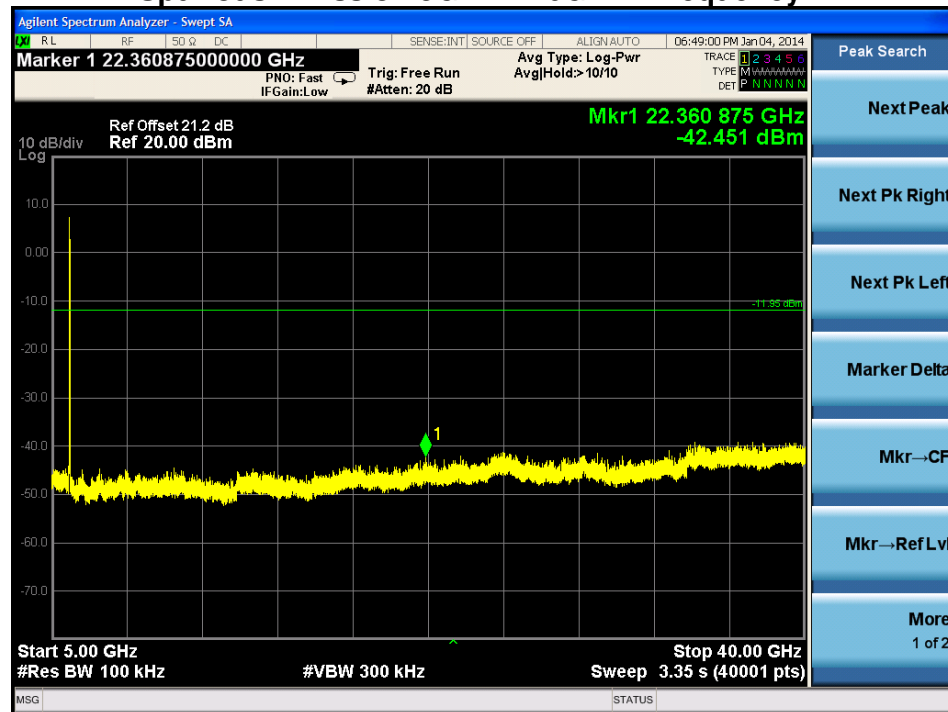
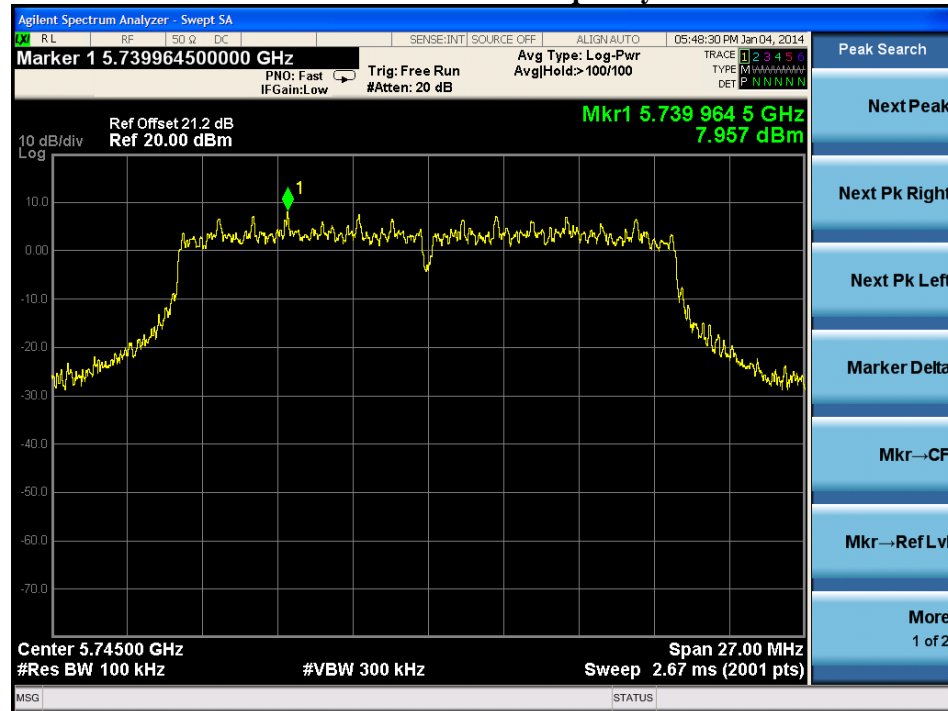


# Spurious Emission 5GHz ~ 40GHz - Frequency H

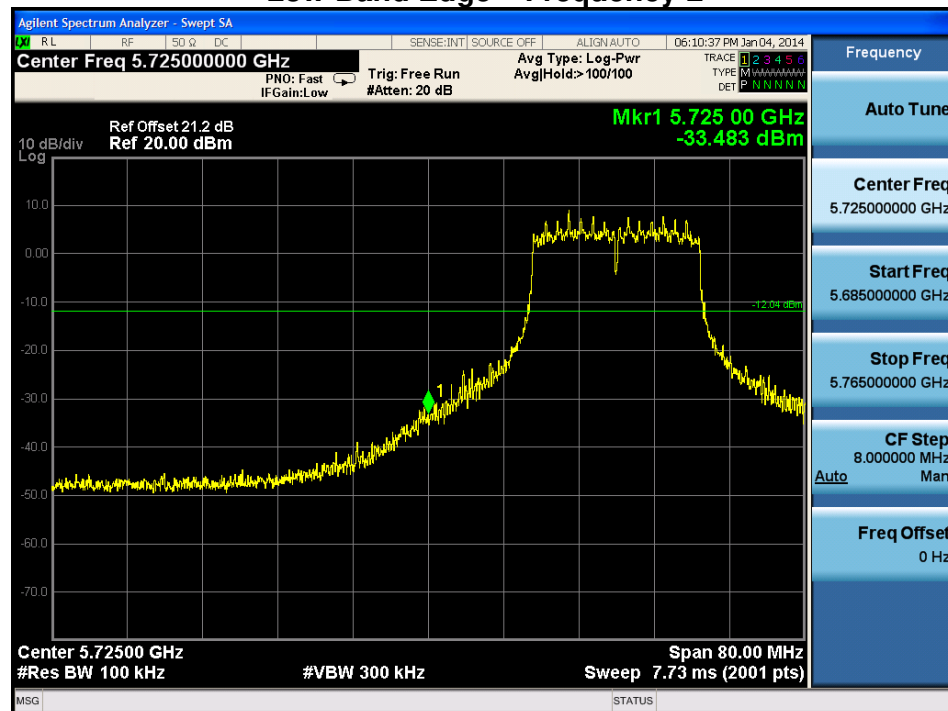


# 802.11n20 Out-of-Band Emissions – Chain 0 / Chain 0 + 1

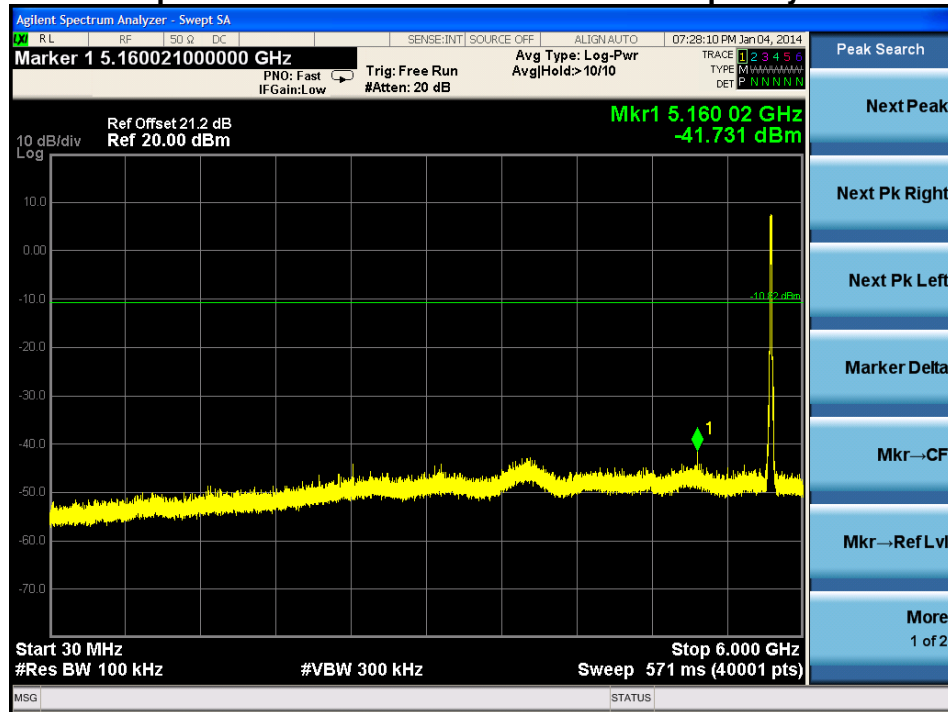
## Reference Level - Frequency L



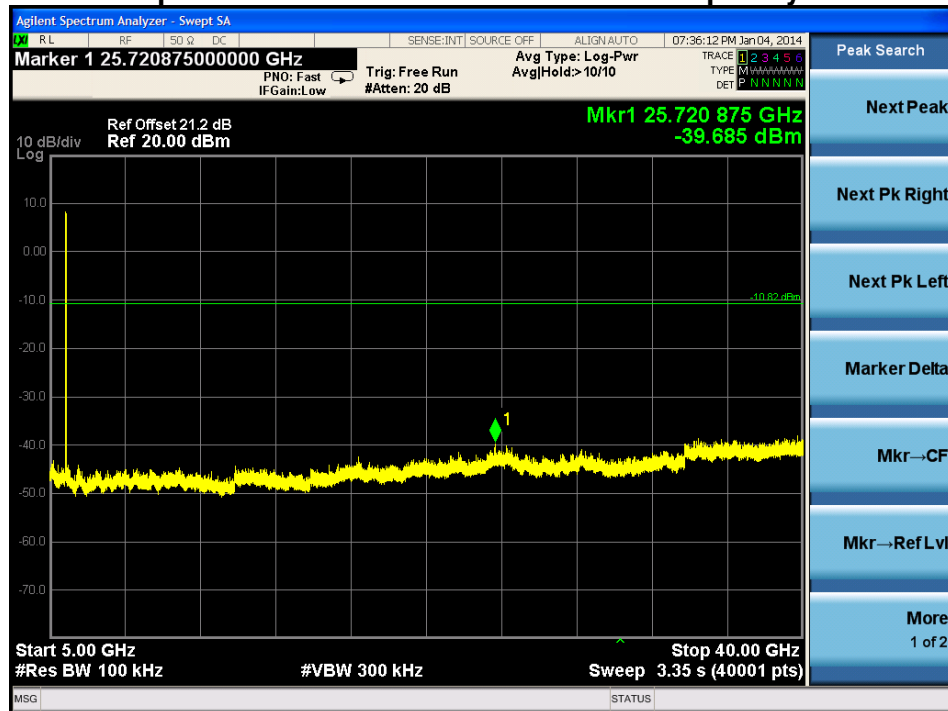
## Low Band Edge – Frequency L



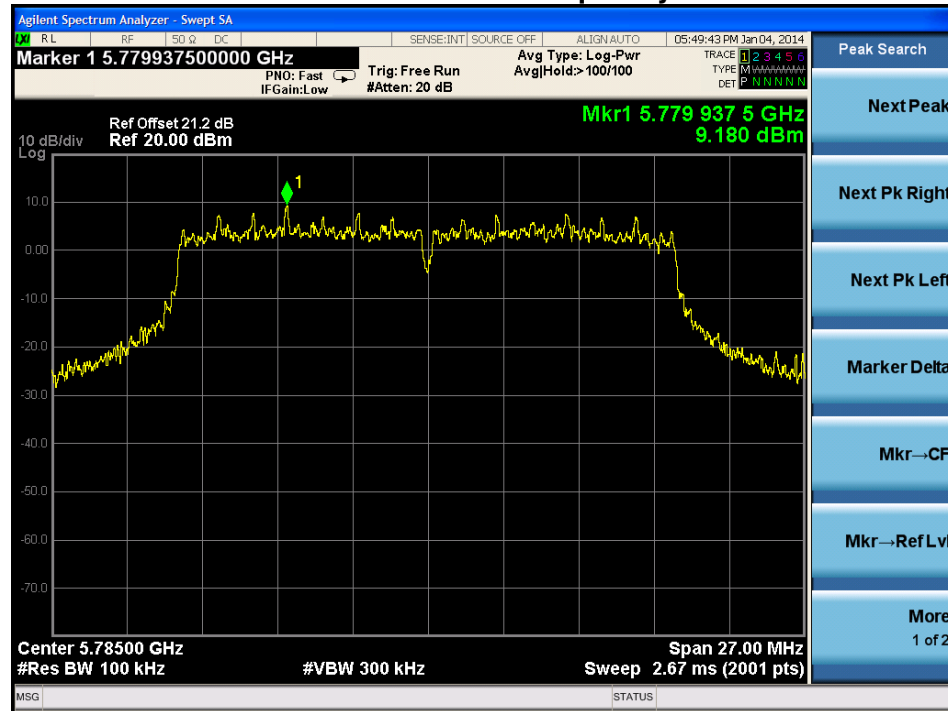
### Spurious Emission 30MHz ~ 6GHz - Frequency L



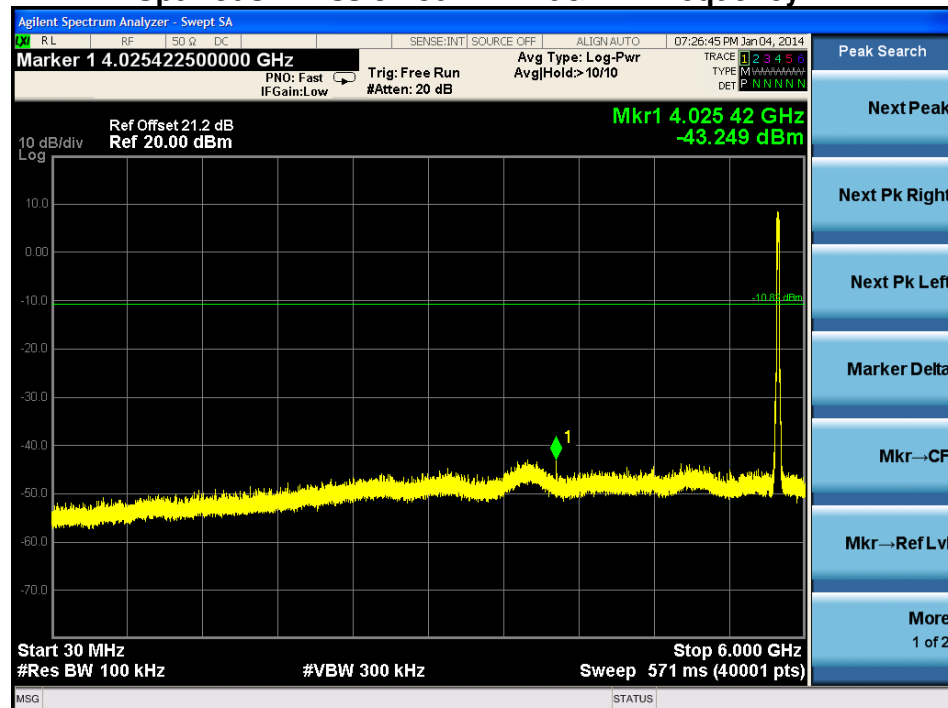
### Spurious Emission 5GHz ~ 40GHz - Frequency L



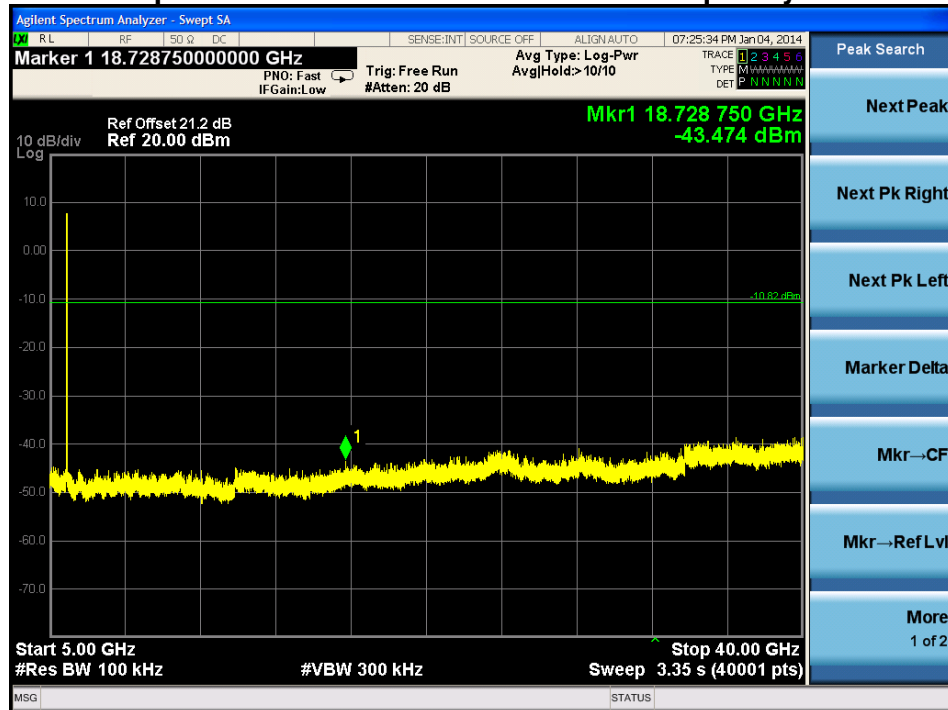
### Reference Level - Frequency M



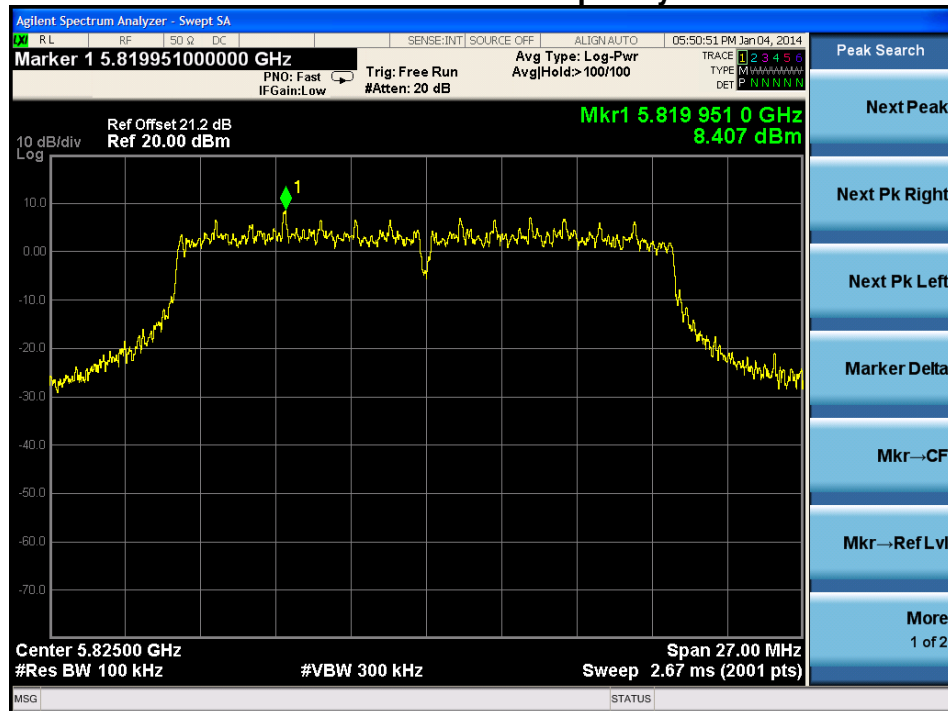
### Spurious Emission 30MHz ~ 6GHz - Frequency M



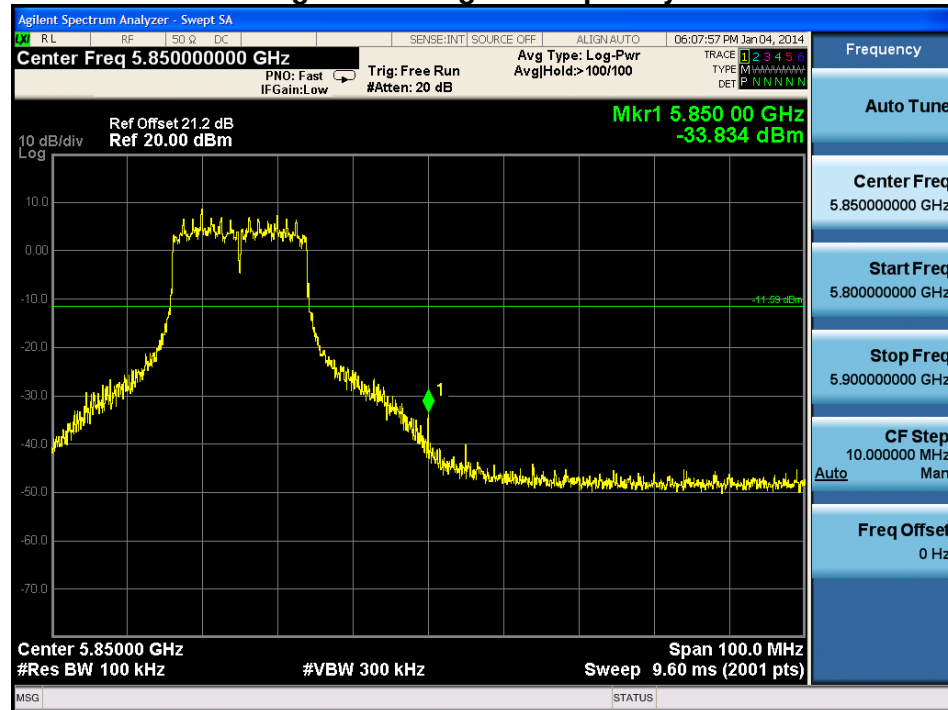
### Spurious Emission 5GHz ~ 40GHz - Frequency M



