



Appendix E: Test Data for E-UTRA Band 13

Product Name: 4G Module

Test Model: Air795U

Environmental Conditions

|                    |            |
|--------------------|------------|
| Temperature:       | 23.8° C    |
| Relative Humidity: | 52.1%      |
| ATM Pressure:      | 100.0 kPa  |
| Test Engineer:     | Paddi Chen |
| Supervised by:     | Nick Peng  |





## E.1 Conducted Output Power Data

### Test Result

| Band   | Bandwidth | Modulation | Channel | RB Configuration | Result(dBm) | Verdict |
|--------|-----------|------------|---------|------------------|-------------|---------|
| Band13 | 5MHz      | QPSK       | 23205   | 25RB#0           | 23.30       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 25RB#0           | 22.57       | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 25RB#0           | 23.19       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 25RB#0           | 22.68       | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 25RB#0           | 23.08       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 25RB#0           | 22.49       | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 25RB#0           | 22.78       | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 25RB#0           | 22.17       | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 25RB#12          | 22.76       | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 25RB#12          | 22.13       | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 25RB#25          | 22.59       | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 25RB#25          | 21.96       | PASS    |





## E.2 Peak-to-Average Ratio(CCDF)

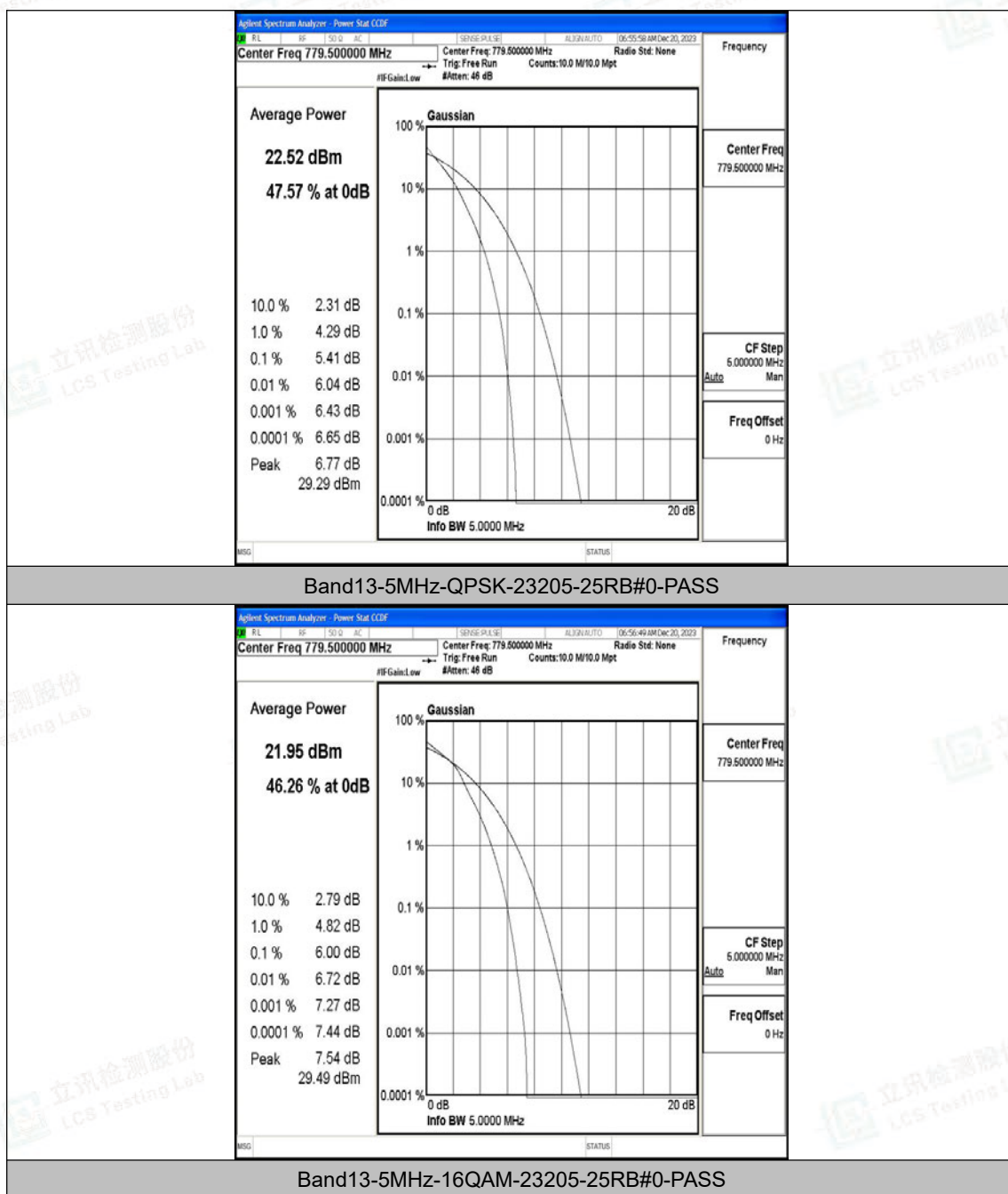
### Test Result

| Band   | Bandwidth | Modulation | Channel | RB Configuration | Result(dB) | Limit(dB) | Verdict |
|--------|-----------|------------|---------|------------------|------------|-----------|---------|
| Band13 | 5MHz      | QPSK       | 23205   | 25RB#0           | 5.41       | 13        | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 25RB#0           | 6.00       | 13        | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 25RB#0           | 5.43       | 13        | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 25RB#0           | 6.03       | 13        | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 25RB#0           | 5.38       | 13        | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 25RB#0           | 6.01       | 13        | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 50RB#0           | 5.30       | 13        | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 50RB#0           | 5.95       | 13        | PASS    |





## Test Graphs

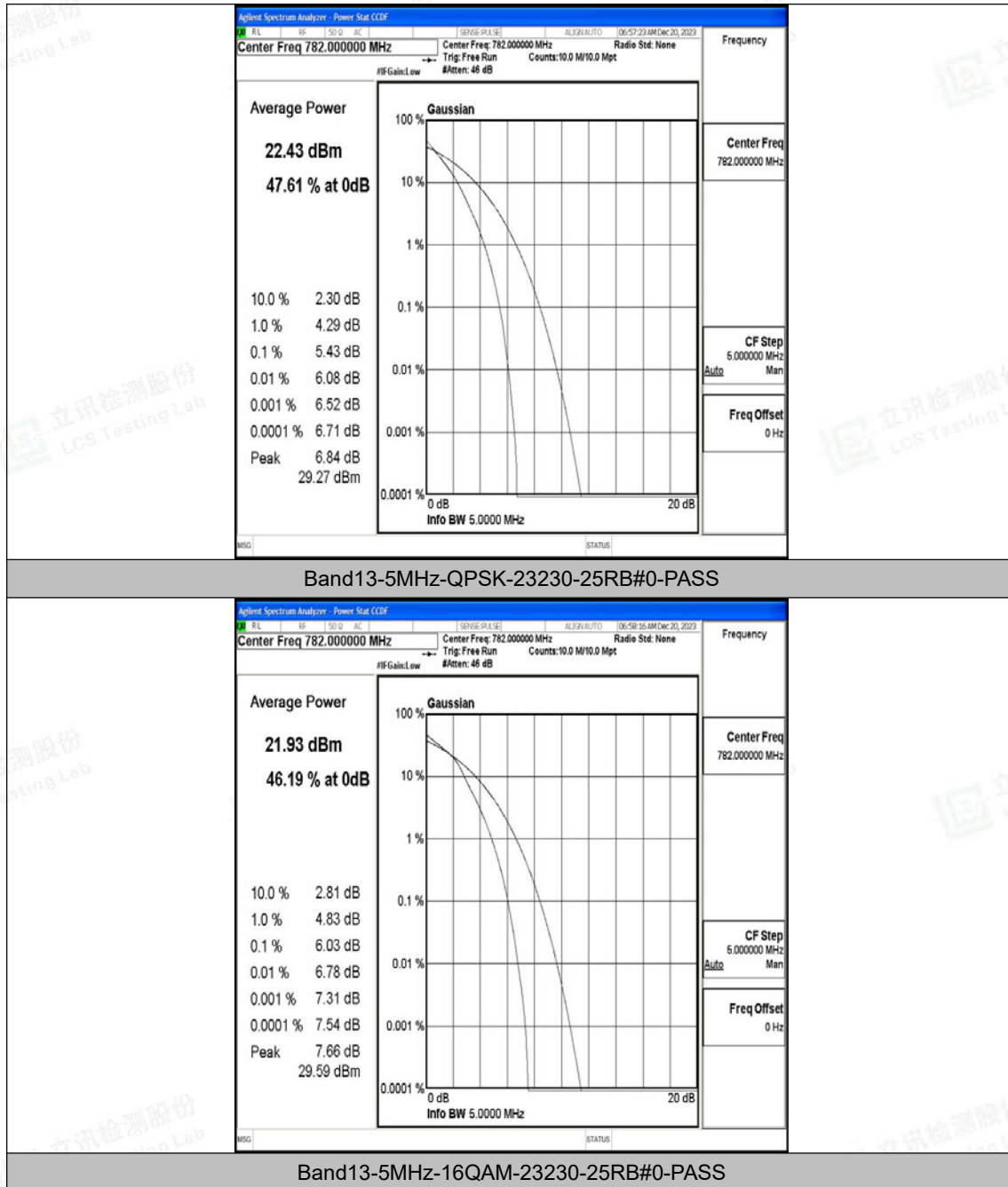


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Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity

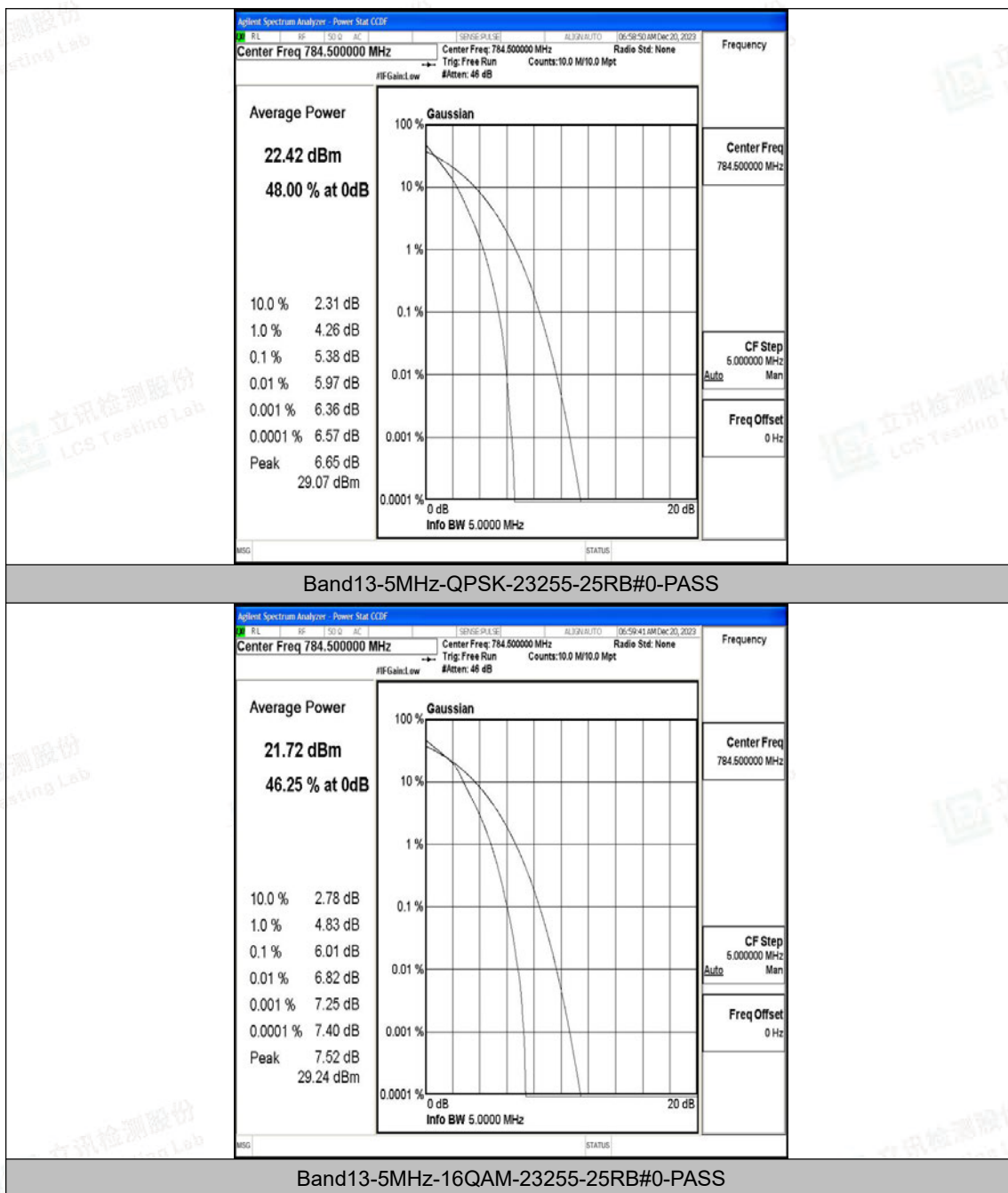


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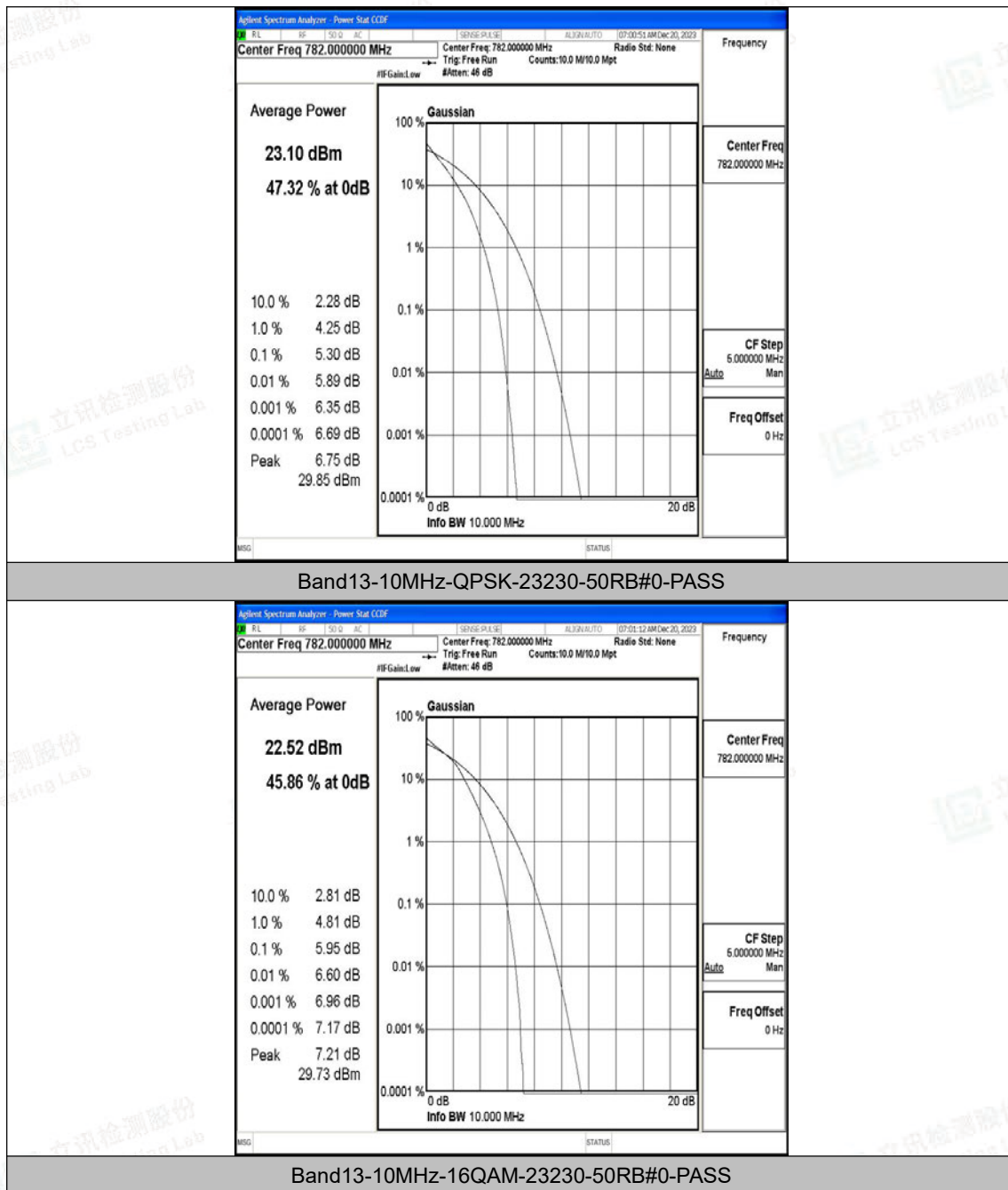


