

## 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    | 22.76                 | 22.46          | 33                   | PASS    |
| Band2 | TestMode | 9262    | 22.80                 | 22.50          | 33                   | PASS    |
| Band2 | TestMode | 9400    | 22.85                 | 22.55          | 33                   | PASS    |
| Band2 | Voice    | 9400    | 22.81                 | 22.51          | 33                   | PASS    |
| Band2 | TestMode | 9538    | 22.82                 | 22.52          | 33                   | PASS    |
| Band2 | Voice    | 9538    | 22.78                 | 22.48          | 33                   | PASS    |
| Band4 | Voice    | 1312    | 23.05                 | 22.65          | 30                   | PASS    |
| Band4 | TestMode | 1312    | 23.07                 | 22.67          | 30                   | PASS    |
| Band4 | Voice    | 1413    | 23.17                 | 22.77          | 30                   | PASS    |
| Band4 | TestMode | 1413    | 23.23                 | 22.83          | 30                   | PASS    |
| Band4 | TestMode | 1513    | 23.12                 | 22.72          | 30                   | PASS    |
| Band4 | Voice    | 1513    | 23.10                 | 22.70          | 30                   | PASS    |
| Band5 | Voice    | 4132    | 23.39                 | 17.04          | 38.5                 | PASS    |
| Band5 | TestMode | 4132    | 23.36                 | 17.01          | 38.5                 | PASS    |
| Band5 | TestMode | 4183    | 23.40                 | 17.05          | 38.5                 | PASS    |
| Band5 | Voice    | 4183    | 23.36                 | 17.01          | 38.5                 | PASS    |
| Band5 | Voice    | 4233    | 23.28                 | 16.93          | 38.5                 | PASS    |
| Band5 | TestMode | 4233    | 23.27                 | 16.92          | 38.5                 | PASS    |

### Test Result(HSDPA)

| Band  | Channel | SubTest | Conducted Power (dBm) | ERP/EIRP (dBm) | ERP/EIRP Limit (dBm) | Verdict |
|-------|---------|---------|-----------------------|----------------|----------------------|---------|
| Band2 | 9262    | 1       | 21.90                 | 21.60          | 33                   | PASS    |
| Band2 | 9262    | 2       | 21.36                 | 21.06          | 33                   | PASS    |
| Band2 | 9262    | 3       | 21.35                 | 21.05          | 33                   | PASS    |
| Band2 | 9262    | 4       | 21.24                 | 20.94          | 33                   | PASS    |
| Band2 | 9400    | 1       | 21.90                 | 21.60          | 33                   | PASS    |
| Band2 | 9400    | 2       | 21.30                 | 21.00          | 33                   | PASS    |
| Band2 | 9400    | 3       | 21.37                 | 21.07          | 33                   | PASS    |
| Band2 | 9400    | 4       | 21.33                 | 21.03          | 33                   | PASS    |
| Band2 | 9538    | 1       | 21.87                 | 21.57          | 33                   | PASS    |
| Band2 | 9538    | 2       | 21.28                 | 20.98          | 33                   | PASS    |
| Band2 | 9538    | 3       | 21.28                 | 20.98          | 33                   | PASS    |
| Band2 | 9538    | 4       | 21.32                 | 21.02          | 33                   | PASS    |

|       |      |   |       |       |      |      |
|-------|------|---|-------|-------|------|------|
| Band4 | 1312 | 1 | 22.11 | 21.71 | 30   | PASS |
| Band4 | 1312 | 2 | 21.62 | 21.22 | 30   | PASS |
| Band4 | 1312 | 3 | 21.61 | 21.21 | 30   | PASS |
| Band4 | 1312 | 4 | 21.54 | 21.14 | 30   | PASS |
| Band4 | 1413 | 1 | 22.25 | 21.85 | 30   | PASS |
| Band4 | 1413 | 2 | 21.73 | 21.33 | 30   | PASS |
| Band4 | 1413 | 3 | 21.72 | 21.32 | 30   | PASS |
| Band4 | 1413 | 4 | 21.72 | 21.32 | 30   | PASS |
| Band4 | 1513 | 1 | 22.16 | 21.76 | 30   | PASS |
| Band4 | 1513 | 2 | 21.63 | 21.23 | 30   | PASS |
| Band4 | 1513 | 3 | 21.64 | 21.24 | 30   | PASS |
| Band4 | 1513 | 4 | 21.59 | 21.19 | 30   | PASS |
| Band5 | 4132 | 1 | 22.45 | 16.1  | 38.5 | PASS |
| Band5 | 4132 | 2 | 21.90 | 15.55 | 38.5 | PASS |
| Band5 | 4132 | 3 | 21.92 | 15.57 | 38.5 | PASS |
| Band5 | 4132 | 4 | 21.91 | 15.56 | 38.5 | PASS |
| Band5 | 4183 | 1 | 22.45 | 16.1  | 38.5 | PASS |
| Band5 | 4183 | 2 | 21.95 | 15.6  | 38.5 | PASS |
| Band5 | 4183 | 3 | 21.92 | 15.57 | 38.5 | PASS |
| Band5 | 4183 | 4 | 21.94 | 15.59 | 38.5 | PASS |
| Band5 | 4233 | 1 | 22.35 | 16    | 38.5 | PASS |
| Band5 | 4233 | 2 | 21.77 | 15.42 | 38.5 | PASS |
| Band5 | 4233 | 3 | 21.82 | 15.47 | 38.5 | PASS |
| Band5 | 4233 | 4 | 21.78 | 15.43 | 38.5 | PASS |

**Test Result(HSUPA)**

| Band  | Channel | SubTest | Conducted Power (dBm) | ERP/EIRP (dBm) | ERP/EIRP Limit (dBm) | Verdict |
|-------|---------|---------|-----------------------|----------------|----------------------|---------|
| Band2 | 9262    | 1       | 19.88                 | 19.58          | 33                   | PASS    |
| Band2 | 9262    | 2       | 20.38                 | 20.08          | 33                   | PASS    |
| Band2 | 9262    | 3       | 20.94                 | 20.64          | 33                   | PASS    |
| Band2 | 9262    | 4       | 19.94                 | 19.64          | 33                   | PASS    |
| Band2 | 9262    | 5       | 21.88                 | 21.58          | 33                   | PASS    |
| Band2 | 9400    | 1       | 19.86                 | 19.56          | 33                   | PASS    |
| Band2 | 9400    | 2       | 20.40                 | 20.10          | 33                   | PASS    |
| Band2 | 9400    | 3       | 20.89                 | 20.59          | 33                   | PASS    |
| Band2 | 9400    | 4       | 19.91                 | 19.61          | 33                   | PASS    |
| Band2 | 9400    | 5       | 21.85                 | 21.55          | 33                   | PASS    |
| Band2 | 9538    | 1       | 19.82                 | 19.52          | 33                   | PASS    |
| Band2 | 9538    | 2       | 20.35                 | 20.05          | 33                   | PASS    |
| Band2 | 9538    | 3       | 20.79                 | 20.49          | 33                   | PASS    |

