

## AppendixA: Effective (Isotropic) Radiated Power Output Data

### Test Result(WCDMA)

| Band  | Type     | Channel | Conducted Power (dBm) | ERP/EIRP (dBm) | ERP/EIRP Limit (dBm) | Verdict |
|-------|----------|---------|-----------------------|----------------|----------------------|---------|
| Band2 | Voice    | 9262    | 22.73                 | 19.93          | 33.01                | PASS    |
| Band2 | TestMode | 9262    | 22.79                 | 19.99          | 33.01                | PASS    |
| Band2 | TestMode | 9400    | 22.61                 | 19.81          | 33.01                | PASS    |
| Band2 | Voice    | 9400    | 22.61                 | 19.81          | 33.01                | PASS    |
| Band2 | TestMode | 9538    | 22.96                 | 20.16          | 33.01                | PASS    |
| Band2 | Voice    | 9538    | 22.92                 | 20.12          | 33.01                | PASS    |
| Band4 | Voice    | 1312    | 23.10                 | 20.4           | 30.00                | PASS    |
| Band4 | TestMode | 1312    | 23.25                 | 20.55          | 30.00                | PASS    |
| Band4 | Voice    | 1413    | 22.63                 | 19.93          | 30.00                | PASS    |
| Band4 | TestMode | 1413    | 22.84                 | 20.14          | 30.00                | PASS    |
| Band4 | TestMode | 1513    | 22.96                 | 20.26          | 30.00                | PASS    |
| Band4 | Voice    | 1513    | 22.62                 | 19.92          | 30.00                | PASS    |
| Band5 | Voice    | 4132    | 23.78                 | 14.74          | 38.45                | PASS    |
| Band5 | TestMode | 4132    | 23.88                 | 14.84          | 38.45                | PASS    |
| Band5 | TestMode | 4183    | 24.06                 | 15.02          | 38.45                | PASS    |
| Band5 | Voice    | 4183    | 24.03                 | 14.99          | 38.45                | PASS    |
| Band5 | Voice    | 4233    | 24.13                 | 15.09          | 38.45                | PASS    |
| Band5 | TestMode | 4233    | 24.18                 | 15.14          | 38.45                | PASS    |

### Test Result(HSDPA)

| Band  | Channel | SubTest | Conducted Power (dBm) | ERP/EIRP (dBm) | ERP/EIRP Limit (dBm) | Verdict |
|-------|---------|---------|-----------------------|----------------|----------------------|---------|
| Band2 | 9262    | 1       | 21.82                 | 19.02          | 33.01                | PASS    |
| Band2 | 9262    | 2       | 21.24                 | 18.44          | 33.01                | PASS    |
| Band2 | 9262    | 3       | 21.24                 | 18.44          | 33.01                | PASS    |
| Band2 | 9262    | 4       | 21.23                 | 18.43          | 33.01                | PASS    |
| Band2 | 9400    | 1       | 21.63                 | 18.83          | 33.01                | PASS    |
| Band2 | 9400    | 2       | 21.05                 | 18.25          | 33.01                | PASS    |
| Band2 | 9400    | 3       | 21.07                 | 18.27          | 33.01                | PASS    |
| Band2 | 9400    | 4       | 21.04                 | 18.24          | 33.01                | PASS    |
| Band2 | 9538    | 1       | 21.96                 | 19.16          | 33.01                | PASS    |
| Band2 | 9538    | 2       | 21.36                 | 18.56          | 33.01                | PASS    |
| Band2 | 9538    | 3       | 21.36                 | 18.56          | 33.01                | PASS    |
| Band2 | 9538    | 4       | 21.41                 | 18.61          | 33.01                | PASS    |

|       |      |   |       |       |       |      |
|-------|------|---|-------|-------|-------|------|
| Band4 | 1312 | 1 | 22.11 | 19.41 | 30.00 | PASS |
| Band4 | 1312 | 2 | 21.58 | 18.88 | 30.00 | PASS |
| Band4 | 1312 | 3 | 21.60 | 18.9  | 30.00 | PASS |
| Band4 | 1312 | 4 | 21.55 | 18.85 | 30.00 | PASS |
| Band4 | 1413 | 1 | 21.67 | 18.97 | 30.00 | PASS |
| Band4 | 1413 | 2 | 21.19 | 18.49 | 30.00 | PASS |
| Band4 | 1413 | 3 | 21.19 | 18.49 | 30.00 | PASS |
| Band4 | 1413 | 4 | 21.13 | 18.43 | 30.00 | PASS |
| Band4 | 1513 | 1 | 21.80 | 19.1  | 30.00 | PASS |
| Band4 | 1513 | 2 | 21.30 | 18.6  | 30.00 | PASS |
| Band4 | 1513 | 3 | 21.28 | 18.58 | 30.00 | PASS |
| Band4 | 1513 | 4 | 21.26 | 18.56 | 30.00 | PASS |
| Band5 | 4132 | 1 | 22.83 | 13.79 | 38.5  | PASS |
| Band5 | 4132 | 2 | 22.29 | 13.25 | 38.5  | PASS |
| Band5 | 4132 | 3 | 22.35 | 13.31 | 38.5  | PASS |
| Band5 | 4132 | 4 | 22.29 | 13.25 | 38.5  | PASS |
| Band5 | 4183 | 1 | 23.03 | 13.99 | 38.5  | PASS |
| Band5 | 4183 | 2 | 22.48 | 13.44 | 38.5  | PASS |
| Band5 | 4183 | 3 | 22.51 | 13.47 | 38.5  | PASS |
| Band5 | 4183 | 4 | 22.50 | 13.46 | 38.5  | PASS |
| Band5 | 4233 | 1 | 23.19 | 14.15 | 38.5  | PASS |
| Band5 | 4233 | 2 | 22.64 | 13.6  | 38.5  | PASS |
| Band5 | 4233 | 3 | 22.67 | 13.63 | 38.5  | PASS |
| Band5 | 4233 | 4 | 22.67 | 13.63 | 38.5  | PASS |

### Test Result(HSUPA)

| Band  | Channel | SubTest | Conducted Power (dBm) | ERP/EIRP (dBm) | ERP/EIRP Limit (dBm) | Verdict |
|-------|---------|---------|-----------------------|----------------|----------------------|---------|
| Band2 | 9262    | 1       | 20.82                 | 18.02          | 33.01                | PASS    |
| Band2 | 9262    | 2       | 21.27                 | 18.47          | 33.01                | PASS    |
| Band2 | 9262    | 3       | 21.76                 | 18.96          | 33.01                | PASS    |
| Band2 | 9262    | 4       | 20.80                 | 18             | 33.01                | PASS    |
| Band2 | 9262    | 5       | 22.78                 | 19.98          | 33.01                | PASS    |
| Band2 | 9400    | 1       | 20.61                 | 17.81          | 33.01                | PASS    |
| Band2 | 9400    | 2       | 21.07                 | 18.27          | 33.01                | PASS    |
| Band2 | 9400    | 3       | 21.58                 | 18.78          | 33.01                | PASS    |
| Band2 | 9400    | 4       | 20.65                 | 17.85          | 33.01                | PASS    |
| Band2 | 9400    | 5       | 22.59                 | 19.79          | 33.01                | PASS    |
| Band2 | 9538    | 1       | 20.91                 | 18.11          | 33.01                | PASS    |
| Band2 | 9538    | 2       | 21.45                 | 18.65          | 33.01                | PASS    |
| Band2 | 9538    | 3       | 21.91                 | 19.11          | 33.01                | PASS    |

