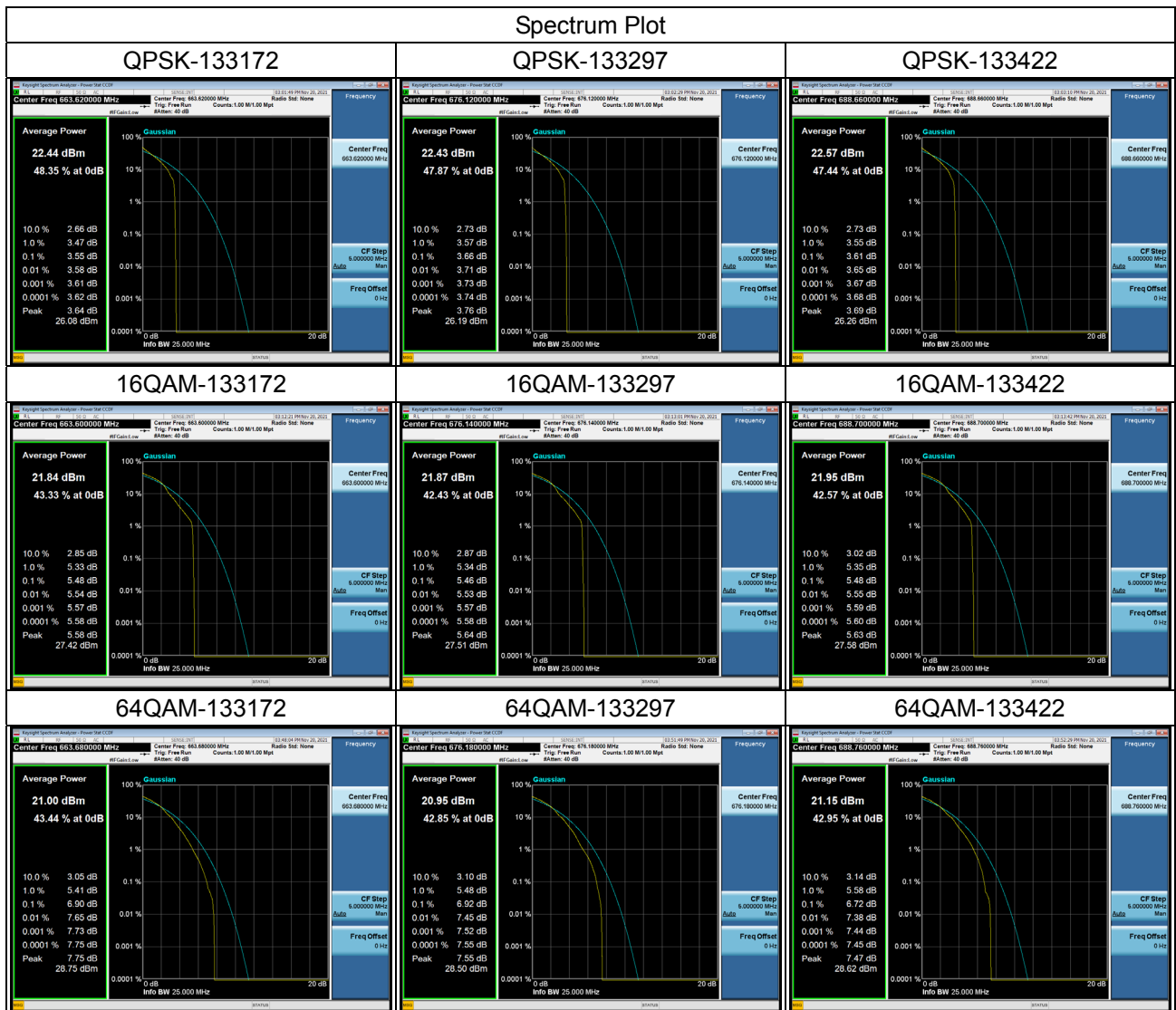
