



Product Service

5320 MHz

Modulation: BPSK

|                                   |       |
|-----------------------------------|-------|
| Peak Power Spectral Density (dBm) | 3.371 |
|-----------------------------------|-------|





Product Service

Frequency Band 35500 MHz

Modulation: BPSK

|                                   |       |
|-----------------------------------|-------|
| Peak Power Spectral Density (dBm) | 2.295 |
|-----------------------------------|-------|





Product Service

Modulation: QPSK

|                                   |       |
|-----------------------------------|-------|
| Peak Power Spectral Density (dBm) | 2.312 |
|-----------------------------------|-------|





Product Service

Modulation: 16-QAM

|                                   |       |
|-----------------------------------|-------|
| Peak Power Spectral Density (dBm) | 2.203 |
|-----------------------------------|-------|

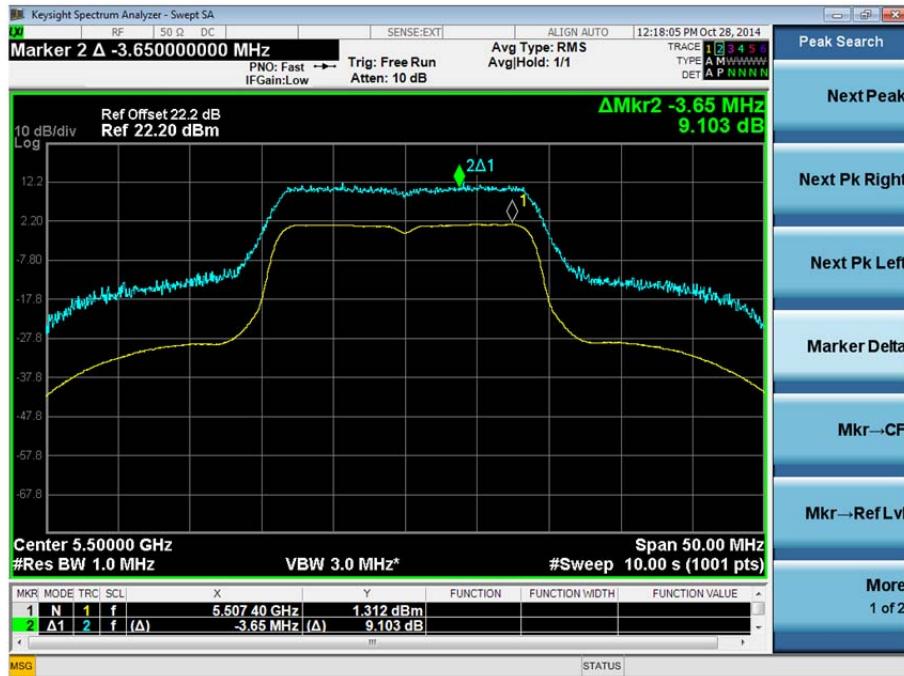




Product Service

Modulation: 64-QAM

|                                   |       |
|-----------------------------------|-------|
| Peak Power Spectral Density (dBm) | 1.312 |
|-----------------------------------|-------|





Product Service

5580 MHz

Modulation: BPSK

|                                   |       |
|-----------------------------------|-------|
| Peak Power Spectral Density (dBm) | 3.198 |
|-----------------------------------|-------|



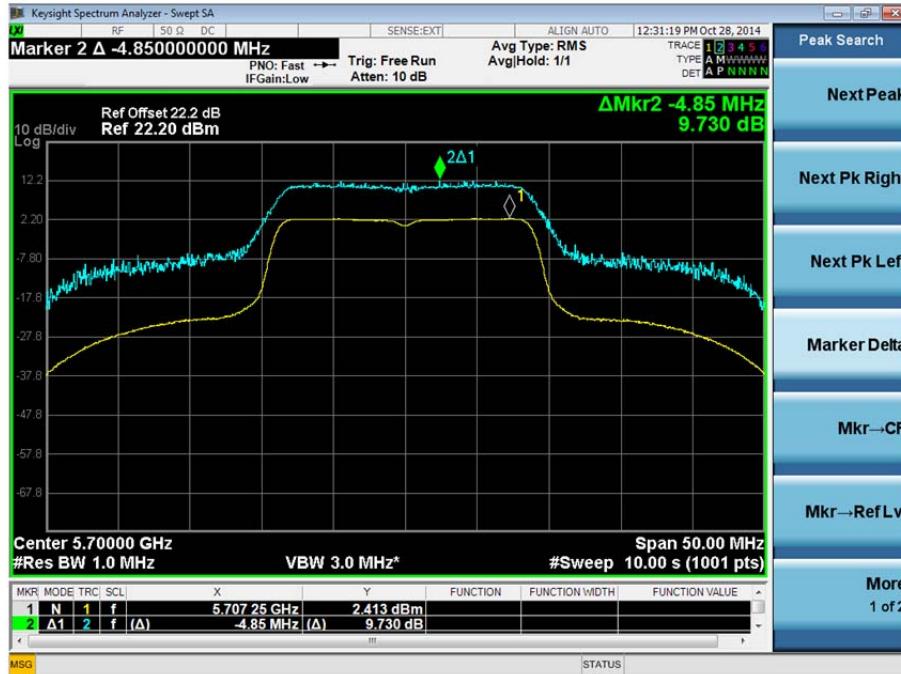


Product Service

5700 MHz

Modulation: BPSK

|                                   |       |
|-----------------------------------|-------|
| Peak Power Spectral Density (dBm) | 2.413 |
|-----------------------------------|-------|

Limit

| Frequency Band (MHz) | FCC Limit      | IC Limit       |
|----------------------|----------------|----------------|
| 5150 to 5250         | <4 dB / 1 MHz  | <10 dB / 1 MHz |
| 5250 to 5350         | <11 dB / 1 MHz | <11 dB / 1 MHz |
| 5470 to 5725         | <11 dB / 1 MHz | <11 dB / 1 MHz |
| 5725 to 5825         | <17 dB / 1 MHz | <17 dB / 1 MHz |

