

Appendix for Band 40(2305-2315MHz)

Product Name: TD-LTE Wireless Data Terminal

Model No: TC50

Appendix A: Average Power Output Data

Test Result

Channel Bandwidth: 5 MHz

| Modulation | Channel | RB Configuration | | Average Power [dBm] | Verdict |
|------------|---------|------------------|--------|---------------------|---------|
| | | Size | Offset | | |
| QPSK | LCH | 1 | 0 | 21.34 | PASS |
| | | 1 | 12 | 21.66 | PASS |
| | | 1 | 24 | 21.32 | PASS |
| | | 12 | 0 | 20.37 | PASS |
| | | 12 | 6 | 20.42 | PASS |
| | | 12 | 13 | 20.39 | PASS |
| | | 25 | 0 | 20.40 | PASS |
| | MCH | 1 | 0 | 21.34 | PASS |
| | | 1 | 12 | 21.65 | PASS |
| | | 1 | 24 | 21.33 | PASS |
| | | 12 | 0 | 20.51 | PASS |
| | | 12 | 6 | 20.38 | PASS |
| | | 12 | 13 | 20.33 | PASS |
| | | 25 | 0 | 20.37 | PASS |
| | HCH | 1 | 0 | 21.33 | PASS |
| | | 1 | 12 | 21.66 | PASS |
| | | 1 | 24 | 21.33 | PASS |
| | | 12 | 0 | 20.32 | PASS |
| | | 12 | 6 | 20.44 | PASS |
| | | 12 | 13 | 20.38 | PASS |
| | | 25 | 0 | 20.34 | PASS |
| 16QAM | LCH | 1 | 0 | 20.54 | PASS |
| | | 1 | 12 | 20.83 | PASS |
| | | 1 | 24 | 20.49 | PASS |
| | | 12 | 0 | 20.38 | PASS |
| | | 12 | 6 | 20.39 | PASS |
| | | 12 | 13 | 20.38 | PASS |

| | | | | | |
|--|-----|----|----|-------|------|
| | MCH | 25 | 0 | 20.51 | PASS |
| | | 1 | 0 | 20.65 | PASS |
| | | 1 | 12 | 20.97 | PASS |
| | | 1 | 24 | 20.68 | PASS |
| | | 12 | 0 | 20.37 | PASS |
| | | 12 | 6 | 20.39 | PASS |
| | | 12 | 13 | 20.41 | PASS |
| | | 25 | 0 | 20.31 | PASS |
| | HCH | 1 | 0 | 20.58 | PASS |
| | | 1 | 12 | 20.91 | PASS |
| | | 1 | 24 | 20.59 | PASS |
| | | 12 | 0 | 20.36 | PASS |
| | | 12 | 6 | 20.38 | PASS |
| | | 12 | 13 | 20.32 | PASS |
| | | 25 | 0 | 20.35 | PASS |

Channel Bandwidth: 10 MHz

| Modulation | Channel | RB Configuration | | Average Power [dBm] | Verdict |
|------------|---------|------------------|--------|---------------------|---------|
| | | Size | Offset | | |
| QPSK | MCH | 1 | 0 | 21.43 | PASS |
| | | 1 | 24 | 21.69 | PASS |
| | | 1 | 49 | 21.39 | PASS |
| | | 25 | 0 | 20.39 | PASS |
| | | 25 | 12 | 20.45 | PASS |
| | | 25 | 25 | 20.42 | PASS |
| | | 50 | 0 | 20.40 | PASS |
| 16QAM | MCH | 1 | 0 | 20.67 | PASS |
| | | 1 | 24 | 20.75 | PASS |
| | | 1 | 49 | 20.64 | PASS |
| | | 25 | 0 | 20.34 | PASS |
| | | 25 | 12 | 20.39 | PASS |
| | | 25 | 25 | 20.34 | PASS |
| | | 50 | 0 | 20.33 | PASS |

Appendix B: Peak-to-Average Ratio

Test Result

Channel Bandwidth: 5 MHz

| Channel Bandwidth: 5 MHz | | | | | | |
|--------------------------|---------|------------------|--------|-------------------------------|---------------|---------|
| Modulation | Channel | RB Configuration | | Peak-to-Average Ratio [dB] | Limit [dB] | Verdict |
| | | Size | Offset | | | |
| QPSK | LCH | 1 | 0 | 12.38 | <13 | PASS |
| | | 1 | 12 | 11.15 | <13 | PASS |
| | | 1 | 24 | 10.09 | <13 | PASS |
| | | 12 | 0 | 8.42 | <13 | PASS |
| | | 12 | 6 | 8.84 | <13 | PASS |
| | | 12 | 13 | 9.11 | <13 | PASS |
| | | 25 | 0 | 8.73 | <13 | PASS |
| | MCH | 1 | 0 | 12.09 | <13 | PASS |
| | | 1 | 12 | 7.2 | <13 | PASS |
| | | 1 | 24 | 10 | <13 | PASS |
| | | 12 | 0 | 9.29 | <13 | PASS |
| | | 12 | 6 | 8.46 | <13 | PASS |
| | | 12 | 13 | 6.92 | <13 | PASS |
| | | 25 | 0 | 10.31 | <13 | PASS |
| | HCH | 1 | 0 | 8.57 | <13 | PASS |
| | | 1 | 12 | 9.75 | <13 | PASS |
| | | 1 | 24 | 6.88 | <13 | PASS |
| | | 12 | 0 | 7.48 | <13 | PASS |
| | | 12 | 6 | 6.82 | <13 | PASS |
| | | 12 | 13 | 8.5 | <13 | PASS |
| | | 25 | 0 | 8.73 | <13 | PASS |
| 16QAM | LCH | 1 | 0 | 9.4 | <13 | PASS |
| | | 1 | 12 | 9.38 | <13 | PASS |
| | | 1 | 24 | 11.76 | <13 | PASS |
| | | 12 | 0 | 10.26 | <13 | PASS |
| | | 12 | 6 | 8.97 | <13 | PASS |
| | | 12 | 13 | 10.38 | <13 | PASS |
| | | 25 | 0 | 10.35 | <13 | PASS |
| | MCH | 1 | 0 | 10.31 | <13 | PASS |
| | | 1 | 12 | 12.05 | <13 | PASS |
| | | 1 | 24 | 10.05 | <13 | PASS |

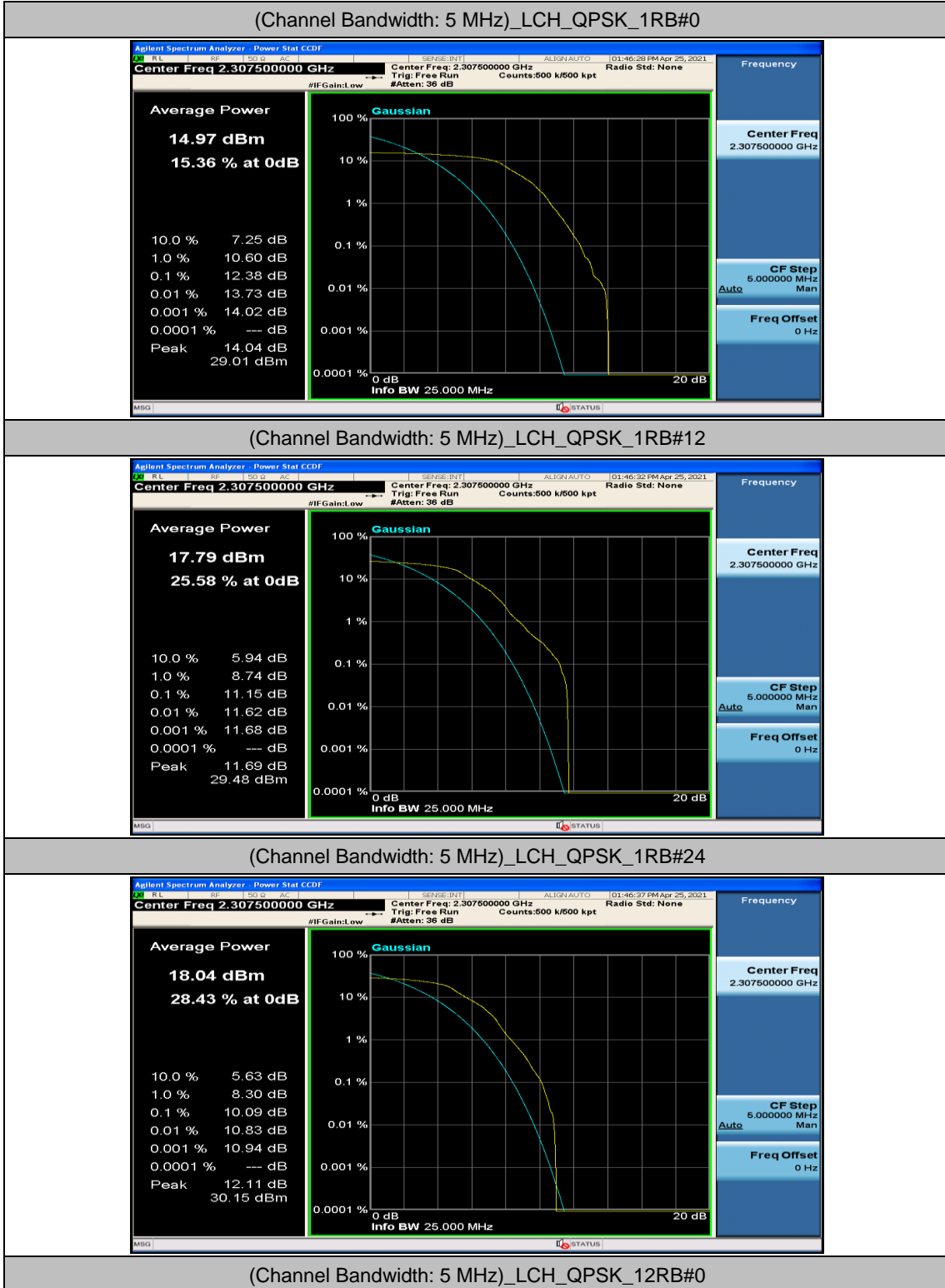
| | | | | | | |
|--|-----|----|----|-------|-----|------|
| | | 12 | 0 | 10.83 | <13 | PASS |
| | | 12 | 6 | 7.76 | <13 | PASS |
| | | 12 | 13 | 8.57 | <13 | PASS |
| | | 25 | 0 | 8.55 | <13 | PASS |
| | HCH | 1 | 0 | 9.78 | <13 | PASS |
| | | 1 | 12 | 8.26 | <13 | PASS |
| | | 1 | 24 | 11.85 | <13 | PASS |
| | | 12 | 0 | 10.02 | <13 | PASS |
| | | 12 | 6 | 9.4 | <13 | PASS |
| | | 12 | 13 | 11.08 | <13 | PASS |
| | | 25 | 0 | 7.85 | <13 | PASS |

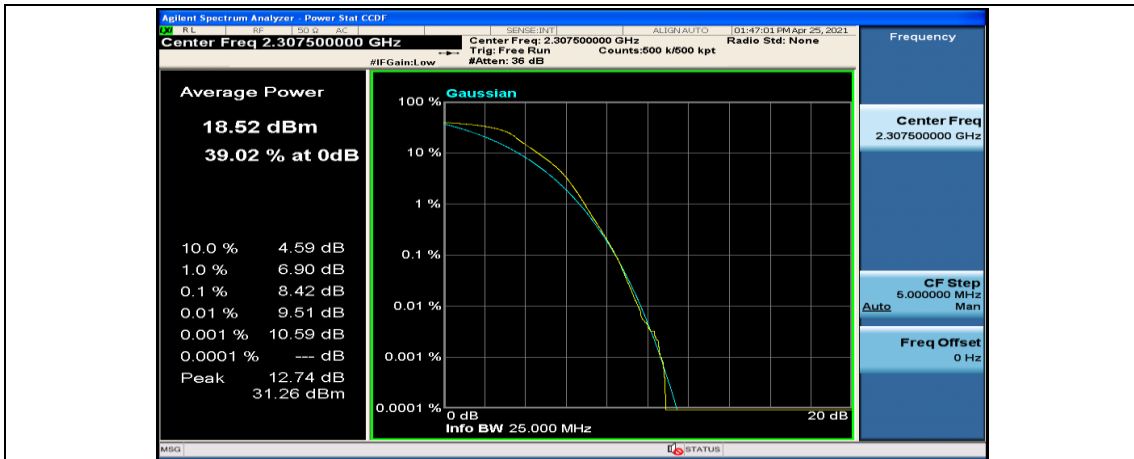
Channel Bandwidth: 10 MHz

| Channel Bandwidth: 10 MHz | | | | | | |
|---------------------------|---------|------------------|--------|-------------------------------|---------------|---------|
| Modulation | Channel | RB Configuration | | Peak-to-Average Ratio [dB] | Limit [dB] | Verdict |
| | | Size | Offset | | | |
| QPSK | MCH | 1 | 0 | 11.1 | <13 | PASS |
| | | 1 | 24 | 8.35 | <13 | PASS |
| | | 1 | 49 | 9.97 | <13 | PASS |
| | | 25 | 0 | 8.64 | <13 | PASS |
| | | 25 | 12 | 7.96 | <13 | PASS |
| | | 25 | 25 | 9.63 | <13 | PASS |
| | | 50 | 0 | 10.98 | <13 | PASS |
| 16QAM | MCH | 1 | 0 | 9 | <13 | PASS |
| | | 1 | 24 | 7.43 | <13 | PASS |
| | | 1 | 49 | 9.78 | <13 | PASS |
| | | 25 | 0 | 9.58 | <13 | PASS |
| | | 25 | 12 | 9.51 | <13 | PASS |
| | | 25 | 25 | 9.41 | <13 | PASS |
| | | 50 | 0 | 9.96 | <13 | PASS |

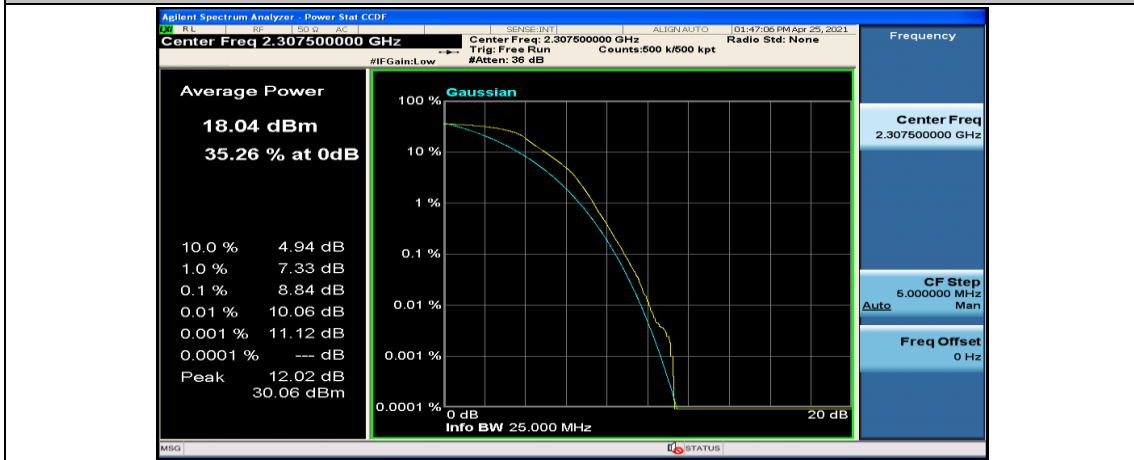
Test Graphs

Channel Bandwidth: 5 MHz

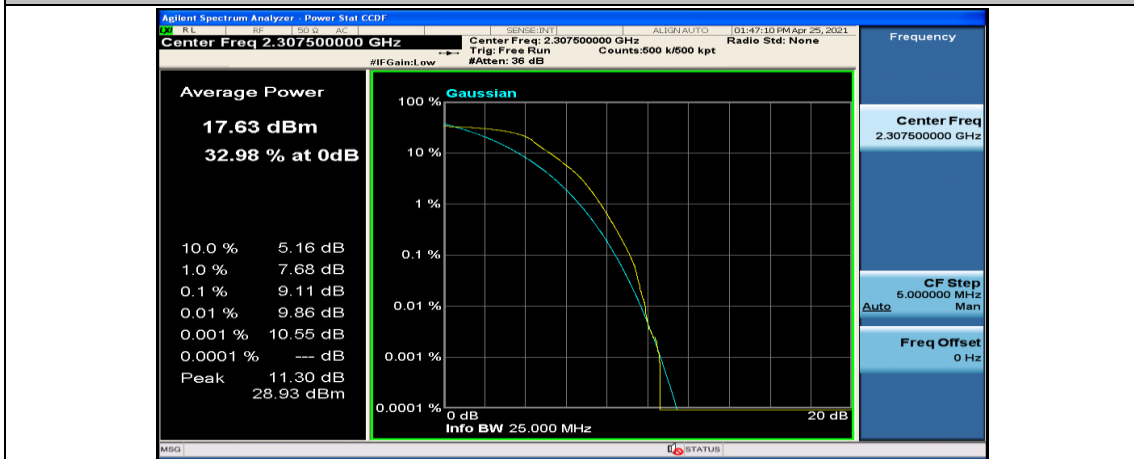




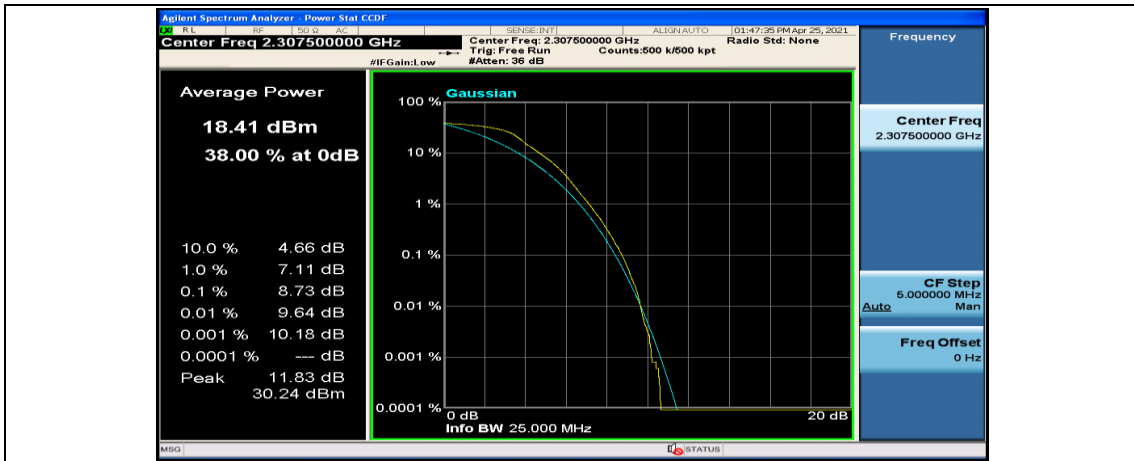
(Channel Bandwidth: 5 MHz) LCH_QPSK_12RB#6