|       |      |   |       |       |       |      |
|-------|------|---|-------|-------|-------|------|
| Band2 | 9538 | 4 | 20.94 | 18.14 | 33.01 | PASS |
| Band2 | 9538 | 5 | 22.88 | 20.08 | 33.01 | PASS |
| Band4 | 1312 | 1 | 21.17 | 18.47 | 30.00 | PASS |
| Band4 | 1312 | 2 | 21.60 | 18.9  | 30.00 | PASS |
| Band4 | 1312 | 3 | 22.11 | 19.41 | 30.00 | PASS |
| Band4 | 1312 | 4 | 21.17 | 18.47 | 30.00 | PASS |
| Band4 | 1312 | 5 | 23.14 | 20.44 | 30.00 | PASS |
| Band4 | 1413 | 1 | 20.73 | 18.03 | 30.00 | PASS |
| Band4 | 1413 | 2 | 21.19 | 18.49 | 30.00 | PASS |
| Band4 | 1413 | 3 | 21.69 | 18.99 | 30.00 | PASS |
| Band4 | 1413 | 4 | 20.73 | 18.03 | 30.00 | PASS |
| Band4 | 1413 | 5 | 22.72 | 20.02 | 30.00 | PASS |
| Band4 | 1513 | 1 | 20.88 | 18.18 | 30.00 | PASS |
| Band4 | 1513 | 2 | 21.31 | 18.61 | 30.00 | PASS |
| Band4 | 1513 | 3 | 21.83 | 19.13 | 30.00 | PASS |
| Band4 | 1513 | 4 | 20.86 | 18.16 | 30.00 | PASS |
| Band4 | 1513 | 5 | 22.84 | 20.14 | 30.00 | PASS |
| Band5 | 4132 | 1 | 21.87 | 12.83 | 38.5  | PASS |
| Band5 | 4132 | 2 | 22.36 | 13.32 | 38.5  | PASS |
| Band5 | 4132 | 3 | 22.87 | 13.83 | 38.5  | PASS |
| Band5 | 4132 | 4 | 21.90 | 12.86 | 38.5  | PASS |
| Band5 | 4132 | 5 | 23.88 | 14.84 | 38.5  | PASS |
| Band5 | 4183 | 1 | 22.08 | 13.04 | 38.5  | PASS |
| Band5 | 4183 | 2 | 22.59 | 13.55 | 38.5  | PASS |
| Band5 | 4183 | 3 | 23.08 | 14.04 | 38.5  | PASS |
| Band5 | 4183 | 4 | 22.10 | 13.06 | 38.5  | PASS |
| Band5 | 4183 | 5 | 24.10 | 15.06 | 38.5  | PASS |
| Band5 | 4233 | 1 | 22.23 | 13.19 | 38.5  | PASS |
| Band5 | 4233 | 2 | 22.70 | 13.66 | 38.5  | PASS |
| Band5 | 4233 | 3 | 23.21 | 14.17 | 38.5  | PASS |
| Band5 | 4233 | 4 | 22.23 | 13.19 | 38.5  | PASS |
| Band5 | 4233 | 5 | 24.24 | 15.2  | 38.5  | PASS |

Remark: EIRP (dBm) = Conducted power (dBm) + Antenna Gain (dBi). (For Band2 & 4)  
ERP (dBm) = EIRP (dBm) - 2.15 (dB). (For Band5)

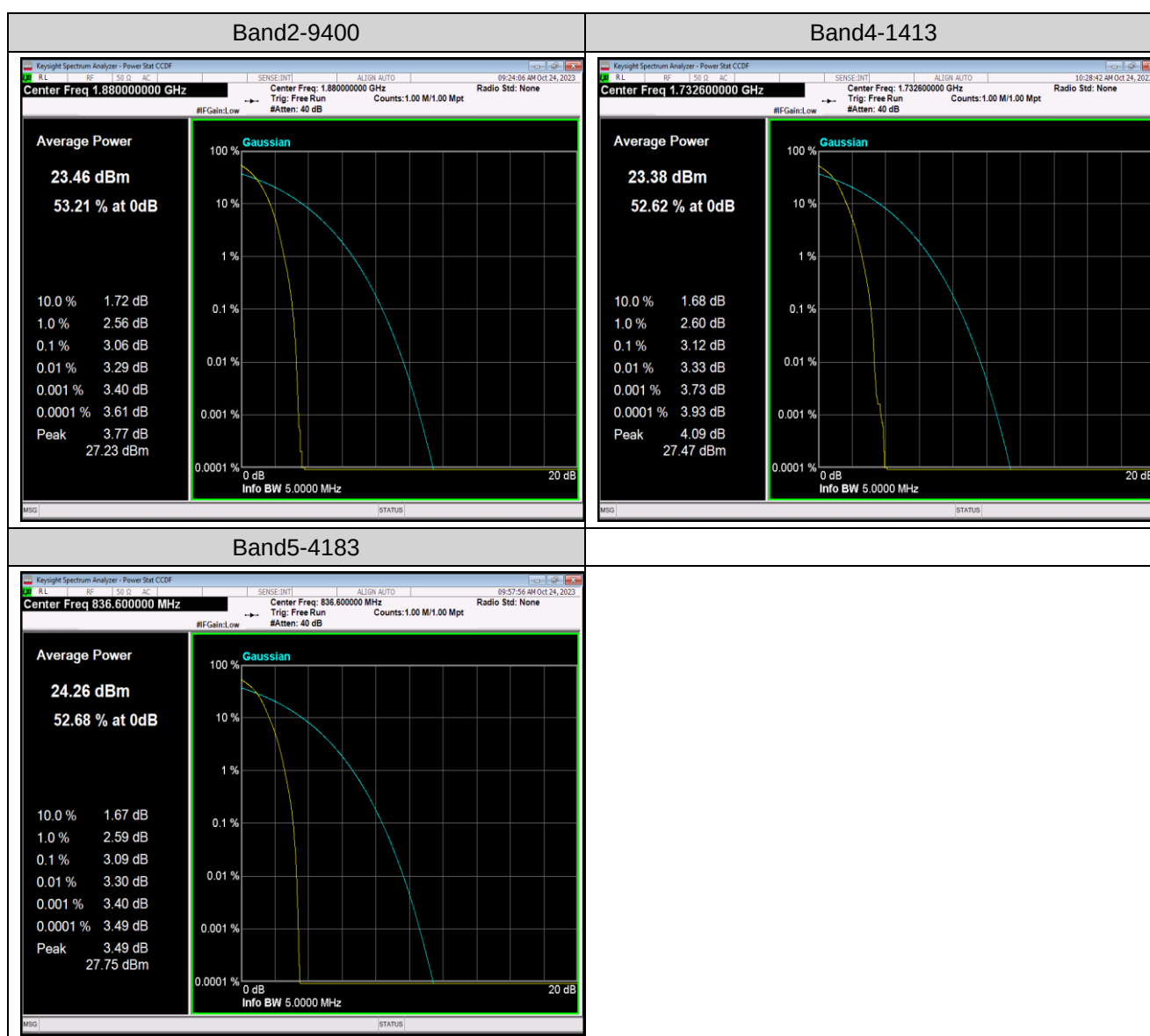
## AppendixB:Peak-to-Average Ratio

### Test Result(WCDMA)

| Band  | Channel | Peak-to-Average Ratio(dB) | Limit(dB) | Verdict |
|-------|---------|---------------------------|-----------|---------|
| Band2 | 9400    | 3.06                      | 13        | PASS    |
| Band4 | 1413    | 3.12                      | 13        | PASS    |
| Band5 | 4183    | 3.09                      | 13        | PASS    |

