

## Appendix F: Test Data for E-UTRA Band 17

**Product Name: Portable Data Collector**

**Trade Mark: Newland**

**Test Model: NLS-NFT10**

### Environmental Conditions

|                    |            |
|--------------------|------------|
| Temperature:       | 24.5 ° C   |
| Relative Humidity: | 53.6%      |
| ATM Pressure:      | 100.0 kPa  |
| Test Engineer:     | WANGCHUANG |
| Supervised by:     | TOM.LIU    |

### A.1 Conducted Output Power

| Conducted Output Power Test Result (Channel Bandwidth: 5 MHz) |         |                  |        |                     |                     |         |
|---------------------------------------------------------------|---------|------------------|--------|---------------------|---------------------|---------|
| Modulation                                                    | Channel | RB Configuration |        | Average Power [dBm] | Average Power [dBm] | Verdict |
|                                                               |         | Size             | Offset | QPSK                | 16QAM               |         |
| QPSK /<br>16QAM                                               | LCH     | 1                | 0      | 23.43               | 22.69               | PASS    |
|                                                               |         | 1                | 12     | 23.63               | 22.80               | PASS    |
|                                                               |         | 1                | 24     | 23.69               | 22.99               | PASS    |
|                                                               |         | 12               | 0      | 22.55               | 21.62               | PASS    |
|                                                               |         | 12               | 6      | 22.48               | 21.64               | PASS    |
|                                                               |         | 12               | 13     | 22.58               | 21.67               | PASS    |
|                                                               |         | 25               | 0      | 22.52               | 21.50               | PASS    |
|                                                               | MCH     | 1                | 0      | 23.68               | 22.62               | PASS    |
|                                                               |         | 1                | 12     | 23.83               | 22.70               | PASS    |
|                                                               |         | 1                | 24     | 23.64               | 22.62               | PASS    |
|                                                               |         | 12               | 0      | 22.62               | 21.70               | PASS    |
|                                                               |         | 12               | 6      | 22.64               | 21.76               | PASS    |
|                                                               |         | 12               | 13     | 22.66               | 21.70               | PASS    |
|                                                               |         | 25               | 0      | 22.54               | 21.67               | PASS    |
|                                                               | HCH     | 1                | 0      | 23.81               | 22.89               | PASS    |
|                                                               |         | 1                | 12     | 23.47               | 22.57               | PASS    |
|                                                               |         | 1                | 24     | 23.16               | 22.20               | PASS    |
|                                                               |         | 12               | 0      | 22.76               | 21.79               | PASS    |
|                                                               |         | 12               | 6      | 22.77               | 21.80               | PASS    |
|                                                               |         | 12               | 13     | 22.63               | 21.62               | PASS    |
|                                                               |         | 25               | 0      | 22.61               | 21.84               | PASS    |

## Conducted Output Power Test Result (Channel Bandwidth: 10 MHz)

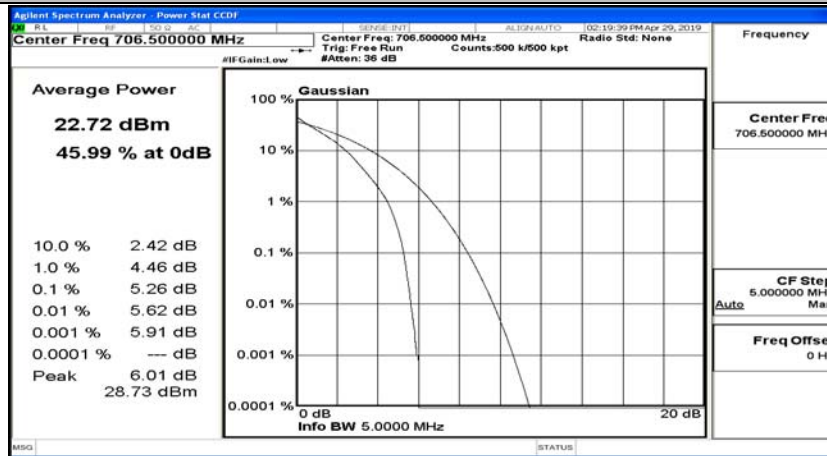
| Modulation      | Channel | RB Configuration |        | Average Power [dBm]<br>QPSK | Average Power [dBm]<br>16QAM | Verdict |
|-----------------|---------|------------------|--------|-----------------------------|------------------------------|---------|
|                 |         | Size             | Offset |                             |                              |         |
| QPSK /<br>16QAM | LCH     | 1                | 0      | 23.86                       | 23.05                        | PASS    |
|                 |         | 1                | 24     | 23.73                       | 23.18                        | PASS    |
|                 |         | 1                | 49     | 23.58                       | 22.93                        | PASS    |
|                 |         | 25               | 0      | 22.68                       | 21.65                        | PASS    |
|                 |         | 25               | 12     | 22.74                       | 21.66                        | PASS    |
|                 |         | 25               | 25     | 22.75                       | 21.72                        | PASS    |
|                 |         | 50               | 0      | 22.74                       | 21.70                        | PASS    |
|                 | MCH     | 1                | 0      | 23.86                       | 22.94                        | PASS    |
|                 |         | 1                | 24     | 24.15                       | 23.45                        | PASS    |
|                 |         | 1                | 49     | 23.46                       | 22.66                        | PASS    |
|                 |         | 25               | 0      | 22.72                       | 21.67                        | PASS    |
|                 |         | 25               | 12     | 22.86                       | 21.84                        | PASS    |
|                 |         | 25               | 25     | 22.64                       | 21.69                        | PASS    |
|                 |         | 50               | 0      | 22.83                       | 21.77                        | PASS    |
|                 | HCH     | 1                | 0      | 23.83                       | 23.09                        | PASS    |
|                 |         | 1                | 24     | 24.22                       | 23.37                        | PASS    |
|                 |         | 1                | 49     | 22.73                       | 22.19                        | PASS    |
|                 |         | 25               | 0      | 22.74                       | 21.83                        | PASS    |
|                 |         | 25               | 12     | 22.68                       | 21.75                        | PASS    |
|                 |         | 25               | 25     | 22.61                       | 21.67                        | PASS    |
|                 |         | 50               | 0      | 22.76                       | 21.75                        | PASS    |

**A.2 Peak-to-Average Ratio**

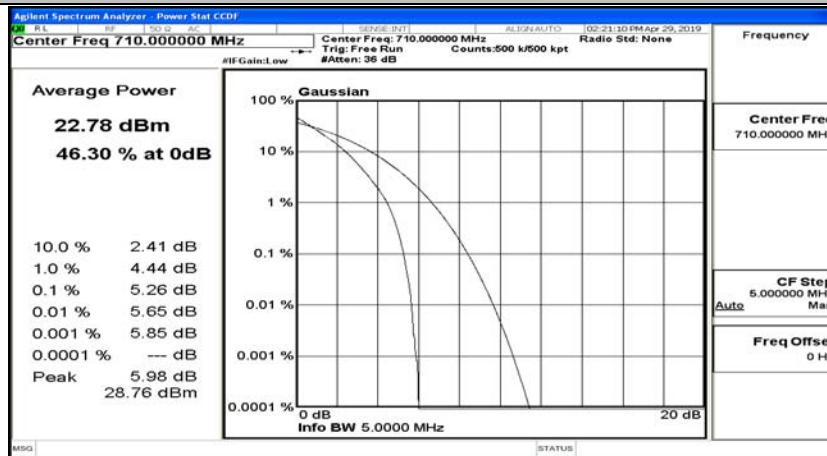
| Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz) |         |                               |               |         |
|--------------------------------------------------------------|---------|-------------------------------|---------------|---------|
| Modulation                                                   | Channel | Peak-to-Average Ratio<br>[dB] | Limit<br>[dB] | Verdict |
| QPSK                                                         | LCH     | 5.26                          | <13           | PASS    |
|                                                              | MCH     | 5.26                          | <13           | PASS    |
|                                                              | HCH     | 4.77                          | <13           | PASS    |
| 16QAM                                                        | LCH     | 6.06                          | <13           | PASS    |
|                                                              | MCH     | 6.1                           | <13           | PASS    |
|                                                              | HCH     | 5.63                          | <13           | PASS    |

| Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz) |         |                               |               |         |
|---------------------------------------------------------------|---------|-------------------------------|---------------|---------|
| Modulation                                                    | Channel | Peak-to-Average Ratio<br>[dB] | Limit<br>[dB] | Verdict |
| QPSK                                                          | LCH     | 5.19                          | <13           | PASS    |
|                                                               | MCH     | 5.04                          | <13           | PASS    |
|                                                               | HCH     | 4.99                          | <13           | PASS    |
| 16QAM                                                         | LCH     | 5.98                          | <13           | PASS    |
|                                                               | MCH     | 5.9                           | <13           | PASS    |
|                                                               | HCH     | 5.8                           | <13           | PASS    |

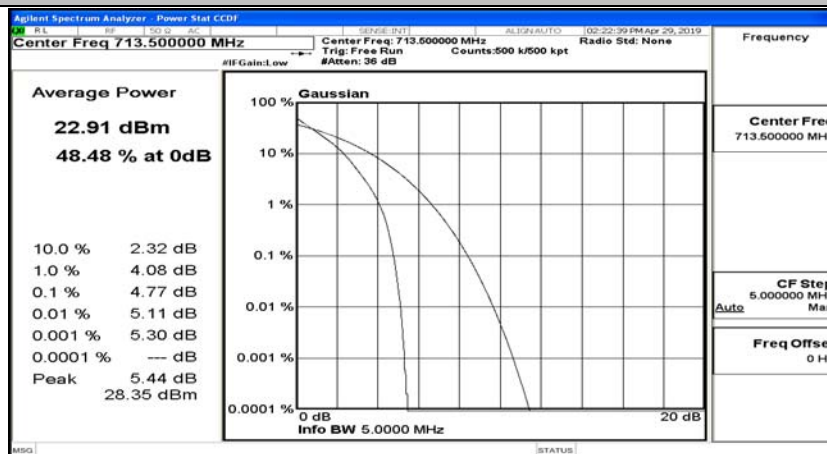
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_QPSK



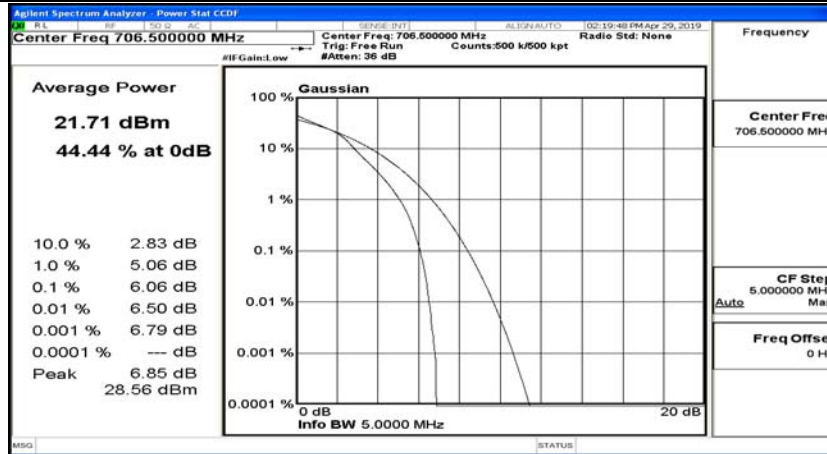
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_QPSK



