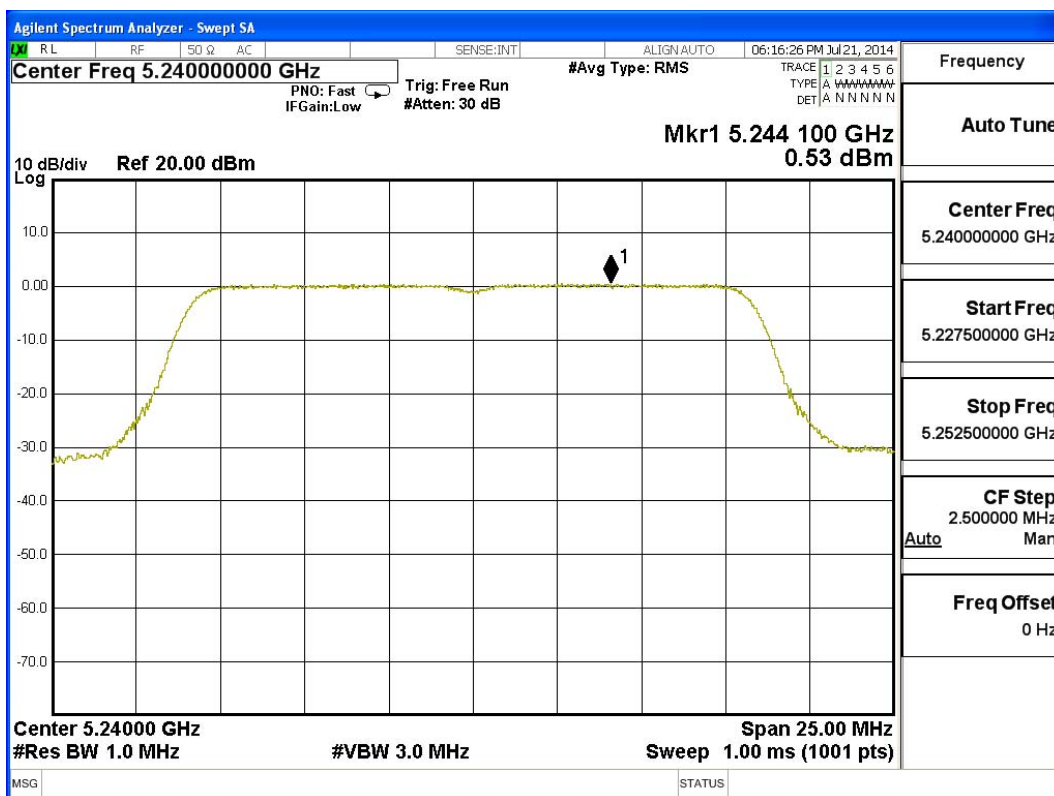
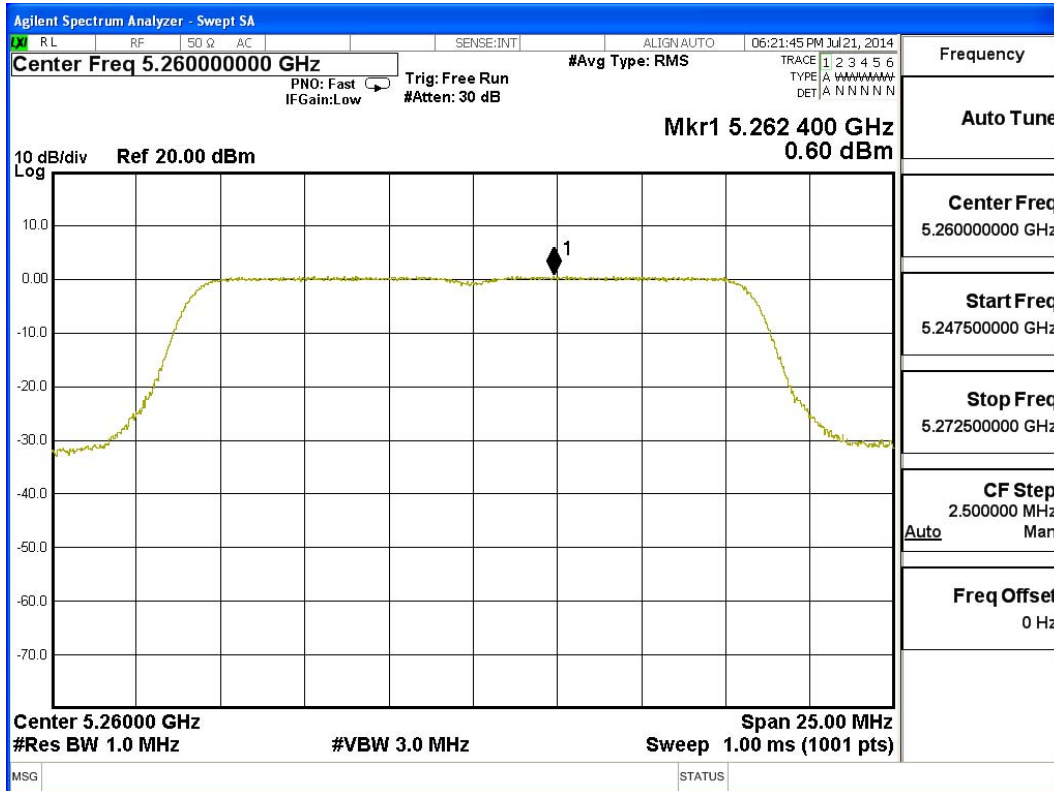


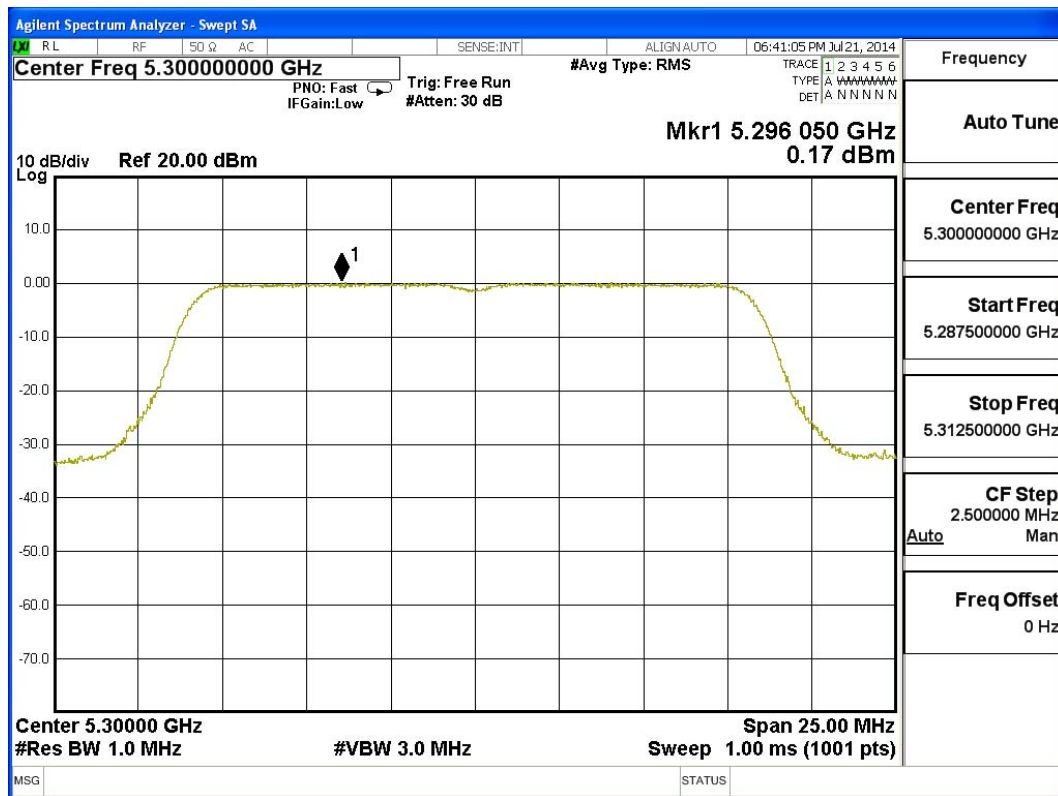
### Channel 48:



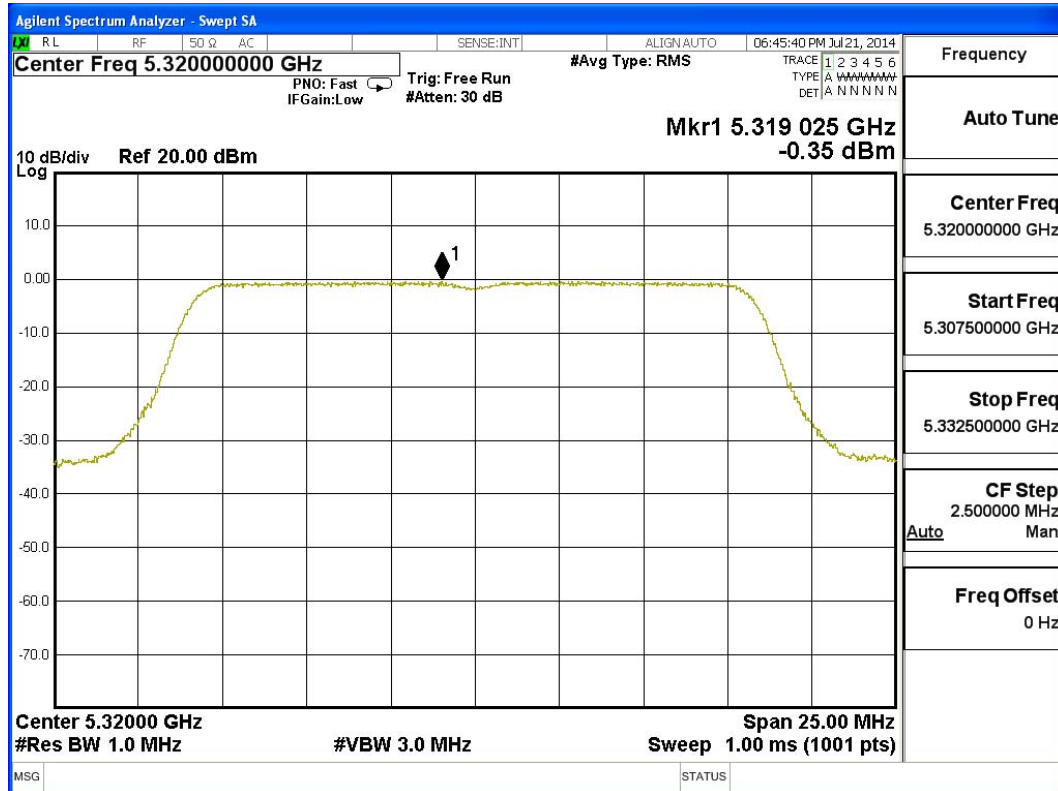
### Channel 52:



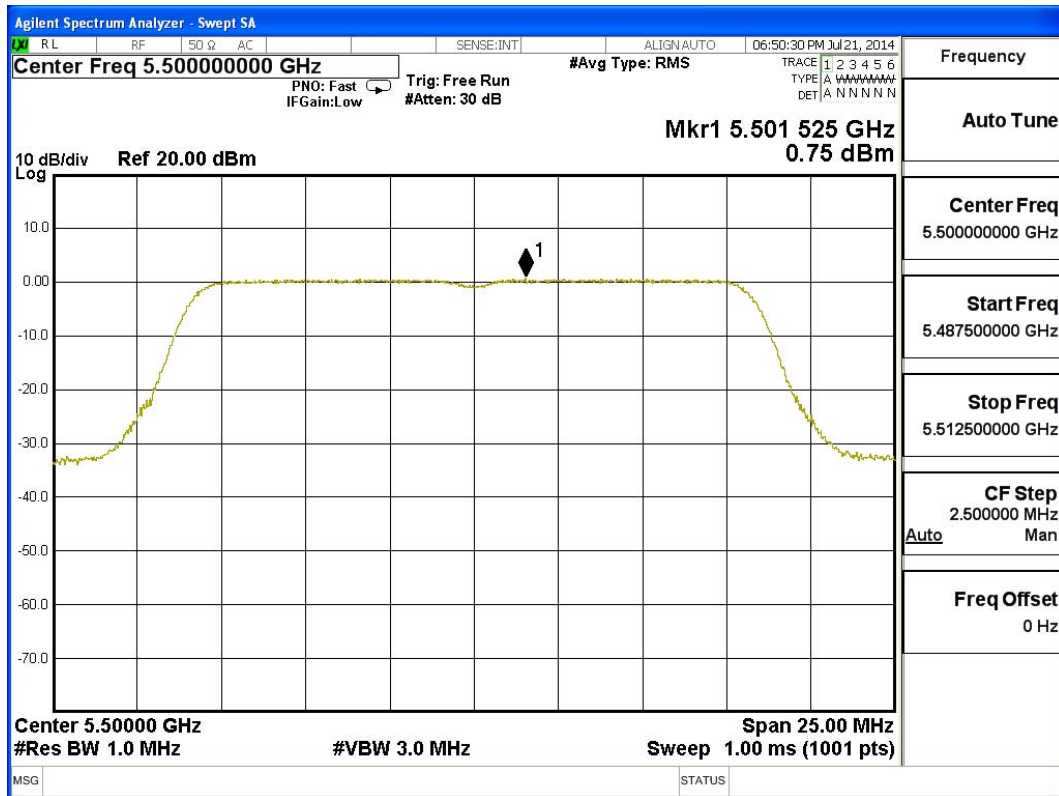
### Channel 60:



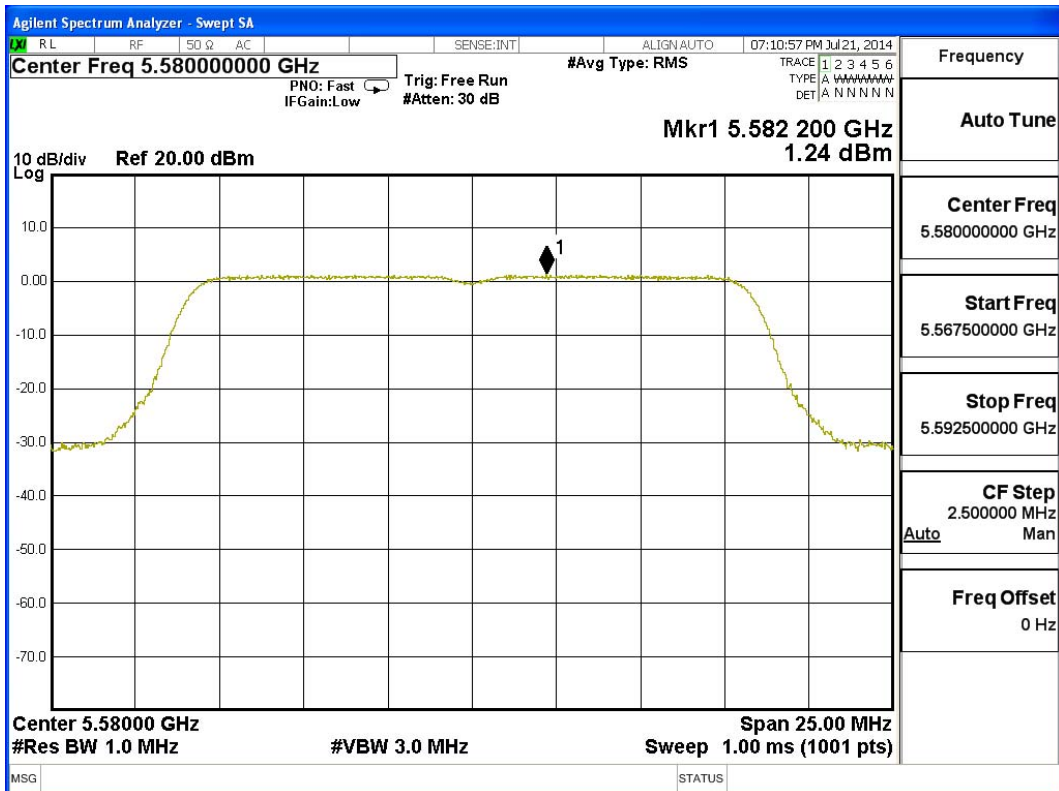
### Channel 64:



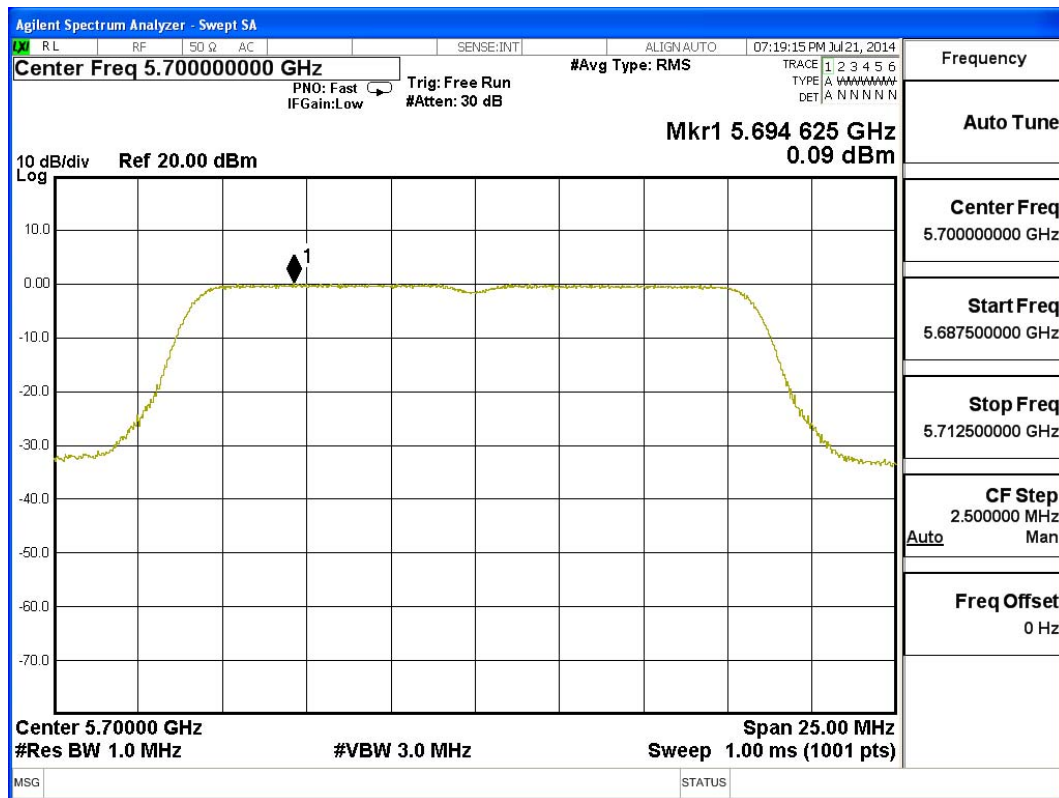
### Channel 100:



### Channel 116:



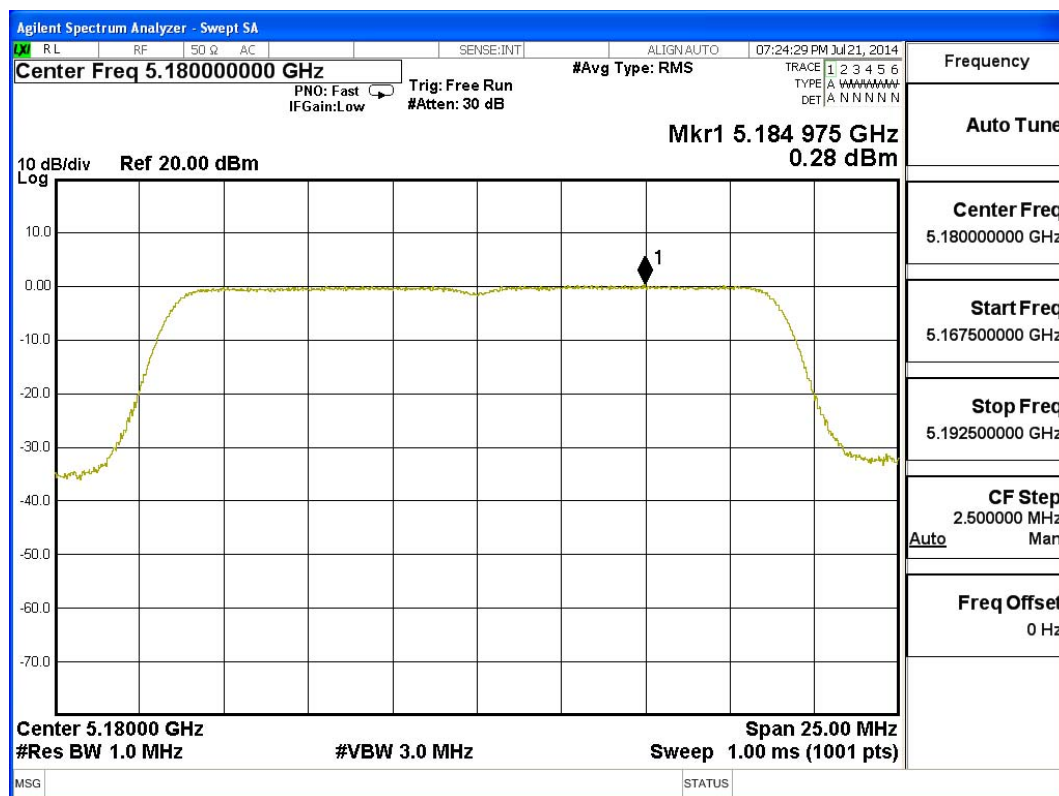
**Channel 140:**



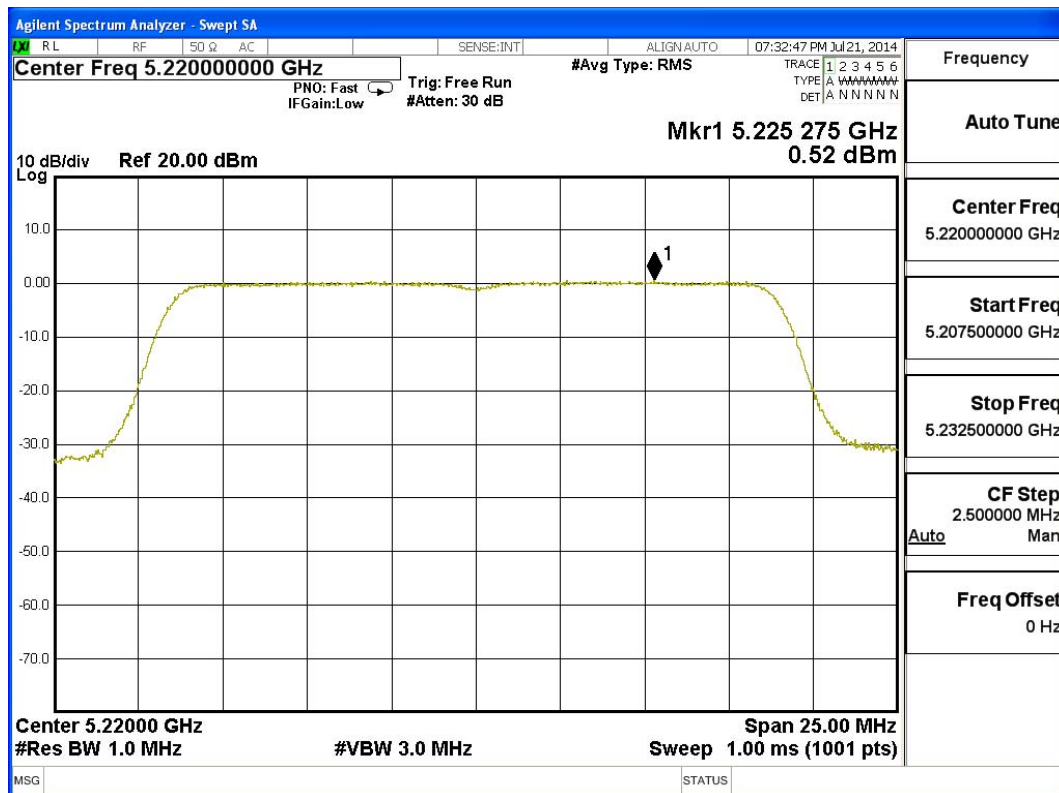
Product : Play-Fi Wireless Speaker  
 Test Item : Peak Power Spectral Density  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps)

| Channel Number | Frequency (MHz) | Measurement Level (dBm) | Required Limit (dBm) | Result |
|----------------|-----------------|-------------------------|----------------------|--------|
| 36             | 5180            | 0.280                   | <4                   | Pass   |
| 44             | 5220            | 0.520                   | <4                   | Pass   |
| 48             | 5240            | -0.710                  | <4                   | Pass   |
| 52             | 5260            | -0.610                  | <11                  | Pass   |
| 60             | 5300            | -0.990                  | <11                  | Pass   |
| 64             | 5320            | -1.490                  | <11                  | Pass   |
| 100            | 5500            | -0.700                  | <11                  | Pass   |
| 116            | 5580            | -0.040                  | <11                  | Pass   |
| 140            | 5700            | -1.130                  | <11                  | Pass   |

