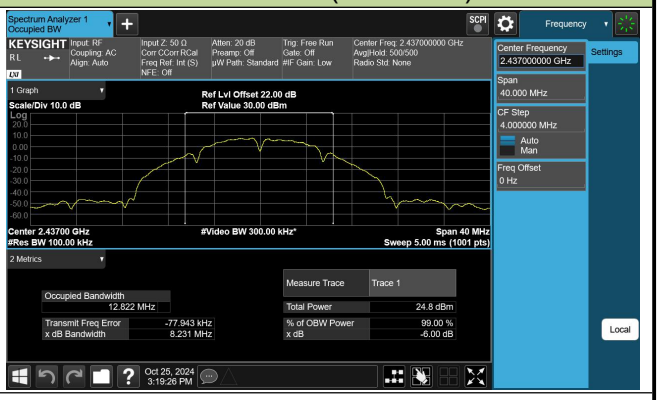
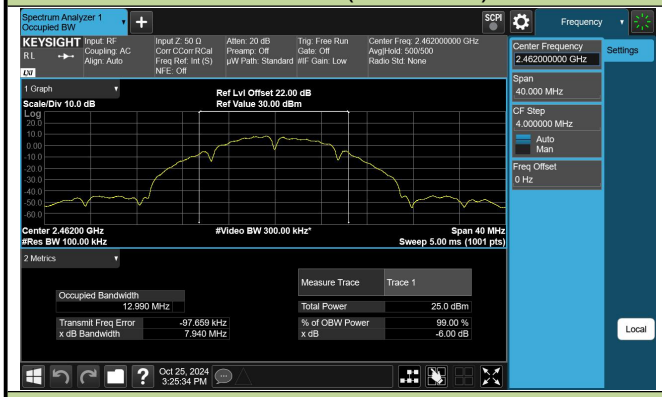
## 802.11b 6dB Bandwidth – Ant 1

### Channel 01 (2412MHz)


### Channel 06 (2437MHz)




### Channel 11 (2462MHz)




## 802.11g 6dB Bandwidth – Ant 1

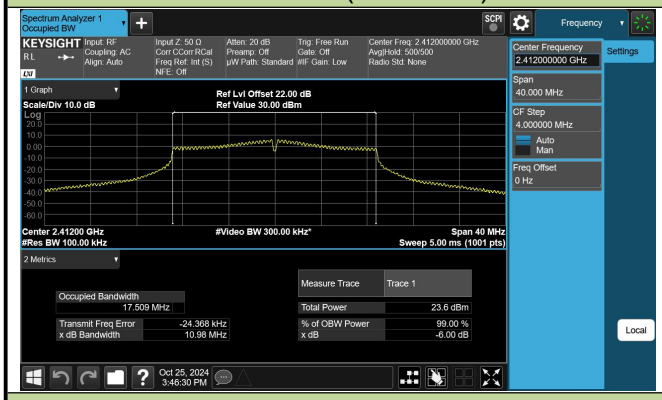
### Channel 01 (2412MHz)


### Channel 06 (2437MHz)


### Channel 11 (2462MHz)

## 802.11n-HT20 6dB Bandwidth – Ant 1

### Channel 01 (2412MHz)




### Channel 06 (2437MHz)


### Channel 11 (2462MHz)


## 802.11n-HT40 6dB Bandwidth – Ant 1

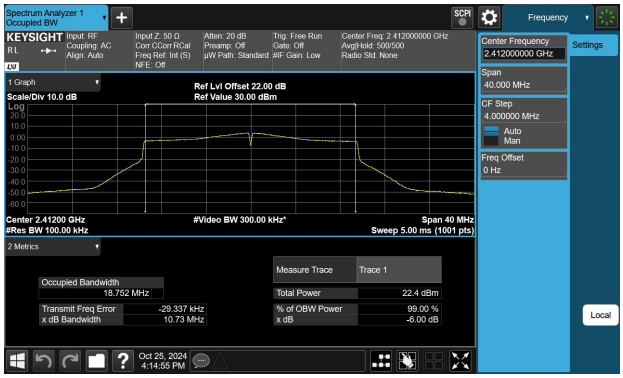
### Channel 03 (2422MHz)


### Channel 06 (2437MHz)


### Channel 09 (2452MHz)

## 802.11ax-HE20 6dB Bandwidth – Ant 1

### Channel 01 (2412MHz)




### Channel 06 (2437MHz)


### Channel 11 (2462MHz)


## 802.11ax-HE40 6dB Bandwidth – Ant 1

### Channel 03 (2422MHz)


### Channel 06 (2437MHz)


### Channel 09 (2452MHz)

## 802.11be-EHT20 6dB Bandwidth - Ant 1

### Channel 01 (2412MHz)


### Channel 06 (2437MHz)


### Channel 11 (2462MHz)


## 802.11be-EHT40 6dB Bandwidth - Ant 1

### Channel 03 (2422MHz)


### Channel 06 (2437MHz)


### Channel 09 (2452MHz)

## 7.3. Output Power Measurement

### 7.3.1. Test Limit

The maximum output power shall be less 1 Watt (30dBm).