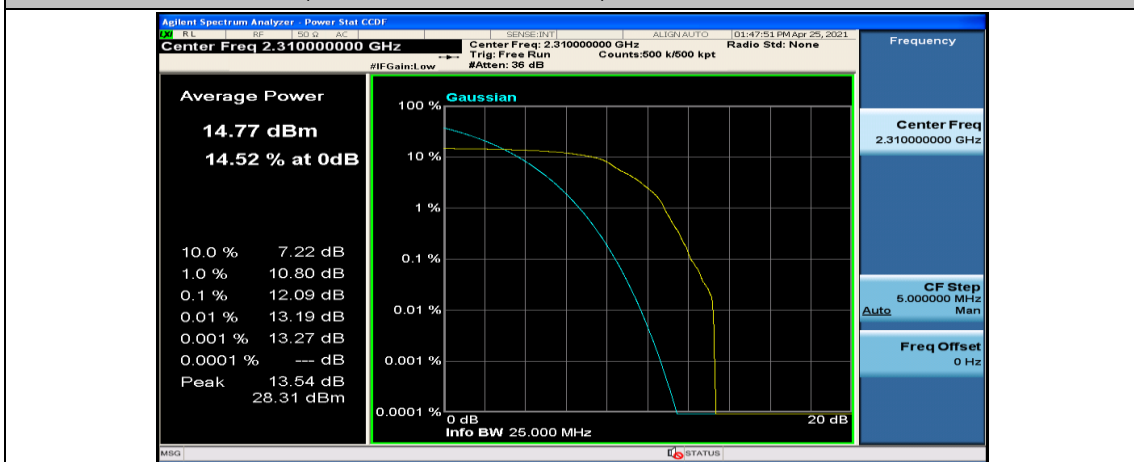
(Channel Bandwidth: 5 MHz) LCH_QPSK_12RB#13



(Channel Bandwidth: 5 MHz) LCH_QPSK_25RB#0



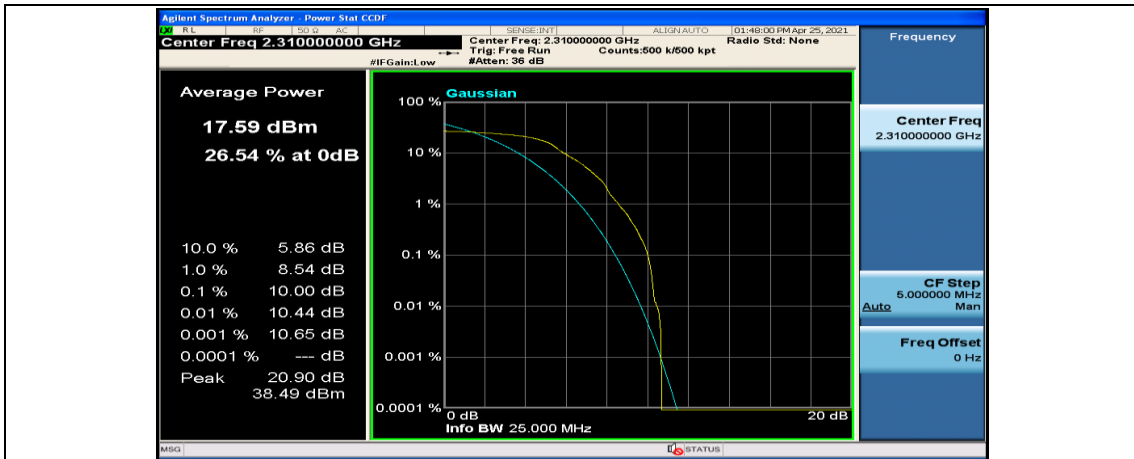
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0



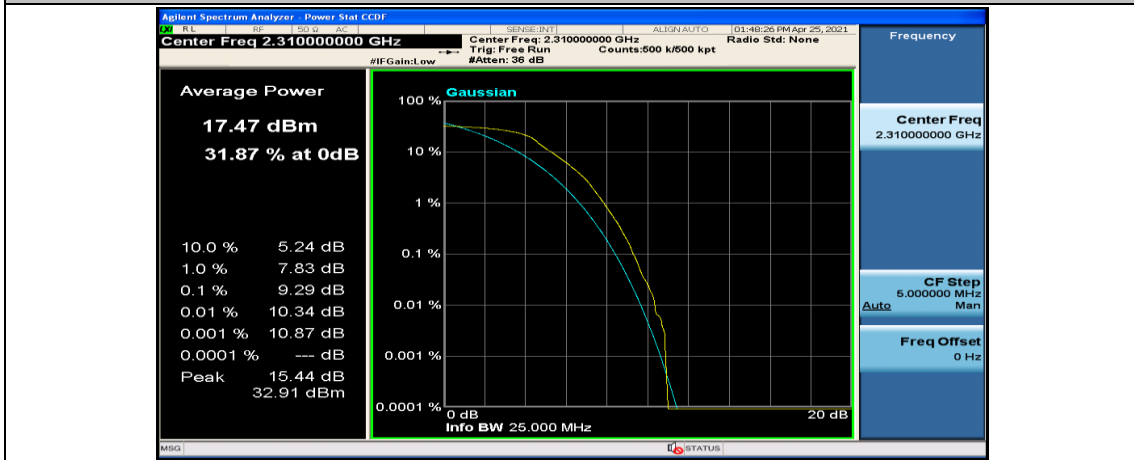
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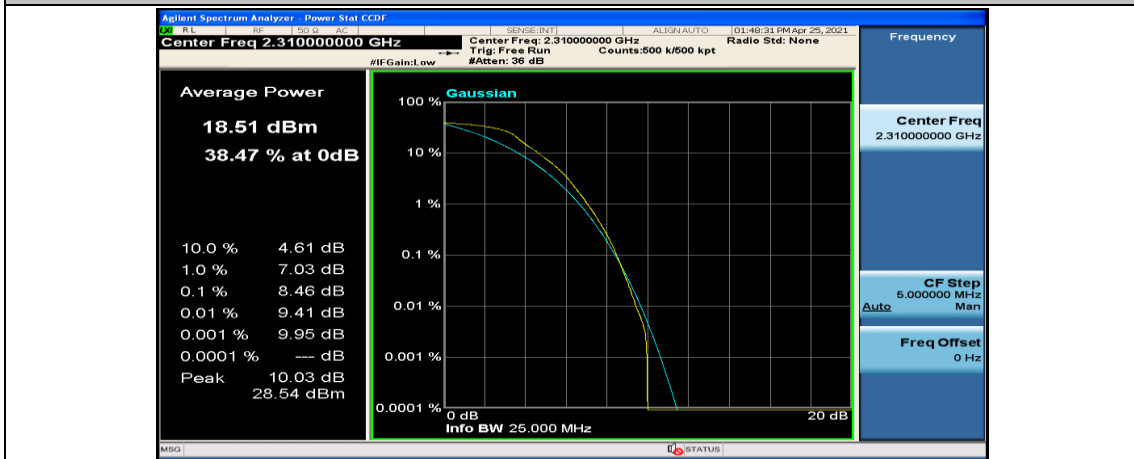
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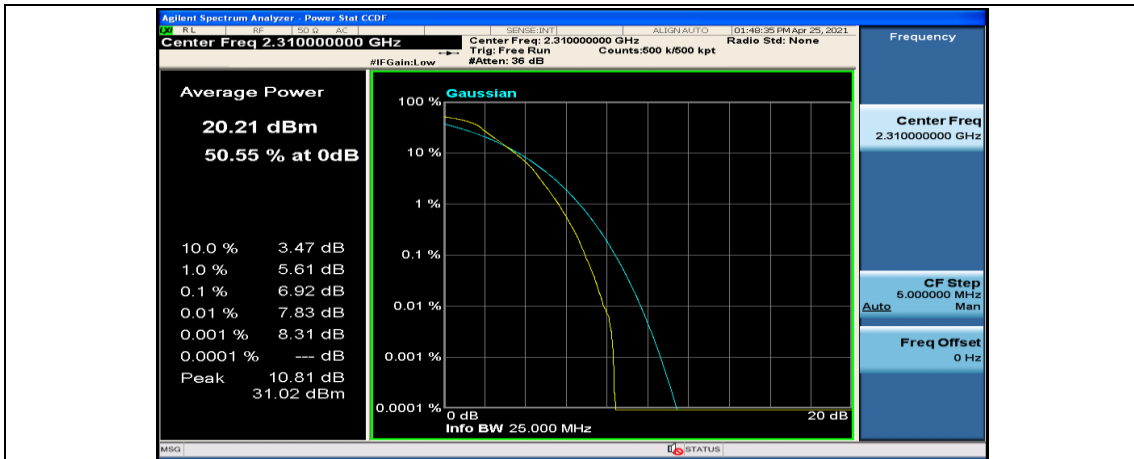
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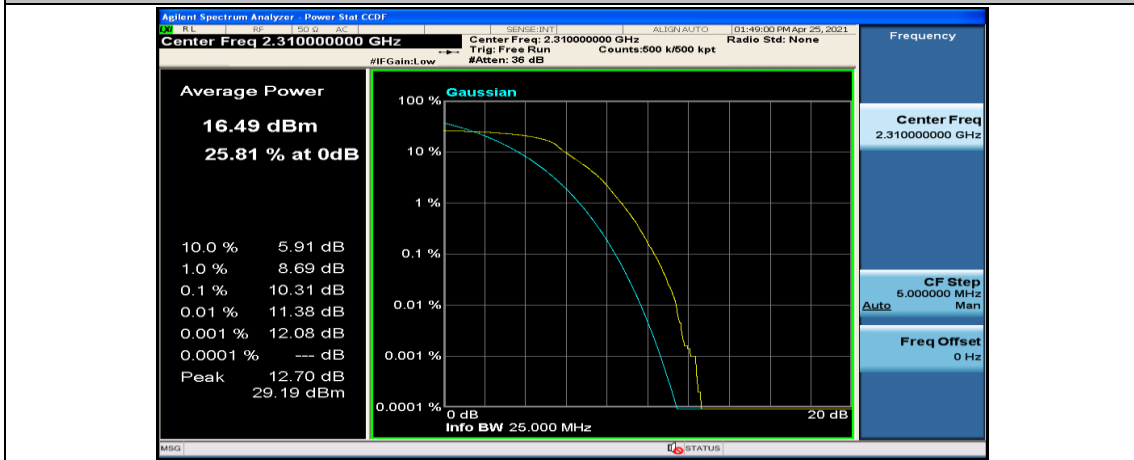
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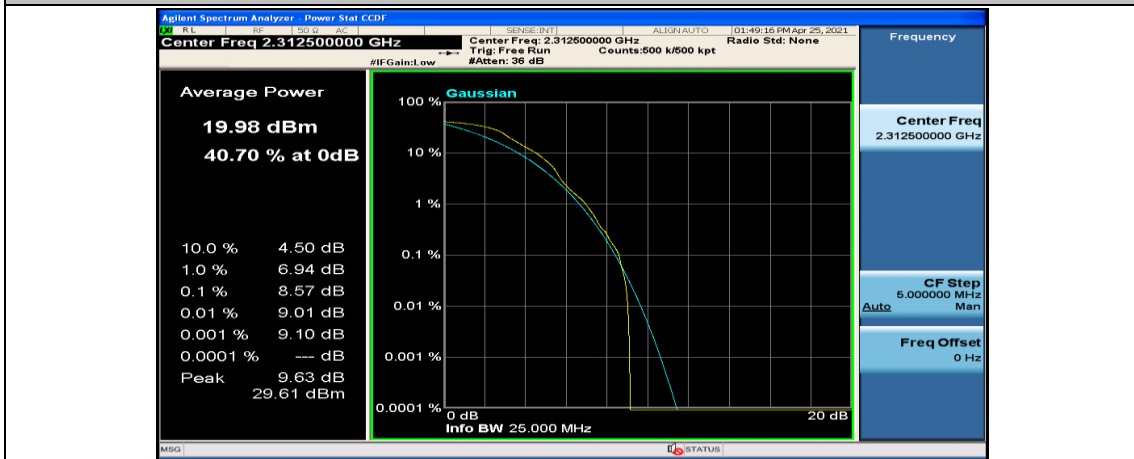
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(Channel Bandwidth: 5 MHz)_MCH_QPSK_25RB#0



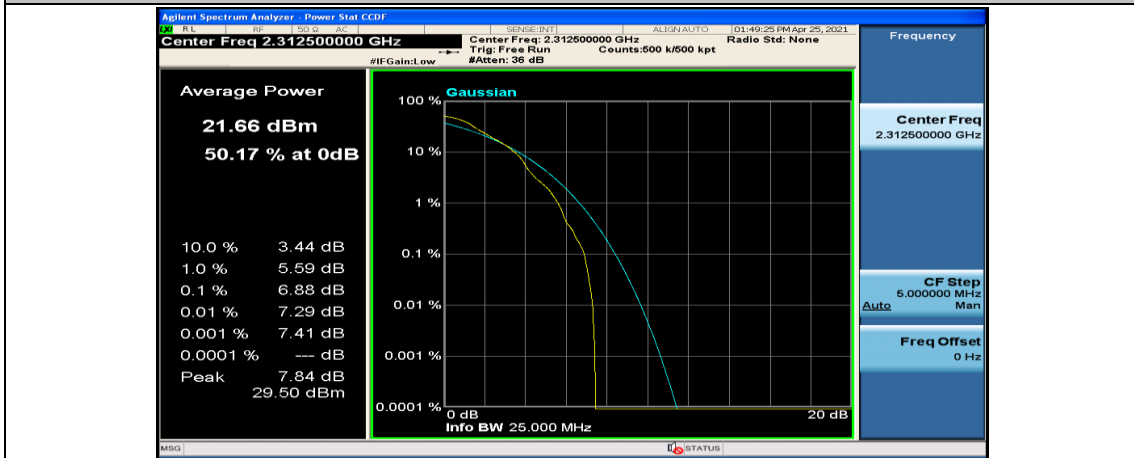
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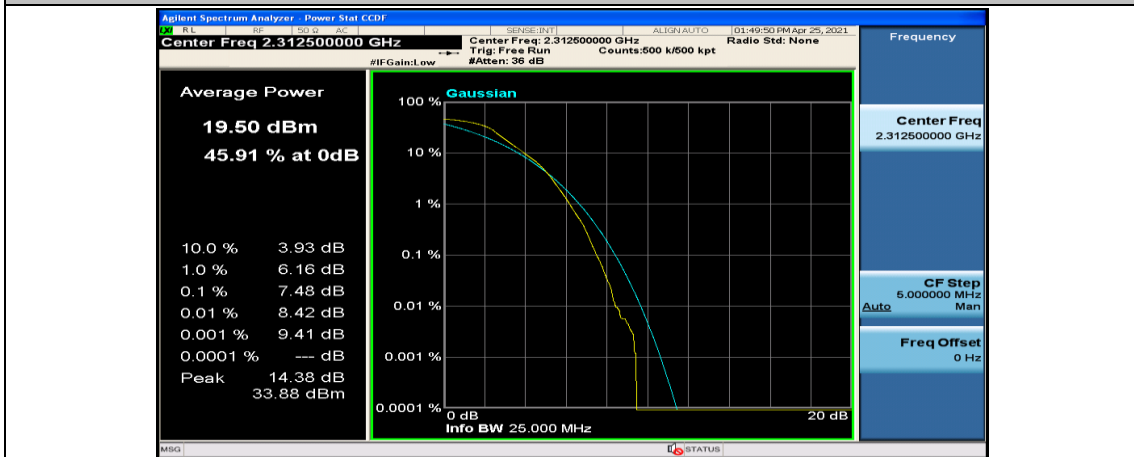
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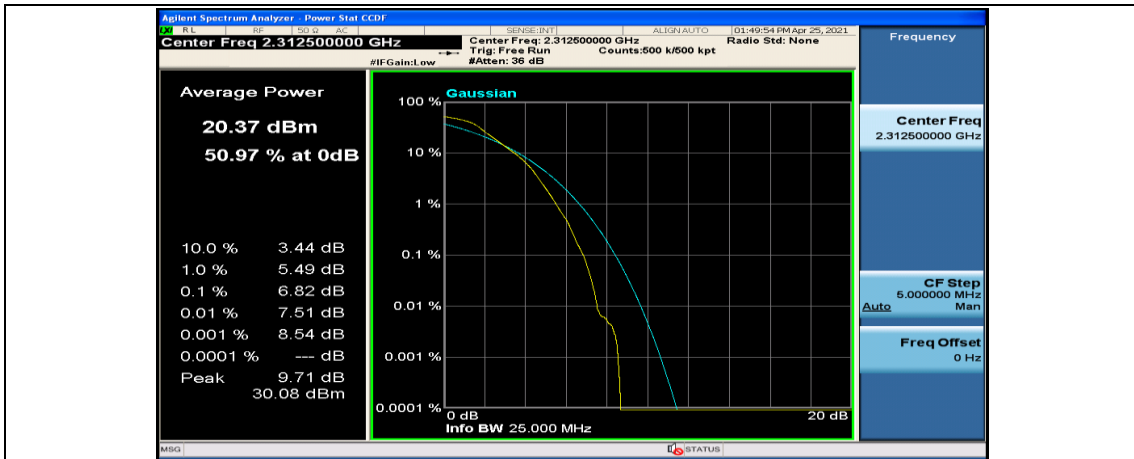
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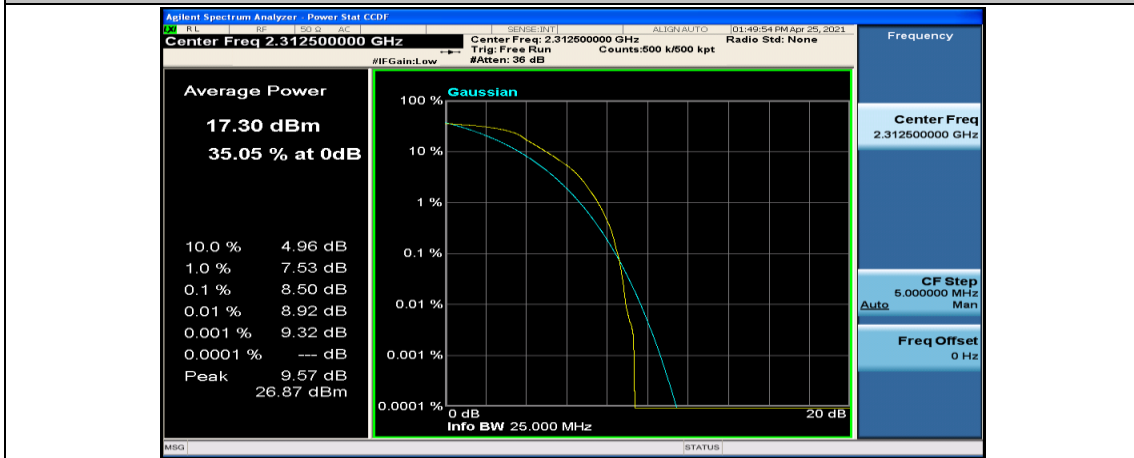
(Channel Bandwidth: 5 MHz)_HCH_QPSK_12RB#0