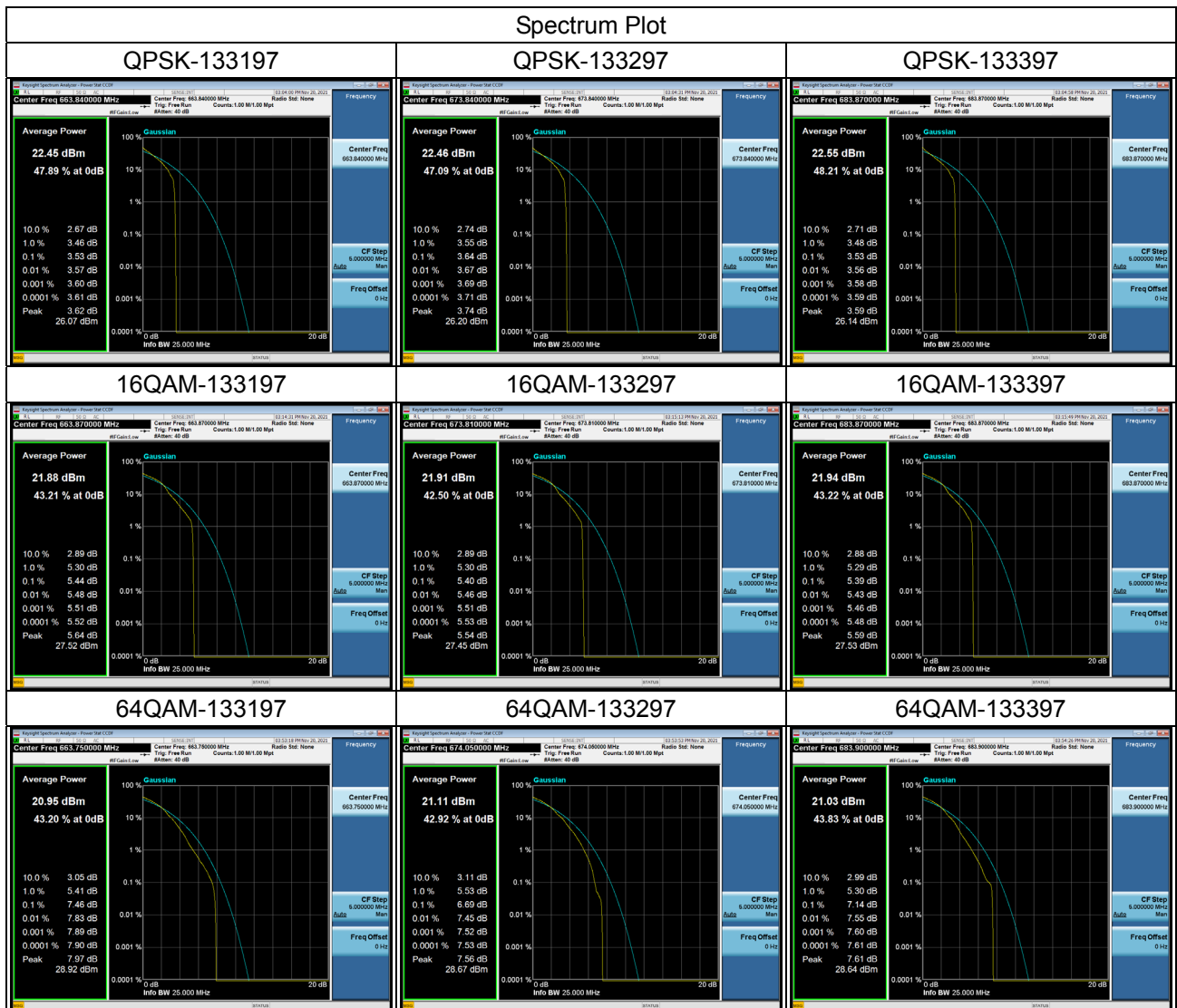