The conducted output power limit specified in paragraph FCC Part 15.247(b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs FCC Part 15.247(b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

### 7.3.2. Test Procedure Used

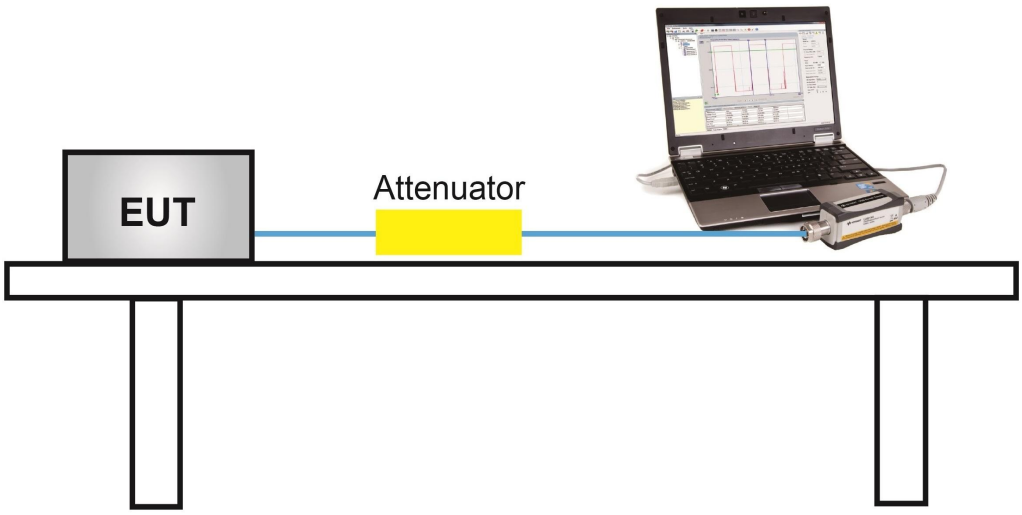
ANSI C63.10 - 2013 Section 11.9.2.3.2

### 7.3.3. Test Setting

**Average Power Measurement**

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.

### 7.3.4. Test Setup



### 7.3.5. Test Result

| Product | BE11000 Indoor/Outdoor Wi-Fi 7 Access Point | Temperature | 25°C |
|---|---|---|---|
| Test Engineer | Wen | Relative Humidity | 54% |
| Test Site | SR6 | Test Date | 2024/10/25 |

