

## **7.5. Conducted Band Edge and Out-of-Band Emissions**

### **7.5.1. Test Limit**

The limit for out-of-band spurious emissions at the band edge is 20dB below the fundamental emission level, as determined from the in-band power measurement of the DTS channel performed in a 100kHz bandwidth per the PSD procedure.

### **7.5.2. Test Procedure Used**

KDB 558074 D01v03r02 – Section 11.2 & Section 11.3

### **7.5.3. Test Settling**

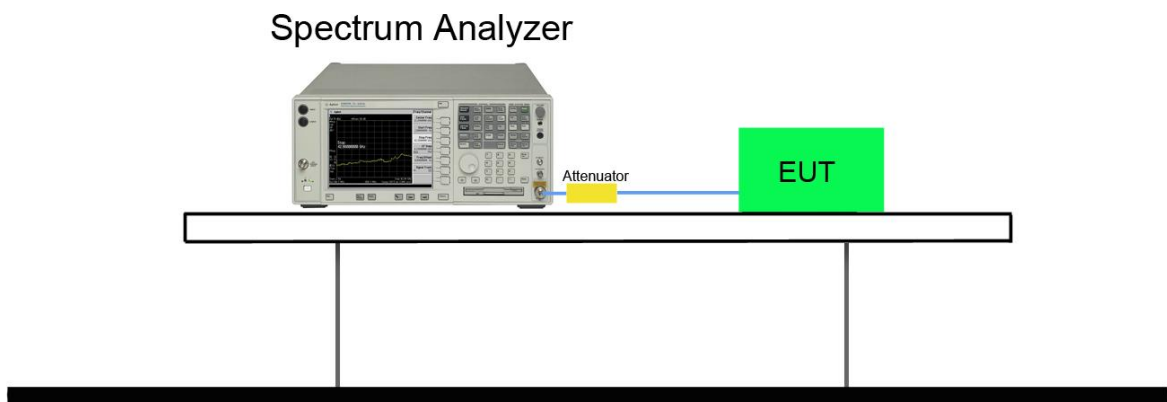
#### **1. Reference level measurement**

- (a) Set instrument center frequency to DTS channel center frequency
- (b) Set the span to  $\geq 1.5$  times the DTS bandwidth
- (c) Set the RBW = 100 kHz
- (d) Set the VBW  $\geq 3 \times$  RBW
- (e) Detector = peak
- (f) Sweep time = auto couple
- (g) Trace mode = max hold
- (h) Allow trace to fully stabilize

#### **2. Emission level measurement**

- (a) Set the center frequency and span to encompass frequency range to be measured
- (b) RBW = 100kHz
- (c) VBW = 300kHz
- (d) Detector = Peak
- (e) Trace mode = max hold
- (f) Sweep time = auto couple
- (g) The trace was allowed to stabilize

#### 7.5.4. Test Setup



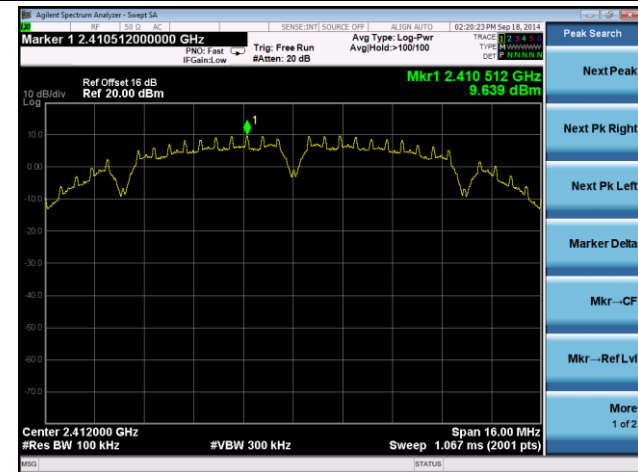
### 7.5.5. Test Result

| Test Mode         | Data Rate (Mbps) | Channel No. | Frequency (MHz) | Limit | Result |
|-------------------|------------------|-------------|-----------------|-------|--------|
| Ant 0 / Ant 0 + 1 |                  |             |                 |       |        |
| 802.11b           | 1                | 01          | 2412            | 20dBc | Pass   |
| 802.11b           | 1                | 06          | 2437            | 20dBc | Pass   |
| 802.11b           | 1                | 11          | 2462            | 20dBc | Pass   |
| 802.11g           | 6                | 01          | 2412            | 20dBc | Pass   |
| 802.11g           | 6                | 06          | 2437            | 20dBc | Pass   |
| 802.11g           | 6                | 11          | 2462            | 20dBc | Pass   |
| 802.11n-HT20      | 13               | 01          | 2412            | 20dBc | Pass   |
| 802.11n-HT20      | 13               | 06          | 2437            | 20dBc | Pass   |
| 802.11n-HT20      | 13               | 11          | 2462            | 20dBc | Pass   |
| 802.11n-HT40      | 27               | 03          | 2422            | 20dBc | Pass   |
| 802.11n-HT40      | 27               | 06          | 2437            | 20dBc | Pass   |
| 802.11n-HT40      | 27               | 09          | 2452            | 20dBc | Pass   |
| Ant 1 / Ant 0 + 1 |                  |             |                 |       |        |
| 802.11b           | 1                | 01          | 2412            | 20dBc | Pass   |
| 802.11b           | 1                | 06          | 2437            | 20dBc | Pass   |
| 802.11b           | 1                | 11          | 2462            | 20dBc | Pass   |
| 802.11g           | 6                | 01          | 2412            | 20dBc | Pass   |
| 802.11g           | 6                | 06          | 2437            | 20dBc | Pass   |
| 802.11g           | 6                | 11          | 2462            | 20dBc | Pass   |
| 802.11n-HT20      | 13               | 01          | 2412            | 20dBc | Pass   |
| 802.11n-HT20      | 13               | 06          | 2437            | 20dBc | Pass   |
| 802.11n-HT20      | 13               | 11          | 2462            | 20dBc | Pass   |
| 802.11n-HT40      | 27               | 03          | 2422            | 20dBc | Pass   |
| 802.11n-HT40      | 27               | 06          | 2437            | 20dBc | Pass   |
| 802.11n-HT40      | 27               | 09          | 2452            | 20dBc | Pass   |

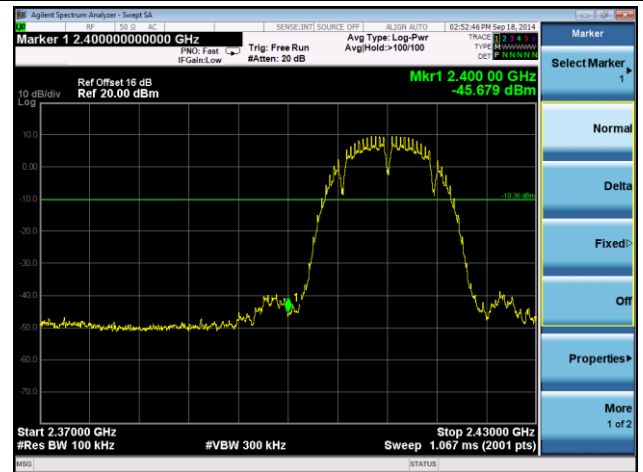
## 802.11b Out-of-Band Emissions - Ant 0 / Ant 0 + 1

