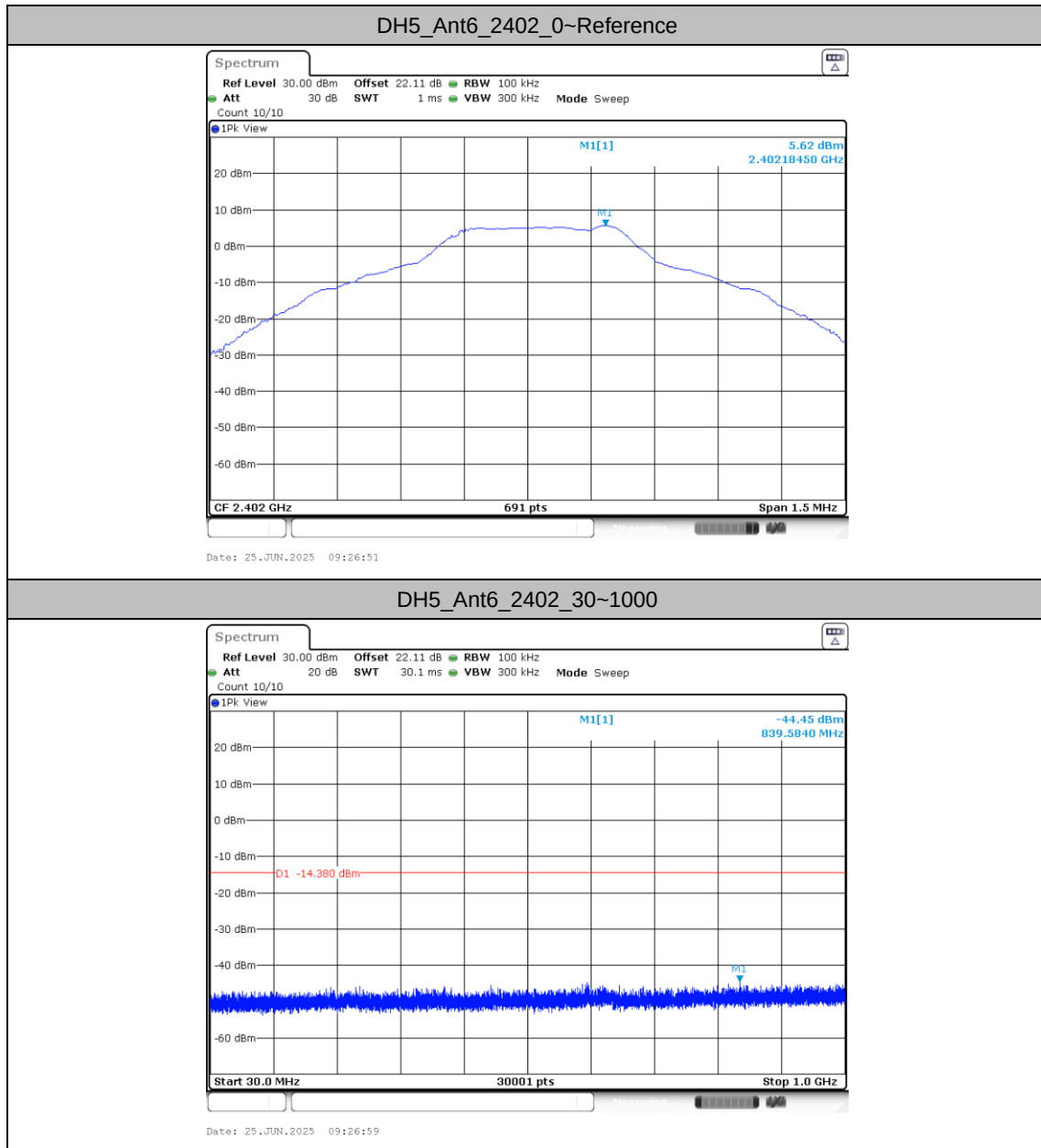


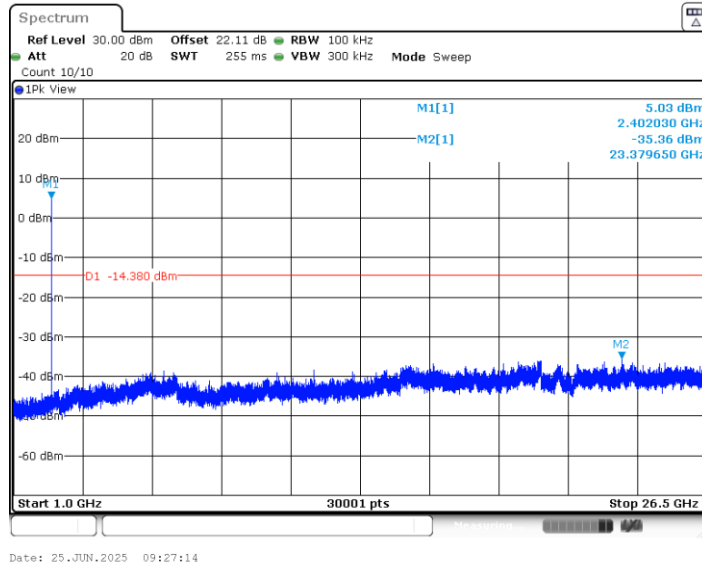


## Test Graphs

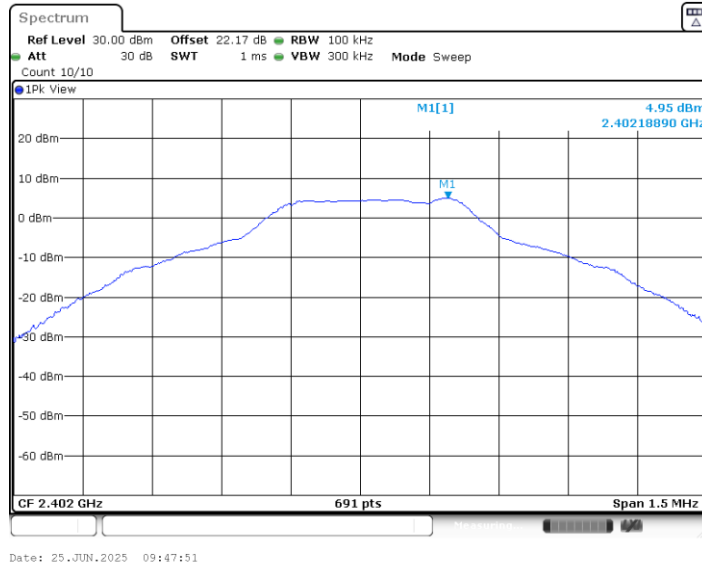


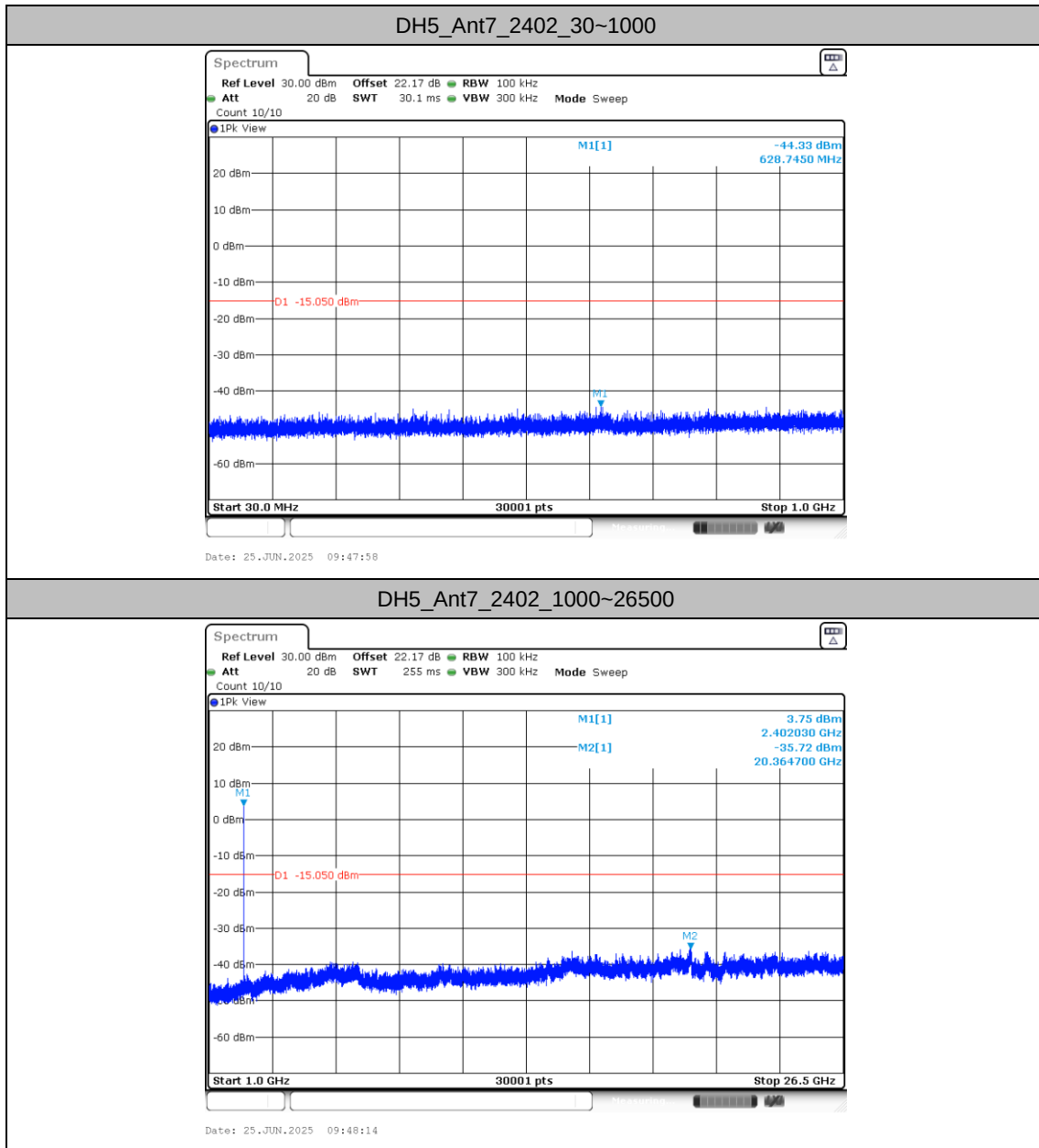


DH5\_Ant6\_2402\_1000~26500



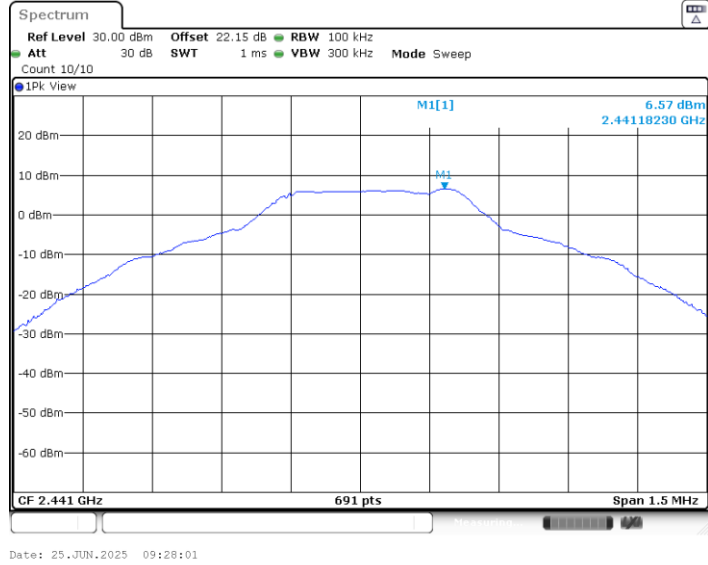
DH5\_Ant7\_2402\_0~Reference



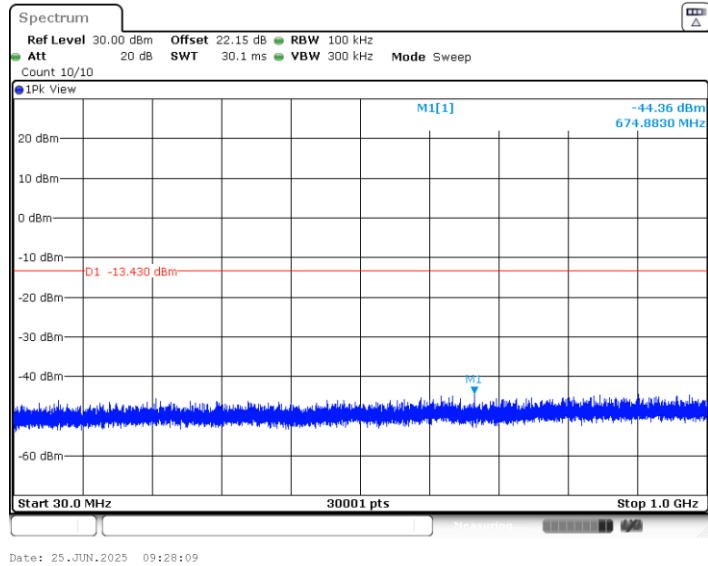




DH5\_Ant6\_2441\_0~Reference

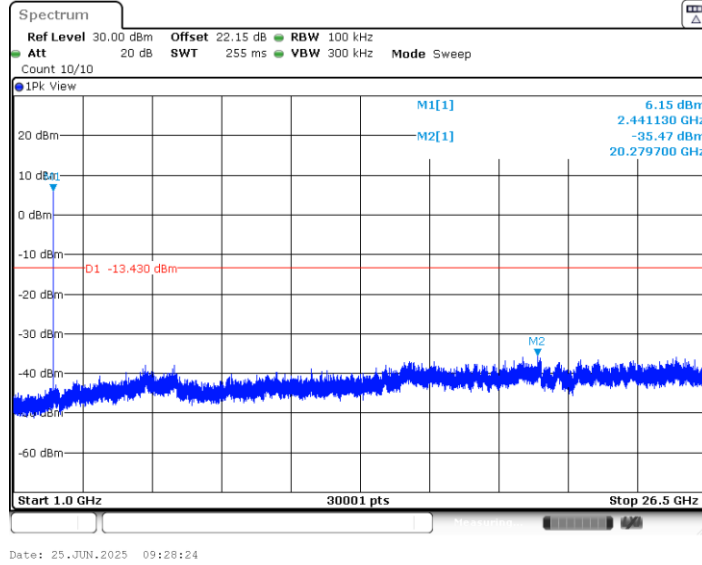


DH5\_Ant6\_2441\_30~1000

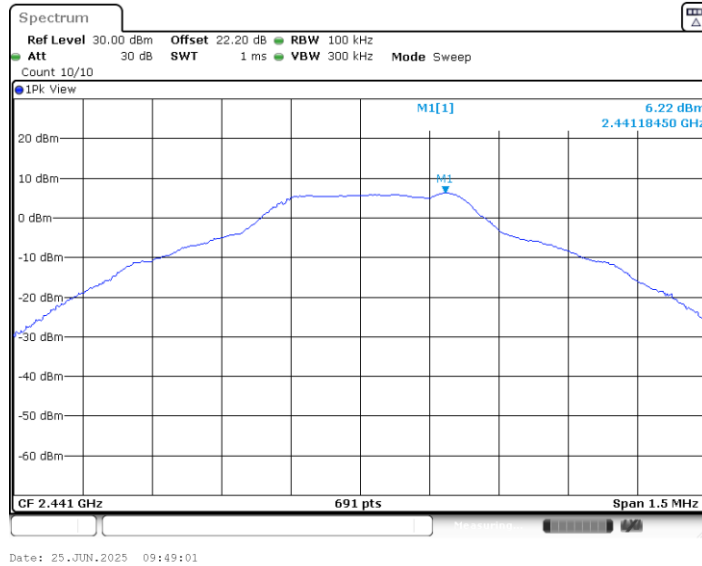


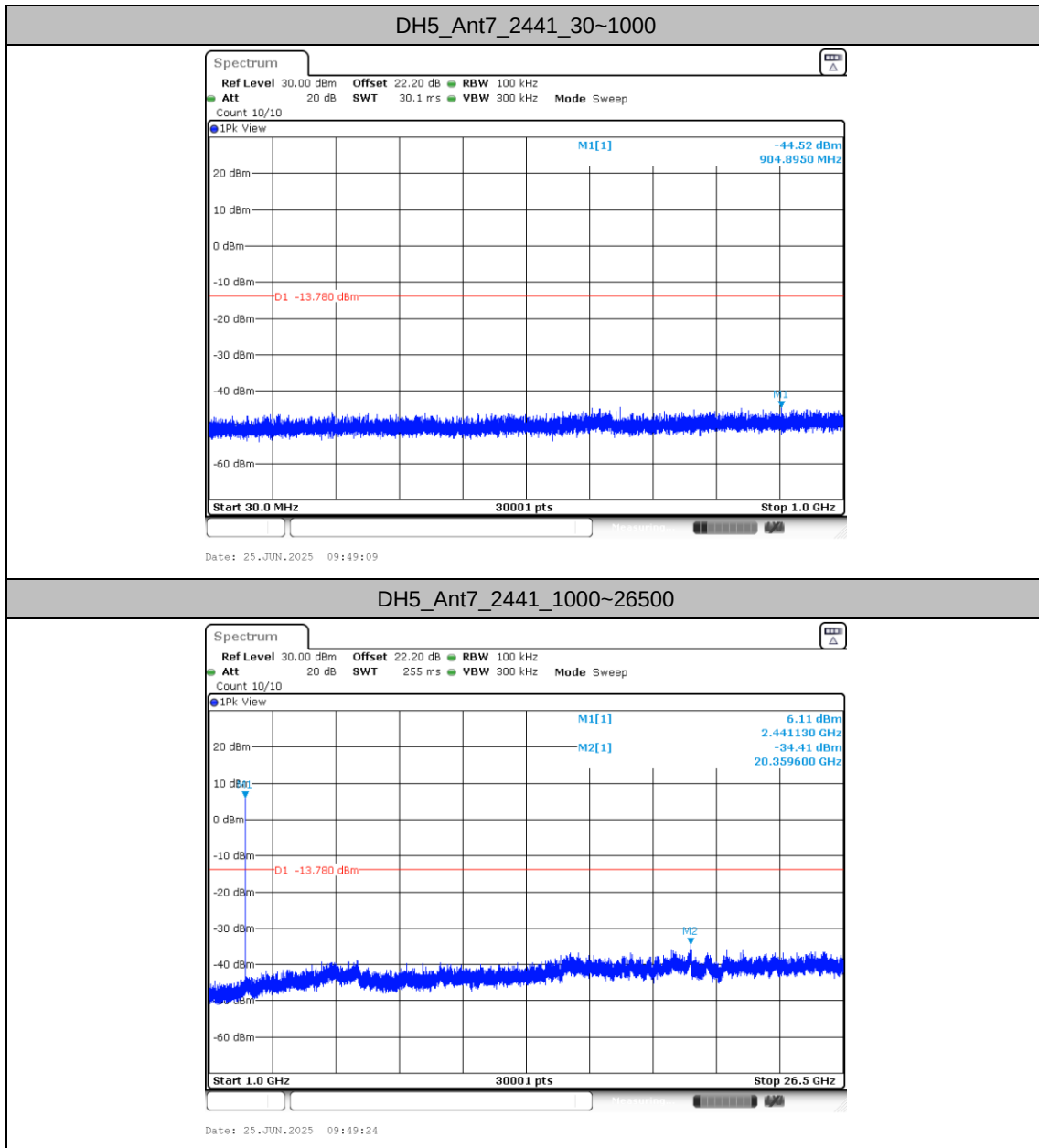


DH5\_Ant6\_2441\_1000~26500



DH5\_Ant7\_2441\_0~Reference







**Spectrum**

Ref Level 30.00 dBm Offset 22.07 dB RBW 100 kHz  
 Att 20 dB SWT 30.1 ms VBW 300 kHz Mode Sweep

