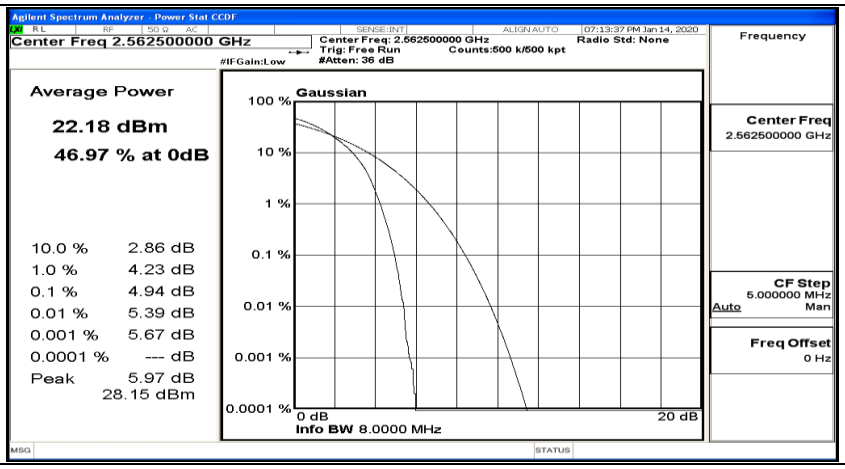
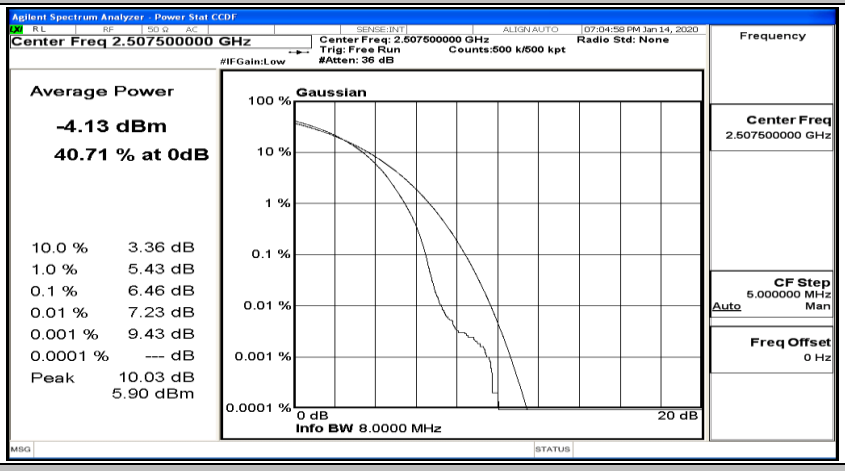
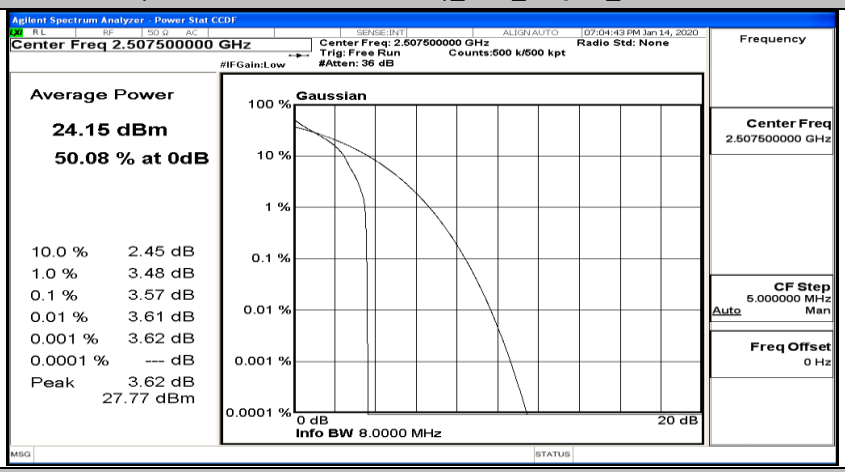