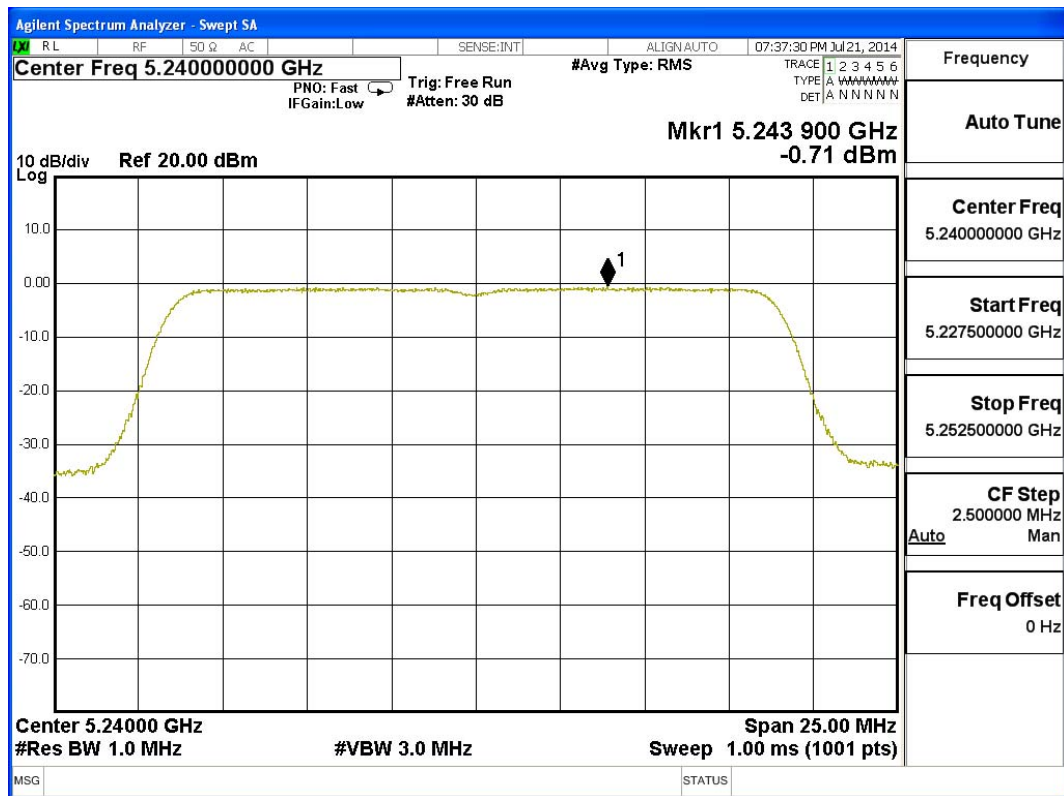
### Channel 36



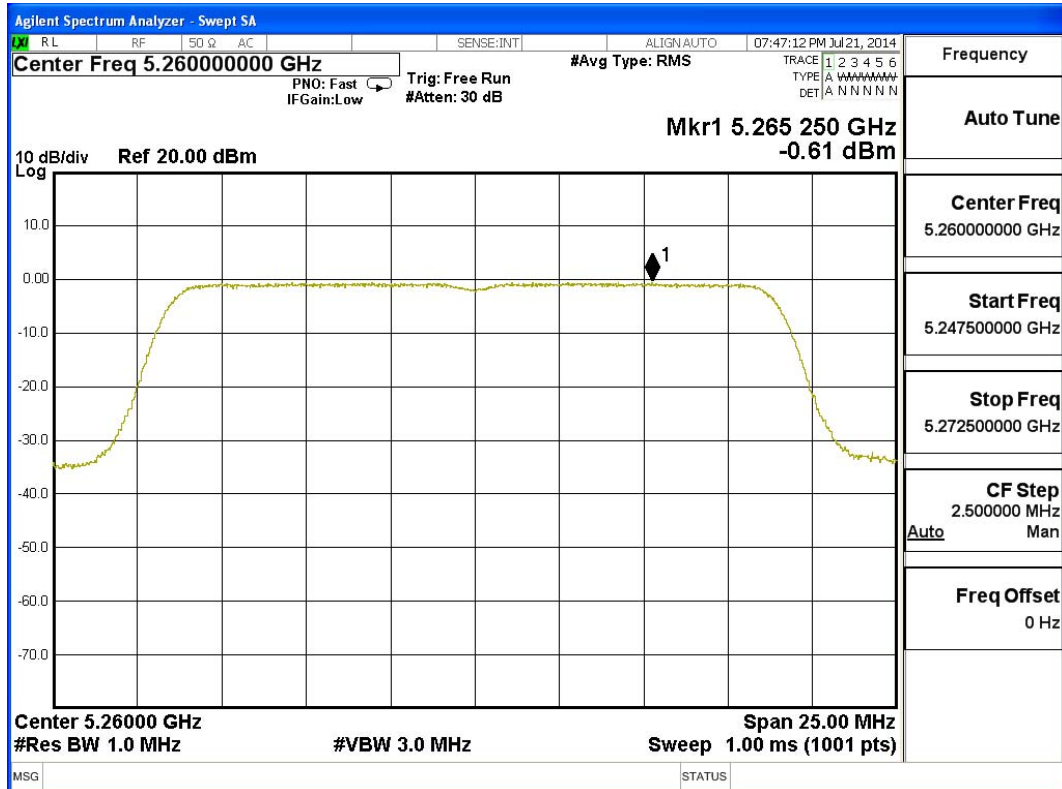
### Channel 44



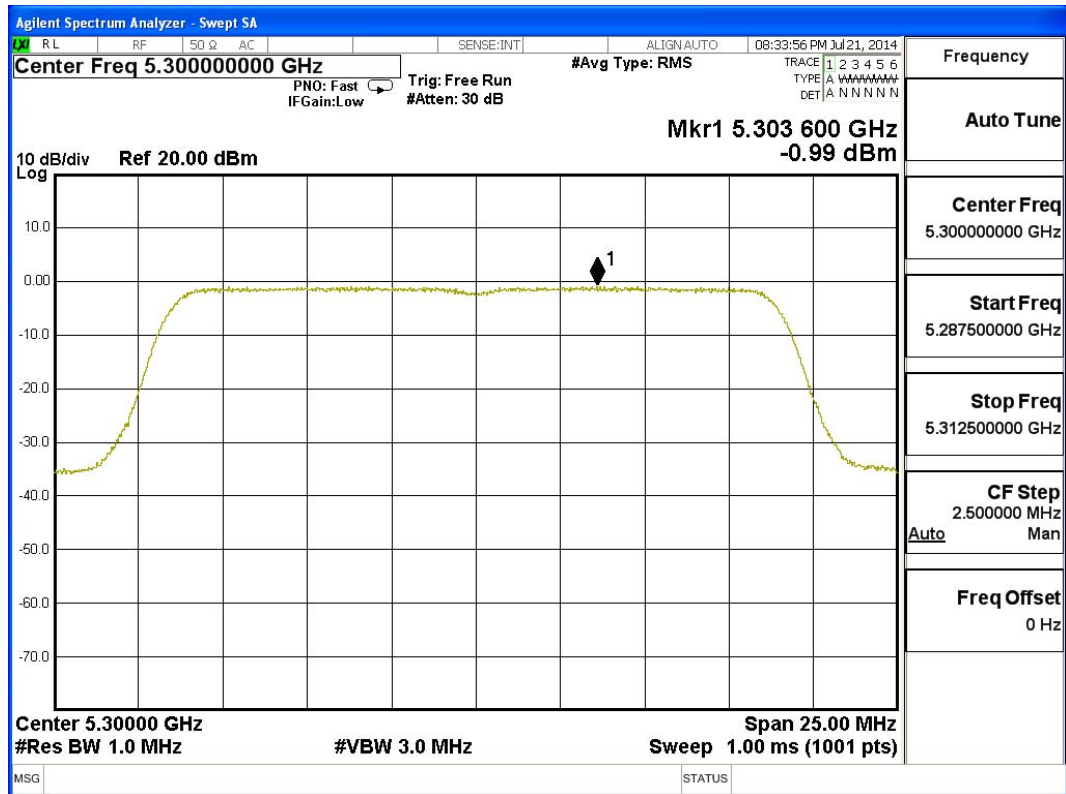
### Channel 48



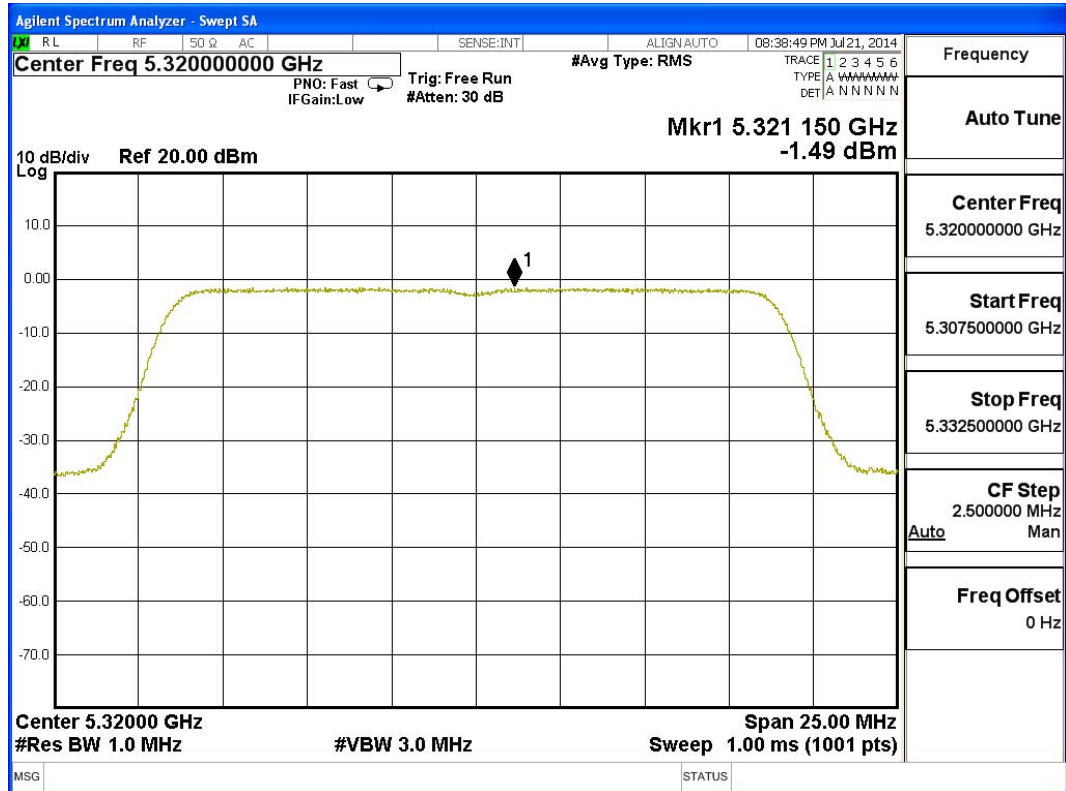
### Channel 52



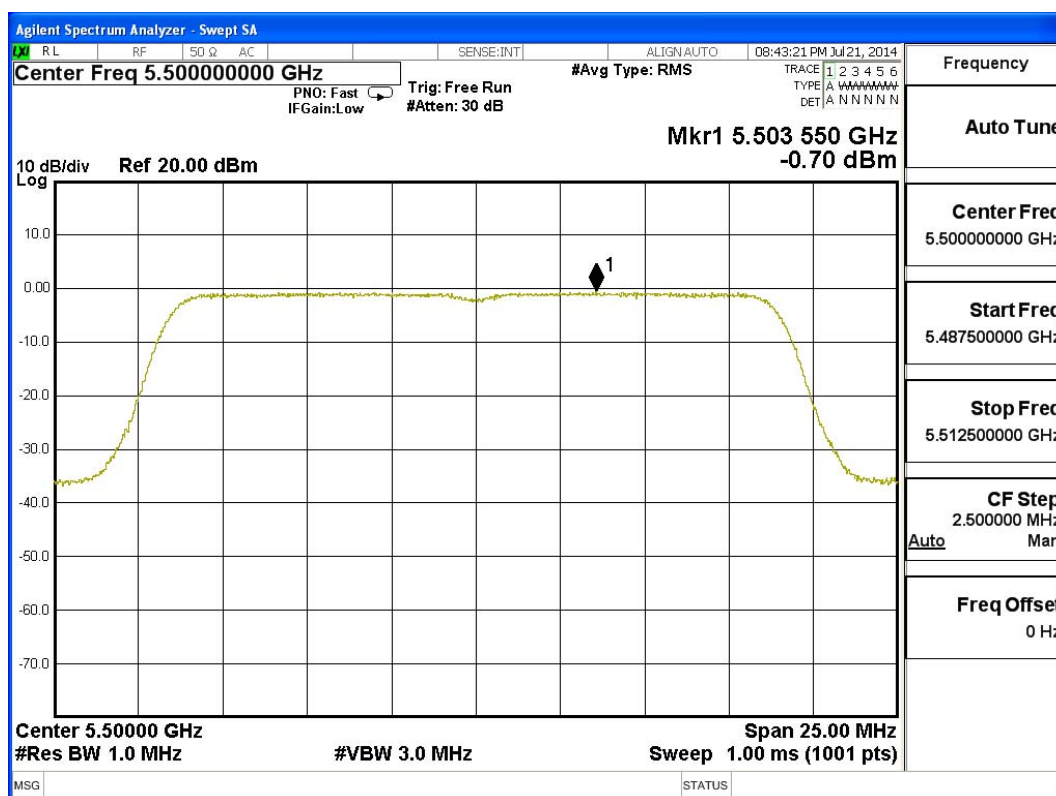
### Channel 60



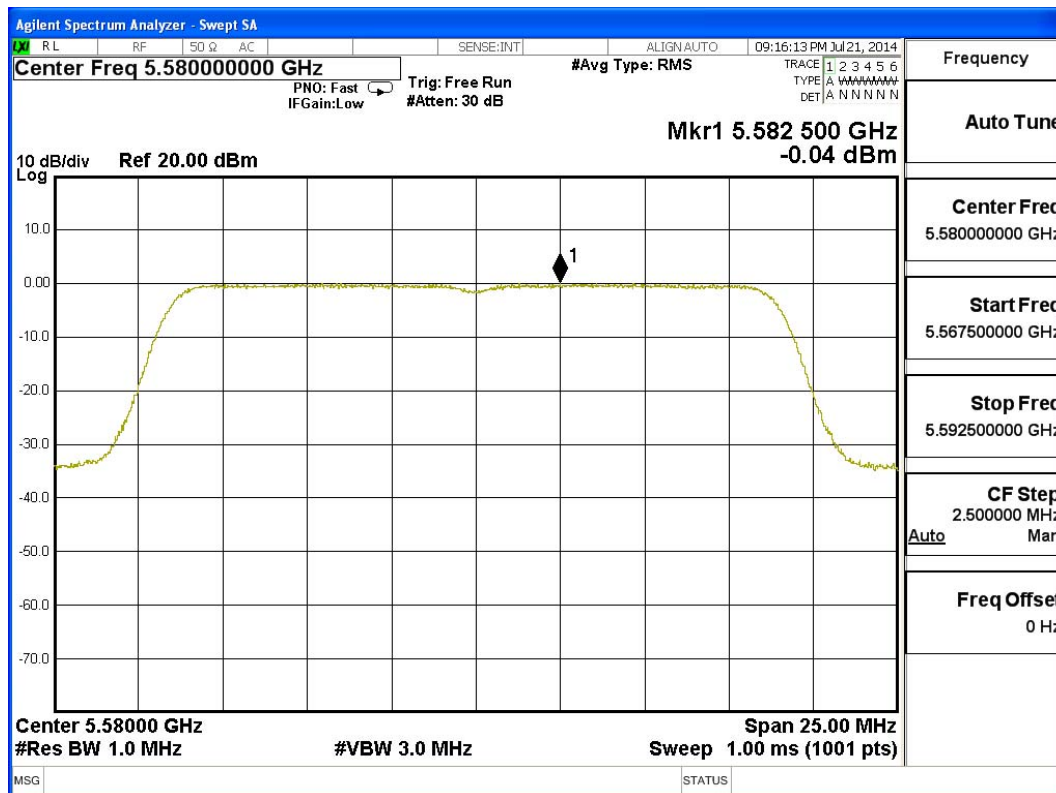
### Channel 64



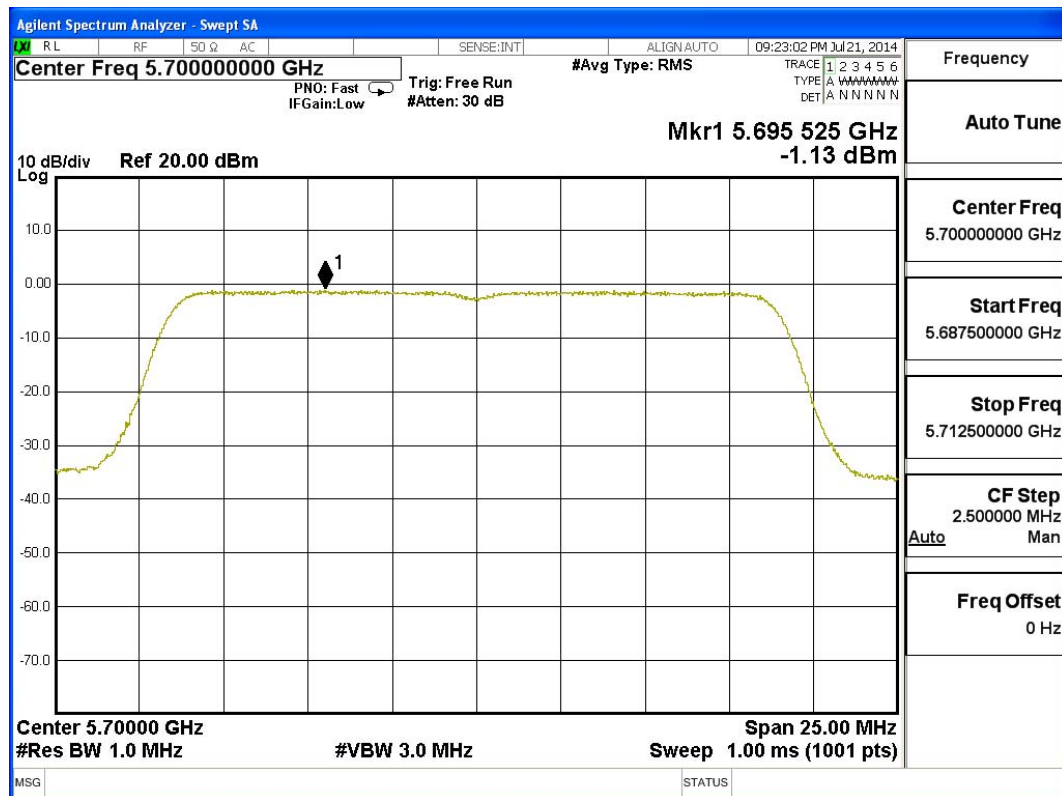
### Channel 100



### Channel 116



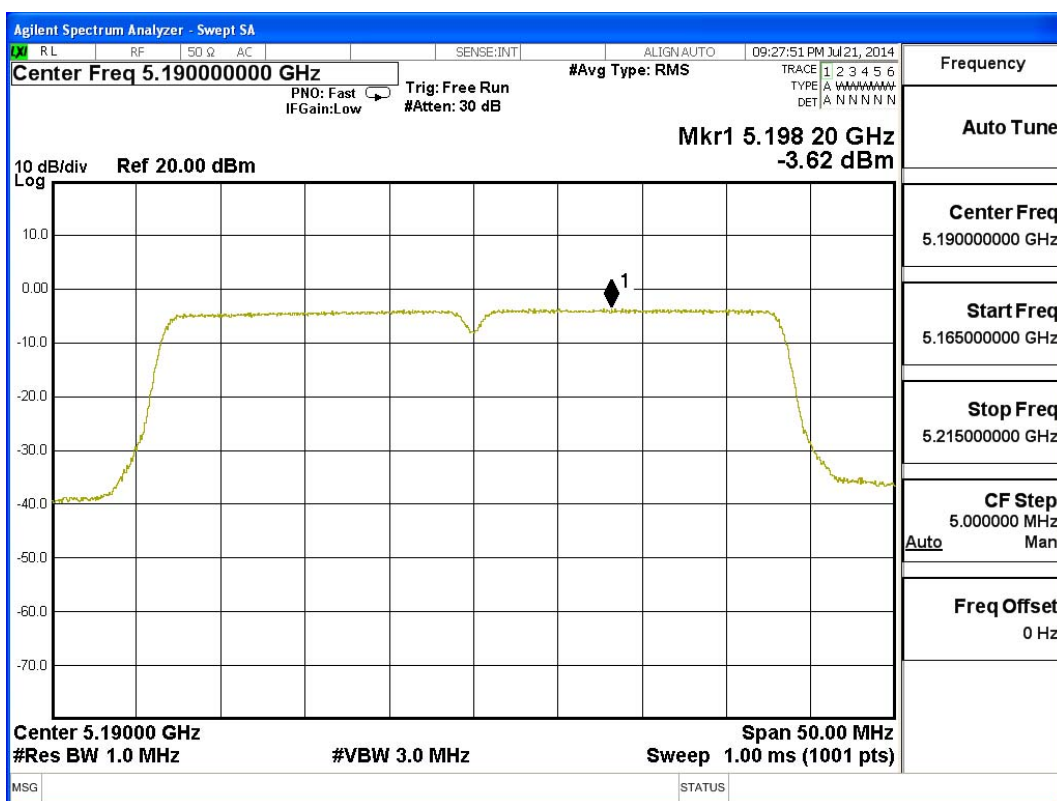
### Channel 140



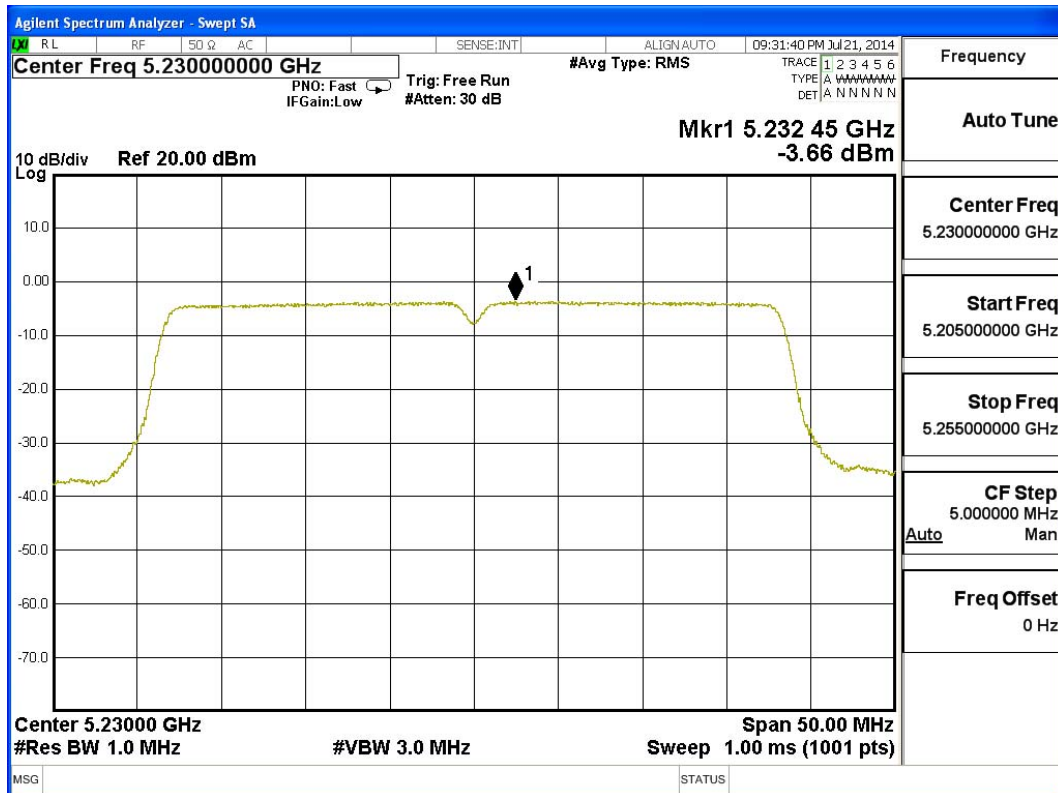
Product : Play-Fi Wireless Speaker  
 Test Item : Peak Power Spectral Density  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps)

| Channel Number | Frequency (MHz) | Measurement Level (dBm) | Required Limit (dBm) | Result |
|----------------|-----------------|-------------------------|----------------------|--------|
| 38             | 5190            | -3.620                  | <4                   | Pass   |
| 46             | 5230            | -3.660                  | <4                   | Pass   |
| 54             | 5270            | -3.850                  | <11                  | Pass   |
| 62             | 5310            | -4.460                  | <11                  | Pass   |
| 102            | 5510            | -4.110                  | <11                  | Pass   |
| 110            | 5550            | -3.740                  | <11                  | Pass   |
| 134            | 5670            | -3.560                  | <11                  | Pass   |