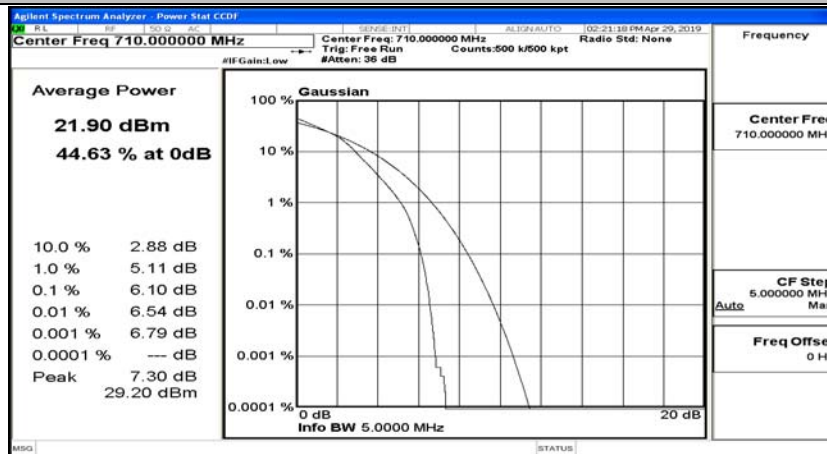
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_QPSK



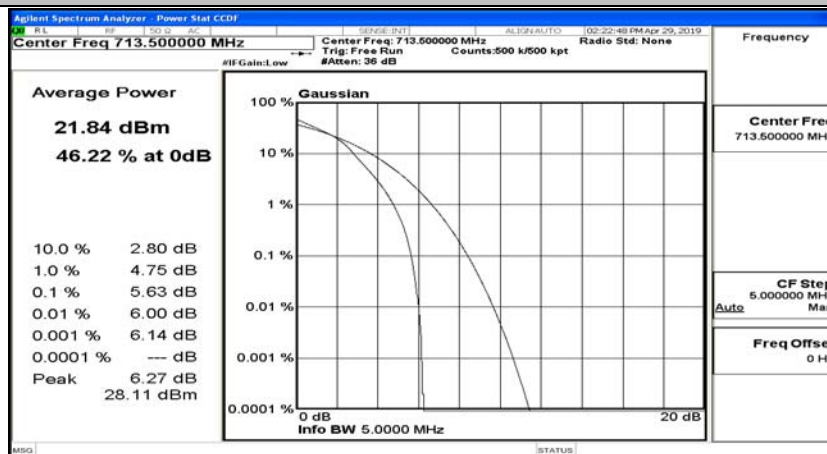
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_16QAM



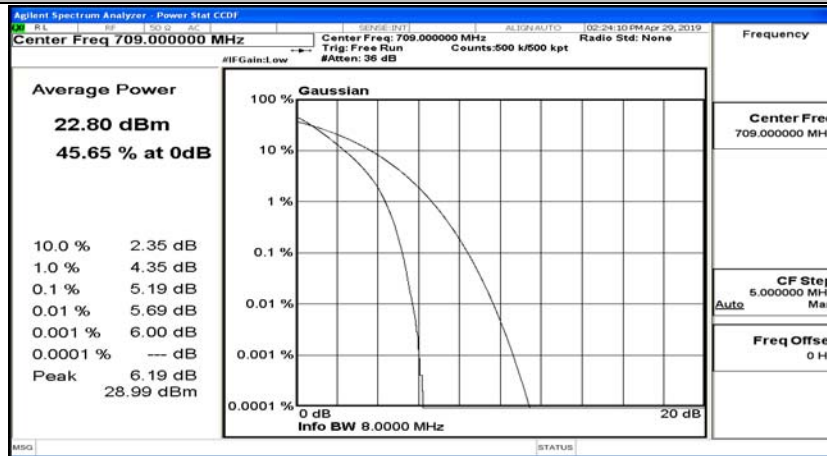
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_16QAM



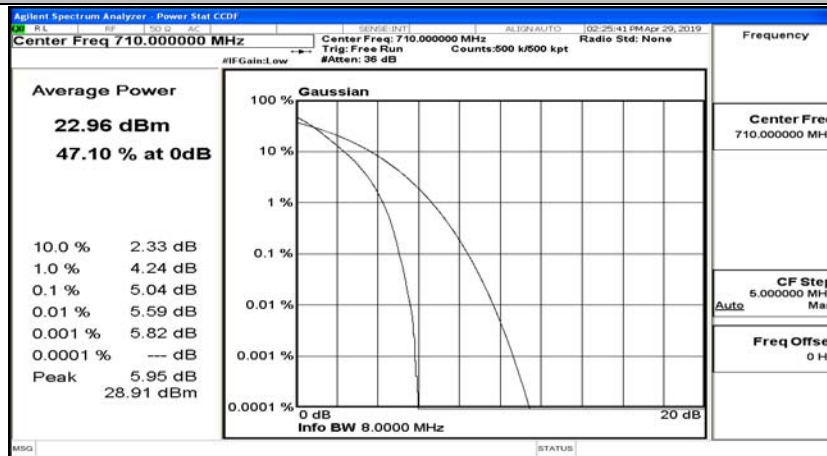
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_16QAM



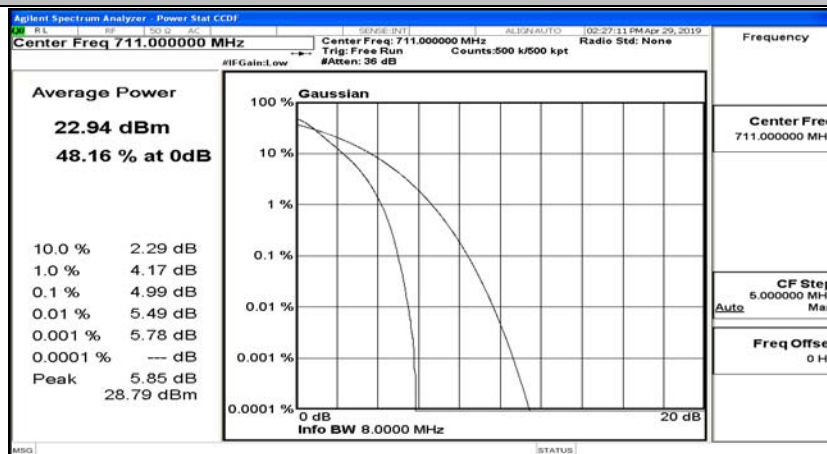
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_QPSK



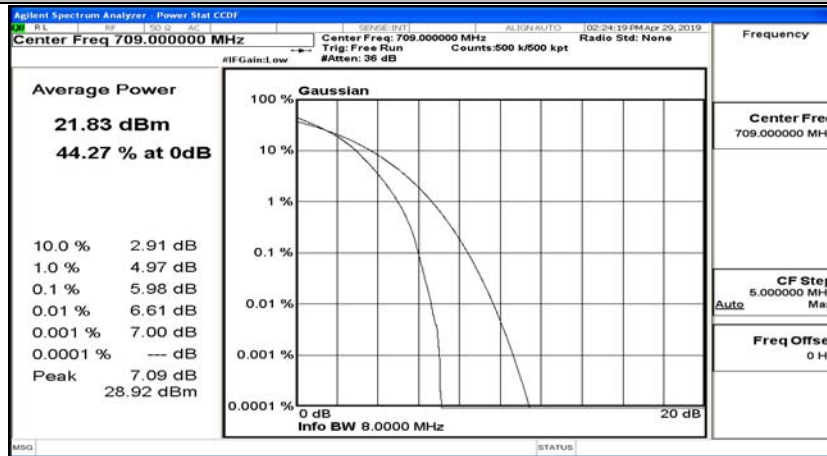
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)\_MCH\_QPSK



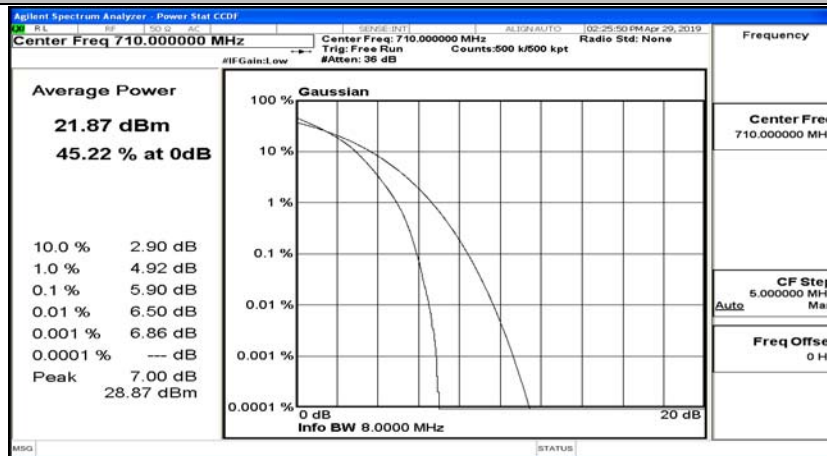
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_QPSK



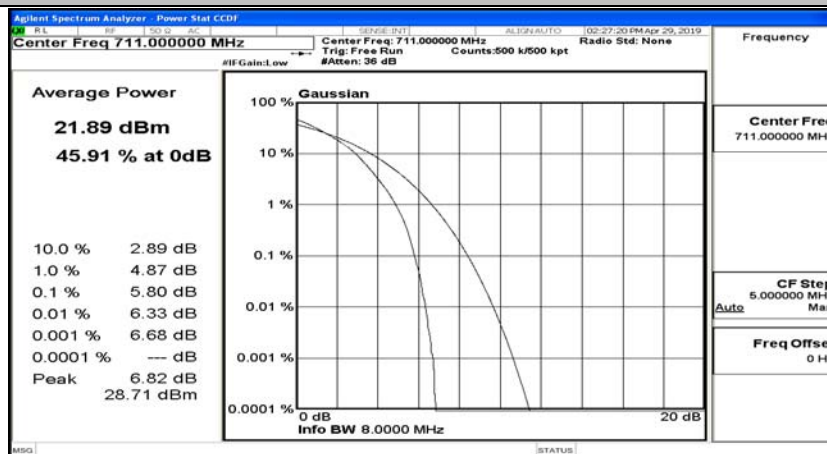
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_16QAM



## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)\_MCH\_16QAM



## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_16QAM

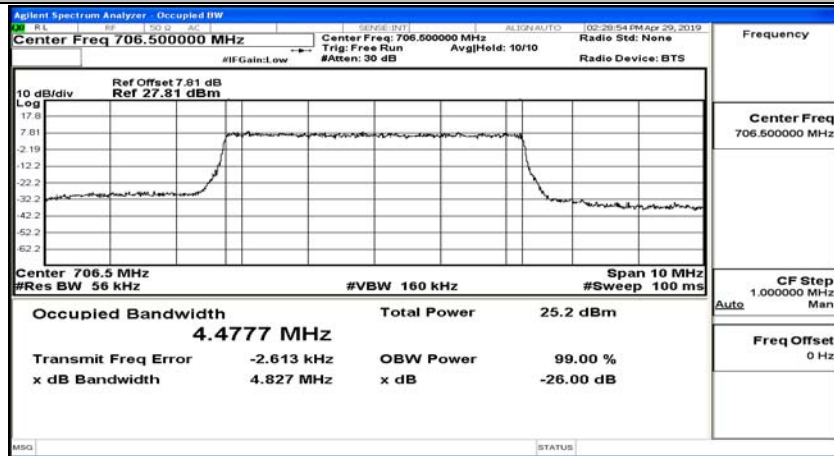


**A.3 26dB Bandwidth and Occupied Bandwidth**

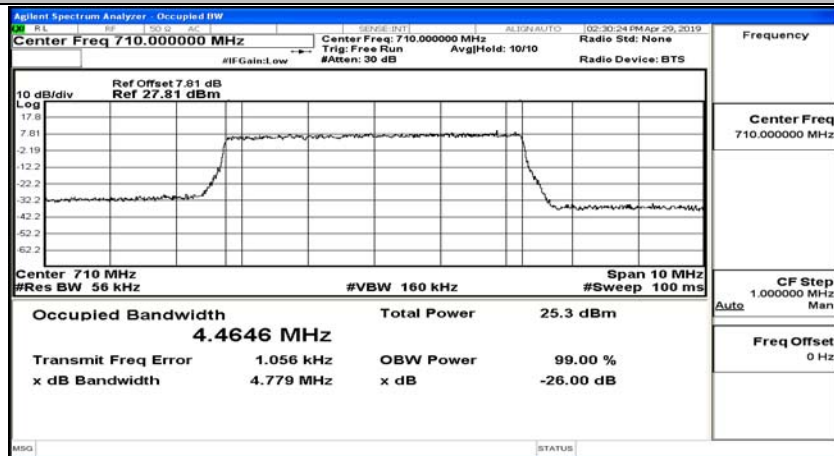
| EBW & OBW Test Result (Channel Bandwidth: 5 MHz) |         |                          |                      |         |
|--------------------------------------------------|---------|--------------------------|----------------------|---------|
| Modulation                                       | Channel | Occupied Bandwidth (MHz) | 26dB Bandwidth (MHz) | Verdict |
| QPSK                                             | LCH     | 4.4777                   | 4.827                | PASS    |
|                                                  | MCH     | 4.4646                   | 4.779                | PASS    |
|                                                  | HCH     | 4.4699                   | 4.808                | PASS    |
| 16QAM                                            | LCH     | 4.4836                   | 4.816                | PASS    |
|                                                  | MCH     | 4.4831                   | 4.772                | PASS    |
|                                                  | HCH     | 4.4738                   | 4.810                | PASS    |

| EBW & OBW Test Result (Channel Bandwidth: 10 MHz) |         |                          |                      |         |
|---------------------------------------------------|---------|--------------------------|----------------------|---------|
| Modulation                                        | Channel | Occupied Bandwidth (MHz) | 26dB Bandwidth (MHz) | Verdict |
| QPSK                                              | LCH     | 8.9464                   | 9.516                | PASS    |
|                                                   | MCH     | 8.9245                   | 9.397                | PASS    |
|                                                   | HCH     | 8.9190                   | 9.384                | PASS    |
| 16QAM                                             | LCH     | 8.9469                   | 9.529                | PASS    |
|                                                   | MCH     | 8.9253                   | 9.459                | PASS    |
|                                                   | HCH     | 8.9217                   | 9.404                | PASS    |

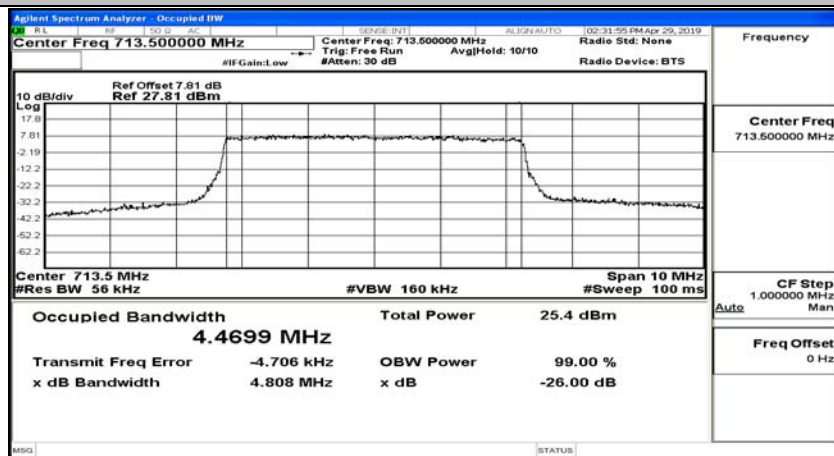
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_QPSK



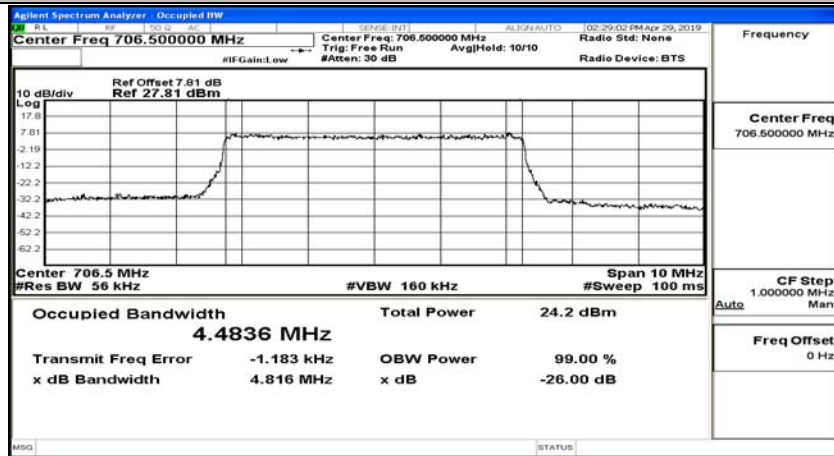
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_QPSK



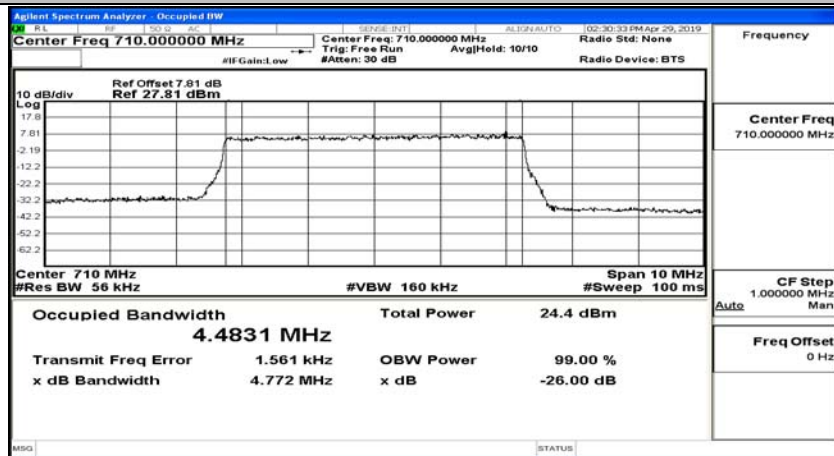
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_QPSK



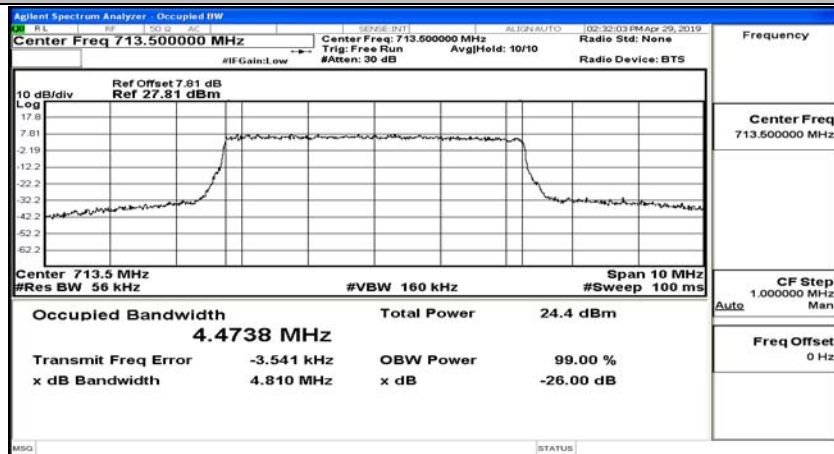
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_16QAM



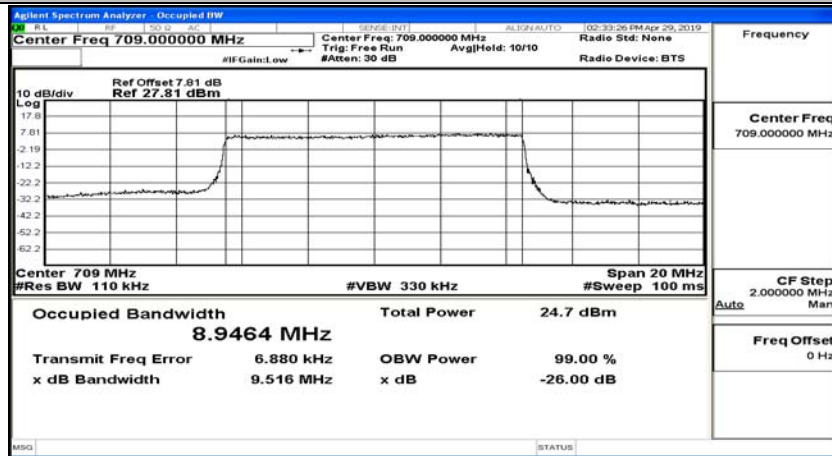
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_16QAM



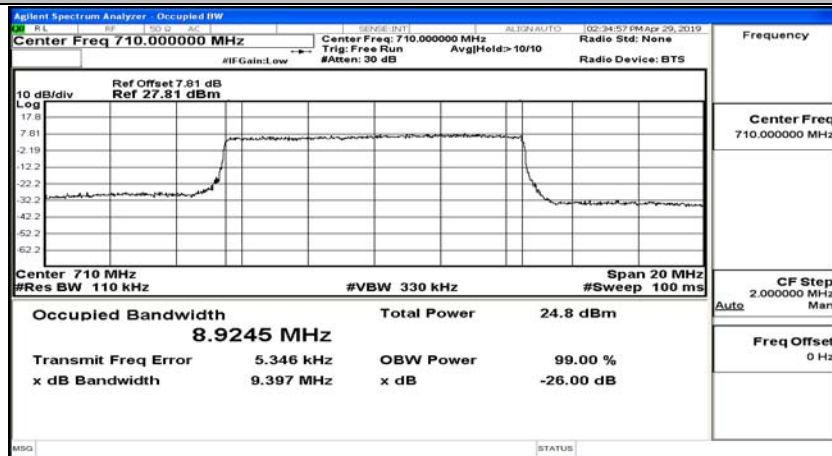
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_16QAM



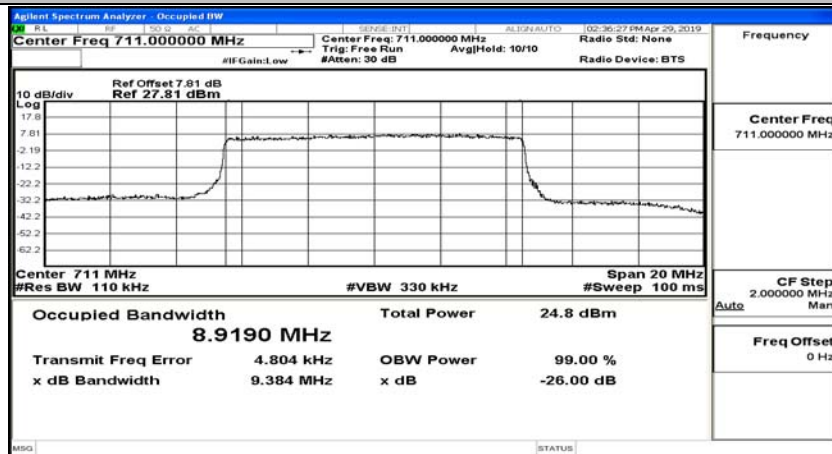
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_QPSK