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

### Test Graphs(WCDMA)

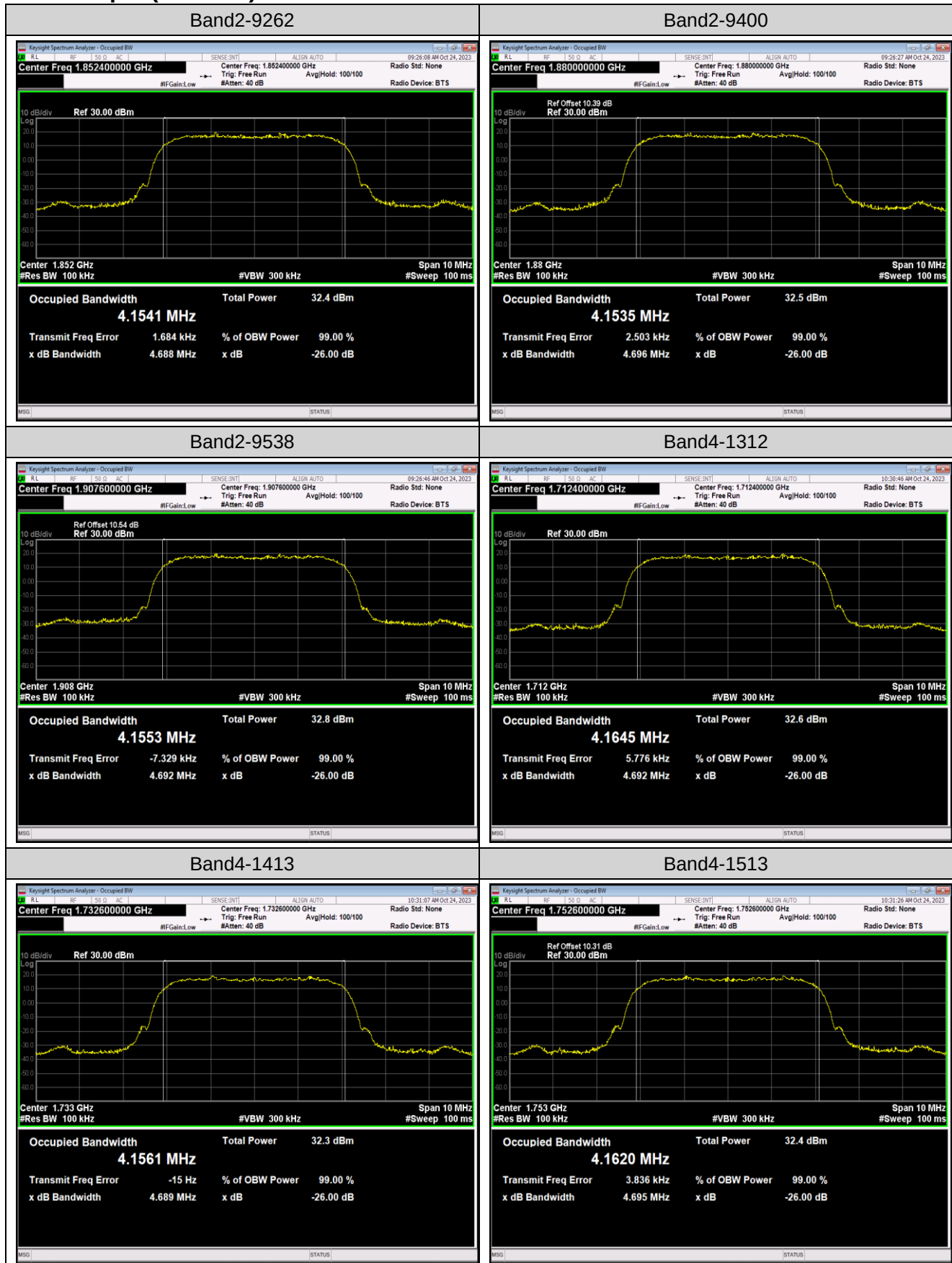


## AppendixC:26dB Bandwidth andOccupied Bandwidth

### Test Result(WCDMA)

| Band  | Channel | Occupied Bandwidth<br>(MHz) | 26dB Bandwidth<br>(MHz) | Limit(kHz) | Verdict |
|-------|---------|-----------------------------|-------------------------|------------|---------|
| Band2 | 9262    | 4.1541                      | 4.688                   | ---        | PASS    |
| Band2 | 9400    | 4.1535                      | 4.696                   | ---        | PASS    |
| Band2 | 9538    | 4.1553                      | 4.692                   | ---        | PASS    |
| Band4 | 1312    | 4.1645                      | 4.692                   | ---        | PASS    |
| Band4 | 1413    | 4.1561                      | 4.689                   | ---        | PASS    |
| Band4 | 1513    | 4.1620                      | 4.695                   | ---        | PASS    |
| Band5 | 4132    | 4.1566                      | 4.695                   | ---        | PASS    |
| Band5 | 4183    | 4.1552                      | 4.691                   | ---        | PASS    |
| Band5 | 4233    | 4.1606                      | 4.699                   | ---        | PASS    |