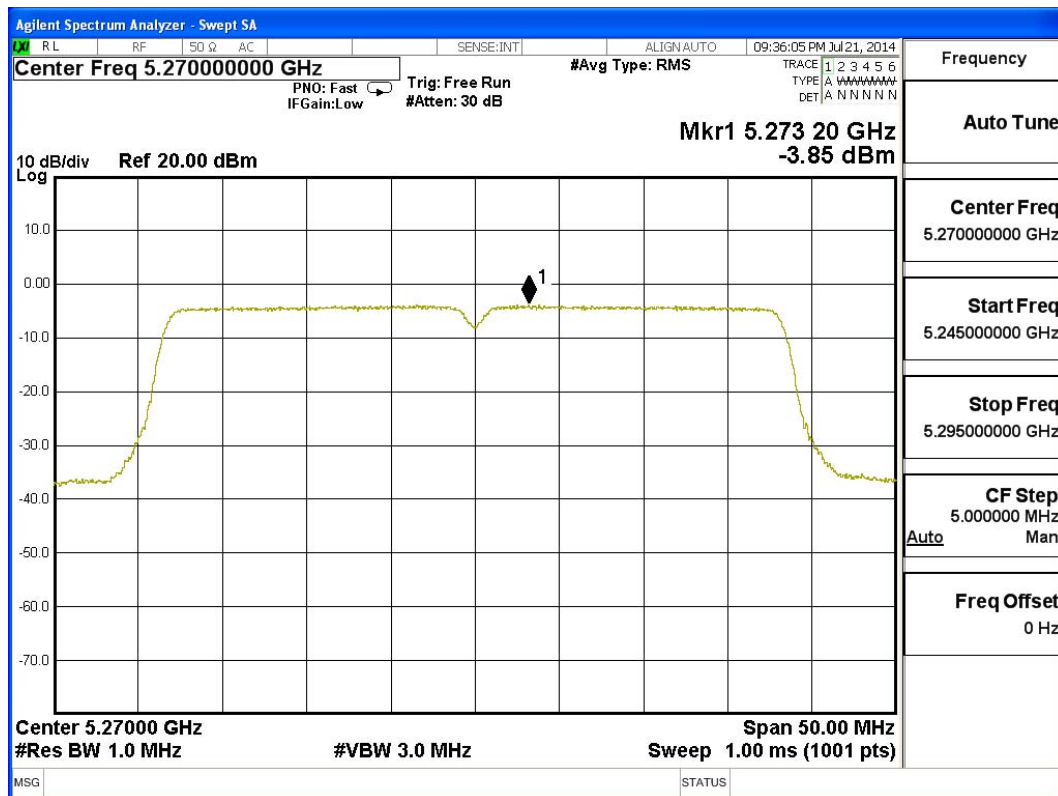
### Channel 38



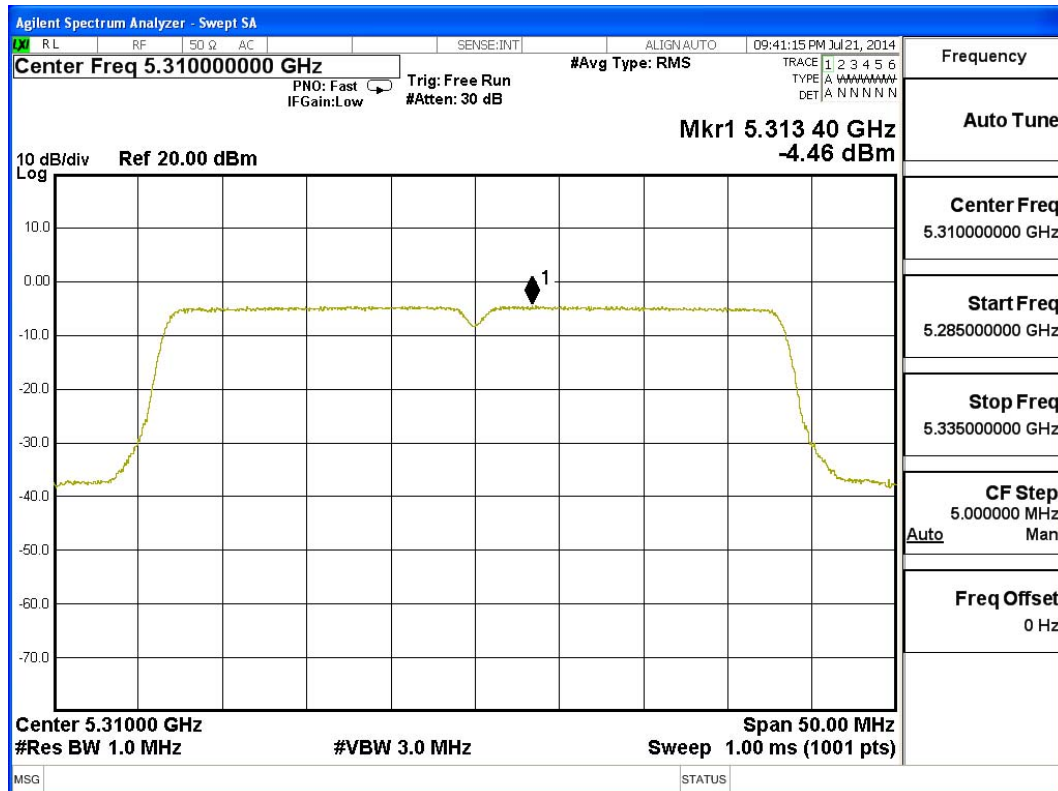
### Channel 46



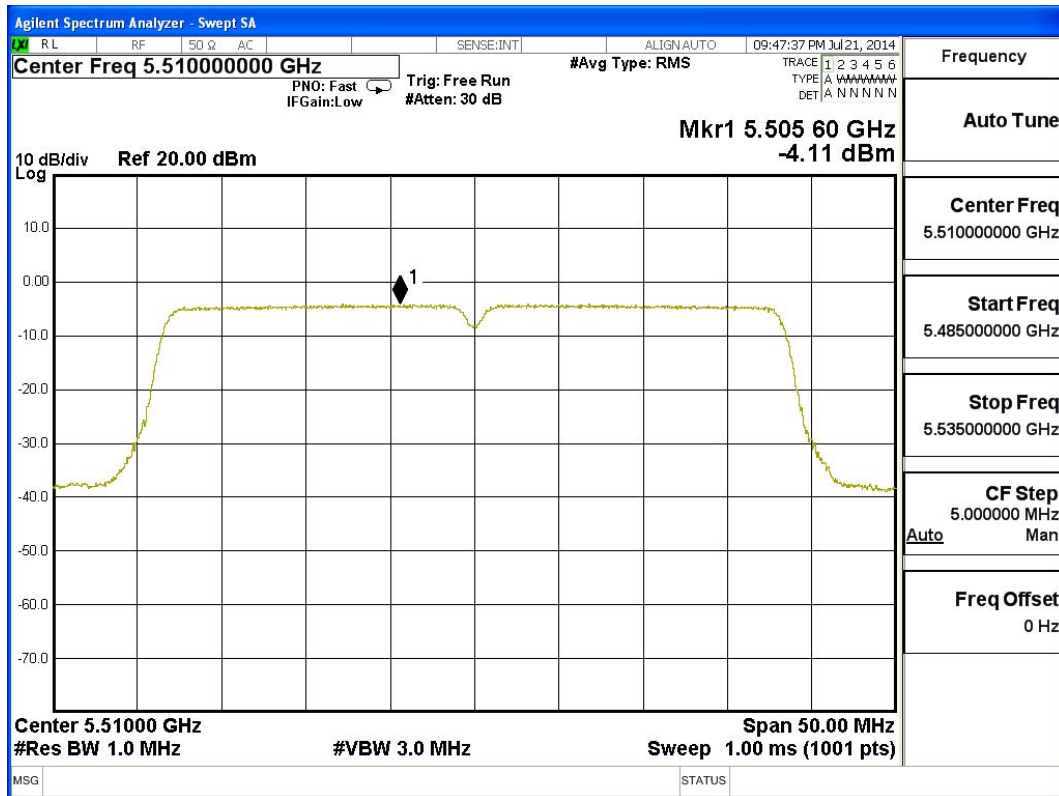
### Channel 54



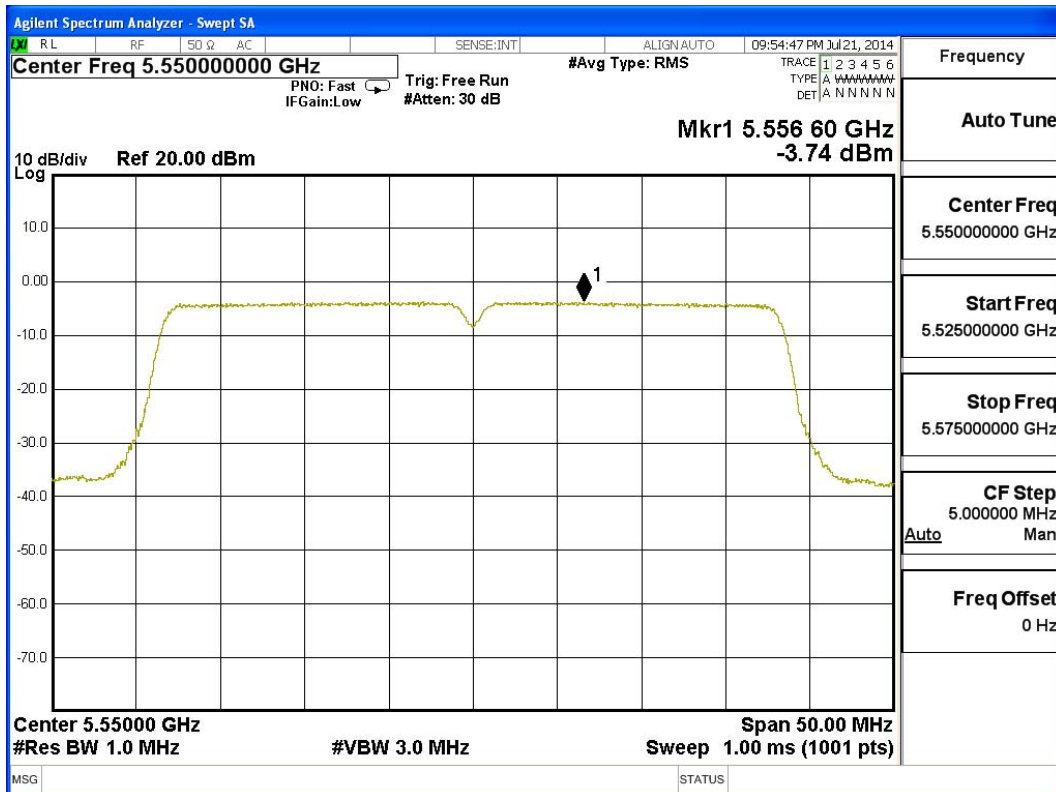
### Channel 62



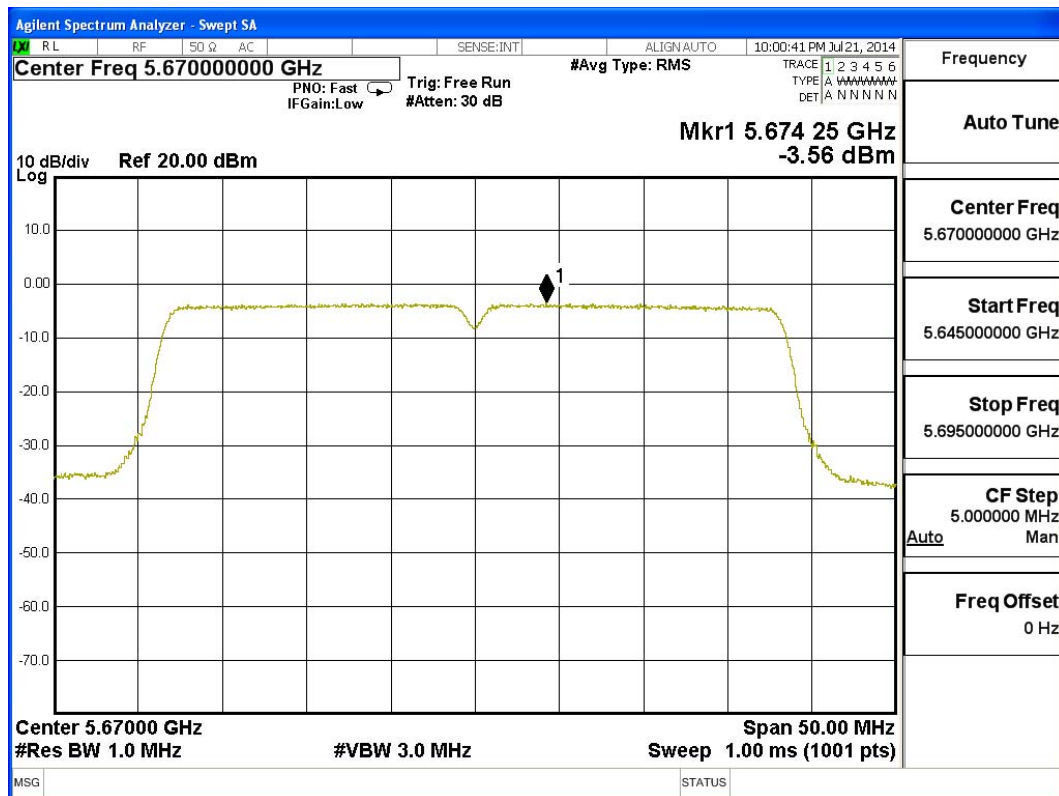
### Channel 102



### Channel 110



### Channel 134



## 5. Peak Excursion

### 5.1. Test Equipment

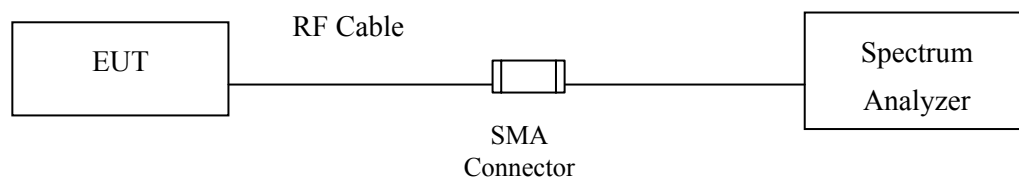
|   | Equipment         | Manufacturer | Model No./Serial No. | Last Cal.  |
|---|-------------------|--------------|----------------------|------------|
|   | Spectrum Analyzer | R&S          | FSP40 / 100170       | Jun., 2014 |
|   | Spectrum Analyzer | Agilent      | E4407B / US39440758  | Jun., 2014 |
| X | Spectrum Analyzer | Agilent      | N9010A / MY48030495  | Apr., 2014 |

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 C63.10, 2009; tested to DTS test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

Step 1: Set the spectrum analyzer or EMI receiver span to view the entire emission bandwidth.

Step 2: Find the maximum of the peak-max-hold spectrum.

(Set RBW = 1 MHz, VBW  $\geq$  3 MHz, Detector = peak, Trace mode = max-hold,

Allow the sweeps to continue until the trace stabilizes, Use the peak search function to find the peak of the spectrum.)

Step 3: Use the procedure found under KDB-789033 F) to measure the PPSD.

Step 4: Compute the ratio of the maximum of the peak-max-hold spectrum to the PPSD.