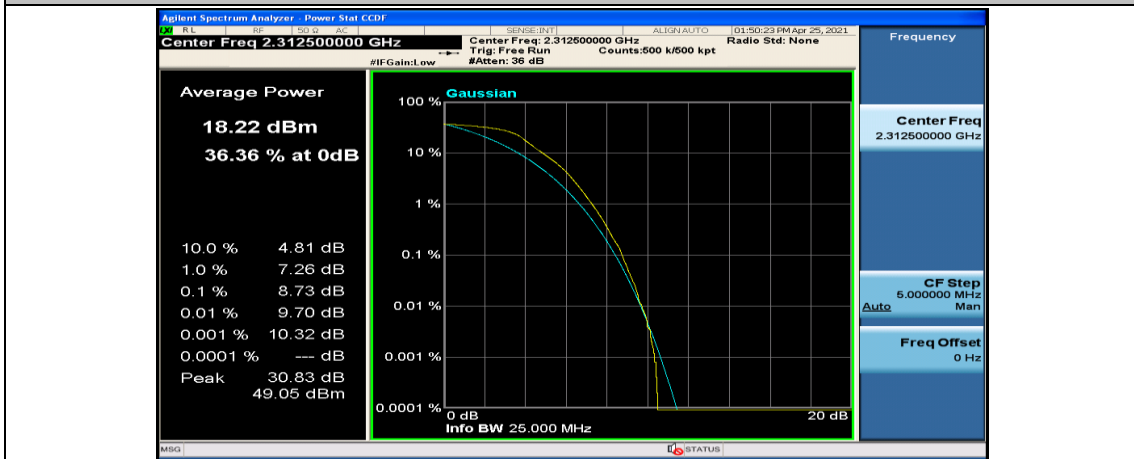
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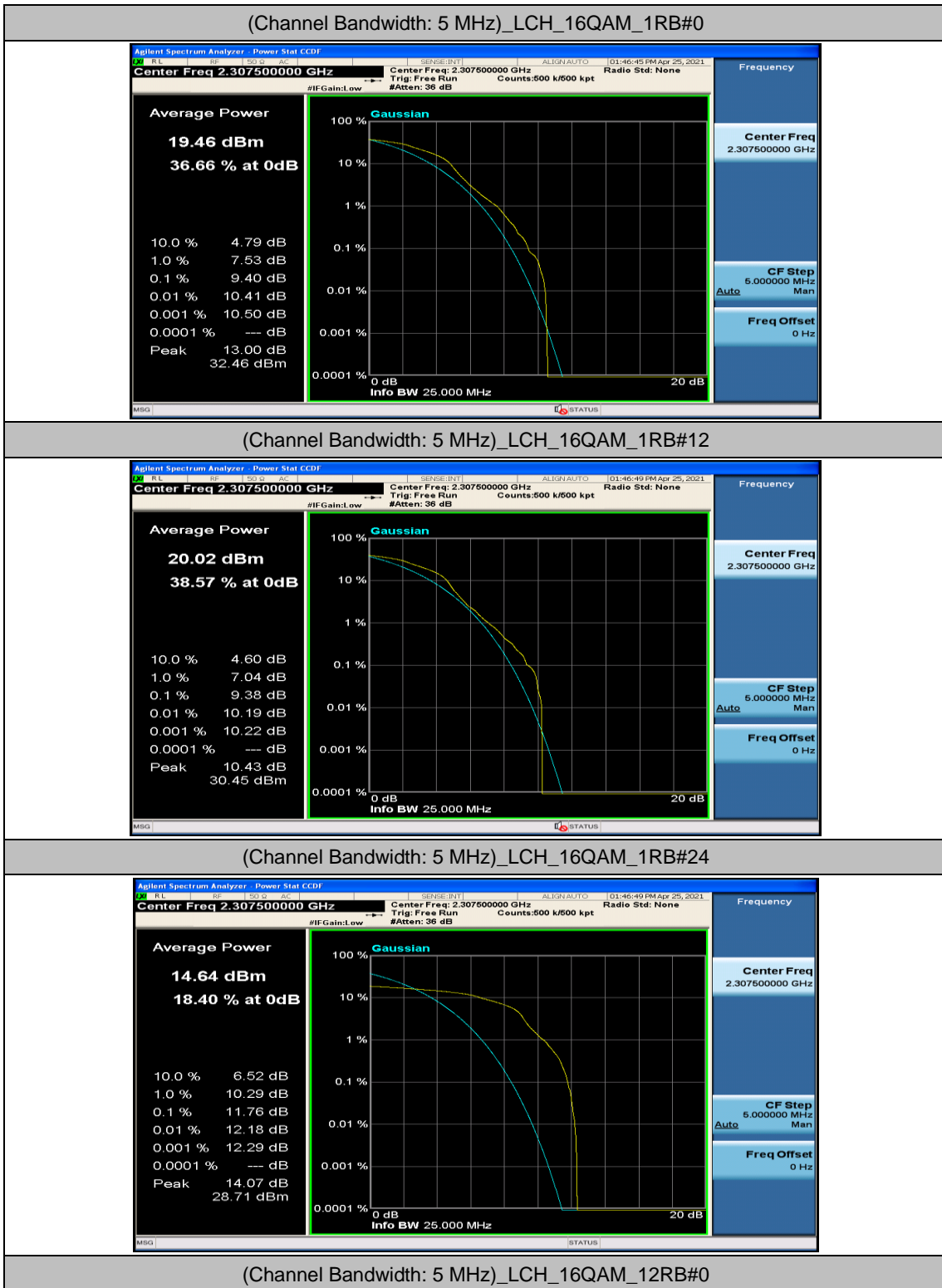


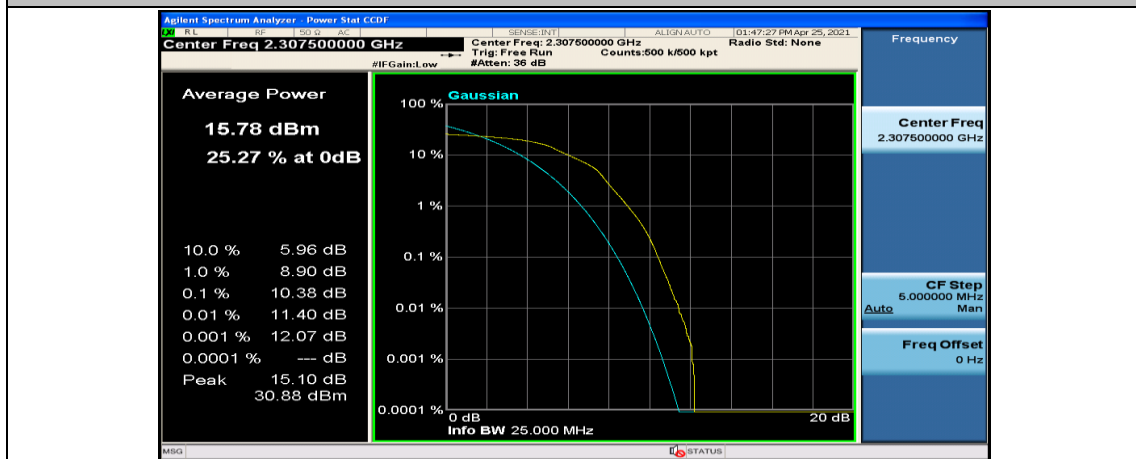
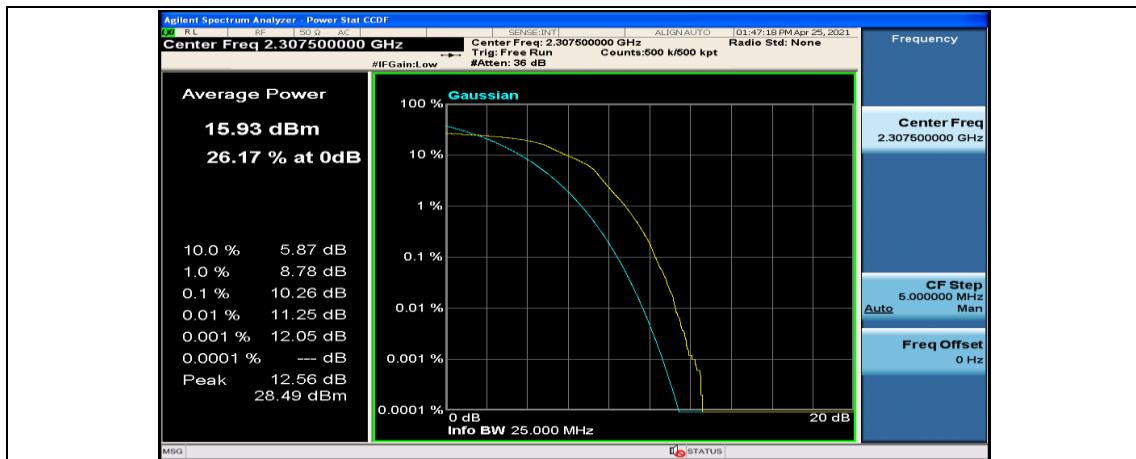
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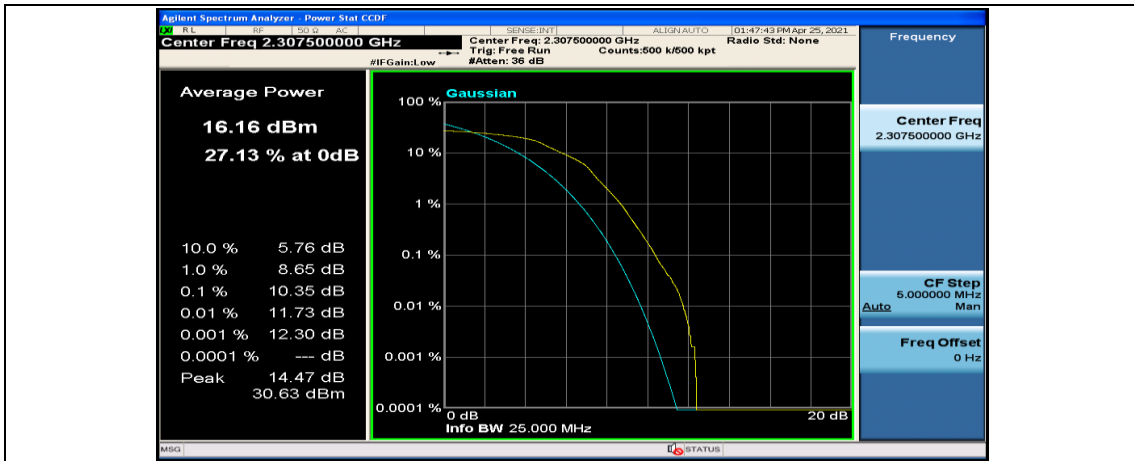


