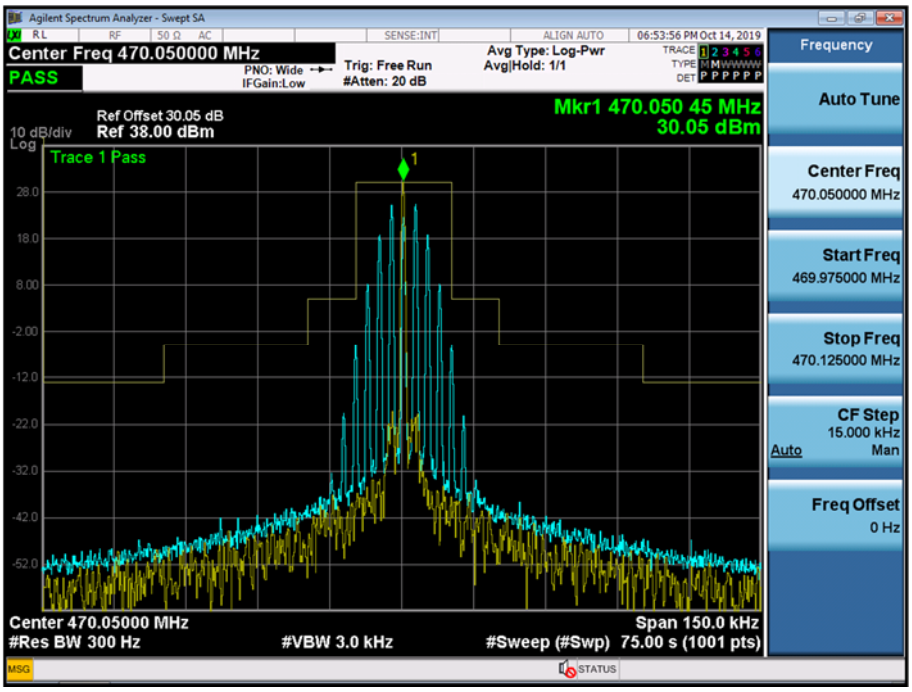
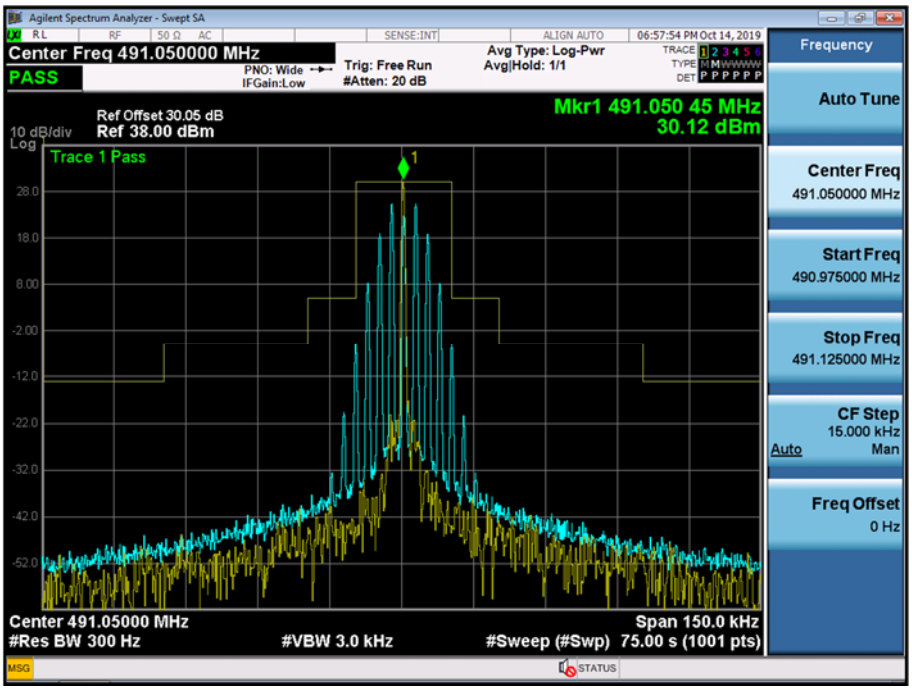
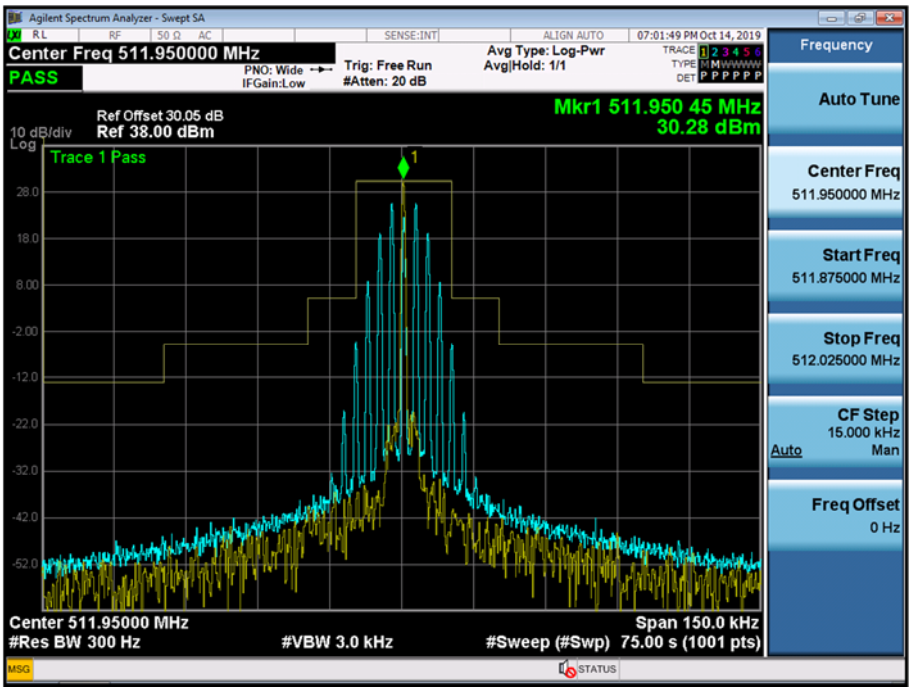
(470.05 MHz)_Low_1W