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### E.3 26dB Bandwidth and Occupied Bandwidth

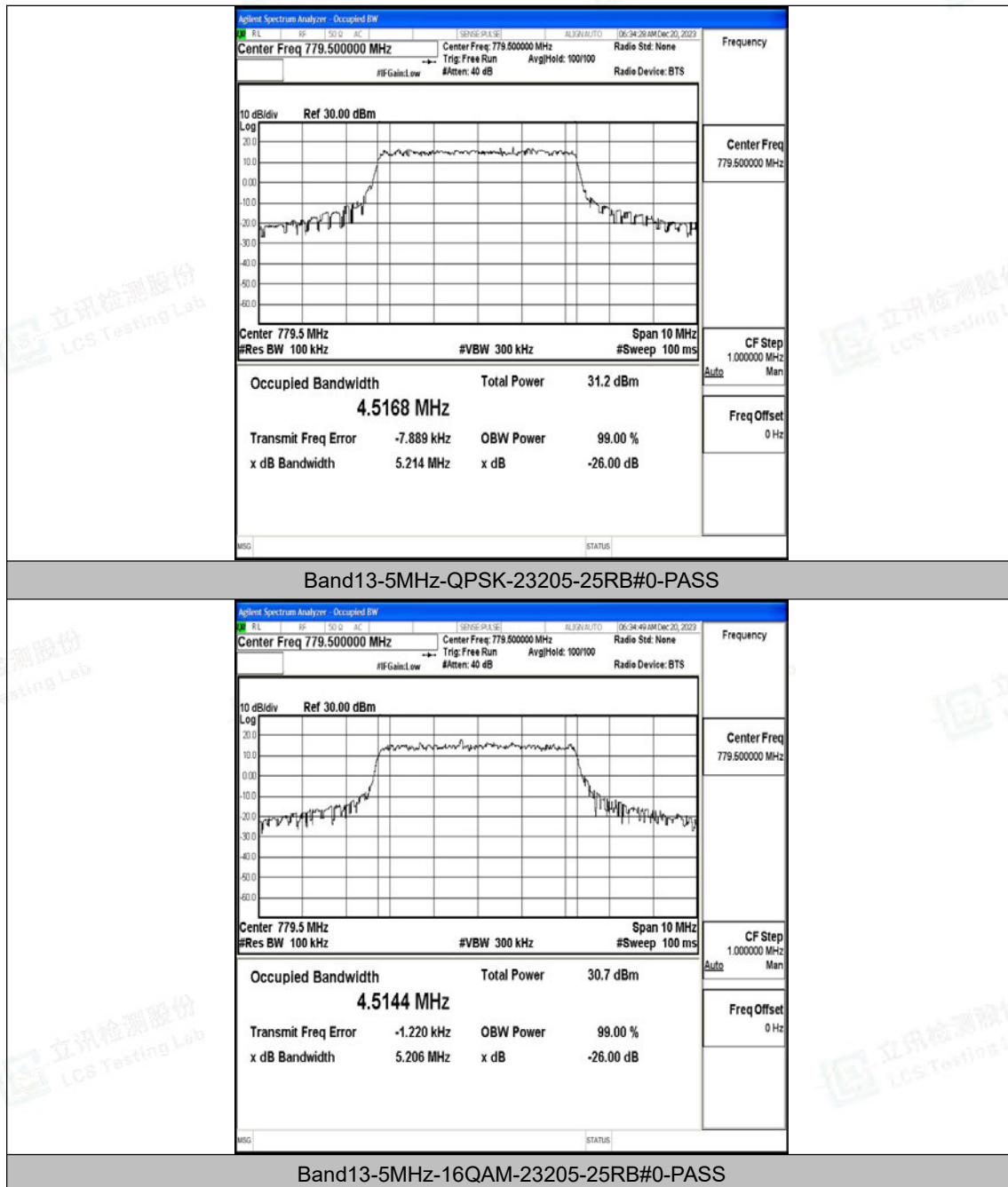
#### Test Result

| Band   | Bandwidth | Modulation | Channel | RB Configuration | Occupied Bandwidth (MHz) | 26dB Bandwidth (MHz) | Verdict |
|--------|-----------|------------|---------|------------------|--------------------------|----------------------|---------|
| Band13 | 5MHz      | QPSK       | 23205   | 25RB#0           | 4.5168                   | 5.214                | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 25RB#0           | 4.5144                   | 5.206                | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 25RB#0           | 4.5118                   | 5.376                | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 25RB#0           | 4.5305                   | 5.333                | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 25RB#0           | 4.5090                   | 5.183                | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 25RB#0           | 4.5337                   | 5.416                | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 50RB#0           | 8.9916                   | 10.01                | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 50RB#0           | 8.9771                   | 10.03                | PASS    |





## Test Graphs

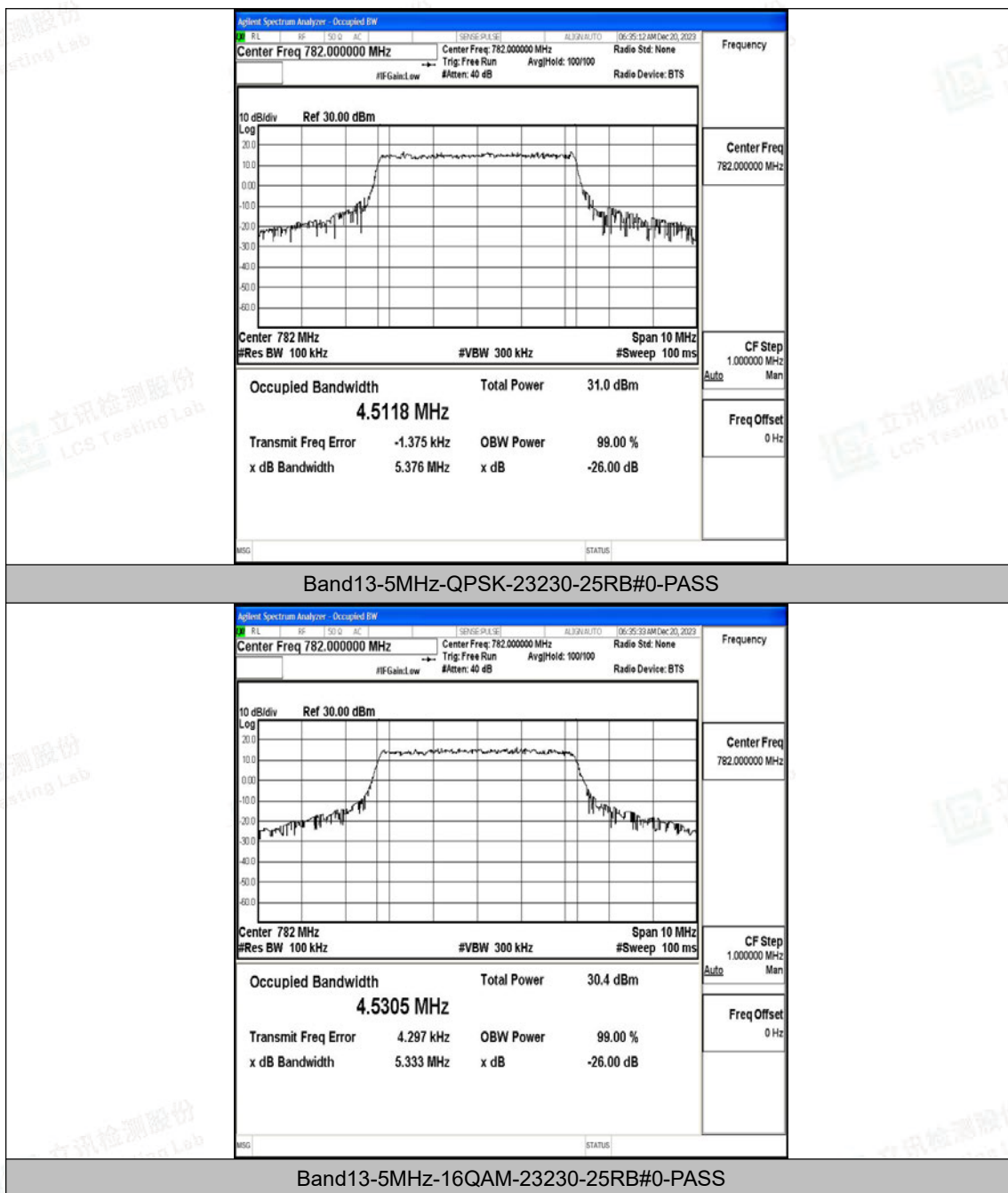


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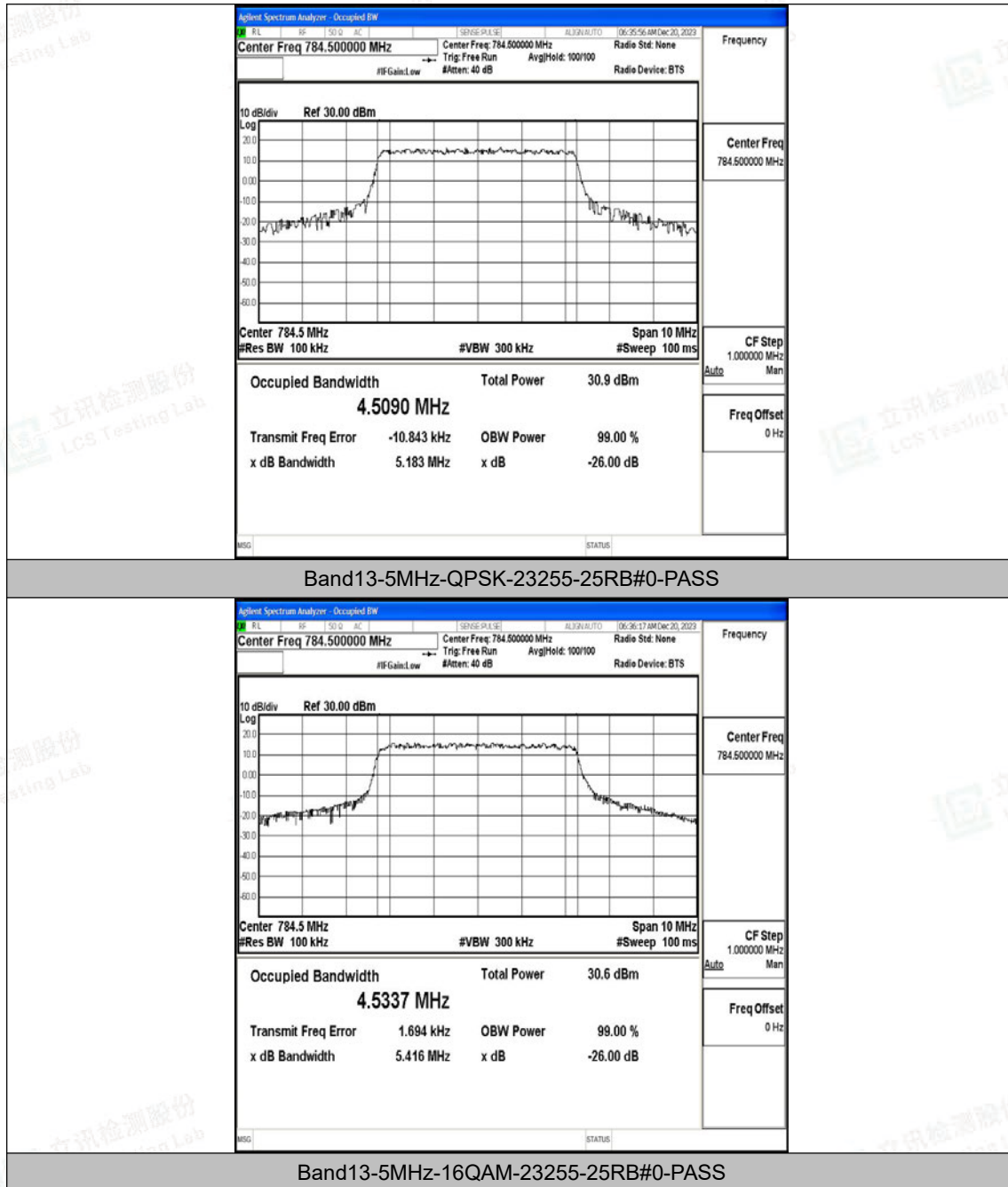


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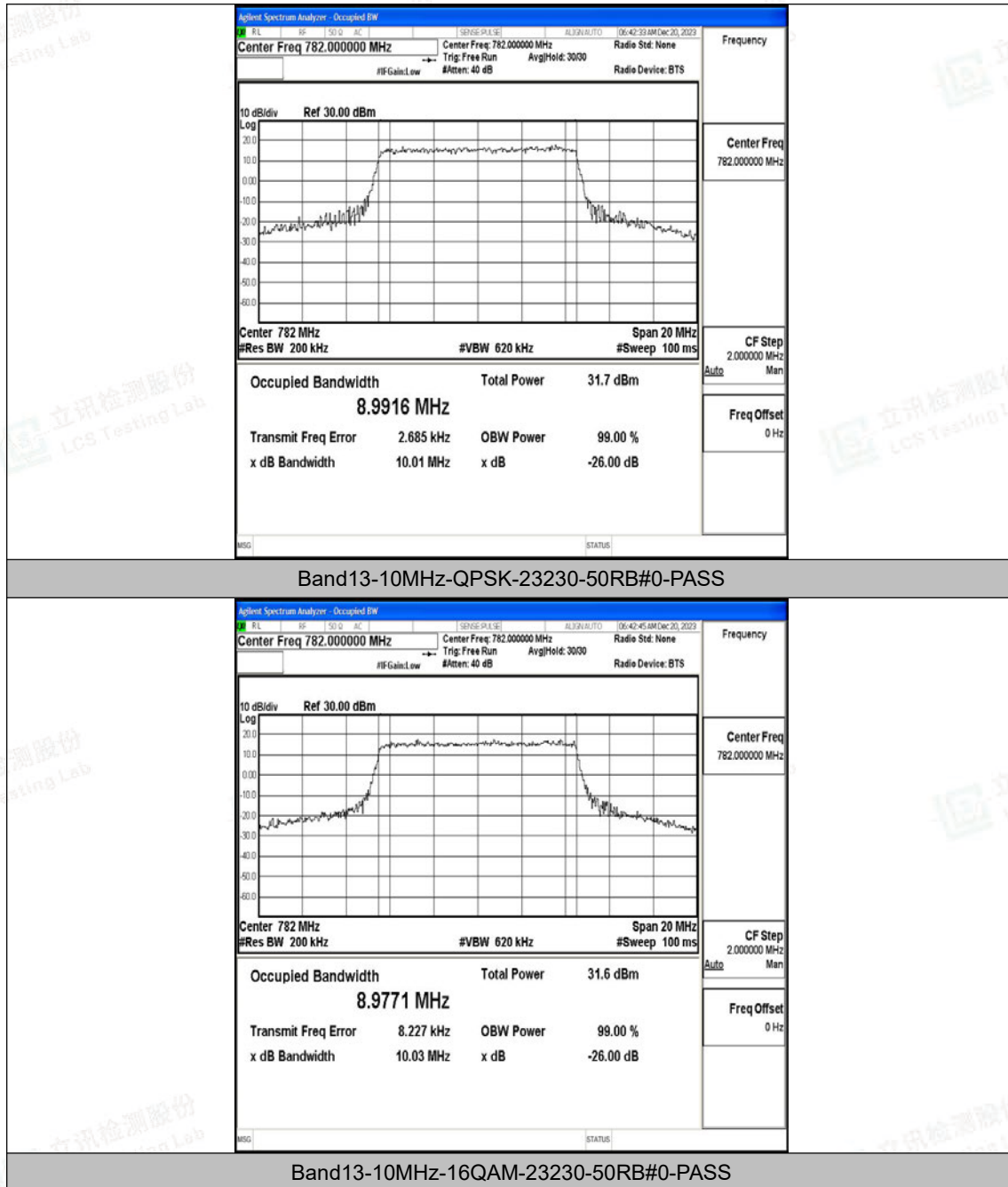


