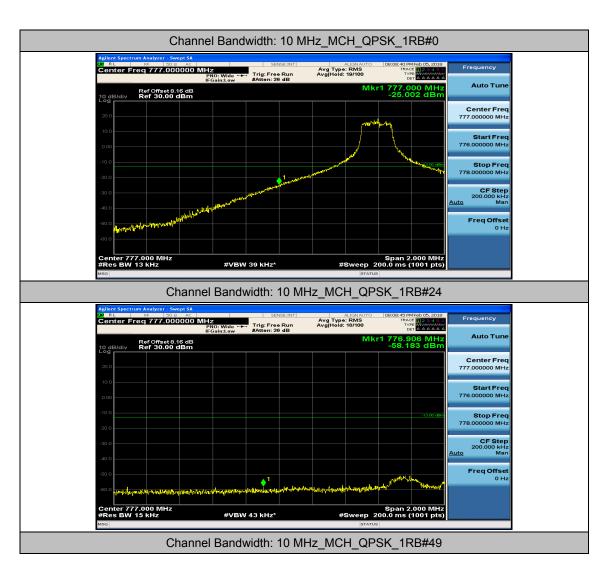






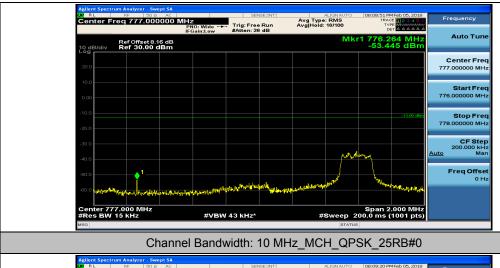


### **Channel Bandwidth: 10 MHz**











#### Channel Bandwidth: 10 MHz\_MCH\_QPSK\_25RB#12



Channel Bandwidth: 10 MHz\_MCH\_QPSK\_25RB#25





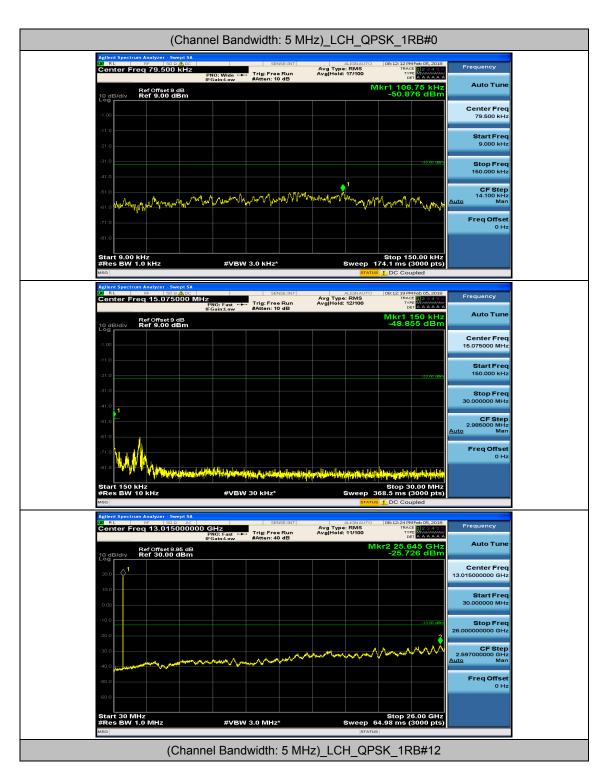




## **Appendix E: Conducted Spurious Emission**

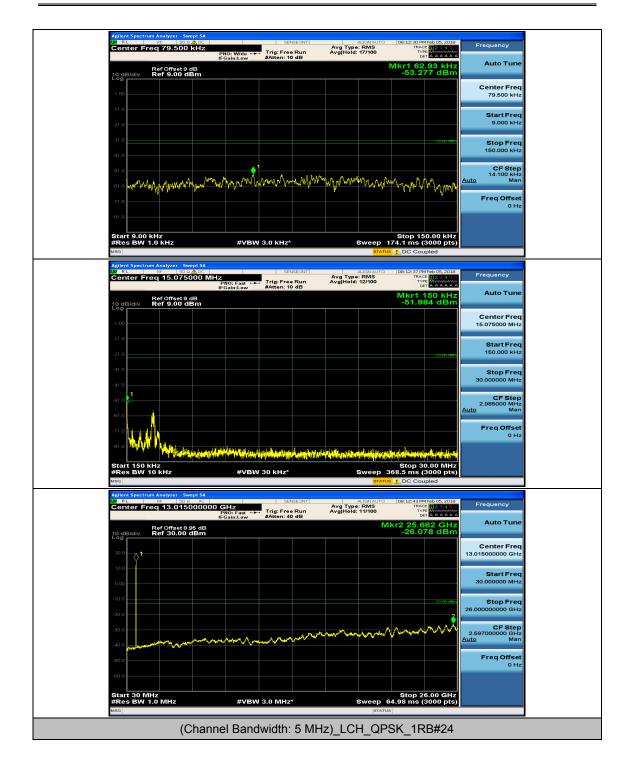
## **Test Graphs**

**Channel Bandwidth: 5 MHz** 



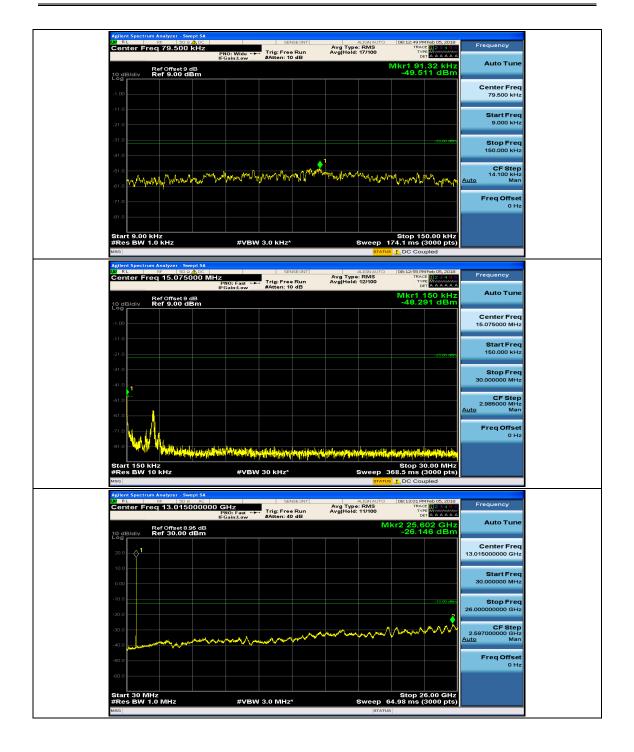




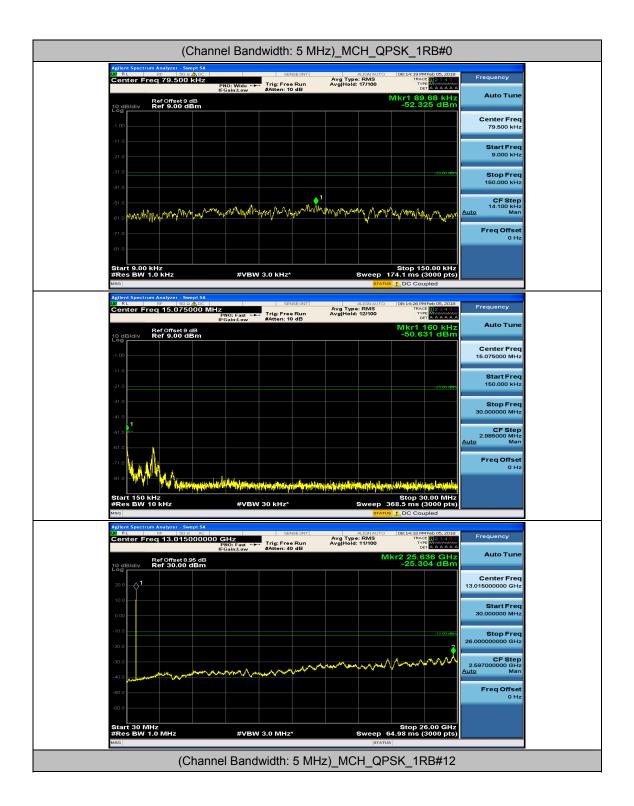






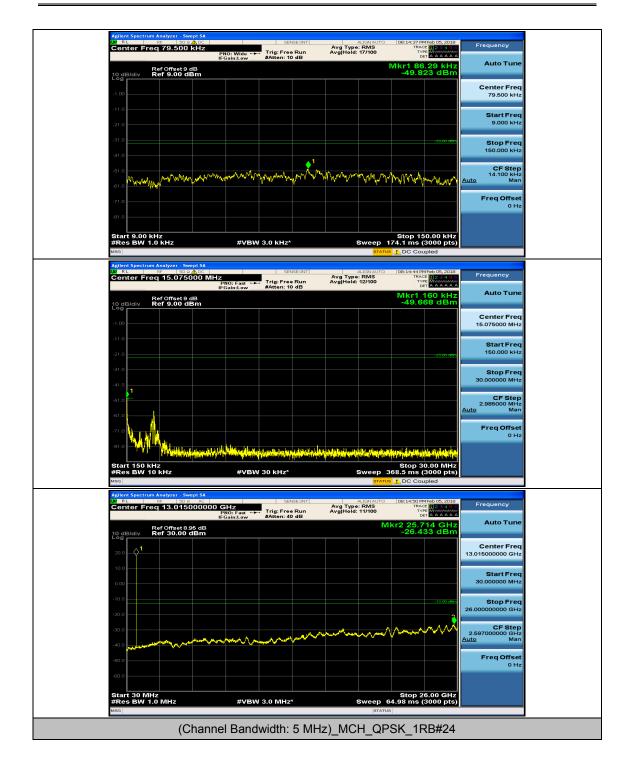






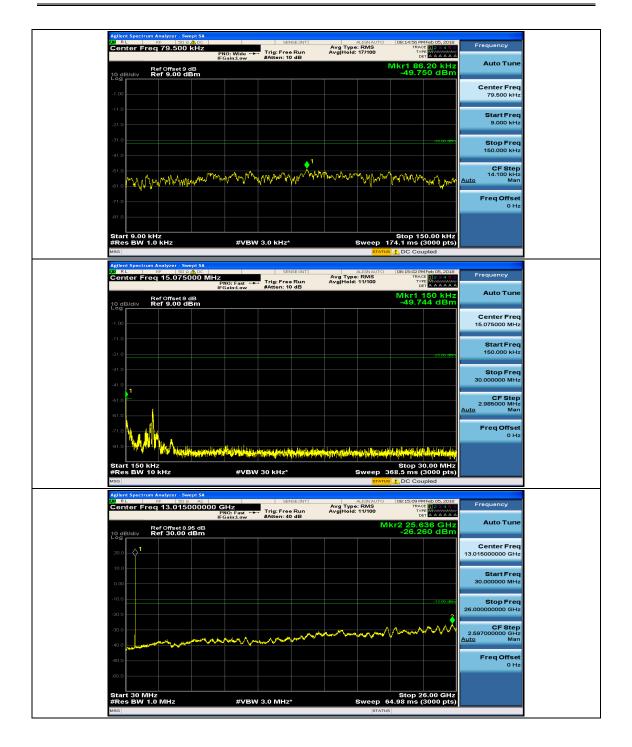




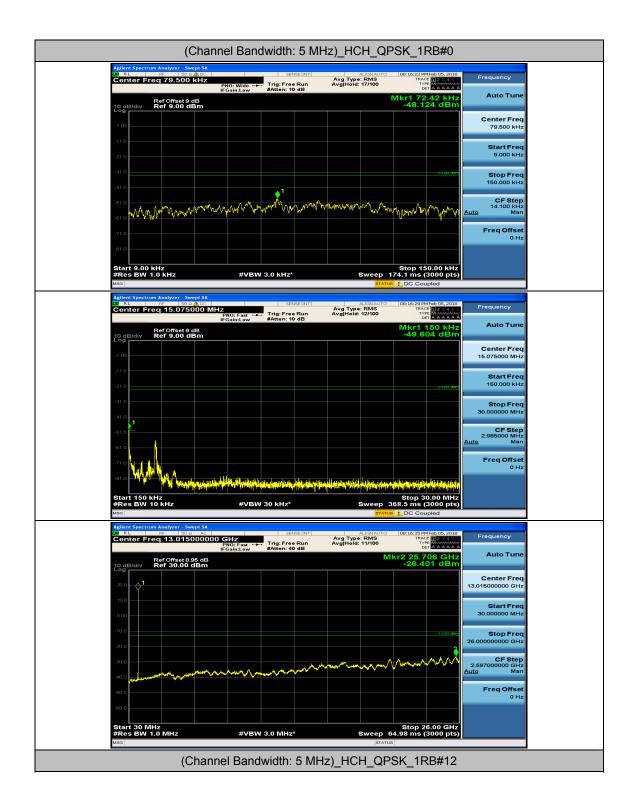






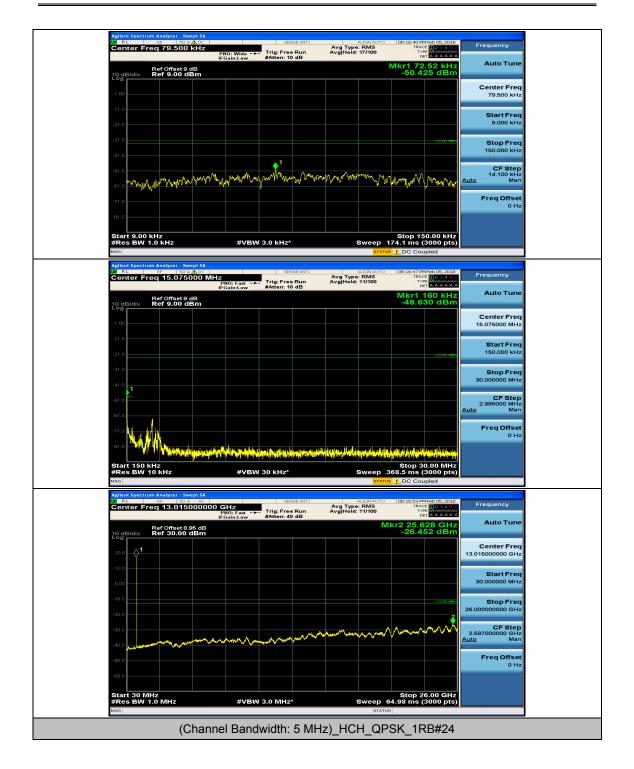






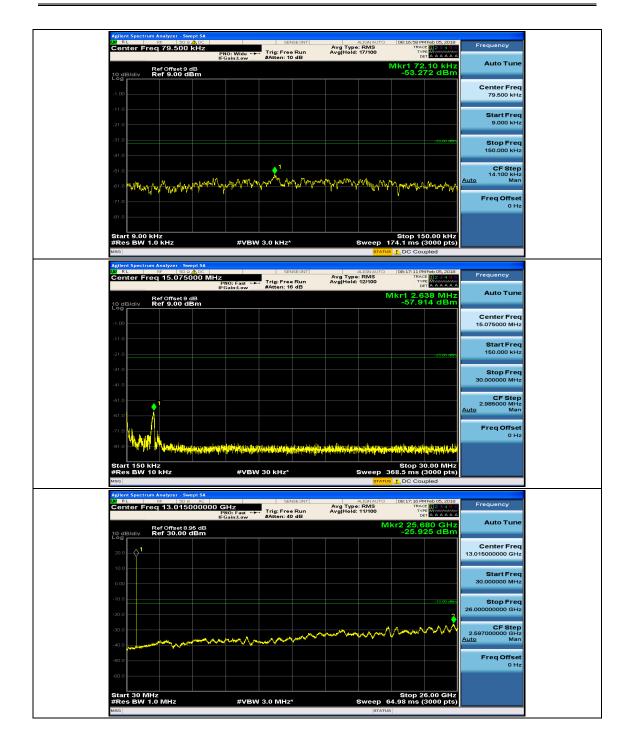




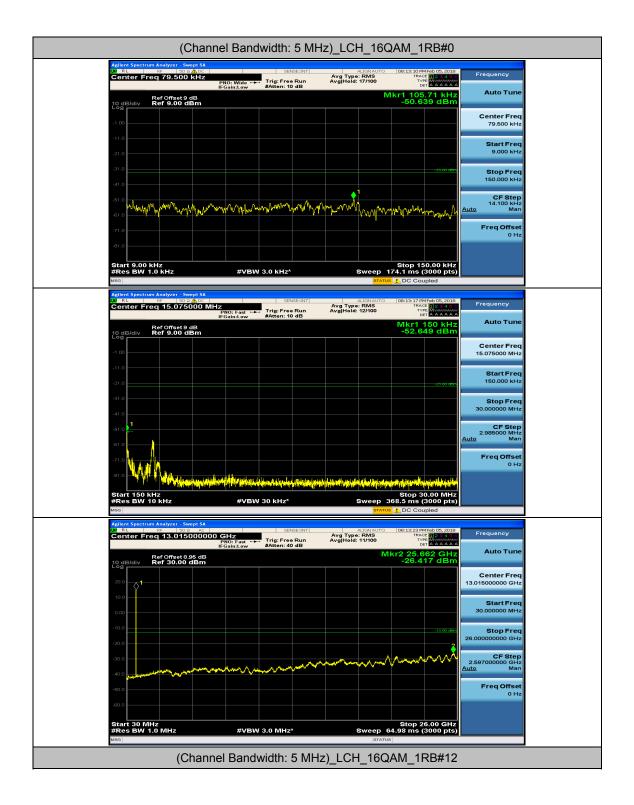






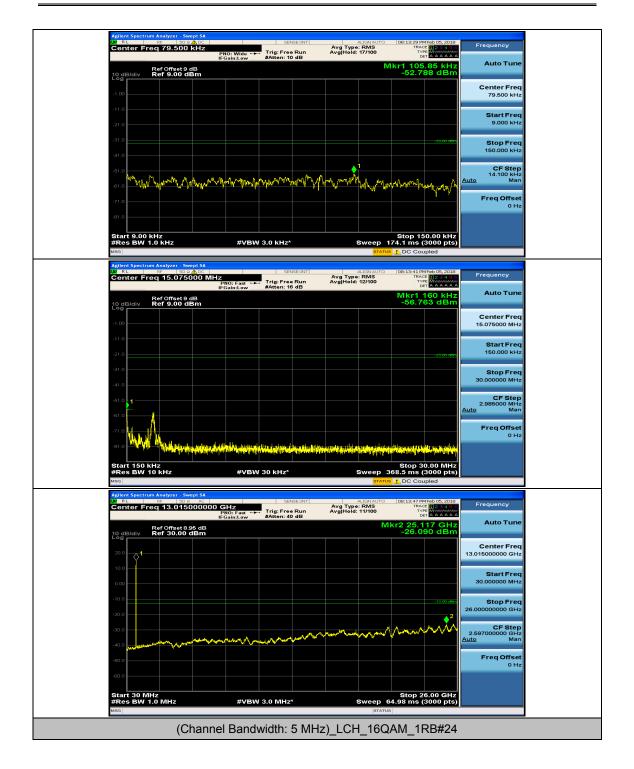






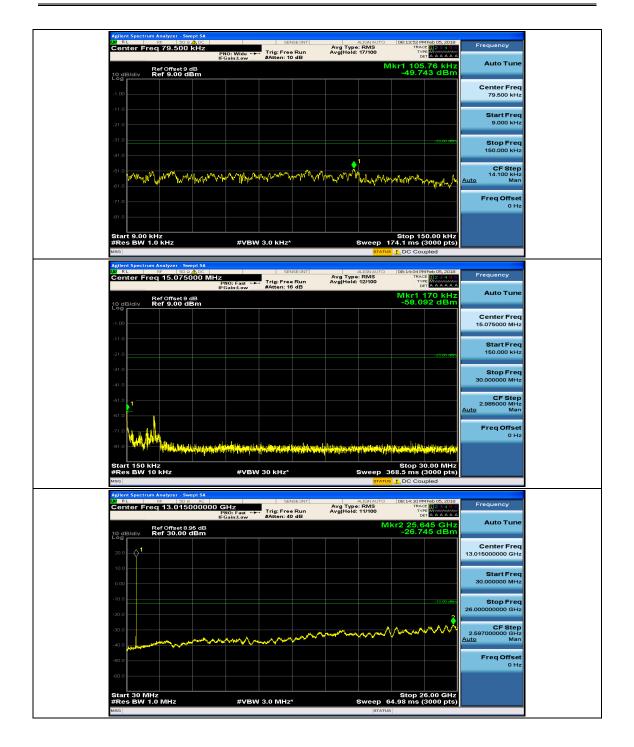