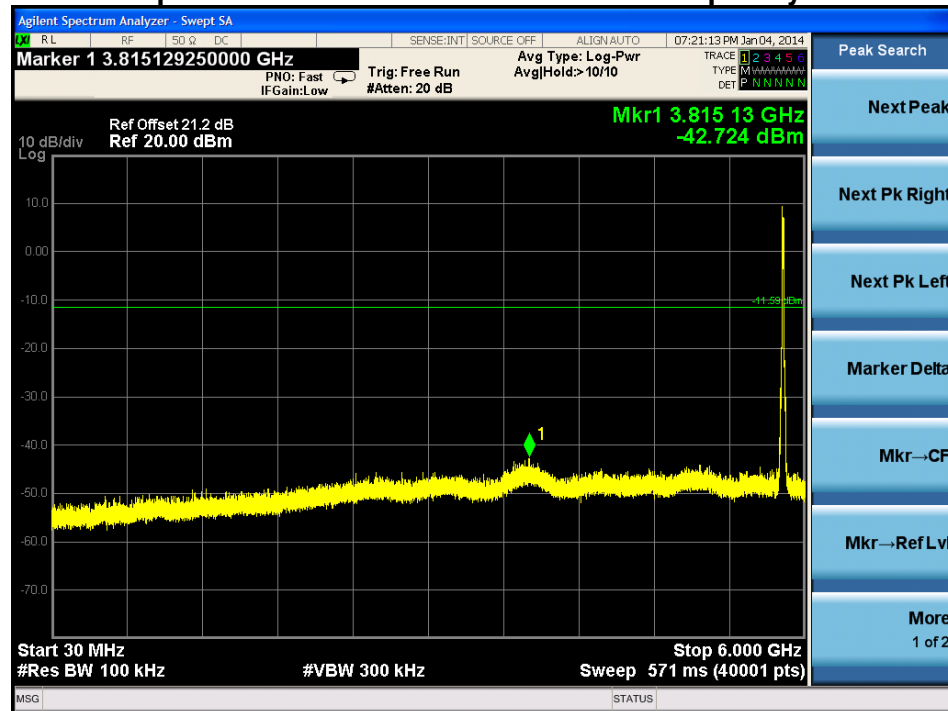
### Reference Level - Frequency H



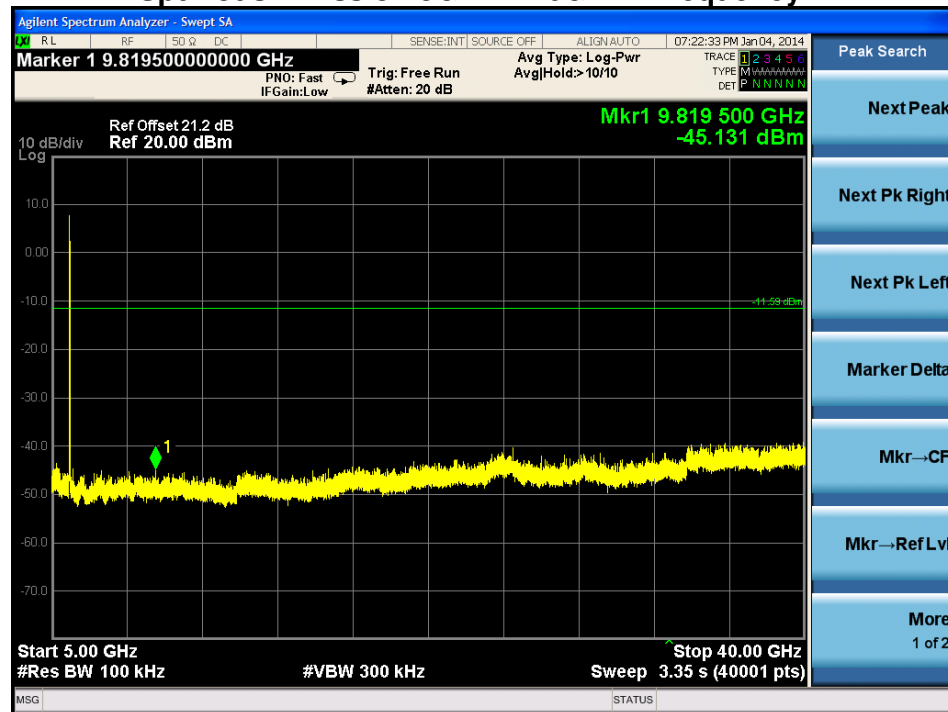
## High Band Edge – Frequency H



## Spurious Emission 30MHz ~ 6GHz - Frequency H

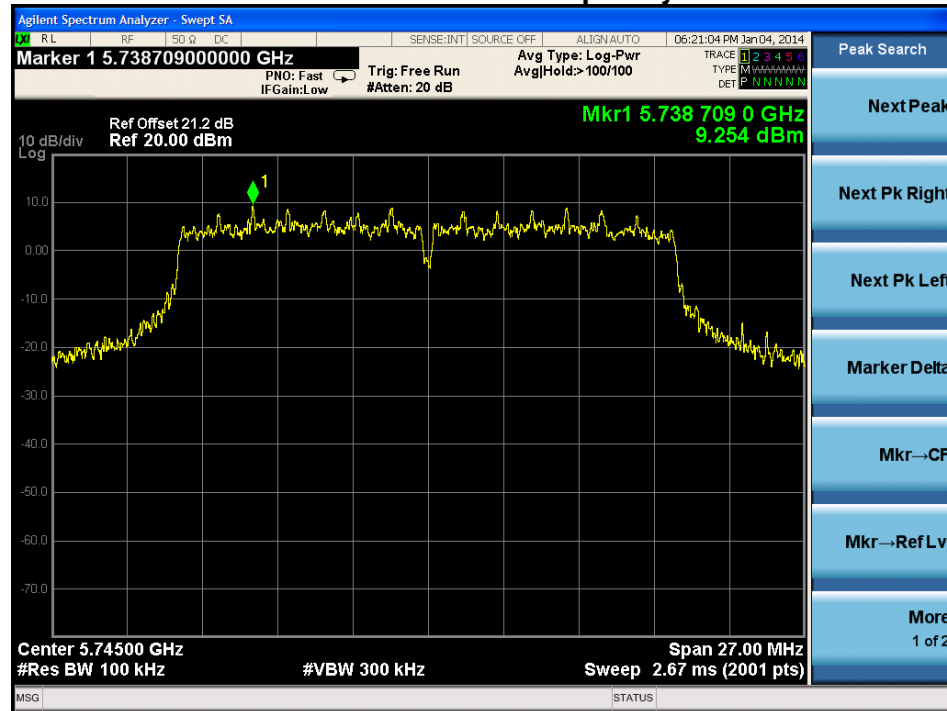


# Spurious Emission 5GHz ~ 40GHz - Frequency H

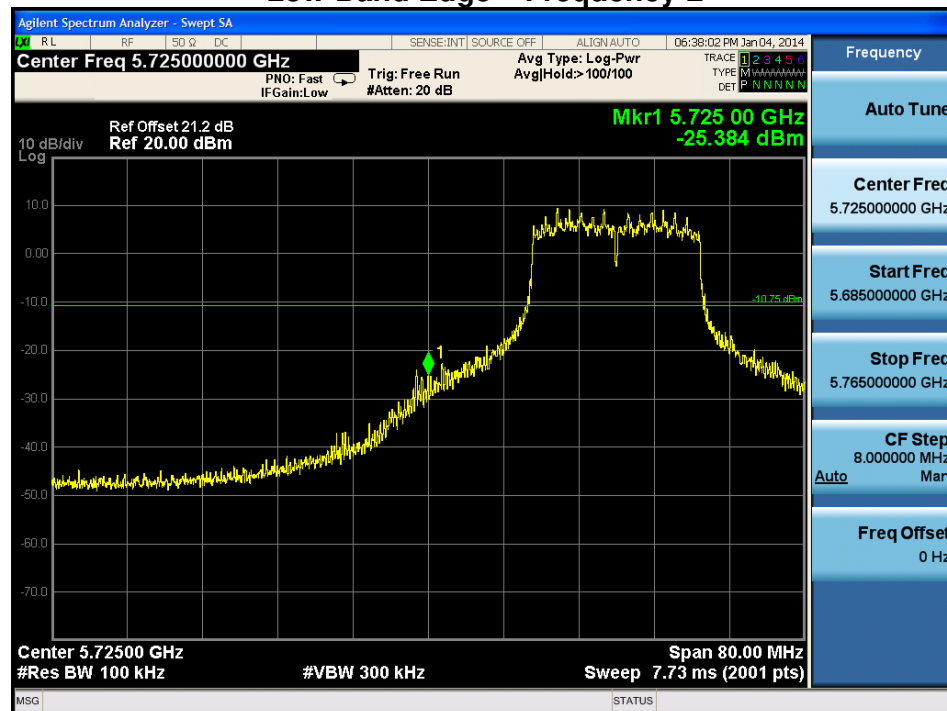


## 802.11n20 Out-of-Band Emissions – Chain 1 / Chain 0 + 1

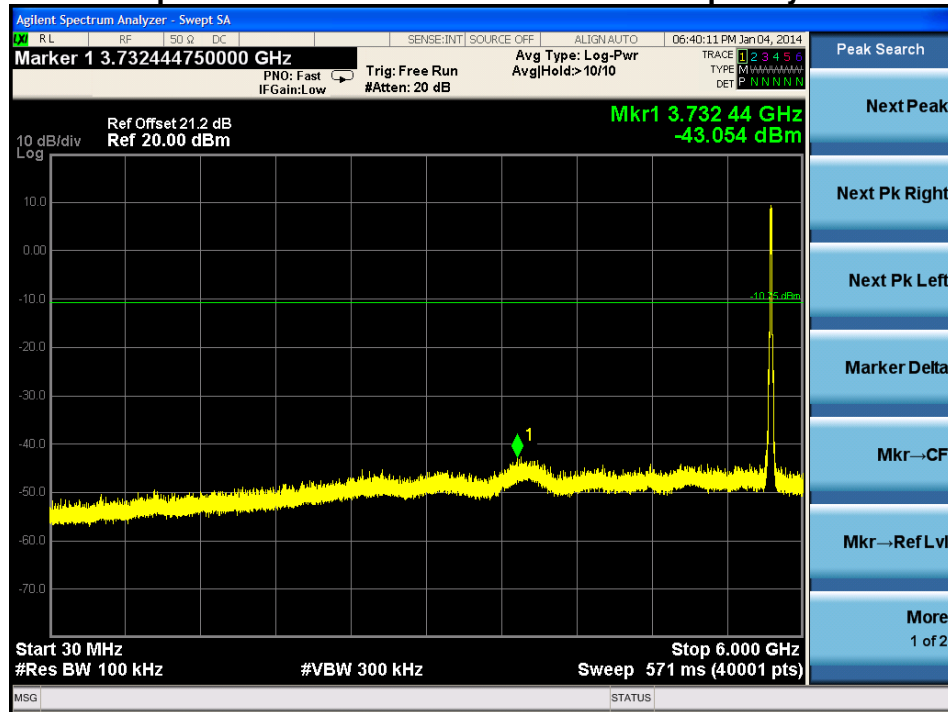
### Reference Level - Frequency L



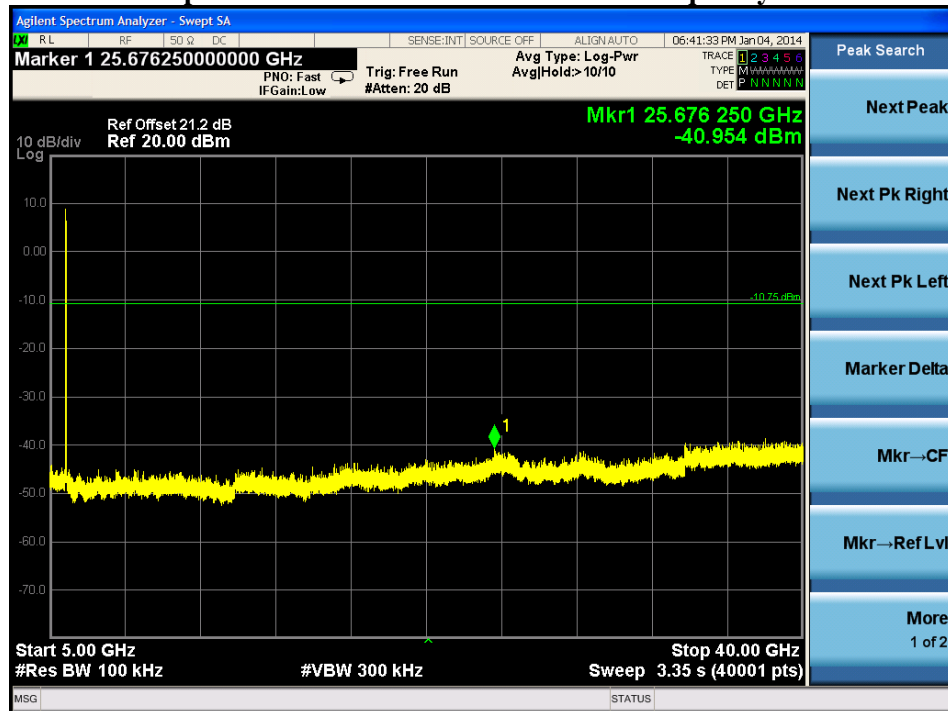
### Low Band Edge – Frequency L



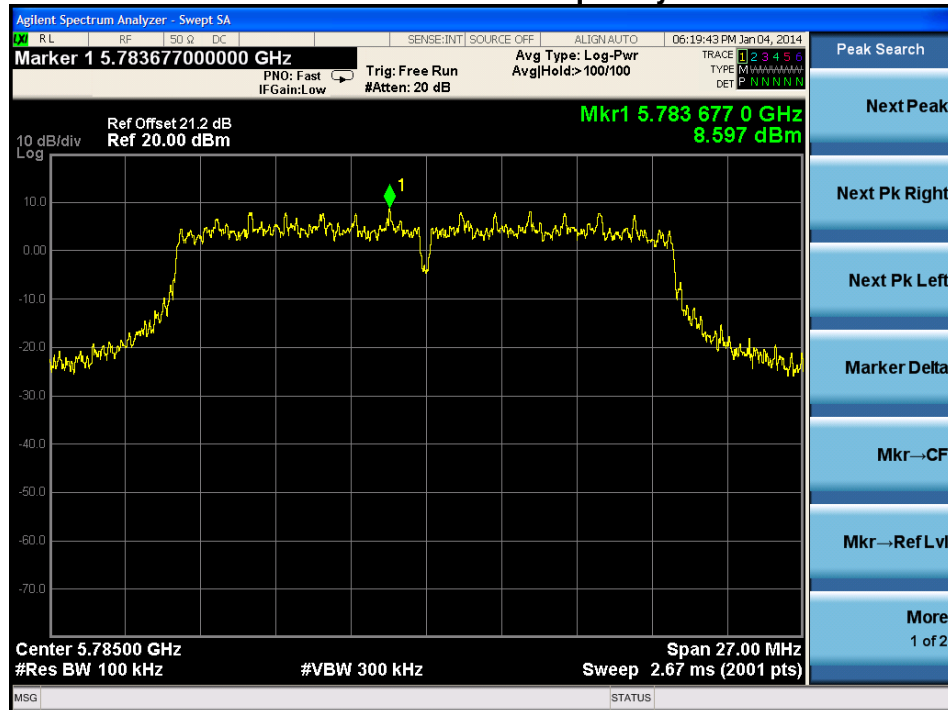
### Spurious Emission 30MHz ~ 6GHz - Frequency L



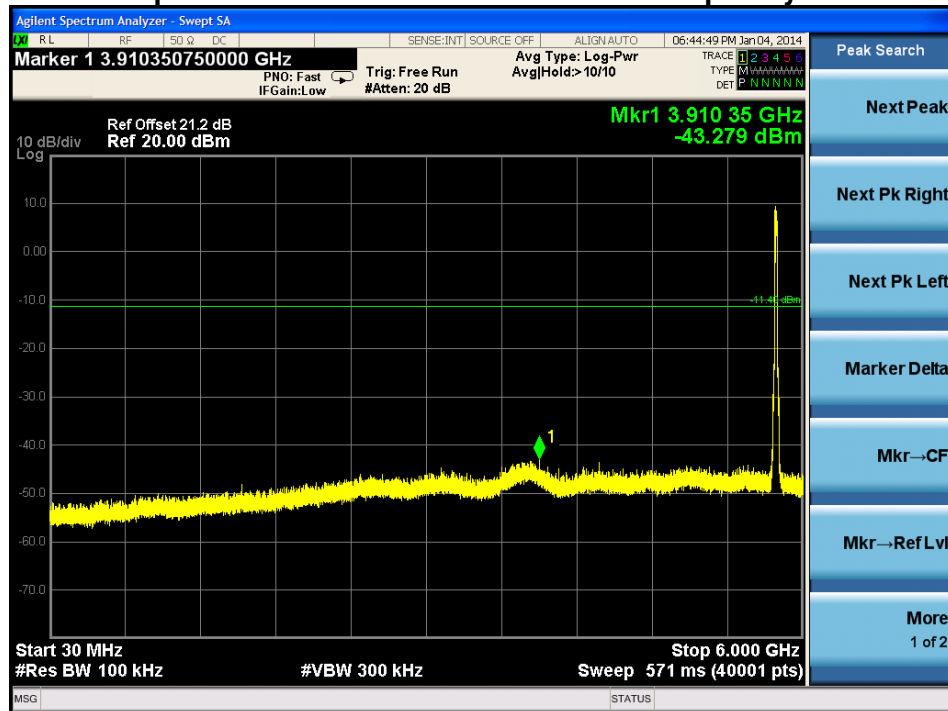
### Spurious Emission 5GHz ~ 40GHz - Frequency L



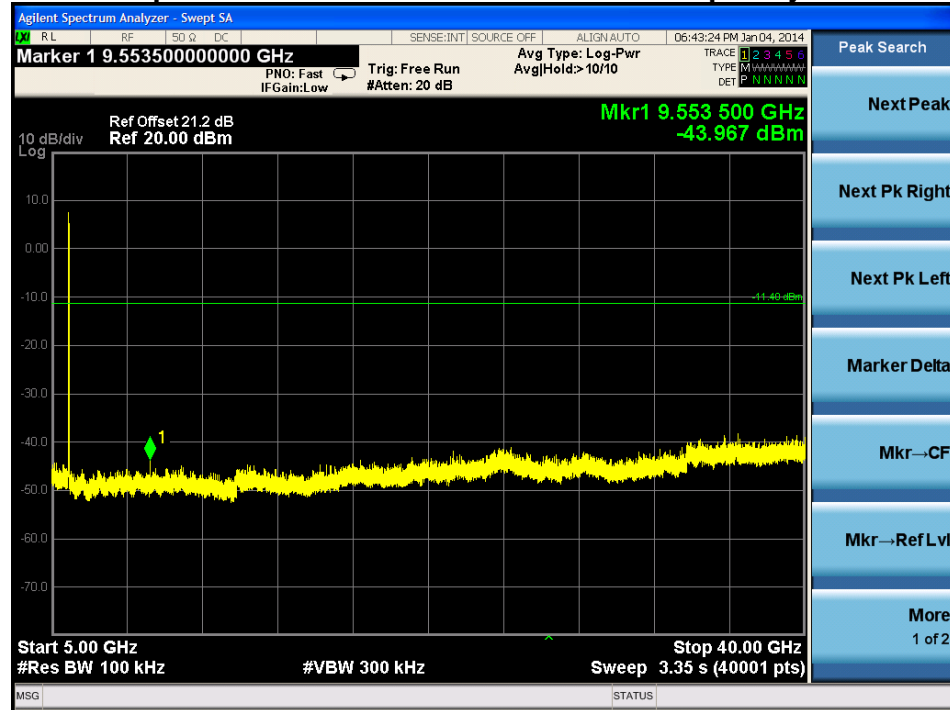
### Reference Level - Frequency M



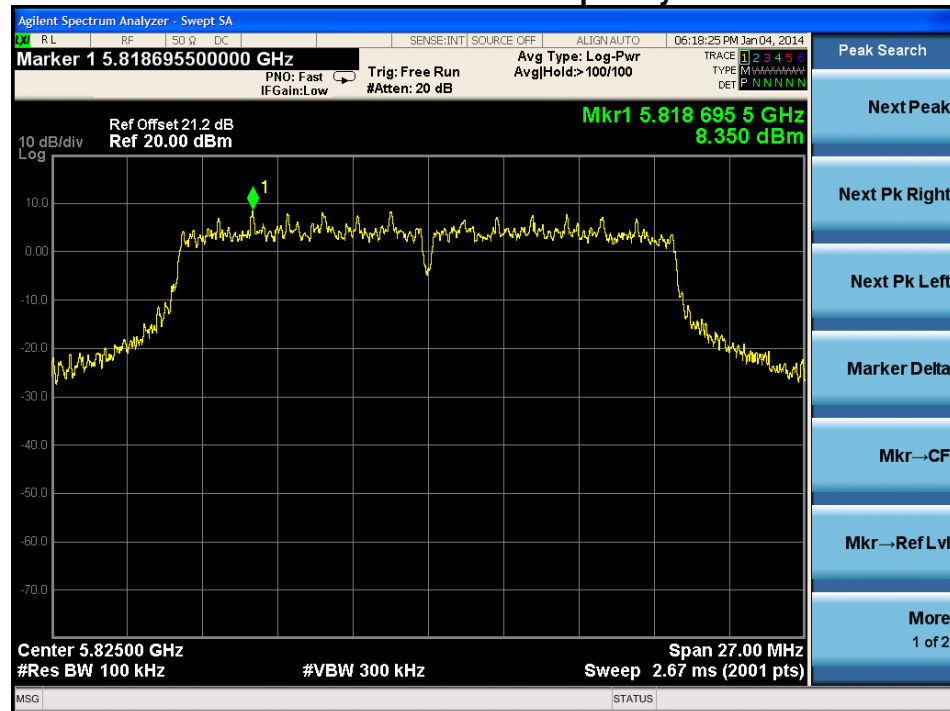
### Spurious Emission 30MHz ~ 6GHz - Frequency M



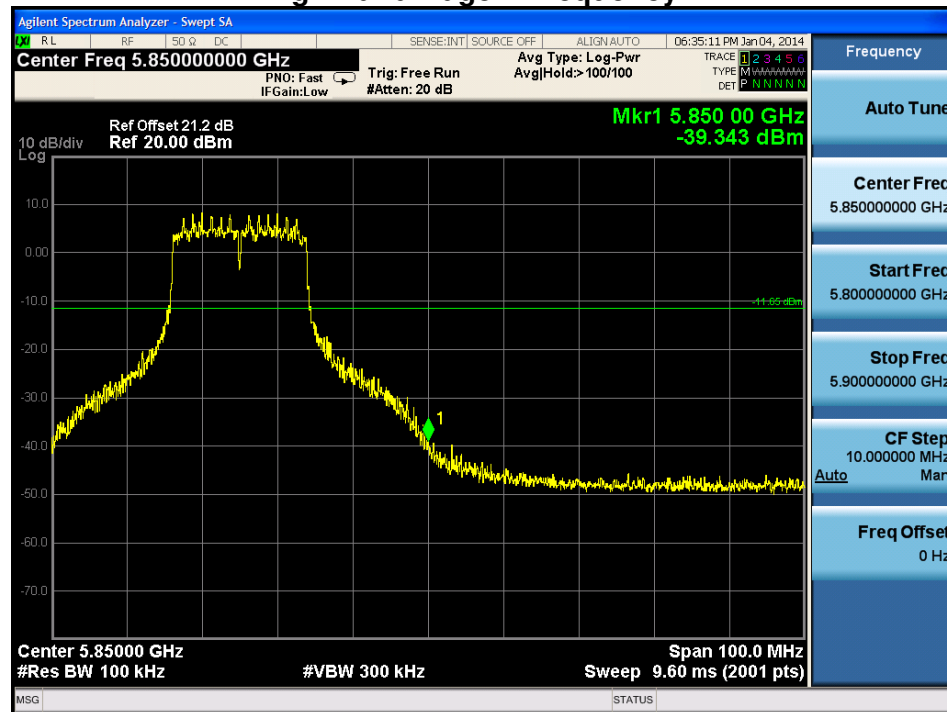
## Spurious Emission 5GHz ~ 40GHz – Frequency M



