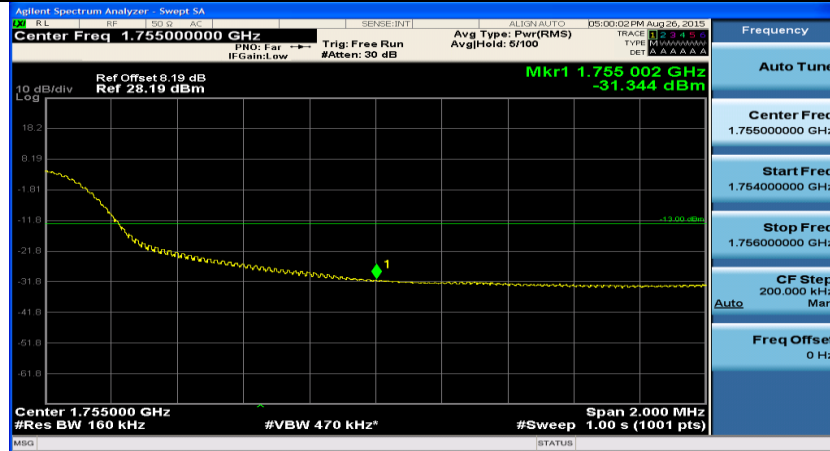
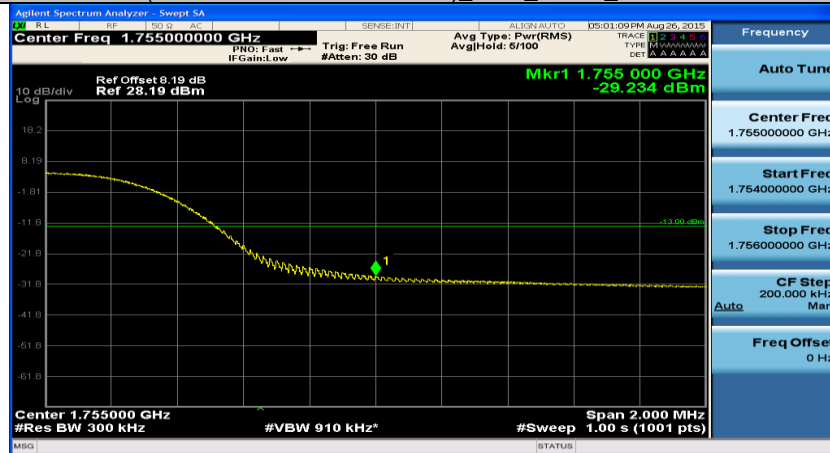


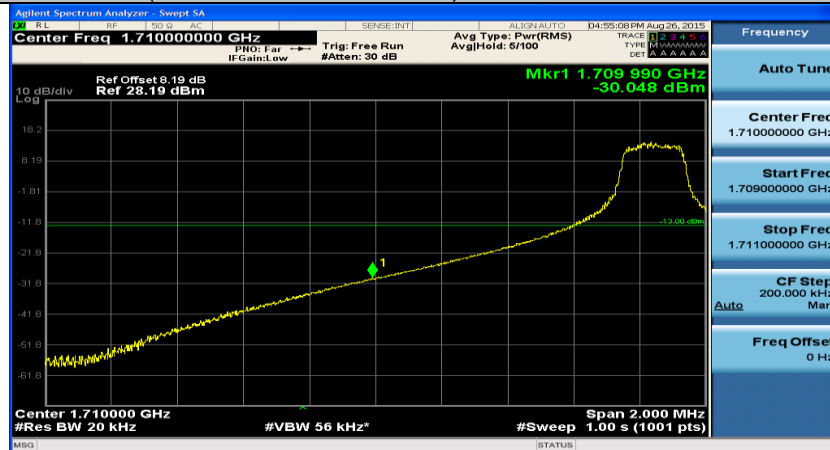
(Channel Bandwidth:15 MHz)\_HCH\_QPSK\_37RB#38



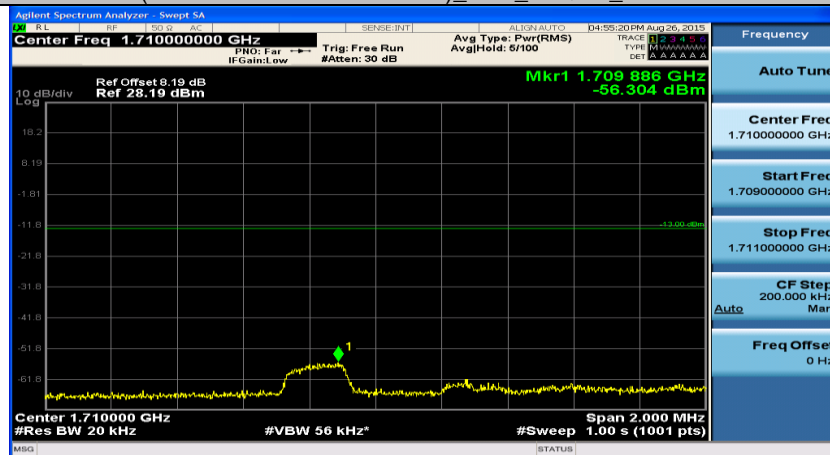
(Channel Bandwidth:15 MHz)\_HCH\_QPSK\_75RB#0



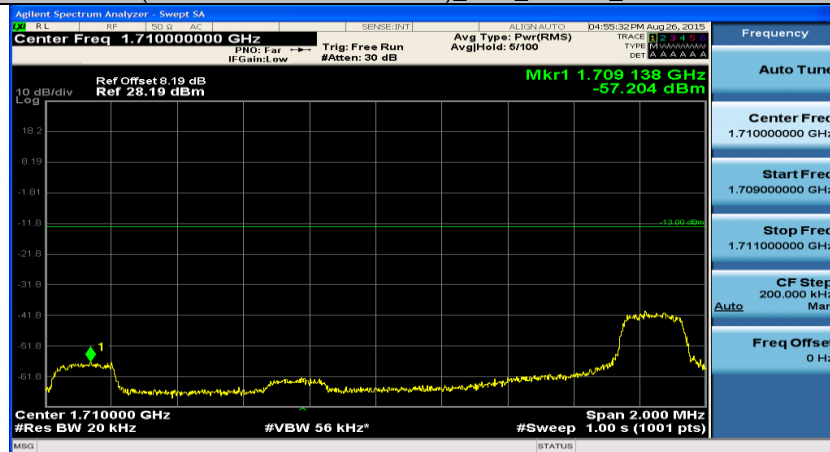
(Channel Bandwidth:15 MHz)\_LCH\_16QAM\_1RB#0



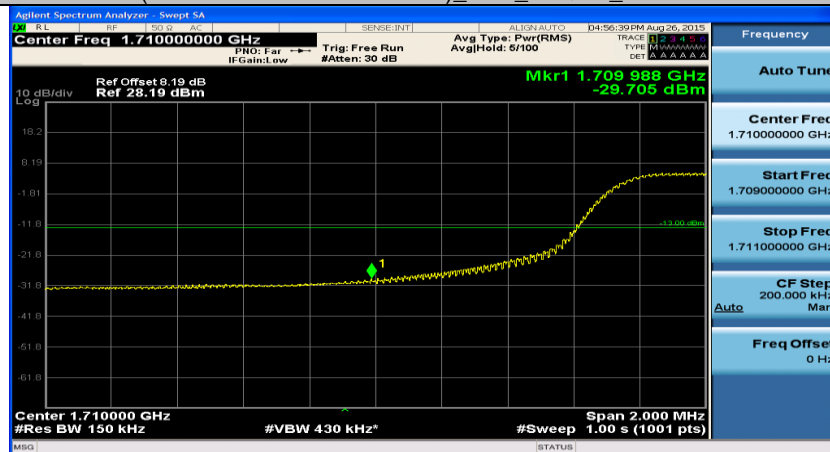
(Channel Bandwidth:15 MHz)\_LCH\_16QAM\_1RB#37



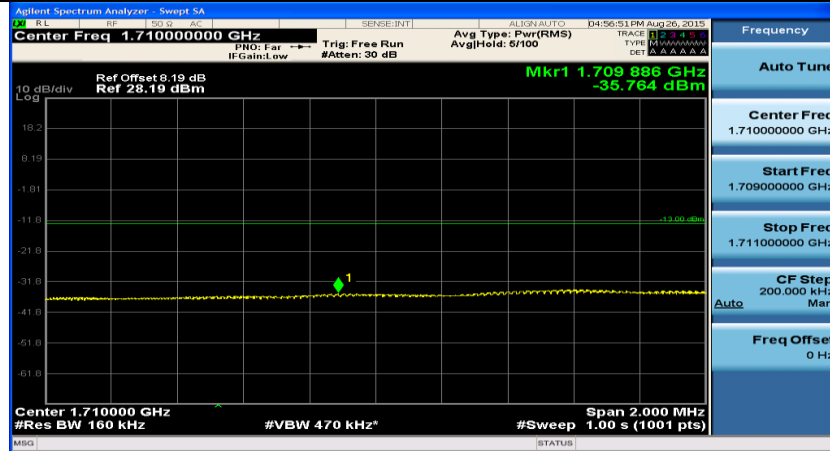
(Channel Bandwidth:15 MHz)\_LCH\_16QAM\_1RB#74



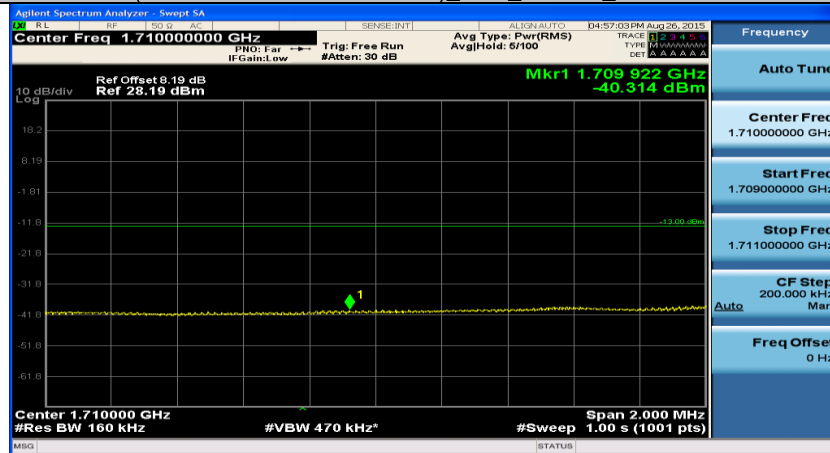
(Channel Bandwidth:15 MHz)\_LCH\_16QAM\_37RB#0



(Channel Bandwidth:15 MHz)\_LCH\_16QAM\_37RB#18



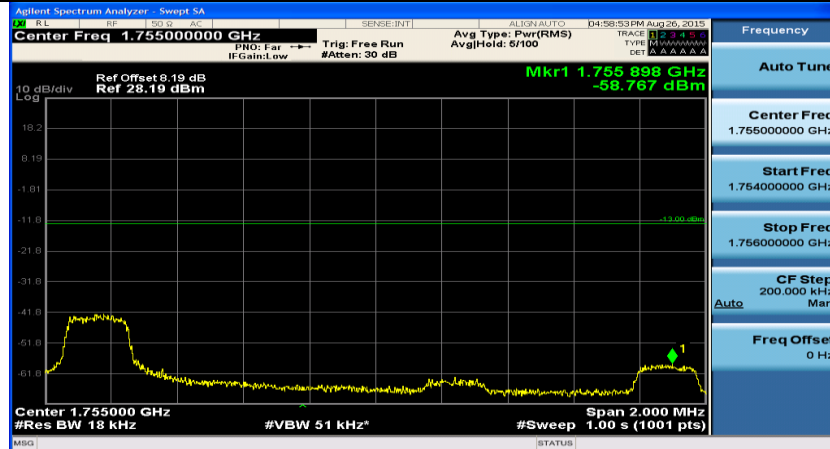
(Channel Bandwidth:15 MHz)\_LCH\_16QAM\_37RB#38



(Channel Bandwidth:15 MHz)\_LCH\_16QAM\_75RB#0



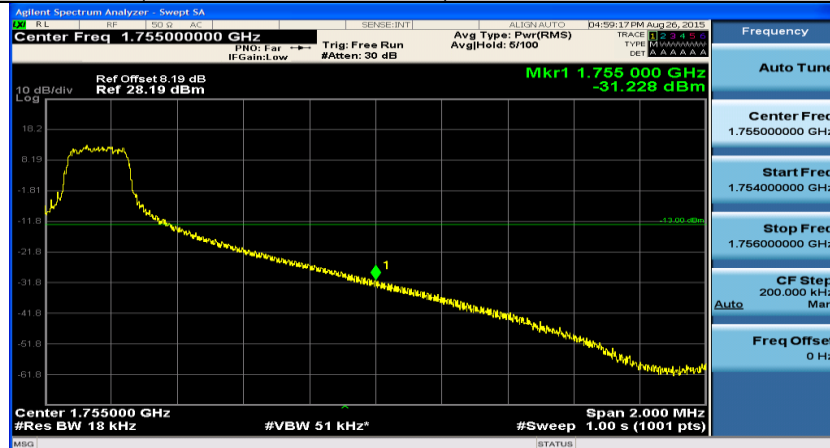
(Channel Bandwidth:15 MHz)\_HCH\_16QAM\_1RB#0



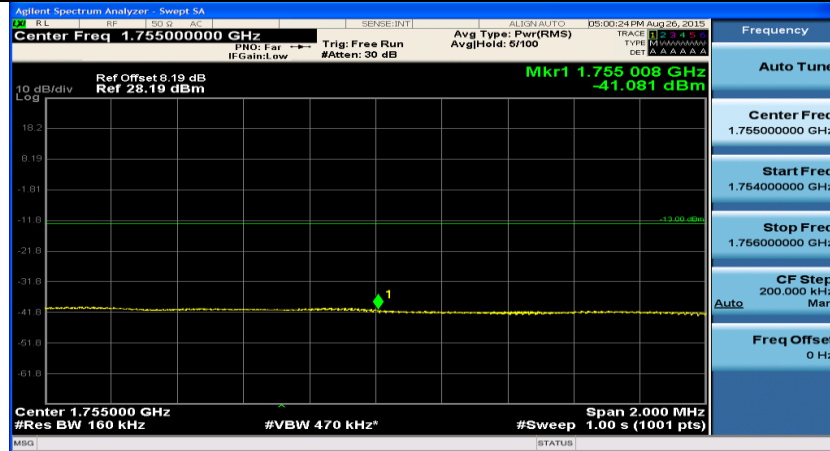
(Channel Bandwidth:15 MHz)\_HCH\_16QAM\_1RB#37



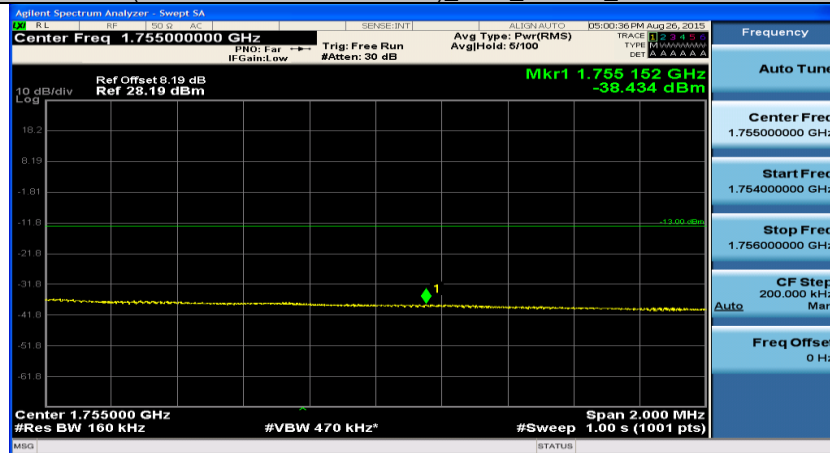
(Channel Bandwidth:15 MHz)\_HCH\_16QAM\_1RB#74



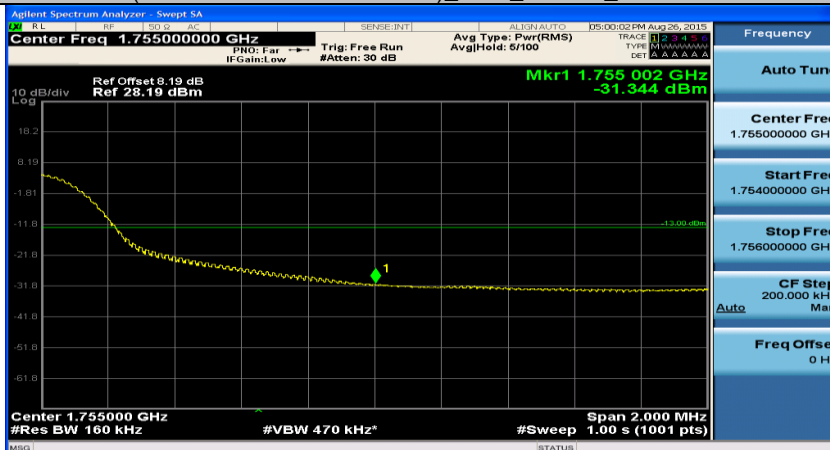
(Channel Bandwidth:15 MHz)\_HCH\_16QAM\_37RB#0



