

## 5. Peak Excursion

### 5.1. Test Equipment

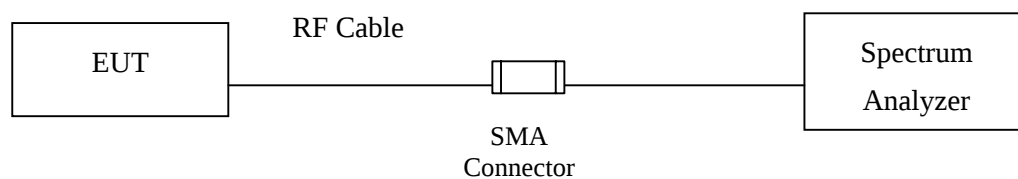
|   | Equipment         | Manufacturer | Model No./Serial No. | Last Cal.  |
|---|-------------------|--------------|----------------------|------------|
|   | Spectrum Analyzer | R&S          | FSP40 / 100170       | Jun, 2012  |
|   | Spectrum Analyzer | Agilent      | E4407B / US39440758  | Jun, 2012  |
| X | Spectrum Analyzer | Agilent      | N9010A / MY48030495  | Apr., 2012 |

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 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.

### 5.4. Test Procedure

The EUT was setup to ANSI C63.4, 2003; tested to DTS test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

### 5.5. Uncertainty

$\pm 1.27$  dB

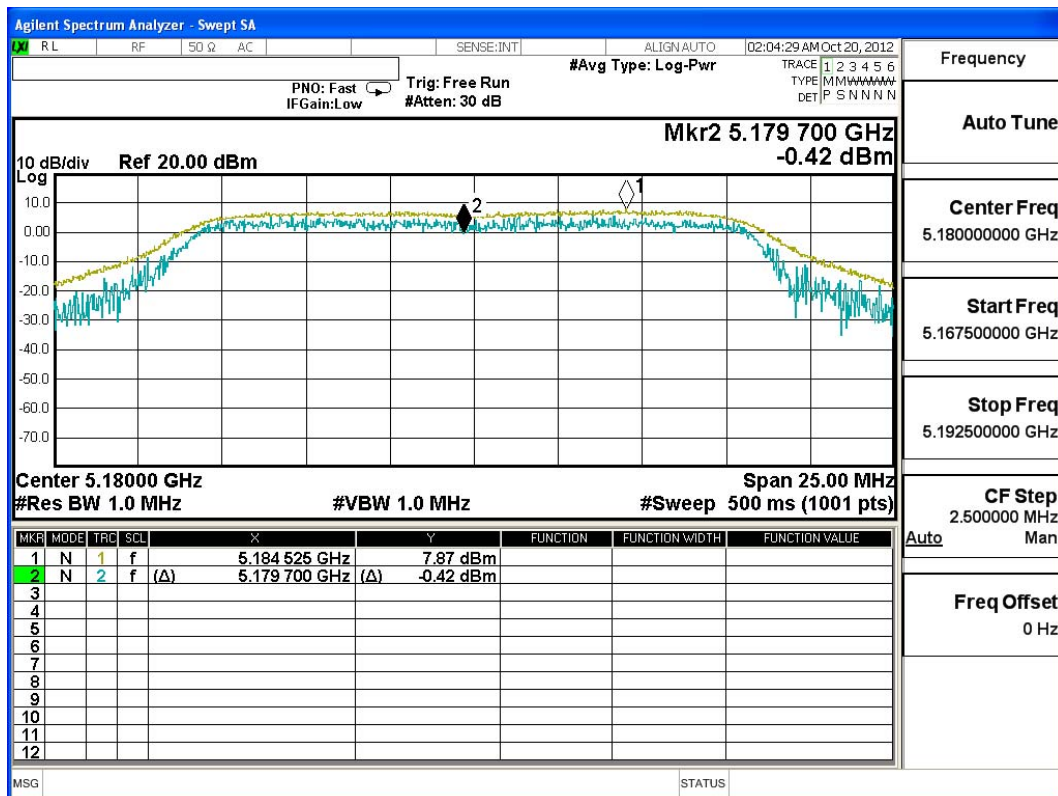
## 5.6. Test Result of Peak Excursion

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

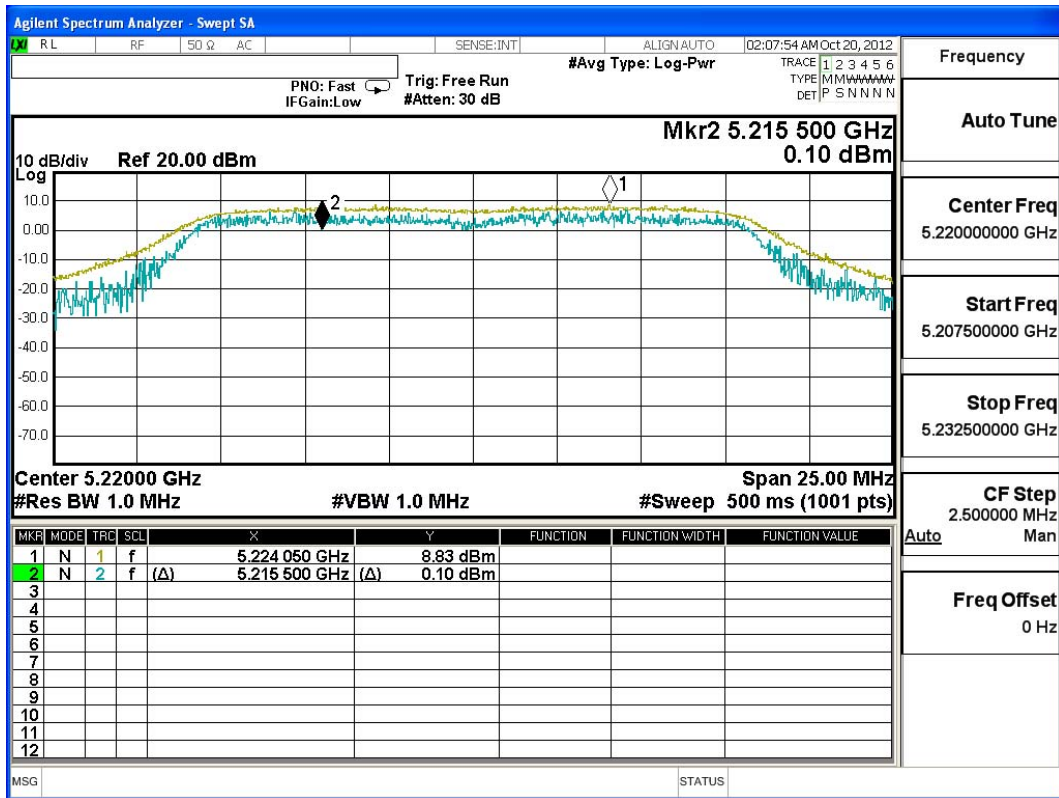
### CHAIN A

| Channel No. | Frequency (MHz) | Measurement Level (dB) | Required Limit (dB) | Result |
|-------------|-----------------|------------------------|---------------------|--------|
| 36          | 5180            | 8.290                  | <13                 | Pass   |
| 44          | 5220            | 8.720                  | <13                 | Pass   |
| 48          | 5240            | 9.220                  | <13                 | Pass   |

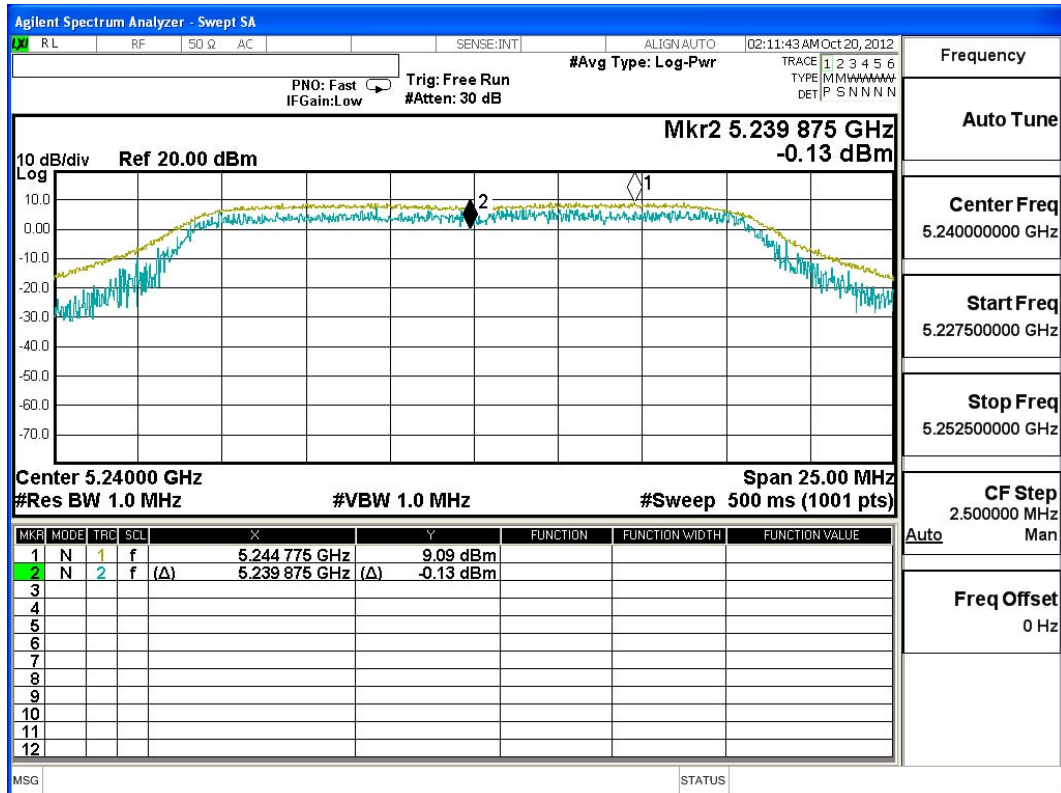
### Channel 36:



### Channel 44:



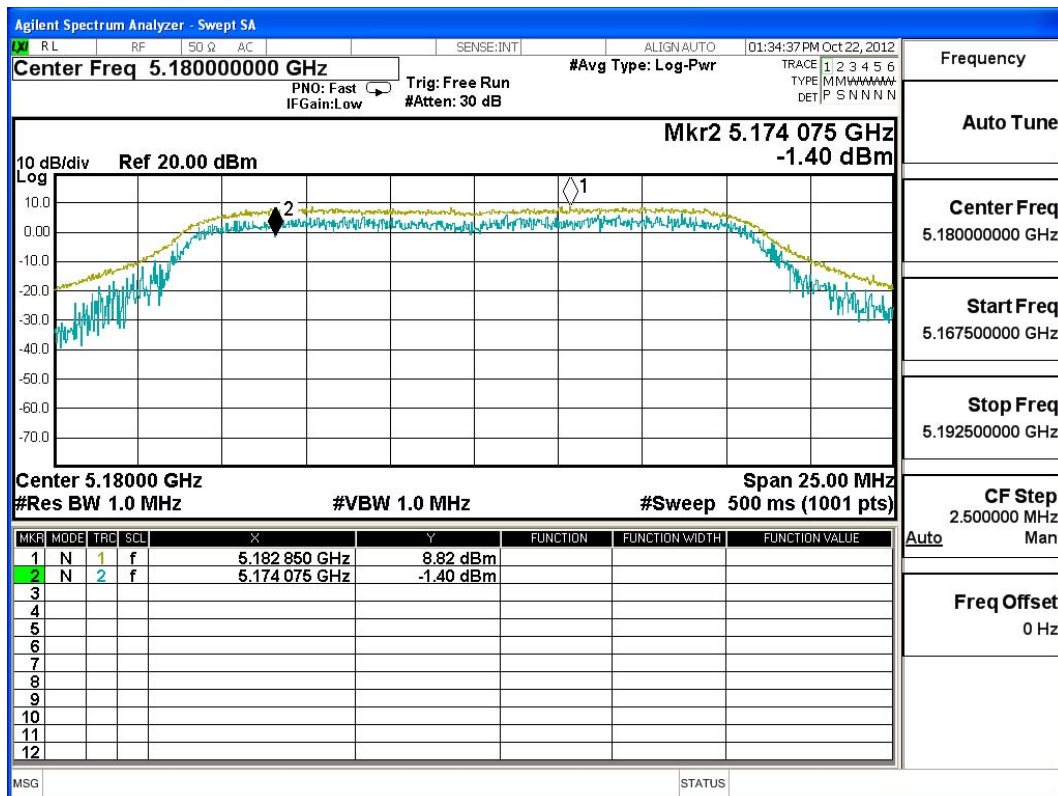
### Channel 48:



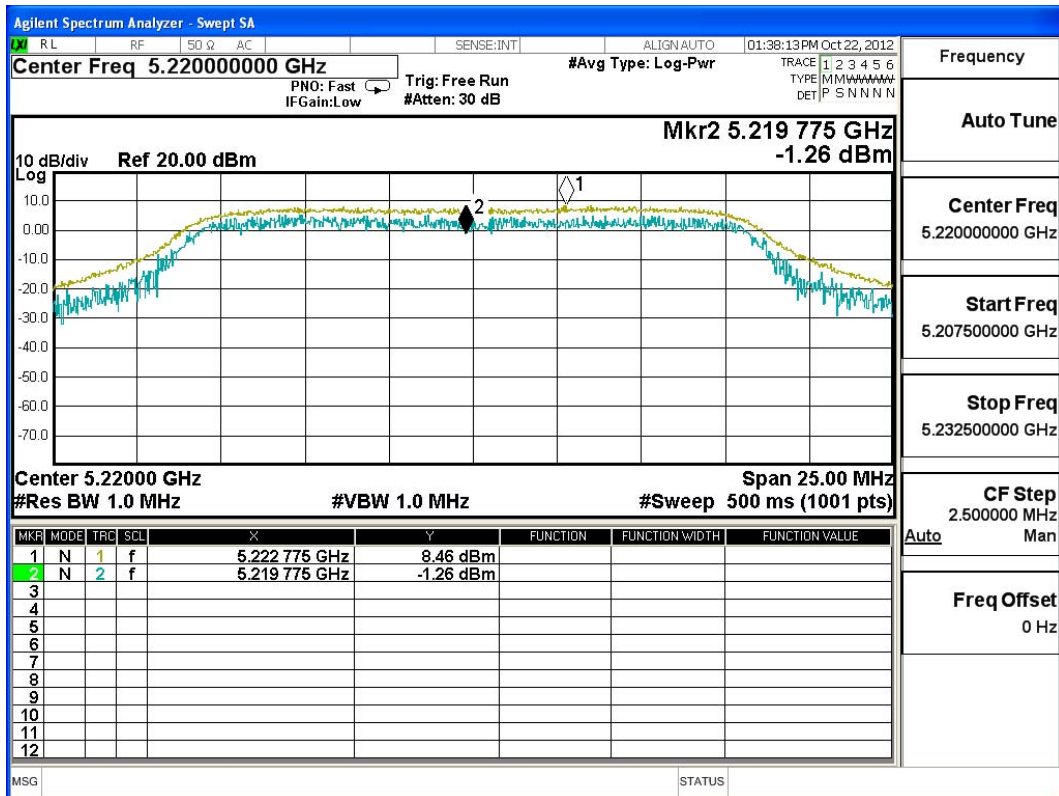
## CHAIN B

| Channel No. | Frequency (MHz) | Measurement Level (dB) | Required Limit (dB) | Result |
|-------------|-----------------|------------------------|---------------------|--------|
| 36          | 5180            | 10.220                 | <13                 | Pass   |
| 44          | 5220            | 9.720                  | <13                 | Pass   |
| 48          | 5240            | 9.010                  | <13                 | Pass   |

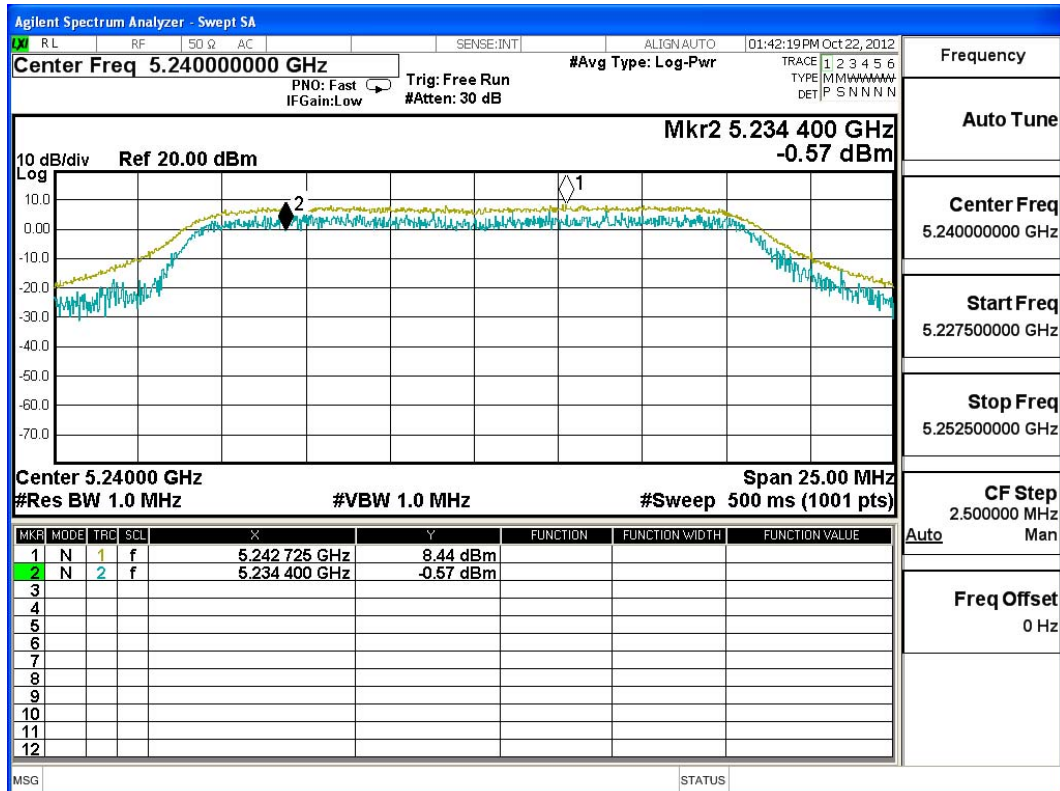
## Channel 36:



### Channel 44:



### Channel 48:

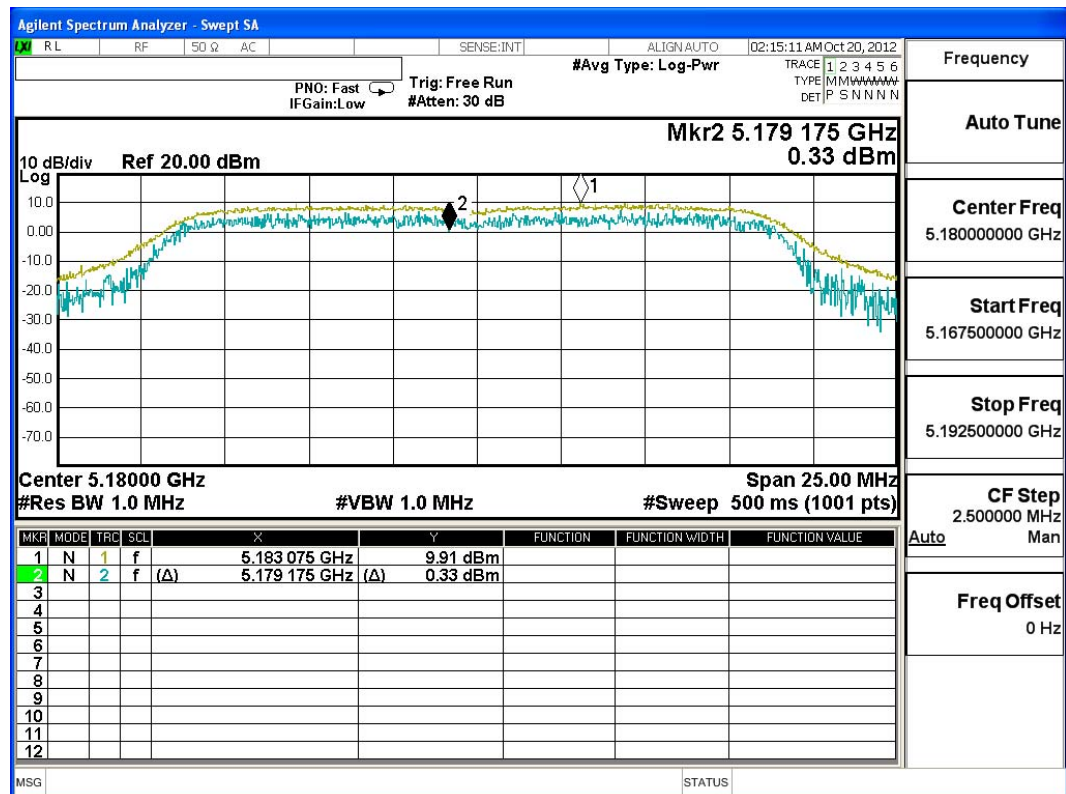


|           |   |                                                          |
|-----------|---|----------------------------------------------------------|
| Product   | : | SpectraGuardR Access Point / Sensor                      |
| Test Item | : | Peak Excursion                                     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