(Channel Bandwidth: 5 MHz)_HCH_QPSK_25RB#0

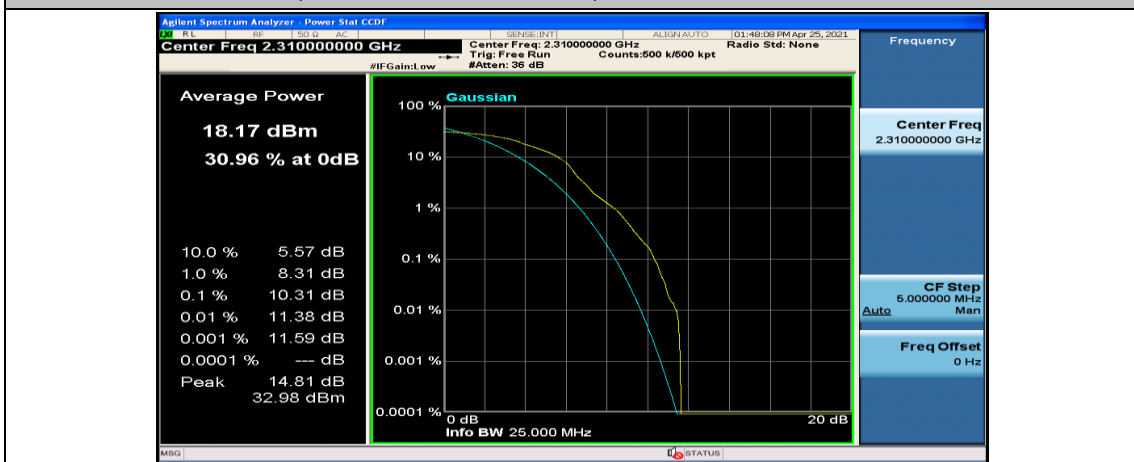




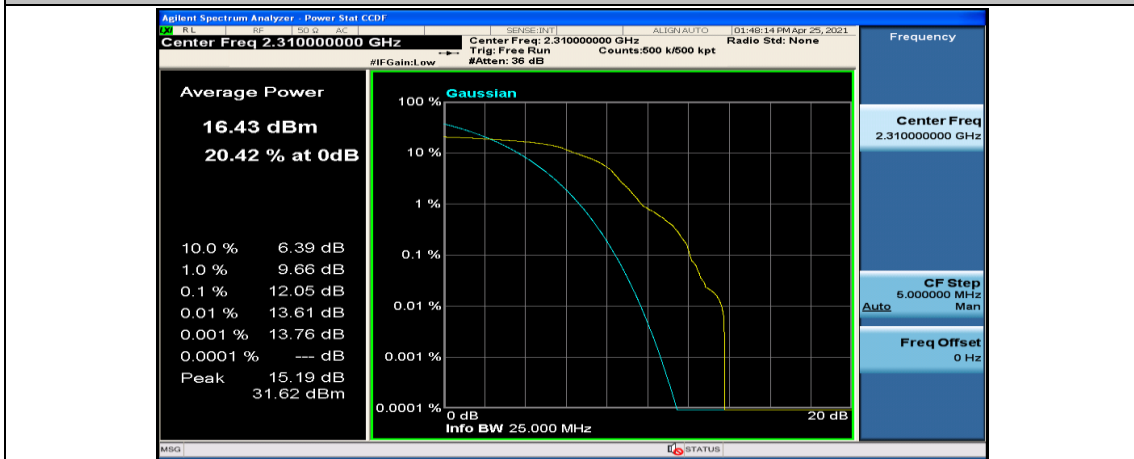




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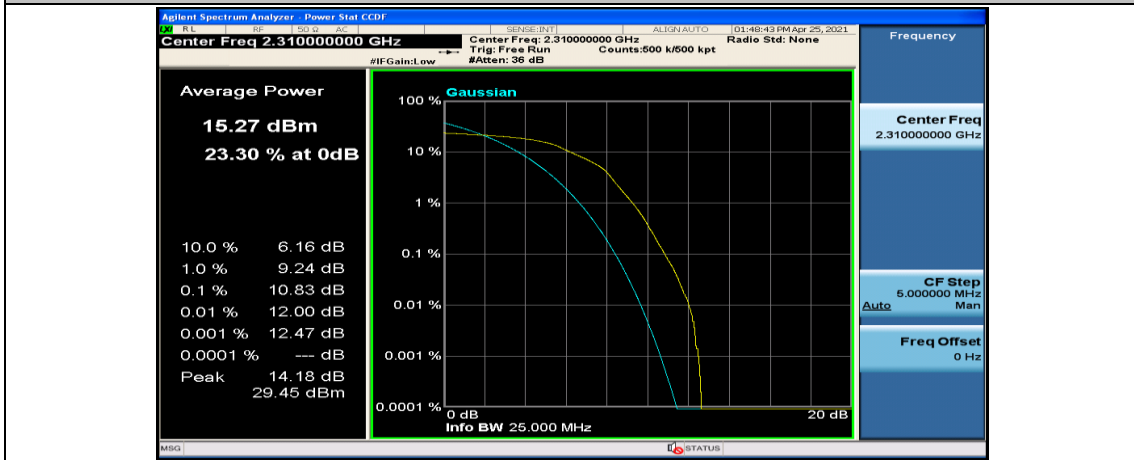
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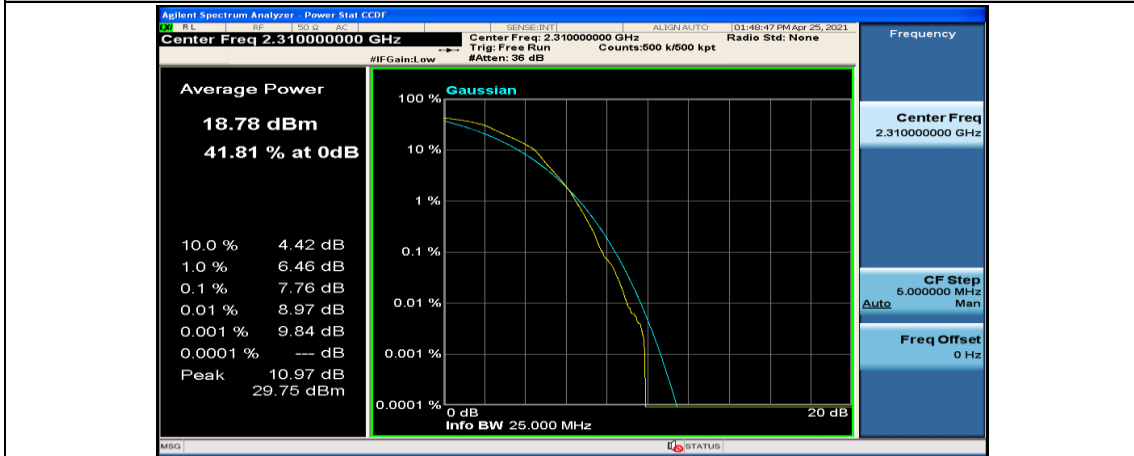
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(Channel Bandwidth: 5 MHz)_MCH_16QAM_12RB#0



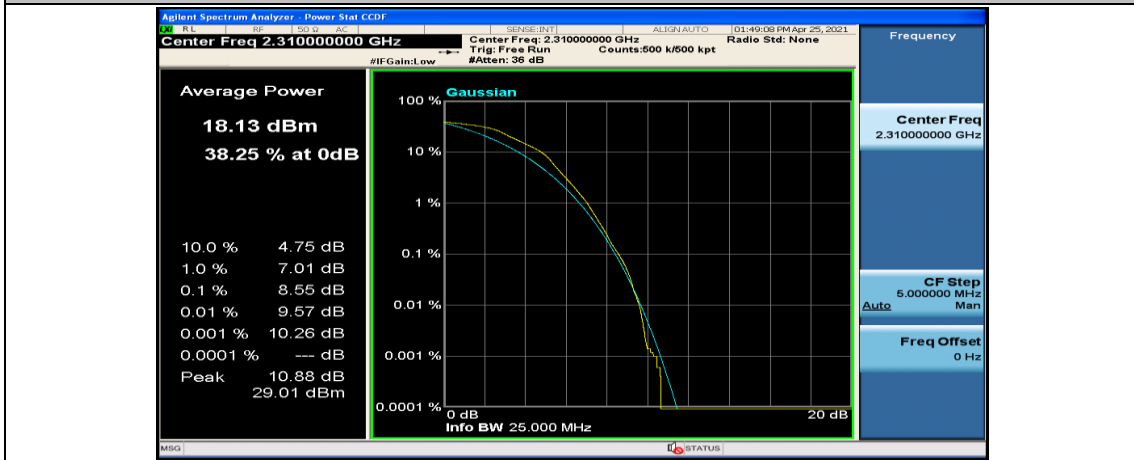
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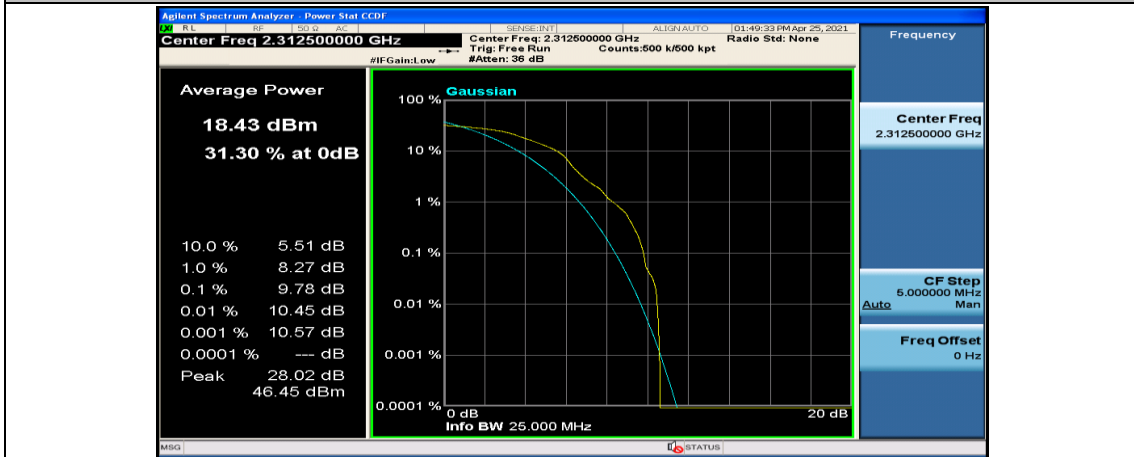
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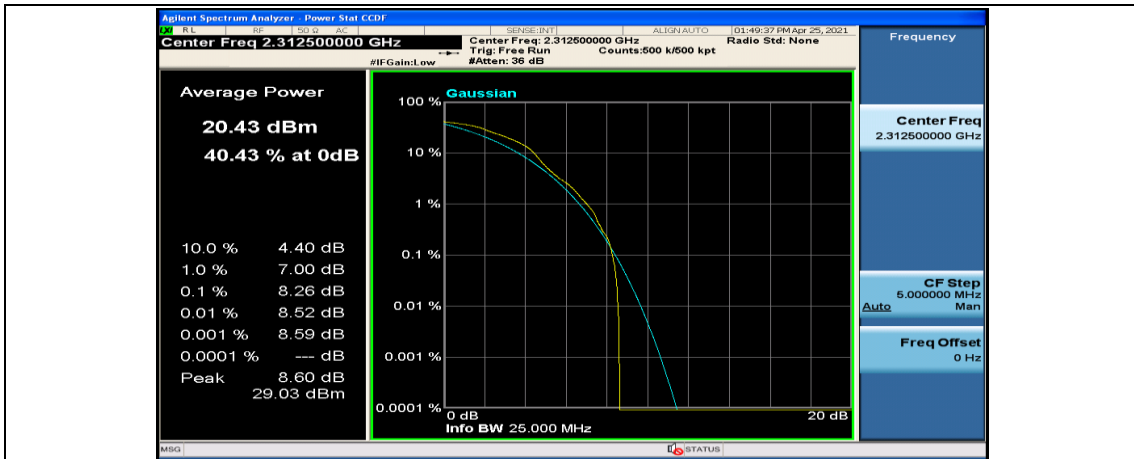
(Channel Bandwidth: 5 MHz)_MCH_16QAM_25RB#0



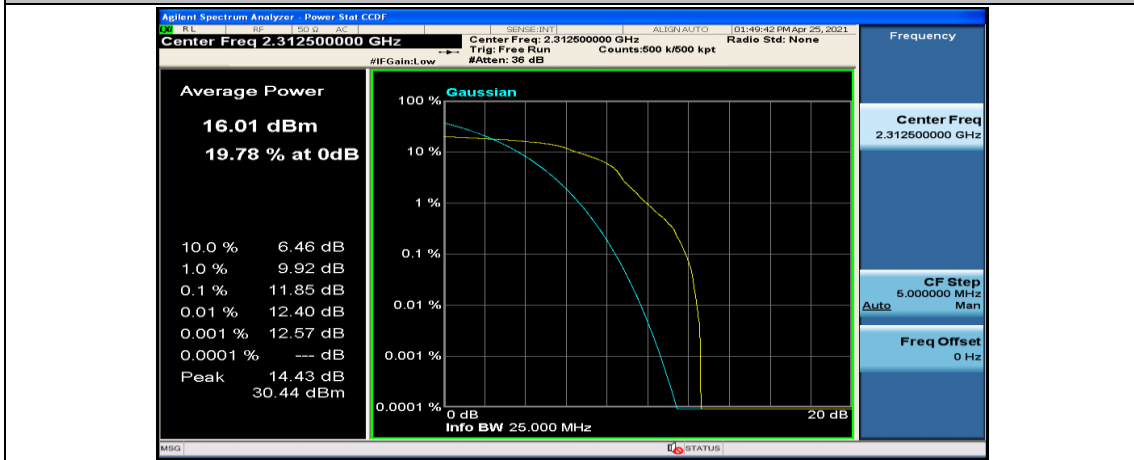
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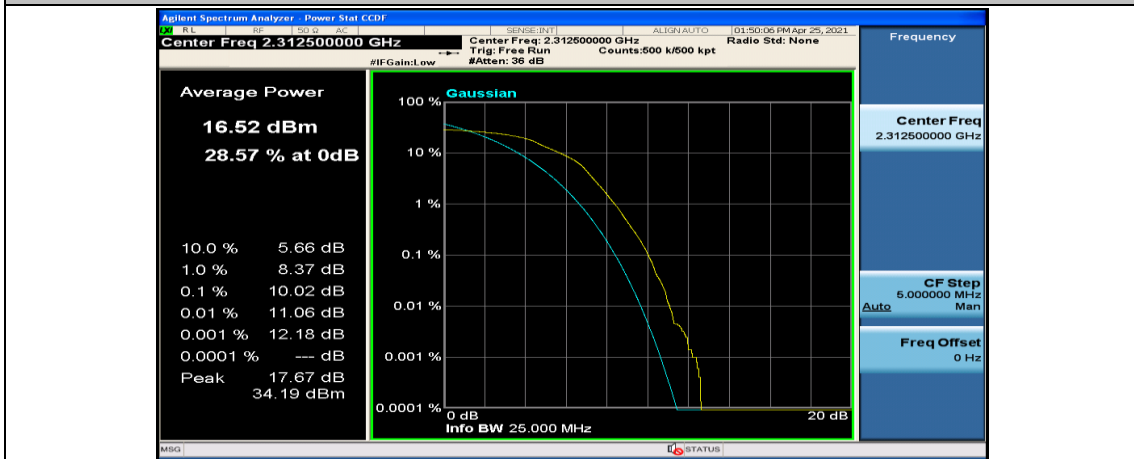
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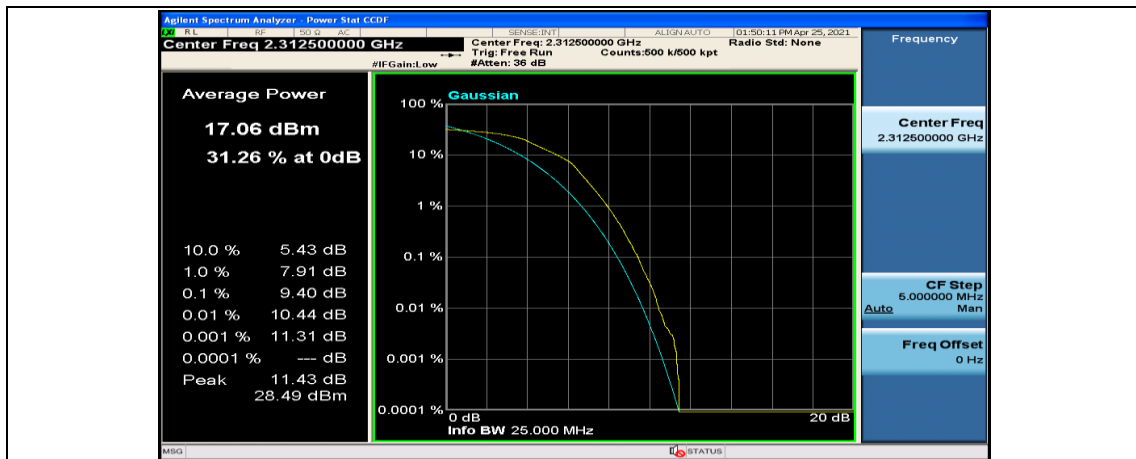
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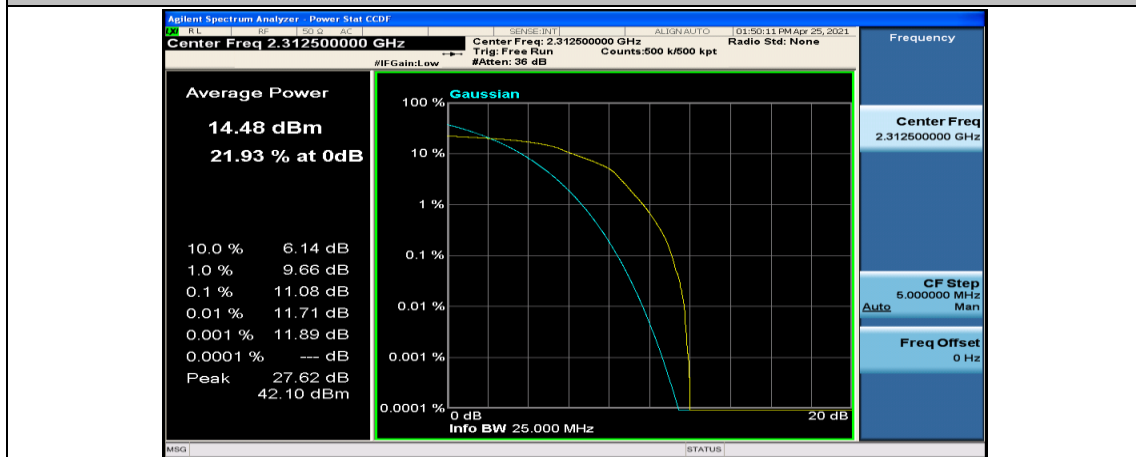
(Channel Bandwidth: 5 MHz)_HCH_16QAM_12RB#0