Count 10/10

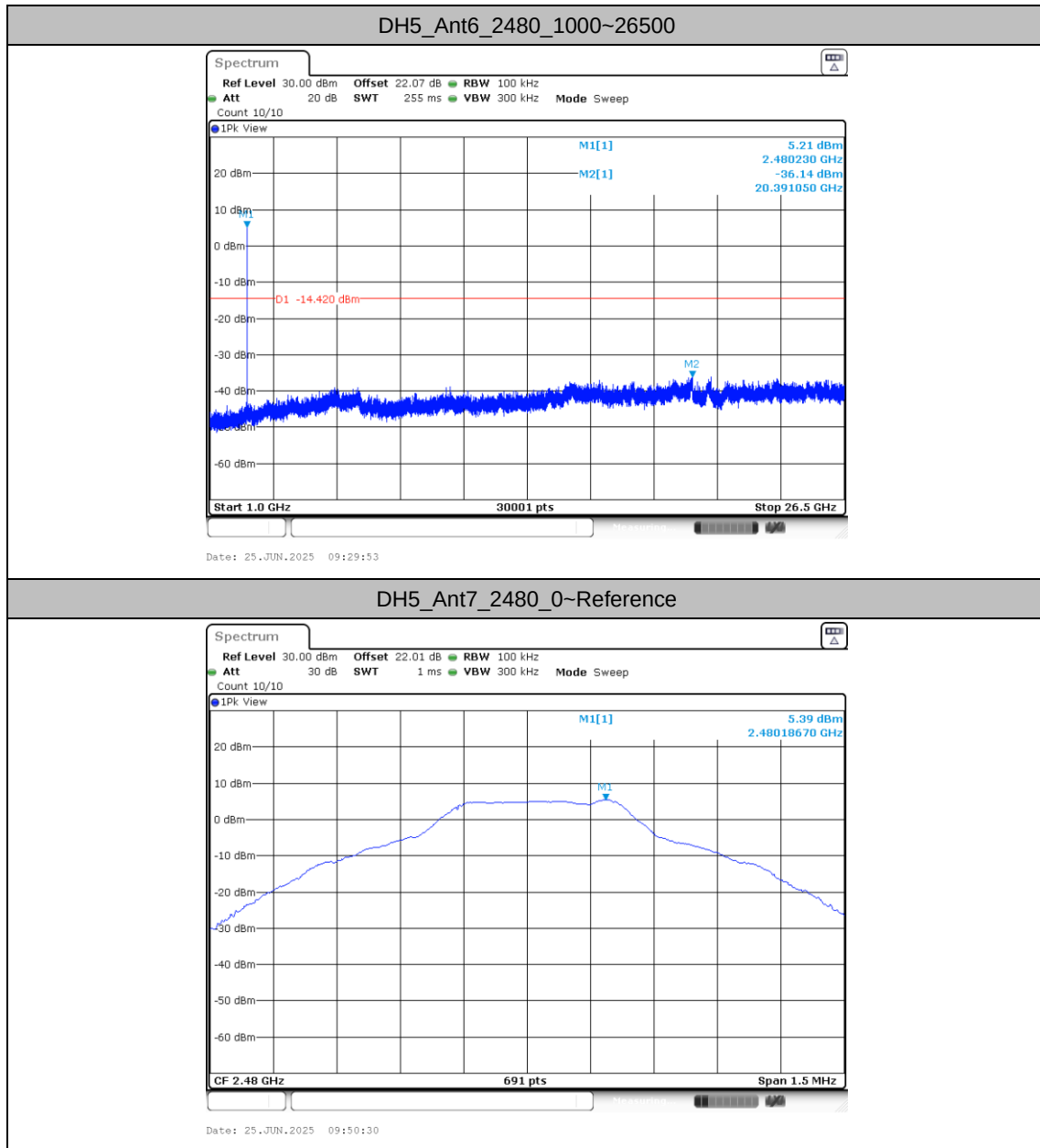
1Pk View

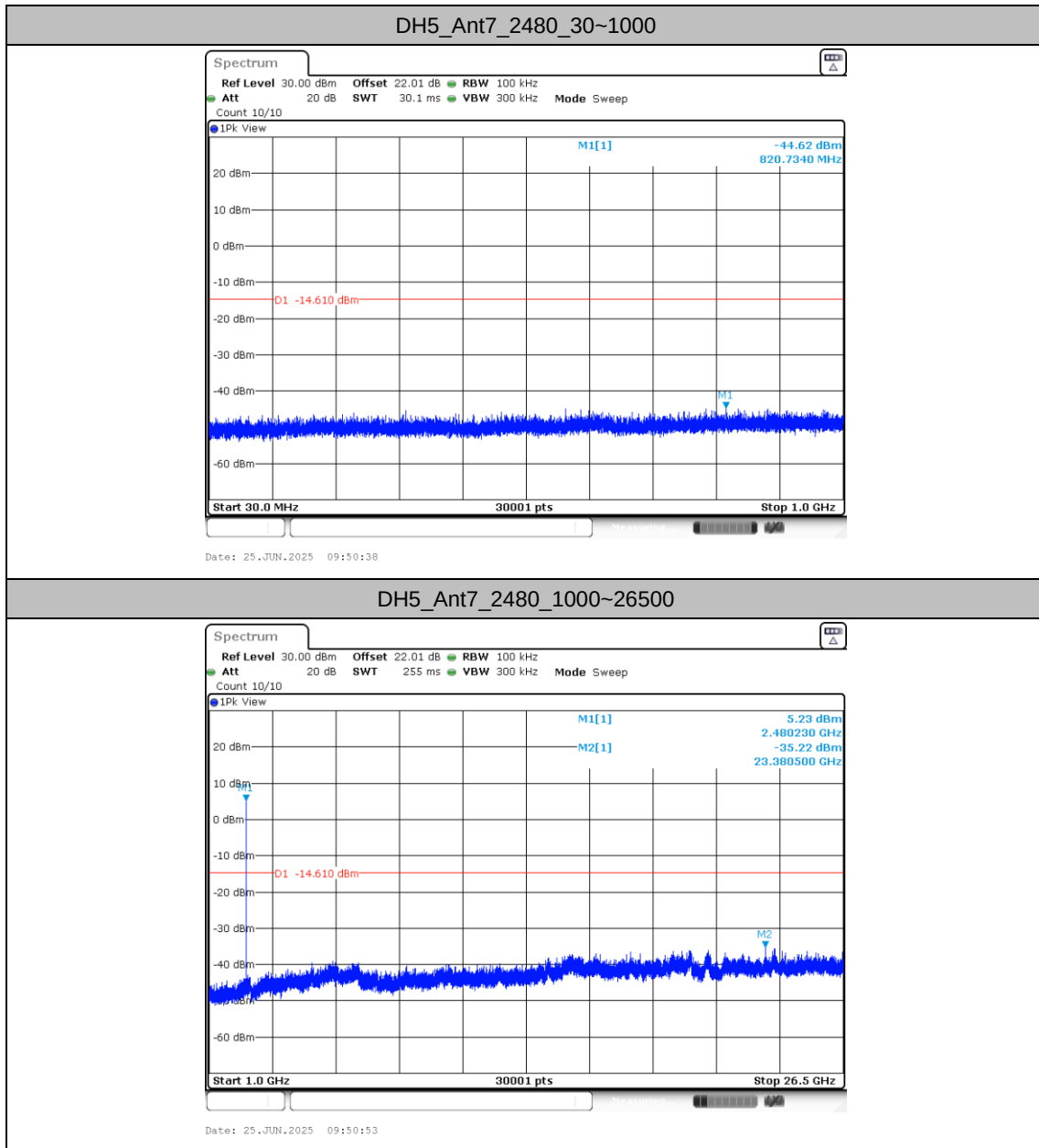
M1[1] -43.64 dBm 990.9950 MHz

D1 -14.420 dBm

Start 30.0 MHz 30001 pts Stop 1.0 GHz

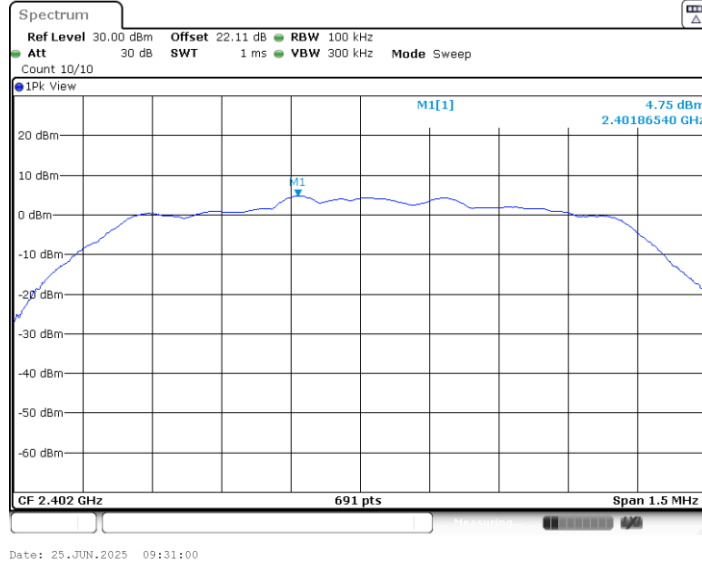
Date: 25.JUN.2025 09:29:38



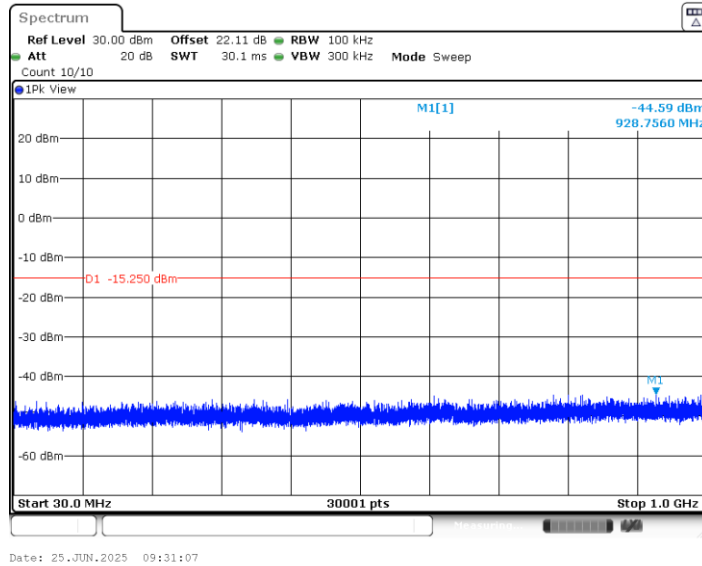




2DH1\_Ant6\_2402\_0~Reference

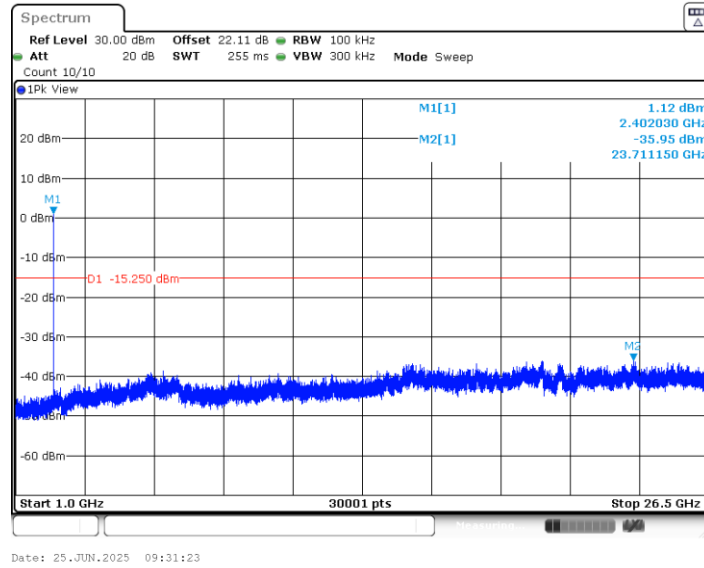


2DH1\_Ant6\_2402\_30~1000

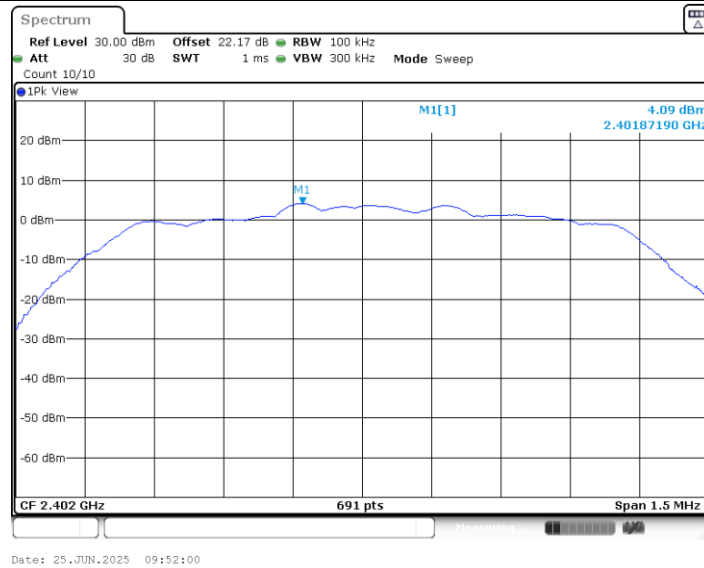


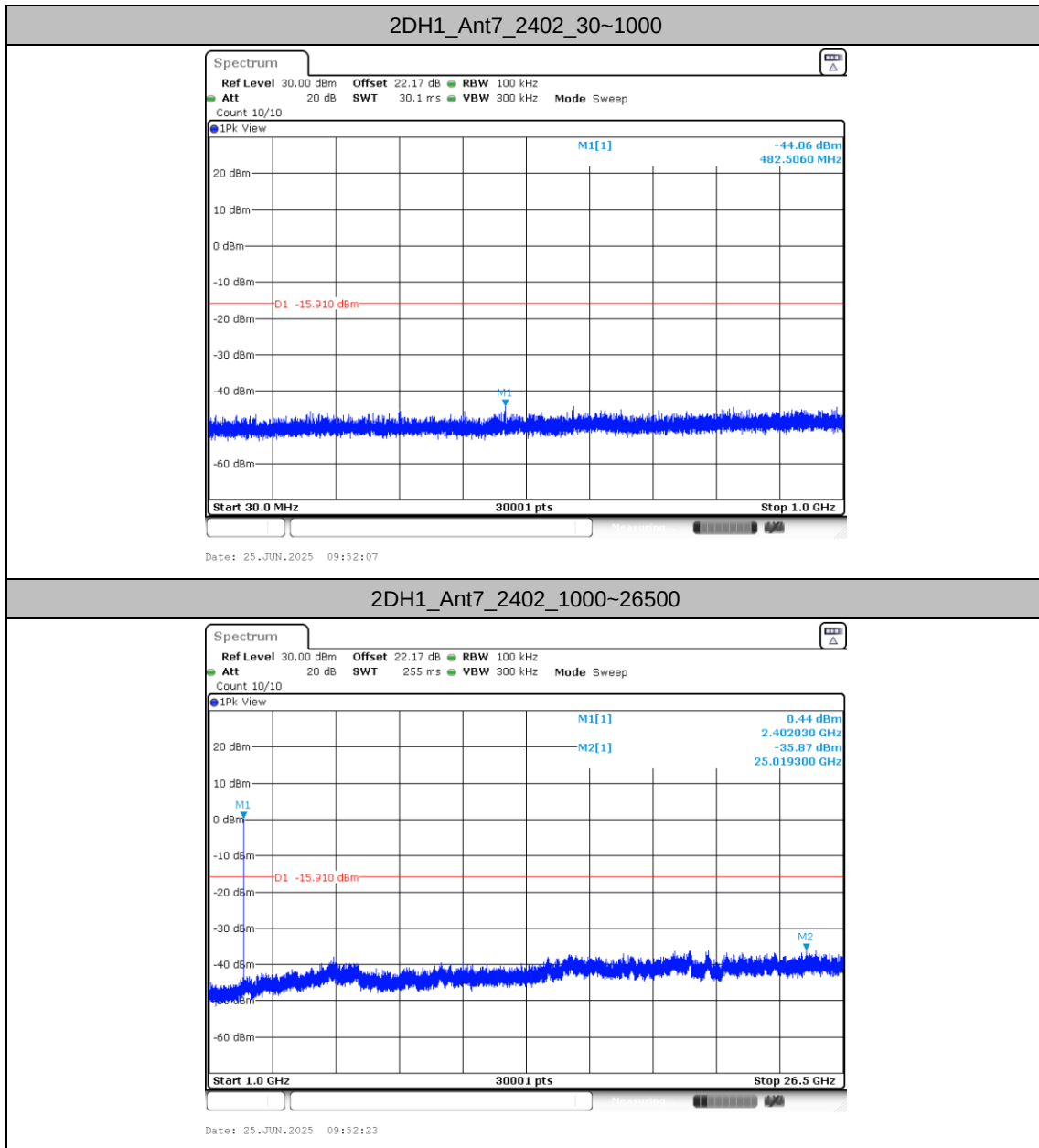


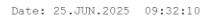
2DH1\_Ant6\_2402\_1000~26500



2DH1\_Ant7\_2402\_0~Reference





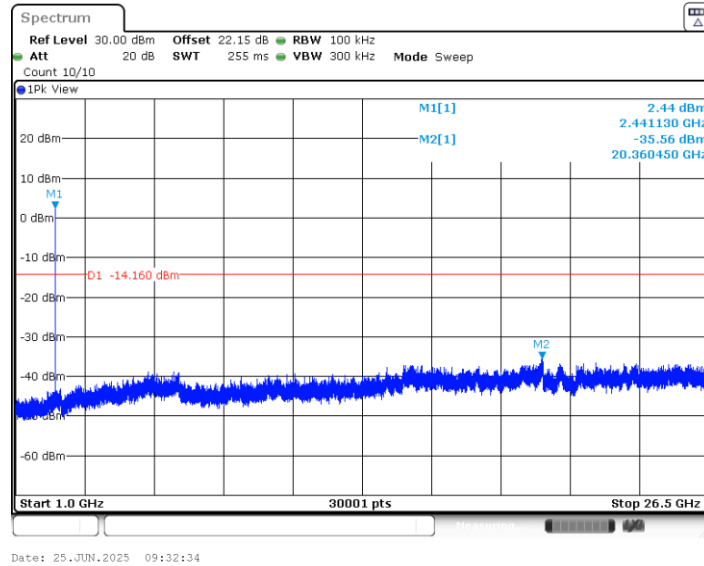


The screenshot shows a Spectrum Analyzer interface. At the top, the title is "Spectrum". Below it, various parameters are displayed: "Ref Level 30.00 dBm", "Offset 22.15 dB", "RBW 100 kHz", "Att 20 dB", "SWT 30.1 ms", "VBW 300 kHz", and "Mode Sweep". Below these parameters, the text "Count 10/10" is visible. The main display area shows a "1Pk View" of a spectrum. The vertical axis represents power in dBm, ranging from -60 dBm to 20 dBm. The horizontal axis represents frequency, with "Start 30.0 MHz" and "Stop 1.0 GHz" indicated at the bottom. A red horizontal line is drawn across the plot at -14.160 dBm, labeled "D1 -14.160 dBm". A blue trace shows a noisy signal floor around -50 dBm. A blue label "M1[1]" is positioned above the noise floor, and a blue arrow points to it with the text "-44.25 dBm" and "831.4680 MHz". The bottom status bar shows "30001 pts".

