

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 | 24.24 | 23.48 | 33.01 | PASS |
| Band2 | TestMode | 9262 | 24.24 | 23.48 | 33.01 | PASS |
| Band2 | TestMode | 9400 | 24.39 | 23.63 | 33.01 | PASS |
| Band2 | Voice | 9400 | 24.35 | 23.59 | 33.01 | PASS |
| Band2 | Voice | 9538 | 24.40 | 23.64 | 33.01 | PASS |
| Band2 | TestMode | 9538 | 24.40 | 23.64 | 33.01 | PASS |
| Band4 | TestMode | 1312 | 24.00 | 22.08 | 30.00 | PASS |
| Band4 | Voice | 1312 | 23.93 | 22.01 | 30.00 | PASS |
| Band4 | TestMode | 1413 | 23.91 | 21.99 | 30.00 | PASS |
| Band4 | Voice | 1413 | 23.86 | 21.94 | 30.00 | PASS |
| Band4 | TestMode | 1513 | 24.00 | 22.08 | 30.00 | PASS |
| Band4 | Voice | 1513 | 23.89 | 21.97 | 30.00 | PASS |
| Band5 | TestMode | 4132 | 23.58 | 18.05 | 38.45 | PASS |
| Band5 | Voice | 4132 | 23.52 | 17.99 | 38.45 | PASS |
| Band5 | Voice | 4183 | 23.43 | 17.90 | 38.45 | PASS |
| Band5 | TestMode | 4183 | 23.50 | 17.97 | 38.45 | PASS |
| Band5 | Voice | 4233 | 23.49 | 17.96 | 38.45 | PASS |
| Band5 | TestMode | 4233 | 23.48 | 17.95 | 38.45 | PASS |

Test Result(HSDPA)

| Band | Channel | SubTest | Conducted Power (dBm) | ERP/EIRP (dBm) | ERP/EIRP Limit (dBm) | Verdict |
|-------|---------|---------|-----------------------|----------------|----------------------|---------|
| Band2 | 9262 | 1 | 23.24 | 22.48 | 33.01 | PASS |
| Band2 | 9262 | 2 | 22.70 | 21.94 | 33.01 | PASS |
| Band2 | 9262 | 3 | 22.70 | 21.94 | 33.01 | PASS |
| Band2 | 9262 | 4 | 22.69 | 21.93 | 33.01 | PASS |
| Band2 | 9400 | 1 | 23.36 | 22.60 | 33.01 | PASS |
| Band2 | 9400 | 2 | 22.79 | 22.03 | 33.01 | PASS |
| Band2 | 9400 | 3 | 22.82 | 22.06 | 33.01 | PASS |
| Band2 | 9400 | 4 | 22.84 | 22.08 | 33.01 | PASS |
| Band2 | 9538 | 1 | 23.40 | 22.64 | 33.01 | PASS |
| Band2 | 9538 | 2 | 22.86 | 22.10 | 33.01 | PASS |
| Band2 | 9538 | 3 | 22.84 | 22.08 | 33.01 | PASS |
| Band2 | 9538 | 4 | 22.90 | 22.14 | 33.01 | PASS |

| | | | | | | |
|-------|------|---|-------|-------|-------|------|
| Band4 | 1312 | 1 | 22.94 | 21.02 | 30.00 | PASS |
| Band4 | 1312 | 2 | 22.46 | 20.54 | 30.00 | PASS |
| Band4 | 1312 | 3 | 22.52 | 20.60 | 30.00 | PASS |
| Band4 | 1312 | 4 | 22.51 | 20.59 | 30.00 | PASS |
| Band4 | 1413 | 1 | 22.90 | 20.98 | 30.00 | PASS |
| Band4 | 1413 | 2 | 22.46 | 20.54 | 30.00 | PASS |
| Band4 | 1413 | 3 | 22.46 | 20.54 | 30.00 | PASS |
| Band4 | 1413 | 4 | 22.42 | 20.50 | 30.00 | PASS |
| Band4 | 1513 | 1 | 22.99 | 21.07 | 30.00 | PASS |
| Band4 | 1513 | 2 | 22.45 | 20.53 | 30.00 | PASS |
| Band4 | 1513 | 3 | 22.47 | 20.55 | 30.00 | PASS |
| Band4 | 1513 | 4 | 22.47 | 20.55 | 30.00 | PASS |
| Band5 | 4132 | 1 | 22.66 | 17.13 | 38.5 | PASS |
| Band5 | 4132 | 2 | 22.09 | 16.56 | 38.5 | PASS |
| Band5 | 4132 | 3 | 22.15 | 16.62 | 38.5 | PASS |
| Band5 | 4132 | 4 | 22.11 | 16.58 | 38.5 | PASS |
| Band5 | 4183 | 1 | 22.59 | 17.06 | 38.5 | PASS |
| Band5 | 4183 | 2 | 22.08 | 16.55 | 38.5 | PASS |
| Band5 | 4183 | 3 | 22.12 | 16.59 | 38.5 | PASS |
| Band5 | 4183 | 4 | 22.06 | 16.53 | 38.5 | PASS |
| Band5 | 4233 | 1 | 22.54 | 17.01 | 38.5 | PASS |
| Band5 | 4233 | 2 | 22.02 | 16.49 | 38.5 | PASS |
| Band5 | 4233 | 3 | 22.03 | 16.50 | 38.5 | PASS |
| Band5 | 4233 | 4 | 22.01 | 16.48 | 38.5 | PASS |

Test Result(HSUPA)

| Band | Channel | SubTest | Conducted Power (dBm) | ERP/EIRP (dBm) | ERP/EIRP Limit (dBm) | Verdict |
|-------|---------|---------|-----------------------|----------------|----------------------|---------|
| Band2 | 9262 | 1 | 21.26 | 20.50 | 33.01 | PASS |
| Band2 | 9262 | 2 | 21.72 | 20.96 | 33.01 | PASS |
| Band2 | 9262 | 3 | 22.24 | 21.48 | 33.01 | PASS |
| Band2 | 9262 | 4 | 21.26 | 20.50 | 33.01 | PASS |
| Band2 | 9262 | 5 | 23.24 | 22.48 | 33.01 | PASS |
| Band2 | 9400 | 1 | 21.37 | 20.61 | 33.01 | PASS |
| Band2 | 9400 | 2 | 21.85 | 21.09 | 33.01 | PASS |
| Band2 | 9400 | 3 | 22.35 | 21.59 | 33.01 | PASS |
| Band2 | 9400 | 4 | 21.40 | 20.64 | 33.01 | PASS |
| Band2 | 9400 | 5 | 23.38 | 22.62 | 33.01 | PASS |
| Band2 | 9538 | 1 | 21.40 | 20.64 | 33.01 | PASS |
| Band2 | 9538 | 2 | 21.89 | 21.13 | 33.01 | PASS |
| Band2 | 9538 | 3 | 22.40 | 21.64 | 33.01 | PASS |

