

9. Power Density

9.1. Test Equipment

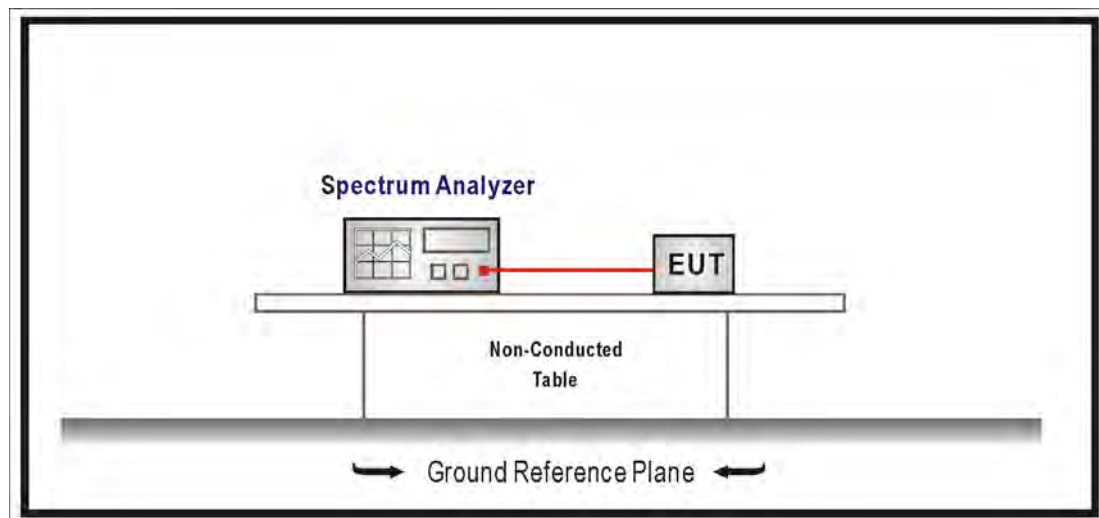
The following test equipment is used during the test:

Power Density / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2014/08/05

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

9.2. Test Setup



9.3. Test Procedures

The EUT was setup according to ANSI C63.10; tested according to DTS test procedure Section 10.2 of KDB558074 v03r02, Set the $3\text{KHz} \leq \text{RBW} \leq 100\text{KHz}$, Set the $\text{VBW} \geq 3 \times \text{RBW}$, Sweep time=Auto, Set RMS detector.

9.4. Limits

The peak power spectral density conducted from the intentional radiated to the antenna shall not be greater than +8dBm in any 3kHz band during any time interval of continuous transmission.

9.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2013

9.6. Uncertainty

The measurement uncertainty is defined as $\pm 1.27\text{dB}$.

9.7. Test Result

Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode) Adapter: EXA1206UH		
Date of Test	2014/03/12	Test Site	SR7

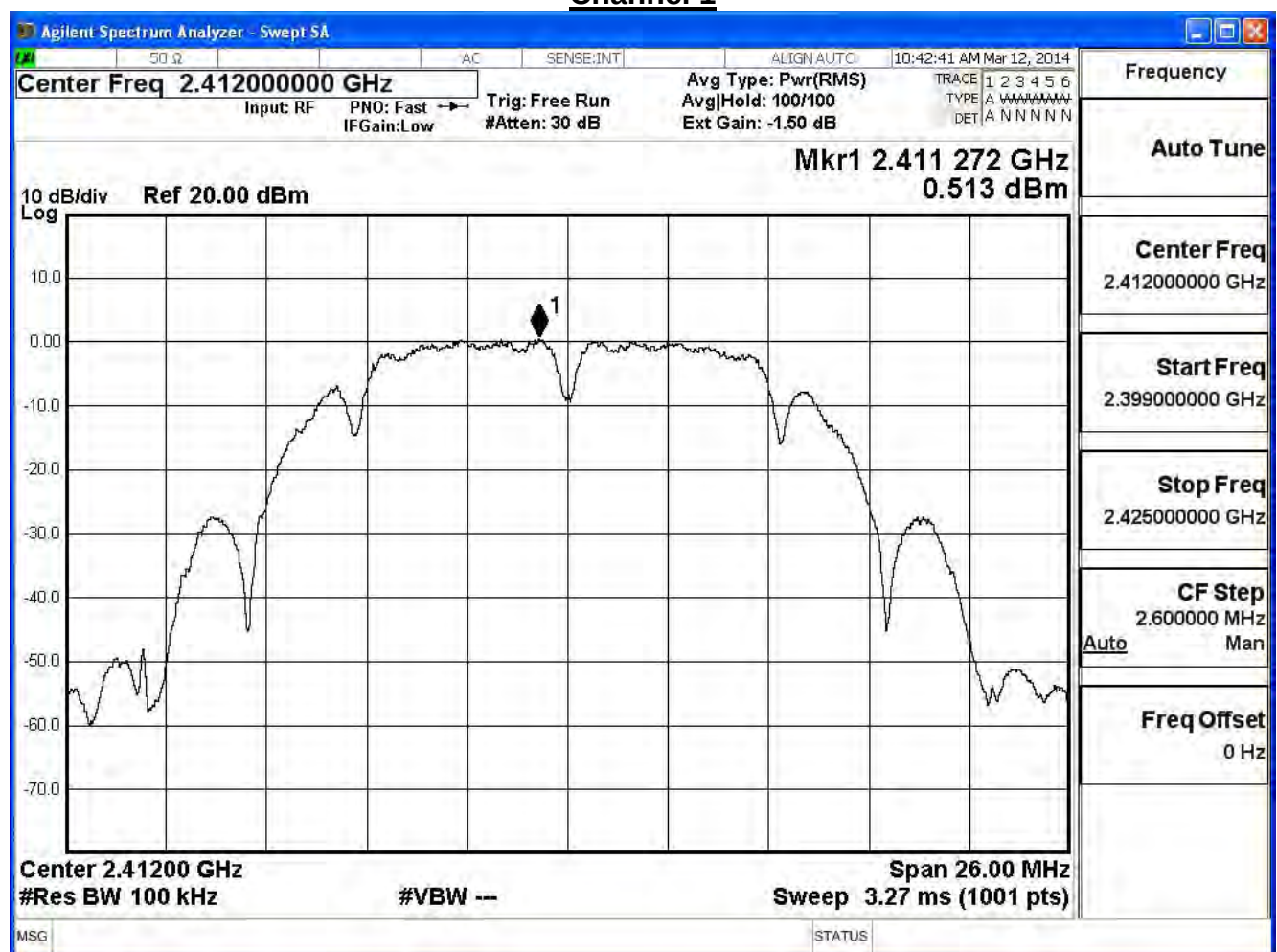
IEEE 802.11b (ANT0)					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	0.513	-14.687	≤ 7.32	Pass
6	2437	1.065	-14.135	≤ 7.32	Pass
11	2462	0.673	-14.527	≤ 7.32	Pass

Note:

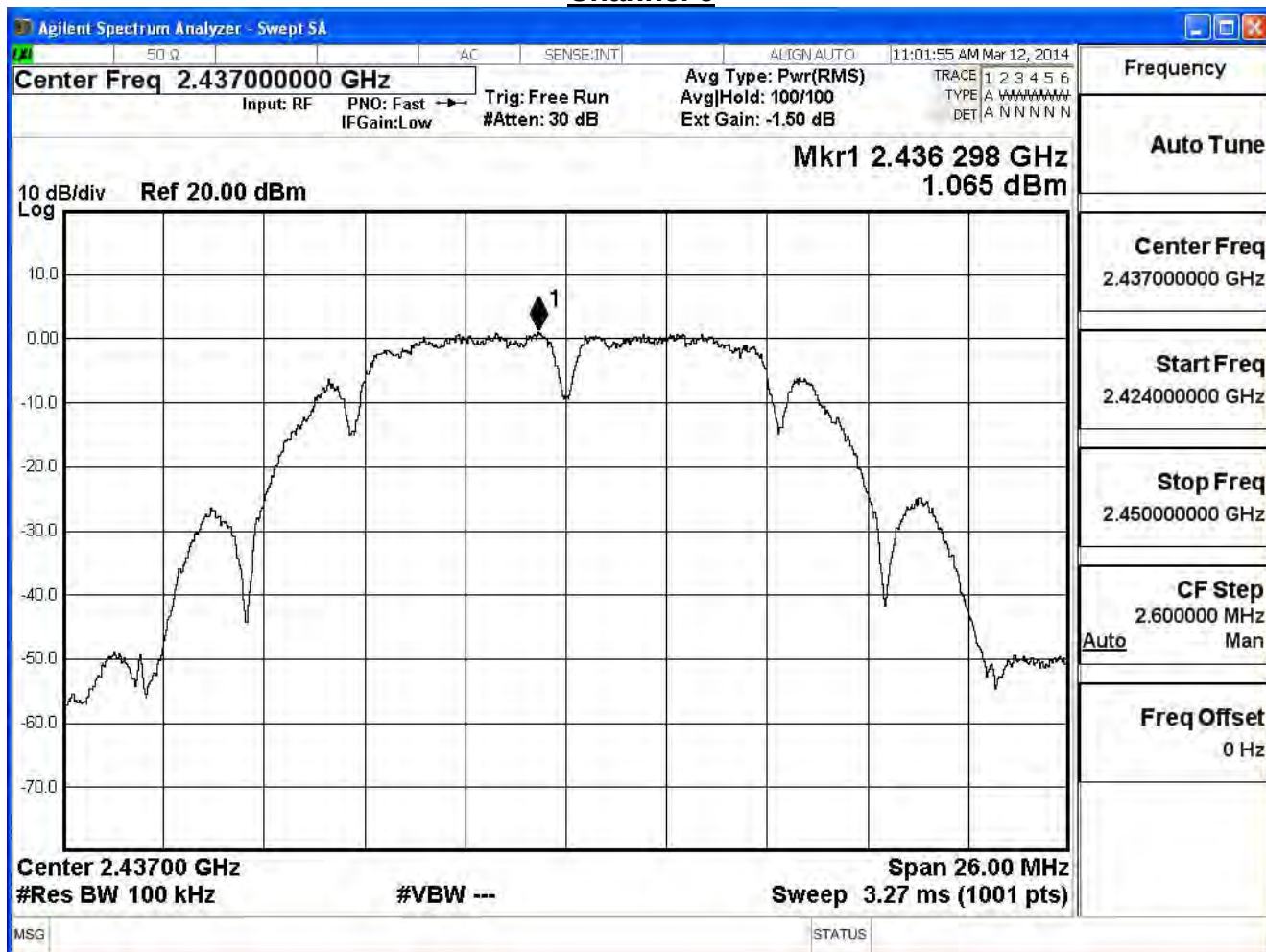
Directional Antenna Gain = $10\log(3) + \text{max Gain} = 6.68\text{dBi}$

Required Limit = $8\text{dBm} - (6.68\text{dBi} - 6\text{dB}) = 7.32\text{dBm}$

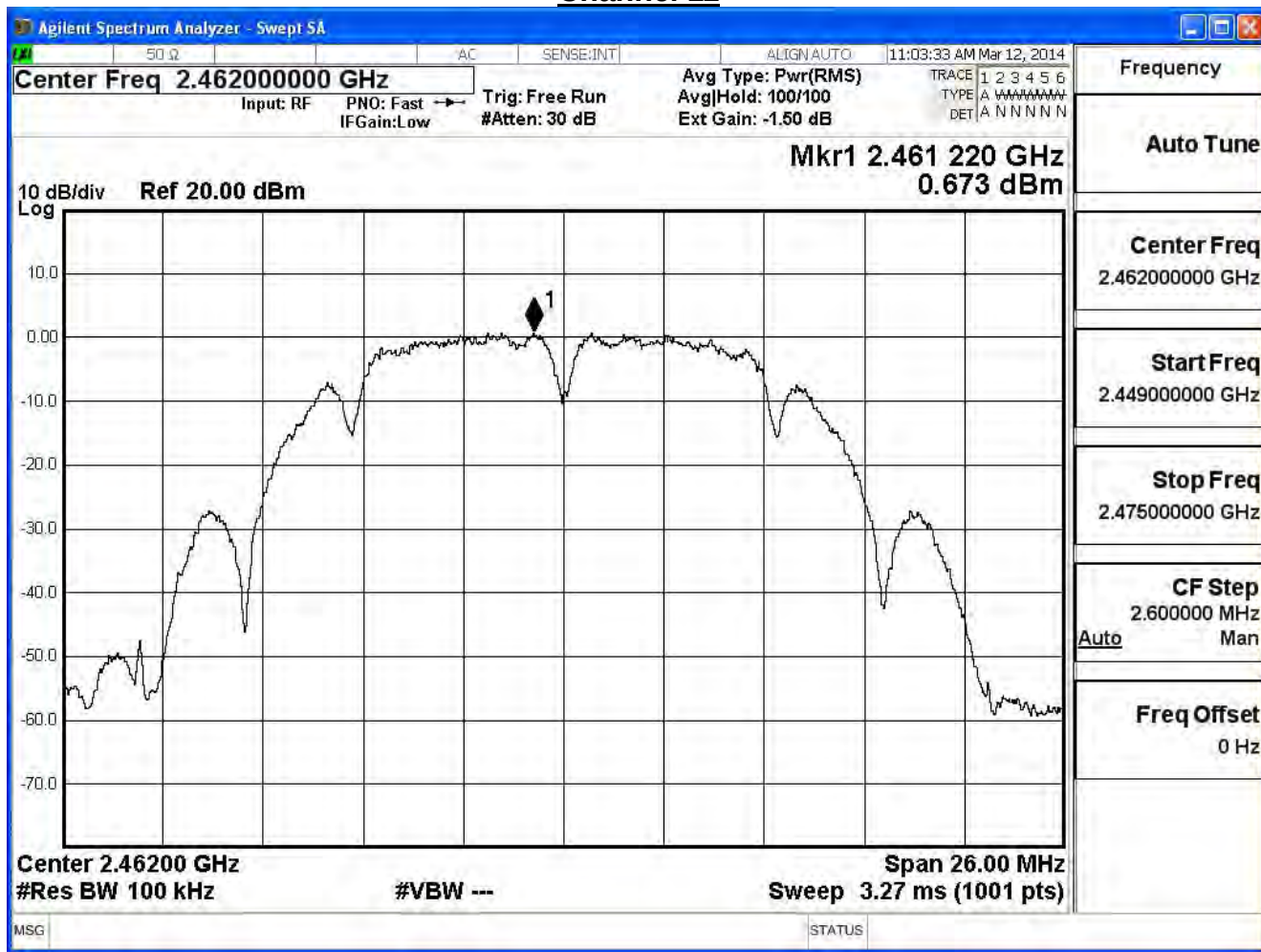
Channel 1



Channel 6



Channel 11



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode) Adapter: EXA1206UH		
Date of Test	2014/03/12	Test Site	SR7

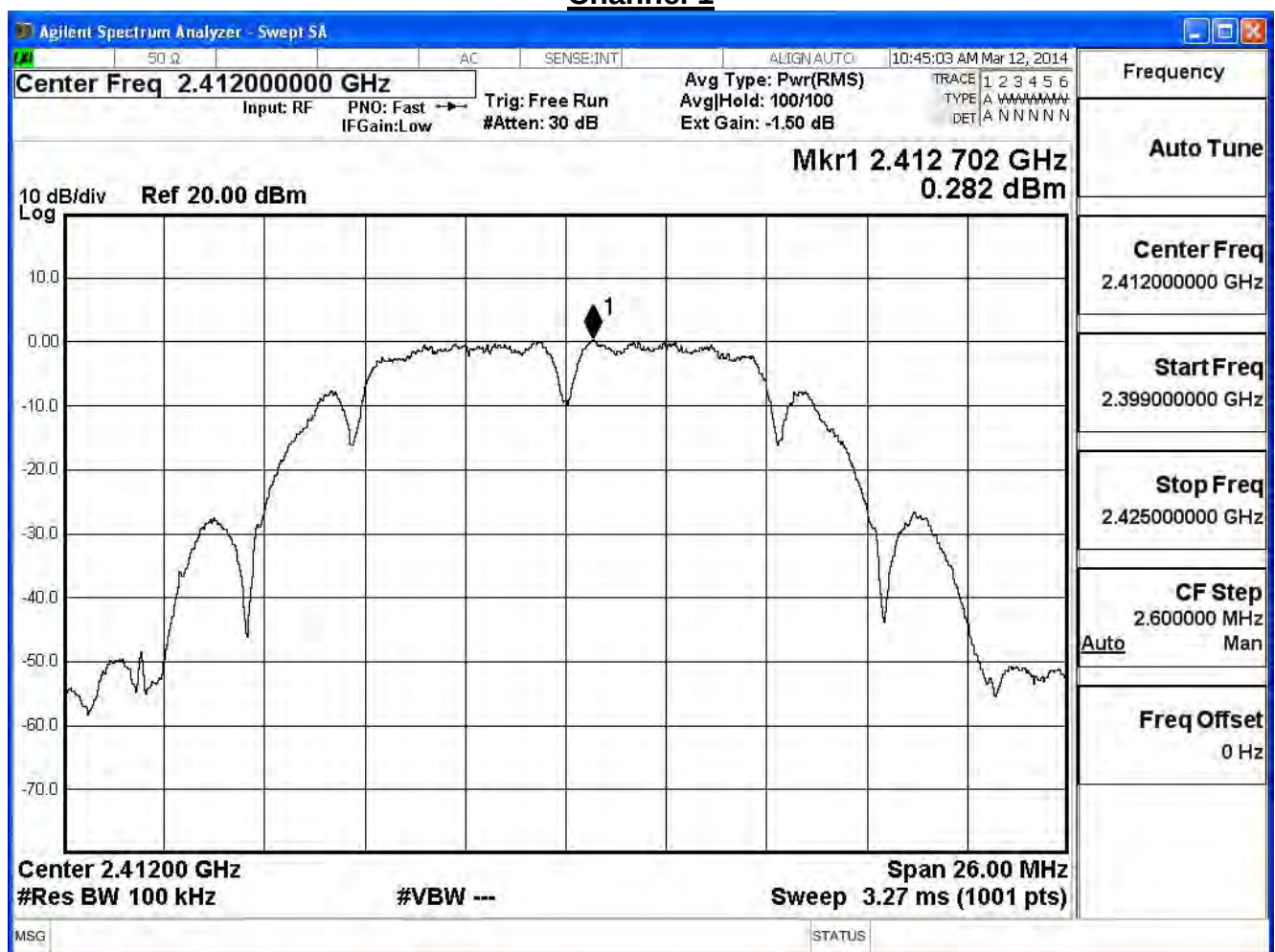
IEEE 802.11b (ANT1)					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	0.282	-14.918	≤ 7.32	Pass
6	2437	0.969	-14.231	≤ 7.32	Pass
11	2462	0.714	-14.486	≤ 7.32	Pass

Note:

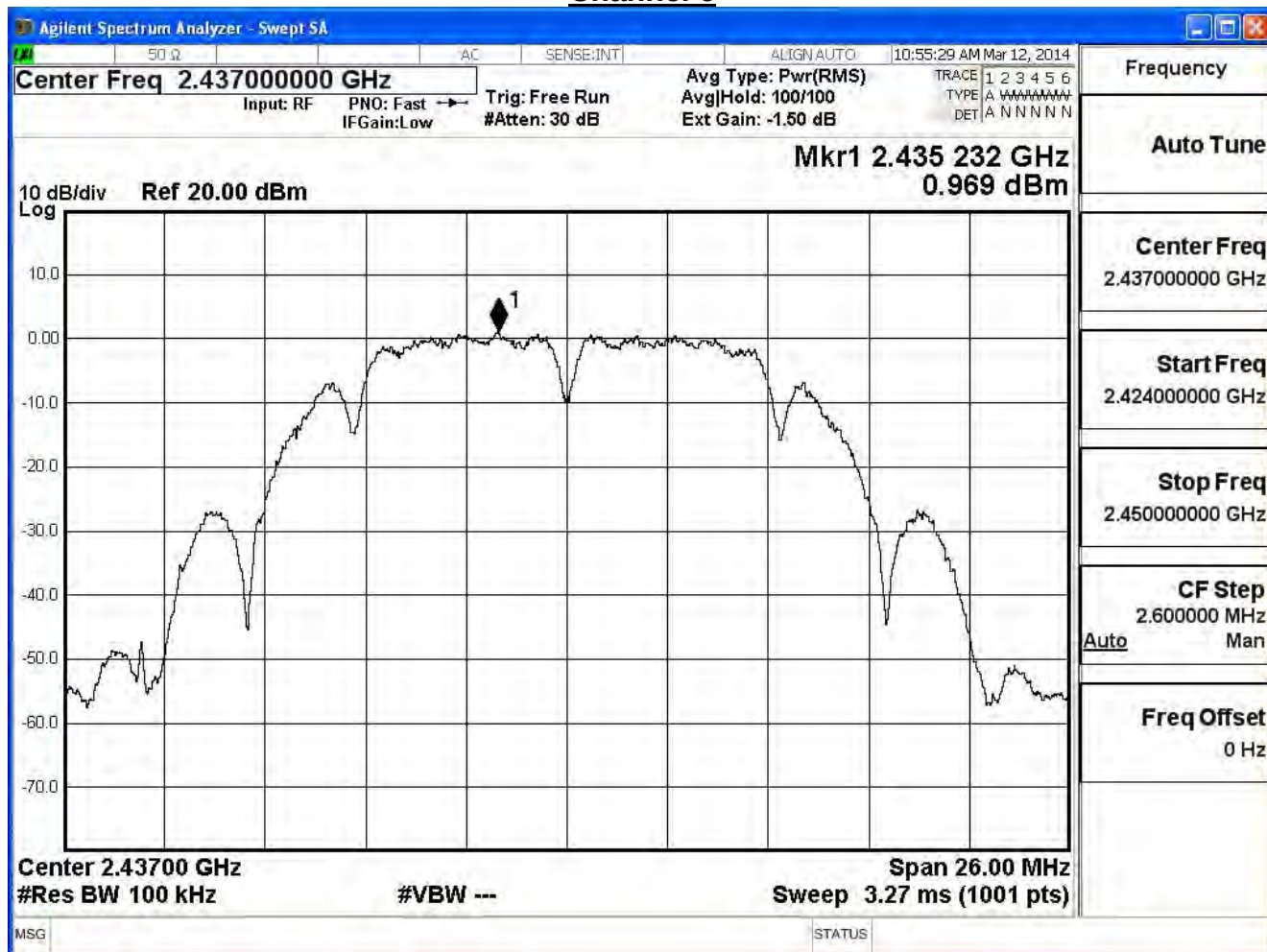
Directional Antenna Gain = $10\log(3) + \text{max Gain} = 6.68\text{dBi}$

Required Limit = $8\text{dBm} - (6.68\text{dBi} - 6\text{dB}) = 7.32\text{dBm}$

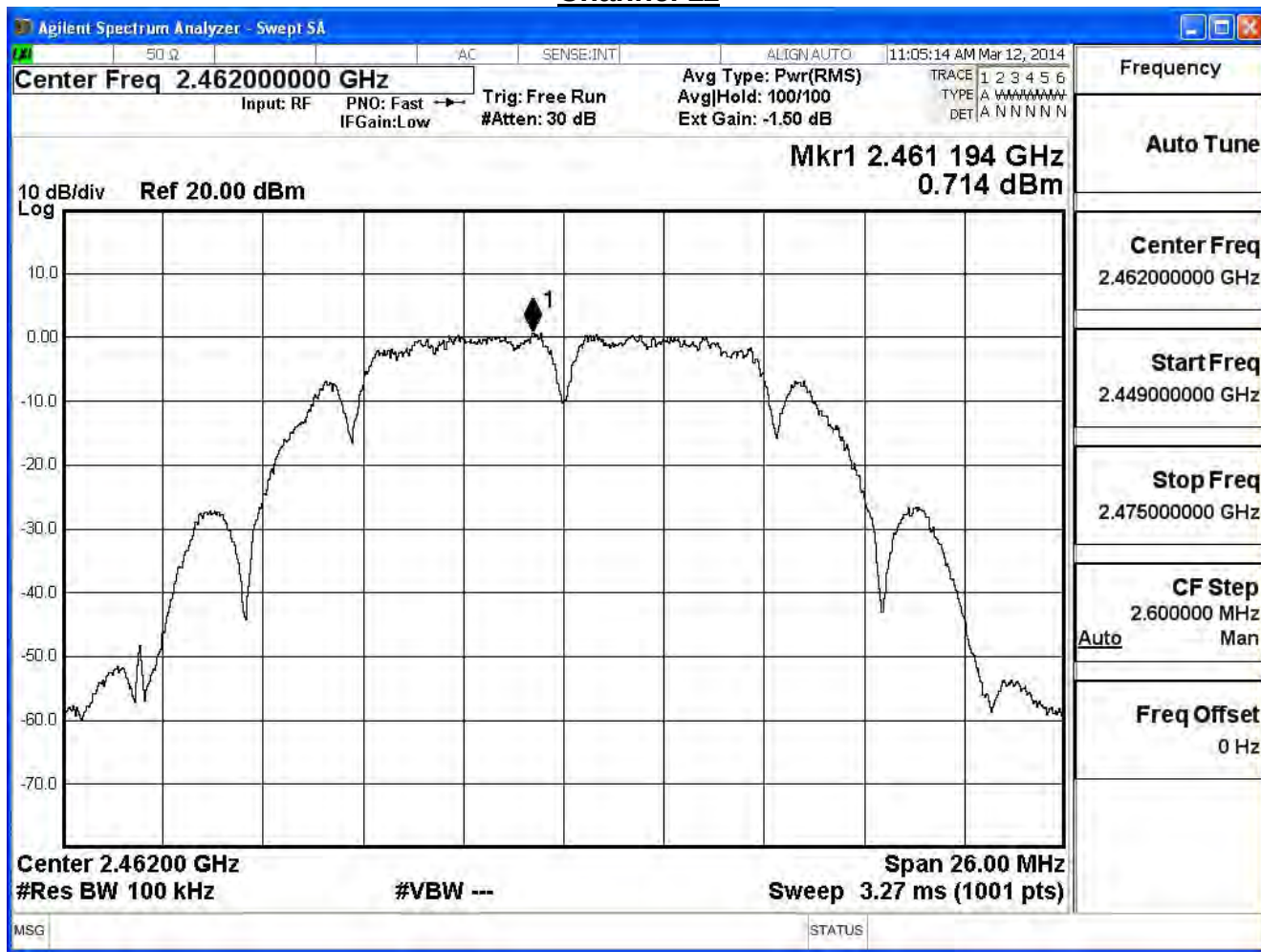
Channel 1



Channel 6



Channel 11



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode) Adapter: EXA1206UH		
Date of Test	2014/03/12	Test Site	SR7

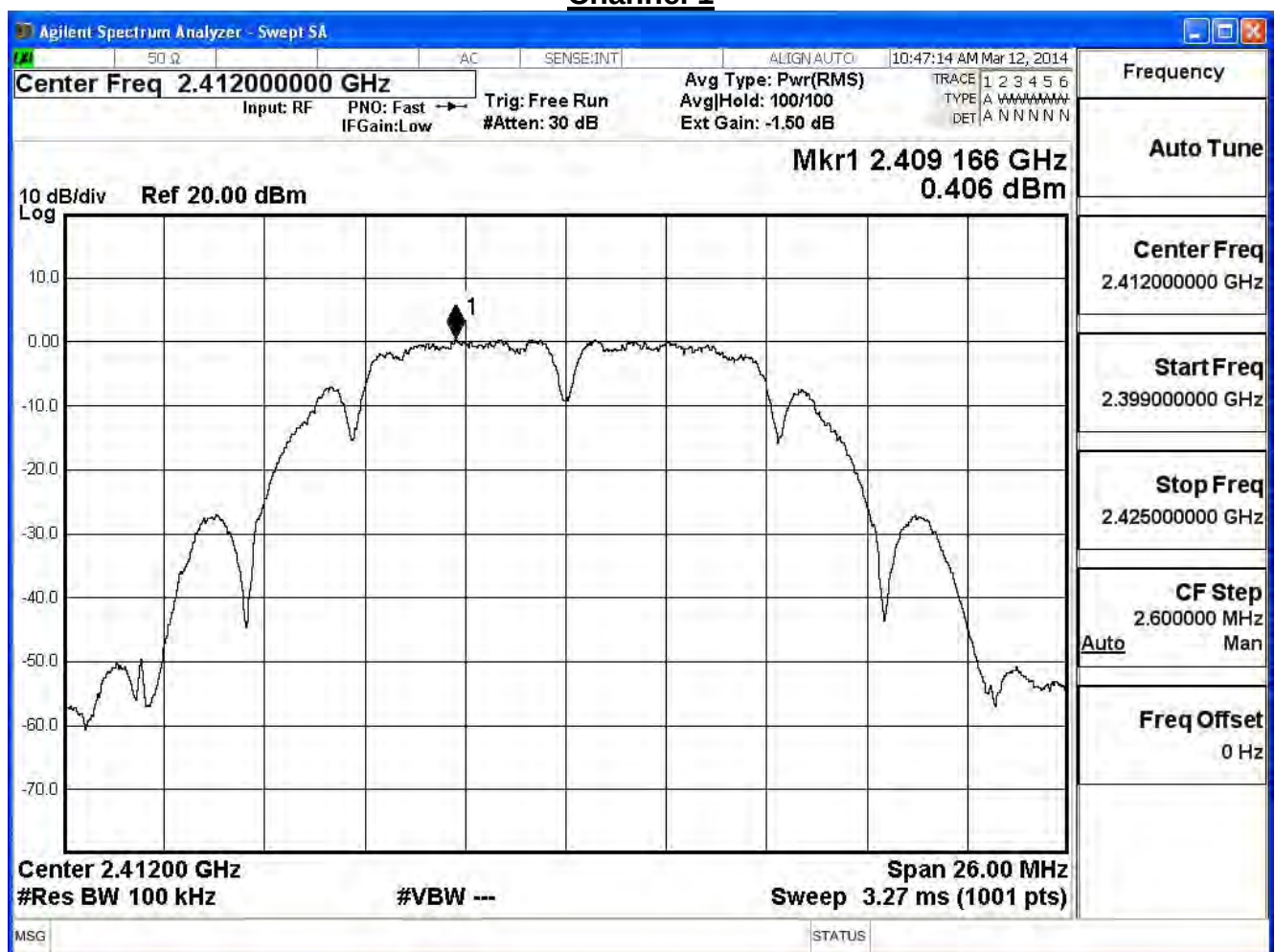
IEEE 802.11b (ANT2)					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	0.406	-14.794	≤ 7.32	Pass
6	2437	0.929	-14.271	≤ 7.32	Pass
11	2462	0.955	-14.245	≤ 7.32	Pass

Note:

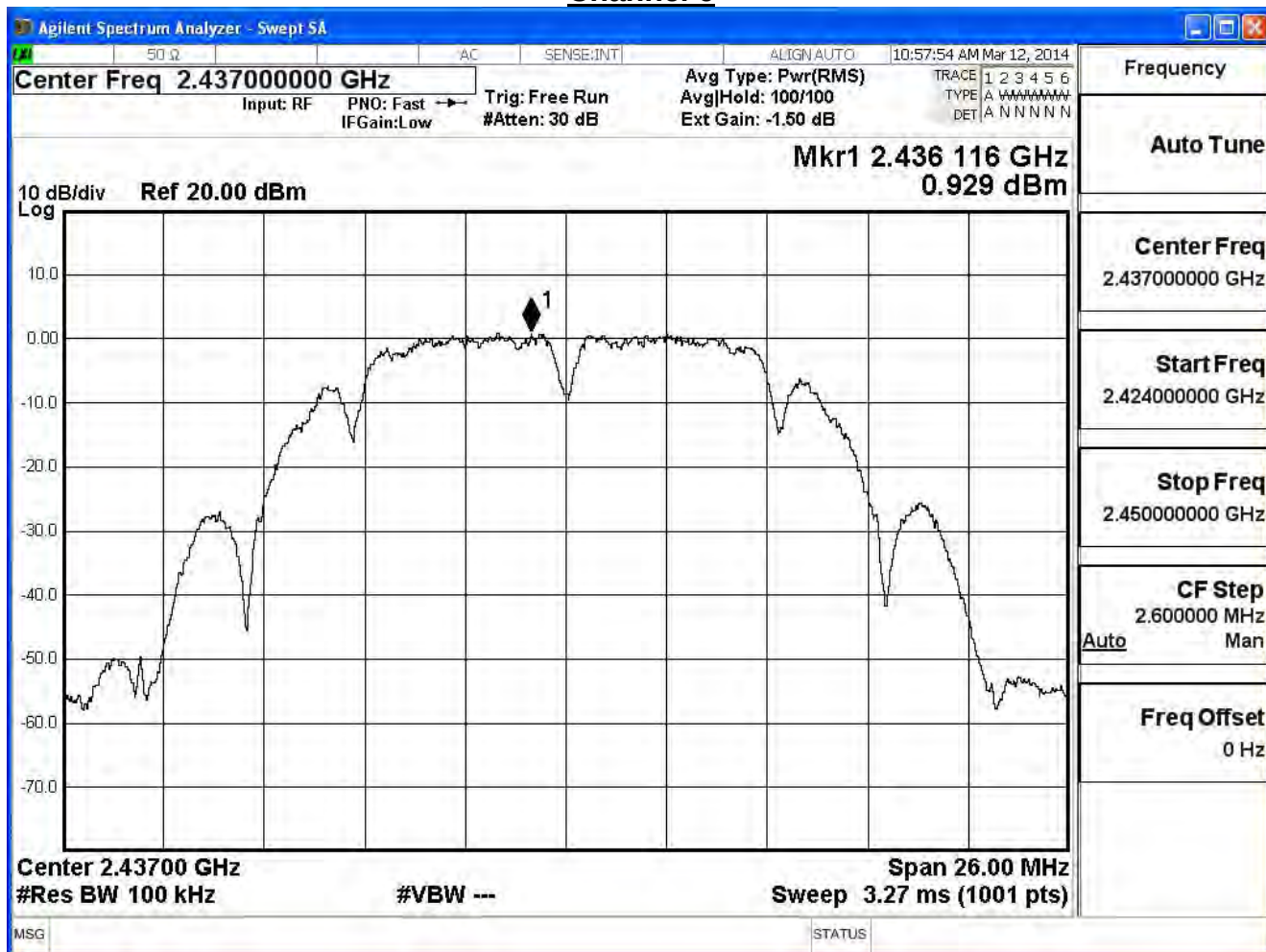
Directional Antenna Gain = $10\log(3) + \text{max Gain} = 6.68\text{dBi}$

Required Limit = $8\text{dBm} - (6.68\text{dBi} - 6\text{dB}) = 7.32\text{dBm}$

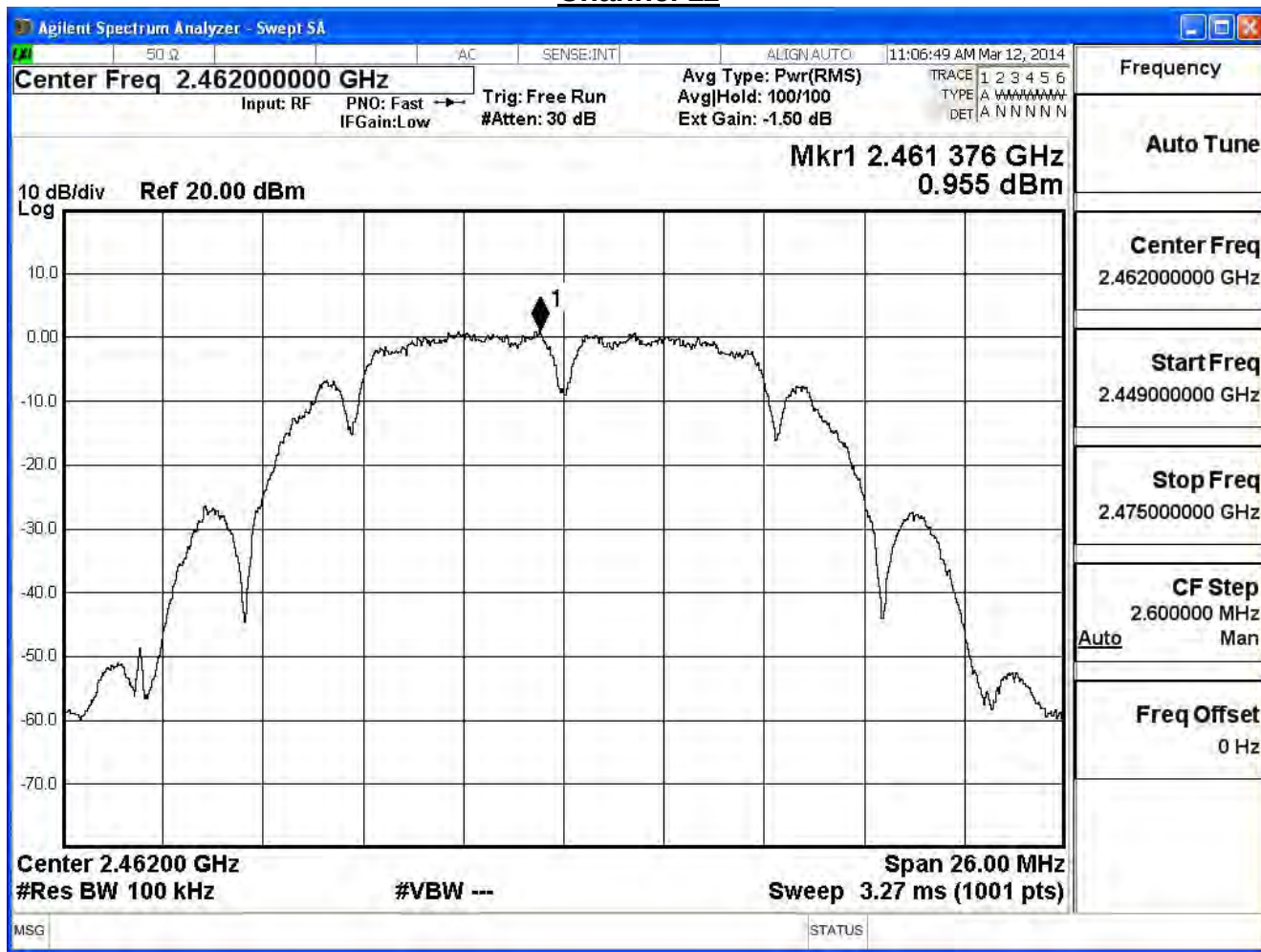
Channel 1



Channel 6



Channel 11



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode) Adapter: EXA1206UH		
Date of Test	2014/03/12	Test Site	SR7

IEEE 802.11b (ANT0+1+2)				
Channel No.	Frequency (MHz)	Measure Level(dBm)	Limit (dBm)	Result
1	2412	-10.027	≤ 7.32	Pass
6	2437	-9.441	≤ 7.32	Pass
11	2462	-9.646	≤ 7.32	Pass

Note:

Directional Antenna Gain = $10\log(3) + \text{max Gain} = 6.68\text{dBi}$

Required Limit = $8\text{dBm} - (6.68\text{dBi} - 6\text{dB}) = 7.32\text{dBm}$

Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode) Adapter: EXA1206UH		
Date of Test	2014/03/12	Test Site	SR7

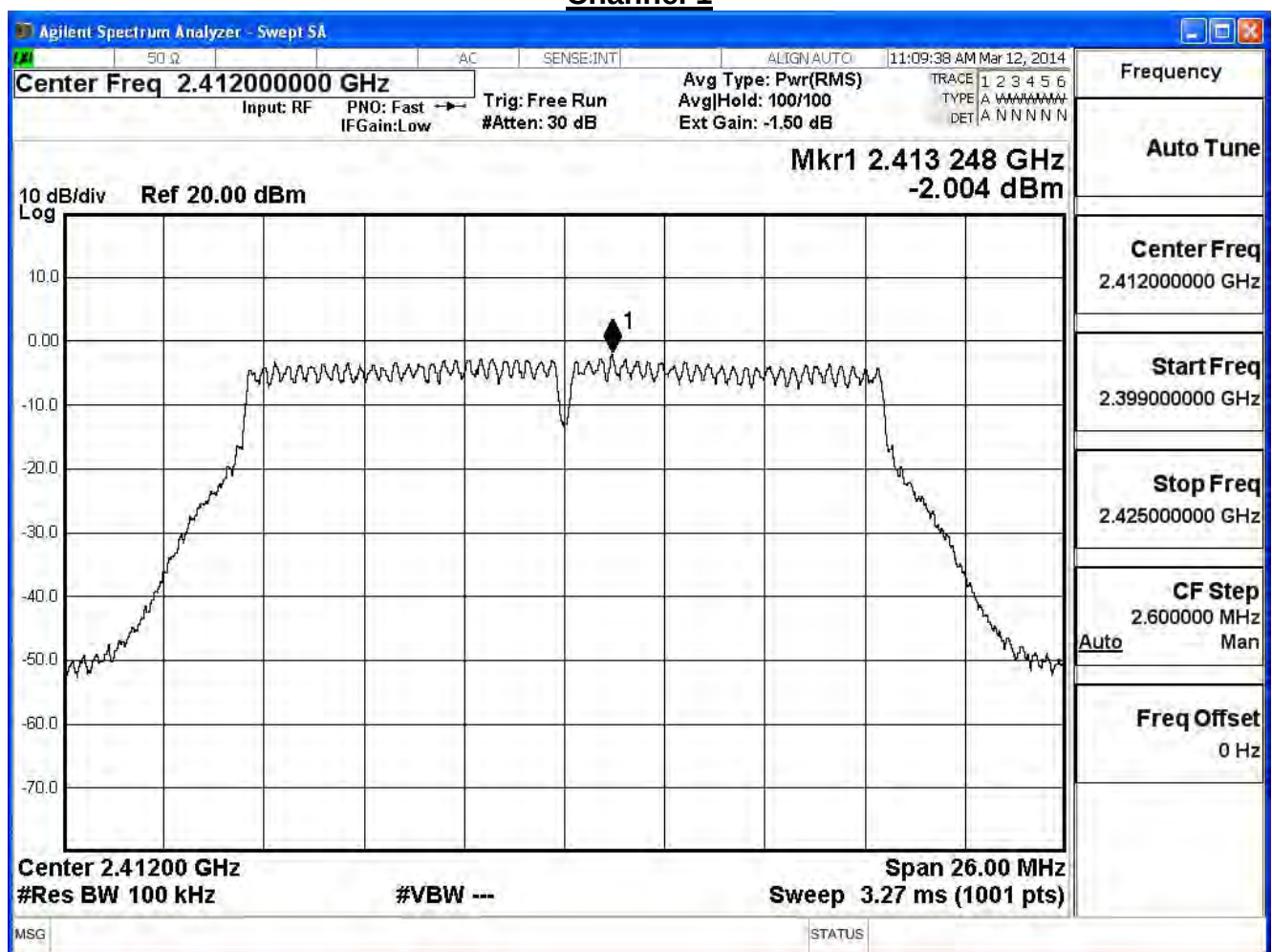
IEEE 802.11g (ANT0)					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measurement (dBm)	Limit (dBm)	Result
1	2412	-2.004	-17.204	≤ 7.32	Pass
6	2437	3.718	-11.482	≤ 7.32	Pass
11	2462	-1.584	-16.784	≤ 7.32	Pass

Note:

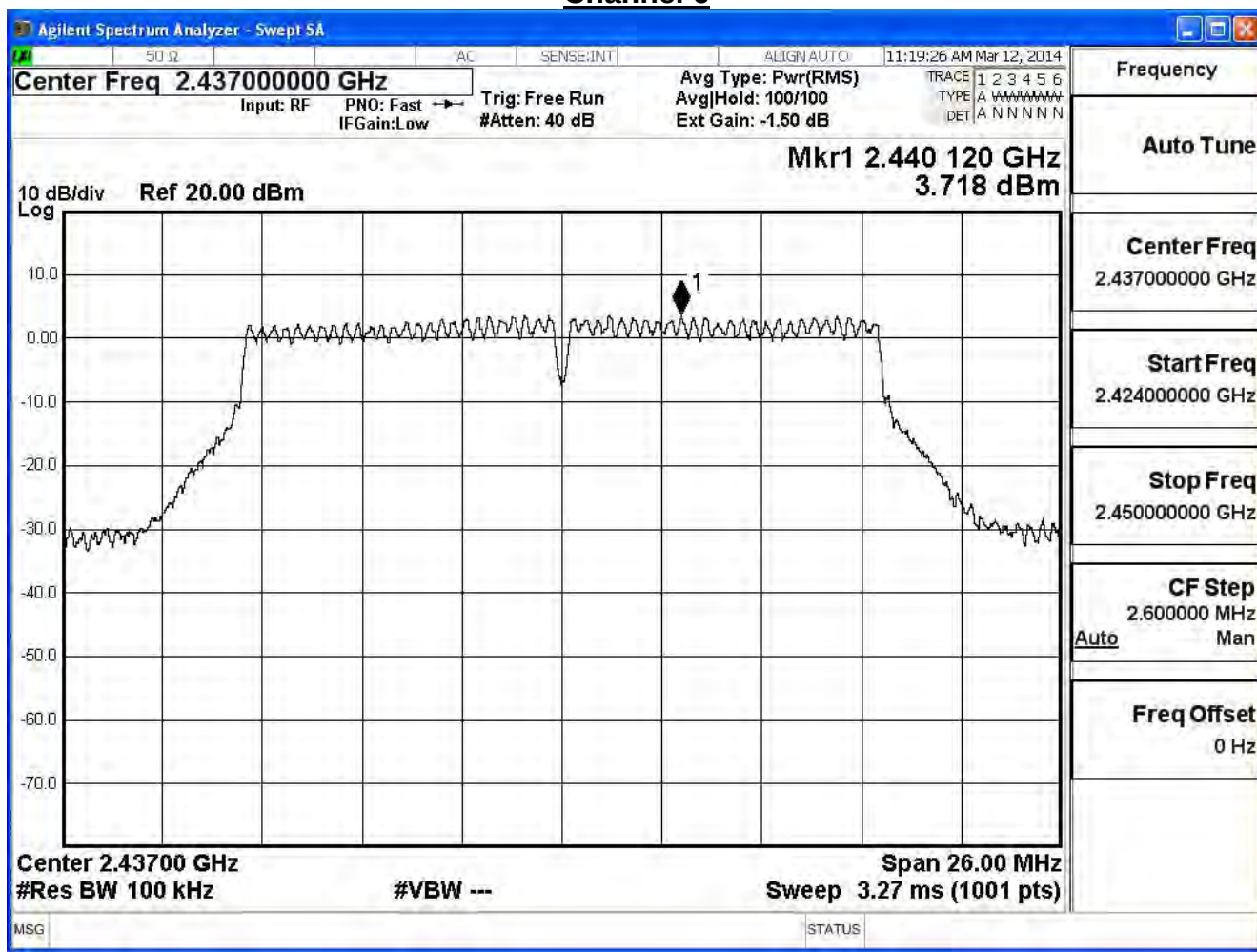
Directional Antenna Gain = $10\log(3) + \text{max Gain} = 6.68\text{dBi}$

Required Limit = $8\text{dBm} - (6.68\text{dBi} - 6\text{dB}) = 7.32\text{dBm}$

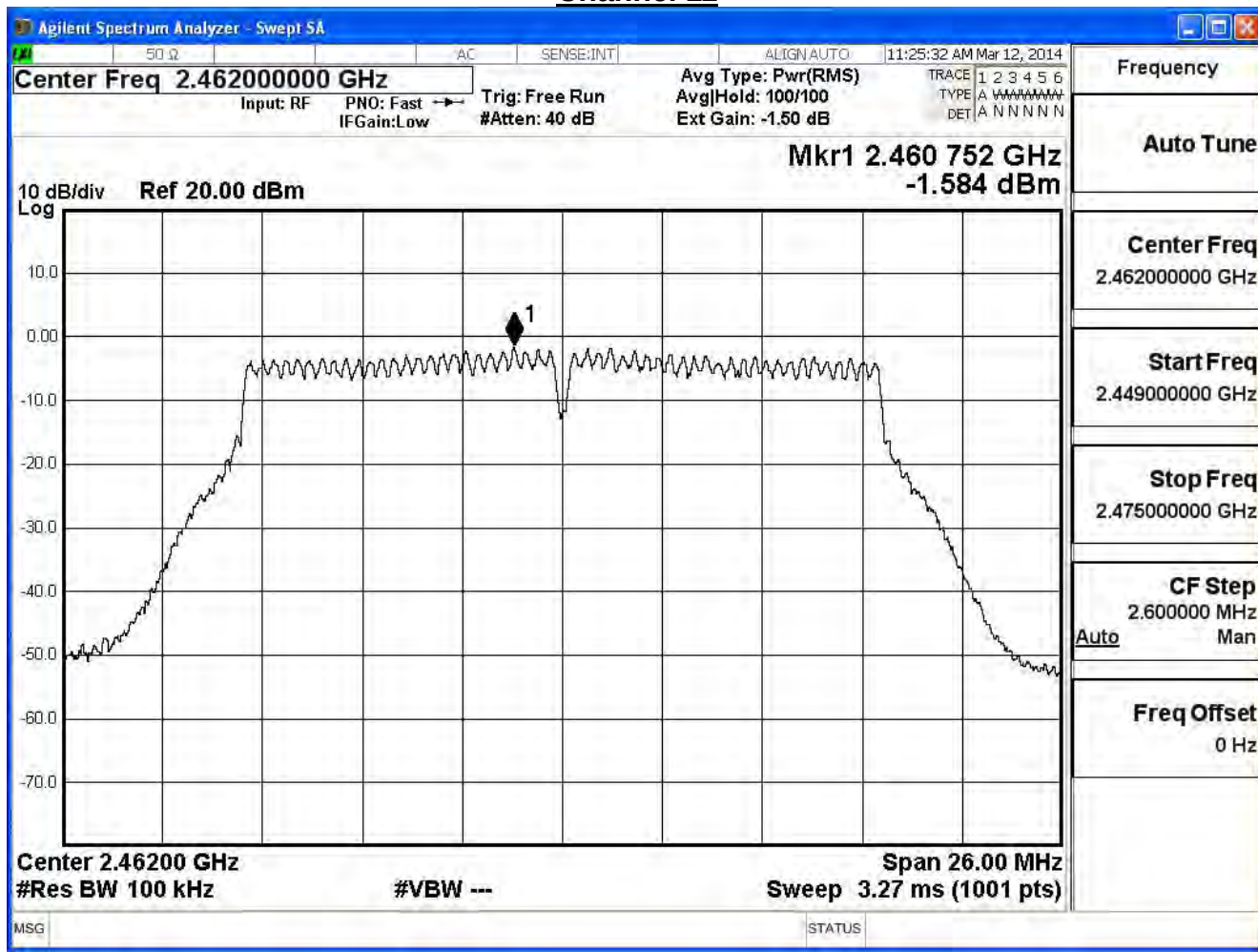
Channel 1



Channel 6



Channel 11



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
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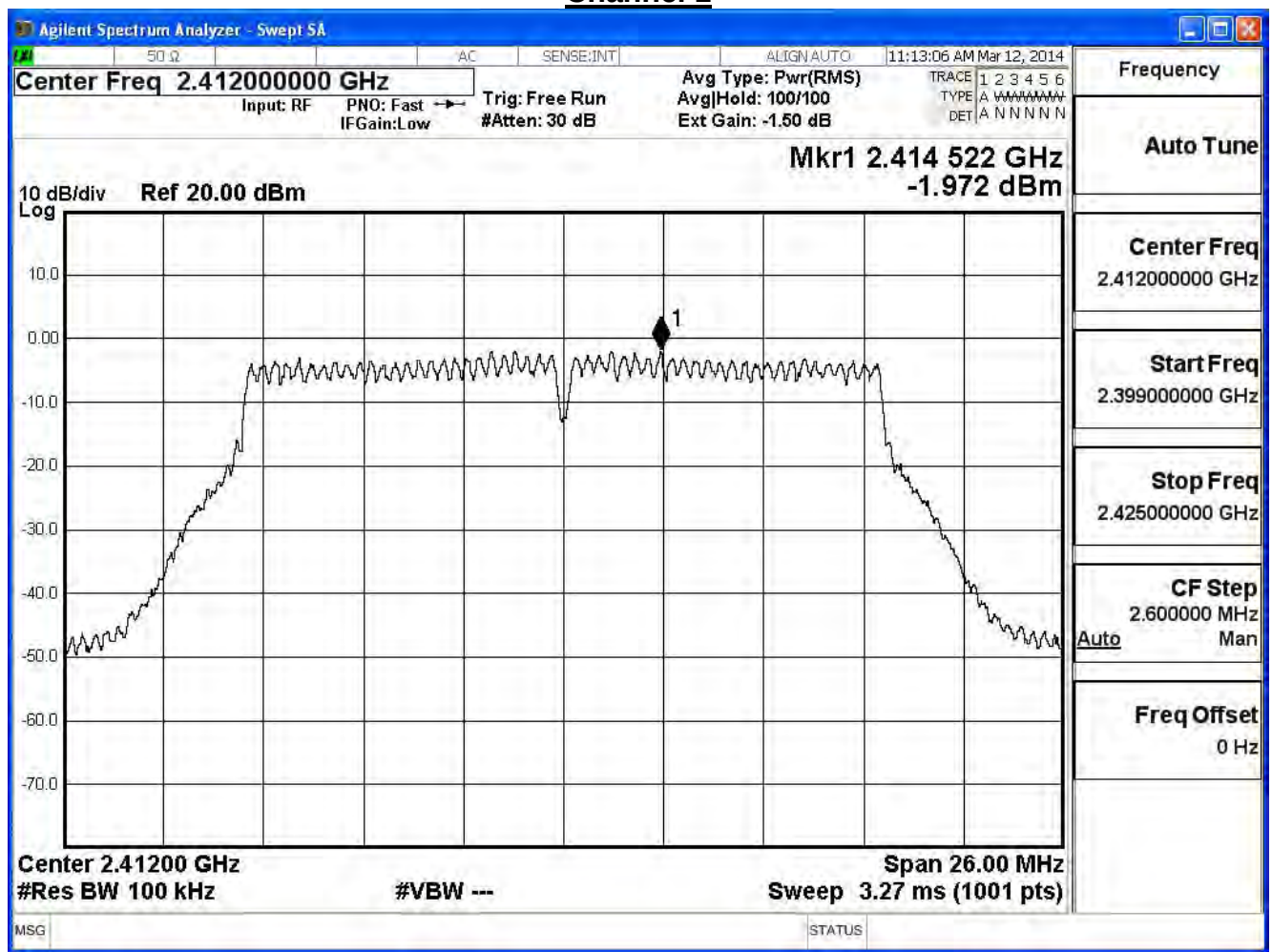
IEEE 802.11g (ANT1)					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measurement (dBm)	Limit (dBm)	Result
1	2412	-1.972	-17.172	≤ 7.32	Pass
6	2437	3.682	-11.518	≤ 7.32	Pass
11	2462	-1.851	-17.051	≤ 7.32	Pass

