## 8.7.2 RADIATED RESTRICTED BAND EDGE MEASUREMENTS

### Test Requirements and limit, §15.247(d) §15.205, §15.209

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in section 15.209(a) (See section 15.205(c)).

### Monitoring MIMO(Ant 1 & 2)

| | |
|---|---|
| Band : | UNII 2 |
| Operation Mode: | 802.11 a |
| Transfer Rate: | 6 Mbps |
| Operating Frequency | 5320 MHz |
| Channel No. | 64 Ch |

| Frequency [MHz] | Reading dBuV | AN.+CL+AMP+ATT. [dB] | ANT. POL [H/V] | Total [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Detect |
|---|---|---|---|---|---|---|---|
| 5350 | 53.06 | -0.19 | H | 52.87 | 73.98 | 21.11 | PK |
| 5350 | 38.12 | -0.19 | H | 37.93 | 53.98 | 16.05 | AV |
| 5350 | 52.99 | -0.19 | V | 52.80 | 73.98 | 21.18 | PK |
| 5350 | 38.54 | -0.19 | V | 38.35 | 53.98 | 15.63 | AV |

| | |
|---|---|
| Band : | UNII 2 |
| Operation Mode: | 802.11 n_20 MHz BW |
| Transfer Rate: | 6 Mbps |
| Operating Frequency | 5320 MHz |
| Channel No. | 64 Ch |

| Frequency [MHz] | Reading dBuV | AN.+CL+AMP+ATT. [dB] | ANT. POL [H/V] | Total [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Detect |
|---|---|---|---|---|---|---|---|
| 5350 | 52.64 | -0.19 | H | 52.45 | 73.98 | 21.53 | PK |
| 5350 | 38.05 | -0.19 | H | 37.86 | 53.98 | 16.12 | AV |
| 5350 | 52.77 | -0.19 | V | 52.58 | 73.98 | 21.40 | PK |
| 5350 | 38.14 | -0.19 | V | 37.95 | 53.98 | 16.03 | AV |

| | |
|---|---|
| Band : | UNII 2 |
| Operation Mode: | 802.11n_40 MHz BW |
| Transfer Rate: | 13.5 Mbps |
| Operating Frequency | 5310 MHz |
| Channel No. | 62 Ch |

| Frequency [MHz] | Reading dBuV | AN.+CL+AMP+ATT. [dB] | ANT. POL [H/V] | Total [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Detect |
|---|---|---|---|---|---|---|---|
| 5350 | 53.02 | -0.19 | H | 52.83 | 73.98 | 21.15 | PK |
| 5350 | 38.56 | -0.19 | H | 38.37 | 53.98 | 15.61 | AV |
| 5350 | 53.01 | -0.19 | V | 52.82 | 73.98 | 21.16 | PK |
| 5350 | 38.44 | -0.19 | V | 38.25 | 53.98 | 15.73 | AV |

**Notes:**

1. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain + ATT
2. We have done all data rate in 802.11a/n mode test. . Worst case of EUT is lowest data rate in 802.11a/n
3. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

| | |
|---|---|
| Band : | UNII 2e |
| Operation Mode: | 802.11 a |
| Transfer Rate: | 6 Mbps |
| Operating Frequency | 5500 MHz |
| Channel No. | 100 Ch |

| Frequency [MHz] | Reading DBuV | AN.+CL+AMP+ATT. [dB] | ANT. POL [H/V] | Total [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Detect |
|---|---|---|---|---|---|---|---|
| 5460 | 52.01 | 0.38 | H | 52.39 | 73.98 | 21.59 | PK |
| 5460 | 39.01 | 0.38 | H | 39.39 | 53.98 | 14.59 | AV |
| *5470 | 52.55 | 0.24 | H | 52.79 | 68.20 | 15.41 | PK |
| 5460 | 52.44 | 0.38 | V | 52.82 | 73.98 | 21.16 | PK |
| 5460 | 39.12 | 0.38 | V | 39.50 | 53.98 | 14.48 | AV |
| *5470 | 52.78 | 0.24 | V | 53.02 | 68.20 | 15.18 | PK |

| | |
|---|---|
| Band : | UNII 2e |
| Operation Mode: | 802.11 a |
| Transfer Rate: | 6 Mbps |
| Operating Frequency | 5700 MHz |
| Channel No. | 140 Ch |

| Frequency [MHz] | Reading DBuV | AN.+CL+AMP+ATT. [dB] | ANT. POL [H/V] | Total [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Detect |
|---|---|---|---|---|---|---|---|
| *5725 | 52.12 | 1.05 | H | 53.17 | 68.20 | 15.04 | PK |
| *5725 | 52.09 | 1.05 | V | 53.14 | 68.20 | 15.07 | PK |

| | |
|---|---|
| Band : | UNII 2e |
| Operation Mode: | 802.11 n_20 MHz BW |
| Transfer Rate: | 6 Mbps |
| Operating Frequency | 5500 MHz |
| Channel No. | 100 Ch |

| Frequency [MHz] | Reading DBuV | AN.+CL+AMP+ATT. [dB] | ANT. POL [H/V] | Total [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Detect |
|---|---|---|---|---|---|---|---|
| 5460 | 52.36 | 0.38 | H | 52.74 | 73.98 | 21.24 | PK |
| 5460 | 38.79 | 0.38 | H | 39.17 | 53.98 | 14.81 | AV |
| *5470 | 53.02 | 0.24 | H | 53.26 | 68.20 | 14.94 | PK |
| 5460 | 52.63 | 0.38 | V | 53.01 | 73.98 | 20.97 | PK |
| 5460 | 38.91 | 0.38 | V | 39.29 | 53.98 | 14.69 | AV |
| *5470 | 53.21 | 0.24 | V | 53.45 | 68.20 | 14.75 | PK |

| | |
|---|---|
| Band : | UNII 2e |
| Operation Mode: | 802.11 n_20 MHz BW |
| Transfer Rate: | 6.5 Mbps |
| Operating Frequency | 5700 MHz |
| Channel No. | 140 Ch |

| Frequency [MHz] | Reading DBuV | AN.+CL+AMP+ATT. [dB] | ANT. POL [H/V] | Total [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Detect |
|---|---|---|---|---|---|---|---|
| *5725 | 53.00 | 1.05 | H | 54.05 | 68.20 | 14.16 | PK |
| *5725 | 52.68 | 1.05 | V | 53.73 | 68.20 | 14.48 | AV |

| | |
|---|---|
| Band : | UNII 2e |
| Operation Mode: | 802.11n_40 MHz BW |
| Transfer Rate: | 13.5 Mbps |
| Operating Frequency | 5510 MHz |
| Channel No. | 102 Ch |

| Frequency [MHz] | Reading dBuV | AN.+CL+AMP+ATT. [dB] | ANT. POL [H/V] | Total [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Detect |
|---|---|---|---|---|---|---|---|
| 5460 | 53.08 | 0.38 | H | 53.46 | 73.98 | 20.52 | PK |
| 5460 | 38.94 | 0.38 | H | 39.32 | 53.98 | 14.66 | AV |
| *5470 | 53.44 | 0.24 | H | 53.68 | 68.20 | 14.52 | PK |
| 5460 | 52.31 | 0.38 | V | 52.69 | 73.98 | 21.29 | PK |
| 5460 | 38.90 | 0.38 | V | 39.28 | 53.98 | 14.70 | AV |
| *5470 | 53.04 | 0.24 | V | 53.28 | 68.20 | 14.92 | PK |

| | |
|---|---|
| Band : | UNII 2e |
| Operation Mode: | 802.11 n_40 MHz BW |
| Transfer Rate: | 13.5 Mbps |
| Operating Frequency | 5670 MHz |
| Channel No. | 134 Ch |

| Frequency [MHz] | Reading DBuV | AN.+CL+AMP+ATT. [dB] | ANT. POL [H/V] | Total [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Detect |
|---|---|---|---|---|---|---|---|
| *5725 | 52.66 | 1.05 | H | 53.71 | 68.20 | 14.50 | PK |
| *5725 | 54.12 | 1.05 | V | 55.17 | 68.20 | 13.04 | AV |

**Notes:**

1. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain + ATT
2. We have done all data rate in 802.11a/n mode test. . Worst case of EUT is lowest data rate in 802.11a/n
3. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.
4. '*' is radiated band edge test frequency.(not restricted band emissions)

**Service MIMO(Ant 1 & 2 & 3)**

| | |
|---|---|
| Band : | UNII 2 |
| Operation Mode: | 802.11 a |
| Transfer Rate: | 6 Mbps |
| Operating Frequency | 5320 MHz |
| Channel No. | 64 Ch |

| Frequency [MHz] | Reading dBuV | AN.+CL+AMP+ATT. [dB] | ANT. POL [H/V] | Total [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Detect |
|---|---|---|---|---|---|---|---|
| 5350 | 53.12 | -0.19 | H | 52.93 | 73.98 | 21.05 | PK |
| 5350 | 38.77 | -0.19 | H | 38.58 | 53.98 | 15.40 | AV |
| 5350 | 53.79 | -0.19 | V | 53.60 | 73.98 | 20.38 | PK |
| 5350 | 38.92 | -0.19 | V | 38.73 | 53.98 | 15.25 | AV |

| | |
|---|---|
| Band : | UNII 2 |
| Operation Mode: | 802.11 n_20 MHz BW |
| Transfer Rate: | 6 Mbps |
| Operating Frequency | 5320 MHz |
| Channel No. | 64 Ch |

| Frequency [MHz] | Reading dBuV | AN.+CL+AMP+ATT. [dB] | ANT. POL [H/V] | Total [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Detect |
|---|---|---|---|---|---|---|---|
| 5350 | 50.99 | -0.19 | H | 50.80 | 73.98 | 23.18 | PK |
| 5350 | 38.75 | -0.19 | H | 38.56 | 53.98 | 15.42 | AV |
| 5350 | 51.95 | -0.19 | V | 51.76 | 73.98 | 22.22 | PK |
| 5350 | 38.98 | -0.19 | V | 38.79 | 53.98 | 15.19 | AV |

| | |
|---|---|
| Band : | UNII 2 |
| Operation Mode: | 802.11n_40 MHz BW |
| Transfer Rate: | 13.5 Mbps |
| Operating Frequency | 5310 MHz |
| Channel No. | 62 Ch |

| Frequency [MHz] | Reading dBuV | AN.+CL+AMP+ATT. [dB] | ANT. POL [H/V] | Total [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Detect |
|---|---|---|---|---|---|---|---|
| 5350 | 63.12 | -0.19 | H | 62.93 | 73.98 | 11.05 | PK |
| 5350 | 46.23 | -0.19 | H | 46.04 | 53.98 | 7.94 | AV |
| 5350 | 65.73 | -0.19 | V | 65.54 | 73.98 | 8.44 | PK |
| 5350 | 48.49 | -0.19 | V | 48.30 | 53.98 | 5.68 | AV |

**Notes:**

1. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain + ATT
2. We have done all data rate in 802.11a/n mode test. . Worst case of EUT is lowest data rate in 802.11a/n
3. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

| | |
|---|---|
| Band : | UNII 2e |
| Operation Mode: | 802.11 a |
| Transfer Rate: | 6 Mbps |
| Operating Frequency | 5500 MHz |
| Channel No. | 100 Ch |

| Frequency [MHz] | Reading DBuV | AN.+CL+AMP+ATT. [dB] | ANT. POL [H/V] | Total [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Detect |
|---|---|---|---|---|---|---|---|
| 5460 | 52.44 | 0.38 | H | 52.82 | 73.98 | 21.16 | PK |
| 5460 | 39.17 | 0.38 | H | 39.55 | 53.98 | 14.43 | AV |
| *5470 | 52.88 | 0.24 | H | 53.12 | 68.20 | 15.08 | PK |
| 5460 | 53.41 | 0.38 | V | 53.79 | 73.98 | 20.19 | PK |
| 5460 | 39.55 | 0.38 | V | 39.93 | 53.98 | 14.05 | AV |
| *5470 | 53.65 | 0.24 | V | 53.89 | 68.20 | 14.31 | PK |

| | |
|---|---|
| Band : | UNII 2e |
| Operation Mode: | 802.11 a |
| Transfer Rate: | 6 Mbps |
| Operating Frequency | 5700 MHz |
| Channel No. | 140 Ch |

| Frequency [MHz] | Reading DBuV | AN.+CL+AMP+ATT. [dB] | ANT. POL [H/V] | Total [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Detect |
|---|---|---|---|---|---|---|---|
| *5725 | 52.64 | 1.05 | H | 53.69 | 68.20 | 14.52 | PK |
| *5725 | 52.59 | 1.05 | V | 53.64 | 68.20 | 14.57 | PK |

| | |
|---|---|
| Band : | UNII 2e |
| Operation Mode: | 802.11 n_20 MHz BW |
| Transfer Rate: | 6 Mbps |
| Operating Frequency | 5500 MHz |
| Channel No. | 100 Ch |

| Frequency [MHz] | Reading DBuV | AN.+CL+AMP+ATT. [dB] | ANT. POL [H/V] | Total [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Detect |
|---|---|---|---|---|---|---|---|
| 5460 | 52.36 | 0.38 | H | 52.74 | 73.98 | 21.24 | PK |
| 5460 | 39.01 | 0.38 | H | 39.39 | 53.98 | 14.59 | AV |
| *5470 | 53.00 | 0.24 | H | 53.24 | 68.20 | 14.96 | PK |
| 5460 | 53.24 | 0.38 | V | 53.62 | 73.98 | 20.36 | PK |
| 5460 | 39.12 | 0.38 | V | 39.5 | 53.98 | 14.48 | AV |
| *5470 | 53.36 | 0.24 | V | 53.6 | 68.20 | 14.60 | PK |

| | |
|---|---|
| Band : | UNII 2e |
| Operation Mode: | 802.11 n_20 MHz BW |
| Transfer Rate: | 6.5 Mbps |
| Operating Frequency | 5700 MHz |
| Channel No. | 140 Ch |

| Frequency [MHz] | Reading DBuV | AN.+CL+AMP+ATT. [dB] | ANT. POL [H/V] | Total [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Detect |
|---|---|---|---|---|---|---|---|
| *5725 | 52.05 | 1.05 | H | 53.10 | 68.20 | 15.11 | PK |
| *5725 | 53.00 | 1.05 | V | 54.05 | 68.20 | 14.16 | AV |

| | |
|---|---|
| Band : | UNII 2e |
| Operation Mode: | 802.11n_40 MHz BW |
| Transfer Rate: | 13.5 Mbps |
| Operating Frequency | 5510 MHz |
| Channel No. | 102 Ch |

| Frequency [MHz] | Reading dBuV | AN.+CL+AMP+ATT. [dB] | ANT. POL [H/V] | Total [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Detect |
|---|---|---|---|---|---|---|---|
| 5460 | 51.88 | 0.38 | H | 52.26 | 73.98 | 21.72 | PK |
| 5460 | 38.56 | 0.38 | H | 38.94 | 53.98 | 15.04 | AV |
| *5470 | 53.56 | 0.24 | H | 53.8 | 68.20 | 14.40 | PK |
| 5460 | 52.50 | 0.38 | V | 52.88 | 73.98 | 21.10 | PK |
| 5460 | 39.12 | 0.38 | V | 39.5 | 53.98 | 14.48 | AV |
| *5470 | 58.46 | 0.24 | V | 58.7 | 68.20 | 9.50 | PK |

| | |
|---|---|
| Band : | UNII 2e |
| Operation Mode: | 802.11 n_40 MHz BW |
| Transfer Rate: | 13.5 Mbps |
| Operating Frequency | 5670 MHz |
| Channel No. | 134 Ch |

| Frequency [MHz] | Reading DBuV | AN.+CL+AMP+ATT. [dB] | ANT. POL [H/V] | Total [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Detect |
|---|---|---|---|---|---|---|---|
| *5725 | 52.19 | 1.05 | H | 53.24 | 68.20 | 14.97 | PK |
| *5725 | 53.24 | 1.05 | V | 54.29 | 68.20 | 13.92 | AV |

**Notes:**

1. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain + ATT
2. We have done all data rate in 802.11a/n mode test. . Worst case of EUT is lowest data rate in 802.11a/n
3. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.
4. '*' is radiated band edge test frequency.(not restricted band emissions)

## 8.8 POWERLINE CONDUCTED EMISSIONS

**Test Requirements and limit, §15.207**

For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed 250 microvolts (The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz). The limits at specific frequency range is listed as follows:

| Frequency Range (MHz) | Limits (dBμV) | |
|---|---|---|
| | Quasi-peak | Average |
| 0.15 to 0.50 | 66 to 56 | 56 to 46 |
| 0.50 to 5 | 56 | 46 |
| 5 to 30 | 60 | 50 |

Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

**Test Configuration**

See test photographs attached in Appendix 1 for the actual connections between EUT and support equipment.

**TEST PROCEDURE**

1. The EUT is placed on a wooden table 80 cm above the reference groundplane.
2. The EUT is connected via LISN to a test power supply.
3. The measurement results are obtained as described below:
4. Detectors – Quasi Peak and Average Detector.
5. We are performed the AC Power Line Conducted Emission test for 135 Mbps, Ch.54 and 802.11n_40 MHz BW mode in UNII 2_3 TX MIMO. Because the mode in UNII 2 is worst case.

## ▣ RESULT PLOTS

### Conducted Emissions (Line 1)

*HCT*

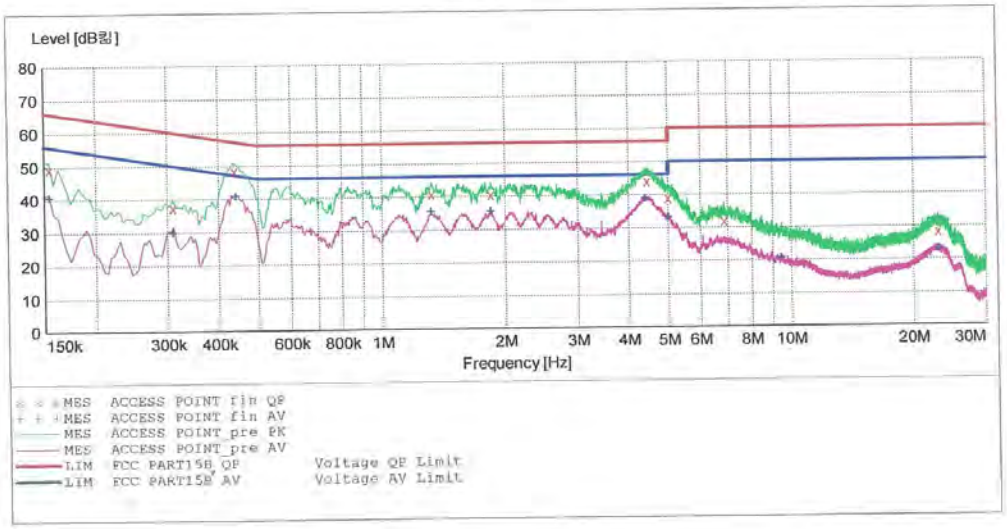
*EMC*

| | |
|---|---|
| EUT: | WEA303i |
| Manufacturer: | SAMSUNG |
| Operating Condition: | 5GHz WLAN MODE |
| Test Site: | SHIELD ROOM |
| Operator: | JS LEE |
| Test Specification: | FCC PART15 C |
| Comment: | H |

***SCAN TABLE: "FCC CLASS B(H)"***

Short Description: KN22 CLASS B

| Start Frequency | Stop Frequency | Step Width | Detector | Meas. Time | IF Bandw. | Transducer |
|---|---|---|---|---|---|---|
| 150.0 kHz | 500.0 kHz | 4.0 kHz | MaxPeak<br>Average | 10.0 ms | 9 kHz | None |
| 500.0 kHz | 5.0 MHz | 4.0 kHz | MaxPeak<br>Average | 10.0 ms | 9 kHz | None |
| 5.0 MHz | 30.0 MHz | 4.0 kHz | MaxPeak<br>Average | 10.0 ms | 9 kHz | None |




***MEASUREMENT RESULT: "ACCESS POINT_fin QP"***

2013-11-03 7:59오후

| Frequency MHz | Level dBµV | Transd dB | Limit dBµV | Margin dB | Line | PE |
|---|---|---|---|---|---|---|
| 0.154001 | 49.10 | 9.8 | 66 | 16.7 | --- | --- |
| 0.310001 | 37.30 | 9.8 | 60 | 22.7 | --- | --- |
| 0.438001 | 48.30 | 9.8 | 57 | 8.8 | --- | --- |
| 1.324000 | 40.70 | 9.9 | 56 | 15.3 | --- | --- |
| 1.848000 | 40.50 | 9.9 | 56 | 15.5 | --- | --- |
| 4.452000 | 43.90 | 10.2 | 56 | 12.1 | --- | --- |
| 5.000000 | 38.90 | 10.2 | 56 | 17.1 | --- | --- |
| 6.856000 | 31.80 | 10.3 | 60 | 28.2 | --- | --- |
| 22.964000 | 28.30 | 11.1 | 60 | 31.7 | --- | --- |