### Channel 01 (2412MHz)

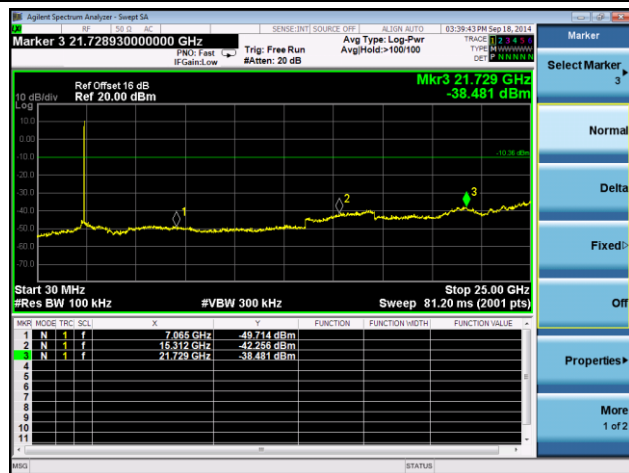
#### 100kHz PSD Reference Level



#### Low Band Edge

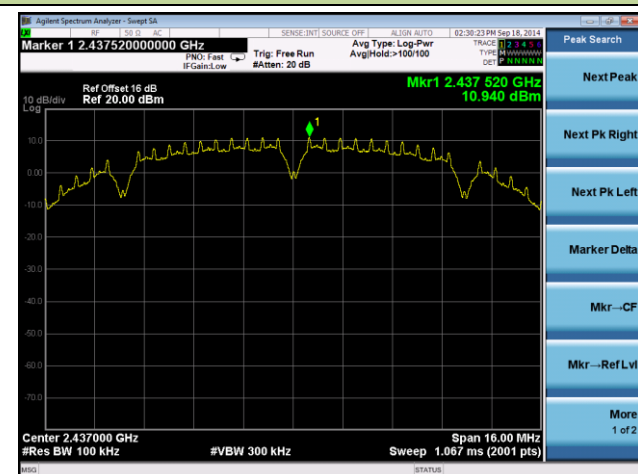


#### Spurious Emission

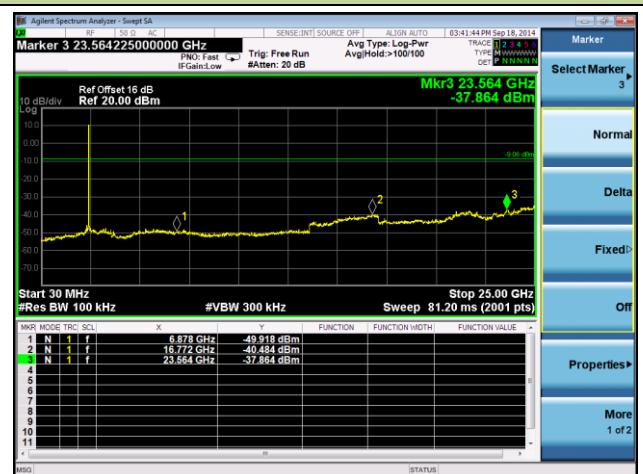


### Channel 06 (2437MHz)

#### 100kHz PSD Reference Level

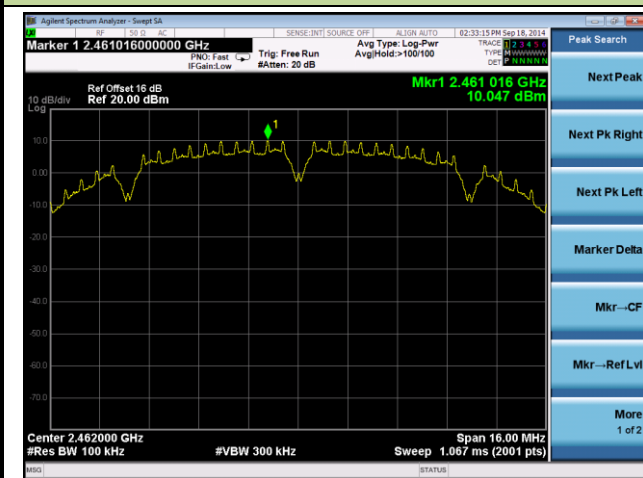


#### Spurious Emission

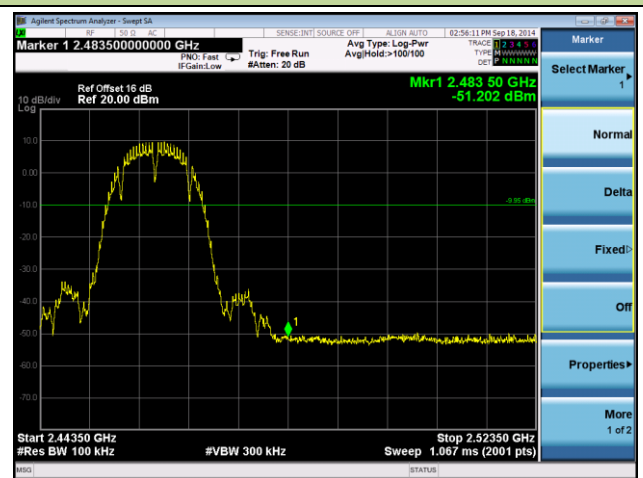


### Channel 11 (2462MHz)

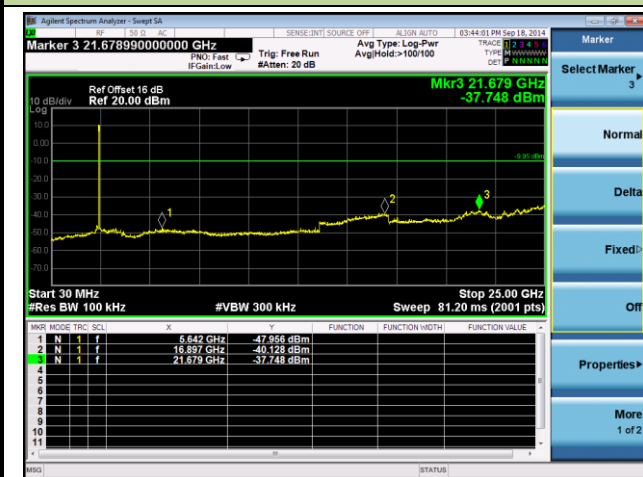
#### 100kHz PSD Reference Level



#### High Band Edge



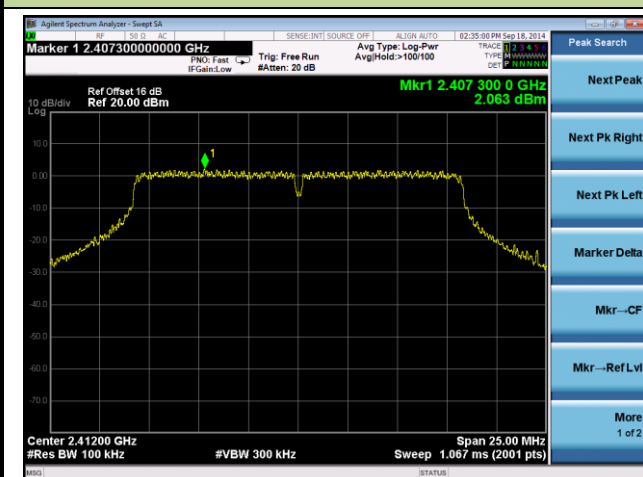
#### Spurious Emission



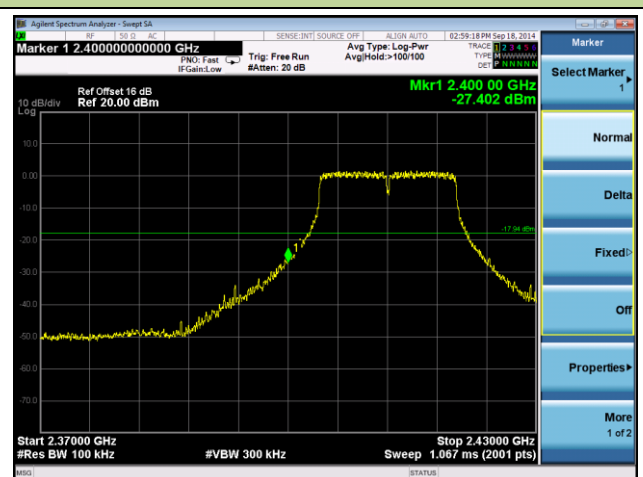
### 802.11g Out-of-Band Emissions - Ant 0 / Ant 0 + 1

