



## Appendix A

### RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Remember Ringbox

Test Model: 5.1

#### Environmental Conditions

|                    |                                                                                                 |
|--------------------|-------------------------------------------------------------------------------------------------|
| Temperature:       | 23.5 ° C                                                                                        |
| Relative Humidity: | 52.2%                                                                                           |
| ATM Pressure:      | 100.0 kPa                                                                                       |
| Test Engineer:     | <br>Monkey Li |
| Supervised by:     | <br>Li Huan |



## A.1 DTS Bandwidth

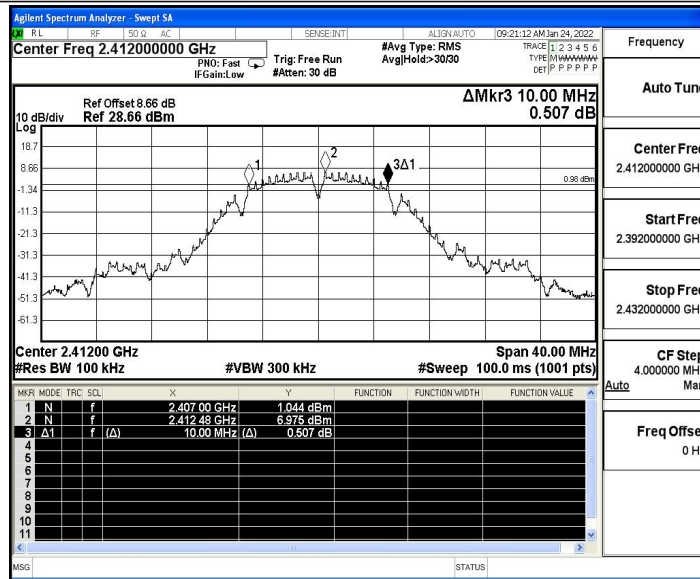
### Test Result

| TestMode  | Antenna | Channel | DTS BW [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|-----------|---------|---------|--------------|----------|----------|------------|---------|
| 11B       | Ant1    | 2412    | 10.000       | 2407.000 | 2417.000 | 0.5        | PASS    |
|           |         | 2437    | 9.520        | 2432.480 | 2442.000 | 0.5        | PASS    |
|           |         | 2462    | 9.520        | 2457.480 | 2467.000 | 0.5        | PASS    |
| 11G       | Ant1    | 2412    | 16.320       | 2403.840 | 2420.160 | 0.5        | PASS    |
|           |         | 2437    | 16.320       | 2428.840 | 2445.160 | 0.5        | PASS    |
|           |         | 2462    | 16.320       | 2453.840 | 2470.160 | 0.5        | PASS    |
| 11N20SISO | Ant1    | 2412    | 17.600       | 2403.200 | 2420.800 | 0.5        | PASS    |
|           |         | 2437    | 17.560       | 2428.240 | 2445.800 | 0.5        | PASS    |
|           |         | 2462    | 16.360       | 2453.200 | 2469.560 | 0.5        | PASS    |
| 11N40SISO | Ant1    | 2422    | 35.680       | 2404.480 | 2440.160 | 0.5        | PASS    |
|           |         | 2437    | 35.440       | 2419.480 | 2454.920 | 0.5        | PASS    |
|           |         | 2452    | 35.360       | 2434.160 | 2469.520 | 0.5        | PASS    |