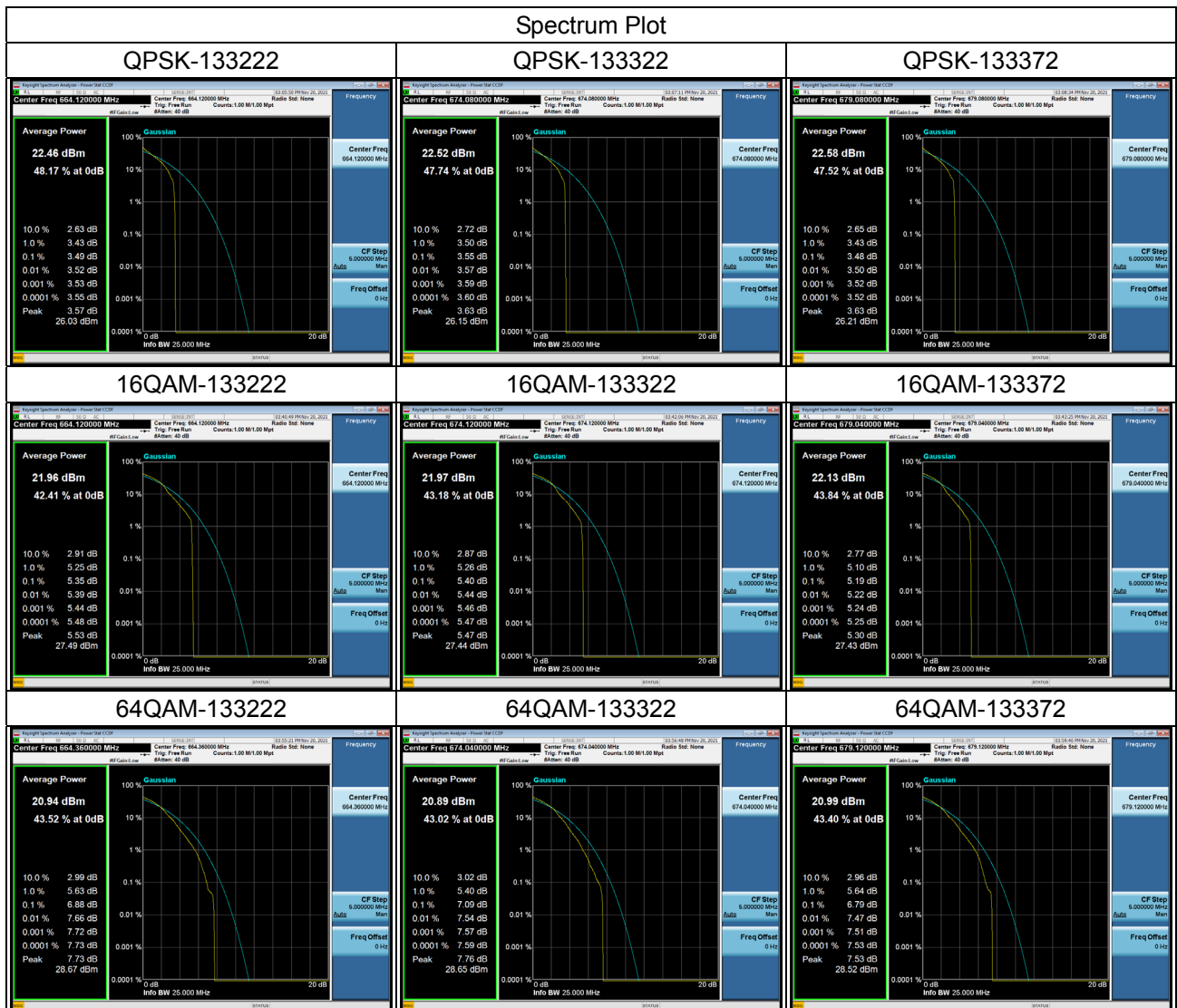
| LTE Band 71_10MHz |                 |                            |       |       |                 |        |
|-------------------|-----------------|----------------------------|-------|-------|-----------------|--------|
| Channel           | Frequency (MHz) | Peak To Average Ratio (dB) |       |       | Max. Limit (dB) | Result |
|                   |                 | QPSK                       | 16QAM | 64QAM |                 |        |
| 133172            | 668             | 3.55                       | 5.48  | 6.90  | 13              | Pass   |
| 133297            | 680.5           | 3.66                       | 5.46  | 6.92  | 13              | Pass   |
| 133422            | 693             | 3.61                       | 5.48  | 6.72  | 13              | Pass   |



