

8. Power Density

8.1. Test Equipment

The following test equipment is used during the test:

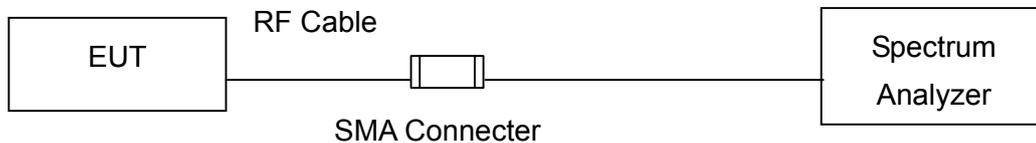
Power Density / SR7

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

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

8.2. Test Setup

IEEE 802.11 b / g / n (20M / 40M) MODE



8.3. 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.

8.4. Test Procedures

The EUT was setup according to ANSI C63.4: 2009; tested according to DTS test procedure of Jan. 2012 KDB558074 for compliance to FCC 47CFR 15.247 requirements. Set RBW= 3 kHz, Set VBW \geq 9 kHz, Sweep time=Auto, Set detector=Peak detector

8.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2010

8.6. Uncertainty

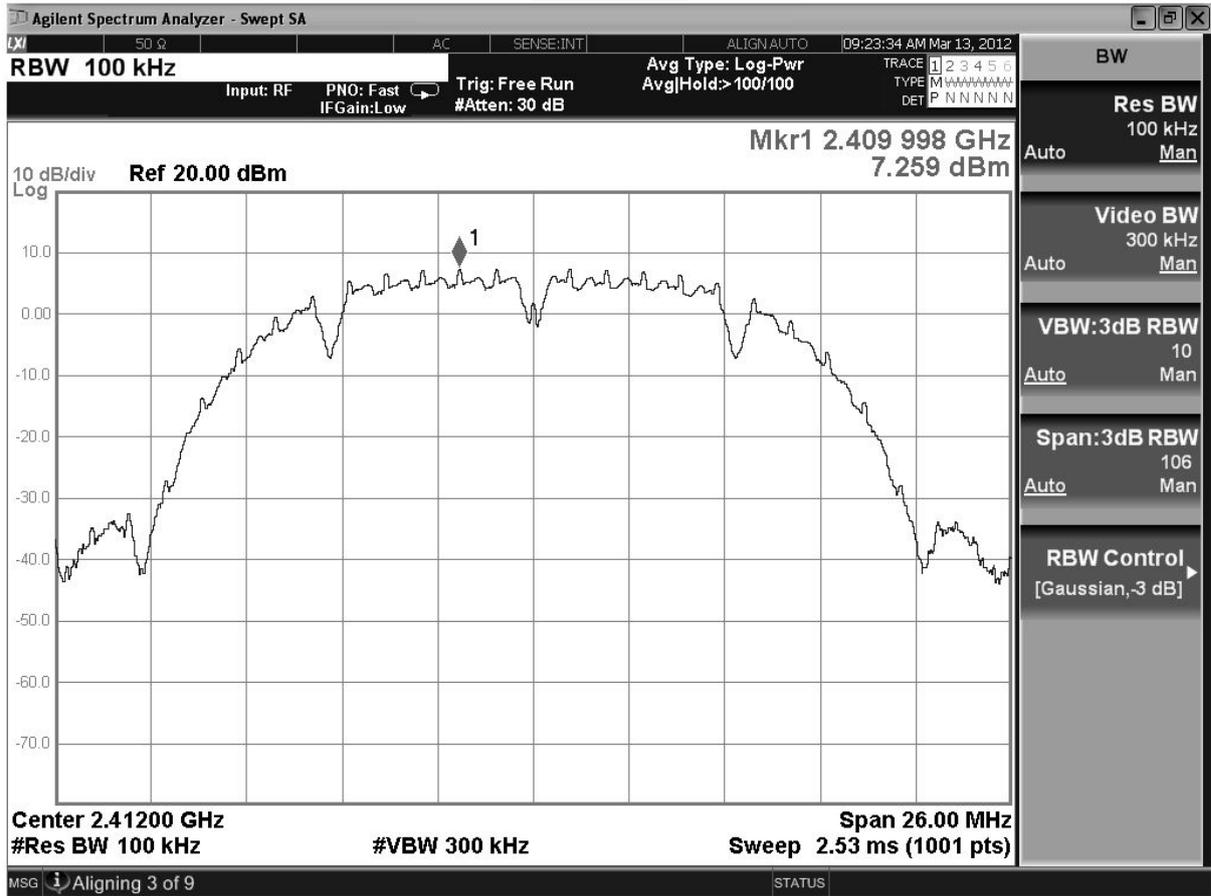
The measurement uncertainty is defined as ± 1.27 dB.

8.7. Test Result

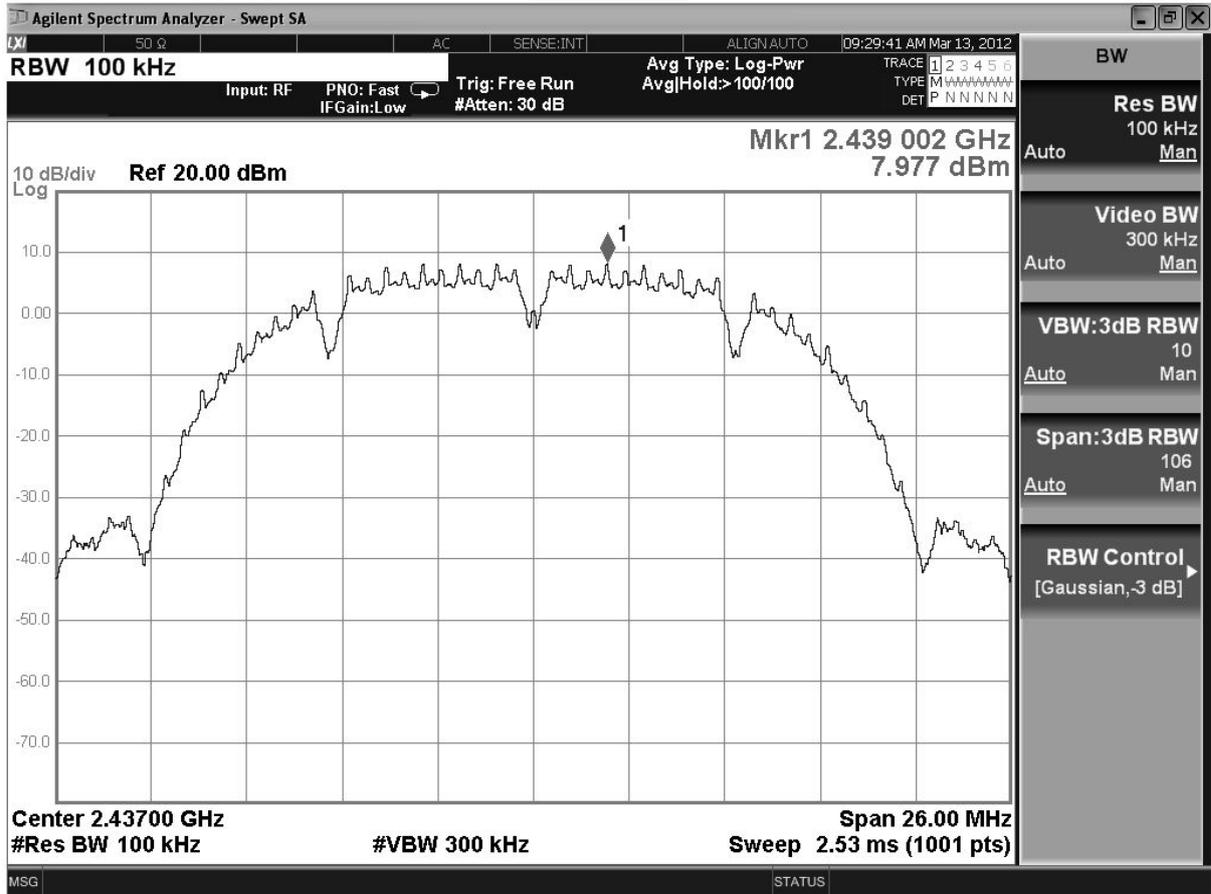
| | | | |
|--------------|------------------------------|-----------|-----|
| Product | Dual-band Wireless-N Adapter | | |
| Test Item | Power Density | | |
| Test Mode | Mode 1: Transmit | | |
| Date of Test | 2012/03/13 | Test Site | SR7 |

| IEEE 802.11b | | | | | |
|--------------|-----------------|---------------------|---------------------|-------------|--------|
| Channel No. | Frequency (MHz) | Reading Level (dBm) | Measure Level (dBm) | Limit (dBm) | Result |
| 1 | 2412 | 7.259 | -7.941 | ≤ 8 | Pass |
| 6 | 2437 | 7.977 | -7.223 | ≤ 8 | Pass |
| 11 | 2462 | 7.634 | -7.566 | ≤ 8 | Pass |