Page 1/2 2013-11-03 8:00오후 HCT EMC LAB

**MEASUREMENT RESULT: "ACCESS POINT_fin AV"**

2013-11-03 7:59오후

| Frequency MHz | Level dBµV | Transd dB | Limit dBµV | Margin dB | Line | PE |
|---|---|---|---|---|---|---|
| 0.154001 | 40.60 | 9.8 | 56 | 15.2 | --- | --- |
| 0.310001 | 29.80 | 9.8 | 50 | 20.2 | --- | --- |
| 0.442001 | 40.70 | 9.8 | 47 | 6.3 | --- | --- |
| 1.320000 | 35.50 | 9.9 | 46 | 10.5 | --- | --- |
| 1.848000 | 35.50 | 9.9 | 46 | 10.5 | --- | --- |
| 4.408000 | 38.90 | 10.2 | 46 | 7.1 | --- | --- |
| 5.000000 | 33.20 | 10.2 | 46 | 12.8 | --- | --- |
| 9.468000 | 20.70 | 10.4 | 50 | 29.3 | --- | --- |
| 23.056000 | 23.10 | 11.1 | 50 | 26.9 | --- | --- |

Page 2/2 2013-11-03 8:00오후 HCT EMC LAB

## Conducted Emissions (Line 2)

**HCT**

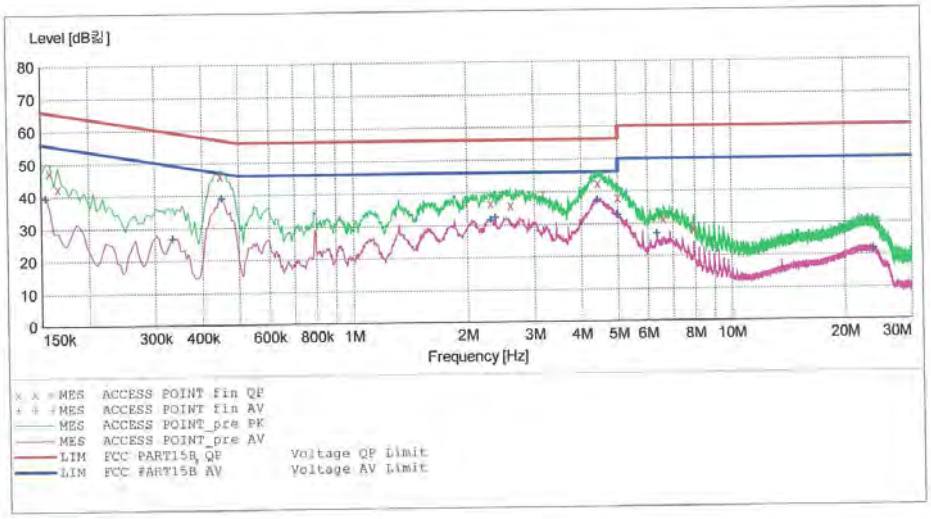
**EMC**

| | |
|---|---|
| EUT: | WEA303i |
| Manufacturer: | SAMSUNG |
| Operating Condition: | 5GHz WLAN MODE |
| Test Site: | SHIELD ROOM |
| Operator: | JS LEE |
| Test Specification: | FCC PART15 B |
| Comment: | N |

**SCAN TABLE: "FCC CLASS B(N)"**

Short Description: KN22 CLASS B

| Start Frequency | Stop Frequency | Step Width | Detector | Meas. Time | IF Bandw. | Transducer |
|---|---|---|---|---|---|---|
| 150.0 kHz | 500.0 kHz | 4.0 kHz | MaxPeak<br>Average | 10.0 ms | 9 kHz | None |
| 500.0 kHz | 5.0 MHz | 4.0 kHz | MaxPeak<br>Average | 10.0 ms | 9 kHz | None |
| 5.0 MHz | 30.0 MHz | 4.0 kHz | MaxPeak<br>Average | 10.0 ms | 9 kHz | None |




**MEASUREMENT RESULT: "ACCESS POINT_fin QP"**

2013-11-03 7:54오후

| Frequency MHz | Level dBµV | Transd dB | Limit dBµV | Margin dB | Line | PE |
|---|---|---|---|---|---|---|
| 0.158001 | 47.50 | 10.0 | 66 | 18.1 | --- | --- |
| 0.166001 | 42.40 | 10.0 | 65 | 22.8 | --- | --- |
| 0.446001 | 46.00 | 10.0 | 57 | 11.0 | --- | --- |
| 2.308000 | 36.70 | 10.2 | 56 | 19.3 | --- | --- |
| 2.604000 | 36.00 | 10.2 | 56 | 20.0 | --- | --- |
| 4.432000 | 42.40 | 10.3 | 56 | 13.6 | --- | --- |
| 5.000000 | 38.00 | 10.4 | 56 | 18.0 | --- | --- |
| 6.608000 | 31.40 | 10.5 | 60 | 28.6 | --- | --- |
| 7.948000 | 28.40 | 10.6 | 60 | 31.6 | --- | --- |

Page 1/2 2013-11-03 7:54오후 HCT EMC LAB

***MEASUREMENT RESULT: "ACCESS POINT_fin AV"***

2013-11-03 7:54오후

| Frequency MHz | Level dBµV | Transd dB | Limit dBµV | Margin dB | Line | PE |
|---|---|---|---|---|---|---|
| 0.154001 | 39.30 | 10.0 | 56 | 16.5 | --- | --- |
| 0.334001 | 26.80 | 10.0 | 49 | 22.5 | --- | --- |
| 0.450001 | 39.00 | 10.0 | 47 | 7.8 | --- | --- |
| 2.308000 | 31.60 | 10.2 | 46 | 14.4 | --- | --- |
| 2.380000 | 32.30 | 10.2 | 46 | 13.7 | --- | --- |
| 4.428000 | 37.30 | 10.3 | 46 | 8.7 | --- | --- |
| 5.000000 | 32.70 | 10.4 | 46 | 13.3 | --- | --- |
| 6.344000 | 26.90 | 10.5 | 50 | 23.1 | --- | --- |
| 23.756000 | 21.70 | 11.5 | 50 | 28.3 | --- | --- |

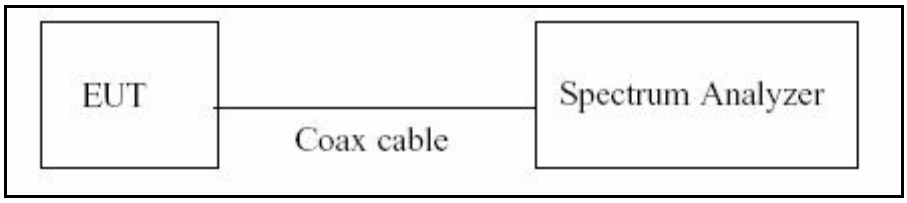
Page 2/2 2013-11-03 7:54오후 HCT EMC LAB

# 9. TEST RESULT(POE)

## 9.1 DUTY CYCLE

The zero-span mode on a spectrum analyzer or EMI receiver ,if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the on and off times of the transmitted signal. Set the center frequency of the instrument to the center frequency of the transmission. Set RBW ≥ EBW if possible; otherwise, set RBW to the largest available value. Set VBW ≥ RBW. Set detector = peak or average. The zero-span measurement method shall not be used unless both RBW and VBW are > 50/*T*, where *T* is defined in section B)1)a), and the number of sweep points across duration *T* exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring duty cycle shall not be used if *T* ≤ 16.7 microseconds.)

### ▣ TEST CONFIGURATION




### ▣ TEST PROCEDURE

The transmitter output is connected to the Spectrum Analyzer. We tested accroding to the zero-span measurement method, B)2) in KDB 789033( issued 04/08/2013)
The largest availble value of RBW is 8 MHz and VBW is 50 MHz. The zero-span method of measuring duty cycle shall not be used if T ≤ 6.25 microseconds. (50/6.25 = 8)
The zero-span method was used becaure all measured T data are > 6.25 microseconds and both RBW and VBW are > 50/*T*.

1. RBW = 8 MHz (the largest availble value)
2. VBW = 8 MHz (≥ RBW)
3. SPAN = 0 Hz
4. Detector = Peak
5. Number of points in sweep > 100
6. Trace mode = Clear write
7. Measure $T_{total}$ and $T_{on}$
8. Calculate Duty Cycle = $T_{on}$/ $T_{total}$ and Duty Cycle Factor = 10*log(1/Duty Cycle)

## ▣ Duty Cycle Factor

**Monitoring Port**

| Mode | Data Rate | $T_{on}$ (ms) | $T_{total}$ (ms) | Duty Cycle | Duty Cycle Factor |
|---|---|---|---|---|---|
| 802.11a | 6 | 2.020 | 2.070 | 0.97584541 | 0.106 |
| | 9 | 1.353 | 1.401 | 0.96573876 | 0.151 |
| | 12 | 1.020 | 1.068 | 0.95505618 | 0.200 |
| | 18 | 0.686 | 0.732 | 0.93715847 | 0.282 |
| | 24 | 0.523 | 0.569 | 0.91915641 | 0.366 |
| | 36 | 0.354 | 0.400 | 0.88500000 | 0.531 |
| | 48 | 0.271 | 0.316 | 0.85759494 | 0.667 |
| | 54 | 0.243 | 0.288 | 0.84375000 | 0.738 |
| 802.11n_20 MHz BW | 6.5 | 1.885 | 1.930 | 0.97668394 | 0.102 |
| | 13 | 0.962 | 1.008 | 0.95436508 | 0.203 |
| | 19.5 | 0.654 | 0.700 | 0.93428571 | 0.295 |
| | 26 | 0.498 | 0.544 | 0.91544118 | 0.384 |
| | 39 | 0.347 | 0.392 | 0.88520408 | 0.530 |
| | 52 | 0.267 | 0.312 | 0.85576923 | 0.676 |
| | 58.5 | 0.243 | 0.289 | 0.84083045 | 0.753 |
| | 65 | 0.224 | 0.268 | 0.83582090 | 0.779 |
| 802.11n_40 MHz BW | 13.5 | 0.926 | 0.960 | 0.96458333 | 0.157 |
| | 27 | 0.482 | 0.516 | 0.93410853 | 0.296 |
| | 40.5 | 0.335 | 0.368 | 0.91032609 | 0.408 |
| | 54 | 0.260 | 0.292 | 0.89041096 | 0.504 |
| | 81 | 0.187 | 0.220 | 0.85000000 | 0.706 |
| | 108 | 0.147 | 0.180 | 0.81666667 | 0.880 |
| | 121.5 | 0.136 | 0.168 | 0.80952381 | 0.918 |
| | 135 | 0.128 | 0.160 | 0.80000000 | 0.969 |

Service Port

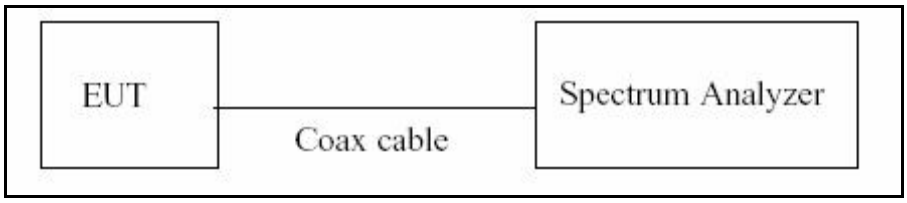
| Mode | Data Rate | $T_{on}$ (ms) | $T_{total}$ (ms) | Duty Cycle | Duty Cycle Factor |
|---|---|---|---|---|---|
| 802.11a | 6 | 1.335 | 1.405 | 0.95017794 | 0.222 |
| | 9 | 0.909 | 0.957 | 0.94984326 | 0.223 |
| | 12 | 0.690 | 0.735 | 0.93877551 | 0.274 |
| | 18 | 0.466 | 0.512 | 0.91015625 | 0.409 |
| | 24 | 0.354 | 0.400 | 0.88500000 | 0.531 |
| | 36 | 0.243 | 0.288 | 0.84375000 | 0.738 |
| | 48 | 0.187 | 0.232 | 0.80603448 | 0.936 |
| | 54 | 0.171 | 0.216 | 0.79166667 | 1.015 |
| 802.11n_20 MHz BW | 6.5 | 1.269 | 1.317 | 0.96355353 | 0.161 |
| | 13 | 0.655 | 0.701 | 0.93437946 | 0.295 |
| | 19.5 | 0.446 | 0.492 | 0.90650407 | 0.426 |
| | 26 | 0.348 | 0.393 | 0.88549618 | 0.528 |
| | 39 | 0.244 | 0.289 | 0.84429066 | 0.735 |
| | 52 | 0.192 | 0.236 | 0.81355932 | 0.896 |
| | 58.5 | 0.176 | 0.220 | 0.80000000 | 0.969 |
| | 65 | 0.159 | 0.204 | 0.77941176 | 1.082 |
| 802.11n_40 MHz BW | 13.5 | 0.630 | 0.664 | 0.94879518 | 0.228 |
| | 27 | 0.334 | 0.368 | 0.90760870 | 0.421 |
| | 40.5 | 0.236 | 0.268 | 0.88059701 | 0.552 |
| | 54 | 0.188 | 0.220 | 0.85454545 | 0.683 |
| | 81 | 0.135 | 0.168 | 0.80357143 | 0.950 |
| | 108 | 0.112 | 0.144 | 0.77777778 | 1.091 |
| | 121.5 | 0.104 | 0.136 | 0.76470588 | 1.165 |
| | 135 | 0.096 | 0.128 | 0.75000000 | 1.249 |

## 9.2 26 dB BANDWIDTH MEASUREMENT

The bandwidth at 26 dB down from the highest in-band spectral density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating at its maximum power control level, as defined in KDB 789033(issued 04/08/2013), at the appropriate frequencies. The spectrum analyzer's bandwidth measurement function is configured to measure the 26 dB bandwidth.

The 26 dB bandwidth is used to determine the conducted power limits.

### ▣ TEST CONFIGURATION




### ▣ TEST PROCEDURE

The transmitter output is connected to the Spectrum Analyzer.

The Spectrum Analyzer is set to( Page 3 in KDB 789033, issued 04/08/2013)

1. RBW = approximately 1 % of the emission bandwidth
2. VBW > RBW
3. Detector = Peak
4. Trace mode = max hold
5. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1 %.

Monitoring Port Ant.1

▣ TEST RESULTS

20 MHz BW

Conducted 26 dB Bandwidth Measurements for 802.11a

| 802.11a Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5260 | 52 | 26.24 | N/A | Pass |
| 5300 | 60 | 24.17 | N/A | Pass |
| 5320 | 64 | 25.53 | N/A | Pass |

Conducted 26 dB Bandwidth Measurements for 802.11a

| 802.11a Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5500 | 100 | 23.39 | N/A | Pass |
| 5600 | 120 | 23.55 | N/A | Pass |
| 5700 | 140 | 24.78 | N/A | Pass |

Conducted 26 dB Bandwidth Measurements for 802.11n

| 802.11n Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5260 | 52 | 26.48 | N/A | Pass |
| 5300 | 60 | 25.53 | N/A | Pass |
| 5320 | 64 | 25.53 | N/A | Pass |

Conducted 26 dB Bandwidth Measurements for 802.11n

| 802.11n Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5500 | 100 | 24.31 | N/A | Pass |
| 5600 | 120 | 24.97 | N/A | Pass |
| 5700 | 140 | 25.90 | N/A | Pass |

**40 MHz BW**

**Conducted 26 dB Bandwidth Measurements for 802.11n**

| 802.11n Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5270 | 54 | 48.79 | N/A | Pass |
| 5310 | 62 | 48.58 | N/A | Pass |

**Conducted 26 dB Bandwidth Measurements for 802.11n**

| 802.11n Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5510 | 102 | 47.86 | N/A | Pass |
| 5590 | 118 | 48.11 | N/A | Pass |
| 5670 | 134 | 49.14 | N/A | Pass |

Monitoring Port Ant.2

▣ TEST RESULTS

20 MHz BW

Conducted 26 dB Bandwidth Measurements for 802.11a

| 802.11a Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5260 | 52 | 28.44 | N/A | Pass |
| 5300 | 60 | 25.75 | N/A | Pass |
| 5320 | 64 | 25.84 | N/A | Pass |

Conducted 26 dB Bandwidth Measurements for 802.11a

| 802.11a Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5500 | 100 | 22.97 | N/A | Pass |
| 5600 | 120 | 22.89 | N/A | Pass |
| 5700 | 140 | 22.82 | N/A | Pass |

Conducted 26 dB Bandwidth Measurements for 802.11n

| 802.11n Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5260 | 52 | 25.51 | N/A | Pass |
| 5300 | 60 | 25.21 | N/A | Pass |
| 5320 | 64 | 26.69 | N/A | Pass |

Conducted 26 dB Bandwidth Measurements for 802.11n

| 802.11n Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5500 | 100 | 24.05 | N/A | Pass |
| 5600 | 120 | 23.22 | N/A | Pass |
| 5700 | 140 | 24.22 | N/A | Pass |

**40 MHz BW**

**Conducted 26 dB Bandwidth Measurements for 802.11n**

| 802.11n Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5270 | 54 | 57.23 | N/A | Pass |
| 5310 | 62 | 67.86 | N/A | Pass |

**Conducted 26 dB Bandwidth Measurements for 802.11n**

| 802.11n Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5510 | 102 | 47.24 | N/A | Pass |
| 5590 | 118 | 48.10 | N/A | Pass |
| 5670 | 134 | 49.51 | N/A | Pass |

Service Port Ant.1

▣ TEST RESULTS

20 MHz BW

Conducted 26 dB Bandwidth Measurements for 802.11a

| 802.11a Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5260 | 52 | 22.08 | N/A | Pass |
| 5300 | 60 | 22.19 | N/A | Pass |
| 5320 | 64 | 21.96 | N/A | Pass |

Conducted 26 dB Bandwidth Measurements for 802.11a

| 802.11a Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5500 | 100 | 22.69 | N/A | Pass |
| 5600 | 120 | 21.73 | N/A | Pass |
| 5700 | 140 | 22.12 | N/A | Pass |

Conducted 26 dB Bandwidth Measurements for 802.11n

| 802.11n Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5260 | 52 | 23.55 | N/A | Pass |
| 5300 | 60 | 23.16 | N/A | Pass |
| 5320 | 64 | 22.61 | N/A | Pass |

Conducted 26 dB Bandwidth Measurements for 802.11n

| 802.11n Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5500 | 100 | 22.45 | N/A | Pass |
| 5600 | 120 | 22.74 | N/A | Pass |
| 5700 | 140 | 23.14 | N/A | Pass |

**40 MHz BW**

**Conducted 26 dB Bandwidth Measurements for 802.11n**

| 802.11n Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5270 | 54 | 45.18 | N/A | Pass |
| 5310 | 62 | 46.35 | N/A | Pass |

**Conducted 26 dB Bandwidth Measurements for 802.11n**

| 802.11n Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5510 | 102 | 46.14 | N/A | Pass |
| 5590 | 118 | 46.49 | N/A | Pass |
| 5670 | 134 | 46.76 | N/A | Pass |

Service Port Ant.2

▣ TEST RESULTS

20 MHz BW

Conducted 26 dB Bandwidth Measurements for 802.11a

| 802.11a Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5260 | 52 | 21.50 | N/A | Pass |
| 5300 | 60 | 21.55 | N/A | Pass |
| 5320 | 64 | 21.56 | N/A | Pass |

Conducted 26 dB Bandwidth Measurements for 802.11a

| 802.11a Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5500 | 100 | 21.59 | N/A | Pass |
| 5600 | 120 | 21.94 | N/A | Pass |
| 5700 | 140 | 22.33 | N/A | Pass |

Conducted 26 dB Bandwidth Measurements for 802.11n

| 802.11n Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5260 | 52 | 22.40 | N/A | Pass |
| 5300 | 60 | 22.93 | N/A | Pass |
| 5320 | 64 | 22.77 | N/A | Pass |

Conducted 26 dB Bandwidth Measurements for 802.11n

| 802.11n Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5500 | 100 | 23.09 | N/A | Pass |
| 5600 | 120 | 22.39 | N/A | Pass |
| 5700 | 140 | 22.37 | N/A | Pass |

**40 MHz BW**

**Conducted 26 dB Bandwidth Measurements for 802.11n**

| 802.11n Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5270 | 54 | 46.51 | N/A | Pass |
| 5310 | 62 | 45.39 | N/A | Pass |

**Conducted 26 dB Bandwidth Measurements for 802.11n**

| 802.11n Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5510 | 102 | 46.61 | N/A | Pass |
| 5590 | 118 | 47.30 | N/A | Pass |
| 5670 | 134 | 44.21 | N/A | Pass |

Service Port Ant.3

▣ TEST RESULTS

20 MHz BW

Conducted 26 dB Bandwidth Measurements for 802.11a

| 802.11a Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5260 | 52 | 22.06 | N/A | Pass |
| 5300 | 60 | 21.45 | N/A | Pass |
| 5320 | 64 | 21.53 | N/A | Pass |

Conducted 26 dB Bandwidth Measurements for 802.11a

| 802.11a Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5500 | 100 | 21.38 | N/A | Pass |
| 5600 | 120 | 22.21 | N/A | Pass |
| 5700 | 140 | 21.60 | N/A | Pass |

Conducted 26 dB Bandwidth Measurements for 802.11n

| 802.11n Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5260 | 52 | 23.10 | N/A | Pass |
| 5300 | 60 | 23.49 | N/A | Pass |
| 5320 | 64 | 22.54 | N/A | Pass |

Conducted 26 dB Bandwidth Measurements for 802.11n

| 802.11n Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5500 | 100 | 22.72 | N/A | Pass |
| 5600 | 120 | 22.54 | N/A | Pass |
| 5700 | 140 | 22.59 | N/A | Pass |

**40 MHz BW**

**Conducted 26 dB Bandwidth Measurements for 802.11n**

| 802.11n Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5270 | 54 | 44.93 | N/A | Pass |
| 5310 | 62 | 44.50 | N/A | Pass |

**Conducted 26 dB Bandwidth Measurements for 802.11n**

| 802.11n Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5510 | 102 | 44.29 | N/A | Pass |
| 5590 | 118 | 44.44 | N/A | Pass |
| 5670 | 134 | 45.55 | N/A | Pass |

**Note :**

2. **In order to simplify the report, attached plots were only the most wide channel.**

**Monitoring Port Ant.1**

**▣ 20 dB BW TEST RESULTS(Additional Test)**

**Conducted 20 dB Bandwidth Measurements for 802.11a**

| 802.11a Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5260 | 52 | 19.93 | N/A | Pass |

**Conducted 20 dB Bandwidth Measurements for 802.11n_20 MHz BW**

| 802.11a Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5260 | 52 | 19.81 | N/A | Pass |

**Conducted 20 dB Bandwidth Measurements for 802.11n_40 MHz BW**

| 802.11a Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5270 | 54 | 39.76 | N/A | Pass |

**Note : We performed the 20 dB BW test to prove that no part of the fundamental emissions of any UNII2 band signal lies within the UNII band 1.**

**Monitoring Port Ant.2**

**▣ 20 dB BW TEST RESULTS(Additional Test)**

**Conducted 20 dB Bandwidth Measurements for 802.11a**

| 802.11a Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5260 | 52 | 18.91 | N/A | Pass |

**Conducted 20 dB Bandwidth Measurements for 802.11n_20 MHz BW**

| 802.11a Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5260 | 52 | 19.98 | N/A | Pass |

**Conducted 20 dB Bandwidth Measurements for 802.11n_40 MHz BW**

| 802.11a Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5270 | 54 | 39.93 | N/A | Pass |

**Note : We performed the 20 dB BW test to prove that no part of the fundamental emissions of any UNII2 band signal lies within the UNII band 1.**

Service Port Ant.1

▣ 20 dB BW TEST RESULTS(Additional Test)

Conducted 20 dB Bandwidth Measurements for 802.11a

| 802.11a Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5260 | 52 | 19.29 | N/A | Pass |

Conducted 20 dB Bandwidth Measurements for 802.11n_20 MHz BW

| 802.11a Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5260 | 52 | 19.51 | N/A | Pass |

Conducted 20 dB Bandwidth Measurements for 802.11n_40 MHz BW

| 802.11a Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5270 | 54 | 39.93 | N/A | Pass |

Note : We performed the 20 dB BW test to prove that no part of the fundamental emissions of any UNII2 band signal lies within the UNII band 1.