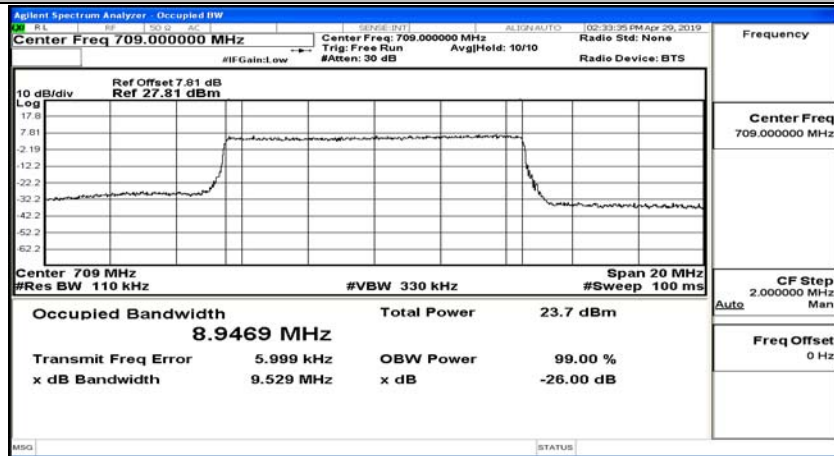
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_MCH\_QPSK



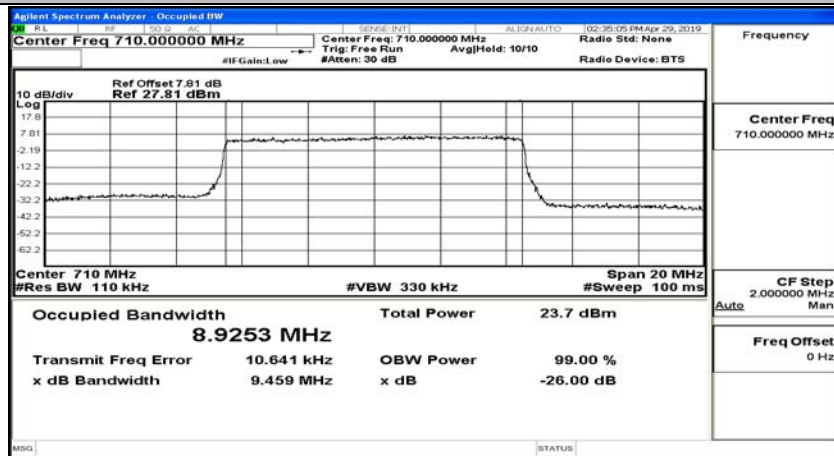
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_QPSK



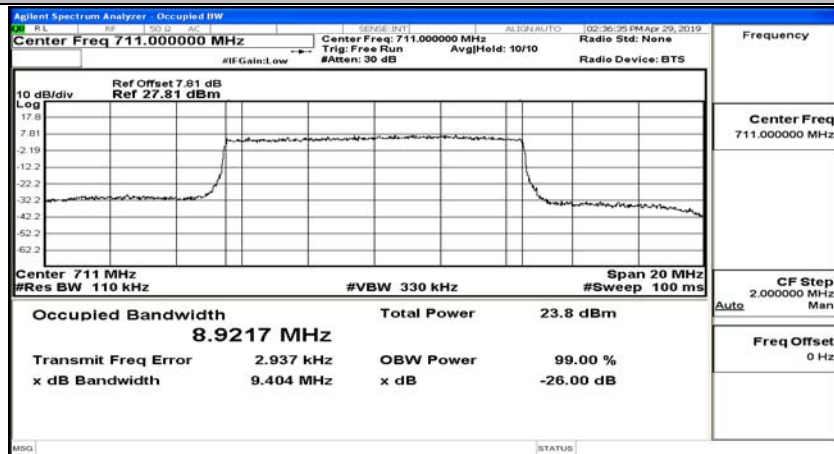
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_16QAM



## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_MCH\_16QAM

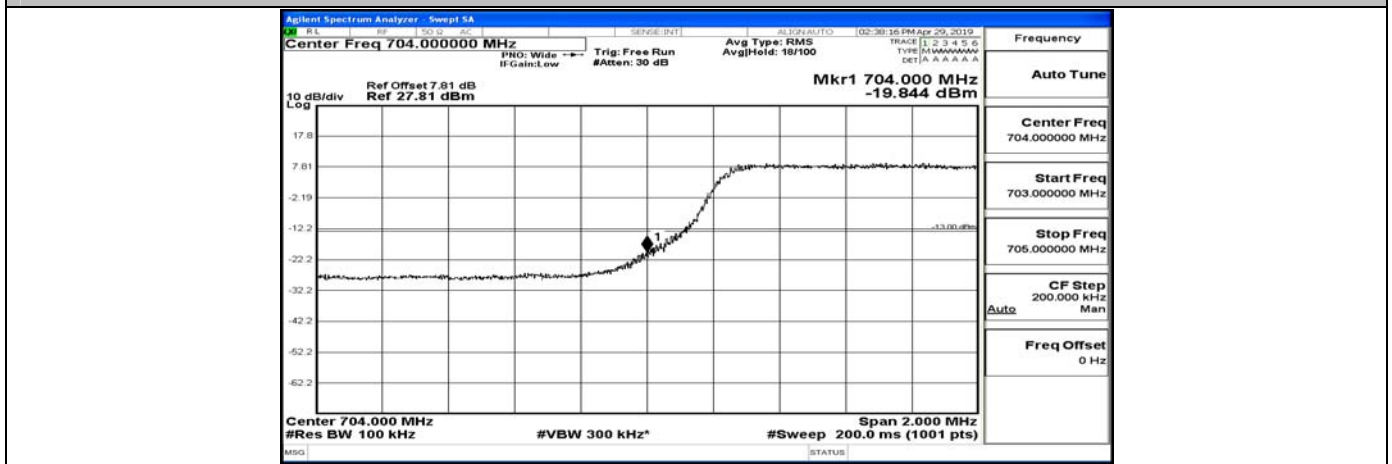


## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_16QAM

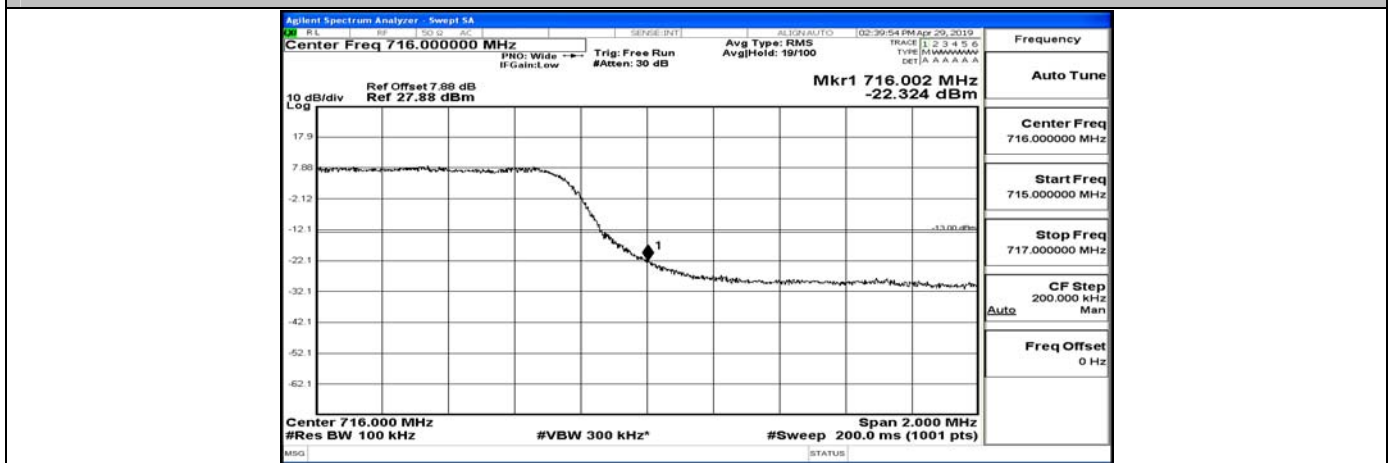


## A.4 Band Edge

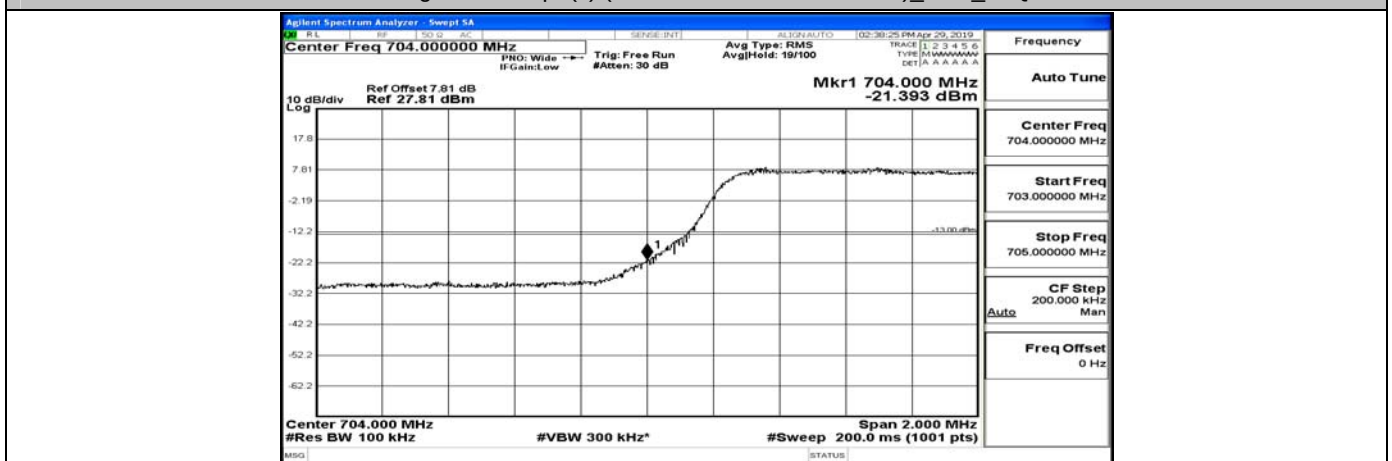
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_QPSK



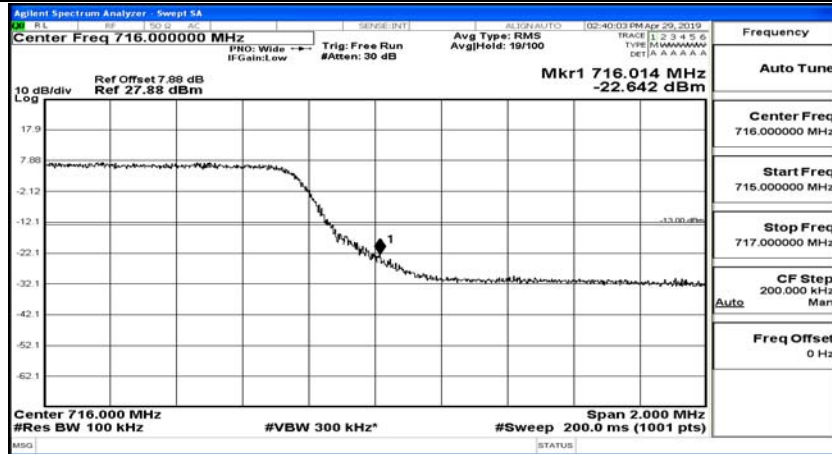
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_QPSK



