

## Appendix A: Effective (Isotropic) Radiated Power Output Data

### Test Result

| Band    | Channel | PCL | Conducted Power (dBm) | ERP/EIRP (dBm) | ERP/EIRP Limit (dBm) | Verdict |
|---------|---------|-----|-----------------------|----------------|----------------------|---------|
| GSM850  | 128     | 5   | 32.07                 | 29.58          | 38.45                | PASS    |
| GSM850  | 190     | 5   | 31.87                 | 29.38          | 38.45                | PASS    |
| GSM850  | 251     | 5   | 31.90                 | 29.41          | 38.45                | PASS    |
| GSM1900 | 512     | 0   | 29.32                 | 29.52          | 33.00                | PASS    |
| GSM1900 | 661     | 0   | 29.42                 | 29.62          | 33.00                | PASS    |
| GSM1900 | 810     | 0   | 29.34                 | 29.54          | 33.00                | PASS    |

Remark:  $EIRP (dBm) = \text{Conducted power (dBm)} + \text{Antenna Gain (dBi)}$ . (For GSM1900)

$ERP (dBm) = EIRP (dBm) - 2.15 (dB)$ . (For GSM850)

## Appendix B: Peak-to-Average Ratio(CCDF)

### Test Result

| Band    | Channel | PCL | Result(dB) | Limit(dB) | Verdict |
|---------|---------|-----|------------|-----------|---------|
| GSM850  | 190     | 5   | 8.41       | 13        | PASS    |
| GSM1900 | 661     | 0   | 2.73       | 13        | PASS    |

Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

### Test Graphs

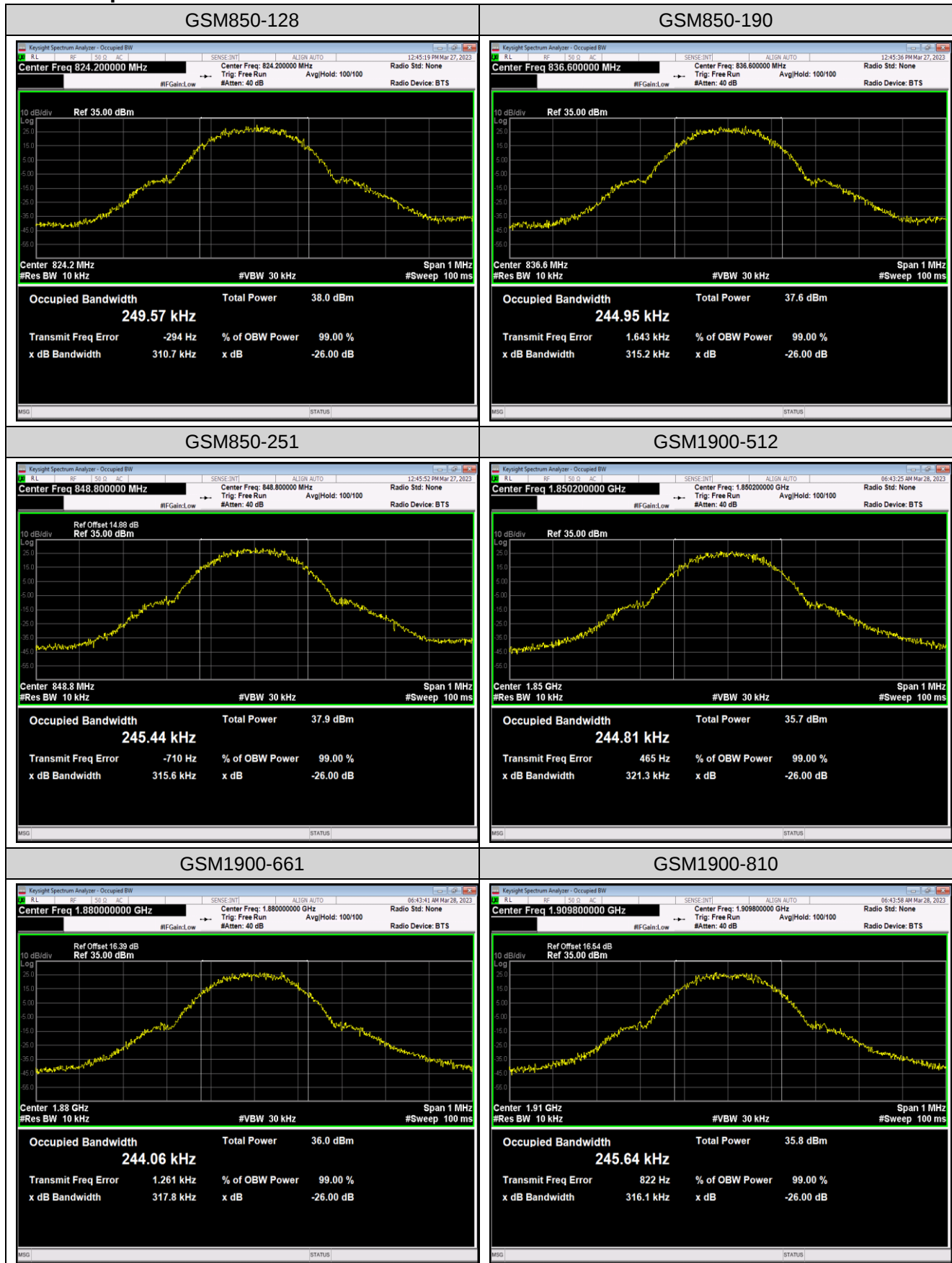


## Appendix C: 26dB Bandwidth and Occupied Bandwidth

### Test Result

| Band    | Channel | PCL | Occupied Bandwidth (MHz) | 26dB Bandwidth (MHz) | Limit (MHz) | Verdict |
|---------|---------|-----|--------------------------|----------------------|-------------|---------|
| GSM850  | 128     | 5   | 0.24957                  | 0.3107               | ---         | PASS    |
| GSM850  | 190     | 5   | 0.24495                  | 0.3152               | ---         | PASS    |
| GSM850  | 251     | 5   | 0.24544                  | 0.3156               | ---         | PASS    |
| GSM1900 | 512     | 0   | 0.24481                  | 0.3213               | ---         | PASS    |
| GSM1900 | 661     | 0   | 0.24406                  | 0.3178               | ---         | PASS    |
| GSM1900 | 810     | 0   | 0.24564                  | 0.3161               | ---         | PASS    |

