# 4. 6 ㎧ Bandwidth

## 4.1. Test Setup

## 4.2. Limit

### 4.2.1. FCC

According to §15.407(e), within the 5.725-5.85 ㎓ band, the minimum 6 ㎧ bandwidth of U-NII devices shall be at least 500 ㎑.

### 4.2.2. IC

According to RSS-247 Issue 2, 6.2.4.1, the minimum 6 ㎧ Bandwidth shall be at least 500 ㎑.

## 4.3. Test Procedure

1. This measurement settings are specified in section Ⅱ.C.2 of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Set RBW = 100 ㎑.
3. Set the video bandwidth (VBW) ≥ 3 x RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Sweep = auto couple.
7. Allow the trace to stabilize.
8. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 ㎧ relative to the maximum level measured in the fundamental emission.

**Remark;**

In case of band crossing channels 138, 142 and 144, the measurement is complied with section Ⅲ.A of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

## 4.4. Test Result

Ambient temperature : (23 ± 1) ℃

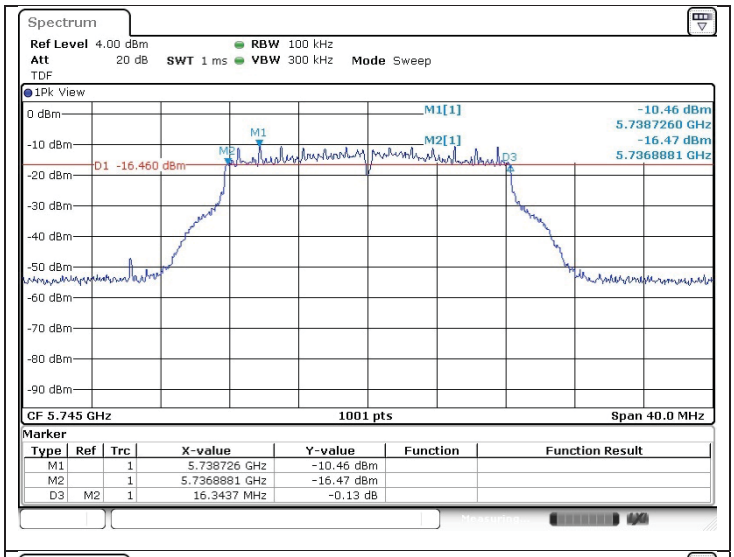
Relative humidity : 47 % R.H.

| Band | Mode | Frequency (㎒) | Ch. | Data Rate (Mbps) | 6 ㏈ Bandwidth (㎒) | Minimum Bandwidth (㎑) |
|---|---|---|---|---|---|---|
| U-NII 3 | 11a | 5 745 | 149 | 12 Mbps | 16.344 | 500 |
| | | 5 785 | 157 | | 16.384 | |
| | | 5 825 | 165 | | 16.384 | |
| | 11ac_VHT20 | 5 745 | 149 | MCS2 | 17.662 | |
| | | 5 785 | 157 | | 17.702 | |
| | | 5 825 | 165 | | 17.662 | |
| | 11n_HT40 | 5 755 | 151 | MCS2 | 35.884 | |
| | | 5 795 | 159 | | 36.204 | |
| | 11ac_VHT80 | 5 775 | 155 | MCS5 | 76.723 | |
| U-NII 3 (Band-crossing channels) | 11a | 5 720 | 144 | 12 Mbps | 3.232 | |
| | 11ac_VHT20 | 5 720 | 144 | MCS2 | 3.871 | |
| | 11n_HT40 | 5 710 | 142 | MCS2 | 2.902 | |
| | 11ac_VHT80 | 5 690 | 138 | MCS5 | 3.362 | |

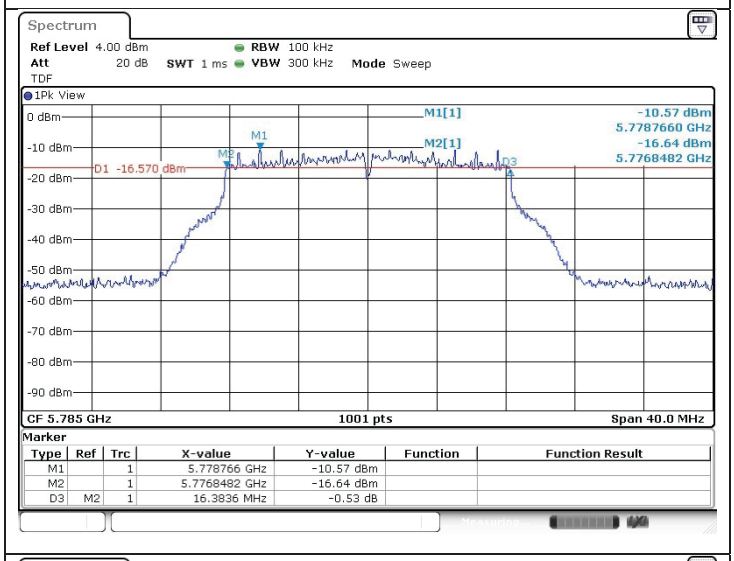
**- Test plots**

**802.11a (Band 3)**

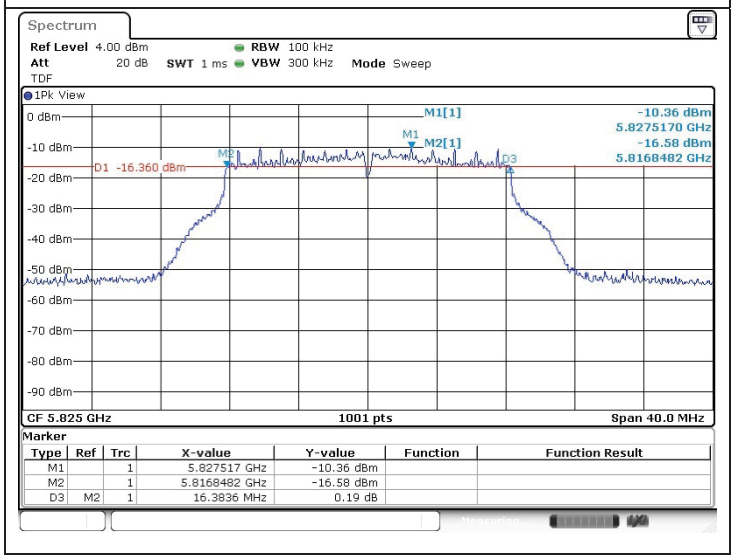
Low Channel
(5 745 ㎒)