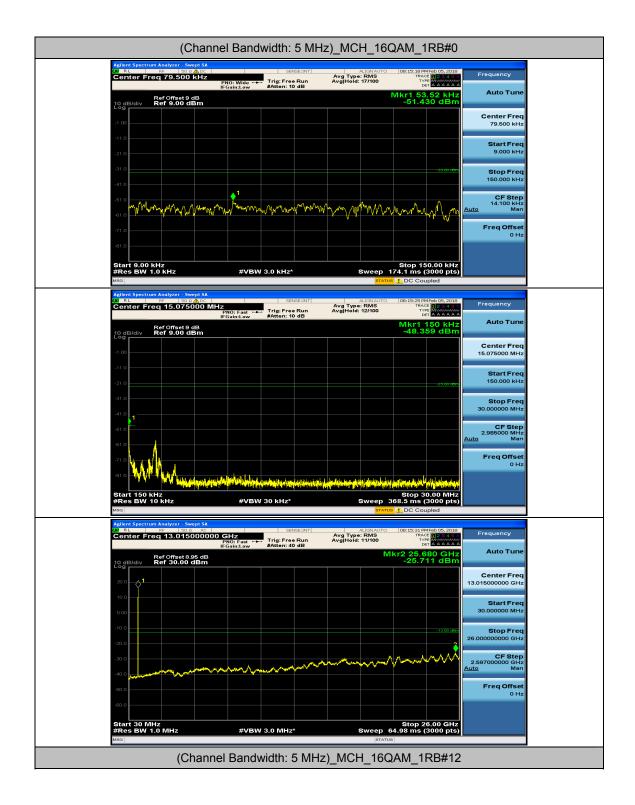






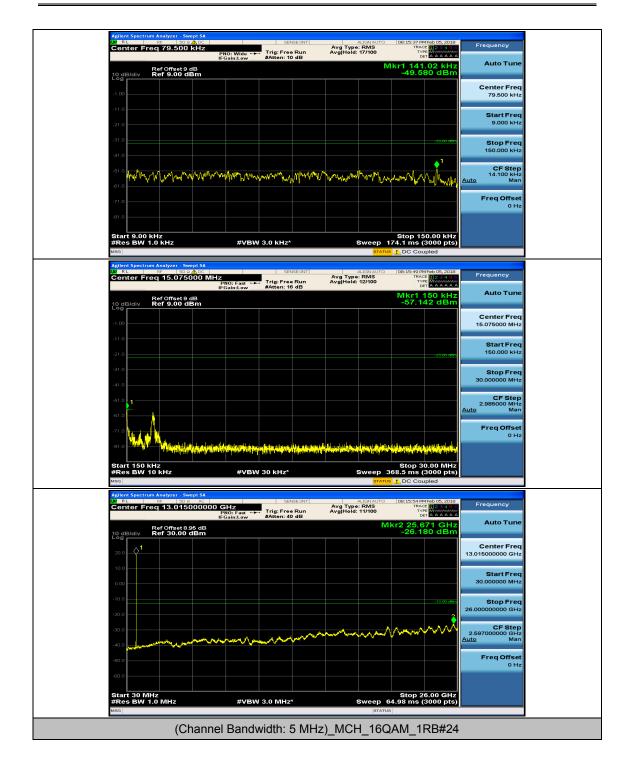






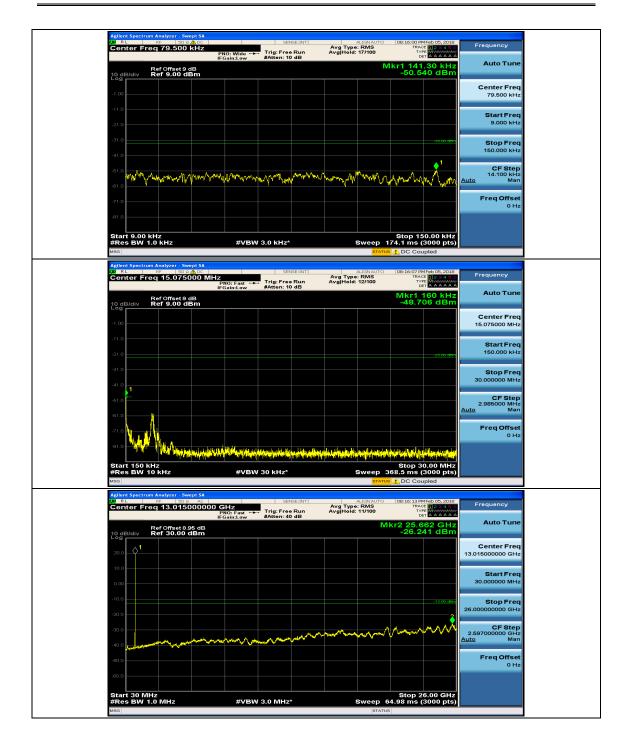




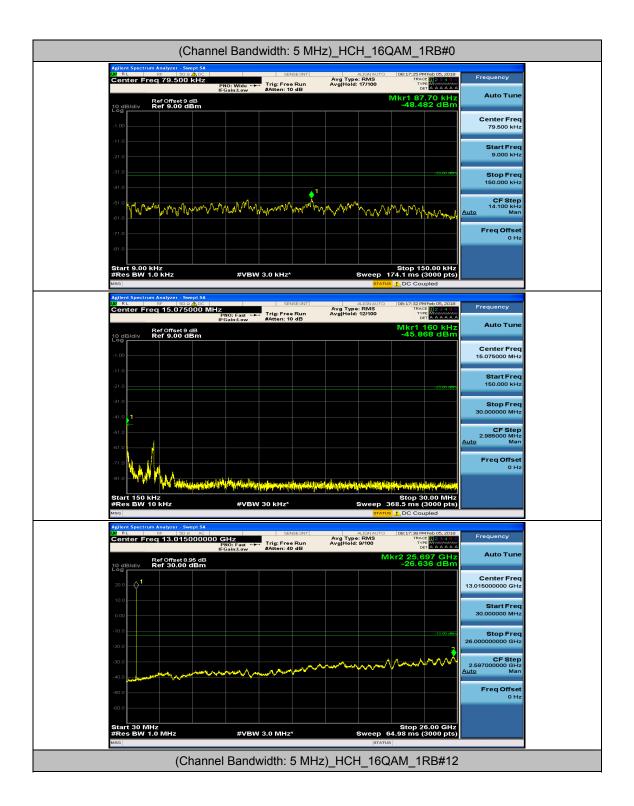






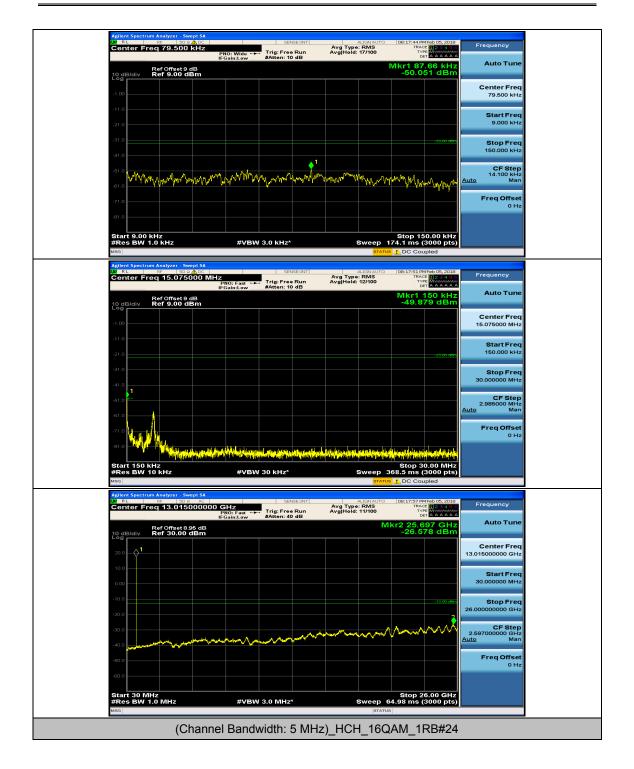






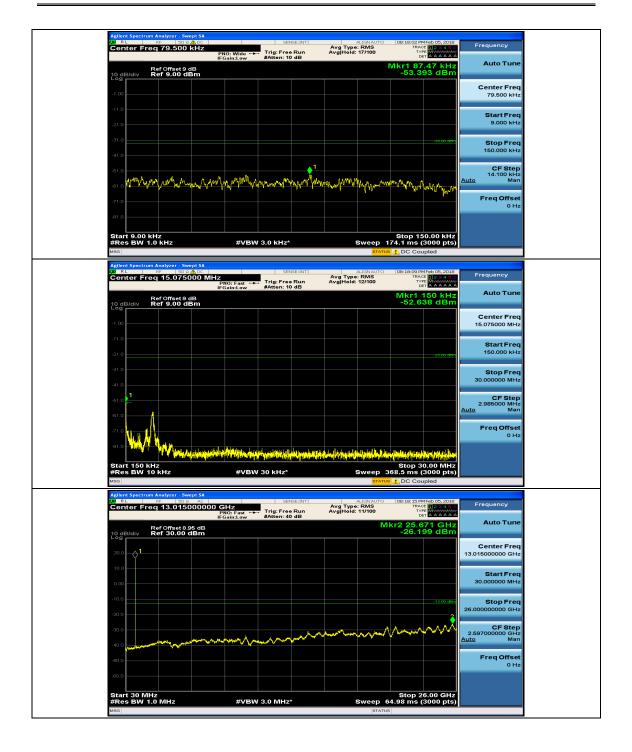








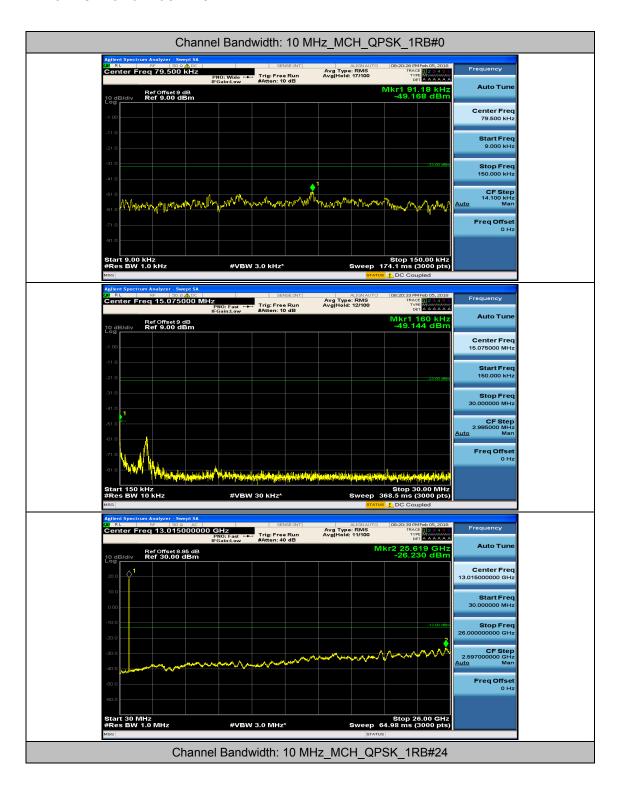






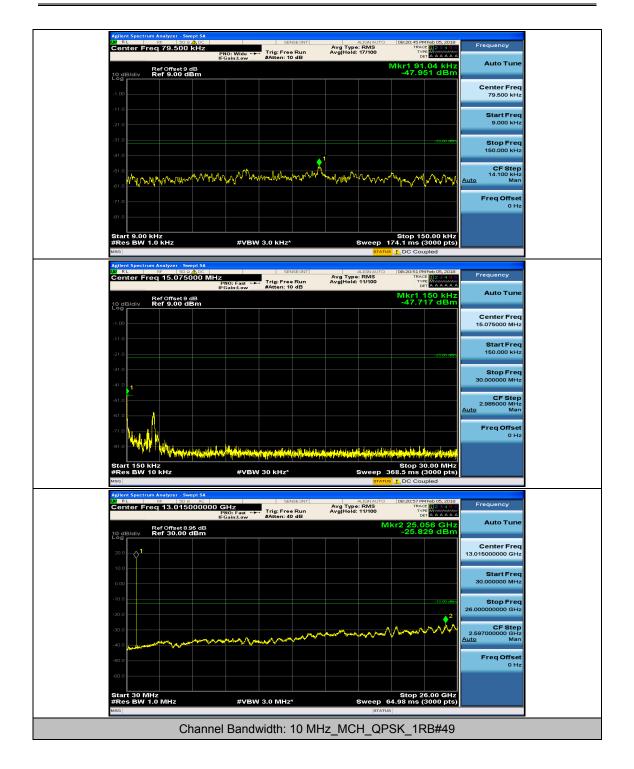


#### **Channel Bandwidth: 10 MHz**



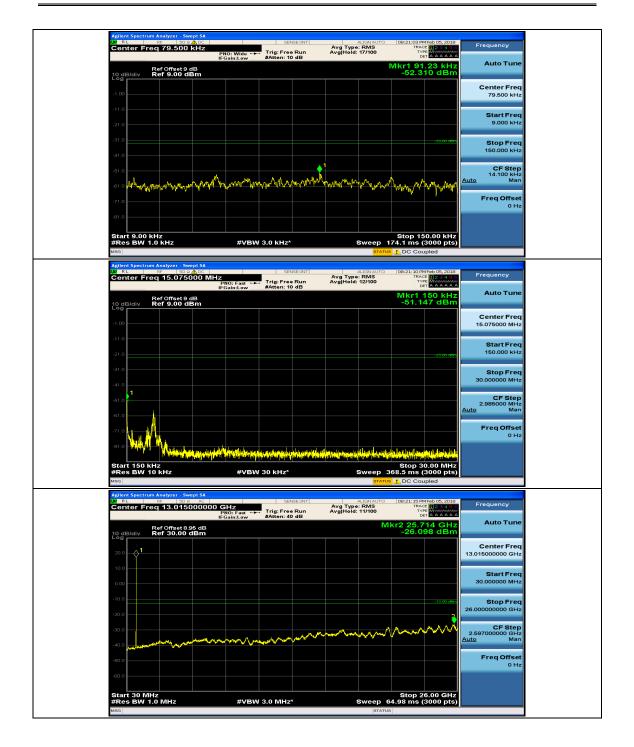




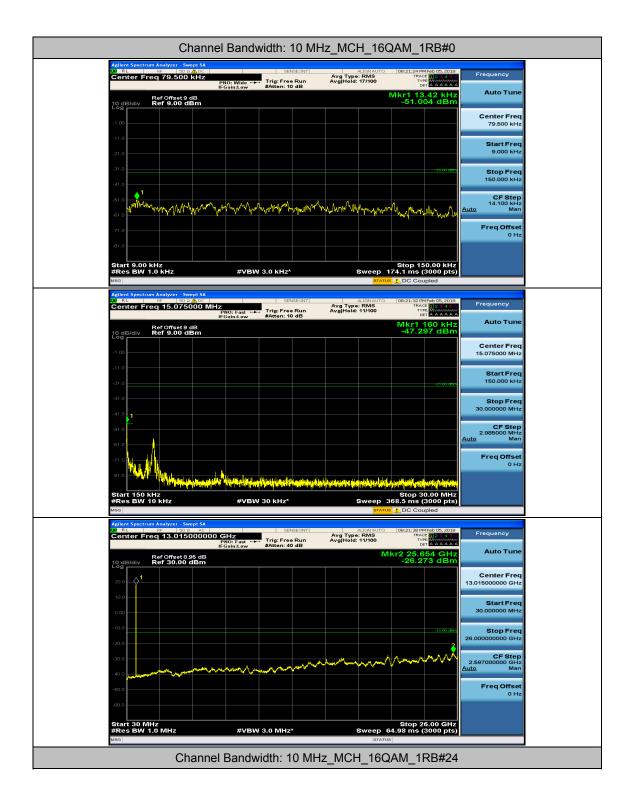






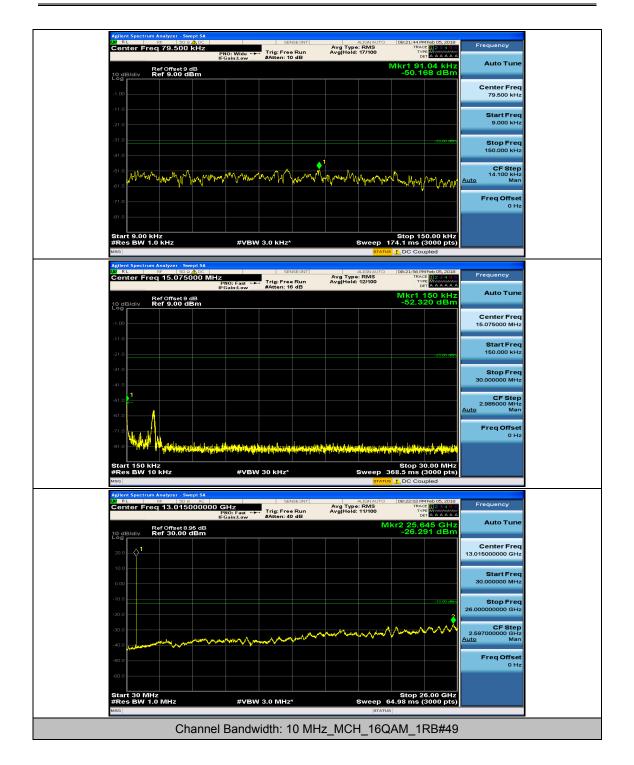






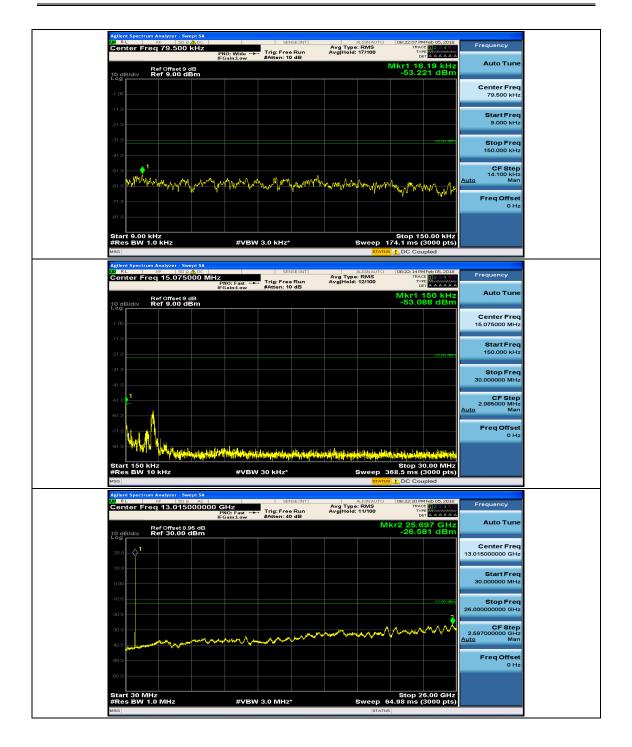














# Appendix F: Frequency Stability

## **Test Result**

**Channel Bandwidth: 5 MHz** 

| Channel Bandwidth: 5 MHz |         |                  |   |                   |                    |                |         |  |
|--------------------------|---------|------------------|---|-------------------|--------------------|----------------|---------|--|