# Test Graphs(WCDMA)





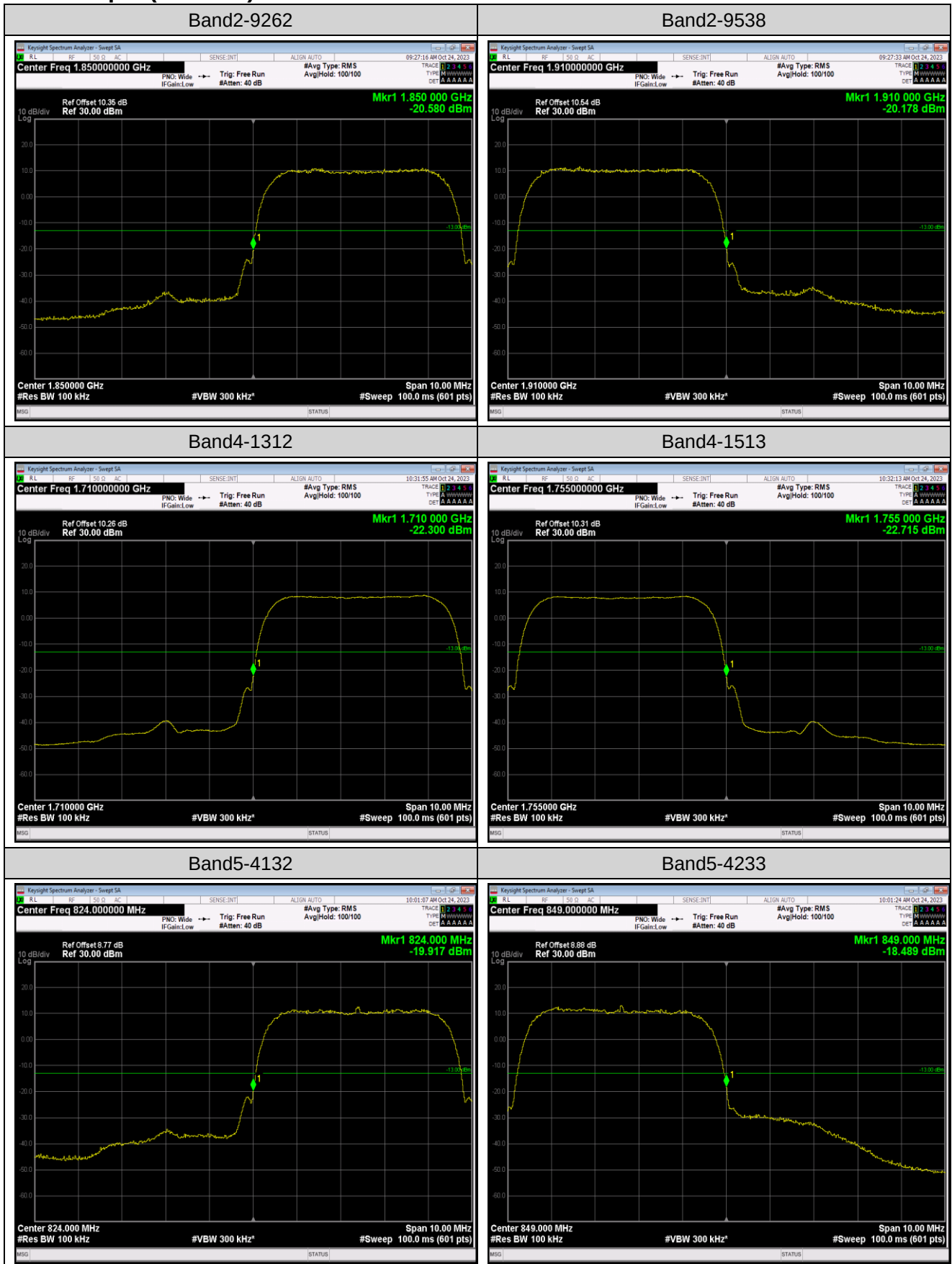
## AppendixD:Band Edge

### Test Result(WCDMA)

| Band  | Channel | Frequency (MHz) | Result (dBm) | Limit(dBm) | Verdict |
|-------|---------|-----------------|--------------|------------|---------|
| Band2 | 9262    | 1850.00         | -20.58       | -13        | PASS    |
| Band2 | 9538    | 1910.00         | -20.18       | -13        | PASS    |
| Band4 | 1312    | 1710.00         | -22.30       | -13        | PASS    |
| Band4 | 1513    | 1755.00         | -22.72       | -13        | PASS    |
| Band5 | 4132    | 824.00          | -19.92       | -13        | PASS    |
| Band5 | 4233    | 849.00          | -18.49       | -13        | PASS    |



