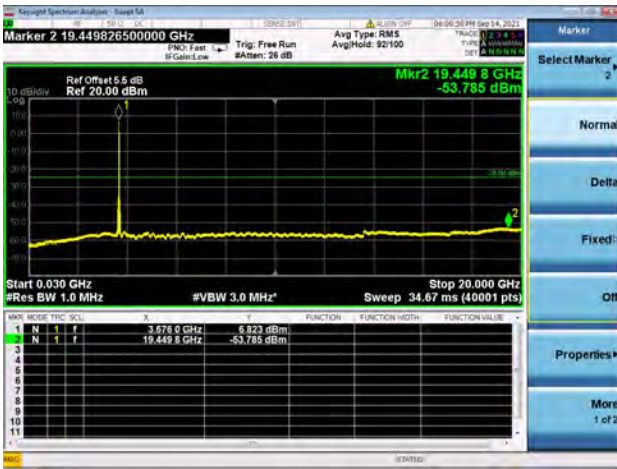
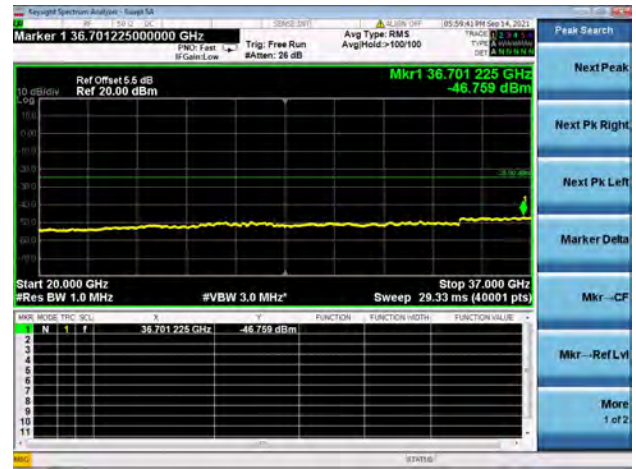




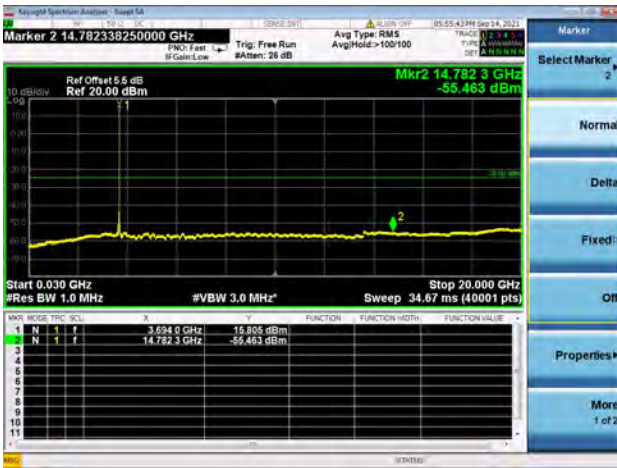
High CH/QPSK/1RB0 and 1RB24



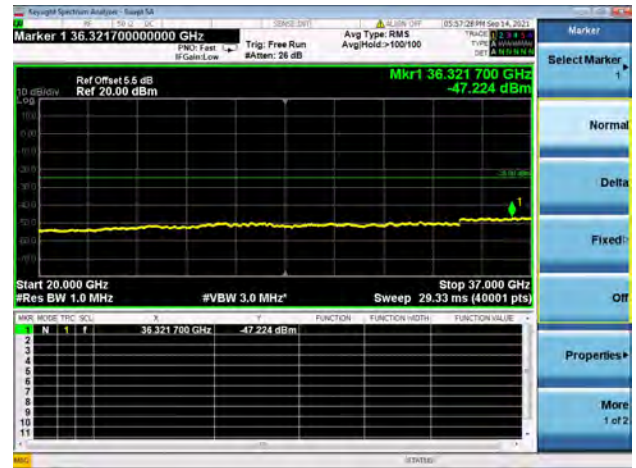
High CH/QPSK/1RB0 and 1RB24



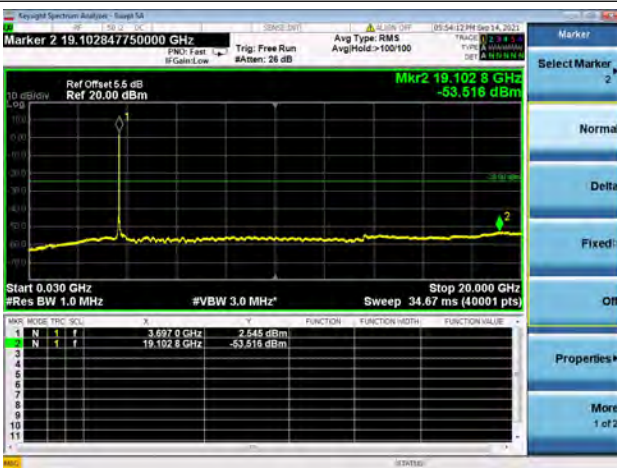
High CH/QPSK/1RB99 and 1RB0



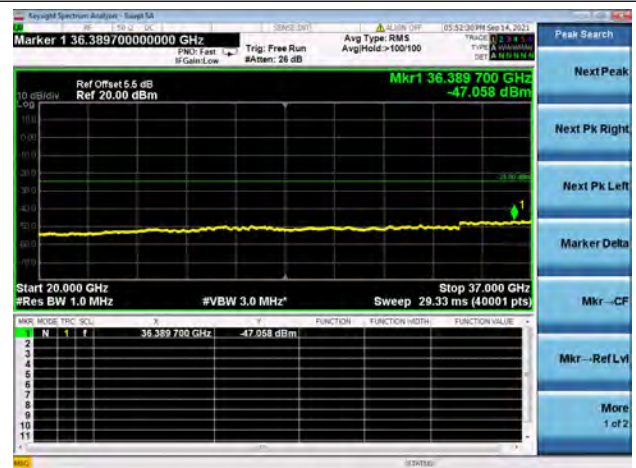
High CH/QPSK/1RB99 and 1RB0



High CH/QPSK/FULL RB



High CH/QPSK/FULL RB



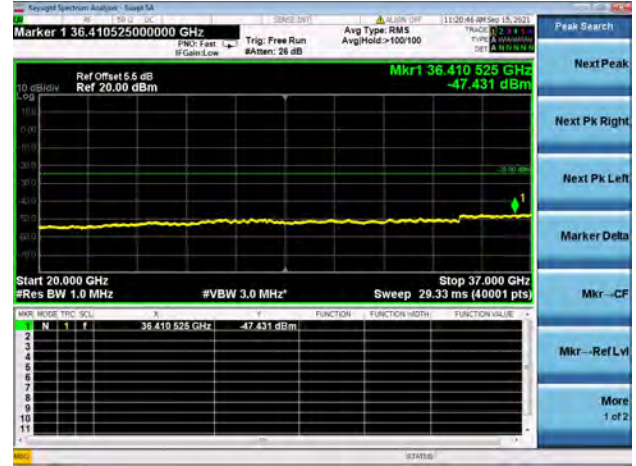
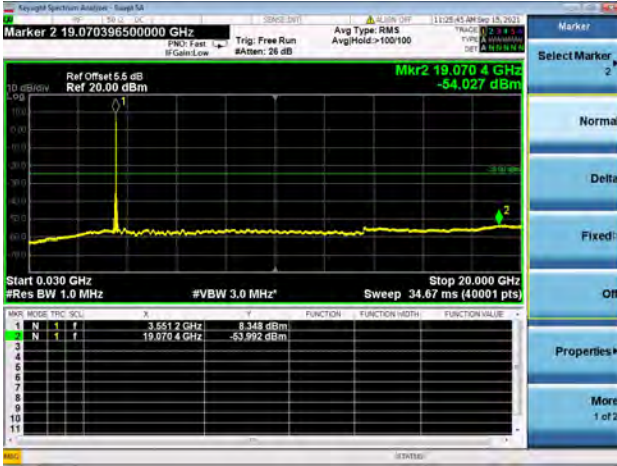


LTE Band 48C CSE

Channel Bandwidth: 20MHz+10MHz

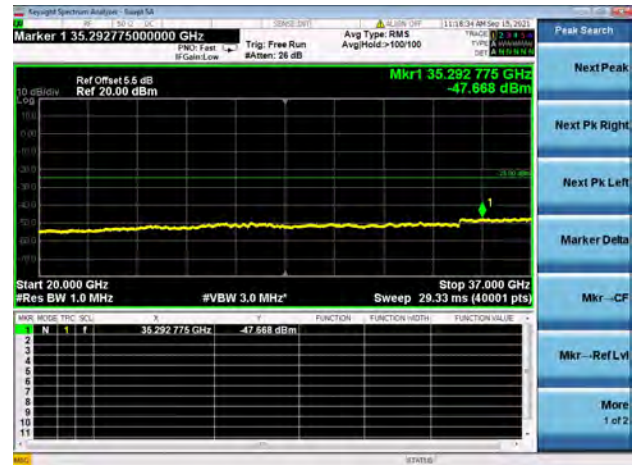
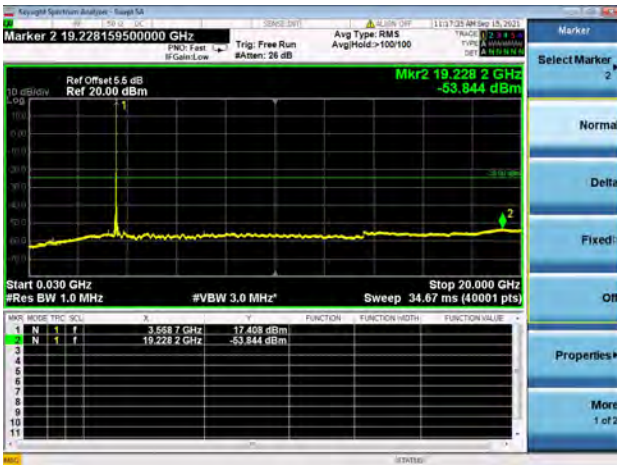
LOW CH/QPSK/1RB0 and 1RB49

LOW CH/QPSK/1RB0 and 1RB49



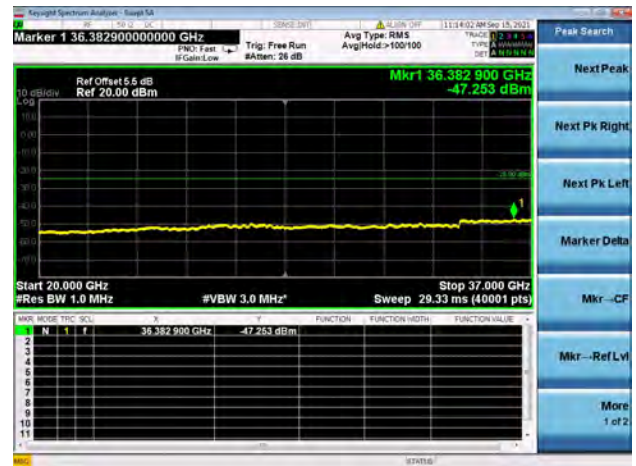
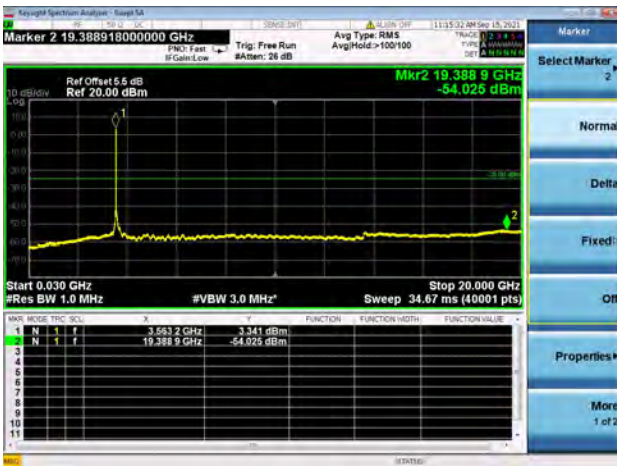
LOW CH/QPSK/1RB99 and 1RB0