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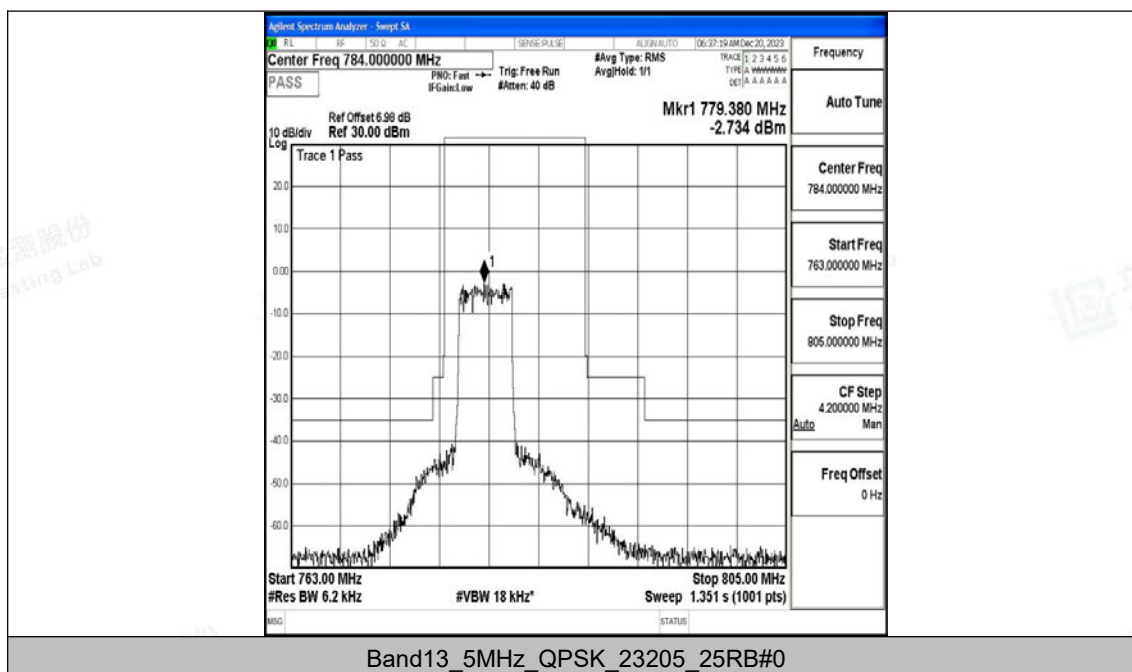


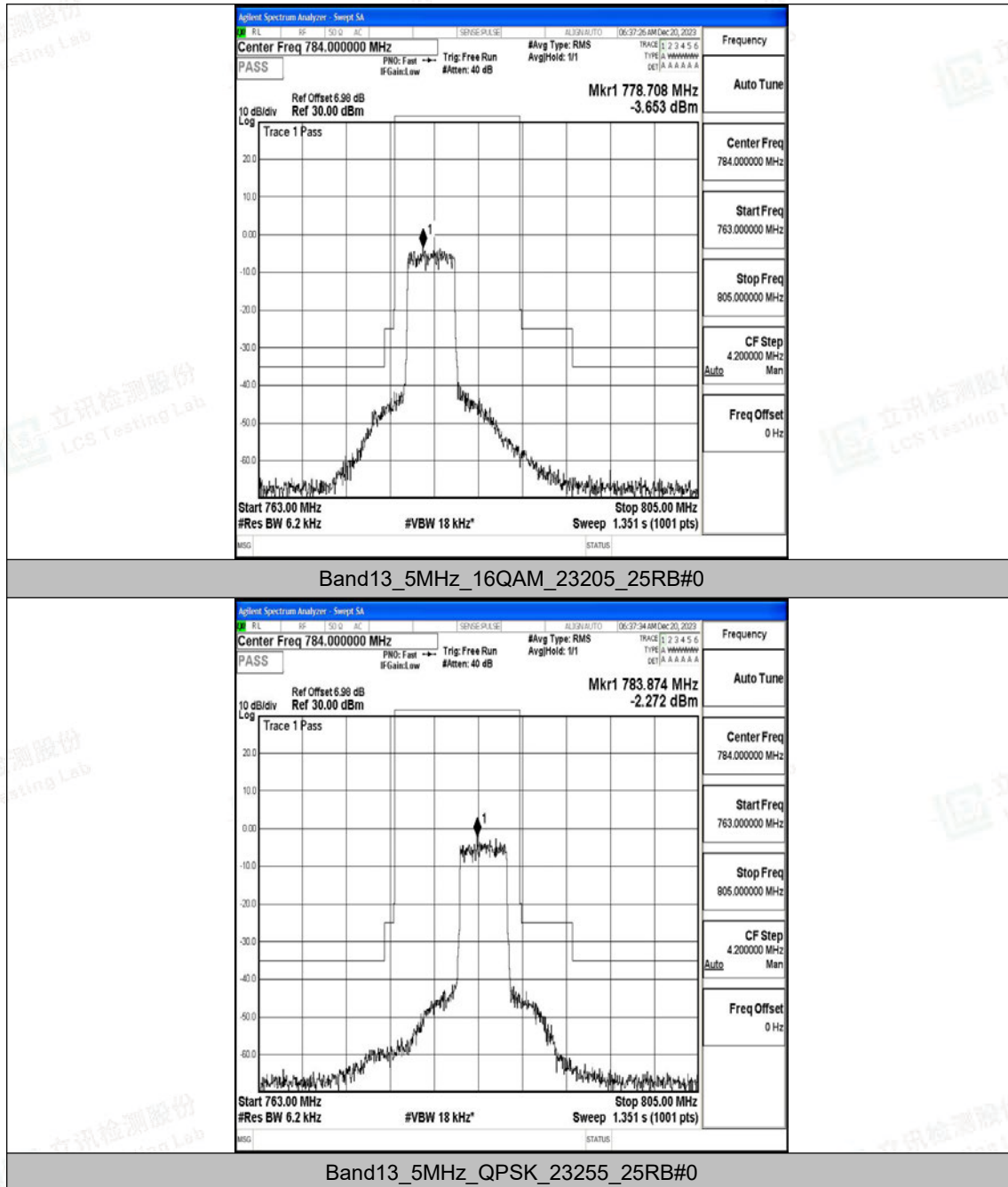
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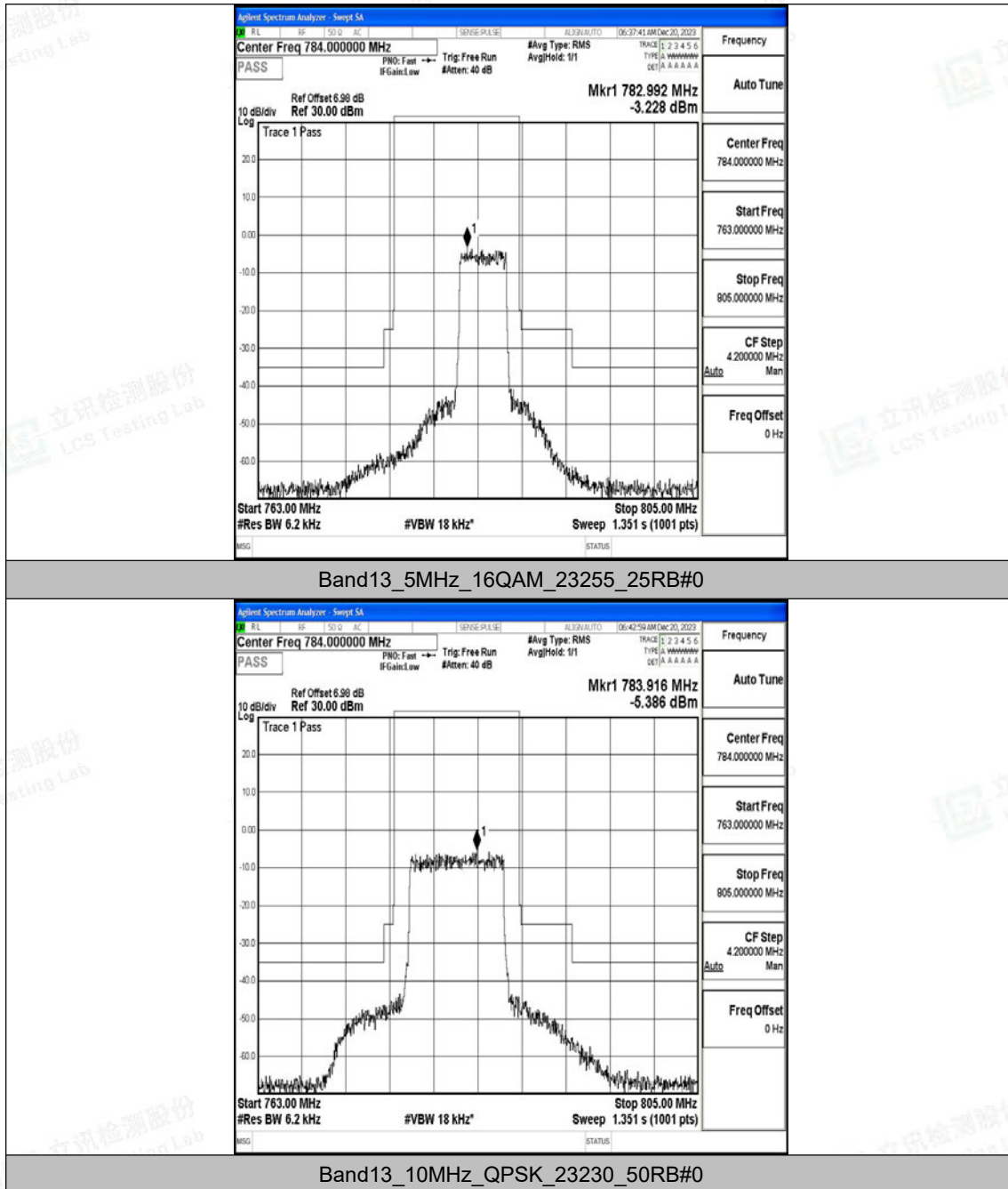
### Test Result

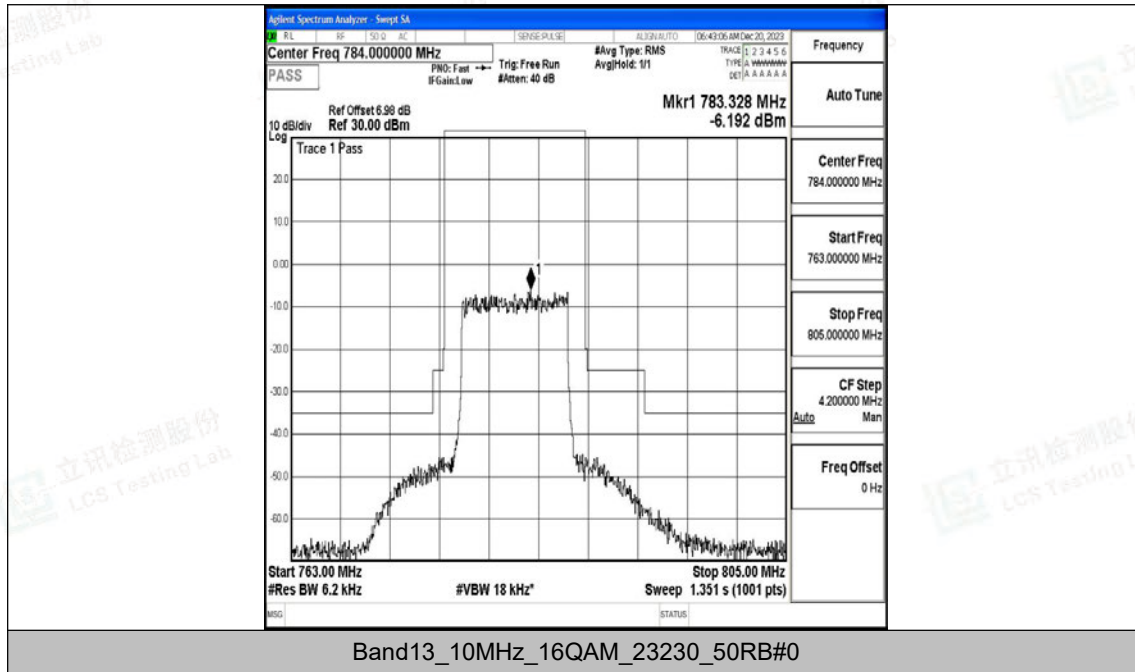
| Band   | Bandwidth | Modulation | Channel | RB Configuration | Peak Frequency | Result(dBm) | Verdict |
|--------|-----------|------------|---------|------------------|----------------|-------------|---------|
| Band13 | 5MHz      | QPSK       | 23205   | 25RB#0           | 774.97         | -45.92      | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 25RB#0           | 774.97         | -45.44      | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 25RB#0           | 788.58         | -43.30      | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 25RB#0           | 788.41         | -44.01      | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 50RB#0           | 774.97         | -46.45      | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 50RB#0           | 774.76         | -47.25      | PASS    |

### Test Graphs











## E.5 Conducted Spurious Emission

### Test Result

| Band   | Bandwidth | Modulation | Channel | RB Configuration | Frequency Range | Result (dBm) | Verdict |
|--------|-----------|------------|---------|------------------|-----------------|--------------|---------|
| Band13 | 5MHz      | QPSK       | 23205   | 1RB#0            | 0.009~0.15      | -57.66       | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 1RB#0            | 0.15~30         | -52.15       | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 1RB#0            | 30~1000         | -61.21       | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 1RB#0            | 1000~3000       | -41.73       | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 1RB#0            | 3000~10000      | -43.65       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 1RB#0            | 0.009~0.15      | -58.23       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 1RB#0            | 0.15~30         | -52.15       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 1RB#0            | 30~1000         | -61.96       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 1RB#0            | 1000~3000       | -42.55       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 1RB#0            | 3000~10000      | -44.31       | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 1RB#0            | 0.009~0.15      | -58.43       | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 1RB#0            | 0.15~30         | -52.66       | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 1RB#0            | 1000~3000       | -42.74       | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 1RB#0            | 3000~10000      | -44.13       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 1RB#0            | 0.009~0.15      | -59.62       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 1RB#0            | 0.15~30         | -52.10       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 1RB#0            | 30~1000         | -61.82       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 1RB#0            | 1000~3000       | -42.99       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 1RB#0            | 3000~10000      | -44.27       | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 1RB#0            | 30~1000         | -59.98       | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 1RB#0            | 1000~3000       | -40.73       | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 1RB#0            | 3000~10000      | -44.10       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 1RB#0            | 0.009~0.15      | -56.92       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 1RB#0            | 0.15~30         | -51.22       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 1RB#0            | 30~1000         | -60.61       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 1RB#0            | 3000~10000      | -44.14       | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 1RB#0            | 0.009~0.15      | -55.02       | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 1RB#0            | 0.15~30         | -52.10       | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 1RB#0            | 30~1000         | -62.29       | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 1RB#0            | 1000~3000       | -41.68       | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 1RB#0            | 3000~10000      | -44.38       | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 1RB#0            | 0.009~0.15      | -55.67       | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 1RB#0            | 30~1000         | -61.82       | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 1RB#0            | 1000~3000       | -42.17       | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 1RB#0            | 3000~10000      | -44.10       | PASS    |