Middle Channel
(5 785 ㎒)

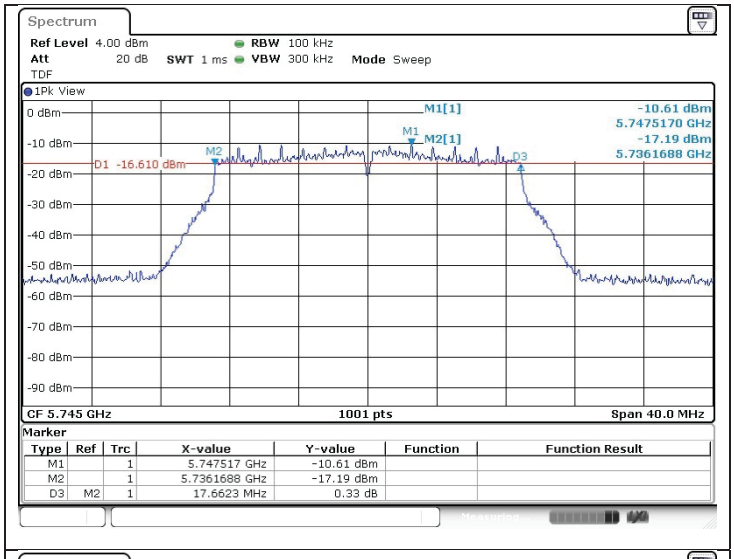



High Channel
(5 825 ㎒)

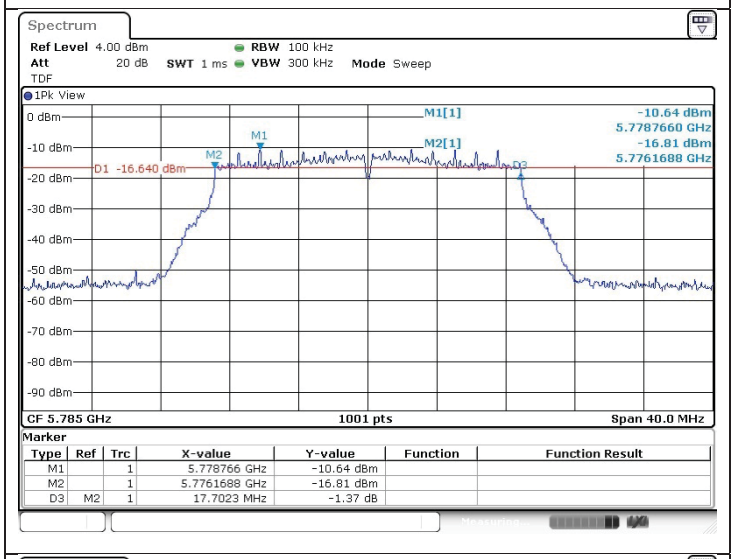


**802.11ac_VHT20 (Band 3)**

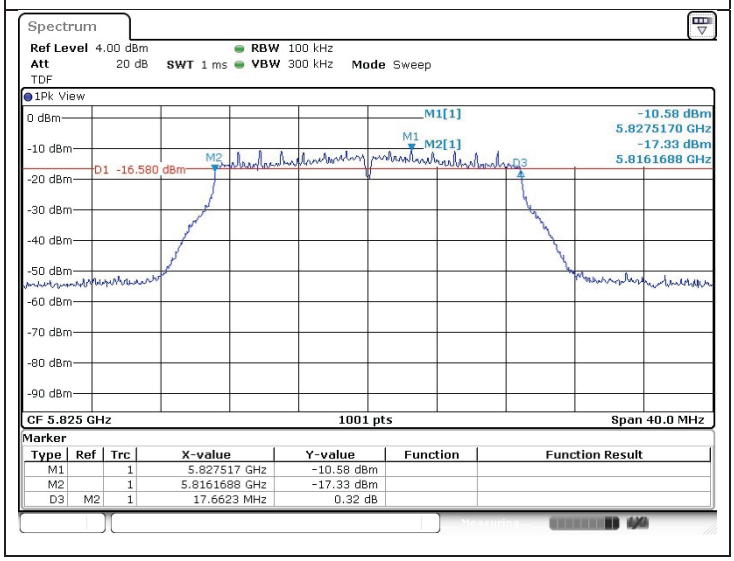
Low Channel
(5 745 ㎒)




Middle Channel
(5 785 ㎒)

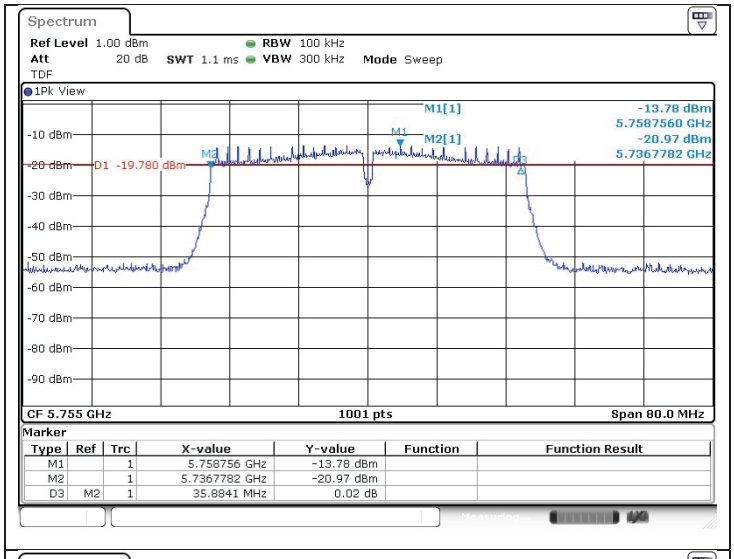



High Channel
(5 825 ㎒)