| | | | | | | |
|-------|------|---|-------|-------|-------|------|
| Band2 | 9538 | 4 | 21.41 | 20.65 | 33.01 | PASS |
| Band2 | 9538 | 5 | 23.37 | 22.61 | 33.01 | PASS |
| Band4 | 1312 | 1 | 21.02 | 19.10 | 30.00 | PASS |
| Band4 | 1312 | 2 | 21.49 | 19.57 | 30.00 | PASS |
| Band4 | 1312 | 3 | 22.00 | 20.08 | 30.00 | PASS |
| Band4 | 1312 | 4 | 21.02 | 19.10 | 30.00 | PASS |
| Band4 | 1312 | 5 | 23.01 | 21.09 | 30.00 | PASS |
| Band4 | 1413 | 1 | 20.95 | 19.03 | 30.00 | PASS |
| Band4 | 1413 | 2 | 21.44 | 19.52 | 30.00 | PASS |
| Band4 | 1413 | 3 | 21.95 | 20.03 | 30.00 | PASS |
| Band4 | 1413 | 4 | 20.97 | 19.05 | 30.00 | PASS |
| Band4 | 1413 | 5 | 22.93 | 21.01 | 30.00 | PASS |
| Band4 | 1513 | 1 | 21.04 | 19.12 | 30.00 | PASS |
| Band4 | 1513 | 2 | 21.53 | 19.61 | 30.00 | PASS |
| Band4 | 1513 | 3 | 22.05 | 20.13 | 30.00 | PASS |
| Band4 | 1513 | 4 | 21.05 | 19.13 | 30.00 | PASS |
| Band4 | 1513 | 5 | 23.04 | 21.12 | 30.00 | PASS |
| Band5 | 4132 | 1 | 20.68 | 15.15 | 38.5 | PASS |
| Band5 | 4132 | 2 | 21.16 | 15.63 | 38.5 | PASS |
| Band5 | 4132 | 3 | 21.63 | 16.10 | 38.5 | PASS |
| Band5 | 4132 | 4 | 20.67 | 15.14 | 38.5 | PASS |
| Band5 | 4132 | 5 | 22.64 | 17.11 | 38.5 | PASS |
| Band5 | 4183 | 1 | 20.64 | 15.11 | 38.5 | PASS |
| Band5 | 4183 | 2 | 21.12 | 15.59 | 38.5 | PASS |
| Band5 | 4183 | 3 | 21.60 | 16.07 | 38.5 | PASS |
| Band5 | 4183 | 4 | 20.62 | 15.09 | 38.5 | PASS |
| Band5 | 4183 | 5 | 22.60 | 17.07 | 38.5 | PASS |
| Band5 | 4233 | 1 | 20.57 | 15.04 | 38.5 | PASS |
| Band5 | 4233 | 2 | 21.06 | 15.53 | 38.5 | PASS |
| Band5 | 4233 | 3 | 21.56 | 16.03 | 38.5 | PASS |
| Band5 | 4233 | 4 | 20.61 | 15.08 | 38.5 | PASS |
| Band5 | 4233 | 5 | 22.57 | 17.04 | 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)

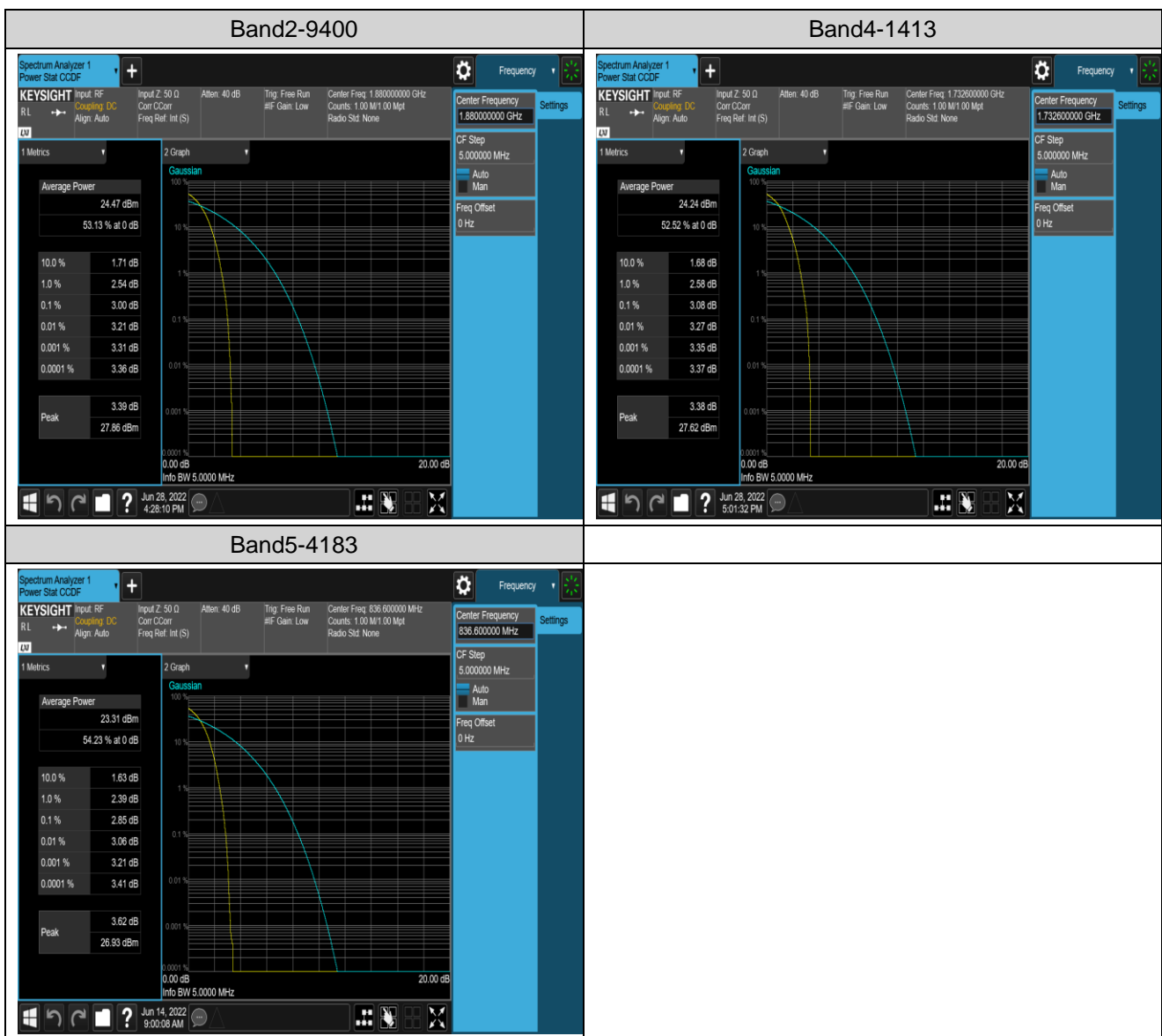
Appendix B: Peak-to-Average Ratio

Test Result(WCDMA)

| Band | Channel | Peak-to-Average Ratio(dB) | Limit(dB) | Verdict |
|-------|---------|---------------------------|-----------|---------|
| Band2 | 9400 | 3 | 13 | PASS |
| Band4 | 1413 | 3.08 | 13 | PASS |
| Band5 | 4183 | 2.85 | 13 | PASS |

