

# Annex C

## WLAN 2.4GHz Test Result

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## 1. Power Spectral Density Test Result

|           |              |               |            |
|-----------|--------------|---------------|------------|
| Product   | ASSESS POINT | Test Engineer | Eric Lin   |
| Test Site | SR2          | Test Date     | 2021/08/15 |
| Model No. | APEX0585     |               |            |

| Test Mode     | Data Rate/<br>MCS | Channel No. | Freq. (MHz) | Ant 0 PSD (dBm/10kHz) | Ant 1 PSD (dBm/10kHz) | Ant 2 PSD (dBm/10kHz) | Ant 3 PSD (dBm/10kHz) | Duty Cycle (%) | Total PSD (dBm/10kHz) | Limit (dBm/3kHz) | Result |
|---------------|-------------------|-------------|-------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|-----------------------|------------------|--------|
| 802.11b       | 1Mbps             | 01          | 2412        | -2.96                 | -2.33                 | -3.79                 | -2.81                 | 61.71          | 5.18                  | ≤ 5.29           | Pass   |
| 802.11b       | 1Mbps             | 06          | 2437        | -3.37                 | -3.44                 | -4.02                 | -2.96                 | 61.71          | 4.69                  | ≤ 5.29           | Pass   |
| 802.11b       | 1Mbps             | 11          | 2462        | -4.40                 | -4.82                 | -4.49                 | -4.05                 | 61.71          | 3.69                  | ≤ 5.29           | Pass   |
| 802.11g       | 6Mbps             | 01          | 2412        | -7.63                 | -7.69                 | -7.66                 | -7.36                 | 92.30          | -1.21                 | ≤ 5.29           | Pass   |
| 802.11g       | 6Mbps             | 06          | 2437        | -5.48                 | -5.76                 | -5.28                 | -4.83                 | 92.30          | 1.04                  | ≤ 5.29           | Pass   |
| 802.11g       | 6Mbps             | 11          | 2462        | -10.62                | -10.68                | -10.58                | -10.08                | 92.30          | -4.11                 | ≤ 5.29           | Pass   |
| 802.11n-HT20  | MCS0              | 01          | 2412        | -7.43                 | -7.72                 | -7.37                 | -7.15                 | 86.02          | -0.74                 | ≤ 5.29           | Pass   |
| 802.11n-HT20  | MCS0              | 06          | 2437        | -6.17                 | -6.41                 | -6.20                 | -5.76                 | 86.02          | 0.55                  | ≤ 5.29           | Pass   |
| 802.11n-HT20  | MCS0              | 11          | 2462        | -12.45                | -12.70                | -12.40                | -11.94                | 86.02          | -5.69                 | ≤ 5.29           | Pass   |
| 802.11n-HT40  | MCS0              | 03          | 2422        | -14.96                | -15.07                | -14.97                | -14.73                | 86.23          | -8.27                 | ≤ 5.29           | Pass   |
| 802.11n-HT40  | MCS0              | 06          | 2437        | -9.00                 | -9.63                 | -8.97                 | -9.23                 | 86.23          | -2.54                 | ≤ 5.29           | Pass   |
| 802.11n-HT40  | MCS0              | 09          | 2452        | -19.74                | -19.58                | -19.34                | -19.30                | 86.23          | -12.82                | ≤ 5.29           | Pass   |
| 802.11ax-HE20 | MCS0              | 01          | 2412        | -8.83                 | -8.81                 | -8.87                 | -8.16                 | 94.50          | -2.39                 | ≤ 5.29           | Pass   |
| 802.11ax-HE20 | MCS0              | 06          | 2437        | -7.56                 | -7.98                 | -7.60                 | -6.81                 | 94.50          | -1.20                 | ≤ 5.29           | Pass   |
| 802.11ax-HE20 | MCS0              | 11          | 2462        | -14.54                | -14.98                | -14.40                | -13.80                | 94.50          | -8.14                 | ≤ 5.29           | Pass   |
| 802.11ax-HE40 | MCS0              | 03          | 2422        | -15.77                | -15.80                | -15.72                | -15.47                | 92.98          | -9.35                 | ≤ 5.29           | Pass   |
| 802.11ax-HE40 | MCS0              | 06          | 2437        | -10.05                | -10.60                | -10.06                | -9.94                 | 92.98          | -3.82                 | ≤ 5.29           | Pass   |
| 802.11ax-HE40 | MCS0              | 09          | 2452        | -20.14                | -19.94                | -20.24                | -19.71                | 92.98          | -13.67                | ≤ 5.29           | Pass   |

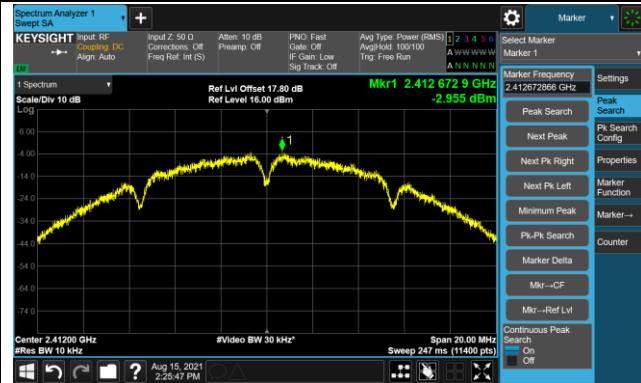
Note 1: Total AVGPSSD =  $10 \cdot \log \{ 10^{(\text{Ant 0 AVGPSSD}/10)} + 10^{(\text{Ant 1 AVGPSSD}/10)} + 10^{(\text{Ant 2 AVGPSSD}/10)} + 10^{(\text{Ant 3 AVGPSSD}/10)} \} + 10 \cdot \log(1/\text{Duty Cycle})$ .

Note 2: Limit (dBm/3kHz) = 8 dBm/3kHz – (Max antenna gain 8.71 dBi – 6.0 dBi) = 5.29 dBm/3kHz.

Note 3: Total AVGPSSD (dBm / 10kHz) << Limit (dBm / 3kHz), so there is no necessary to conversion unit.