# Test Graphs

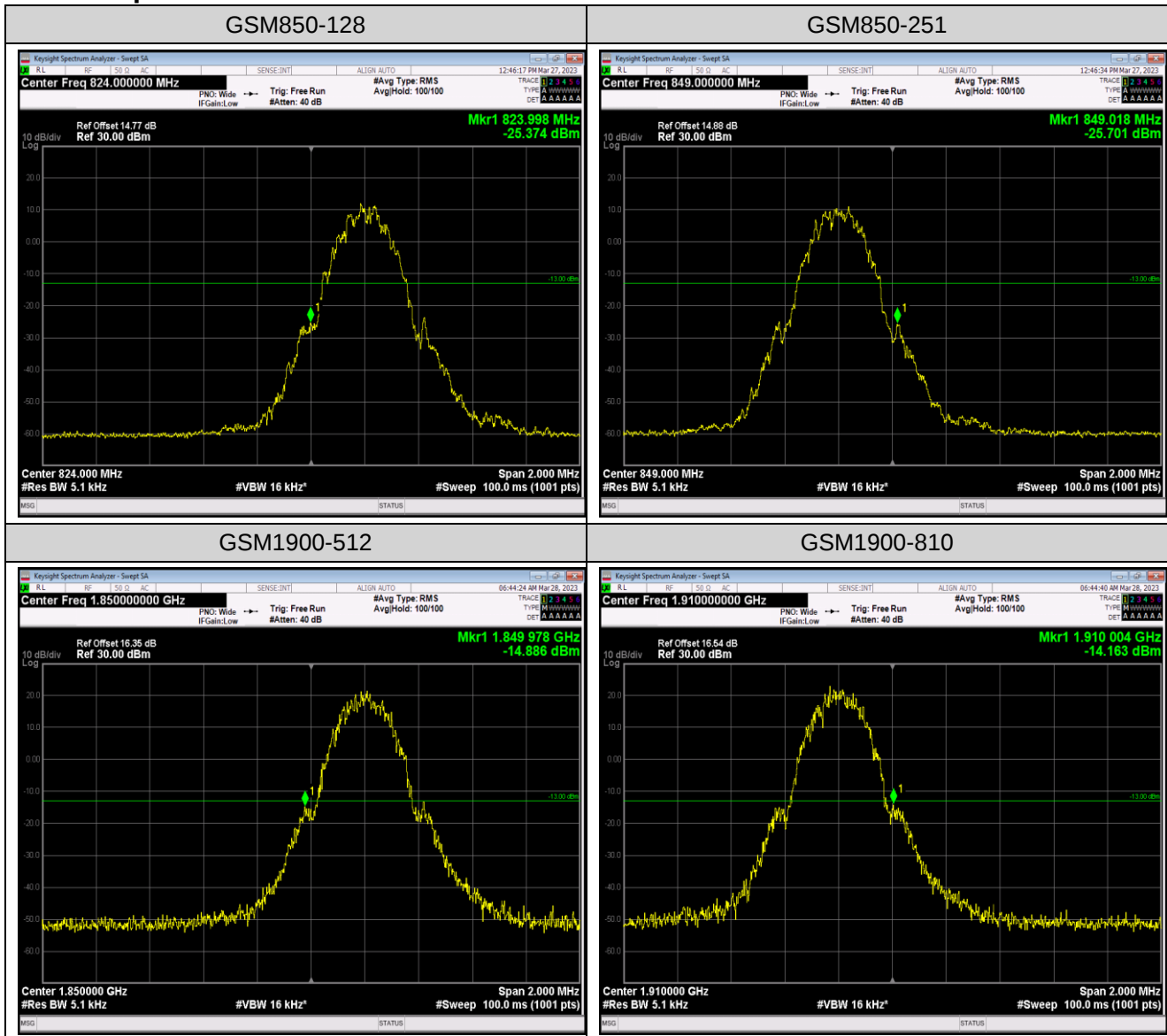


## Appendix D: Band Edge

### Test Result

| Band    | Channel | PCL | Freq (MHz) | Result (dBm) | Limit(dBm) | Verdict |
|---------|---------|-----|------------|--------------|------------|---------|
| GSM850  | 128     | 5   | 824.00     | -25.37       | -13        | PASS    |
| GSM850  | 251     | 5   | 849.02     | -25.70       | -13        | PASS    |
| GSM1900 | 512     | 0   | 1849.98    | -14.89       | -13        | PASS    |
| GSM1900 | 810     | 0   | 1910.00    | -14.16       | -13        | PASS    |

