

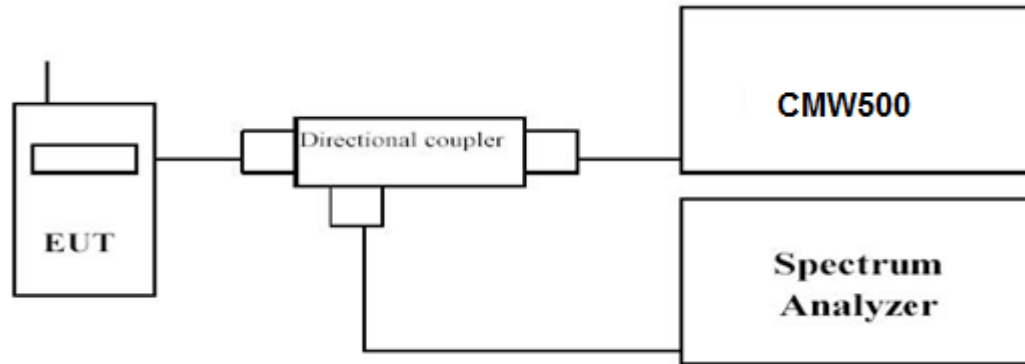


#### 4.4 Band Edge compliance

##### LIMIT

Per FCC §24.238 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.

##### TEST CONFIGURATION



##### TEST PROCEDURE

1. The transmitter output port was connected to base station.
2. The RF output of EUT was connected to the power meter by RF cable and attenuator, the path loss was compensated to the results for each measurement.
3. Set EUT at maximum power through base station.
4. Select lowest and highest channels for each band and different modulation.
5. Measure Band edge using RMS (Average) detector by spectrum

##### TEST RESULTS

Remark:

1. We were tested all RB Configuration refer 3GPP TS136 521 for each Channel Bandwidth of LTE FDD Band 5; recorded worst case for each Channel Bandwidth of LTE FDD Band 5.