Note:

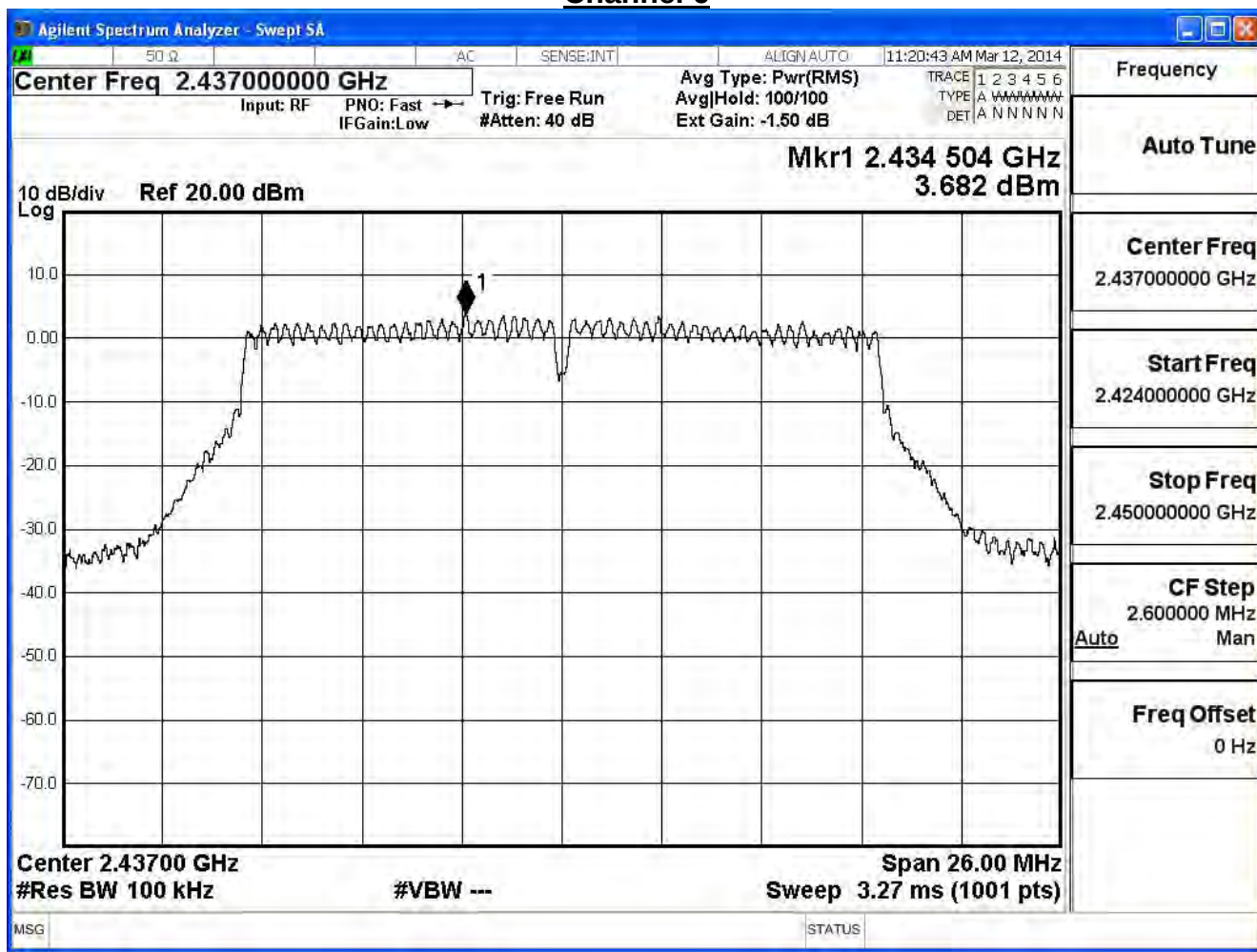
Directional Antenna Gain = $10\log(3) + \text{max Gain} = 6.68\text{dBi}$

Required Limit = $8\text{dBm} - (6.68\text{dBi} - 6\text{dB}) = 7.32\text{dBm}$

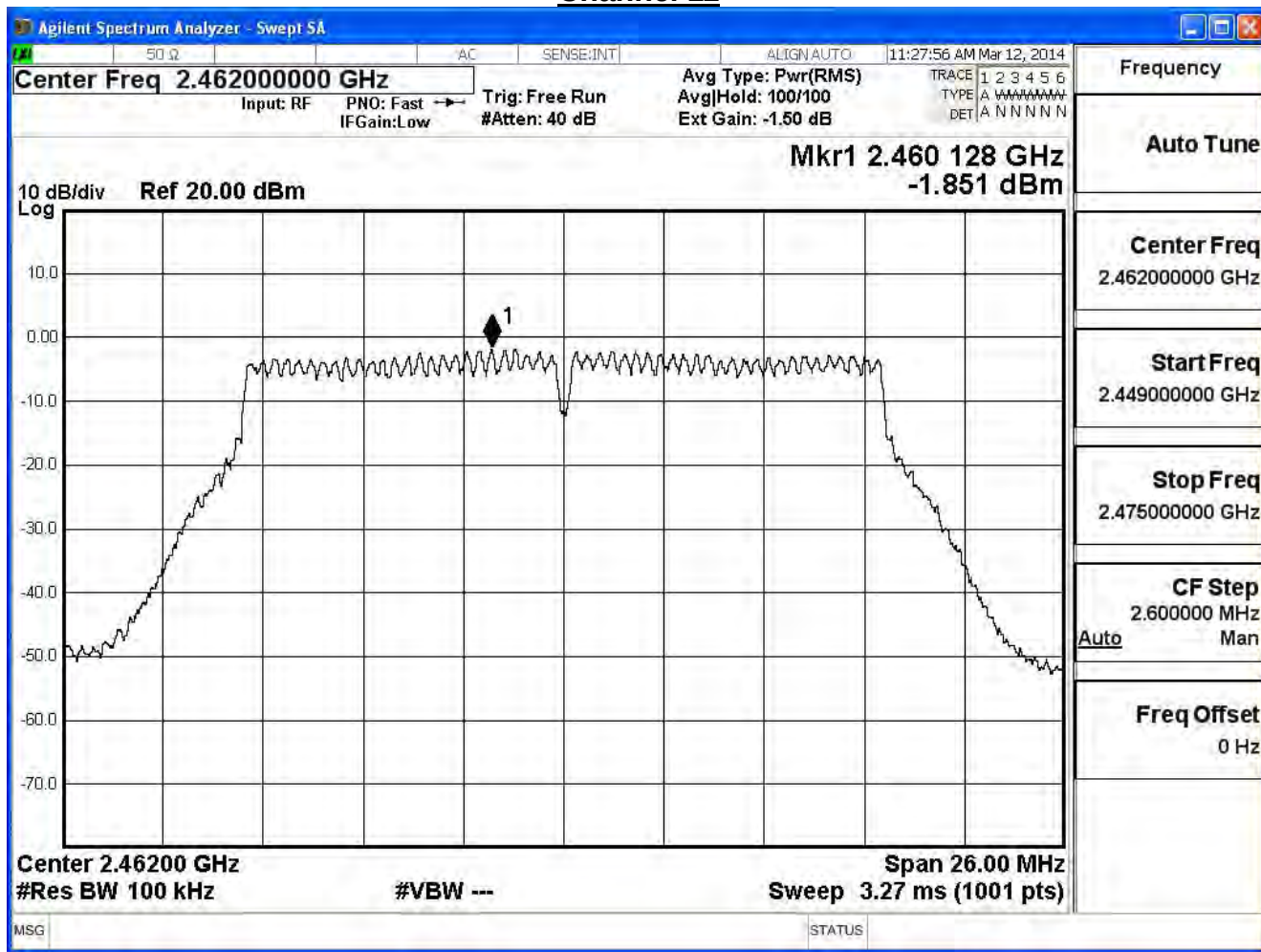
Channel 1



Channel 6



Channel 11



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2014/03/12	Test Site	SR7

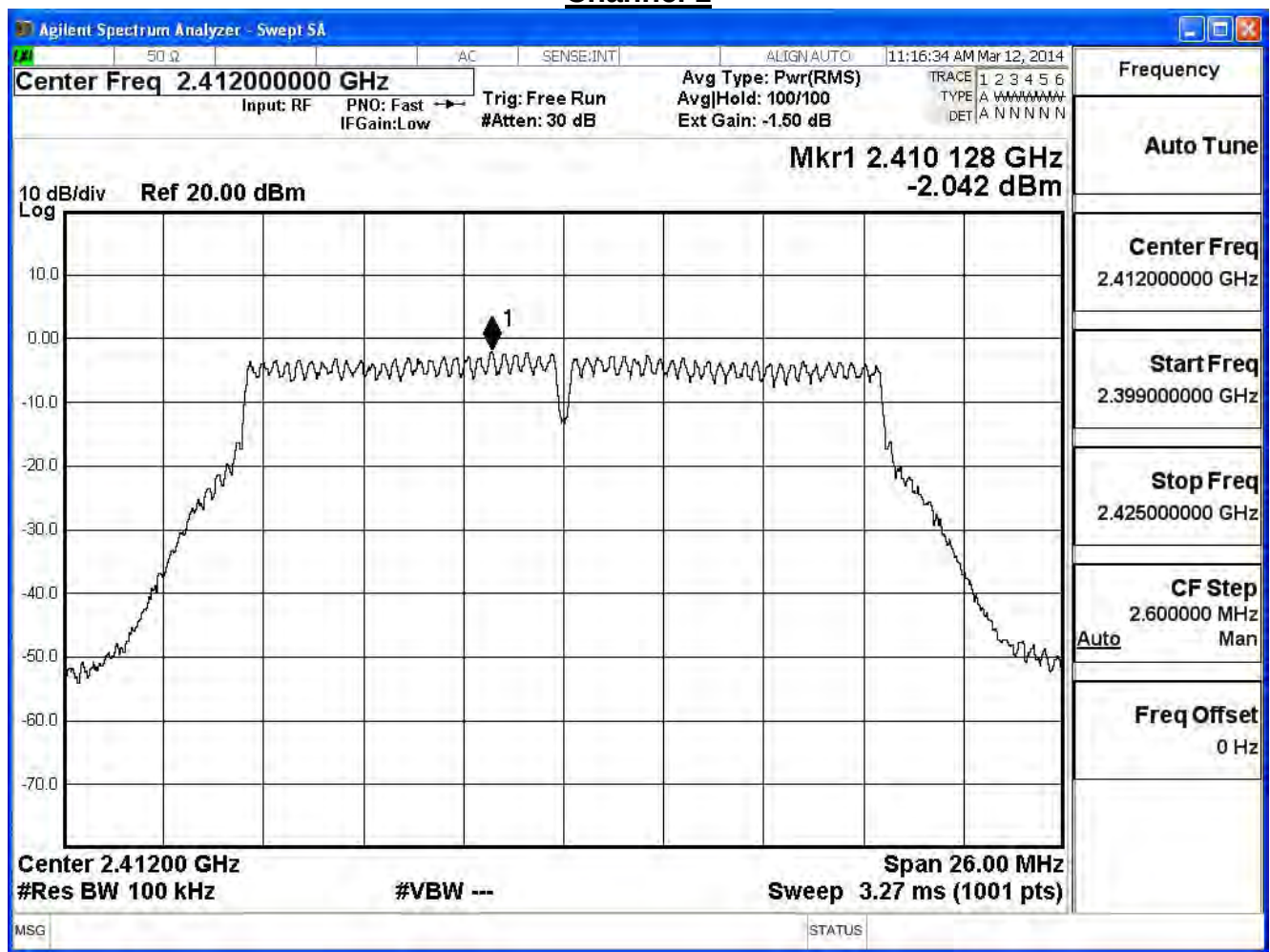
IEEE 802.11g (ANT2)					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measurement (dBm)	Limit (dBm)	Result
1	2412	-2.042	-17.242	≤ 7.32	Pass
6	2437	3.897	-11.303	≤ 7.32	Pass
11	2462	-1.492	-16.692	≤ 7.32	Pass

Note:

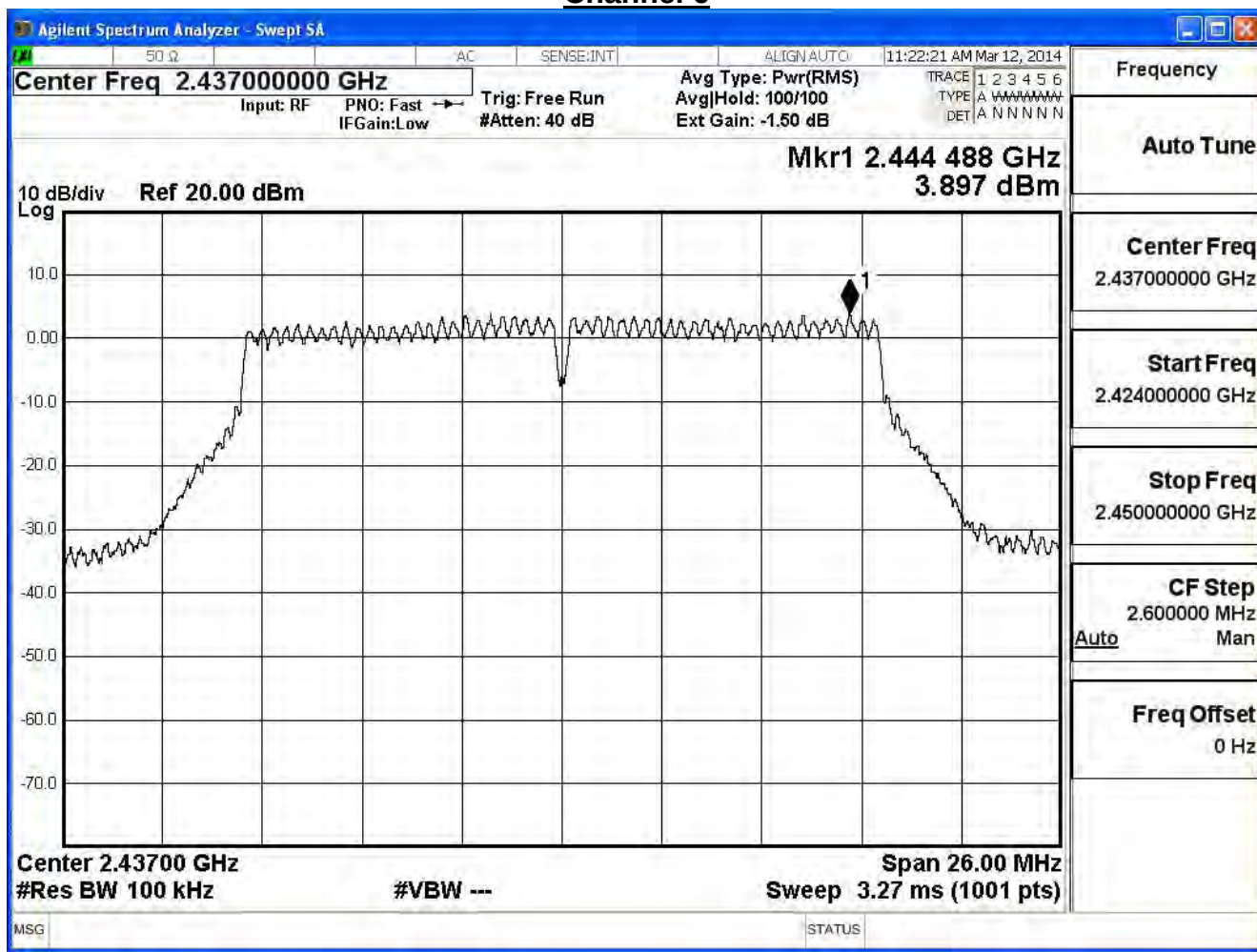
Directional Antenna Gain = $10\log(3) + \text{max Gain} = 6.68\text{dBi}$

Required Limit = $8\text{dBm} - (6.68\text{dBi} - 6\text{dB}) = 7.32\text{dBm}$

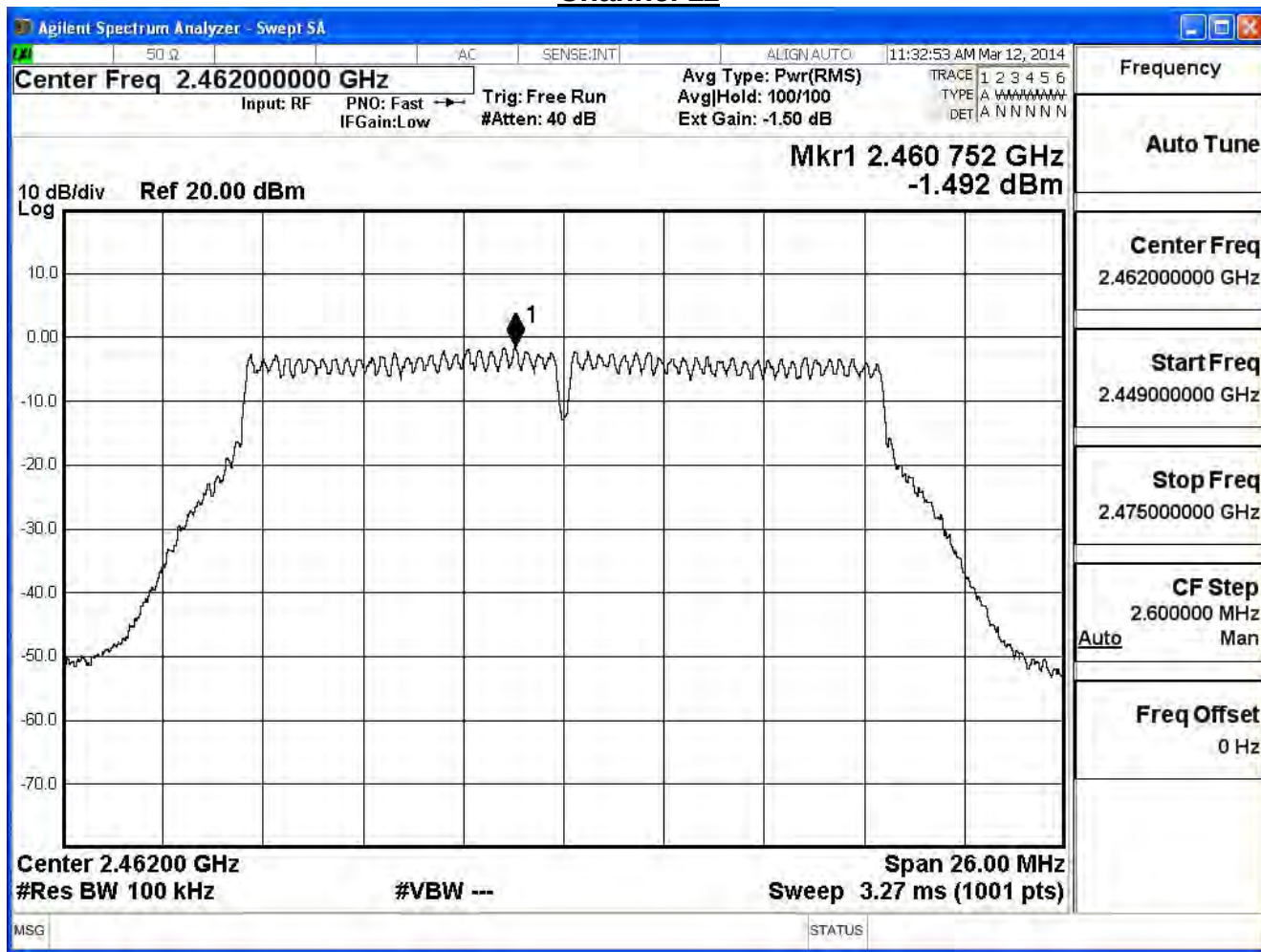
Channel 1



Channel 6



Channel 11



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2014/03/12	Test Site	SR7

IEEE 802.11g (ANT0+1+2)				
Channel No.	Frequency (MHz)	Measure Level(dBm)	Limit (dBm)	Result
1	2412	-12.435	≤ 7.32	Pass
6	2437	-6.662	≤ 7.32	Pass
11	2462	-12.068	≤ 7.32	Pass

Note:

Directional Antenna Gain = $10\log(3)$ +max Gain = 6.68dBi

Required Limit = 8dBm - (6.68dBi-6dB) = 7.32dBm

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Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
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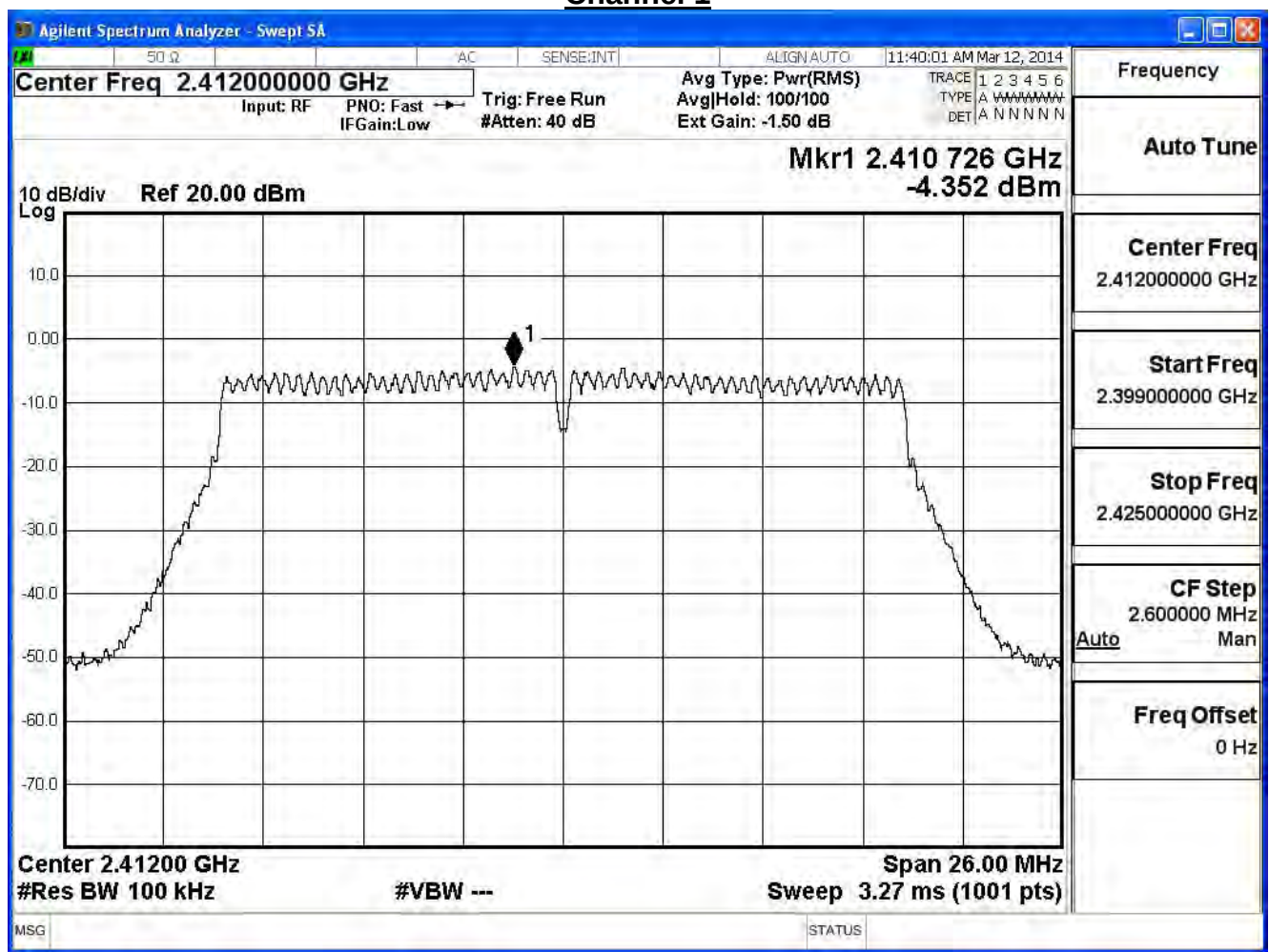
IEEE802.11n_20MHz_(ANT 0)					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-4.352	-19.552	≤ 7.32	Pass
6	2437	2.765	-12.435	≤ 7.32	Pass
11	2462	-2.574	-17.774	≤ 7.32	Pass

Note:

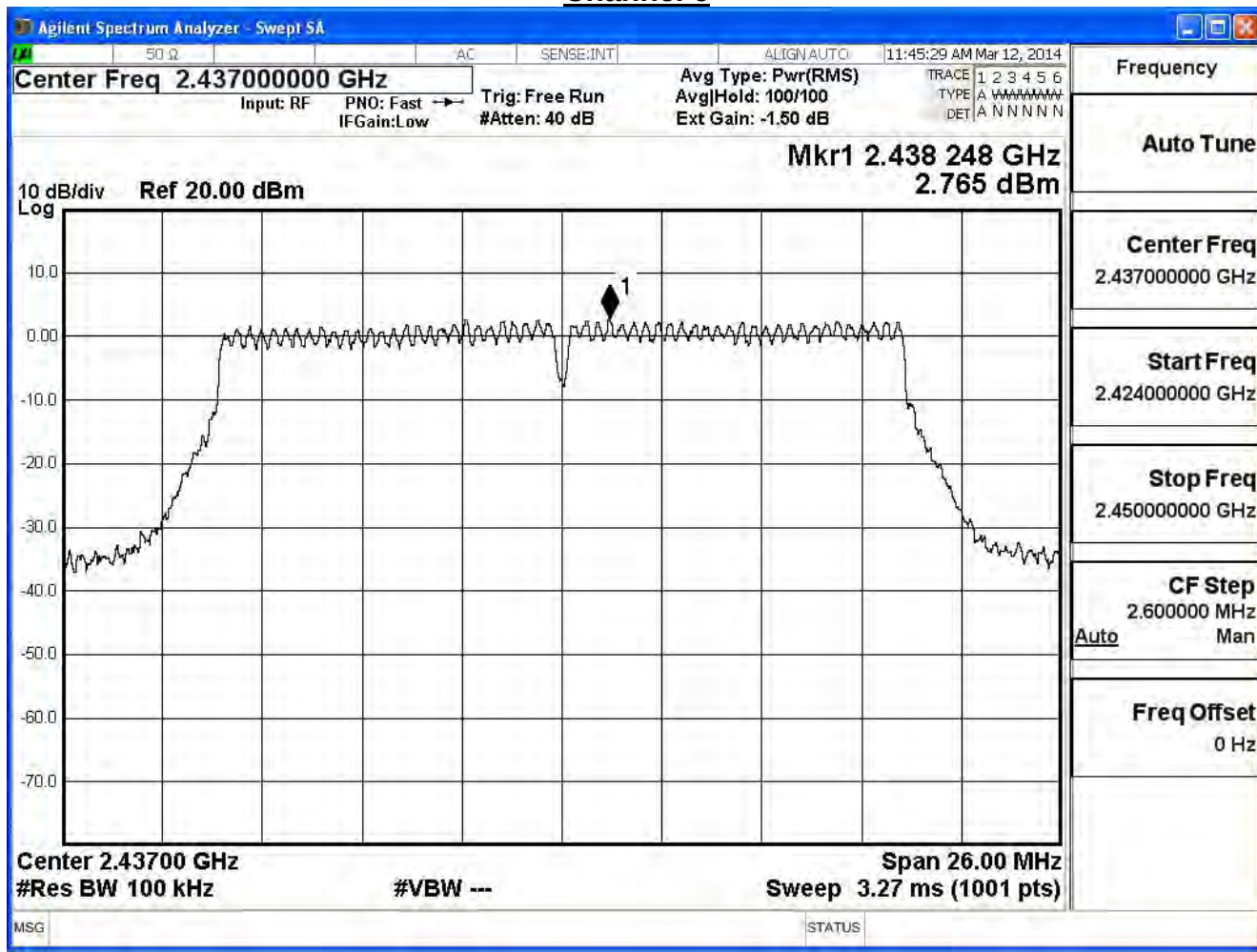
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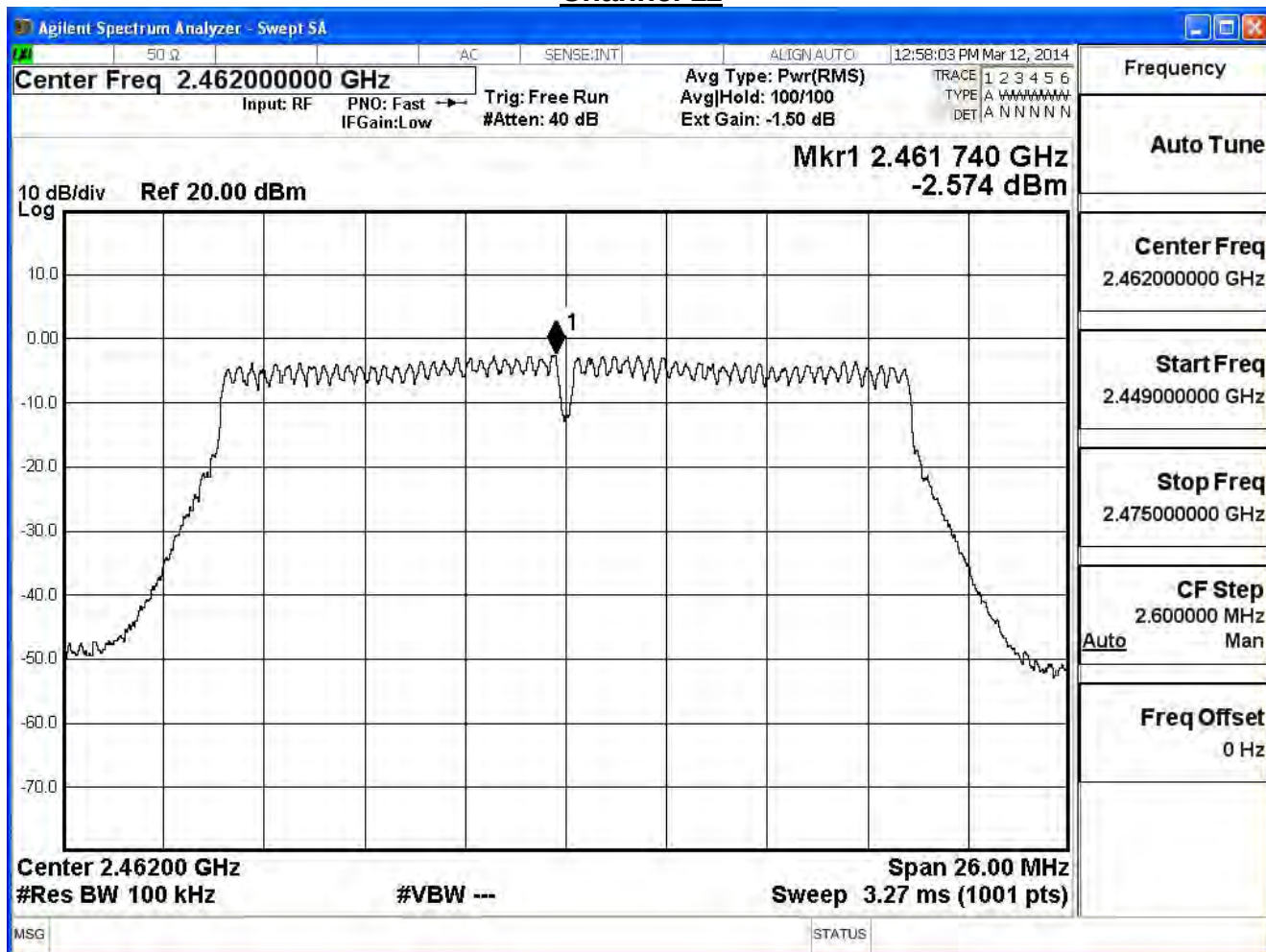
Channel 1



Channel 6



Channel 11



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2014/03/12	Test Site	SR7

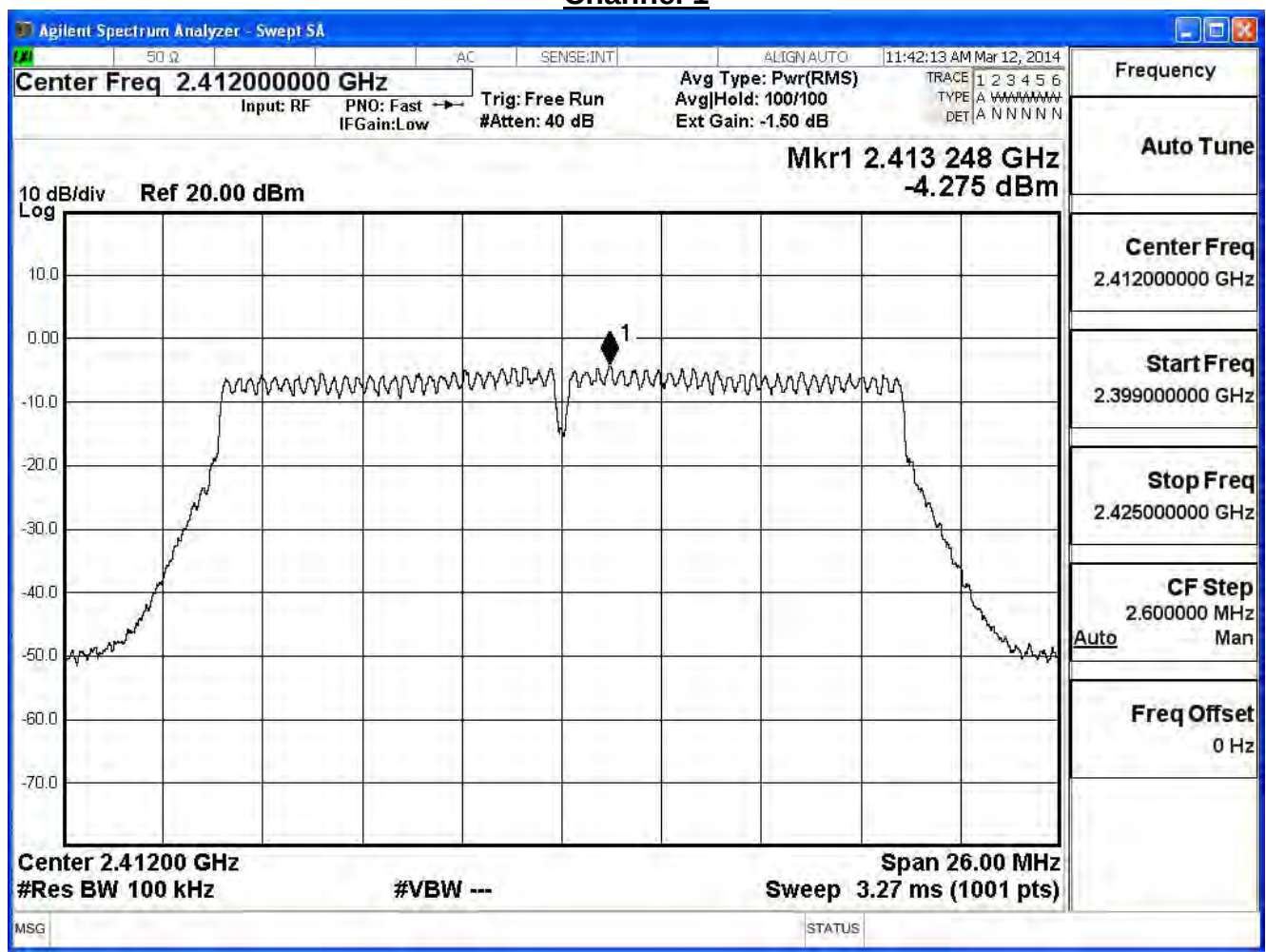
IEEE802.11n_20MHz_(ANT 1)					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measurement (dBm)	Limit (dBm)	Result
1	2412	-4.275	-19.475	≤ 7.32	Pass
6	2437	2.303	-12.897	≤ 7.32	Pass
11	2462	-2.782	-17.982	≤ 7.32	Pass

Note:

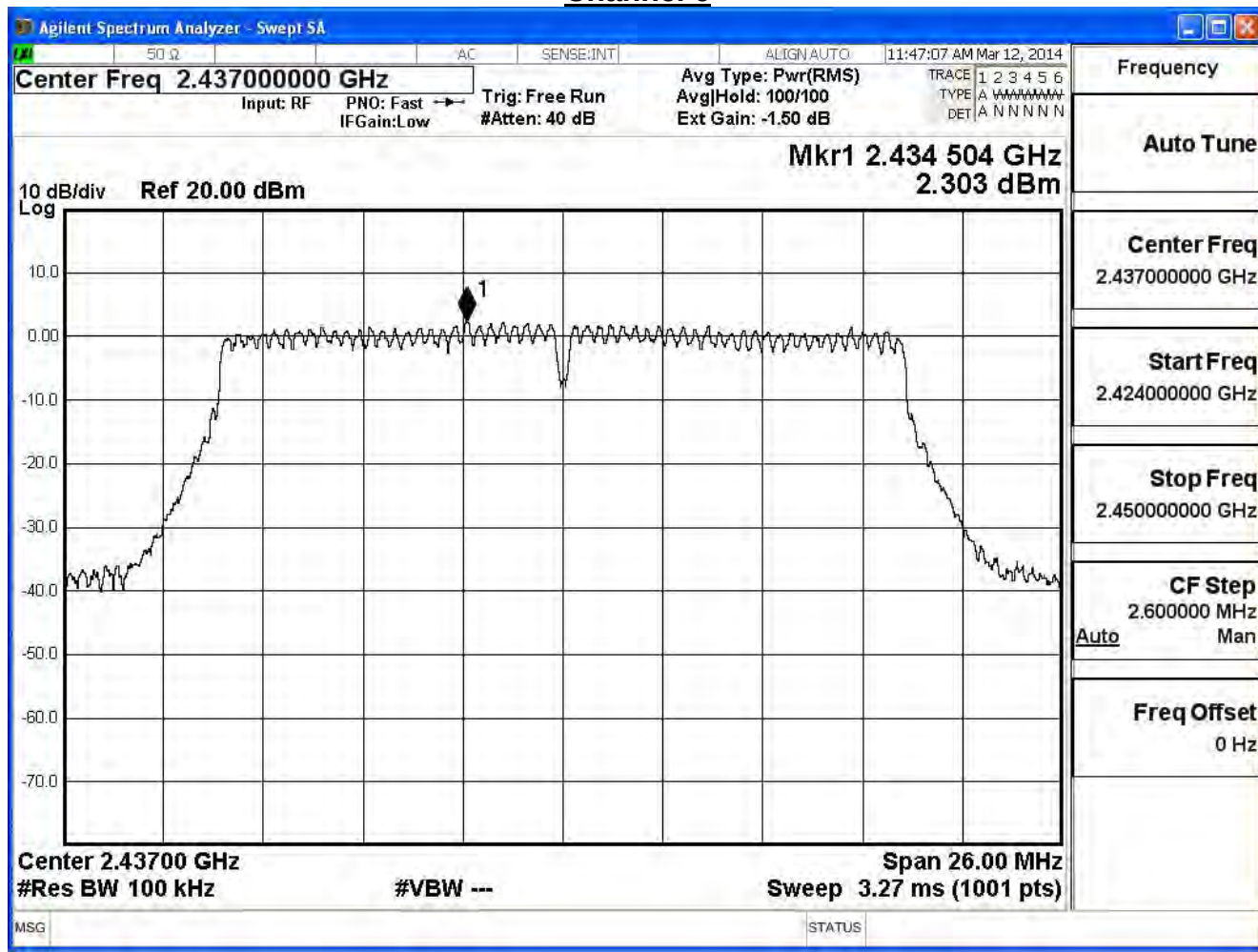
Directional Antenna Gain = $10\log(3) + \text{max Gain} = 6.68\text{dBi}$

$$\text{Required Limit} = 8\text{dBm} - (6.68\text{dB} - 6\text{dB}) = 7.32\text{dBm}$$

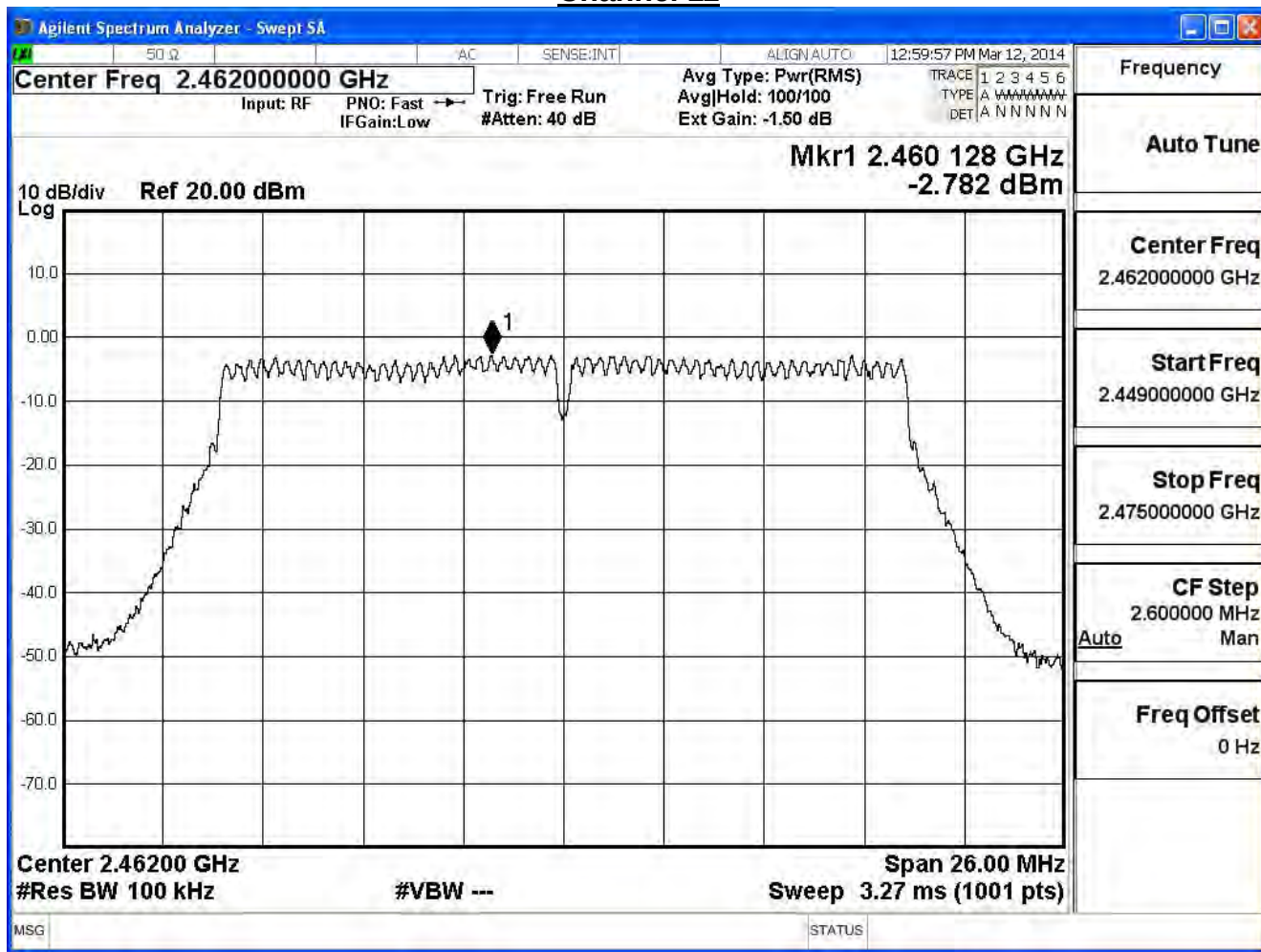
Channel 1



Channel 6



Channel 11



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2014/03/12	Test Site	SR7

IEEE802.11n_20MHz_(ANT 2)

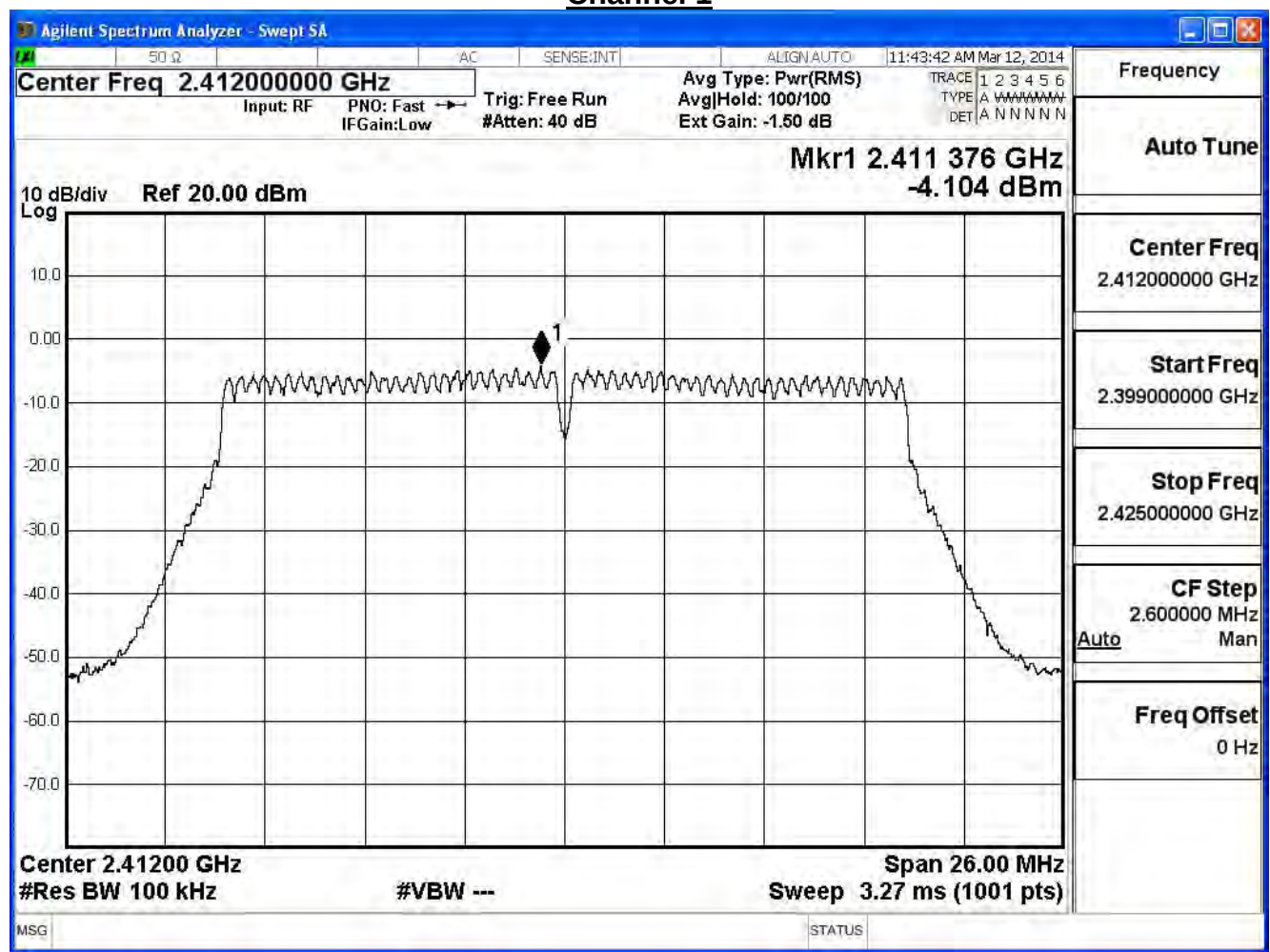
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measurement (dBm)	Limit (dBm)	Result
1	2412	-4.104	-19.304	≤ 7.32	Pass
6	2437	2.293	-12.907	≤ 7.32	Pass
11	2462	-2.800	-18.000	≤ 7.32	Pass

Note:

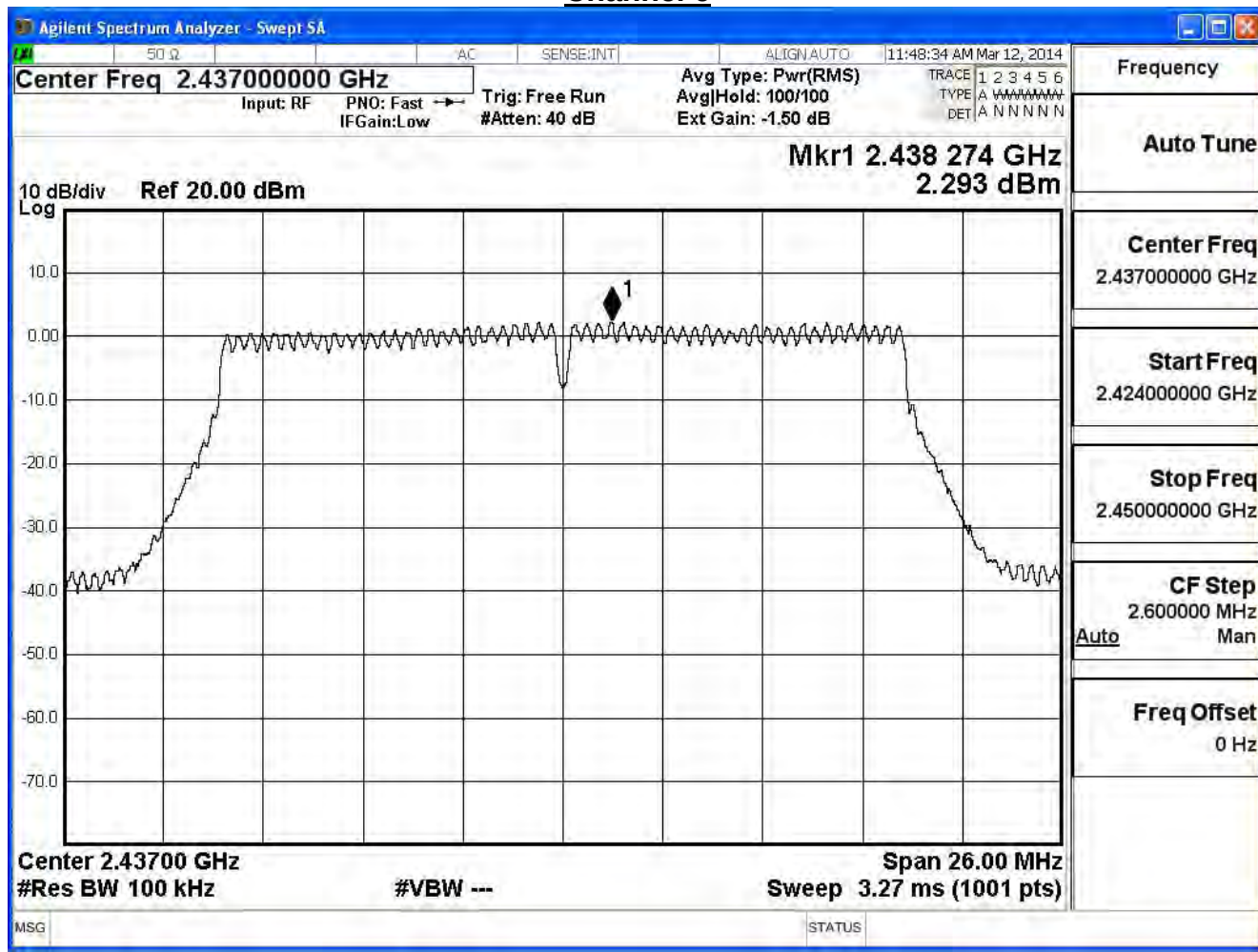
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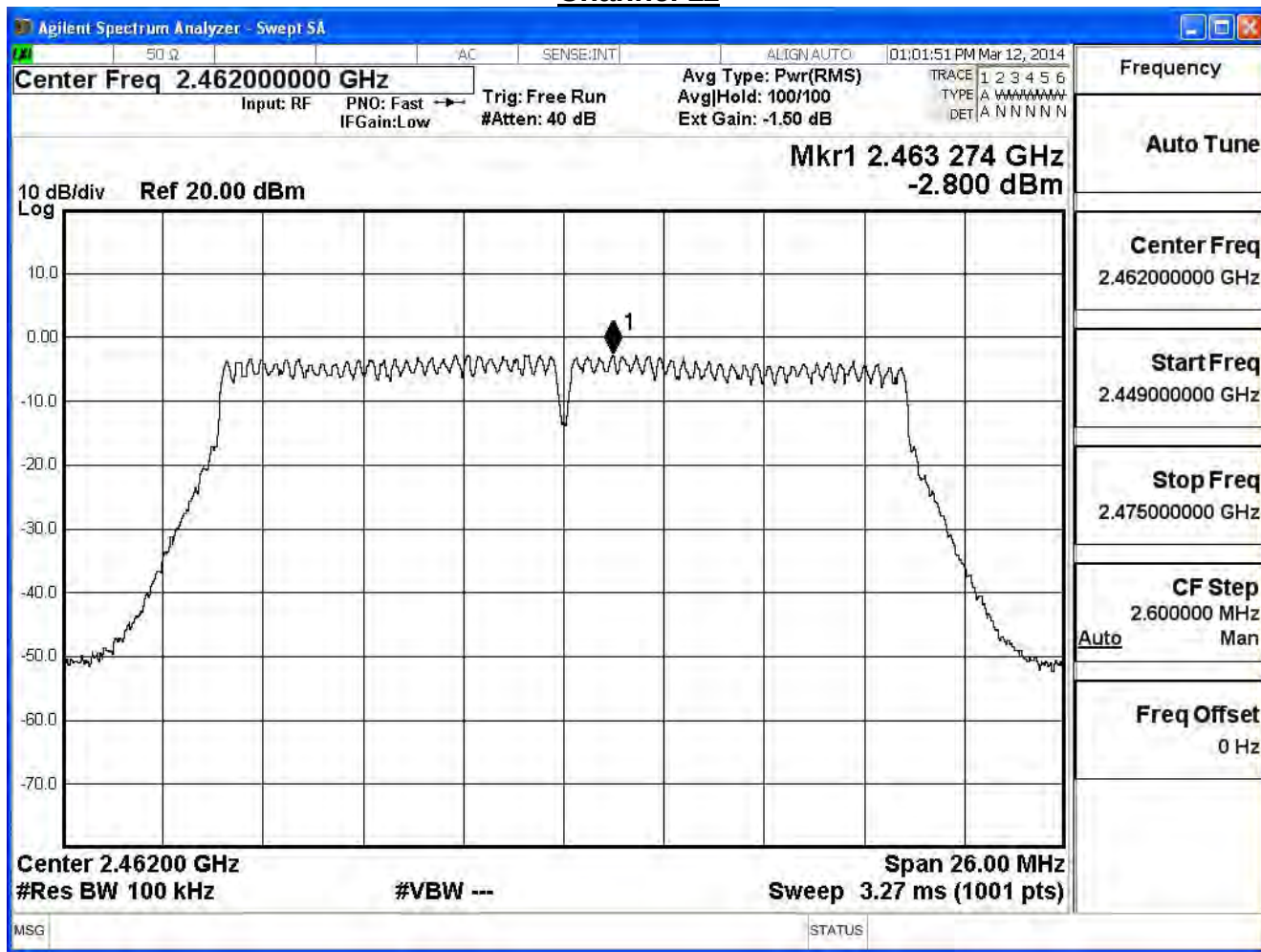
Channel 1



Channel 6



Channel 11



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2014/03/12	Test Site	SR7

IEEE802.11n 20MHz (ANT 0+1+2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-14.671	≤ 7.32	Pass
6	2437	-7.969	≤ 7.32	Pass
11	2462	-13.146	≤ 7.32	Pass

Note:

Directional Antenna Gain = $10\log(3)$ +max Gain = 6.68dBi

Required Limit = 8dBm - (6.68dBi-6dB) = 7.32dBm

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Test Item	Power Density		
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Date of Test	2014/03/12	Test Site	SR7

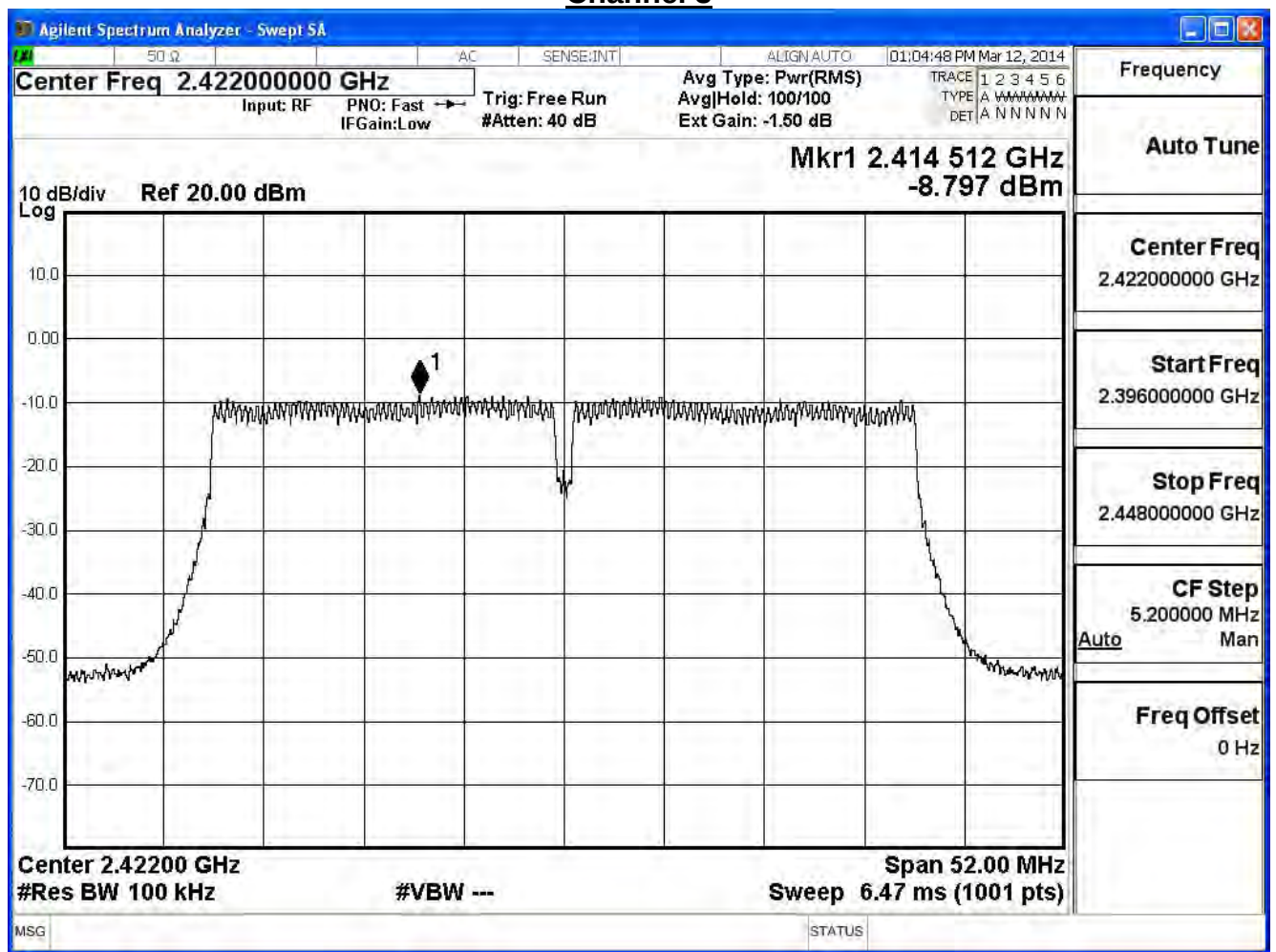
IEEE 802.11n_40MHz (ANT 0)					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measurement (dBm)	Limit (dBm)	Result
3	2422	-8.797	-23.997	≤ 7.32	Pass
6	2437	-4.913	-20.113	≤ 7.32	Pass
9	2452	-7.096	-22.296	≤ 7.32	Pass

Note:

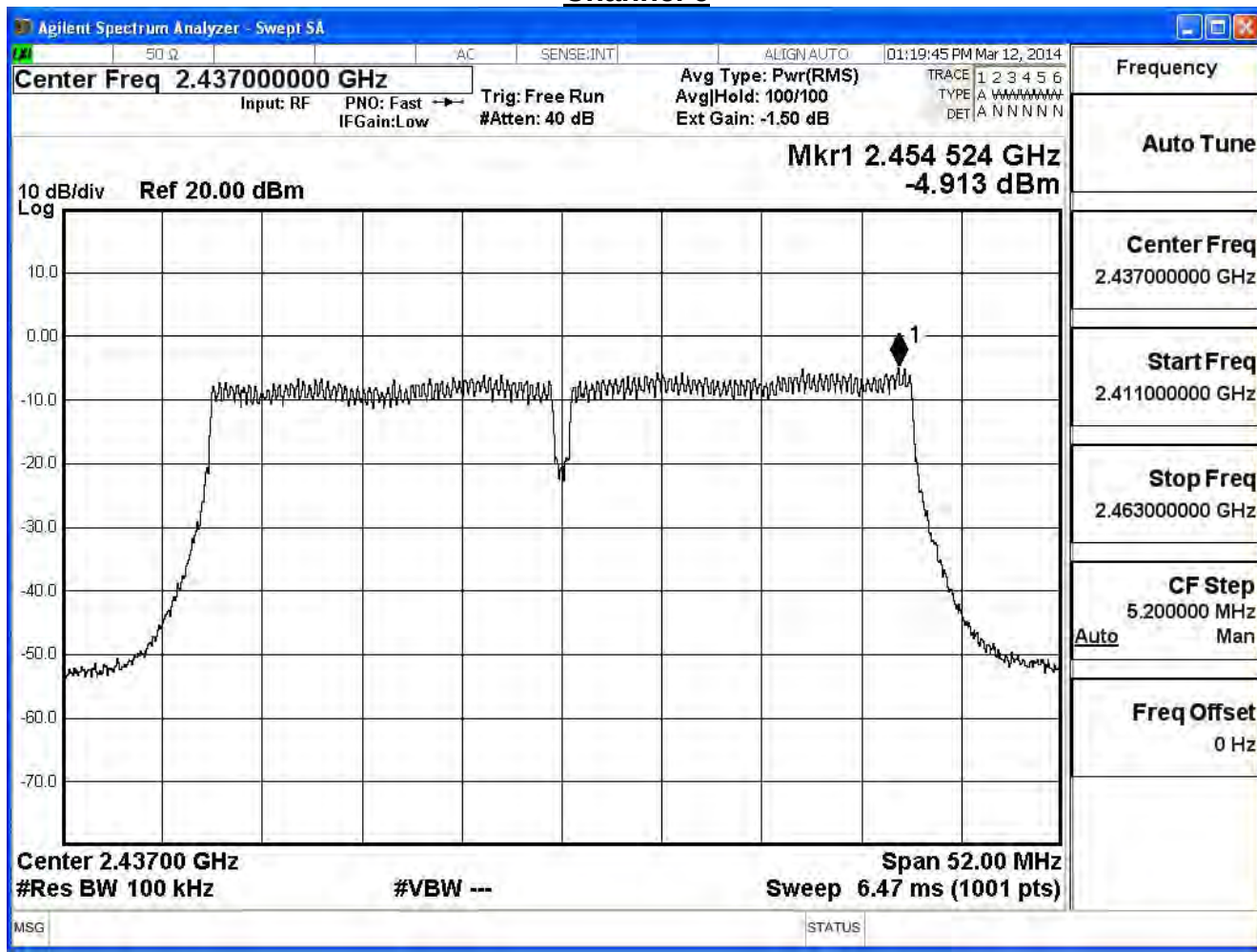
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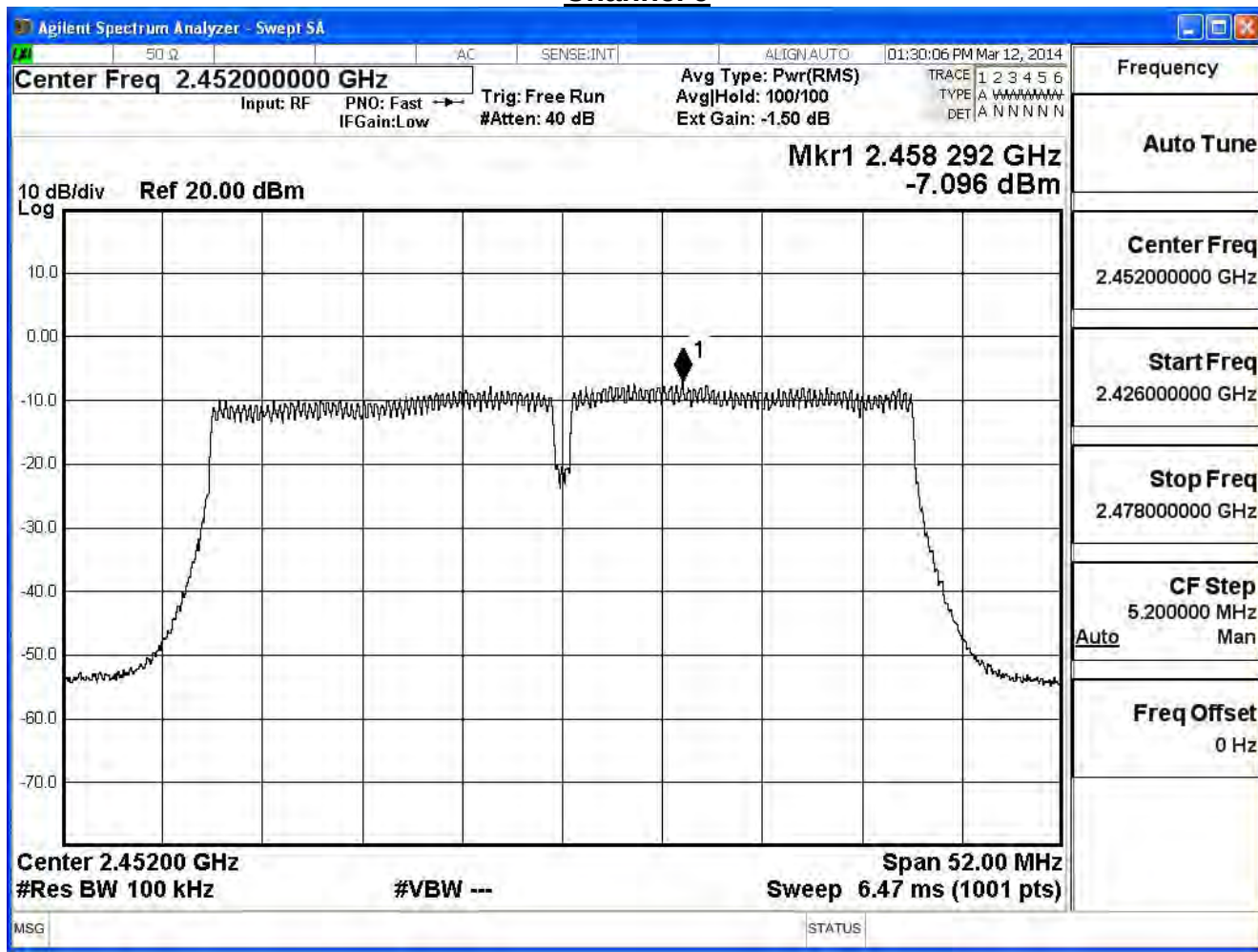
Channel 3



Channel 6



Channel 9



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2014/03/12	Test Site	SR7

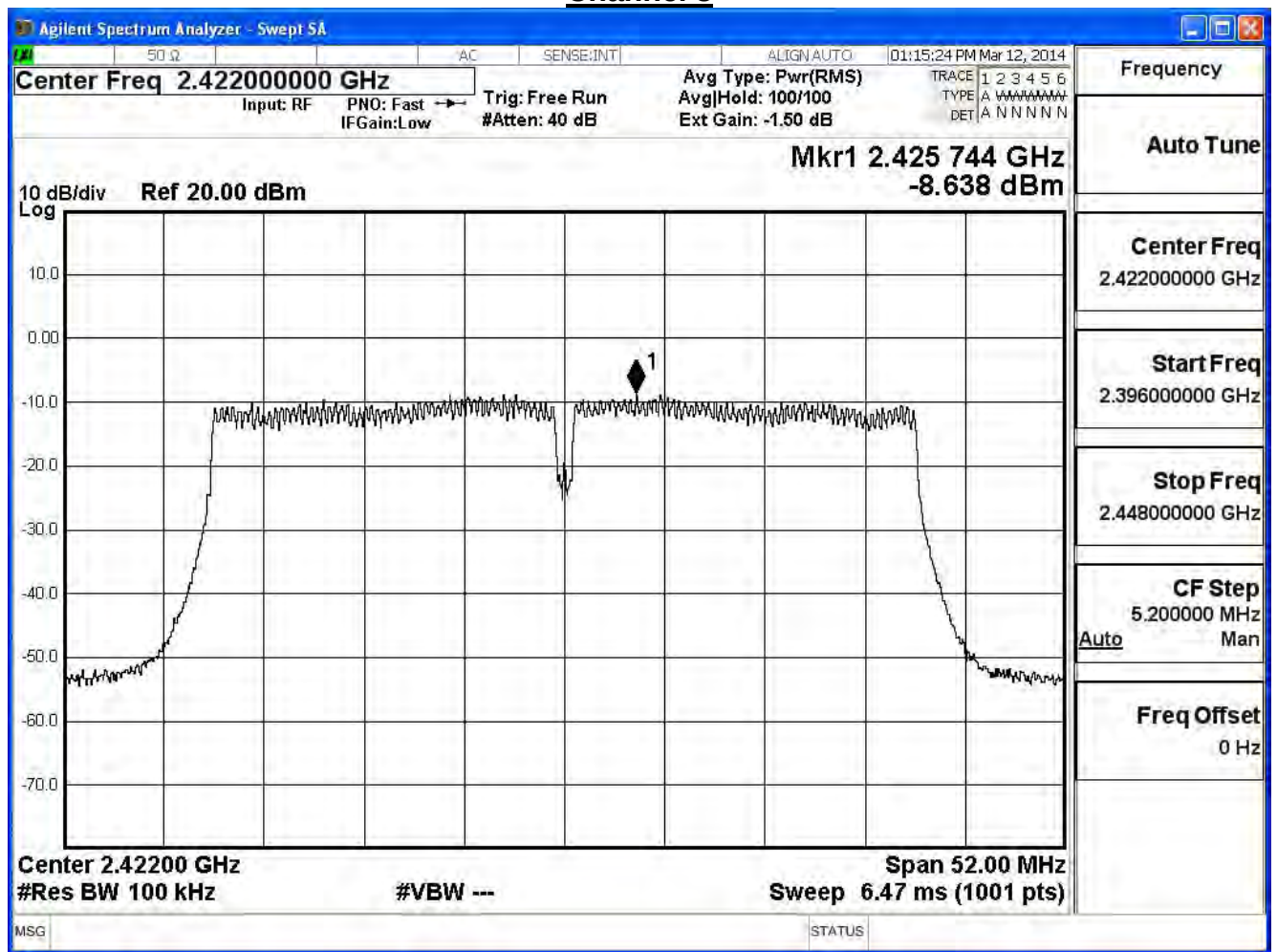
IEEE 802.11n_40MHz (ANT 1)					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	-8.638	-23.838	≤ 7.32	Pass
6	2437	-5.001	-20.201	≤ 7.32	Pass
9	2452	-7.502	-22.702	≤ 7.32	Pass

Note:

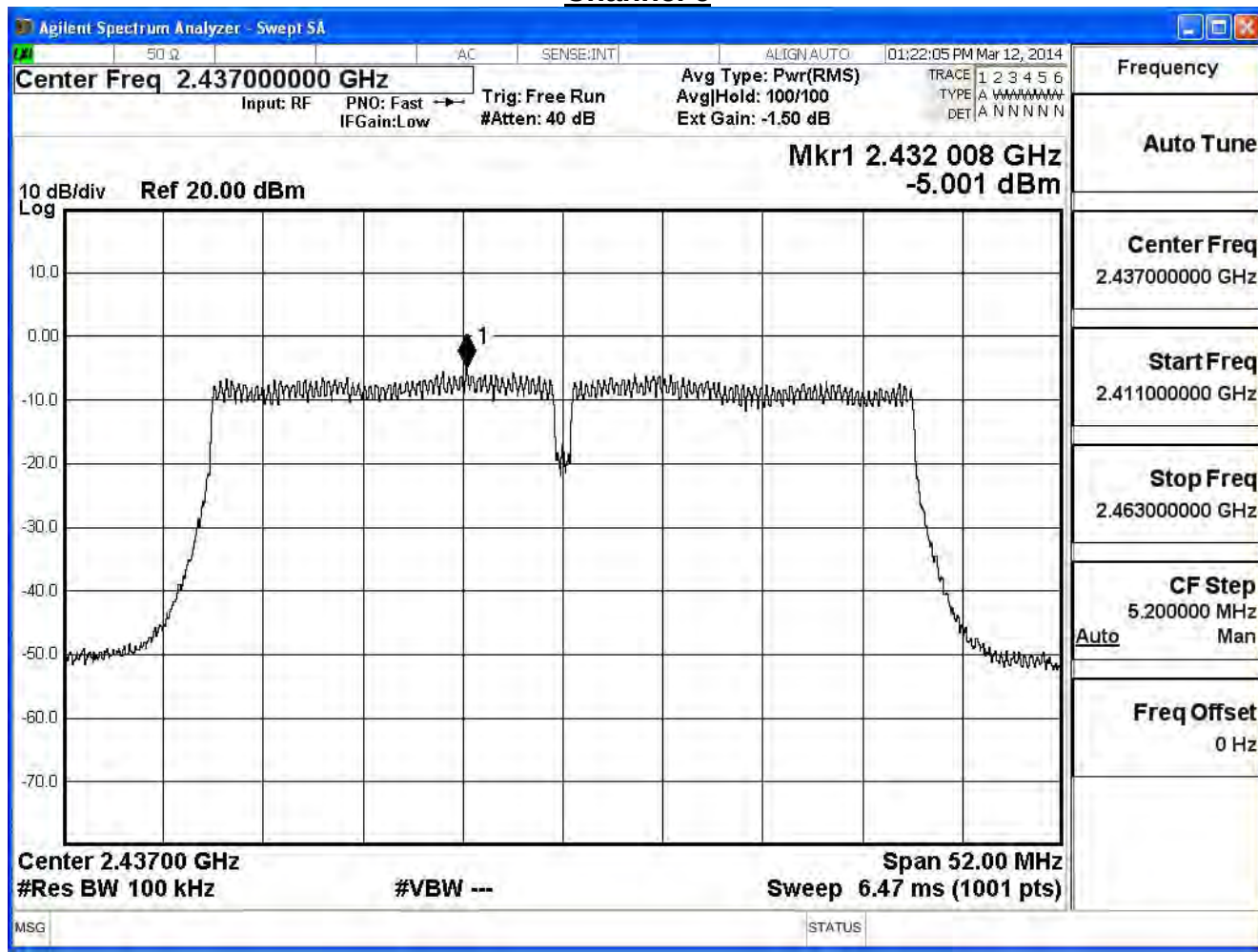
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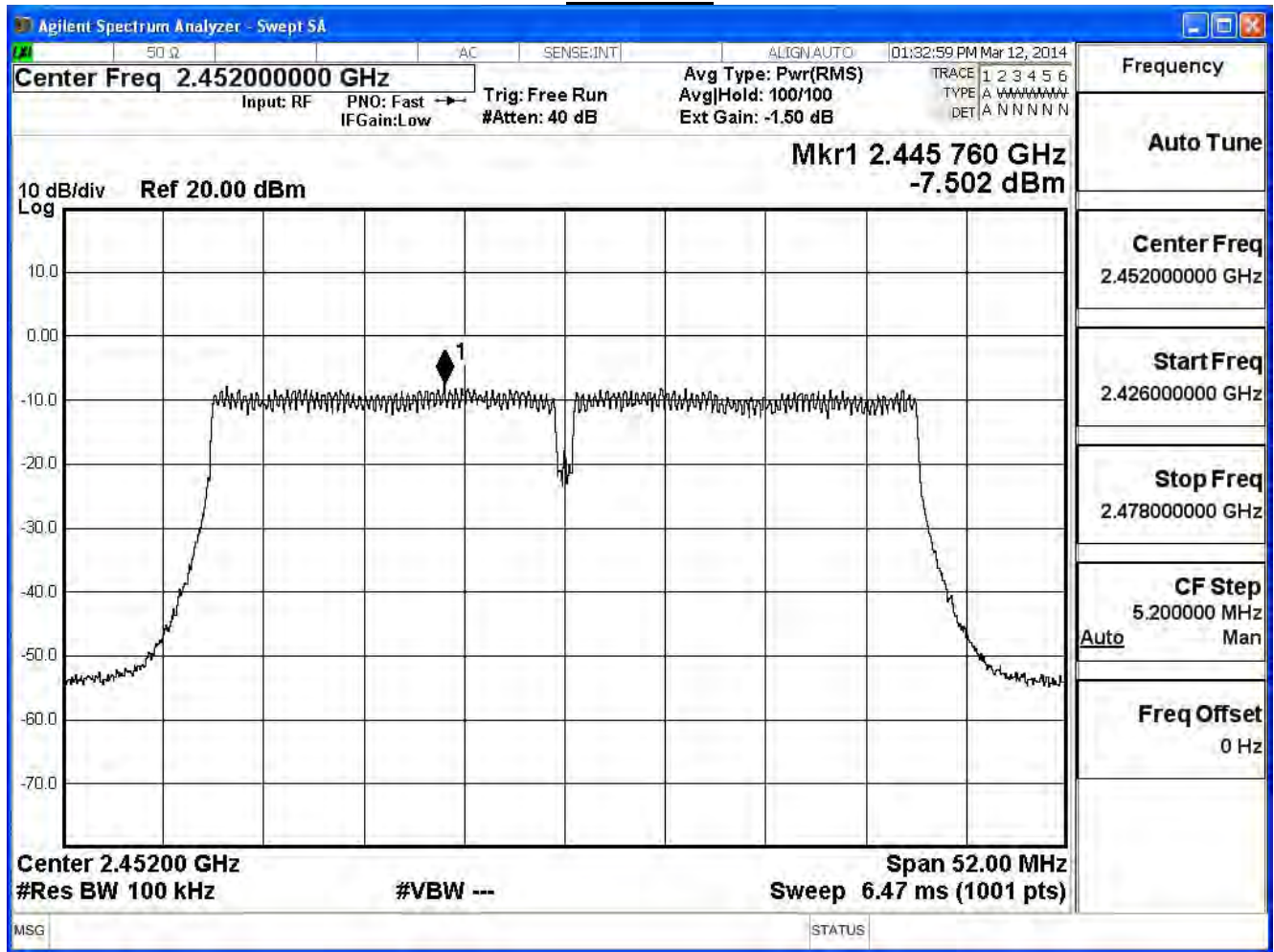
Channel 3



Channel 6



Channel 9



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2014/03/12	Test Site	SR7

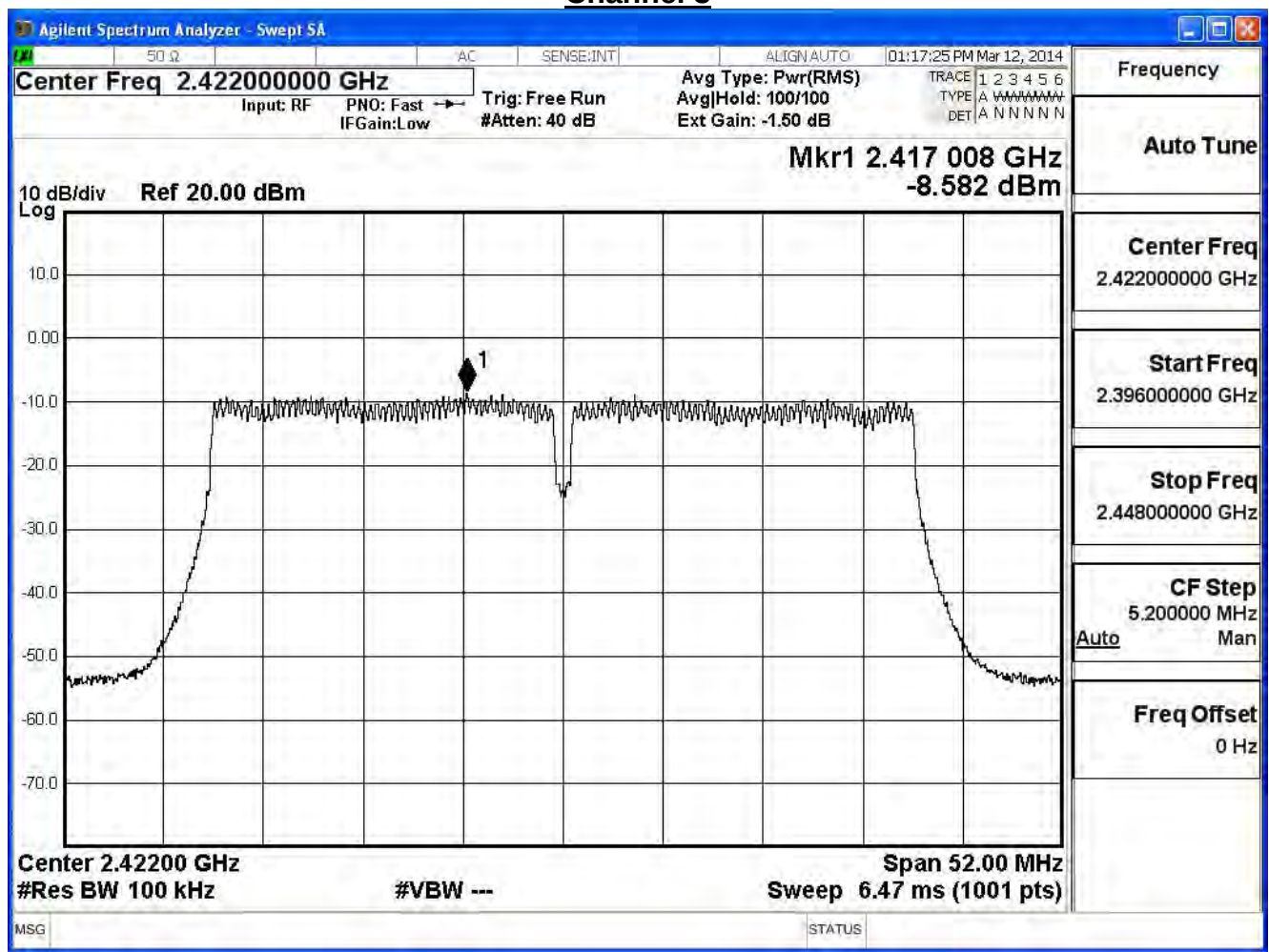
IEEE 802.11n_40MHz (ANT 2)					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	-8.582	-23.782	≤ 7.32	Pass
6	2437	-5.296	-20.496	≤ 7.32	Pass
9	2452	-7.367	-22.567	≤ 7.32	Pass

Note:

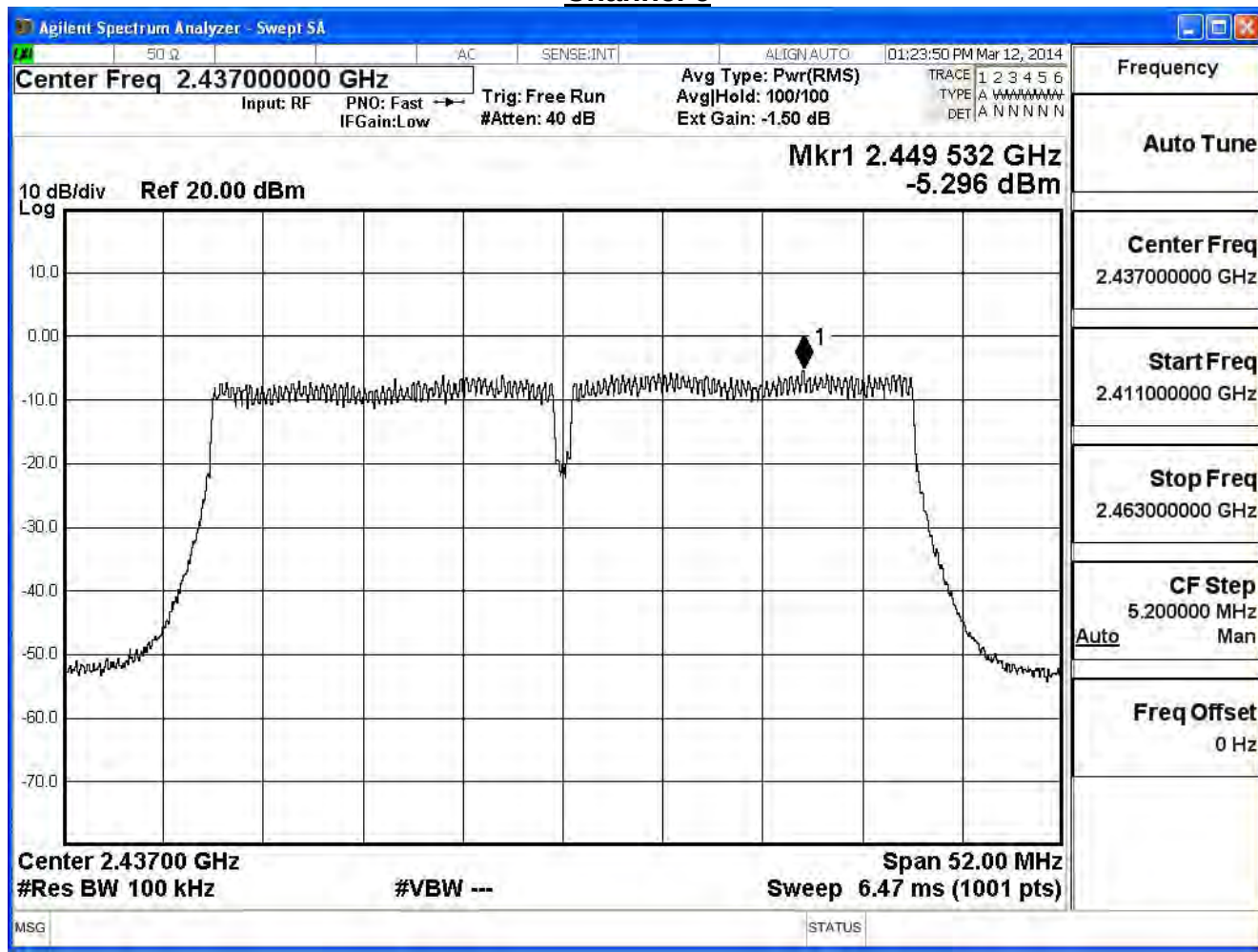
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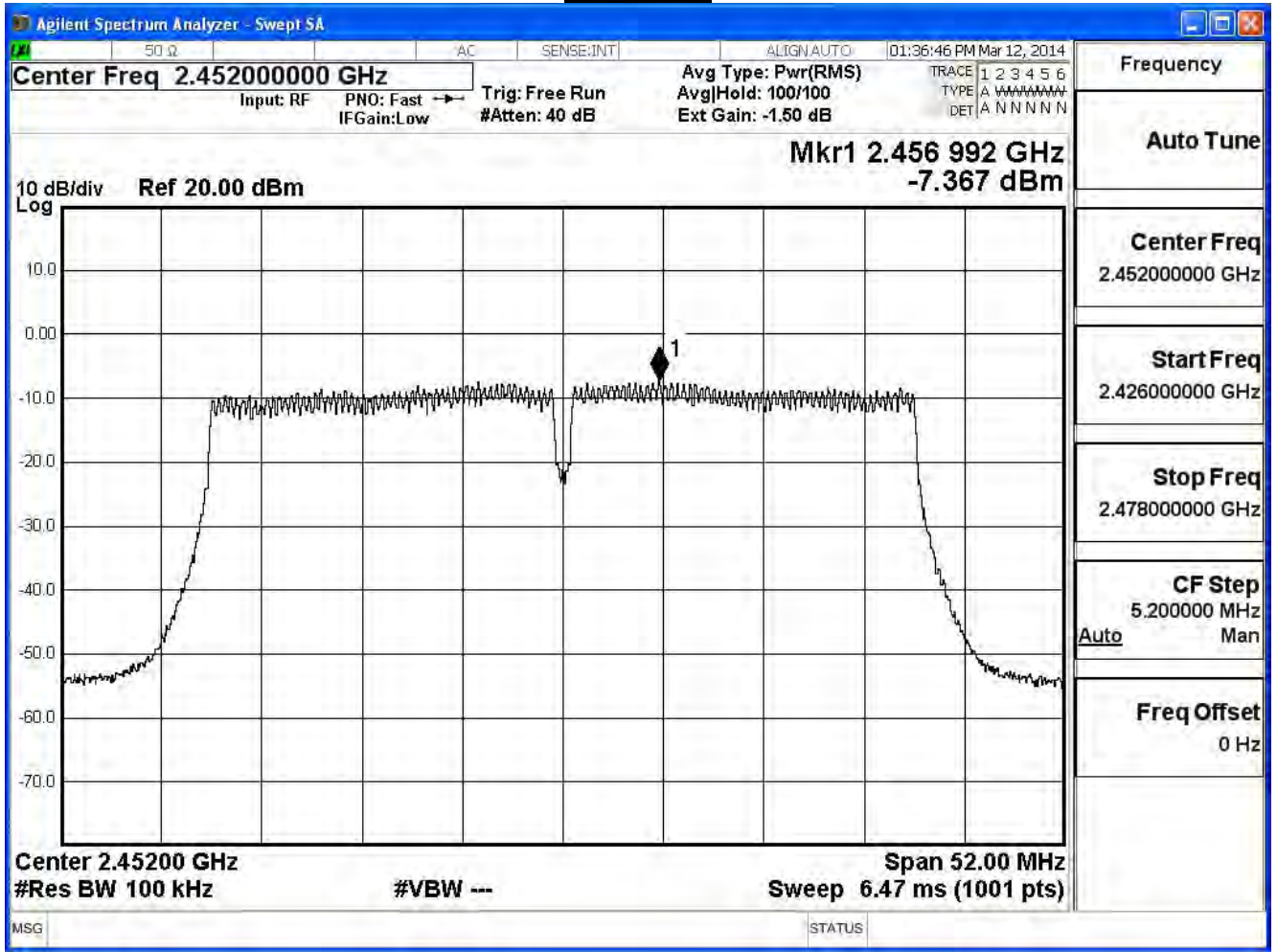
Channel 3



Channel 6



Channel 9



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2014/03/12	Test Site	SR7

IEEE802.11n 40MHz(ANT 0+1+2)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	-19.100	≤ 7.32	Pass
6	2437	-15.496	≤ 7.32	Pass
9	2452	-17.747	≤ 7.32	Pass

Note:

Directional Antenna Gain = $10\log(3)$ +max Gain = 6.68dBi

Required Limit = 8dBm - (6.68dBi-6dB) = 7.32dBm

Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

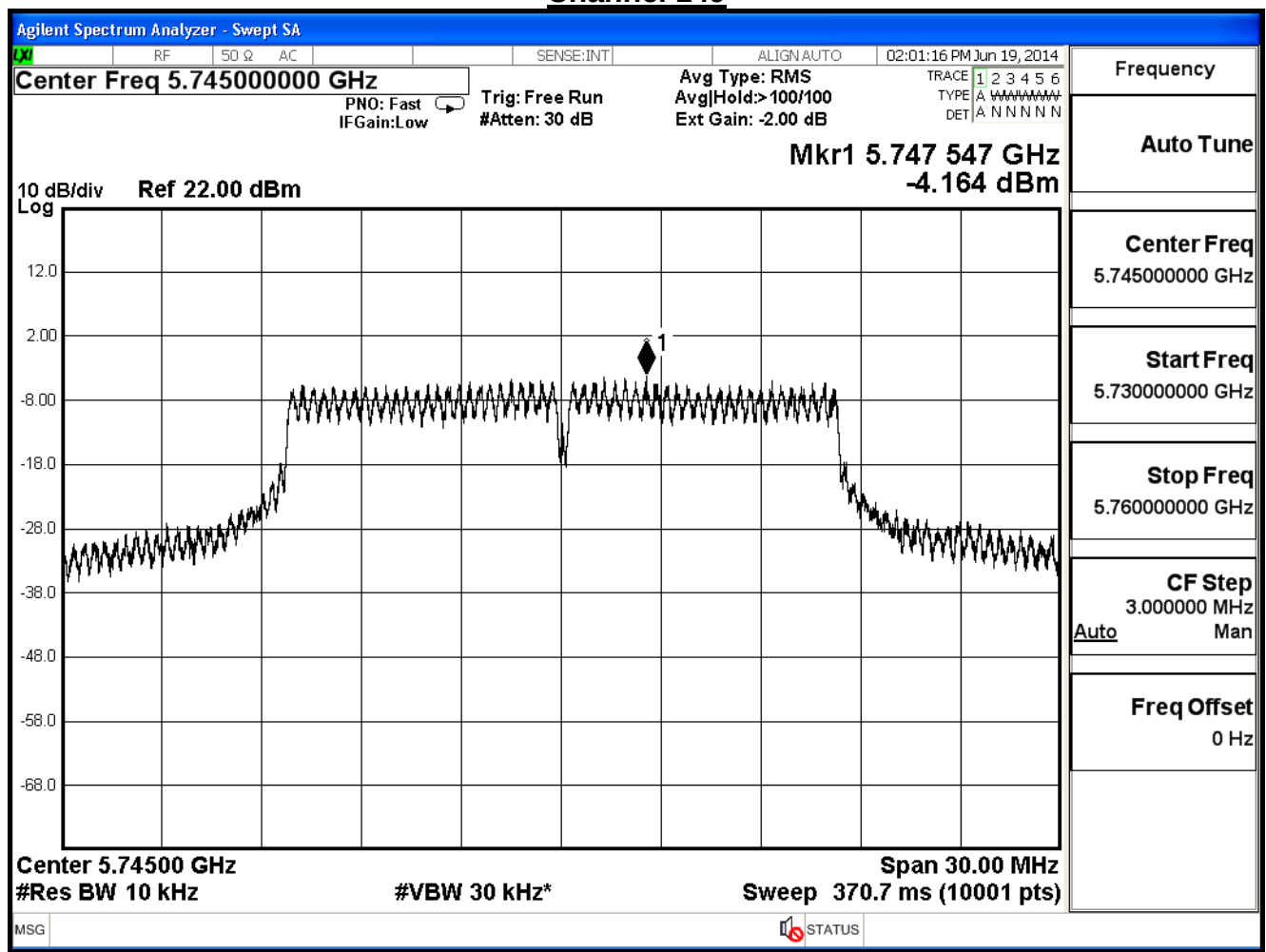
IEEE 802.11a (ANT0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	-4.164	≤ 5.19	Pass
157	5785	-3.584	≤ 5.19	Pass
165	5825	-3.844	≤ 5.19	Pass

Note:

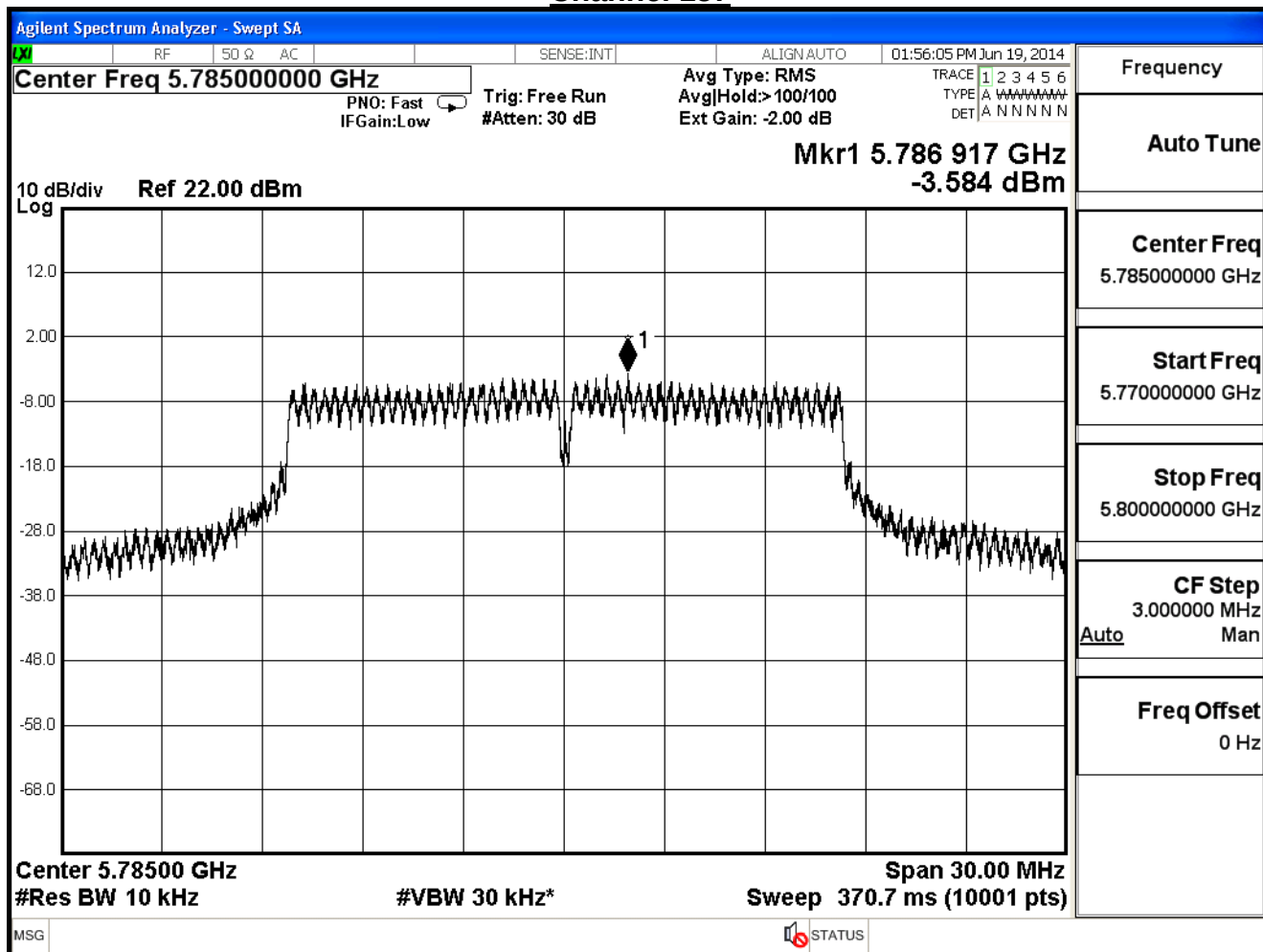
Directional Antenna Gain = $10\log(3) + \text{max Gain} = 9.21\text{dBi}$