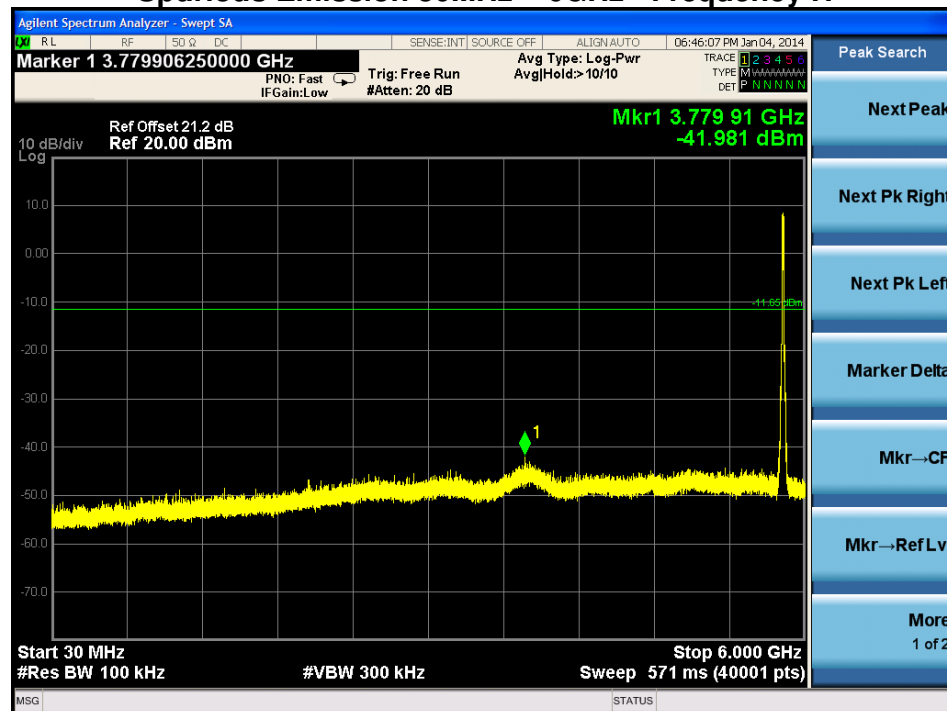
## Reference Level - Frequency H



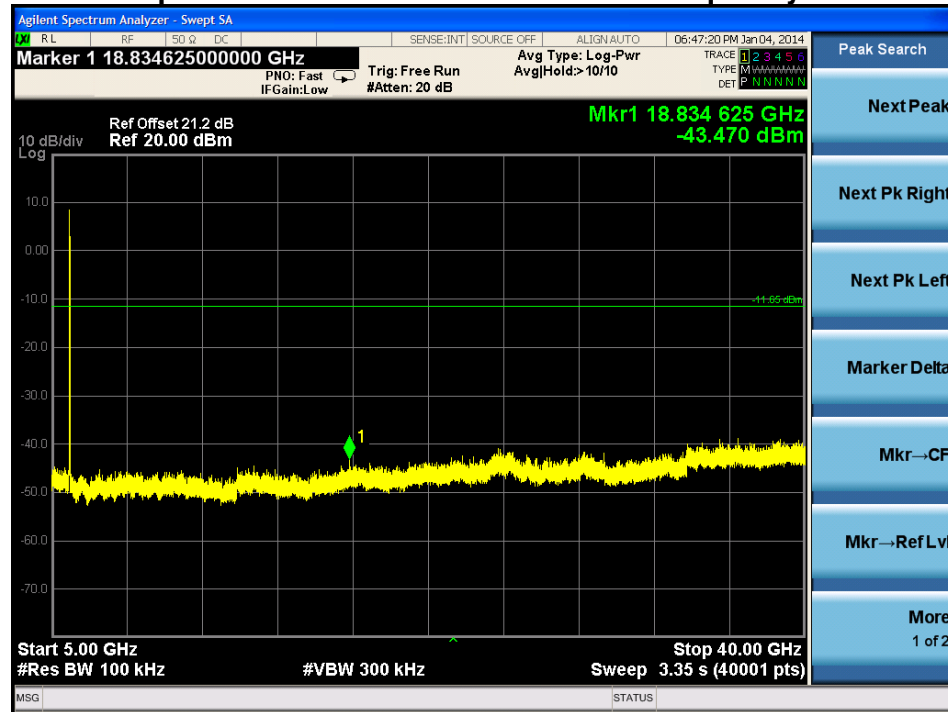
## High Band Edge – Frequency H



## Spurious Emission 30MHz ~ 6GHz - Frequency H

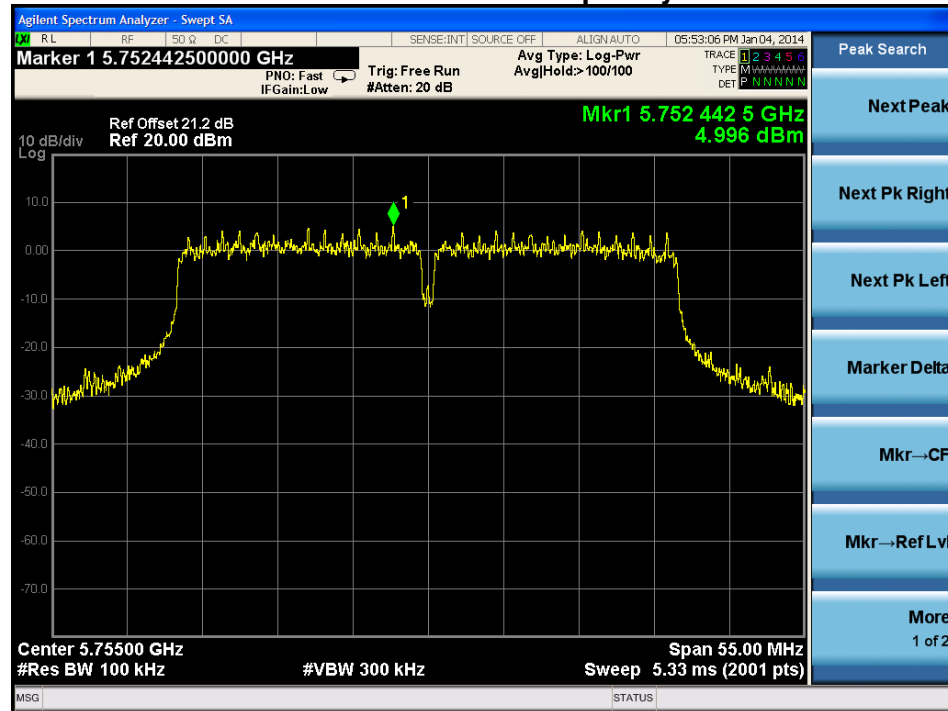


# Spurious Emission 5GHz ~ 40GHz - Frequency H

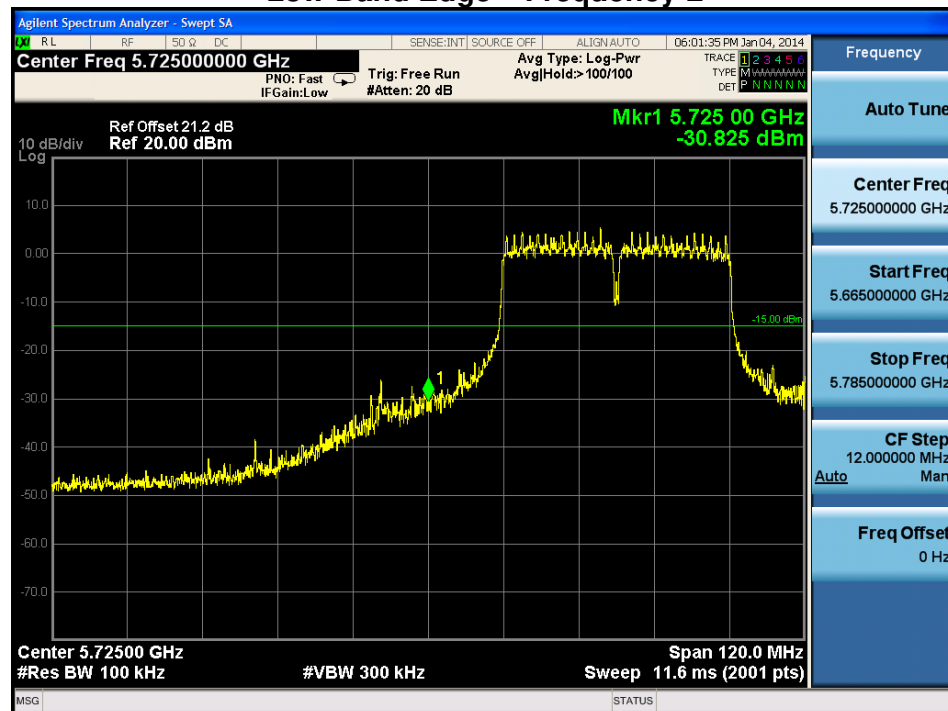


# 802.11n40 Out-of-Band Emissions – Chain 0 / Chain 0 + 1

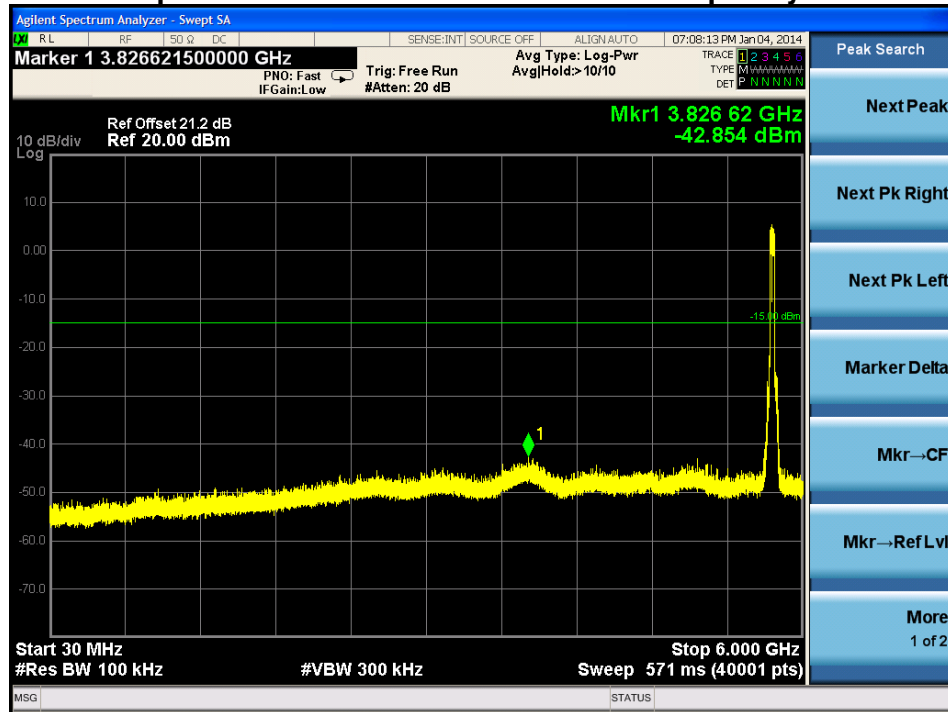
## Reference Level - Frequency L



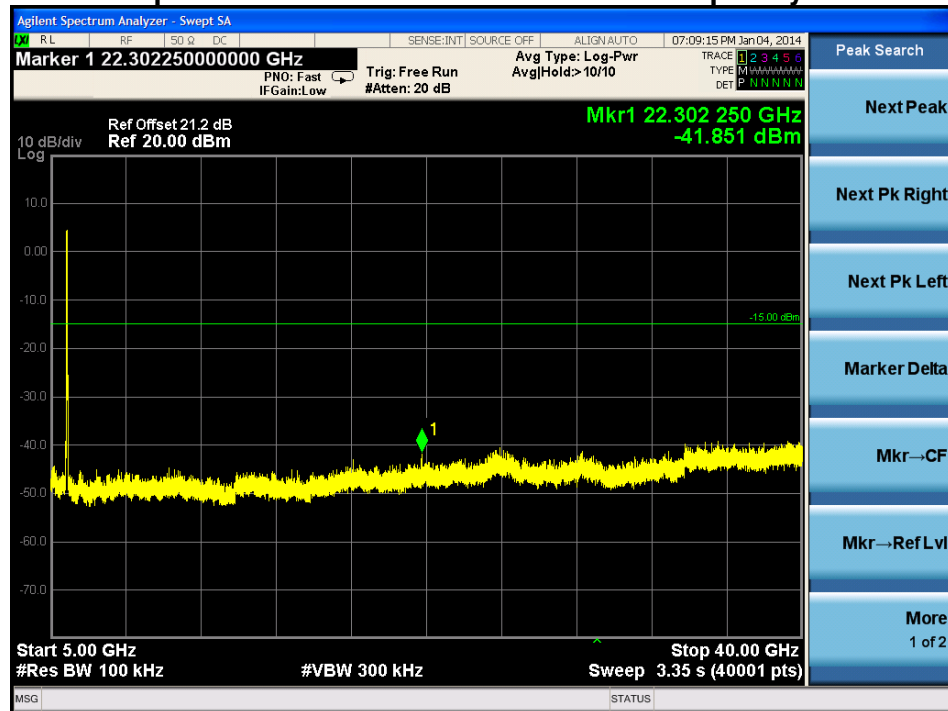
## Low Band Edge – Frequency L



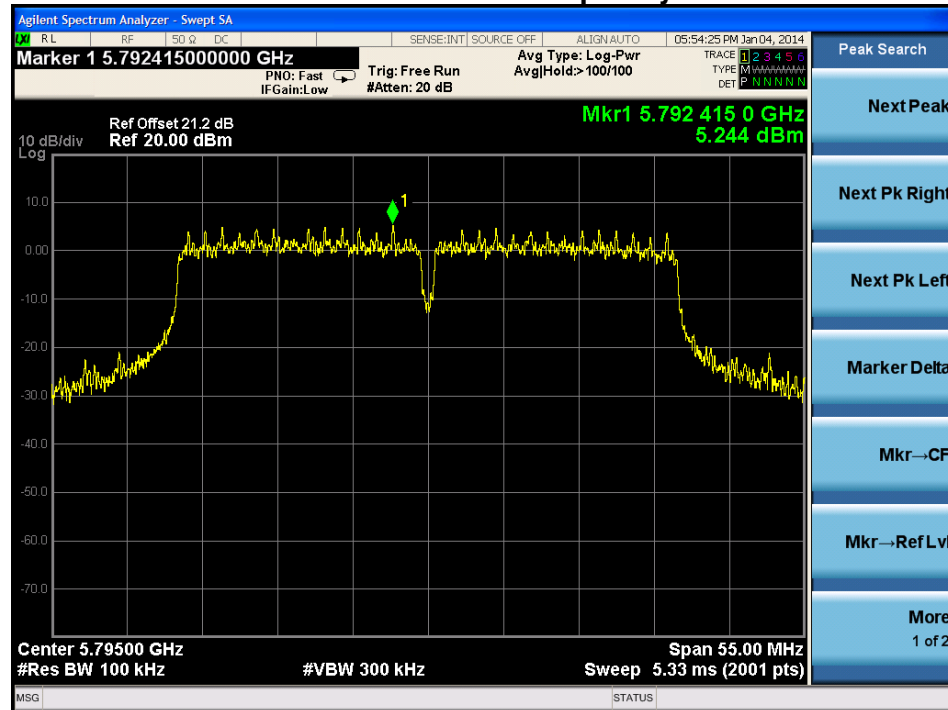
### Spurious Emission 30MHz ~ 6GHz - Frequency L



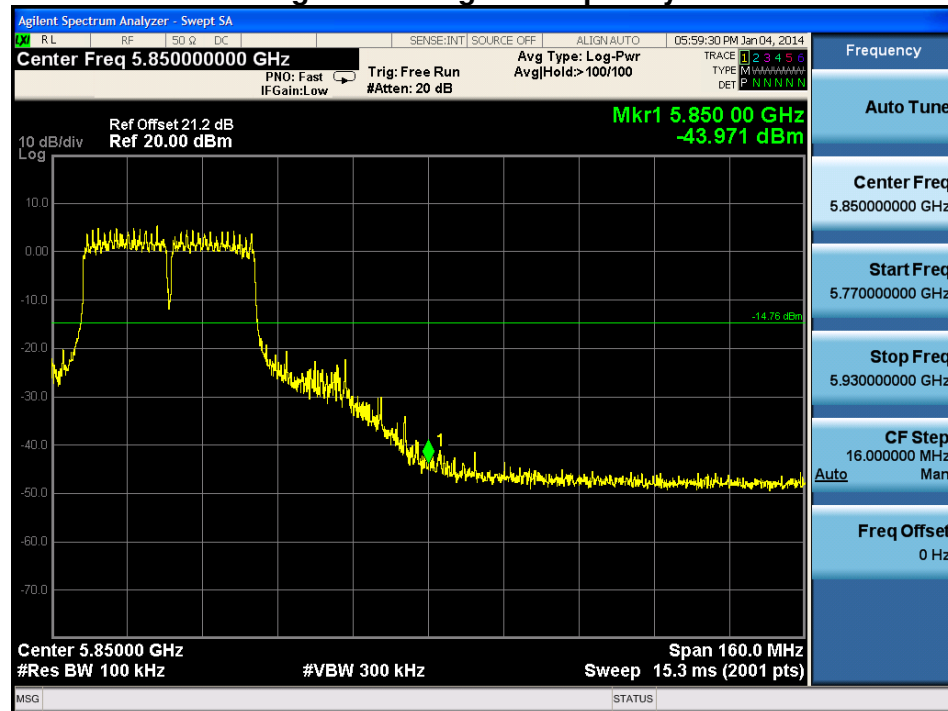
### Spurious Emission 5GHz ~ 40GHz – Frequency L