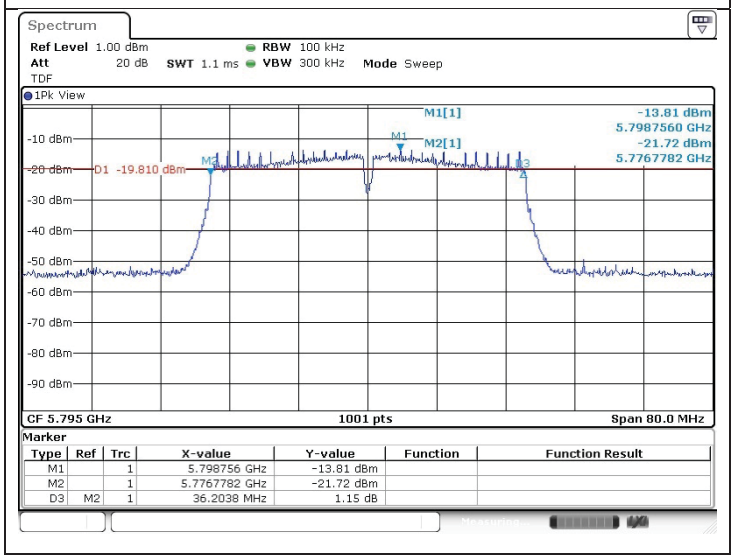


**802.11n_HT40 (Band 3)**

Low Channel
(5 755 ㎒)

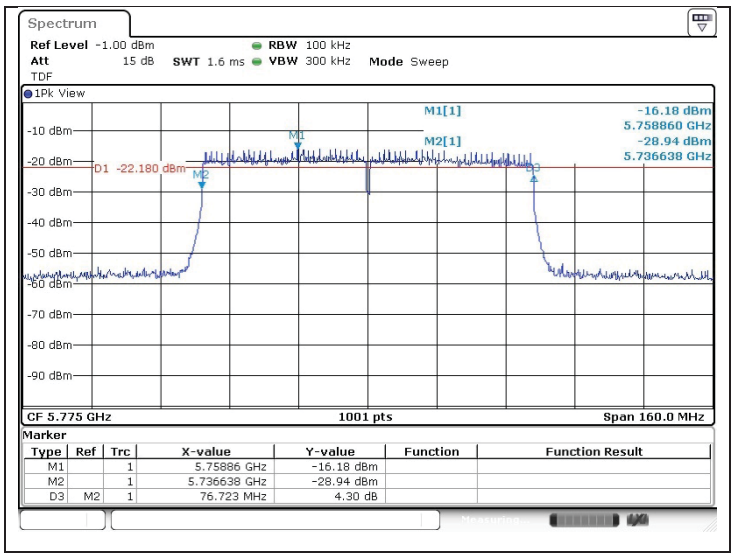



High Channel
(5 795 ㎒)




**802.11ac_VHT80 (Band 3)**

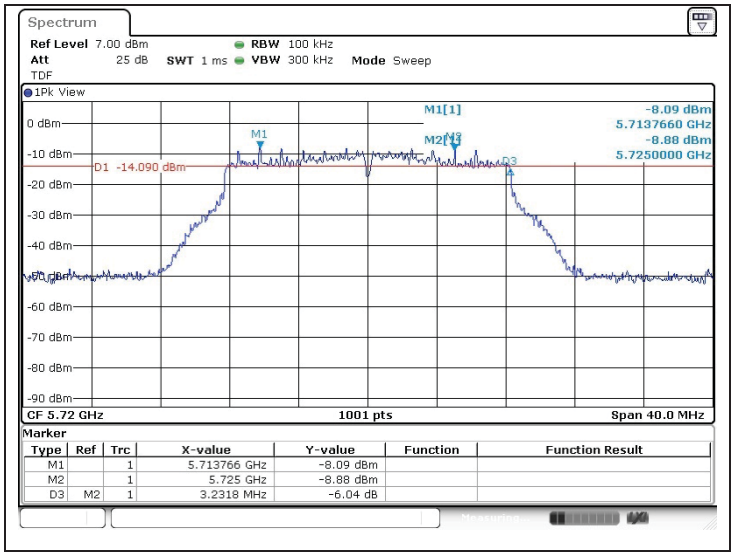
Middle Channel
(5 775 ㎒)



**Band-crossing channels**

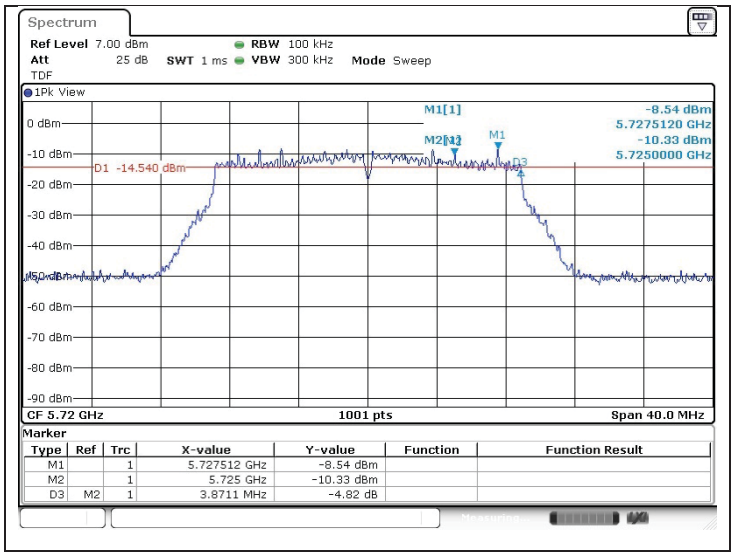
**802.11a (Band 3)**

High Channel
(5 720 ㎒)



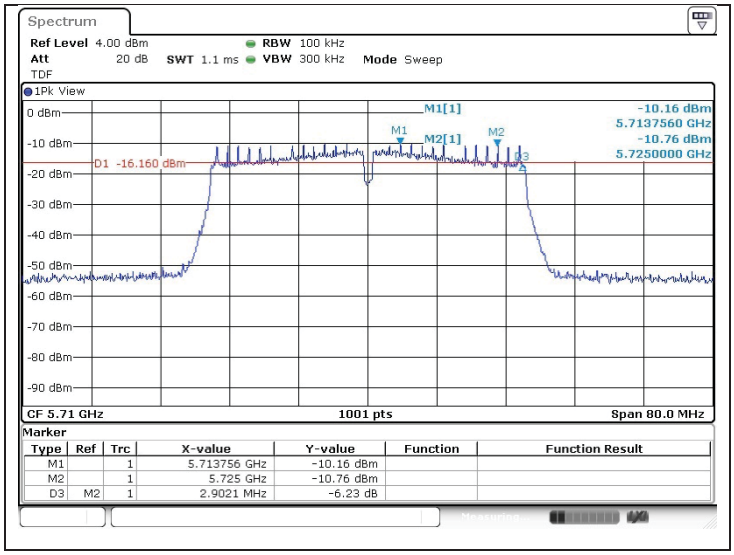

**802.11ac_VHT20 (Band 3)**

High Channel
(5 720 ㎒)