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

Test Graphs(WCDMA)

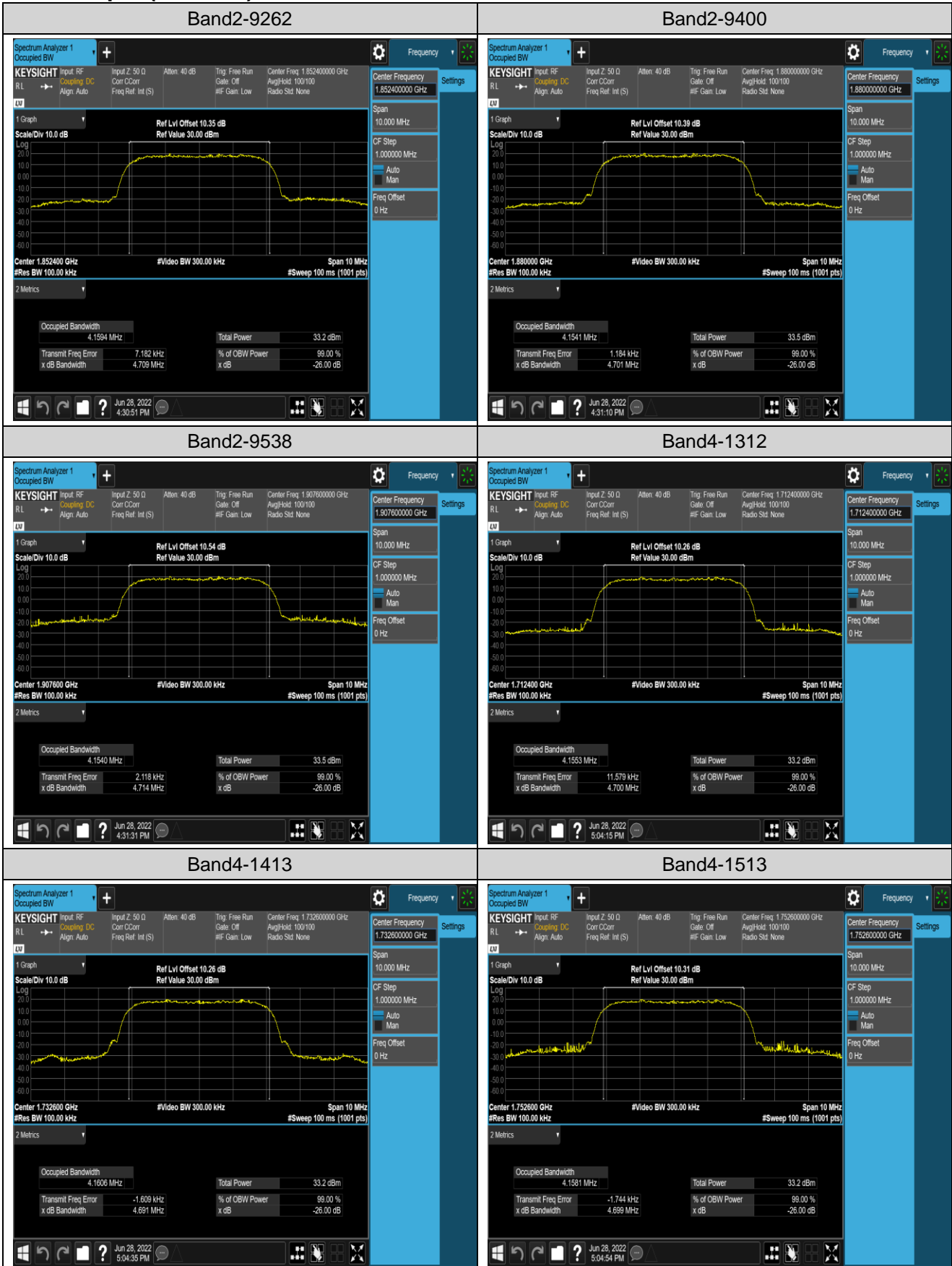


AppendixC:26dB Bandwidth andOccupied Bandwidth

Test Result(WCDMA)

| Band | Channel | Occupied Bandwidth (MHz) | 26dB Bandwidth (MHz) | Limit(kHz) | Verdict |
|-------|---------|-----------------------------|-------------------------|------------|---------|
| Band2 | 9262 | 4.1594 | 4.709 | --- | PASS |
| Band2 | 9400 | 4.1541 | 4.701 | --- | PASS |
| Band2 | 9538 | 4.1540 | 4.714 | --- | PASS |
| Band4 | 1312 | 4.1553 | 4.700 | --- | PASS |
| Band4 | 1413 | 4.1606 | 4.691 | --- | PASS |
| Band4 | 1513 | 4.1581 | 4.699 | --- | PASS |
| Band5 | 4132 | 4.1539 | 4.698 | --- | PASS |
| Band5 | 4183 | 4.1639 | 4.710 | --- | PASS |
| Band5 | 4233 | 4.1527 | 4.703 | --- | PASS |

Test Graphs(WCDMA)