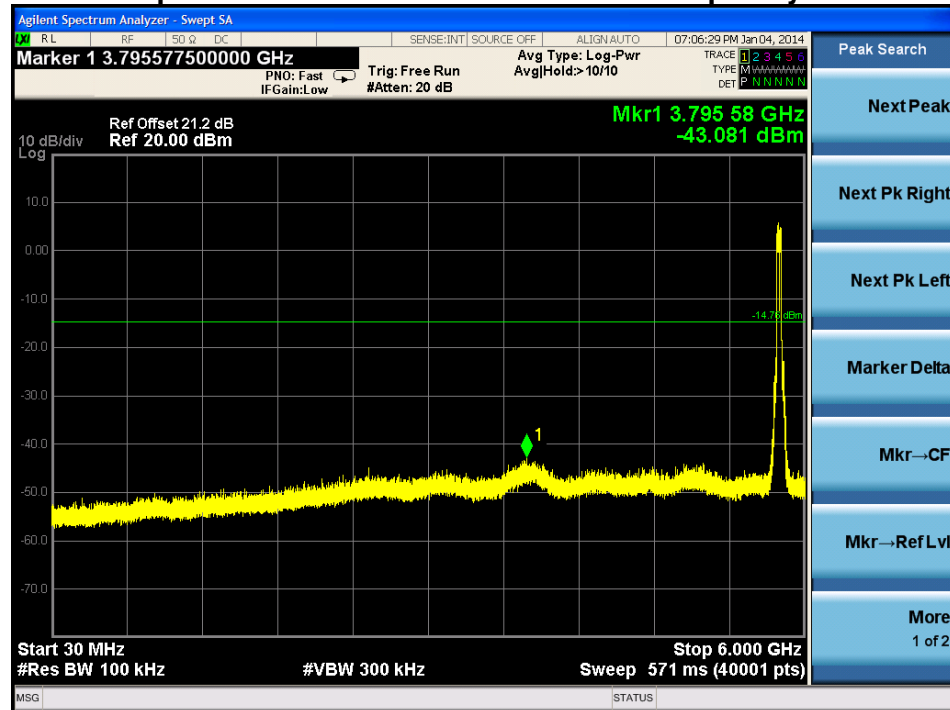
### Reference Level - Frequency H



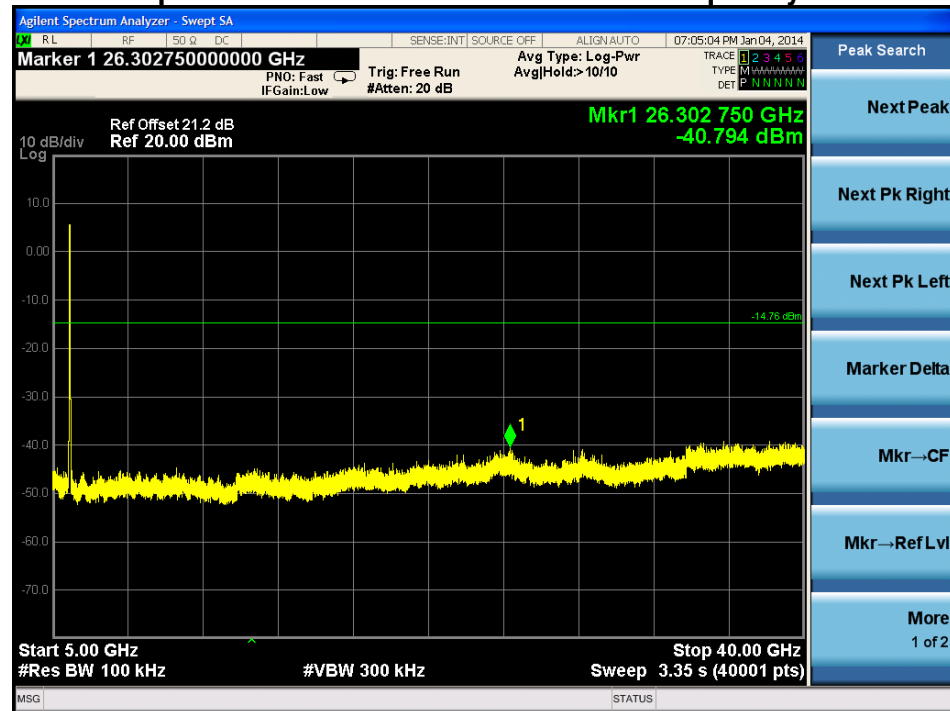
### High Band Edge - Frequency H



### Spurious Emission 30MHz ~ 6GHz - Frequency H

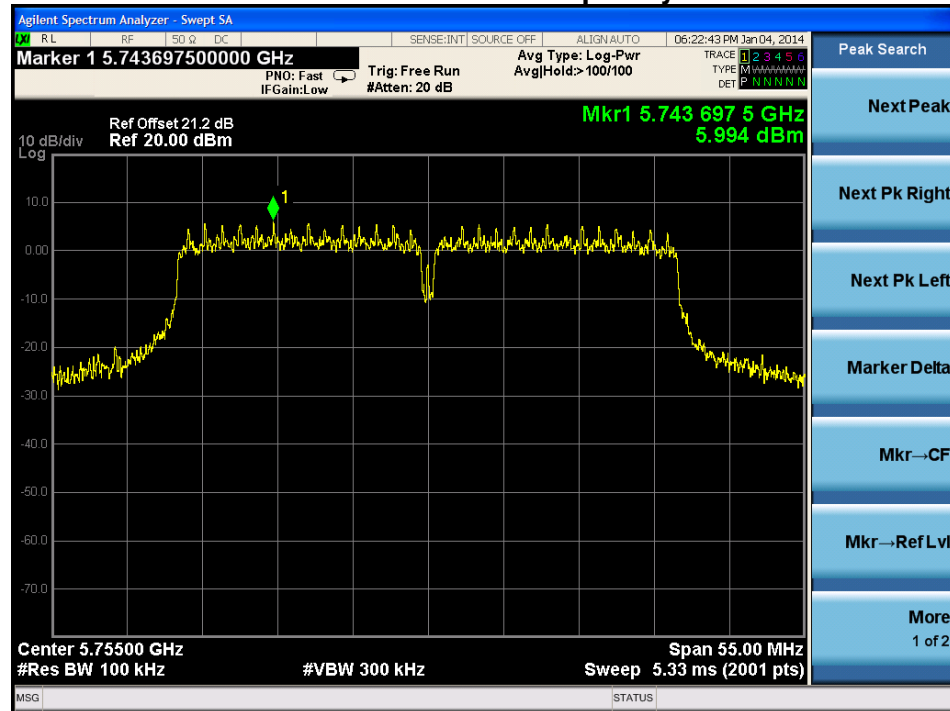


### Spurious Emission 5GHz ~ 40GHz - Frequency H

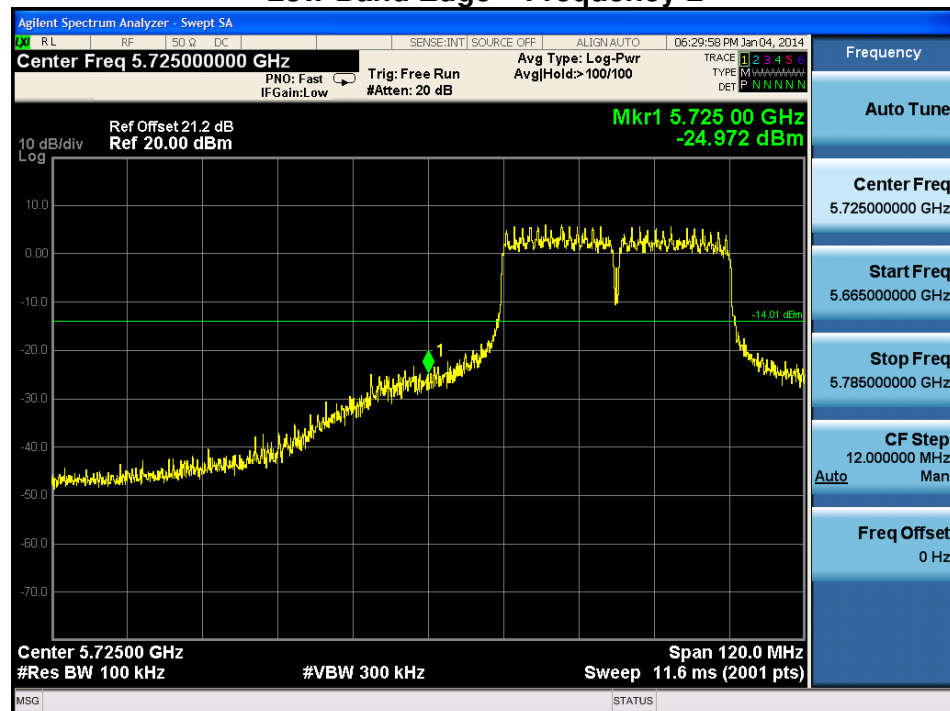


# 802.1140 Out-of-Band Emissions – Chain 1 / Chain 0 + 1

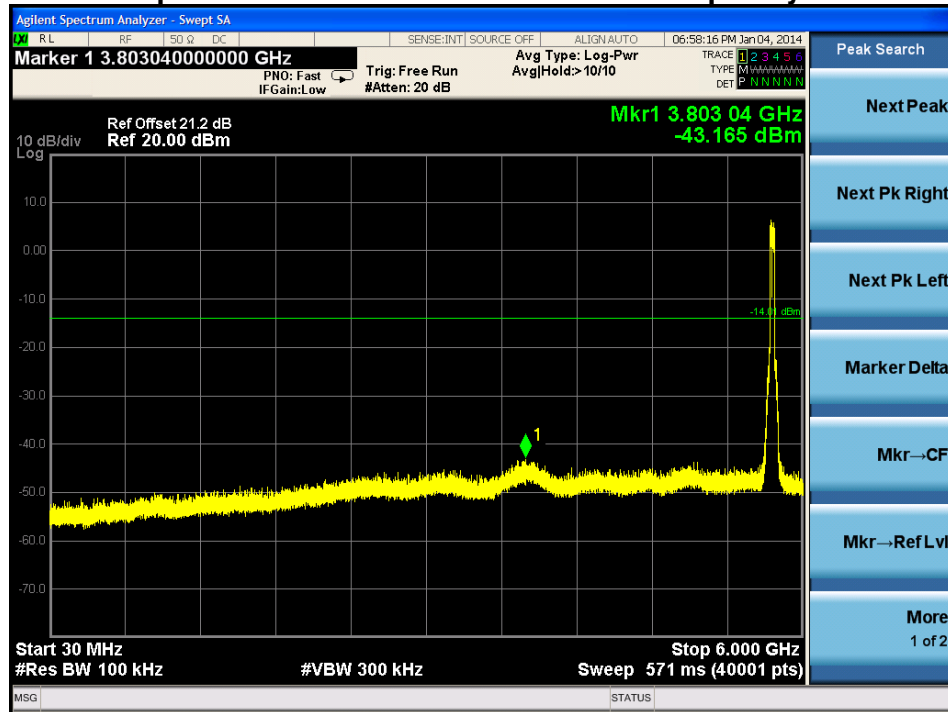
## Reference Level - Frequency L



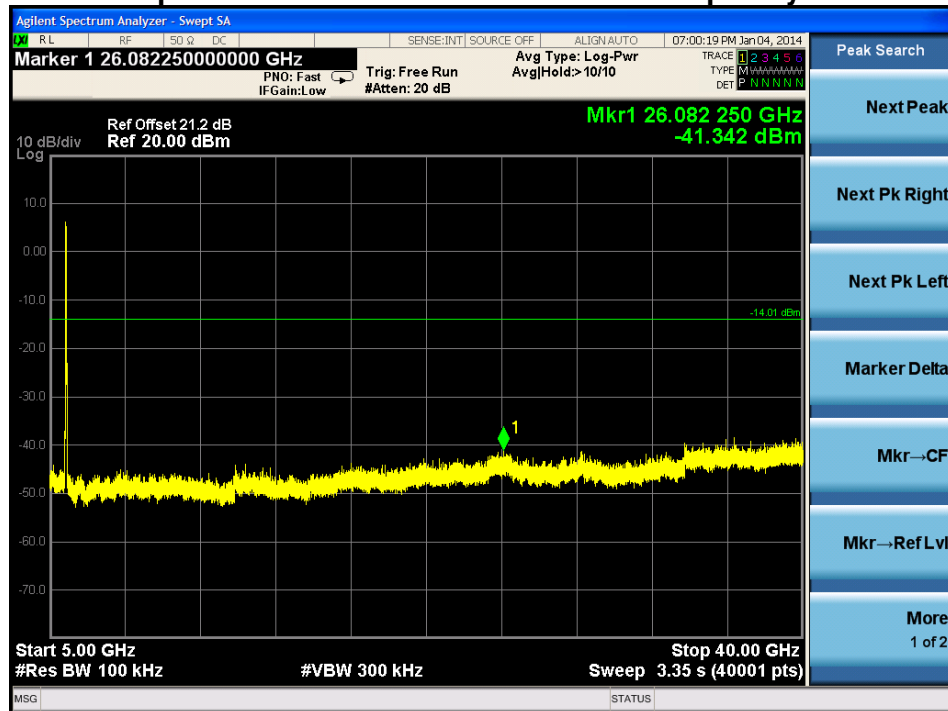
## Low Band Edge – Frequency L



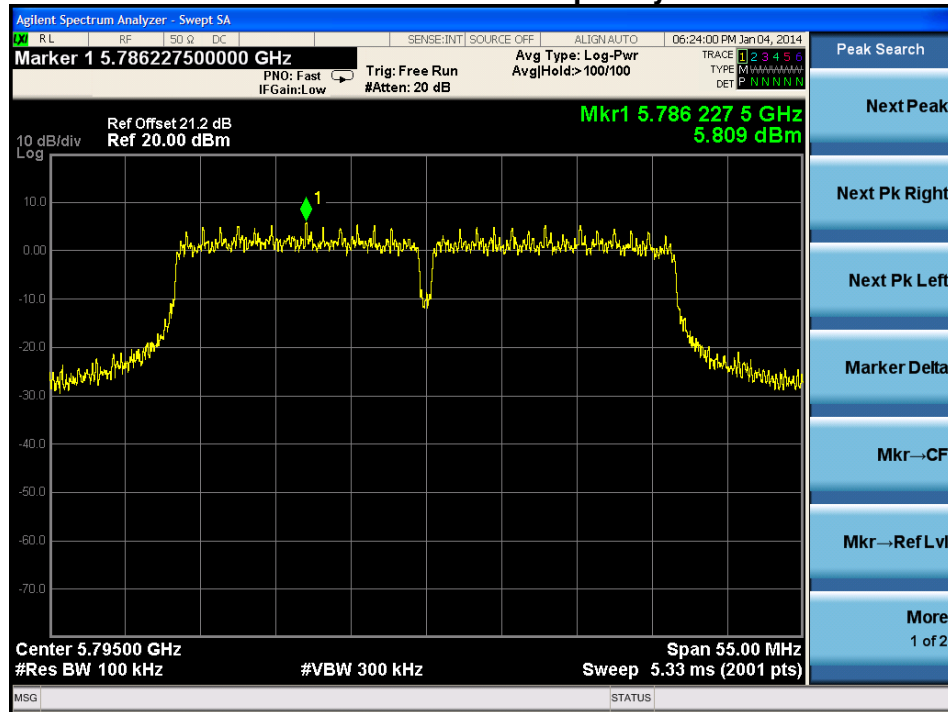
### Spurious Emission 30MHz ~ 6GHz - Frequency L



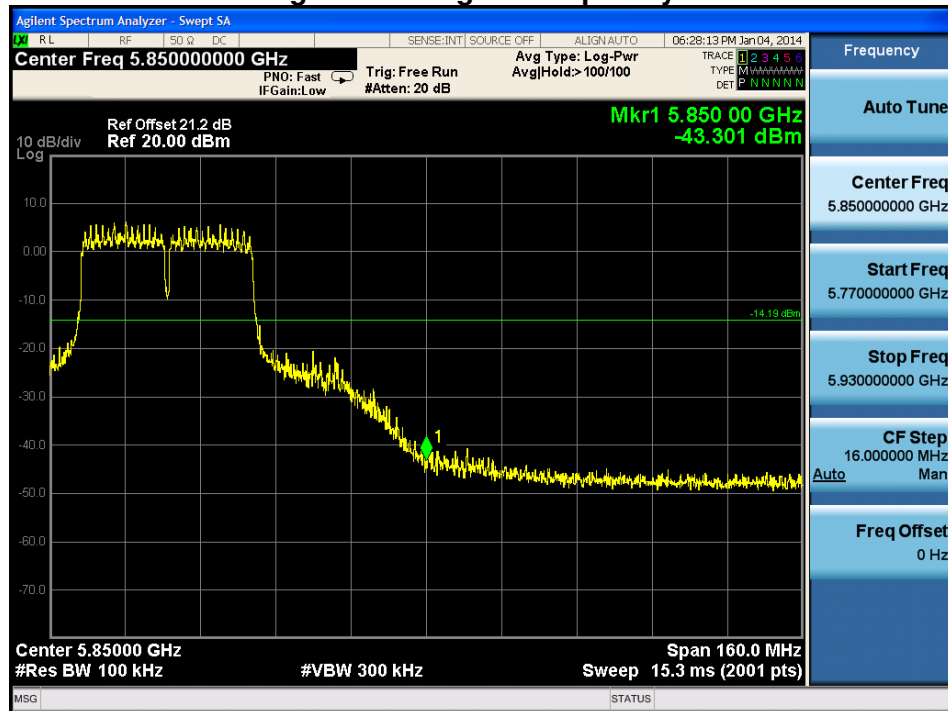
### Spurious Emission 5GHz ~ 40GHz - Frequency L



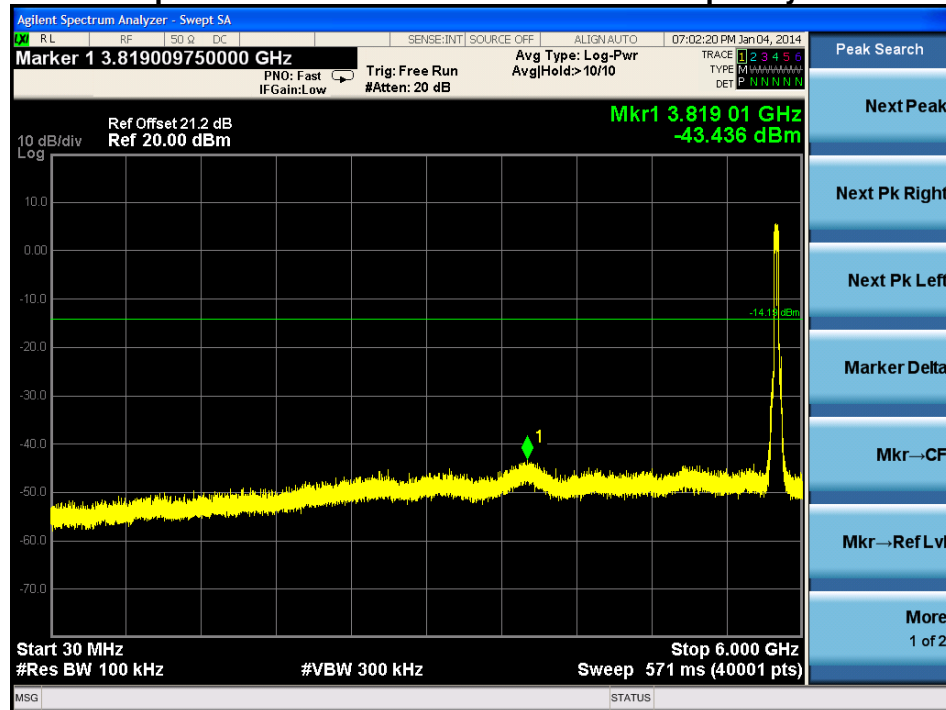
### Reference Level - Frequency H



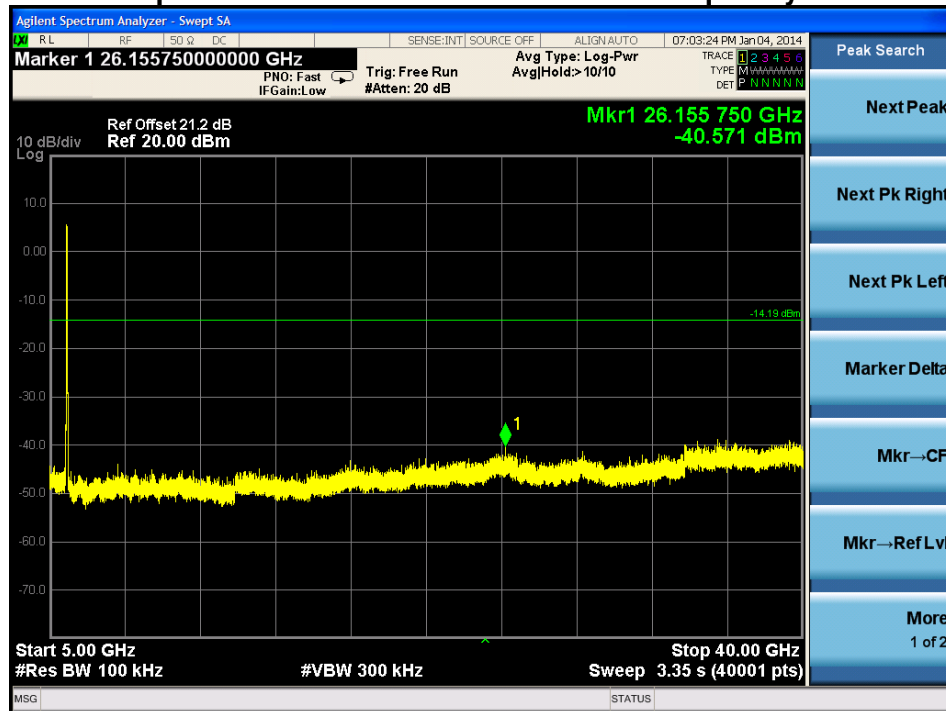
### High Band Edge - Frequency H



### Spurious Emission 30MHz ~ 6GHz - Frequency H



### Spurious Emission 5GHz ~ 40GHz - Frequency H



## 8. Power line conducted emission

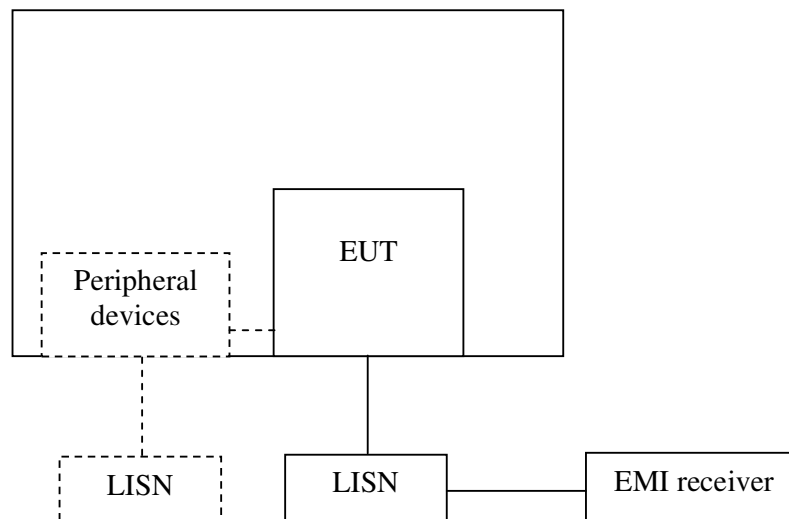
Test result: Pass

### 8.1 Limit

| Frequency of Emission (MHz) | Conducted Limit (dBuV) |            |
|-----------------------------|------------------------|------------|
|                             | QP                     | AV         |
| 0.15-0.5                    | 66 to 56*              | 56 to 46 * |
| 0.5-5                       | 56                     | 46         |
| 5-30                        | 60                     | 50         |

\* Decreases with the logarithm of the frequency.

### 8.2 Test configuration



☒ For table top equipment, wooden support is 0.8m height table

☐ For floor standing equipment, wooden support is 0.1m height rack.

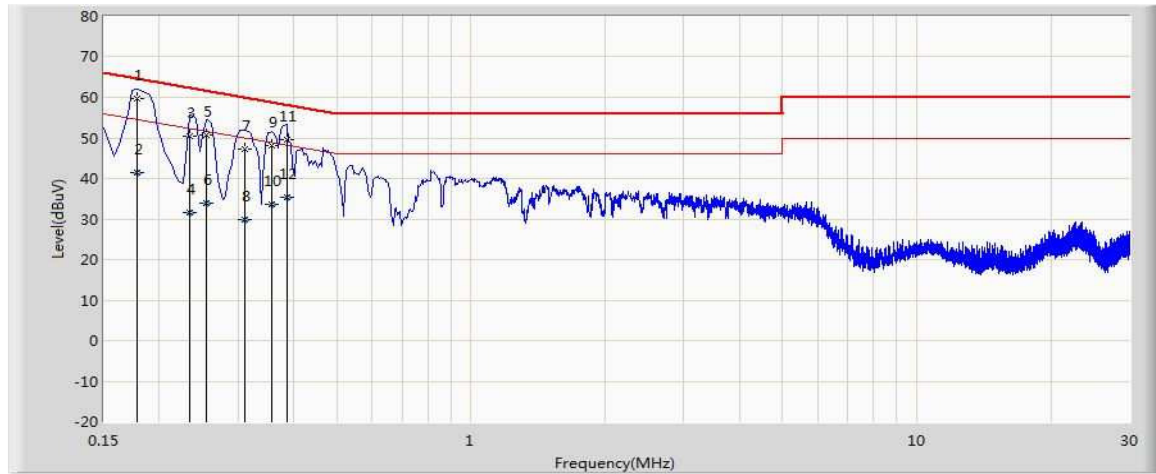
### **8.3 Test procedure and test set up**

The EUT are connected to the main power through a line impedance stabilization network (LISN). This provides a  $50\Omega/50\mu\text{H}$  coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a  $50\Omega/50\mu\text{H}$  coupling impedance with  $50\Omega$  termination.

Both sides (Line and Neutral) of AC line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4 on conducted measurement. The bandwidth of the test receiver is set at 9 kHz.

