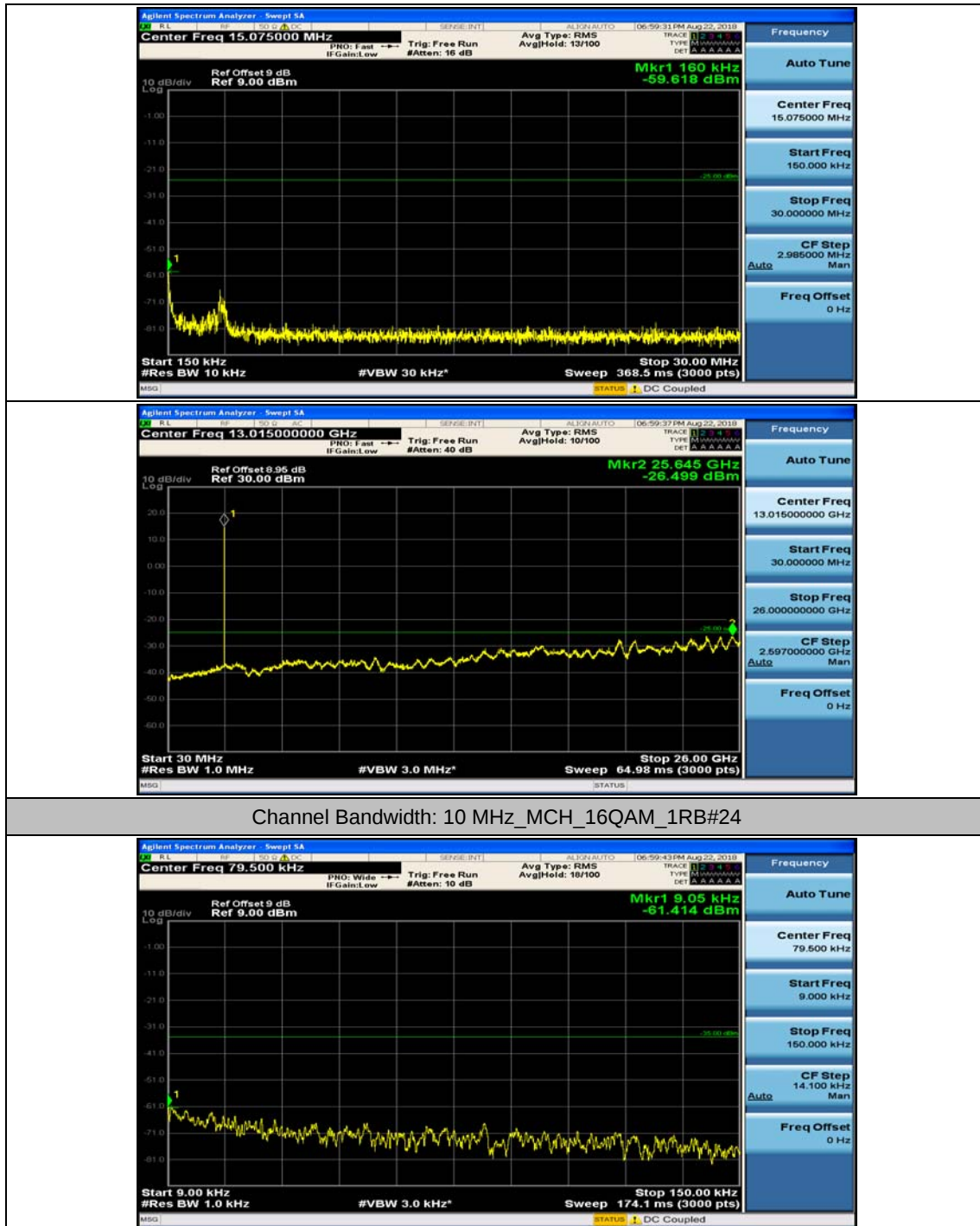
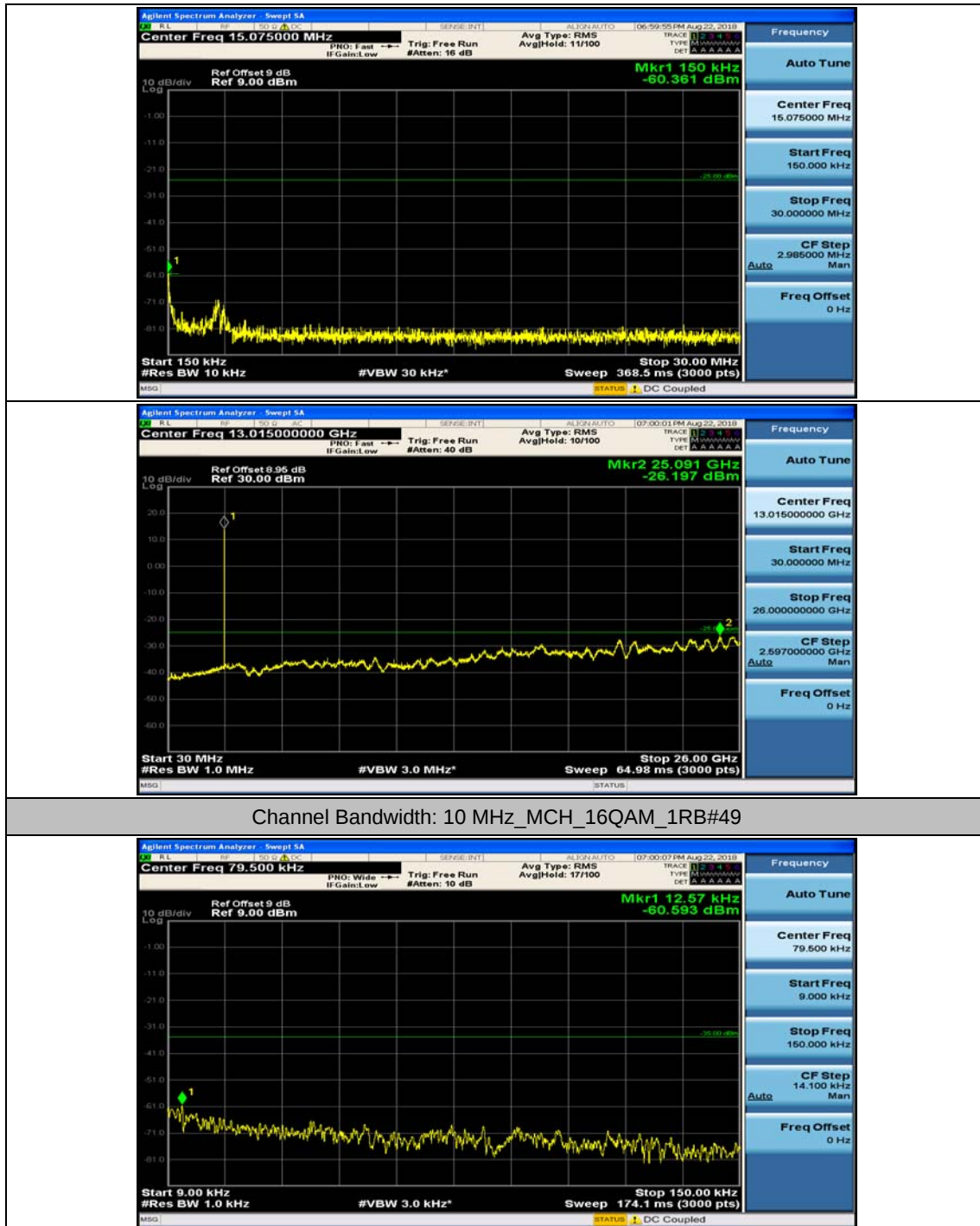
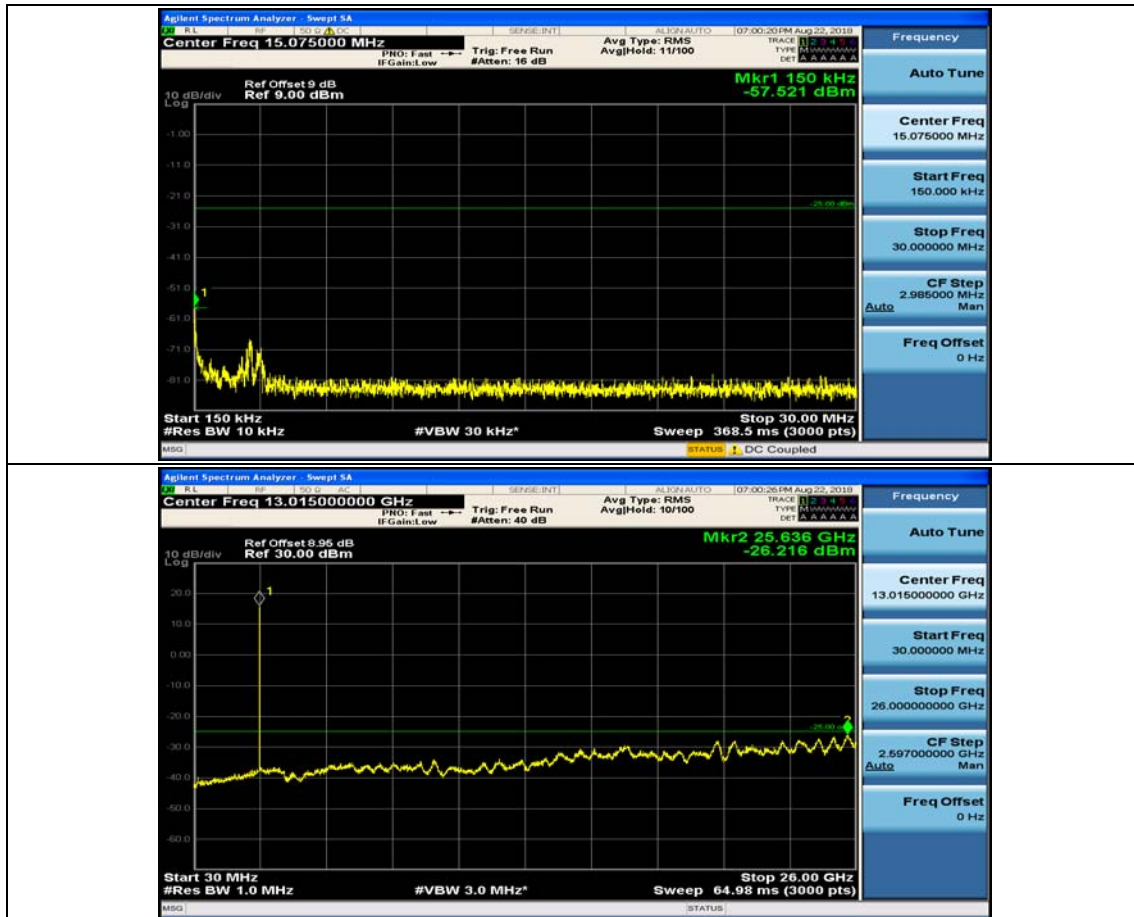
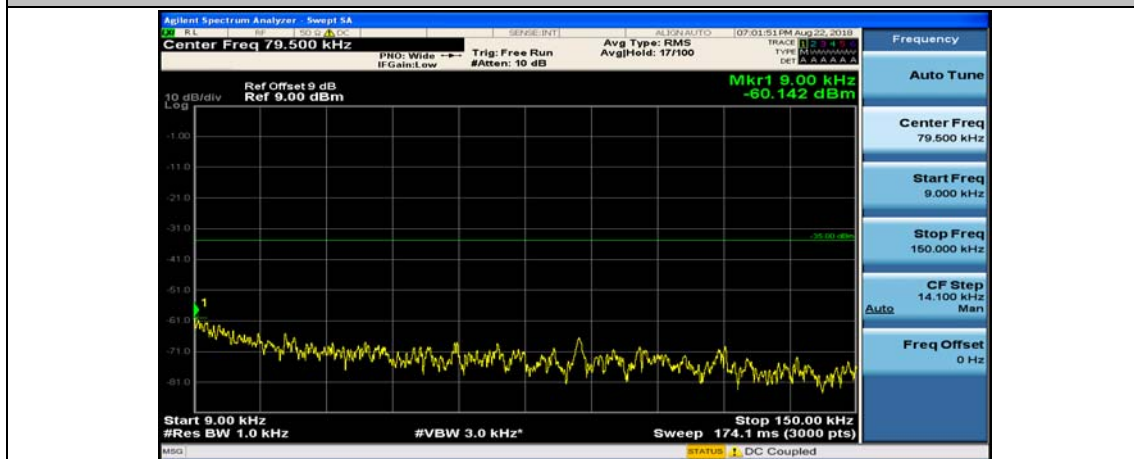