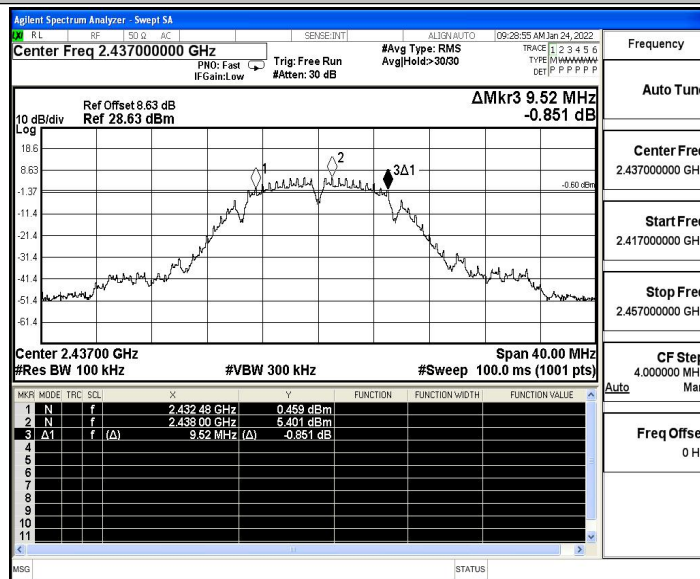


## Test Graphs

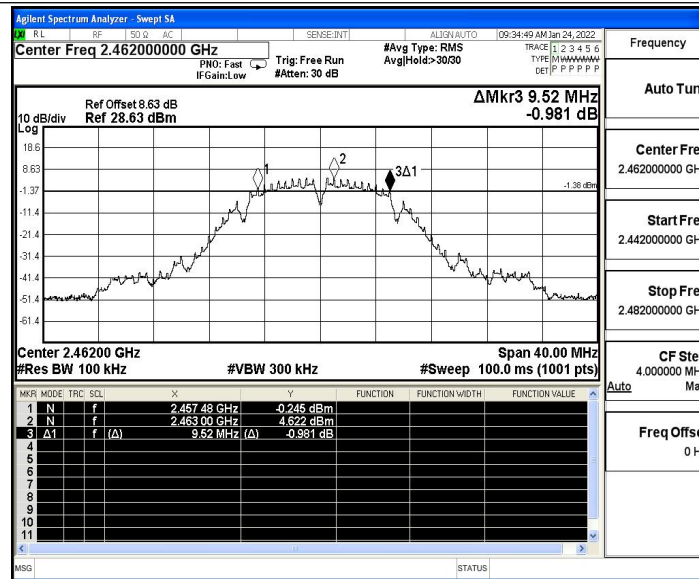
11B\_Ant1\_2412



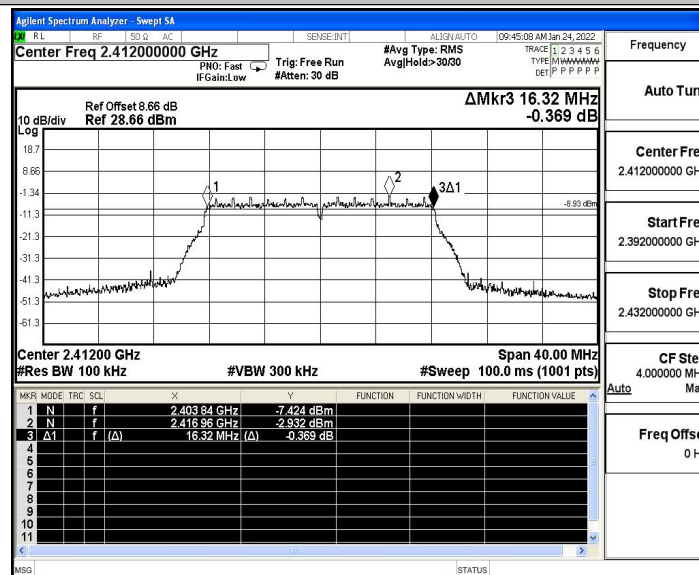
11B\_Ant1\_2437



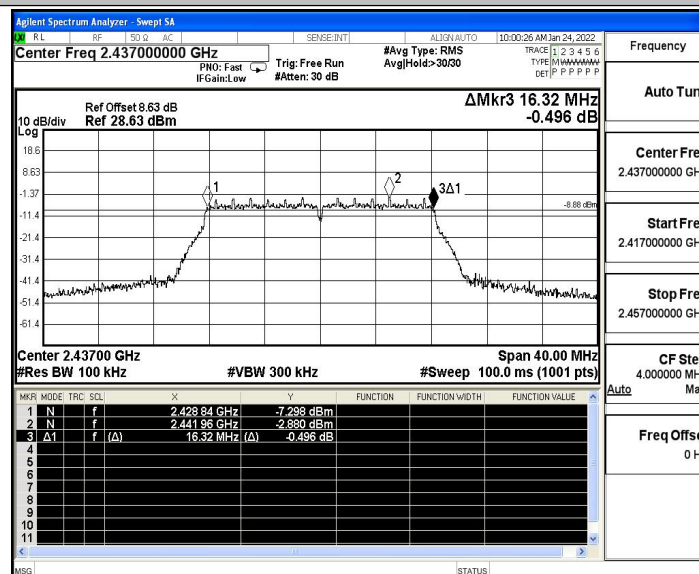
11B\_Ant1\_2462



11G\_Ant1\_2412

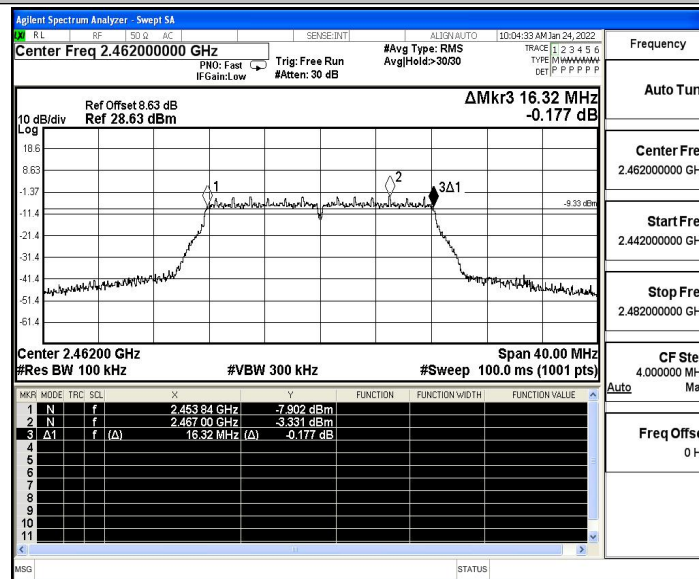


11G\_Ant1\_2437

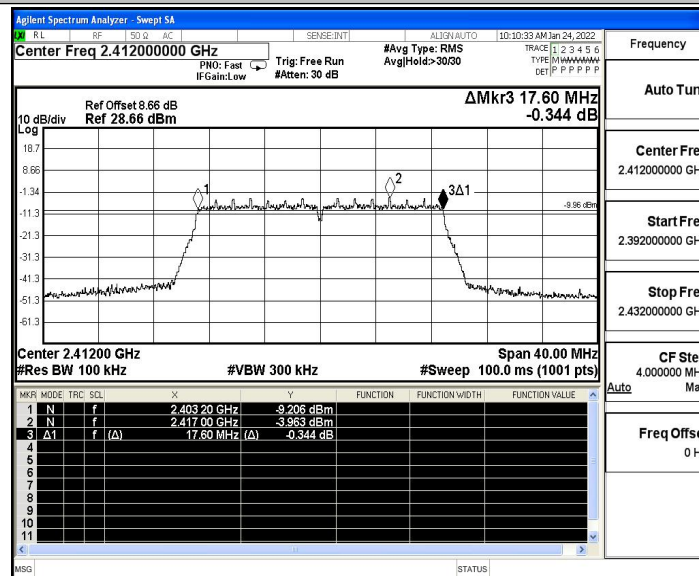




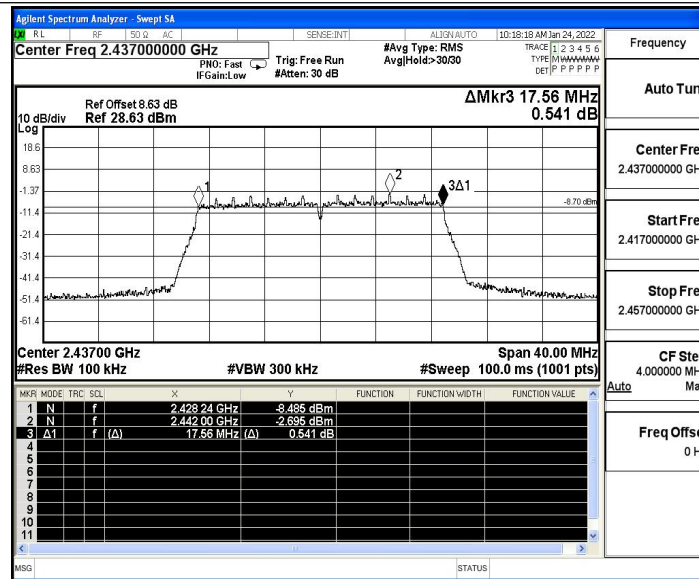
## 11G\_Ant1\_2462



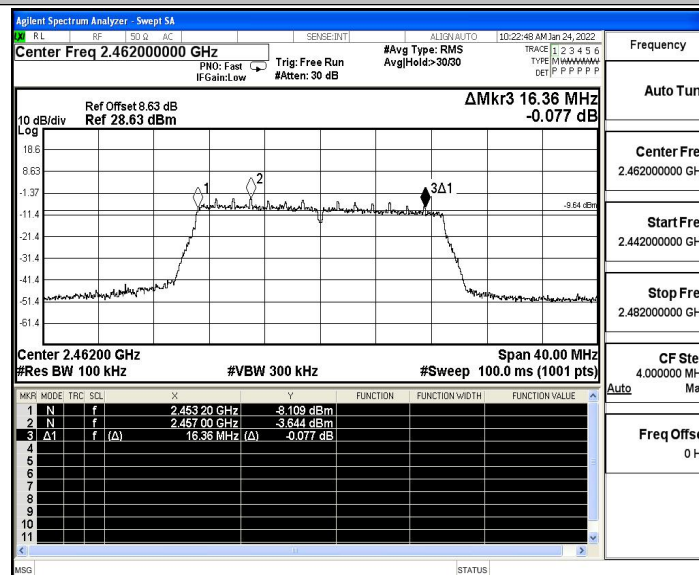
## 11N20SISO\_Ant1\_2412



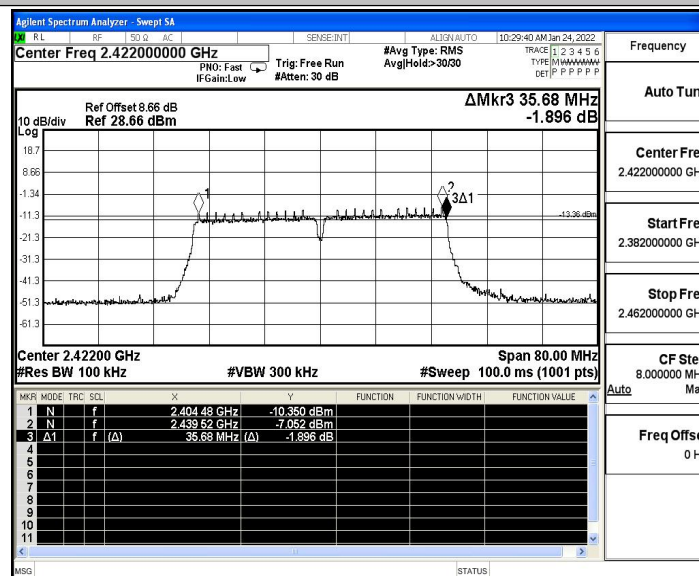
## 11N20SISO\_Ant1\_2437



11N20SISO\_Ant1\_2462

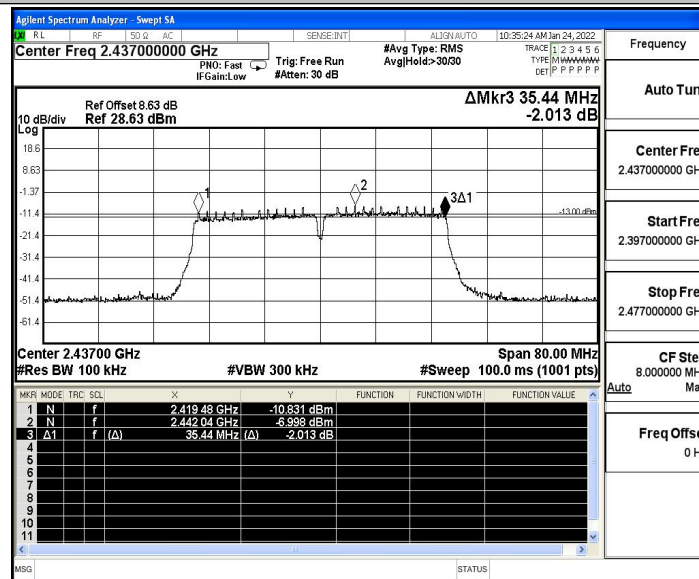


11N40SISO\_Ant1\_2422

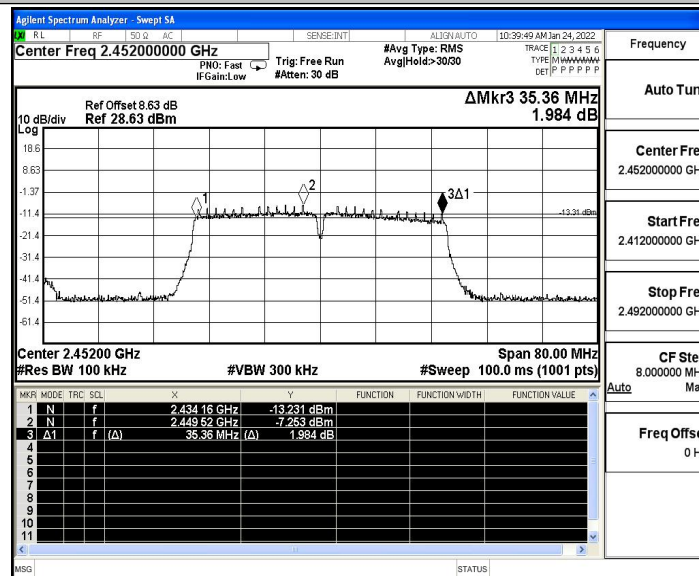




## 11N40SISO\_Ant1\_2437



## 11N40SISO\_Ant1\_2452





## A.2 Maximum peak conducted output power

### Test Result

| TestMode  | Antenna | Channel | Result[dBm] | Limit[dBm] | Verdict |
|-----------|---------|---------|-------------|------------|---------|
| 11B       | Ant1    | 2412    | 8.86        | ≤30.00     | PASS    |
|           |         | 2437    | 8.97        | ≤30.00     | PASS    |
|           |         | 2462    | 8.86        | ≤30.00     | PASS    |
| 11G       | Ant1    | 2412    | 8.26        | ≤30.00     | PASS    |
|           |         | 2437    | 8.17        | ≤30.00     | PASS    |
|           |         | 2462    | 8.20        | ≤30.00     | PASS    |
| 11N20SISO | Ant1    | 2412    | 8.25        | ≤30.00     | PASS    |
|           |         | 2437    | 8.18        | ≤30.00     | PASS    |
|           |         | 2462    | 8.22        | ≤30.00     | PASS    |
| 11N40SISO | Ant1    | 2422    | 8.34        | ≤30.00     | PASS    |
|           |         | 2437    | 8.40        | ≤30.00     | PASS    |
|           |         | 2452    | 8.32        | ≤30.00     | PASS    |