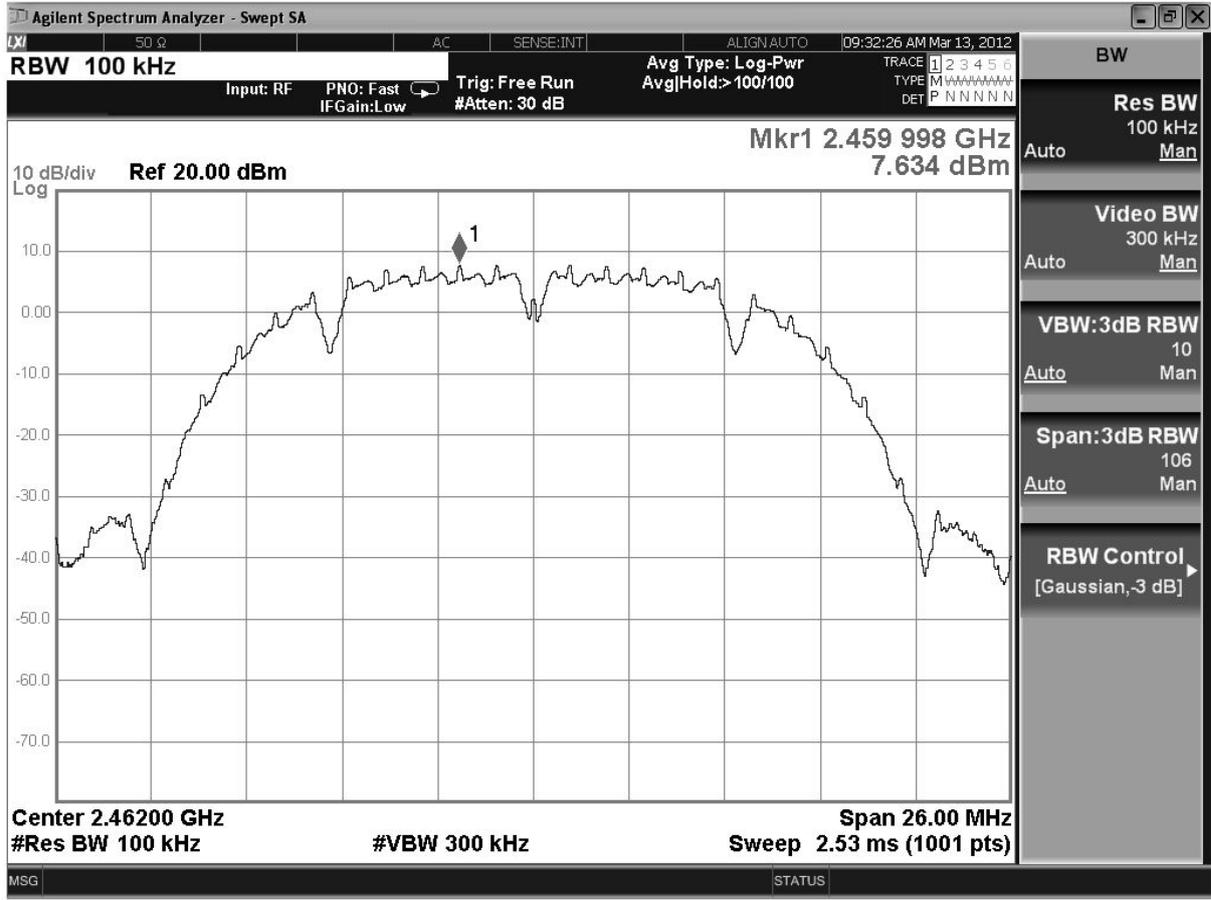
Channel 1



Channel 6



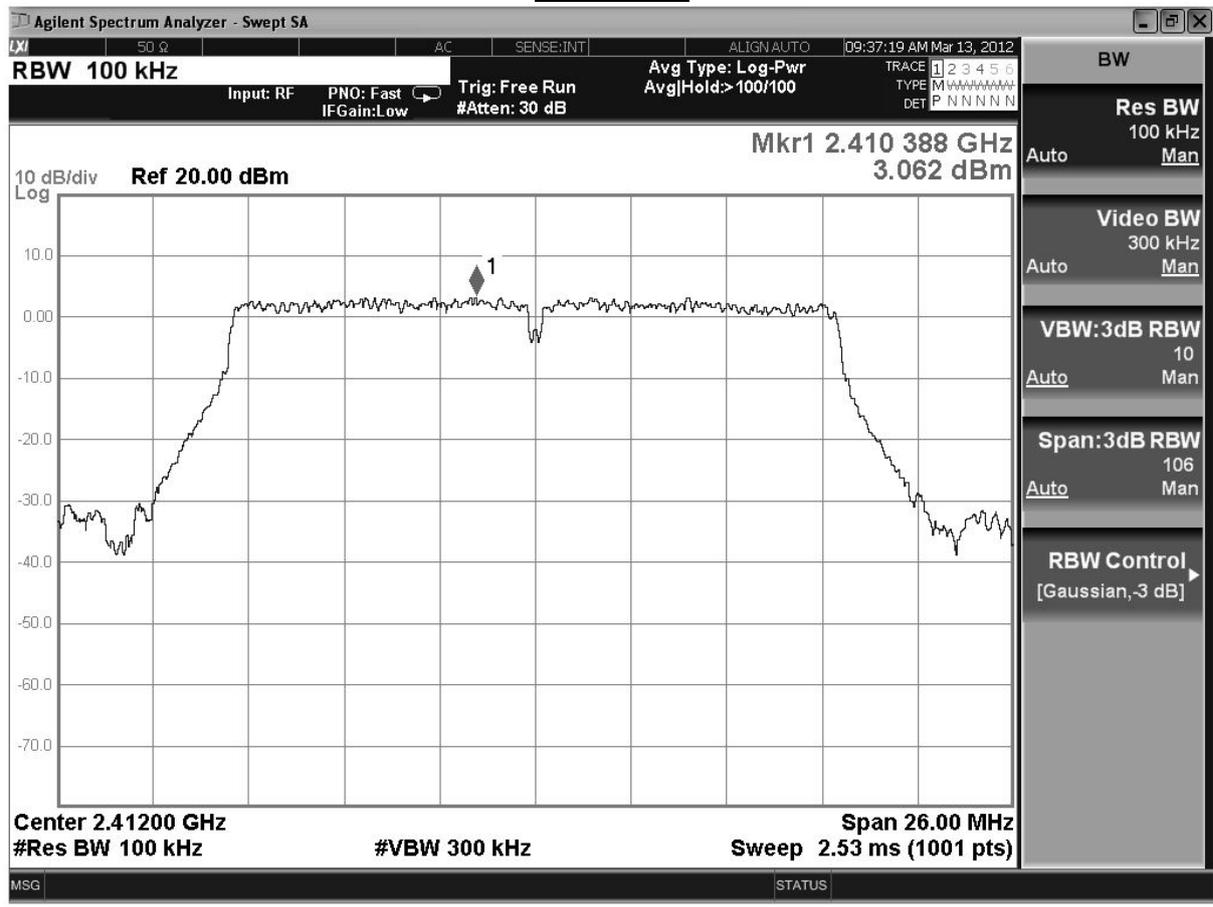
Channel 11



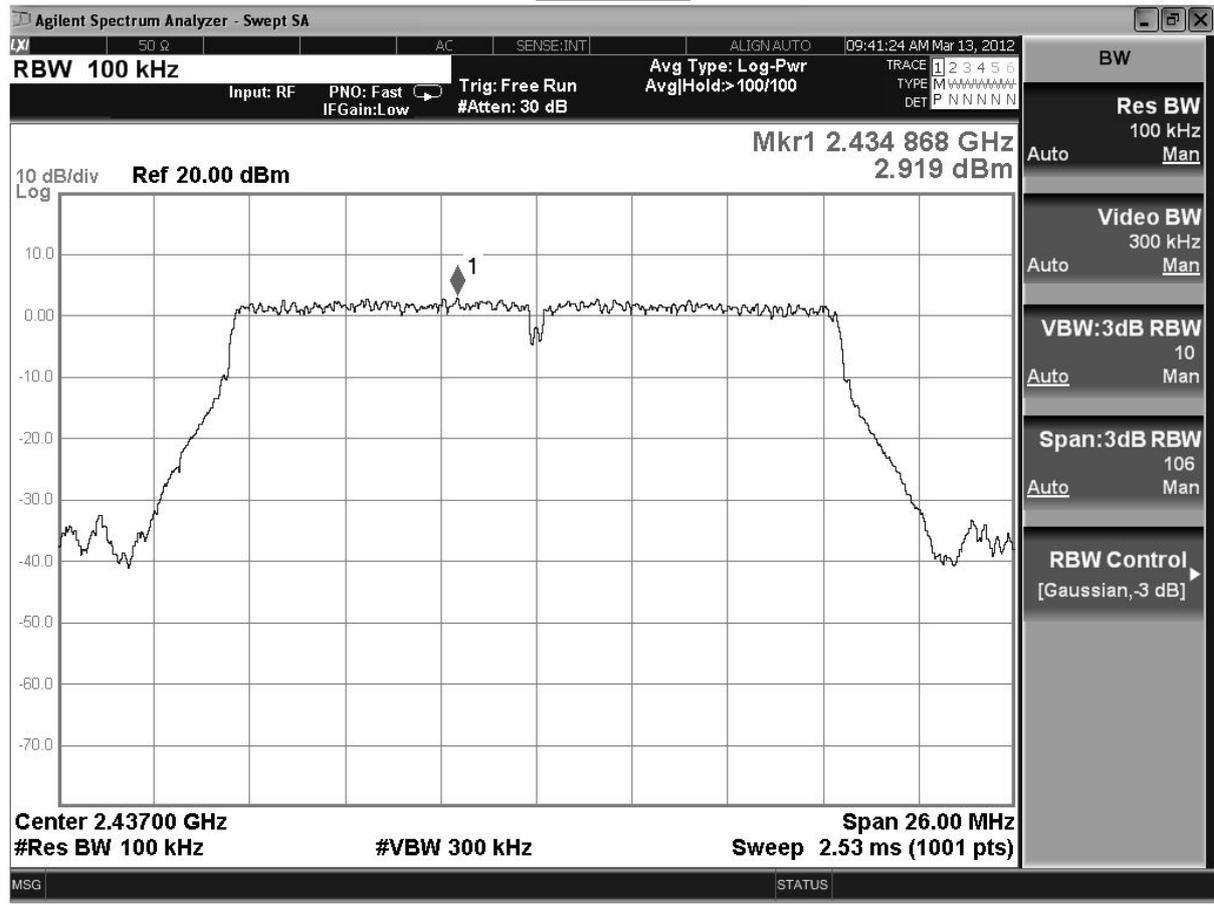
| | | | |
|--------------|------------------------------|-----------|-----|
| Product | Dual-band Wireless-N Adapter | | |
| Test Item | Power Density | | |
| Test Mode | Mode 1: Transmit | | |
| Date of Test | 2012/03/13 | Test Site | SR7 |

| IEEE 802.11g | | | | | |
|--------------|-----------------|---------------------|---------------------|-------------|--------|
| Channel No. | Frequency (MHz) | Reading Level (dBm) | Measure Level (dBm) | Limit (dBm) | Result |
| 1 | 2412 | 3.062 | -12.138 | ≤ 8 | Pass |
| 6 | 2437 | 2.919 | -12.281 | ≤ 8 | Pass |
| 11 | 2462 | 3.555 | -11.645 | ≤ 8 | Pass |