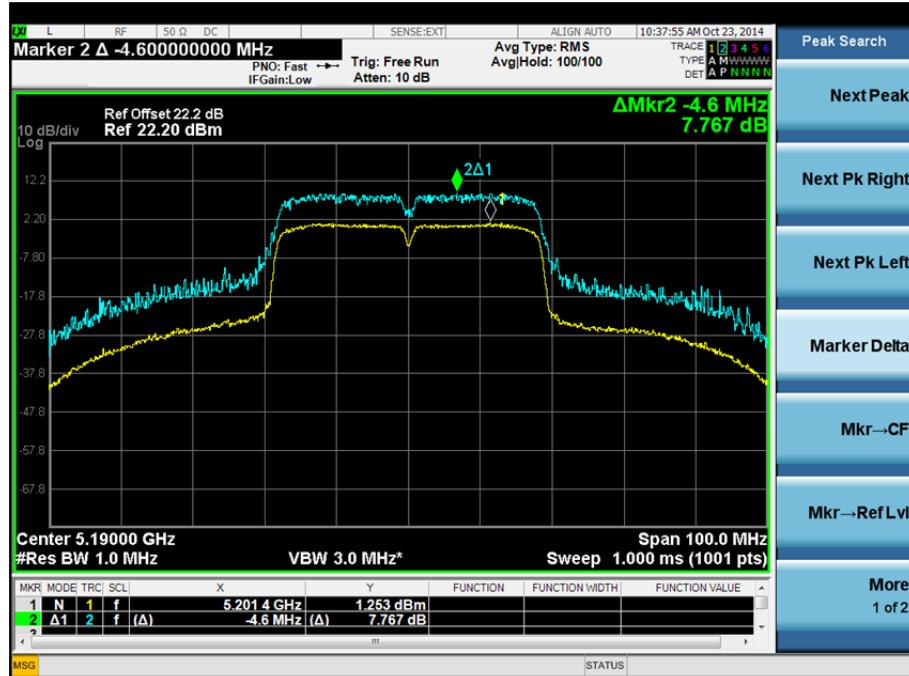


Product Service

802.11(n) 40 MHz BWFrequency Band 15190 MHz

Modulation: BPSK

|                                  |       |
|----------------------------------|-------|
| Peak Power Spectral Density (dB) | 1.253 |
|----------------------------------|-------|

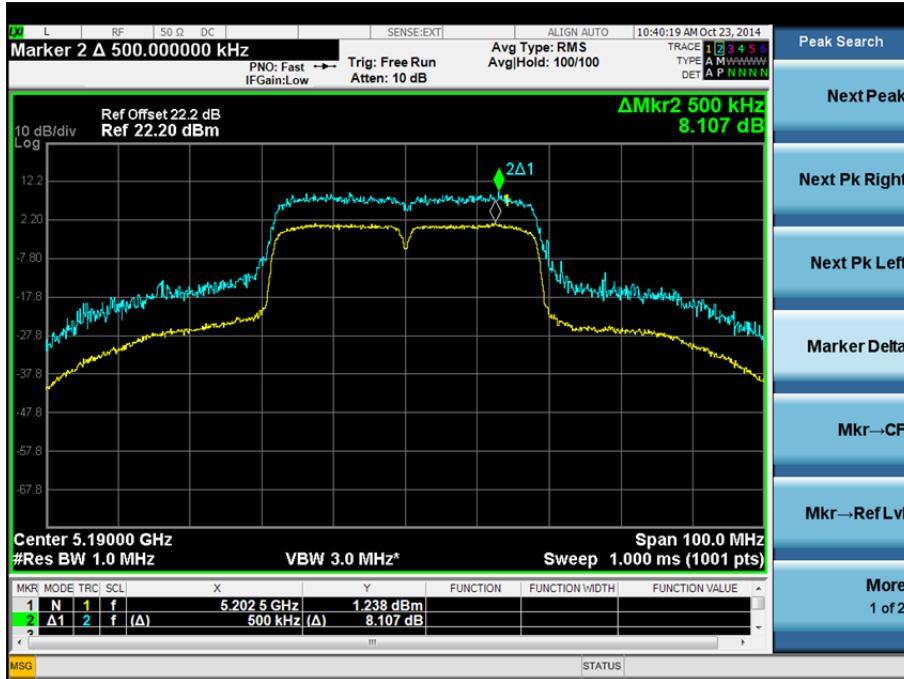




Product Service

Modulation: QPSK

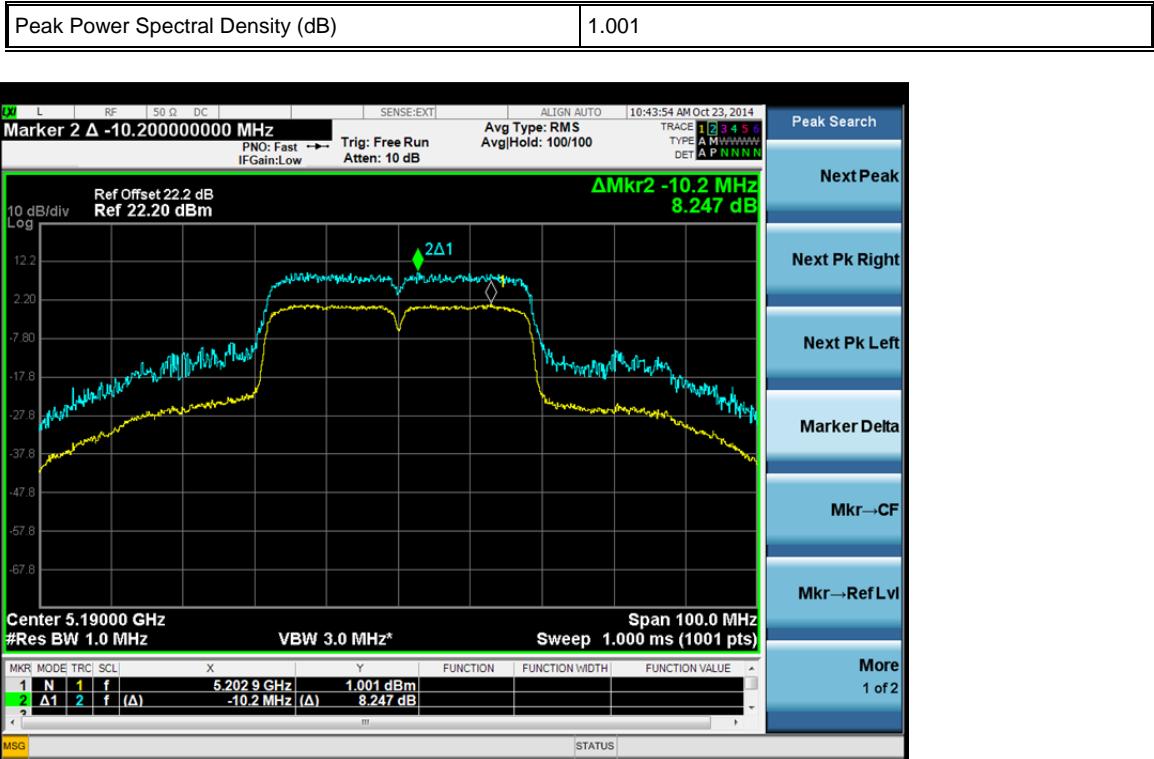
|                                  |       |
|----------------------------------|-------|
| Peak Power Spectral Density (dB) | 1.238 |
|----------------------------------|-------|





