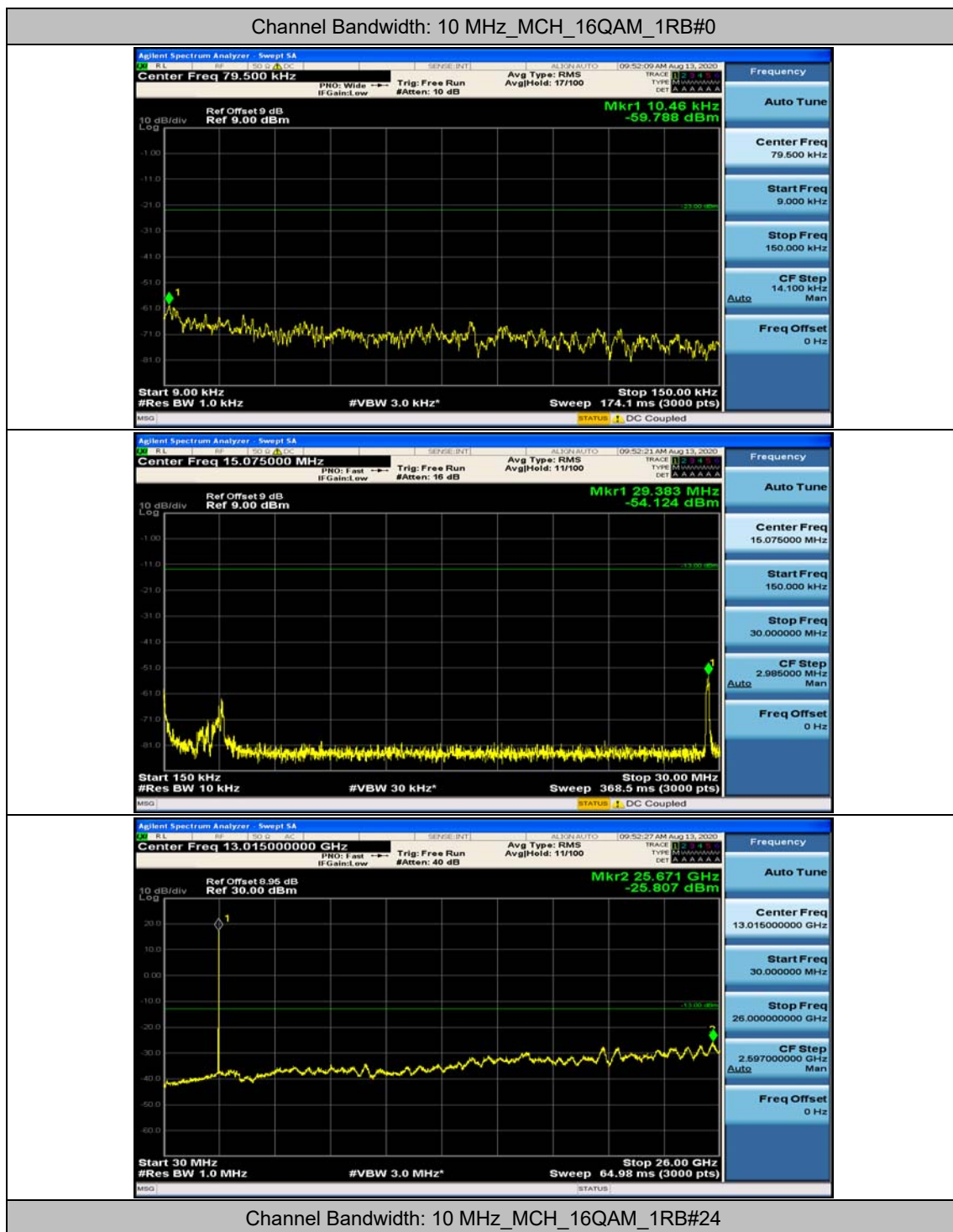
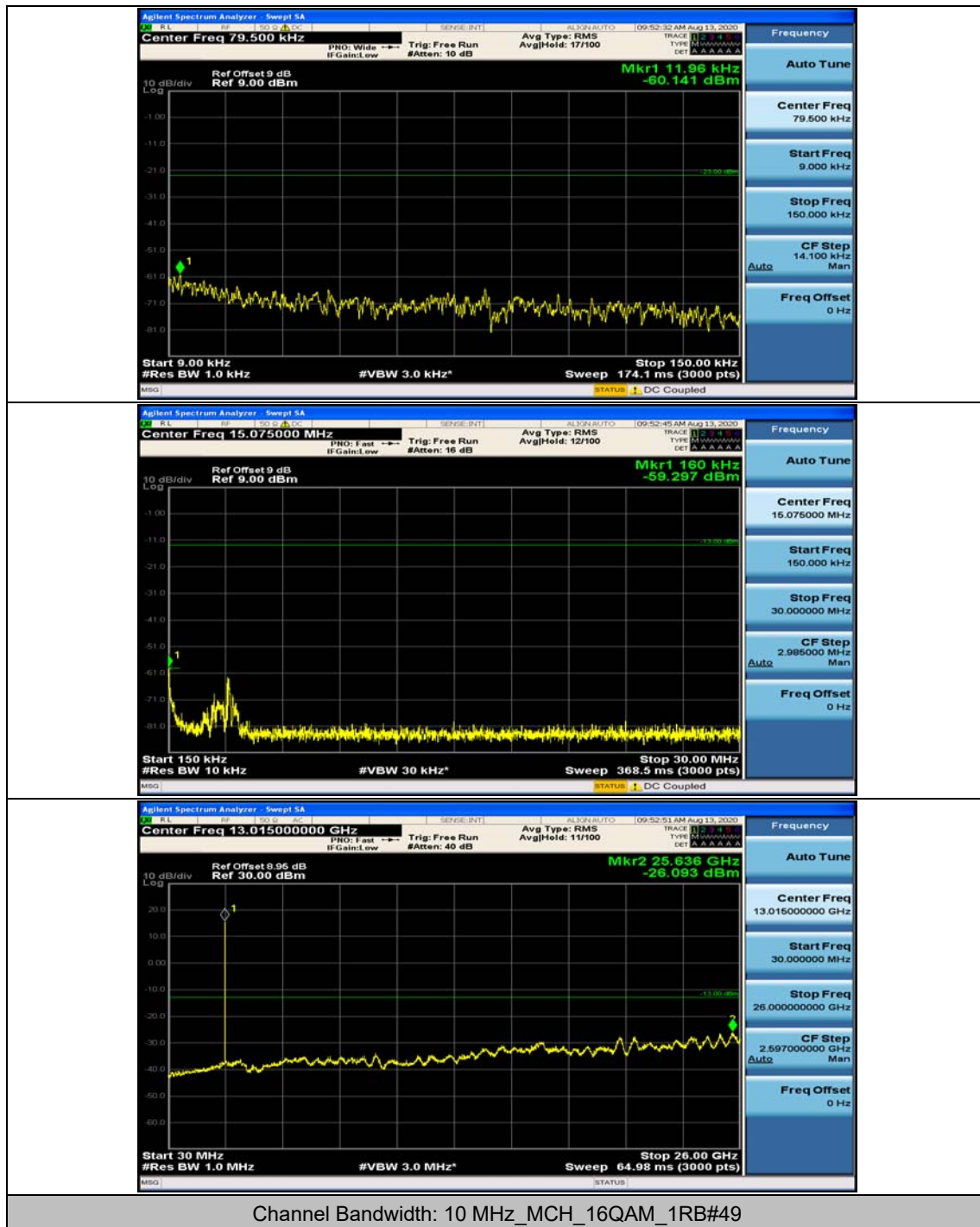
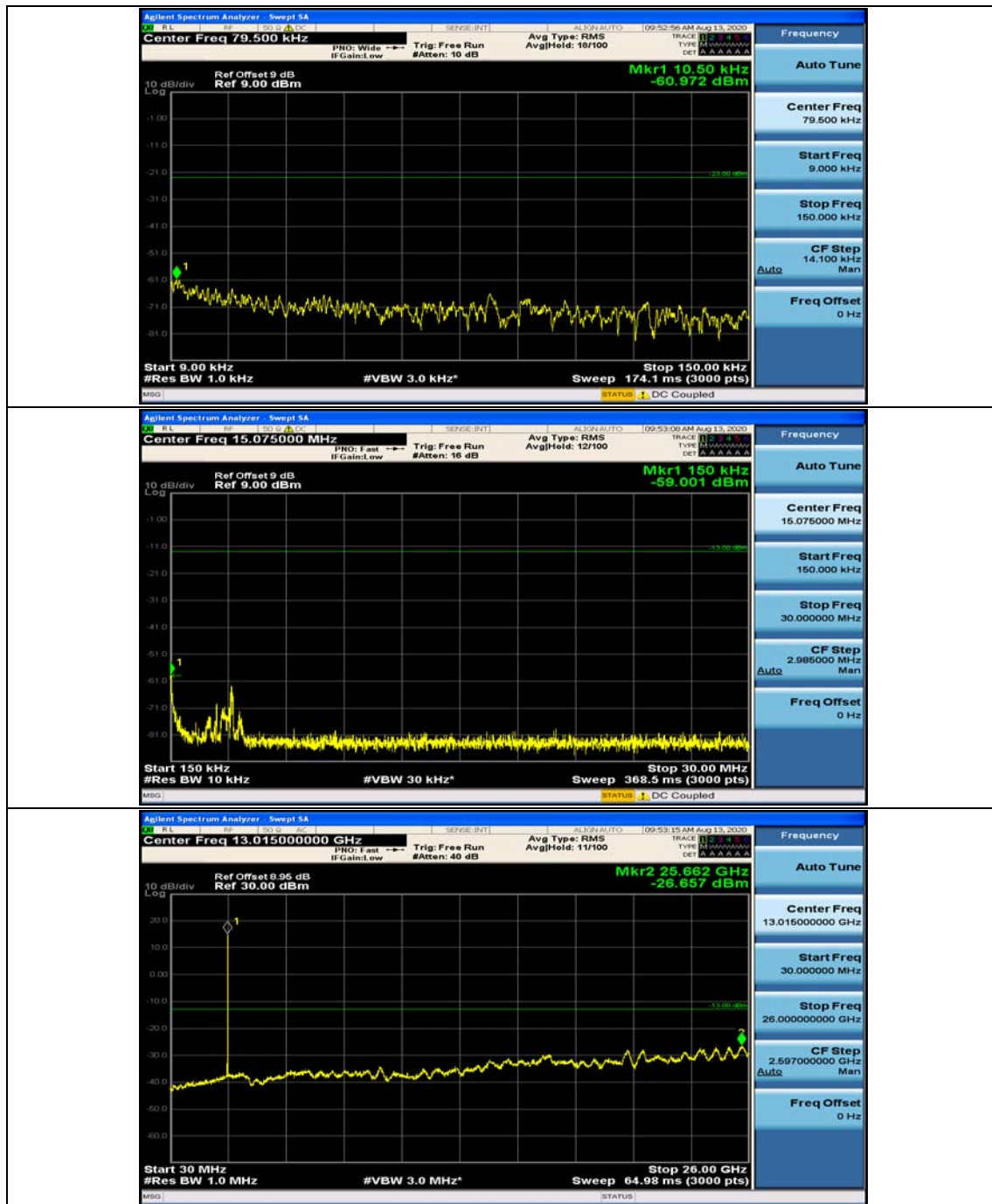
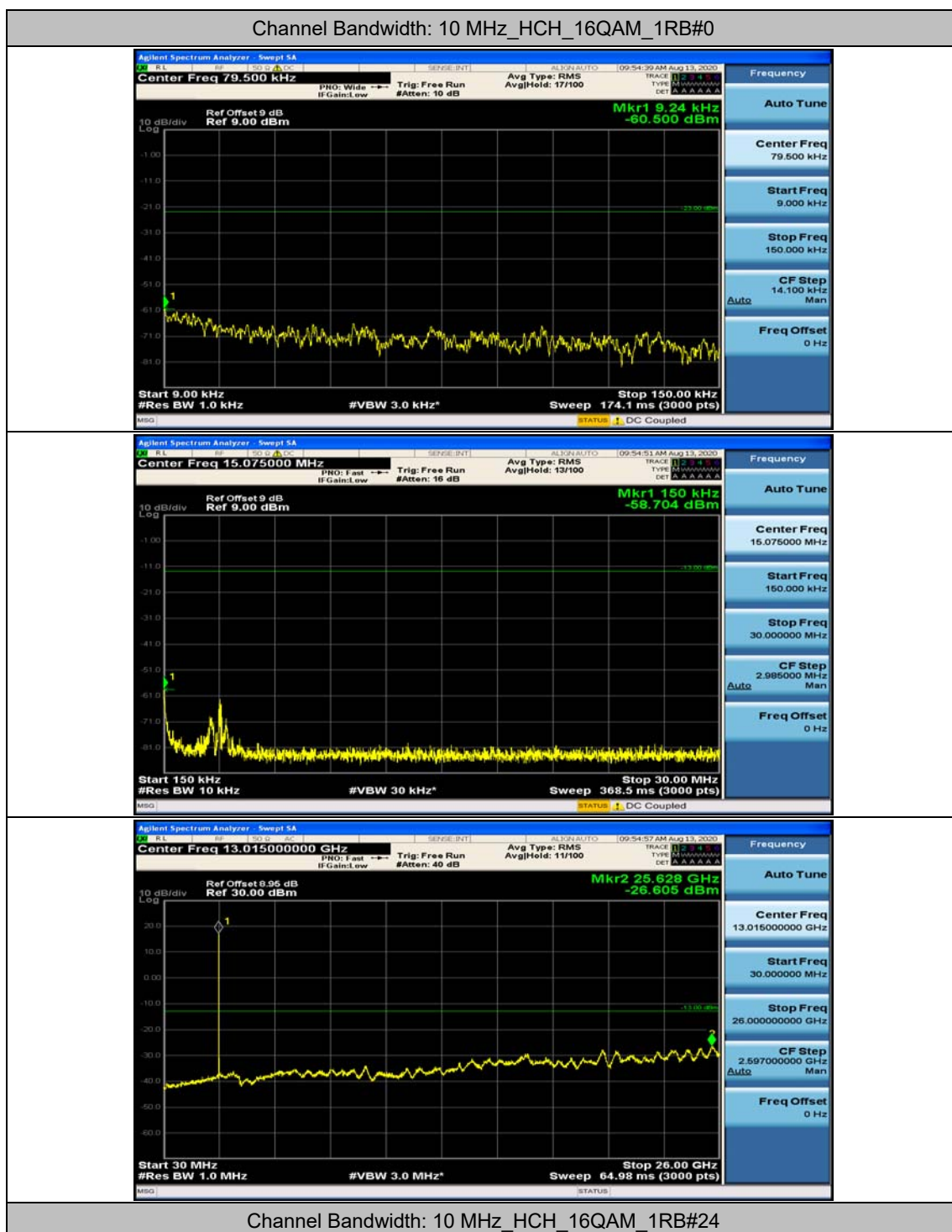
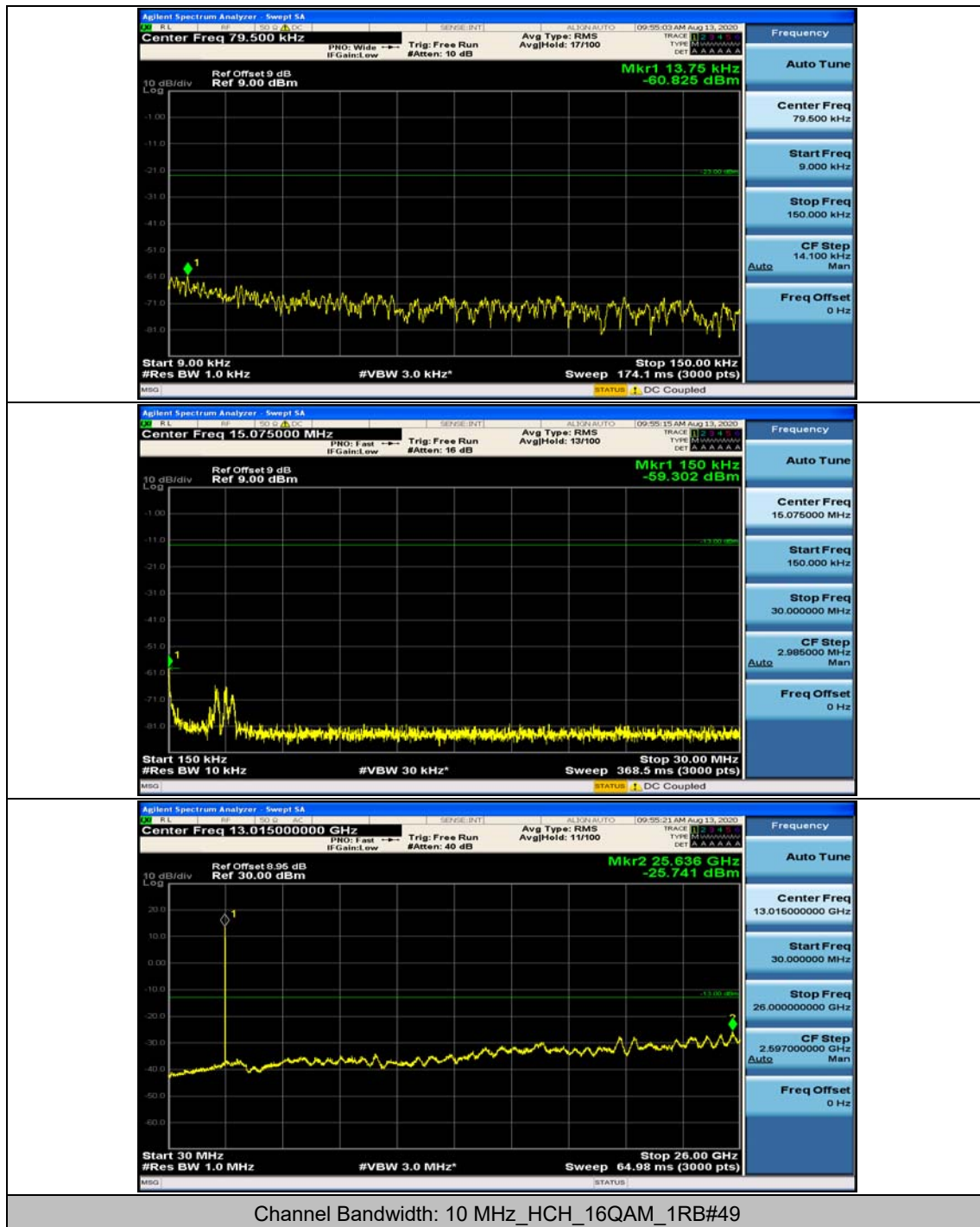