| Test Mode | Data Rate/ MCS | Channel No. | Freq. (MHz) | Ant 0 Average Power (dBm) | Ant 1 Average Power (dBm) | Total Average Power (dBm) | Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|
| Horizontal Antenna - CDD Mode | | | | | | | | |
| 802.11b | 1Mbps | 01 | 2412 | 21.81 | 22.82 | 25.35 | ≤ 30.00 | Pass |
| 802.11b | 1Mbps | 06 | 2437 | 21.78 | 22.43 | 25.13 | ≤ 30.00 | Pass |
| 802.11b | 1Mbps | 11 | 2462 | 22.11 | 22.88 | 25.52 | ≤ 30.00 | Pass |
| 802.11g | 6Mbps | 01 | 2412 | 23.62 | 24.60 | 27.15 | ≤ 30.00 | Pass |
| 802.11g | 6Mbps | 06 | 2437 | 23.88 | 24.69 | 27.31 | ≤ 30.00 | Pass |
| 802.11g | 6Mbps | 11 | 2462 | 23.73 | 24.64 | 27.22 | ≤ 30.00 | Pass |
| 802.11n-HT20 | MCS0 | 01 | 2412 | 23.90 | 24.22 | 27.07 | ≤ 30.00 | Pass |
| 802.11n-HT20 | MCS0 | 06 | 2437 | 23.60 | 24.97 | 27.35 | ≤ 30.00 | Pass |
| 802.11n-HT20 | MCS0 | 11 | 2462 | 23.30 | 24.91 | 27.19 | ≤ 30.00 | Pass |
| 802.11n-HT40 | MCS0 | 03 | 2422 | 21.06 | 22.41 | 24.80 | ≤ 30.00 | Pass |
| 802.11n-HT40 | MCS0 | 06 | 2437 | 23.70 | 24.98 | 27.40 | ≤ 30.00 | Pass |
| 802.11n-HT40 | MCS0 | 08 | 2447 | 23.68 | 24.82 | 27.30 | ≤ 30.00 | Pass |
| 802.11n-HT40 | MCS0 | 09 | 2452 | 20.62 | 21.22 | 23.94 | ≤ 30.00 | Pass |
| 802.11ax-HE20 | MCS0 | 01 | 2412 | 23.68 | 24.94 | 27.37 | ≤ 30.00 | Pass |
| 802.11ax-HE20 | MCS0 | 06 | 2437 | 24.09 | 24.43 | 27.27 | ≤ 30.00 | Pass |
| 802.11ax-HE20 | MCS0 | 11 | 2462 | 23.06 | 24.44 | 26.81 | ≤ 30.00 | Pass |
| 802.11ax-HE40 | MCS0 | 03 | 2422 | 21.47 | 22.07 | 24.79 | ≤ 30.00 | Pass |
| 802.11ax-HE40 | MCS0 | 06 | 2437 | 23.56 | 24.98 | 27.34 | ≤ 30.00 | Pass |
| 802.11ax-HE40 | MCS0 | 08 | 2447 | 22.22 | 22.31 | 25.28 | ≤ 30.00 | Pass |
| 802.11ax-HE40 | MCS0 | 09 | 2452 | 20.61 | 21.96 | 24.35 | ≤ 30.00 | Pass |
| 802.11be-EHT20 | MCS0 | 01 | 2412 | 23.28 | 24.94 | 27.20 | ≤ 30.00 | Pass |
| 802.11be-EHT20 | MCS0 | 06 | 2437 | 23.94 | 24.44 | 27.21 | ≤ 30.00 | Pass |
| 802.11be-EHT20 | MCS0 | 11 | 2462 | 23.58 | 24.08 | 26.85 | ≤ 30.00 | Pass |
| 802.11be-EHT40 | MCS0 | 03 | 2422 | 20.99 | 22.38 | 24.75 | ≤ 30.00 | Pass |
| 802.11be-EHT40 | MCS0 | 06 | 2437 | 23.68 | 24.49 | 27.11 | ≤ 30.00 | Pass |
| 802.11be-EHT40 | MCS0 | 09 | 2452 | 21.38 | 22.10 | 24.77 | ≤ 30.00 | Pass |

Note: Total Average Power (dBm) = $10*\log\{10^{(\text{Ant 0 Average Power }/10)} + 10^{(\text{Ant 1 Average Power }/10)}\}$

| Product | BE11000 Indoor/Outdoor Wi-Fi 7 Access Point | Temperature | 25°C |
|---|---|---|---|
| Test Engineer | Wen | Relative Humidity | 54% |
| Test Site | SR6 | Test Date | 2024/10/25 |

| Test Mode | Data Rate/ MCS | Channel No. | Freq. (MHz) | Ant 0 Average Power (dBm) | Ant 1 Average Power (dBm) | Total Average Power (dBm) | Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|
| Horizontal Antenna - Beamforming Mode | | | | | | | | |
| 802.11ax-HE20 | MCS0 | 01 | 2412 | 23.68 | 24.94 | 27.37 | ≤ 30.00 | Pass |
| 802.11ax-HE20 | MCS0 | 06 | 2437 | 24.09 | 24.43 | 27.27 | ≤ 30.00 | Pass |
| 802.11ax-HE20 | MCS0 | 11 | 2462 | 23.06 | 24.44 | 26.81 | ≤ 30.00 | Pass |
| 802.11ax-HE40 | MCS0 | 03 | 2422 | 21.47 | 22.07 | 24.79 | ≤ 30.00 | Pass |
| 802.11ax-HE40 | MCS0 | 06 | 2437 | 23.56 | 24.98 | 27.34 | ≤ 30.00 | Pass |
| 802.11ax-HE40 | MCS0 | 08 | 2447 | 22.22 | 22.31 | 25.28 | ≤ 30.00 | Pass |
| 802.11ax-HE40 | MCS0 | 09 | 2452 | 20.61 | 21.96 | 24.35 | ≤ 30.00 | Pass |
| 802.11be-EHT20 | MCS0 | 01 | 2412 | 23.28 | 24.94 | 27.20 | ≤ 30.00 | Pass |
| 802.11be-EHT20 | MCS0 | 06 | 2437 | 23.94 | 24.44 | 27.21 | ≤ 30.00 | Pass |
| 802.11be-EHT20 | MCS0 | 11 | 2462 | 23.58 | 24.08 | 26.85 | ≤ 30.00 | Pass |
| 802.11be-EHT40 | MCS0 | 03 | 2422 | 20.99 | 22.38 | 24.75 | ≤ 30.00 | Pass |
| 802.11be-EHT40 | MCS0 | 06 | 2437 | 23.68 | 24.49 | 27.11 | ≤ 30.00 | Pass |
| 802.11be-EHT40 | MCS0 | 09 | 2452 | 21.38 | 22.10 | 24.77 | ≤ 30.00 | Pass |