### 802.11b AVGPSD - Ant 0

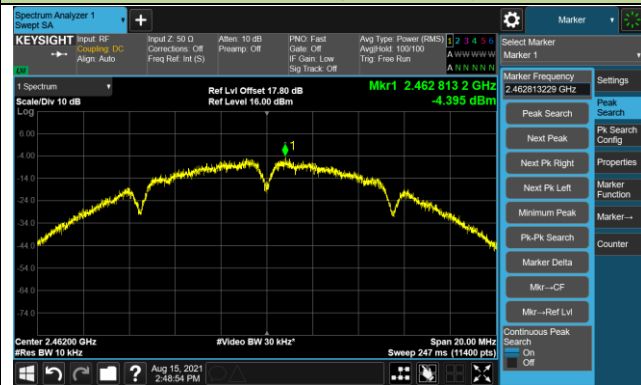
#### Channel 01 (2412MHz)



#### Channel 06 (2437MHz)

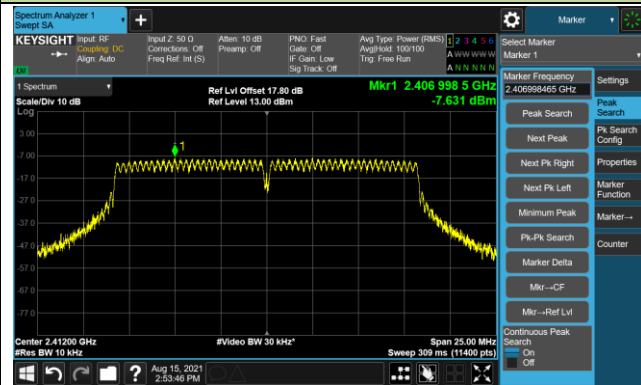


#### Channel 11 (2462MHz)

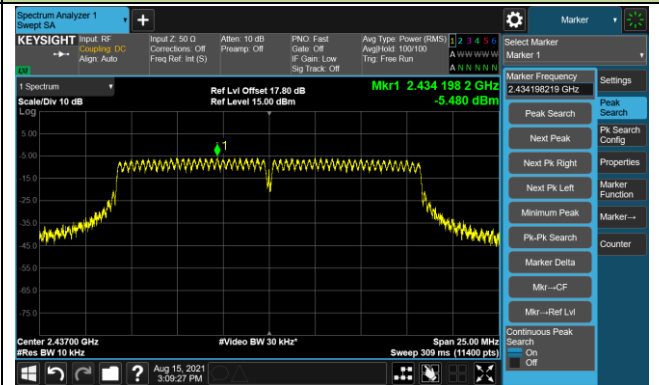


### 802.11g AVGPSD - Ant 0

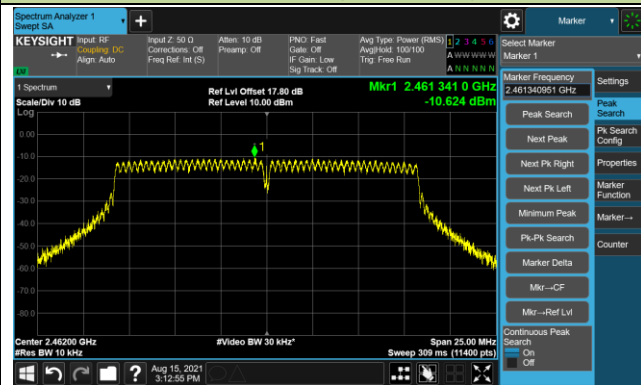
#### Channel 01 (2412MHz)



#### Channel 06 (2437MHz)

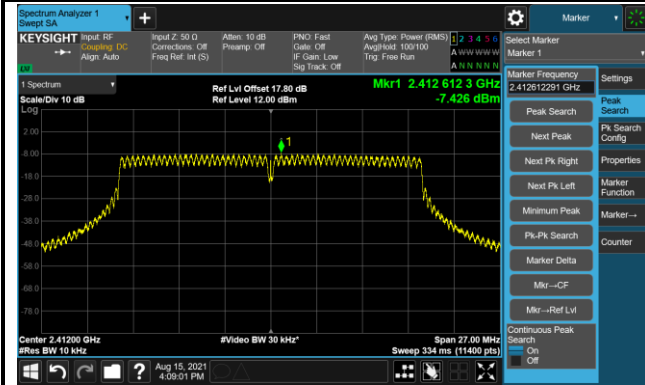


#### Channel 11 (2462MHz)

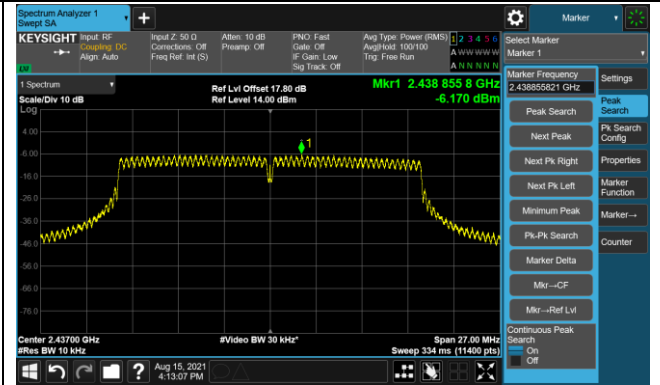


### 802.11n-HT20 AVGPDS - Ant 0

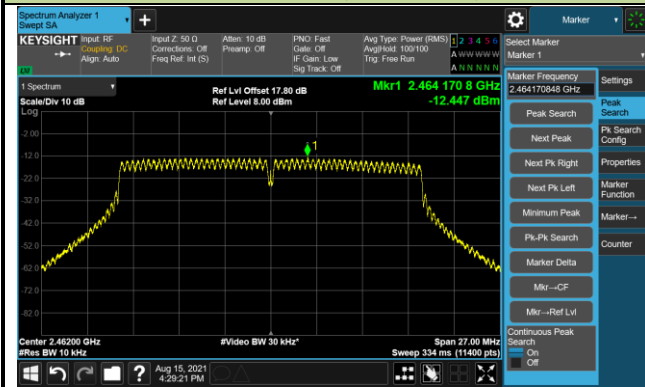
#### Channel 01 (2412MHz)