Product Service

Modulation: 16-QAM

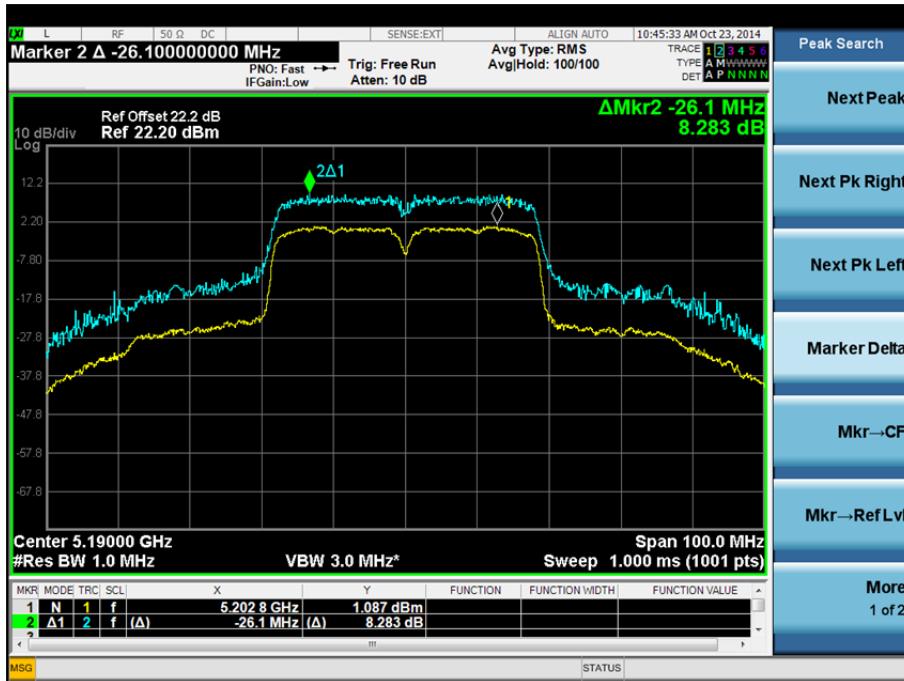




Product Service

Modulation: 64-QAM

|                                  |       |
|----------------------------------|-------|
| Peak Power Spectral Density (dB) | 1.087 |
|----------------------------------|-------|



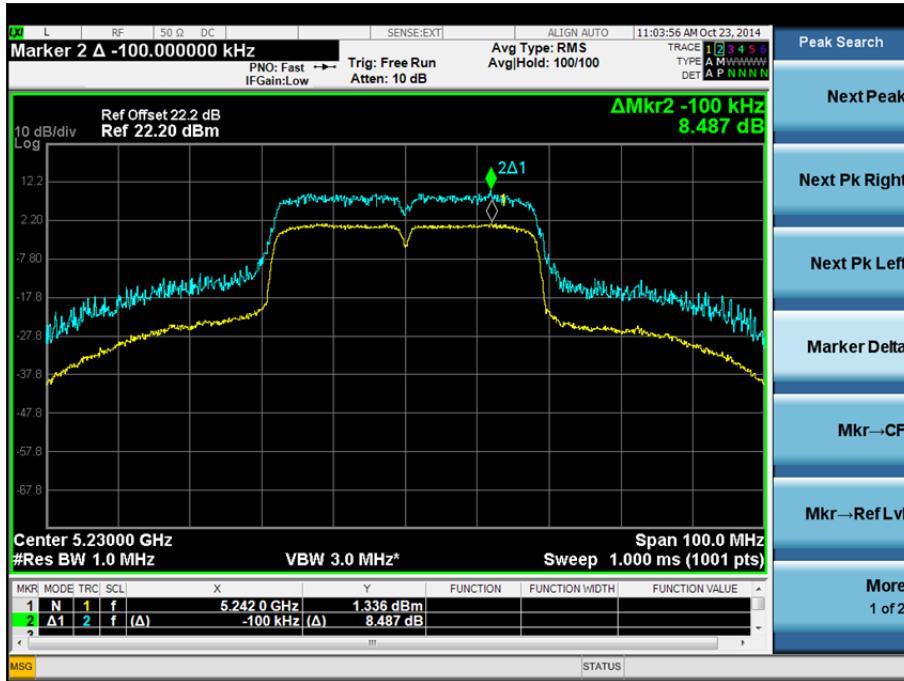


Product Service

5230 MHz

Modulation: BPSK

|                                  |       |
|----------------------------------|-------|
| Peak Power Spectral Density (dB) | 1.336 |
|----------------------------------|-------|