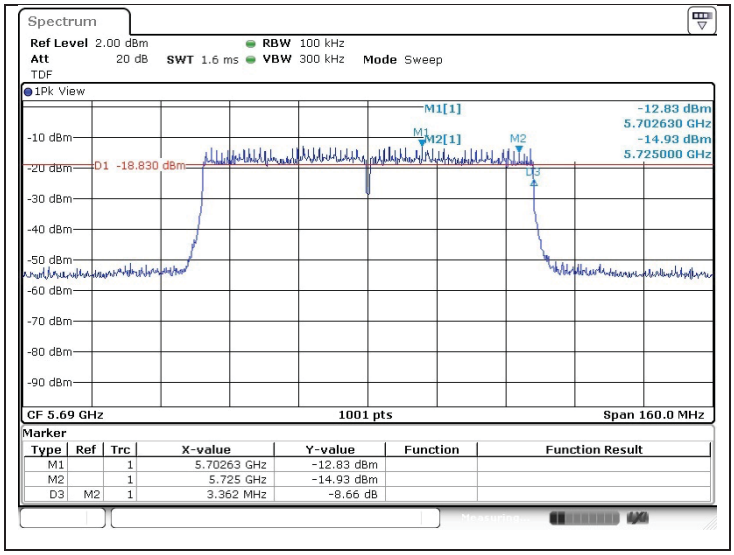
**802.11n_HT40 (Band 3)**

High Channel
(5 710 ㎒)



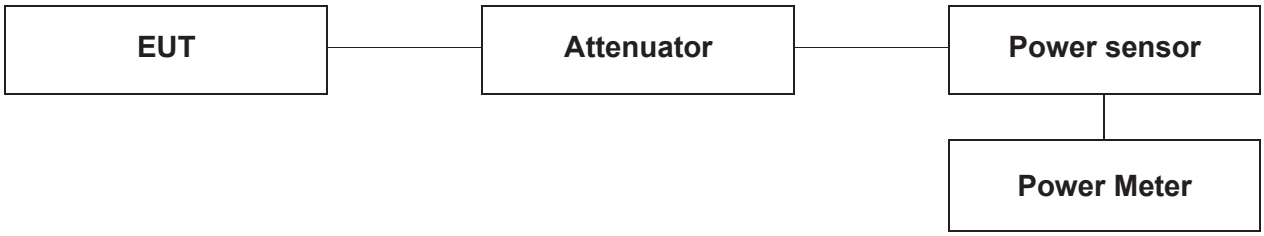

**802.11ac_VHT80 (Band 3)**

Middle Channel
(5 690 ㎒)



# 5. Maximum Conducted Output Power

## 5.1. Test Setup




## 5.2. Limit

### 5.2.1. FCC

According to 15.407(a)(1)(iv)

For client devices in the 5.15-5.25 ㎓ band, the maximum conducted output power over the frequency band of operation shall not exceed 250 ㎽ provided the maximum antenna gain does not exceed 6 ㏈i. In addition, the maximum power spectral density shall not exceed 11 ㏈m in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 ㏈i are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in ㏈ that the directional gain of the antenna exceeds 6 ㏈i.

According to 15.407(a)(2)

For the 5.25-5.35 ㎓ and 5.47-5.725 ㎓ bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 ㎽ or 11 ㏈m + 10 log B, where B is the 26 ㏈ emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 ㏈m in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 ㏈i are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in ㏈ that the directional gain of the antenna exceeds 6 ㏈i.

According to 15.407(a)(3)

For the band 5.725-5.85 ㎓, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 ㏈m in any 500-㎑ band. If transmitting antennas of directional gain greater than 6 ㏈i are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in ㏈ that the directional gain of the antenna exceeds 6 ㏈i. However, fixed point-to point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 ㏈i without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

### 5.2.2. IC

According to RSS-247 Issue 2,

6.2.1.1 Frequency band 5 150-5 250 ㎒

For OEM devices installed in vehicles, the maximum e.i.r.p. shall not exceed 30 ㎽ or 1.76 + 10 $\log_{10}$B, ㏈m, whichever is less. Devices shall implement transmitter power control (TPC) in order to have the capability to operate at least 3 ㏈ below the maximum permitted e.i.r.p. of 30 ㎽.

For other devices, the maximum e.i.r.p. shall not exceed 200 ㎽ or 10 + 10 $\log_{10}$B, ㏈m, whichever power is less. B is the 99 % emission bandwidth in megahertz. The e.i.r.p. spectral density shall not exceed 10 ㏈m in any 1.0 ㎒ band.

6.2.2.1 Frequency band 5 250-5 350 ㎒

For OEM devices installed in vehicles, the maximum e.i.r.p. shall not exceed 30 ㎽ or 1.76 + 10 $\log_{10}$B, ㏈m, whichever is less. Devices shall implement TPC in order to have the capability to operate at least 3 ㏈ below the maximum permitted e.i.r.p. of 30 ㎽.

Devices, other than devices installed in vehicles, shall comply with the following:

a) The maximum conducted output power shall not exceed 250 ㎽ or 11 + 10$\log_{10}$B, ㏈m, whichever is less. The power spectral density shall not exceed 11 ㏈m in any 1.0 ㎒ band;

b) The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 $\log_{10}$B, ㏈m, whichever is less. B is the 99 % emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 ㎽ shall implement TPC in order to have the capability to operate at least 6 ㏈ below the maximum permitted e.i.r.p. of 1 W.

6.2.3.1 Frequency band 5 470-5 600 ㎒ and 5 650-5 725 ㎒

The maximum conducted output power shall not exceed 250 ㎽ or 11 + 10 $\log_{10}$B, ㏈m, whichever is less. The power spectral density shall not exceed 11 ㏈m in any 1.0 ㎒ band.