| LTE Band 71_15MHz |                 |                            |       |       |                 |        |
|-------------------|-----------------|----------------------------|-------|-------|-----------------|--------|
| Channel           | Frequency (MHz) | Peak To Average Ratio (dB) |       |       | Max. Limit (dB) | Result |
|                   |                 | QPSK                       | 16QAM | 64QAM |                 |        |
| 133197            | 670.5           | 3.53                       | 5.44  | 7.46  | 13              | Pass   |
| 133297            | 680.5           | 3.64                       | 5.40  | 6.69  | 13              | Pass   |
| 133397            | 690.5           | 3.53                       | 5.39  | 7.14  | 13              | Pass   |



| LTE Band 71_20MHz |                 |                            |       |       |                 |        |
|-------------------|-----------------|----------------------------|-------|-------|-----------------|--------|
| Channel           | Frequency (MHz) | Peak To Average Ratio (dB) |       |       | Max. Limit (dB) | Result |
|                   |                 | QPSK                       | 16QAM | 64QAM |                 |        |
| 133222            | 673             | 3.49                       | 5.35  | 6.88  | 13              | Pass   |
| 133322            | 683             | 3.55                       | 5.40  | 7.09  | 13              | Pass   |
| 133372            | 688             | 3.48                       | 5.19  | 6.79  | 13              | Pass   |



## **APPENDIX I - FREQUENCY STABILITY**

|           |               |
|-----------|---------------|
| Test Mode | WCDMA Band IV |
|-----------|---------------|

| Frequency error versus temperature and supply voltage |                                                  |                                                   |             |
|-------------------------------------------------------|--------------------------------------------------|---------------------------------------------------|-------------|
| Temperature (°C)                                      | Frequency (MHz)                                  |                                                   | worst ppm   |
|                                                       | Low channel limit:1312<br>Reference point -13dBm | High channel limit:1513<br>Reference point -13dBm | Record only |
| 50                                                    | 1850.020000                                      | 1909.970000                                       | -15.7068063 |
| 40                                                    | 1850.020000                                      | 1909.970000                                       | -15.7068063 |
| 30                                                    | 1850.020000                                      | 1909.970000                                       | -15.7068063 |
| 20                                                    | 1850.020000                                      | 1909.970000                                       | -15.7068063 |
| 10                                                    | 1850.020000                                      | 1909.970000                                       | -15.7068063 |
| 0                                                     | 1850.020000                                      | 1909.970000                                       | -15.7068063 |
| -10                                                   | 1850.020000                                      | 1909.970000                                       | -15.7068063 |
| -20                                                   | 1850.020000                                      | 1909.970000                                       | -15.7068063 |
| -30                                                   | 1850.020000                                      | 1909.970000                                       | -15.7068063 |
| Minimum voltage                                       | 1850.020000                                      | 1909.970000                                       | -15.7068063 |
| Maximum voltage                                       | 1850.020000                                      | 1909.970000                                       | -15.7068063 |
| Nominal voltage                                       | 1850.020000                                      | 1909.970000                                       | -15.7068063 |

Note: Nominal voltage= 3.8V, Maximum voltage= 4.2V, Minimum voltage= 3.5V.

|           |                  |
|-----------|------------------|
| Test Mode | LTE Band 4_20MHz |
|-----------|------------------|

| Frequency error versus temperature and supply voltage |                                                  |                                                   |             |
|-------------------------------------------------------|--------------------------------------------------|---------------------------------------------------|-------------|
| Temperature (°C)                                      | Frequency (MHz)                                  |                                                   | worst ppm   |
|                                                       | Low channel limit:1710<br>Reference point -13dBm | High channel limit:1755<br>Reference point -13dBm | Record only |
| 50                                                    | 1710.180000                                      | 1754.820000                                       | 105.2631579 |
| 40                                                    | 1710.180000                                      | 1754.820000                                       | 105.2631579 |
| 30                                                    | 1710.180000                                      | 1754.820000                                       | 105.2631579 |
| 20                                                    | 1710.180000                                      | 1754.820000                                       | 105.2631579 |
| 10                                                    | 1710.180000                                      | 1754.820000                                       | 105.2631579 |
| 0                                                     | 1710.180000                                      | 1754.820000                                       | 105.2631579 |
| -10                                                   | 1710.180000                                      | 1754.820000                                       | 105.2631579 |
| -20                                                   | 1710.180000                                      | 1754.820000                                       | 105.2631579 |
| -30                                                   | 1710.180000                                      | 1754.820000                                       | 105.2631579 |
| Minimum voltage                                       | 1710.180000                                      | 1754.820000                                       | 105.2631579 |
| Maximum voltage                                       | 1710.180000                                      | 1754.820000                                       | 105.2631579 |
| Nominal voltage                                       | 1710.180000                                      | 1754.820000                                       | 105.2631579 |