(491.05 MHz)_Low_1W

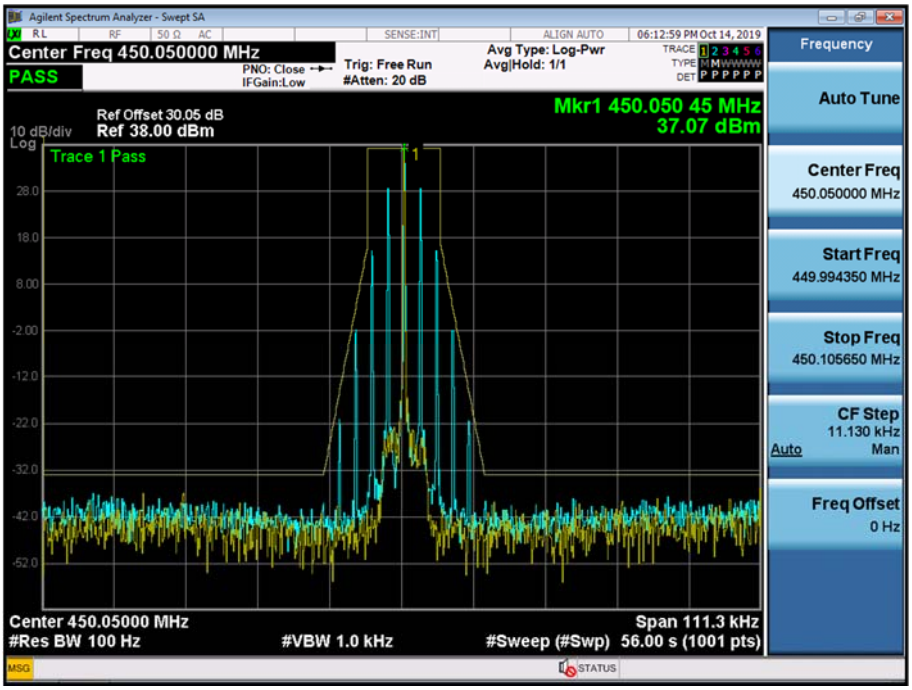


(511.95 MHz)_Low_1W

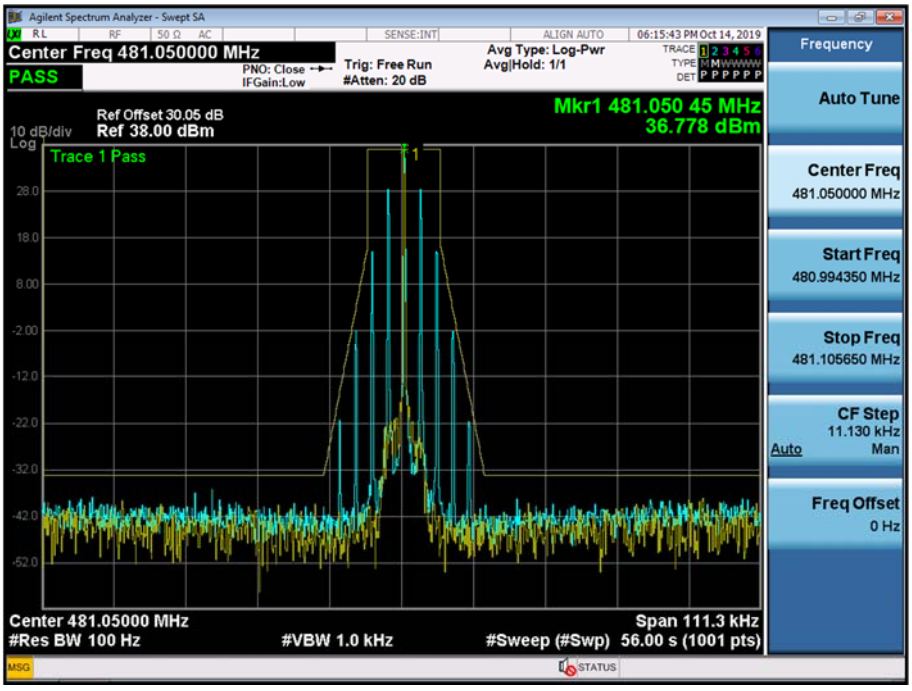


11K0F3E_FCC

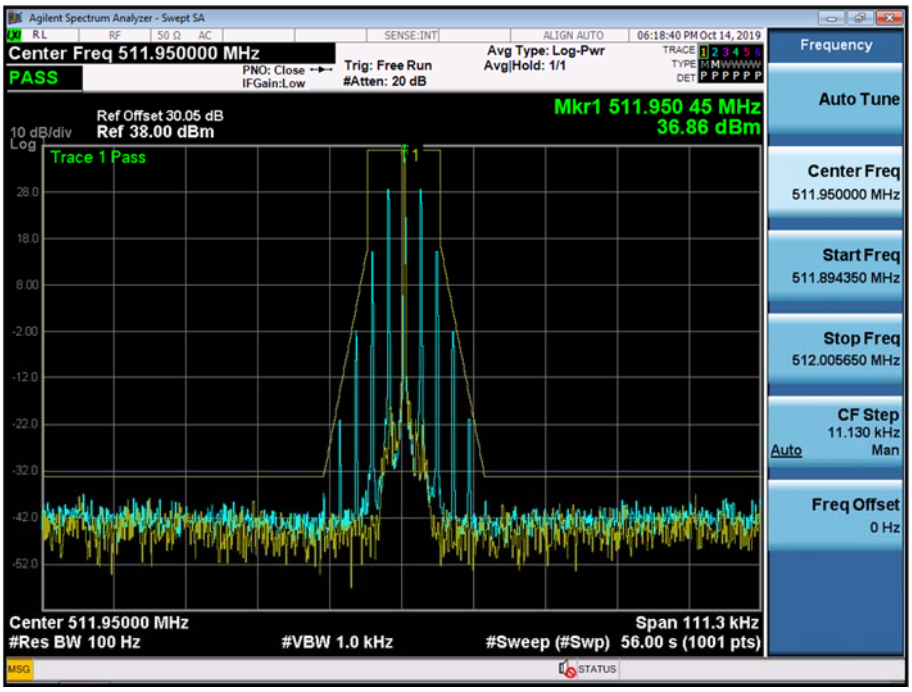
(450.05 MHz)_High



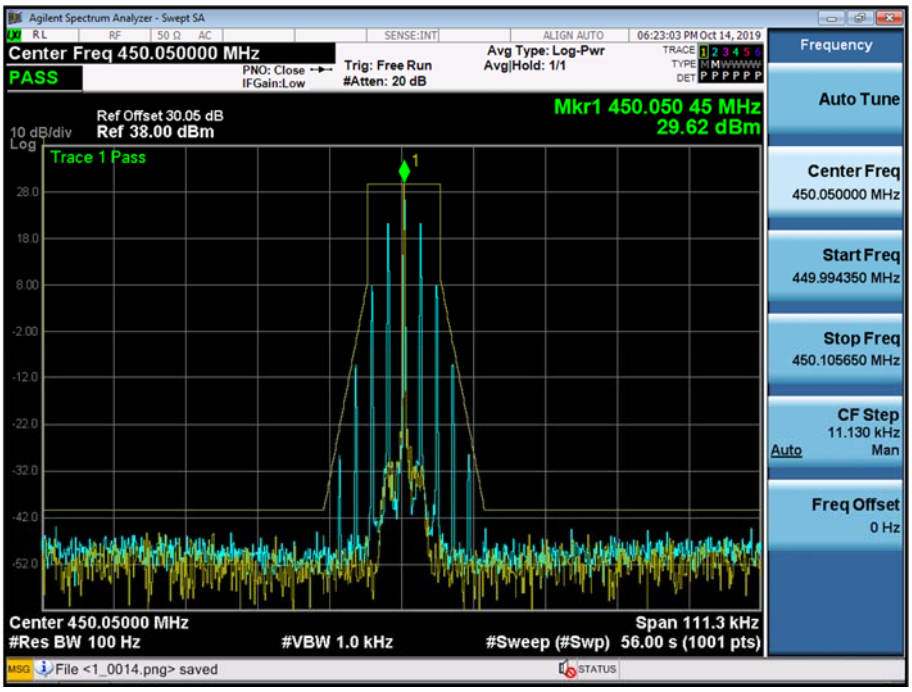
(481.05 MHz)_High



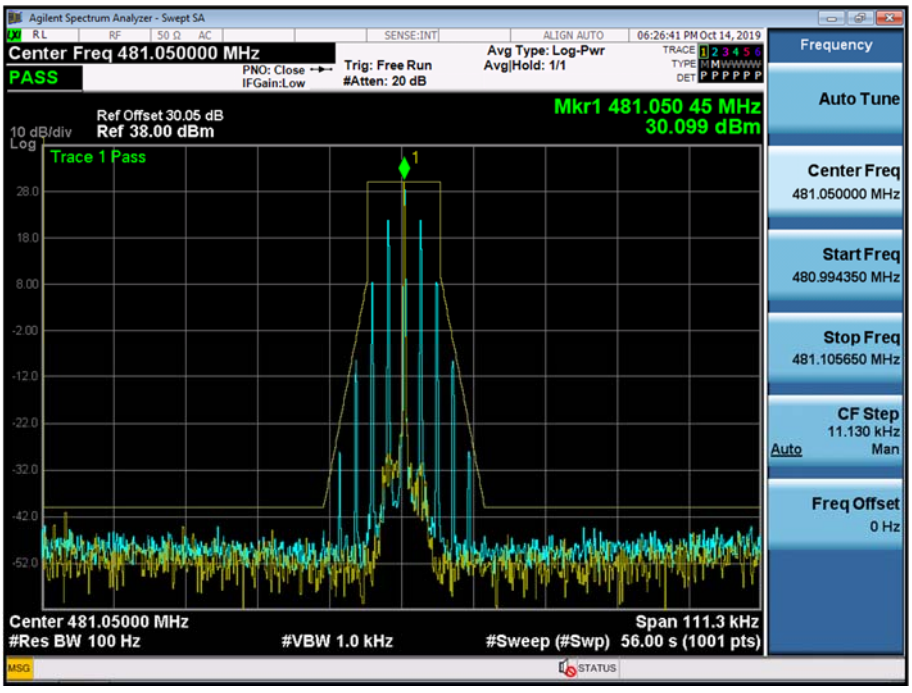
(511.95 MHz)_High



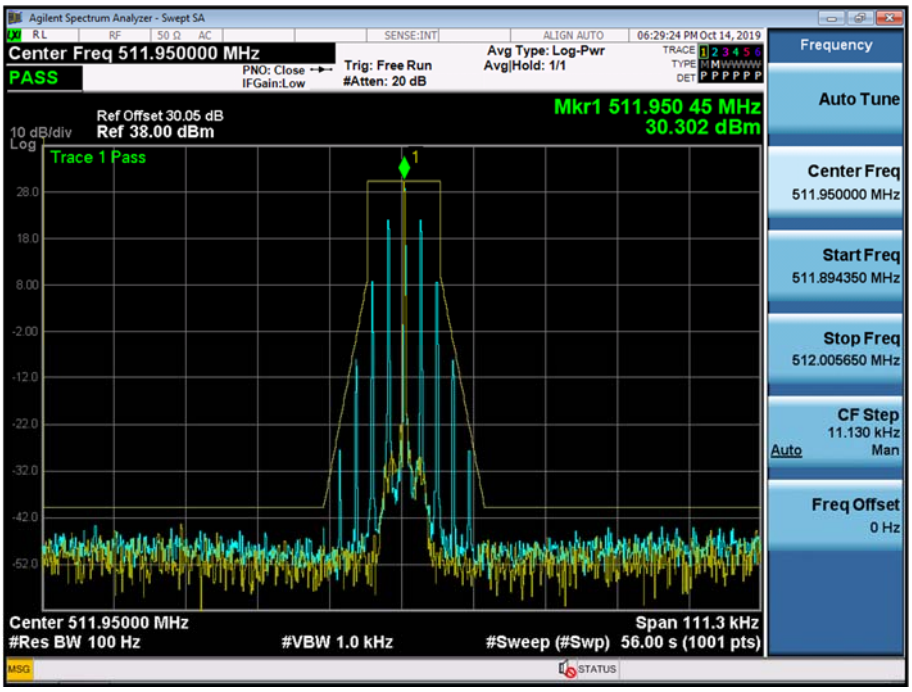
(450.05 MHz)_Low



(481.05 MHz)_Low

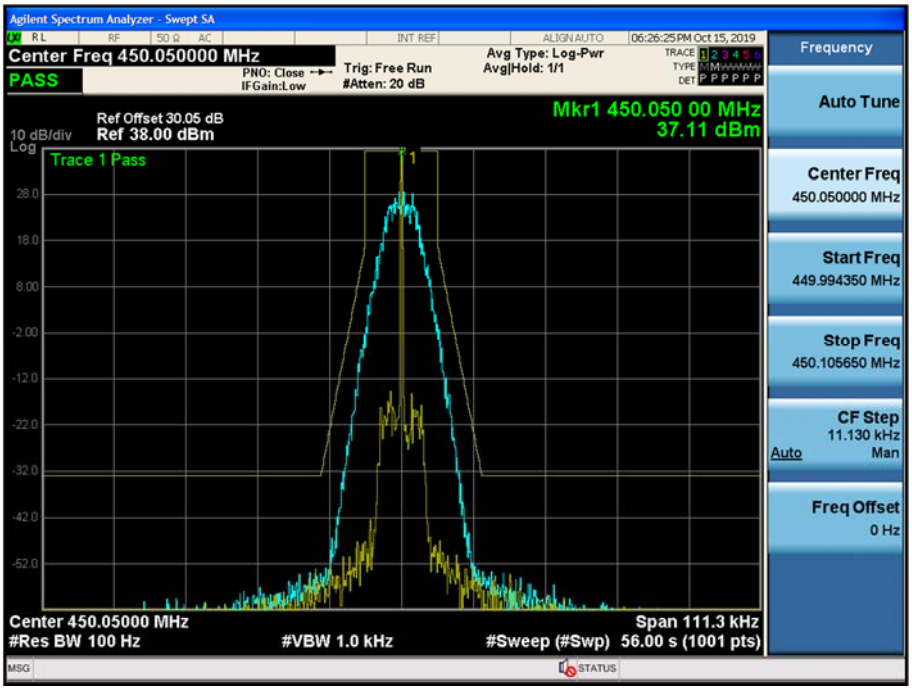


(511.95 MHz)_Low

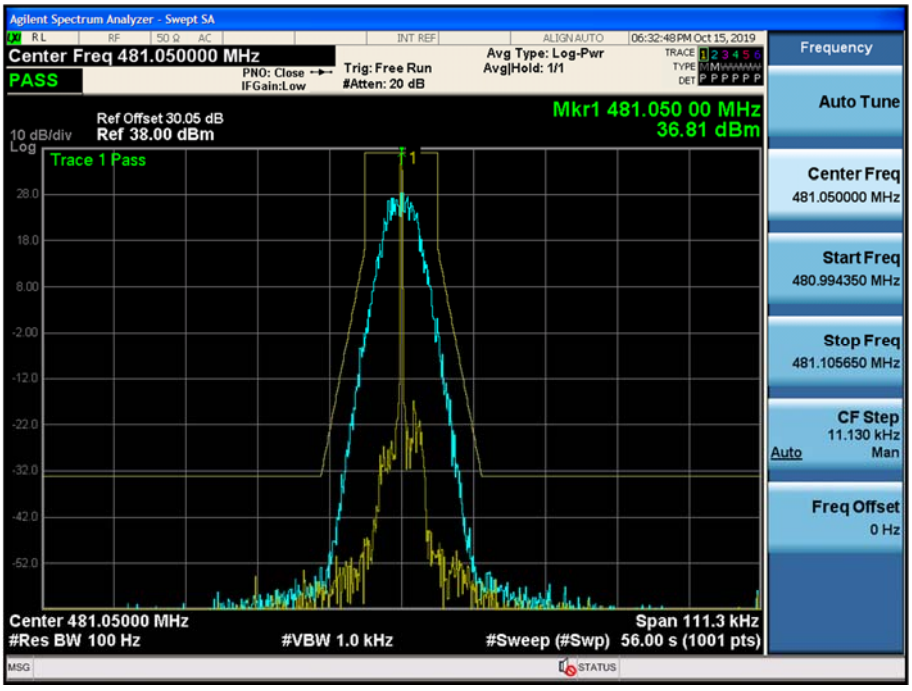


8K30F1E, 8K30F1D, 8K30F7W_FCC

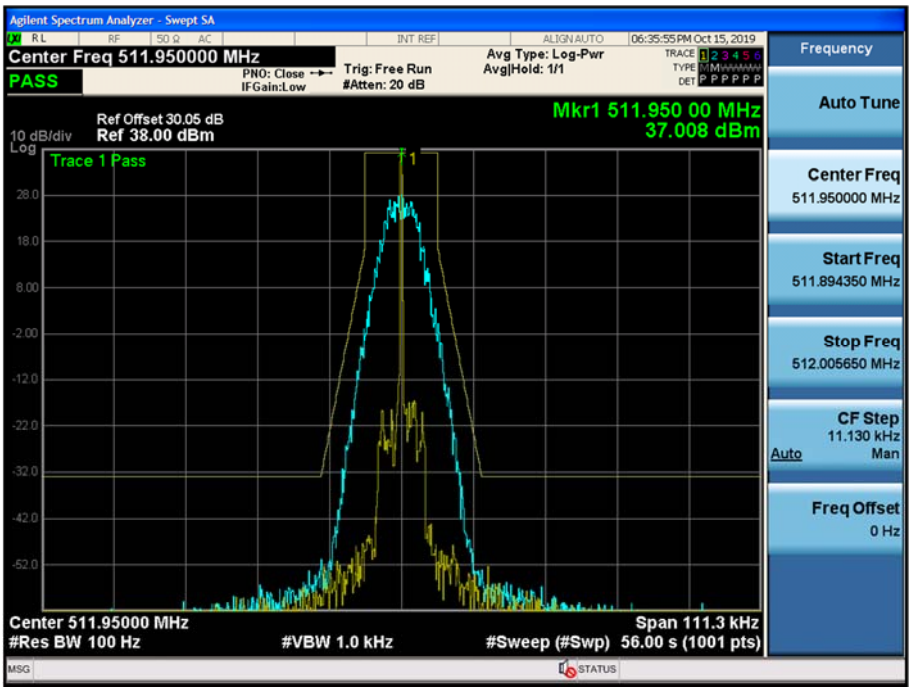
(450.05 MHz)_High