#### Channel 06 (2437MHz)



#### Channel 11 (2462MHz)

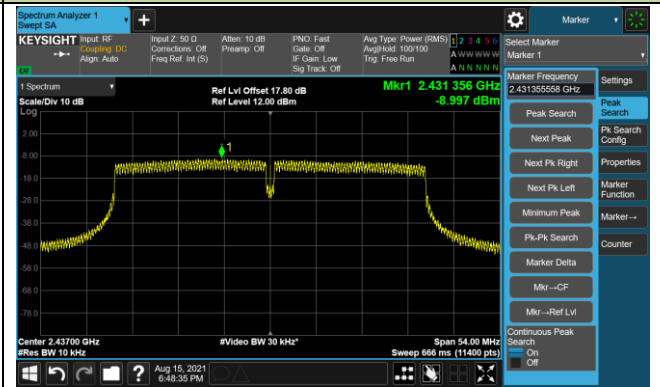


### 802.11n-HT40 AVGPDS - Ant 0

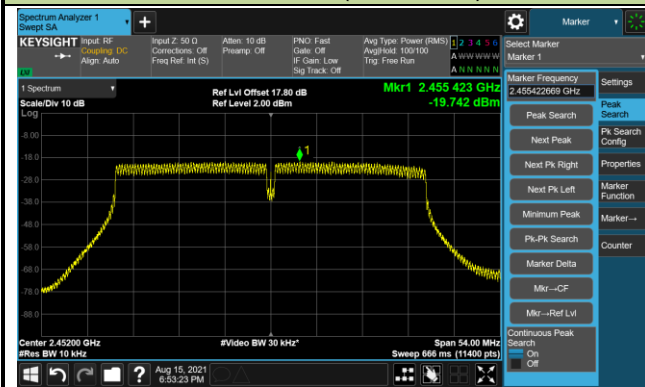
#### Channel 03 (2422MHz)



#### Channel 06 (2437MHz)

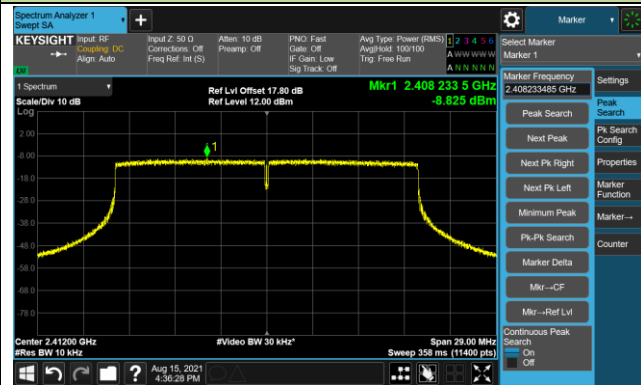


#### Channel 09 (2452MHz)



### 802.11ax-HE20 AVGPSD- Ant 0

#### Channel 01 (2412MHz)



#### Channel 06 (2437MHz)



#### Channel 11 (2462MHz)



### 802.11ax-HE40 AVGPSD - Ant 0

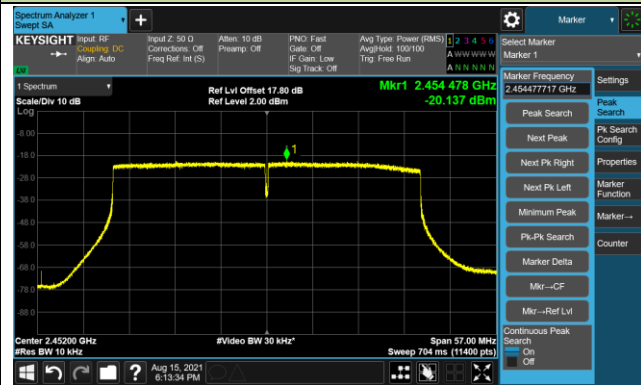
#### Channel 03 (2422MHz)



#### Channel 06 (2437MHz)

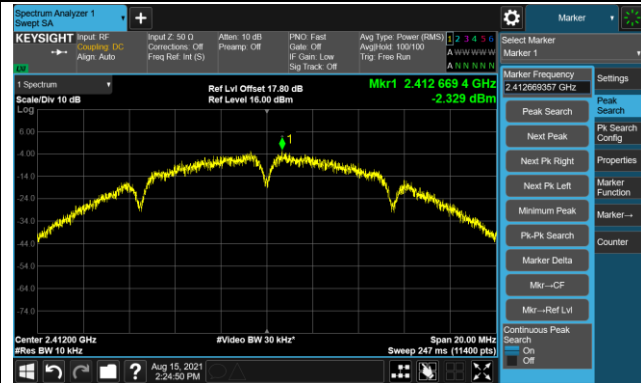


#### Channel 09 (2452MHz)



### 802.11b AVGPSD - Ant 1

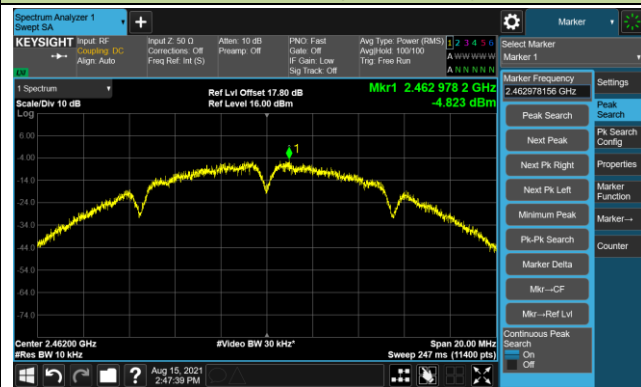
#### Channel 01 (2412MHz)