(Channel Bandwidth: 5 MHz)_HCH_16QAM_12RB#6



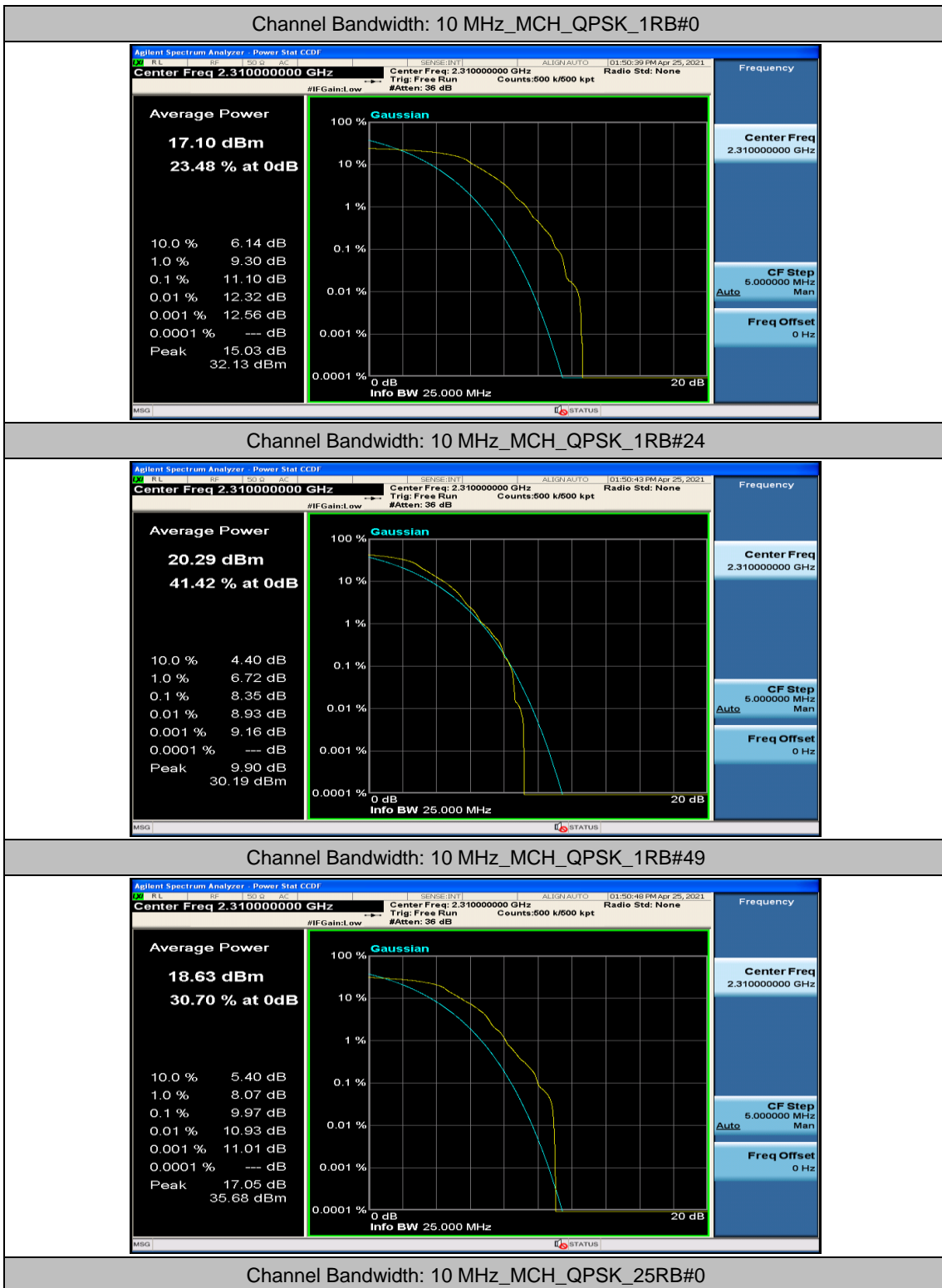
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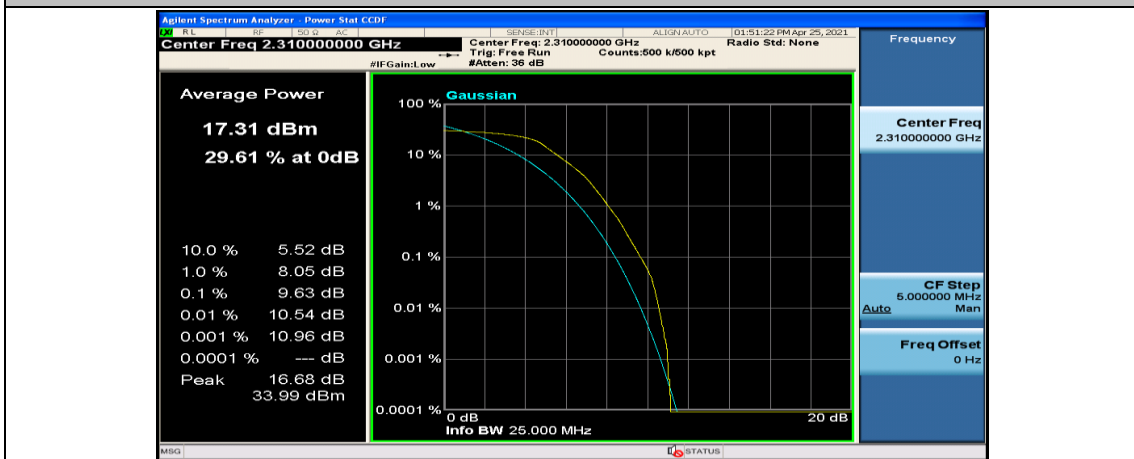
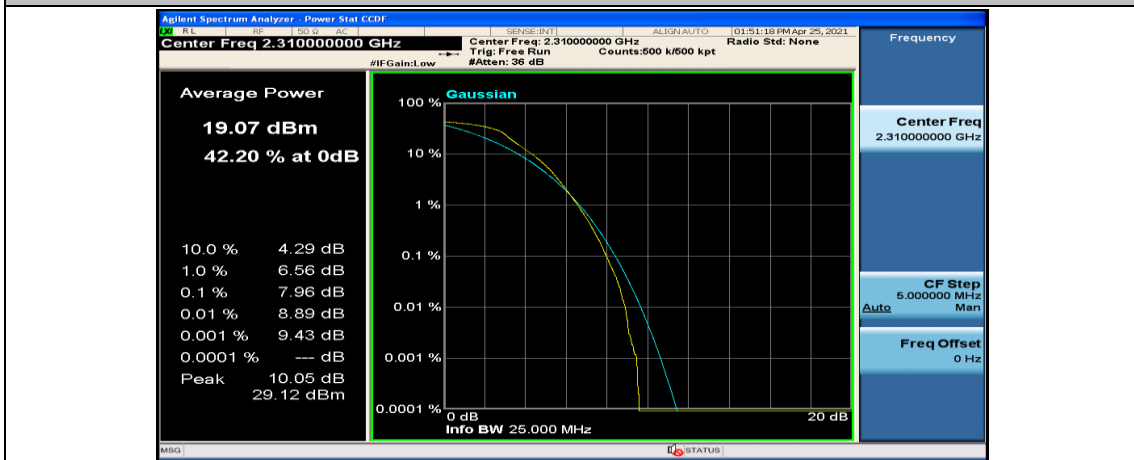


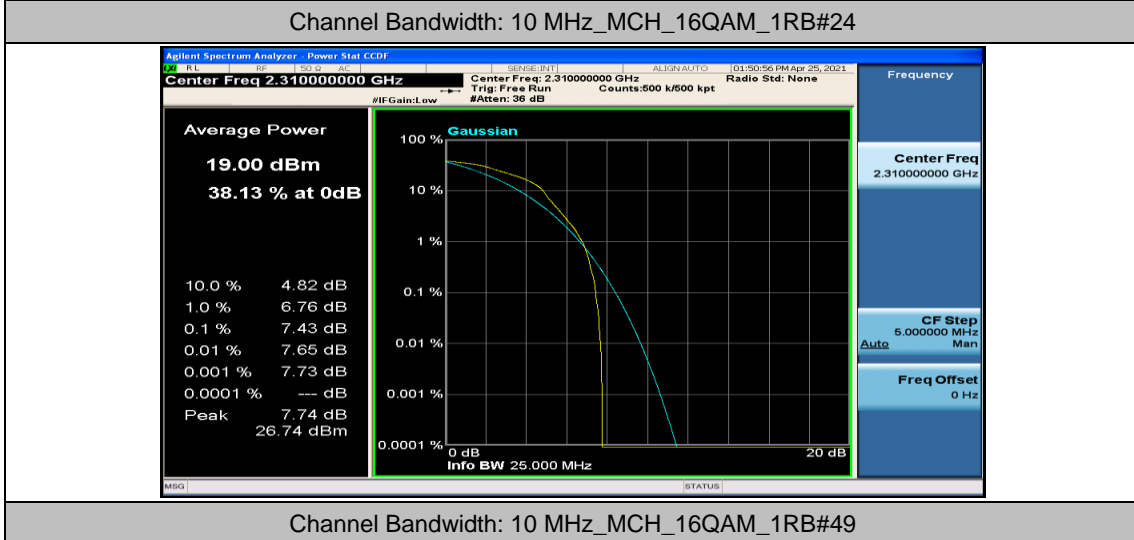
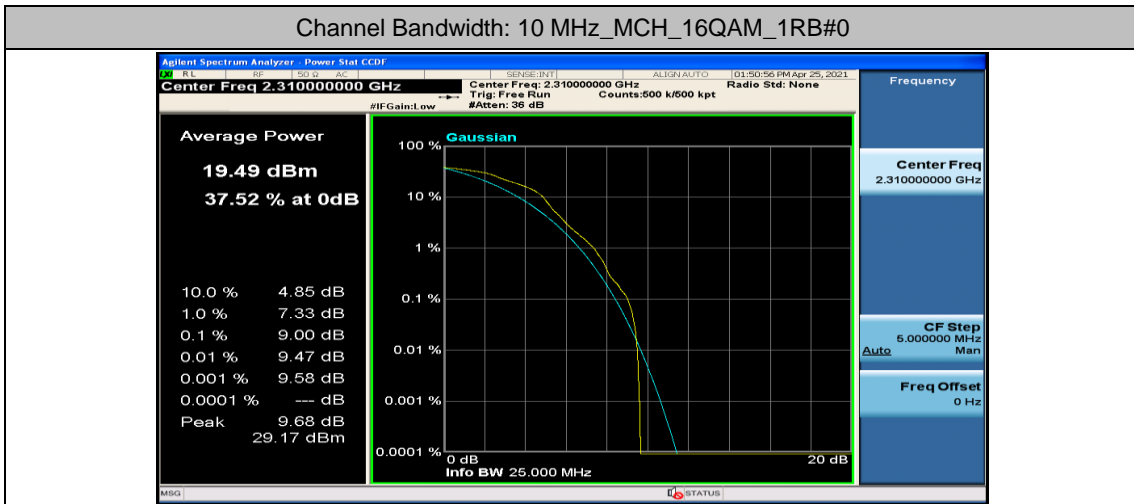
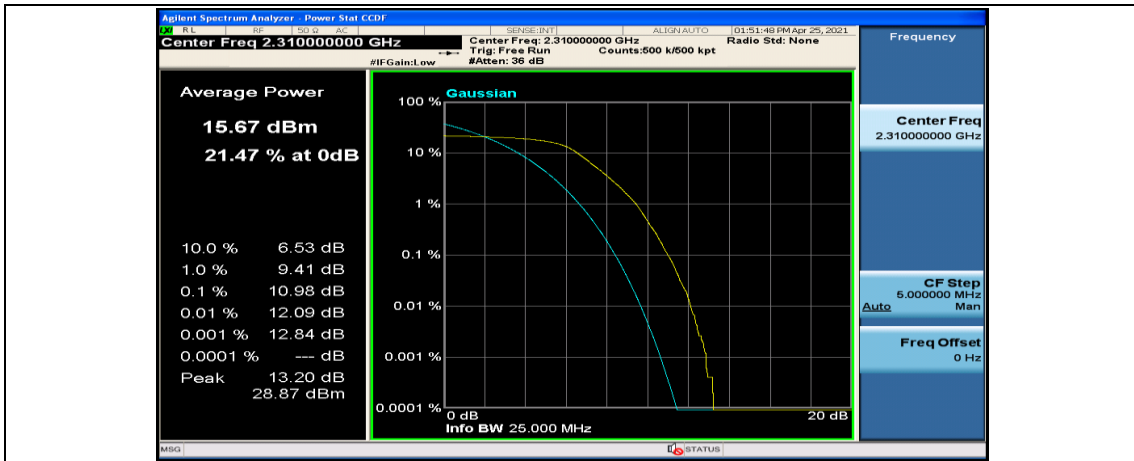
(Channel Bandwidth: 5 MHz)_HCH_16QAM_25RB#0

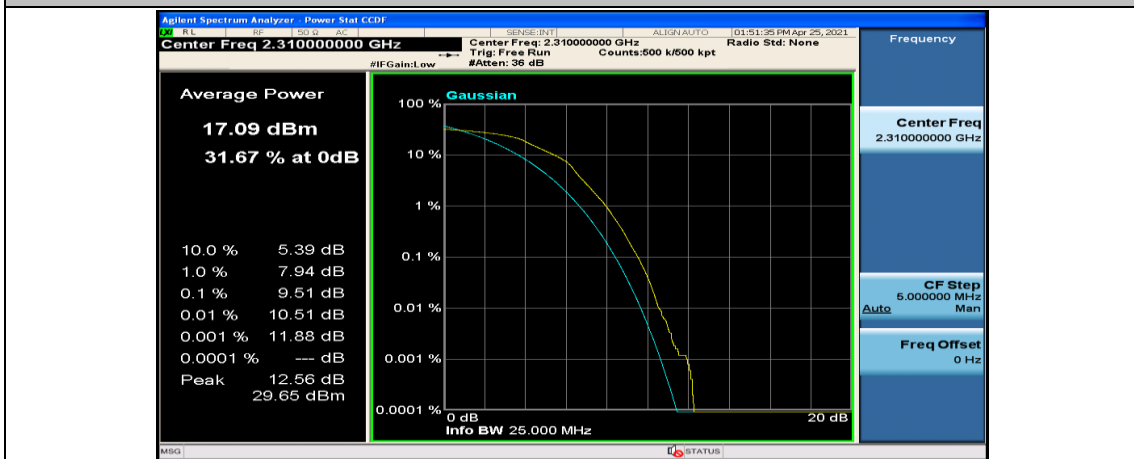
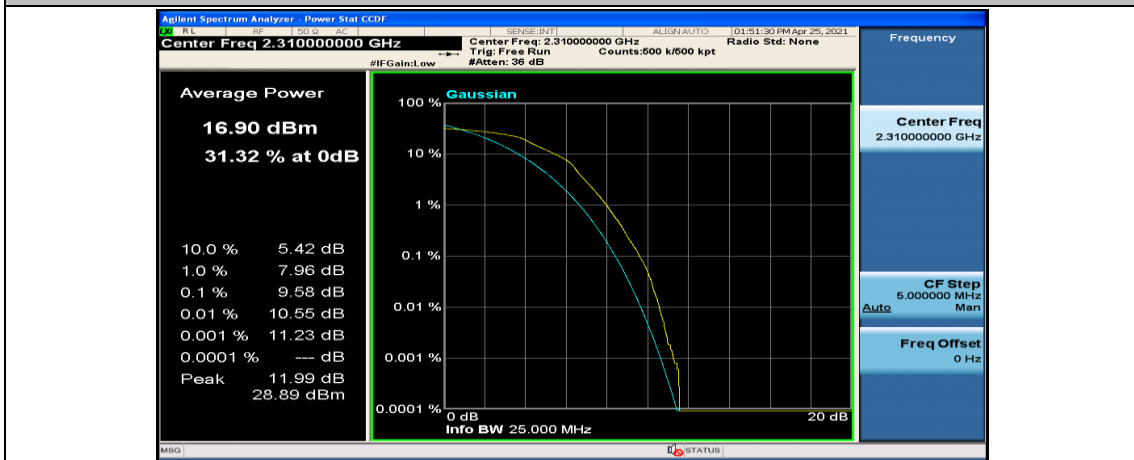
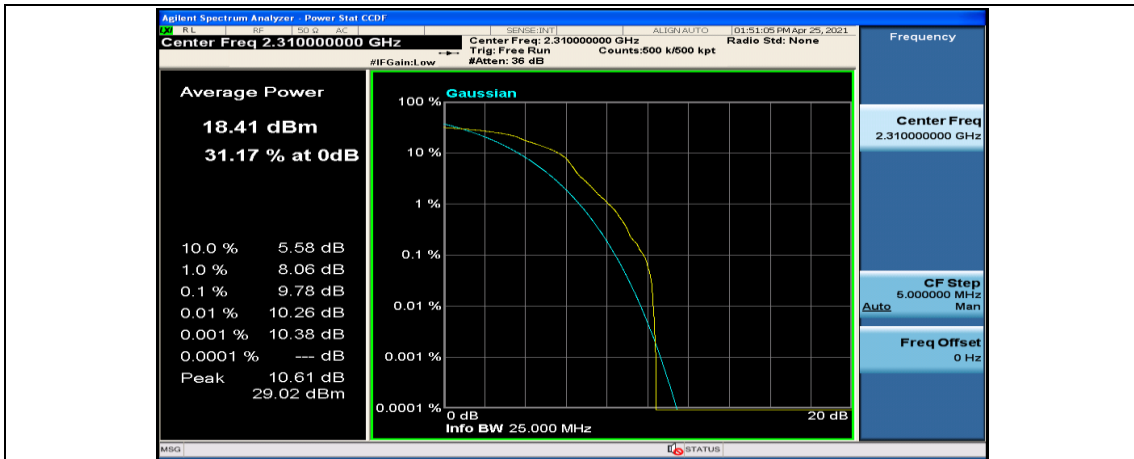