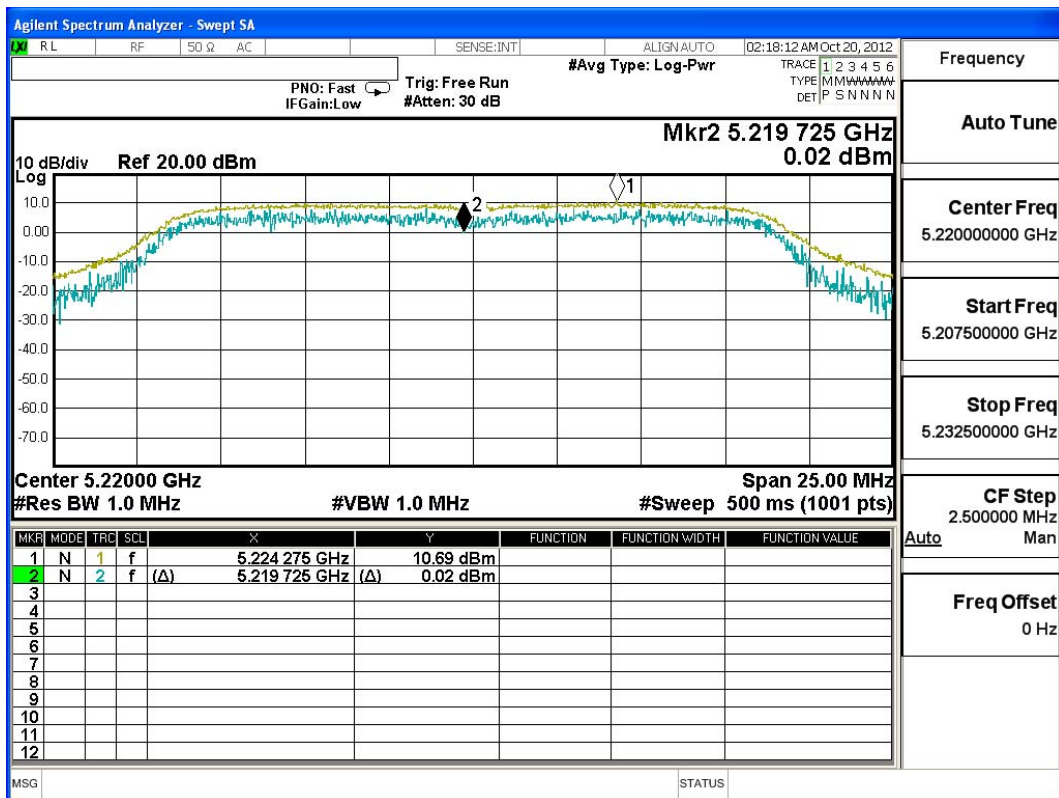
### Chain A

| Channel No. | Frequency<br>(MHz) | Measurement Level<br>(dB) | Required Limit<br>(dB) | Result |
|-------------|--------------------|---------------------------|------------------------|--------|
| 36          | 5180               | 9.580                     | <13                    | Pass   |
| 44          | 5220               | 10.670                    | <13                    | Pass   |
| 48          | 5240               | 10.610                    | <13                    | Pass   |

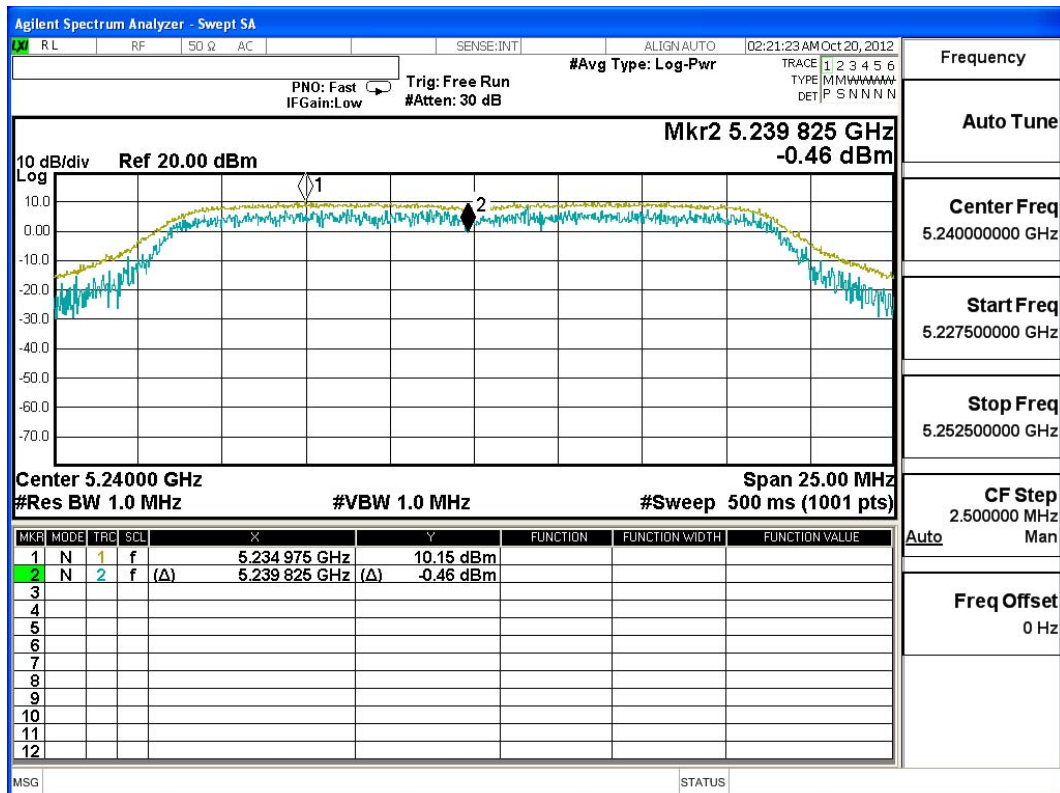
### Channel 36:



### Channel 44:



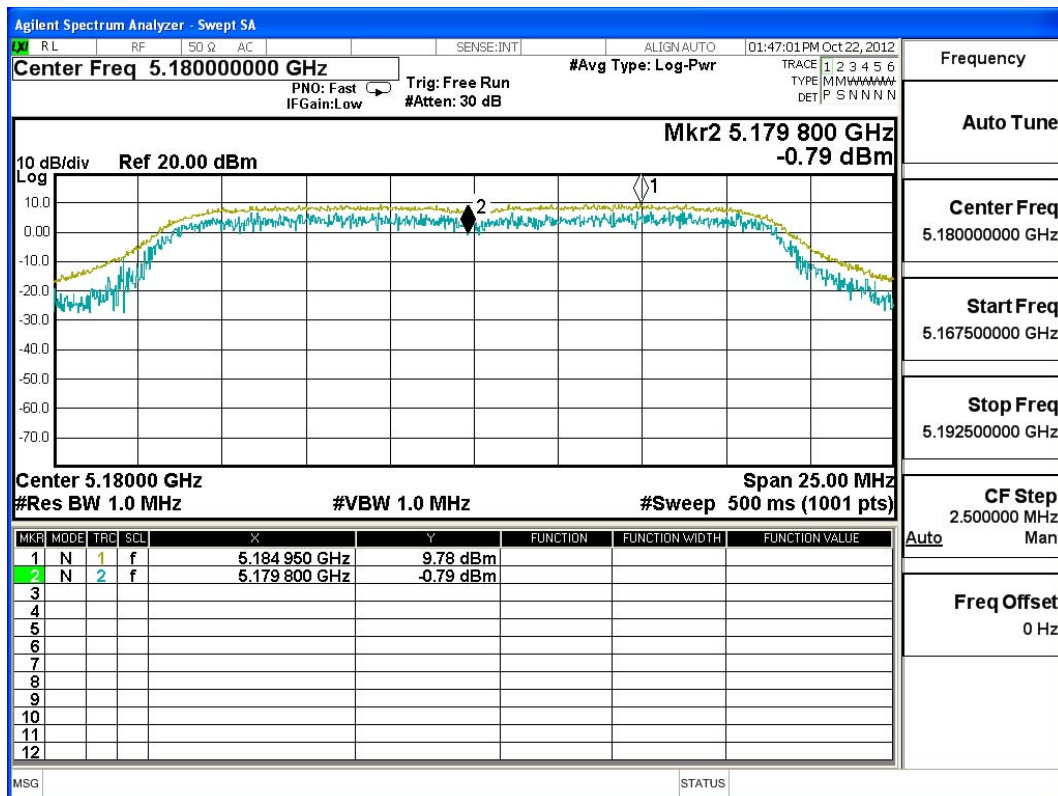
### Channel 48:



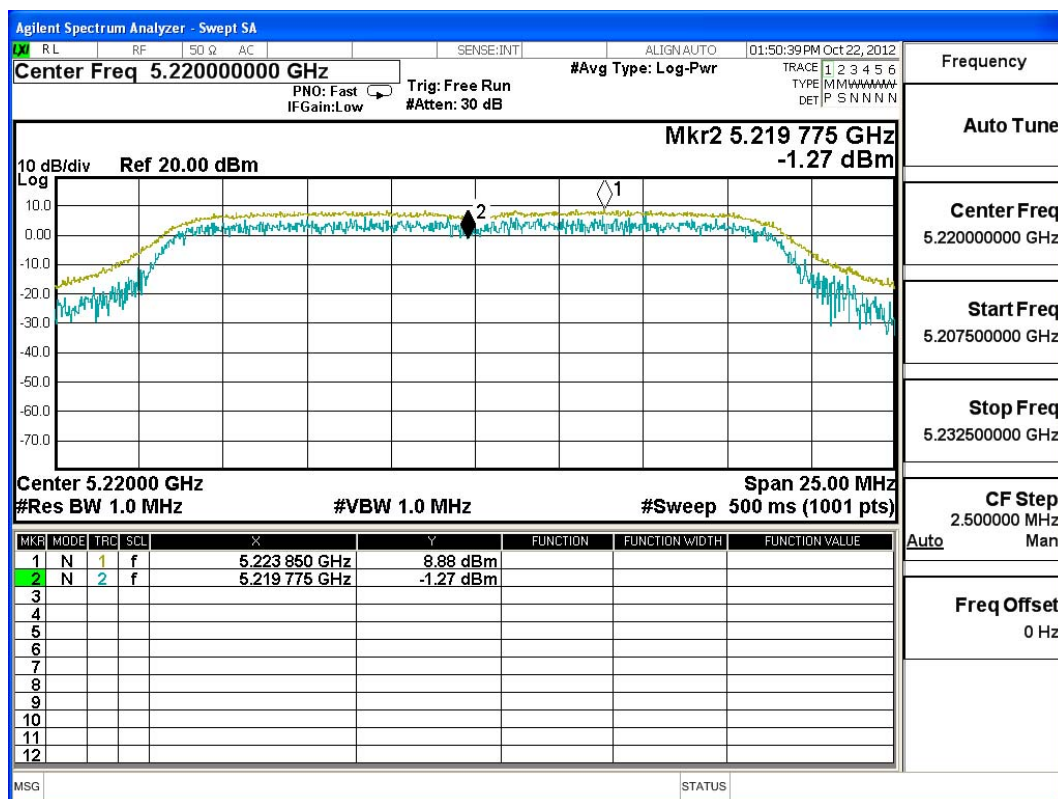
### Chain B

| Channel No. | Frequency (MHz) | Measurement Level (dB) | Required Limit (dB) | Result |
|-------------|-----------------|------------------------|---------------------|--------|
| 36          | 5180            | 10.570                 | <13                 | Pass   |
| 44          | 5220            | 10.150                 | <13                 | Pass   |
| 48          | 5240            | 9.830                  | <13                 | Pass   |