Service Port Ant.2

▣ 20 dB BW TEST RESULTS(Additional Test)

Conducted 20 dB Bandwidth Measurements for 802.11a

| 802.11a Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5260 | 52 | 18.56 | N/A | Pass |

Conducted 20 dB Bandwidth Measurements for 802.11n_20 MHz BW

| 802.11a Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5260 | 52 | 19.64 | N/A | Pass |

Conducted 20 dB Bandwidth Measurements for 802.11n_40 MHz BW

| 802.11a Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5270 | 54 | 39.54 | N/A | Pass |

Note : We performed the 20 dB BW test to prove that no part of the fundamental emissions of any UNII2 band signal lies within the UNII band 1.

Service Port Ant.3

▣ 20 dB BW TEST RESULTS(Additional Test)

Conducted 20 dB Bandwidth Measurements for 802.11a

| 802.11a Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5260 | 52 | 18.40 | N/A | Pass |

Conducted 20 dB Bandwidth Measurements for 802.11n_20 MHz BW

| 802.11a Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5260 | 52 | 19.82 | N/A | Pass |

Conducted 20 dB Bandwidth Measurements for 802.11n_40 MHz BW

| 802.11a Mode | | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | |
| 5270 | 54 | 39.51 | N/A | Pass |

Note : We performed the 20 dB BW test to prove that no part of the fundamental emissions of any UNII2 band signal lies within the UNII band 1.

## Monitoring Port Ant.1

## ▣ RESULT PLOTS

## 20 MHz BW

### 26 dB Bandwidth plot (802.11a-CH 52)


### 26 dB Bandwidth plot (802.11a-CH 140)

## 26 dB Bandwidth plot (802.11n-CH 52)


## 26 dB Bandwidth plot (802.11n-CH 140)

## 40 MHz BW

### 26 dB Bandwidth plot (802.11n-CH 54)


### 26 dB Bandwidth plot (802.11n-CH 134)

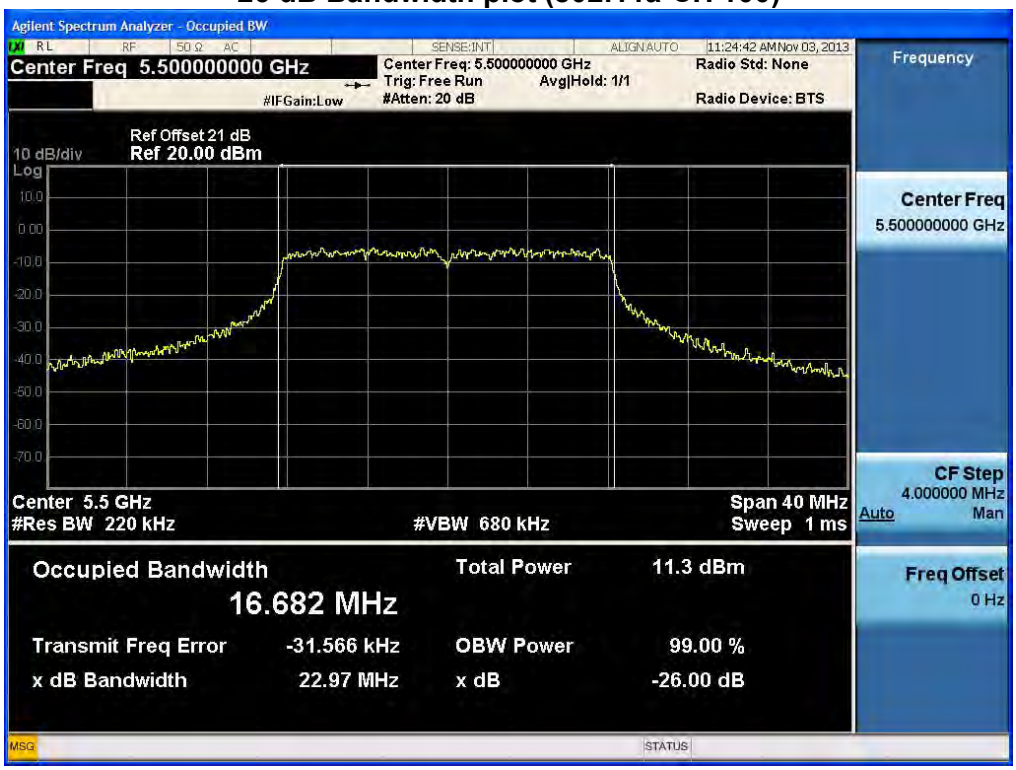
Monitoring Port Ant.2

## ▣ RESULT PLOTS

### 20 MHz BW

**26 dB Bandwidth plot (802.11a-CH 52)**


**26 dB Bandwidth plot (802.11a-CH 100)**



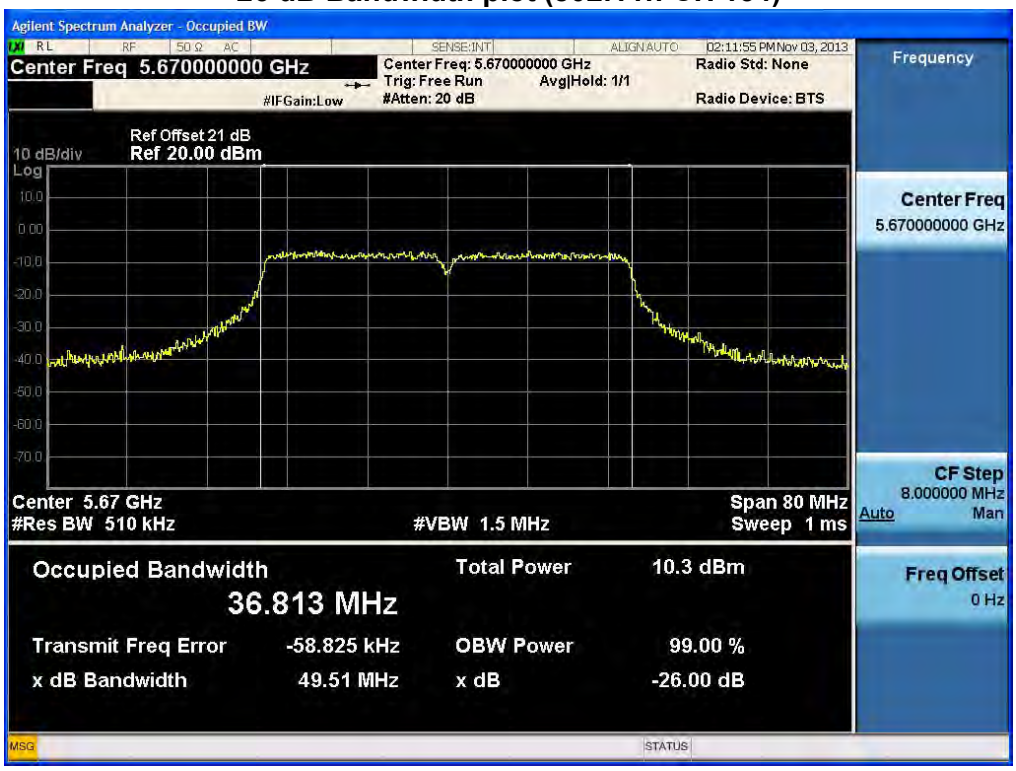
## 26 dB Bandwidth plot (802.11n-CH 64)


## 26 dB Bandwidth plot (802.11n-CH 100)

## 40 MHz BW

### 26 dB Bandwidth plot (802.11n-CH 62)


### 26 dB Bandwidth plot (802.11n-CH 134)

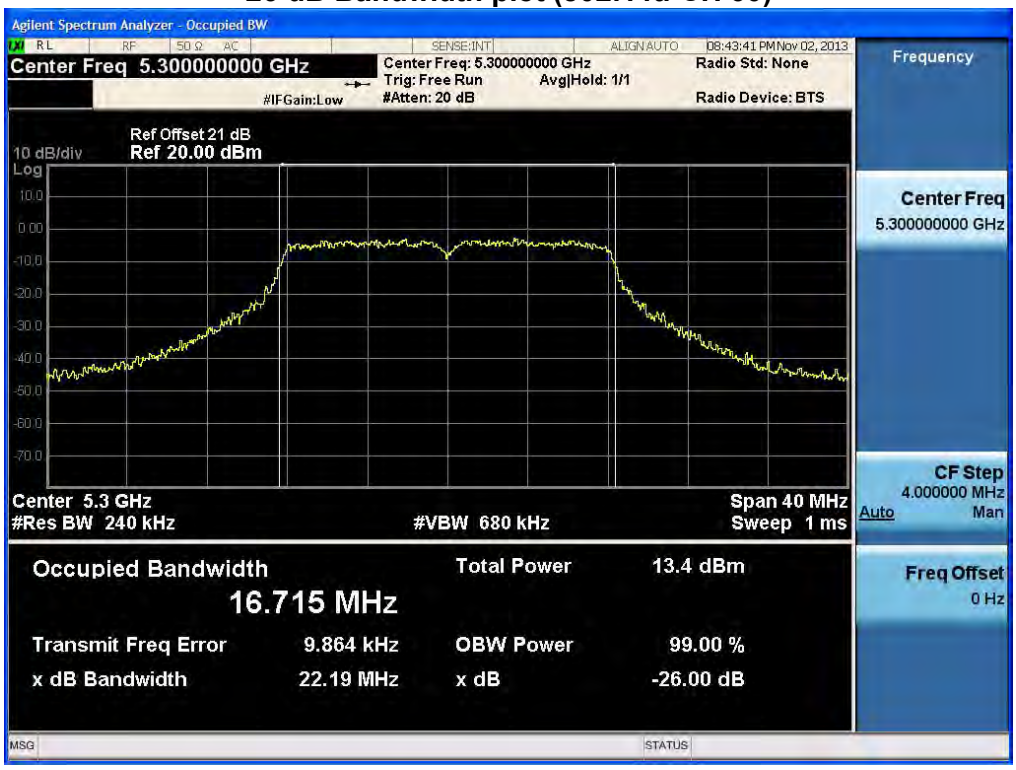


## Service Port Ant.1

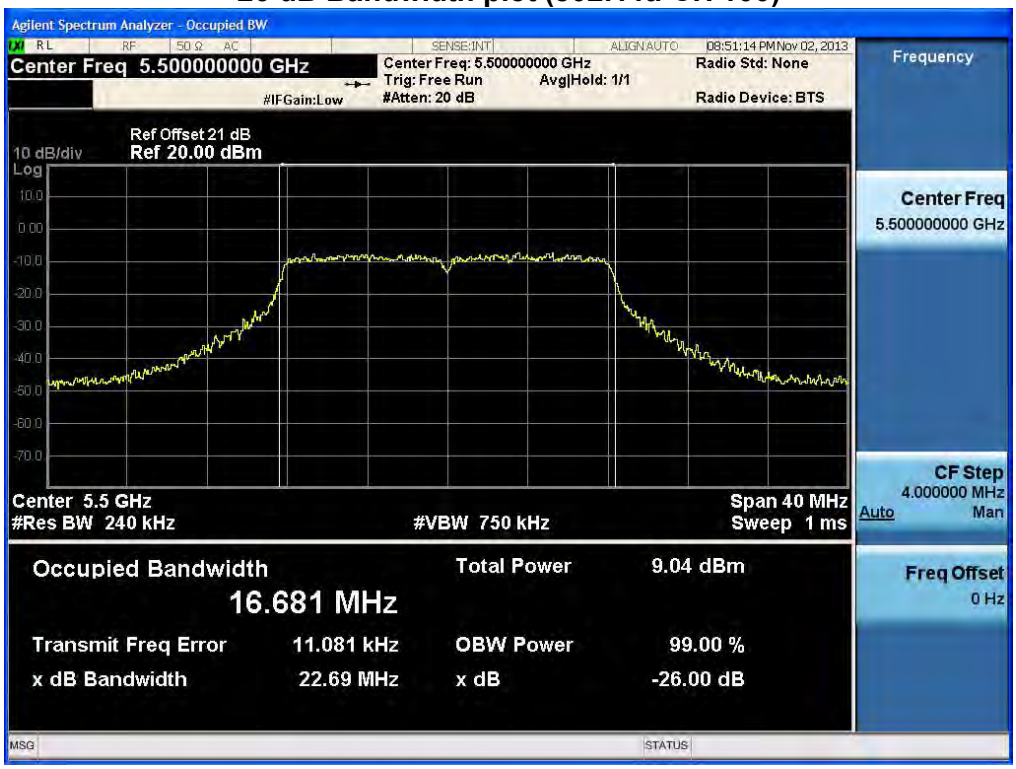
## ▣ RESULT PLOTS

## 20 MHz BW

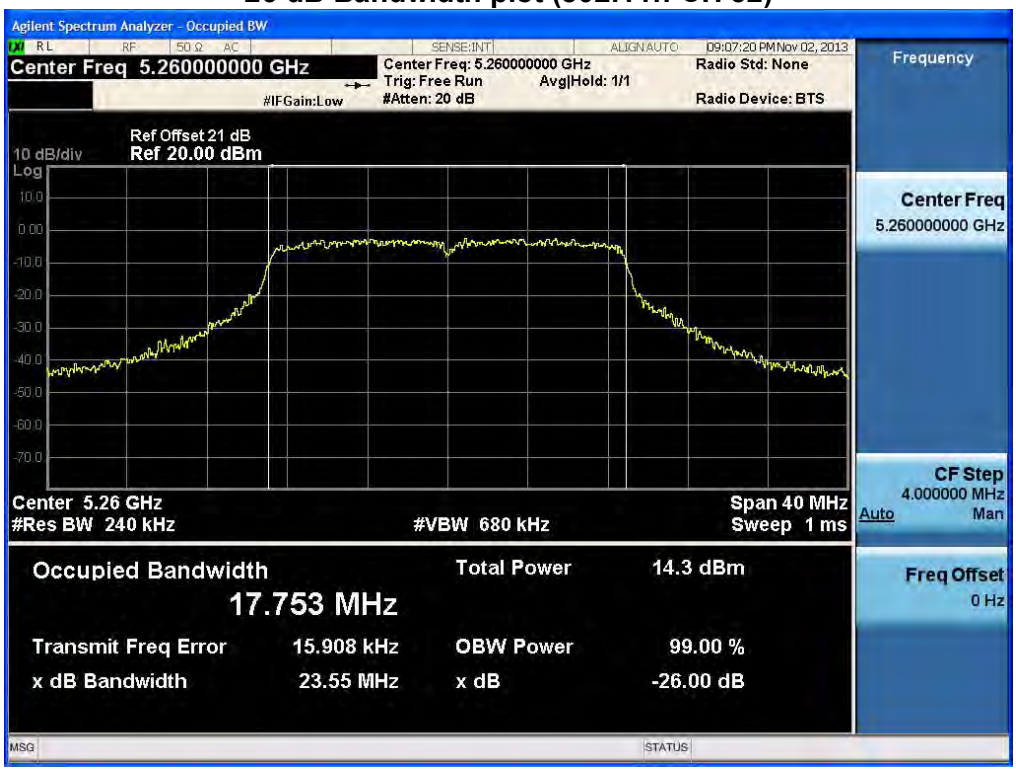
### 26 dB Bandwidth plot (802.11a-CH 60)