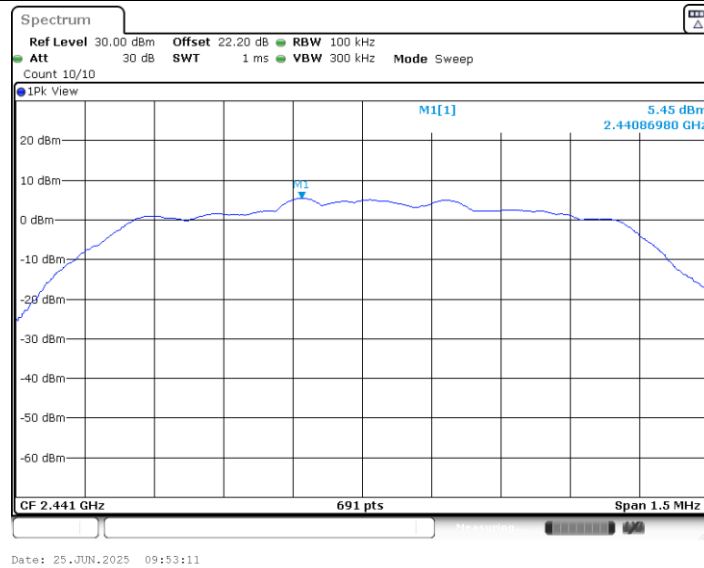
Date: 25.JUN.2025 09:32:18

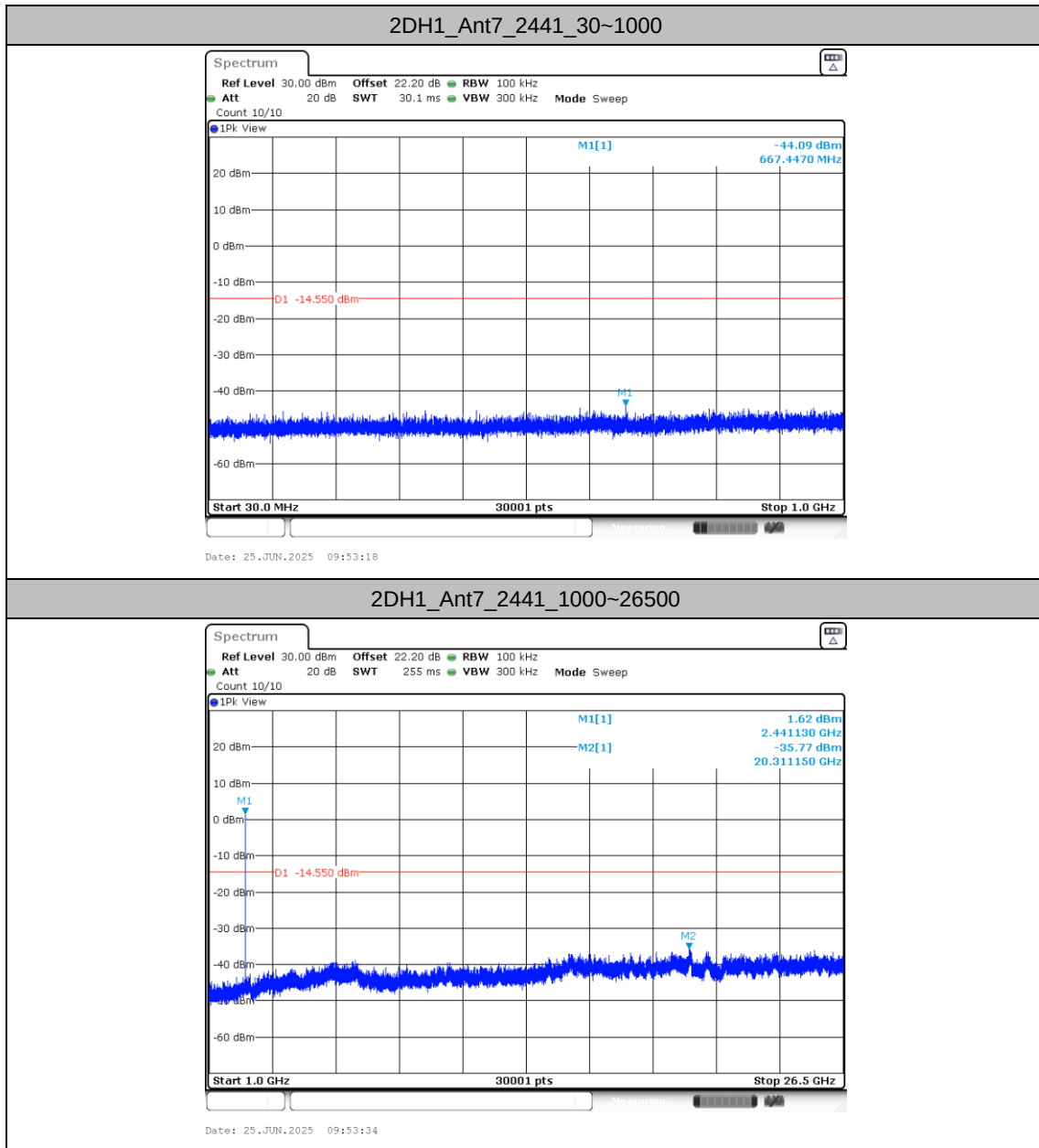


2DH1\_Ant6\_2441\_1000~26500



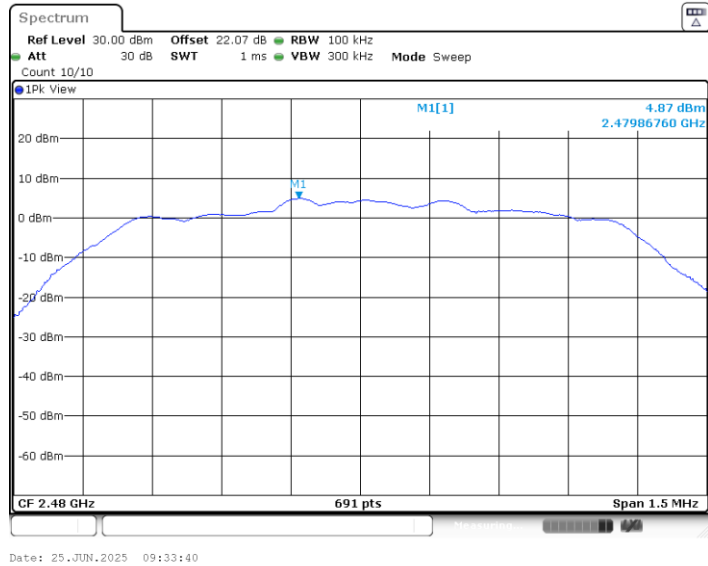
2DH1\_Ant7\_2441\_0~Reference



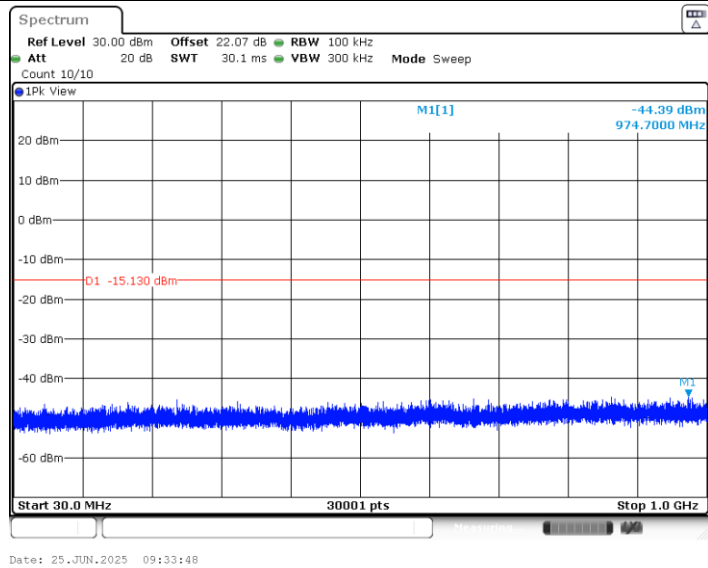




2DH1\_Ant6\_2480\_0~Reference

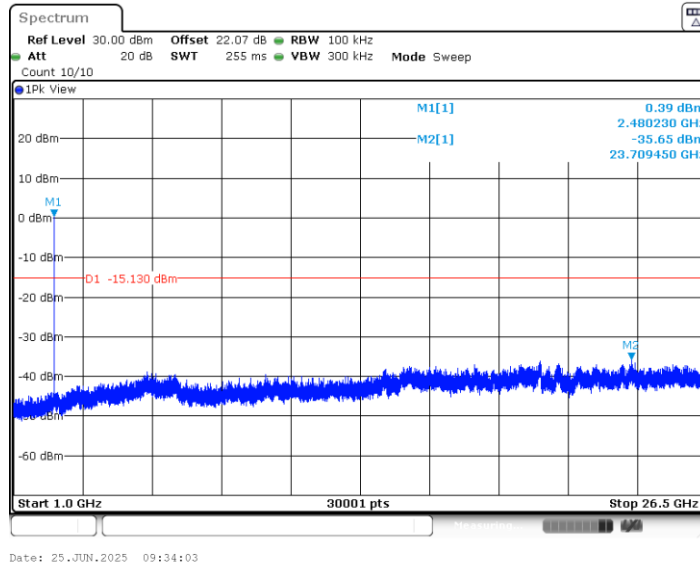


2DH1\_Ant6\_2480\_30~1000

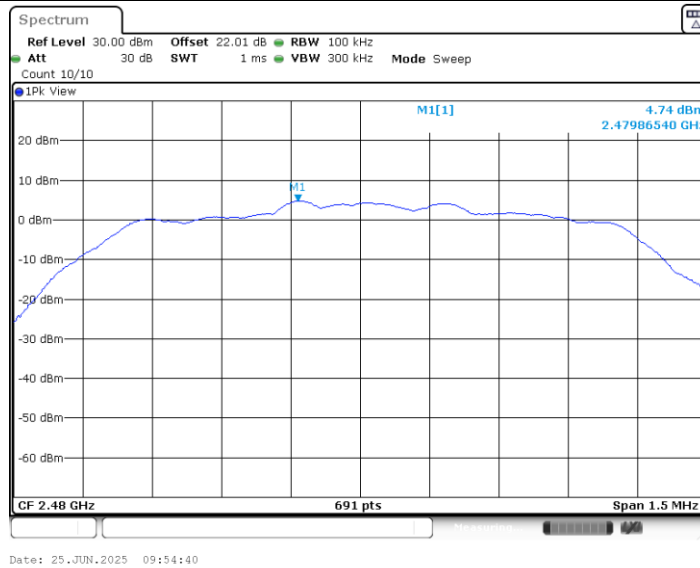


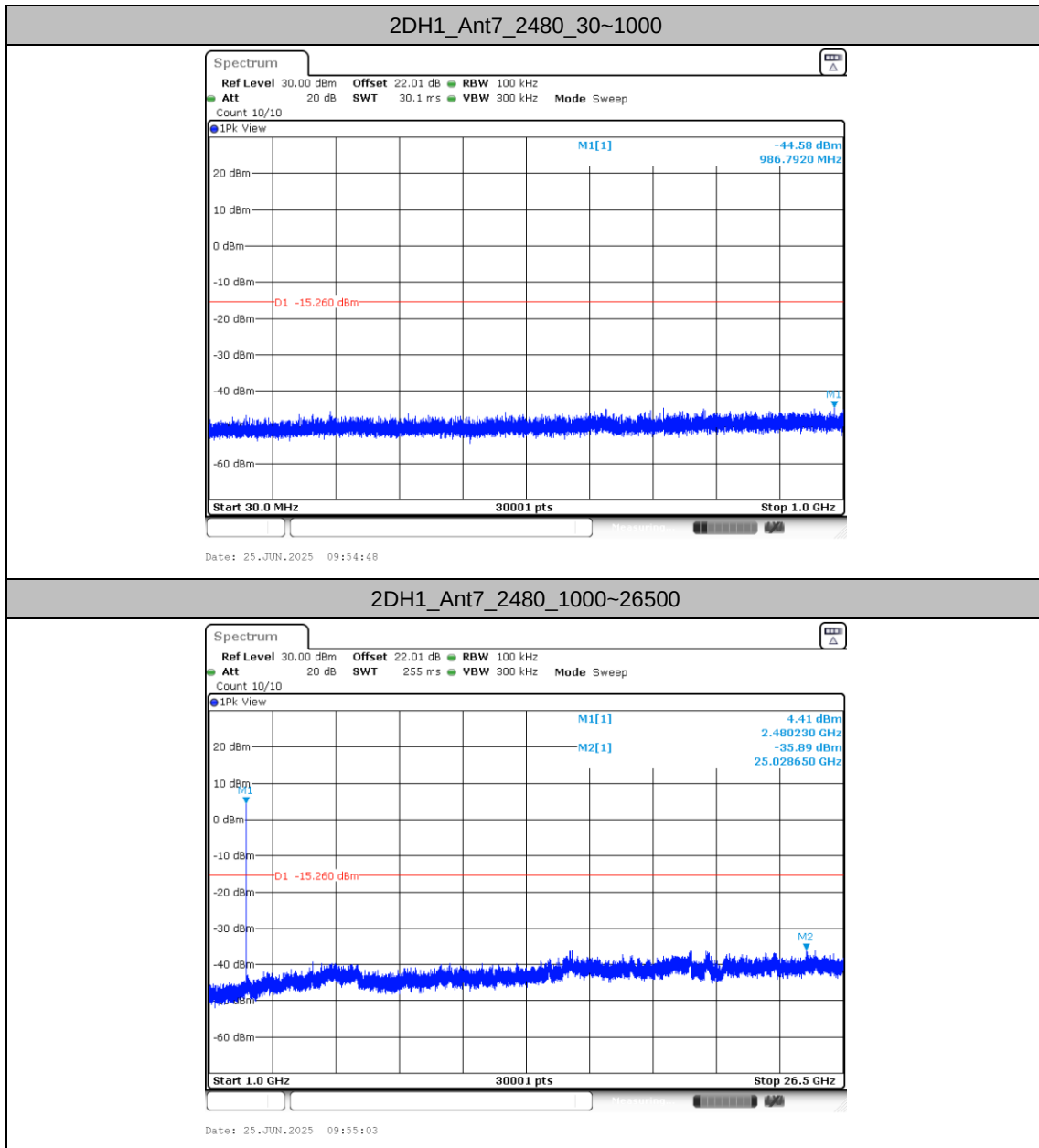


2DH1\_Ant6\_2480\_1000~26500



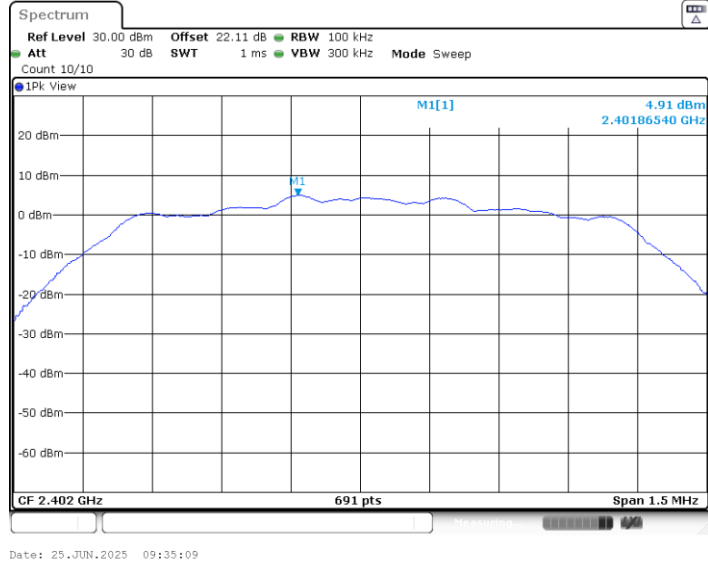
2DH1\_Ant7\_2480\_0~Reference



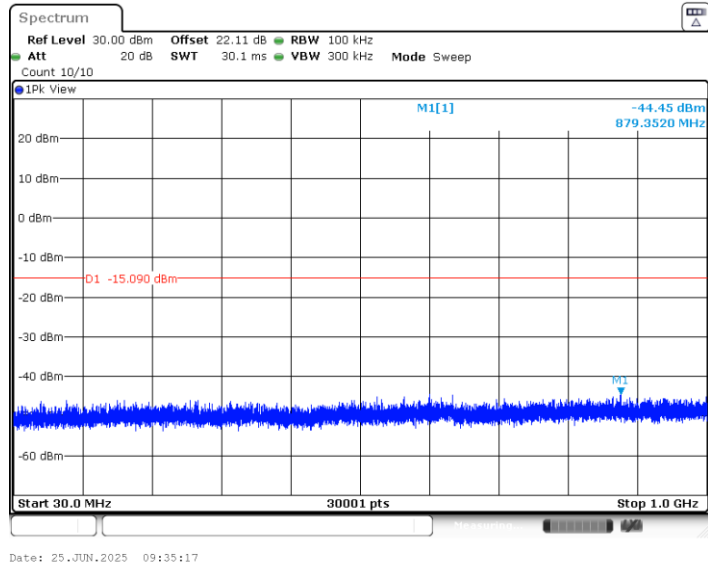


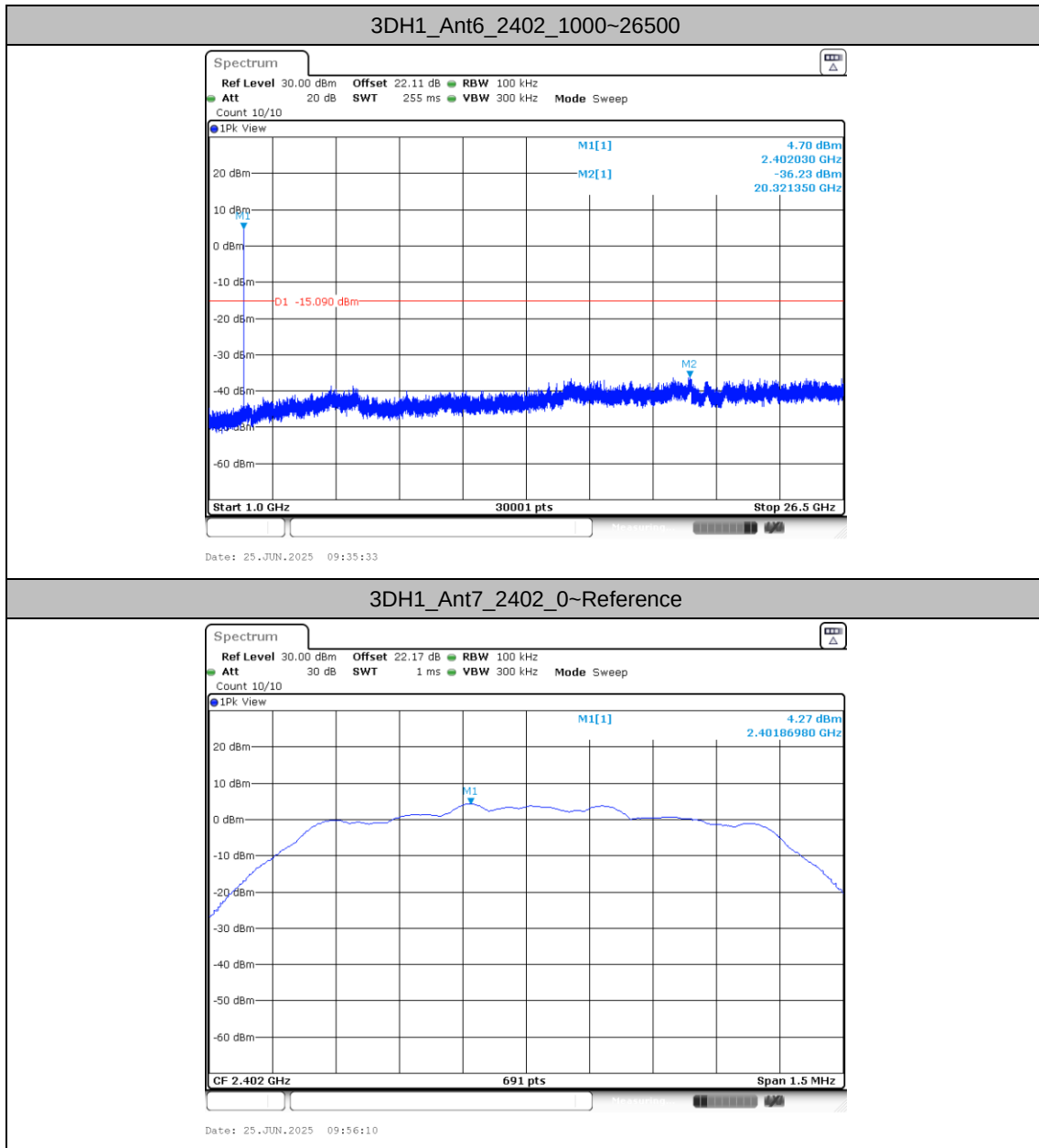


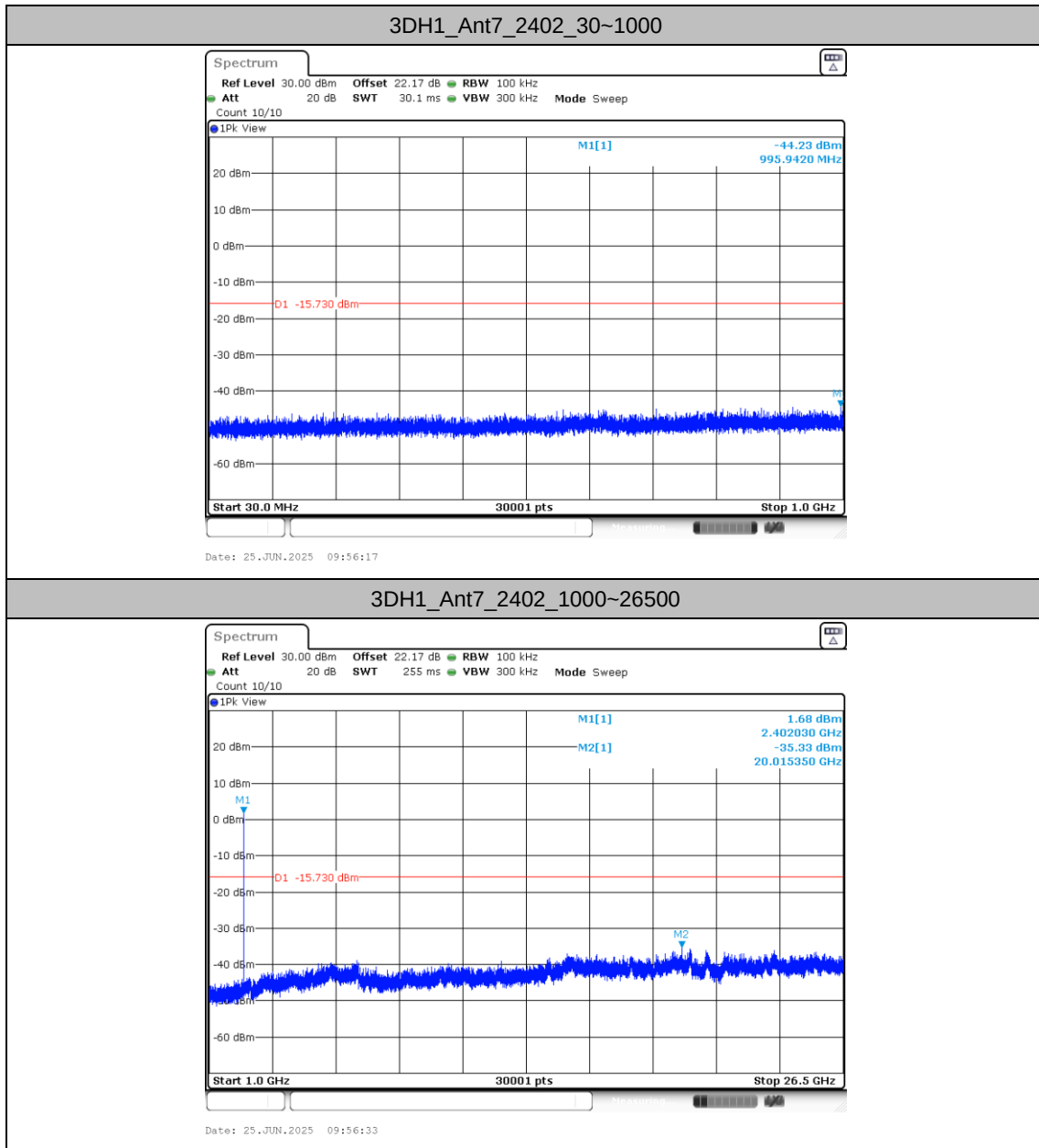
3DH1\_Ant6\_2402\_0~Reference



3DH1\_Ant6\_2402\_30~1000

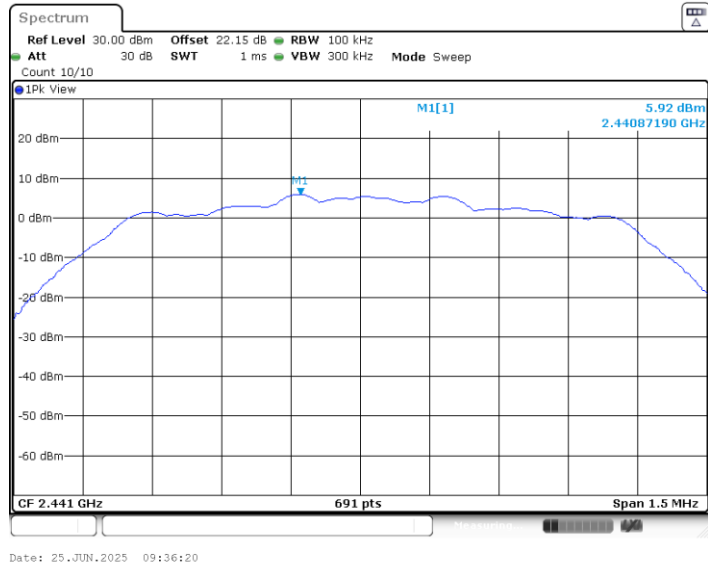




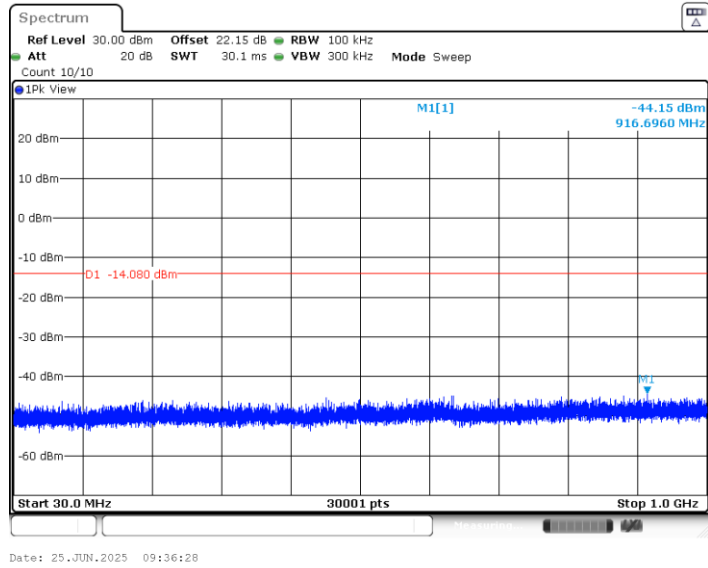




3DH1\_Ant6\_2441\_0~Reference

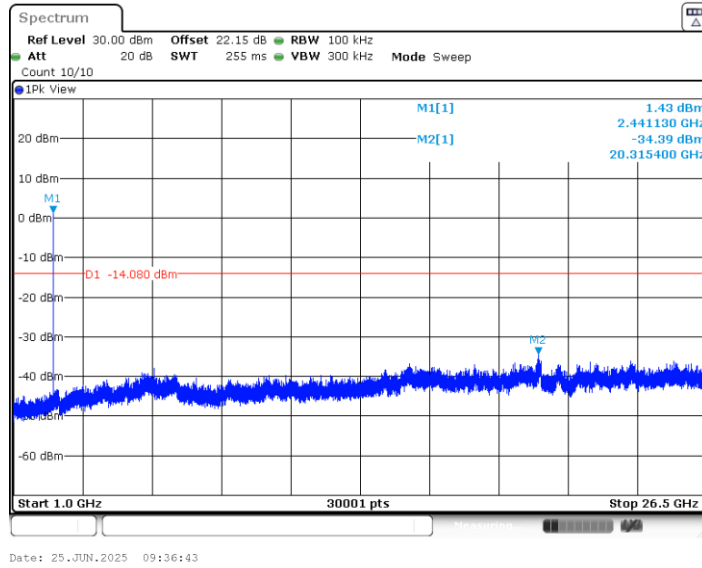


3DH1\_Ant6\_2441\_30~1000

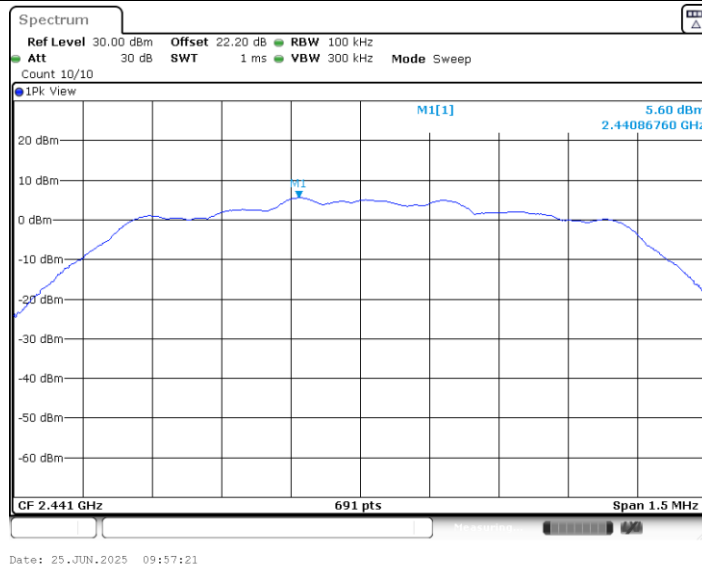


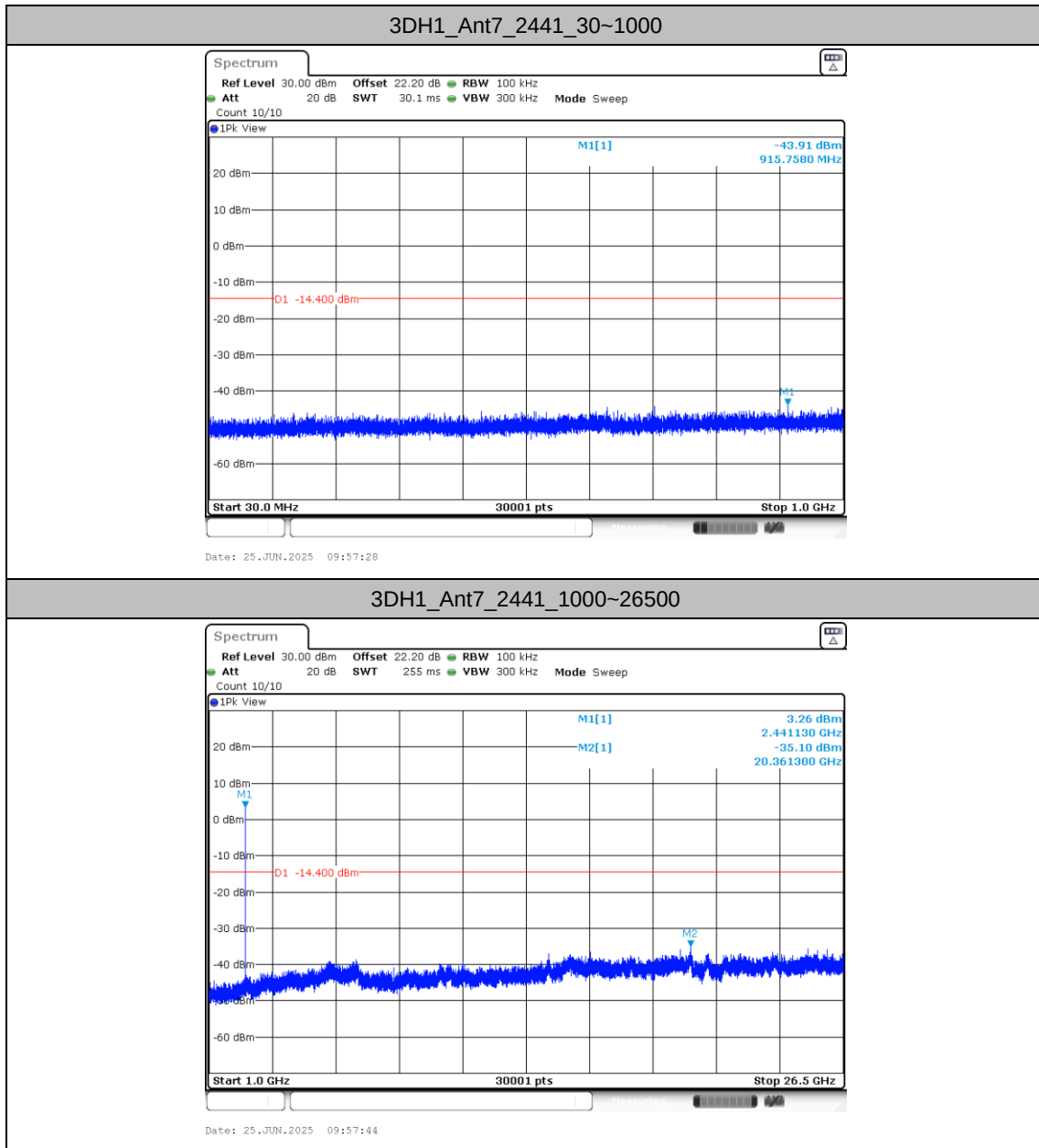


3DH1\_Ant6\_2441\_1000~26500



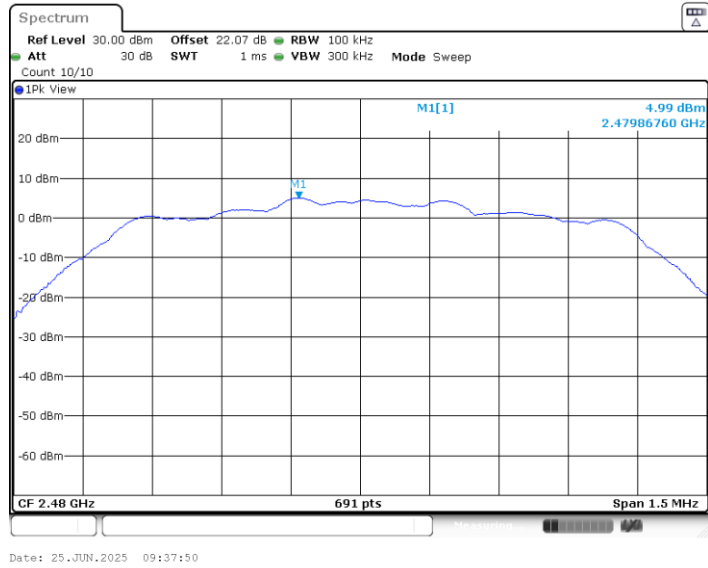
3DH1\_Ant7\_2441\_0~Reference



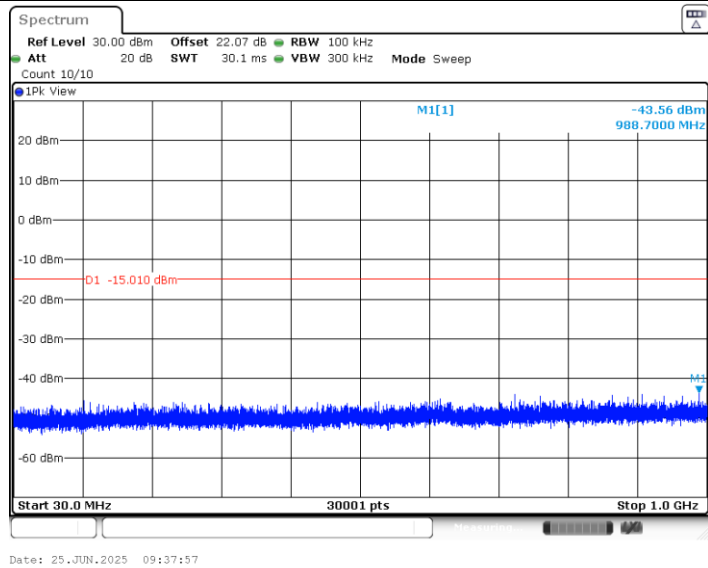