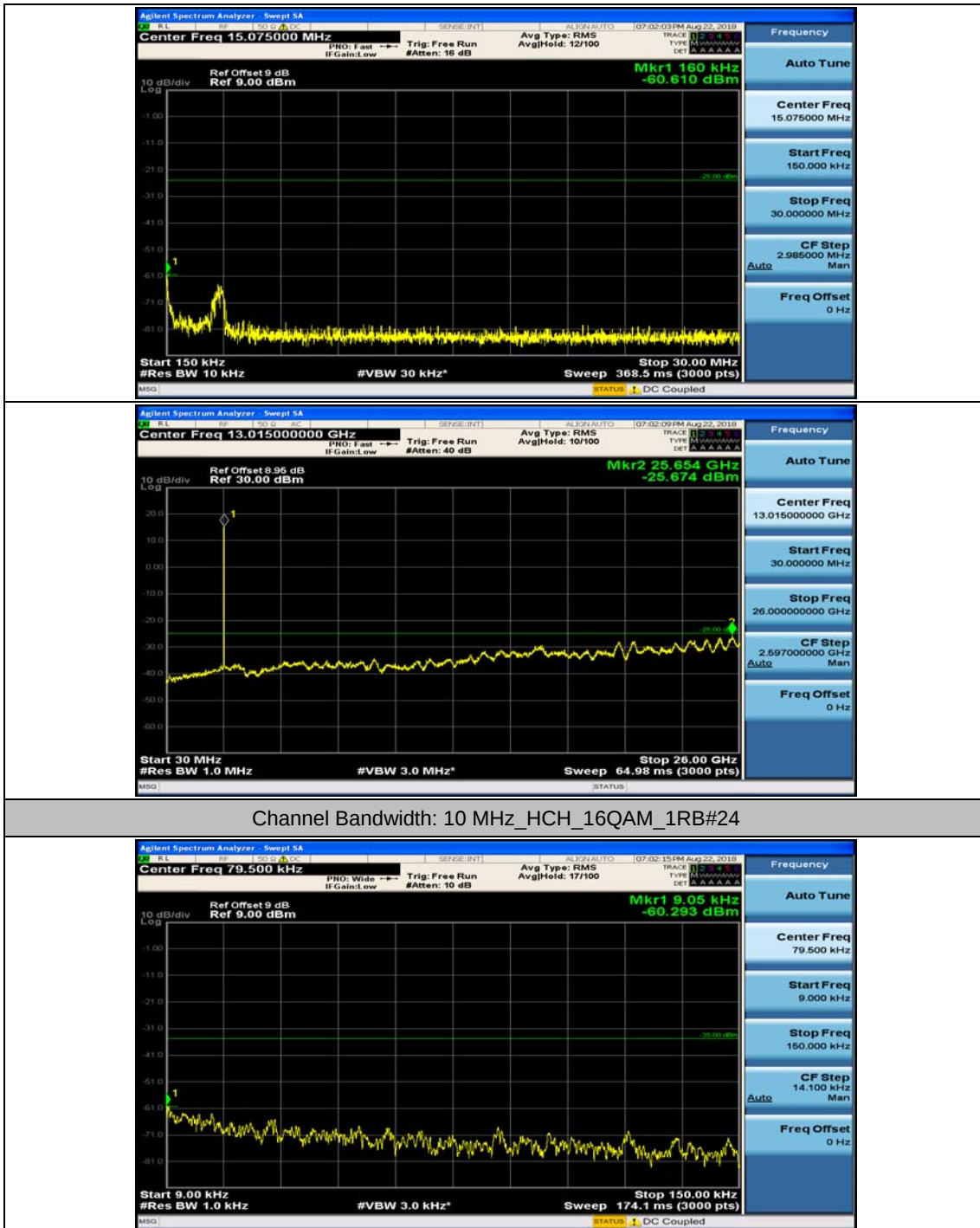


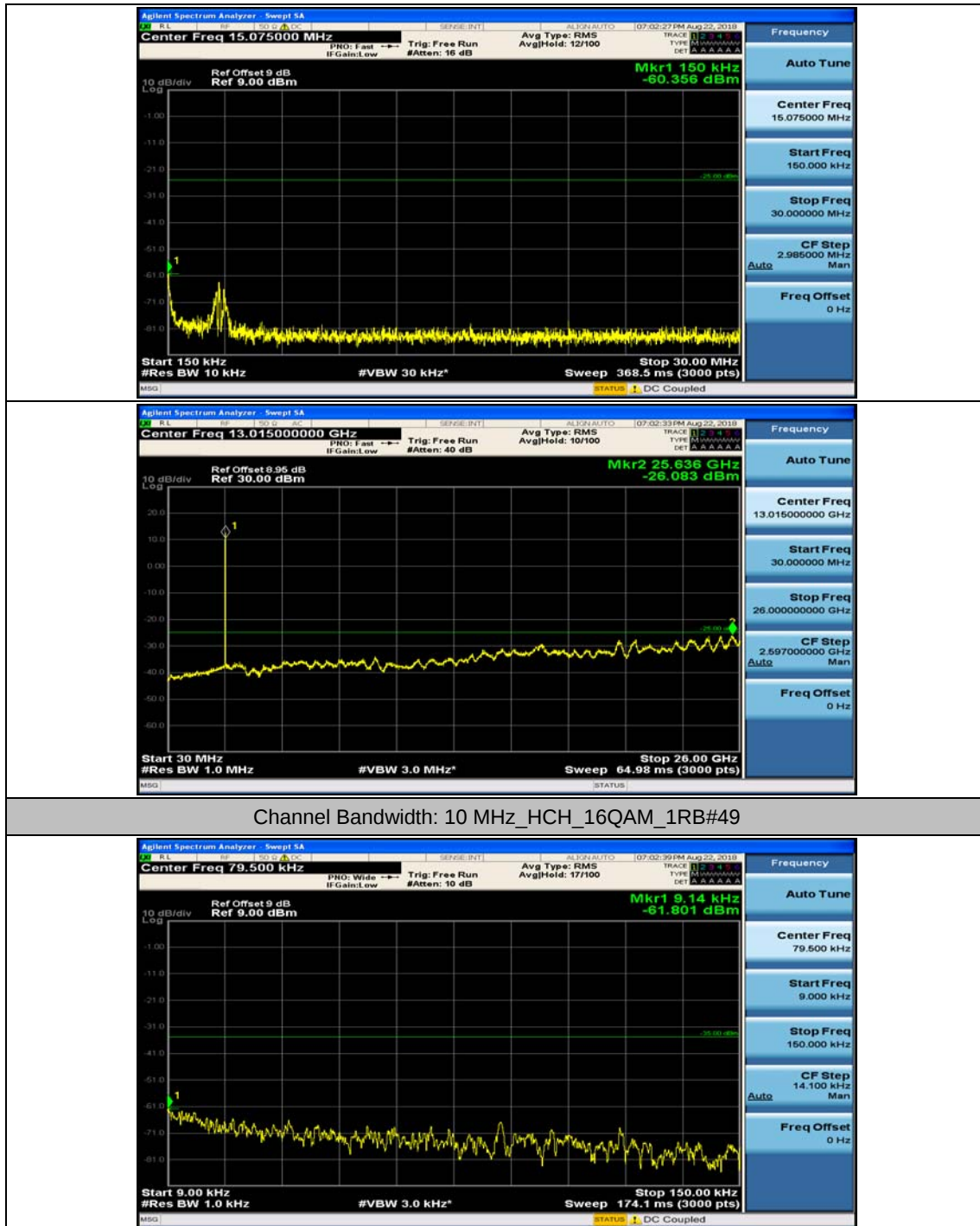


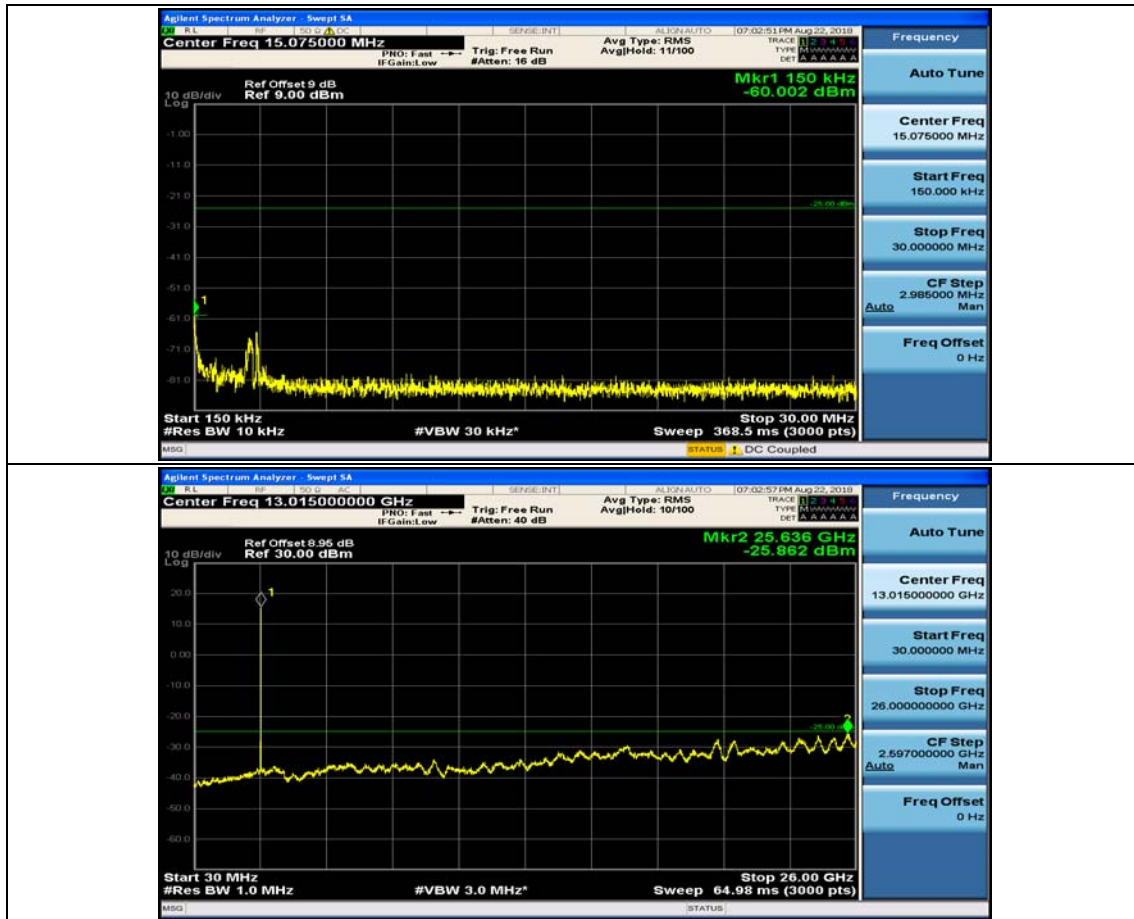


Channel Bandwidth: 10 MHz\_HCH\_16QAM\_1RB#0

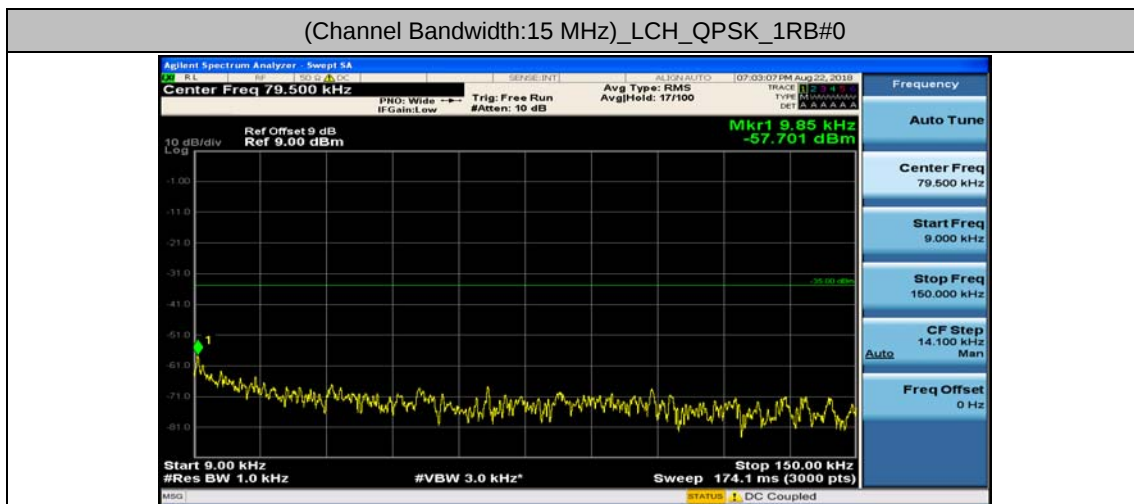


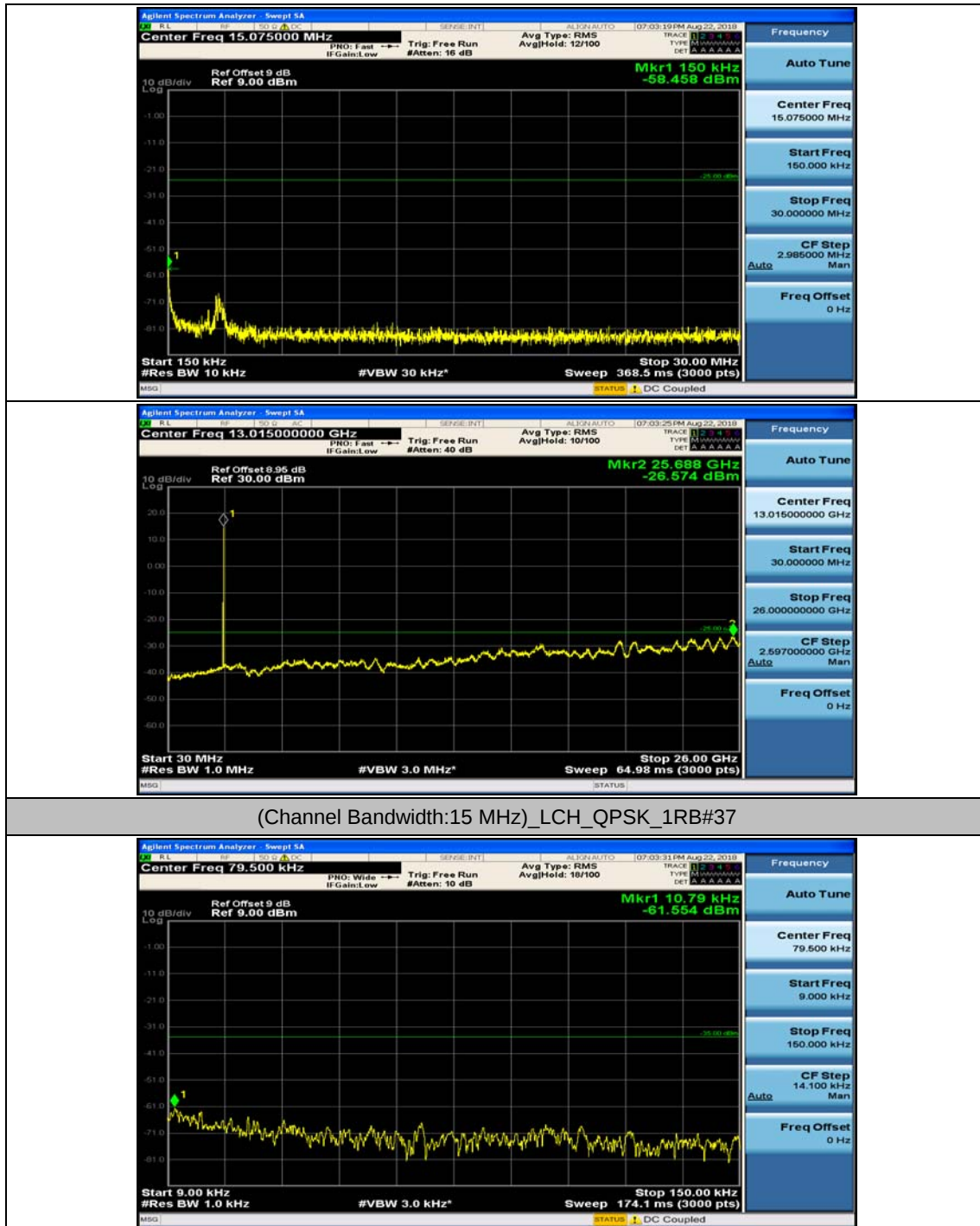


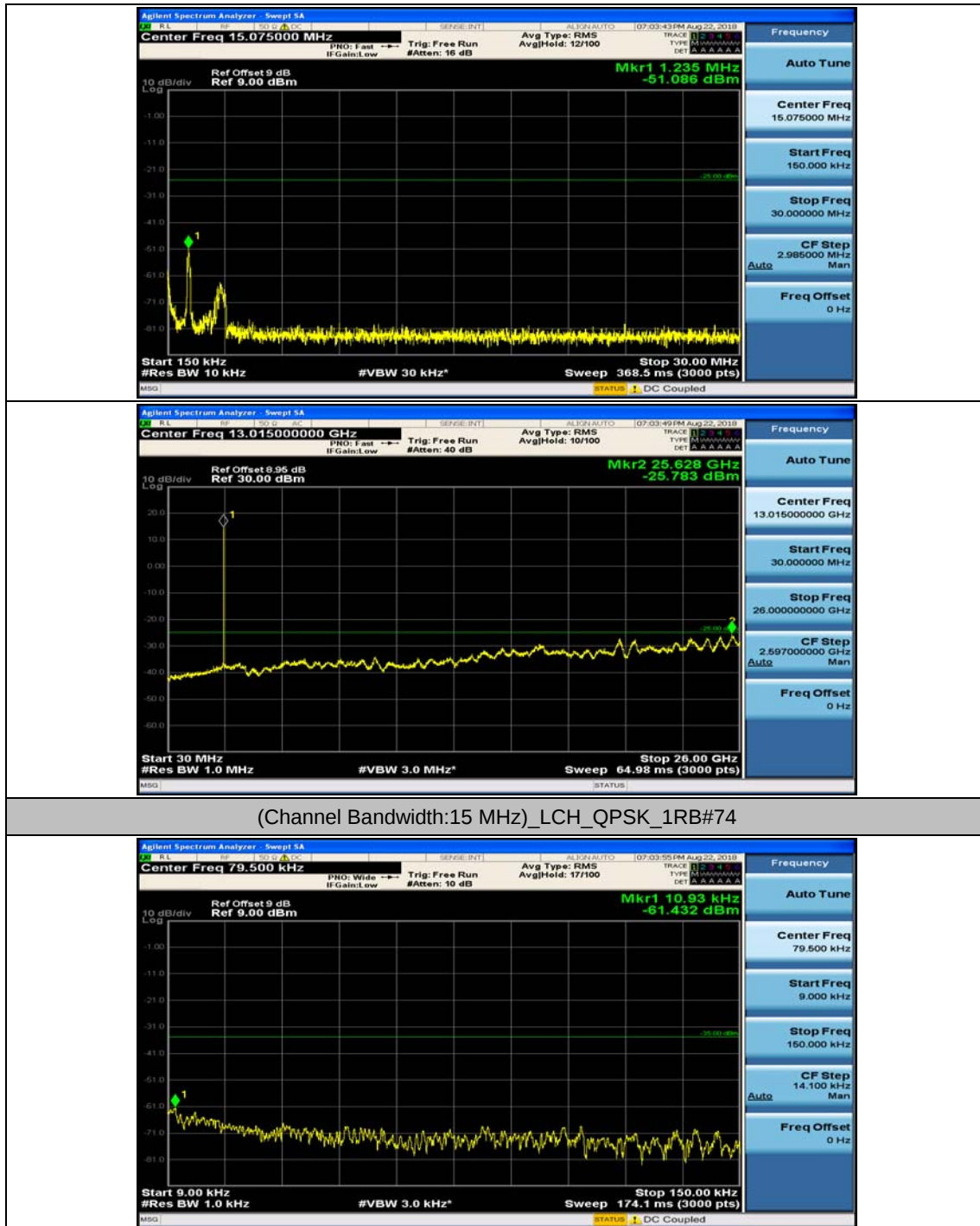


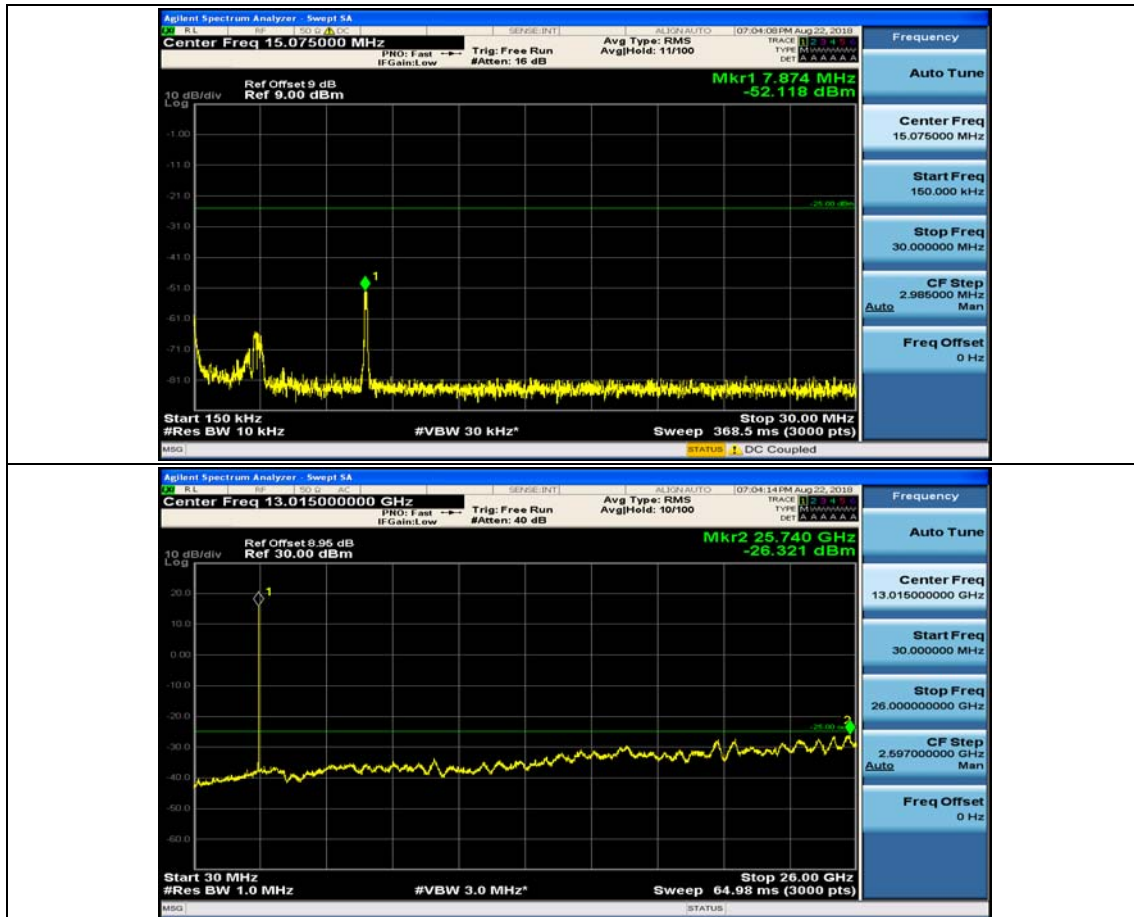


Channel Bandwidth: 15 MHz

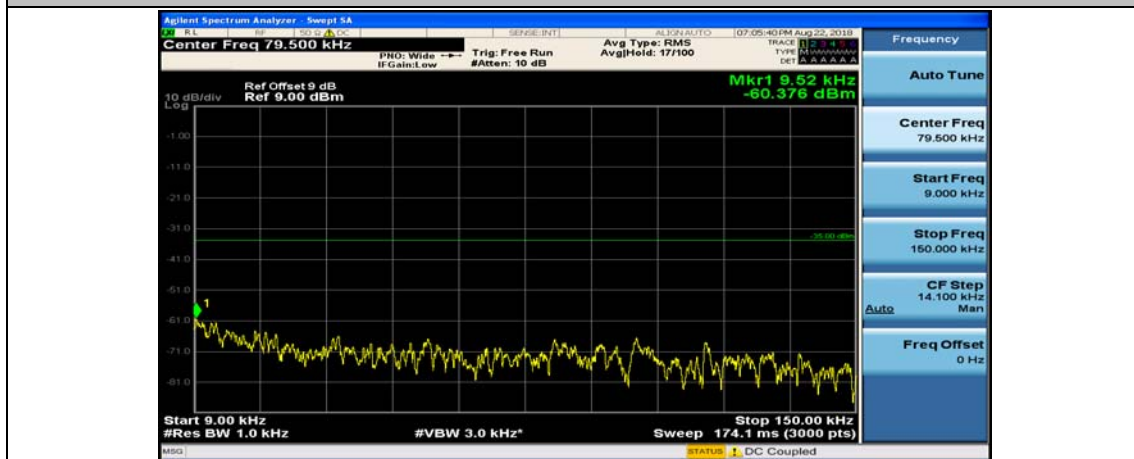


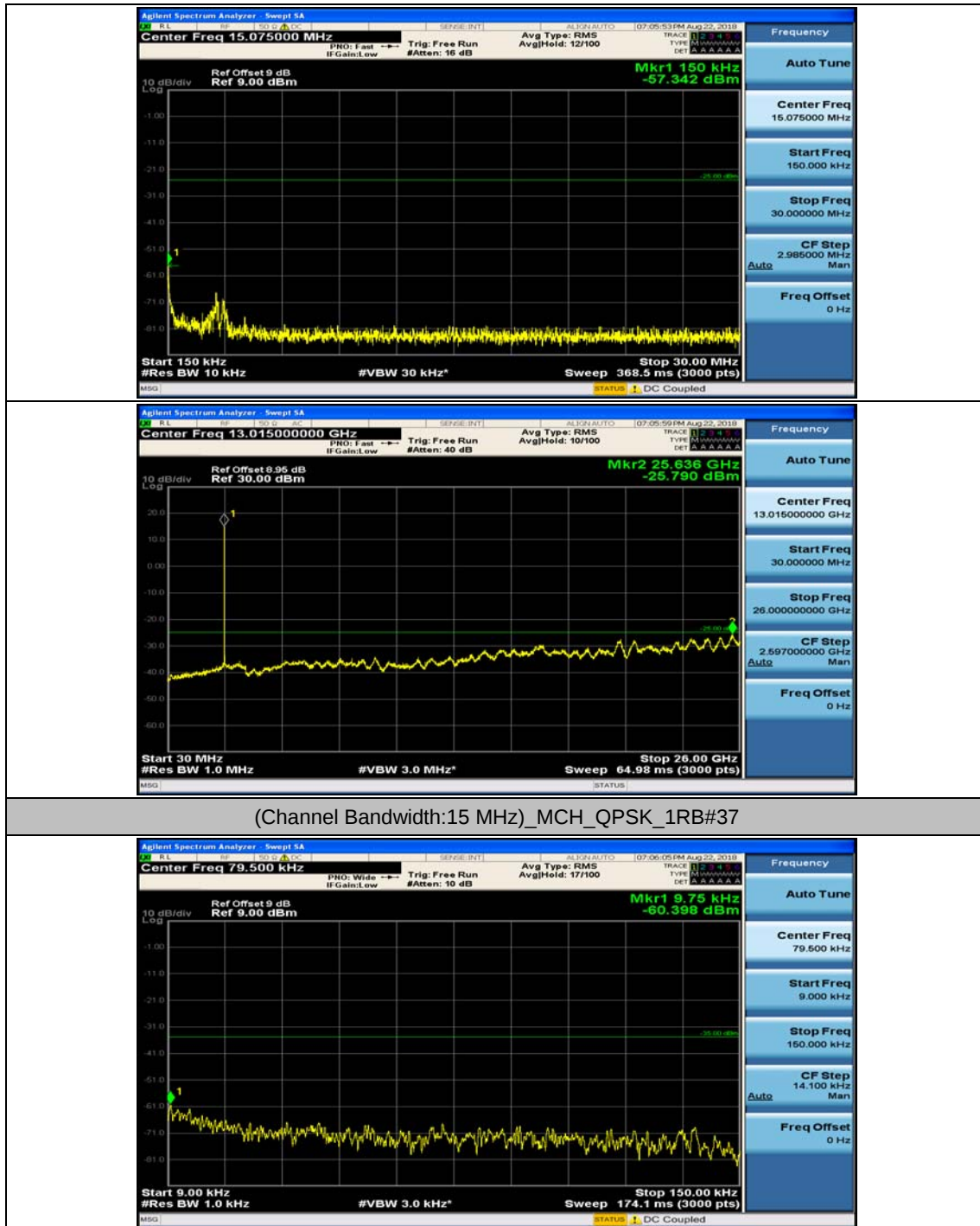


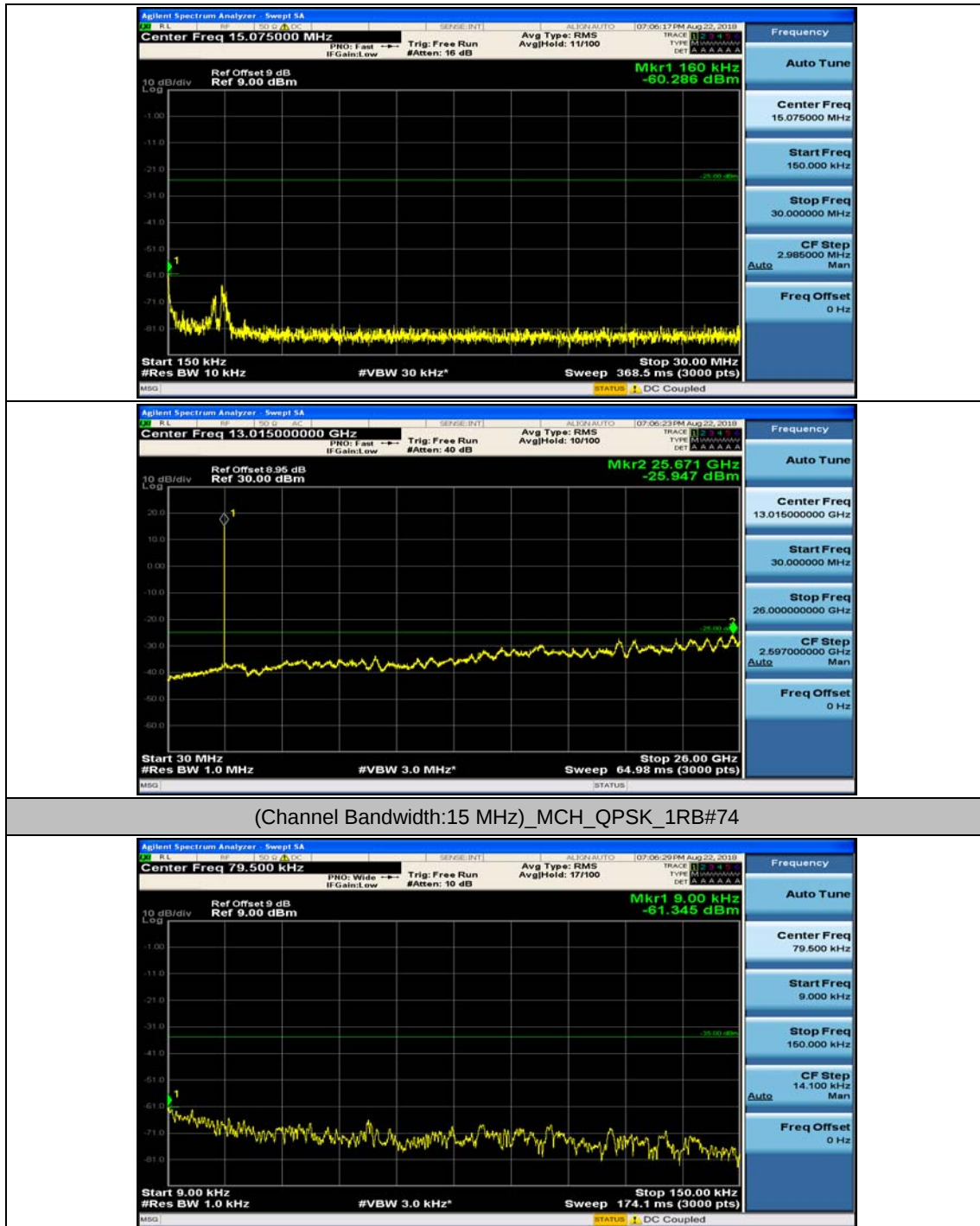