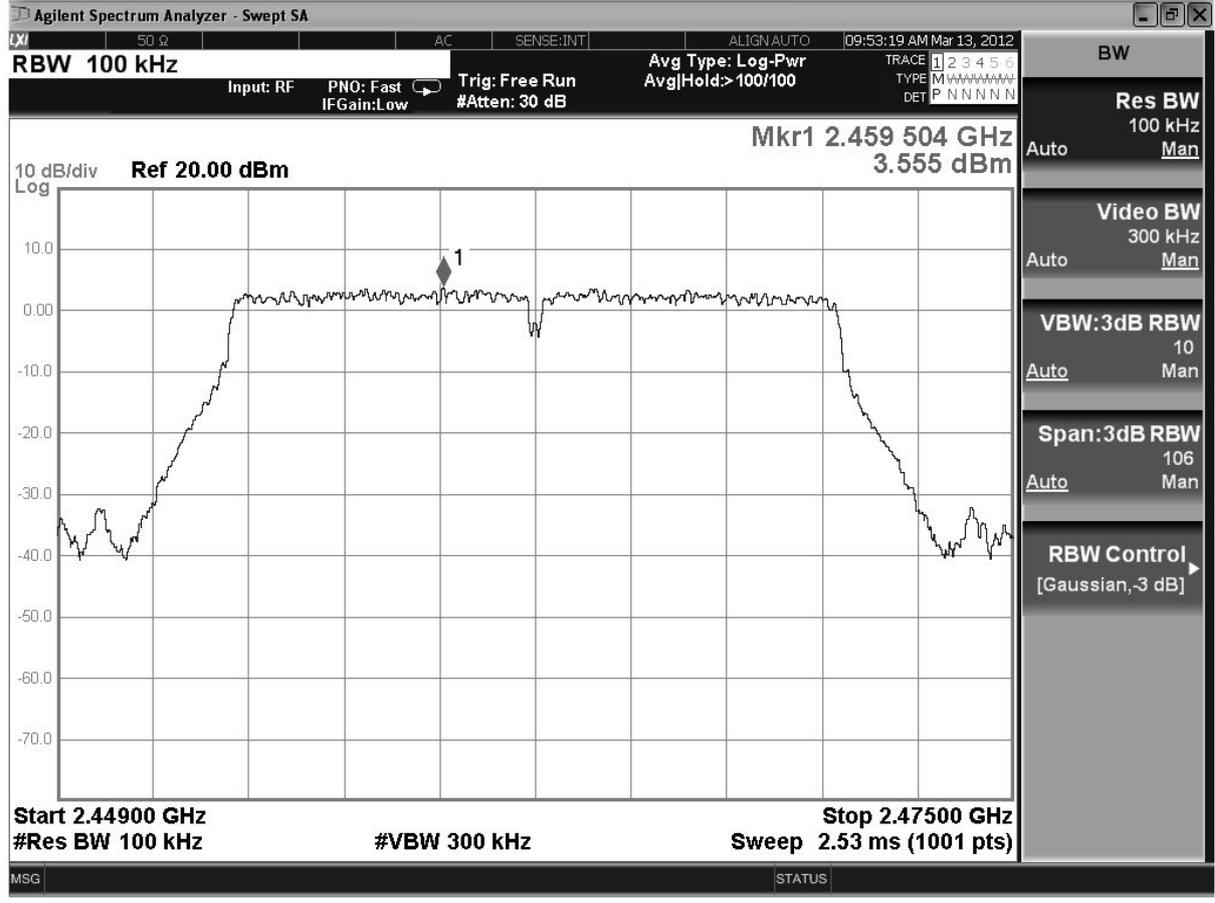
Channel 1



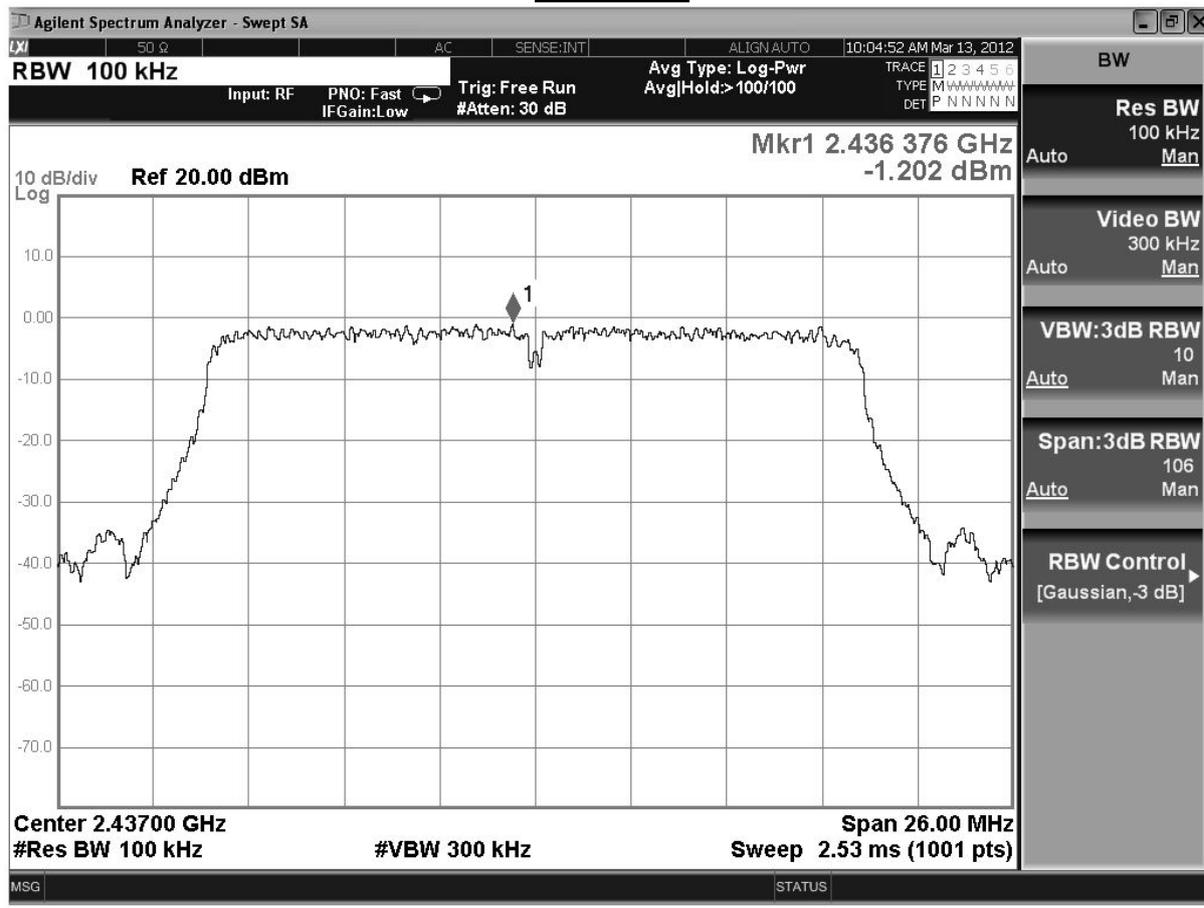
Channel 6



Channel 11



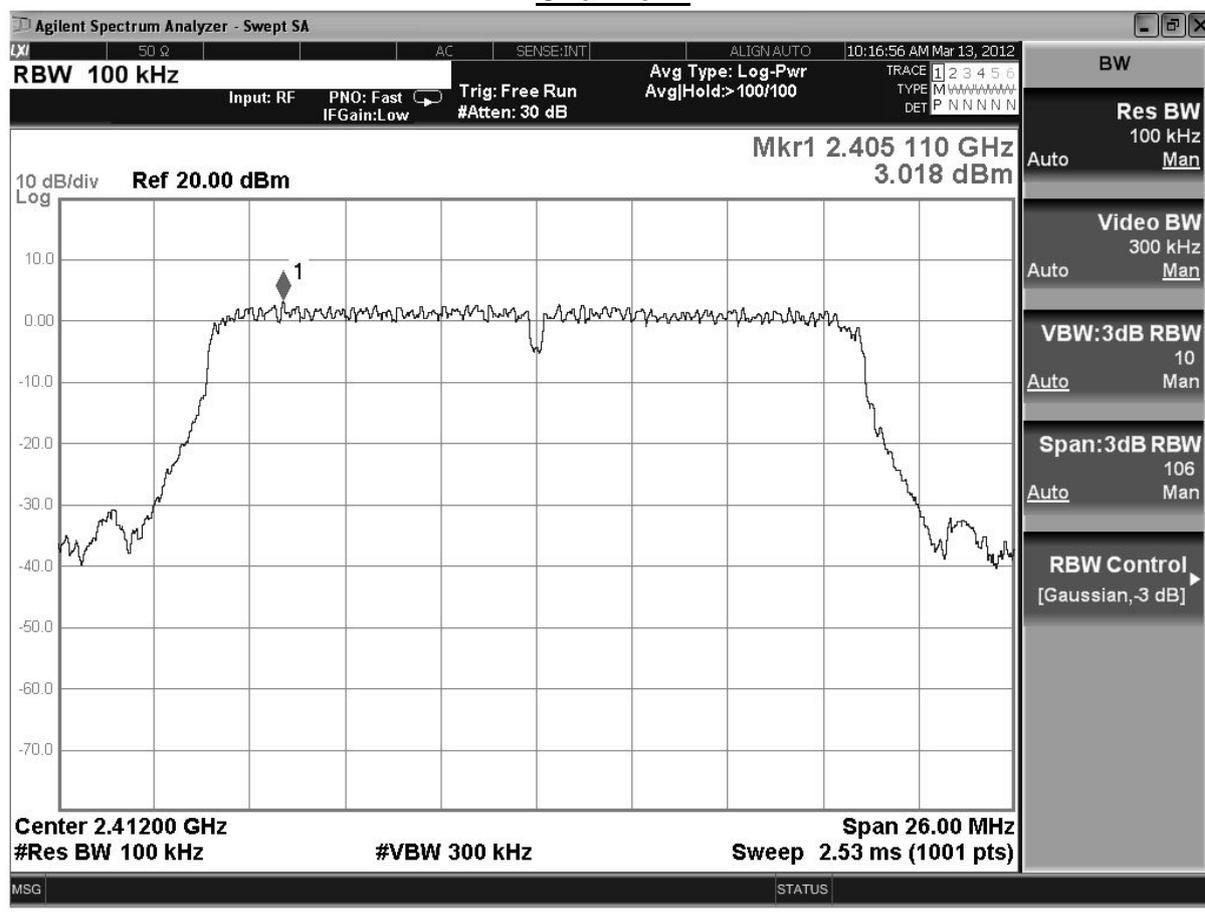
Channel 6



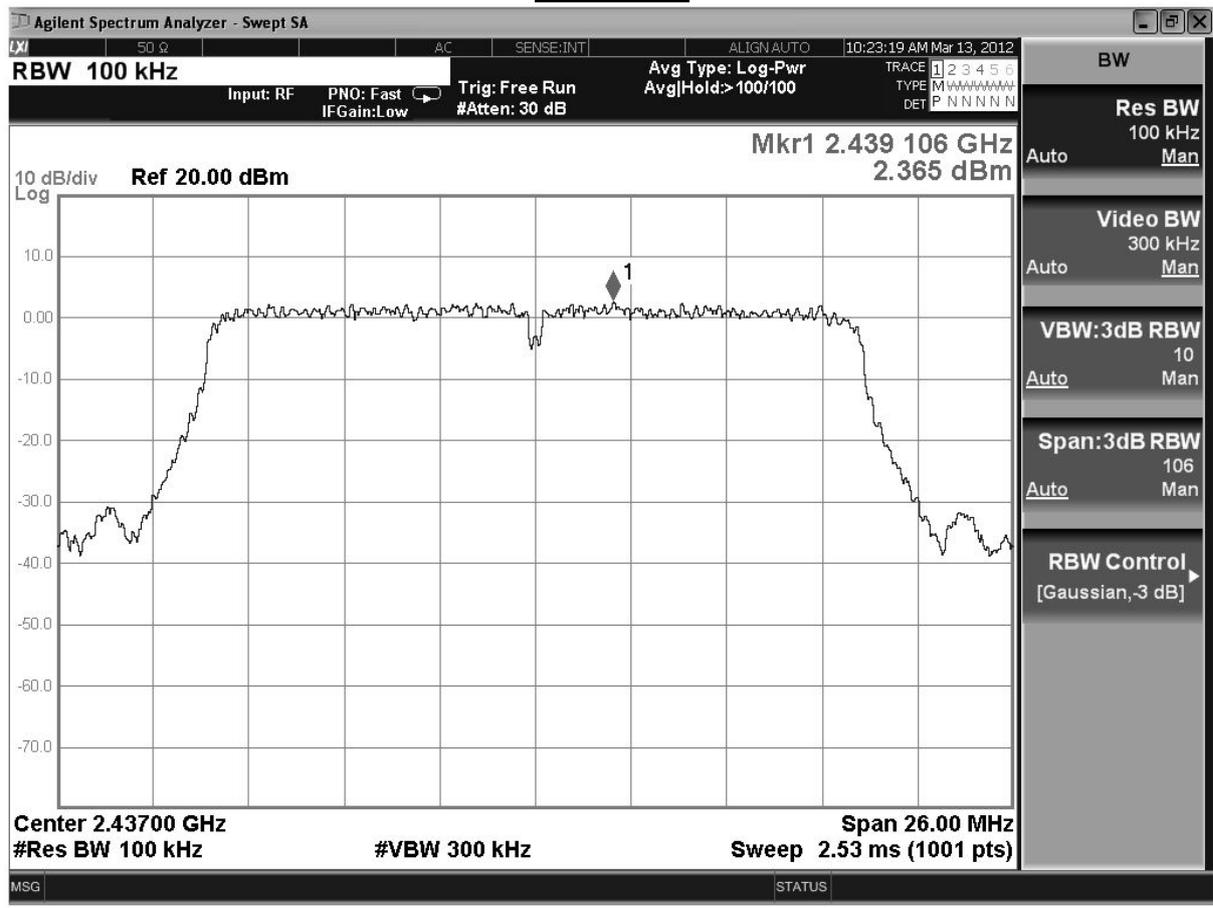
| | | | |
|--------------|------------------------------|-----------|-----|
| Product | Dual-band Wireless-N Adapter | | |
| Test Item | Power Density | | |
| Test Mode | Mode 1: Transmit | | |
| Date of Test | 2012/03/13 | Test Site | SR7 |

| IEEE802.11n_20MHz_(ANT 1) | | | | | |
|---------------------------|-----------------|---------------------|---------------------|-------------|--------|
| Channel No. | Frequency (MHz) | Reading Level (dBm) | Measure Level (dBm) | Limit (dBm) | Result |
| 1 | 2412 | 3.018 | -12.182 | ≤ 8 | Pass |
| 6 | 2437 | 2.365 | -12.835 | ≤ 8 | Pass |
| 11 | 2462 | 2.795 | -12.405 | ≤ 8 | Pass |