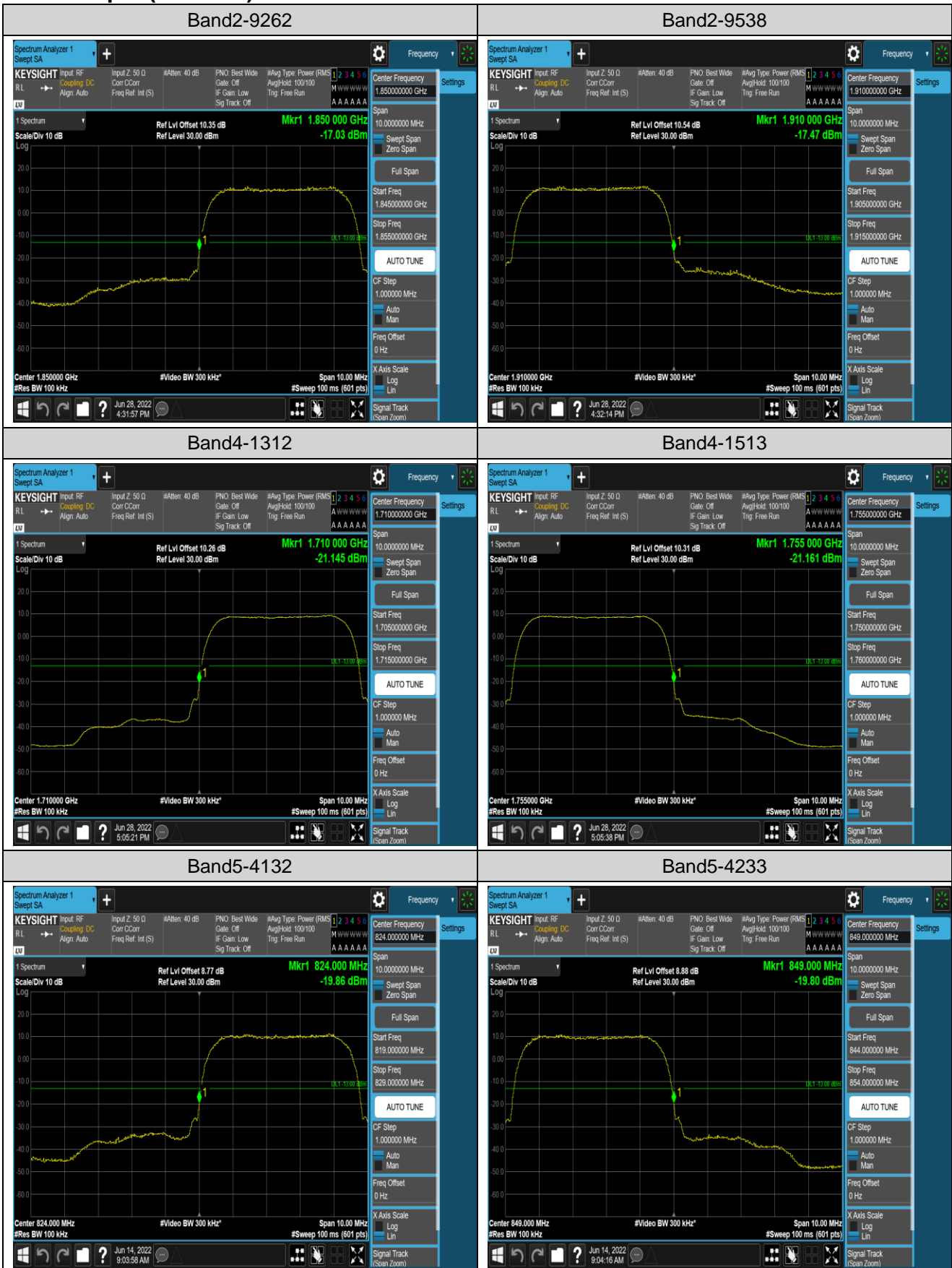


AppendixD:Band Edge

Test Result(WCDMA)

| Band | Channel | Frequency (MHz) | Result (dBm) | Limit(dBm) | Verdict |
|-------|---------|-----------------|--------------|------------|---------|
| Band2 | 9262 | 1850.00 | -17.03 | -13 | PASS |
| Band2 | 9538 | 1910.00 | -17.47 | -13 | PASS |
| Band4 | 1312 | 1710.00 | -21.14 | -13 | PASS |
| Band4 | 1513 | 1755.00 | -21.16 | -13 | PASS |
| Band5 | 4132 | 824.00 | -19.86 | -13 | PASS |
| Band5 | 4233 | 849.00 | -19.80 | -13 | PASS |

Test Graphs(WCDMA)