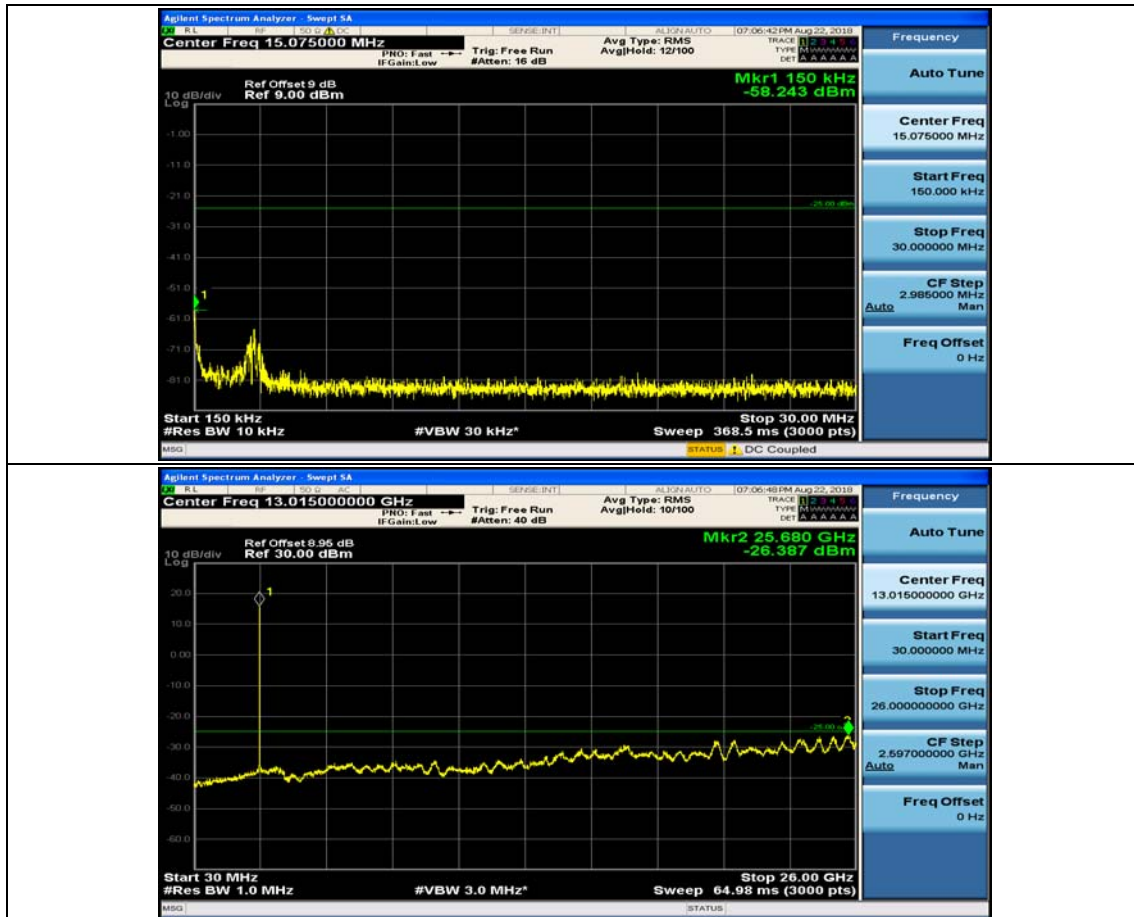


(Channel Bandwidth:15 MHz)\_MCH\_QPSK\_1RB#0

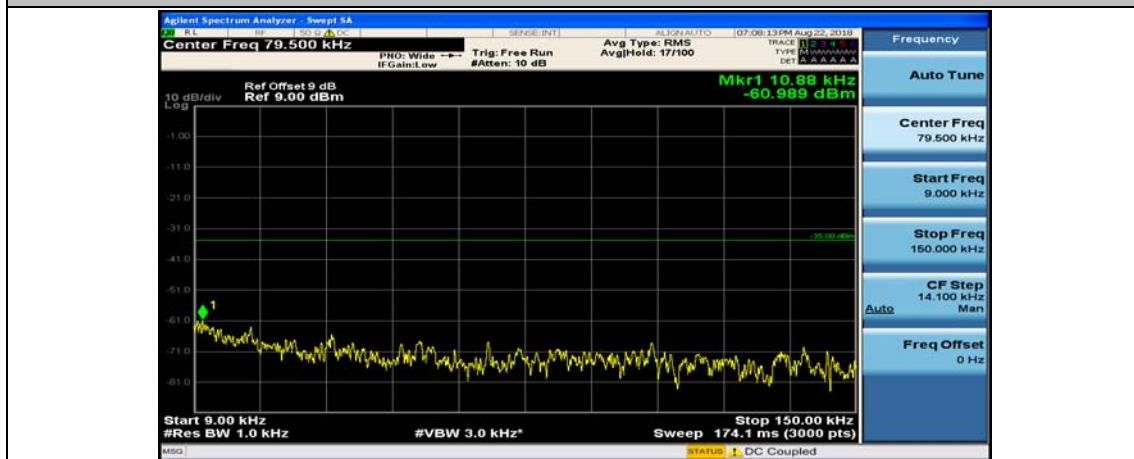


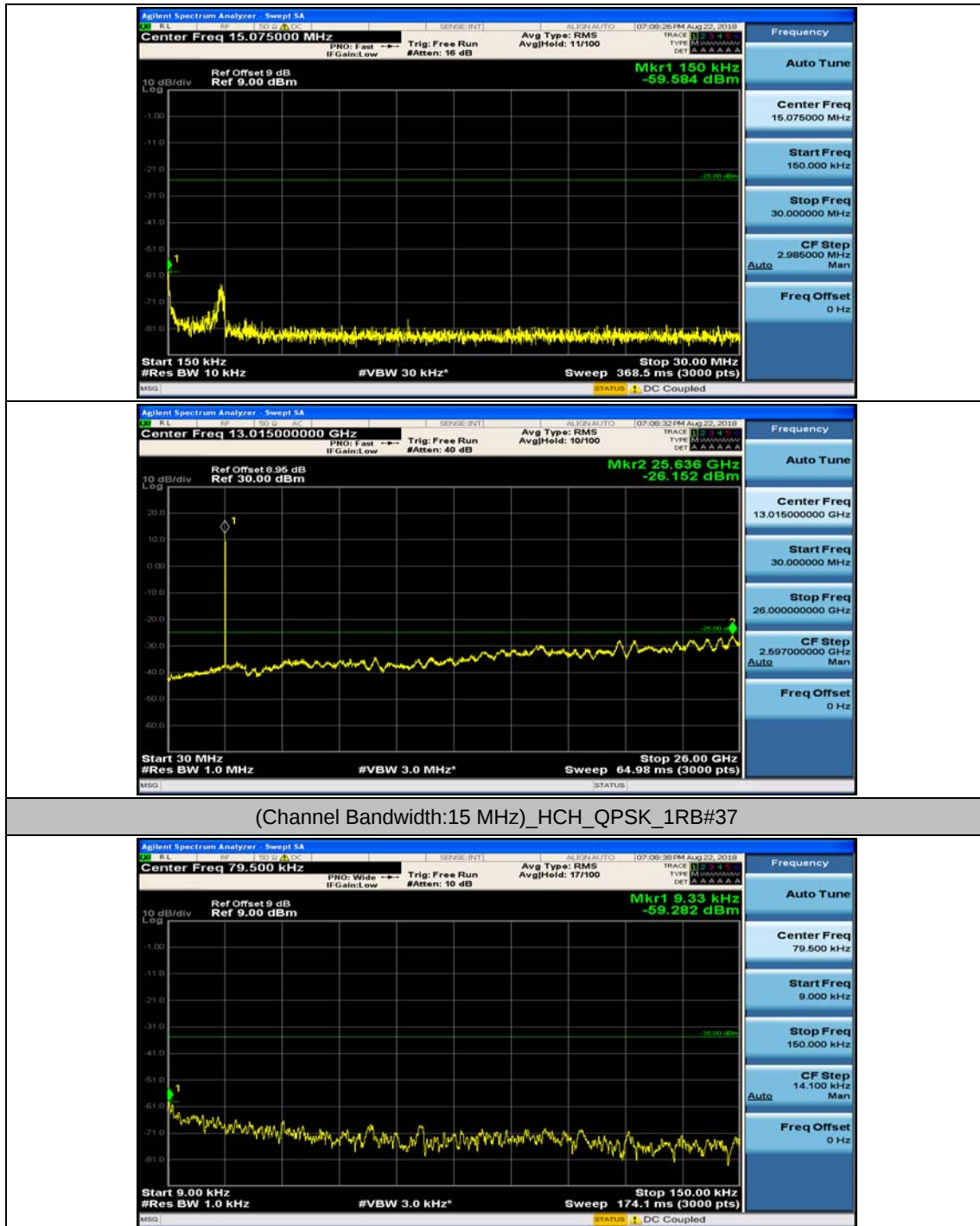


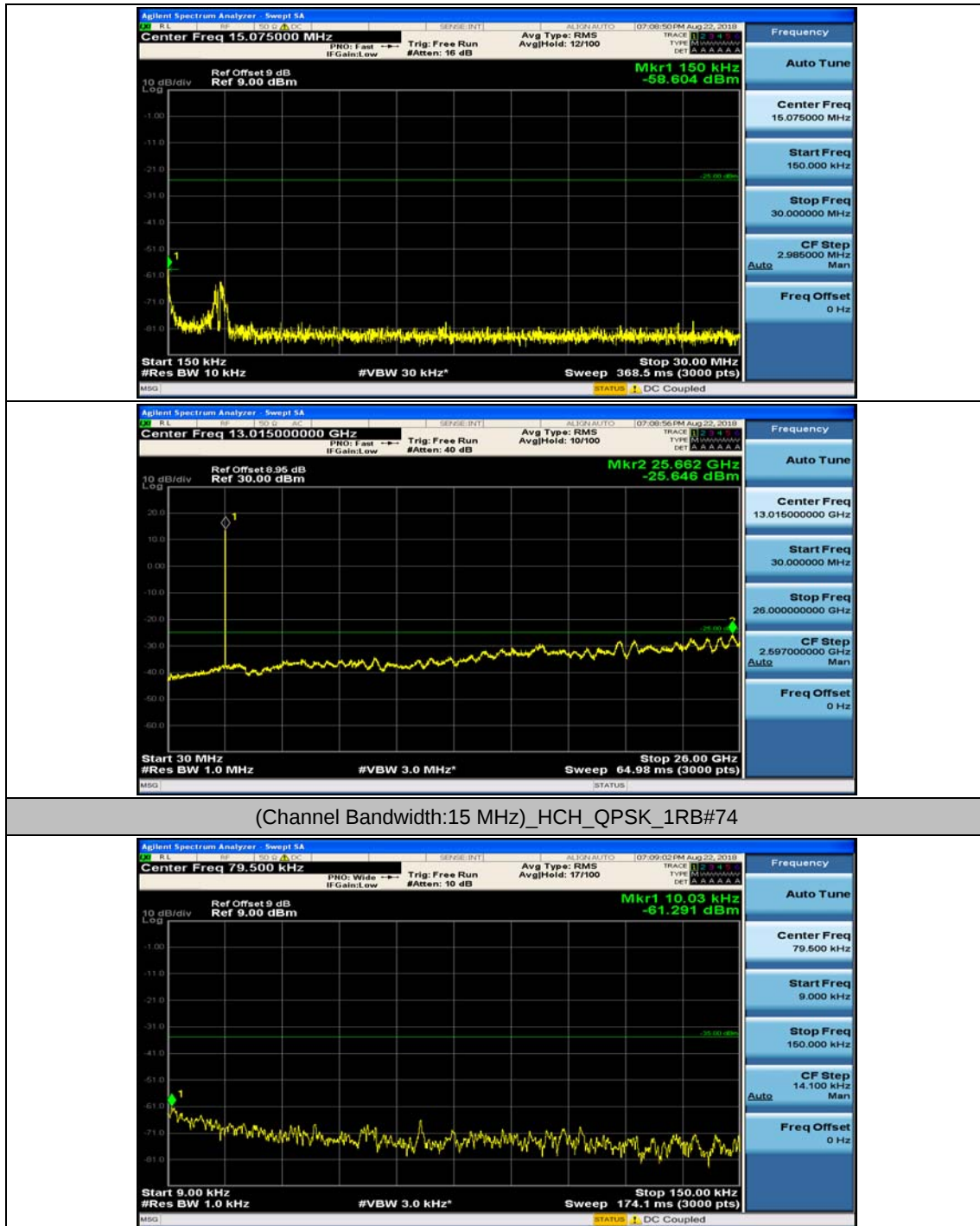


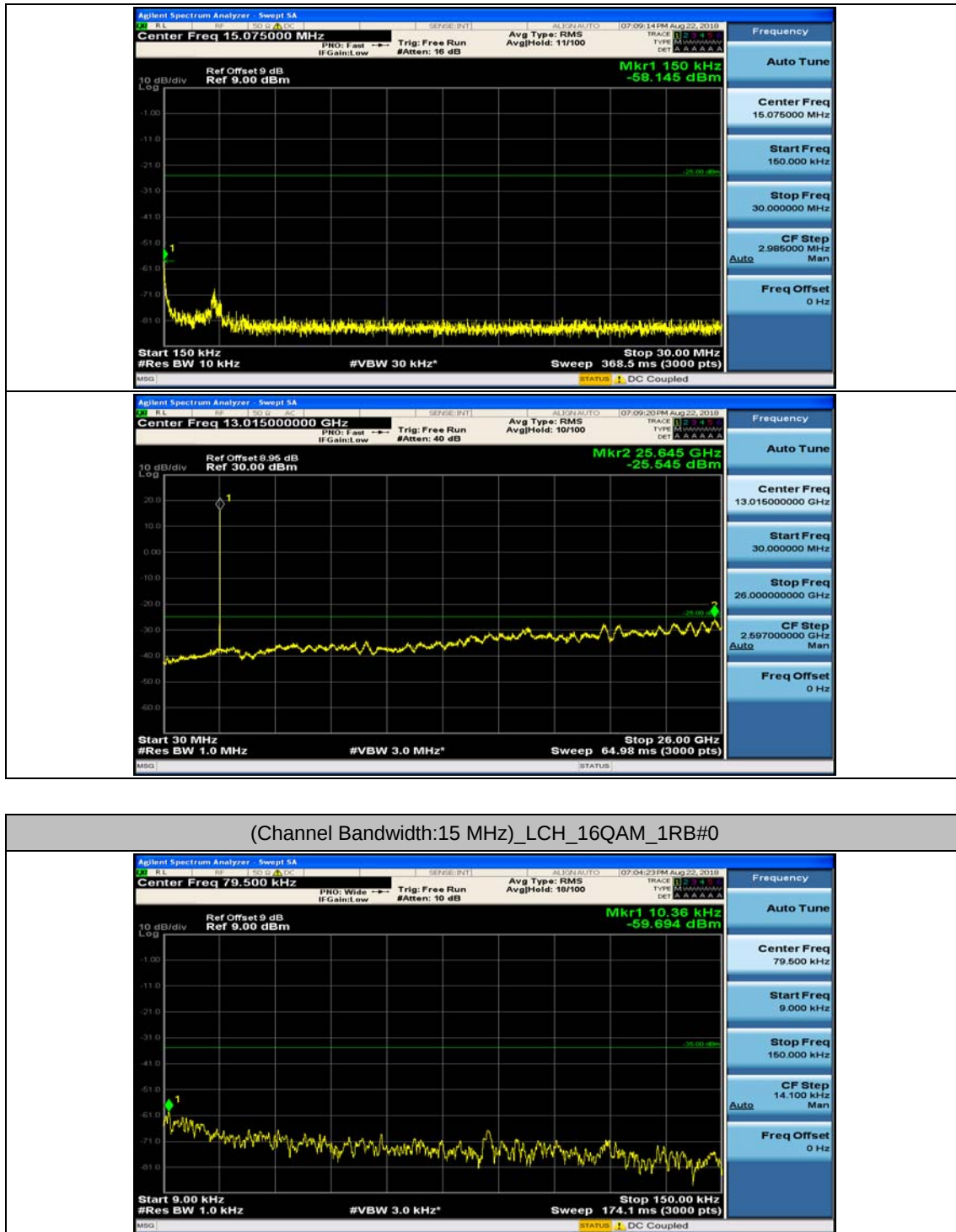


(Channel Bandwidth:15 MHz)\_HCH\_QPSK\_1RB#0

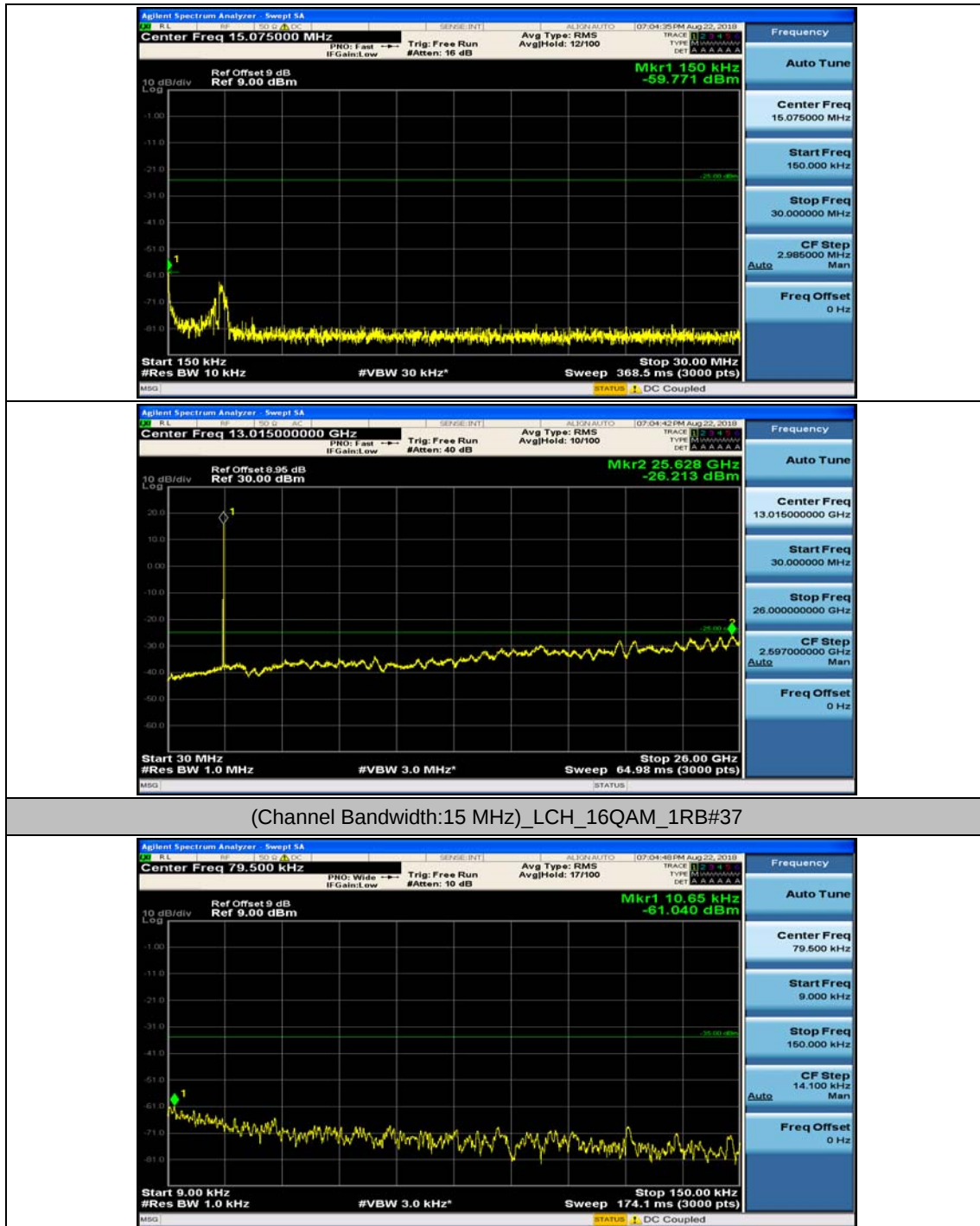


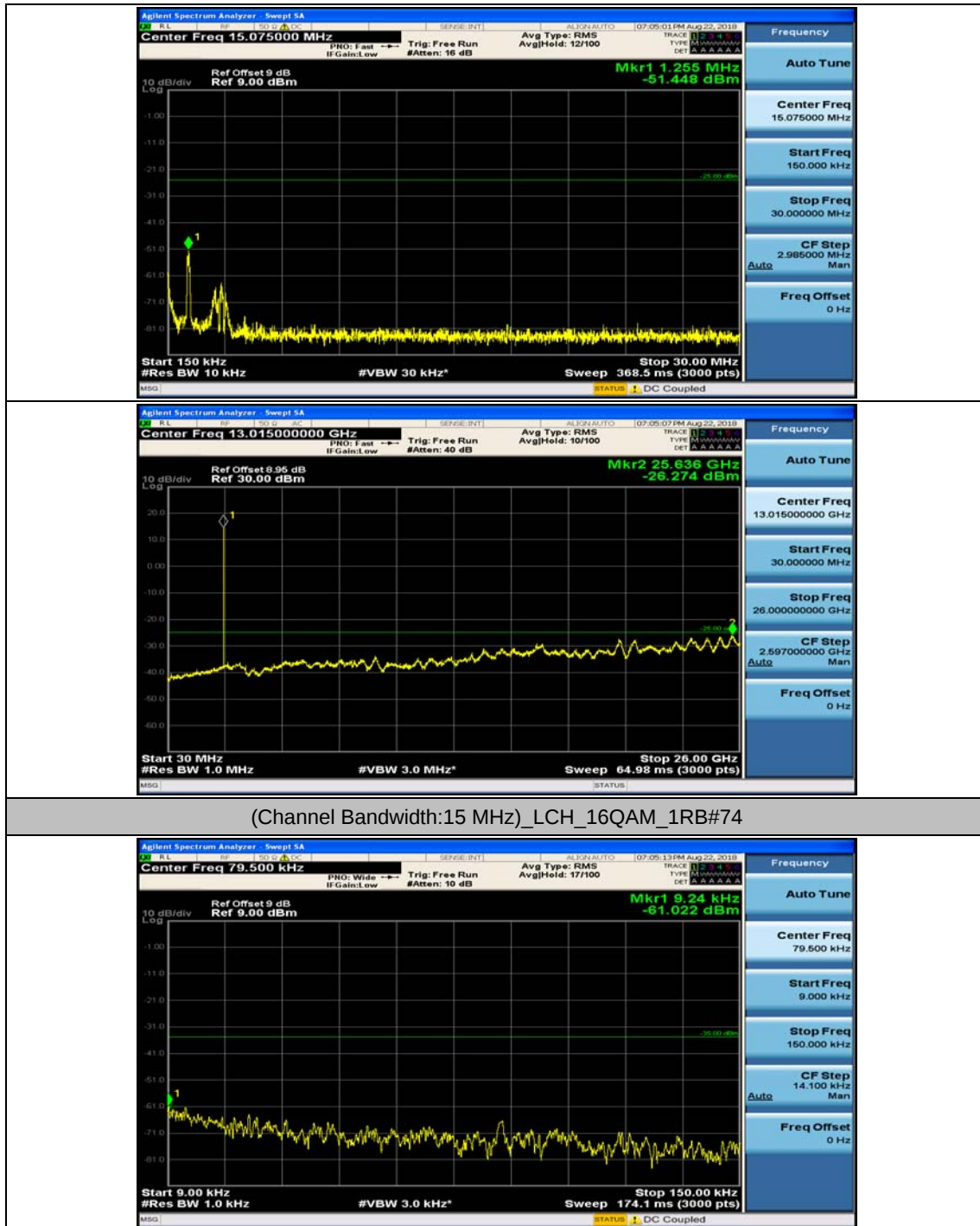


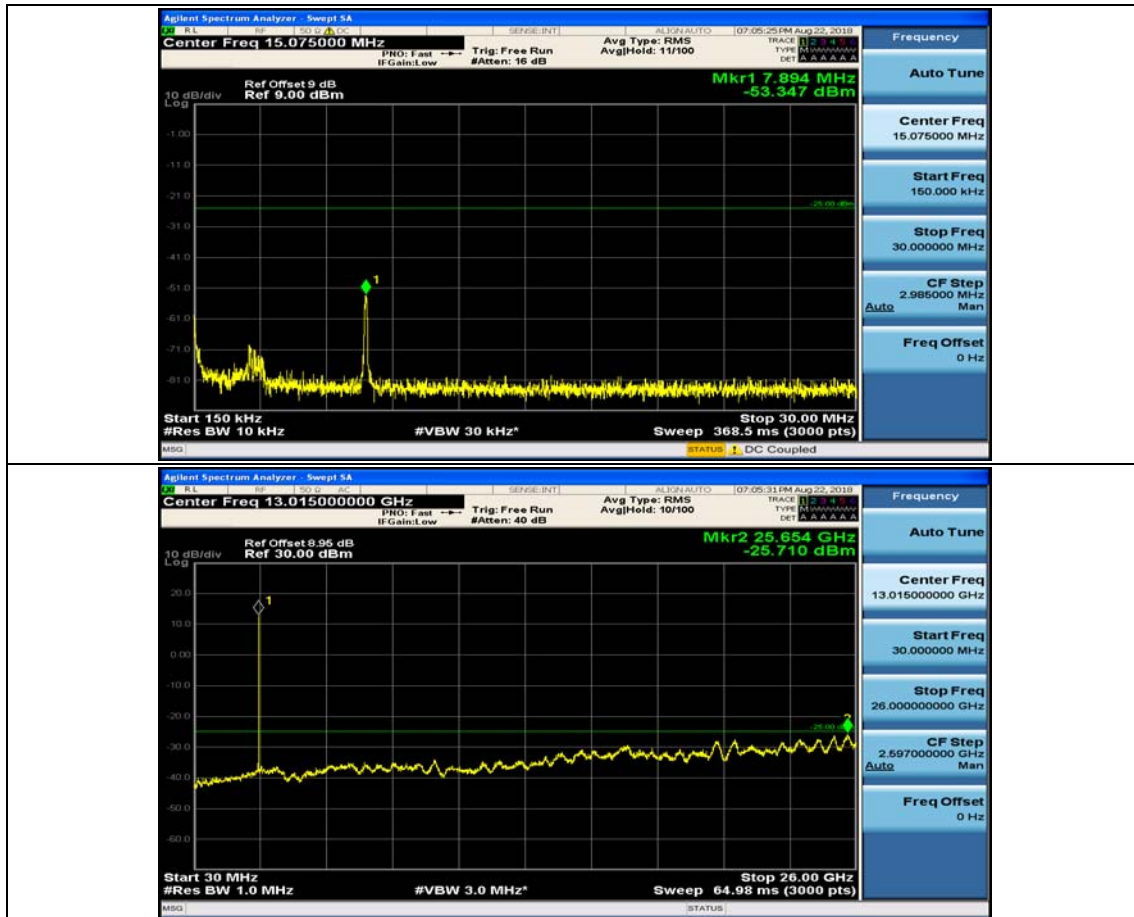




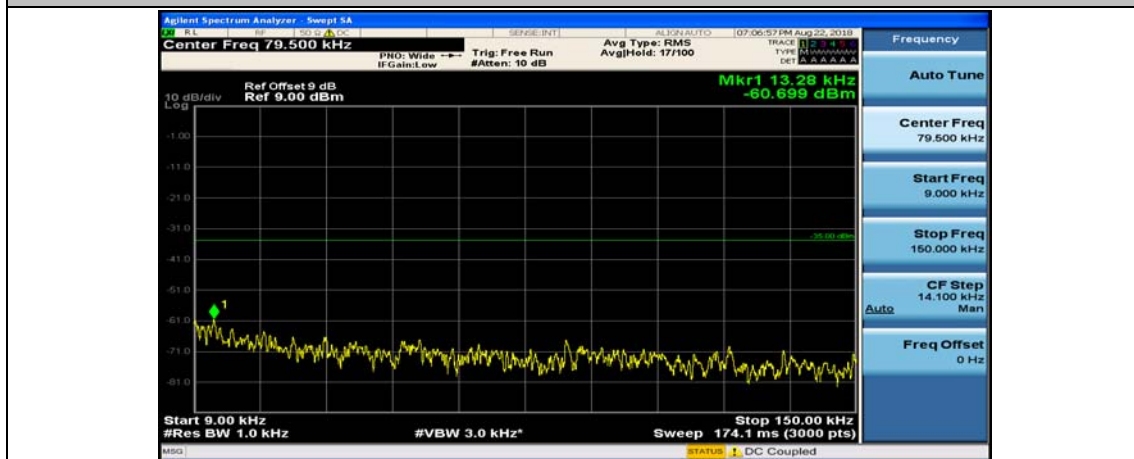
(Channel Bandwidth:15 MHz)\_LCH\_16QAM\_1RB#0