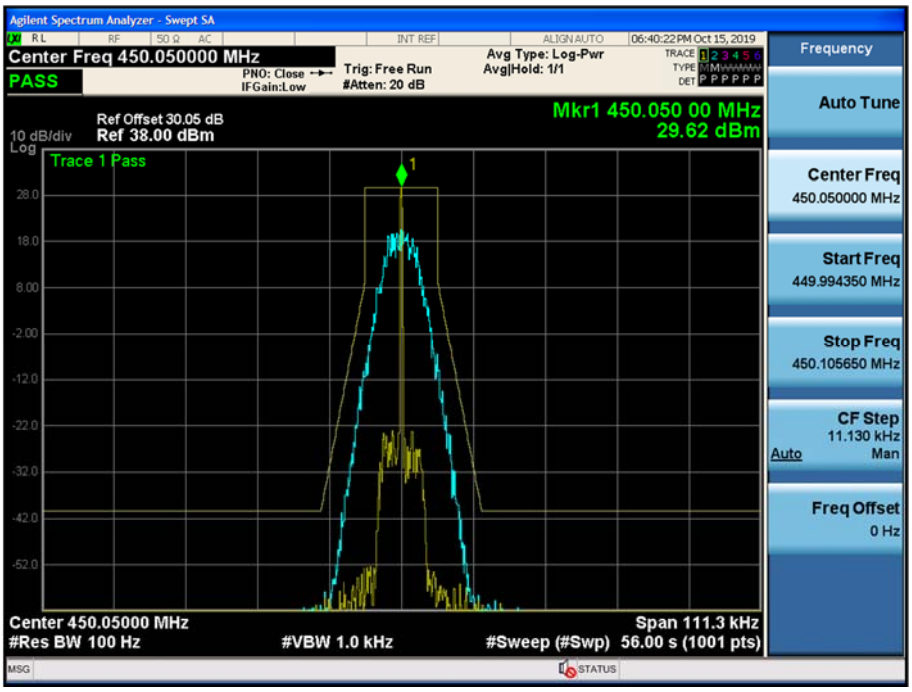
(481.05 MHz)_High



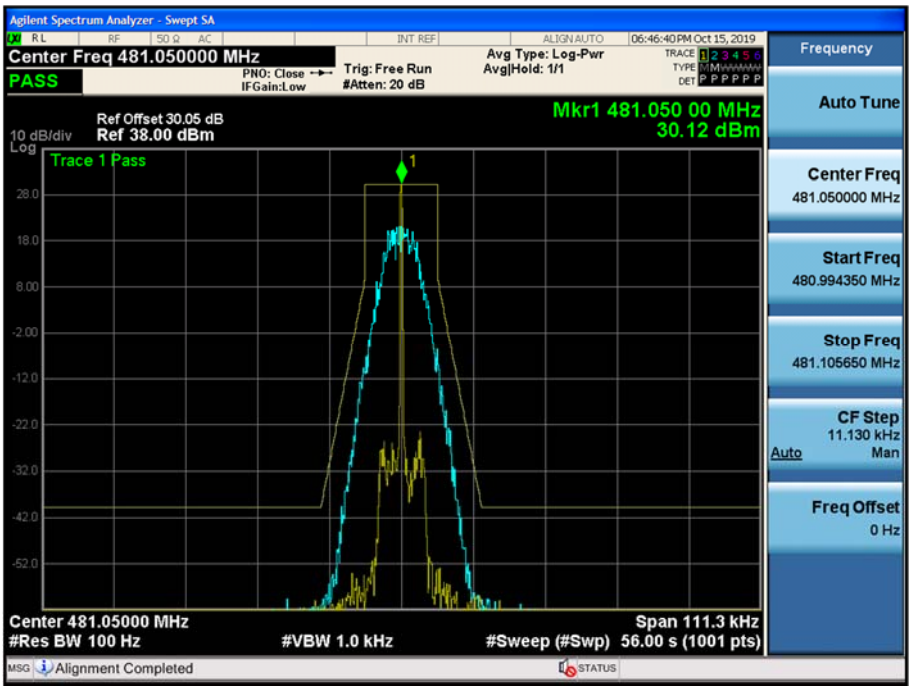
(511.95 MHz)_High



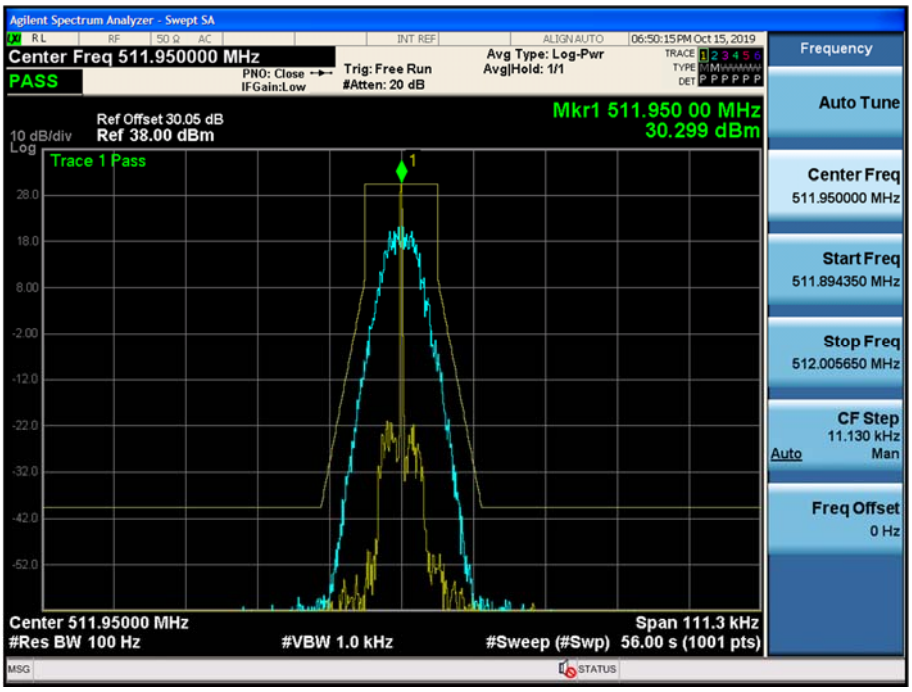
(450.05 MHz)_Low



(481.05 MHz)_Low

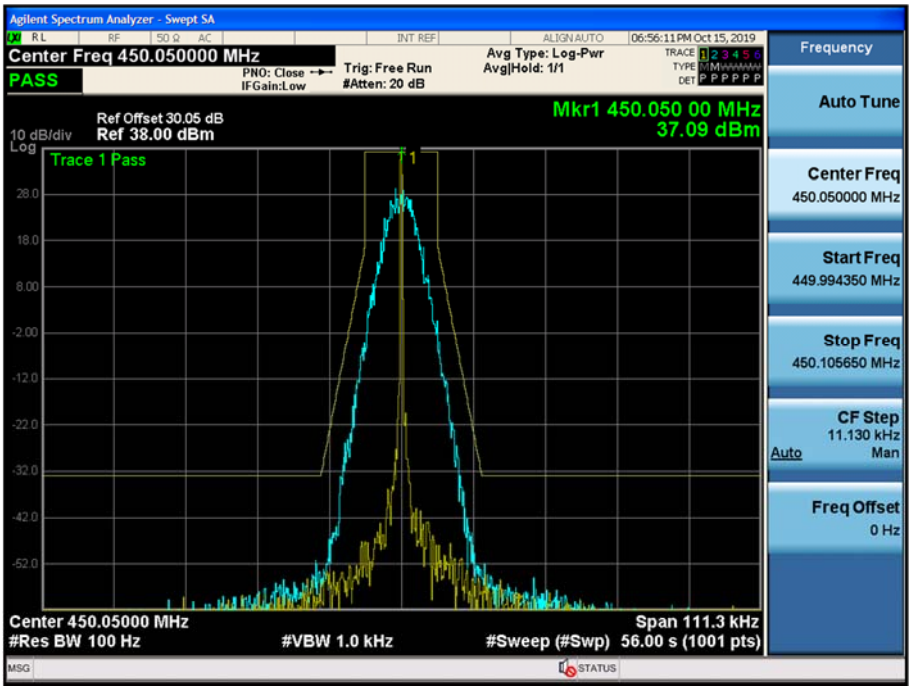


(511.95 MHz)_Low

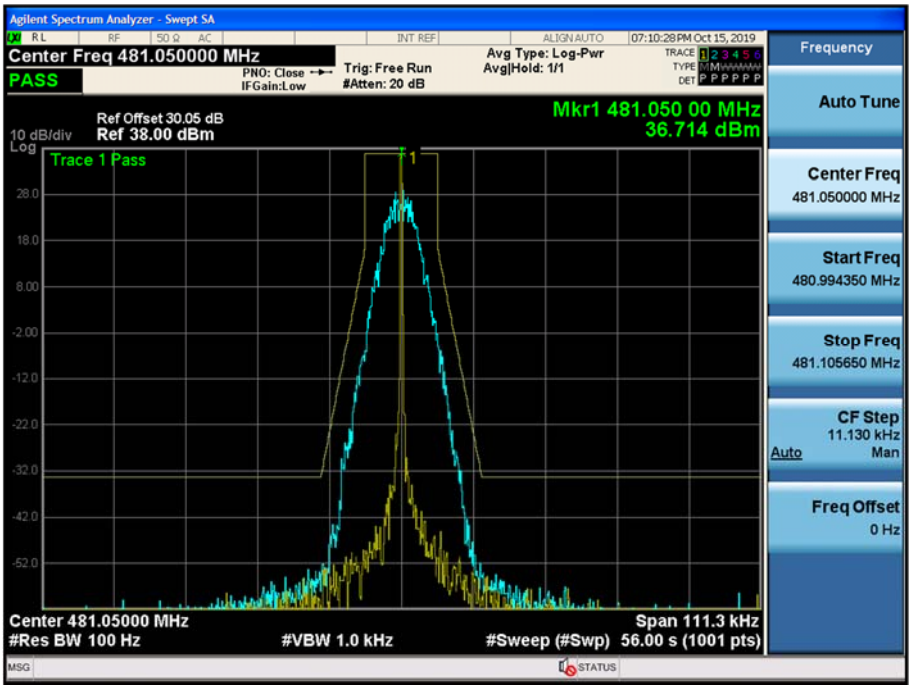


7K60FXD, 7K60FXE_FCC

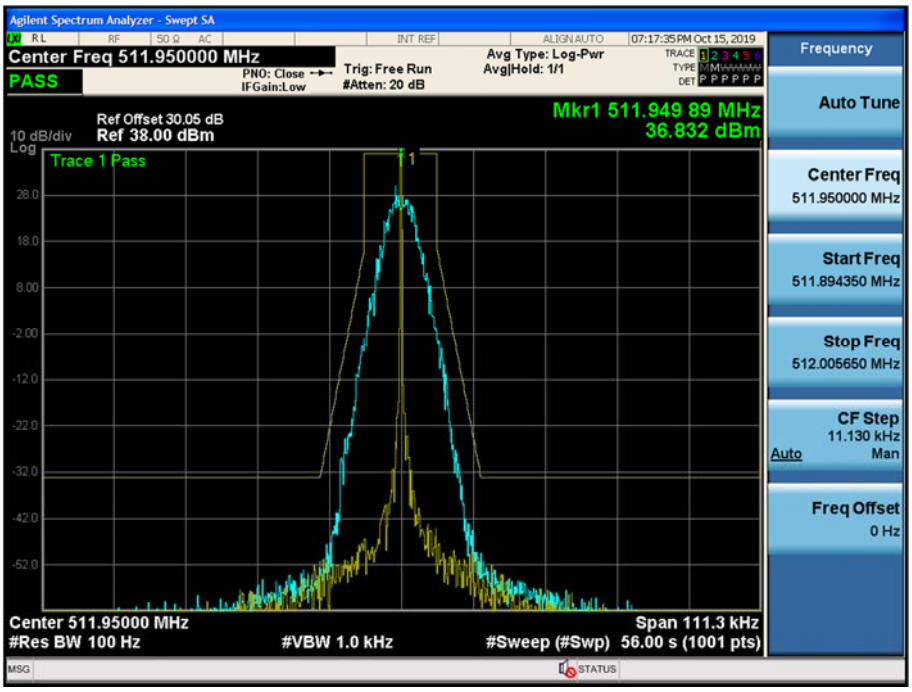
(450.05 MHz)_High



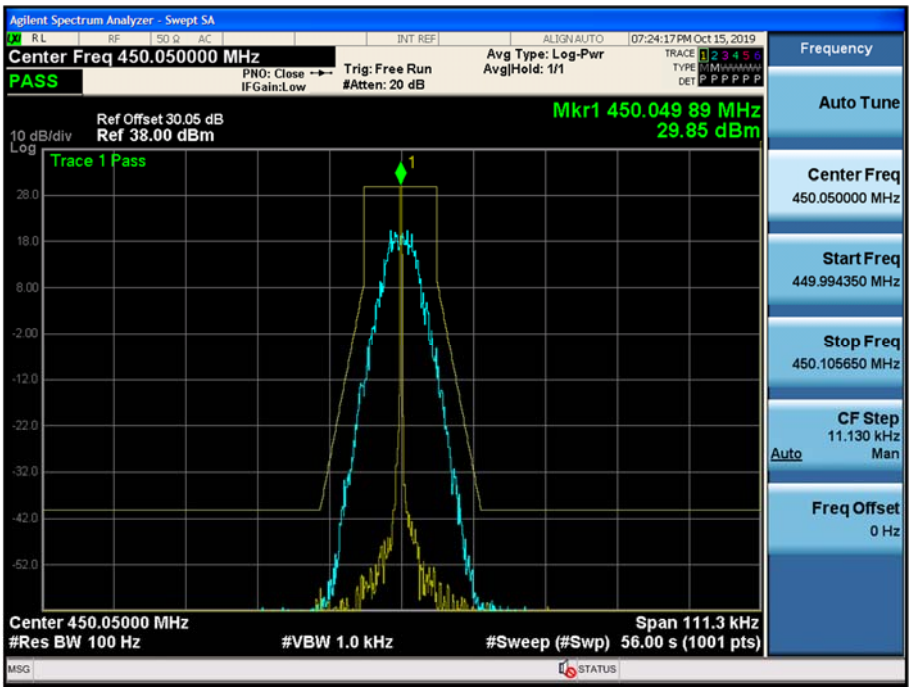
(481.05 MHz)_High



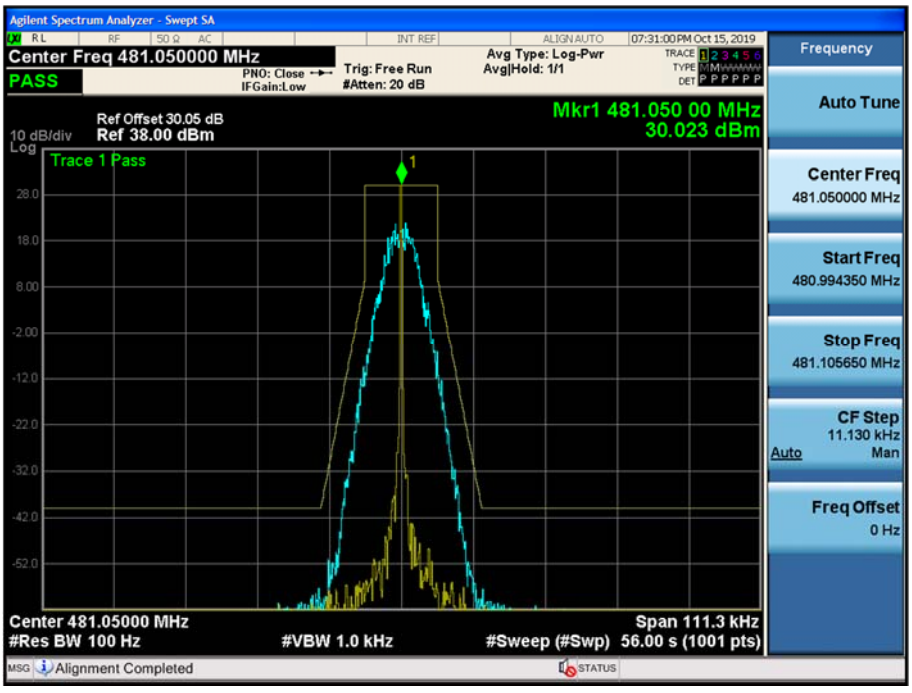
(511.95 MHz)_High



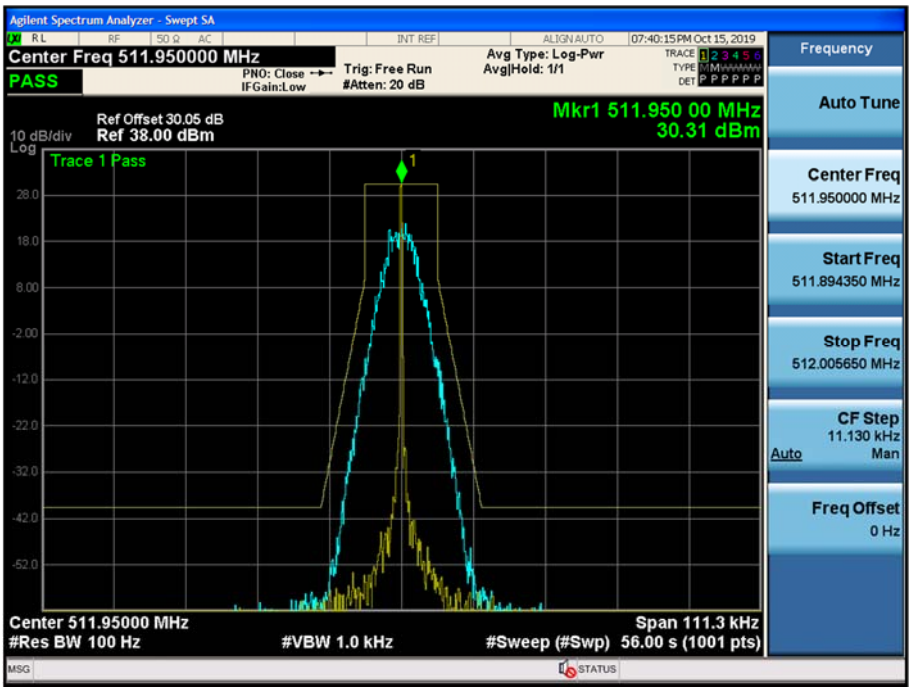
(450.05 MHz)_Low



(481.05 MHz)_Low