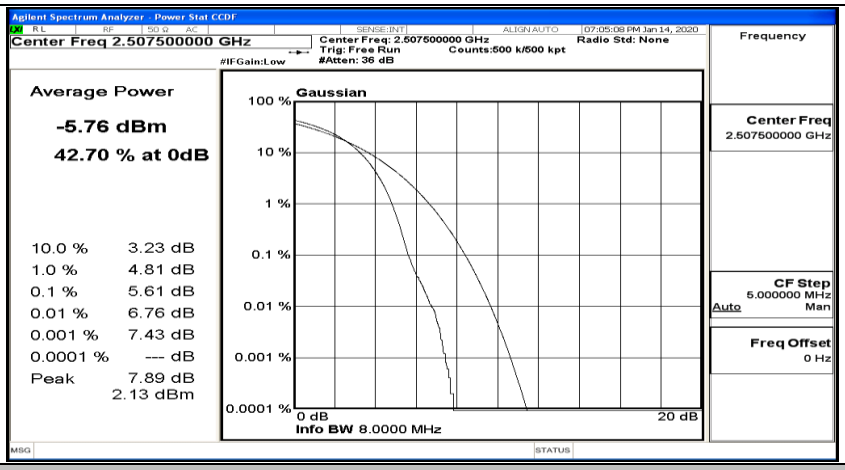

(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#0



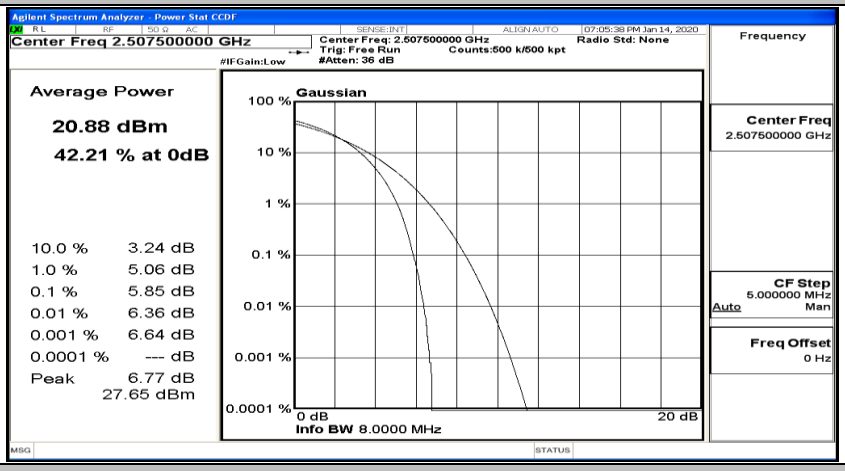

(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#37



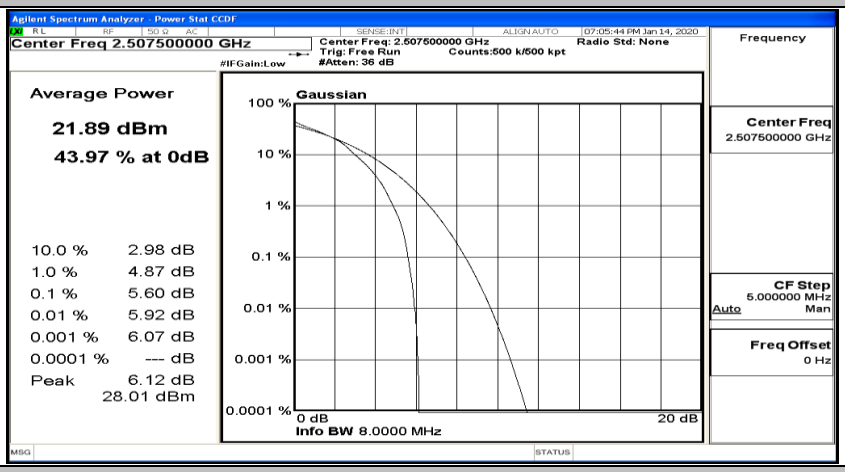

(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#74



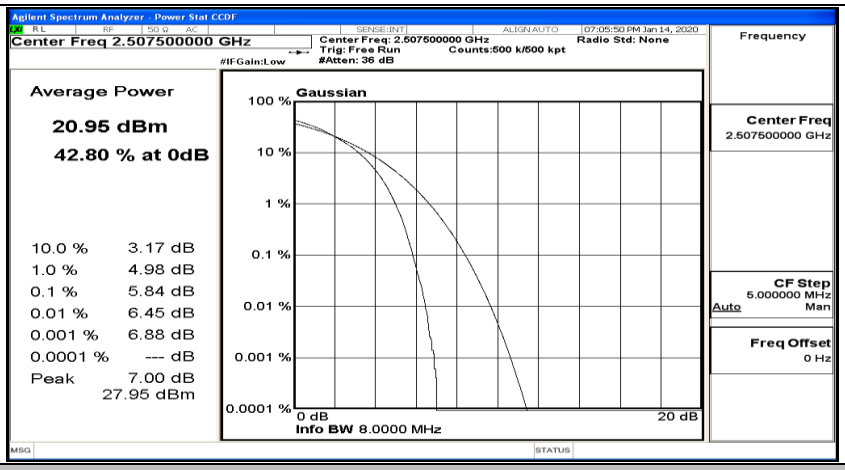

(Channel Bandwidth:15 MHz)_LCH_16QAM_37RB#0



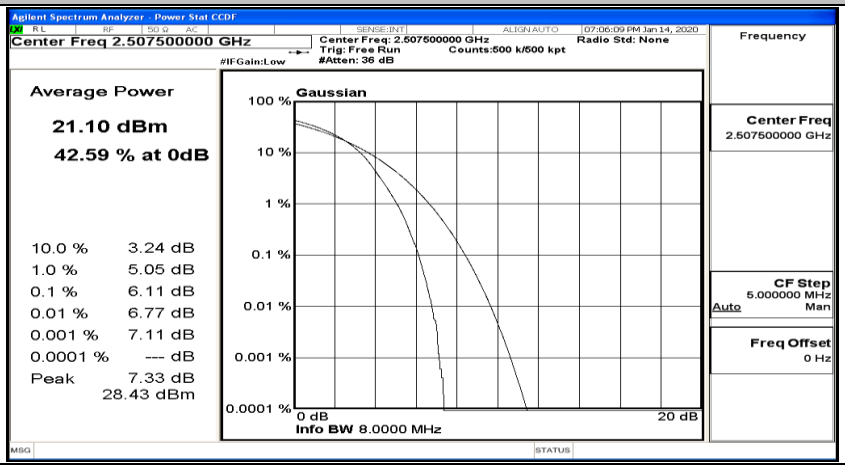

(Channel Bandwidth:15 MHz)_LCH_16QAM_37RB#18



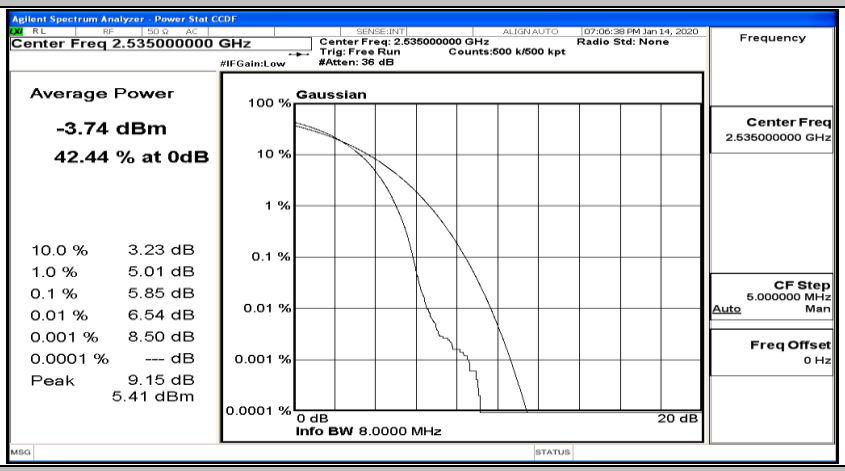

(Channel Bandwidth:15 MHz)_LCH_16QAM_37RB#38



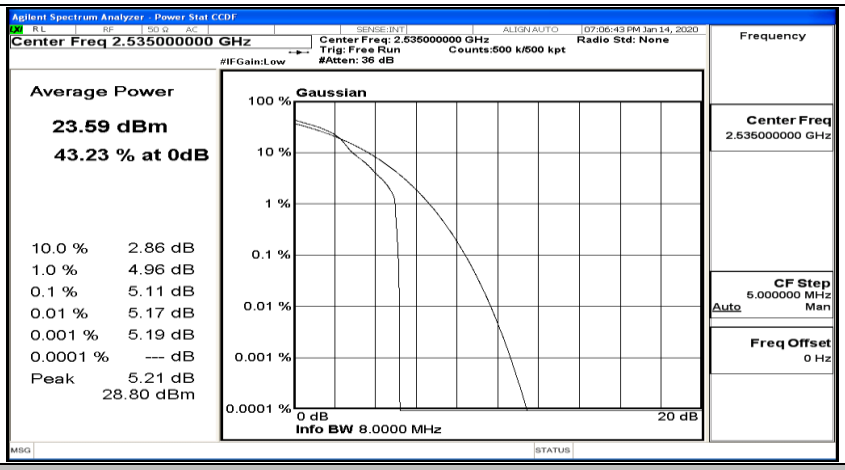

(Channel Bandwidth:15 MHz)_LCH_16QAM_75RB#0



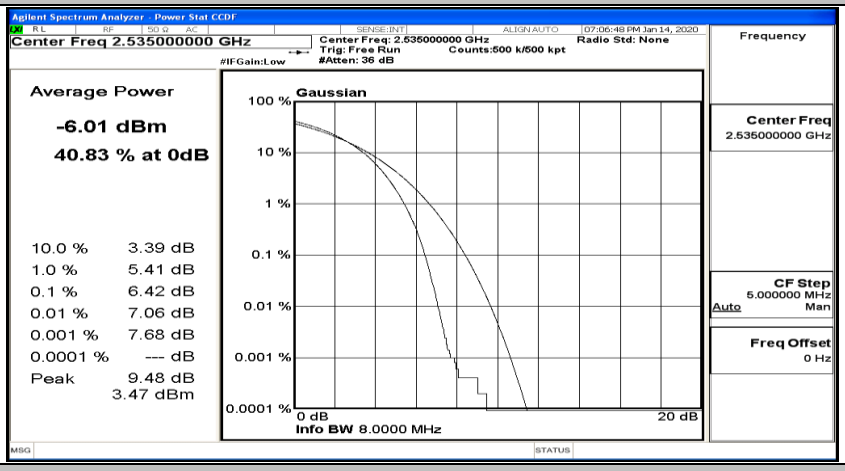

(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#0



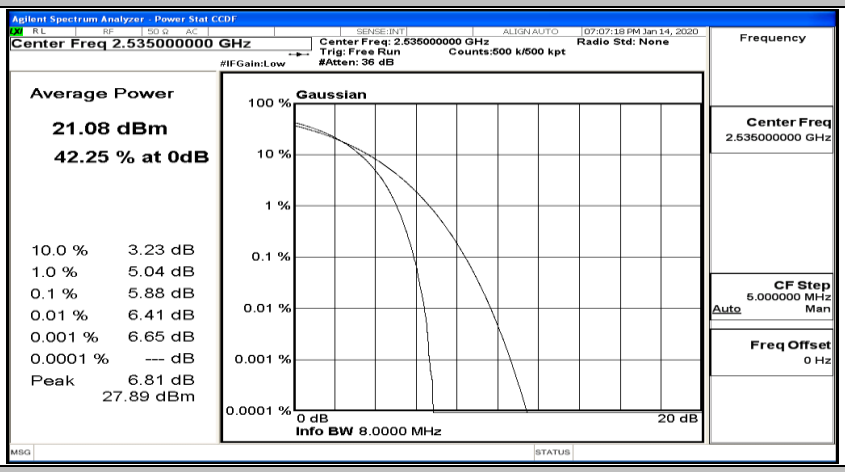

(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#37



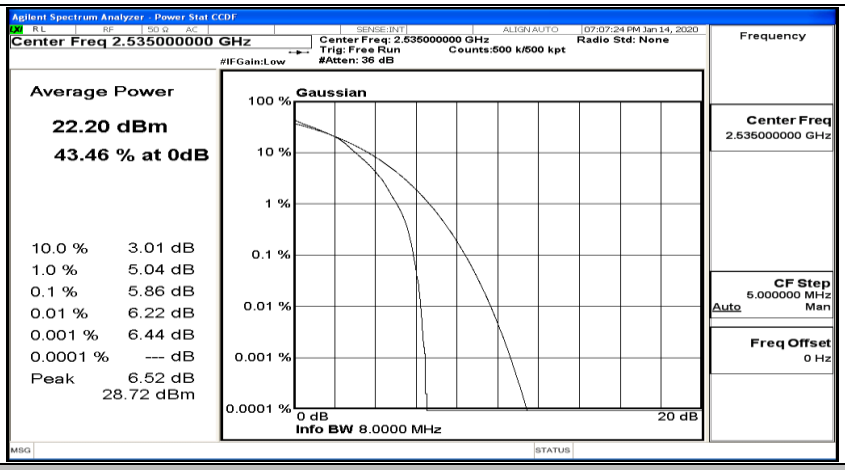

(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#74



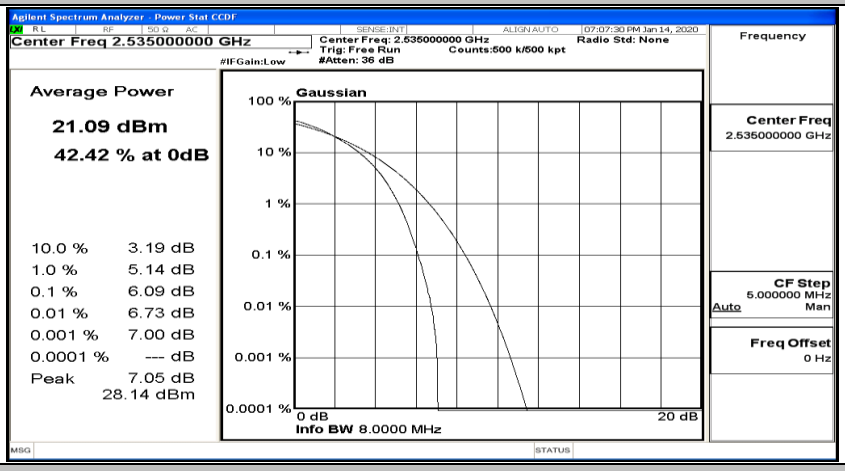

(Channel Bandwidth:15 MHz)_MCH_16QAM_37RB#0



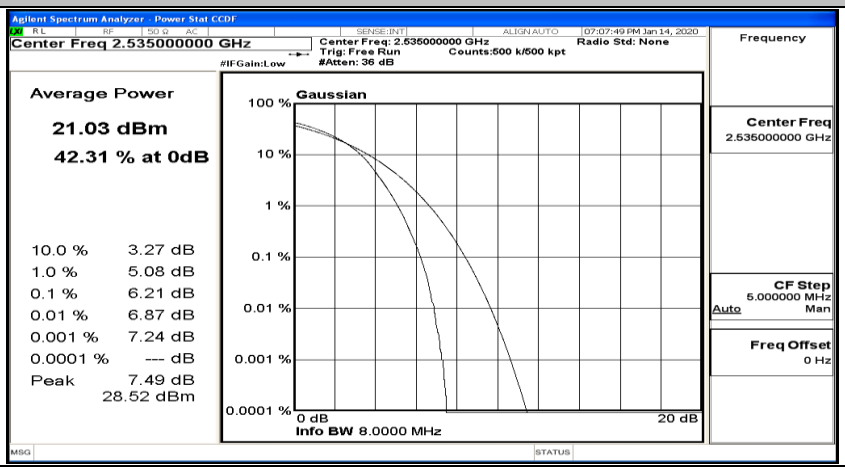

(Channel Bandwidth:15 MHz)_MCH_16QAM_37RB#18



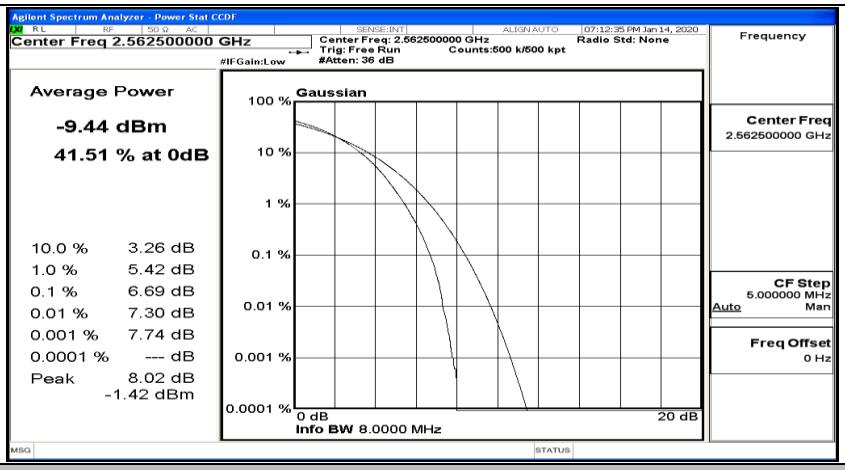

(Channel Bandwidth:15 MHz)_MCH_16QAM_37RB#38



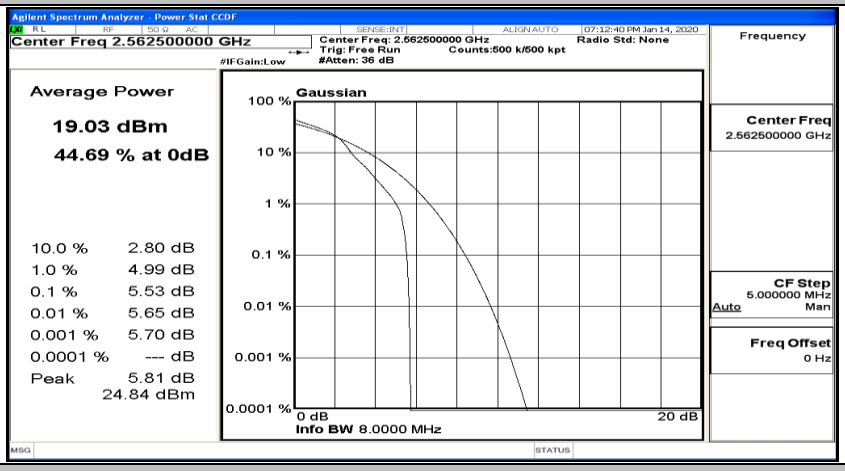

(Channel Bandwidth:15 MHz)_MCH_16QAM_75RB#0



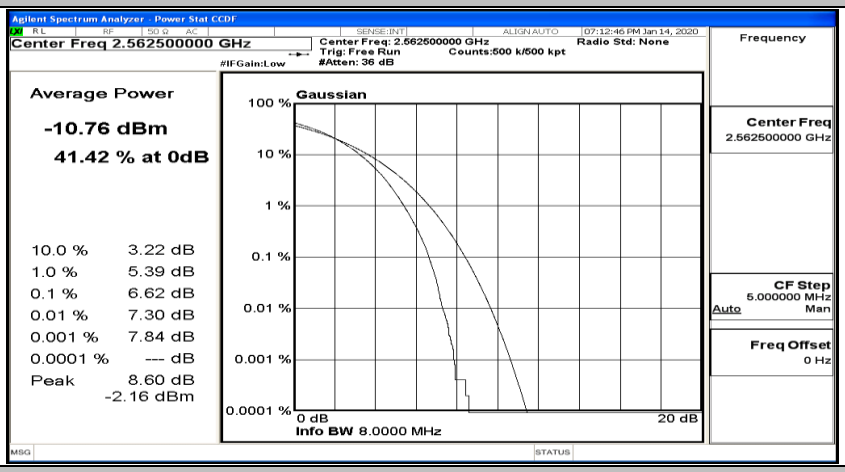

(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#0



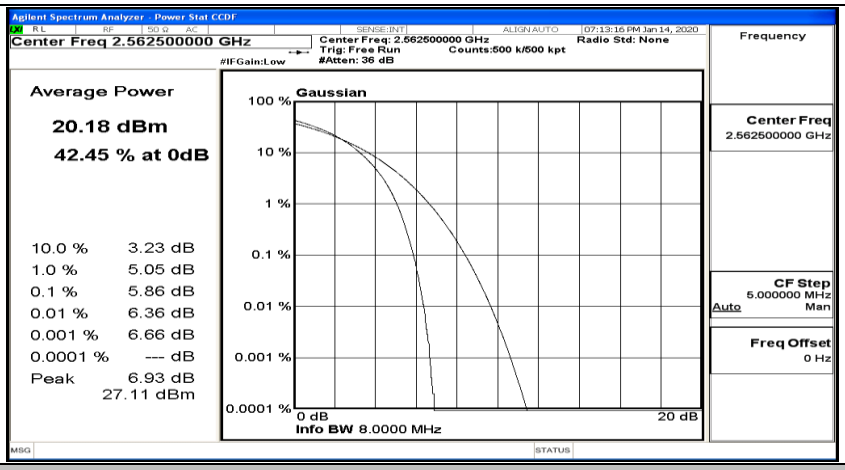

(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#37



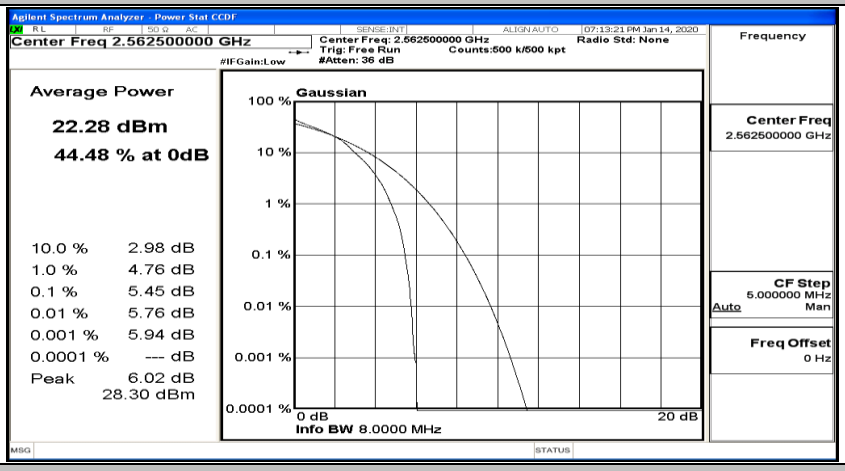

(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#74



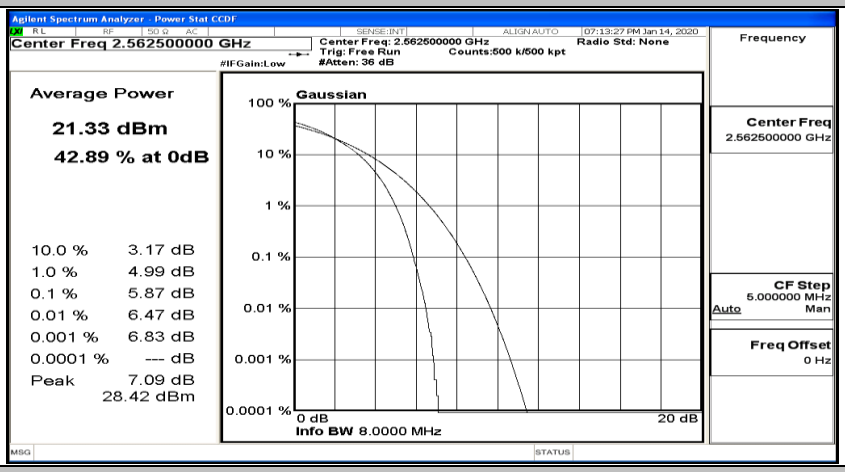

(Channel Bandwidth:15 MHz)_HCH_16QAM_37RB#0



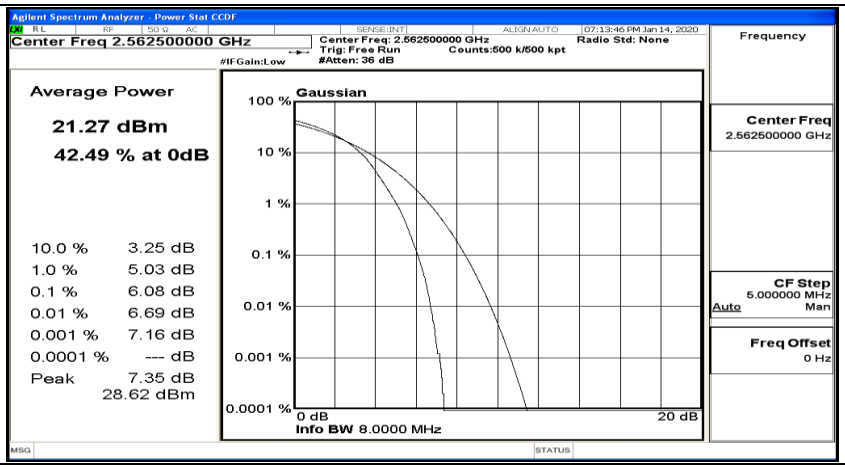

(Channel Bandwidth:15 MHz)_HCH_16QAM_37RB#18




(Channel Bandwidth:15 MHz)_HCH_16QAM_37RB#38

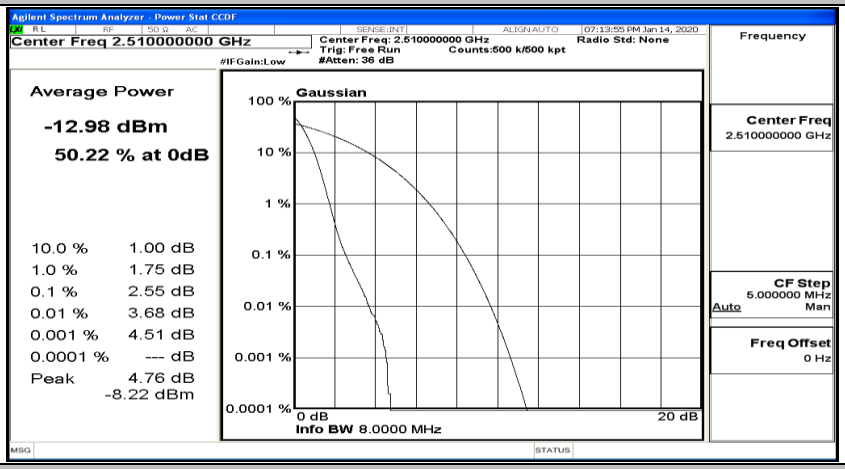



(Channel Bandwidth:15 MHz)_HCH_16QAM_75RB#0

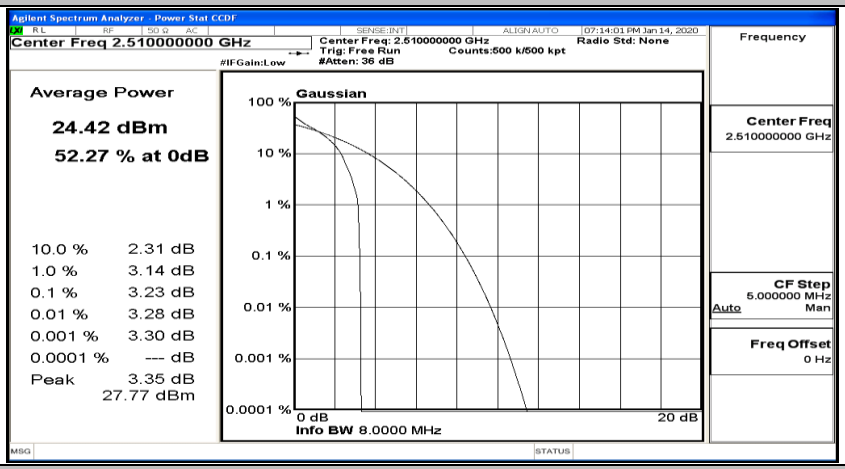



## Channel Bandwidth: 20 MHz

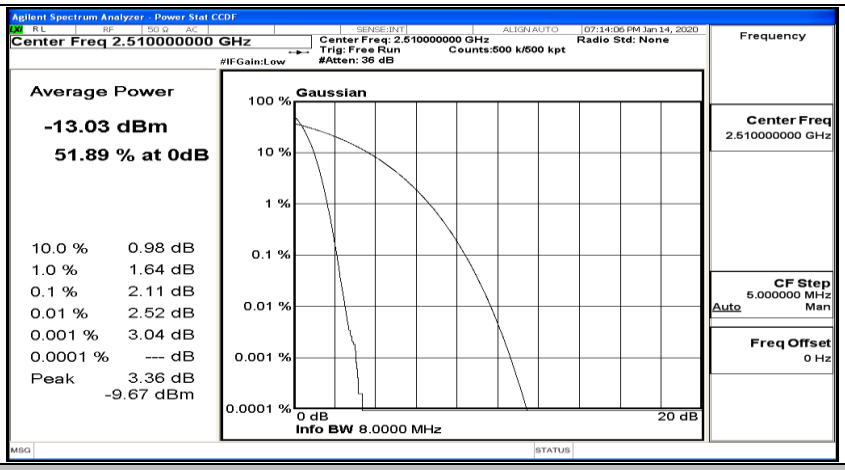
(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#0