## A.3 Maximum power spectral density

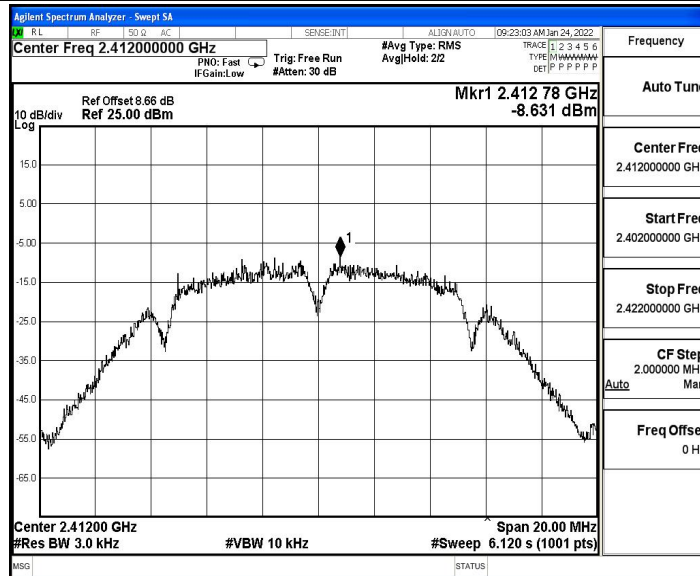
### Test Result

| TestMode  | Antenna | Channel | Result[dBm/3-100kHz] | Limit[dBm/3kHz] | Verdict |
|-----------|---------|---------|----------------------|-----------------|---------|
| 11B       | Ant1    | 2412    | -8.63                | ≤8.00           | PASS    |
|           |         | 2437    | -8.62                | ≤8.00           | PASS    |
|           |         | 2462    | -8.47                | ≤8.00           | PASS    |
| 11G       | Ant1    | 2412    | -17.93               | ≤8.00           | PASS    |
|           |         | 2437    | -17.45               | ≤8.00           | PASS    |
|           |         | 2462    | -17.72               | ≤8.00           | PASS    |
| 11N20SISO | Ant1    | 2412    | -18.27               | ≤8.00           | PASS    |
|           |         | 2437    | -17.73               | ≤8.00           | PASS    |
|           |         | 2462    | -17.73               | ≤8.00           | PASS    |
| 11N40SISO | Ant1    | 2422    | -22.29               | ≤8.00           | PASS    |
|           |         | 2437    | -20.05               | ≤8.00           | PASS    |
|           |         | 2452    | -20.59               | ≤8.00           | PASS    |