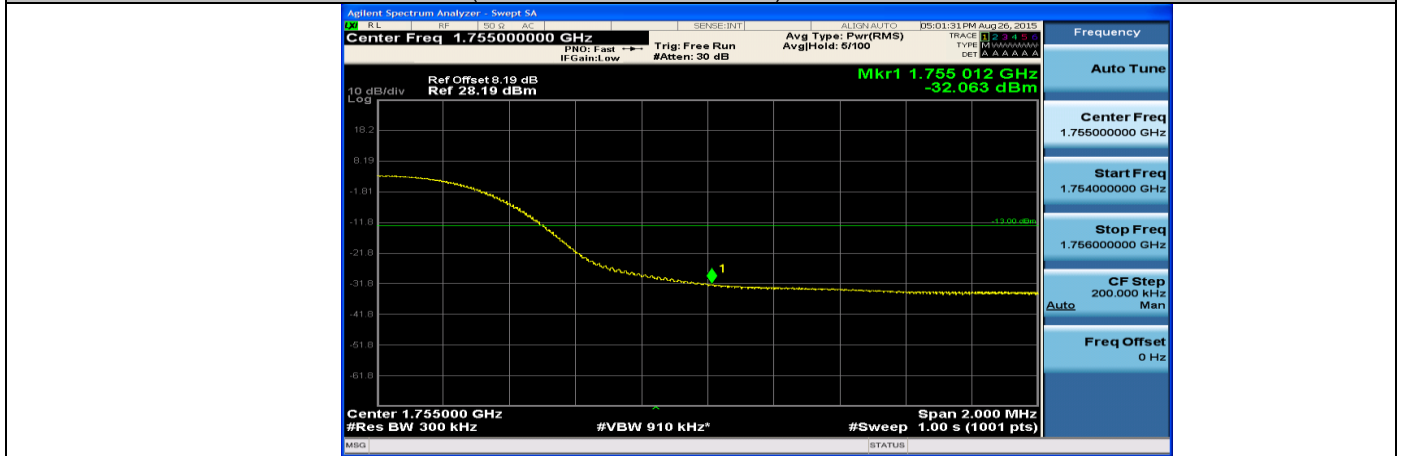
(Channel Bandwidth:15 MHz)\_HCH\_16QAM\_37RB#18



(Channel Bandwidth:15 MHz)\_HCH\_16QAM\_37RB#38

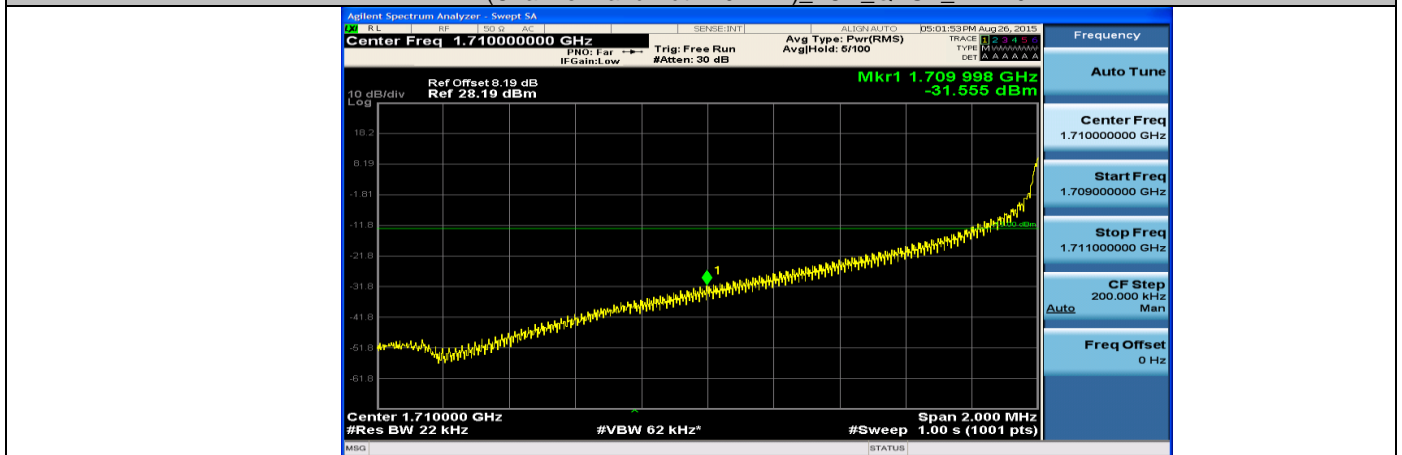


(Channel Bandwidth:15 MHz)\_HCH\_16QAM\_75RB#0

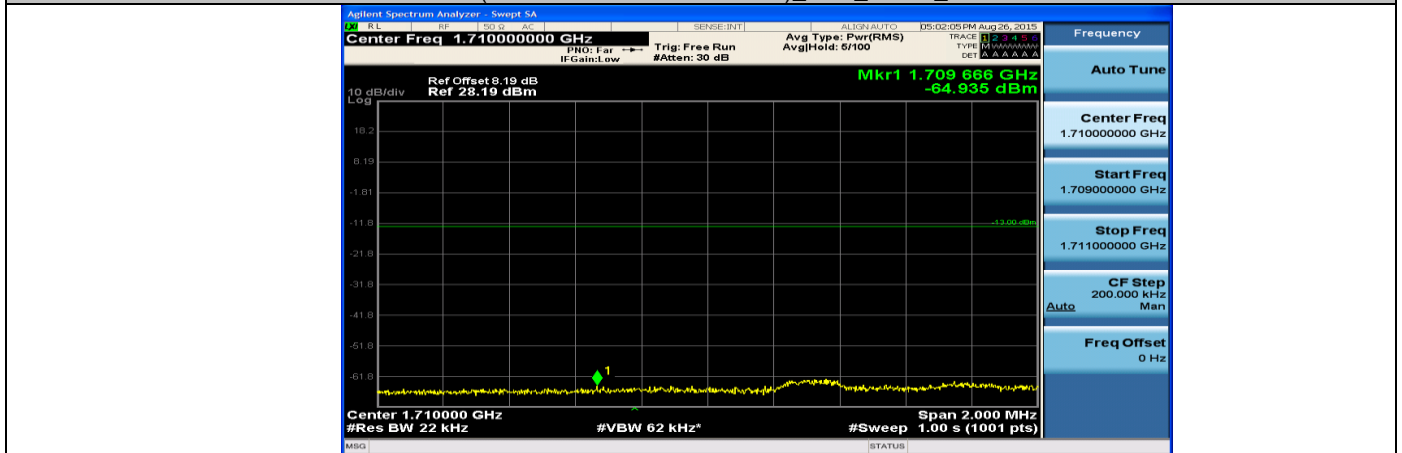


Band edge measurement  
LTE Band 4  
Channel Bandwidth: 20 MHz

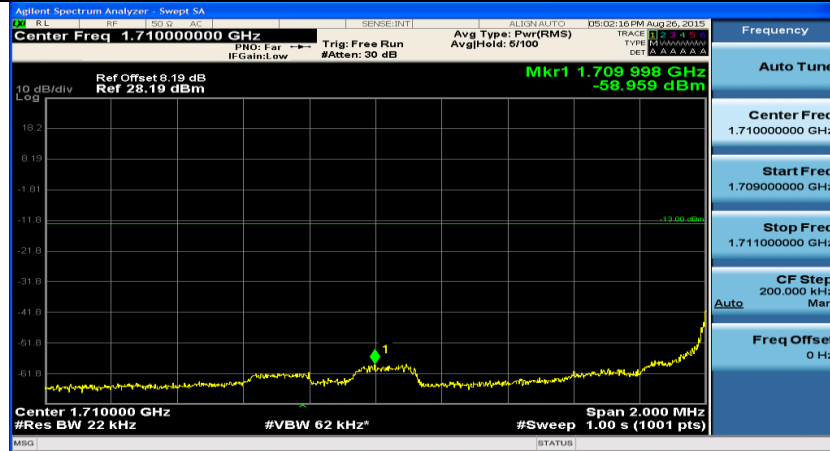
(Channel Bandwidth:20 MHz)\_LCH\_QPSK\_1RB#0



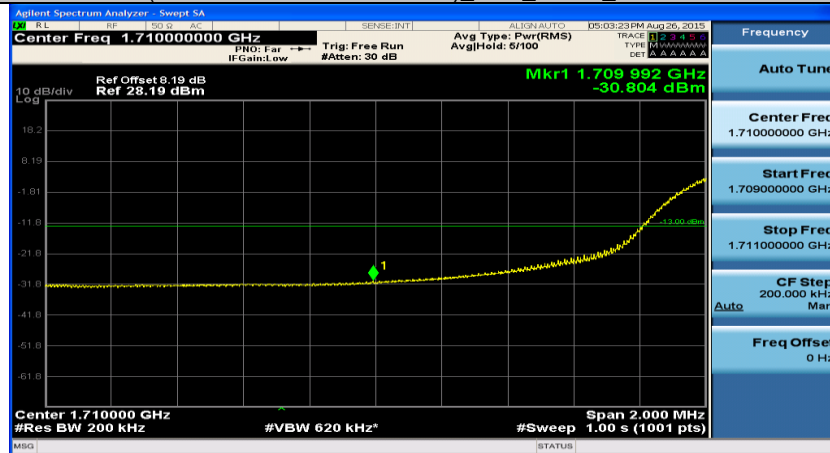
(Channel Bandwidth:20 MHz)\_LCH\_QPSK\_1RB#49



(Channel Bandwidth:20 MHz)\_LCH\_QPSK\_1RB#99



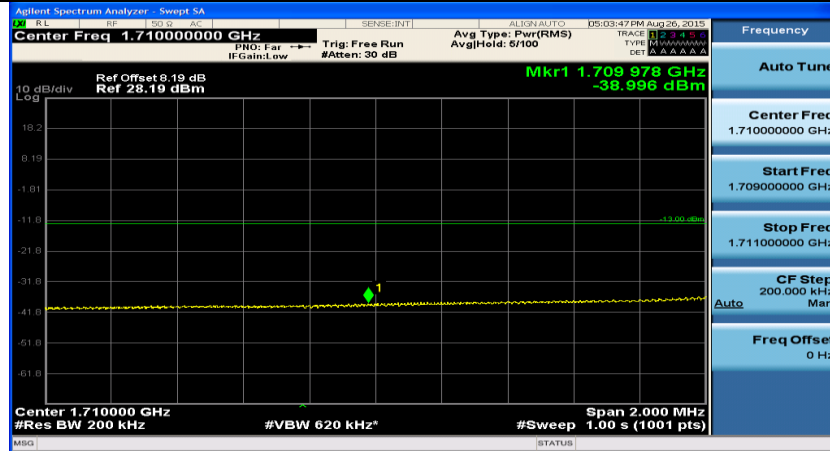
(Channel Bandwidth:20 MHz)\_LCH\_QPSK\_50RB#0



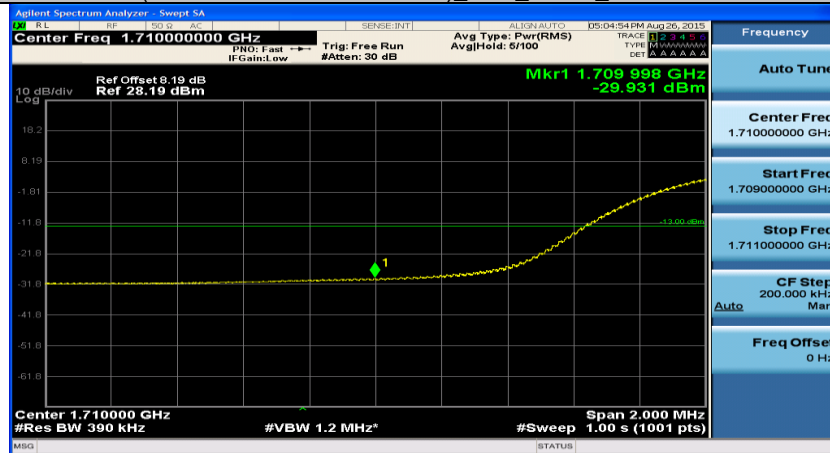
(Channel Bandwidth:20 MHz)\_LCH\_QPSK\_50RB#25



(Channel Bandwidth:20 MHz)\_LCH\_QPSK\_50RB#50



(Channel Bandwidth:20 MHz)\_LCH\_QPSK\_100RB#0

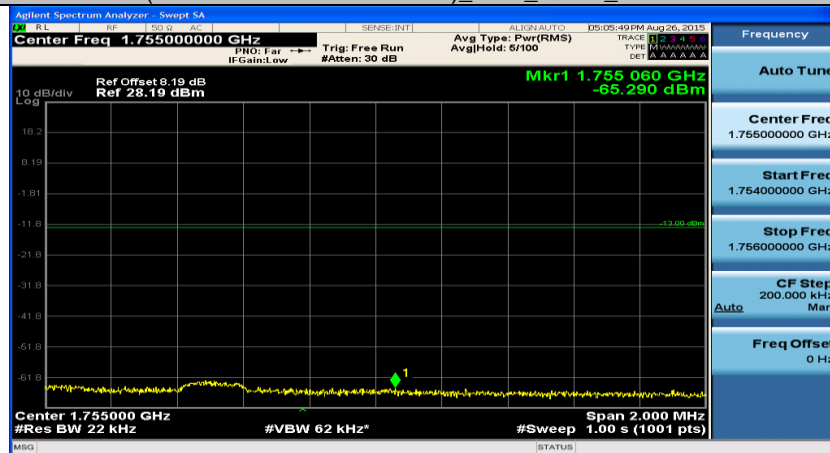


(Channel Bandwidth:20 MHz)\_HCH\_QPSK\_1RB#0

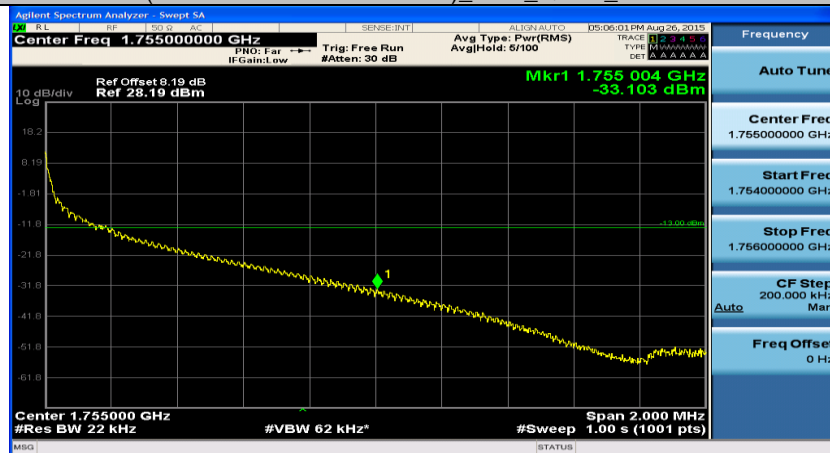




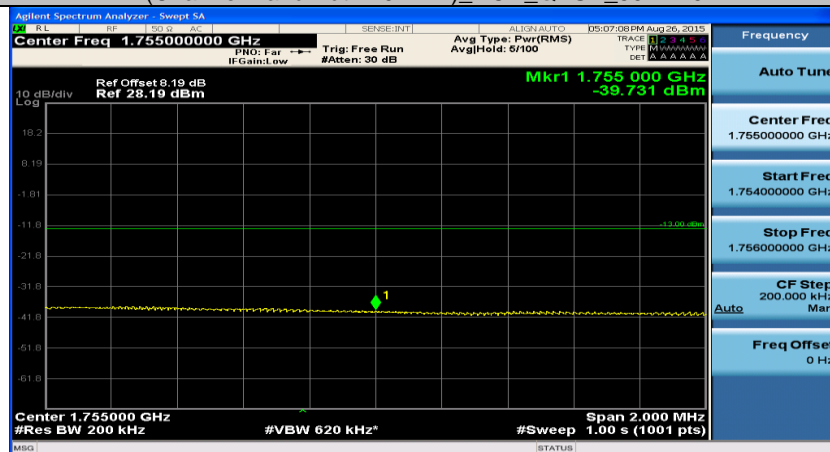
(Channel Bandwidth:20 MHz)\_HCH\_QPSK\_1RB#49



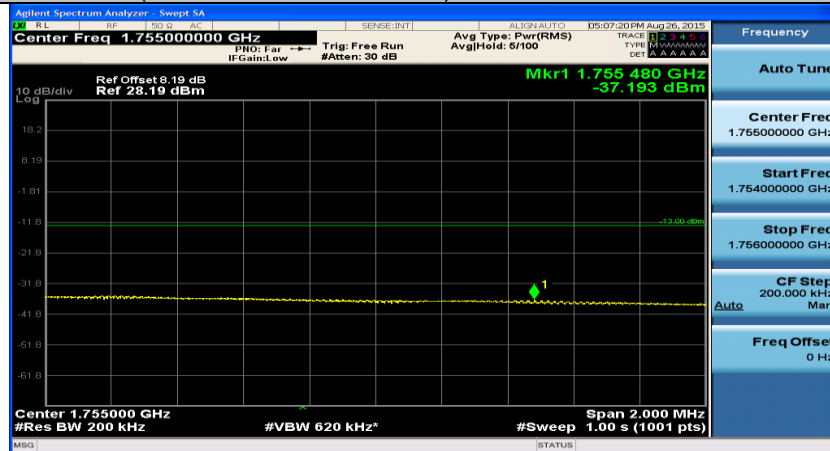
(Channel Bandwidth:20 MHz)\_HCH\_QPSK\_1RB#99