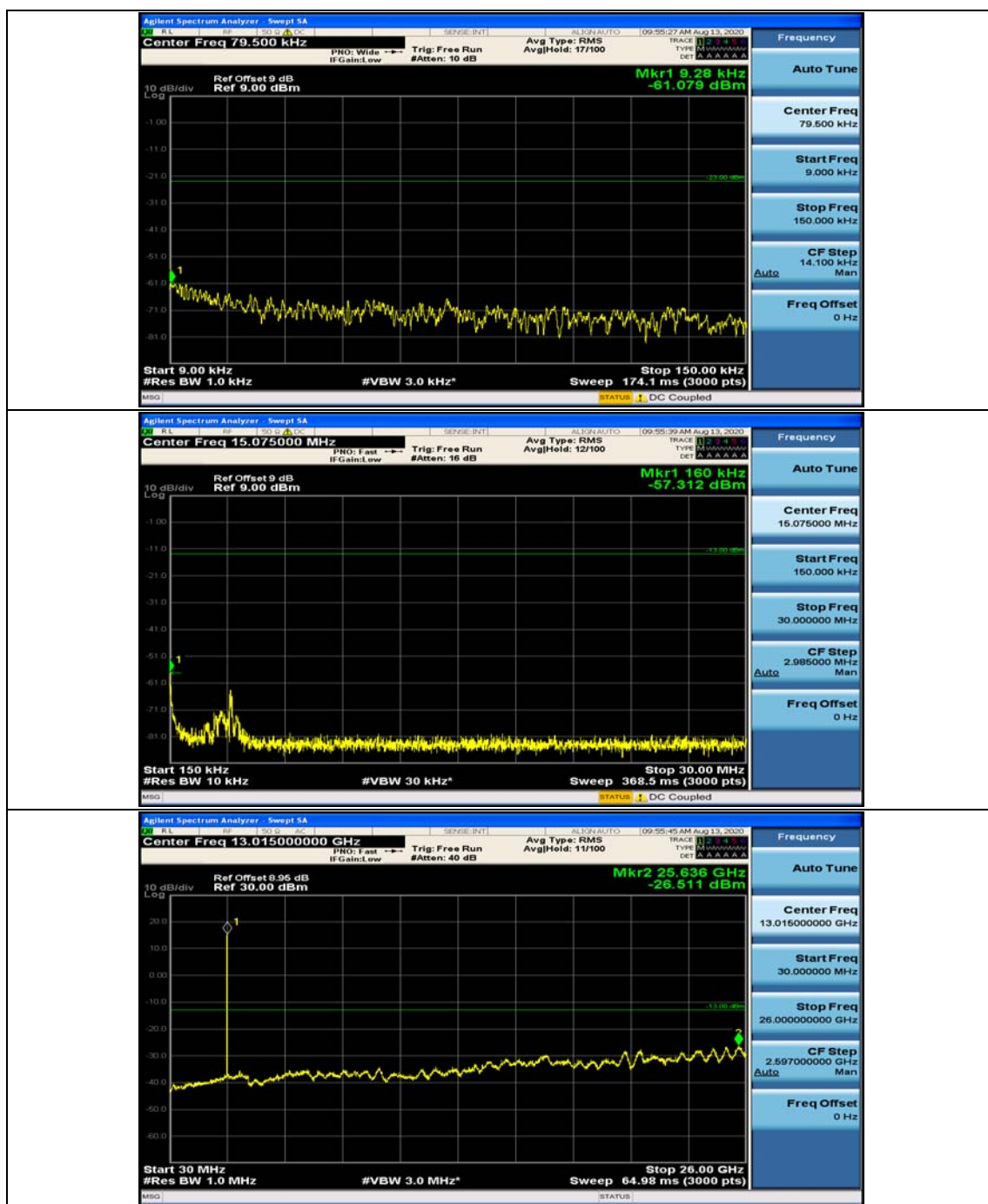




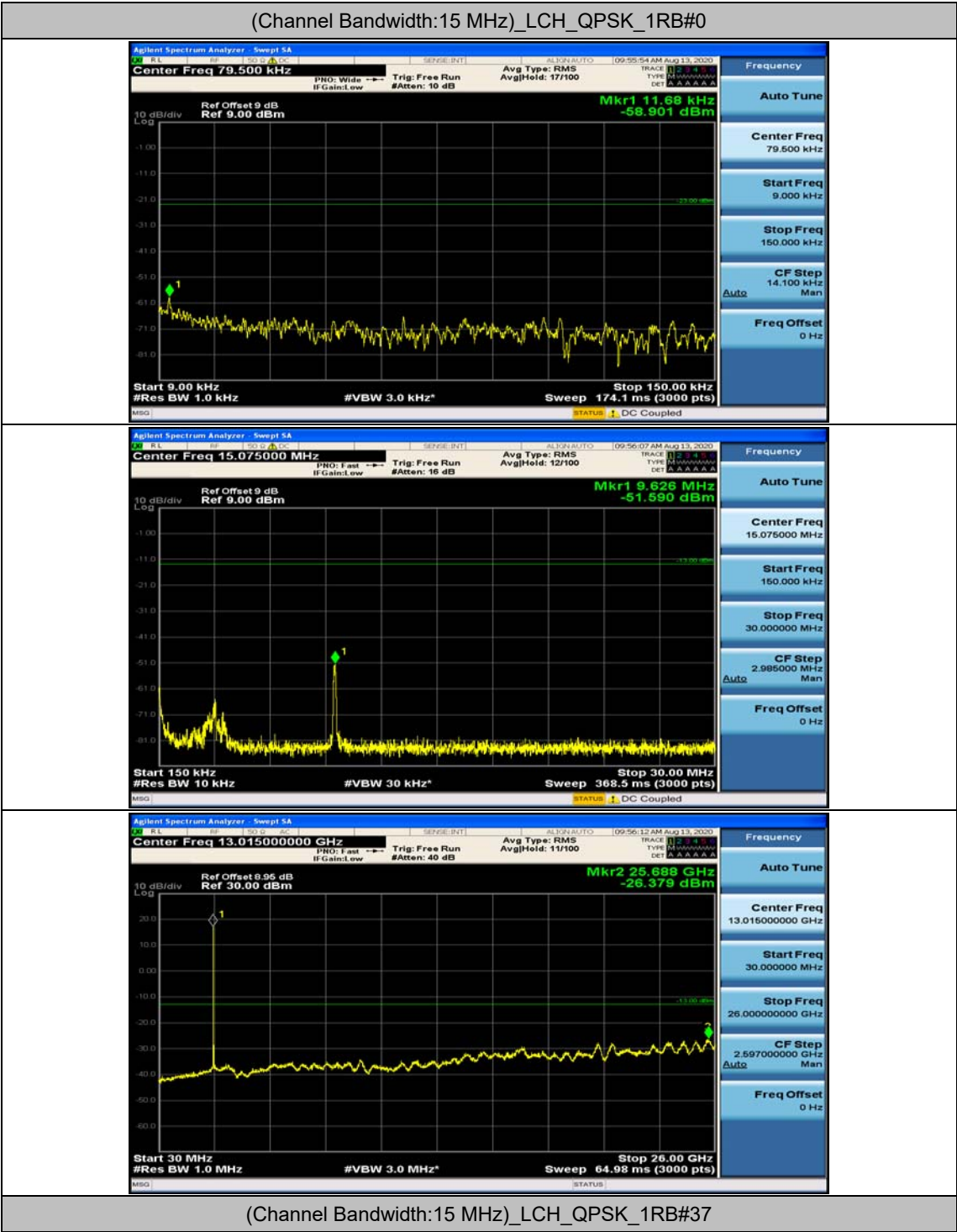


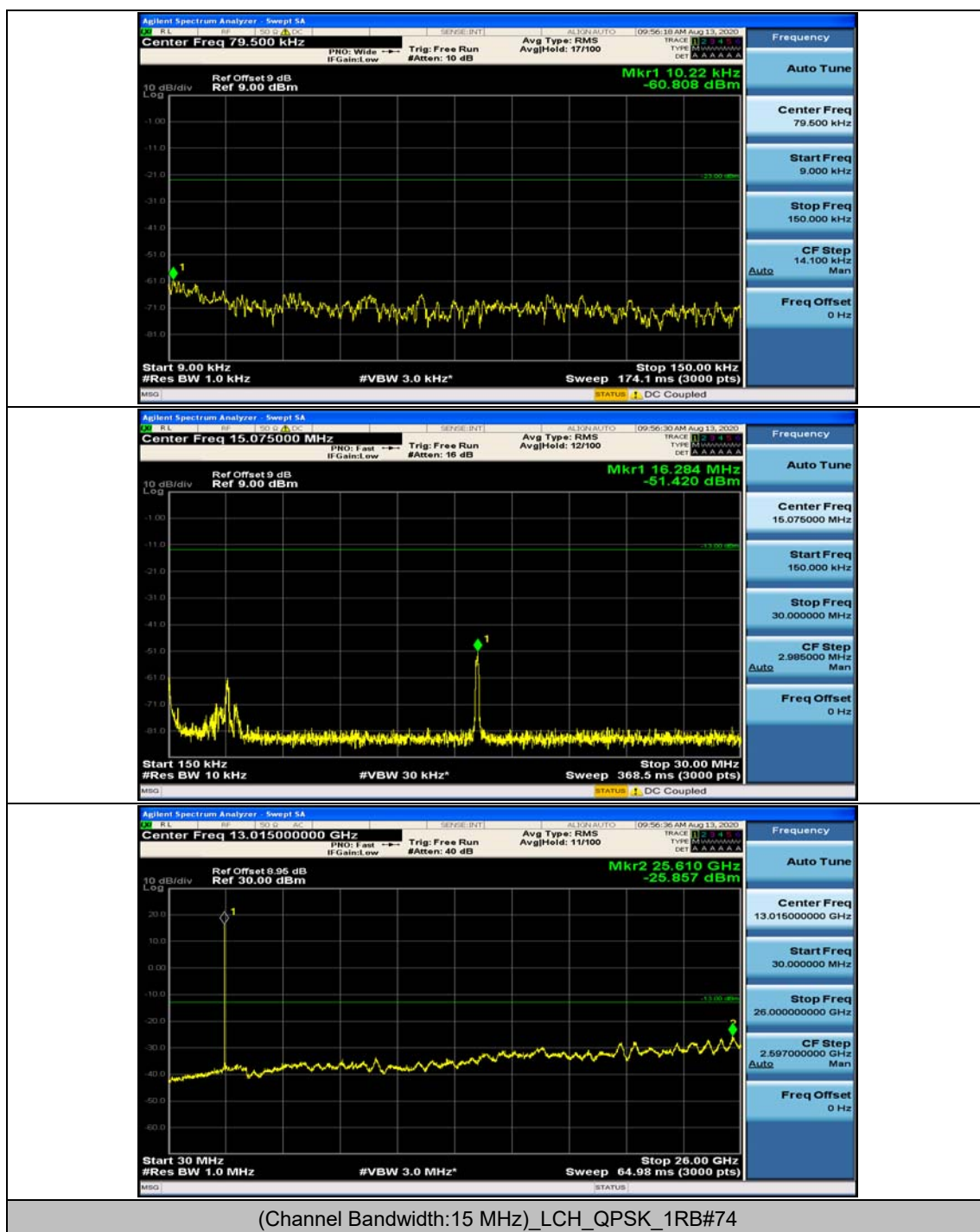


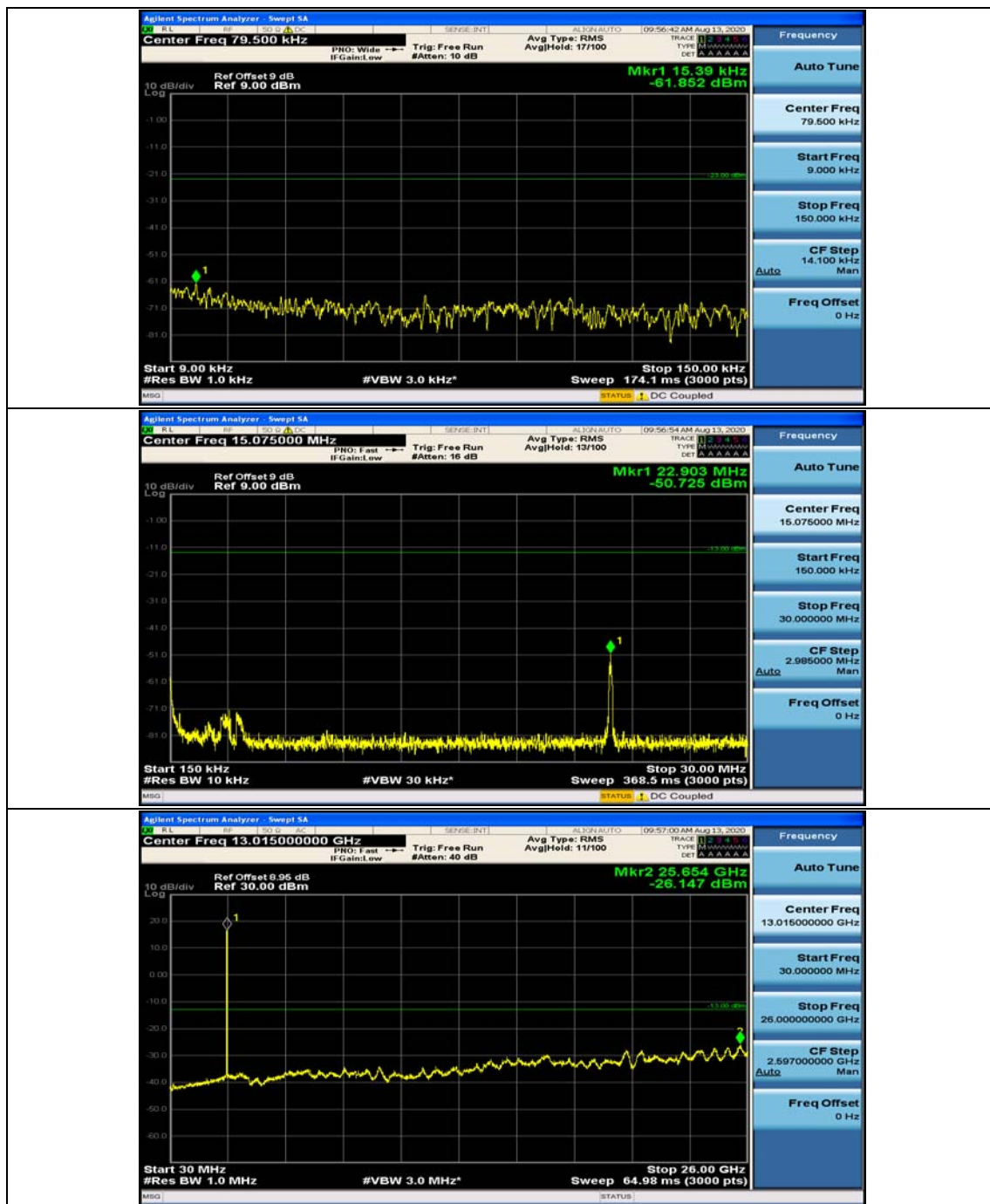


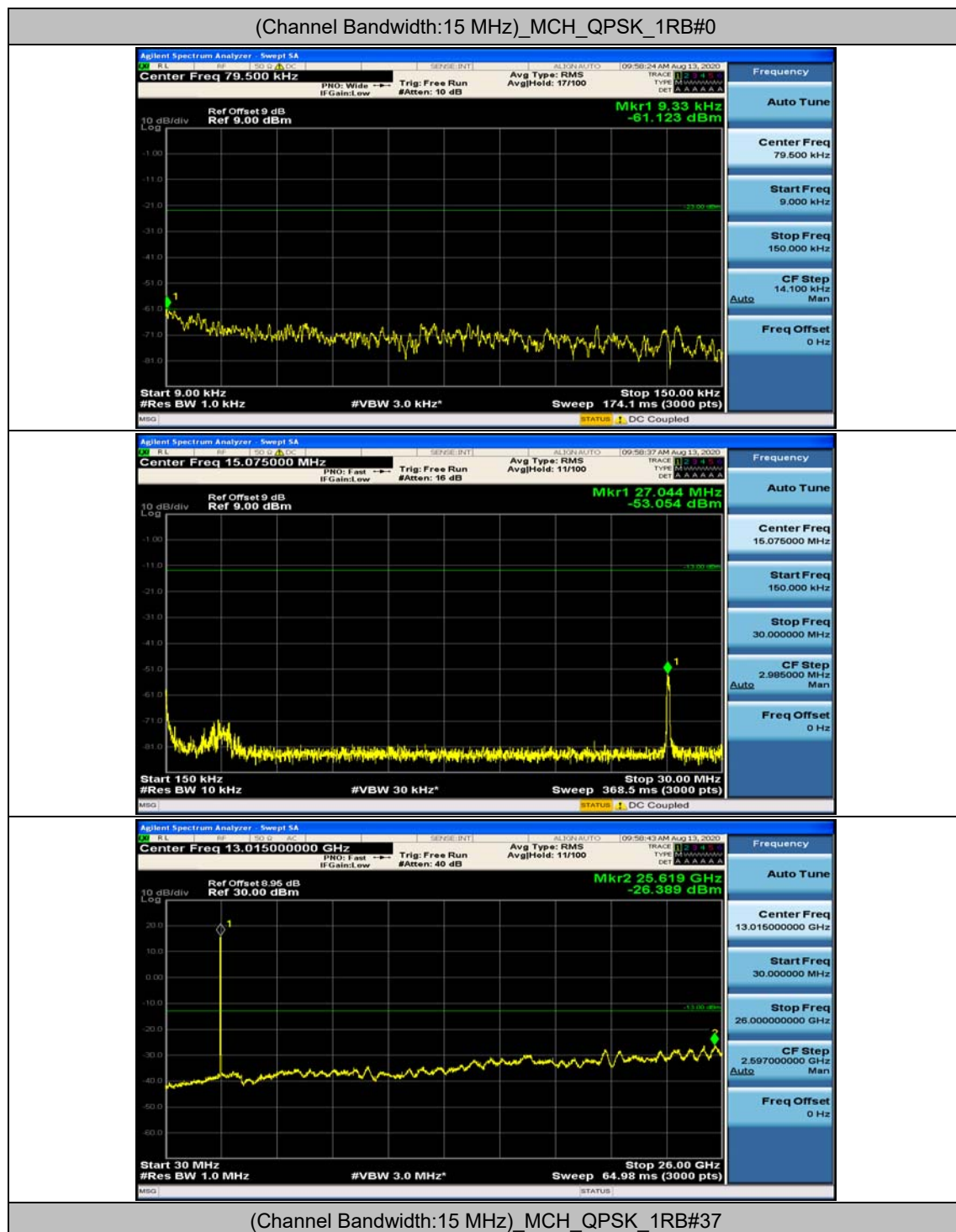


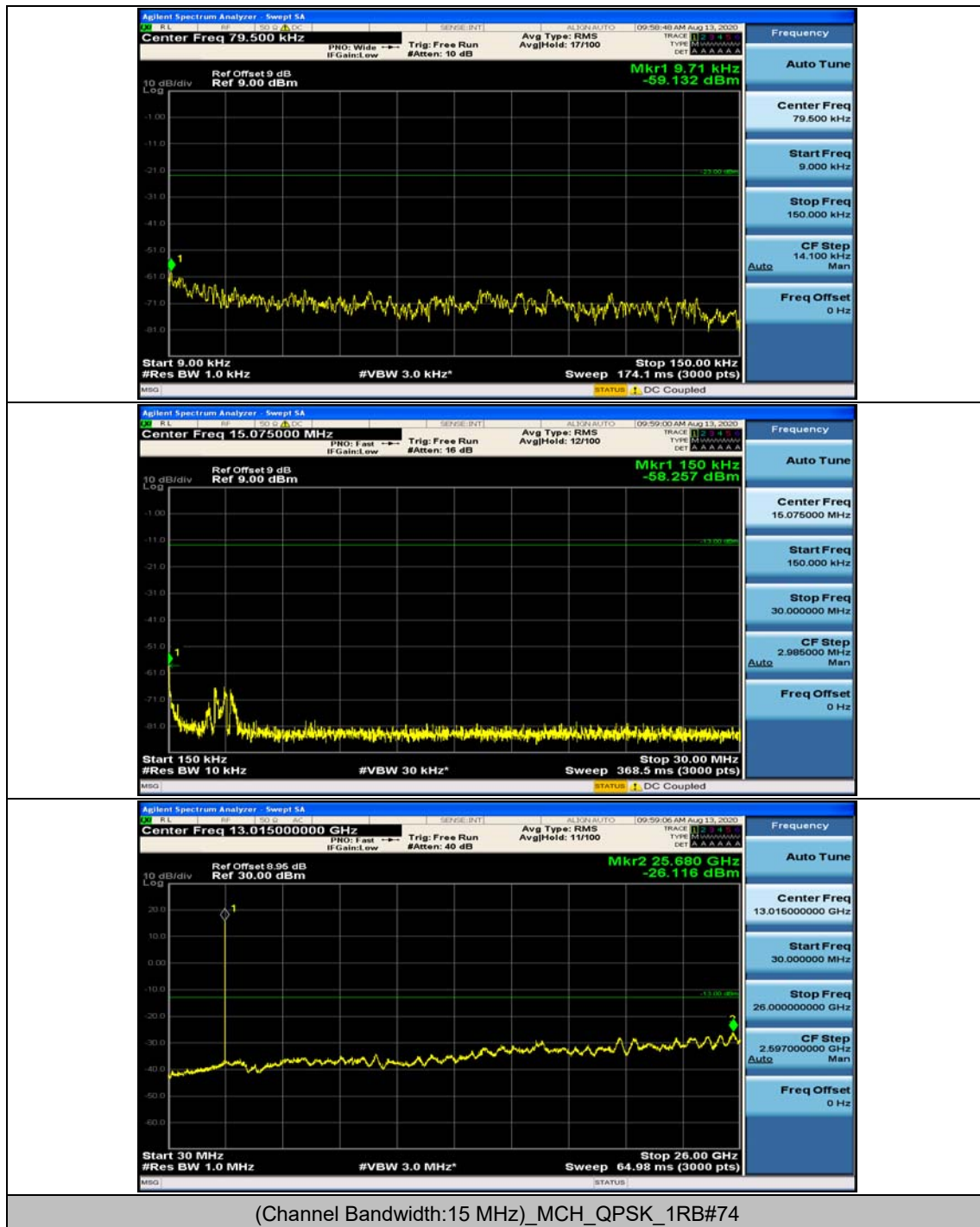
Channel Bandwidth: 15 MHz

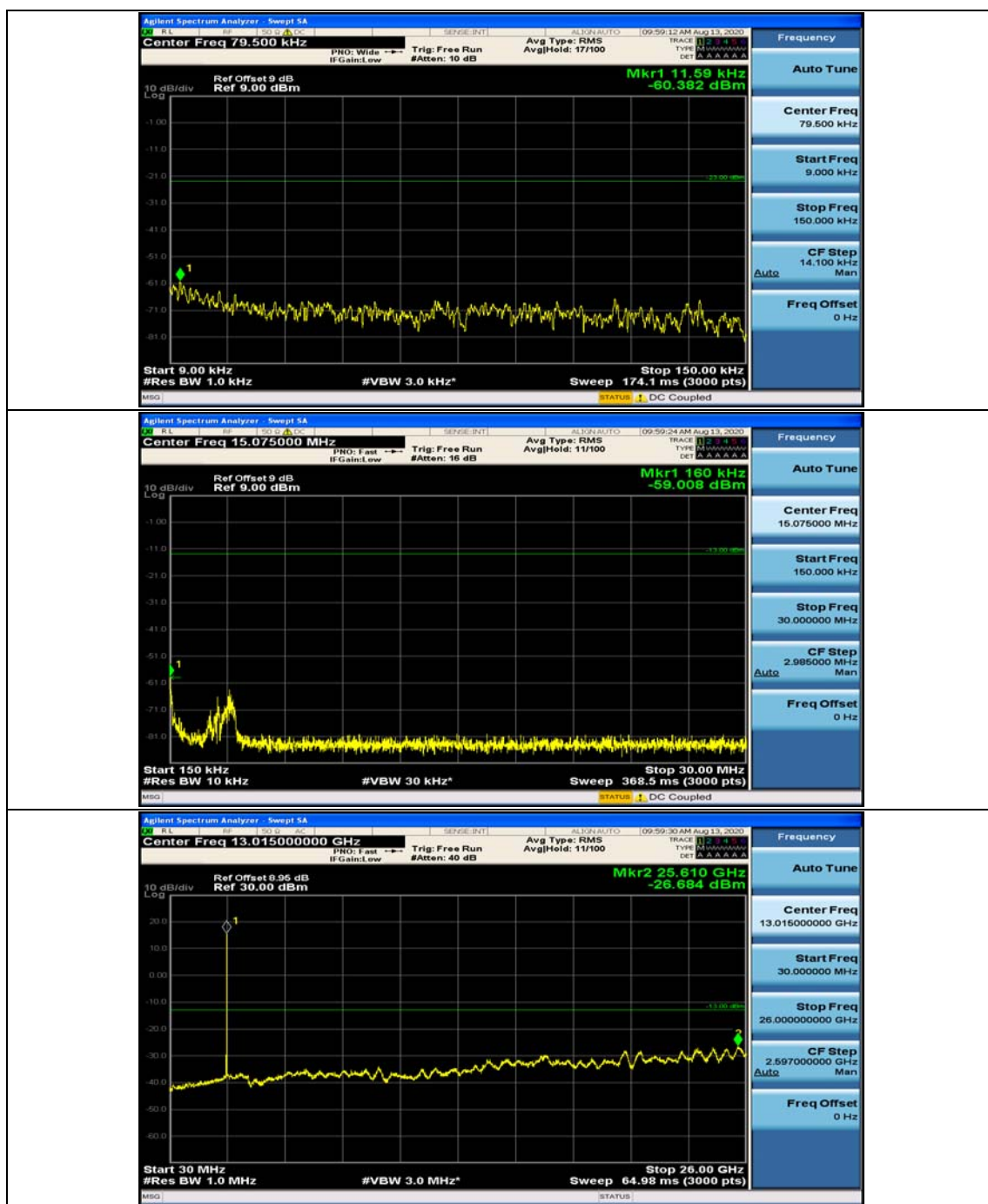




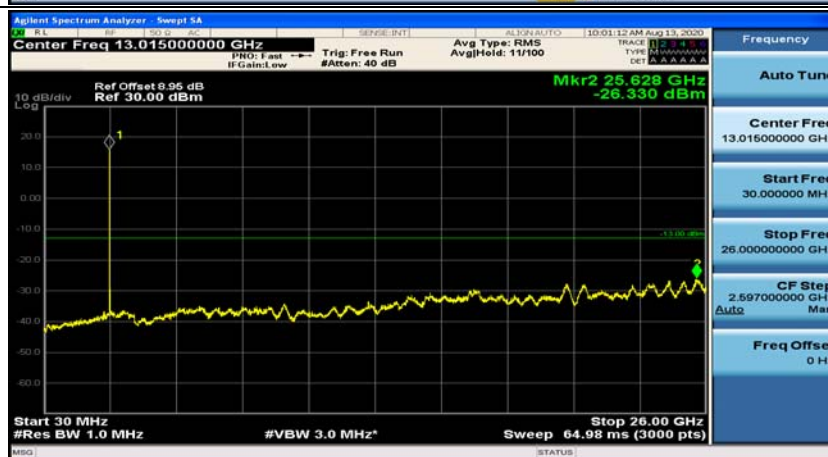
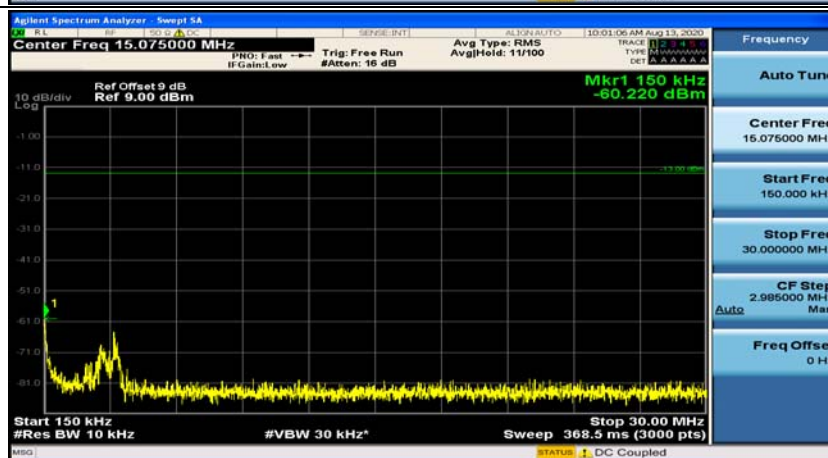
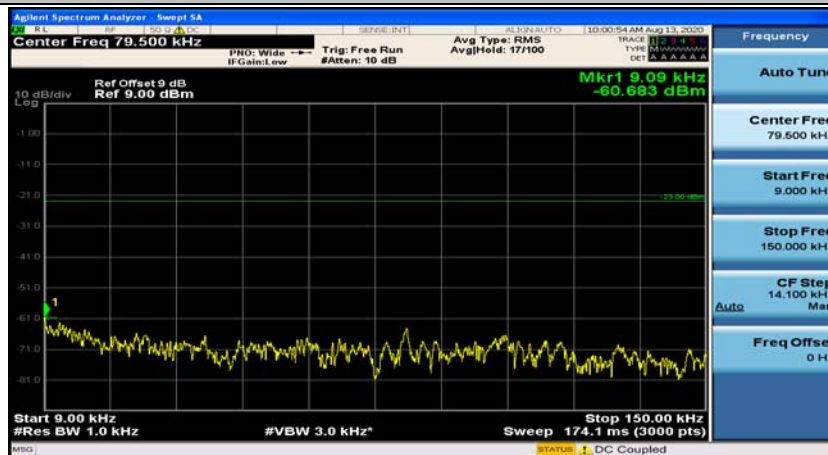




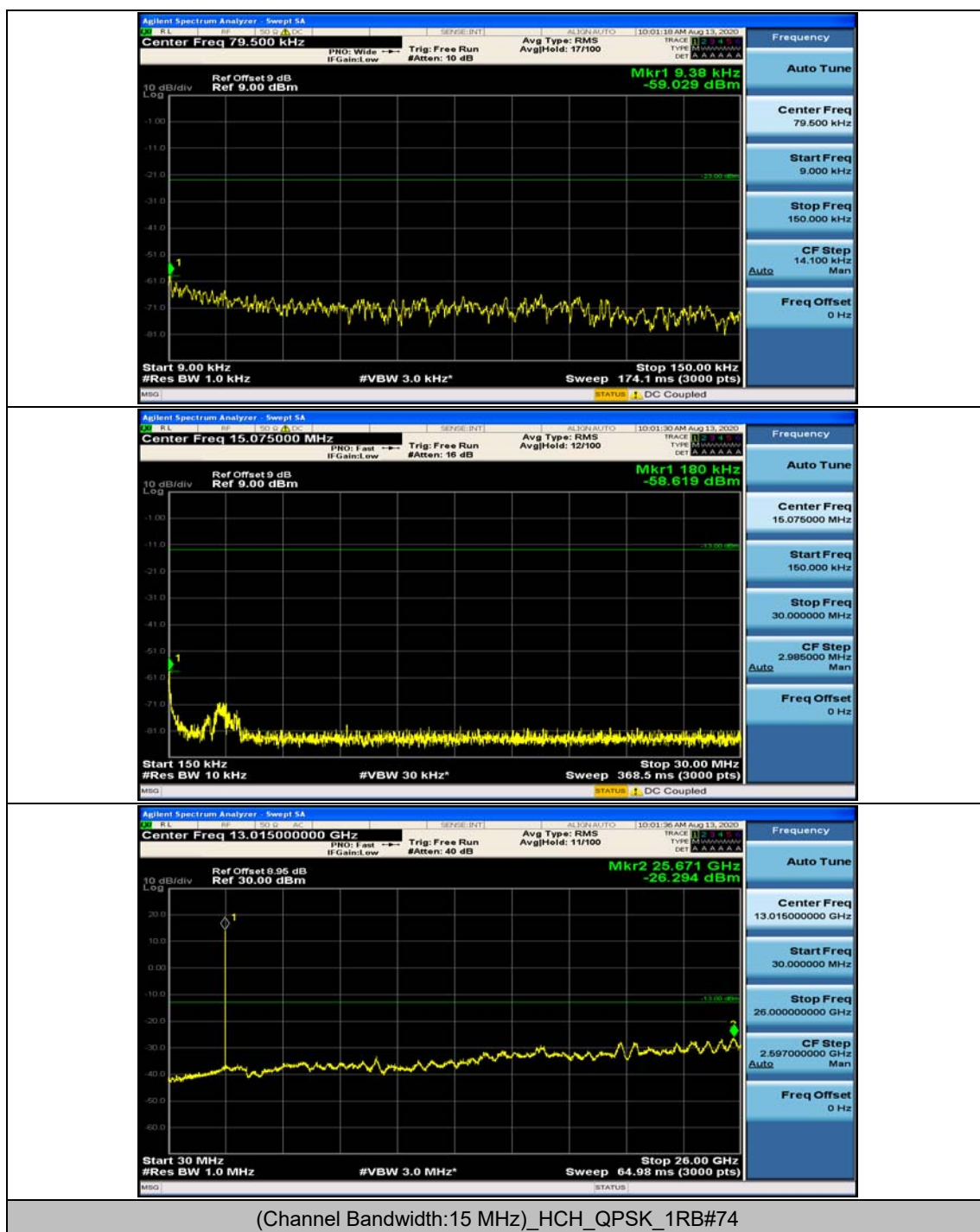


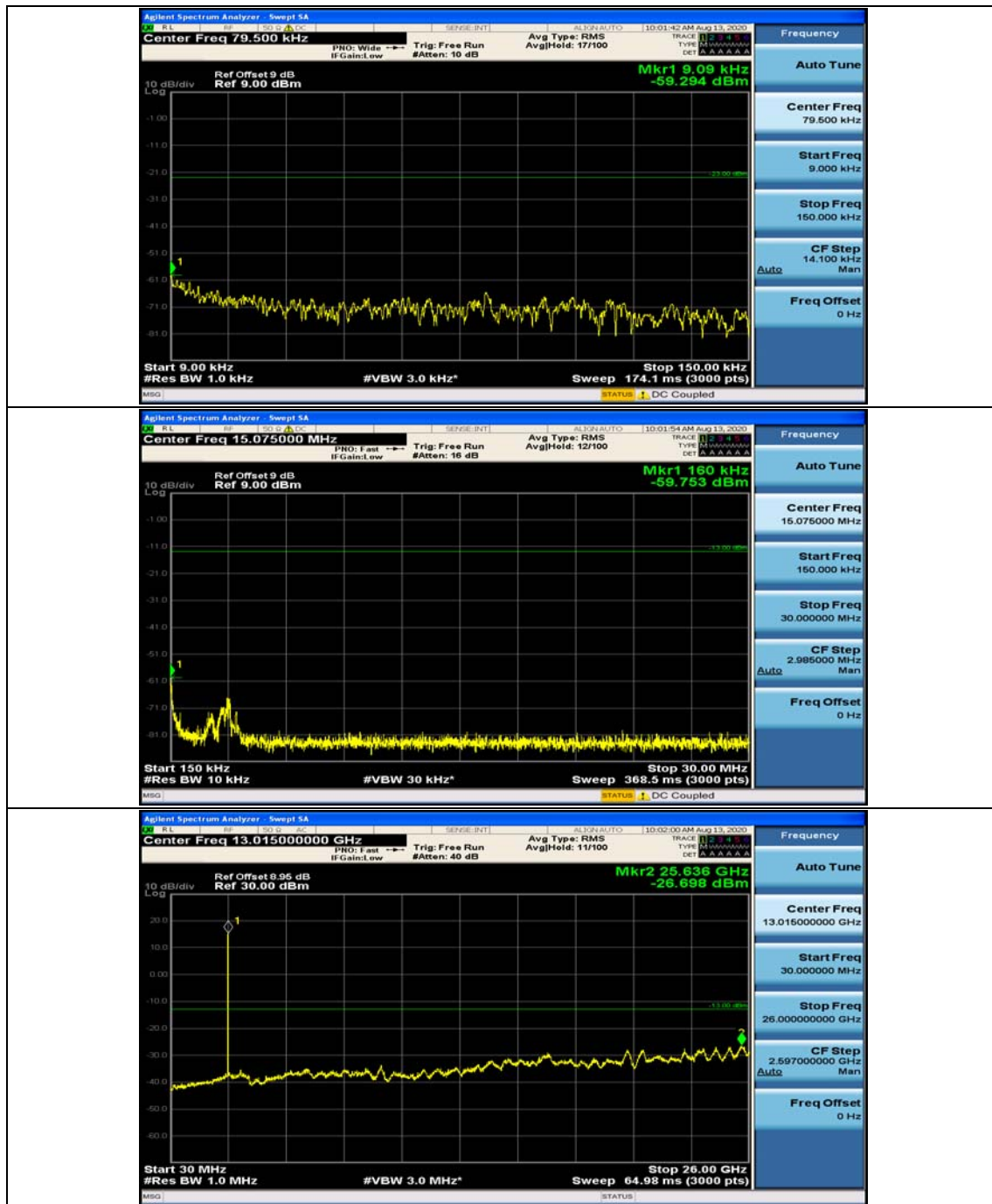


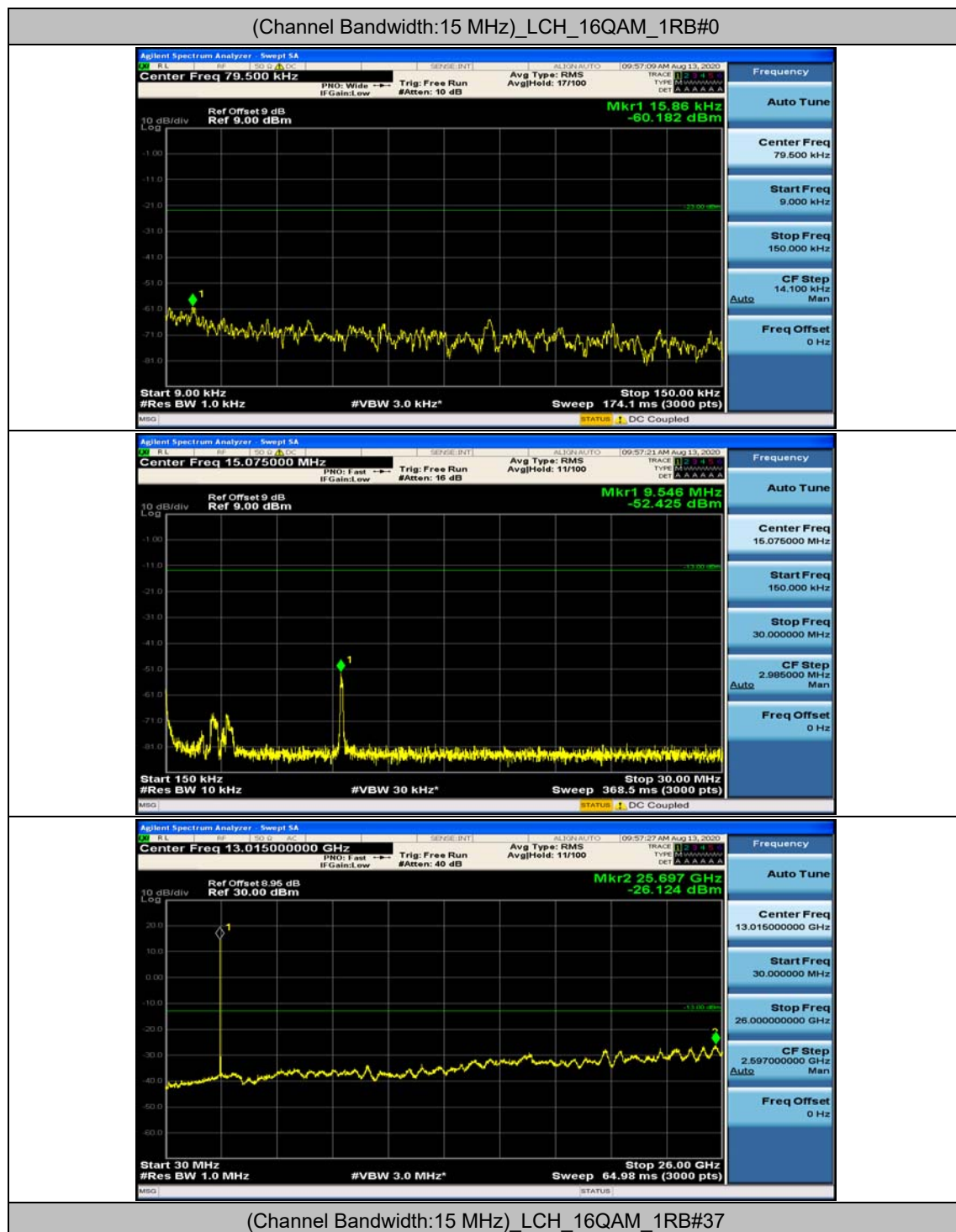
(Channel Bandwidth:15 MHz)\_HCH\_QPSK\_1RB#0

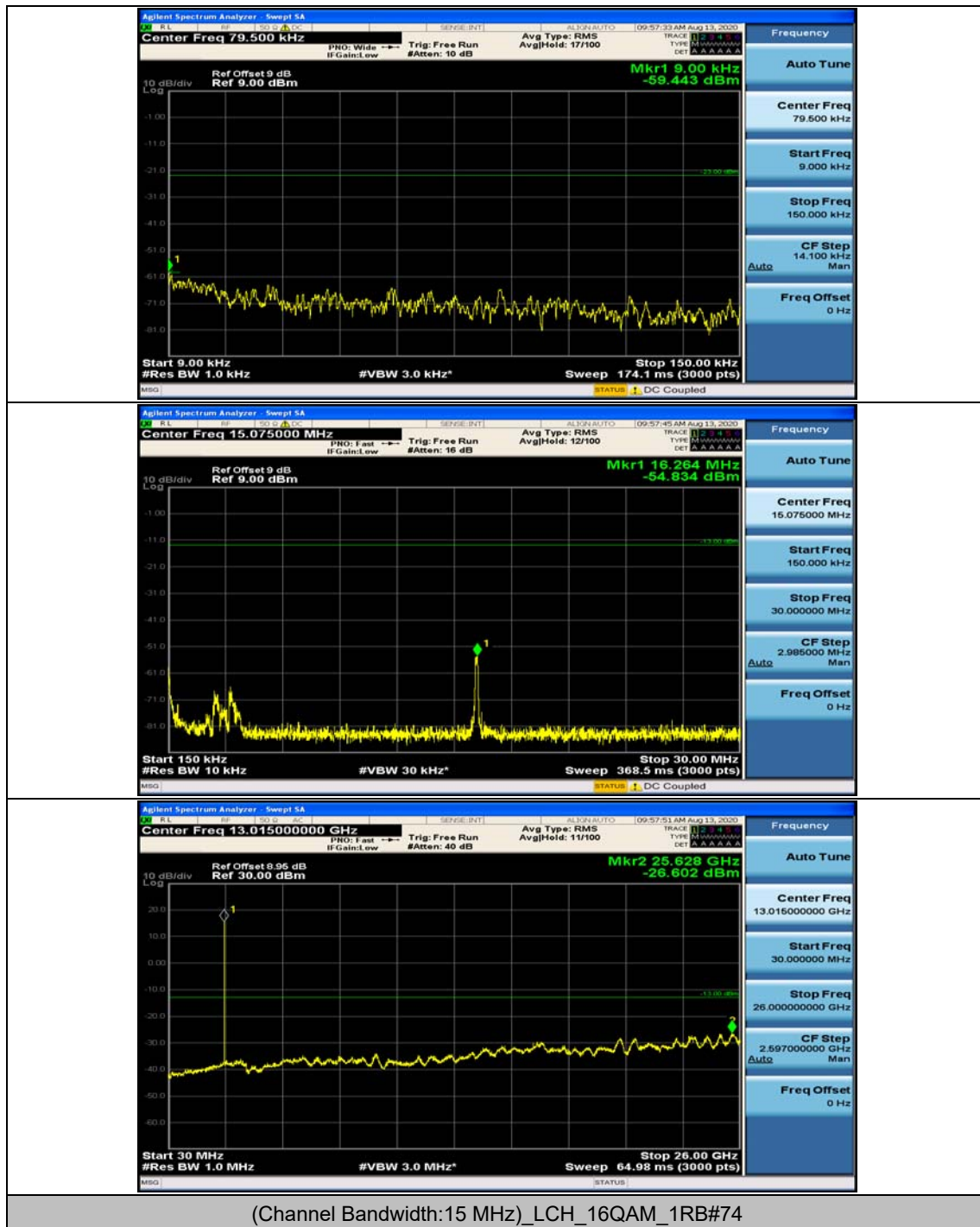


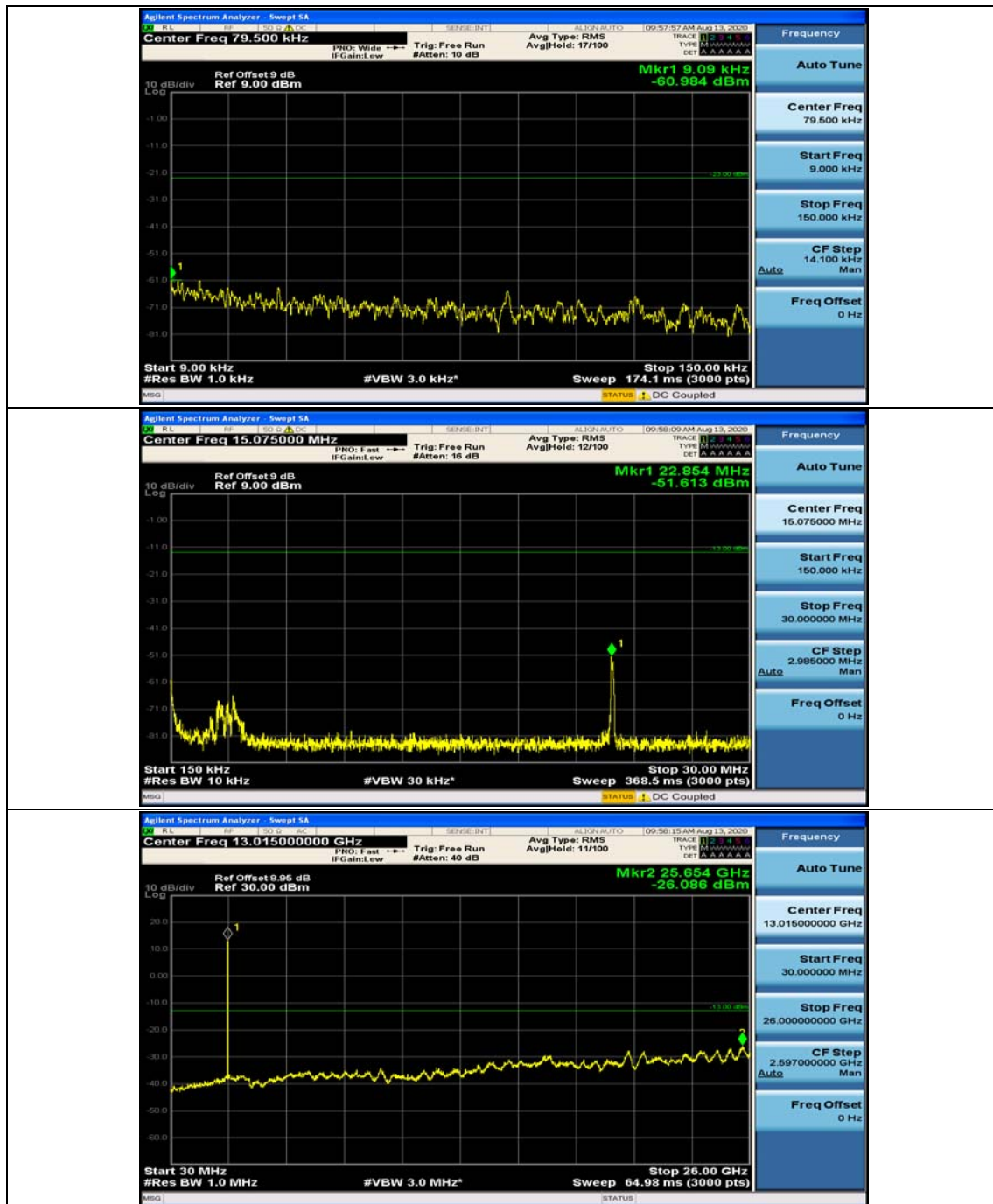
(Channel Bandwidth:15 MHz)\_HCH\_QPSK\_1RB#37



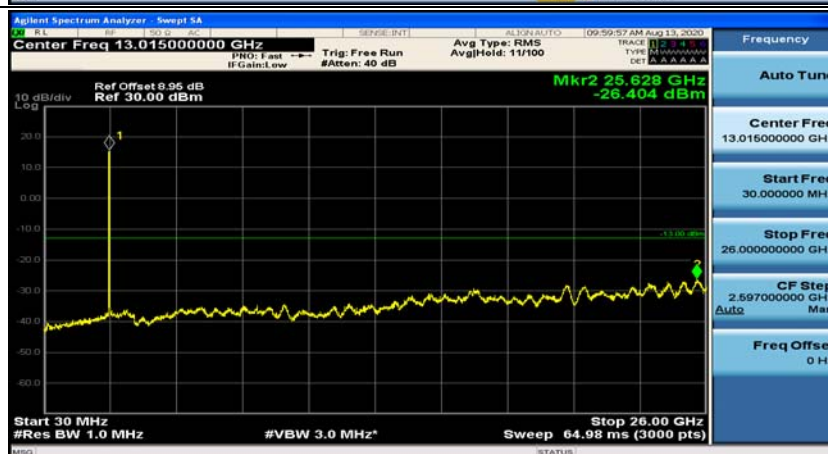
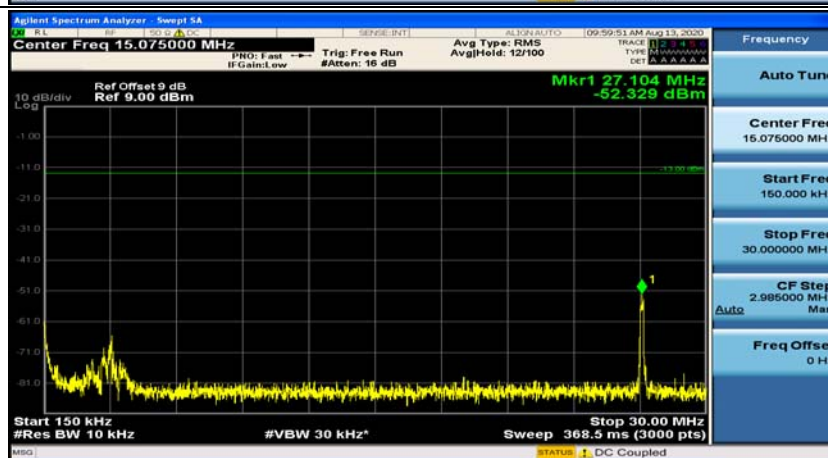
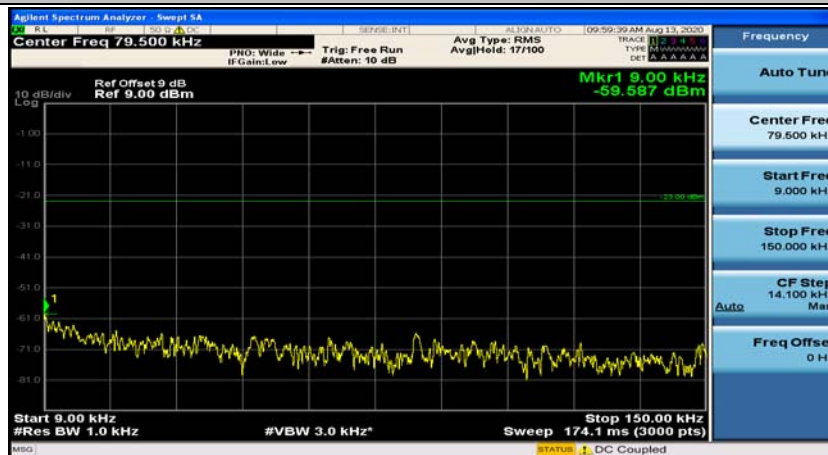




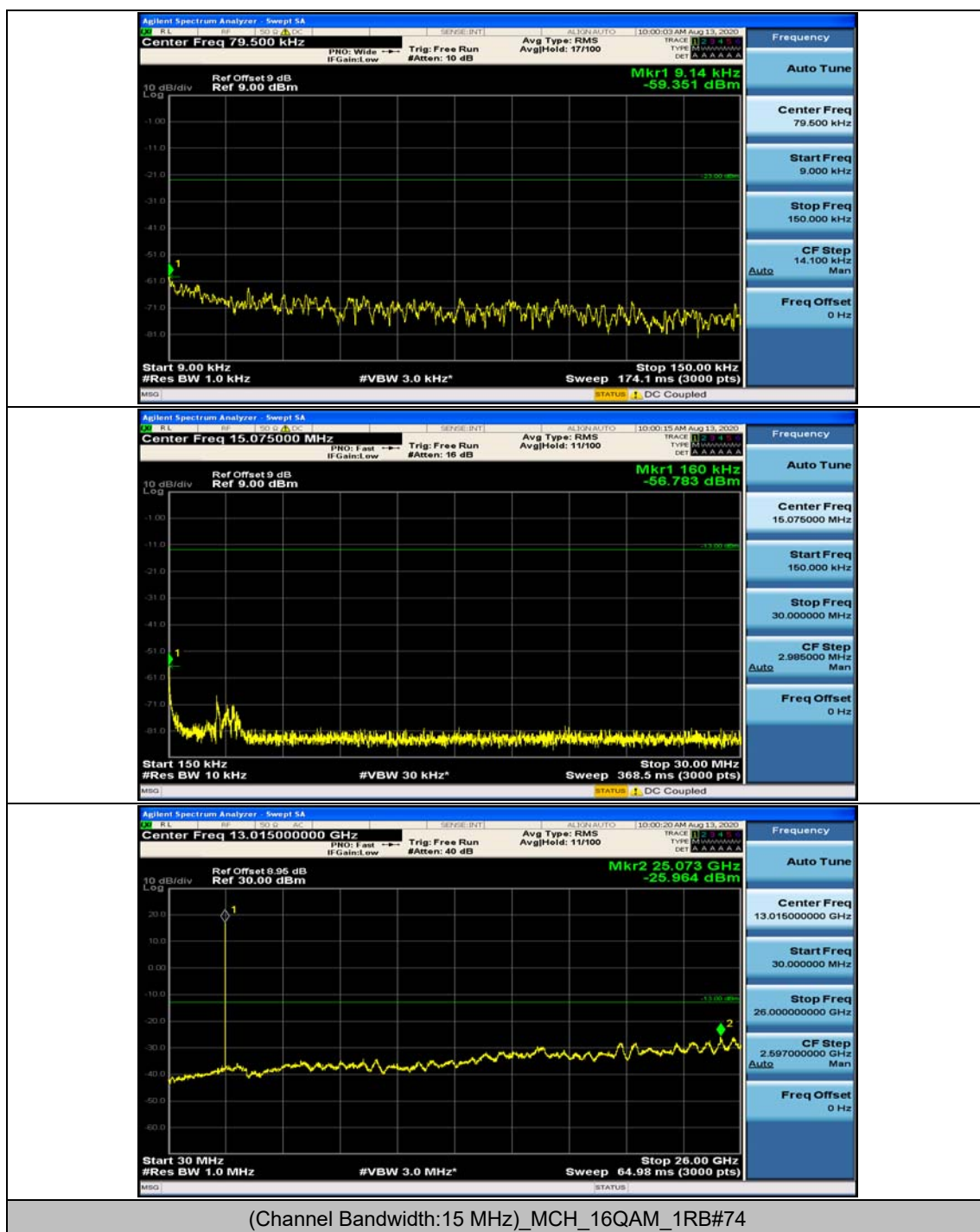


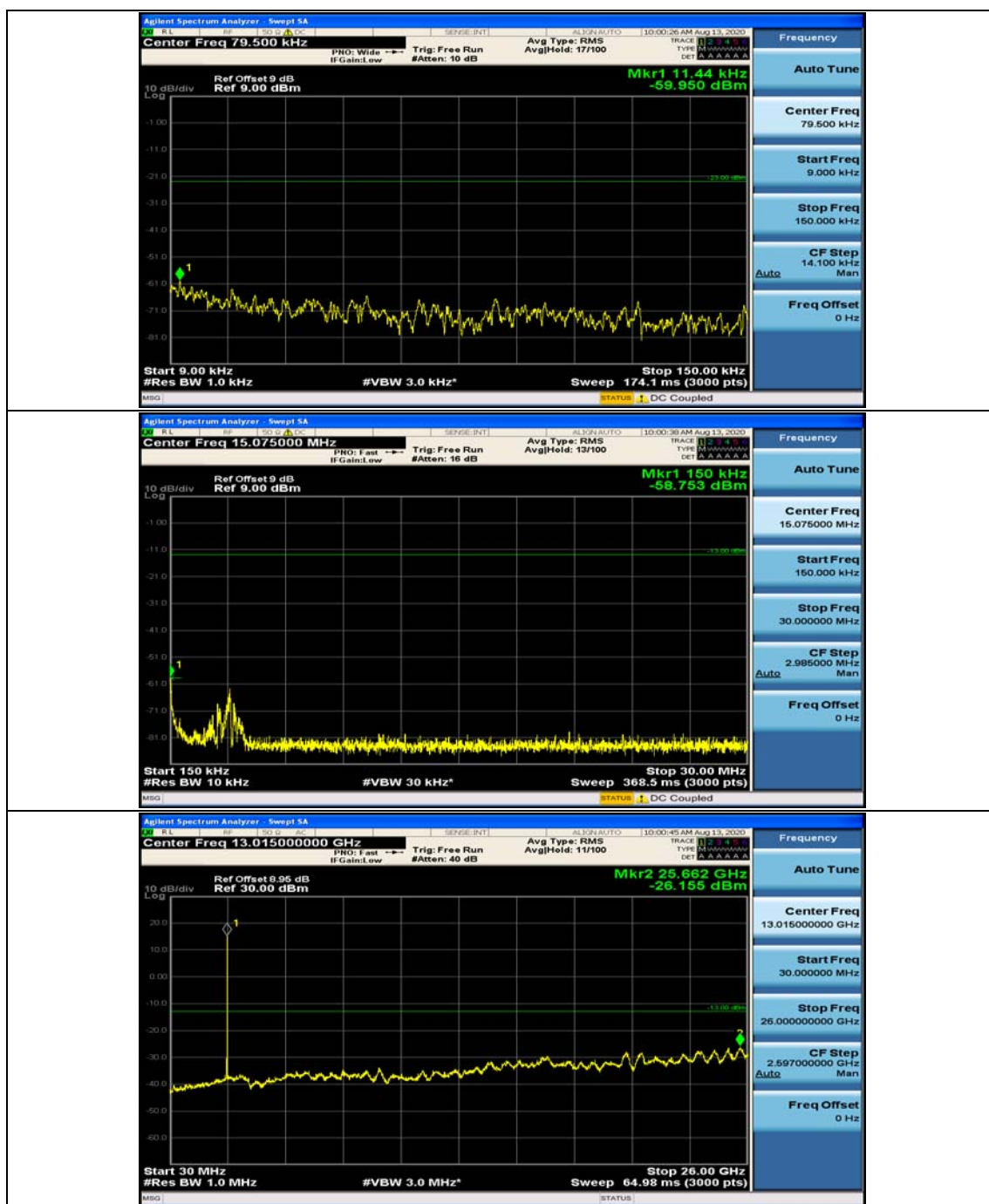


(Channel Bandwidth:15 MHz)\_MCH\_16QAM\_1RB#0

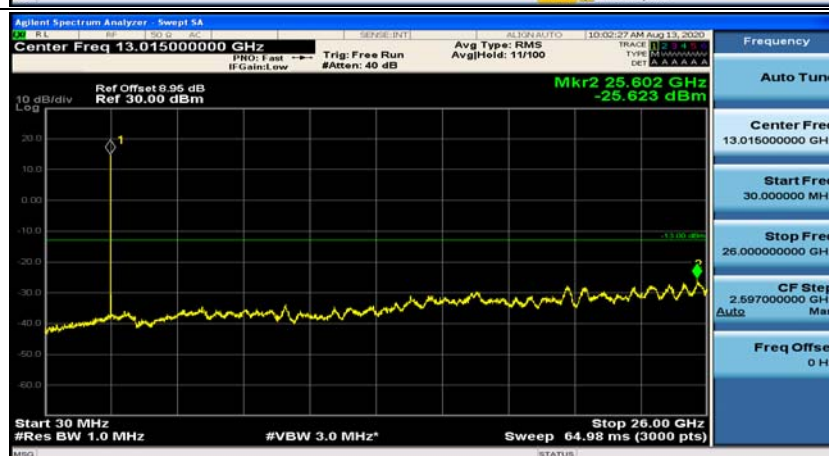
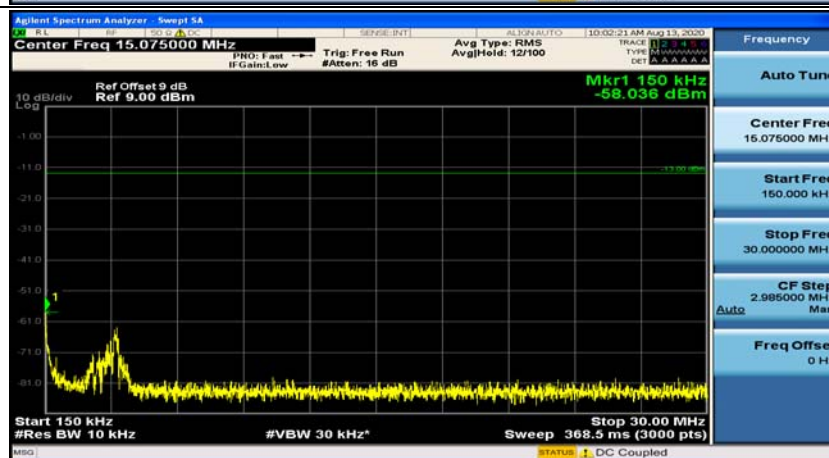
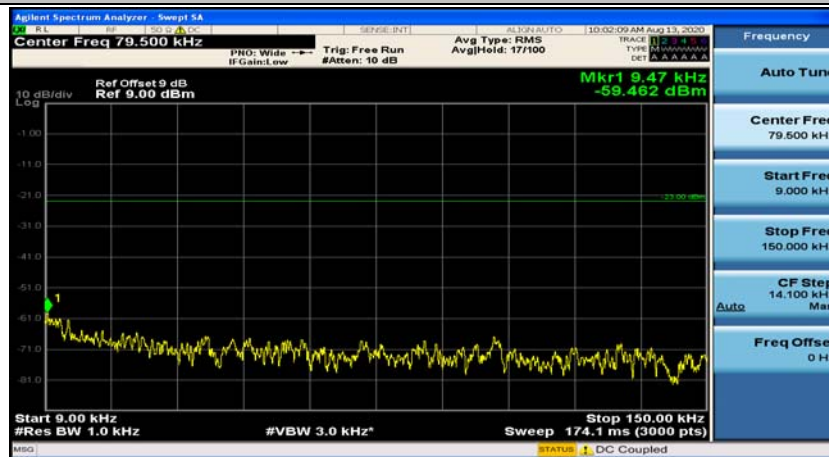


(Channel Bandwidth:15 MHz)\_MCH\_16QAM\_1RB#37

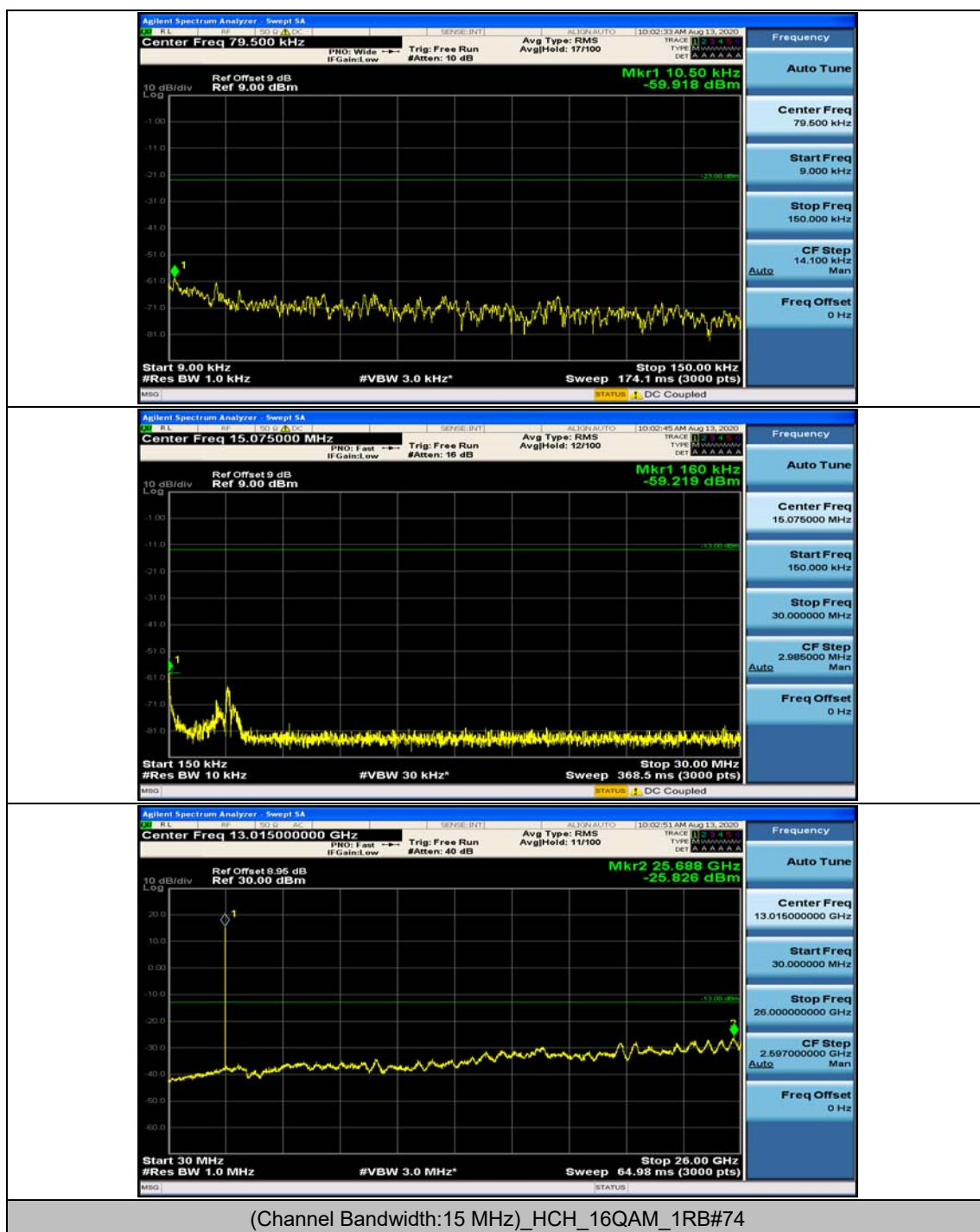


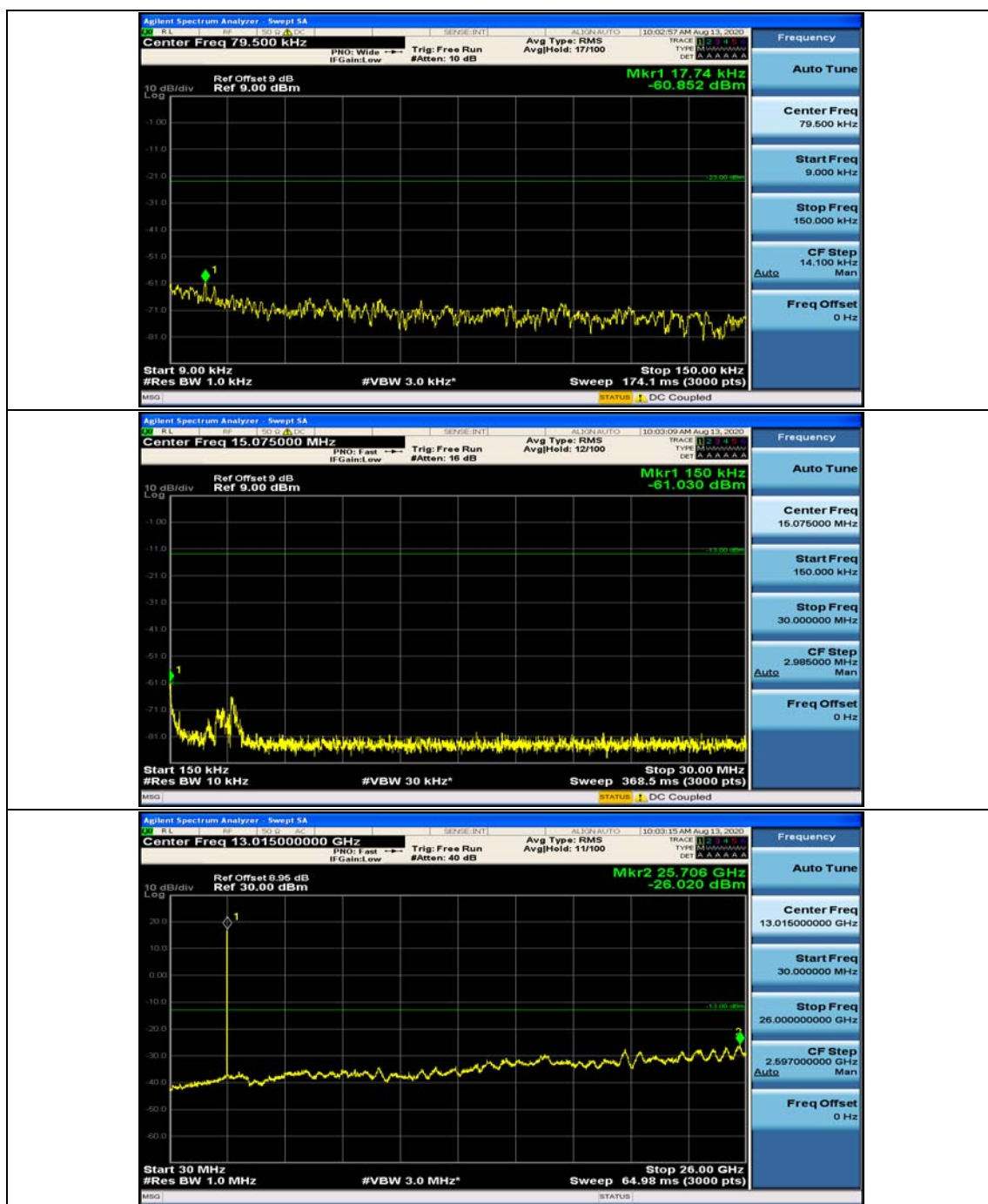


(Channel Bandwidth:15 MHz)\_HCH\_16QAM\_1RB#0

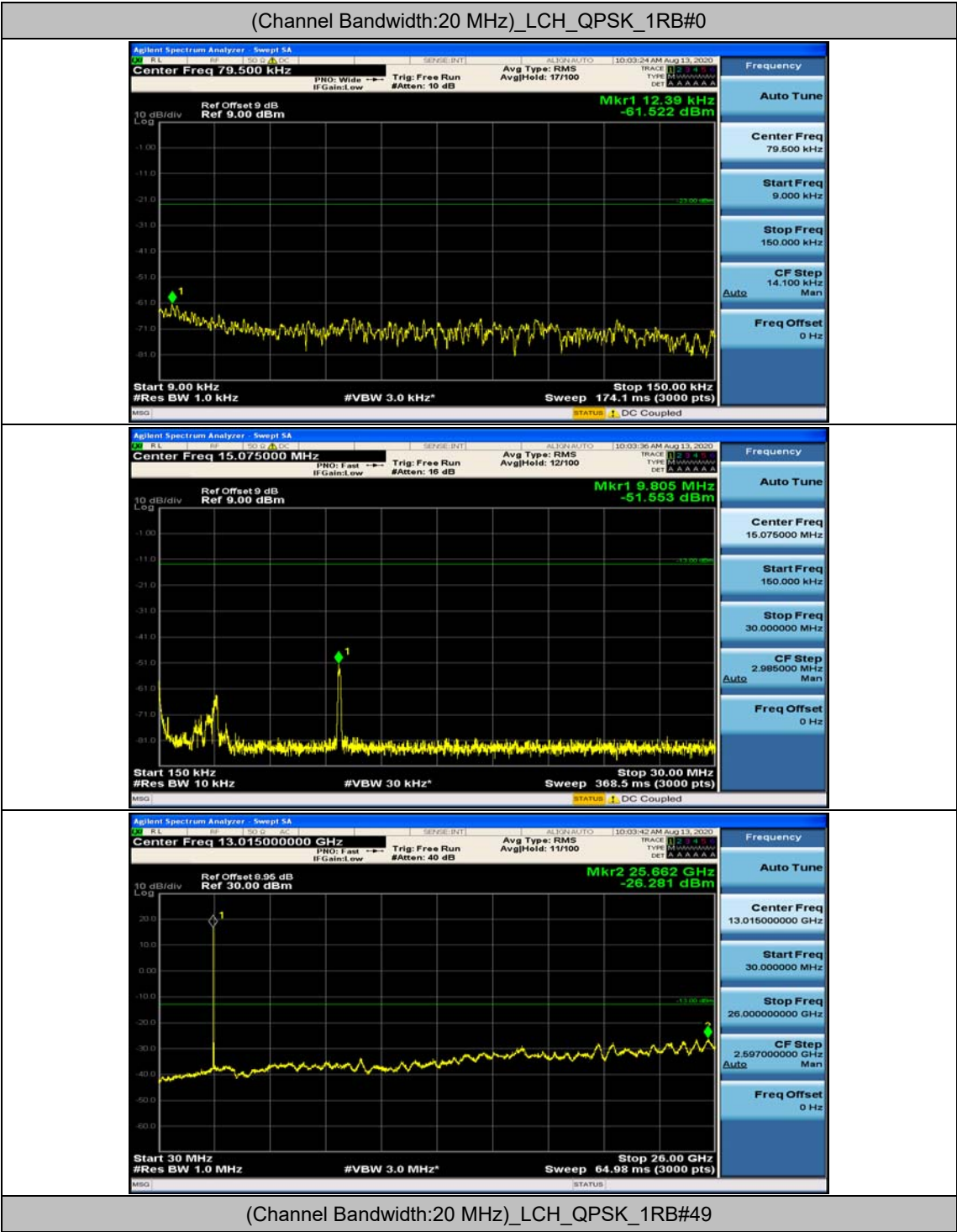


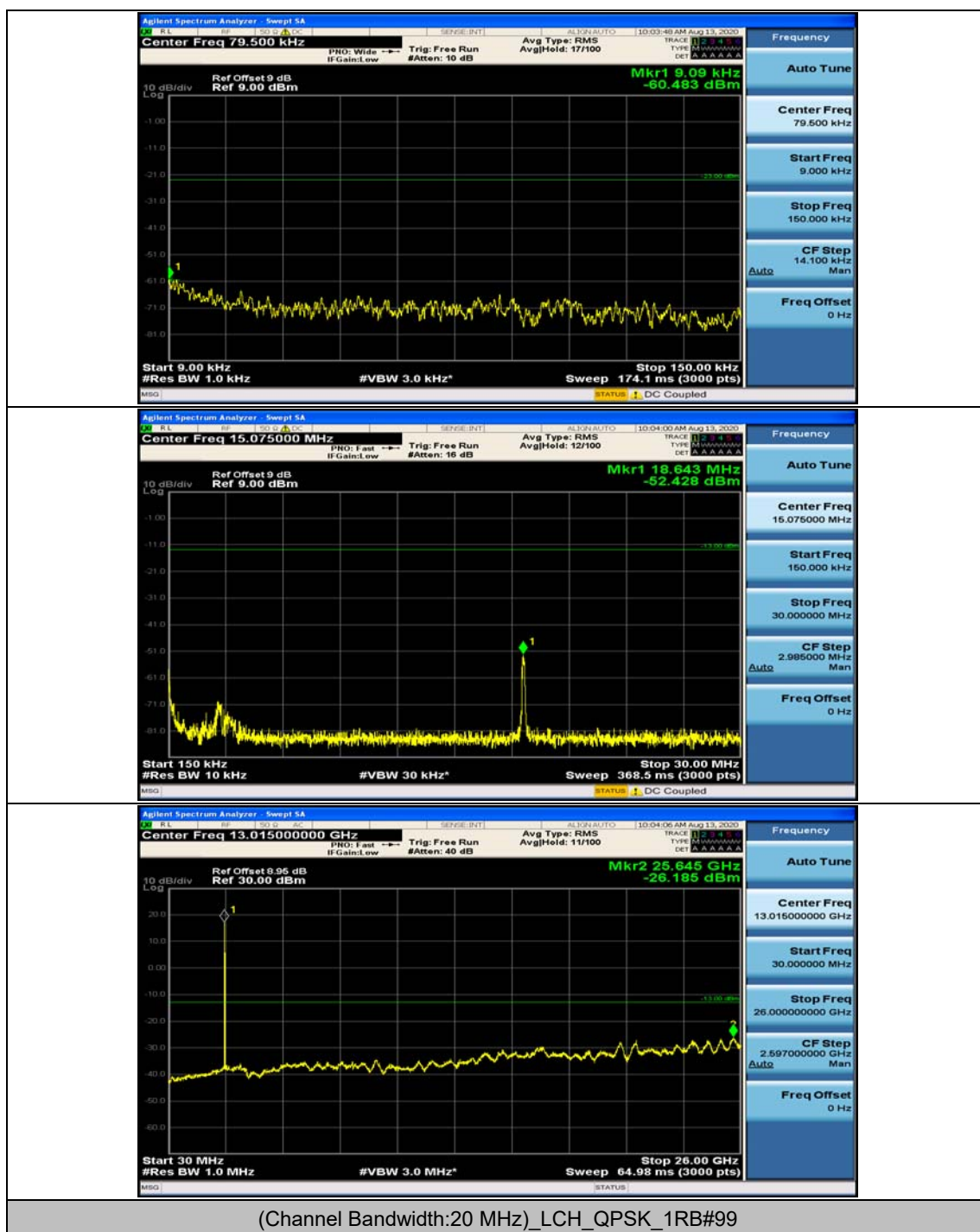
(Channel Bandwidth:15 MHz)\_HCH\_16QAM\_1RB#37

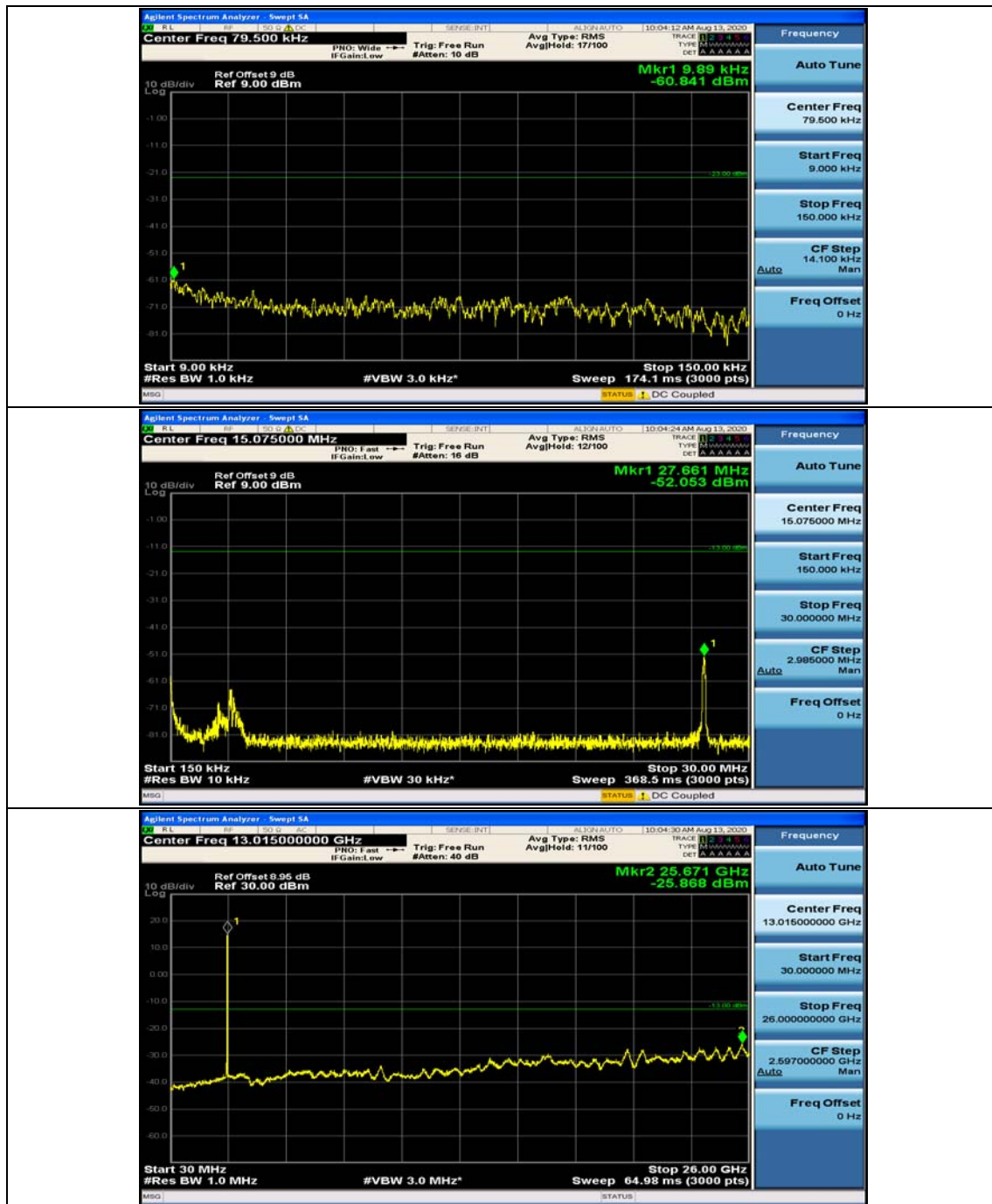




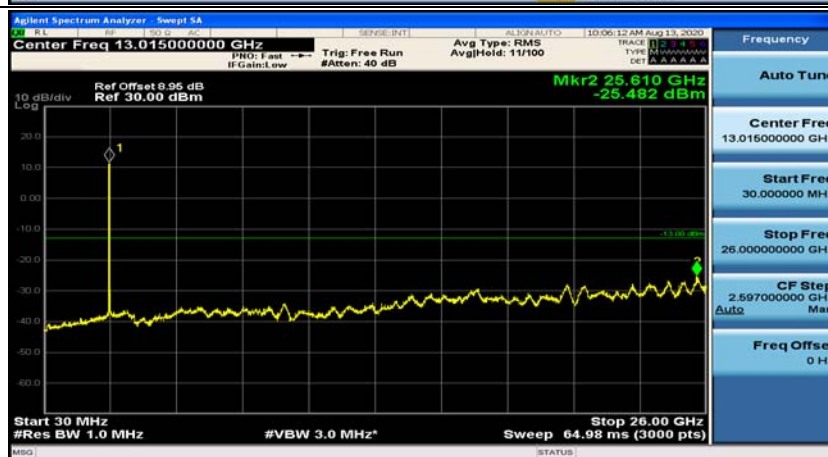
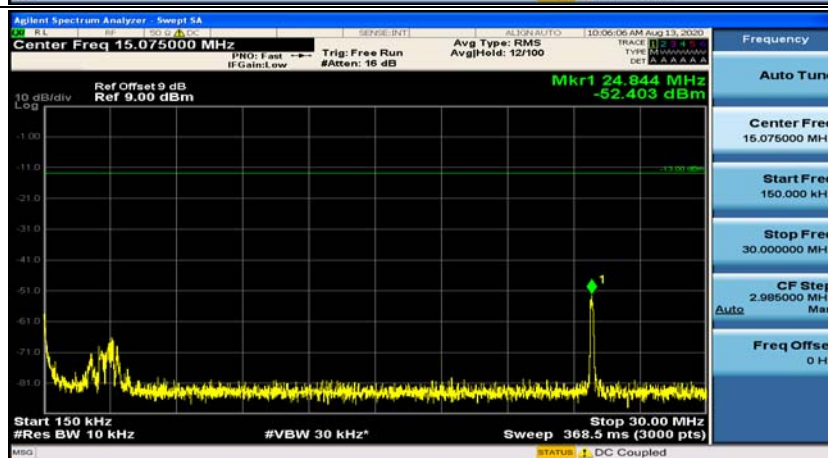
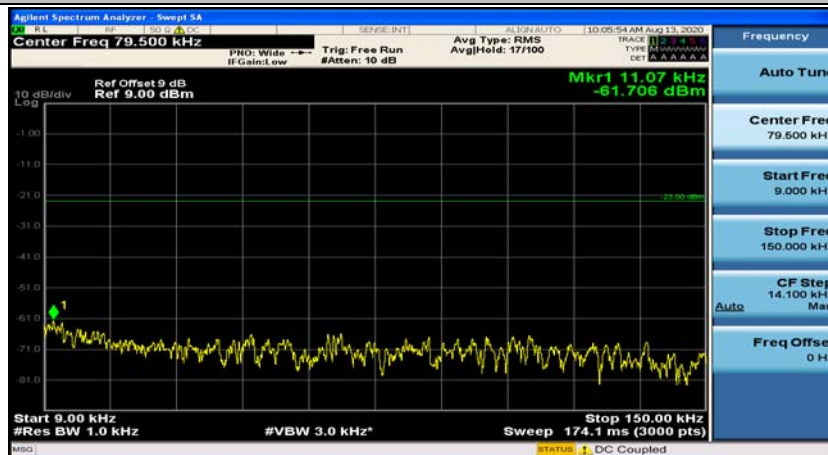
Channel Bandwidth: 20 MHz



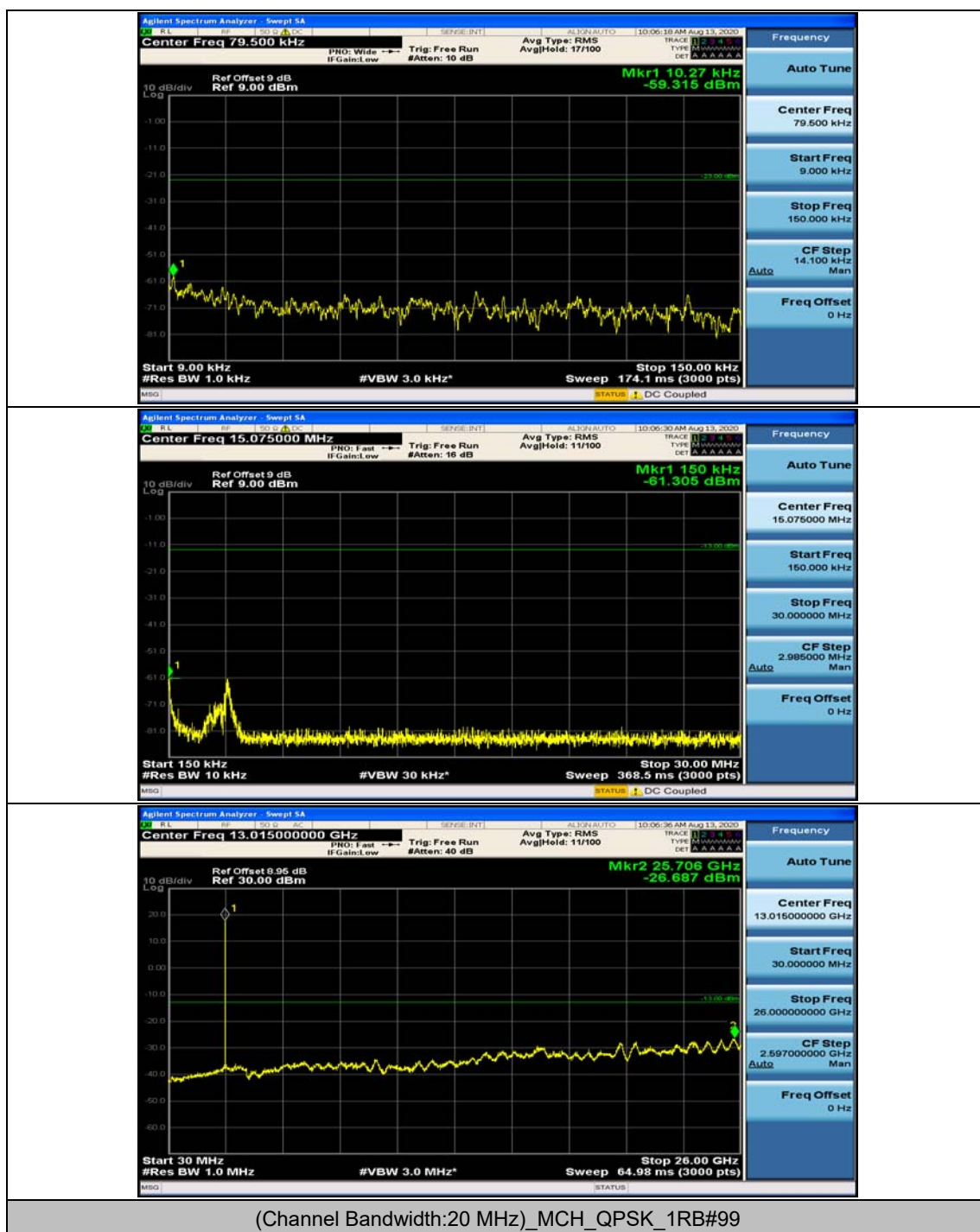


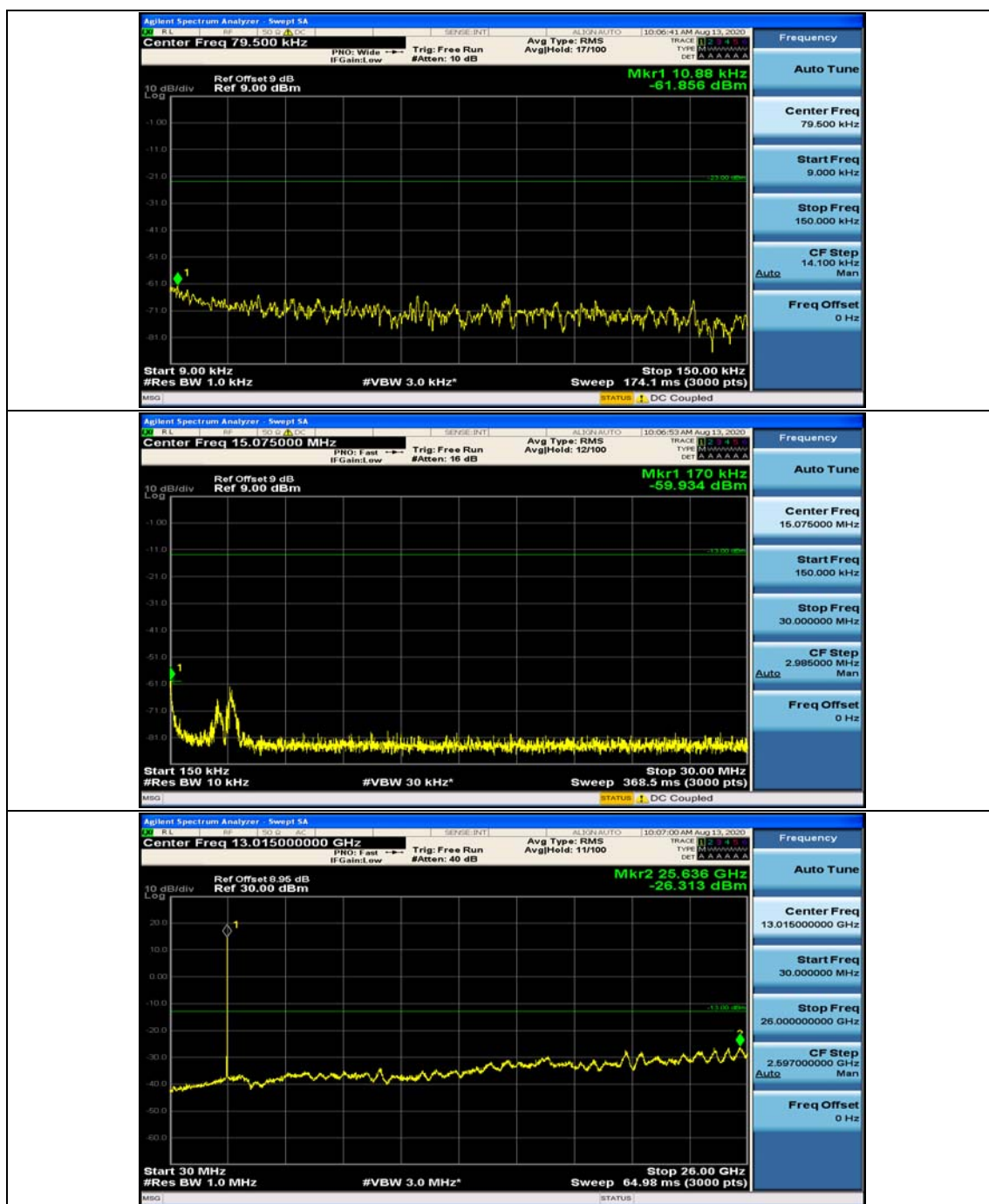


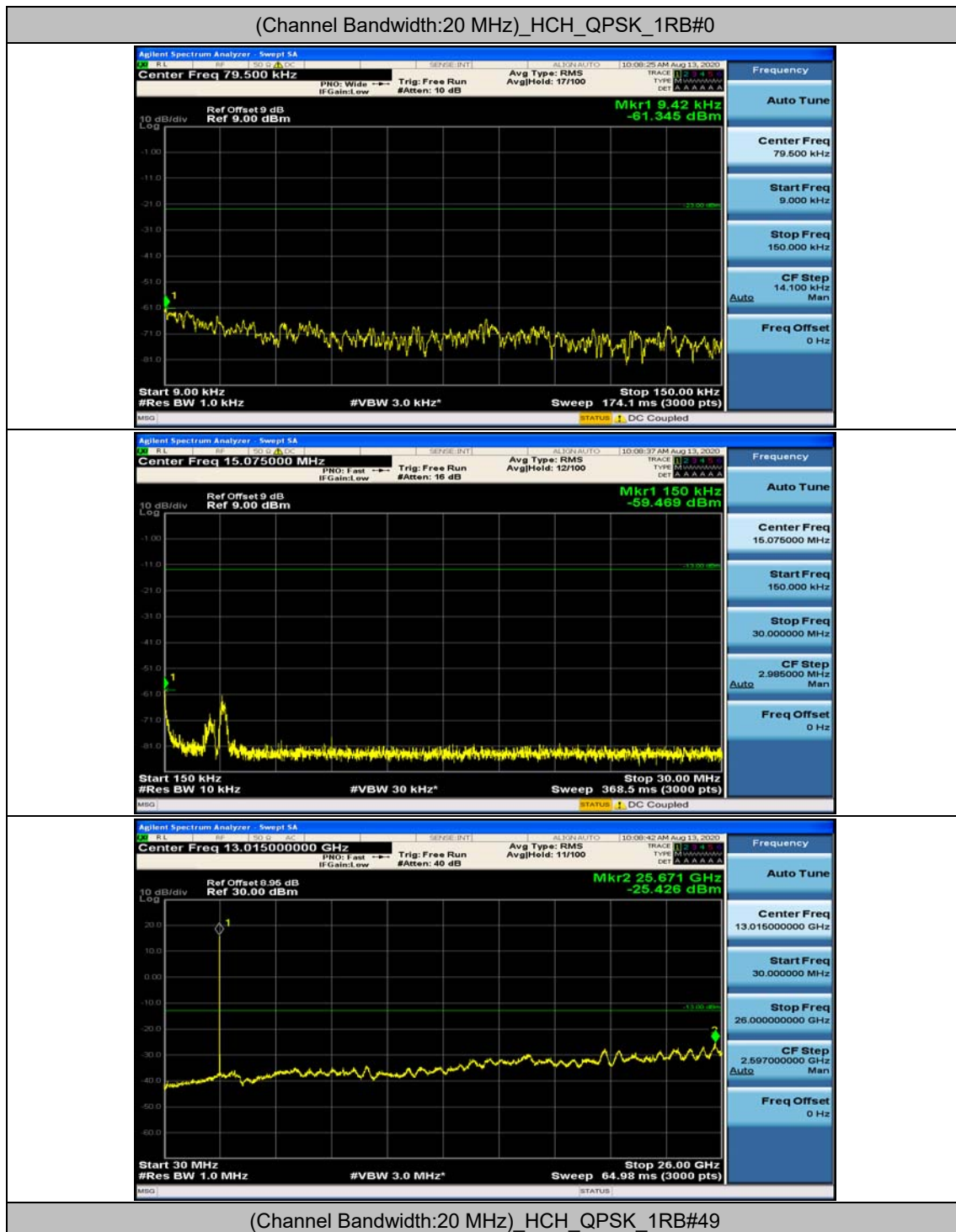
(Channel Bandwidth:20 MHz)\_MCH\_QPSK\_1RB#0

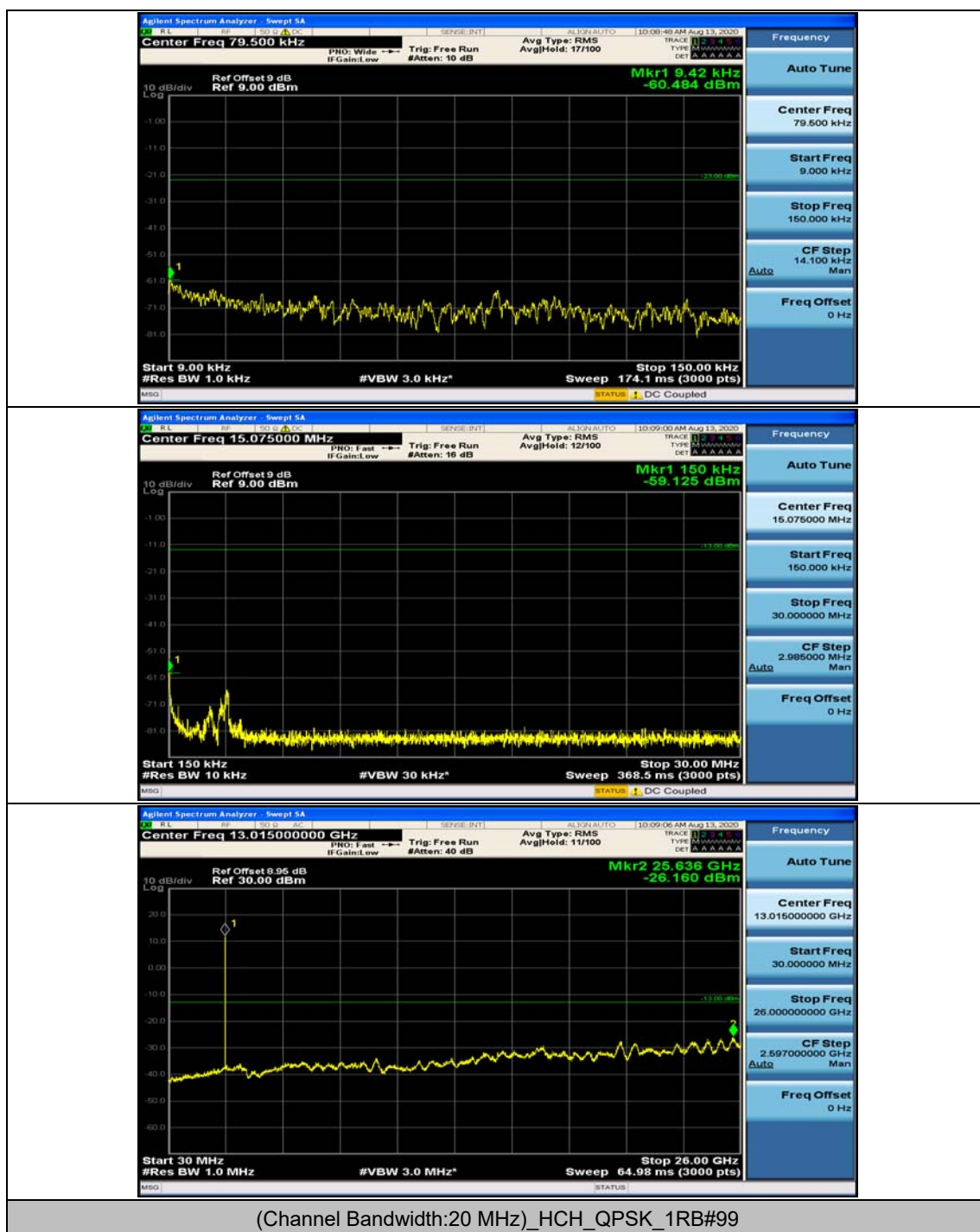


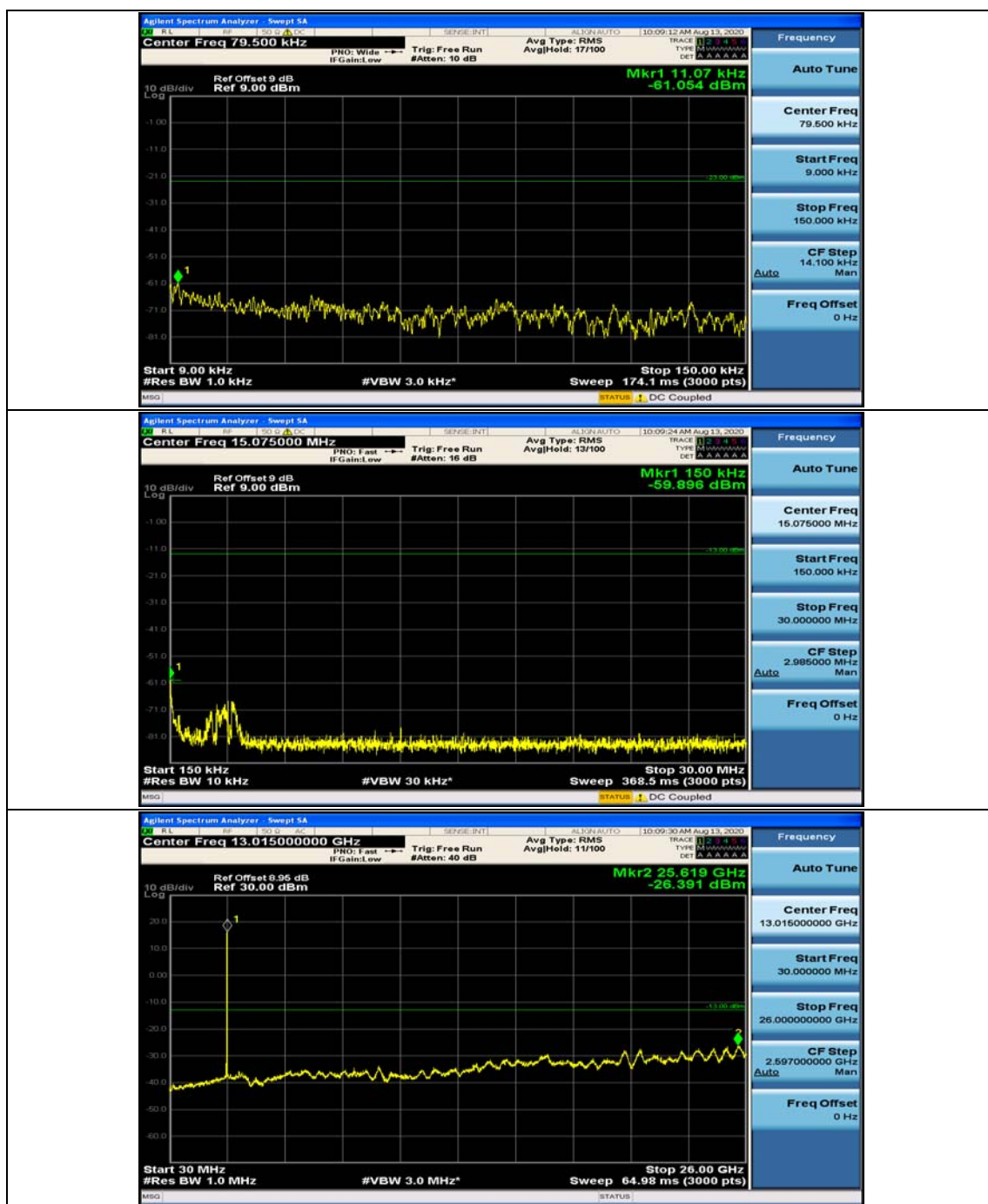
(Channel Bandwidth:20 MHz)\_MCH\_QPSK\_1RB#49



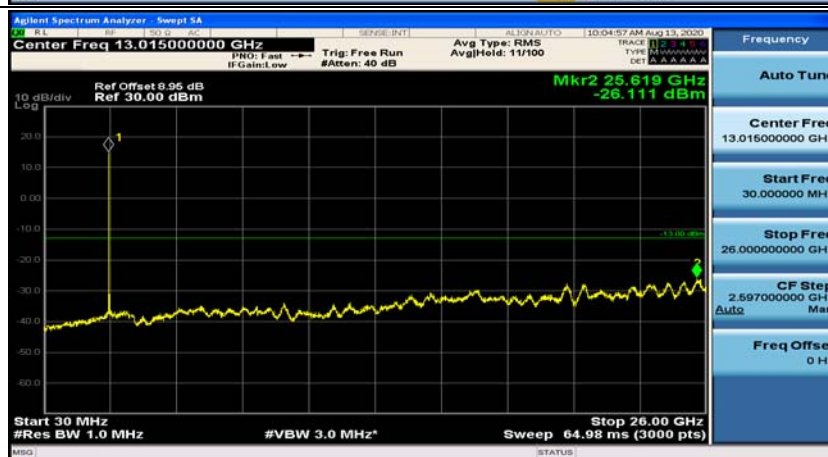
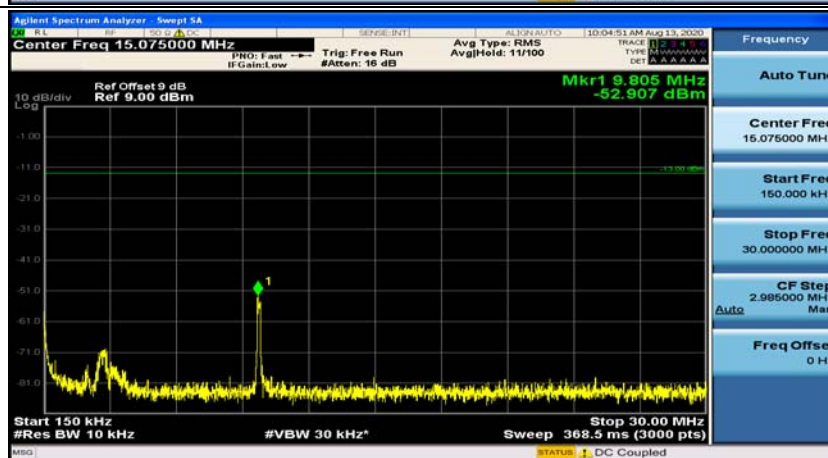
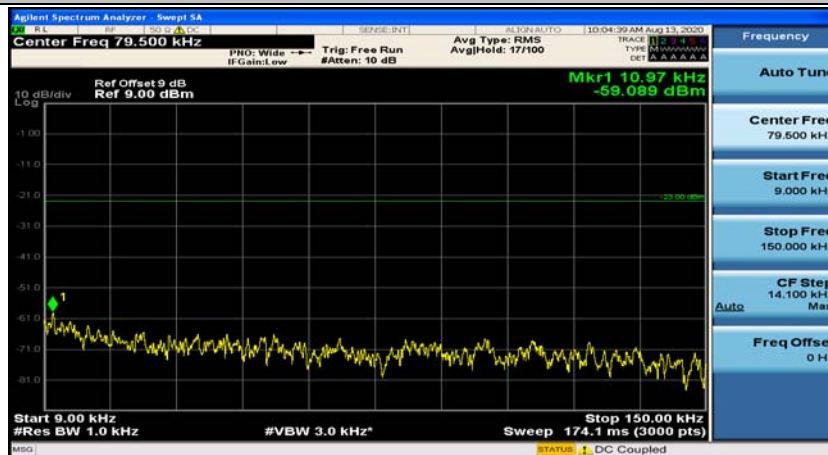




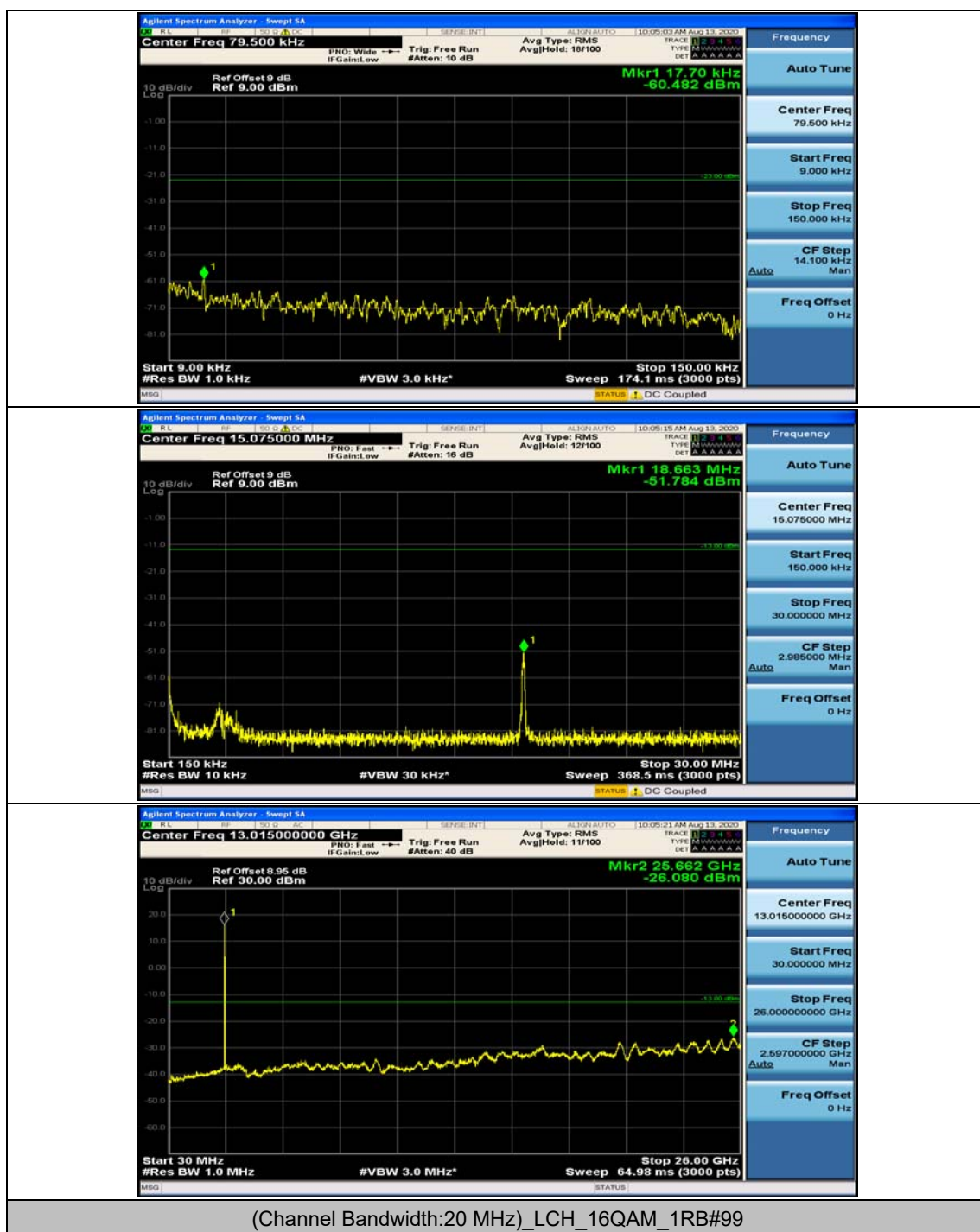


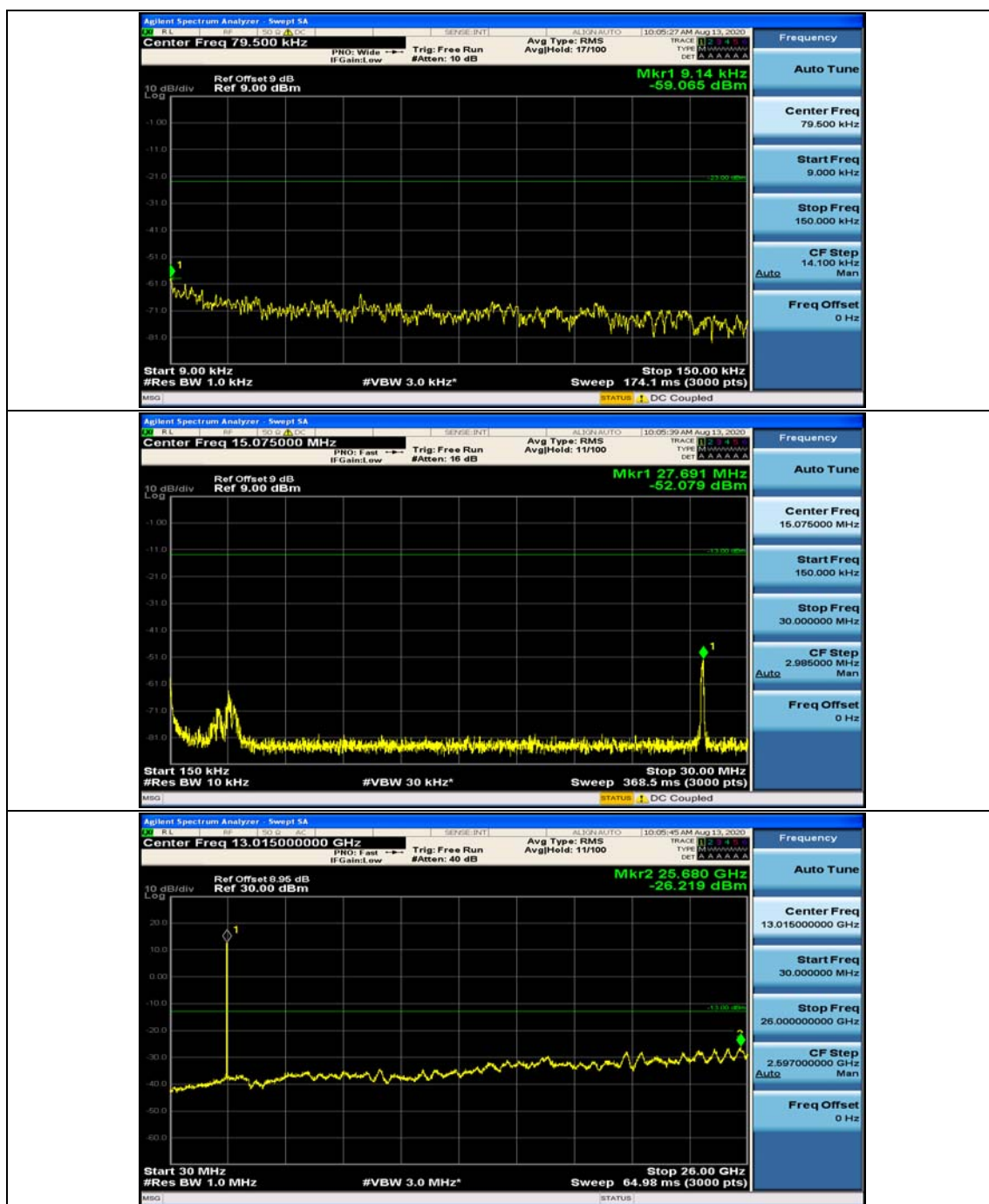


(Channel Bandwidth:20 MHz)\_LCH\_16QAM\_1RB#0

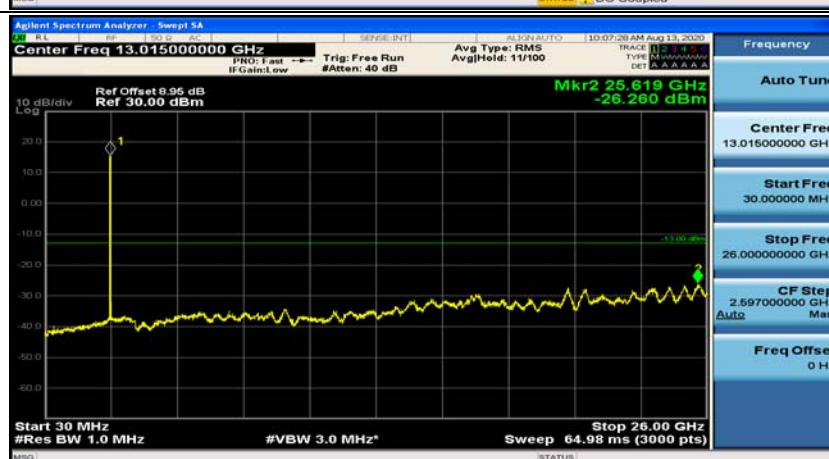
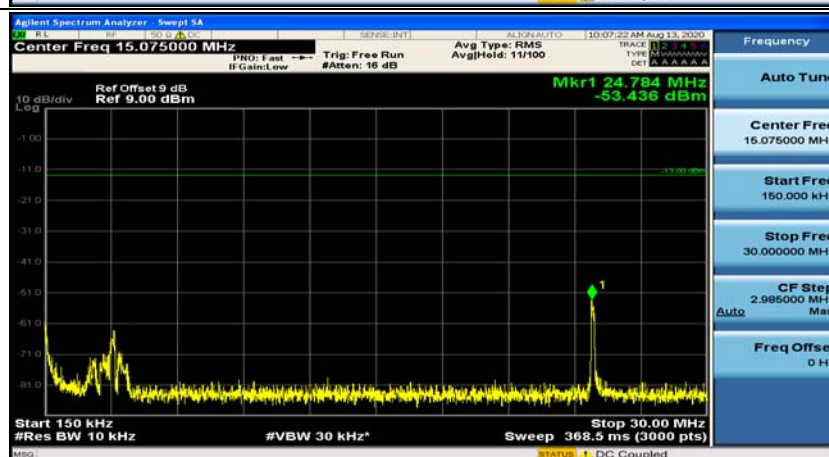
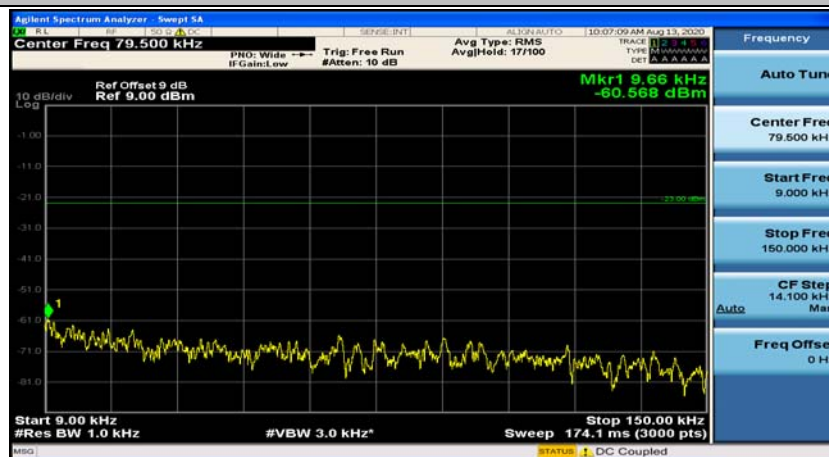


(Channel Bandwidth:20 MHz)\_LCH\_16QAM\_1RB#49

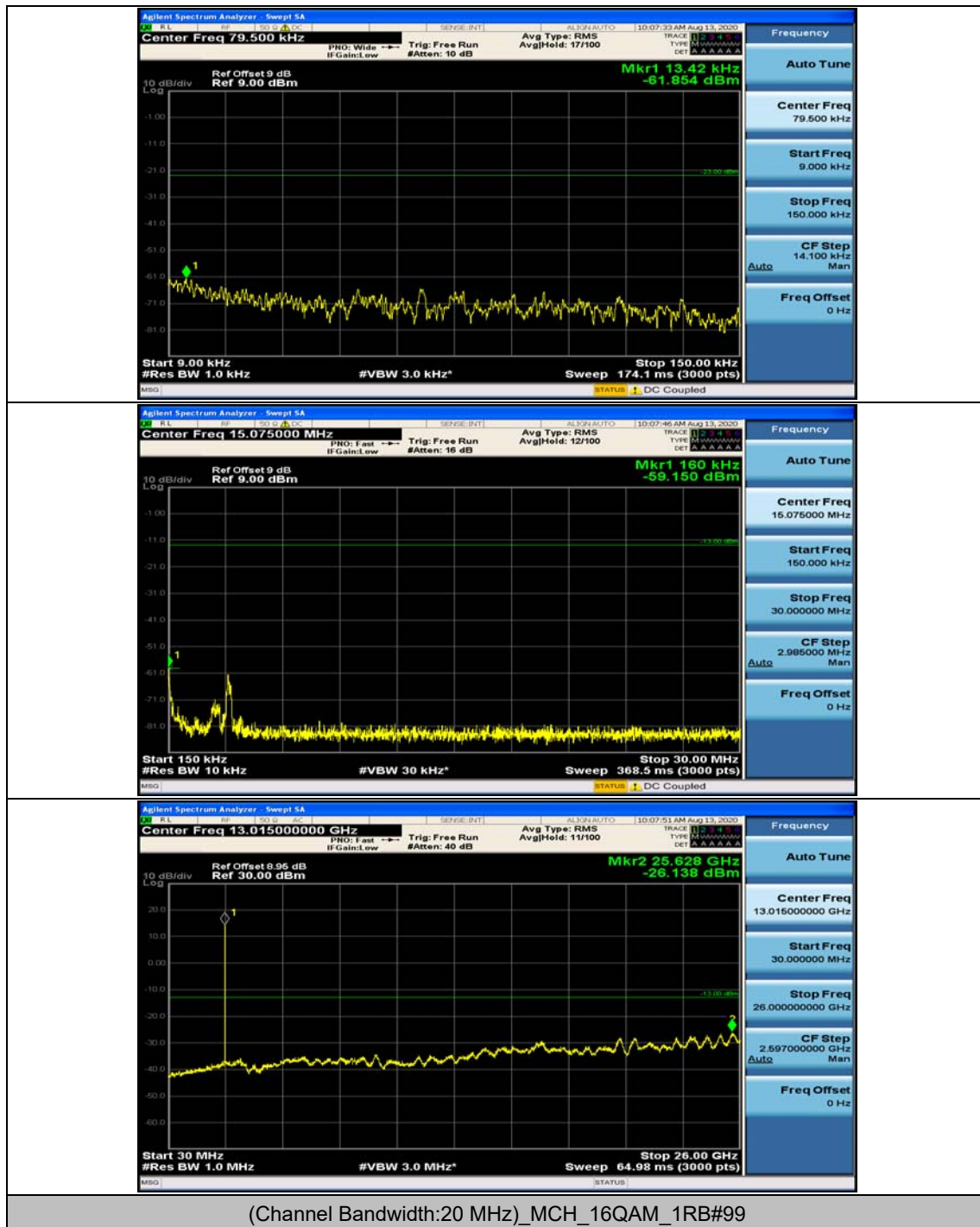


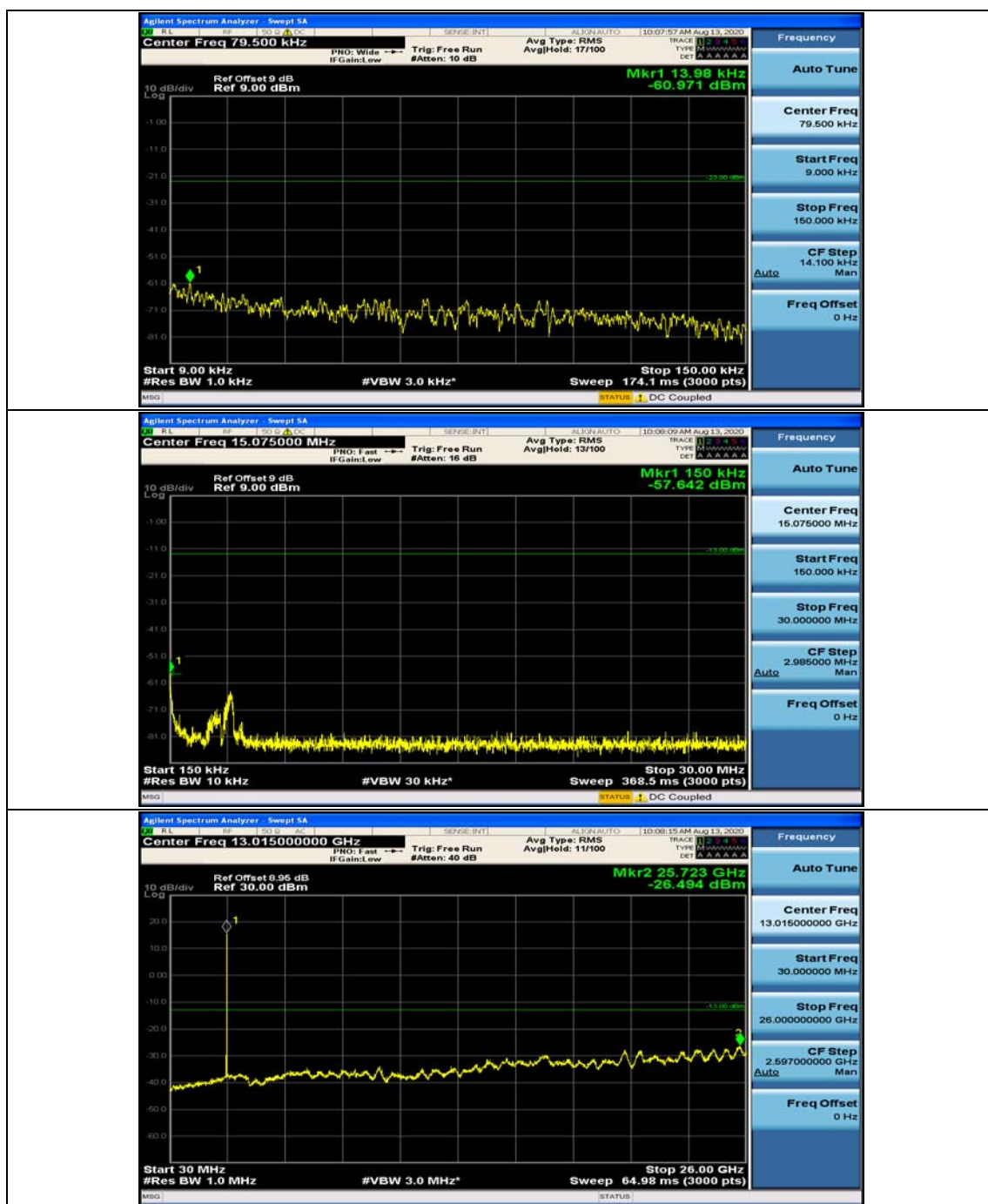


(Channel Bandwidth:20 MHz)\_MCH\_16QAM\_1RB#0

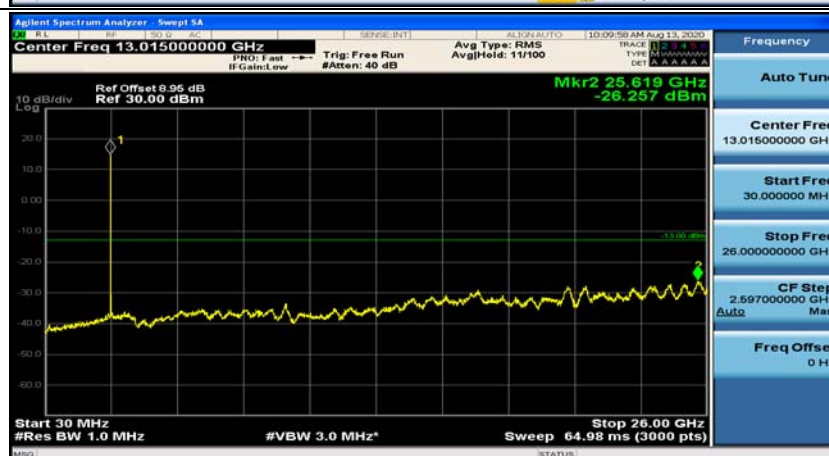
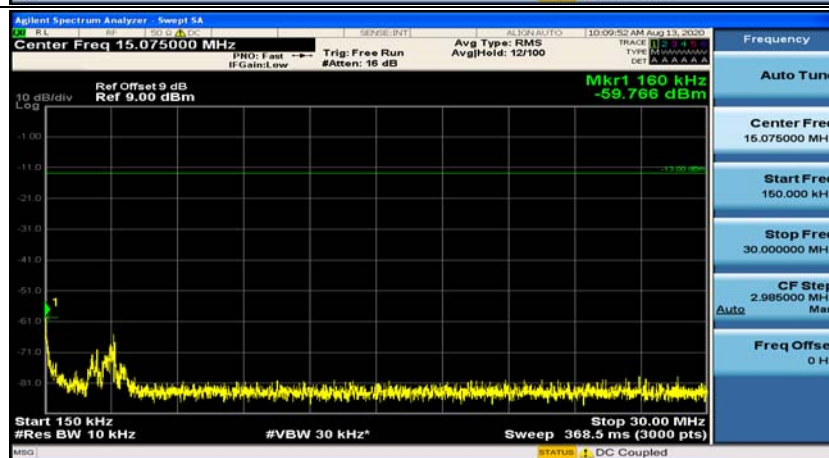
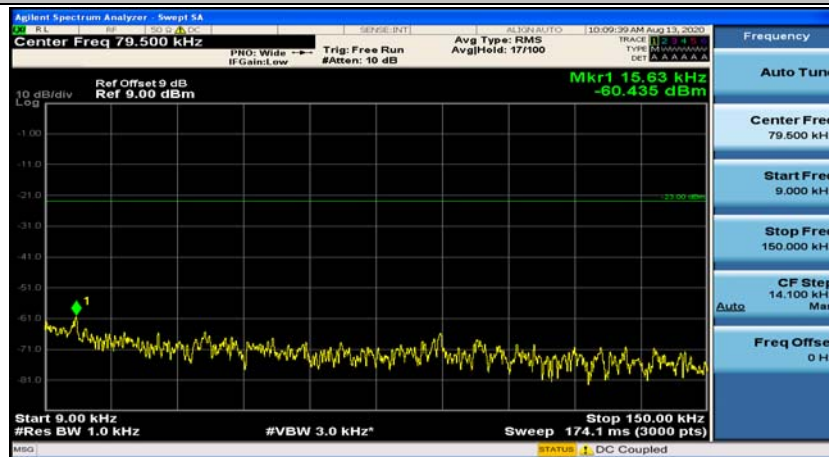


(Channel Bandwidth:20 MHz)\_MCH\_16QAM\_1RB#49

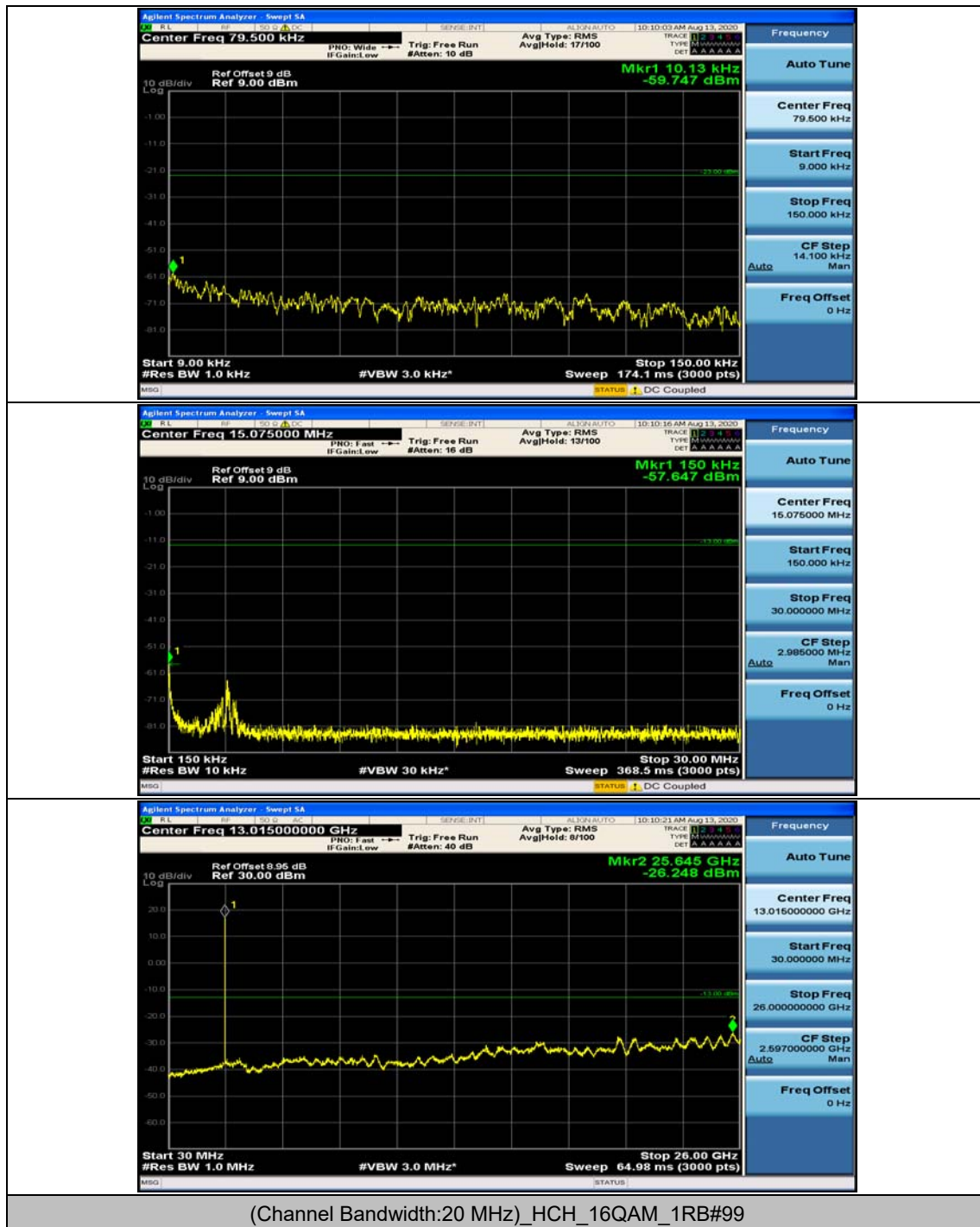


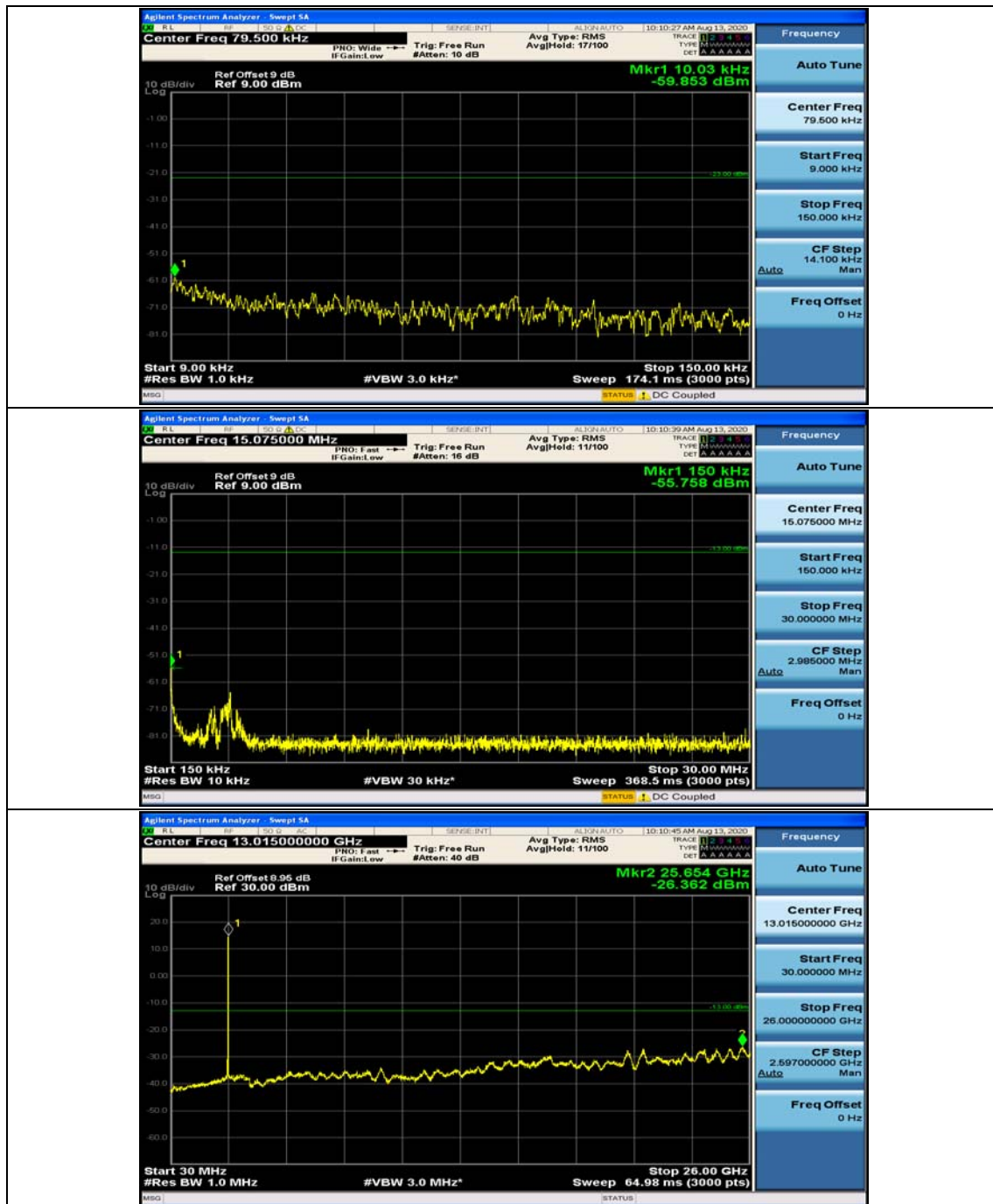


(Channel Bandwidth:20 MHz)\_HCH\_16QAM\_1RB#0



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





## 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               | 3.14           | 0.001221        | ± 2.5       | PASS    |
|                          |         | VN            | TN               | 2.72           | 0.001057        | ± 2.5       | PASS    |
|                          |         | VH            | TN               | 3.85           | 0.001497        | ± 2.5       | PASS    |
|                          | MCH     | VL            | TN               | 2.17           | 0.000836        | ± 2.5       | PASS    |
|                          |         | VN            | TN               | 0.37           | 0.000143        | ± 2.5       | PASS    |
|                          |         | VH            | TN               | 3.92           | 0.001511        | ± 2.5       | PASS    |
|                          | HCH     | VL            | TN               | 2.35           | 0.000898        | ± 2.5       | PASS    |
|                          |         | VN            | TN               | 3.64           | 0.001391        | ± 2.5       | PASS    |
|                          |         | VH            | TN               | -0.34          | -0.000130       | ± 2.5       | PASS    |
| 16QAM                    | LCH     | VL            | TN               | 2.93           | 0.001139        | ± 2.5       | PASS    |
|                          |         | VN            | TN               | 4.28           | 0.001664        | ± 2.5       | PASS    |
|                          |         | VH            | TN               | -0.51          | -0.000198       | ± 2.5       | PASS    |
|                          | MCH     | VL            | TN               | 0.2            | 0.000077        | ± 2.5       | PASS    |
|                          |         | VN            | TN               | -0.24          | -0.000092       | ± 2.5       | PASS    |
|                          |         | VH            | TN               | -0.42          | -0.000162       | ± 2.5       | PASS    |
|                          | HCH     | VL            | TN               | -0.39          | -0.000149       | ± 2.5       | PASS    |
|                          |         | VN            | TN               | 2.51           | 0.000959        | ± 2.5       | PASS    |
|                          |         | VH            | TN               | -0.99          | -0.000378       | ± 2.5       | PASS    |
| Temperature              |         |               |                  |                |                 |             |         |
| Modulation               | Channel | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| QPSK                     | LCH     | VN            | -30              | -0.63          | -0.000245       | ± 2.5       | PASS    |
|                          |         | VN            | -20              | 1.49           | 0.000579        | ± 2.5       | PASS    |
|                          |         | VN            | -10              | 0.12           | 0.000047        | ± 2.5       | PASS    |
|                          |         | VN            | 0                | -1.98          | -0.000770       | ± 2.5       | PASS    |
|                          |         | VN            | 10               | 2.16           | 0.000840        | ± 2.5       | PASS    |
|                          |         | VN            | 20               | 0.16           | 0.000062        | ± 2.5       | PASS    |
|                          |         | VN            | 30               | -0.73          | -0.000284       | ± 2.5       | PASS    |
|                          |         | VN            | 40               | 4.89           | 0.001901        | ± 2.5       | PASS    |
|                          |         | VN            | 50               | 0.49           | 0.000190        | ± 2.5       | PASS    |
|                          | MCH     | VN            | -30              | 4.14           | 0.001595        | ± 2.5       | PASS    |

|       |     |    |     |       |           |       |      |
|-------|-----|----|-----|-------|-----------|-------|------|
|       |     | VN | -20 | -1.94 | -0.000748 | ± 2.5 | PASS |
|       |     | VN | -10 | -0.96 | -0.000370 | ± 2.5 | PASS |
|       |     | VN | 0   | 2.56  | 0.000987  | ± 2.5 | PASS |
|       |     | VN | 10  | -1.01 | -0.000389 | ± 2.5 | PASS |
|       |     | VN | 20  | 3.07  | 0.001183  | ± 2.5 | PASS |
|       |     | VN | 30  | -1.88 | -0.000724 | ± 2.5 | PASS |
|       |     | VN | 40  | 3.87  | 0.001491  | ± 2.5 | PASS |
|       |     | VN | 50  | 3.07  | 0.001183  | ± 2.5 | PASS |
|       | HCH | VN | -30 | 2.57  | 0.000982  | ± 2.5 | PASS |
|       |     | VN | -20 | 1.11  | 0.000424  | ± 2.5 | PASS |
|       |     | VN | -10 | -1.25 | -0.000478 | ± 2.5 | PASS |
|       |     | VN | 0   | 0.25  | 0.000096  | ± 2.5 | PASS |
|       |     | VN | 10  | 2.03  | 0.000776  | ± 2.5 | PASS |
|       |     | VN | 20  | 3.66  | 0.001398  | ± 2.5 | PASS |
|       |     | VN | 30  | -1.07 | -0.000409 | ± 2.5 | PASS |
|       |     | VN | 40  | 3.5   | 0.001337  | ± 2.5 | PASS |
| 16QAM | LCH | VN | 50  | 4.52  | 0.001727  | ± 2.5 | PASS |
|       |     | VN | -30 | 3.76  | 0.001462  | ± 2.5 | PASS |
|       |     | VN | -20 | -1.5  | -0.000583 | ± 2.5 | PASS |
|       |     | VN | -10 | 2.54  | 0.000987  | ± 2.5 | PASS |
|       |     | VN | 0   | 4.03  | 0.001567  | ± 2.5 | PASS |
|       |     | VN | 10  | 0.72  | 0.000280  | ± 2.5 | PASS |
|       |     | VN | 20  | 0.3   | 0.000117  | ± 2.5 | PASS |
|       |     | VN | 30  | -1.49 | -0.000579 | ± 2.5 | PASS |
|       |     | VN | 40  | 1.51  | 0.000587  | ± 2.5 | PASS |
|       | MCH | VN | 50  | 3.96  | 0.001539  | ± 2.5 | PASS |
|       |     | VN | -30 | 1.56  | 0.000601  | ± 2.5 | PASS |
|       |     | VN | -20 | 1.26  | 0.000486  | ± 2.5 | PASS |
|       |     | VN | -10 | -0.62 | -0.000239 | ± 2.5 | PASS |
|       |     | VN | 0   | 4.6   | 0.001773  | ± 2.5 | PASS |
|       |     | VN | 10  | 0.99  | 0.000382  | ± 2.5 | PASS |
|       |     | VN | 20  | 3.11  | 0.001198  | ± 2.5 | PASS |
|       |     | VN | 30  | -1.98 | -0.000763 | ± 2.5 | PASS |
|       |     | VN | 40  | 3.42  | 0.001318  | ± 2.5 | PASS |
|       | HCH | VN | 50  | 3.85  | 0.001484  | ± 2.5 | PASS |
|       |     | VN | -30 | -0.5  | -0.000191 | ± 2.5 | PASS |
|       |     | VN | -20 | -1.01 | -0.000386 | ± 2.5 | PASS |
|       |     | VN | -10 | 2.22  | 0.000848  | ± 2.5 | PASS |
|       |     | VN | 0   | 1.32  | 0.000504  | ± 2.5 | PASS |
|       |     | VN | 10  | 4.83  | 0.001845  | ± 2.5 | PASS |
|       |     | VN | 20  | 4.12  | 0.001574  | ± 2.5 | PASS |

|  |  |    |    |       |           |       |      |
|--|--|----|----|-------|-----------|-------|------|
|  |  | VN | 30 | -1.83 | -0.000699 | ± 2.5 | PASS |
|  |  | VN | 40 | 2.71  | 0.001035  | ± 2.5 | PASS |
|  |  | VN | 50 | 2.24  | 0.000856  | ± 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               | 3.3            | 0.001282        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 0.99           | 0.000384        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 1.31           | 0.000509        | ± 2.5       | PASS    |
|                           | MCH     | VL            | TN               | 2.41           | 0.000929        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 2.94           | 0.001133        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 3.04           | 0.001171        | ± 2.5       | PASS    |
|                           | HCH     | VL            | TN               | 3.41           | 0.001304        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 0.83           | 0.000317        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 2.55           | 0.000975        | ± 2.5       | PASS    |
| 16QAM                     | LCH     | VL            | TN               | 3.55           | 0.001379        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 0.99           | 0.000384        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 1.46           | 0.000567        | ± 2.5       | PASS    |
|                           | MCH     | VL            | TN               | -1.39          | -0.000536       | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 2.41           | 0.000929        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 1.98           | 0.000763        | ± 2.5       | PASS    |
|                           | HCH     | VL            | TN               | 0.84           | 0.000321        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 2.17           | 0.000830        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 0.73           | 0.000279        | ± 2.5       | PASS    |
| Temperature               |         |               |                  |                |                 |             |         |
| Modulation                | Channel | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| QPSK                      | LCH     | VN            | -30              | -0.92          | -0.000357       | ± 2.5       | PASS    |
|                           |         | VN            | -20              | -0.23          | -0.000089       | ± 2.5       | PASS    |
|                           |         | VN            | -10              | -0.89          | -0.000346       | ± 2.5       | PASS    |
|                           |         | VN            | 0                | -0.17          | -0.000066       | ± 2.5       | PASS    |
|                           |         | VN            | 10               | -0.04          | -0.000016       | ± 2.5       | PASS    |
|                           |         | VN            | 20               | 1.18           | 0.000458        | ± 2.5       | PASS    |
|                           |         | VN            | 30               | 3.23           | 0.001254        | ± 2.5       | PASS    |
|                           |         | VN            | 40               | 0.74           | 0.000287        | ± 2.5       | PASS    |
|                           |         | VN            | 50               | 1.22           | 0.000474        | ± 2.5       | PASS    |
|                           | MCH     | VN            | -30              | 4.64           | 0.001788        | ± 2.5       | PASS    |

|       |     |    |     |       |           |       |      |
|-------|-----|----|-----|-------|-----------|-------|------|
|       |     | VN | -20 | 2.96  | 0.001141  | ± 2.5 | PASS |
|       |     | VN | -10 | 3.86  | 0.001487  | ± 2.5 | PASS |
|       |     | VN | 0   | 0.17  | 0.000066  | ± 2.5 | PASS |
|       |     | VN | 10  | -1.01 | -0.000389 | ± 2.5 | PASS |
|       |     | VN | 20  | -1.64 | -0.000632 | ± 2.5 | PASS |
|       |     | VN | 30  | 1.26  | 0.000486  | ± 2.5 | PASS |
|       |     | VN | 40  | -0.74 | -0.000285 | ± 2.5 | PASS |
|       |     | VN | 50  | 5     | 0.001927  | ± 2.5 | PASS |
|       | HCH | VN | -30 | 3.2   | 0.001224  | ± 2.5 | PASS |
|       |     | VN | -20 | 0.26  | 0.000099  | ± 2.5 | PASS |
|       |     | VN | -10 | 4.29  | 0.001641  | ± 2.5 | PASS |
|       |     | VN | 0   | 1.76  | 0.000673  | ± 2.5 | PASS |
|       |     | VN | 10  | -1.24 | -0.000474 | ± 2.5 | PASS |
|       |     | VN | 20  | 4.5   | 0.001721  | ± 2.5 | PASS |
|       |     | VN | 30  | 3.08  | 0.001178  | ± 2.5 | PASS |
|       |     | VN | 40  | -0.57 | -0.000218 | ± 2.5 | PASS |
|       |     | VN | 50  | -1.89 | -0.000723 | ± 2.5 | PASS |
| 16QAM | LCH | VN | -30 | 3.63  | 0.001410  | ± 2.5 | PASS |
|       |     | VN | -20 | 3.99  | 0.001550  | ± 2.5 | PASS |
|       |     | VN | -10 | 0.53  | 0.000206  | ± 2.5 | PASS |
|       |     | VN | 0   | 4.95  | 0.001922  | ± 2.5 | PASS |
|       |     | VN | 10  | 1.2   | 0.000466  | ± 2.5 | PASS |
|       |     | VN | 20  | 2.28  | 0.000885  | ± 2.5 | PASS |
|       |     | VN | 30  | -0.46 | -0.000179 | ± 2.5 | PASS |
|       |     | VN | 40  | 1.63  | 0.000633  | ± 2.5 | PASS |
|       |     | VN | 50  | 1.84  | 0.000715  | ± 2.5 | PASS |
|       | MCH | VN | -30 | 4.44  | 0.001711  | ± 2.5 | PASS |
|       |     | VN | -20 | 4.44  | 0.001711  | ± 2.5 | PASS |
|       |     | VN | -10 | 4     | 0.001541  | ± 2.5 | PASS |
|       |     | VN | 0   | -0.14 | -0.000054 | ± 2.5 | PASS |
|       |     | VN | 10  | 4.53  | 0.001746  | ± 2.5 | PASS |
|       |     | VN | 20  | -0.02 | -0.000008 | ± 2.5 | PASS |
|       |     | VN | 30  | 4.54  | 0.001750  | ± 2.5 | PASS |
|       |     | VN | 40  | -1.6  | -0.000617 | ± 2.5 | PASS |
|       |     | VN | 50  | 2.02  | 0.000778  | ± 2.5 | PASS |
|       | HCH | VN | -30 | -1.3  | -0.000497 | ± 2.5 | PASS |
|       |     | VN | -20 | 1.19  | 0.000455  | ± 2.5 | PASS |
|       |     | VN | -10 | 2.92  | 0.001117  | ± 2.5 | PASS |
|       |     | VN | 0   | 0.41  | 0.000157  | ± 2.5 | PASS |
|       |     | VN | 10  | 4.54  | 0.001736  | ± 2.5 | PASS |
|       |     | VN | 20  | 3.74  | 0.001430  | ± 2.5 | PASS |

|  |  |    |    |      |          |       |      |
|--|--|----|----|------|----------|-------|------|
|  |  | VN | 30 | 3.75 | 0.001434 | ± 2.5 | PASS |
|  |  | VN | 40 | 2.34 | 0.000895 | ± 2.5 | PASS |
|  |  | VN | 50 | 2.53 | 0.000967 | ± 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               | -1.12          | -0.000435       | ± 2.5       | PASS    |
|                           |         | VN            | TN               | -0.16          | -0.000062       | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 4.99           | 0.001936        | ± 2.5       | PASS    |
|                           | MCH     | VL            | TN               | -1.68          | -0.000647       | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 0.3            | 0.000116        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 3.07           | 0.001183        | ± 2.5       | PASS    |
|                           | HCH     | VL            | TN               | 3.08           | 0.001179        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 1.59           | 0.000609        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 3.23           | 0.001236        | ± 2.5       | PASS    |
| 16QAM                     | LCH     | VL            | TN               | 0.82           | 0.000318        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 0.75           | 0.000291        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 2.9            | 0.001125        | ± 2.5       | PASS    |
|                           | MCH     | VL            | TN               | -1.95          | -0.000751       | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 4.61           | 0.001776        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 2.58           | 0.000994        | ± 2.5       | PASS    |
|                           | HCH     | VL            | TN               | 0.13           | 0.000050        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 3.65           | 0.001397        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 3.23           | 0.001236        | ± 2.5       | PASS    |
| Temperature               |         |               |                  |                |                 |             |         |
| Modulation                | Channel | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| QPSK                      | LCH     | VN            | -30              | -0.11          | -0.000043       | ± 2.5       | PASS    |
|                           |         | VN            | -20              | 2.27           | 0.000881        | ± 2.5       | PASS    |
|                           |         | VN            | -10              | -0.32          | -0.000124       | ± 2.5       | PASS    |
|                           |         | VN            | 0                | -0.23          | -0.000089       | ± 2.5       | PASS    |
|                           |         | VN            | 10               | -0.03          | -0.000012       | ± 2.5       | PASS    |
|                           |         | VN            | 20               | -0.92          | -0.000357       | ± 2.5       | PASS    |
|                           |         | VN            | 30               | 3.55           | 0.001377        | ± 2.5       | PASS    |
|                           |         | VN            | 40               | 0.66           | 0.000256        | ± 2.5       | PASS    |
|                           |         | VN            | 50               | 4.04           | 0.001567        | ± 2.5       | PASS    |
|                           | MCH     | VN            | -30              | 3.28           | 0.001264        | ± 2.5       | PASS    |

|       |     |    |     |       |           |       |      |
|-------|-----|----|-----|-------|-----------|-------|------|
|       |     | VN | -20 | 2.78  | 0.001071  | ± 2.5 | PASS |
|       |     | VN | -10 | 2.85  | 0.001098  | ± 2.5 | PASS |
|       |     | VN | 0   | 1.68  | 0.000647  | ± 2.5 | PASS |
|       |     | VN | 10  | 0.27  | 0.000104  | ± 2.5 | PASS |
|       |     | VN | 20  | 3.45  | 0.001329  | ± 2.5 | PASS |
|       |     | VN | 30  | 3.3   | 0.001272  | ± 2.5 | PASS |
|       |     | VN | 40  | 0.11  | 0.000042  | ± 2.5 | PASS |
|       |     | VN | 50  | -1.06 | -0.000408 | ± 2.5 | PASS |
|       | HCH | VN | -30 | 2.36  | 0.000903  | ± 2.5 | PASS |
|       |     | VN | -20 | 3.21  | 0.001229  | ± 2.5 | PASS |
|       |     | VN | -10 | -1.89 | -0.000723 | ± 2.5 | PASS |
|       |     | VN | 0   | -1.9  | -0.000727 | ± 2.5 | PASS |
|       |     | VN | 10  | 4.96  | 0.001899  | ± 2.5 | PASS |
|       |     | VN | 20  | 2.85  | 0.001091  | ± 2.5 | PASS |
|       |     | VN | 30  | 2.43  | 0.000930  | ± 2.5 | PASS |
|       |     | VN | 40  | -1.04 | -0.000398 | ± 2.5 | PASS |
| 16QAM | LCH | VN | 50  | 1.43  | 0.000547  | ± 2.5 | PASS |
|       |     | VN | -30 | 4.71  | 0.001827  | ± 2.5 | PASS |
|       |     | VN | -20 | 3.66  | 0.001420  | ± 2.5 | PASS |
|       |     | VN | -10 | 3.33  | 0.001292  | ± 2.5 | PASS |
|       |     | VN | 0   | -1.86 | -0.000722 | ± 2.5 | PASS |
|       |     | VN | 10  | 4.02  | 0.001560  | ± 2.5 | PASS |
|       |     | VN | 20  | -1.77 | -0.000687 | ± 2.5 | PASS |
|       |     | VN | 30  | -0.33 | -0.000128 | ± 2.5 | PASS |
|       |     | VN | 40  | 3.1   | 0.001203  | ± 2.5 | PASS |
|       | MCH | VN | 50  | -1.73 | -0.000671 | ± 2.5 | PASS |
|       |     | VN | -30 | 0.9   | 0.000347  | ± 2.5 | PASS |
|       |     | VN | -20 | 2.61  | 0.001006  | ± 2.5 | PASS |
|       |     | VN | -10 | -1.23 | -0.000474 | ± 2.5 | PASS |
|       |     | VN | 0   | 1.24  | 0.000478  | ± 2.5 | PASS |
|       |     | VN | 10  | -0.97 | -0.000374 | ± 2.5 | PASS |
|       |     | VN | 20  | -0.63 | -0.000243 | ± 2.5 | PASS |
|       |     | VN | 30  | 0.77  | 0.000297  | ± 2.5 | PASS |
|       |     | VN | 40  | -1.79 | -0.000690 | ± 2.5 | PASS |
|       | HCH | VN | 50  | 4.91  | 0.001892  | ± 2.5 | PASS |
|       |     | VN | -30 | -0.42 | -0.000161 | ± 2.5 | PASS |
|       |     | VN | -20 | -0.87 | -0.000333 | ± 2.5 | PASS |
|       |     | VN | -10 | 3.13  | 0.001198  | ± 2.5 | PASS |
|       |     | VN | 0   | 4.2   | 0.001608  | ± 2.5 | PASS |
|       |     | VN | 10  | 2.24  | 0.000857  | ± 2.5 | PASS |
|       |     | VN | 20  | -1.37 | -0.000524 | ± 2.5 | PASS |

|  |  |    |    |       |           |       |      |
|--|--|----|----|-------|-----------|-------|------|
|  |  | VN | 30 | 2.95  | 0.001129  | ± 2.5 | PASS |
|  |  | VN | 40 | -1.11 | -0.000425 | ± 2.5 | PASS |
|  |  | VN | 50 | 4.51  | 0.001726  | ± 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               | 2.71           | 0.001050        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | -0.81          | -0.000314       | ± 2.5       | PASS    |
|                           |         | VH            | TN               | -0.96          | -0.000372       | ± 2.5       | PASS    |
|                           | MCH     | VL            | TN               | 1.46           | 0.000563        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | -1.32          | -0.000509       | ± 2.5       | PASS    |
|                           |         | VH            | TN               | -0.71          | -0.000274       | ± 2.5       | PASS    |
|                           | HCH     | VL            | TN               | 4.98           | 0.001908        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 4.25           | 0.001628        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 1.93           | 0.000739        | ± 2.5       | PASS    |
| 16QAM                     | LCH     | VL            | TN               | 2.81           | 0.001089        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | -1.67          | -0.000647       | ± 2.5       | PASS    |
|                           |         | VH            | TN               | -0.56          | -0.000217       | ± 2.5       | PASS    |
|                           | MCH     | VL            | TN               | 4.4            | 0.001696        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 0.75           | 0.000289        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 3.97           | 0.001530        | ± 2.5       | PASS    |
|                           | HCH     | VL            | TN               | 2.72           | 0.001042        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 1.6            | 0.000613        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 0.17           | 0.000065        | ± 2.5       | PASS    |
| Temperature               |         |               |                  |                |                 |             |         |
| Modulation                | Channel | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| QPSK                      | LCH     | VN            | -30              | 4.23           | 0.001640        | ± 2.5       | PASS    |
|                           |         | VN            | -20              | 3.64           | 0.001411        | ± 2.5       | PASS    |
|                           |         | VN            | -10              | -0.12          | -0.000047       | ± 2.5       | PASS    |
|                           |         | VN            | 0                | 2.33           | 0.000903        | ± 2.5       | PASS    |
|                           |         | VN            | 10               | -1.07          | -0.000415       | ± 2.5       | PASS    |
|                           |         | VN            | 20               | -0.85          | -0.000329       | ± 2.5       | PASS    |
|                           |         | VN            | 30               | 0.31           | 0.000120        | ± 2.5       | PASS    |
|                           |         | VN            | 40               | 0.36           | 0.000140        | ± 2.5       | PASS    |
|                           |         | VN            | 50               | -0.31          | -0.000120       | ± 2.5       | PASS    |
|                           | MCH     | VN            | -30              | -0.52          | -0.000200       | ± 2.5       | PASS    |

|       |     |    |     |       |           |       |      |
|-------|-----|----|-----|-------|-----------|-------|------|
|       |     | VN | -20 | -0.29 | -0.000112 | ± 2.5 | PASS |
|       |     | VN | -10 | 2.53  | 0.000975  | ± 2.5 | PASS |
|       |     | VN | 0   | -1.47 | -0.000566 | ± 2.5 | PASS |
|       |     | VN | 10  | 4.88  | 0.001881  | ± 2.5 | PASS |
|       |     | VN | 20  | -1.11 | -0.000428 | ± 2.5 | PASS |
|       |     | VN | 30  | 0.17  | 0.000066  | ± 2.5 | PASS |
|       |     | VN | 40  | 2.23  | 0.000859  | ± 2.5 | PASS |
|       |     | VN | 50  | 3.49  | 0.001345  | ± 2.5 | PASS |
|       | HCH | VN | -30 | 4.29  | 0.001644  | ± 2.5 | PASS |
|       |     | VN | -20 | 4.06  | 0.001556  | ± 2.5 | PASS |
|       |     | VN | -10 | -0.2  | -0.000077 | ± 2.5 | PASS |
|       |     | VN | 0   | 2.12  | 0.000812  | ± 2.5 | PASS |
|       |     | VN | 10  | 3.14  | 0.001203  | ± 2.5 | PASS |
|       |     | VN | 20  | 3.72  | 0.001425  | ± 2.5 | PASS |
|       |     | VN | 30  | 1.63  | 0.000625  | ± 2.5 | PASS |
|       |     | VN | 40  | 1.56  | 0.000598  | ± 2.5 | PASS |
|       |     | VN | 50  | -1.79 | -0.000686 | ± 2.5 | PASS |
| 16QAM | LCH | VN | -30 | 0.59  | 0.000229  | ± 2.5 | PASS |
|       |     | VN | -20 | -0.33 | -0.000128 | ± 2.5 | PASS |
|       |     | VN | -10 | 2.39  | 0.000926  | ± 2.5 | PASS |
|       |     | VN | 0   | 1.13  | 0.000438  | ± 2.5 | PASS |
|       |     | VN | 10  | 3.22  | 0.001248  | ± 2.5 | PASS |
|       |     | VN | 20  | 3.78  | 0.001465  | ± 2.5 | PASS |
|       |     | VN | 30  | 3.64  | 0.001411  | ± 2.5 | PASS |
|       |     | VN | 40  | 1.55  | 0.000601  | ± 2.5 | PASS |
|       |     | VN | 50  | 3.56  | 0.001380  | ± 2.5 | PASS |
|       | MCH | VN | -30 | 4.74  | 0.001827  | ± 2.5 | PASS |
|       |     | VN | -20 | 1.32  | 0.000509  | ± 2.5 | PASS |
|       |     | VN | -10 | 4.69  | 0.001807  | ± 2.5 | PASS |
|       |     | VN | 0   | 0.27  | 0.000104  | ± 2.5 | PASS |
|       |     | VN | 10  | 1.77  | 0.000682  | ± 2.5 | PASS |
|       |     | VN | 20  | 2.46  | 0.000948  | ± 2.5 | PASS |
|       |     | VN | 30  | 2.33  | 0.000898  | ± 2.5 | PASS |
|       |     | VN | 40  | 4.69  | 0.001807  | ± 2.5 | PASS |
|       |     | VN | 50  | 4.21  | 0.001622  | ± 2.5 | PASS |
|       | HCH | VN | -30 | 0.71  | 0.000272  | ± 2.5 | PASS |
|       |     | VN | -20 | -1.09 | -0.000418 | ± 2.5 | PASS |
|       |     | VN | -10 | 3.46  | 0.001326  | ± 2.5 | PASS |
|       |     | VN | 0   | -1.09 | -0.000418 | ± 2.5 | PASS |
|       |     | VN | 10  | 2.31  | 0.000885  | ± 2.5 | PASS |
|       |     | VN | 20  | 0.5   | 0.000192  | ± 2.5 | PASS |

|  |  |    |    |      |          |       |      |
|--|--|----|----|------|----------|-------|------|
|  |  | VN | 30 | 3.01 | 0.001153 | ± 2.5 | PASS |
|  |  | VN | 40 | 0.05 | 0.000019 | ± 2.5 | PASS |
|  |  | VN | 50 | 1.53 | 0.000586 | ± 2.5 | PASS |