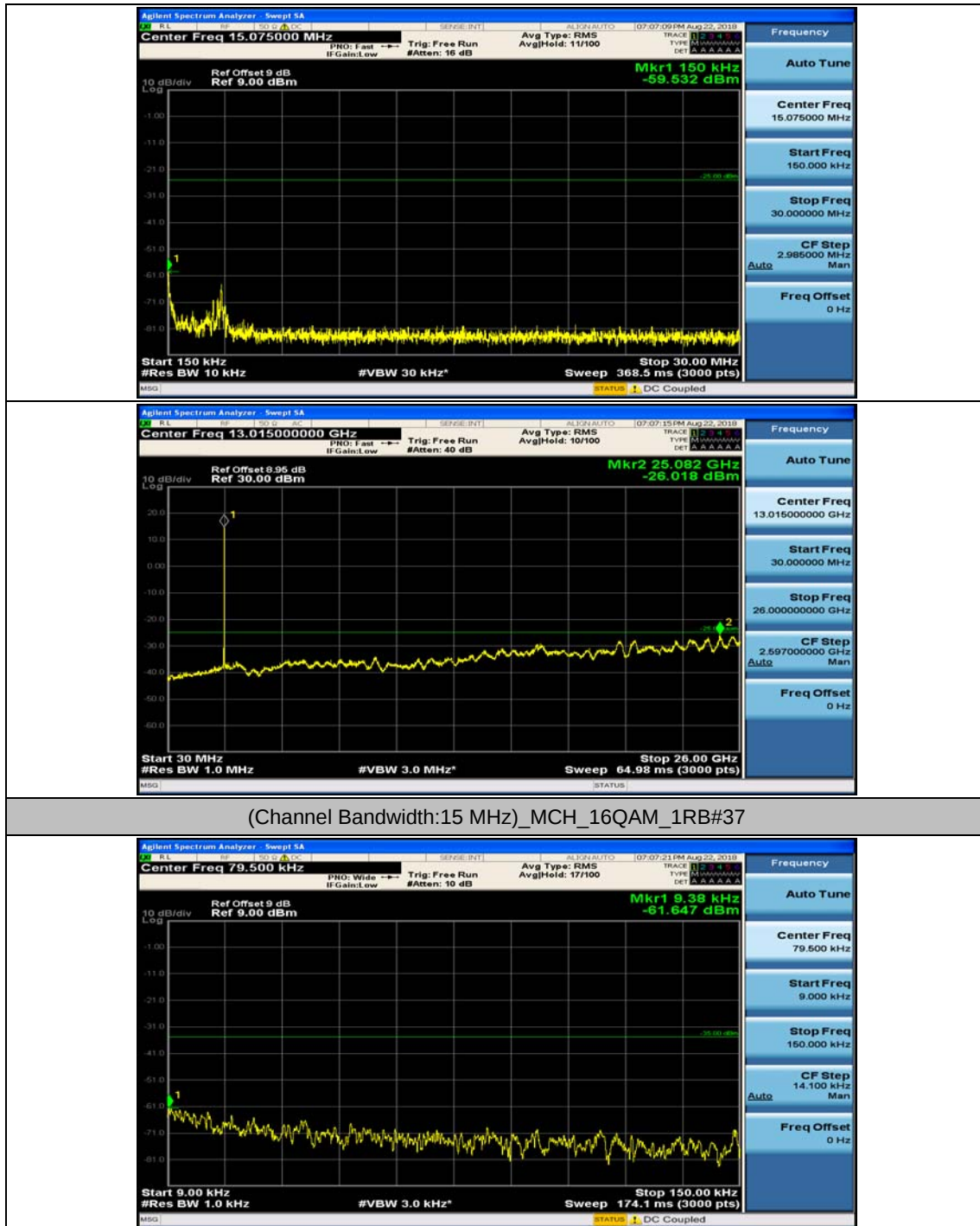


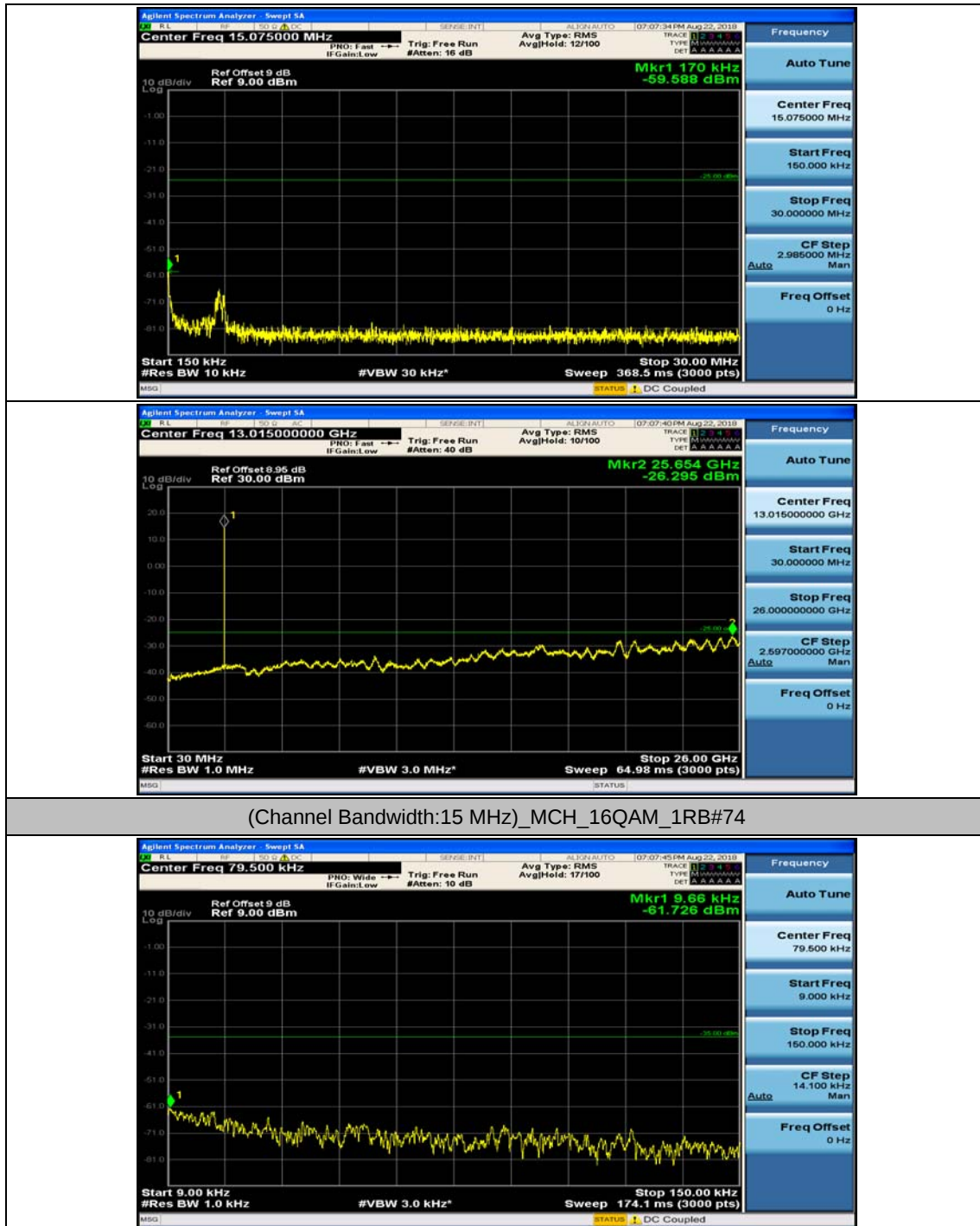


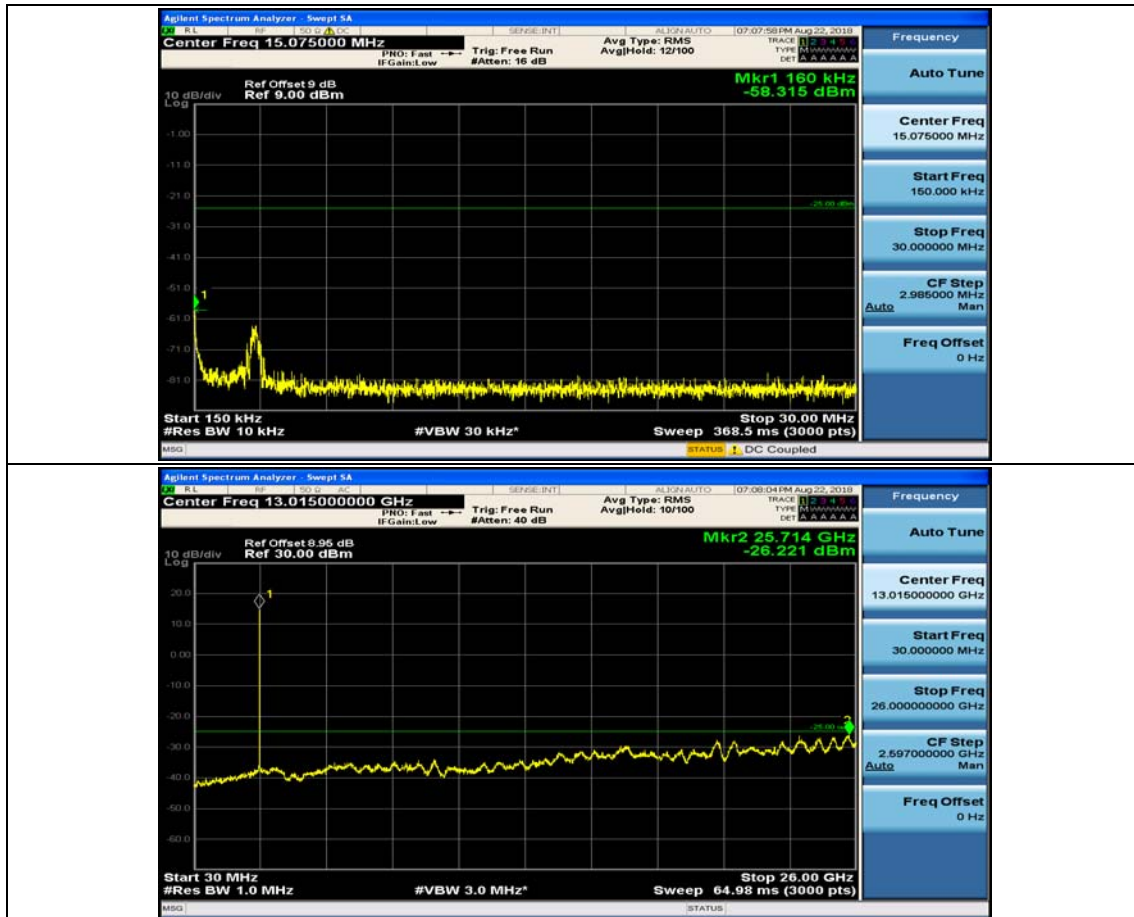


(Channel Bandwidth:15 MHz)\_MCH\_16QAM\_1RB#0

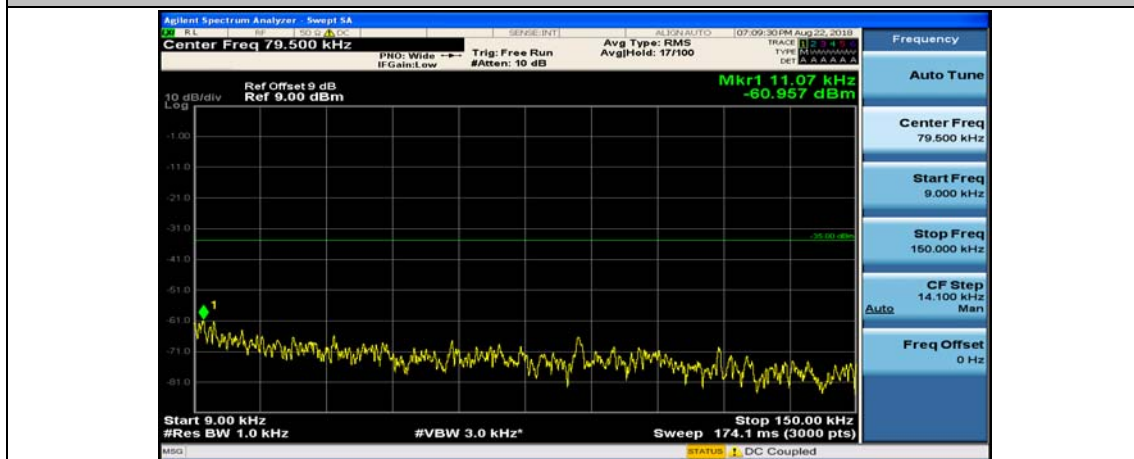


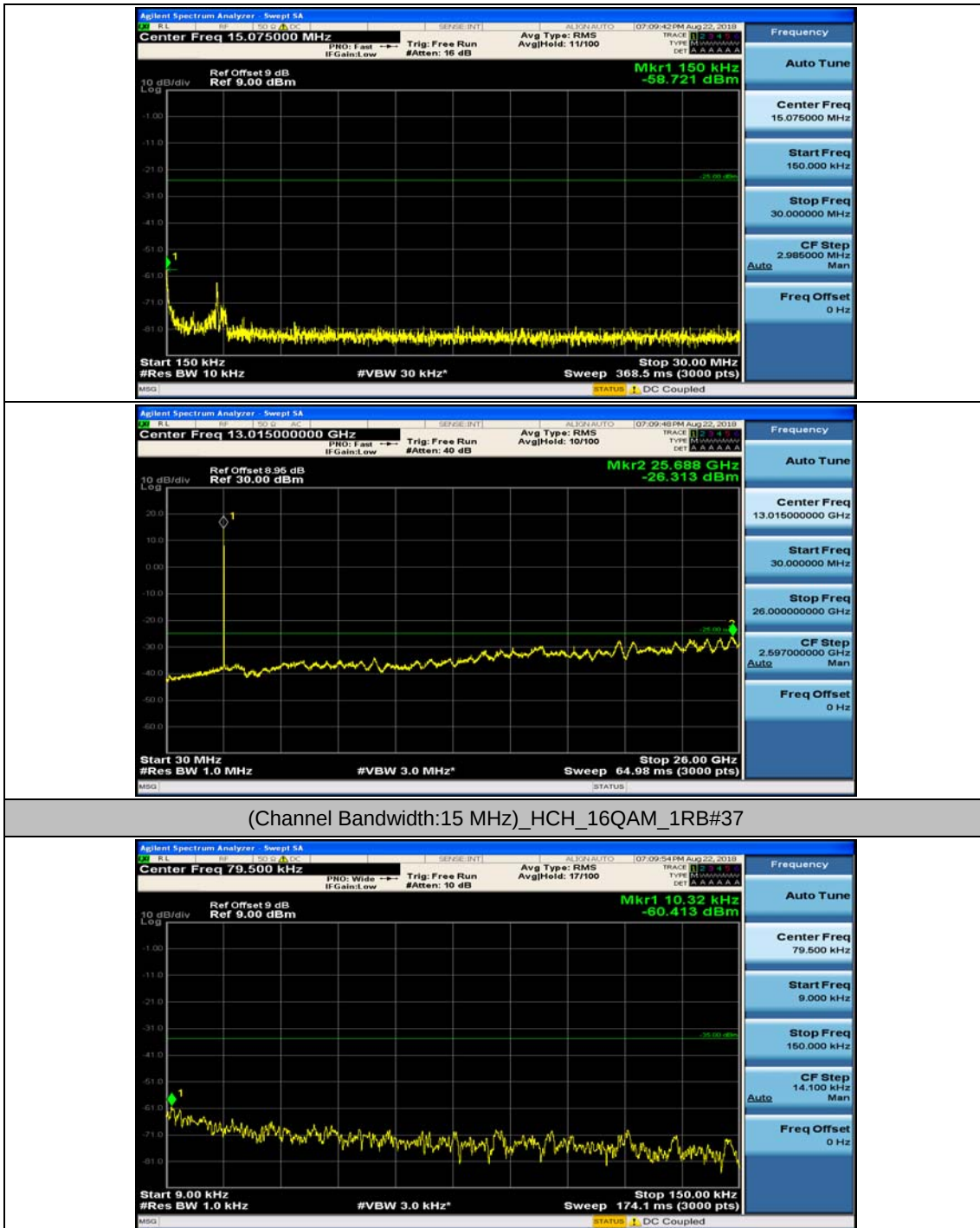


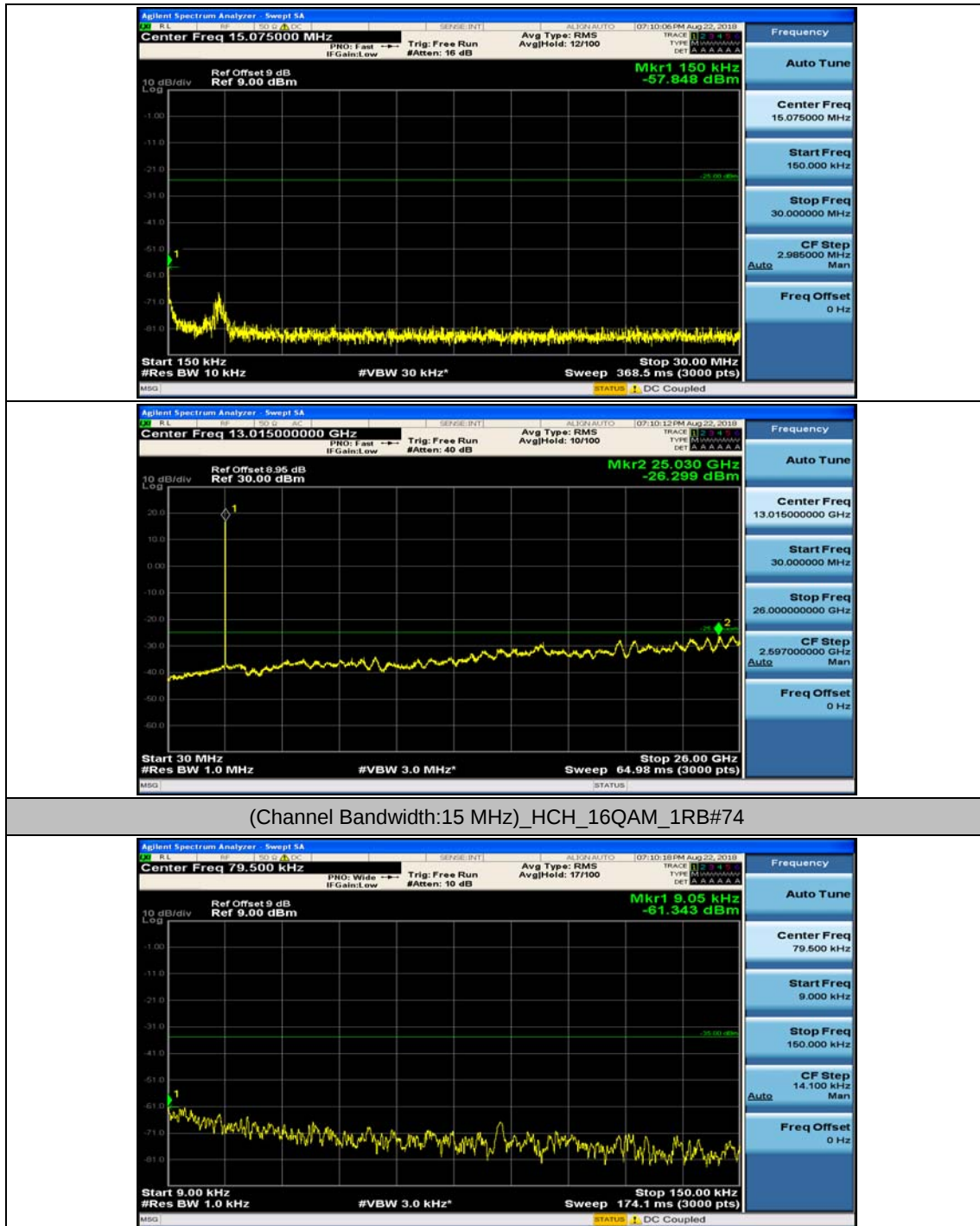


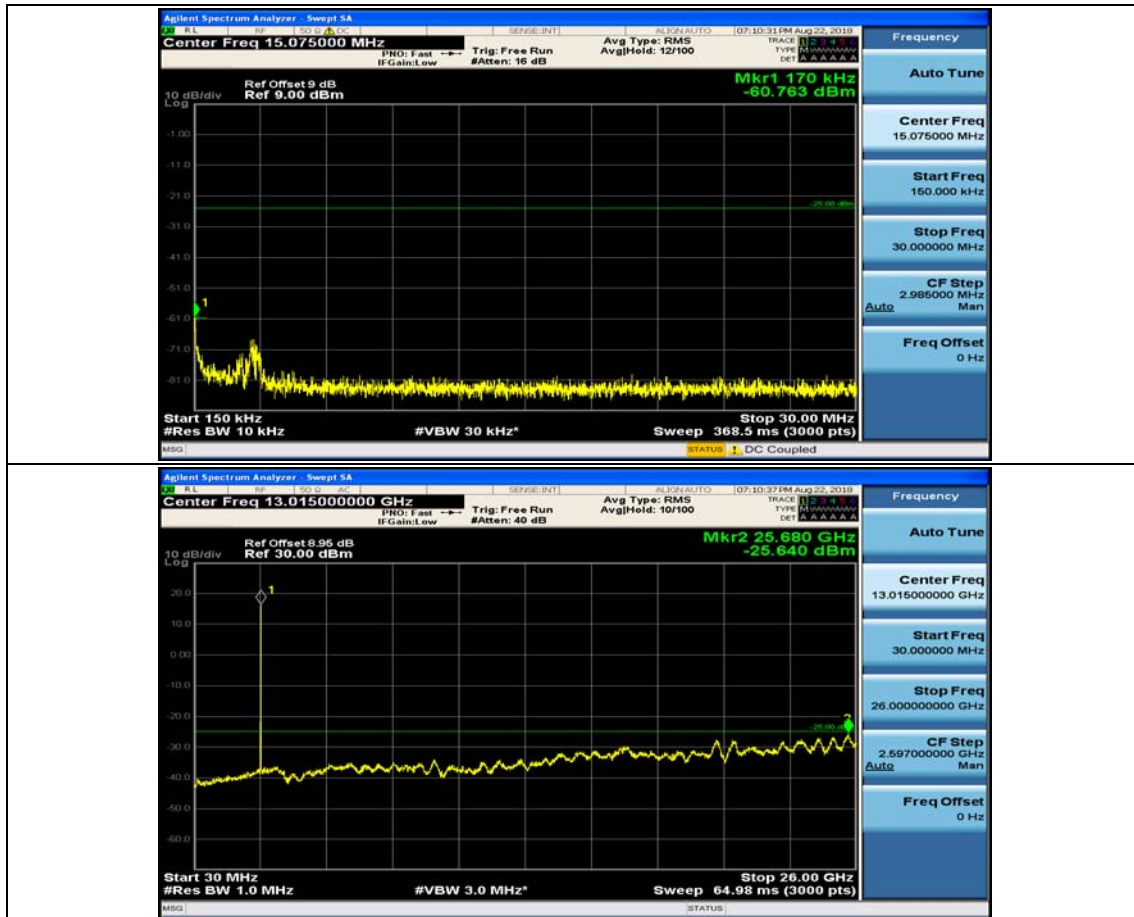


(Channel Bandwidth:15 MHz)\_HCH\_16QAM\_1RB#0

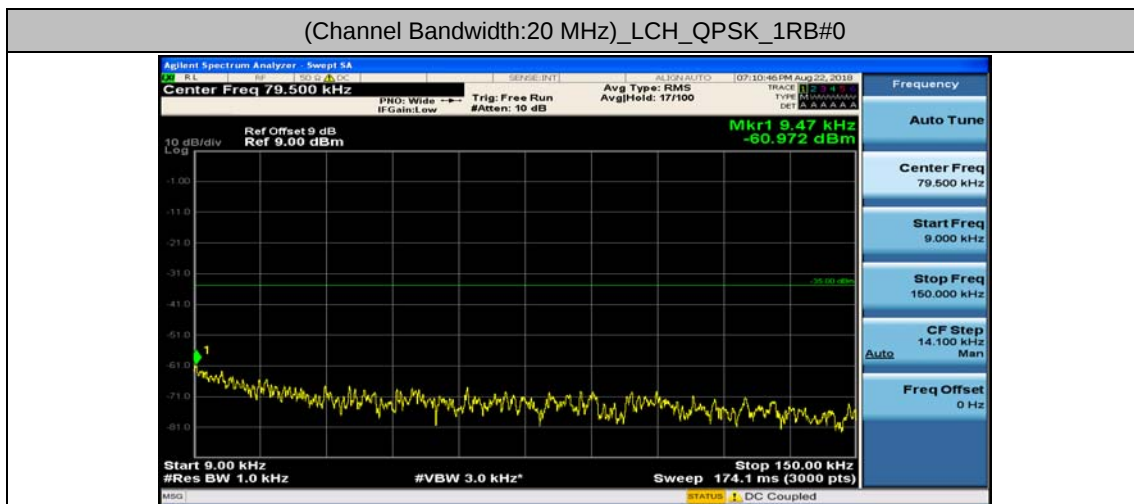