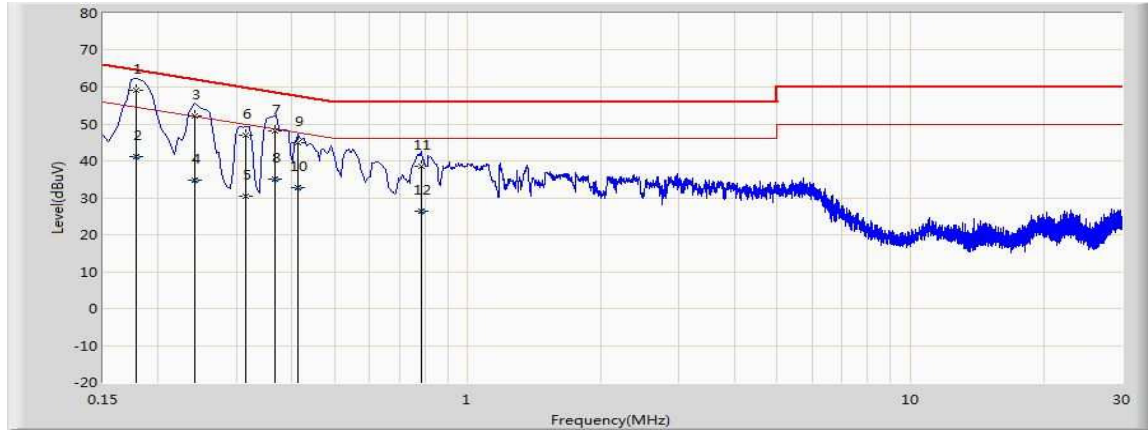
## 8.4 Test protocol

L Line:



| Frequency (MHz) | Reading Level (dBuV) | Factor | Measure Level (dBuV) | Limit (dBuV) | Over Limit (dB) | Type |
|-----------------|----------------------|--------|----------------------|--------------|-----------------|------|
| 0.178           | 49.541               | 10.058 | 59.600               | 64.578       | -4.979          | QP   |
| 0.178           | 31.324               | 10.058 | 41.382               | 54.578       | -13.196         | AV   |
| 0.234           | 40.457               | 9.951  | 50.408               | 62.307       | -11.899         | QP   |
| 0.234           | 21.576               | 9.951  | 31.527               | 52.307       | -20.780         | AV   |
| 0.254           | 40.722               | 9.967  | 50.689               | 61.625       | -10.936         | QP   |
| 0.254           | 24.025               | 9.967  | 33.992               | 51.625       | -17.633         | AV   |
| 0.310           | 37.124               | 10.012 | 47.136               | 59.970       | -12.834         | QP   |
| 0.310           | 19.944               | 10.012 | 29.956               | 49.970       | -20.015         | AV   |
| 0.358           | 38.171               | 10.051 | 48.222               | 58.775       | -10.553         | QP   |
| 0.358           | 23.704               | 10.051 | 33.755               | 48.775       | -15.020         | AV   |
| 0.386           | 39.369               | 10.074 | 49.443               | 58.149       | -8.707          | QP   |
| 0.386           | 25.390               | 10.074 | 35.464               | 48.149       | -12.686         | AV   |

N line:



| Frequency (MHz) | Reading Level (dBuV) | Factor | Measure Level (dBuV) | Limit (dBuV) | Over Limit (dB) | Factor | Type |
|-----------------|----------------------|--------|----------------------|--------------|-----------------|--------|------|
| 0.178           | 49.100               | 10.049 | 59.149               | 64.578       | -5.429          | 10.049 | QP   |
| 0.178           | 31.200               | 10.049 | 41.249               | 54.578       | -13.329         | 10.049 | AV   |
| 0.242           | 42.100               | 9.995  | 52.095               | 62.027       | -9.932          | 9.995  | QP   |
| 0.242           | 24.800               | 9.995  | 34.795               | 52.027       | -17.232         | 9.995  | AV   |
| 0.314           | 20.300               | 10.048 | 30.348               | 59.864       | -29.516         | 10.048 | QP   |
| 0.314           | 36.800               | 10.048 | 46.848               | 59.864       | -13.016         | 10.048 | QP   |
| 0.366           | 37.900               | 10.087 | 47.987               | 58.591       | -10.604         | 10.087 | QP   |
| 0.366           | 25.000               | 10.087 | 35.087               | 48.591       | -13.504         | 10.087 | AV   |
| 0.414           | 34.800               | 10.123 | 44.923               | 57.568       | -12.645         | 10.123 | QP   |
| 0.414           | 22.600               | 10.123 | 32.723               | 47.568       | -14.845         | 10.123 | AV   |
| 0.786           | 28.600               | 10.027 | 38.627               | 56.000       | -17.373         | 10.027 | QP   |
| 0.786           | 16.400               | 10.027 | 26.427               | 46.000       | -19.573         | 10.027 | AV   |

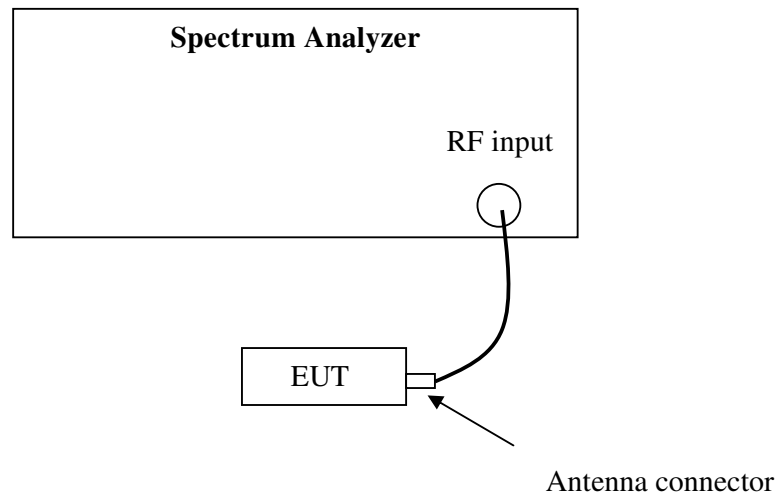
## **9. Occupied Bandwidth**

**Test Status: Tested**

### **9.1 Test limit**

None

### **9.2 Test Configuration**



### **9.3 Test procedure and test setup**

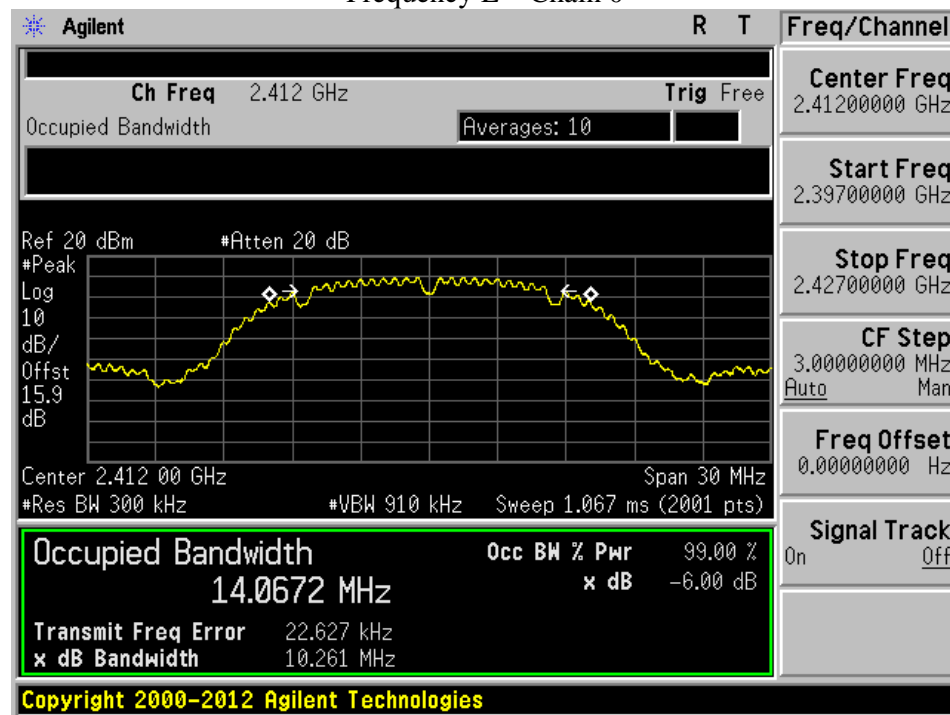
The occupied bandwidth per RSS-Gen Issue 3 Clause 4.6.1 was measured using the Spectrum Analyzer.

#### 9.4 Test protocol

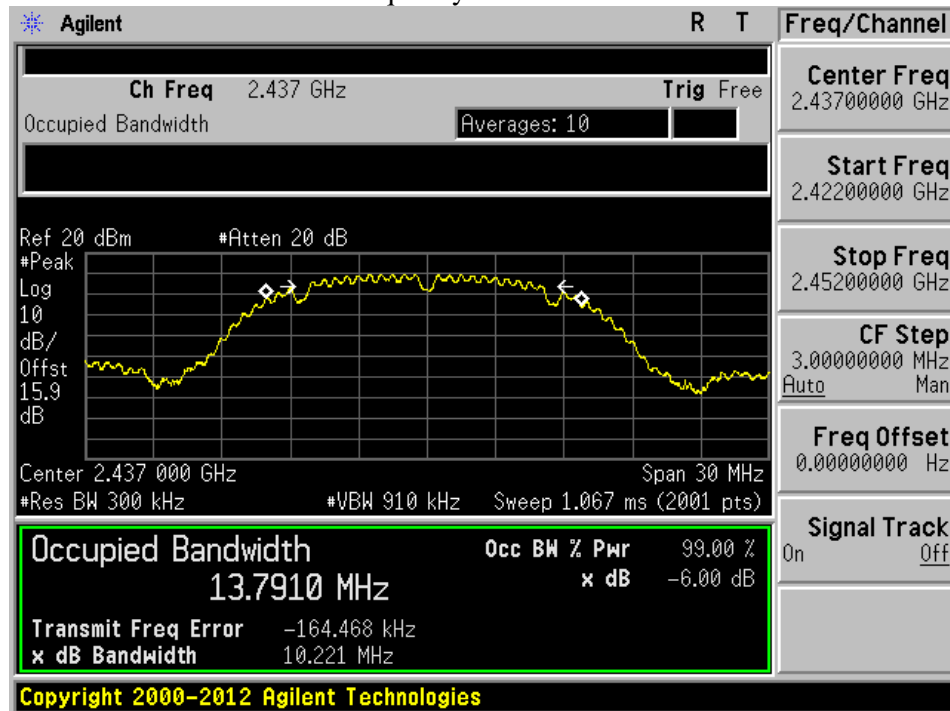
Temperature : 25 °C  
Relative Humidity : 55 %

| Mode              | CH | Bandwidth (MHz) | Limit (MHz) |
|-------------------|----|-----------------|-------------|
| 802.11b – chain 0 | L  | 14.0672         | ≥0.5        |
|                   | M  | 13.7910         |             |
|                   | H  | 13.7606         |             |

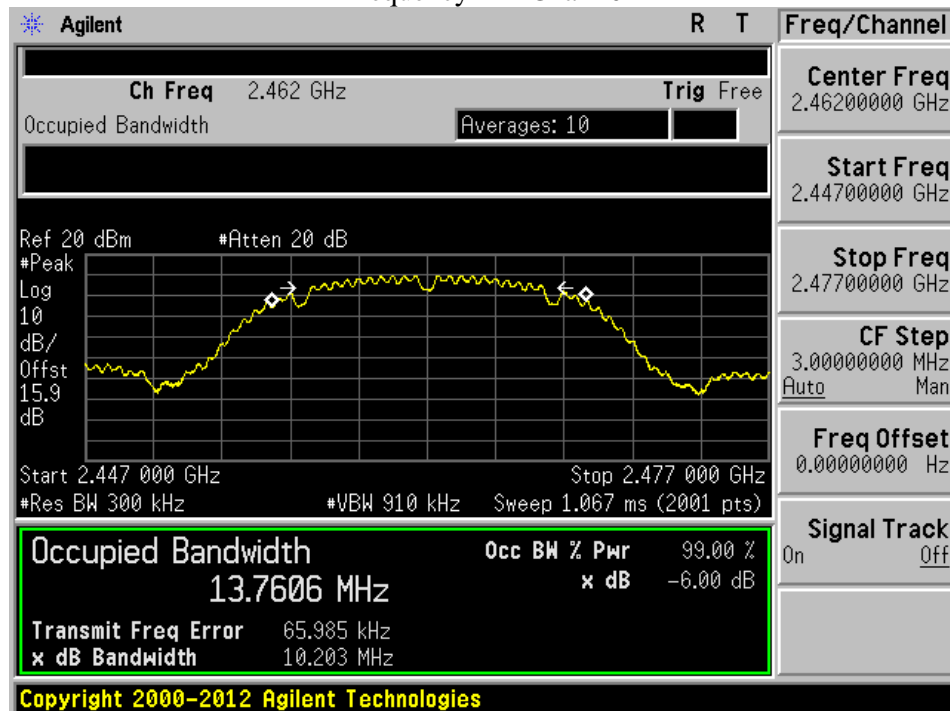
Frequency L – Chain 0



### Frequency M – Chain 0

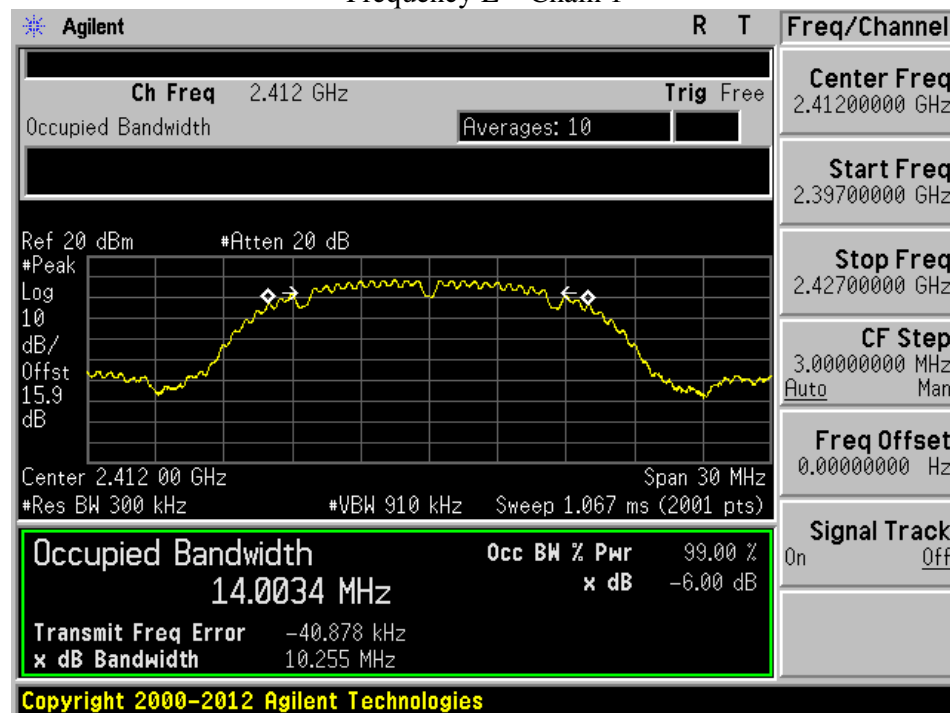


### Frequency H – Chain 0

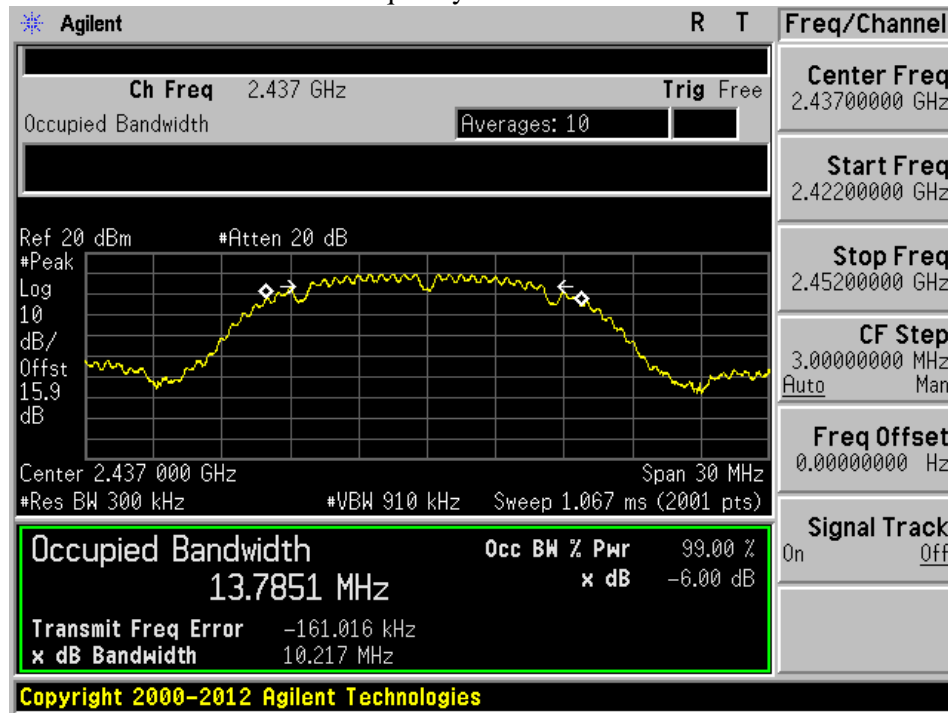


| Mode              | CH | Bandwidth<br>(MHz) | Limit<br>(MHz) |
|-------------------|----|--------------------|----------------|
| 802.11b – chain 1 | L  | 14.0034            | $\geq 0.5$     |
|                   | M  | 13.7851            |                |
|                   | H  | 13.8281            |                |

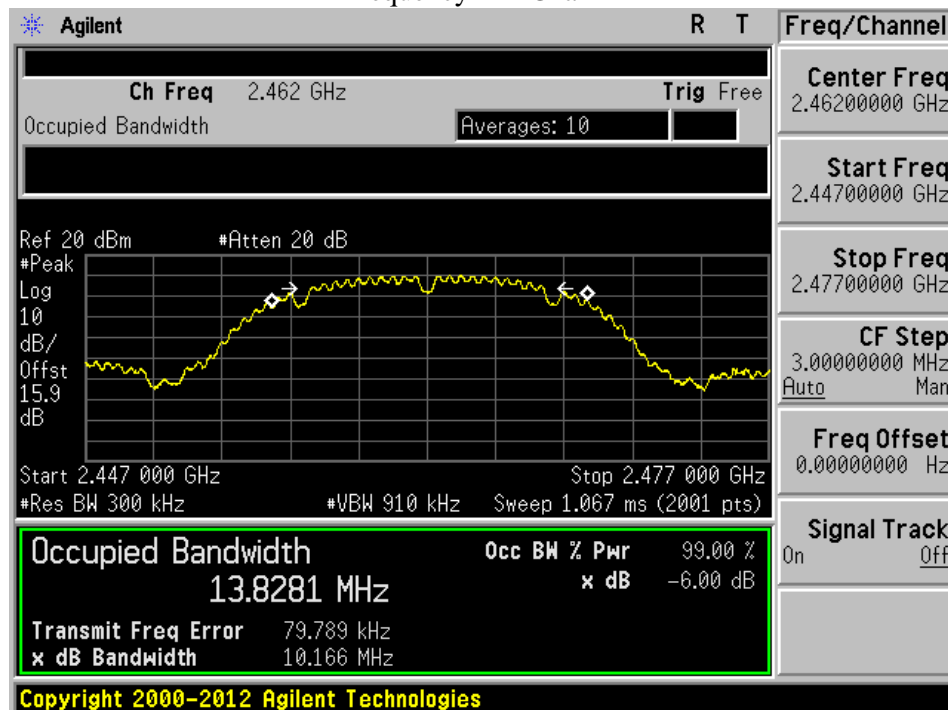
Frequency L – Chain 1



### Frequency M – Chain 1

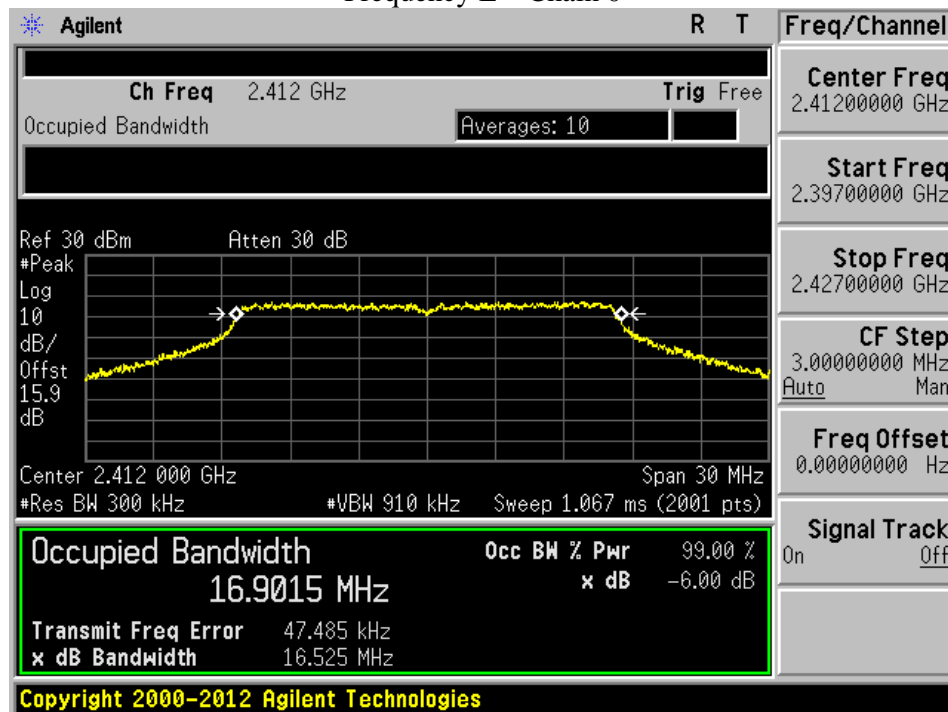


### Frequency H – Chain 1

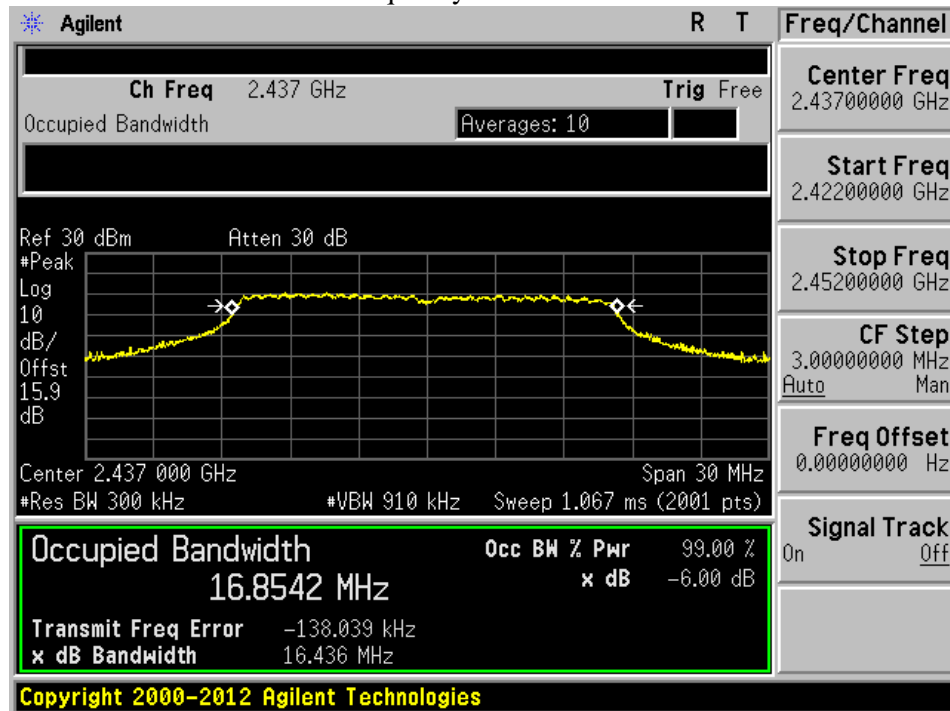


| Mode              | CH | Bandwidth (MHz) | Limit (MHz) |
|-------------------|----|-----------------|-------------|
| 802.11g – chain 0 | L  | 16.9015         | $\geq 0.5$  |
|                   | M  | 16.8542         |             |
|                   | H  | 16.6805         |             |