#### Channel 06 (2437MHz)

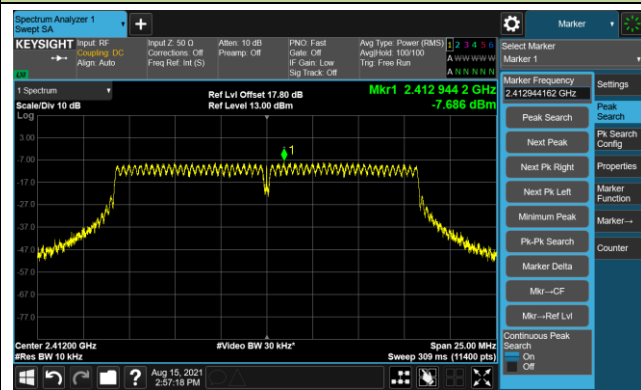


#### Channel 11 (2462MHz)

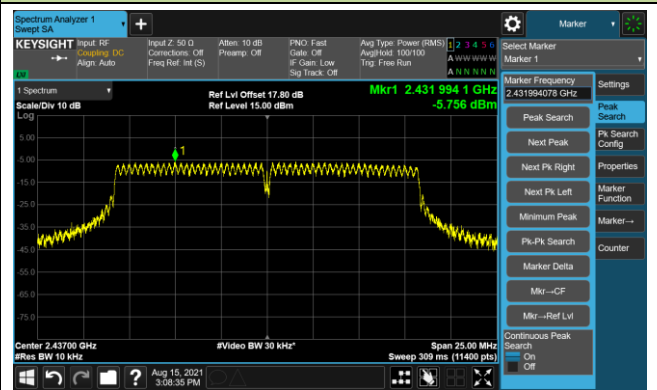


### 802.11g AVGPSD - Ant 1

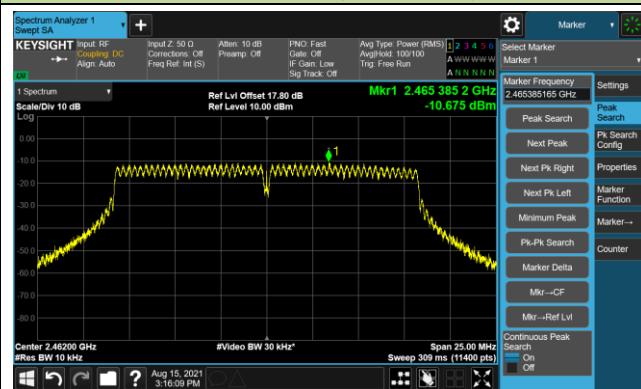
#### Channel 01 (2412MHz)



#### Channel 06 (2437MHz)

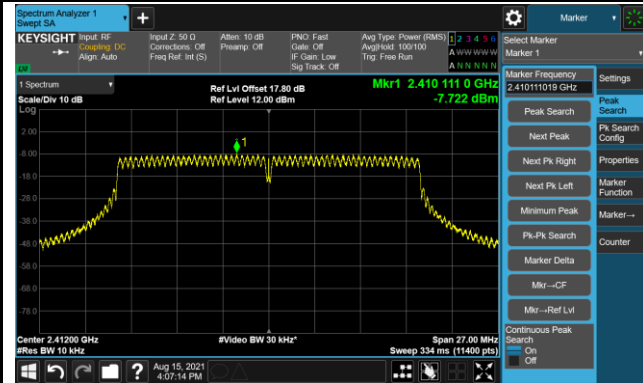


#### Channel 11 (2462MHz)

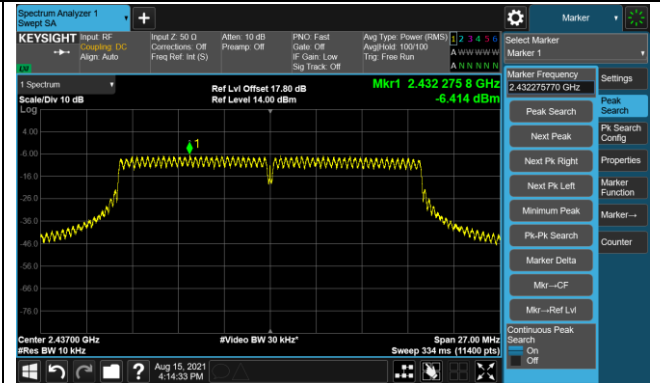


802.11n-HT20 AVGPDS - Ant 1

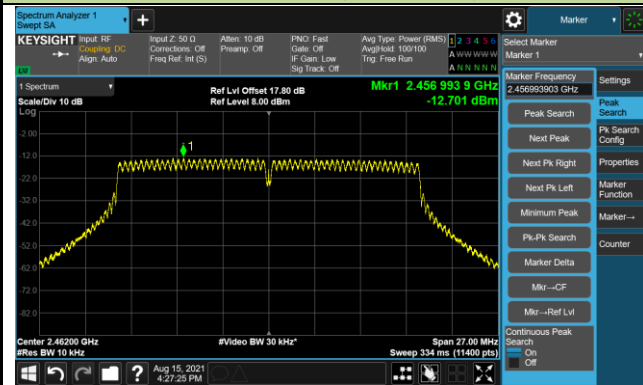
Channel 01 (2412MHz)



Channel 06 (2437MHz)

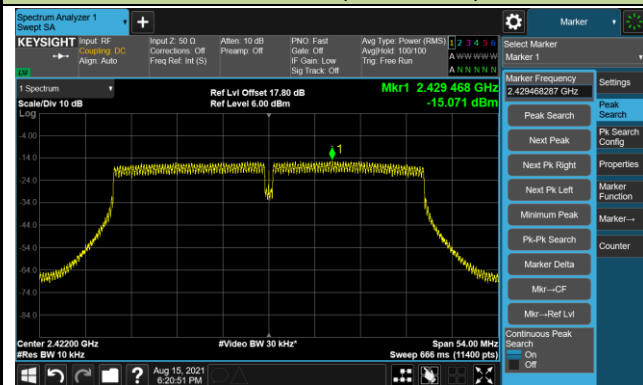


Channel 11 (2462MHz)