The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 $\log_{10}$B, ㏈m, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than
500 ㎽ shall implement TPC in order to have the capability to operate at least 6 ㏈ below the maximum permitted e.i.r.p. of 1 W.

6.2.4.1 Frequency band 5 725-5 850 ㎒

For equipment operating in the band 5 725-5 850 ㎒, the minimum 6 ㏈ bandwidth shall be at least 500 ㎑. The maximum conducted output power shall not exceed 1 W. The output power spectral density shall not exceed 30 ㏈m in any 500 ㎑ band. If transmitting antennas of directional gain greater than 6 ㏈i are used, both the maximum conducted output power and the output power spectral density shall be reduced by the amount in ㏈ that the directional gain of the antenna exceeds 6 ㏈i. However, fixed point-to-point devices operating in this band may employ transmitting antennas with directional gain greater than 6 ㏈i without any corresponding reduction in transmitter conducted power. Fixed point-to-point operations exclude the use of point-to-multipoint[3] systems, omnidirectional applications and multiple collocated transmitters transmitting the same information.

## 5.3. Test Procedure

1. This measurement settings are specified in section Ⅱ.E.3.a of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the conditions listed below are satisfied:
   - The EUT is configured to transmit continuously or to transmit with a consistent duty cycle.
   - At all times when the EUT is transmitting, it must be transmitting at its maximum power control level.
   - The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.
3. If the transmitter does not transmit continuously, measure the duty cycle, x, of the transmitter output signal as described in section II.B.
4. Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
5. Adjust the measurement in dBm by adding 10 log (1/x) where x is the duty cycle (e.g., 10 log (1/0.25) if the duty cycle is 25 %).
6. In case of band crossing channels 138, 142 and 144, the measurement is complied with section Ⅲ.A of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

## 5.4. Test Result

Ambient temperature : (23 ± 1) ℃
Relative humidity : 47 % R.H.

**Test mode: 11a**

| Band | Frequency (㎒) | Data Rate (Mbps) | Average Power (㏈ m) | Duty Cycle Correction Factor (㏈) | Average Power Result (㏈ m) |
|---|---|---|---|---|---|
| U-NII 1 | 5 180 | 12 Mbps | 6.87 | 0.57 | 7.44 |
| | 5 220 | | 6.82 | | 7.39 |
| | 5 240 | | 6.74 | | 7.31 |
| U-NII 2A | 5 260 | | 6.69 | | 7.26 |
| | 5 300 | | 6.67 | | 7.24 |
| | 5 320 | | 6.67 | | 7.24 |
| U-NII 2C | 5 500 | | 4.44 | | 5.01 |
| | 5 580 | | 4.27 | | 4.84 |
| | 5 700 | | 4.71 | | 5.28 |
| U-NII 3 | 5 745 | | 2.19 | | 2.76 |
| | 5 785 | | 2.08 | | 2.65 |
| | 5 825 | | 2.28 | | 2.85 |

| Band | Frequency (㎒) | Data Rate (Mbps) | Average Power Result (㏈ m) | Antenna Gain (㏈ i) | E.I.R.P. (㏈ m) |
|---|---|---|---|---|---|
| U-NII 1 | 5 180 | 12 Mbps | 7.44 | 3.49 | 10.93 |
| | 5 220 | | 7.39 | | 10.88 |
| | 5 240 | | 7.31 | | 10.80 |
| U-NII 2A | 5 260 | | 7.26 | 3.98 | 11.24 |
| | 5 300 | | 7.24 | | 11.22 |
| | 5 320 | | 7.24 | | 11.22 |

| Band | FCC Limit | | | | | |
|---|---|---|---|---|---|---|
| | Frequency (㎒) | Fixed Limit (㏈ m) | 26 ㏈ BW (㎒) | 11+10LogB (㏈ m) | Antenna Gain (㏈ i) | Limit (㏈ m) |
| U-NII 1 | 5 180 | 23.98 | | | 3.49 | 23.98 |
| | 5 220 | | | | | |
| | 5 240 | | | | | |
| U-NII 2A | 5 260 | | 21.259 | 24.28 | 3.98 | |
| | 5 300 | | 21.219 | 24.27 | | |
| | 5 320 | | 21.139 | 24.25 | | |
| U-NII 2C | 5 500 | | 21.139 | 24.25 | 4.83 | |
| | 5 580 | | 21.099 | 24.24 | | |
| | 5 700 | | 21.179 | 24.26 | | |
| U-NII 3 | 5 745 | 30 | | | 2.30 | 30 |
| | 5 785 | | | | | |
| | 5 825 | | | | | |

| Band | IC Limit | | | | | |
|---|---|---|---|---|---|---|
| | Frequency (㎒) | Fixed Limit (㏈ m) | 99 % BW (㎒) | 1.76+10LogB (㏈ m) | Antenna Gain (㏈ i) | Limit (㏈ m) |
| U-NII 1 | 5 180 | 14.77 | 16.903 | 14.04 | 3.49 | 14.04 |
| | 5 220 | | 16.863 | 14.03 | | 14.03 |
| | 5 240 | | 16.903 | 14.04 | | 14.04 |
| U-NII 2A | 5 260 | | 16.903 | 14.04 | 3.98 | 14.04 |
| | 5 300 | | 16.823 | 14.02 | | 14.02 |
| | 5 320 | | 16.863 | 14.03 | | 14.03 |

| Band | IC Limit | | | | | |
|---|---|---|---|---|---|---|
| | Frequency (㎒) | Fixed Limit (㏈ m) | 99 % BW (㎒) | 11+10LogB (㏈ m) | Antenna Gain (㏈ i) | Limit (㏈ m) |
| U-NII 2C | 5 500 | 23.98 | 16.903 | 23.28 | 4.83 | 23.28 |
| | 5 580 | | 16.903 | 23.28 | | 23.28 |
| | 5 720 | | 16.903 | 23.28 | | 23.28 |
| U-NII 3 | 5 745 | 30 | | | 2.30 | 30 |
| | 5 785 | | | | | |
| | 5 825 | | | | | |

**Remark;**

1. Average Power Result (㏈ m) = Average Power (㏈ m) + Duty Cycle Correction Factor (㏈)
2 E.I.R.P. (㏈ m) = Average Power Result (㏈ m) + Antenna Gain (㏈ i)