## Test Graphs(WCDMA)

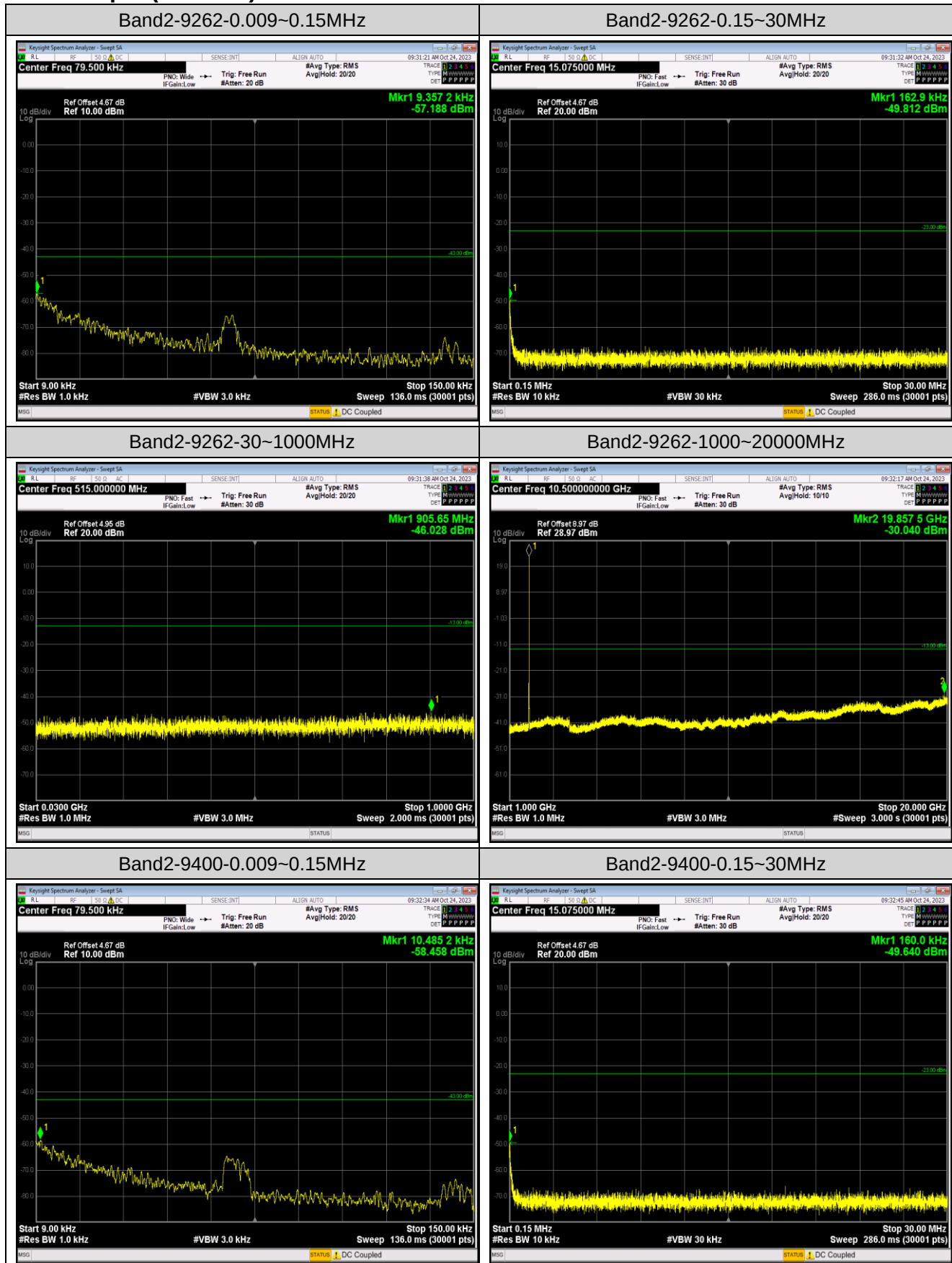


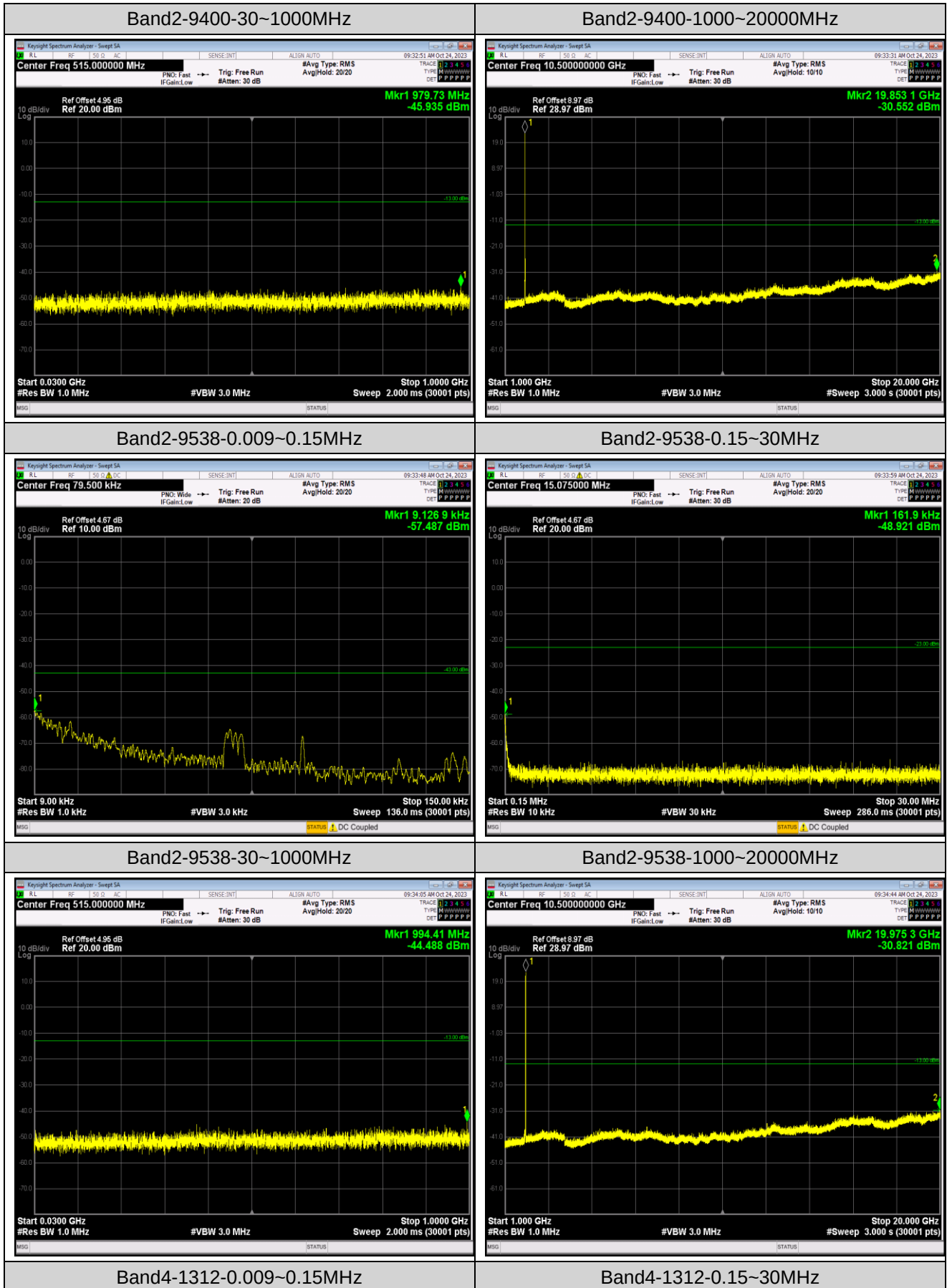
## AppendixE:Conducted SpuriousEmission

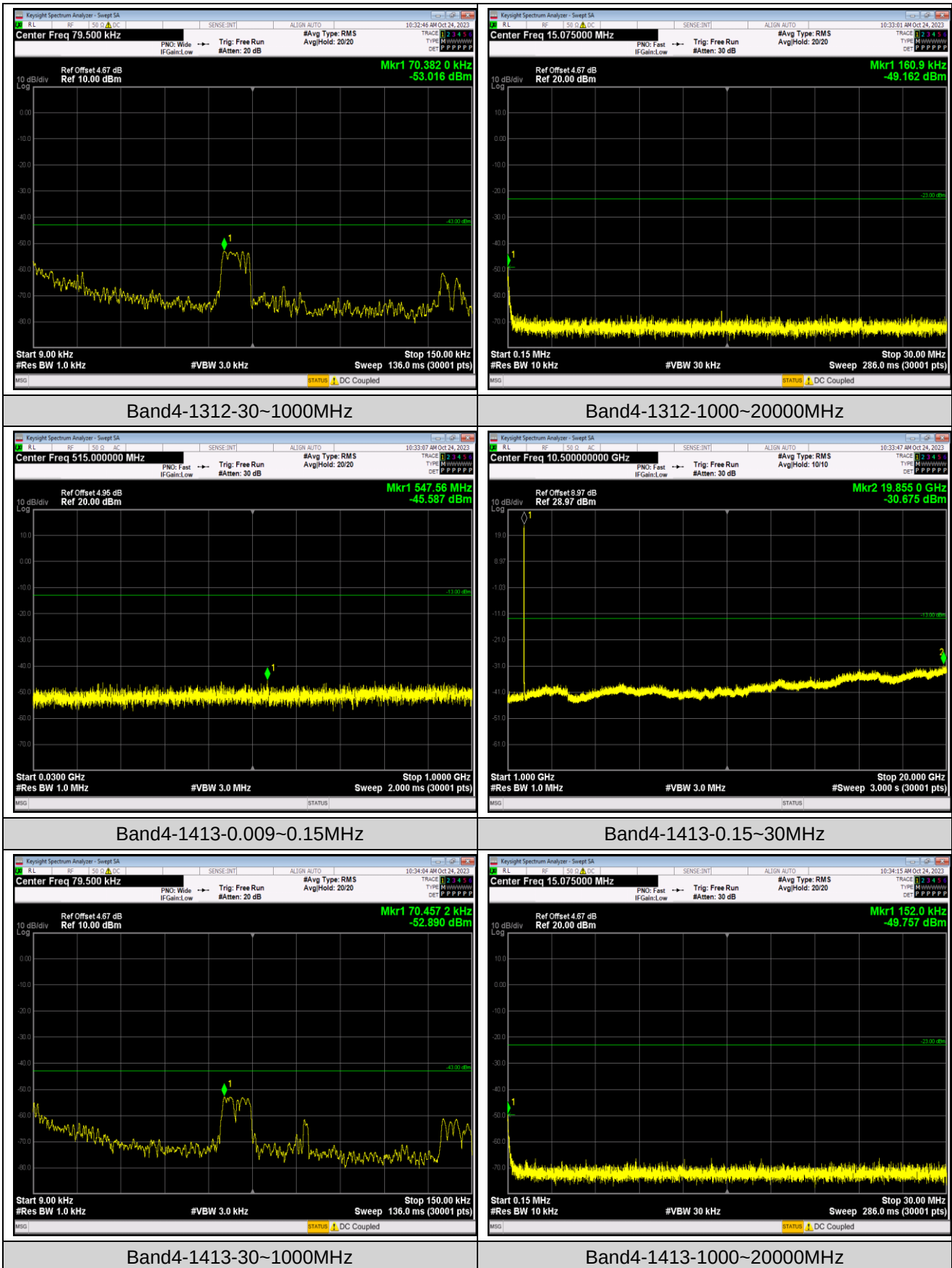
### Test Result(WCDMA)