LOW CH/QPSK/1RB99 and 1RB0



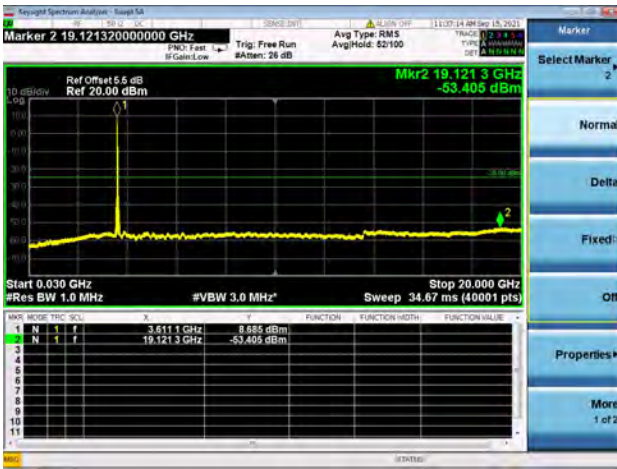
LOW CH/QPSK/FULL RB

LOW CH/QPSK/FULL RB

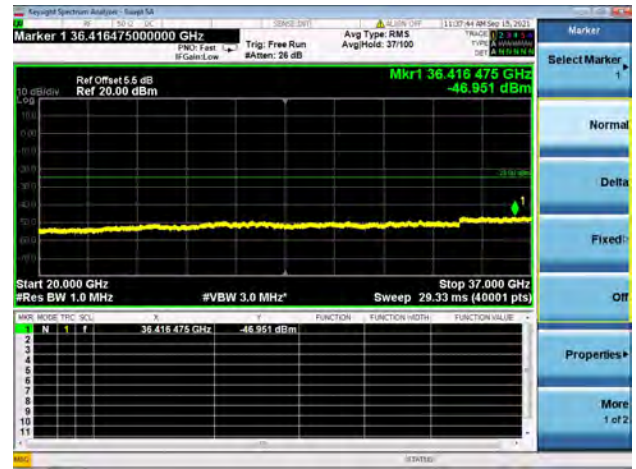




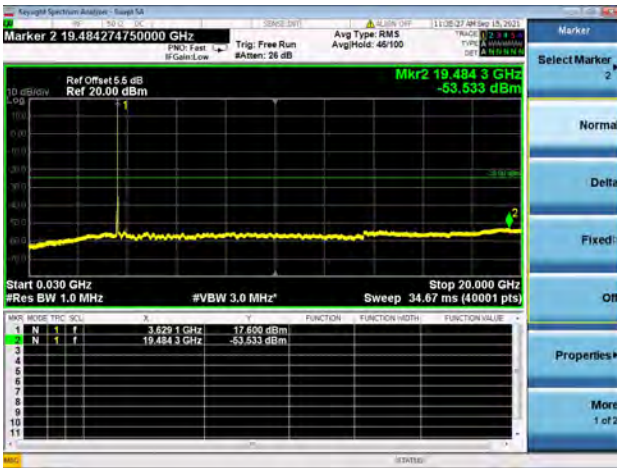
Mid CH/QPSK/1RB0 and 1RB49



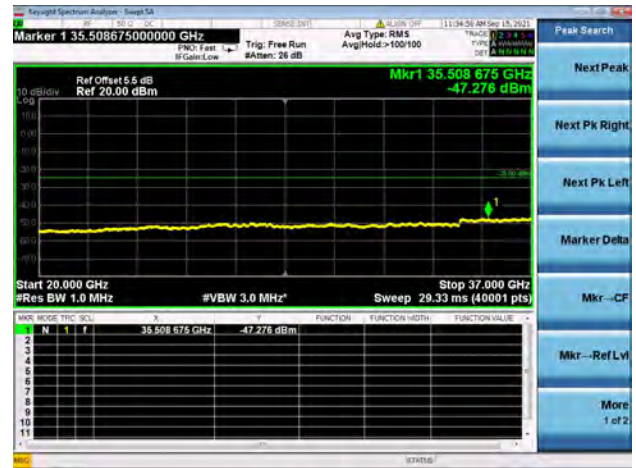
Mid CH/QPSK/1RB0 and 1RB49



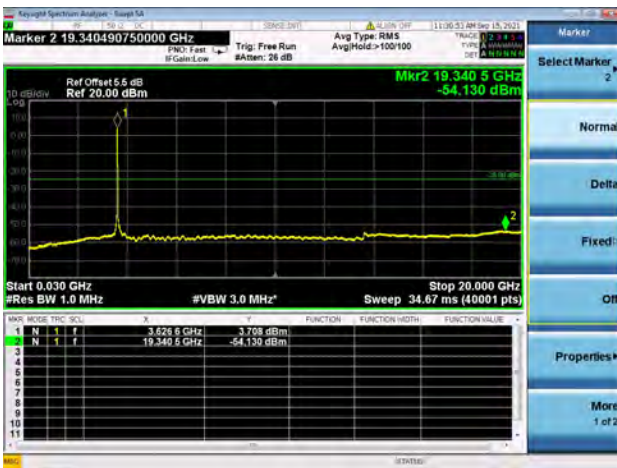
Mid CH/QPSK/1RB99 and 1RB0



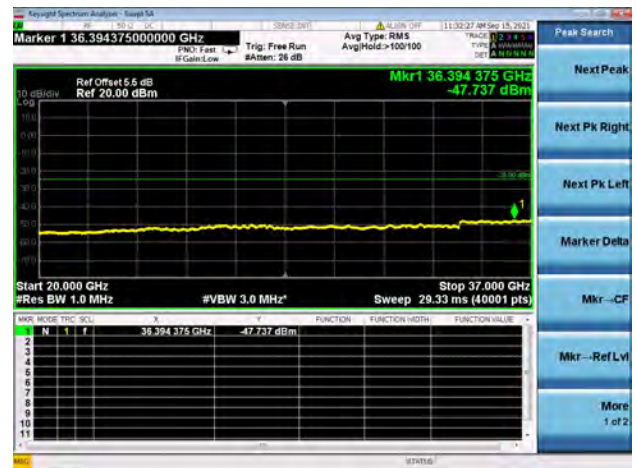
Mid CH/QPSK/1RB99 and 1RB0



Mid CH/QPSK/FULL RB

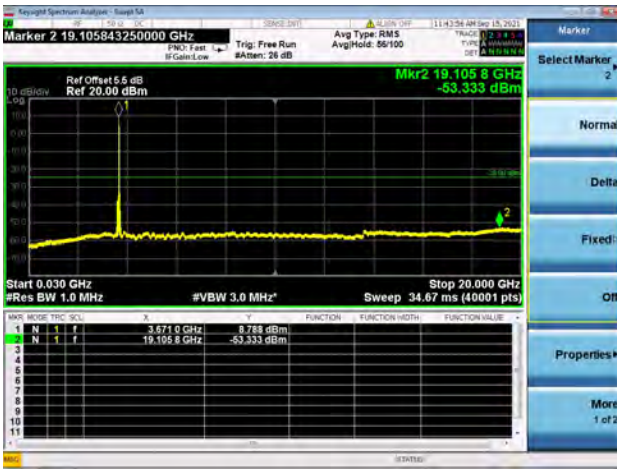


Mid CH/QPSK/FULL RB

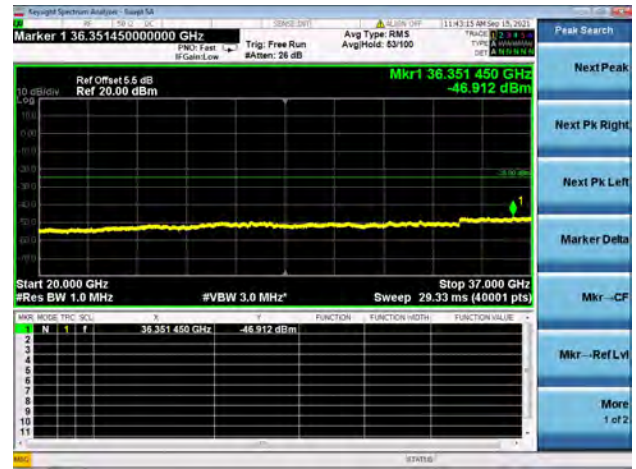




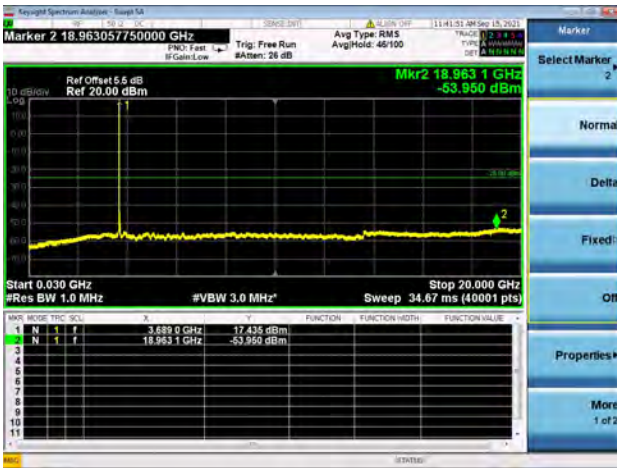
High CH/QPSK/1RB0 and 1RB49



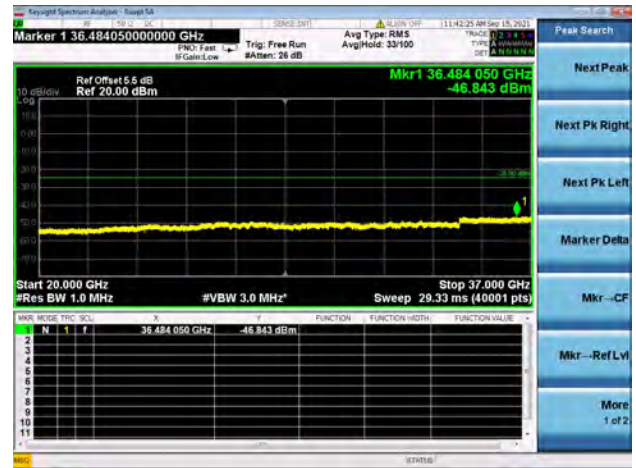
High CH/QPSK/1RB0 and 1RB49



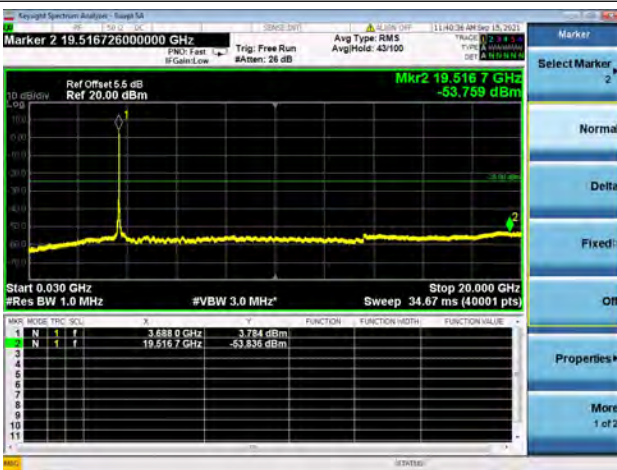
High CH/QPSK/1RB99 and 1RB0



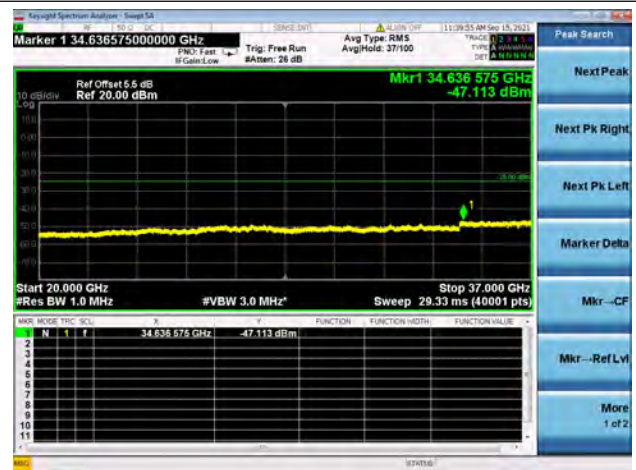
High CH/QPSK/1RB99 and 1RB0



High CH/QPSK/FULL RB



High CH/QPSK/FULL RB

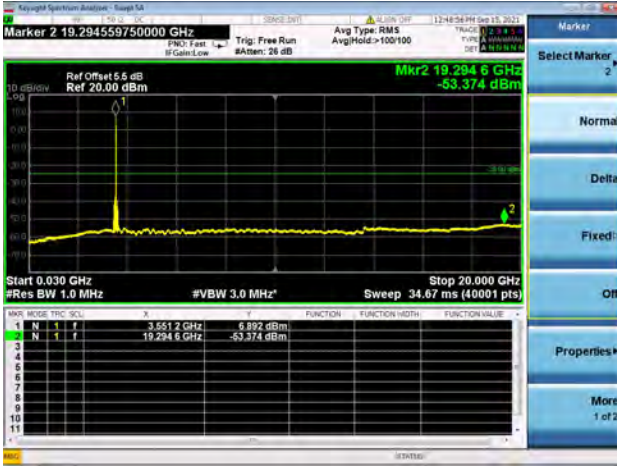




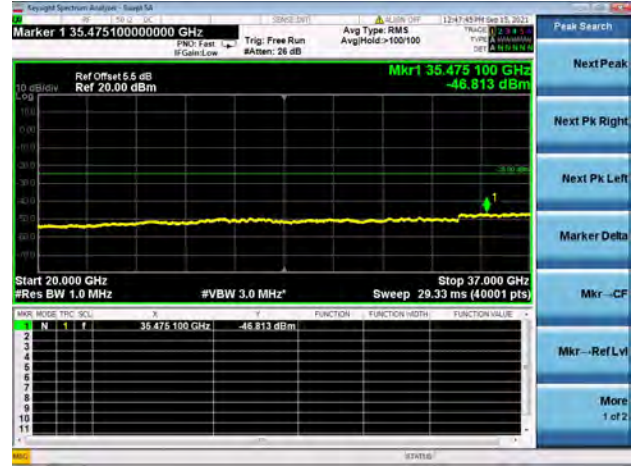
LTE Band 48C CSE

Channel Bandwidth: 20MHz+15MHz

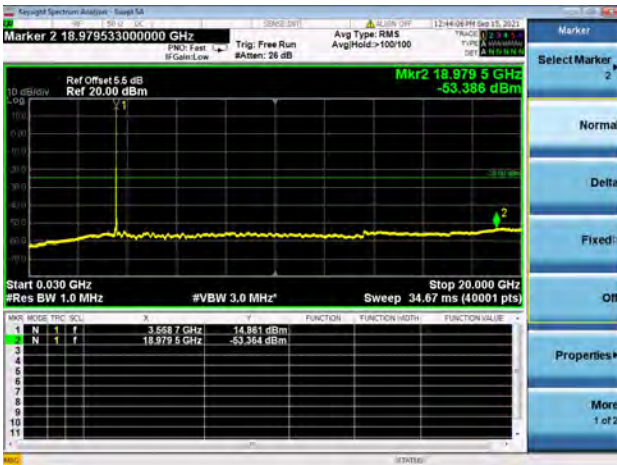
LOW CH/QPSK/1RB0 and 1RB74



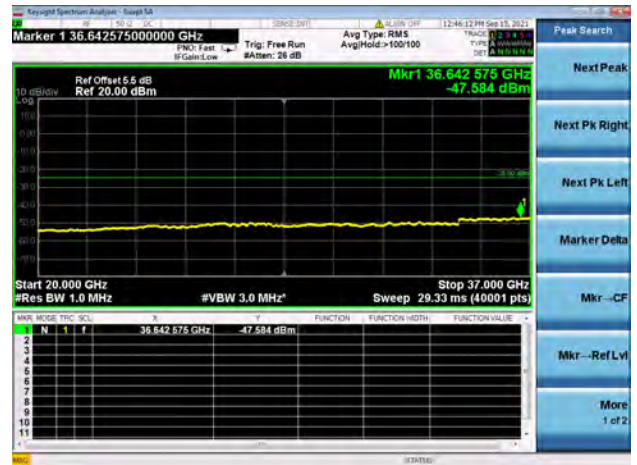
LOW CH/QPSK/1RB0 and 1RB74



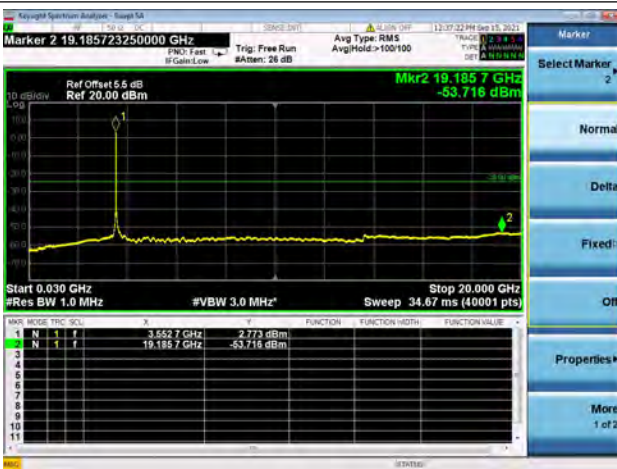
LOW CH/QPSK/1RB99 and 1RB0



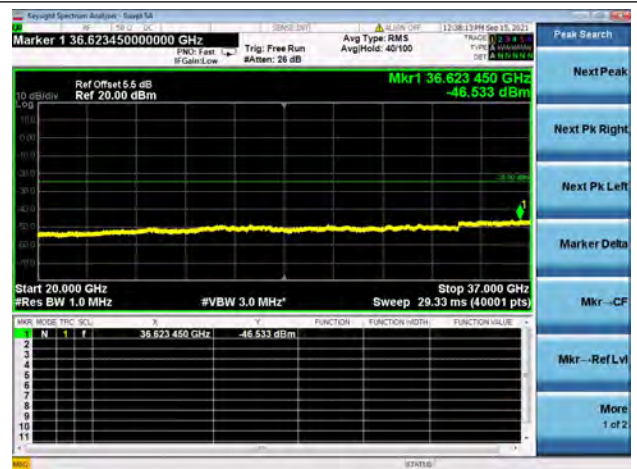
LOW CH/QPSK/1RB99 and 1RB0



LOW CH/QPSK/FULL RB

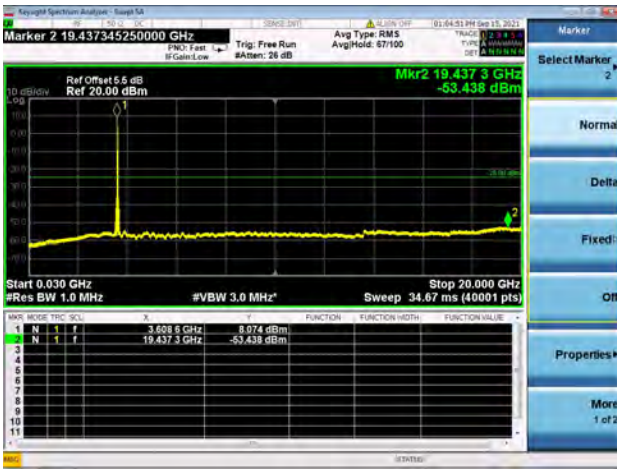


LOW CH/QPSK/FULL RB

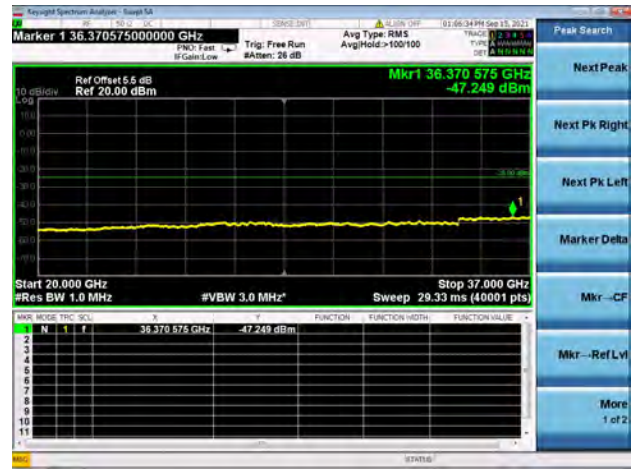




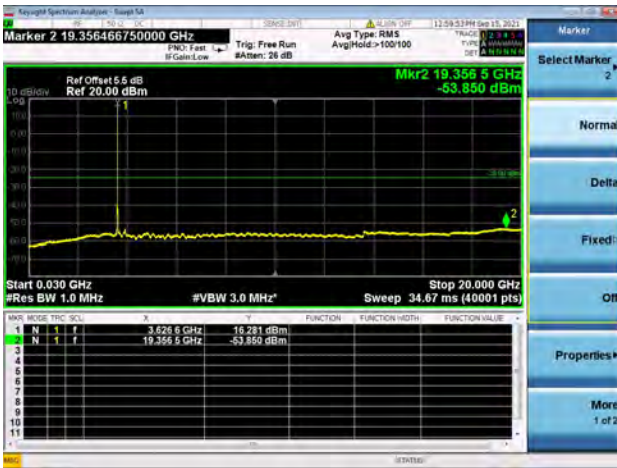
Mid CH/QPSK/1RB0 and 1RB74



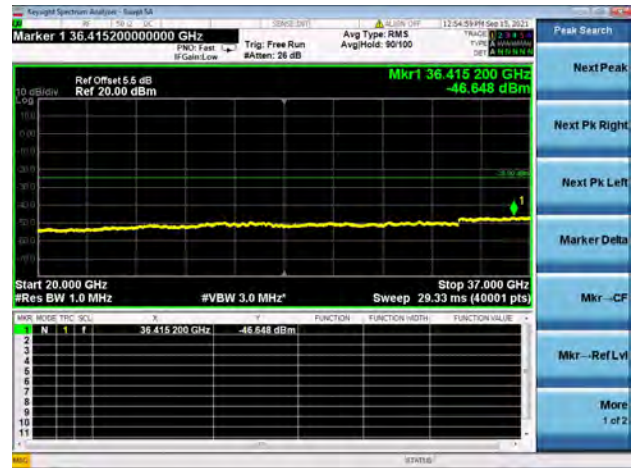
Mid CH/QPSK/1RB0 and 1RB74



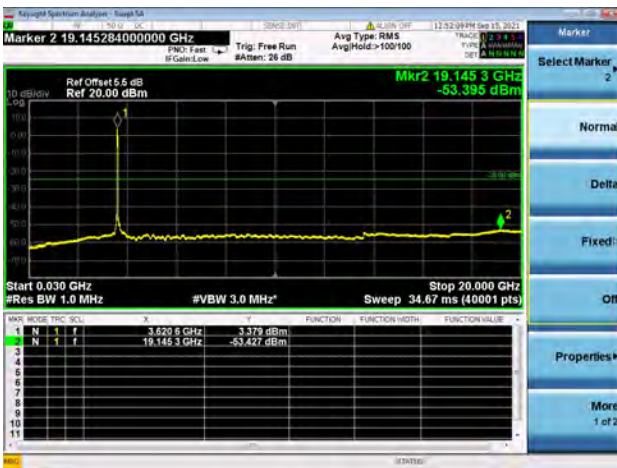
Mid CH/QPSK/1RB99 and 1RB0



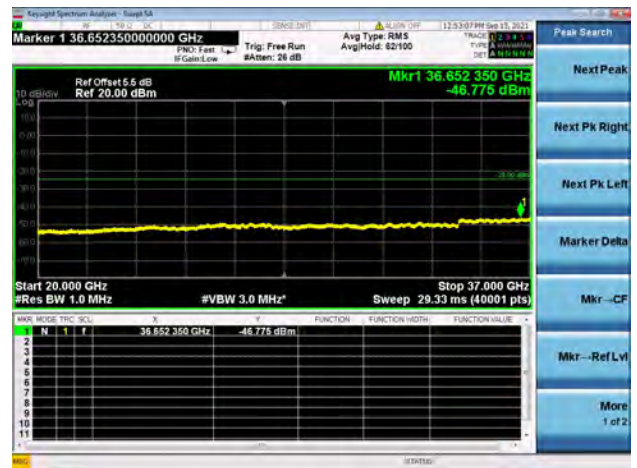
Mid CH/QPSK/1RB99 and 1RB0



Mid CH/QPSK/FULL RB