|       |      |   |       |       |      |      |
|-------|------|---|-------|-------|------|------|
| Band2 | 9538 | 4 | 19.87 | 19.57 | 33   | PASS |
| Band2 | 9538 | 5 | 21.81 | 21.51 | 33   | PASS |
| Band4 | 1312 | 1 | 20.16 | 19.76 | 30   | PASS |
| Band4 | 1312 | 2 | 20.67 | 20.27 | 30   | PASS |
| Band4 | 1312 | 3 | 21.14 | 20.74 | 30   | PASS |
| Band4 | 1312 | 4 | 20.16 | 19.76 | 30   | PASS |
| Band4 | 1312 | 5 | 22.11 | 21.71 | 30   | PASS |
| Band4 | 1413 | 1 | 20.32 | 19.92 | 30   | PASS |
| Band4 | 1413 | 2 | 20.78 | 20.38 | 30   | PASS |
| Band4 | 1413 | 3 | 21.27 | 20.87 | 30   | PASS |
| Band4 | 1413 | 4 | 20.30 | 19.90 | 30   | PASS |
| Band4 | 1413 | 5 | 22.28 | 21.88 | 30   | PASS |
| Band4 | 1513 | 1 | 20.18 | 19.78 | 30   | PASS |
| Band4 | 1513 | 2 | 20.66 | 20.26 | 30   | PASS |
| Band4 | 1513 | 3 | 21.20 | 20.80 | 30   | PASS |
| Band4 | 1513 | 4 | 20.19 | 19.79 | 30   | PASS |
| Band4 | 1513 | 5 | 22.15 | 21.75 | 30   | PASS |
| Band5 | 4132 | 1 | 20.46 | 14.11 | 38.5 | PASS |
| Band5 | 4132 | 2 | 20.96 | 14.61 | 38.5 | PASS |
| Band5 | 4132 | 3 | 21.40 | 15.05 | 38.5 | PASS |
| Band5 | 4132 | 4 | 20.49 | 14.14 | 38.5 | PASS |
| Band5 | 4132 | 5 | 22.43 | 16.08 | 38.5 | PASS |
| Band5 | 4183 | 1 | 20.51 | 14.16 | 38.5 | PASS |
| Band5 | 4183 | 2 | 21.02 | 14.67 | 38.5 | PASS |
| Band5 | 4183 | 3 | 21.44 | 15.09 | 38.5 | PASS |
| Band5 | 4183 | 4 | 20.50 | 14.15 | 38.5 | PASS |
| Band5 | 4183 | 5 | 22.45 | 16.1  | 38.5 | PASS |
| Band5 | 4233 | 1 | 20.37 | 14.02 | 38.5 | PASS |
| Band5 | 4233 | 2 | 20.90 | 14.55 | 38.5 | PASS |
| Band5 | 4233 | 3 | 21.34 | 14.99 | 38.5 | PASS |
| Band5 | 4233 | 4 | 20.42 | 14.07 | 38.5 | PASS |
| Band5 | 4233 | 5 | 22.35 | 16    | 38.5 | PASS |

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

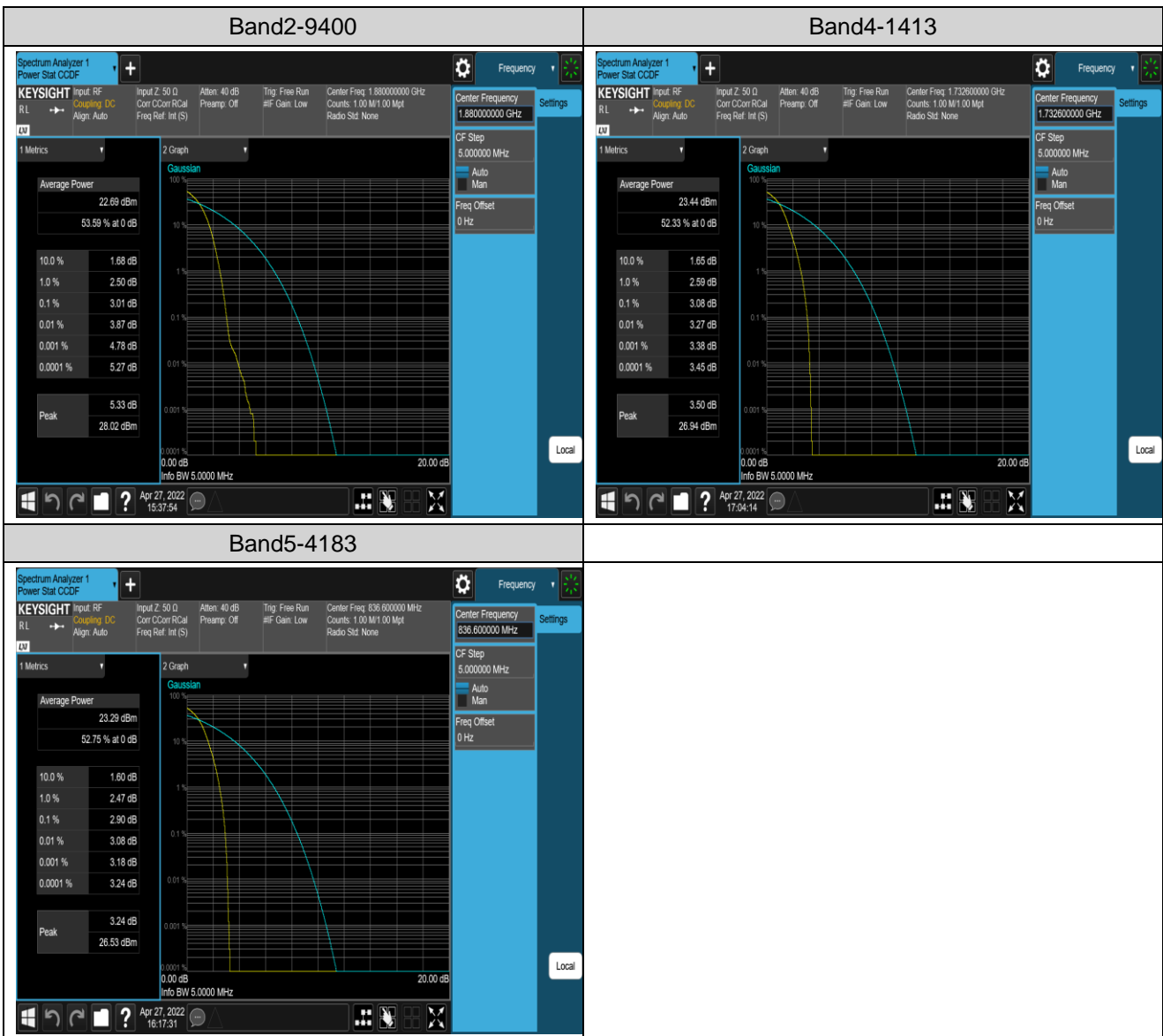
## Appendix B: Peak-to-Average Ratio

### Test Result(WCDMA)

| Band  | Channel | Peak-to-Average Ratio(dB) | Limit(dB) | Verdict |
|-------|---------|---------------------------|-----------|---------|
| Band2 | 9400    | 3.01                      | 13        | PASS    |
| Band4 | 1413    | 3.08                      | 13        | PASS    |
| Band5 | 4183    | 2.9                       | 13        | PASS    |