Note: Nominal voltage= 3.8V, Maximum voltage= 4.2V, Minimum voltage= 3.5V.

|           |                  |
|-----------|------------------|
| Test Mode | LTE Band 7_20MHz |
|-----------|------------------|

| Frequency error versus temperature and supply voltage |                                                  |                                                   |             |
|-------------------------------------------------------|--------------------------------------------------|---------------------------------------------------|-------------|
| Temperature (°C)                                      | Frequency (MHz)                                  |                                                   | worst ppm   |
|                                                       | Low channel limit:2500<br>Reference point -10dBm | High channel limit:2570<br>Reference point -10dBm | Record only |
| 50                                                    | 2500.150000                                      | 2569.850000                                       | 60          |
| 40                                                    | 2500.150000                                      | 2569.850000                                       | 60          |
| 30                                                    | 2500.150000                                      | 2569.850000                                       | 60          |
| 20                                                    | 2500.150000                                      | 2569.850000                                       | 60          |
| 10                                                    | 2500.150000                                      | 2569.850000                                       | 60          |
| 0                                                     | 2500.150000                                      | 2569.850000                                       | 60          |
| -10                                                   | 2500.150000                                      | 2569.850000                                       | 60          |
| -20                                                   | 2500.150000                                      | 2569.850000                                       | 60          |
| -30                                                   | 2500.150000                                      | 2569.850000                                       | 60          |
| Minimum voltage                                       | 2500.150000                                      | 2569.850000                                       | 60          |
| Maximum voltage                                       | 2500.150000                                      | 2569.850000                                       | 60          |
| Nominal voltage                                       | 2500.150000                                      | 2569.850000                                       | 60          |

Note: Nominal voltage= 3.8V, Maximum voltage= 4.2V, Minimum voltage= 3.5V.

|           |                           |
|-----------|---------------------------|
| Test Mode | LTE Band 12_CH23095_10MHz |
|-----------|---------------------------|

| Frequency error versus temperature and supply voltage |                                                 |                                                  |             |
|-------------------------------------------------------|-------------------------------------------------|--------------------------------------------------|-------------|
| Temperature (°C)                                      | Frequency (MHz)                                 |                                                  | worst ppm   |
|                                                       | Low channel limit:699<br>Reference point -13dBm | High channel limit:716<br>Reference point -13dBm | Record only |
| 50                                                    | 699.080000                                      | 715.920000                                       | 114.4492132 |
| 40                                                    | 699.080000                                      | 715.920000                                       | 114.4492132 |
| 30                                                    | 699.080000                                      | 715.920000                                       | 114.4492132 |
| 20                                                    | 699.080000                                      | 715.920000                                       | 114.4492132 |
| 10                                                    | 699.080000                                      | 715.920000                                       | 114.4492132 |
| 0                                                     | 699.080000                                      | 715.920000                                       | 114.4492132 |
| -10                                                   | 699.080000                                      | 715.920000                                       | 114.4492132 |
| -20                                                   | 699.080000                                      | 715.920000                                       | 114.4492132 |
| -30                                                   | 699.080000                                      | 715.920000                                       | 114.4492132 |
| Minimum voltage                                       | 699.080000                                      | 715.920000                                       | 114.4492132 |
| Maximum voltage                                       | 699.080000                                      | 715.920000                                       | 114.4492132 |
| Nominal voltage                                       | 699.080000                                      | 715.920000                                       | 114.4492132 |

Note: Nominal voltage= 3.8V, Maximum voltage= 4.2V, Minimum voltage= 3.5V.

|           |                   |
|-----------|-------------------|
| Test Mode | LTE Band 13_10MHz |
|-----------|-------------------|

| Frequency error versus temperature and supply voltage |                                                 |                                                  |             |
|-------------------------------------------------------|-------------------------------------------------|--------------------------------------------------|-------------|
| Temperature (°C)                                      | Frequency (MHz)                                 |                                                  | worst ppm   |
|                                                       | Low channel limit:777<br>Reference point -13dBm | High channel limit:787<br>Reference point -13dBm | Record only |
| 50                                                    | 777.150000                                      | 786.870000                                       | 193.0501931 |
| 40                                                    | 777.150000                                      | 786.870000                                       | 193.0501931 |
| 30                                                    | 777.150000                                      | 786.870000                                       | 193.0501931 |
| 20                                                    | 777.150000                                      | 786.870000                                       | 193.0501931 |
| 10                                                    | 777.150000                                      | 786.870000                                       | 193.0501931 |
| 0                                                     | 777.150000                                      | 786.870000                                       | 193.0501931 |
| -10                                                   | 777.150000                                      | 786.870000                                       | 193.0501931 |
| -20                                                   | 777.150000                                      | 786.870000                                       | 193.0501931 |
| -30                                                   | 777.150000                                      | 786.870000                                       | 193.0501931 |
| Minimum voltage                                       | 777.150000                                      | 786.870000                                       | 193.0501931 |
| Maximum voltage                                       | 777.150000                                      | 786.870000                                       | 193.0501931 |
| Nominal voltage                                       | 777.150000                                      | 786.870000                                       | 193.0501931 |

Note: Nominal voltage= 3.8V, Maximum voltage= 4.2V, Minimum voltage= 3.5V.

|           |                   |
|-----------|-------------------|
| Test Mode | LTE Band 17_10MHz |
|-----------|-------------------|

| Frequency error versus temperature and supply voltage |                                                 |                                                  |             |
|-------------------------------------------------------|-------------------------------------------------|--------------------------------------------------|-------------|
| Temperature (°C)                                      | Frequency (MHz)                                 |                                                  | worst ppm   |
|                                                       | Low channel limit:704<br>Reference point -13dBm | High channel limit:716<br>Reference point -13dBm | Record only |
| 50                                                    | 704.140000                                      | 715.870000                                       | 198.8636364 |
| 40                                                    | 704.140000                                      | 715.870000                                       | 198.8636364 |
| 30                                                    | 704.140000                                      | 715.870000                                       | 198.8636364 |
| 20                                                    | 704.140000                                      | 715.870000                                       | 198.8636364 |
| 10                                                    | 704.140000                                      | 715.870000                                       | 198.8636364 |
| 0                                                     | 704.140000                                      | 715.870000                                       | 198.8636364 |
| -10                                                   | 704.140000                                      | 715.870000                                       | 198.8636364 |
| -20                                                   | 704.140000                                      | 715.870000                                       | 198.8636364 |
| -30                                                   | 704.140000                                      | 715.870000                                       | 198.8636364 |
| Minimum voltage                                       | 704.140000                                      | 715.870000                                       | 198.8636364 |
| Maximum voltage                                       | 704.140000                                      | 715.870000                                       | 198.8636364 |
| Nominal voltage                                       | 704.140000                                      | 715.870000                                       | 198.8636364 |

Note: Nominal voltage= 3.8V, Maximum voltage= 4.2V, Minimum voltage= 3.5V.

|           |                   |
|-----------|-------------------|
| Test Mode | LTE Band 41_20MHz |
|-----------|-------------------|

| Frequency error versus temperature and supply voltage |                                                  |                                                   |             |
|-------------------------------------------------------|--------------------------------------------------|---------------------------------------------------|-------------|
| Temperature (°C)                                      | Frequency (MHz)                                  |                                                   | worst ppm   |
|                                                       | Low channel limit:2496<br>Reference point -13dBm | High channel limit:2690<br>Reference point -13dBm | Record only |
| 50                                                    | 2496.090000                                      | 2689.917600                                       | 36.05769231 |
| 40                                                    | 2496.090000                                      | 2689.917600                                       | 36.05769231 |
| 30                                                    | 2496.090000                                      | 2689.917600                                       | 36.05769231 |
| 20                                                    | 2496.090000                                      | 2689.917600                                       | 36.05769231 |
| 10                                                    | 2496.090000                                      | 2689.917600                                       | 36.05769231 |
| 0                                                     | 2496.090000                                      | 2689.917600                                       | 36.05769231 |
| -10                                                   | 2496.090000                                      | 2689.917600                                       | 36.05769231 |
| -20                                                   | 2496.090000                                      | 2689.917600                                       | 36.05769231 |
| -30                                                   | 2496.090000                                      | 2689.917600                                       | 36.05769231 |
| Minimum voltage                                       | 2496.090000                                      | 2689.917600                                       | 36.05769231 |
| Maximum voltage                                       | 2496.090000                                      | 2689.917600                                       | 36.05769231 |
| Nominal voltage                                       | 2496.090000                                      | 2689.917600                                       | 36.05769231 |