Required Limit = $8\text{dBm} - (9.21\text{dBi} - 6\text{dB}) = 4.79\text{dBm}$

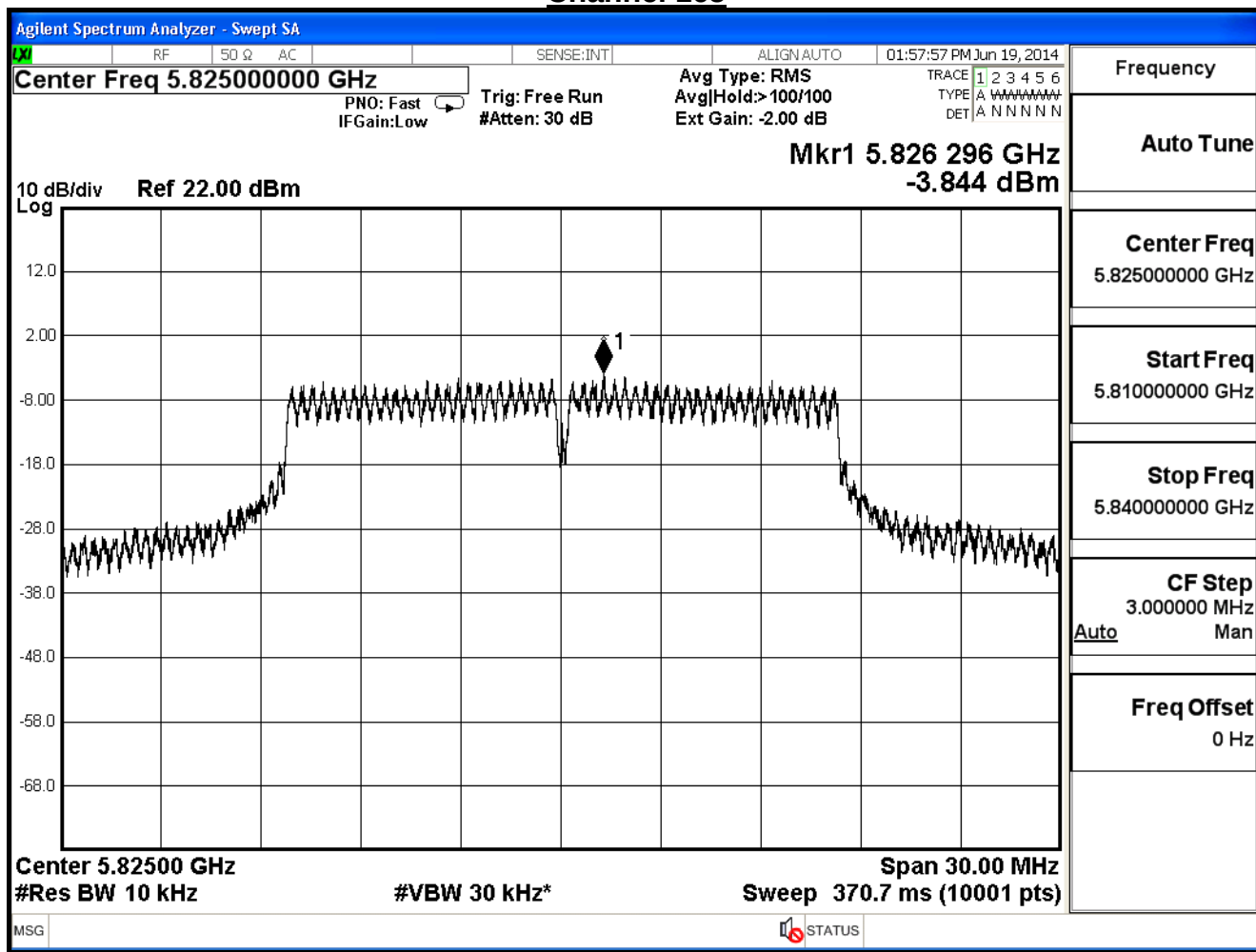
Channel 149



Channel 157



Channel 165



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

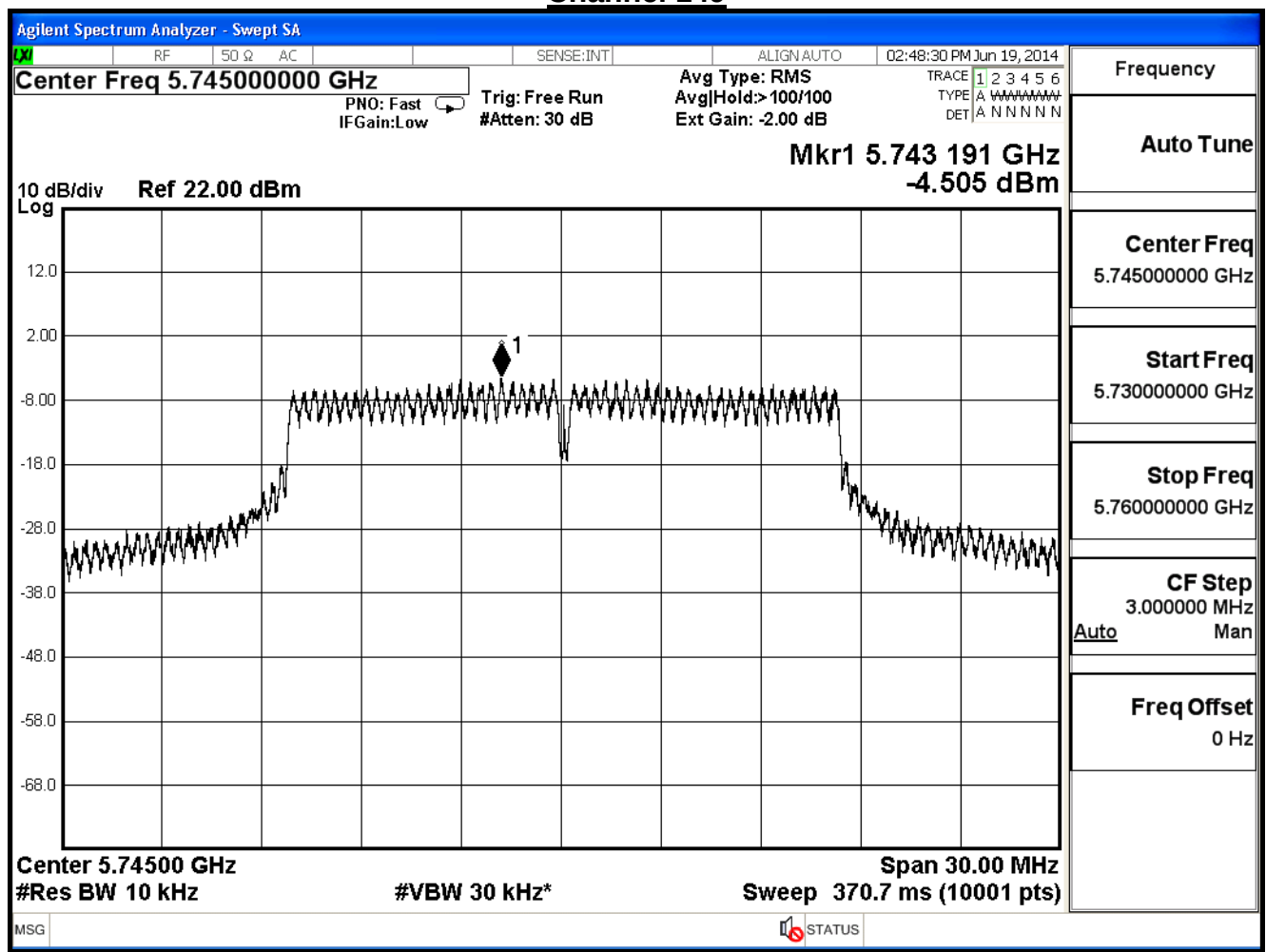
IEEE 802.11a (ANT1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	-4.505	≤ 5.19	Pass
157	5785	-3.821	≤ 5.19	Pass
165	5825	-4.284	≤ 5.19	Pass

Note:

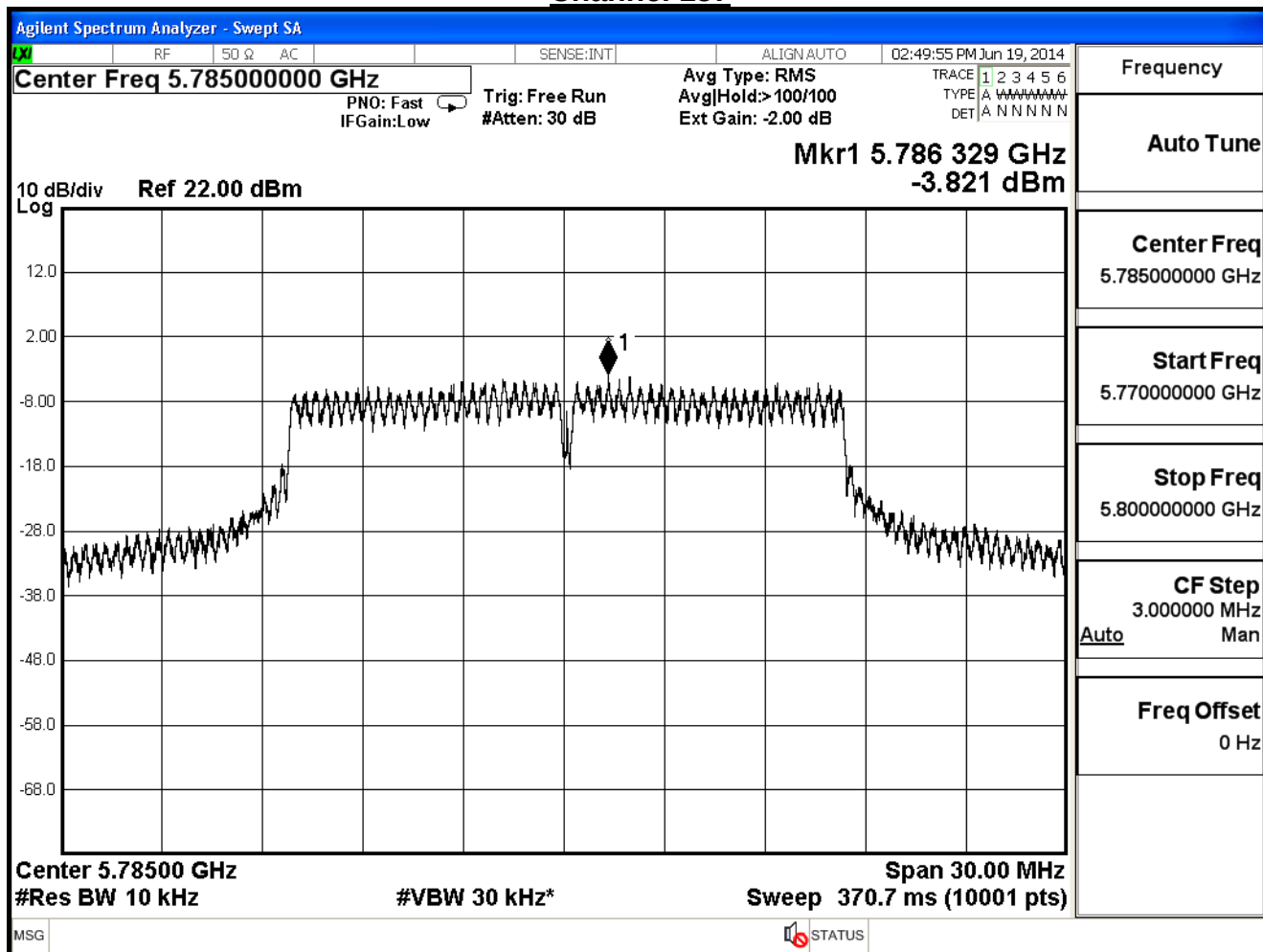
Directional Antenna Gain = $10\log(\text{Ant N}) + \text{Max Gain} = 8.81\text{dBi}$

Required Limit = $8\text{dBm} - (8.81\text{dBi} - 6\text{dB}) = 5.19\text{ dBm}$

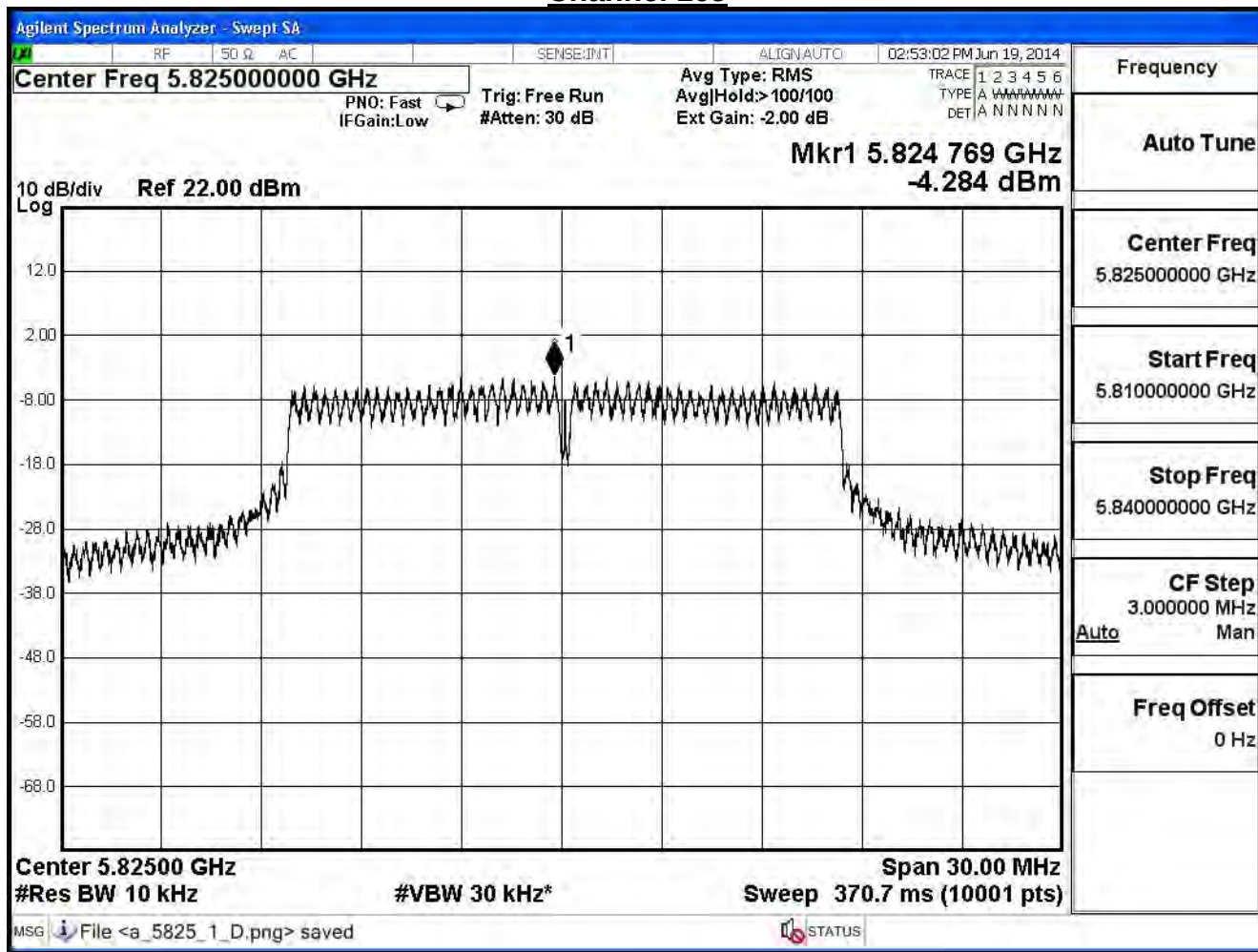
Channel 149



Channel 157



Channel 165



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

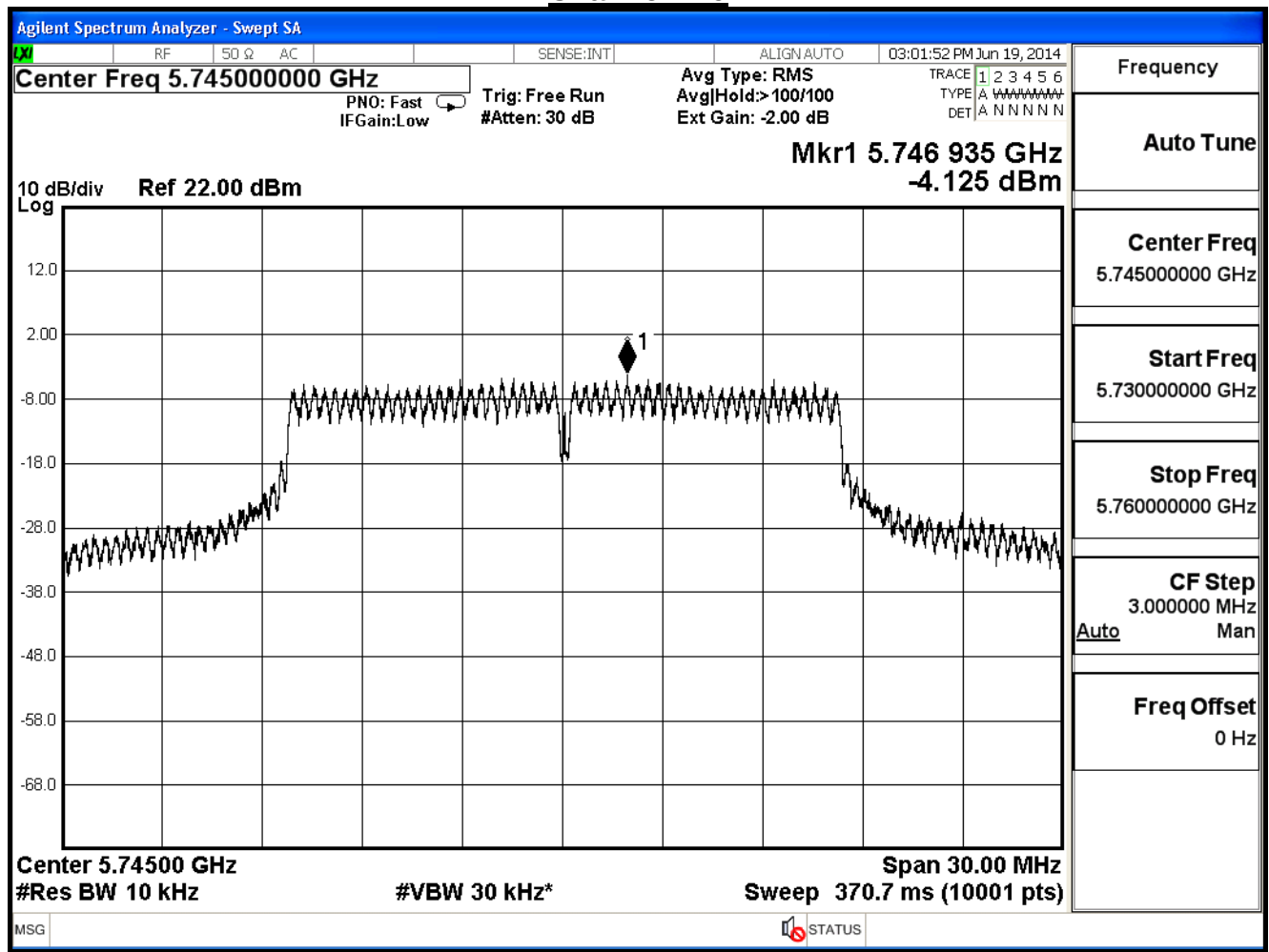
IEEE 802.11a (ANT2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	-4.125	≤ 5.19	Pass
157	5785	-4.071	≤ 5.19	Pass
165	5825	-4.040	≤ 5.19	Pass

Note:

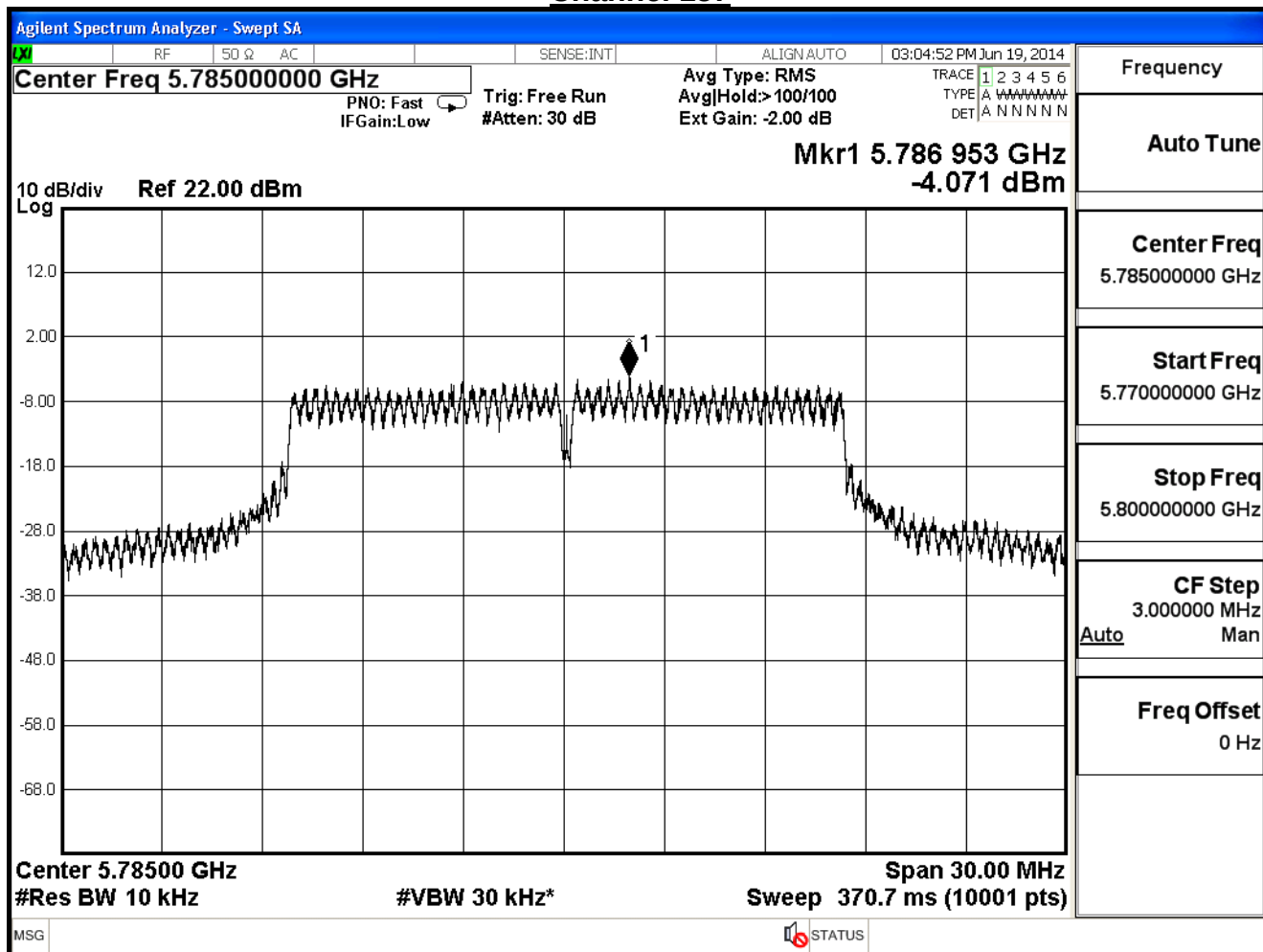
Directional Antenna Gain = $10\log(\text{Ant N}) + \text{Max Gain} = 8.81\text{dBi}$

Required Limit = $8\text{dBm} - (8.81\text{dBi} - 6\text{dB}) = 5.19\text{ dBm}$

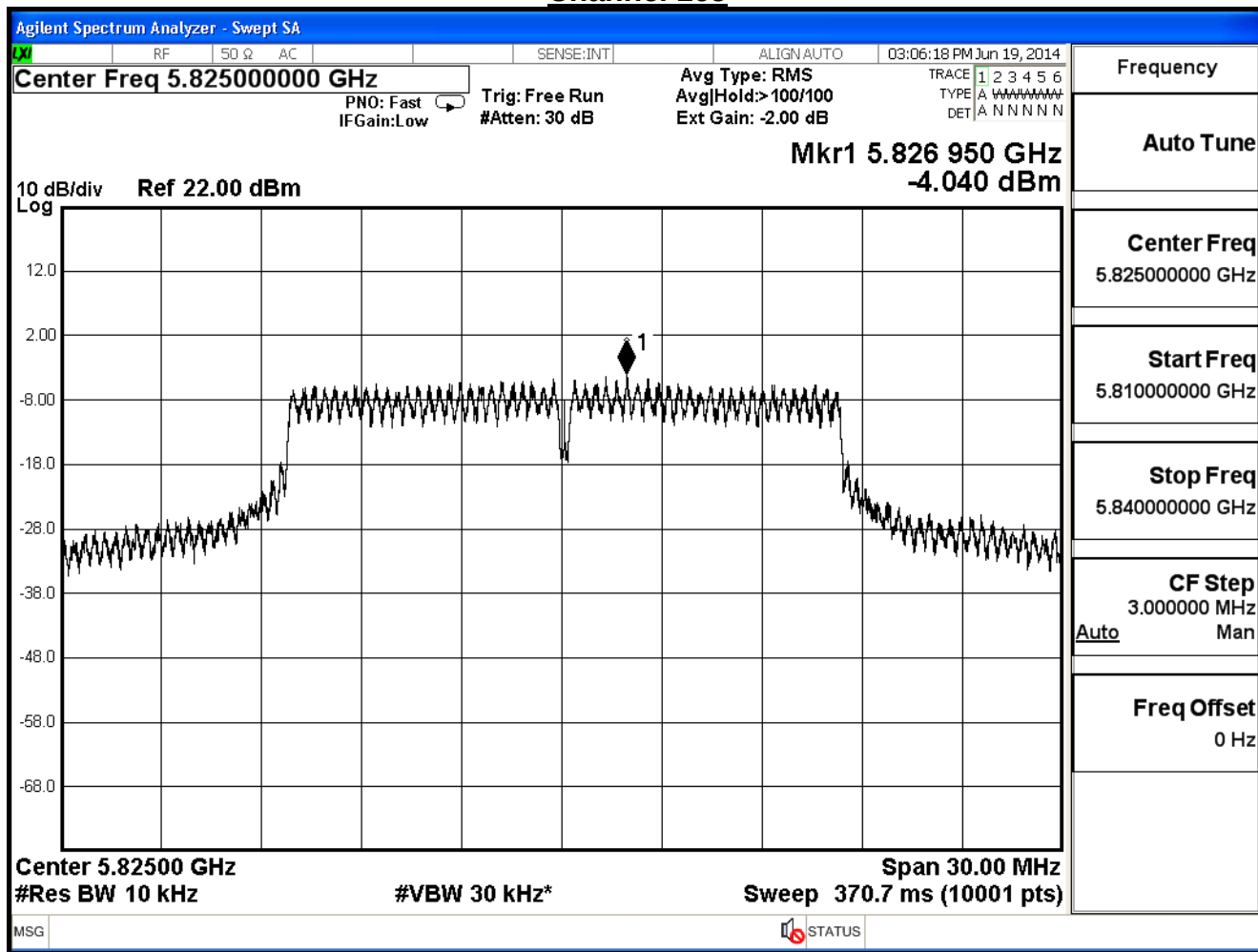
Channel 149



Channel 157



Channel 165



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

IEEE 802.11a (ANT0+1+2)				
Channel No.	Frequency (MHz)	Measure Level(dBm)	Limit (dBm)	Result
149	5745	0.510	≤ 5.19	Pass
157	5785	0.950	≤ 5.19	Pass
165	5825	0.719	≤ 5.19	Pass

Note:

Directional Antenna Gain = $10\log(\text{Ant N}) + \text{Max Gain} = 8.81\text{dBi}$

Required Limit = $8\text{dBm} - (8.81\text{dBi} - 6\text{dB}) = 5.19\text{ dBm}$

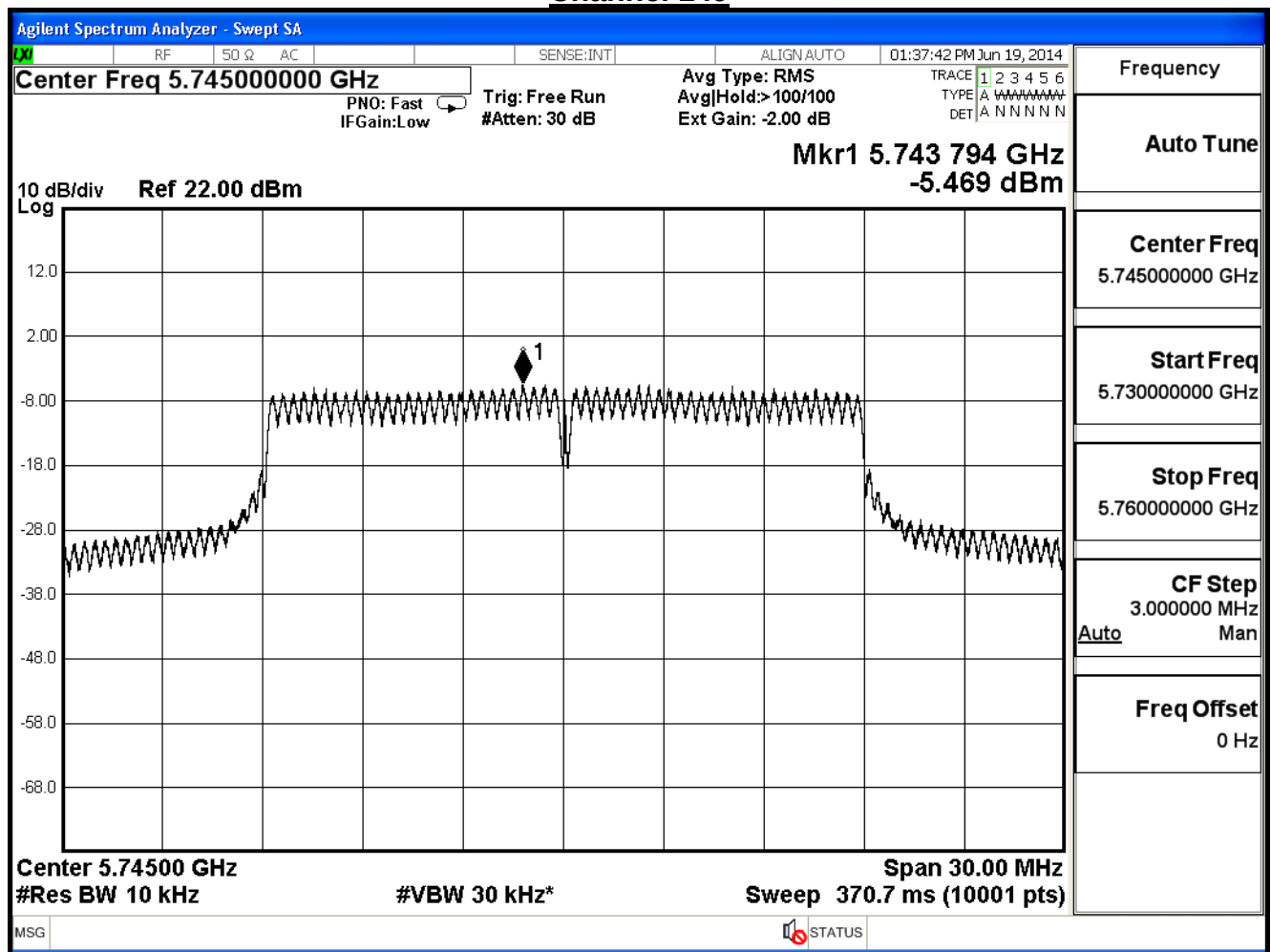
Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

IEEE802.11n_20MHz_(ANT 0)				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
149	5745	-5.469	≤ 5.19	Pass
157	5785	-5.272	≤ 5.19	Pass
165	5825	-5.245	≤ 5.19	Pass

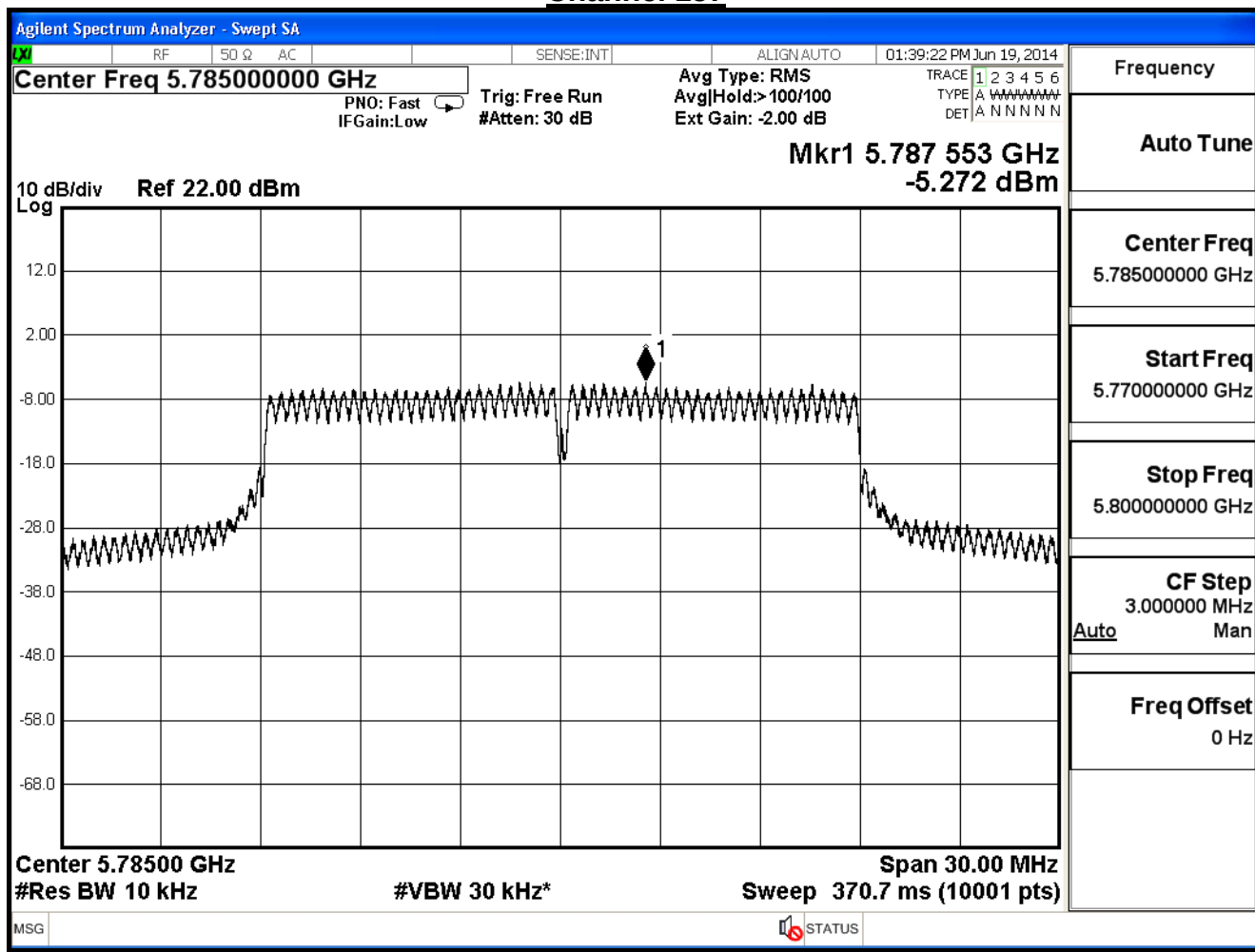
Note:

$$\text{Directional Antenna Gain} = 10\log(\text{Ant N}) + \text{Max Gain} = 8.81\text{dBi}$$
$$\text{Required Limit} = 8\text{dBm} - (8.81\text{dB} - 6\text{dB}) = 5.19\text{ dBm}$$

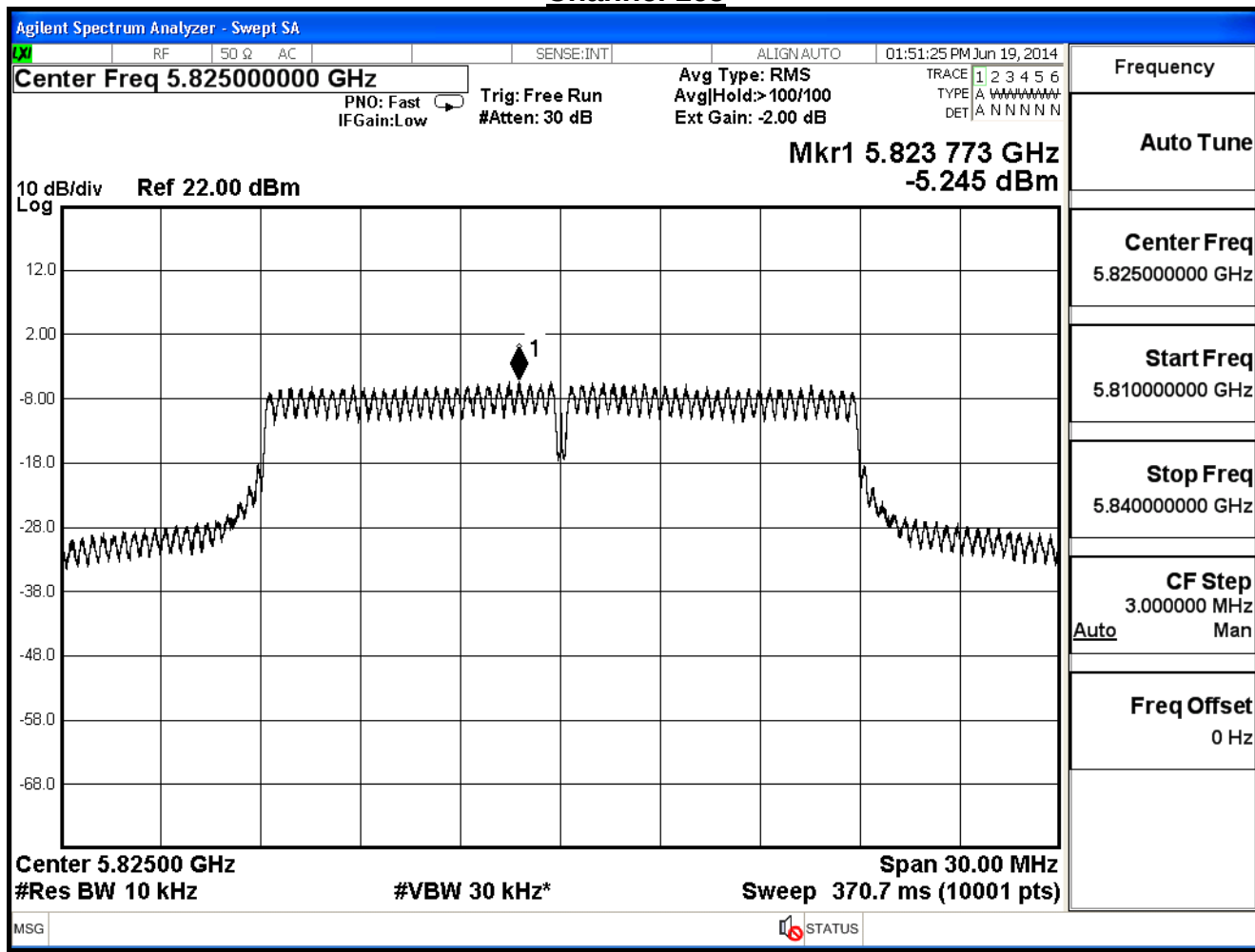
Channel 149



Channel 157



Channel 165



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

IEEE802.11n_20MHz_(ANT 1)

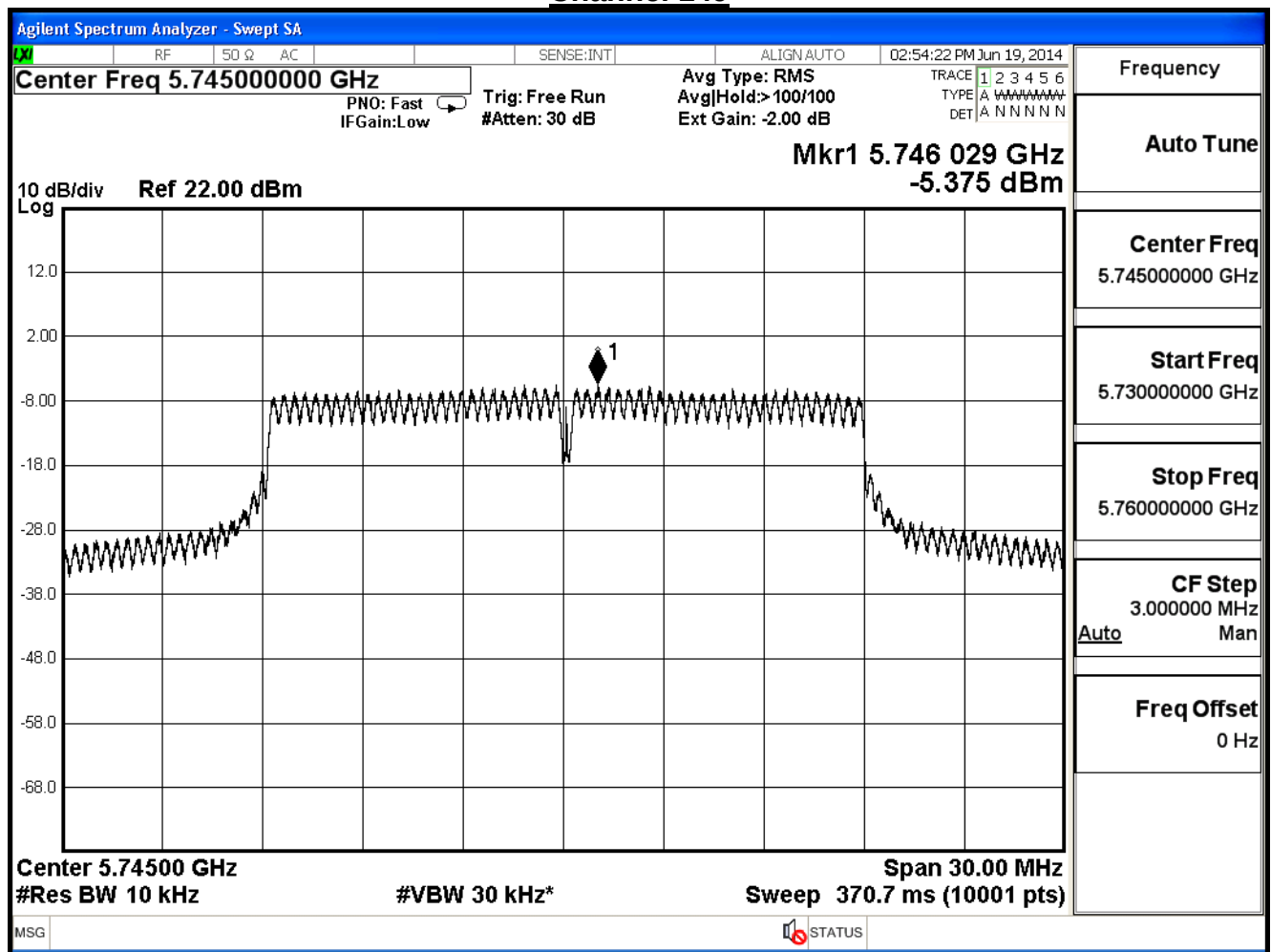
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	-5.375	≤ 5.19	Pass
157	5785	-5.356	≤ 5.19	Pass
165	5825	-5.377	≤ 5.19	Pass

Note:

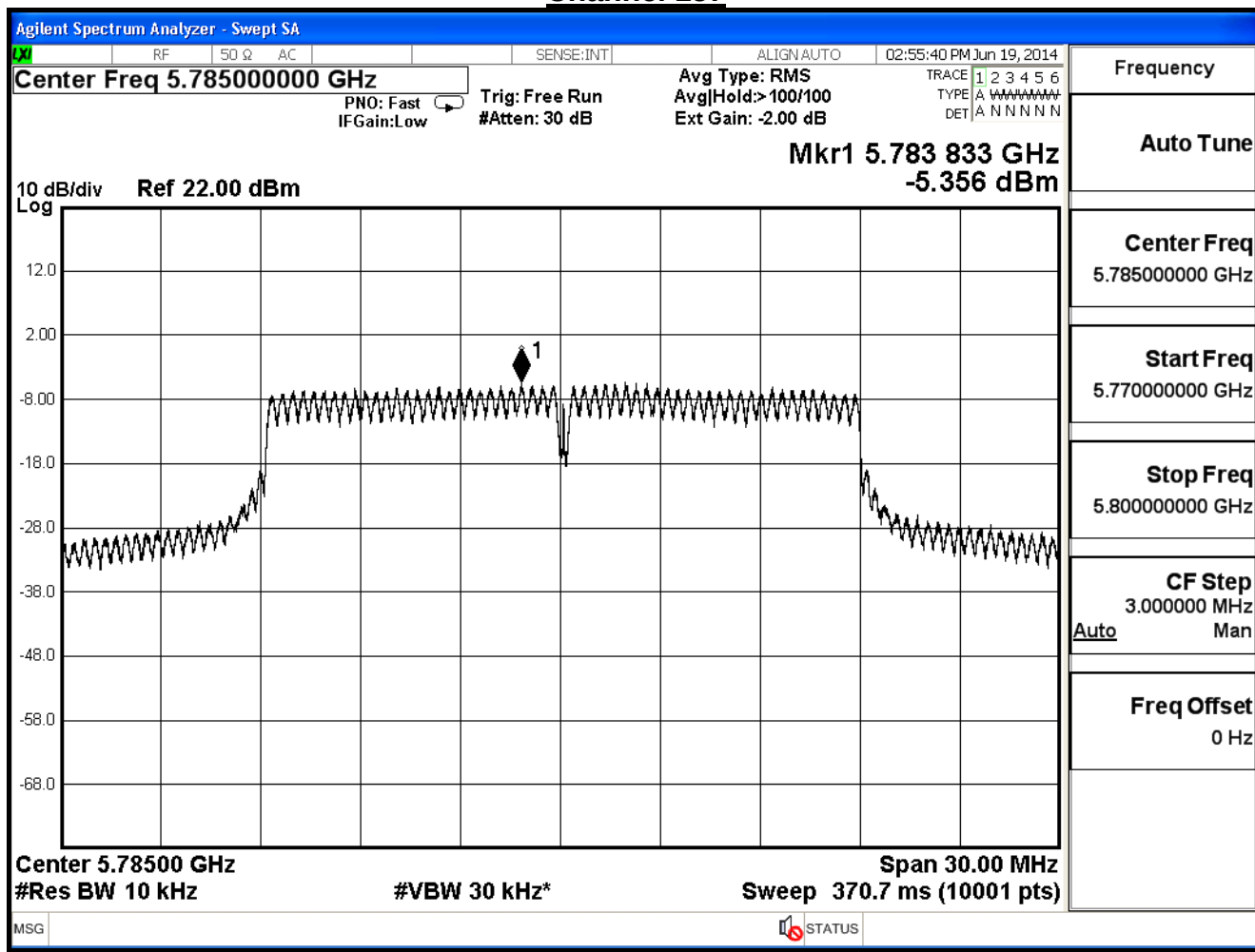
Directional Antenna Gain = $10\log(\text{Ant N}) + \text{Max Gain} = 8.81\text{dBi}$

Required Limit = $8\text{dBm} - (8.81\text{dBi} - 6\text{dB}) = 5.19\text{ dBm}$

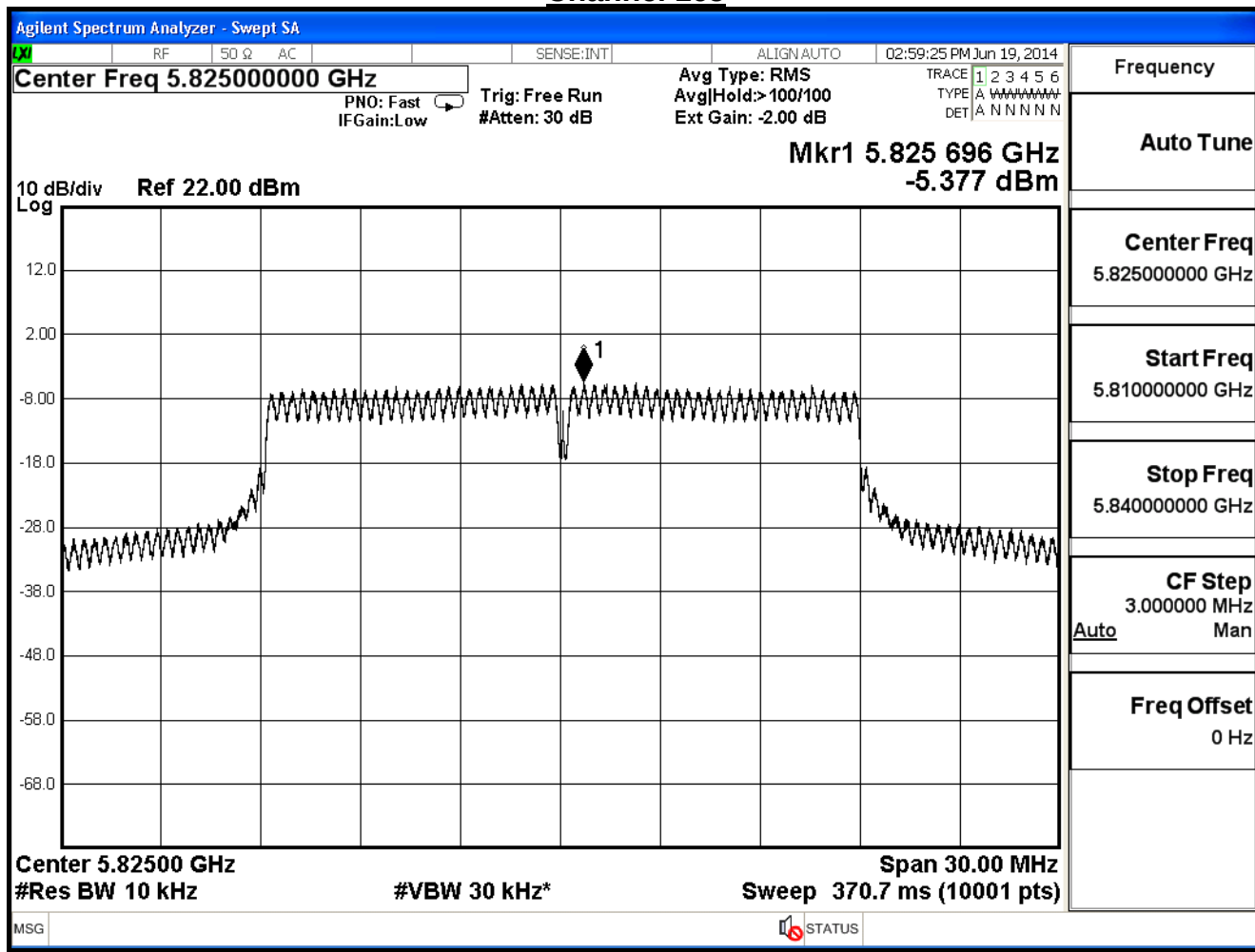
Channel 149



Channel 157



Channel 165



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

IEEE802.11n_20MHz_(ANT 2)

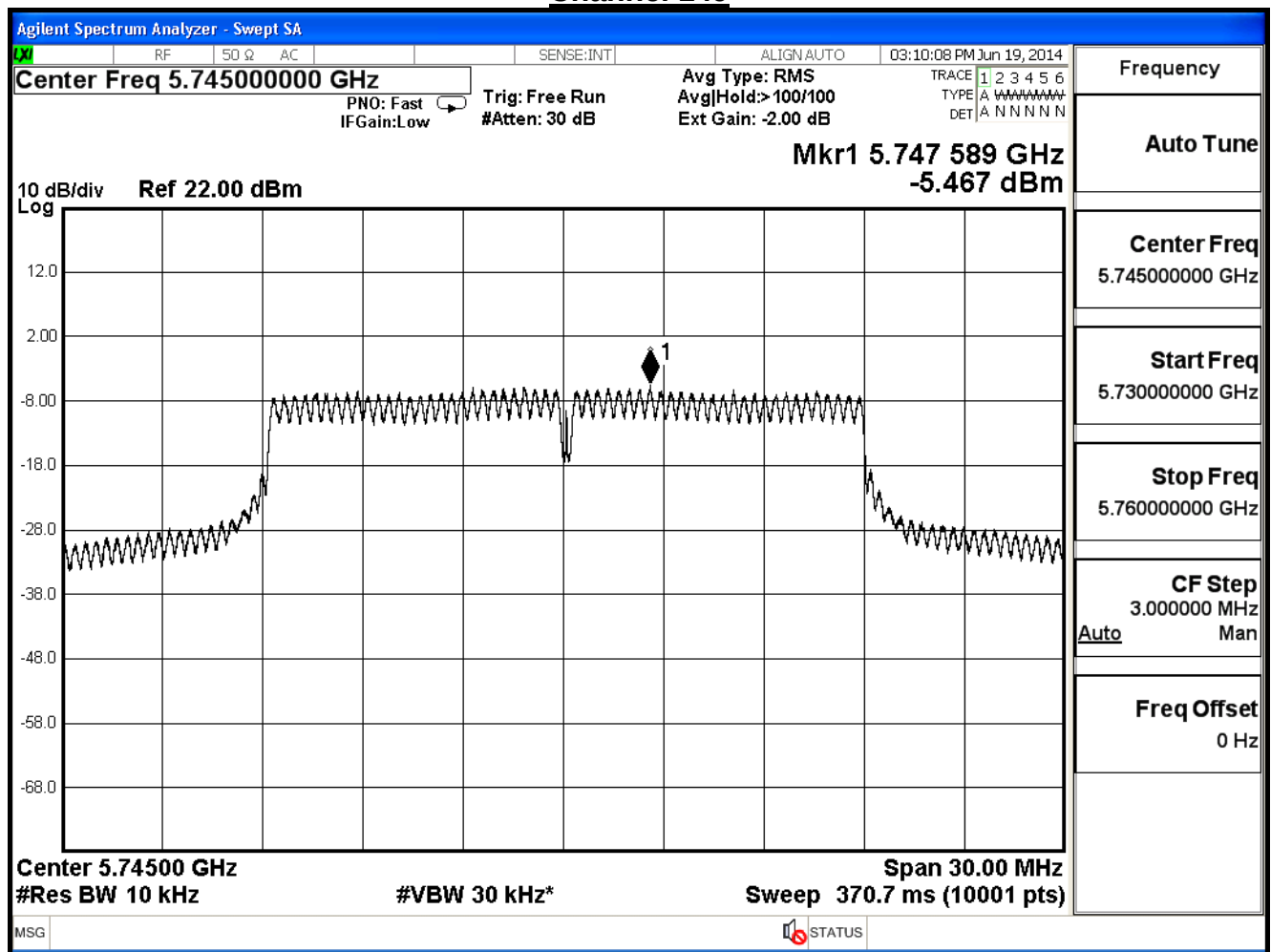
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	-5.467	≤ 5.19	Pass
157	5785	-4.969	≤ 5.19	Pass
165	5825	-5.261	≤ 5.19	Pass

Note:

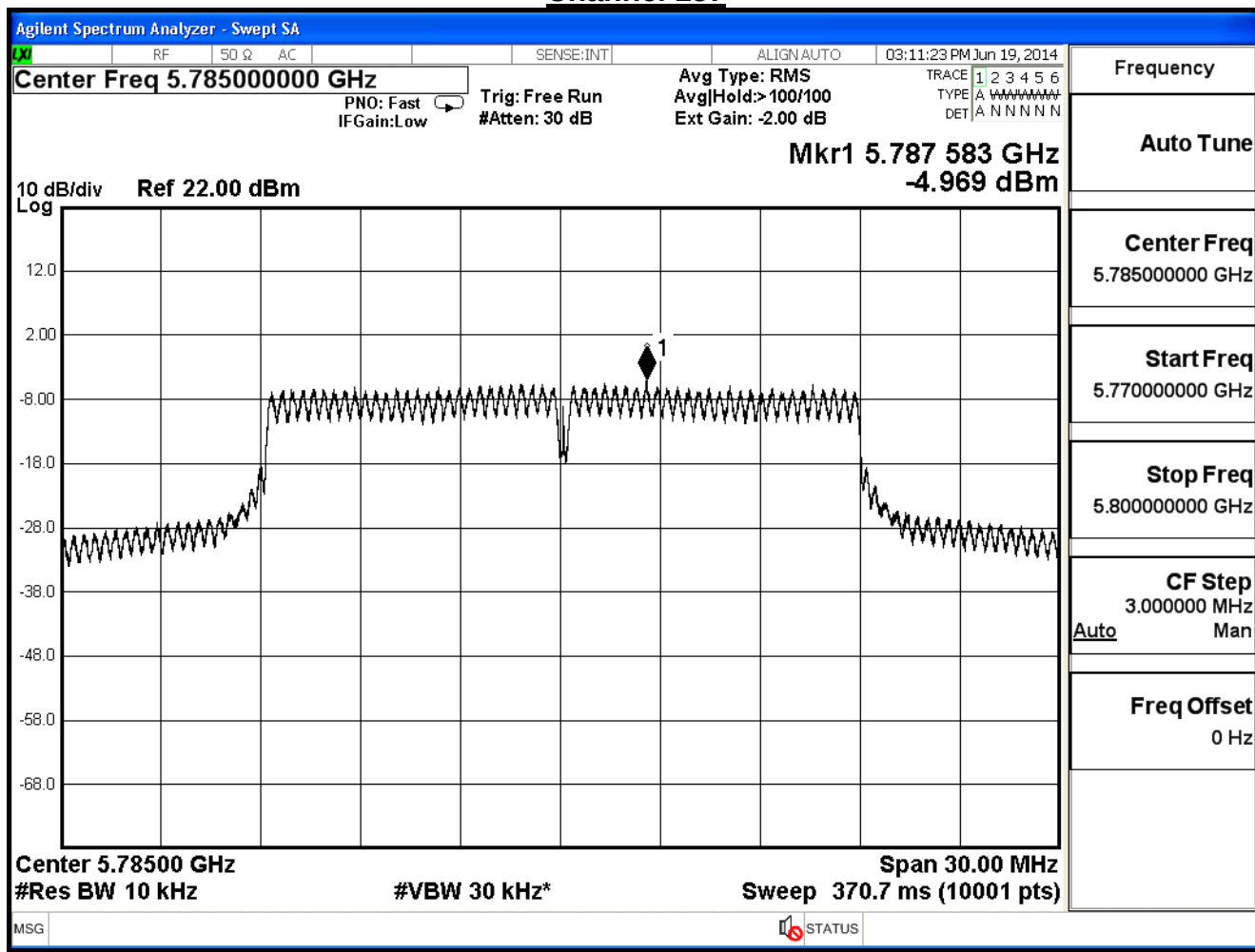
Directional Antenna Gain = $10\log(\text{Ant N}) + \text{Max Gain} = 8.81\text{dBi}$

Required Limit = $8\text{dBm} - (8.81\text{dBi} - 6\text{dB}) = 5.19\text{ dBm}$

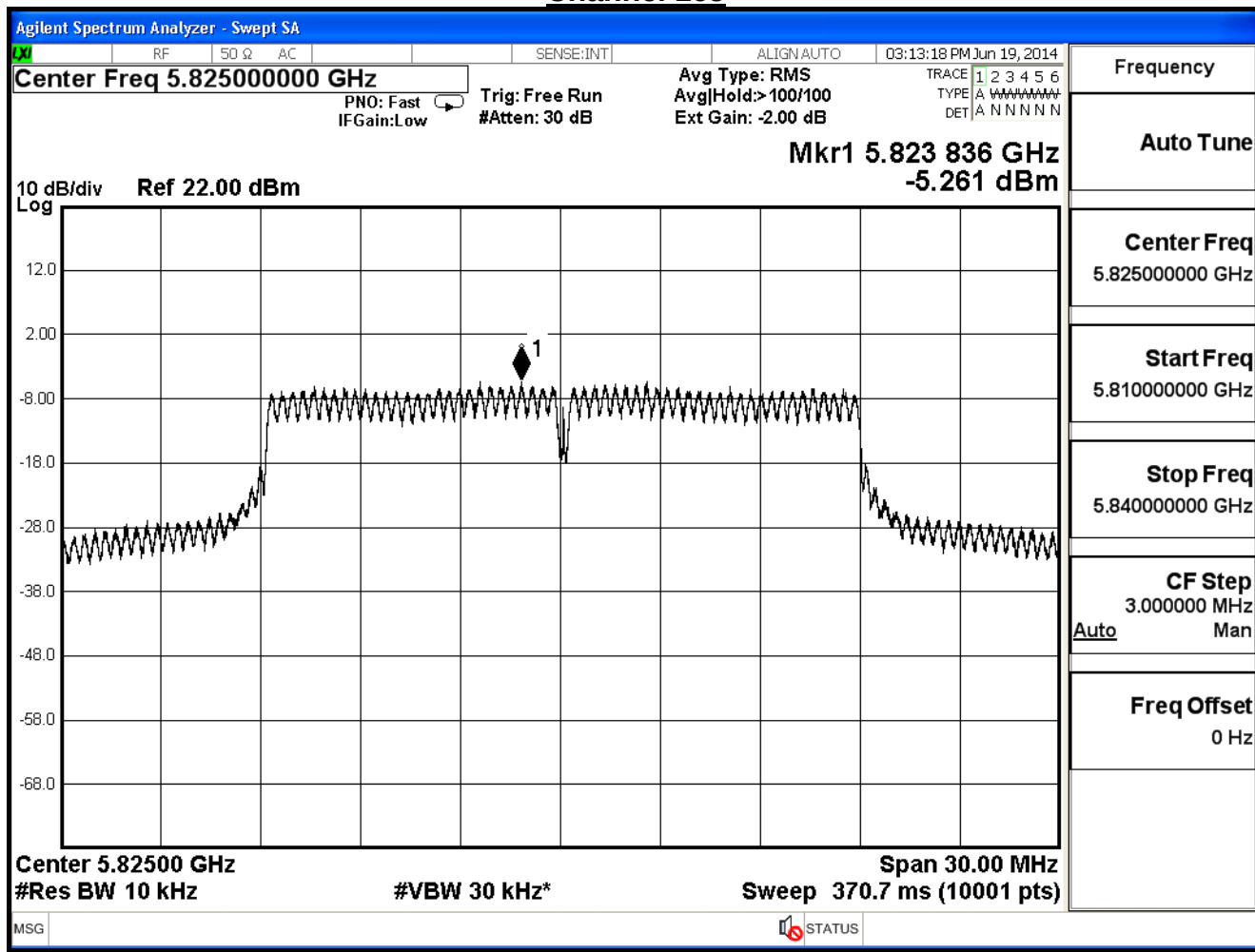
Channel 149



Channel 157



Channel 165



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

IEEE802.11n 20MHz(ANT 0+1+2)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	-0.666	≤ 5.19	Pass
157	5785	-0.425	≤ 5.19	Pass
165	5825	-0.523	≤ 5.19	Pass

Note:

Directional Antenna Gain = $10\log(\text{Ant N}) + \text{Max Gain} = 8.81\text{dBi}$

Required Limit = $8\text{dBm} - (8.81\text{dBi} - 6\text{dB}) = 5.19\text{ dBm}$

Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

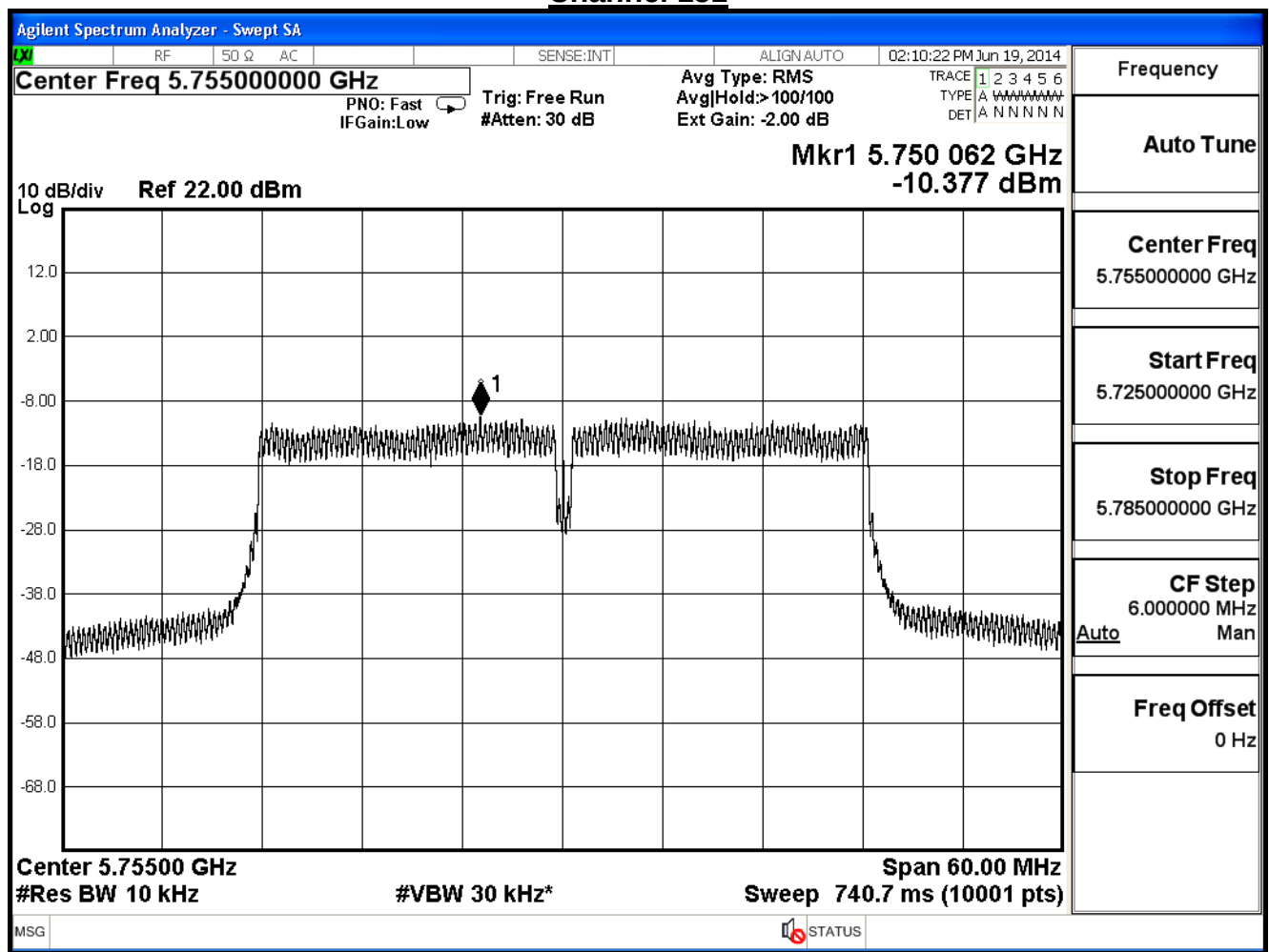
IEEE 802.11n_40MHz (ANT 0)				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
151	5755	-10.377	≤ 5.19	Pass
159	5795	-7.896	≤ 5.19	Pass

Note:

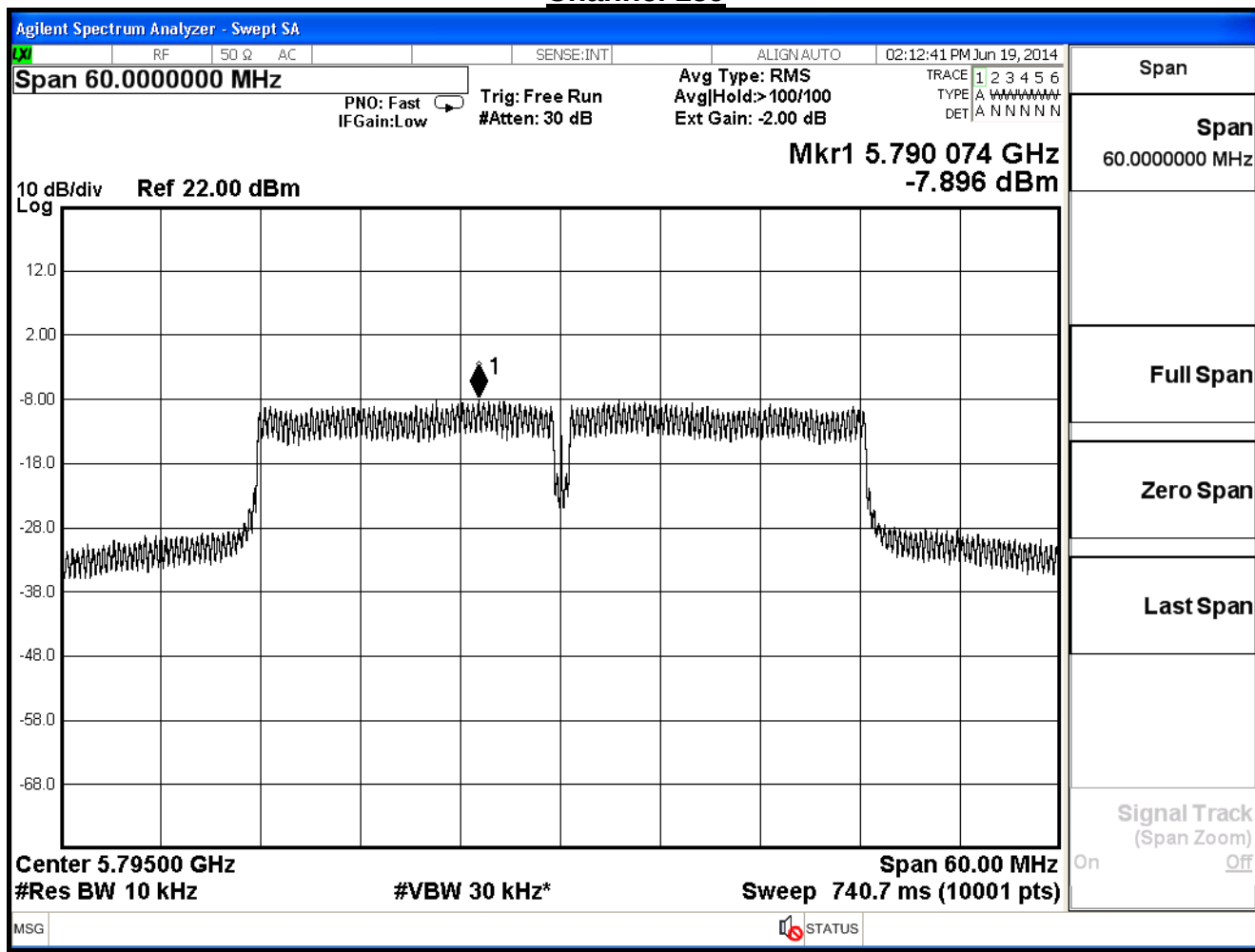
Directional Antenna Gain = $10\log(\text{Ant N}) + \text{Max Gain} = 8.81\text{dBi}$

Required Limit = $8\text{dBm} - (8.81\text{dBi} - 6\text{dB}) = 5.19\text{ dBm}$

Channel 151



Channel 159



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode) Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

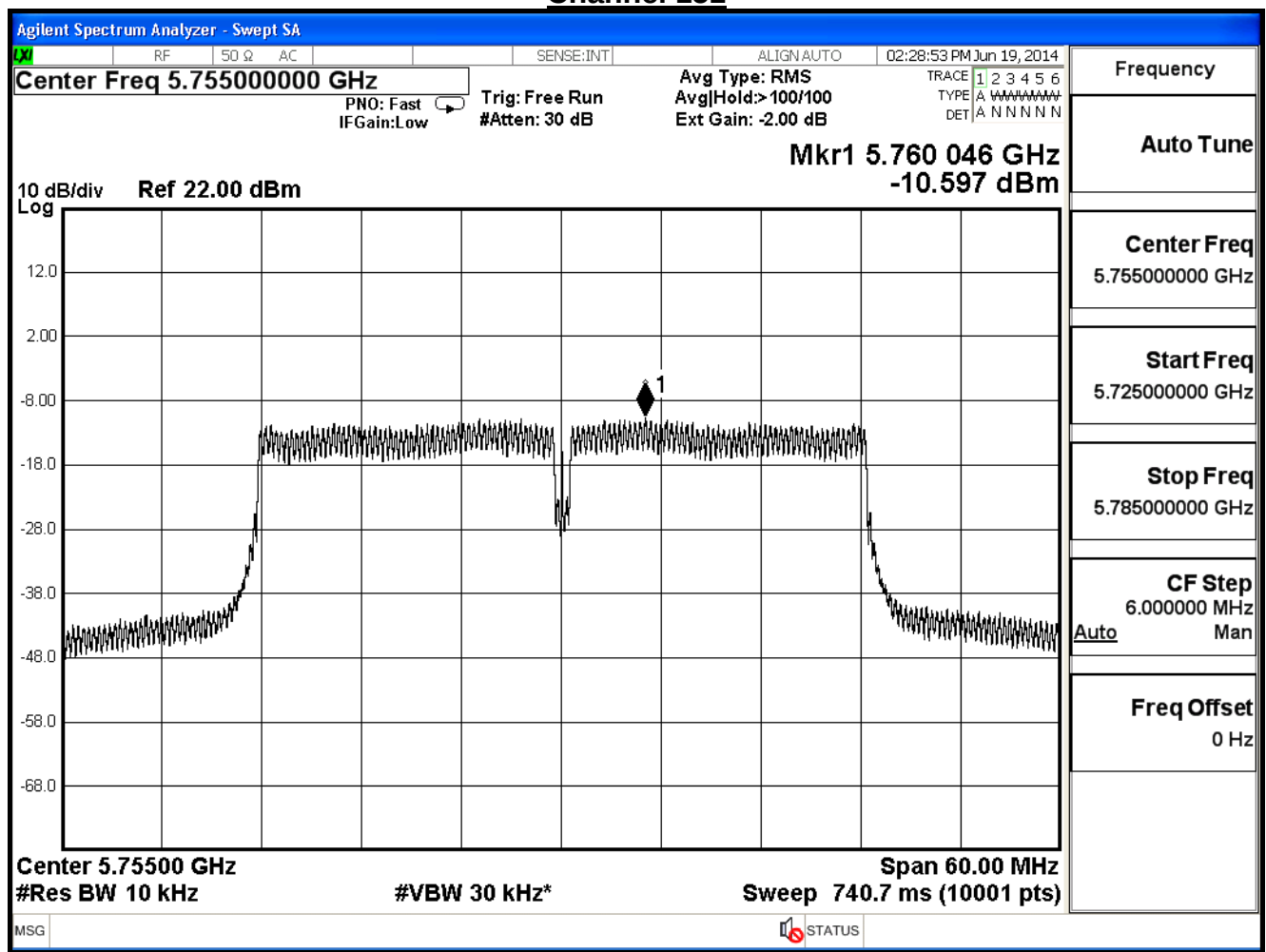
IEEE 802.11n_40MHz (ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151	5755	-10.597	≤ 5.19	Pass
159	5795	-7.813	≤ 5.19	Pass

Note:

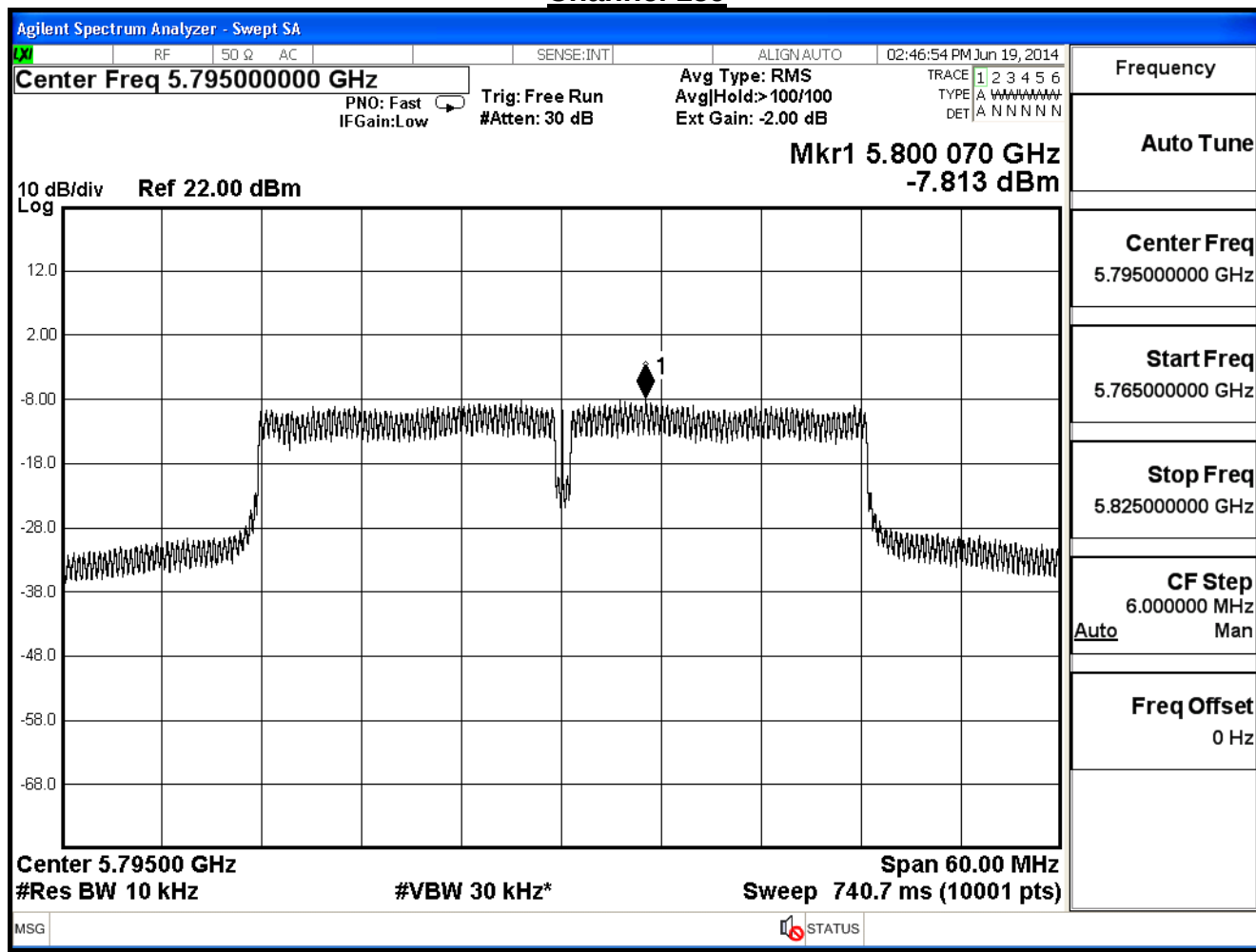
Directional Antenna Gain = $10\log(\text{Ant N}) + \text{Max Gain} = 8.81\text{dBi}$

Required Limit = $8\text{dBm} - (8.81\text{dBi} - 6\text{dB}) = 5.19\text{ dBm}$

Channel 151



Channel 159



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

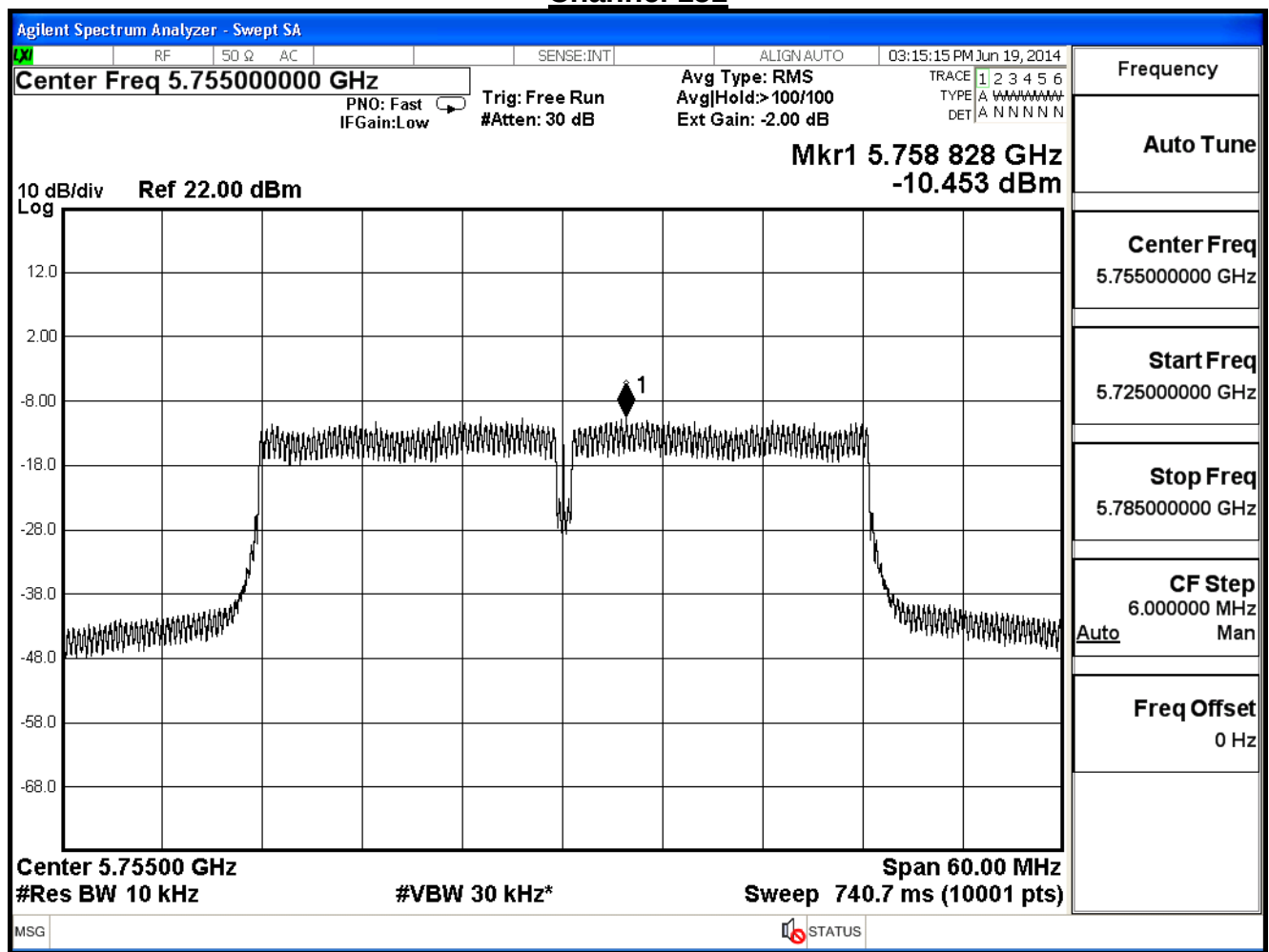
IEEE 802.11n_40MHz (ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151	5755	-10.453	≤ 5.19	Pass
159	5795	-7.887	≤ 5.19	Pass

Note:

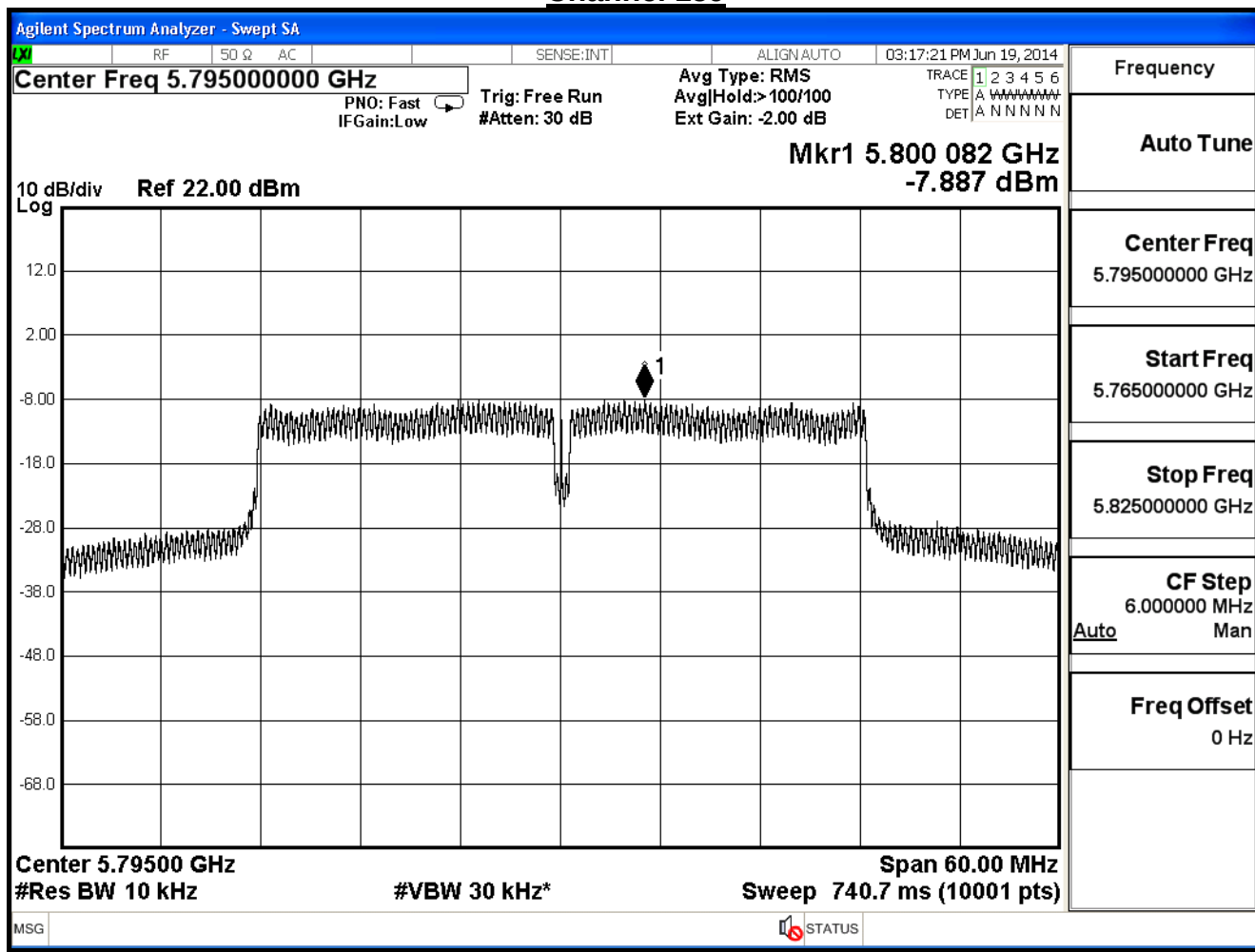
Directional Antenna Gain = $10\log(\text{Ant N}) + \text{Max Gain} = 8.81\text{dBi}$

Required Limit = $8\text{dBm} - (8.81\text{dBi} - 6\text{dB}) = 5.19\text{ dBm}$

Channel 151



Channel 159



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

IEEE802.11n 40MHz(ANT 0+1+2)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151	5755	-5.703	≤ 5.19	Pass
159	5795	-3.094	≤ 5.19	Pass

Note:

Directional Antenna Gain = $10\log(\text{Ant N}) + \text{Max Gain} = 8.81\text{dBi}$

Required Limit = $8\text{dBm} - (8.81\text{dBi} - 6\text{dB}) = 5.19\text{ dBm}$

Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

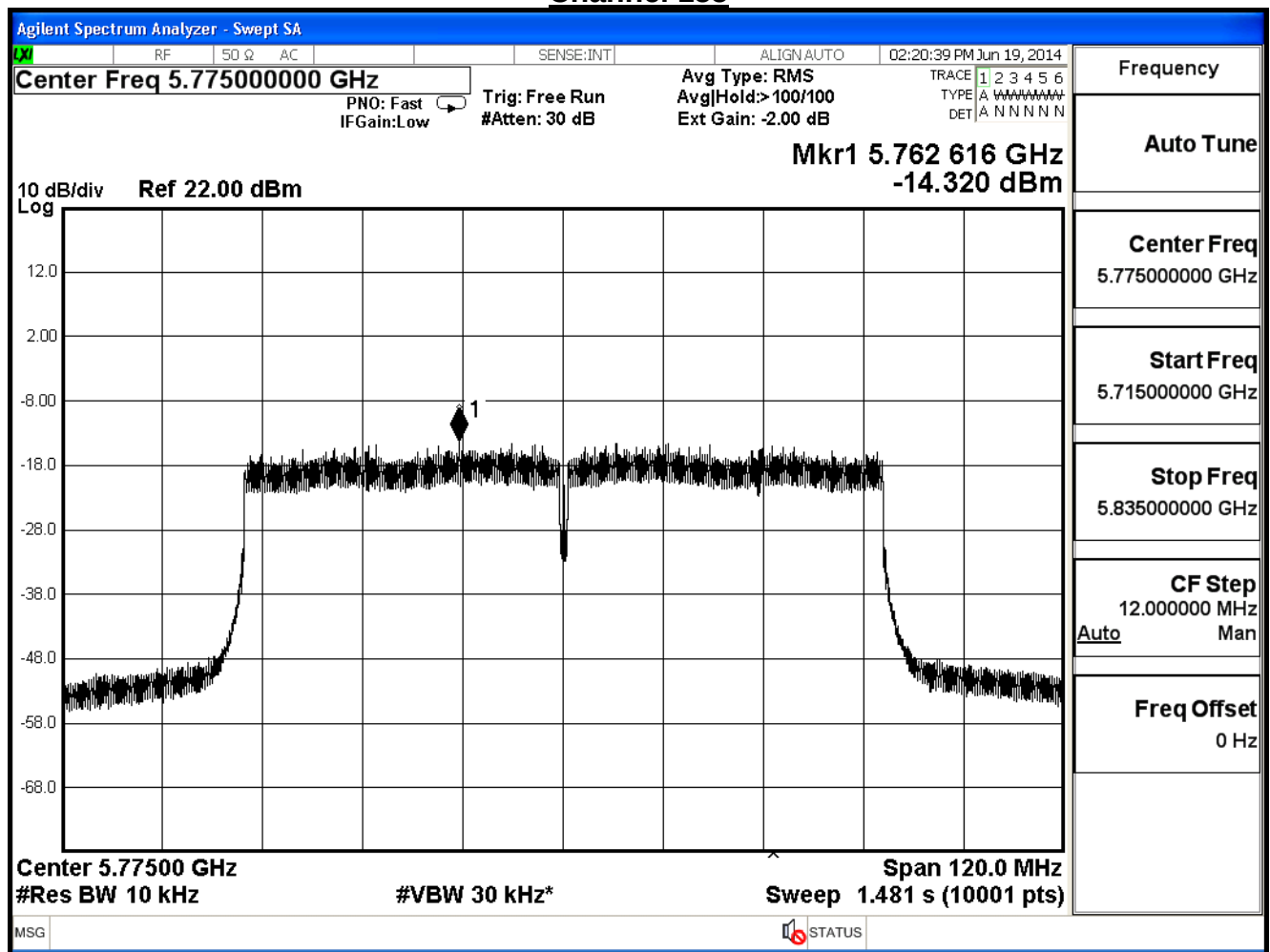
IEEE 802.11ac_80MHz (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
155	5775	-14.320	≤5.19	Pass

Note:

Directional Antenna Gain = $10\log(\text{Ant N}) + \text{Max Gain} = 8.81\text{dBi}$

Required Limit = $8\text{dBm} - (8.81\text{dBi} - 6\text{dB}) = 5.19\text{ dBm}$

Channel 155



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode) Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

IEEE 802.11ac_80MHz (ANT 1)

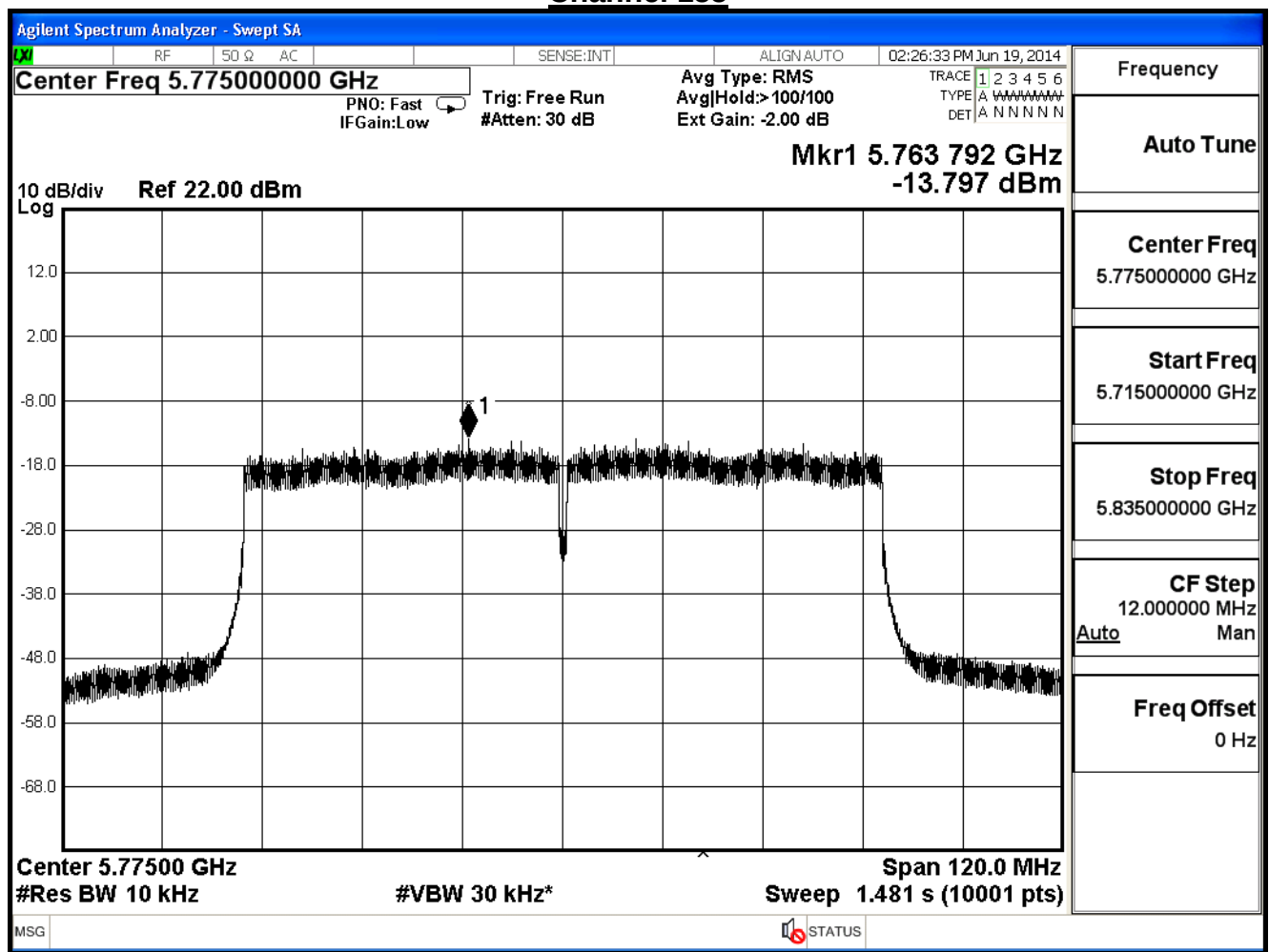
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
155	5775	-13.797	≤ 5.19	Pass

Note:

Directional Antenna Gain = $10\log(\text{Ant N}) + \text{Max Gain} = 8.81\text{dBi}$

Required Limit = $8\text{dBm} - (8.81\text{dBi} - 6\text{dB}) = 5.19\text{ dBm}$

Channel 155



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

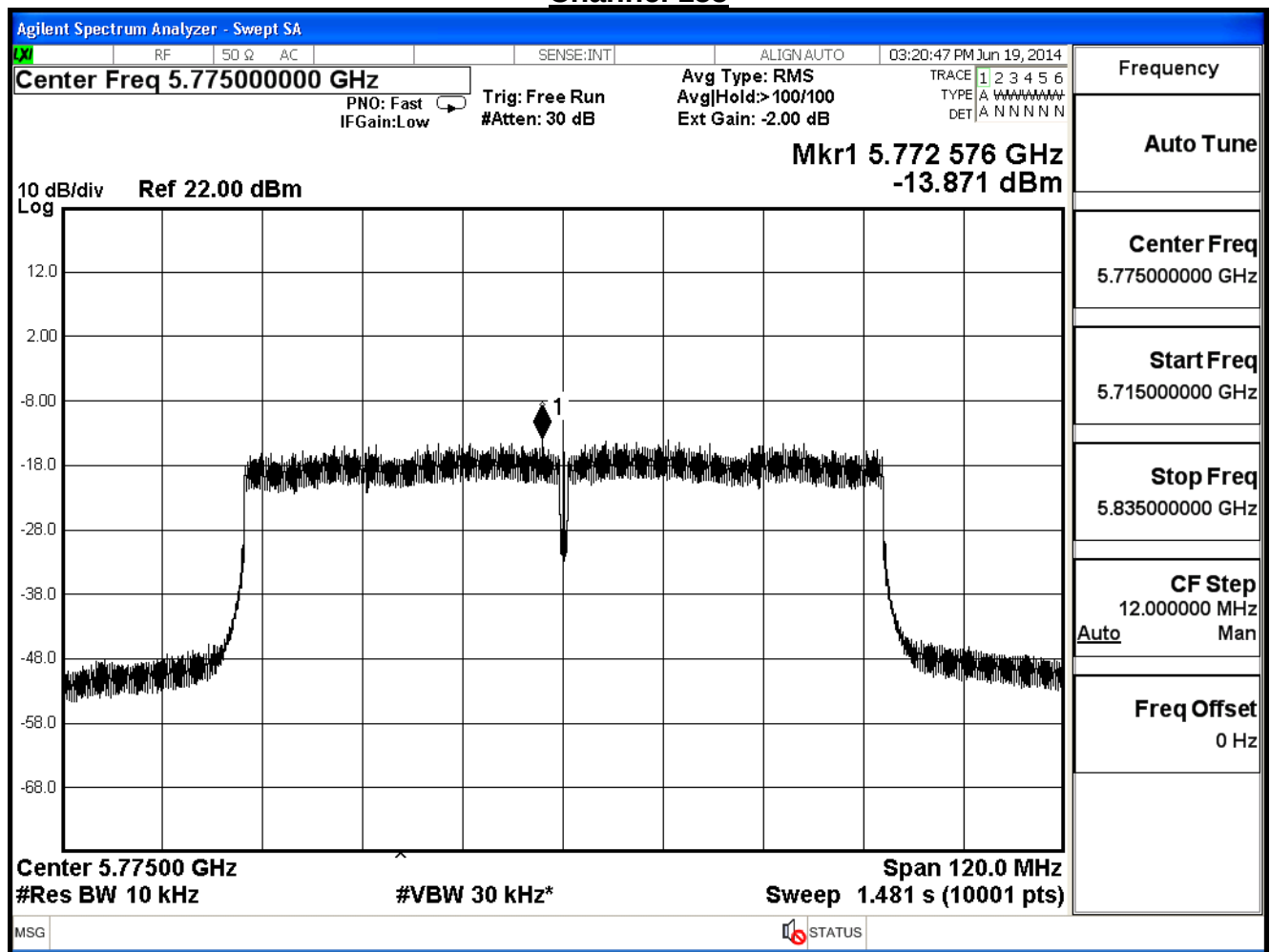
IEEE 802.11ac_80MHz (ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
155	5775	-13.871	≤ 5.19	Pass

Note:

Directional Antenna Gain = $10\log(\text{Ant N}) + \text{Max Gain} = 8.81\text{dBi}$

Required Limit = $8\text{dBm} - (8.81\text{dBi} - 6\text{dB}) = 5.19\text{ dBm}$

Channel 155



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

IEEE802.11ac_80MHz(ANT 0+1+2)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
155	5775	-9.219	≤ 5.19	Pass

Note:

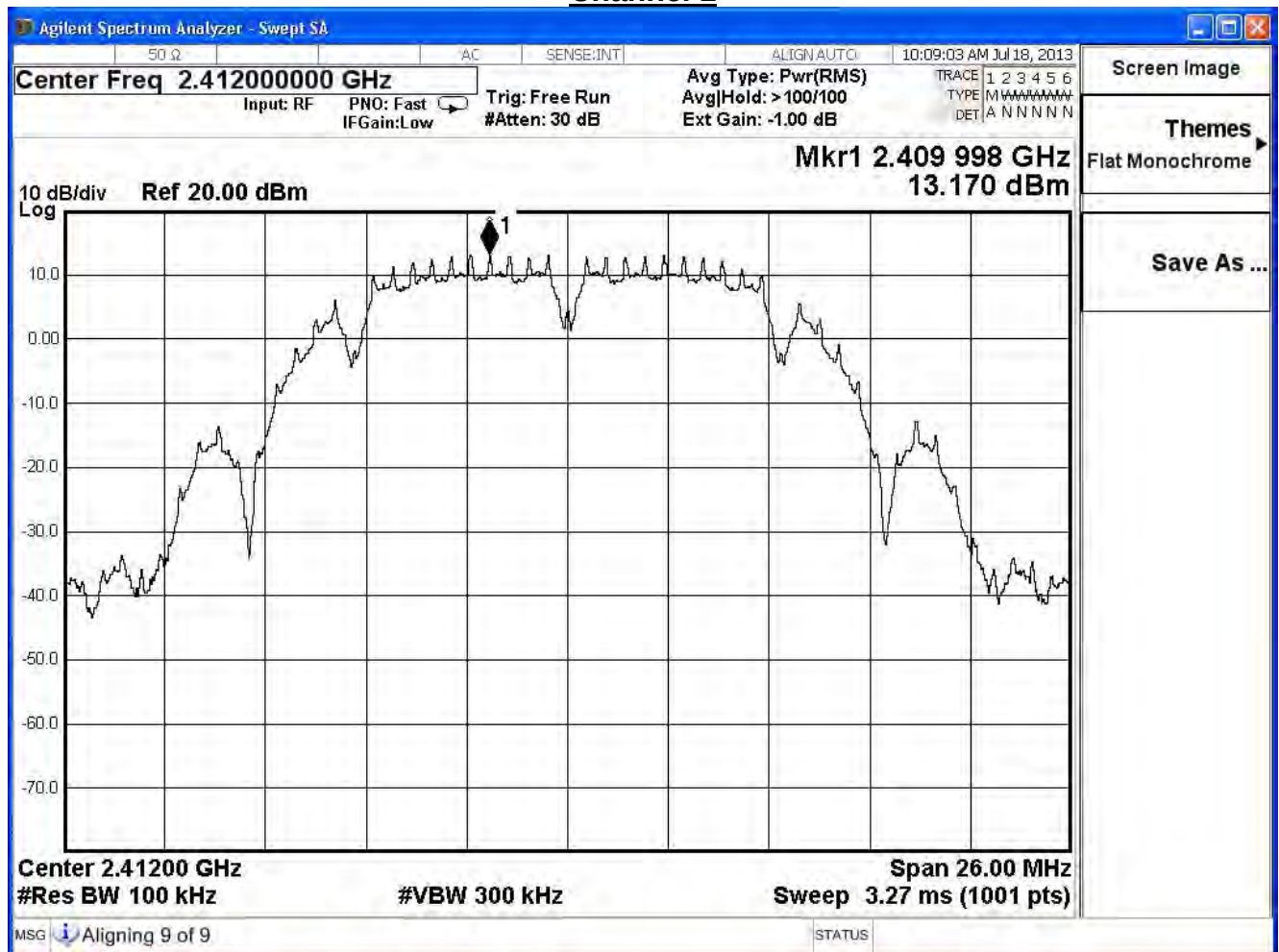
Directional Antenna Gain = $10\log(\text{Ant N}) + \text{Max Gain} = 8.81\text{dBi}$

Required Limit = $8\text{dBm} - (8.81\text{dBi} - 6\text{dB}) = 5.19\text{ dBm}$

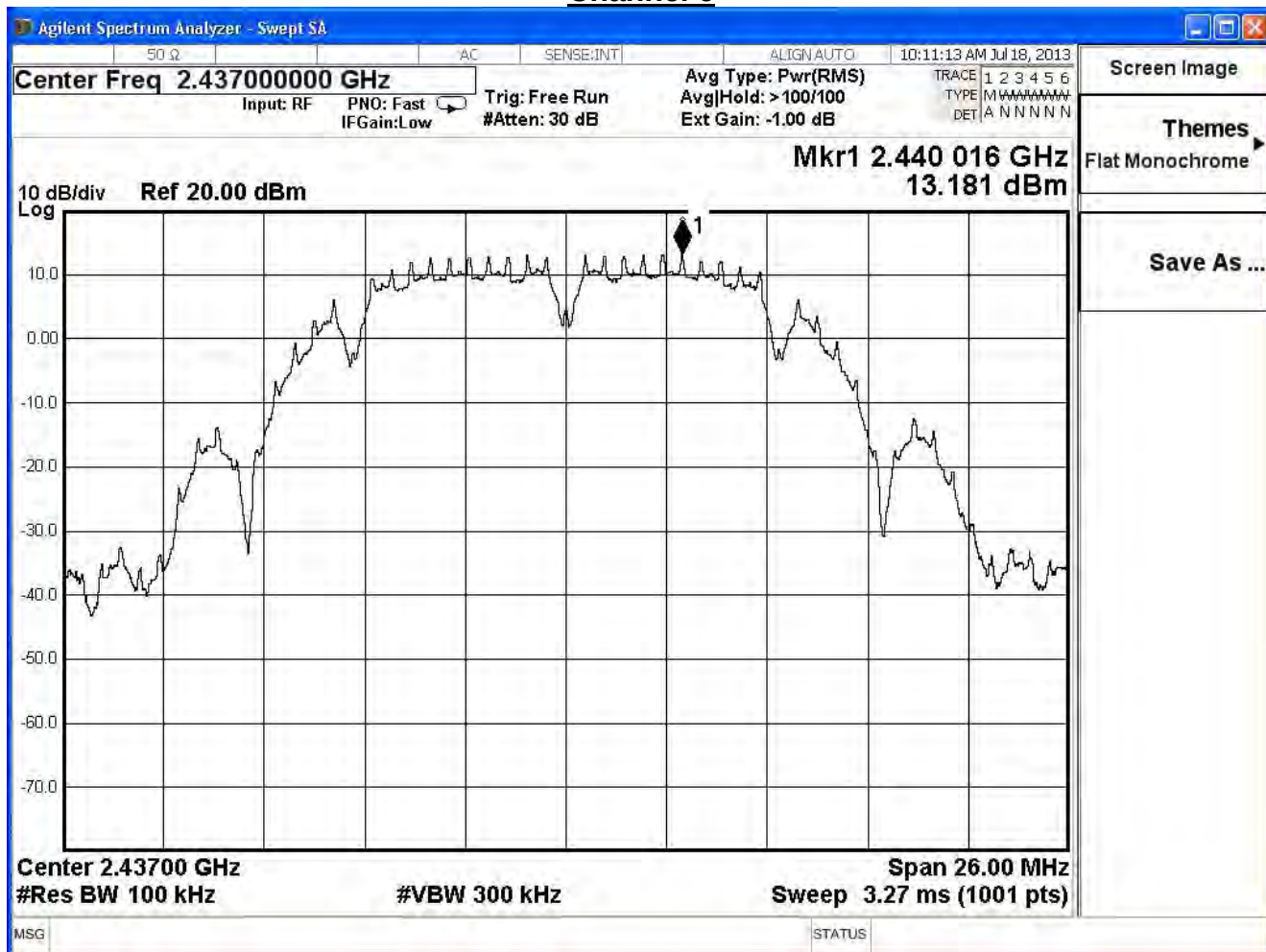
Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 5: Transmit (SISO Mode)_ Adapter: EXA1206UH		
Date of Test	2013/07/19	Test Site	SR7

IEEE 802.11b , 1TX mode (SISO)					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	13.17	-2.03	≤ 8	Pass
6	2437	13.18	-2.02	≤ 8	Pass
11	2462	12.63	-2.57	≤ 8	Pass