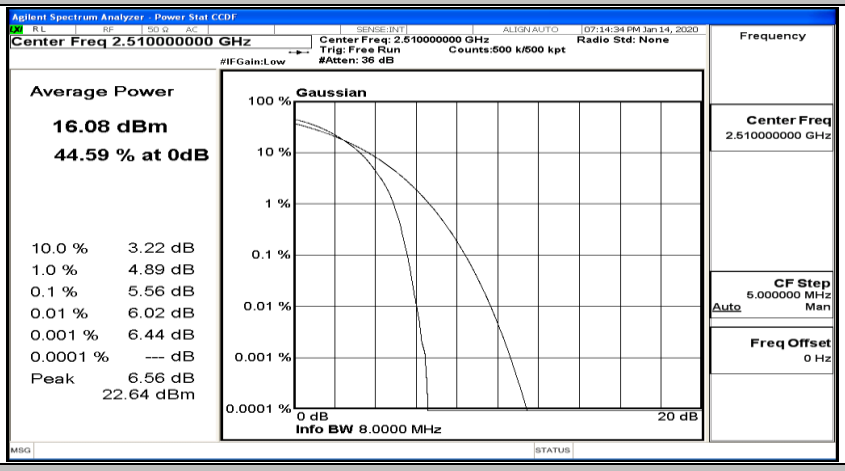

(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#49



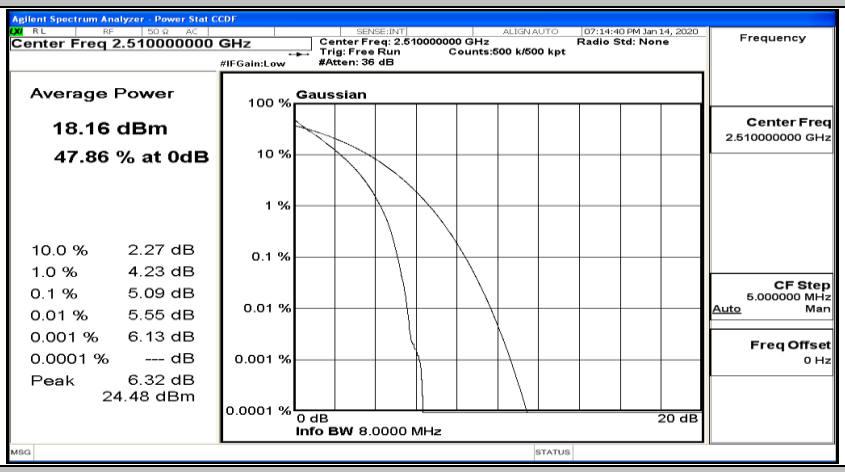

(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#99



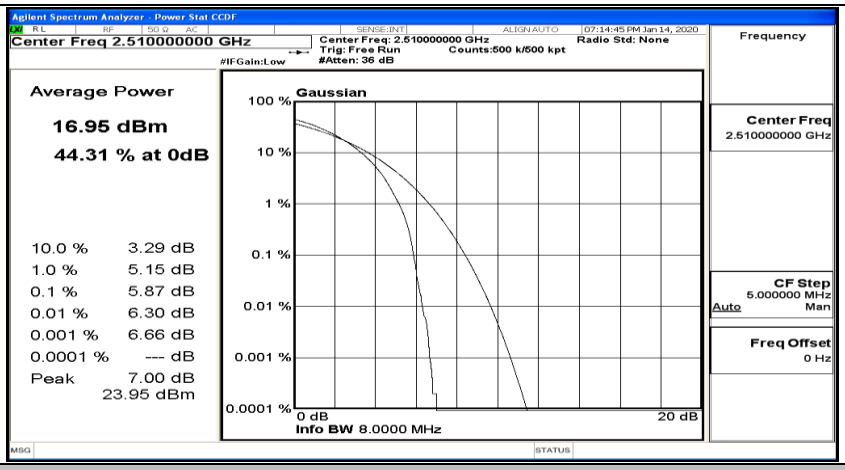

(Channel Bandwidth:20 MHz)_LCH_QPSK_50RB#0



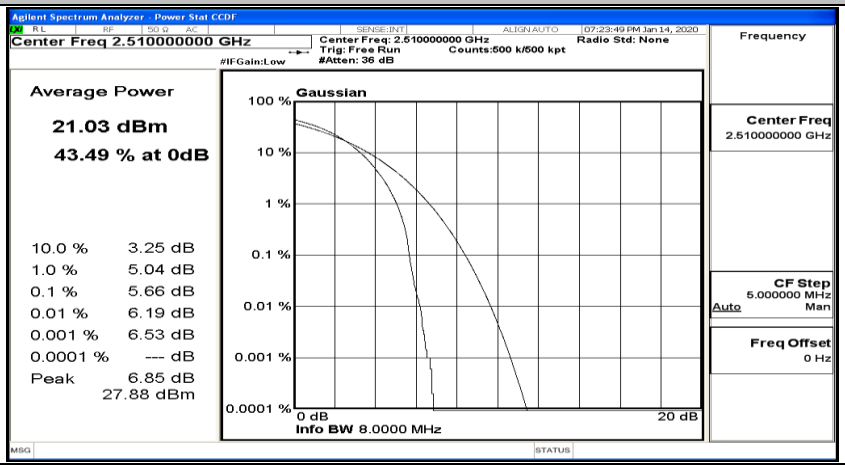

(Channel Bandwidth:20 MHz)_LCH_QPSK_50RB#25



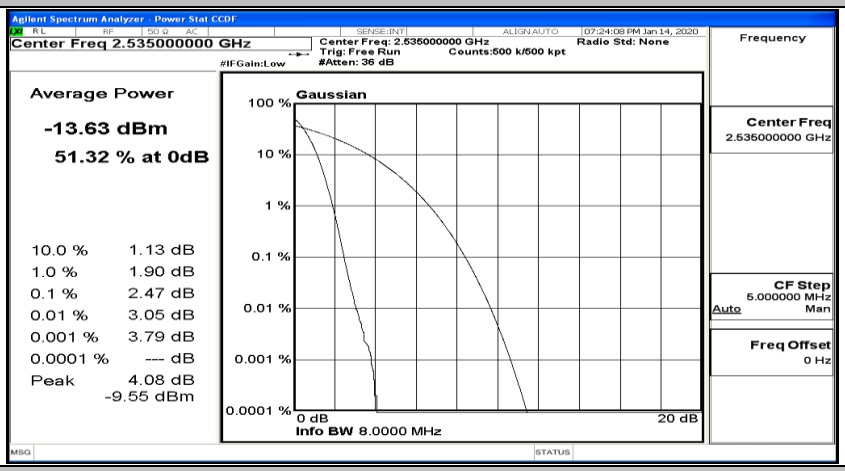

(Channel Bandwidth:20 MHz)_LCH_QPSK_50RB#50



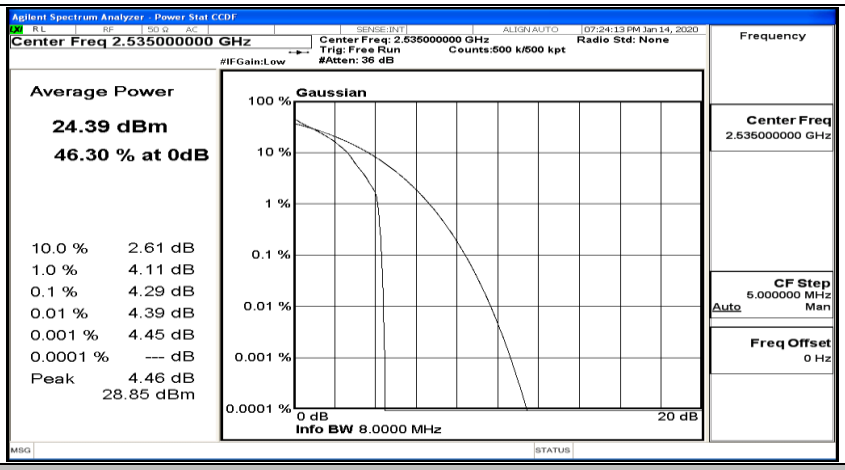

(Channel Bandwidth:20 MHz)_LCH_QPSK_100RB#0



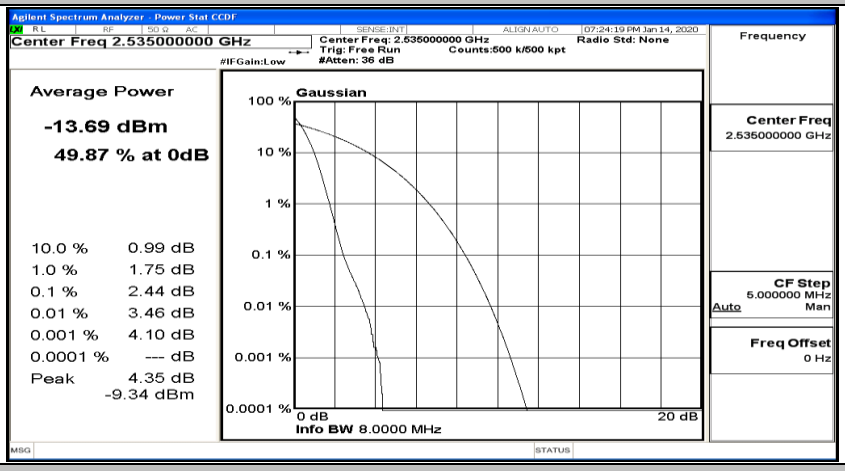

(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#0



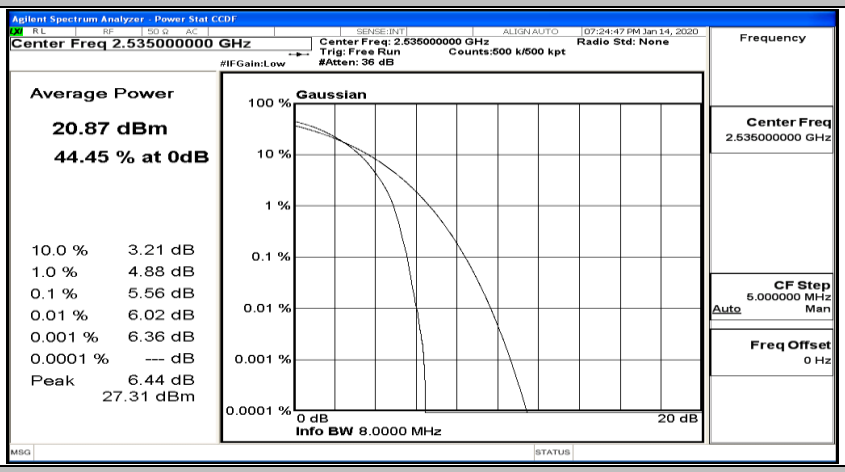

(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#49



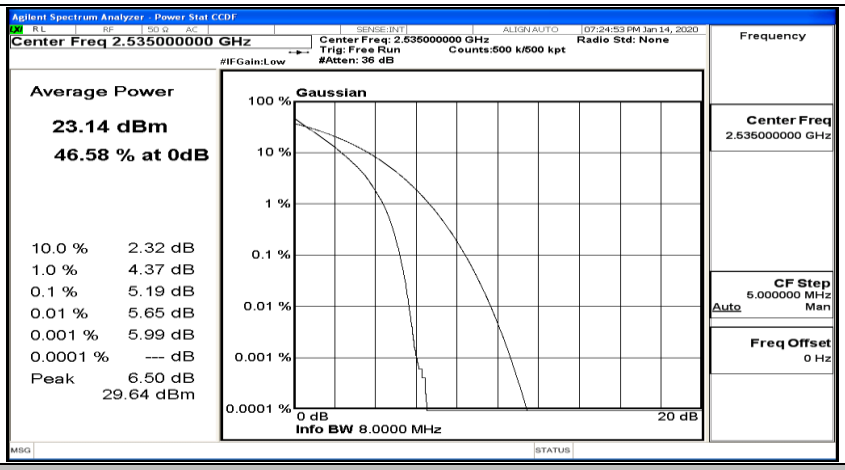

(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#99



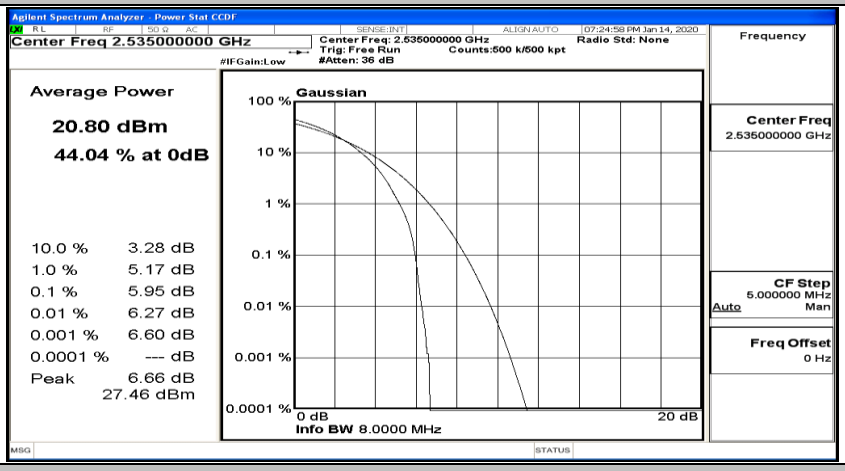

(Channel Bandwidth:20 MHz)_MCH_QPSK_50RB#0



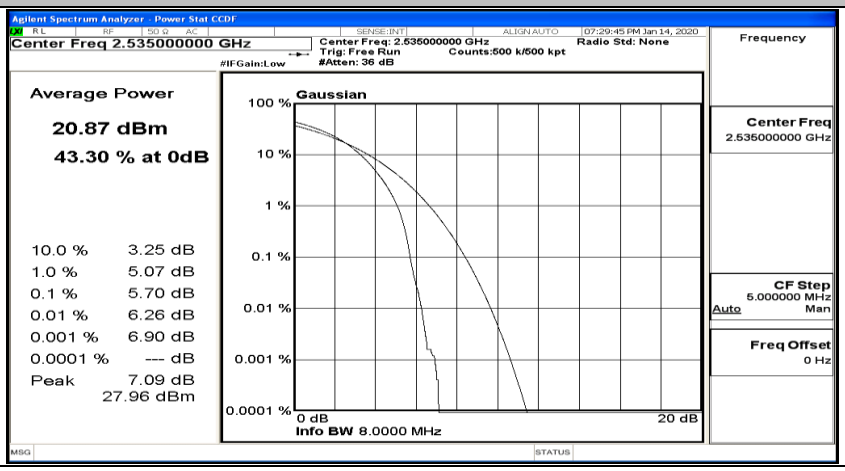

(Channel Bandwidth:20 MHz)_MCH_QPSK_50RB#25



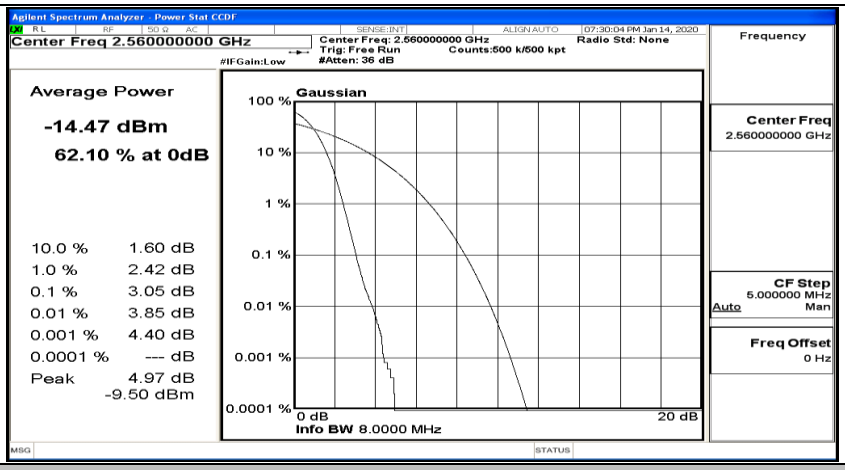

(Channel Bandwidth:20 MHz)_MCH_QPSK_50RB#50



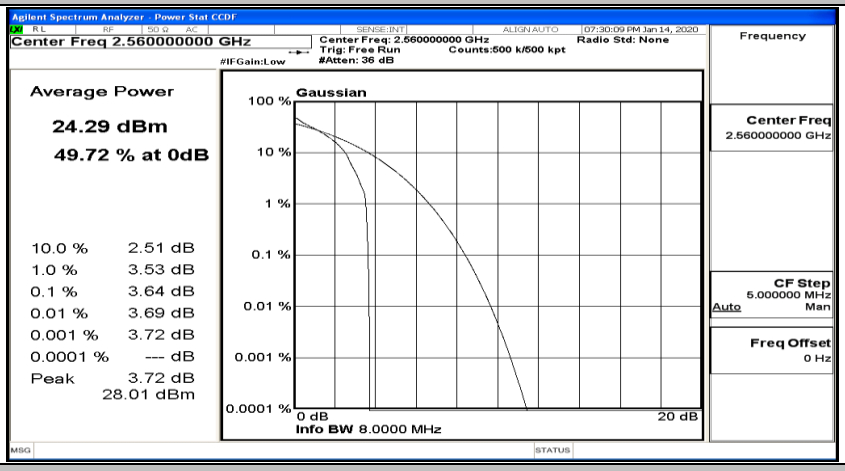

(Channel Bandwidth:20 MHz)_MCH_QPSK_100RB#0



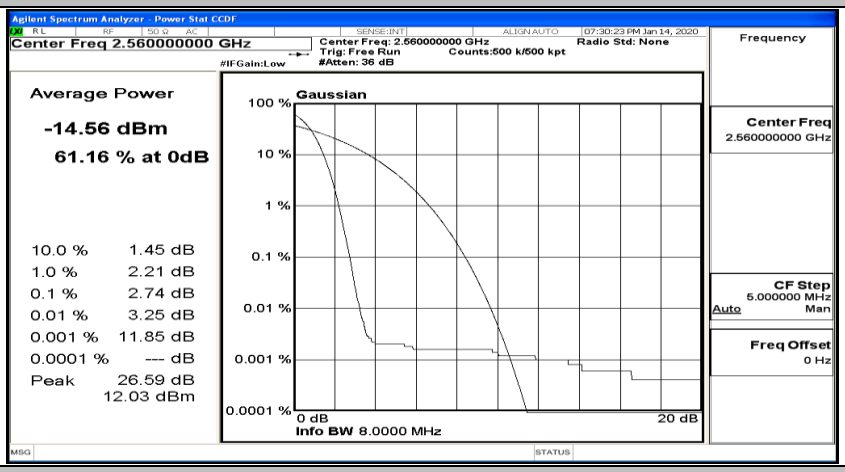

(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#0



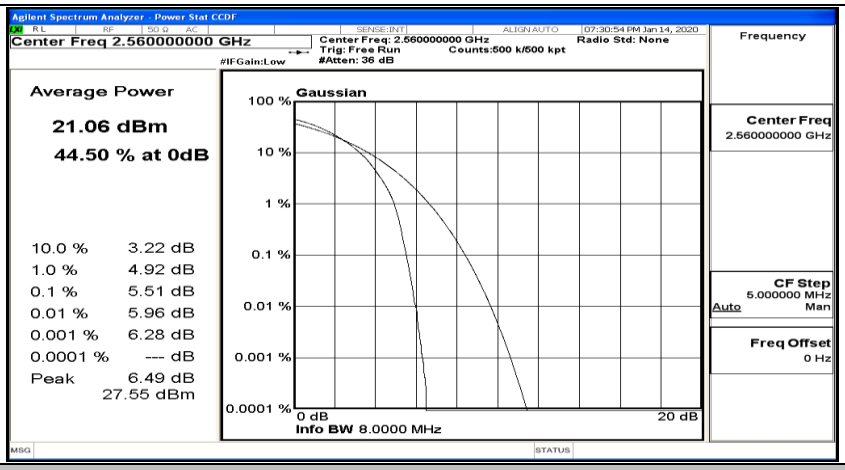

(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#49



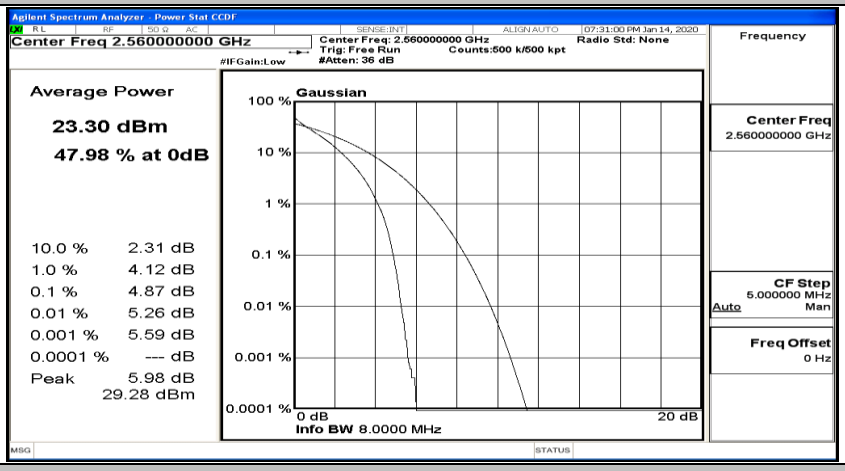

(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#99



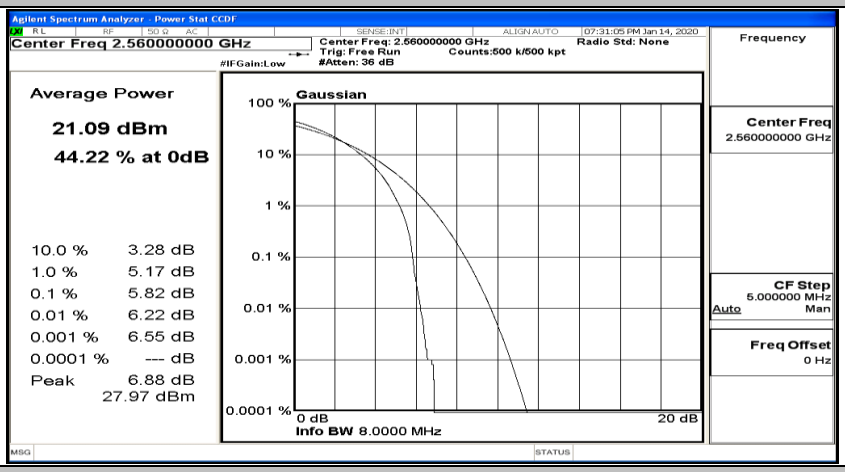

(Channel Bandwidth:20 MHz)_HCH_QPSK_50RB#0



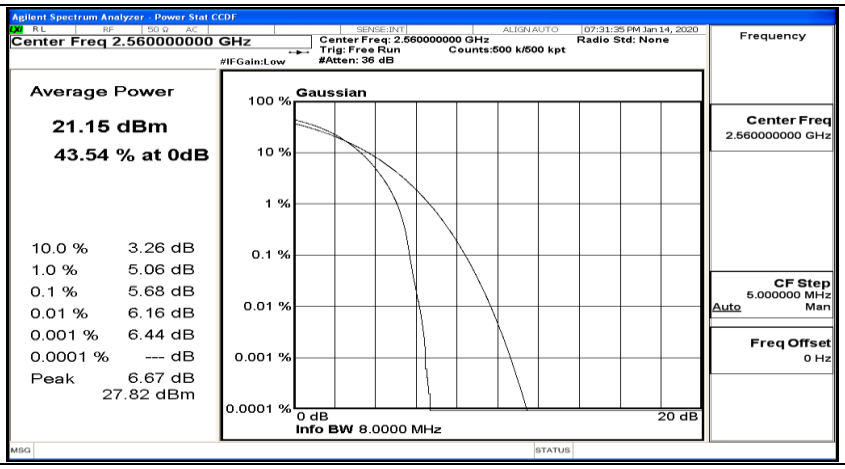

(Channel Bandwidth:20 MHz)_HCH_QPSK_50RB#25



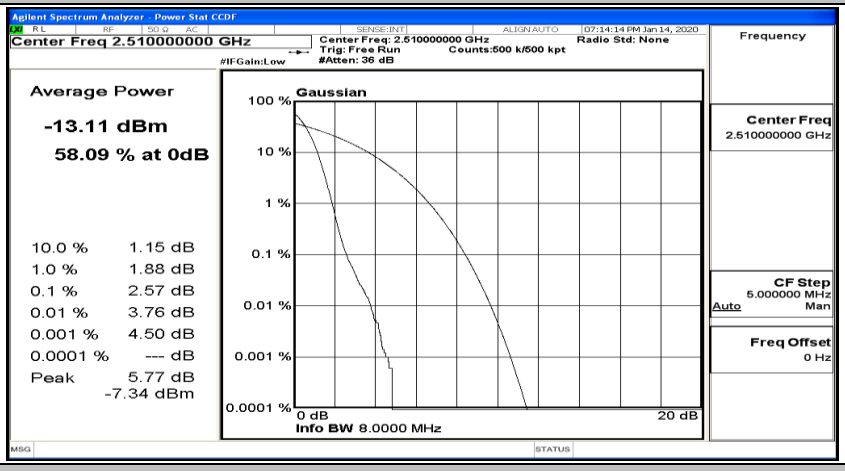

(Channel Bandwidth:20 MHz)_HCH_QPSK_50RB#50



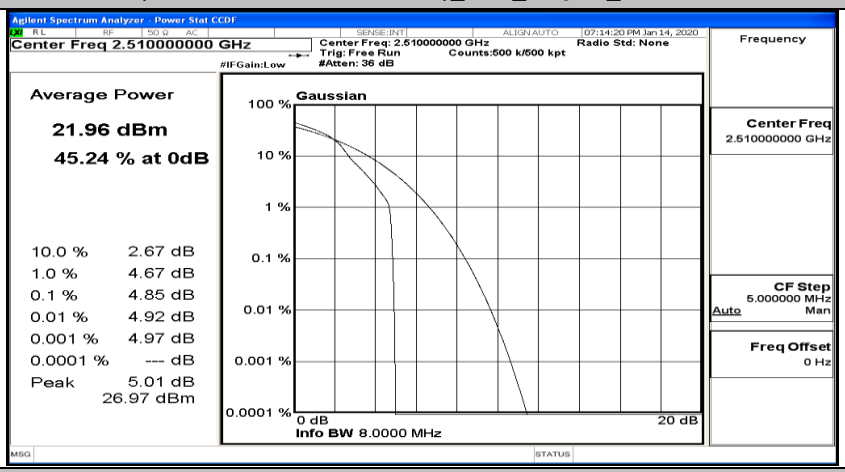

(Channel Bandwidth:20 MHz)_HCH_QPSK_100RB#0



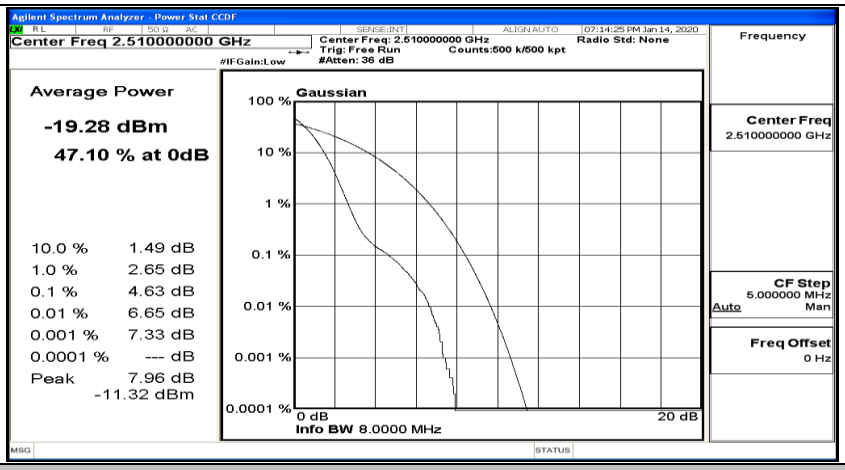

(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#0



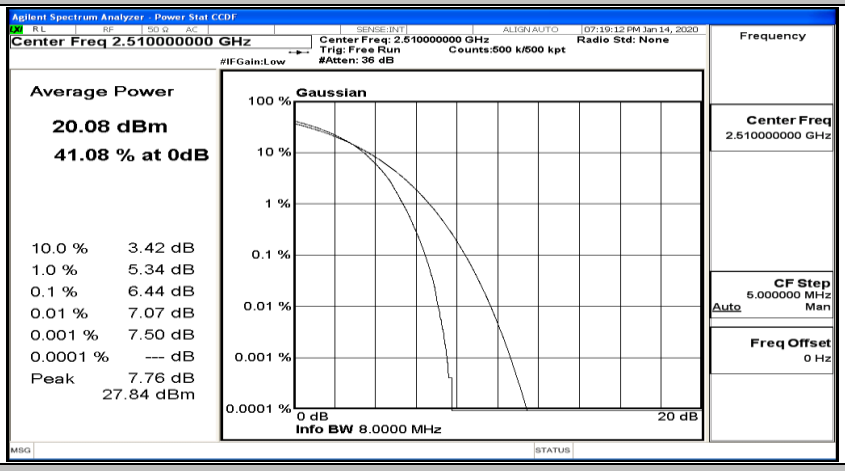

(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#49



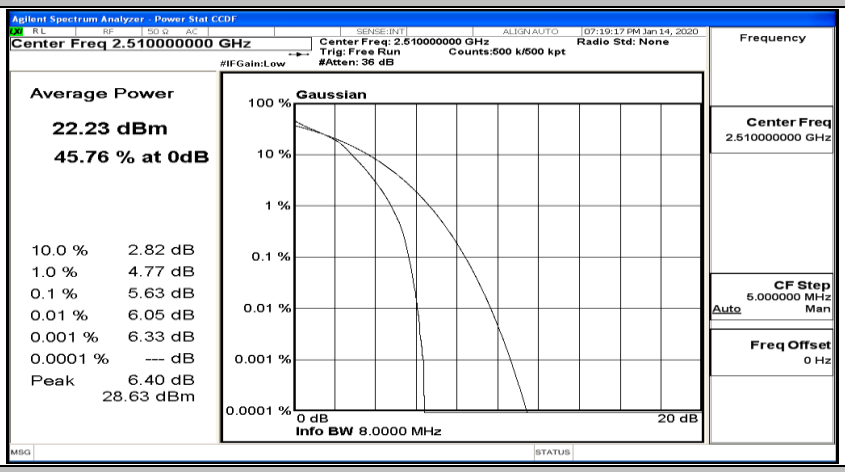

(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#99



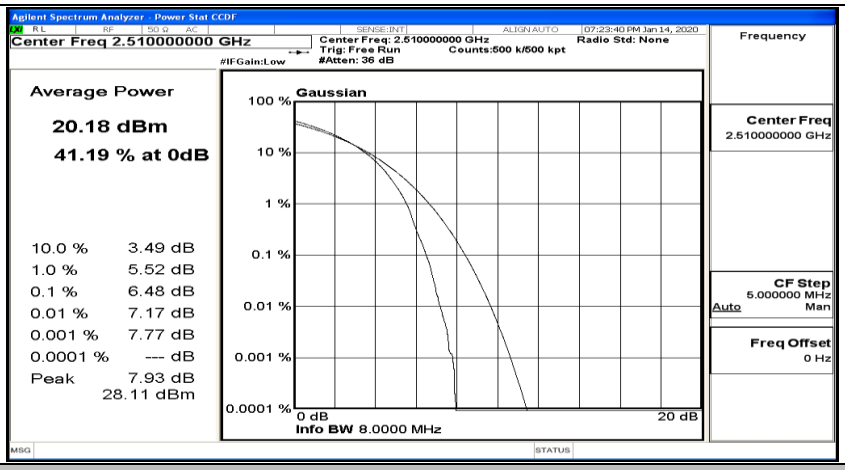

(Channel Bandwidth:20 MHz)_LCH_16QAM_50RB#0



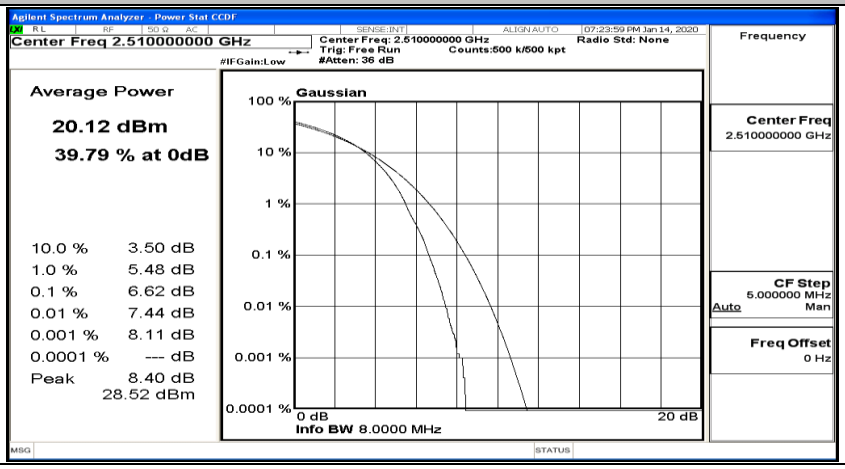

(Channel Bandwidth:20 MHz)_LCH_16QAM_50RB#25



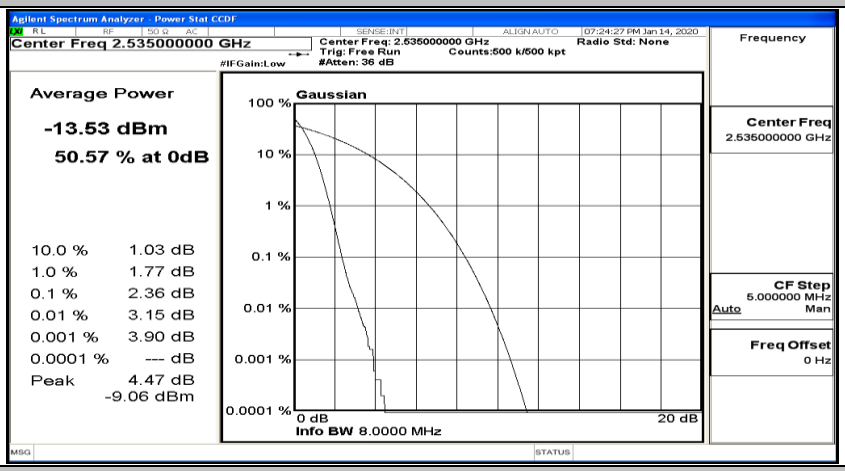

(Channel Bandwidth:20 MHz)_LCH_16QAM_50RB#50



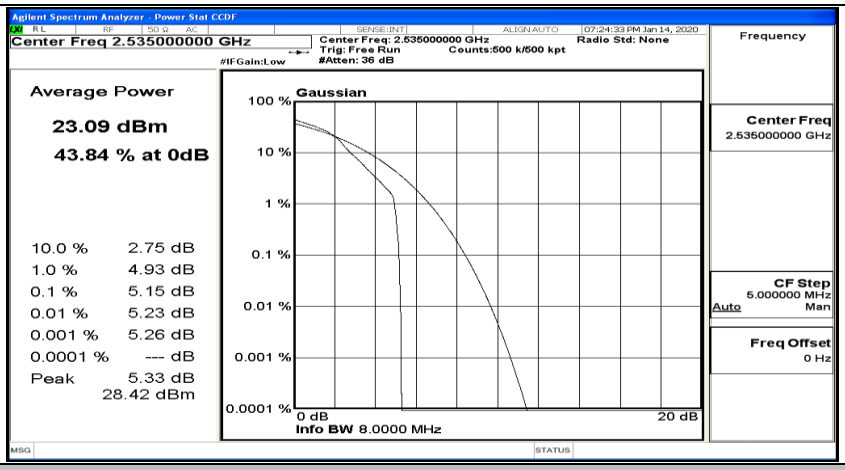

(Channel Bandwidth:20 MHz)_LCH_16QAM_100RB#0



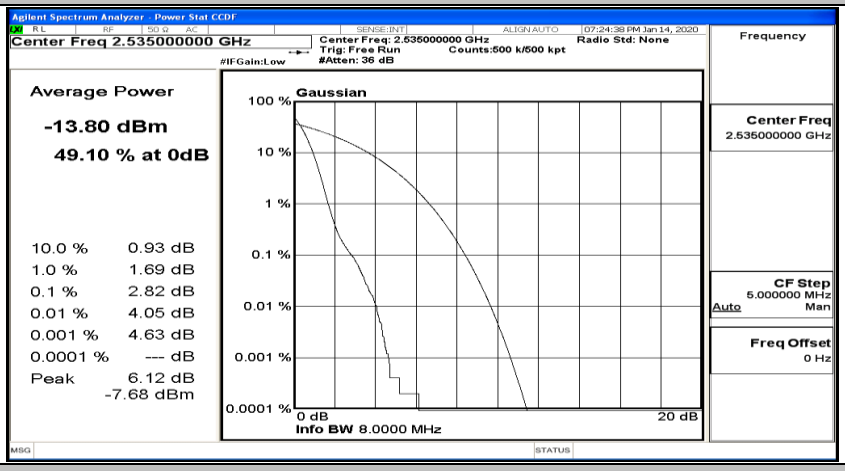

(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#0



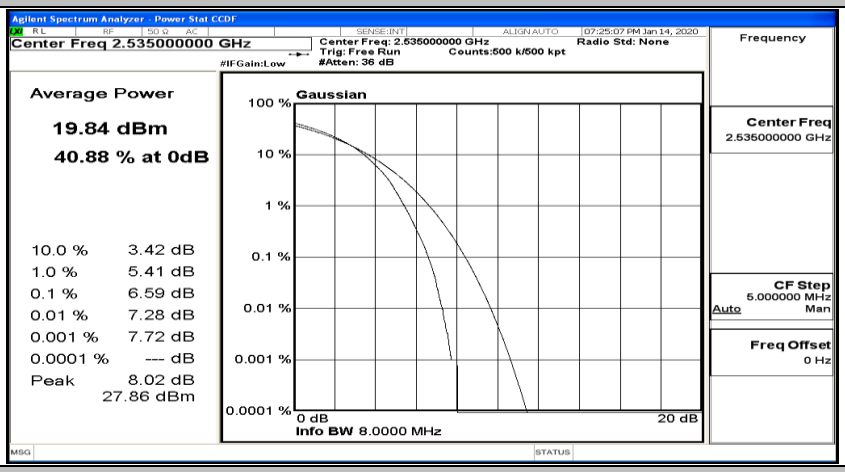

(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#49



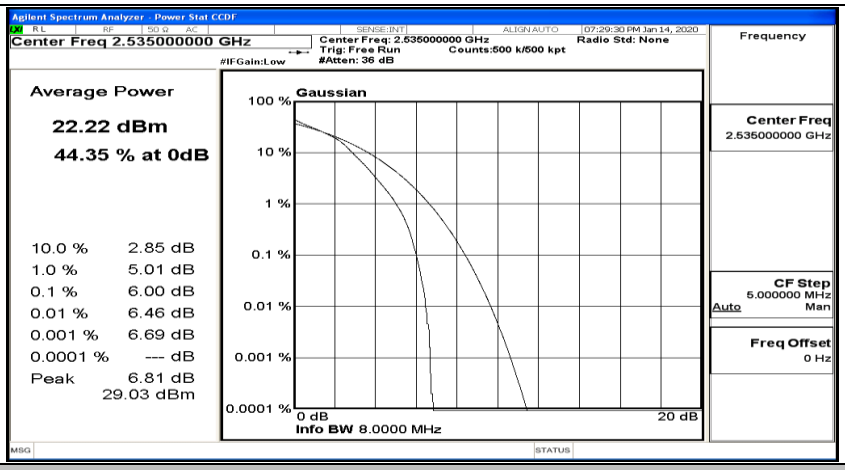

(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#99



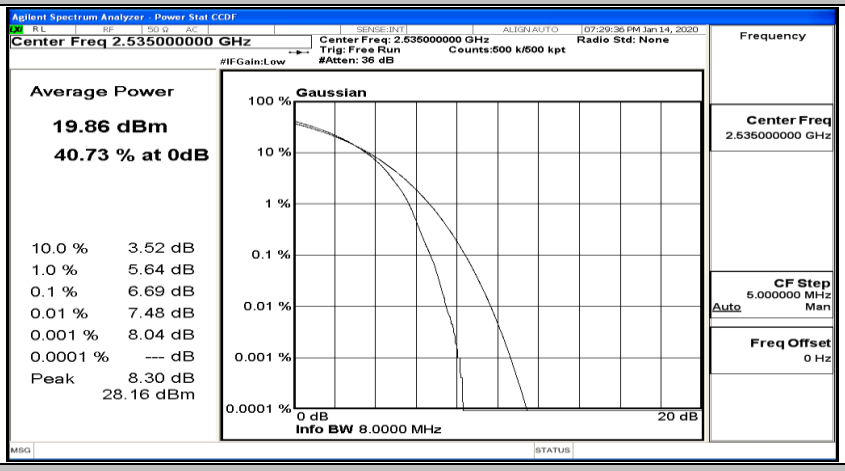

(Channel Bandwidth:20 MHz)_MCH_16QAM_50RB#0



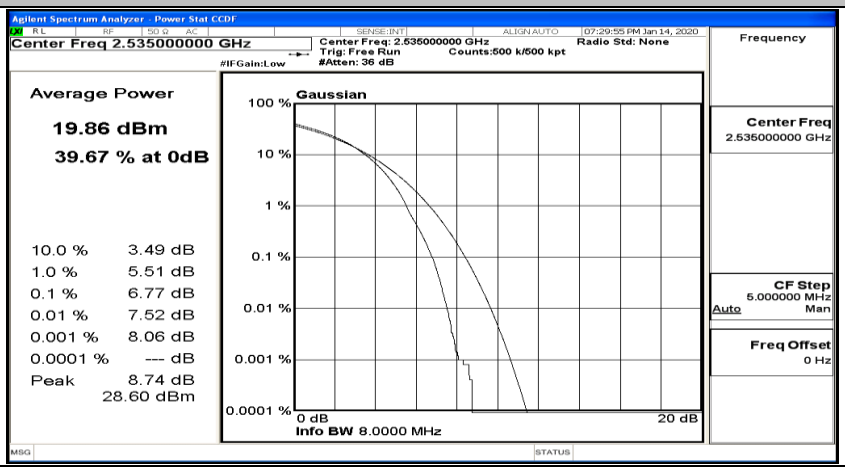

(Channel Bandwidth:20 MHz)_MCH_16QAM_50RB#25



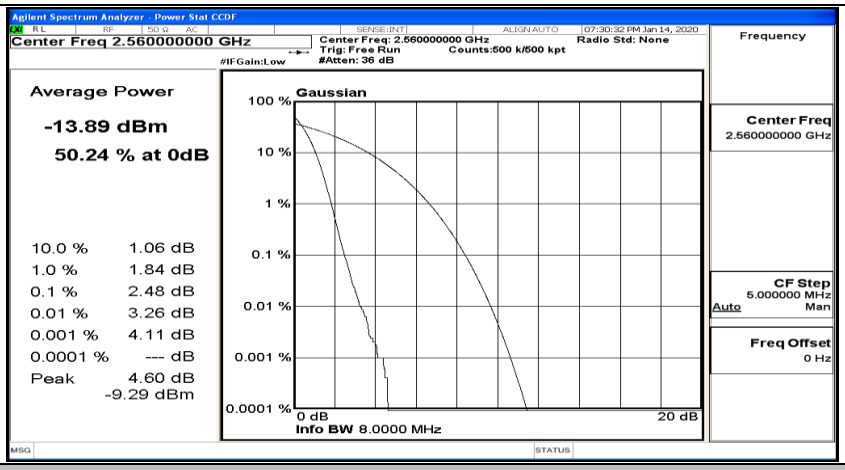

(Channel Bandwidth:20 MHz)_MCH_16QAM_50RB#50



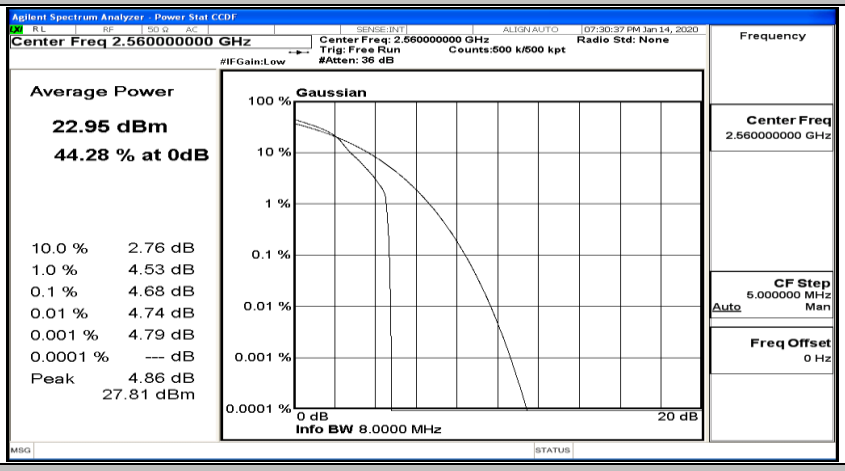

(Channel Bandwidth:20 MHz)_MCH_16QAM_100RB#0



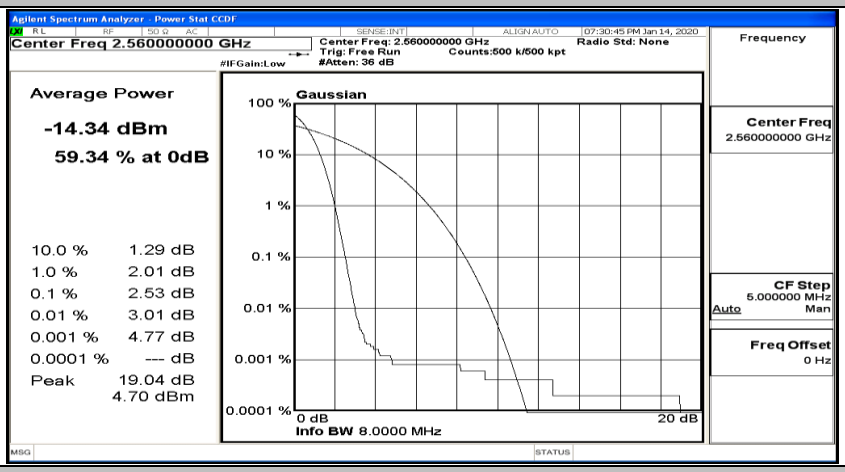

(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#0



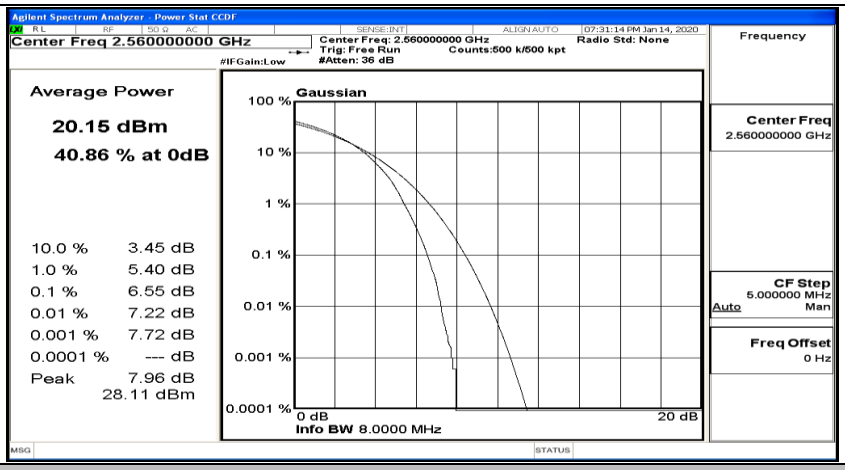