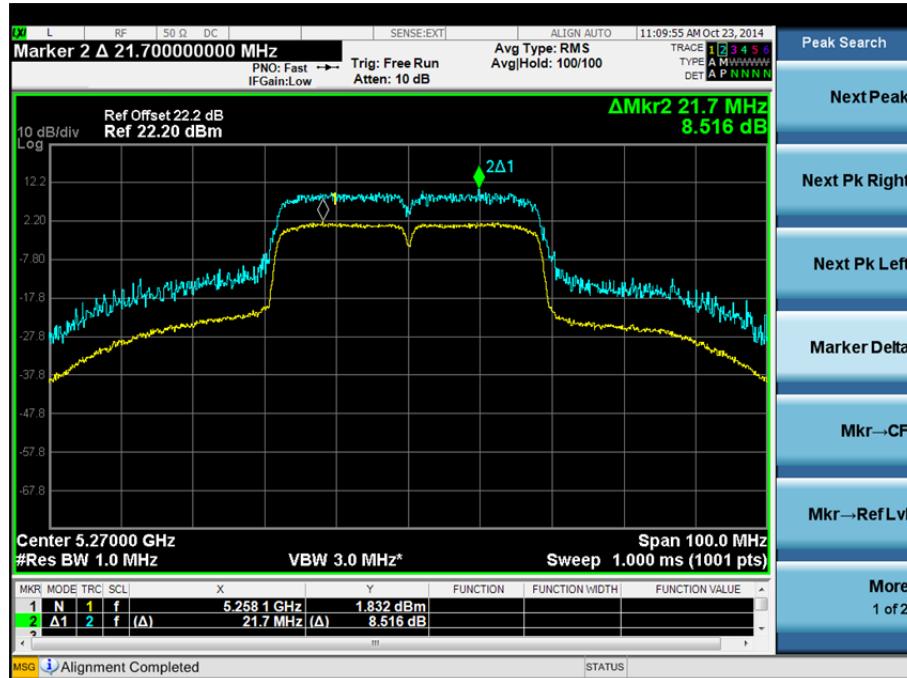


Product Service

Frequency Band 25270 MHz

Modulation: BPSK

|                                  |       |
|----------------------------------|-------|
| Peak Power Spectral Density (dB) | 1.832 |
|----------------------------------|-------|

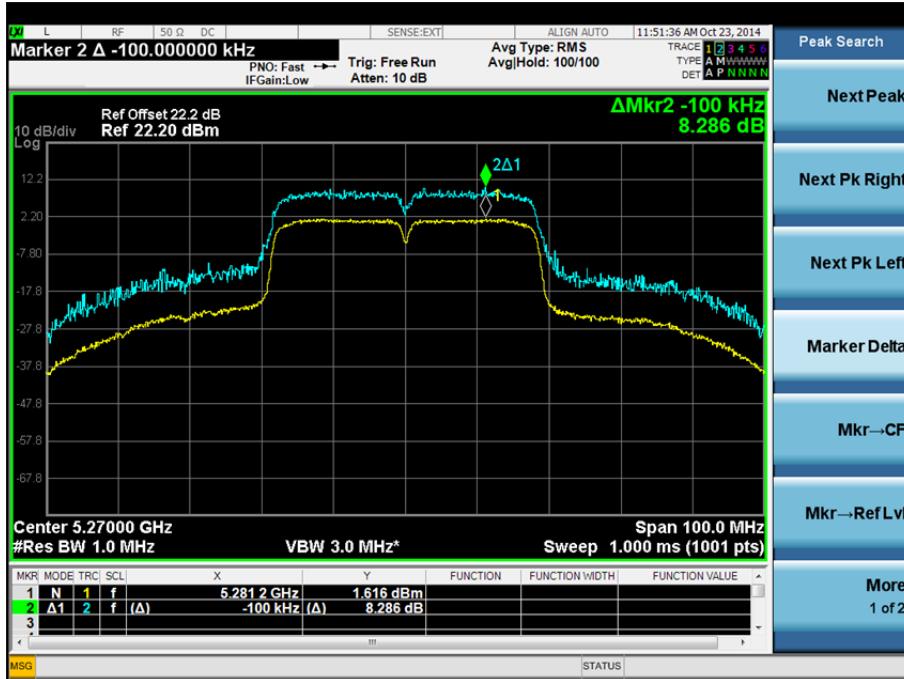




Product Service

Modulation: QPSK

|                                  |       |
|----------------------------------|-------|
| Peak Power Spectral Density (dB) | 1.616 |
|----------------------------------|-------|





Product Service

Modulation: 16-QAM

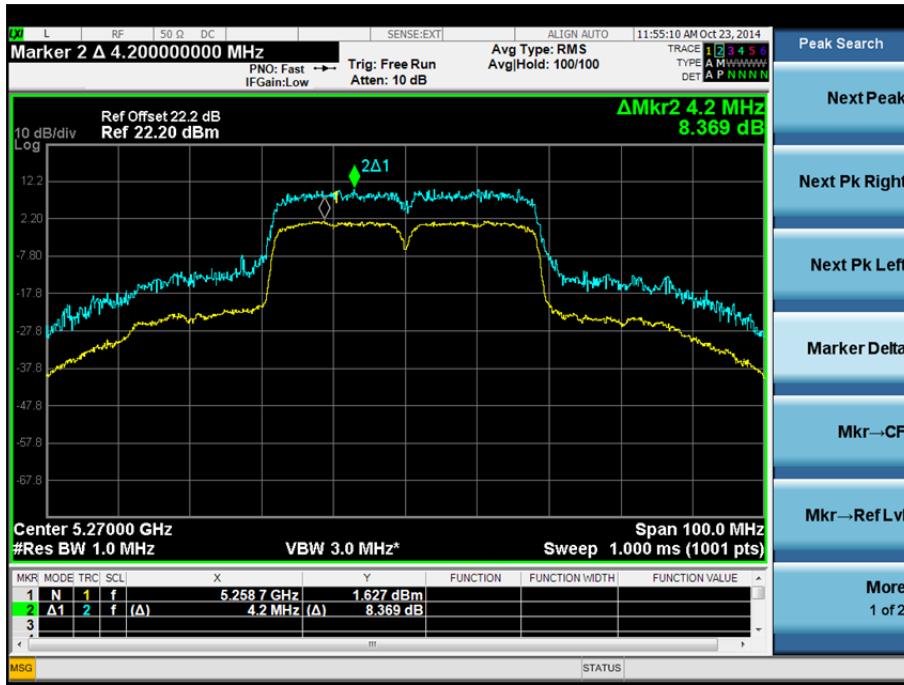




Product Service

Modulation: 64-QAM

|                                  |       |
|----------------------------------|-------|
| Peak Power Spectral Density (dB) | 1.627 |
|----------------------------------|-------|