### Channel 01 (2412MHz)

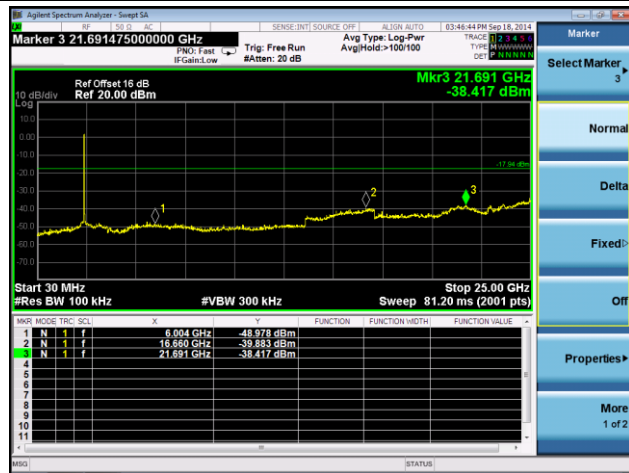
#### 100kHz PSD Reference Level



#### Low Band Edge

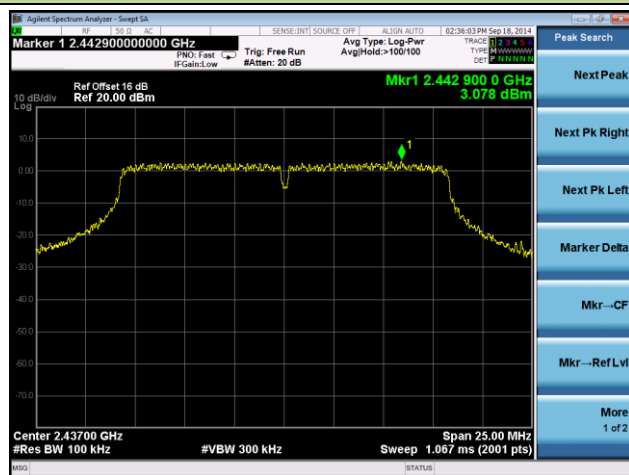


### Spurious Emission

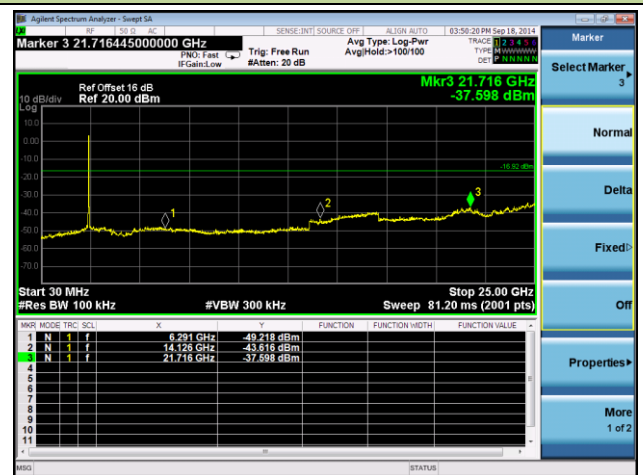


### Channel 06 (2437MHz)

#### 100kHz PSD Reference Level

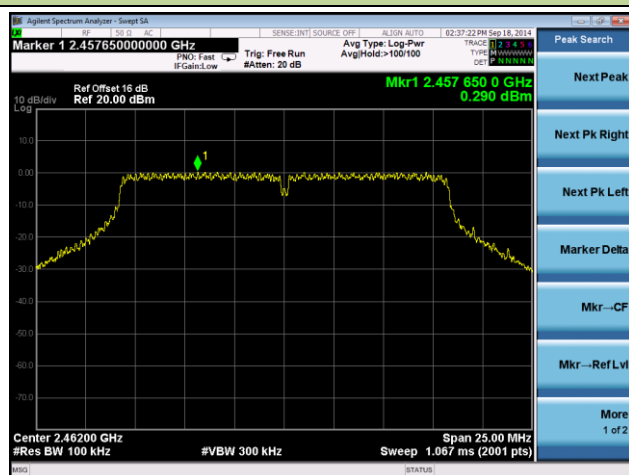


#### Spurious Emission

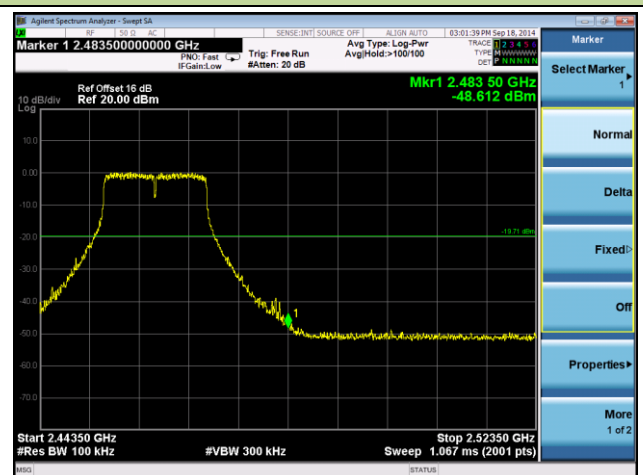


### Channel 11 (2462MHz)

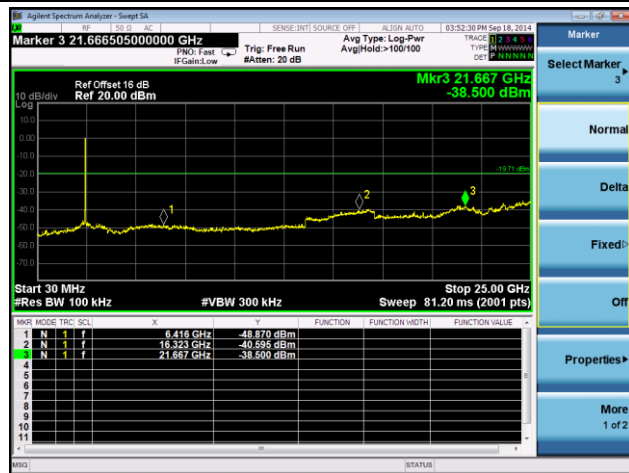
#### 100kHz PSD Reference Level



#### High Band Edge



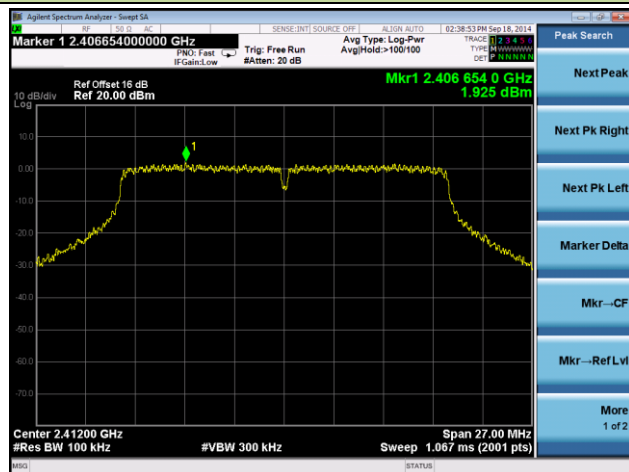
## Spurious Emission



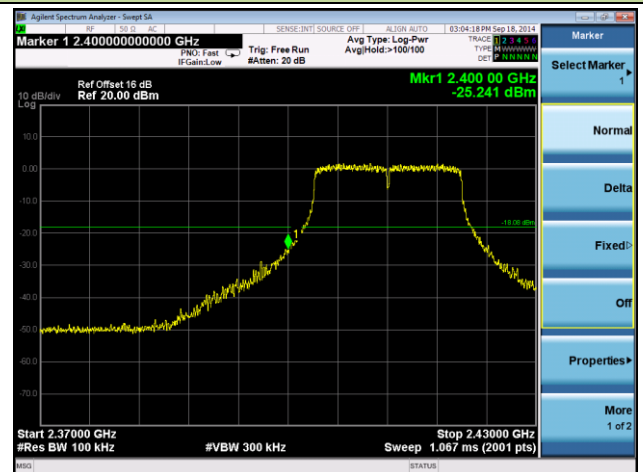
## 802.11n-HT20 Out-of-Band Emissions - Ant 0 / Ant 0 + 1