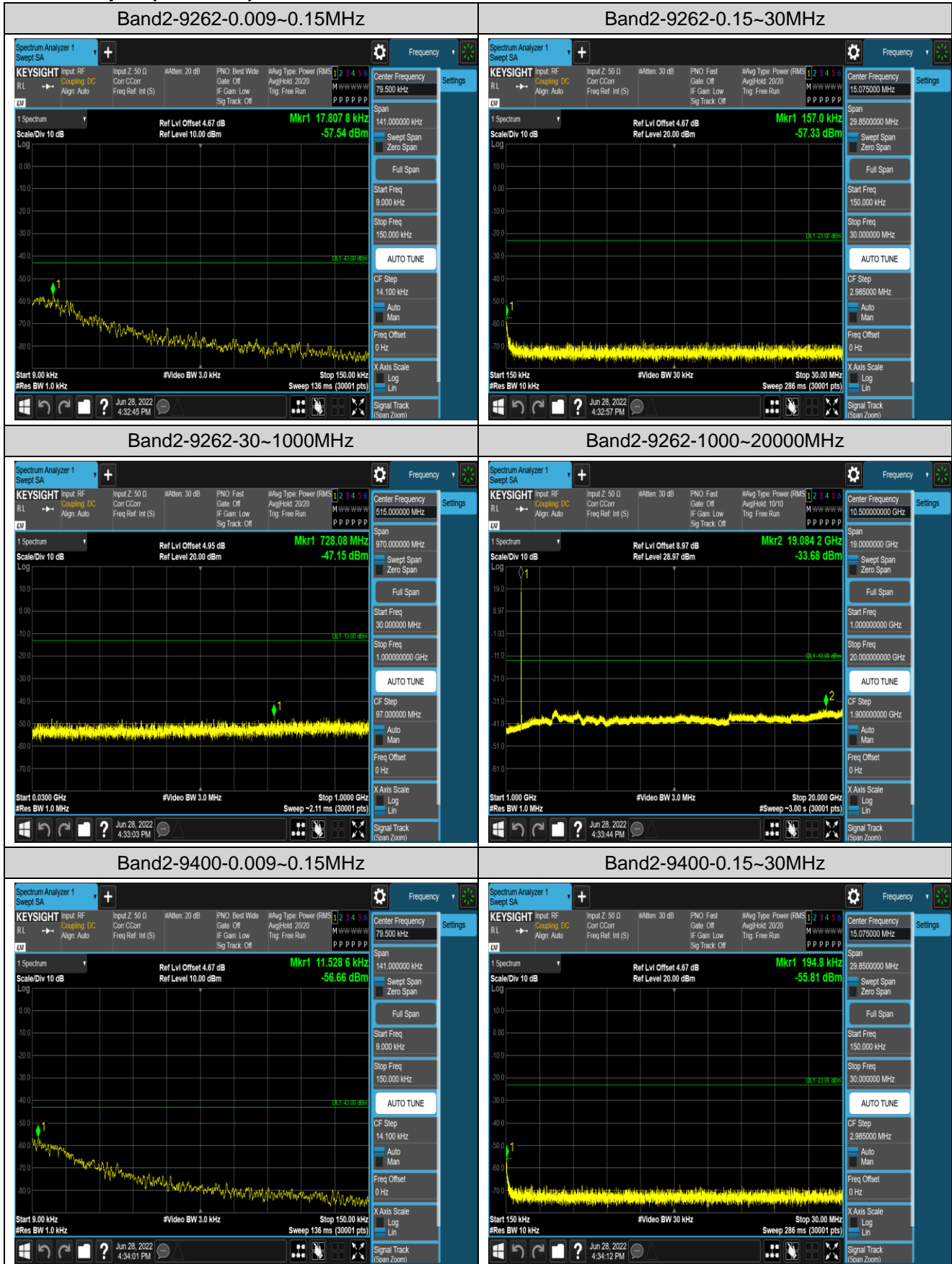


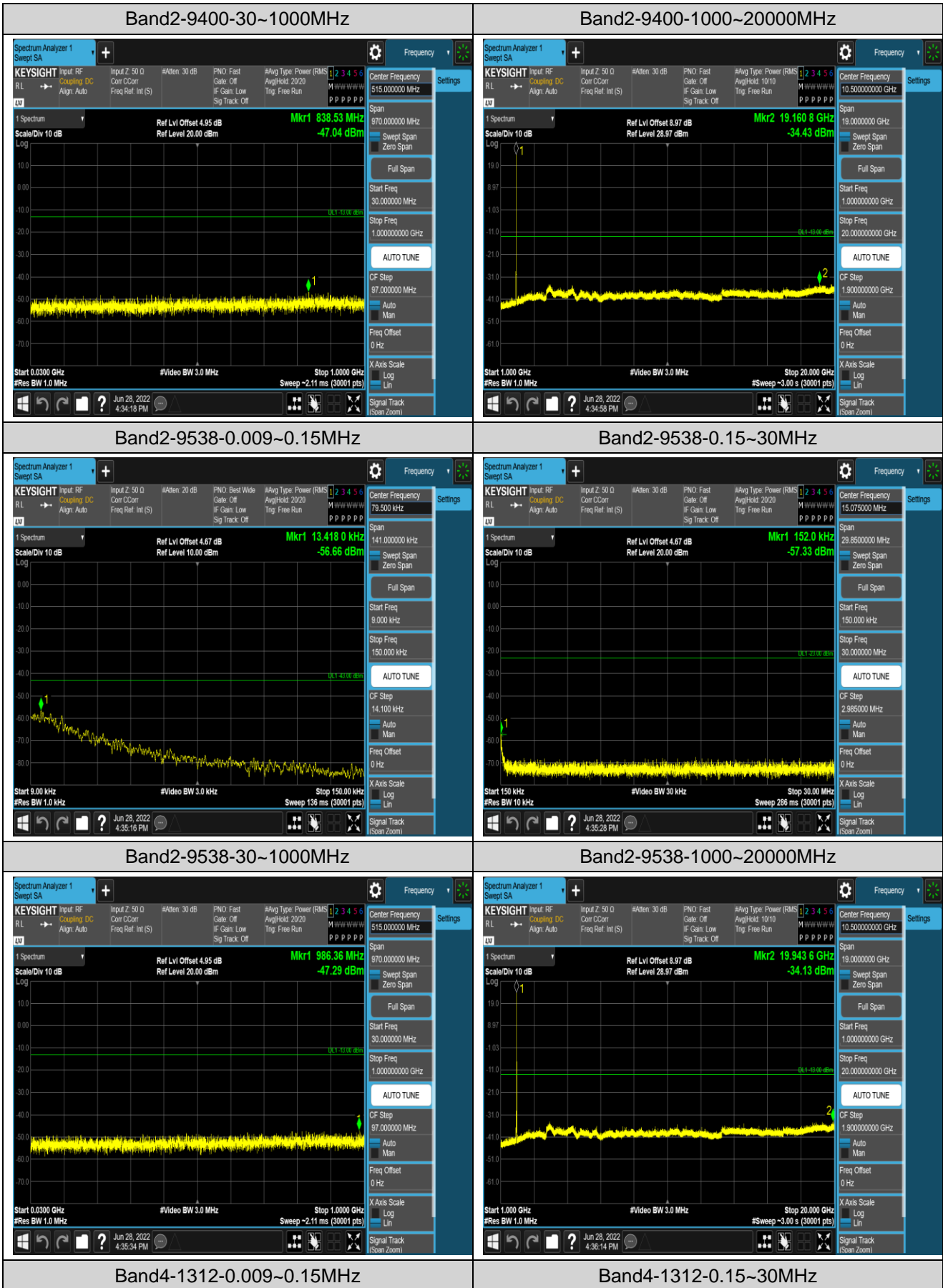
Appendix E: Conducted Spurious Emission

Test Result (WCDMA)

| Band | Channel | Frequency Range (Mhz) | Frequency (dBm) | Result (dBm) | Limit (dBm) | Verdict |
|-------|---------|-----------------------|-----------------|--------------|-------------|---------|
| Band2 | 9262 | 0.009~0.15MHz | 0.02 | -57.54 | -43 | PASS |
| Band2 | 9262 | 0.15~30MHz | 0.16 | -57.33 | -23 | PASS |
| Band2 | 9262 | 30~1000MHz | 728.08 | -47.15 | -13 | PASS |
| Band2 | 9262 | 1000~20000MHz | 19084.2 | -33.68 | -13 | PASS |
| Band2 | 9400 | 0.009~0.15MHz | 0.01 | -56.66 | -43 | PASS |
| Band2 | 9400 | 0.15~30MHz | 0.19 | -55.81 | -23 | PASS |
| Band2 | 9400 | 30~1000MHz | 838.53 | -47.04 | -13 | PASS |
| Band2 | 9400 | 1000~20000MHz | 19160.83 | -34.44 | -13 | PASS |
| Band2 | 9538 | 0.009~0.15MHz | 0.01 | -56.66 | -43 | PASS |
| Band2 | 9538 | 0.15~30MHz | 0.15 | -57.33 | -23 | PASS |
| Band2 | 9538 | 30~1000MHz | 986.36 | -47.29 | -13 | PASS |
| Band2 | 9538 | 1000~20000MHz | 19943.63 | -34.13 | -13 | PASS |
| Band4 | 1312 | 0.009~0.15MHz | 0.01 | -57.67 | -43 | PASS |
| Band4 | 1312 | 0.15~30MHz | 0.16 | -58.48 | -23 | PASS |
| Band4 | 1312 | 30~1000MHz | 913.48 | -46.4 | -13 | PASS |
| Band4 | 1312 | 1000~20000MHz | 18881.53 | -34.53 | -13 | PASS |
| Band4 | 1413 | 0.009~0.15MHz | 0.01 | -56.33 | -43 | PASS |
| Band4 | 1413 | 0.15~30MHz | 0.15 | -57.94 | -23 | PASS |
| Band4 | 1413 | 30~1000MHz | 891 | -46.74 | -13 | PASS |
| Band4 | 1413 | 1000~20000MHz | 19378.7 | -34.42 | -13 | PASS |
| Band4 | 1513 | 0.009~0.15MHz | 0.01 | -56.47 | -43 | PASS |
| Band4 | 1513 | 0.15~30MHz | 0.15 | -57.36 | -23 | PASS |
| Band4 | 1513 | 30~1000MHz | 844.09 | -46.95 | -13 | PASS |
| Band4 | 1513 | 1000~20000MHz | 18917.63 | -34.44 | -13 | PASS |
| Band5 | 4132 | 0.009~0.15MHz | 0.01 | -57.09 | -33 | PASS |
| Band5 | 4132 | 0.15~30MHz | 0.17 | -57.21 | -13 | PASS |
| Band5 | 4132 | 30~1000MHz | 926.7 | -55.12 | -13 | PASS |
| Band5 | 4132 | 1000~10000MHz | 3753.4 | -34.66 | -13 | PASS |
| Band5 | 4183 | 0.009~0.15MHz | 0.01 | -57.6 | -33 | PASS |
| Band5 | 4183 | 0.15~30MHz | 0.16 | -57.5 | -13 | PASS |
| Band5 | 4183 | 30~1000MHz | 975.07 | -55.71 | -13 | PASS |
| Band5 | 4183 | 1000~10000MHz | 3774.7 | -34.77 | -13 | PASS |
| Band5 | 4233 | 0.009~0.15MHz | 0.01 | -57.92 | -33 | PASS |
| Band5 | 4233 | 0.15~30MHz | 0.16 | -57.4 | -13 | PASS |
| Band5 | 4233 | 30~1000MHz | 957.64 | -55.62 | -13 | PASS |
| Band5 | 4233 | 1000~10000MHz | 3766.6 | -34.82 | -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