(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#49



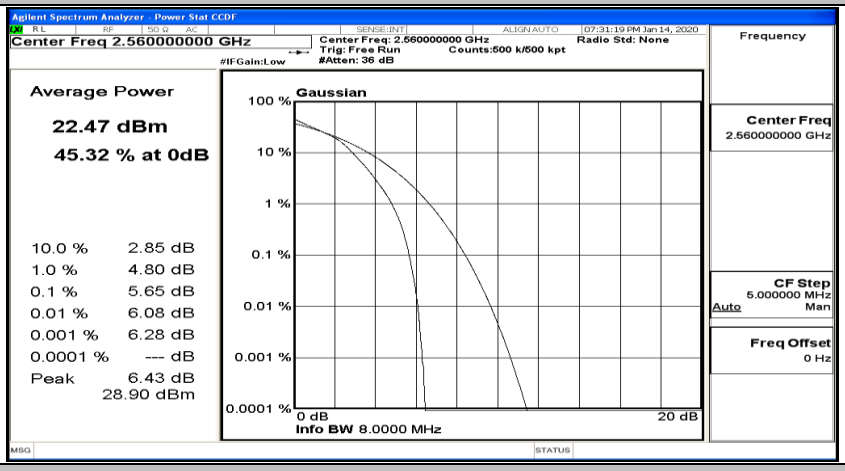

(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#99



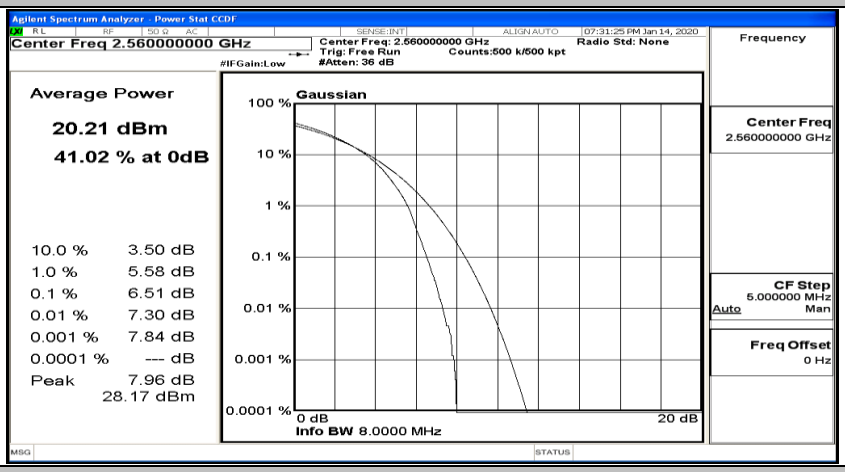

(Channel Bandwidth:20 MHz)_HCH_16QAM_50RB#0



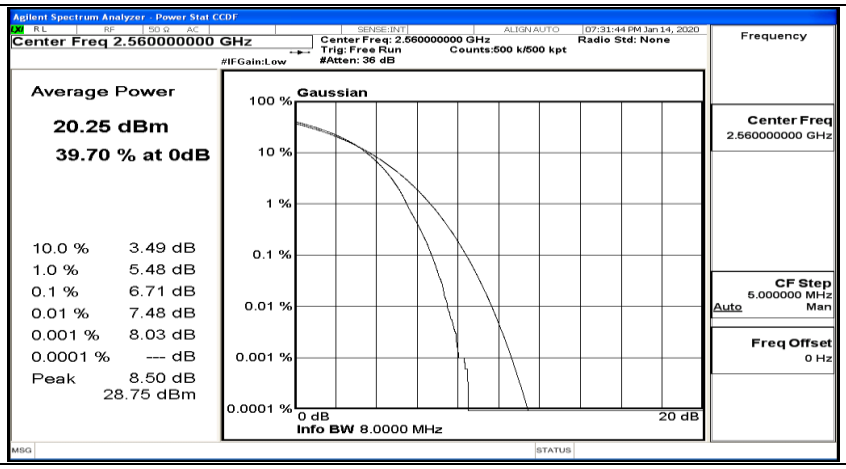

(Channel Bandwidth:20 MHz)_HCH_16QAM_50RB#25




(Channel Bandwidth:20 MHz)_HCH_16QAM_50RB#50




(Channel Bandwidth:20 MHz)_HCH_16QAM_100RB#0


Agilent Spectrum Analyzer - Power Stat CCDF
Center Freq 2.560000000 GHz
Center Freq: 2.560000000 GHz
Trig: Free Run
#Atten: 36 dB
Counts:500 k/500 kpt
Radio Std: None
07:31:44 PM Jan 14, 2020
#IFGain:Low
Average Power
20.25 dBm
39.70 % at 0dB
10.0 % 3.49 dB
1.0 % 5.48 dB
0.1 % 6.71 dB
0.01 % 7.48 dB
0.001 % 8.03 dB
0.0001 % --- dB
Peak 8.50 dB
28.75 dBm
Gaussian
100 %
10 %
1 %
0.1 %
0.01 %
0.001 %
0.0001 %
0 dB
20 dB
Info BW 8.0000 MHz
Frequency
Center Freq
2.560000000 GHz
CF Step
5.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

# E.3: 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 | 1 | 0 | 0.29478 | 0.4591 | PASS |
| | | 1 | 12 | 0.35540 | 0.5724 | PASS |
| | | 1 | 24 | 0.28436 | 0.4267 | PASS |
| | | 12 | 0 | 2.1760 | 2.525 | PASS |
| | | 12 | 6 | 2.1803 | 2.689 | PASS |
| | | 12 | 13 | 2.1778 | 2.491 | PASS |
| | | 25 | 0 | 4.4682 | 4.792 | PASS |
| | MCH | 1 | 0 | 0.29273 | 0.4612 | PASS |
| | | 1 | 12 | 0.39350 | 0.6507 | PASS |
| | | 1 | 24 | 0.28845 | 0.4717 | PASS |
| | | 12 | 0 | 2.1767 | 2.531 | PASS |
| | | 12 | 6 | 2.1776 | 2.776 | PASS |
| | | 12 | 13 | 2.1753 | 2.506 | PASS |
| | | 25 | 0 | 4.4747 | 4.806 | PASS |
| | HCH | 1 | 0 | 0.29996 | 0.4627 | PASS |
| | | 1 | 12 | 0.41334 | 0.6710 | PASS |
| | | 1 | 24 | 0.29351 | 0.4526 | PASS |
| | | 12 | 0 | 2.1837 | 2.549 | PASS |
| | | 12 | 6 | 2.1851 | 2.805 | PASS |
| | | 12 | 13 | 2.1756 | 2.525 | PASS |
| | | 25 | 0 | 4.4733 | 4.839 | PASS |
| 16QAM | LCH | 1 | 0 | 0.29191 | 0.4393 | PASS |
| | | 1 | 12 | 0.38420 | 0.6023 | PASS |
| | | 1 | 24 | 0.29311 | 0.4347 | PASS |
| | | 12 | 0 | 2.1735 | 2.492 | PASS |
| | | 12 | 6 | 2.1811 | 2.672 | PASS |
| | | 12 | 13 | 2.1747 | 2.520 | PASS |
| | | 25 | 0 | 4.4770 | 4.800 | PASS |
| | MCH | 1 | 0 | 0.29829 | 0.4746 | PASS |
| | | 1 | 12 | 0.43180 | 0.6612 | PASS |
| | | 1 | 24 | 0.29945 | 0.4720 | PASS |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 12 | 0 | 2.1796 | 2.526 | PASS |
| | | 12 | 6 | 2.1751 | 2.696 | PASS |
| | | 12 | 13 | 2.1747 | 2.487 | PASS |
| | | 25 | 0 | 4.4778 | 4.784 | PASS |
| | HCH | 1 | 0 | 0.29689 | 0.4742 | PASS |
| | | 1 | 12 | 0.42966 | 0.6475 | PASS |
| | | 1 | 24 | 0.28941 | 0.4496 | PASS |
| | | 12 | 0 | 2.1795 | 2.564 | PASS |
| | | 12 | 6 | 2.1779 | 2.644 | PASS |
| | | 12 | 13 | 2.1762 | 2.542 | PASS |
| | | 25 | 0 | 4.4784 | 4.775 | PASS |

## Channel Bandwidth: 10 MHz

| Channel Bandwidth: 10 MHz | | | | | | |
|---|---|---|---|---|---|---|
| Modulation | Channel | RB Configuration | | Occupied Bandwidth (MHz) | 26dB Bandwidth (MHz) | Verdict |
| | | Size | Offset | | | |
| QPSK | LCH | 1 | 0 | 0.37743 | 0.5441 | PASS |
| | | 1 | 25 | 0.44549 | 0.7257 | PASS |
| | | 1 | 49 | 0.38780 | 0.5794 | PASS |
| | | 25 | 0 | 4.5261 | 4.940 | PASS |
| | | 25 | 12 | 4.5204 | 5.095 | PASS |
| | | 25 | 25 | 4.5103 | 5.045 | PASS |
| | | 50 | 0 | 8.9257 | 9.458 | PASS |
| | MCH | 1 | 0 | 19.822 | 20.00 | PASS |
| | | 1 | 25 | 0.45695 | 0.6879 | PASS |
