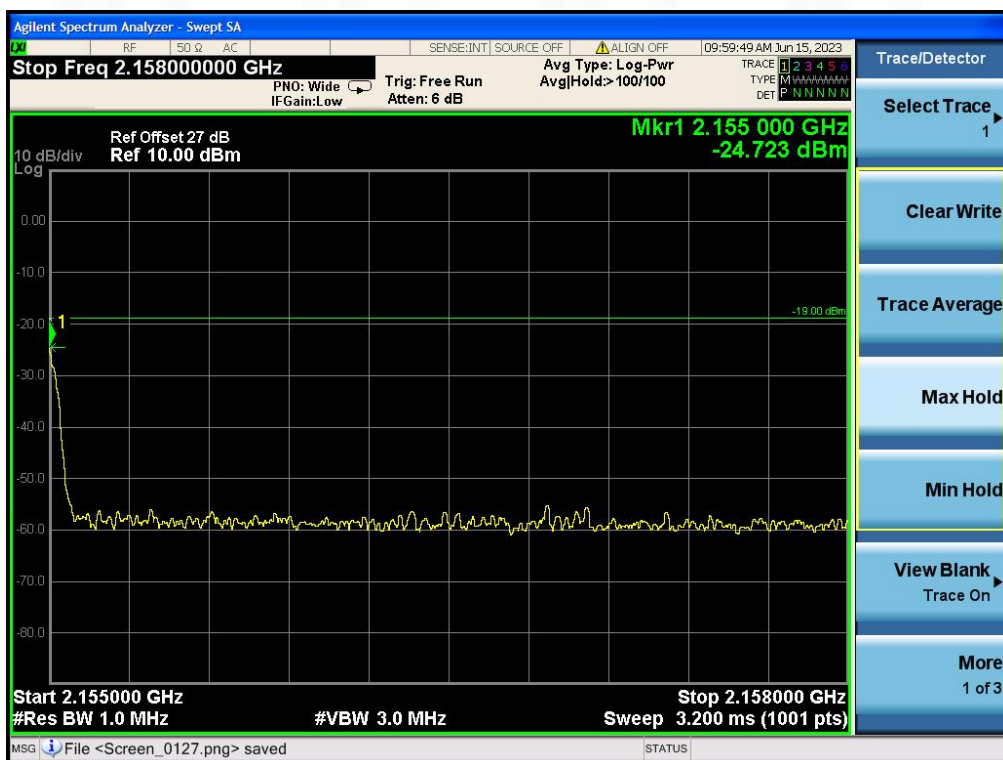
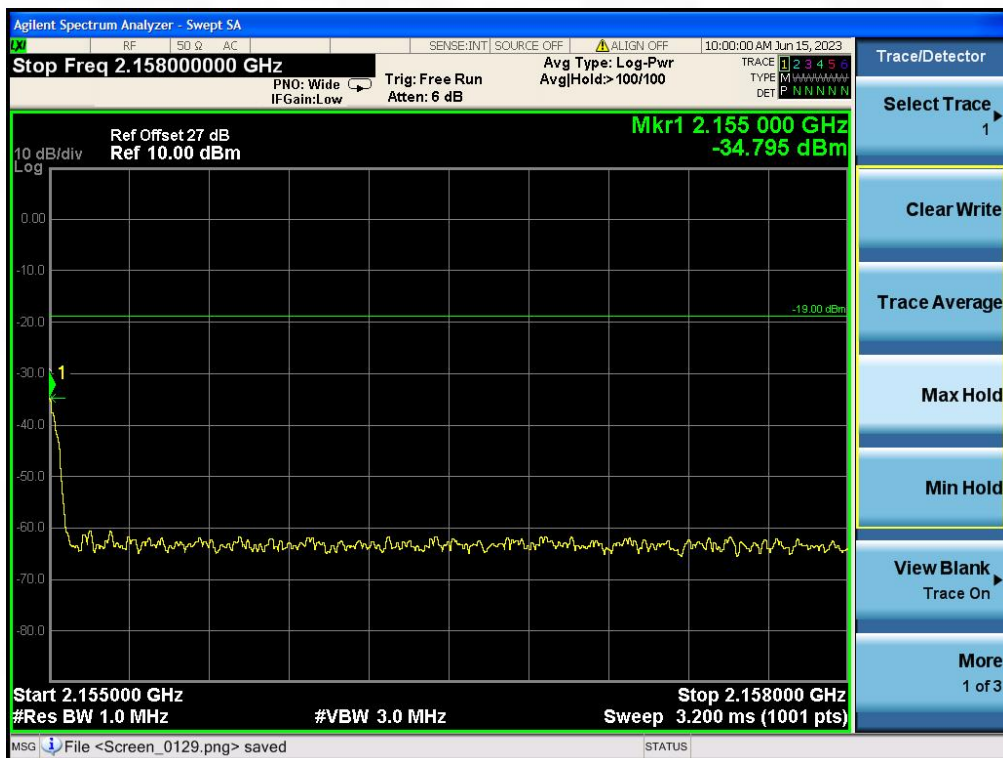