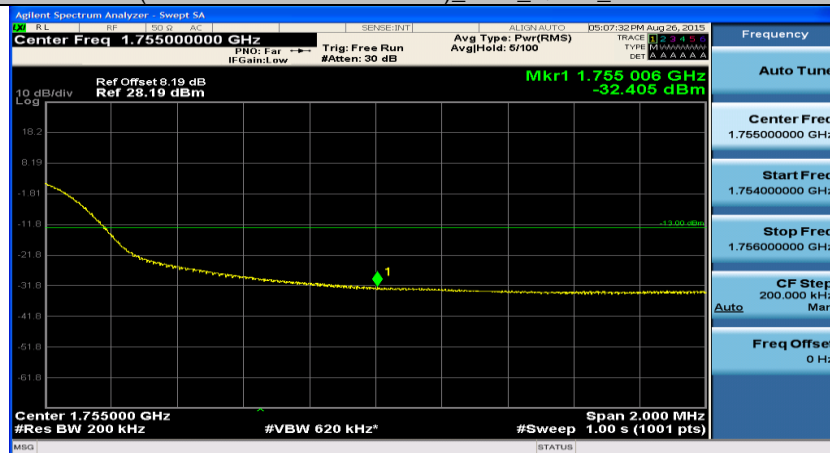
(Channel Bandwidth:20 MHz)\_HCH\_QPSK\_50RB#0



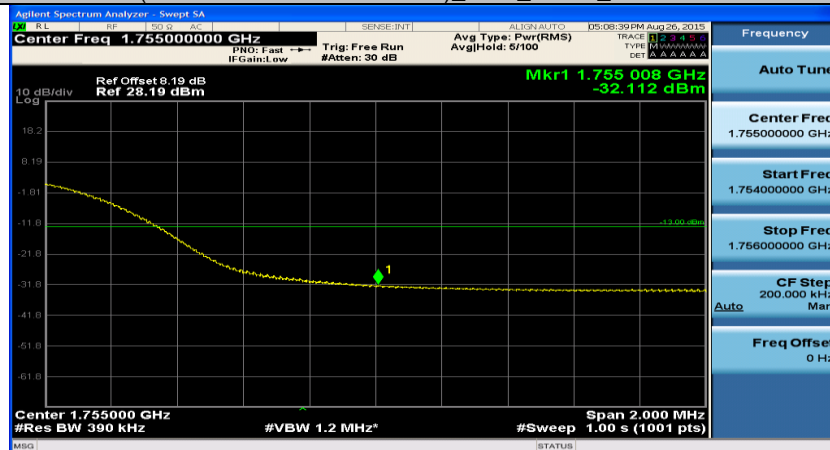
(Channel Bandwidth:20 MHz)\_HCH\_QPSK\_50RB#25



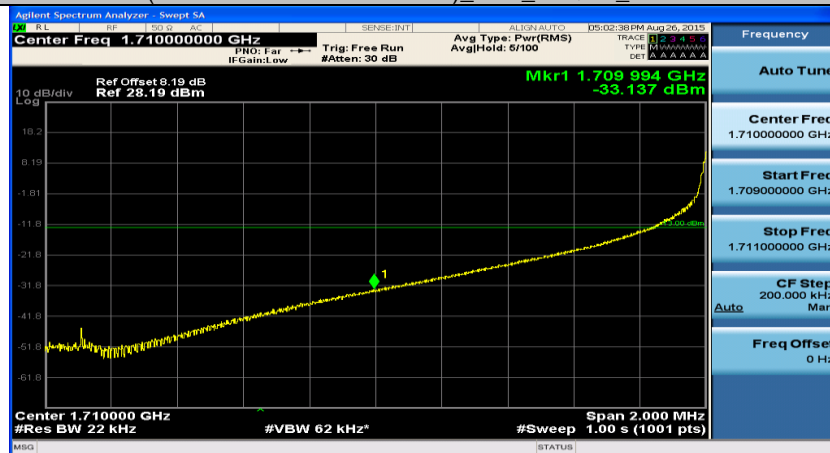
(Channel Bandwidth:20 MHz)\_HCH\_QPSK\_50RB#50



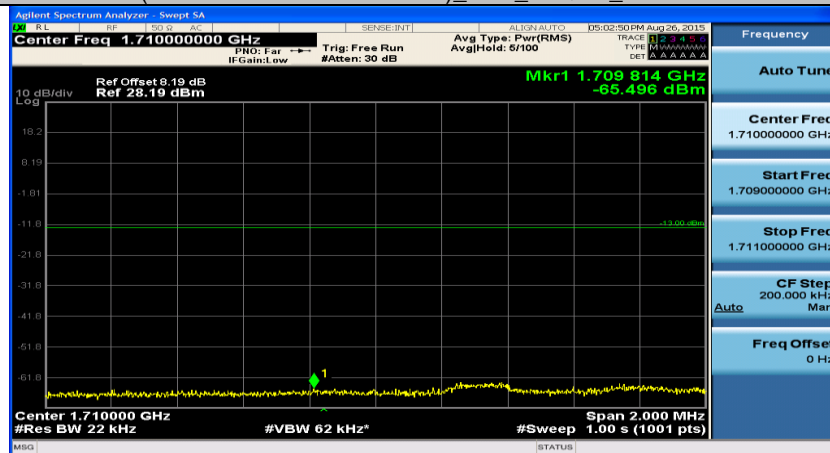
(Channel Bandwidth:20 MHz)\_HCH\_QPSK\_100RB#0



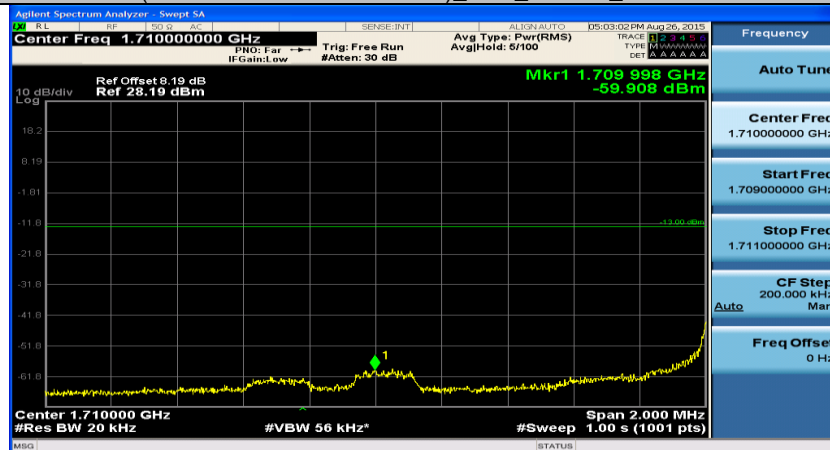
(Channel Bandwidth:20 MHz)\_LCH\_16QAM\_1RB#0



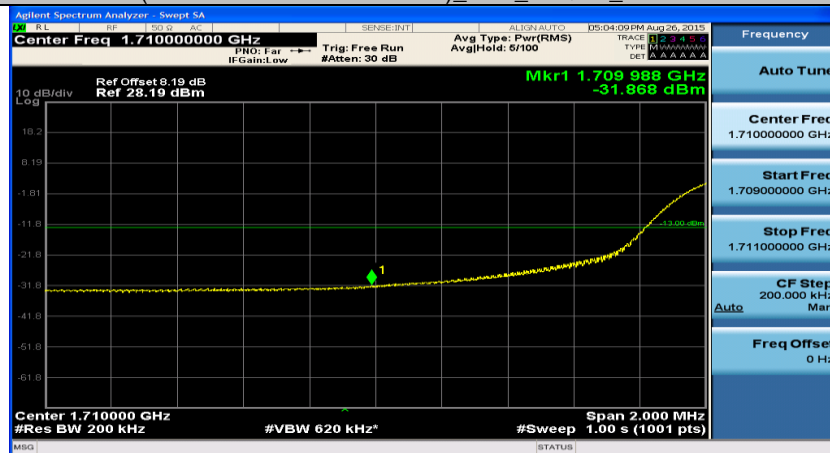
(Channel Bandwidth:20 MHz)\_LCH\_16QAM\_1RB#49



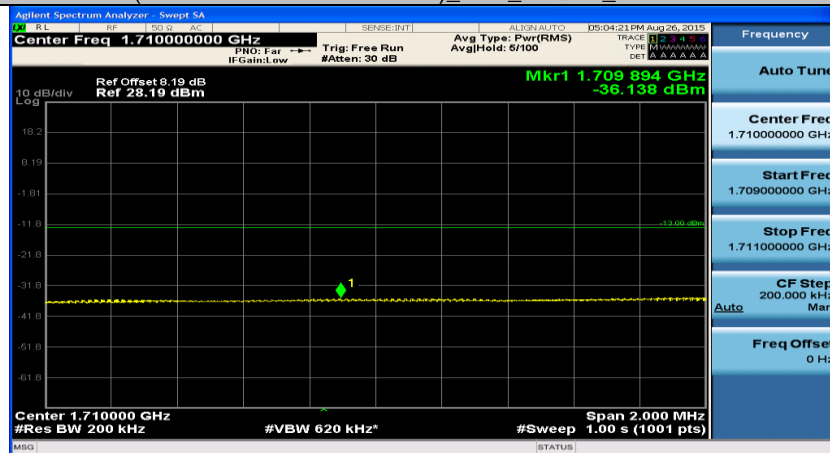
(Channel Bandwidth:20 MHz)\_LCH\_16QAM\_1RB#99



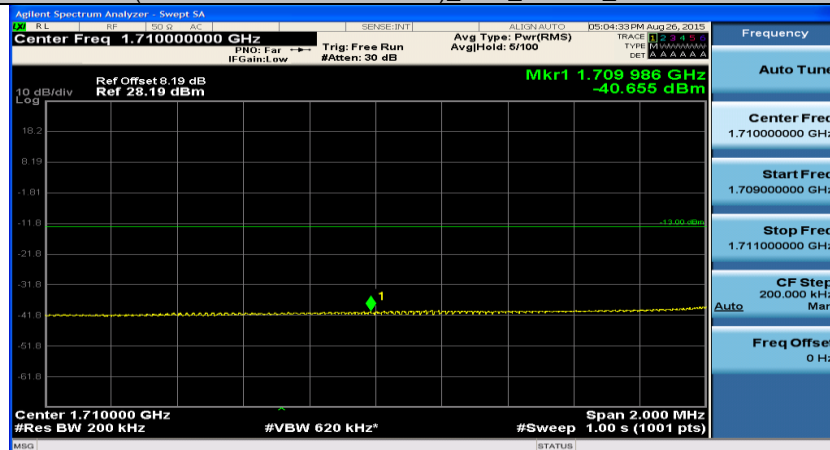
(Channel Bandwidth:20 MHz)\_LCH\_16QAM\_50RB#0



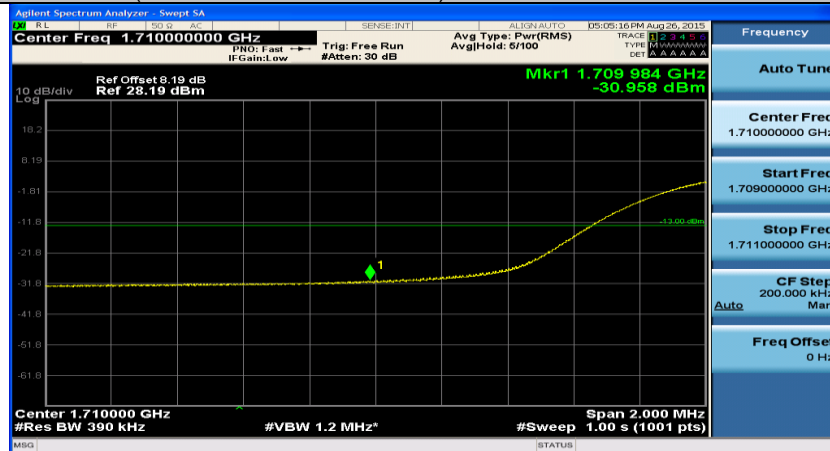
(Channel Bandwidth:20 MHz)\_LCH\_16QAM\_50RB#25



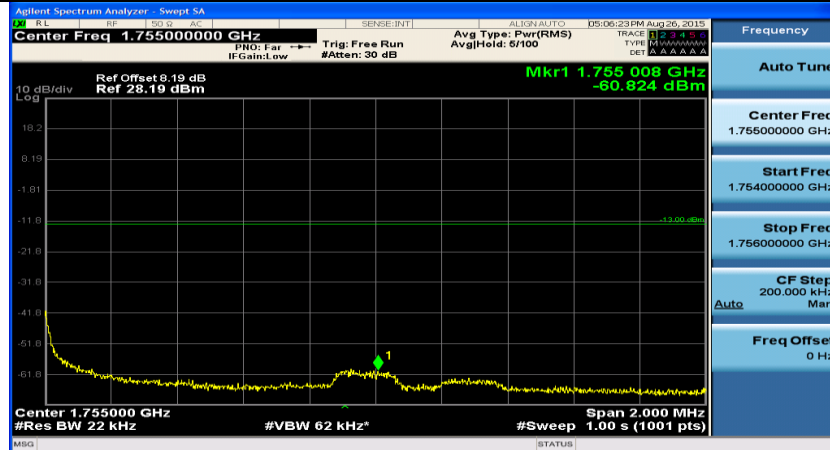
(Channel Bandwidth:20 MHz)\_LCH\_16QAM\_50RB#50



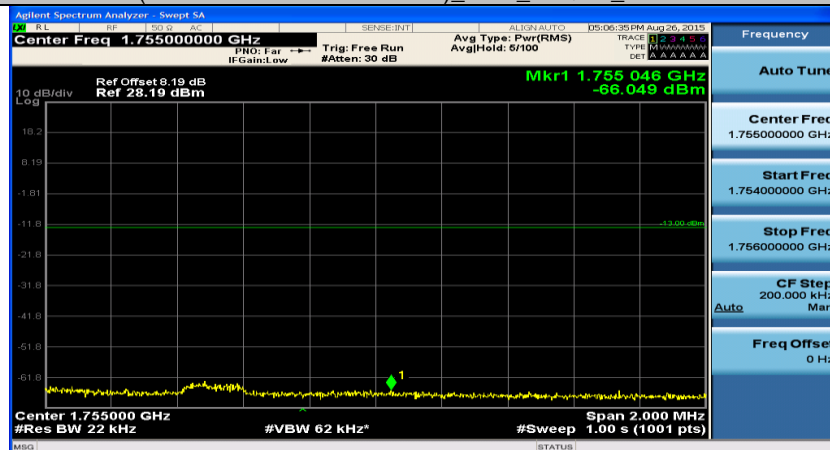
(Channel Bandwidth:20 MHz)\_LCH\_16QAM\_100RB#0



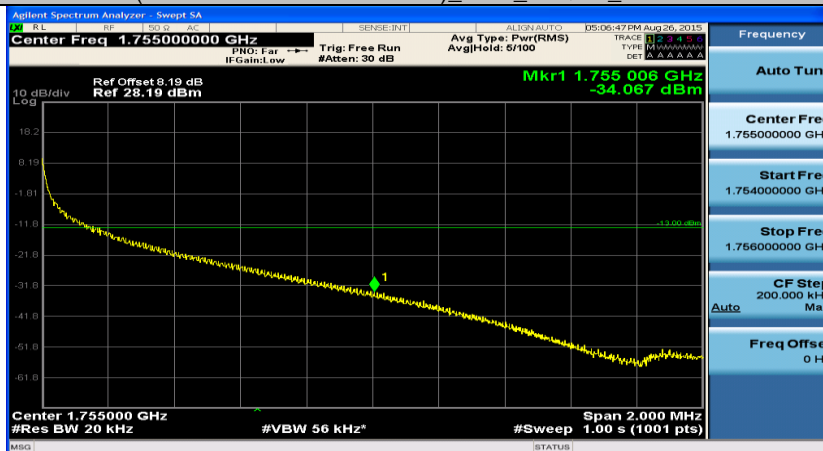
(Channel Bandwidth:20 MHz)\_HCH\_16QAM\_1RB#0



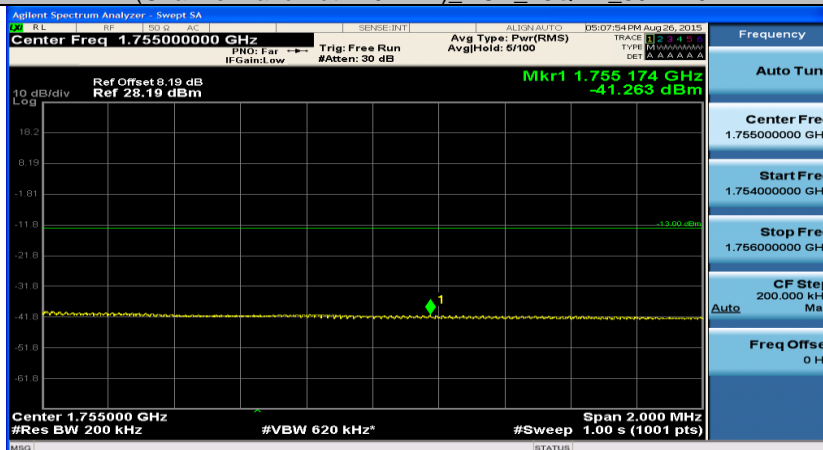
(Channel Bandwidth:20 MHz)\_HCH\_16QAM\_1RB#49