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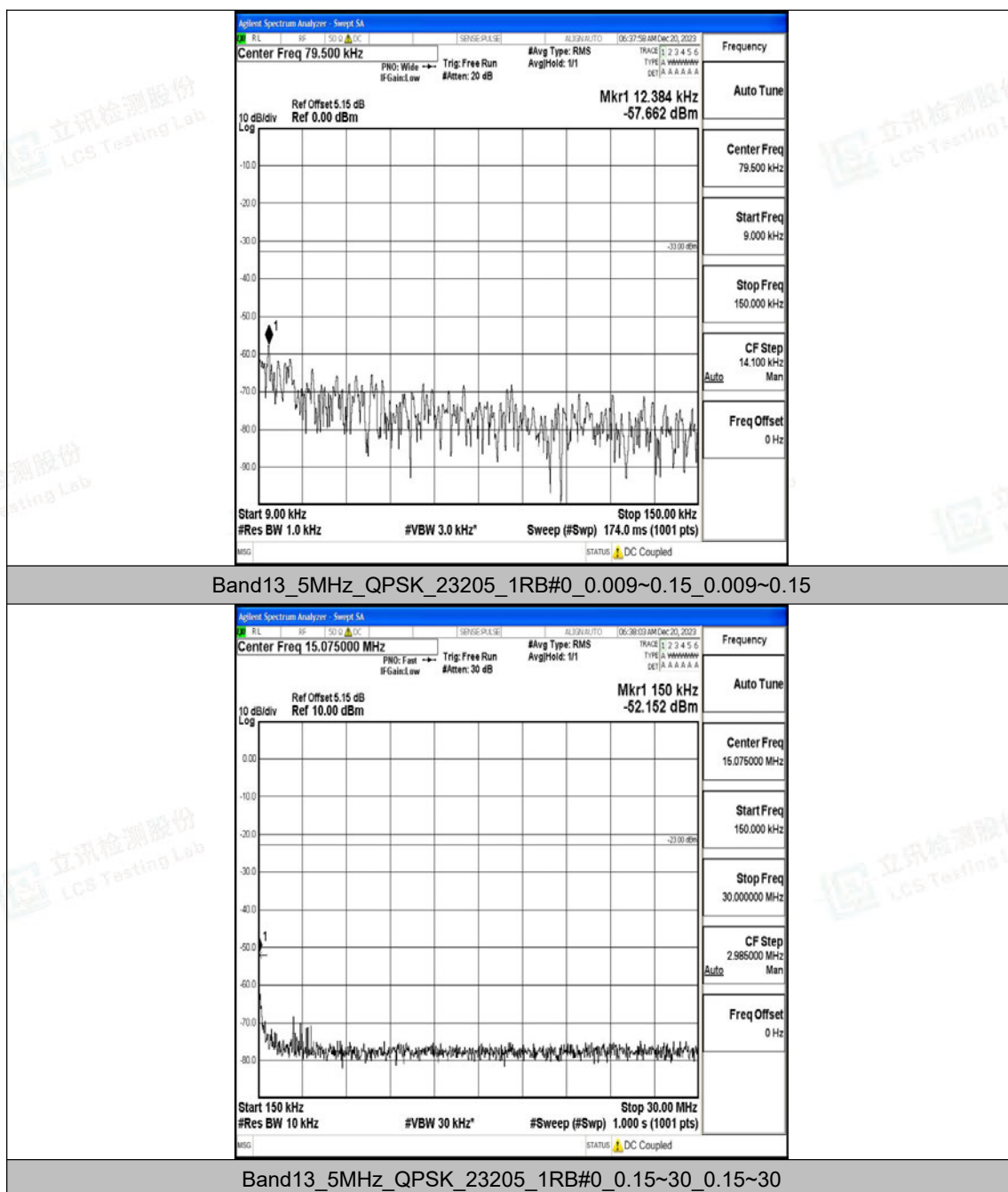
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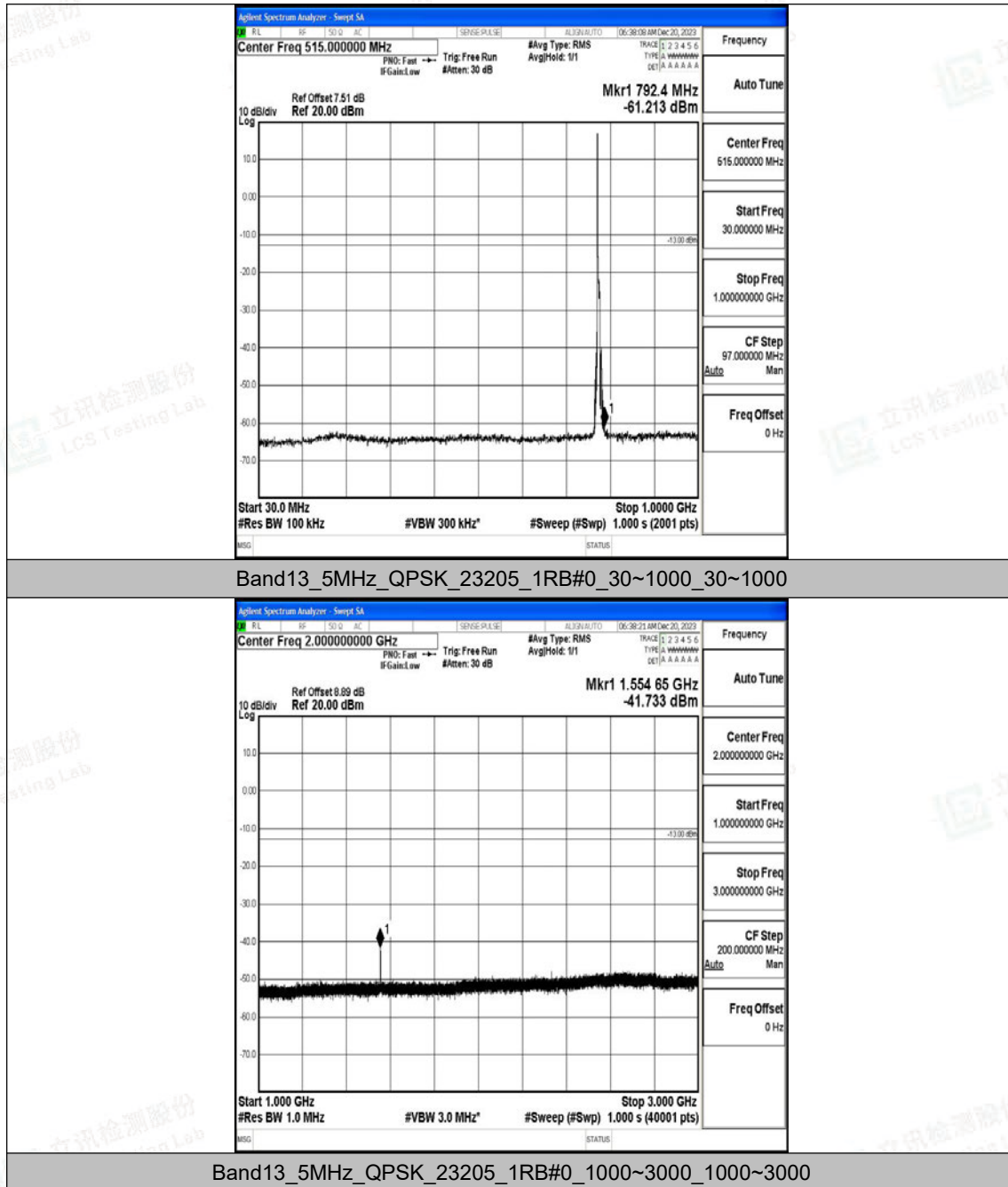
Scan code to check authenticity



|        |       |       |       |       |            |        |      |
|--------|-------|-------|-------|-------|------------|--------|------|
| Band13 | 5MHz  | QPSK  | 23255 | 1RB#0 | 0.15~30    | -53.21 | PASS |
| Band13 | 5MHz  | 16QAM | 23255 | 1RB#0 | 1000~3000  | -42.71 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 1RB#0 | 0.15~30    | -52.92 | PASS |
| Band13 | 5MHz  | QPSK  | 23230 | 1RB#0 | 30~1000    | -61.93 | PASS |
| Band13 | 5MHz  | QPSK  | 23255 | 1RB#0 | 0.009~0.15 | -55.49 | PASS |

