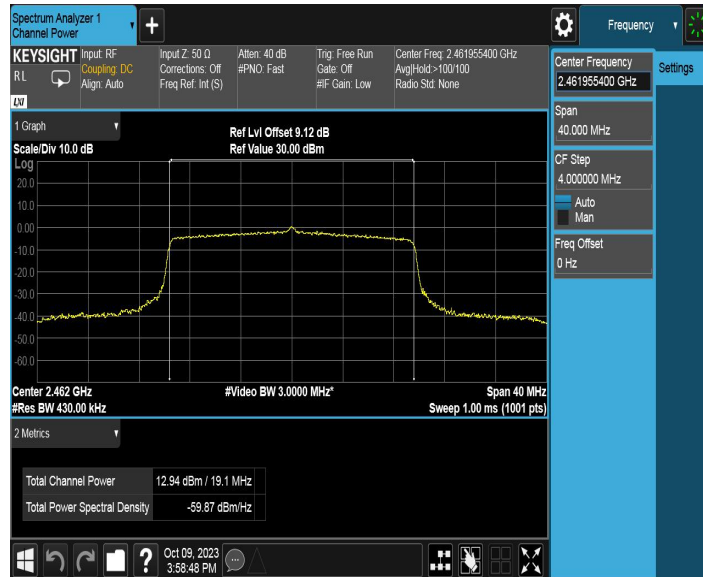


## 11AX20MIMO\_Ant2\_2462



## 11AX40MIMO\_Ant1\_2422



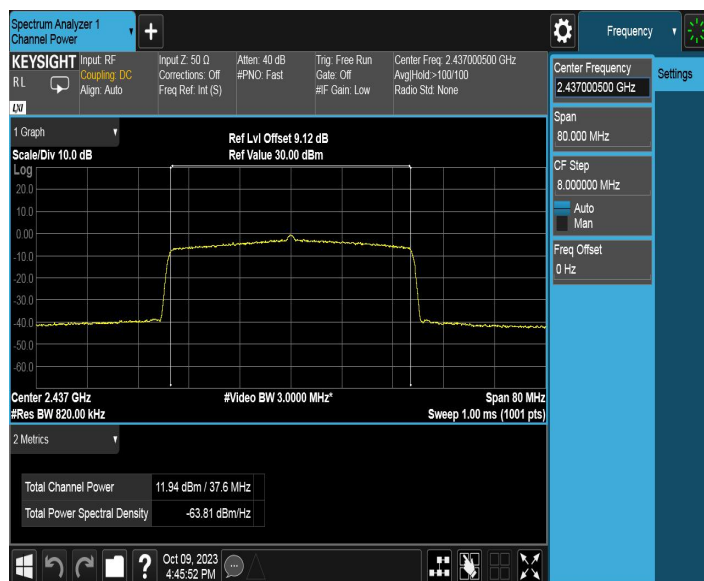
## 11AX40MIMO\_Ant2\_2422



## 11AX40MIMO\_Ant1\_2437



## 11AX40MIMO\_Ant2\_2437



## 11AX40MIMO\_Ant1\_2452



## 11AX40MIMO\_Ant2\_2452



## 7.4. Power Spectral Density Measurement

### 7.4.1. Test Limit

The maximum permissible power spectral density is 8dBm in any 3 kHz band. And for antenna gain greater than 6dBi the limit shall reduce by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