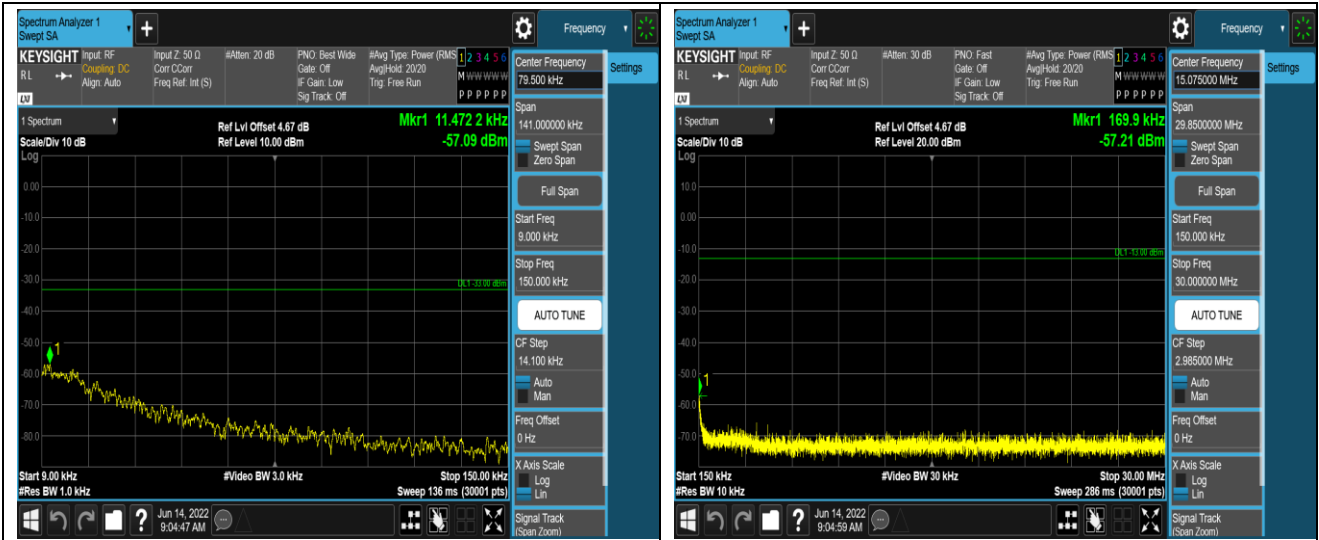
Band4-1513-30~1000MHz

Band4-1513-1000~20000MHz



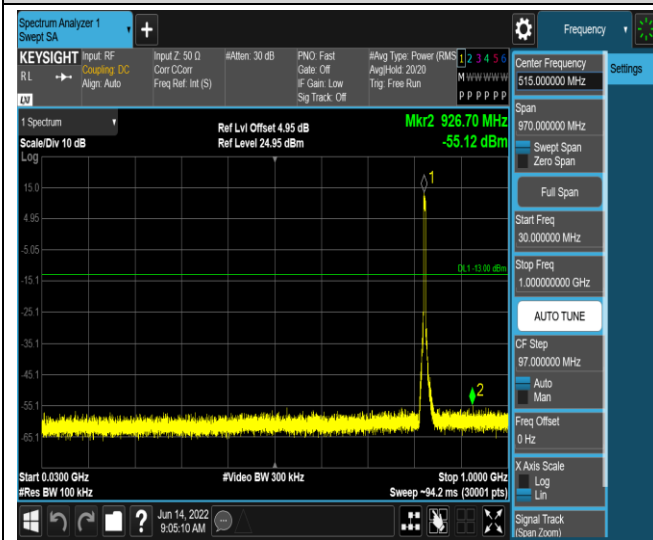
Band5-4132-0.009~0.15MHz

Band5-4132-0.15~30MHz

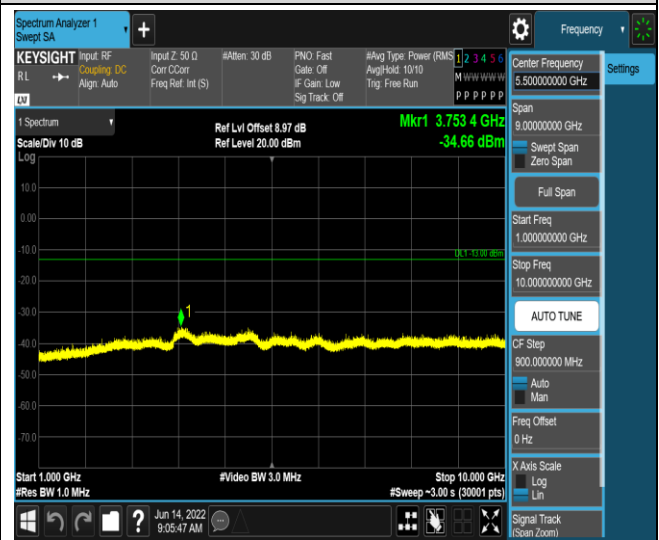


Band5-4132-30~1000MHz

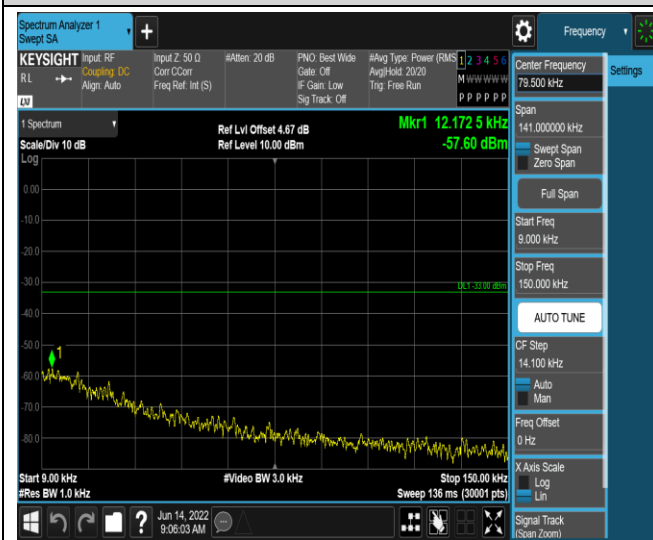