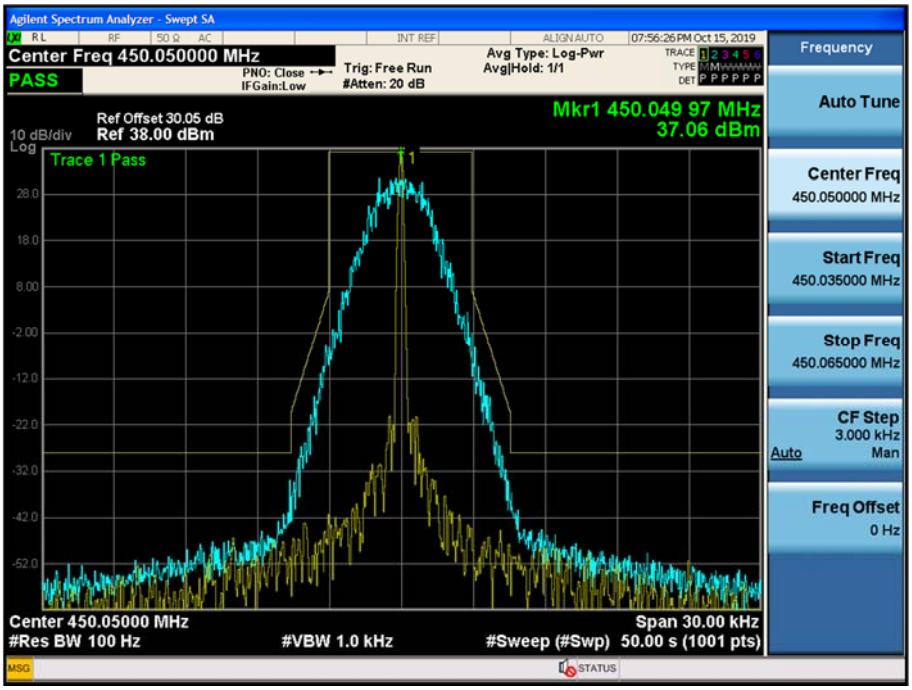


(511.95 MHz)_Low

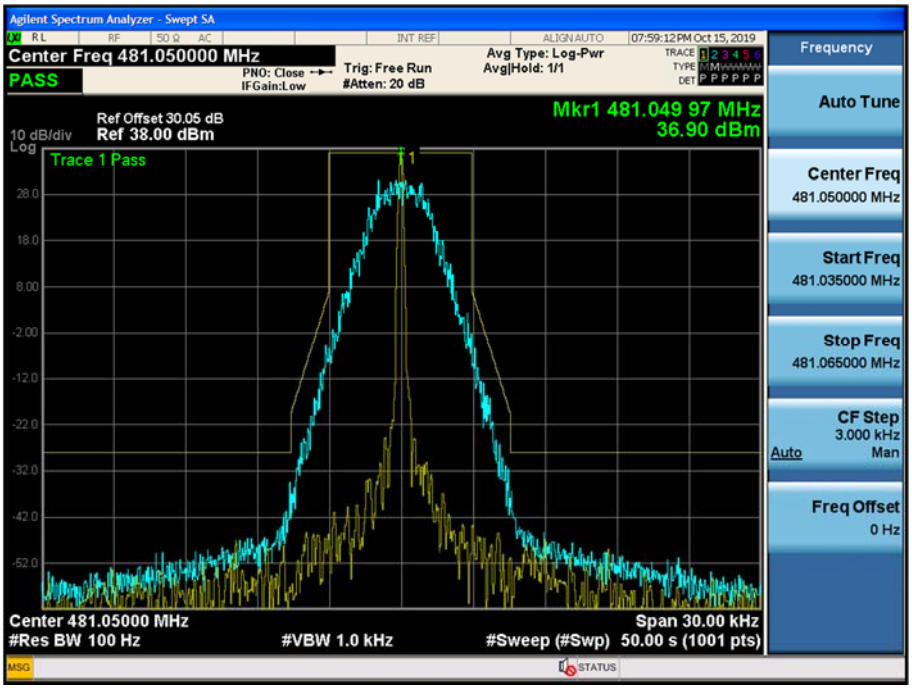


4K00F1E, 4K00F1D, 4K00F7W_FCC

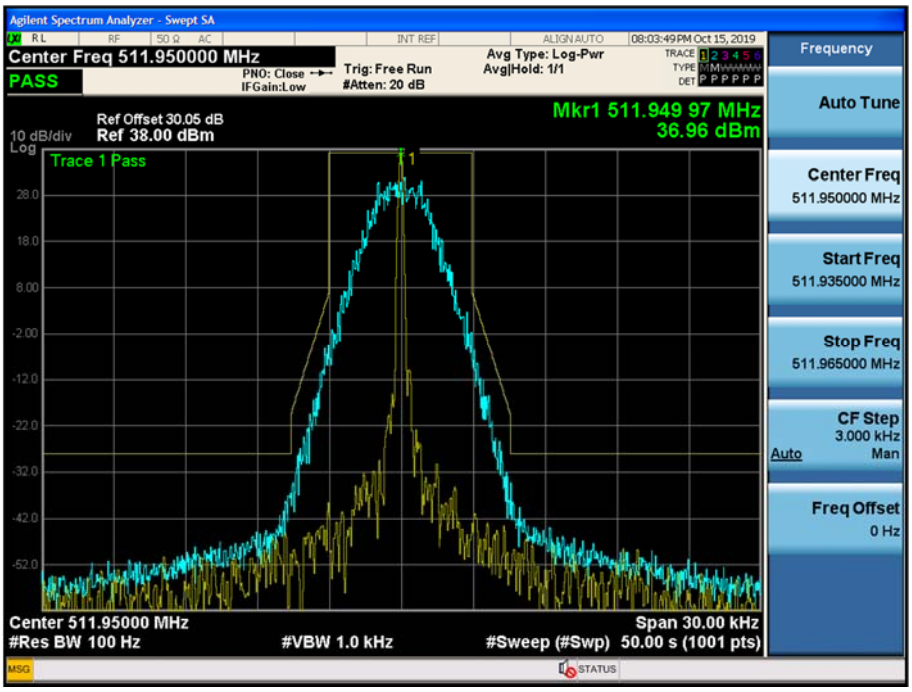
(450.05 MHz)_High



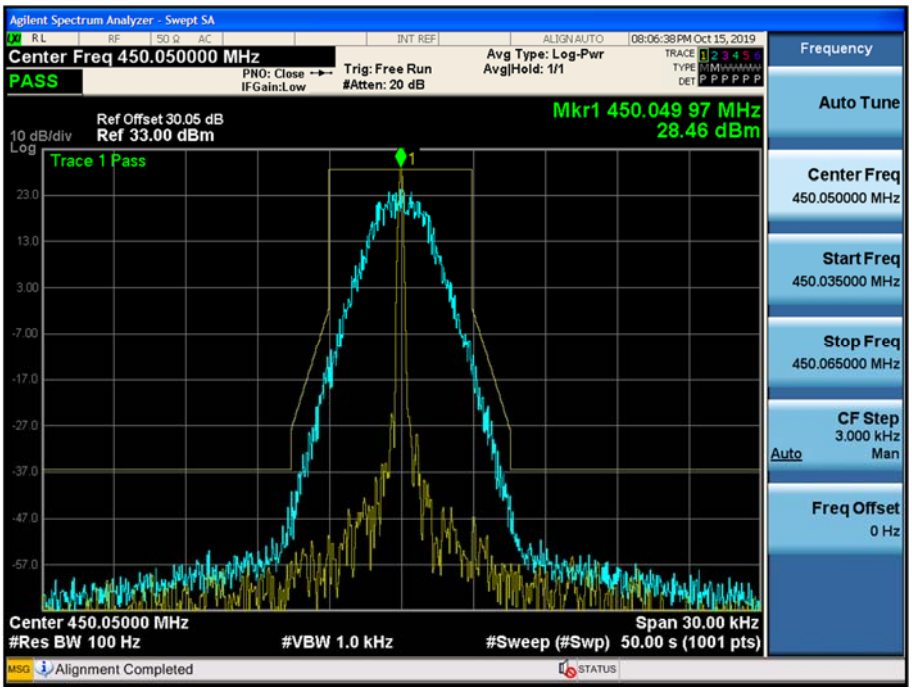
(481.05 MHz)_High



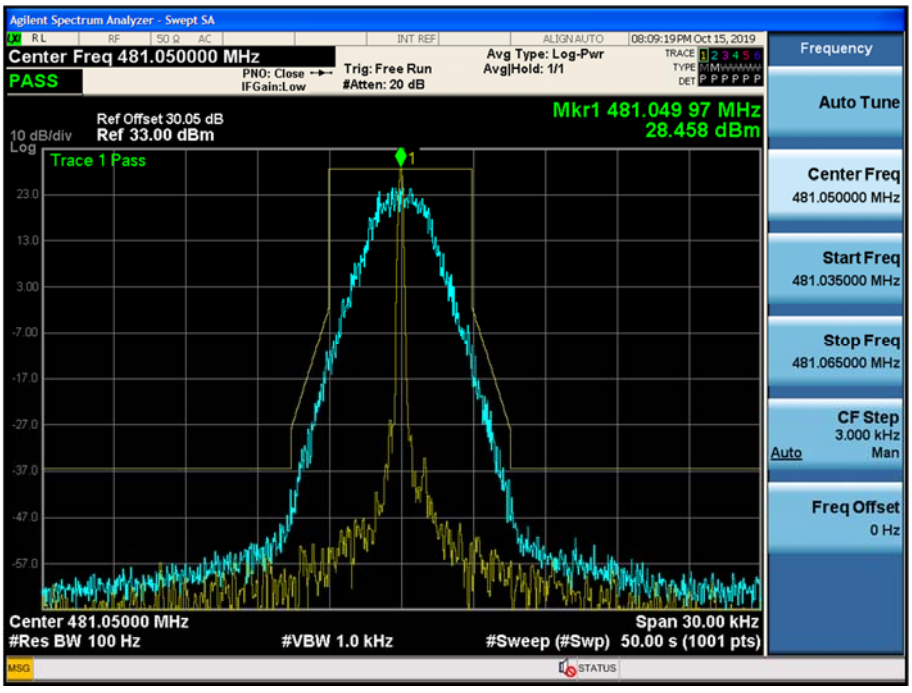
(511.95 MHz)_High



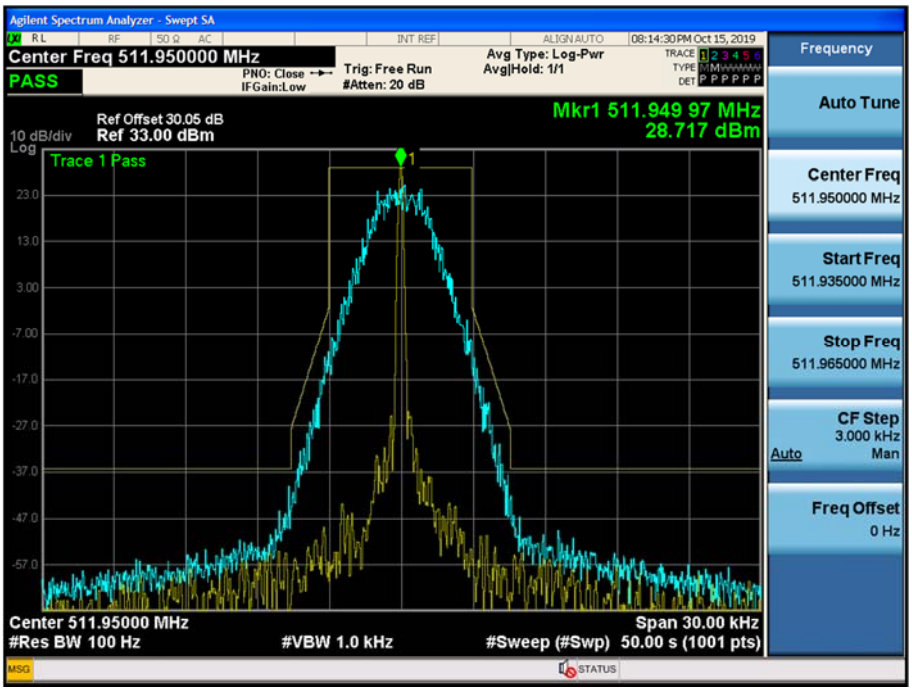
(450.05 MHz)_Low



(481.05 MHz)_Low

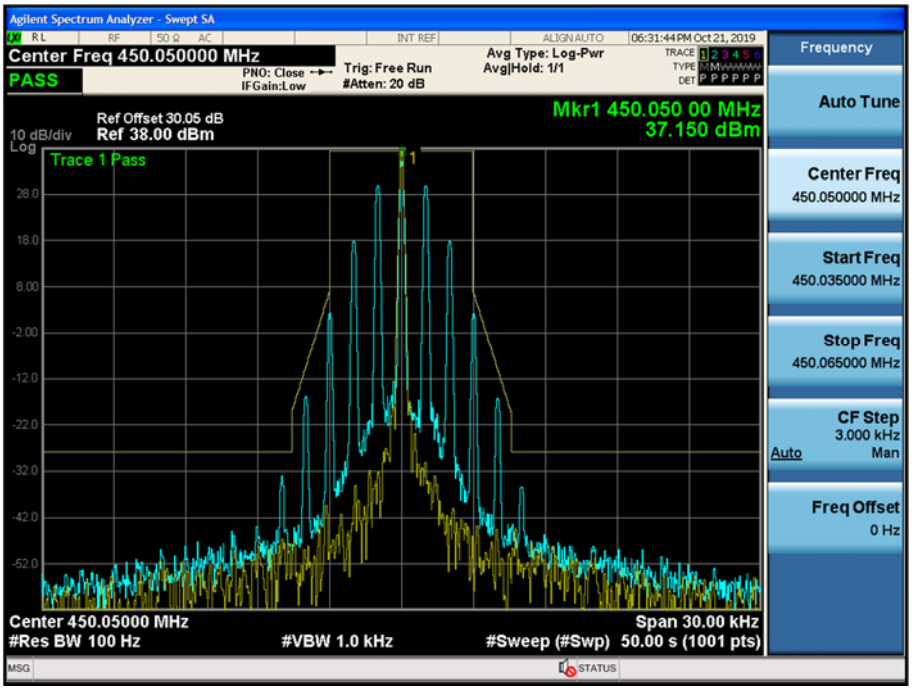


(511.95 MHz)_Low

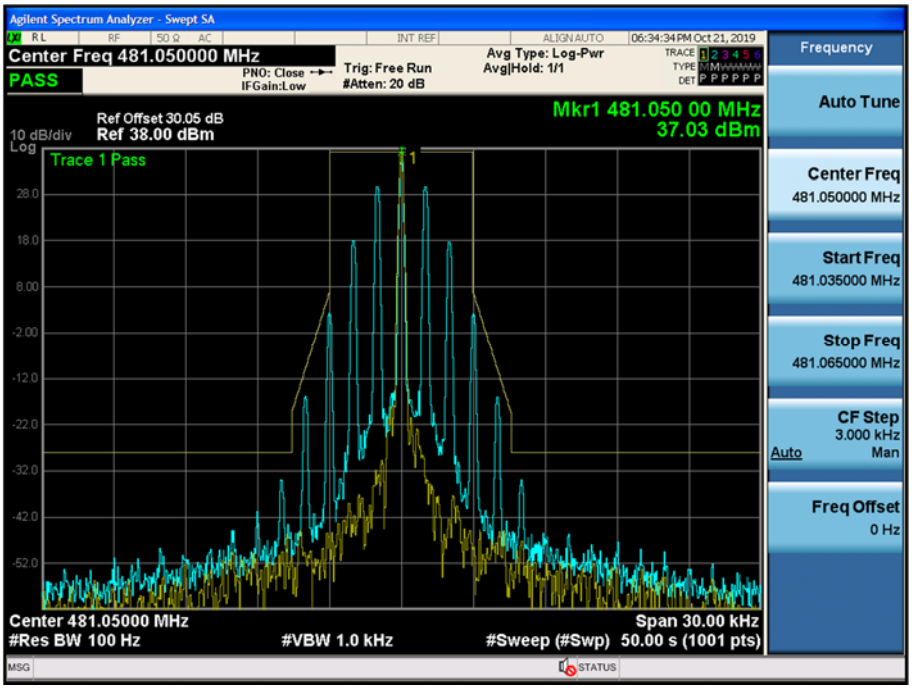


4K00F2D_FCC

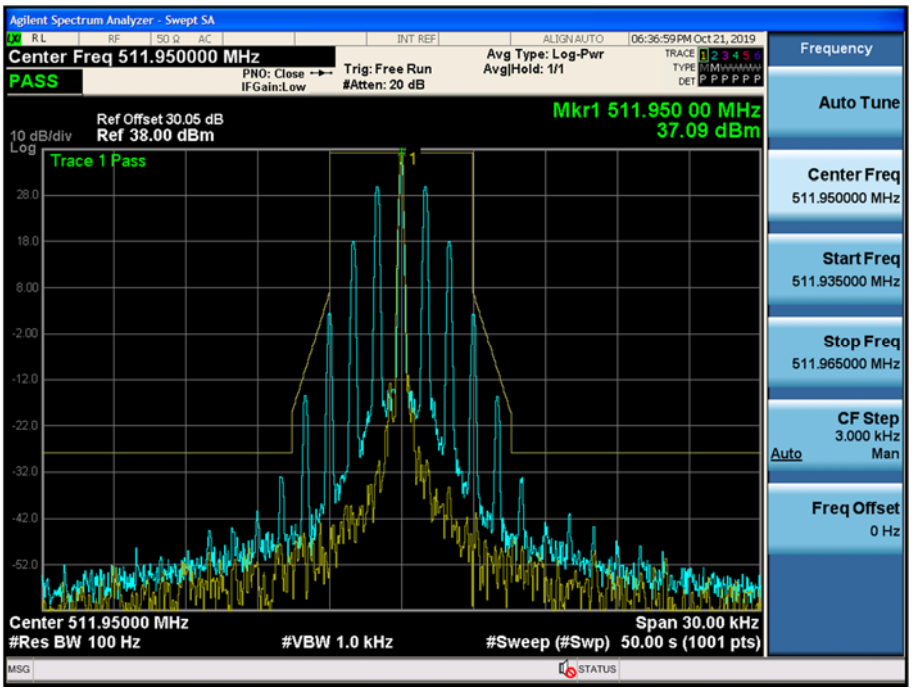
(450.05 MHz)_High



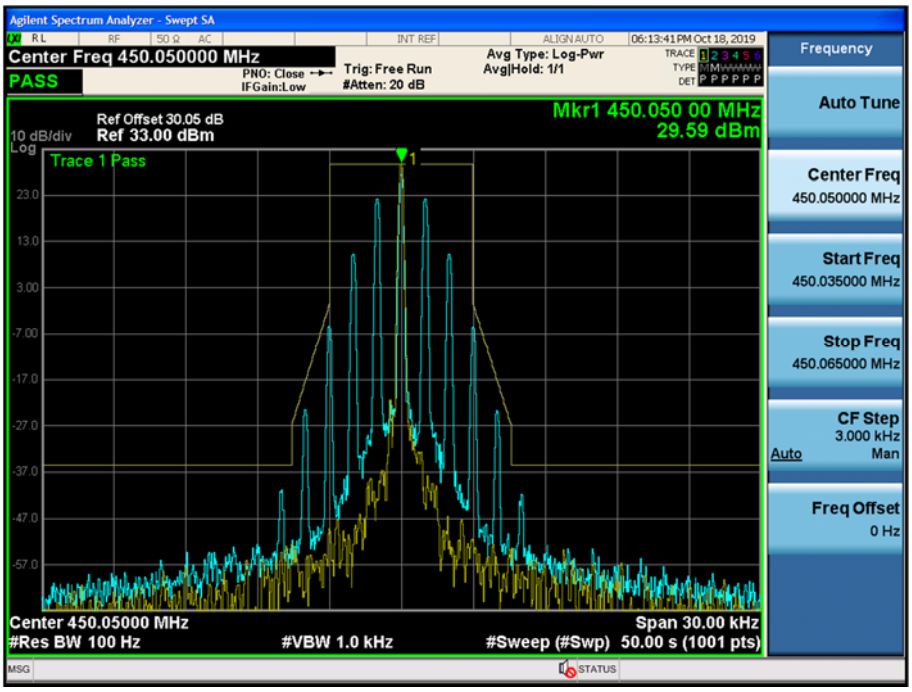