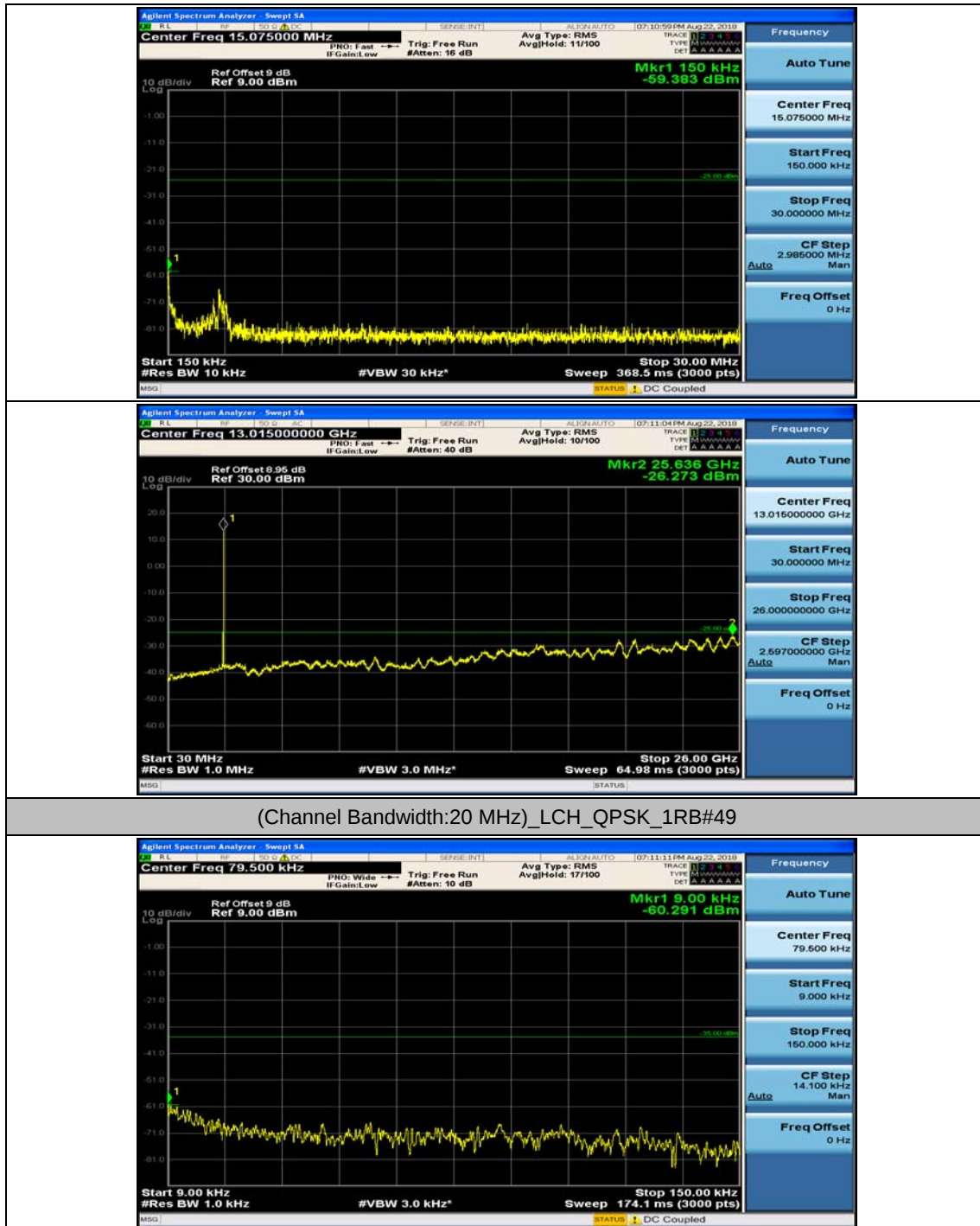


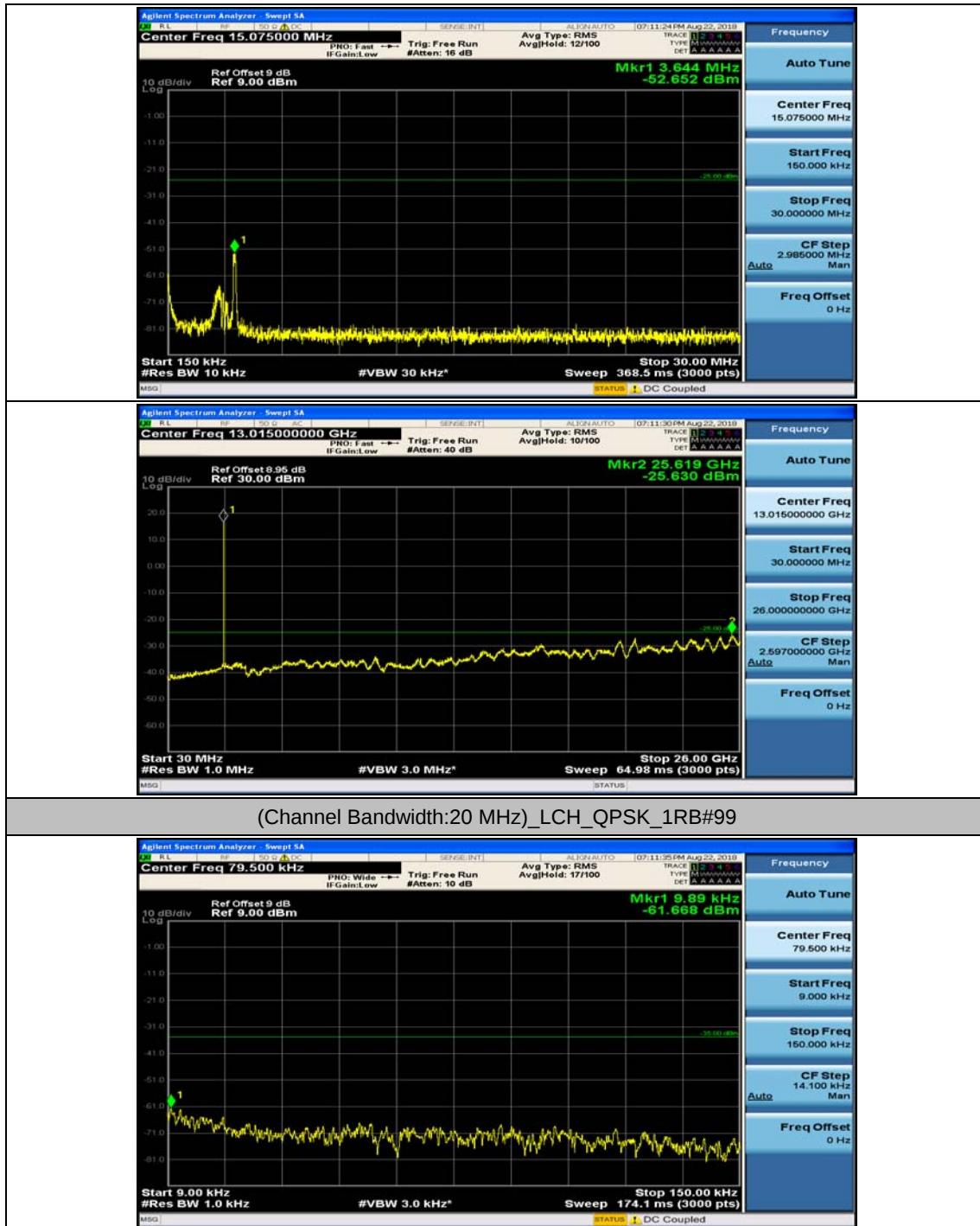


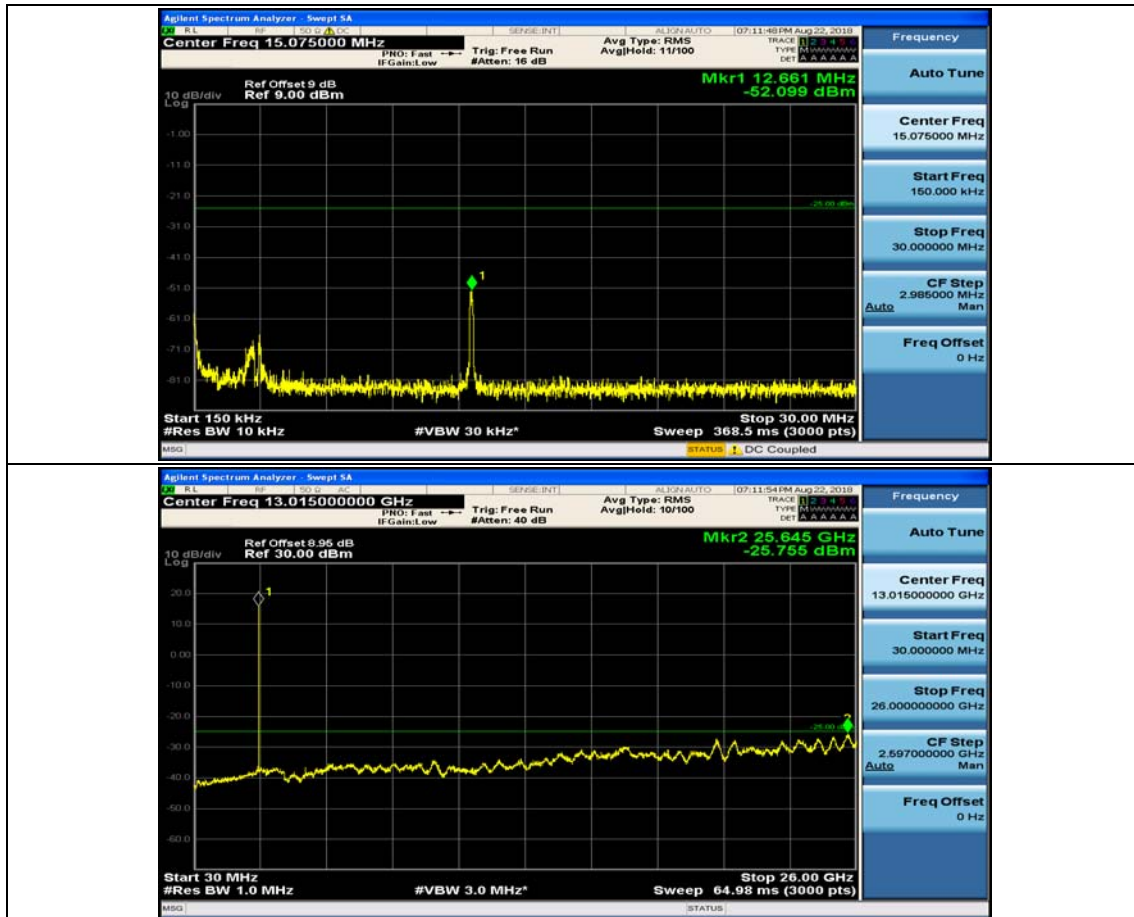


Channel Bandwidth: 20 MHz

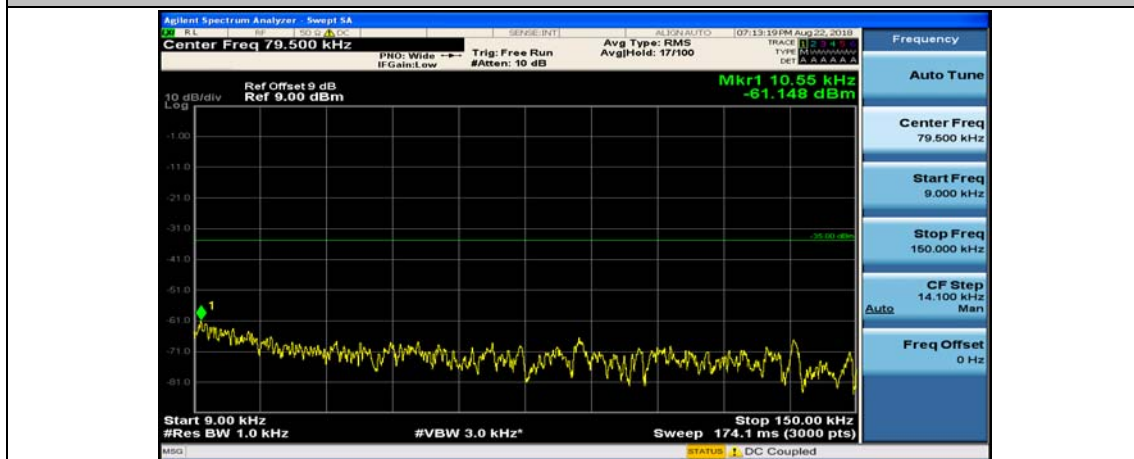


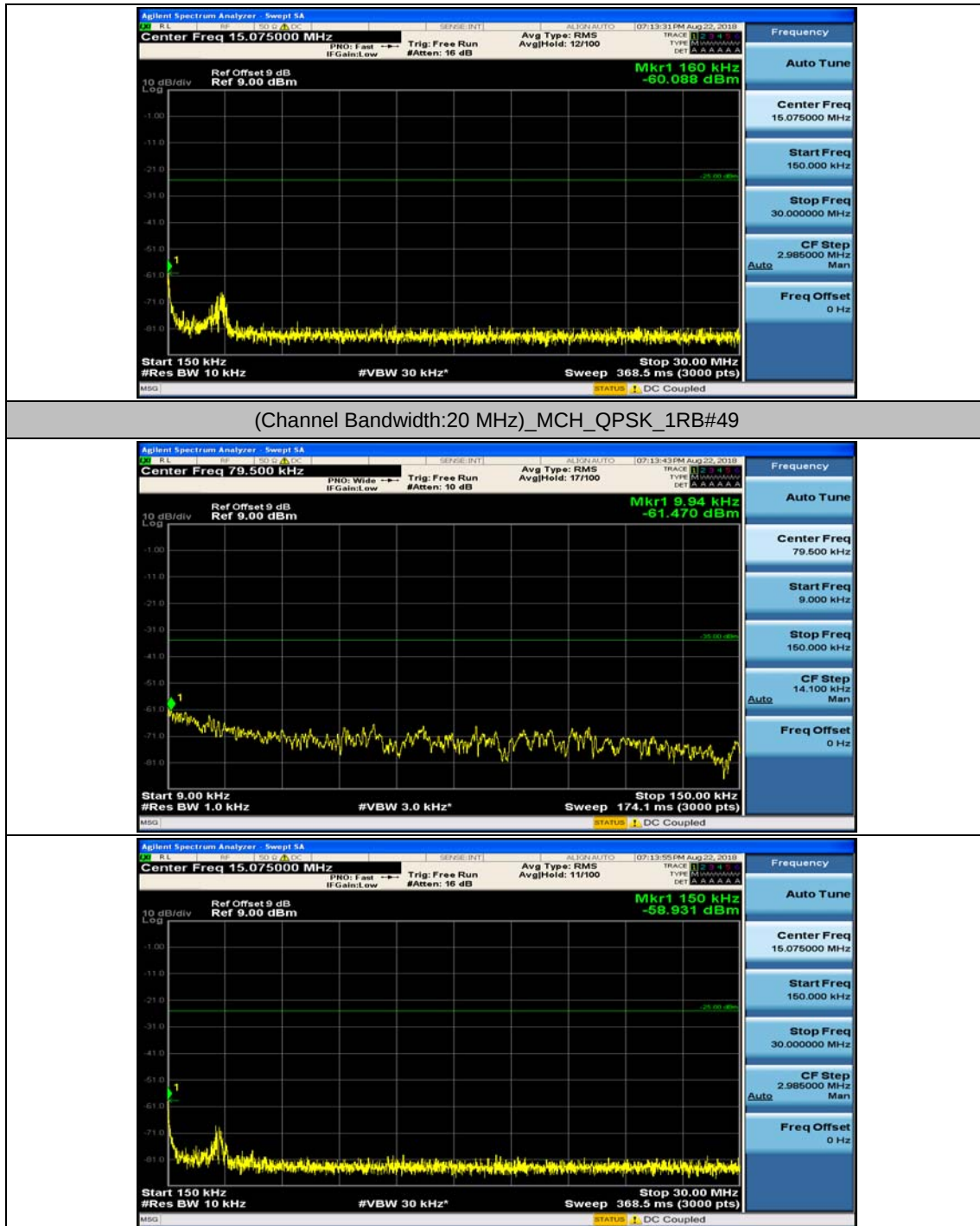




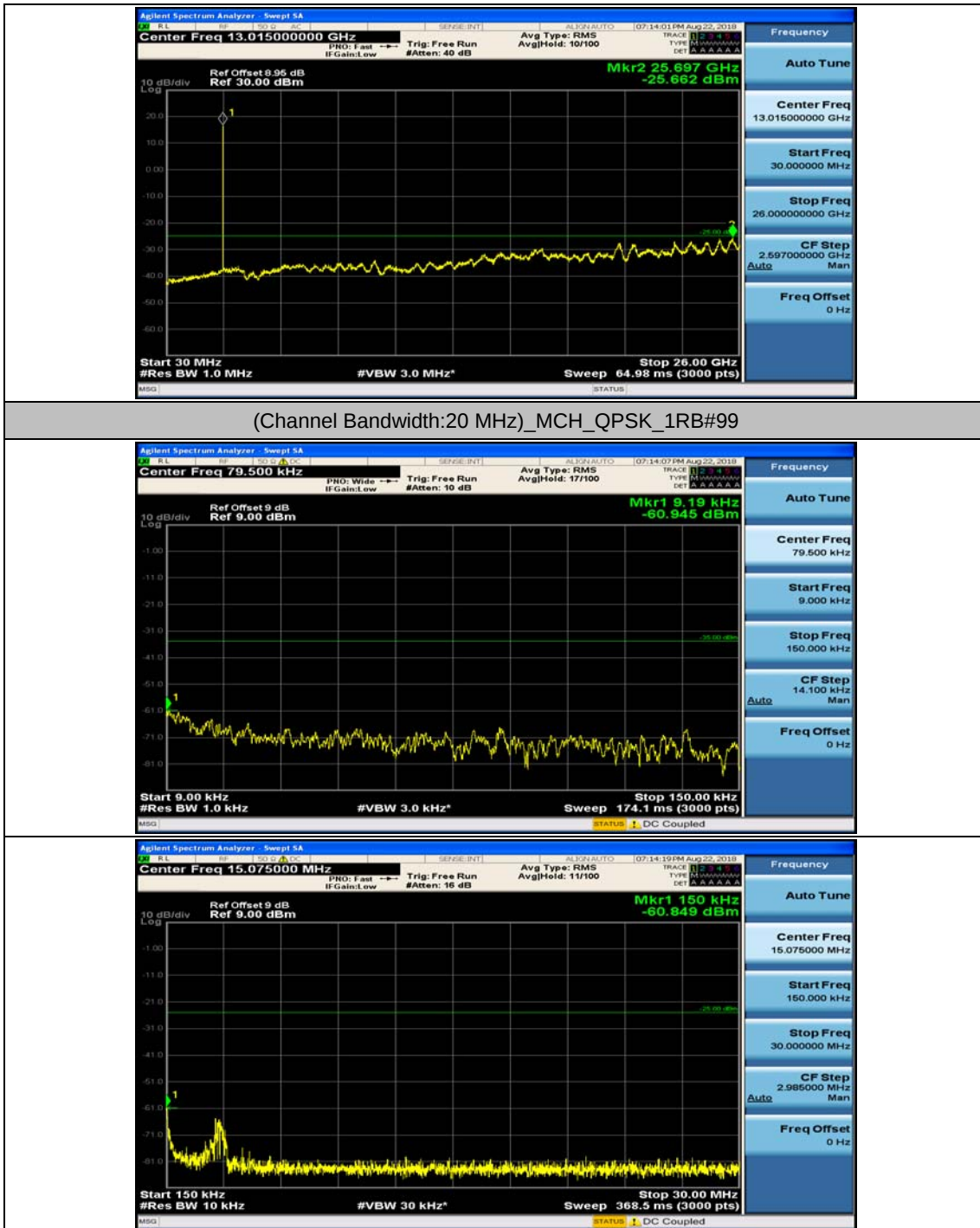


(Channel Bandwidth:20 MHz)\_MCH\_QPSK\_1RB#0





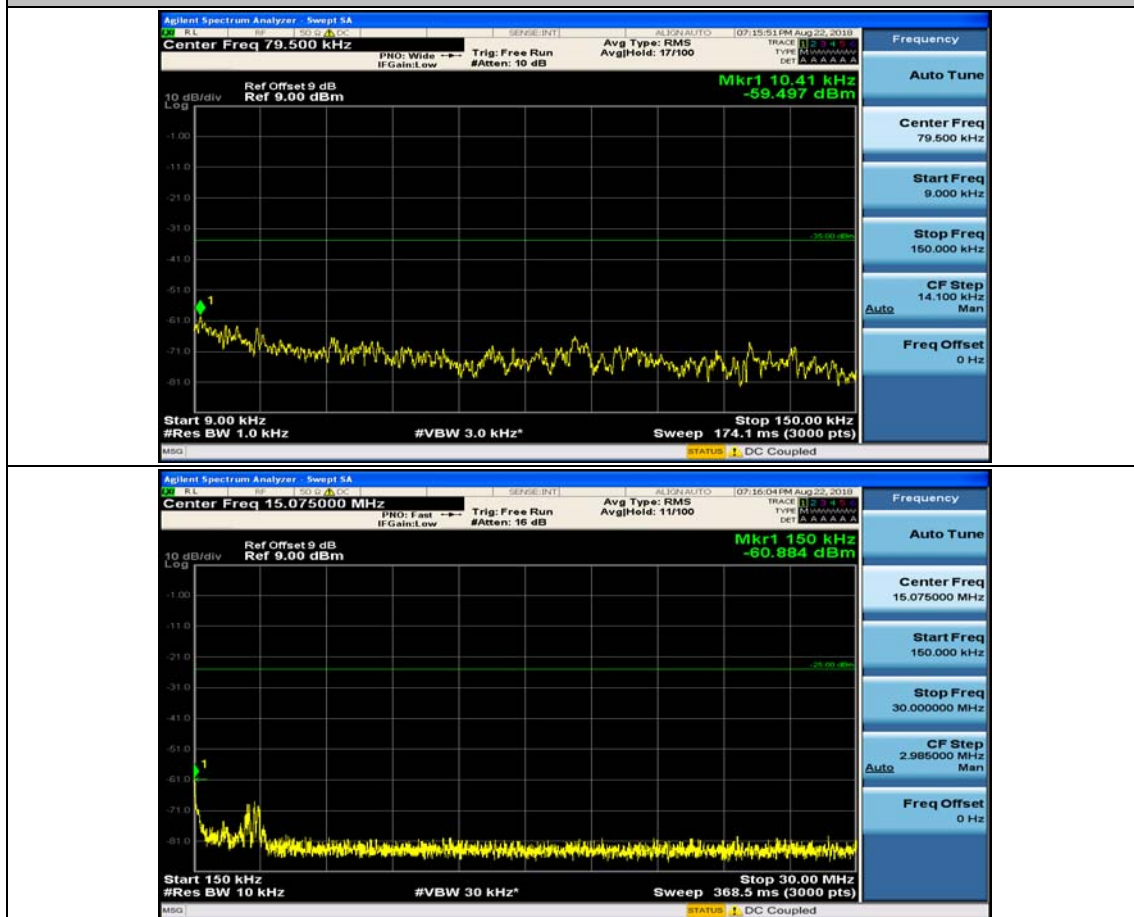
(Channel Bandwidth:20 MHz)\_MCH\_QPSK\_1RB#49