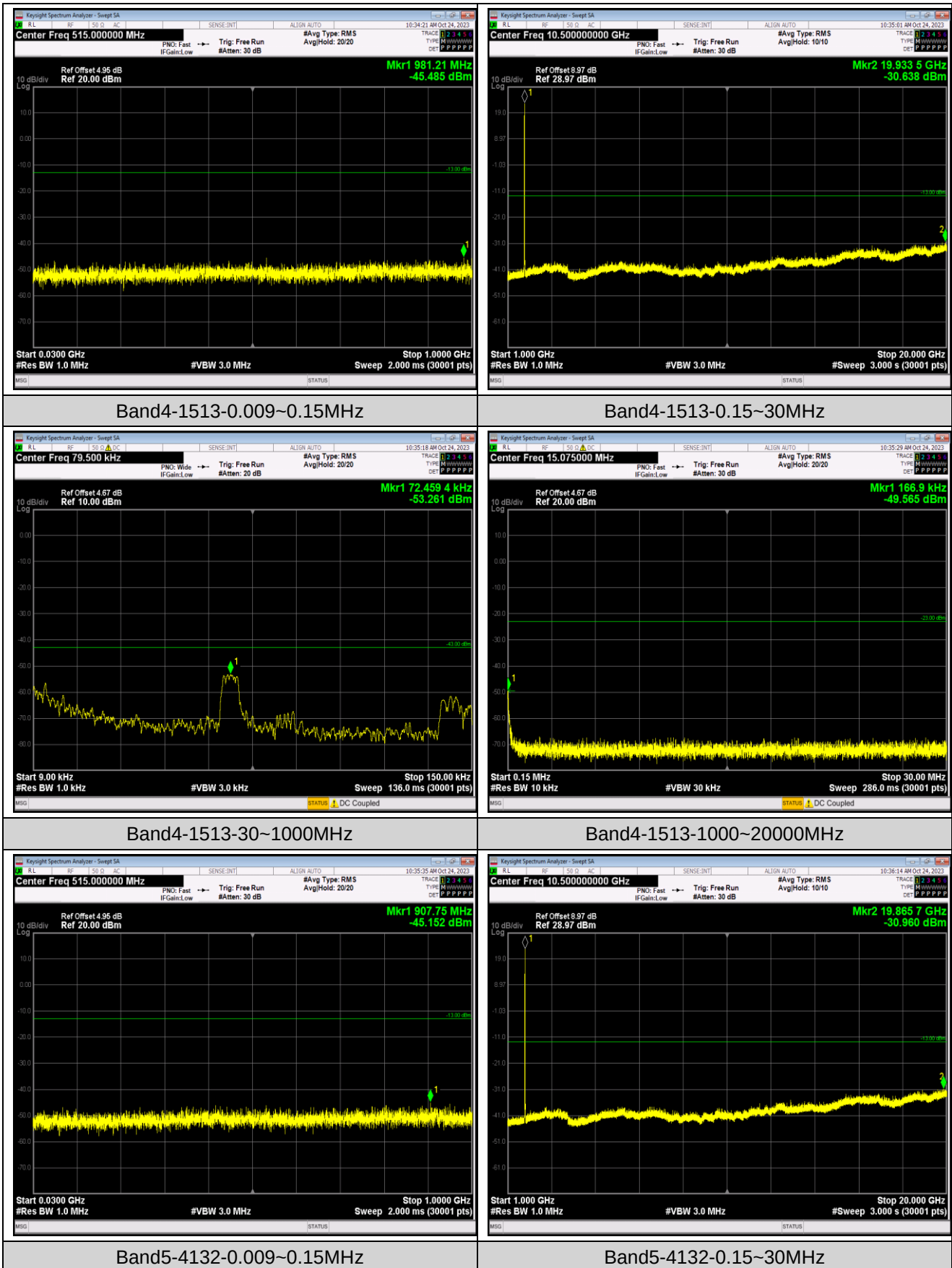
| Band  | Channel | Frequency Range (Mhz) | Frequency (dBm) | Result (dBm) | Limit (dBm) | Verdict |
|-------|---------|-----------------------|-----------------|--------------|-------------|---------|
| Band2 | 9262    | 0.009~0.15MHz         | 0.01            | -57.19       | -43         | PASS    |
| Band2 | 9262    | 0.15~30MHz            | 0.16            | -49.81       | -23         | PASS    |
| Band2 | 9262    | 30~1000MHz            | 905.65          | -46.03       | -13         | PASS    |
| Band2 | 9262    | 1000~20000MHz         | 19857.5         | -30.04       | -13         | PASS    |
| Band2 | 9400    | 0.009~0.15MHz         | 0.01            | -58.46       | -43         | PASS    |
| Band2 | 9400    | 0.15~30MHz            | 0.16            | -49.64       | -23         | PASS    |
| Band2 | 9400    | 30~1000MHz            | 979.73          | -45.94       | -13         | PASS    |
| Band2 | 9400    | 1000~20000MHz         | 19853.07        | -30.55       | -13         | PASS    |
| Band2 | 9538    | 0.009~0.15MHz         | 0.01            | -57.49       | -43         | PASS    |
| Band2 | 9538    | 0.15~30MHz            | 0.16            | -48.92       | -23         | PASS    |
| Band2 | 9538    | 30~1000MHz            | 994.41          | -44.49       | -13         | PASS    |
| Band2 | 9538    | 1000~20000MHz         | 19975.3         | -30.82       | -13         | PASS    |
| Band4 | 1312    | 0.009~0.15MHz         | 0.07            | -53.02       | -43         | PASS    |
| Band4 | 1312    | 0.15~30MHz            | 0.16            | -49.16       | -23         | PASS    |
| Band4 | 1312    | 30~1000MHz            | 547.56          | -45.59       | -13         | PASS    |
| Band4 | 1312    | 1000~20000MHz         | 19854.97        | -30.68       | -13         | PASS    |
| Band4 | 1413    | 0.009~0.15MHz         | 0.07            | -52.89       | -43         | PASS    |
| Band4 | 1413    | 0.15~30MHz            | 0.15            | -49.76       | -23         | PASS    |
| Band4 | 1413    | 30~1000MHz            | 981.21          | -45.49       | -13         | PASS    |
| Band4 | 1413    | 1000~20000MHz         | 19933.5         | -30.64       | -13         | PASS    |
| Band4 | 1513    | 0.009~0.15MHz         | 0.07            | -53.26       | -43         | PASS    |
| Band4 | 1513    | 0.15~30MHz            | 0.17            | -49.57       | -23         | PASS    |
| Band4 | 1513    | 30~1000MHz            | 907.75          | -45.15       | -13         | PASS    |
| Band4 | 1513    | 1000~20000MHz         | 19865.73        | -30.96       | -13         | PASS    |
| Band5 | 4132    | 0.009~0.15MHz         | 0.01            | -58.86       | -33         | PASS    |
| Band5 | 4132    | 0.15~30MHz            | 0.15            | -48.75       | -13         | PASS    |
| Band5 | 4132    | 30~1000MHz            | 999.87          | -54.02       | -13         | PASS    |
| Band5 | 4132    | 1000~10000MHz         | 5959.6          | -37.2        | -13         | PASS    |
| Band5 | 4183    | 0.009~0.15MHz         | 0.01            | -58.23       | -33         | PASS    |
| Band5 | 4183    | 0.15~30MHz            | 0.16            | -47.98       | -13         | PASS    |
| Band5 | 4183    | 30~1000MHz            | 978.43          | -55.46       | -13         | PASS    |
| Band5 | 4183    | 1000~10000MHz         | 3342.1          | -36.96       | -13         | PASS    |
| Band5 | 4233    | 0.009~0.15MHz         | 0.01            | -59.86       | -33         | PASS    |
| Band5 | 4233    | 0.15~30MHz            | 0.17            | -49.54       | -13         | PASS    |
| Band5 | 4233    | 30~1000MHz            | 958.87          | -55.96       | -13         | PASS    |
| Band5 | 4233    | 1000~10000MHz         | 3382.3          | -35.9        | -13         | PASS    |