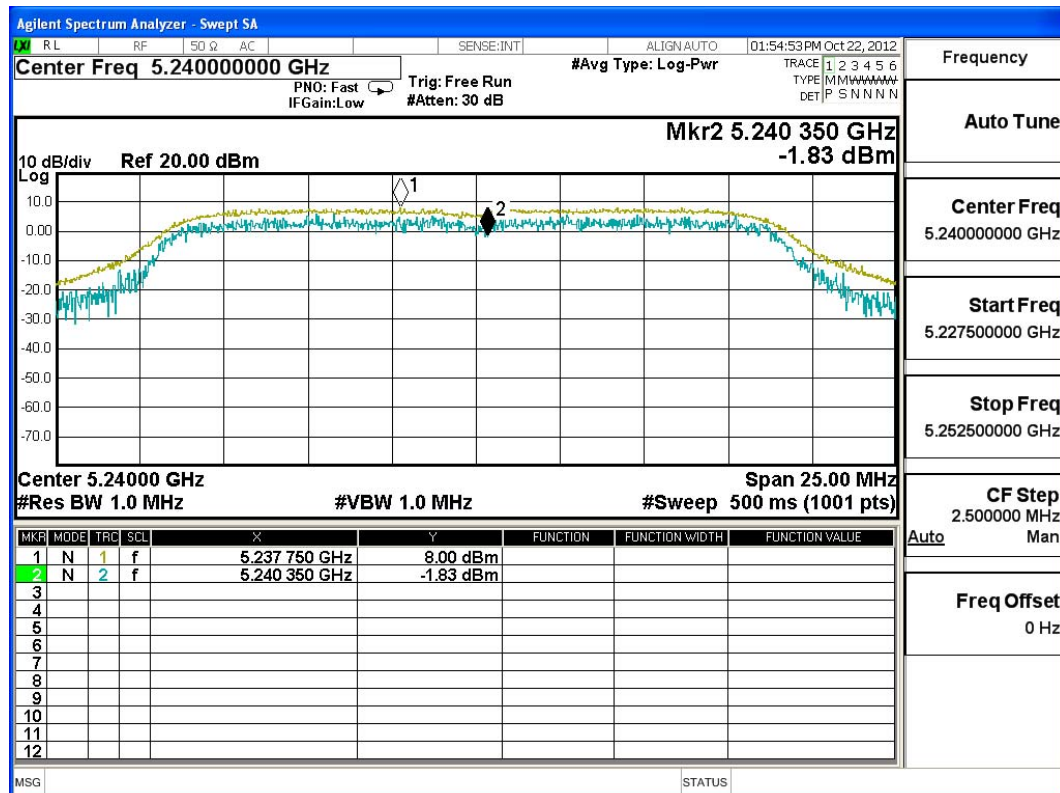
### Channel 36:



### Channel 44:



### Channel 48:

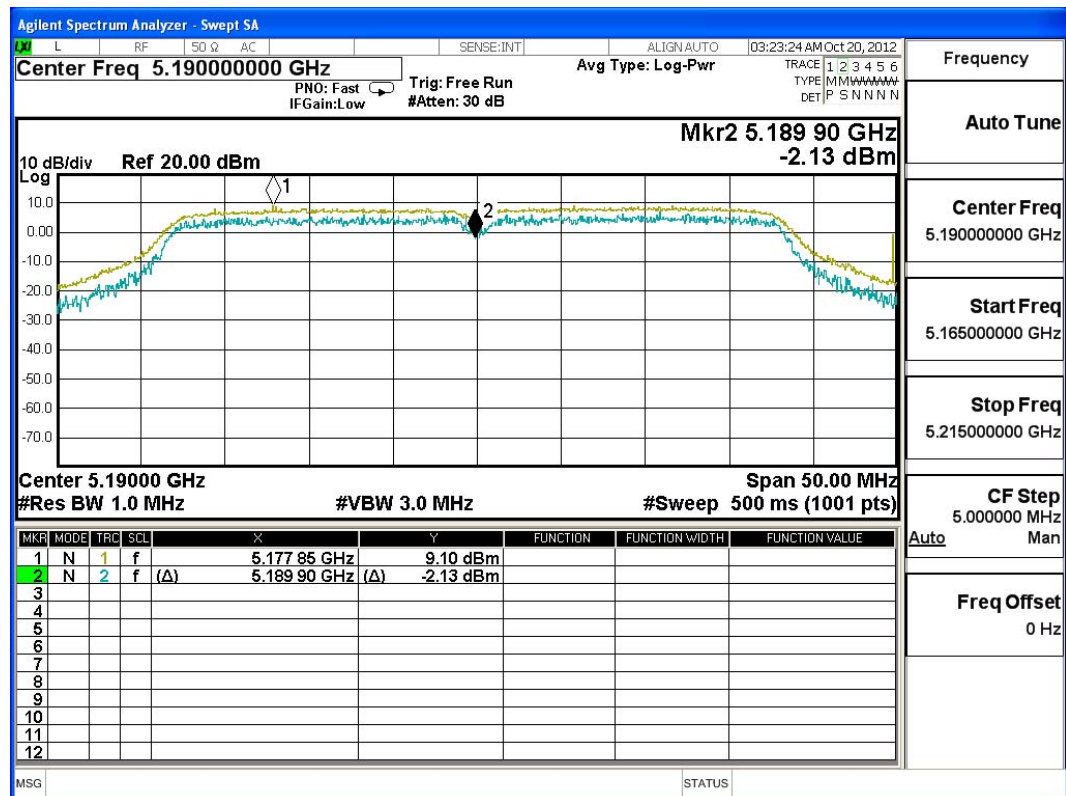


Product : SpectraGuardR Access Point / Sensor  
 Test Item : Peak Excursion  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps)(Dipole Antenna)

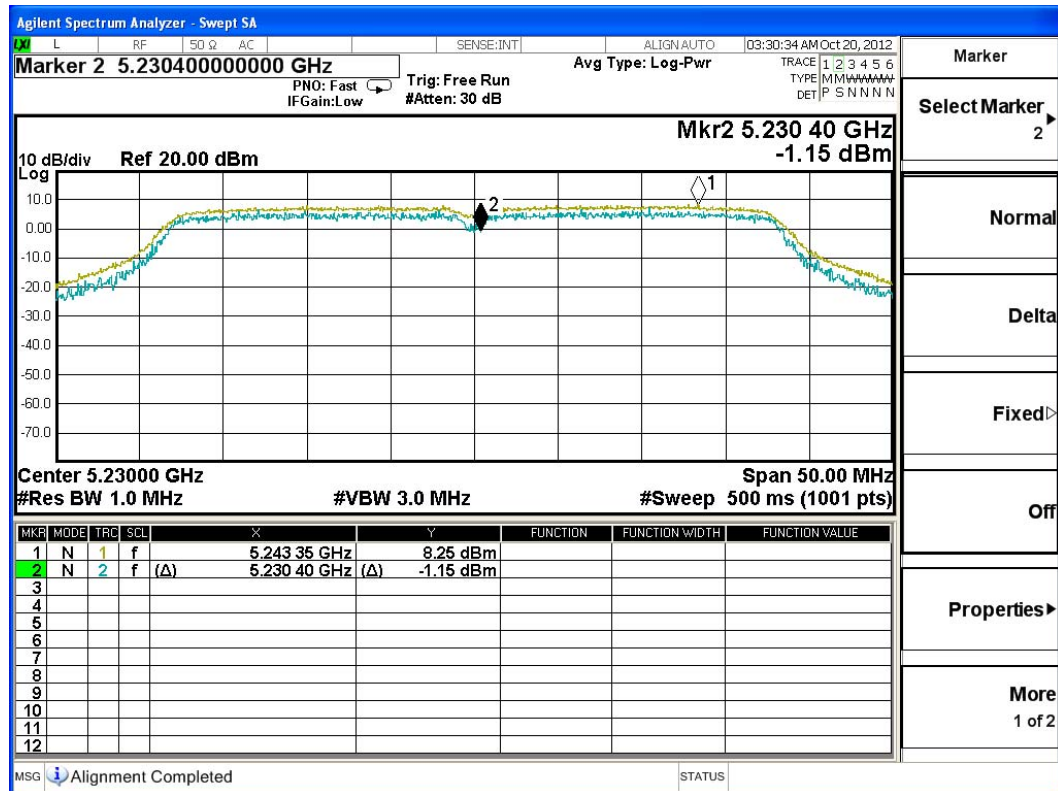
### Chain A

| Channel No. | Frequency (MHz) | Measurement Level (dB) | Required Limit (dB) | Result |
|-------------|-----------------|------------------------|---------------------|--------|
| 38          | 5190            | 11.230                 | <13                 | Pass   |
| 46          | 5230            | 9.400                  | <13                 | Pass   |

### Channel 38:



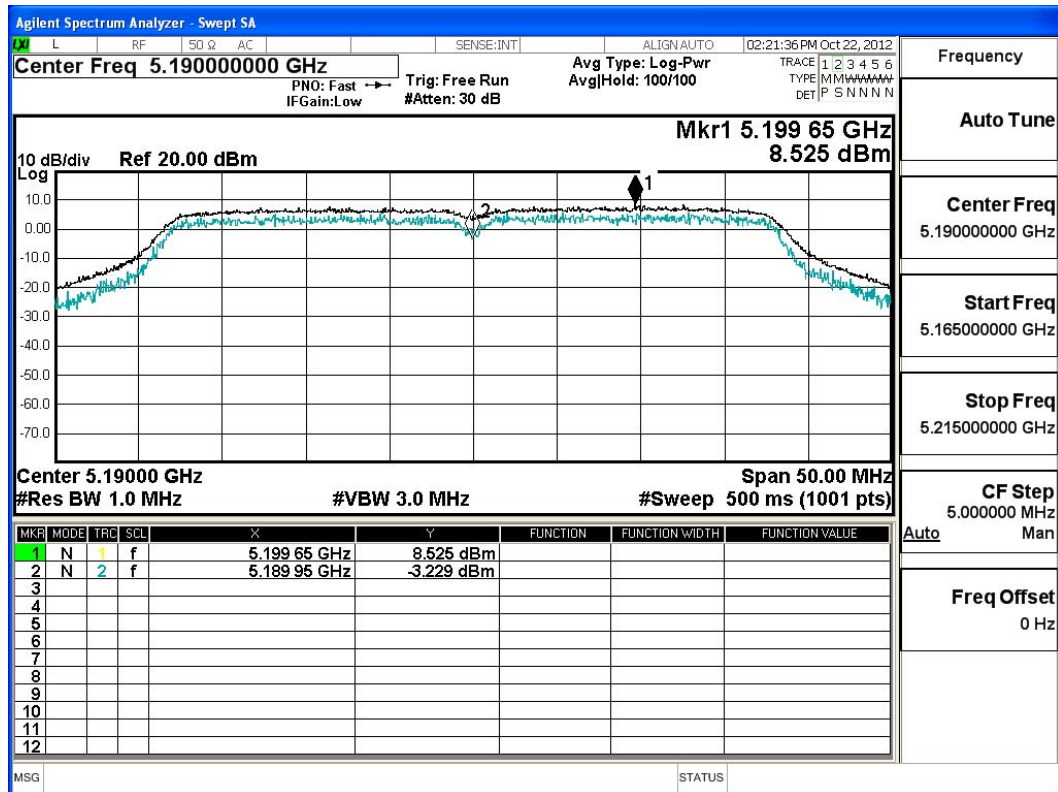
Channel 46:



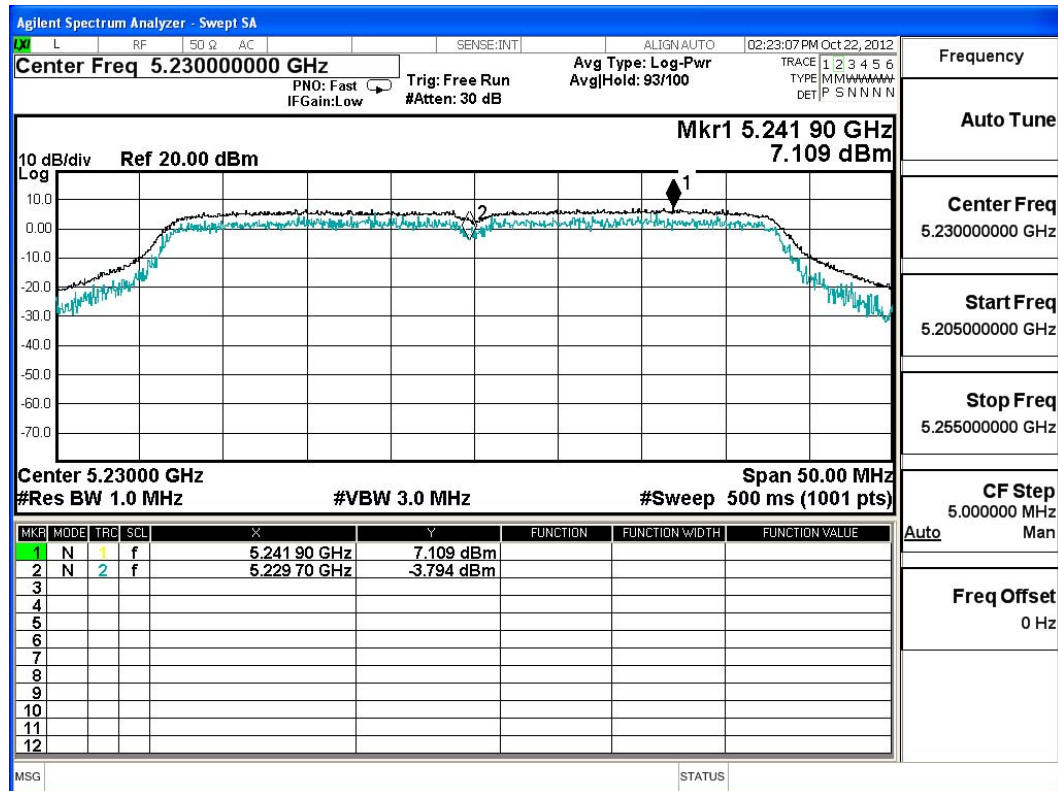
### Chain B

| Channel No. | Frequency (MHz) | Measurement Level (dB) | Required Limit (dB) | Result |
|-------------|-----------------|------------------------|---------------------|--------|
| 38          | 5190            | 11.574                 | <13                 | Pass   |
| 46          | 5230            | 10.903                 | <13                 | Pass   |

### Channel 38:



Channel 46:

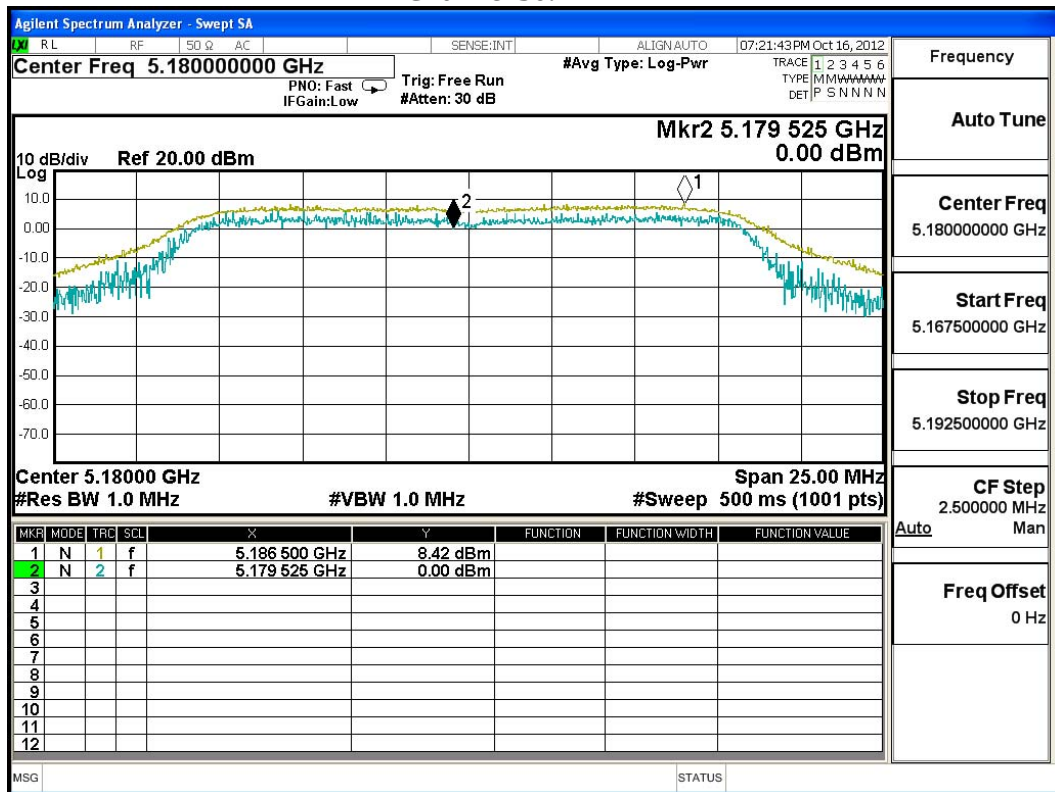


Product : SpectraGuardR Access Point / Sensor  
 Test Item : Peak Excursion  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna)

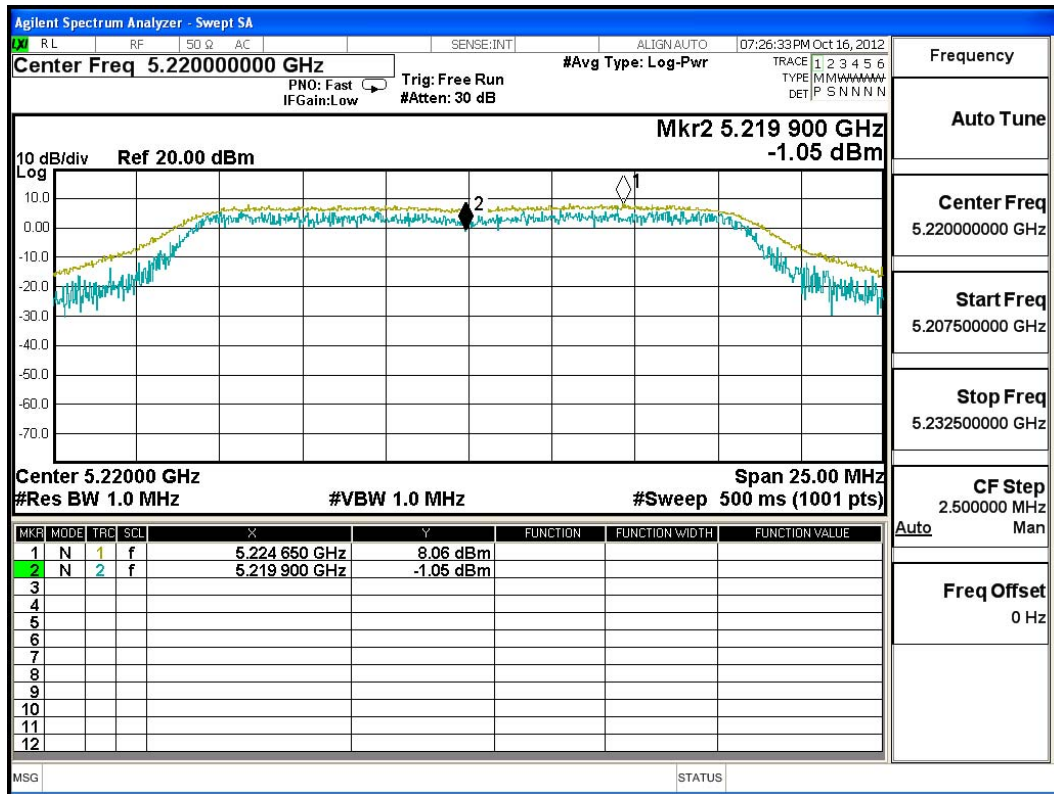
### CHAIN A

| Channel No. | Frequency (MHz) | Measurement Level (dB) | Required Limit (dB) | Result |
|-------------|-----------------|------------------------|---------------------|--------|
| 36          | 5180            | 8.420                  | <13                 | Pass   |
| 44          | 5220            | 9.110                  | <13                 | Pass   |
| 48          | 5240            | 8.050                  | <13                 | Pass   |

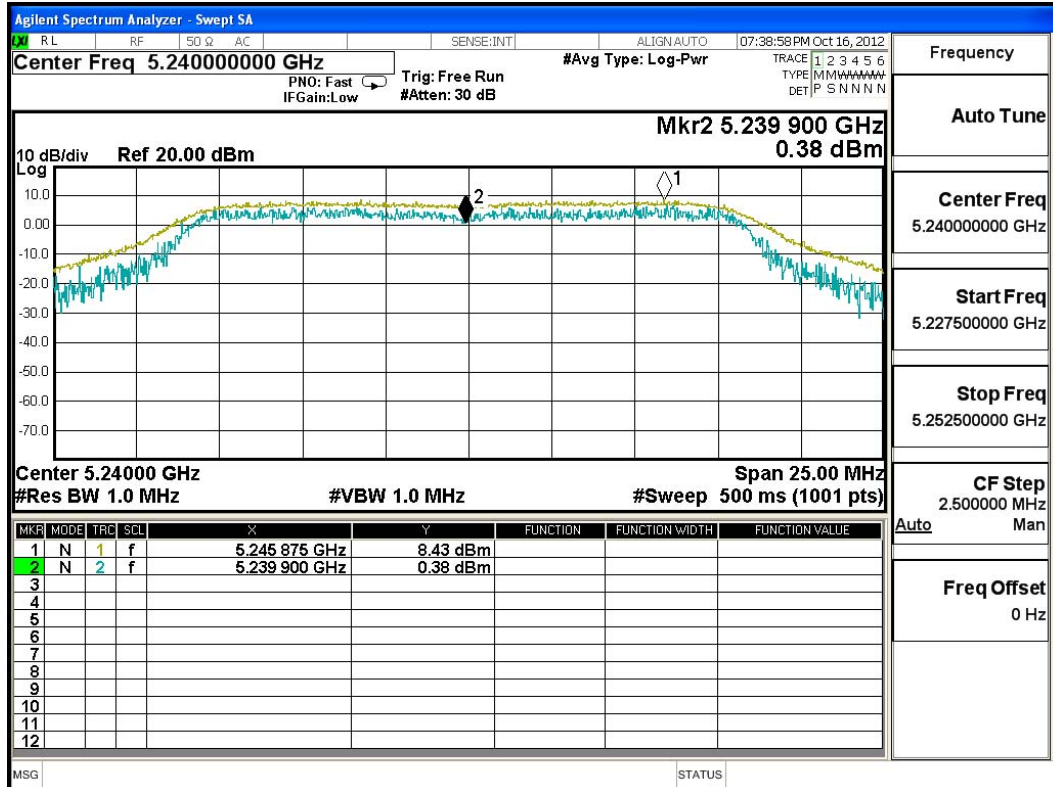
### Channel 36:



### Channel 44:



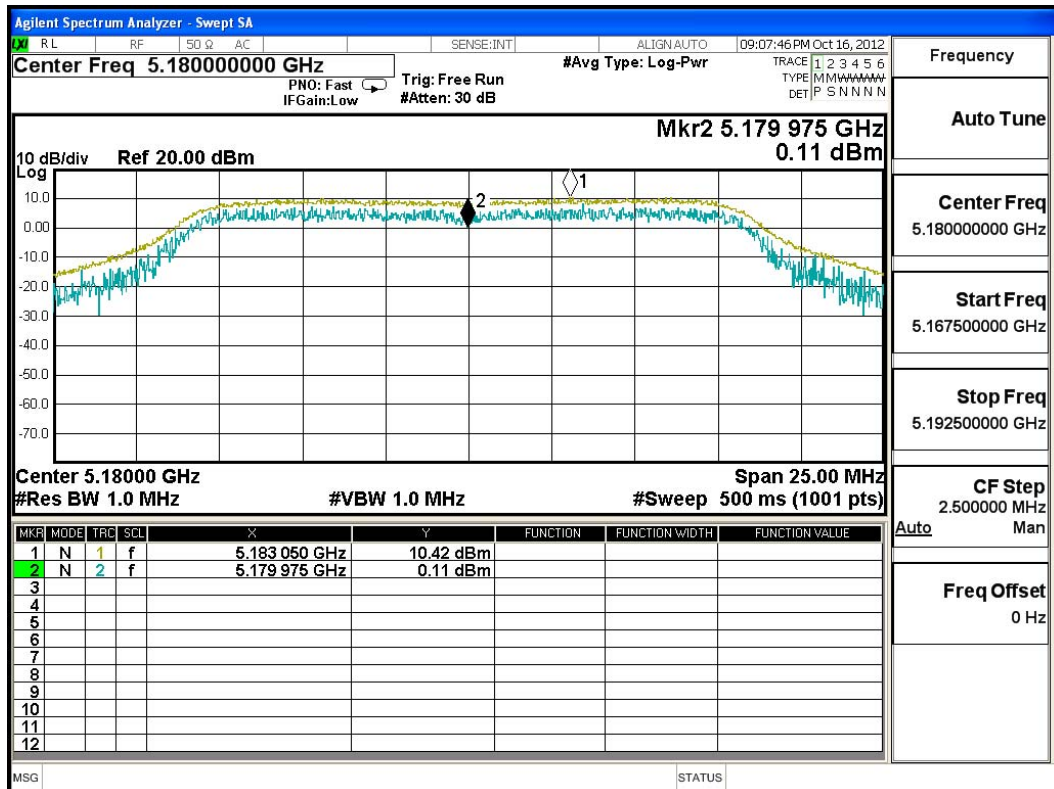
### Channel 48:



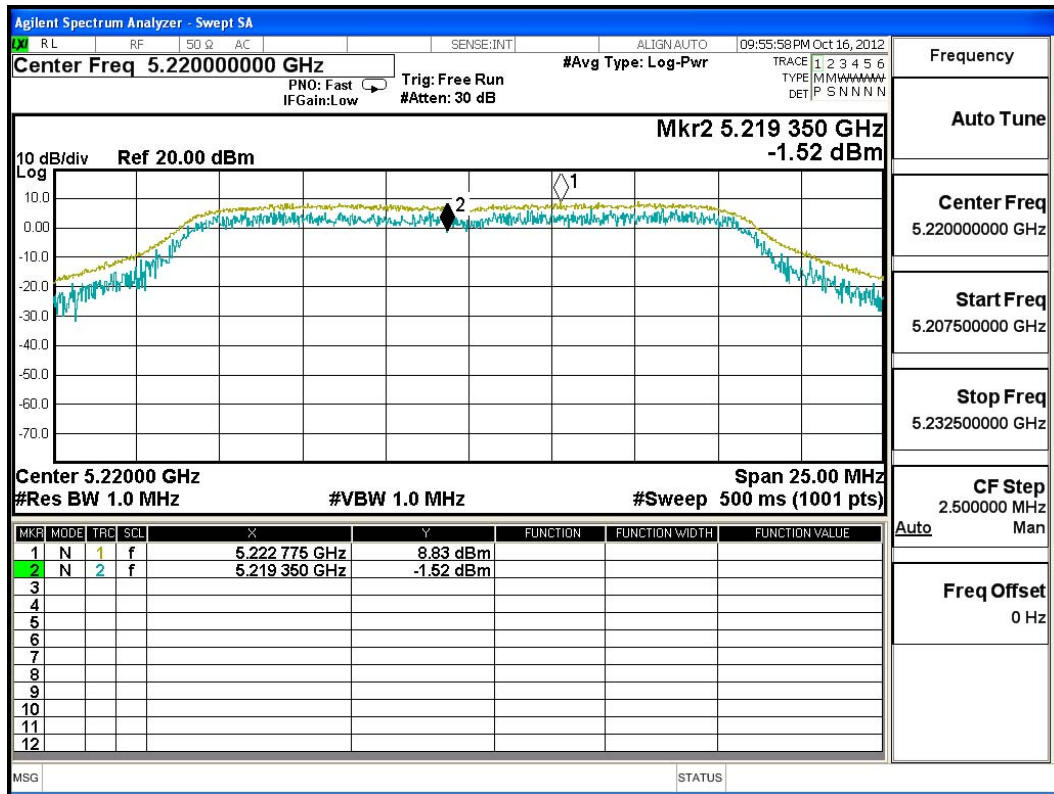
## CHAIN B

| Channel No. | Frequency (MHz) | Measurement Level (dB) | Required Limit (dB) | Result |
|-------------|-----------------|------------------------|---------------------|--------|
| 36          | 5180            | 10.310                 | <13                 | Pass   |
| 44          | 5220            | 10.350                 | <13                 | Pass   |
| 48          | 5240            | 10.030                 | <13                 | Pass   |

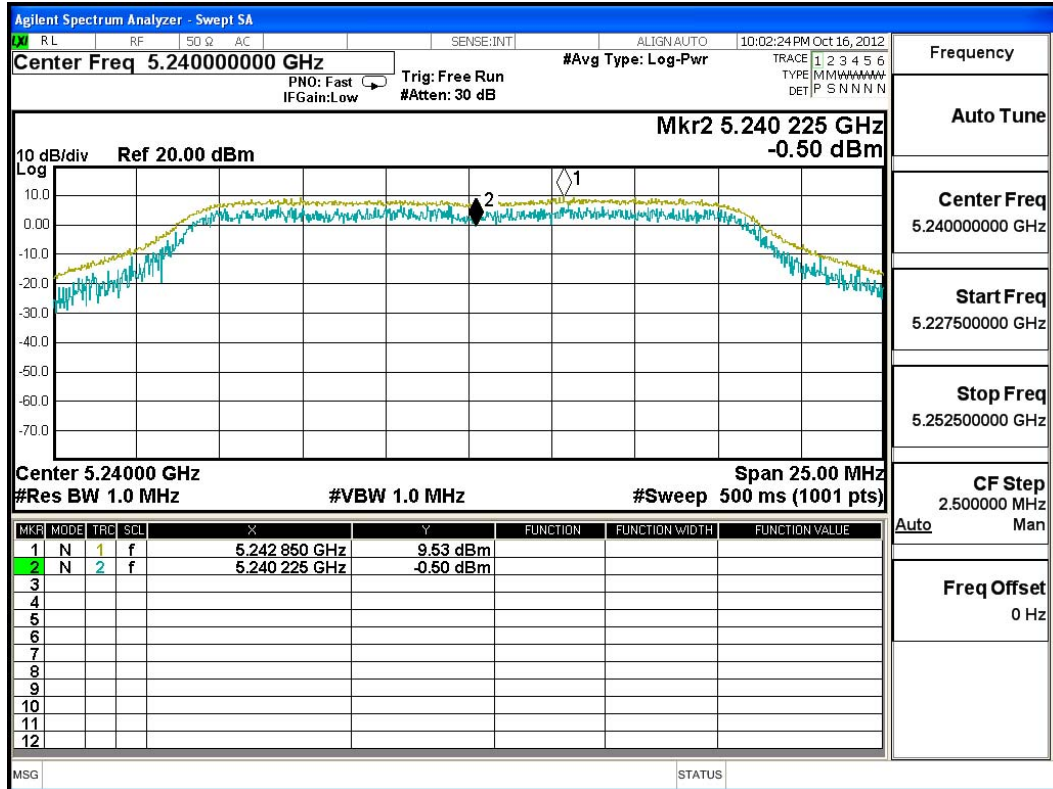
## Channel 36:



### Channel 44:



### Channel 48:

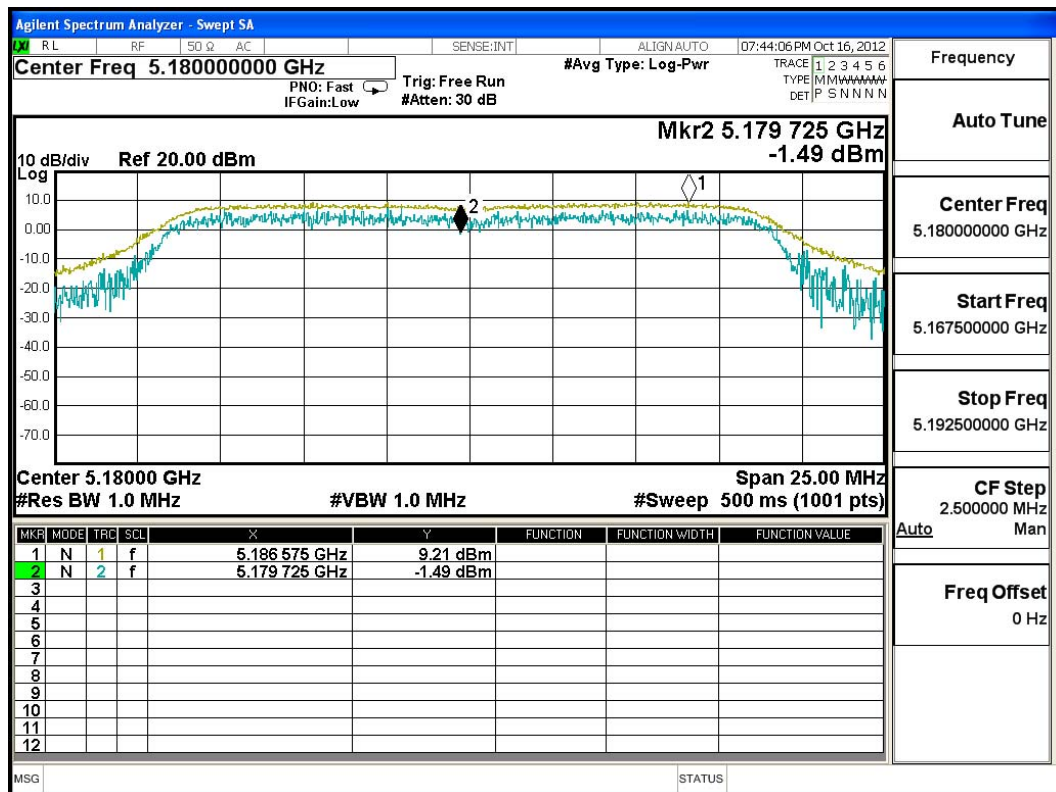


Product : SpectraGuardR Access Point / Sensor  
 Test Item : Peak Excursion  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmit (802.11n-20BW 14.4Mbps)(PIFA Antenna)