## Test Graphs



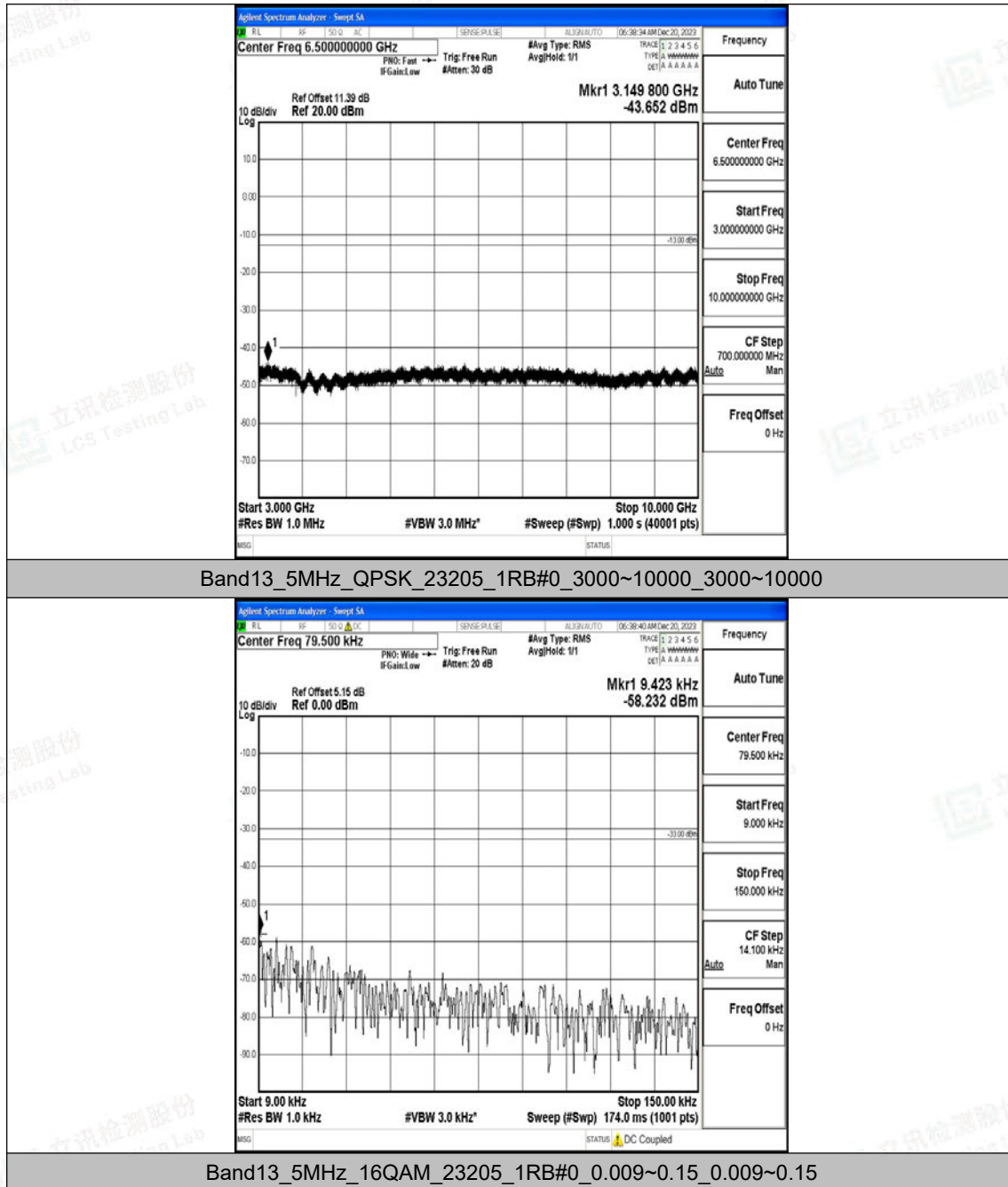


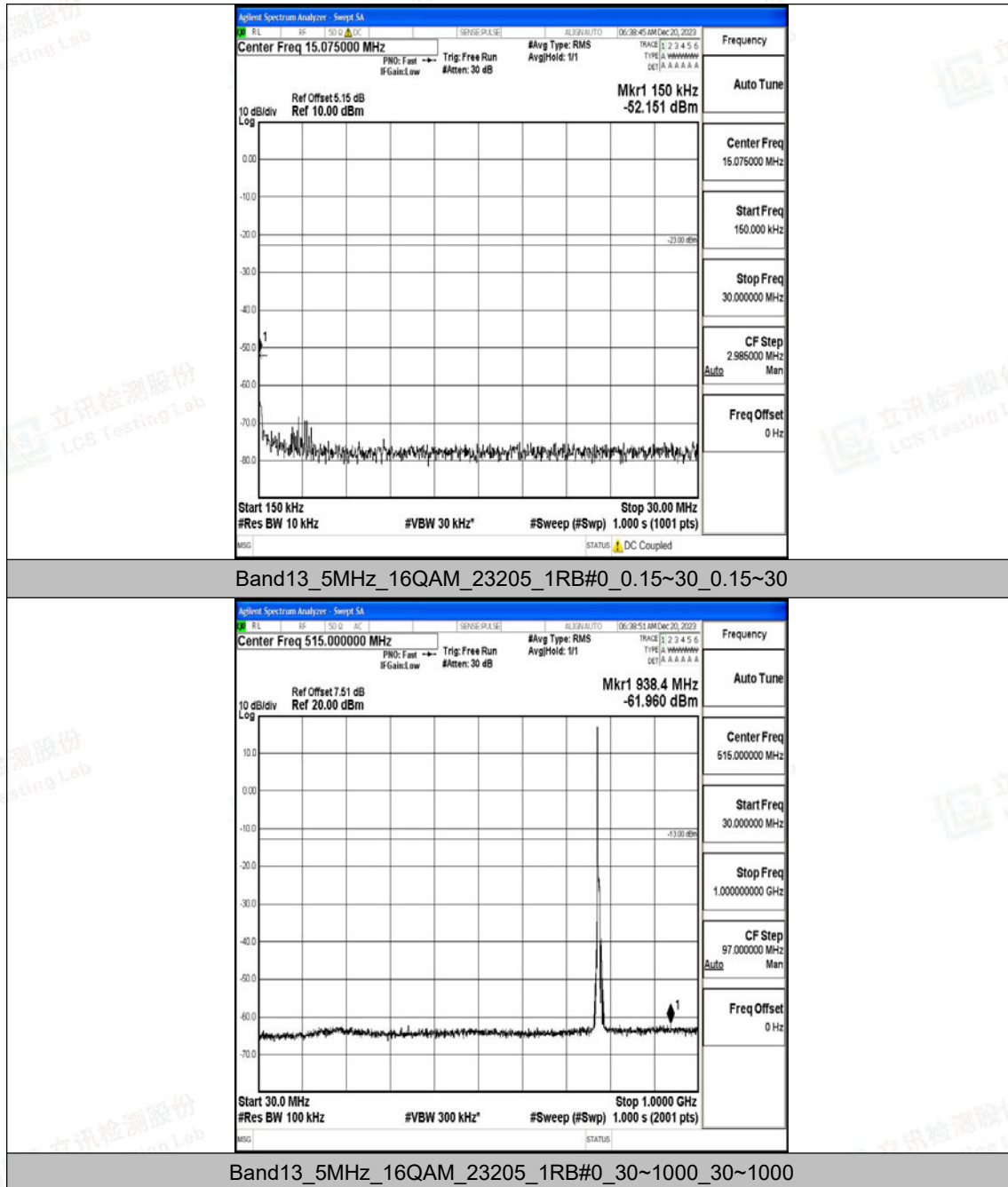
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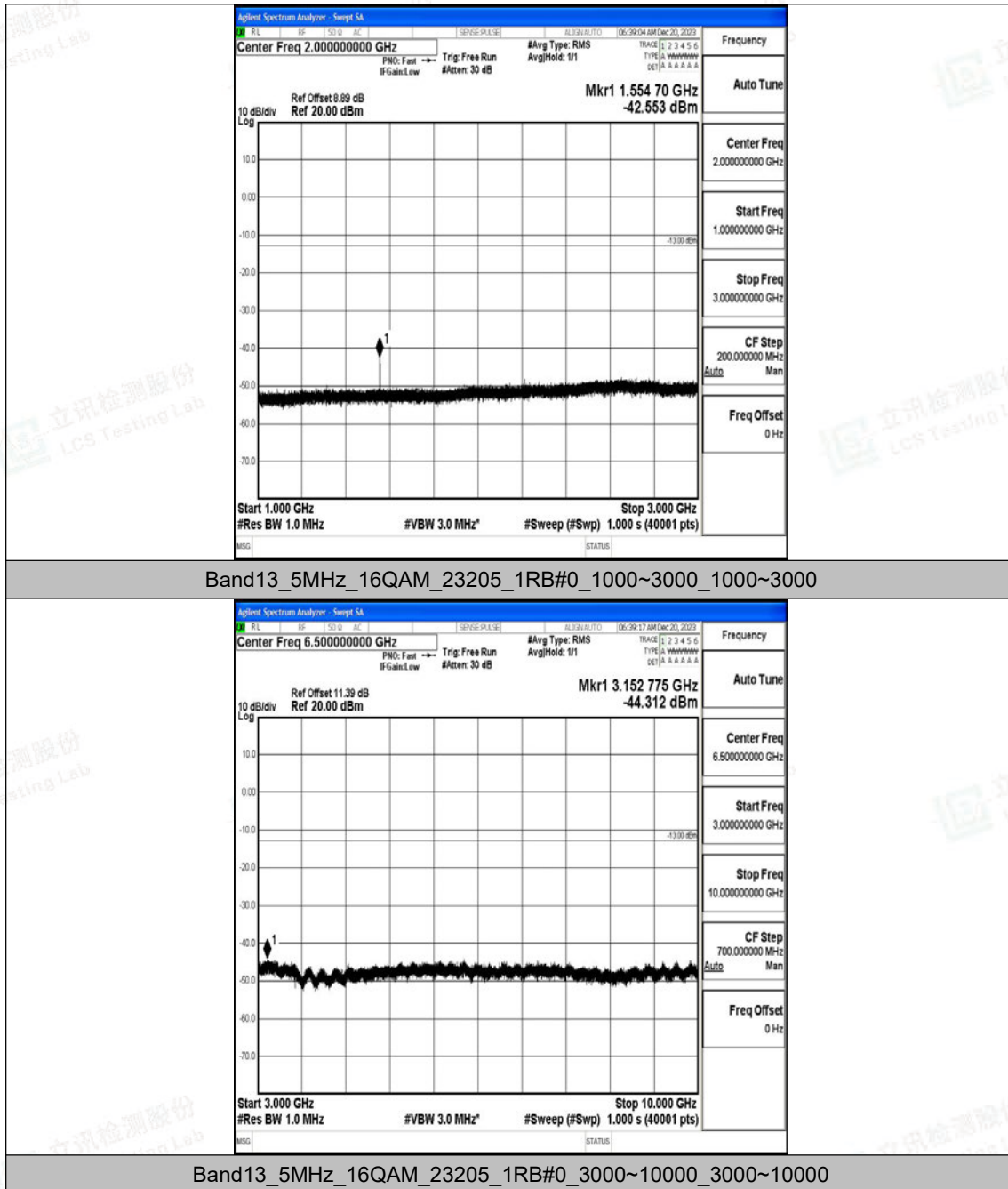
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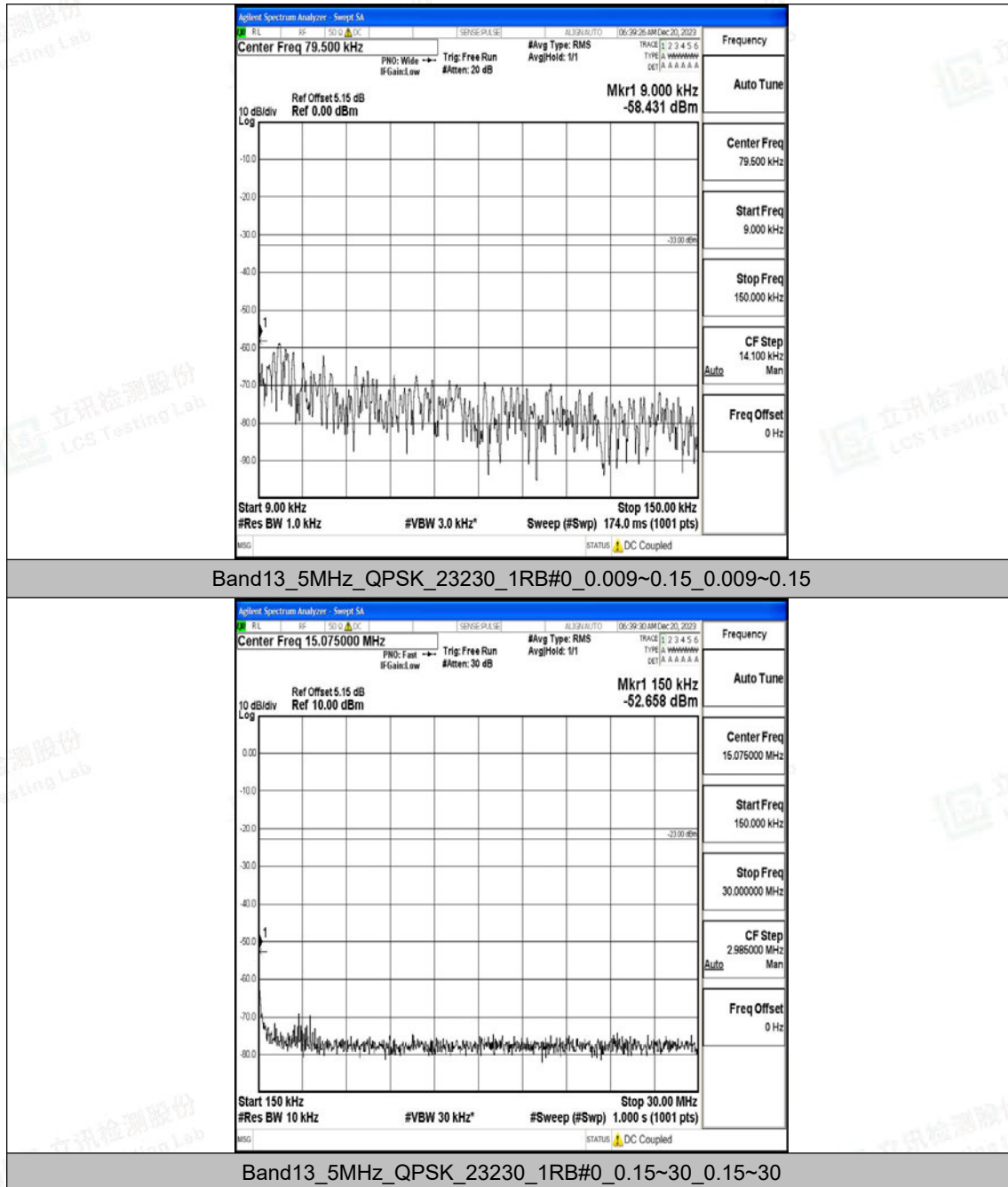
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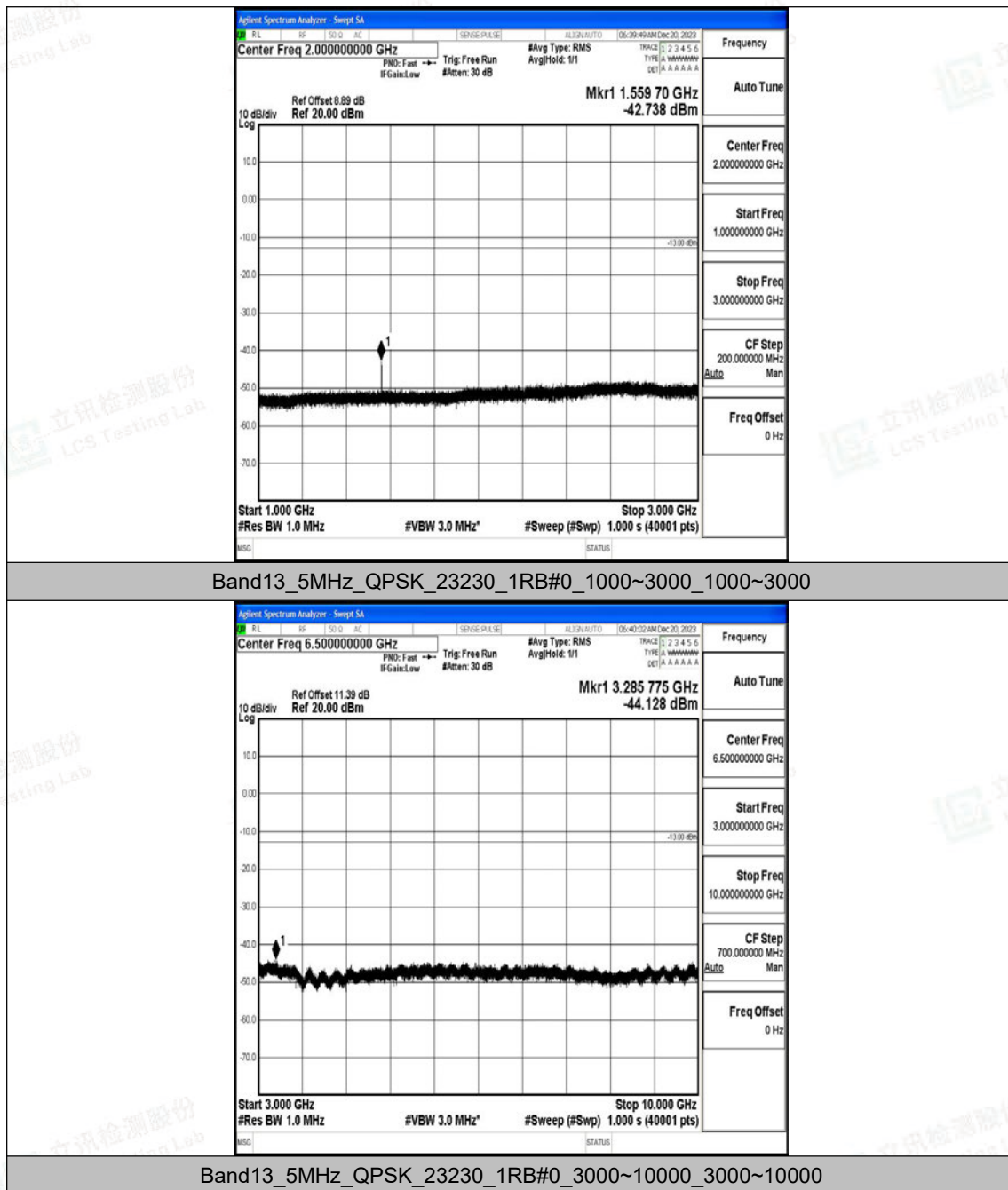
Scan code to check authenticity