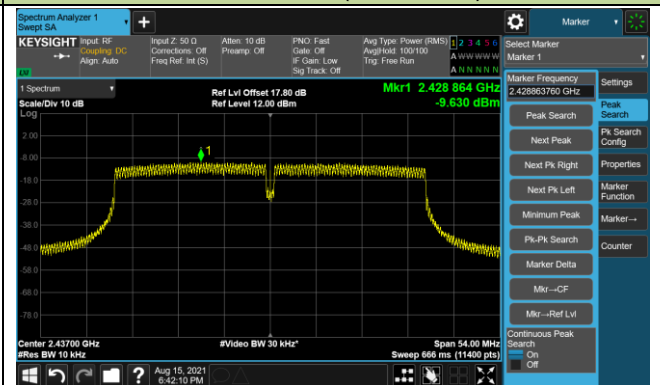


802.11n-HT40 AVGPDS - Ant 1

Channel 03 (2422MHz)



Channel 06 (2437MHz)

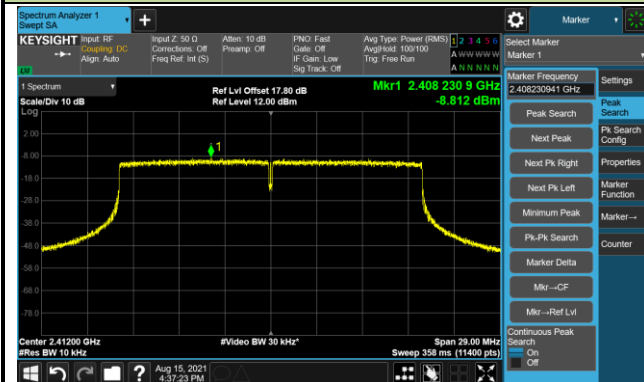


Channel 09 (2452MHz)



### 802.11ax-HE20 AVGPSD - Ant 1

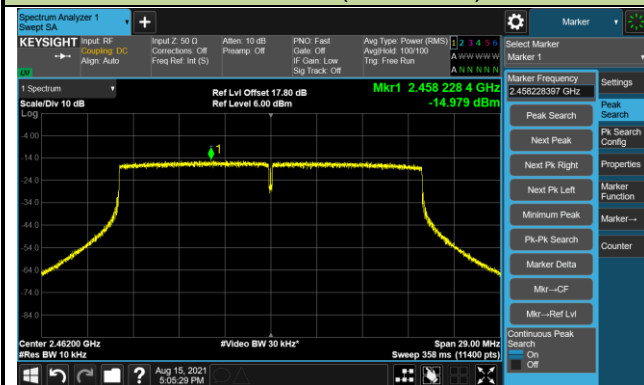
#### Channel 01 (2412MHz)



#### Channel 06 (2437MHz)

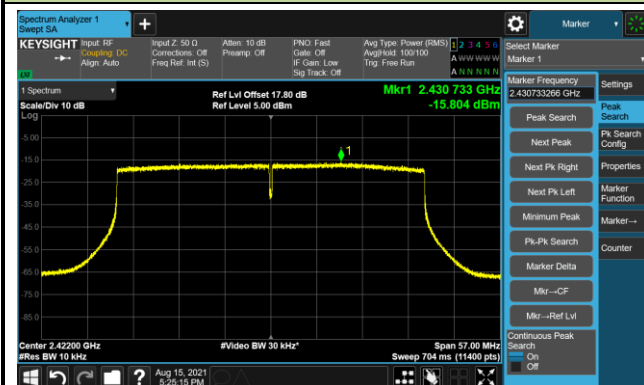


#### Channel 11 (2462MHz)



### 802.11ax-HE40 AVGPSD - Ant 1

#### Channel 03 (2422MHz)



#### Channel 06 (2437MHz)



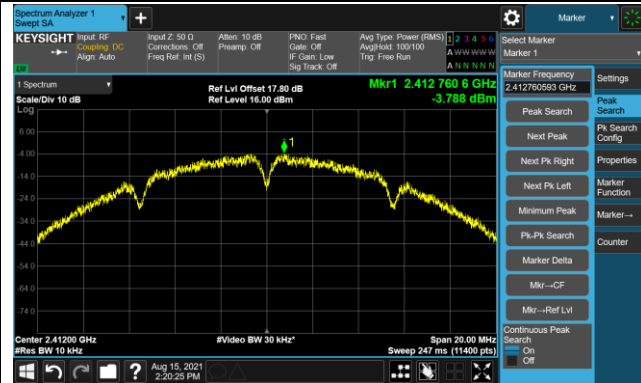
#### Channel 09 (2452MHz)



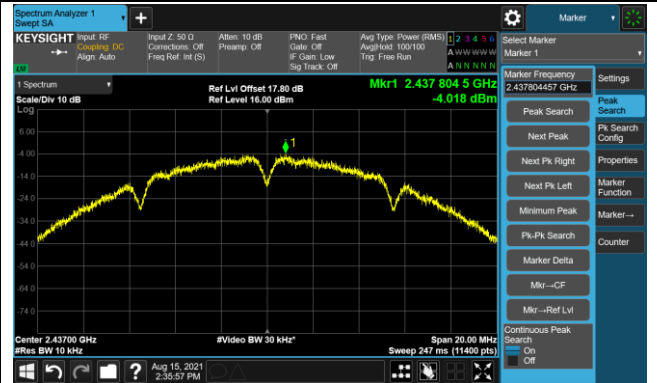


### 802.11b AVGPSD - Ant 2

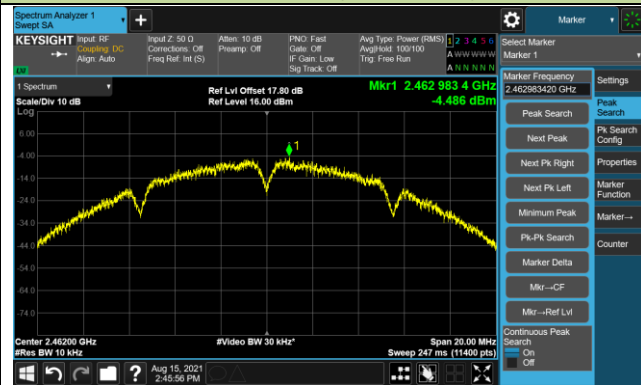
#### Channel 01 (2412MHz)