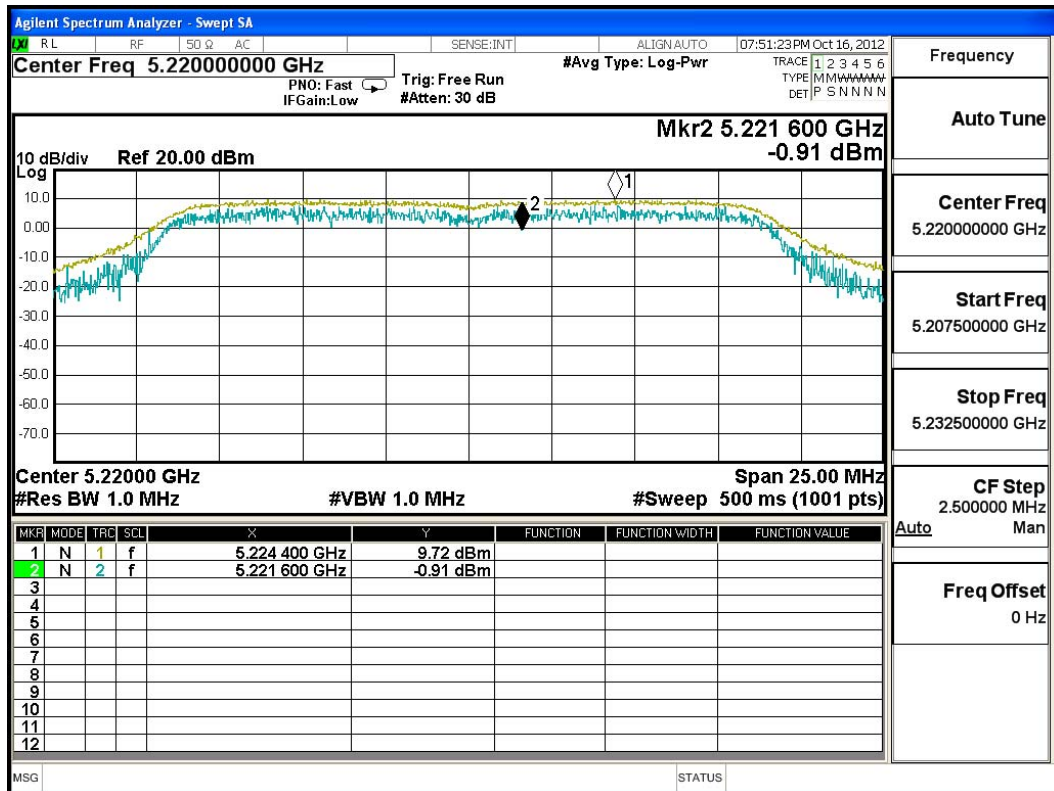
### Chain A

| Channel No. | Frequency (MHz) | Measurement Level (dB) | Required Limit (dB) | Result |
|-------------|-----------------|------------------------|---------------------|--------|
| 36          | 5180            | 10.700                 | <13                 | Pass   |
| 44          | 5220            | 10.640                 | <13                 | Pass   |
| 48          | 5240            | 10.590                 | <13                 | Pass   |

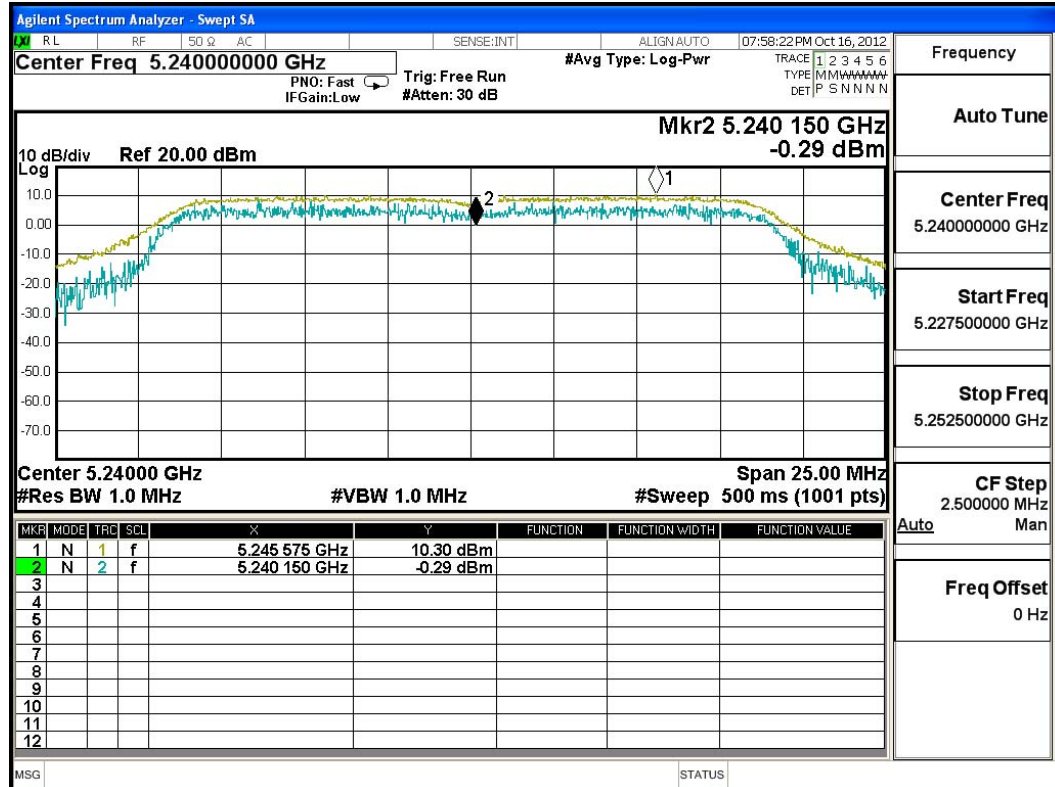
### Channel 36:



### Channel 44:



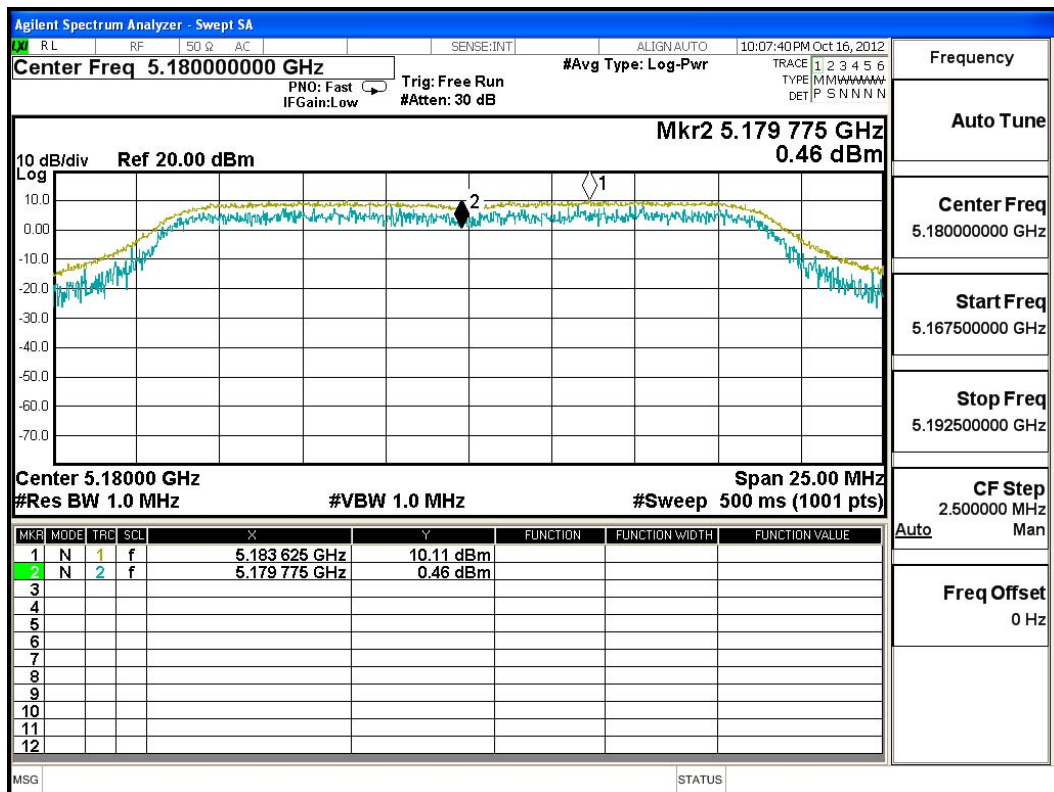
### Channel 48:



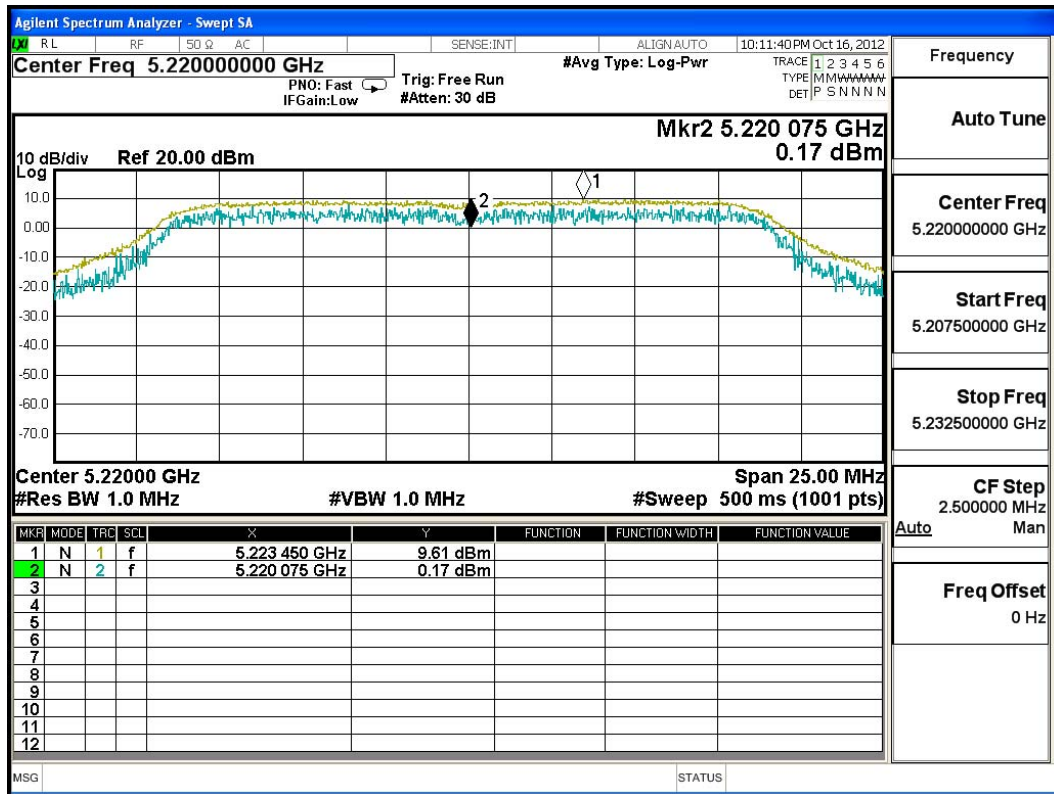
### Chain B

| Channel No. | Frequency (MHz) | Measurement Level (dB) | Required Limit (dB) | Result |
|-------------|-----------------|------------------------|---------------------|--------|
| 36          | 5180            | 9.650                  | <13                 | Pass   |
| 44          | 5220            | 9.440                  | <13                 | Pass   |
| 48          | 5240            | 11.290                 | <13                 | Pass   |