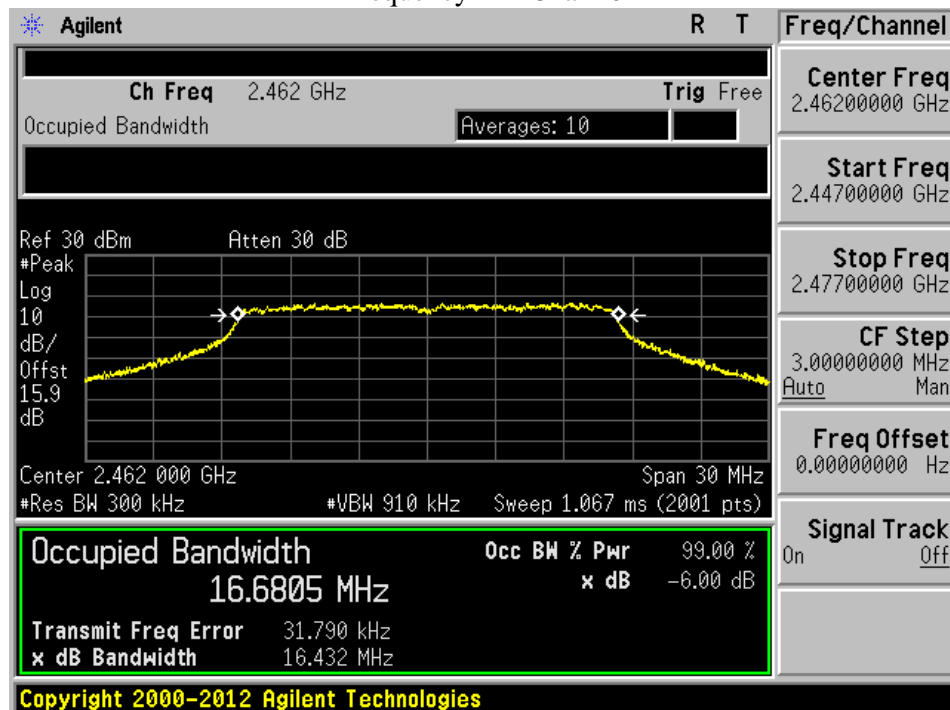
Frequency L – Chain 0



### Frequency M – Chain 0

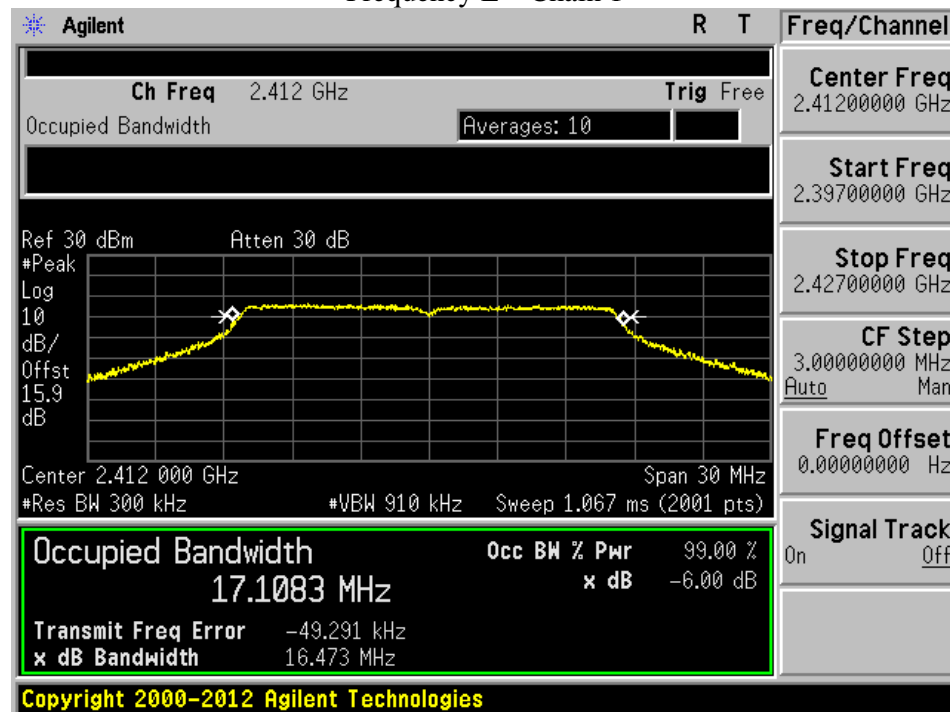


### Frequency H – Chain 0

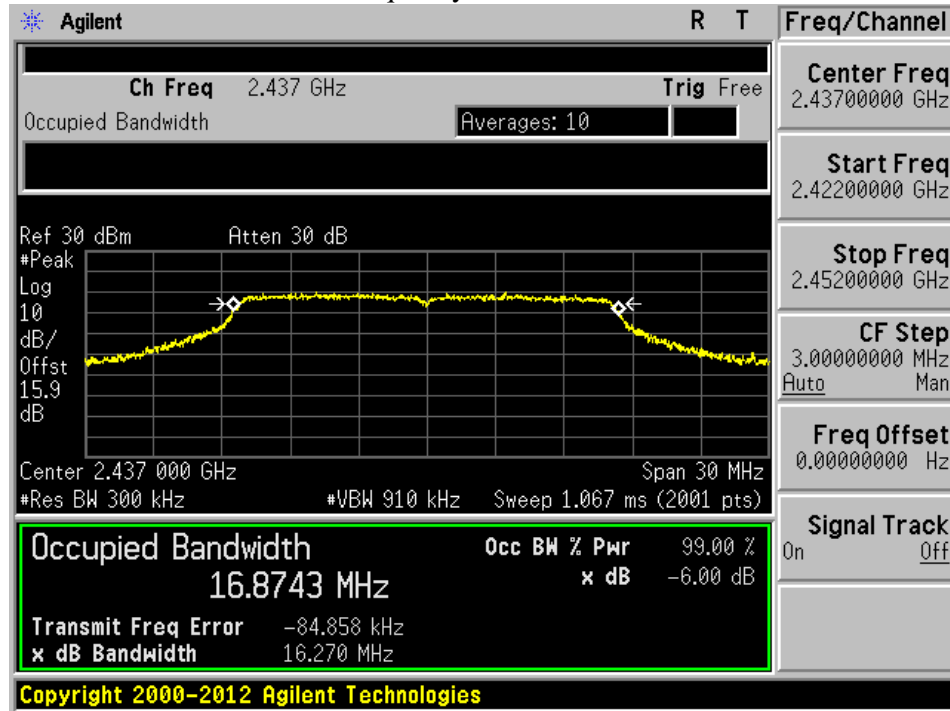


| Mode              | CH | Bandwidth<br>(MHz) | Limit<br>(MHz) |
|-------------------|----|--------------------|----------------|
| 802.11g – chain 1 | L  | 17.1083            | $\geq 0.5$     |
|                   | M  | 16.8743            |                |
|                   | H  | 16.9715            |                |

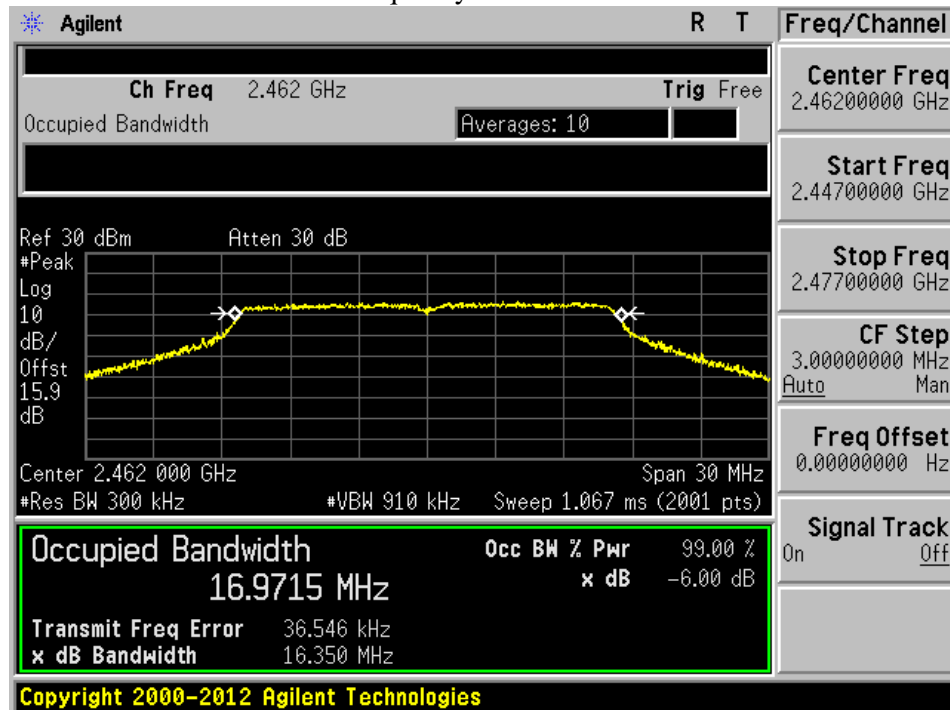
Frequency L – Chain 1



### Frequency M – Chain 1

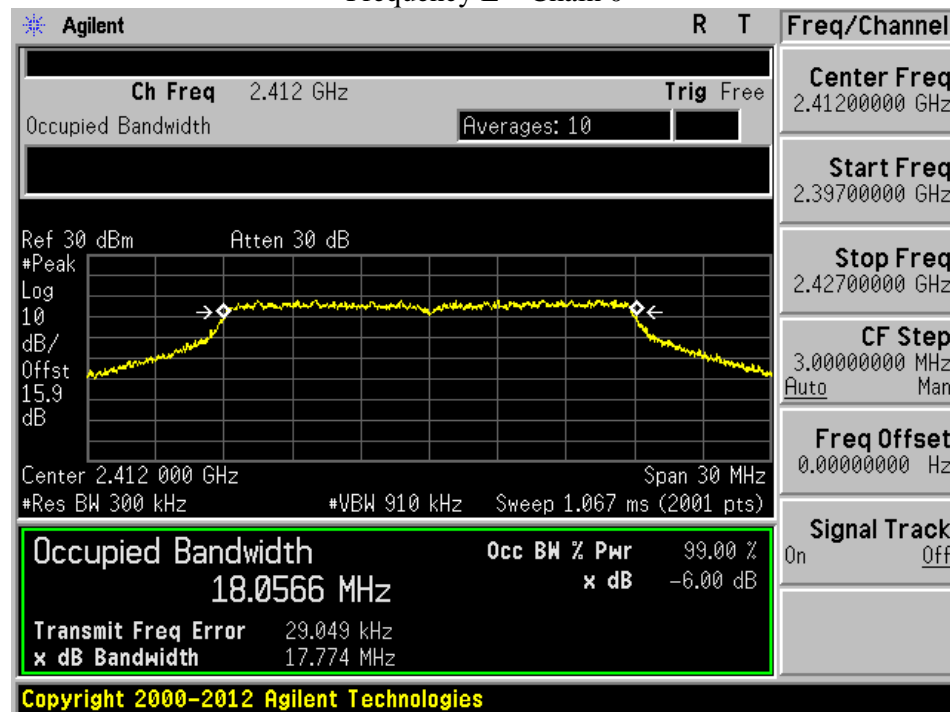


### Frequency H – Chain 1

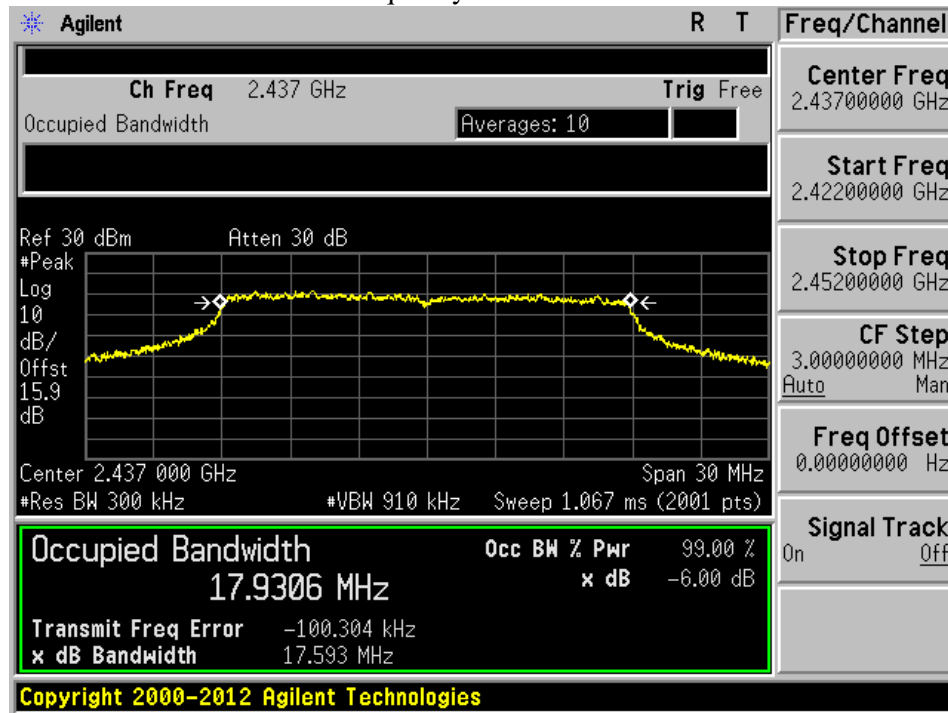


| Mode                | CH | Bandwidth (MHz) | Limit (MHz) |
|---------------------|----|-----------------|-------------|
| 802.11n20 – chain 0 | L  | 18.0566         | $\geq 0.5$  |
|                     | M  | 17.9306         |             |
|                     | H  | 17.8554         |             |

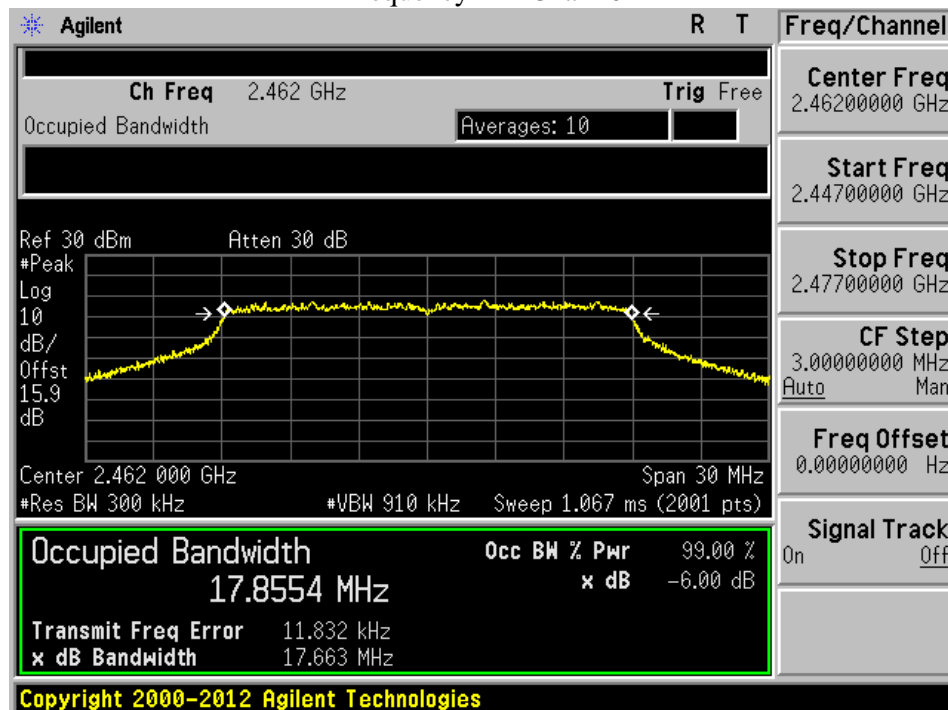
Frequency L – Chain 0



### Frequency M – Chain 0

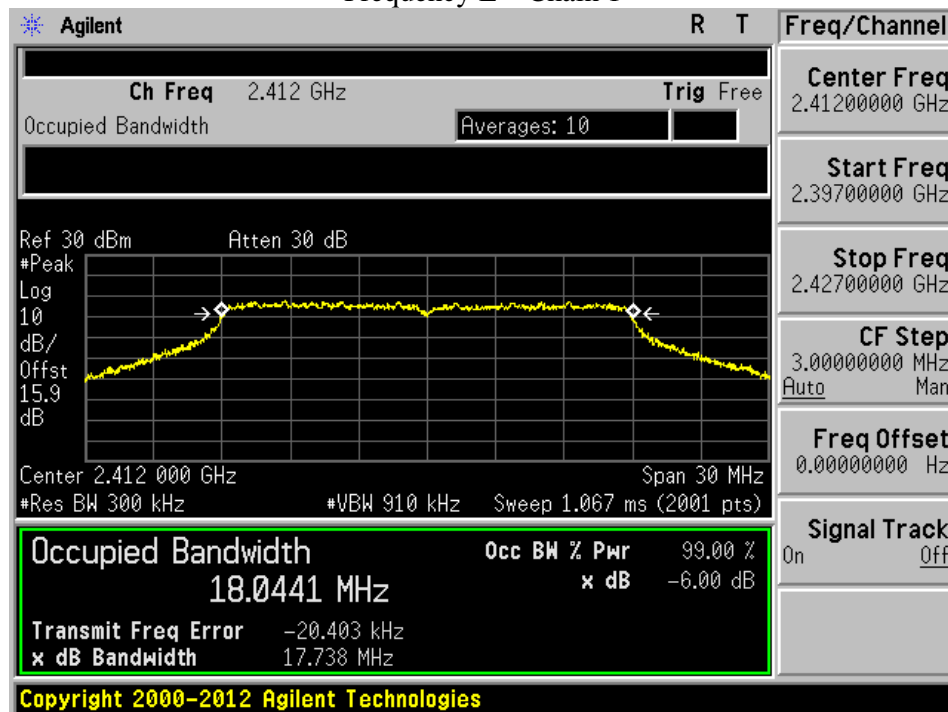


### Frequency H – Chain 0

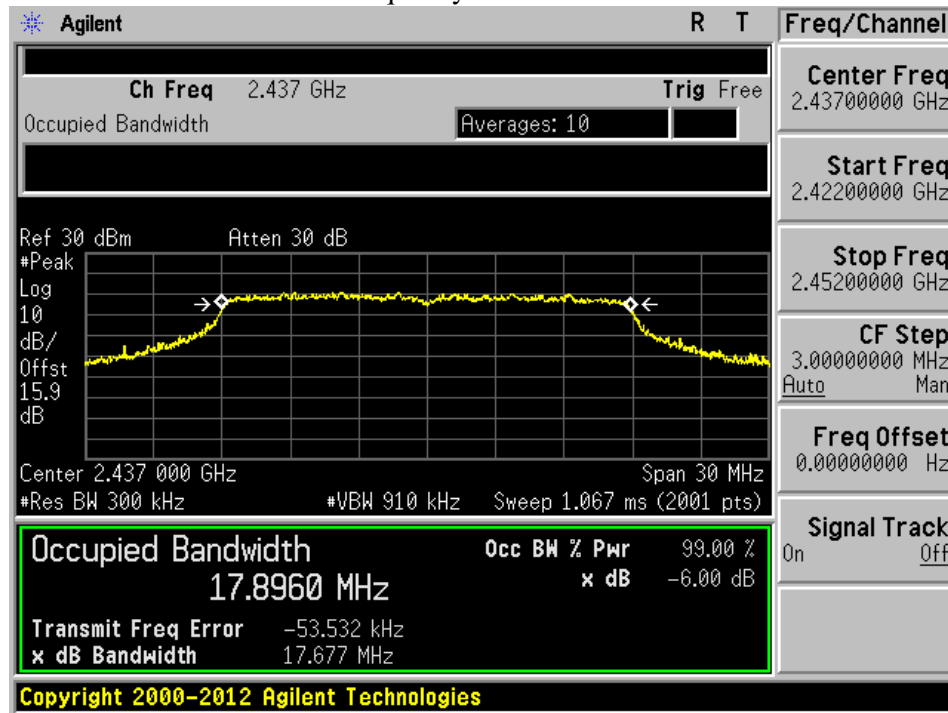


| Mode                | CH | Bandwidth (MHz) | Limit (MHz) |
|---------------------|----|-----------------|-------------|
| 802.11n20 – chain 1 | L  | 18.0441         | $\geq 0.5$  |
|                     | M  | 17.8960         |             |
|                     | H  | 17.9480         |             |

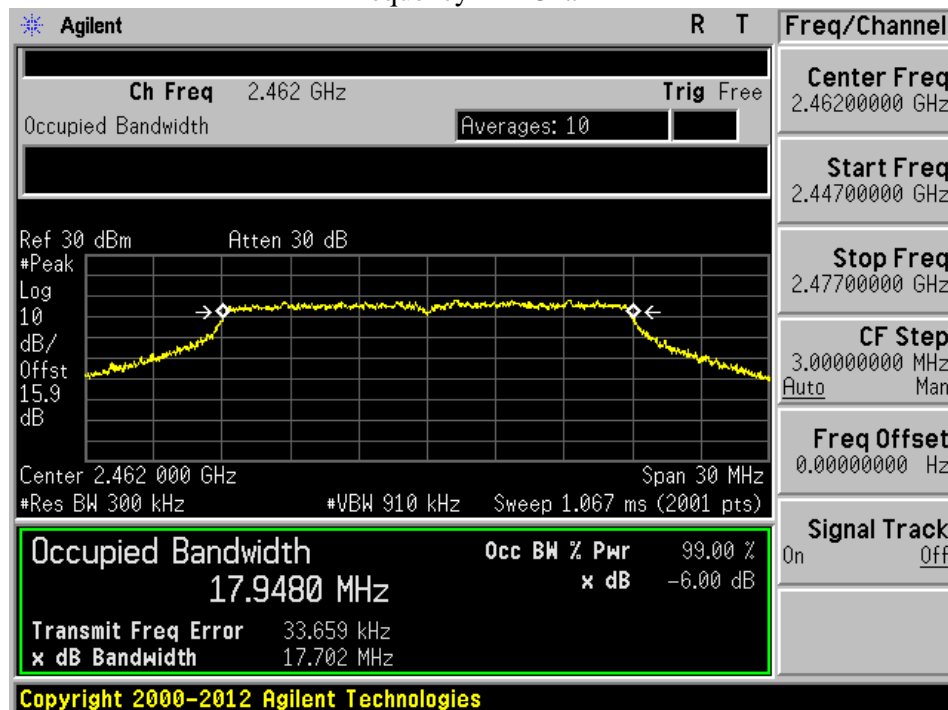
Frequency L – Chain 1



### Frequency M – Chain 1

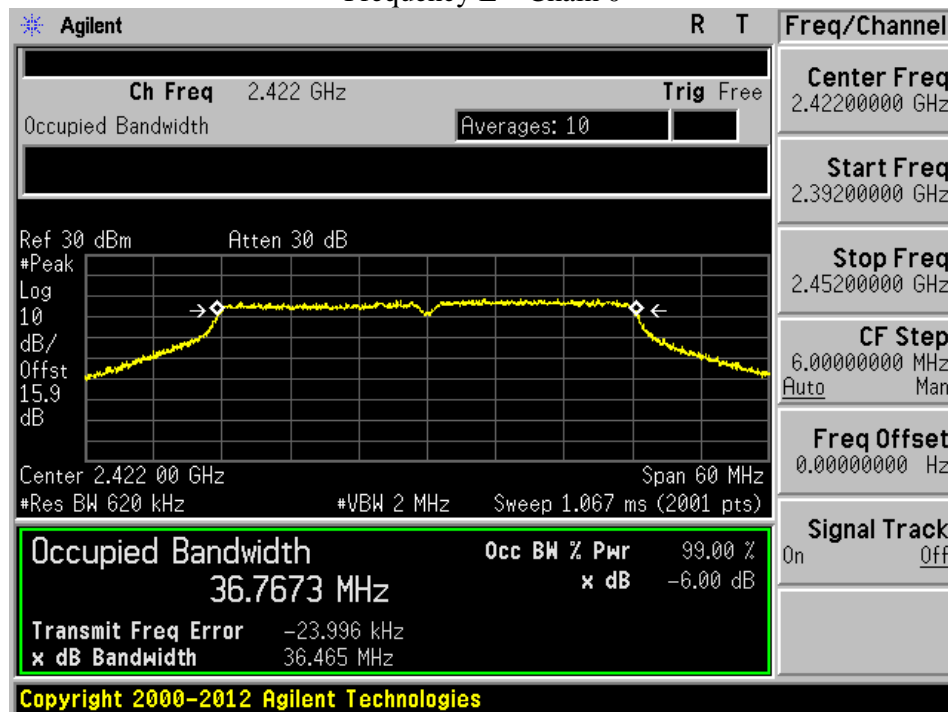


### Frequency H – Chain 1

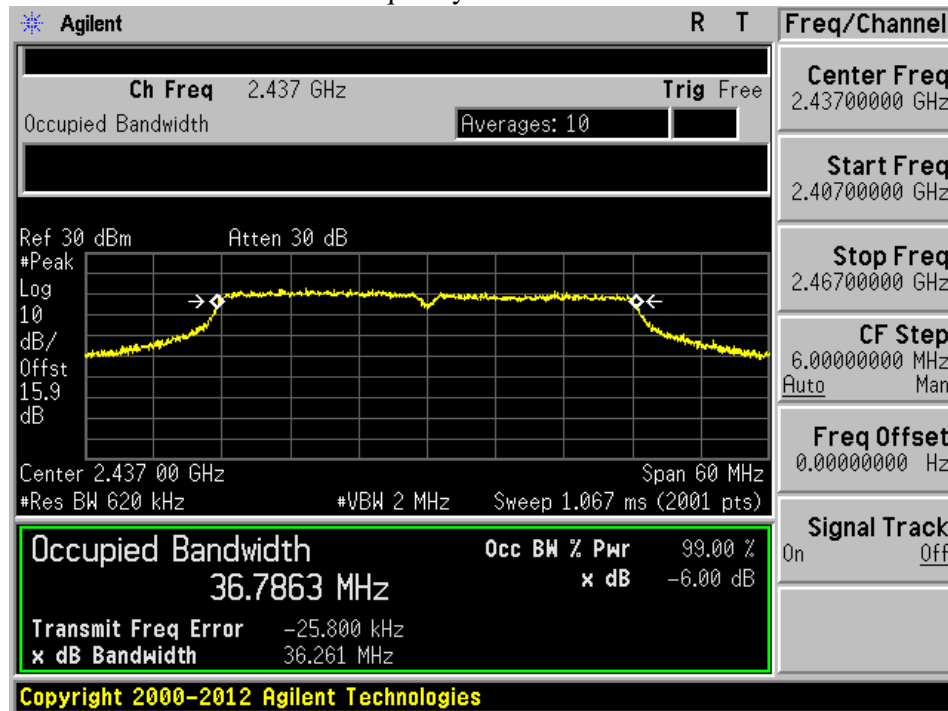


| Mode                | CH | Bandwidth (MHz) | Limit (MHz) |
|---------------------|----|-----------------|-------------|
| 802.11n40 – chain 0 | L  | 36.7673         | $\geq 0.5$  |
|                     | M  | 36.7863         |             |
|                     | H  | 37.1195         |             |