# Test Graphs



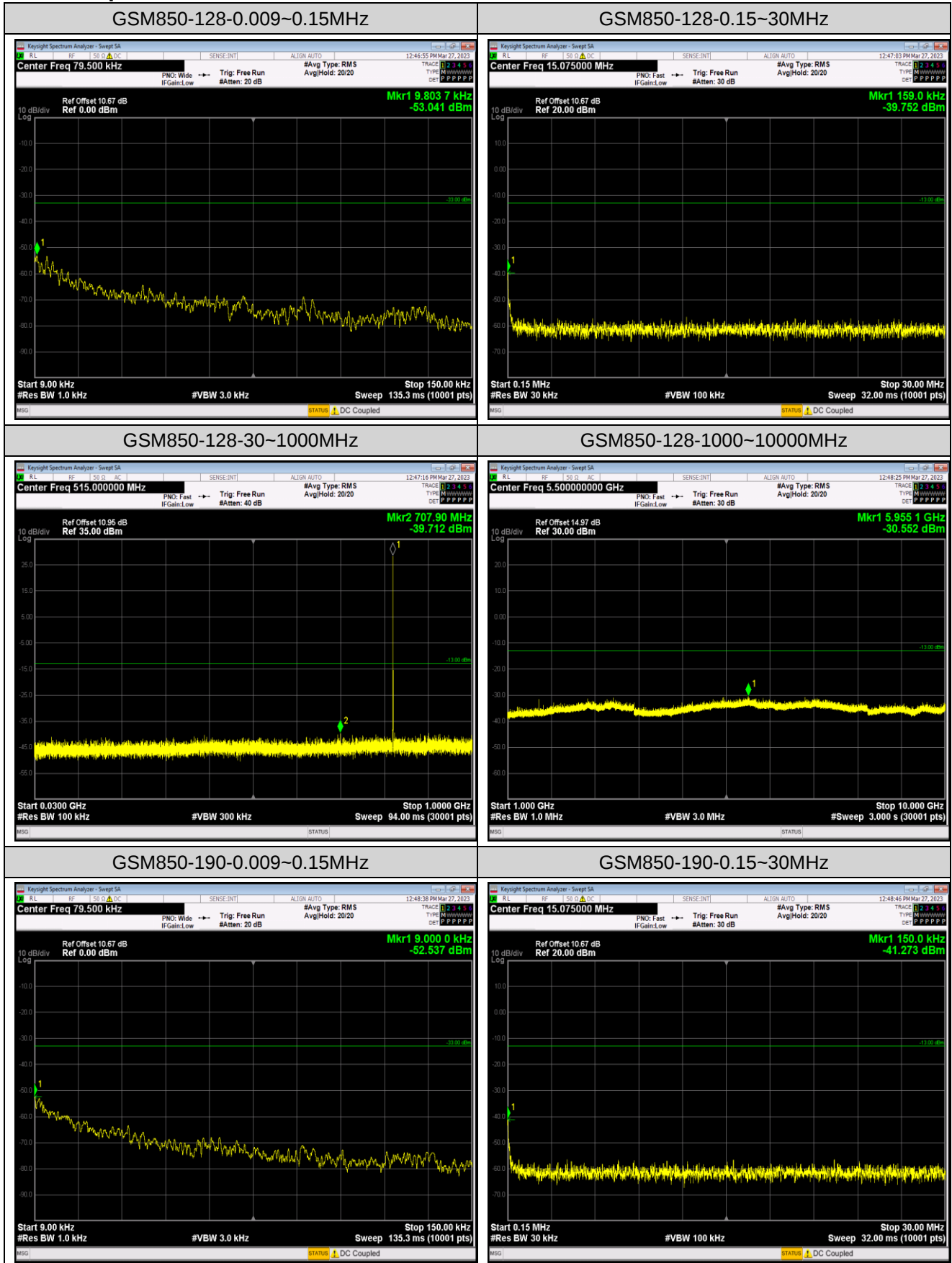
## Appendix E: Conducted Spurious Emission