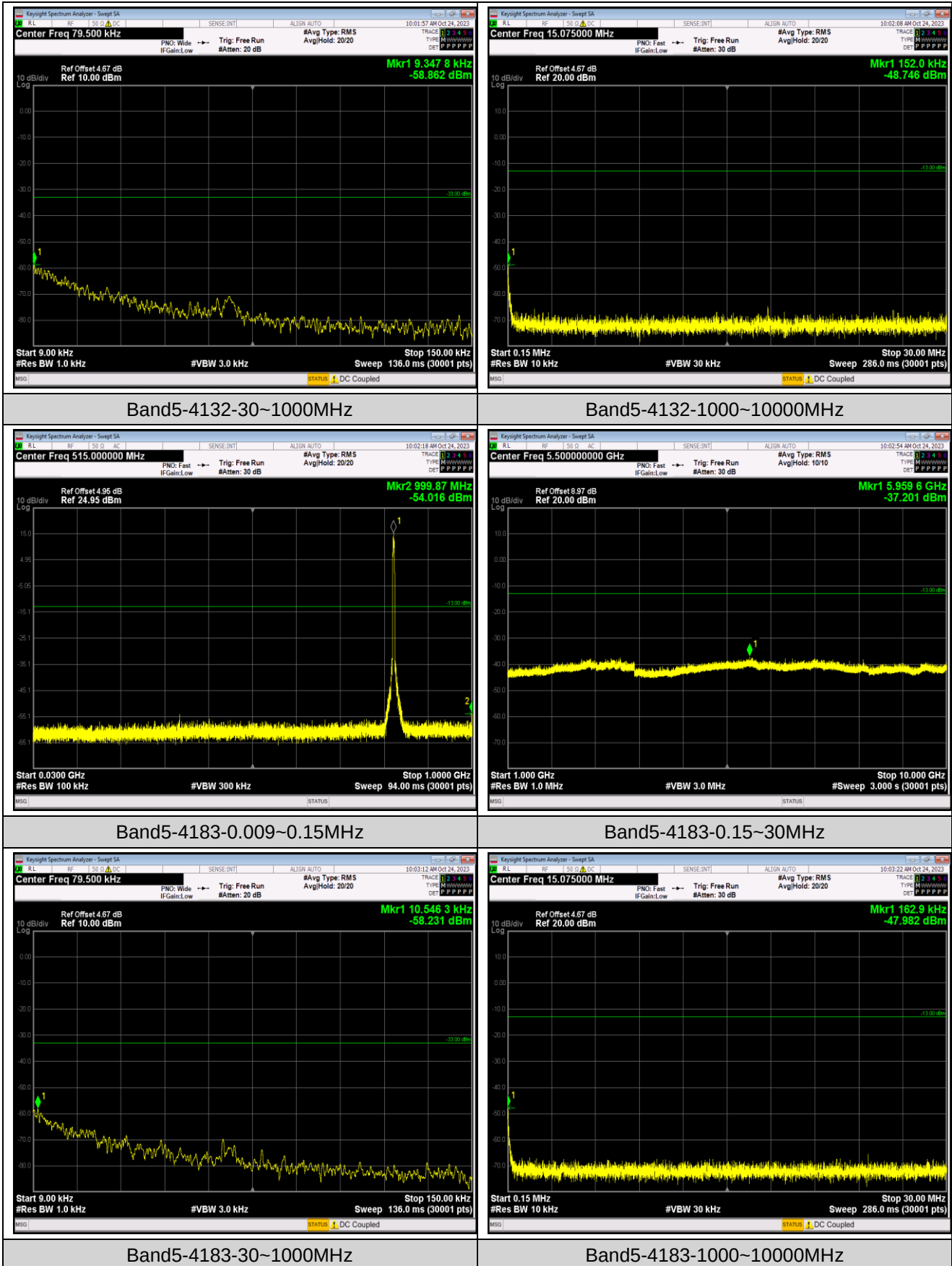
# Test Graphs(WCDMA)