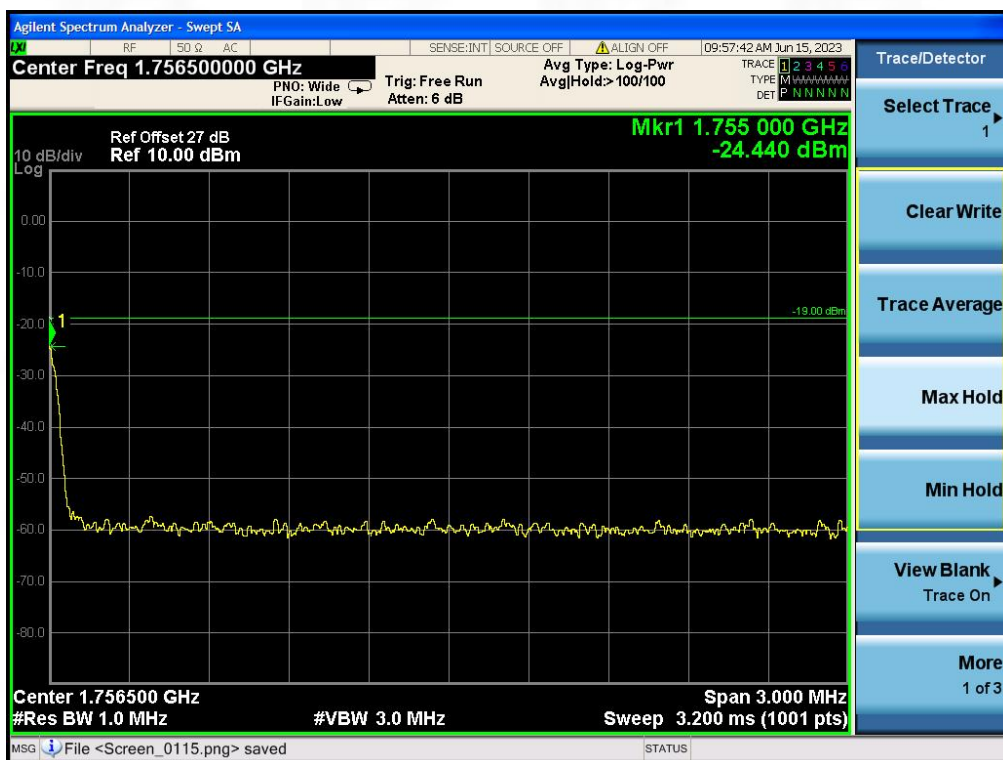
### Band 4 DL Right Side Pre AGC



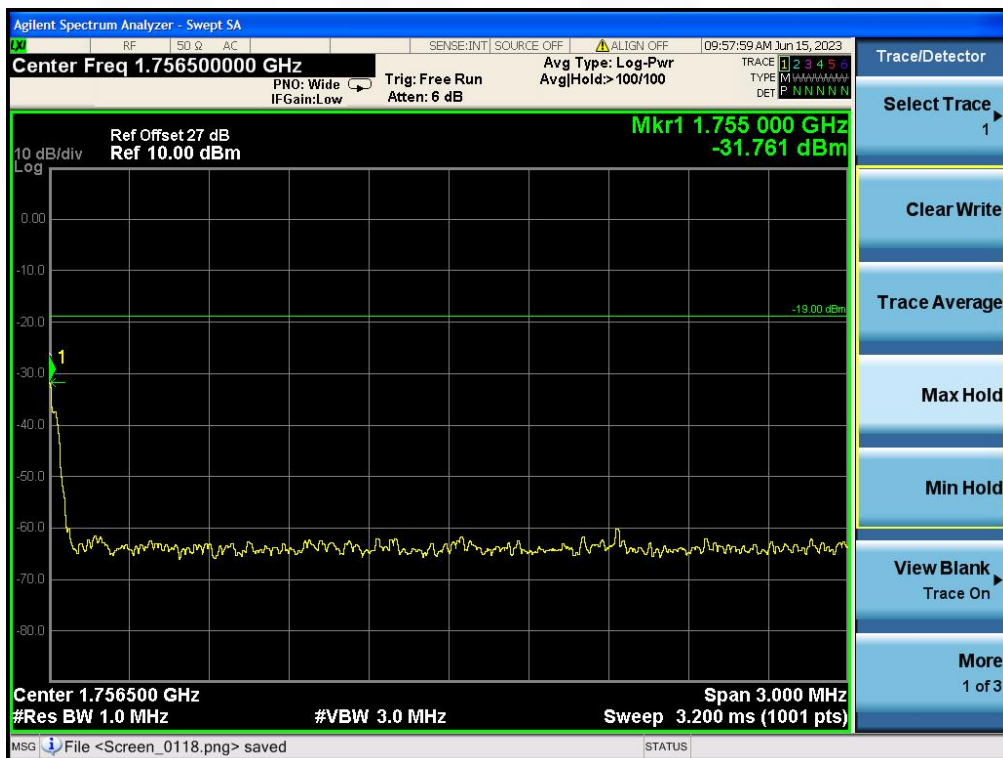
### Band 4 DL Right Side Max Input



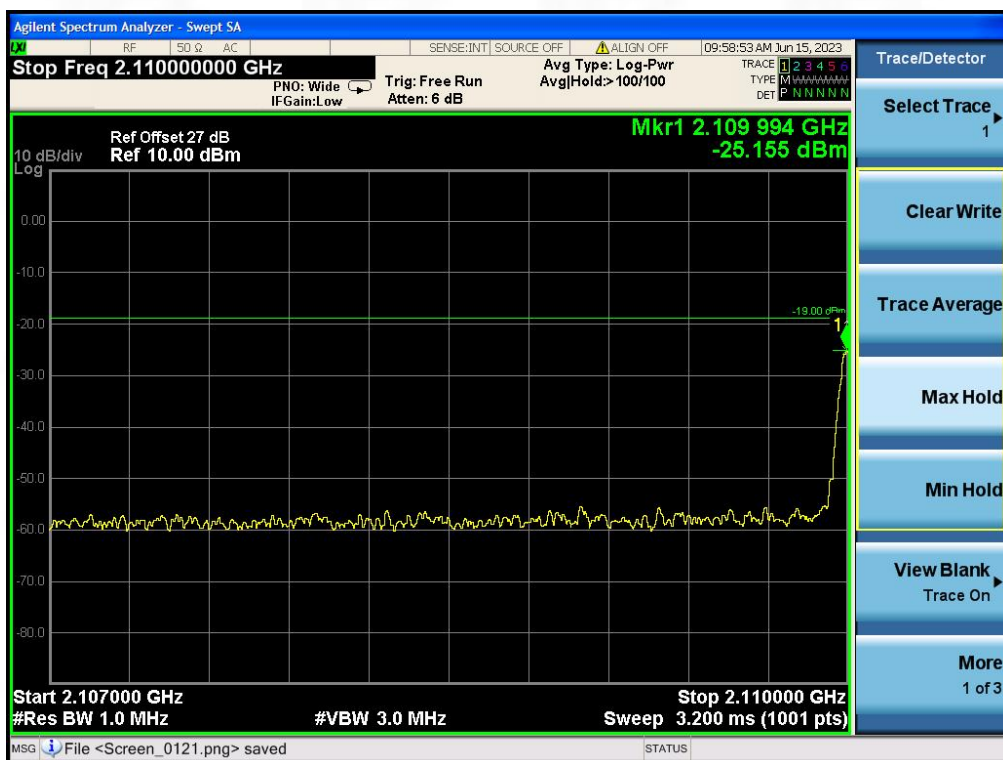
### Band 4 UL Right Side Pre AGC



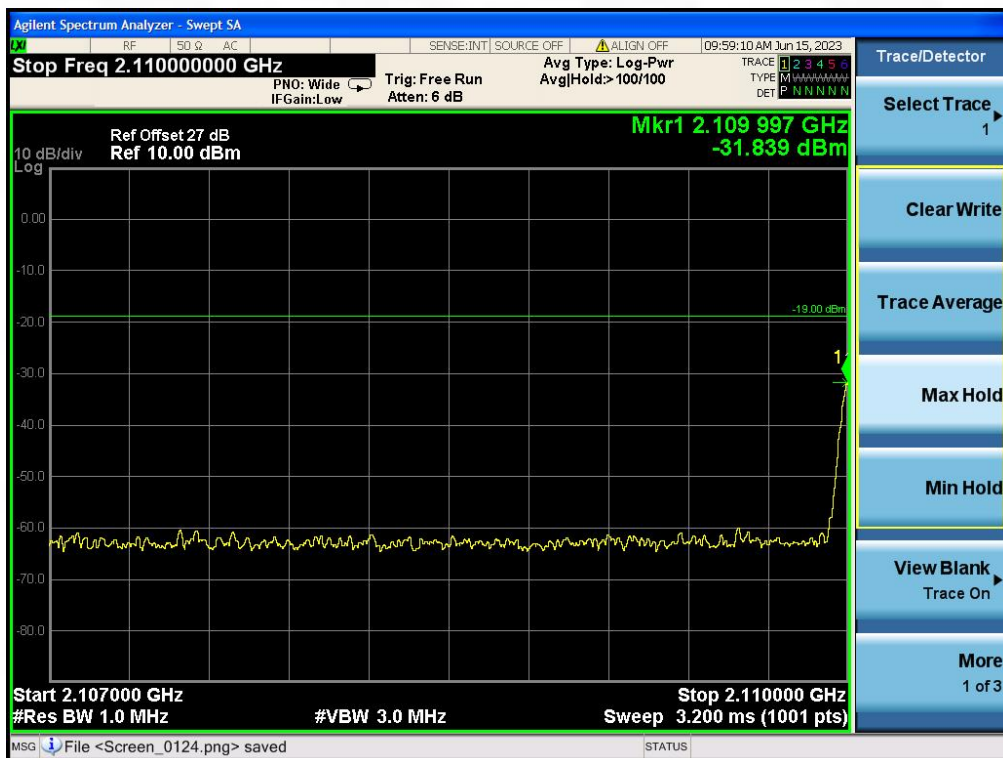
### Band 4 UL Right Side Max Input



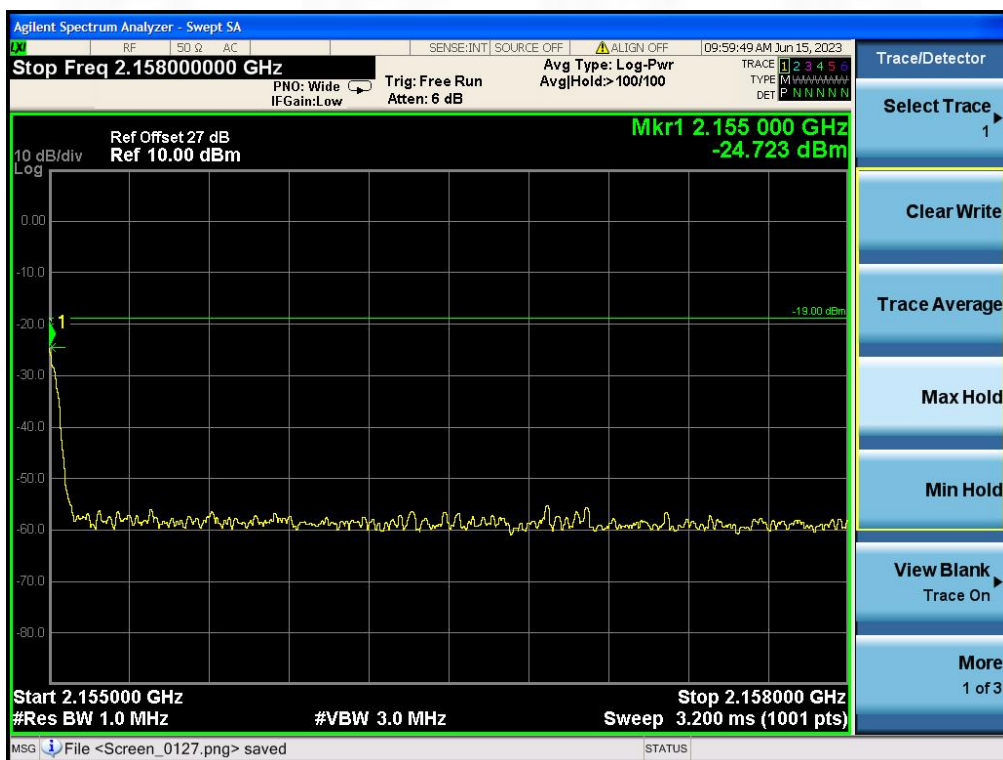
### Band 4 DL Left Side Pre AGC



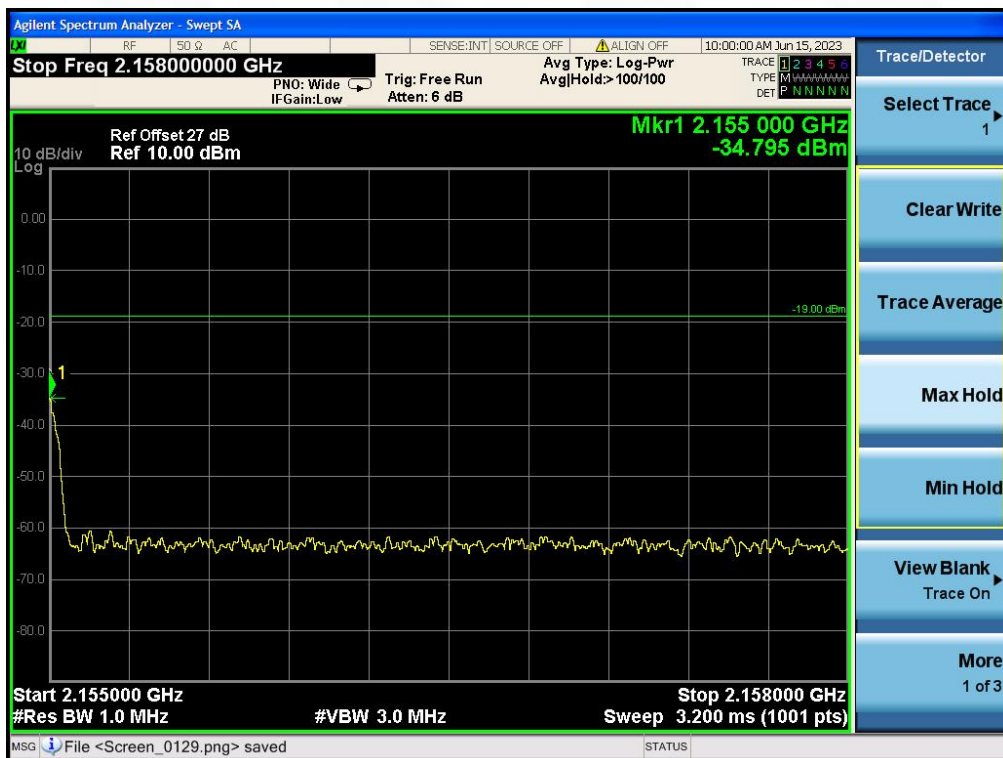
### Band 4 DL Left Side Max Input



### Band 4 DL Right Side Pre AGC



### Band 4 DL Right Side Max Input



### Band 12 LTE UL Left Side Pre AGC



### Band 12 LTE UL Left Side Max Input





### Band 12 LTE UL Right Side Pre AGC



### Band 12 LTE UL Right Side Max Input



### Band 12 LTE DL Left Side Pre AGC



### Band 12 LTE DL Left Side Max Input



### Band 12 LTE DL Right Side Pre AGC



### Band 12 LTE DL Right Side Max Input





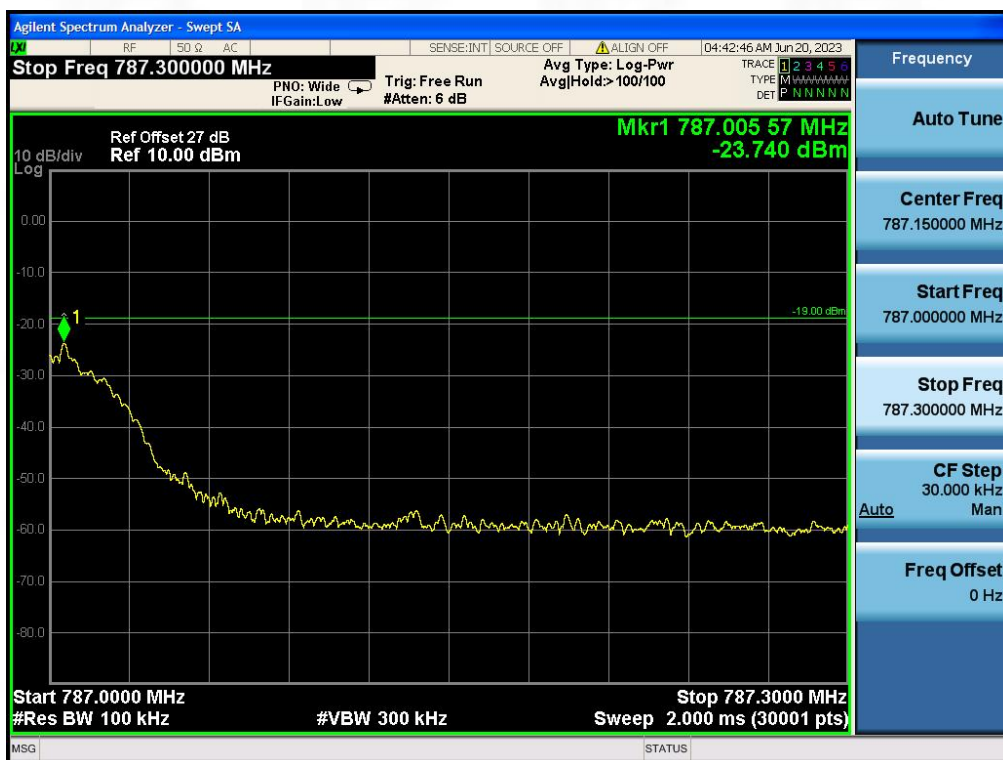
### Band 13 UL Left Side Pre AGC



### Band 13 UL Left Side Max Input



### Band 13 UL Right Side Pre AGC



### Band 13 UL Right Side Max Input



### Band 13 DL Left Side Pre AGC



### Band 13 DL Left Side Max Input



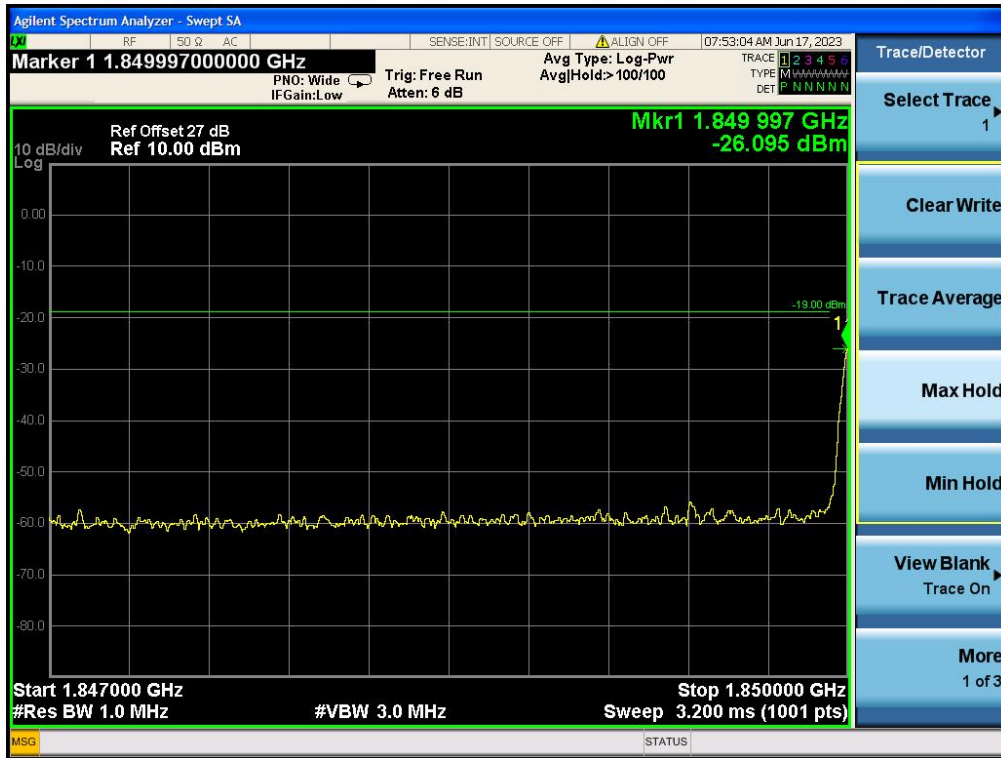
### Band 13 DL Right Side Pre AGC



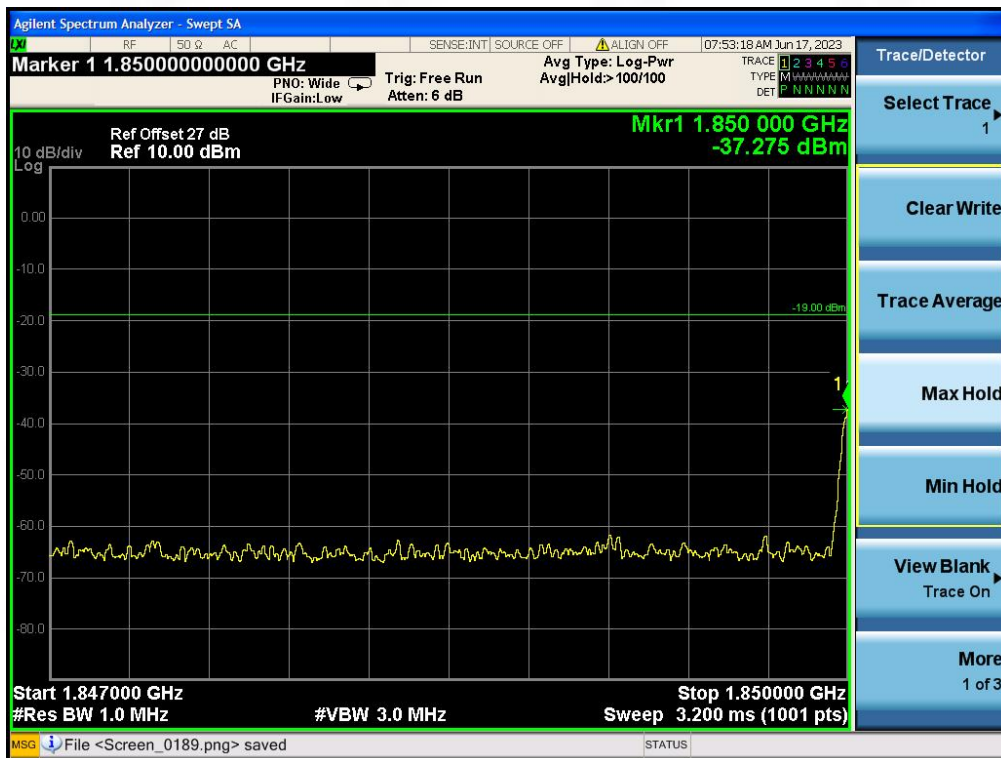