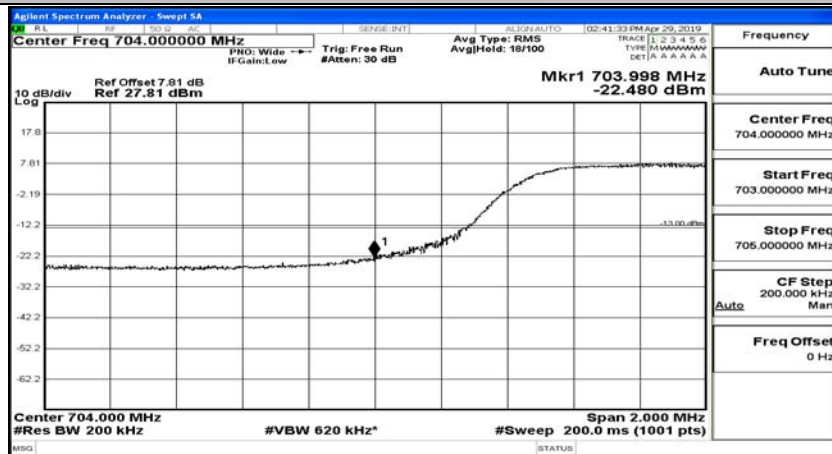
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_16QAM



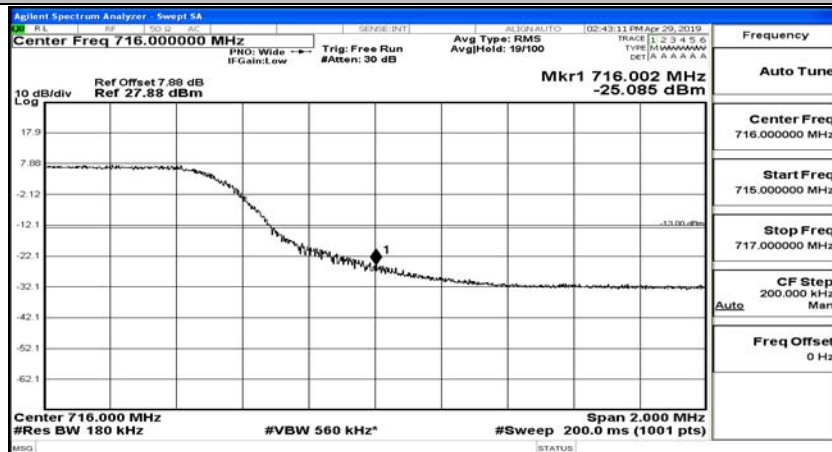
## Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_16QAM



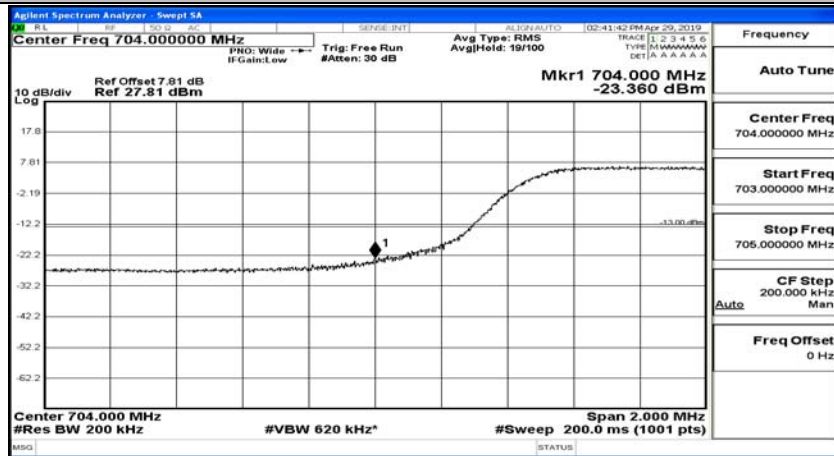
## Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_QPSK



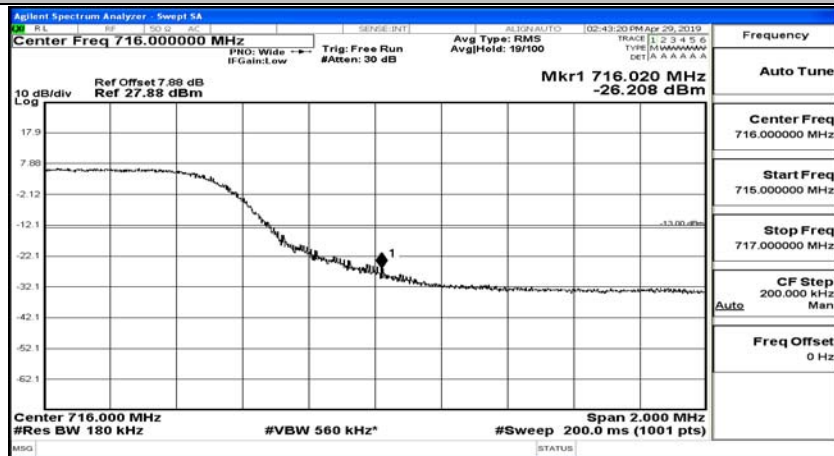
## Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_QPSK



## Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_16QAM

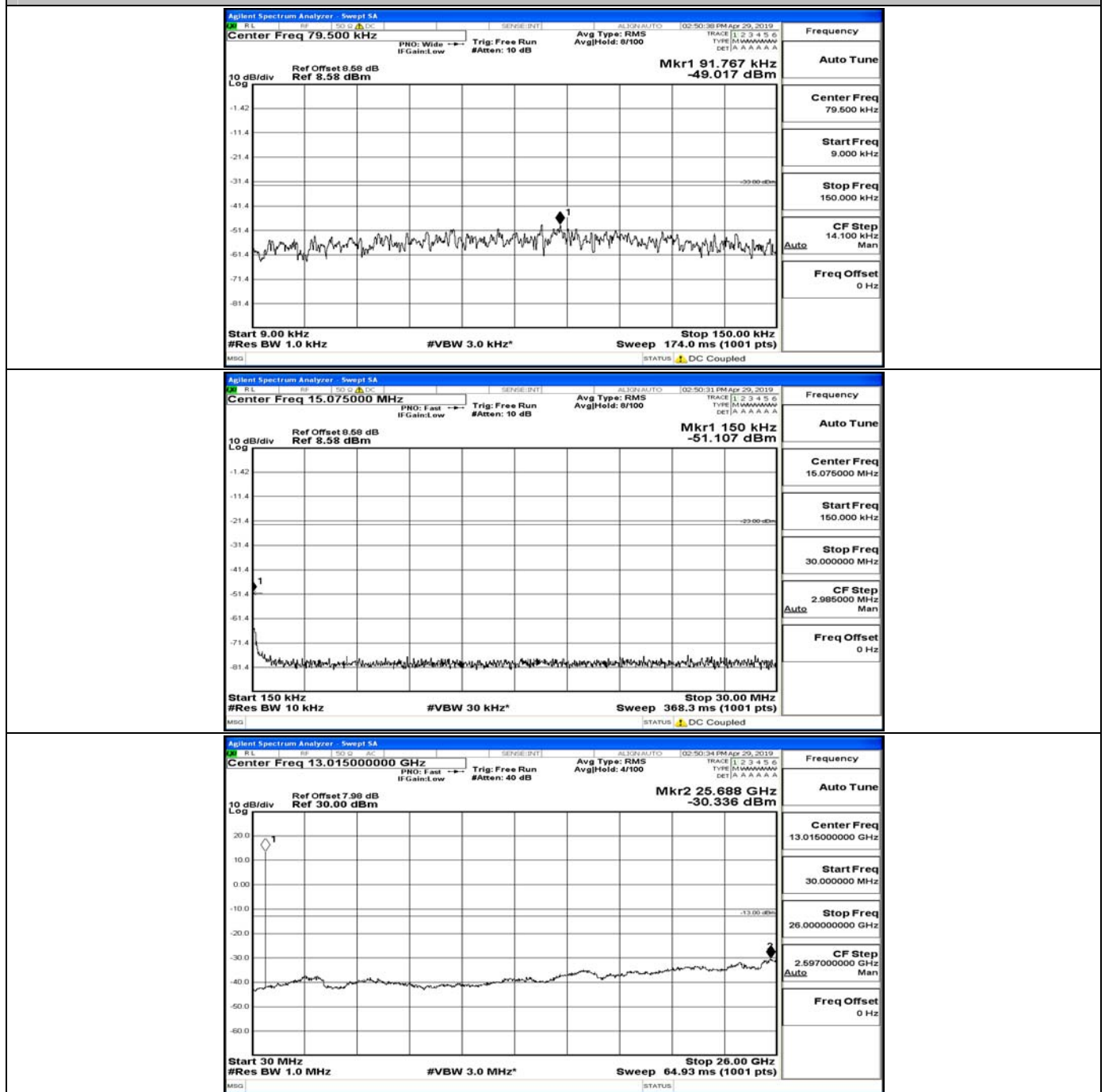


## Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_16QAM

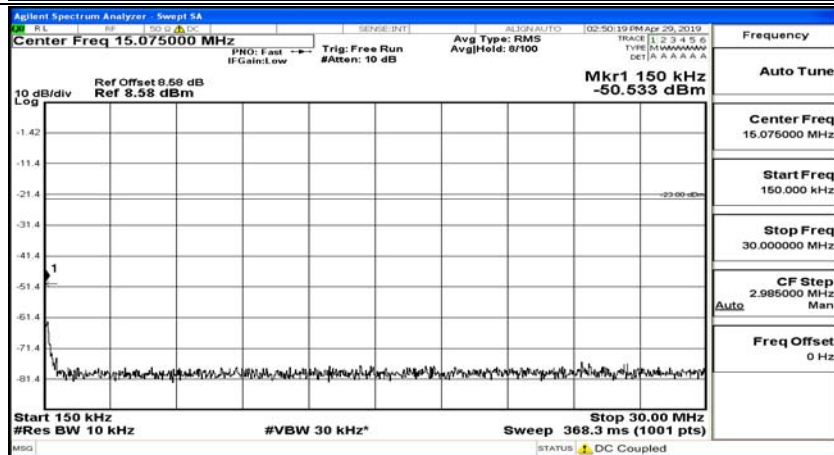
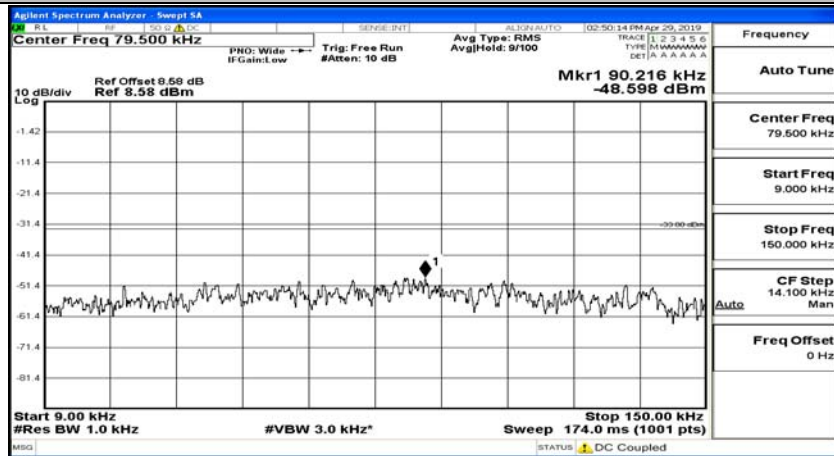