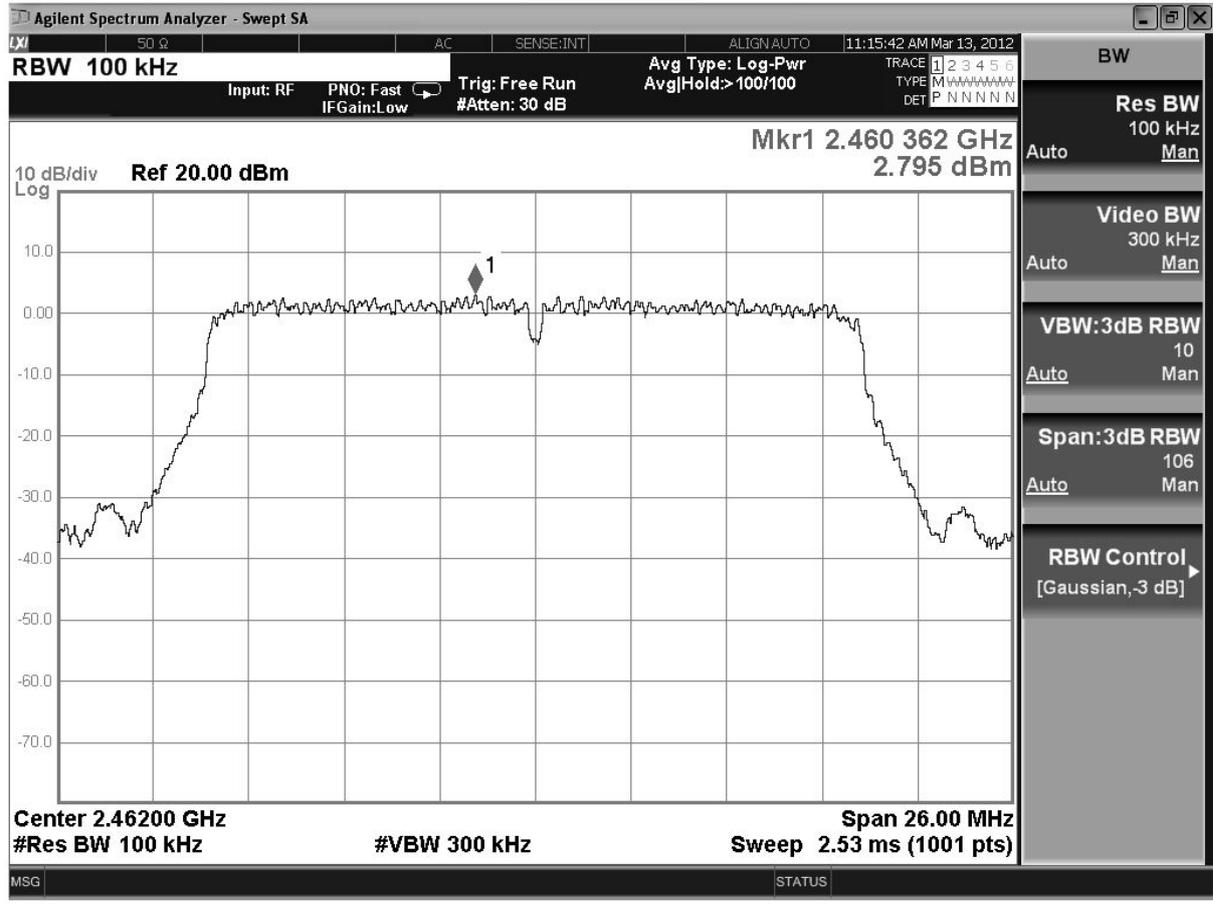
Channel 1



Channel 6



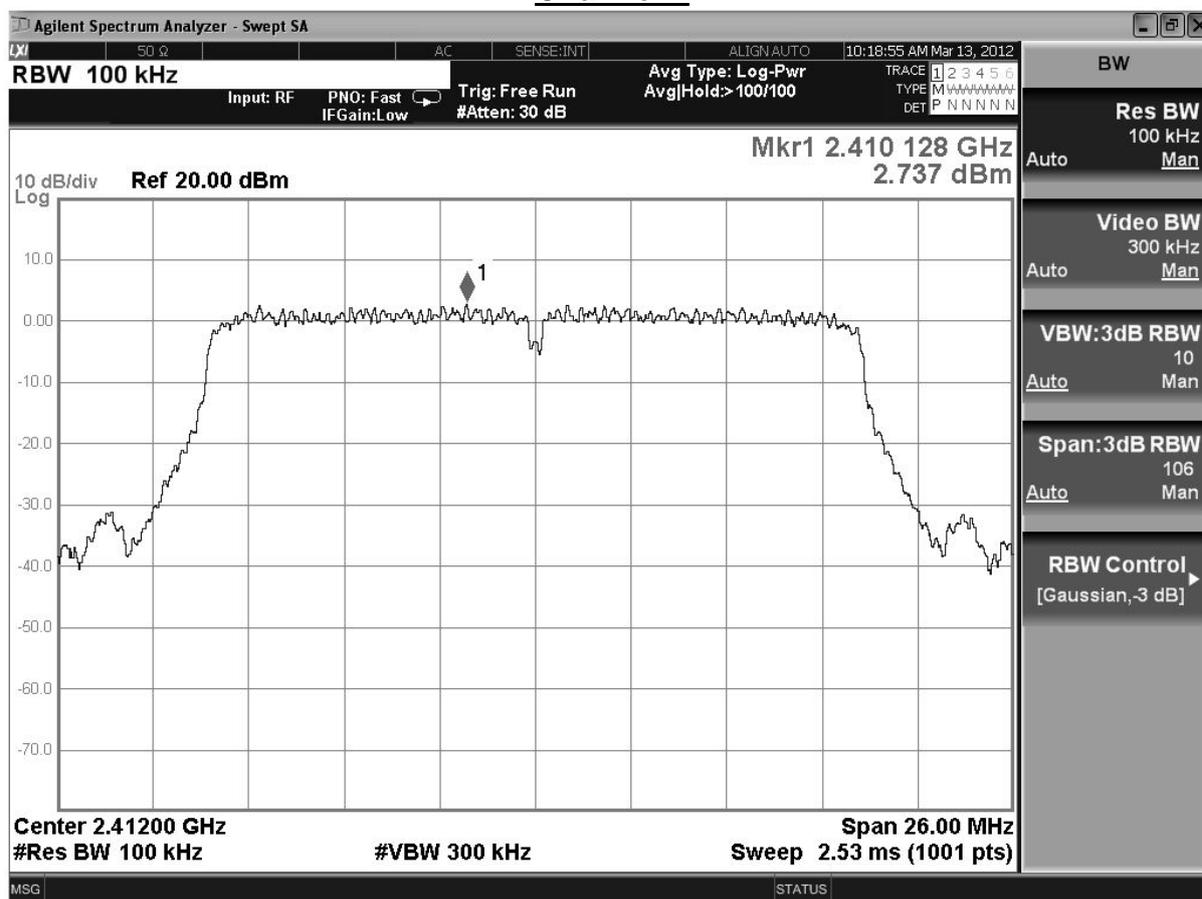
Channel 11



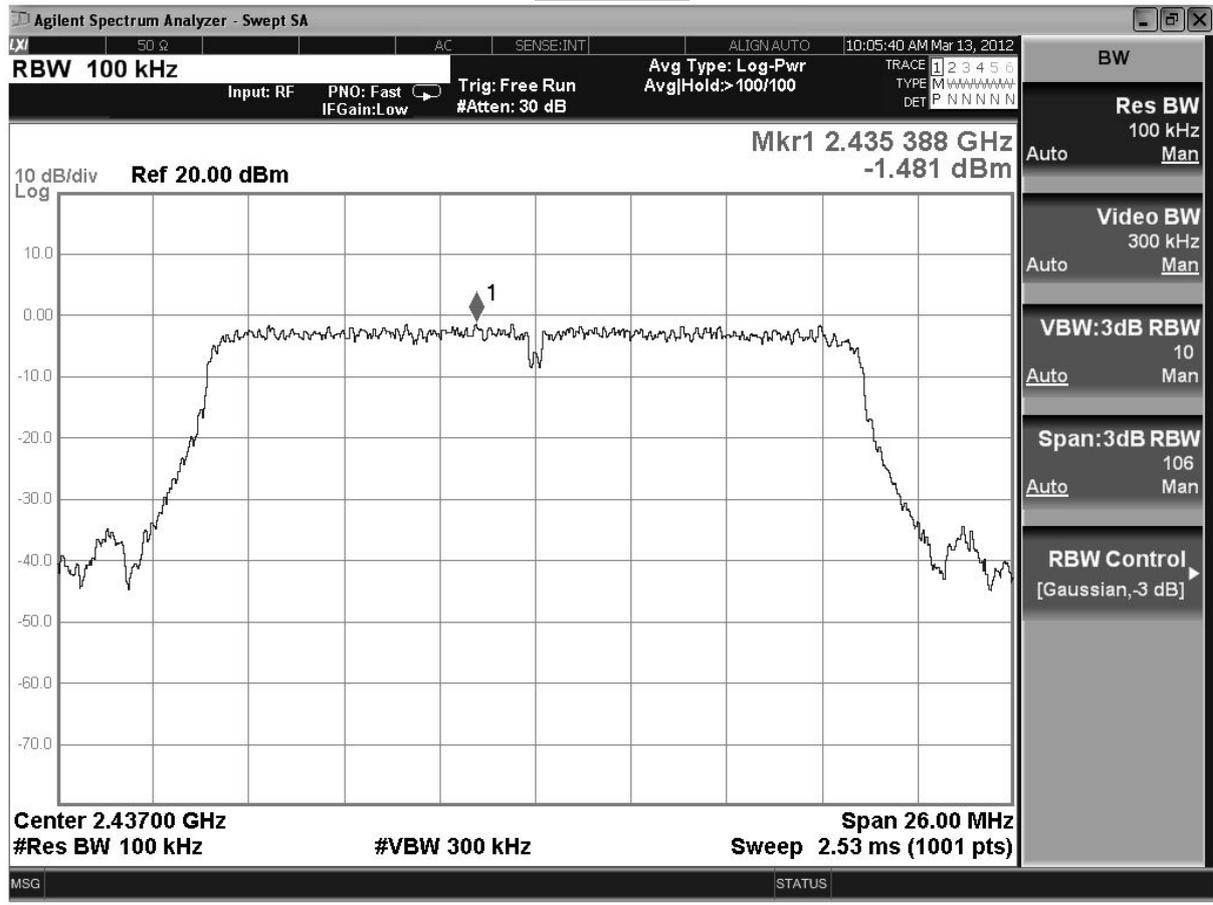
| | | | |
|--------------|------------------------------|-----------|-----|
| Product | Dual-band Wireless-N Adapter | | |
| Test Item | Power Density | | |
| Test Mode | Mode 1: Transmit | | |
| Date of Test | 2012/03/13 | Test Site | SR7 |

| IEEE802.11n_20MHz_(ANT 2) | | | | | |
|---------------------------|-----------------|---------------------|---------------------|-------------|--------|
| Channel No. | Frequency (MHz) | Reading Level (dBm) | Measure Level (dBm) | Limit (dBm) | Result |
| 1 | 2412 | 2.737 | -12.463 | ≤ 8 | Pass |
| 6 | 2437 | -1.481 | -16.681 | ≤ 8 | Pass |
| 11 | 2462 | 2.641 | -12.559 | ≤ 8 | Pass |

Channel 1



Channel 6



| | | | |
|--------------|------------------------------|-----------|-----|
| Product | Dual-band Wireless-N Adapter | | |
| Test Item | Power Density | | |
| Test Mode | Mode 1: Transmit | | |
| Date of Test | 2012/03/13 | Test Site | SR7 |

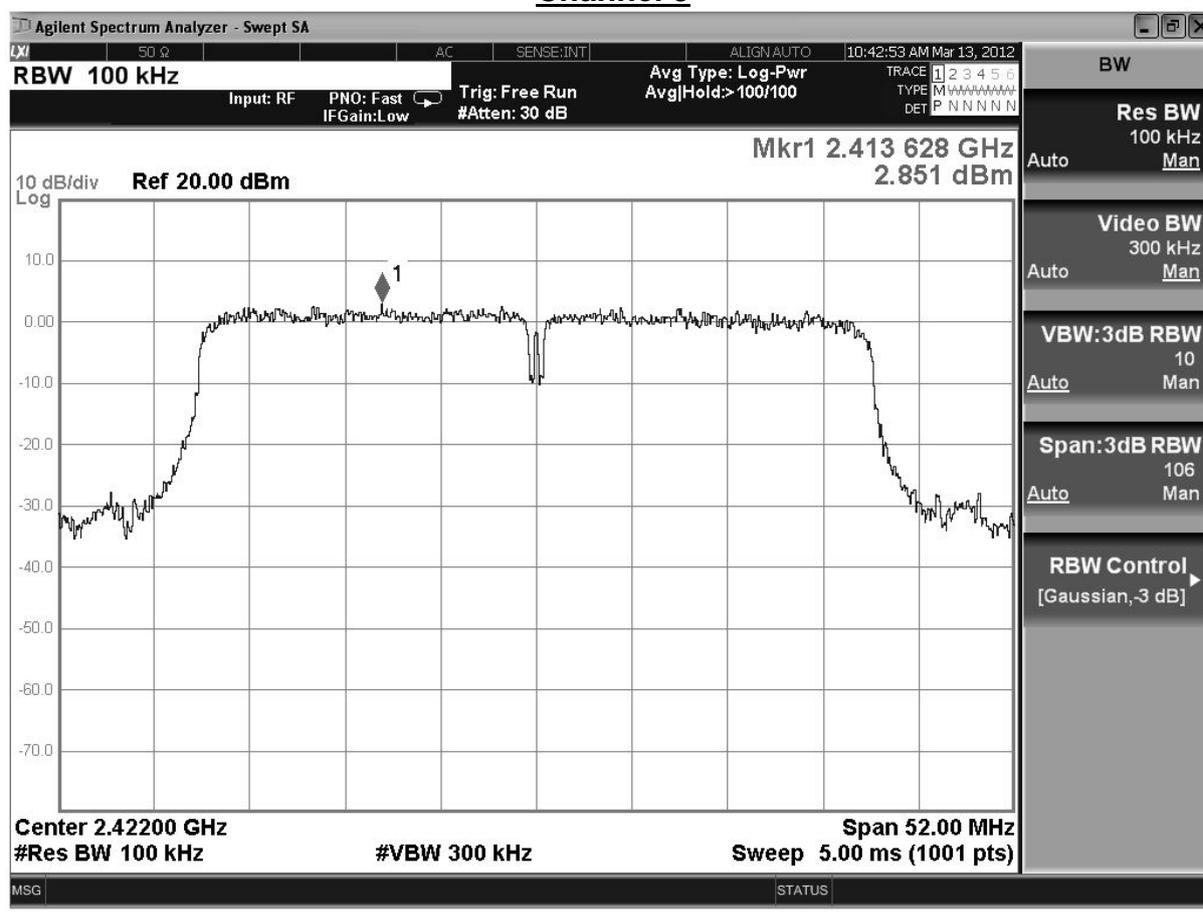
IEEE802.11n 20MHz(ANT 0+1+2)

| Channel No. | Frequency (MHz) | Reading Level (dBm) | Measure Level (dBm) | Limit (dBm) | Result |
|-------------|-----------------|---------------------|---------------------|-------------|--------|
| 1 | 2412 | 7.650 | -7.550 | ≤ 8 | Pass |
| 6 | 2437 | 5.040 | -10.160 | ≤ 8 | Pass |
| 11 | 2462 | 7.180 | -8.020 | ≤ 8 | Pass |

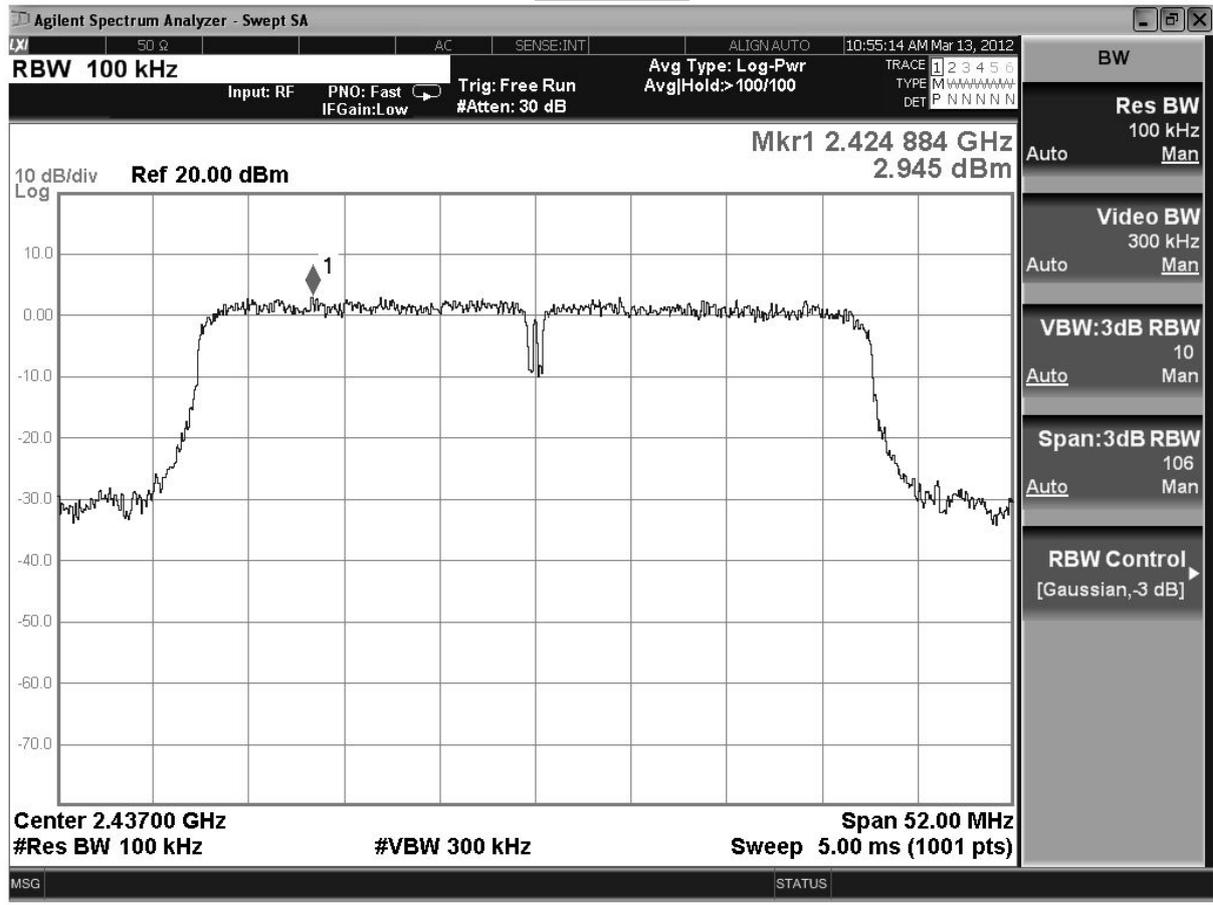
| | | | |
|--------------|------------------------------|-----------|-----|
| Product | Dual-band Wireless-N Adapter | | |
| Test Item | Power Density | | |
| Test Mode | Mode 1: Transmit | | |
| Date of Test | 2012/03/13 | Test Site | SR7 |

| IEEE 802.11n_40MHz (ANT 0) | | | | | |
|----------------------------|-----------------|---------------------|---------------------|-------------|--------|
| Channel No. | Frequency (MHz) | Reading Level (dBm) | Measure Level (dBm) | Limit (dBm) | Result |
| 3 | 2422 | 2.851 | -12.619 | ≤ 8 | Pass |
| 6 | 2437 | 2.945 | -12.255 | ≤ 8 | Pass |
| 9 | 2452 | 2.385 | -12.815 | ≤ 8 | Pass |