Note: Total Average Power (dBm) = $10*\log\{10^{(\text{Ant 0 Average Power }/10)}+10^{(\text{Ant 1 Average Power }/10)}\}$

| Product | BE11000 Indoor/Outdoor Wi-Fi 7 Access Point | Temperature | 25°C |
|---|---|---|---|
| Test Engineer | Wen | Relative Humidity | 54% |
| Test Site | SR6 | Test Date | 2024/10/25 |

| Test Mode | Data Rate/ MCS | Channel No. | Freq. (MHz) | Ant 0 Average Power (dBm) | Ant 1 Average Power (dBm) | Total Average Power (dBm) | Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|
| Vertical Antenna - CDD Mode | | | | | | | | |
| 802.11b | 1Mbps | 01 | 2412 | 23.89 | 24.71 | 27.33 | ≤ 30.00 | Pass |
| 802.11b | 1Mbps | 06 | 2437 | 24.11 | 24.77 | 27.46 | ≤ 30.00 | Pass |
| 802.11b | 1Mbps | 11 | 2462 | 24.03 | 24.68 | 27.38 | ≤ 30.00 | Pass |
| 802.11g | 6Mbps | 01 | 2412 | 23.57 | 24.53 | 27.09 | ≤ 30.00 | Pass |
| 802.11g | 6Mbps | 06 | 2437 | 23.72 | 24.45 | 27.11 | ≤ 30.00 | Pass |
| 802.11g | 6Mbps | 11 | 2462 | 23.20 | 23.85 | 26.55 | ≤ 30.00 | Pass |
| 802.11n-HT20 | MCS0 | 01 | 2412 | 23.04 | 23.38 | 26.22 | ≤ 30.00 | Pass |
| 802.11n-HT20 | MCS0 | 06 | 2437 | 24.24 | 25.21 | 27.76 | ≤ 30.00 | Pass |
| 802.11n-HT20 | MCS0 | 11 | 2462 | 22.35 | 22.77 | 25.58 | ≤ 30.00 | Pass |
| 802.11n-HT40 | MCS0 | 03 | 2422 | 22.19 | 23.19 | 25.73 | ≤ 30.00 | Pass |
| 802.11n-HT40 | MCS0 | 06 | 2437 | 23.80 | 24.58 | 27.22 | ≤ 30.00 | Pass |
| 802.11n-HT40 | MCS0 | 09 | 2452 | 22.00 | 22.45 | 25.24 | ≤ 30.00 | Pass |
| 802.11ax-HE20 | MCS0 | 01 | 2412 | 21.30 | 22.76 | 25.10 | ≤ 30.00 | Pass |
| 802.11ax-HE20 | MCS0 | 06 | 2437 | 23.39 | 24.74 | 27.13 | ≤ 30.00 | Pass |
| 802.11ax-HE20 | MCS0 | 10 | 2457 | 24.77 | 25.38 | 28.10 | ≤ 30.00 | Pass |
| 802.11ax-HE20 | MCS0 | 11 | 2462 | 20.73 | 21.70 | 24.25 | ≤ 30.00 | Pass |
| 802.11ax-HE40 | MCS0 | 03 | 2422 | 18.45 | 19.62 | 22.08 | ≤ 30.00 | Pass |
| 802.11ax-HE40 | MCS0 | 04 | 2427 | 21.06 | 21.56 | 24.33 | ≤ 30.00 | Pass |
| 802.11ax-HE40 | MCS0 | 06 | 2437 | 24.10 | 24.12 | 27.12 | ≤ 30.00 | Pass |
| 802.11ax-HE40 | MCS0 | 09 | 2452 | 22.29 | 23.04 | 25.69 | ≤ 30.00 | Pass |
| 802.11be-EHT20 | MCS0 | 01 | 2412 | 21.95 | 22.12 | 25.05 | ≤ 30.00 | Pass |
| 802.11be-EHT20 | MCS0 | 06 | 2437 | 24.28 | 24.60 | 27.45 | ≤ 30.00 | Pass |
| 802.11be-EHT20 | MCS0 | 10 | 2457 | 24.98 | 24.99 | 28.00 | ≤ 30.00 | Pass |
| 802.11be-EHT20 | MCS0 | 11 | 2462 | 20.05 | 20.37 | 23.22 | ≤ 30.00 | Pass |
| 802.11be-EHT40 | MCS0 | 03 | 2422 | 20.19 | 21.07 | 23.66 | ≤ 30.00 | Pass |
| 802.11be-EHT40 | MCS0 | 04 | 2427 | 20.89 | 21.88 | 24.42 | ≤ 30.00 | Pass |
| 802.11be-EHT40 | MCS0 | 06 | 2437 | 23.94 | 24.10 | 27.03 | ≤ 30.00 | Pass |
| 802.11be-EHT40 | MCS0 | 08 | 2447 | 22.70 | 22.52 | 25.62 | ≤ 30.00 | Pass |
| 802.11be-EHT40 | MCS0 | 09 | 2452 | 20.42 | 20.80 | 23.62 | ≤ 30.00 | Pass |