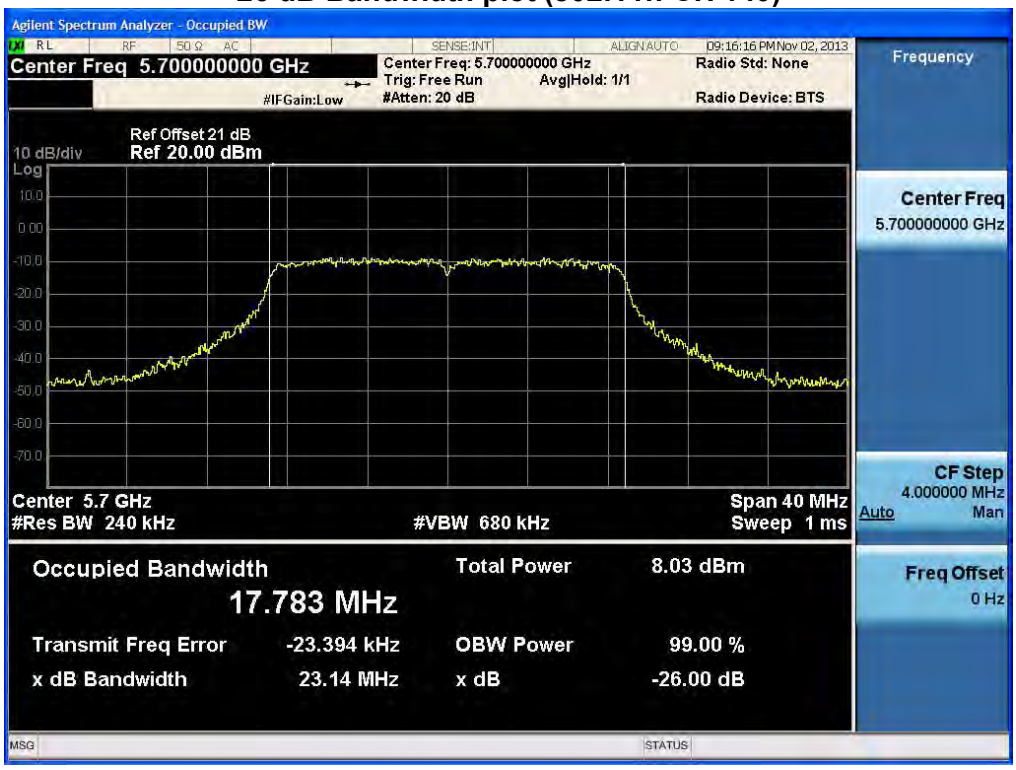

### 26 dB Bandwidth plot (802.11a-CH 100)



## 26 dB Bandwidth plot (802.11n-CH 52)

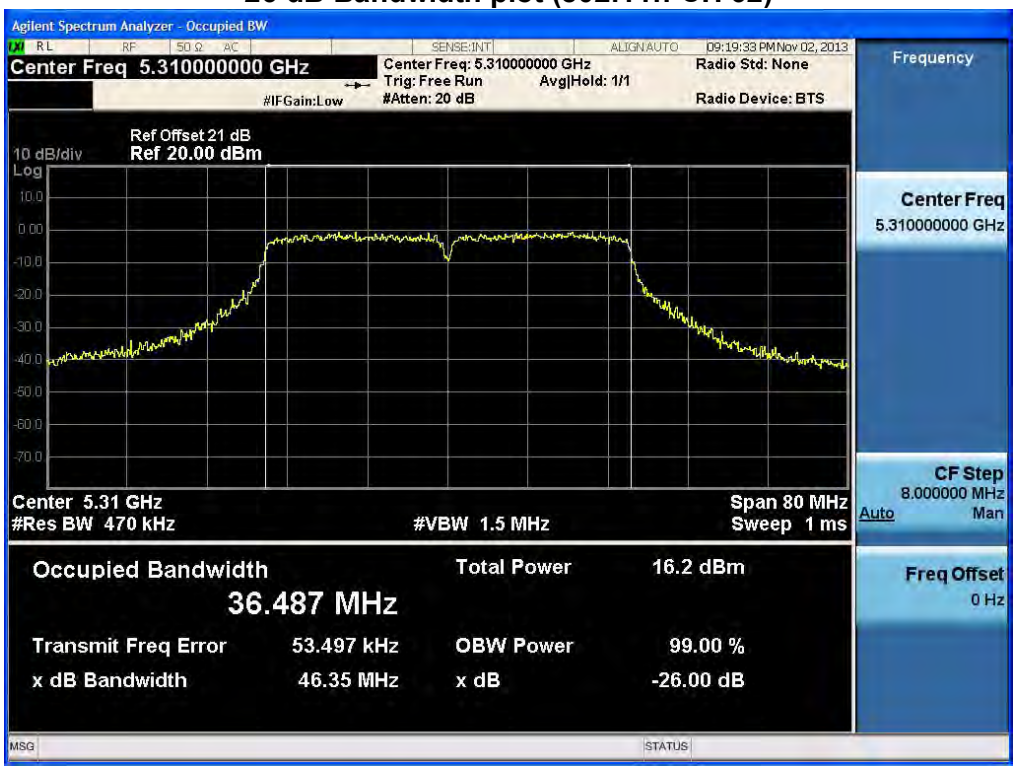



## 26 dB Bandwidth plot (802.11n-CH 140)



## 40 MHz BW

### 26 dB Bandwidth plot (802.11n-CH 62)




### 26 dB Bandwidth plot (802.11n-CH 134)

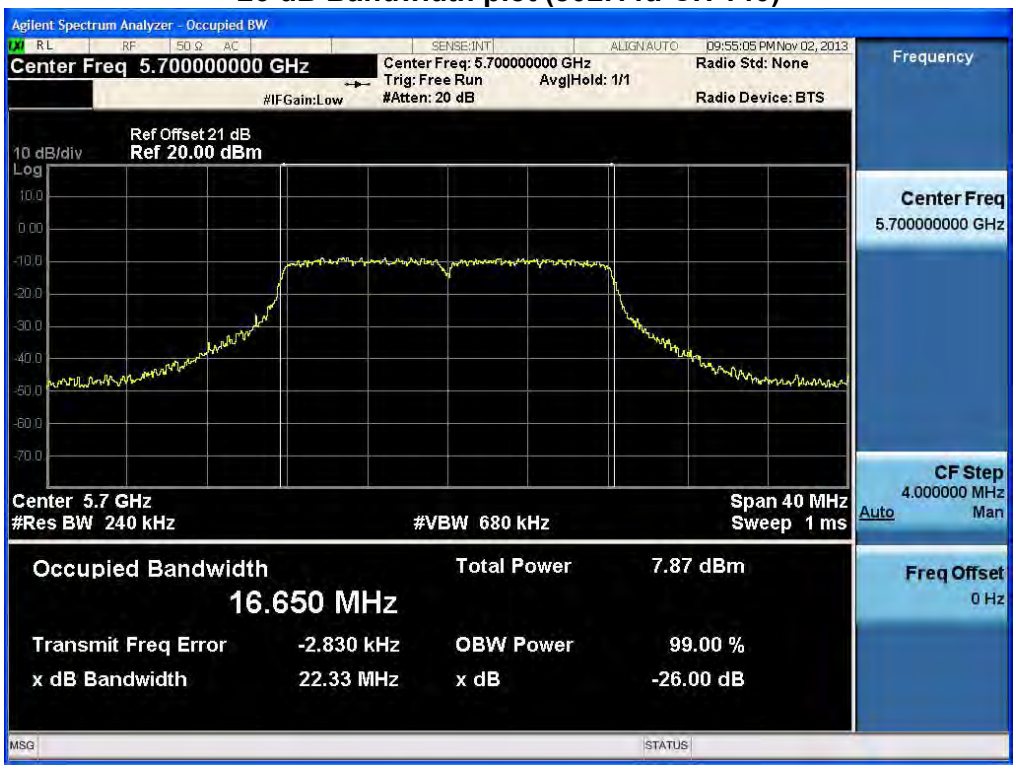
## Service Port Ant.2

## ▣ RESULT PLOTS

## 20 MHz BW

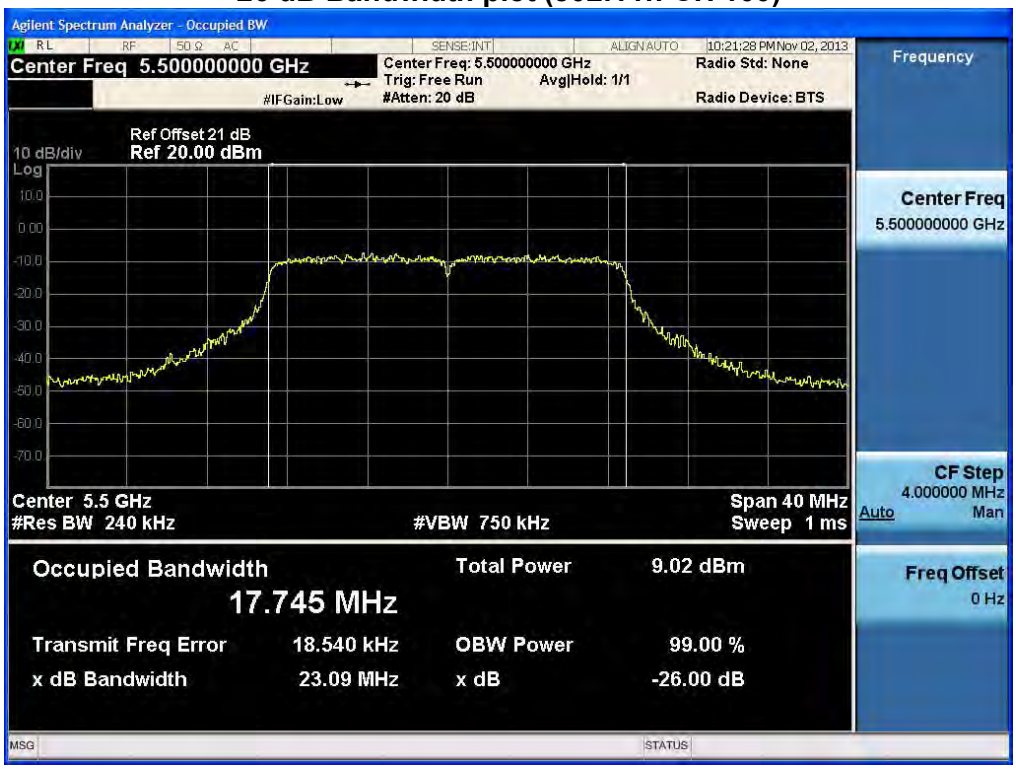
### 26 dB Bandwidth plot (802.11a-CH 64)


### 26 dB Bandwidth plot (802.11a-CH 140)



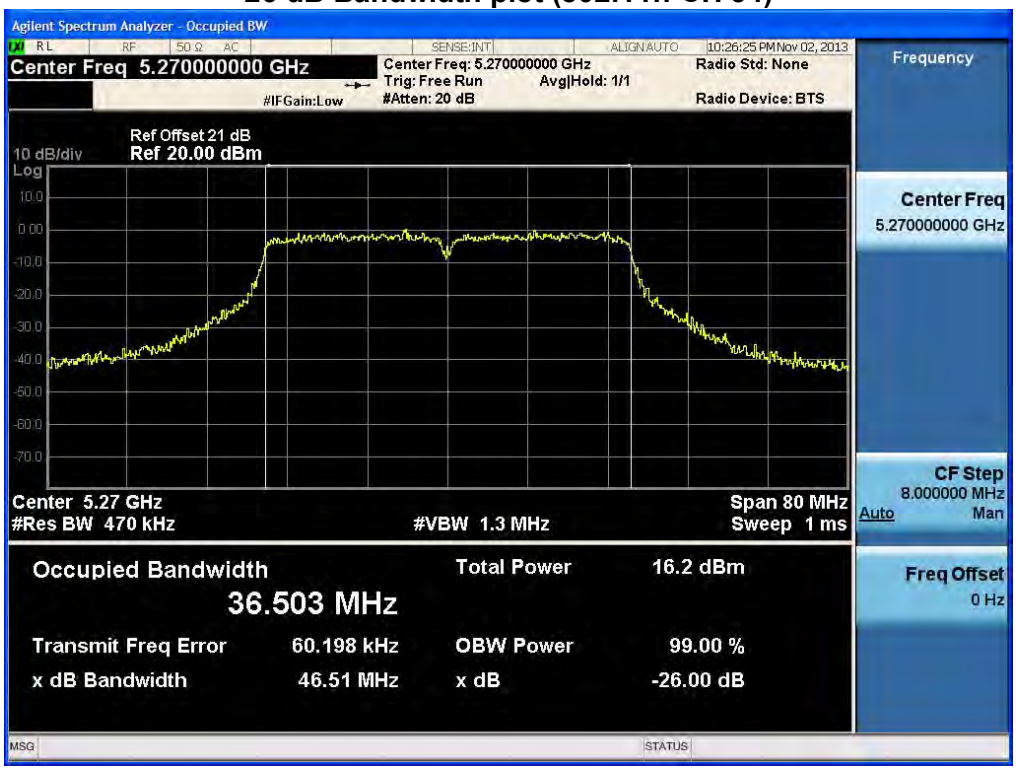
## 26 dB Bandwidth plot (802.11n-CH 60)


## 26 dB Bandwidth plot (802.11n-CH 100)



## 40 MHz BW

### 26 dB Bandwidth plot (802.11n-CH 54)



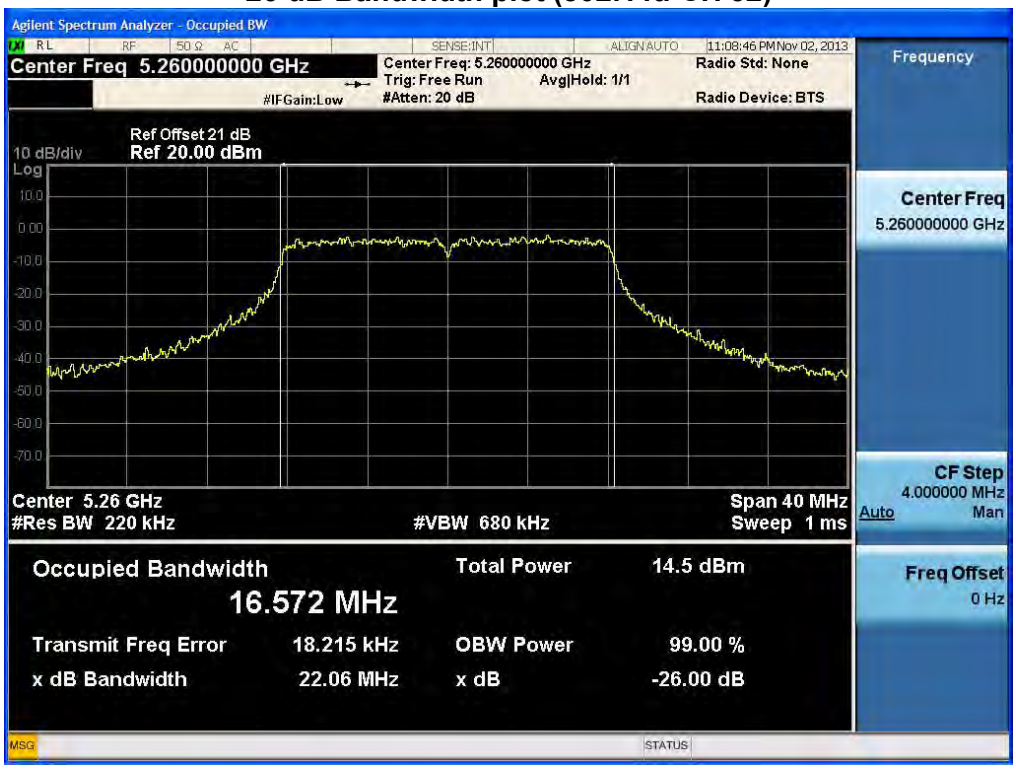

### 26 dB Bandwidth plot (802.11n-CH 118)

## Service Port Ant.3

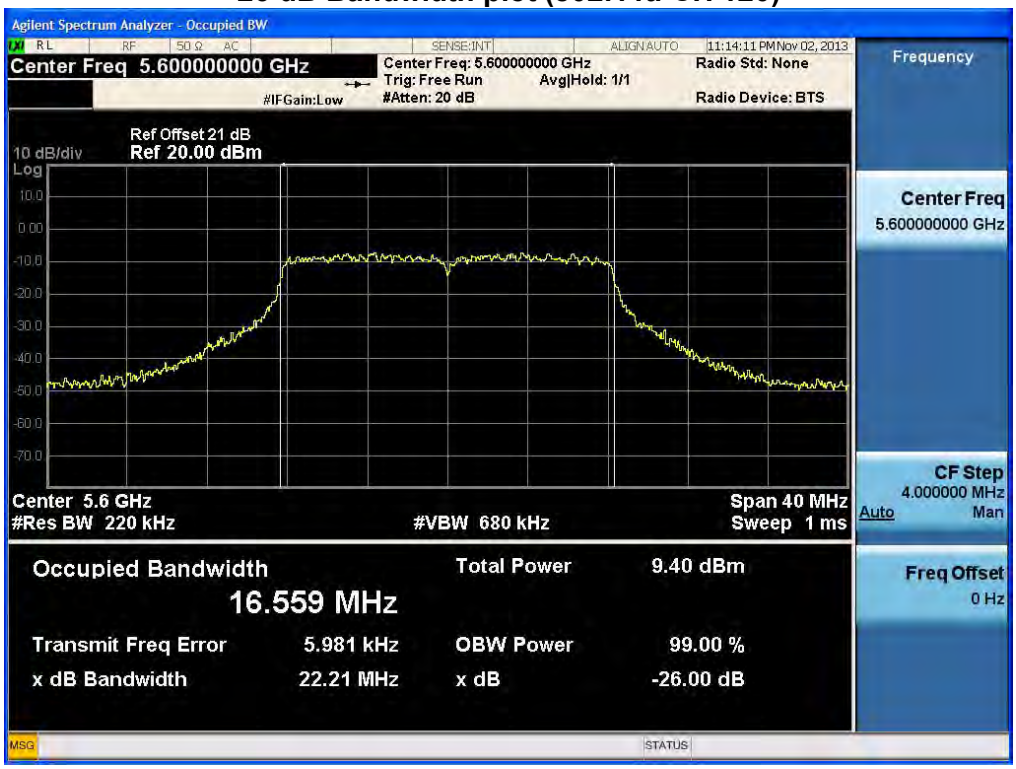
## ▣ RESULT PLOTS

## 20 MHz BW

### 26 dB Bandwidth plot (802.11a-CH 52)

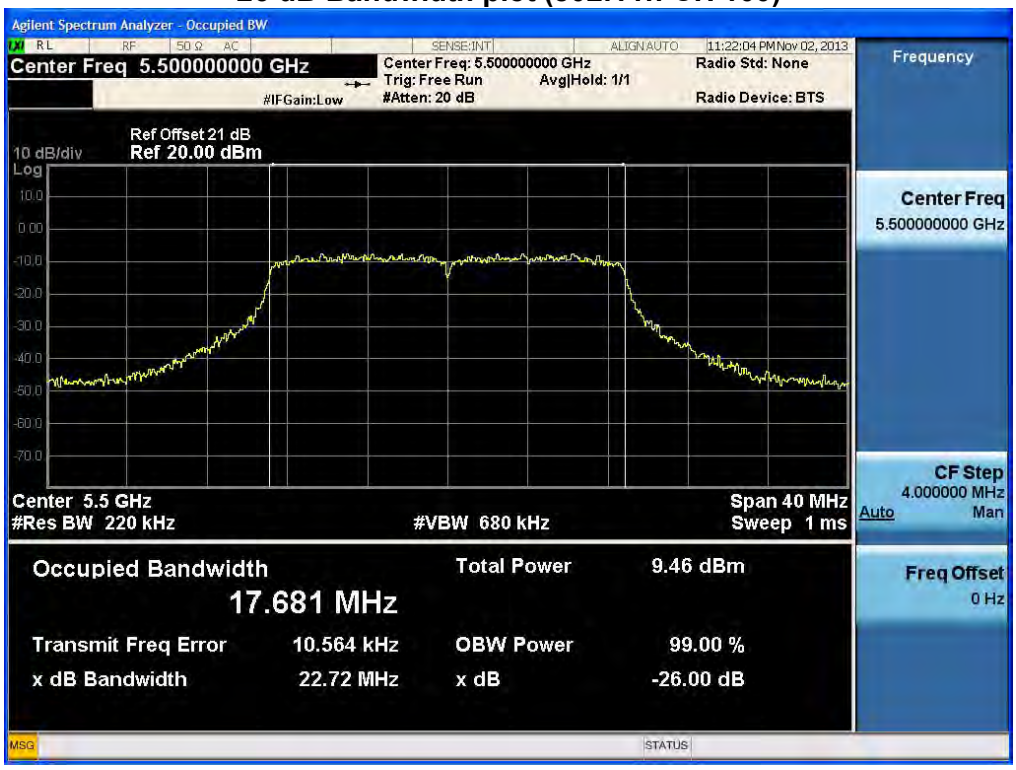



### 26 dB Bandwidth plot (802.11a-CH 120)



## 26 dB Bandwidth plot (802.11n-CH 60)


## 26 dB Bandwidth plot (802.11n-CH 100)



## 40 MHz BW

### 26 dB Bandwidth plot (802.11n-CH 54)


### 26 dB Bandwidth plot (802.11n-CH 134)

## Monitoring Port Ant.1

## ▣ RESULT PLOTS(20 dB Bandwidth)

### 20 dB Bandwidth plot (802.11a-CH 52)


### 20 dB Bandwidth plot (802.11n-CH 52)

## 20 dB Bandwidth plot (802.11n_40 MHz BW-CH 54)

## Monitoring Port Ant.2

## ▣ RESULT PLOTS(20 dB Bandwidth)

### 20 dB Bandwidth plot (802.11a-CH 52)


### 20 dB Bandwidth plot (802.11n-CH 52)

## 20 dB Bandwidth plot (802.11n_40 MHz BW-CH 54)

## Service Port Ant.1

## ▣ RESULT PLOTS(20 dB Bandwidth)

### 20 dB Bandwidth plot (802.11a-CH 52)


### 20 dB Bandwidth plot (802.11n-CH 52)

## 20 dB Bandwidth plot (802.11n_40 MHz BW-CH 54)

## Service Port Ant.2

## ▣ RESULT PLOTS(20 dB Bandwidth)

### 20 dB Bandwidth plot (802.11a-CH 52)


### 20 dB Bandwidth plot (802.11n-CH 52)

## 20 dB Bandwidth plot (802.11n_40 MHz BW-CH 54)

## Service Port Ant.3

## ▣ RESULT PLOTS(20 dB Bandwidth)

### 20 dB Bandwidth plot (802.11a-CH 52)


### 20 dB Bandwidth plot (802.11n-CH 52)

## 20 dB Bandwidth plot (802.11n_40 MHz BW-CH 54)

## 9.3 OUTPUT POWER MEASUREMENT

**Test Requirements and limit, §15.247(b)(3)**

The transmitter output is connected to the input of a RF power sensor. Measurement is made using a broadband power meter capable of making peak and average measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

In the 5.25 – 5.35 GHz band, the maximum permissible conducted output power is the lesser of 250 mW (23.98 dBm) and 11 dBm + 10 log $_{10}$ (26 dB BW).

In the 5.47 – 5.725 GHz band, the maximum permissible conducted output power is the lesser of 250 mW (23.98 dBm) and 11 dBm + 10 log $_{10}$ (26 dB BW).

Limit : 802.11a_UNII-2 = 23.98 dBm

802.11n_UNII-2_20 MHz BW = 23.98dBm

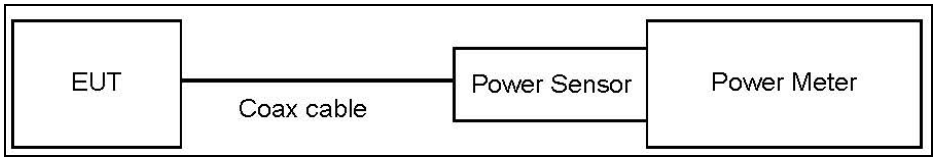
802.11n_UNII-2_40 MHz BW = 23.98 dBm

802.11a_UNII-2e = 23.98dBm

802.11n_UNII-2e_20 MHz BW = 23.98 dBm

802.11n_UNII-2e_40 MHz BW = 23.98 dBm

### ▣ TEST CONFIGURATION




### ▣ TEST PROCEDURE

We tested according to Method E)3)a) in KDB 789033(issued 04/08/2013).