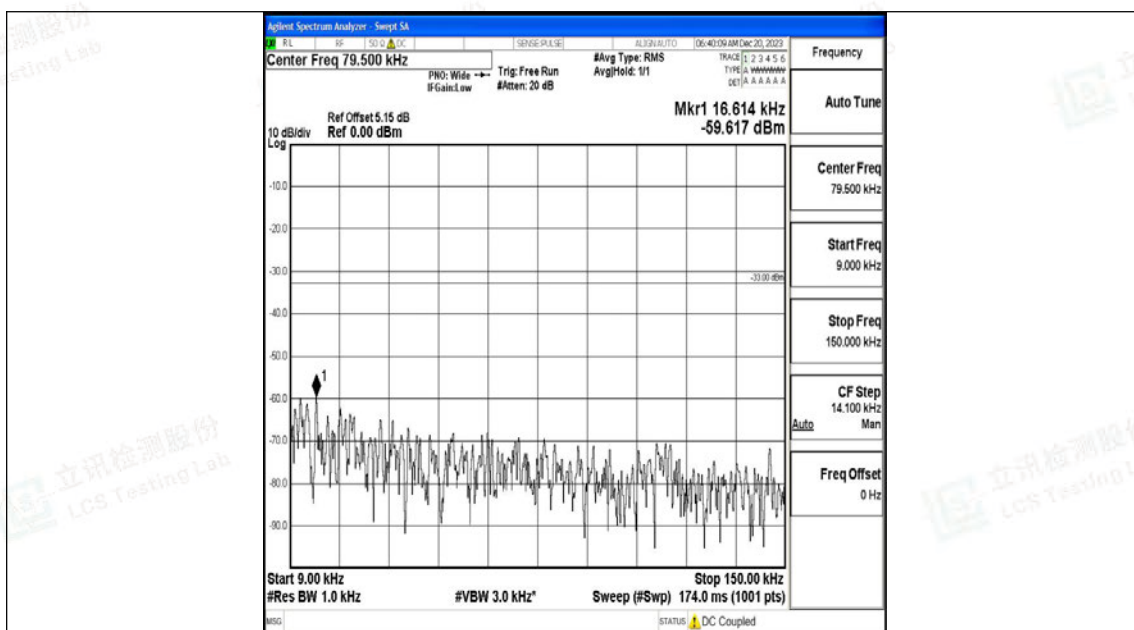




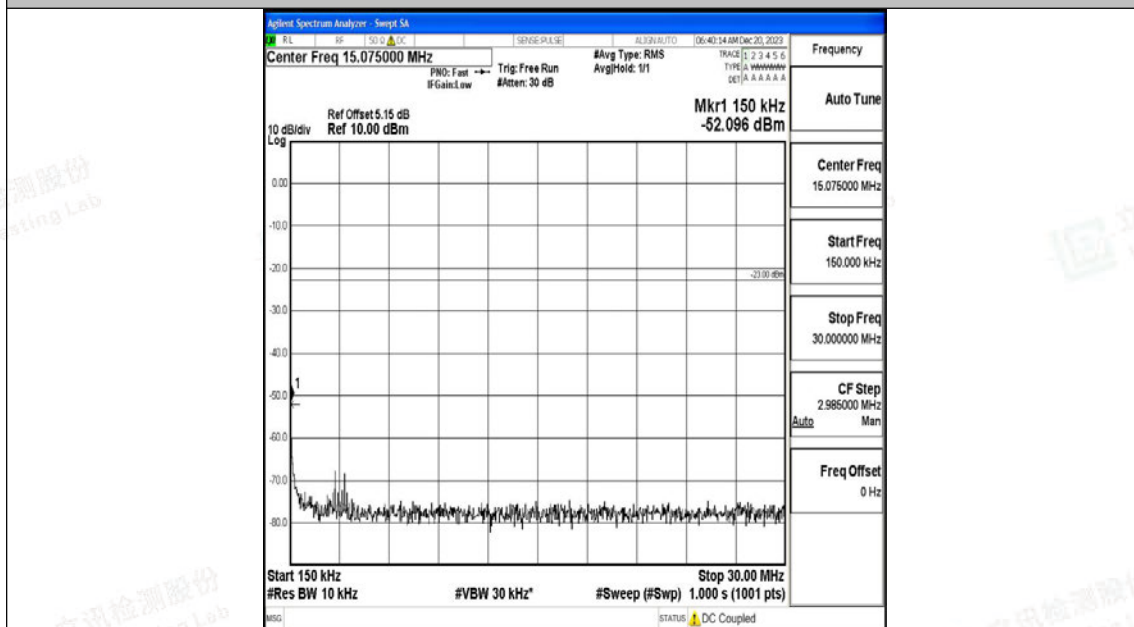






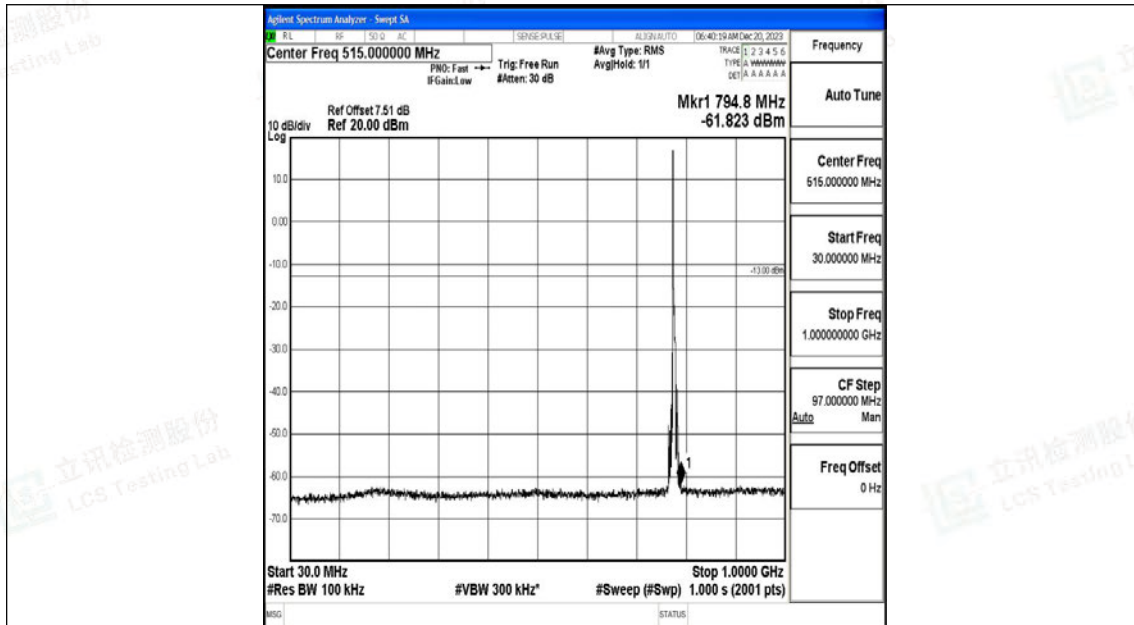


Band13\_5MHz\_16QAM\_23230\_1RB#0\_0.009~0.15\_0.009~0.15

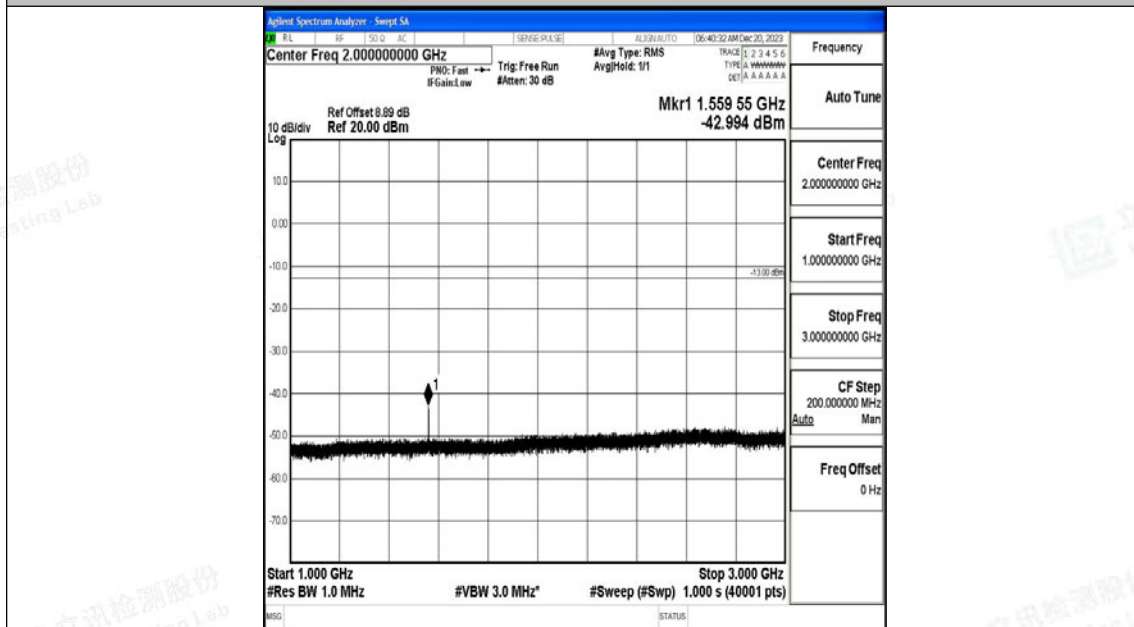


Band13\_5MHz\_16QAM\_23230\_1RB#0\_0.15~30\_0.15~30



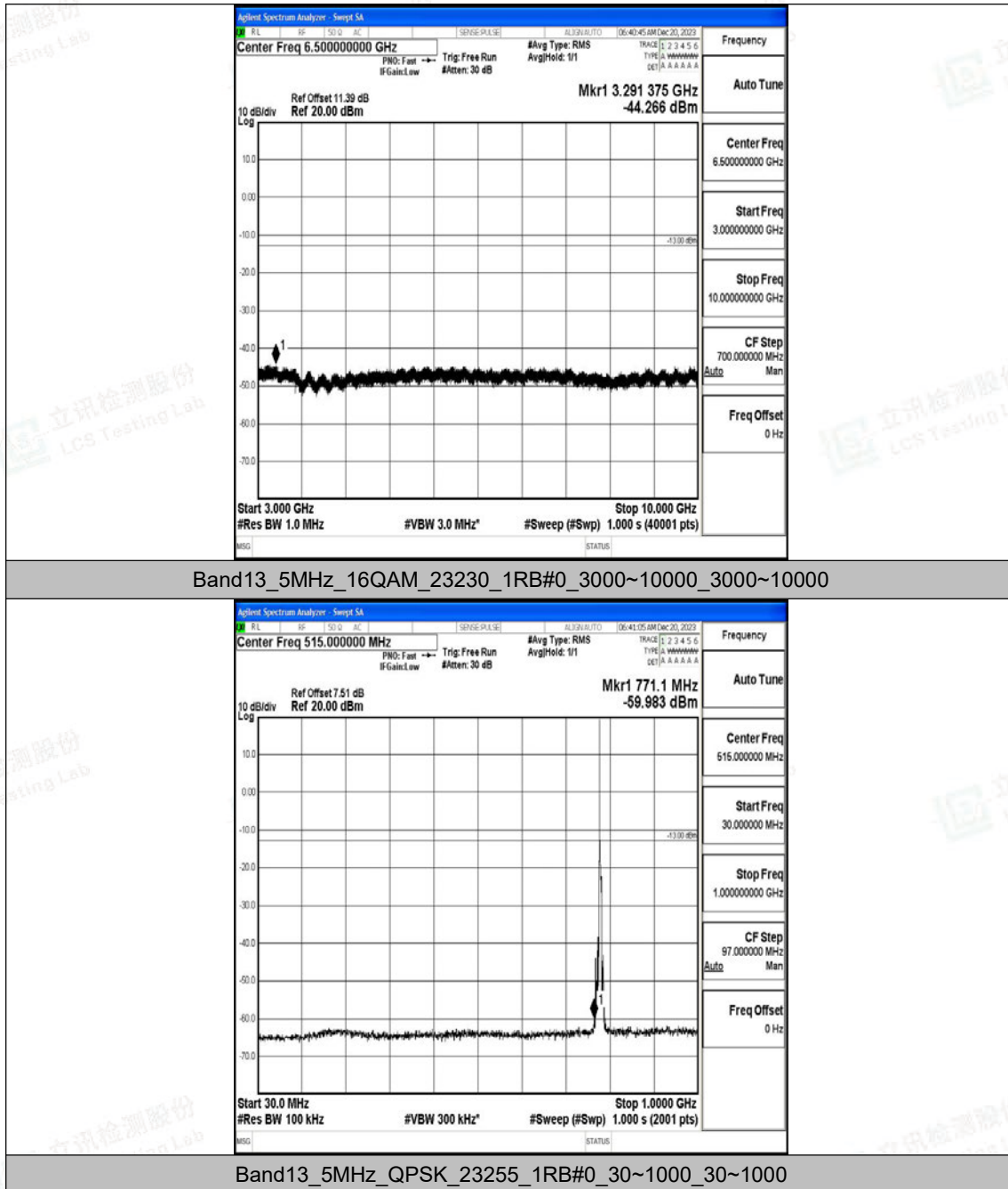


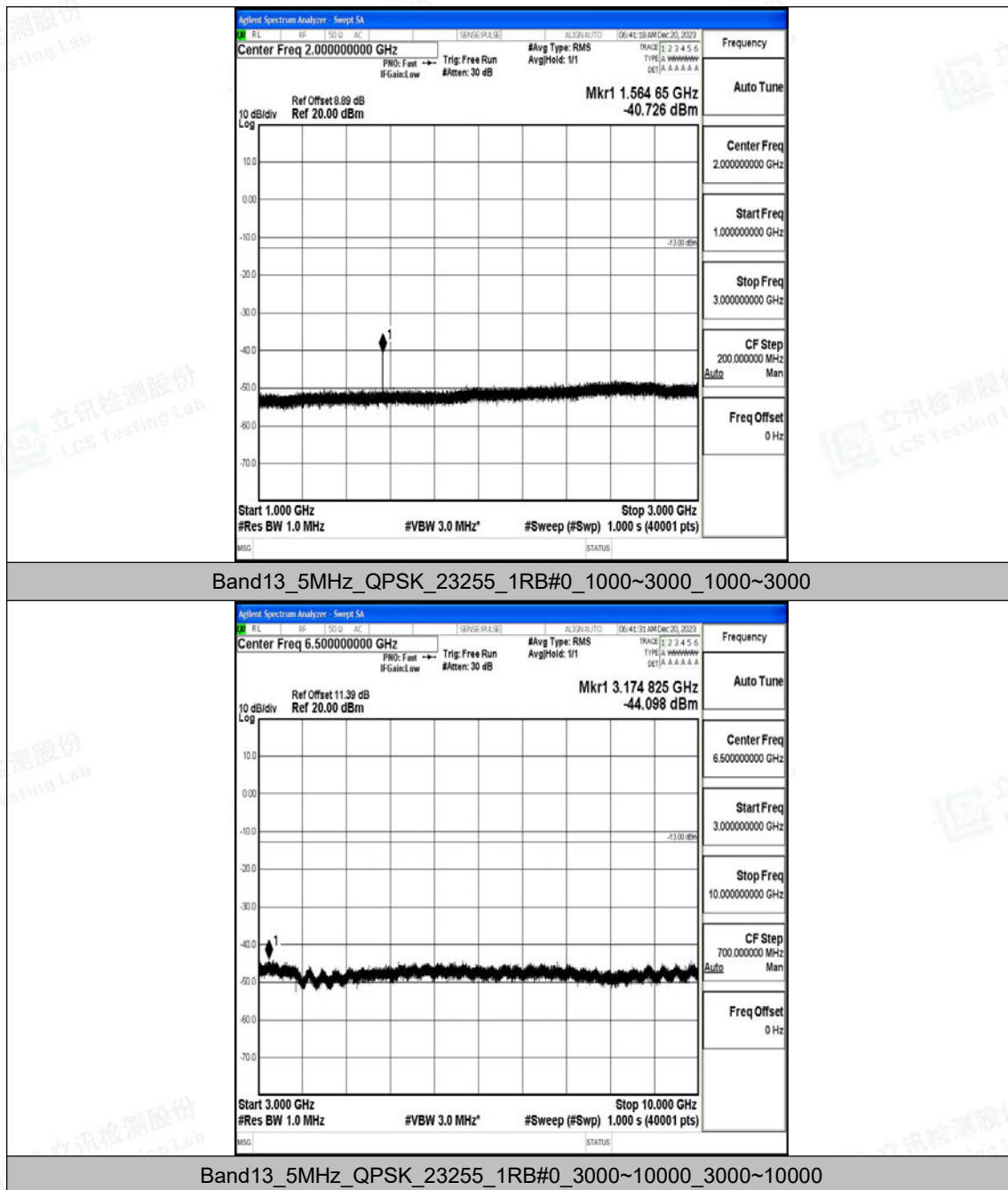
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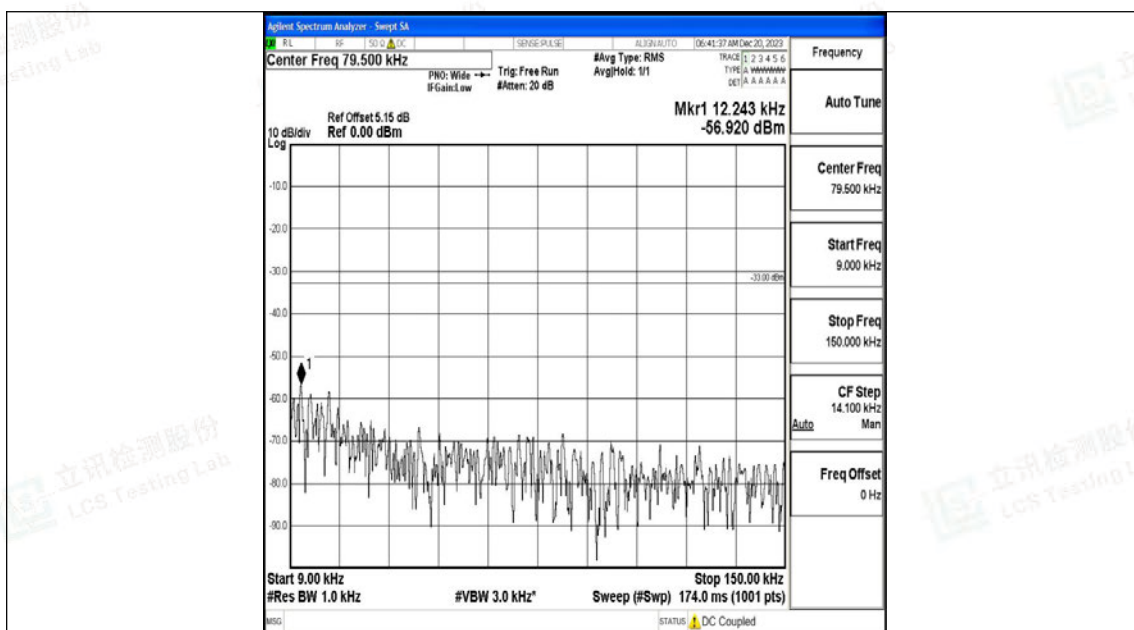