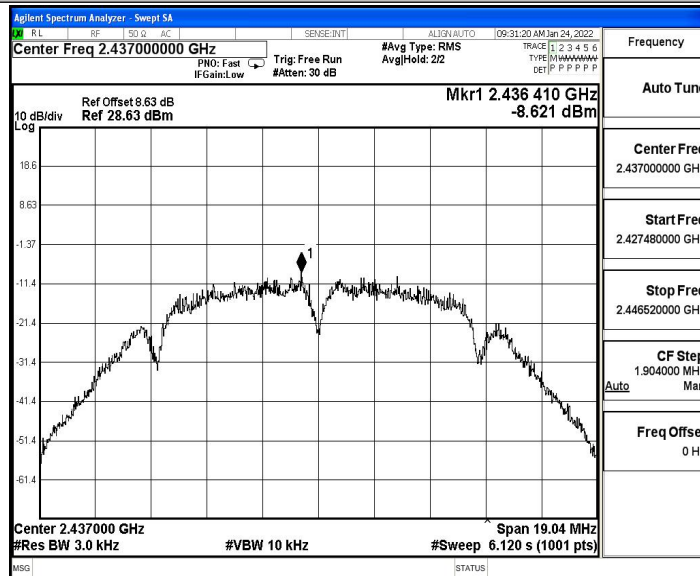


## Test Graphs

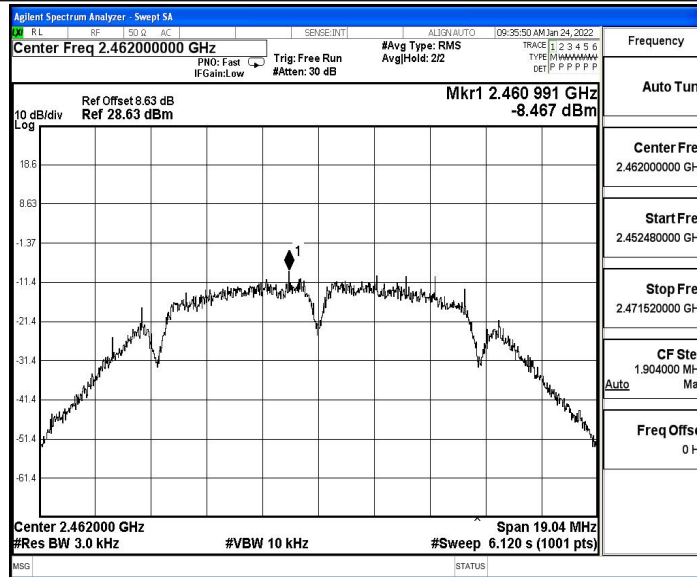
11B\_Ant1\_2412



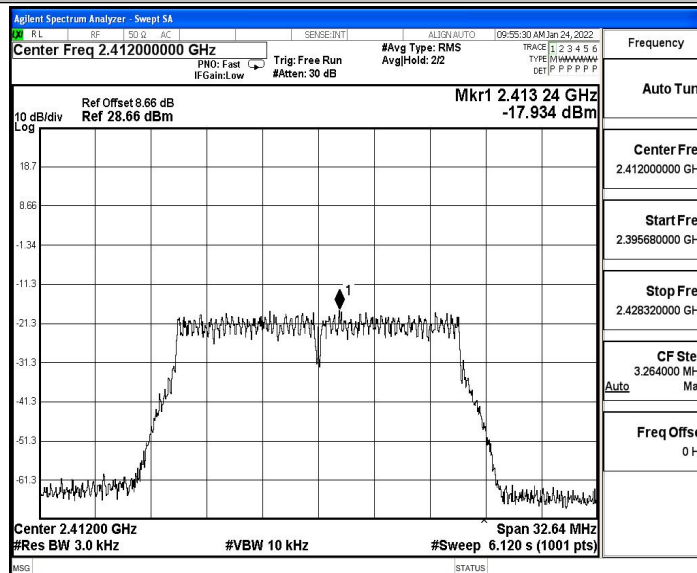
11B\_Ant1\_2437



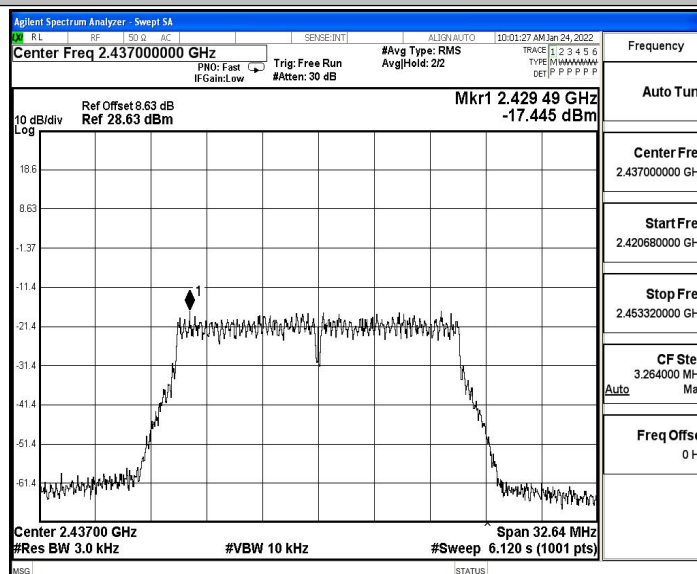
11B\_Ant1\_2462



11G\_Ant1\_2412

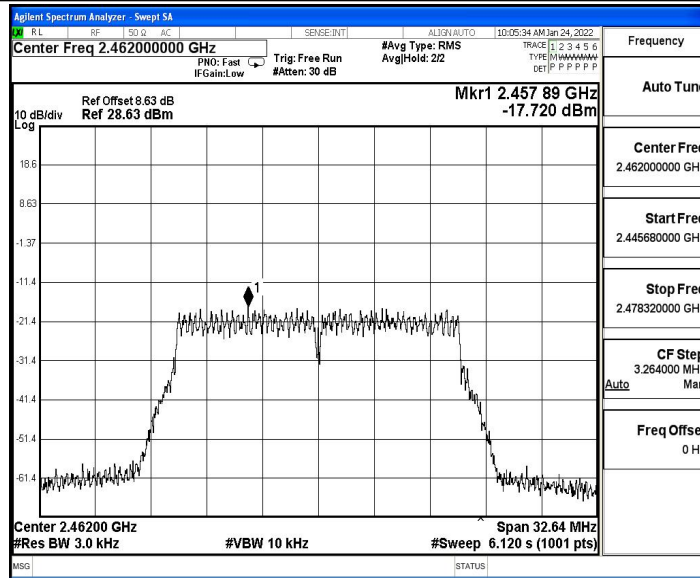


11G\_Ant1\_2437

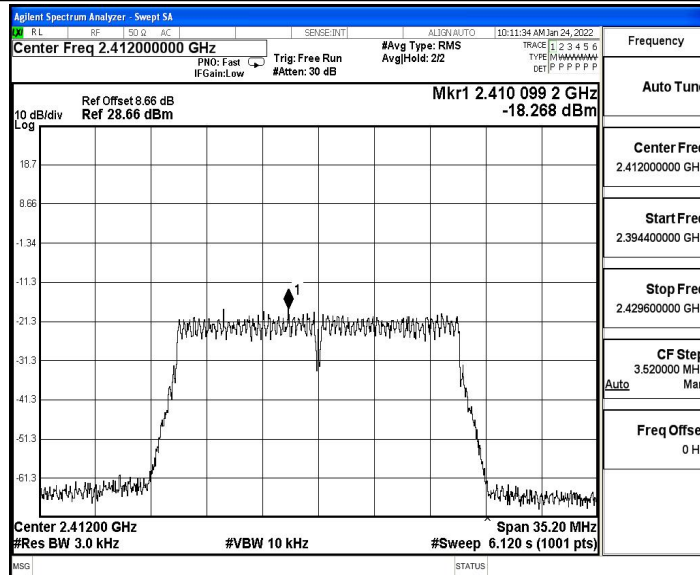




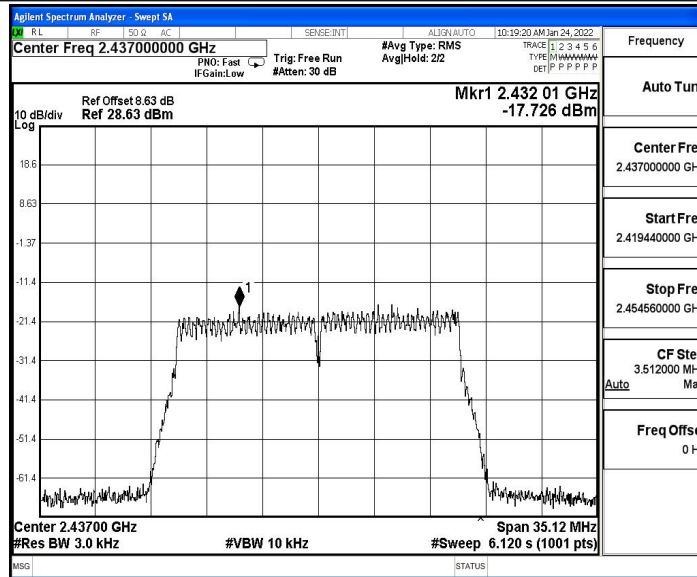
## 11G\_Ant1\_2462



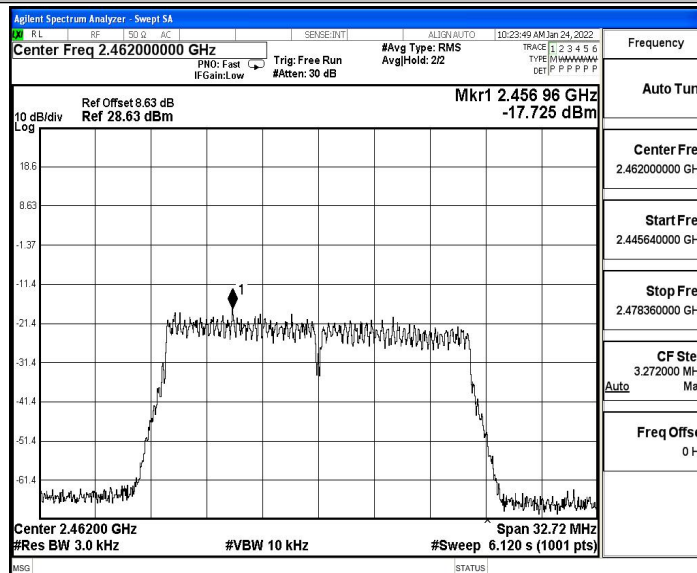
## 11N20SISO\_Ant1\_2412



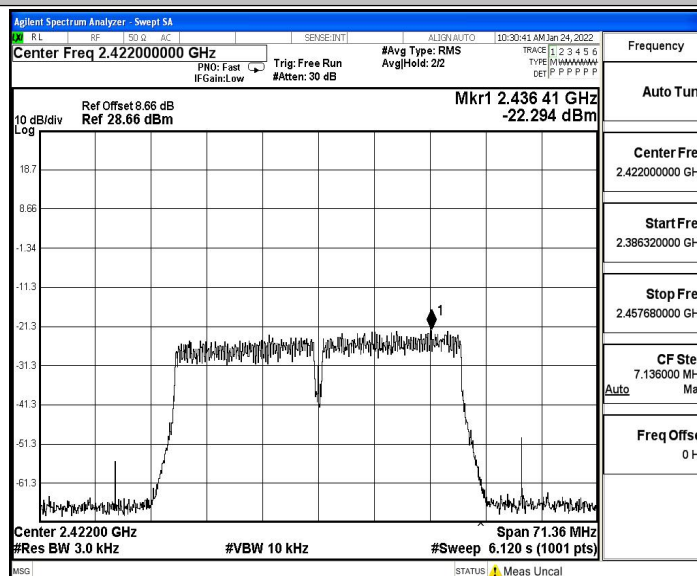
## 11N20SISO\_Ant1\_2437



11N20SISO\_Ant1\_2462

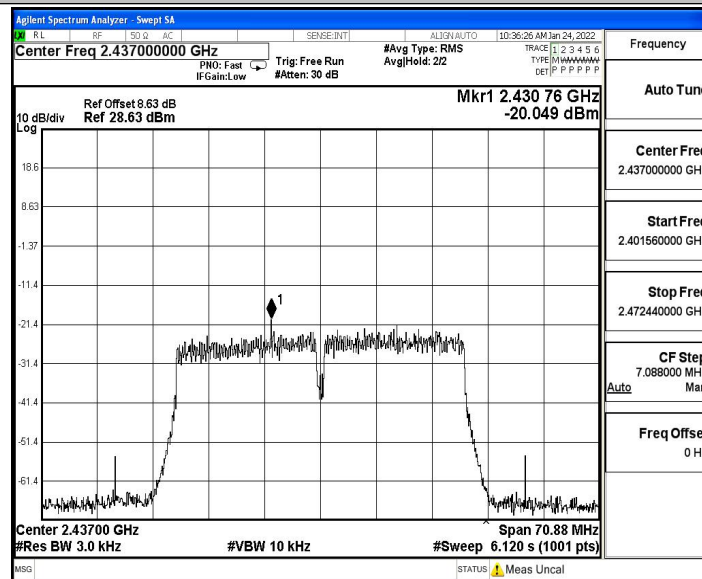


11N40SISO\_Ant1\_2422

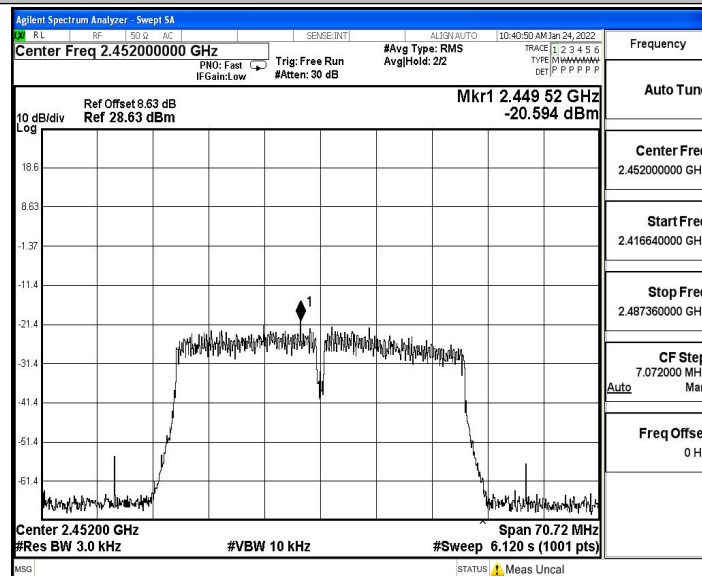




## 11N40SISO\_Ant1\_2437



## 11N40SISO\_Ant1\_2452





## A.4 Band edge measurements

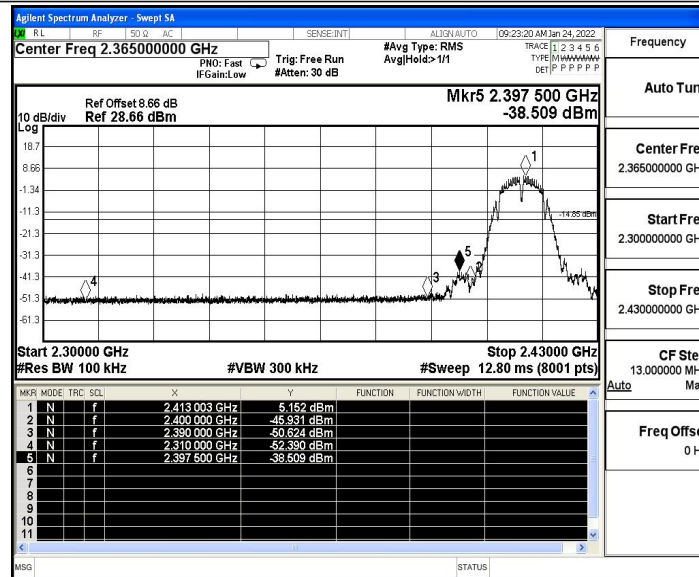
### Test Result

| TestMode  | Antenna | ChName | Channel | RefLevel[dBm] | Result[dBm] | Limit[dBm]    | Verdict |
|-----------|---------|--------|---------|---------------|-------------|---------------|---------|
| 11B       | Ant1    | Low    | 2412    | 5.15          | -38.51      | $\leq -14.85$ | PASS    |
|           |         | High   | 2462    | 4.42          | -47.81      | $\leq -15.58$ | PASS    |
| 11G       | Ant1    | Low    | 2412    | -2.97         | -44.22      | $\leq -22.97$ | PASS    |
|           |         | High   | 2462    | -3.17         | -47.41      | $\leq -23.17$ | PASS    |
| 11N20SISO | Ant1    | Low    | 2412    | -3.54         | -43.95      | $\leq -23.54$ | PASS    |
|           |         | High   | 2462    | -3.58         | -45.4       | $\leq -23.58$ | PASS    |
| 11N40SISO | Ant1    | Low    | 2422    | -7.84         | -47.13      | $\leq -27.84$ | PASS    |
|           |         | High   | 2452    | -7.32         | -47.68      | $\leq -27.32$ | PASS    |