3DH1\_Ant6\_2480\_0~Reference

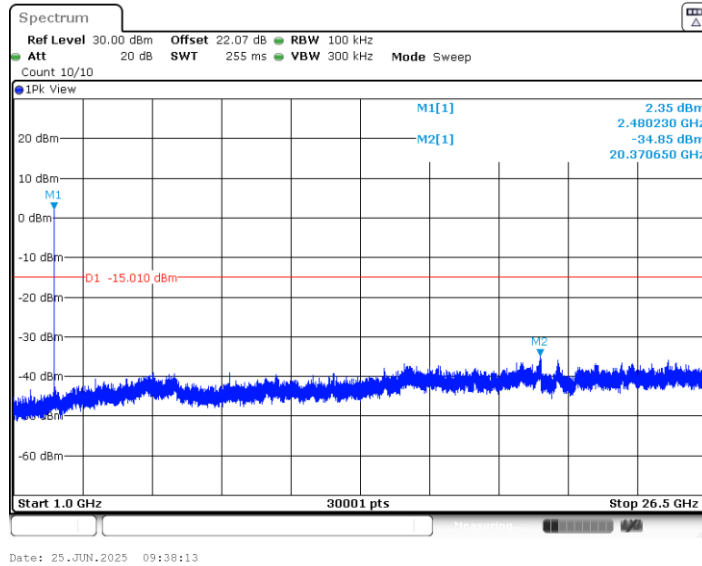


3DH1\_Ant6\_2480\_30~1000

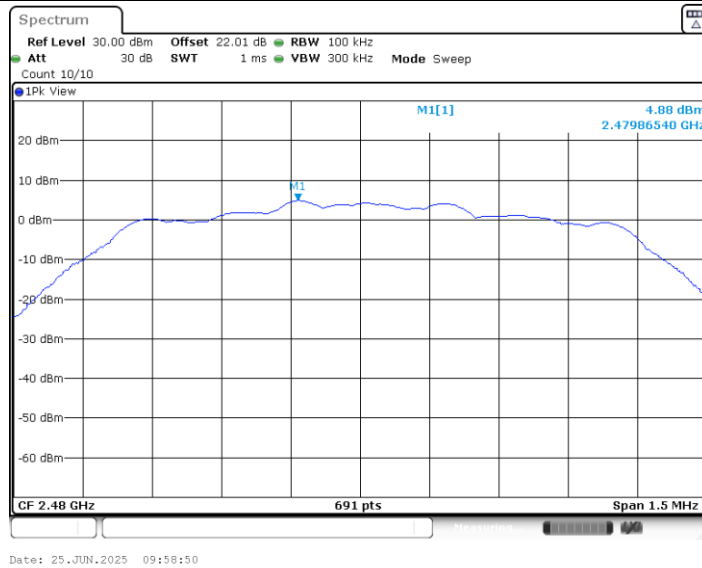


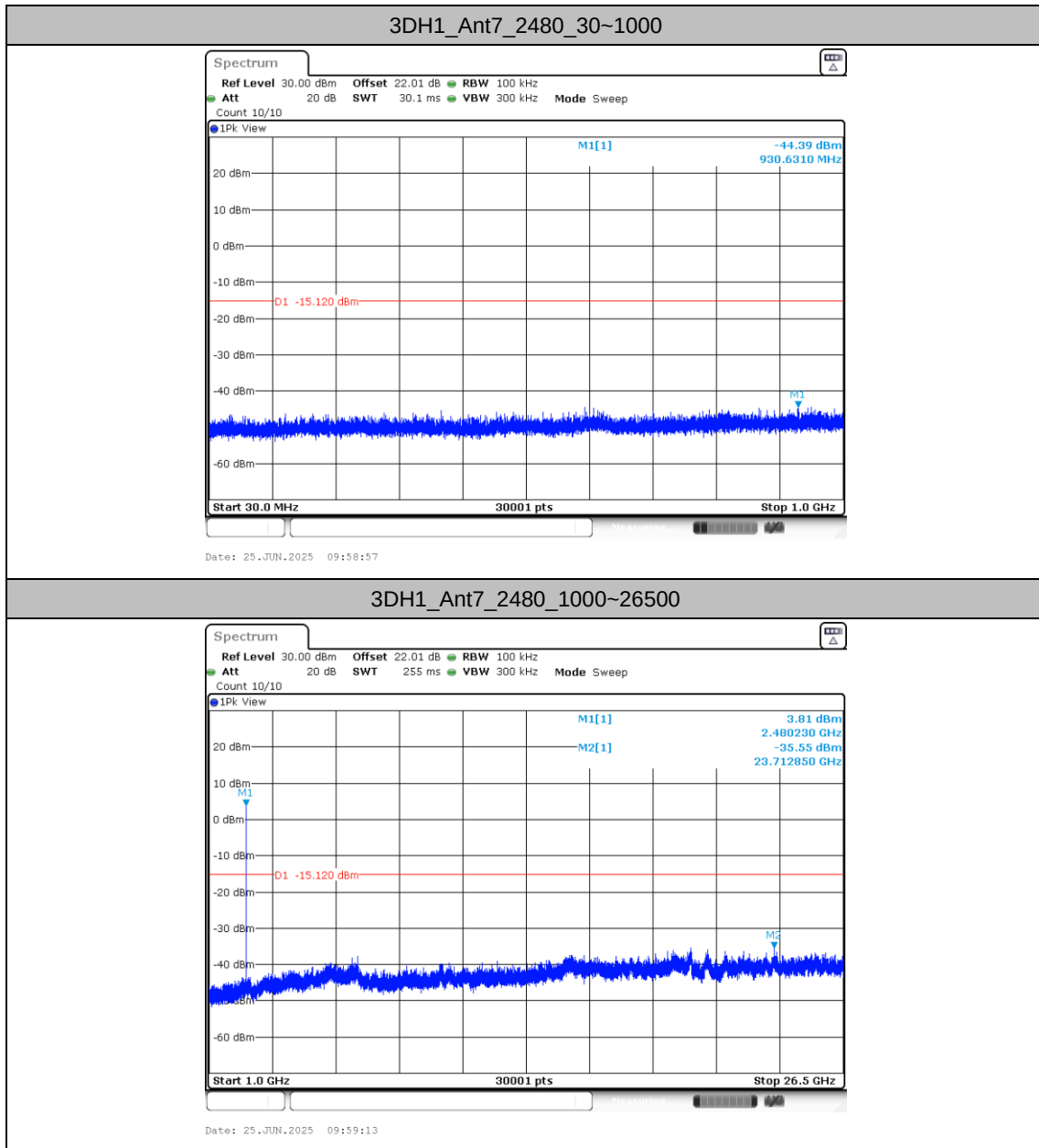


3DH1\_Ant6\_2480\_1000~26500



3DH1\_Ant7\_2480\_0~Reference







<BLE-ASK>

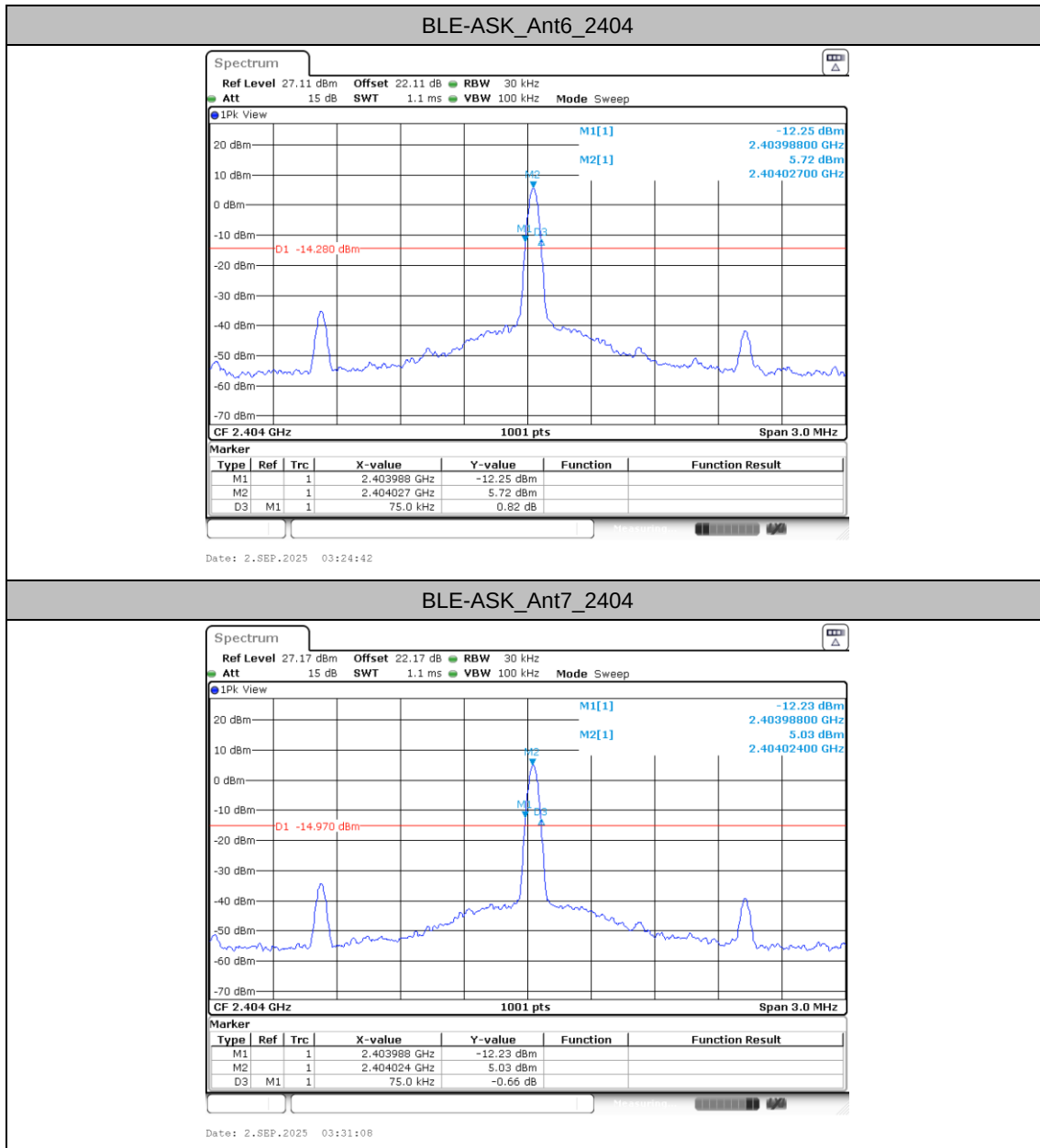
20dB Emission Bandwidth

Test Result

| TestMode | Antenna | Freq(MHz) | 20dB<br>EBW[MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|----------|---------|-----------|------------------|---------|---------|------------|---------|
| BLE-ASK  | Ant6    | 2404      | 0.075            | 2403.99 | 2404.06 | ---        | ---     |
|          | Ant7    | 2404      | 0.075            | 2403.99 | 2404.06 | ---        | ---     |
|          | Ant6    | 2440      | 0.078            | 2439.99 | 2440.07 | ---        | ---     |
|          | Ant7    | 2440      | 0.078            | 2439.99 | 2440.07 | ---        | ---     |
|          | Ant6    | 2478      | 0.075            | 2477.99 | 2478.06 | ---        | ---     |
|          | Ant7    | 2478      | 0.075            | 2477.99 | 2478.06 | ---        | ---     |