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

### Test Graphs(WCDMA)

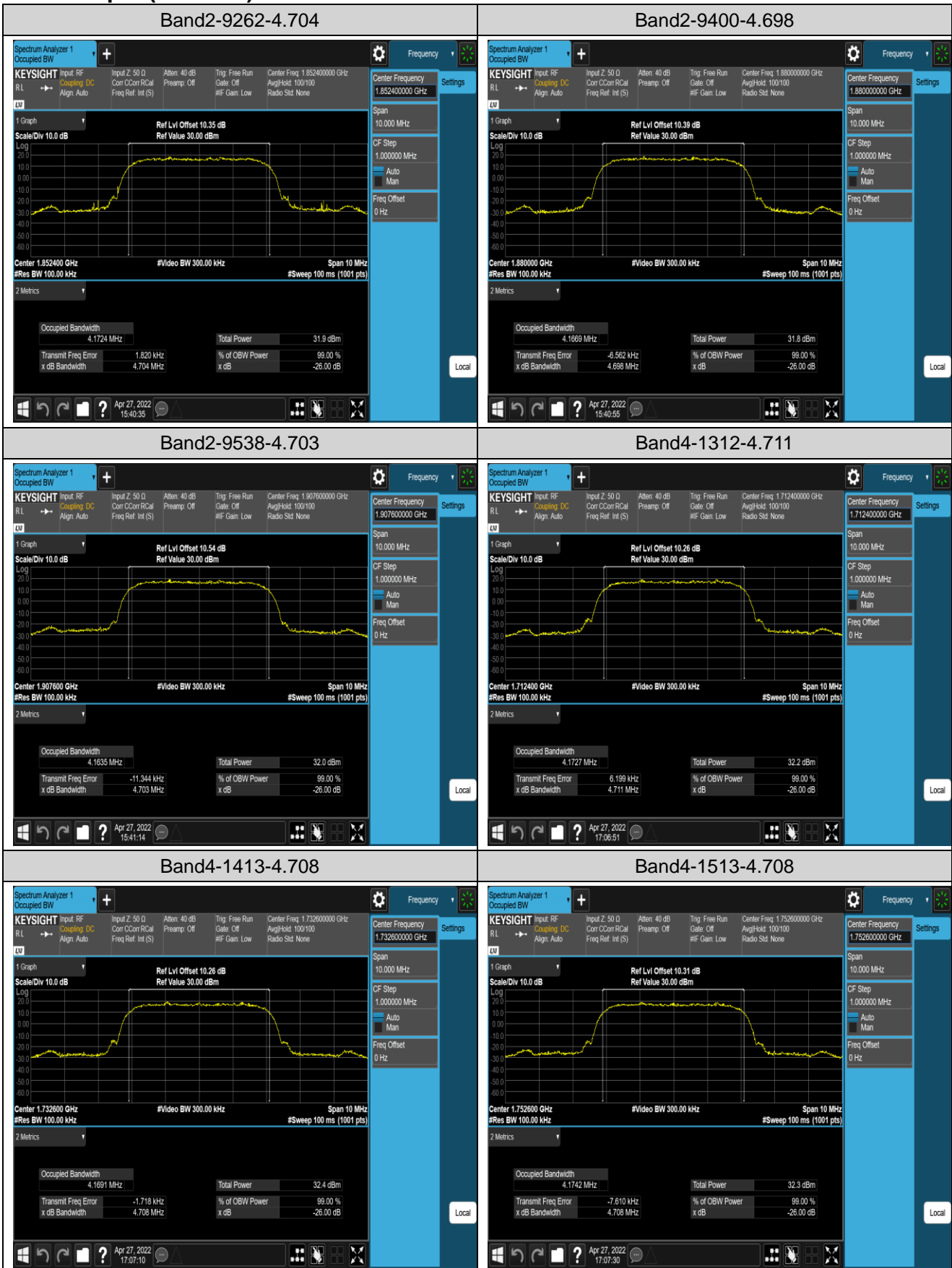


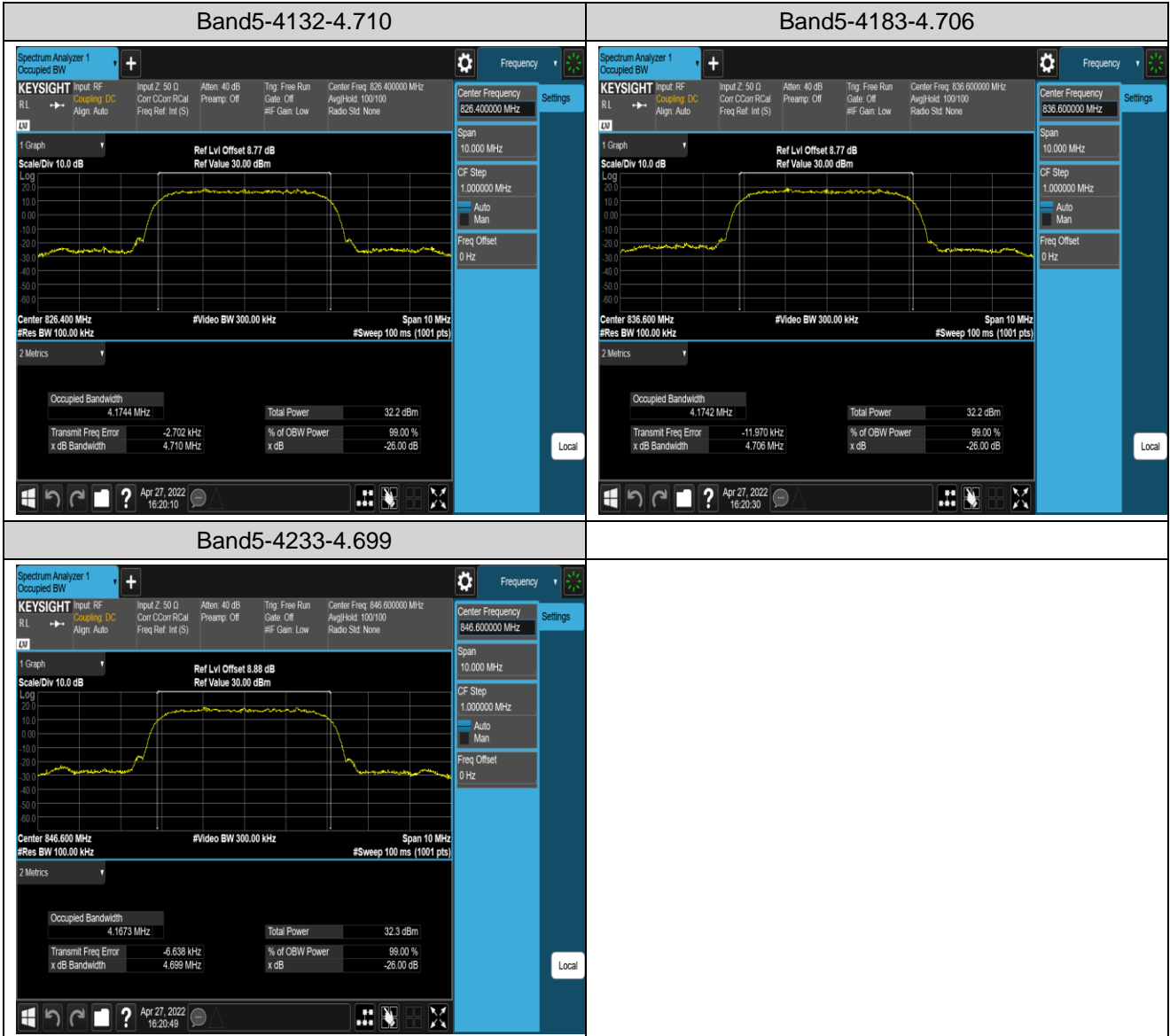
## AppendixC:26dB Bandwidth andOccupied Bandwidth

### Test Result(WCDMA)

| Band  | Channel | Occupied Bandwidth<br>(MHz) | 26dB Bandwidth<br>(MHz) | Limit(kHz) | Verdict |
|-------|---------|-----------------------------|-------------------------|------------|---------|
| Band2 | 9262    | 4.1724                      | 4.704                   | ---        | PASS    |
| Band2 | 9400    | 4.1669                      | 4.698                   | ---        | PASS    |
| Band2 | 9538    | 4.1635                      | 4.703                   | ---        | PASS    |
| Band4 | 1312    | 4.1727                      | 4.711                   | ---        | PASS    |
| Band4 | 1413    | 4.1691                      | 4.708                   | ---        | PASS    |
| Band4 | 1513    | 4.1742                      | 4.708                   | ---        | PASS    |
| Band5 | 4132    | 4.1744                      | 4.710                   | ---        | PASS    |
| Band5 | 4183    | 4.1742                      | 4.706                   | ---        | PASS    |
| Band5 | 4233    | 4.1673                      | 4.699                   | ---        | PASS    |

Test Graphs(WCDMA)