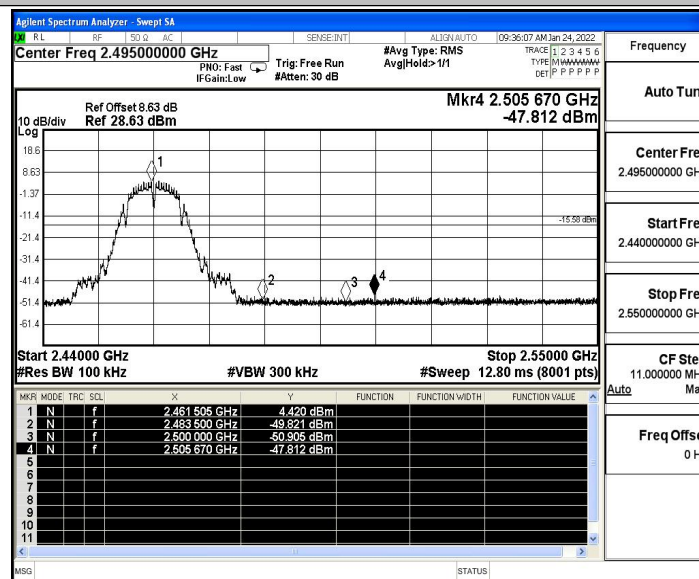


## Test Graphs

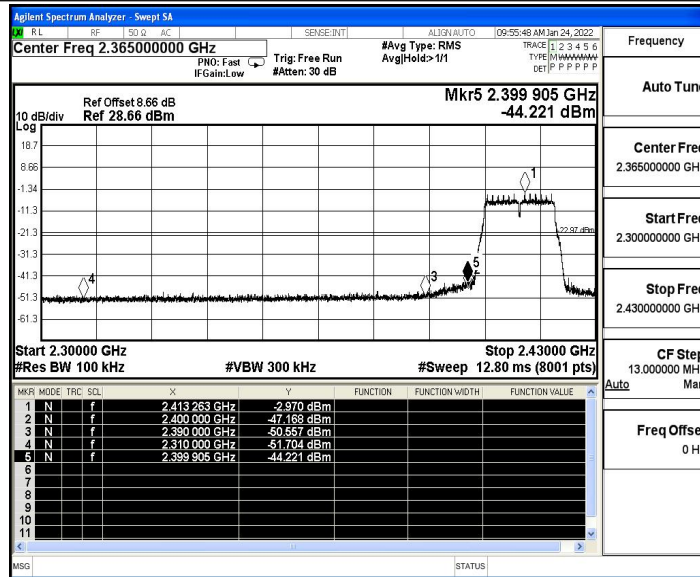
11B\_Ant1\_Low\_2412



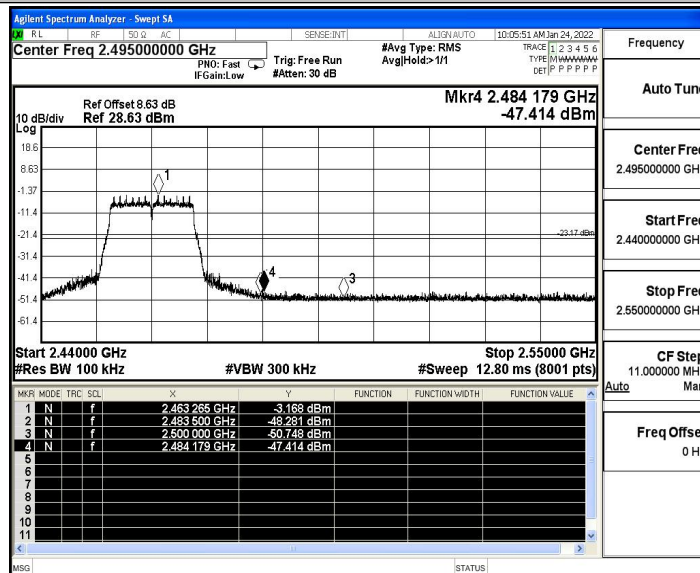
11B\_Ant1\_High\_2462



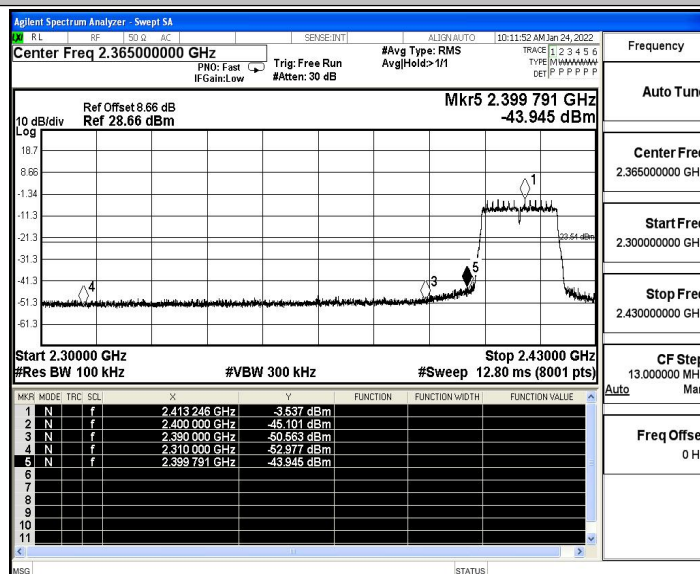
11G\_Ant1\_Low\_2412



11G\_Ant1\_High\_2462

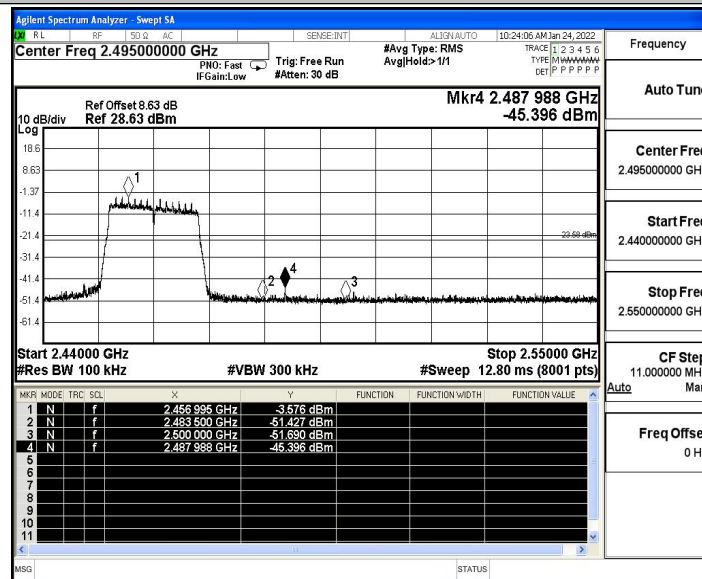


11N20SISO\_Ant1\_Low\_2412

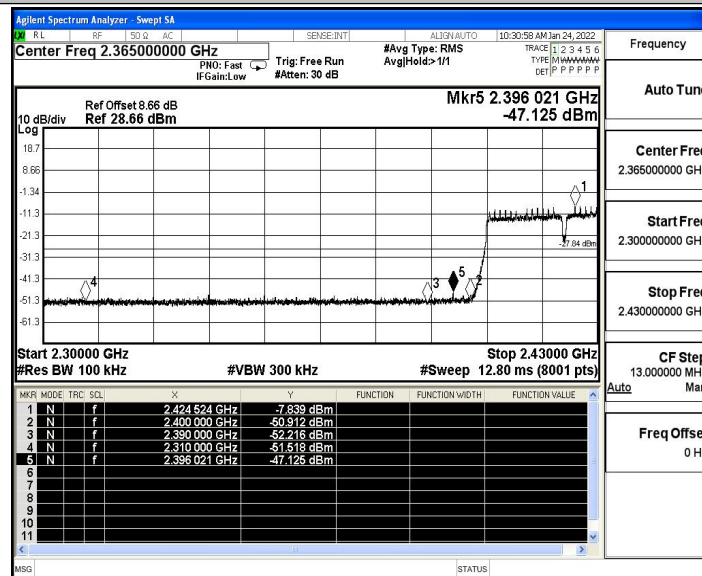




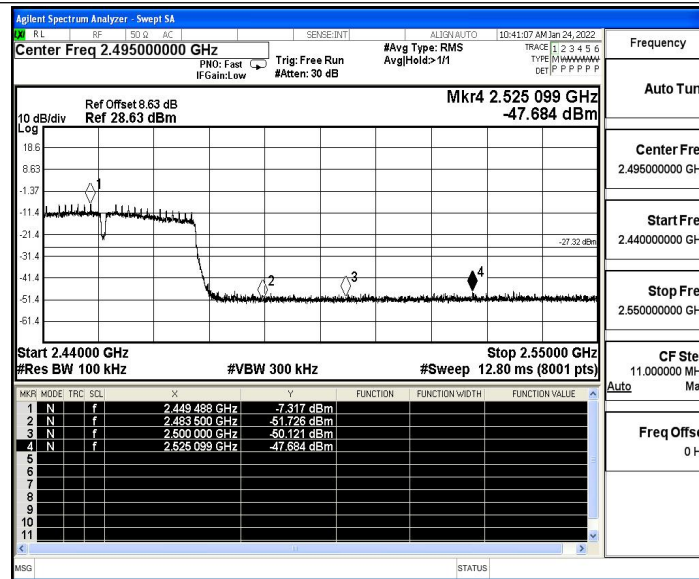
## 11N20SISO\_Ant1\_High\_2462



## 11N40SISO\_Ant1\_Low\_2422



## 11N40SISO\_Ant1\_High\_2452





## A.5 Conducted Spurious Emission

### Test Result

| TestMode  | Antenna | Channel | FreqRange<br>[Mhz] | RefLevel<br>[dBm] | Result<br>[dBm] | Limit<br>[dBm] | Verdict |
|-----------|---------|---------|--------------------|-------------------|-----------------|----------------|---------|
| 11B       | Ant1    | 2412    | Reference          | 5.25              | 5.25            | ---            | PASS    |
|           |         |         | 30~1000            | 5.25              | -59.39          | $\leq -14.75$  | PASS    |
|           |         |         | 1000~26500         | 5.25              | -46.76          | $\leq -14.75$  | PASS    |
|           |         | 2437    | Reference          | 4.88              | 4.88            | ---            | PASS    |
|           |         |         | 30~1000            | 4.88              | -60.9           | $\leq -15.12$  | PASS    |
|           |         |         | 1000~26500         | 4.88              | -46.33          | $\leq -15.12$  | PASS    |
|           |         | 2462    | Reference          | 4.61              | 4.61            | ---            | PASS    |
|           |         |         | 30~1000            | 4.61              | -59.31          | $\leq -15.39$  | PASS    |
|           |         |         | 1000~26500         | 4.61              | -46.01          | $\leq -15.39$  | PASS    |
| 11G       | Ant1    | 2412    | Reference          | -3.06             | -3.06           | ---            | PASS    |
|           |         |         | 30~1000            | -3.06             | -60.45          | $\leq -23.06$  | PASS    |
|           |         |         | 1000~26500         | -3.06             | -46.33          | $\leq -23.06$  | PASS    |
|           |         | 2437    | Reference          | -2.74             | -2.74           | ---            | PASS    |
|           |         |         | 30~1000            | -2.74             | -60.99          | $\leq -22.74$  | PASS    |
|           |         |         | 1000~26500         | -2.74             | -45.98          | $\leq -22.74$  | PASS    |