Note: Total Average Power (dBm) = $10*\log\{10^{(\text{Ant 0 Average Power }/10)}+10^{(\text{Ant 1 Average Power }/10)}\}$

| Product | BE11000 Indoor/Outdoor Wi-Fi 7 Access Point | Temperature | 25°C |
|---|---|---|---|
| Test Engineer | Wen | Relative Humidity | 54% |
| Test Site | SR6 | Test Date | 2024/10/25 |

| Test Mode | Data Rate/ MCS | Channel No. | Freq. (MHz) | Ant 0 Average Power (dBm) | Ant 1 Average Power (dBm) | Total Average Power (dBm) | Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|
| Vertical Antenna - Beamforming Mode | | | | | | | | |
| 802.11ax-HE20 | MCS0 | 01 | 2412 | 21.30 | 22.76 | 25.10 | ≤ 30.00 | Pass |
| 802.11ax-HE20 | MCS0 | 06 | 2437 | 23.39 | 24.74 | 27.13 | ≤ 30.00 | Pass |
| 802.11ax-HE20 | MCS0 | 10 | 2457 | 24.77 | 25.38 | 28.10 | ≤ 30.00 | Pass |
| 802.11ax-HE20 | MCS0 | 11 | 2462 | 20.73 | 21.70 | 24.25 | ≤ 30.00 | Pass |
| 802.11ax-HE40 | MCS0 | 03 | 2422 | 18.45 | 19.62 | 22.08 | ≤ 30.00 | Pass |
| 802.11ax-HE40 | MCS0 | 04 | 2427 | 21.06 | 21.56 | 24.33 | ≤ 30.00 | Pass |
| 802.11ax-HE40 | MCS0 | 06 | 2437 | 24.10 | 24.12 | 27.12 | ≤ 30.00 | Pass |
| 802.11ax-HE40 | MCS0 | 09 | 2452 | 22.29 | 23.04 | 25.69 | ≤ 30.00 | Pass |
| 802.11be-EHT20 | MCS0 | 01 | 2412 | 21.95 | 22.12 | 25.05 | ≤ 30.00 | Pass |
| 802.11be-EHT20 | MCS0 | 06 | 2437 | 24.28 | 24.60 | 27.45 | ≤ 30.00 | Pass |
| 802.11be-EHT20 | MCS0 | 10 | 2457 | 24.98 | 24.99 | 28.00 | ≤ 30.00 | Pass |
| 802.11be-EHT20 | MCS0 | 11 | 2462 | 20.05 | 20.37 | 23.22 | ≤ 30.00 | Pass |
| 802.11be-EHT40 | MCS0 | 03 | 2422 | 20.19 | 21.07 | 23.66 | ≤ 30.00 | Pass |
| 802.11be-EHT40 | MCS0 | 04 | 2427 | 20.89 | 21.88 | 24.42 | ≤ 30.00 | Pass |
| 802.11be-EHT40 | MCS0 | 06 | 2437 | 23.94 | 24.10 | 27.03 | ≤ 30.00 | Pass |
| 802.11be-EHT40 | MCS0 | 08 | 2447 | 22.70 | 22.52 | 25.62 | ≤ 30.00 | Pass |
| 802.11be-EHT40 | MCS0 | 09 | 2452 | 20.42 | 20.80 | 23.62 | ≤ 30.00 | Pass |

Note: Total Average Power (dBm) = $10*\log\{10^{(\text{Ant 0 Average Power }/10)}+10^{(\text{Ant 1 Average Power }/10)}\}$

## 7.4. Power Spectral Density Measurement

### 7.4.1. Test Limit

The maximum permissible power spectral density is 8dBm in any 3 kHz band.