| Voltage                  |         |                  |   |                   |                    |                |         |  |
| Modulation               | Channel | Voltage<br>[Vdc] | Temperature<br>(°C)   | Deviation<br>(Hz) | Deviation<br>(ppm) | Limit<br>(ppm) | Verdict |  |
|                          |         | VL               | TN  | 3.58              | 0.004593           | ± 2.5          | PASS    |  |
|                          | LCH     | VN               | TN  | 2.28              | 0.002925           | ± 2.5          | PASS    |  |
|                          |         | VH               | TN  | 3.4               | 0.004362           | ± 2.5          | PASS    |  |
|                          |         | VL               | TN  | 3.88              | 0.004962           | ± 2.5          | PASS    |  |
| QPSK                     | MCH     | VN               | TN  | -0.7              | -0.000895          | ± 2.5          | PASS    |  |
|                          |         | VH               | TN  | 0.42              | 0.000537           | ± 2.5          | PASS    |  |
|                          |         | VL               | TN  | -0.41             | -0.000523          | ± 2.5          | PASS    |  |
|                          | HCH     | VN               | TN  | 1.33              | 0.001695           | ± 2.5          | PASS    |  |
|                          |         | VH               | TN  | -0.66             | -0.000841          | ± 2.5          | PASS    |  |
|                          | LCH     | VL               | TN  | 3.04              | 0.003900           | ± 2.5          | PASS    |  |
|                          |         | VN               | TN  | -1.59             | -0.002040          | ± 2.5          | PASS    |  |