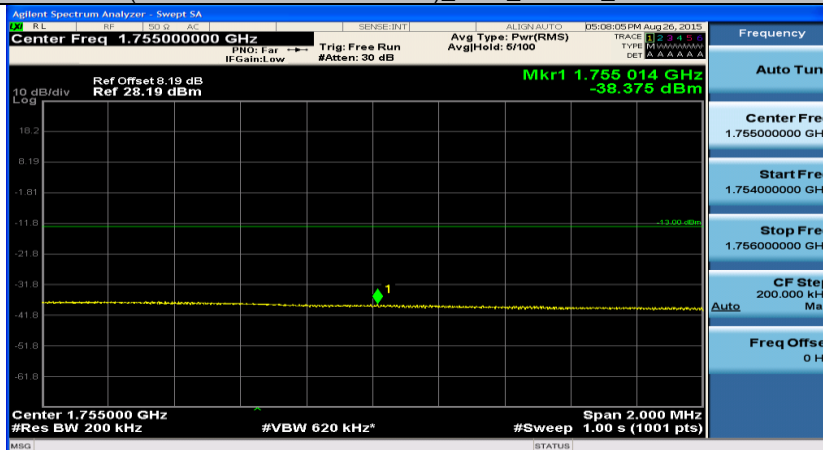
(Channel Bandwidth:20 MHz)\_HCH\_16QAM\_1RB#99



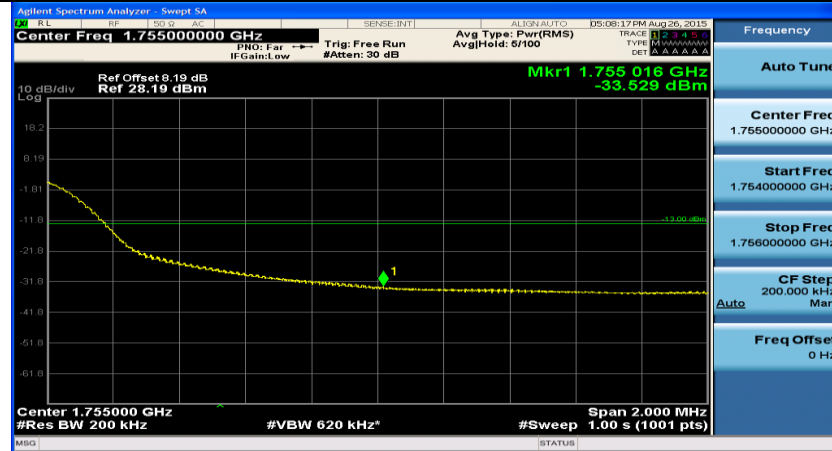
(Channel Bandwidth:20 MHz)\_HCH\_16QAM\_50RB#0



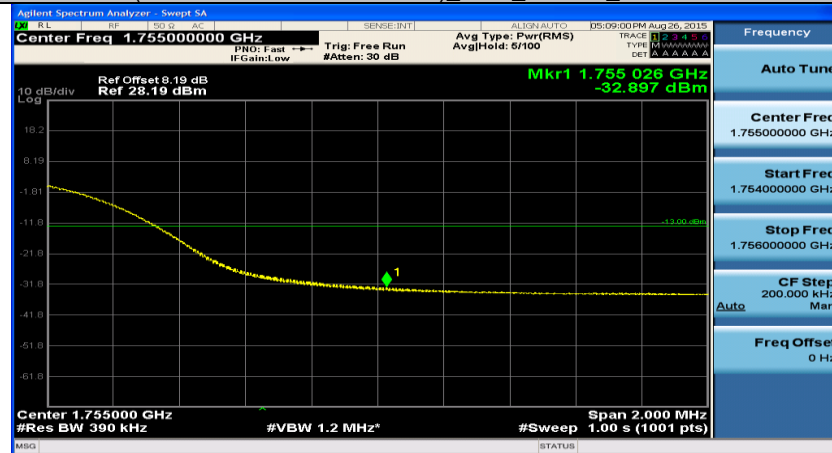
(Channel Bandwidth:20 MHz)\_HCH\_16QAM\_50RB#25



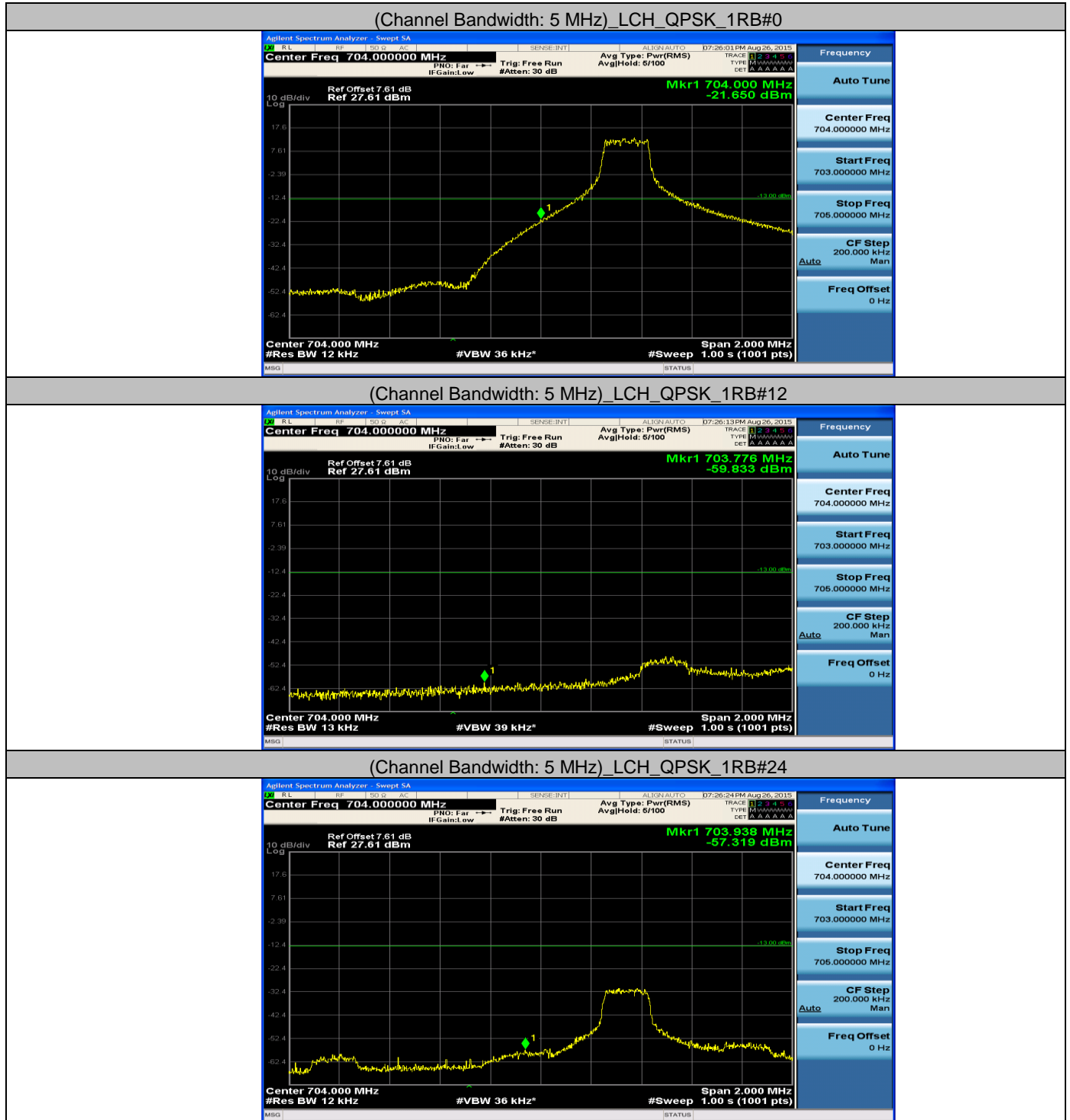
(Channel Bandwidth:20 MHz)\_HCH\_16QAM\_50RB#50



(Channel Bandwidth:20 MHz)\_HCH\_16QAM\_100RB#0

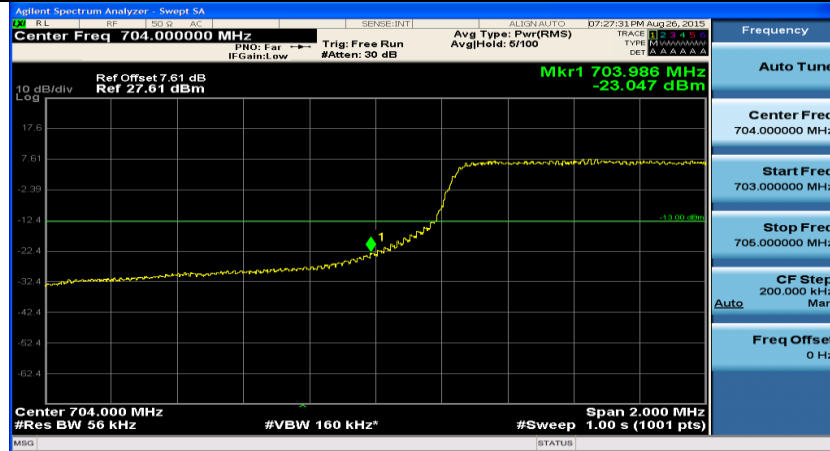


Band edge measurement  
LTE Band 17  
Channel Bandwidth: 5 MHz

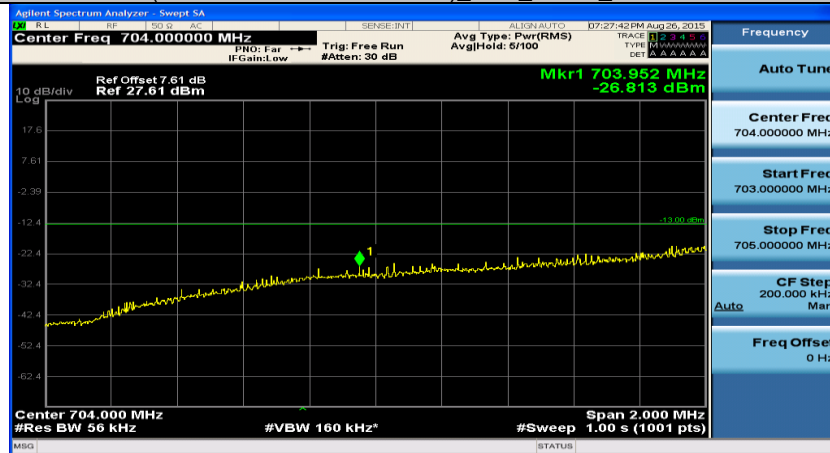




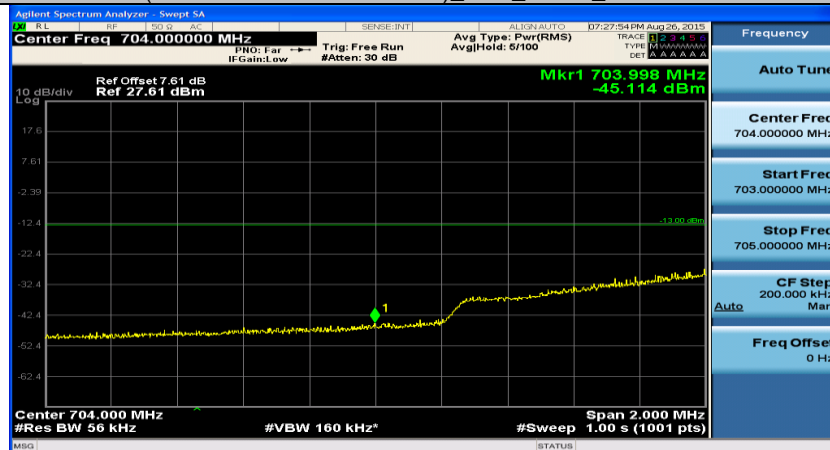
(Channel Bandwidth: 5 MHz) LCH\_QPSK\_12RB#0



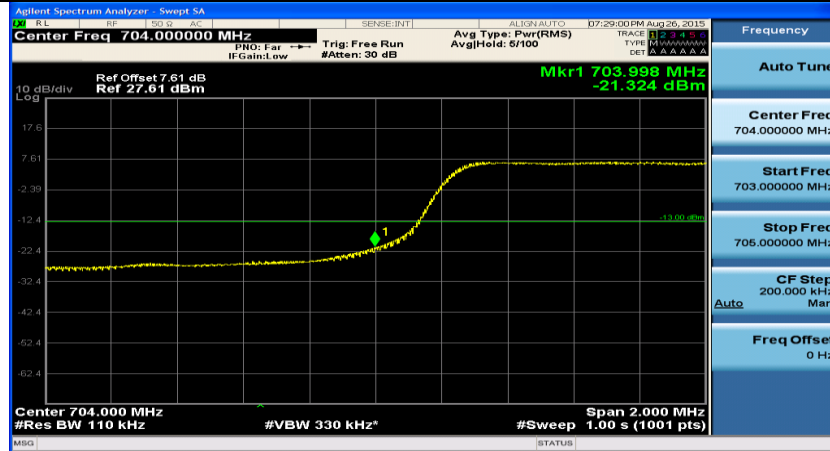
(Channel Bandwidth: 5 MHz) LCH\_QPSK\_12RB#6



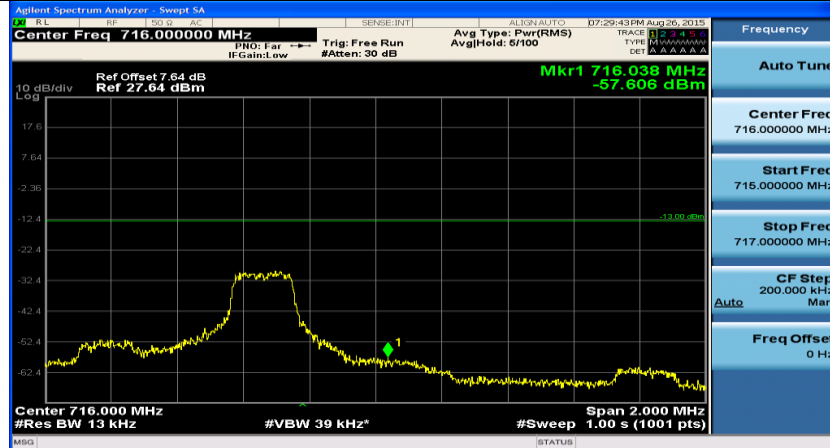
(Channel Bandwidth: 5 MHz) LCH\_QPSK\_12RB#13



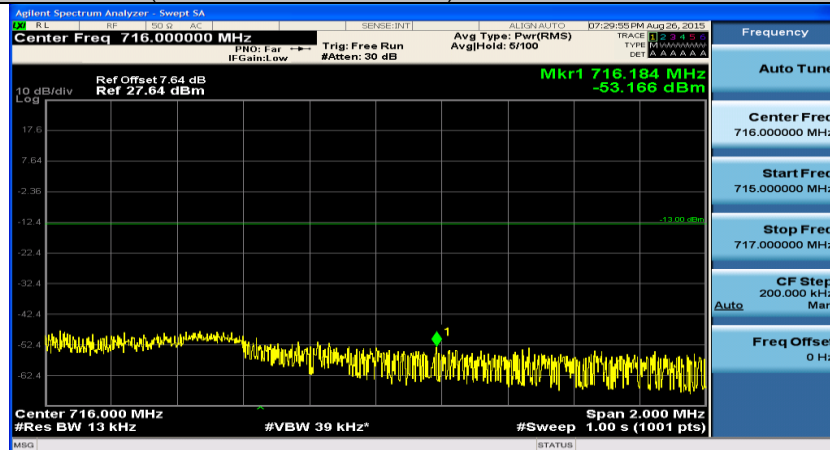
(Channel Bandwidth: 5 MHz) LCH\_QPSK\_25RB#0



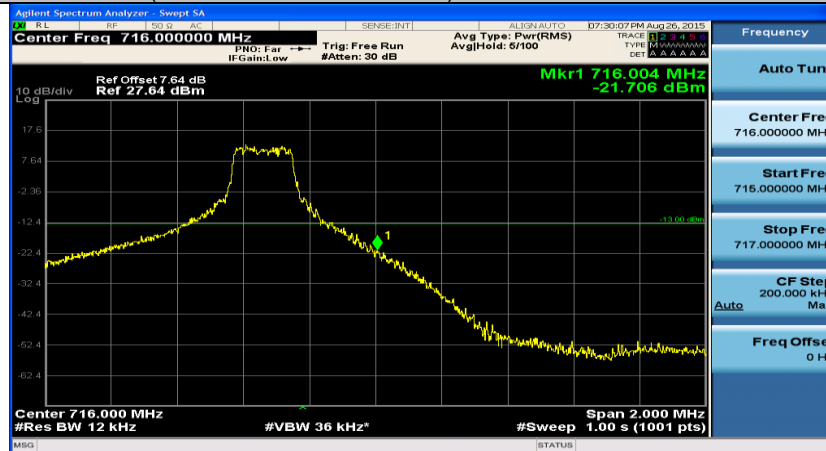
(Channel Bandwidth: 5 MHz) HCH\_QPSK\_1RB#0



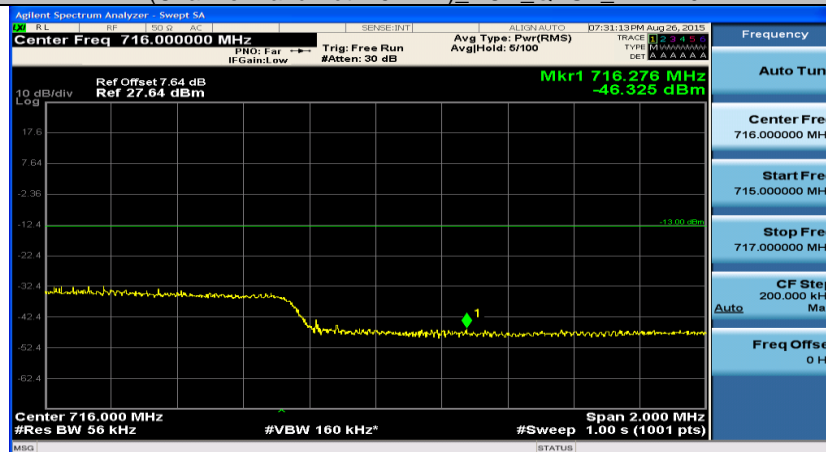
(Channel Bandwidth: 5 MHz) HCH\_QPSK\_1RB#12



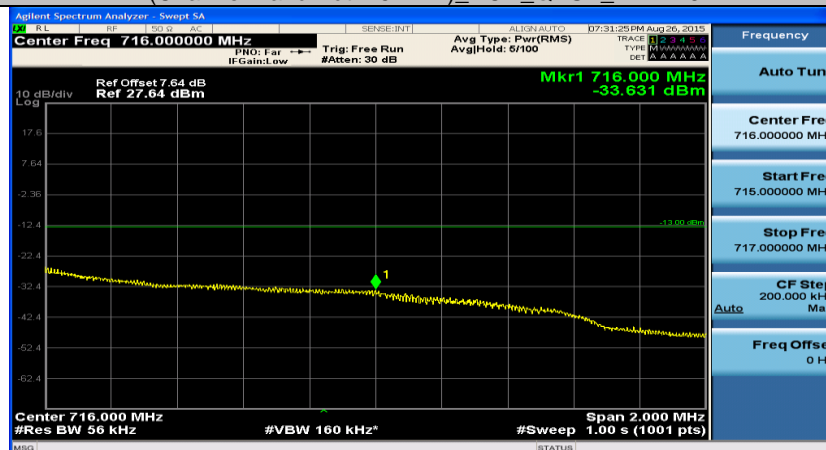
(Channel Bandwidth: 5 MHz)\_HCH\_QPSK\_1RB#24



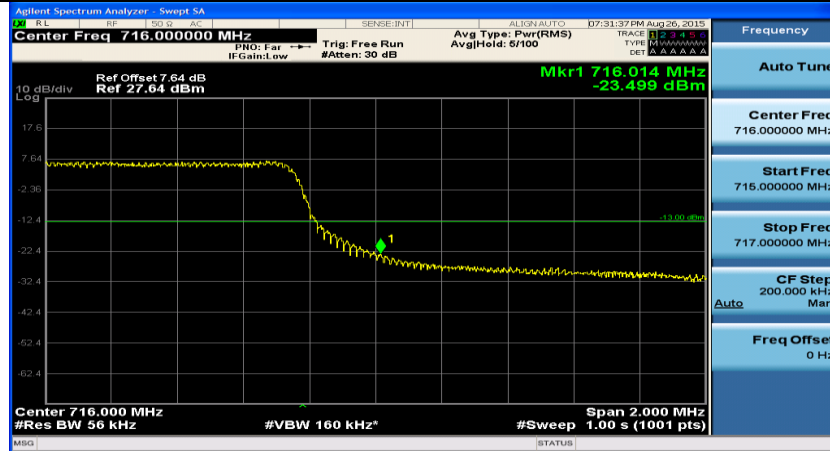
(Channel Bandwidth: 5 MHz)\_HCH\_QPSK\_12RB#0



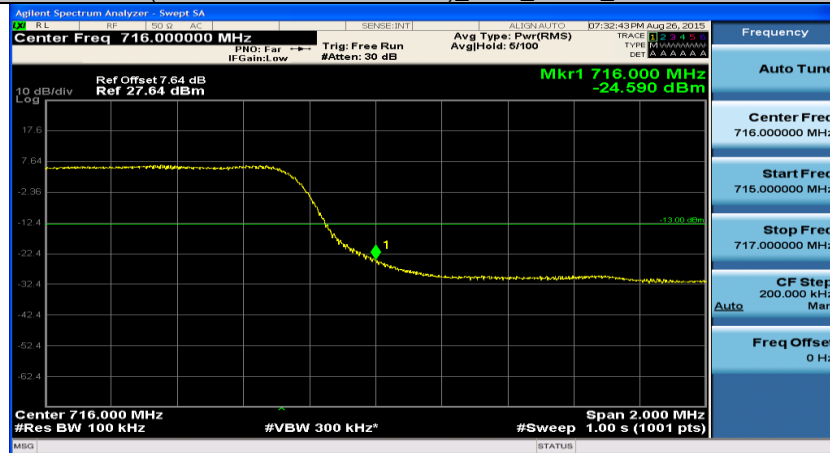
(Channel Bandwidth: 5 MHz)\_HCH\_QPSK\_12RB#6



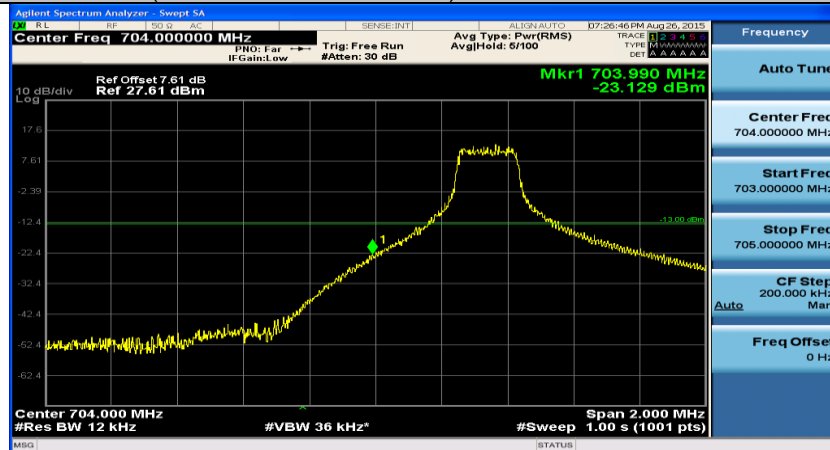
(Channel Bandwidth: 5 MHz)\_HCH\_QPSK\_12RB#13



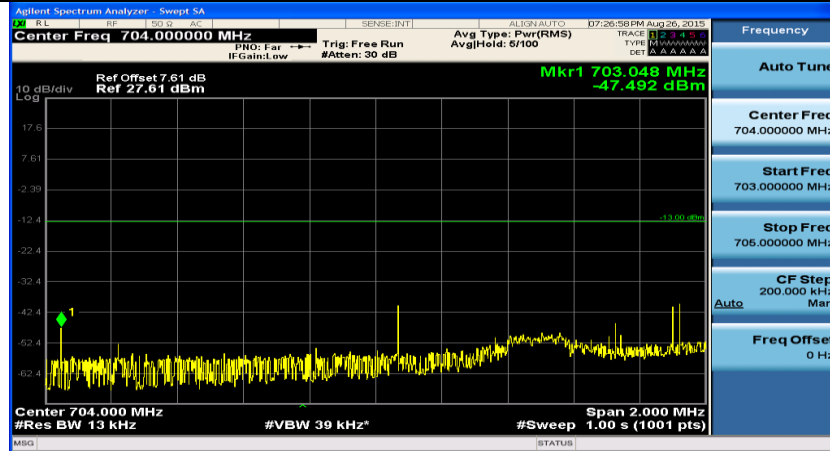
(Channel Bandwidth: 5 MHz)\_HCH\_QPSK\_25RB#0



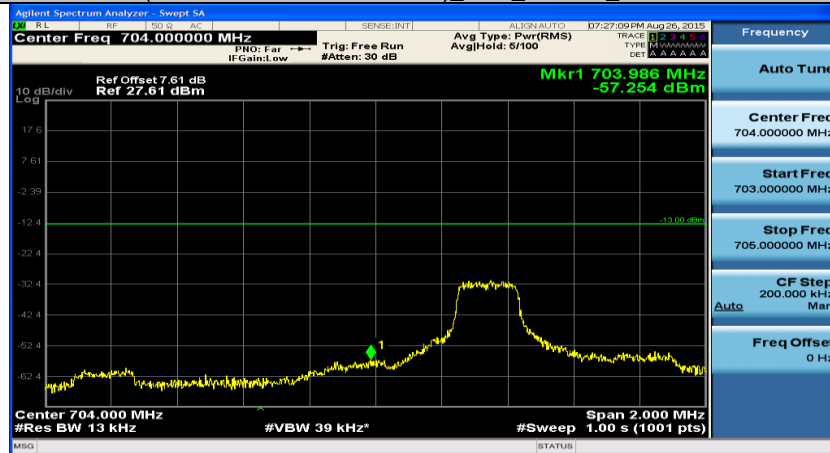
(Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_1RB#0



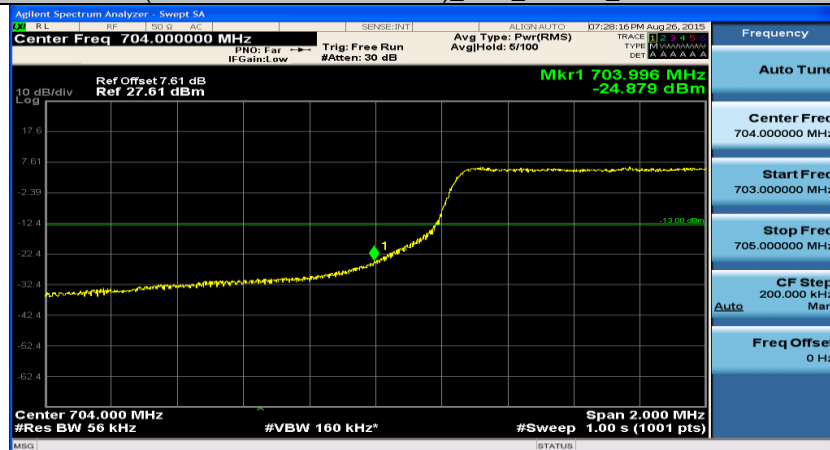
(Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_1RB#12



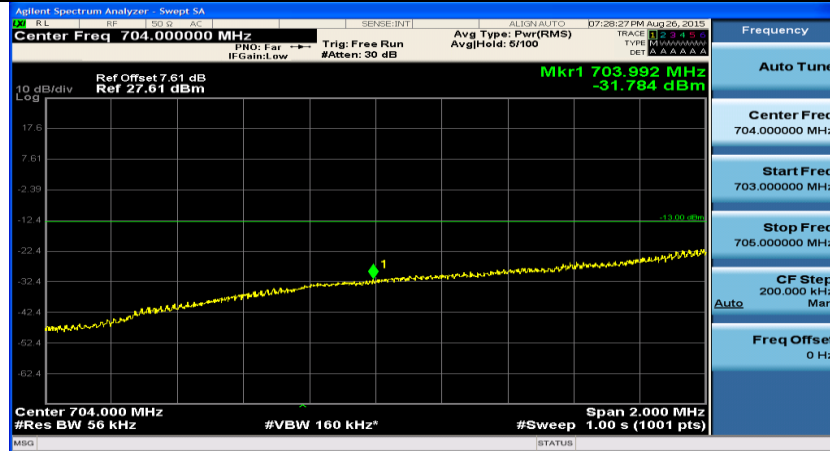
(Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_1RB#24



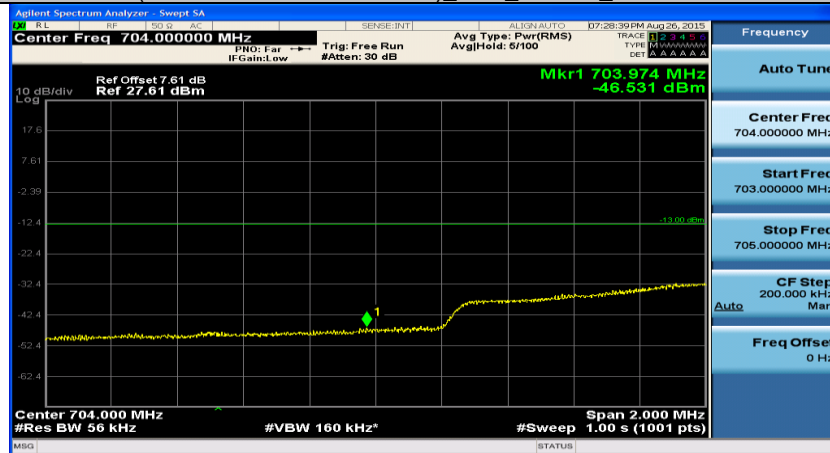
(Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_12RB#0



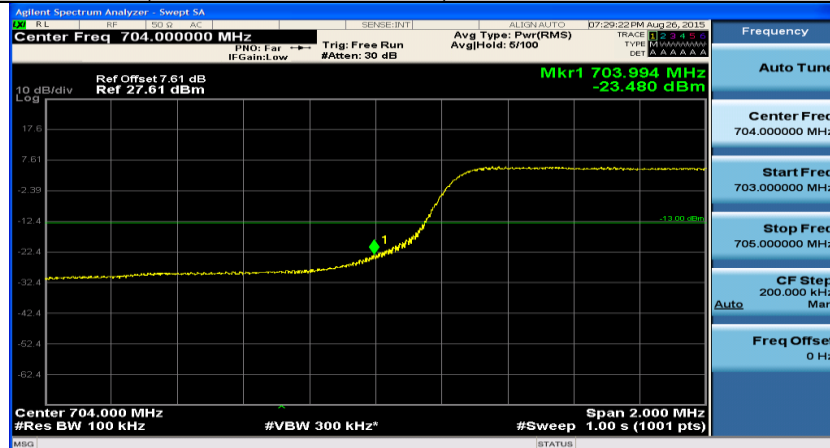
(Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_12RB#6



(Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_12RB#13



(Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_25RB#0



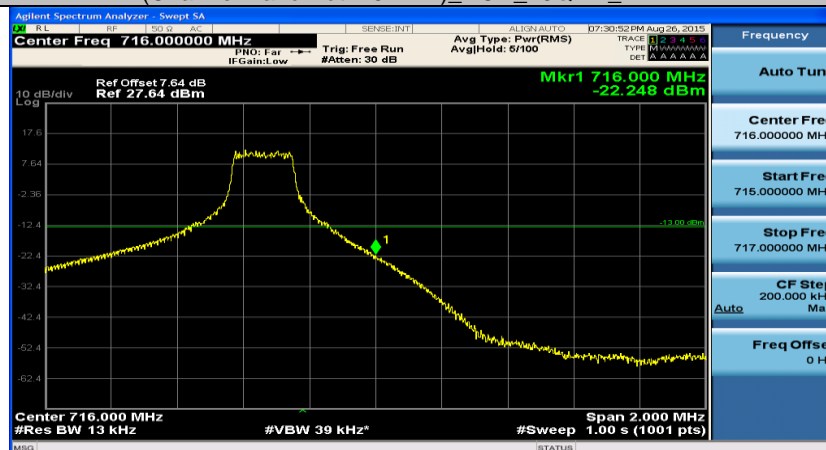
(Channel Bandwidth: 5 MHz)\_HCH\_16QAM\_1RB#0



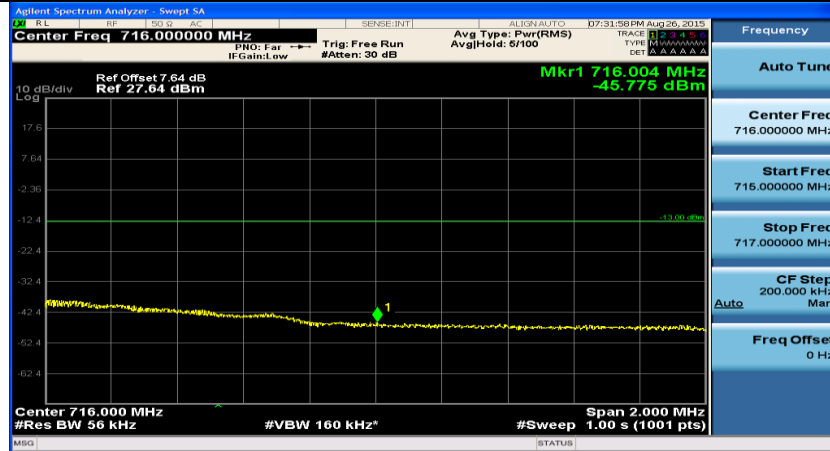
(Channel Bandwidth: 5 MHz)\_HCH\_16QAM\_1RB#12



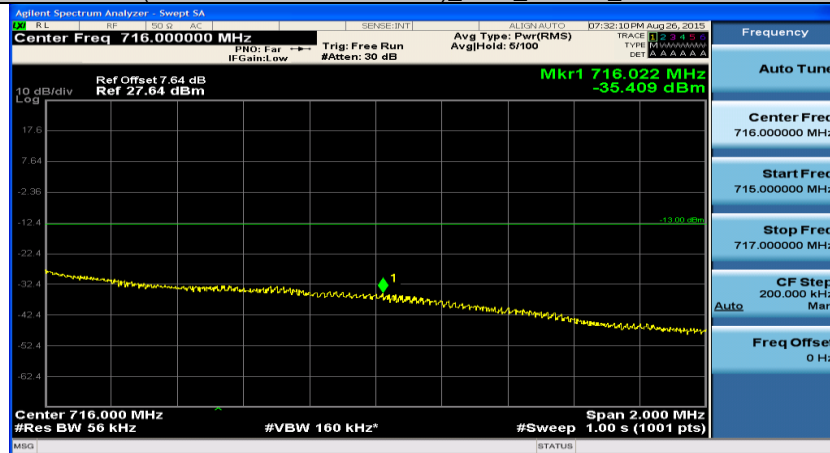
(Channel Bandwidth: 5 MHz)\_HCH\_16QAM\_1RB#24



(Channel Bandwidth: 5 MHz)\_HCH\_16QAM\_12RB#0



(Channel Bandwidth: 5 MHz)\_HCH\_16QAM\_12RB#6



(Channel Bandwidth: 5 MHz)\_HCH\_16QAM\_12RB#13



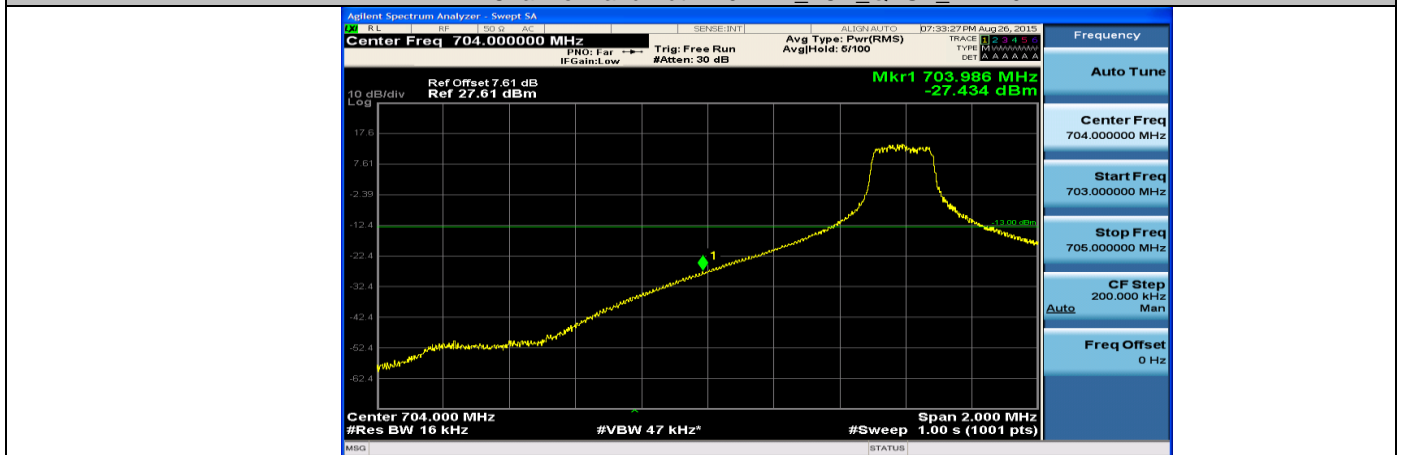


(Channel Bandwidth: 5 MHz)\_HCH\_16QAM\_25RB#0

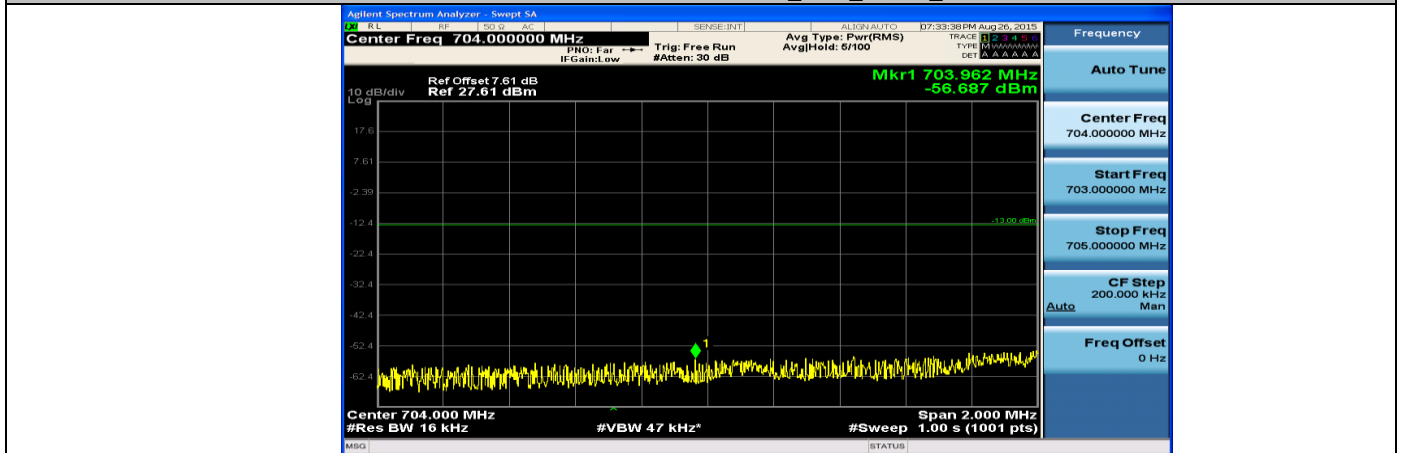


Band edge measurement  
LTE Band 17  
Channel Bandwidth: 10 MHz

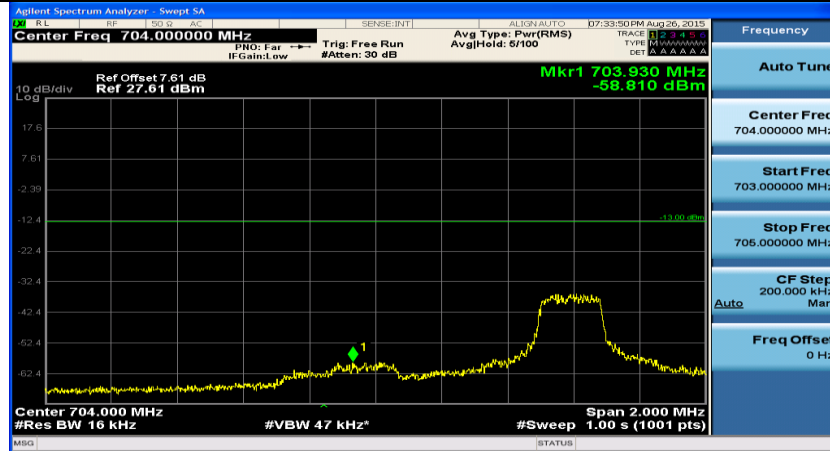
Channel Bandwidth: 10 MHz\_LCH\_QPSK\_1RB#0



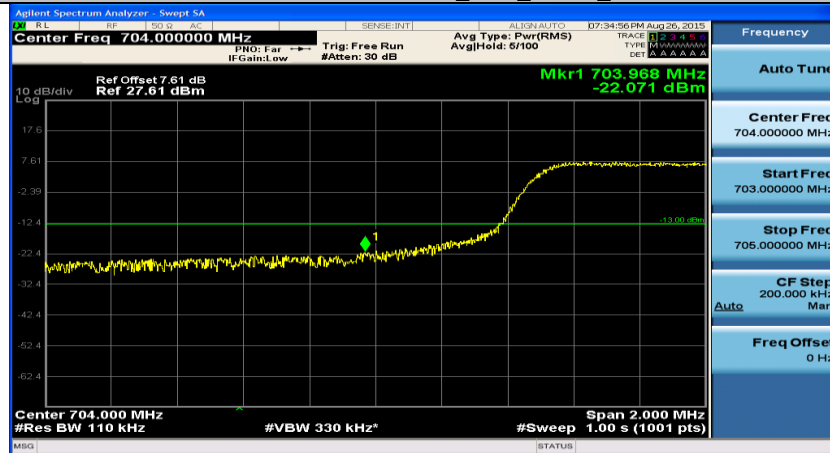
Channel Bandwidth: 10 MHz\_LCH\_QPSK\_1RB#24



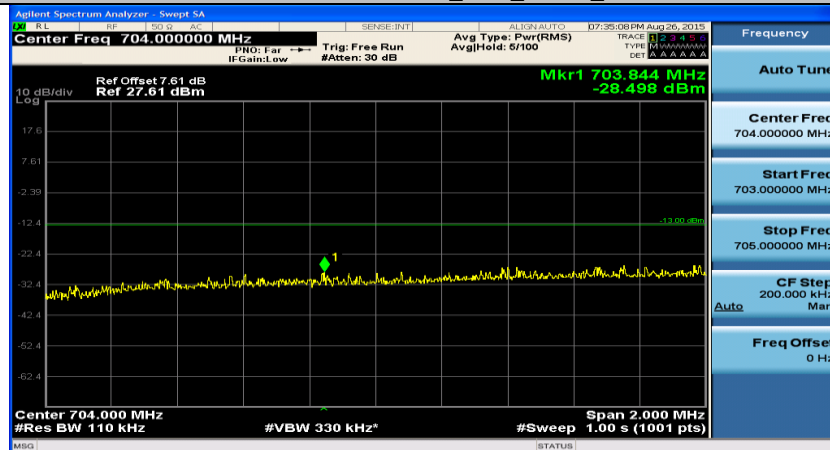
# Channel Bandwidth: 10 MHz\_LCH\_QPSK\_1RB#49



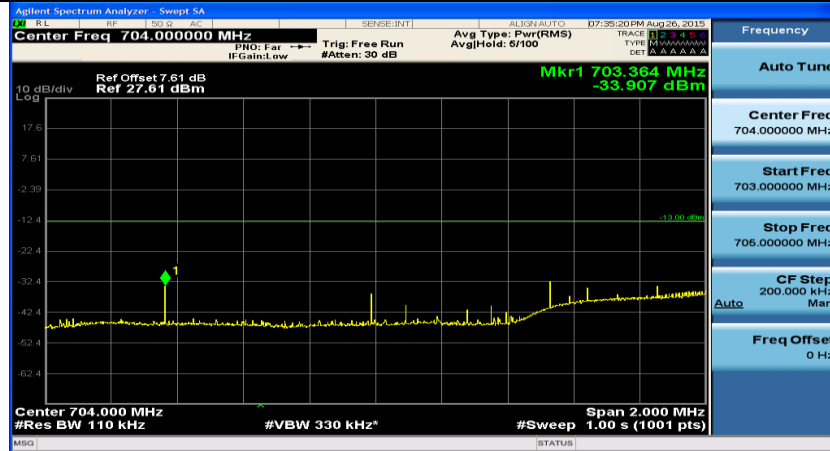
# Channel Bandwidth: 10 MHz\_LCH\_QPSK\_25RB#0



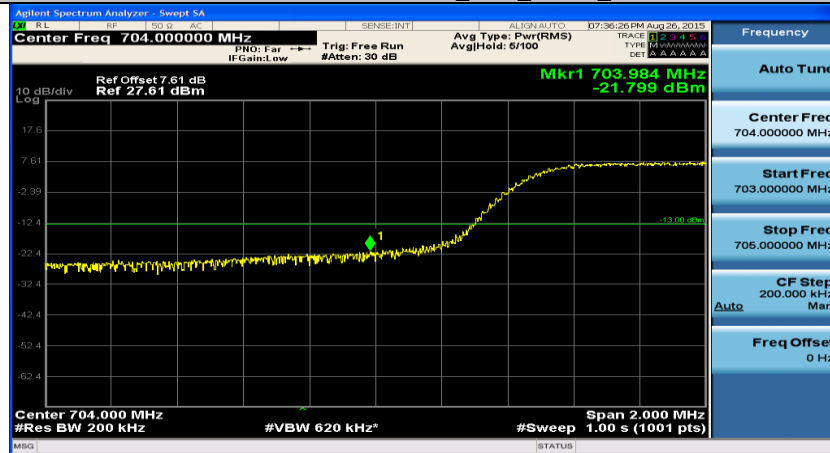
# Channel Bandwidth: 10 MHz\_LCH\_QPSK\_25RB#12



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



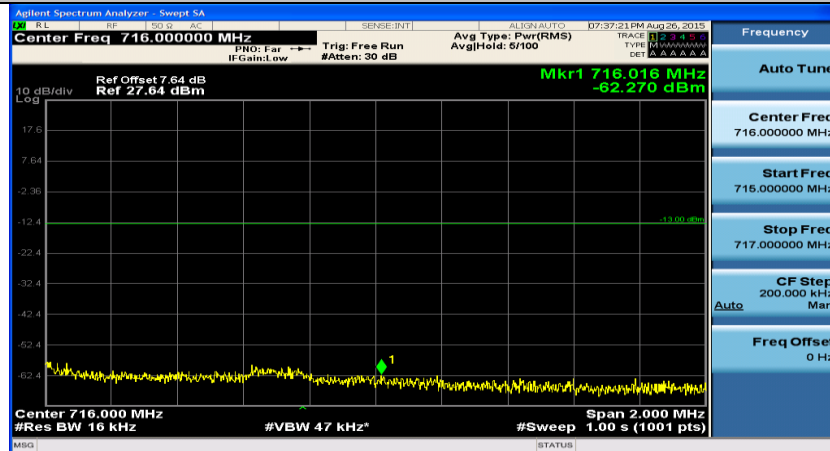
# Channel Bandwidth: 10 MHz\_LCH\_QPSK\_50RB#0



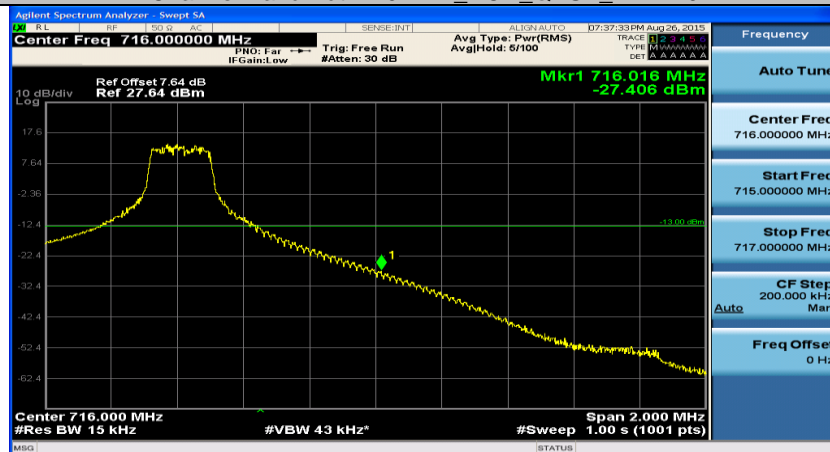
# Channel Bandwidth: 10 MHz\_HCH\_QPSK\_1RB#0



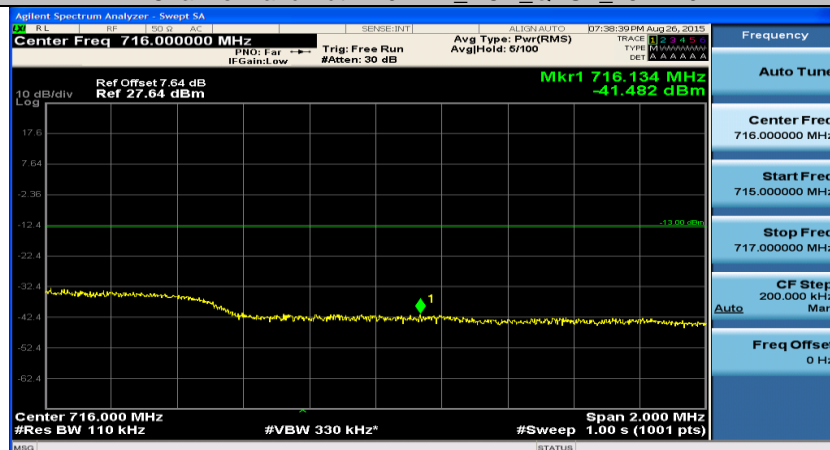
# Channel Bandwidth: 10 MHz\_HCH\_QPSK\_1RB#24