| | | 1 | 49 | 0.38509 | 0.5636 | PASS |
| | | 25 | 0 | 4.5085 | 4.941 | PASS |
| | | 25 | 12 | 4.5072 | 5.071 | PASS |
| | | 25 | 25 | 4.5172 | 4.926 | PASS |
| | | 50 | 0 | 8.9261 | 9.505 | PASS |
| | HCH | 1 | 0 | 0.37847 | 0.5475 | PASS |
| | | 1 | 25 | 0.46537 | 0.7371 | PASS |
| | | 1 | 49 | 0.38953 | 0.5845 | PASS |
| | | 25 | 0 | 4.5264 | 5.029 | PASS |
| | | 25 | 12 | 4.5117 | 5.027 | PASS |
| | | 25 | 25 | 4.5154 | 4.978 | PASS |
| | | 50 | 0 | 8.9402 | 9.464 | PASS |
| 16QAM | LCH | 1 | 0 | 0.39066 | 0.5722 | PASS |
| | | 1 | 25 | 0.45877 | 0.7111 | PASS |
| | | 1 | 49 | 0.39365 | 0.5722 | PASS |
| | | 25 | 0 | 4.5100 | 4.921 | PASS |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 25 | 12 | 4.5146 | 5.093 | PASS |
| | | 25 | 25 | 4.5267 | 4.981 | PASS |
| | | 50 | 0 | 8.9175 | 9.381 | PASS |
| | MCH | 1 | 0 | 0.38092 | 0.6065 | PASS |
| | | 1 | 25 | 0.46758 | 0.6728 | PASS |
| | | 1 | 49 | 0.39068 | 0.5762 | PASS |
| | | 25 | 0 | 4.5058 | 4.900 | PASS |
| | | 25 | 12 | 4.5084 | 5.109 | PASS |
| | | 25 | 25 | 4.5087 | 4.937 | PASS |
| | | 50 | 0 | 8.9203 | 9.463 | PASS |
| | HCH | 1 | 0 | 0.38422 | 0.5453 | PASS |
| | | 1 | 25 | 0.44529 | 0.7276 | PASS |
| | | 1 | 49 | 0.38866 | 0.5762 | PASS |
| | | 25 | 0 | 4.5197 | 5.026 | PASS |
| | | 25 | 12 | 4.5086 | 5.018 | PASS |
| | | 25 | 25 | 4.5131 | 4.987 | PASS |
| | | 50 | 0 | 8.9163 | 9.410 | PASS |

## Channel Bandwidth: 15 MHz

| Channel Bandwidth: 15 MHz | | | | | | |
|---|---|---|---|---|---|---|
| Modulation | Channel | RB Configuration | | Occupied Bandwidth (MHz) | 26dB Bandwidth (MHz) | Verdict |
| | | Size | Offset | | | |
| QPSK | LCH | 1 | 0 | 0.50094 | 0.7076 | PASS |
| | | 1 | 37 | 0.57522 | 0.8330 | PASS |
| | | 1 | 74 | 0.49535 | 0.7479 | PASS |
| | | 37 | 0 | 6.4967 | 7.136 | PASS |
| | | 37 | 18 | 6.5054 | 7.297 | PASS |
| | | 37 | 38 | 6.4863 | 7.172 | PASS |
| | | 75 | 0 | 13.376 | 14.05 | PASS |
| | MCH | 1 | 0 | 0.49760 | 0.7301 | PASS |
| | | 1 | 37 | 0.57621 | 0.8384 | PASS |
| | | 1 | 74 | 0.48828 | 0.7190 | PASS |
| | | 37 | 0 | 6.4899 | 7.143 | PASS |
| | | 37 | 18 | 6.5034 | 7.268 | PASS |
| | | 37 | 38 | 6.4916 | 7.101 | PASS |
| | | 75 | 0 | 13.377 | 14.04 | PASS |
| | HCH | 1 | 0 | 0.49127 | 0.7098 | PASS |
| | | 1 | 37 | 0.57045 | 0.8228 | PASS |
| | | 1 | 74 | 0.49821 | 0.7395 | PASS |
| | | 37 | 0 | 6.5020 | 7.112 | PASS |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 37 | 18 | 6.5035 | 7.606 | PASS |
| | | 37 | 38 | 6.5023 | 7.173 | PASS |
| | | 75 | 0 | 13.373 | 13.99 | PASS |
| 16QAM | LCH | 1 | 0 | 0.50226 | 0.7568 | PASS |
| | | 1 | 37 | 0.57451 | 0.7754 | PASS |
| | | 1 | 74 | 0.48784 | 0.7160 | PASS |
| | | 37 | 0 | 6.4847 | 7.119 | PASS |
| | | 37 | 18 | 6.4937 | 7.309 | PASS |
| | | 37 | 38 | 6.4848 | 7.118 | PASS |
| | | 75 | 0 | 13.376 | 13.98 | PASS |
| | MCH | 1 | 0 | 0.49490 | 0.7373 | PASS |
| | | 1 | 37 | 0.56612 | 0.8332 | PASS |
| | | 1 | 74 | 0.49844 | 0.7048 | PASS |
| | | 37 | 0 | 6.4953 | 7.177 | PASS |
| | | 37 | 18 | 6.4868 | 7.375 | PASS |
| | | 37 | 38 | 6.4880 | 7.072 | PASS |
| | | 75 | 0 | 13.384 | 14.02 | PASS |
| | HCH | 1 | 0 | 0.48919 | 0.7127 | PASS |
| | | 1 | 37 | 0.54144 | 0.7934 | PASS |
| | | 1 | 74 | 0.49642 | 0.7378 | PASS |
| | | 37 | 0 | 6.5000 | 7.096 | PASS |
| | | 37 | 18 | 6.4871 | 7.369 | PASS |
| | | 37 | 38 | 6.4983 | 7.068 | PASS |
| | | 75 | 0 | 13.366 | 14.03 | PASS |