### Channel 01 (2412MHz)

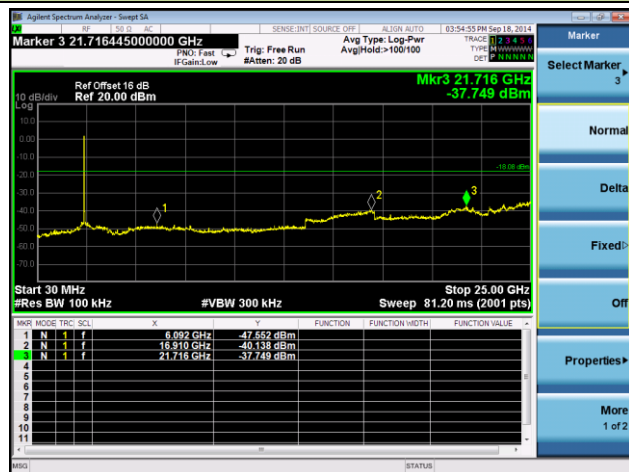
#### 100kHz PSD Reference Level



#### Low Band Edge

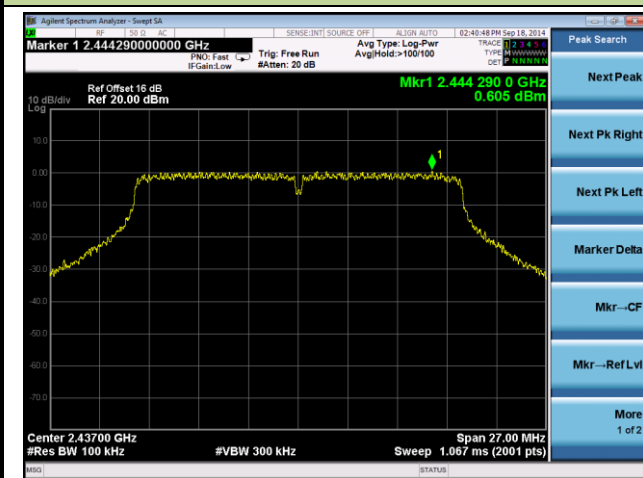


## Spurious Emission

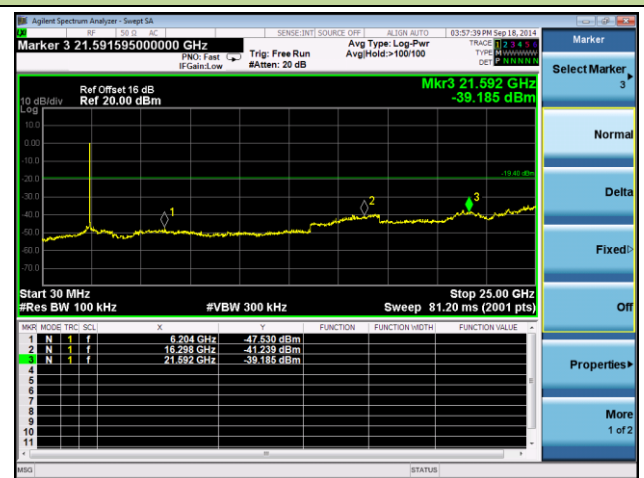


### Channel 06 (2437MHz)

#### 100kHz PSD Reference Level

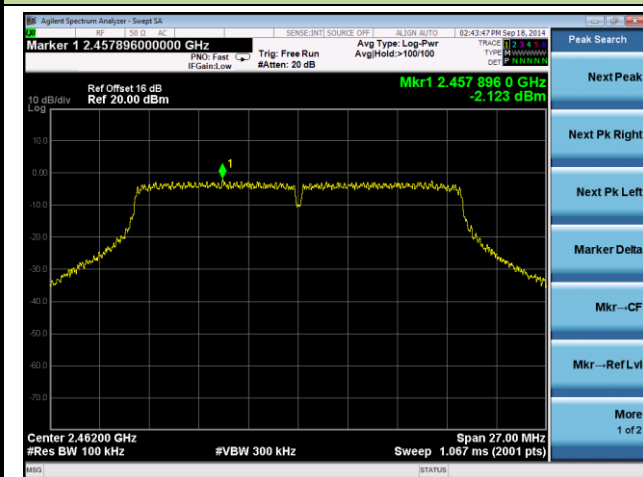


#### Spurious Emission

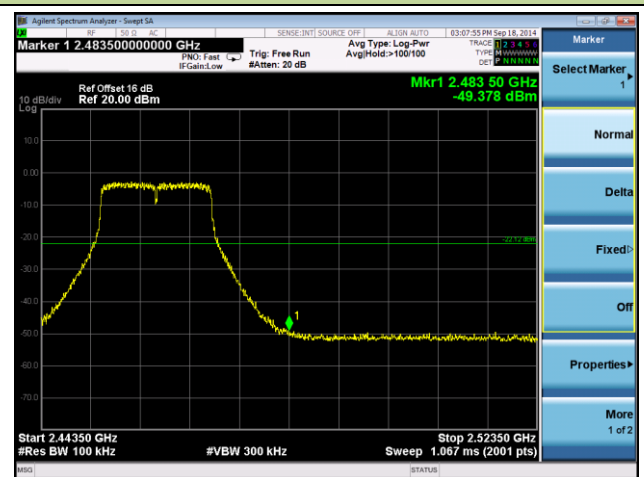


### Channel 11 (2462MHz)

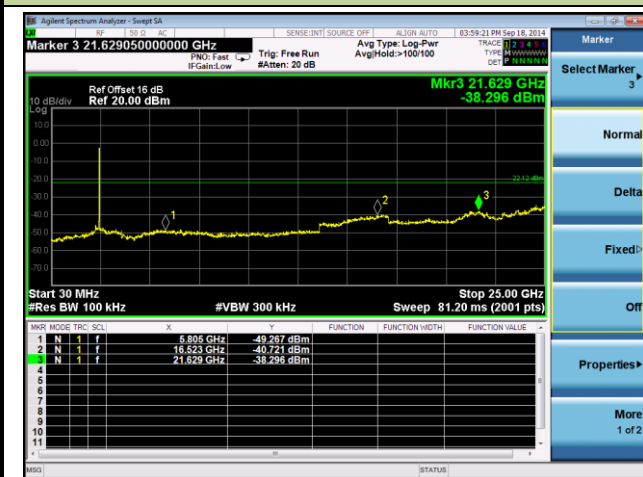
#### 100kHz PSD Reference Level



#### High Band Edge



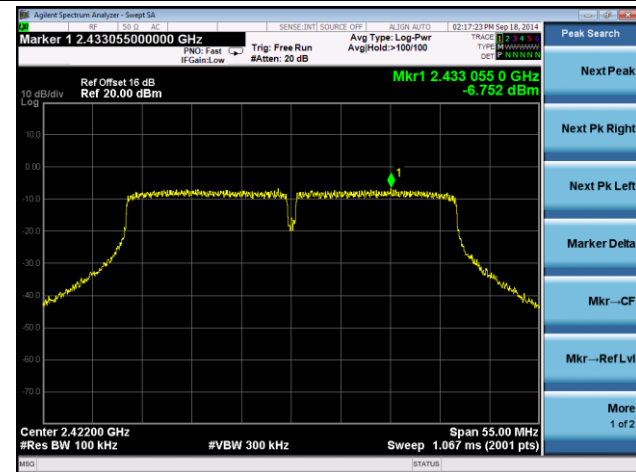
#### Spurious Emission



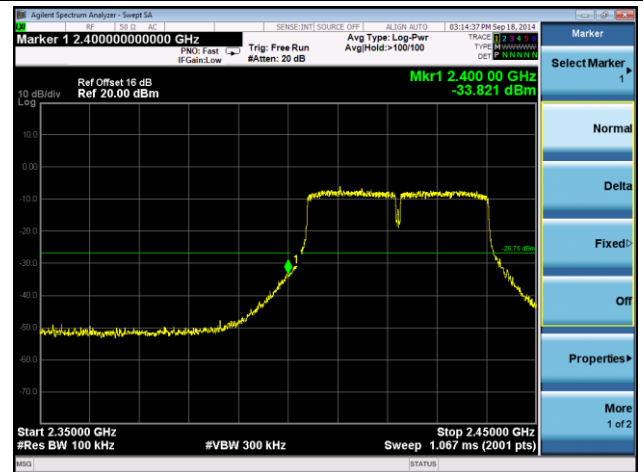
## 802.11n-HT40 Out-of-Band Emissions - Ant 0 / Ant 0 + 1

### Channel 03 (2422MHz)

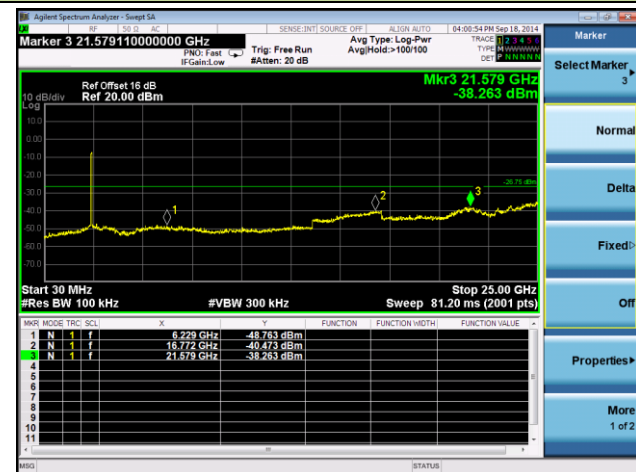
#### 100kHz PSD Reference Level



#### Low Band Edge

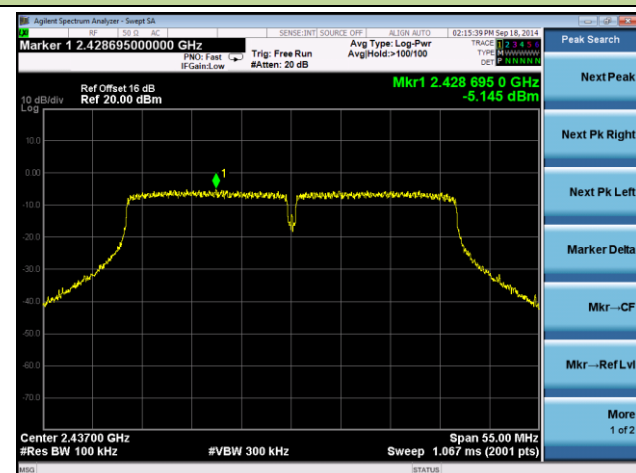


#### Spurious Emission

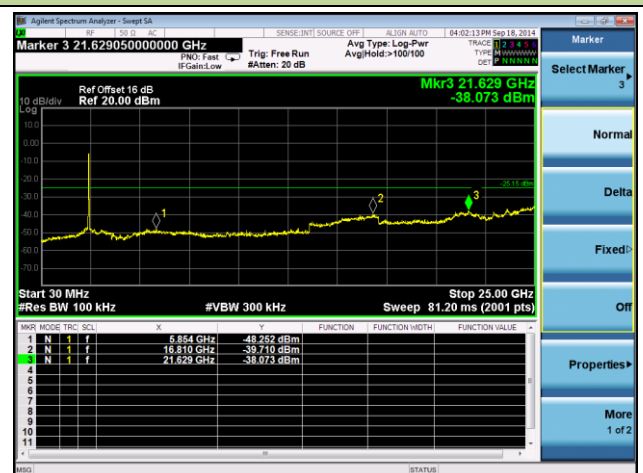


### Channel 06 (2437MHz)

#### 100kHz PSD Reference Level

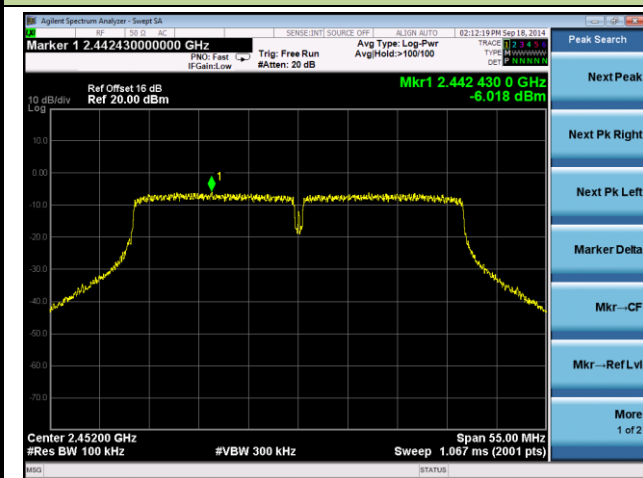


#### Spurious Emission

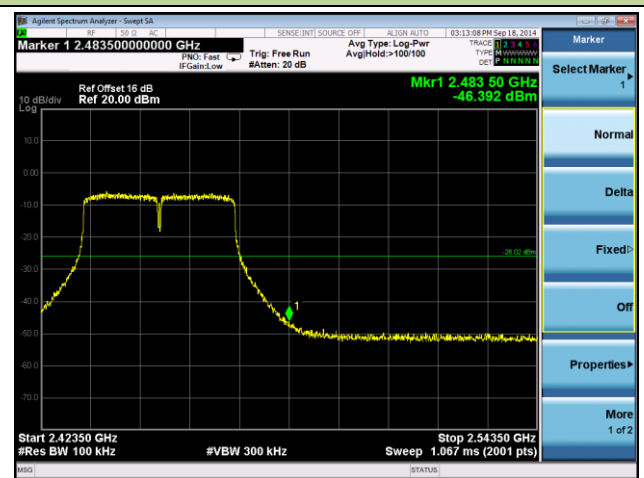


## Channel 09 (2452MHz)

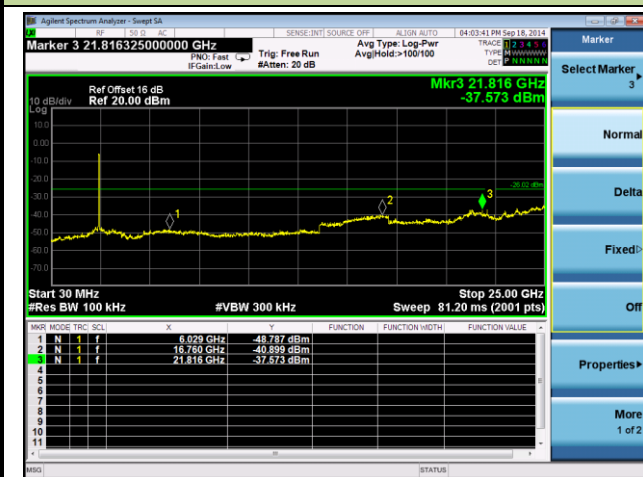
### 100kHz PSD Reference Level



### High Band Edge



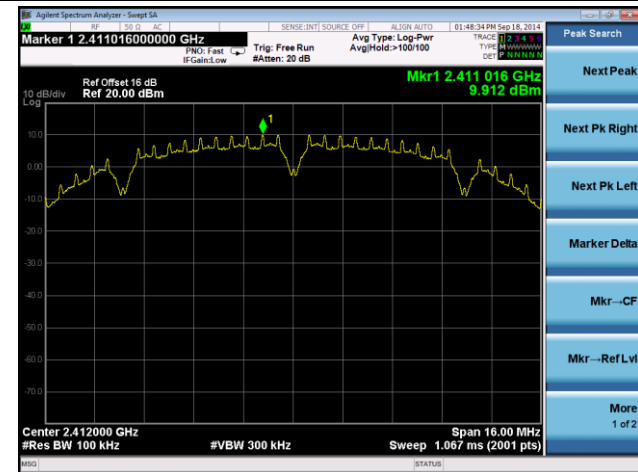
### Spurious Emission



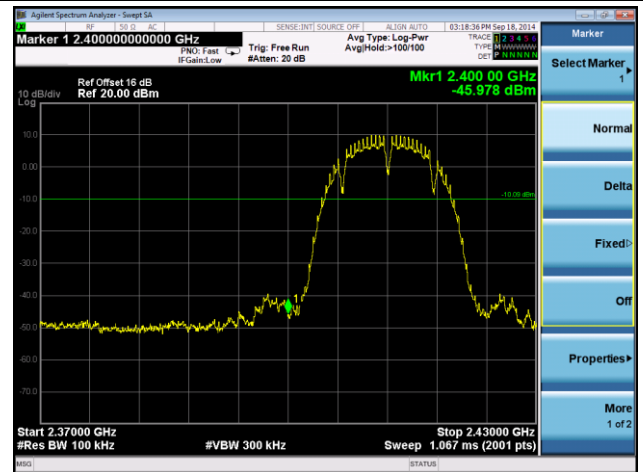
## 802.11b Out-of-Band Emissions - Ant 1 / Ant 0 + 1