Note: Nominal voltage= 3.8V, Maximum voltage= 4.2V, Minimum voltage= 3.5V.

|           |                   |
|-----------|-------------------|
| Test Mode | LTE Band 66_20MHz |
|-----------|-------------------|

| Frequency error versus temperature and supply voltage |                                                  |                                                   |             |
|-------------------------------------------------------|--------------------------------------------------|---------------------------------------------------|-------------|
| Temperature (°C)                                      | Frequency (MHz)                                  |                                                   | worst ppm   |
|                                                       | Low channel limit:1710<br>Reference point -13dBm | High channel limit:1780<br>Reference point -13dBm | Record only |
| 50                                                    | 1710.080000                                      | 1779.930000                                       | 46.78362573 |
| 40                                                    | 1710.080000                                      | 1779.930000                                       | 46.78362573 |
| 30                                                    | 1710.080000                                      | 1779.930000                                       | 46.78362573 |
| 20                                                    | 1710.080000                                      | 1779.930000                                       | 46.78362573 |
| 10                                                    | 1710.080000                                      | 1779.930000                                       | 46.78362573 |
| 0                                                     | 1710.080000                                      | 1779.930000                                       | 46.78362573 |
| -10                                                   | 1710.080000                                      | 1779.930000                                       | 46.78362573 |
| -20                                                   | 1710.080000                                      | 1779.930000                                       | 46.78362573 |
| -30                                                   | 1710.080000                                      | 1779.930000                                       | 46.78362573 |
| Minimum voltage                                       | 1710.080000                                      | 1779.930000                                       | 46.78362573 |
| Maximum voltage                                       | 1710.080000                                      | 1779.930000                                       | 46.78362573 |
| Nominal voltage                                       | 1710.080000                                      | 1779.930000                                       | 46.78362573 |

Note: Nominal voltage= 3.8V, Maximum voltage= 4.2V, Minimum voltage= 3.5V.

|           |                   |
|-----------|-------------------|
| Test Mode | LTE Band 71_20MHz |
|-----------|-------------------|

| Frequency error versus temperature and supply voltage |                                                 |                                                  |             |
|-------------------------------------------------------|-------------------------------------------------|--------------------------------------------------|-------------|
| Temperature (°C)                                      | Frequency (MHz)                                 |                                                  | worst ppm   |
|                                                       | Low channel limit:663<br>Reference point -13dBm | High channel limit:698<br>Reference point -13dBm | Record only |
| 50                                                    | 663.050000                                      | 697.980000                                       | 75.4147813  |
| 40                                                    | 663.050000                                      | 697.980000                                       | 75.4147813  |
| 30                                                    | 663.050000                                      | 697.980000                                       | 75.4147813  |
| 20                                                    | 663.050000                                      | 697.980000                                       | 75.4147813  |
| 10                                                    | 663.050000                                      | 697.980000                                       | 75.4147813  |
| 0                                                     | 663.050000                                      | 697.980000                                       | 75.4147813  |
| -10                                                   | 663.050000                                      | 697.980000                                       | 75.4147813  |
| -20                                                   | 663.050000                                      | 697.980000                                       | 75.4147813  |
| -30                                                   | 663.050000                                      | 697.980000                                       | 75.4147813  |
| Minimum voltage                                       | 663.050000                                      | 697.980000                                       | 75.4147813  |
| Maximum voltage                                       | 663.050000                                      | 697.980000                                       | 75.4147813  |
| Nominal voltage                                       | 663.050000                                      | 697.980000                                       | 75.4147813  |

Note: Nominal voltage= 3.8V, Maximum voltage= 4.2V, Minimum voltage= 3.5V.

**End of Test Report**