### Band 13 DL Right Side Max Input



### Band 25 UL Left Side Pre AGC

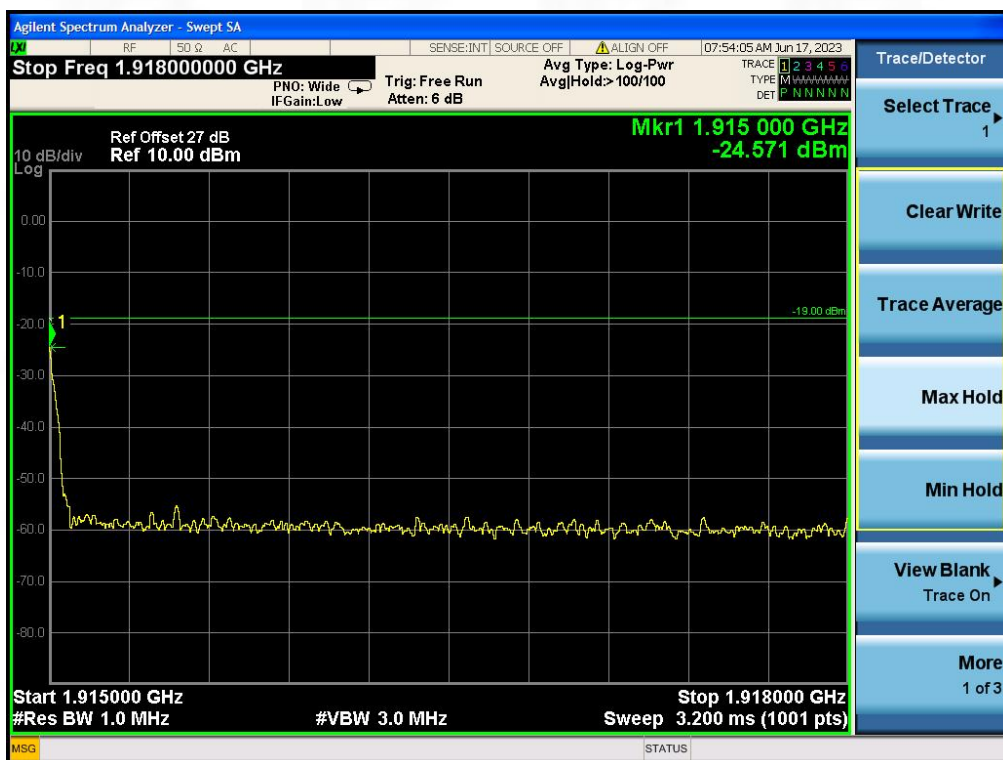


### Band 25 UL Left Side Max Input

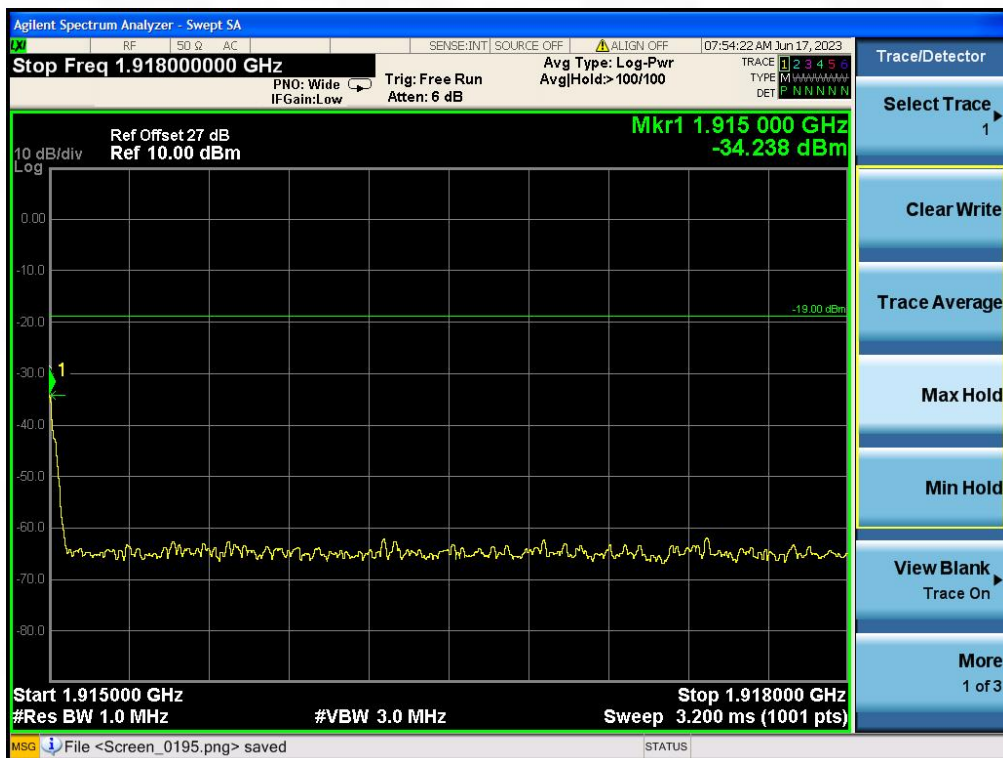




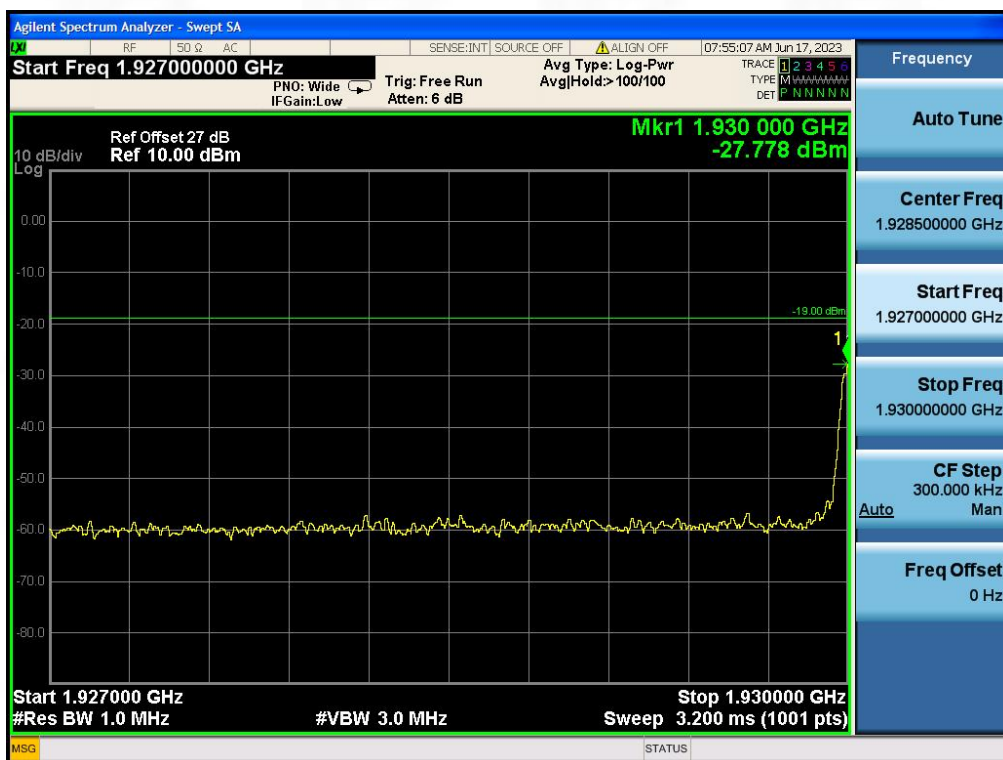
### Band 25 UL Right Side Pre AGC



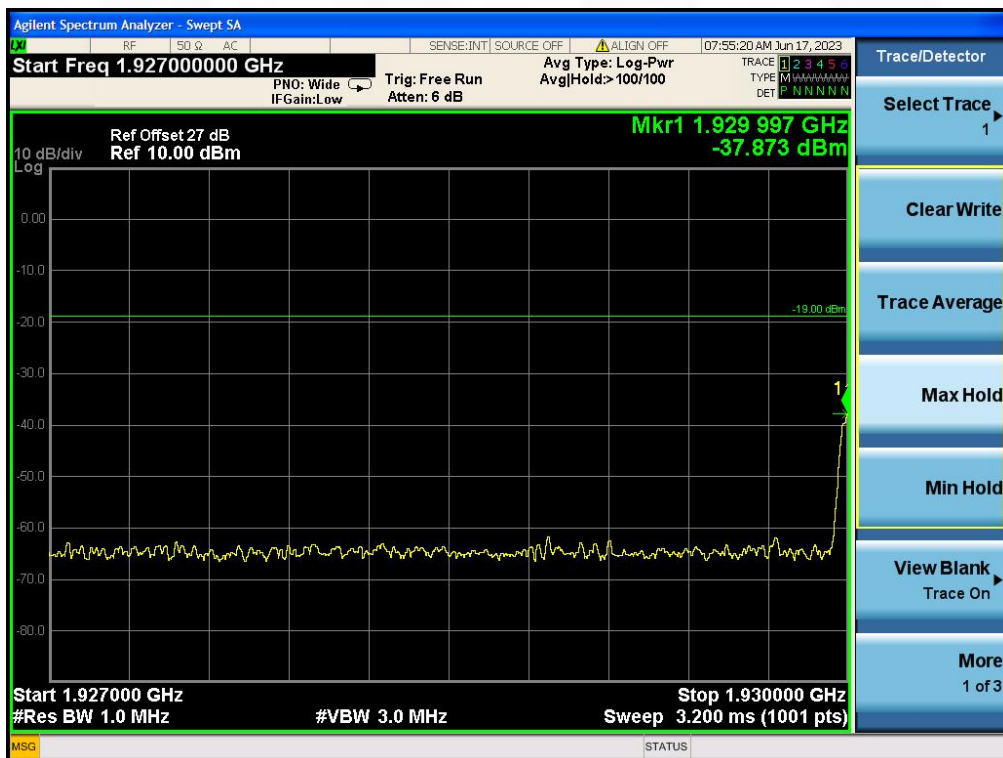
### Band 25 UL Right Side Max Input



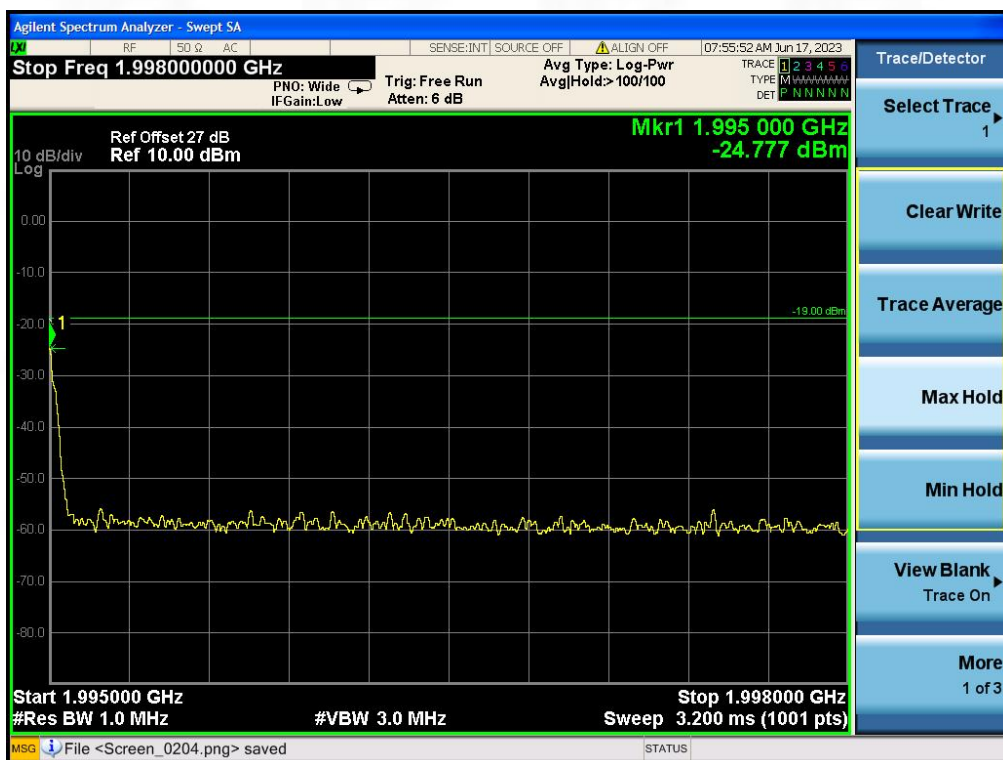
### Band 25 DL Left Side Pre AGC



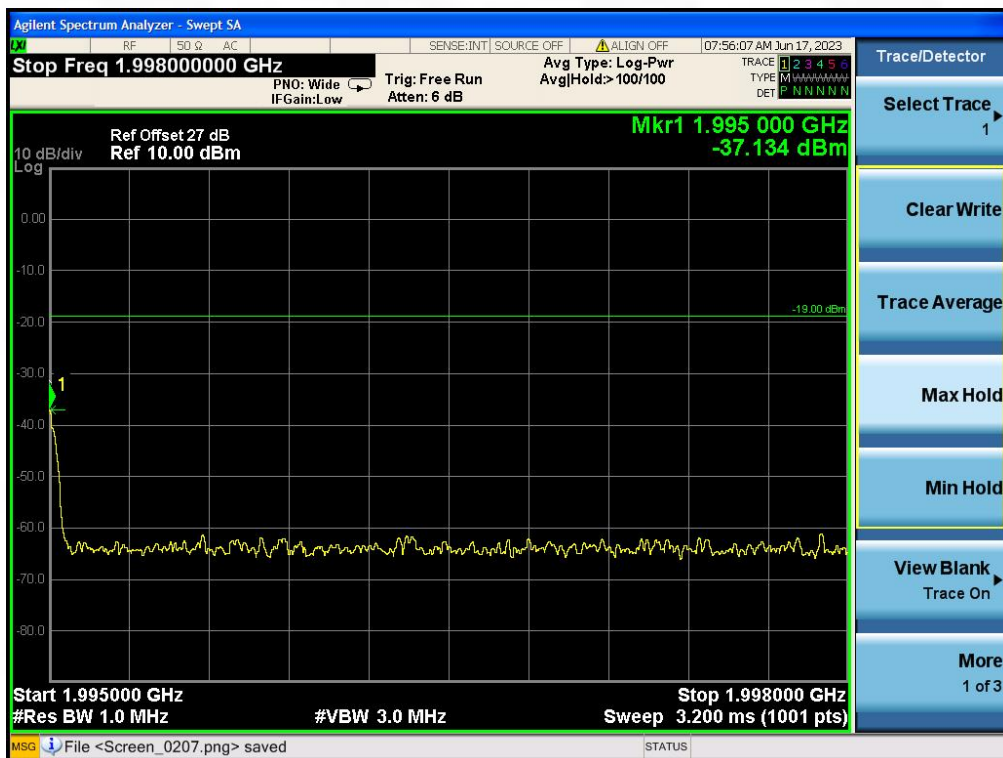
### Band 25 DL Left Side Max Input



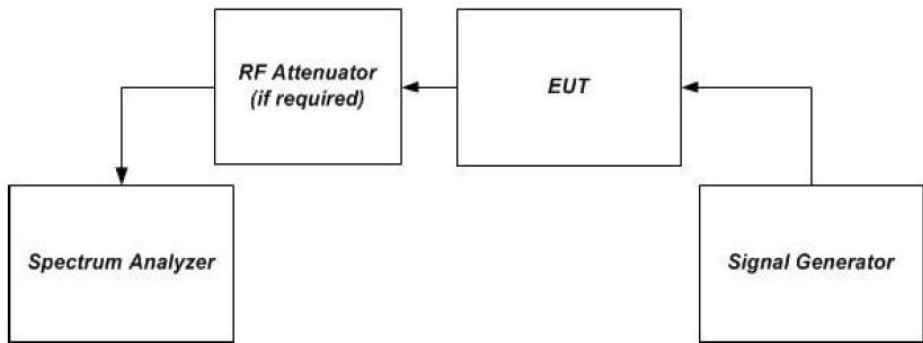
### Band 25 DL Right Side Pre AGC



### Band 25 DL Right Side Max Input



## 5.6 Spurious Emissions At Antenna Terminals

|                   |   |
|-------------------|---|
| Test Requirement: | The following procedures shall be used to demonstrate compliance to the applicable conducted spurious emissions limits as per §2.1051. Note: For frequencies below 1 GHz, an RBW of 1 MHz may be used in a preliminary measurement. If non-compliant emissions are detected, a final measurement shall be made with a 100 kHz RBW. Additionally, a peak detector may also be used for the preliminary measurement. If non-compliant emissions are detected then a final measurement of these emissions shall be made with the power averaging (RMS) detector.   |