The same method of determining the conducted output power shall be used to determine the power spectral density.

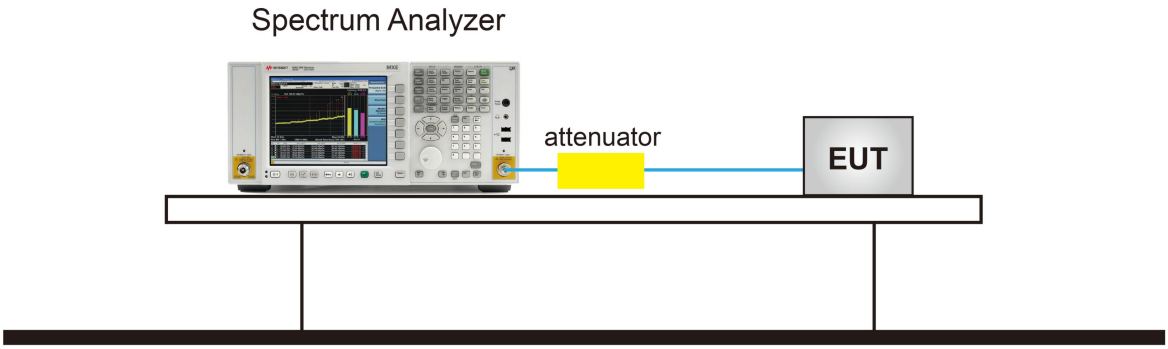
### 7.4.2. Test Procedure Used

ANSI C63.10 - 2013 Section 11.10.5

### 7.4.3. Test Setting

1. Measure the duty cycle (x) of the transmitter output signal.
2. Set instrument center frequency to DTS channel center frequency.
3. Set span to at least 1.5 times the OBW.
4. RBW = 10 kHz.
5. VBW = 30 kHz.
6. Detector = RMS.
7. Ensure that the number of measurement points in the sweep ≥ 2 x span/RBW.
8. Sweep time = auto couple.
9. Don’t use sweep triggering. Allow sweep to “free run”.
10. Employ trace averaging (RMS) mode over a minimum of 100 traces.
11. Use the peak marker function to determine the maximum amplitude level.
12. Add 10 log (1/x), where x is the duty cycle measured in step (a, to the measured PSD to compute the average PSD during the actual transmission time.

### 7.4.4. Test Setup



### 7.4.5. Test Result

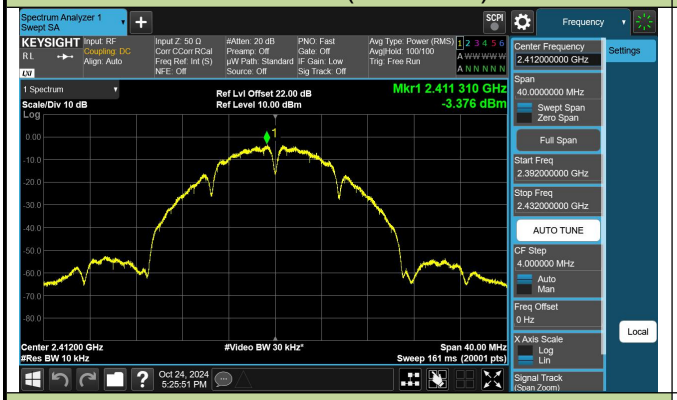
| Product | BE11000 Indoor/Outdoor Wi-Fi 7 Access Point | Temperature | 25°C |
|---|---|---|---|
| Test Engineer | Wen | Relative Humidity | 54% |
| Test Site | SR6 | Test Date | 2024/10/24~2024/10/25 |