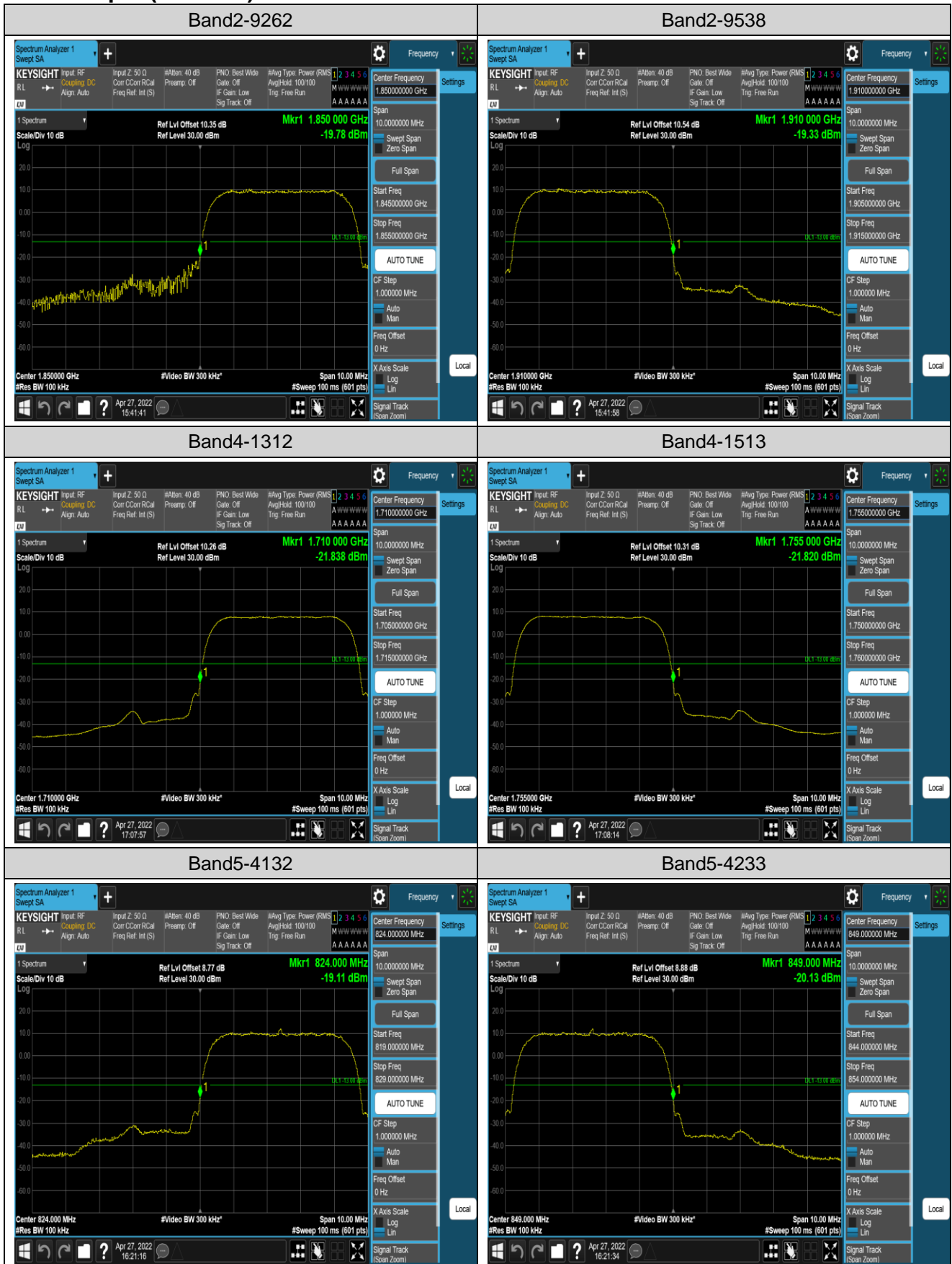
## AppendixD:Band Edge

### Test Result(WCDMA)

| Band  | Channel | Frequency (MHz) | Result (dBm) | Limit(dBm) | Verdict |
|-------|---------|-----------------|--------------|------------|---------|
| Band2 | 9262    | 1850.00         | -19.78       | -13        | PASS    |
| Band2 | 9538    | 1910.00         | -19.33       | -13        | PASS    |
| Band4 | 1312    | 1710.00         | -21.84       | -13        | PASS    |
| Band4 | 1513    | 1755.00         | -21.82       | -13        | PASS    |
| Band5 | 4132    | 824.00          | -19.11       | -13        | PASS    |
| Band5 | 4233    | 849.00          | -20.13       | -13        | PASS    |



Test Graphs(WCDMA)