### Channel 01 (2412MHz)

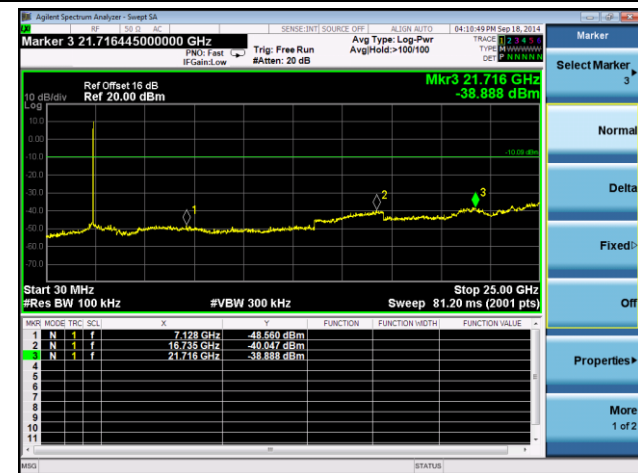
#### 100kHz PSD Reference Level



#### Low Band Edge

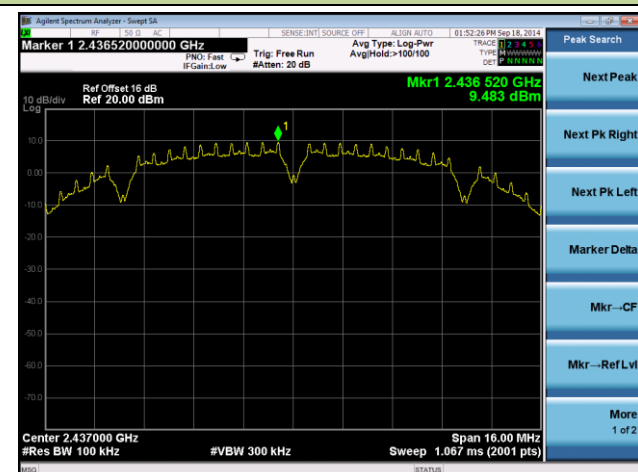


#### Spurious Emission

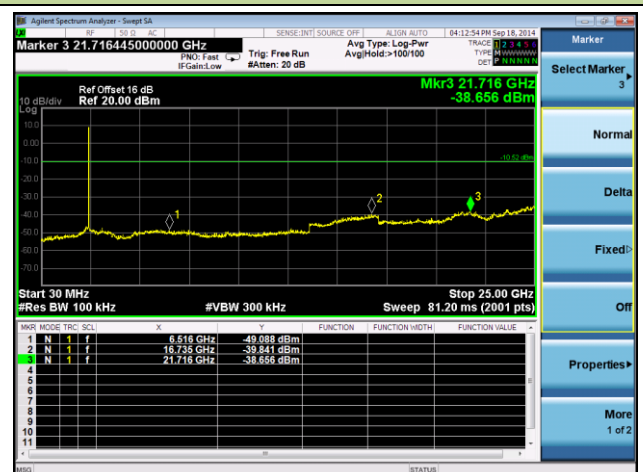


### Channel 06 (2437MHz)

#### 100kHz PSD Reference Level

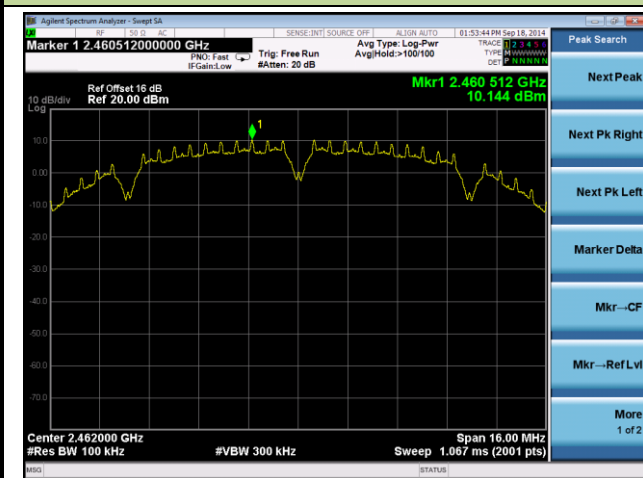


#### Spurious Emission

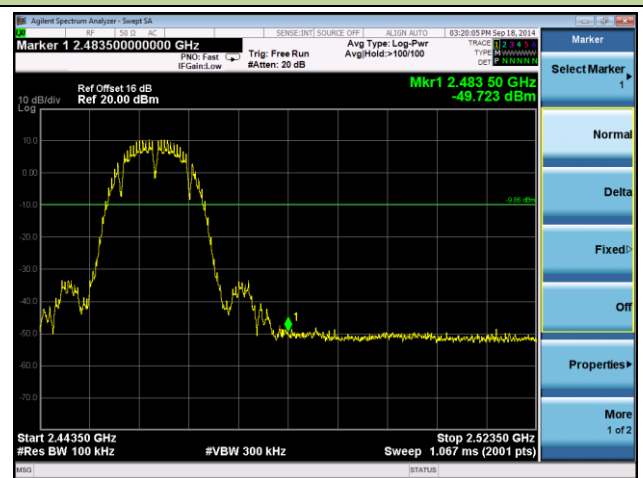


### Channel 11 (2462MHz)

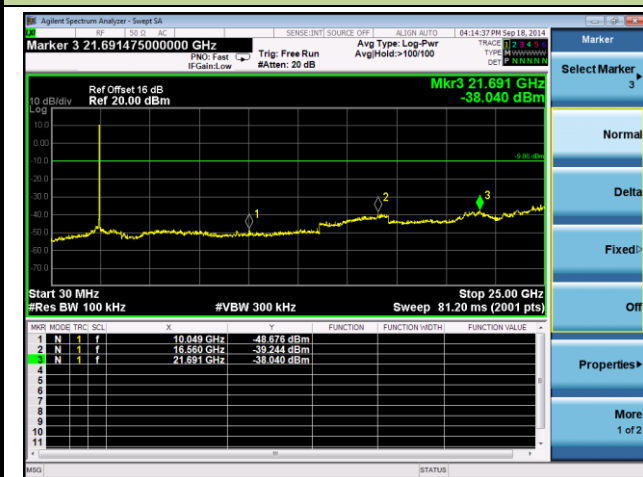
#### 100kHz PSD Reference Level



#### High Band Edge



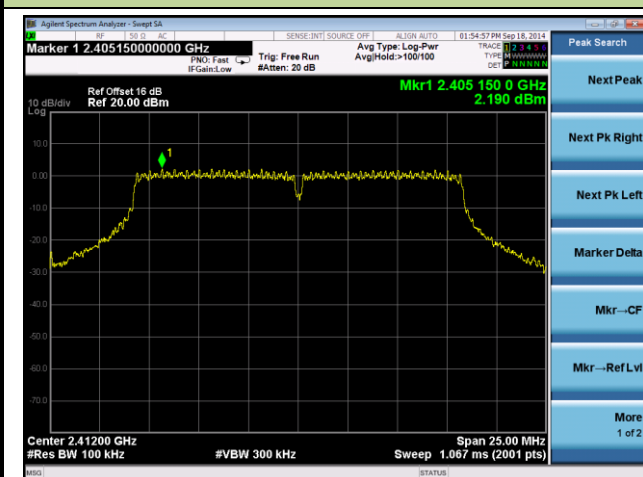
#### Spurious Emission



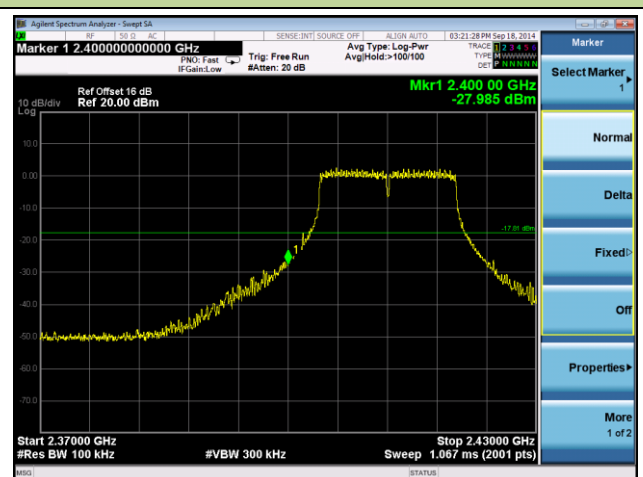
### 802.11g Out-of-Band Emissions - Ant 1 / Ant 0 + 1