| Limit:            | <p>-13 dBm;</p> <p>For equipment operating in the frequency bands 746-756 MHz and 777-787 MHz, The power of any unwanted emissions in any 6.25 kHz bandwidth for all frequencies between 763-775 MHz and 793-806 MHz shall be attenuated below the transmitter power, P (dBW), by at least:</p> <p>(i) <math>76 + 10 \log_{10} p</math> (watts), dB, for base and fixed equipment, and</p> <p>(ii) <math>65 + 10 \log_{10} p</math> (watts), dB, for mobile and portable equipment.</p>   |
| Test Setup:       |  <pre> graph RL     SG[Signal Generator] --&gt; EUT[EUT]     EUT --&gt; RA[RF Attenuator (if required)]     RA --&gt; SA[Spectrum Analyzer] </pre>   |
| Procedure:        | <ol style="list-style-type: none"> <li>Connect the EUT to the test equipment as shown in Figure 1. Begin with the uplink output connected to the spectrum analyzer.</li> <li>Configure the signal generator for AWGN with an emissions bandwidth of 4.1 MHz operation with a center frequency corresponding to the center of the operational band under test and with a bandwidth representative of the bandwidth of the uplink or downlink signal.</li> <li>Set the signal generator amplitude to the level determined in the power measurement procedure in 7.2.