#### Channel 06 (2437MHz)

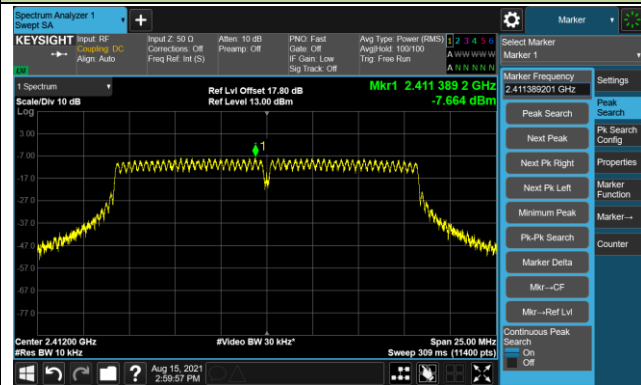


#### Channel 11 (2462MHz)

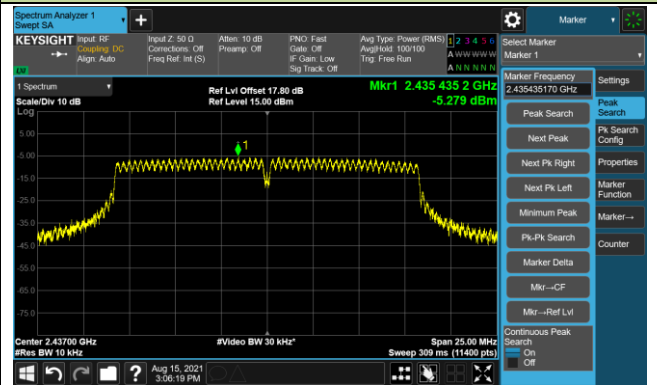


### 802.11g AVGPSD - Ant 2

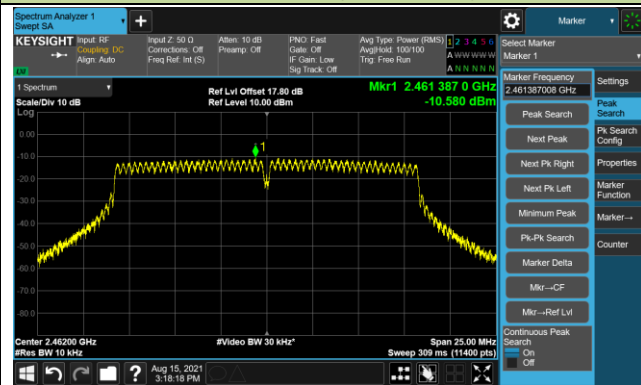
#### Channel 01 (2412MHz)



#### Channel 06 (2437MHz)

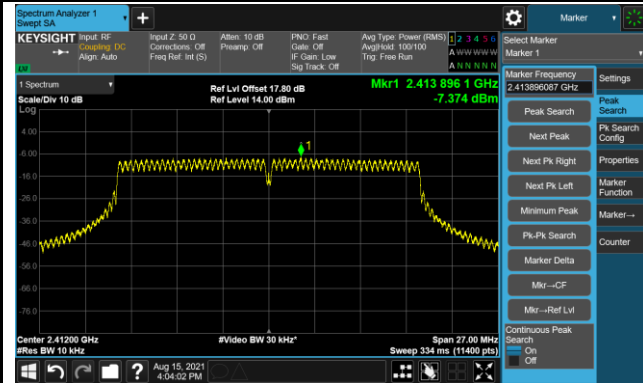


#### Channel 11 (2462MHz)

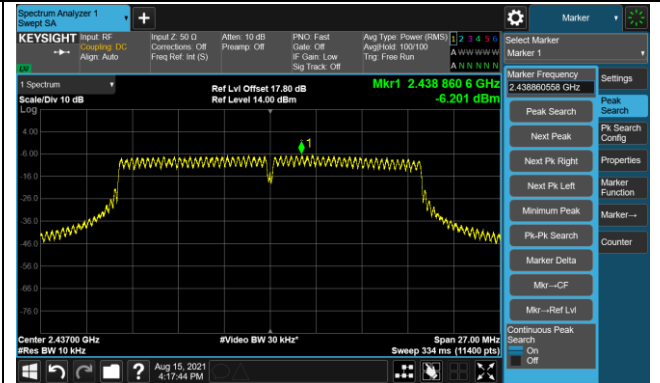


### 802.11n-HT20 AVGPDS - Ant 2

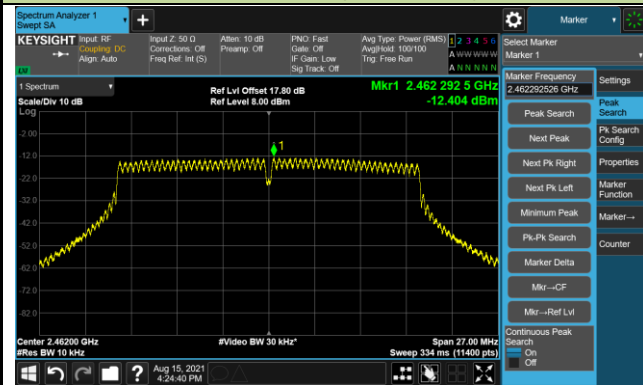
#### Channel 01 (2412MHz)