### 7.4.2. Test Procedure Used

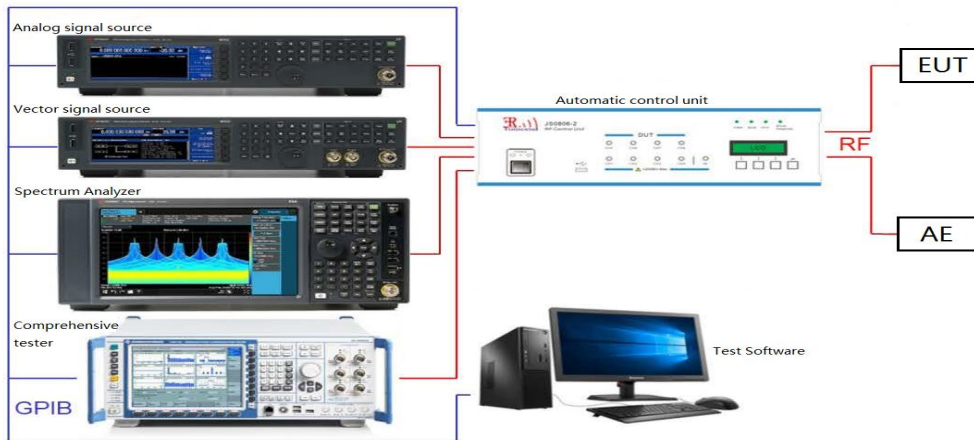
KDB 558074 D01 v05r02 - Section 8.4

ANSI C63.10 – Section 11.10.5

### 7.4.3. Test Setting

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the OBW.
3. Set the RBW to  $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$ .
4. Set the VBW  $\geq [3 \times \text{RBW}]$ .
5. Detector = power averaging (rms) or sample detector (when rms not available).
6. Ensure that the number of measurement points in the sweep  $\geq [2 \times \text{span} / \text{RBW}]$ .
7. Sweep time = auto couple.
8. Do not use sweep triggering; allow sweep to “free run.”
9. Employ trace averaging (rms) mode over a minimum of 100 traces.
10. Use the peak marker function to determine the maximum amplitude level.
11. Add  $[10 \log (1 / D)]$ , where D is the duty cycle measured in step a), to the measured PSD to
12. If measured value exceeds requirement specified by regulatory agency, then reduce RBW (but no less than 3 kHz) and repeat (note that this may require zooming in on the emission of interest and reducing the span to meet the minimum measurement point requirement as the RBW is reduced)..

#### 7.4.4. Test Setup



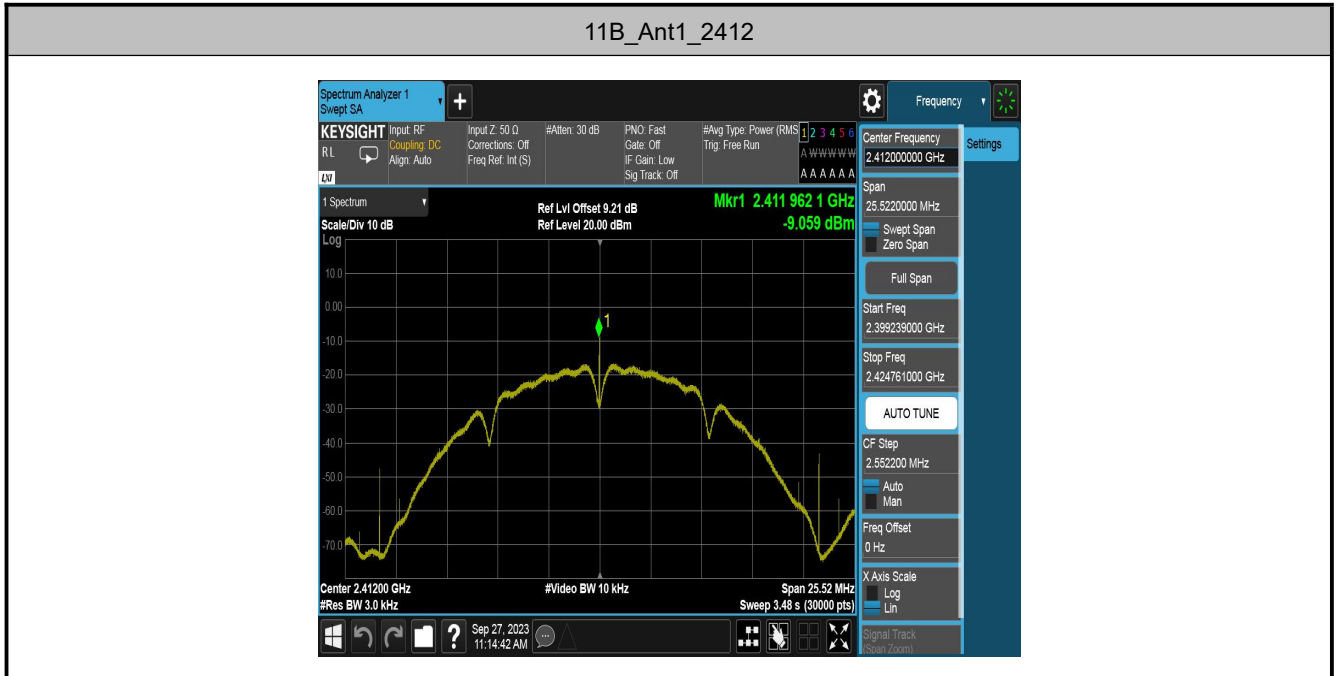
### 7.4.5. Test Result

| Test Mode  | Antenna | Frequency[MHz] | Result[dBm/3-100kHz] | Limit[dBm/3kHz] | Verdict |
|------------|---------|----------------|----------------------|-----------------|---------|
| 11B        | Ant1    | 2412           | -9.06                | ≤8.00           | PASS    |
|            | Ant2    | 2412           | -8.68                | ≤8.00           | PASS    |
|            | Ant1    | 2437           | -11.63               | ≤8.00           | PASS    |
|            | Ant2    | 2437           | -5.61                | ≤8.00           | PASS    |
|            | Ant1    | 2462           | -13.65               | ≤8.00           | PASS    |
|            | Ant2    | 2462           | -5.47                | ≤8.00           | PASS    |
| 11G        | Ant1    | 2412           | -3.78                | ≤8.00           | PASS    |
|            | Ant2    | 2412           | -2.28                | ≤8.00           | PASS    |
|            | Ant1    | 2437           | -6.53                | ≤8.00           | PASS    |
|            | Ant2    | 2437           | -3.76                | ≤8.00           | PASS    |
|            | Ant1    | 2462           | -8.13                | ≤8.00           | PASS    |
|            | Ant2    | 2462           | -3.75                | ≤8.00           | PASS    |
| 11N20MIMO  | Ant1    | 2412           | -3.50                | ≤8.00           | PASS    |
|            | Ant2    | 2412           | -2.62                | ≤8.00           | PASS    |
|            | Total   | 2412           | -0.03                | ≤8.00           | PASS    |
|            | Ant1    | 2437           | -6.52                | ≤8.00           | PASS    |
|            | Ant2    | 2437           | -4.03                | ≤8.00           | PASS    |
|            | Total   | 2437           | -2.09                | ≤8.00           | PASS    |
|            | Ant1    | 2462           | -7.71                | ≤8.00           | PASS    |
|            | Ant2    | 2462           | -4.35                | ≤8.00           | PASS    |
|            | Total   | 2462           | -2.70                | ≤8.00           | PASS    |
| 11N40MIMO  | Ant1    | 2422           | -3.67                | ≤8.00           | PASS    |
|            | Ant2    | 2422           | -2.54                | ≤8.00           | PASS    |
|            | Total   | 2422           | -0.06                | ≤8.00           | PASS    |
|            | Ant1    | 2437           | -5.84                | ≤8.00           | PASS    |
|            | Ant2    | 2437           | -1.55                | ≤8.00           | PASS    |
|            | Total   | 2437           | -0.18                | ≤8.00           | PASS    |
|            | Ant1    | 2452           | -10.91               | ≤8.00           | PASS    |
|            | Ant2    | 2452           | -1.03                | ≤8.00           | PASS    |
|            | Total   | 2452           | -0.61                | ≤8.00           | PASS    |
| 11AX20MIMO | Ant1    | 2412           | -2.91                | ≤8.00           | PASS    |
|            | Ant2    | 2412           | -3.01                | ≤8.00           | PASS    |
|            | Total   | 2412           | 0.05                 | ≤8.00           | PASS    |
|            | Ant1    | 2437           | -5.62                | ≤8.00           | PASS    |

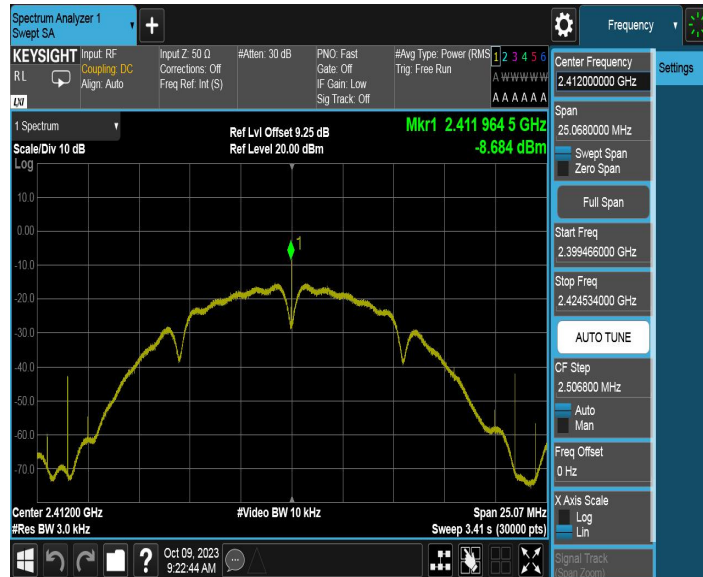
|            |       |      |        |             |      |
|------------|-------|------|--------|-------------|------|
|            | Ant2  | 2437 | -2.33  | $\leq 8.00$ | PASS |
|            | Total | 2437 | -0.66  | $\leq 8.00$ | PASS |
|            | Ant1  | 2462 | -7.29  | $\leq 8.00$ | PASS |
|            | Ant2  | 2462 | -1.98  | $\leq 8.00$ | PASS |
|            | Total | 2462 | -0.86  | $\leq 8.00$ | PASS |
| 11AX40MIMO | Ant1  | 2422 | -9.43  | $\leq 8.00$ | PASS |
|            | Ant2  | 2422 | -2.59  | $\leq 8.00$ | PASS |
|            | Total | 2422 | -1.77  | $\leq 8.00$ | PASS |
|            | Ant1  | 2437 | -10.39 | $\leq 8.00$ | PASS |
|            | Ant2  | 2437 | -3.50  | $\leq 8.00$ | PASS |
|            | Total | 2437 | -2.69  | $\leq 8.00$ | PASS |
|            | Ant1  | 2452 | -11.07 | $\leq 8.00$ | PASS |
|            | Ant2  | 2452 | -4.52  | $\leq 8.00$ | PASS |
|            | Total | 2452 | -3.65  | $\leq 8.00$ | PASS |

The Duty Cycle Factor is compensated in the Offset of graph.

## Test Graphs



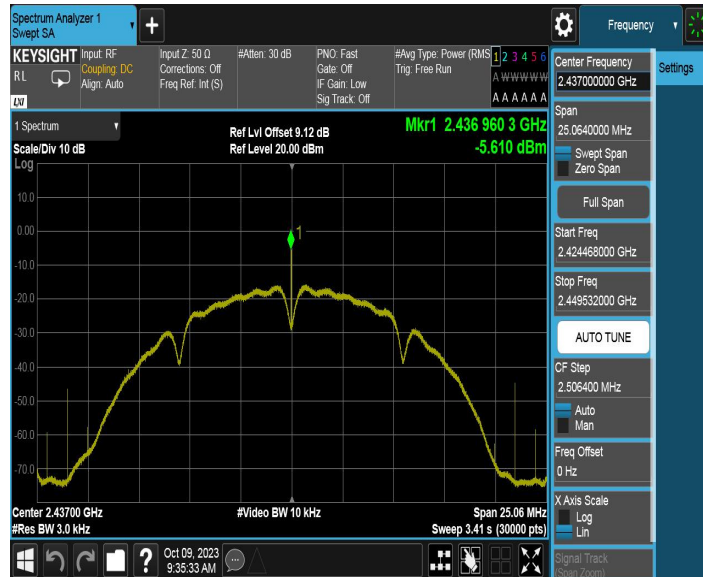
### 11B\_Ant2\_2412



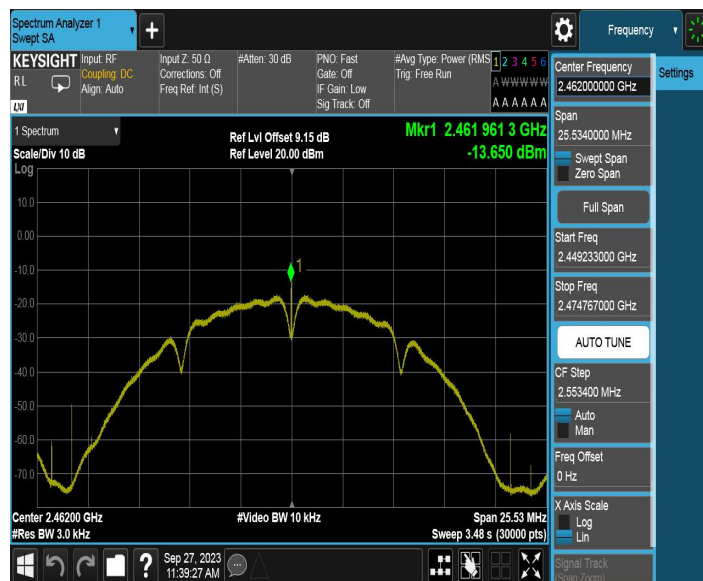
### 11B\_Ant1\_2437



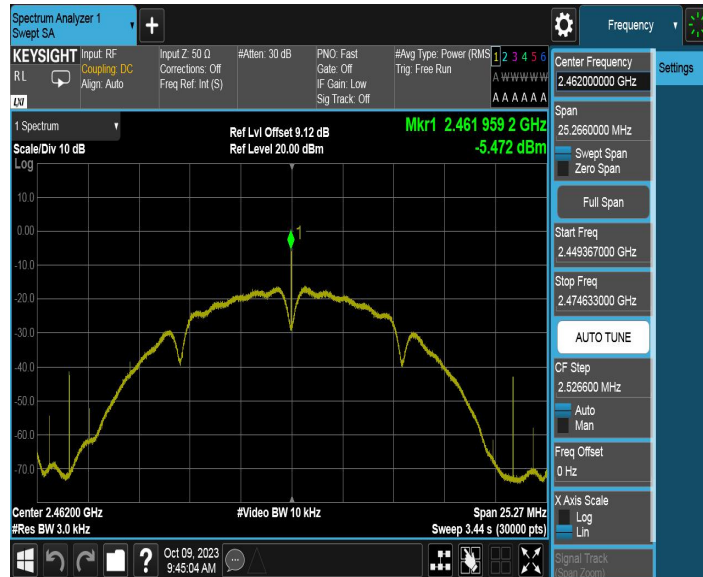
### 11B\_Ant2\_2437



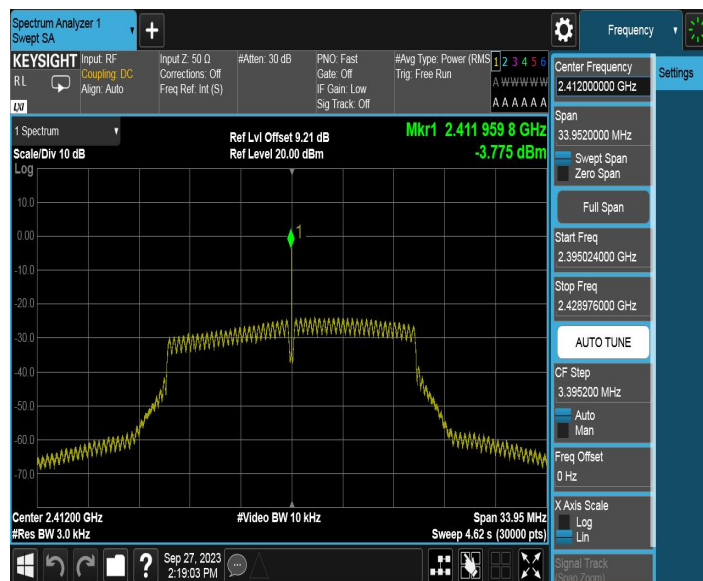
### 11B\_Ant1\_2462



11B\_Ant2\_2462



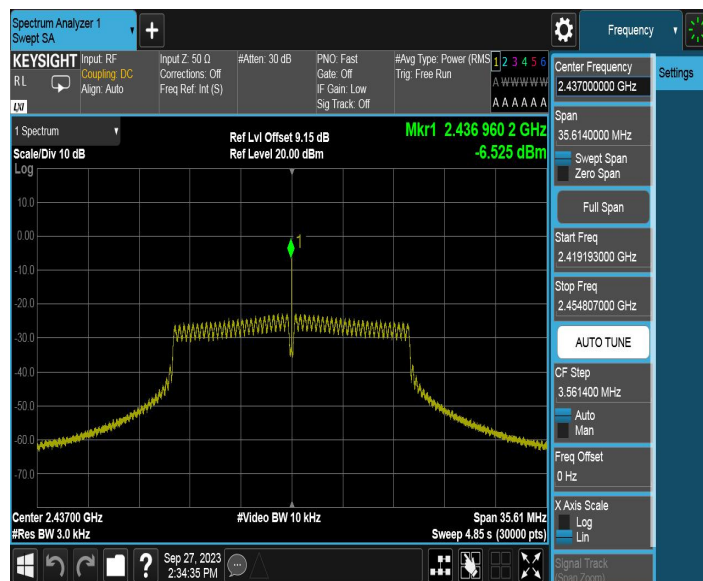
11G\_Ant1\_2412



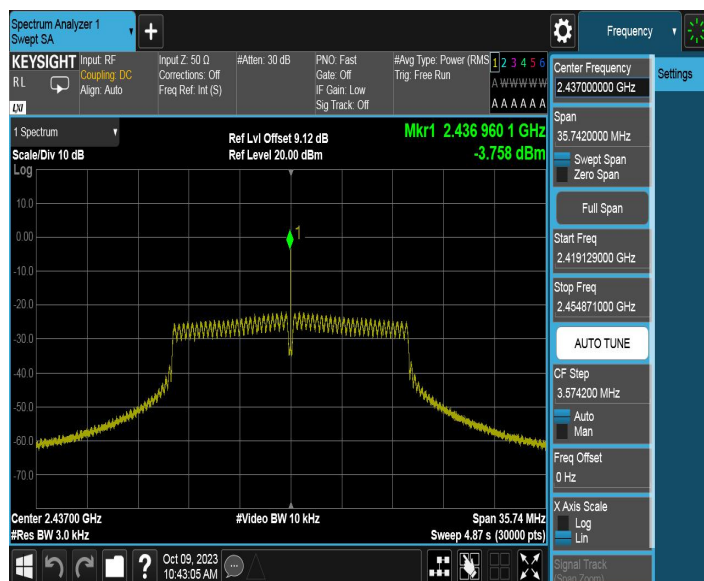
11G\_Ant2\_2412



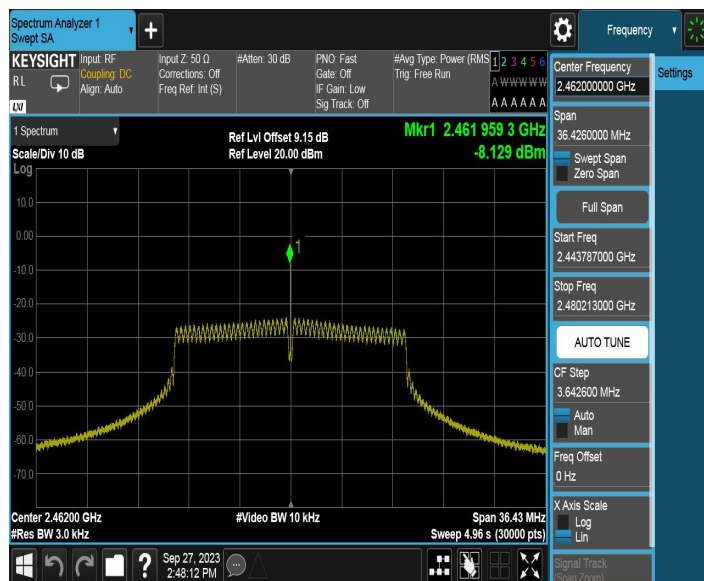
11G\_Ant1\_2437



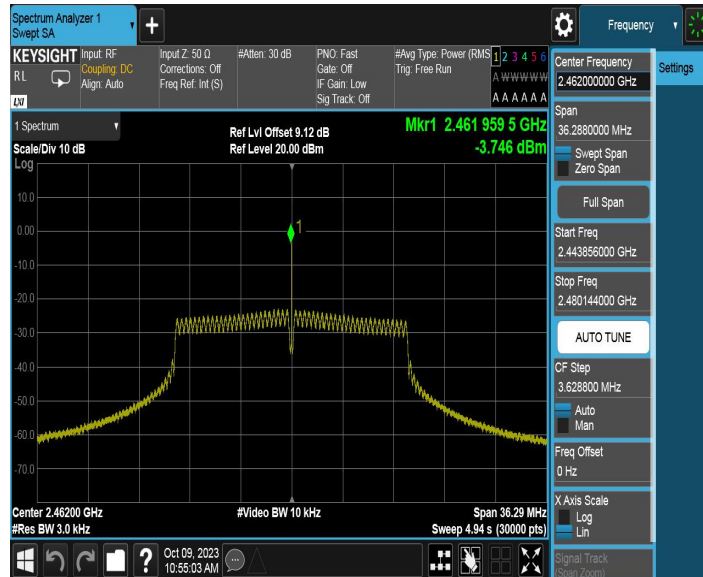
### 11G\_Ant2\_2437



### 11G\_Ant1\_2462



### 11G\_Ant2\_2462



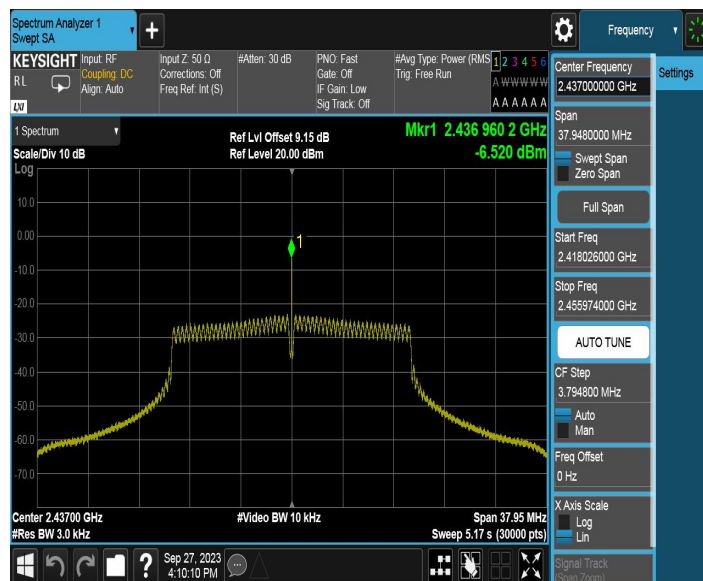
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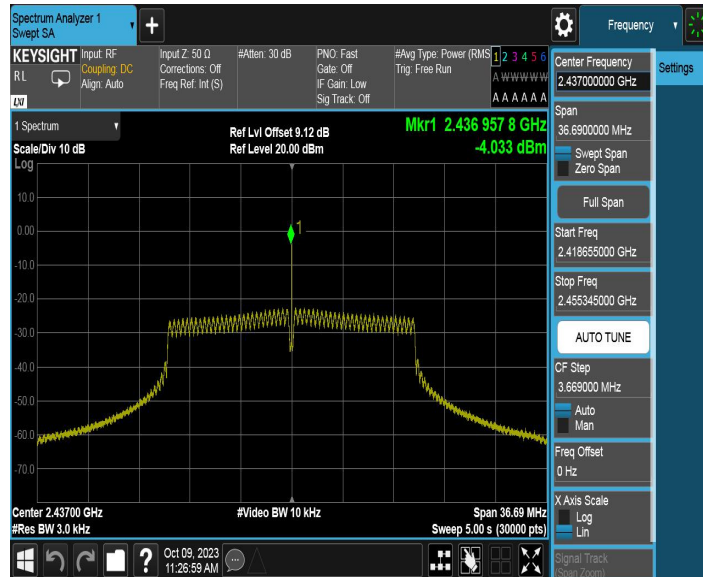
## 11N20MIMO\_Ant2\_2412