## A.5 Conducted Spurious Emission

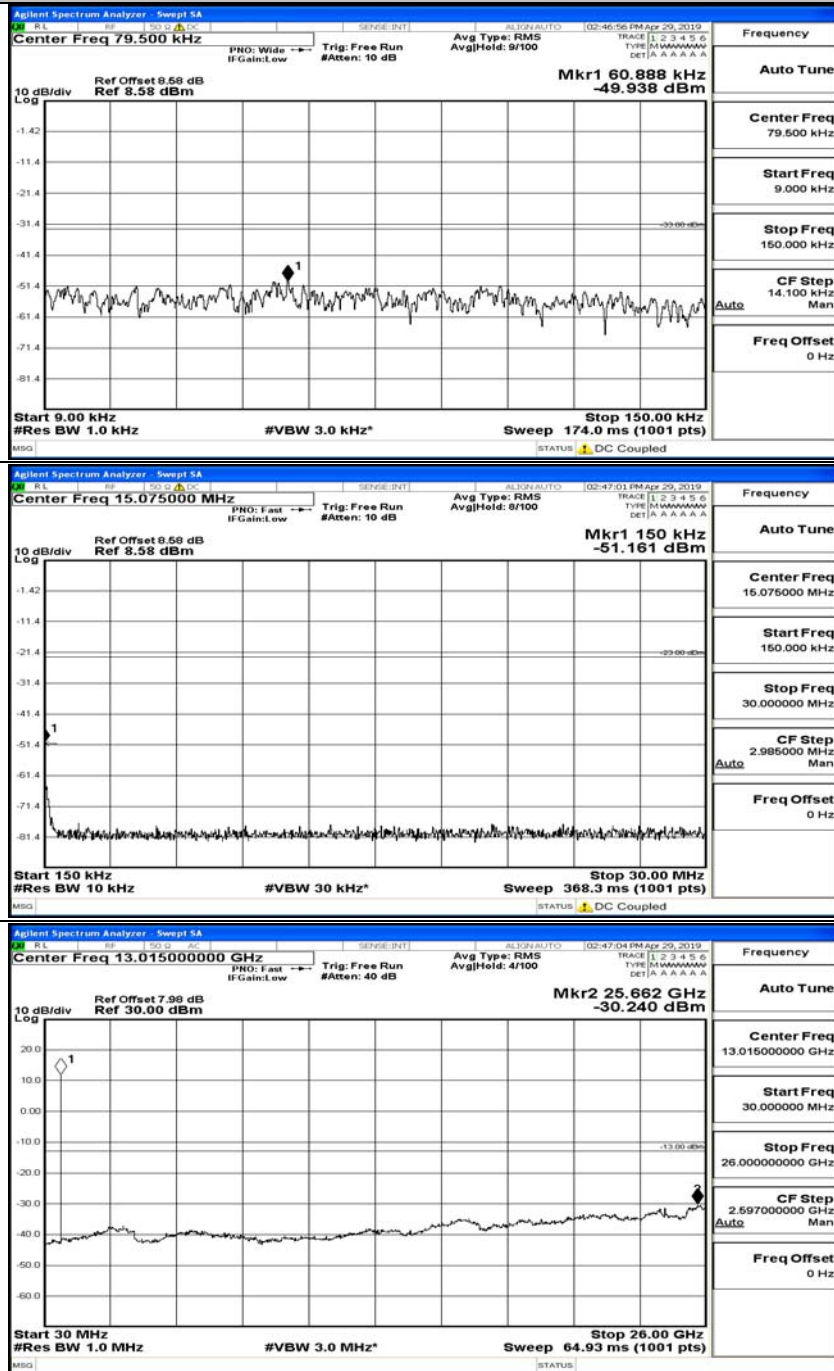
CSE Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_QPSK



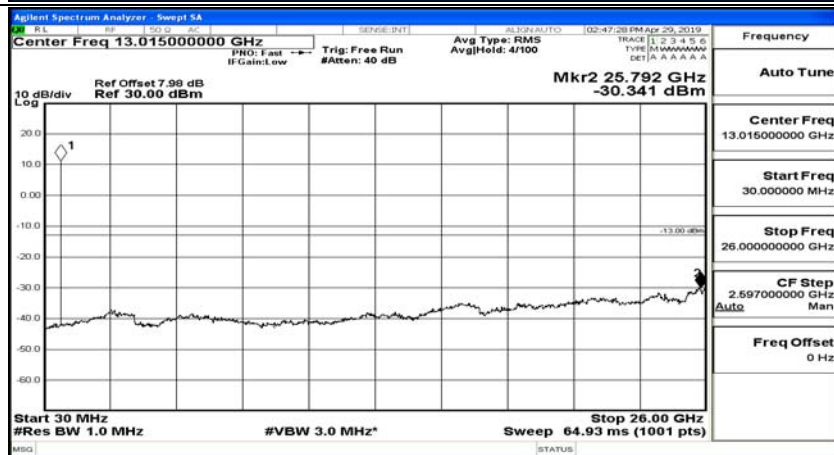
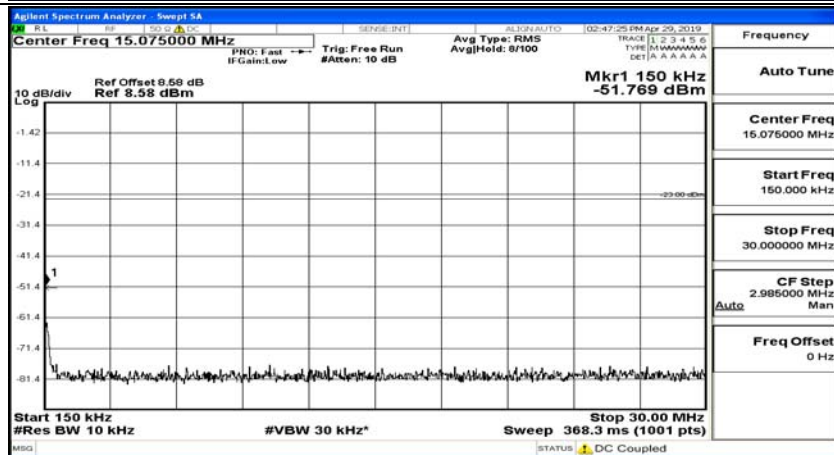
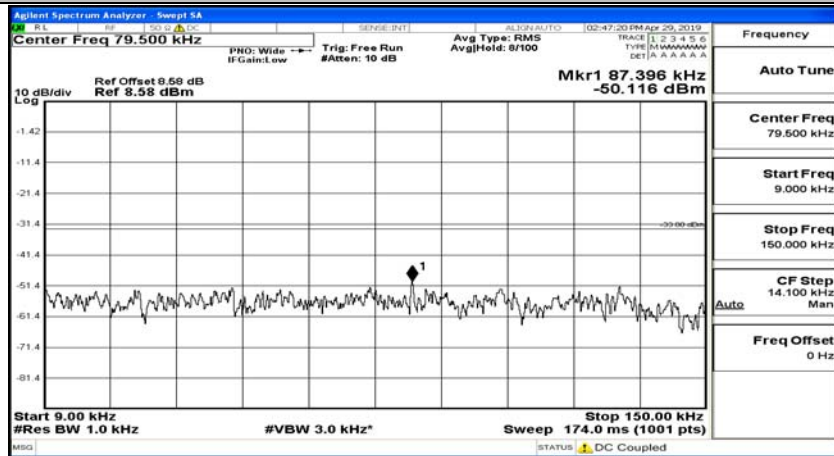
## CSE Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_QPSK



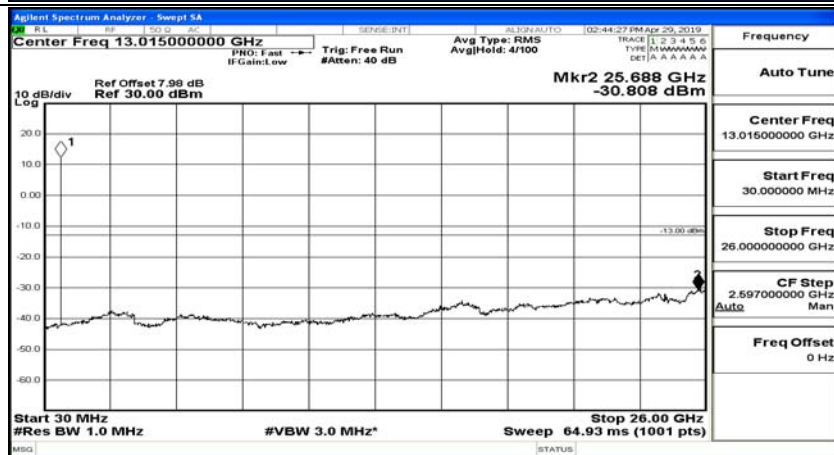
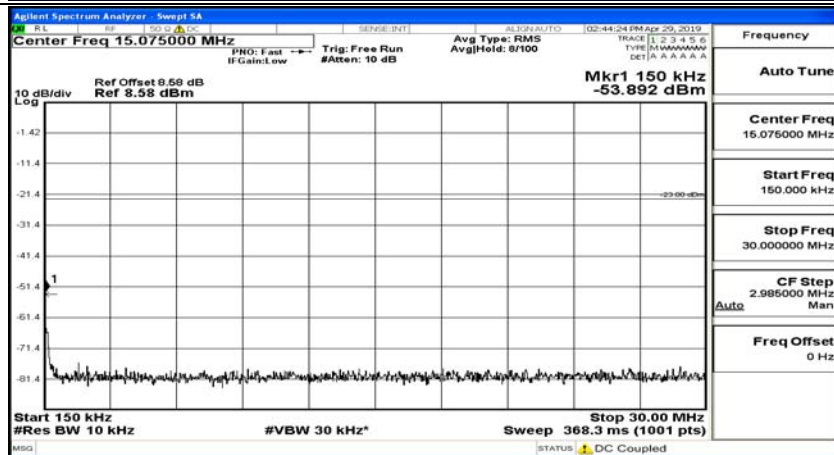
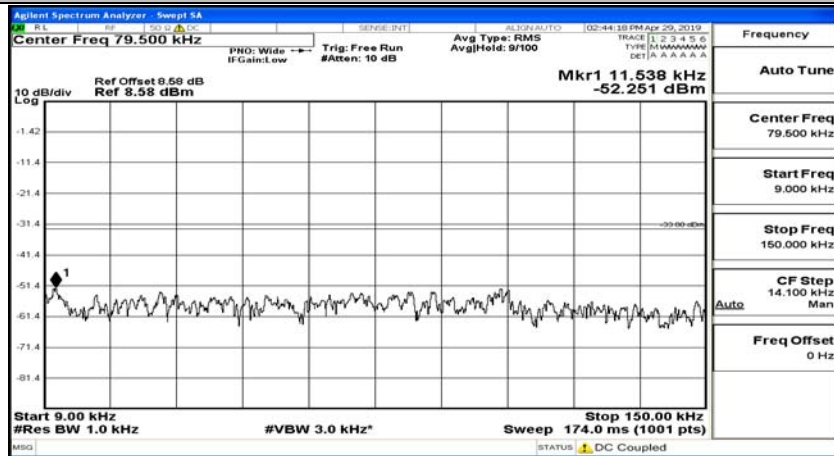
## CSE Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_QPSK