Channel 3



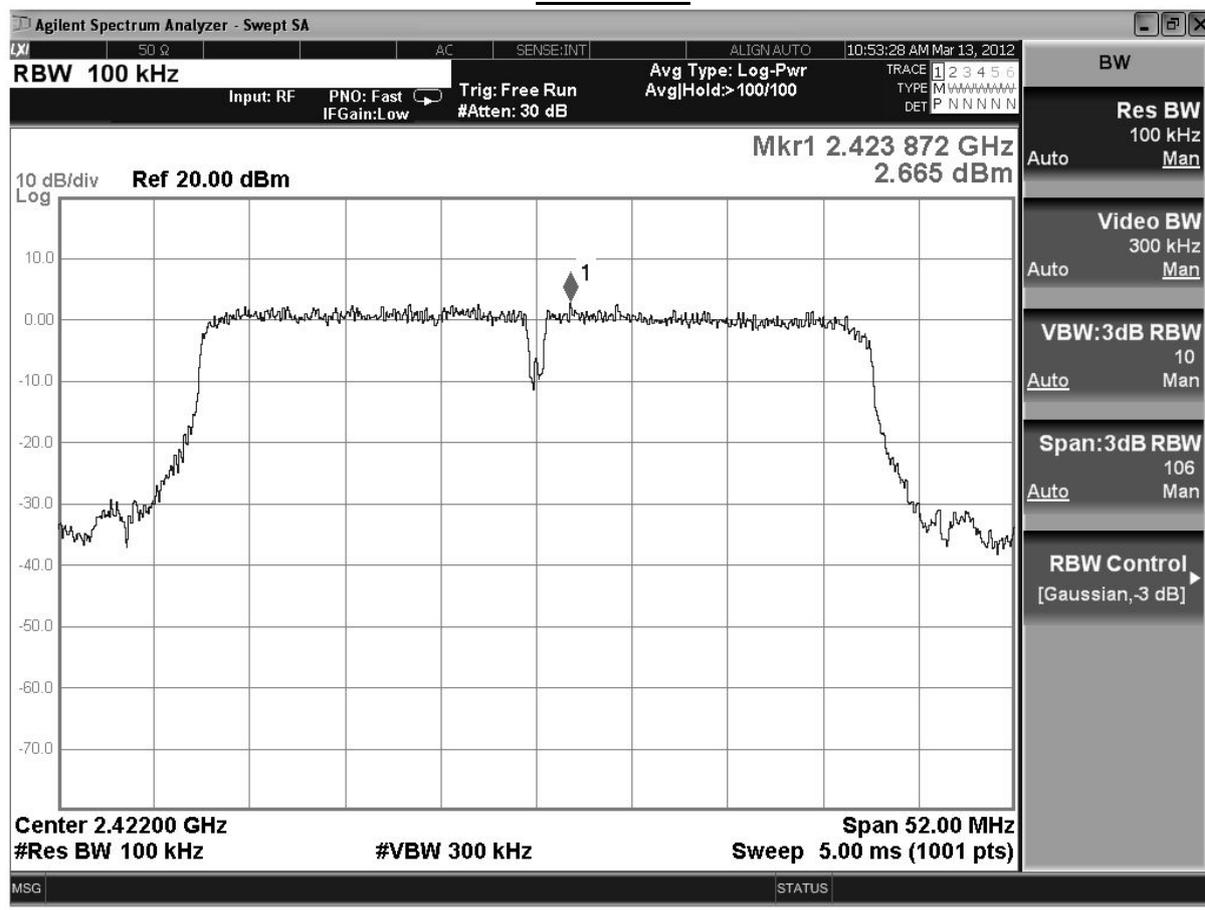
Channel 6



| | | | |
|--------------|------------------------------|-----------|-----|
| Product | Dual-band Wireless-N Adapter | | |
| Test Item | Power Density | | |
| Test Mode | Mode 1: Transmit | | |
| Date of Test | 2012/03/13 | Test Site | SR7 |

| IEEE 802.11n_40MHz (ANT 1) | | | | | |
|----------------------------|-----------------|---------------------|---------------------|-------------|--------|
| Channel No. | Frequency (MHz) | Reading Level (dBm) | Measure Level (dBm) | Limit (dBm) | Result |
| 3 | 2422 | 2.665 | -12.535 | ≤ 8 | Pass |
| 6 | 2437 | 2.639 | -12.561 | ≤ 8 | Pass |
| 9 | 2452 | 2.513 | -12.687 | ≤ 8 | Pass |

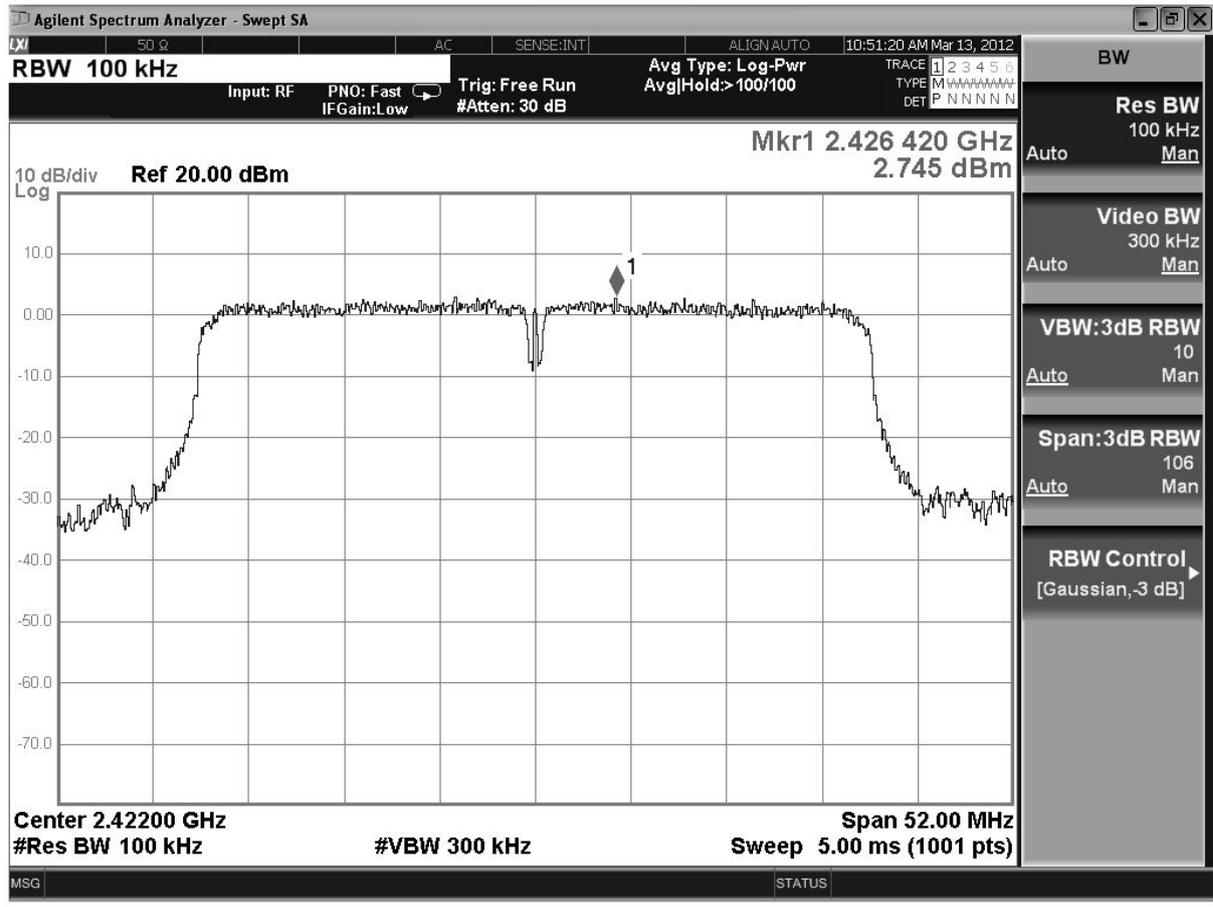
Channel 3



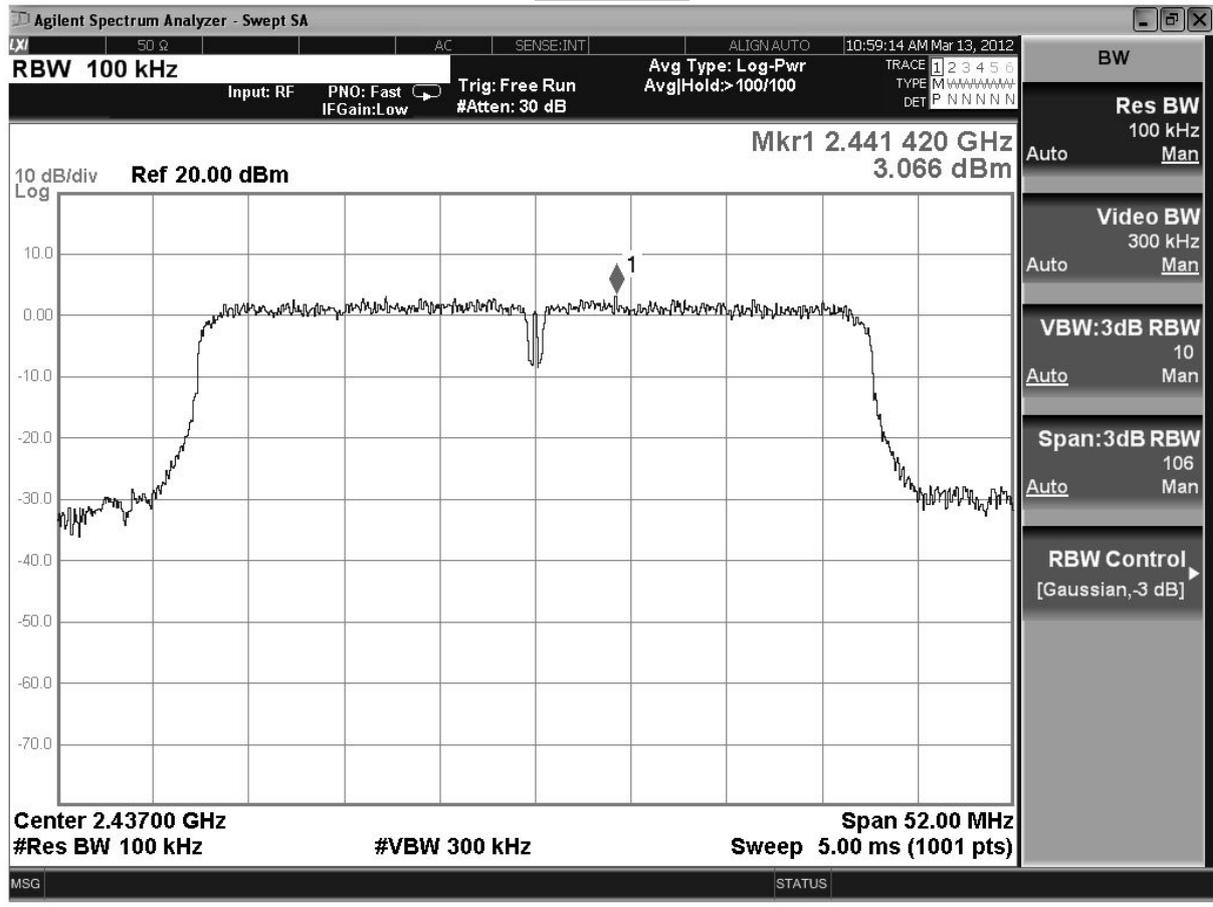
| | | | |
|--------------|------------------------------|-----------|-----|
| Product | Dual-band Wireless-N Adapter | | |
| Test Item | Power Density | | |
| Test Mode | Mode 1: Transmit | | |
| Date of Test | 2012/03/13 | Test Site | SR7 |

| IEEE 802.11n_40MHz (ANT 2) | | | | | |
|----------------------------|-----------------|---------------------|---------------------|-------------|--------|
| Channel No. | Frequency (MHz) | Reading Level (dBm) | Measure Level (dBm) | Limit (dBm) | Result |
| 3 | 2422 | 2.745 | -12.455 | ≤ 8 | Pass |
| 6 | 2437 | 3.066 | -12.134 | ≤ 8 | Pass |
| 9 | 2452 | 2.638 | -12.562 | ≤ 8 | Pass |

Channel 3



Channel 6



| | | | |
|--------------|------------------------------|-----------|-----|
| Product | Dual-band Wireless-N Adapter | | |
| Test Item | Power Density | | |
| Test Mode | Mode 1: Transmit | | |
| Date of Test | 2012/03/13 | Test Site | SR7 |

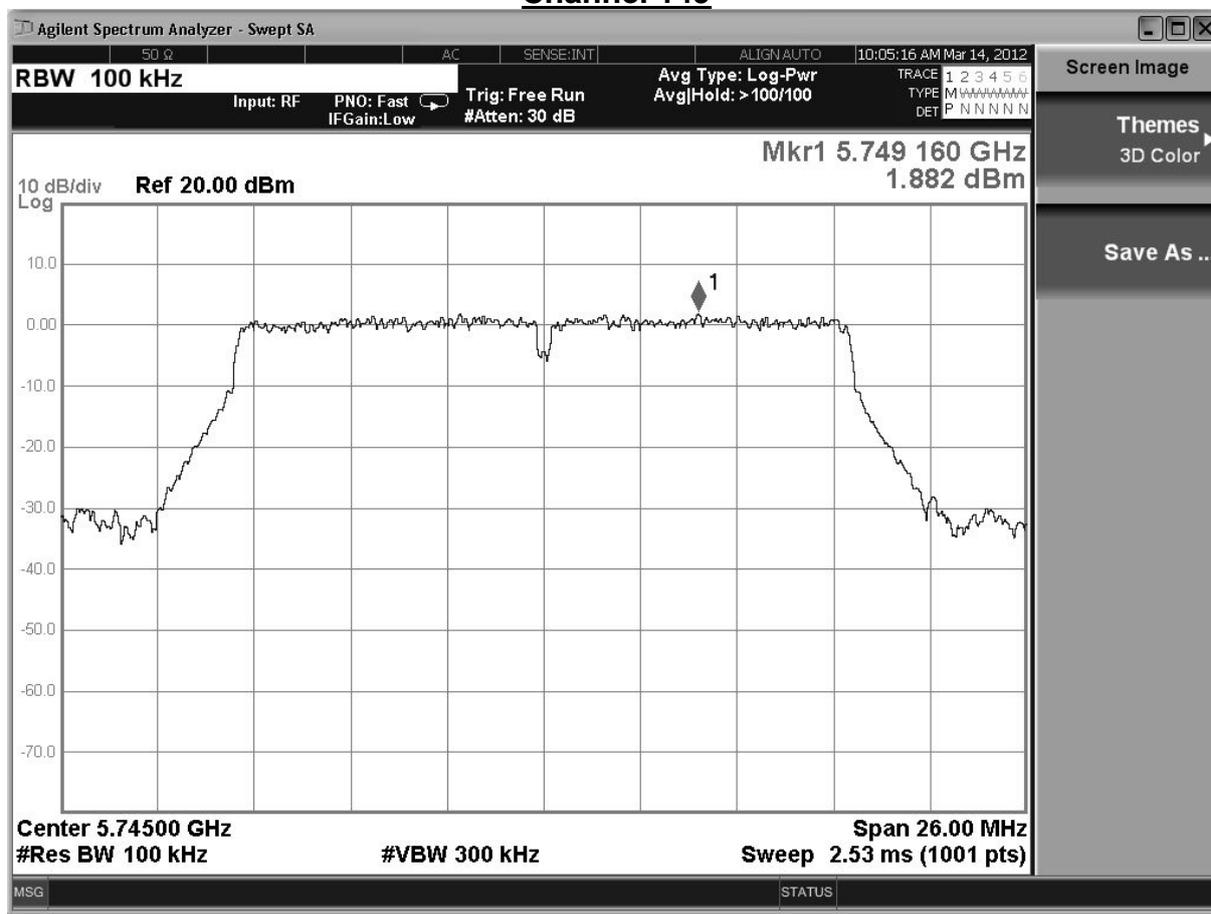
IEEE802.11n 40MHz(ANT 0+1+2)

| Channel No. | Frequency (MHz) | Reading Level (dBm) | Measure Level (dBm) | Limit (dBm) | Result |
|-------------|-----------------|---------------------|---------------------|-------------|--------|
| 3 | 2422 | 7.530 | -7.670 | ≤ 8 | Pass |
| 6 | 2437 | 7.660 | -7.542 | ≤ 8 | Pass |
| 9 | 2452 | 7.280 | -7.916 | ≤ 8 | Pass |