(481.05 MHz)_High



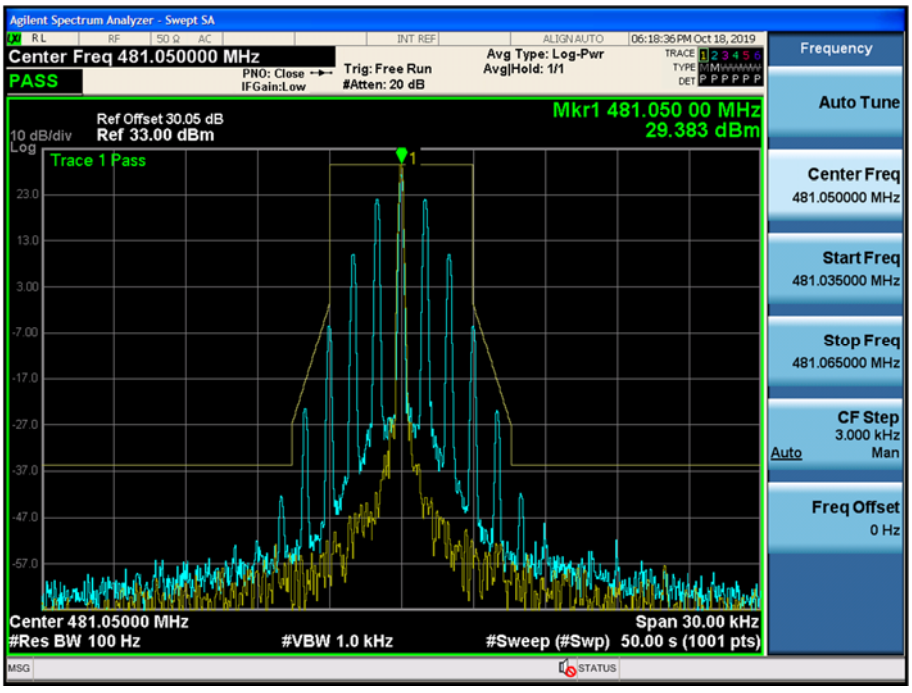
(511.95 MHz)_High



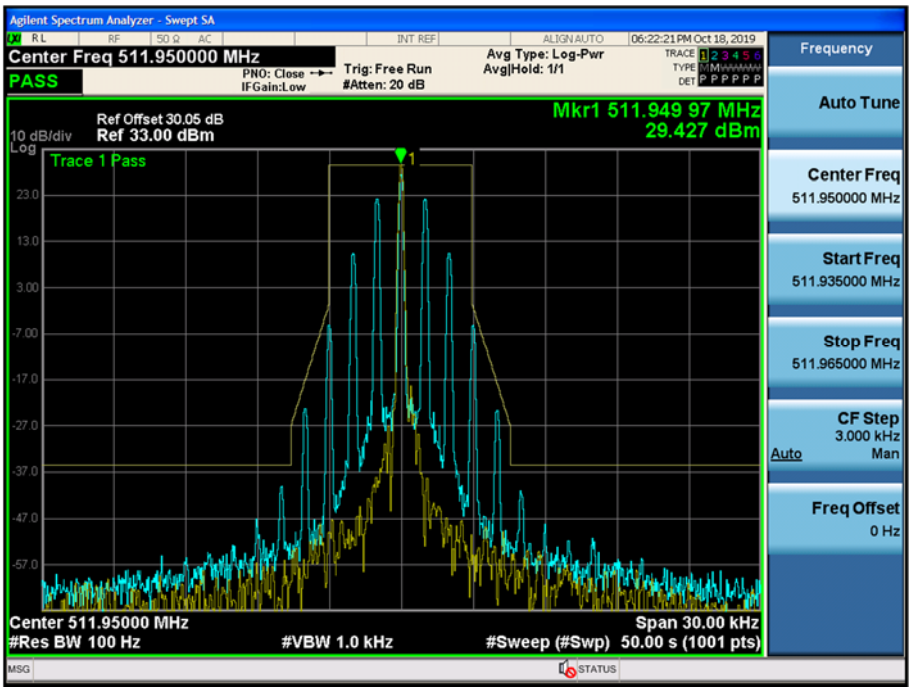
(450.05 MHz)_Low



(481.05 MHz)_Low



(511.95 MHz)_Low



8.7 Transient Frequency Behavior

▣ Definition

Transient frequency behavior is a measure of the difference, as a function in time, of the actual transmitter frequency to the assigned transmitter frequency when the transmitted RF output power is switched on or off.

▣ TEST CONFIGURATION

▣ TEST PROCEDURE

According to 2.2.19 in TIA-603-E Standard.

a) Connect the equipment as illustrated.