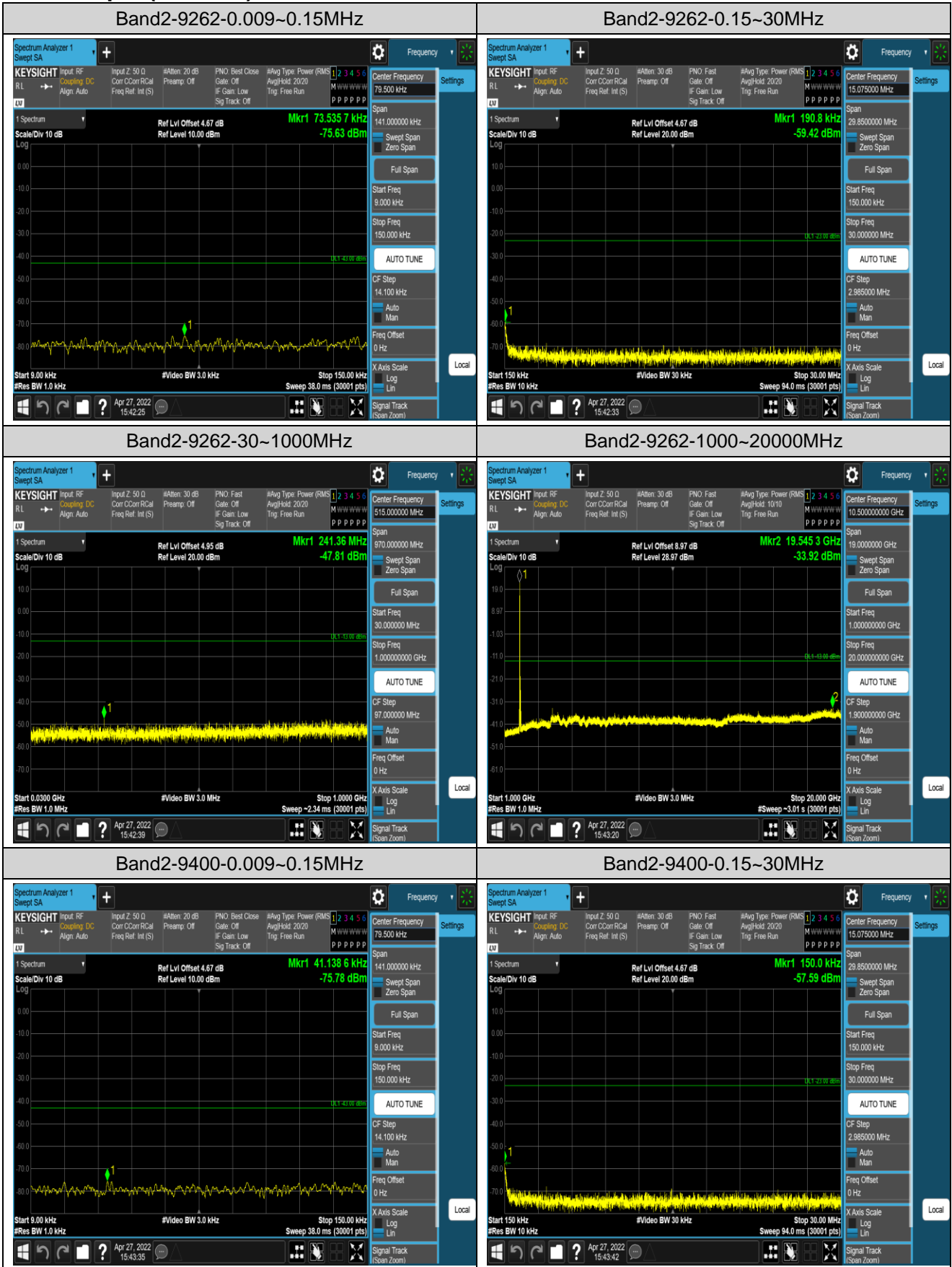


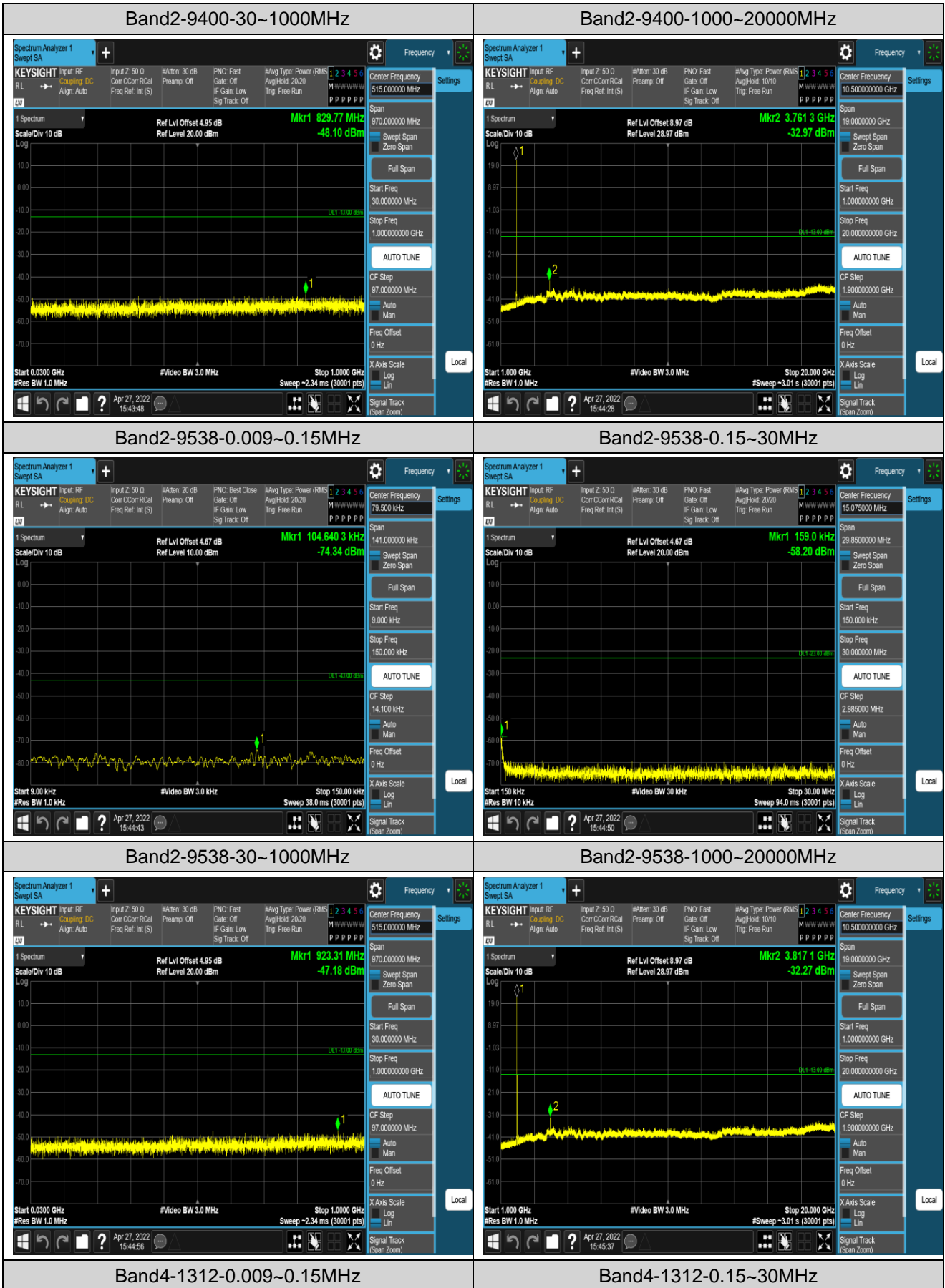
## Appendix E: Conducted Spurious Emission

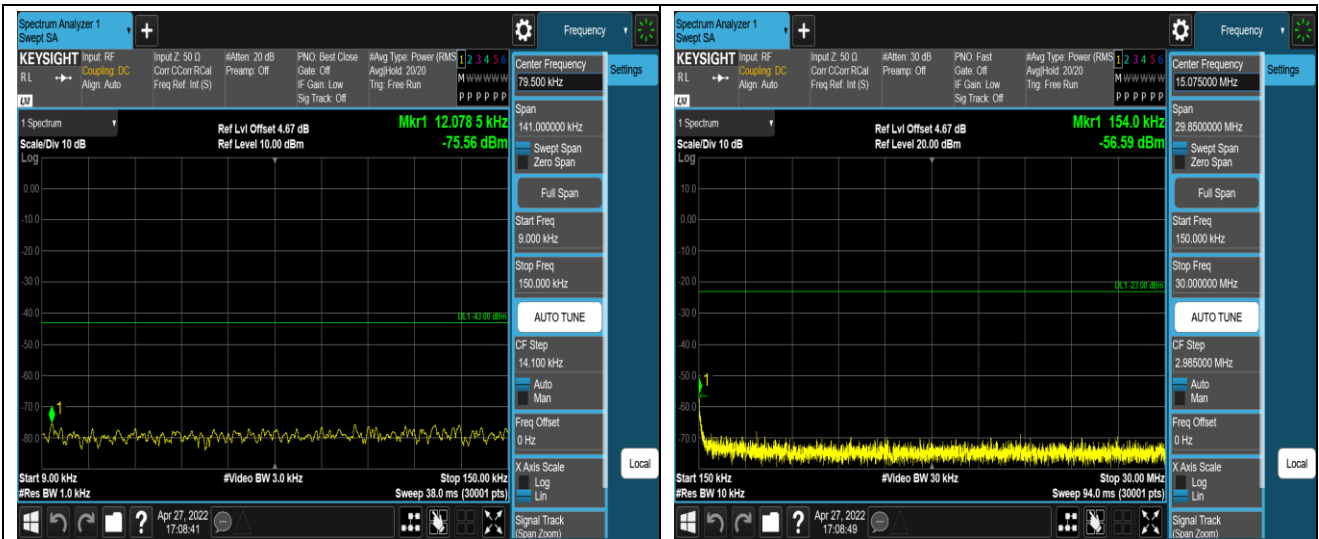
### Test Result (WCDMA)

| Band  | Channel | Frequency Range (Mhz) | Frequency (dBm) | Result (dBm) | Limit (dBm) | Verdict |
|-------|---------|-----------------------|-----------------|--------------|-------------|---------|
| Band2 | 9262    | 0.009~0.15MHz         | 0.07            | -75.63       | -43         | PASS    |
| Band2 | 9262    | 0.15~30MHz            | 0.19            | -59.42       | -23         | PASS    |
| Band2 | 9262    | 30~1000MHz            | 241.36          | -47.81       | -13         | PASS    |
| Band2 | 9262    | 1000~20000MHz         | 19545.27        | -33.92       | -13         | PASS    |
| Band2 | 9400    | 0.009~0.15MHz         | 0.04            | -75.78       | -43         | PASS    |
| Band2 | 9400    | 0.15~30MHz            | 0.15            | -57.6        | -23         | PASS    |
| Band2 | 9400    | 30~1000MHz            | 829.77          | -48.1        | -13         | PASS    |
| Band2 | 9400    | 1000~20000MHz         | 3761.33         | -32.97       | -13         | PASS    |
| Band2 | 9538    | 0.009~0.15MHz         | 0.1             | -74.34       | -43         | PASS    |
| Band2 | 9538    | 0.15~30MHz            | 0.16            | -58.2        | -23         | PASS    |
| Band2 | 9538    | 30~1000MHz            | 923.31          | -47.18       | -13         | PASS    |
| Band2 | 9538    | 1000~20000MHz         | 3817.07         | -32.27       | -13         | PASS    |
| Band4 | 1312    | 0.009~0.15MHz         | 0.01            | -75.56       | -43         | PASS    |
| Band4 | 1312    | 0.15~30MHz            | 0.15            | -56.6        | -23         | PASS    |
| Band4 | 1312    | 30~1000MHz            | 587.88          | -47.59       | -13         | PASS    |
| Band4 | 1312    | 1000~20000MHz         | 19858.13        | -34.1        | -13         | PASS    |
| Band4 | 1413    | 0.009~0.15MHz         | 0.01            | -74.26       | -43         | PASS    |
| Band4 | 1413    | 0.15~30MHz            | 0.15            | -56.58       | -23         | PASS    |
| Band4 | 1413    | 30~1000MHz            | 838.59          | -47.99       | -13         | PASS    |
| Band4 | 1413    | 1000~20000MHz         | 19390.73        | -34.49       | -13         | PASS    |
| Band4 | 1513    | 0.009~0.15MHz         | 0.09            | -75.19       | -43         | PASS    |
| Band4 | 1513    | 0.15~30MHz            | 0.15            | -57.31       | -23         | PASS    |
| Band4 | 1513    | 30~1000MHz            | 747.51          | -46.82       | -13         | PASS    |
| Band4 | 1513    | 1000~20000MHz         | 18646.57        | -34.2        | -13         | PASS    |
| Band5 | 4132    | 0.009~0.15MHz         | 0.01            | -74.23       | -33         | PASS    |
| Band5 | 4132    | 0.15~30MHz            | 0.17            | -58.07       | -13         | PASS    |
| Band5 | 4132    | 30~1000MHz            | 954.02          | -57.88       | -13         | PASS    |
| Band5 | 4132    | 1000~10000MHz         | 4986.1          | -35.78       | -13         | PASS    |
| Band5 | 4183    | 0.009~0.15MHz         | 0.11            | -75.67       | -33         | PASS    |
| Band5 | 4183    | 0.15~30MHz            | 0.16            | -57.47       | -13         | PASS    |
| Band5 | 4183    | 30~1000MHz            | 564.73          | -57.26       | -13         | PASS    |
| Band5 | 4183    | 1000~10000MHz         | 3864.7          | -36.04       | -13         | PASS    |
| Band5 | 4233    | 0.009~0.15MHz         | 0.01            | -73.13       | -33         | PASS    |
| Band5 | 4233    | 0.15~30MHz            | 0.16            | -58.33       | -13         | PASS    |
| Band5 | 4233    | 30~1000MHz            | 959.45          | -57.13       | -13         | PASS    |
| Band5 | 4233    | 1000~10000MHz         | 3983.5          | -36.09       | -13         | PASS    |

