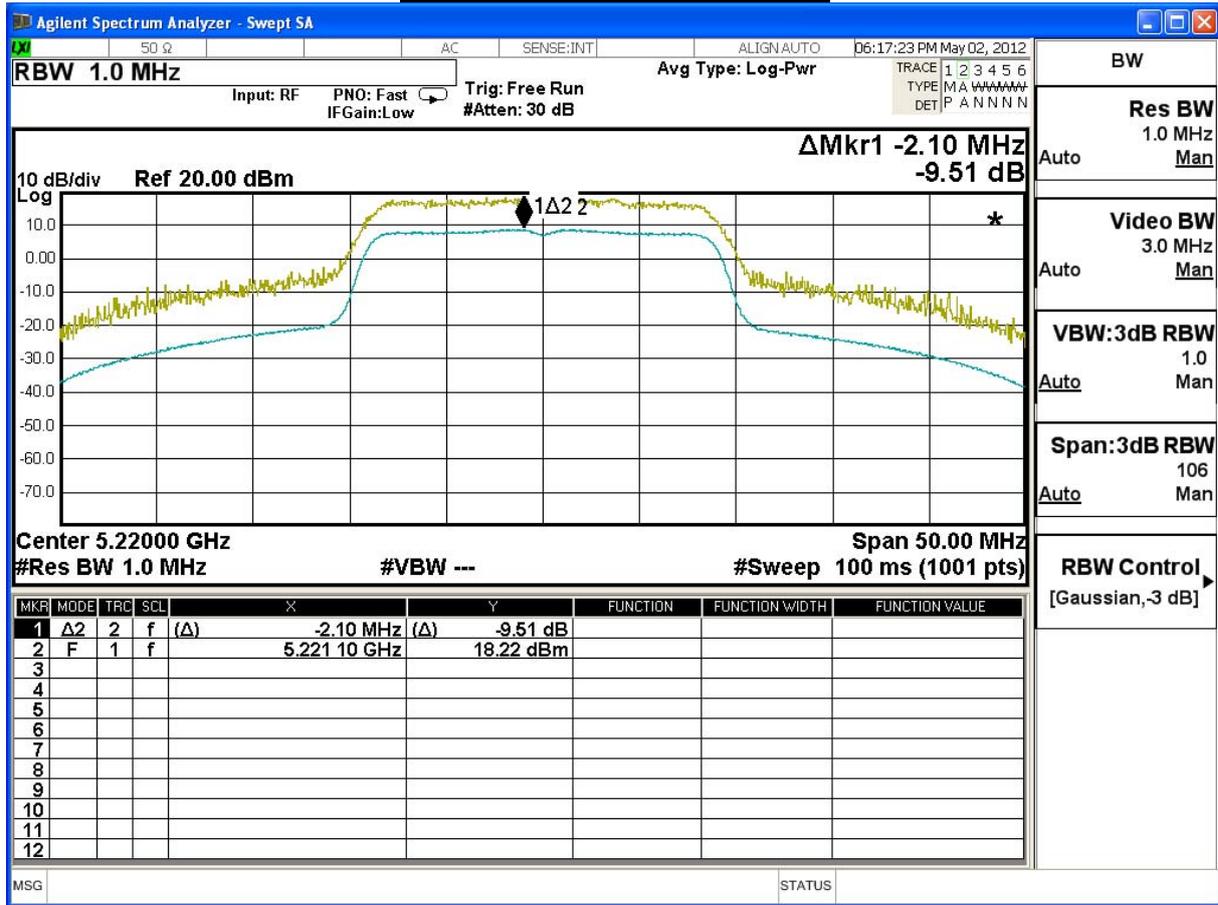
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Excursion		
Test Mode	Mode 1: Transmit (Adapter: EXA1004UH)		
Date of Test	2012/05/02	Test Site	SR7