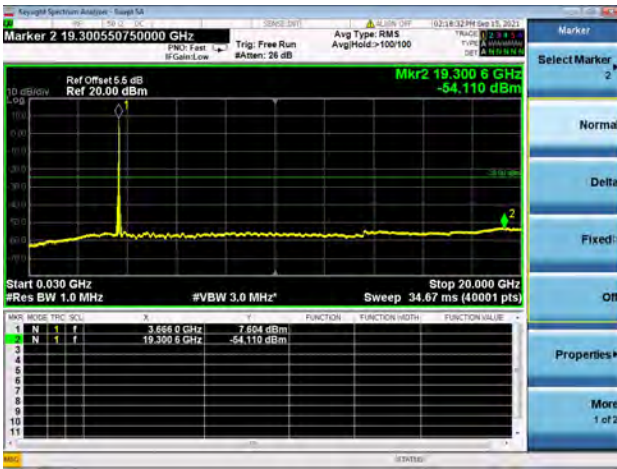


Mid CH/QPSK/FULL RB





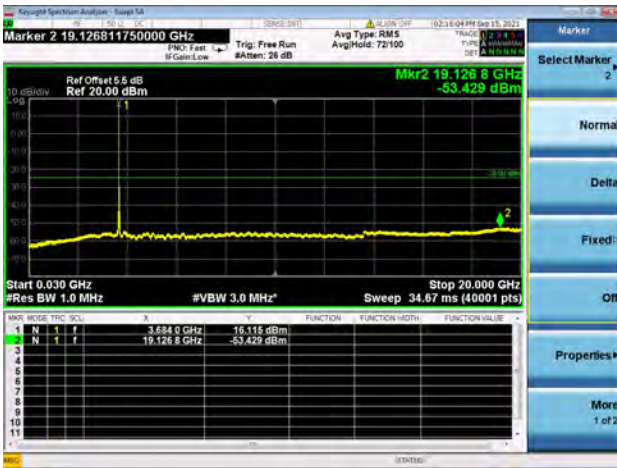
High CH/QPSK/1RB0 and 1RB74



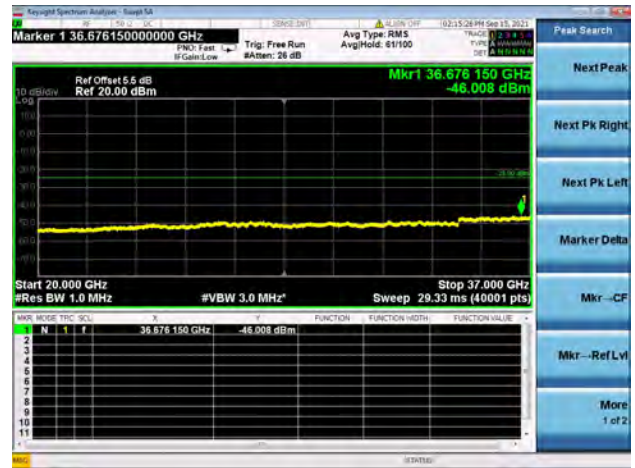
High CH/QPSK/1RB0 and 1RB74



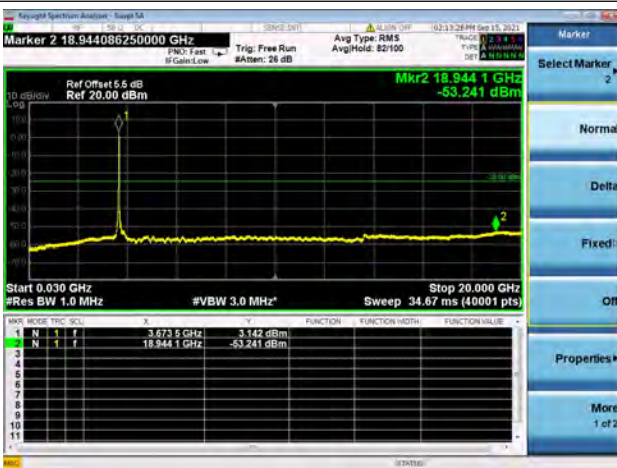
High CH/QPSK/1RB9 and 1RB0



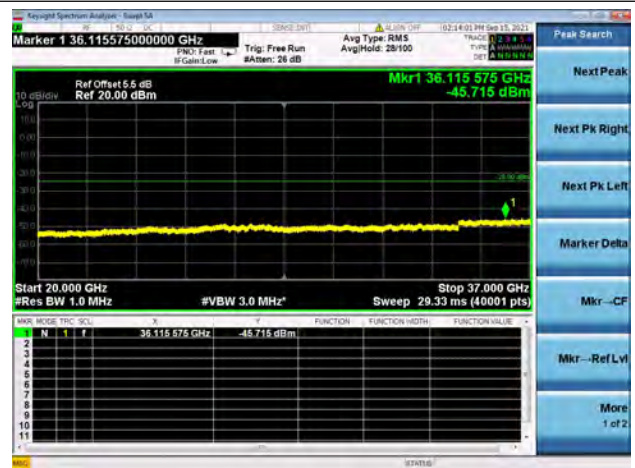
High CH/QPSK/1RB99 and 1RB0



High CH/QPSK/FULL RB



High CH/QPSK/FULL RB

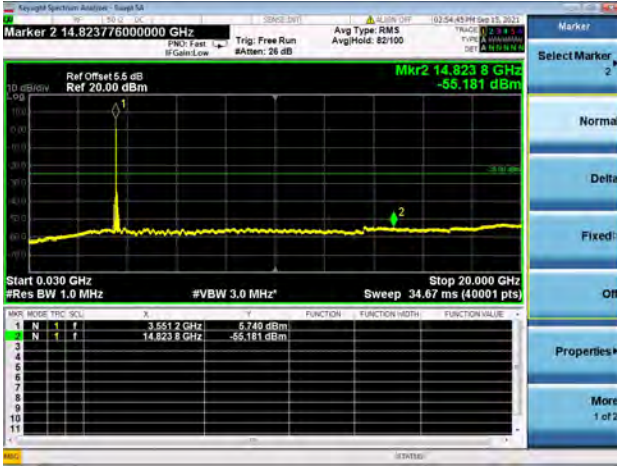




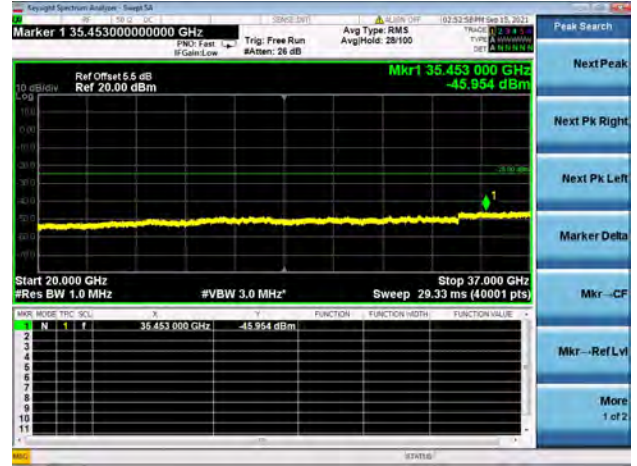
LTE Band 48C CSE

Channel Bandwidth: 20MHz+20MHz

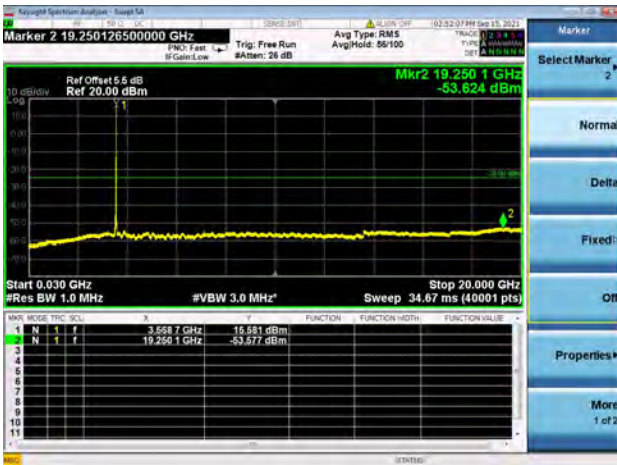
LOW CH/QPSK/1RB0 and 1RB99



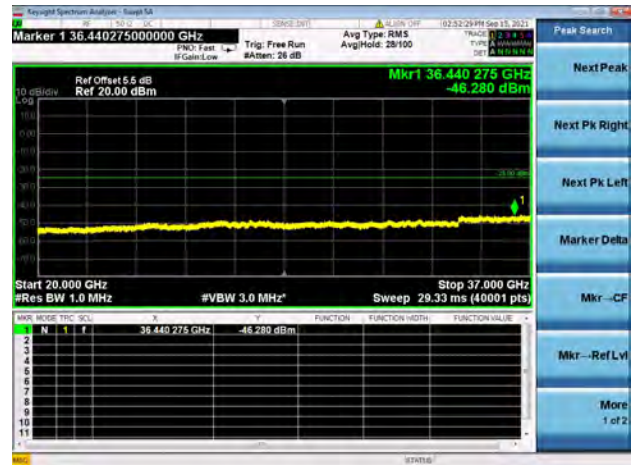
LOW CH/QPSK/1RB0 and 1RB99



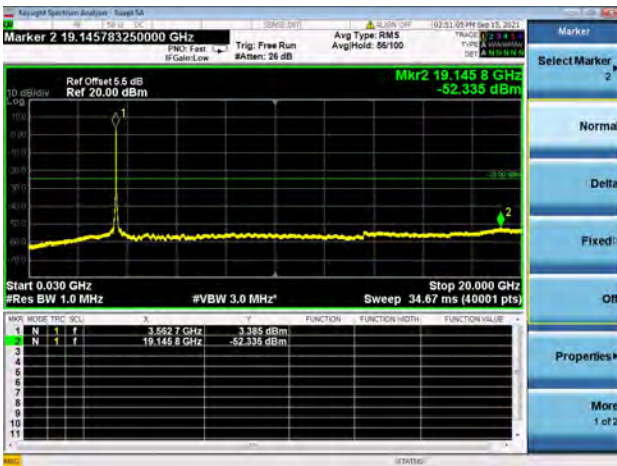
LOW CH/QPSK/1RB99 and 1RB0



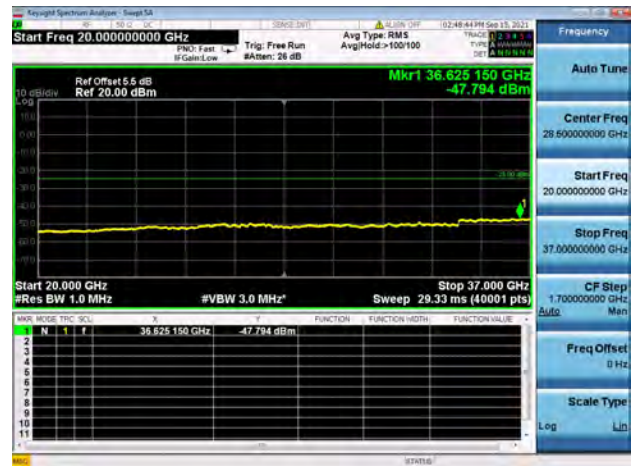
LOW CH/QPSK/1RB99 and 1RB0



LOW CH/QPSK/FULL RB



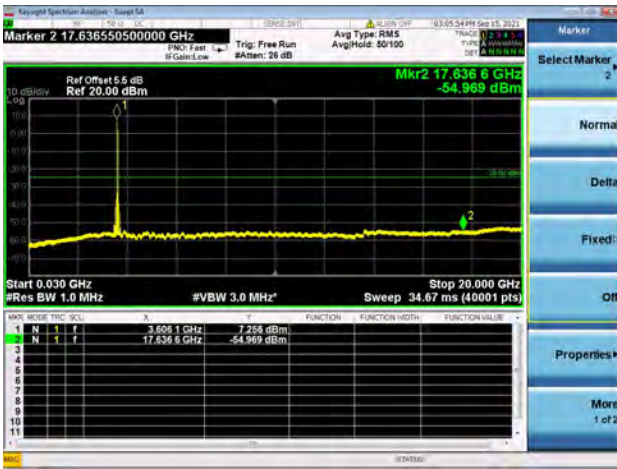
LOW CH/QPSK/FULL RB



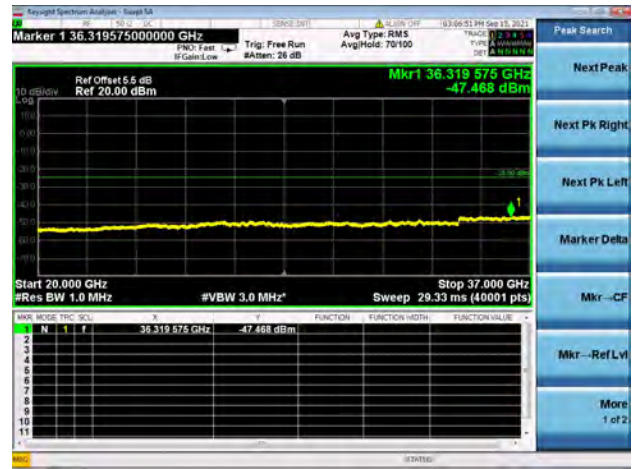




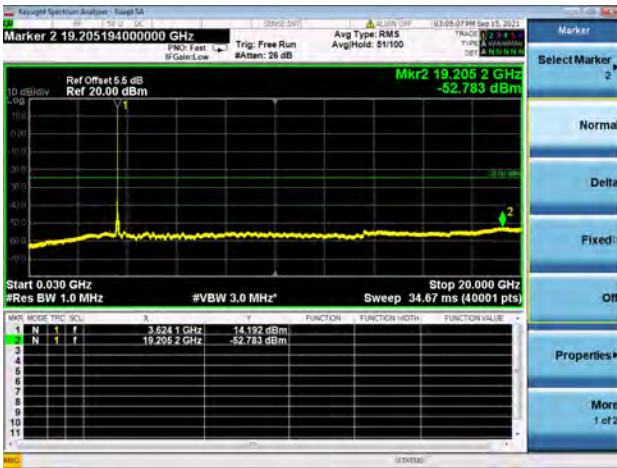
Mid CH/QPSK/1RB0 and 1RB99



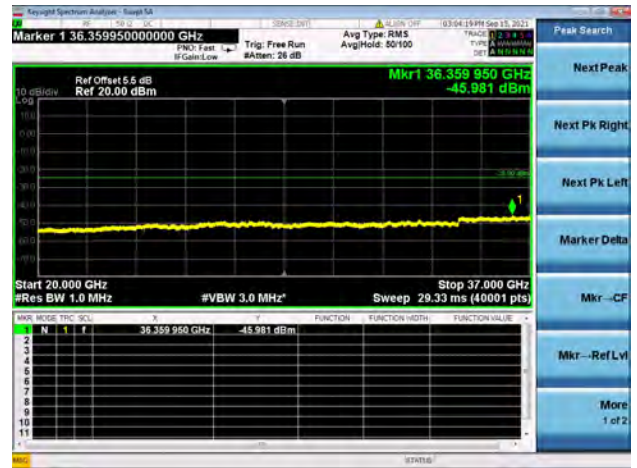
Mid CH/QPSK/1RB0 and 1RB99



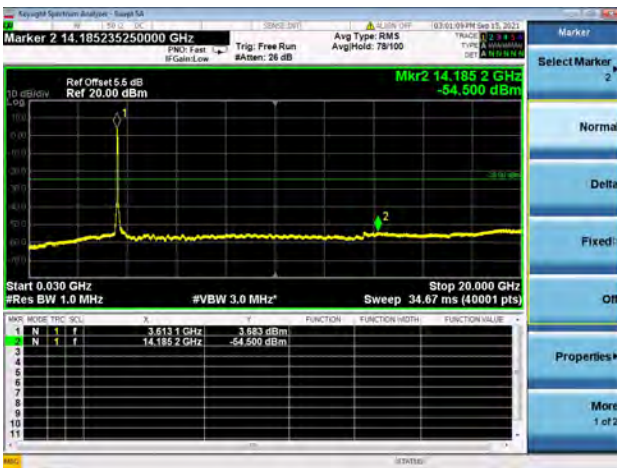
Mid CH/QPSK/1RB99 and 1RB0



Mid CH/QPSK/1RB99 and 1RB0



Mid CH/QPSK/FULL RB

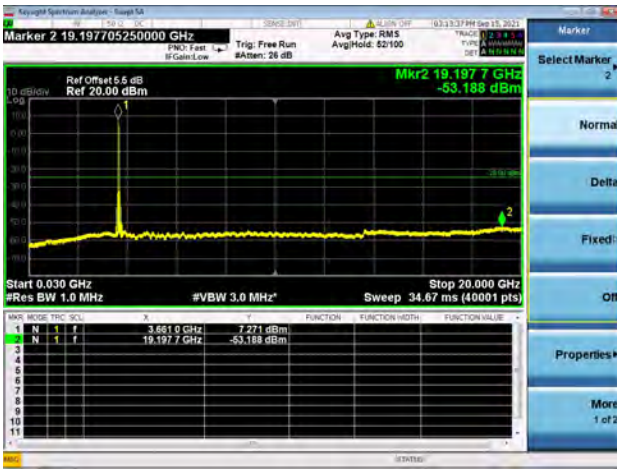


Mid CH/QPSK/FULL RB

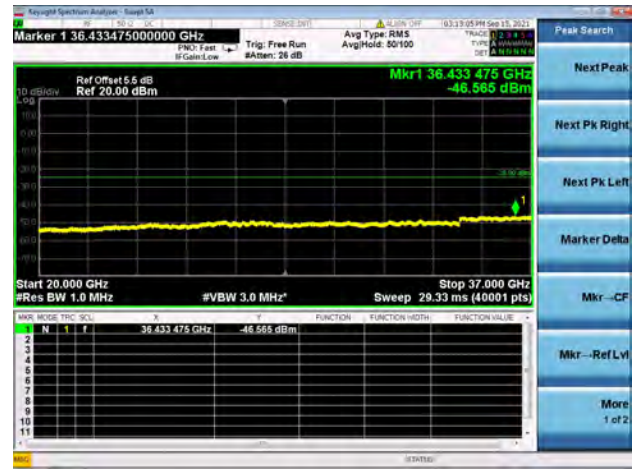




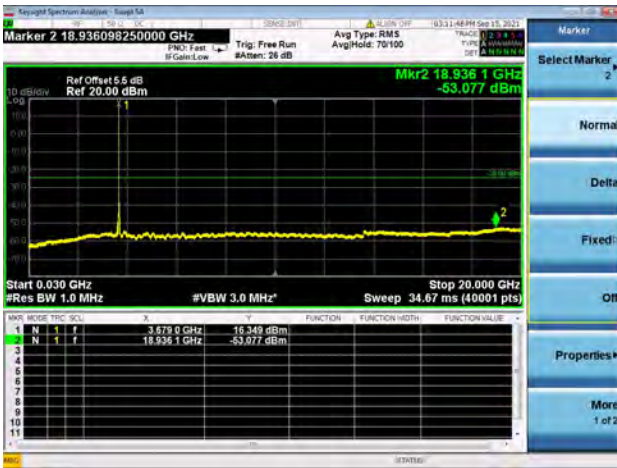
High CH/QPSK/1RB0 and 1RB99



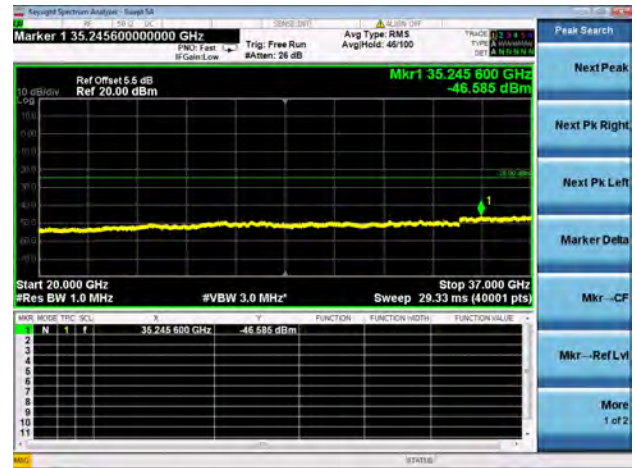
High CH/QPSK/1RB0 and 1RB99



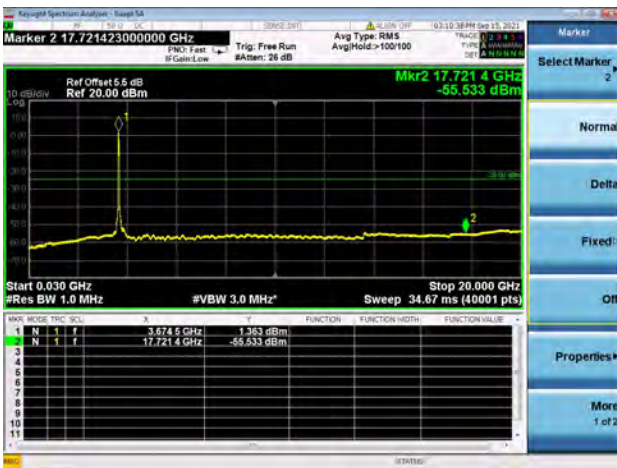
High CH/QPSK/1RB99 and 1RB0



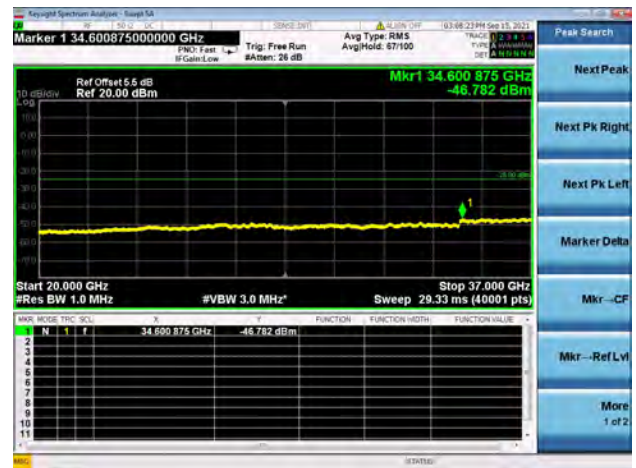
High CH/QPSK/1RB99 and 1RB0



High CH/QPSK/FULL RB



High CH/QPSK/FULL RB





## 2.4. Band Edge

### 2.4.1. Requirement

According to FCC section 22.917(a), 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.