|                          |         | VH               | TN  | 3.38              | 0.004336           | ± 2.5          | PASS    |  |
|                          | MCH     | VL               | TN  | 4.89              | 0.006253           | ± 2.5          | PASS    |  |
| 16QAM                    |         | VN               | TN  | -0.33             | -0.000422          | ± 2.5          | PASS    |  |
|                          |         | VH               | TN  | -1.25             | -0.001598          | ± 2.5          | PASS    |  |
|                          | нсн     | VL               | TN  | 0.44              | 0.000561           | ± 2.5          | PASS    |  |
|                          |         | VN               | TN  | 3.48              | 0.004436           | ± 2.5          | PASS    |  |
|                          |         | VH               | TN  | 2.5               | 0.003187           | ± 2.5          | PASS    |  |
|                          | 1       |                  | Tempe   | erature           |                    | 1              |         |  |
| Modulation               | Channel | Voltage<br>[Vdc] | Temperature $(^{\circ}\!$ | Deviation<br>(Hz) | Deviation (ppm)    | Limit<br>(ppm) | Verdict |  |
|                          | LCH     | VN               | -30   | -1.31             | -0.001681          | ± 2.5          | PASS    |  |
|                          |         | VN               | -20   | 4.14              | 0.005311           | ± 2.5          | PASS    |  |
| QPSK                     |         | VN               | -10   | -1.17             | -0.001501          | ± 2.5          | PASS    |  |
|                          |         | VN               | 0   | 2.88              | 0.003695           | ± 2.5          | PASS    |  |
|                          |         | VN               | 10  | -0.08             | -0.000103          | ± 2.5          | PASS    |  |
|                          |         | VN               | 20  | 0.07              | 0.000090           | ± 2.5          | PASS    |  |
|                          |         | VN               | 30  | -1.61             | -0.002065          | ± 2.5          | PASS    |  |
|                          |         | VN               | 40  | 0.42              | 0.000539           | ± 2.5          | PASS    |  |
|                          |         | VN               | 50  | 1.22              | 0.001565           | ± 2.5          | PASS    |  |
|                          | MCH     | VN               | -30   | 1.46              | 0.001867           | ± 2.5          | PASS    |  |
|                          |         | VN               | -20   | -0.78             | -0.000997          | ± 2.5          | PASS    |  |