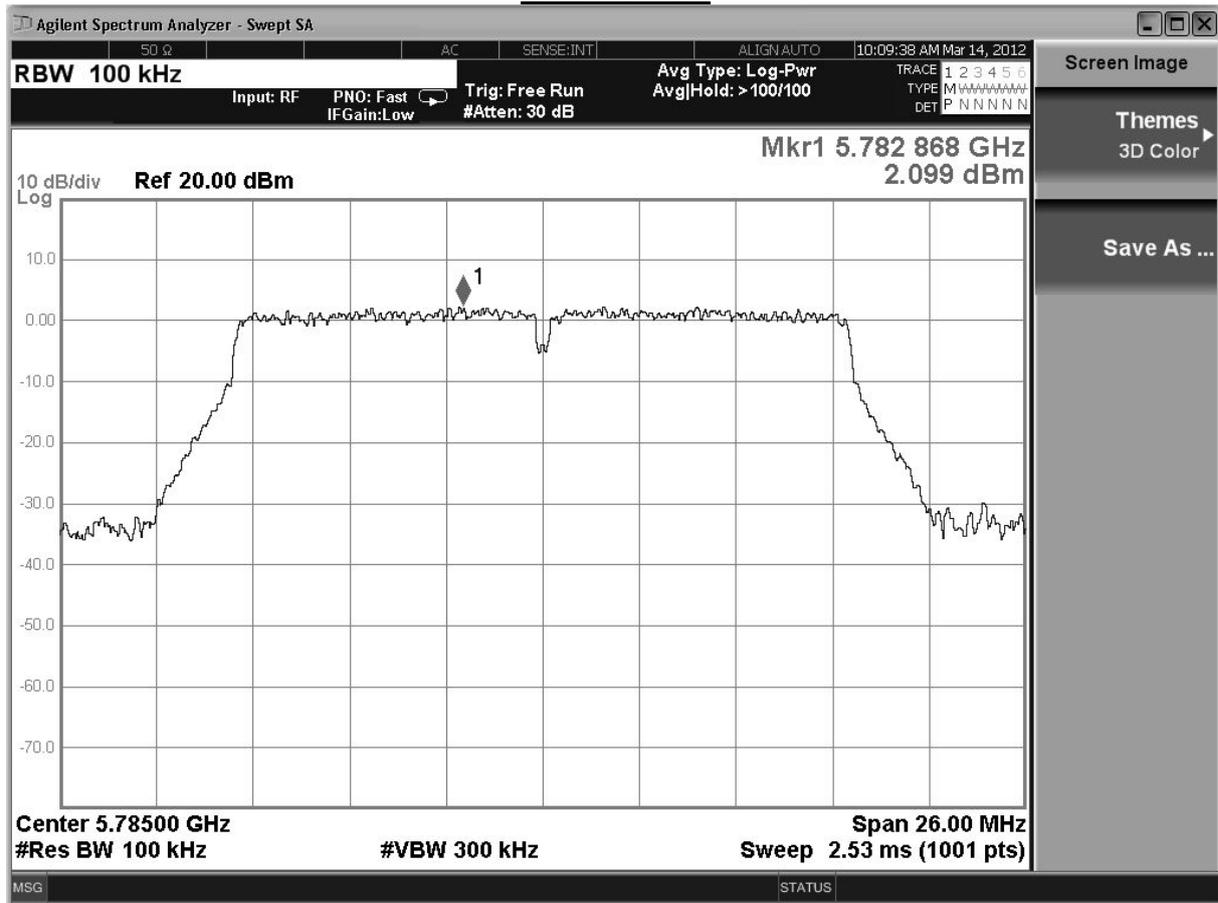
| | | | |
|--------------|------------------------------|-----------|-----|
| Product | Dual-band Wireless-N Adapter | | |
| Test Item | Power Density | | |
| Test Mode | Mode 1: Transmit | | |
| Date of Test | 2012/03/14 | Test Site | SR7 |

| IEEE 802.11a | | | | | |
|--------------|-----------------|---------------------|---------------------|-------------|--------|
| Channel No. | Frequency (MHz) | Reading Level (dBm) | Measure Level (dBm) | Limit (dBm) | Result |
| 149 | 5745 | 1.882 | -13.32 | ≤ 8 | Pass |
| 157 | 5785 | 2.099 | -13.10 | ≤ 8 | Pass |
| 165 | 5825 | 2.029 | -13.17 | ≤ 8 | Pass |