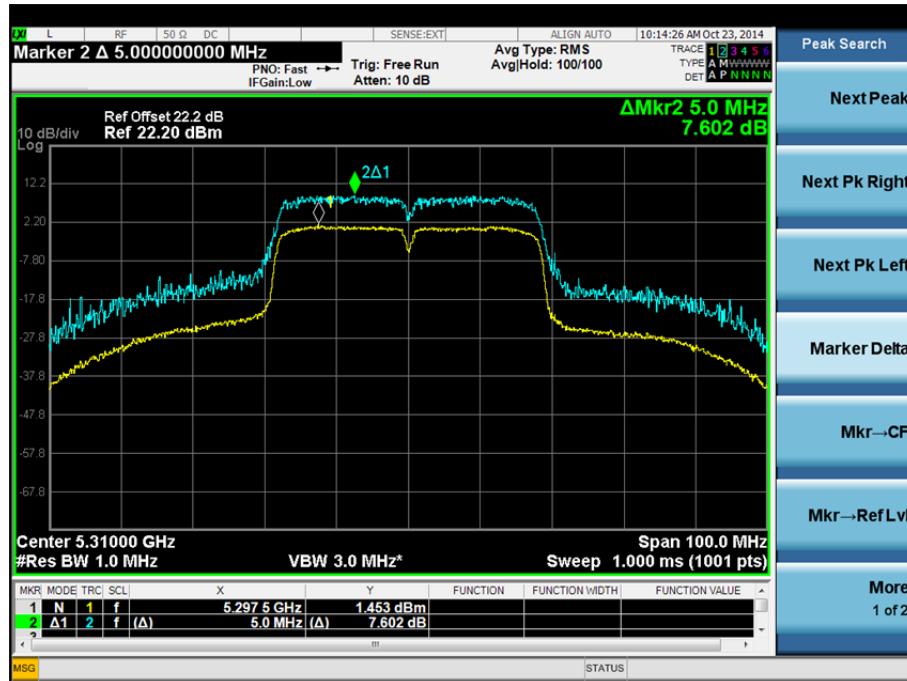


Product Service

5310 MHz

Modulation: BPSK

|                                  |       |
|----------------------------------|-------|
| Peak Power Spectral Density (dB) | 1.453 |
|----------------------------------|-------|