| Test Mode | Data Rate/ MCS | Channel No. | Freq. (MHz) | Ant 0 | Ant 1 | Duty Cycle (%) | Total PSD (dBm/ 10kHz) | Limit (dBm/ 3kHz) | Result |
|---|---|---|---|---|---|---|---|---|---|
| | | | | PSD (dBm/ 10kHz) | | | | | |
| Horizontal Antenna | | | | | | | | | |
| 802.11b | 1Mbps | 01 | 2412 | -3.376 | -2.576 | 99.81% | 0.061 | ≤ 8.00 | Pass |
| 802.11b | 1Mbps | 06 | 2437 | -3.822 | -2.512 | 99.81% | -0.099 | ≤ 8.00 | Pass |
| 802.11b | 1Mbps | 11 | 2462 | -3.143 | -2.163 | 99.81% | 0.393 | ≤ 8.00 | Pass |
| 802.11g | 6Mbps | 01 | 2412 | -2.485 | -0.110 | 99.12% | 1.912 | ≤ 8.00 | Pass |
| 802.11g | 6Mbps | 06 | 2437 | -1.356 | -1.061 | 99.12% | 1.843 | ≤ 8.00 | Pass |
| 802.11g | 6Mbps | 11 | 2462 | -1.225 | -0.984 | 99.12% | 1.946 | ≤ 8.00 | Pass |
| 802.11n-HT20 | MCS0 | 01 | 2412 | -4.662 | -1.346 | 99.45% | 0.339 | ≤ 8.00 | Pass |
| 802.11n-HT20 | MCS0 | 06 | 2437 | -4.158 | -1.708 | 99.45% | 0.272 | ≤ 8.00 | Pass |
| 802.11n-HT20 | MCS0 | 11 | 2462 | -3.221 | -3.295 | 99.45% | -0.224 | ≤ 8.00 | Pass |
| 802.11n-HT40 | MCS0 | 03 | 2422 | -8.808 | -9.021 | 99.36% | -5.875 | ≤ 8.00 | Pass |
| 802.11n-HT40 | MCS0 | 06 | 2437 | -6.604 | -4.576 | 99.36% | -2.435 | ≤ 8.00 | Pass |
| 802.11n-HT40 | MCS0 | 09 | 2452 | -9.143 | -9.902 | 99.36% | -6.468 | ≤ 8.00 | Pass |
| 802.11ax-HE20 | MCS0 | 01 | 2412 | -3.268 | -4.852 | 99.36% | -0.950 | ≤ 8.00 | Pass |
| 802.11ax-HE20 | MCS0 | 06 | 2437 | -4.665 | -2.385 | 99.36% | -0.339 | ≤ 8.00 | Pass |
| 802.11ax-HE20 | MCS0 | 11 | 2462 | -4.791 | -4.754 | 99.36% | -1.734 | ≤ 8.00 | Pass |
| 802.11ax-HE40 | MCS0 | 03 | 2422 | -9.247 | -10.187 | 99.45% | -6.657 | ≤ 8.00 | Pass |
| 802.11ax-HE40 | MCS0 | 06 | 2437 | -6.662 | -7.101 | 99.45% | -3.842 | ≤ 8.00 | Pass |
| 802.11ax-HE40 | MCS0 | 09 | 2452 | -10.915 | -8.950 | 99.45% | -6.788 | ≤ 8.00 | Pass |
| 802.11be-EHT20 | MCS0 | 01 | 2412 | -3.009 | -3.900 | 98.76% | -0.367 | ≤ 8.00 | Pass |
| 802.11be-EHT20 | MCS0 | 06 | 2437 | -2.663 | -3.876 | 98.76% | -0.163 | ≤ 8.00 | Pass |
| 802.11be-EHT20 | MCS0 | 11 | 2462 | -3.838 | -3.551 | 98.76% | -0.628 | ≤ 8.00 | Pass |
| 802.11be-EHT40 | MCS0 | 03 | 2422 | -8.866 | -9.519 | 99.63% | -6.154 | ≤ 8.00 | Pass |
| 802.11be-EHT40 | MCS0 | 06 | 2437 | -5.559 | -6.462 | 99.63% | -2.961 | ≤ 8.00 | Pass |
| 802.11be-EHT40 | MCS0 | 09 | 2452 | -8.378 | -8.843 | 99.63% | -5.578 | ≤ 8.00 | Pass |

Note: Total AVGPSD = 10*log {$10^{(\text{Ant 0 AVGPSD}/10)}$ + $10^{(\text{Ant 1 AVGPSD}/10)}$} + 10*log (1/Duty Cycle).