**Test mode: 11ac_VHT20**

| Band | Frequency (㎒) | Data Rate (Mbps) | Average Power (㏈m) | Duty Cycle Correction Factor (㏈) | Average Power Result (㏈m) |
|---|---|---|---|---|---|
| U-NII 1 | 5 180 | MCS2 | 6.34 | 0.84 | 7.18 |
| | 5 220 | | 6.35 | | 7.19 |
| | 5 240 | | 6.35 | | 7.19 |
| U-NII 2A | 5 260 | | 6.38 | | 7.22 |
| | 5 300 | | 6.25 | | 7.09 |
| | 5 320 | | 6.35 | | 7.19 |
| U-NII 2C | 5 500 | | 3.97 | | 4.81 |
| | 5 580 | | 4.26 | | 5.10 |
| | 5 700 | | 4.52 | | 5.36 |
| U-NII 3 | 5 745 | | 1.61 | | 2.45 |
| | 5 785 | | 1.86 | | 2.70 |
| | 5 825 | | 1.63 | | 2.47 |

| Band | Frequency (㎒) | Data Rate (Mbps) | Average Power Result (㏈m) | Antenna Gain (㏈i) | E.I.R.P. (㏈m) |
|---|---|---|---|---|---|
| U-NII 1 | 5 180 | MCS2 | 7.18 | 3.49 | 10.67 |
| | 5 220 | | 7.19 | | 10.68 |
| | 5 240 | | 7.19 | | 10.68 |
| U-NII 2A | 5 260 | | 7.22 | 3.98 | 11.20 |
| | 5 300 | | 7.09 | | 11.07 |
| | 5 320 | | 7.19 | | 11.17 |

| Band | FCC Limit | | | | | |
|---|---|---|---|---|---|---|
| | Frequency (㎒) | Fixed Limit (㏈m) | 26 ㏈ BW (㎒) | 11+10LogB (㏈m) | Antenna Gain (㏈i) | Limit (㏈m) |
| U-NII 1 | 5 180 | 23.98 | | | 3.49 | 23.98 |
| | 5 220 | | | | | |
| | 5 240 | | | | | |
| U-NII 2A | 5 260 | | 21.259 | 24.28 | 3.98 | |
| | 5 300 | | 21.219 | 24.27 | | |
| | 5 320 | | 21.299 | 24.28 | | |
| U-NII 2C | 5 500 | | 21.259 | 24.28 | 4.83 | |
| | 5 580 | | 21.299 | 24.28 | | |
| | 5 700 | | 21.379 | 24.30 | | |
| U-NII 3 | 5 745 | 30 | | | 2.30 | 30 |
| | 5 785 | | | | | |
| | 5 825 | | | | | |

| Band | IC Limit | | | | | |
|---|---|---|---|---|---|---|
| | Frequency (㎒) | Fixed Limit (dB m) | 99 % BW (㎒) | 1.76+10LogB (dB m) | Antenna Gain (dB i) | Limit (dB m) |
| U-NII 1 | 5 180 | 14.77 | 17.942 | 14.30 | 3.49 | 14.30 |
| | 5 220 | | 17.942 | 14.30 | | 14.30 |
| | 5 240 | | 17.902 | 14.29 | | 14.29 |
| U-NII 2A | 5 260 | | 17.942 | 14.30 | 3.98 | 14.30 |
| | 5 300 | | 17.942 | 14.30 | | 14.30 |
| | 5 320 | | 17.942 | 14.30 | | 14.30 |

| Band | IC Limit | | | | | |
|---|---|---|---|---|---|---|
| | Frequency (㎒) | Fixed Limit (dB m) | 99 % BW (㎒) | 11+10LogB (dB m) | Antenna Gain (dB i) | Limit (dB m) |
| U-NII 2C | 5 500 | 23.98 | 17.942 | 23.54 | 4.83 | 23.54 |
| | 5 580 | | 17.982 | 23.55 | | 23.55 |
| | 5 720 | | 17.942 | 23.54 | | 23.54 |
| U-NII 3 | 5 745 | 30 | | | 2.30 | 30 |
| | 5 785 | | | | | |
| | 5 825 | | | | | |

**Remark;**

1. Average Power Result (㏈ m) = Average Power (㏈ m) + Duty Cycle Correction Factor (㏈)
2 E.I.R.P. (㏈ m) = Average Power Result (㏈ m) + Antenna Gain (㏈ i)

**Test mode: 11n_HT40**

| Band | Frequency (㎒) | Data Rate (Mbps) | Average Power (㏈m) | Duty Cycle Correction Factor (㏈) | Average Power Result (㏈m) |
|---|---|---|---|---|---|
| U-NII 1 | 5 190 | MCS2 | 4.35 | 0.85 | 5.20 |
| | 5 230 | | 4.40 | | 5.25 |
| U-NII 2A | 5 270 | | 4.22 | | 5.07 |
| | 5 310 | | 4.25 | | 5.10 |
| U-NII 2C | 5 510 | | 3.06 | | 3.91 |
| | 5 550 | | 3.02 | | 3.87 |
| | 5 670 | | 3.19 | | 4.04 |
| U-NII 3 | 5 755 | | 0.36 | | 1.21 |
| | 5 795 | | 0.35 | | 1.20 |

| Band | Frequency (㎒) | Data Rate (Mbps) | Average Power Result (㏈m) | Antenna Gain (㏈i) | E.I.R.P. (㏈m) |
|---|---|---|---|---|---|
| U-NII 1 | 5 190 | MCS2 | 5.20 | 3.49 | 8.69 |
| | 5 230 | | 5.25 | | 8.74 |
| U-NII 2A | 5 270 | | 5.07 | 3.98 | 9.05 |
| | 5 310 | | 5.10 | | 9.08 |

| Band | FCC Limit | | | | | |
|---|---|---|---|---|---|---|
| | Frequency (㎒) | Fixed Limit (㏈m) | 26 ㏈ BW (㎒) | 11+10LogB (㏈m) | Antenna Gain (㏈i) | Limit (㏈m) |
| U-NII 1 | 5 190 | 23.98 | | | 3.49 | 23.98 |
| | 5 230 | | | | | |
| U-NII 2A | 5 270 | | 39.960 | 27.02 | 3.98 | |
| | 5 310 | | 39.960 | 27.02 | | |
| U-NII 2C | 5 510 | | 39.960 | 27.02 | 4.83 | |
| | 5 550 | | 39.800 | 27.00 | | |
| | 5 670 | | 39.960 | 27.02 | | |
| U-NII 3 | 5 755 | 30 | | | 2.30 | 30 |
| | 5 795 | | | | | |