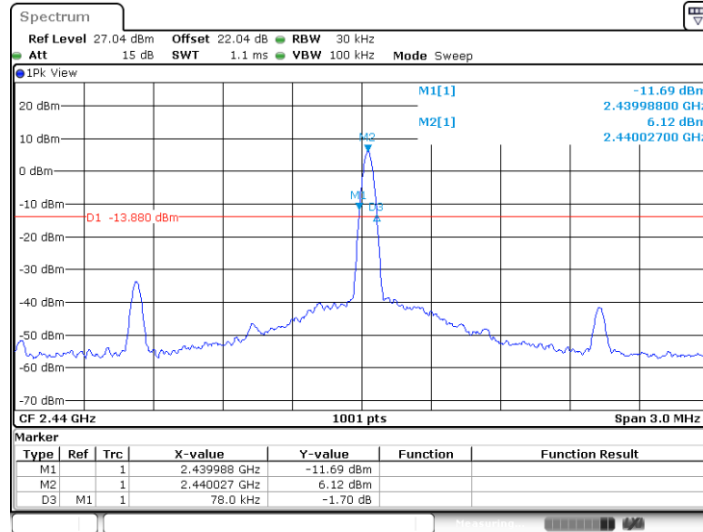


## Test Graphs



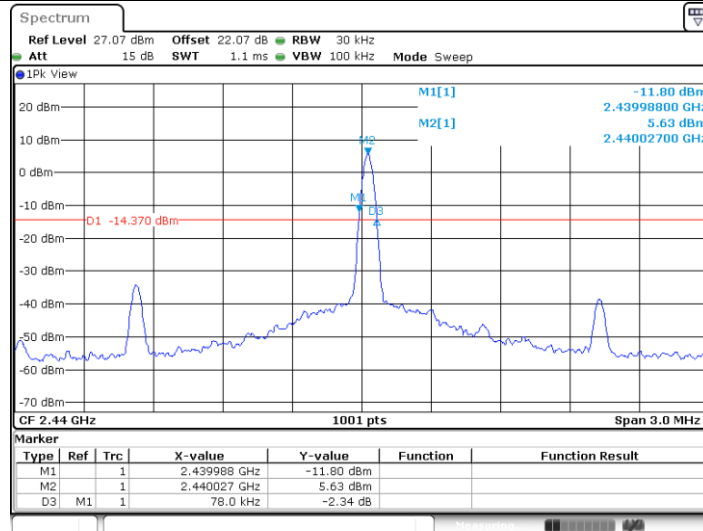


BLE-ASK\_Ant6\_2440



Date: 9.SEP.2025 02:45:05

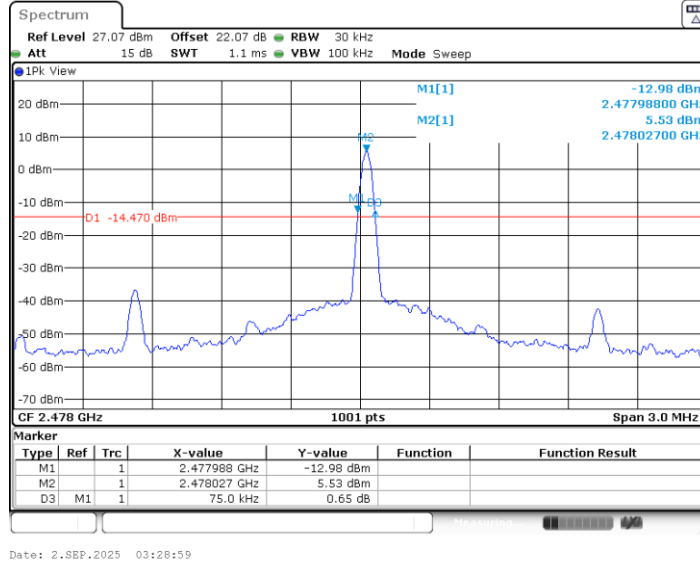
BLE-ASK\_Ant7\_2440



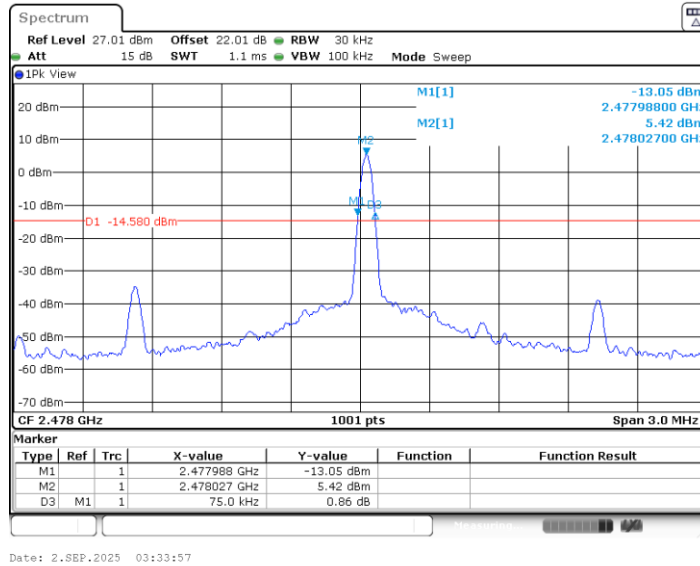
Date: 9.SEP.2025 02:47:02



BLE-ASK\_Ant6\_2478



BLE-ASK\_Ant7\_2478





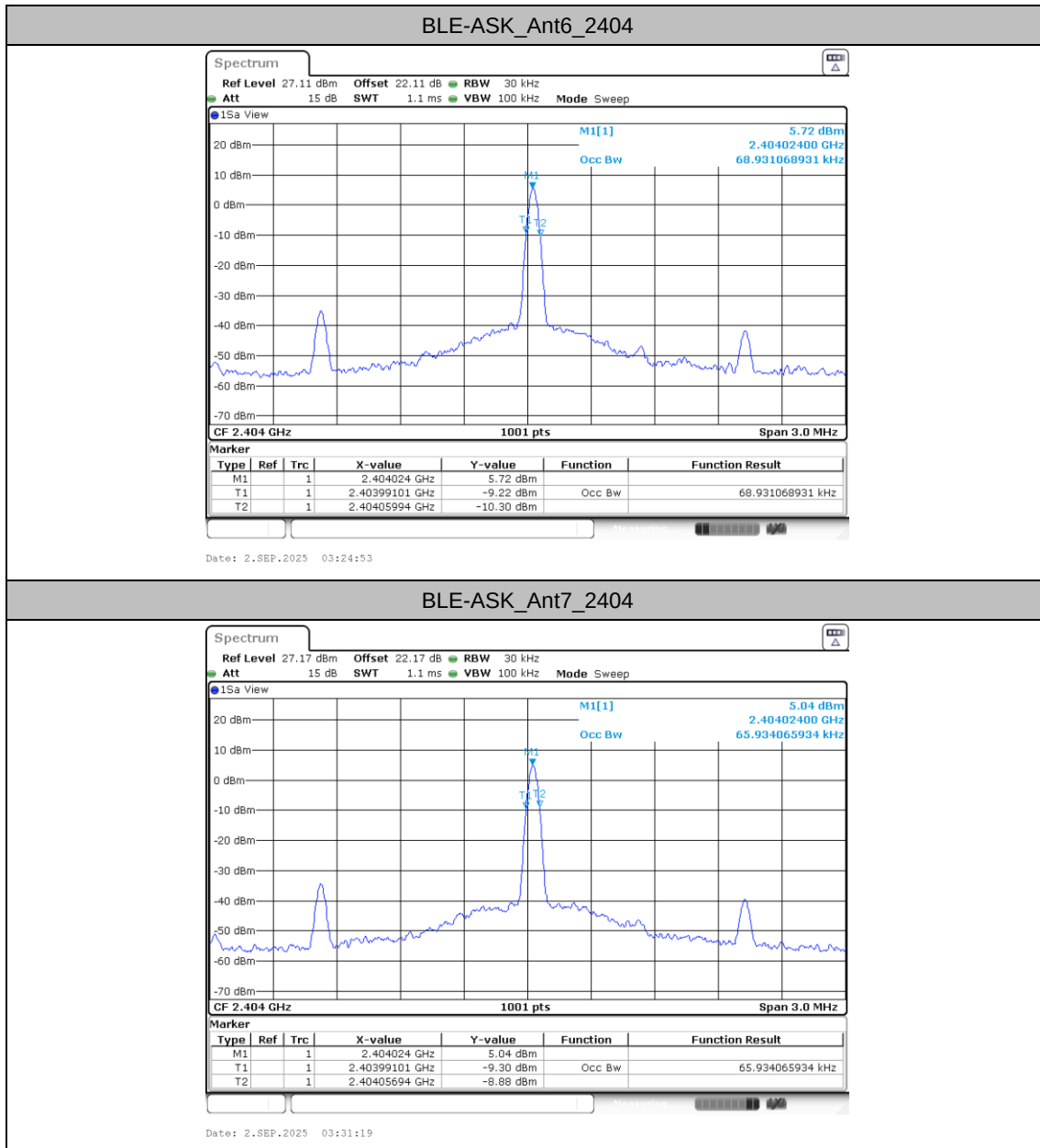
## Occupied Channel Bandwidth

### Test Result

| TestMode | Antenna | Freq(MHz) | OCB [MHz] | FL[MHz]   | FH[MHz]   | Limit[MHz] | Verdict |
|----------|---------|-----------|-----------|-----------|-----------|------------|---------|
| BLE-ASK  | Ant6    | 2404      | 0.069     | 2403.9910 | 2404.0599 | ---        | ---     |
|          | Ant7    | 2404      | 0.066     | 2403.9910 | 2404.0569 | ---        | ---     |
|          | Ant6    | 2440      | 0.069     | 2440.9910 | 2441.0599 | ---        | ---     |
|          | Ant7    | 2440      | 0.069     | 2440.9910 | 2441.0599 | ---        | ---     |
|          | Ant6    | 2478      | 0.066     | 2477.9910 | 2478.0569 | ---        | ---     |
|          | Ant7    | 2478      | 0.069     | 2477.9910 | 2478.0599 | ---        | ---     |

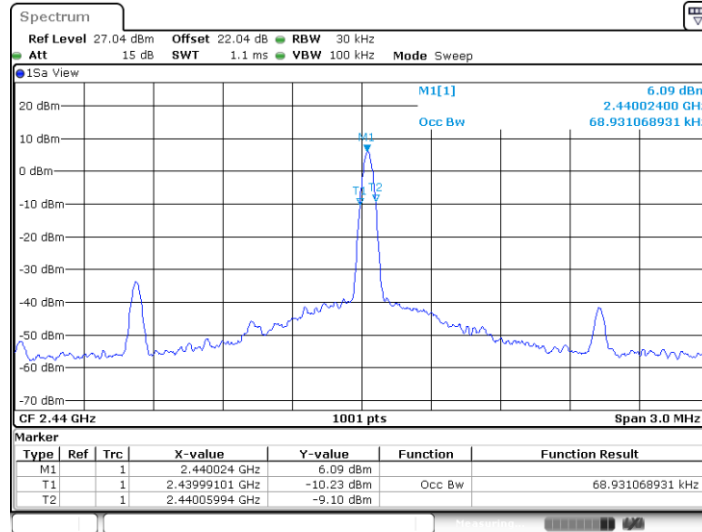


## Test Graphs



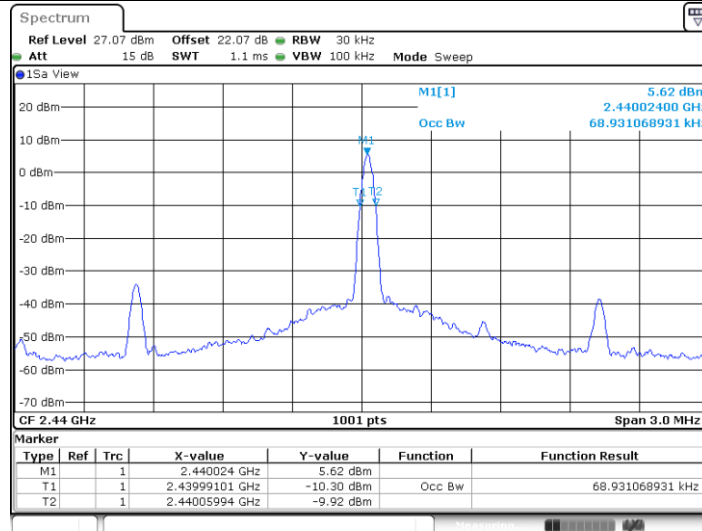


BLE-ASK\_Ant6\_2440



Date: 9.SEP.2025 02:45:16

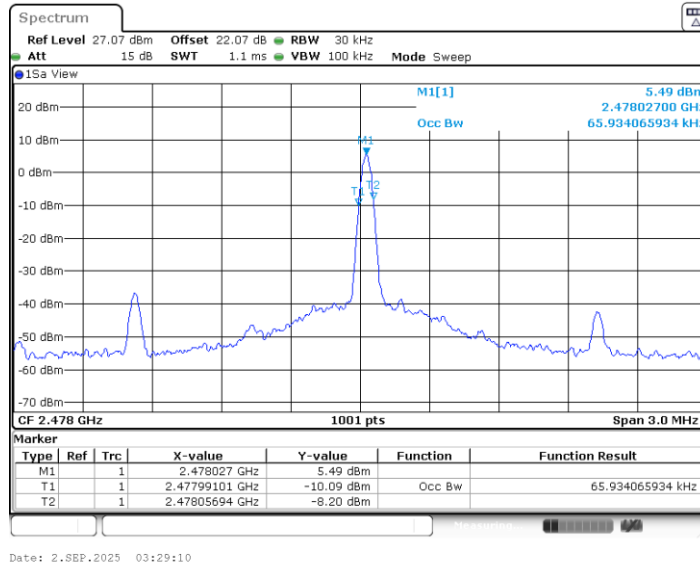
BLE-ASK\_Ant7\_2440



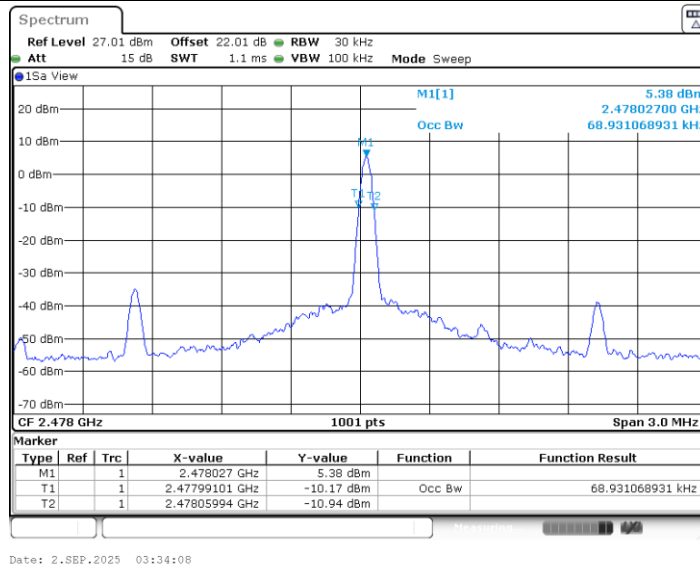
Date: 9.SEP.2025 02:47:13



BLE-ASK\_Ant6\_2478



BLE-ASK\_Ant7\_2478



## Maximum conducted output power

### Test Result Peak

| TestMode | Antenna | CH. | Peak Conducted Power (dBm) | Conducted Power Limit | Pass/Fail | Power Setting |
|----------|---------|-----|----------------------------|-----------------------|-----------|---------------|
| BLE-ASK  | Ant 6   | 2   | 5.99                       | 20.97                 | Pass      | 0X08          |
|          |         | 38  | <b>6.86</b>                | 20.97                 | Pass      | 0X08          |
|          |         | 76  | 6.12                       | 20.97                 | Pass      | 0X08          |
| BLE-ASK  | Ant 7   | 2   | 5.22                       | 20.97                 | Pass      | 0X08          |
|          |         | 38  | <b>6.34</b>                | 20.97                 | Pass      | 0X08          |
|          |         | 76  | 5.95                       | 20.97                 | Pass      | 0X08          |

### Test Result Average

| TestMode | Antenna | CH. | Duty Factor (dB) | Average Conducted Power (dBm) | Power Setting |
|----------|---------|-----|------------------|-------------------------------|---------------|
| BLE-ASK  | Ant 6   | 2   | 0.00             | 5.77                          | 0X08          |
|          |         | 38  | 0.00             | <b>6.64</b>                   | 0X08          |
|          |         | 76  | 0.00             | 5.89                          | 0X08          |
| BLE-ASK  | Ant 7   | 2   | 0.00             | 4.99                          | 0X08          |
|          |         | 38  | 0.00             | <b>6.13</b>                   | 0X08          |
|          |         | 76  | 0.00             | 5.76                          | 0X08          |



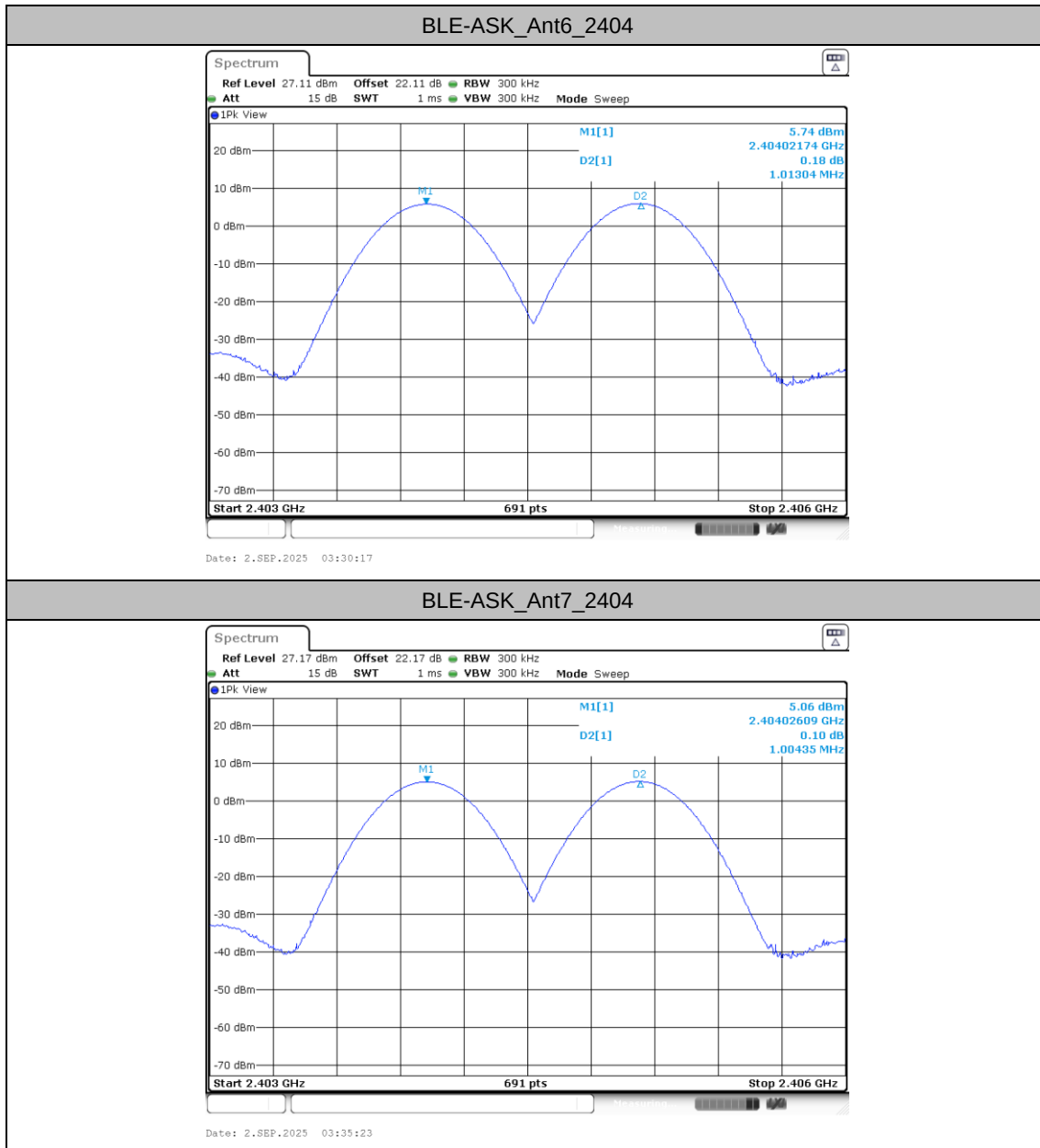
## Carrier frequency separation

### Test Result

| TestMode | Antenna | Freq(MHz) | Result[MHz] | Limit[MHz]   | Verdict |
|----------|---------|-----------|-------------|--------------|---------|
| BLE-ASK  | Ant6    | 2404      | 1.013       | $\geq 0.050$ | PASS    |
|          | Ant7    | 2404      | 1.004       | $\geq 0.050$ | PASS    |
|          | Ant6    | 2440      | 0.996       | $\geq 0.052$ | PASS    |
|          | Ant7    | 2440      | 1.009       | $\geq 0.052$ | PASS    |
|          | Ant6    | 2478      | 1.004       | $\geq 0.050$ | PASS    |
|          | Ant7    | 2478      | 1.013       | $\geq 0.050$ | PASS    |