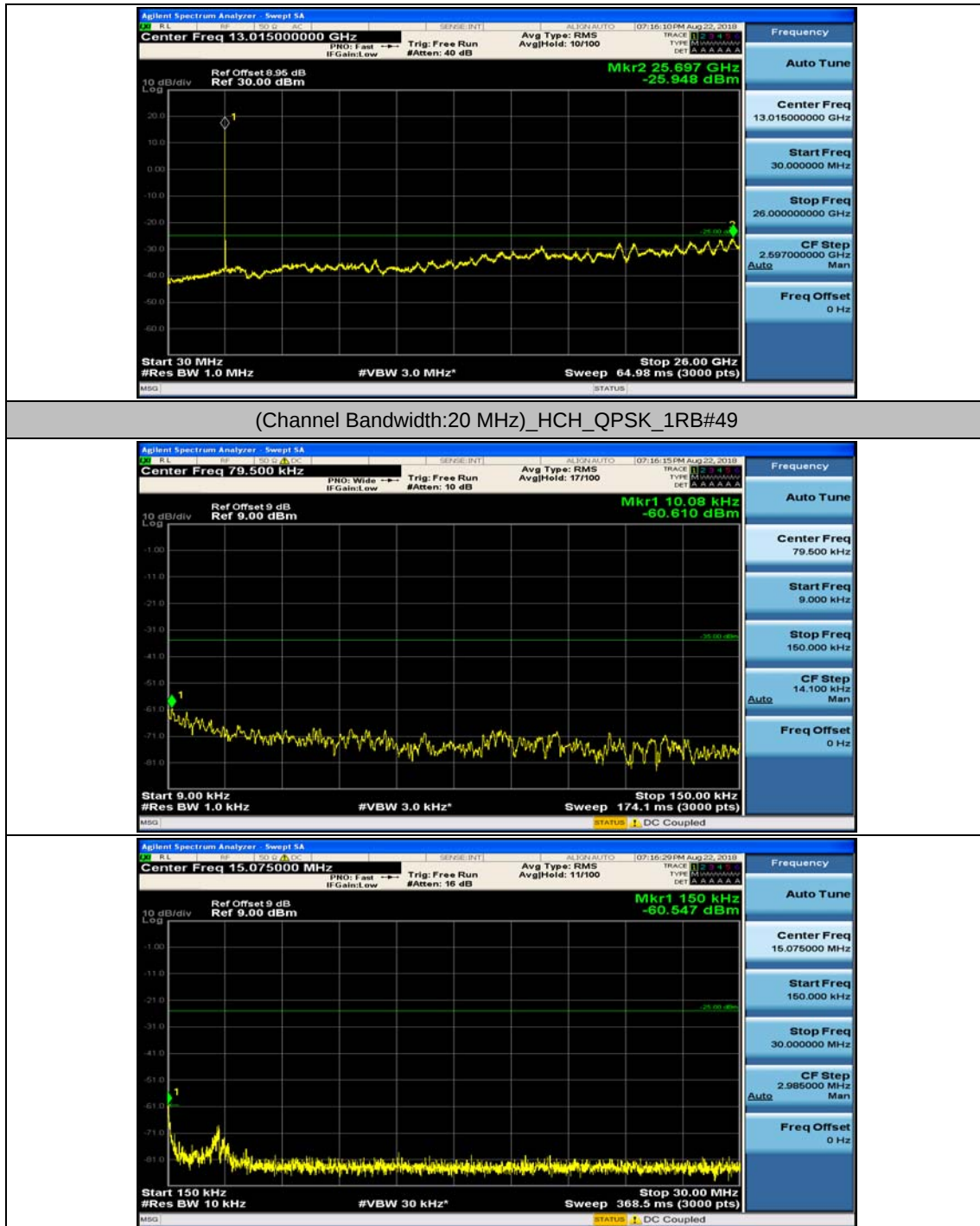


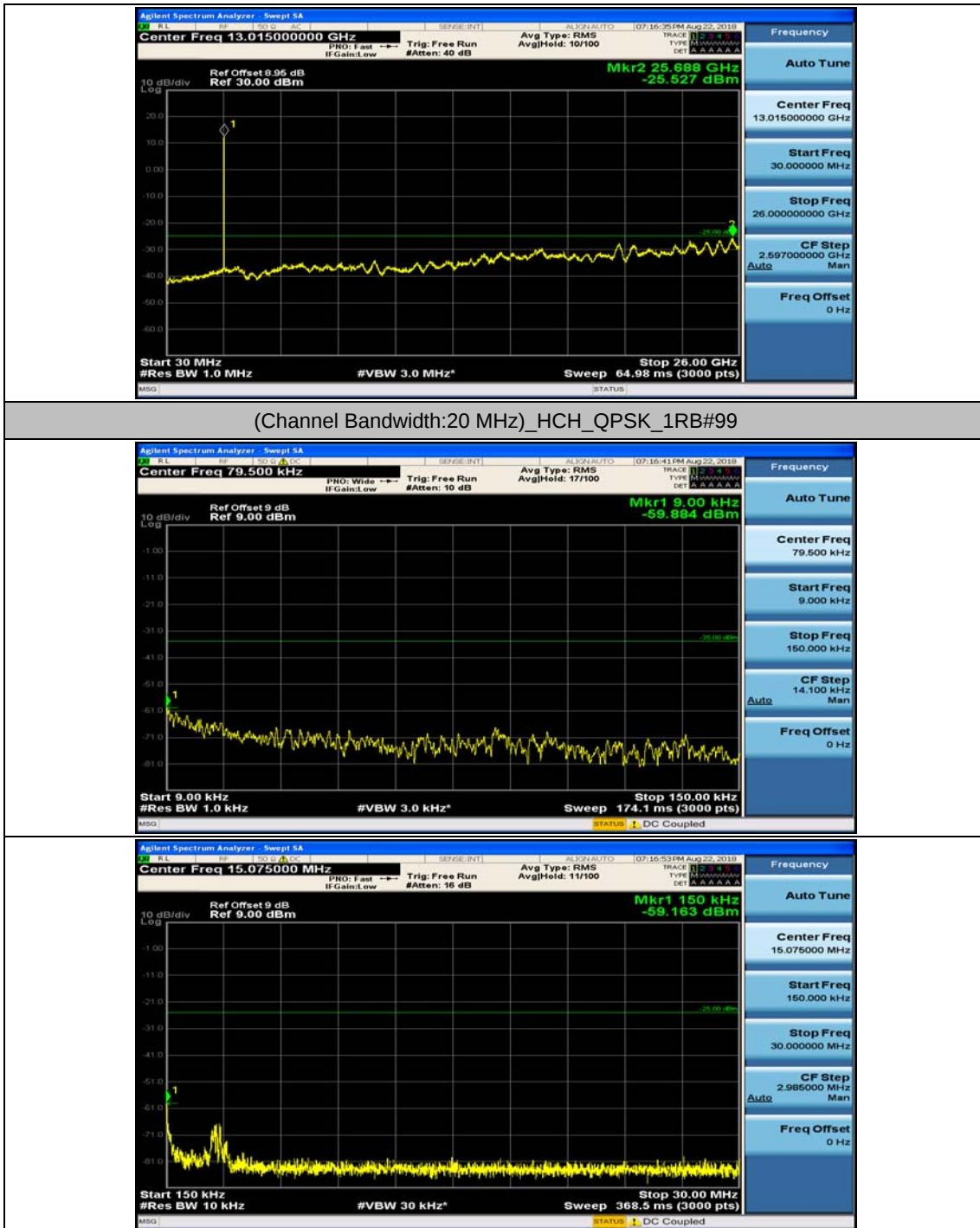
(Channel Bandwidth:20 MHz)\_MCH\_QPSK\_1RB#99



(Channel Bandwidth:20 MHz)\_HCH\_QPSK\_1RB#0



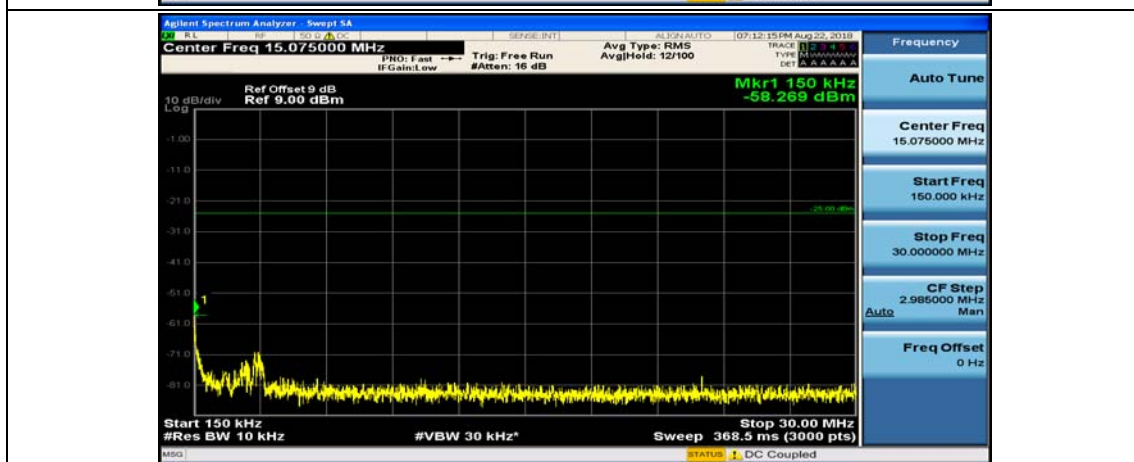
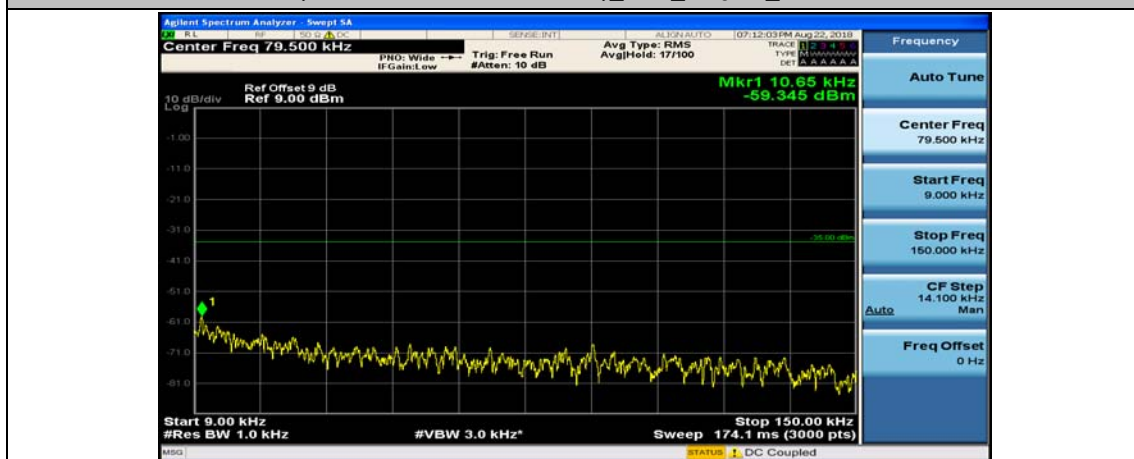


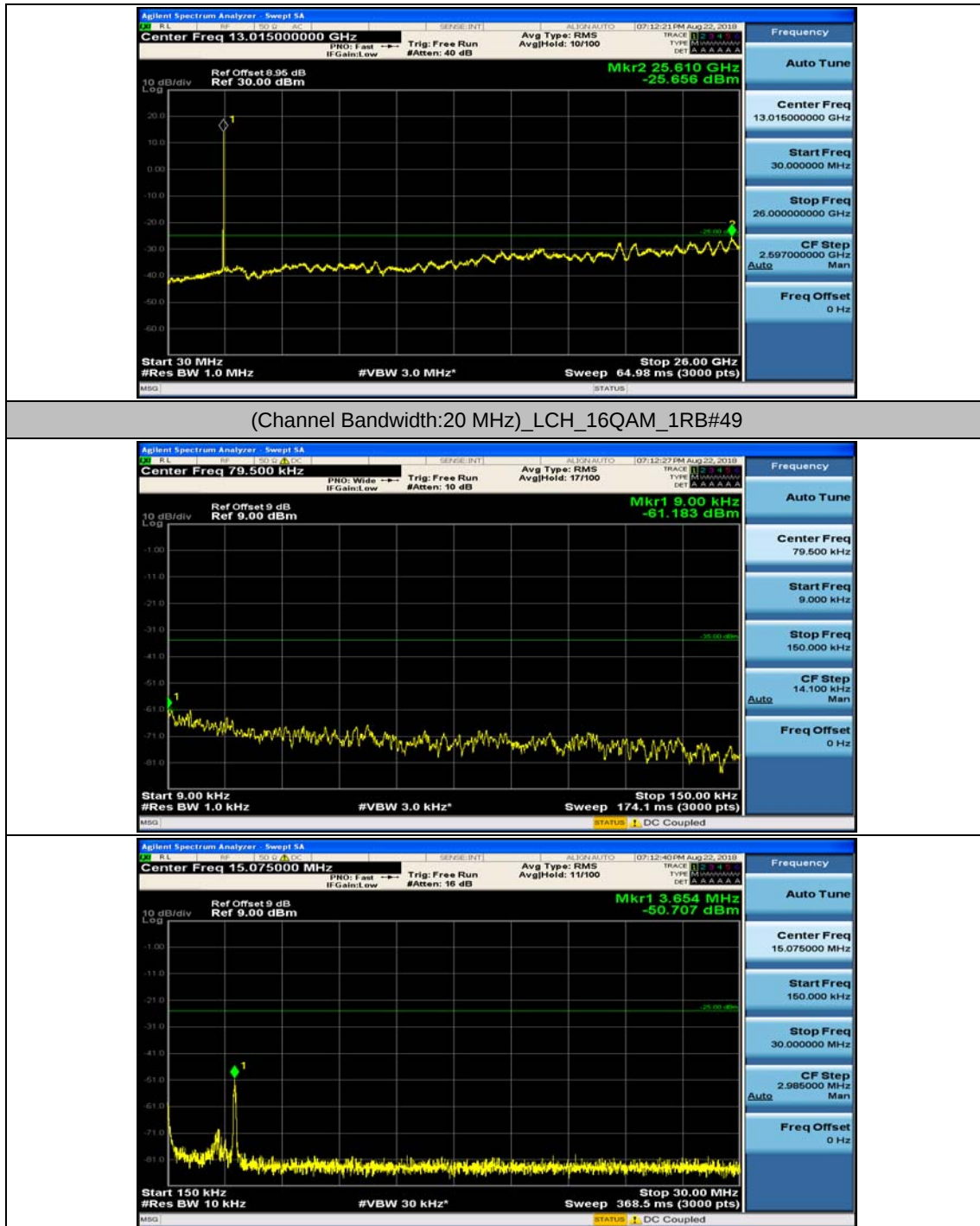


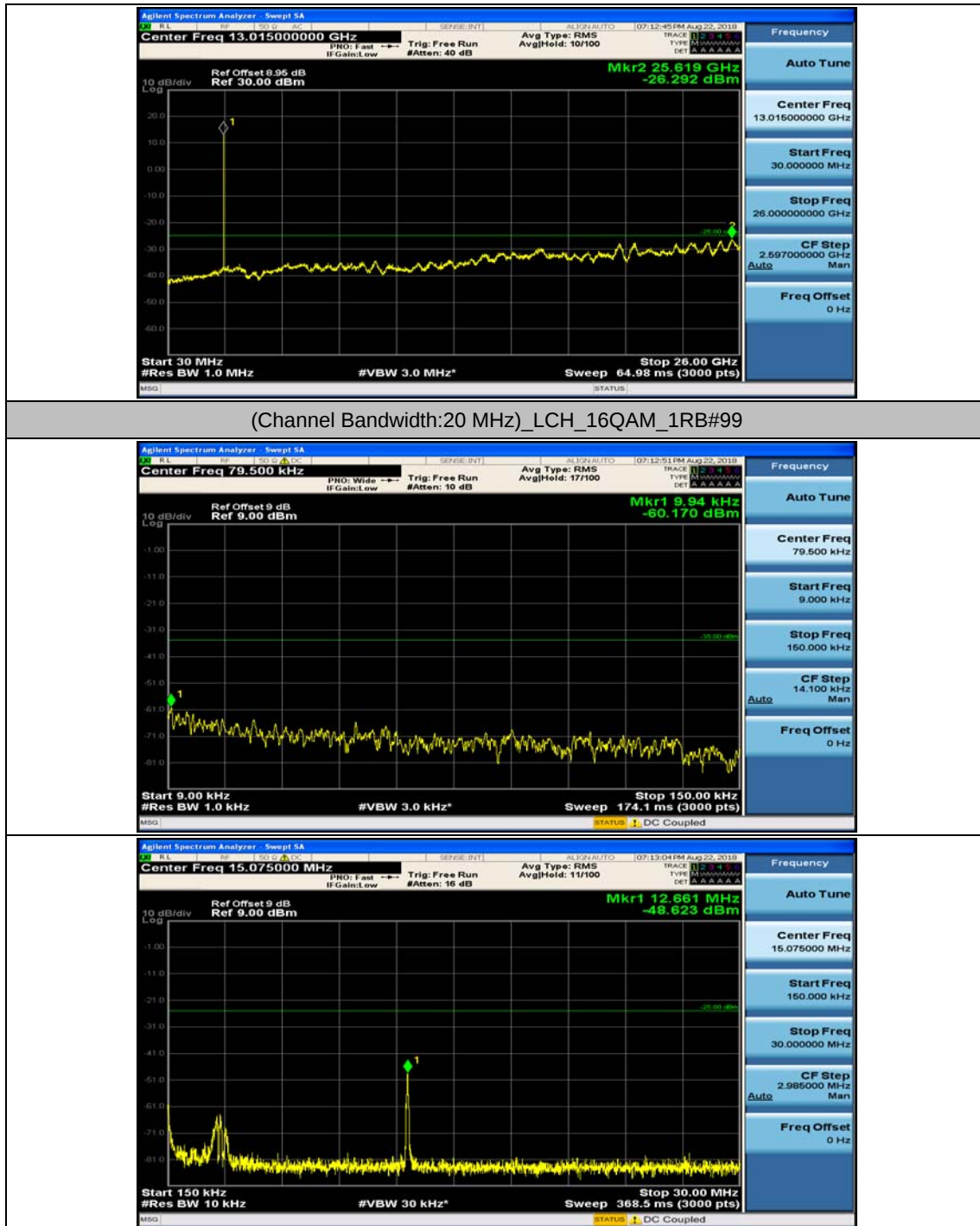
(Channel Bandwidth:20 MHz)\_HCH\_QPSK\_1RB#99



(Channel Bandwidth:20 MHz)\_LCH\_16QAM\_1RB#0

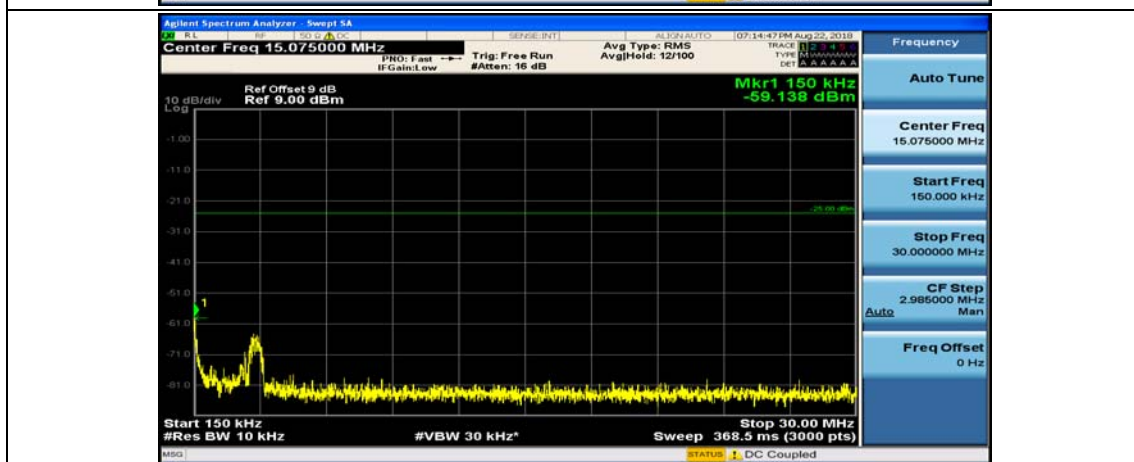
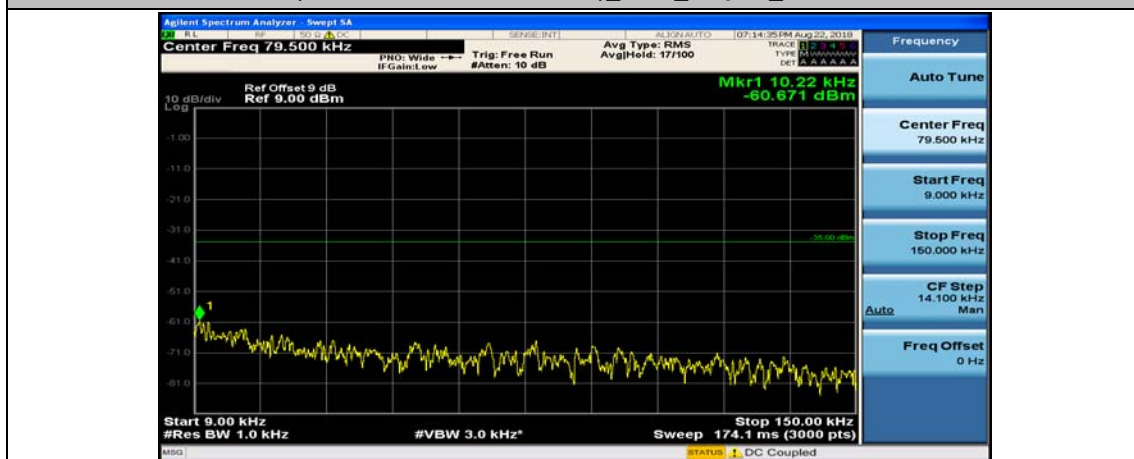