▪ Average Power

1. Measure the duty cycle.
2. Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
3. Add 10 log (1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

Note :

1. We apply to the offset in the UNII 2/2e band that was rounded off to the closest tenth dB. Actual value of loss for the attenuator and cable combination is below table. We used the particular cable type that is supported by manufacture.

| Band | Loss(dB) |
|---|---|
| UNII 2 | 21.0 |
| UNII 2e | 21.0 |

(Actual value of loss for the attenuator and cable combination)

## Monitoring Port

### ▣ TEST RESULTS_Ant.1

**Conducted Output Power Measurements (802.11a Mode: 5260~5320)**

| 802.11a Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5260 | 52 | 6 | 5.91 | 0.106 | 6.02 | 23.98 |
| | | 9 | 5.75 | 0.151 | 5.90 | 23.98 |
| | | 12 | 5.83 | 0.200 | 6.02 | 23.98 |
| | | 18 | 5.74 | 0.282 | 6.02 | 23.98 |
| | | 24 | 5.72 | 0.366 | 6.09 | 23.98 |
| | | 36 | 4.67 | 0.531 | 5.20 | 23.98 |
| | | 48 | 3.83 | 0.667 | 4.49 | 23.98 |
| | | 54 | 3.20 | 0.738 | 3.94 | 23.98 |
| 5300 | 60 | 6 | 5.96 | 0.106 | 6.07 | 23.98 |
| | | 9 | 5.86 | 0.151 | 6.01 | 23.98 |
| | | 12 | 5.83 | 0.200 | 6.03 | 23.98 |
| | | 18 | 5.80 | 0.282 | 6.08 | 23.98 |
| | | 24 | 5.79 | 0.366 | 6.15 | 23.98 |
| | | 36 | 4.84 | 0.531 | 5.37 | 23.98 |
| | | 48 | 3.92 | 0.667 | 4.59 | 23.98 |
| | | 54 | 3.46 | 0.738 | 4.20 | 23.98 |
| 5320 | 64 | 6 | 6.03 | 0.106 | 6.14 | 23.98 |
| | | 9 | 6.03 | 0.151 | 6.18 | 23.98 |
| | | 12 | 6.05 | 0.200 | 6.25 | 23.98 |
| | | 18 | 5.97 | 0.282 | 6.25 | 23.98 |
| | | 24 | 5.97 | 0.366 | 6.34 | 23.98 |
| | | 36 | 4.93 | 0.531 | 5.46 | 23.98 |
| | | 48 | 3.77 | 0.667 | 4.44 | 23.98 |
| | | 54 | 3.66 | 0.738 | 4.40 | 23.98 |

▣ TEST RESULTS_Ant.2

Conducted Output Power Measurements (802.11a Mode: 5260~5320)

| 802.11a Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5260 | 52 | 6 | 5.75 | 0.106 | 5.86 | 23.98 |
| | | 9 | 5.75 | 0.151 | 5.90 | 23.98 |
| | | 12 | 5.70 | 0.200 | 5.90 | 23.98 |
| | | 18 | 5.65 | 0.282 | 5.93 | 23.98 |
| | | 24 | 5.60 | 0.366 | 5.97 | 23.98 |
| | | 36 | 4.33 | 0.531 | 4.86 | 23.98 |
| | | 48 | 2.94 | 0.667 | 3.61 | 23.98 |
| | | 54 | 2.46 | 0.738 | 3.20 | 23.98 |
| 5300 | 60 | 6 | 6.34 | 0.106 | 6.44 | 23.98 |
| | | 9 | 6.21 | 0.151 | 6.36 | 23.98 |
| | | 12 | 6.21 | 0.200 | 6.41 | 23.98 |
| | | 18 | 6.11 | 0.282 | 6.39 | 23.98 |
| | | 24 | 6.08 | 0.366 | 6.44 | 23.98 |
| | | 36 | 5.18 | 0.531 | 5.71 | 23.98 |
| | | 48 | 3.85 | 0.667 | 4.52 | 23.98 |
| | | 54 | 3.21 | 0.738 | 3.95 | 23.98 |
| 5320 | 64 | 6 | 6.49 | 0.106 | 6.59 | 23.98 |
| | | 9 | 6.41 | 0.151 | 6.56 | 23.98 |
| | | 12 | 6.42 | 0.200 | 6.62 | 23.98 |
| | | 18 | 6.31 | 0.282 | 6.59 | 23.98 |
| | | 24 | 6.27 | 0.366 | 6.64 | 23.98 |
| | | 36 | 5.37 | 0.531 | 5.90 | 23.98 |
| | | 48 | 3.46 | 0.667 | 4.13 | 23.98 |
| | | 54 | 3.40 | 0.738 | 4.14 | 23.98 |

## ▣ TEST RESULTS_Sum Data of Ant.1 and Ant.2

**Conducted Output Power Measurements (802.11a Mode: 5260~5320)**

| 802.11a Mode | | Rate | Measured | Limit |
|---|---|---|---|---|
| Frequency[MHz] | Channel No. | (Mbps) | Power(dBm) | (dBm) |
| 5260 | 52 | 6 | 8.95 | 21.47 |
| | | 9 | 8.91 | 21.47 |
| | | 12 | 8.97 | 21.47 |
| | | 18 | 8.99 | 21.47 |
| | | 24 | 9.04 | 21.47 |
| | | 36 | 8.05 | 21.47 |
| | | 48 | 7.08 | 21.47 |
| | | 54 | 6.59 | 21.47 |
| 5300 | 60 | 6 | 9.27 | 21.47 |
| | | 9 | 9.20 | 21.47 |
| | | 12 | 9.23 | 21.47 |
| | | 18 | 9.25 | 21.47 |
| | | 24 | 9.31 | 21.47 |
| | | 36 | 8.55 | 21.47 |
| | | 48 | 7.56 | 21.47 |
| | | 54 | 7.09 | 21.47 |
| 5320 | 64 | 6 | 9.38 | 21.47 |
| | | 9 | 9.39 | 21.47 |
| | | 12 | 9.45 | 21.47 |
| | | 18 | 9.44 | 21.47 |
| | | 24 | 9.50 | 21.47 |
| | | 36 | 8.70 | 21.47 |
| | | 48 | 7.30 | 21.47 |
| | | 54 | 7.28 | 21.47 |

**Note :**

1. **Limit is 21.47 dBm. Because directional antenna gain is 8.51 dBi for 802.11a.**
2. **Sample Calculation**

   **23.98 dBm-(8.51 dB – 6 dB)=21.47 dBm**

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▣ TEST RESULTS_Ant.1

Conducted Output Power Measurements (802.11a Mode: 5500~5700)

| 802.11a Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5500 | 100 | 6 | 5.80 | 0.106 | 5.90 | 23.98 |
| | | 9 | 5.72 | 0.151 | 5.87 | 23.98 |
| | | 12 | 5.76 | 0.200 | 5.96 | 23.98 |
| | | 18 | 5.70 | 0.282 | 5.98 | 23.98 |
| | | 24 | 5.62 | 0.366 | 5.99 | 23.98 |
| | | 36 | 4.76 | 0.531 | 5.29 | 23.98 |
| | | 48 | 3.40 | 0.667 | 4.07 | 23.98 |
| | | 54 | 3.31 | 0.738 | 4.05 | 23.98 |
| 5600 | 120 | 6 | 6.22 | 0.106 | 6.33 | 23.98 |
| | | 9 | 6.12 | 0.151 | 6.27 | 23.98 |
| | | 12 | 6.08 | 0.200 | 6.28 | 23.98 |
| | | 18 | 5.97 | 0.282 | 6.25 | 23.98 |
| | | 24 | 5.95 | 0.366 | 6.32 | 23.98 |
| | | 36 | 4.61 | 0.531 | 5.14 | 23.98 |
| | | 48 | 3.62 | 0.667 | 4.29 | 23.98 |
| | | 54 | 3.65 | 0.738 | 4.39 | 23.98 |
| 5700 | 140 | 6 | 5.79 | 0.106 | 5.89 | 23.98 |
| | | 9 | 5.72 | 0.151 | 5.87 | 23.98 |
| | | 12 | 5.72 | 0.200 | 5.92 | 23.98 |
| | | 18 | 5.63 | 0.282 | 5.91 | 23.98 |
| | | 24 | 5.57 | 0.366 | 5.94 | 23.98 |
| | | 36 | 4.74 | 0.531 | 5.27 | 23.98 |
| | | 48 | 3.58 | 0.667 | 4.25 | 23.98 |
| | | 54 | 3.33 | 0.738 | 4.07 | 23.98 |

HCT CO.,LTD

▣ TEST RESULTS_Ant.2

Conducted Output Power Measurements (802.11a Mode: 5500~5700)

| 802.11a Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5500 | 100 | 6 | 5.14 | 0.106 | 5.25 | 23.98 |
| | | 9 | 5.08 | 0.151 | 5.23 | 23.98 |
| | | 12 | 5.13 | 0.200 | 5.33 | 23.98 |
| | | 18 | 5.02 | 0.282 | 5.31 | 23.98 |
| | | 24 | 4.99 | 0.366 | 5.35 | 23.98 |
| | | 36 | 4.00 | 0.531 | 4.53 | 23.98 |
| | | 48 | 2.90 | 0.667 | 3.57 | 23.98 |
| | | 54 | 2.79 | 0.738 | 3.53 | 23.98 |
| 5600 | 120 | 6 | 5.19 | 0.106 | 5.30 | 23.98 |
| | | 9 | 5.09 | 0.151 | 5.24 | 23.98 |
| | | 12 | 5.13 | 0.200 | 5.33 | 23.98 |
| | | 18 | 5.09 | 0.282 | 5.37 | 23.98 |
| | | 24 | 4.92 | 0.366 | 5.29 | 23.98 |
| | | 36 | 3.88 | 0.531 | 4.41 | 23.98 |
| | | 48 | 2.98 | 0.667 | 3.65 | 23.98 |
| | | 54 | 2.84 | 0.738 | 3.58 | 23.98 |
| 5700 | 140 | 6 | 5.41 | 0.106 | 5.52 | 23.98 |
| | | 9 | 5.31 | 0.151 | 5.46 | 23.98 |
| | | 12 | 5.28 | 0.200 | 5.48 | 23.98 |
| | | 18 | 5.33 | 0.282 | 5.61 | 23.98 |
| | | 24 | 5.21 | 0.366 | 5.57 | 23.98 |
| | | 36 | 4.22 | 0.531 | 4.75 | 23.98 |
| | | 48 | 2.78 | 0.667 | 3.45 | 23.98 |
| | | 54 | 2.56 | 0.738 | 3.30 | 23.98 |

## ▣ TEST RESULTS_Sum Data of Ant.1 and Ant.2

**Conducted Output Power Measurements (802.11a Mode: 5500~5700)**

| 802.11a Mode | | Rate | Measured | Limit |
|---|---|---|---|---|
| Frequency[MHz] | Channel No. | (Mbps) | Power(dBm) | (dBm) |
| 5500 | 100 | 6 | 8.60 | 21.47 |
| | | 9 | 8.57 | 21.47 |
| | | 12 | 8.67 | 21.47 |
| | | 18 | 8.67 | 21.47 |
| | | 24 | 8.69 | 21.47 |
| | | 36 | 7.94 | 21.47 |
| | | 48 | 6.83 | 21.47 |
| | | 54 | 6.81 | 21.47 |
| 5600 | 120 | 6 | 8.85 | 21.47 |
| | | 9 | 8.80 | 21.47 |
| | | 12 | 8.84 | 21.47 |
| | | 18 | 8.84 | 21.47 |
| | | 24 | 8.84 | 21.47 |
| | | 36 | 7.80 | 21.47 |
| | | 48 | 6.99 | 21.47 |
| | | 54 | 7.01 | 21.47 |
| 5700 | 140 | 6 | 8.72 | 21.47 |
| | | 9 | 8.68 | 21.47 |
| | | 12 | 8.71 | 21.47 |
| | | 18 | 8.78 | 21.47 |
| | | 24 | 8.77 | 21.47 |
| | | 36 | 8.03 | 21.47 |
| | | 48 | 6.88 | 21.47 |
| | | 54 | 6.71 | 21.47 |

**Note :**

1. **Limit is 21.47 dBm. Because directional antenna gain is 8.51 dBi for 802.11a.**
2. **Sample Calculation**

   **23.98 dBm-(8.51 dB – 6 dB)=21.47 dBm**

▣ TEST RESULTS_Ant.1

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5260~5320)

| 802.11n Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5260 | 52 | 6.5 | 5.73 | 0.102 | 5.84 | 23.98 |
| | | 13 | 4.89 | 0.203 | 5.09 | 23.98 |
| | | 19.5 | 4.84 | 0.295 | 5.13 | 23.98 |
| | | 26 | 4.87 | 0.384 | 5.25 | 23.98 |
| | | 39 | 4.67 | 0.530 | 5.20 | 23.98 |
| | | 52 | 3.47 | 0.676 | 4.14 | 23.98 |
| | | 58.5 | 3.51 | 0.753 | 4.26 | 23.98 |
| | | 65 | 3.02 | 0.779 | 3.80 | 23.98 |
| 5300 | 60 | 6.5 | 6.04 | 0.102 | 6.14 | 23.98 |
| | | 13 | 5.08 | 0.203 | 5.28 | 23.98 |
| | | 19.5 | 5.10 | 0.295 | 5.40 | 23.98 |
| | | 26 | 4.96 | 0.384 | 5.34 | 23.98 |
| | | 39 | 4.69 | 0.530 | 5.22 | 23.98 |
| | | 52 | 3.76 | 0.676 | 4.44 | 23.98 |
| | | 58.5 | 3.75 | 0.753 | 4.50 | 23.98 |
| | | 65 | 3.26 | 0.779 | 4.04 | 23.98 |
| 5320 | 64 | 6.5 | 5.86 | 0.102 | 5.96 | 23.98 |
| | | 13 | 5.04 | 0.203 | 5.25 | 23.98 |
| | | 19.5 | 4.99 | 0.295 | 5.29 | 23.98 |
| | | 26 | 4.94 | 0.384 | 5.32 | 23.98 |
| | | 39 | 4.91 | 0.530 | 5.44 | 23.98 |
| | | 52 | 3.60 | 0.676 | 4.27 | 23.98 |
| | | 58.5 | 3.58 | 0.753 | 4.33 | 23.98 |
| | | 65 | 3.53 | 0.779 | 4.31 | 23.98 |

▣ TEST RESULTS_Ant.2

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5260~5320)

| 802.11n Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5260 | 52 | 6.5 | 5.76 | 0.102 | 5.86 | 23.98 |
| | | 13 | 4.82 | 0.203 | 5.03 | 23.98 |
| | | 19.5 | 4.66 | 0.295 | 4.96 | 23.98 |
| | | 26 | 4.63 | 0.384 | 5.02 | 23.98 |
| | | 39 | 4.34 | 0.530 | 4.87 | 23.98 |
| | | 52 | 2.94 | 0.676 | 3.62 | 23.98 |
| | | 58.5 | 2.78 | 0.753 | 3.53 | 23.98 |
| | | 65 | 2.36 | 0.779 | 3.14 | 23.98 |
| 5300 | 60 | 6.5 | 6.19 | 0.102 | 6.29 | 23.98 |
| | | 13 | 5.11 | 0.203 | 5.32 | 23.98 |
| | | 19.5 | 5.42 | 0.295 | 5.72 | 23.98 |
| | | 26 | 5.29 | 0.384 | 5.67 | 23.98 |
| | | 39 | 5.16 | 0.530 | 5.69 | 23.98 |
| | | 52 | 2.27 | 0.676 | 2.94 | 23.98 |
| | | 58.5 | 1.92 | 0.753 | 2.67 | 23.98 |
| | | 65 | 1.78 | 0.779 | 2.56 | 23.98 |
| 5320 | 64 | 6.5 | 6.32 | 0.102 | 6.42 | 23.98 |
| | | 13 | 5.35 | 0.203 | 5.55 | 23.98 |
| | | 19.5 | 5.31 | 0.295 | 5.60 | 23.98 |
| | | 26 | 5.30 | 0.384 | 5.68 | 23.98 |
| | | 39 | 5.19 | 0.530 | 5.72 | 23.98 |
| | | 52 | 3.67 | 0.676 | 4.35 | 23.98 |
| | | 58.5 | 3.52 | 0.753 | 4.27 | 23.98 |
| | | 65 | 3.43 | 0.779 | 4.21 | 23.98 |

## ▣ TEST RESULTS_Sum Data of Ant.1 and Ant.2

**Conducted Output Power Measurements (802.11n _20 MHz BW Mode: 5260~5320)**

| 802.11n Mode | | Rate | Measured | Limit |
|---|---|---|---|---|
| Frequency[MHz] | Channel No. | (Mbps) | Power(dBm) | (dBm) |
| 5260 | 52 | 6.5 | 8.86 | 23.98 |
| | | 13 | 8.07 | 23.98 |
| | | 19.5 | 8.06 | 23.98 |
| | | 26 | 8.15 | 23.98 |
| | | 39 | 8.05 | 23.98 |
| | | 52 | 6.90 | 23.98 |
| | | 58.5 | 6.92 | 23.98 |
| | | 65 | 6.49 | 23.98 |
| 5300 | 60 | 6.5 | 9.23 | 23.98 |
| | | 13 | 8.31 | 23.98 |
| | | 19.5 | 8.57 | 23.98 |
| | | 26 | 8.52 | 23.98 |
| | | 39 | 8.47 | 23.98 |
| | | 52 | 6.77 | 23.98 |
| | | 58.5 | 6.69 | 23.98 |
| | | 65 | 6.37 | 23.98 |
| 5320 | 64 | 6.5 | 9.21 | 23.98 |
| | | 13 | 8.41 | 23.98 |
| | | 19.5 | 8.46 | 23.98 |
| | | 26 | 8.52 | 23.98 |
| | | 39 | 8.59 | 23.98 |
| | | 52 | 7.32 | 23.98 |
| | | 58.5 | 7.31 | 23.98 |
| | | 65 | 7.27 | 23.98 |

▣ TEST RESULTS_Ant.1

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5500~5700)

| 802.11n Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5500 | 100 | 6.5 | 5.60 | 0.102 | 5.70 | 23.98 |
| | | 13 | 4.77 | 0.203 | 4.97 | 23.98 |
| | | 19.5 | 4.64 | 0.295 | 4.94 | 23.98 |
| | | 26 | 4.66 | 0.384 | 5.04 | 23.98 |
| | | 39 | 4.58 | 0.530 | 5.11 | 23.98 |
| | | 52 | 3.31 | 0.676 | 3.98 | 23.98 |
| | | 58.5 | 3.21 | 0.753 | 3.96 | 23.98 |
| | | 65 | 3.25 | 0.779 | 4.03 | 23.98 |
| 5600 | 120 | 6.5 | 6.11 | 0.102 | 6.21 | 23.98 |
| | | 13 | 4.60 | 0.203 | 4.81 | 23.98 |
| | | 19.5 | 4.53 | 0.295 | 4.82 | 23.98 |
| | | 26 | 4.58 | 0.384 | 4.96 | 23.98 |
| | | 39 | 4.49 | 0.530 | 5.02 | 23.98 |
| | | 52 | 3.44 | 0.676 | 4.11 | 23.98 |
| | | 58.5 | 3.37 | 0.753 | 4.12 | 23.98 |
| | | 65 | 3.35 | 0.779 | 4.13 | 23.98 |
| 5700 | 140 | 6.5 | 5.72 | 0.102 | 5.82 | 23.98 |
| | | 13 | 4.90 | 0.203 | 5.10 | 23.98 |
| | | 19.5 | 4.84 | 0.295 | 5.14 | 23.98 |
| | | 26 | 4.77 | 0.384 | 5.16 | 23.98 |
| | | 39 | 4.78 | 0.530 | 5.31 | 23.98 |
| | | 52 | 3.65 | 0.676 | 4.33 | 23.98 |
| | | 58.5 | 3.45 | 0.753 | 4.21 | 23.98 |
| | | 65 | 3.30 | 0.779 | 4.08 | 23.98 |

▣ TEST RESULTS_Ant.2

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5500~5700)

| 802.11n Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5500 | 100 | 6.5 | 5.17 | 0.102 | 5.28 | 23.98 |
| | | 13 | 4.09 | 0.203 | 4.29 | 23.98 |
| | | 19.5 | 3.99 | 0.295 | 4.29 | 23.98 |
| | | 26 | 3.91 | 0.384 | 4.29 | 23.98 |
| | | 39 | 3.79 | 0.530 | 4.32 | 23.98 |
| | | 52 | 3.35 | 0.676 | 4.03 | 23.98 |
| | | 58.5 | 3.28 | 0.753 | 4.03 | 23.98 |
| | | 65 | 2.64 | 0.779 | 3.42 | 23.98 |
| 5600 | 120 | 6.5 | 5.13 | 0.102 | 5.23 | 23.98 |
| | | 13 | 4.19 | 0.203 | 4.39 | 23.98 |
| | | 19.5 | 4.13 | 0.295 | 4.42 | 23.98 |
| | | 26 | 4.10 | 0.384 | 4.48 | 23.98 |
| | | 39 | 3.97 | 0.530 | 4.50 | 23.98 |
| | | 52 | 2.83 | 0.676 | 3.51 | 23.98 |
| | | 58.5 | 2.71 | 0.753 | 3.46 | 23.98 |
| | | 65 | 2.73 | 0.779 | 3.51 | 23.98 |
| 5700 | 140 | 6.5 | 5.27 | 0.102 | 5.37 | 23.98 |
| | | 13 | 4.33 | 0.203 | 4.53 | 23.98 |
| | | 19.5 | 4.31 | 0.295 | 4.61 | 23.98 |
| | | 26 | 4.28 | 0.384 | 4.66 | 23.98 |
| | | 39 | 4.25 | 0.530 | 4.78 | 23.98 |
| | | 52 | 2.45 | 0.676 | 3.13 | 23.98 |
| | | 58.5 | 2.40 | 0.753 | 3.15 | 23.98 |
| | | 65 | 2.38 | 0.779 | 3.16 | 23.98 |