According to FCC section 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.

According to FCC section 27.53(c), For operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

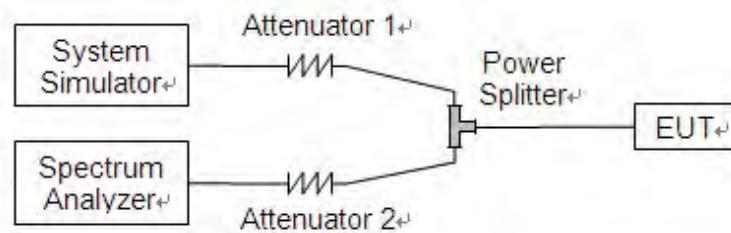
- (1) On any frequency outside the 746-758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log(P)$  dB;
- (2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log(P)$  dB;
- (3) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than  $65 + 10 \log(P)$  dB in a 6.25 kHz band segment, for mobile and portable stations;
- (4) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;
- (5) Compliance with the provisions of paragraphs (c)(3) and (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

According to FCC section 27.53(h), Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least  $43 + 10 \log_{10}(P)$  dB.

According to FCC section 96.41(e), for channel and frequency assignments made by the SAS to CBSDs, the conducted power of any CBSD emission outside the fundamental emission bandwidth of this section (whether the emission is inside or outside of the authorized band) shall not exceed  $-13$  dBm/MHz within 0-10 megahertz above the upper SAS-assigned channel edge and within 0-10 megahertz below the lower SAS-assigned channel edge. At all frequencies greater than 10 megahertz above the upper SAS assigned channel edge and less than 10 MHz below the lower SAS assigned channel edge, the conducted power of any CBSD emission shall not exceed  $-25$  dBm/MHz.

The conducted power of emissions below 3540 MHz or above 3710 MHz shall not exceed  $-25$  dBm/MHz, and the conducted power of emissions below 3530 MHz or above 3720 MHz shall not exceed  $-40$  dBm/MHz.

#### 2.4.2. Test Description



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50 Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

#### 2.4.3. Test procedure

KDB 971168 D01v03 Section 6.0 and ANSI/TIA-603-E-2016.

#### 2.4.4. Test Result

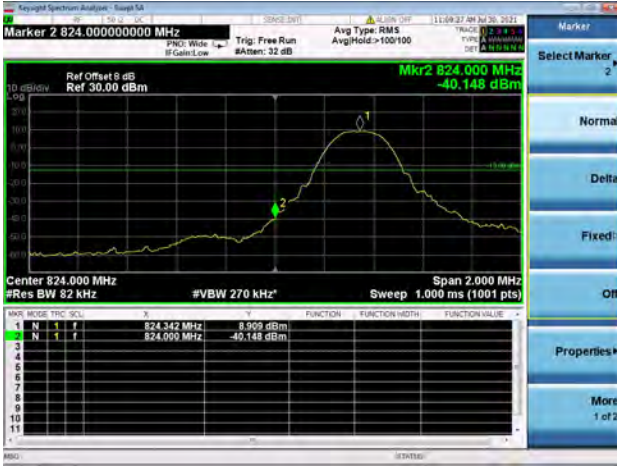
The center frequency of spectrum is the band edge frequency and span is 2MHz, Record the max trace into the test report.



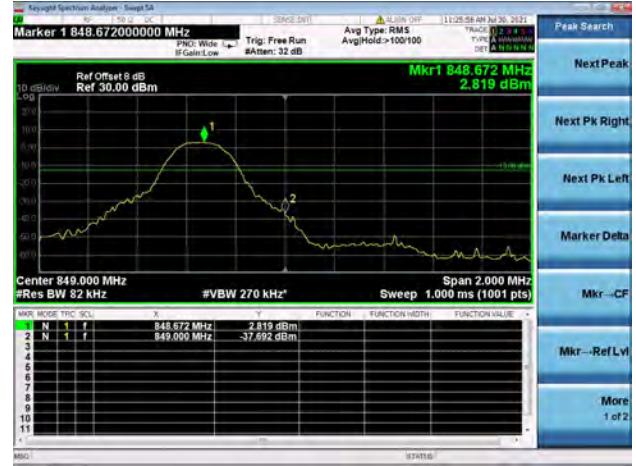
LTE Band 5B

Channel Bandwidth: 3MHz+5MHz

Low 1RB



High 1RB



Low FULL RB



High FULL RB

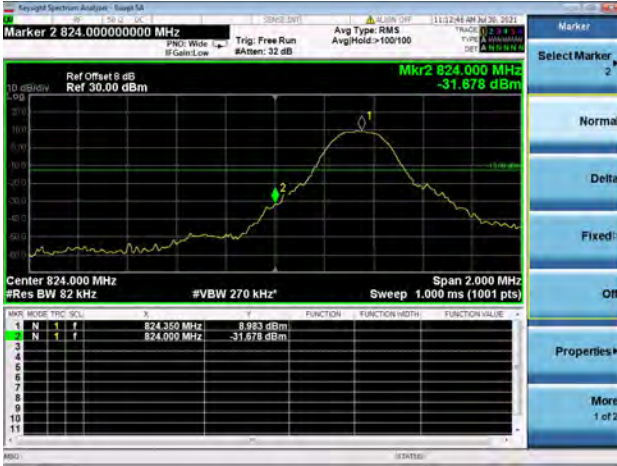




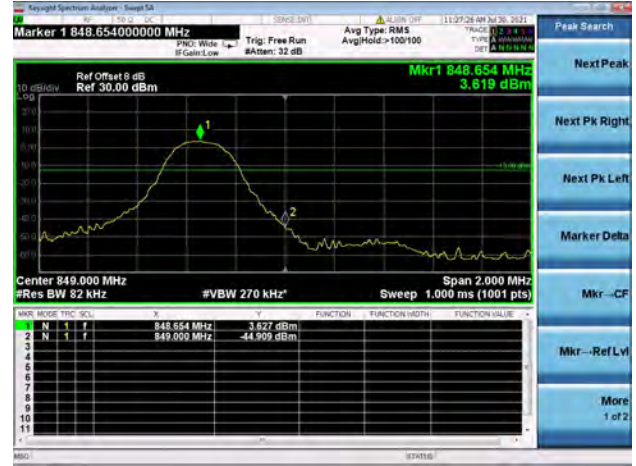
LTE Band B5

Channel Bandwidth: 5MHz+3MHz

Low 1RB



High 1RB



Low FULL RB



High FULL RB





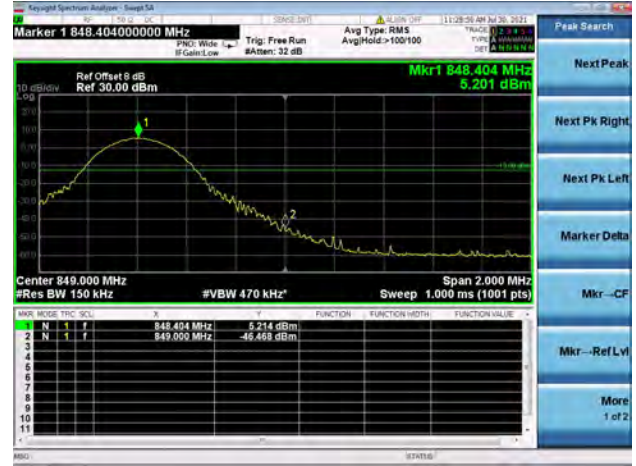
LTE Band 5B

Channel Bandwidth: 5MHz+10MHz

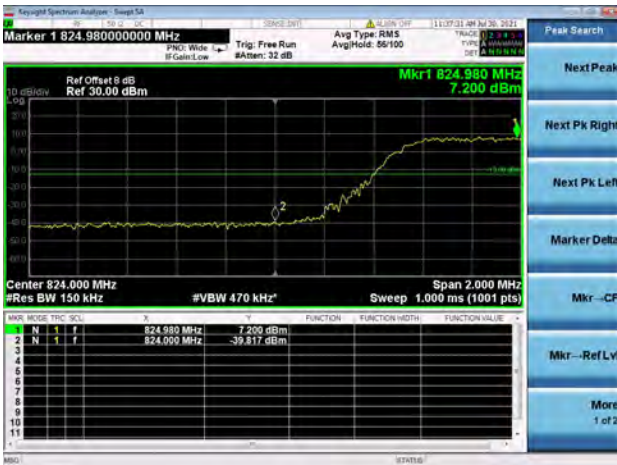
Low 1RB



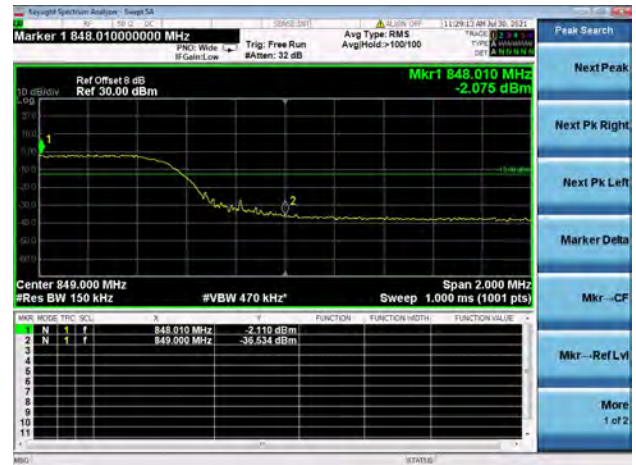
High 1RB



Low FULL RB



High FULL RB

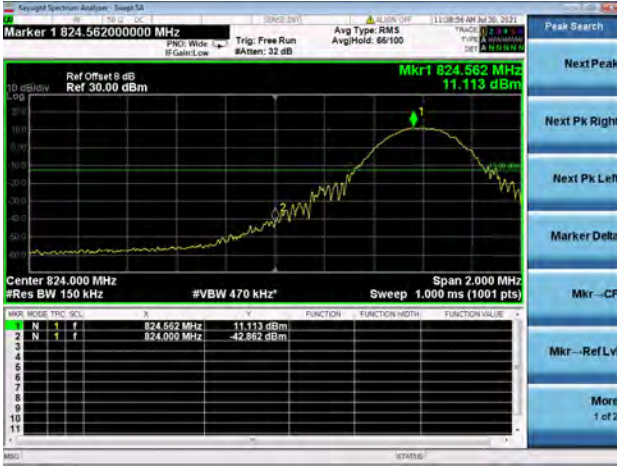




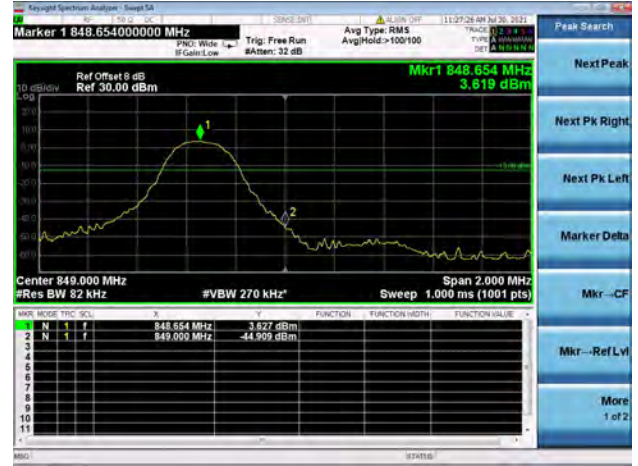
LTE Band 5B

Channel Bandwidth: 10MHz+5MHz

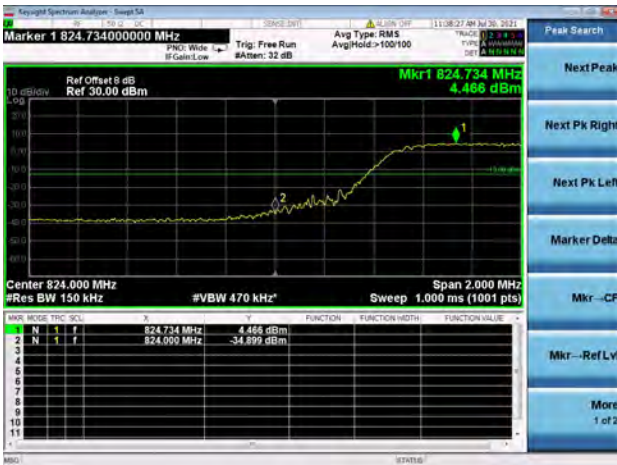
Low 1RB



High 1RB



Low FULL RB



High FULL RB







LTE Band 5B

Channel Bandwidth: 10MHz+10MHz

Low 1RB



High 1RB



Low FULL RB



High FULL RB

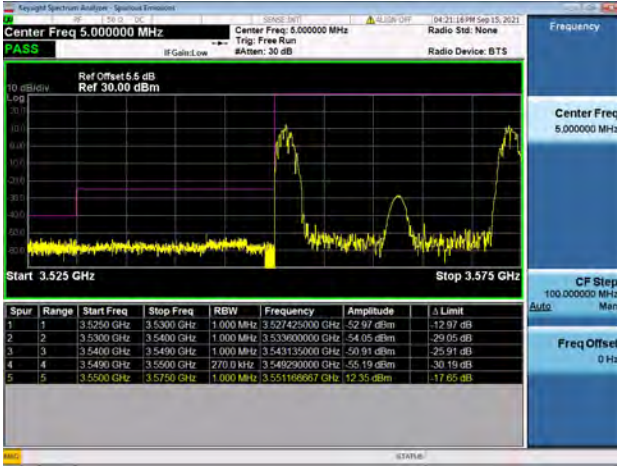




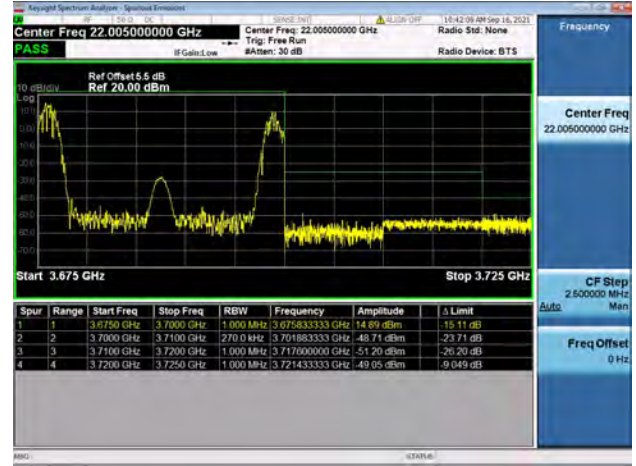
LTE Band 48C

Channel Bandwidth: 5MHz+20MHz

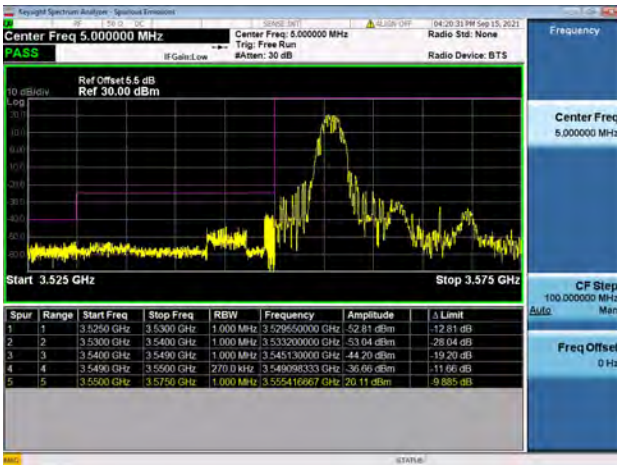
Low 1RB0 and 1RB99



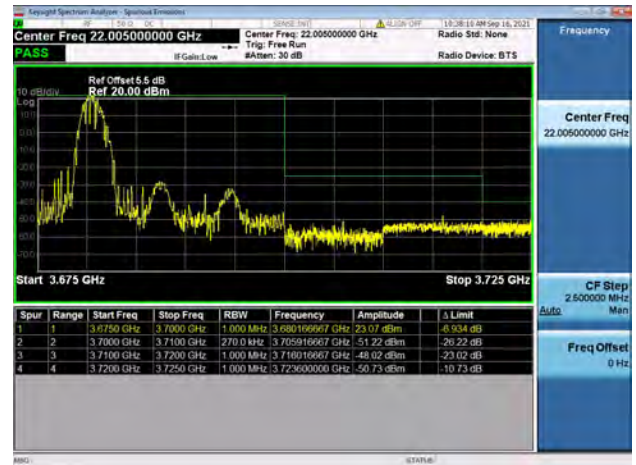
High 1RB0 and 1RB99



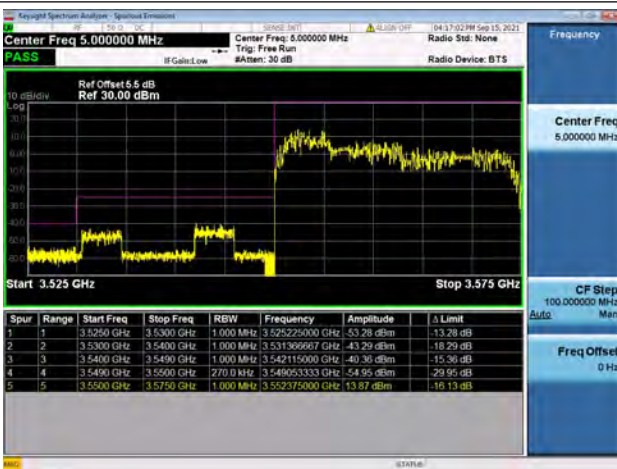
Low 1RB24 and 1RB0



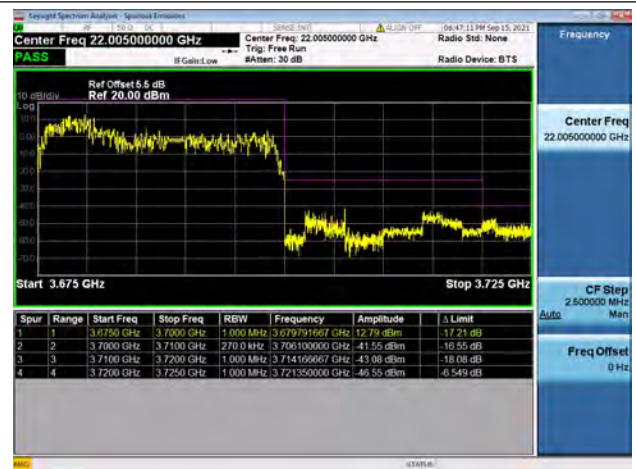
High 1RB24 and 1RB0



Low FULL RB



High FULL RB

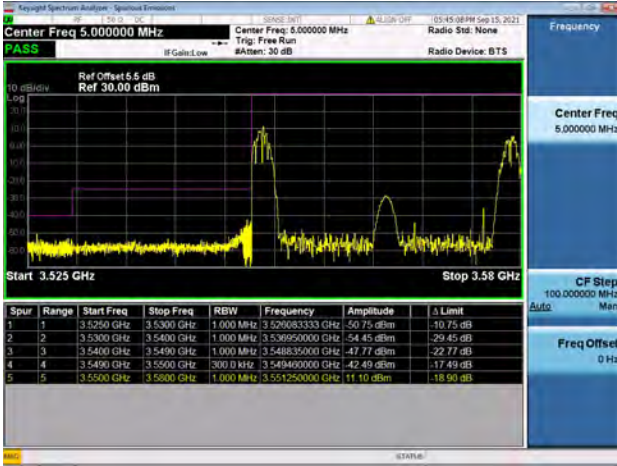




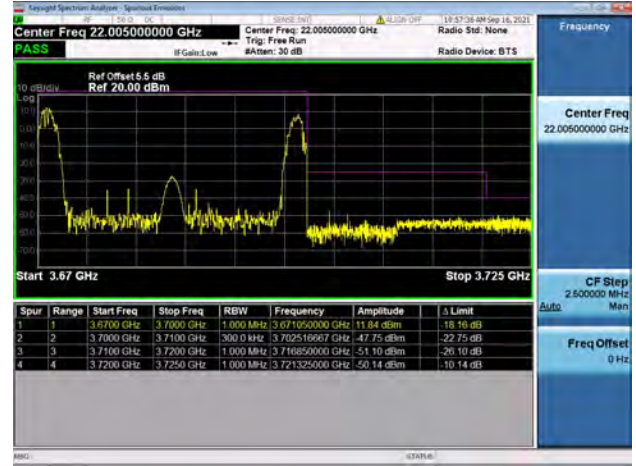
LTE Band 48C

Channel Bandwidth: 10MHz+20MHz

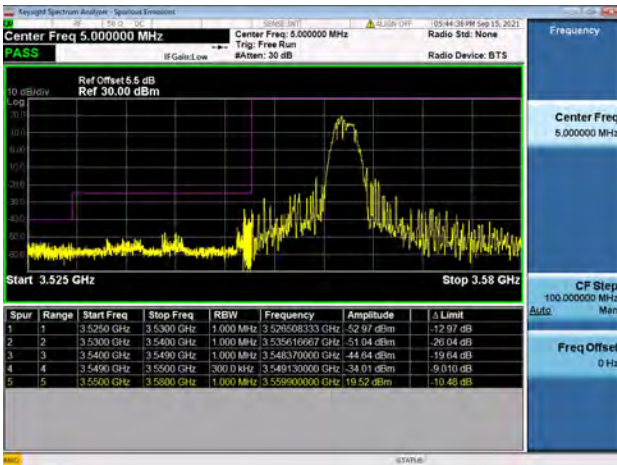
Low 1RB0 and 1RB99



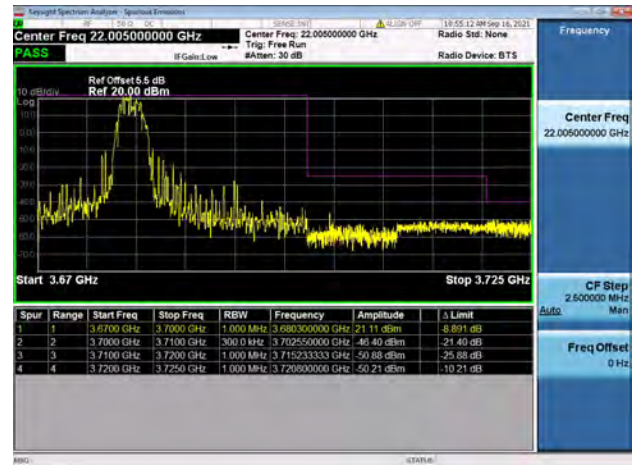
High 1RB0 and 1RB99



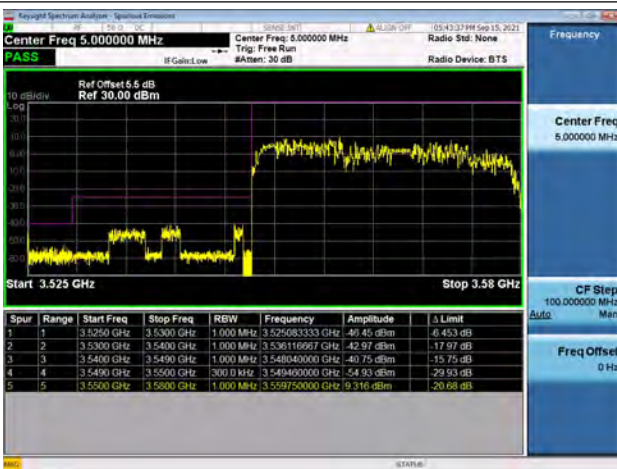
Low 1RB49 and 1RB0



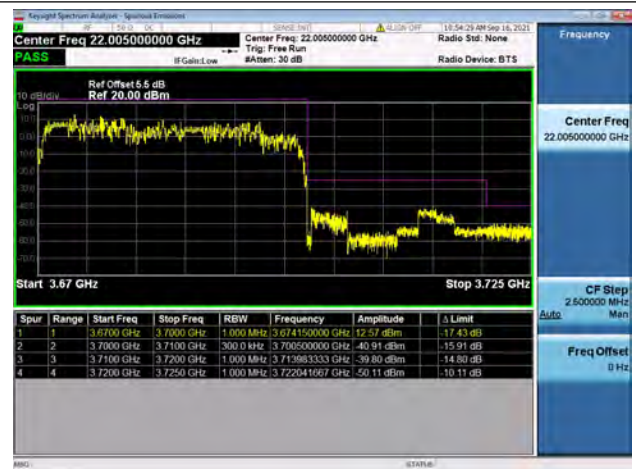
High 1RB49 and 1RB0



Low FULL RB



High FULL RB





LTE Band 48C

Channel Bandwidth: 15MHz+20MHz

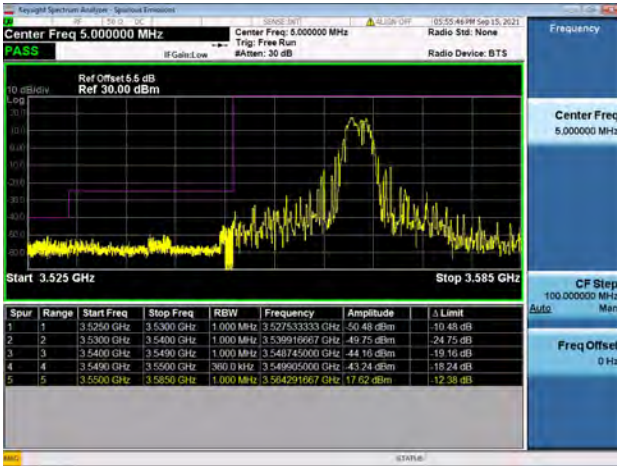
Low 1RB0 and 1RB99



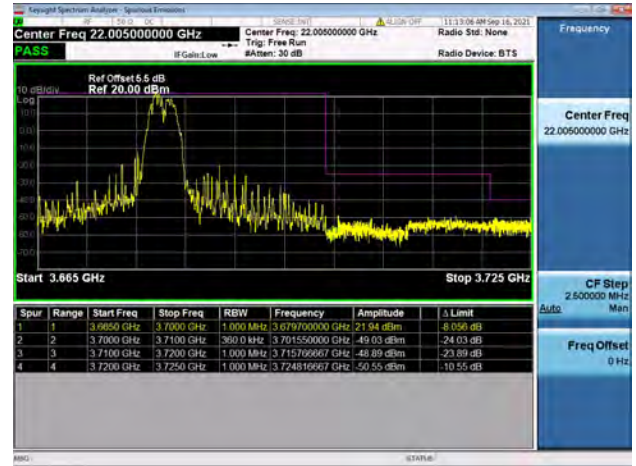
High 1RB0 and 1RB99



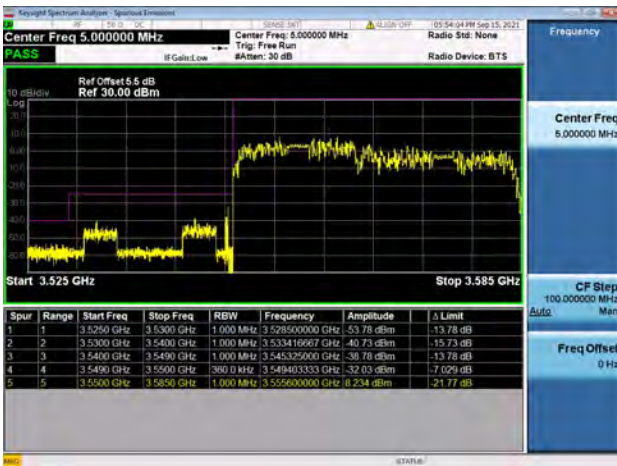
Low 1RB74 and 1RB0



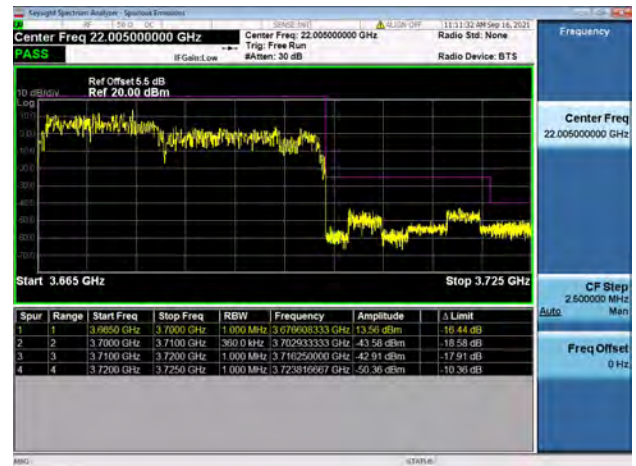
High 1RB74 and 1RB0



Low FULL RB



High FULL RB

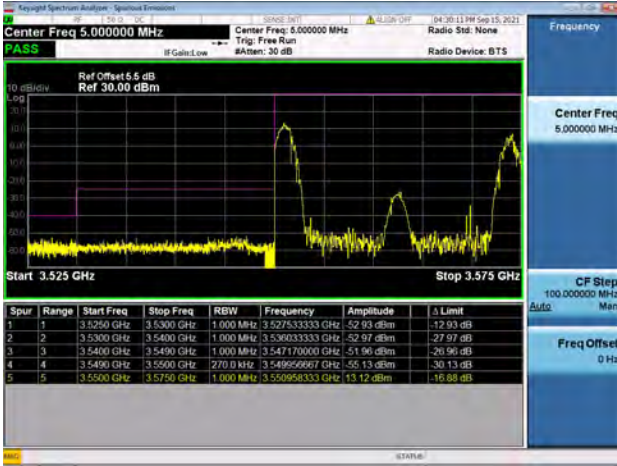




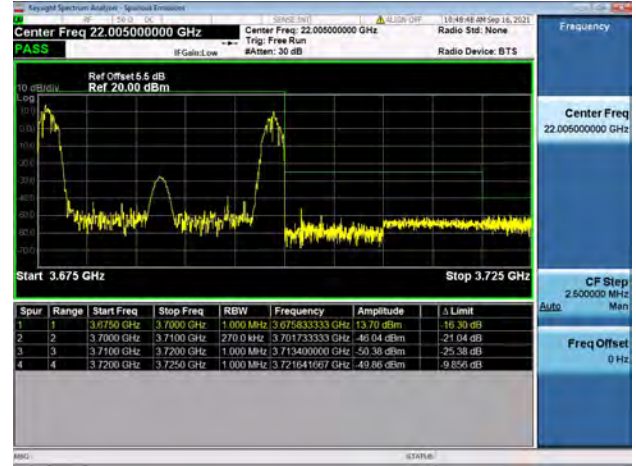