## 802.11b AVGPSD – Ant 0 CDD Mode

### Channel 01 (2412MHz)

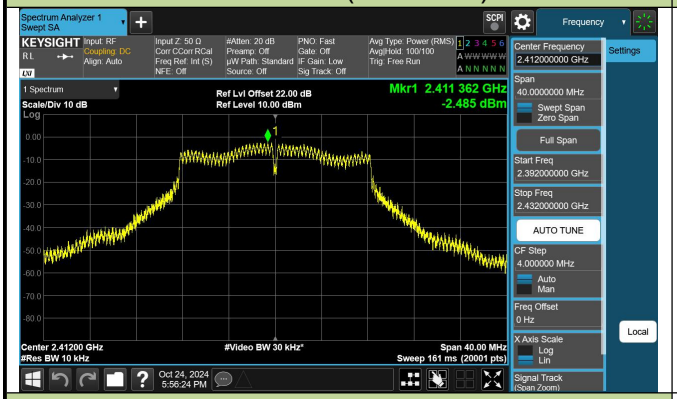



### Channel 06 (2437MHz)


### Channel 11 (2462MHz)

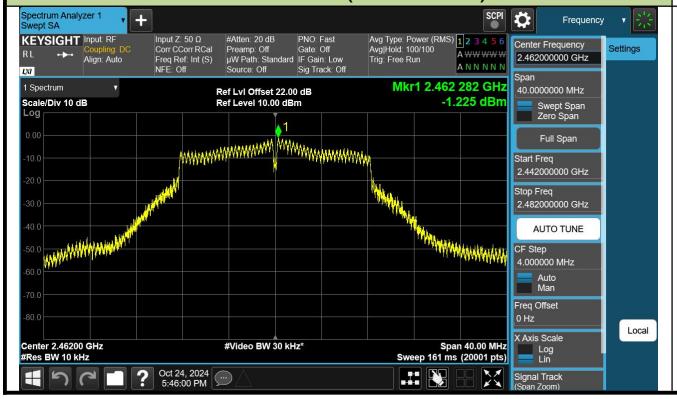

## 802.11g AVGPSD – Ant 0 CDD Mode

### Channel 01 (2412MHz)




### Channel 06 (2437MHz)

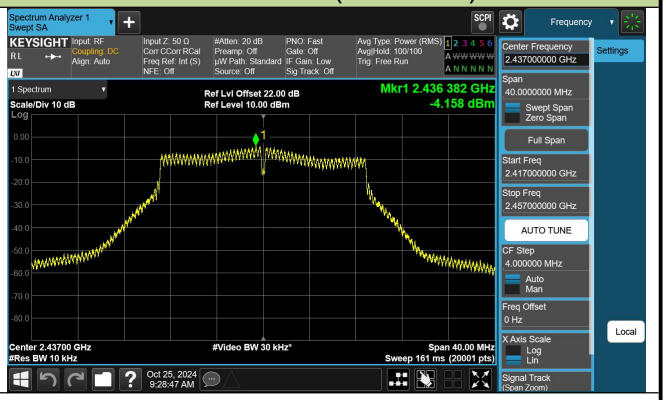

### Channel 11 (2462MHz)



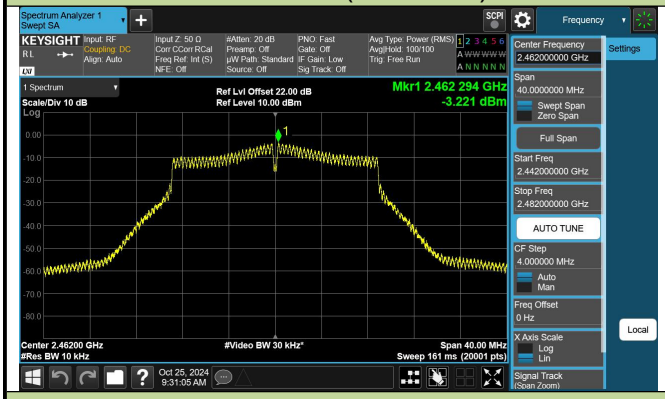
## 802.11n-HT20 AVGPSD – Ant 0 CDD Mode

### Channel 01 (2412MHz)


### Channel 06 (2437MHz)

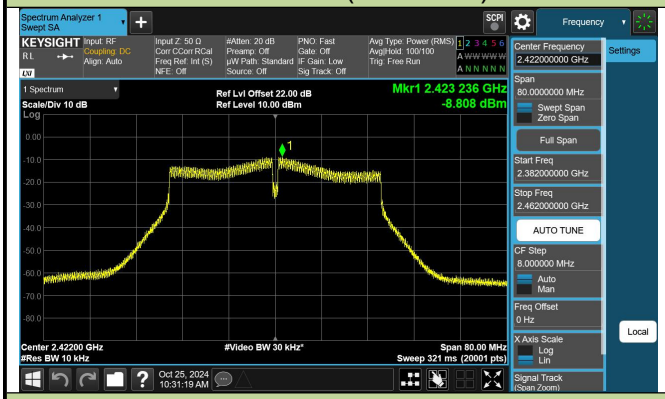



### Channel 11 (2462MHz)




## 802.11n-HT40 AVGPSD – Ant 0 CDD Mode

### Channel 03 (2422MHz)




### Channel 06 (2437MHz)


### Channel 09 (2452MHz)