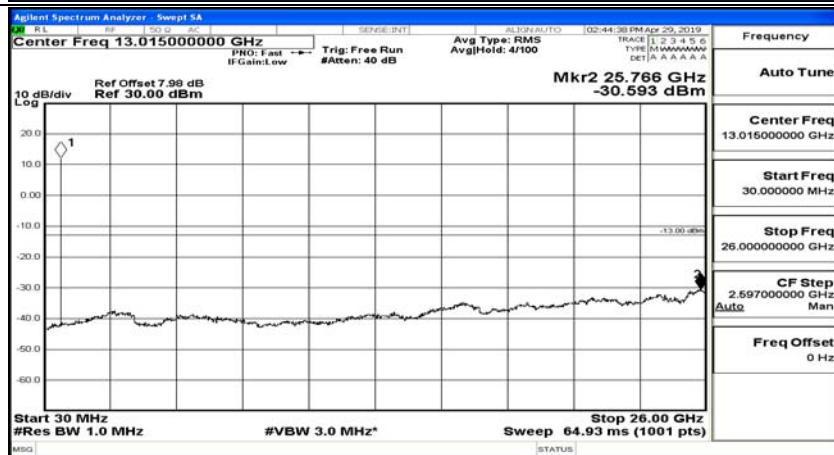
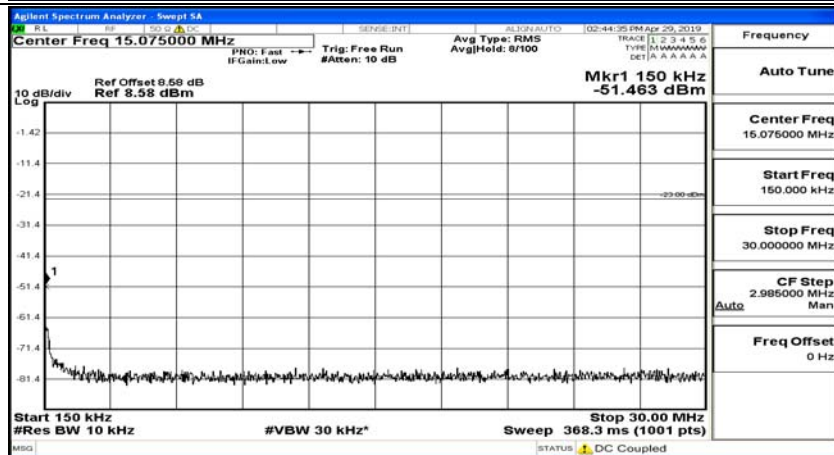
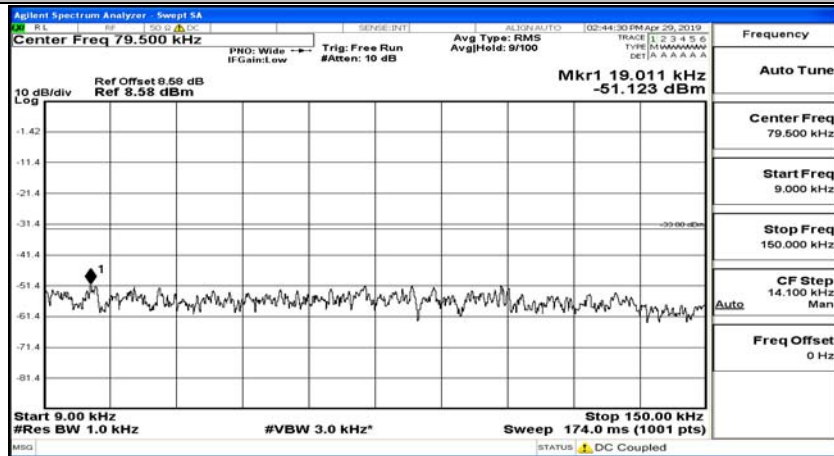
## CSE Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_16QAM



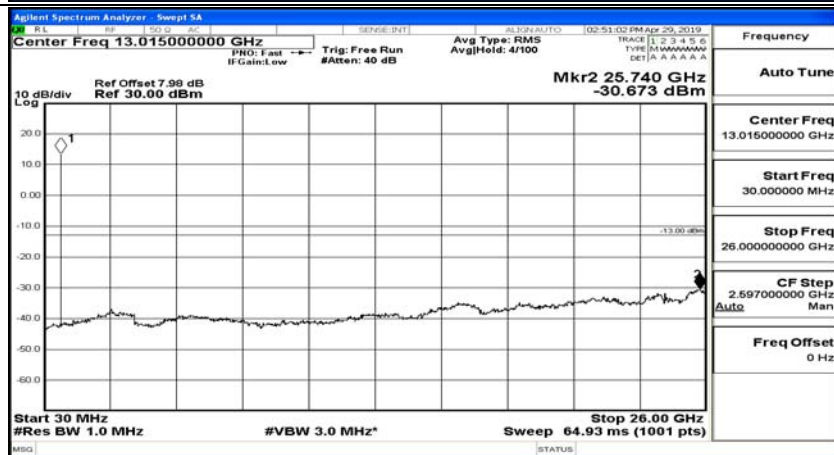
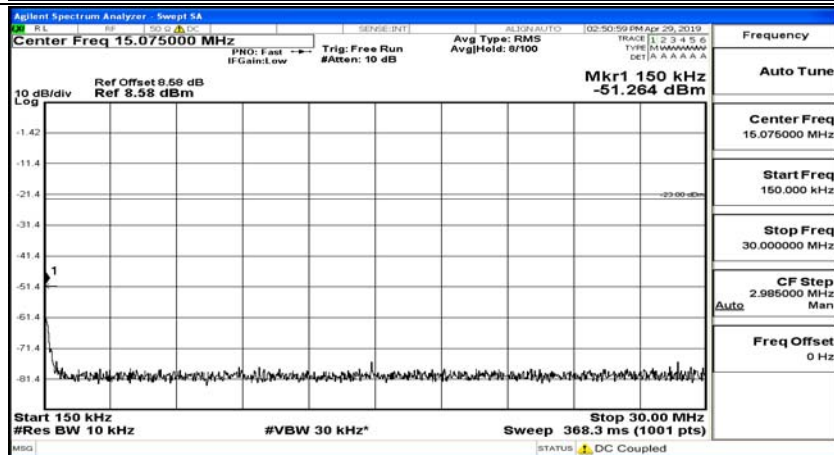
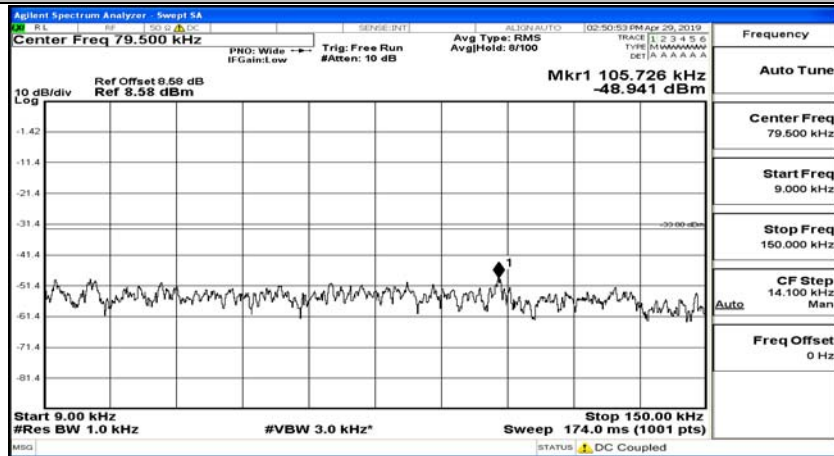
## CSE Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_16QAM



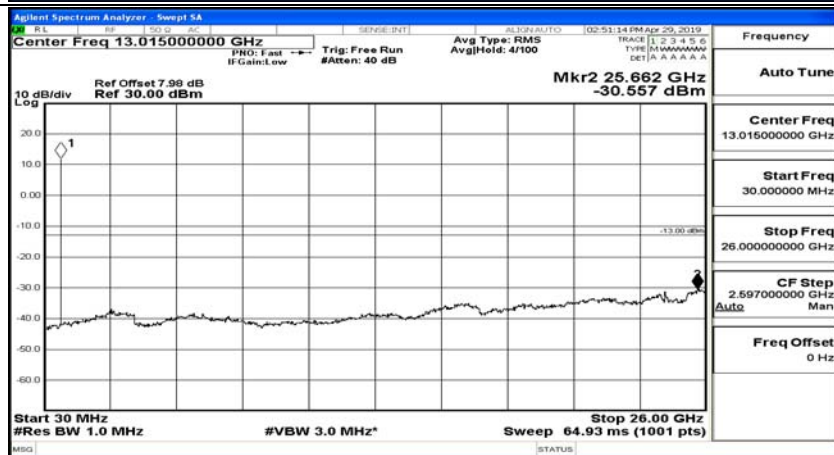
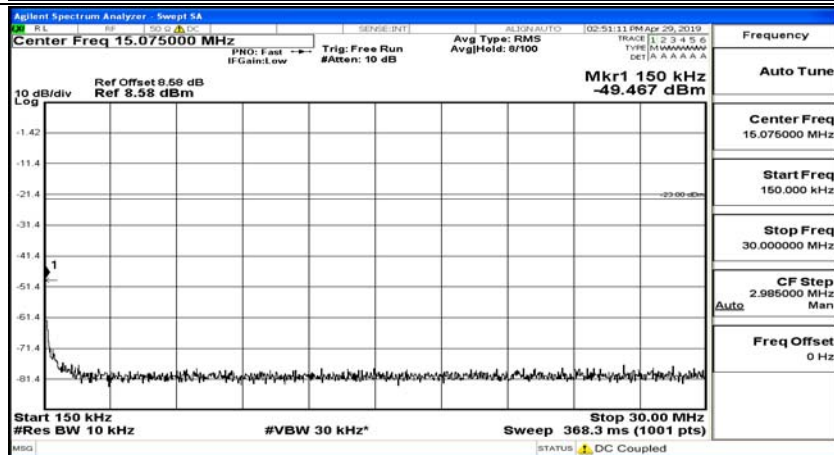
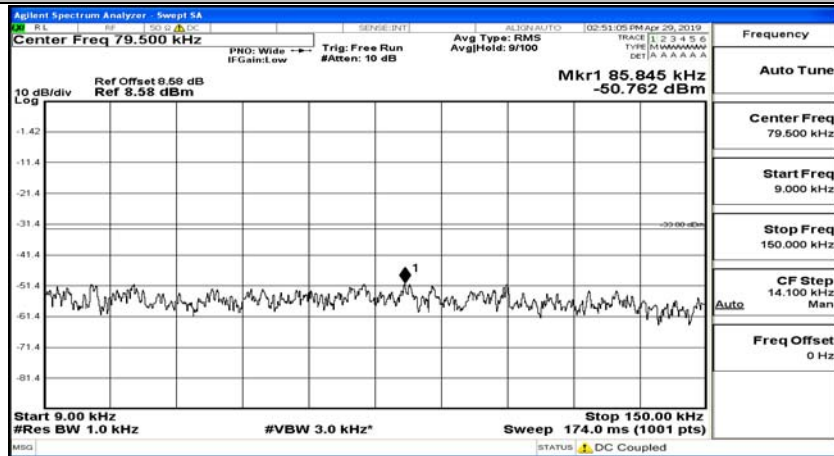
## CSE Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_16QAM