## Channel Bandwidth: 20 MHz

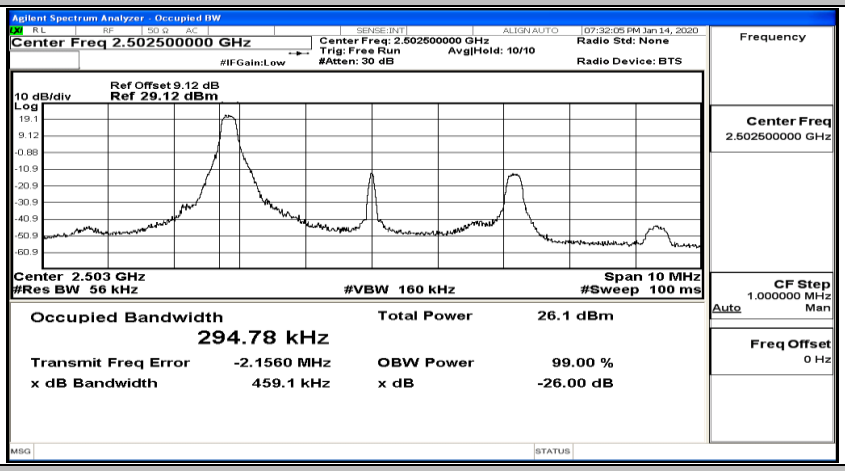
| Channel Bandwidth: 20 MHz | | | | | | |
|---|---|---|---|---|---|---|
| Modulation | Channel | RB Configuration | | Occupied Bandwidth (MHz) | 26dB Bandwidth (MHz) | Verdict |
| | | Size | Offset | | | |
| QPSK | LCH | 1 | 0 | 0.57421 | 0.8392 | PASS |
| | | 1 | 50 | 39.636 | 40.00 | PASS |
| | | 1 | 99 | 0.56706 | 0.8591 | PASS |
| | | 50 | 0 | 8.9873 | 9.628 | PASS |
| | | 50 | 25 | 8.9821 | 9.771 | PASS |
| | | 50 | 50 | 8.9901 | 9.635 | PASS |
| | | 100 | 0 | 17.790 | 18.56 | PASS |
| | MCH | 1 | 0 | 0.57642 | 0.8140 | PASS |
| | | 1 | 50 | 0.64575 | 0.9618 | PASS |
| | | 1 | 99 | 0.58140 | 0.8070 | PASS |
| | | 50 | 0 | 9.0009 | 9.585 | PASS |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 50 | 25 | 9.0027 | 9.971 | PASS |
| | | 50 | 50 | 8.9958 | 9.670 | PASS |
| | | 100 | 0 | 17.849 | 18.65 | PASS |
| | HCH | 1 | 0 | 0.57480 | 0.8473 | PASS |
| | | 1 | 50 | 0.66530 | 0.9330 | PASS |
| | | 1 | 99 | 0.58986 | 0.8758 | PASS |
| | | 50 | 0 | 8.9947 | 9.697 | PASS |
| | | 50 | 25 | 8.9915 | 9.821 | PASS |
| | | 50 | 50 | 8.9925 | 9.759 | PASS |
| | | 100 | 0 | 17.828 | 18.56 | PASS |
| 16QAM | LCH | 1 | 0 | 0.58656 | 0.8153 | PASS |
| | | 1 | 50 | 0.67015 | 0.9674 | PASS |
| | | 1 | 99 | 0.56114 | 0.7870 | PASS |
| | | 50 | 0 | 8.9767 | 9.562 | PASS |
| | | 50 | 25 | 8.9849 | 9.619 | PASS |
| | | 50 | 50 | 8.9942 | 9.634 | PASS |
| | | 100 | 0 | 17.812 | 18.54 | PASS |
| | MCH | 1 | 0 | 0.58287 | 0.8278 | PASS |
| | | 1 | 50 | 0.64311 | 0.8930 | PASS |
| | | 1 | 99 | 0.57055 | 0.8186 | PASS |
| | | 50 | 0 | 8.9872 | 9.610 | PASS |
| | | 50 | 25 | 8.9898 | 9.729 | PASS |
| | | 50 | 50 | 9.0035 | 9.666 | PASS |
| | | 100 | 0 | 17.849 | 18.57 | PASS |
| | HCH | 1 | 0 | 0.56135 | 0.8310 | PASS |
| | | 1 | 50 | 0.62852 | 0.9161 | PASS |
| | | 1 | 99 | 0.55855 | 0.8256 | PASS |
| | | 50 | 0 | 8.9943 | 9.657 | PASS |
| | | 50 | 25 | 8.9855 | 9.816 | PASS |
| | | 50 | 50 | 8.9784 | 9.718 | PASS |
| | | 100 | 0 | 17.847 | 18.57 | PASS |

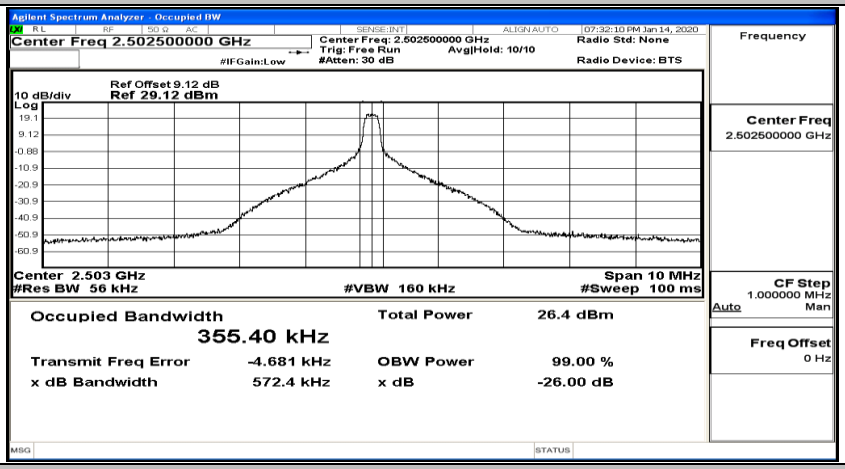
## Test Graphs

## Channel Bandwidth: 5 MHz

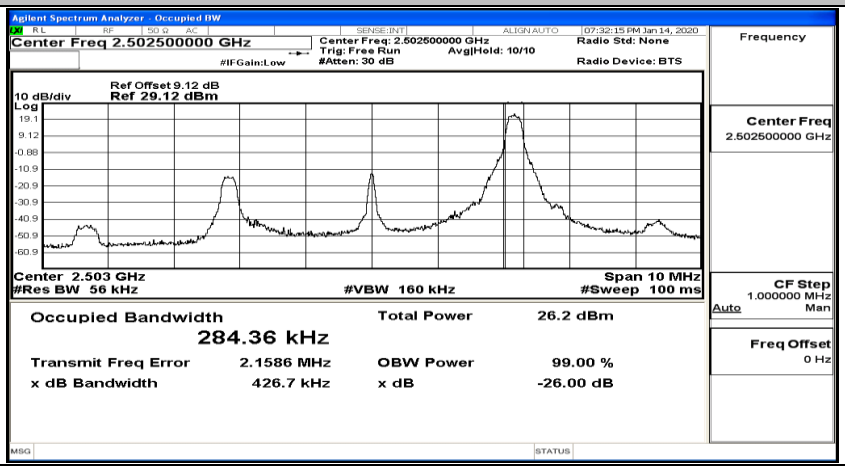
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



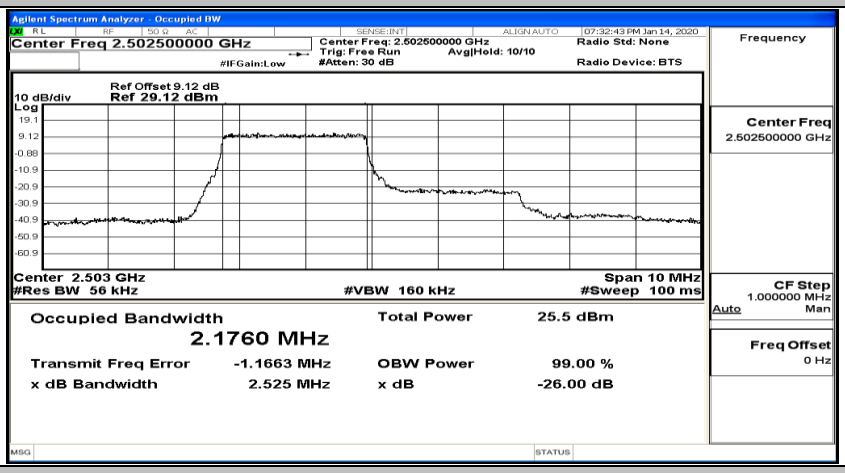

(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#12



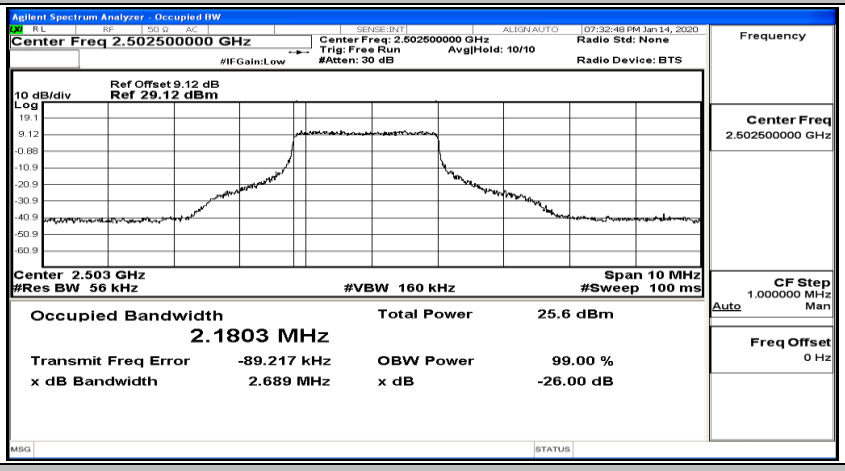

(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#24



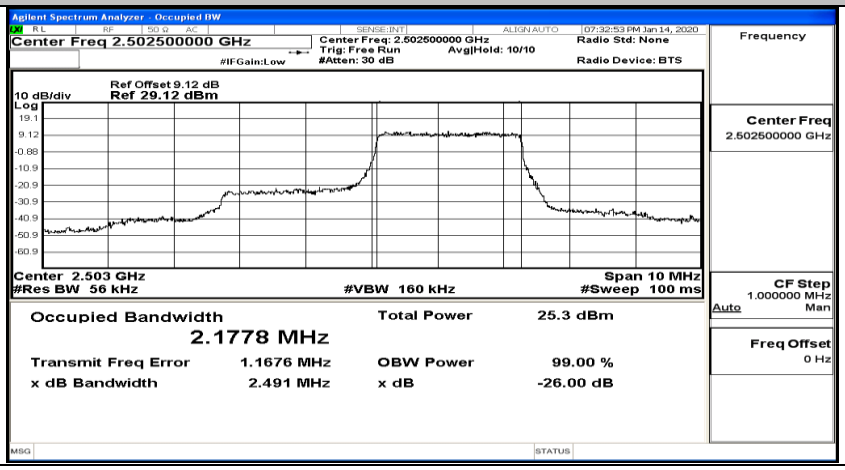
(Channel Bandwidth: 5 MHz)_LCH_QPSK_12RB#0