## ▣ TEST RESULTS_Sum Data of Ant.1 and Ant.2

**Conducted Output Power Measurements (802.11n _20 MHz BW Mode: 5500~5700)**

| 802.11n Mode | | Rate | Measured | Limit |
|---|---|---|---|---|
| Frequency[MHz] | Channel No. | (Mbps) | Power(dBm) | (dBm) |
| 5500 | 100 | 6.5 | 8.50 | 23.98 |
| | | 13 | 7.65 | 23.98 |
| | | 19.5 | 7.63 | 23.98 |
| | | 26 | 7.69 | 23.98 |
| | | 39 | 7.75 | 23.98 |
| | | 52 | 7.02 | 23.98 |
| | | 58.5 | 7.01 | 23.98 |
| | | 65 | 6.74 | 23.98 |
| 5600 | 120 | 6.5 | 8.76 | 23.98 |
| | | 13 | 7.62 | 23.98 |
| | | 19.5 | 7.64 | 23.98 |
| | | 26 | 7.74 | 23.98 |
| | | 39 | 7.78 | 23.98 |
| | | 52 | 6.83 | 23.98 |
| | | 58.5 | 6.82 | 23.98 |
| | | 65 | 6.84 | 23.98 |
| 5700 | 140 | 6.5 | 8.61 | 23.98 |
| | | 13 | 7.84 | 23.98 |
| | | 19.5 | 7.89 | 23.98 |
| | | 26 | 7.93 | 23.98 |
| | | 39 | 8.06 | 23.98 |
| | | 52 | 6.78 | 23.98 |
| | | 58.5 | 6.72 | 23.98 |
| | | 65 | 6.65 | 23.98 |

▣ TEST RESULTS_Ant.1

Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5270~5310)

| 802.11n Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5270 | 54 | 13.5 | 4.93 | 0.157 | 5.09 | 23.98 |
| | | 27 | 4.52 | 0.296 | 4.82 | 23.98 |
| | | 40.5 | 5.23 | 0.408 | 5.64 | 23.98 |
| | | 54 | 4.87 | 0.504 | 5.37 | 23.98 |
| | | 81 | 4.58 | 0.706 | 5.28 | 23.98 |
| | | 108 | 5.06 | 0.880 | 5.94 | 23.98 |
| | | 121.5 | 4.85 | 0.918 | 5.77 | 23.98 |
| | | 135 | 5.06 | 0.969 | 6.03 | 23.98 |
| 5310 | 62 | 13.5 | 5.20 | 0.157 | 5.35 | 23.98 |
| | | 27 | 4.32 | 0.296 | 4.62 | 23.98 |
| | | 40.5 | 4.28 | 0.408 | 4.69 | 23.98 |
| | | 54 | 3.96 | 0.504 | 4.47 | 23.98 |
| | | 81 | 3.70 | 0.706 | 4.40 | 23.98 |
| | | 108 | 2.78 | 0.880 | 3.66 | 23.98 |
| | | 121.5 | 2.81 | 0.918 | 3.73 | 23.98 |
| | | 135 | 2.33 | 0.969 | 3.30 | 23.98 |

▣ TEST RESULTS_Ant.2

Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5270~5310)

| 802.11n Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5270 | 54 | 13.5 | 4.66 | 0.157 | 4.81 | 23.98 |
| | | 27 | 3.28 | 0.296 | 3.58 | 23.98 |
| | | 40.5 | 3.21 | 0.408 | 3.62 | 23.98 |
| | | 54 | 3.17 | 0.504 | 3.67 | 23.98 |
| | | 81 | 3.04 | 0.706 | 3.74 | 23.98 |
| | | 108 | 2.10 | 0.880 | 2.98 | 23.98 |
| | | 121.5 | 2.04 | 0.918 | 2.95 | 23.98 |
| | | 135 | 1.06 | 0.969 | 2.03 | 23.98 |
| 5310 | 62 | 13.5 | 5.34 | 0.157 | 5.50 | 23.98 |
| | | 27 | 4.02 | 0.296 | 4.31 | 23.98 |
| | | 40.5 | 3.99 | 0.408 | 4.40 | 23.98 |
| | | 54 | 3.91 | 0.504 | 4.41 | 23.98 |
| | | 81 | 3.81 | 0.706 | 4.52 | 23.98 |
| | | 108 | 2.81 | 0.880 | 3.69 | 23.98 |
| | | 121.5 | 2.84 | 0.918 | 3.76 | 23.98 |
| | | 135 | 2.45 | 0.969 | 3.42 | 23.98 |

## ▣ TEST RESULTS_Sum Data of Ant.1 and Ant.2

**Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5270~5310)**

| 802.11n Mode | | Rate | Measured | Limit |
|---|---|---|---|---|
| Frequency[MHz] | Channel No. | (Mbps) | Power(dBm) | (dBm) |
| 5270 | 54 | 13.5 | 7.96 | 23.98 |
| | | 27 | 7.25 | 23.98 |
| | | 40.5 | 7.75 | 23.98 |
| | | 54 | 7.61 | 23.98 |
| | | 81 | 7.59 | 23.98 |
| | | 108 | 7.72 | 23.98 |
| | | 121.5 | 7.59 | 23.98 |
| | | 135 | 7.48 | 23.98 |
| 5310 | 62 | 13.5 | 8.44 | 23.98 |
| | | 27 | 7.48 | 23.98 |
| | | 40.5 | 7.55 | 23.98 |
| | | 54 | 7.45 | 23.98 |
| | | 81 | 7.47 | 23.98 |
| | | 108 | 6.68 | 23.98 |
| | | 121.5 | 6.75 | 23.98 |
| | | 135 | 6.37 | 23.98 |

▣ TEST RESULTS_Ant.1

Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5510~5670)

| 802.11n Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5510 | 102 | 13.5 | 4.42 | 0.157 | 4.57 | 23.98 |
| | | 27 | 3.45 | 0.296 | 3.74 | 23.98 |
| | | 40.5 | 3.33 | 0.408 | 3.74 | 23.98 |
| | | 54 | 3.31 | 0.504 | 3.81 | 23.98 |
| | | 81 | 3.31 | 0.706 | 4.01 | 23.98 |
| | | 108 | 2.15 | 0.880 | 3.03 | 23.98 |
| | | 121.5 | 1.88 | 0.918 | 2.80 | 23.98 |
| | | 135 | 1.85 | 0.969 | 2.82 | 23.98 |
| 5590 | 118 | 13.5 | 4.84 | 0.157 | 5.00 | 23.98 |
| | | 27 | 3.73 | 0.296 | 4.03 | 23.98 |
| | | 40.5 | 3.53 | 0.408 | 3.94 | 23.98 |
| | | 54 | 3.31 | 0.504 | 3.81 | 23.98 |
| | | 81 | 3.10 | 0.706 | 3.81 | 23.98 |
| | | 108 | 2.14 | 0.880 | 3.02 | 23.98 |
| | | 121.5 | 2.12 | 0.918 | 3.03 | 23.98 |
| | | 135 | 2.09 | 0.969 | 3.05 | 23.98 |
| 5670 | 134 | 13.5 | 4.61 | 0.157 | 4.77 | 23.98 |
| | | 27 | 3.21 | 0.296 | 3.50 | 23.98 |
| | | 40.5 | 3.16 | 0.408 | 3.57 | 23.98 |
| | | 54 | 3.11 | 0.504 | 3.61 | 23.98 |
| | | 81 | 3.10 | 0.706 | 3.81 | 23.98 |
| | | 108 | 2.06 | 0.880 | 2.94 | 23.98 |
| | | 121.5 | 1.94 | 0.918 | 2.85 | 23.98 |
| | | 135 | 1.97 | 0.969 | 2.94 | 23.98 |

▣ TEST RESULTS_Ant.2

Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5510~5670)

| 802.11n Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5510 | 102 | 13.5 | 4.14 | 0.157 | 4.30 | 23.98 |
| | | 27 | 3.17 | 0.296 | 3.46 | 23.98 |
| | | 40.5 | 3.07 | 0.408 | 3.48 | 23.98 |
| | | 54 | 3.02 | 0.504 | 3.53 | 23.98 |
| | | 81 | 2.36 | 0.706 | 3.06 | 23.98 |
| | | 108 | 1.86 | 0.880 | 2.74 | 23.98 |
| | | 121.5 | 1.55 | 0.918 | 2.47 | 23.98 |
| | | 135 | 1.51 | 0.969 | 2.48 | 23.98 |
| 5590 | 118 | 13.5 | 4.51 | 0.157 | 4.66 | 23.98 |
| | | 27 | 3.52 | 0.296 | 3.81 | 23.98 |
| | | 40.5 | 3.48 | 0.408 | 3.89 | 23.98 |
| | | 54 | 3.37 | 0.504 | 3.88 | 23.98 |
| | | 81 | 3.24 | 0.706 | 3.95 | 23.98 |
| | | 108 | 2.23 | 0.880 | 3.11 | 23.98 |
| | | 121.5 | 2.19 | 0.918 | 3.11 | 23.98 |
| | | 135 | 2.11 | 0.969 | 3.08 | 23.98 |
| 5670 | 134 | 13.5 | 4.39 | 0.157 | 4.55 | 23.98 |
| | | 27 | 3.30 | 0.296 | 3.60 | 23.98 |
| | | 40.5 | 3.18 | 0.408 | 3.59 | 23.98 |
| | | 54 | 3.15 | 0.504 | 3.66 | 23.98 |
| | | 81 | 3.00 | 0.706 | 3.70 | 23.98 |
| | | 108 | 1.71 | 0.880 | 2.59 | 23.98 |
| | | 121.5 | 1.67 | 0.918 | 2.59 | 23.98 |
| | | 135 | 1.34 | 0.969 | 2.31 | 23.98 |

## ▣ TEST RESULTS_Sum Data of Ant.1 and Ant.2

**Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5510~5670)**

| 802.11n Mode | | Rate | Measured | Limit |
|---|---|---|---|---|
| Frequency[MHz] | Channel No. | (Mbps) | Power(dBm) | (dBm) |
| 5510 | 102 | 13.5 | 7.45 | 23.98 |
| | | 27 | 6.62 | 23.98 |
| | | 40.5 | 6.62 | 23.98 |
| | | 54 | 6.68 | 23.98 |
| | | 81 | 6.57 | 23.98 |
| | | 108 | 5.89 | 23.98 |
| | | 121.5 | 5.65 | 23.98 |
| | | 135 | 5.66 | 23.98 |
| 5590 | 118 | 13.5 | 7.84 | 23.98 |
| | | 27 | 6.93 | 23.98 |
| | | 40.5 | 6.92 | 23.98 |
| | | 54 | 6.86 | 23.98 |
| | | 81 | 6.89 | 23.98 |
| | | 108 | 6.08 | 23.98 |
| | | 121.5 | 6.08 | 23.98 |
| | | 135 | 6.08 | 23.98 |
| 5670 | 134 | 13.5 | 7.67 | 23.98 |
| | | 27 | 6.56 | 23.98 |
| | | 40.5 | 6.59 | 23.98 |
| | | 54 | 6.65 | 23.98 |
| | | 81 | 6.77 | 23.98 |
| | | 108 | 5.78 | 23.98 |
| | | 121.5 | 5.73 | 23.98 |
| | | 135 | 5.64 | 23.98 |

**Service Port**

## ▣ TEST RESULTS_Ant.1

**Conducted Output Power Measurements (802.11a Mode: 5260~5320)**

| 802.11a Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5260 | 52 | 6 | 7.77 | 0.222 | 7.99 | 23.98 |
| | | 9 | 7.81 | 0.223 | 8.03 | 23.98 |
| | | 12 | 7.76 | 0.274 | 8.04 | 23.98 |
| | | 18 | 7.65 | 0.409 | 8.06 | 23.98 |
| | | 24 | 7.53 | 0.531 | 8.06 | 23.98 |
| | | 36 | 7.32 | 0.738 | 8.06 | 23.98 |
| | | 48 | 7.21 | 0.936 | 8.15 | 23.98 |
| | | 54 | 7.15 | 1.015 | 8.16 | 23.98 |
| 5300 | 60 | 6 | 7.45 | 0.222 | 7.67 | 23.98 |
| | | 9 | 7.34 | 0.223 | 7.57 | 23.98 |
| | | 12 | 7.29 | 0.274 | 7.56 | 23.98 |
| | | 18 | 7.16 | 0.409 | 7.57 | 23.98 |
| | | 24 | 7.06 | 0.531 | 7.59 | 23.98 |
| | | 36 | 6.81 | 0.738 | 7.55 | 23.98 |
| | | 48 | 6.70 | 0.936 | 7.64 | 23.98 |
| | | 54 | 6.48 | 1.015 | 7.50 | 23.98 |
| 5320 | 64 | 6 | 7.23 | 0.222 | 7.45 | 23.98 |
| | | 9 | 7.22 | 0.223 | 7.44 | 23.98 |
| | | 12 | 7.07 | 0.274 | 7.34 | 23.98 |
| | | 18 | 7.02 | 0.409 | 7.43 | 23.98 |
| | | 24 | 6.92 | 0.531 | 7.45 | 23.98 |
| | | 36 | 6.63 | 0.738 | 7.36 | 23.98 |
| | | 48 | 6.25 | 0.936 | 7.18 | 23.98 |
| | | 54 | 6.16 | 1.015 | 7.17 | 23.98 |

▣ TEST RESULTS_Ant.2

Conducted Output Power Measurements (802.11a Mode: 5260~5320)

| 802.11a Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5260 | 52 | 6 | 8.05 | 0.222 | 8.27 | 23.98 |
| | | 9 | 7.97 | 0.223 | 8.19 | 23.98 |
| | | 12 | 7.93 | 0.274 | 8.21 | 23.98 |
| | | 18 | 7.80 | 0.409 | 8.21 | 23.98 |
| | | 24 | 7.82 | 0.531 | 8.35 | 23.98 |
| | | 36 | 7.51 | 0.738 | 8.24 | 23.98 |
| | | 48 | 7.37 | 0.936 | 8.31 | 23.98 |
| | | 54 | 7.31 | 1.015 | 8.32 | 23.98 |
| 5300 | 60 | 6 | 7.33 | 0.222 | 7.56 | 23.98 |
| | | 9 | 7.35 | 0.223 | 7.58 | 23.98 |
| | | 12 | 7.32 | 0.274 | 7.59 | 23.98 |
| | | 18 | 7.15 | 0.409 | 7.56 | 23.98 |
| | | 24 | 7.08 | 0.531 | 7.61 | 23.98 |
| | | 36 | 6.91 | 0.738 | 7.65 | 23.98 |
| | | 48 | 6.74 | 0.936 | 7.68 | 23.98 |
| | | 54 | 6.63 | 1.015 | 7.64 | 23.98 |
| 5320 | 64 | 6 | 7.20 | 0.222 | 7.43 | 23.98 |
| | | 9 | 7.14 | 0.223 | 7.36 | 23.98 |
| | | 12 | 7.02 | 0.274 | 7.29 | 23.98 |
| | | 18 | 7.01 | 0.409 | 7.42 | 23.98 |
| | | 24 | 6.89 | 0.531 | 7.42 | 23.98 |
| | | 36 | 6.71 | 0.738 | 7.45 | 23.98 |
| | | 48 | 6.55 | 0.936 | 7.48 | 23.98 |
| | | 54 | 6.48 | 1.015 | 7.50 | 23.98 |

▣ TEST RESULTS_Ant.3

Conducted Output Power Measurements (802.11a Mode: 5260~5320)

| 802.11a Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5260 | 52 | 6 | 8.44 | 0.222 | 8.67 | 23.98 |
| | | 9 | 8.37 | 0.223 | 8.60 | 23.98 |
| | | 12 | 8.30 | 0.274 | 8.58 | 23.98 |
| | | 18 | 8.17 | 0.409 | 8.58 | 23.98 |
| | | 24 | 7.94 | 0.531 | 8.47 | 23.98 |
| | | 36 | 7.76 | 0.738 | 8.50 | 23.98 |
| | | 48 | 7.59 | 0.936 | 8.52 | 23.98 |
| | | 54 | 7.47 | 1.015 | 8.48 | 23.98 |
| 5300 | 60 | 6 | 7.60 | 0.222 | 7.82 | 23.98 |
| | | 9 | 7.56 | 0.223 | 7.79 | 23.98 |
| | | 12 | 7.44 | 0.274 | 7.71 | 23.98 |
| | | 18 | 7.35 | 0.409 | 7.76 | 23.98 |
| | | 24 | 7.29 | 0.531 | 7.82 | 23.98 |
| | | 36 | 7.11 | 0.738 | 7.85 | 23.98 |
| | | 48 | 6.89 | 0.936 | 7.82 | 23.98 |
| | | 54 | 6.91 | 1.015 | 7.93 | 23.98 |
| 5320 | 64 | 6 | 7.57 | 0.222 | 7.79 | 23.98 |
| | | 9 | 7.42 | 0.223 | 7.65 | 23.98 |
| | | 12 | 7.42 | 0.274 | 7.70 | 23.98 |
| | | 18 | 7.27 | 0.409 | 7.68 | 23.98 |
| | | 24 | 7.22 | 0.531 | 7.75 | 23.98 |
| | | 36 | 7.18 | 0.738 | 7.92 | 23.98 |
| | | 48 | 6.88 | 0.936 | 7.81 | 23.98 |
| | | 54 | 6.90 | 1.015 | 7.91 | 23.98 |

## ▣ TEST RESULTS_Sum Data of Ant.1 and Ant.2

**Conducted Output Power Measurements (802.11a Mode: 5260~5320)**

| 802.11a Mode | | Rate | Measured | Limit |
|---|---|---|---|---|
| Frequency[MHz] | Channel No. | (Mbps) | Power(dBm) | (dBm) |
| 5260 | 52 | 6 | 11.14 | 20.97 |
| | | 9 | 11.12 | 20.97 |
| | | 12 | 11.14 | 20.97 |
| | | 18 | 11.15 | 20.97 |
| | | 24 | 11.22 | 20.97 |
| | | 36 | 11.16 | 20.97 |
| | | 48 | 11.24 | 20.97 |
| | | 54 | 11.25 | 20.97 |
| 5300 | 60 | 6 | 10.63 | 20.97 |
| | | 9 | 10.59 | 20.97 |
| | | 12 | 10.59 | 20.97 |
| | | 18 | 10.58 | 20.97 |
| | | 24 | 10.61 | 20.97 |
| | | 36 | 10.61 | 20.97 |
| | | 48 | 10.67 | 20.97 |
| | | 54 | 10.58 | 20.97 |
| 5320 | 64 | 6 | 10.45 | 20.97 |
| | | 9 | 10.41 | 20.97 |
| | | 12 | 10.33 | 20.97 |
| | | 18 | 10.44 | 20.97 |
| | | 24 | 10.45 | 20.97 |
| | | 36 | 10.42 | 20.97 |
| | | 48 | 10.34 | 20.97 |
| | | 54 | 10.35 | 20.97 |

**Note :**

1. **Limit is 20.97 dBm. Because directional antenna gain is 9.01 dBi for 802.11a.**
2. **Sample Calculation**

   **23.98 dBm-(9.01 dB – 6 dB)=20.97 dBm**

## ▣ TEST RESULTS_Sum Data of Ant.1, Ant.2 and Ant.3

**Conducted Output Power Measurements (802.11a Mode: 5260~5320)**

| 802.11a Mode | | Rate | Measured | Limit |
|---|---|---|---|---|
| Frequency[MHz] | Channel No. | (Mbps) | Power(dBm) | (dBm) |
| 5260 | 52 | 6 | 13.09 | 19.21 |
| | | 9 | 13.05 | 19.21 |
| | | 12 | 13.05 | 19.21 |
| | | 18 | 13.06 | 19.21 |
| | | 24 | 13.07 | 19.21 |
| | | 36 | 13.04 | 19.21 |
| | | 48 | 13.10 | 19.21 |
| | | 54 | 13.09 | 19.21 |
| 5300 | 60 | 6 | 12.46 | 19.21 |
| | | 9 | 12.42 | 19.21 |
| | | 12 | 12.39 | 19.21 |
| | | 18 | 12.40 | 19.21 |
| | | 24 | 12.45 | 19.21 |
| | | 36 | 12.46 | 19.21 |
| | | 48 | 12.49 | 19.21 |
| | | 54 | 12.46 | 19.21 |
| 5320 | 64 | 6 | 12.33 | 19.21 |
| | | 9 | 12.26 | 19.21 |
| | | 12 | 12.22 | 19.21 |
| | | 18 | 12.28 | 19.21 |
| | | 24 | 12.31 | 19.21 |
| | | 36 | 12.35 | 19.21 |
| | | 48 | 12.27 | 19.21 |
| | | 54 | 12.31 | 19.21 |

**Note :**

1. **Limit is 19.21 dBm. Because directional antenna gain is 10.77 dBi for 802.11a.**
2. **Sample Calculation**

   **23.98 dBm-(10.77 dB – 6 dB)=19.21 dBm**

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▣ TEST RESULTS_Ant.1

Conducted Output Power Measurements (802.11a Mode: 5500~5700)

| 802.11a Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5500 | 100 | 6 | 2.21 | 0.222 | 2.43 | 23.98 |
| | | 9 | 2.11 | 0.223 | 2.33 | 23.98 |
| | | 12 | 2.12 | 0.274 | 2.39 | 23.98 |
| | | 18 | 2.05 | 0.409 | 2.46 | 23.98 |
| | | 24 | 1.93 | 0.531 | 2.46 | 23.98 |
| | | 36 | 1.77 | 0.738 | 2.50 | 23.98 |
| | | 48 | 1.58 | 0.936 | 2.52 | 23.98 |
| | | 54 | 1.55 | 1.015 | 2.56 | 23.98 |
| 5600 | 120 | 6 | 2.74 | 0.222 | 2.96 | 23.98 |
| | | 9 | 2.83 | 0.223 | 3.06 | 23.98 |
| | | 12 | 2.72 | 0.274 | 3.00 | 23.98 |
| | | 18 | 2.58 | 0.409 | 2.98 | 23.98 |
| | | 24 | 2.47 | 0.531 | 3.00 | 23.98 |
| | | 36 | 2.24 | 0.738 | 2.98 | 23.98 |
| | | 48 | 2.04 | 0.936 | 2.98 | 23.98 |
| | | 54 | 2.05 | 1.015 | 3.07 | 23.98 |
| 5700 | 140 | 6 | 2.21 | 0.222 | 2.43 | 23.98 |
| | | 9 | 2.14 | 0.223 | 2.37 | 23.98 |
| | | 12 | 1.96 | 0.274 | 2.23 | 23.98 |
| | | 18 | 1.92 | 0.409 | 2.33 | 23.98 |
| | | 24 | 1.82 | 0.531 | 2.35 | 23.98 |
| | | 36 | 1.54 | 0.738 | 2.28 | 23.98 |
| | | 48 | 1.36 | 0.936 | 2.30 | 23.98 |
| | | 54 | 1.28 | 1.015 | 2.29 | 23.98 |