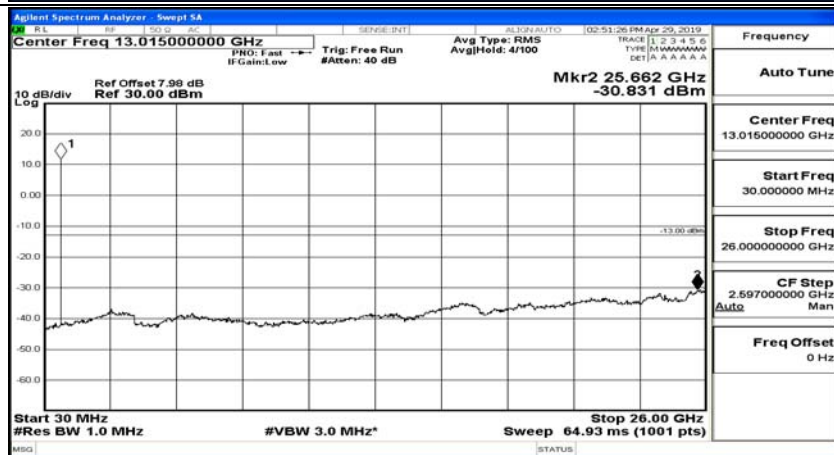
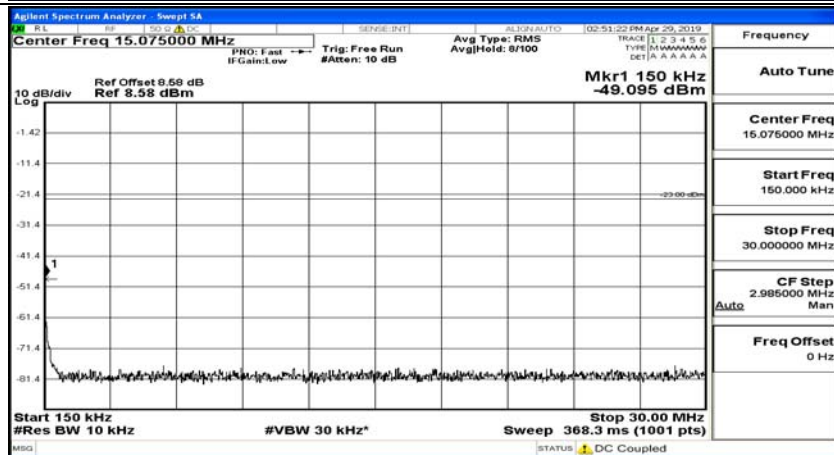
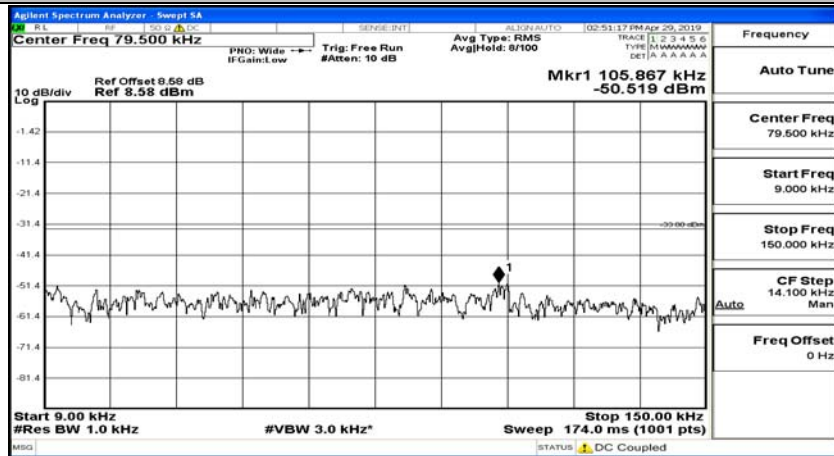
## CSE Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_QPSK



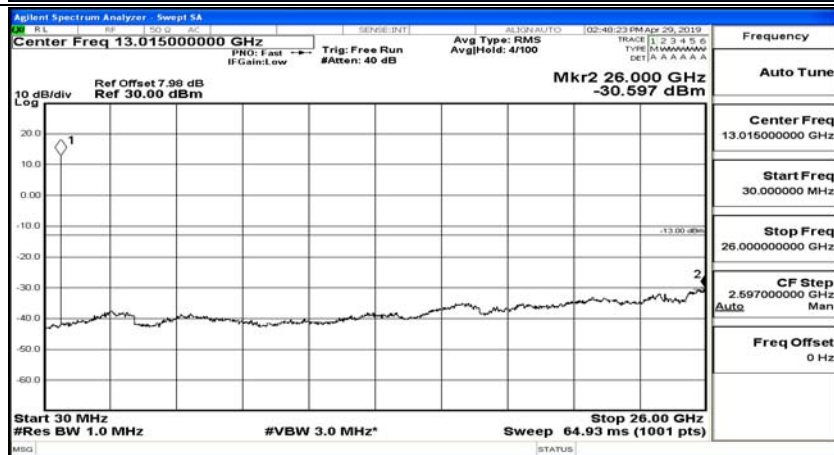
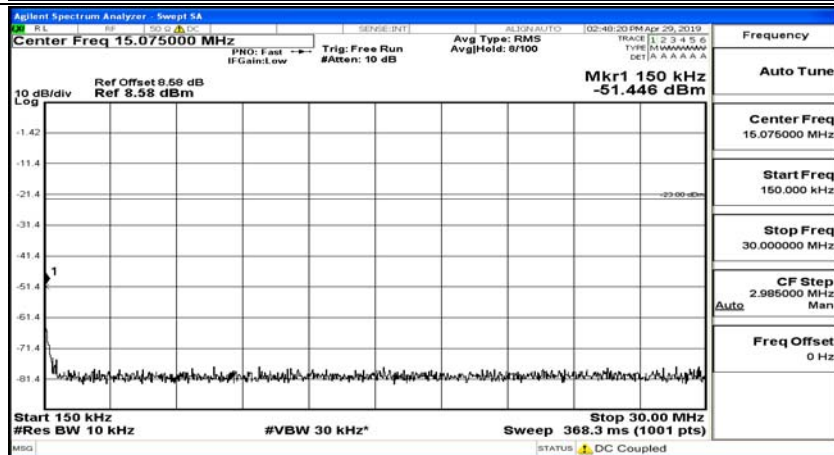
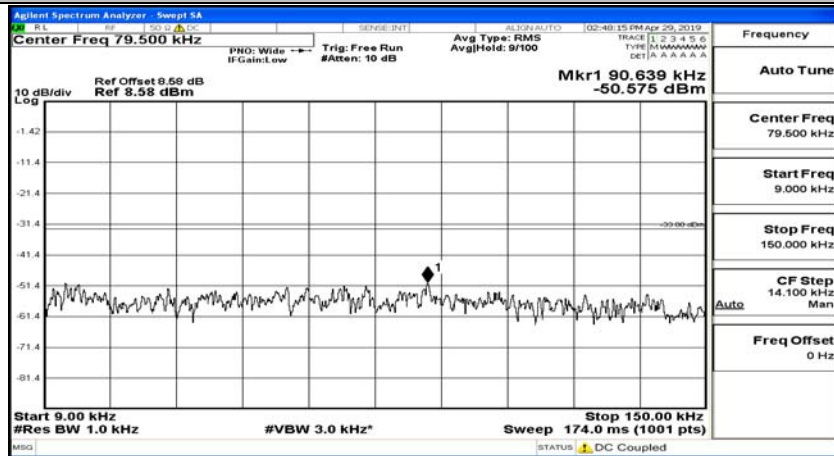
## CSE Test Graph(s) (Channel Bandwidth: 10 MHz)\_MCH\_QPSK



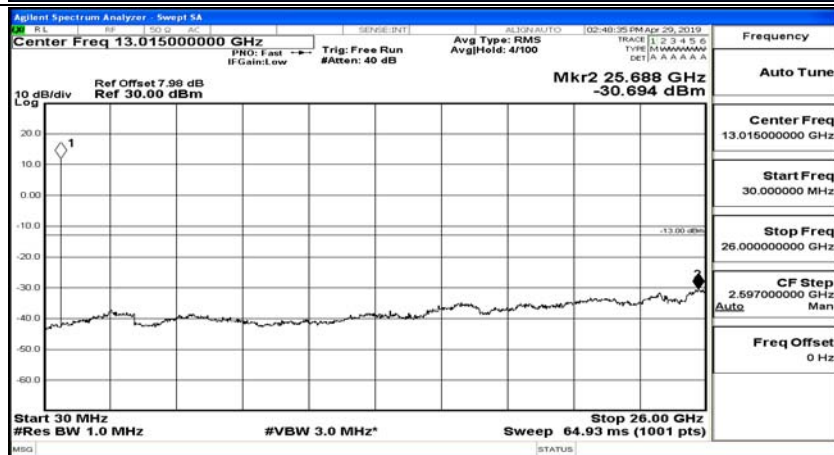
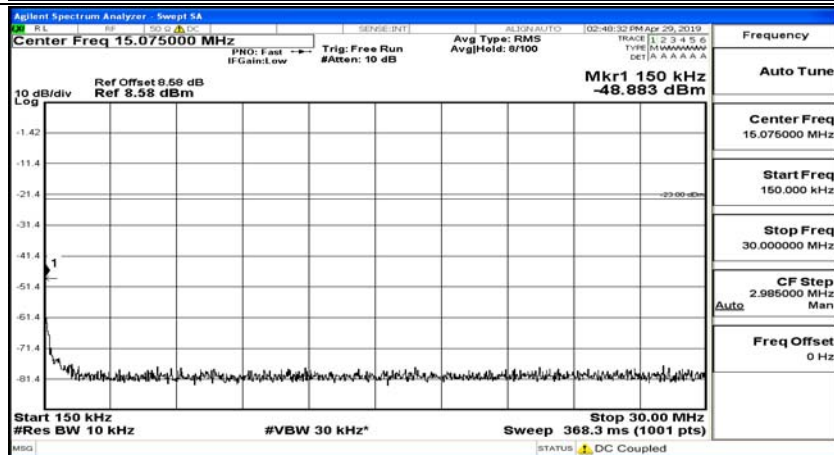
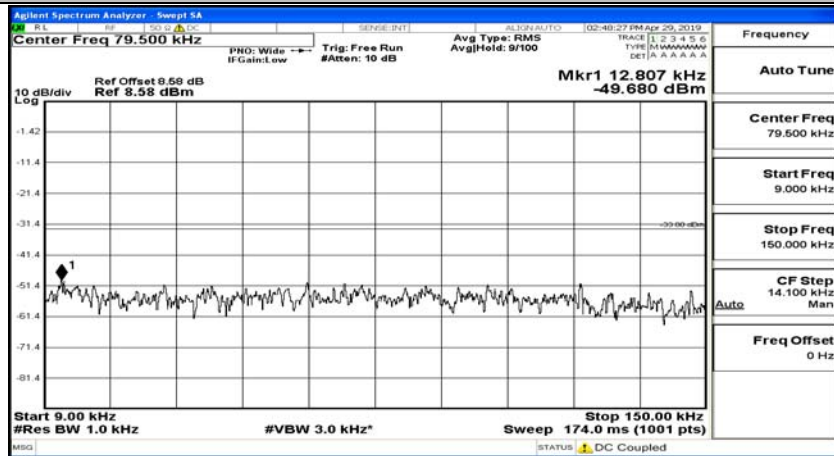
## CSE Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_QPSK



## CSE Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_16QAM



## CSE Test Graph(s) (Channel Bandwidth: 10 MHz)\_MCH\_16QAM



## CSE Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_16QAM