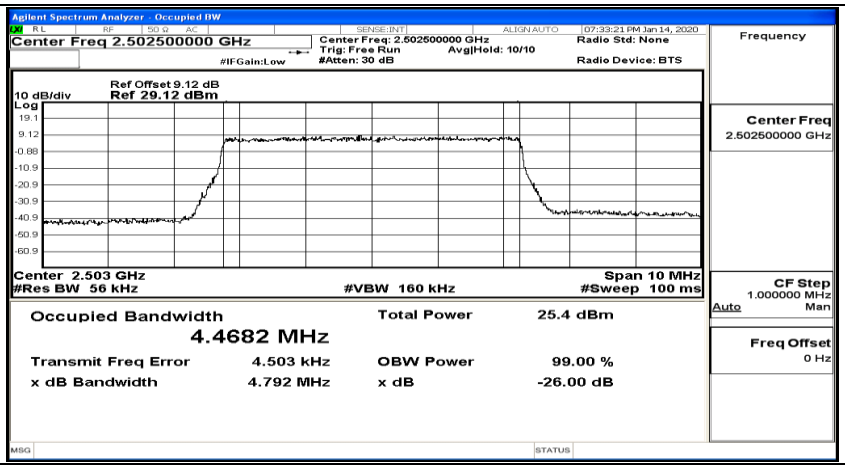

(Channel Bandwidth: 5 MHz)_LCH_QPSK_12RB#6



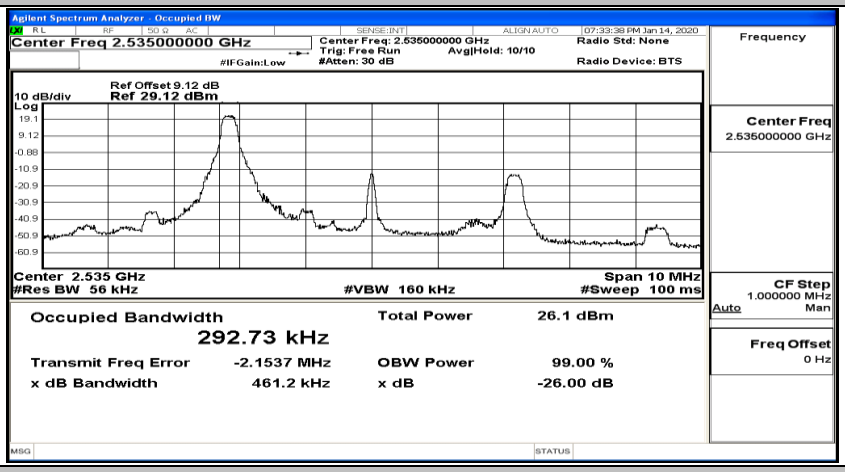

(Channel Bandwidth: 5 MHz)_LCH_QPSK_12RB#13



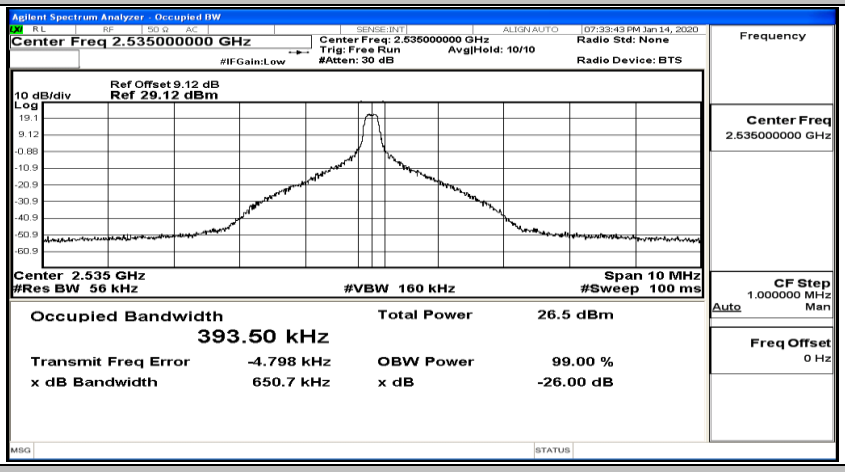

(Channel Bandwidth: 5 MHz)_LCH_QPSK_25RB#0



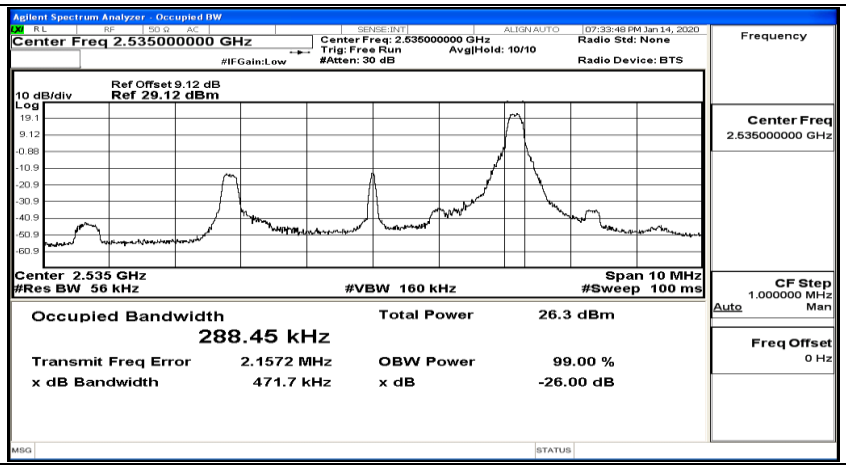

(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0



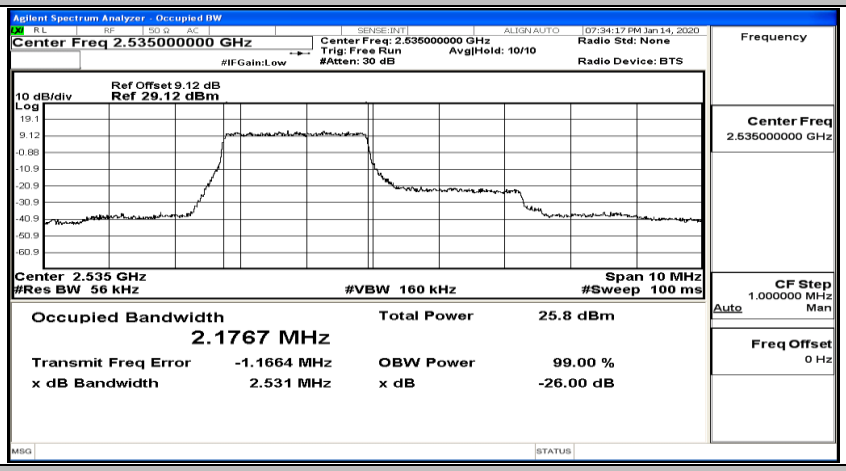

(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#12



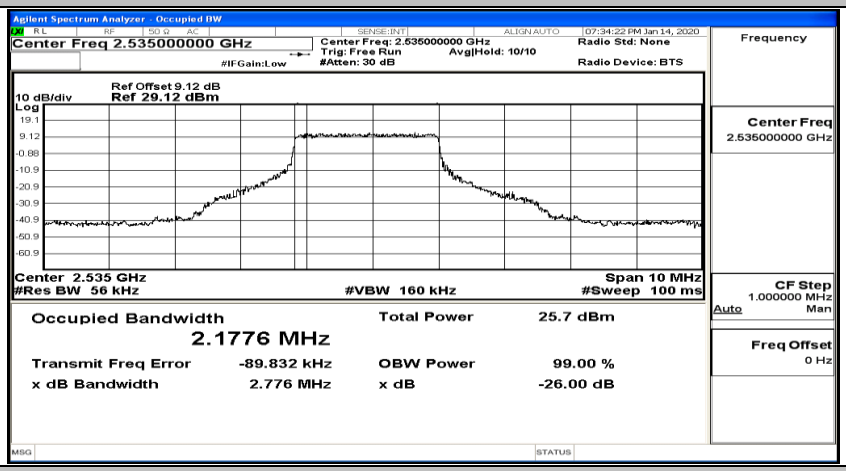

(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#24



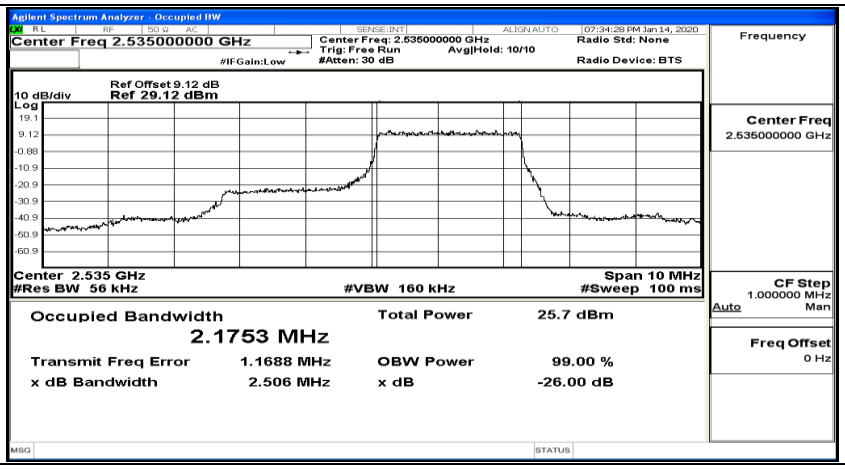

(Channel Bandwidth: 5 MHz)_MCH_QPSK_12RB#0



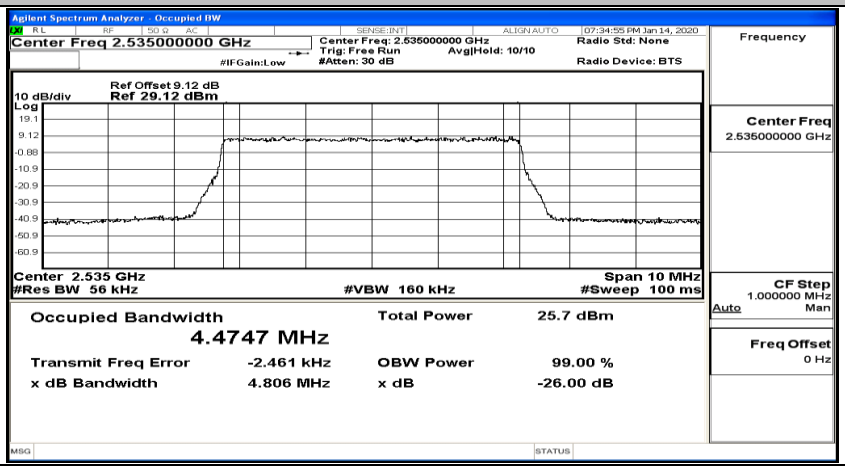

(Channel Bandwidth: 5 MHz)_MCH_QPSK_12RB#6



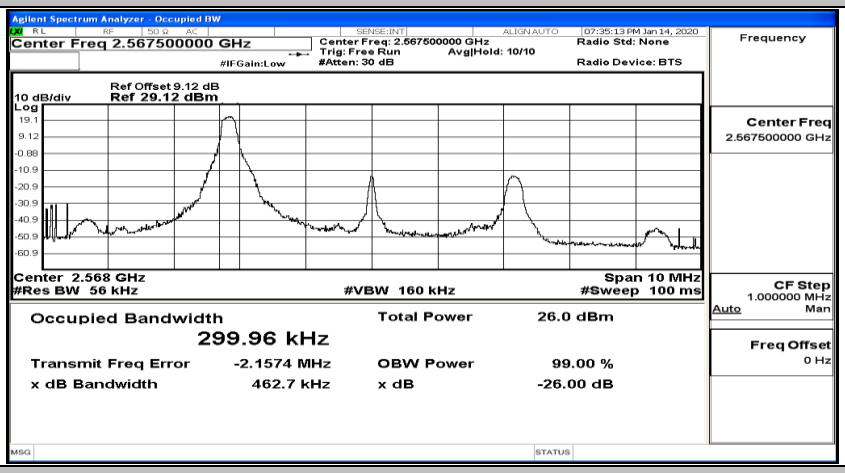

(Channel Bandwidth: 5 MHz)_MCH_QPSK_12RB#13



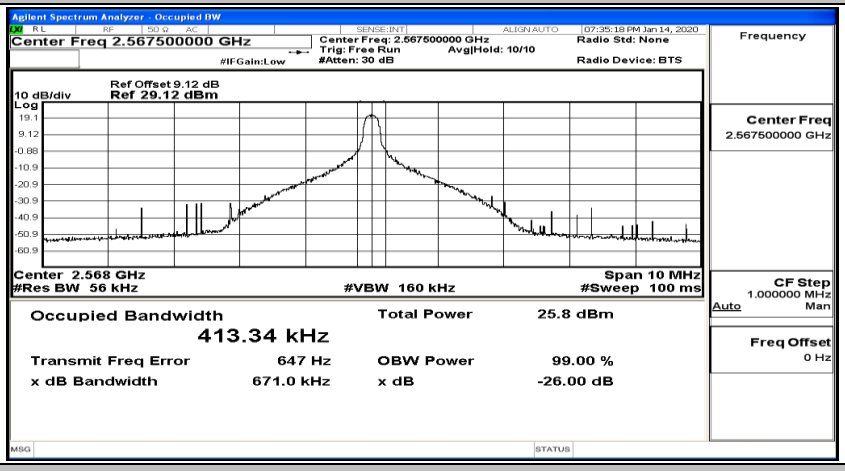

(Channel Bandwidth: 5 MHz)_MCH_QPSK_25RB#0



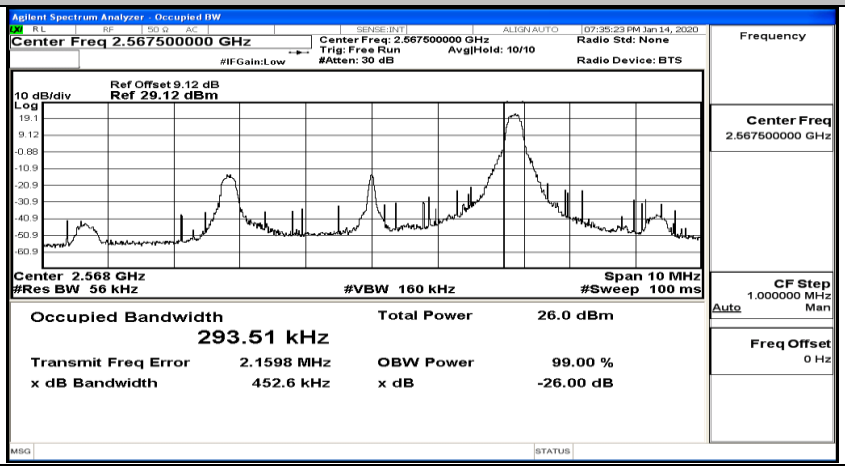
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



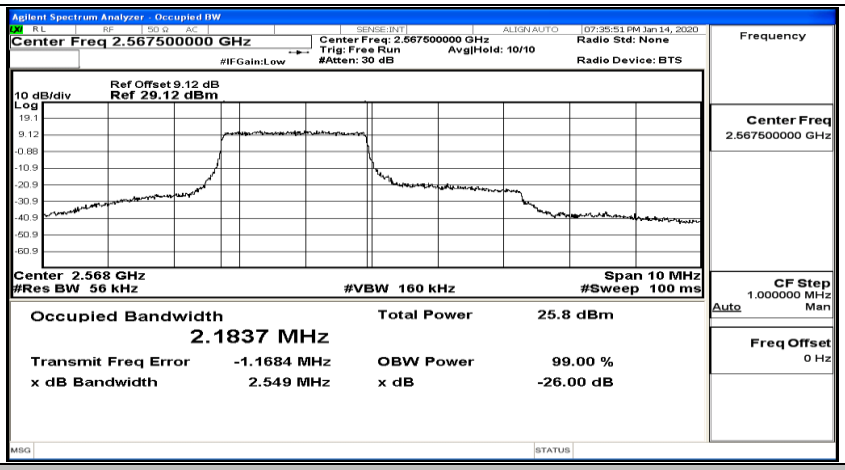

(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12



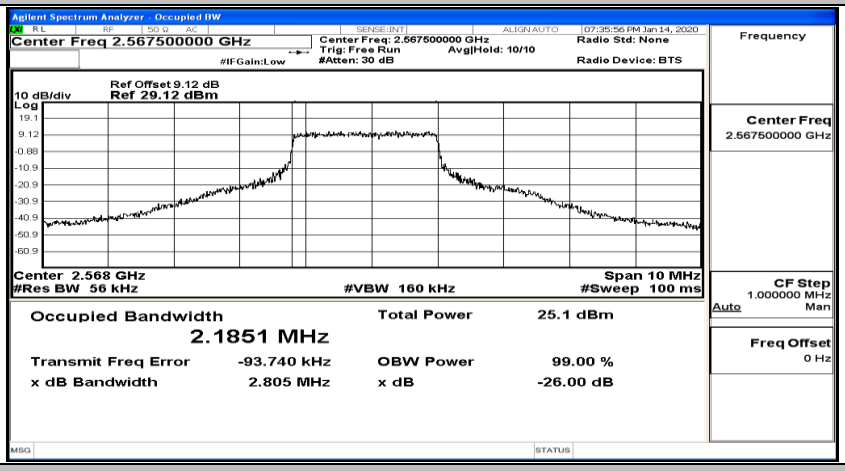

(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#24



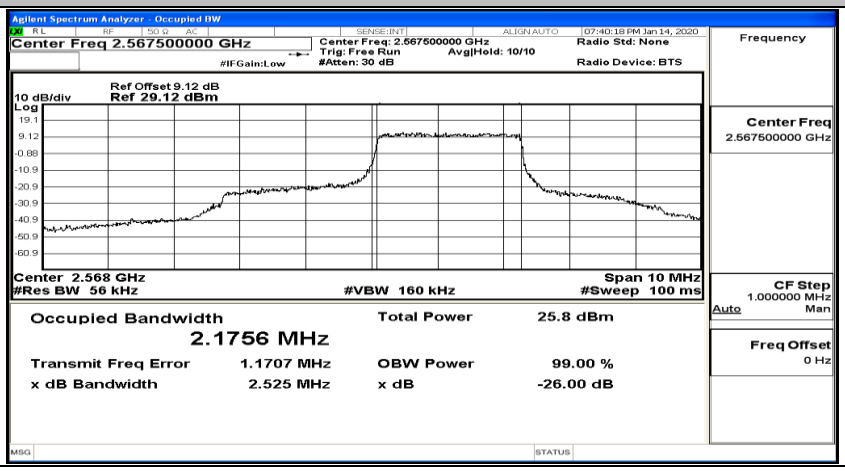

(Channel Bandwidth: 5 MHz)_HCH_QPSK_12RB#0



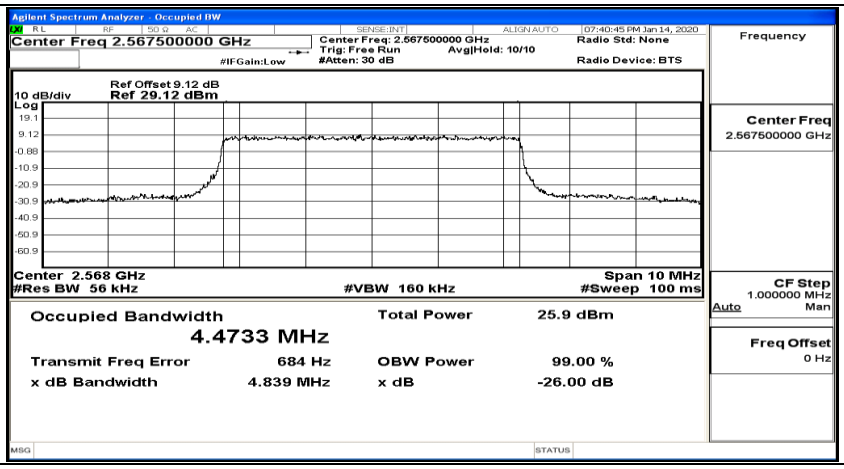

(Channel Bandwidth: 5 MHz)_HCH_QPSK_12RB#6



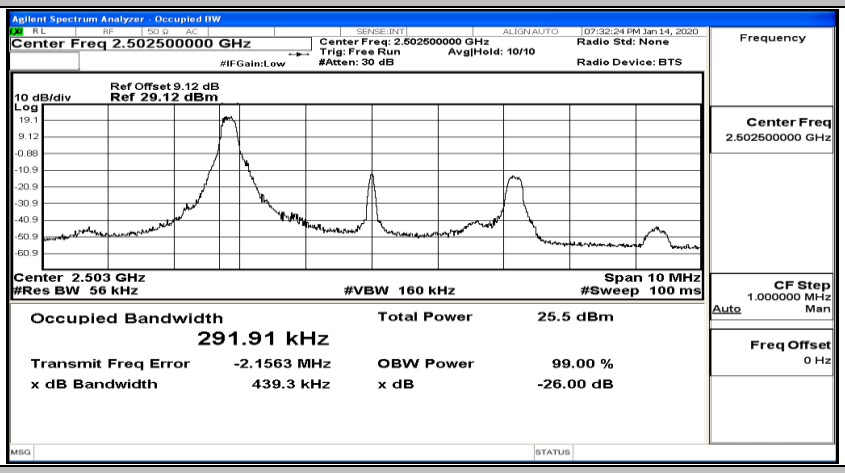

(Channel Bandwidth: 5 MHz)_HCH_QPSK_12RB#13



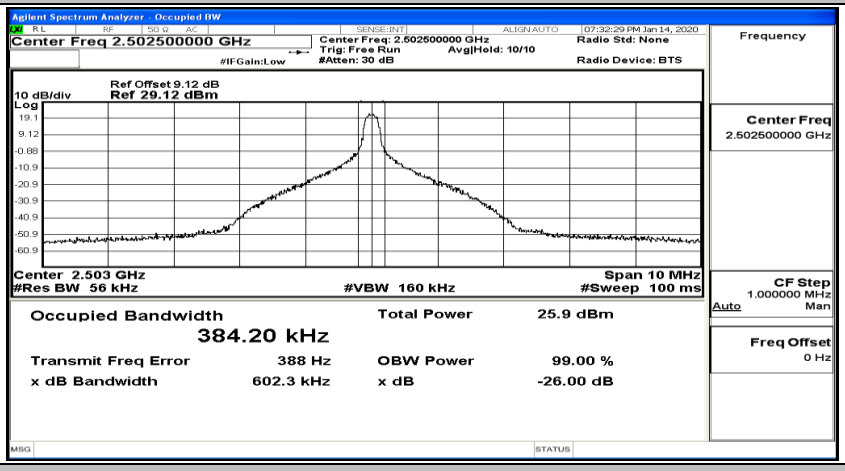

(Channel Bandwidth: 5 MHz)_HCH_QPSK_25RB#0


Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.567500000 GHz
Center Freq: 2.567500000 GHz
Trig: Free Run
Avg|Hold: 10/10
#IFGain:Low
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
07:40:45 PM Jan 14, 2020
Frequency
Ref Offset 9.12 dB
10 dB/div
Ref 29.12 dBm
Log
19.1
9.12
-0.88
-10.9
-20.9
-30.9
-40.9
-50.9
-60.9
Center Freq
2.567500000 GHz
Center 2.568 GHz
#Res BW 56 kHz
#VBW 160 kHz
Span 10 MHz
#Sweep 100 ms
CF Step
1.000000 MHz
Auto
Man
Occupied Bandwidth
4.4733 MHz
Total Power
25.9 dBm
Transmit Freq Error
684 Hz
OBW Power
99.00 %
x dB Bandwidth
4.839 MHz
x dB
-26.00 dB
Freq Offset
0 Hz
MSG
STATUS

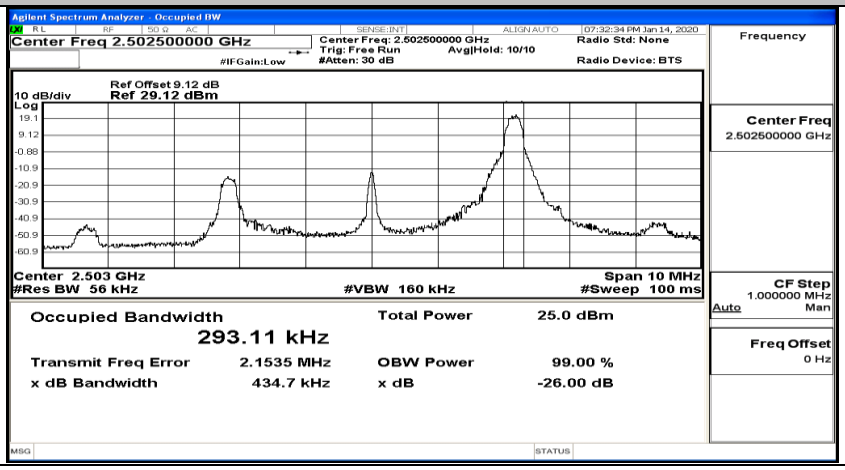
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0