▣ TEST RESULTS_Ant.2

Conducted Output Power Measurements (802.11a Mode: 5500~5700)

| 802.11a Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5500 | 100 | 6 | 2.37 | 0.222 | 2.59 | 23.98 |
| | | 9 | 2.34 | 0.223 | 2.57 | 23.98 |
| | | 12 | 2.26 | 0.274 | 2.53 | 23.98 |
| | | 18 | 2.09 | 0.409 | 2.50 | 23.98 |
| | | 24 | 1.99 | 0.531 | 2.52 | 23.98 |
| | | 36 | 1.80 | 0.738 | 2.54 | 23.98 |
| | | 48 | 1.52 | 0.936 | 2.45 | 23.98 |
| | | 54 | 1.42 | 1.015 | 2.44 | 23.98 |
| 5600 | 120 | 6 | 2.88 | 0.222 | 3.10 | 23.98 |
| | | 9 | 2.76 | 0.223 | 2.98 | 23.98 |
| | | 12 | 2.66 | 0.274 | 2.93 | 23.98 |
| | | 18 | 2.60 | 0.409 | 3.01 | 23.98 |
| | | 24 | 2.51 | 0.531 | 3.04 | 23.98 |
| | | 36 | 2.37 | 0.738 | 3.11 | 23.98 |
| | | 48 | 2.13 | 0.936 | 3.06 | 23.98 |
| | | 54 | 1.97 | 1.015 | 2.99 | 23.98 |
| 5700 | 140 | 6 | 1.90 | 0.222 | 2.12 | 23.98 |
| | | 9 | 1.80 | 0.223 | 2.02 | 23.98 |
| | | 12 | 1.73 | 0.274 | 2.00 | 23.98 |
| | | 18 | 1.64 | 0.409 | 2.05 | 23.98 |
| | | 24 | 1.50 | 0.531 | 2.03 | 23.98 |
| | | 36 | 1.36 | 0.738 | 2.10 | 23.98 |
| | | 48 | 1.21 | 0.936 | 2.14 | 23.98 |
| | | 54 | 1.09 | 1.015 | 2.11 | 23.98 |

▣ TEST RESULTS_Ant.3

Conducted Output Power Measurements (802.11a Mode: 5500~5700)

| 802.11a Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5500 | 100 | 6 | 2.54 | 0.222 | 2.77 | 23.98 |
| | | 9 | 2.50 | 0.223 | 2.72 | 23.98 |
| | | 12 | 2.50 | 0.274 | 2.77 | 23.98 |
| | | 18 | 2.41 | 0.409 | 2.82 | 23.98 |
| | | 24 | 2.23 | 0.531 | 2.76 | 23.98 |
| | | 36 | 2.19 | 0.738 | 2.93 | 23.98 |
| | | 48 | 1.92 | 0.936 | 2.86 | 23.98 |
| | | 54 | 1.92 | 1.015 | 2.94 | 23.98 |
| 5600 | 120 | 6 | 2.84 | 0.222 | 3.07 | 23.98 |
| | | 9 | 2.74 | 0.223 | 2.97 | 23.98 |
| | | 12 | 2.82 | 0.274 | 3.09 | 23.98 |
| | | 18 | 2.59 | 0.409 | 3.00 | 23.98 |
| | | 24 | 2.50 | 0.531 | 3.03 | 23.98 |
| | | 36 | 2.32 | 0.738 | 3.06 | 23.98 |
| | | 48 | 2.15 | 0.936 | 3.09 | 23.98 |
| | | 54 | 2.14 | 1.015 | 3.16 | 23.98 |
| 5700 | 140 | 6 | 1.81 | 0.222 | 2.03 | 23.98 |
| | | 9 | 1.78 | 0.223 | 2.00 | 23.98 |
| | | 12 | 1.67 | 0.274 | 1.94 | 23.98 |
| | | 18 | 1.58 | 0.409 | 1.99 | 23.98 |
| | | 24 | 1.45 | 0.531 | 1.98 | 23.98 |
| | | 36 | 1.18 | 0.738 | 1.92 | 23.98 |
| | | 48 | 0.97 | 0.936 | 1.90 | 23.98 |
| | | 54 | 0.91 | 1.015 | 1.92 | 23.98 |

## ▣ TEST RESULTS_Sum Data of Ant.1 and Ant.2

**Conducted Output Power Measurements (802.11a Mode: 5500~5700)**

| 802.11a Mode | | Rate | Measured | Limit |
|---|---|---|---|---|
| Frequency[MHz] | Channel No. | (Mbps) | Power(dBm) | (dBm) |
| 5500 | 100 | 6 | 5.52 | 20.97 |
| | | 9 | 5.46 | 20.97 |
| | | 12 | 5.47 | 20.97 |
| | | 18 | 5.49 | 20.97 |
| | | 24 | 5.50 | 20.97 |
| | | 36 | 5.53 | 20.97 |
| | | 48 | 5.50 | 20.97 |
| | | 54 | 5.51 | 20.97 |
| 5600 | 120 | 6 | 6.04 | 20.97 |
| | | 9 | 6.03 | 20.97 |
| | | 12 | 5.98 | 20.97 |
| | | 18 | 6.01 | 20.97 |
| | | 24 | 6.03 | 20.97 |
| | | 36 | 6.06 | 20.97 |
| | | 48 | 6.03 | 20.97 |
| | | 54 | 6.04 | 20.97 |
| 5700 | 140 | 6 | 5.29 | 20.97 |
| | | 9 | 5.21 | 20.97 |
| | | 12 | 5.13 | 20.97 |
| | | 18 | 5.20 | 20.97 |
| | | 24 | 5.20 | 20.97 |
| | | 36 | 5.20 | 20.97 |
| | | 48 | 5.23 | 20.97 |
| | | 54 | 5.21 | 20.97 |

**Note :**

1. **Limit is 20.97 dBm. Because directional antenna gain is 9.01 dBi for 802.11a.**
2. **Sample Calculation**

   **23.98 dBm-(9.01 dB – 6 dB)=20.97 dBm**

## ▣ TEST RESULTS_Sum Data of Ant.1, Ant.2 and Ant.3

**Conducted Output Power Measurements (802.11a Mode: 5500~5700)**

| 802.11a Mode | | Rate | Measured | Limit |
|---|---|---|---|---|
| Frequency[MHz] | Channel No. | (Mbps) | Power(dBm) | (dBm) |
| 5500 | 100 | 6 | 7.35 | 19.21 |
| | | 9 | 7.33 | 19.21 |
| | | 12 | 7.35 | 19.21 |
| | | 18 | 7.35 | 19.21 |
| | | 24 | 7.41 | 19.21 |
| | | 36 | 7.41 | 19.21 |
| | | 48 | 7.41 | 19.21 |
| | | 54 | 7.47 | 19.21 |
| 5600 | 120 | 6 | 7.78 | 19.21 |
| | | 9 | 7.81 | 19.21 |
| | | 12 | 7.75 | 19.21 |
| | | 18 | 7.78 | 19.21 |
| | | 24 | 7.80 | 19.21 |
| | | 36 | 7.83 | 19.21 |
| | | 48 | 7.84 | 19.21 |
| | | 54 | 7.49 | 19.21 |
| 5700 | 140 | 6 | 6.96 | 19.21 |
| | | 9 | 6.89 | 19.21 |
| | | 12 | 6.85 | 19.21 |
| | | 18 | 6.89 | 19.21 |
| | | 24 | 6.88 | 19.21 |
| | | 36 | 6.87 | 19.21 |
| | | 48 | 6.89 | 19.21 |
| | | 54 | 5.21 | 19.21 |

**Note :**

1. **Limit is 19.21 dBm. Because directional antenna gain is 10.77 dBi for 802.11a.**
2. **Sample Calculation**

   **23.98 dBm-(10.77 dB – 6 dB)=19.21 dBm**

▣ TEST RESULTS_Ant.1

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5260~5320)

| 802.11n Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5260 | 52 | 6.5 | 7.82 | 0.161 | 7.98 | 23.98 |
| | | 13 | 7.72 | 0.295 | 8.01 | 23.98 |
| | | 19.5 | 7.64 | 0.426 | 8.06 | 23.98 |
| | | 26 | 7.52 | 0.528 | 8.05 | 23.98 |
| | | 39 | 7.22 | 0.735 | 7.95 | 23.98 |
| | | 52 | 7.08 | 0.896 | 7.97 | 23.98 |
| | | 58.5 | 6.98 | 0.969 | 7.95 | 23.98 |
| | | 65 | 6.97 | 1.082 | 8.05 | 23.98 |
| 5300 | 60 | 6.5 | 7.34 | 0.161 | 7.50 | 23.98 |
| | | 13 | 7.25 | 0.295 | 7.55 | 23.98 |
| | | 19.5 | 7.17 | 0.426 | 7.59 | 23.98 |
| | | 26 | 7.08 | 0.528 | 7.61 | 23.98 |
| | | 39 | 6.89 | 0.735 | 7.63 | 23.98 |
| | | 52 | 6.65 | 0.896 | 7.55 | 23.98 |
| | | 58.5 | 6.73 | 0.969 | 7.70 | 23.98 |
| | | 65 | 6.53 | 1.082 | 7.61 | 23.98 |
| 5320 | 64 | 6.5 | 7.17 | 0.161 | 7.33 | 23.98 |
| | | 13 | 7.06 | 0.295 | 7.35 | 23.98 |
| | | 19.5 | 6.93 | 0.426 | 7.35 | 23.98 |
| | | 26 | 6.86 | 0.528 | 7.39 | 23.98 |
| | | 39 | 6.77 | 0.735 | 7.51 | 23.98 |
| | | 52 | 6.56 | 0.896 | 7.45 | 23.98 |
| | | 58.5 | 6.57 | 0.969 | 7.54 | 23.98 |
| | | 65 | 6.50 | 1.082 | 7.58 | 23.98 |

▣ TEST RESULTS_Ant.2

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5260~5320)

| 802.11n Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5260 | 52 | 6.5 | 8.08 | 0.161 | 8.24 | 23.98 |
| | | 13 | 7.89 | 0.295 | 8.18 | 23.98 |
| | | 19.5 | 7.75 | 0.426 | 8.18 | 23.98 |
| | | 26 | 7.59 | 0.528 | 8.12 | 23.98 |
| | | 39 | 7.41 | 0.735 | 8.15 | 23.98 |
| | | 52 | 7.32 | 0.896 | 8.22 | 23.98 |
| | | 58.5 | 7.20 | 0.969 | 8.17 | 23.98 |
| | | 65 | 7.09 | 1.082 | 8.17 | 23.98 |
| 5300 | 60 | 6.5 | 7.29 | 0.161 | 7.45 | 23.98 |
| | | 13 | 7.13 | 0.295 | 7.42 | 23.98 |
| | | 19.5 | 7.08 | 0.426 | 7.51 | 23.98 |
| | | 26 | 6.98 | 0.528 | 7.51 | 23.98 |
| | | 39 | 6.83 | 0.735 | 7.56 | 23.98 |
| | | 52 | 6.62 | 0.896 | 7.51 | 23.98 |
| | | 58.5 | 6.61 | 0.969 | 7.58 | 23.98 |
| | | 65 | 6.48 | 1.082 | 7.56 | 23.98 |
| 5320 | 64 | 6.5 | 7.56 | 0.161 | 7.72 | 23.98 |
| | | 13 | 7.45 | 0.295 | 7.74 | 23.98 |
| | | 19.5 | 7.33 | 0.426 | 7.76 | 23.98 |
| | | 26 | 7.30 | 0.528 | 7.83 | 23.98 |
| | | 39 | 7.11 | 0.735 | 7.84 | 23.98 |
| | | 52 | 6.92 | 0.896 | 7.82 | 23.98 |
| | | 58.5 | 6.95 | 0.969 | 7.92 | 23.98 |
| | | 65 | 6.90 | 1.082 | 7.98 | 23.98 |

▣ TEST RESULTS_Ant.3

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5260~5320)

| 802.11n Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5260 | 52 | 6.5 | 8.39 | 0.161 | 8.55 | 23.98 |
| | | 13 | 8.16 | 0.295 | 8.45 | 23.98 |
| | | 19.5 | 8.05 | 0.426 | 8.48 | 23.98 |
| | | 26 | 7.94 | 0.528 | 8.47 | 23.98 |
| | | 39 | 7.75 | 0.735 | 8.48 | 23.98 |
| | | 52 | 7.51 | 0.896 | 8.41 | 23.98 |
| | | 58.5 | 7.44 | 0.969 | 8.41 | 23.98 |
| | | 65 | 7.32 | 1.082 | 8.40 | 23.98 |
| 5300 | 60 | 6.5 | 7.50 | 0.161 | 7.66 | 23.98 |
| | | 13 | 7.38 | 0.295 | 7.67 | 23.98 |
| | | 19.5 | 7.31 | 0.426 | 7.74 | 23.98 |
| | | 26 | 7.24 | 0.528 | 7.77 | 23.98 |
| | | 39 | 7.03 | 0.735 | 7.77 | 23.98 |
| | | 52 | 6.92 | 0.896 | 7.81 | 23.98 |
| | | 58.5 | 6.87 | 0.969 | 7.84 | 23.98 |
| | | 65 | 6.72 | 1.082 | 7.81 | 23.98 |
| 5320 | 64 | 6.5 | 7.66 | 0.161 | 7.82 | 23.98 |
| | | 13 | 7.53 | 0.295 | 7.82 | 23.98 |
| | | 19.5 | 7.39 | 0.426 | 7.82 | 23.98 |
| | | 26 | 7.36 | 0.528 | 7.89 | 23.98 |
| | | 39 | 7.19 | 0.735 | 7.93 | 23.98 |
| | | 52 | 7.09 | 0.896 | 7.98 | 23.98 |
| | | 58.5 | 7.04 | 0.969 | 8.01 | 23.98 |
| | | 65 | 6.92 | 1.082 | 8.00 | 23.98 |

## ▣ TEST RESULTS_Sum Data of Ant.1 and Ant.2

**Conducted Output Power Measurements (802.11n _20 MHz BW Mode: 5260~5320)**

| 802.11n Mode | | Rate | Measured | Limit |
|---|---|---|---|---|
| Frequency[MHz] | Channel No. | (Mbps) | Power(dBm) | (dBm) |
| 5260 | 52 | 6.5 | 11.12 | 23.98 |
| | | 13 | 11.11 | 23.98 |
| | | 19.5 | 11.13 | 23.98 |
| | | 26 | 11.10 | 23.98 |
| | | 39 | 11.06 | 23.98 |
| | | 52 | 11.11 | 23.98 |
| | | 58.5 | 11.07 | 23.98 |
| | | 65 | 11.12 | 23.98 |
| 5300 | 60 | 6.5 | 10.49 | 23.98 |
| | | 13 | 10.50 | 23.98 |
| | | 19.5 | 10.56 | 23.98 |
| | | 26 | 10.57 | 23.98 |
| | | 39 | 10.61 | 23.98 |
| | | 52 | 10.54 | 23.98 |
| | | 58.5 | 10.65 | 23.98 |
| | | 65 | 10.60 | 23.98 |
| 5320 | 64 | 6.5 | 10.54 | 23.98 |
| | | 13 | 10.56 | 23.98 |
| | | 19.5 | 10.57 | 23.98 |
| | | 26 | 10.63 | 23.98 |
| | | 39 | 10.69 | 23.98 |
| | | 52 | 10.65 | 23.98 |
| | | 58.5 | 10.74 | 23.98 |
| | | 65 | 10.79 | 23.98 |

## ▣ TEST RESULTS_Sum Data of Ant.1, Ant.2 and Ant.3

**Conducted Output Power Measurements (802.11n _20 MHz BW Mode: 5260~5320)**

| 802.11n Mode | | Rate | Measured | Limit |
|---|---|---|---|---|
| Frequency[MHz] | Channel No. | (Mbps) | Power(dBm) | (dBm) |
| 5260 | 52 | 6.5 | 13.03 | 23.98 |
| | | 13 | 12.99 | 23.98 |
| | | 19.5 | 13.01 | 23.98 |
| | | 26 | 12.99 | 23.98 |
| | | 39 | 12.97 | 23.98 |
| | | 52 | 12.97 | 23.98 |
| | | 58.5 | 12.95 | 23.98 |
| | | 65 | 12.98 | 23.98 |
| 5300 | 60 | 6.5 | 12.31 | 23.98 |
| | | 13 | 12.32 | 23.98 |
| | | 19.5 | 12.39 | 23.98 |
| | | 26 | 12.40 | 23.98 |
| | | 39 | 12.43 | 23.98 |
| | | 52 | 12.40 | 23.98 |
| | | 58.5 | 12.48 | 23.98 |
| | | 65 | 12.43 | 23.98 |
| 5320 | 64 | 6.5 | 12.40 | 23.98 |
| | | 13 | 12.41 | 23.98 |
| | | 19.5 | 12.42 | 23.98 |
| | | 26 | 12.48 | 23.98 |
| | | 39 | 12.53 | 23.98 |
| | | 52 | 12.53 | 23.98 |
| | | 58.5 | 12.60 | 23.98 |
| | | 65 | 12.63 | 23.98 |

▣ TEST RESULTS_Ant.1

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5500~5700)

| 802.11n Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5500 | 100 | 6.5 | 2.26 | 0.161 | 2.42 | 23.98 |
| | | 13 | 2.15 | 0.295 | 2.44 | 23.98 |
| | | 19.5 | 2.01 | 0.426 | 2.44 | 23.98 |
| | | 26 | 1.88 | 0.528 | 2.41 | 23.98 |
| | | 39 | 1.71 | 0.735 | 2.45 | 23.98 |
| | | 52 | 1.54 | 0.896 | 2.44 | 23.98 |
| | | 58.5 | 1.49 | 0.969 | 2.46 | 23.98 |
| | | 65 | 1.49 | 1.082 | 2.58 | 23.98 |
| 5600 | 120 | 6.5 | 2.75 | 0.161 | 2.91 | 23.98 |
| | | 13 | 2.68 | 0.295 | 2.98 | 23.98 |
| | | 19.5 | 2.54 | 0.426 | 2.97 | 23.98 |
| | | 26 | 2.47 | 0.528 | 3.00 | 23.98 |
| | | 39 | 2.16 | 0.735 | 2.89 | 23.98 |
| | | 52 | 2.09 | 0.896 | 2.99 | 23.98 |
| | | 58.5 | 1.94 | 0.969 | 2.91 | 23.98 |
| | | 65 | 1.92 | 1.082 | 3.00 | 23.98 |
| 5700 | 140 | 6.5 | 2.19 | 0.161 | 2.35 | 23.98 |
| | | 13 | 2.00 | 0.295 | 2.29 | 23.98 |
| | | 19.5 | 1.87 | 0.426 | 2.30 | 23.98 |
| | | 26 | 1.61 | 0.528 | 2.14 | 23.98 |
| | | 39 | 1.47 | 0.735 | 2.21 | 23.98 |
| | | 52 | 1.26 | 0.896 | 2.16 | 23.98 |
| | | 58.5 | 1.17 | 0.969 | 2.14 | 23.98 |
| | | 65 | 1.15 | 1.082 | 2.23 | 23.98 |

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▣ TEST RESULTS_Ant.2

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5500~5700)

| 802.11n Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5500 | 100 | 6.5 | 2.37 | 0.161 | 2.53 | 23.98 |
| | | 13 | 2.24 | 0.295 | 2.53 | 23.98 |
| | | 19.5 | 2.05 | 0.426 | 2.47 | 23.98 |
| | | 26 | 1.87 | 0.528 | 2.40 | 23.98 |
| | | 39 | 1.82 | 0.735 | 2.56 | 23.98 |
| | | 52 | 1.46 | 0.896 | 2.36 | 23.98 |
| | | 58.5 | 1.32 | 0.969 | 2.29 | 23.98 |
| | | 65 | 1.32 | 1.082 | 2.41 | 23.98 |
| 5600 | 120 | 6.5 | 2.64 | 0.161 | 2.81 | 23.98 |
| | | 13 | 2.47 | 0.295 | 2.77 | 23.98 |
| | | 19.5 | 2.40 | 0.426 | 2.83 | 23.98 |
| | | 26 | 2.31 | 0.528 | 2.83 | 23.98 |
| | | 39 | 2.16 | 0.735 | 2.90 | 23.98 |
| | | 52 | 2.10 | 0.896 | 3.00 | 23.98 |
| | | 58.5 | 2.03 | 0.969 | 3.00 | 23.98 |
| | | 65 | 1.88 | 1.082 | 2.96 | 23.98 |
| 5700 | 140 | 6.5 | 1.75 | 0.161 | 1.92 | 23.98 |
| | | 13 | 1.64 | 0.295 | 1.93 | 23.98 |
| | | 19.5 | 1.55 | 0.426 | 1.98 | 23.98 |
| | | 26 | 1.51 | 0.528 | 2.04 | 23.98 |
| | | 39 | 1.29 | 0.735 | 2.02 | 23.98 |
| | | 52 | 1.16 | 0.896 | 2.05 | 23.98 |
| | | 58.5 | 1.08 | 0.969 | 2.05 | 23.98 |
| | | 65 | 0.99 | 1.082 | 2.08 | 23.98 |