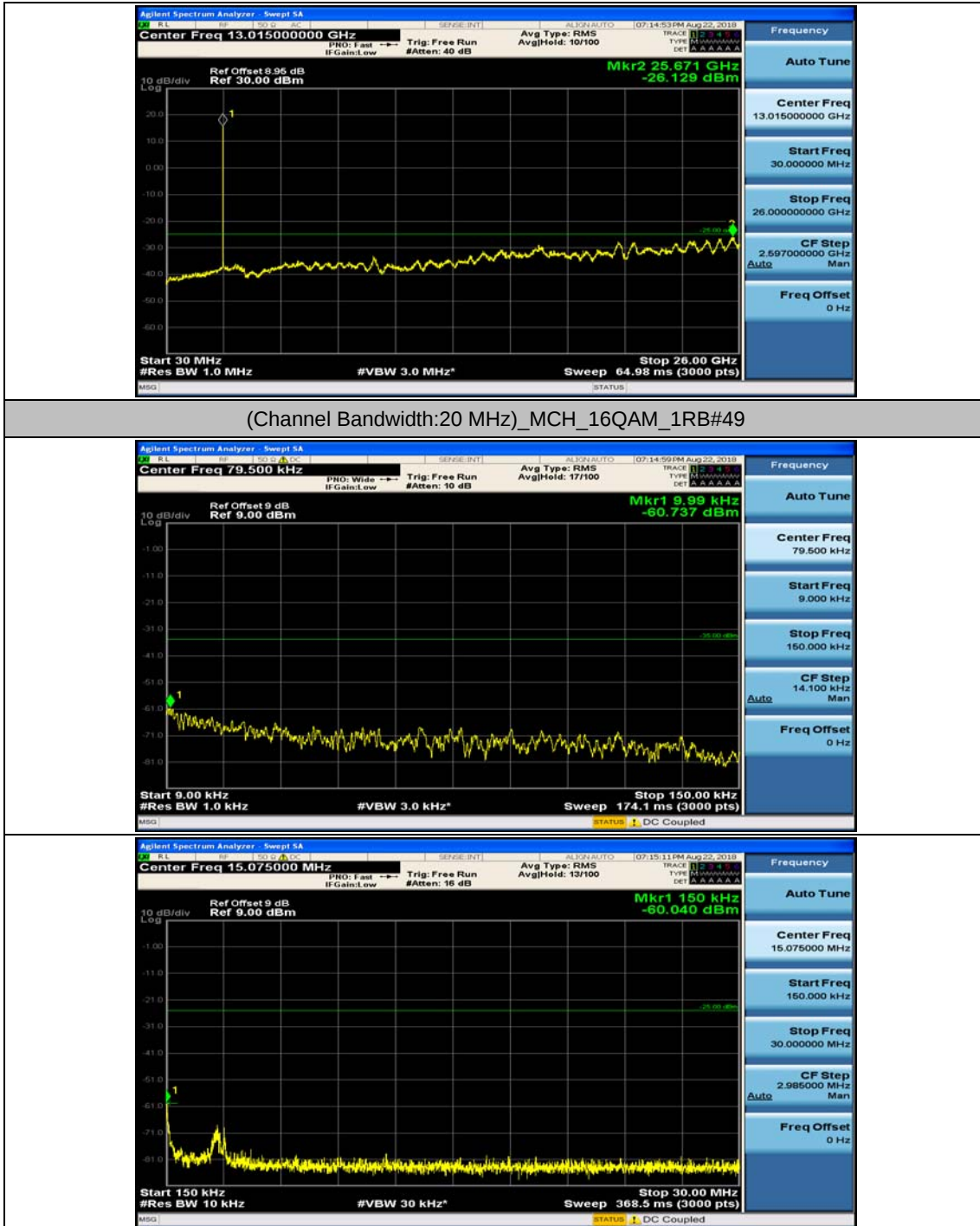




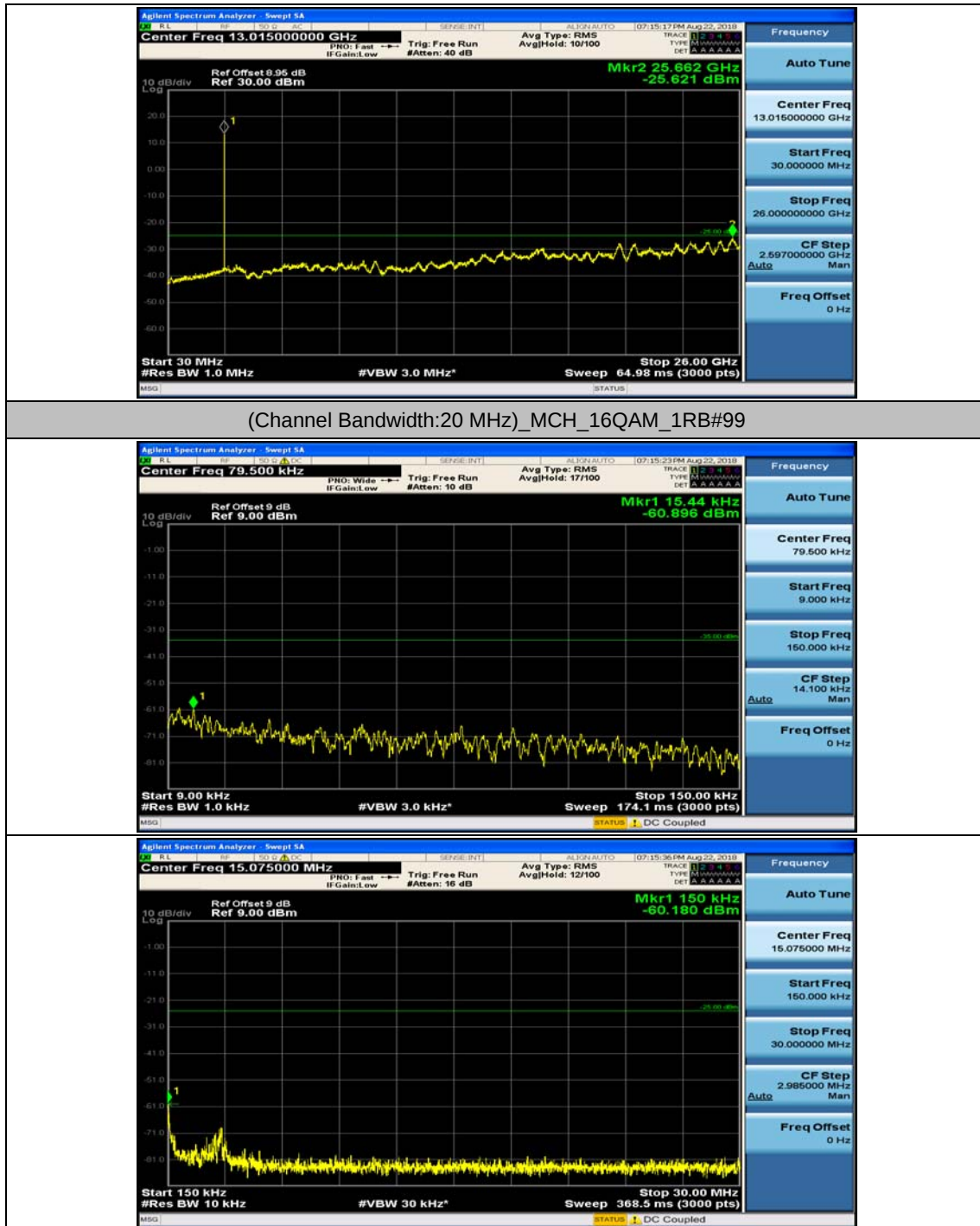


(Channel Bandwidth:20 MHz)\_MCH\_16QAM\_1RB#0





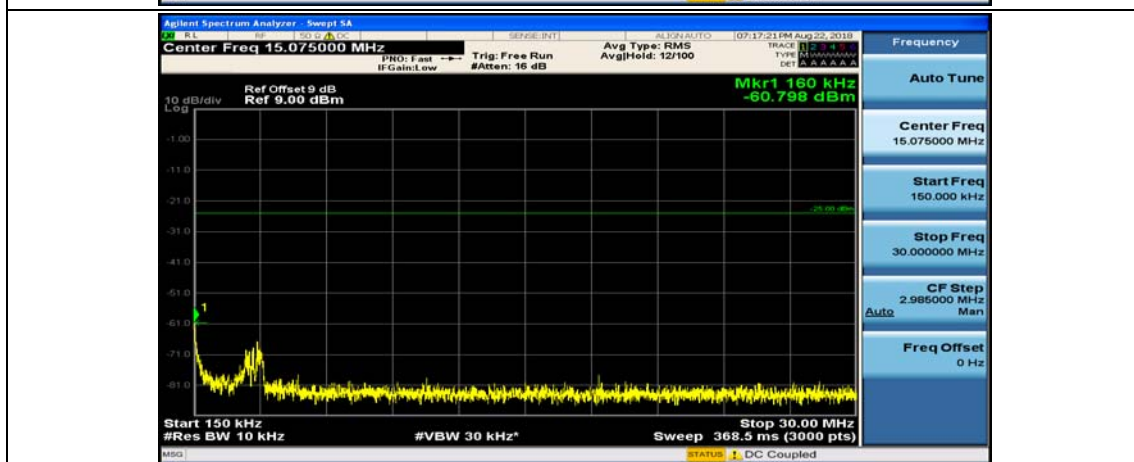
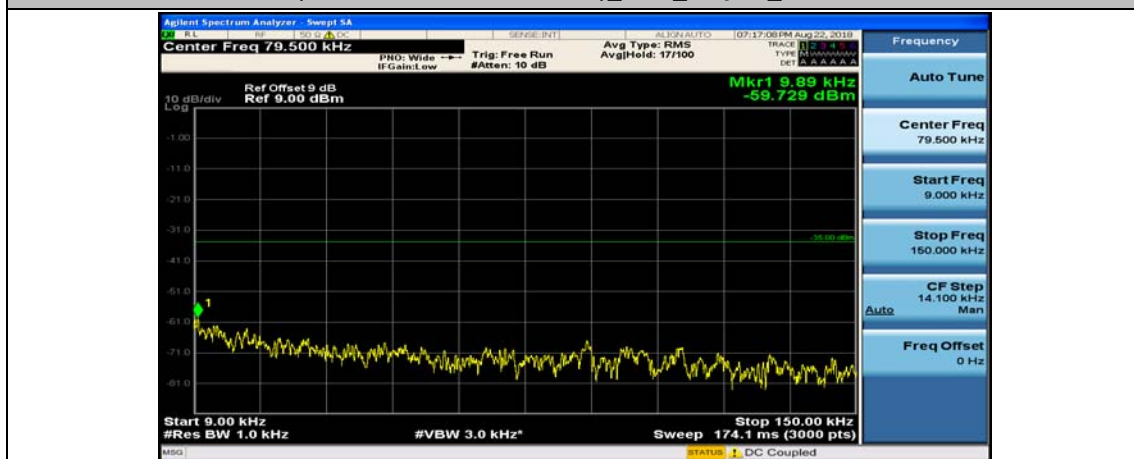
(Channel Bandwidth:20 MHz)\_MCH\_16QAM\_1RB#49

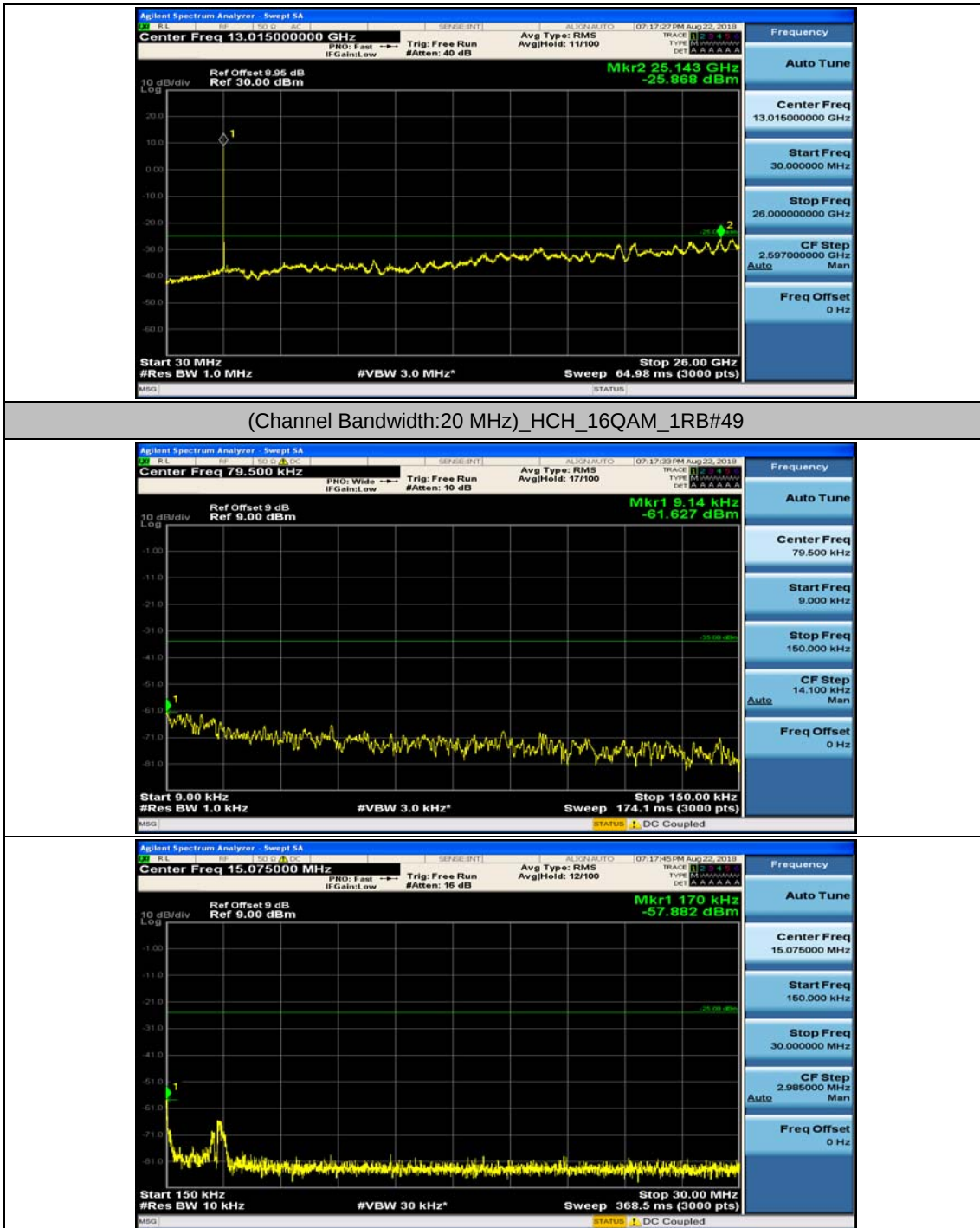


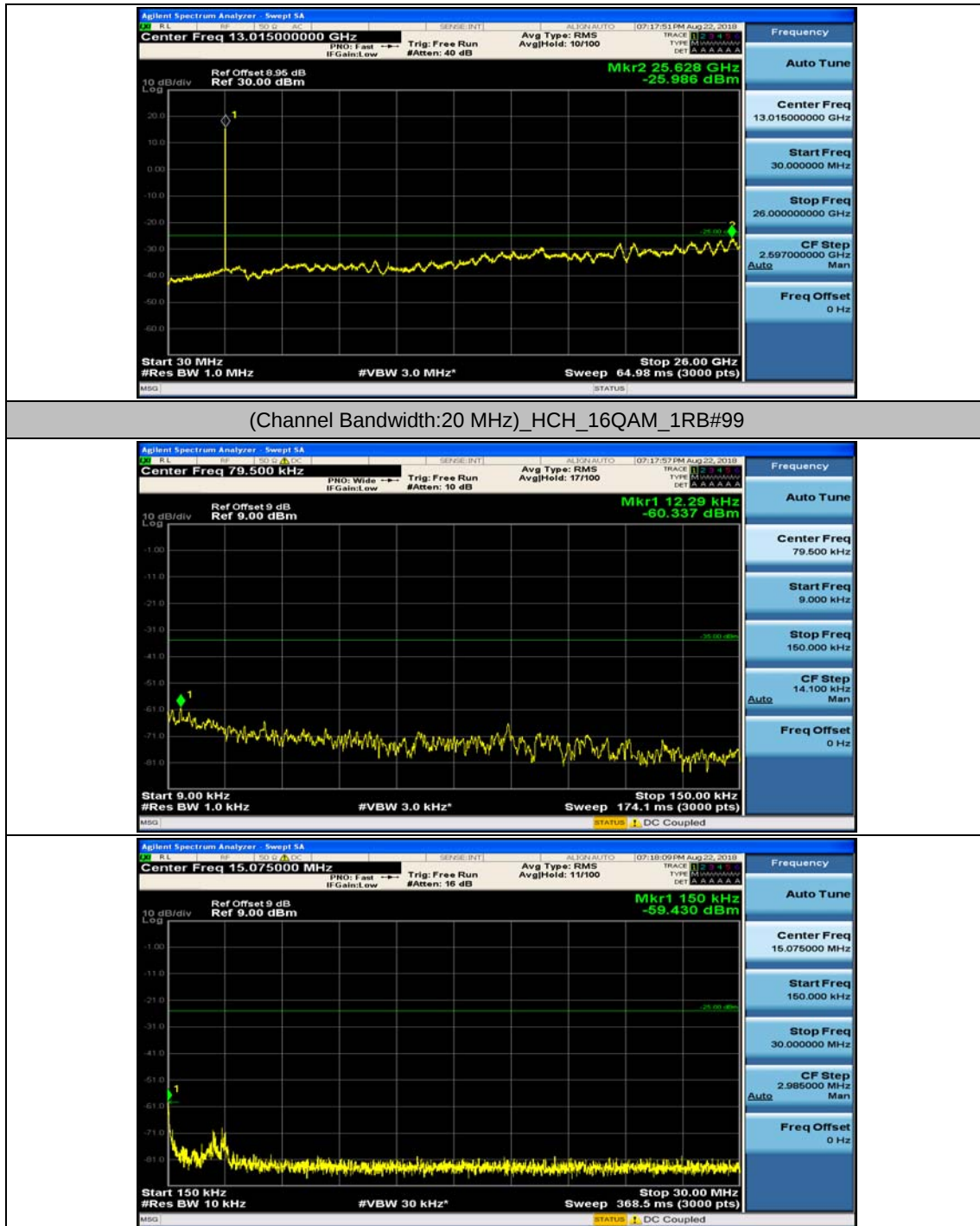
(Channel Bandwidth:20 MHz)\_MCH\_16QAM\_1RB#99



(Channel Bandwidth:20 MHz)\_HCH\_16QAM\_1RB#0









## Appendix F: Frequency Stability

### Test Result

#### Channel Bandwidth: 5 MHz

| Channel Bandwidth: 5 MHz |         |               |                  |                |                 |             |         |
|--------------------------|---------|---------------|------------------|----------------|-----------------|-------------|---------|
| Voltage                  |         |               |                  |                |                 |             |         |
| Modulation               | Channel | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| QPSK                     | LCH     | VL            | TN               | 1.55           | 0.000620        | ± 2.5       | PASS    |
|                          |         | VN            | TN               | 3.49           | 0.001397        | ± 2.5       | PASS    |
|                          |         | VH            | TN               | 3.67           | 0.001469        | ± 2.5       | PASS    |
|                          | MCH     | VL            | TN               | 2.38           | 0.000918        | ± 2.5       | PASS    |
|                          |         | VN            | TN               | 3.97           | 0.001531        | ± 2.5       | PASS    |
|                          |         | VH            | TN               | 4.69           | 0.001809        | ± 2.5       | PASS    |
|                          | HCH     | VL            | TN               | -0.84          | -0.000313       | ± 2.5       | PASS    |
|                          |         | VN            | TN               | 1.47           | 0.000547        | ± 2.5       | PASS    |
|                          |         | VH            | TN               | 3.53           | 0.001313        | ± 2.5       | PASS    |
| 16QAM                    | LCH     | VL            | TN               | 1.25           | 0.000500        | ± 2.5       | PASS    |
|                          |         | VN            | TN               | -1.1           | -0.000440       | ± 2.5       | PASS    |
|                          |         | VH            | TN               | 1.84           | 0.000736        | ± 2.5       | PASS    |
|                          | MCH     | VL            | TN               | -0.48          | -0.000185       | ± 2.5       | PASS    |
|                          |         | VN            | TN               | 3.55           | 0.001369        | ± 2.5       | PASS    |
|                          |         | VH            | TN               | 4.13           | 0.001593        | ± 2.5       | PASS    |
|                          | HCH     | VL            | TN               | -0.08          | -0.000030       | ± 2.5       | PASS    |
|                          |         | VN            | TN               | 3.64           | 0.001354        | ± 2.5       | PASS    |
|                          |         | VH            | TN               | -1.55          | -0.000577       | ± 2.5       | PASS    |
| Temperature              |         |               |                  |                |                 |             |         |
| Modulation               | Channel | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| QPSK                     | LCH     | VN            | -30              | 3.8            | 0.001521        | ± 2.5       | PASS    |
|                          |         | VN            | -20              | 3.25           | 0.001301        | ± 2.5       | PASS    |
|                          |         | VN            | -10              | -0.03          | -0.000012       | ± 2.5       | PASS    |
|                          |         | VN            | 0                | -0.23          | -0.000092       | ± 2.5       | PASS    |
|                          |         | VN            | 10               | 3.8            | 0.001521        | ± 2.5       | PASS    |
|                          |         | VN            | 20               | 3.74           | 0.001497        | ± 2.5       | PASS    |
|                          |         | VN            | 30               | 2.63           | 0.001053        | ± 2.5       | PASS    |
|                          |         | VN            | 40               | -1.09          | -0.000436       | ± 2.5       | PASS    |
|                          |         | VN            | 50               | 1.11           | 0.000444        | ± 2.5       | PASS    |
|                          | MCH     | VN            | -30              | 3.44           | 0.001327        | ± 2.5       | PASS    |
|                          |         | VN            | -20              | -1.53          | -0.000590       | ± 2.5       | PASS    |

|       |     |    |     |       |           |       |      |
|-------|-----|----|-----|-------|-----------|-------|------|
|       |     | VN | -10 | 1.21  | 0.000467  | ± 2.5 | PASS |
|       |     | VN | 0   | 2.99  | 0.001153  | ± 2.5 | PASS |
|       |     | VN | 10  | 0.59  | 0.000228  | ± 2.5 | PASS |
|       |     | VN | 20  | 3.66  | 0.001411  | ± 2.5 | PASS |
|       |     | VN | 30  | 2.88  | 0.001111  | ± 2.5 | PASS |
|       |     | VN | 40  | 3.94  | 0.001519  | ± 2.5 | PASS |
|       |     | VN | 50  | -1.39 | -0.000536 | ± 2.5 | PASS |
|       | HCH | VN | -30 | -1.76 | -0.000655 | ± 2.5 | PASS |
|       |     | VN | -20 | 4.73  | 0.001760  | ± 2.5 | PASS |
|       |     | VN | -10 | 0.36  | 0.000134  | ± 2.5 | PASS |
|       |     | VN | 0   | 0.92  | 0.000342  | ± 2.5 | PASS |
|       |     | VN | 10  | 4.39  | 0.001633  | ± 2.5 | PASS |
|       |     | VN | 20  | -0.97 | -0.000361 | ± 2.5 | PASS |
|       |     | VN | 30  | 1.78  | 0.000662  | ± 2.5 | PASS |
|       |     | VN | 40  | 1.92  | 0.000714  | ± 2.5 | PASS |
|       |     | VN | 50  | -1.83 | -0.000681 | ± 2.5 | PASS |
| 16QAM | LCH | VN | -30 | 0.6   | 0.000240  | ± 2.5 | PASS |
|       |     | VN | -20 | -1.85 | -0.000740 | ± 2.5 | PASS |
|       |     | VN | -10 | 2.28  | 0.000913  | ± 2.5 | PASS |
|       |     | VN | 0   | 2.9   | 0.001161  | ± 2.5 | PASS |
|       |     | VN | 10  | 3.03  | 0.001213  | ± 2.5 | PASS |
|       |     | VN | 20  | 3.65  | 0.001461  | ± 2.5 | PASS |
|       |     | VN | 30  | -0.62 | -0.000248 | ± 2.5 | PASS |
|       |     | VN | 40  | 3.52  | 0.001409  | ± 2.5 | PASS |
|       |     | VN | 50  | 3.85  | 0.001541  | ± 2.5 | PASS |
|       | MCH | VN | -30 | 4.47  | 0.001724  | ± 2.5 | PASS |
|       |     | VN | -20 | 4.76  | 0.001836  | ± 2.5 | PASS |
|       |     | VN | -10 | 4.29  | 0.001654  | ± 2.5 | PASS |
|       |     | VN | 0   | 2.31  | 0.000891  | ± 2.5 | PASS |
|       |     | VN | 10  | 1.45  | 0.000559  | ± 2.5 | PASS |
|       |     | VN | 20  | 0.92  | 0.000355  | ± 2.5 | PASS |
|       |     | VN | 30  | 0.78  | 0.000301  | ± 2.5 | PASS |
|       |     | VN | 40  | 1.63  | 0.000629  | ± 2.5 | PASS |
|       |     | VN | 50  | 3.12  | 0.001203  | ± 2.5 | PASS |
|       | HCH | VN | -30 | 0.12  | 0.000045  | ± 2.5 | PASS |
|       |     | VN | -20 | 4.69  | 0.001745  | ± 2.5 | PASS |
|       |     | VN | -10 | 4.7   | 0.001749  | ± 2.5 | PASS |
|       |     | VN | 0   | 4.68  | 0.001741  | ± 2.5 | PASS |
|       |     | VN | 10  | 2.05  | 0.000763  | ± 2.5 | PASS |
|       |     | VN | 20  | 0.93  | 0.000346  | ± 2.5 | PASS |
|       |     | VN | 30  | 2.44  | 0.000908  | ± 2.5 | PASS |

|  |  |    |    |        |           |       |      |
|--|--|----|----|--------|-----------|-------|------|
|  |  | VN | 40 | 4.35   | 0.001619  | ± 2.5 | PASS |
|  |  | VN | 50 | -11.63 | -0.004327 | ± 2.5 | PASS |