Band5-4132-1000~10000MHz



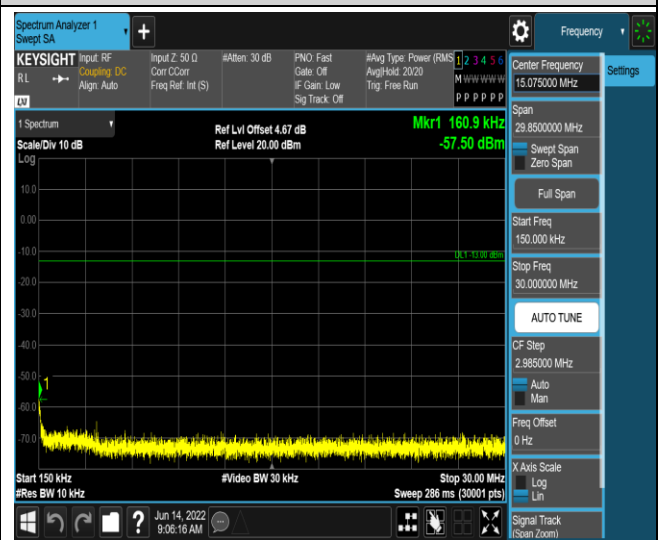
Band5-4183-0.009~0.15MHz



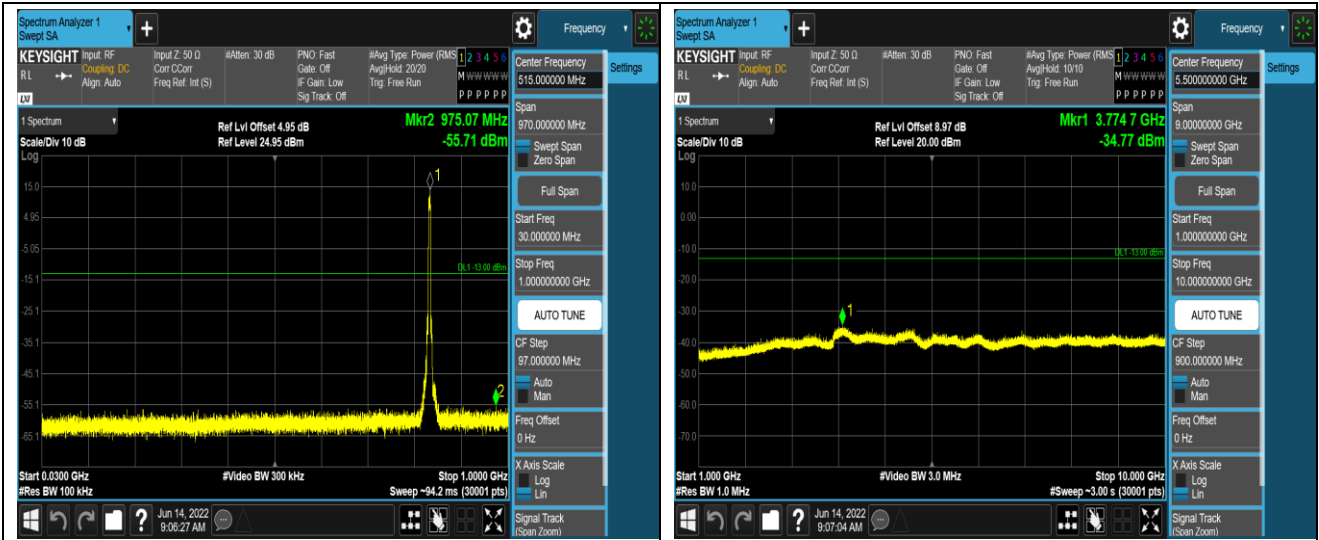
Band5-4183-0.15~30MHz



Band5-4183-30~1000MHz

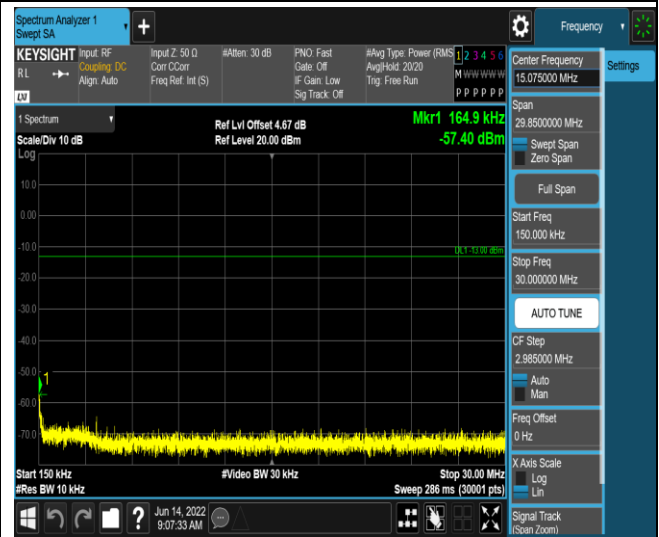
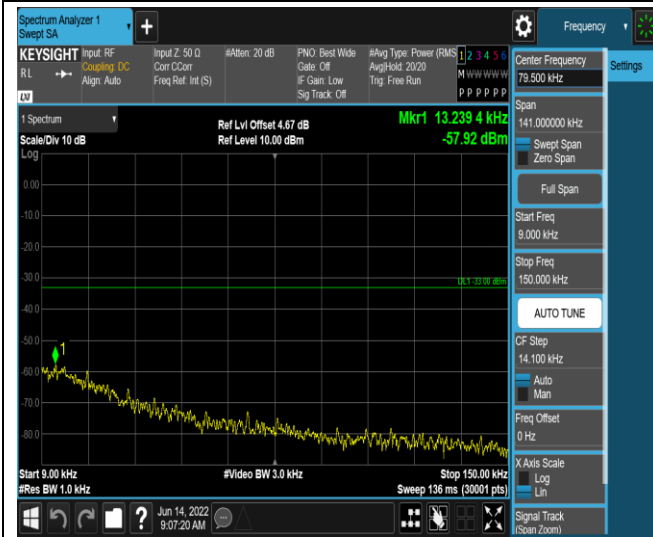