#### Channel 06 (2437MHz)

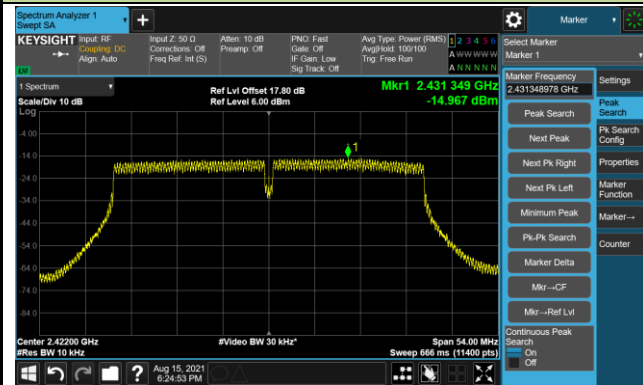


#### Channel 11 (2462MHz)

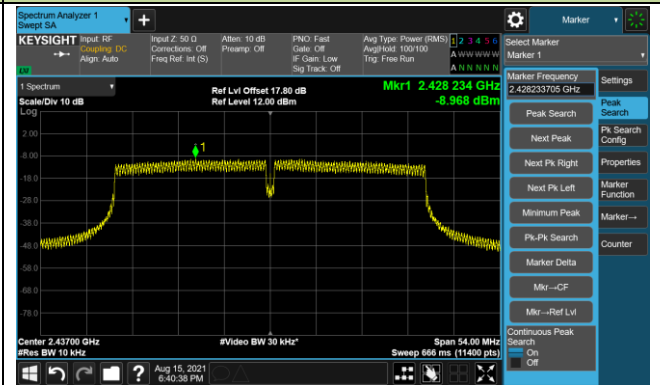


### 802.11n-HT40 AVGPDS - Ant 2

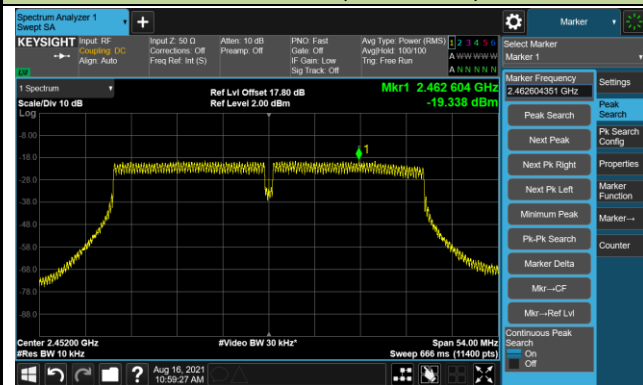
#### Channel 03 (2422MHz)



#### Channel 06 (2437MHz)



#### Channel 09 (2452MHz)



## 802.11ax-HE20 AVGPSD- Ant 2

### Channel 01 (2412MHz)



### Channel 06 (2437MHz)

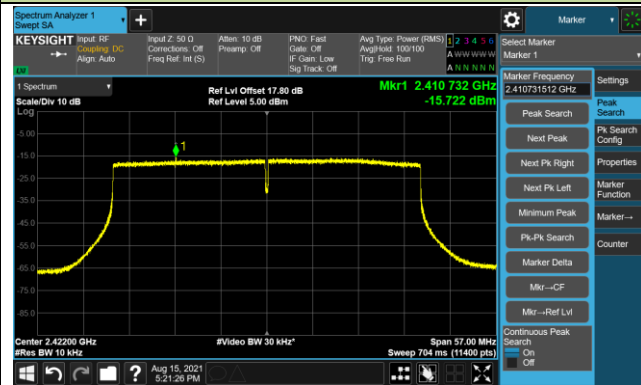


### Channel 11 (2462MHz)



## 802.11ax-HE40 AVGPSD - Ant 2

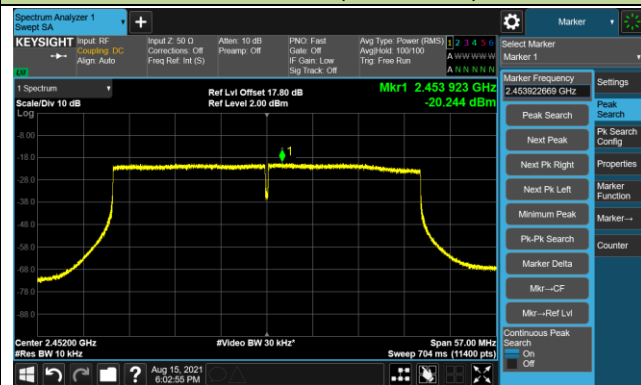
### Channel 03 (2422MHz)