### Channel Bandwidth: 10 MHz

| Channel Bandwidth: 10 MHz |         |               |                  |                |                 |             |         |
|---------------------------|---------|---------------|------------------|----------------|-----------------|-------------|---------|
| Voltage                   |         |               |                  |                |                 |             |         |
| Modulation                | Channel | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| QPSK                      | LCH     | VL            | TN               | 4.56           | 0.001823        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 0.5            | 0.000200        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | -1.91          | -0.000764       | ± 2.5       | PASS    |
|                           | MCH     | VL            | TN               | -0.36          | -0.000139       | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 3.97           | 0.001531        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 3.13           | 0.001207        | ± 2.5       | PASS    |
|                           | HCH     | VL            | TN               | 2.71           | 0.001009        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 0.66           | 0.000246        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 2.16           | 0.000804        | ± 2.5       | PASS    |
| 16QAM                     | LCH     | VL            | TN               | -0.67          | -0.000268       | ± 2.5       | PASS    |
|                           |         | VN            | TN               | -1.94          | -0.000776       | ± 2.5       | PASS    |
|                           |         | VH            | TN               | -0.71          | -0.000284       | ± 2.5       | PASS    |
|                           | MCH     | VL            | TN               | 3.7            | 0.001427        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 2.52           | 0.000972        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 3.33           | 0.001284        | ± 2.5       | PASS    |
|                           | HCH     | VL            | TN               | 3.8            | 0.001415        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 3.91           | 0.001456        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 0.23           | 0.000086        | ± 2.5       | PASS    |
| Temperature               |         |               |                  |                |                 |             |         |
| Modulation                | Channel | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| 16QAM                     | LCH     | VN            | -30              | 0.84           | 0.000336        | ± 2.5       | PASS    |
|                           |         | VN            | -20              | 0.01           | 0.000004        | ± 2.5       | PASS    |
|                           |         | VN            | -10              | 1.17           | 0.000468        | ± 2.5       | PASS    |
|                           |         | VN            | 0                | -1.58          | -0.000632       | ± 2.5       | PASS    |
|                           |         | VN            | 10               | 3.93           | 0.001571        | ± 2.5       | PASS    |
|                           |         | VN            | 20               | 4.06           | 0.001623        | ± 2.5       | PASS    |
|                           |         | VN            | 30               | 2.05           | 0.000820        | ± 2.5       | PASS    |
|                           |         | VN            | 40               | 0.51           | 0.000204        | ± 2.5       | PASS    |
|                           |         | VN            | 50               | 1.63           | 0.000652        | ± 2.5       | PASS    |
|                           | MCH     | VN            | -30              | 2.41           | 0.000929        | ± 2.5       | PASS    |
|                           |         | VN            | -20              | 0.08           | 0.000031        | ± 2.5       | PASS    |
|                           |         | VN            | -10              | 4.55           | 0.001755        | ± 2.5       | PASS    |

|      |     |    |     |       |           |       |      |
|------|-----|----|-----|-------|-----------|-------|------|
|      |     | VN | 0   | 4.28  | 0.001651  | ± 2.5 | PASS |
|      |     | VN | 10  | 4.81  | 0.001855  | ± 2.5 | PASS |
|      |     | VN | 20  | 4.58  | 0.001766  | ± 2.5 | PASS |
|      |     | VN | 30  | -0.85 | -0.000328 | ± 2.5 | PASS |
|      |     | VN | 40  | 1.74  | 0.000671  | ± 2.5 | PASS |
|      |     | VN | 50  | 0.21  | 0.000081  | ± 2.5 | PASS |
|      | HCH | VN | -30 | 4.95  | 0.001844  | ± 2.5 | PASS |
|      |     | VN | -20 | 1.83  | 0.000682  | ± 2.5 | PASS |
|      |     | VN | -10 | -1.77 | -0.000659 | ± 2.5 | PASS |
|      |     | VN | 0   | 0.06  | 0.000022  | ± 2.5 | PASS |
|      |     | VN | 10  | 0.96  | 0.000358  | ± 2.5 | PASS |
|      |     | VN | 20  | 1.13  | 0.000421  | ± 2.5 | PASS |
|      |     | VN | 30  | -1.76 | -0.000655 | ± 2.5 | PASS |
|      |     | VN | 40  | 2.82  | 0.001050  | ± 2.5 | PASS |
|      |     | VN | 50  | 0.57  | 0.000212  | ± 2.5 | PASS |
| QPSK | LCH | VN | -30 | 0.47  | 0.000188  | ± 2.5 | PASS |
|      |     | VN | -20 | 2.63  | 0.001052  | ± 2.5 | PASS |
|      |     | VN | -10 | 2.71  | 0.001084  | ± 2.5 | PASS |
|      |     | VN | 0   | 1.06  | 0.000424  | ± 2.5 | PASS |
|      |     | VN | 10  | 4.41  | 0.001763  | ± 2.5 | PASS |
|      |     | VN | 20  | 4.62  | 0.001847  | ± 2.5 | PASS |
|      |     | VN | 30  | 4.36  | 0.001743  | ± 2.5 | PASS |
|      |     | VN | 40  | -1.89 | -0.000756 | ± 2.5 | PASS |
|      |     | VN | 50  | -0.83 | -0.000332 | ± 2.5 | PASS |
|      | MCH | VN | -30 | 1.95  | 0.000752  | ± 2.5 | PASS |
|      |     | VN | -20 | 1.01  | 0.000390  | ± 2.5 | PASS |
|      |     | VN | -10 | -1.75 | -0.000675 | ± 2.5 | PASS |
|      |     | VN | 0   | 1.37  | 0.000528  | ± 2.5 | PASS |
|      |     | VN | 10  | -0.2  | -0.000077 | ± 2.5 | PASS |
|      |     | VN | 20  | 2.22  | 0.000856  | ± 2.5 | PASS |
|      |     | VN | 30  | -1.4  | -0.000540 | ± 2.5 | PASS |
|      |     | VN | 40  | 4.75  | 0.001832  | ± 2.5 | PASS |
|      |     | VN | 50  | 3.31  | 0.001277  | ± 2.5 | PASS |
|      | HCH | VN | -30 | 4.69  | 0.001747  | ± 2.5 | PASS |
|      |     | VN | -20 | 1.24  | 0.000462  | ± 2.5 | PASS |
|      |     | VN | -10 | 0.13  | 0.000048  | ± 2.5 | PASS |
|      |     | VN | 0   | 4.38  | 0.001631  | ± 2.5 | PASS |
|      |     | VN | 10  | 3.45  | 0.001285  | ± 2.5 | PASS |
|      |     | VN | 20  | 4.64  | 0.001728  | ± 2.5 | PASS |
|      |     | VN | 30  | 3.73  | 0.001389  | ± 2.5 | PASS |
|      |     | VN | 40  | 4.36  | 0.001624  | ± 2.5 | PASS |

|  |  |    |    |        |           |       |      |
|--|--|----|----|--------|-----------|-------|------|
|  |  | VN | 50 | -11.63 | -0.004331 | ± 2.5 | PASS |
|--|--|----|----|--------|-----------|-------|------|

### Channel Bandwidth: 15 MHz

| Channel Bandwidth: 15 MHz |         |               |                  |                |                 |             |         |
|---------------------------|---------|---------------|------------------|----------------|-----------------|-------------|---------|
| Voltage                   |         |               |                  |                |                 |             |         |
| Modulation                | Channel | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| QPSK                      | LCH     | VL            | TN               | 1.74           | 0.000695        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 4.61           | 0.001841        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | -0.2           | -0.000080       | ± 2.5       | PASS    |
|                           | MCH     | VL            | TN               | -1.63          | -0.000629       | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 2.18           | 0.000841        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | -0.7           | -0.000270       | ± 2.5       | PASS    |
|                           | HCH     | VL            | TN               | 2.86           | 0.001066        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 1.86           | 0.000693        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 1.92           | 0.000716        | ± 2.5       | PASS    |
| 16QAM                     | LCH     | VL            | TN               | 1.65           | 0.000659        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 2.24           | 0.000895        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 2.65           | 0.001059        | ± 2.5       | PASS    |
|                           | MCH     | VL            | TN               | 0.02           | 0.000008        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 3.08           | 0.001188        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 3.88           | 0.001496        | ± 2.5       | PASS    |
|                           | HCH     | VL            | TN               | 1.75           | 0.000652        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | -0.77          | -0.000287       | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 4.2            | 0.001566        | ± 2.5       | PASS    |
| Temperature               |         |               |                  |                |                 |             |         |
| Modulation                | Channel | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| QPSK                      | LCH     | VN            | -30              | -0.32          | -0.000128       | ± 2.5       | PASS    |
|                           |         | VN            | -20              | 3.36           | 0.001342        | ± 2.5       | PASS    |
|                           |         | VN            | -10              | 1.89           | 0.000755        | ± 2.5       | PASS    |
|                           |         | VN            | 0                | 0.08           | 0.000032        | ± 2.5       | PASS    |
|                           |         | VN            | 10               | 2.75           | 0.001098        | ± 2.5       | PASS    |
|                           |         | VN            | 20               | 1.28           | 0.000511        | ± 2.5       | PASS    |
|                           |         | VN            | 30               | 3.23           | 0.001290        | ± 2.5       | PASS    |
|                           |         | VN            | 40               | 2.48           | 0.000991        | ± 2.5       | PASS    |
|                           |         | VN            | 50               | 4.52           | 0.001805        | ± 2.5       | PASS    |
|                           | MCH     | VN            | -30              | 0.01           | 0.000004        | ± 2.5       | PASS    |
|                           |         | VN            | -20              | 0.39           | 0.000150        | ± 2.5       | PASS    |
|                           |         | VN            | -10              | 1.53           | 0.000590        | ± 2.5       | PASS    |
|                           |         | VN            | 0                | 0.5            | 0.000193        | ± 2.5       | PASS    |

|       |     |    |     |        |           |       |      |
|-------|-----|----|-----|--------|-----------|-------|------|
|       |     | VN | 10  | 0.57   | 0.000220  | ± 2.5 | PASS |
|       |     | VN | 20  | 3.24   | 0.001250  | ± 2.5 | PASS |
|       |     | VN | 30  | -1.43  | -0.000551 | ± 2.5 | PASS |
|       |     | VN | 40  | 1.11   | 0.000428  | ± 2.5 | PASS |
|       |     | VN | 50  | 1.59   | 0.000613  | ± 2.5 | PASS |
|       | HCH | VN | -30 | 1.49   | 0.000555  | ± 2.5 | PASS |
|       |     | VN | -20 | 0.3    | 0.000112  | ± 2.5 | PASS |
|       |     | VN | -10 | 3.22   | 0.001200  | ± 2.5 | PASS |
|       |     | VN | 0   | 1.43   | 0.000533  | ± 2.5 | PASS |
|       |     | VN | 10  | 3.17   | 0.001182  | ± 2.5 | PASS |
|       |     | VN | 20  | 3.8    | 0.001417  | ± 2.5 | PASS |
|       |     | VN | 30  | 1.66   | 0.000619  | ± 2.5 | PASS |
|       |     | VN | 40  | 1.79   | 0.000667  | ± 2.5 | PASS |
|       |     | VN | 50  | 0.73   | 0.000272  | ± 2.5 | PASS |
|       |     | VN | -30 | 2.07   | 0.000827  | ± 2.5 | PASS |
| 16QAM | LCH | VN | -20 | -0.06  | -0.000024 | ± 2.5 | PASS |
|       |     | VN | -10 | -1.06  | -0.000423 | ± 2.5 | PASS |
|       |     | VN | 0   | 3.87   | 0.001546  | ± 2.5 | PASS |
|       |     | VN | 10  | 3.22   | 0.001286  | ± 2.5 | PASS |
|       |     | VN | 20  | 4.95   | 0.001977  | ± 2.5 | PASS |
|       |     | VN | 30  | -1.9   | -0.000759 | ± 2.5 | PASS |
|       |     | VN | 40  | 1      | 0.000399  | ± 2.5 | PASS |
|       |     | VN | 50  | 4.08   | 0.001630  | ± 2.5 | PASS |
|       | MCH | VN | -30 | 3.55   | 0.001369  | ± 2.5 | PASS |
|       |     | VN | -20 | -1.68  | -0.000648 | ± 2.5 | PASS |
|       |     | VN | -10 | 1.01   | 0.000390  | ± 2.5 | PASS |
|       |     | VN | 0   | 4.33   | 0.001670  | ± 2.5 | PASS |
|       |     | VN | 10  | 2.88   | 0.001111  | ± 2.5 | PASS |
|       |     | VN | 20  | 4.64   | 0.001789  | ± 2.5 | PASS |
|       |     | VN | 30  | -1.81  | -0.000698 | ± 2.5 | PASS |
|       |     | VN | 40  | 1.41   | 0.000544  | ± 2.5 | PASS |
|       |     | VN | 50  | 3.21   | 0.001238  | ± 2.5 | PASS |
|       | HCH | VN | -30 | -0.04  | -0.000015 | ± 2.5 | PASS |
|       |     | VN | -20 | -1.37  | -0.000511 | ± 2.5 | PASS |
|       |     | VN | -10 | 4.36   | 0.001625  | ± 2.5 | PASS |
|       |     | VN | 0   | -0.51  | -0.000190 | ± 2.5 | PASS |
|       |     | VN | 10  | 3.02   | 0.001126  | ± 2.5 | PASS |
|       |     | VN | 20  | 2.99   | 0.001115  | ± 2.5 | PASS |
|       |     | VN | 30  | 0.15   | 0.000056  | ± 2.5 | PASS |
|       |     | VN | 40  | 4.82   | 0.001797  | ± 2.5 | PASS |
|       |     | VN | 50  | -11.63 | -0.004336 | ± 2.5 | PASS |

## Channel Bandwidth: 20 MHz

| Channel Bandwidth: 20 MHz |         |               |                  |                |                 |             |         |
|---------------------------|---------|---------------|------------------|----------------|-----------------|-------------|---------|
| Voltage                   |         |               |                  |                |                 |             |         |
| Modulation                | Channel | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| QPSK                      | LCH     | VL            | TN               | -1.94          | -0.000774       | ± 2.5       | PASS    |
|                           |         | VN            | TN               | -1.72          | -0.000686       | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 1.1            | 0.000424        | ± 2.5       | PASS    |
|                           | MCH     | VL            | TN               | 0.92           | 0.000355        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 4.5            | 0.001735        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | -1.51          | -0.000563       | ± 2.5       | PASS    |
|                           | HCH     | VL            | TN               | 0.76           | 0.000284        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | -1.73          | -0.000646       | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 3.53           | 0.001409        | ± 2.5       | PASS    |
| 16QAM                     | LCH     | VL            | TN               | -1.7           | -0.000678       | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 4.46           | 0.001780        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 1.5            | 0.000578        | ± 2.5       | PASS    |
|                           | MCH     | VL            | TN               | 1.53           | 0.000590        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 0.96           | 0.000370        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 4.82           | 0.001799        | ± 2.5       | PASS    |
|                           | HCH     | VL            | TN               | -1.61          | -0.000601       | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 4.54           | 0.001694        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | -1.94          | -0.000774       | ± 2.5       | PASS    |
| Temperature               |         |               |                  |                |                 |             |         |
| Modulation                | Channel | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| QPSK                      | LCH     | VN            | -30              | 4.02           | 0.001604        | ± 2.5       | PASS    |
|                           |         | VN            | -20              | 4.03           | 0.001608        | ± 2.5       | PASS    |
|                           |         | VN            | -10              | 3.31           | 0.001321        | ± 2.5       | PASS    |
|                           |         | VN            | 0                | 1.48           | 0.000591        | ± 2.5       | PASS    |
|                           |         | VN            | 10               | -0.36          | -0.000144       | ± 2.5       | PASS    |
|                           |         | VN            | 20               | 4.48           | 0.001788        | ± 2.5       | PASS    |
|                           |         | VN            | 30               | 4.07           | 0.001624        | ± 2.5       | PASS    |
|                           |         | VN            | 40               | -0.38          | -0.000152       | ± 2.5       | PASS    |
|                           |         | VN            | 50               | -0.7           | -0.000279       | ± 2.5       | PASS    |
|                           | MCH     | VN            | -30              | -0.01          | -0.000004       | ± 2.5       | PASS    |
|                           |         | VN            | -20              | 1.74           | 0.000671        | ± 2.5       | PASS    |
|                           |         | VN            | -10              | 2.95           | 0.001138        | ± 2.5       | PASS    |
|                           |         | VN            | 0                | 0.53           | 0.000204        | ± 2.5       | PASS    |
|                           |         | VN            | 10               | 4.86           | 0.001874        | ± 2.5       | PASS    |
|                           |         | VN            | 20               | 4.19           | 0.001616        | ± 2.5       | PASS    |

|       |     |    |     |        |           |       |      |
|-------|-----|----|-----|--------|-----------|-------|------|
|       |     | VN | 30  | 2.73   | 0.001053  | ± 2.5 | PASS |
|       |     | VN | 40  | -0.71  | -0.000274 | ± 2.5 | PASS |
|       |     | VN | 50  | -0.59  | -0.000228 | ± 2.5 | PASS |
|       | HCH | VN | -30 | 2.93   | 0.001093  | ± 2.5 | PASS |
|       |     | VN | -20 | 2.56   | 0.000955  | ± 2.5 | PASS |
|       |     | VN | -10 | 2.06   | 0.000769  | ± 2.5 | PASS |
|       |     | VN | 0   | 1.35   | 0.000504  | ± 2.5 | PASS |
|       |     | VN | 10  | 3.67   | 0.001369  | ± 2.5 | PASS |
|       |     | VN | 20  | -0.82  | -0.000306 | ± 2.5 | PASS |
|       |     | VN | 30  | 3.63   | 0.001354  | ± 2.5 | PASS |
|       |     | VN | 40  | 1.19   | 0.000444  | ± 2.5 | PASS |
|       |     | VN | 50  | 4.58   | 0.001709  | ± 2.5 | PASS |
| 16QAM | LCH | VN | -30 | 1.2    | 0.000479  | ± 2.5 | PASS |
|       |     | VN | -20 | -1.66  | -0.000662 | ± 2.5 | PASS |
|       |     | VN | -10 | 3.29   | 0.001313  | ± 2.5 | PASS |
|       |     | VN | 0   | 1.32   | 0.000527  | ± 2.5 | PASS |
|       |     | VN | 10  | -1.57  | -0.000626 | ± 2.5 | PASS |
|       |     | VN | 20  | 3.33   | 0.001329  | ± 2.5 | PASS |
|       |     | VN | 30  | -0.53  | -0.000211 | ± 2.5 | PASS |
|       |     | VN | 40  | 4.9    | 0.001955  | ± 2.5 | PASS |
|       |     | VN | 50  | 0.34   | 0.000136  | ± 2.5 | PASS |
|       | MCH | VN | -30 | 2.55   | 0.000983  | ± 2.5 | PASS |
|       |     | VN | -20 | -1.32  | -0.000509 | ± 2.5 | PASS |
|       |     | VN | -10 | -0.89  | -0.000343 | ± 2.5 | PASS |
|       |     | VN | 0   | 0.51   | 0.000197  | ± 2.5 | PASS |
|       |     | VN | 10  | 4.43   | 0.001708  | ± 2.5 | PASS |
|       |     | VN | 20  | 0.58   | 0.000224  | ± 2.5 | PASS |
|       |     | VN | 30  | 3.67   | 0.001415  | ± 2.5 | PASS |
|       |     | VN | 40  | -1.6   | -0.000617 | ± 2.5 | PASS |
|       |     | VN | 50  | 4.73   | 0.001824  | ± 2.5 | PASS |
|       | HCH | VN | -30 | -0.48  | -0.000179 | ± 2.5 | PASS |
|       |     | VN | -20 | 2.68   | 0.001000  | ± 2.5 | PASS |
|       |     | VN | -10 | -0.49  | -0.000183 | ± 2.5 | PASS |
|       |     | VN | 0   | 1.43   | 0.000534  | ± 2.5 | PASS |
|       |     | VN | 10  | -0.99  | -0.000369 | ± 2.5 | PASS |
|       |     | VN | 20  | -0.3   | -0.000112 | ± 2.5 | PASS |
|       |     | VN | 30  | 3.56   | 0.001328  | ± 2.5 | PASS |
|       |     | VN | 40  | -1.67  | -0.000623 | ± 2.5 | PASS |
|       |     | VN | 50  | -11.63 | -0.004340 | ± 2.5 | PASS |