Band13\_5MHz\_16QAM\_23230\_1RB#0\_1000~3000\_1000~3000

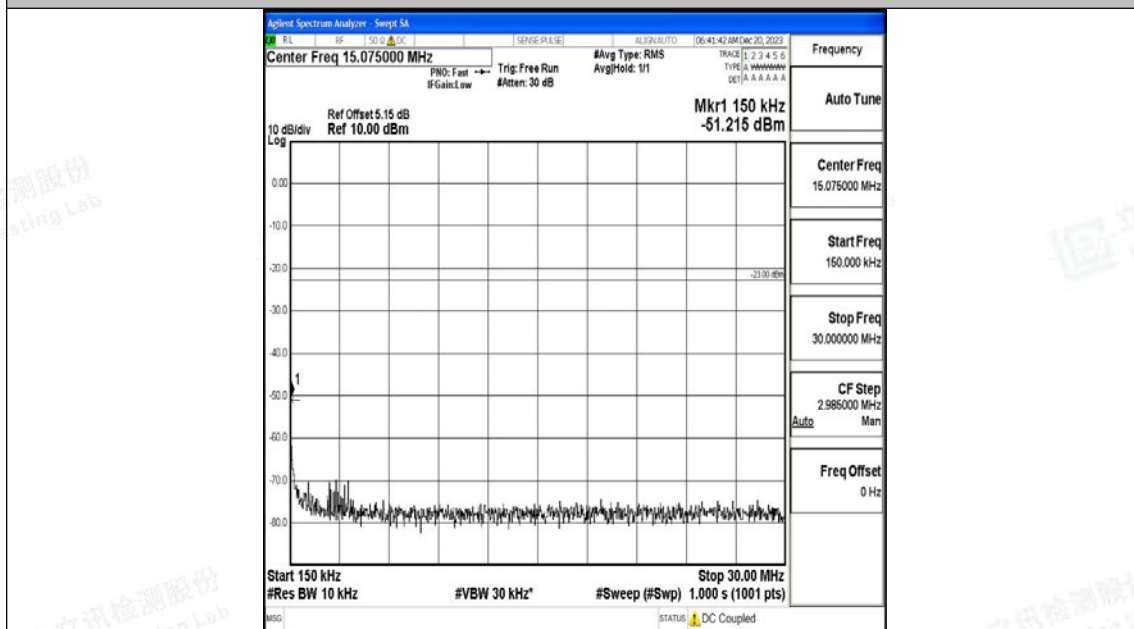






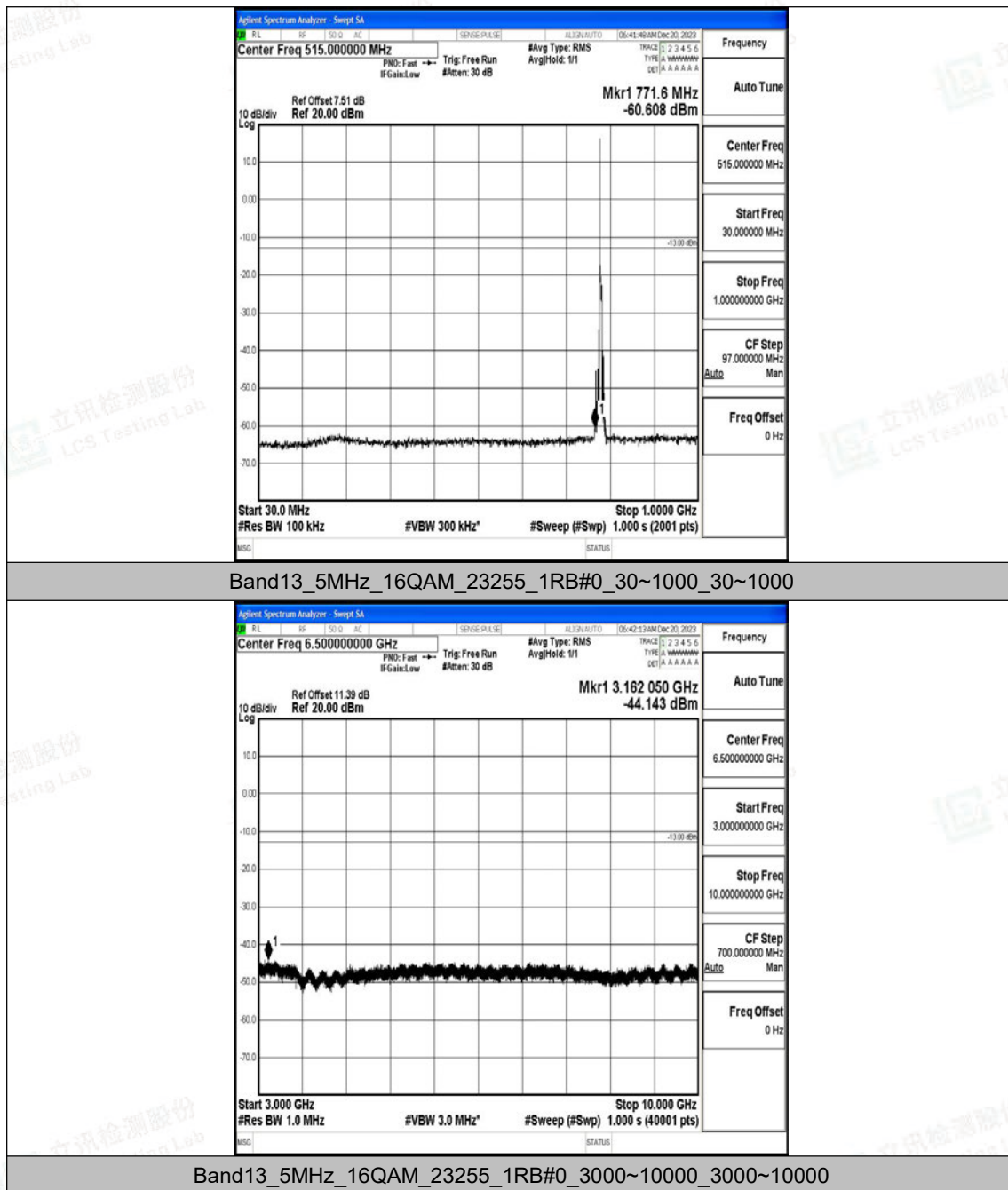


Band13\_5MHz\_16QAM\_23255\_1RB#0\_0.009~0.15\_0.009~0.15



Band13\_5MHz\_16QAM\_23255\_1RB#0\_0.15~30\_0.15~30



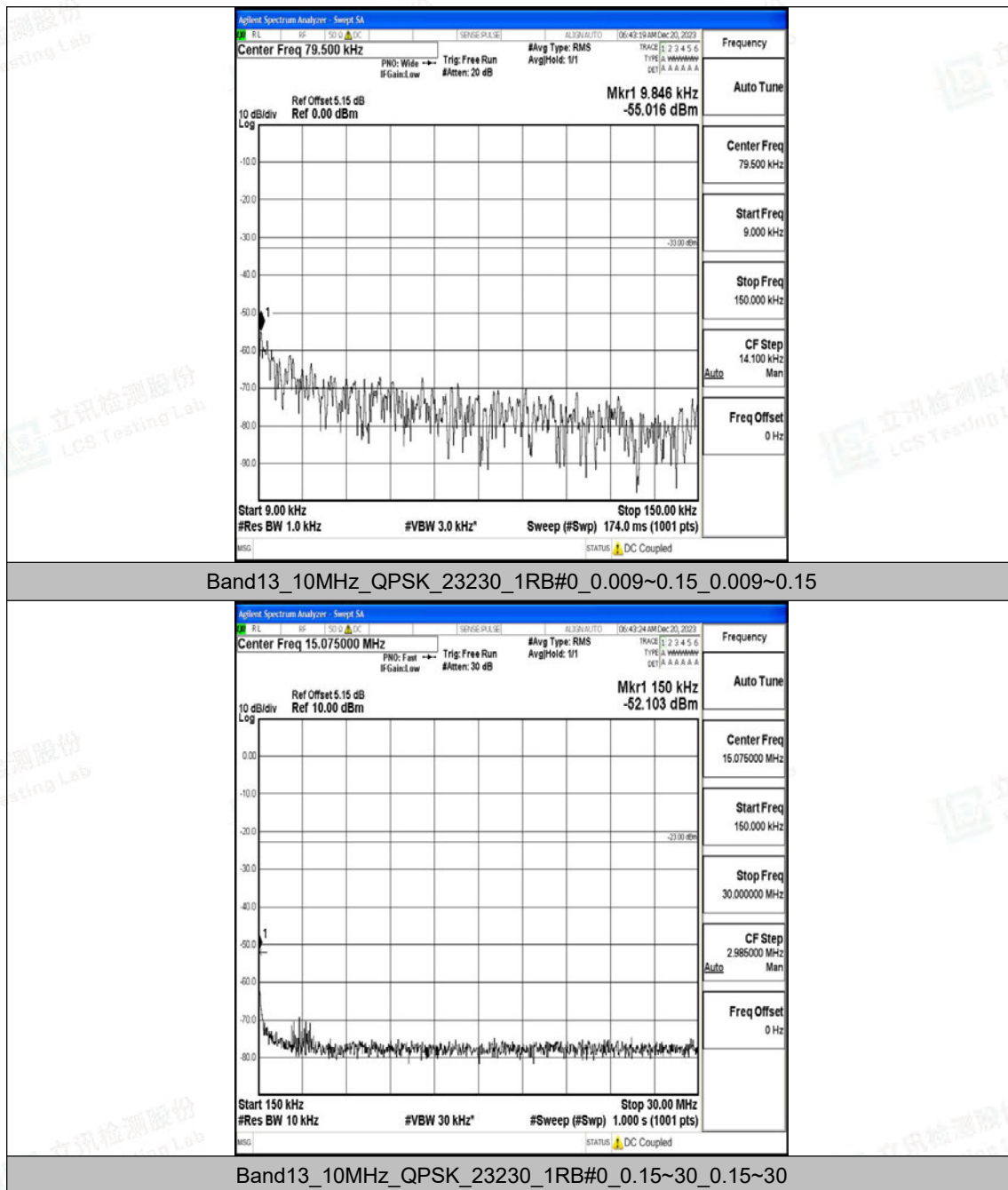


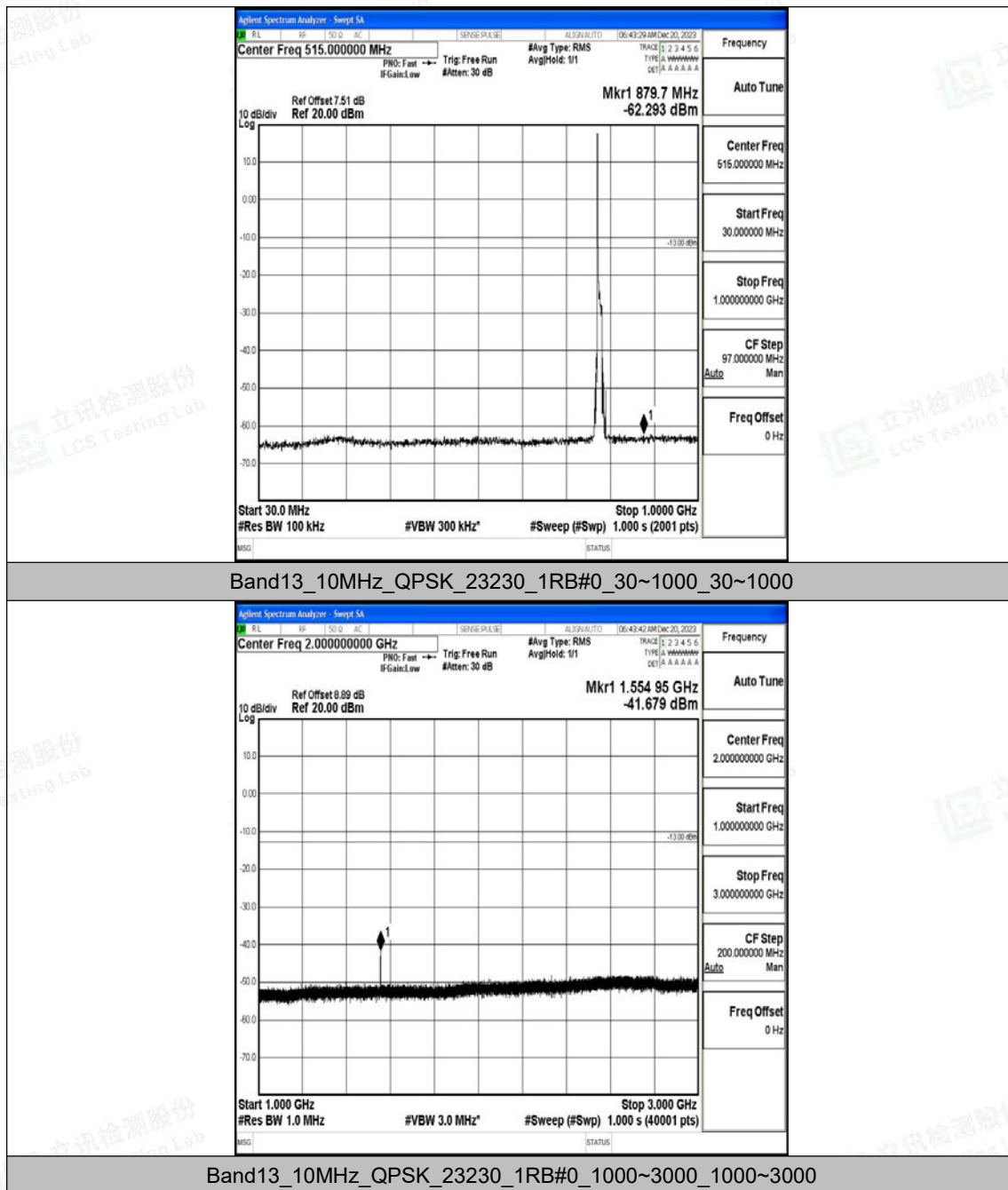
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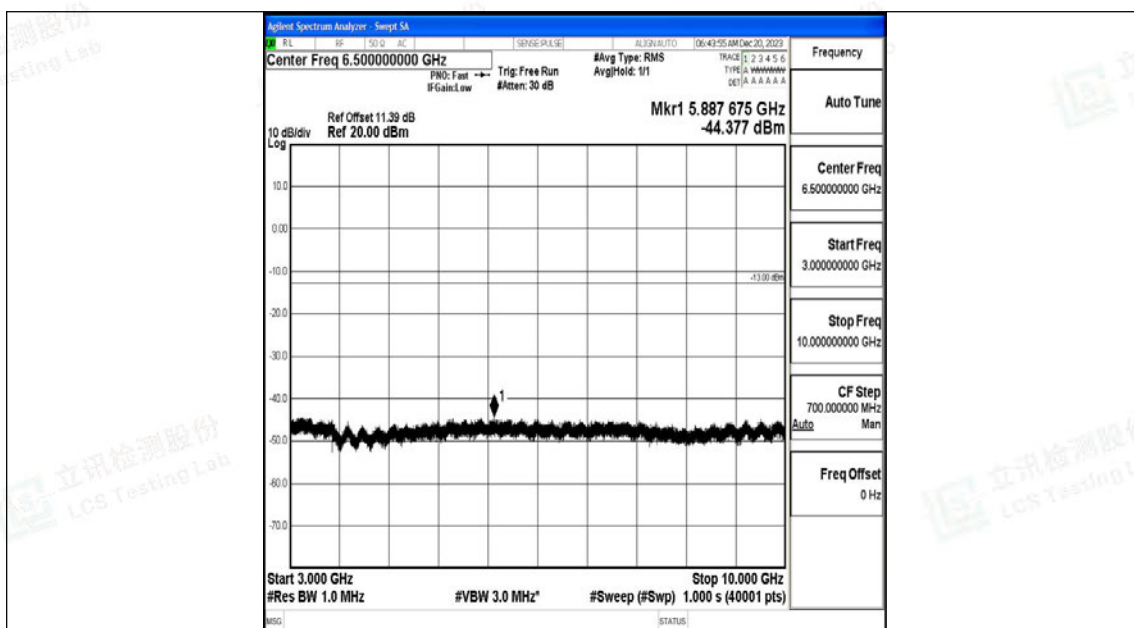
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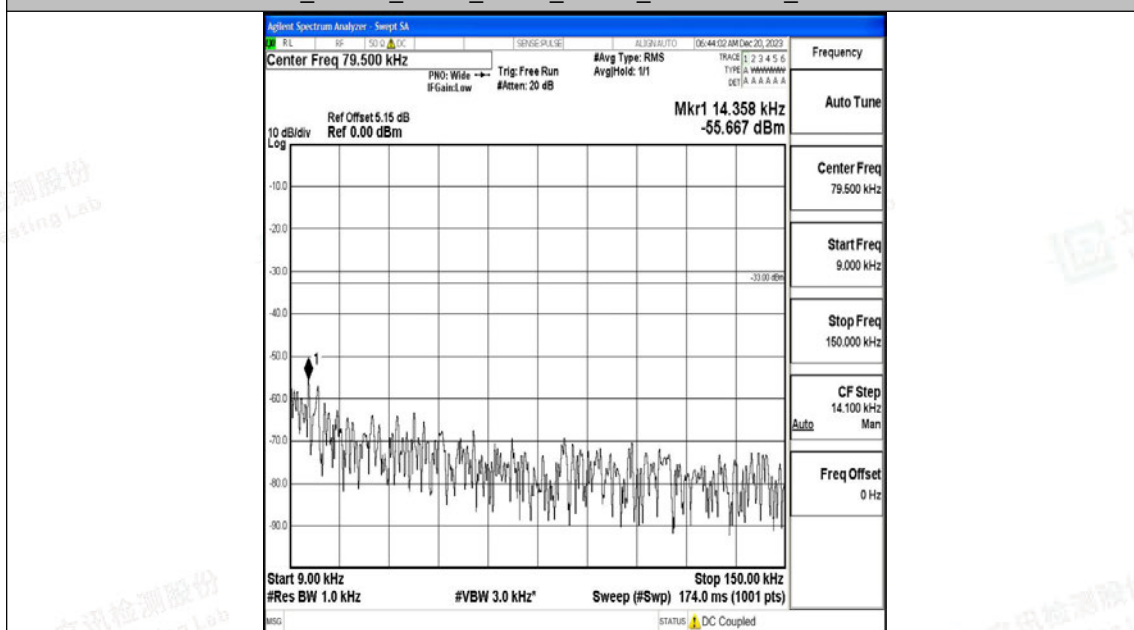
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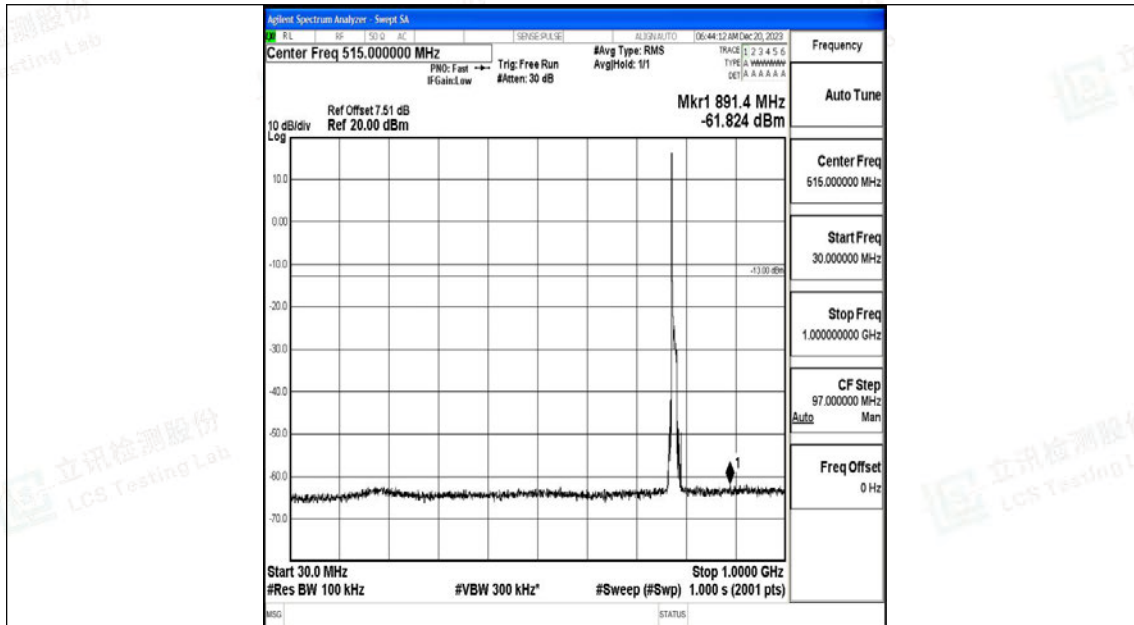