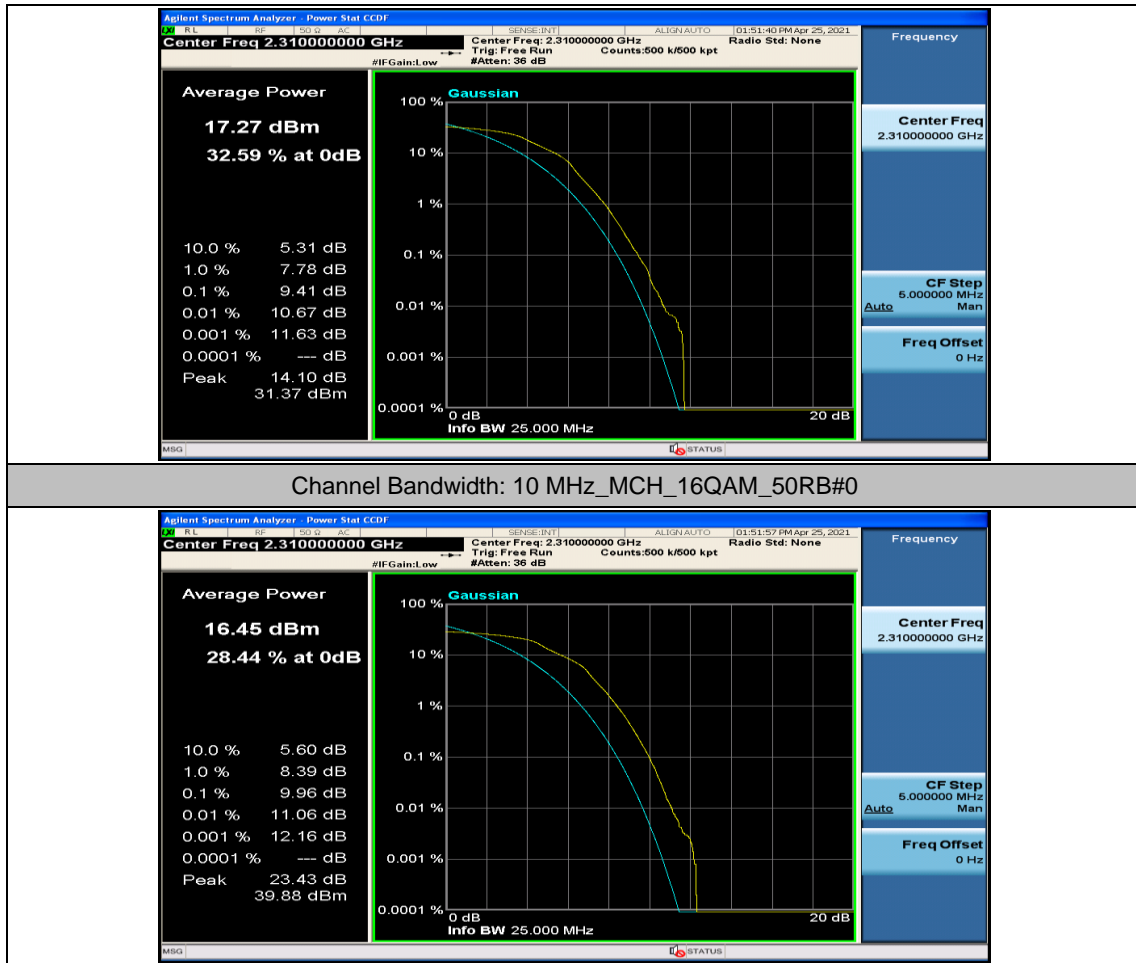
Channel Bandwidth: 10 MHz











Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Channel Bandwidth: 5 MHz

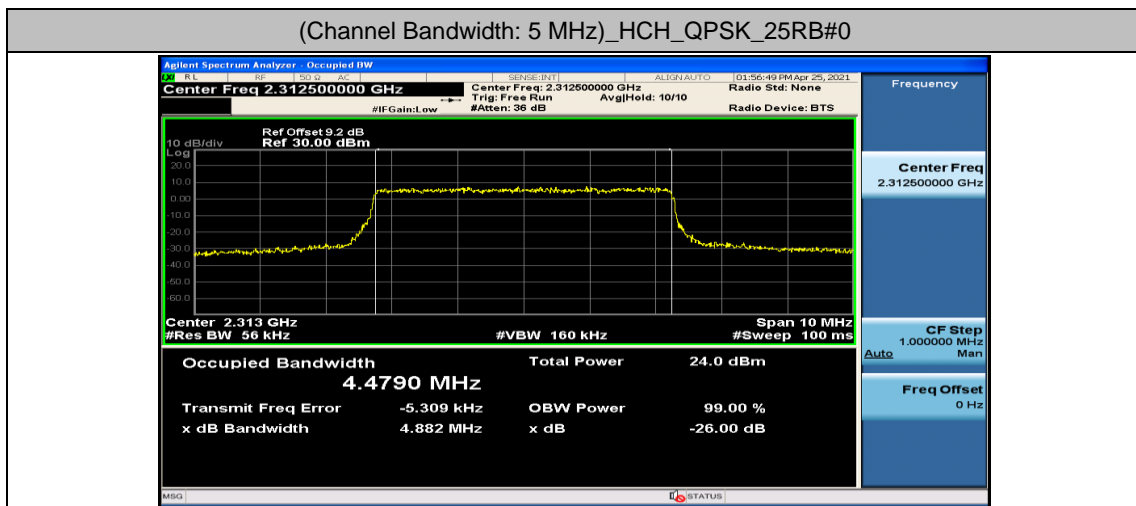
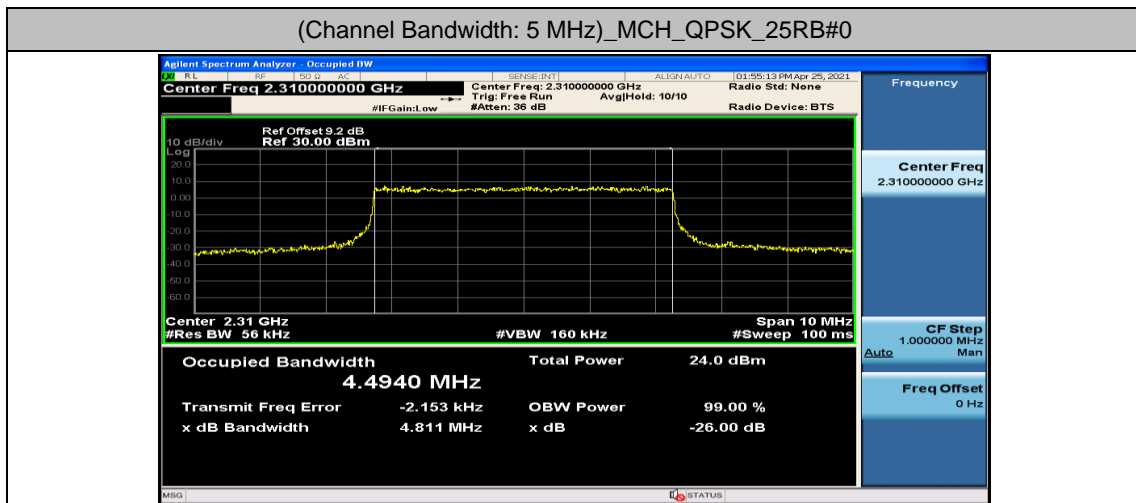
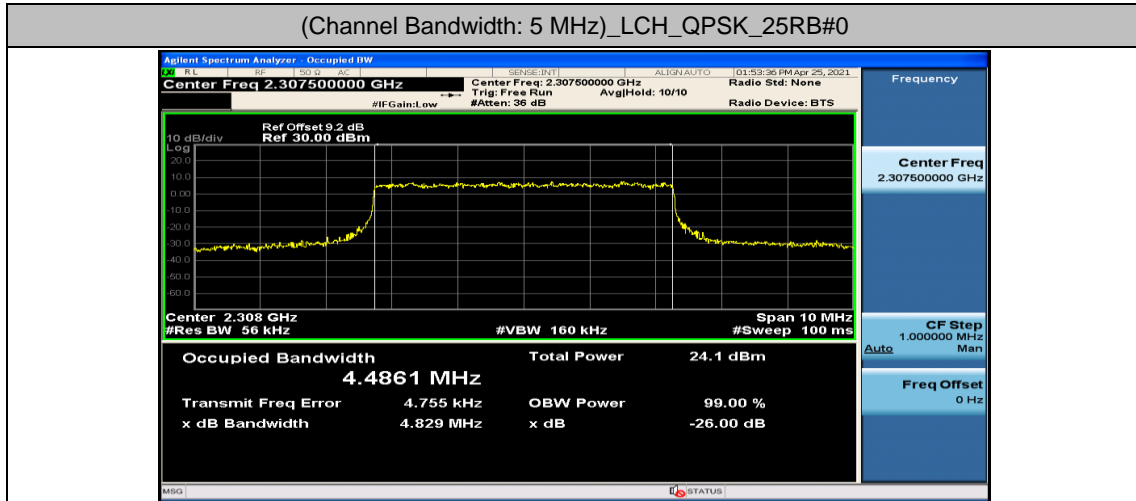
| Channel Bandwidth: 5 MHz | | | | | | |
|--------------------------|---------|------------------|--------|-----------------------------|-------------------------|---------|
| Modulation | Channel | RB Configuration | | Occupied Bandwidth (MHz) | 26dB Bandwidth (MHz) | Verdict |
| | | Size | Offset | | | |
| QPSK | LCH | 25 | 0 | 4.4861 | 4.829 | PASS |
| | MCH | 25 | 0 | 4.4940 | 4.811 | PASS |
| | HCH | 25 | 0 | 4.4790 | 4.882 | PASS |
| 16QAM | LCH | 25 | 0 | 4.4786 | 4.925 | PASS |
| | MCH | 25 | 0 | 4.4673 | 4.831 | PASS |
| | HCH | 25 | 0 | 4.4660 | 4.857 | PASS |

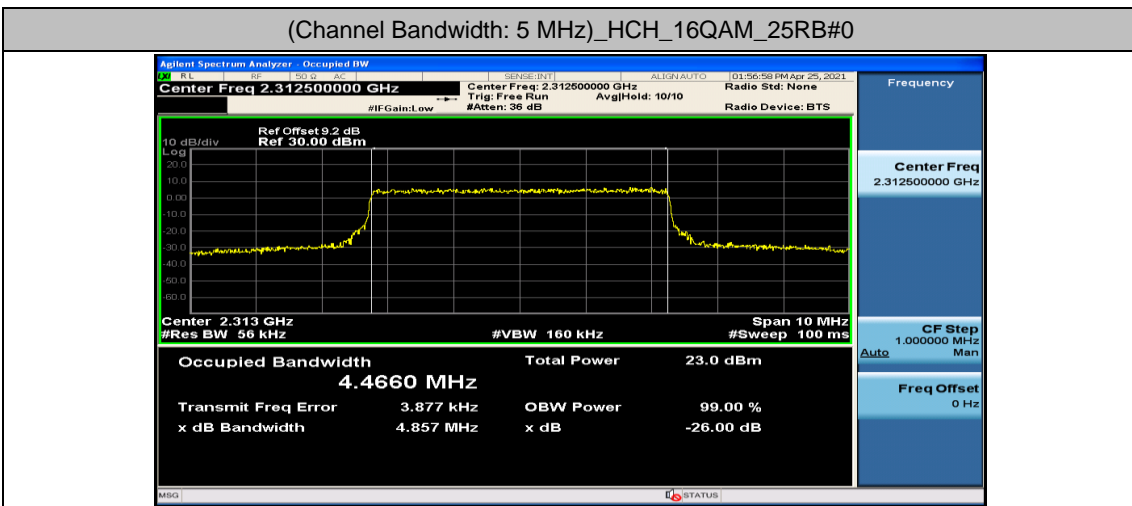
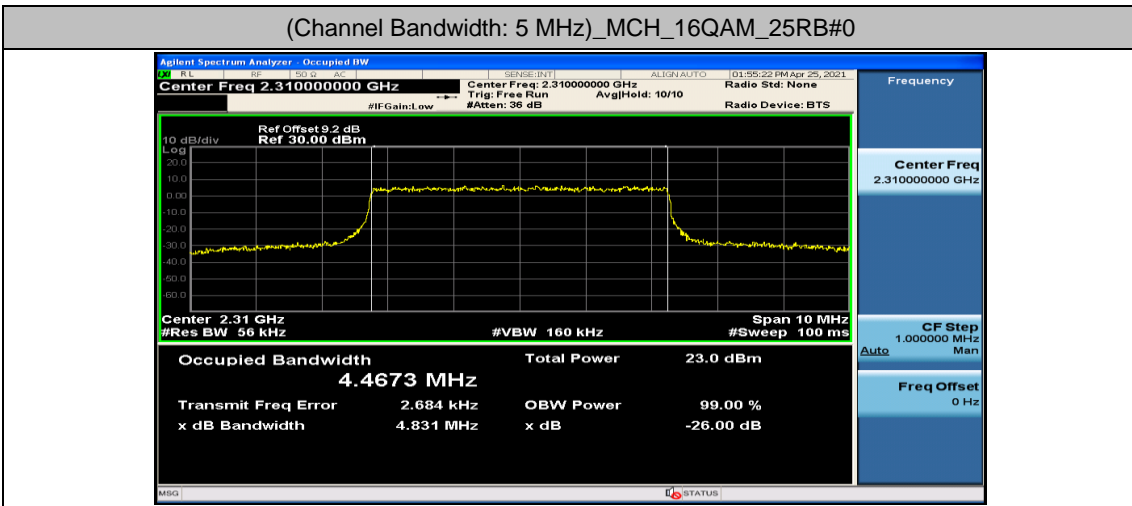
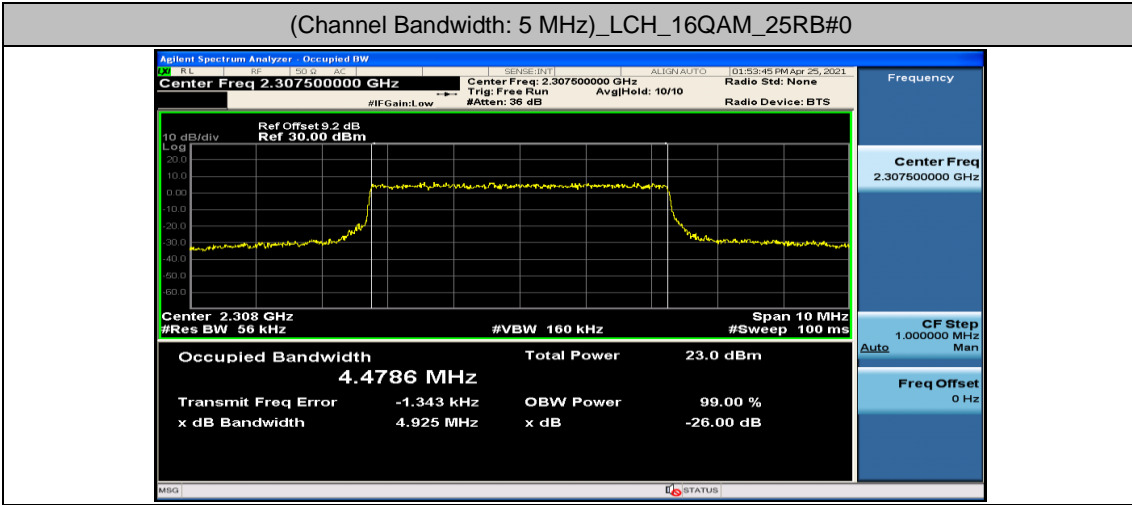
Channel Bandwidth: 10 MHz

| Channel Bandwidth: 10 MHz | | | | | | |
|---------------------------|---------|------------------|--------|-----------------------------|-------------------------|---------|
| Modulation | Channel | RB Configuration | | Occupied Bandwidth (MHz) | 26dB Bandwidth (MHz) | Verdict |
| | | Size | Offset | | | |
| QPSK | MCH | 50 | 0 | 8.9249 | 9.475 | PASS |
| 16QAM | MCH | 50 | 0 | 8.9417 | 9.478 | PASS |

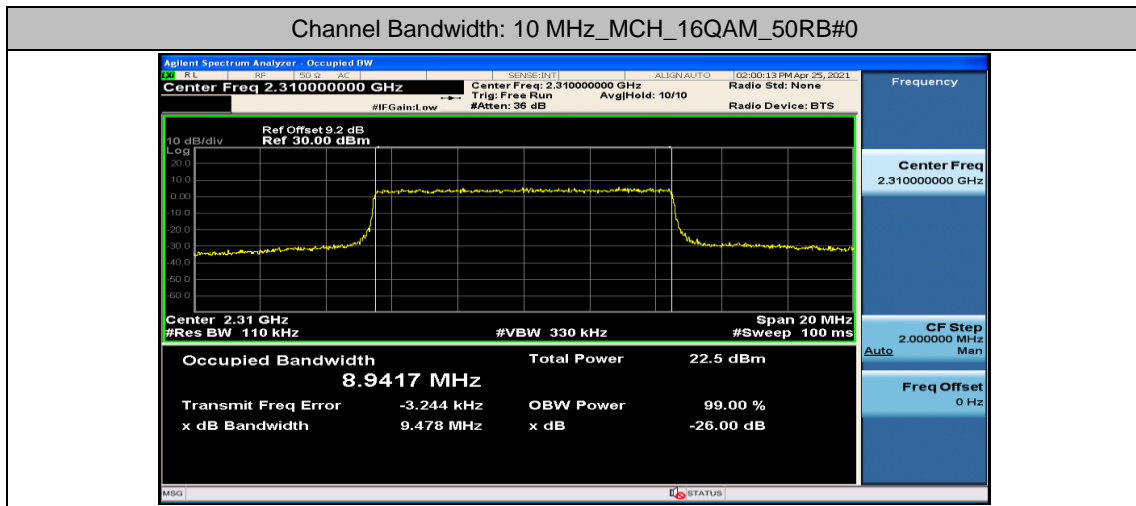
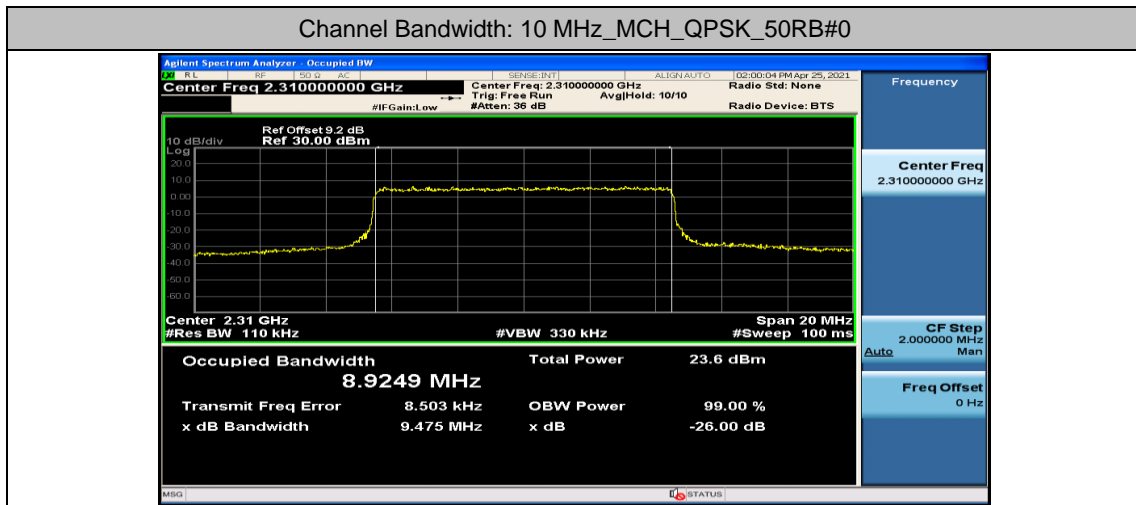
Test Graphs