LTE Band 48C

Channel Bandwidth: 20MHz+5MHz

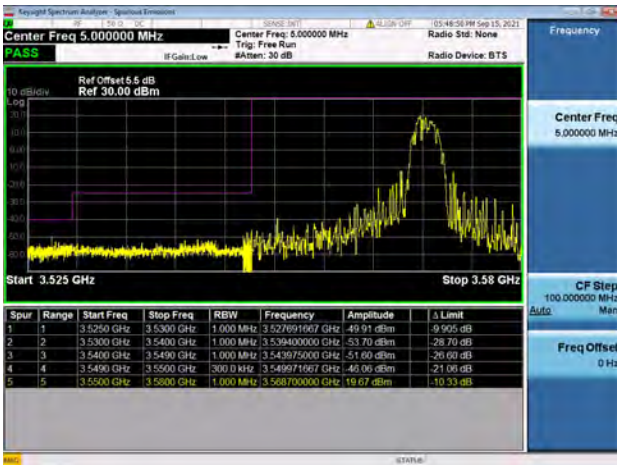
Low 1RB0 and 1RB24



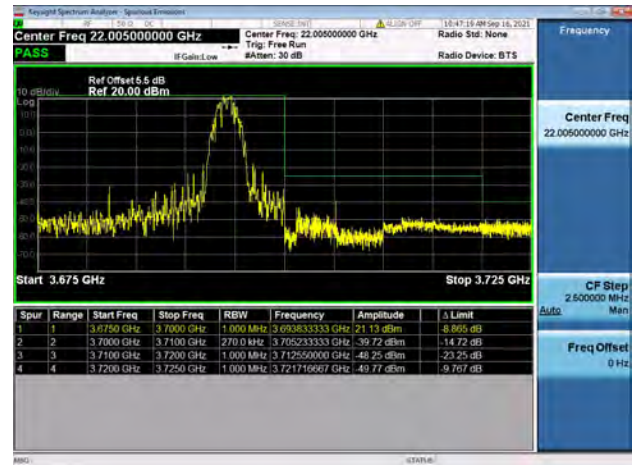
High 1RB0 and 1RB24



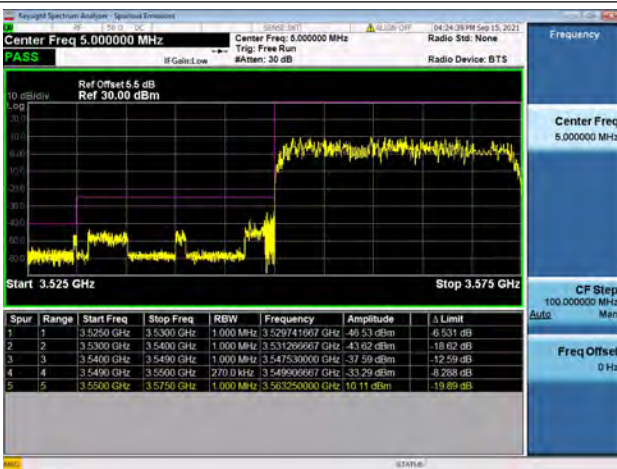
Low 1RB99 and 1RB0



Low 1RB99 and 1RB0



Low FULL RB



High FULL RB

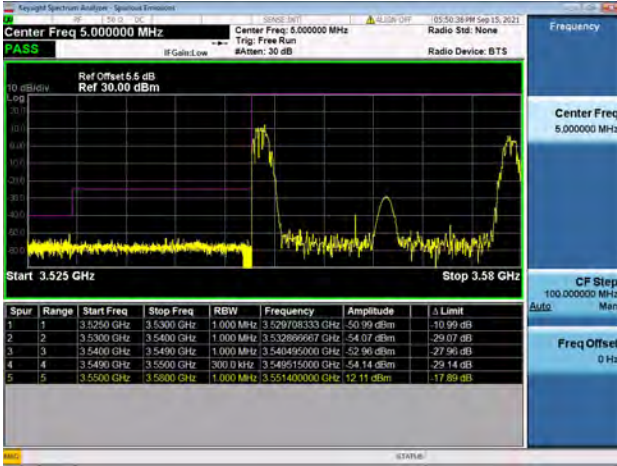




LTE Band 48C

Channel Bandwidth: 20MHz+10MHz

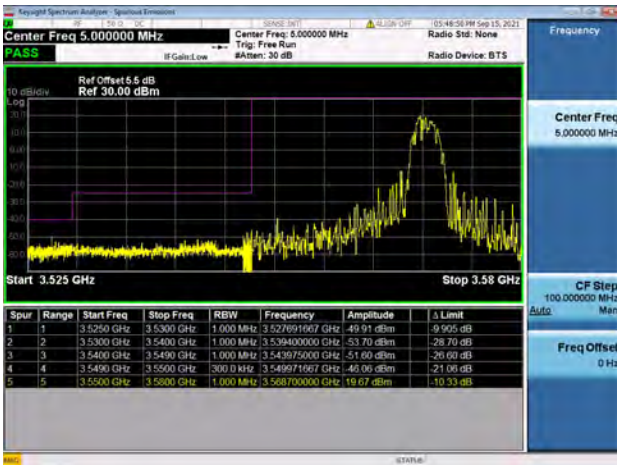
Low 1RB0 and 1RB49



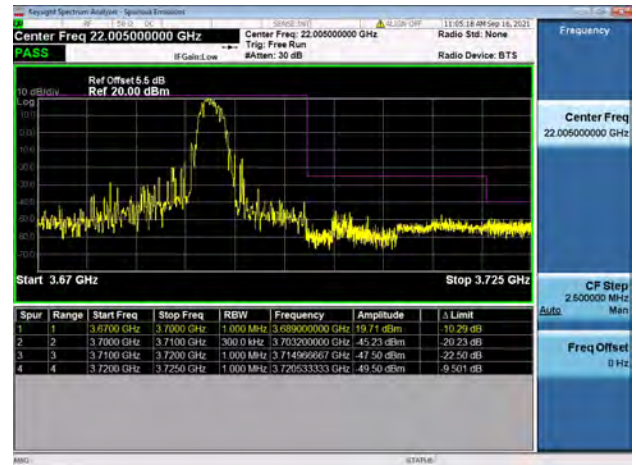
High 1RB0 and 1RB49



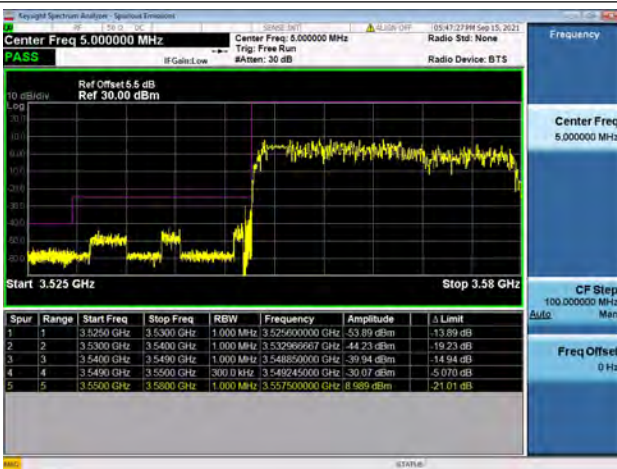
Low 1RB99 and 1RB0



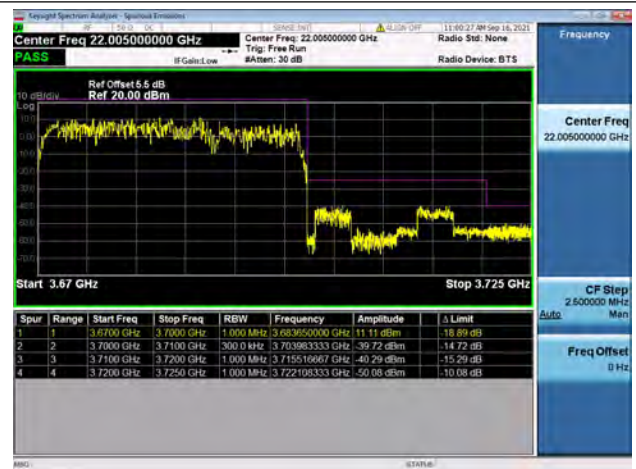
High 1RB99 and 1RB0



Low FULL RB



High FULL RB





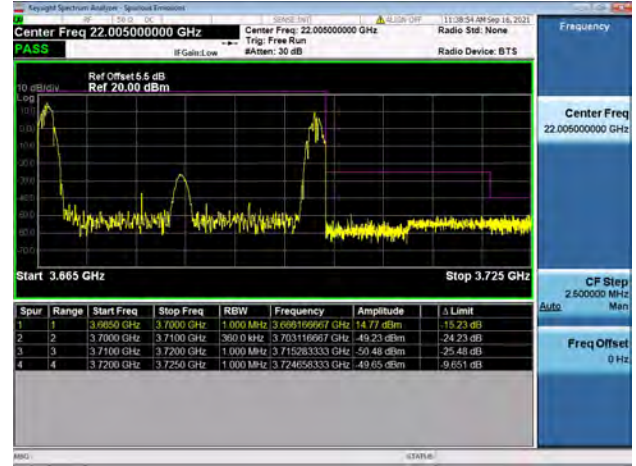
LTE Band 48C

Channel Bandwidth: 20MHz+15MHz

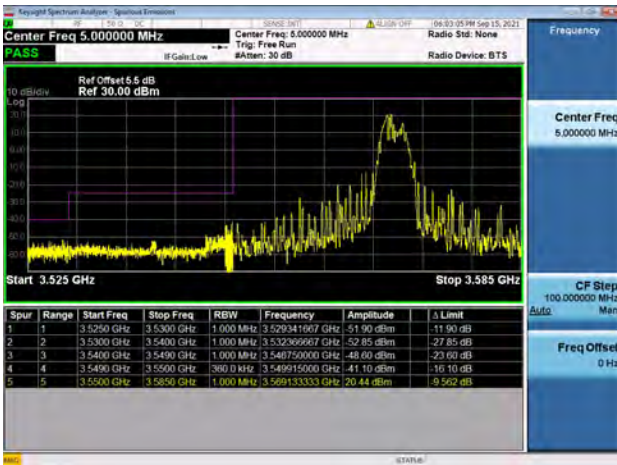
Low 1RB0 and 1RB74



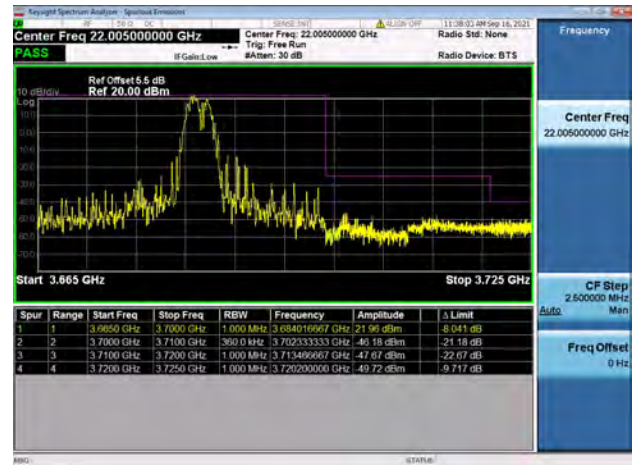
High 1RB0 and 1RB74



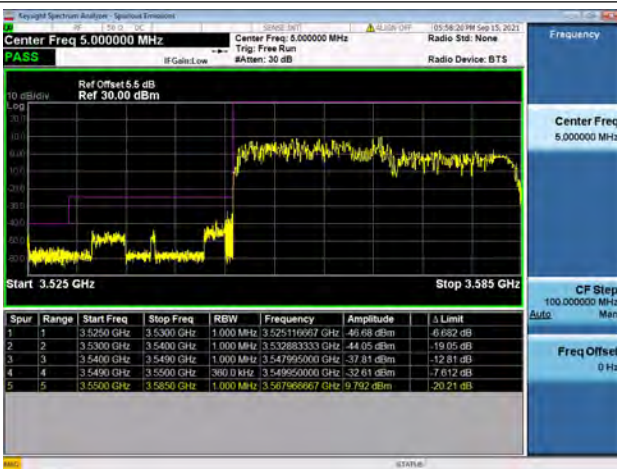
Low 1RB99 and 1RB0



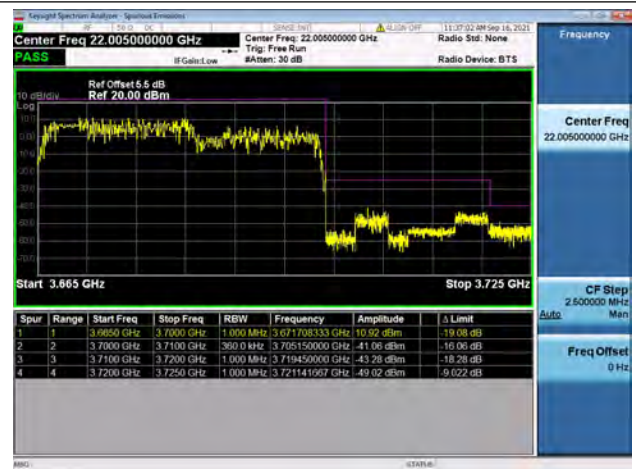
High 1RB99 and 1RB0



Low FULL RB



High FULL RB

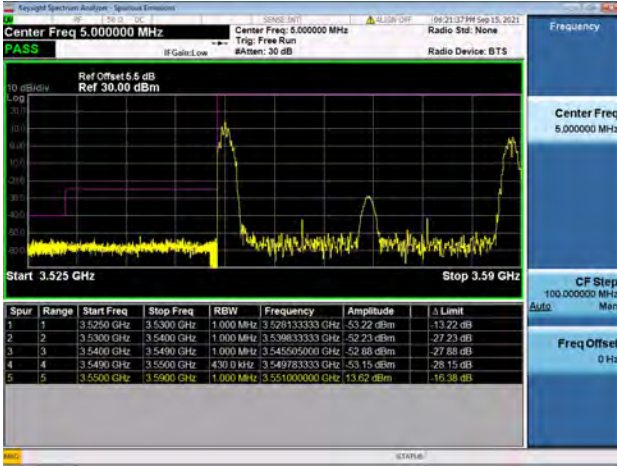




LTE Band 48C

Channel Bandwidth: 20MHz+20MHz

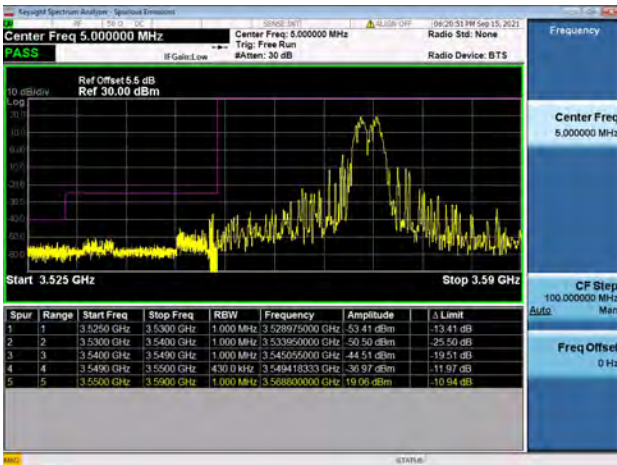
Low 1RB0 and 1RB99



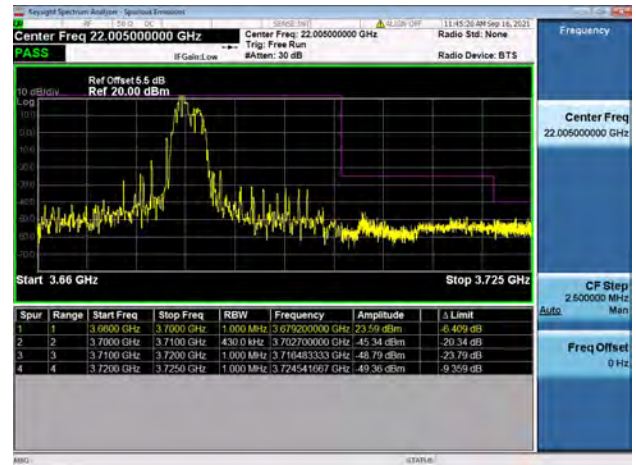
High 1RB0 and 1RB99



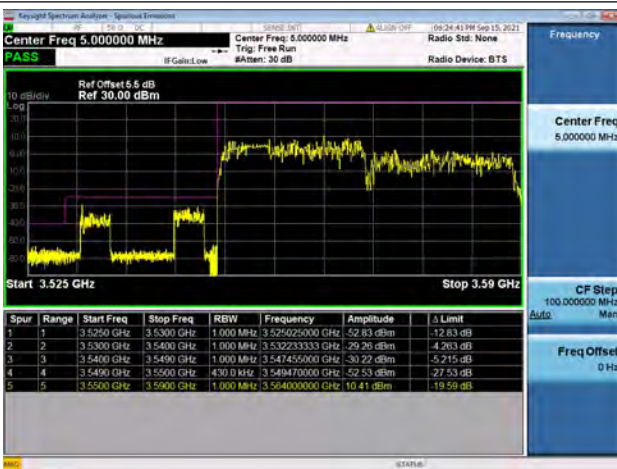
Low 1RB99 and 1RB0



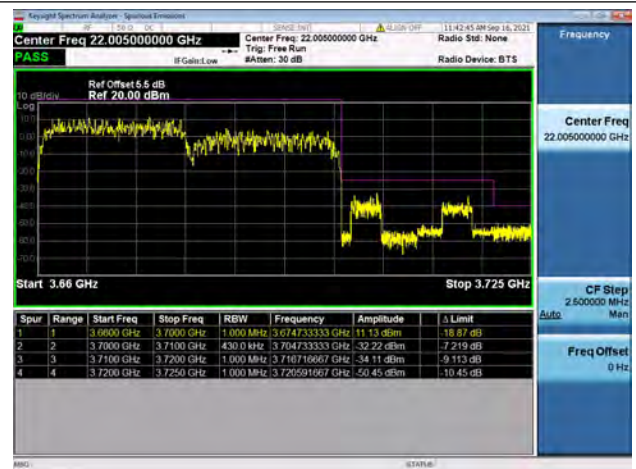
High 1RB99 and 1RB0



Low FULL RB



High FULL RB



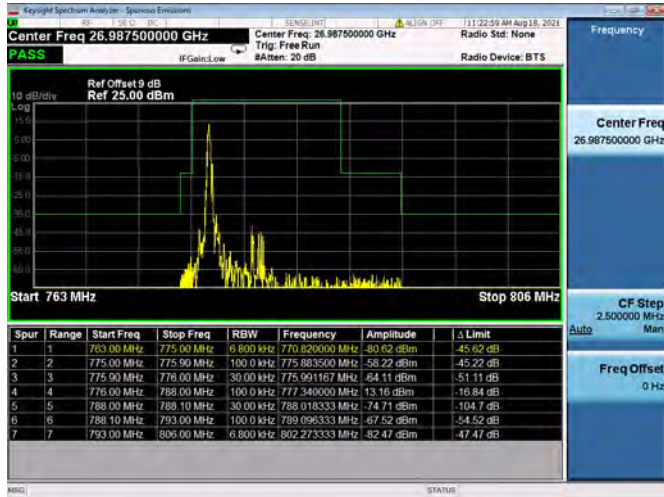




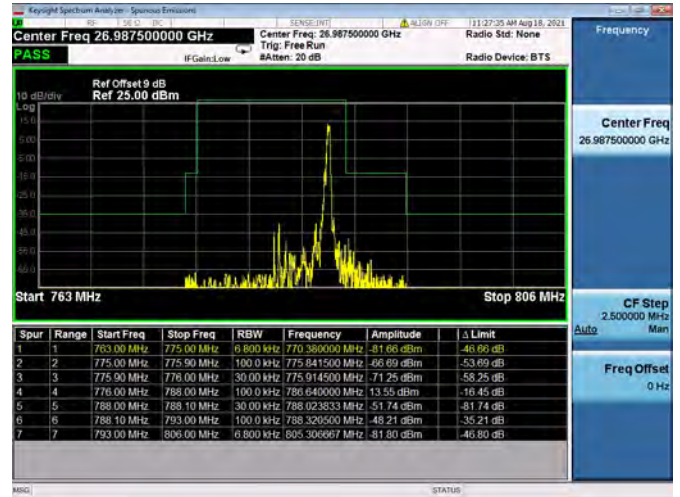
LTE ULCA\_13A-66A PCC(13A)

Channel Bandwidth: 5 MHz

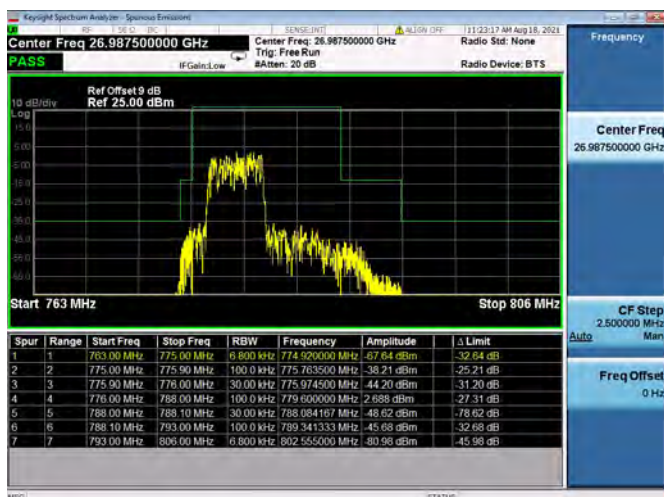
Low 1RB



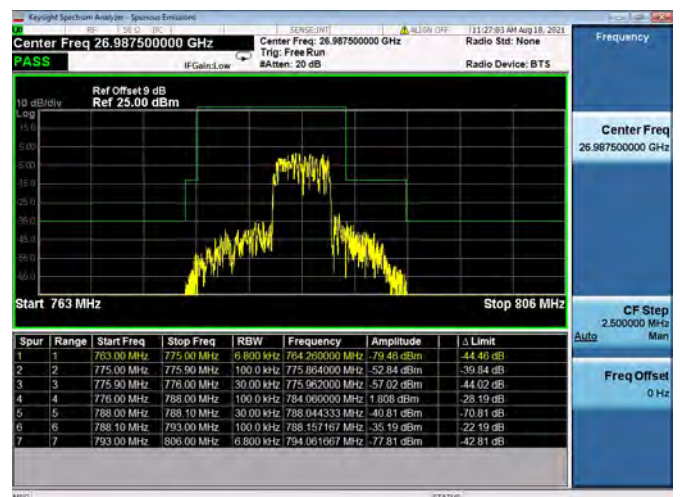
High 1RB



Low FULL RB



High FULL RB

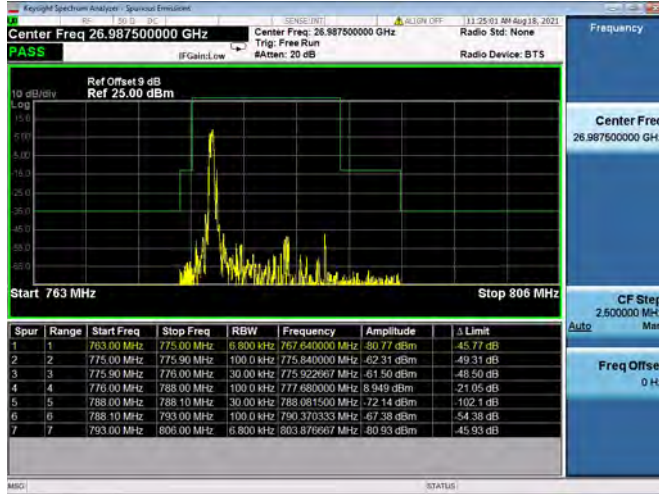




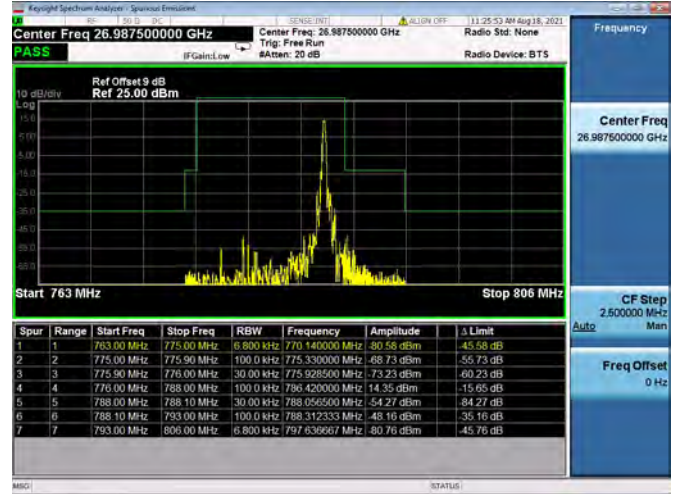
LTE ULCA\_13A-66A PCC(13A)

Channel Bandwidth: 10 MHz

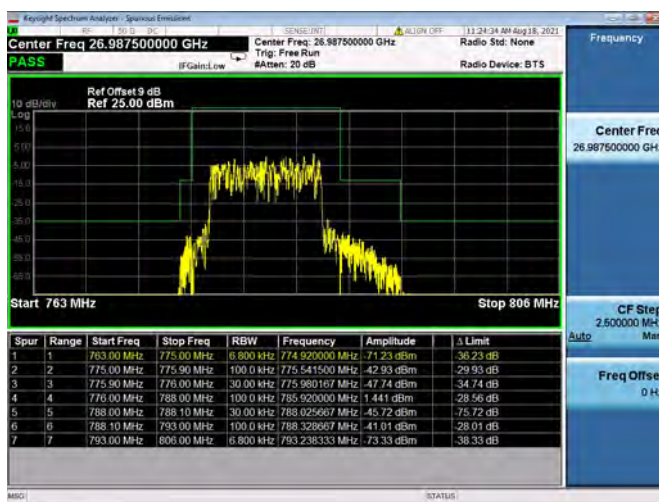
Low 1RB



High 1RB



FULL RB



N/A



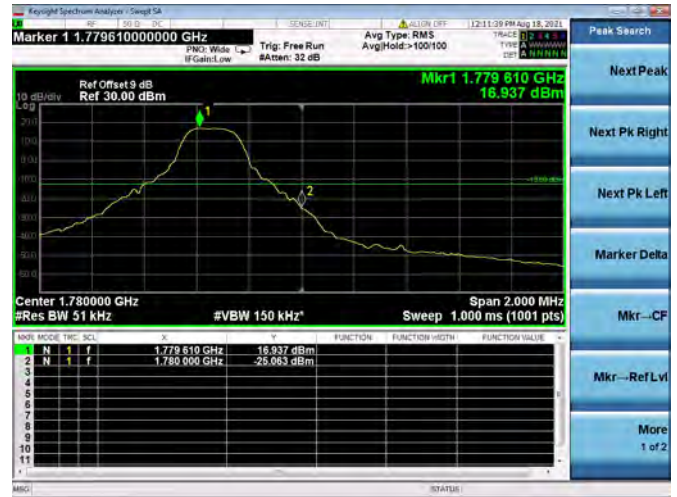
LTE ULCA\_13A-66A SCC(66A)

Channel Bandwidth: 5 MHz

Low 1RB



High 1RB



Low FULL RB



High FULL RB





LTE ULCA\_13A-66A SCC(66A)

Channel Bandwidth:10 MHz

Low 1RB

High 1RB



Low FULL RB

High FULL RB

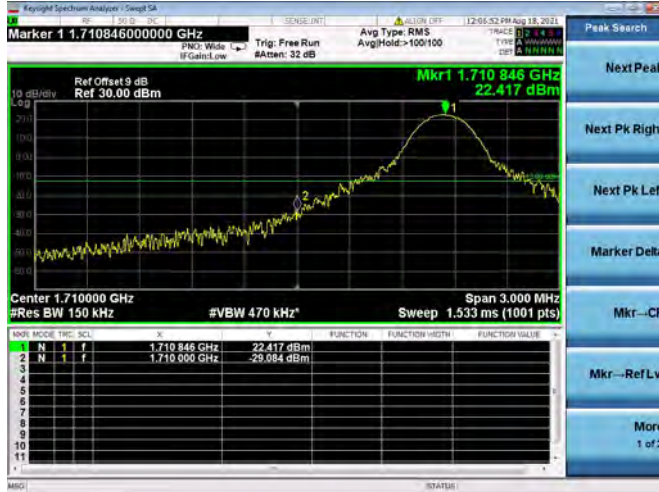




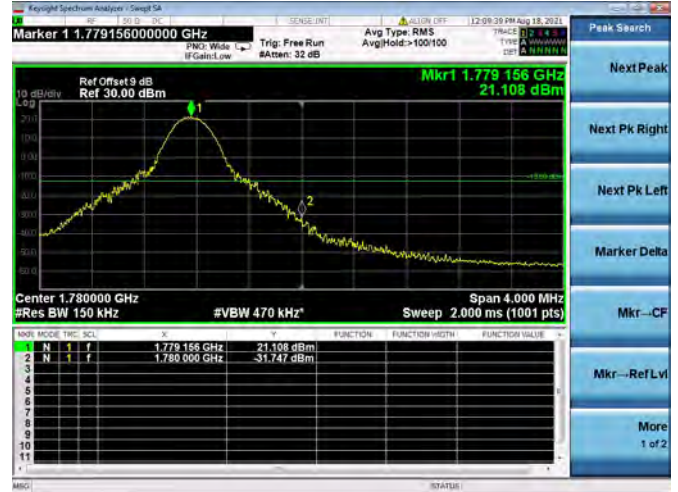
LTE ULCA\_13A-66A SCC(66A)

Channel Bandwidth: 15 MHz

Low 1RB



High 1RB



Low FULL RB



High FULL RB

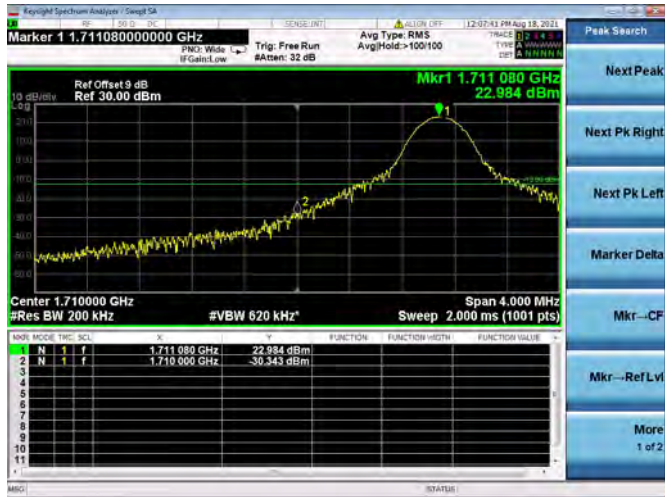




LTE ULCA\_13A-66A SCC(66A)

Channel Bandwidth: 20 MHz

Low 1RB



High 1RB



Low FULL RB



High FULL RB

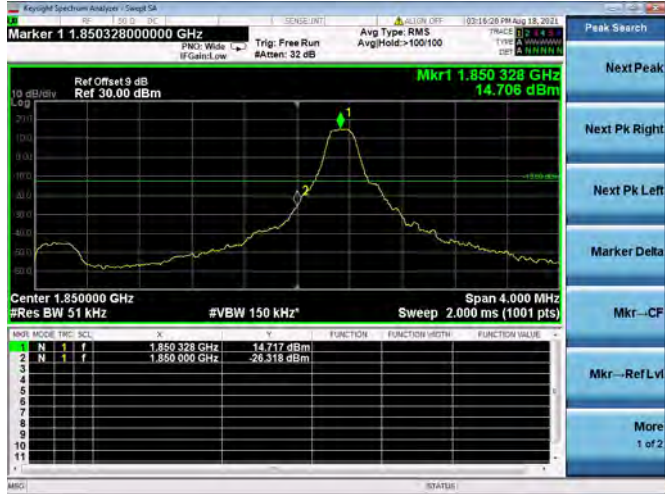




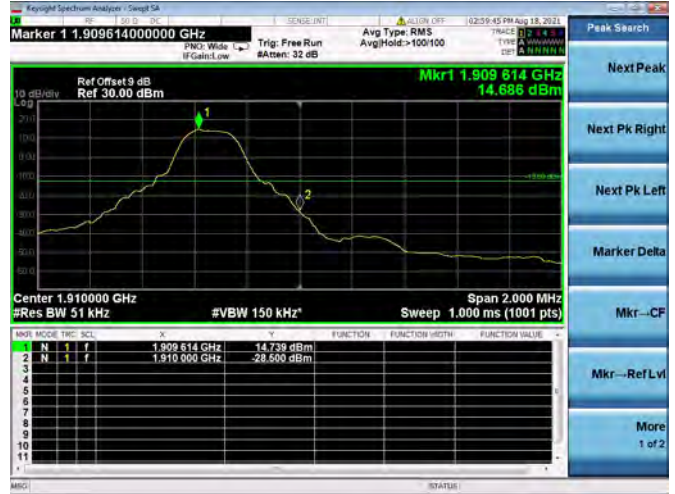
LTE ULCA\_2A-13A PCC(2A)

Channel Bandwidth: 5 MHz

Low 1RB



High 1RB



Low FULL RB



High FULL RB



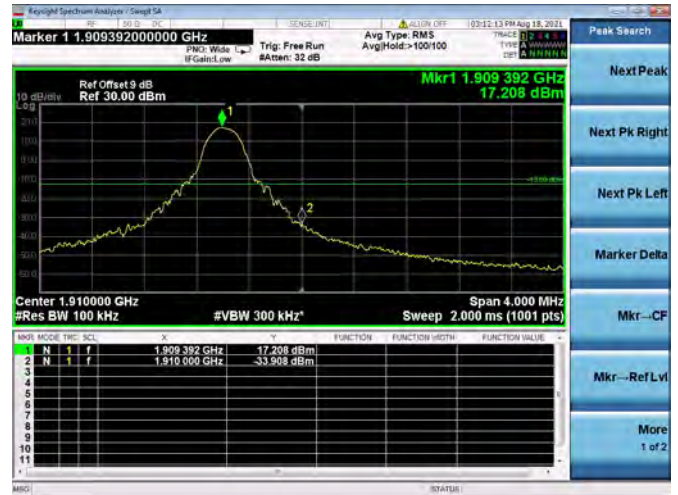


LTE ULCA\_2A-13A PCC(2A)

Channel Bandwidth: 10 MHz

Low 1RB

High 1RB



Low FULL RB

High FULL RB





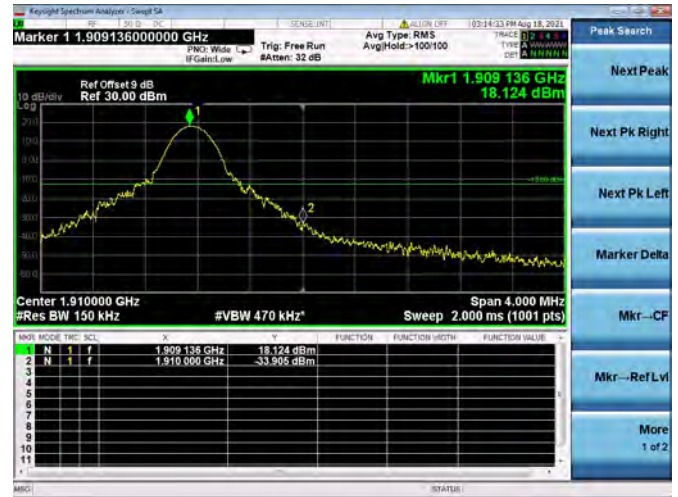
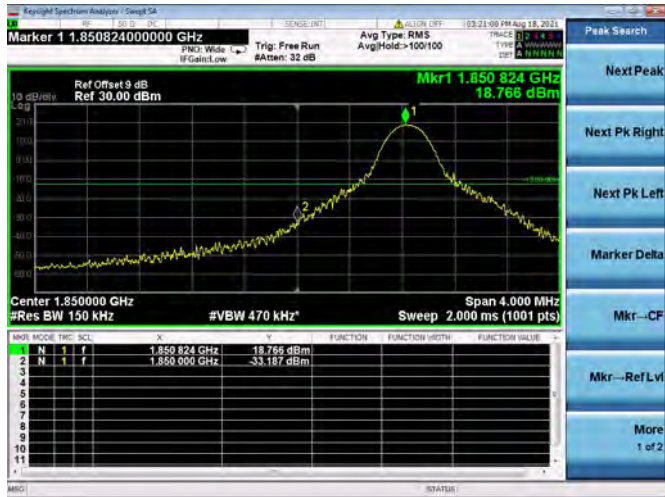


LTE ULCA\_2A-13A PCC(2A)

Channel Bandwidth: 15 MHz

Low 1RB

High 1RB



Low FULL RB

High FULL RB



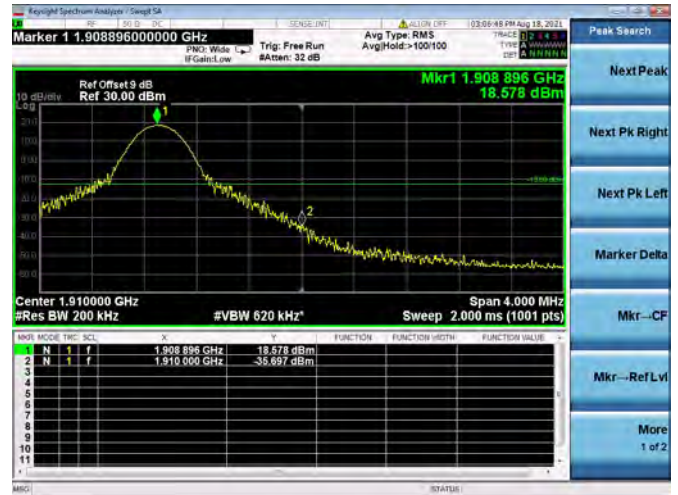
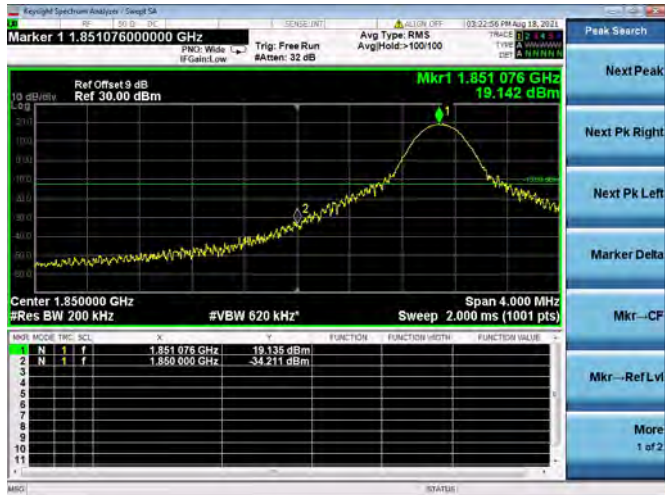


LTE ULCA\_2A-13A PCC(2A)

Channel Bandwidth: 20 MHz

Low 1RB

High 1RB



Low FULL RB

High FULL RB



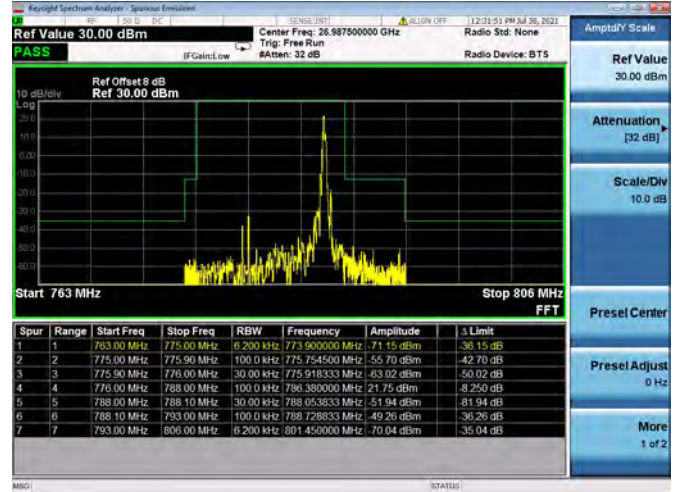
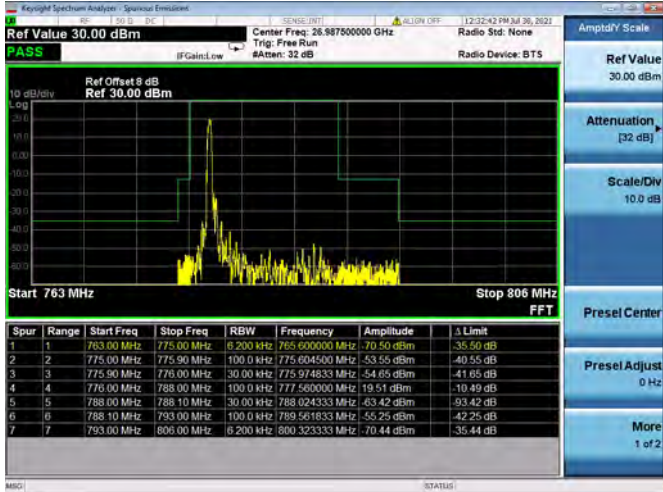


LTE ULCA\_2A-13A SCC(13A)

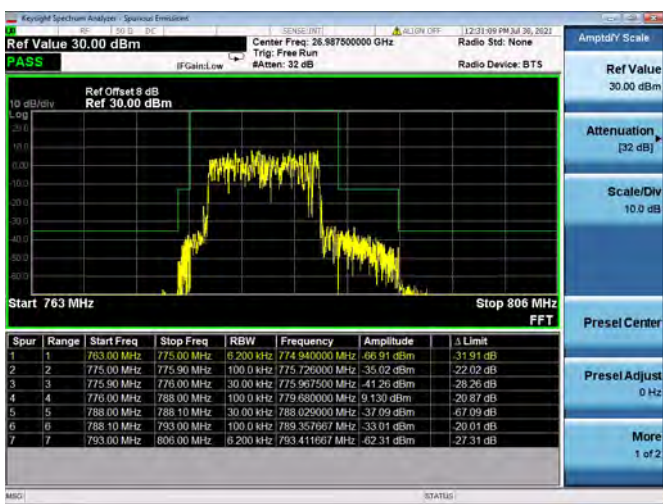
Channel Bandwidth: 10 MHz

Low 1RB

High 1RB



FULL RB



N/A



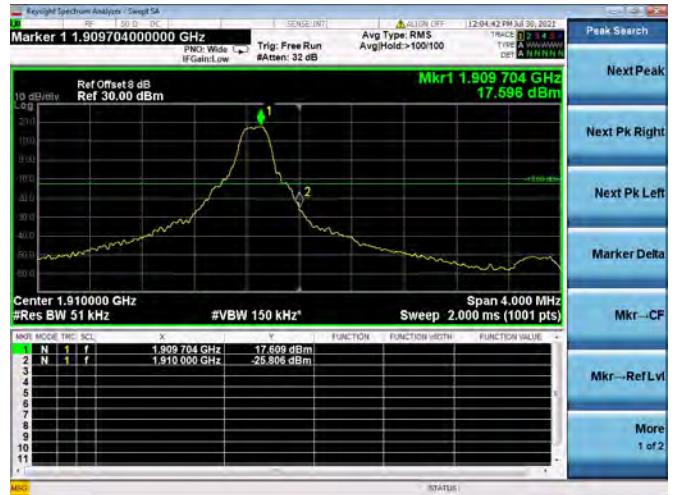
LTE ULCA\_2A-5A PCC(2A)

Channel Bandwidth: 5 MHz

Low 1RB



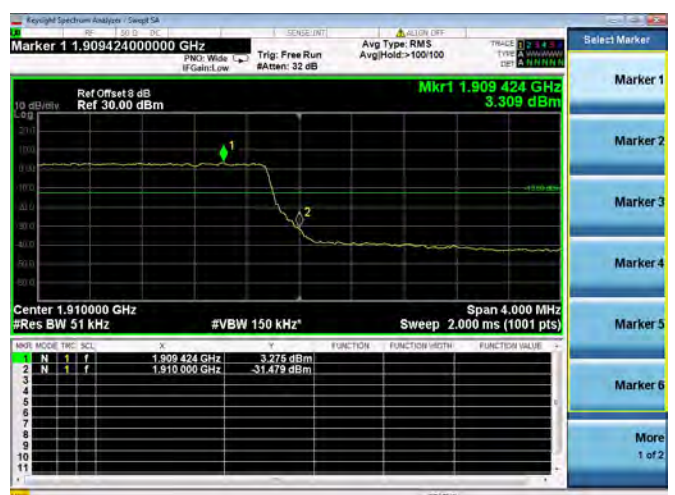
High 1RB



Low FULL RB



High FULL RB



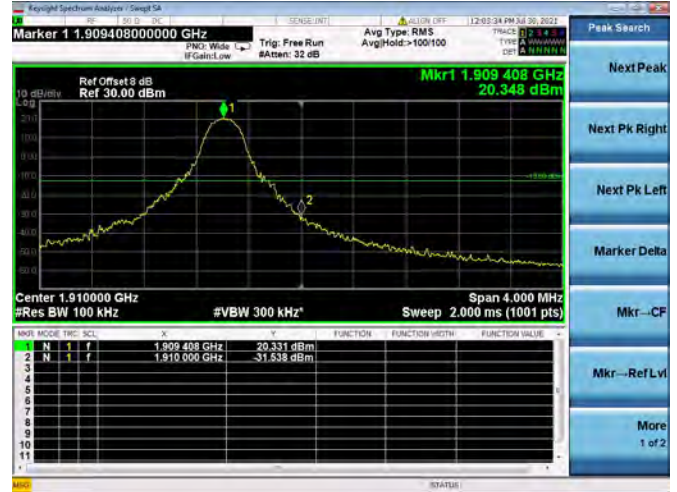


LTE ULCA\_2A-5A PCC(2A)  
Channel Bandwidth: 10 MHz

Low 1RB



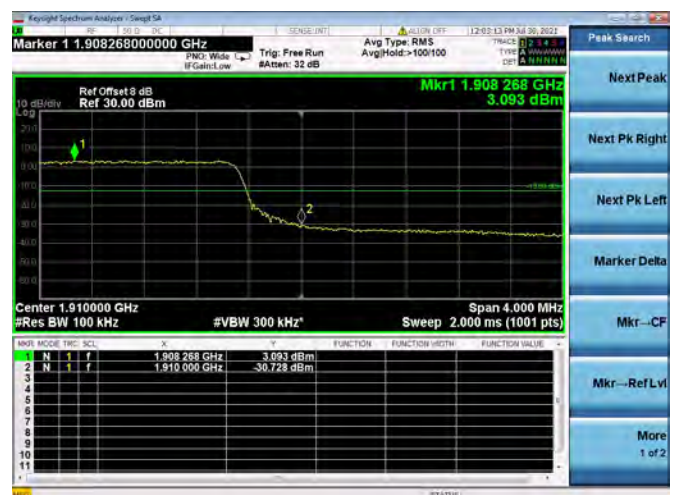
High 1RB



Low FULL RB



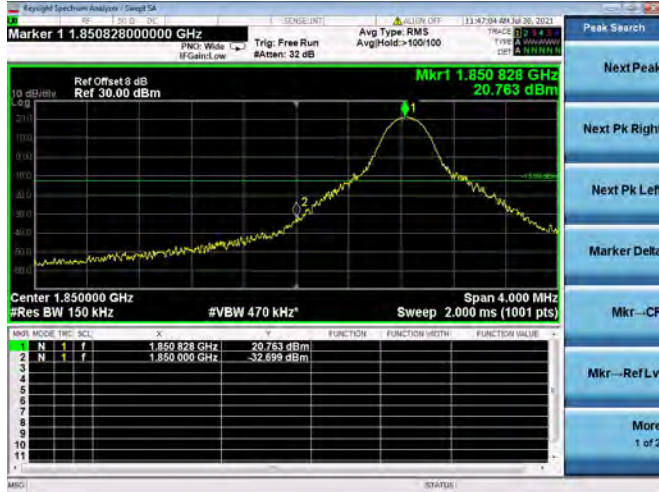
High FULL RB



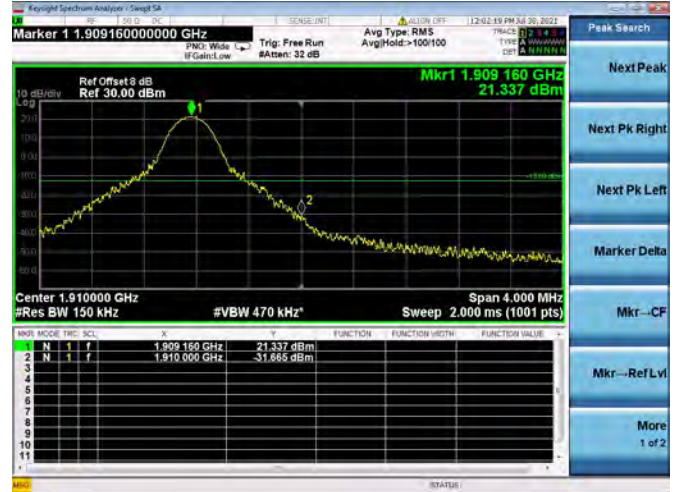


LTE ULCA\_2A-5A PCC(2A)  
Channel Bandwidth: 15 MHz

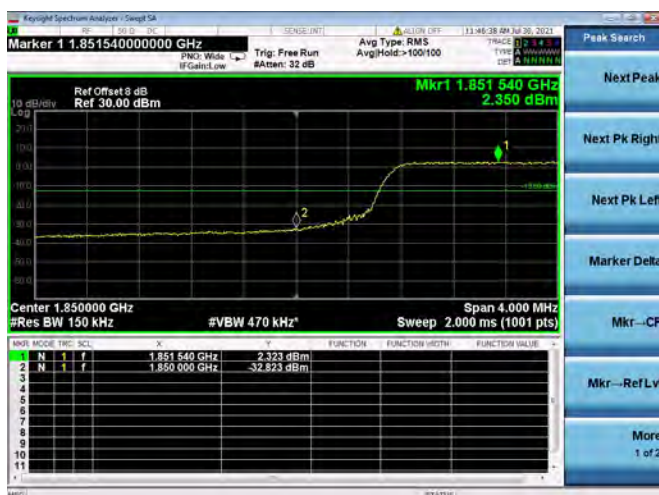
Low 1RB



High 1RB



Low FULL RB



High FULL RB

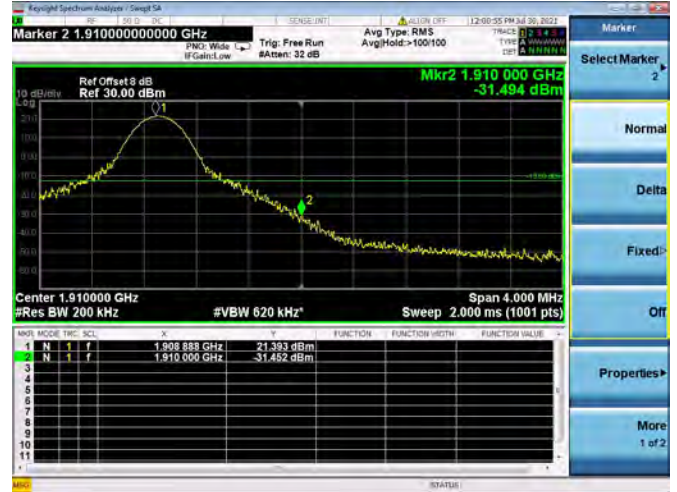
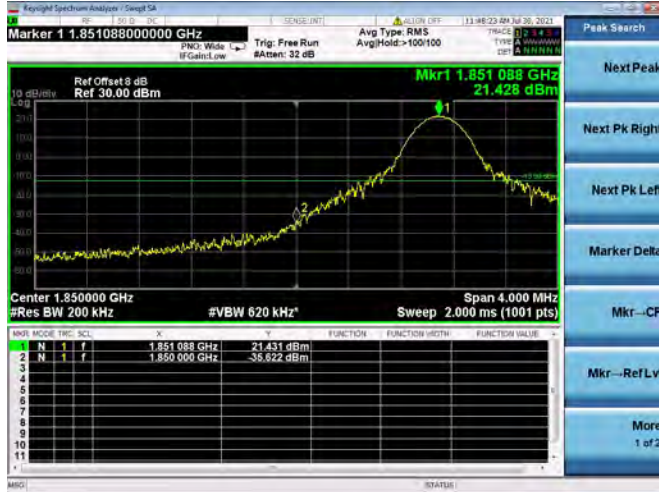




LTE ULCA\_2A-5A PCC(2A)  
Channel Bandwidth: 20 MHz

Low 1RB

High 1RB



Low FULL RB

High FULL RB





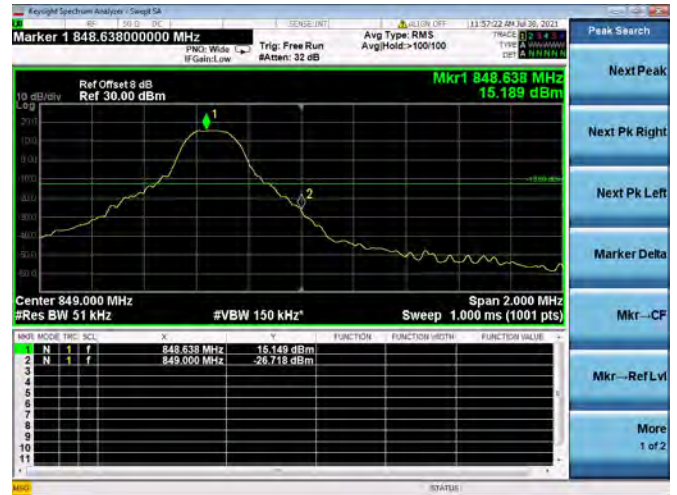
LTE ULCA\_2A-5A SCC(5A)

Channel Bandwidth: 5 MHz

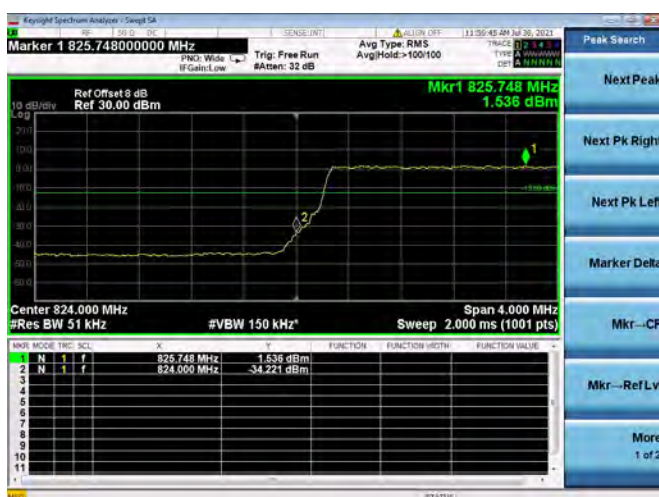
Low 1RB



High 1RB



Low FULL RB



High FULL RB







LTE ULCA\_2A-5A SCC(5A)  
Channel Bandwidth: 10 MHz

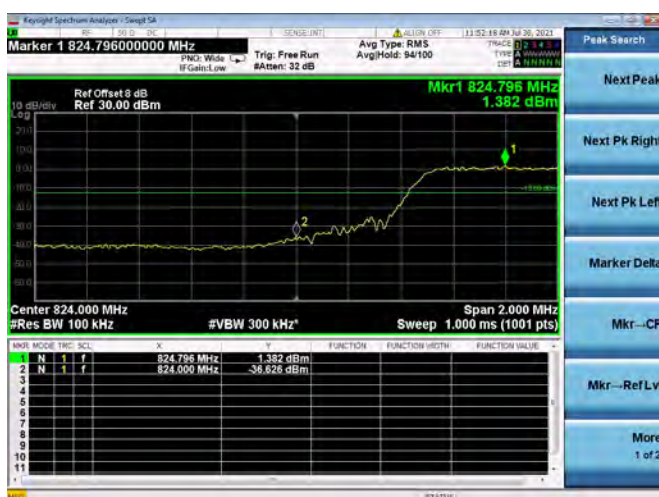
Low 1RB

High 1RB



Low FULL RB

High FULL RB



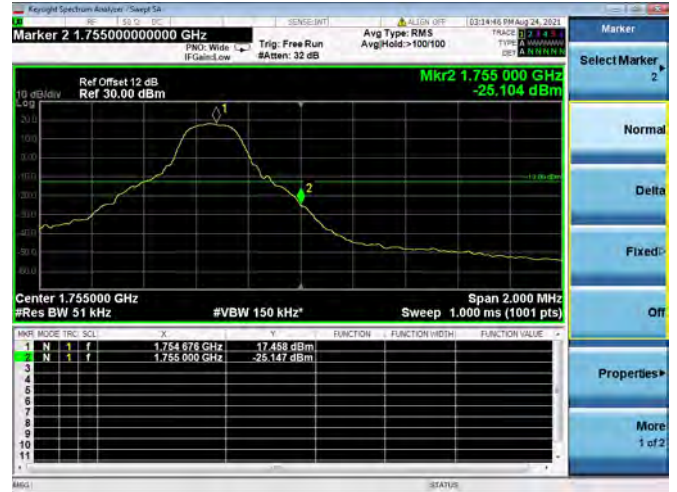


LTE ULCA\_4A-13A PCC(4A)

Channel Bandwidth: 5 MHz

Low 1RB

High 1RB



Low FULL RB

High FULL RB





LTE ULCA\_4A-13A PCC(4A)

Channel Bandwidth: 10 MHz

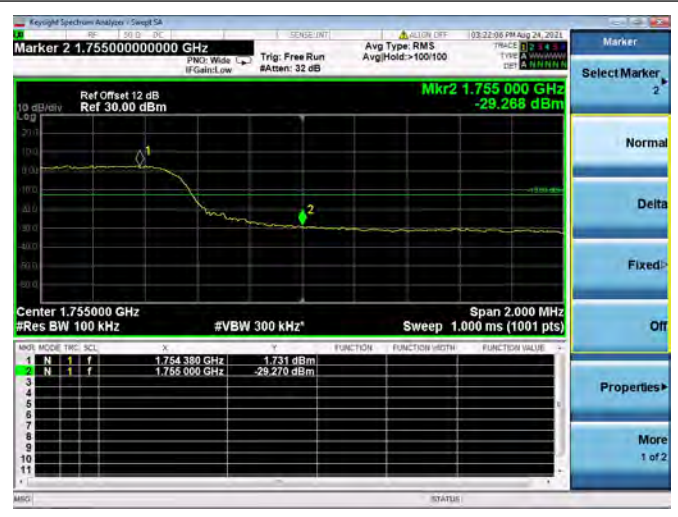
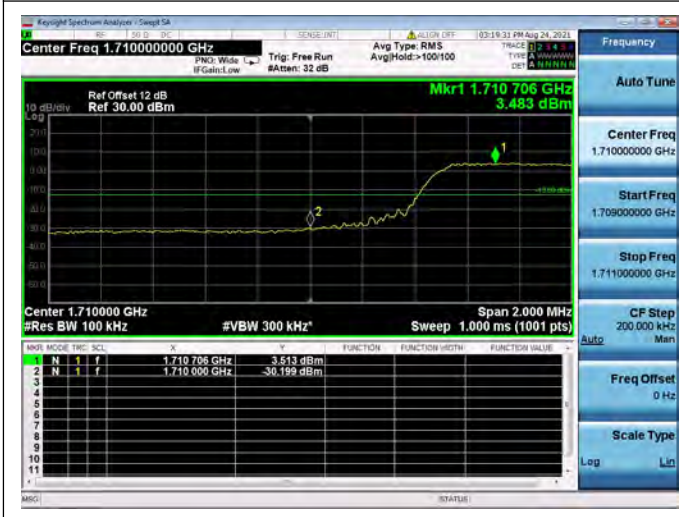
Low 1RB

High 1RB



Low FULL RB

High FULL RB





LTE ULCA\_4A-13A PCC(4A)

Channel Bandwidth: 15 MHz

Low 1RB

High 1RB



Low FULL RB

High FULL RB





LTE ULCA\_4A-13A PCC(4A)

Channel Bandwidth: 20 MHz

Low 1RB

High 1RB



Low FULL RB

High FULL RB



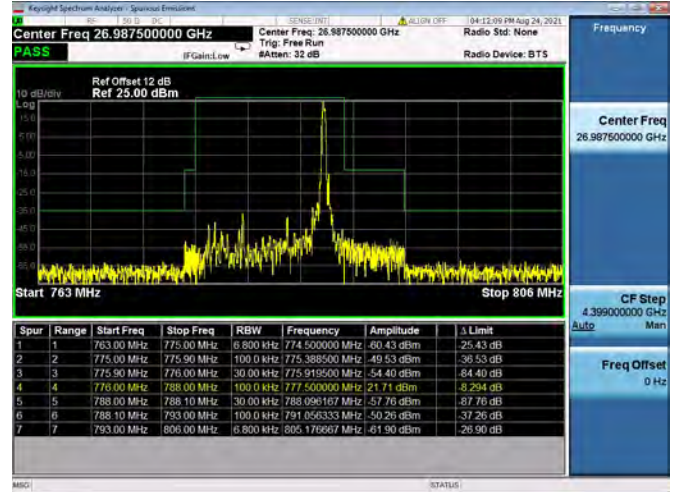
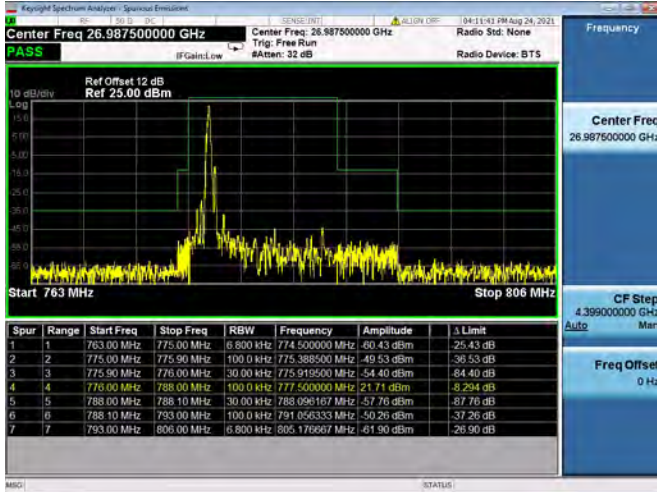


LTE ULCA\_4A-13A SCC(13A)

Channel Bandwidth: 10 MHz

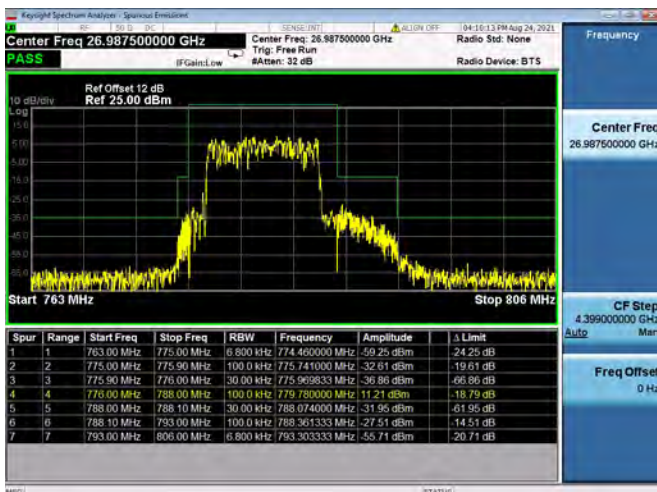
Low 1RB

High 1RB



FULL RB

N/A

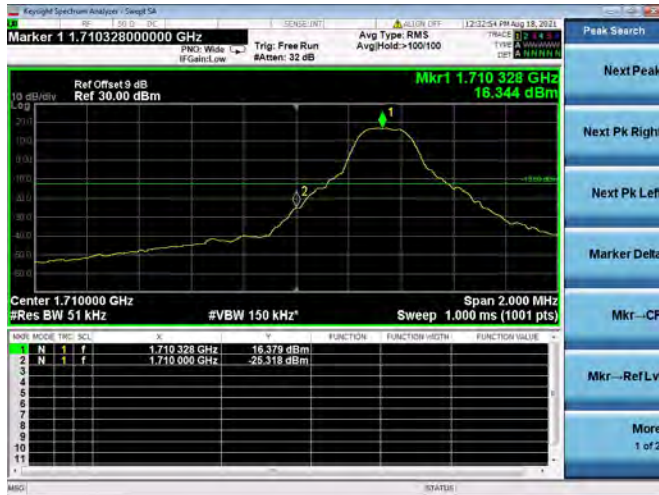




LTE ULCA\_4A-5A PCC(4A)

Channel Bandwidth: 5 MHz

Low 1RB



High 1RB



FULL RB



High FULL RB





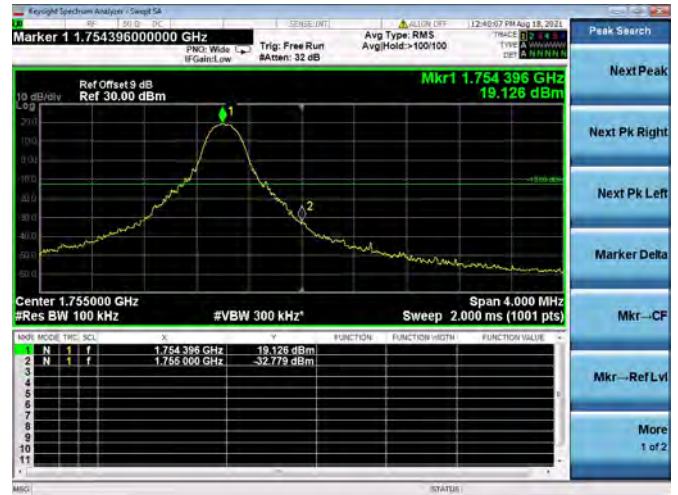
LTE ULCA\_4A-5A PCC(4A)

Channel Bandwidth: 10 MHz

Low 1RB



High 1RB



Low FULL RB



High FULL RB