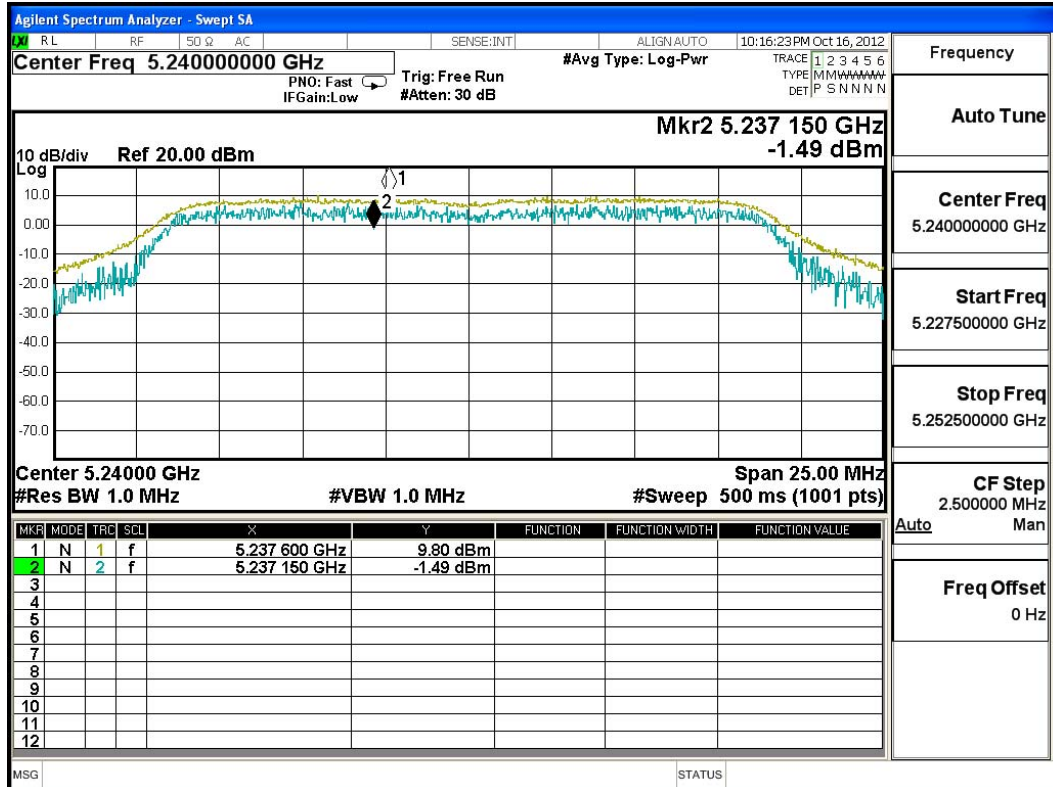
### Channel 36:



### Channel 44:



### Channel 48:

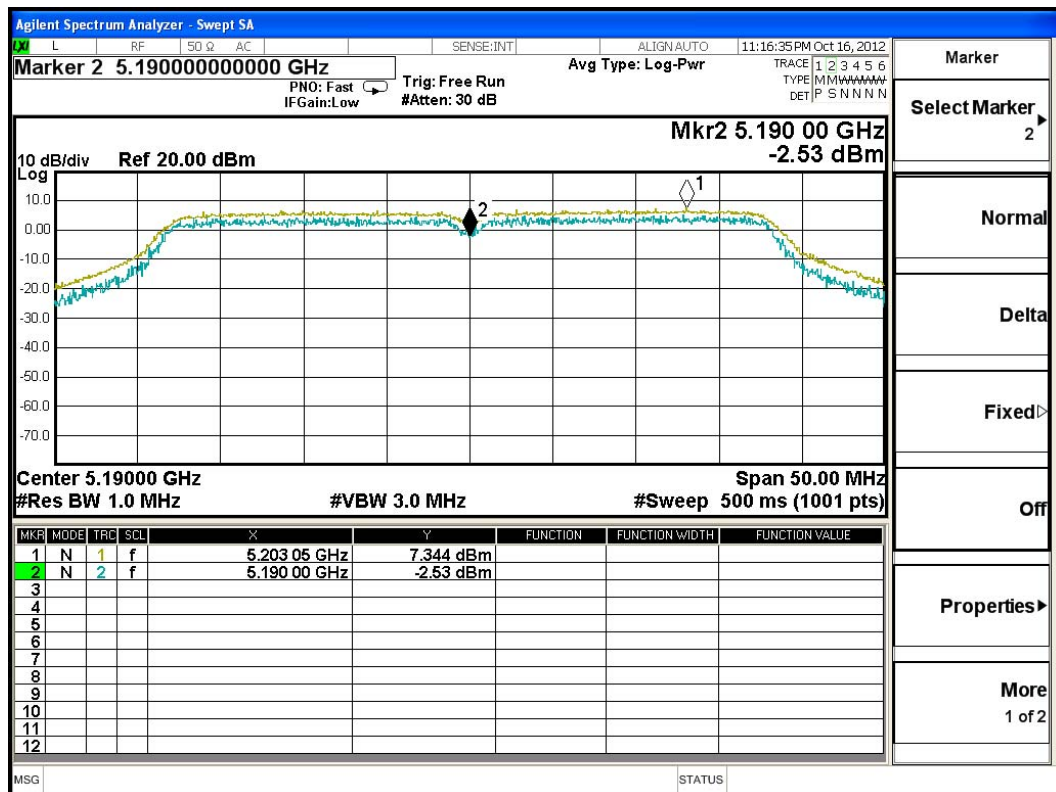


Product : SpectraGuardR Access Point / Sensor  
 Test Item : Peak Excursion  
 Test Site : No.3 OATS  
 Test Mode : Mode 6: Transmit (802.11n-40BW 30Mbps)(PIFA Antenna)

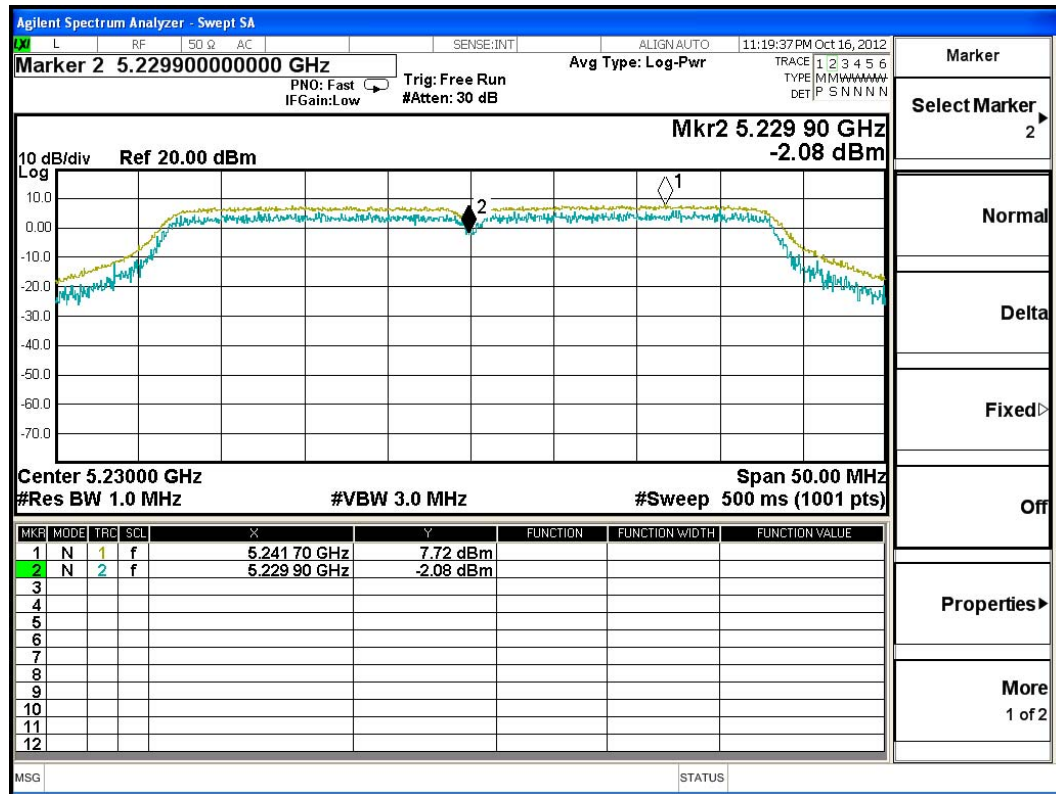
### Chain A

| Channel No. | Frequency (MHz) | Measurement Level (dB) | Required Limit (dB) | Result |
|-------------|-----------------|------------------------|---------------------|--------|
| 38          | 5190            | 9.874                  | <13                 | Pass   |
| 46          | 5230            | 9.800                  | <13                 | Pass   |

### Channel 38:



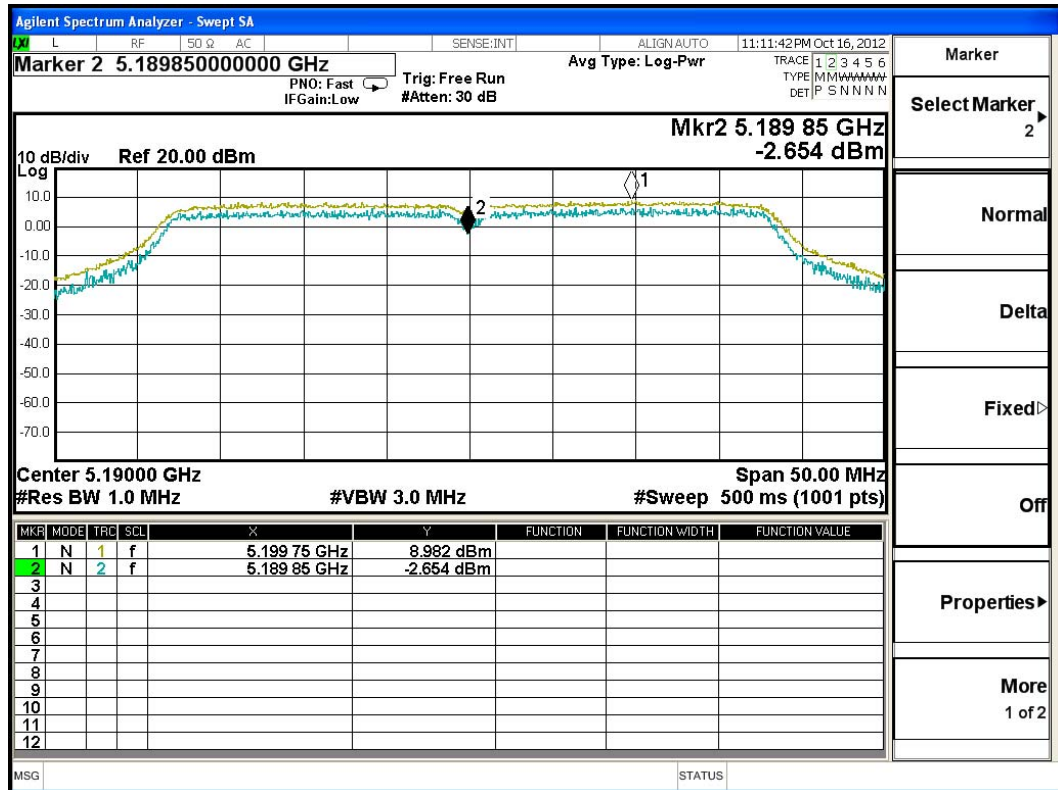
Channel 46:



### Chain B

| Channel No. | Frequency (MHz) | Measurement Level (dB) | Required Limit (dB) | Result |
|-------------|-----------------|------------------------|---------------------|--------|
| 38          | 5190            | 11.636                 | <13                 | Pass   |
| 46          | 5230            | 11.160                 | <13                 | Pass   |

### Channel 38:



Channel 46:

