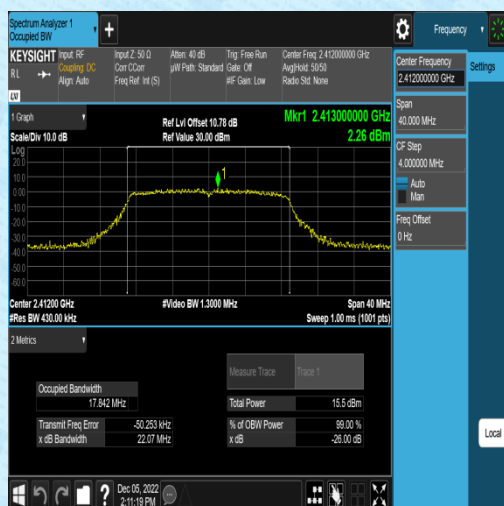
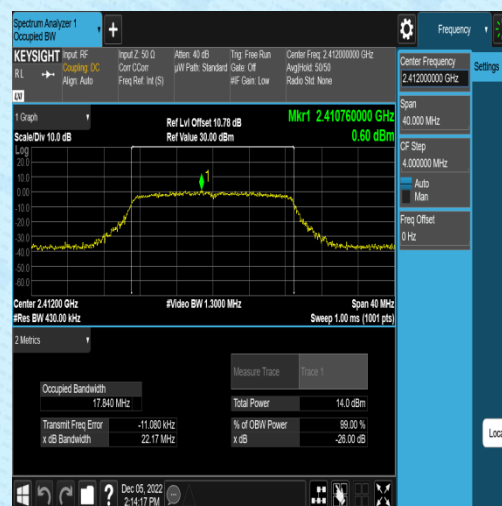
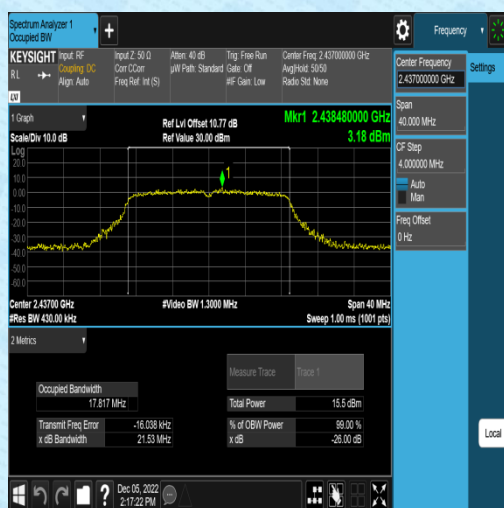




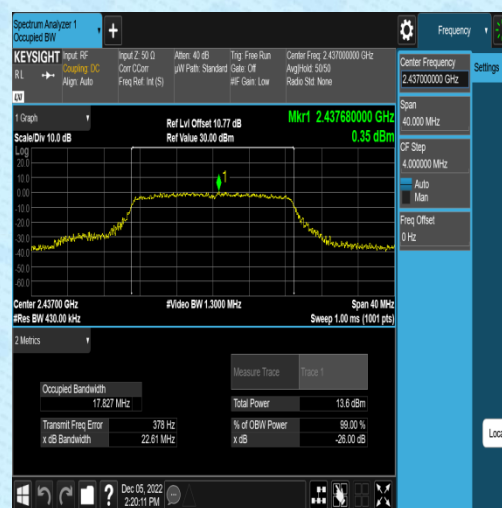
11N20MIMO-Ant1-2437



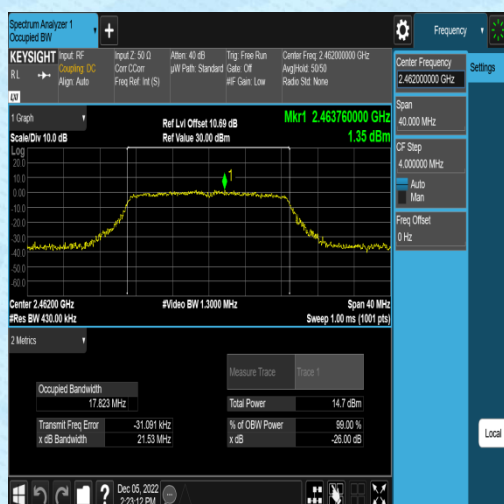
11N20MIMO-Ant2-2437



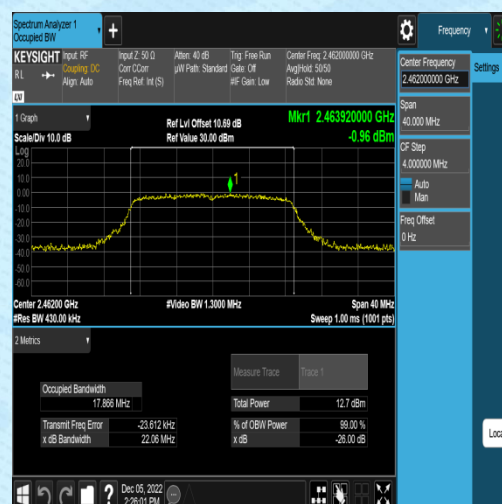
11N20MIMO-Ant1-2462



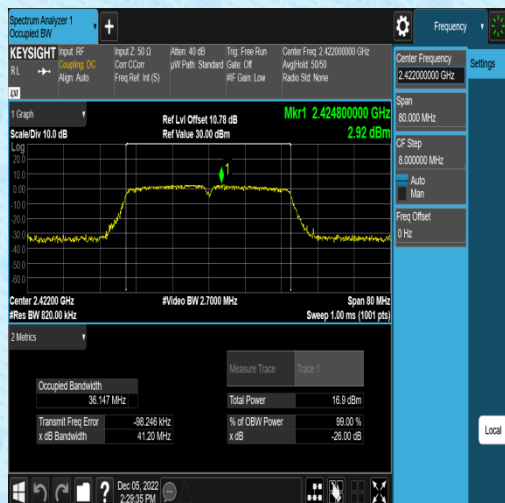
11N20MIMO-Ant2-2462



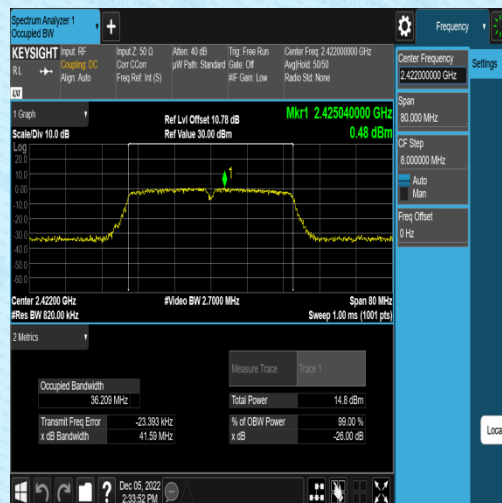
11N40MIMO-Ant1-2422



11N40MIMO-Ant2-2422



11N40MIMO-Ant1-2437



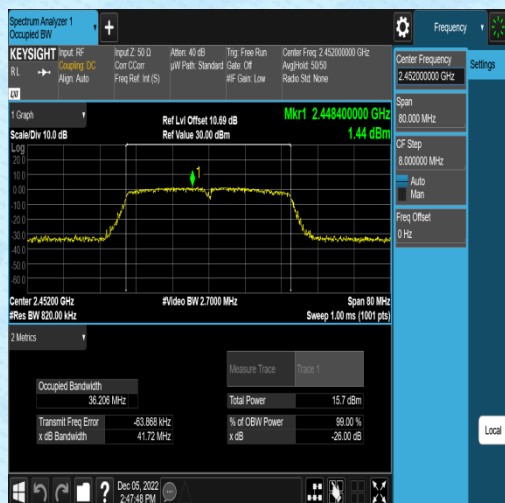
11N40MIMO-Ant2-2437



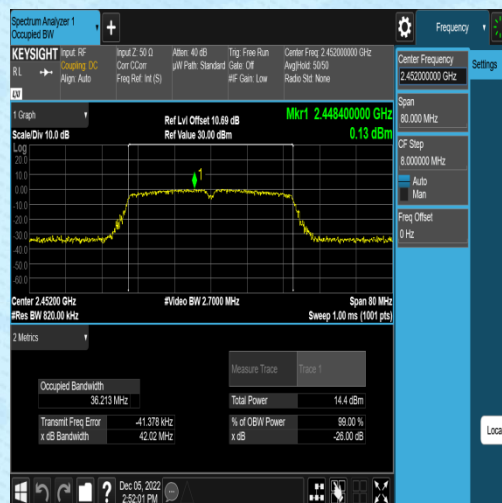
11N40MIMO-Ant1-2452



11N40MIMO-Ant2-2452



11N40MIMO-Ant1-2437



11N40MIMO-Ant2-2437

### 3. Maximum conducted output power

#### Test Result Peak

| TestMode  | Antenna | Fre.[MHz] | Rate  | Result[dBm] | Limit[dBm] | EIRP(dBm) | EIRP Limit[dBm] | Verdict |
|-----------|---------|-----------|-------|-------------|------------|-----------|-----------------|---------|
| 11B       | Ant1    | 2412      | 1Mbps | 14.95       | ≤30.00     | 16.99     | ≤36.00          | PASS    |
| 11B       | Ant1    | 2437      | 1Mbps | 15.50       | ≤30.00     | 17.54     | ≤36.00          | PASS    |
| 11B       | Ant1    | 2462      | 1Mbps | 15.06       | ≤30.00     | 17.10     | ≤36.00          | PASS    |
| 11G       | Ant1    | 2412      | 6Mbps | 17.13       | ≤30.00     | 19.17     | ≤36.00          | PASS    |
| 11G       | Ant1    | 2437      | 6Mbps | 17.13       | ≤30.00     | 19.17     | ≤36.00          | PASS    |
| 11G       | Ant1    | 2462      | 6Mbps | 16.08       | ≤30.00     | 18.12     | ≤36.00          | PASS    |
| 11N20SISO | Ant1    | 2412      | MCS0  | 17.37       | ≤30.00     | 19.41     | ≤36.00          | PASS    |
| 11N20SISO | Ant1    | 2437      | MCS0  | 16.41       | ≤30.00     | 18.45     | ≤36.00          | PASS    |
| 11N20SISO | Ant1    | 2462      | MCS0  | 15.83       | ≤30.00     | 17.87     | ≤36.00          | PASS    |
| 11N40SISO | Ant1    | 2422      | MCS0  | 17.29       | ≤30.00     | 19.33     | ≤36.00          | PASS    |
| 11N40SISO | Ant1    | 2437      | MCS0  | 17.16       | ≤30.00     | 19.20     | ≤36.00          | PASS    |
| 11N40SISO | Ant1    | 2452      | MCS0  | 16.49       | ≤30.00     | 18.53     | ≤36.00          | PASS    |
| 11B       | Ant2    | 2412      | 1Mbps | 13.75       | ≤30.00     | 15.79     | ≤36.00          | PASS    |
| 11B       | Ant2    | 2437      | 1Mbps | 13.14       | ≤30.00     | 15.18     | ≤36.00          | PASS    |
| 11B       | Ant2    | 2462      | 1Mbps | 12.85       | ≤30.00     | 14.89     | ≤36.00          | PASS    |
| 11G       | Ant2    | 2412      | 6Mbps | 15.40       | ≤30.00     | 17.44     | ≤36.00          | PASS    |
| 11G       | Ant2    | 2437      | 6Mbps | 14.88       | ≤30.00     | 16.92     | ≤36.00          | PASS    |
| 11G       | Ant2    | 2462      | 6Mbps | 14.44       | ≤30.00     | 16.48     | ≤36.00          | PASS    |
| 11N20SISO | Ant2    | 2412      | MCS0  | 14.84       | ≤30.00     | 16.88     | ≤36.00          | PASS    |
| 11N20SISO | Ant2    | 2437      | MCS0  | 14.85       | ≤30.00     | 16.89     | ≤36.00          | PASS    |
| 11N20SISO | Ant2    | 2462      | MCS0  | 14.32       | ≤30.00     | 16.36     | ≤36.00          | PASS    |
| 11N40SISO | Ant2    | 2422      | MCS0  | 15.04       | ≤30.00     | 17.08     | ≤36.00          | PASS    |
| 11N40SISO | Ant2    | 2437      | MCS0  | 14.88       | ≤30.00     | 16.92     | ≤36.00          | PASS    |
| 11N40SISO | Ant2    | 2452      | MCS0  | 14.34       | ≤30.00     | 16.38     | ≤36.00          | PASS    |
| 11N20MIMO | Ant1    | 2412      | MCS0  | 17.14       | ≤30.00     | 19.18     | ≤36.00          | PASS    |
| 11N20MIMO | Ant2    | 2412      | MCS0  | 15.31       | ≤30.00     | 17.35     | ≤36.00          | PASS    |
| 11N20MIMO | total   | 2412      | MCS0  | 19.33       | ≤30.00     | 21.37     | ≤36.00          | PASS    |
| 11N20MIMO | Ant1    | 2437      | MCS0  | 17.14       | ≤30.00     | 19.18     | ≤36.00          | PASS    |
| 11N20MIMO | Ant2    | 2437      | MCS0  | 15.33       | ≤30.00     | 17.37     | ≤36.00          | PASS    |
| 11N20MIMO | total   | 2437      | MCS0  | 19.34       | ≤30.00     | 21.38     | ≤36.00          | PASS    |
| 11N20MIMO | Ant1    | 2462      | MCS0  | 16.05       | ≤30.00     | 18.09     | ≤36.00          | PASS    |
| 11N20MIMO | Ant2    | 2462      | MCS0  | 14.25       | ≤30.00     | 16.29     | ≤36.00          | PASS    |
| 11N20MIMO | total   | 2462      | MCS0  | 18.25       | ≤30.00     | 20.29     | ≤36.00          | PASS    |
| 11N40MIMO | Ant1    | 2422      | MCS0  | 17.17       | ≤30.00     | 19.21     | ≤36.00          | PASS    |
| 11N40MIMO | Ant2    | 2422      | MCS0  | 15.30       | ≤30.00     | 17.34     | ≤36.00          | PASS    |
| 11N40MIMO | total   | 2422      | MCS0  | 19.35       | ≤30.00     | 21.39     | ≤36.00          | PASS    |
| 11N40MIMO | Ant1    | 2437      | MCS0  | 17.40       | ≤30.00     | 19.44     | ≤36.00          | PASS    |
| 11N40MIMO | Ant2    | 2437      | MCS0  | 15.17       | ≤30.00     | 17.21     | ≤36.00          | PASS    |
| 11N40MIMO | total   | 2437      | MCS0  | 19.44       | ≤30.00     | 21.48     | ≤36.00          | PASS    |

|           |       |      |      |       |        |       |        |      |
|-----------|-------|------|------|-------|--------|-------|--------|------|
| 11N40MIMO | Ant1  | 2452 | MCS0 | 16.07 | ≤30.00 | 18.11 | ≤36.00 | PASS |
| 11N40MIMO | Ant2  | 2452 | MCS0 | 14.80 | ≤30.00 | 16.84 | ≤36.00 | PASS |
| 11N40MIMO | total | 2452 | MCS0 | 18.49 | ≤30.00 | 20.53 | ≤36.00 | PASS |

**Note:** transmit signals are completely correlated,  
Directional gain= $G_{ANT}$  + Array Gain=2.04dBi

## 4. Maximum power spectral density

### Test Result

| TestMode  | Antenna | Frequency[MHz] | Rate  | Result[dBm/3kHz] | Limit[dBm/3kHz] | Verdict |
|-----------|---------|----------------|-------|------------------|-----------------|---------|
| 11B       | Ant1    | 2412           | 1Mbps | -9.74            | ≤8.00           | PASS    |
| 11B       | Ant1    | 2437           | 1Mbps | -10.53           | ≤8.00           | PASS    |
| 11B       | Ant1    | 2462           | 1Mbps | -10.65           | ≤8.00           | PASS    |
| 11G       | Ant1    | 2412           | 6Mbps | -14.94           | ≤8.00           | PASS    |
| 11G       | Ant1    | 2437           | 6Mbps | -14.56           | ≤8.00           | PASS    |
| 11G       | Ant1    | 2462           | 6Mbps | -15.63           | ≤8.00           | PASS    |
| 11N20SISO | Ant1    | 2412           | MCS0  | -13.82           | ≤8.00           | PASS    |
| 11N20SISO | Ant1    | 2437           | MCS0  | -15.45           | ≤8.00           | PASS    |
| 11N20SISO | Ant1    | 2462           | MCS0  | -16.55           | ≤8.00           | PASS    |
| 11N40SISO | Ant1    | 2422           | MCS0  | -16.97           | ≤8.00           | PASS    |
| 11N40SISO | Ant1    | 2452           | MCS0  | -19.22           | ≤8.00           | PASS    |
| 11N40SISO | Ant1    | 2437           | MCS0  | -18.28           | ≤8.00           | PASS    |
| 11B       | Ant2    | 2412           | 1Mbps | -12.33           | ≤8.00           | PASS    |
| 11B       | Ant2    | 2437           | 1Mbps | -12.01           | ≤8.00           | PASS    |
| 11B       | Ant2    | 2462           | 1Mbps | -12.63           | ≤8.00           | PASS    |
| 11G       | Ant2    | 2412           | 6Mbps | -16.44           | ≤8.00           | PASS    |
| 11G       | Ant2    | 2437           | 6Mbps | -16.95           | ≤8.00           | PASS    |
| 11G       | Ant2    | 2462           | 6Mbps | -16.96           | ≤8.00           | PASS    |
| 11N20SISO | Ant2    | 2412           | MCS0  | -17.21           | ≤8.00           | PASS    |
| 11N20SISO | Ant2    | 2437           | MCS0  | -16.43           | ≤8.00           | PASS    |
| 11N20SISO | Ant2    | 2462           | MCS0  | -17.29           | ≤8.00           | PASS    |
| 11N40SISO | Ant2    | 2422           | MCS0  | -20.09           | ≤8.00           | PASS    |
| 11N40SISO | Ant2    | 2437           | MCS0  | -18.7            | ≤8.00           | PASS    |
| 11N40SISO | Ant2    | 2452           | MCS0  | -20.71           | ≤8.00           | PASS    |
| 11N20MIMO | Ant1    | 2412           | MCS0  | -14.92           | ≤8.00           | PASS    |
| 11N20MIMO | Ant2    | 2412           | MCS0  | -16.99           | ≤8.00           | PASS    |
| 11N20MIMO | total   | 2412           | MCS0  | -12.82           | ≤8.00           | PASS    |
| 11N20MIMO | Ant1    | 2462           | MCS0  | -16.36           | ≤8.00           | PASS    |
| 11N20MIMO | Ant2    | 2462           | MCS0  | -18.37           | ≤8.00           | PASS    |
| 11N20MIMO | total   | 2462           | MCS0  | -14.24           | ≤8.00           | PASS    |
| 11N20MIMO | Ant1    | 2437           | MCS0  | -15.15           | ≤8.00           | PASS    |

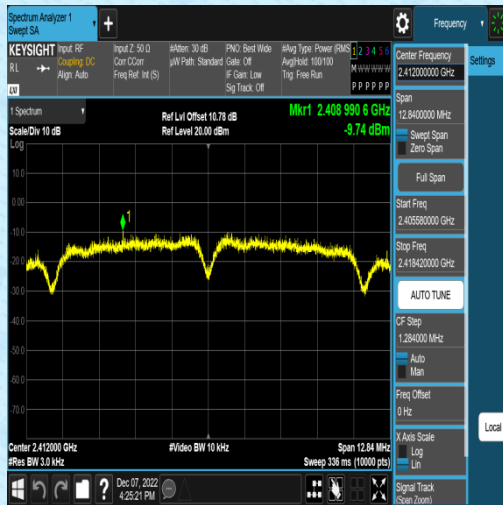
|           |       |      |      |        |       |      |
|-----------|-------|------|------|--------|-------|------|
| 11N20MIMO | Ant2  | 2437 | MCS0 | -17.07 | ≤8.00 | PASS |
| 11N20MIMO | total | 2437 | MCS0 | -12.99 | ≤8.00 | PASS |
| 11N40MIMO | Ant1  | 2422 | MCS0 | -17.9  | ≤8.00 | PASS |
| 11N40MIMO | Ant2  | 2422 | MCS0 | -19.92 | ≤8.00 | PASS |
| 11N40MIMO | total | 2422 | MCS0 | -15.78 | ≤8.00 | PASS |
| 11N40MIMO | Ant1  | 2437 | MCS0 | -18.46 | ≤8.00 | PASS |
| 11N40MIMO | Ant2  | 2437 | MCS0 | -20.58 | ≤8.00 | PASS |
| 11N40MIMO | total | 2437 | MCS0 | -16.38 | ≤8.00 | PASS |
| 11N40MIMO | Ant1  | 2452 | MCS0 | -17.7  | ≤8.00 | PASS |
| 11N40MIMO | Ant2  | 2452 | MCS0 | -19.19 | ≤8.00 | PASS |
| 11N40MIMO | total | 2452 | MCS0 | -15.37 | ≤8.00 | PASS |

Directional gain= $G_{ANT}$  + Array Gain=2.04+3.01=5.05dBi

Array Gain=10log( $N_{ANT}/2$ )dB

## Test Graphs

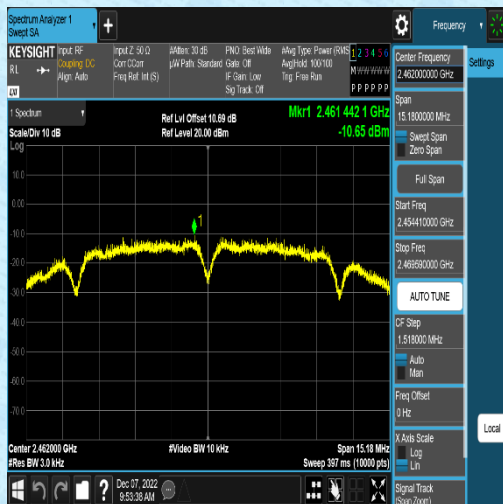
11B-Ant1-2412



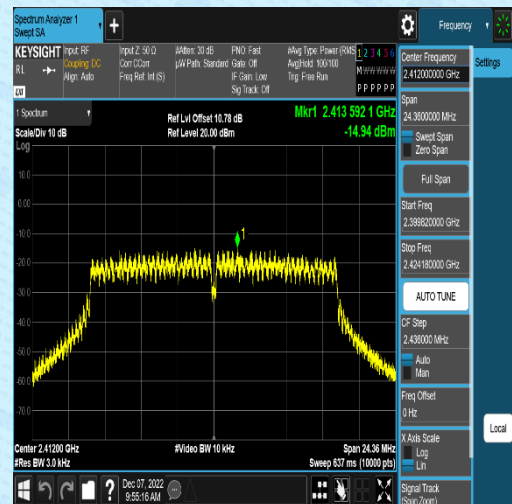
11B-Ant1-2437



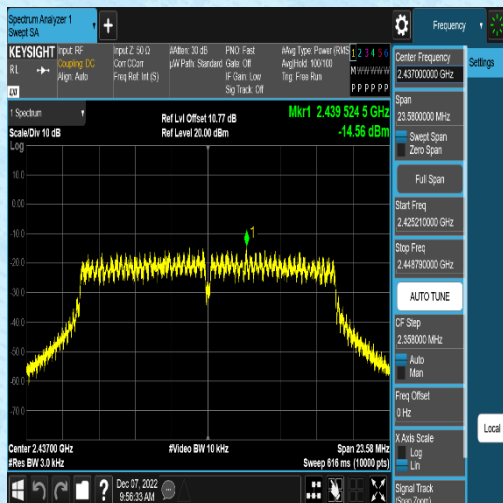
11B-Ant1-2462



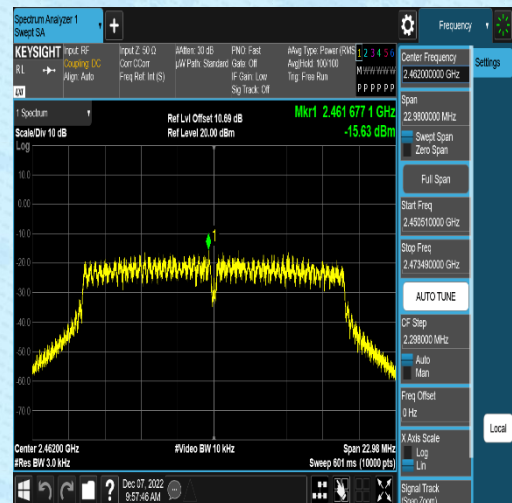
11G-Ant1-2412-



11G-Ant1-2437



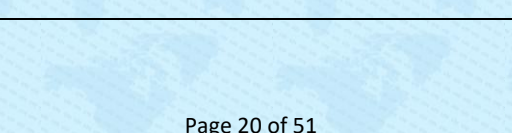
11G-Ant1-2462

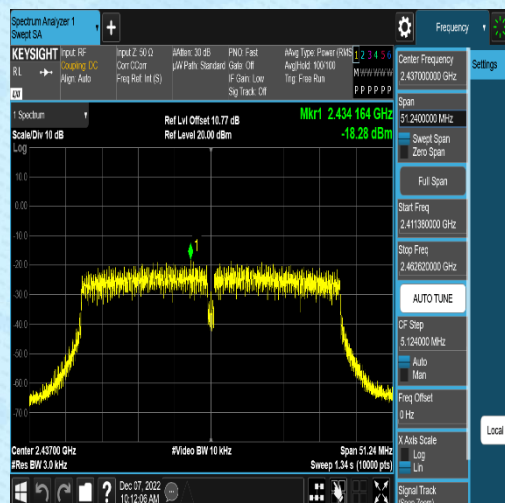
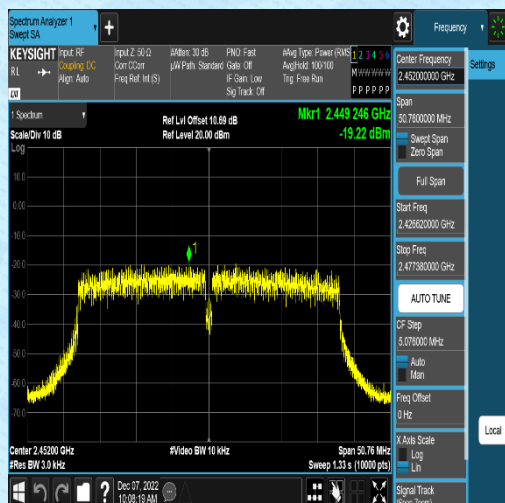
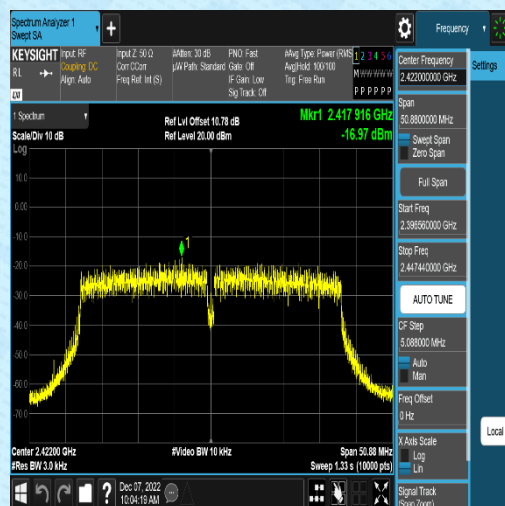
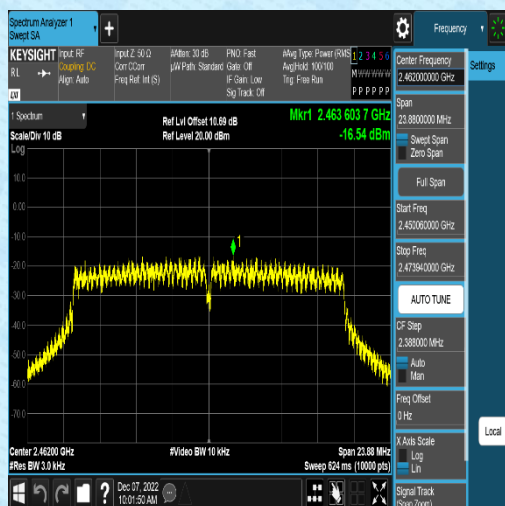
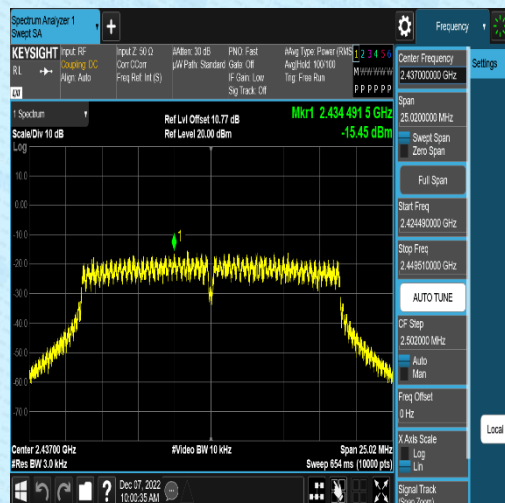
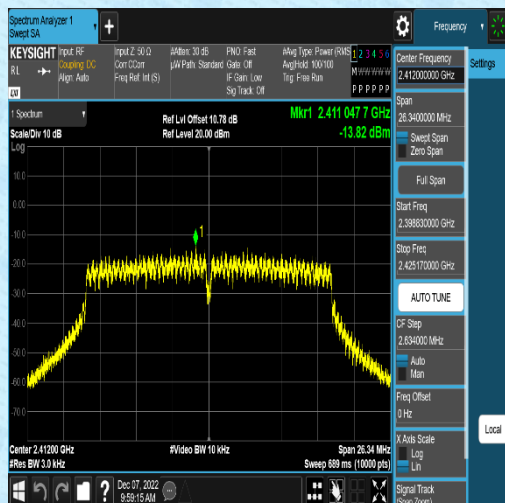


11N20SISO-Ant1-2412



11N20SISO-Ant1-2437







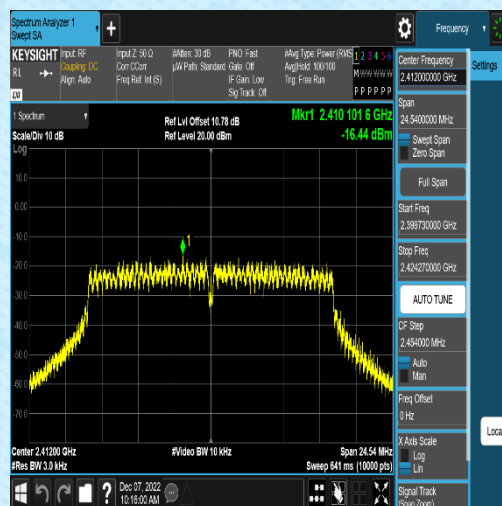
11B-Ant2-2462



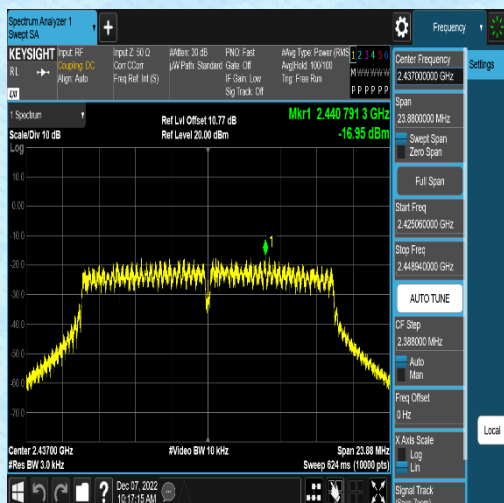
11G-Ant2-2412



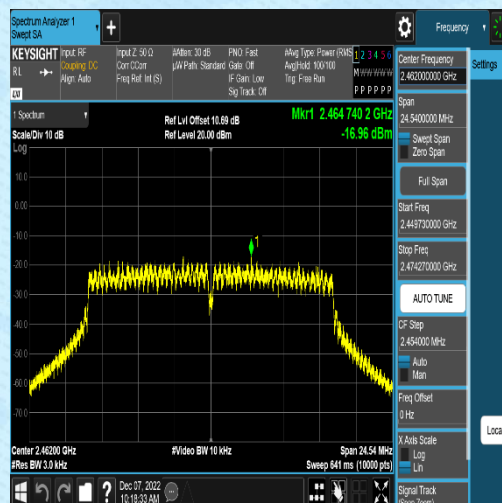
11G-Ant2-2437



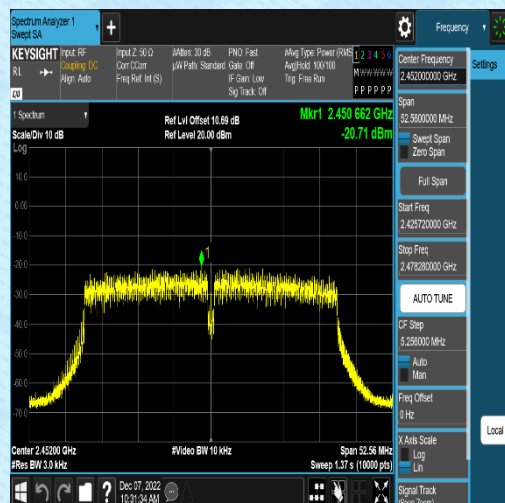
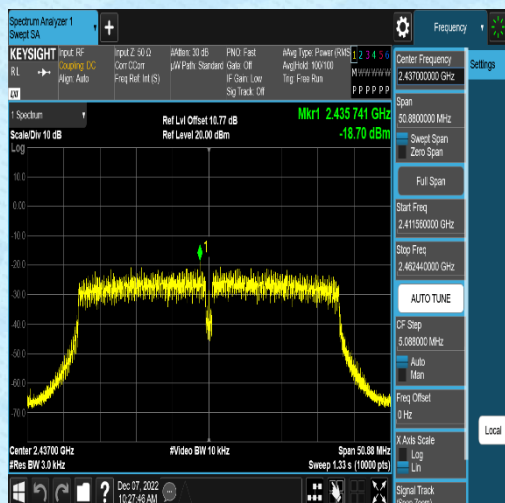
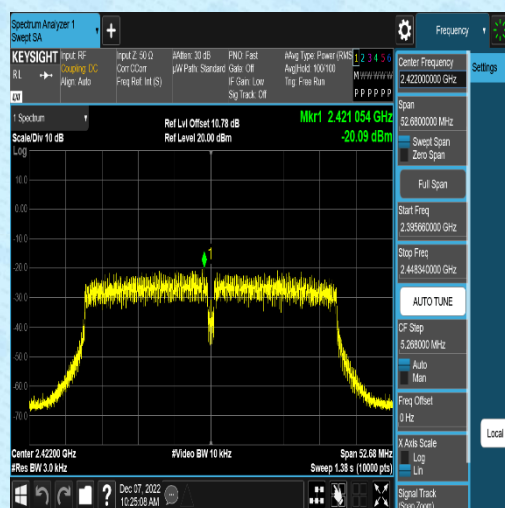
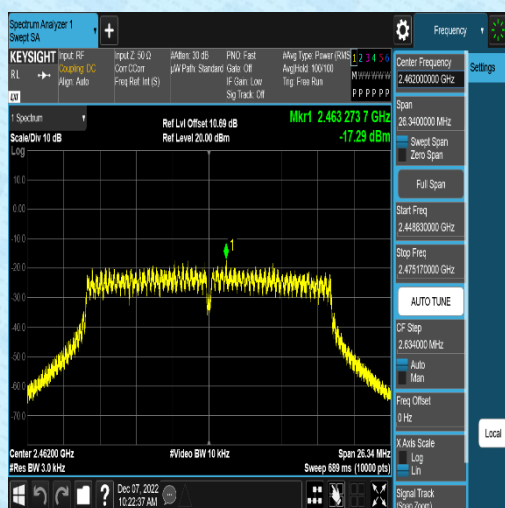
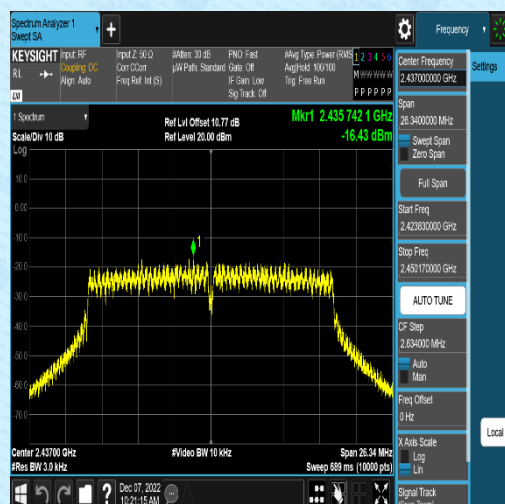
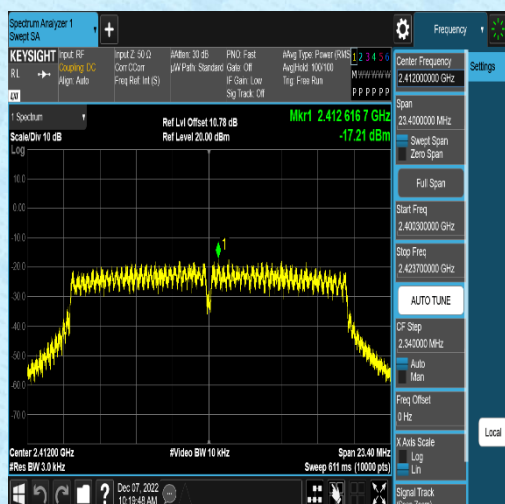
11G-Ant2-2462

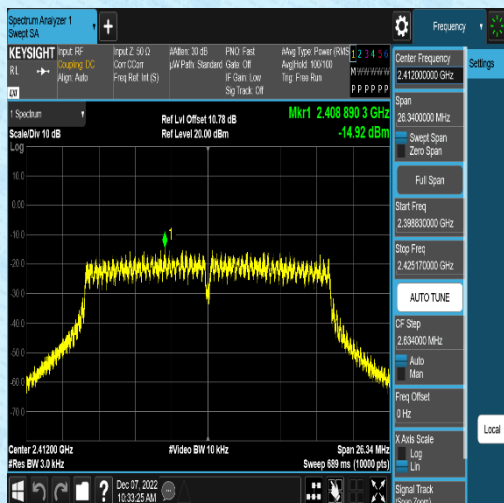


11N20SISO-Ant2-2412

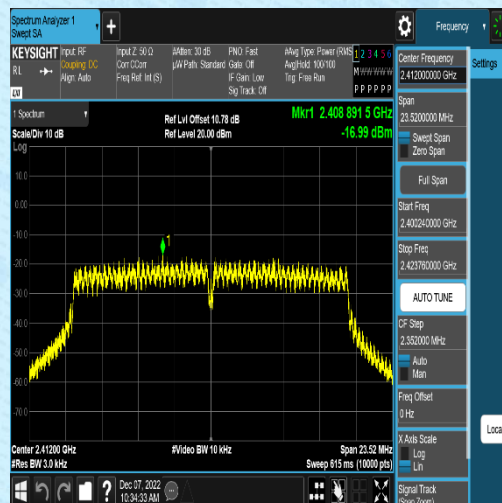


11N20SISO-Ant2-2437

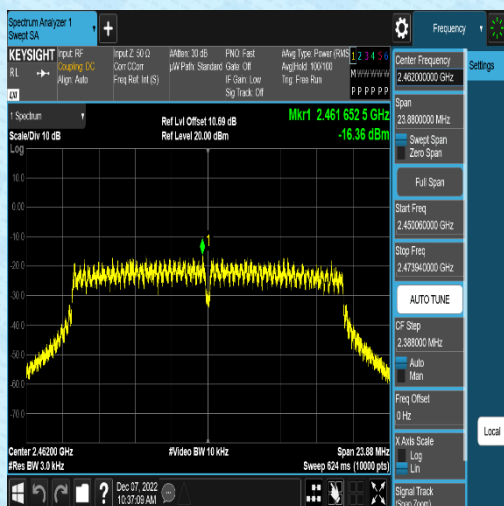




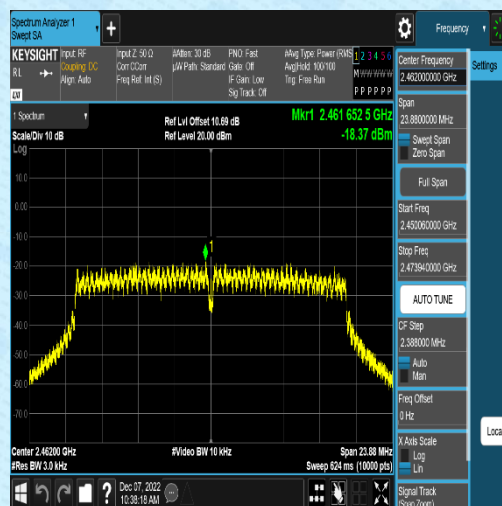
11N20MIMO-Ant1-2462



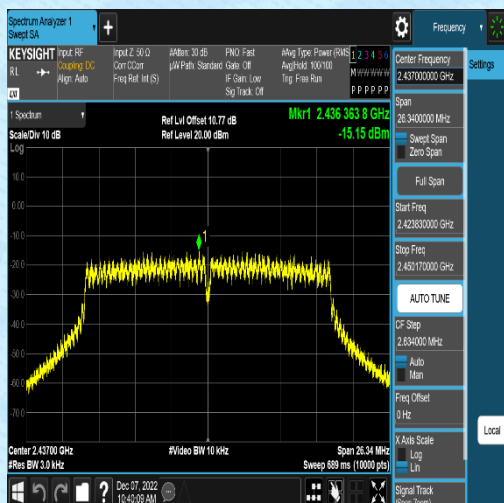
11N20MIMO-Ant2-2462



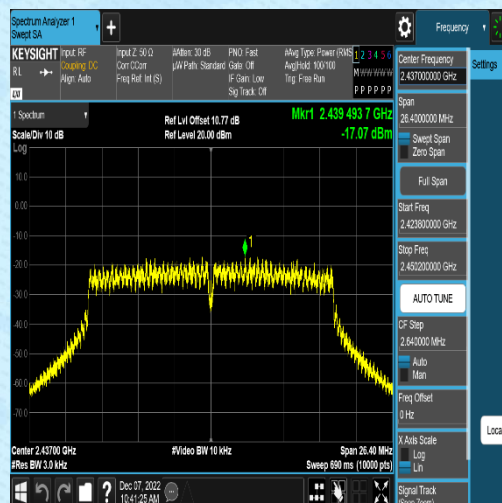
11N20MIMO-Ant1-2437



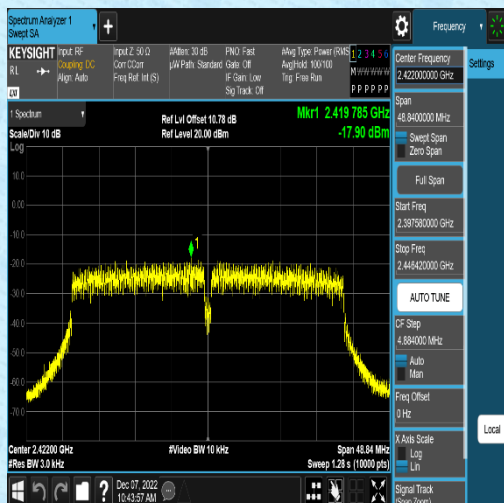
11N20MIMO-Ant2-2437



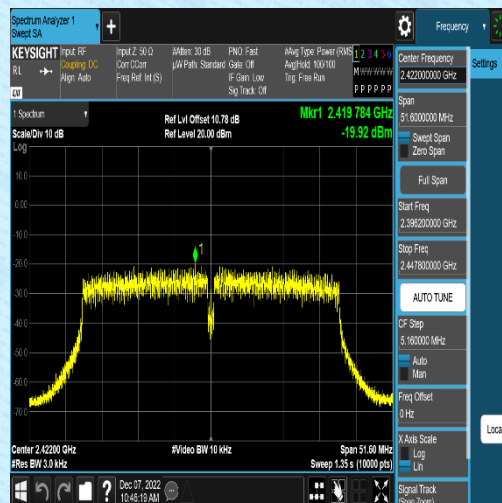
11N40MIMO-Ant1-2422



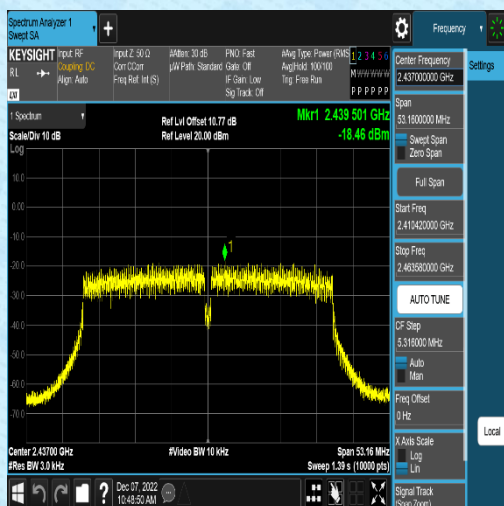
11N40MIMO-Ant2-2422



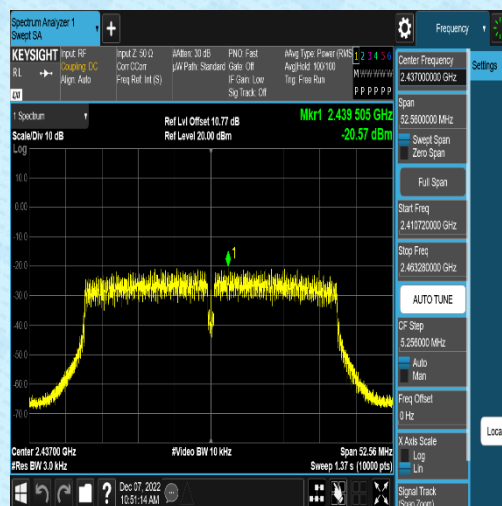
11N40MIMO-Ant1-2437



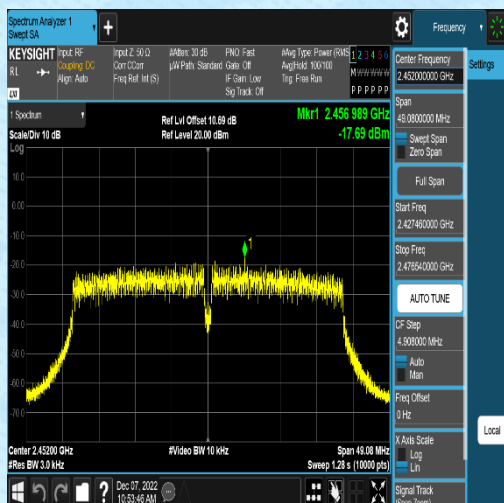
11N40MIMO-Ant2-2437



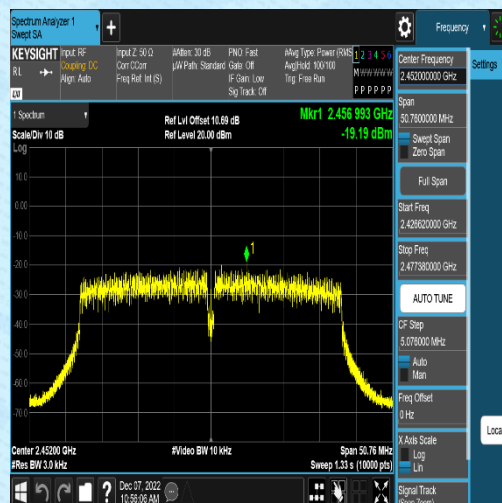
11N40MIMO-Ant1-2452



11N40MIMO-Ant2-2452



11N40MIMO-Ant1-2456



11N40MIMO-Ant2-2456

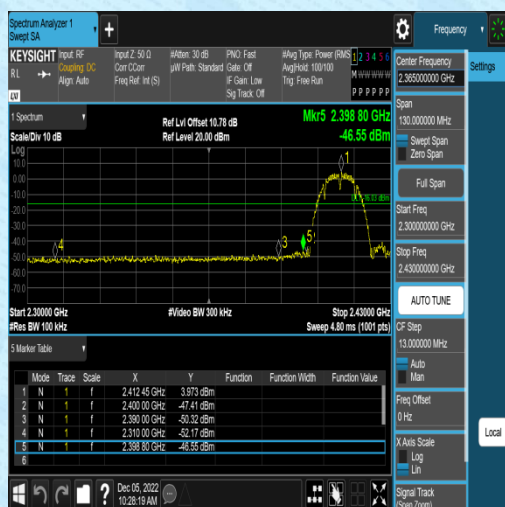
## 5.Band edge measurements

### Test Result

| TestMode  | Antenna | ChName | Frequency[MHz] | Rate  | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|-----------|---------|--------|----------------|-------|---------------|-------------|------------|---------|
| 11B       | Ant1    | Low    | 2412           | 1Mbps | 3.97          | -46.55      | ≤-16.03    | PASS    |
| 11B       | Ant1    | High   | 2462           | 1Mbps | 3.04          | -48.51      | ≤-16.96    | PASS    |
| 11G       | Ant1    | Low    | 2412           | 6Mbps | 2.26          | -37.9       | ≤-17.74    | PASS    |
| 11G       | Ant1    | High   | 2462           | 6Mbps | 0.21          | -48.53      | ≤-19.8     | PASS    |
| 11N20SISO | Ant1    | Low    | 2412           | MCS0  | -1.59         | -38.67      | ≤-21.59    | PASS    |
| 11N20SISO | Ant1    | High   | 2462           | MCS0  | -3.02         | -47.82      | ≤-23.02    | PASS    |
| 11N40SISO | Ant1    | Low    | 2422           | MCS0  | -3.75         | -42.38      | ≤-23.75    | PASS    |
| 11N40SISO | Ant1    | High   | 2452           | MCS0  | -4.93         | -49.01      | ≤-24.93    | PASS    |
| 11B       | Ant2    | Low    | 2412           | 1Mbps | 1.76          | -35.56      | ≤-18.24    | PASS    |
| 11B       | Ant2    | High   | 2462           | 1Mbps | 0.58          | -47.85      | ≤-19.42    | PASS    |
| 11G       | Ant2    | Low    | 2412           | 6Mbps | -3.97         | -36.9       | ≤-23.97    | PASS    |
| 11G       | Ant2    | High   | 2462           | 6Mbps | -4.47         | -42.85      | ≤-24.47    | PASS    |
| 11N20SISO | Ant2    | Low    | 2412           | MCS0  | -3.34         | -40.2       | ≤-23.34    | PASS    |
| 11N20SISO | Ant2    | High   | 2462           | MCS0  | -4.81         | -49         | ≤-24.81    | PASS    |
| 11N40SISO | Ant2    | Low    | 2422           | MCS0  | -5.90         | -43.36      | ≤-25.9     | PASS    |
| 11N40SISO | Ant2    | High   | 2452           | MCS0  | -6.20         | -43.21      | ≤-26.2     | PASS    |
| 11N20MIMO | Ant1    | Low    | 2412           | MCS0  | -1.78         | -38.18      | ≤-21.78    | PASS    |
| 11N20MIMO | Ant2    | Low    | 2412           | MCS0  | -2.49         | -40.62      | ≤-22.49    | PASS    |
| 11N20MIMO | Ant1    | High   | 2462           | MCS0  | -2.42         | -48.98      | ≤-22.42    | PASS    |
| 11N20MIMO | Ant2    | High   | 2462           | MCS0  | -4.69         | -49.36      | ≤-24.69    | PASS    |
| 11N40MIMO | Ant1    | Low    | 2422           | MCS0  | -3.94         | -44.14      | ≤-23.94    | PASS    |
| 11N40MIMO | Ant2    | Low    | 2422           | MCS0  | -5.84         | -45.61      | ≤-25.84    | PASS    |
| 11N40MIMO | Ant1    | High   | 2452           | MCS0  | -4.56         | -47.97      | ≤-24.56    | PASS    |
| 11N40MIMO | Ant2    | High   | 2452           | MCS0  | -7.81         | -49.21      | ≤-27.81    | PASS    |

## Test Graphs

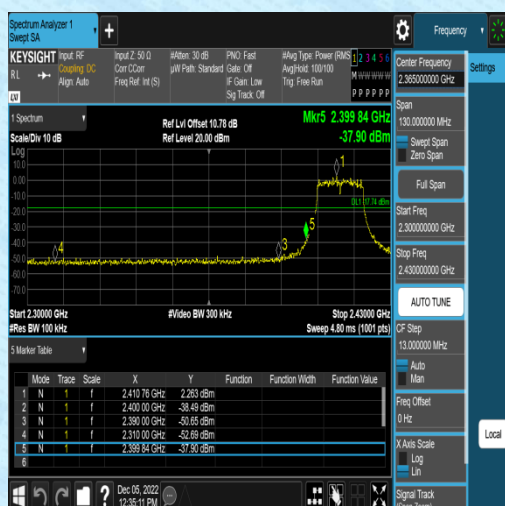
11B-Ant1-Low-2412-3.97



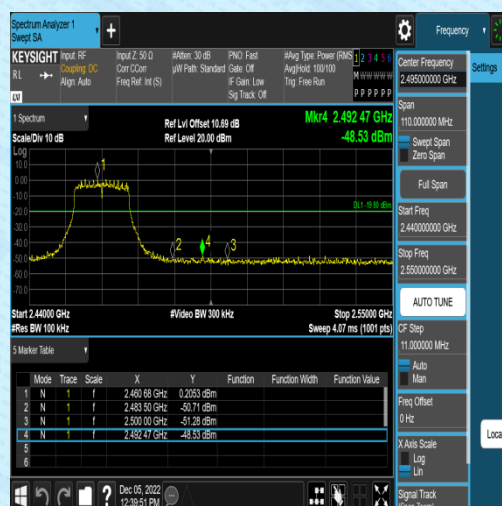
11B-Ant1-High-2462-3.04



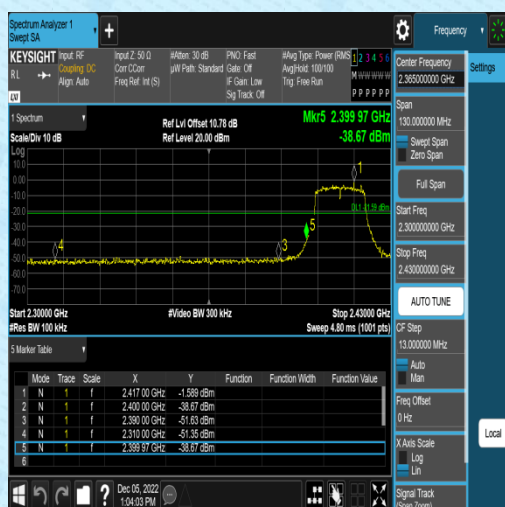
11G-Ant1-Low-2412-2.26



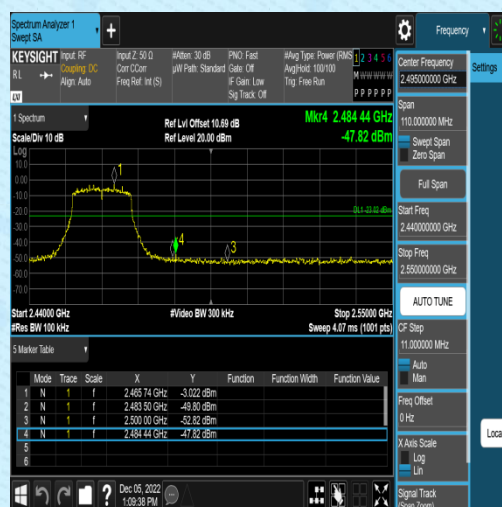
11G-Ant1-High-2462-0.21



11N20SISO-Ant1-Low-2412--1.59



11N20SISO-Ant1-High-2462--3.02



11N40SISO-Ant1-Low-2422--3.75

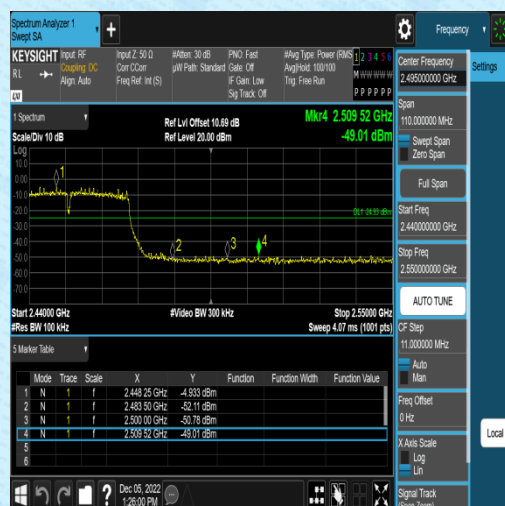


11N40SISO-Ant1-High-2452--4.93





11B-Ant2-Low-2412-1.76



11B-Ant2-High-2462-0.58



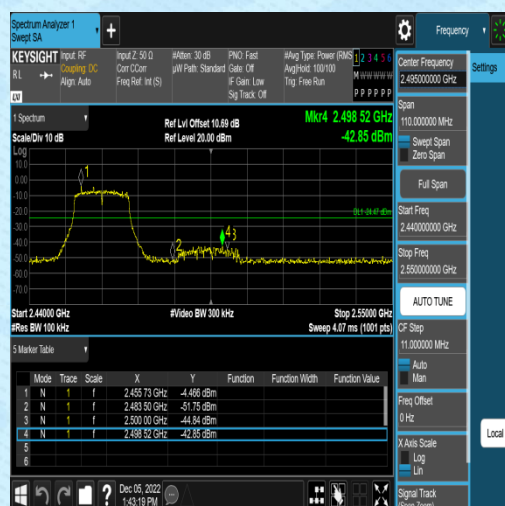
11G-Ant2-Low-2412--3.97



11G-Ant2-High-2462--4.47



11N20SISO-Ant2-Low-2412--3.34



11N20SISO-Ant2-High-2462--4.81