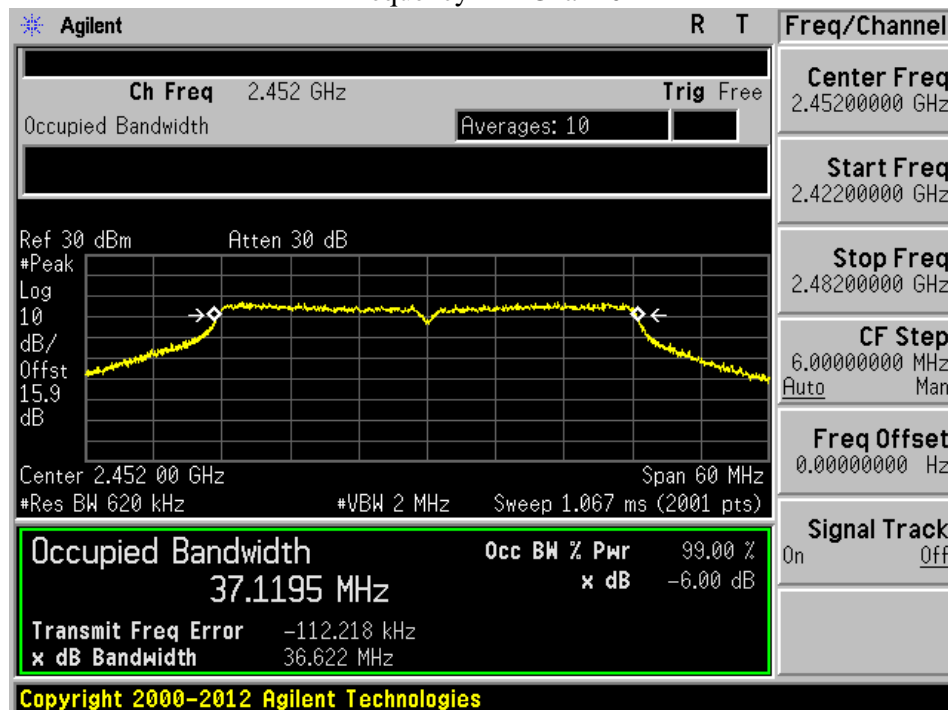
Frequency L – Chain 0



### Frequency M – Chain 0

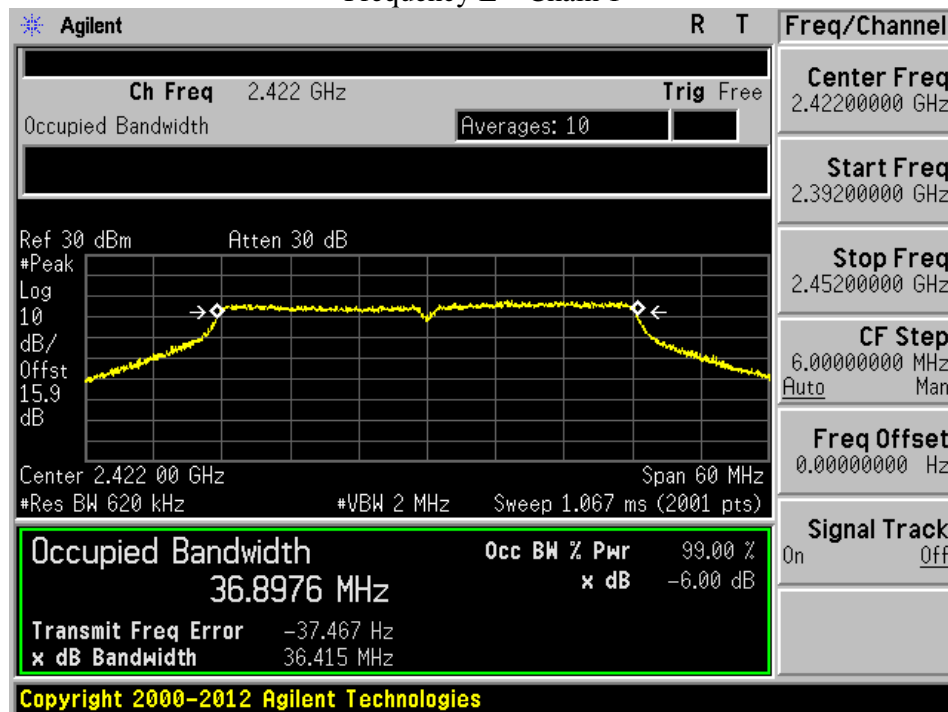


### Frequency H – Chain 0

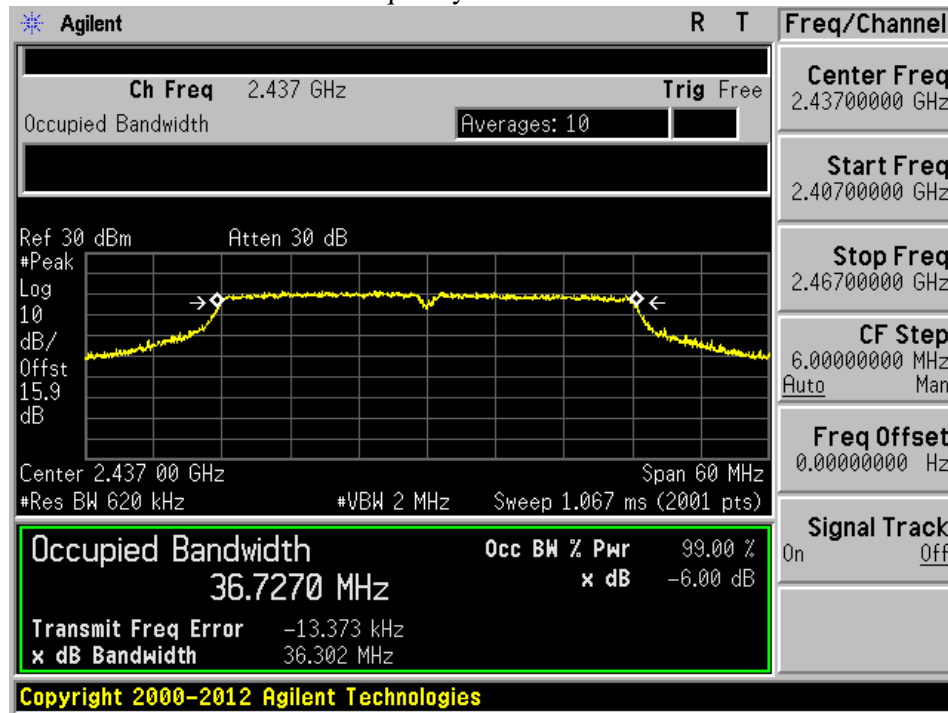


| Mode                | CH | Bandwidth (MHz) | Limit (MHz) |
|---------------------|----|-----------------|-------------|
| 802.11n40 – chain 1 | L  | 36.8976         | $\geq 0.5$  |
|                     | M  | 36.7270         |             |
|                     | H  | 37.1913         |             |

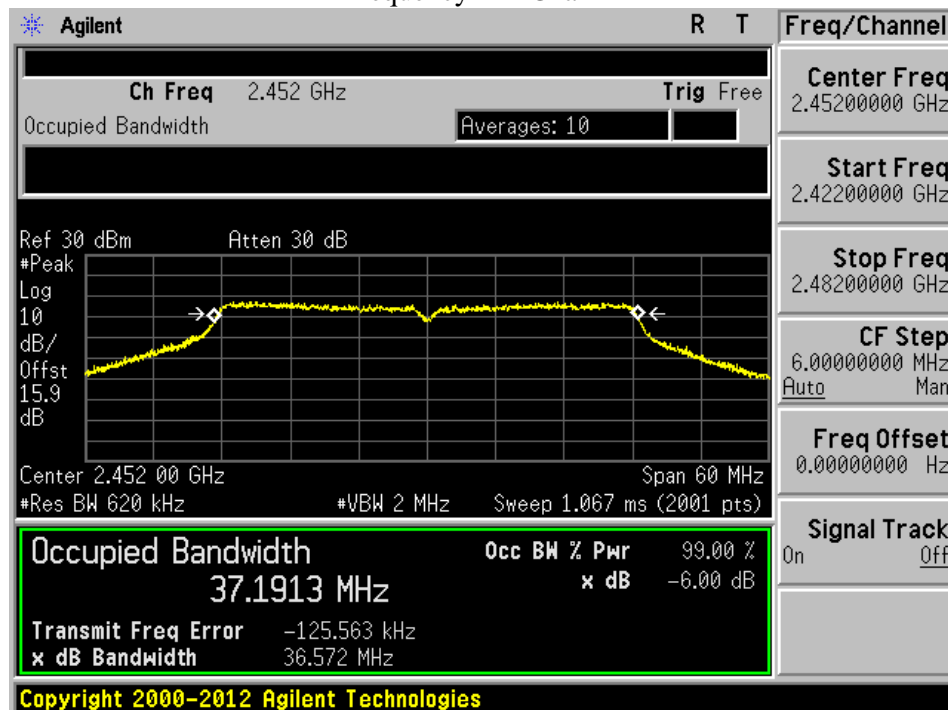
Frequency L – Chain 1



### Frequency M – Chain 1

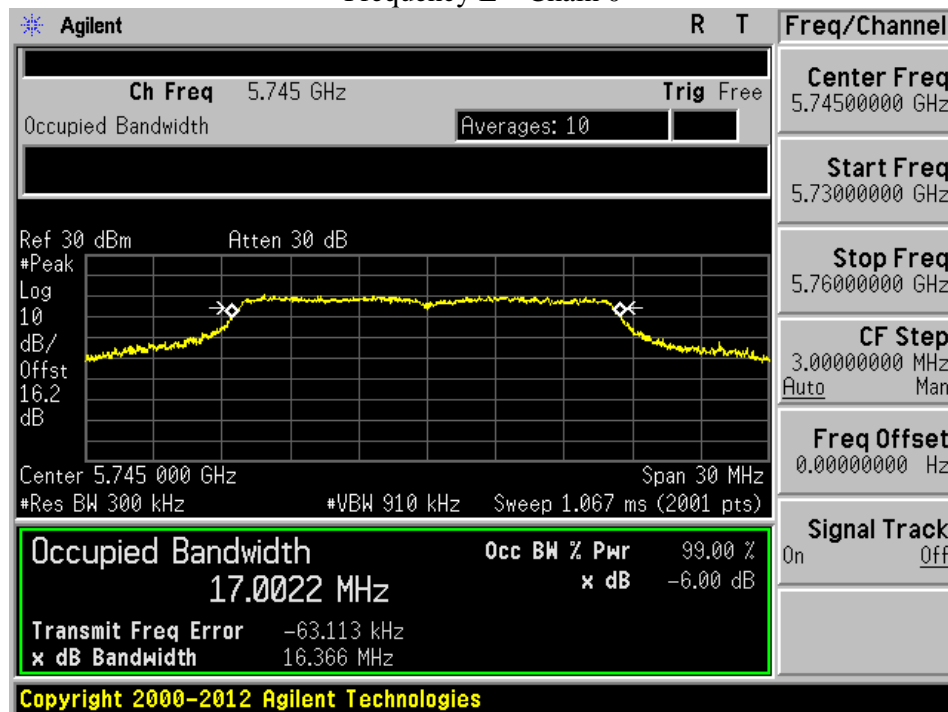


### Frequency H – Chain 1

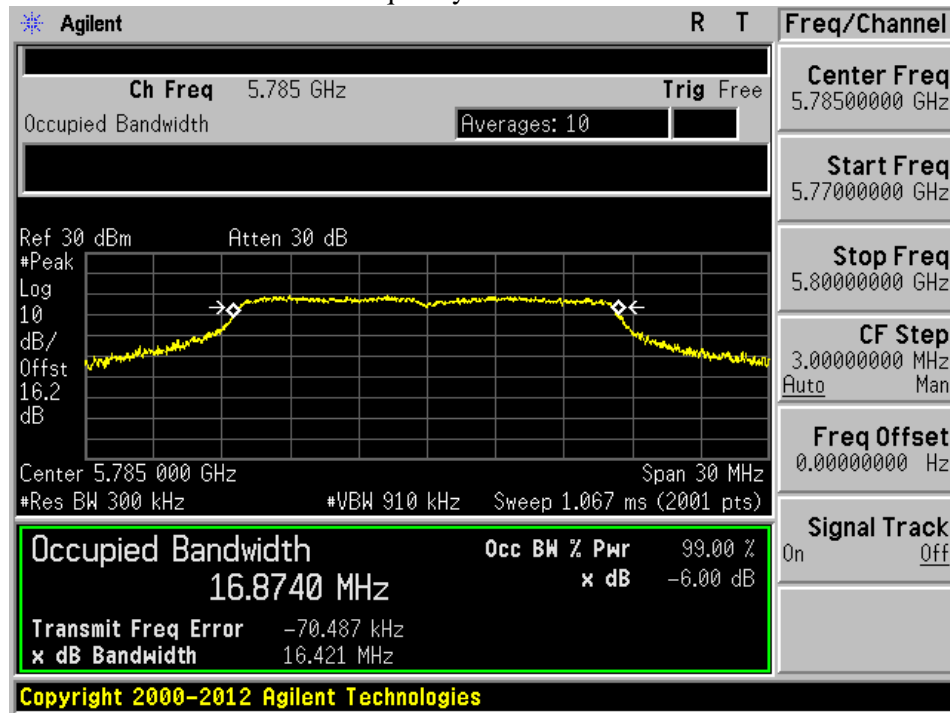


| Mode              | CH | Bandwidth<br>(MHz) | Limit<br>(MHz) |
|-------------------|----|--------------------|----------------|
| 802.11a – chain 0 | L  | 17.0022            | $\geq 0.5$     |
|                   | M  | 16.8740            |                |
|                   | H  | 16.8328            |                |

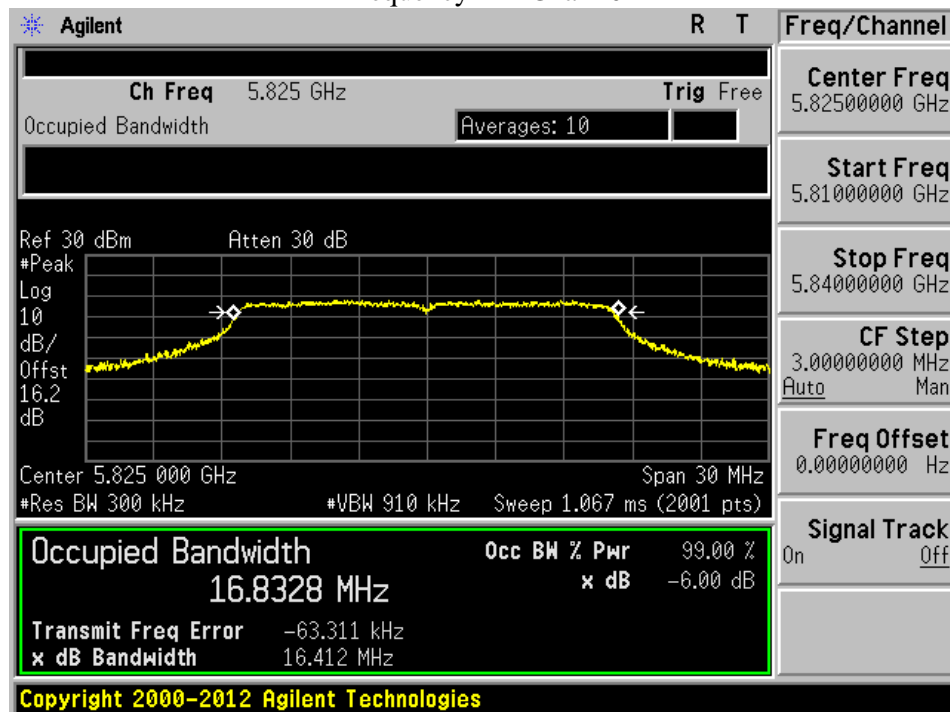
Frequency L – Chain 0



Frequency M – Chain 0

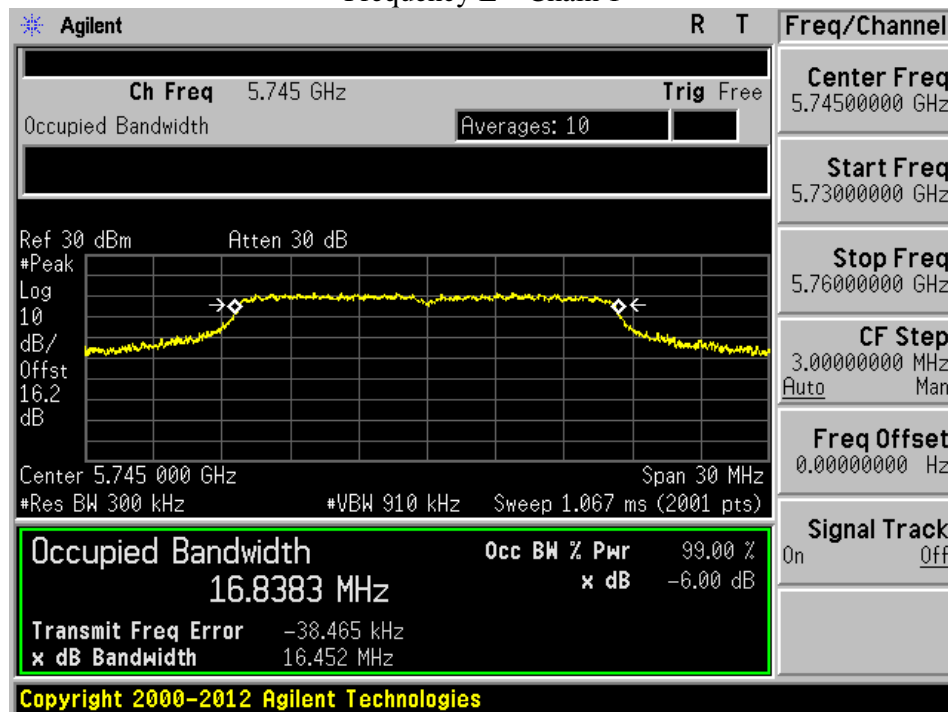


Frequency H – Chain 0

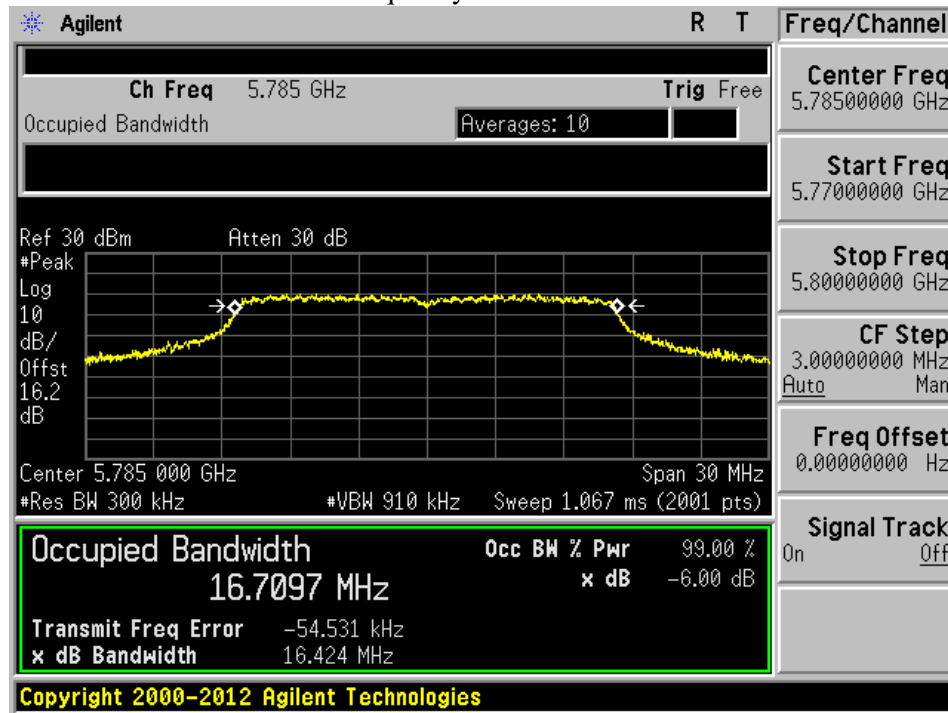


| Mode              | CH | Bandwidth (MHz) | Limit (MHz) |
|-------------------|----|-----------------|-------------|
| 802.11a – chain 1 | L  | 16.8383         | $\geq 0.5$  |
|                   | M  | 16.7097         |             |
|                   | H  | 16.7090         |             |