| Band | IC Limit | | | | | |
|---|---|---|---|---|---|---|
| | Frequency (MHz) | Fixed Limit (dB m) | 99 % BW (MHz) | 1.76+10LogB (dB m) | Antenna Gain (dB i) | Limit (dB m) |
| U-NII 1 | 5 190 | 14.77 | 36.124 | 17.34 | 3.49 | 14.77 |
| | 5 230 | | 36.204 | 17.35 | | |
| U-NII 2A | 5 270 | | 36.124 | 17.34 | 3.98 | |
| | 5 310 | | 36.124 | 17.34 | | |

| Band | IC Limit | | | | | |
|---|---|---|---|---|---|---|
| | Frequency (MHz) | Fixed Limit (dB m) | 99 % BW (MHz) | 11+10LogB (dB m) | Antenna Gain (dB i) | Limit (dB m) |
| U-NII 2C | 5 510 | 23.98 | 36.204 | 26.59 | 4.83 | 23.98 |
| | 5 550 | | 36.284 | 26.60 | | |
| | 5 710 | | 36.204 | 26.59 | | |
| U-NII 3 | 5 755 | 30 | | | 2.30 | 30 |
| | 5 795 | | | | | |

**Remark;**

1. Average Power Result (dB m) = Average Power (dB m) + Duty Cycle Correction Factor (dB)
2. E.I.R.P. (dB m) = Average Power Result (dB m) + Antenna Gain (dB i)

**Test mode: 11ac_VHT80**

| Band | Frequency (㎒) | Data Rate (Mbps) | Average Power (㏈m) | Duty Cycle Correction Factor (㏈) | Average Power Result (㏈m) |
|---|---|---|---|---|---|
| U-NII 1 | 5 210 | MCS5 | 1.89 | 3.52 | 5.41 |
| U-NII 2A | 5 290 | | 2.45 | | 5.97 |
| U-NII 2C | 5 530 | | 1.13 | | 4.65 |
| U-NII 3 | 5 775 | | -1.53 | | 1.99 |

| Band | Frequency (㎒) | Data Rate (Mbps) | Average Power Result (㏈m) | Antenna Gain (㏈i) | E.I.R.P. (㏈m) |
|---|---|---|---|---|---|
| U-NII 1 | 5 210 | MCS5 | 5.41 | 3.49 | 8.90 |
| U-NII 2A | 5 290 | | 5.97 | 3.98 | 9.95 |

| Band | FCC Limit | | | | | |
|---|---|---|---|---|---|---|
| | Frequency (㎒) | Fixed Limit (㏈m) | 26 ㏈ BW (㎒) | 11+10LogB (㏈m) | Antenna Gain (㏈i) | Limit (㏈m) |
| U-NII 1 | 5 210 | 23.98 | | | 3.49 | 23.98 |
| U-NII 2A | 5 290 | | 82.158 | 30.15 | 3.98 | |
| U-NII 2C | 5 530 | | 82.318 | 30.15 | 4.83 | |
| U-NII 3 | 5 775 | 30 | | | 2.30 | 30 |

| Band | IC Limit | | | | | |
|---|---|---|---|---|---|---|
| | Frequency (㎒) | Fixed Limit (㏈m) | 99 % BW (㎒) | 1.76+10LogB (㏈m) | Antenna Gain (㏈i) | Limit (㏈m) |
| U-NII 1 | 5 210 | 14.77 | 75.924 | 20.56 | 3.49 | 14.77 |
| U-NII 2A | 5 290 | | 75.764 | 20.55 | 3.98 | |

| Band | IC Limit | | | | | |
|---|---|---|---|---|---|---|
| | Frequency (㎒) | Fixed Limit (㏈m) | 99 % BW (㎒) | 11+10LogB (㏈m) | Antenna Gain (㏈i) | Limit (㏈m) |
| U-NII 2C | 5 530 | 23.98 | 75.924 | 29.80 | 4.83 | 23.98 |
| U-NII 3 | 5 775 | 30 | | | 2.30 | 30 |

**Remark;**

1. Average Power Result (㏈m) = Average Power (㏈m) + Duty Cycle Correction Factor (㏈)
2. E.I.R.P. (㏈m) = Average Power Result (㏈m) + Antenna Gain (㏈i)

**- Band-crossing channels**

| Mode | Band | Frequency (㎒) | Data Rate (Mbps) | Average Power (㏈ m) | Duty Cycle Correction Factor (㏈) | Average Power Result (㏈ m) |
|---|---|---|---|---|---|---|
| 11a | U-NII 2C | 5 720 | 12 Mbps | 2.69 | 0.57 | 3.26 |
| | U-NII 3 | | | -4.59 | | -4.02 |
| 11ac_VHT20 | U-NII 2C | 5 720 | MCS2 | 2.05 | 0.84 | 2.89 |
| | U-NII 3 | | | -4.38 | | -3.54 |
| 11n_HT40 | U-NII 2C | 5 710 | MCS2 | 1.82 | 0.85 | 2.67 |
| | U-NII 3 | | | -9.87 | | -9.02 |
| 11ac_VHT80 | U-NII 2C | 5 690 | MCS5 | -0.22 | 3.52 | 3.30 |
| | U-NII 3 | | | -13.60 | | -10.08 |

| Mode | Band | Limit | | | | | |
|---|---|---|---|---|---|---|---|
| | | Frequency (㎒) | Fixed Limit (㏈ m) | 26 ㏈ BW (㎒) | 11+10LogB (㏈ m) | Antenna Gain (㏈ i) | Limit (㏈ m) |
| 11a | U-NII 2C | 5 720 | 23.98 | 15.589 | 22.93 | 4.83 | 22.93 |
| | U-NII 3 | | 30 | | | 2.30 | 30 |
| 11ac_VHT20 | U-NII 2C | 5 720 | 23.98 | 15.749 | 22.97 | 4.83 | 22.93 |
| | U-NII 3 | | 30 | | | 2.30 | 30 |
| 11n_HT40 | U-NII 2C | 5 710 | 23.98 | 34.980 | 26.44 | 4.83 | 23.98 |
| | U-NII 3 | | 30 | | | 2.30 | 30 |
| 11ac_VHT80 | U-NII 2C | 5 690 | 23.98 | 76.079 | 29.81 | 4.83 | 23.98 |
| | U-NII 3 | | 30 | | | 2.30 | 30 |