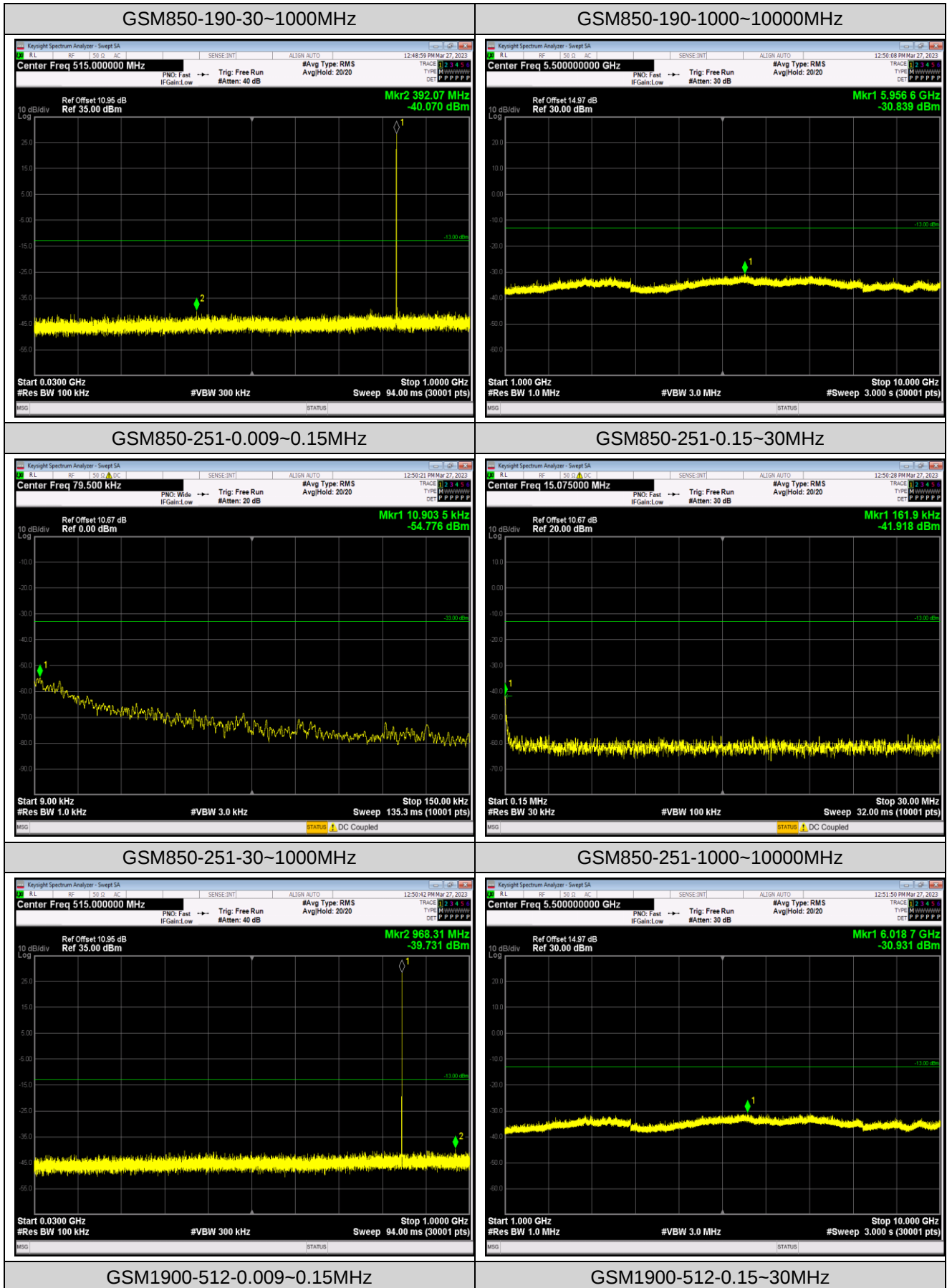
### Test Result

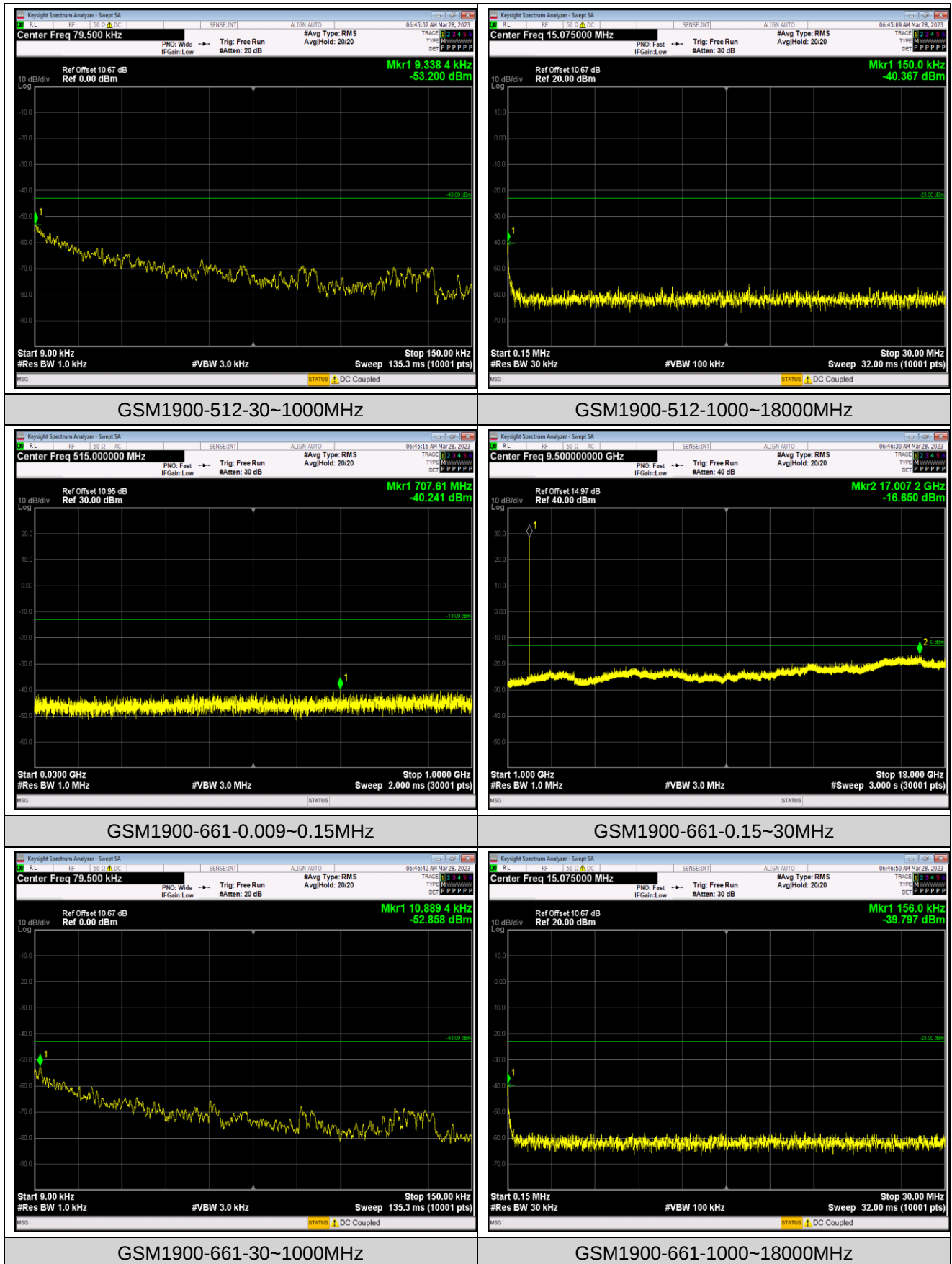
| Band    | Channel | PCL | Frequency Range(MHz) | Max.Freq. (MHz) | Result (dBm) | Limit (dBm) | Verdict |
|---------|---------|-----|----------------------|-----------------|--------------|-------------|---------|
| GSM850  | 128     | 5   | 0.009~0.15MHz        | 0.01            | -53.04       | -33         | PASS    |
| GSM850  | 128     | 5   | 0.15~30MHz           | 0.16            | -39.75       | -13         | PASS    |
| GSM850  | 128     | 5   | 30~1000MHz           | 707.9           | -39.71       | -13         | PASS    |
| GSM850  | 128     | 5   | 1000~10000MHz        | 5955.1          | -30.55       | -13         | PASS    |
| GSM850  | 190     | 5   | 0.009~0.15MHz        | 0.01            | -52.54       | -33         | PASS    |
| GSM850  | 190     | 5   | 0.15~30MHz           | 0.15            | -41.27       | -13         | PASS    |
| GSM850  | 190     | 5   | 30~1000MHz           | 392.07          | -40.07       | -13         | PASS    |
| GSM850  | 190     | 5   | 1000~10000MHz        | 5956.6          | -30.84       | -13         | PASS    |
| GSM850  | 251     | 5   | 0.009~0.15MHz        | 0.01            | -54.78       | -33         | PASS    |
| GSM850  | 251     | 5   | 0.15~30MHz           | 0.16            | -41.92       | -13         | PASS    |
| GSM850  | 251     | 5   | 30~1000MHz           | 968.31          | -39.73       | -13         | PASS    |
| GSM850  | 251     | 5   | 1000~10000MHz        | 6018.7          | -30.93       | -13         | PASS    |
| GSM1900 | 512     | 0   | 0.009~0.15MHz        | 0.01            | -53.2        | -43         | PASS    |
| GSM1900 | 512     | 0   | 0.15~30MHz           | 0.15            | -40.37       | -23         | PASS    |
| GSM1900 | 512     | 0   | 30~1000MHz           | 707.61          | -40.24       | -13         | PASS    |
| GSM1900 | 512     | 0   | 1000~18000MHz        | 17007.2         | -16.65       | -13         | PASS    |
| GSM1900 | 661     | 0   | 0.009~0.15MHz        | 0.01            | -52.86       | -43         | PASS    |
| GSM1900 | 661     | 0   | 0.15~30MHz           | 0.16            | -39.8        | -23         | PASS    |
| GSM1900 | 661     | 0   | 30~1000MHz           | 894.79          | -39.3        | -13         | PASS    |
| GSM1900 | 661     | 0   | 1000~18000MHz        | 16234.27        | -15.84       | -13         | PASS    |
| GSM1900 | 810     | 0   | 0.009~0.15MHz        | 0.01            | -54.83       | -43         | PASS    |
| GSM1900 | 810     | 0   | 0.15~30MHz           | 0.15            | -42.14       | -23         | PASS    |
| GSM1900 | 810     | 0   | 30~1000MHz           | 894.79          | -39.6        | -13         | PASS    |
| GSM1900 | 810     | 0   | 1000~18000MHz        | 16984.53        | -16.82       | -13         | PASS    |