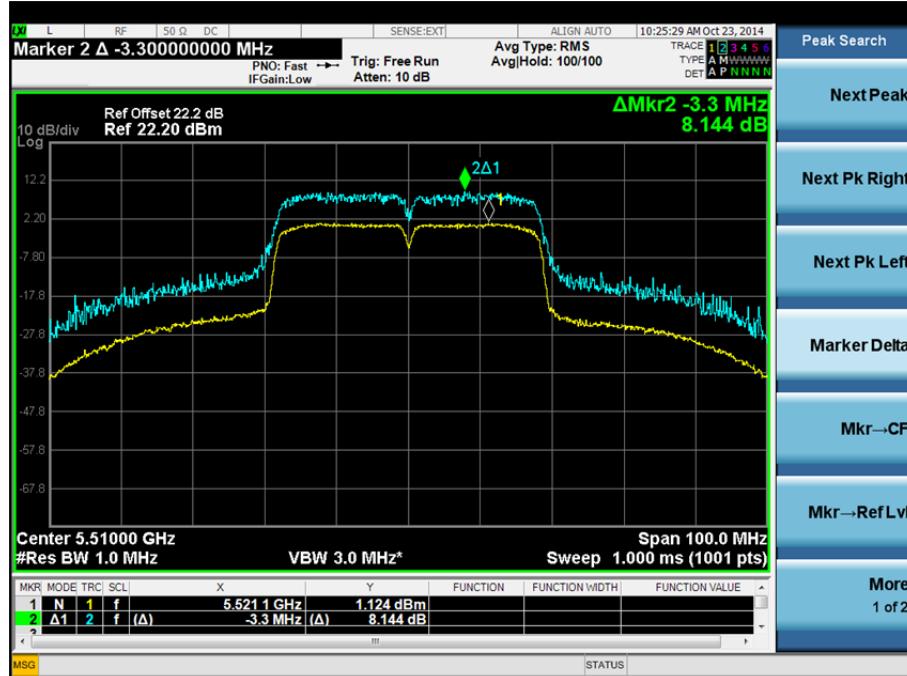


Product Service

Frequency Band 35510 MHz

Modulation: BPSK

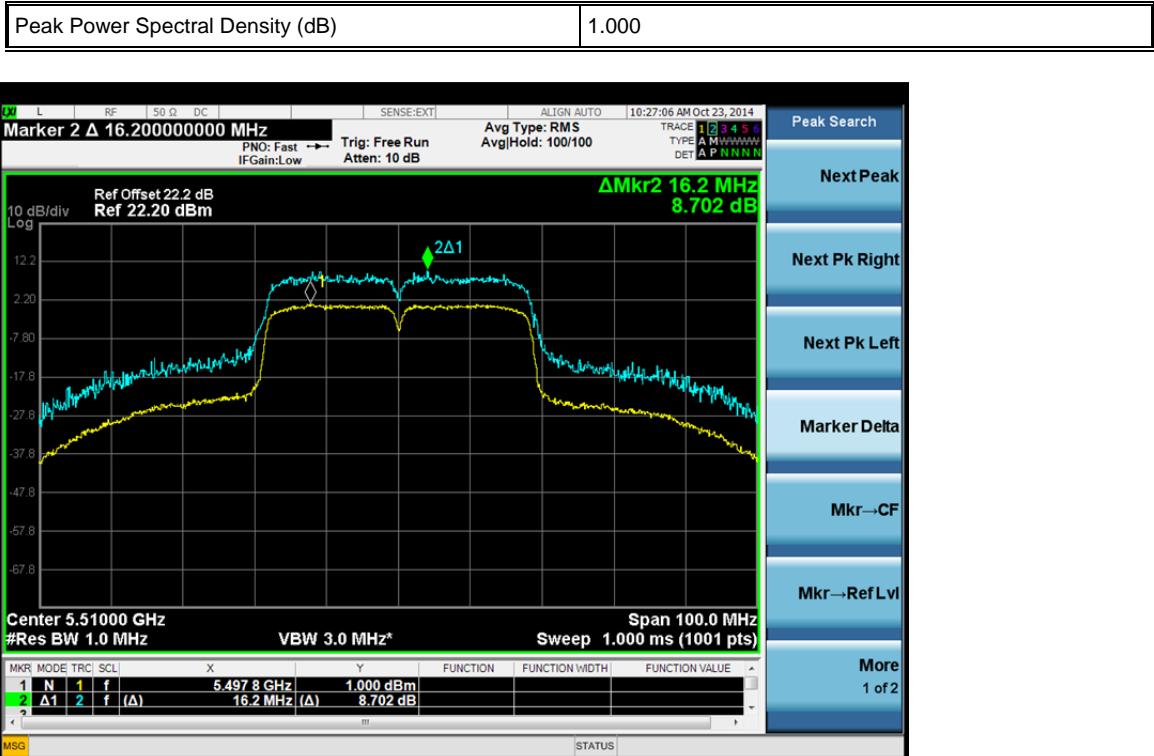
|                                  |       |
|----------------------------------|-------|
| Peak Power Spectral Density (dB) | 1.124 |
|----------------------------------|-------|





Product Service

Modulation: QPSK





Product Service

Modulation: 16-QAM

|                                  |       |
|----------------------------------|-------|
| Peak Power Spectral Density (dB) | 1.266 |
|----------------------------------|-------|

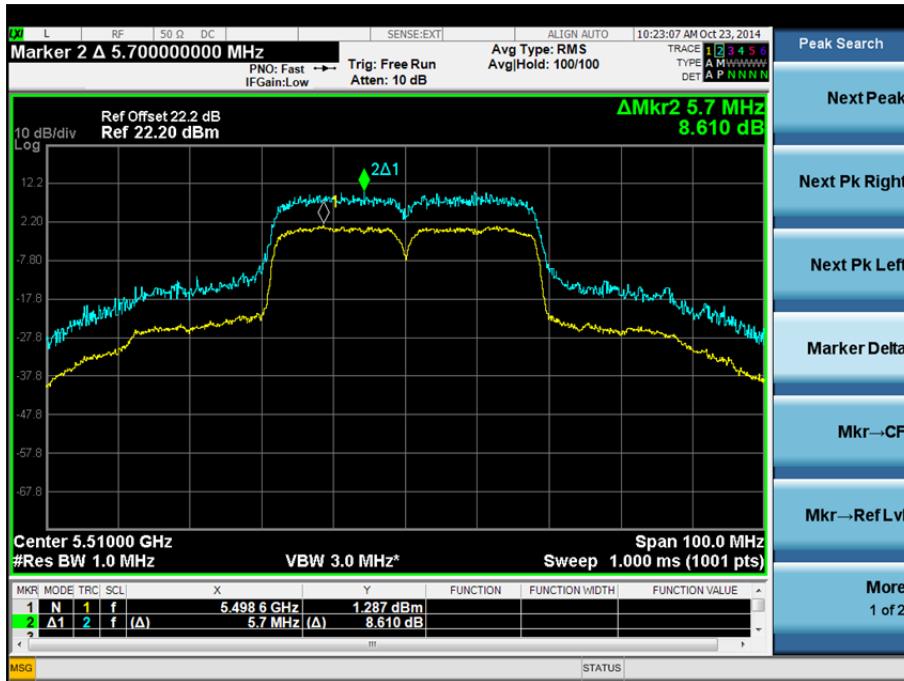




Product Service

Modulation: 64-QAM

|                                  |       |
|----------------------------------|-------|
| Peak Power Spectral Density (dB) | 1.287 |
|----------------------------------|-------|



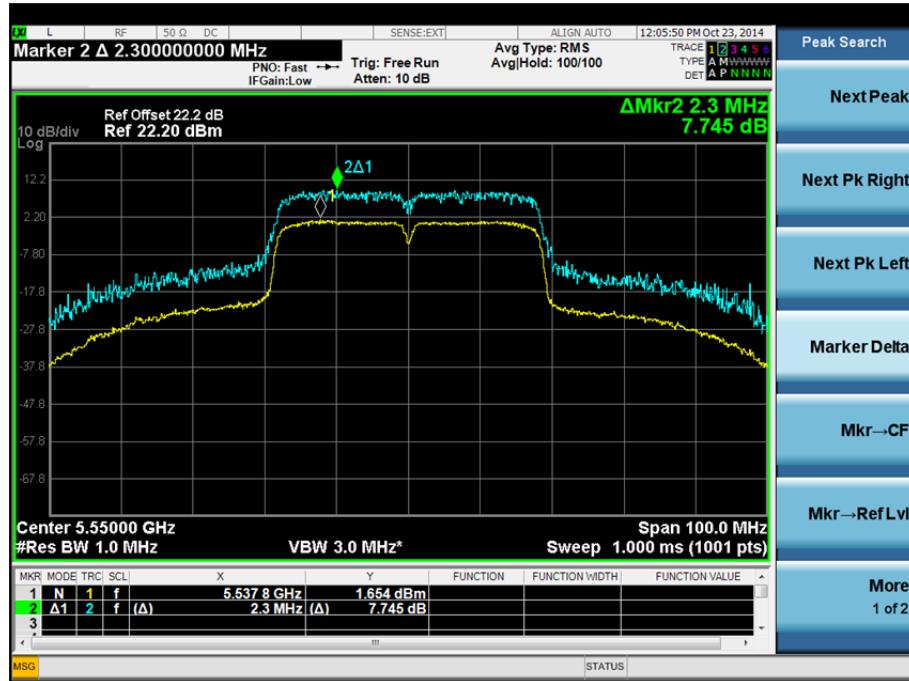


Product Service

5550 MHz

Modulation: BPSK

|                                  |       |
|----------------------------------|-------|
| Peak Power Spectral Density (dB) | 1.654 |
|----------------------------------|-------|