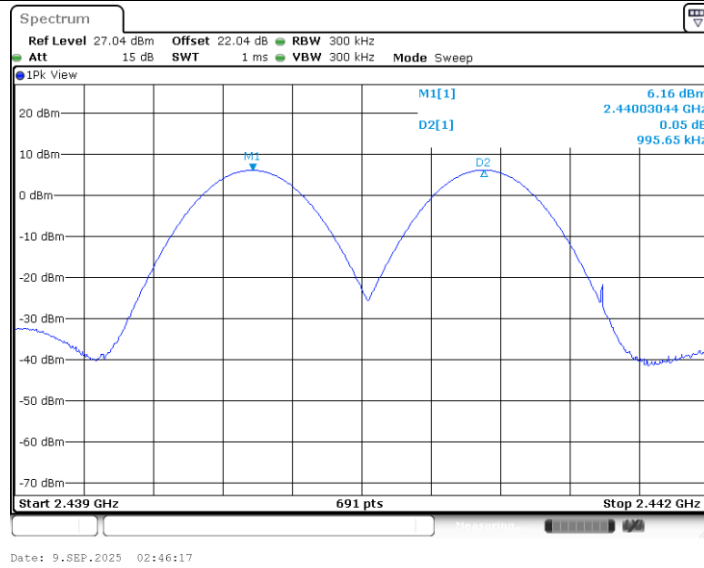


## Test Graphs

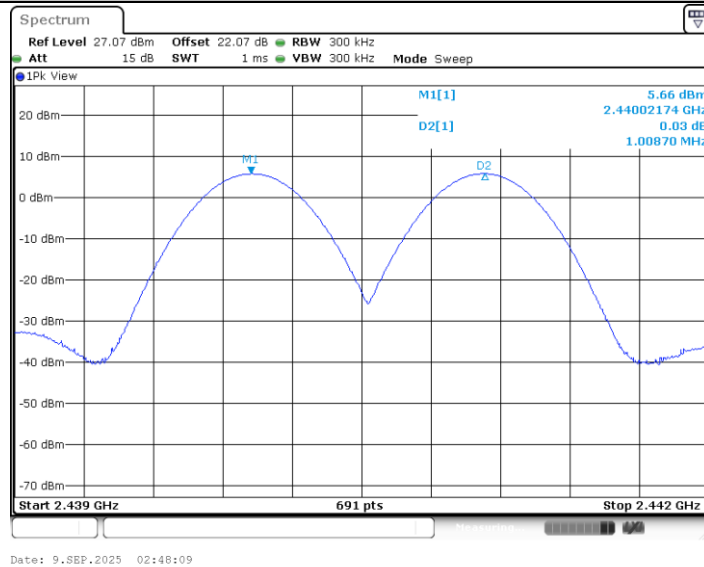




BLE-ASK\_Ant6\_2440

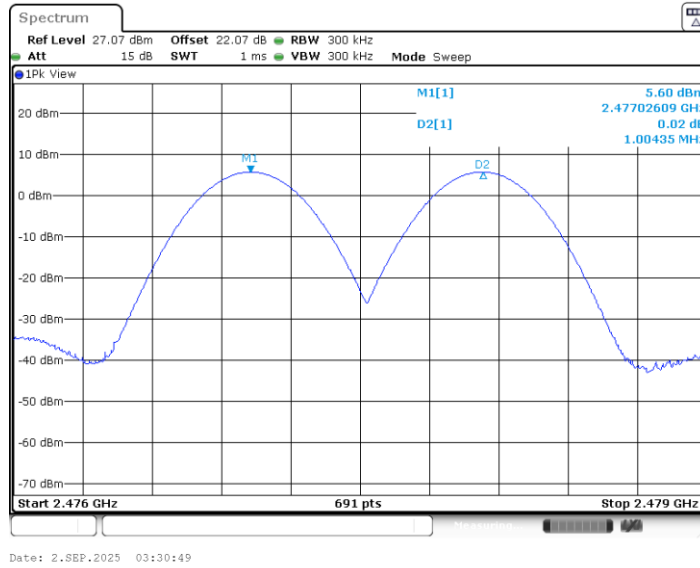


BLE-ASK\_Ant7\_2440

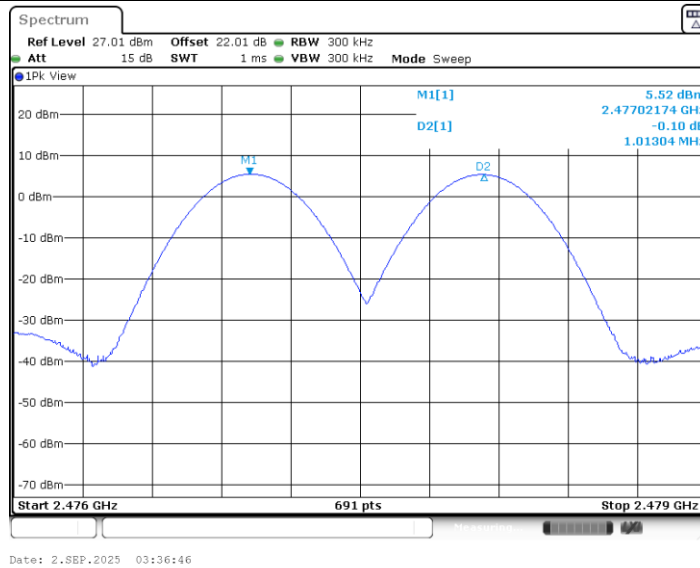




BLE-ASK\_Ant6\_2478



BLE-ASK\_Ant7\_2478





## Time of occupancy

### Test Result

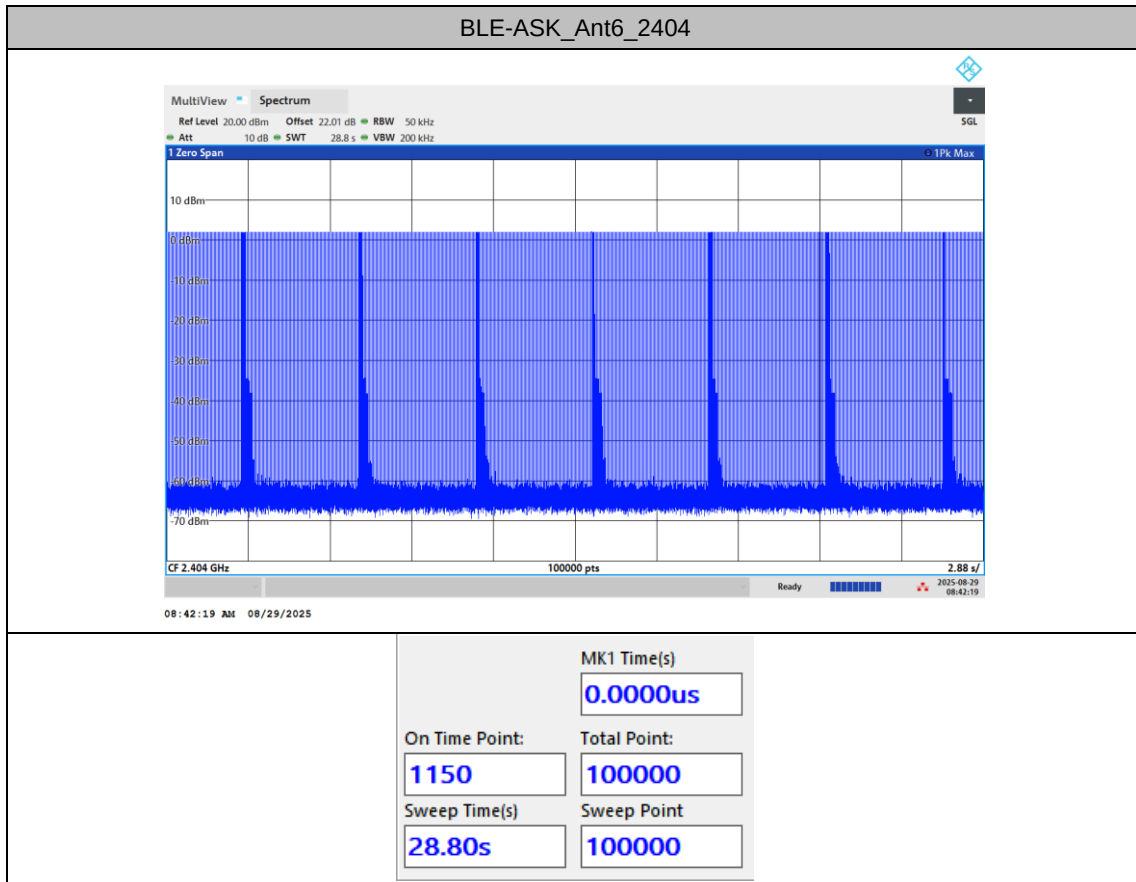
| TestMode | Antenna | Hops Over<br>Occupancy<br>Time(hops) | Package<br>Transfer<br>Time (msec) | Dwell<br>Time<br>(sec) | Limits<br>(sec) | Pass/Fail |
|----------|---------|--------------------------------------|------------------------------------|------------------------|-----------------|-----------|
| BLE-ASK  | Ant 6   | 1150                                 | 0.25                               | 0.288                  | 0.4             | Pass      |
| BLE-ASK  | Ant 7   | 1140                                 | 0.25                               | 0.285                  | 0.4             | Pass      |

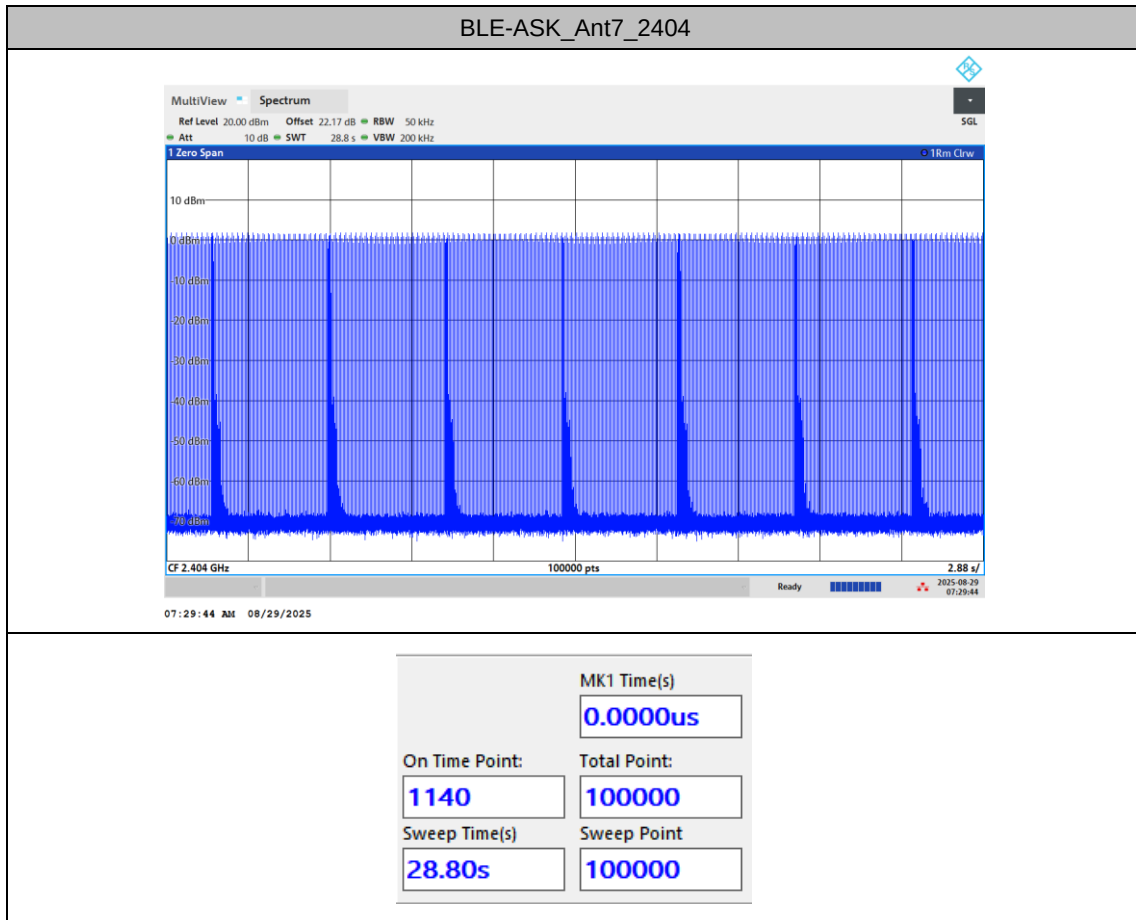
### Remark:

1. Dwell Time(s) = Hops Over Occupancy Time (hops) x Package Transfer Time  
= 1150 x 0.25 ms = 0.288 sec
2. The observation Occupancy time is hopping channel 72 channels x 400ms = 28.8 sec.  
The total hops is finally counted via computer analysis.



## Test Graphs





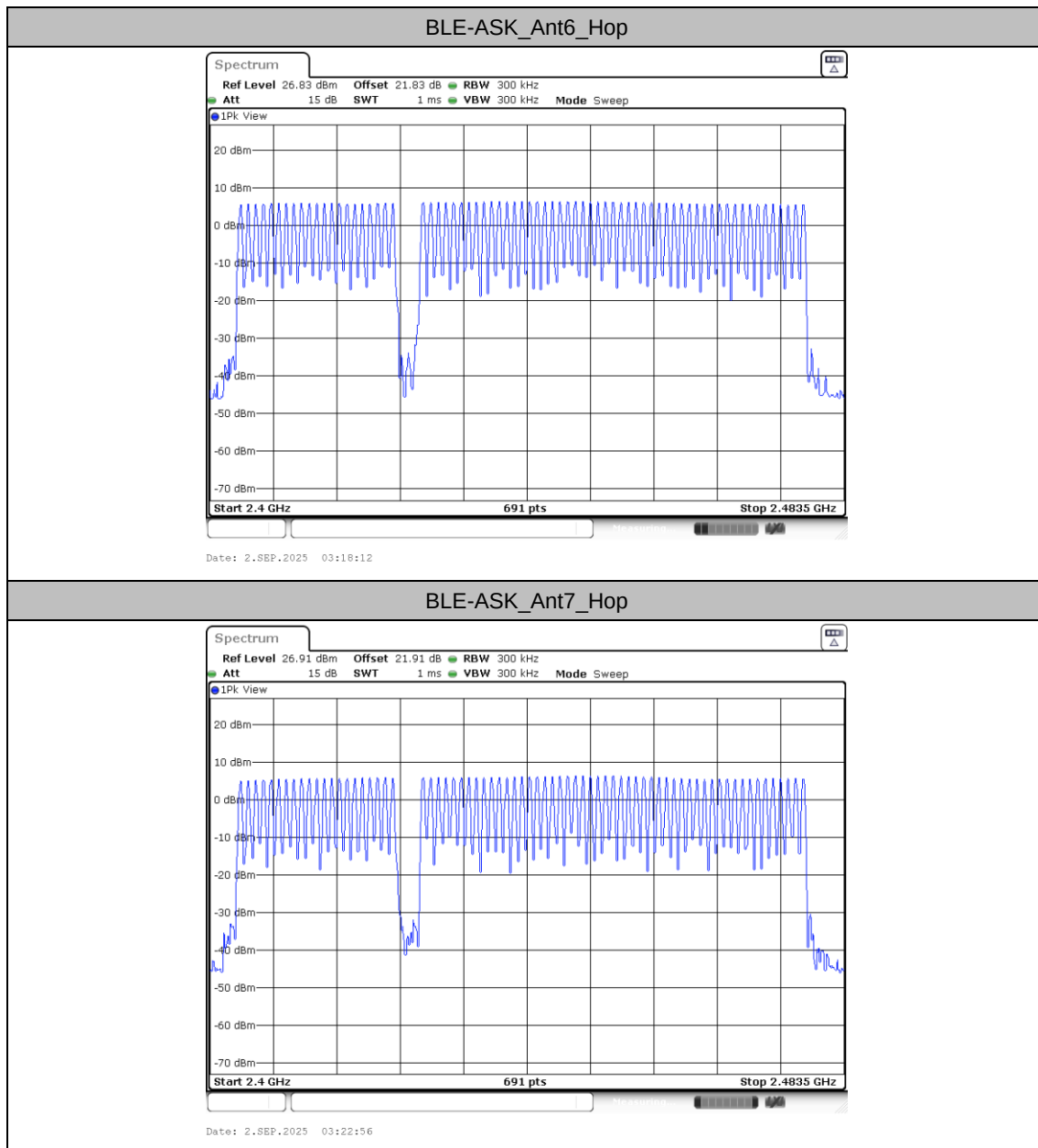


## Number of hopping channels

### Test Result

| TestMode | Antenna | Freq(MHz) | Result[Num] | Limit[Num] | Verdict |
|----------|---------|-----------|-------------|------------|---------|
| BLE-ASK  | Ant6    | Hop       | 72          | ≥15        | PASS    |
|          | Ant7    | Hop       | 72          | ≥15        | PASS    |

### Test Graphs





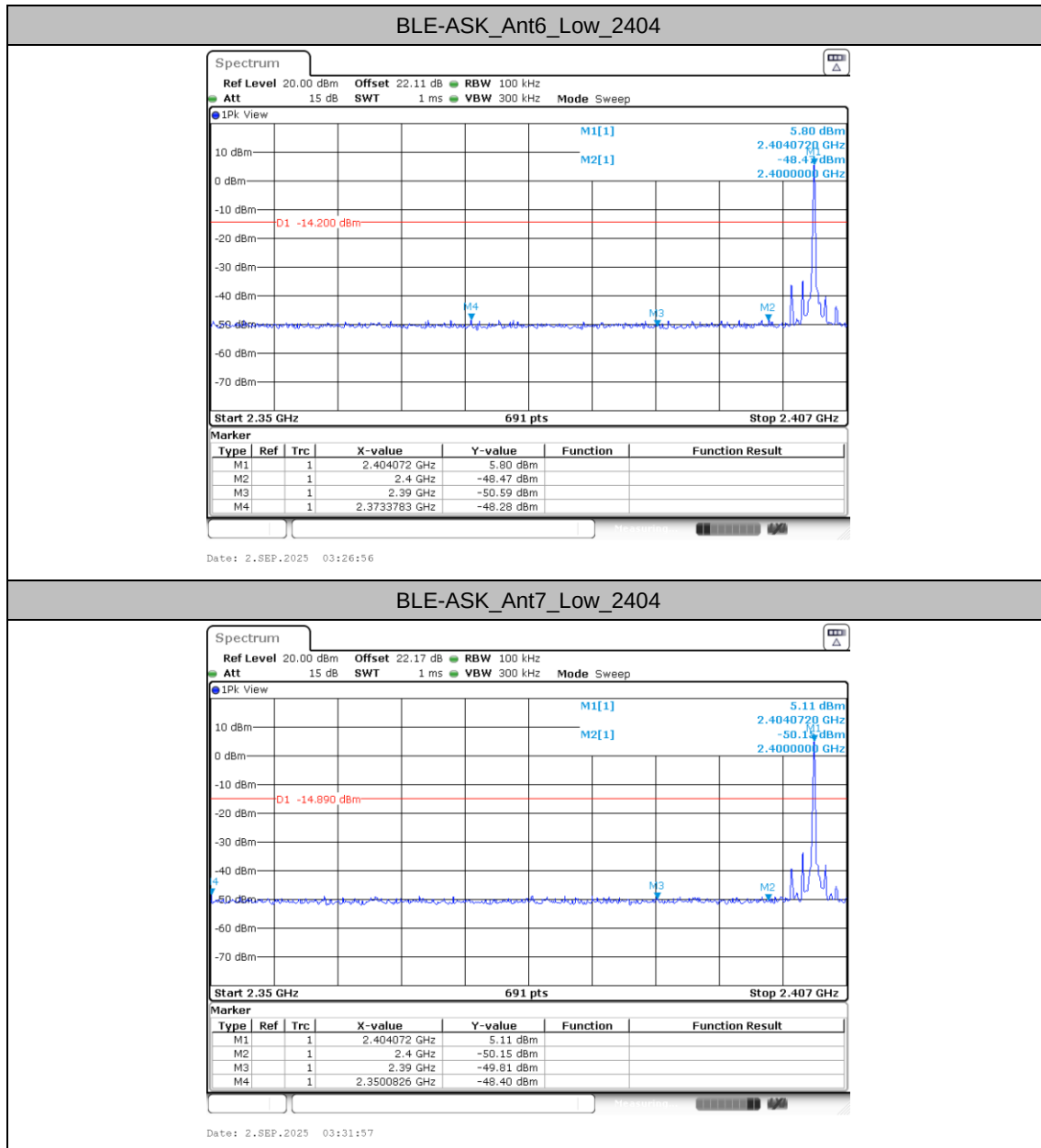
## Band edge measurements

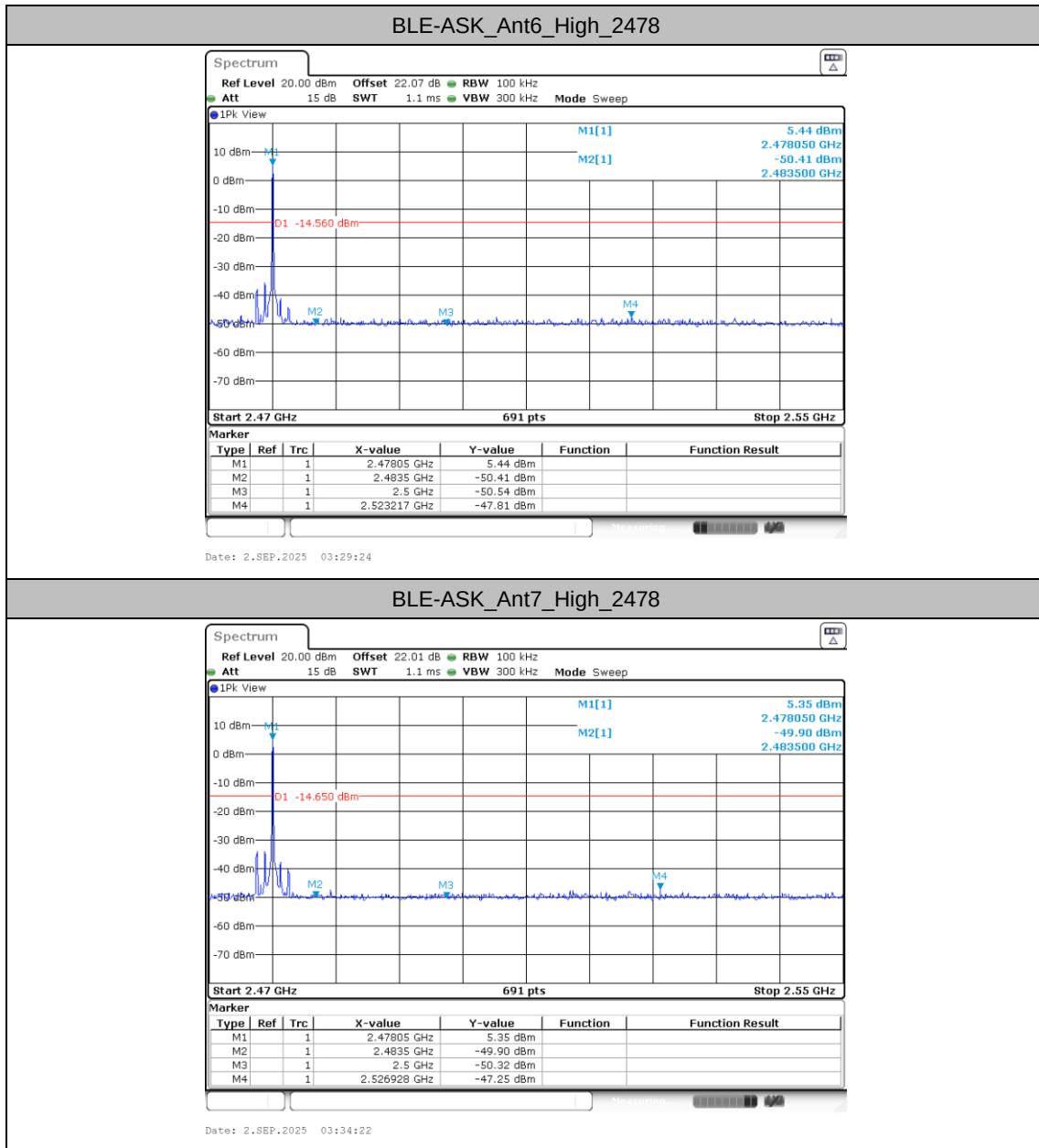
### Test Result

| TestMode | Antenna | ChName | Freq(MHz) | RefLevel<br>[dBm] | Result<br>[dBm] | Limit<br>[dBm] | Verdict |
|----------|---------|--------|-----------|-------------------|-----------------|----------------|---------|
| BLE-ASK  | Ant6    | Low    | 2404      | 5.80              | -48.28          | ≤-14.2         | PASS    |
|          | Ant7    | Low    | 2404      | 5.11              | -48.4           | ≤-14.89        | PASS    |
|          | Ant6    | High   | 2478      | 5.44              | -47.81          | ≤-14.56        | PASS    |
|          | Ant7    | High   | 2478      | 5.35              | -47.25          | ≤-14.65        | PASS    |
|          | Ant6    | Low    | Hop_2404  | 5.74              | -47.88          | ≤-14.26        | PASS    |
|          | Ant7    | Low    | Hop_2404  | 5.07              | -48.32          | ≤-14.93        | PASS    |
|          | Ant6    | High   | Hop_2478  | 5.95              | -47.96          | ≤-14.05        | PASS    |
|          | Ant7    | High   | Hop_2478  | 5.76              | -47.27          | ≤-14.24        | PASS    |