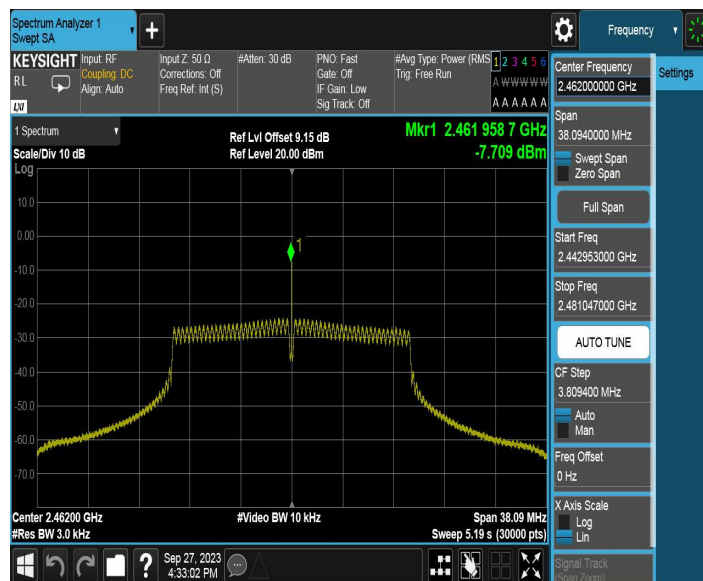
## 11N20MIMO\_Ant1\_2437



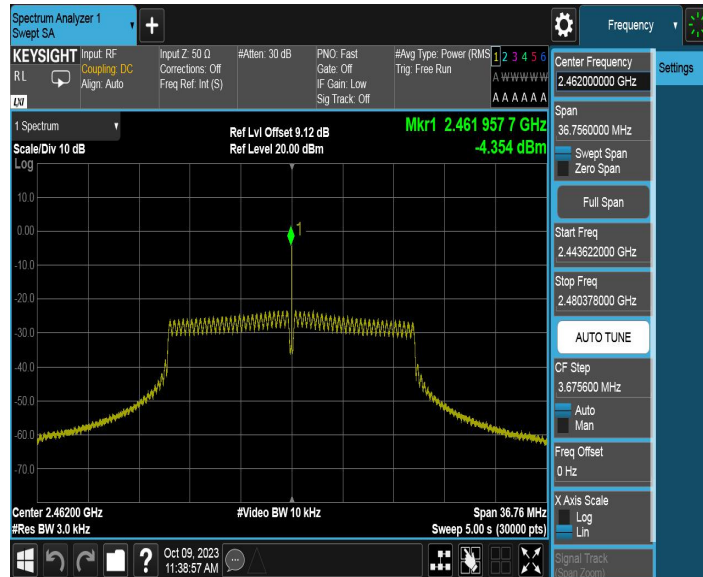
## 11N20MIMO\_Ant2\_2437



## 11N20MIMO\_Ant1\_2462



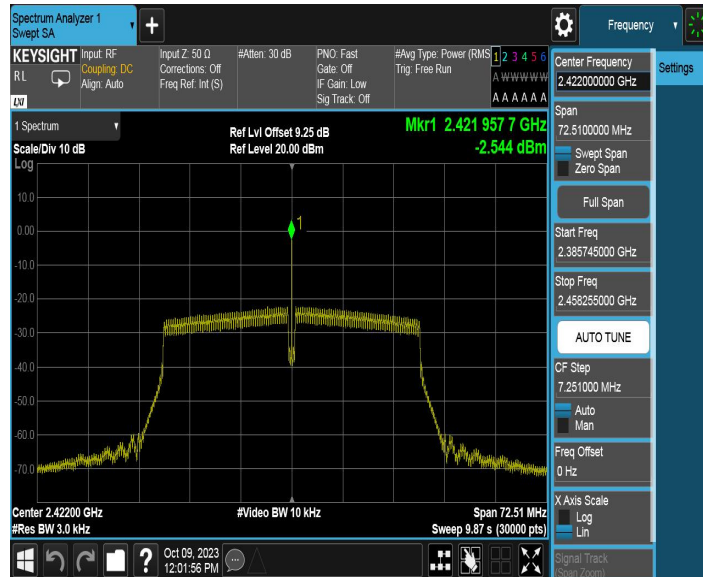
### 11N20MIMO\_Ant2\_2462



### 11N40MIMO\_Ant1\_2422



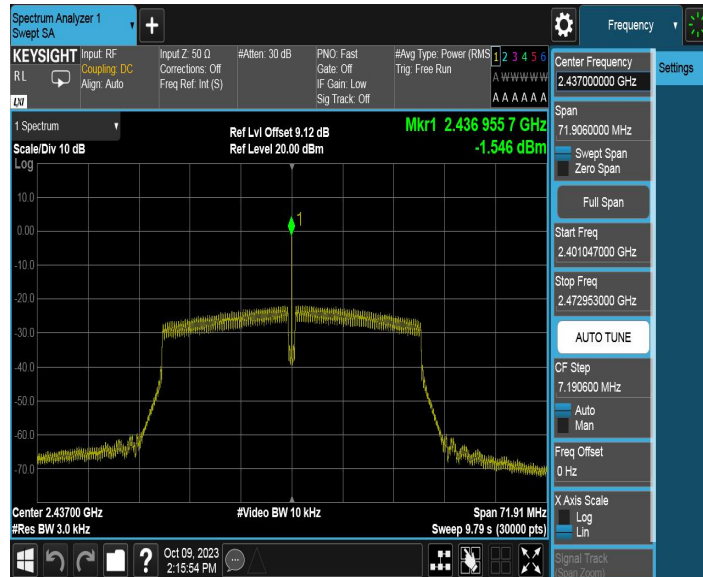
### 11N40MIMO\_Ant2\_2422



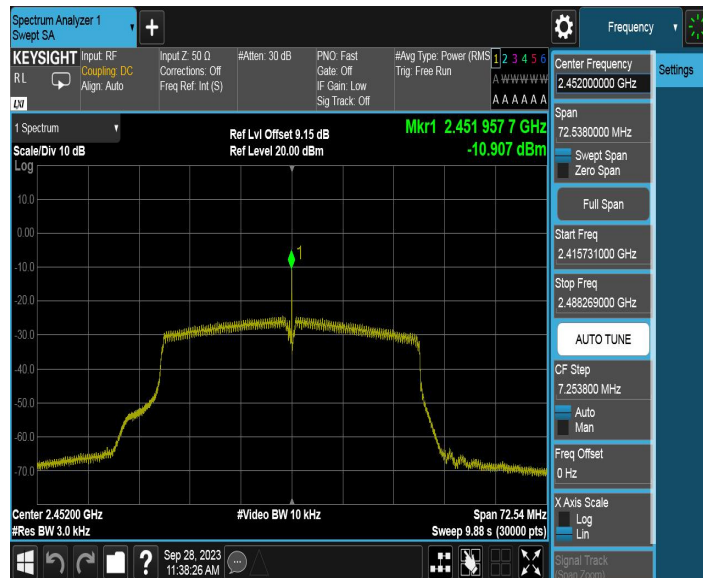
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11N40MIMO\_Ant2\_2437



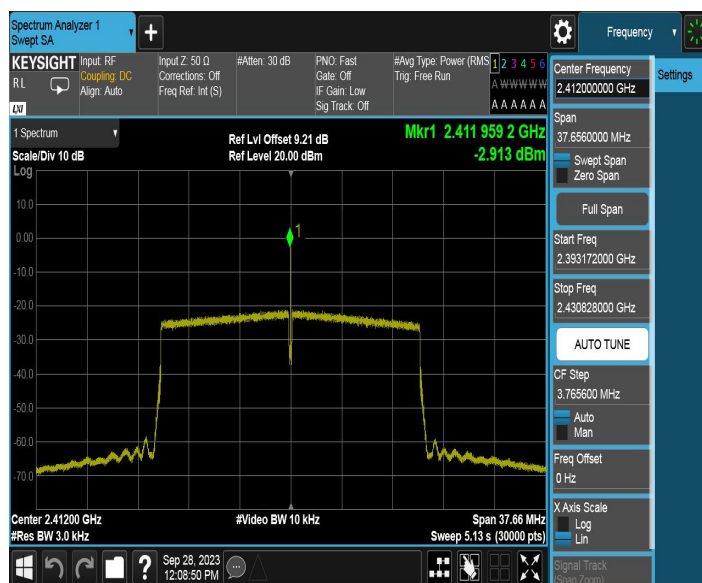
11N40MIMO\_Ant1\_2452



## 11N40MIMO\_Ant2\_2452



## 11AX20MIMO\_Ant1\_2412



11AX20MIMO\_Ant2\_2412



11AX20MIMO\_Ant1\_2437