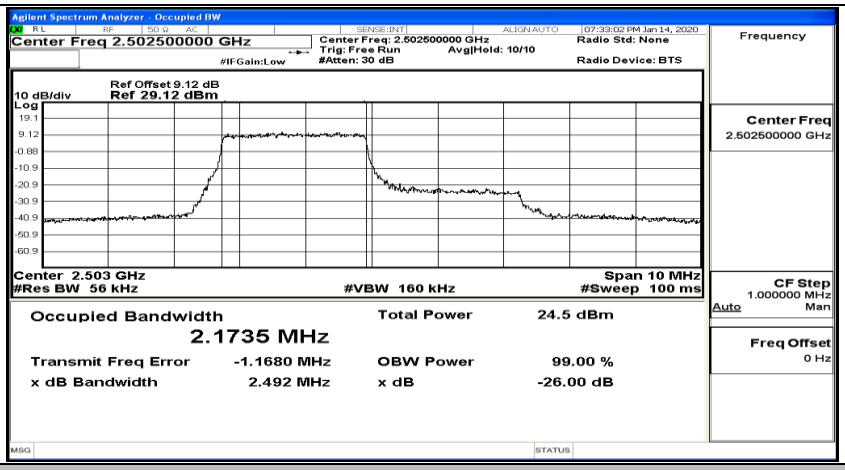

(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#12



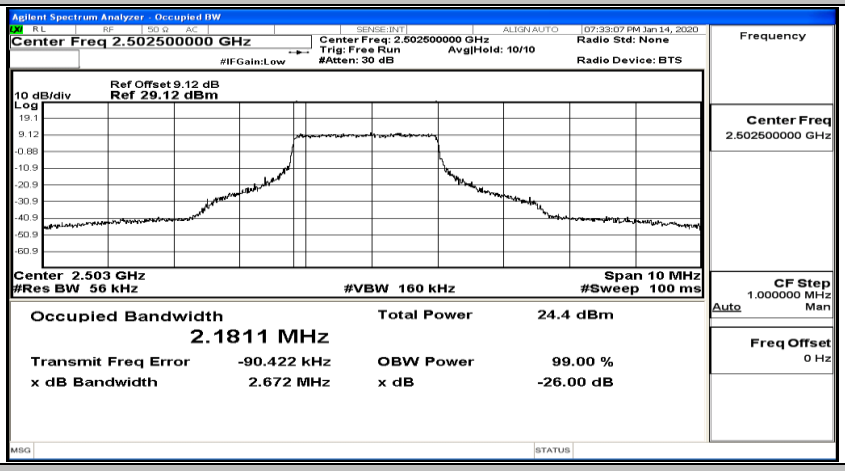

(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#24



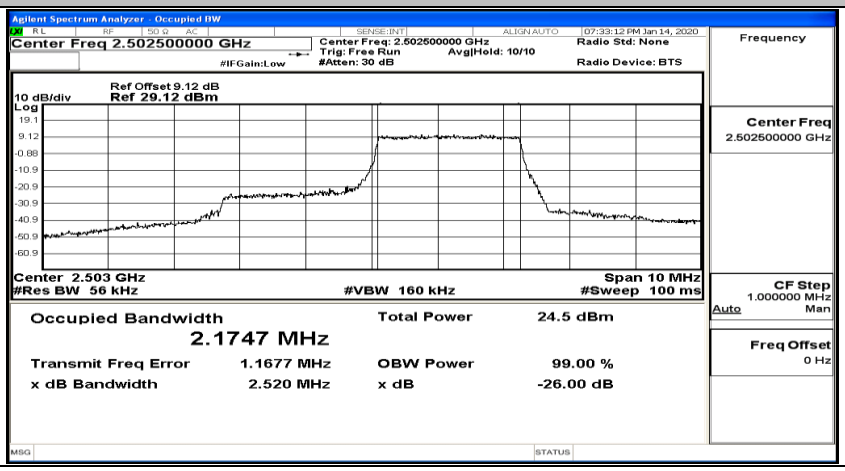

(Channel Bandwidth: 5 MHz)_LCH_16QAM_12RB#0



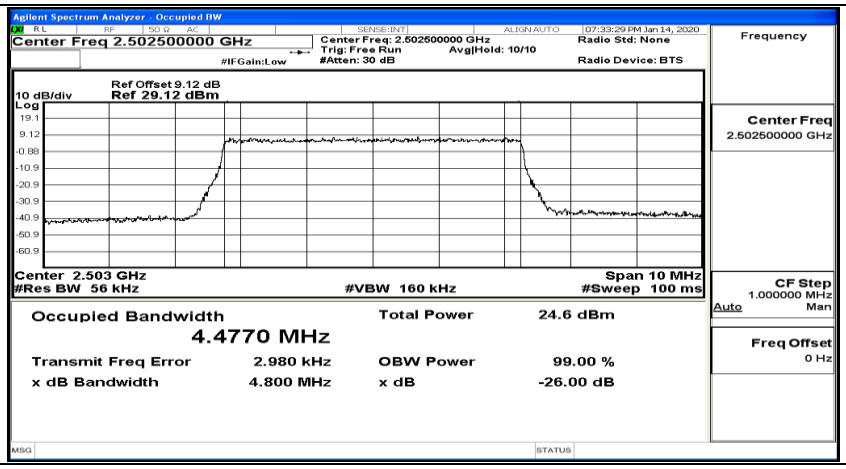

(Channel Bandwidth: 5 MHz)_LCH_16QAM_12RB#6



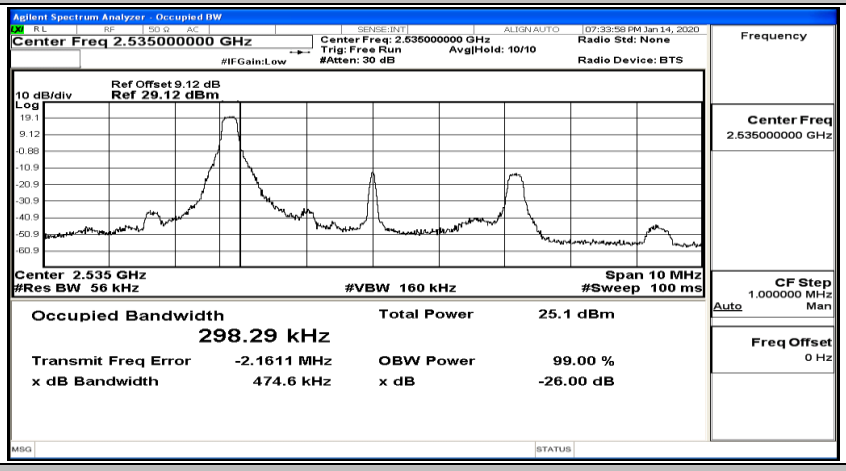

(Channel Bandwidth: 5 MHz)_LCH_16QAM_12RB#13



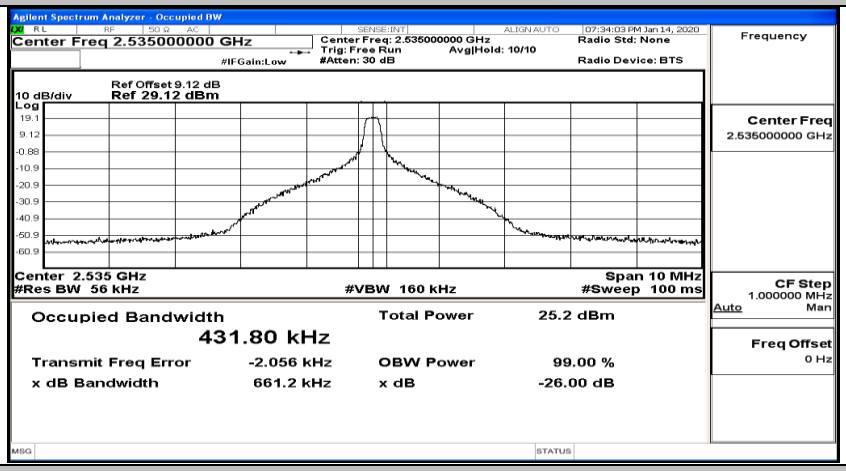

(Channel Bandwidth: 5 MHz)_LCH_16QAM_25RB#0



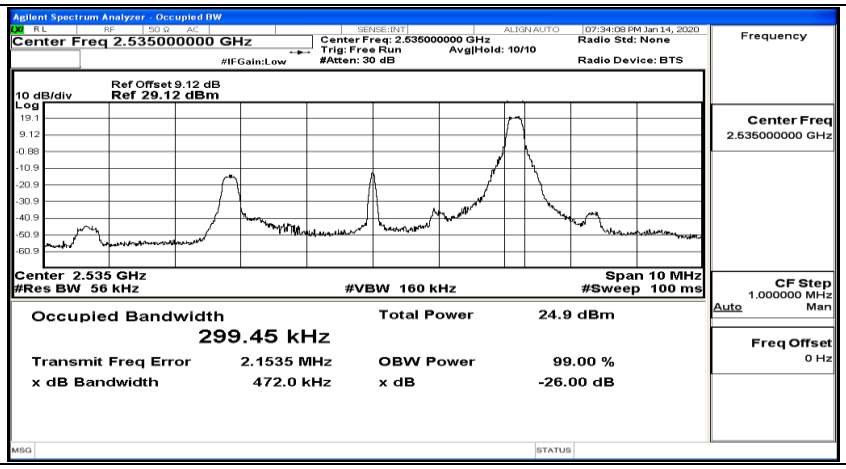

(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#0



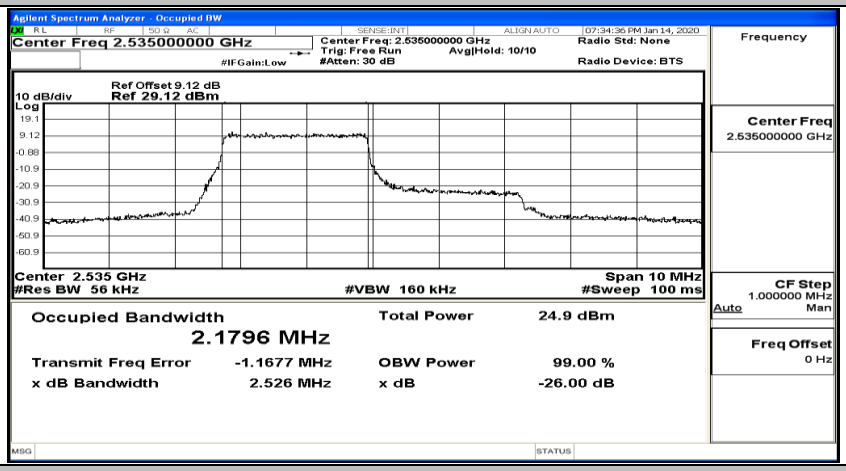

(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#12



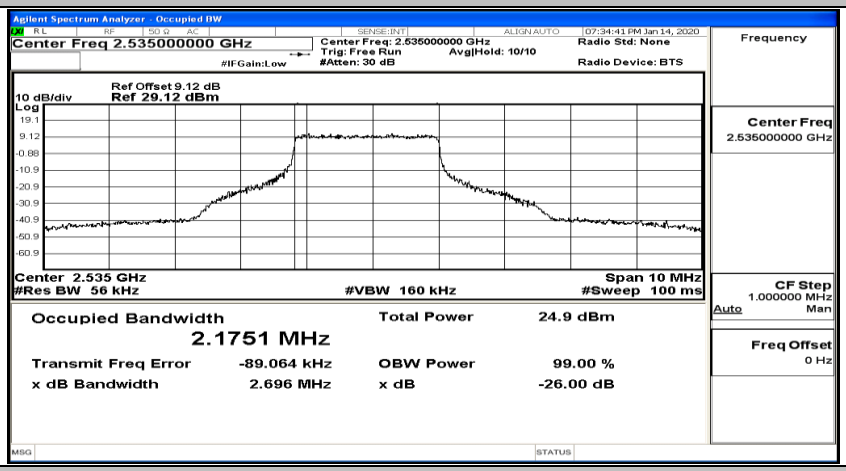

(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#24



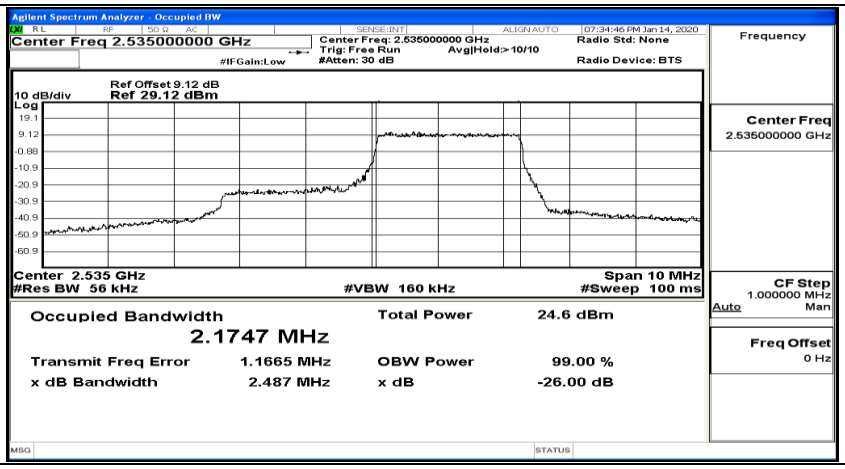

(Channel Bandwidth: 5 MHz)_MCH_16QAM_12RB#0



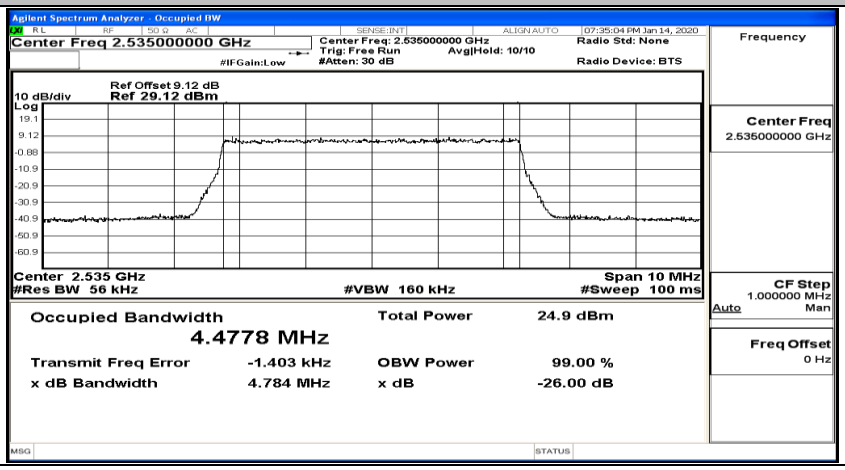

(Channel Bandwidth: 5 MHz)_MCH_16QAM_12RB#6



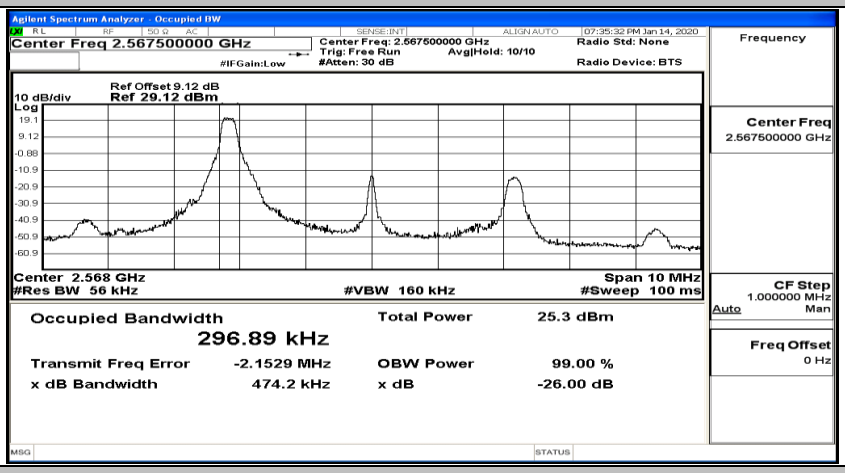

(Channel Bandwidth: 5 MHz)_MCH_16QAM_12RB#13



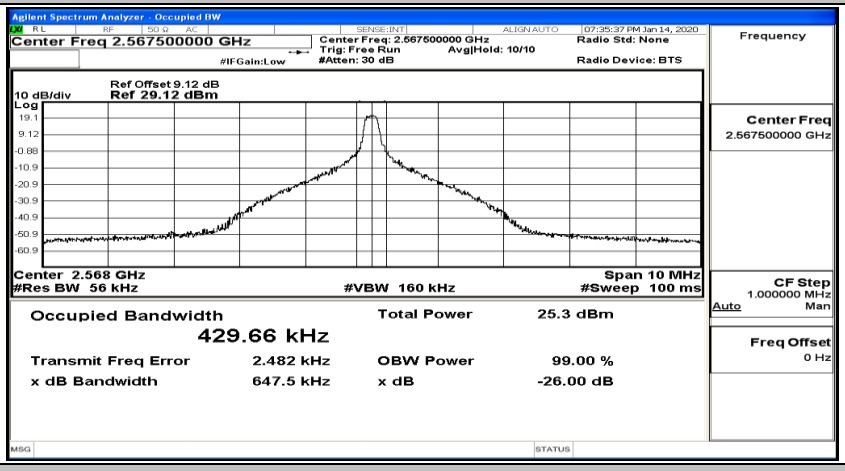

(Channel Bandwidth: 5 MHz)_MCH_16QAM_25RB#0



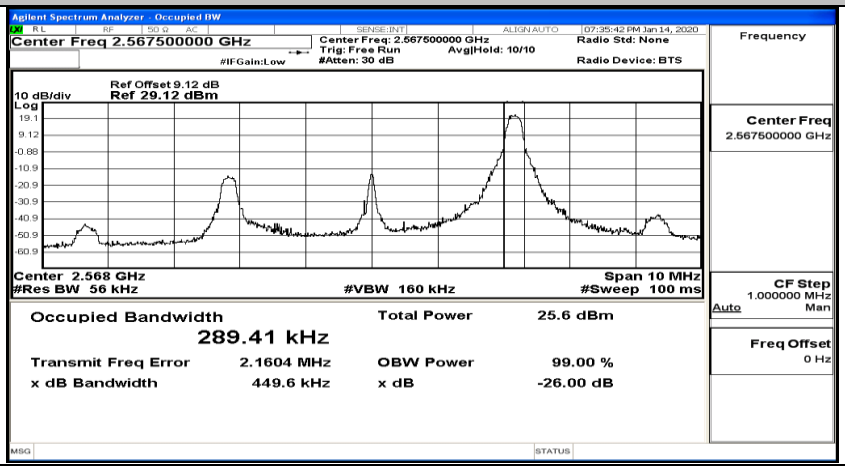
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0



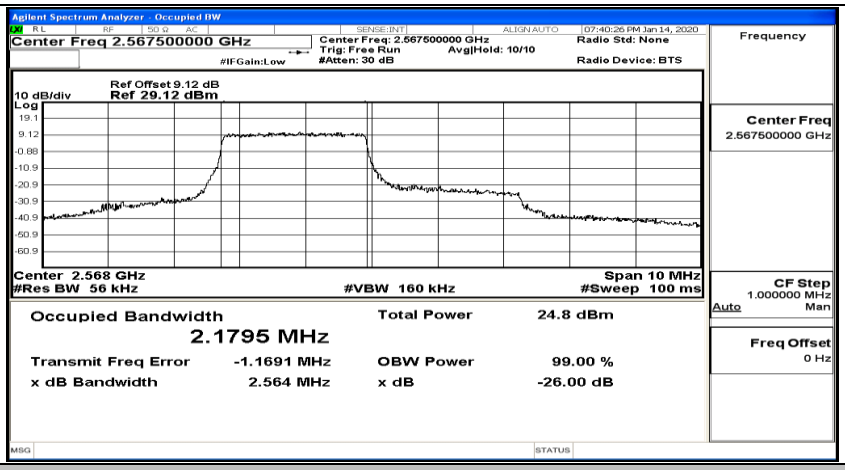

(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#12



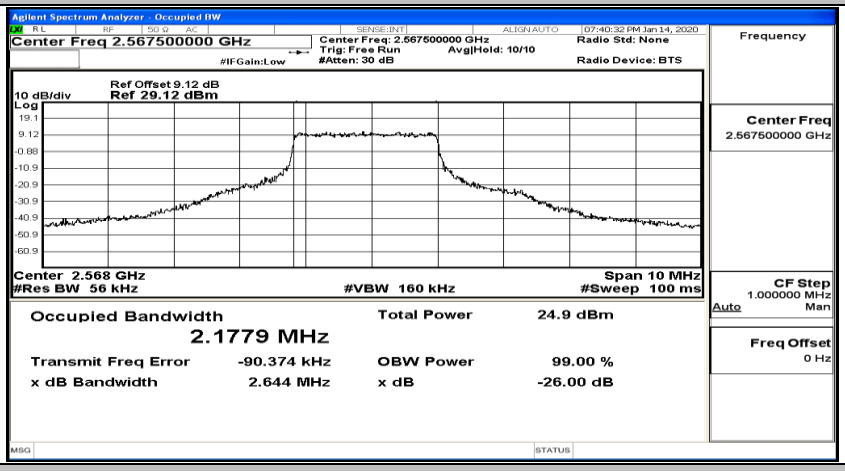

(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#24



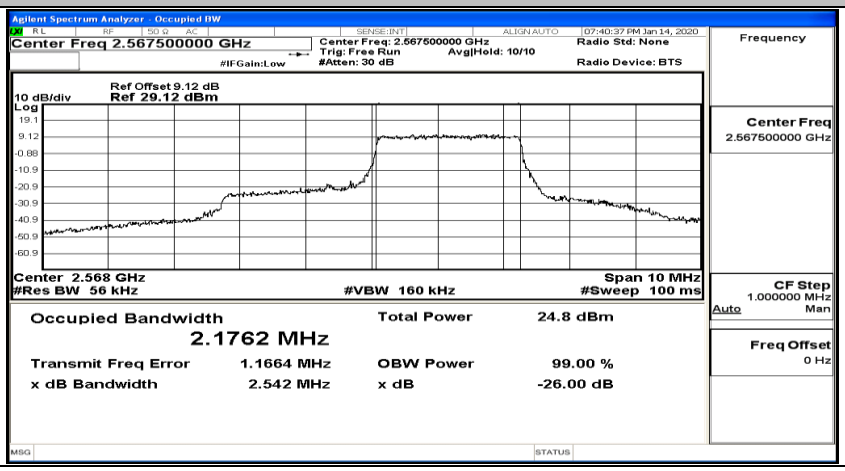

(Channel Bandwidth: 5 MHz)_HCH_16QAM_12RB#0




(Channel Bandwidth: 5 MHz)_HCH_16QAM_12RB#6




(Channel Bandwidth: 5 MHz)_HCH_16QAM_12RB#13




(Channel Bandwidth: 5 MHz)_HCH_16QAM_25RB#0