</li> <li>Turn on the signal generator RF output and measure the spurious emission power levels with an appropriate measurement instrument as follows.</li> <li>Set RBW = measurement bandwidth specified in the applicable rule section for the operational frequency band under consideration (see Annex A for relevant cross-references). Note that many of the individual rule sections permit the use of a narrower RBW (typically <math>\geq 1\%</math> of the emission bandwidth) in order to enhance measurement accuracy, but the result must then be integrated over the specified measurement bandwidth.</li> <li>Set VBW = 3 X RBW.</li> <li>Select the power averaging (RMS) detector. (See above note regarding the use of a peak detector for preliminary measurements.)</li> <li>Sweep time = auto-couple.</li> <li>Set the analyzer start frequency to the lowest radio frequency signal generated in the equipment, without going below 9 kHz, and the stop frequency to the lower band/block edge frequency minus 100 kHz or 1 MHz, as specified in the</li> </ol> |

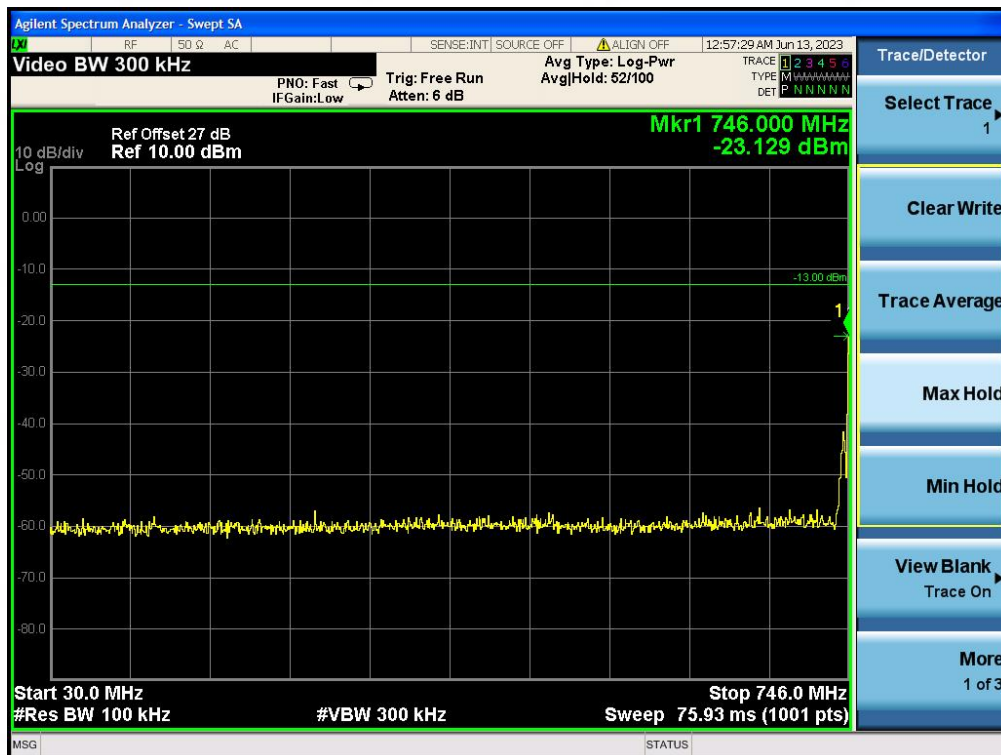
- applicable rule part. Note that the number of measurement points in each sweep must be  $\geq (2 \times \text{span}/\text{RBW})$  which may require that the measurement range defined by the start and stop frequencies above be subdivided, depending on the available number of measurement points provided by the spectrum analyzer trace average at least 10 traces in power averaging (i.e., RMS) mode.
- j) Use the peak marker function to identify the highest amplitude level over each measured frequency range. Record the frequency and amplitude and capture a plot for inclusion in the test report.
- k) Reset the analyzer start frequency to the upper band/block edge frequency plus 100 kHz or 1 MHz, as specified in the applicable rule part, and the analyzer stop frequency to 10 times the highest frequency of the fundamental emission. Note that the number of measurement points in each sweep must be  $\geq (2 \times \text{span}/\text{RBW})$  which may require that the measurement range defined by the start and stop frequencies above be subdivided, depending on the available number of measurement points provided by the spectrum analyzer.
- l) Use the peak marker function to identify the highest amplitude level over each of the measured frequency ranges. Record the frequency and amplitude and capture a plot for inclusion in the test report.
- m) Repeat steps 7.6.2 through 7.6.12 for each supported frequency band of operation.