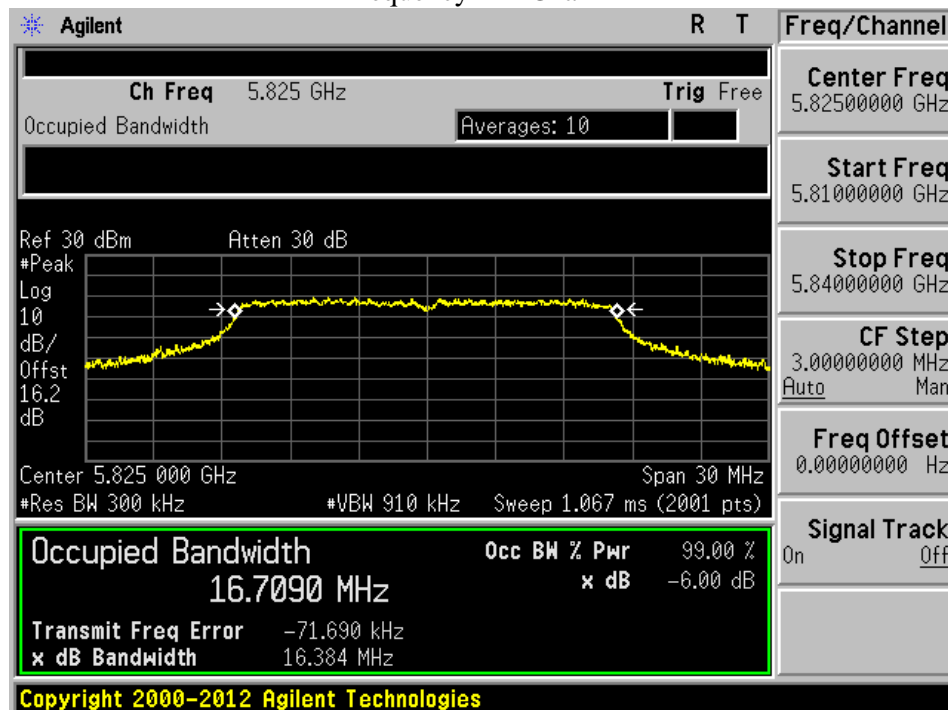
Frequency L – Chain 1



Frequency M – Chain 1

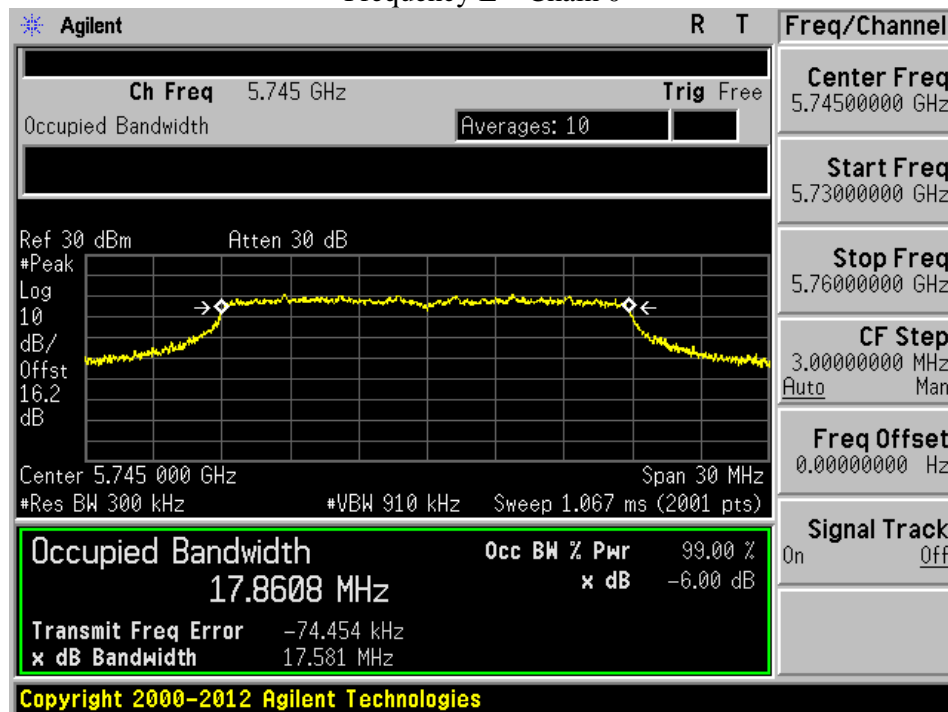


Frequency H – Chain 1

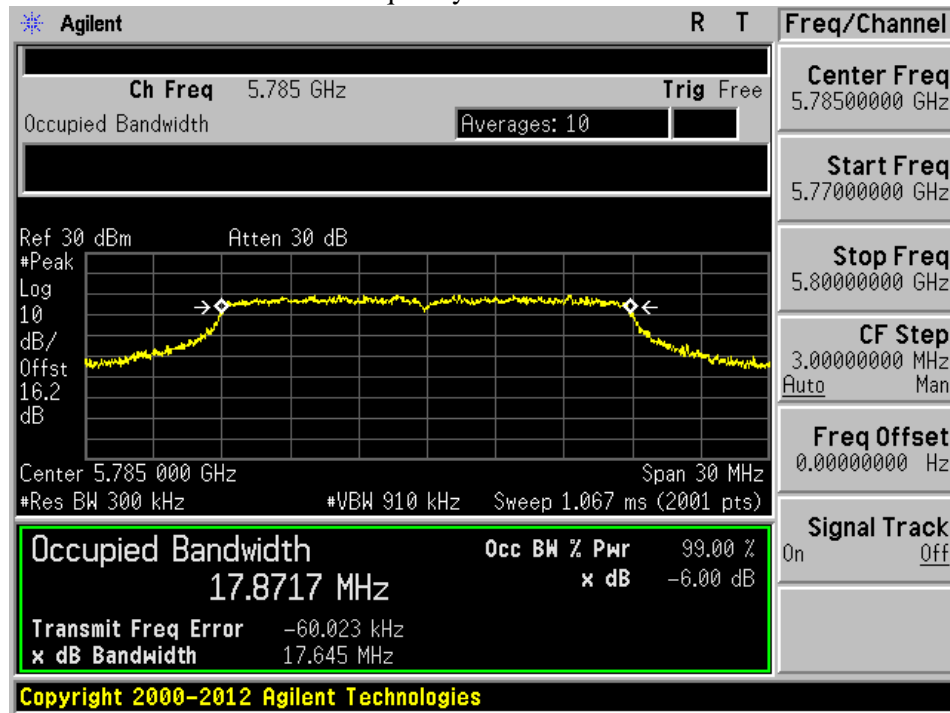


| Mode                | CH | Bandwidth (MHz) | Limit (MHz) |
|---------------------|----|-----------------|-------------|
| 802.11n20 – chain 0 | L  | 17.8608         | $\geq 0.5$  |
|                     | M  | 17.8717         |             |
|                     | H  | 17.8468         |             |

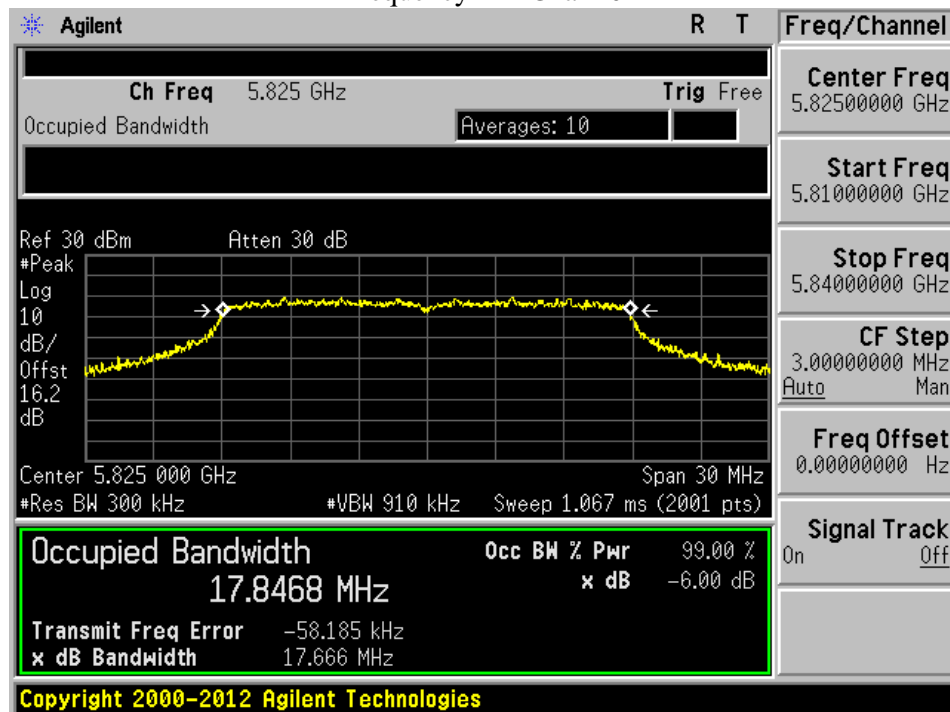
Frequency L – Chain 0



Frequency M – Chain 0

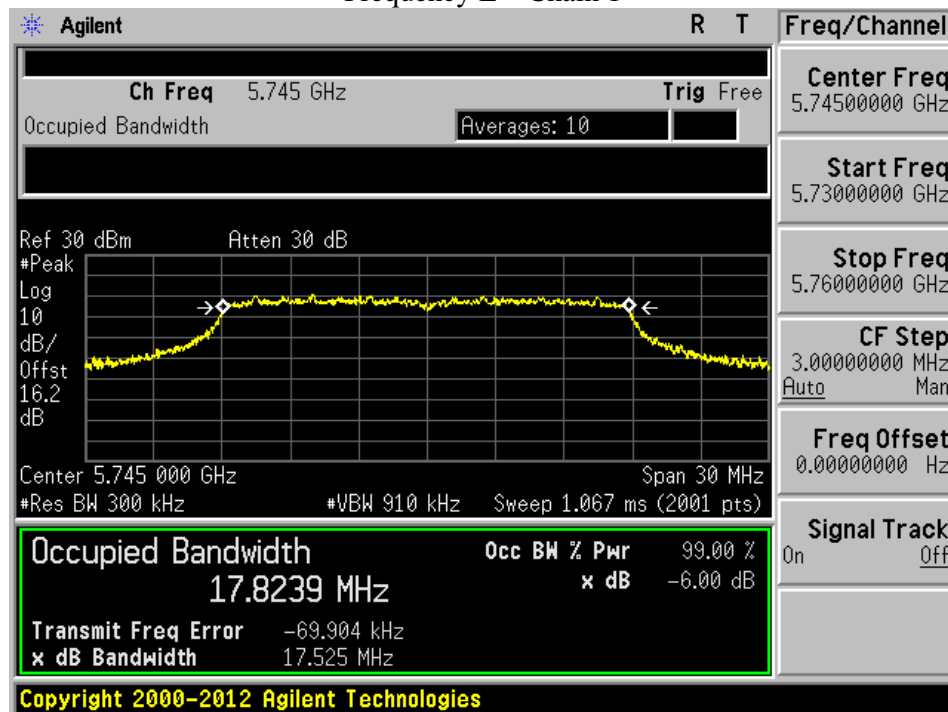


Frequency H – Chain 0

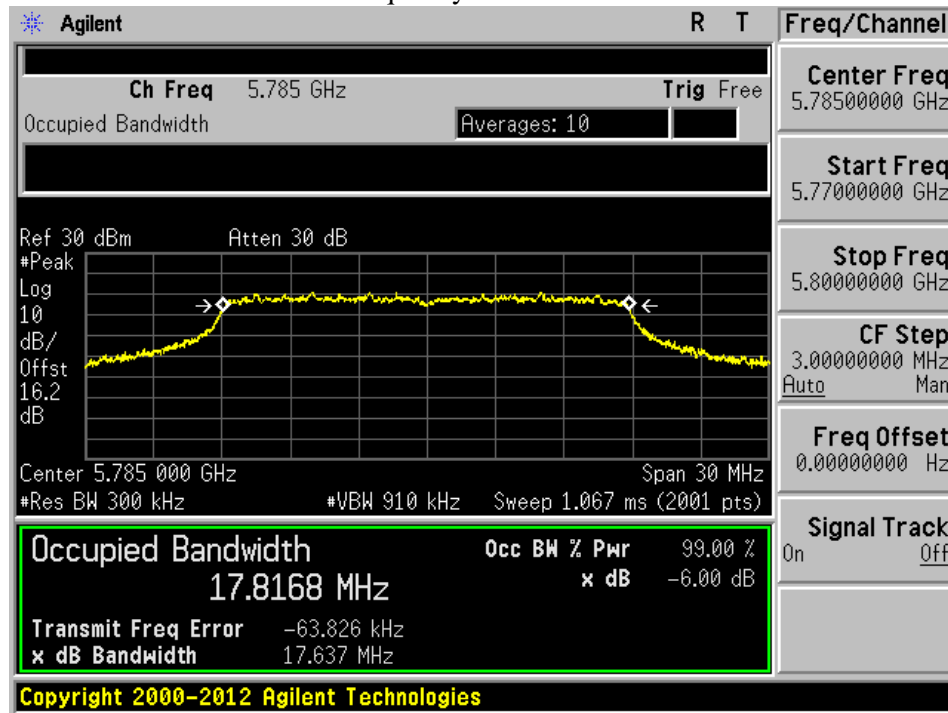


| Mode                | CH | Bandwidth (MHz) | Limit (MHz) |
|---------------------|----|-----------------|-------------|
| 802.11n20 – chain 1 | L  | 17.8239         | $\geq 0.5$  |
|                     | M  | 17.8168         |             |
|                     | H  | 17.8241         |             |

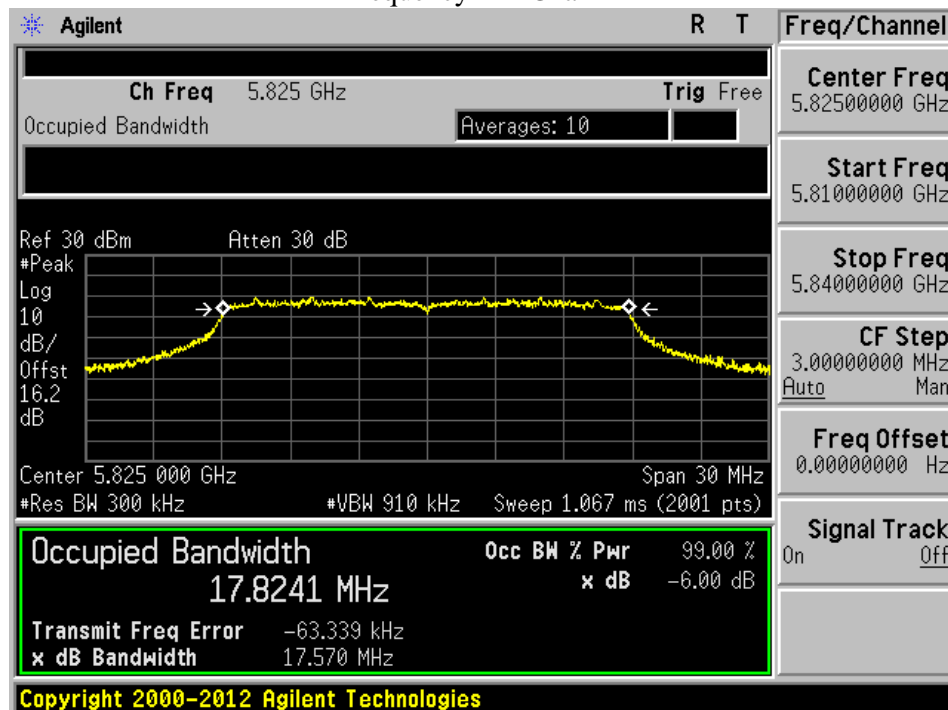
Frequency L – Chain 1



### Frequency M – Chain 1

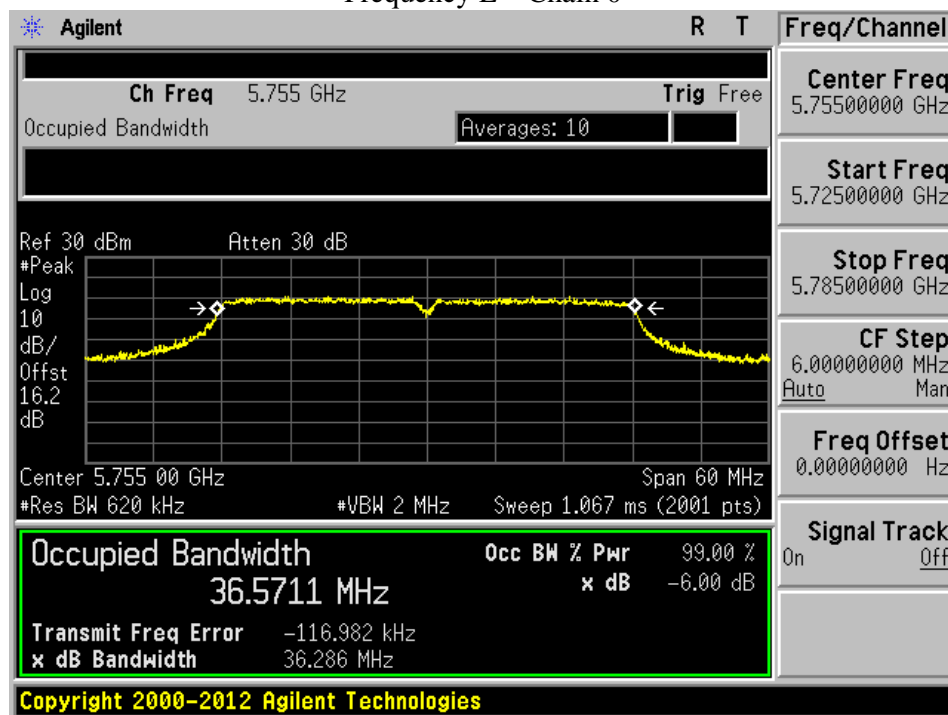


### Frequency H – Chain 1

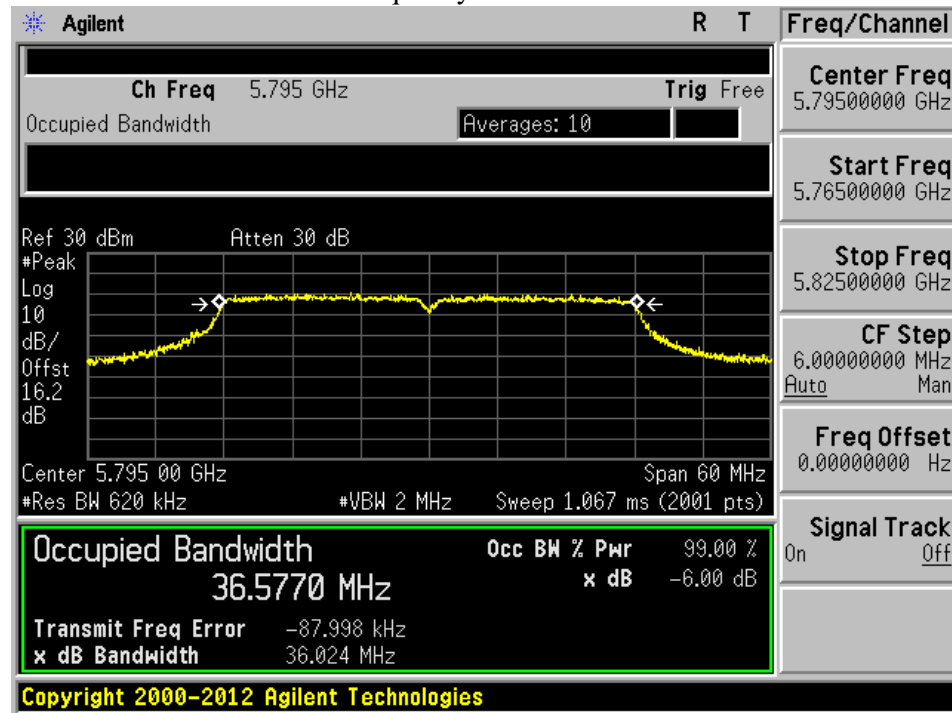


| Mode                | CH | Bandwidth (MHz) | Limit (MHz) |
|---------------------|----|-----------------|-------------|
| 802.11n40 – chain 0 | L  | 36.5711         | $\geq 0.5$  |
|                     | H  | 36.5770         |             |

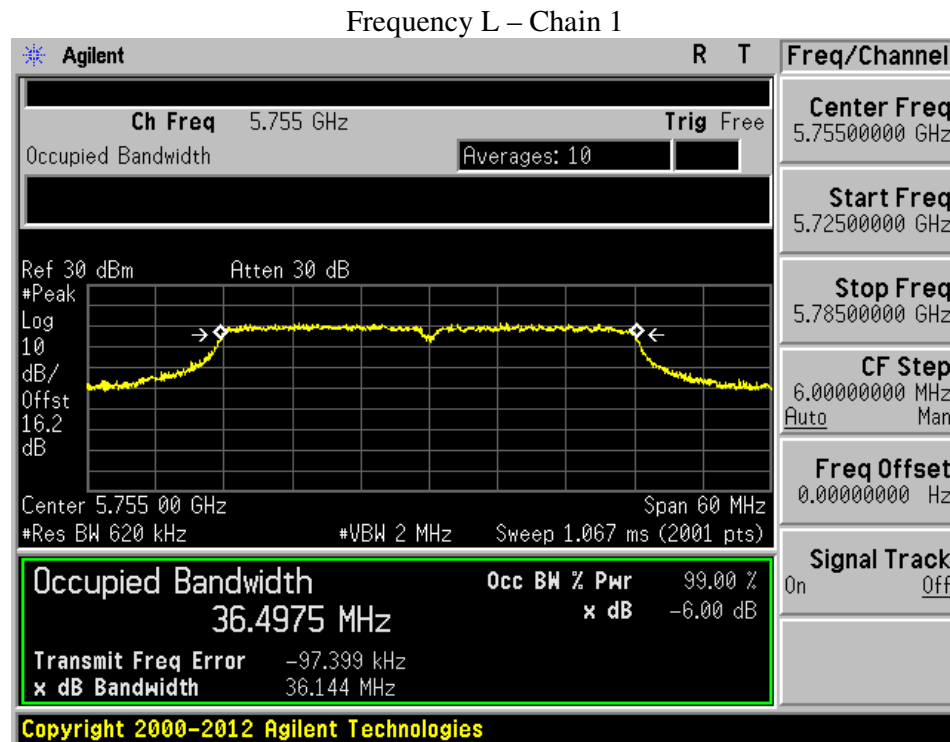
Frequency L – Chain 0



Frequency H – Chain 0



| Mode                | CH | Bandwidth (MHz) | Limit (MHz) |
|---------------------|----|-----------------|-------------|
| 802.11n40 – chain 1 | L  | 36.4975         | $\geq 0.5$  |
|                     | H  | 36.4294         |             |



Frequency H – Chain 1