Test Graphs(WCDMA)







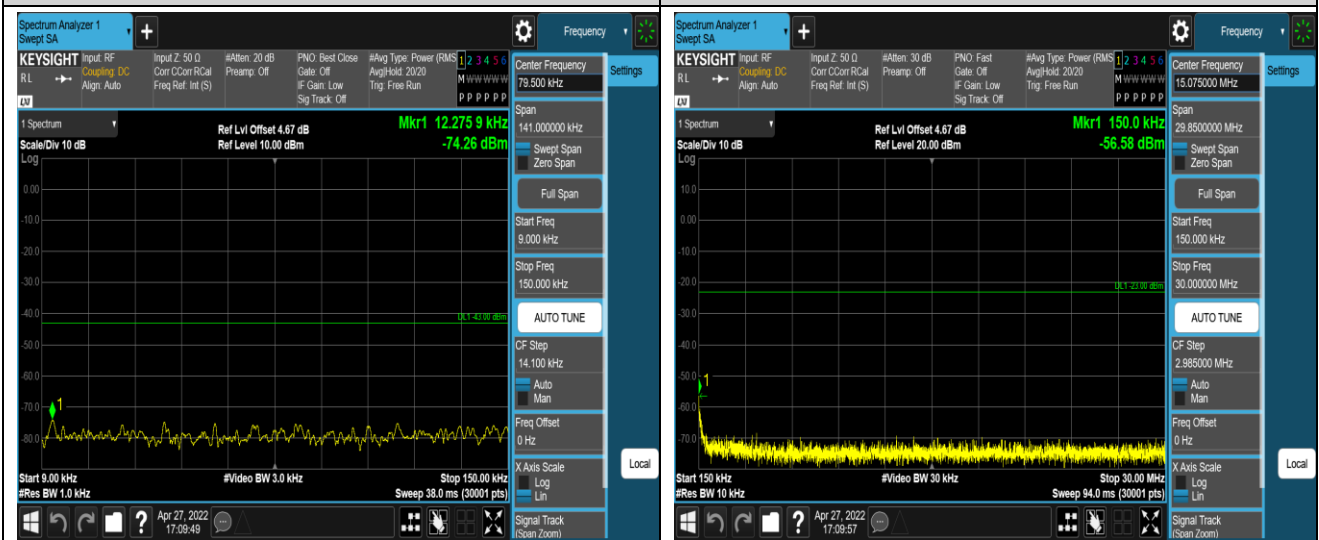
Band4-1312-30~1000MHz

Band4-1312-1000~20000MHz



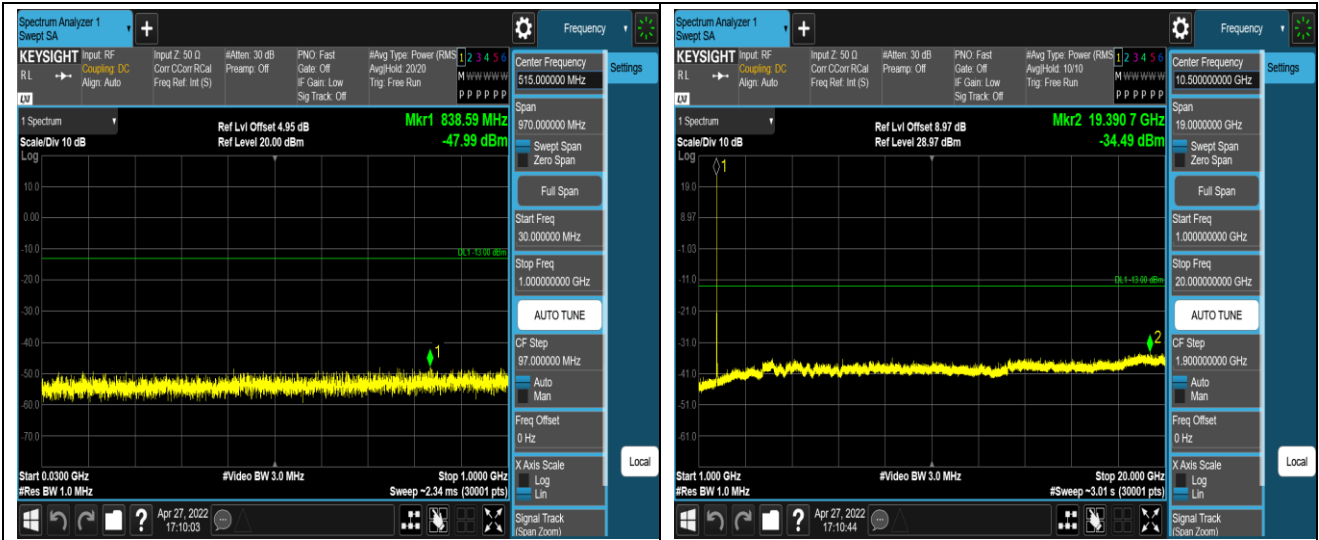
Band4-1413-0.009~0.15MHz

Band4-1413-0.15~30MHz



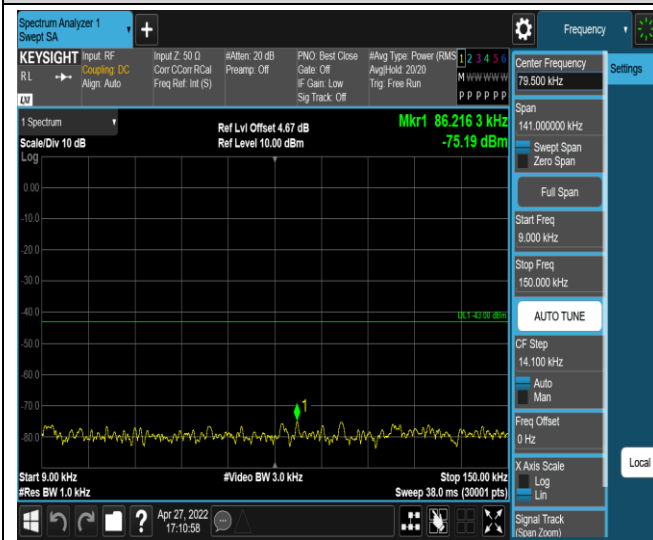
Band4-1413-30~1000MHz

Band4-1413-1000~20000MHz

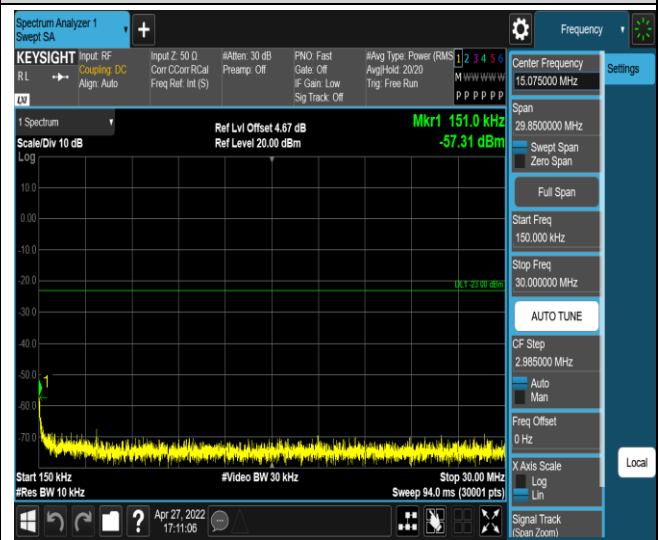


Band4-1513-0.009~0.15MHz

Band4-1513-0.15~30MHz



Band4-1513-30~1000MHz