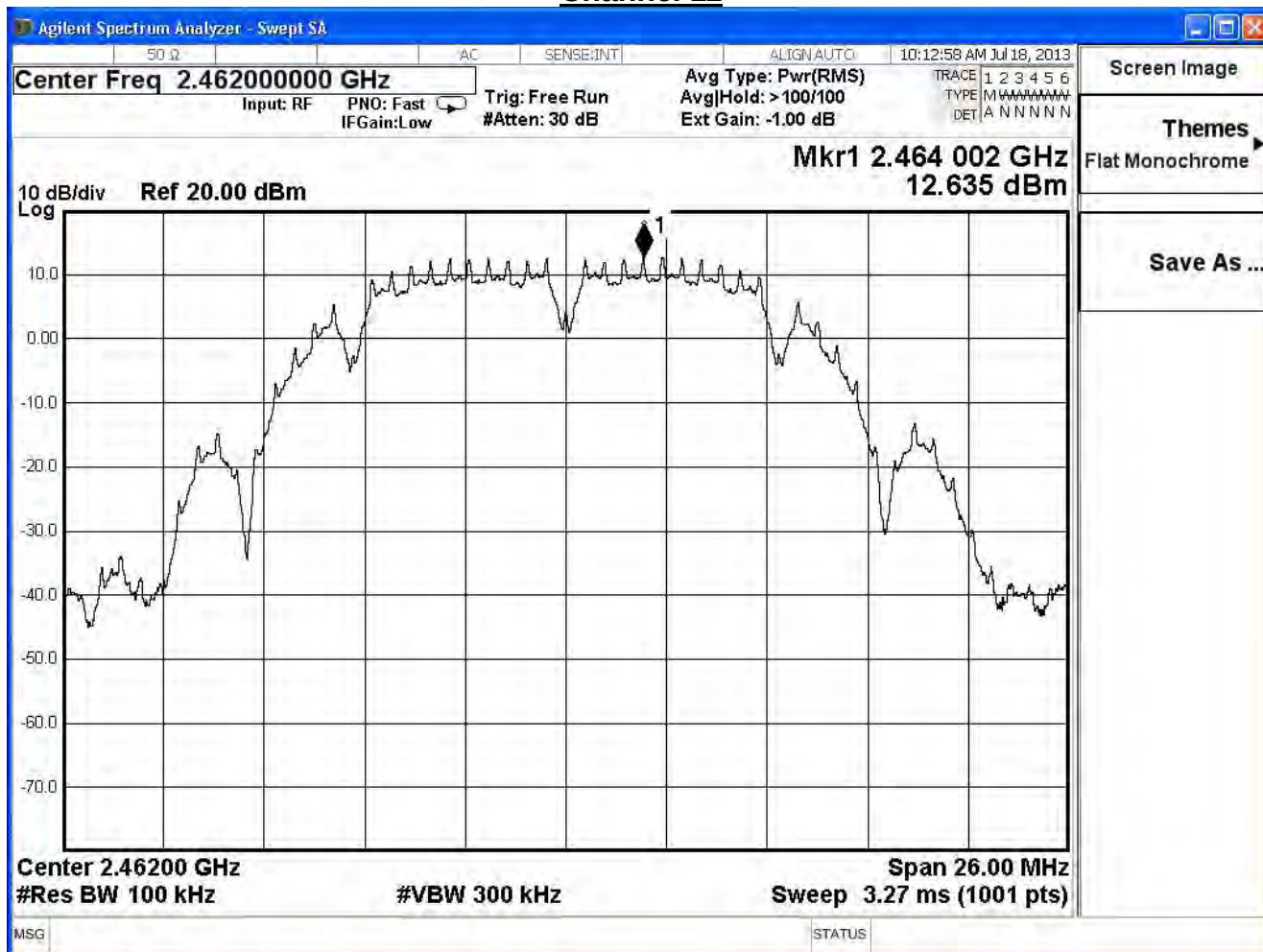
Channel 1



Channel 6



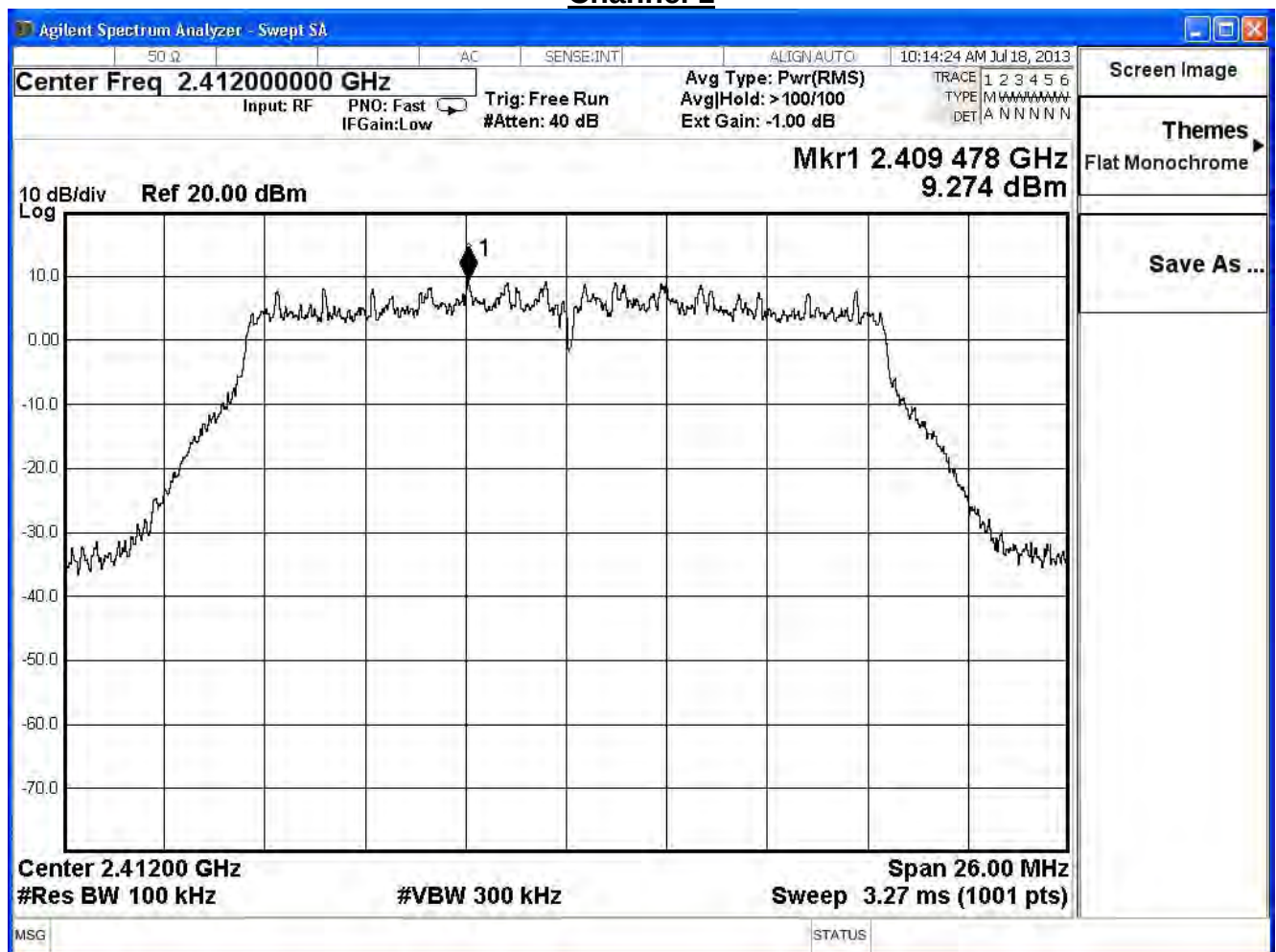
Channel 11



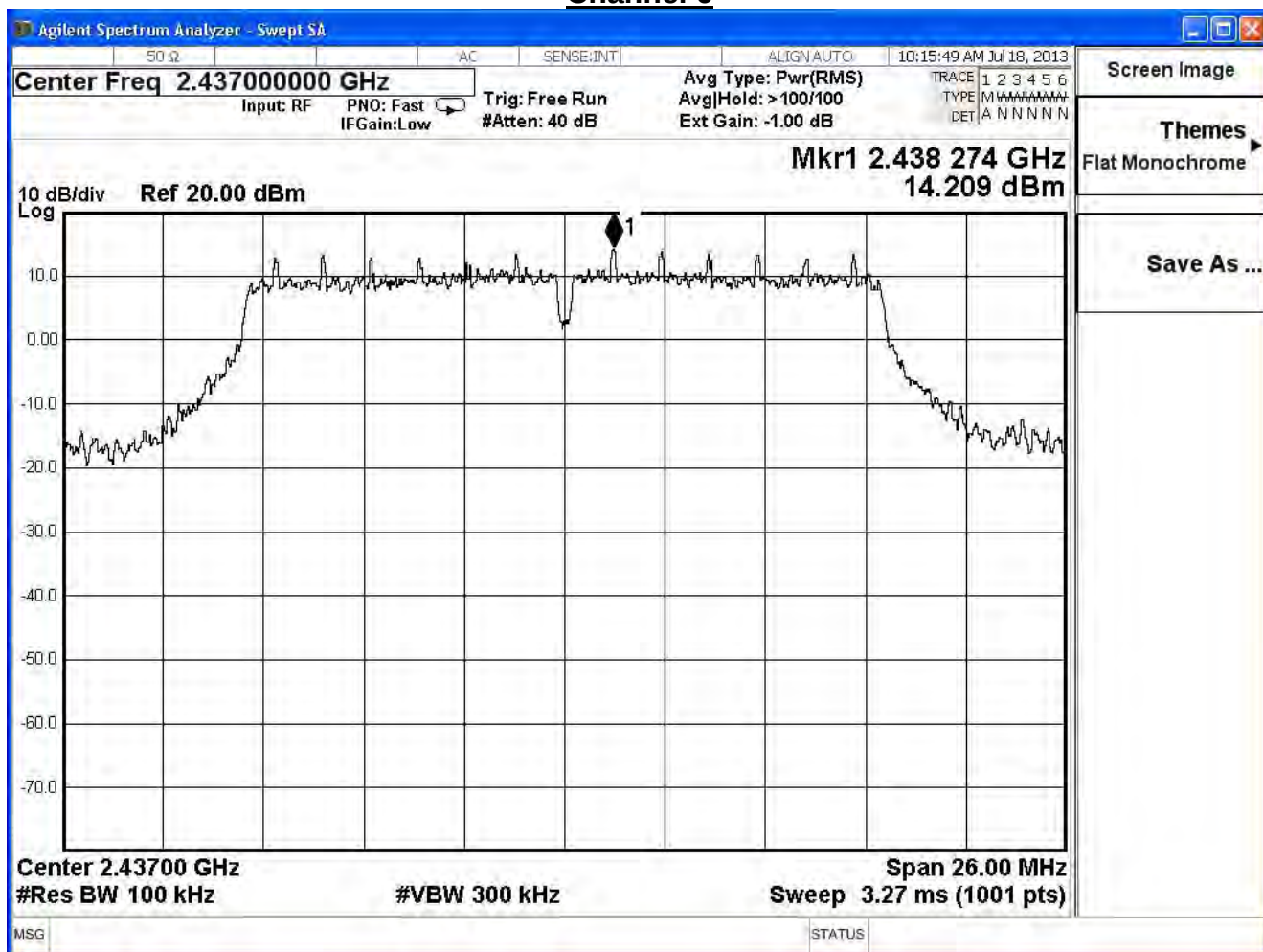
Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 5: Transmit (SISO Mode) Adapter: EXA1206UH		
Date of Test	2013/07/19	Test Site	SR7

IEEE 802.11g , 1TX mode (SISO)					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measurement (dBm)	Limit (dBm)	Result
1	2412	9.27	-5.93	≤ 8	Pass
6	2437	14.20	-1.00	≤ 8	Pass
11	2462	7.07	-8.13	≤ 8	Pass

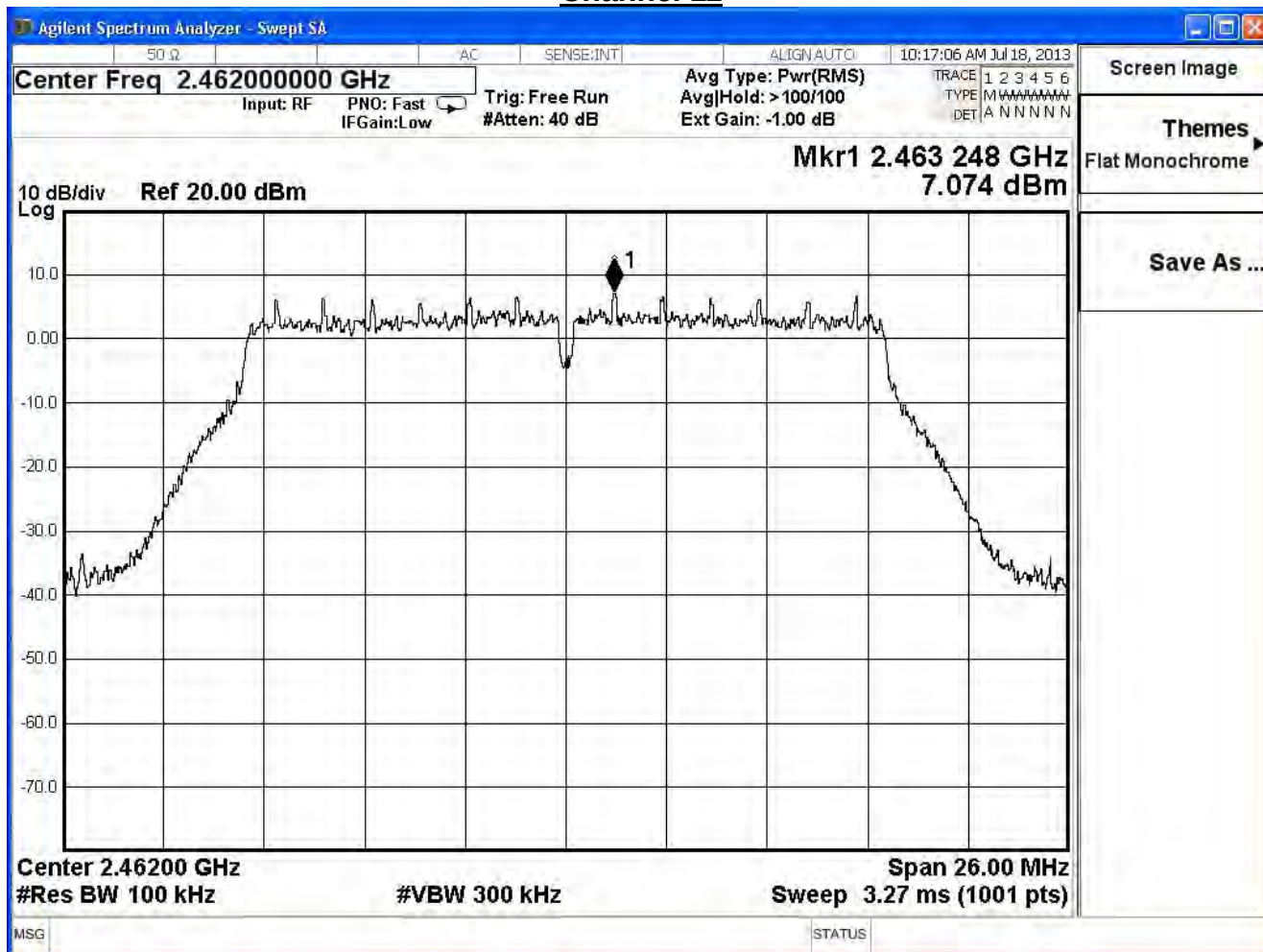
Channel 1



Channel 6



Channel 11



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 2: Transmit (Beamforming Mode) Adapter: EXA1206UH		
Date of Test	2013/07/19	Test Site	SR7

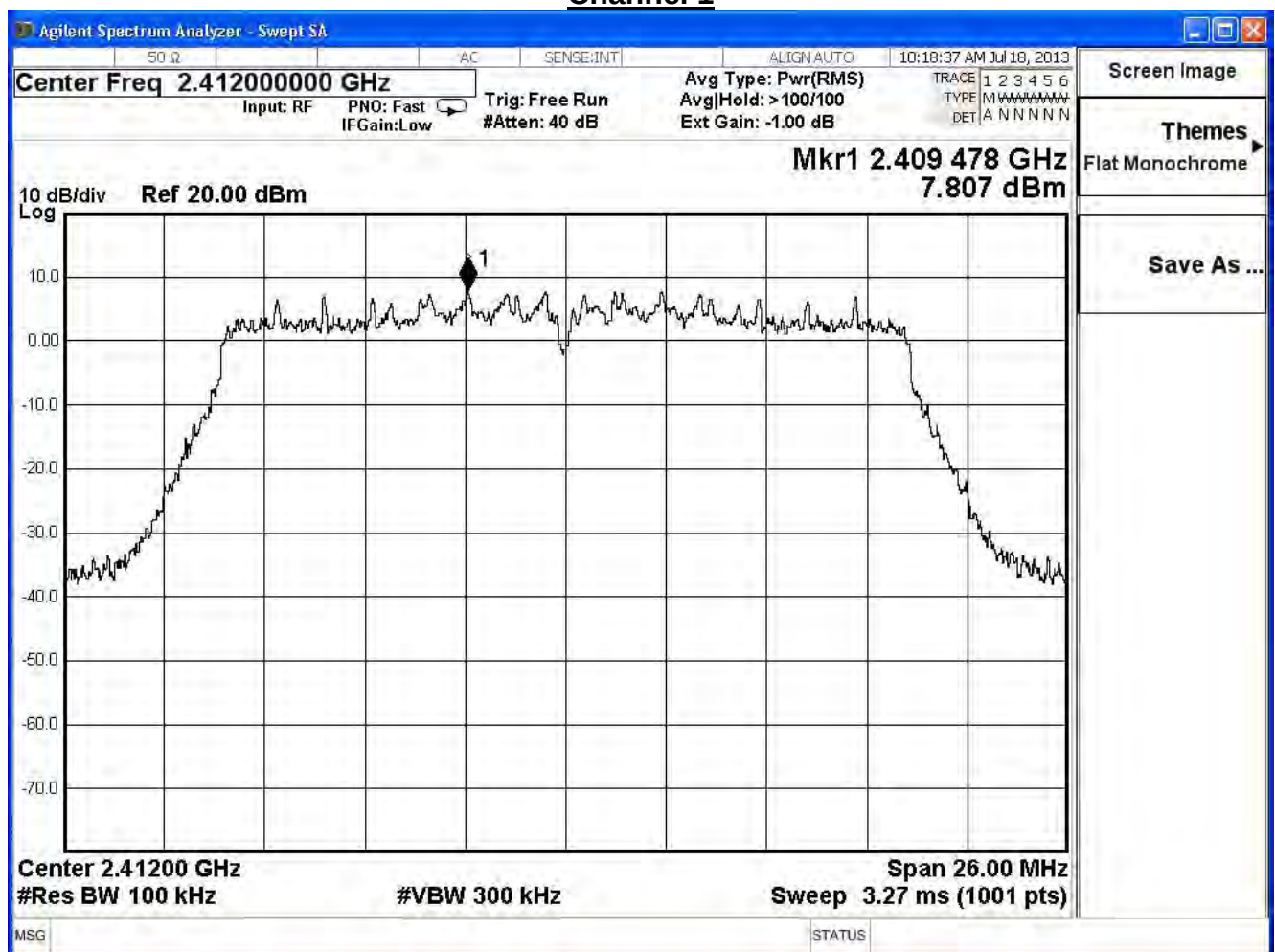
IEEE802.11n_20MHz_(ANT 0)					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	7.80	-7.40	≤ 7.32	Pass
6	2437	12.82	-2.38	≤ 7.32	Pass
11	2462	6.29	-8.91	≤ 7.32	Pass

Note:

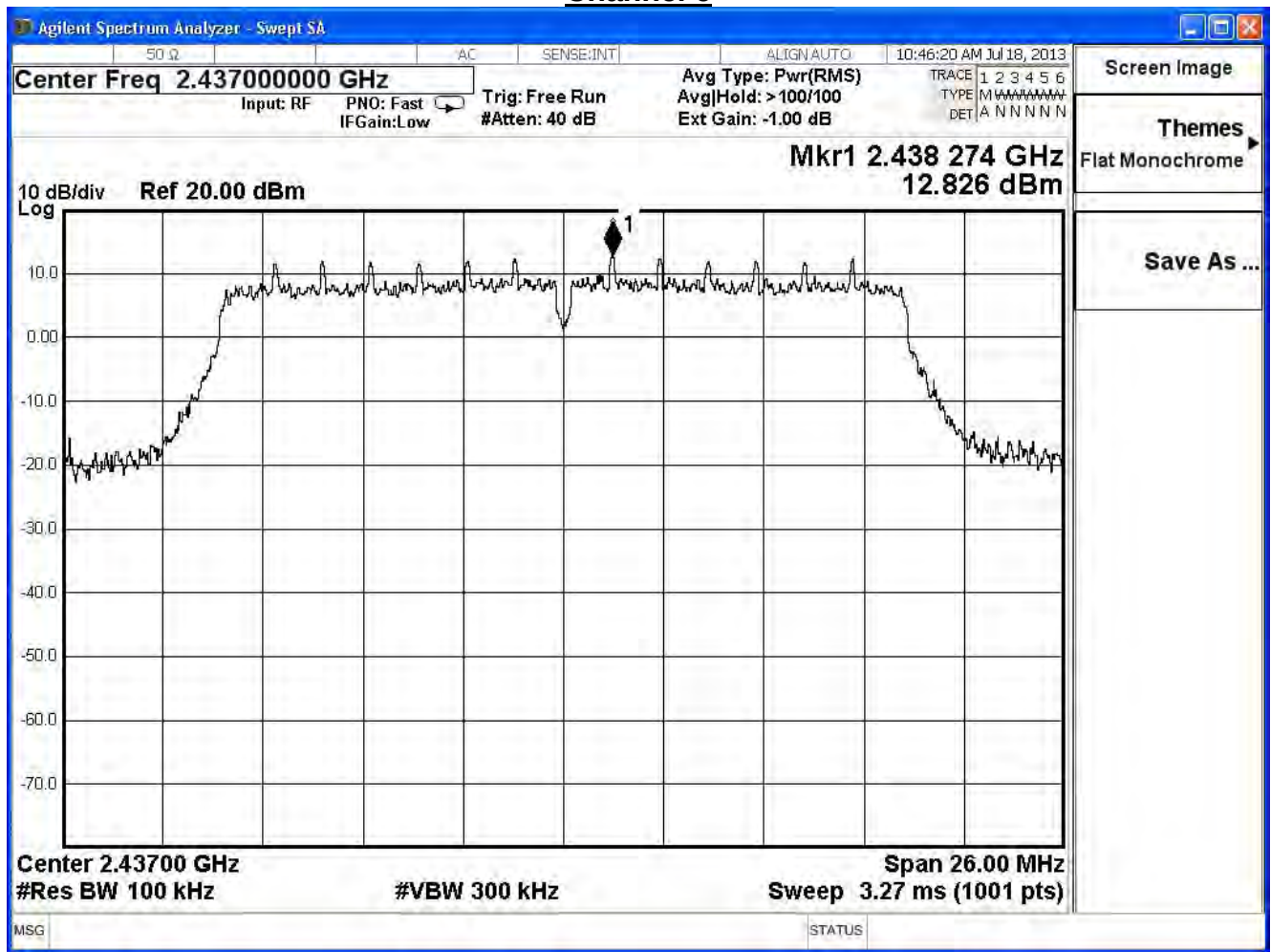
Directional Antenna Gain = $10\log(3) + \text{max Gain} = 6.68\text{dBidBi}$

$$\text{Required Limit} = 8\text{dBm} - (6.68\text{dBi} - 6\text{dBi}) = 7.32\text{ dBm}$$

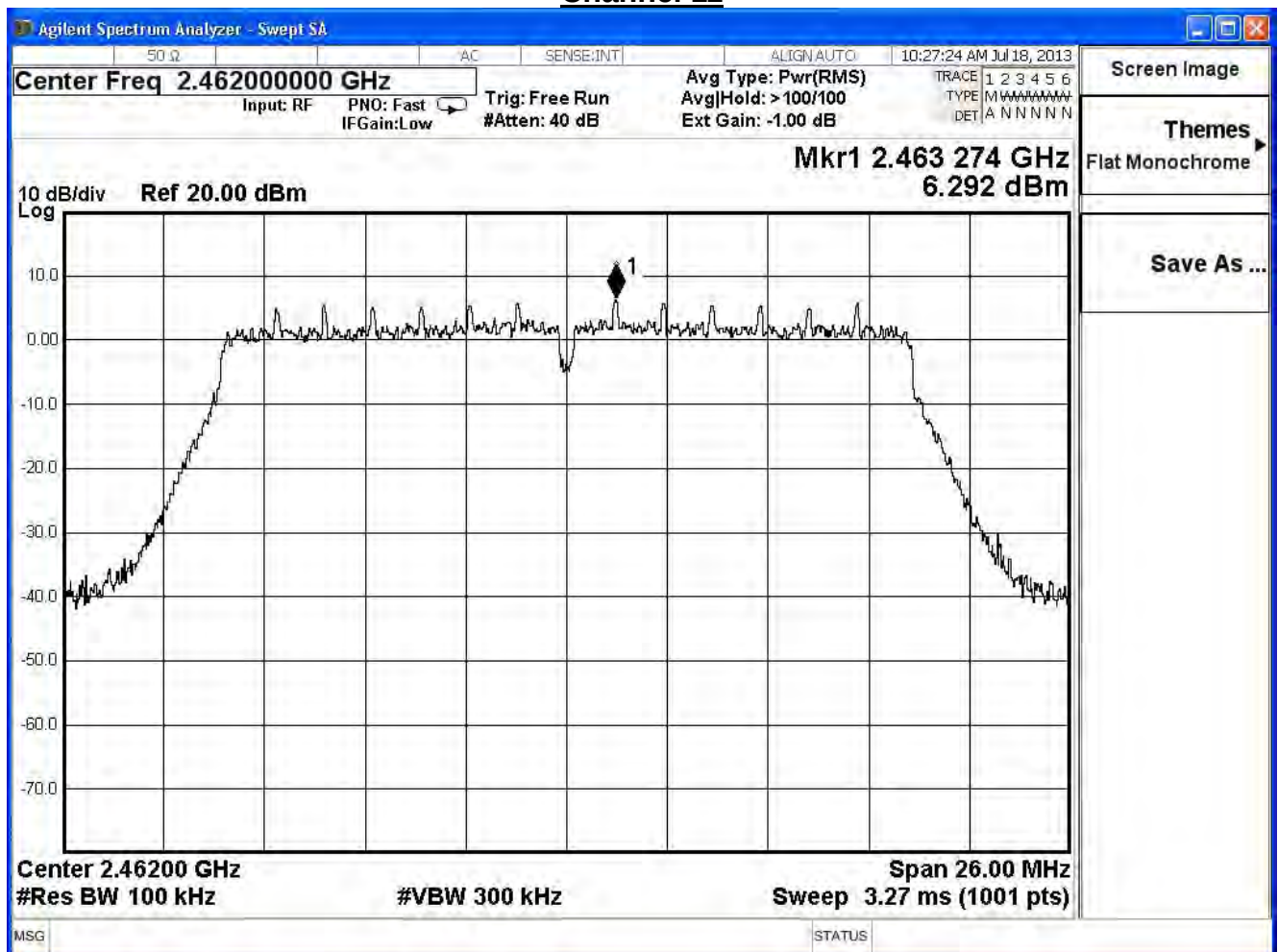
Channel 1



Channel 6



Channel 11



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 2: Transmit (Beamforming Mode) Adapter: EXA1206UH		
Date of Test	2013/07/19	Test Site	SR7

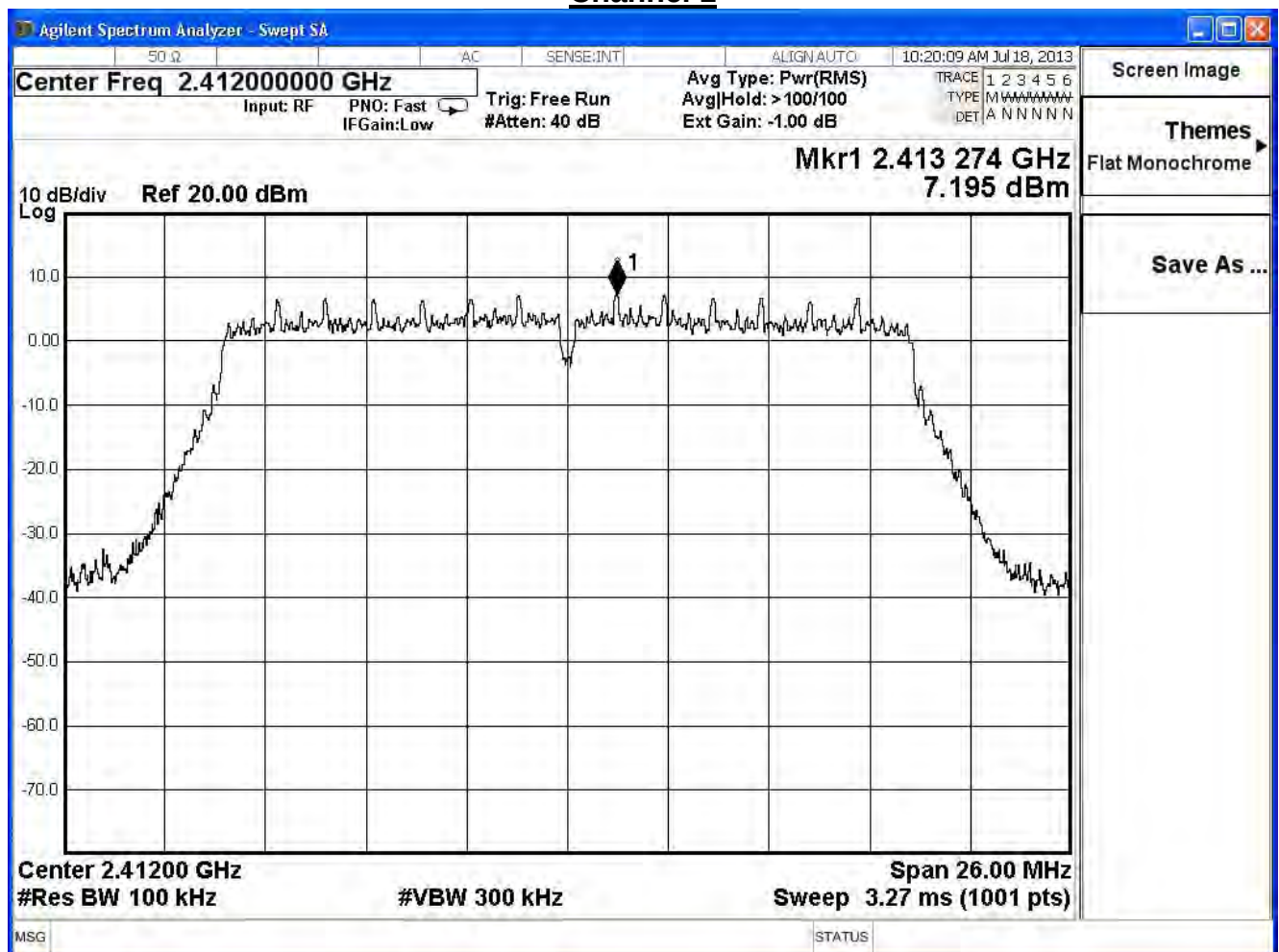
IEEE802.11n_20MHz_(ANT 1)					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measurement (dBm)	Limit (dBm)	Result
1	2412	7.19	-8.01	≤ 7.32	Pass
6	2437	12.00	-3.20	≤ 7.32	Pass
11	2462	6.47	-8.73	≤ 7.32	Pass

Note:

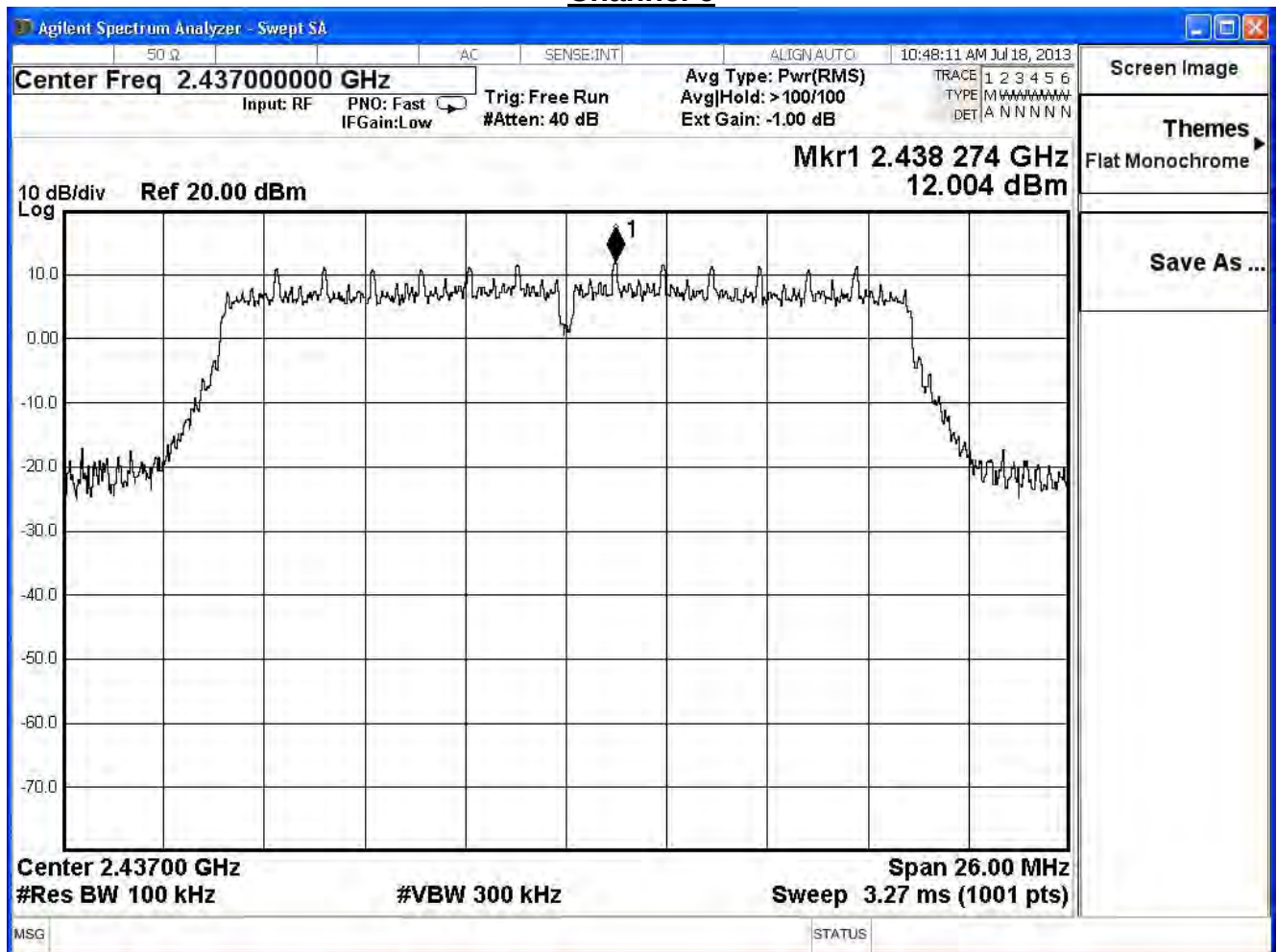
Directional Antenna Gain = $10\log(3) + \text{max Gain} = 6.68\text{dBidBi}$

$$\text{Required Limit} = 8\text{dBm} - (6.68\text{dBi} - 6\text{dBi}) = 7.32 \text{ dBm}$$

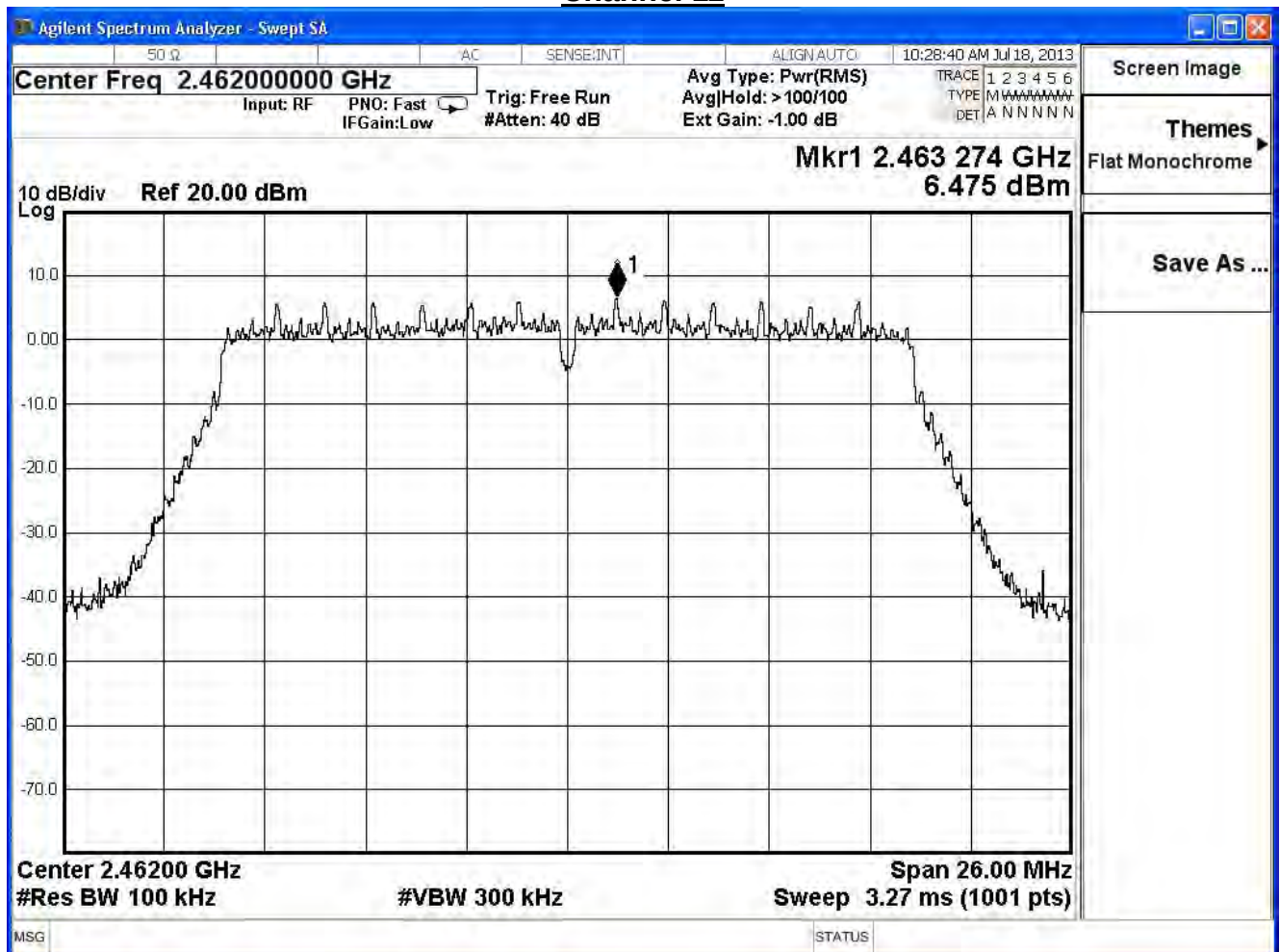
Channel 1



Channel 6



Channel 11



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 2: Transmit (Beamforming Mode) Adapter: EXA1206UH		
Date of Test	2013/07/19	Test Site	SR7

IEEE802.11n_20MHz_(ANT 2)

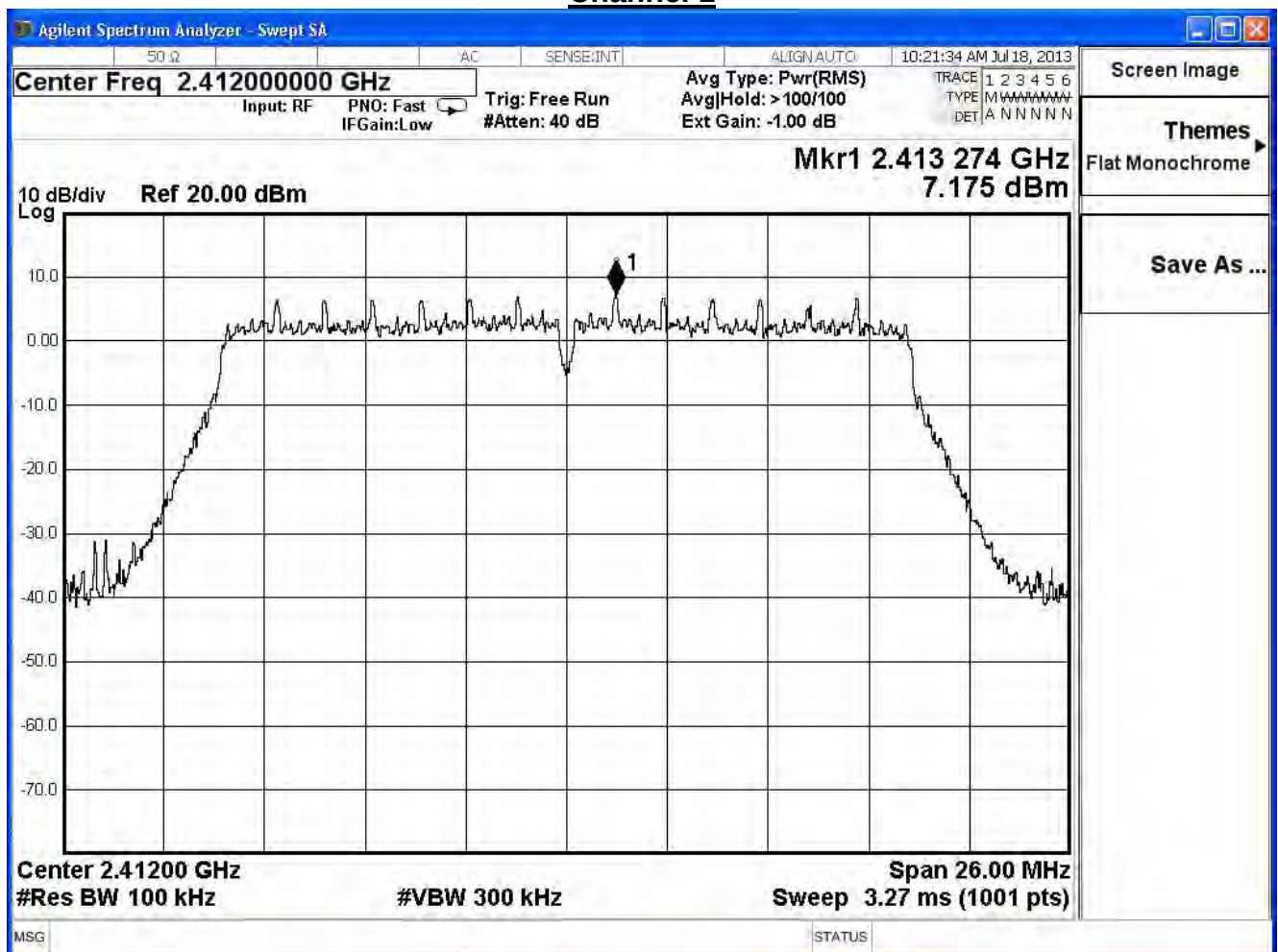
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measurement (dBm)	Limit (dBm)	Result
1	2412	7.17	-8.03	≤ 7.32	Pass
6	2437	11.88	-3.32	≤ 7.32	Pass
11	2462	6.21	-8.99	≤ 7.32	Pass

Note:

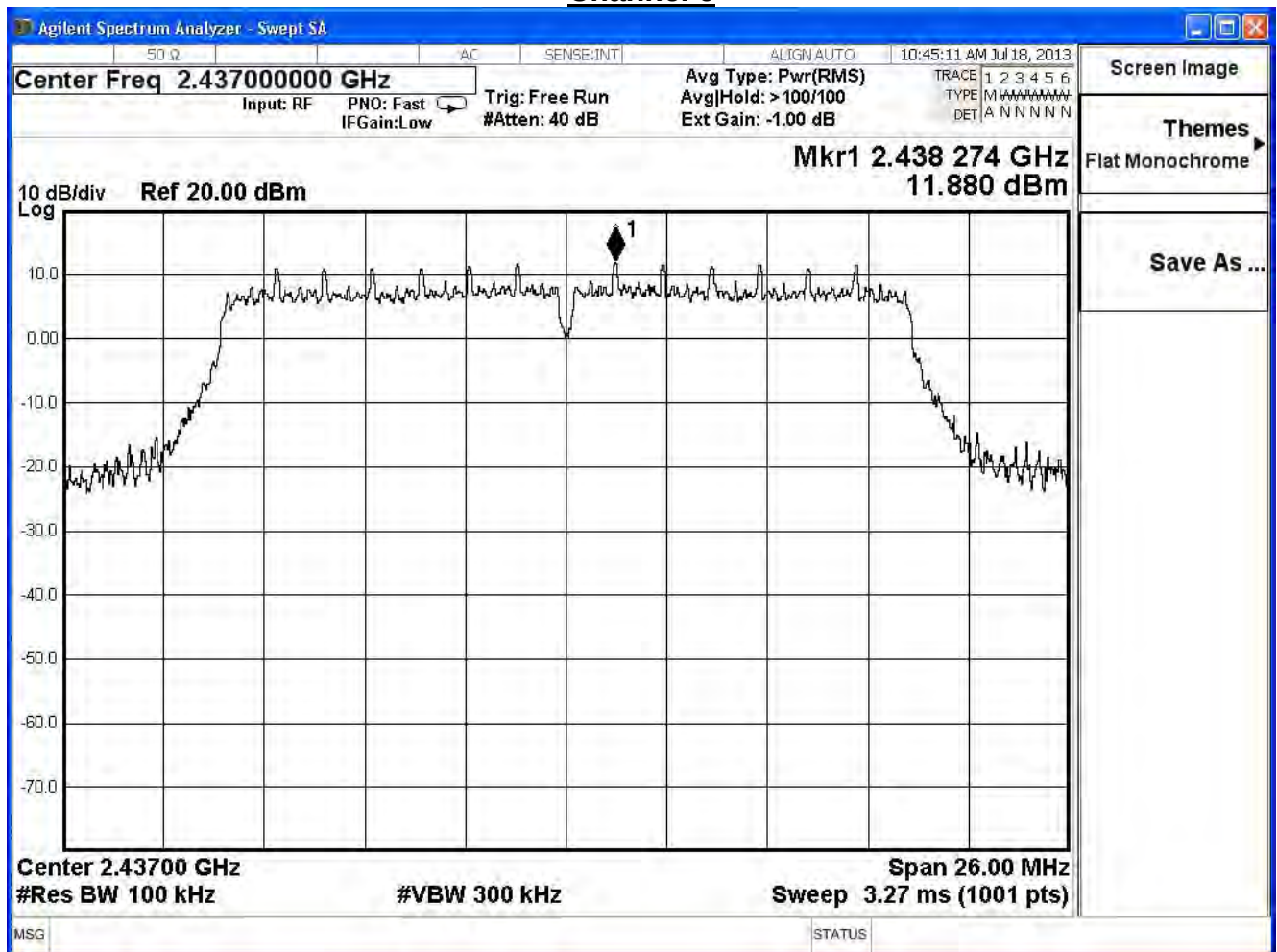
Directional Antenna Gain = $10\log(3) + \text{max Gain} = 6.68\text{dBi}$

Required Limit = $8\text{dBm} - (6.68\text{dBi} - 6\text{dBi}) = 7.32\text{ dBm}$

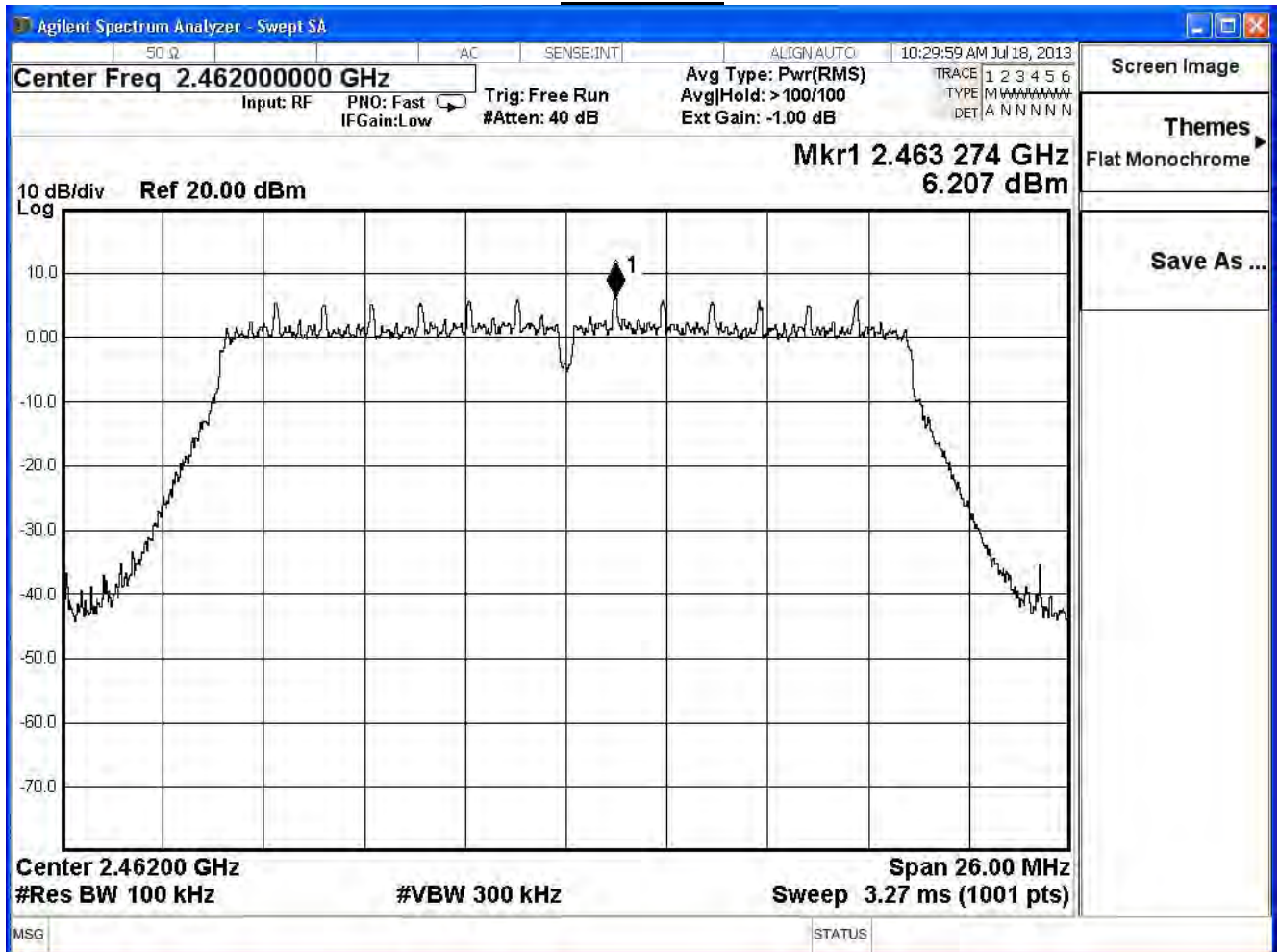
Channel 1



Channel 6



Channel 11



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 2: Transmit (Beamforming Mode) Adapter: EXA1206UH		
Date of Test	2013/07/19	Test Site	SR7

IEEE802.11n 20MHz (ANT 0+1+2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-3.03	≤ 7.32	Pass
6	2437	1.83	≤ 7.32	Pass
11	2462	-4.11	≤ 7.32	Pass

Note:

Directional Antenna Gain = $10\log(3)$ + max Gain = 6.68dBi

Required Limit = 8dBm - (6.68dBi – 6dBi) = 7.32 dBm

Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 2: Transmit (Beamforming Mode) Adapter: EXA1206UH		
Date of Test	2014/01/22	Test Site	SR7