### Channel 06 (2437MHz)

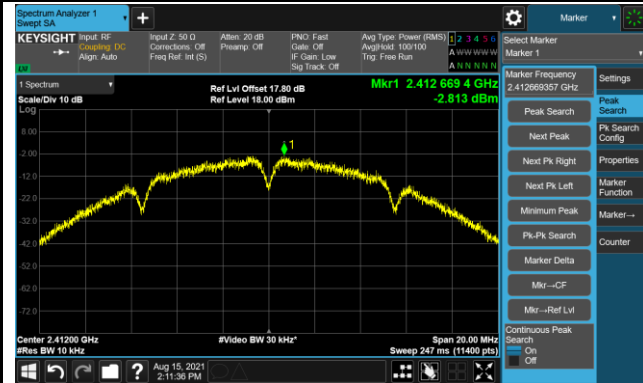


### Channel 09 (2452MHz)



### 802.11b AVGPSD - Ant 3

#### Channel 01 (2412MHz)



#### Channel 06 (2437MHz)

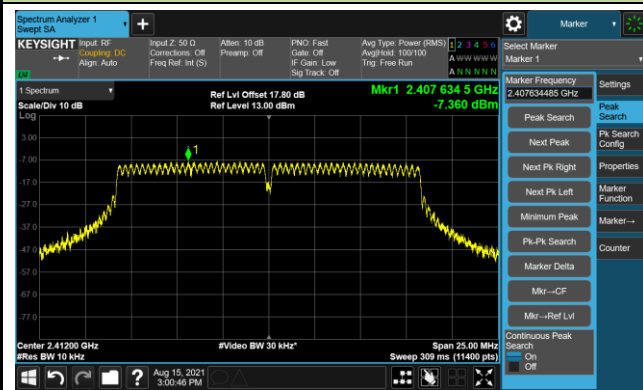


#### Channel 11 (2462MHz)

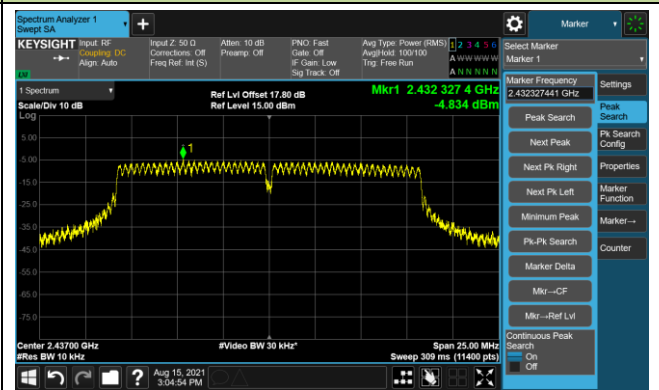


### 802.11g AVGPSD - Ant 3

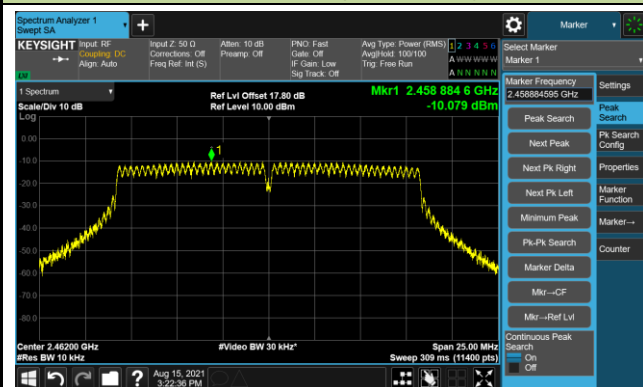
#### Channel 01 (2412MHz)



#### Channel 06 (2437MHz)

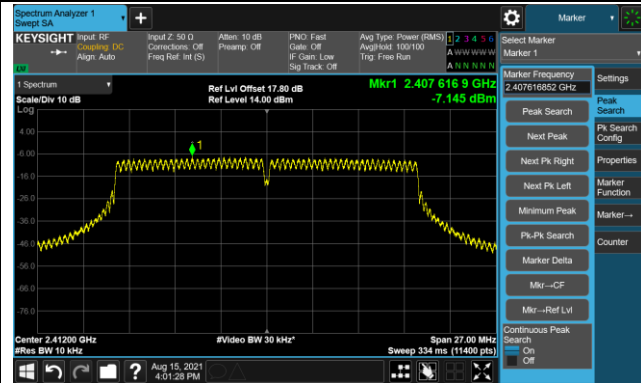


#### Channel 11 (2462MHz)

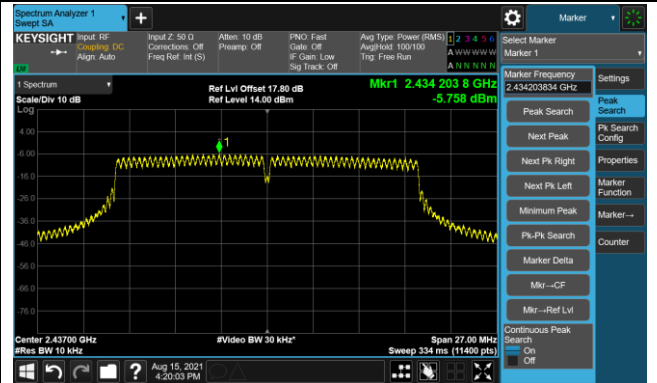


### 802.11n-HT20 AVGPDS - Ant 3

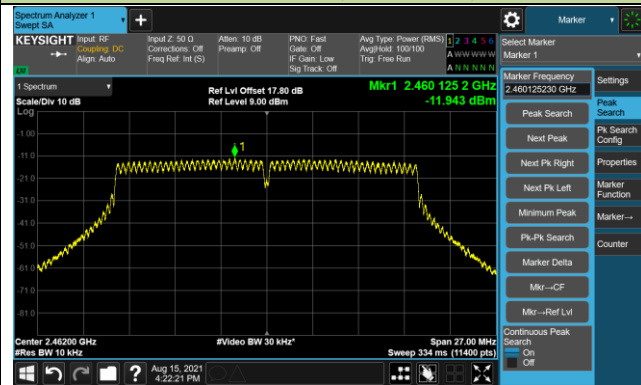
#### Channel 01 (2412MHz)



#### Channel 06 (2437MHz)

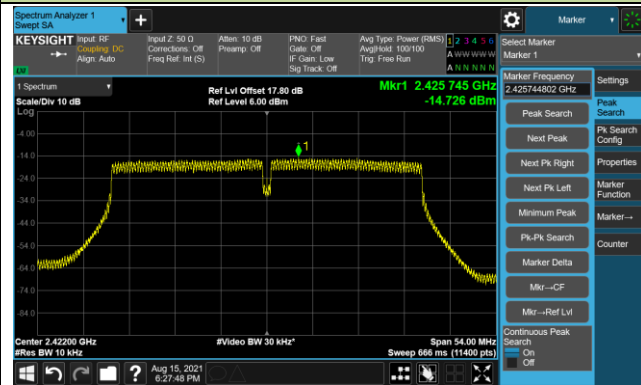


#### Channel 11 (2462MHz)

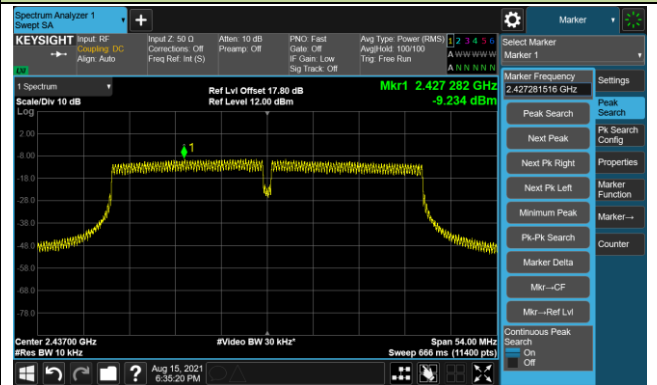


### 802.11n-HT40 AVGPDS - Ant 3

#### Channel 03 (2422MHz)



#### Channel 06 (2437MHz)



#### Channel 09 (2452MHz)