IEEE 802.11n_20M(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dB)	Required Limit (dB)	Result
36	5180	9.58	≤ 13	Pass
44	5220	9.51	≤ 13	Pass
48	5240	9.79	≤ 13	Pass

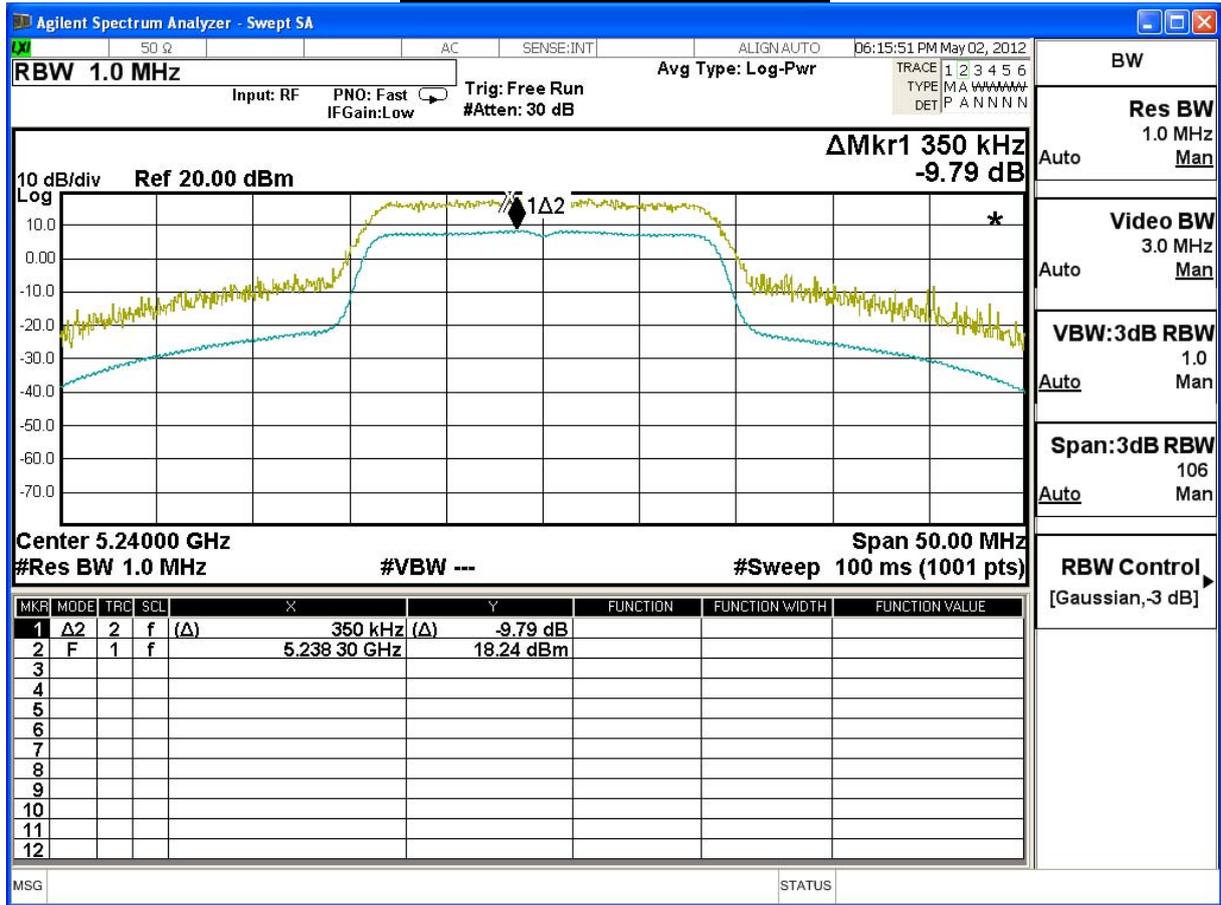
Power Excursion – Channel 36



Power Excursion – Channel 44