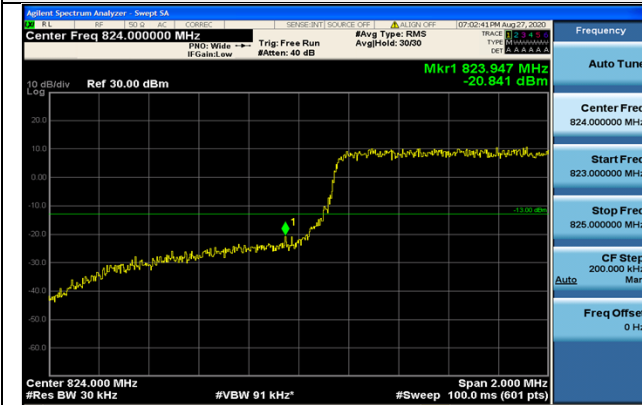


LTE FDD Band 5– 1.4 MHz Channel BandwidthBand Edge Compliance

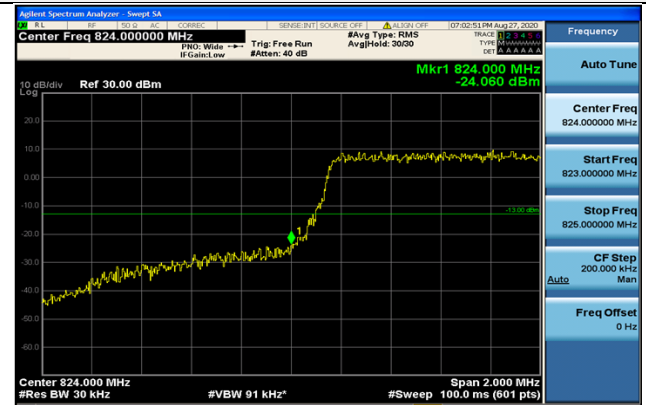
QPSK

16QAM

Low Channel



6RB#0



6RB#0

High Channel



6RB#0



6RB#0

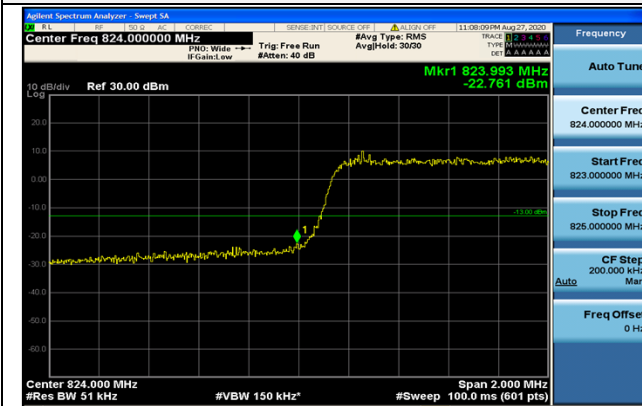


LTE FDD Band 5–3MHz Channel BandwidthBand Edge Compliance

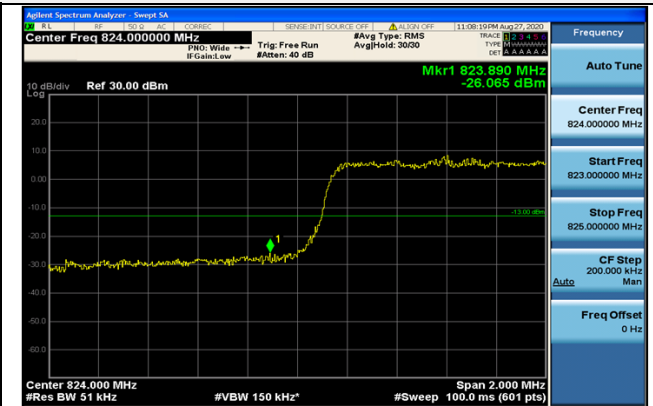
QPSK

16QAM

Low Channel

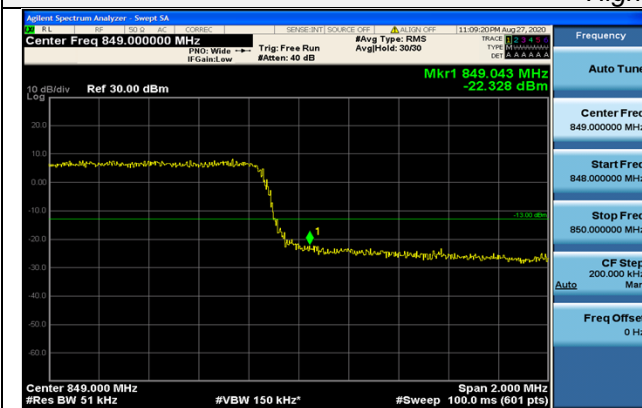


15RB#0

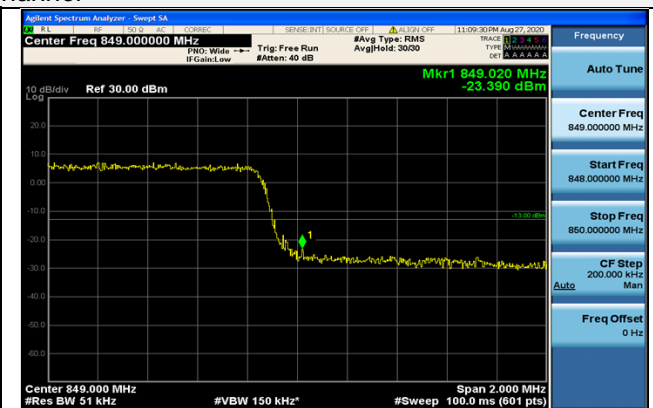


15RB#0

High Channel



15RB#0



15RB#0



LTE FDD Band 5–5MHz Channel BandwidthBand Edge Compliance

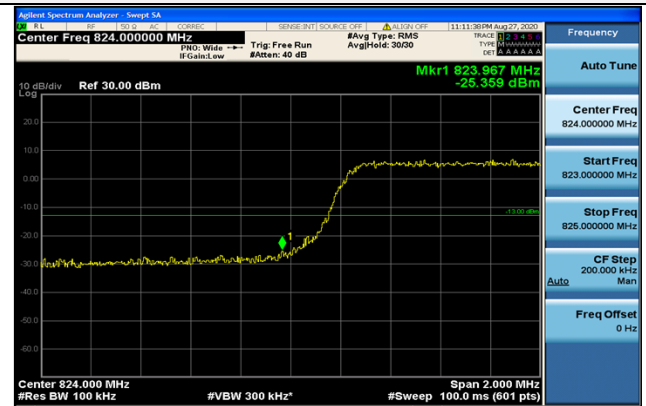
QPSK

16QAM

Low Channel

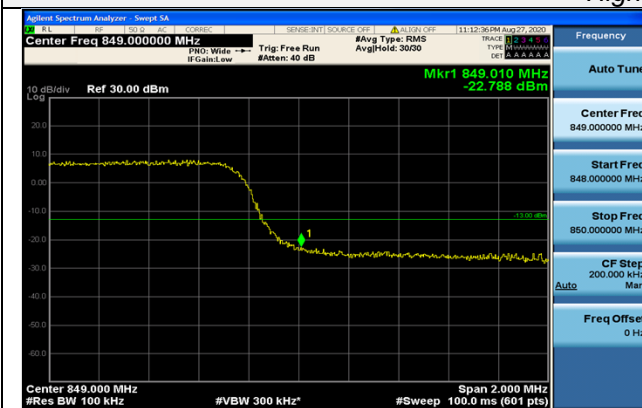


25RB#0



25RB#0

High Channel



25RB#0



25RB#0



LTE FDD Band 5– 10 MHz Channel BandwidthBand Edge Compliance

QPSK

16QAM

Low Channel

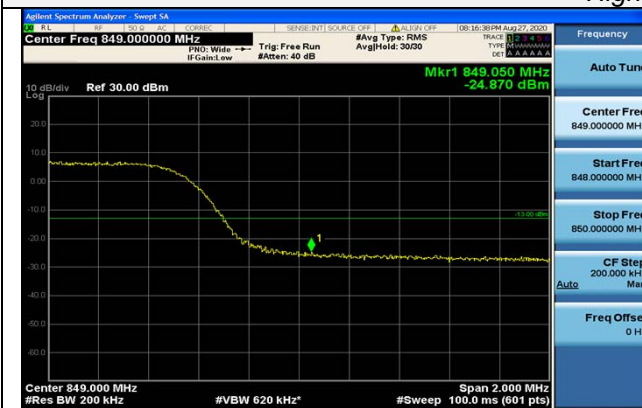


50RB#0



50RB#0

High Channel



50RB#0



50RB#0

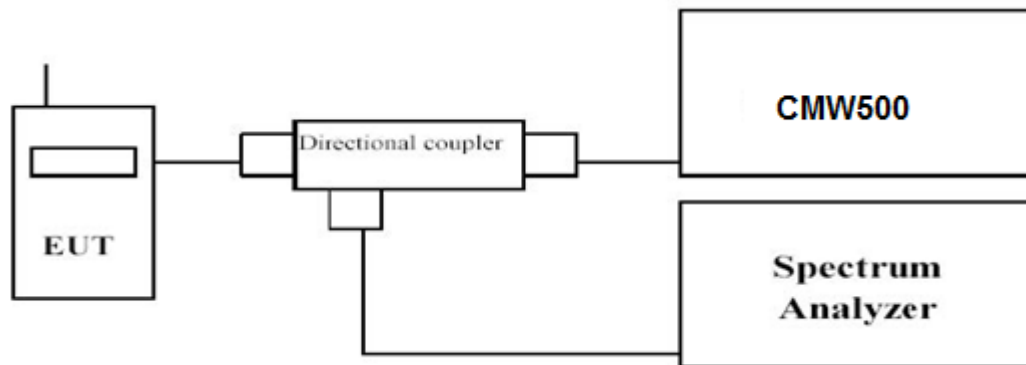


## 4.5 Spurious Emission on Antenna Port

### LIMIT

Per FCC §24.238, 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.

### TEST CONFIGURATION



### TEST PROCEDURE

The EUT was setup according to EIA/TIA 603D

- Place the EUT on a bench and set it in transmitting mode.
- Connect a low loss RF cable from the antenna port to a spectrum analyzer and CMW500 by a Directional Coupler.
- EUT Communicate with CMW500, then select a channel for testing.
- Add a correction factor to the display of spectrum, and then test.
- The resolution bandwidth of the spectrum analyzer was set sufficient scans were taken to show the out of band Emission if any up to  $10^{\text{th}}$  harmonic.
- Please refer to following tables for test antenna conducted emissions.