Channel Bandwidth: 5 MHz





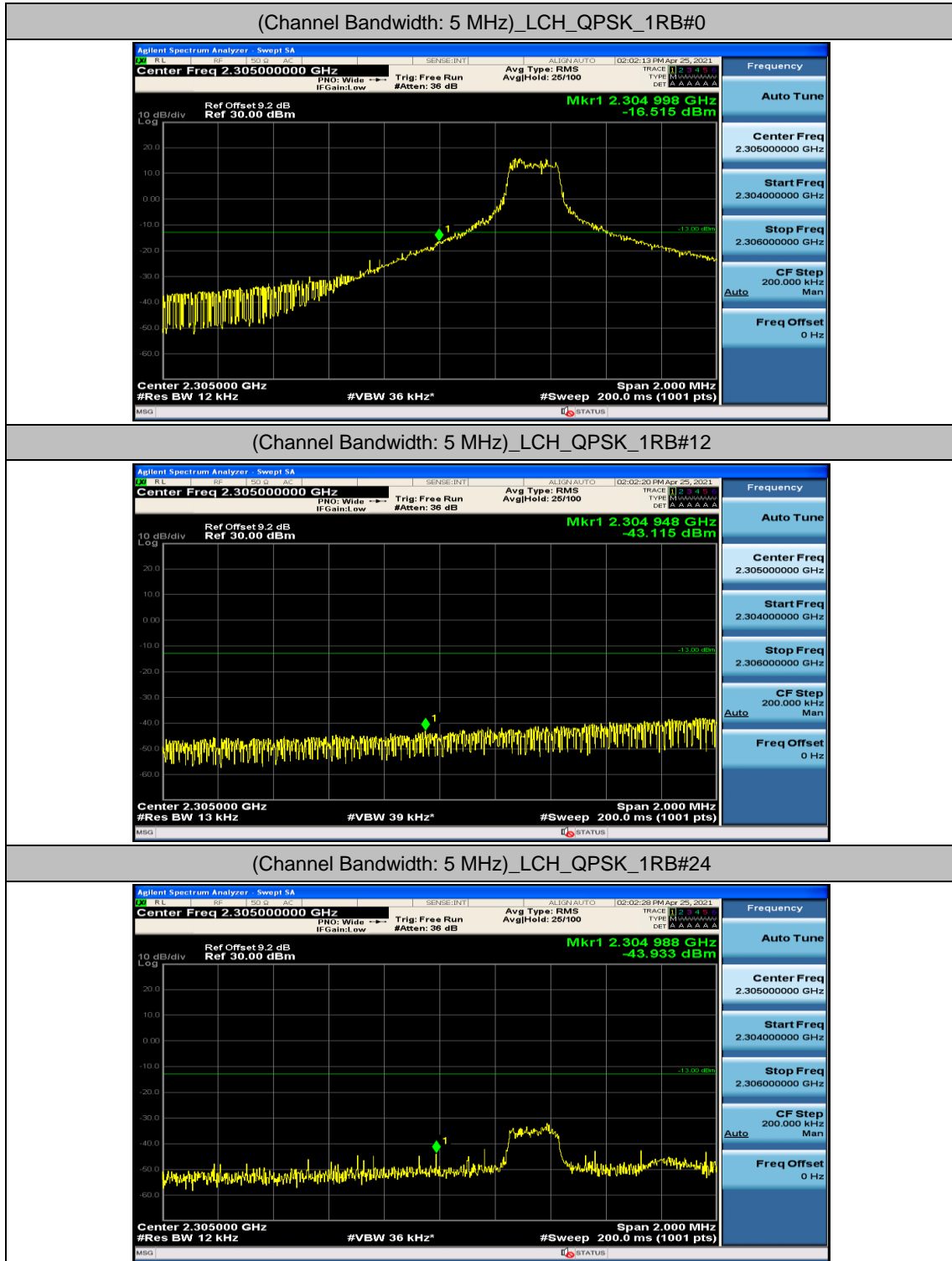
Channel Bandwidth: 10 MHz



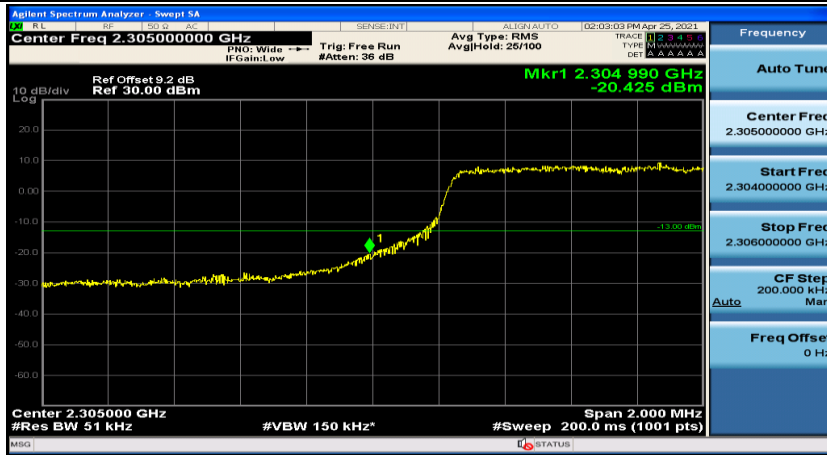
Appendix D: Band Edge

Test Graphs

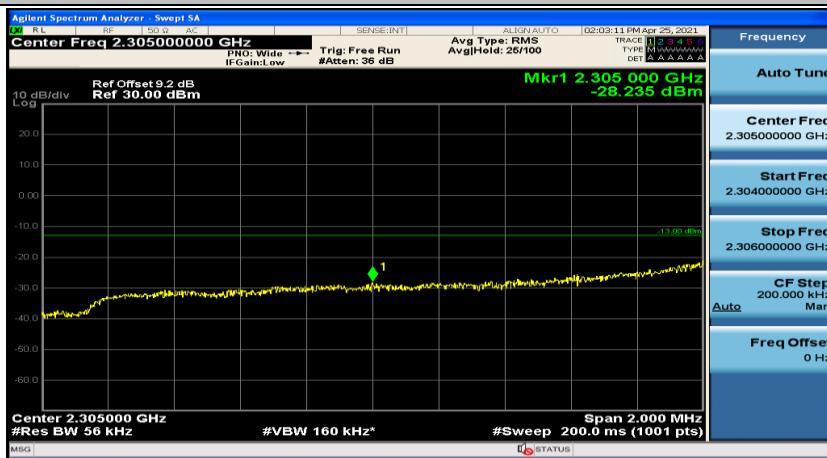
Channel Bandwidth: 5 MHz



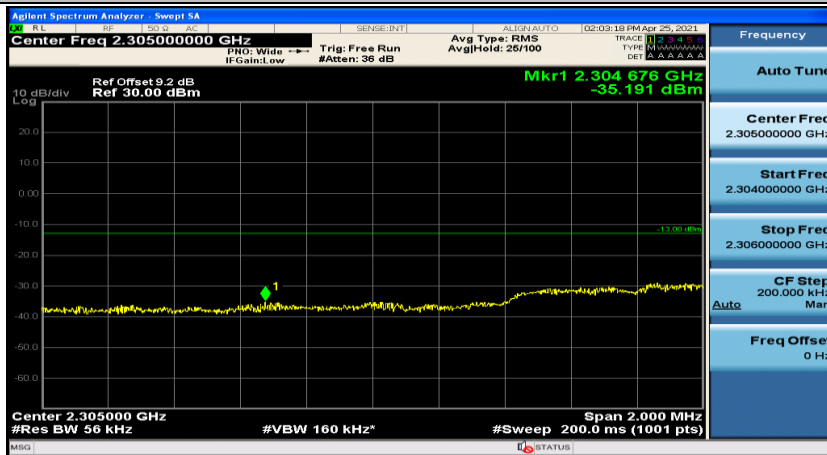
(Channel Bandwidth: 5 MHz)_LCH_QPSK_12RB#0



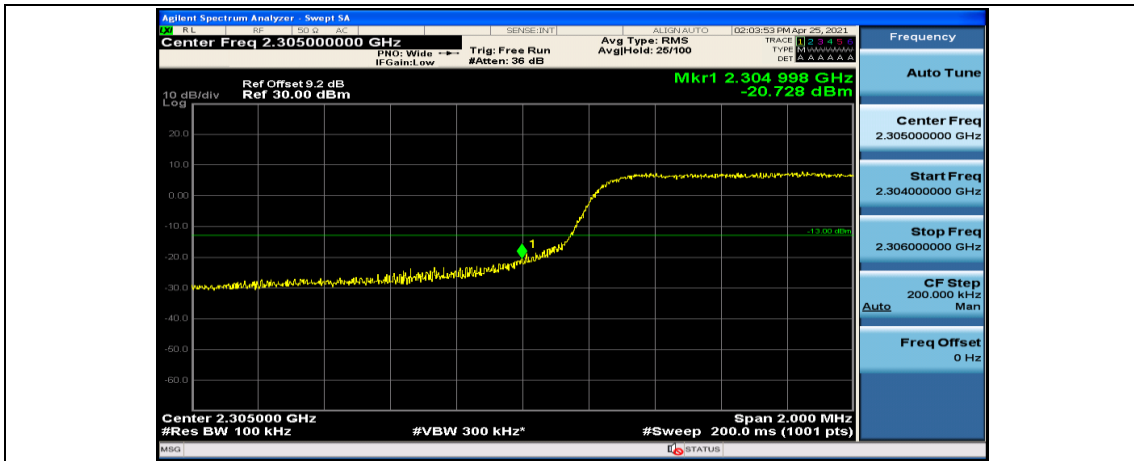
(Channel Bandwidth: 5 MHz)_LCH_QPSK_12RB#6



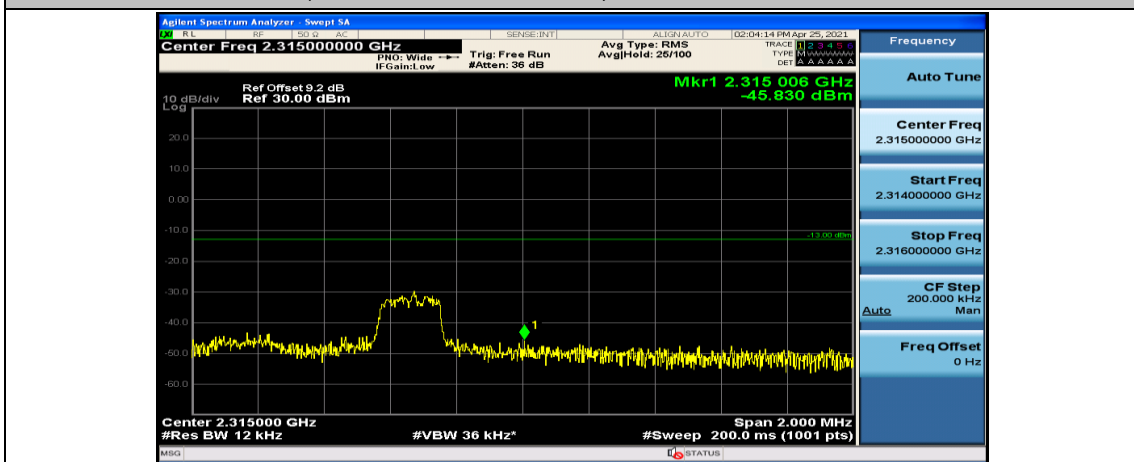
(Channel Bandwidth: 5 MHz)_LCH_QPSK_12RB#13



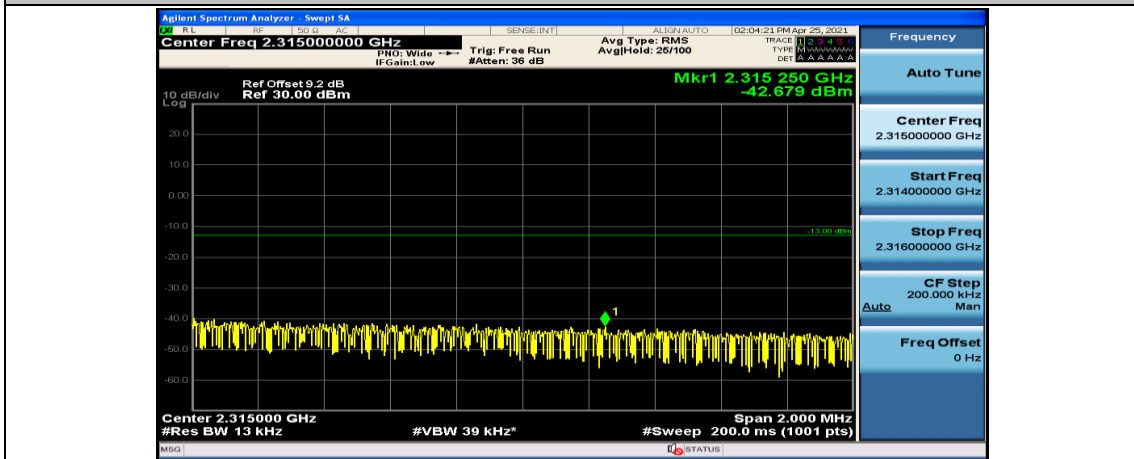
(Channel Bandwidth: 5 MHz)_LCH_QPSK_25RB#0



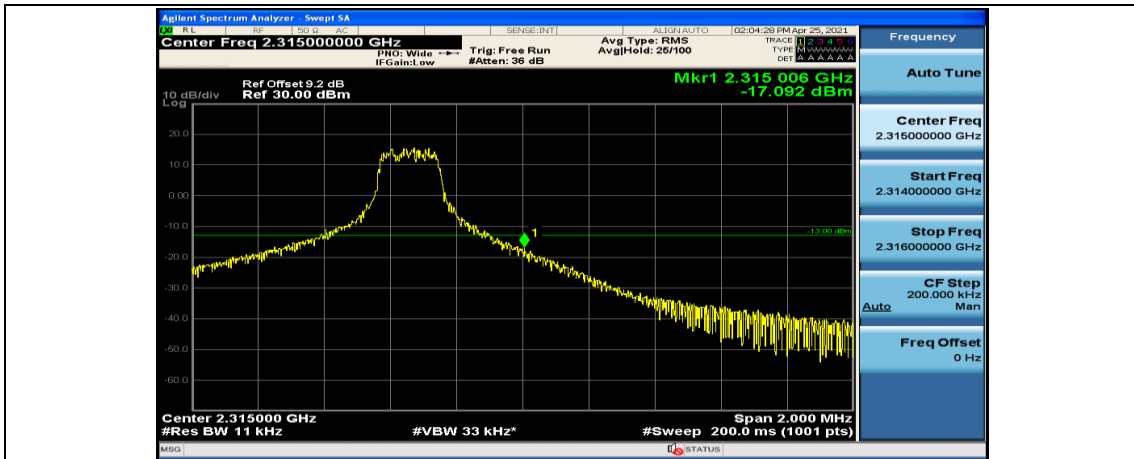
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



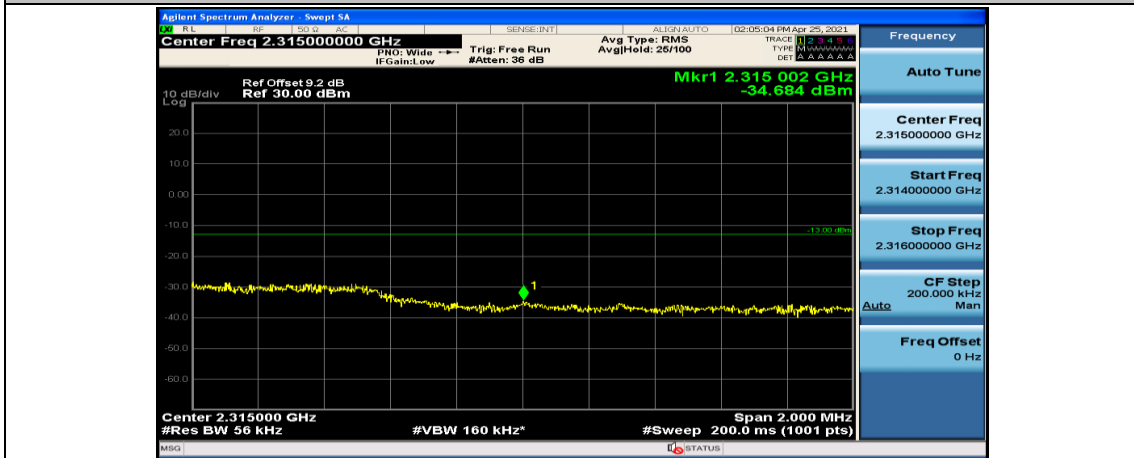
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12