Product Service

5670 MHz

Modulation: BPSK

|                                  |       |
|----------------------------------|-------|
| Peak Power Spectral Density (dB) | 1.554 |
|----------------------------------|-------|

Limit

| Frequency Band (MHz) | FCC Limit      | IC Limit       |
|----------------------|----------------|----------------|
| 5150 to 5250         | <4 dB / 1 MHz  | <10 dB / 1 MHz |
| 5250 to 5350         | <11 dB / 1 MHz | <11 dB / 1 MHz |
| 5470 to 5725         | <11 dB / 1 MHz | <11 dB / 1 MHz |
| 5725 to 5825         | <17 dB / 1 MHz | <17 dB / 1 MHz |



## **2.5 RATIO OF THE PEAK EXCURSION OF THE MODULATION ENVELOPE**

### **2.5.1 Specification Reference**

FCC CFR 47 Part 15E, Clause 15.407 (a)(6)

### **2.5.2 Equipment Under Test and Modification State**

YotaPhone2/ YD201 S/N: Not Serialised (75927375-TSR0007) - Modification State 1  
 YotaPhone2/ YD201 S/N: Not Serialised (75927375-TSR0007) - Modification State 0

### **2.5.3 Date of Test**

23 October 2014, 27 October 2014 & 28 October 2014

### **2.5.4 Test Equipment Used**

The major items of test equipment used for the above tests are identified in Section 3.1.

### **2.5.5 Test Procedure**

The test was applied in accordance with the test method requirements of FCC CFR 47 Part 15.407 (a) and KDB 789033 D01 General UNII Test Procedures 1 Old Rules v01r04.

The EUT was transmitted at maximum power for bottom, middle and top channels with a data rate that was determined to produce the greatest average RF output power. In addition, all modulation types were tested for Peak Excursion on each test in each applicable frequency band. The EUT was connected to the Spectrum Analyser via attenuators and cables. For Trace 1, the analyser settings were configured with an RBW of 1 MHz and video bandwidth of 3MHz. The trace was set to a 10 second sweep time using an RMS detector. The maximum value was recorded for Power Spectral Density. For Trace 2, the RBW was set to 1MHz and the VBW to 3MHz. A Peak detector and Max Hold were used with a 10 second sweep time. The peak value was found and referenced to the Peak in Trace 1 to give the Peak Excursion.

### **2.5.6 Environmental Conditions**

|                     |               |
|---------------------|---------------|
| Ambient Temperature | 23.0 - 25.9°C |
| Relative Humidity   | 42.2 - 54.9%  |



## 2.5.7 Test Results

802.11(a)

Frequency Band 1

5180 MHz

Modulation: BPSK

|            |       |
|------------|-------|
| Ratio (dB) | 9.332 |
|------------|-------|





Product Service

Modulation: QPSK

|            |        |
|------------|--------|
| Ratio (dB) | 10.629 |
|------------|--------|





Product Service

Modulation: 16-QAM

|            |        |
|------------|--------|
| Ratio (dB) | 10.471 |
|------------|--------|

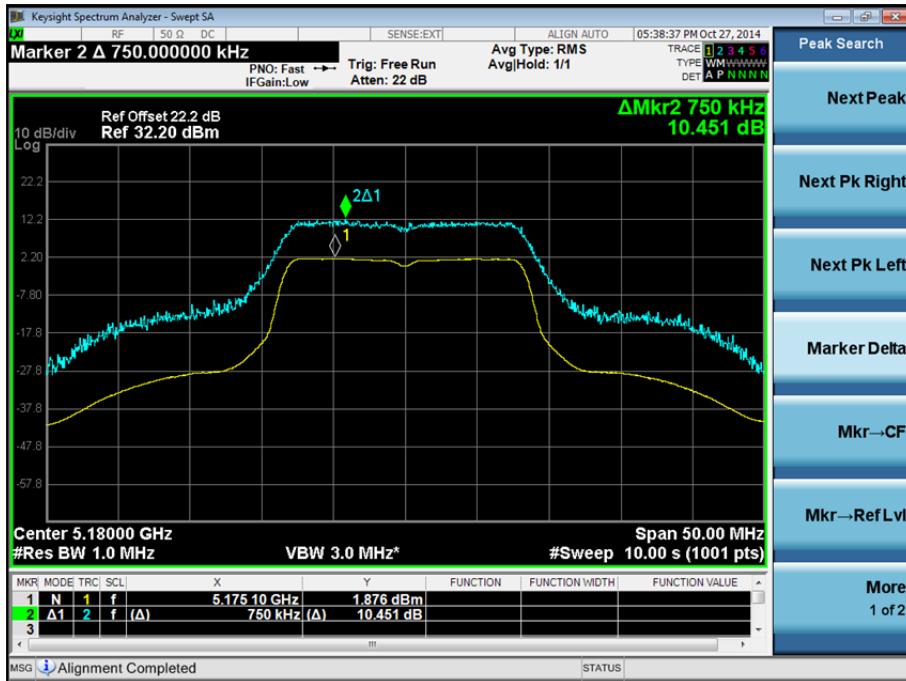




Product Service

Modulation: 64-QAM

|            |        |
|------------|--------|
| Ratio (dB) | 10.451 |
|------------|--------|