### Channel 01 (2412MHz)

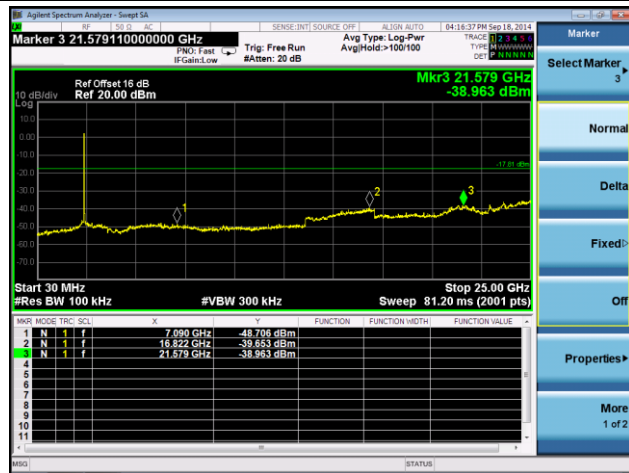
#### 100kHz PSD Reference Level



#### Low Band Edge

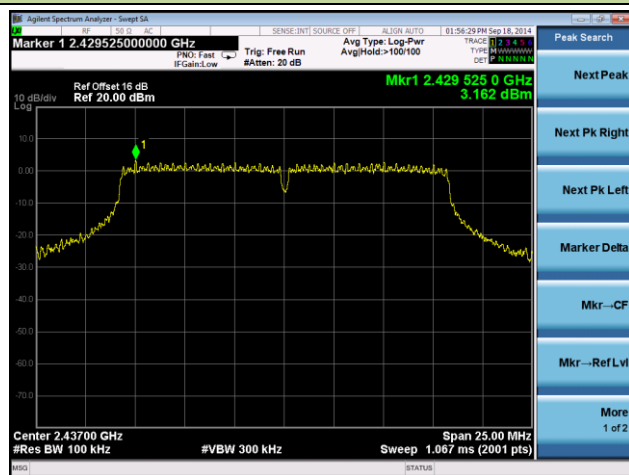


### Spurious Emission

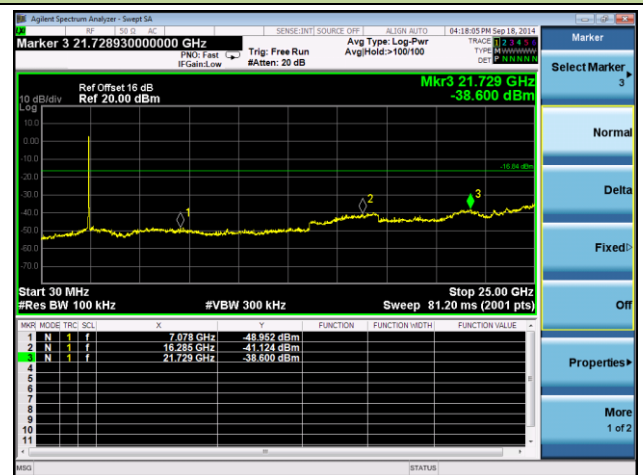


### Channel 06 (2437MHz)

#### 100kHz PSD Reference Level

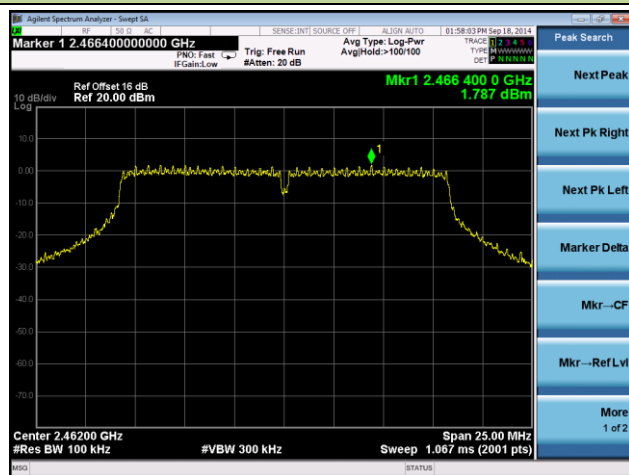


#### Spurious Emission

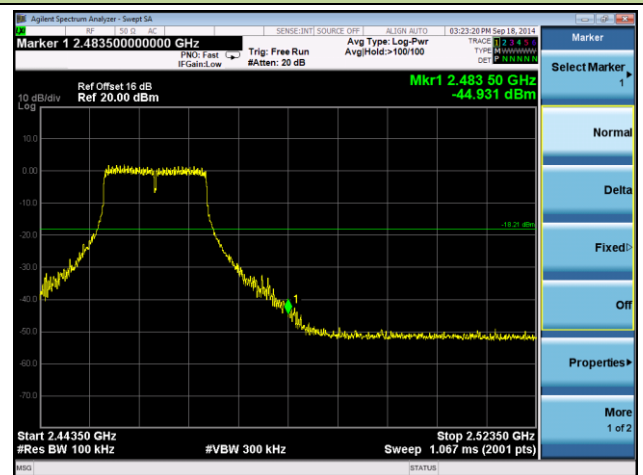


### Channel 11 (2462MHz)

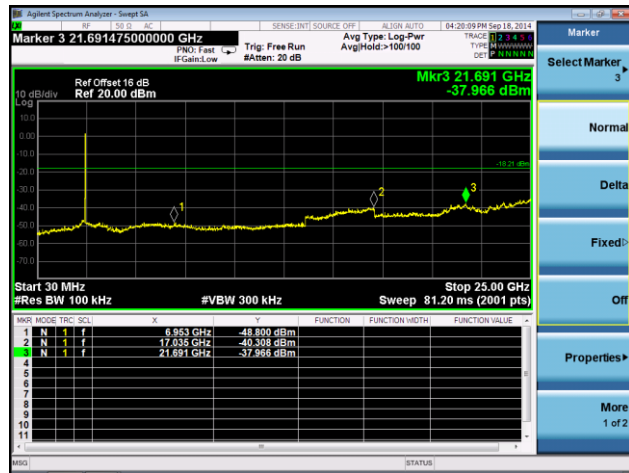
#### 100kHz PSD Reference Level



#### High Band Edge



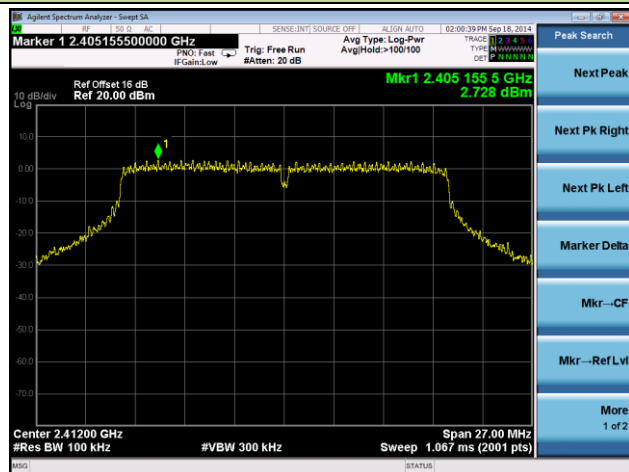
## Spurious Emission



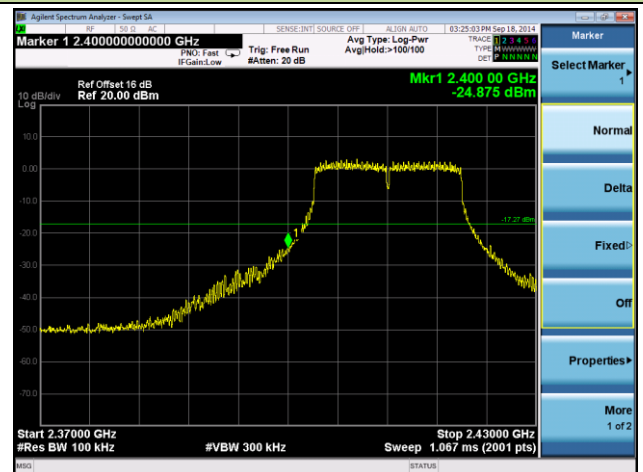
## 802.11n-HT20 Out-of-Band Emissions - Ant 1 / Ant 0 + 1