#### 5.6.1 E.U.T. Operation:

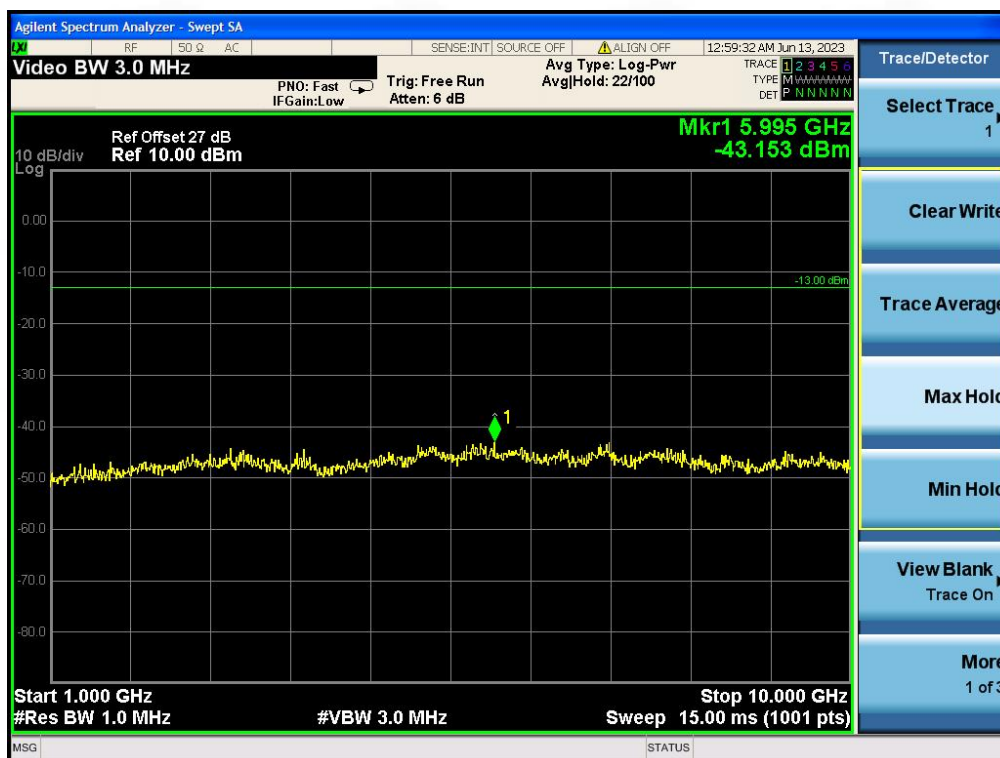
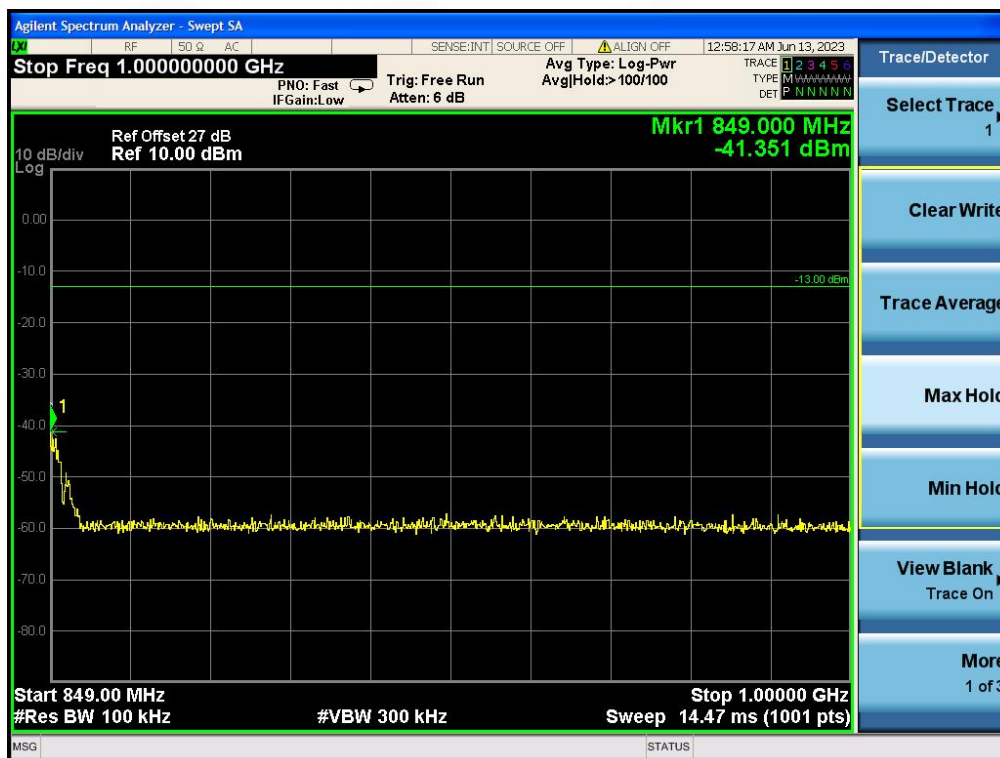
|                        |           |
|------------------------|-----------|
| Operating Environment: |           |
| Temperature:           | 22.1 °C   |
| Humidity:              | 46.3 %    |
| Atmospheric Pressure:  | 1010 mbar |

#### 5.6.2 Test Data:

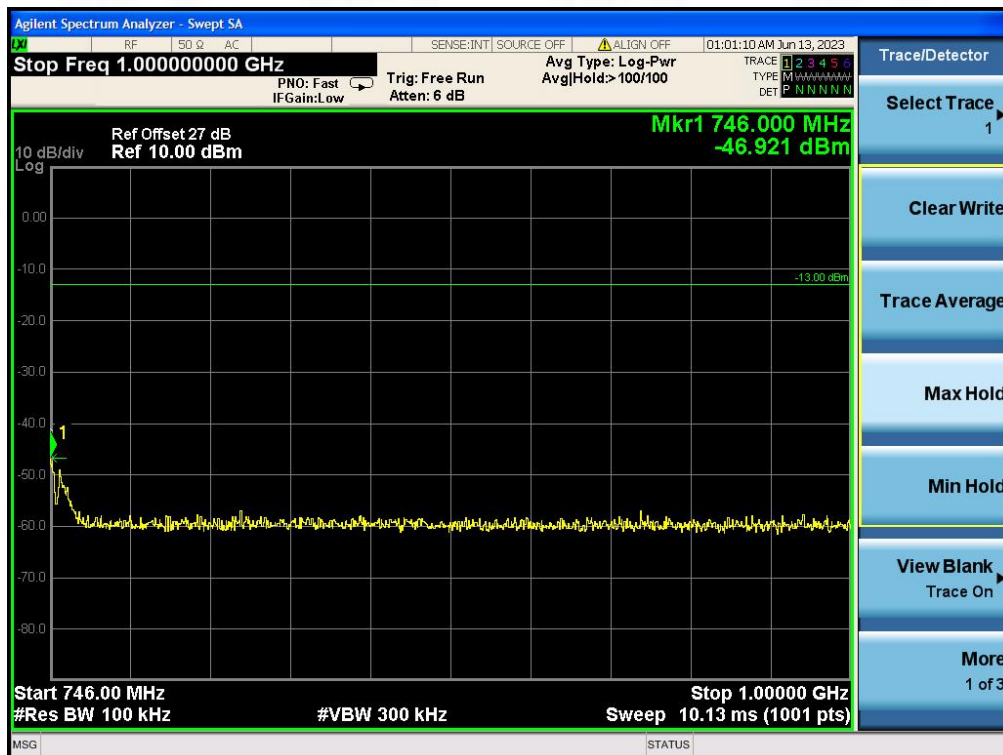
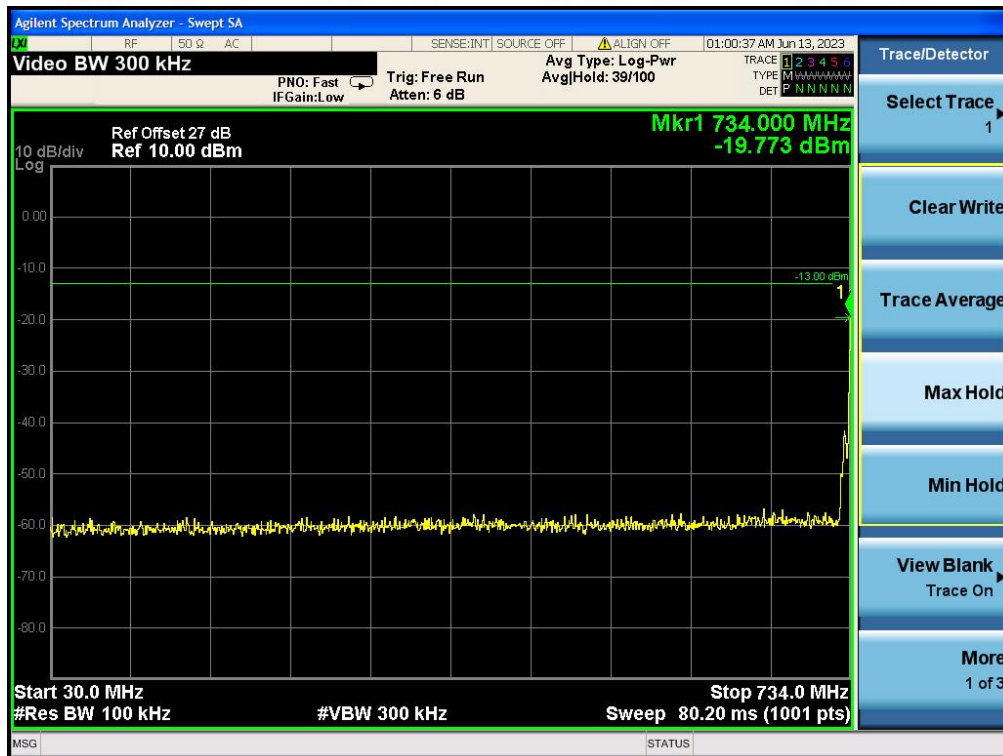
##### Band 5 Uplink