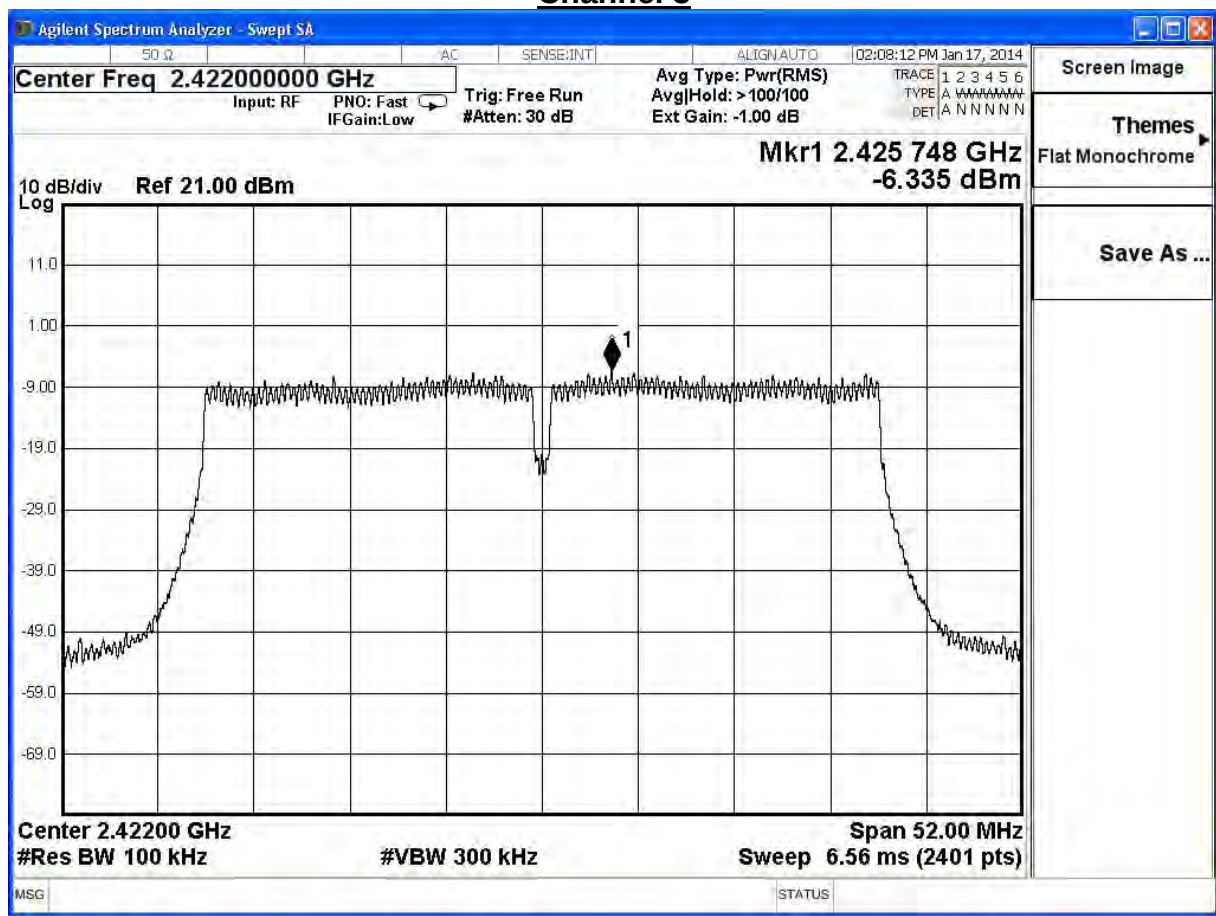
IEEE 802.11n_40MHz (ANT 0)					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measurement (dBm)	Limit (dBm)	Result
3	2422	-6.335	-21.535	≤ 7.32	Pass
6	2437	-3.881	-19.081	≤ 7.32	Pass
9	2452	-7.956	-23.156	≤ 7.32	Pass

Note:

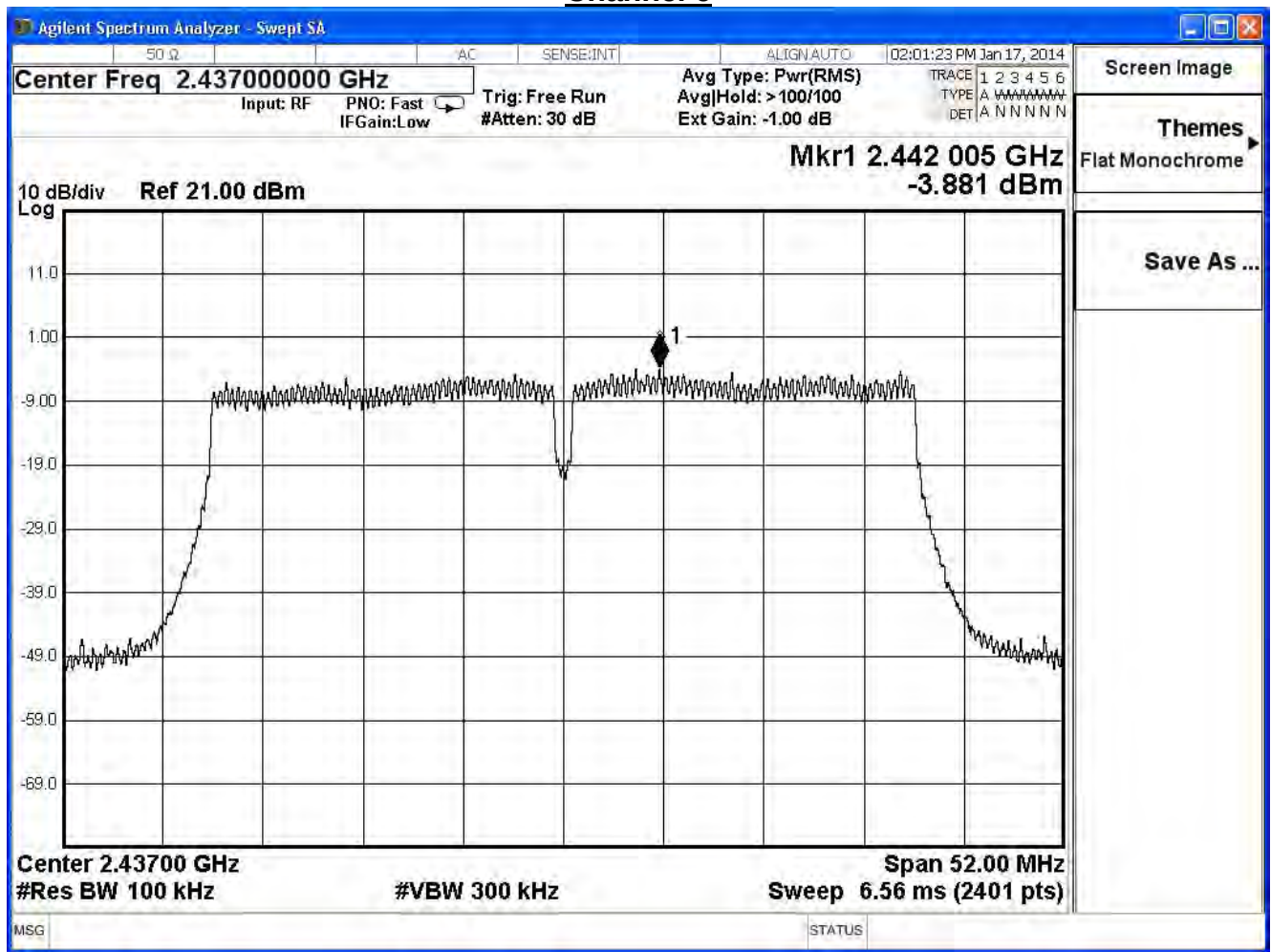
Directional Antenna Gain = $10\log(3) + \text{max Gain} = 6.68\text{dBi}$

Required Limit = $8\text{dBm} - (6.68\text{dBi} - 6\text{dBi}) = 7.32\text{ dBm}$

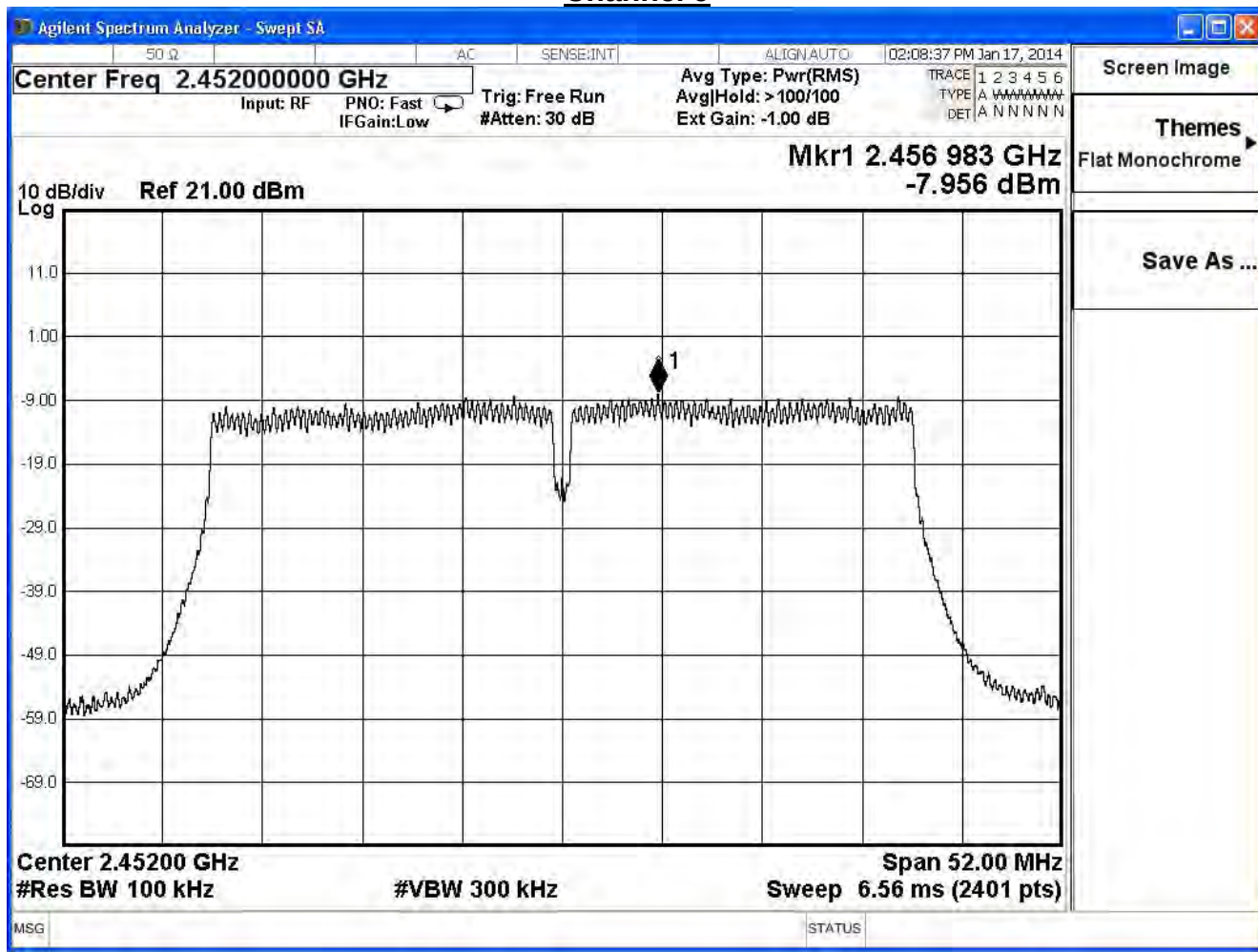
Channel 3



Channel 6



Channel 9



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 2: Transmit (Beamforming Mode) Adapter: EXA1206UH		
Date of Test	2014/01/22	Test Site	SR7

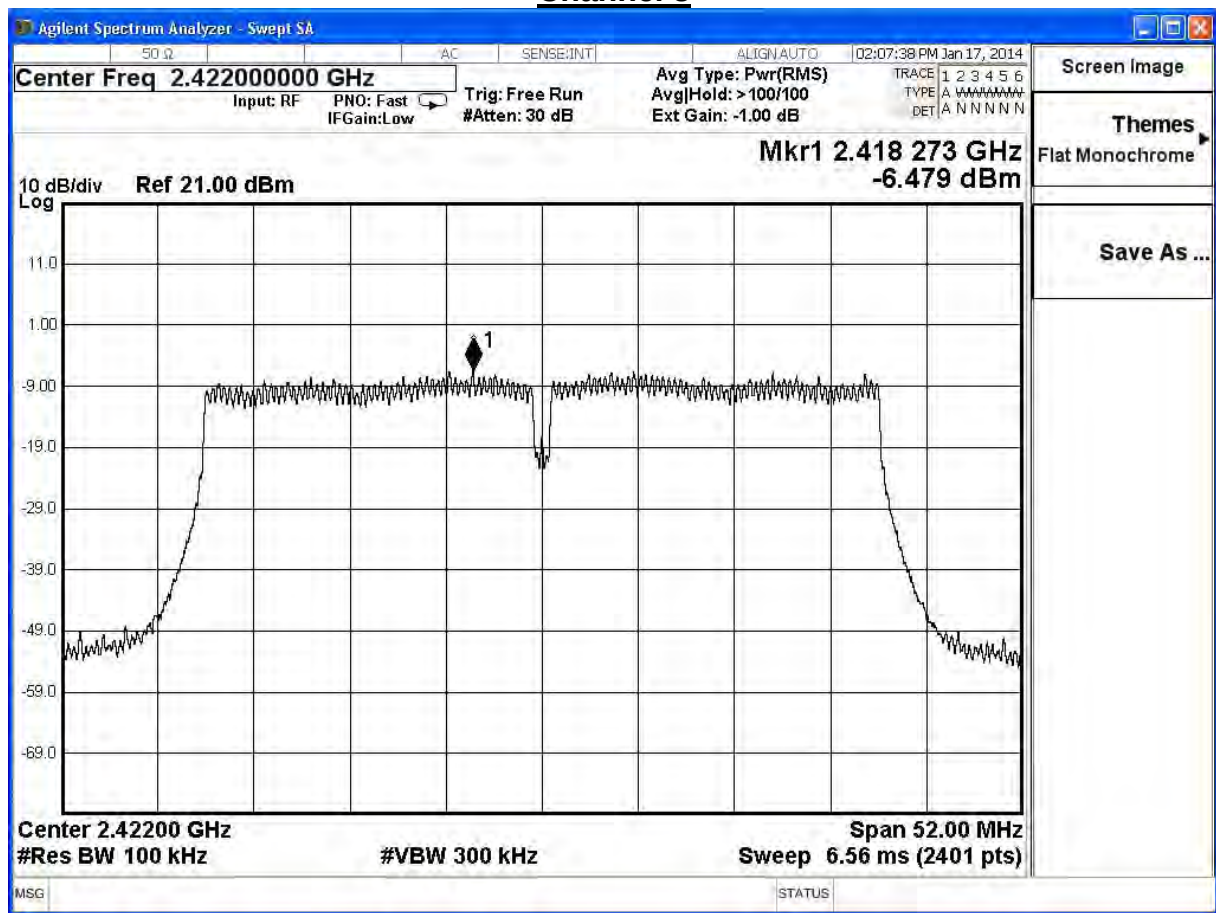
IEEE 802.11n_40MHz (ANT 1)					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	-6.479	-21.679	≤ 7.32	Pass
6	2437	-4.671	-19.871	≤ 7.32	Pass
9	2452	-8.177	-23.377	≤ 7.32	Pass

Note:

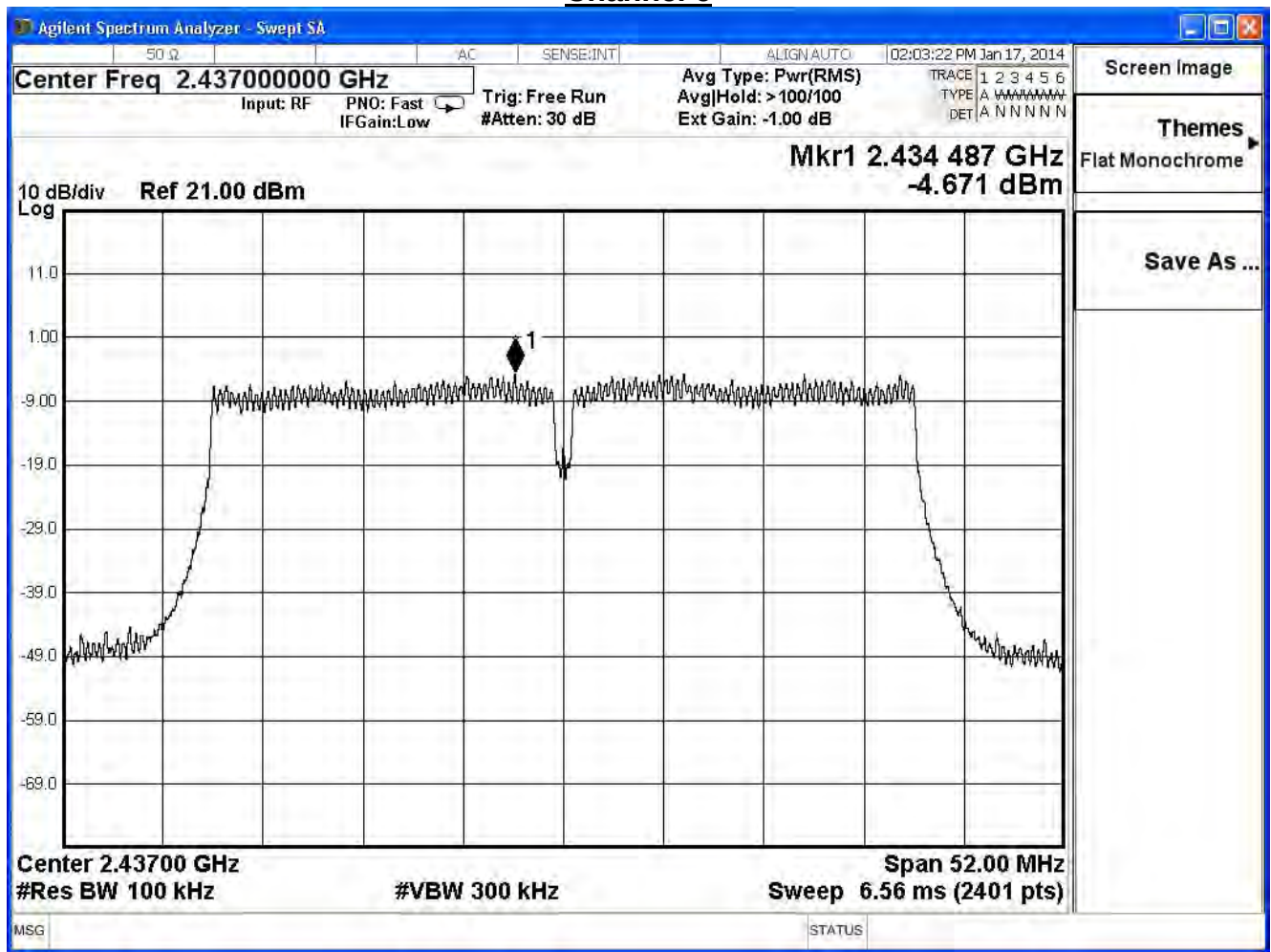
Directional Antenna Gain = $10\log(3) + \text{max Gain} = 6.68\text{dBi}$

Required Limit = $8\text{dBm} - (6.68\text{dBi} - 6\text{dBi}) = 7.32\text{ dBm}$

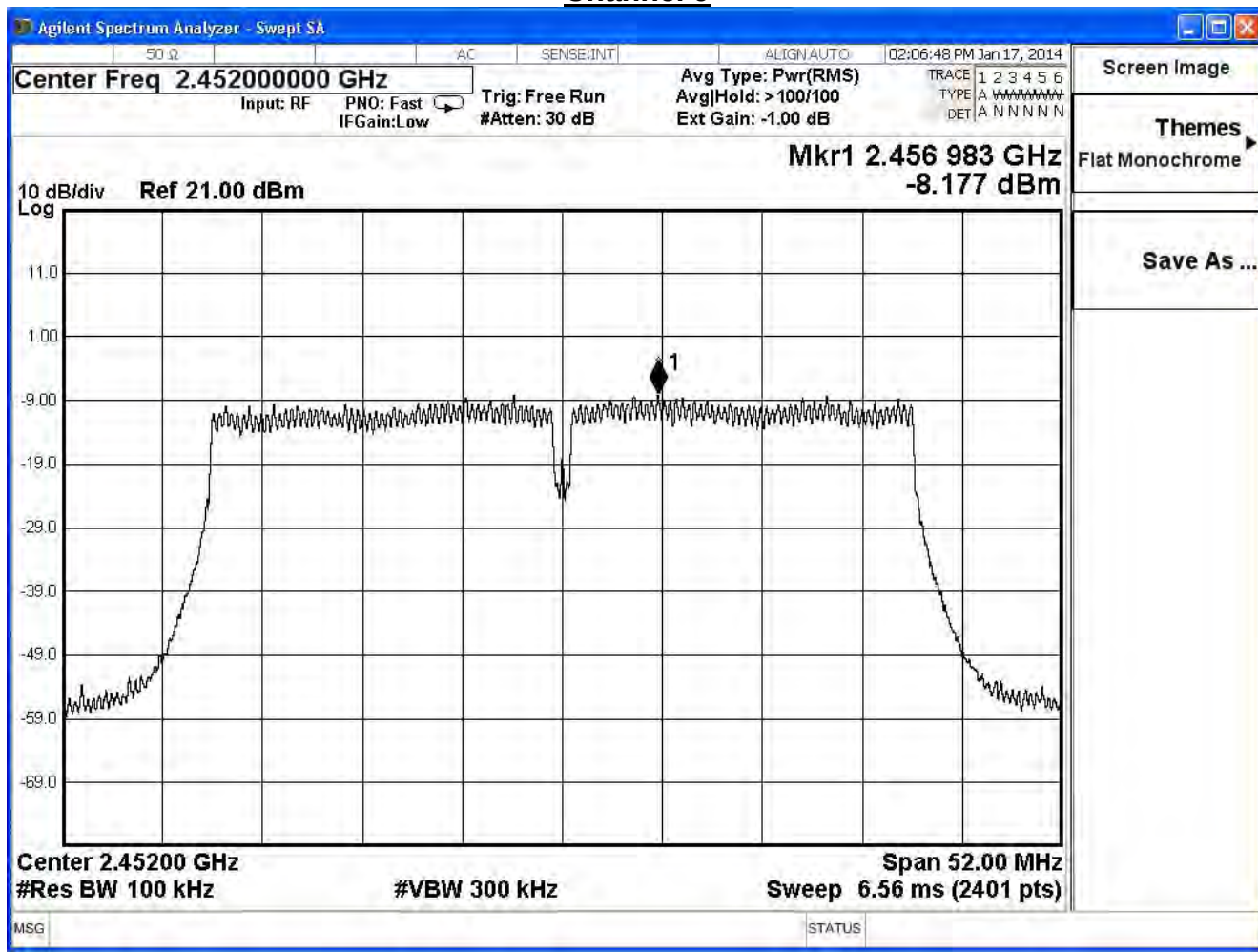
Channel 3



Channel 6



Channel 9



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 2: Transmit (Beamforming Mode) Adapter: EXA1206UH		
Date of Test	2014/01/22	Test Site	SR7

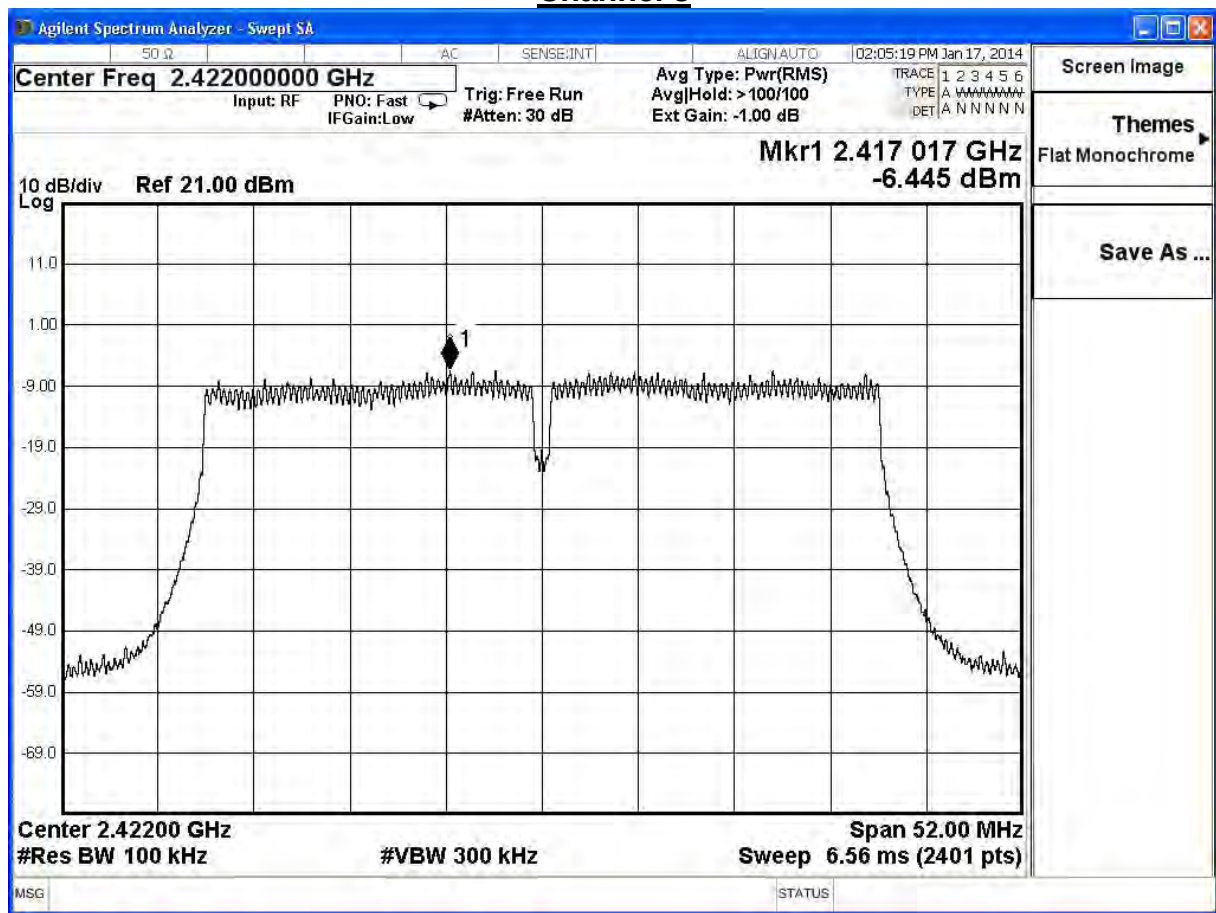
IEEE 802.11n_40MHz (ANT 2)					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	-6.445	-21.645	≤ 7.32	Pass
6	2437	-4.697	-19.897	≤ 7.32	Pass
9	2452	-8.234	-23.434	≤ 7.32	Pass

Note:

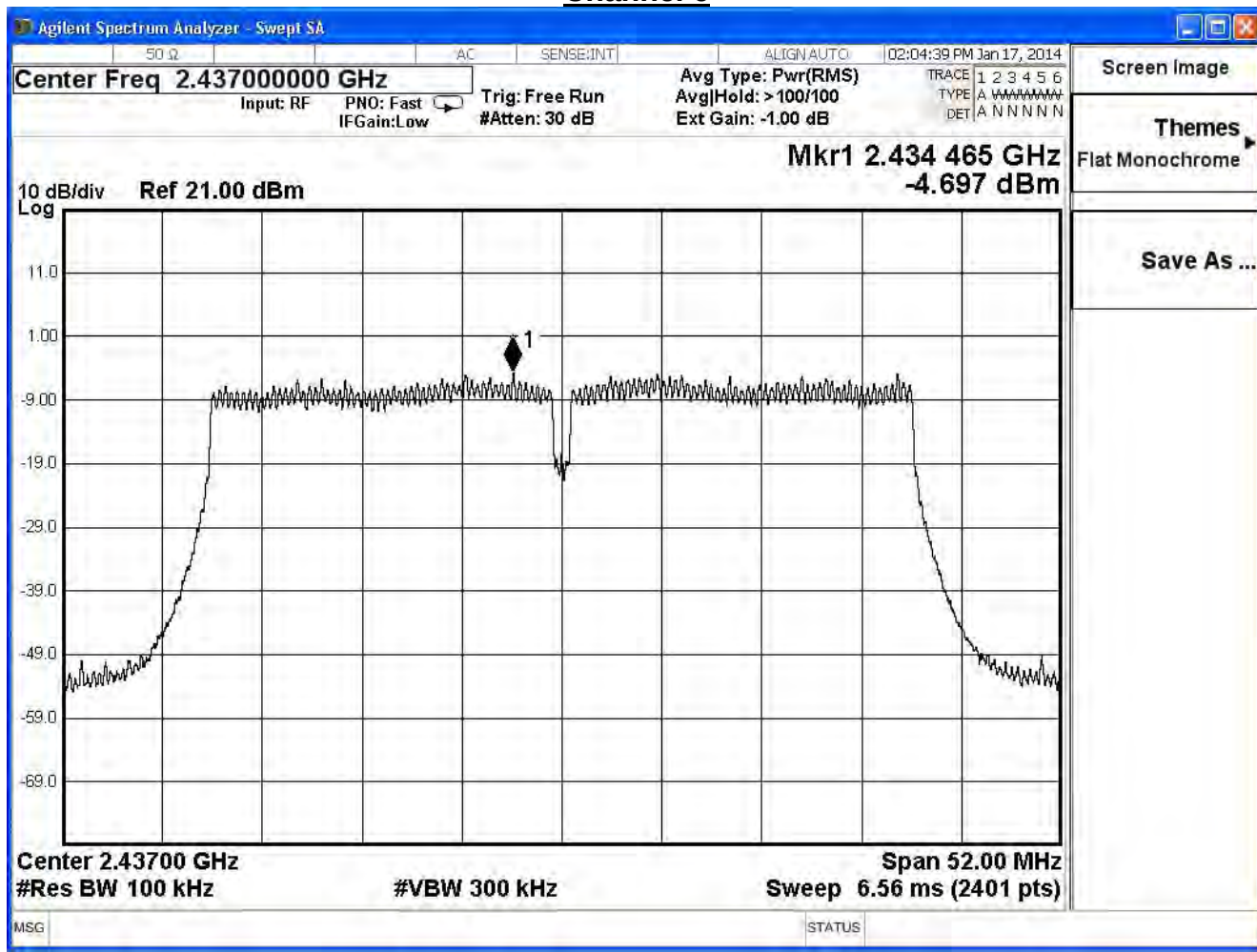
Directional Antenna Gain = $10\log(3) + \text{max Gain} = 6.68\text{dBi}$

Required Limit = $8\text{dBm} - (6.68\text{dBi} - 6\text{dBi}) = 7.32\text{ dBm}$

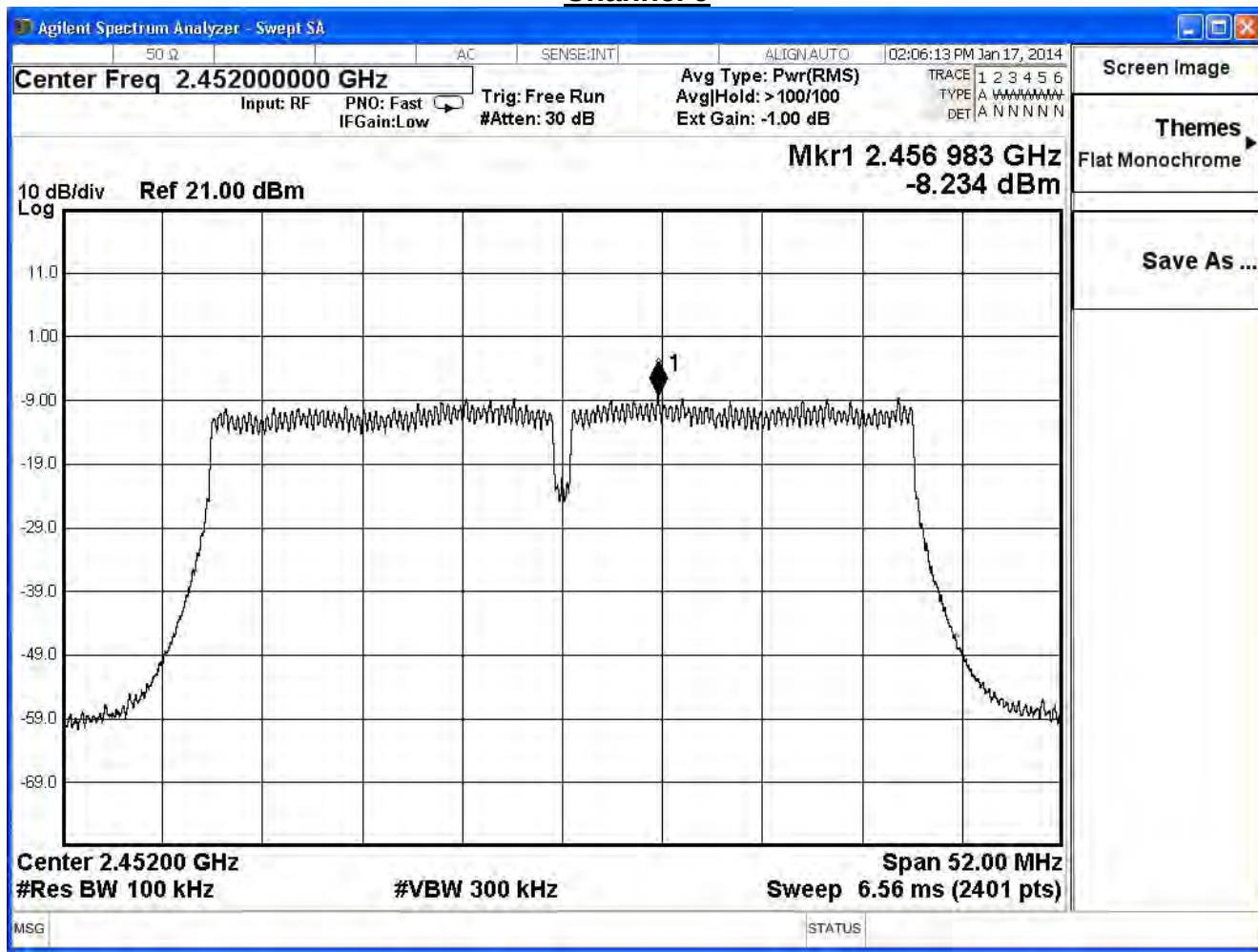
Channel 3



Channel 6



Channel 9



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 2: Transmit (Beamforming Mode) Adapter: EXA1206UH		
Date of Test	2014/01/22	Test Site	SR7

IEEE802.11n 40MHz(ANT 0+1+2)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	-16.848	≤ 7.32	Pass
6	2437	-14.828	≤ 7.32	Pass
9	2452	-18.549	≤ 7.32	Pass

Note:

Directional Antenna Gain = $10\log(3)$ + max Gain = 6.68dBdBi

Required Limit = 8dBm - (6.68dBi – 6dBi) = 7.32 dBm

Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 2: Transmit (Beamforming Mode) Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

IEEE802.11n_20MHz_(ANT 0)

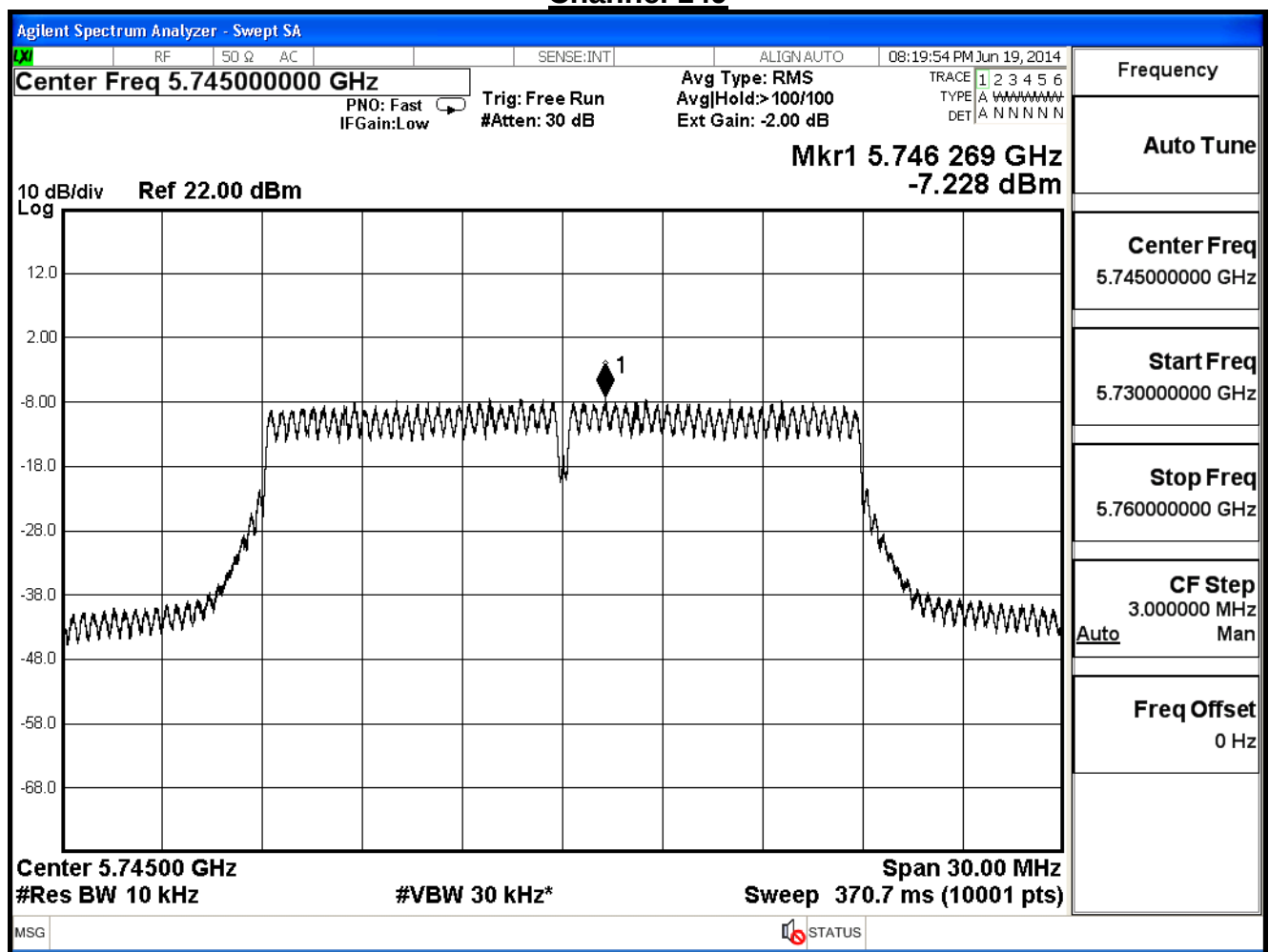
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
149	5745	-7.228	≤ 5.19	Pass
157	5785	-7.124	≤ 5.19	Pass
165	5825	-6.932	≤ 5.19	Pass

Note:

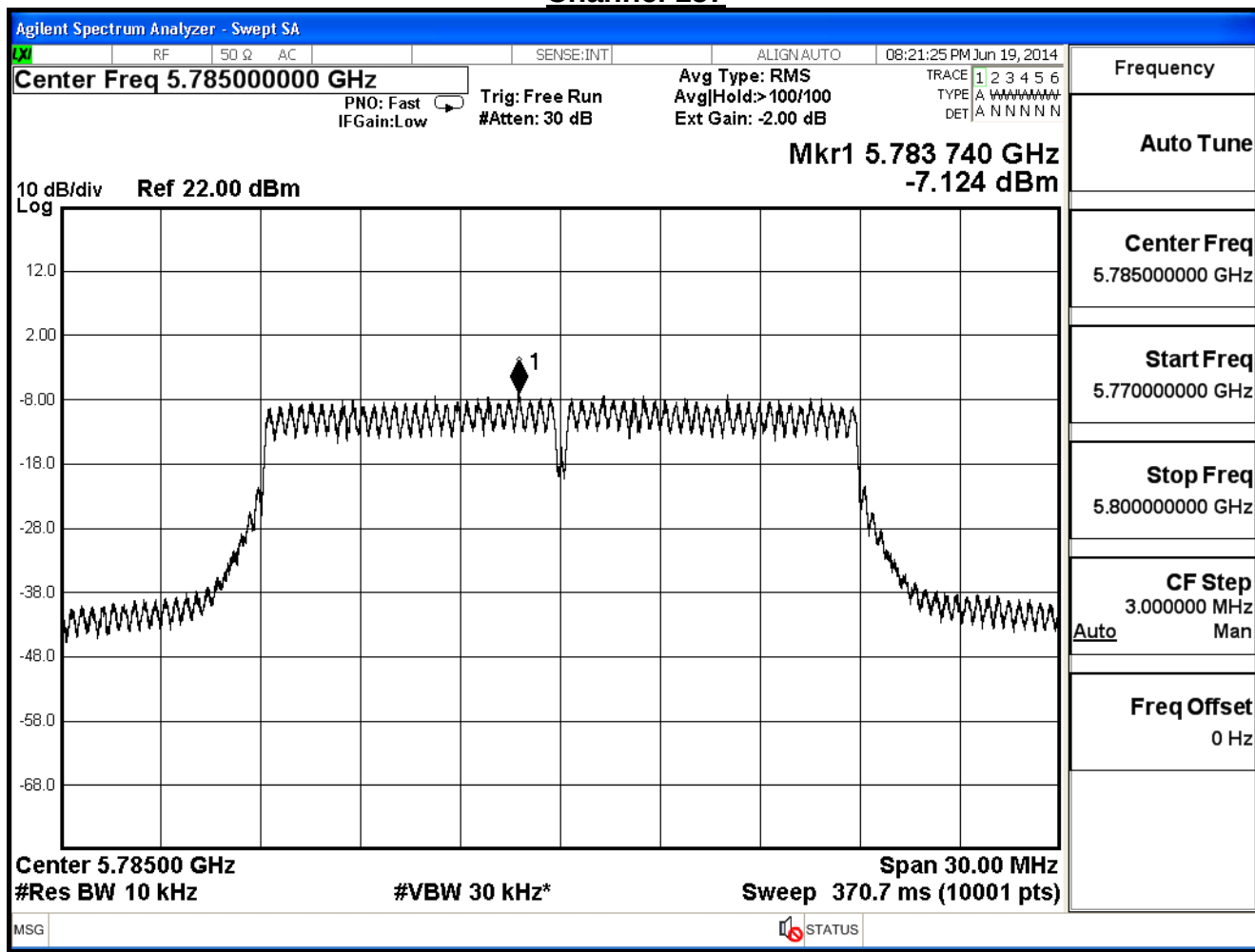
Directional Antenna Gain = Beamforming Gain + Max Gain = 8.81dBi

Required Limit = 8dBm - (8.81Bi - 6dB) = 5.19 dBm

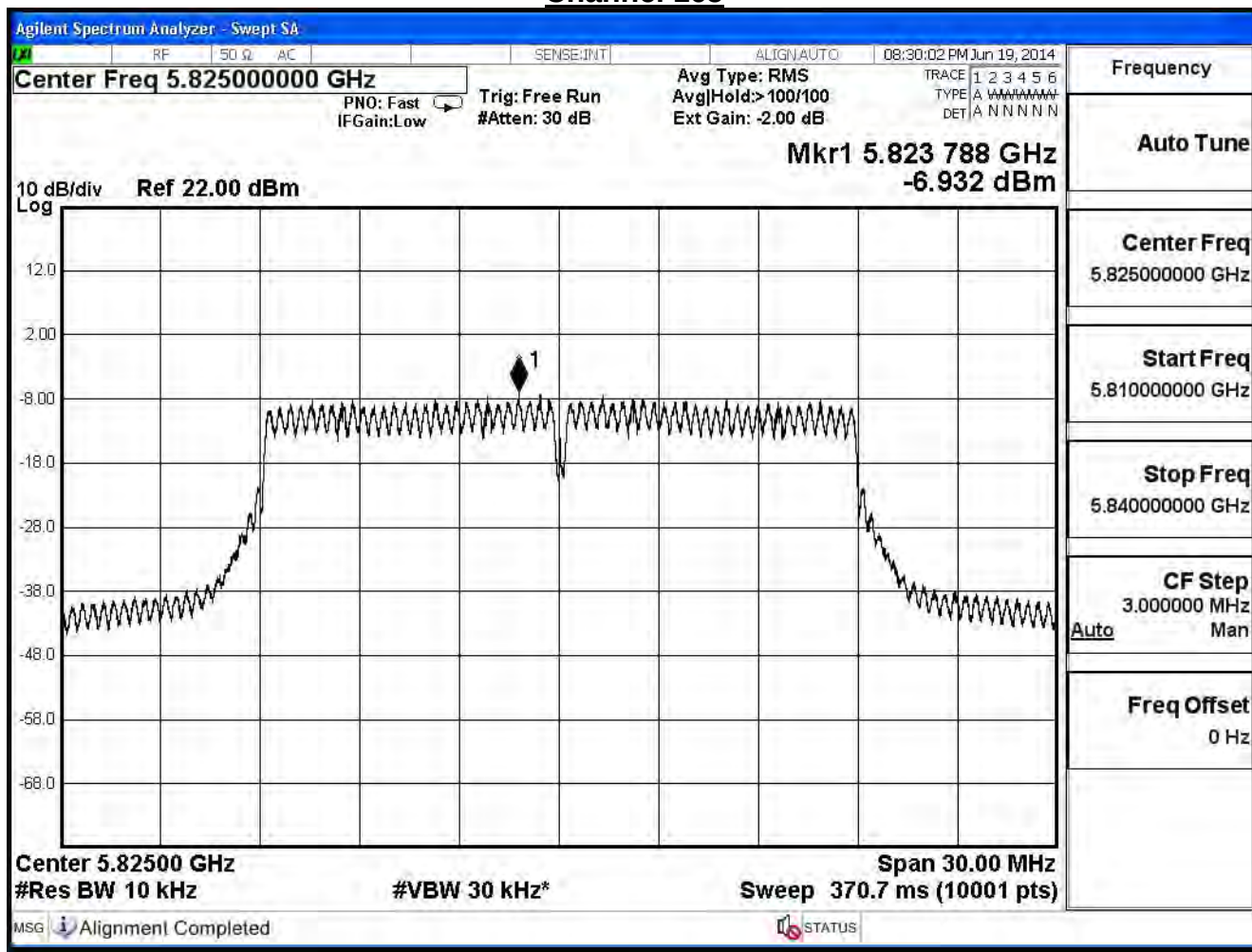
Channel 149



Channel 157



Channel 165



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 2: Transmit (Beamforming Mode) Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

IEEE802.11n_20MHz_(ANT 1)

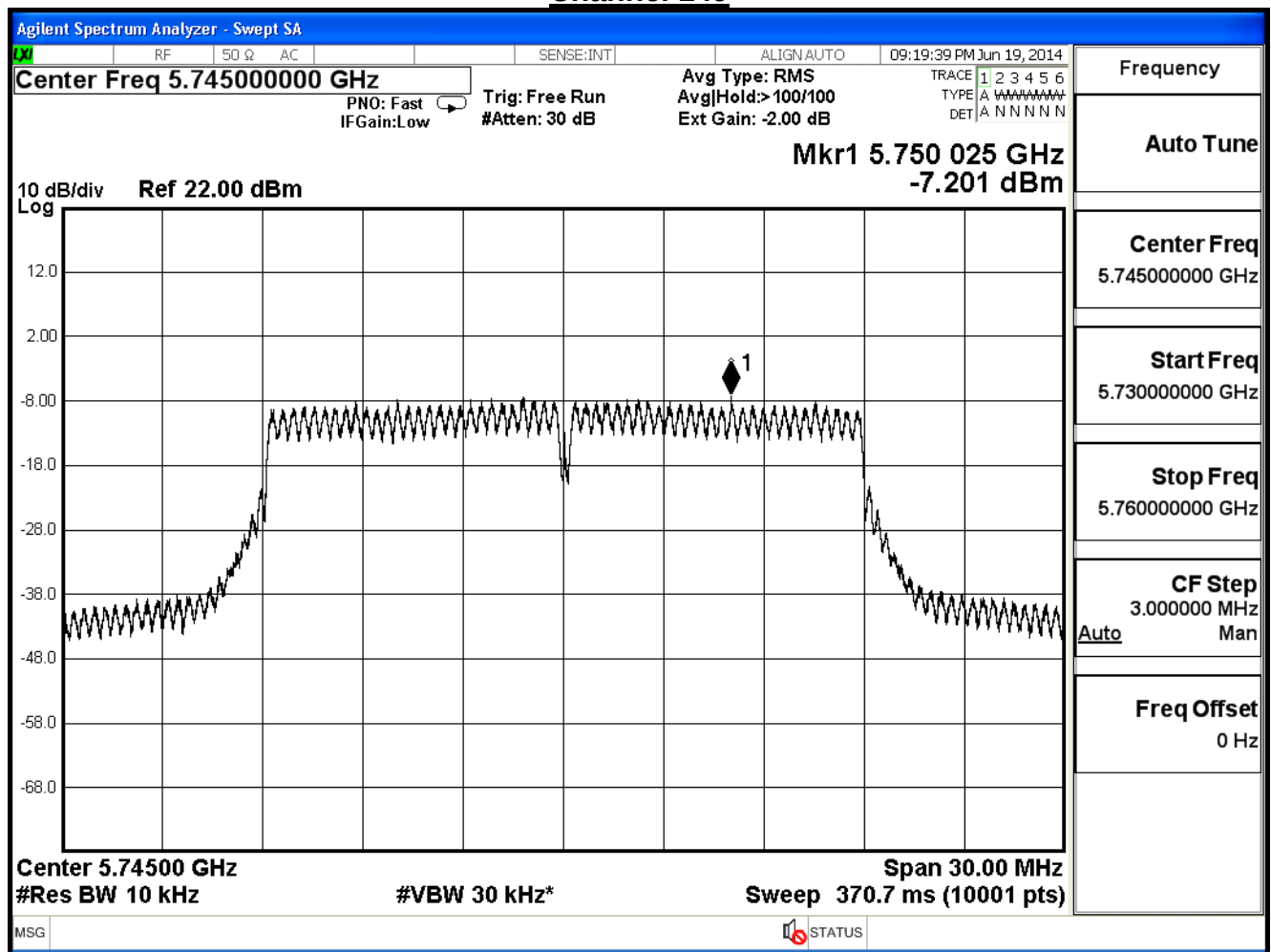
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	-7.201	≤ 5.19	Pass
157	5785	-7.518	≤ 5.19	Pass
165	5825	-6.836	≤ 5.19	Pass

Note:

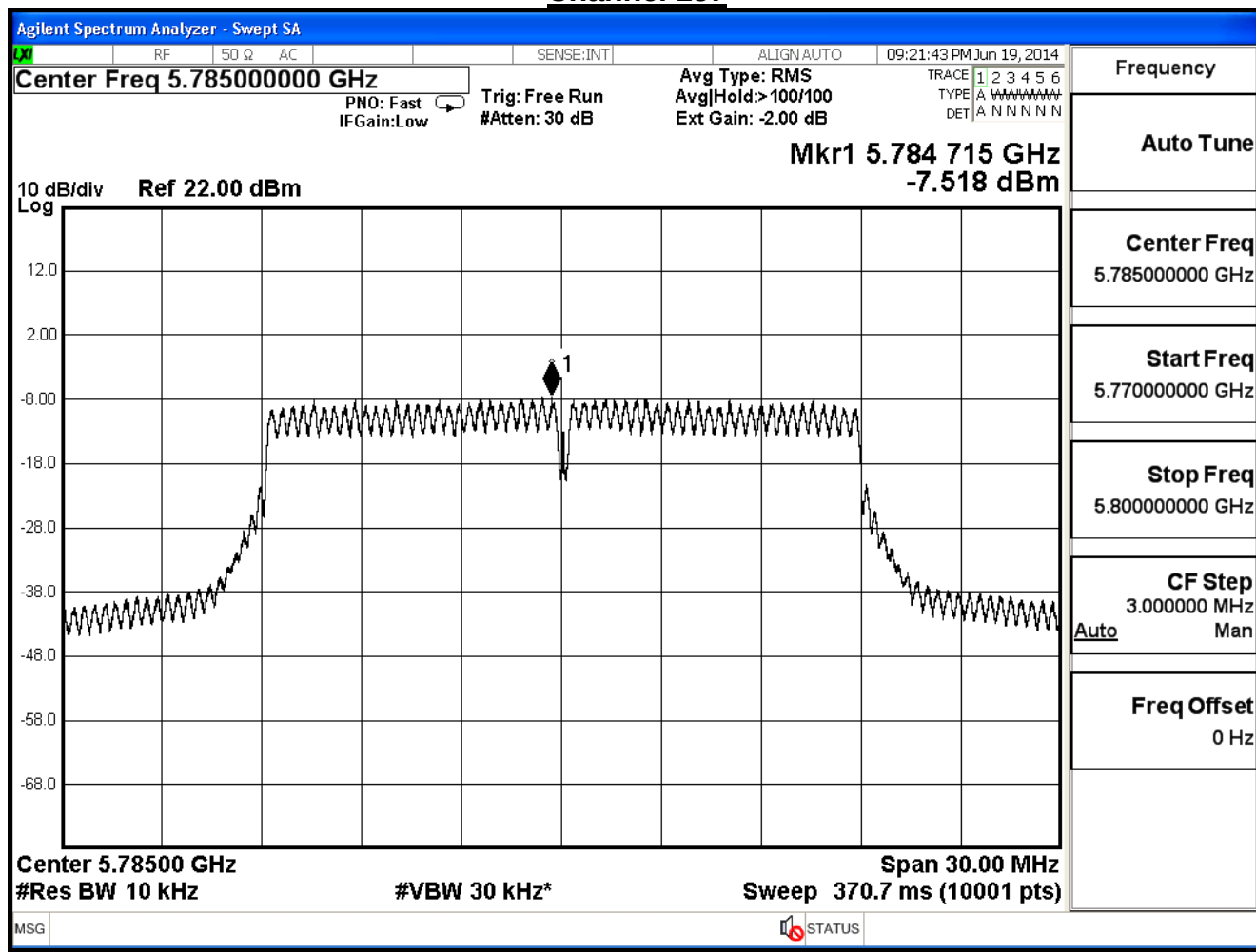
Directional Antenna Gain = Beamforming Gain + Max Gain = 8.81dBi