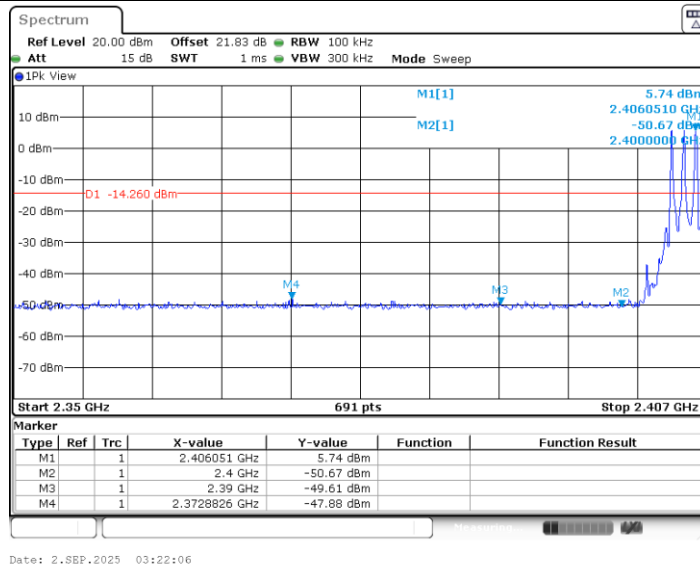
## Test Graphs



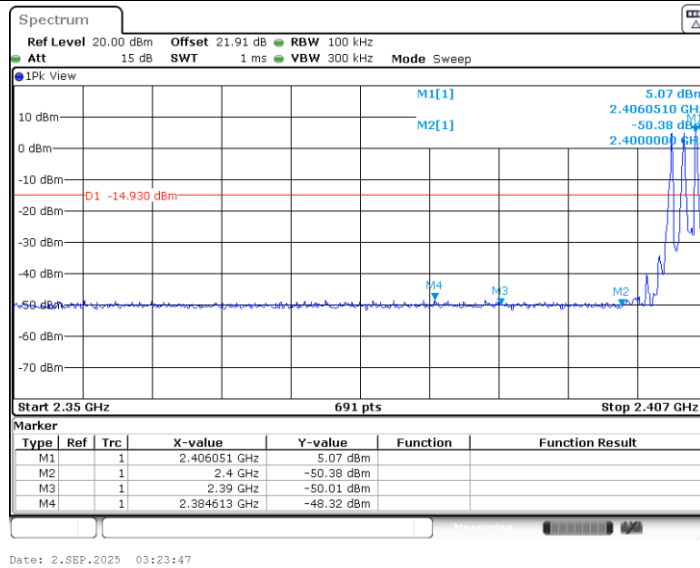




BLE-ASK\_Ant6\_Low\_Hop\_2404

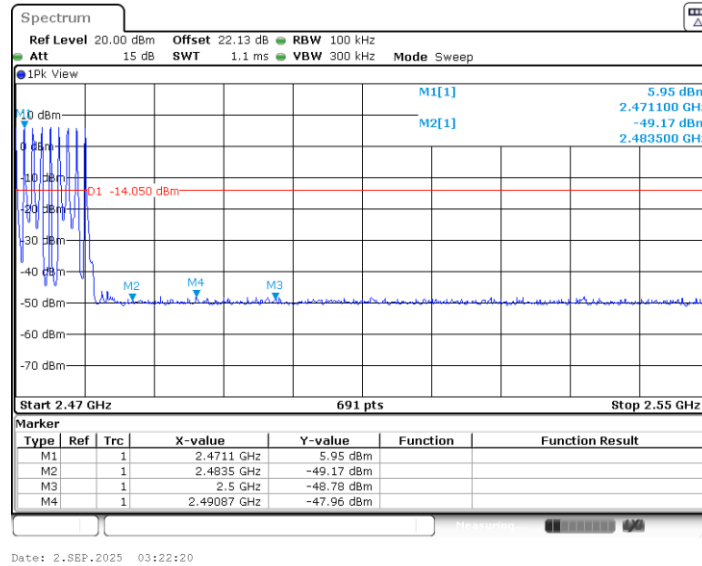


BLE-ASK\_Ant7\_Low\_Hop\_2404

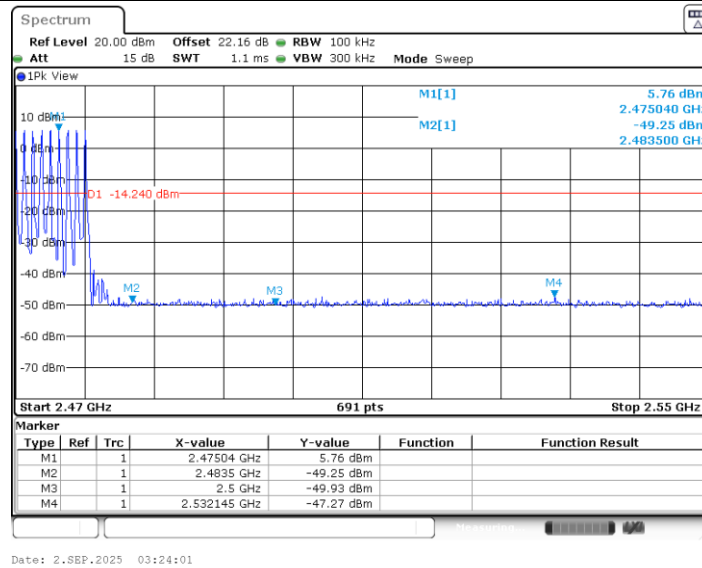




BLE-ASK\_Ant6\_High\_Hop\_2478



BLE-ASK\_Ant7\_High\_Hop\_2478



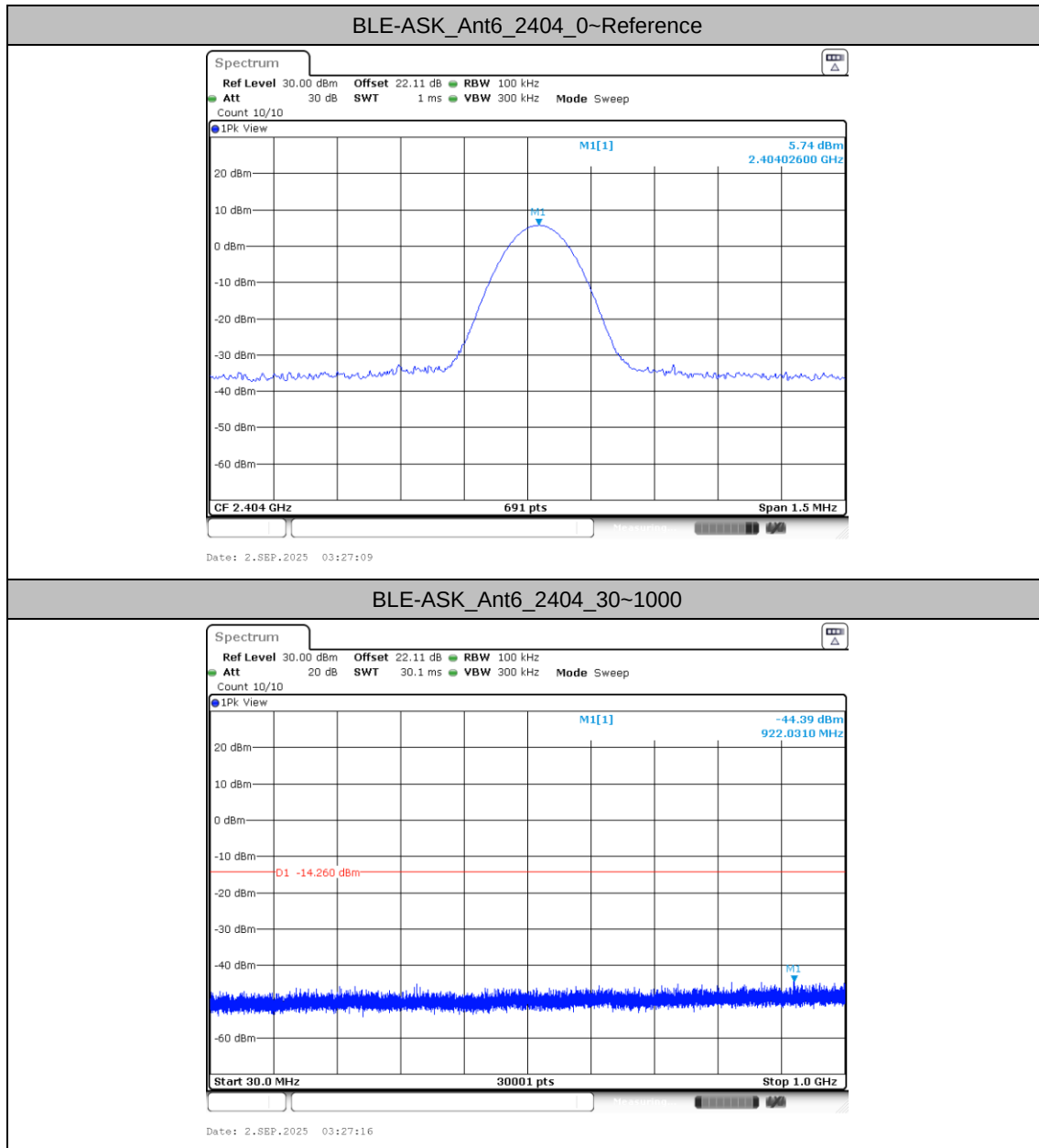
## Conducted Spurious Emission

### Test Result

| TestMode | Antenna | Freq(MHz) | FreqRange [MHz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|----------|---------|-----------|-----------------|----------------|--------------|-------------|---------|
| BLE-ASK  | Ant6    | 2404      | Reference       | 5.74           | 5.74         | ---         | PASS    |
|          |         |           | 30~1000         | 5.74           | -44.39       | ≤-14.26     | PASS    |
|          |         |           | 1000~26500      | 5.74           | -35.66       | ≤-14.26     | PASS    |
|          | Ant7    | 2404      | Reference       | 5.03           | 5.03         | ---         | PASS    |
|          |         |           | 30~1000         | 5.03           | -44.97       | ≤-14.97     | PASS    |
|          |         |           | 1000~26500      | 5.03           | -35.79       | ≤-14.97     | PASS    |
|          | Ant6    | 2440      | Reference       | 6.24           | 6.24         | ---         | PASS    |
|          |         |           | 30~1000         | 6.24           | -44.74       | ≤-13.76     | PASS    |
|          |         |           | 1000~26500      | 6.24           | -35.63       | ≤-13.76     | PASS    |
|          | Ant7    | 2440      | Reference       | 5.74           | 5.74         | ---         | PASS    |
|          |         |           | 30~1000         | 5.74           | -44.61       | ≤-14.26     | PASS    |
|          |         |           | 1000~26500      | 5.74           | -35.89       | ≤-14.26     | PASS    |
|          | Ant6    | 2478      | Reference       | 5.71           | 5.71         | ---         | PASS    |
|          |         |           | 30~1000         | 5.71           | -44.34       | ≤-14.29     | PASS    |
|          |         |           | 1000~26500      | 5.71           | -36.41       | ≤-14.29     | PASS    |
|          | Ant7    | 2478      | Reference       | 5.59           | 5.59         | ---         | PASS    |
|          |         |           | 30~1000         | 5.59           | -44.35       | ≤-14.41     | PASS    |
|          |         |           | 1000~26500      | 5.59           | -35.04       | ≤-14.41     | PASS    |