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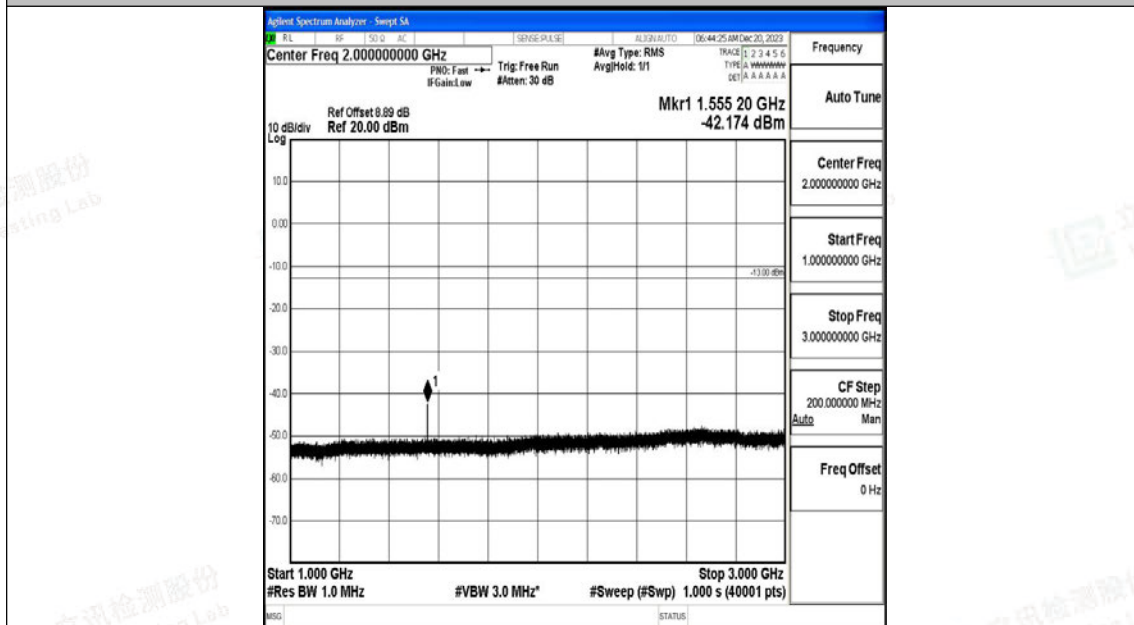


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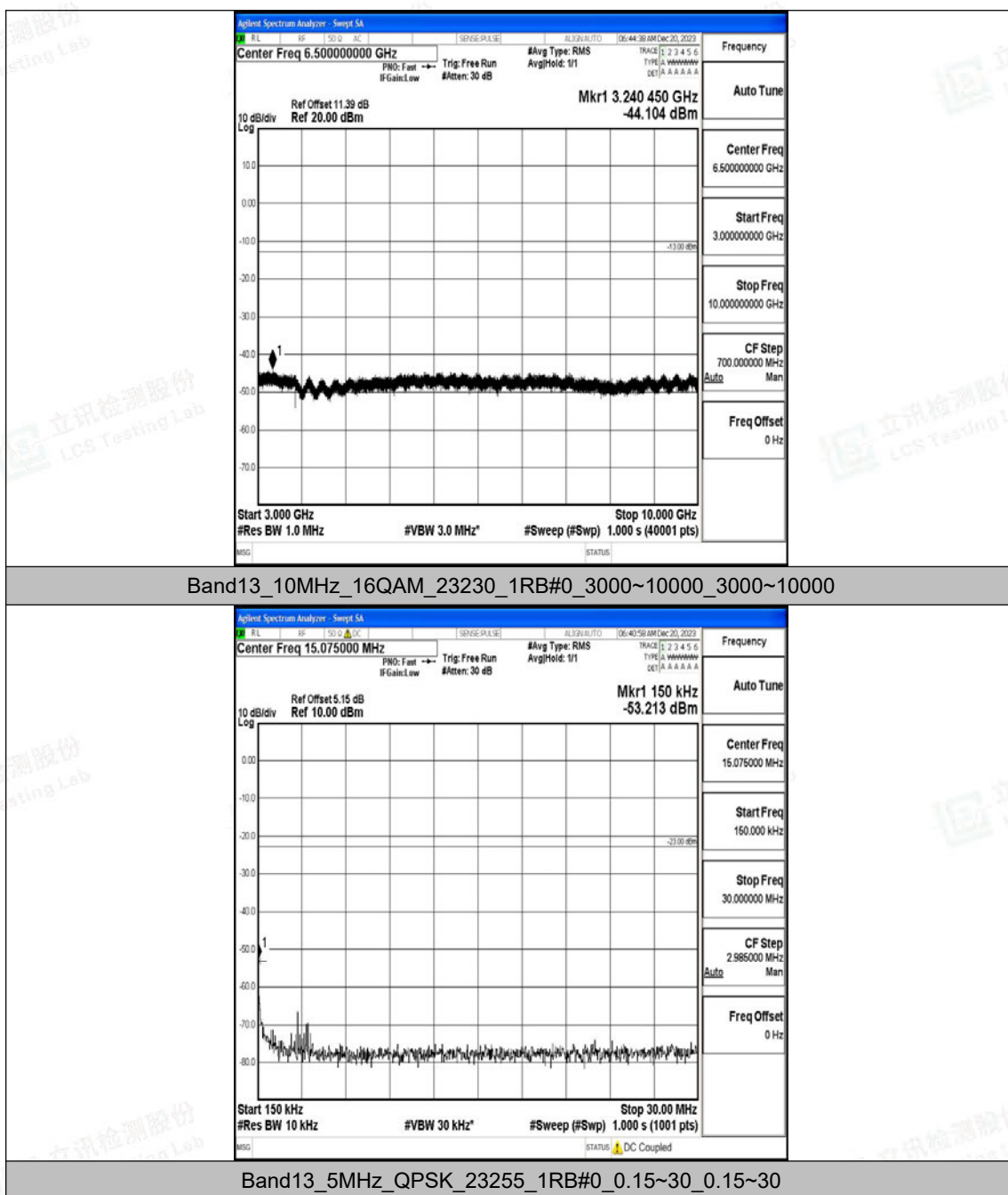


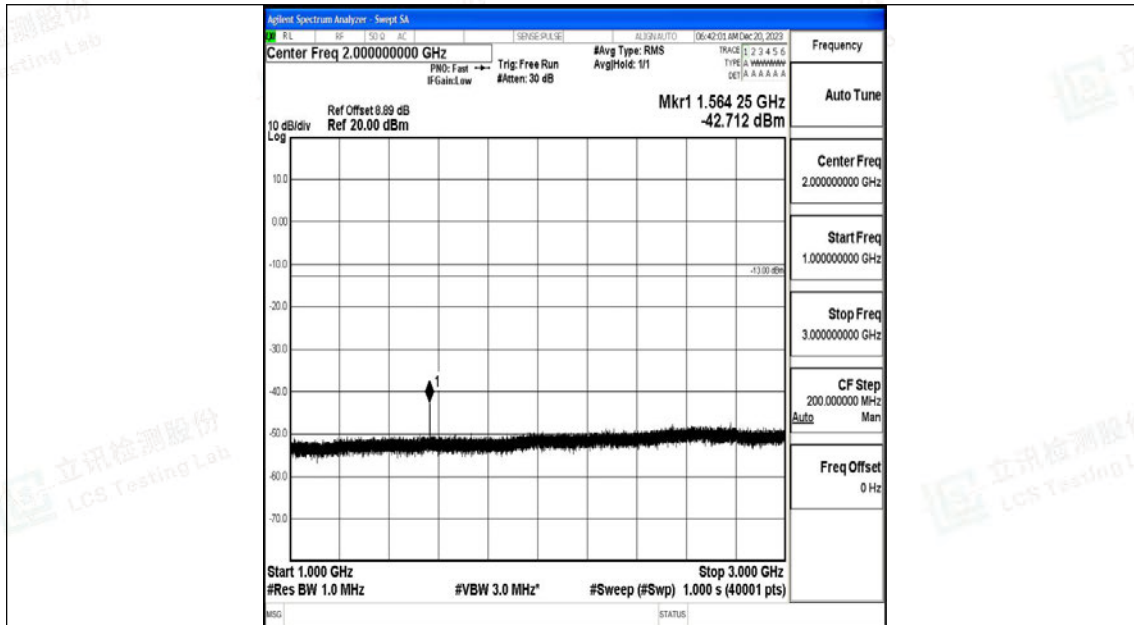
Band13\_10MHz\_16QAM\_23230\_1RB#0\_30~1000\_30~1000



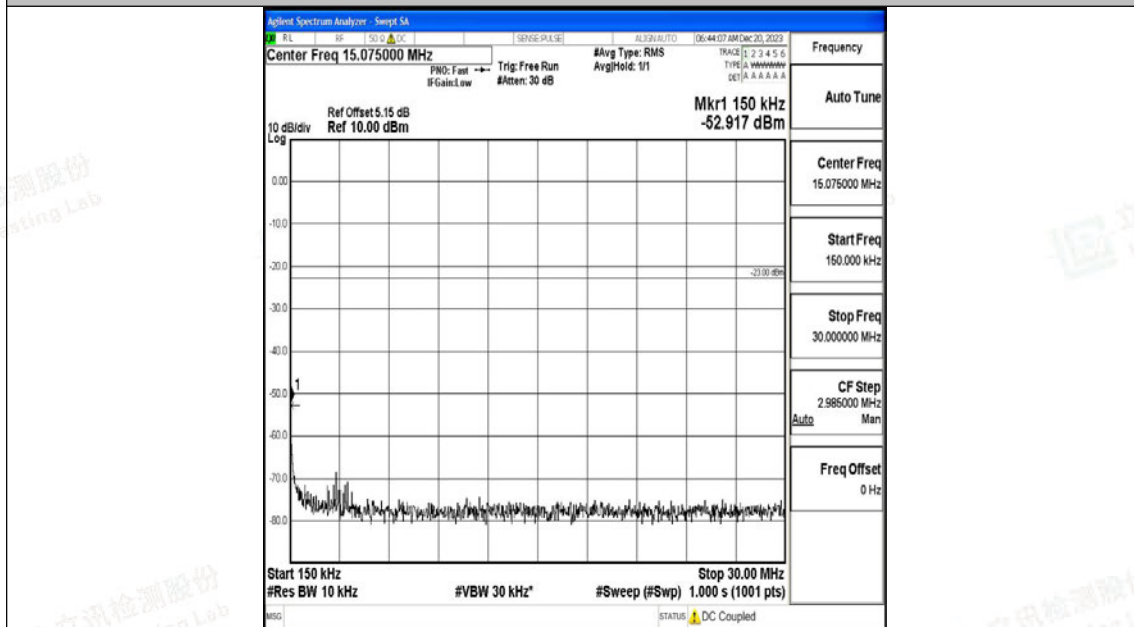
Band13\_10MHz\_16QAM\_23230\_1RB#0\_1000~3000\_1000~3000







Band13\_5MHz\_16QAM\_23255\_1RB#0\_1000~3000\_1000~3000



Band13\_10MHz\_16QAM\_23230\_1RB#0\_0.15~30\_0.15~30