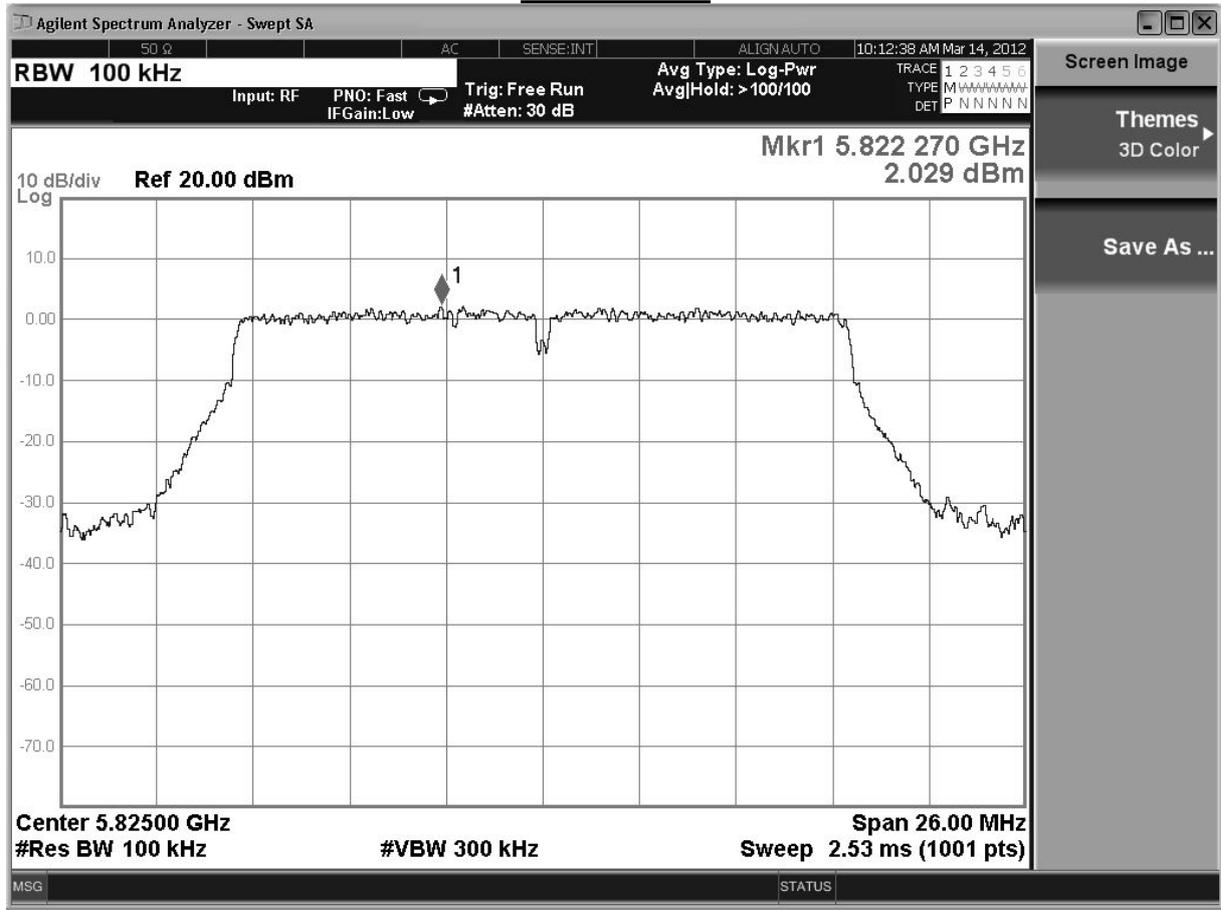
Channel 149



Channel 157



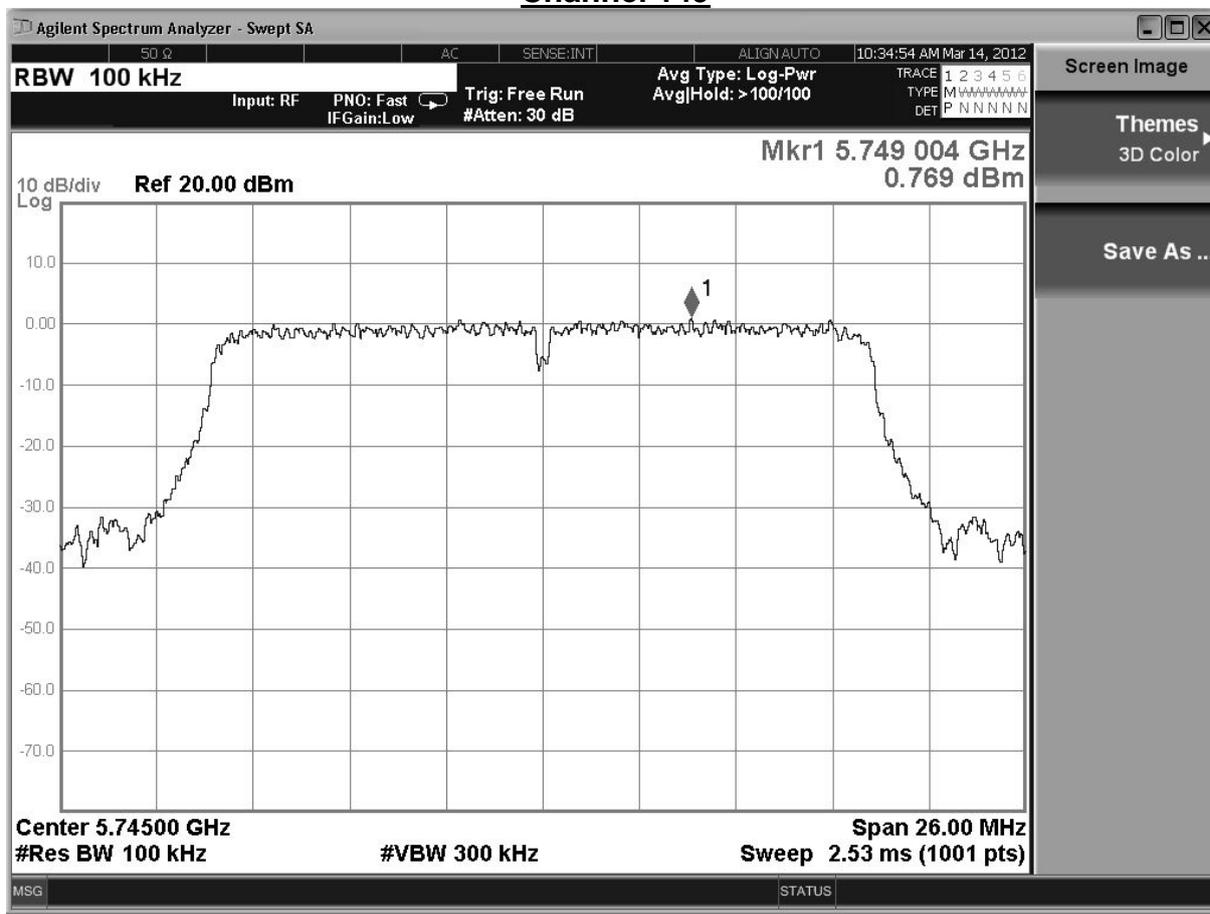
Channel 165



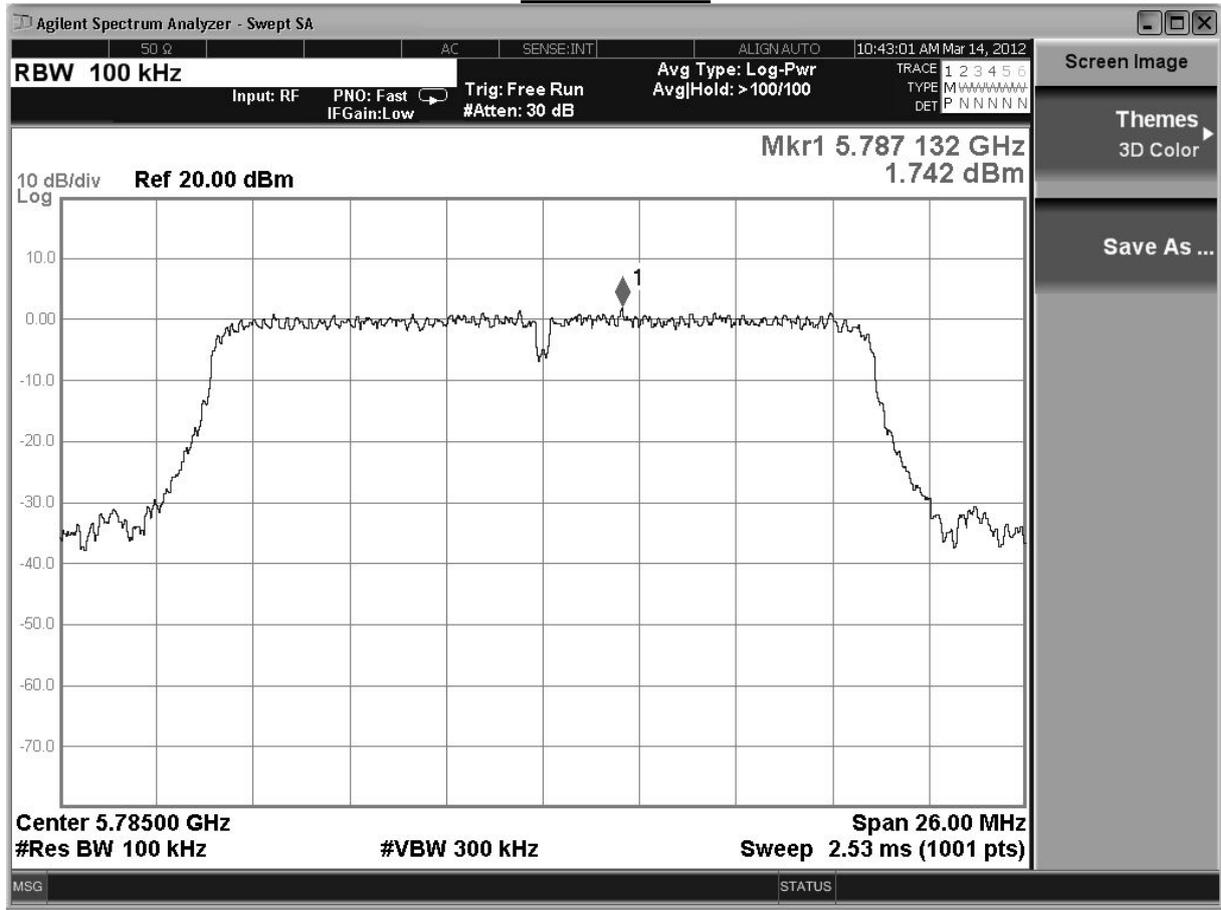
| | | | |
|--------------|------------------------------|-----------|-----|
| Product | Dual-band Wireless-N Adapter | | |
| Test Item | Power Density | | |
| Test Mode | Mode 1: Transmit | | |
| Date of Test | 2012/03/14 | Test Site | SR7 |

| IEEE802.11n_20MHz_(ANT 0) | | | | | |
|---------------------------|-----------------|---------------------|---------------------|-------------|--------|
| Channel No. | Frequency (MHz) | Reading Level (dBm) | Measure Level (dBm) | Limit (dBm) | Result |
| 149 | 5745 | 0.769 | -14.43 | ≤ 8 | Pass |
| 157 | 5785 | 1.742 | -13.46 | ≤ 8 | Pass |
| 165 | 5825 | 1.846 | -13.35 | ≤ 8 | Pass |

Channel 149



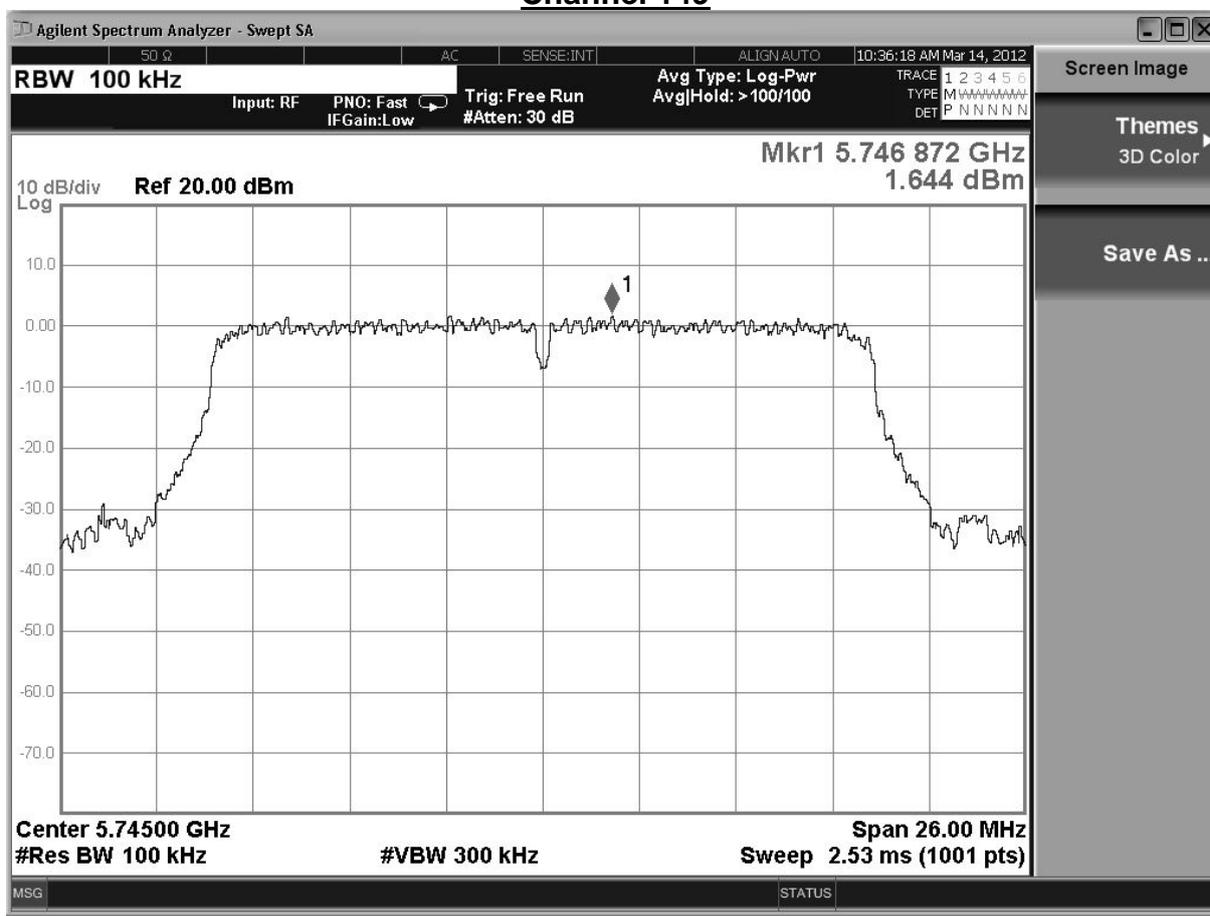
Channel 157



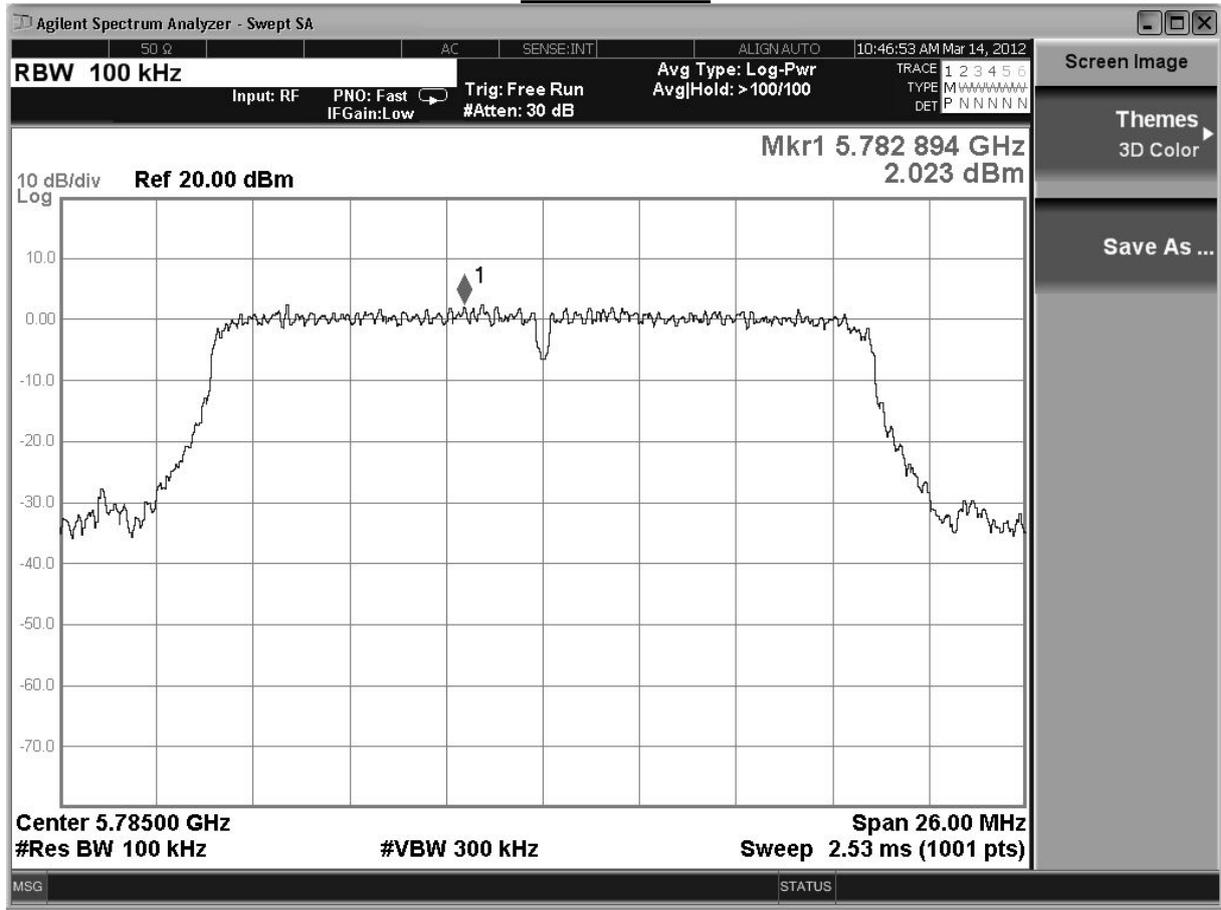
| | | | |
|--------------|------------------------------|-----------|-----|
| Product | Dual-band Wireless-N Adapter | | |
| Test Item | Power Density | | |
| Test Mode | Mode 1: Transmit | | |
| Date of Test | 2012/03/14 | Test Site | SR7 |

| IEEE802.11n_20MHz_(ANT 1) | | | | | |
|---------------------------|-----------------|---------------------|---------------------|-------------|--------|
| Channel No. | Frequency (MHz) | Reading Level (dBm) | Measure Level (dBm) | Limit (dBm) | Result |
| 149 | 5745 | 1.644 | -13.56 | ≤ 8 | Pass |
| 157 | 5785 | 2.023 | -13.18 | ≤ 8 | Pass |
| 165 | 5825 | 1.801 | -13.40 | ≤ 8 | Pass |

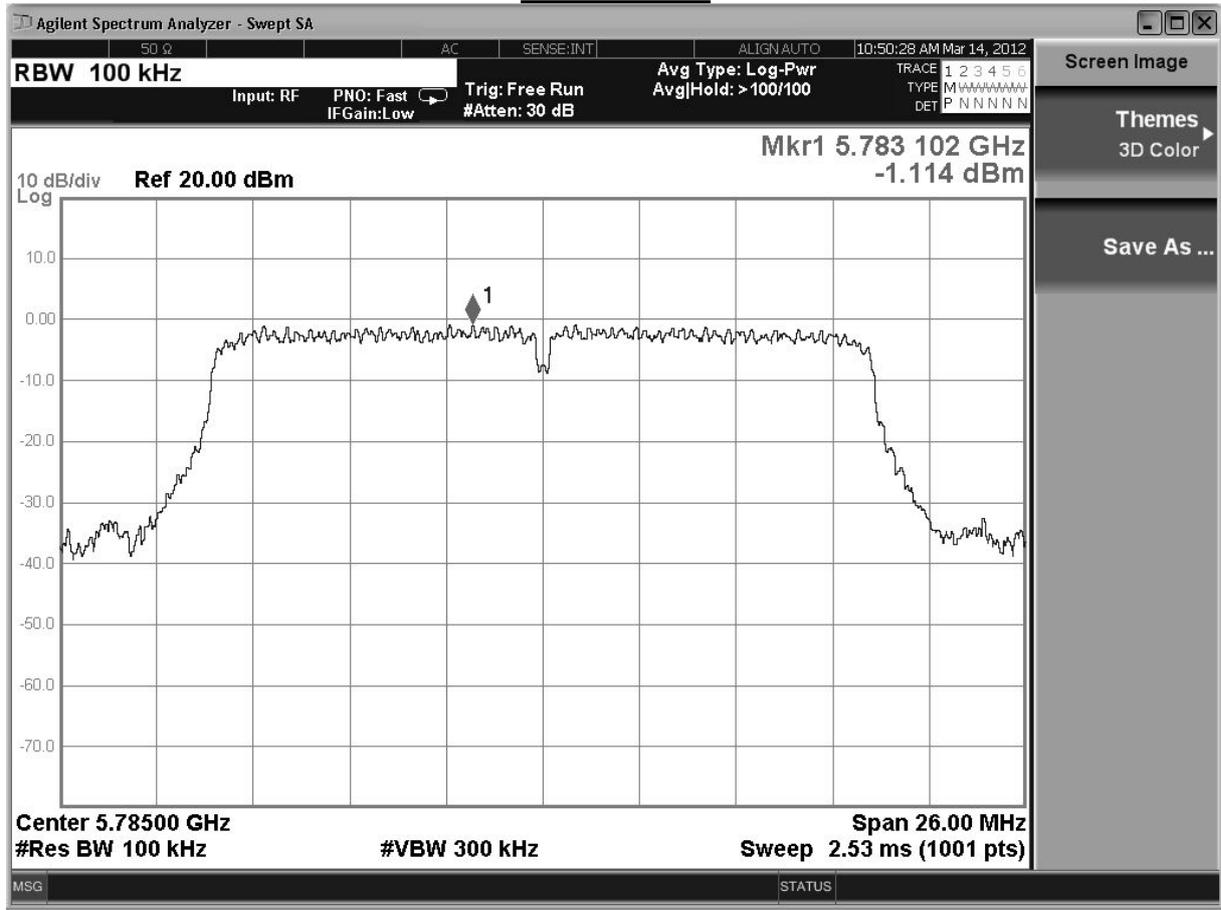
Channel 149



Channel 157



Channel 157



| | | | |
|--------------|------------------------------|-----------|-----|
| Product | Dual-band Wireless-N Adapter | | |
| Test Item | Power Density | | |
| Test Mode | Mode 1: Transmit | | |
| Date of Test | 2012/03/14 | Test Site | SR7 |