#### **5.5. Uncertainty**

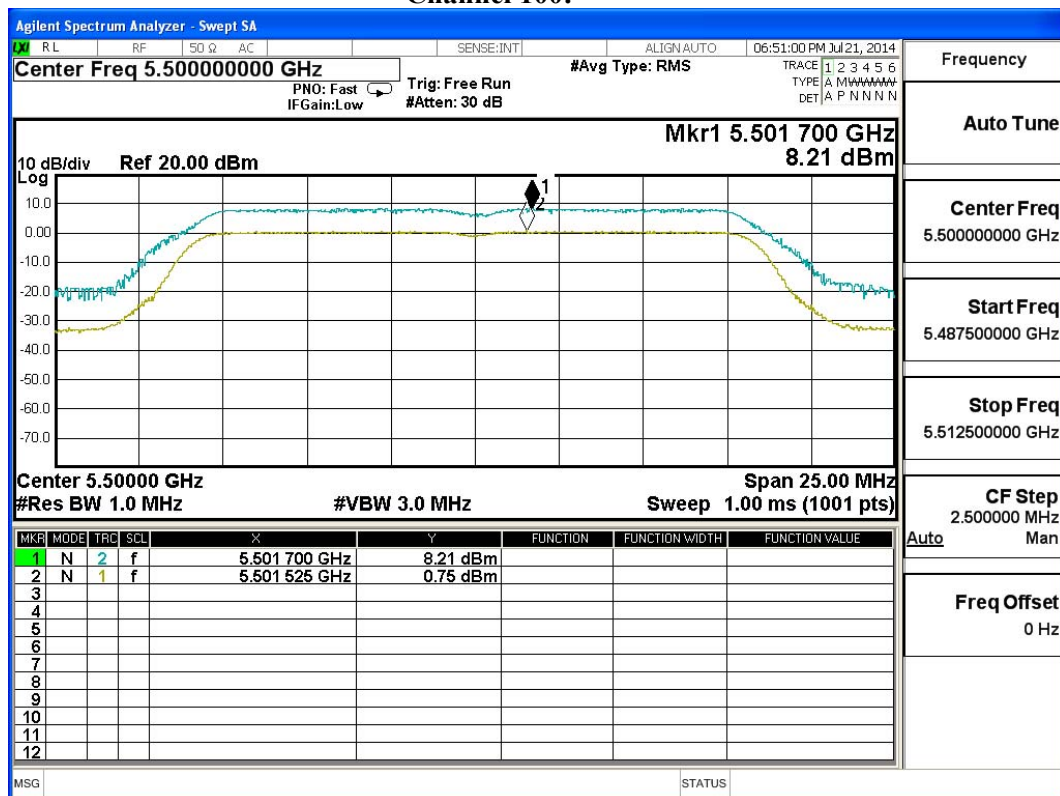
$\pm 1.27$  dB

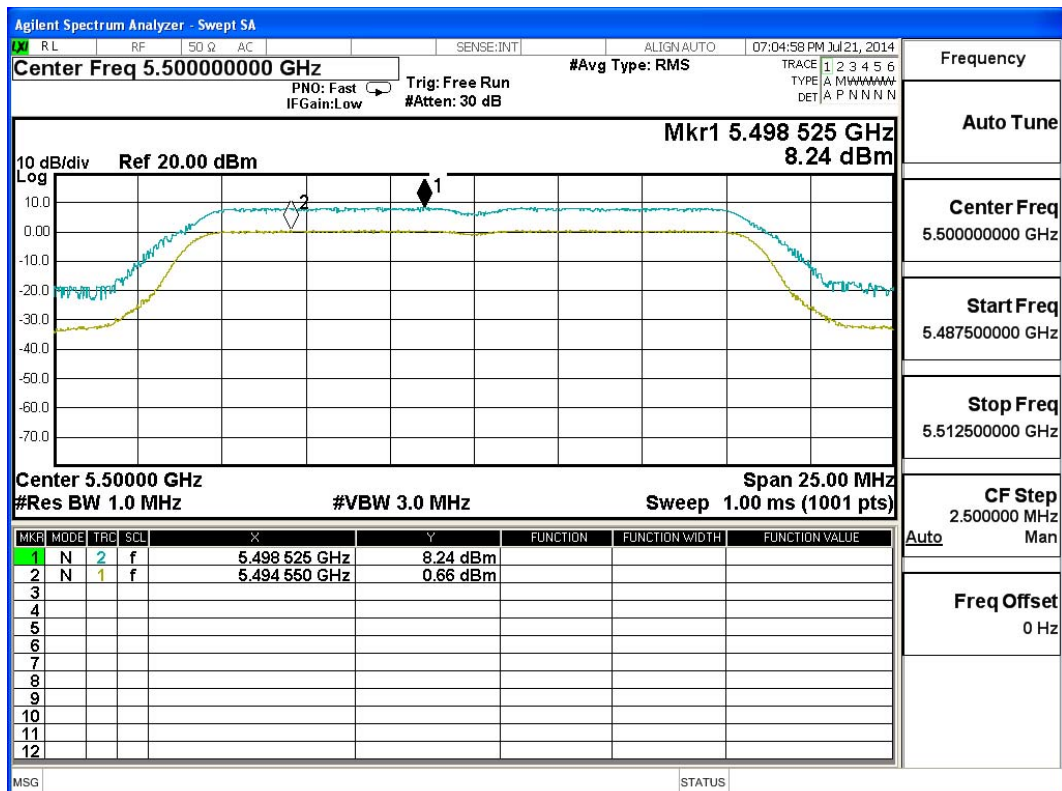
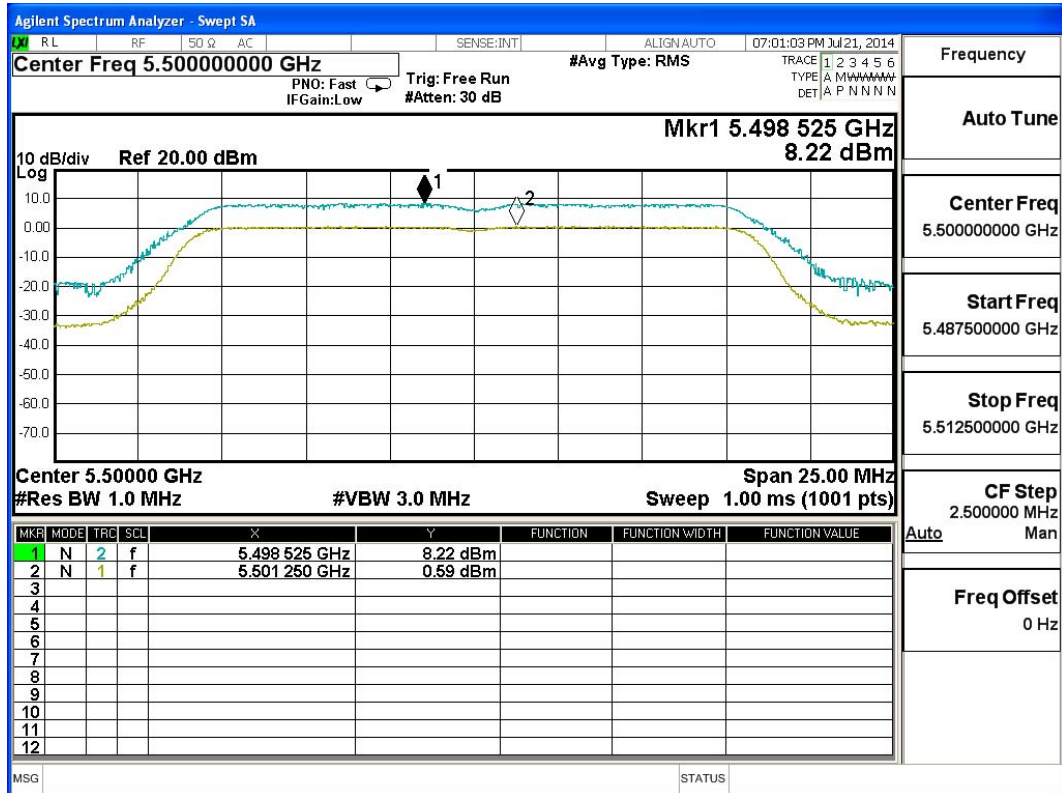
### Test Result of Peak Excursion

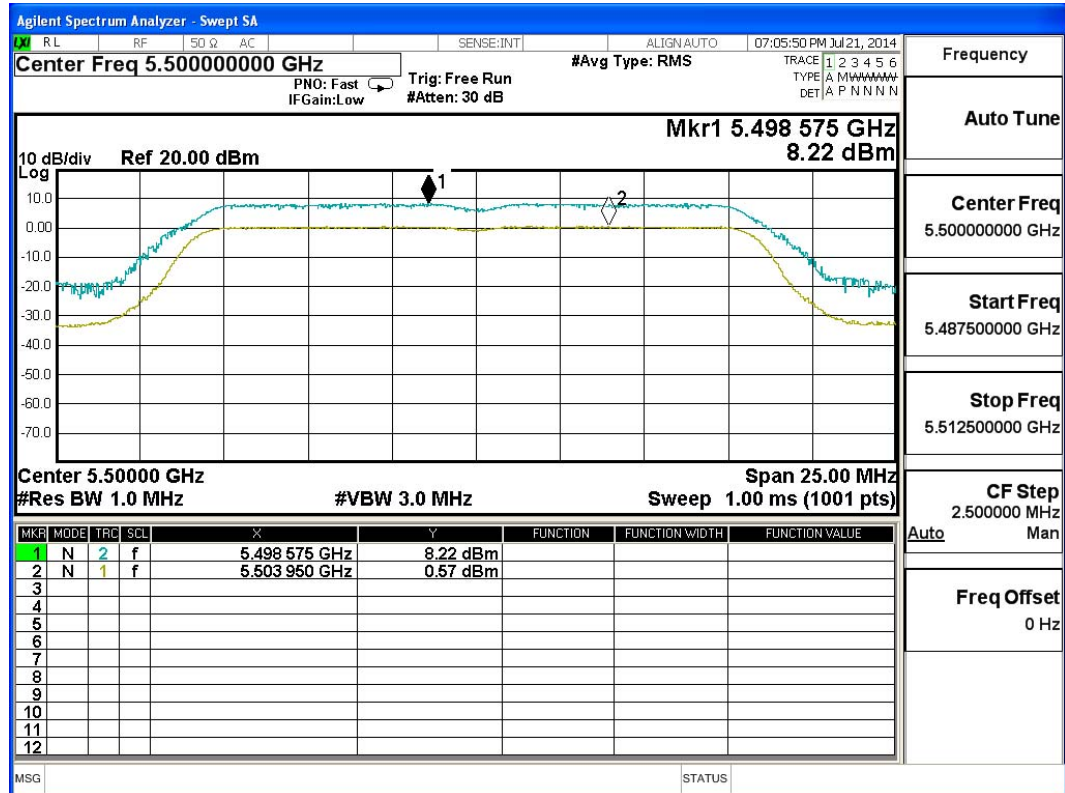
Product : Play-Fi Wireless Speaker  
 Test Item : Peak Excursion  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)

| Channel No. | Frequency (MHz) | Data Rate (Mbps) | Measurement Level (dB) | Required Limit (dB) | Result |
|-------------|-----------------|------------------|------------------------|---------------------|--------|
| 100         | 5500            | 6                | 7.460                  | <13                 | Pass   |
|             |                 | 12               | 7.630                  | <13                 | Pass   |
|             |                 | 24               | 7.580                  | <13                 | Pass   |
|             |                 | 54               | 7.650                  | <13                 | Pass   |