|           |         | 2462    | Reference          | -2.87             | -2.87           | ---            | PASS    |
|           |         |         | 30~1000            | -2.87             | -60.04          | $\leq -22.87$  | PASS    |
|           |         |         | 1000~26500         | -2.87             | -41.8           | $\leq -22.87$  | PASS    |
| 11N20SISO | Ant1    | 2412    | Reference          | -3.47             | -3.47           | ---            | PASS    |
|           |         |         | 30~1000            | -3.47             | -59.89          | $\leq -23.47$  | PASS    |
|           |         |         | 1000~26500         | -3.47             | -45.17          | $\leq -23.47$  | PASS    |
|           |         | 2437    | Reference          | -2.58             | -2.58           | ---            | PASS    |
|           |         |         | 30~1000            | -2.58             | -60.16          | $\leq -22.58$  | PASS    |
|           |         |         | 1000~26500         | -2.58             | -46.2           | $\leq -22.58$  | PASS    |
|           |         | 2462    | Reference          | -3.27             | -3.27           | ---            | PASS    |
|           |         |         | 30~1000            | -3.27             | -60.67          | $\leq -23.27$  | PASS    |
|           |         |         | 1000~26500         | -3.27             | -45.27          | $\leq -23.27$  | PASS    |
| 11N40SISO | Ant1    | 2422    | Reference          | -7.08             | -7.08           | ---            | PASS    |
|           |         |         | 30~1000            | -7.08             | -60.92          | $\leq -27.08$  | PASS    |
|           |         |         | 1000~26500         | -7.08             | -45.49          | $\leq -27.08$  | PASS    |
|           |         | 2437    | Reference          | -7.51             | -7.51           | ---            | PASS    |
|           |         |         | 30~1000            | -7.51             | -60.77          | $\leq -27.51$  | PASS    |
|           |         |         | 1000~26500         | -7.51             | -45.36          | $\leq -27.51$  | PASS    |
|           |         | 2452    | Reference          | -7.17             | -7.17           | ---            | PASS    |
|           |         |         | 30~1000            | -7.17             | -60.79          | $\leq -27.17$  | PASS    |
|           |         |         | 1000~26500         | -7.17             | -45.78          | $\leq -27.17$  | PASS    |