Required Limit = 8dBm - (8.81Bi - 6dB) = 5.19 dBm

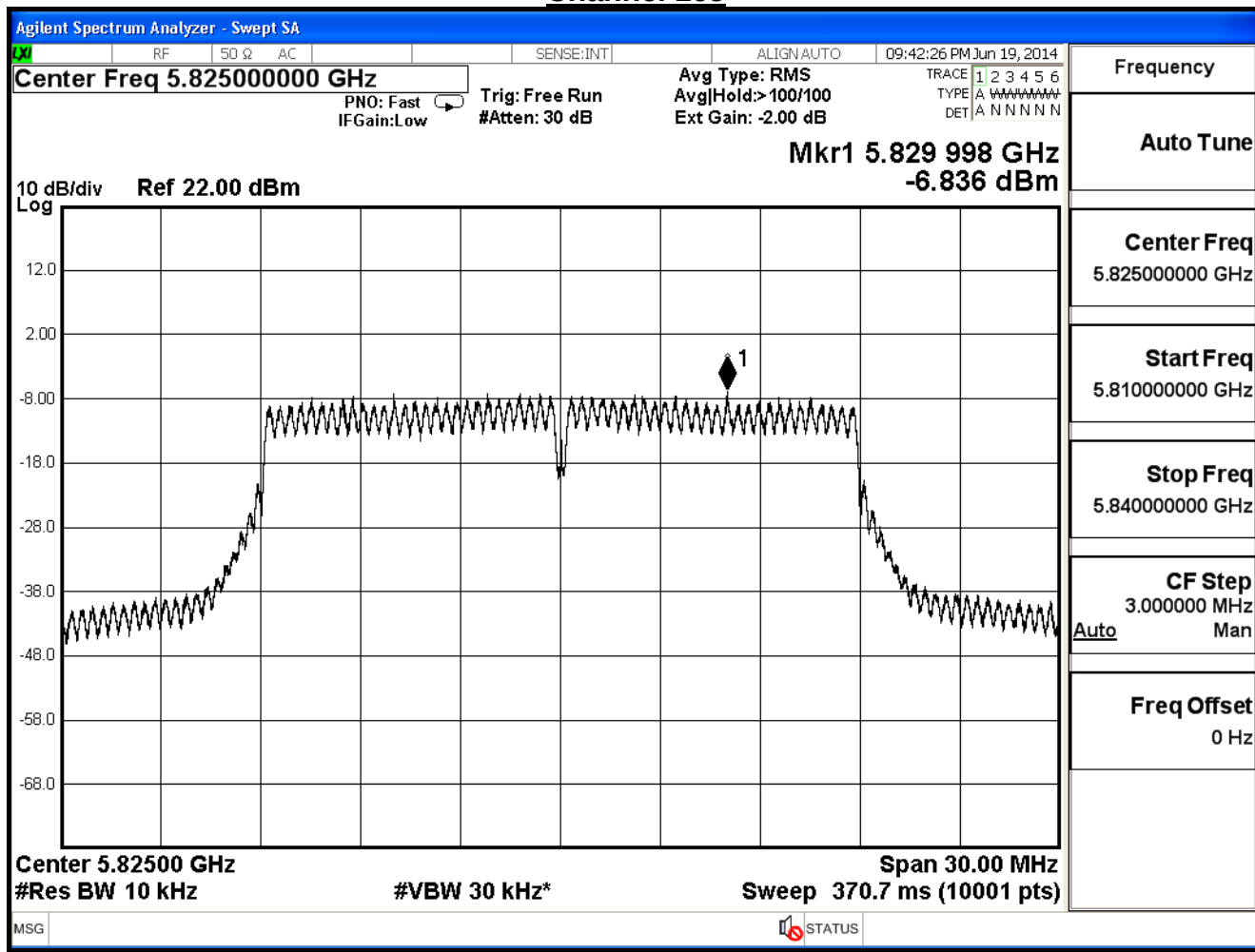
Channel 149



Channel 157



Channel 165



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 2: Transmit (Beamforming Mode) Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

IEEE802.11n_20MHz_(ANT 2)

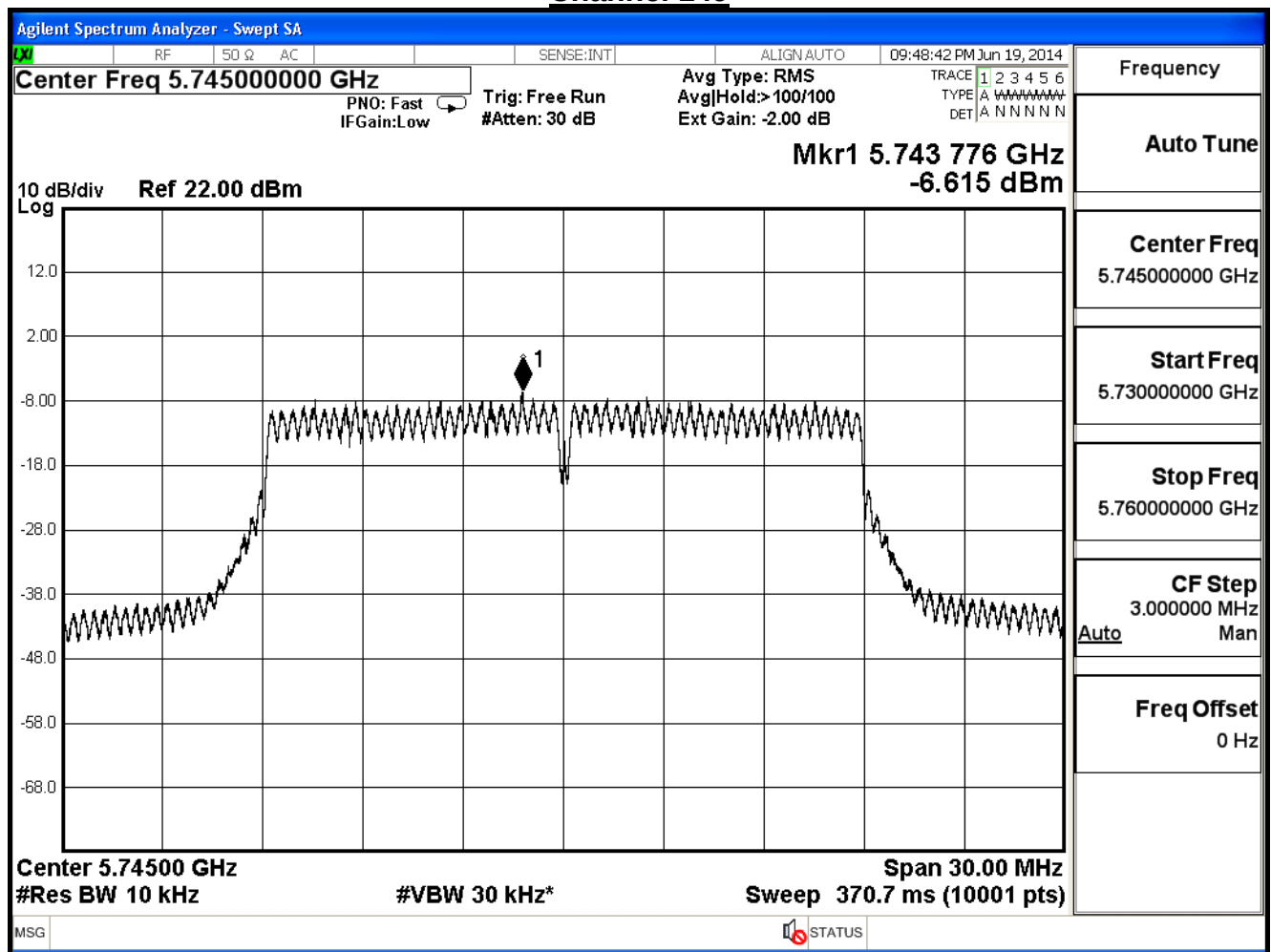
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	-6.615	≤ 5.19	Pass
157	5785	-6.879	≤ 5.19	Pass
165	5825	-7.172	≤ 5.19	Pass

Note:

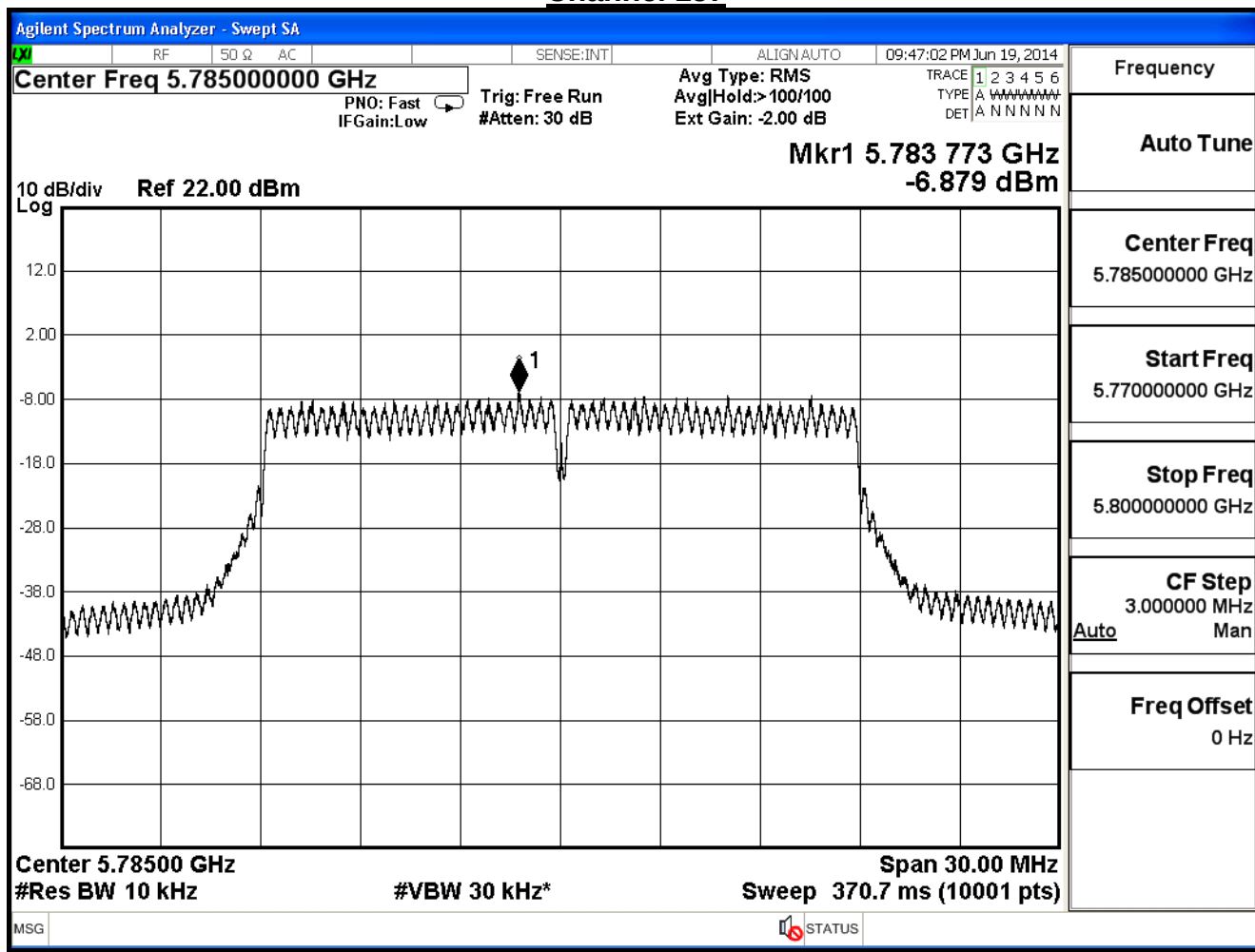
Directional Antenna Gain = Beamforming Gain + Max Gain = 8.81dBi

Required Limit = 8dBm - (8.81Bi - 6dB) = 5.19 dBm

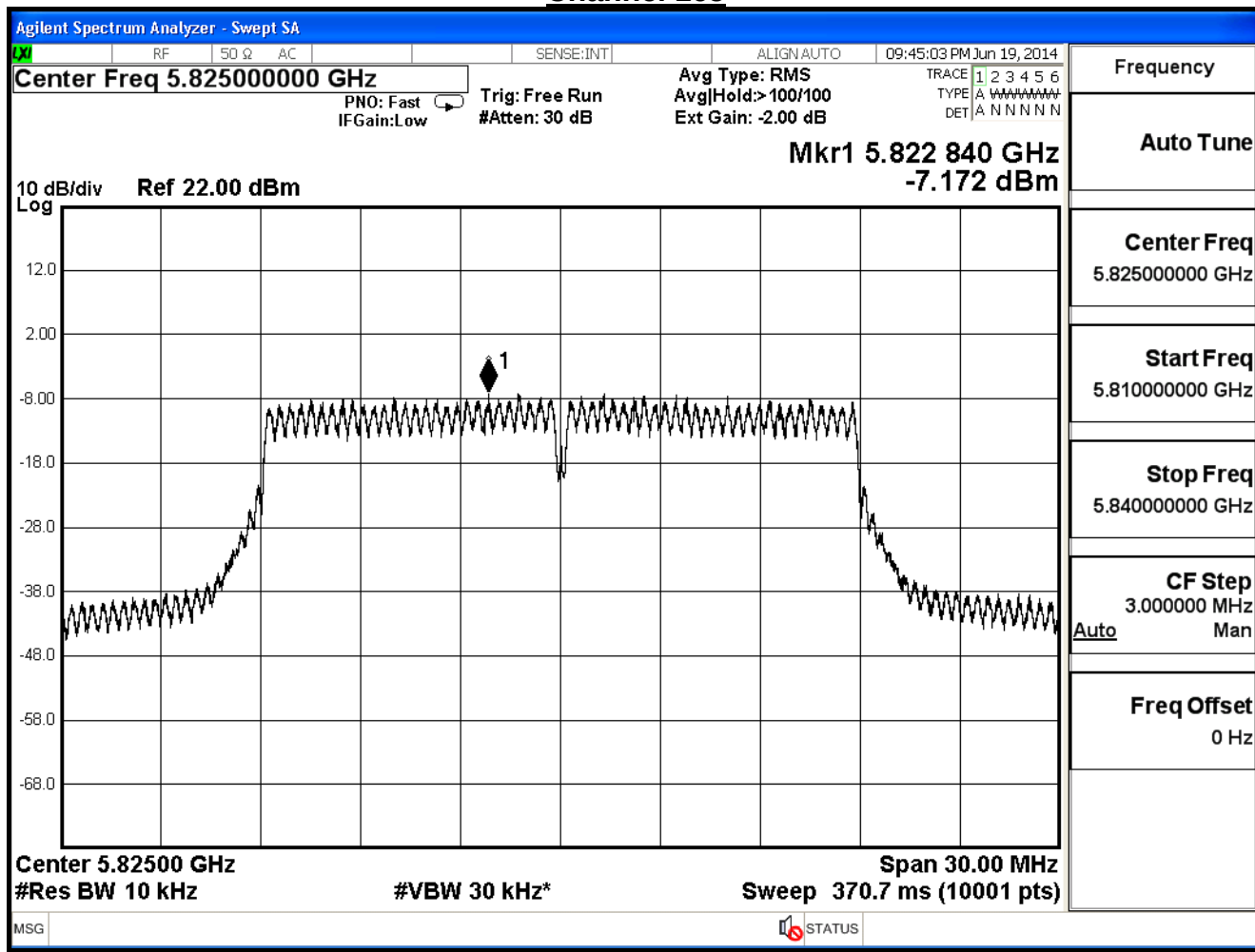
Channel 149



Channel 157



Channel 165



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 2: Transmit (Beamforming Mode) Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

IEEE802.11n 20MHz(ANT 0+1+2)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	-2.234	≤ 5.19	Pass
157	5785	-2.395	≤ 5.19	Pass
165	5825	-2.207	≤ 5.19	Pass

Note:

Directional Antenna Gain = Beamforming Gain + Max Gain = 8.81dBi

Required Limit = 8dBm - (8.81Bi - 6dB) = 5.19 dBm

Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 2: Transmit (Beamforming Mode) Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

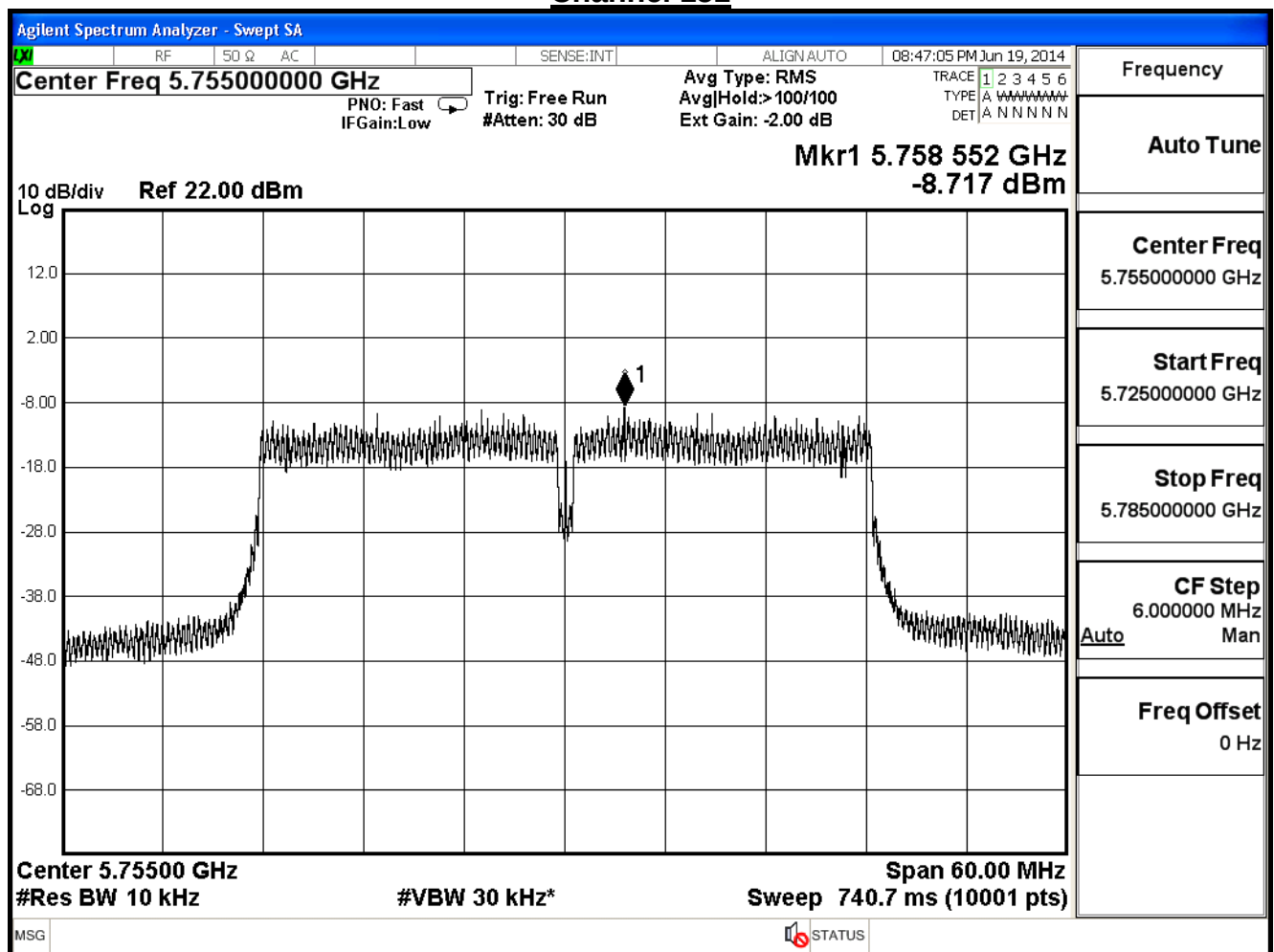
IEEE 802.11n_40MHz (ANT 0)				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
151	5755	-8.717	≤ 5.19	Pass
159	5795	-9.075	≤ 5.19	Pass

Note:

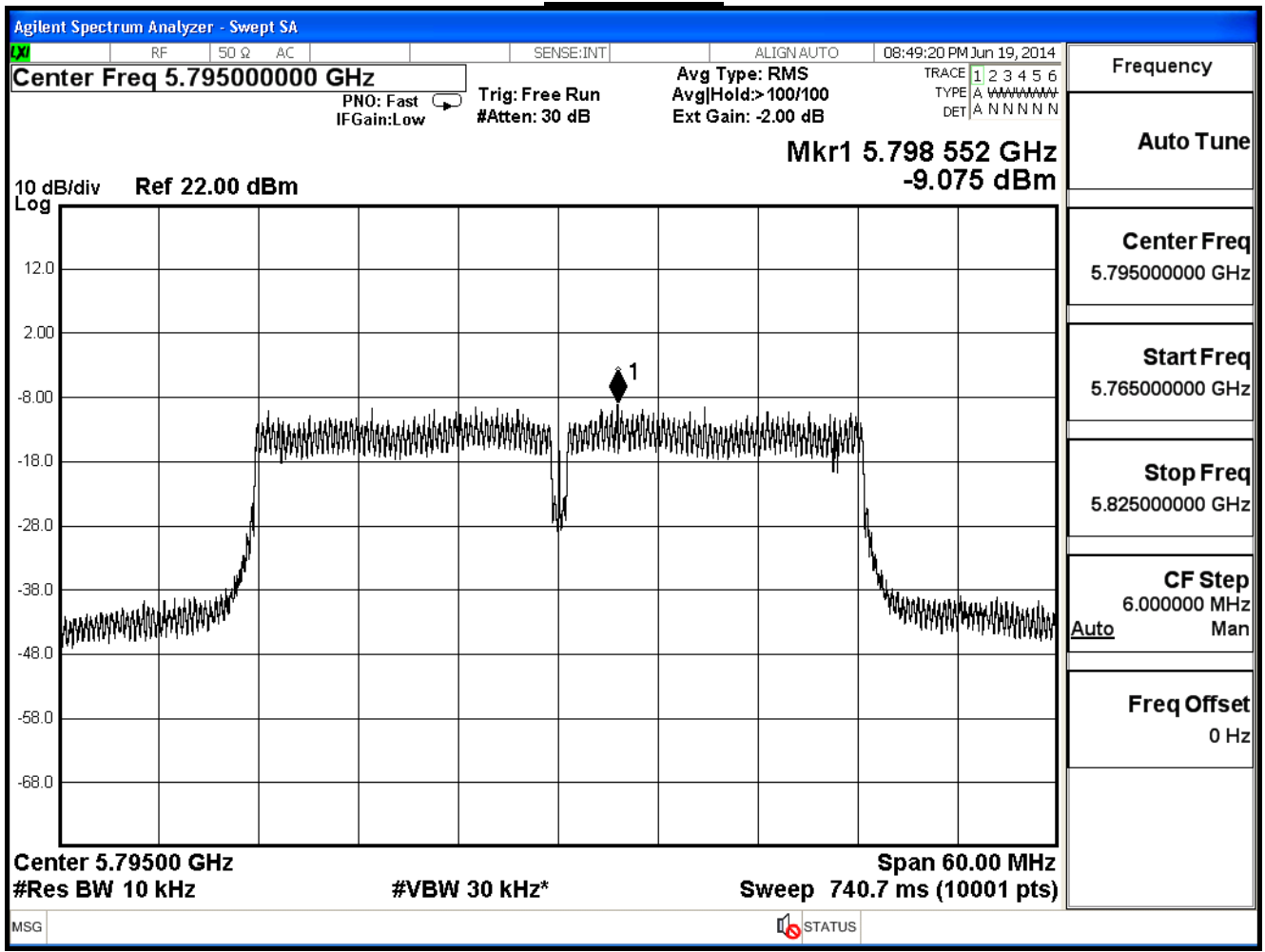
Directional Antenna Gain = Beamforming Gain + Max Gain = 8.81dBi

Required Limit = 8dBm - (8.81Bi - 6dB) = 5.19 dBm

Channel 151



Channel 159



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 2: Transmit (Beamforming Mode) Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

IEEE 802.11n_40MHz (ANT 1)

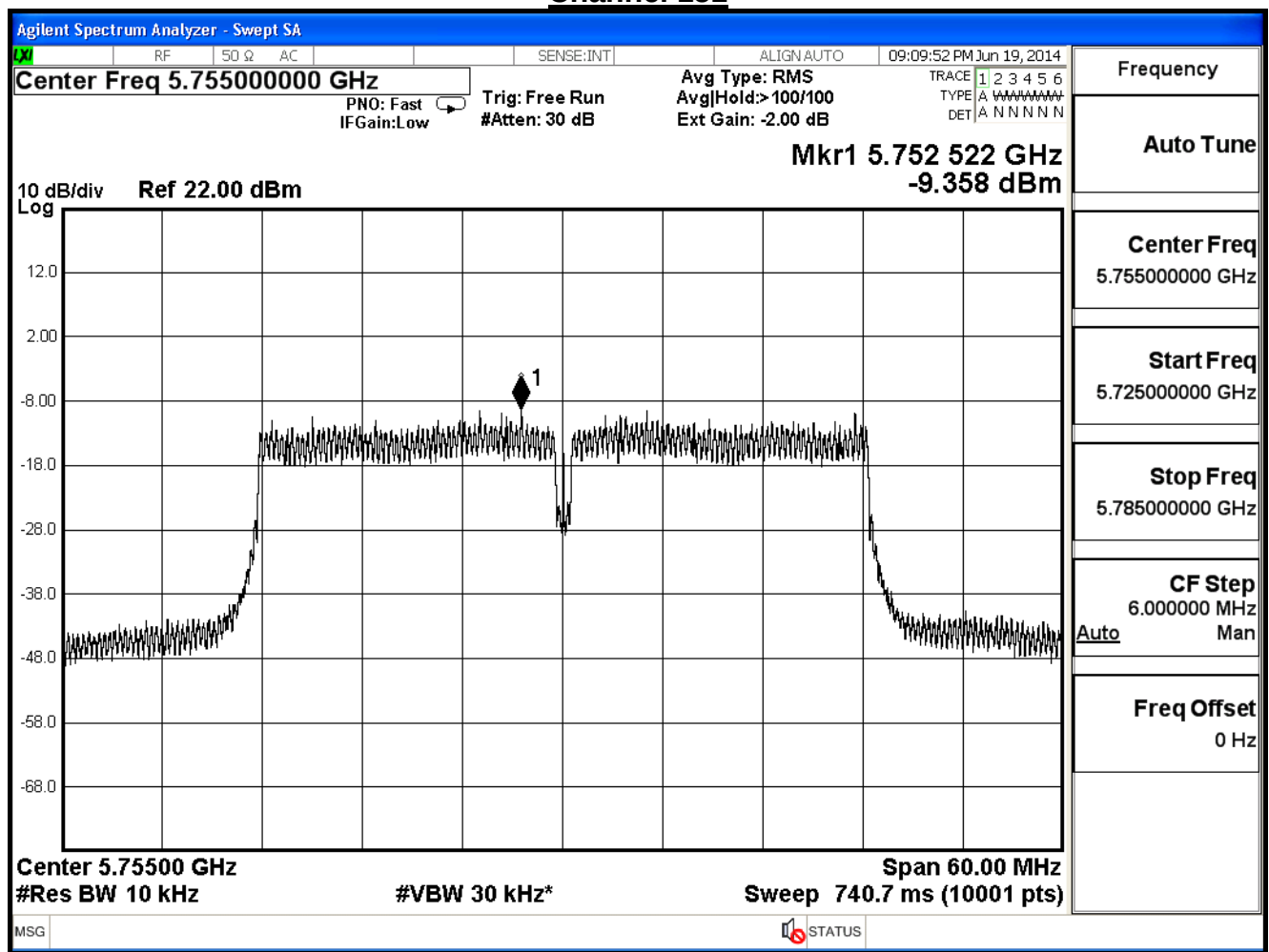
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151	5755	-9.358	≤ 5.19	Pass
159	5795	-8.651	≤ 5.19	Pass

Note:

Directional Antenna Gain = Beamforming Gain + Max Gain = 8.81dBi

Required Limit = 8dBm - (8.81Bi - 6dB) = 5.19 dBm

Channel 151



Agilent Spectrum Analyzer - Swept SA

Center Freq 5.79500000 GHz

10 dB/div Ref 22.00 dBm

Mkr1 5.800 040 GHz -8.651 dBm

Center 5.79500 GHz

#Res BW 10 kHz

#VBW 30 kHz*

Span 60.00 MHz

Sweep 740.7 ms (10001 pts)

Frequency

Auto Tune

Center Freq 5.79500000 GHz

Start Freq 5.765000000 GHz

Stop Freq 5.825000000 GHz

CF Step 6.000000 MHz

Auto

Freq Offset 0 Hz

The image displays the front panel of an Agilent Spectrum Analyzer in a swept mode. The main display area shows a frequency spectrum plot with a grid. The horizontal axis represents frequency, ranging from 5.765 GHz to 5.825 GHz, with a center frequency of 5.795 GHz. The vertical axis represents power in dBm, ranging from -68.0 dBm to 12.0 dBm. A signal is visible, showing a noisy baseline with a distinct peak at 5.80004 GHz, which is marked with a diamond marker labeled '1'. The power level at this marker is -8.651 dBm. The plot is set to a resolution bandwidth (RBW) of 10 kHz and a video bandwidth (VBW) of 30 kHz. The span of the sweep is 60.00 MHz, and the sweep time is 740.7 ms, resulting in 10,001 data points. The reference level is set to 22.00 dBm, and the vertical scale is 10 dB/div. The plot is in logarithmic mode. The top of the screen shows various settings: Center Freq 5.79500000 GHz, PNO: Fast, IF Gain: Low, Trig: Free Run, #Atten: 30 dB, Avg Type: RMS, Avg/Hold: >100/100, Ext Gain: -2.00 dB, ALIGN: AUTO, and the date/time 09:15:22 PM Jun 19, 2014. On the right side, there is a panel with buttons for Frequency, Auto Tune, Center Freq, Start Freq, Stop Freq, CF Step, and Freq Offset.

Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 2: Transmit (Beamforming Mode) Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

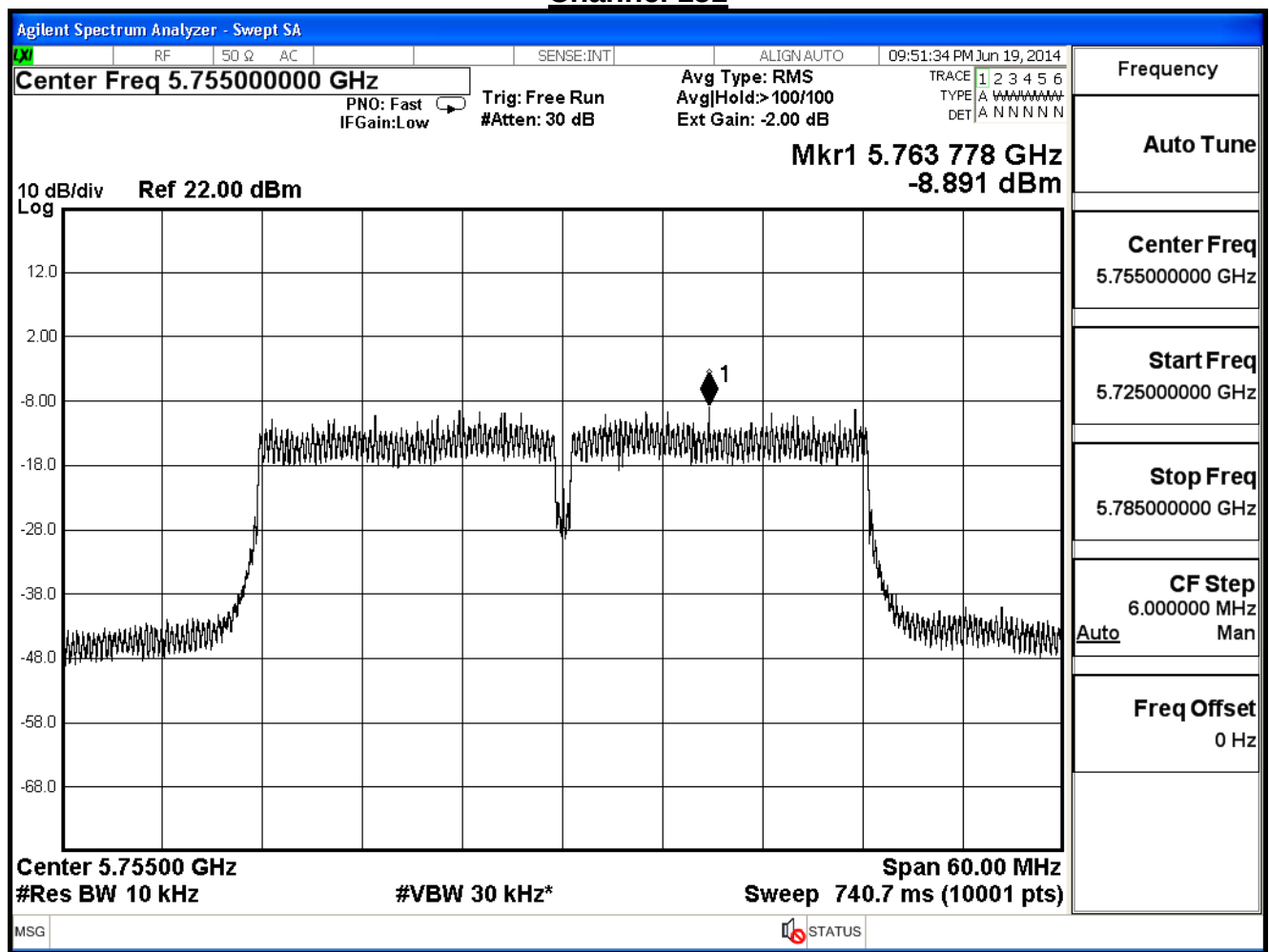
IEEE 802.11n_40MHz (ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151	5755	-8.891	≤ 5.19	Pass
159	5795	-8.892	≤ 5.19	Pass

Note:

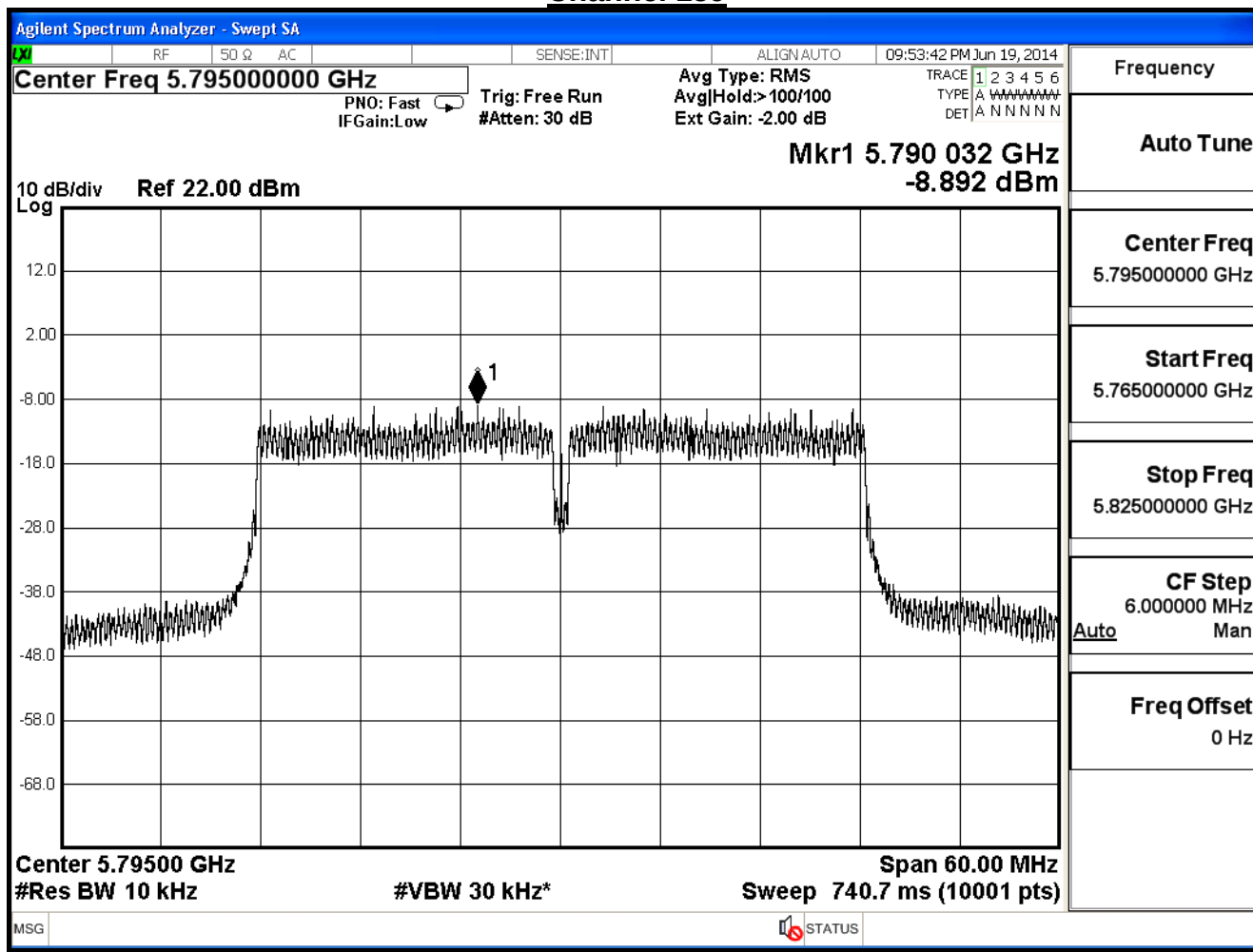
Directional Antenna Gain = Beamforming Gain + Max Gain = 8.81dBi

Required Limit = 8dBm - (8.81Bi - 6dB) = 5.19 dBm

Channel 151



Channel 159



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 2: Transmit (Beamforming Mode) Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

IEEE802.11n 40MHz(ANT 0+1+2)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151	5755	-4.209	≤ 5.19	Pass
159	5795	-4.098	≤ 5.19	Pass

Note:

Directional Antenna Gain = Beamforming Gain + Max Gain = 8.81dBi

Required Limit = 8dBm - (8.81Bi - 6dB) = 5.19 dBm

Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 2: Transmit (Beamforming Mode) Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

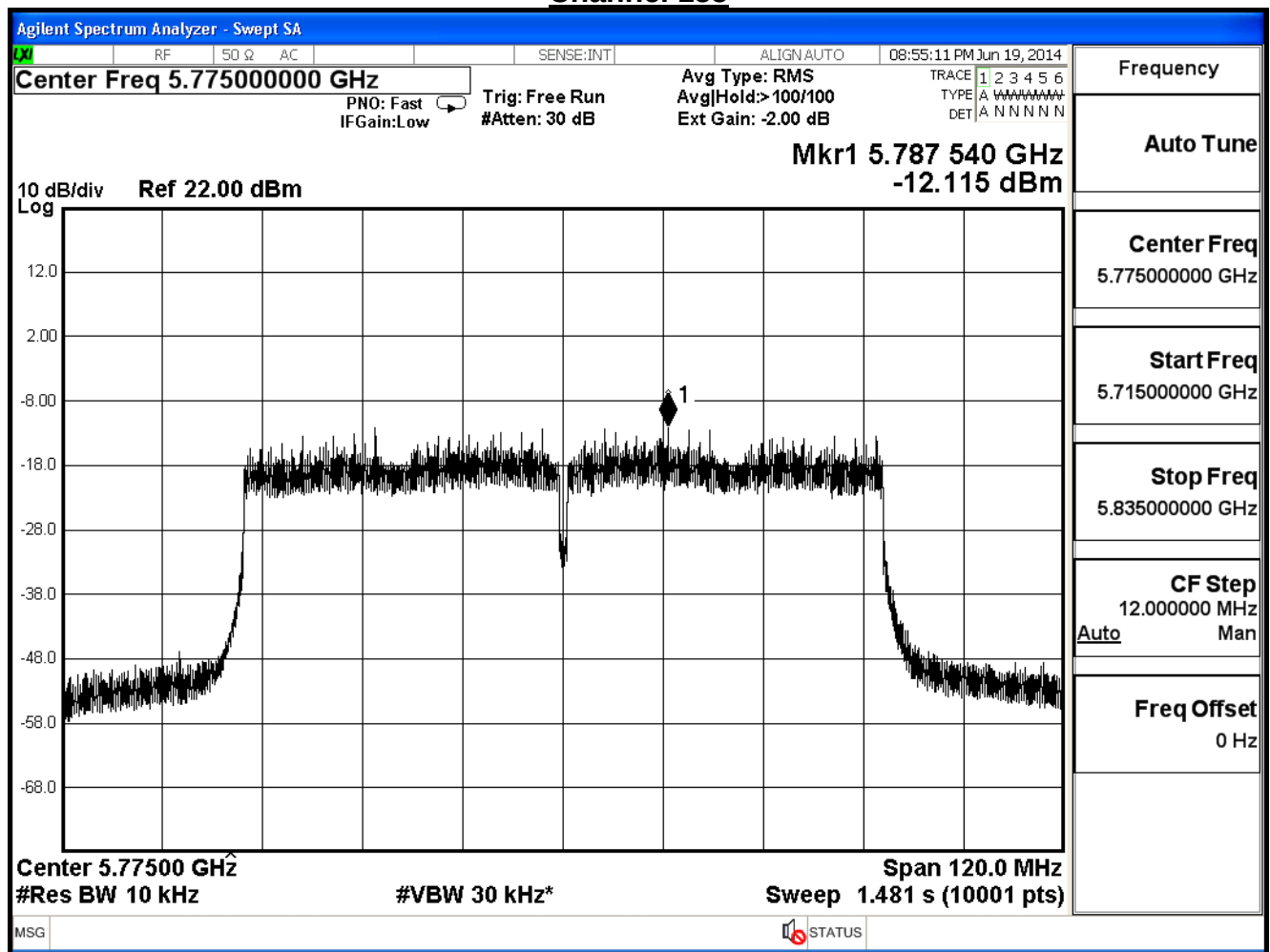
IEEE 802.11ac_80MHz (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
155	5775	-12.115	≤ 5.19	Pass

Note:

Directional Antenna Gain = Beamforming Gain + Max Gain = 8.81dBi

Required Limit = 8dBm - (8.81Bi - 6dB) = 5.19 dBm

Channel 155



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 2: Transmit (Beamforming Mode) Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

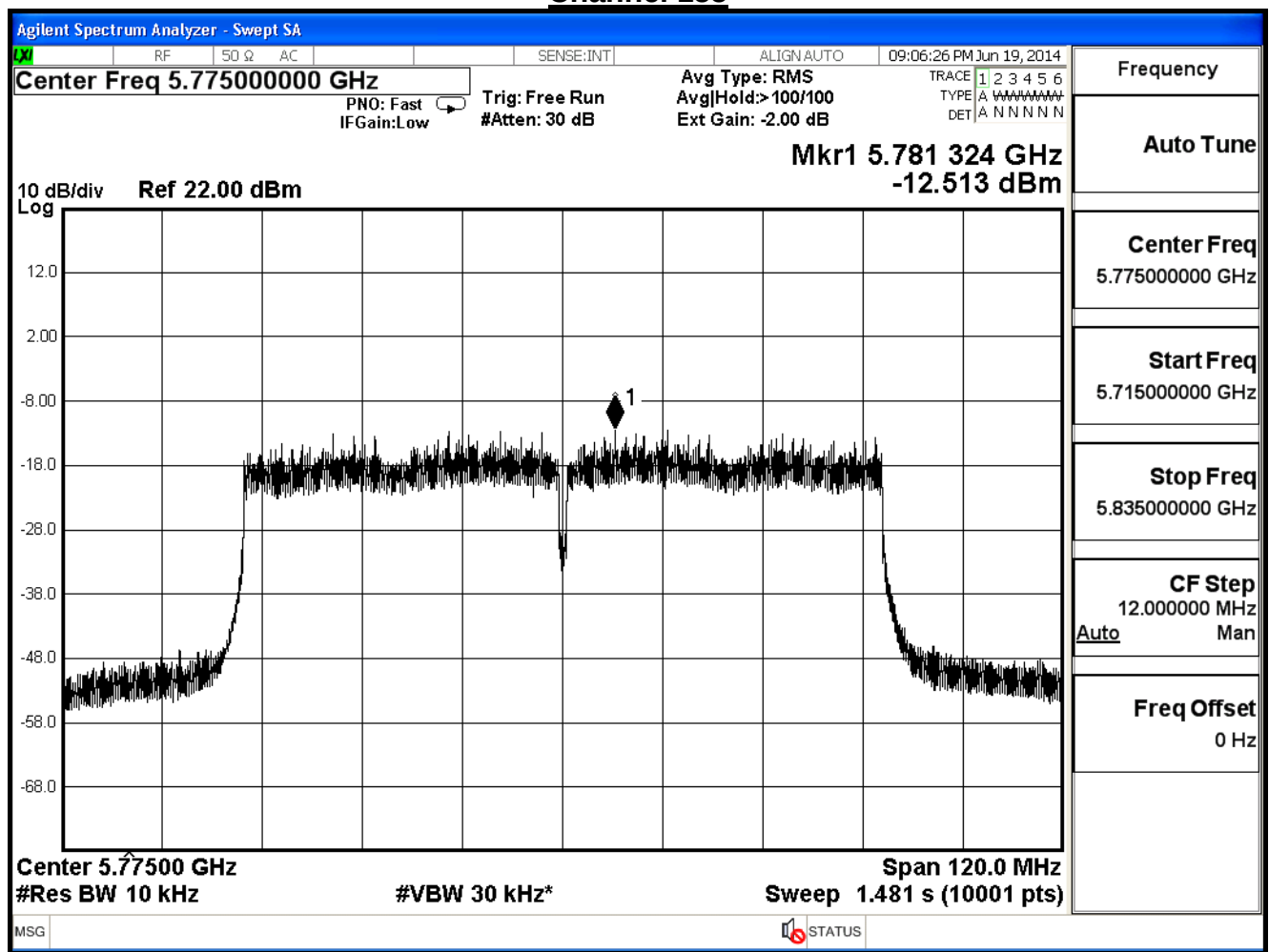
IEEE 802.11ac_80MHz (ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
155	5775	-12.513	≤ 5.19	Pass

Note:

Directional Antenna Gain = Beamforming Gain + Max Gain = 8.81dBi

Required Limit = 8dBm - (8.81Bi - 6dB) = 5.19 dBm

Channel 155



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 2: Transmit (Beamforming Mode) Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

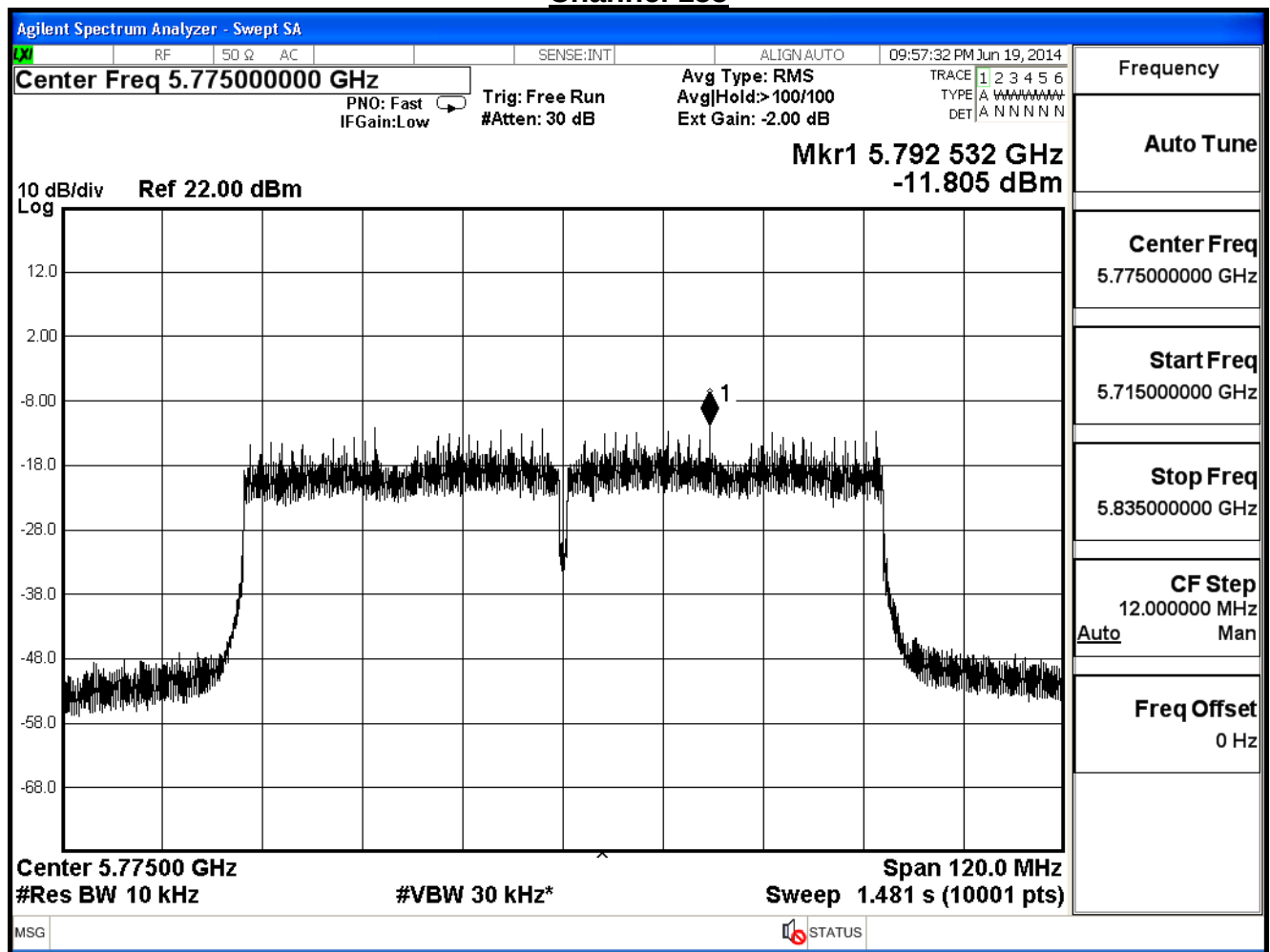
IEEE 802.11ac_80MHz (ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
155	5775	-11.805	≤5.19	Pass

Note:

Directional Antenna Gain = Beamforming Gain + Max Gain = 8.81dBi

Required Limit = 8dBm - (8.81Bi - 6dB) = 5.19 dBm

Channel 155



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Power Density		
Test Mode	Mode 2: Transmit (Beamforming Mode) Adapter: EXA1206UH		
Date of Test	2014/06/19	Test Site	SR7

IEEE802.11ac_80MHz(ANT 0+1+2)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
155	5775	-7.363	≤ 5.19	Pass

Note:

Directional Antenna Gain = Beamforming Gain + Max Gain = 8.81dBi

Required Limit = 8dBm - (8.81Bi - 6dB) = 5.19 dBm