### Channel 01 (2412MHz)

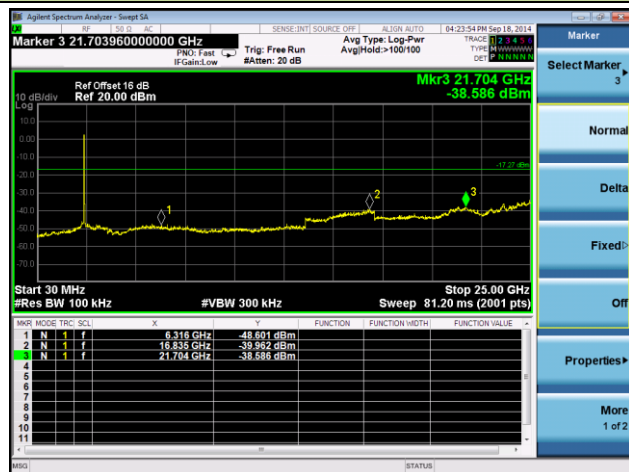
#### 100kHz PSD Reference Level



#### Low Band Edge

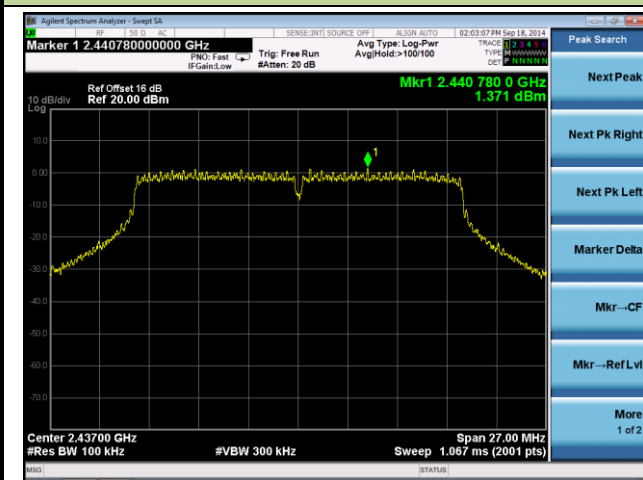


## Spurious Emission

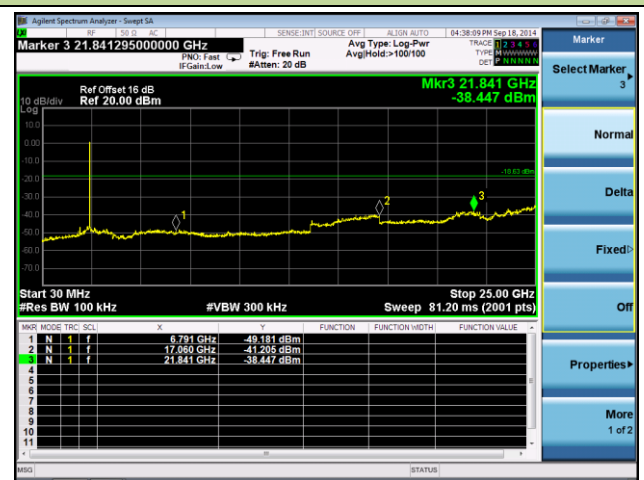


### Channel 06 (2437MHz)

#### 100kHz PSD Reference Level

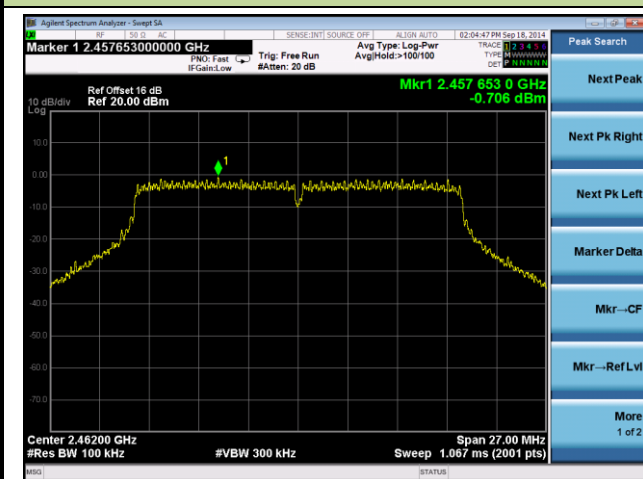


#### Spurious Emission

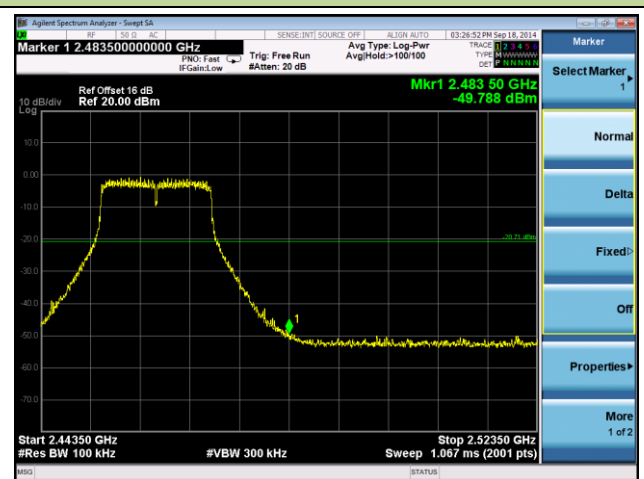


### Channel 11 (2462MHz)

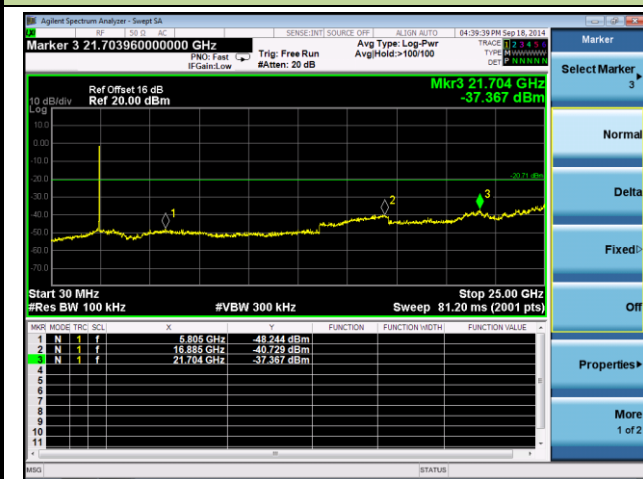
#### 100kHz PSD Reference Level



#### High Band Edge



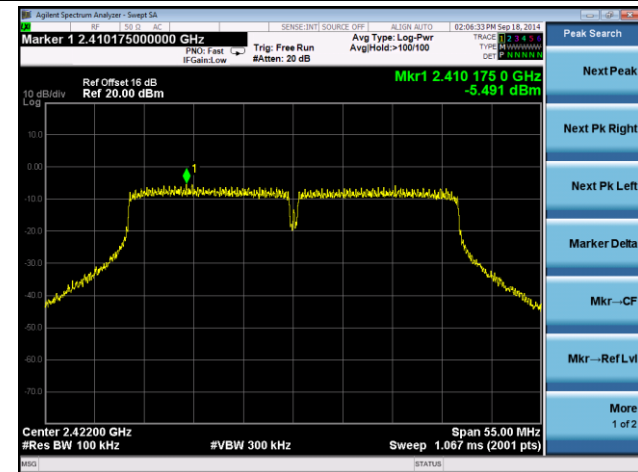
#### Spurious Emission



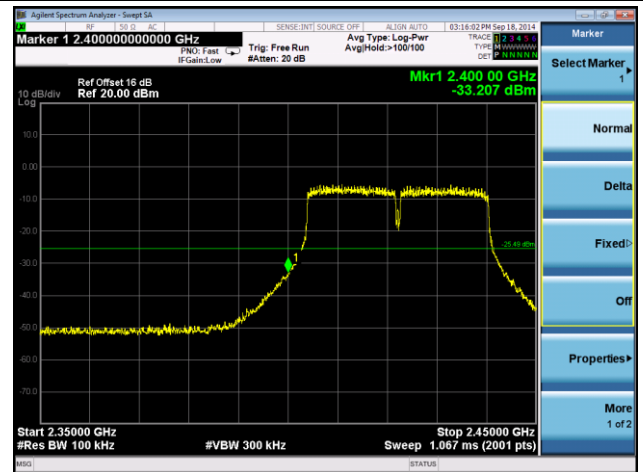
# 802.11n-HT40 Out-of-Band Emissions - Ant 1 / Ant 0 + 1

## Channel 03 (2422MHz)

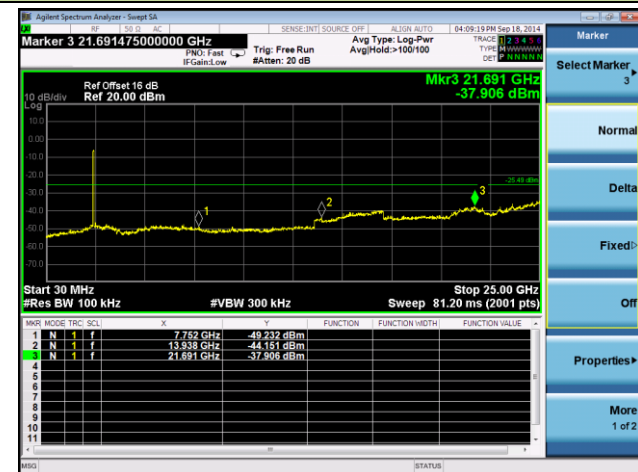
### 100kHz PSD Reference Level



### Low Band Edge

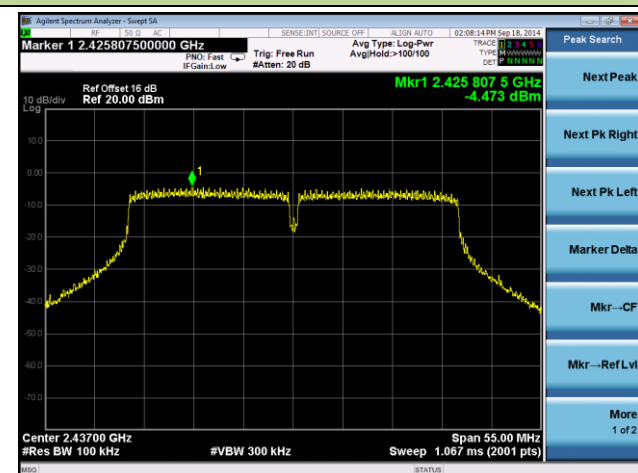


### Spurious Emission

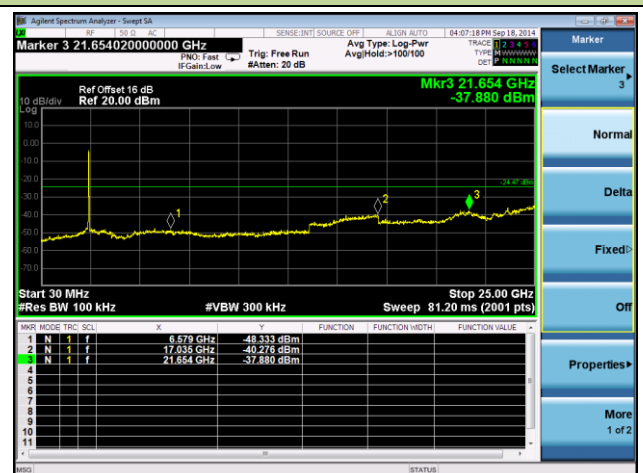


## Channel 06 (2437MHz)

### 100kHz PSD Reference Level

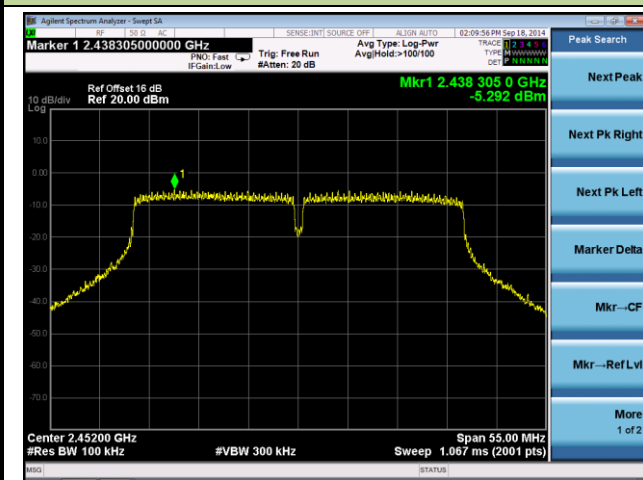


### Spurious Emission

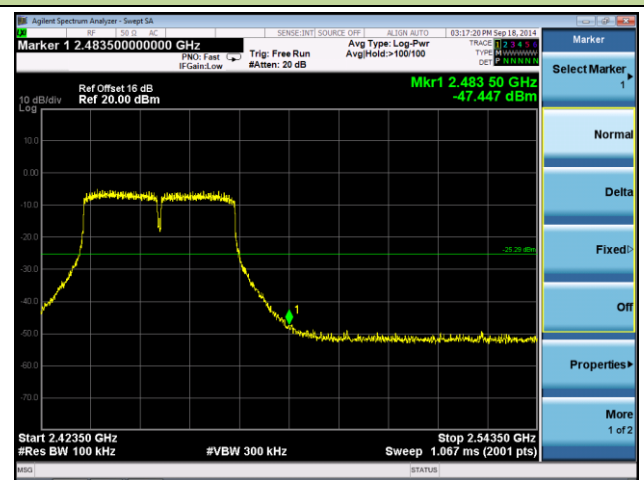


## Channel 09 (2452MHz)

### 100kHz PSD Reference Level



### High Band Edge



### Spurious Emission