**Remark;**

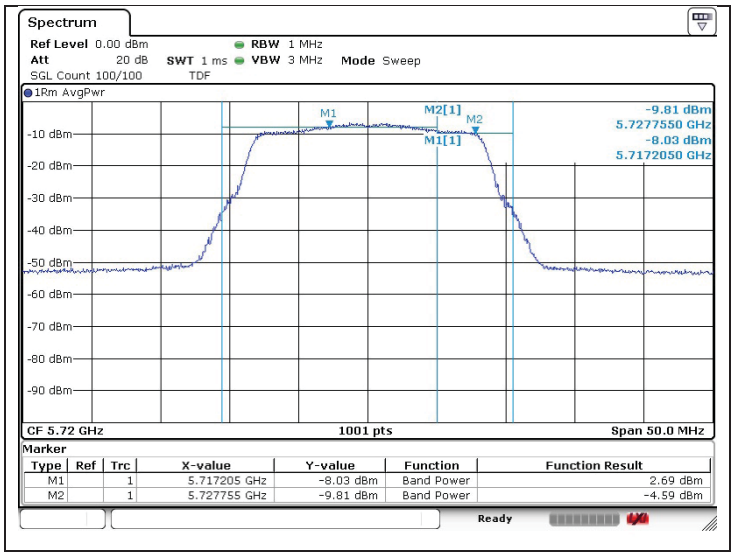
1. Average Power Result (㏈ m) = Average Power (㏈ m) + Duty Cycle Correction Factor (㏈)

**- Test plots**

**Band-crossing channels**

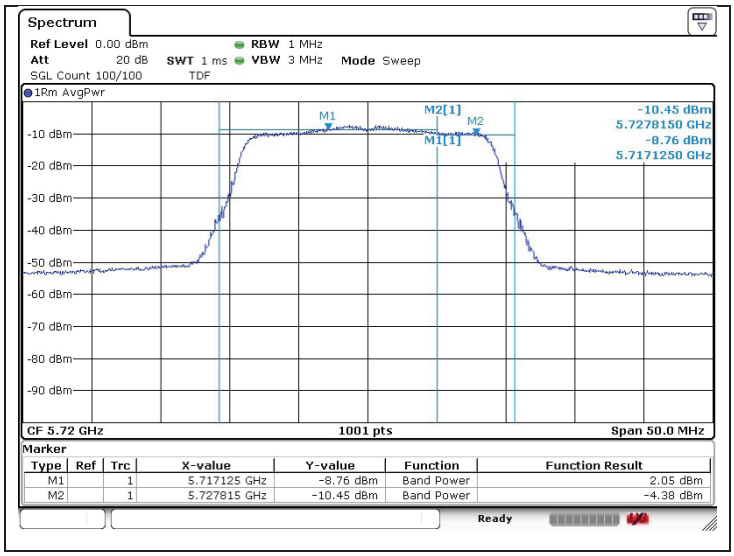
**802.11a (Band 2C&3)**

High Channel
(5 720 ㎒)



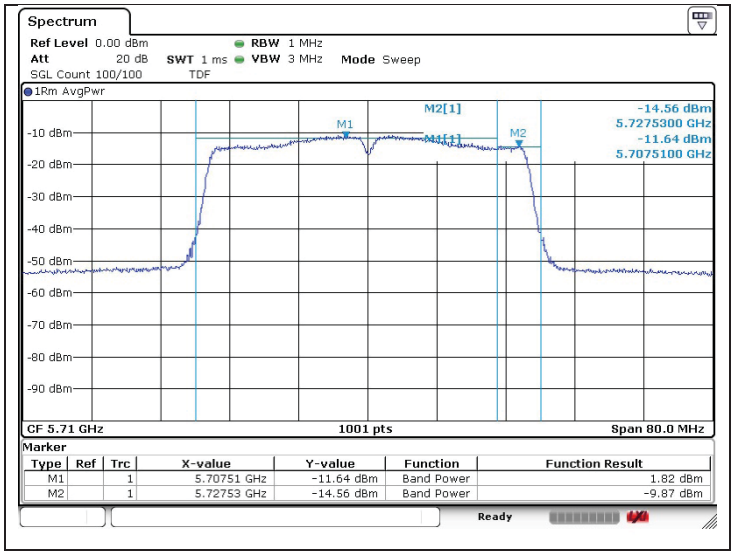

**802.11ac_VHT20 (Band 2C&3)**

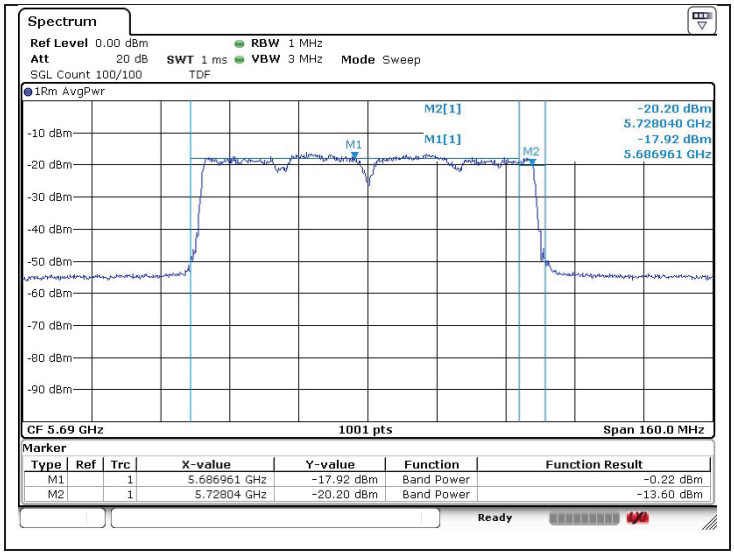
High Channel
(5 720 ㎒)



**802.11n_HT40 (Band 2C&3)**

High Channel
(5 710 ㎒)




**802.11ac_VHT80 (Band 2C&3)**

Middle Channel
(5 690 ㎒)