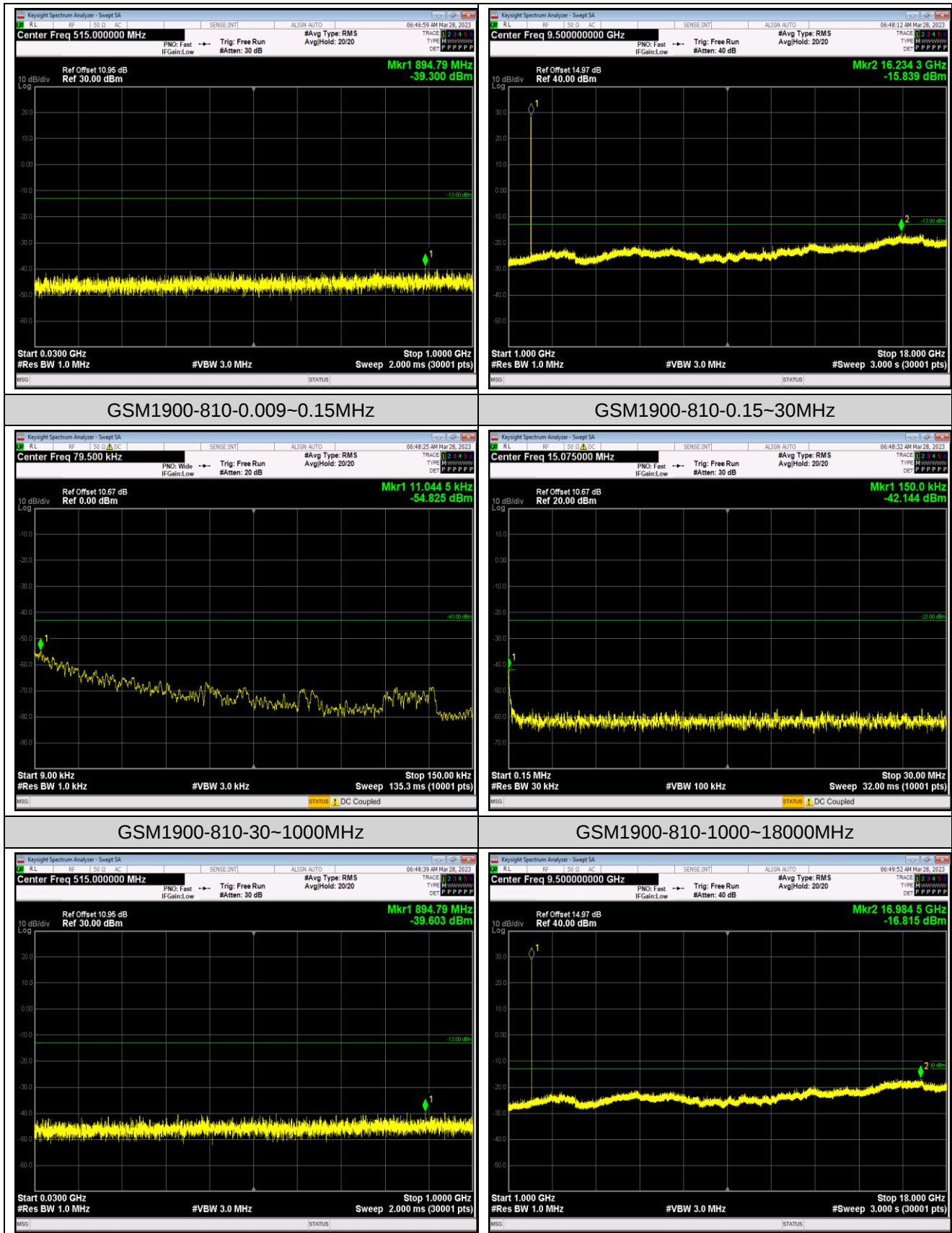
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