▣ TEST RESULTS_Ant.3

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5500~5700)

| 802.11n Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5500 | 100 | 6.5 | 2.75 | 0.161 | 2.92 | 23.98 |
| | | 13 | 2.57 | 0.295 | 2.87 | 23.98 |
| | | 19.5 | 2.46 | 0.426 | 2.89 | 23.98 |
| | | 26 | 2.44 | 0.528 | 2.97 | 23.98 |
| | | 39 | 2.20 | 0.735 | 2.93 | 23.98 |
| | | 52 | 2.08 | 0.896 | 2.98 | 23.98 |
| | | 58.5 | 2.08 | 0.969 | 3.05 | 23.98 |
| | | 65 | 2.03 | 1.082 | 3.11 | 23.98 |
| 5600 | 120 | 6.5 | 2.75 | 0.161 | 2.91 | 23.98 |
| | | 13 | 2.65 | 0.295 | 2.94 | 23.98 |
| | | 19.5 | 2.57 | 0.426 | 3.00 | 23.98 |
| | | 26 | 2.49 | 0.528 | 3.02 | 23.98 |
| | | 39 | 2.30 | 0.735 | 3.03 | 23.98 |
| | | 52 | 2.17 | 0.896 | 3.07 | 23.98 |
| | | 58.5 | 2.19 | 0.969 | 3.15 | 23.98 |
| | | 65 | 2.07 | 1.082 | 3.15 | 23.98 |
| 5700 | 140 | 6.5 | 1.65 | 0.161 | 1.81 | 23.98 |
| | | 13 | 1.51 | 0.295 | 1.80 | 23.98 |
| | | 19.5 | 1.40 | 0.426 | 1.82 | 23.98 |
| | | 26 | 1.40 | 0.528 | 1.93 | 23.98 |
| | | 39 | 1.17 | 0.735 | 1.90 | 23.98 |
| | | 52 | 1.01 | 0.896 | 1.91 | 23.98 |
| | | 58.5 | 0.98 | 0.969 | 1.95 | 23.98 |
| | | 65 | 0.89 | 1.082 | 1.97 | 23.98 |

## ▣ TEST RESULTS_Sum Data of Ant.1 and Ant.2

**Conducted Output Power Measurements (802.11n _20 MHz BW Mode: 5500~5700)**

| 802.11n Mode | | Rate | Measured | Limit |
|---|---|---|---|---|
| Frequency[MHz] | Channel No. | (Mbps) | Power(dBm) | (dBm) |
| 5500 | 100 | 6.5 | 5.49 | 23.98 |
| | | 13 | 5.50 | 23.98 |
| | | 19.5 | 5.47 | 23.98 |
| | | 26 | 5.42 | 23.98 |
| | | 39 | 5.52 | 23.98 |
| | | 52 | 5.41 | 23.98 |
| | | 58.5 | 5.39 | 23.98 |
| | | 65 | 5.51 | 23.98 |
| 5600 | 120 | 6.5 | 5.87 | 23.98 |
| | | 13 | 5.89 | 23.98 |
| | | 19.5 | 5.91 | 23.98 |
| | | 26 | 5.93 | 23.98 |
| | | 39 | 5.91 | 23.98 |
| | | 52 | 6.01 | 23.98 |
| | | 58.5 | 5.97 | 23.98 |
| | | 65 | 5.99 | 23.98 |
| 5700 | 140 | 6.5 | 5.15 | 23.98 |
| | | 13 | 5.12 | 23.98 |
| | | 19.5 | 5.15 | 23.98 |
| | | 26 | 5.10 | 23.98 |
| | | 39 | 5.13 | 23.98 |
| | | 52 | 5.12 | 23.98 |
| | | 58.5 | 5.11 | 23.98 |
| | | 65 | 5.17 | 23.98 |

## ▣ TEST RESULTS_Sum Data of Ant.1, Ant.2 and Ant.3

**Conducted Output Power Measurements (802.11n _20 MHz BW Mode: 5500~5700)**

| 802.11n Mode | | Rate | Measured | Limit |
|---|---|---|---|---|
| Frequency[MHz] | Channel No. | (Mbps) | Power(dBm) | (dBm) |
| 5500 | 100 | 6.5 | 7.40 | 23.98 |
| | | 13 | 7.39 | 23.98 |
| | | 19.5 | 7.38 | 23.98 |
| | | 26 | 7.37 | 23.98 |
| | | 39 | 7.42 | 23.98 |
| | | 52 | 7.37 | 23.98 |
| | | 58.5 | 7.38 | 23.98 |
| | | 65 | 7.48 | 23.98 |
| 5600 | 120 | 6.5 | 7.65 | 23.98 |
| | | 13 | 7.67 | 23.98 |
| | | 19.5 | 7.71 | 23.98 |
| | | 26 | 7.72 | 23.98 |
| | | 39 | 7.71 | 23.98 |
| | | 52 | 7.79 | 23.98 |
| | | 58.5 | 7.79 | 23.98 |
| | | 65 | 7.81 | 23.98 |
| 5700 | 140 | 6.5 | 6.80 | 23.98 |
| | | 13 | 6.78 | 23.98 |
| | | 19.5 | 6.81 | 23.98 |
| | | 26 | 6.81 | 23.98 |
| | | 39 | 6.82 | 23.98 |
| | | 52 | 6.81 | 23.98 |
| | | 58.5 | 6.82 | 23.98 |
| | | 65 | 6.87 | 23.98 |

▣ TEST RESULTS_Ant.1

Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5270~5310)

| 802.11n Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5270 | 54 | 13.5 | 9.69 | 0.228 | 9.92 | 23.98 |
| | | 27 | 9.62 | 0.421 | 10.05 | 23.98 |
| | | 40.5 | 9.39 | 0.552 | 9.94 | 23.98 |
| | | 54 | 9.23 | 0.683 | 9.91 | 23.98 |
| | | 81 | 9.02 | 0.950 | 9.97 | 23.98 |
| | | 108 | 8.87 | 1.091 | 9.96 | 23.98 |
| | | 121.5 | 8.73 | 1.165 | 9.89 | 23.98 |
| | | 135 | 8.66 | 1.249 | 9.91 | 23.98 |
| 5310 | 62 | 13.5 | 9.55 | 0.228 | 9.77 | 23.98 |
| | | 27 | 9.41 | 0.421 | 9.83 | 23.98 |
| | | 40.5 | 9.28 | 0.552 | 9.83 | 23.98 |
| | | 54 | 9.12 | 0.683 | 9.81 | 23.98 |
| | | 81 | 9.07 | 0.950 | 10.02 | 23.98 |
| | | 108 | 8.82 | 1.091 | 9.91 | 23.98 |
| | | 121.5 | 8.75 | 1.165 | 9.91 | 23.98 |
| | | 135 | 8.65 | 1.249 | 9.90 | 23.98 |

▣ TEST RESULTS_Ant.2

Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5270~5310)

| 802.11n Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5270 | 54 | 13.5 | 9.70 | 0.228 | 9.93 | 23.98 |
| | | 27 | 9.52 | 0.421 | 9.94 | 23.98 |
| | | 40.5 | 9.47 | 0.552 | 10.02 | 23.98 |
| | | 54 | 9.32 | 0.683 | 10.00 | 23.98 |
| | | 81 | 9.15 | 0.950 | 10.10 | 23.98 |
| | | 108 | 8.96 | 1.091 | 10.05 | 23.98 |
| | | 121.5 | 8.82 | 1.165 | 9.99 | 23.98 |
| | | 135 | 8.75 | 1.249 | 10.00 | 23.98 |
| 5310 | 62 | 13.5 | 9.27 | 0.228 | 9.50 | 23.98 |
| | | 27 | 9.13 | 0.421 | 9.55 | 23.98 |
| | | 40.5 | 9.04 | 0.552 | 9.59 | 23.98 |
| | | 54 | 8.86 | 0.683 | 9.55 | 23.98 |
| | | 81 | 8.66 | 0.950 | 9.61 | 23.98 |
| | | 108 | 8.55 | 1.091 | 9.64 | 23.98 |
| | | 121.5 | 8.53 | 1.165 | 9.69 | 23.98 |
| | | 135 | 8.43 | 1.249 | 9.68 | 23.98 |

▣ TEST RESULTS_Ant.3

Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5270~5310)

| 802.11n Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5270 | 54 | 13.5 | 9.85 | 0.228 | 10.08 | 23.98 |
| | | 27 | 9.81 | 0.421 | 10.23 | 23.98 |
| | | 40.5 | 9.51 | 0.552 | 10.06 | 23.98 |
| | | 54 | 9.40 | 0.683 | 10.09 | 23.98 |
| | | 81 | 9.26 | 0.950 | 10.21 | 23.98 |
| | | 108 | 9.01 | 1.091 | 10.10 | 23.98 |
| | | 121.5 | 8.97 | 1.165 | 10.14 | 23.98 |
| | | 135 | 8.82 | 1.249 | 10.07 | 23.98 |
| 5310 | 62 | 13.5 | 9.77 | 0.228 | 10.00 | 23.98 |
| | | 27 | 9.57 | 0.421 | 9.99 | 23.98 |
| | | 40.5 | 9.51 | 0.552 | 10.06 | 23.98 |
| | | 54 | 9.36 | 0.683 | 10.04 | 23.98 |
| | | 81 | 9.23 | 0.950 | 10.18 | 23.98 |
| | | 108 | 9.15 | 1.091 | 10.25 | 23.98 |
| | | 121.5 | 9.03 | 1.165 | 10.20 | 23.98 |
| | | 135 | 8.97 | 1.249 | 10.22 | 23.98 |

## ▣ TEST RESULTS_Sum Data of Ant.1 and Ant.2

**Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5270~5310)**

| 802.11n Mode | | Rate | Measured | Limit |
|---|---|---|---|---|
| Frequency[MHz] | Channel No. | (Mbps) | Power(dBm) | (dBm) |
| 5270 | 54 | 13.5 | 12.94 | 23.98 |
| | | 27 | 13.01 | 23.98 |
| | | 40.5 | 12.99 | 23.98 |
| | | 54 | 12.97 | 23.98 |
| | | 81 | 13.05 | 23.98 |
| | | 108 | 13.02 | 23.98 |
| | | 121.5 | 12.95 | 23.98 |
| | | 135 | 12.97 | 23.98 |
| 5310 | 62 | 13.5 | 12.65 | 23.98 |
| | | 27 | 12.70 | 23.98 |
| | | 40.5 | 12.72 | 23.98 |
| | | 54 | 12.69 | 23.98 |
| | | 81 | 12.83 | 23.98 |
| | | 108 | 12.79 | 23.98 |
| | | 121.5 | 12.81 | 23.98 |
| | | 135 | 12.80 | 23.98 |

## ▣ TEST RESULTS_Sum Data of Ant.1, Ant.2 and Ant.3

**Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5270~5310)**

| 802.11n Mode | | Rate | Measured | Limit |
|---|---|---|---|---|
| Frequency[MHz] | Channel No. | (Mbps) | Power(dBm) | (dBm) |
| 5270 | 54 | 13.5 | 14.75 | 23.98 |
| | | 27 | 14.85 | 23.98 |
| | | 40.5 | 14.78 | 23.98 |
| | | 54 | 14.77 | 23.98 |
| | | 81 | 14.87 | 23.98 |
| | | 108 | 14.81 | 23.98 |
| | | 121.5 | 14.78 | 23.98 |
| | | 135 | 14.77 | 23.98 |
| 5310 | 62 | 13.5 | 14.53 | 23.98 |
| | | 27 | 14.57 | 23.98 |
| | | 40.5 | 14.60 | 23.98 |
| | | 54 | 14.58 | 23.98 |
| | | 81 | 14.71 | 23.98 |
| | | 108 | 14.71 | 23.98 |
| | | 121.5 | 14.71 | 23.98 |
| | | 135 | 14.71 | 23.98 |

▣ TEST RESULTS_Ant.1

Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5510~5670)

| 802.11n Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5510 | 102 | 13.5 | 3.34 | 0.228 | 3.56 | 23.98 |
| | | 27 | 3.13 | 0.421 | 3.56 | 23.98 |
| | | 40.5 | 2.97 | 0.552 | 3.52 | 23.98 |
| | | 54 | 2.82 | 0.683 | 3.50 | 23.98 |
| | | 81 | 2.67 | 0.950 | 3.62 | 23.98 |
| | | 108 | 2.43 | 1.091 | 3.52 | 23.98 |
| | | 121.5 | 2.38 | 1.165 | 3.54 | 23.98 |
| | | 135 | 2.26 | 1.249 | 3.51 | 23.98 |
| 5590 | 118 | 13.5 | 3.89 | 0.228 | 4.12 | 23.98 |
| | | 27 | 3.81 | 0.421 | 4.23 | 23.98 |
| | | 40.5 | 3.66 | 0.552 | 4.21 | 23.98 |
| | | 54 | 3.52 | 0.683 | 4.21 | 23.98 |
| | | 81 | 3.26 | 0.950 | 4.21 | 23.98 |
| | | 108 | 3.08 | 1.091 | 4.17 | 23.98 |
| | | 121.5 | 3.01 | 1.165 | 4.17 | 23.98 |
| | | 135 | 2.97 | 1.249 | 4.22 | 23.98 |
| 5670 | 134 | 13.5 | 3.38 | 0.228 | 3.61 | 23.98 |
| | | 27 | 3.28 | 0.421 | 3.70 | 23.98 |
| | | 40.5 | 3.09 | 0.552 | 3.65 | 23.98 |
| | | 54 | 3.09 | 0.683 | 3.77 | 23.98 |
| | | 81 | 2.79 | 0.950 | 3.74 | 23.98 |
| | | 108 | 2.56 | 1.091 | 3.65 | 23.98 |
| | | 121.5 | 2.33 | 1.165 | 3.49 | 23.98 |
| | | 135 | 2.26 | 1.249 | 3.51 | 23.98 |

▣ TEST RESULTS_Ant.2

Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5510~5670)

| 802.11n Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5510 | 102 | 13.5 | 3.23 | 0.228 | 3.45 | 23.98 |
| | | 27 | 3.06 | 0.421 | 3.48 | 23.98 |
| | | 40.5 | 2.92 | 0.552 | 3.48 | 23.98 |
| | | 54 | 2.81 | 0.683 | 3.49 | 23.98 |
| | | 81 | 2.56 | 0.950 | 3.51 | 23.98 |
| | | 108 | 2.34 | 1.091 | 3.43 | 23.98 |
| | | 121.5 | 2.32 | 1.165 | 3.48 | 23.98 |
| | | 135 | 2.22 | 1.249 | 3.47 | 23.98 |
| 5590 | 118 | 13.5 | 3.77 | 0.228 | 3.99 | 23.98 |
| | | 27 | 3.63 | 0.421 | 4.06 | 23.98 |
| | | 40.5 | 3.55 | 0.552 | 4.11 | 23.98 |
| | | 54 | 3.44 | 0.683 | 4.12 | 23.98 |
| | | 81 | 3.30 | 0.950 | 4.24 | 23.98 |
| | | 108 | 3.16 | 1.091 | 4.25 | 23.98 |
| | | 121.5 | 2.92 | 1.165 | 4.08 | 23.98 |
| | | 135 | 2.94 | 1.249 | 4.19 | 23.98 |
| 5670 | 134 | 13.5 | 3.16 | 0.228 | 3.38 | 23.98 |
| | | 27 | 2.91 | 0.421 | 3.33 | 23.98 |
| | | 40.5 | 2.81 | 0.552 | 3.36 | 23.98 |
| | | 54 | 2.76 | 0.683 | 3.44 | 23.98 |
| | | 81 | 2.60 | 0.950 | 3.55 | 23.98 |
| | | 108 | 2.42 | 1.091 | 3.51 | 23.98 |
| | | 121.5 | 2.37 | 1.165 | 3.54 | 23.98 |
| | | 135 | 2.24 | 1.249 | 3.49 | 23.98 |

▣ TEST RESULTS_Ant.3

Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5510~5670)

| 802.11n Mode | | Rate (Mbps) | Measured Power(dBm) | Duty Cycle Factor | Measured Power(dBm) + Duty Cycle Factor | Limit (dBm) |
|---|---|---|---|---|---|---|
| Frequency [MHz] | Channel No. | | | | | |
| 5510 | 102 | 13.5 | 3.57 | 0.228 | 3.80 | 23.98 |
| | | 27 | 3.30 | 0.421 | 3.73 | 23.98 |
| | | 40.5 | 3.19 | 0.552 | 3.74 | 23.98 |
| | | 54 | 2.98 | 0.683 | 3.66 | 23.98 |
| | | 81 | 2.88 | 0.950 | 3.83 | 23.98 |
| | | 108 | 2.76 | 1.091 | 3.85 | 23.98 |
| | | 121.5 | 2.72 | 1.165 | 3.89 | 23.98 |
| | | 135 | 2.57 | 1.249 | 3.82 | 23.98 |
| 5590 | 118 | 13.5 | 4.05 | 0.228 | 4.27 | 23.98 |
| | | 27 | 3.85 | 0.421 | 4.27 | 23.98 |
| | | 40.5 | 3.76 | 0.552 | 4.31 | 23.98 |
| | | 54 | 3.59 | 0.683 | 4.27 | 23.98 |
| | | 81 | 3.40 | 0.950 | 4.35 | 23.98 |
| | | 108 | 3.08 | 1.091 | 4.17 | 23.98 |
| | | 121.5 | 2.94 | 1.165 | 4.10 | 23.98 |
| | | 135 | 2.86 | 1.249 | 4.11 | 23.98 |
| 5670 | 134 | 13.5 | 3.47 | 0.228 | 3.70 | 23.98 |
| | | 27 | 3.32 | 0.421 | 3.74 | 23.98 |
| | | 40.5 | 3.12 | 0.552 | 3.67 | 23.98 |
| | | 54 | 3.04 | 0.683 | 3.72 | 23.98 |
| | | 81 | 2.91 | 0.950 | 3.86 | 23.98 |
| | | 108 | 2.72 | 1.091 | 3.81 | 23.98 |
| | | 121.5 | 2.57 | 1.165 | 3.73 | 23.98 |
| | | 135 | 2.48 | 1.249 | 3.73 | 23.98 |

## ▣ TEST RESULTS_Sum Data of Ant.1 and Ant.2

**Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5510~5670)**

| 802.11n Mode | | Rate | Measured | Limit |
|---|---|---|---|---|
| Frequency[MHz] | Channel No. | (Mbps) | Power(dBm) | (dBm) |
| 5510 | 102 | 13.5 | 6.52 | 23.98 |
| | | 27 | 6.53 | 23.98 |
| | | 40.5 | 6.51 | 23.98 |
| | | 54 | 6.51 | 23.98 |
| | | 81 | 6.58 | 23.98 |
| | | 108 | 6.49 | 23.98 |
| | | 121.5 | 6.52 | 23.98 |
| | | 135 | 6.50 | 23.98 |
| 5590 | 118 | 13.5 | 7.07 | 23.98 |
| | | 27 | 7.16 | 23.98 |
| | | 40.5 | 7.17 | 23.98 |
| | | 54 | 7.18 | 23.98 |
| | | 81 | 7.24 | 23.98 |
| | | 108 | 7.22 | 23.98 |
| | | 121.5 | 7.14 | 23.98 |
| | | 135 | 7.22 | 23.98 |
| 5670 | 134 | 13.5 | 6.51 | 23.98 |
| | | 27 | 6.53 | 23.98 |
| | | 40.5 | 6.52 | 23.98 |
| | | 54 | 6.62 | 23.98 |
| | | 81 | 6.66 | 23.98 |
| | | 108 | 6.59 | 23.98 |
| | | 121.5 | 6.53 | 23.98 |
| | | 135 | 6.51 | 23.98 |

## ▣ TEST RESULTS_Sum Data of Ant.1, Ant.2 and Ant.3

**Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5510~5670)**

| 802.11n Mode | | Rate | Measured | Limit |
|---|---|---|---|---|
| Frequency[MHz] | Channel No. | (Mbps) | Power(dBm) | (dBm) |
| 5510 | 102 | 13.5 | 8.38 | 23.98 |
| | | 27 | 8.36 | 23.98 |
| | | 40.5 | 8.35 | 23.98 |
| | | 54 | 8.32 | 23.98 |
| | | 81 | 8.43 | 23.98 |
| | | 108 | 8.37 | 23.98 |
| | | 121.5 | 8.41 | 23.98 |
| | | 135 | 8.37 | 23.98 |
| 5590 | 118 | 13.5 | 8.90 | 23.98 |
| | | 27 | 8.96 | 23.98 |
| | | 40.5 | 8.98 | 23.98 |
| | | 54 | 8.97 | 23.98 |
| | | 81 | 9.04 | 23.98 |
| | | 108 | 8.97 | 23.98 |
| | | 121.5 | 8.89 | 23.98 |
| | | 135 | 8.94 | 23.98 |
| 5670 | 134 | 13.5 | 8.34 | 23.98 |
| | | 27 | 8.37 | 23.98 |
| | | 40.5 | 8.33 | 23.98 |
| | | 54 | 8.42 | 23.98 |
| | | 81 | 8.49 | 23.98 |
| | | 108 | 8.43 | 23.98 |
| | | 121.5 | 8.36 | 23.98 |
| | | 135 | 8.35 | 23.98 |