Product Service

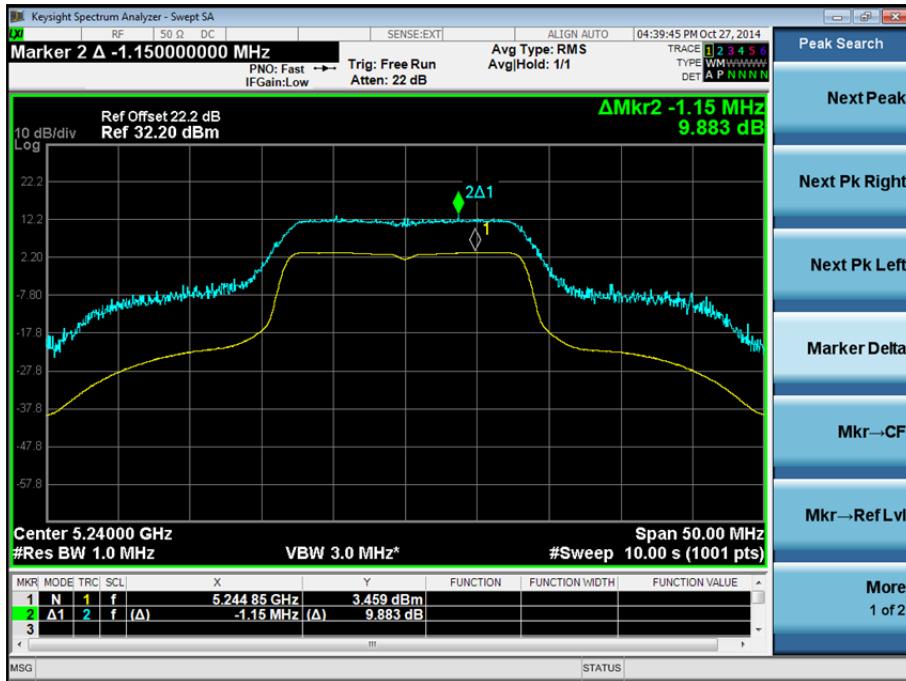
5220 MHz



Product Service

5240 MHz

|            |       |
|------------|-------|
| Ratio (dB) | 9.883 |
|------------|-------|





Product Service

Frequency Band 2

5260 MHz

Modulation: BPSK

|            |       |
|------------|-------|
| Ratio (dB) | 9.432 |
|------------|-------|





Product Service

Modulation: QPSK

|            |        |
|------------|--------|
| Ratio (dB) | 10.222 |
|------------|--------|





Product Service

Modulation: 16-QAM

|            |       |
|------------|-------|
| Ratio (dB) | 9.834 |
|------------|-------|





Product Service

Modulation: 64-QAM

|            |        |
|------------|--------|
| Ratio (dB) | 10.198 |
|------------|--------|





Product Service

5300 MHz

|            |       |
|------------|-------|
| Ratio (dB) | 9.314 |
|------------|-------|





Product Service

5320 MHz

|            |       |
|------------|-------|
| Ratio (dB) | 9.514 |
|------------|-------|





Product Service

Frequency Band 35500 MHz

Modulation: BPSK

|            |       |
|------------|-------|
| Ratio (dB) | 9.461 |
|------------|-------|





Product Service

Modulation: QPSK

|            |        |
|------------|--------|
| Ratio (dB) | 10.050 |
|------------|--------|





Product Service

Modulation: 16-QAM

|            |        |
|------------|--------|
| Ratio (dB) | 10.264 |
|------------|--------|

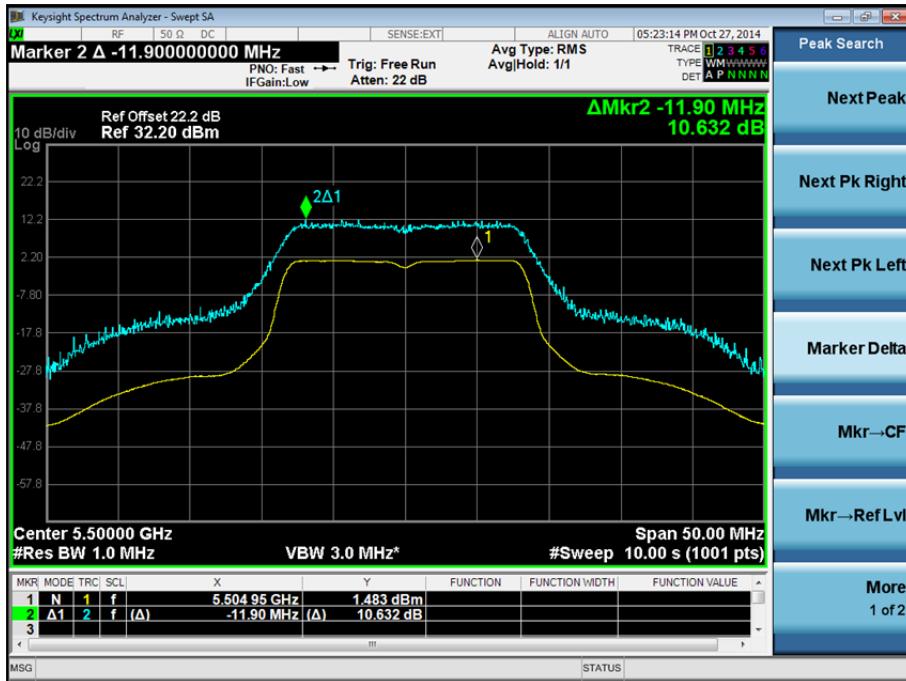




Product Service

Modulation: 64-QAM

|            |        |
|------------|--------|
| Ratio (dB) | 10.632 |
|------------|--------|





Product Service

5580 MHz

|            |       |
|------------|-------|
| Ratio (dB) | 9.754 |
|------------|-------|





Product Service

5700 MHzLimit

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the maximum conducted output power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.



Product Service

802.11(ac) 20 MHz BWFrequency Band 15180 MHz

Modulation: BPSK

|            |       |
|------------|-------|
| Ratio (dB) | 7.626 |
|------------|-------|