### Channel 100:



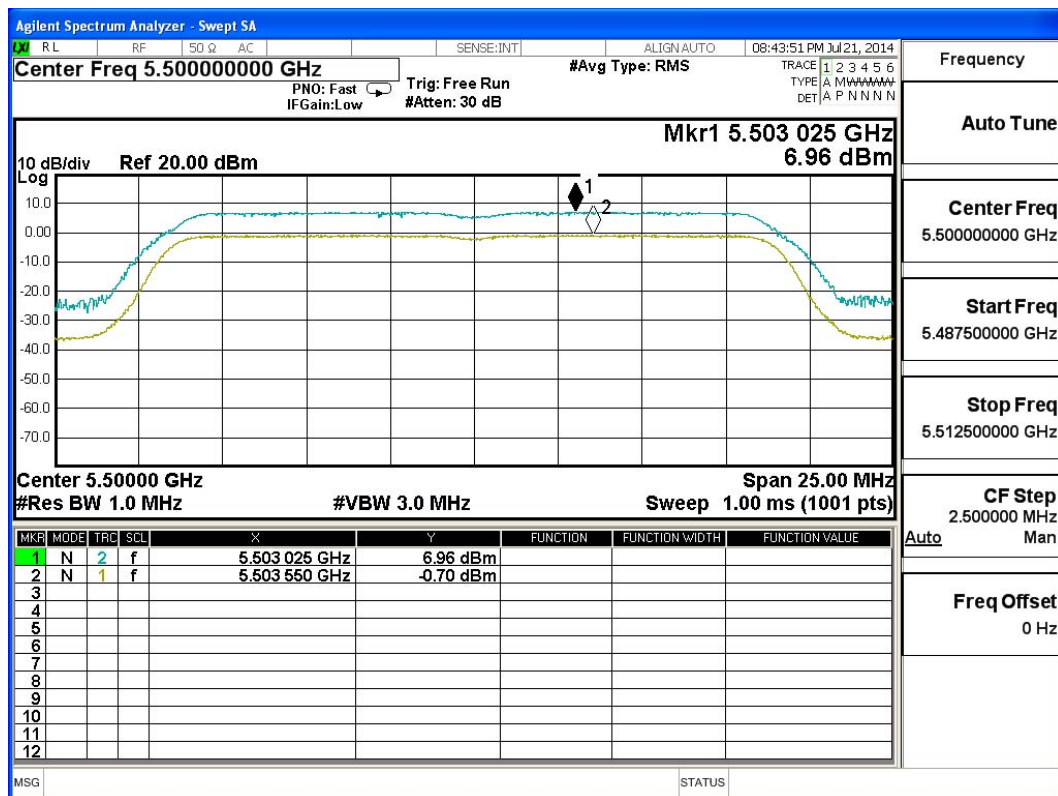


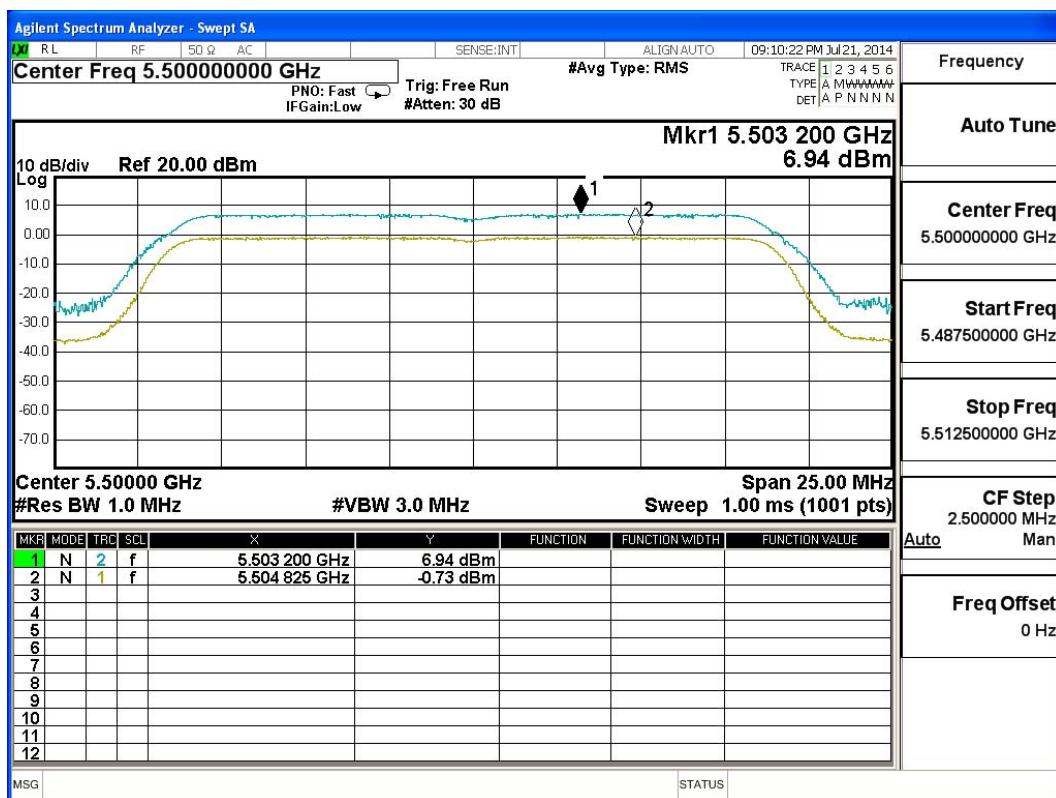
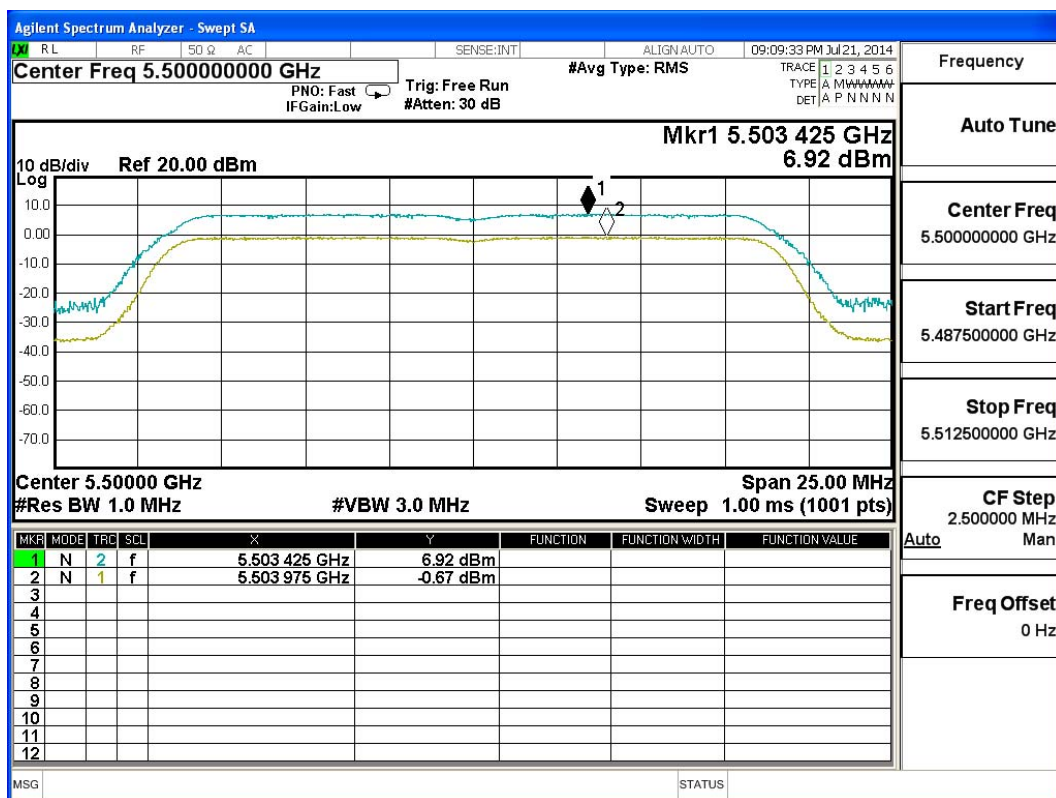


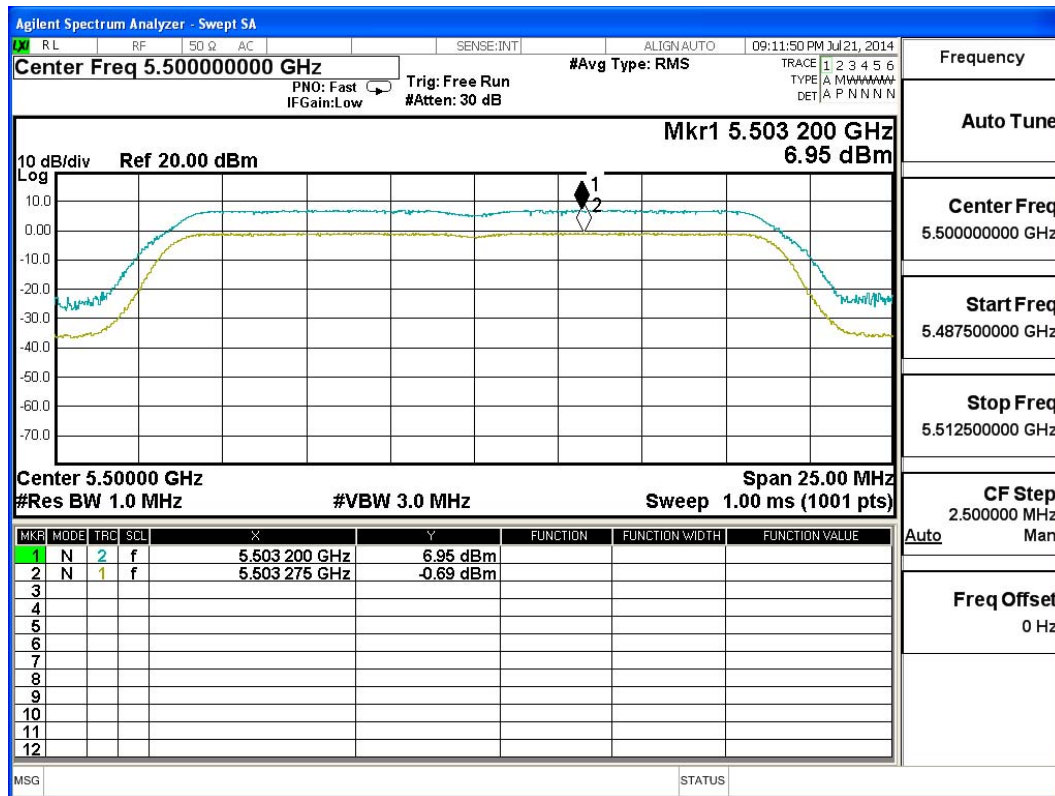
Product : Play-Fi Wireless Speaker  
 Test Item : Peak Excursion  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps)

| Channel No. | Frequency (MHz) | Data Rate (Mbps) | Measurement Level (dB) | Required Limit (dB) | Result |
|-------------|-----------------|------------------|------------------------|---------------------|--------|
| 100         | 5500            | MCS (0)          | 7.660                  | <13                 | Pass   |
|             |                 | MCS (2)          | 7.590                  | <13                 | Pass   |
|             |                 | MCS (4)          | 7.670                  | <13                 | Pass   |
|             |                 | MCS (7)          | 7.640                  | <13                 | Pass   |

Channel 100:







Product : Play-Fi Wireless Speaker  
 Test Item : Peak Excursion  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps)

| Channel No. | Frequency (MHz) | Data Rate (Mbps) | Measurement Level (dB) | Required Limit (dB) | Result |
|-------------|-----------------|------------------|------------------------|---------------------|--------|
| 102         | 5510            | MCS (0)          | 7.850                  | <13                 | Pass   |
|             |                 | MCS (2)          | 7.580                  | <13                 | Pass   |
|             |                 | MCS (4)          | 7.880                  | <13                 | Pass   |
|             |                 | MCS (7)          | 7.820                  | <13                 | Pass   |

### Channel 102:

