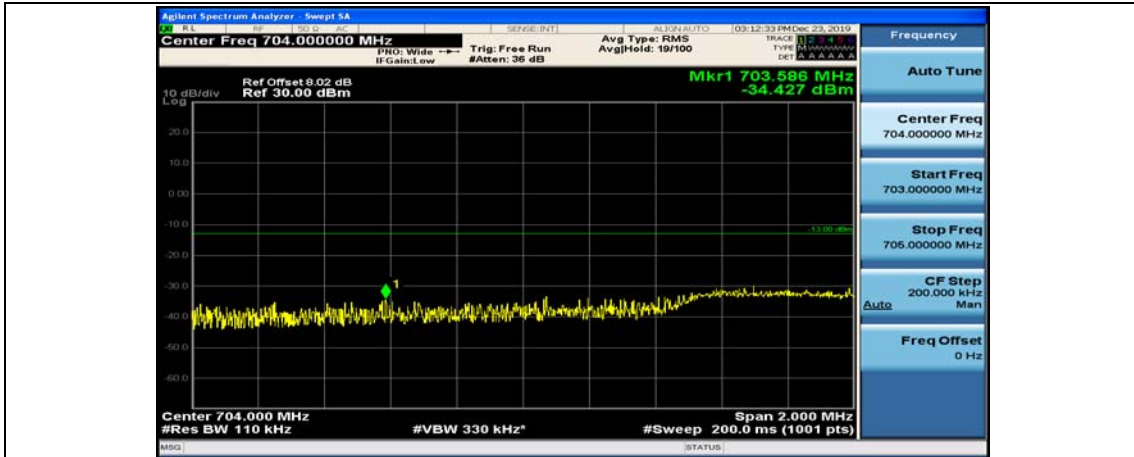
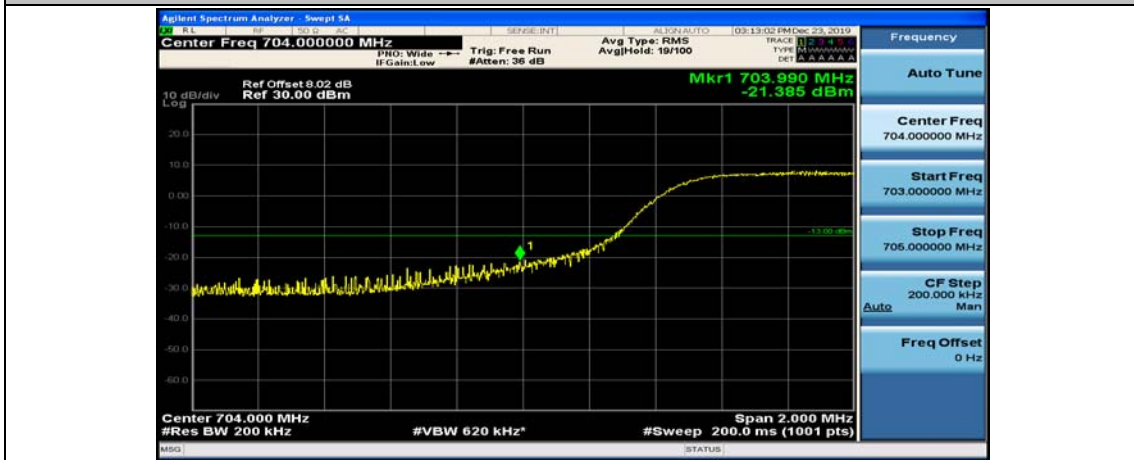
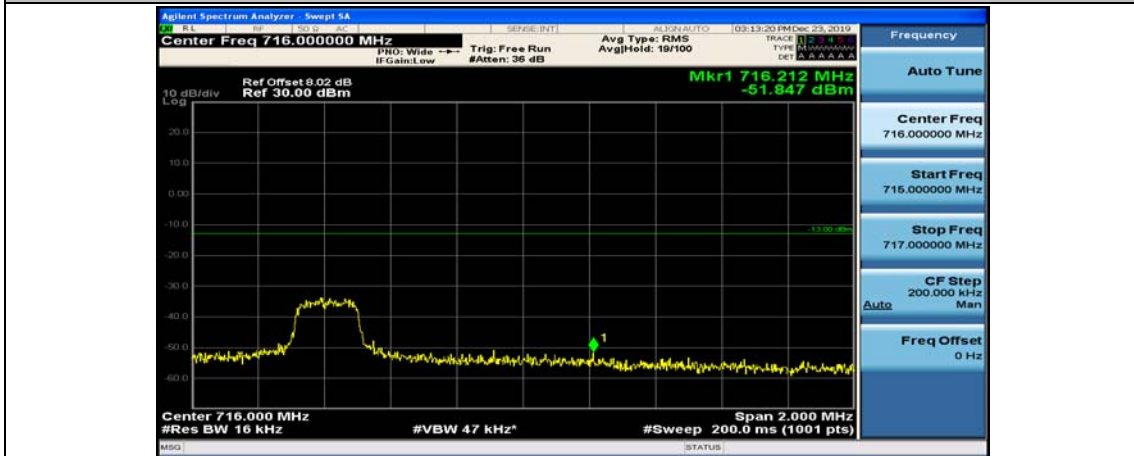




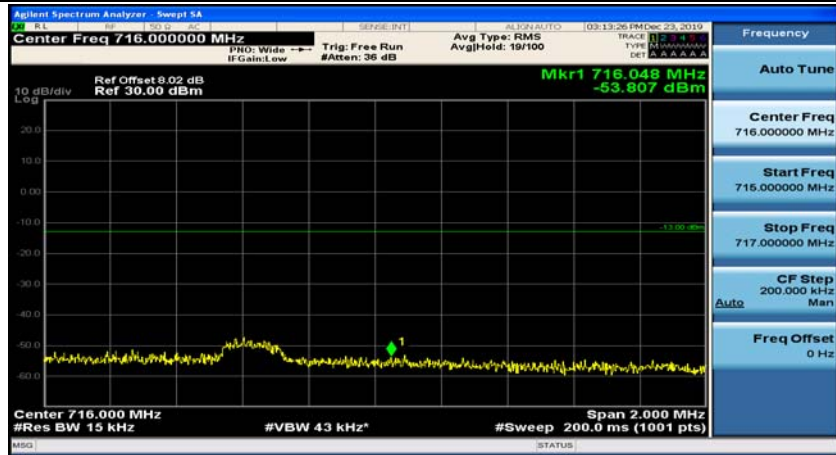
Channel Bandwidth: 10 MHz\_LCH\_QPSK\_50RB#0



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



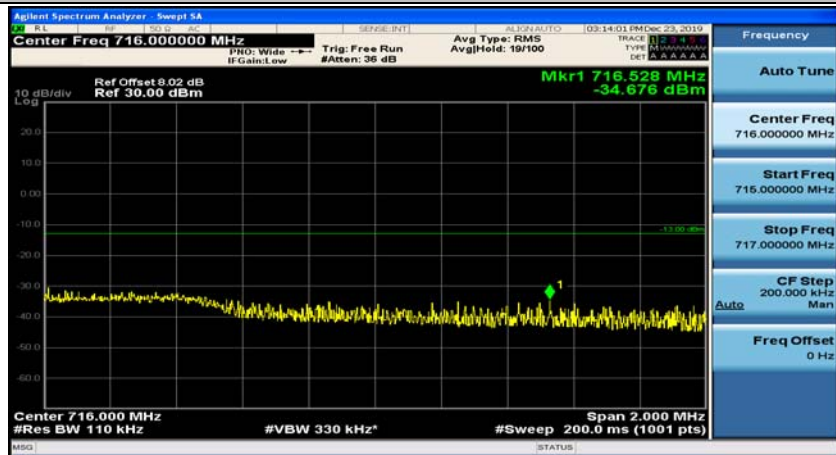
Channel Bandwidth: 10 MHz\_HCH\_QPSK\_1RB#24



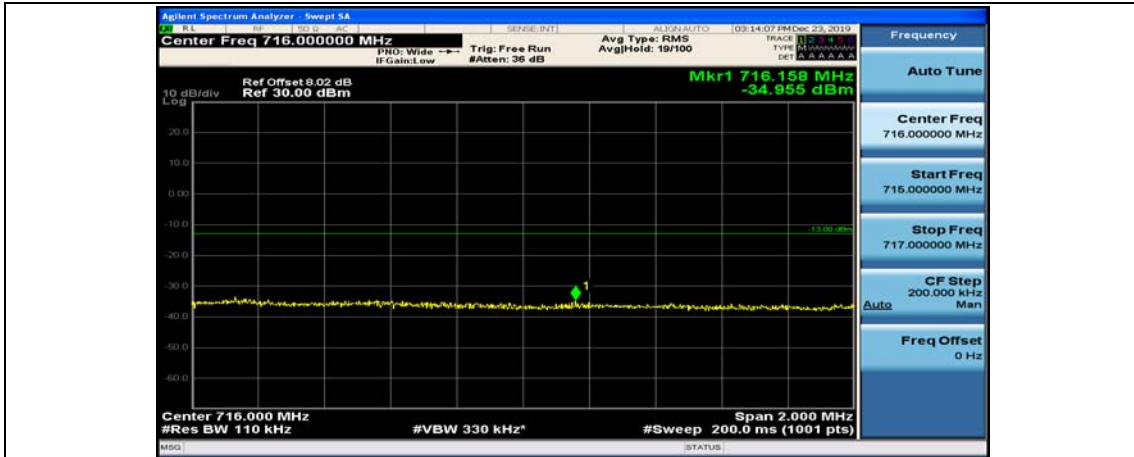
Channel Bandwidth: 10 MHz\_HCH\_QPSK\_1RB#49



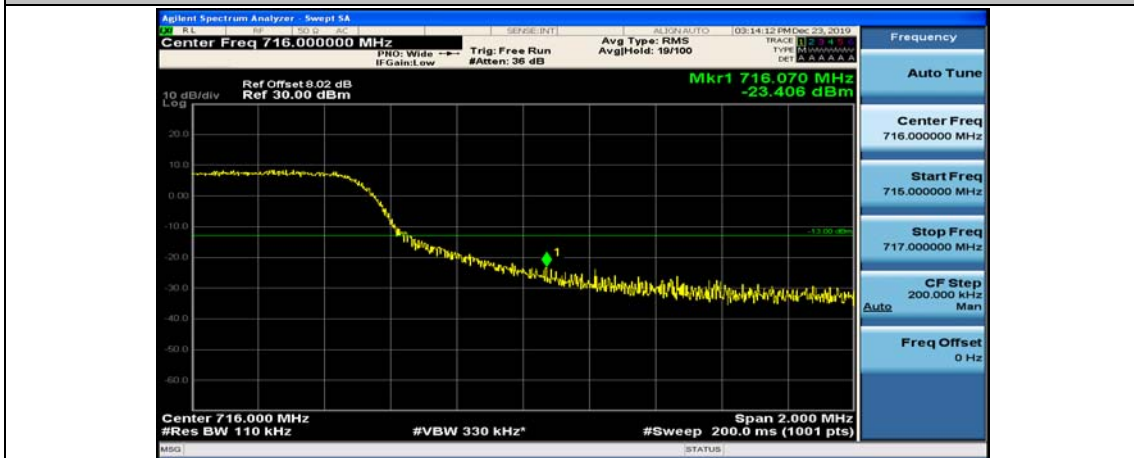
Channel Bandwidth: 10 MHz\_HCH\_QPSK\_25RB#0



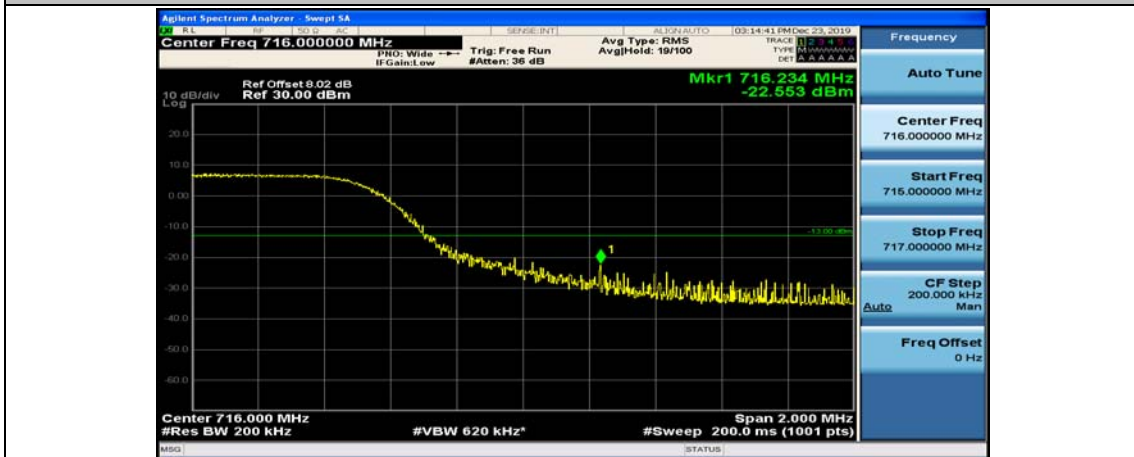
Channel Bandwidth: 10 MHz\_HCH\_QPSK\_25RB#12



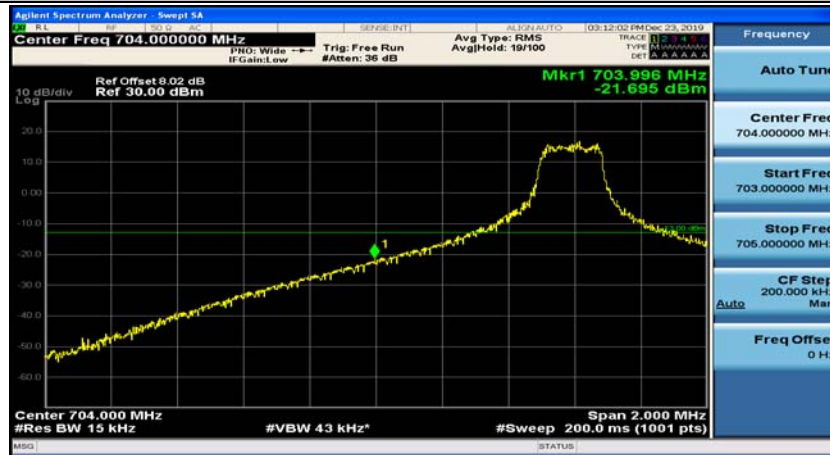
Channel Bandwidth: 10 MHz\_HCH\_QPSK\_25RB#25



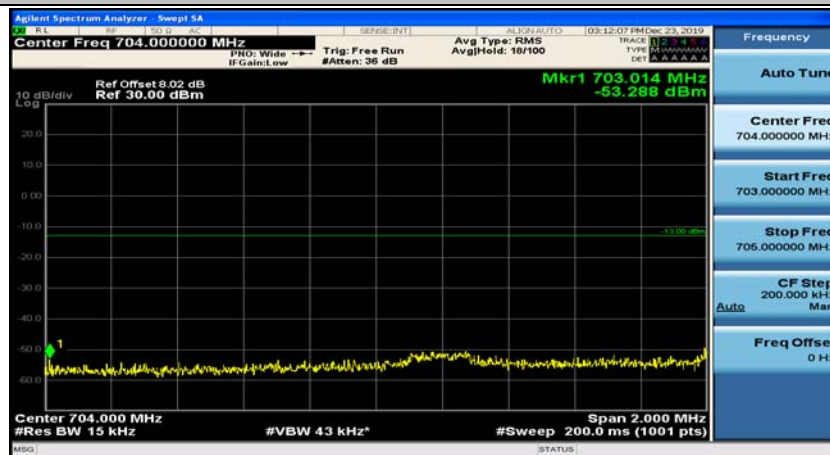
Channel Bandwidth: 10 MHz\_HCH\_QPSK\_50RB#0



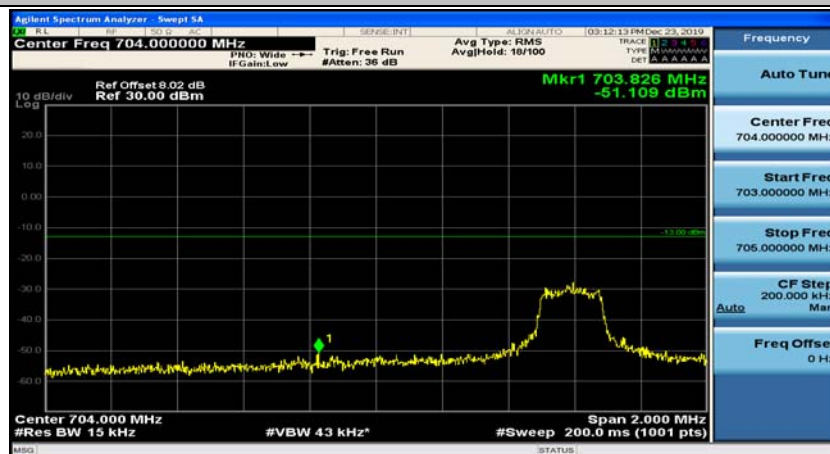
Channel Bandwidth: 10 MHz\_LCH\_16QAM\_1RB#0



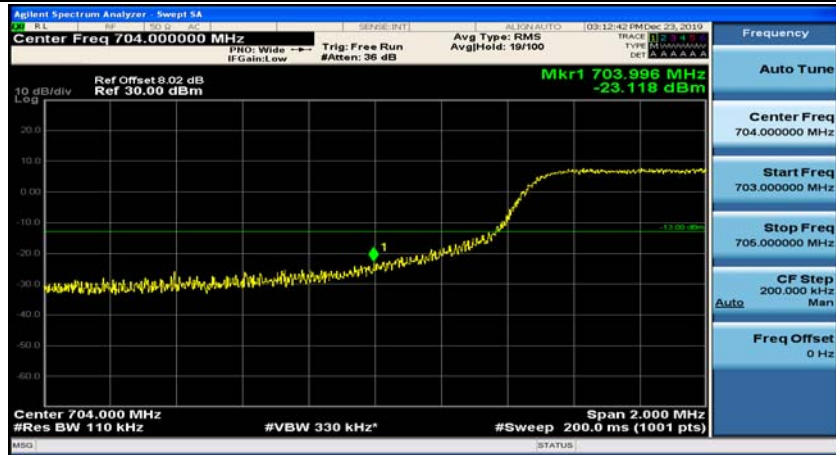
Channel Bandwidth: 10 MHz\_LCH\_16QAM\_1RB#24



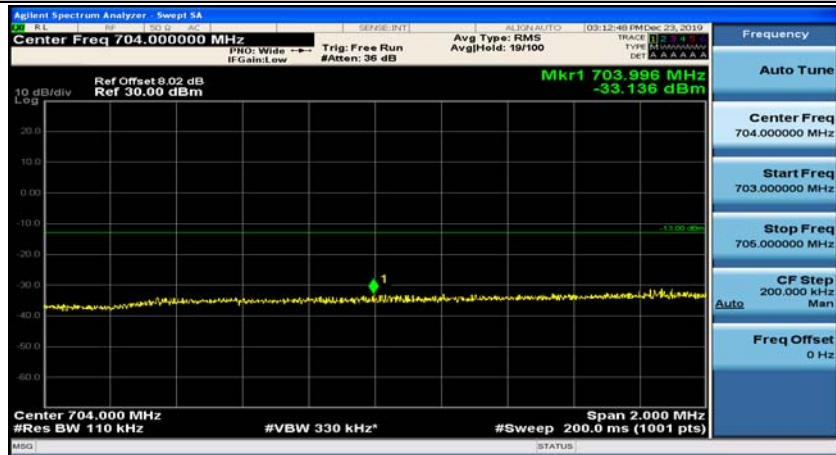
Channel Bandwidth: 10 MHz\_LCH\_16QAM\_1RB#49



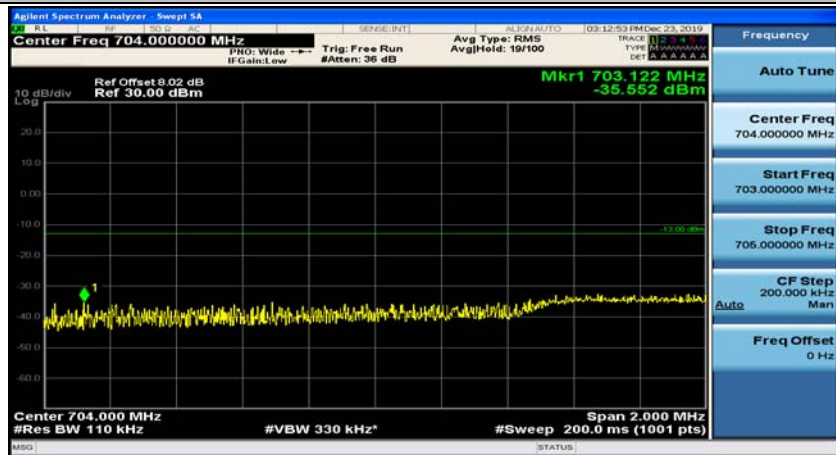
Channel Bandwidth: 10 MHz\_LCH\_16QAM\_25RB#0



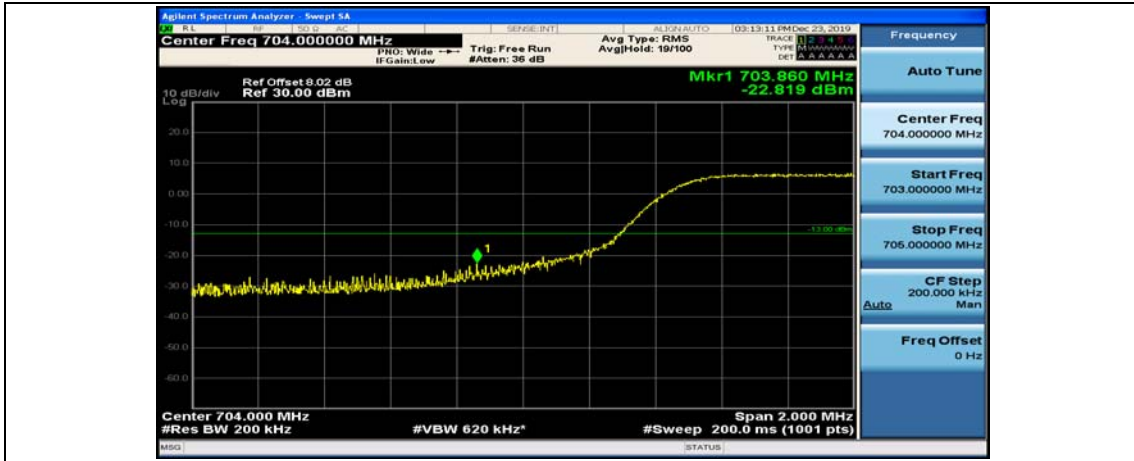
Channel Bandwidth: 10 MHz\_LCH\_16QAM\_25RB#12



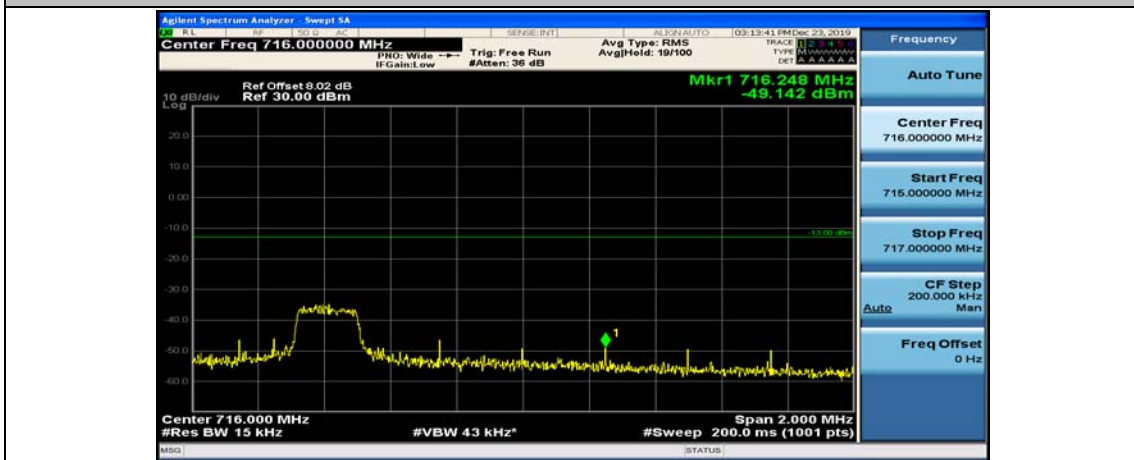
Channel Bandwidth: 10 MHz\_LCH\_16QAM\_25RB#25



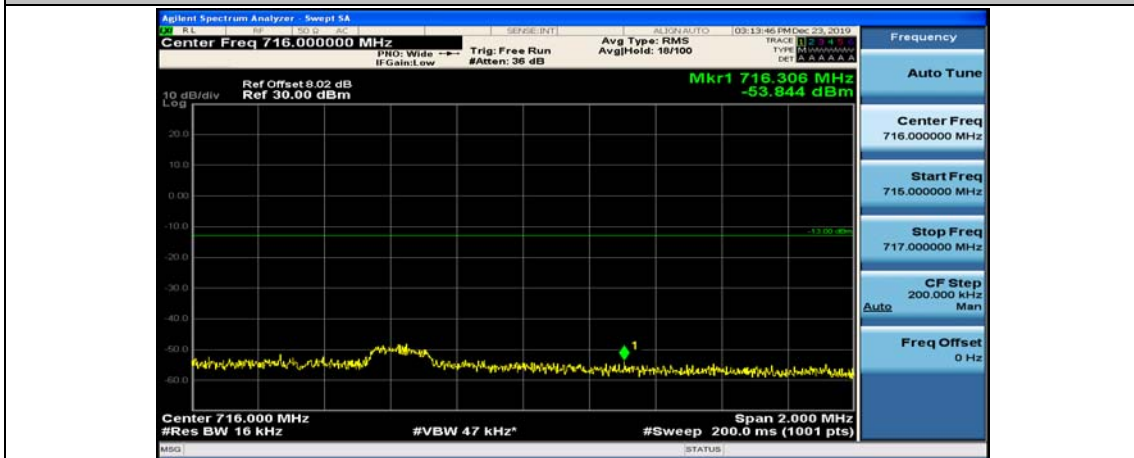
Channel Bandwidth: 10 MHz\_LCH\_16QAM\_50RB#0



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



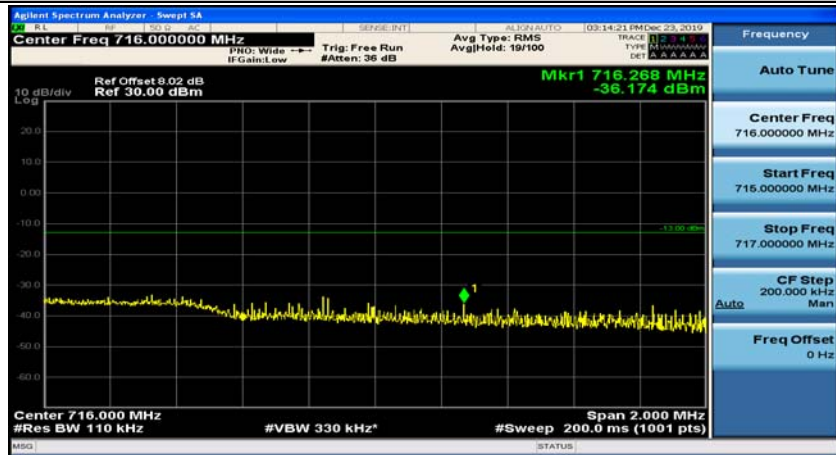
Channel Bandwidth: 10 MHz\_HCH\_16QAM\_1RB#24



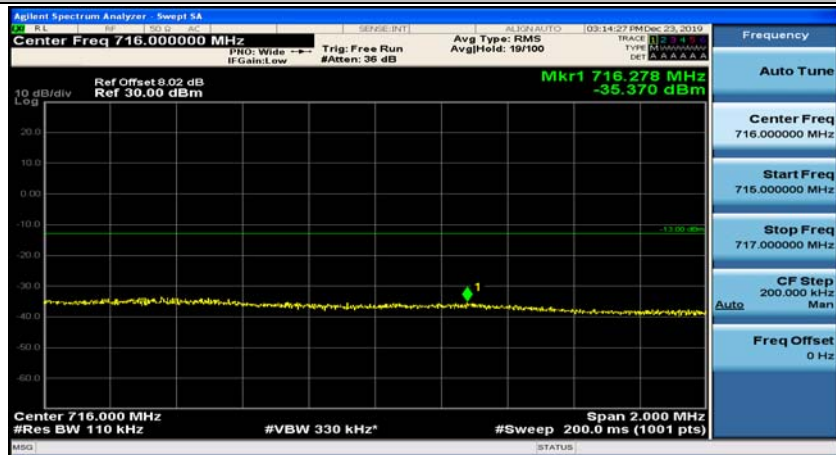
Channel Bandwidth: 10 MHz\_HCH\_16QAM\_1RB#49



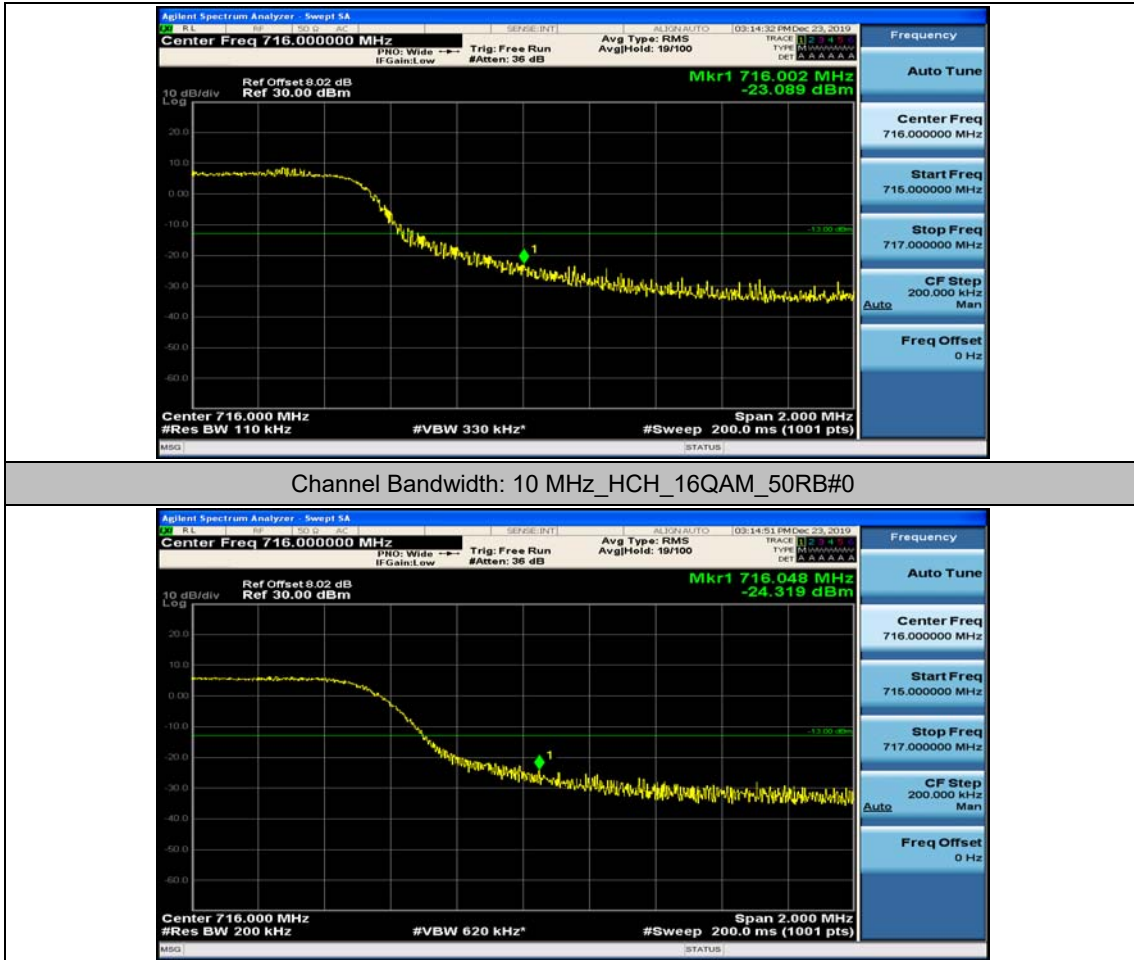
Channel Bandwidth: 10 MHz\_HCH\_16QAM\_25RB#0



Channel Bandwidth: 10 MHz\_HCH\_16QAM\_25RB#12



Channel Bandwidth: 10 MHz\_HCH\_16QAM\_25RB#25

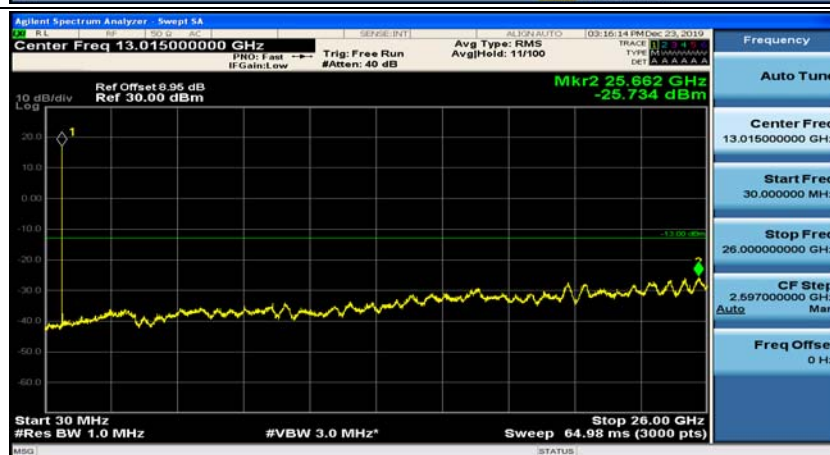
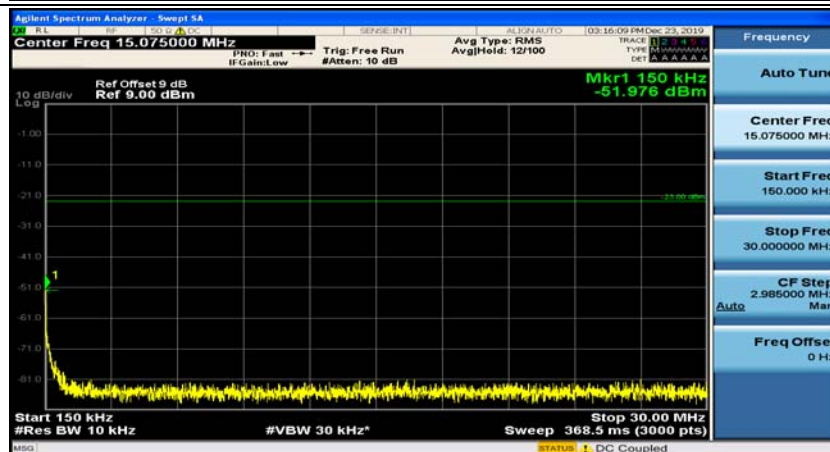
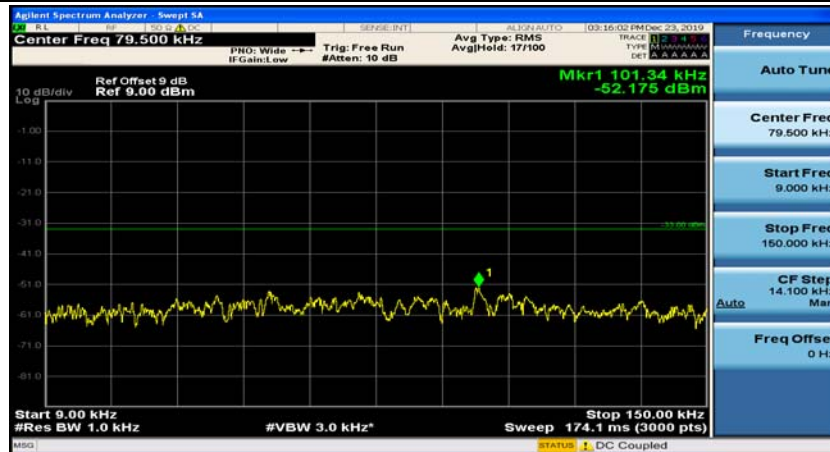


## Appendix E: Conducted Spurious Emission

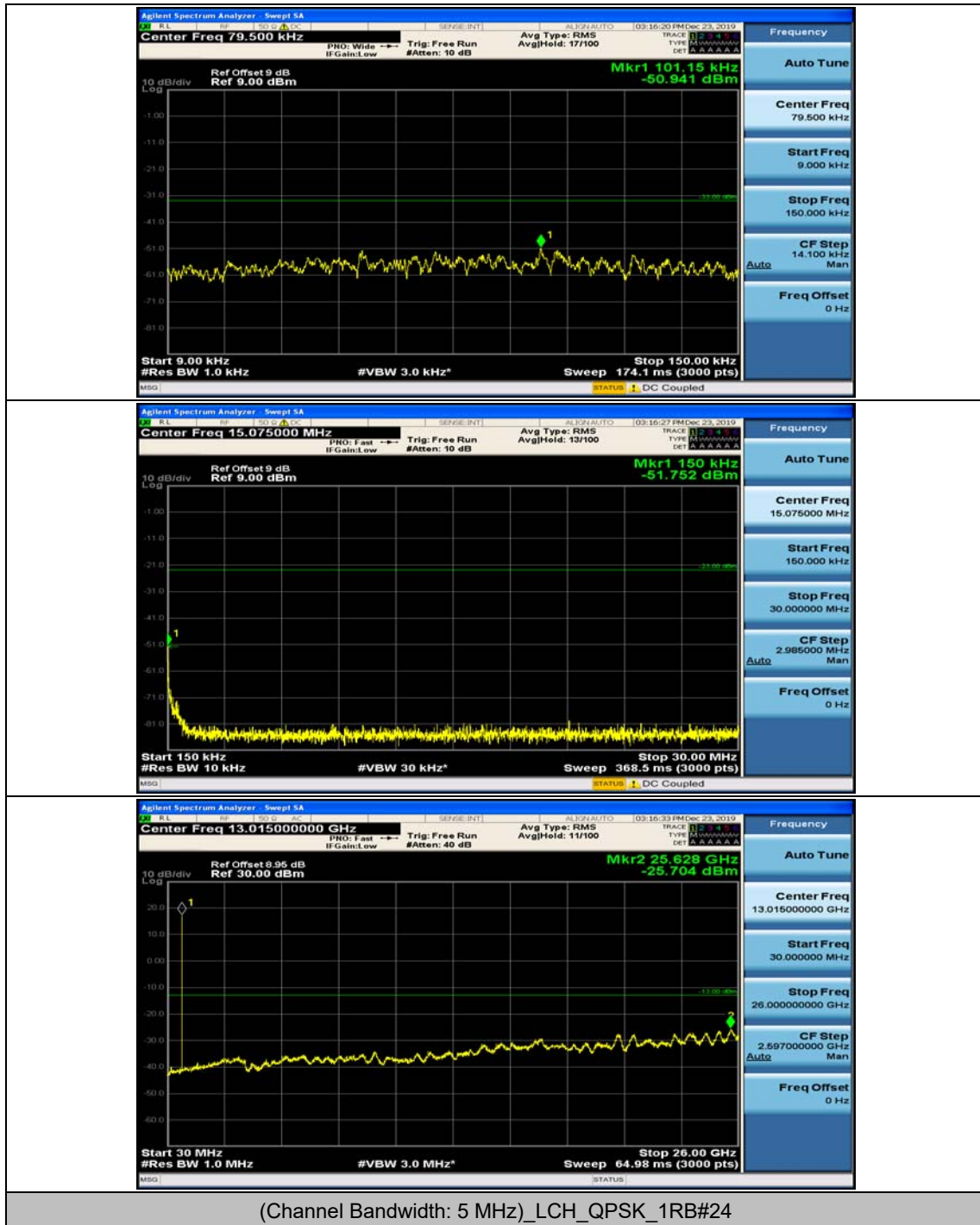
### Test Graphs

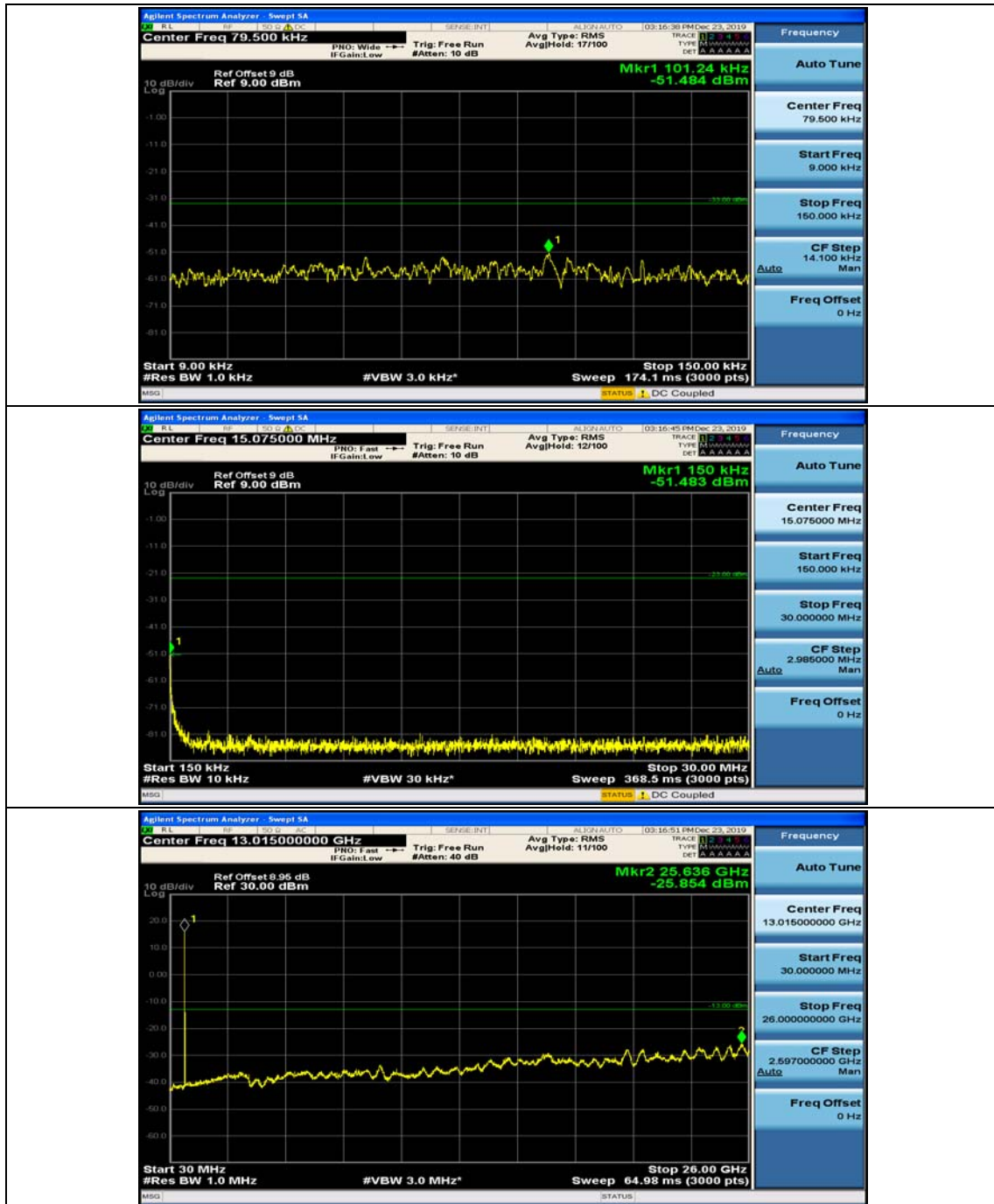
Channel Bandwidth: 5 MHz

(Channel Bandwidth: 5 MHz)\_LCH\_QPSK\_1RB#0

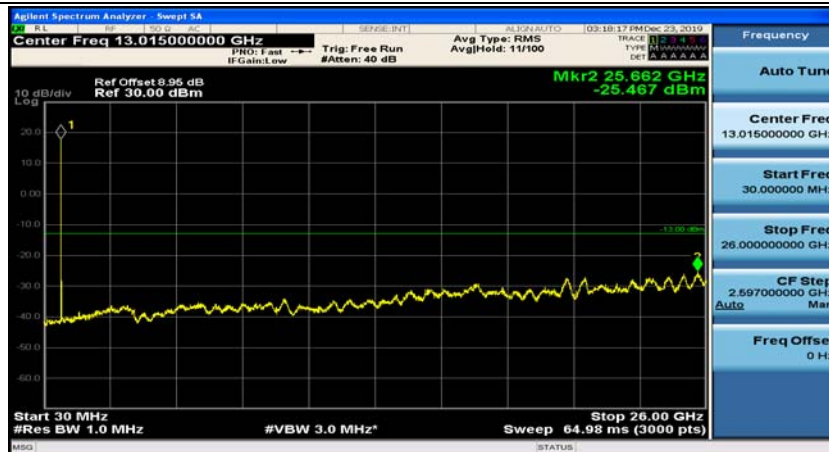
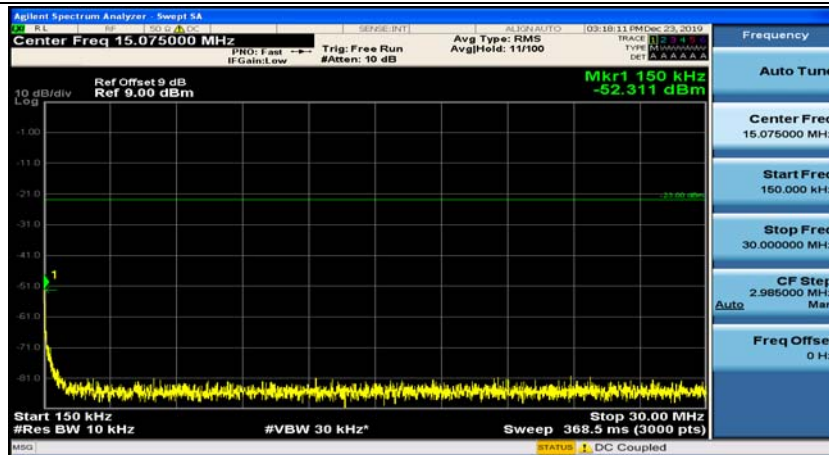
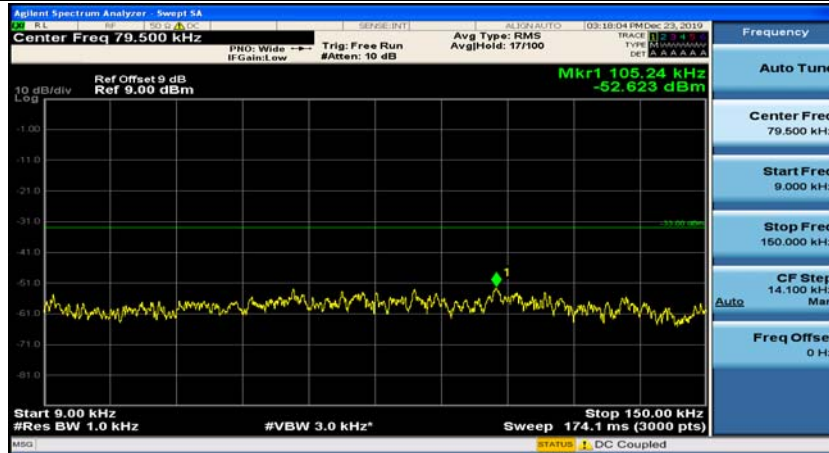


(Channel Bandwidth: 5 MHz)\_LCH\_QPSK\_1RB#12

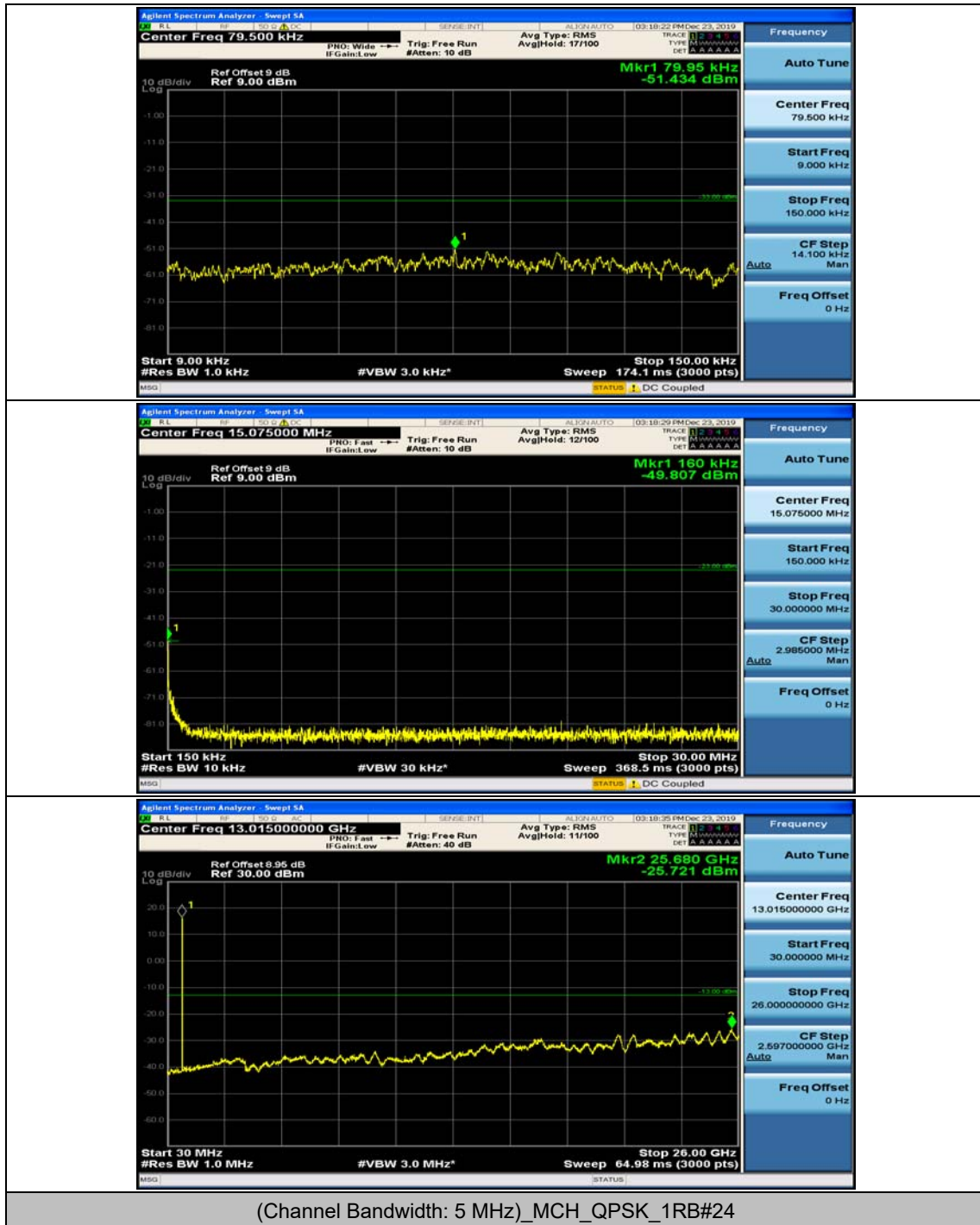


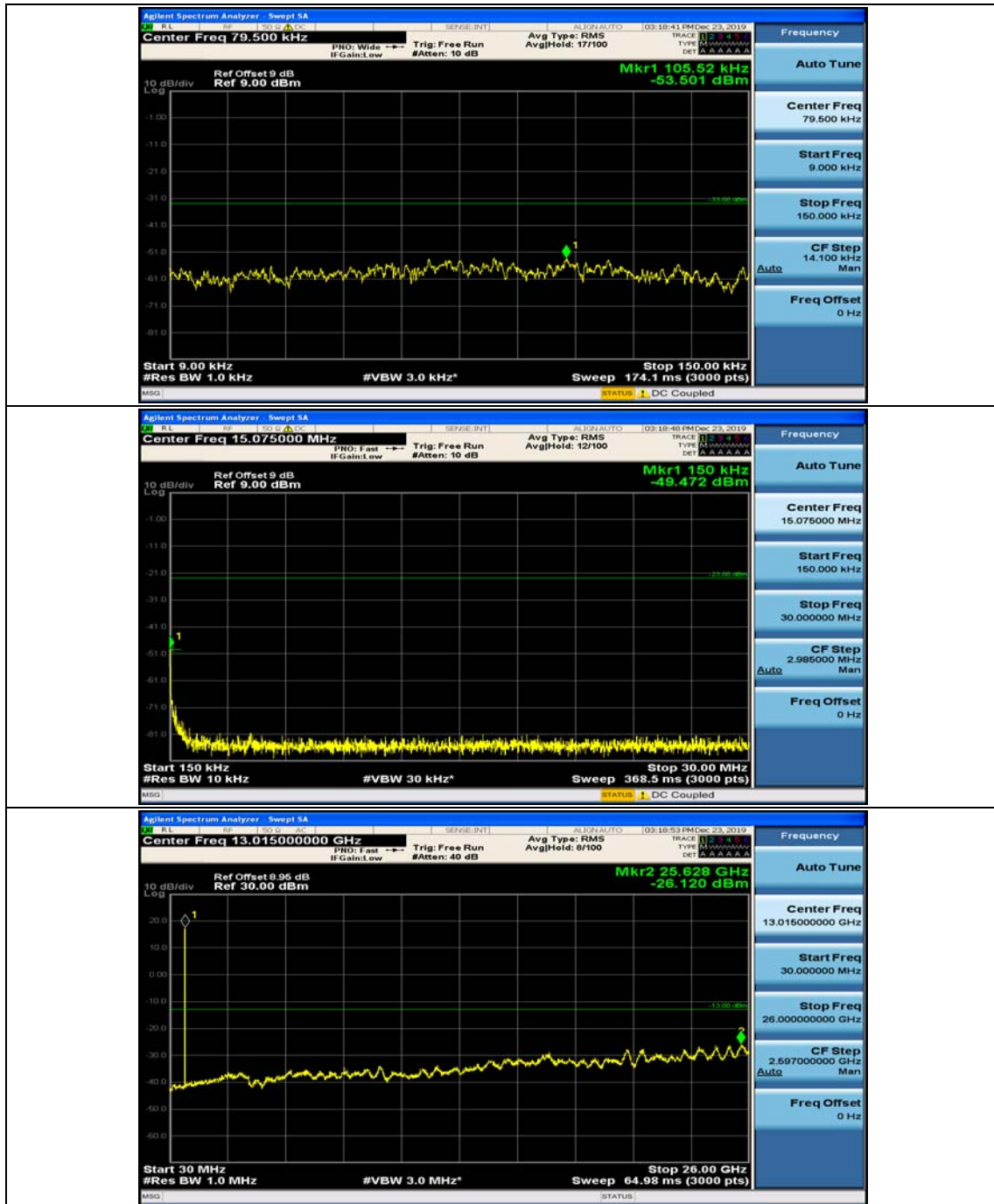


(Channel Bandwidth: 5 MHz)\_MCH\_QPSK\_1RB#0

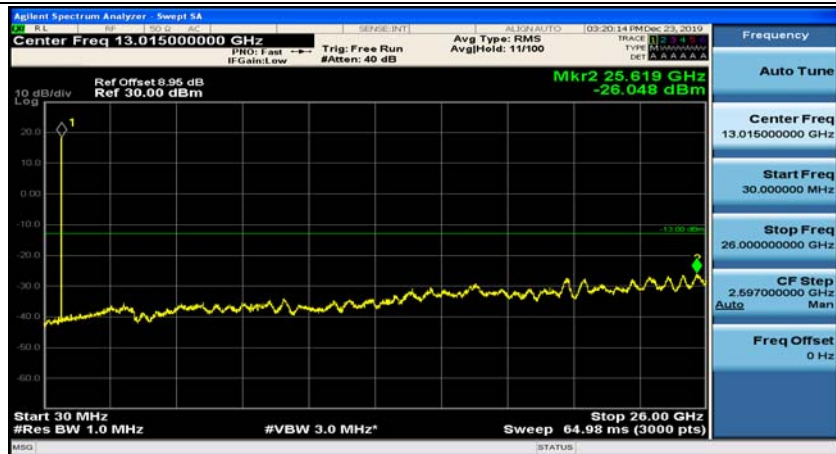
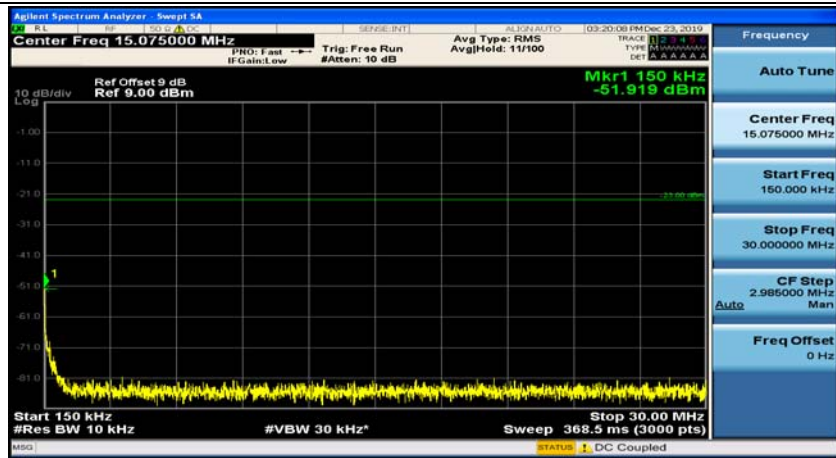
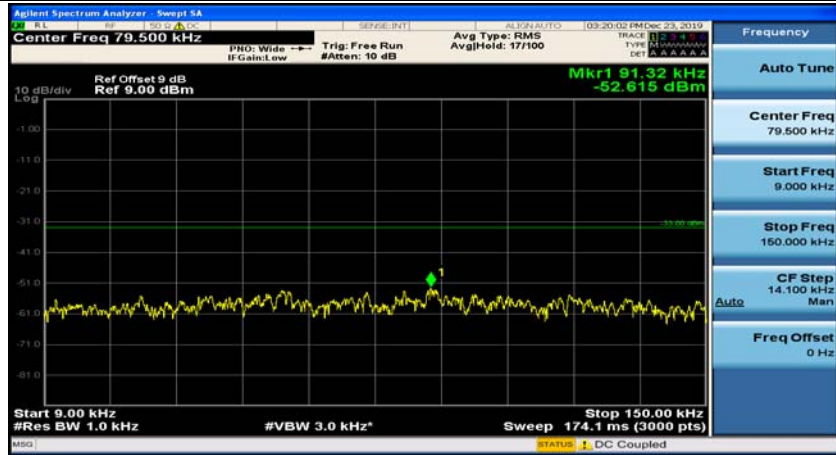


(Channel Bandwidth: 5 MHz)\_MCH\_QPSK\_1RB#12

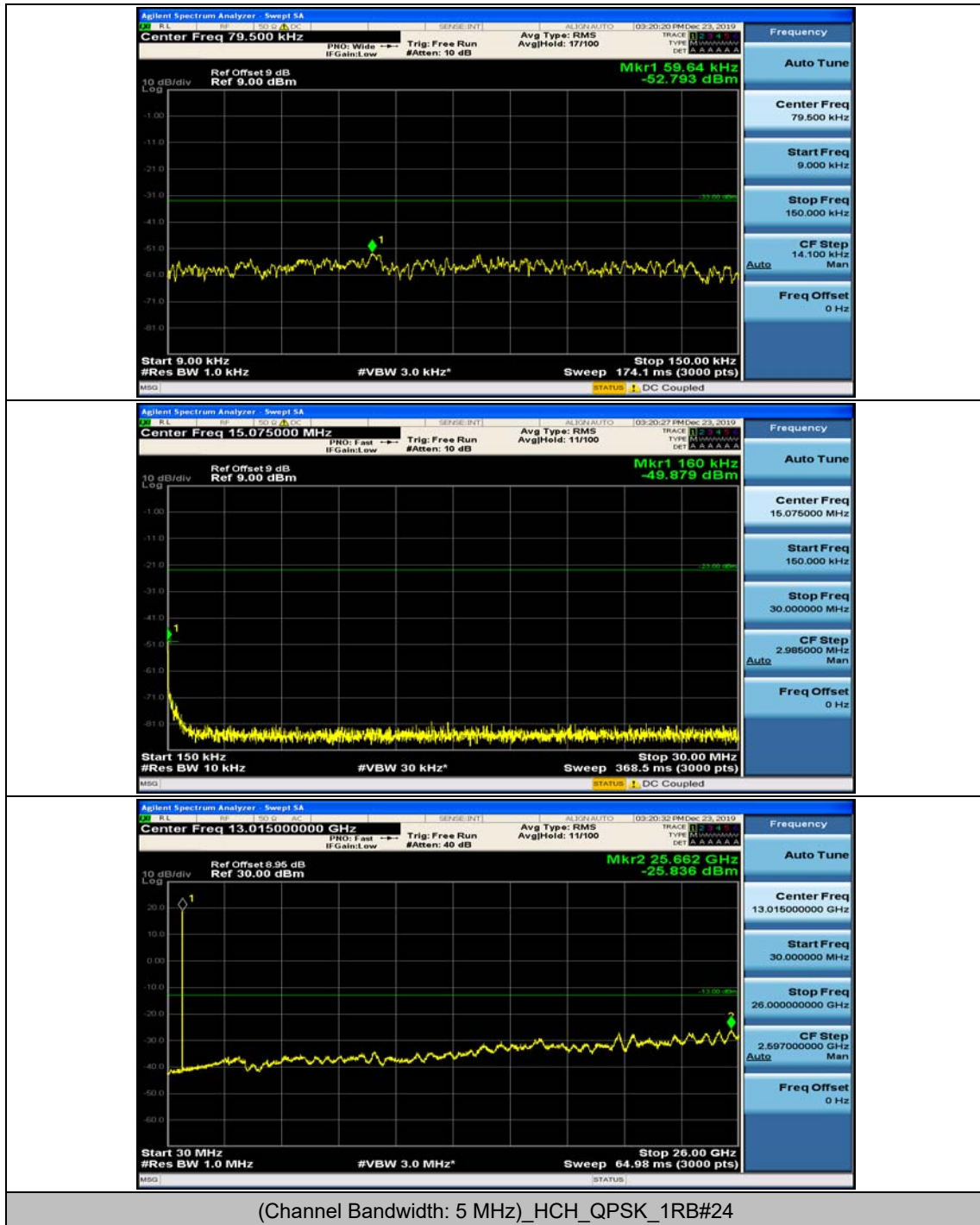


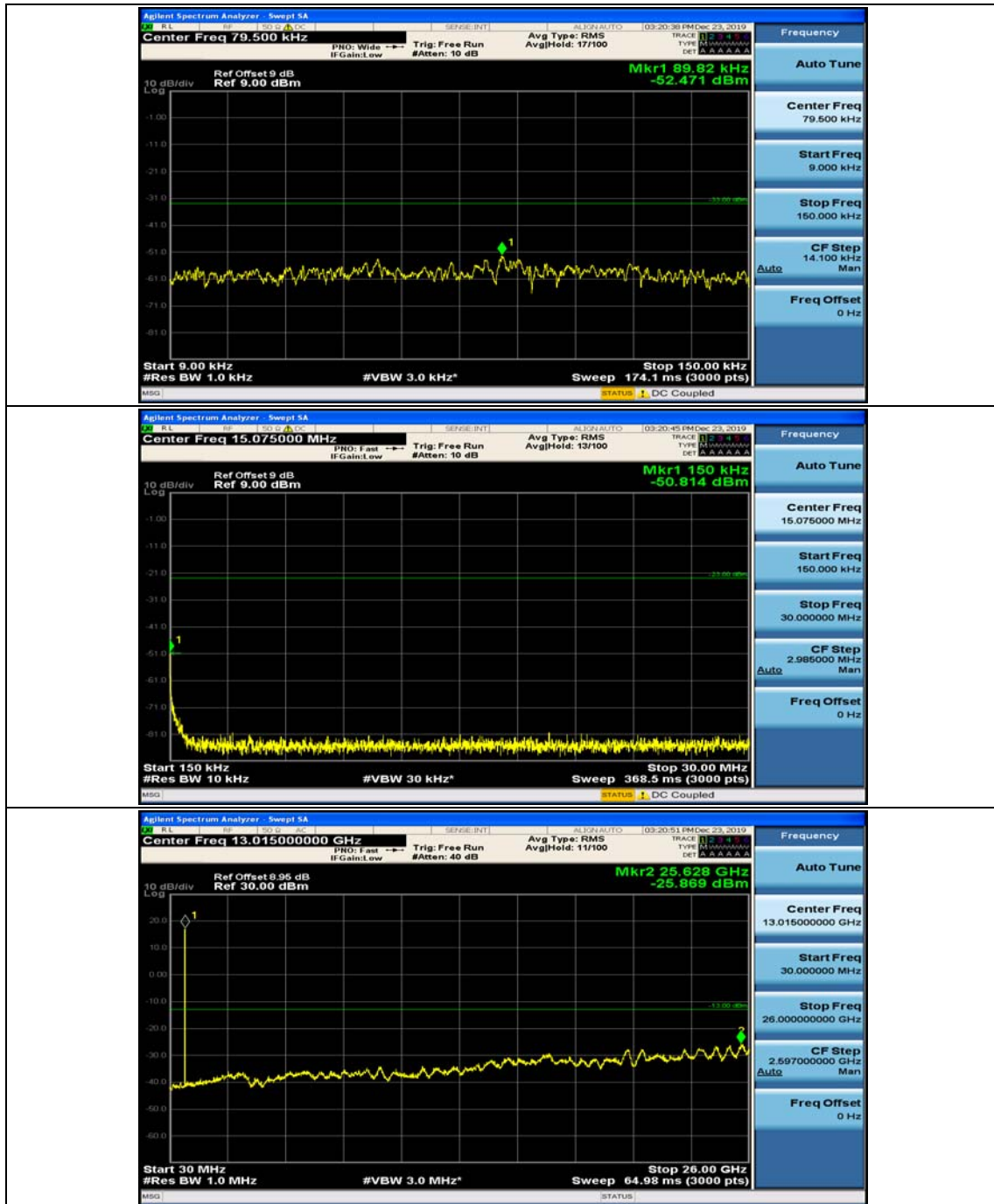


(Channel Bandwidth: 5 MHz)\_HCH\_QPSK\_1RB#0

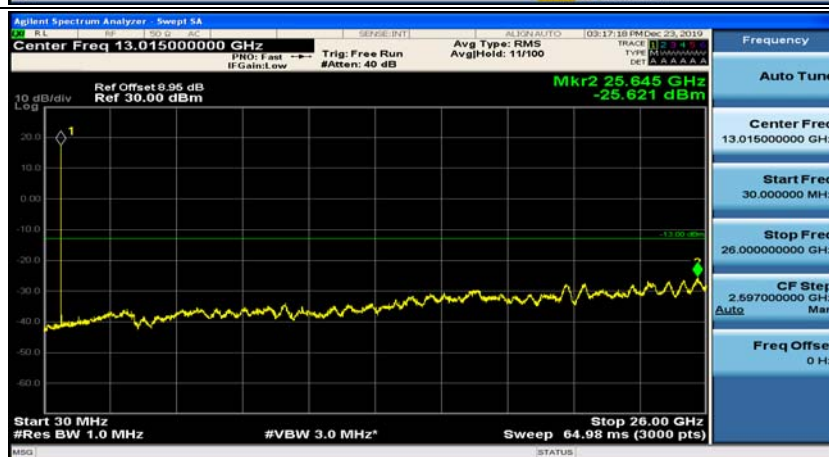
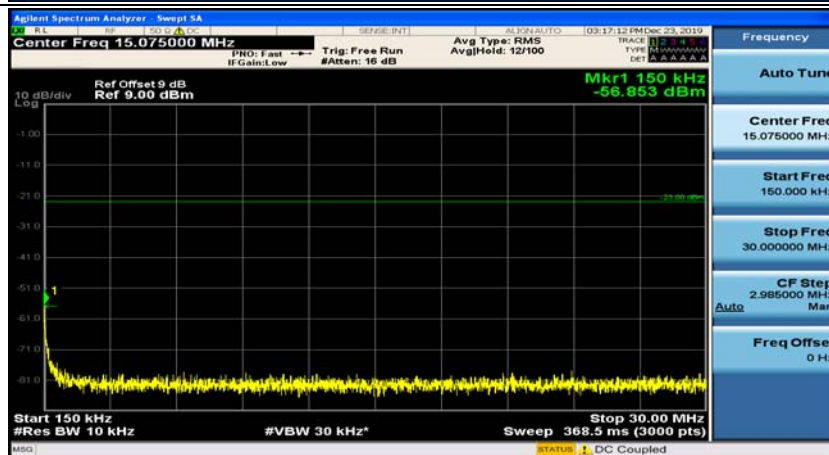
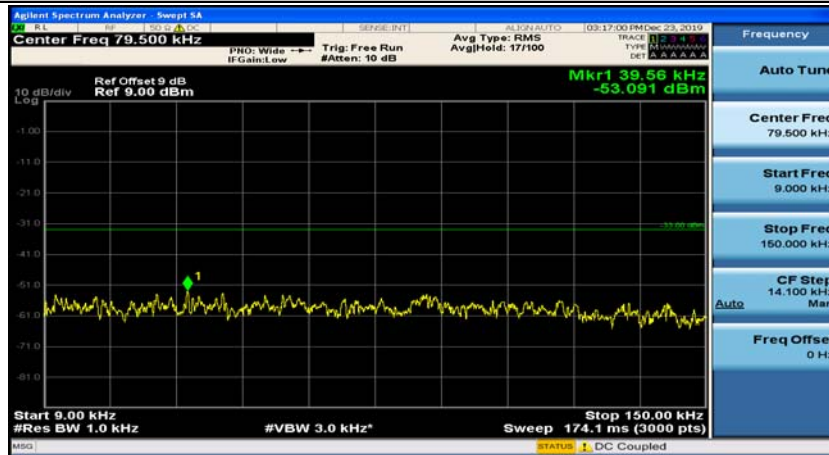


(Channel Bandwidth: 5 MHz)\_HCH\_QPSK\_1RB#12

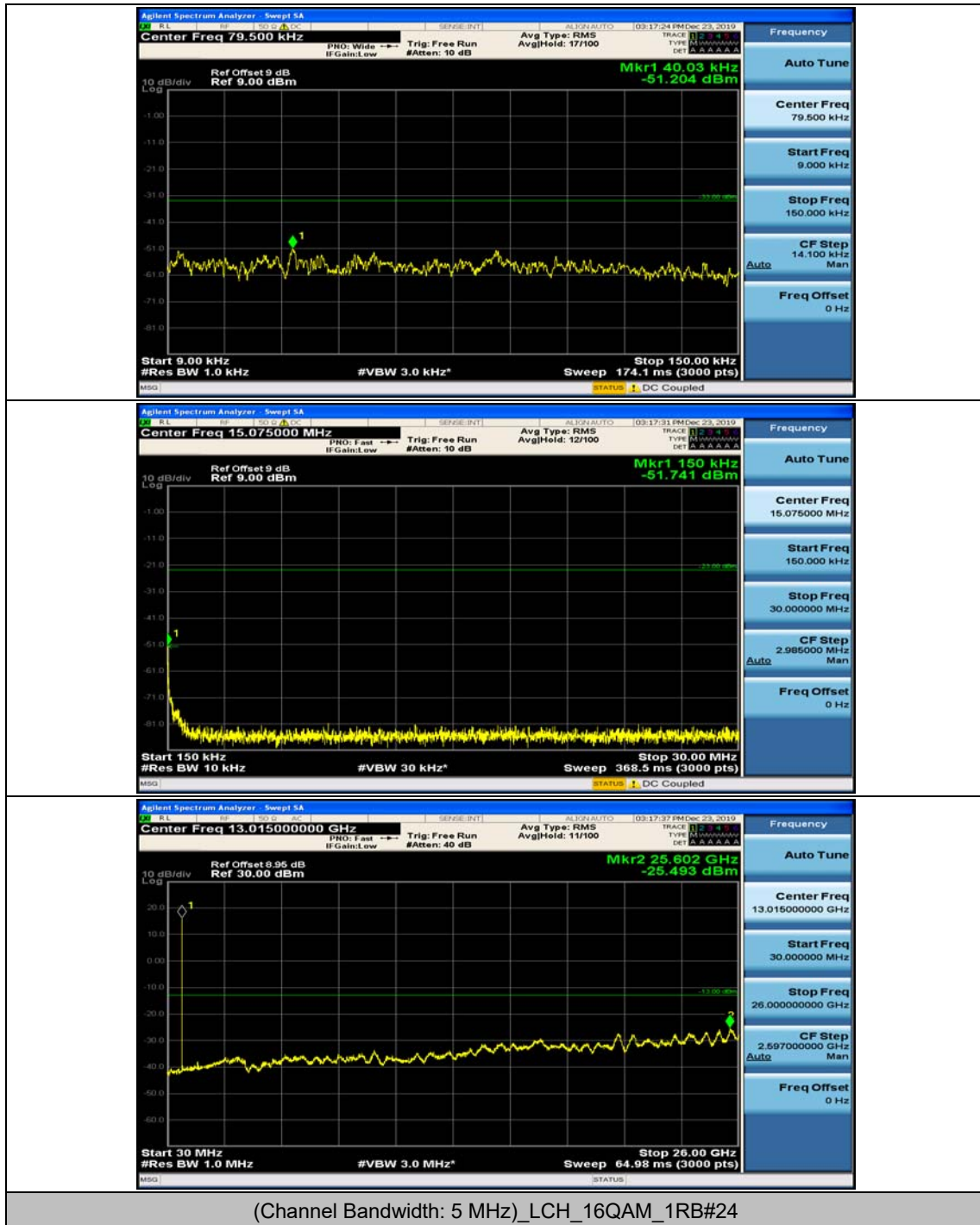


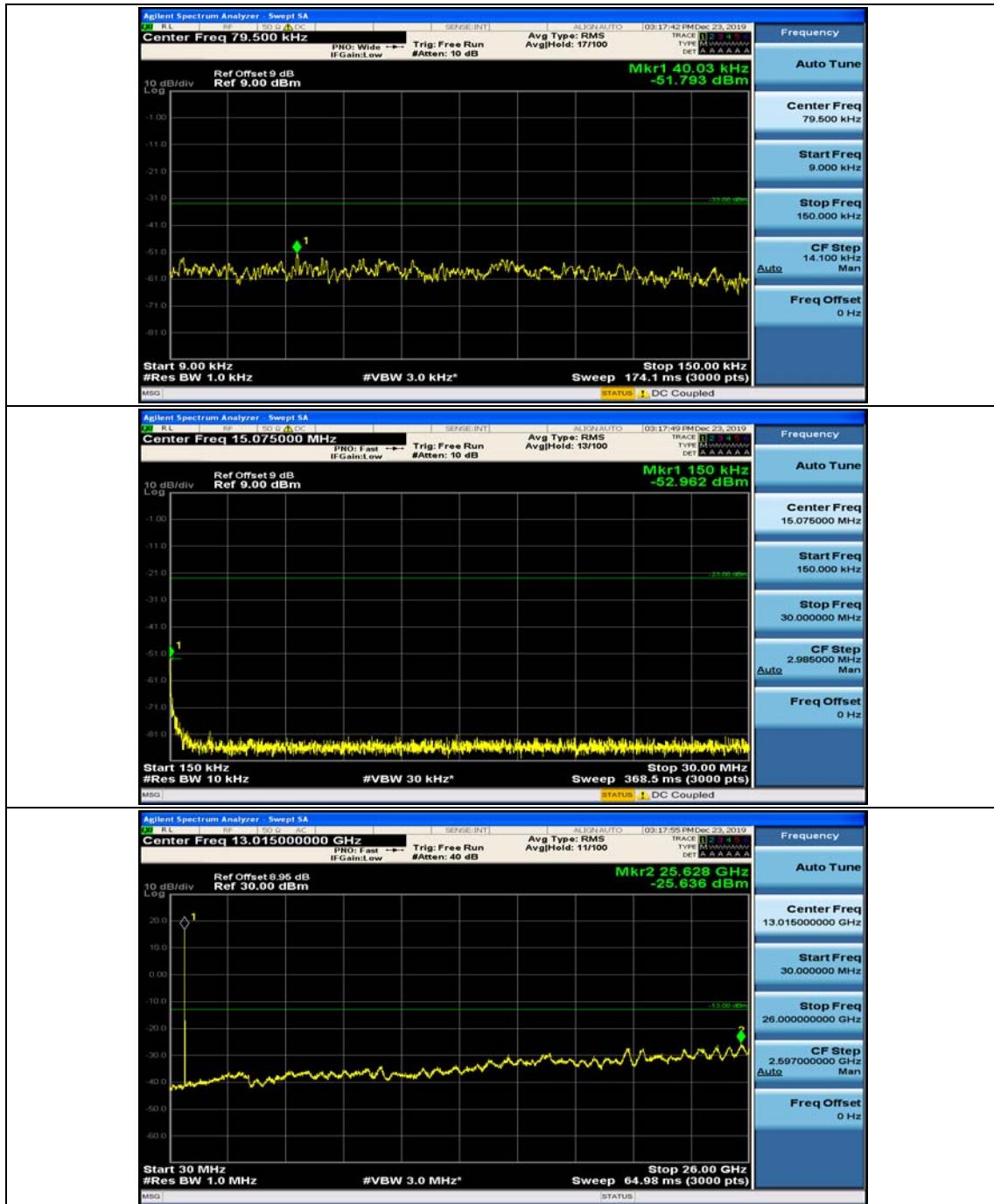


(Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_1RB#0

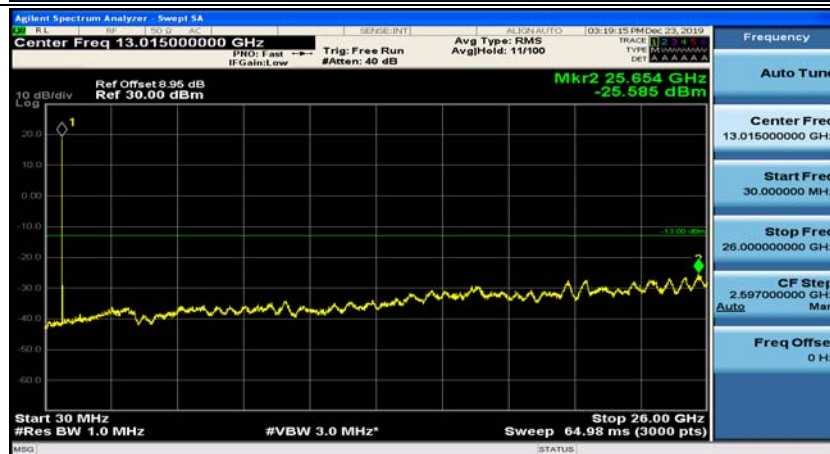
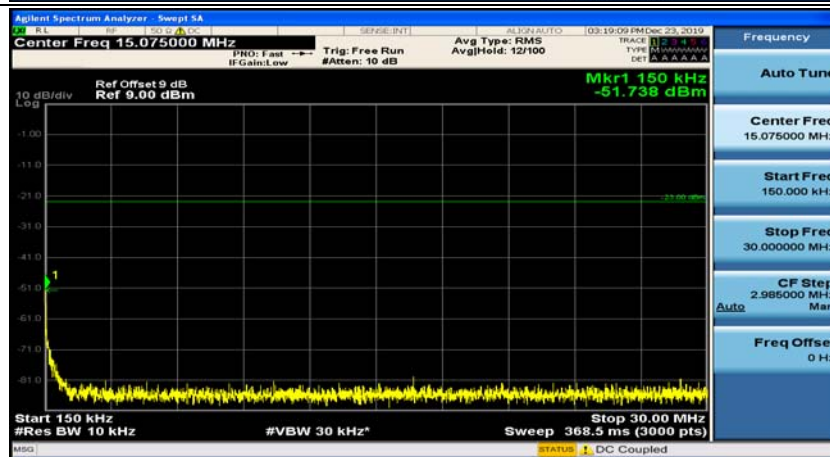
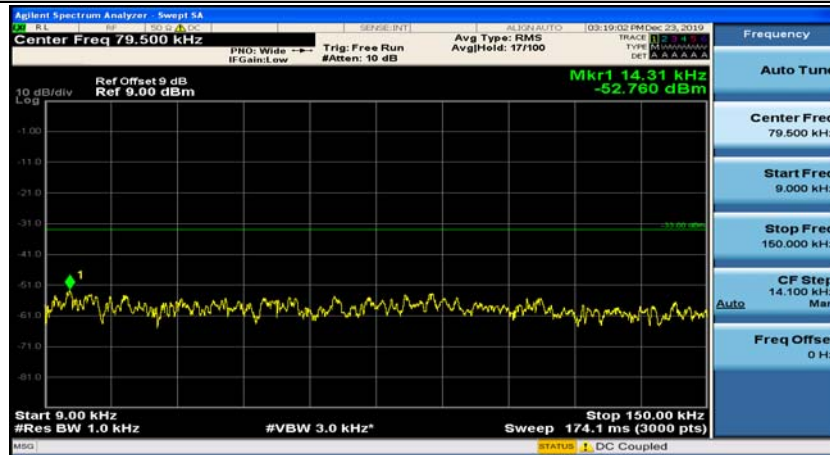


(Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_1RB#12

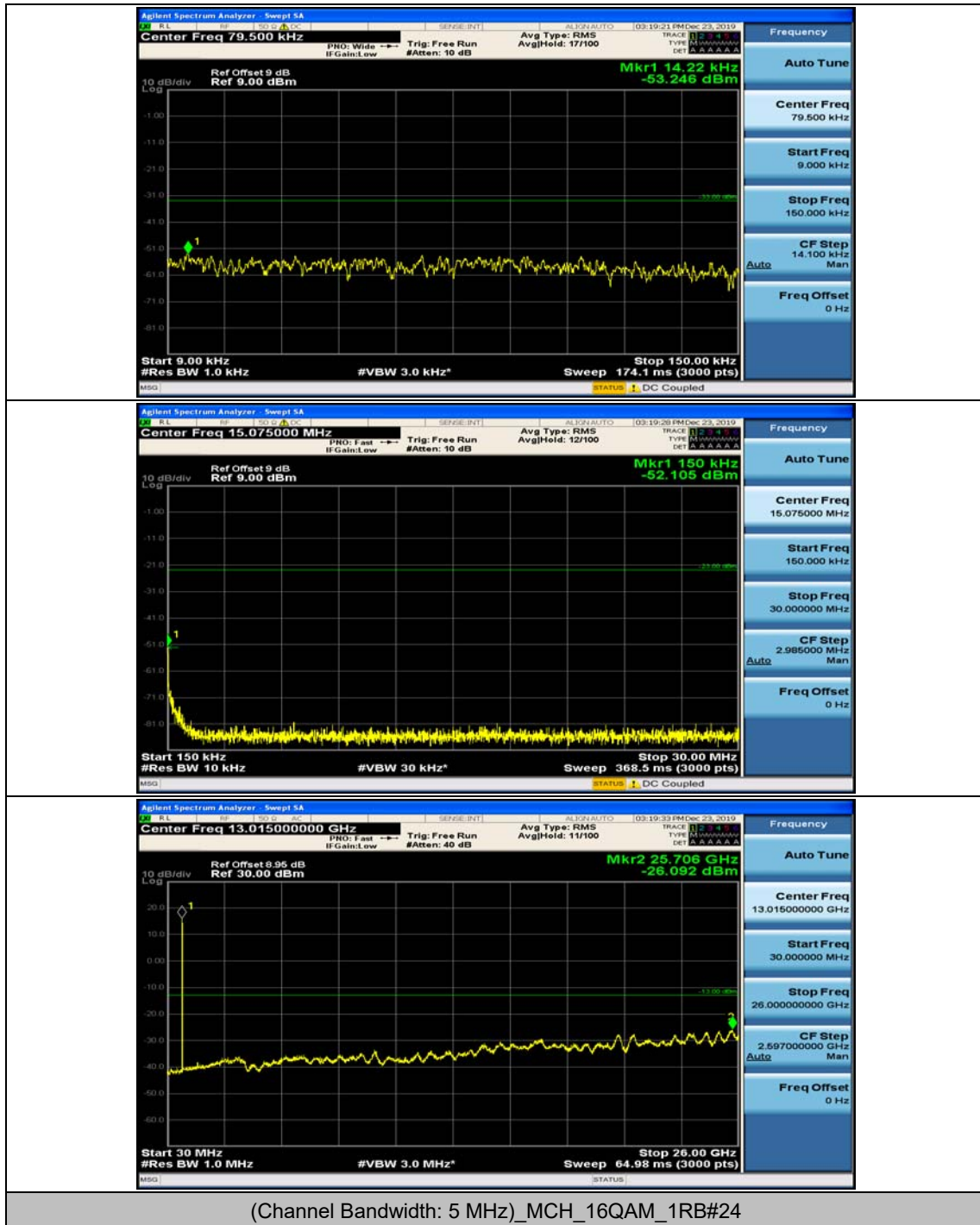


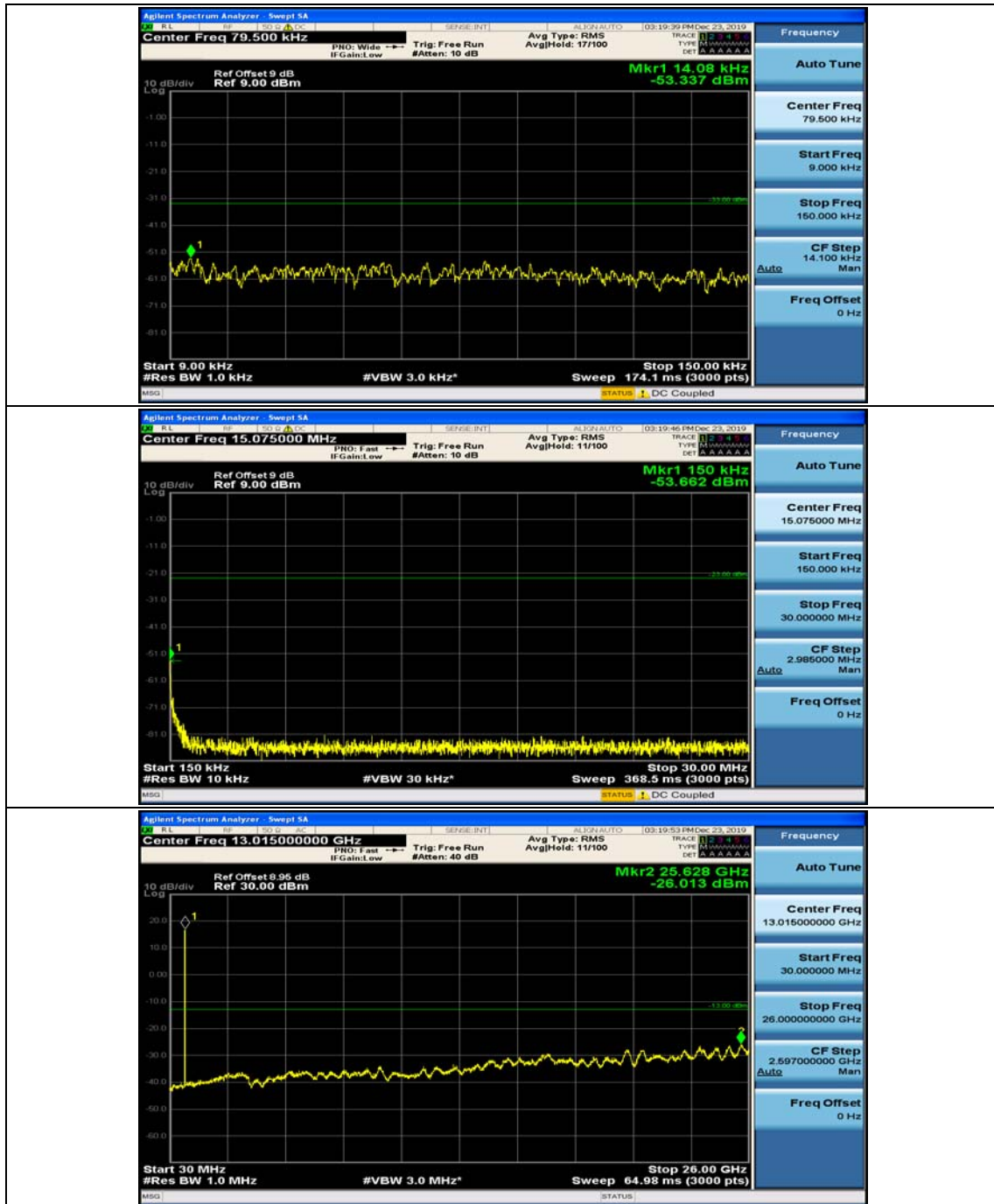


(Channel Bandwidth: 5 MHz)\_MCH\_16QAM\_1RB#0

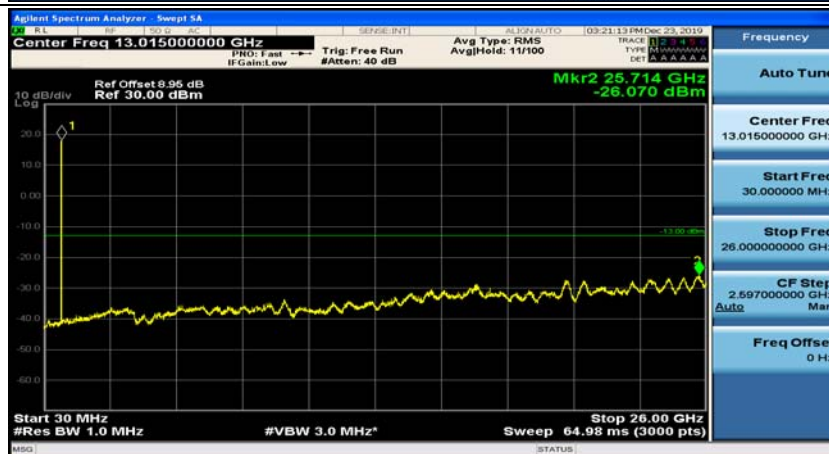
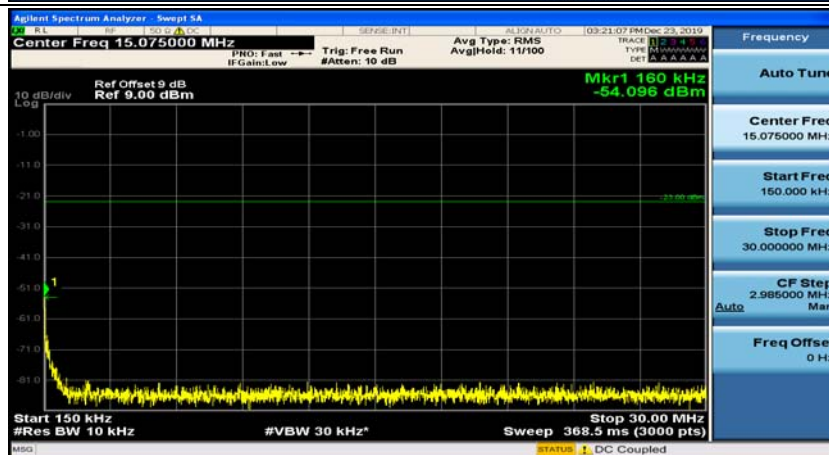
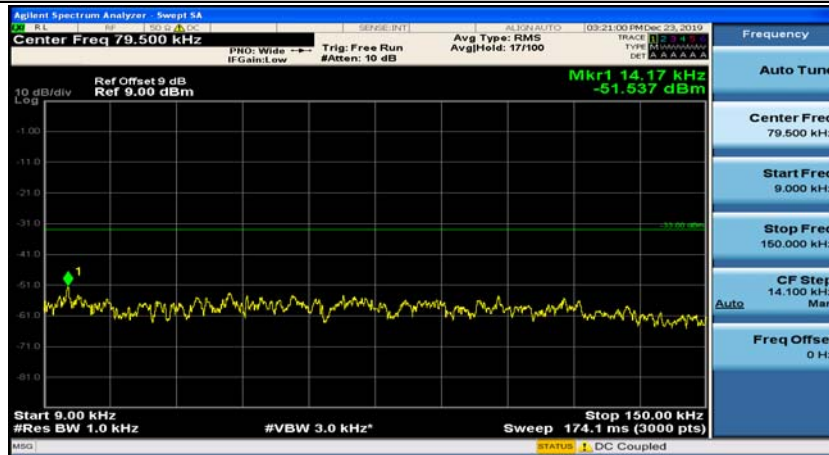


(Channel Bandwidth: 5 MHz)\_MCH\_16QAM\_1RB#12

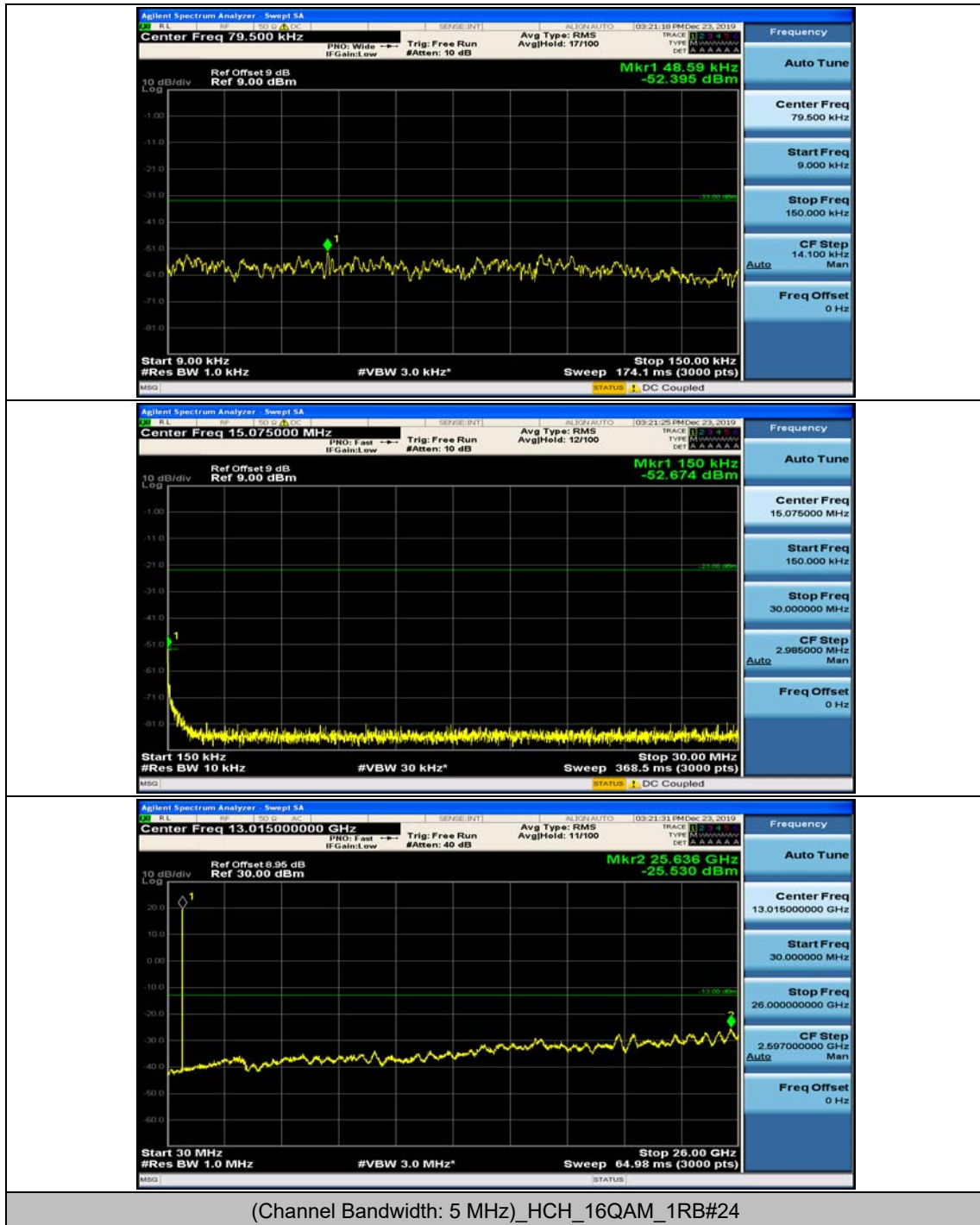


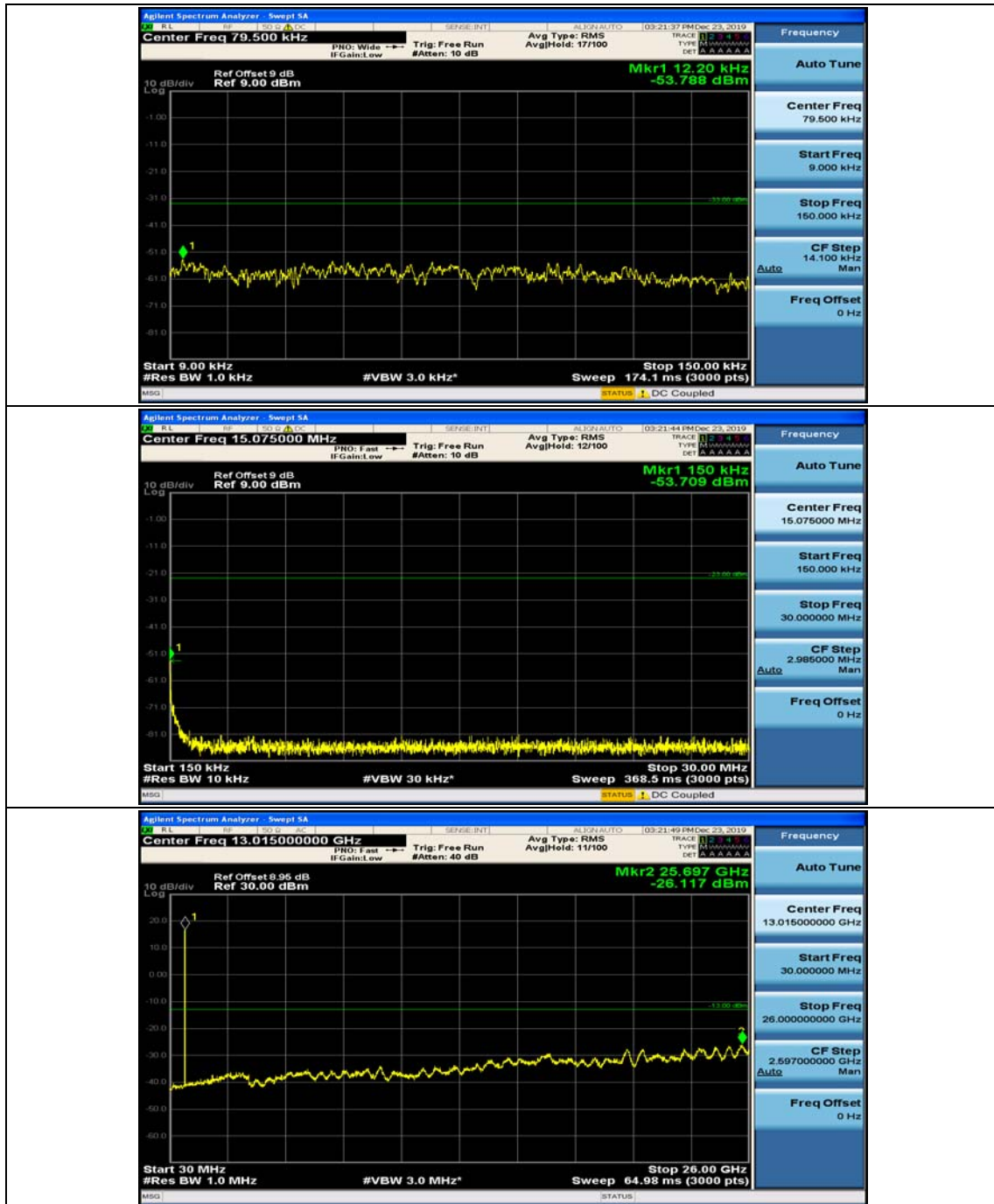


(Channel Bandwidth: 5 MHz)\_HCH\_16QAM\_1RB#0

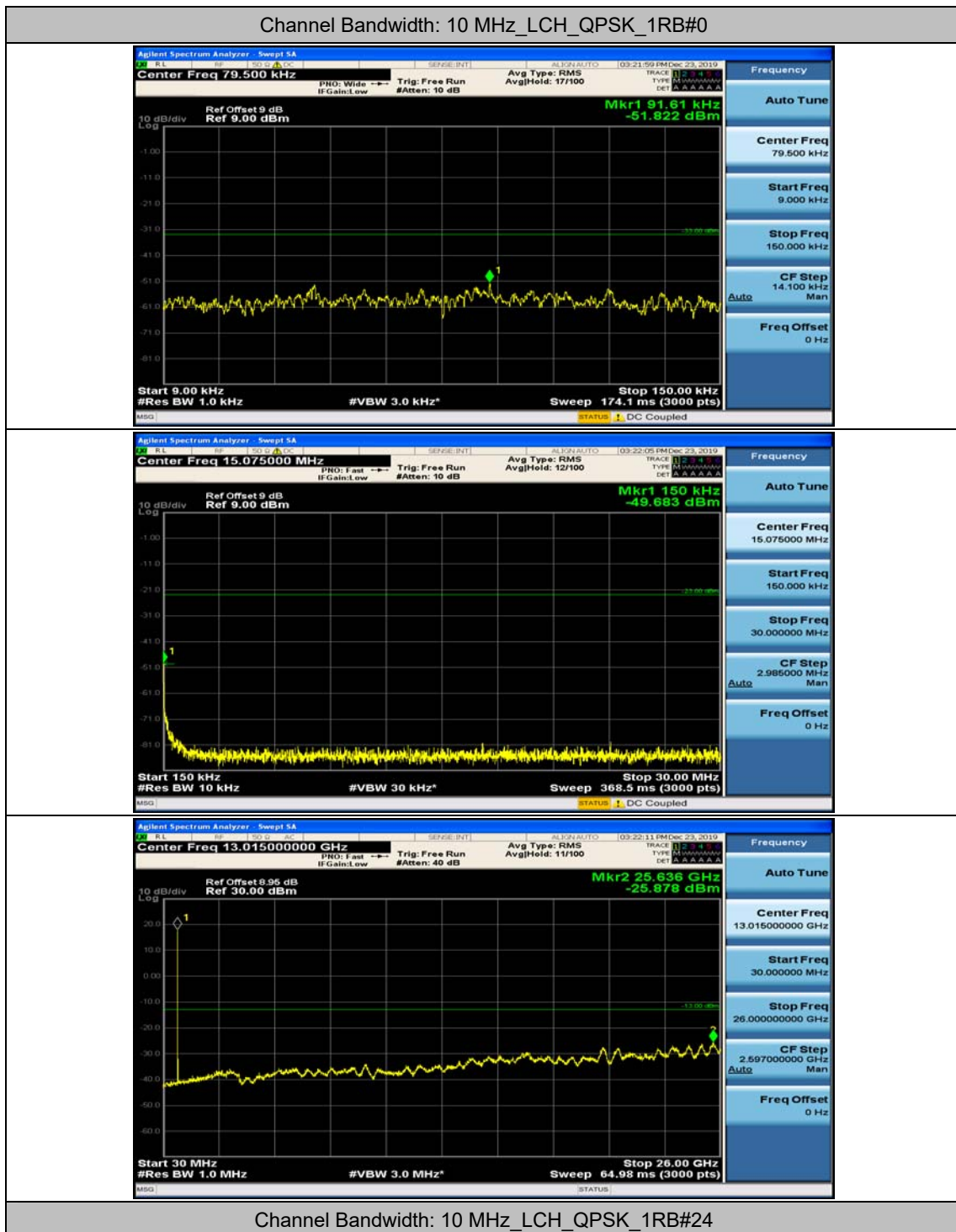


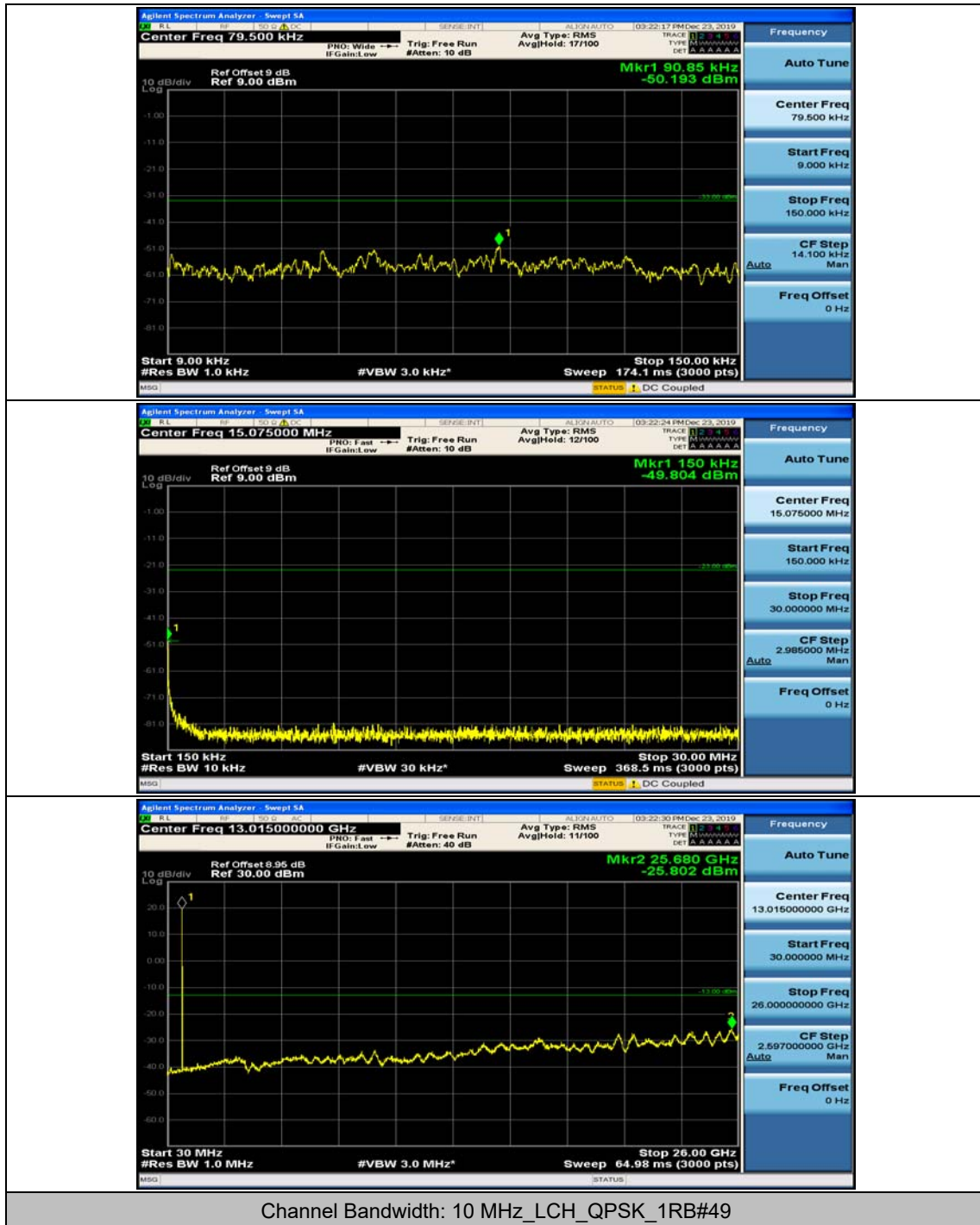
(Channel Bandwidth: 5 MHz)\_HCH\_16QAM\_1RB#12

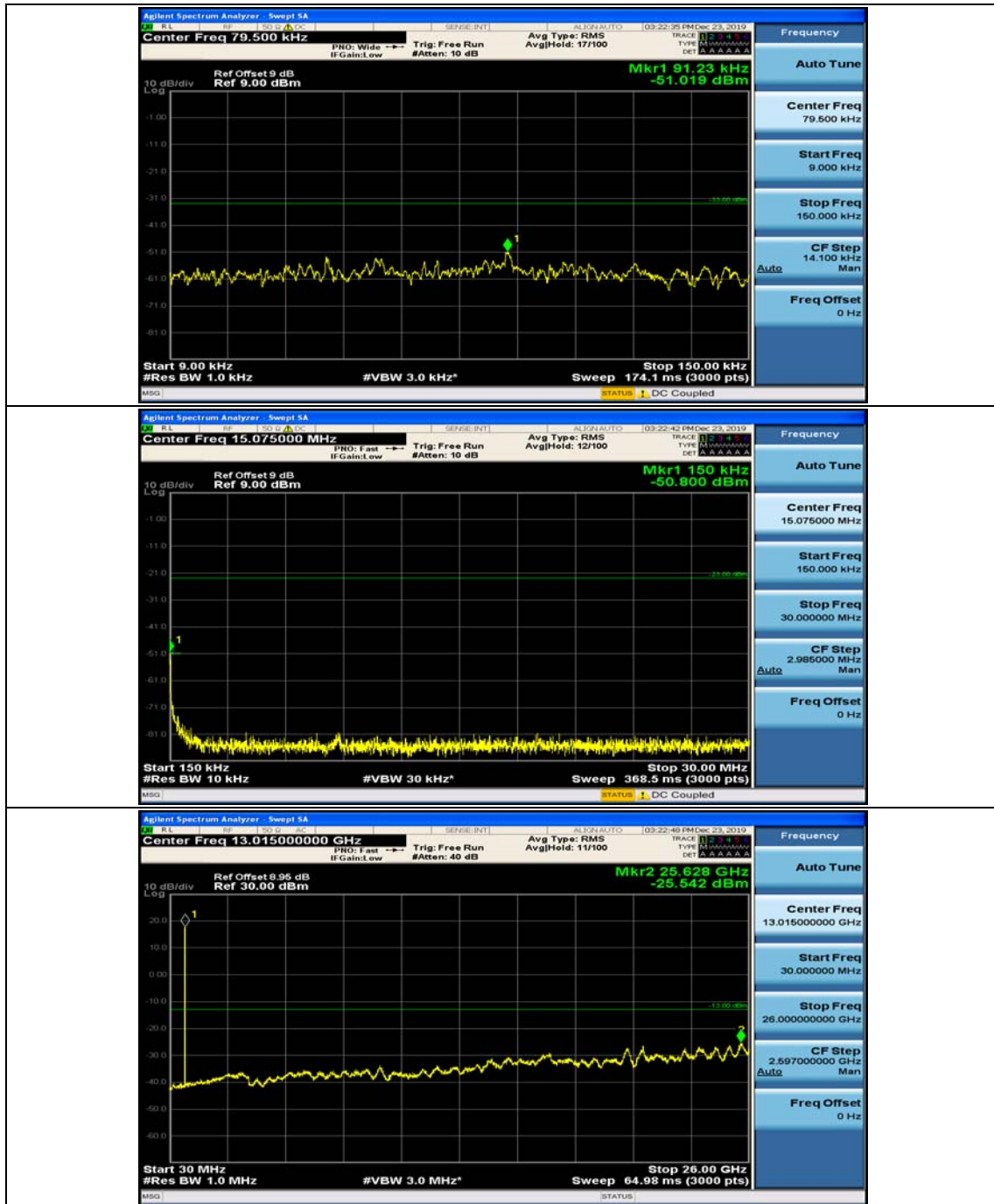




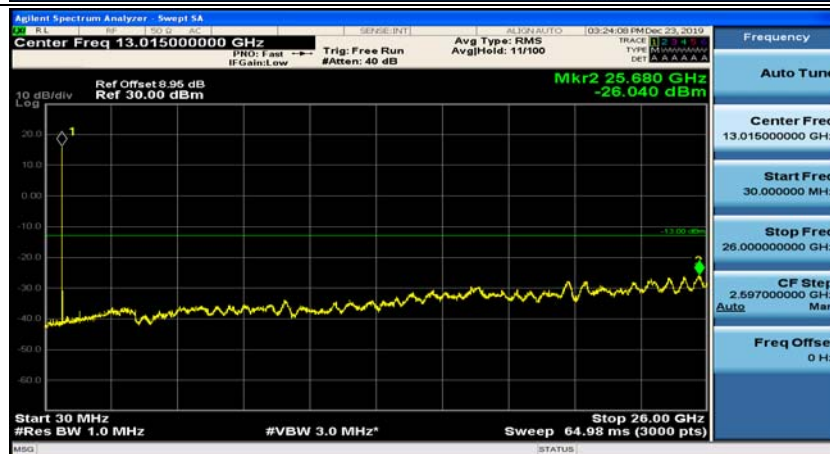
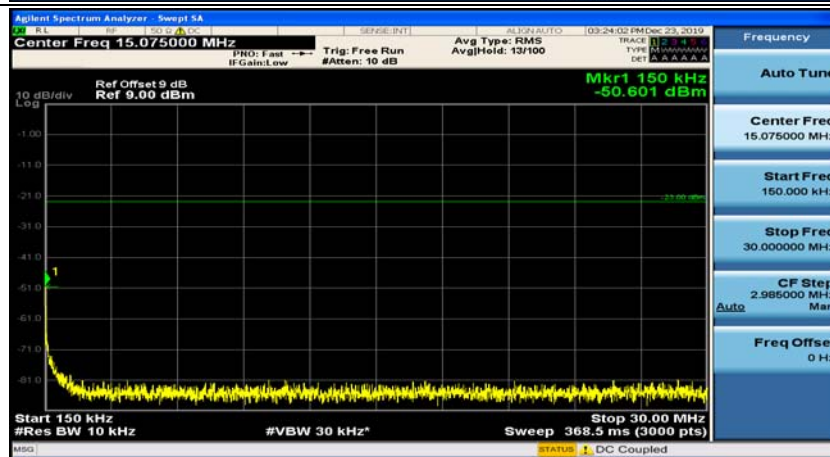
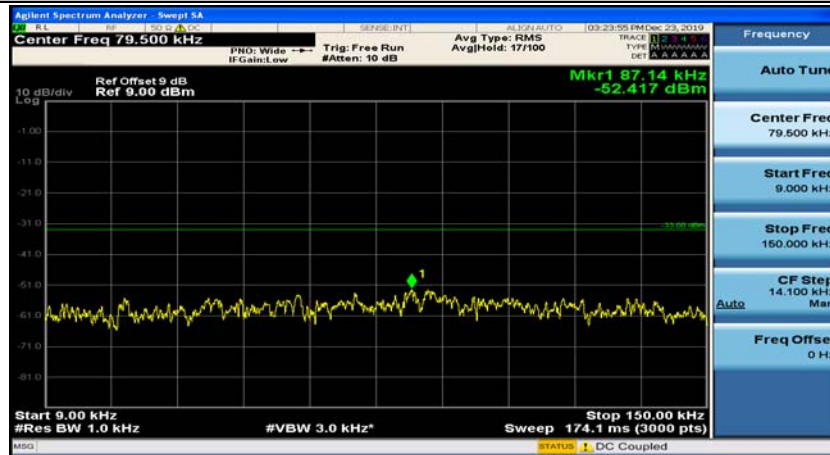
## Channel Bandwidth: 10 MHz



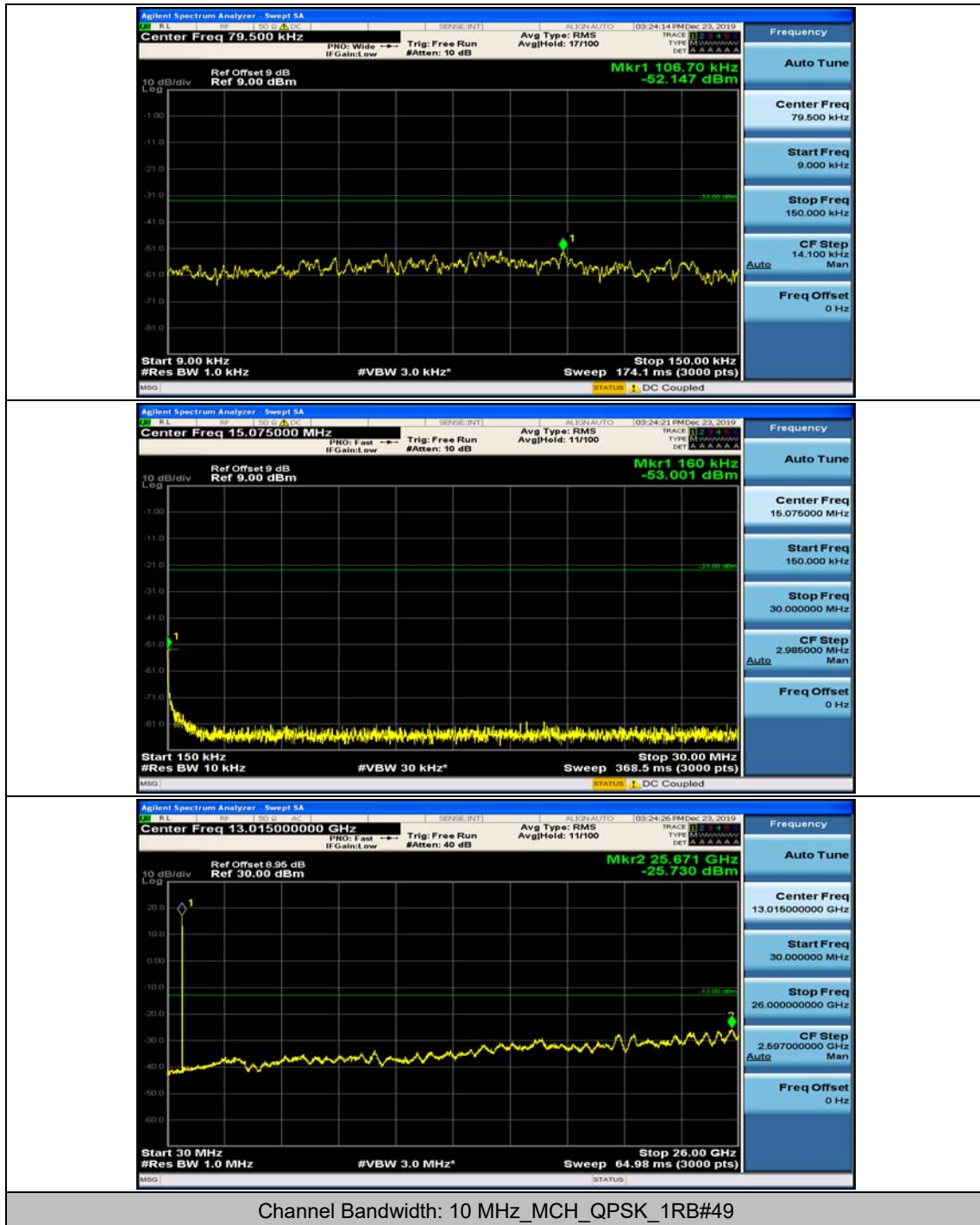


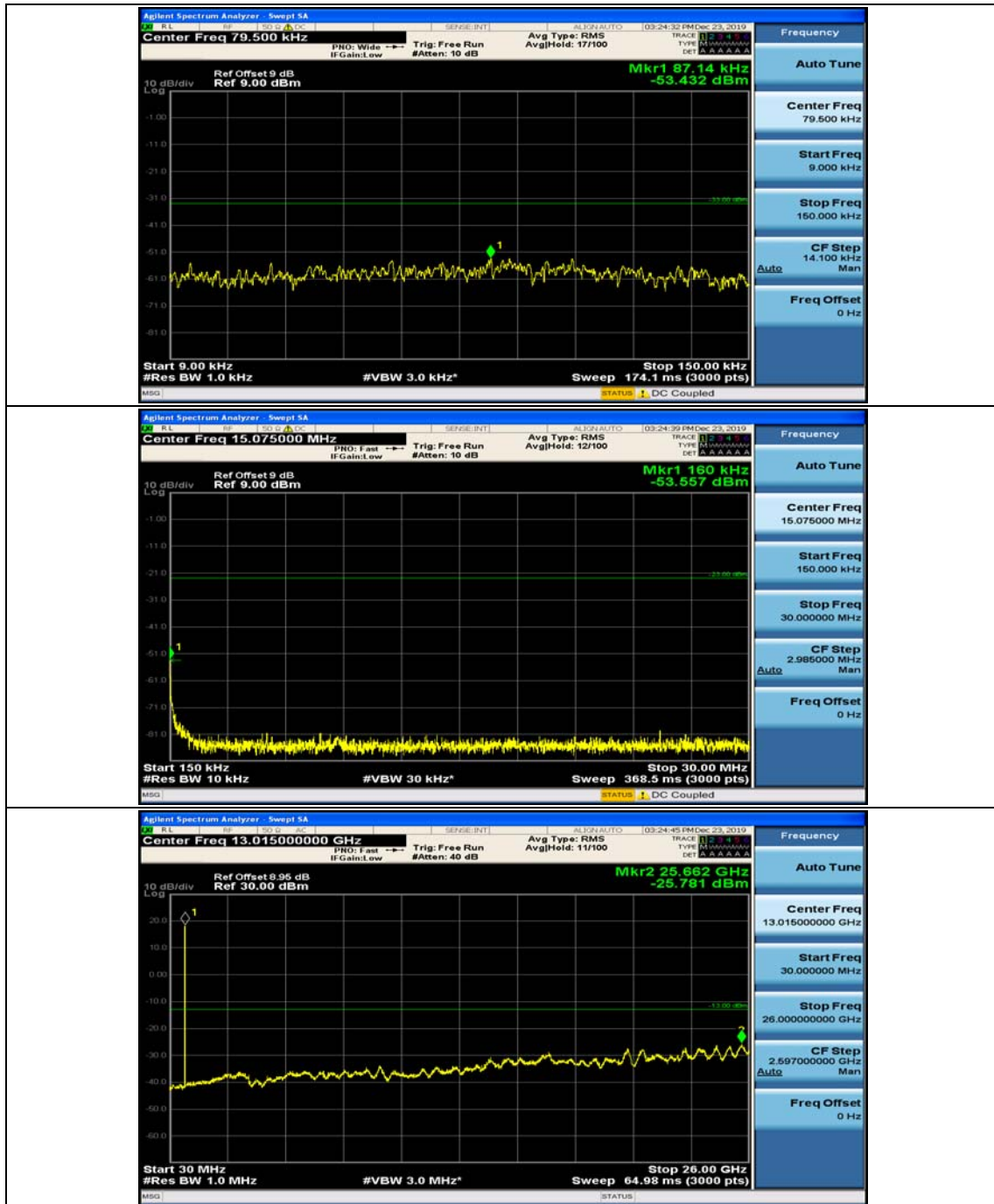


Channel Bandwidth: 10 MHz\_MCH\_QPSK\_1RB#0

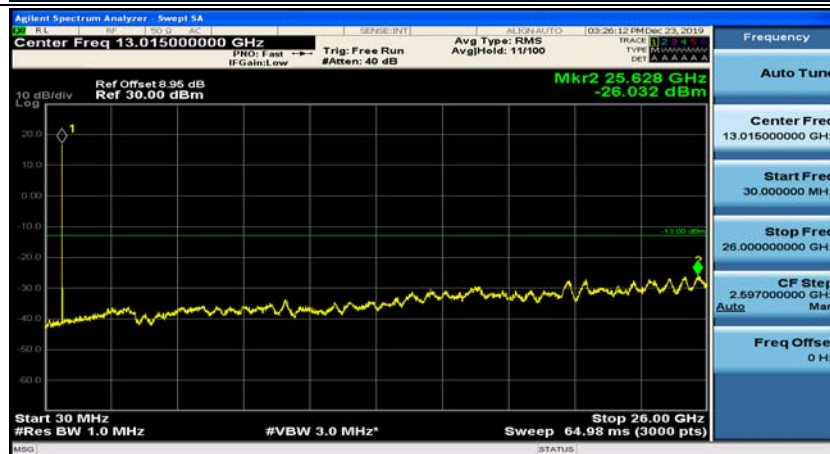
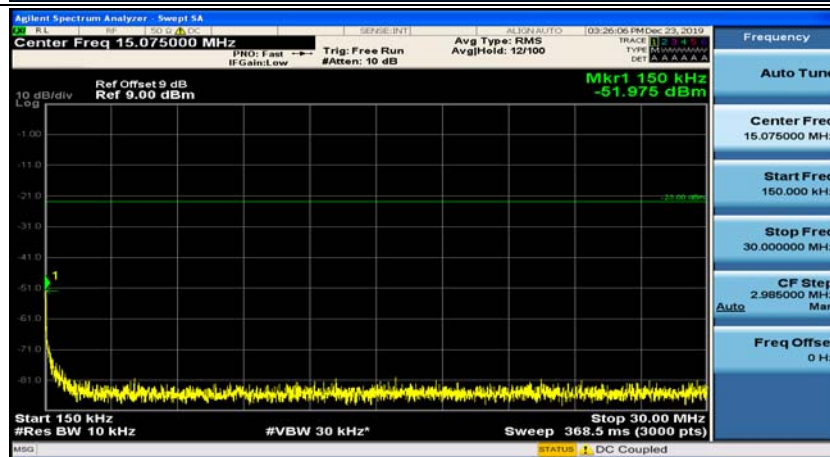
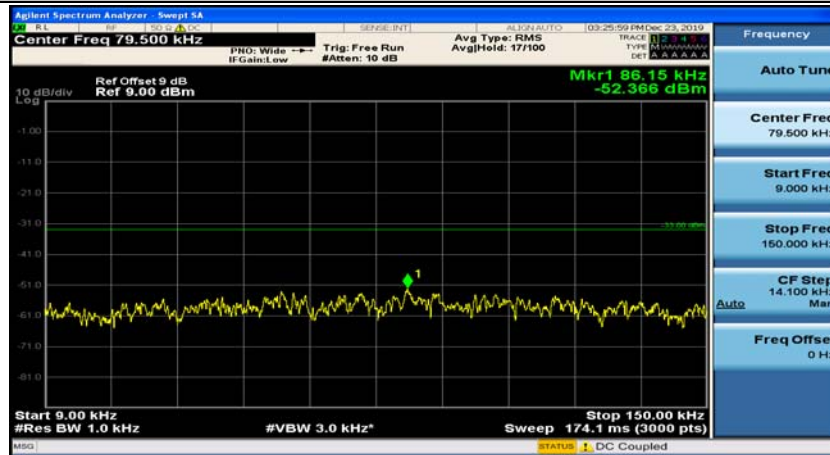


Channel Bandwidth: 10 MHz\_MCH\_QPSK\_1RB#24

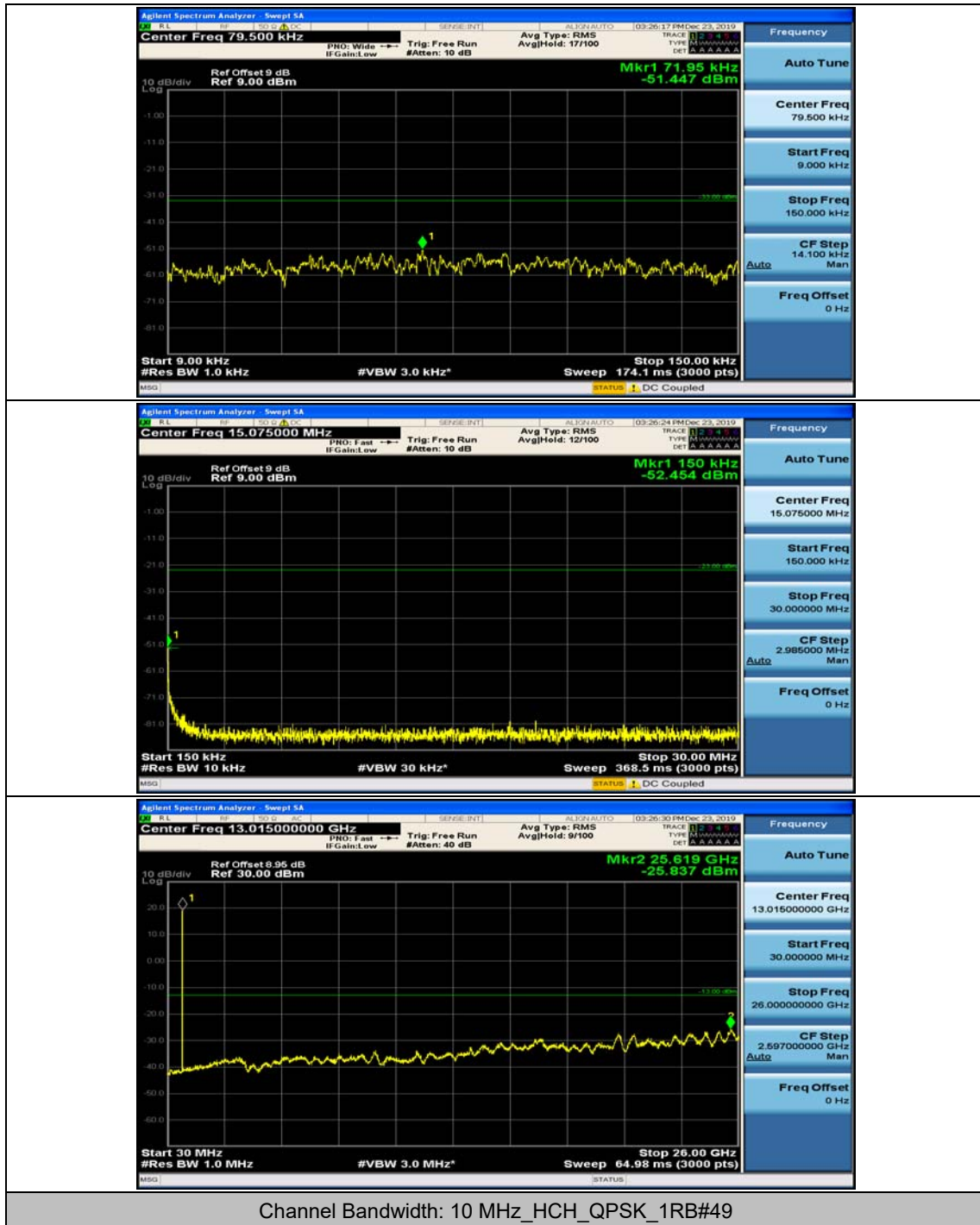


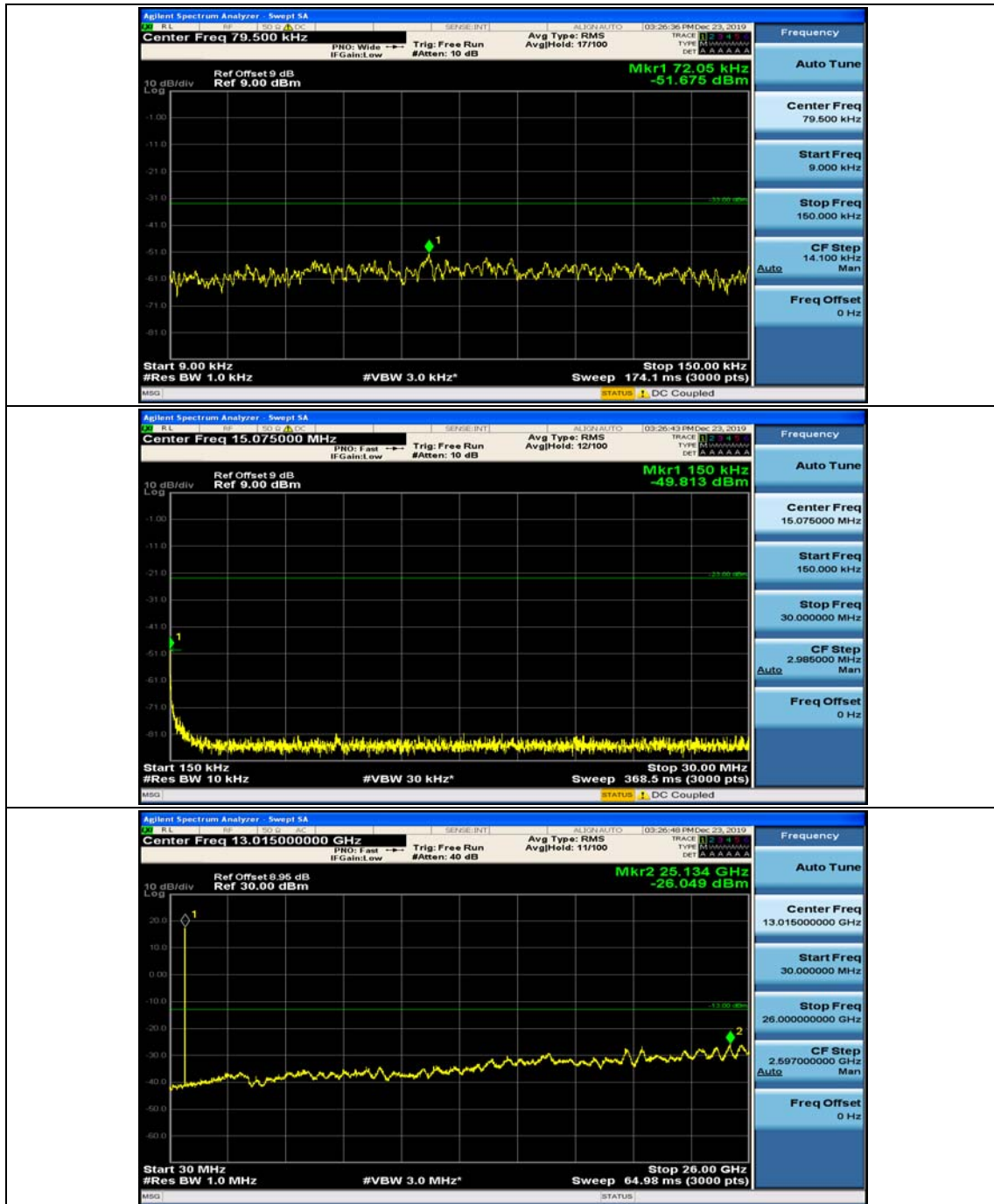


Channel Bandwidth: 10 MHz\_HCH\_QPSK\_1RB#0

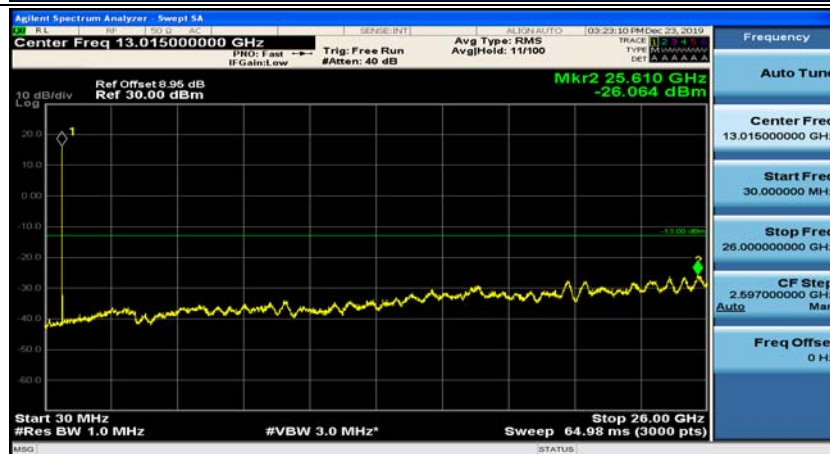
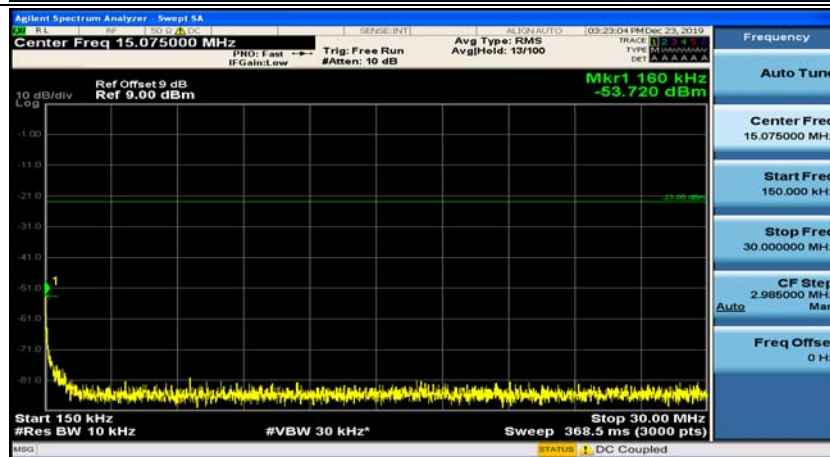
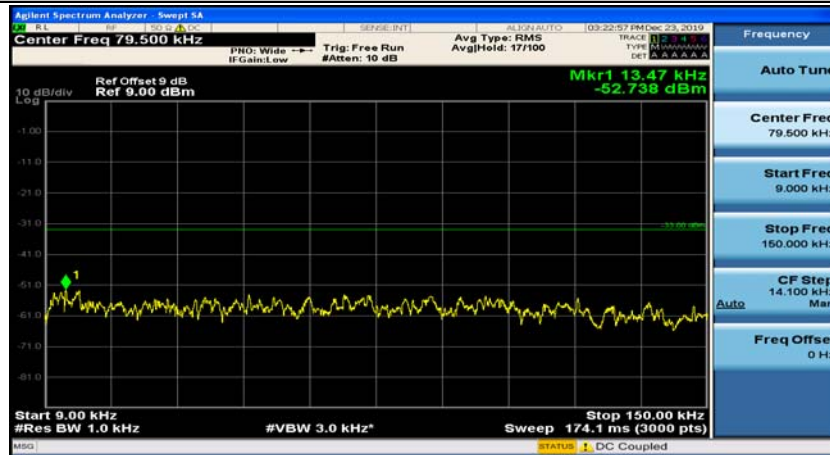


Channel Bandwidth: 10 MHz\_HCH\_QPSK\_1RB#24

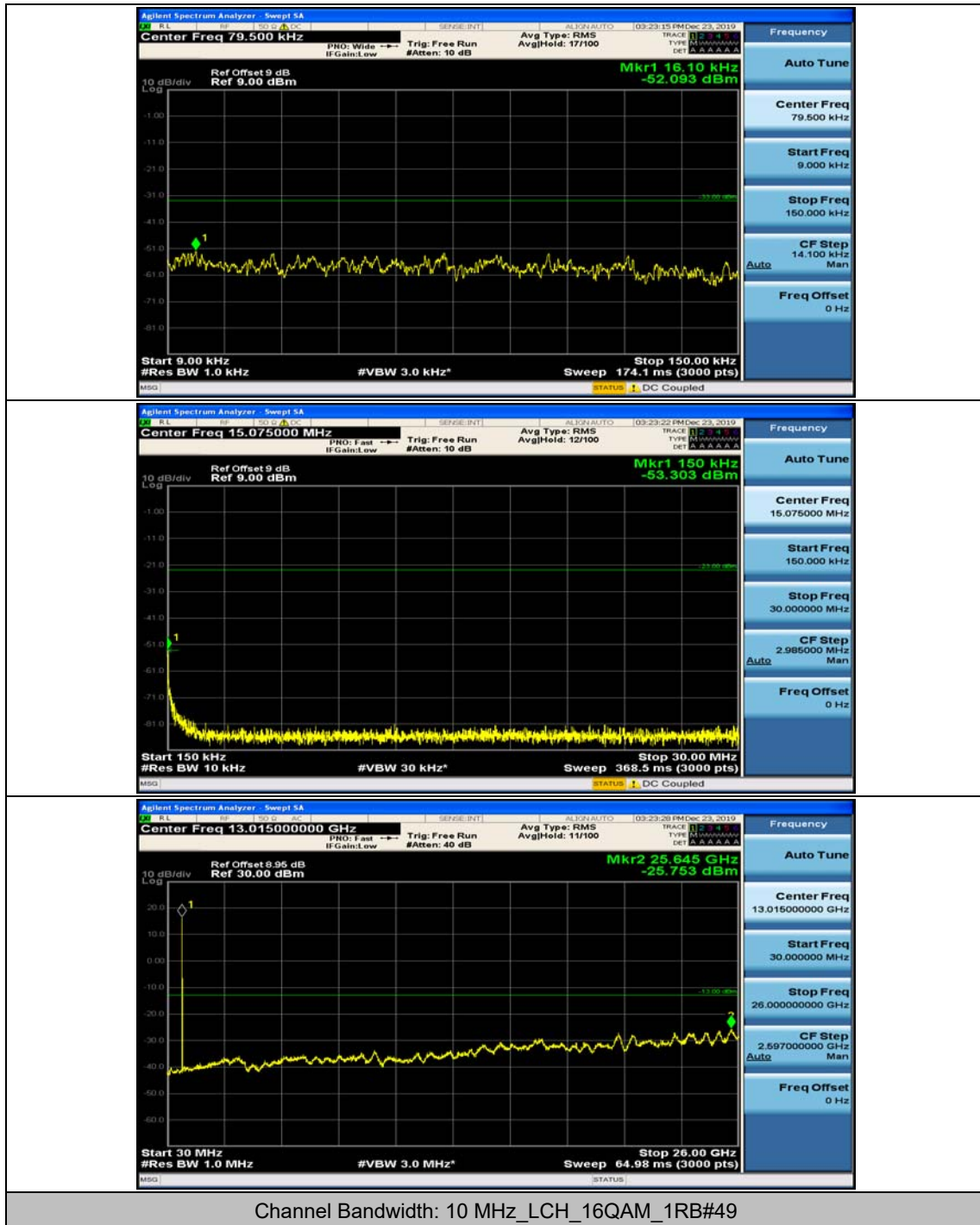


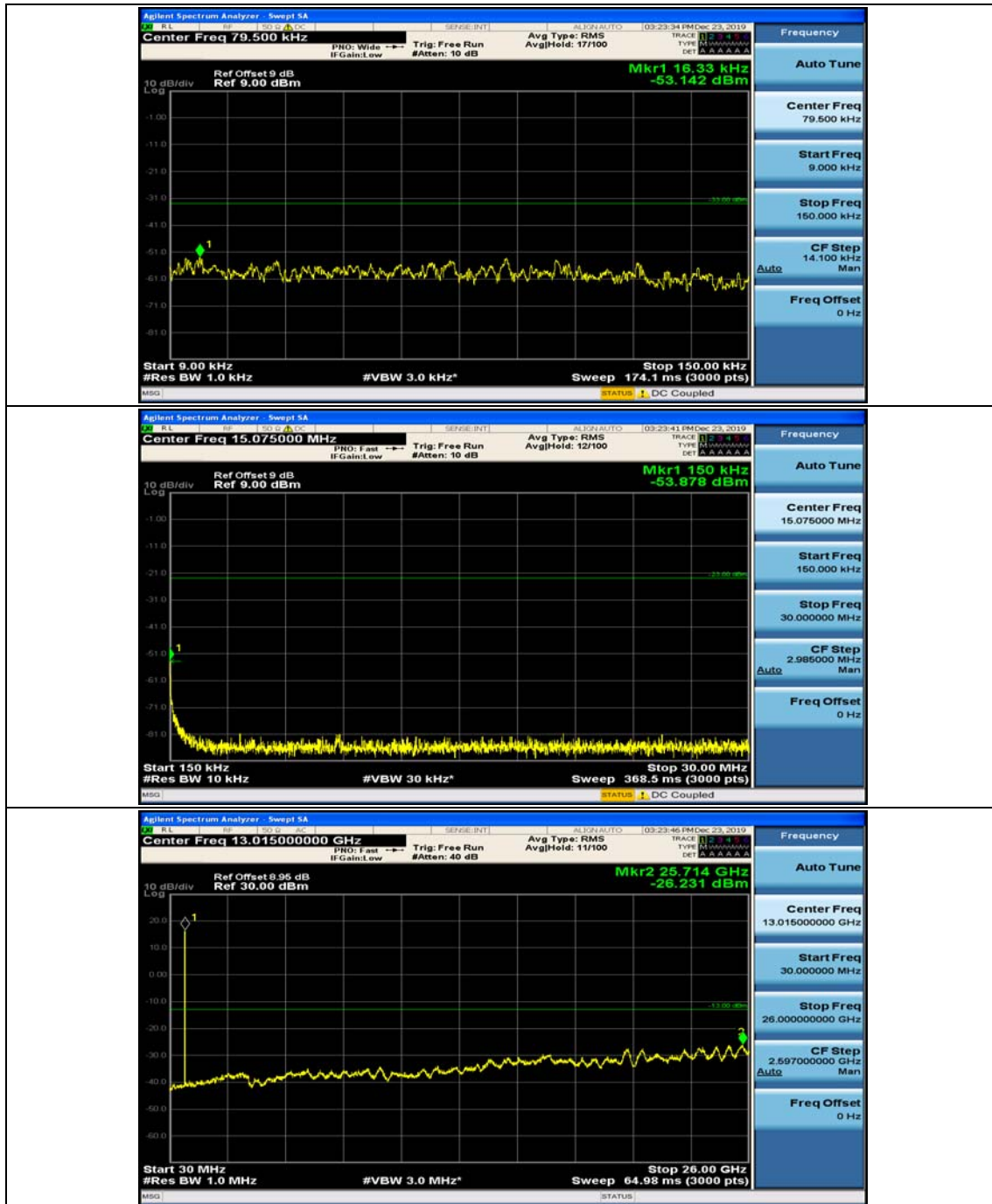


Channel Bandwidth: 10 MHz\_LCH\_16QAM\_1RB#0

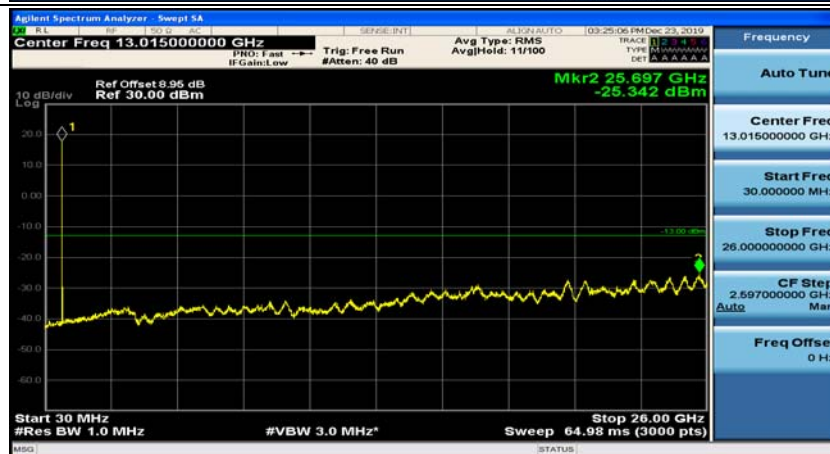
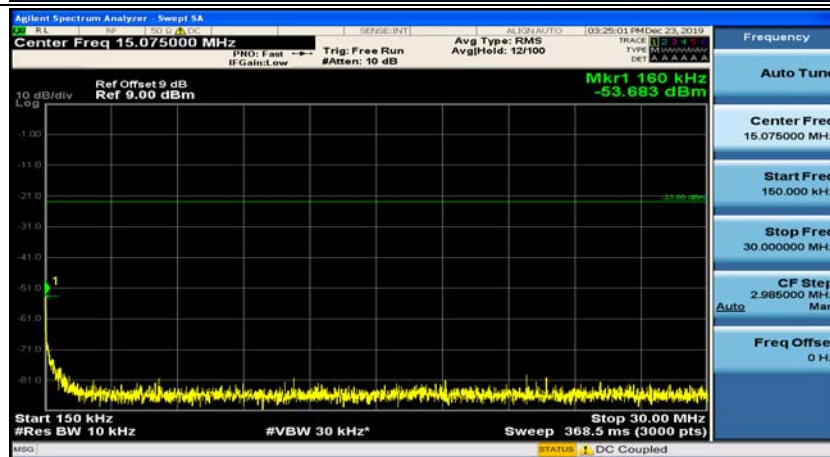
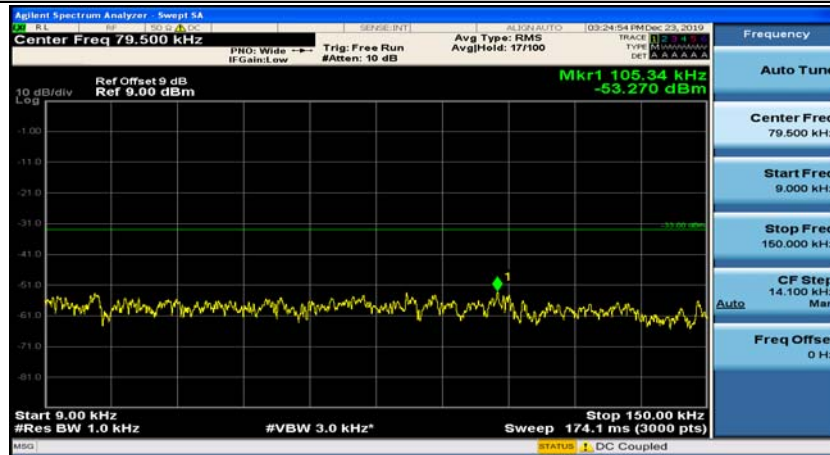


Channel Bandwidth: 10 MHz\_LCH\_16QAM\_1RB#24

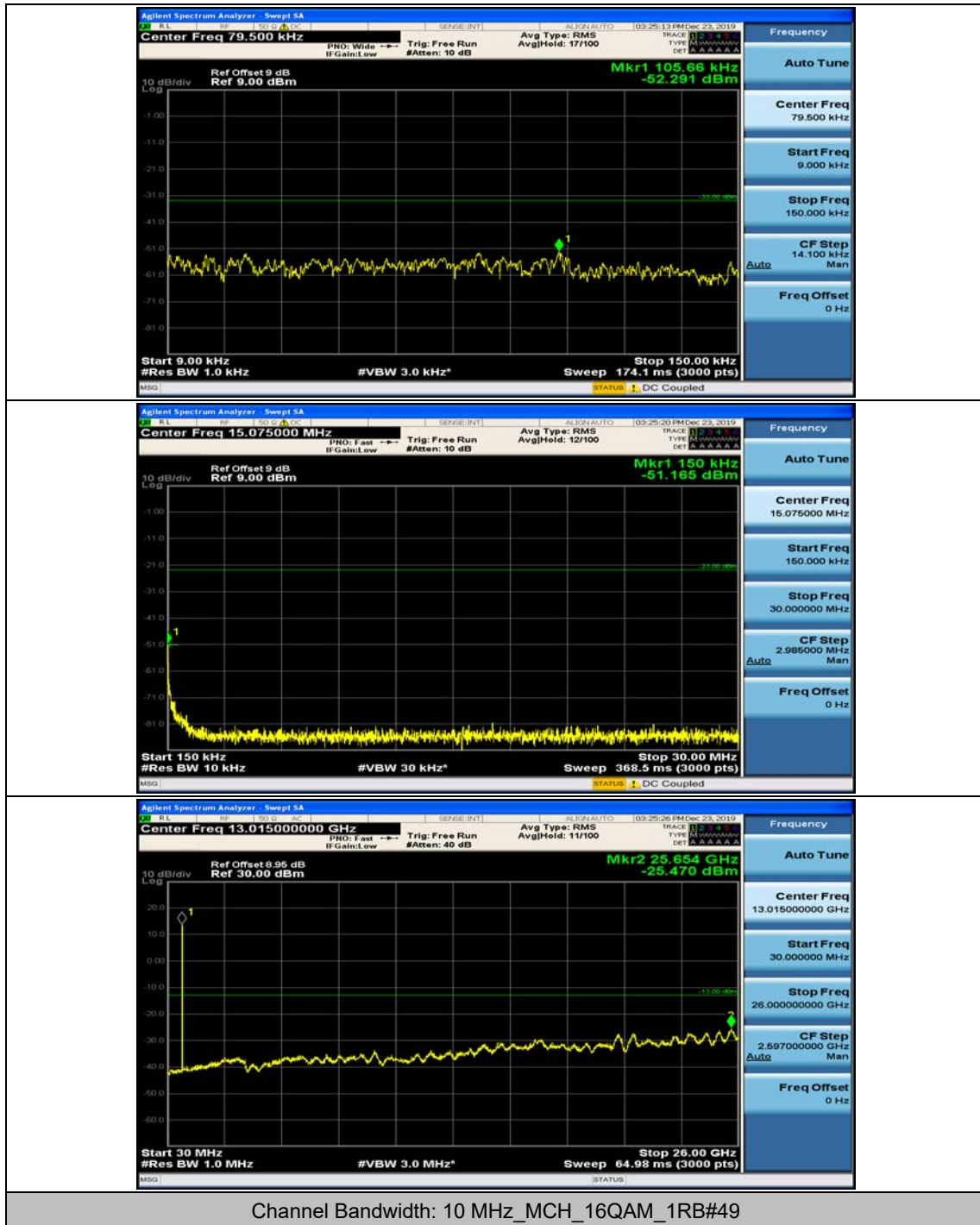


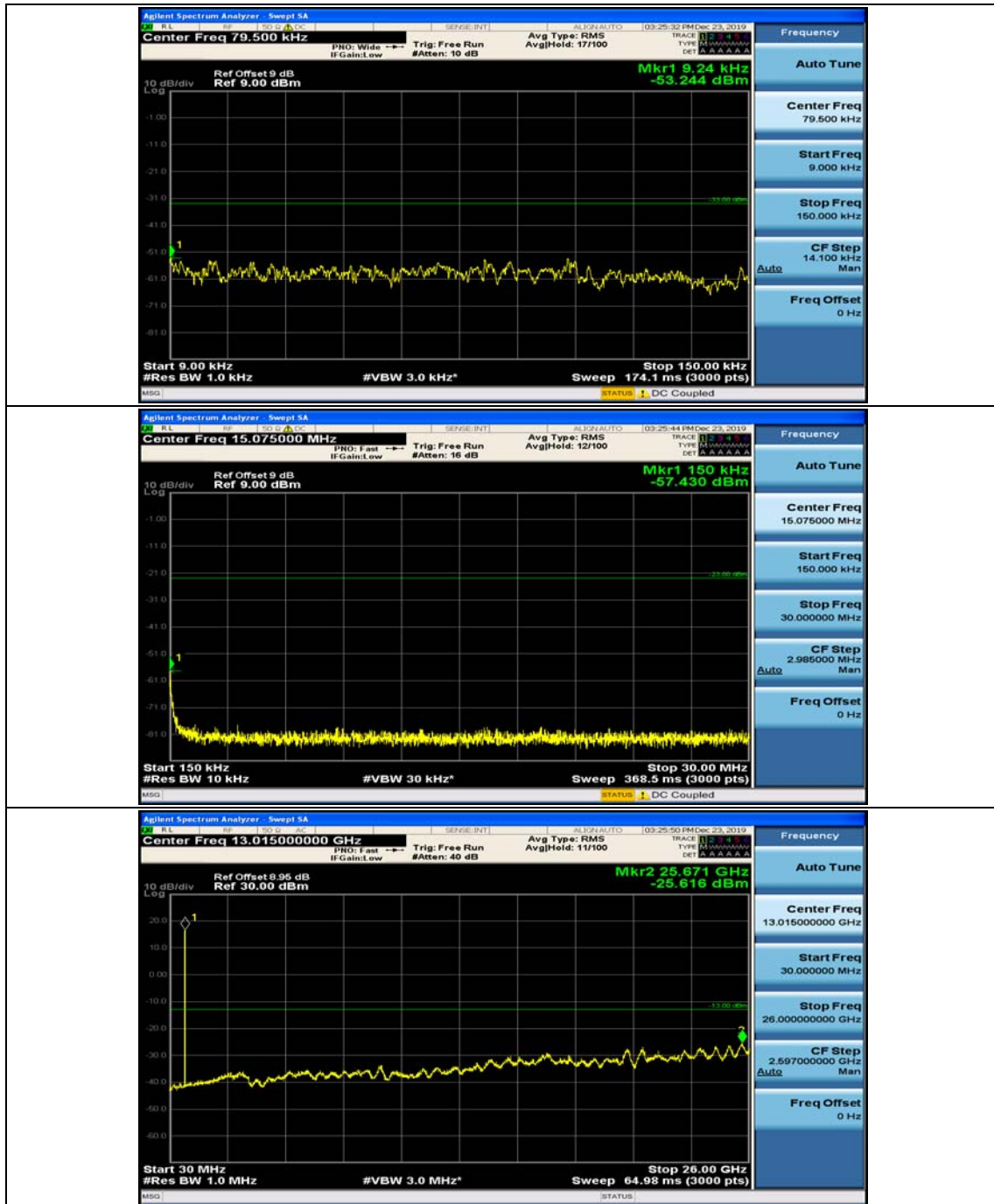


Channel Bandwidth: 10 MHz\_MCH\_16QAM\_1RB#0

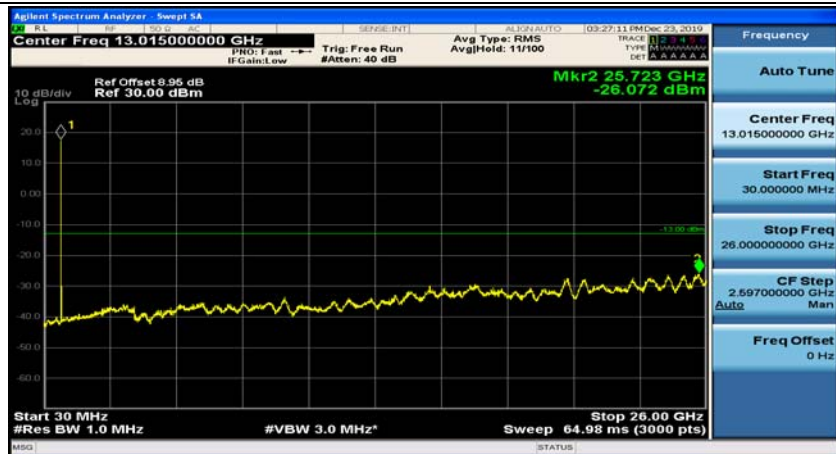
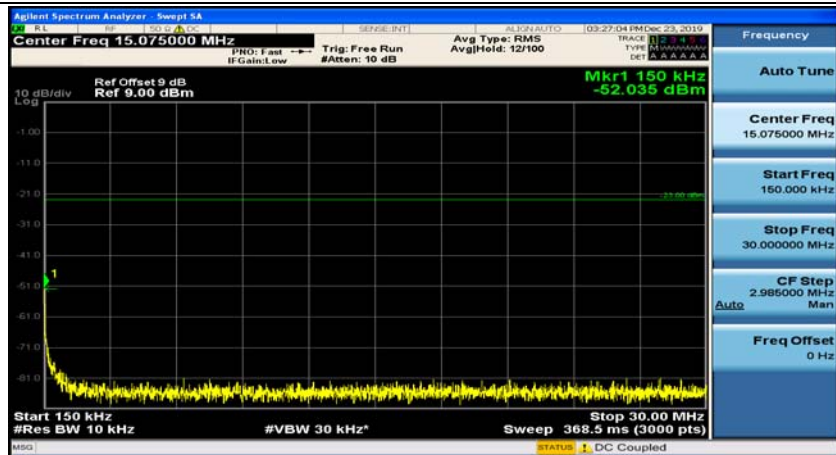
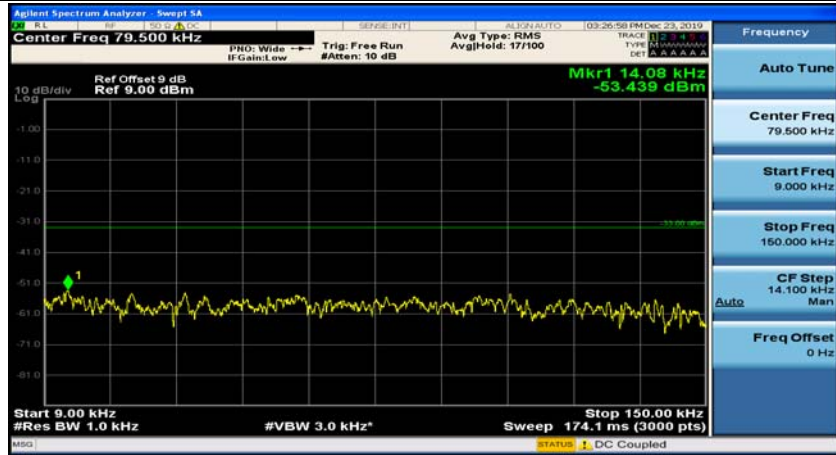


Channel Bandwidth: 10 MHz\_MCH\_16QAM\_1RB#24

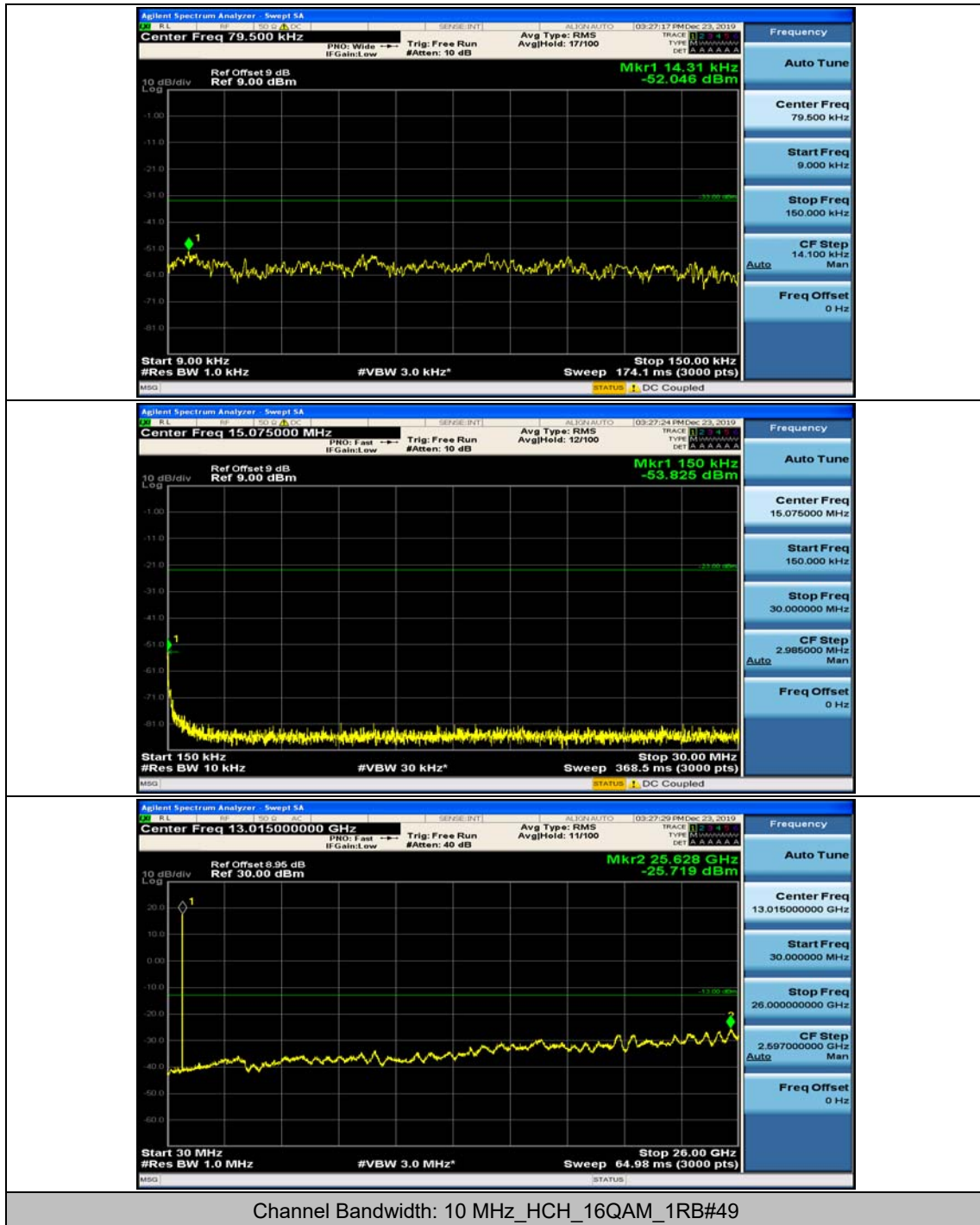


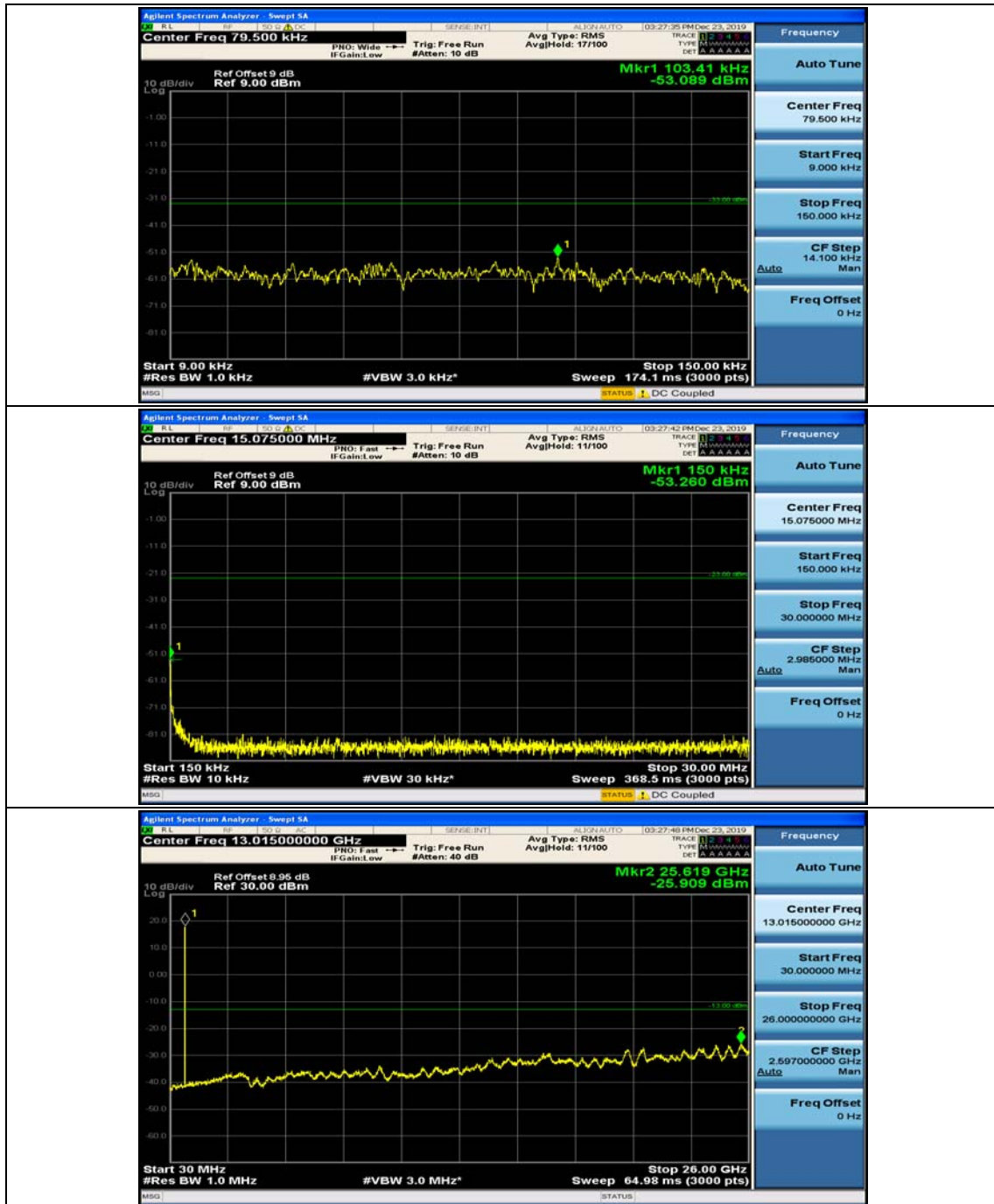


Channel Bandwidth: 10 MHz\_HCH\_16QAM\_1RB#0



Channel Bandwidth: 10 MHz\_HCH\_16QAM\_1RB#24





## 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               | 1.75           | 0.002477        | ± 2.5       | PASS    |
|                          |         | VN            | TN               | 1.89           | 0.002675        | ± 2.5       | PASS    |
|                          |         | VH            | TN               | 0.02           | 0.000028        | ± 2.5       | PASS    |
|                          | MCH     | VL            | TN               | 4.56           | 0.006423        | ± 2.5       | PASS    |
|                          |         | VN            | TN               | 2.38           | 0.003352        | ± 2.5       | PASS    |
|                          |         | VH            | TN               | 2.39           | 0.003366        | ± 2.5       | PASS    |
|                          | HCH     | VL            | TN               | 1.04           | 0.001458        | ± 2.5       | PASS    |
|                          |         | VN            | TN               | 0.48           | 0.000673        | ± 2.5       | PASS    |
|                          |         | VH            | TN               | 4.32           | 0.006055        | ± 2.5       | PASS    |
| 16QAM                    | LCH     | VL            | TN               | 3.11           | 0.004402        | ± 2.5       | PASS    |
|                          |         | VN            | TN               | 1.31           | 0.001854        | ± 2.5       | PASS    |
|                          |         | VH            | TN               | 4.65           | 0.006582        | ± 2.5       | PASS    |
|                          | MCH     | VL            | TN               | 3.24           | 0.004563        | ± 2.5       | PASS    |
|                          |         | VN            | TN               | 4.73           | 0.006662        | ± 2.5       | PASS    |
|                          |         | VH            | TN               | -1.23          | -0.001732       | ± 2.5       | PASS    |
|                          | HCH     | VL            | TN               | 0.77           | 0.001079        | ± 2.5       | PASS    |
|                          |         | VN            | TN               | 4.8            | 0.006727        | ± 2.5       | PASS    |
|                          |         | VH            | TN               | 3.18           | 0.004457        | ± 2.5       | PASS    |
| Temperature              |         |               |                  |                |                 |             |         |
| Modulation               | Channel | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| QPSK                     | LCH     | VN            | -30              | -0.53          | -0.000750       | ± 2.5       | PASS    |
|                          |         | VN            | -20              | 3.78           | 0.005350        | ± 2.5       | PASS    |
|                          |         | VN            | -10              | -1.09          | -0.001543       | ± 2.5       | PASS    |
|                          |         | VN            | 0                | 0.92           | 0.001302        | ± 2.5       | PASS    |
|                          |         | VN            | 10               | -0.14          | -0.000198       | ± 2.5       | PASS    |
|                          |         | VN            | 20               | 4.21           | 0.005959        | ± 2.5       | PASS    |
|                          |         | VN            | 30               | 3.47           | 0.004912        | ± 2.5       | PASS    |
|                          |         | VN            | 40               | 0.07           | 0.000099        | ± 2.5       | PASS    |
|                          |         | VN            | 50               | -0.56          | -0.000793       | ± 2.5       | PASS    |
|                          | MCH     | VN            | -30              | 2.82           | 0.003972        | ± 2.5       | PASS    |
|                          |         | VN            | -20              | 4.2            | 0.005915        | ± 2.5       | PASS    |

|       |     |    |     |       |           |       |      |
|-------|-----|----|-----|-------|-----------|-------|------|
|       |     | VN | -10 | 1.72  | 0.002423  | ± 2.5 | PASS |
|       |     | VN | 0   | 1.81  | 0.002549  | ± 2.5 | PASS |
|       |     | VN | 10  | 4.56  | 0.006423  | ± 2.5 | PASS |
|       |     | VN | 20  | 0.39  | 0.000549  | ± 2.5 | PASS |
|       |     | VN | 30  | -1.93 | -0.002718 | ± 2.5 | PASS |
|       |     | VN | 40  | -0.97 | -0.001366 | ± 2.5 | PASS |
|       |     | VN | 50  | 0.89  | 0.001254  | ± 2.5 | PASS |
|       | HCH | VN | -30 | 0.43  | 0.000603  | ± 2.5 | PASS |
|       |     | VN | -20 | -1.53 | -0.002144 | ± 2.5 | PASS |
|       |     | VN | -10 | 2.8   | 0.003924  | ± 2.5 | PASS |
|       |     | VN | 0   | 3.65  | 0.005116  | ± 2.5 | PASS |
|       |     | VN | 10  | 3.73  | 0.005228  | ± 2.5 | PASS |
|       |     | VN | 20  | -1.69 | -0.002369 | ± 2.5 | PASS |
|       |     | VN | 30  | -1.43 | -0.002004 | ± 2.5 | PASS |
|       |     | VN | 40  | 4.46  | 0.006251  | ± 2.5 | PASS |
|       |     | VN | 50  | -1.67 | -0.002341 | ± 2.5 | PASS |
| 16QAM | LCH | VN | -30 | 0.59  | 0.000835  | ± 2.5 | PASS |
|       |     | VN | -20 | -1.27 | -0.001798 | ± 2.5 | PASS |
|       |     | VN | -10 | -0.81 | -0.001146 | ± 2.5 | PASS |
|       |     | VN | 0   | -1.56 | -0.002208 | ± 2.5 | PASS |
|       |     | VN | 10  | 2.58  | 0.003652  | ± 2.5 | PASS |
|       |     | VN | 20  | 3.72  | 0.005265  | ± 2.5 | PASS |
|       |     | VN | 30  | 4.85  | 0.006865  | ± 2.5 | PASS |
|       |     | VN | 40  | 2.64  | 0.003737  | ± 2.5 | PASS |
|       |     | VN | 50  | 3.97  | 0.005619  | ± 2.5 | PASS |
|       | MCH | VN | -30 | 3.52  | 0.004933  | ± 2.5 | PASS |
|       |     | VN | -20 | -0.72 | -0.001009 | ± 2.5 | PASS |
|       |     | VN | -10 | 4.2   | 0.005886  | ± 2.5 | PASS |
|       |     | VN | 0   | 3.27  | 0.004583  | ± 2.5 | PASS |
|       |     | VN | 10  | 4.61  | 0.006461  | ± 2.5 | PASS |
|       |     | VN | 20  | 0.04  | 0.000056  | ± 2.5 | PASS |
|       |     | VN | 30  | 1.82  | 0.002551  | ± 2.5 | PASS |
|       |     | VN | 40  | 3.69  | 0.005172  | ± 2.5 | PASS |
|       |     | VN | 50  | 4.8   | 0.006727  | ± 2.5 | PASS |
|       | HCH | VN | -30 | -0.88 | -0.001233 | ± 2.5 | PASS |
|       |     | VN | -20 | 3.58  | 0.005018  | ± 2.5 | PASS |
|       |     | VN | -10 | -0.24 | -0.000336 | ± 2.5 | PASS |
|       |     | VN | 0   | 2.37  | 0.003322  | ± 2.5 | PASS |
|       |     | VN | 10  | 4.65  | 0.006517  | ± 2.5 | PASS |
|       |     | VN | 20  | 1.56  | 0.002186  | ± 2.5 | PASS |
|       |     | VN | 30  | 1.03  | 0.001444  | ± 2.5 | PASS |

|  |  |    |    |      |           |       |      |
|--|--|----|----|------|-----------|-------|------|
|  |  | VN | 40 | -1.3 | -0.001822 | ± 2.5 | PASS |
|  |  | VN | 50 | 2.53 | 0.003546  | ± 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               | -1.68          | -0.002370       | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 3.33           | 0.004697        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 4.59           | 0.006474        | ± 2.5       | PASS    |
|                           | MCH     | VL            | TN               | -0.96          | -0.001352       | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 0.54           | 0.000761        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 1.24           | 0.001746        | ± 2.5       | PASS    |
|                           | HCH     | VL            | TN               | 4.3            | 0.006048        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 1.21           | 0.001702        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | -1.06          | -0.001491       | ± 2.5       | PASS    |
| 16QAM                     | LCH     | VL            | TN               | 3.76           | 0.005303        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | 4.34           | 0.006121        | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 1.22           | 0.001721        | ± 2.5       | PASS    |
|                           | MCH     | VL            | TN               | 4.15           | 0.005845        | ± 2.5       | PASS    |
|                           |         | VN            | TN               | -1.71          | -0.002408       | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 0.09           | 0.000127        | ± 2.5       | PASS    |
|                           | HCH     | VL            | TN               | -0.94          | -0.001322       | ± 2.5       | PASS    |
|                           |         | VN            | TN               | -0.7           | -0.000985       | ± 2.5       | PASS    |
|                           |         | VH            | TN               | 4.16           | 0.005851        | ± 2.5       | PASS    |
| Temperature               |         |               |                  |                |                 |             |         |
| Modulation                | Channel | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| QPSK                      | LCH     | VN            | -30              | -1.93          | -0.002722       | ± 2.5       | PASS    |
|                           |         | VN            | -20              | 3.55           | 0.005007        | ± 2.5       | PASS    |
|                           |         | VN            | -10              | 2.91           | 0.004104        | ± 2.5       | PASS    |
|                           |         | VN            | 0                | -0.5           | -0.000705       | ± 2.5       | PASS    |
|                           |         | VN            | 10               | -0.12          | -0.000169       | ± 2.5       | PASS    |
|                           |         | VN            | 20               | -1.93          | -0.002722       | ± 2.5       | PASS    |
|                           |         | VN            | 30               | 1.17           | 0.001650        | ± 2.5       | PASS    |
|                           |         | VN            | 40               | 0.91           | 0.001283        | ± 2.5       | PASS    |
|                           |         | VN            | 50               | -0.91          | -0.001283       | ± 2.5       | PASS    |
|                           | MCH     | VN            | -30              | 0              | 0.000000        | ± 2.5       | PASS    |
|                           |         | VN            | -20              | 2.27           | 0.003197        | ± 2.5       | PASS    |
|                           |         | VN            | -10              | 2.75           | 0.003873        | ± 2.5       | PASS    |

|       |     |    |     |       |           |       |      |
|-------|-----|----|-----|-------|-----------|-------|------|
|       |     | VN | 0   | -0.69 | -0.000972 | ± 2.5 | PASS |
|       |     | VN | 10  | 4.96  | 0.006986  | ± 2.5 | PASS |
|       |     | VN | 20  | 3.74  | 0.005268  | ± 2.5 | PASS |
|       |     | VN | 30  | 2.98  | 0.004197  | ± 2.5 | PASS |
|       |     | VN | 40  | 1.46  | 0.002056  | ± 2.5 | PASS |
|       |     | VN | 50  | 0.31  | 0.000437  | ± 2.5 | PASS |
|       | HCH | VN | -30 | -0.01 | -0.000014 | ± 2.5 | PASS |
|       |     | VN | -20 | 4.34  | 0.006104  | ± 2.5 | PASS |
|       |     | VN | -10 | -1.15 | -0.001617 | ± 2.5 | PASS |
|       |     | VN | 0   | 4.53  | 0.006371  | ± 2.5 | PASS |
|       |     | VN | 10  | 2.58  | 0.003629  | ± 2.5 | PASS |
|       |     | VN | 20  | -0.94 | -0.001322 | ± 2.5 | PASS |
|       |     | VN | 30  | 1.75  | 0.002461  | ± 2.5 | PASS |
|       |     | VN | 40  | 4.09  | 0.005752  | ± 2.5 | PASS |
|       |     | VN | 50  | 0.77  | 0.001083  | ± 2.5 | PASS |
| 16QAM | LCH | VN | -30 | 0.96  | 0.001352  | ± 2.5 | PASS |
|       |     | VN | -20 | 1.37  | 0.001930  | ± 2.5 | PASS |
|       |     | VN | -10 | 4.37  | 0.006155  | ± 2.5 | PASS |
|       |     | VN | 0   | 0.25  | 0.000352  | ± 2.5 | PASS |
|       |     | VN | 10  | -0.64 | -0.000901 | ± 2.5 | PASS |
|       |     | VN | 20  | 0.3   | 0.000423  | ± 2.5 | PASS |
|       |     | VN | 30  | 1.76  | 0.002479  | ± 2.5 | PASS |
|       |     | VN | 40  | 4.88  | 0.006873  | ± 2.5 | PASS |
|       |     | VN | 50  | -0.69 | -0.000972 | ± 2.5 | PASS |
|       | MCH | VN | -30 | -1.8  | -0.002532 | ± 2.5 | PASS |
|       |     | VN | -20 | 2.88  | 0.004051  | ± 2.5 | PASS |
|       |     | VN | -10 | 1.02  | 0.001435  | ± 2.5 | PASS |
|       |     | VN | 0   | 0.69  | 0.000970  | ± 2.5 | PASS |
|       |     | VN | 10  | 0.77  | 0.001083  | ± 2.5 | PASS |
|       |     | VN | 20  | 1.65  | 0.002321  | ± 2.5 | PASS |
|       |     | VN | 30  | 4.18  | 0.005879  | ± 2.5 | PASS |
|       |     | VN | 40  | 2.84  | 0.003994  | ± 2.5 | PASS |
|       |     | VN | 50  | 4.68  | 0.006582  | ± 2.5 | PASS |
|       | HCH | VN | -30 | 3     | 0.004219  | ± 2.5 | PASS |
|       |     | VN | -20 | 0.17  | 0.000239  | ± 2.5 | PASS |
|       |     | VN | -10 | 2.01  | 0.002827  | ± 2.5 | PASS |
|       |     | VN | 0   | -1.14 | -0.001603 | ± 2.5 | PASS |
|       |     | VN | 10  | 3.48  | 0.004895  | ± 2.5 | PASS |
|       |     | VN | 20  | 3.53  | 0.004965  | ± 2.5 | PASS |
|       |     | VN | 30  | 2.29  | 0.003221  | ± 2.5 | PASS |
|       |     | VN | 40  | 1.43  | 0.002011  | ± 2.5 | PASS |

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|  |  |    |    |      |          |       |      |
|--|--|----|----|------|----------|-------|------|
|  |  | VN | 50 | 2.04 | 0.002869 | ± 2.5 | PASS |
|--|--|----|----|------|----------|-------|------|