|       |     |    | -   |       |           |       |      |
|-------|-----|----|-----|-------|-----------|-------|------|
|       |     | VN | -10 | 2.82  | 0.003606  | ± 2.5 | PASS |
|       |     | VN | 0   | -1.55 | -0.001982 | ± 2.5 | PASS |
|       |     | VN | 10  | 4.06  | 0.005192  | ± 2.5 | PASS |
|       |     | VN | 20  | 1.51  | 0.001931  | ± 2.5 | PASS |
|       |     | VN | 30  | 0.17  | 0.000217  | ± 2.5 | PASS |
|       |     | VN | 40  | 3.78  | 0.004834  | ± 2.5 | PASS |
|       |     | VN | 50  | 3.08  | 0.003939  | ± 2.5 | PASS |
|       |     | VN | -30 | 1.86  | 0.002371  | ± 2.5 | PASS |
|       |     | VN | -20 | 0.04  | 0.000051  | ± 2.5 | PASS |
|       |     | VN | -10 | -0.43 | -0.000548 | ± 2.5 | PASS |
|       |     | VN | 0   | 0.47  | 0.000599  | ± 2.5 | PASS |
|       | HCH | VN | 10  | 2.29  | 0.002919  | ± 2.5 | PASS |
|       |     | VN | 20  | 4.87  | 0.006208  | ± 2.5 | PASS |
|       |     | VN | 30  | -1.63 | -0.002078 | ± 2.5 | PASS |
|       |     | VN | 40  | 1.54  | 0.001963  | ± 2.5 | PASS |
|       |     | VN | 50  | 2.64  | 0.003365  | ± 2.5 | PASS |
|       |     | VN | -30 | -0.22 | -0.000282 | ± 2.5 | PASS |
|       |     | VN | -20 | -0.26 | -0.000334 | ± 2.5 | PASS |
|       | LCH | VN | -10 | 1.58  | 0.002027  | ± 2.5 | PASS |
|       |     | VN | 0   | -0.41 | -0.000526 | ± 2.5 | PASS |
|       |     | VN | 10  | 4.74  | 0.006081  | ± 2.5 | PASS |
|       |     | VN | 20  | 0.92  | 0.001180  | ± 2.5 | PASS |
|       |     | VN | 30  | -0.2  | -0.000257 | ± 2.5 | PASS |
|       |     | VN | 40  | 4     | 0.005131  | ± 2.5 | PASS |
|       |     | VN | 50  | 4.81  | 0.006171  | ± 2.5 | PASS |
|       | мсн | VN | -30 | 4.83  | 0.006176  | ± 2.5 | PASS |
|       |     | VN | -20 | 0.35  | 0.000448  | ± 2.5 | PASS |
|       |     | VN | -10 | 4.31  | 0.005512  | ± 2.5 | PASS |
| 16QAM |     | VN | 0   | 0.31  | 0.000396  | ± 2.5 | PASS |
|       |     | VN | 10  | 3.26  | 0.004169  | ± 2.5 | PASS |
|       |     | VN | 20  | -1    | -0.001279 | ± 2.5 | PASS |
|       |     | VN | 30  | 1.34  | 0.001714  | ± 2.5 | PASS |
|       |     | VN | 40  | 3.51  | 0.004488  | ± 2.5 | PASS |
|       |     | VN | 50  | 0.83  | 0.001061  | ± 2.5 | PASS |
|       | нсн | VN | -30 | 4.06  | 0.005175  | ± 2.5 | PASS |
|       |     | VN | -20 | 0.91  | 0.001160  | ± 2.5 | PASS |
|       |     | VN | -10 | -0.18 | -0.000229 | ± 2.5 | PASS |
|       |     | VN | 0   | -1.86 | -0.002371 | ± 2.5 | PASS |
|       |     | VN | 10  | 3.48  | 0.004436  | ± 2.5 | PASS |
|       |     | VN | 20  | -0.54 | -0.000688 | ± 2.5 | PASS |
|       |     | VN | 30  | -0.11 | -0.000140 | ± 2.5 | PASS |



TEST Model: T320

|  | VN | 40 | 4.73 | 0.006029 | ± 2.5 | PASS |
|--|----|----|------|----------|-------|------|
|  | VN | 50 | 3.92 | 0.004997 | ± 2.5 | PASS |

## **Channel Bandwidth: 10 MHz**

| Channel Bandwidth: 10 MHz |         |                  |                     |                   |                    |                |         |  |
|---------------------------|---------|------------------|---------------------|-------------------|--------------------|----------------|---------|--|
| Voltage                   |         |                  |                     |                   |                    |                |         |  |
| Modulation                | Channel | Voltage<br>[Vdc] | Temperature<br>(°ℂ) | Deviation<br>(Hz) | Deviation<br>(ppm) | Limit<br>(ppm) | Verdict |  |
|                           |         | VL               | TN                  | 0.81              | 0.001036           | ± 2.5          | PASS    |  |
| QPSK                      | MCH     | VN               | TN                  | 1.98              | 0.002532           | ± 2.5          | PASS    |  |
|                           |         | VH               | TN                  | 3.84              | 0.004910           | ± 2.5          | PASS    |  |
|                           |         | VL               | TN                  | -0.99             | -0.001266          | ± 2.5          | PASS    |  |
| 16QAM                     | MCH     | VN               | TN                  | -1.61             | -0.002059          | ± 2.5          | PASS    |  |
|                           |         | VH               | TN                  | 2.58              | 0.003299           | ± 2.5          | PASS    |  |
|                           |         |                  | Tempe               | erature           |                    |                |         |  |
| Modulation                | Channel | Voltage<br>[Vdc] | Temperature<br>(℃)  | Deviation<br>(Hz) | Deviation<br>(ppm) | Limit<br>(ppm) | Verdict |  |
|                           | MCH     | VN               | -30                 | 3.6               | 0.004604           | ± 2.5          | PASS    |  |
|                           |         | VN               | -20                 | 0.32              | 0.000409           | ± 2.5          | PASS    |  |
|                           |         | VN               | -10                 | -1.05             | -0.001343          | ± 2.5          | PASS    |  |
|                           |         | VN               | 0                   | 1.78              | 0.002276           | ± 2.5          | PASS    |  |
| 16QAM                     |         | VN               | 10                  | 3.67              | 0.004693           | ± 2.5          | PASS    |  |
|                           |         | VN               | 20                  | -1.03             | -0.001317          | ± 2.5          | PASS    |  |
|                           |         | VN               | 30                  | -0.03             | -0.000038          | ± 2.5          | PASS    |  |
|                           |         | VN               | 40                  | 3.28              | 0.004194           | ± 2.5          | PASS    |  |
|                           |         | VN               | 50                  | -1.88             | -0.002404          | ± 2.5          | PASS    |  |
|                           | МСН     | VN               | -30                 | 4.53              | 0.005793           | ± 2.5          | PASS    |  |
|                           |         | VN               | -20                 | -1.37             | -0.001752          | ± 2.5          | PASS    |  |
|                           |         | VN               | -10                 | 1.81              | 0.002315           | ± 2.5          | PASS    |  |
| QPSK                      |         | VN               | 0                   | 1.21              | 0.001547           | ± 2.5          | PASS    |  |
|                           |         | VN               | 10                  | -1.83             | -0.002340          | ± 2.5          | PASS    |  |
|                           |         | VN               | 20                  | 4.14              | 0.005294           | ± 2.5          | PASS    |  |
|                           |         | VN               | 30                  | 2.23              | 0.002852           | ± 2.5          | PASS    |  |
|                           |         | VN               | 40                  | 1.26              | 0.001611           | ± 2.5          | PASS    |  |
|                           |         | VN               | 50                  | 2.26              | 0.002890           | ± 2.5          | PASS    |  |