Band5-4183-1000~10000MHz



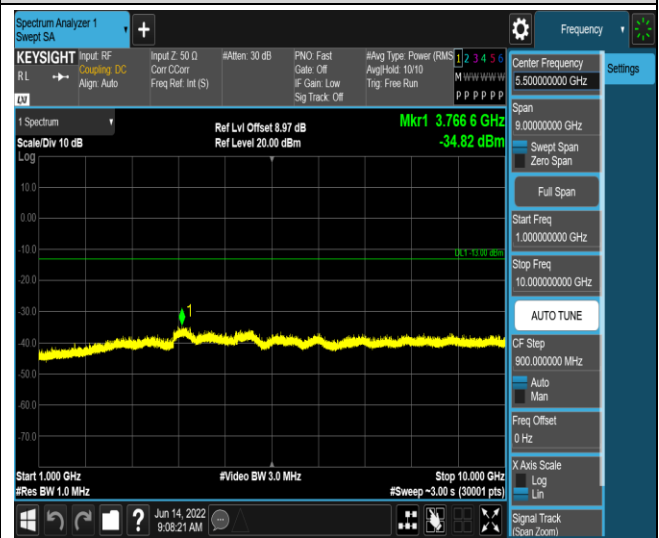
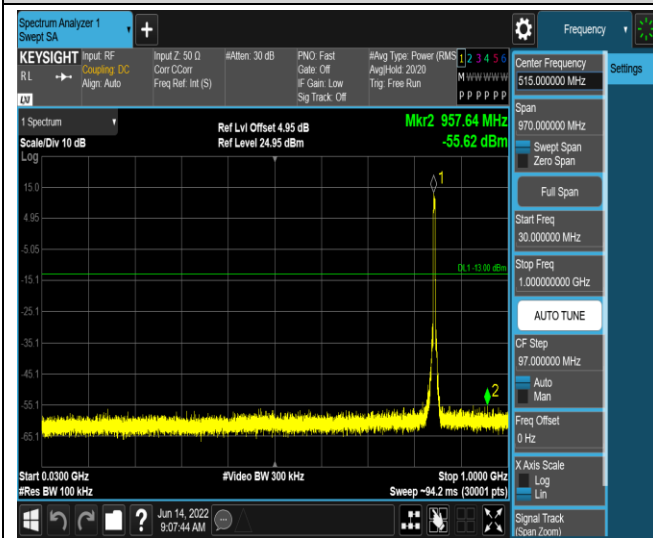
Band5-4233-0.009~0.15MHz

Band5-4233-0.15~30MHz



Band5-4233-30~1000MHz

Band5-4233-1000~10000MHz



AppendixF:Frequency Stability

Test Result

| Reference Frequency: WCDMA BAND V 12.2k RMC Middle channel=4183 Frequency=836.6MHz | | | | | |
|---|----------------------|-----------------|-----------|-------------|--------|
| Temperature | | | | | |
| Power supplied (Vdc) | Temperature (°C) | Frequency error | | Limit (ppm) | Result |
| | | Hz | ppm | | |
| 3.87 | -30 | -4.51 | -0.005391 | ±2.5 | Pass |
| | -20 | -3.86 | -0.004614 | | |
| | -10 | -1.60 | -0.001913 | | |
| | 0 | -4.32 | -0.005164 | | |
| | 10 | -5.41 | -0.006467 | | |
| | 20 | -4.52 | -0.005403 | | |
| | 30 | -3.49 | -0.004172 | | |
| | 40 | -3.00 | -0.003586 | | |
| | 50 | -2.47 | -0.002952 | | |
| Voltage | | | | | |
| Temperature (°C) | Power supplied (Vdc) | Frequency error | | Limit (ppm) | Result |
| | | Hz | ppm | | |
| 25 | 3.50 | -4.14 | -0.004949 | ±2.5 | Pass |
| | 3.87 | -4.92 | -0.005881 | | |
| | 4.45 | -4.40 | -0.005259 | | |
| 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 (Vdc) | Temperature (°C) | Frequency error | | Limit (ppm) | Result |
| | | Hz | ppm | | |
| 3.87 | -30 | -3.52 | -0.002032 | Within authorized band for BAND IV | Pass |
| | -20 | -5.89 | -0.003400 | | |
| | -10 | -5.40 | -0.003117 | | |
| | 0 | -4.55 | -0.002626 | | |
| | 10 | -4.18 | -0.002413 | | |
| | 20 | -2.70 | -0.001558 | | |
| | 30 | -2.00 | -0.001154 | | |
| | 40 | -2.86 | -0.001651 | | |
| | 50 | -2.71 | -0.001564 | | |
| Voltage | | | | | |
| Temperature (°C) | Power supplied (Vdc) | Frequency error | | Limit (ppm) | Result |
| | | Hz | ppm | | |
| 25 | 3.50 | -2.15 | -0.001241 | Within authorized band for BAND IV | Pass |
| | 3.87 | -5.02 | -0.002897 | | |
| | 4.45 | -2.30 | -0.001327 | | |
| 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 (Vdc) | Temperature (°C) | Frequency error | | Limit (ppm) | Result |
| | | Hz | ppm | | |
| 3.87 | -30 | -2.83 | -0.001505 | Within authorized band for BAND II | Pass |
| | -20 | 0.88 | 0.000468 | | |
| | -10 | 0.06 | 0.000032 | | |
| | 0 | -2.09 | -0.001112 | | |
| | 10 | -3.41 | -0.001814 | | |
| | 20 | -4.30 | -0.002287 | | |
| | 30 | -2.12 | -0.001128 | | |
| | 40 | -4.38 | -0.002330 | | |
| | 50 | -0.55 | -0.000293 | | |
| Voltage | | | | | |
| Temperature (°C) | Power supplied (Vdc) | Frequency error | | Limit (ppm) | Result |
| | | Hz | ppm | | |
| 25 | 3.50 | 1.06 | 0.000564 | Within authorized band for BAND II | Pass |
| | 3.87 | -2.36 | -0.001255 | | |
| | 4.45 | -2.73 | -0.001452 | | |
| <i>Remark: All channel had been tested, but only the worst case data displayed in this report.</i> | | | | | |

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