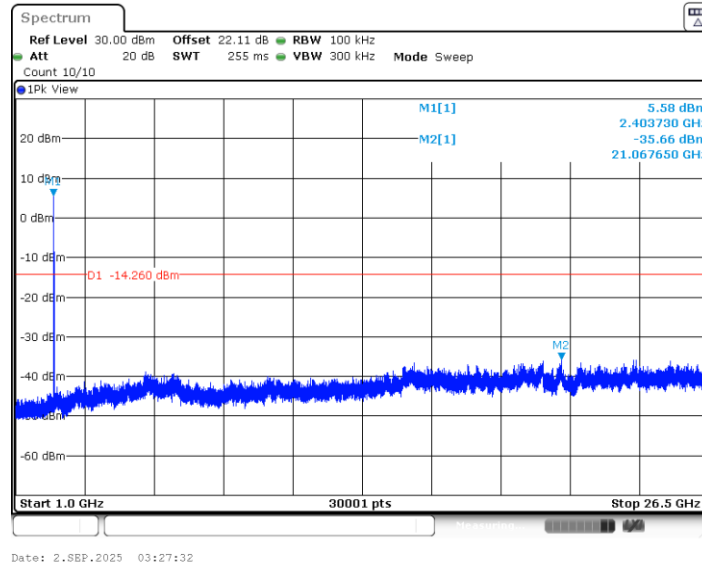


## Test Graphs

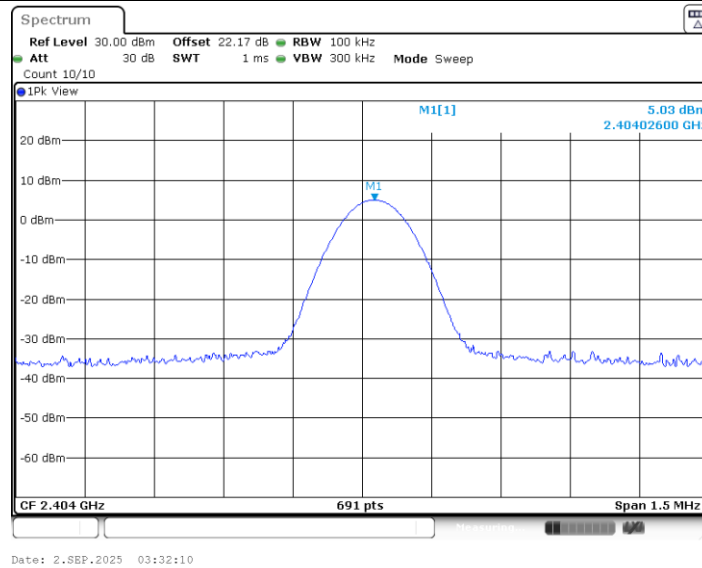




BLE-ASK\_Ant6\_2404\_1000~26500

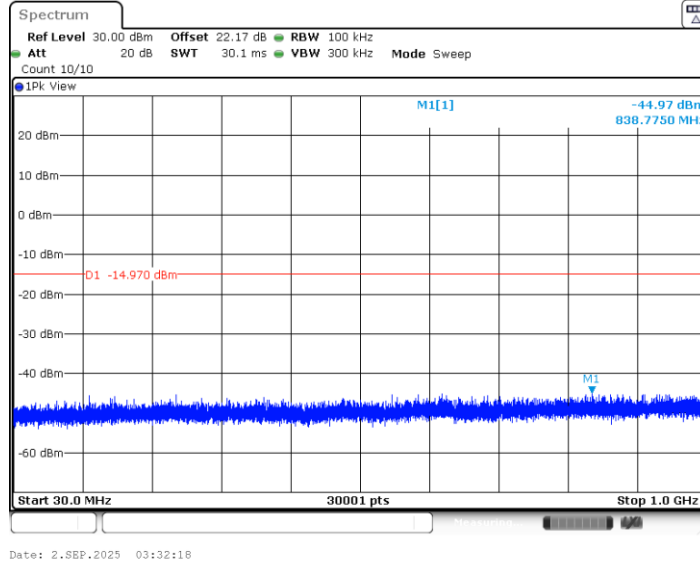


BLE-ASK\_Ant7\_2404\_0~Reference

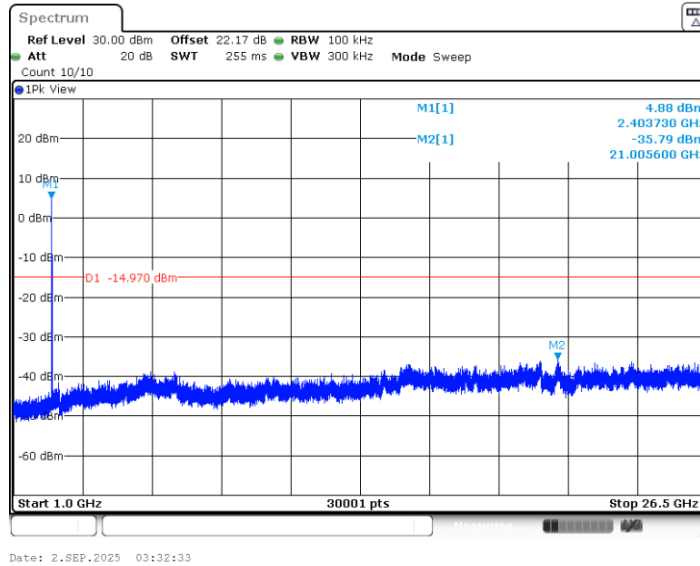




BLE-ASK\_Ant7\_2404\_30~1000

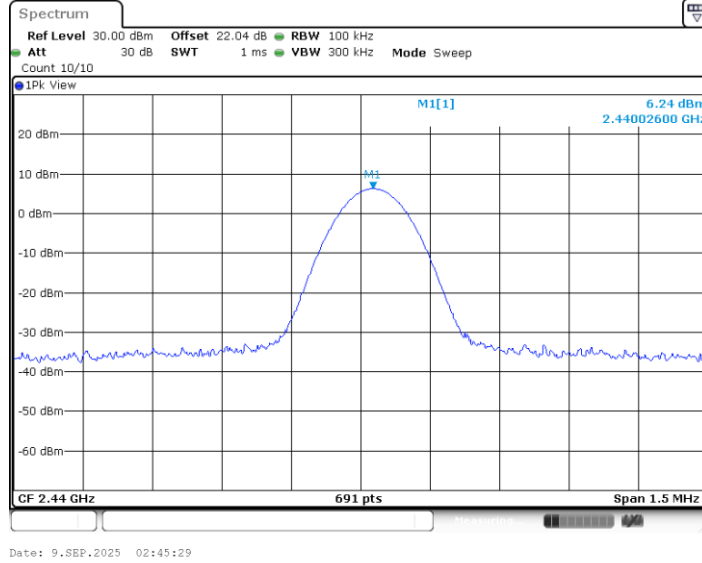


BLE-ASK\_Ant7\_2404\_1000~26500

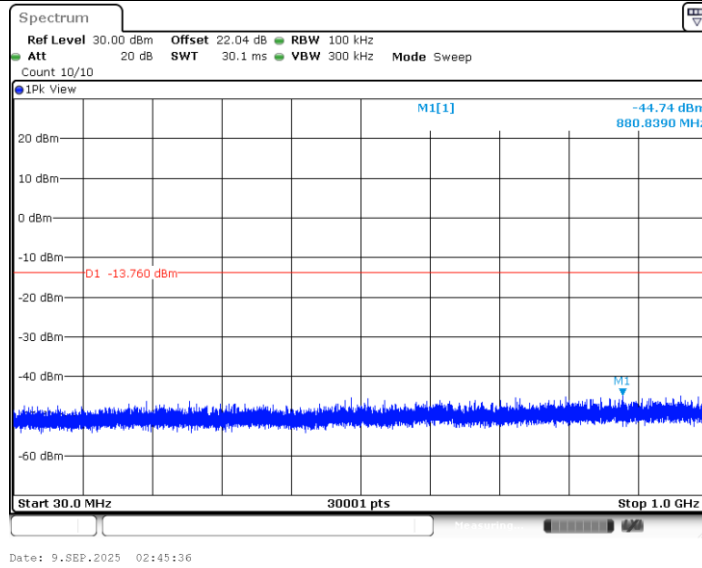




BLE-ASK\_Ant6\_2440\_0~Reference

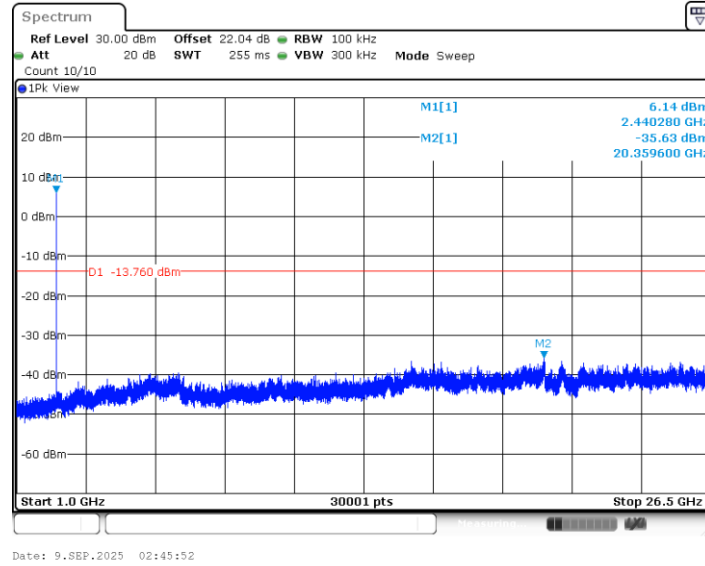


BLE-ASK\_Ant6\_2440\_30~1000

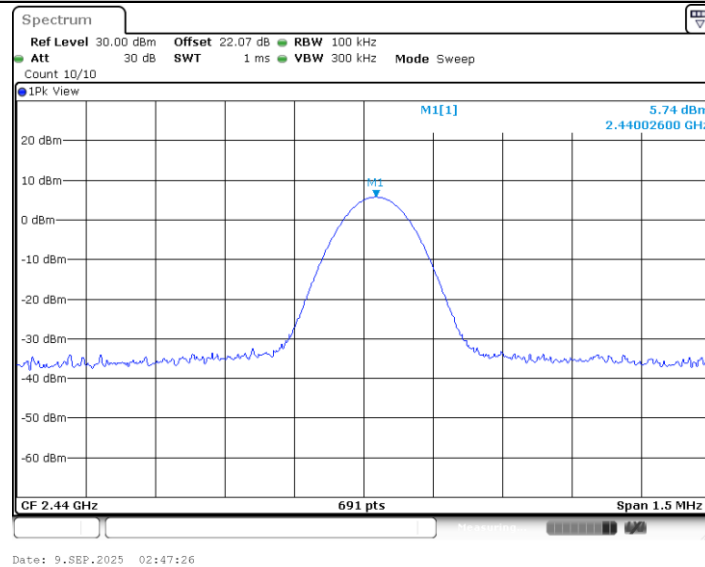




BLE-ASK\_Ant6\_2440\_1000~26500

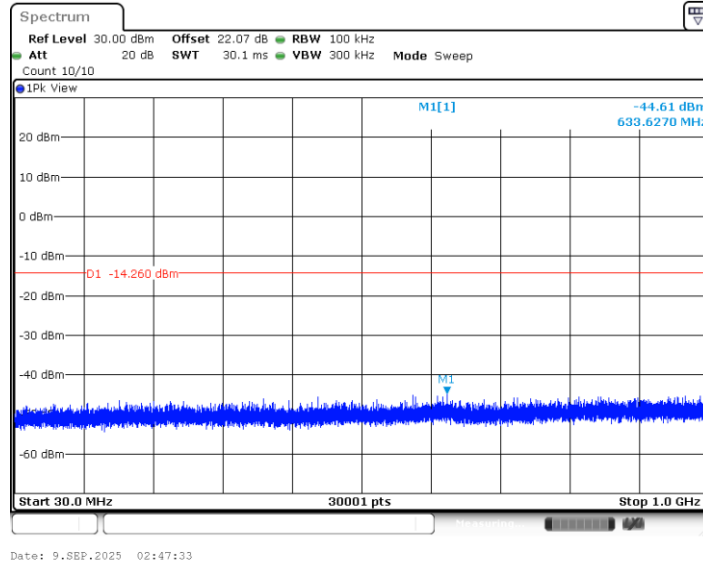


BLE-ASK\_Ant7\_2440\_0~Reference

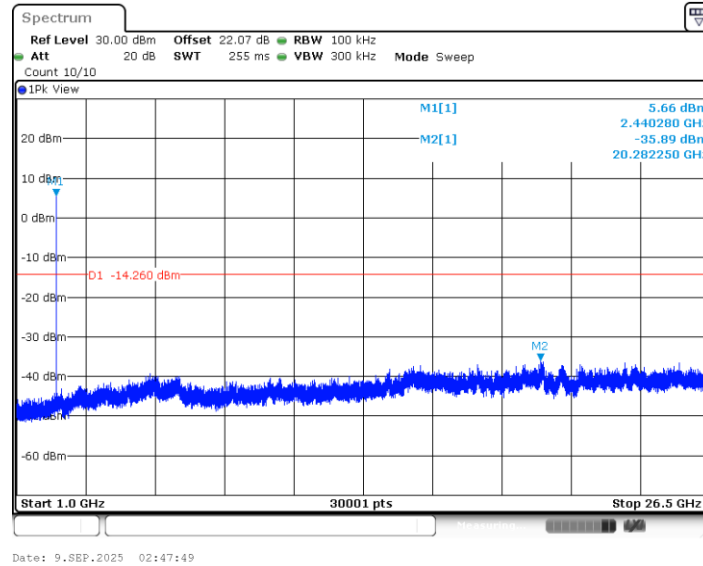




BLE-ASK\_Ant7\_2440\_30~1000

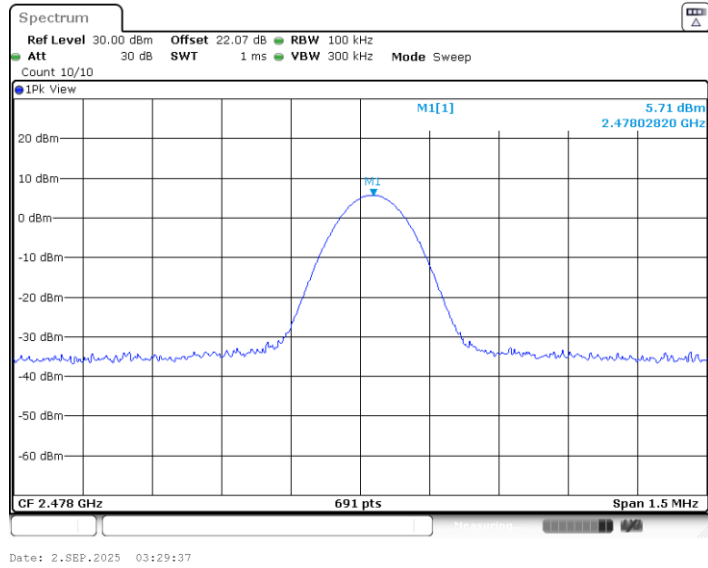


BLE-ASK\_Ant7\_2440\_1000~26500

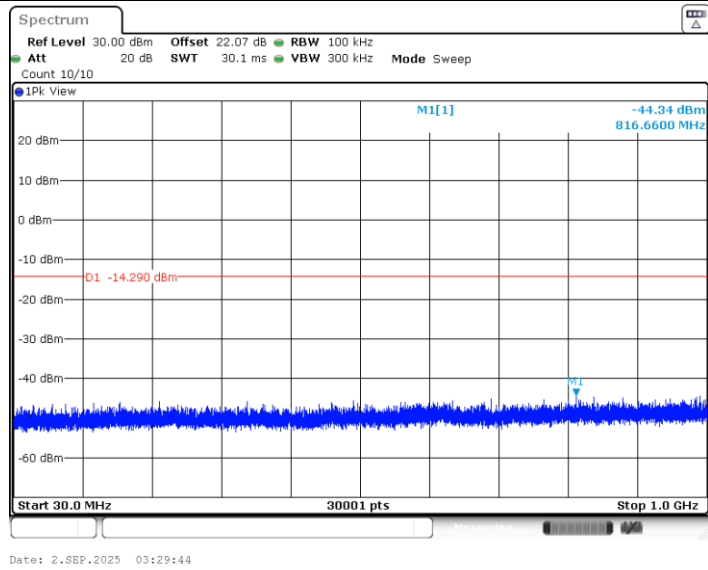




BLE-ASK\_Ant6\_2478\_0~Reference

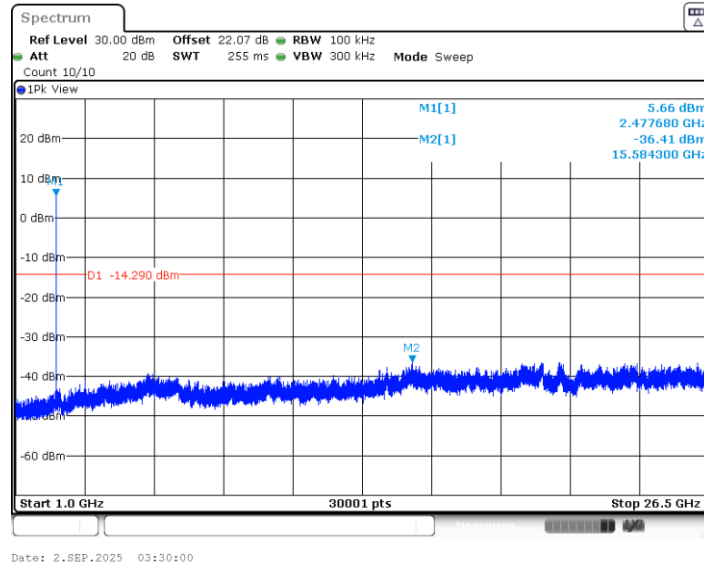


BLE-ASK\_Ant6\_2478\_30~1000

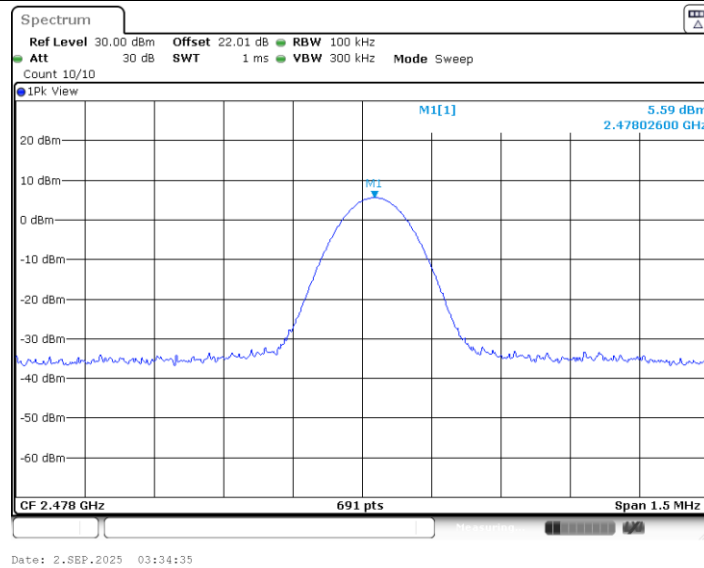




BLE-ASK\_Ant6\_2478\_1000~26500

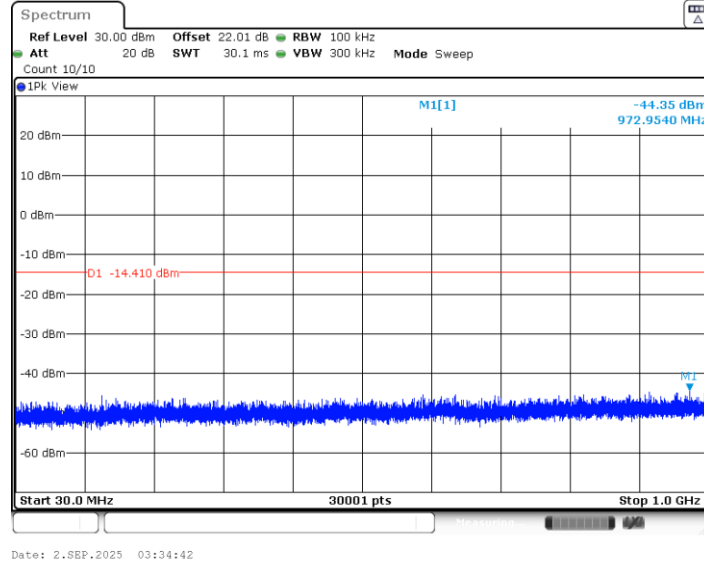


BLE-ASK\_Ant7\_2478\_0~Reference

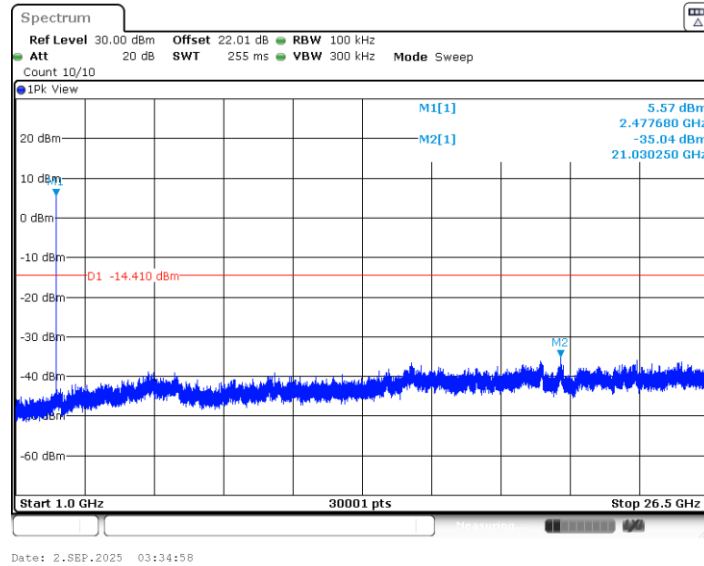




BLE-ASK\_Ant7\_2478\_30~1000



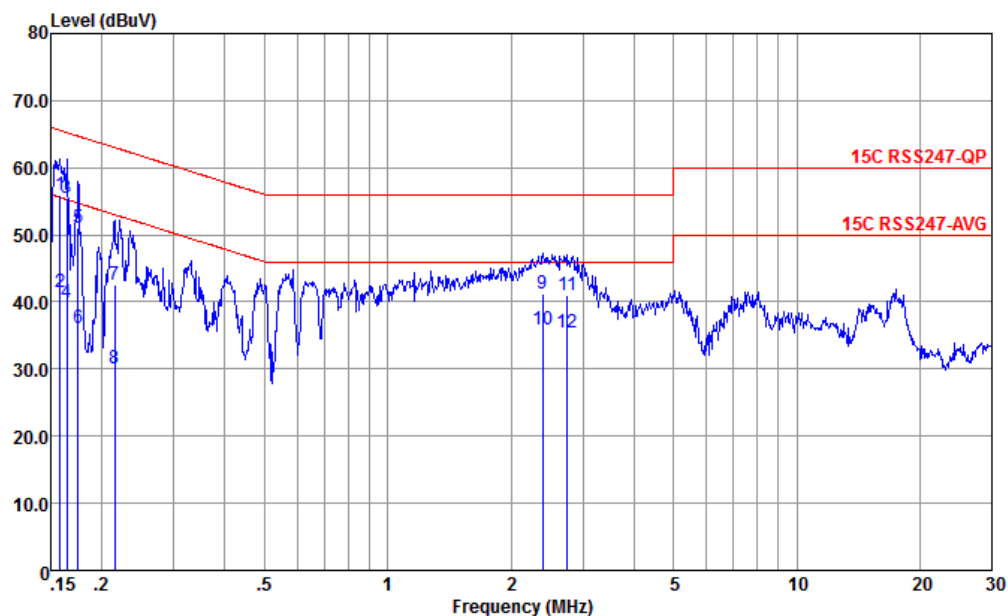
BLE-ASK\_Ant7\_2478\_1000~26500





## Appendix B. AC Conducted Emission Test Results

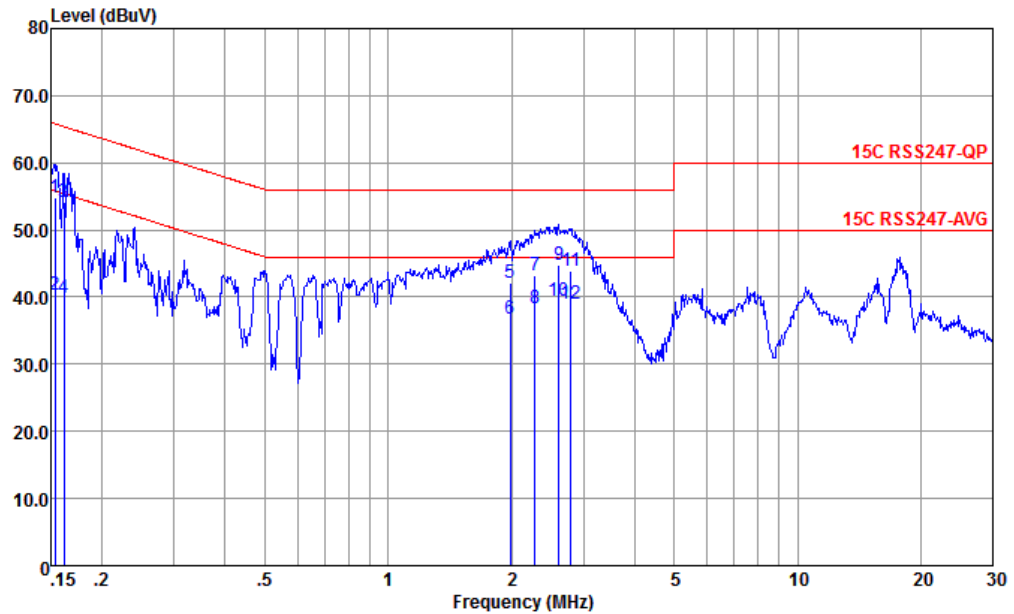
|                 |                                                                                 |                     |             |
|-----------------|---------------------------------------------------------------------------------|---------------------|-------------|
| Test Engineer : | Amos                                                                            | Temperature :       | 25.3~26.2°C |
|                 |                                                                                 | Relative Humidity : | 38~40%      |
| Test Voltage :  | 120Vac / 60Hz                                                                   | Phase :             | Line        |
| Remark :        | All emissions not reported here are more than 10 dB below the prescribed limit. |                     |             |



Site : CO01-KS  
Condition : 15C RSS247-QP LISN-060105-L 24+80 LINE

|     | Freq  | Level | Over   | Limit | Read  | LISN   | Cable | Remark  |
|-----|-------|-------|--------|-------|-------|--------|-------|---------|
|     | MHz   | dBuV  | Limit  | Line  | Level | Factor | Loss  |         |
|     |       |       | dB     | dBuV  | dBuV  | dB     | dB    |         |
| 1 * | 0.158 | 55.89 | -9.67  | 65.56 | 45.20 | 0.24   | 10.45 | QP      |
| 2   | 0.158 | 41.49 | -14.07 | 55.56 | 30.80 | 0.24   | 10.45 | Average |
| 3   | 0.164 | 55.40 | -9.85  | 65.25 | 44.71 | 0.24   | 10.45 | QP      |
| 4   | 0.164 | 40.00 | -15.25 | 55.25 | 29.31 | 0.24   | 10.45 | Average |
| 5   | 0.175 | 51.01 | -13.71 | 64.72 | 40.30 | 0.25   | 10.46 | QP      |
| 6   | 0.175 | 36.01 | -18.71 | 54.72 | 25.30 | 0.25   | 10.46 | Average |
| 7   | 0.215 | 42.52 | -20.49 | 63.01 | 31.80 | 0.26   | 10.46 | QP      |
| 8   | 0.215 | 30.02 | -22.99 | 53.01 | 19.30 | 0.26   | 10.46 | Average |
| 9   | 2.396 | 41.15 | -14.85 | 56.00 | 30.50 | 0.42   | 10.23 | QP      |
| 10  | 2.396 | 35.95 | -10.05 | 46.00 | 25.30 | 0.42   | 10.23 | Average |
| 11  | 2.750 | 40.94 | -15.06 | 56.00 | 30.29 | 0.42   | 10.23 | QP      |
| 12  | 2.750 | 35.34 | -10.66 | 46.00 | 24.69 | 0.42   | 10.23 | Average |

|                        |                                                                                 |                            |             |
|------------------------|---------------------------------------------------------------------------------|----------------------------|-------------|
| <b>Test Engineer :</b> | Amos                                                                            | <b>Temperature :</b>       | 25.3~26.2°C |
|                        |                                                                                 | <b>Relative Humidity :</b> | 38~40%      |
| <b>Test Voltage :</b>  | 120Vac / 60Hz                                                                   | <b>Phase :</b>             | Neutral     |
| <b>Remark :</b>        | All emissions not reported here are more than 10 dB below the prescribed limit. |                            |             |



Site : CO01-KS  
Condition : 15C RSS247-QP LISN-060105-N 24+80 NEUTRAL

|      | Freq  | Level | Over   | Limit | Read  | LISN   | Cable |         |
|------|-------|-------|--------|-------|-------|--------|-------|---------|
|      | MHz   | dBuV  | Limit  | Line  | Level | Factor | Loss  | Remark  |
|      |       |       | dB     | dBuV  | dBuV  | dB     | dB    |         |
| 1    | 0.153 | 54.78 | -11.04 | 65.82 | 44.10 | 0.23   | 10.45 | QP      |
| 2    | 0.153 | 40.28 | -15.54 | 55.82 | 29.60 | 0.23   | 10.45 | Average |
| 3    | 0.162 | 54.09 | -11.29 | 65.38 | 43.40 | 0.24   | 10.45 | QP      |
| 4    | 0.162 | 39.89 | -15.49 | 55.38 | 29.20 | 0.24   | 10.45 | Average |
| 5    | 1.991 | 42.13 | -13.87 | 56.00 | 31.50 | 0.39   | 10.24 | QP      |
| 6    | 1.991 | 36.73 | -9.27  | 46.00 | 26.10 | 0.39   | 10.24 | Average |
| 7    | 2.285 | 43.33 | -12.67 | 56.00 | 32.71 | 0.39   | 10.23 | QP      |
| 8    | 2.285 | 38.23 | -7.77  | 46.00 | 27.61 | 0.39   | 10.23 | Average |
| 9    | 2.608 | 44.82 | -11.18 | 56.00 | 34.20 | 0.39   | 10.23 | QP      |
| 10 * | 2.608 | 39.52 | -6.48  | 46.00 | 28.90 | 0.39   | 10.23 | Average |
| 11   | 2.794 | 43.82 | -12.18 | 56.00 | 33.20 | 0.39   | 10.23 | QP      |
| 12   | 2.794 | 38.92 | -7.08  | 46.00 | 28.30 | 0.39   | 10.23 | Average |

Note:

- Level(dBμV) = Read Level(dBμV) + LISN Factor(dB) + Cable Loss(dB)
- Over Limit(dB) = Level(dBμV) – Limit Line(dBμV)