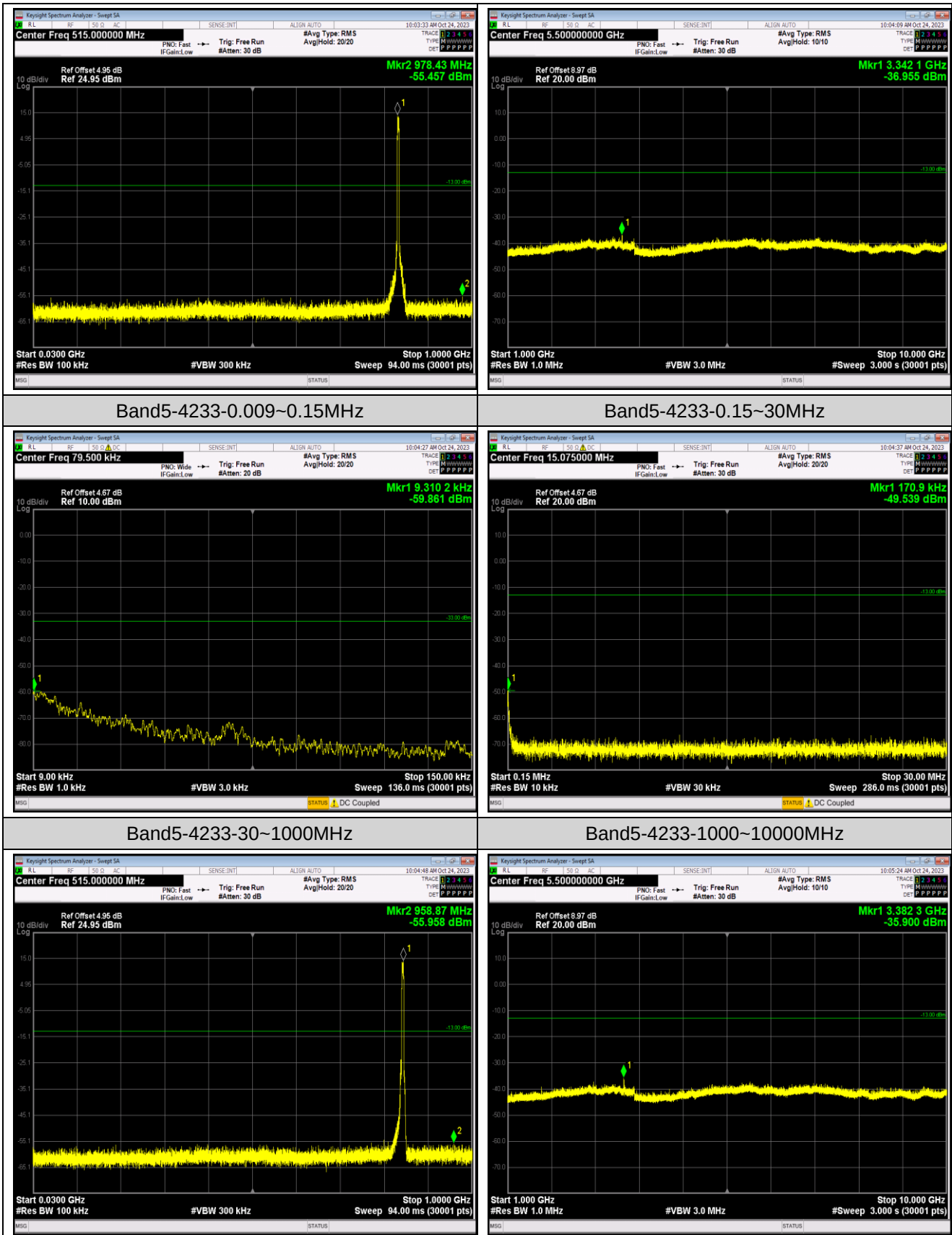














## Appendix F:Frequency Stability

### Test Result

| Reference Frequency: WCDMA BAND V 12.2k RMC Middle channel=4183 Frequency=836.6MHz          |                         |                 |           |             |        |
|---------------------------------------------------------------------------------------------|-------------------------|-----------------|-----------|-------------|--------|
| Temperature                                                                                 |                         |                 |           |             |        |
| Power supplied<br>(Vdc)                                                                     | Temperature<br>(°C)     | Frequency error |           | Limit (ppm) | Result |
|                                                                                             |                         | Hz              | ppm       |             |        |
| 3.87                                                                                        | -30                     | -4.14           | -0.004949 | ±2.5        | Pass   |
|                                                                                             | -20                     | -6.45           | -0.007710 |             |        |
|                                                                                             | -10                     | -3.73           | -0.004459 |             |        |
|                                                                                             | 0                       | -6.07           | -0.007256 |             |        |
|                                                                                             | 10                      | -2.42           | -0.002893 |             |        |
|                                                                                             | 20                      | -4.54           | -0.005427 |             |        |
|                                                                                             | 30                      | -2.47           | -0.002952 |             |        |
|                                                                                             | 40                      | -4.19           | -0.005008 |             |        |
|                                                                                             | 50                      | -3.34           | -0.003992 |             |        |
| Voltage                                                                                     |                         |                 |           |             |        |
| Temperature<br>(°C)                                                                         | Power supplied<br>(Vdc) | Frequency error |           | Limit (ppm) | Result |
|                                                                                             |                         | Hz              | ppm       |             |        |
| 25                                                                                          | 3.45                    | -5.11           | -0.006108 | ±2.5        | Pass   |
|                                                                                             | 3.87                    | -4.33           | -0.005176 |             |        |
|                                                                                             | 4.45                    | -3.63           | -0.004339 |             |        |
| Remark: All channel had been tested, but only the worst case data displayed in this report. |                         |                 |           |             |        |

| Reference Frequency: WCDMA BAND IV 12.2k RMC Middle Frequency=1413 channel=1732.6MHz        |                         |                 |           |                                       |        |
|---------------------------------------------------------------------------------------------|-------------------------|-----------------|-----------|---------------------------------------|--------|
| Temperature                                                                                 |                         |                 |           |                                       |        |
| Power supplied<br>(Vdc)                                                                     | Temperature<br>(℃)      | Frequency error |           | Limit (ppm)                           | Result |
|                                                                                             |                         | Hz              | ppm       |                                       |        |
| 3.87                                                                                        | -30                     | -4.77           | -0.002753 | Within authorized<br>band for BAND IV | Pass   |
|                                                                                             | -20                     | -3.56           | -0.002055 |                                       |        |
|                                                                                             | -10                     | -5.49           | -0.003169 |                                       |        |
|                                                                                             | 0                       | -5.12           | -0.002955 |                                       |        |
|                                                                                             | 10                      | -3.91           | -0.002257 |                                       |        |
|                                                                                             | 20                      | -3.48           | -0.002009 |                                       |        |
|                                                                                             | 30                      | -2.91           | -0.001680 |                                       |        |
|                                                                                             | 40                      | -6.45           | -0.003723 |                                       |        |
|                                                                                             | 50                      | -4.31           | -0.002488 |                                       |        |
| Voltage                                                                                     |                         |                 |           |                                       |        |
| Temperature<br>(℃)                                                                          | Power supplied<br>(Vdc) | Frequency error |           | Limit (ppm)                           | Result |
|                                                                                             |                         | Hz              | ppm       |                                       |        |
| 25                                                                                          | 3.45                    | -1.82           | -0.001050 | Within authorized<br>band for BAND IV | Pass   |
|                                                                                             | 3.87                    | -3.99           | -0.002303 |                                       |        |
|                                                                                             | 4.45                    | -6.22           | -0.003590 |                                       |        |
| Remark: All channel had been tested, but only the worst case data displayed in this report. |                         |                 |           |                                       |        |

| Reference Frequency: WCDMA BAND II 12.2k RMC Middle Frequency=9400 channel=1880MHz          |                         |                 |           |                                       |        |
|---------------------------------------------------------------------------------------------|-------------------------|-----------------|-----------|---------------------------------------|--------|
| Temperature                                                                                 |                         |                 |           |                                       |        |
| Power supplied<br>(Vdc)                                                                     | Temperature<br>(°C)     | Frequency error |           | Limit (ppm)                           | Result |
|                                                                                             |                         | Hz              | ppm       |                                       |        |
| 3.87                                                                                        | -30                     | -4.63           | -0.002463 | Within authorized<br>band for BAND II | Pass   |
|                                                                                             | -20                     | -0.33           | -0.000176 |                                       |        |
|                                                                                             | -10                     | -1.22           | -0.000649 |                                       |        |
|                                                                                             | 0                       | -3.02           | -0.001606 |                                       |        |
|                                                                                             | 10                      | -3.52           | -0.001872 |                                       |        |
|                                                                                             | 20                      | 0.39            | 0.000207  |                                       |        |
|                                                                                             | 30                      | -0.82           | -0.000436 |                                       |        |
|                                                                                             | 40                      | -2.17           | -0.001154 |                                       |        |
|                                                                                             | 50                      | -2.95           | -0.001569 |                                       |        |
| Voltage                                                                                     |                         |                 |           |                                       |        |
| Temperature<br>(°C)                                                                         | Power supplied<br>(Vdc) | Frequency error |           | Limit (ppm)                           | Result |
|                                                                                             |                         | Hz              | ppm       |                                       |        |
| 25                                                                                          | 3.45                    | -1.43           | -0.000761 | Within authorized<br>band for BAND II | Pass   |
|                                                                                             | 3.87                    | 0.09            | 0.000048  |                                       |        |
|                                                                                             | 4.45                    | -1.97           | -0.001048 |                                       |        |
| 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 |
|-------|---------|--------|---------|
| Band2 | 9400    | PASS   | PASS    |
| Band4 | 1413    | PASS   | PASS    |
| Band5 | 4183    | PASS   | PASS    |

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

### Test Graphs