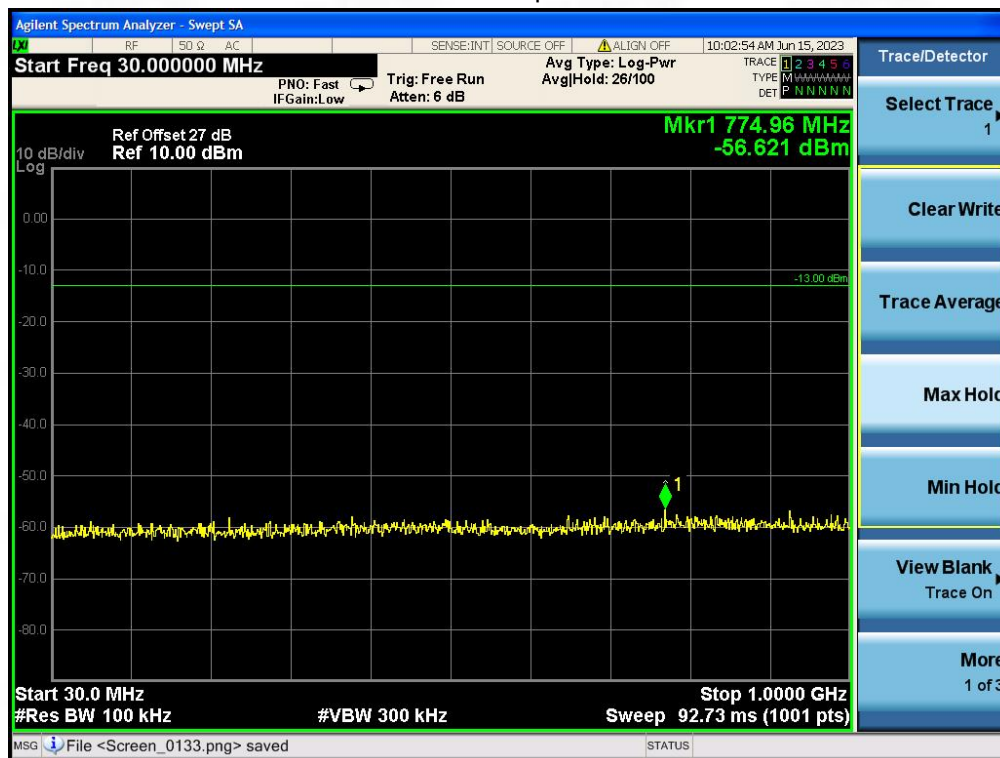


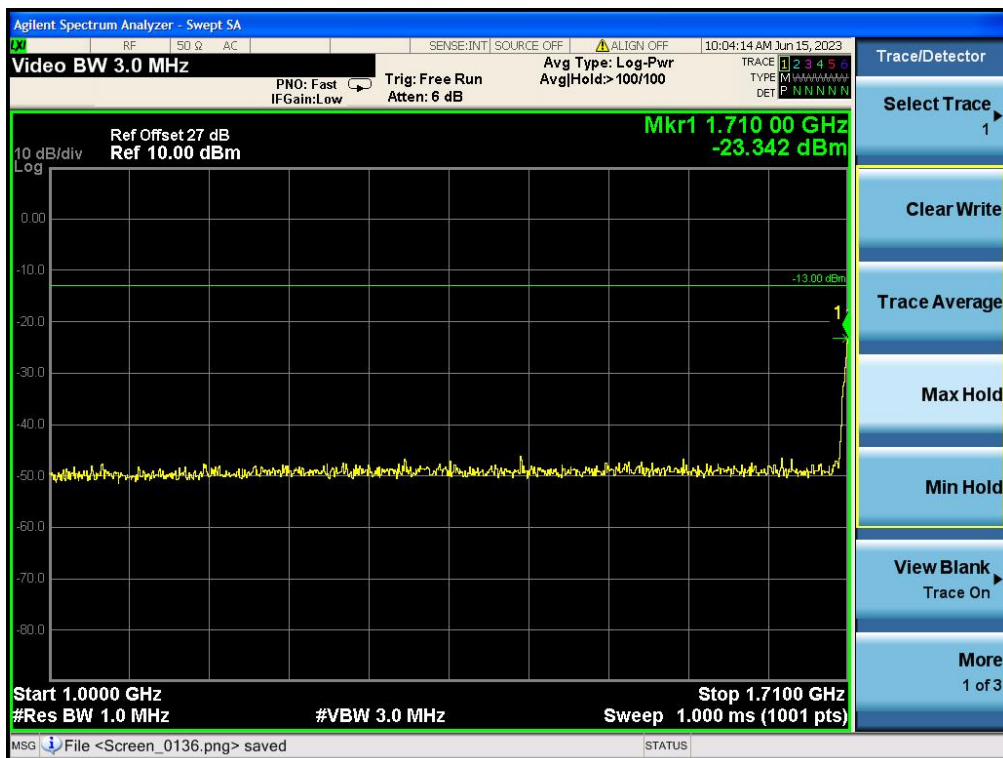
### Band 5 Downlink



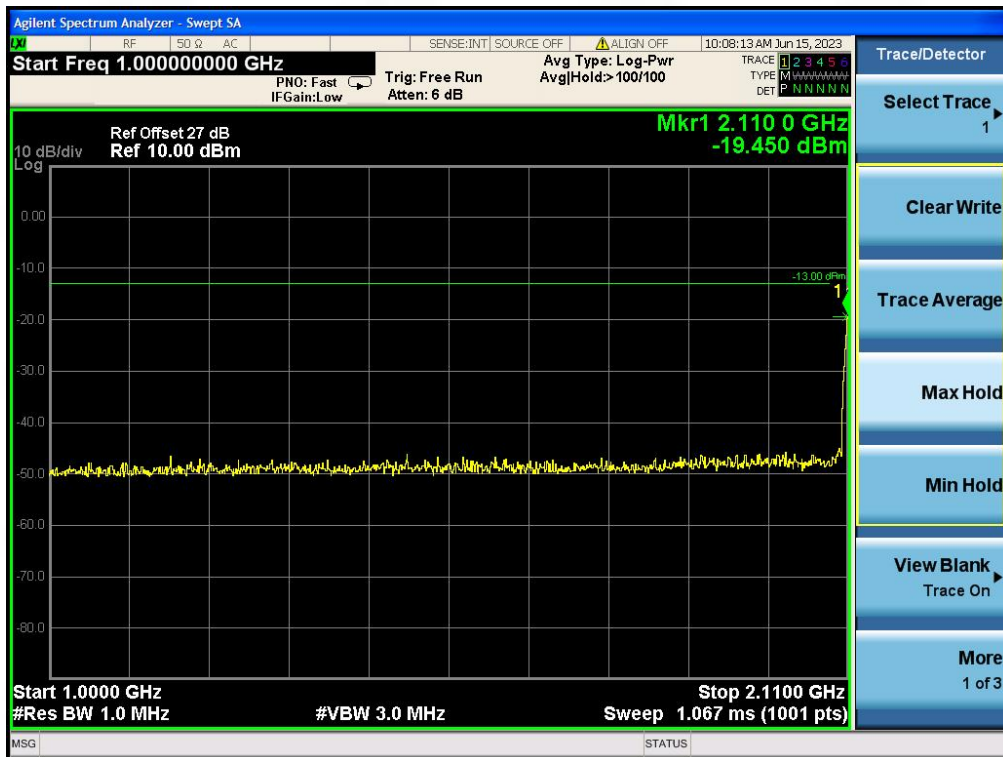
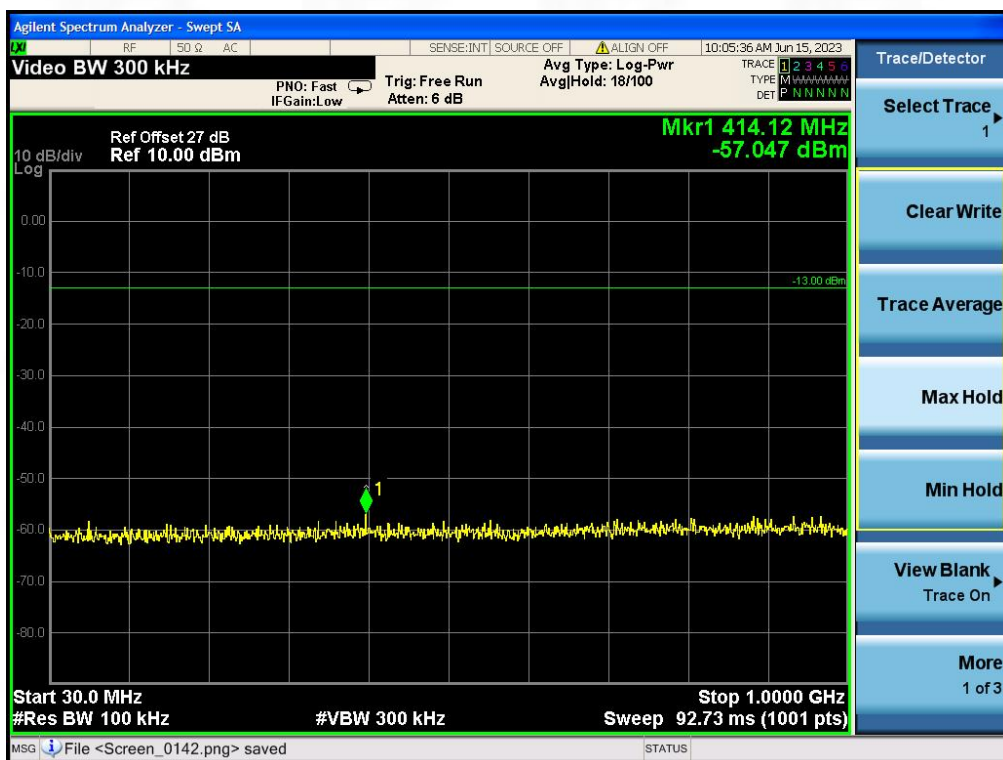


Band 4 Uplink





### Band 4 Downlink







Band 12 Uplink