(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#24



(Channel Bandwidth: 5 MHz)_HCH_QPSK_12RB#0



(Channel Bandwidth: 5 MHz)_HCH_QPSK_12RB#6



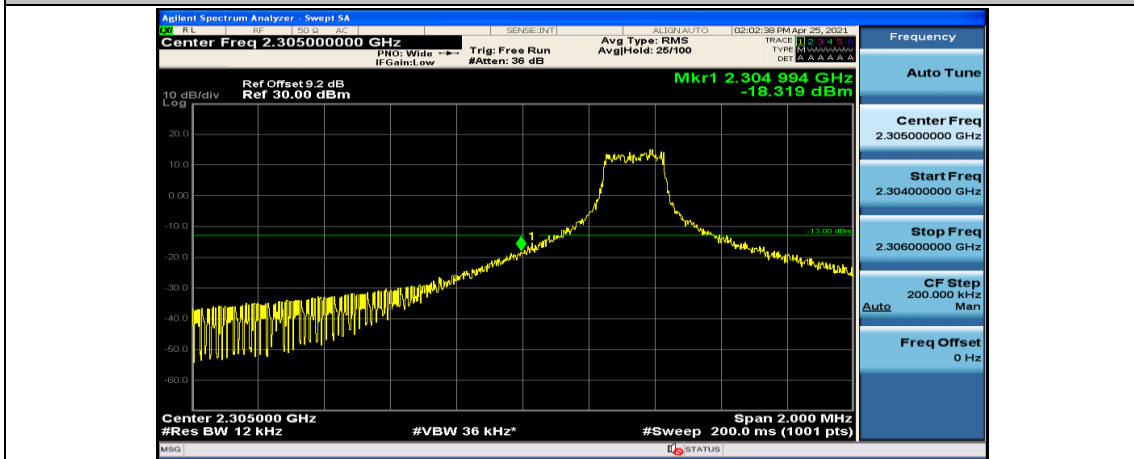
(Channel Bandwidth: 5 MHz)_HCH_QPSK_12RB#13



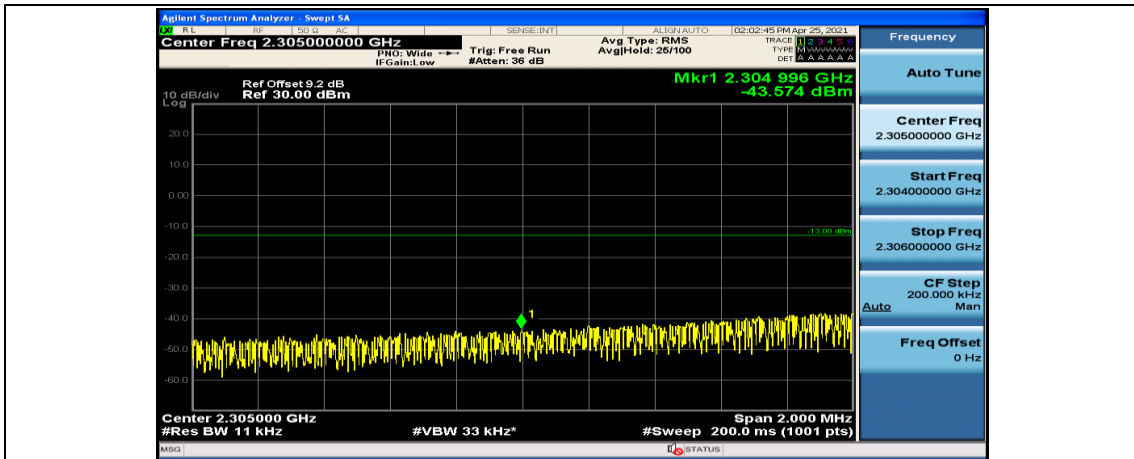
(Channel Bandwidth: 5 MHz)_HCH_QPSK_25RB#0



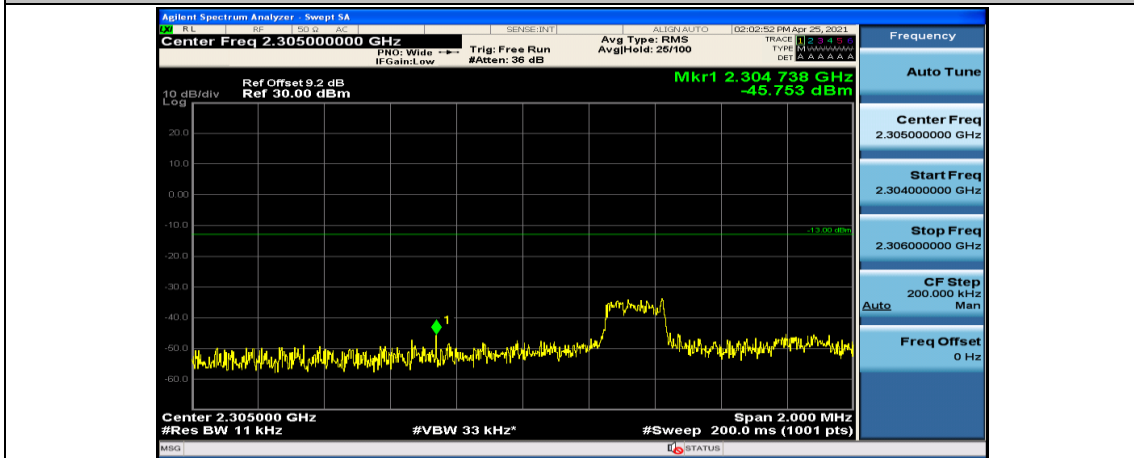
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0



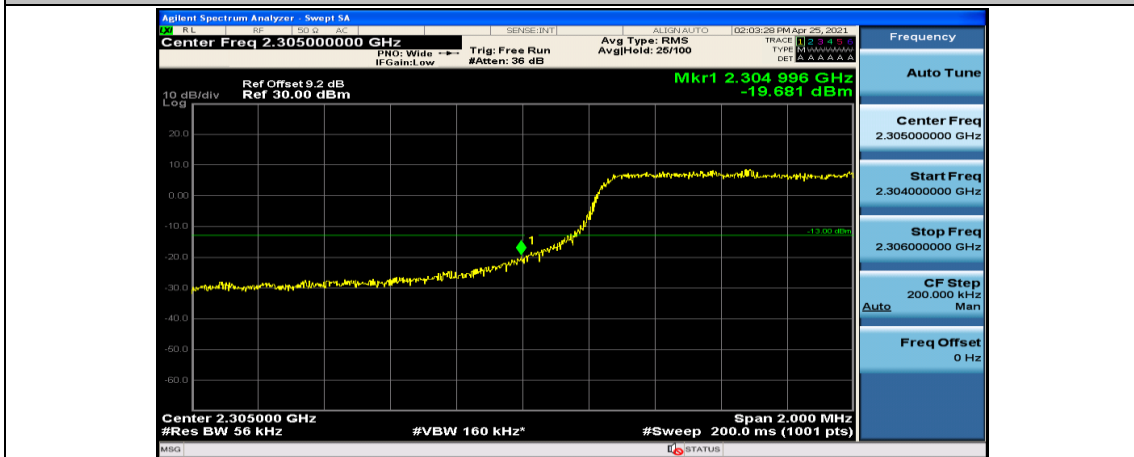
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#12



(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#24



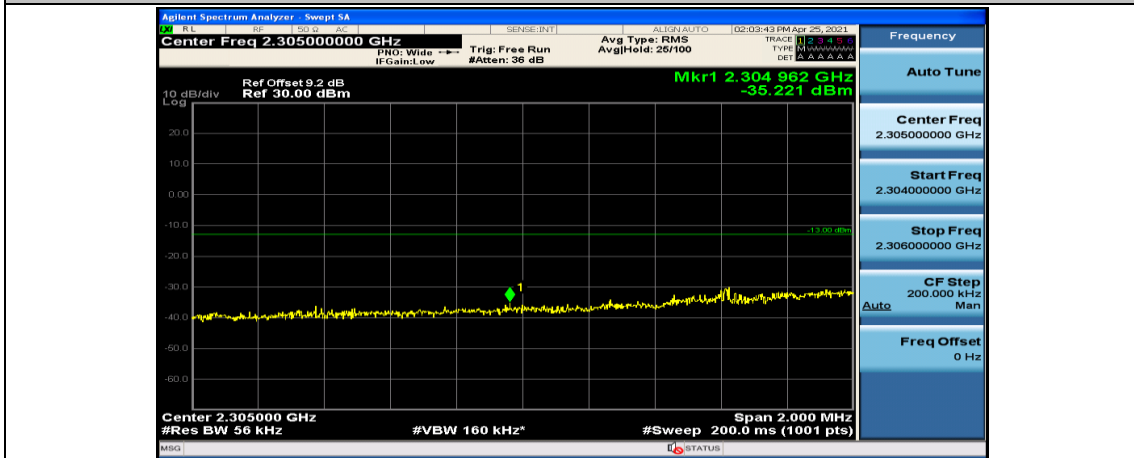
(Channel Bandwidth: 5 MHz)_LCH_16QAM_12RB#0



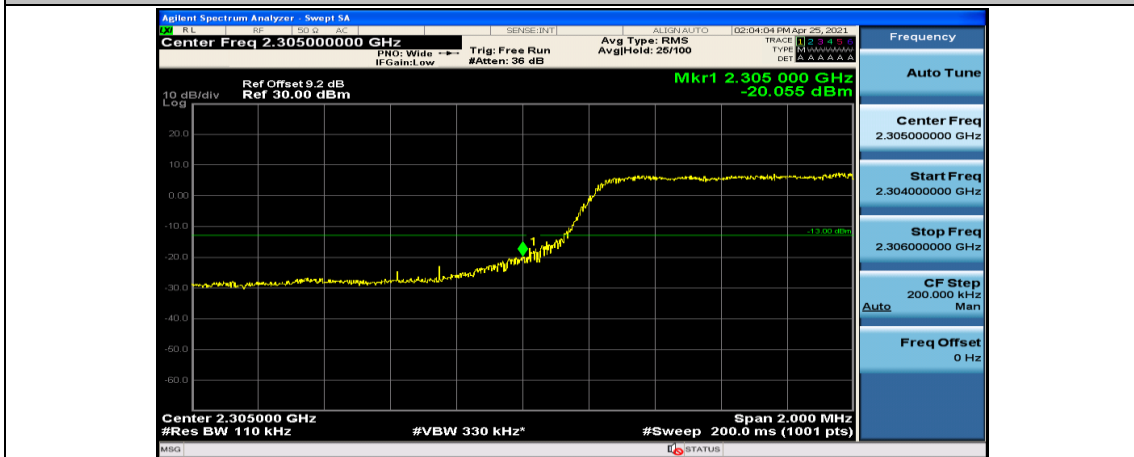
(Channel Bandwidth: 5 MHz)_LCH_16QAM_12RB#6

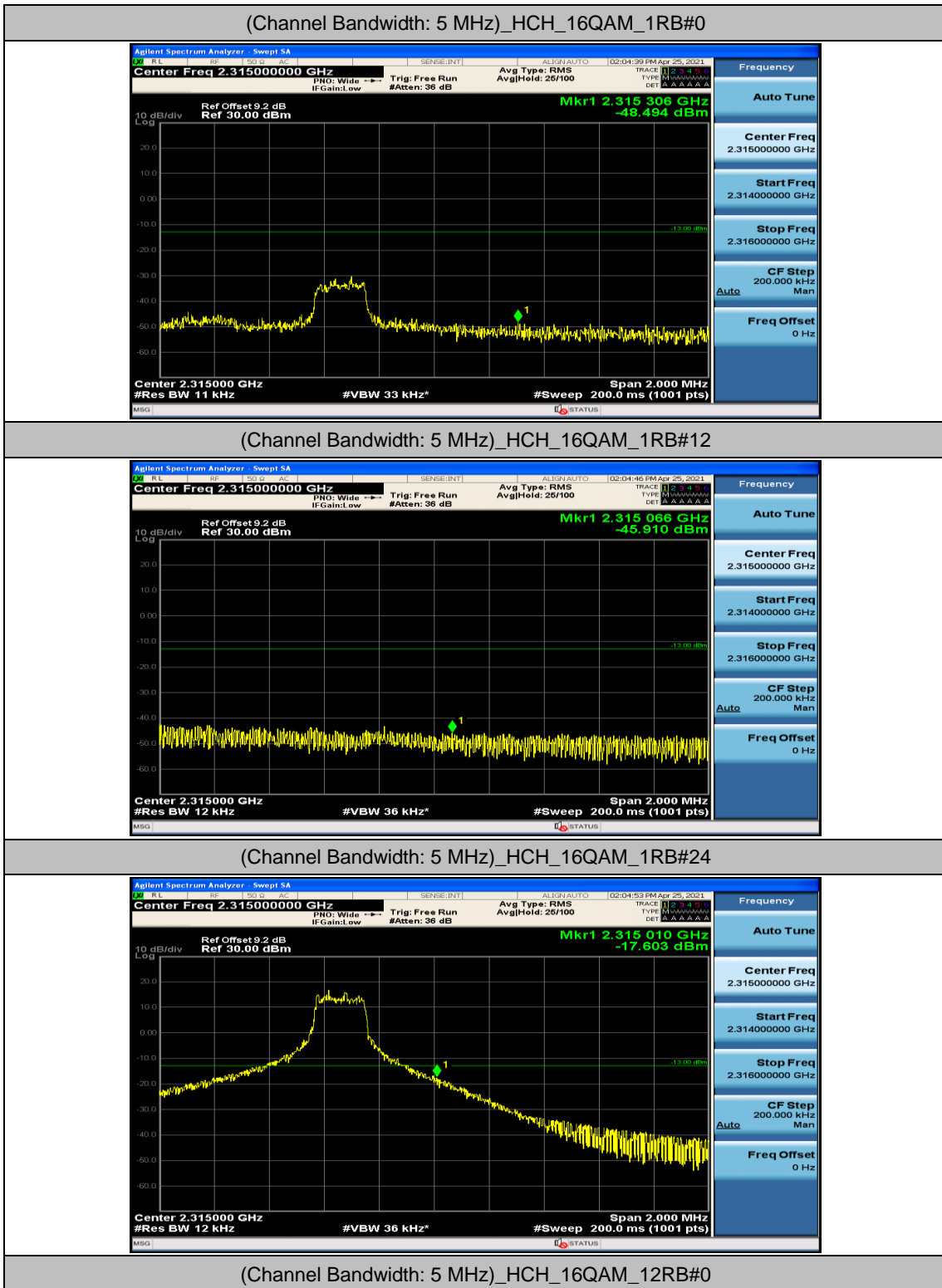


(Channel Bandwidth: 5 MHz)_LCH_16QAM_12RB#13



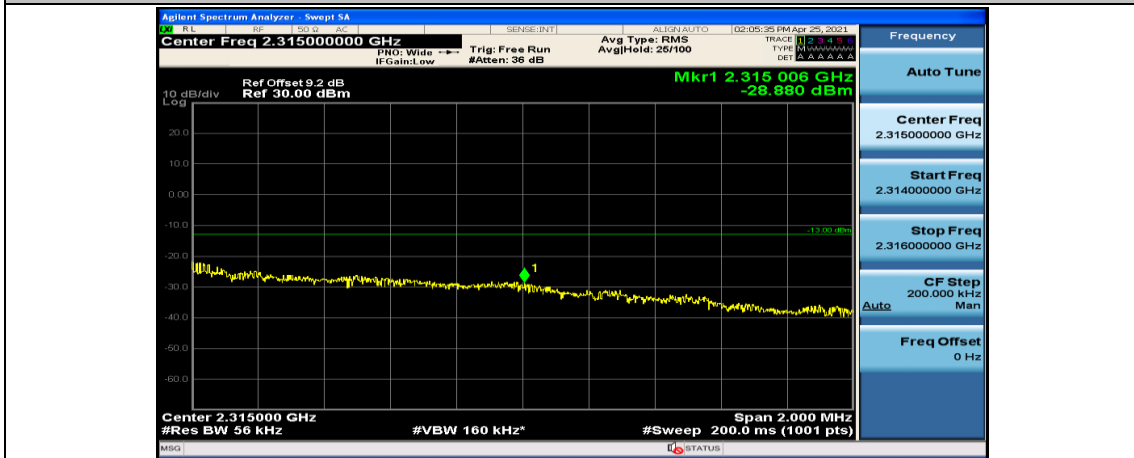
(Channel Bandwidth: 5 MHz)_LCH_16QAM_25RB#0







(Channel Bandwidth: 5 MHz)_HCH_16QAM_12RB#6



(Channel Bandwidth: 5 MHz)_HCH_16QAM_12RB#13



(Channel Bandwidth: 5 MHz)_HCH_16QAM_25RB#0