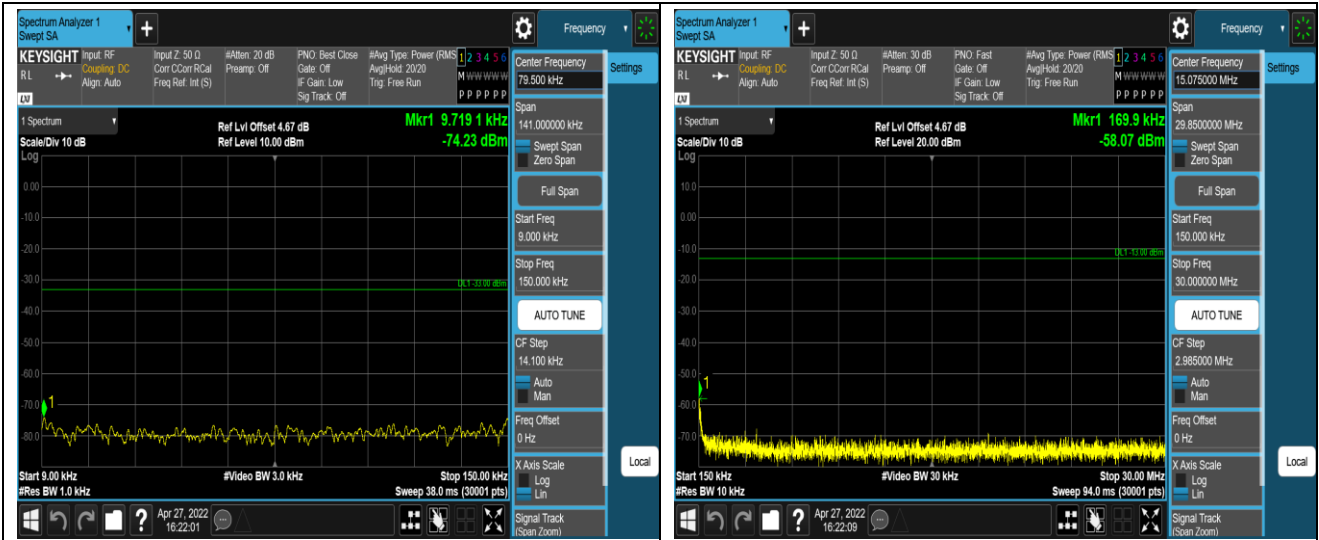
Band4-1513-1000~20000MHz



Band5-4132-0.009~0.15MHz

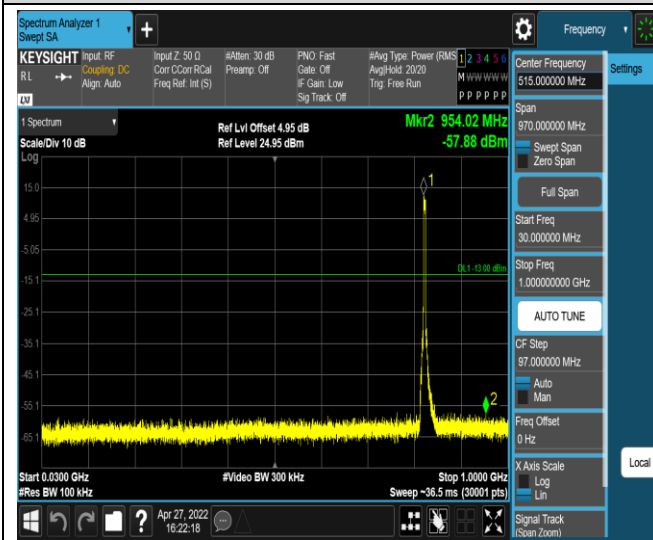


Band5-4132-0.15~30MHz



Band5-4132-30~1000MHz

Band5-4132-1000~10000MHz



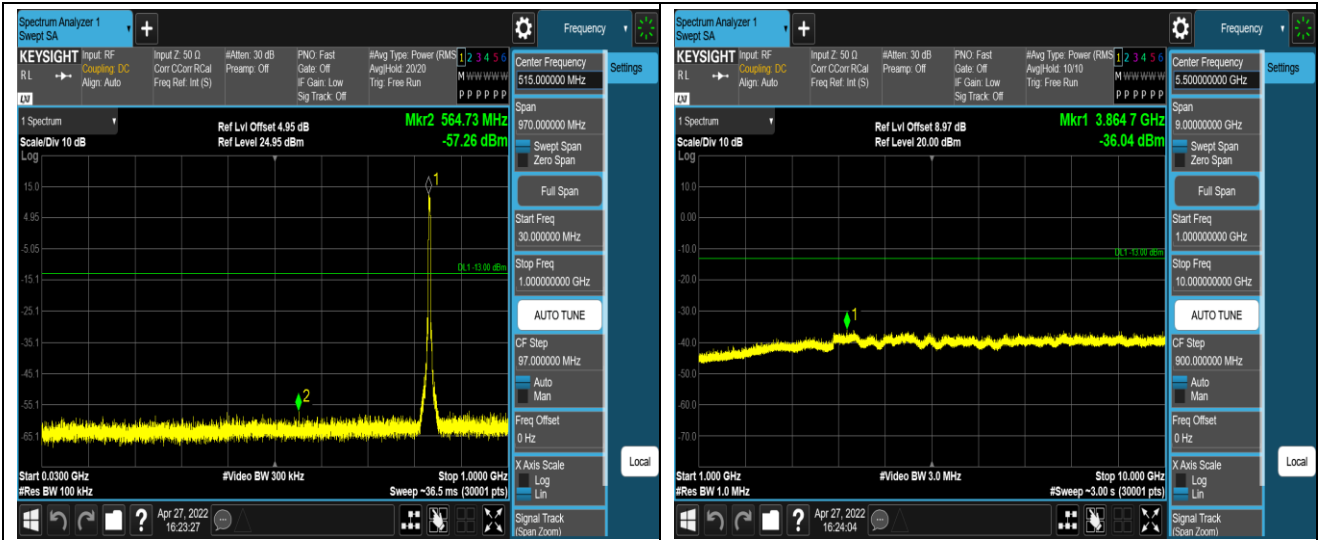
Band5-4183-0.009~0.15MHz

Band5-4183-0.15~30MHz



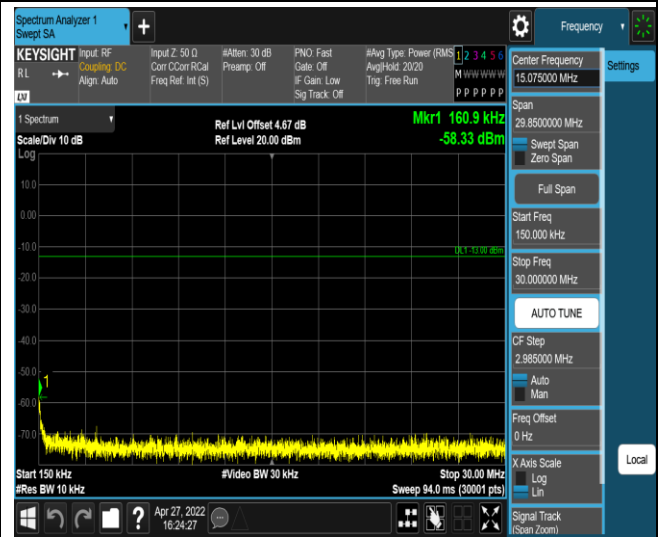
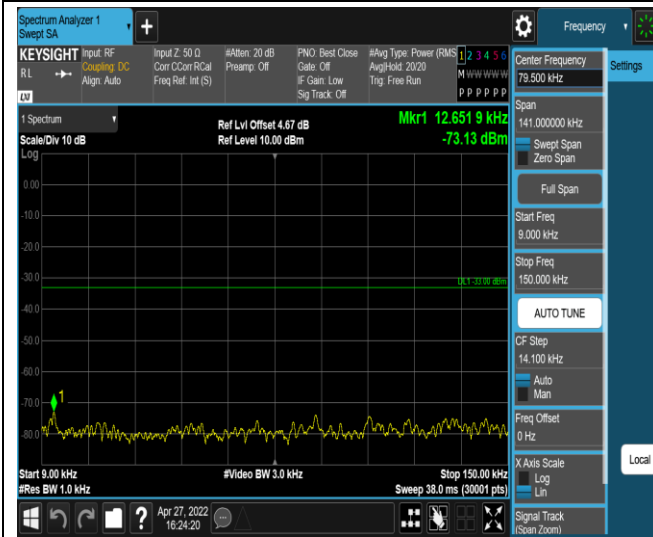
Band5-4183-30~1000MHz