Working Frequency	Sub range (GHz)	RBW	VBW	Sweep time (s)
LTE FDD Band 5	0.01~20	1 MHz	3 MHz	Auto

### TEST RESULTS

Remark:

- We were tested all RB Configuration refer 3GPP TS136 521 for each Channel Bandwidth of LTE FDD Band 5; recorded worst case at the QPSK Mode for each Channel Bandwidth of LTE FDD Band 5

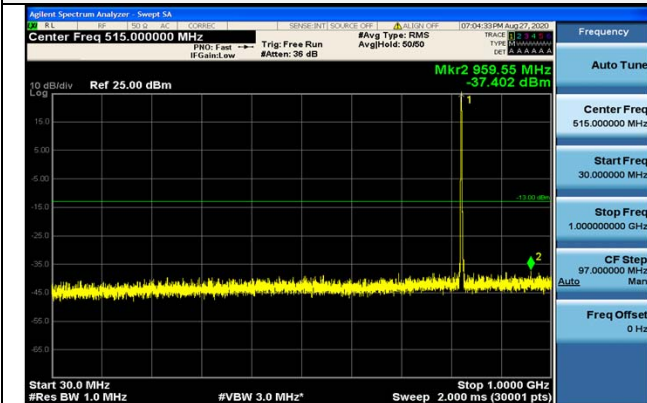




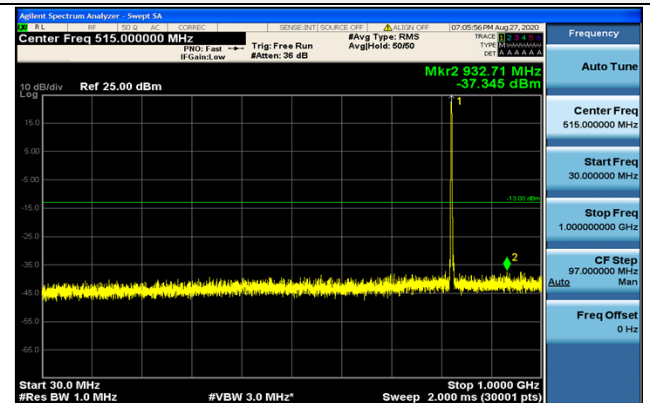
## LTE FDD Band 5-1.4MHz Channel Bandwidth

## Low Channel

## QPSK



## 16QAM



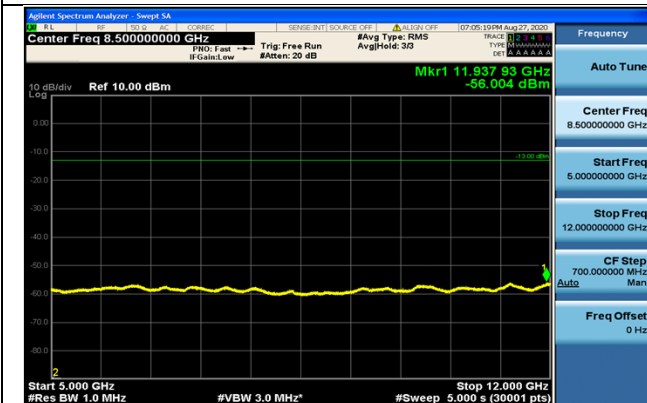
## 30MHz~1GHz



## 30MHz~1GHz



## 1GHz ~5GHz



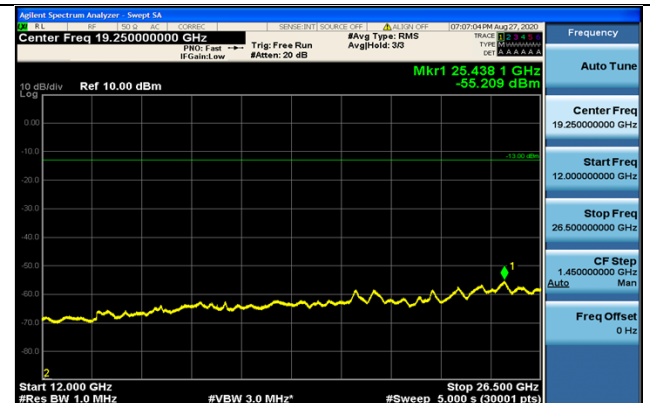
## 1GHz ~5GHz



## 5GHz ~12GHz



## 5GHz ~12GHz



## 12GHz ~26.5GHz

## 1RB#0

## 12GHz ~26.5GHz

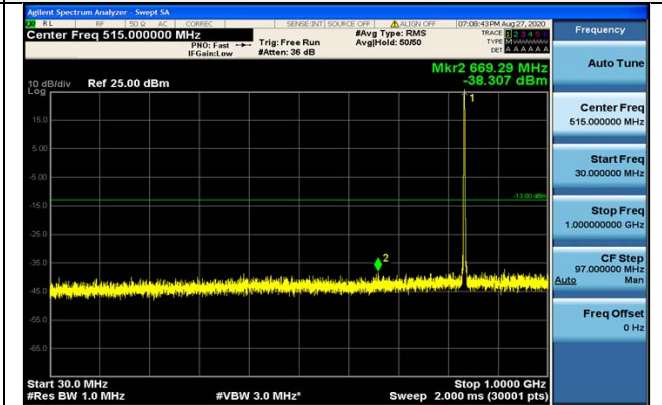
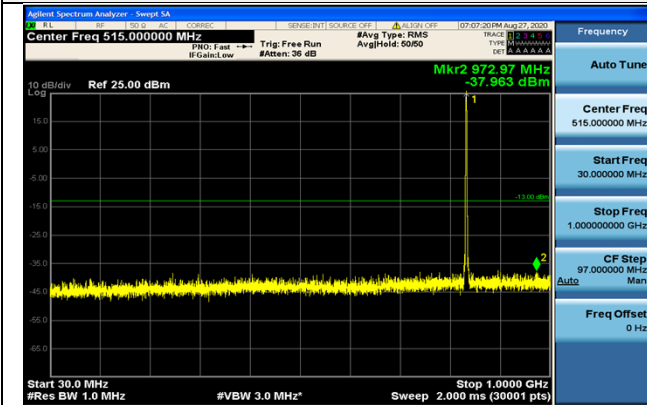
## 1RB#0



LTE FDD Band 5-1.4MHz Channel Bandwidth  
Middle Channel

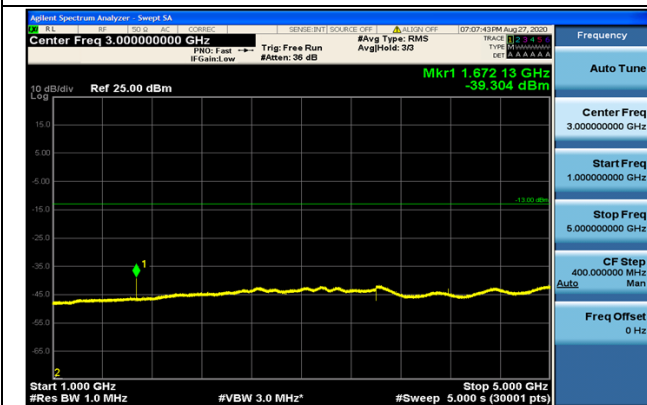
QPSK

16QAM



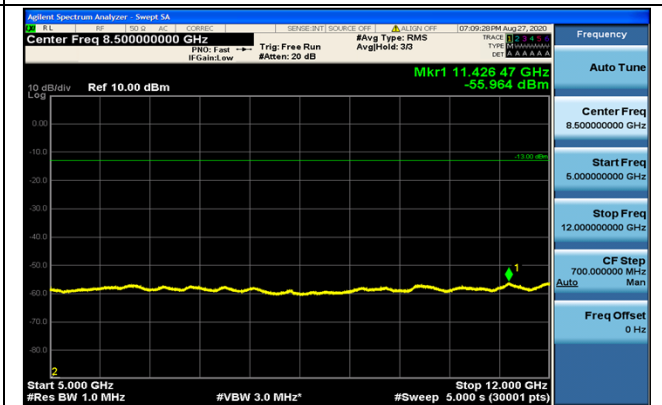
30MHz~1GHz

30MHz~1GHz



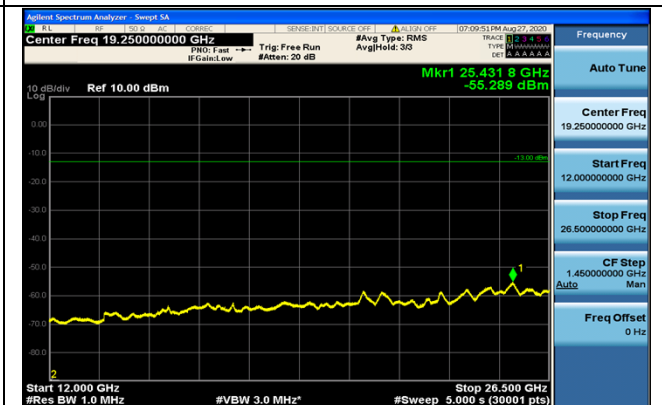
1GHz ~5GHz

1GHz ~5GHz



5GHz ~12GHz

5GHz ~12GHz



12GHz ~26.5GHz

12GHz ~26.5GHz

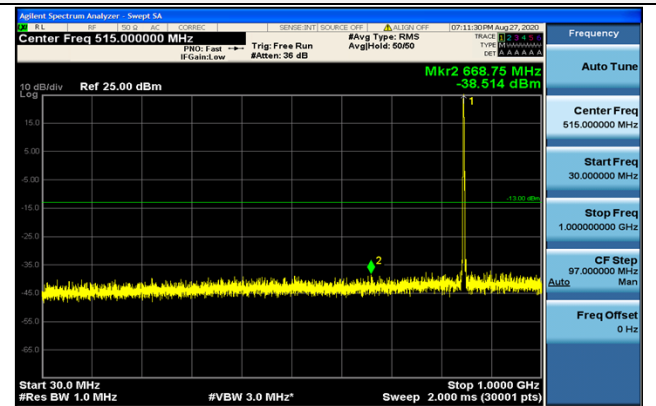
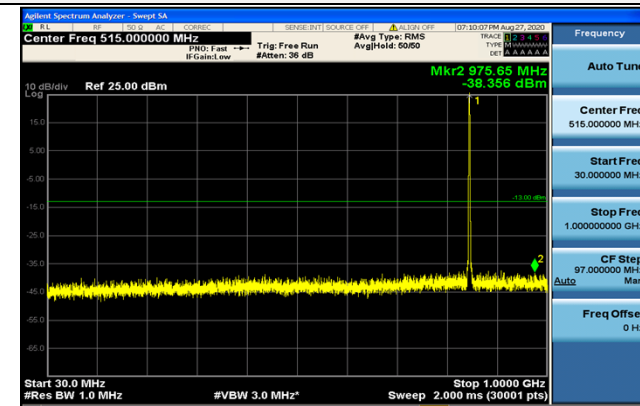
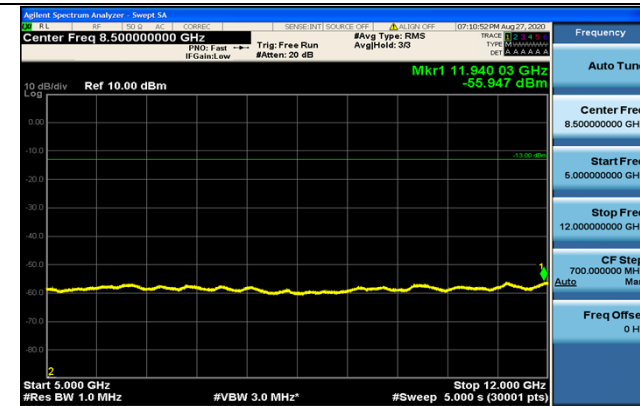
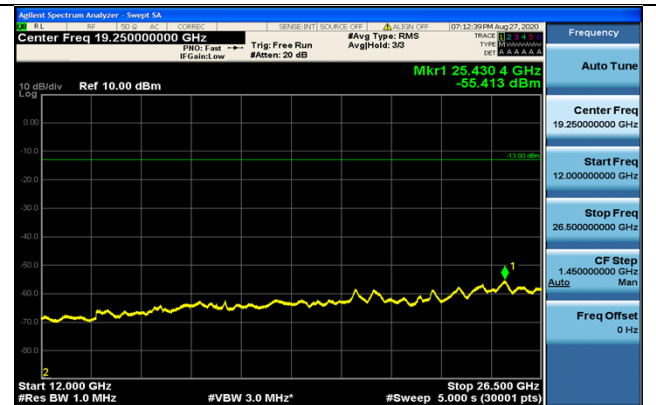
1RB#0

1RB#0



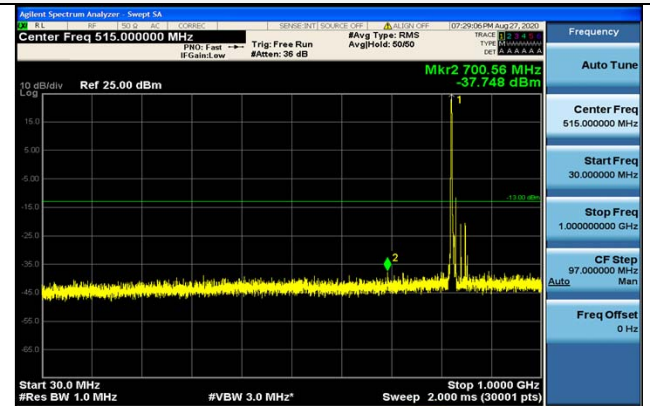
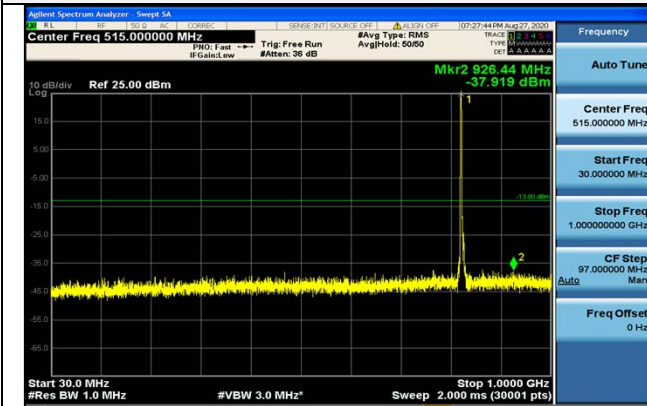
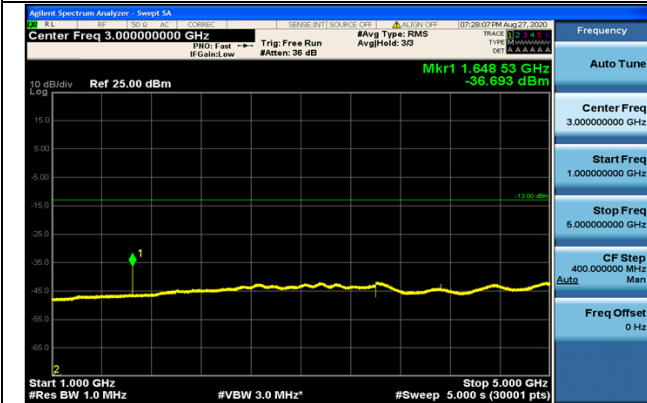


**LTE FDD Band 5-1.4MHz Channel Bandwidth**  
**High Channel**

**QPSK****16QAM****30MHz~1GHz****30MHz~1GHz****1GHz ~5GHz****1GHz ~5GHz****5GHz ~12GHz****5GHz ~12GHz****12GHz ~26.5GHz****12GHz ~26.5GHz****1RB#0****1RB#0**

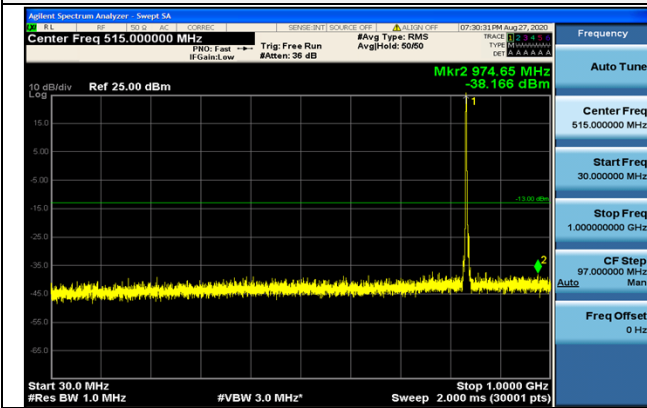
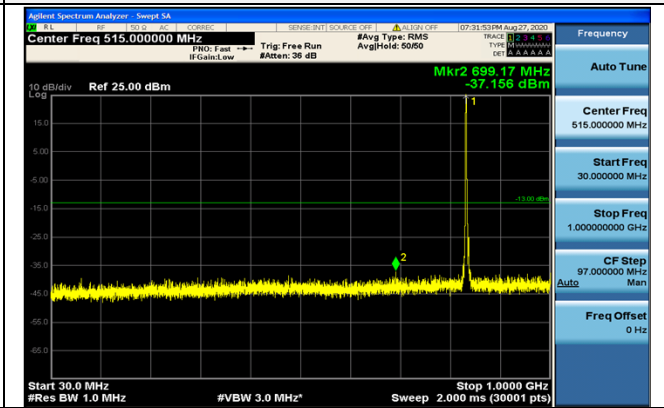
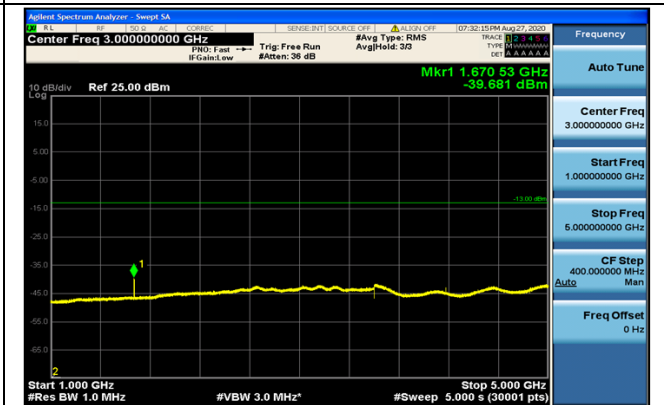
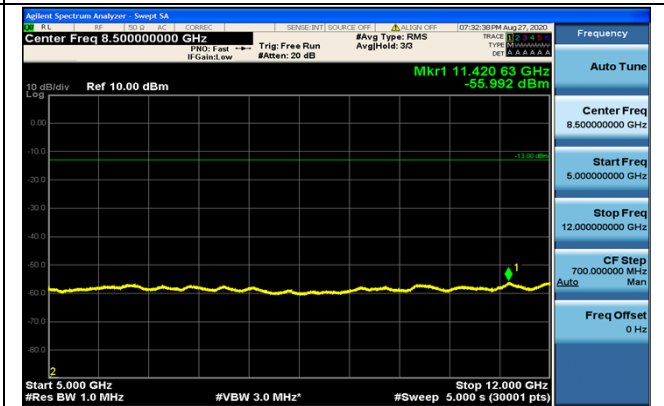
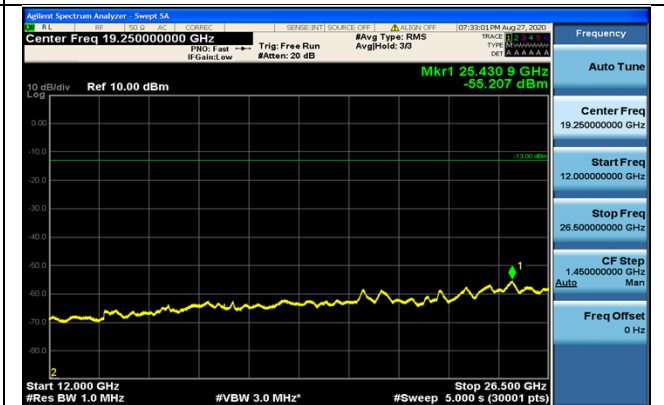


**LTE FDD Band 5-3MHz Channel Bandwidth**  
**Low Channel**

**QPSK****16QAM****30MHz~1GHz****30MHz~1GHz****1GHz ~5GHz****1GHz ~5GHz****5GHz ~12GHz****5GHz ~12GHz****12GHz ~26.5GHz****12GHz ~26.5GHz****1RB#0****1RB#0**



**LTE FDD Band 5-3MHz Channel Bandwidth  
Middle Channel**

**QPSK****16QAM****30MHz~1GHz****30MHz~1GHz****1GHz ~5GHz****1GHz ~5GHz****5GHz ~12GHz****5GHz ~12GHz****12GHz ~26.5GHz****1RB#0****12GHz ~26.5GHz****1RB#0**