# Test Graphs









## Appendix F: Frequency Stability

### Test Result

| Reference Frequency: GSM850 Middle channel=190 Frequency=836.6MHz                           |                         |                 |           |             |        |
|---------------------------------------------------------------------------------------------|-------------------------|-----------------|-----------|-------------|--------|
| Temperature                                                                                 |                         |                 |           |             |        |
| Power supplied<br>(Vdc)                                                                     | Temperature<br>(°C)     | Frequency error |           | Limit (ppm) | Result |
|                                                                                             |                         | Hz              | ppm       |             |        |
| 3.70                                                                                        | -30                     | -14.24          | -0.017021 | ±2.5        | Pass   |
|                                                                                             | -20                     | -17.43          | -0.020834 |             |        |
|                                                                                             | -10                     | -6.88           | -0.008224 |             |        |
|                                                                                             | 0                       | -20.34          | -0.024313 |             |        |
|                                                                                             | 10                      | -20.89          | -0.024970 |             |        |
|                                                                                             | 20                      | -12.59          | -0.015049 |             |        |
|                                                                                             | 30                      | -13.20          | -0.015778 |             |        |
|                                                                                             | 40                      | -14.92          | -0.017834 |             |        |
|                                                                                             | 50                      | -19.73          | -0.023584 |             |        |
| Voltage                                                                                     |                         |                 |           |             |        |
| Temperature<br>(°C)                                                                         | Power supplied<br>(Vdc) | Frequency error |           | Limit (ppm) | Result |
|                                                                                             |                         | Hz              | ppm       |             |        |
| 25                                                                                          | 3.60                    | -13.69          | -0.016364 | ±2.5        | Pass   |
|                                                                                             | 3.70                    | -18.60          | -0.022233 |             |        |
|                                                                                             | 4.20                    | -16.14          | -0.019292 |             |        |
| Remark: All channel had been tested, but only the worst case data displayed in this report. |                         |                 |           |             |        |

| Reference Frequency: PCS1900 Middle channel=661 Frequency=1880MHz                           |                         |                 |           |             |        |
|---------------------------------------------------------------------------------------------|-------------------------|-----------------|-----------|-------------|--------|
| Temperature                                                                                 |                         |                 |           |             |        |
| Power supplied<br>(Vdc)                                                                     | Temperature<br>(°C)     | Frequency error |           | Limit (ppm) | Result |
|                                                                                             |                         | Hz              | ppm       |             |        |
| 3.7                                                                                         | -30                     | -22.44          | -0.011936 | ±2.5        | Pass   |
|                                                                                             | -20                     | -24.63          | -0.013101 |             |        |
|                                                                                             | -10                     | -12.59          | -0.006697 |             |        |
|                                                                                             | 0                       | -22.21          | -0.011814 |             |        |
|                                                                                             | 10                      | -13.01          | -0.006920 |             |        |
|                                                                                             | 20                      | -17.76          | -0.009447 |             |        |
|                                                                                             | 30                      | -22.54          | -0.011989 |             |        |
|                                                                                             | 40                      | -14.17          | -0.007537 |             |        |
|                                                                                             | 50                      | -10.53          | -0.005601 |             |        |
| Voltage                                                                                     |                         |                 |           |             |        |
| Temperature<br>(°C)                                                                         | Power supplied<br>(Vdc) | Frequency error |           | Limit (ppm) | Result |
|                                                                                             |                         | Hz              | ppm       |             |        |
| 25                                                                                          | 3.60                    | -18.73          | -0.009963 | ±2.5        | Pass   |
|                                                                                             | 3.70                    | -17.79          | -0.009463 |             |        |
|                                                                                             | 4.20                    | -14.59          | -0.007761 |             |        |
| Remark: All channel had been tested, but only the worst case data displayed in this report. |                         |                 |           |             |        |

## Appendix G: Modulation Characteristics

### Test Result

| Band    | Channel | Result | Verdict |
|---------|---------|--------|---------|
| GSM850  | 190     | PASS   | PASS    |
| GSM1900 | 661     | PASS   | PASS    |

*Remark: All channel had been tested, but only the worst case data displayed in this report.*

## Test Graphs