Band5-4183-1000~10000MHz



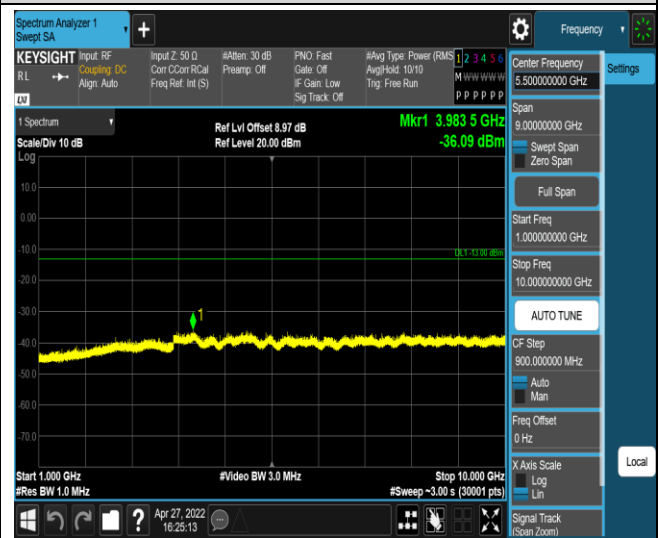
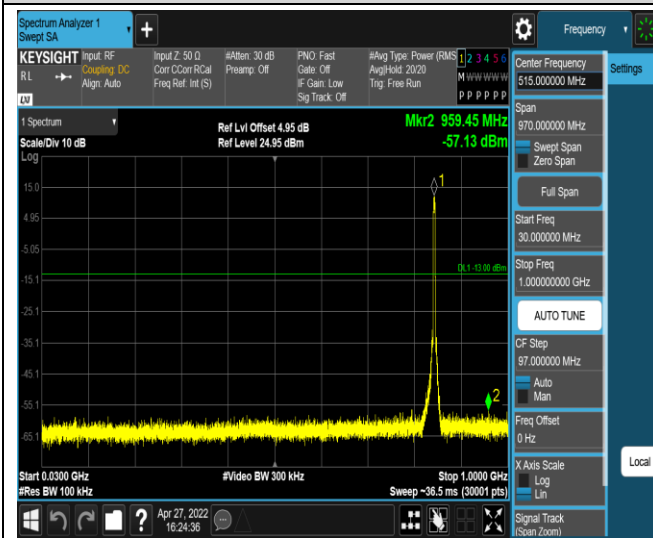
Band5-4233-0.009~0.15MHz

Band5-4233-0.15~30MHz



Band5-4233-30~1000MHz

Band5-4233-1000~10000MHz





## AppendixF:Frequency Stability

### Test Result

| Reference Frequency: WCDMA BAND II 12.2k RMC Middle Frequency=9400 channel=1880MHz          |                      |                 |           |                                    |        |
|---|----------------------|-----------------|-----------|------------------------------------|--------|
| Temperature   |                      |                 |           |                                    |        |
| Power supplied (Vdc)  | Temperature (°C)     | Frequency error |           | Limit (ppm)                        | Result |
|   |                      | Hz              | ppm       |                                    |        |
| 3.85  | -30                  | -13.39          | -0.007122 | Within authorized band for BAND II | Pass   |
|   | -20                  | -7.45           | -0.003963 |                                    |        |
|   | -10                  | -10.10          | -0.005372 |                                    |        |
|   | 0                    | -11.96          | -0.006362 |                                    |        |
|   | 10                   | -12.98          | -0.006904 |                                    |        |
|   | 20                   | -10.74          | -0.005713 |                                    |        |
|   | 30                   | -9.23           | -0.004910 |                                    |        |
|   | 40                   | -7.38           | -0.003926 |                                    |        |
|   | 50                   | -8.51           | -0.004527 |                                    |        |
| Voltage   |                      |                 |           |                                    |        |
| Temperature (°C)  | Power supplied (Vdc) | Frequency error |           | Limit (ppm)                        | Result |
|   |                      | Hz              | ppm       |                                    |        |
| 25  | 3.45                 | -11.28          | -0.006000 | Within authorized band for BAND II | Pass   |
|   | 3.85                 | -14.81          | -0.007878 |                                    |        |
|   | 4.40                 | -6.54           | -0.003479 |                                    |        |
| 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 channel=1413 Frequency=1732.6MHz               |                      |                 |           |             |        |
|--|----------------------|-----------------|-----------|-------------|--------|
| Temperature  |                      |                 |           |             |        |
| Power supplied (Vdc)   | Temperature (°C)     | Frequency error |           | Limit (ppm) | Result |
|  |                      | Hz              | ppm       |             |        |
| 3.85   | -30                  | -11.67          | -0.006736 | ±2.5        | Pass   |
|  | -20                  | -15.24          | -0.008796 |             |        |
|  | -10                  | -16.33          | -0.009425 |             |        |
|  | 0                    | -11.79          | -0.006805 |             |        |
|  | 10                   | -12.45          | -0.007186 |             |        |
|  | 20                   | -13.36          | -0.007711 |             |        |
|  | 30                   | -10.25          | -0.005916 |             |        |
|  | 40                   | -14.73          | -0.008502 |             |        |
|  | 50                   | -14.01          | -0.008086 |             |        |
| Voltage  |                      |                 |           |             |        |
| Temperature (°C)   | Power supplied (Vdc) | Frequency error |           | Limit (ppm) | Result |
|  |                      | Hz              | ppm       |             |        |
| 25   | 3.45                 | -12.59          | -0.007267 | ±2.5        | Pass   |
|  | 3.85                 | -11.29          | -0.006516 |             |        |
|  | 4.40                 | -15.79          | -0.009113 |             |        |
| <i>Remark: All channel had been tested, but only the worst case data displayed in this report.</i> |                      |                 |           |             |        |

| Reference Frequency: WCDMA BAND V 12.2k RMC Middle channel=4183 Frequency=836.6MHz          |                      |                 |           |             |        |
|---|----------------------|-----------------|-----------|-------------|--------|
| Temperature   |                      |                 |           |             |        |
| Power supplied (Vdc)  | Temperature (°C)     | Frequency error |           | Limit (ppm) | Result |
|   |                      | Hz              | ppm       |             |        |
| 3.85  | -30                  | -10.74          | -0.012838 | ±2.5        | Pass   |
|   | -20                  | -12.07          | -0.014427 |             |        |
|   | -10                  | -8.46           | -0.010112 |             |        |
|   | 0                    | -14.09          | -0.016842 |             |        |
|   | 10                   | -11.90          | -0.014224 |             |        |
|   | 20                   | -13.32          | -0.015922 |             |        |
|   | 30                   | -7.67           | -0.009168 |             |        |
|   | 40                   | -7.40           | -0.008845 |             |        |
|   | 50                   | -12.99          | -0.015527 |             |        |
| Voltage   |                      |                 |           |             |        |
| Temperature (°C)  | Power supplied (Vdc) | Frequency error |           | Limit (ppm) | Result |
|   |                      | Hz              | ppm       |             |        |
| 25  | 3.45                 | -11.91          | -0.014236 | ±2.5        | Pass   |
|   | 3.85                 | -15.24          | -0.018217 |             |        |
|   | 4.40                 | -7.58           | -0.009060 |             |        |
| 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