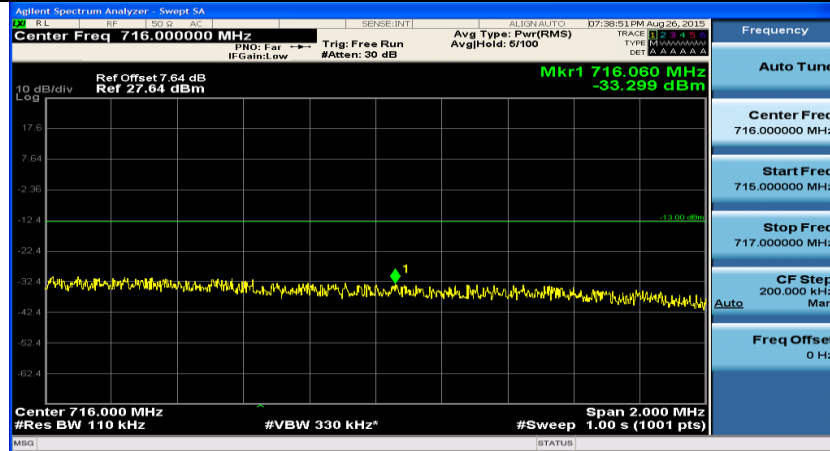
# Channel Bandwidth: 10 MHz\_HCH\_QPSK\_1RB#49



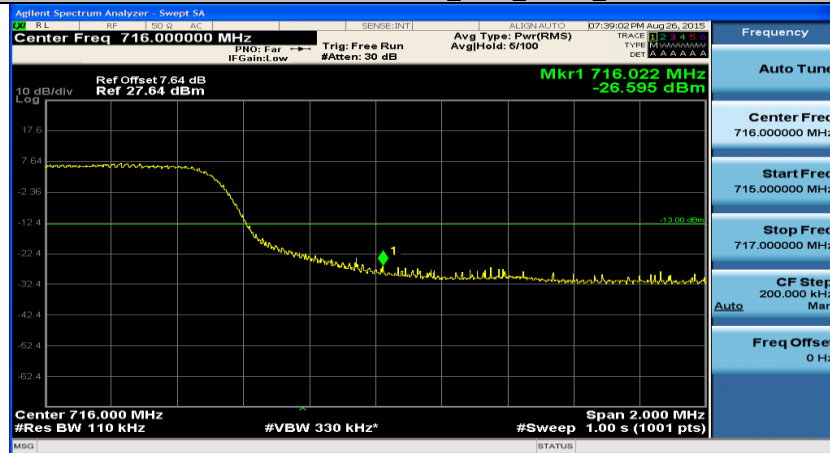
# Channel Bandwidth: 10 MHz\_HCH\_QPSK\_25RB#0



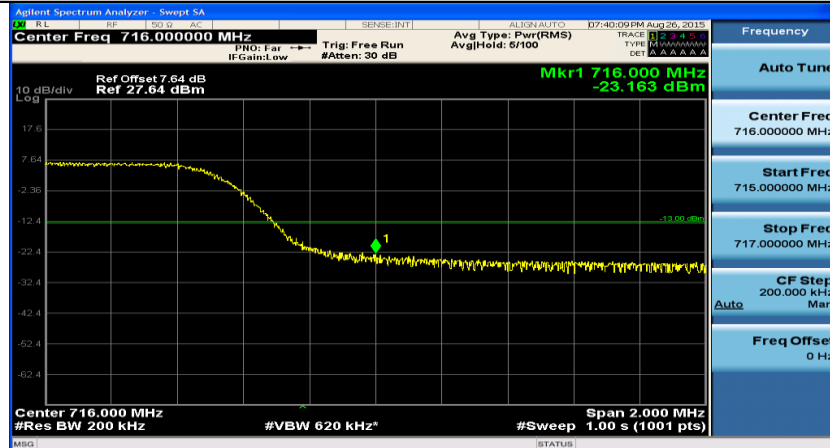
# Channel Bandwidth: 10 MHz\_HCH\_QPSK\_25RB#12



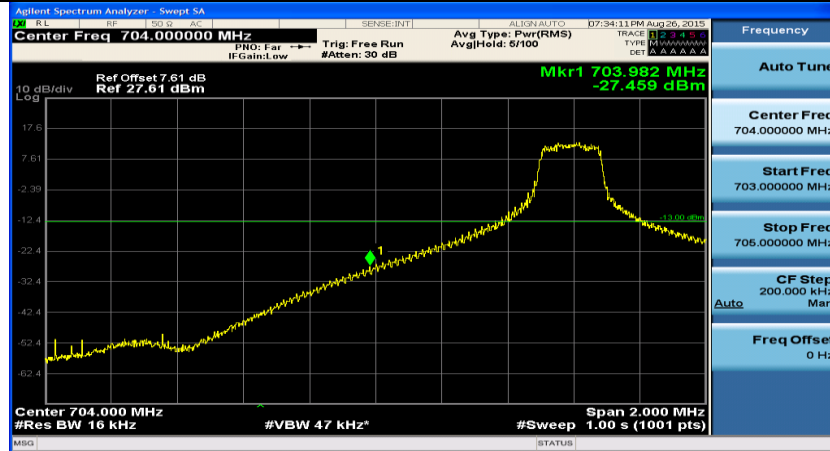
# Channel Bandwidth: 10 MHz\_HCH\_QPSK\_25RB#25



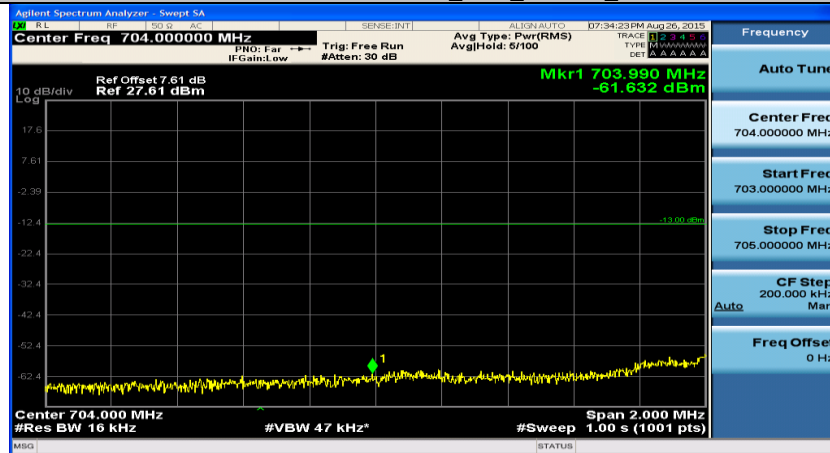
# Channel Bandwidth: 10 MHz\_HCH\_QPSK\_50RB#0



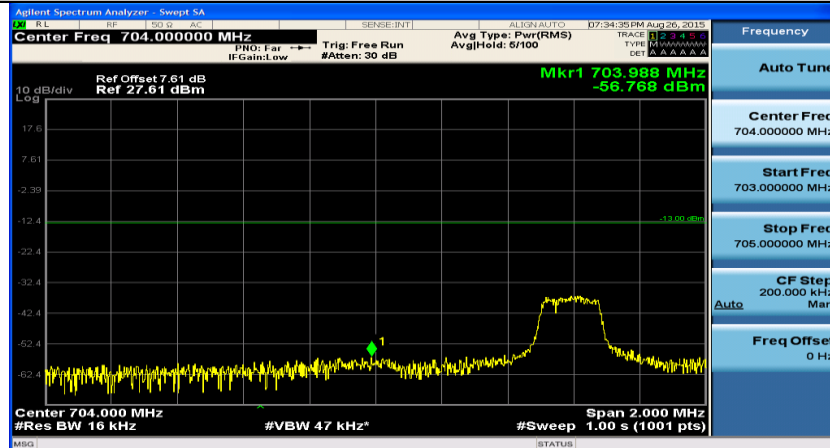
Channel Bandwidth: 10 MHz\_LCH\_16QAM\_1RB#0



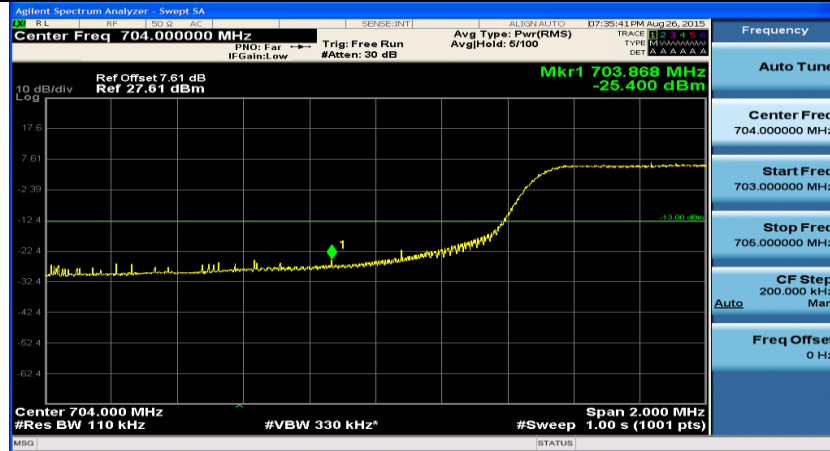
Channel Bandwidth: 10 MHz\_LCH\_16QAM\_1RB#24



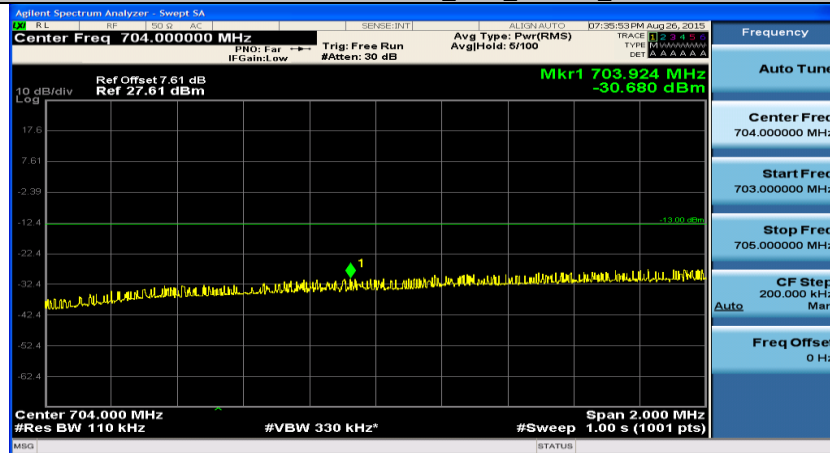
Channel Bandwidth: 10 MHz\_LCH\_16QAM\_1RB#49



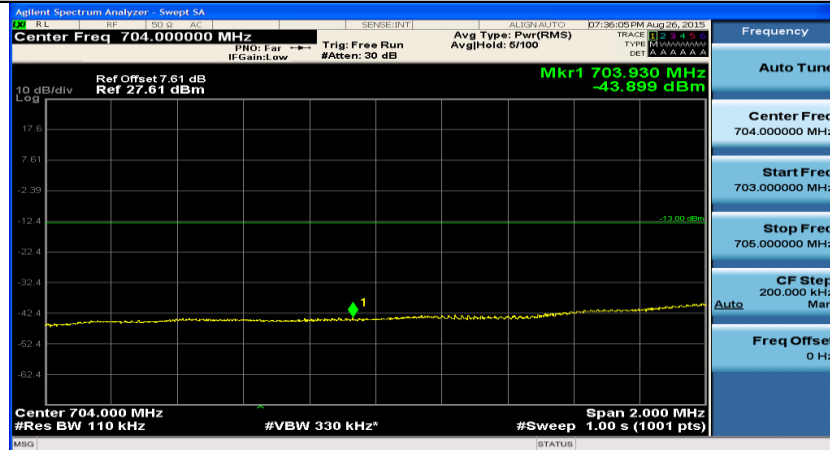
# Channel Bandwidth: 10 MHz\_LCH\_16QAM\_25RB#0



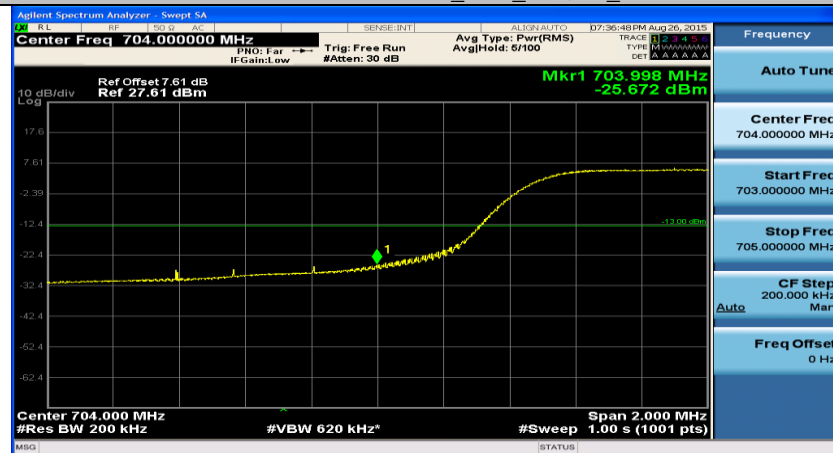
# Channel Bandwidth: 10 MHz\_LCH\_16QAM\_25RB#12



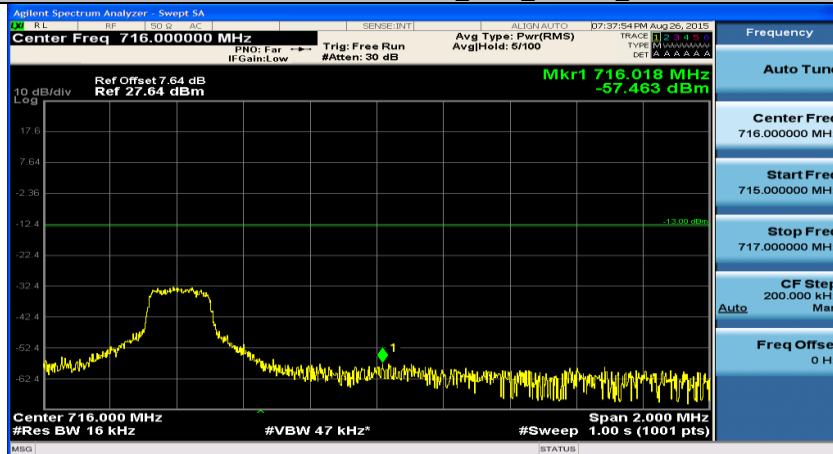
# Channel Bandwidth: 10 MHz\_LCH\_16QAM\_25RB#25



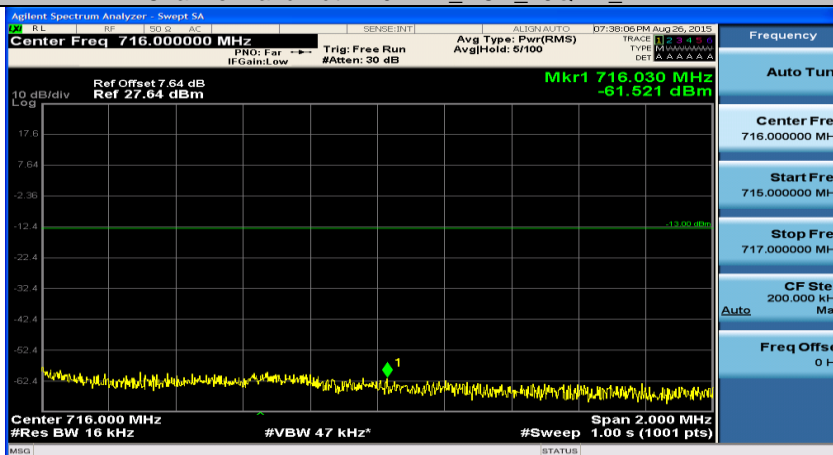
# Channel Bandwidth: 10 MHz\_LCH\_16QAM\_50RB#0



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

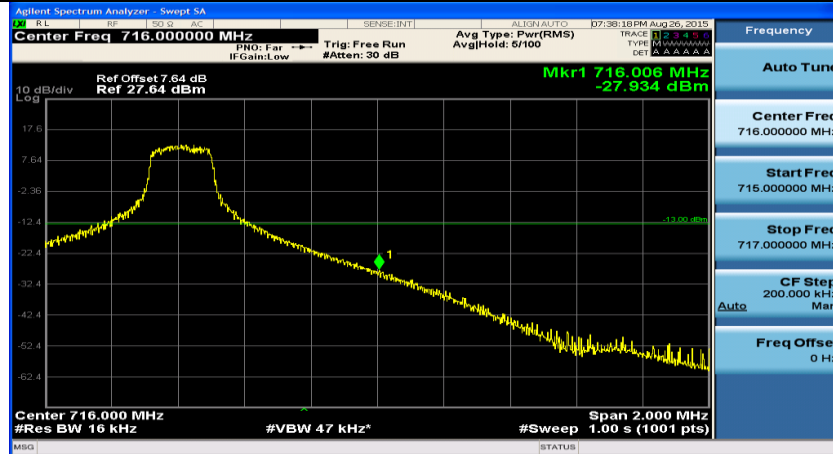


# Channel Bandwidth: 10 MHz\_HCH\_16QAM\_1RB#24

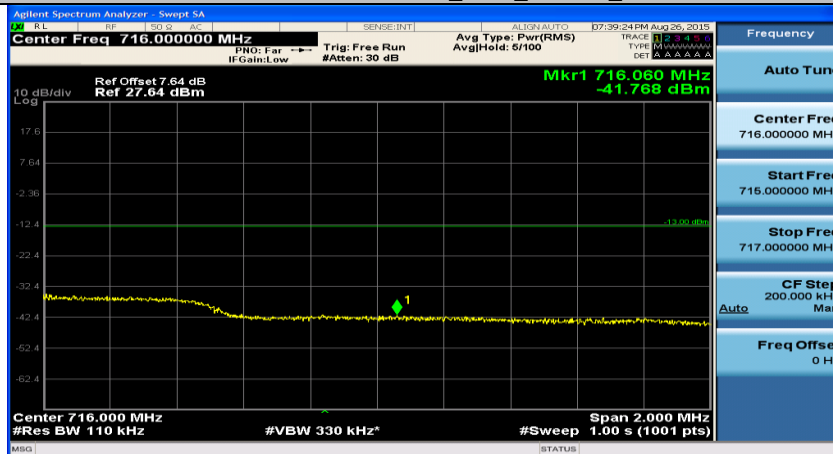




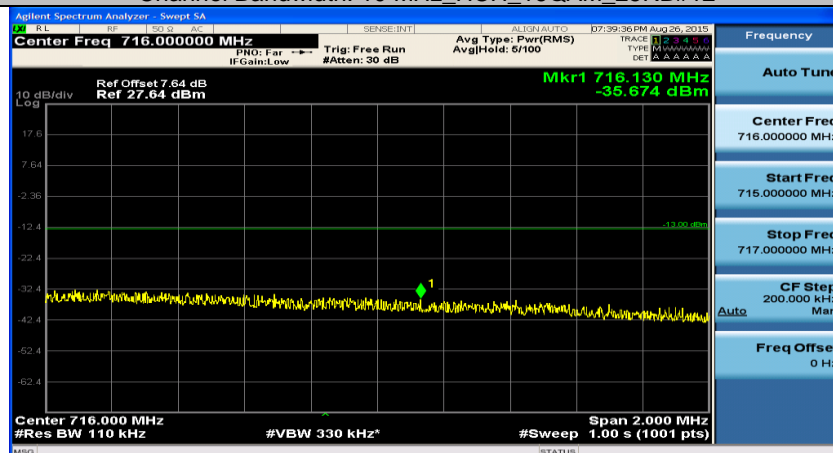
# Channel Bandwidth: 10 MHz\_HCH\_16QAM\_1RB#49



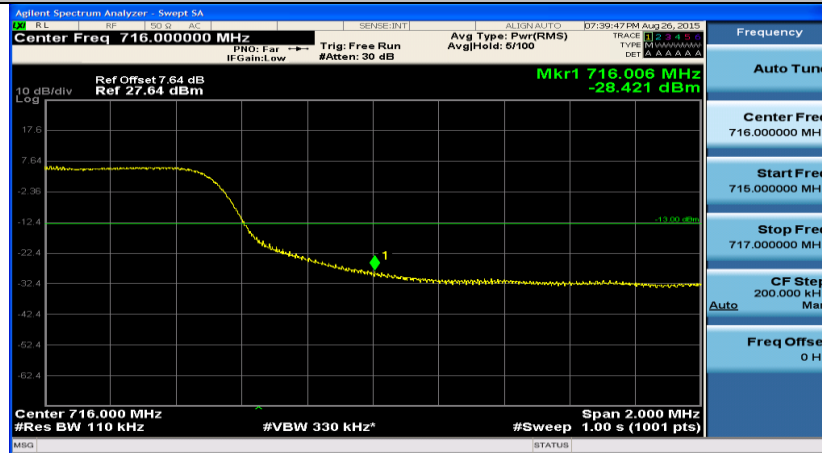
# Channel Bandwidth: 10 MHz\_HCH\_16QAM\_25RB#0



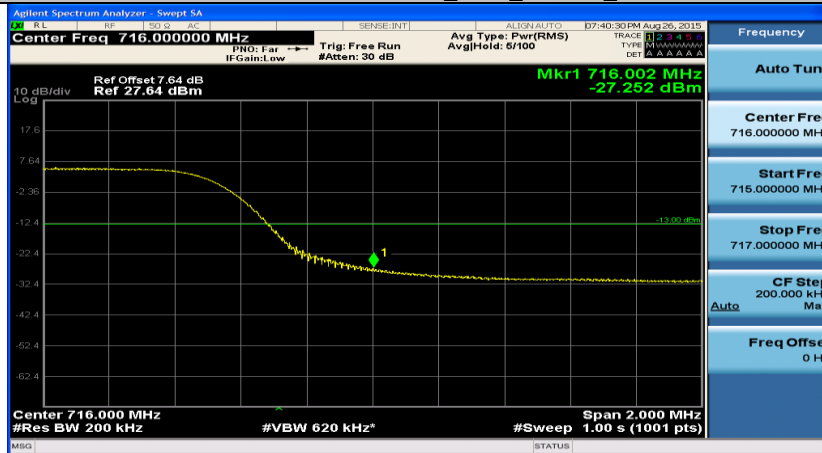
# Channel Bandwidth: 10 MHz\_HCH\_16QAM\_25RB#12



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



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



## 4.5. Spurious Emissions Radiated

### 4.5.1. Test Standard

FCC: CFR Part 2.1053, CFR Part 22.917, CFR Part 24.238, CFR Part 27

### 4.5.2. Test Limit

Measurements shall be made to detect spurious emissions that may be radiated directly from the cabinet, control circuits, power leads or intermediate circuit elements under normal conditions of installation and operation. Curves or equivalent data shall be supplied showing the magnitude of each harmonic and other spurious emission.

#### 5.5.3 Limits:

(a) Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB.

For all power levels +30dBm to 0dBm, this becomes a constant specification of -13dBm.

##### 5.5.3.1 FCC 22.917 Emission limitations for cellular equipment.

The rules in this section govern the spectral characteristics of emissions in the Cellular

Radiotelephone Service.

(b) Measurement procedure. Compliance with these provisions is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. In the 1MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 100 kHz of 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

##### 5.5.3.2 FCC 24.238 Emission limitations for Broadband PCS equipment.

The rules in this section govern the spectral characteristics of emissions in the Broadband Personal Communications Service.

(b) Measurement procedure. Compliance with these provisions is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 100 kHz of 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

§ 27.53 (h) For operations in the 1710–1755 MHz and 2110–2155 MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power

(P) by at least  $43 + 10 \log_{10}(P)$  dB.

The unwanted emission power shall be measured with a resolution bandwidth of at least 1% of the occupied bandwidth in the 1 MHz band immediately outside and adjacent to the channel edge of the equipment. Beyond the 1 MHz band immediately outside the channel edge of the equipment, a resolution bandwidth of 1 MHz shall be employed. A narrower resolution bandwidth is allowed to be used provided that the measured power is integrated over the full required measurement bandwidth of 1 MHz or 1% of the occupied bandwidth as applicable.

The power of any unwanted emissions measured from the channel edge of the equipment shall be attenuated below the transmitter power, P (dBW), as follows:

a. for base station and subscriber equipment, other than mobile subscriber equipment, the attenuation shall not be less than  $43 + 10 \log_{10}(p)$ , dB; and

b. for mobile subscriber equipment, the attenuation shall not be less than  $43 + 10 \log_{10}$

(p), dB at the channel edges and  $55 + 10 \log_{10}(p)$  at 5.5 MHz away and beyond the channel edges where p in (a) and (b) is the transmitter power measured in watts

#### 4.5.3. Test Procedure

1. Connect the equipment as shown in the above diagram with the EUT's antenna in a horizontal orientation.

2. Adjust the settings of the Universal Radio Communication Tester (CMU) to set the EUT to its maximum power at the required channel.

3. Set the spectrum analyzer to measure peak hold with the required settings.

4. Place the measurement antenna in a horizontal orientation. Rotate the EUT 360°.

Raise the measurement antenna at 1.5 meters increments and rotate the EUT 360° at maximize all emissions. Measure and record all spurious emissions (LVL) up to the tenth harmonic of the carrier frequency.

5. Replace the EUT with a horizontally polarized half wave dipole or known gain antenna. The center of the antenna should be at the same location as the center of the EUT's antenna.

6. Connect the antenna to a signal generator with known output power and record the path loss in dB (LOSS).  $LOSS = \text{Generator Output Power (dBm)} - \text{Analyzer reading (dBm)}$ .

7. Determine the level of spurious emissions using the following equation:  
 $\text{Spurious (dBm)} = \text{LVL (dBm)} + \text{LOSS (dB)}$ :

8. Repeat steps 4, 5 and 6 with all antennas vertically polarized.

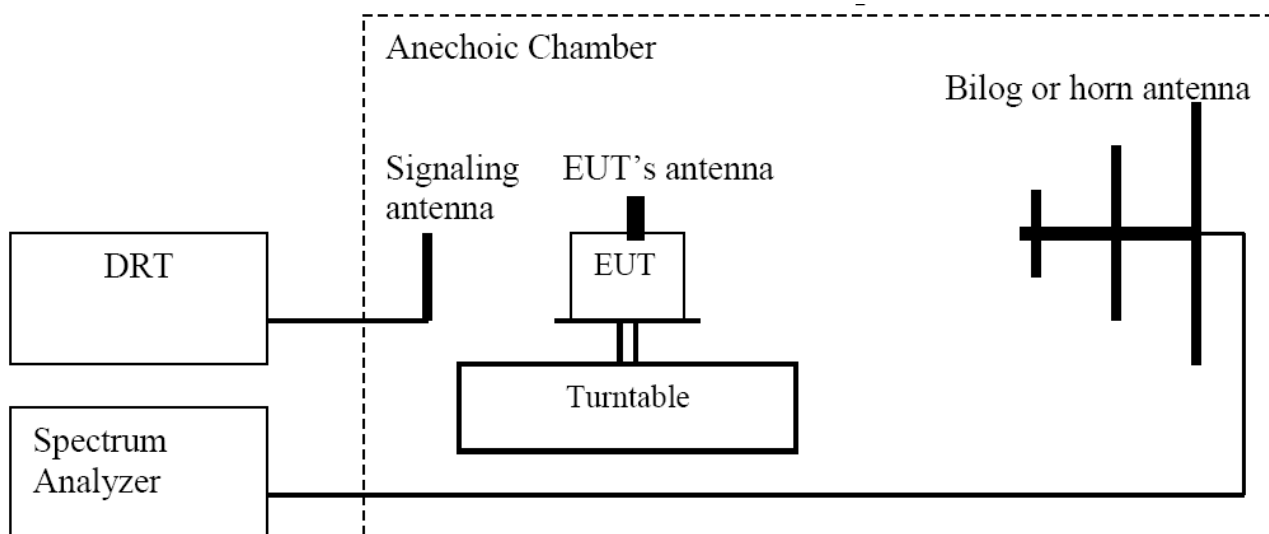
9. Determine the level of spurious emissions using the following equation:  
 $\text{Spurious (dBm)} = \text{LVL (dBm)} + \text{LOSS (dB)}$ :

10. Measurements are to be performed with the EUT set to the low, middle and high channel of each frequency band.

(Note: Steps 5 and 6 above are performed prior to testing and LOSS is recorded by test software. Steps 3, 4 and 7 above are performed with test software.)

Spectrum analyzer settings: RBW=VBW=1MHz

#### 4.5.4. Test Setup



#### 4.5.5.Test Data

Test Band = GSM850  
 Test Mode = GSM /TM1  
 Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBd]	dB	Level (ERP) [dBm]		[dBm]
1648.4	-4.67	0.9	6.77	40.6	-39.4	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits  
 Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = GSM850  
 Test Mode = GSM /TM1  
 Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBd]	dB	Level (ERP) [dBm]		[dBm]
1673.2	-5.7	0.9	6.77	40.6	-40.43	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits  
 Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = GSM850  
 Test Mode = GSM /TM1  
 Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBd]	dB	Level (ERP) [dBm]		[dBm]
1697.6	-4.01	0.9	6.77	40.6	-38.74	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits  
 Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = GSM850  
Test Mode = EDGE /TM2  
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBd]	dB	Level (ERP) [dBm]		[dBm]
1648.4	-9.01	0.9	6.77	40.6	-43.74	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = GSM850  
Test Mode = EDGE /TM2  
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBd]	dB	Level (ERP) [dBm]		[dBm]
1673.2	-8.23	0.9	6.77	40.6	-42.96	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = GSM850  
Test Mode = EDGE /TM2  
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBd]	dB	Level (ERP) [dBm]		[dBm]
1697.6	-8.03	0.9	6.77	40.6	-42.76	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = WCDMA850  
Test Mode = UMTS/TM3  
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBd]	dB	Level (ERP) [dBm]		[dBm]
1652.8	-10.7	0.9	6.77	40.6	-45.43	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = WCDMA850  
Test Mode = UMTS/TM3  
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBd]	dB	Level (ERP) [dBm]		[dBm]
1672.8	-11.3	0.9	6.77	40.6	-46.03	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = WCDMA850  
Test Mode = UMTS/TM3  
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBd]	dB	Level (ERP) [dBm]		[dBm]
1693.2	-10.43	0.9	6.77	40.6	-45.16	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report



Test Band = GSM1900  
Test Mode = GSM /TM1  
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3700.4	-7.56	4.6	9.53	39	-41.63	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = GSM1900  
Test Mode = GSM /TM1  
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3760	-12.24	4.6	9.53	39	-46.31	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = GSM1900  
Test Mode = GSM /TM1  
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3819.6	-13.01	4.6	9.53	39	-47.08	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = GSM1900  
Test Mode = EDGE /TM2  
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3700.4	-8.66	4.6	9.53	39	-42.73	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = GSM1900  
Test Mode = EDGE /TM2  
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3760	-10.54	4.6	9.53	39	-44.61	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = GSM1900  
Test Mode = EDGE /TM2  
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3819.6	-7.46	4.6	9.53	39	-41.53	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = WCDMA1900  
Test Mode = UMTS /TM3  
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3705	-10.32	4.6	9.53	39	-44.39	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = WCDMA1900  
Test Mode = UMTS /TM3  
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3760	-9.89	4.6	9.53	39	-43.96	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = WCDMA1900  
Test Mode = UMTS /TM3  
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3815.2	-10.91	4.6	9.53	39	-44.98	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4  
Test Mode = QPSK /TM4  
Bandwidth=1.4MHz  
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3421.4	-9.53	4.1	9.41	39	-43.22	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4  
Test Mode = QPSK /TM4  
Bandwidth=1.4MHz  
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3465	-6.3	4.1	9.41	39	-39.99	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4  
Test Mode = QPSK /TM4  
Bandwidth=1.4MHz  
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3508.6	-10.58	4.1	9.41	39	-44.27	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4  
Test Mode = 16QAM /TM5  
Bandwidth=1.4MHz  
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3421.4	-10.2	4.1	9.41	39	-43.89	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4  
Test Mode = 16QAM /TM5  
Bandwidth=1.4MHz  
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3465	-12.46	4.1	9.41	39	-46.15	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4  
Test Mode = Q16QAM /TM5  
Bandwidth=1.4MHz  
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3508.6	-12.17	4.1	9.41	39	-45.86	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4  
Test Mode = QPSK /TM4  
Bandwidth=3MHz  
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3423	-7.86	4.1	9.41	39	-41.55	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4  
Test Mode = QPSK /TM4  
Bandwidth=3MHz  
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3465	-11.37	4.1	9.41	39	-45.06	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4  
Test Mode = QPSK /TM4  
Bandwidth=3MHz  
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3507	-7.56	4.1	9.41	39	-41.25	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4  
Test Mode = 16QAM /TM5  
Bandwidth=3MHz  
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3423	-9.08	4.1	9.41	39	-42.77	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4  
Test Mode = 16QAM /TM5  
Bandwidth=3MHz  
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3465	-11.04	4.1	9.41	39	-44.73	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4  
Test Mode = Q16QAM /TM5  
Bandwidth=3MHz  
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3507	-12.03	4.1	9.41	39	-45.72	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4  
Test Mode = QPSK /TM4  
Bandwidth=5MHz  
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3425	-12.24	4.1	9.41	39	-45.93	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4  
Test Mode = QPSK /TM4  
Bandwidth=5MHz  
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3465	-7.11	4.1	9.41	39	-40.8	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4  
Test Mode = QPSK /TM4  
Bandwidth=5MHz  
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3505	-10.21	4.1	9.41	39	-43.9	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report



Test Band = LTE Band 4  
Test Mode = 16QAM /TM5  
Bandwidth=5MHz  
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3425	-9.17	4.1	9.41	39	-42.86	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4  
Test Mode = 16QAM /TM5  
Bandwidth=5MHz  
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3465	-11.04	4.1	9.41	39	-44.73	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4  
Test Mode = Q16QAM /TM5  
Bandwidth=5MHz  
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3505	-10.02	4.1	9.41	39	-43.71	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4  
Test Mode = QPSK /TM4  
Bandwidth=10MHz  
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3430	-4.94	4.1	9.41	39	-38.63	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4  
Test Mode = QPSK /TM4  
Bandwidth=10MHz  
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3465	-9.18	4.1	9.41	39	-42.87	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4  
Test Mode = QPSK /TM4  
Bandwidth=10MHz  
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3500	-7.18	4.1	9.41	39	-40.87	Vertical	-13

The emissions don' t show in above result tables are more than 20dB below the limits  
Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report