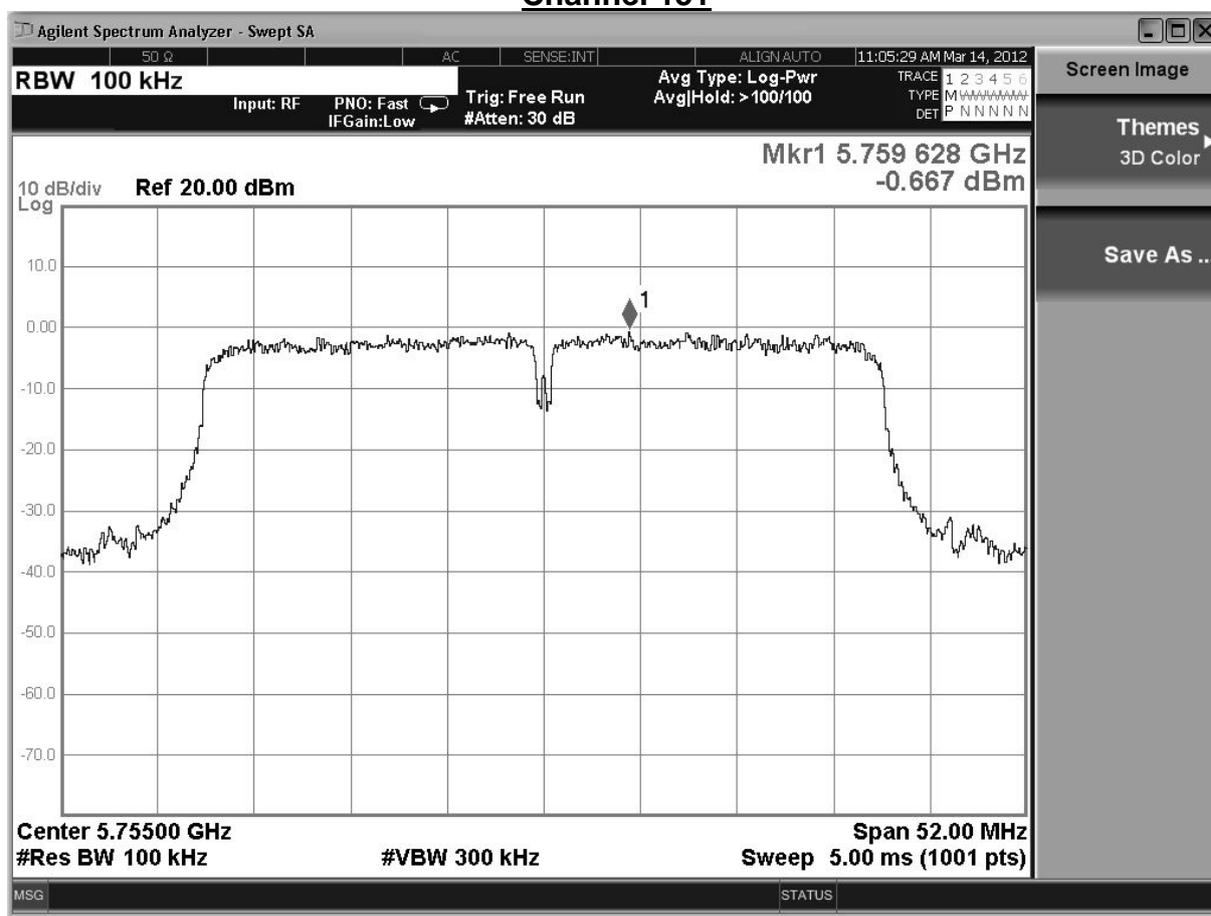
IEEE802.11n 20MHz(ANT 0+1+2)

| Channel No. | Frequency (MHz) | Reading Level (dBm) | Measure Level (dBm) | Limit (dBm) | Result |
|-------------|-----------------|---------------------|---------------------|-------------|--------|
| 149 | 5745 | 5.65 | -9.55 | ≤ 8 | Pass |
| 157 | 5785 | 5.87 | -9.33 | ≤ 8 | Pass |
| 165 | 5825 | 6.32 | -8.88 | ≤ 8 | Pass |

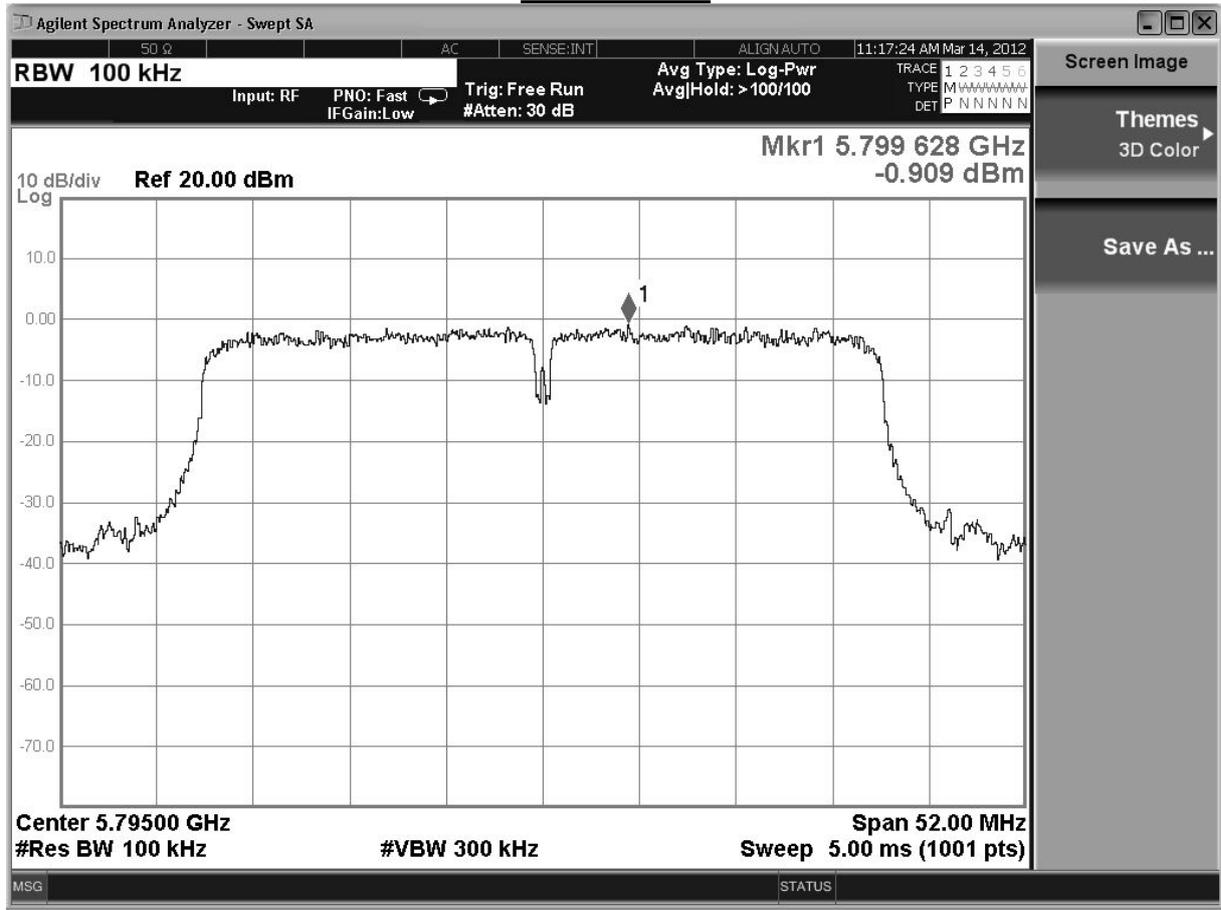
| | | | |
|--------------|------------------------------|-----------|-----|
| Product | Dual-band Wireless-N Adapter | | |
| Test Item | Power Density | | |
| Test Mode | Mode 1: Transmit | | |
| Date of Test | 2012/03/14 | Test Site | SR7 |

| IEEE 802.11n_40MHz (ANT 0) | | | | | |
|----------------------------|-----------------|---------------------|---------------------|-------------|--------|
| Channel No. | Frequency (MHz) | Reading Level (dBm) | Measure Level (dBm) | Limit (dBm) | Result |
| 151 | 5755 | -0.667 | -15.867 | ≤ 8 | Pass |
| 159 | 5795 | -0.909 | -16.109 | ≤ 8 | Pass |

Channel 151



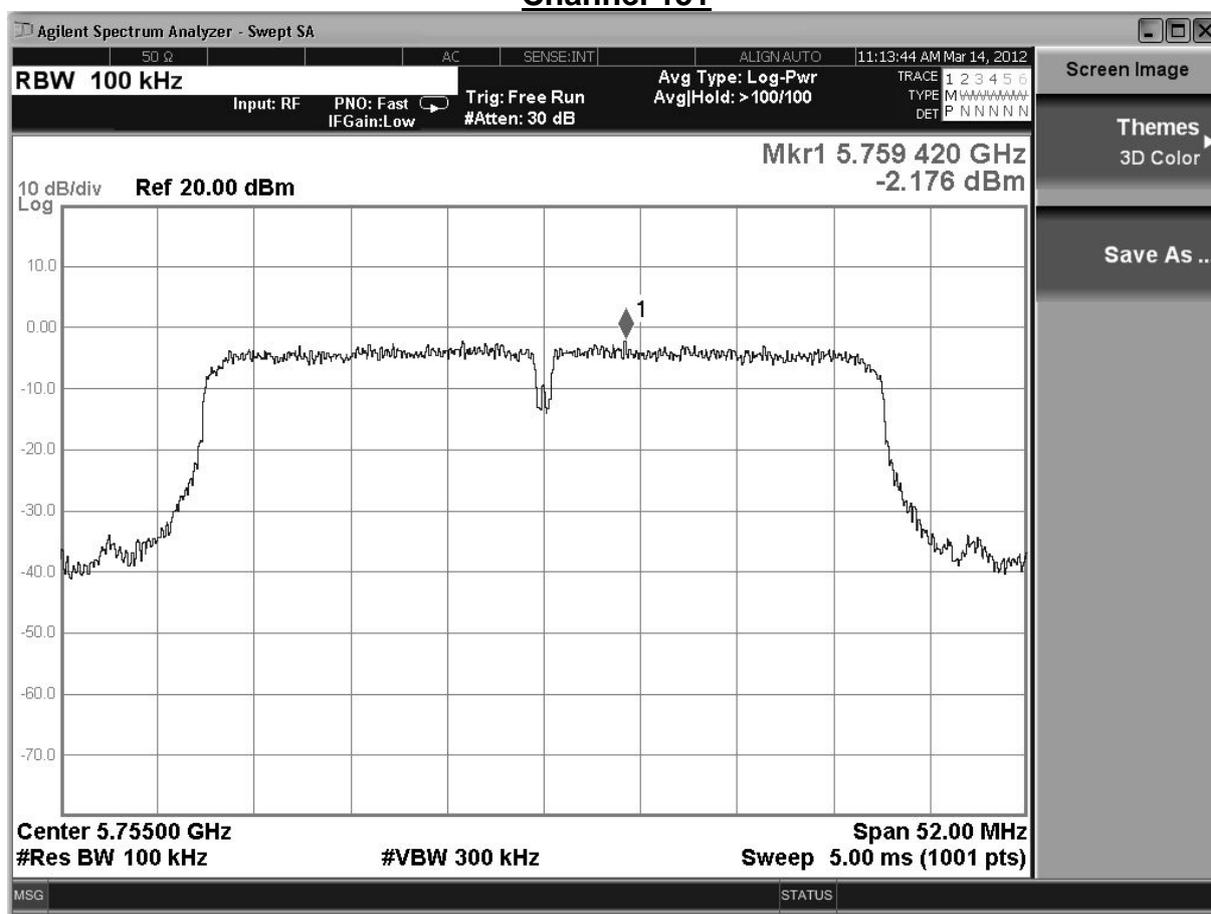
Channel 159



| | | | |
|--------------|------------------------------|-----------|-----|
| Product | Dual-band Wireless-N Adapter | | |
| Test Item | Power Density | | |
| Test Mode | Mode 1: Transmit | | |
| Date of Test | 2012/03/14 | Test Site | SR7 |

| IEEE 802.11n_40MHz (ANT 2) | | | | | |
|----------------------------|-----------------|---------------------|---------------------|-------------|--------|
| Channel No. | Frequency (MHz) | Reading Level (dBm) | Measure Level (dBm) | Limit (dBm) | Result |
| 151 | 5755 | -2.176 | -17.376 | ≤ 8 | Pass |
| 159 | 5795 | -2.746 | -17.946 | ≤ 8 | Pass |

Channel 151



| | | | |
|--------------|------------------------------|-----------|-----|
| Product | Dual-band Wireless-N Adapter | | |
| Test Item | Power Density | | |
| Test Mode | Mode 1: Transmit | | |
| Date of Test | 2012/03/14 | Test Site | SR7 |

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

| Channel No. | Frequency (MHz) | Reading Level (dBm) | Measure Level (dBm) | Limit (dBm) | Result |
|-------------|-----------------|---------------------|---------------------|-------------|--------|
| 151 | 5755 | 4.16 | -11.04 | ≤ 8 | Pass |
| 159 | 5795 | 3.36 | -11.84 | ≤ 8 | Pass |