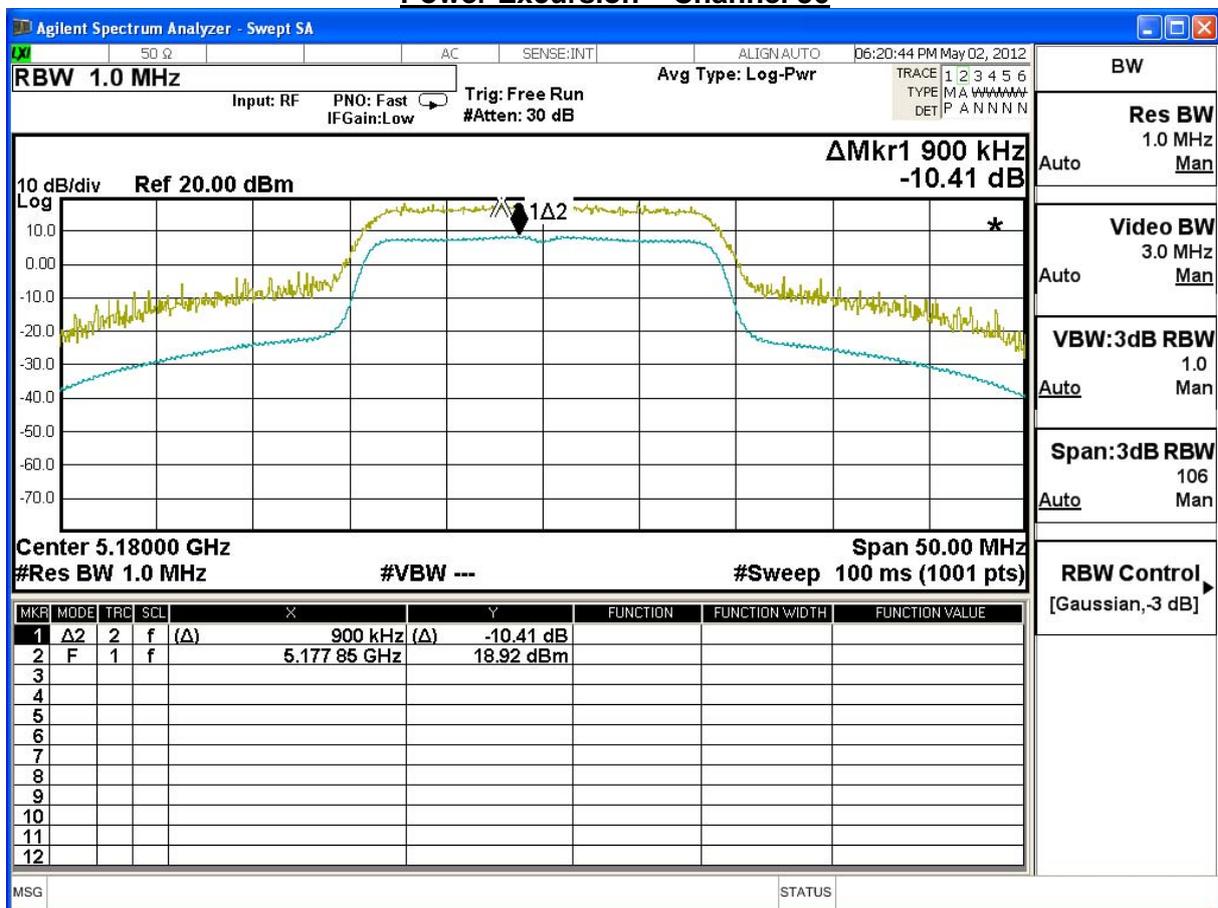
Power Excursion – Channel 48



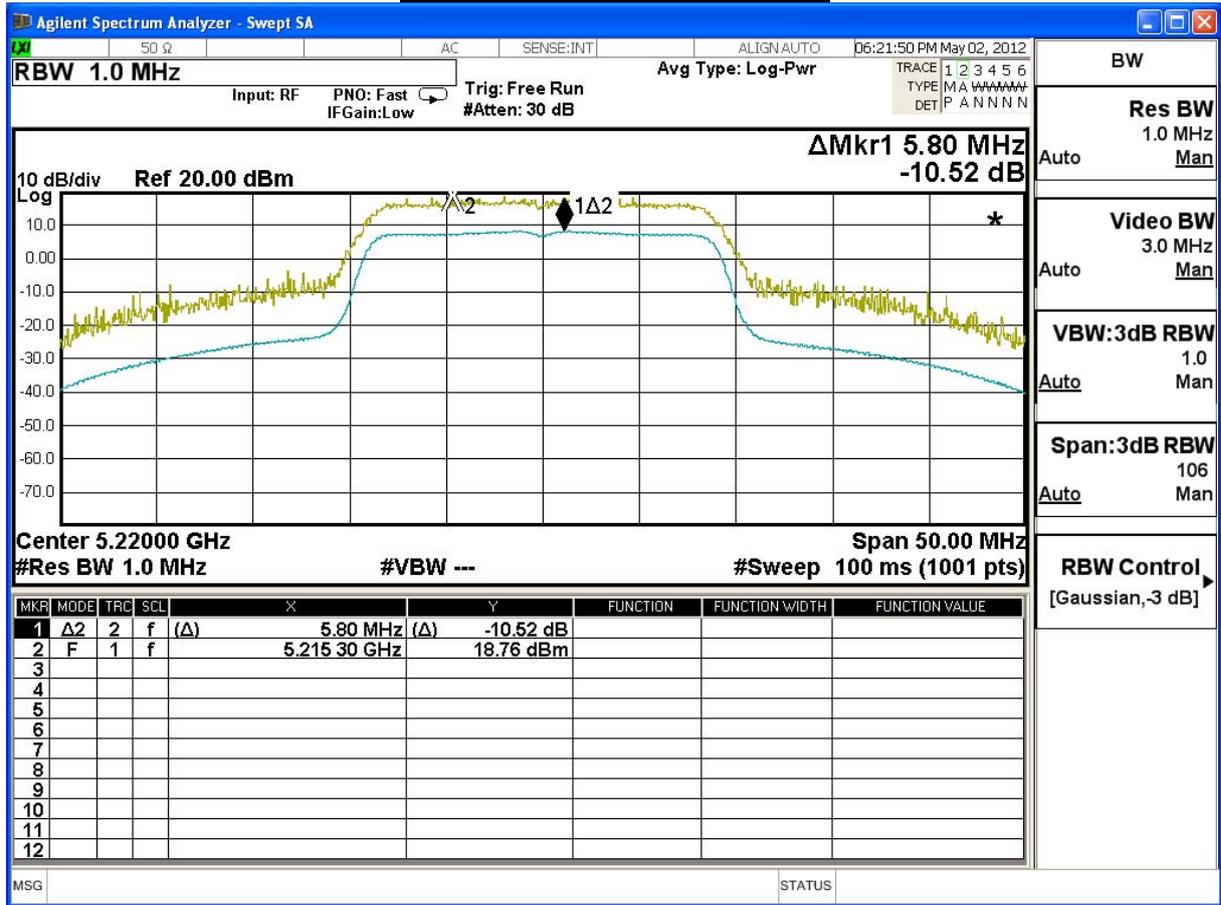
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Excursion		
Test Mode	Mode 1: Transmit (Adapter: EXA1004UH)		
Date of Test	2012/05/02	Test Site	SR7

IEEE 802.11n_20M(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dB)	Required Limit (dB)	Result
36	5180	10.41	≤ 13	Pass
44	5220	10.52	≤ 13	Pass
48	5240	9.88	≤ 13	Pass

Power Excursion – Channel 36



Power Excursion – Channel 44



Power Excursion – Channel 48