b) Connect the output of the standard transmitter load to the RF power meter.
Supply sufficient attenuation via the RF attenuator to provide a level that is approximately 40 dB below the maximum allowable input to the modulation domain analyzer.

c) Unkey the transmitter.

d) Disconnect the RF power meter and connect the modulation domain analyzer in its place.
Set the envelope trigger of the modulation domain analyzer to the minimum level that will trigger when the transmitter is keyed.

e) Reduce the attenuation of the RF attenuator so that the input to the modulation domain analyzer is increased by 30 dB when the transmitter is keyed.

f) Set the modulation domain analyzer to trigger on the rising edge of the waveform in order to capture a single-shot turn-on of the transmitter signal.

g) Adjust the display of the modulation domain analyzer for proper viewing of the transmitter transient behavior. Set the time base reference to the left for observing the transmitter turn-on transient.

h) Key the transmitter.

i) Observe the stored display of the modulation domain analyzer.
The signal trace shall be maintained within the allowable limits during the periods t_1 and t_2, and shall also remain within limits following t_2.

j) Adjust the modulation domain analyzer to trigger on the falling edge of the transmitter waveform in order to capture a single-shot turn-off transient of the transmitter signal.

k) Adjust the display of the modulation domain analyzer for proper viewing of the transmitter transient behavior. Set the time base reference to the right for observing the transmitter turn-off transient.

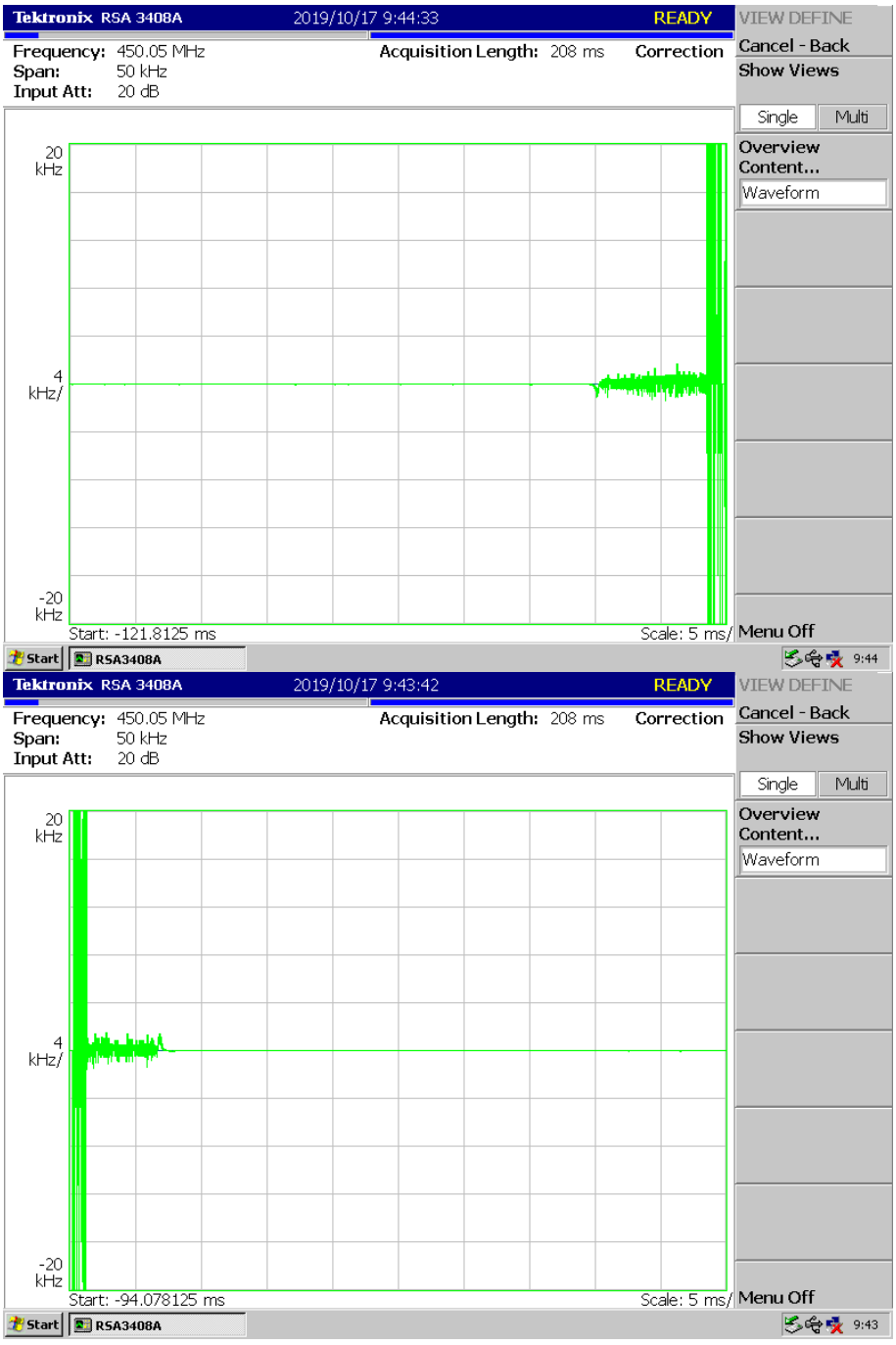
l) Unkey the transmitter.

m) Observe the stored display of the modulation domain analyzer. The signal trace shall be maintained within the allowable limits during the period t_3.

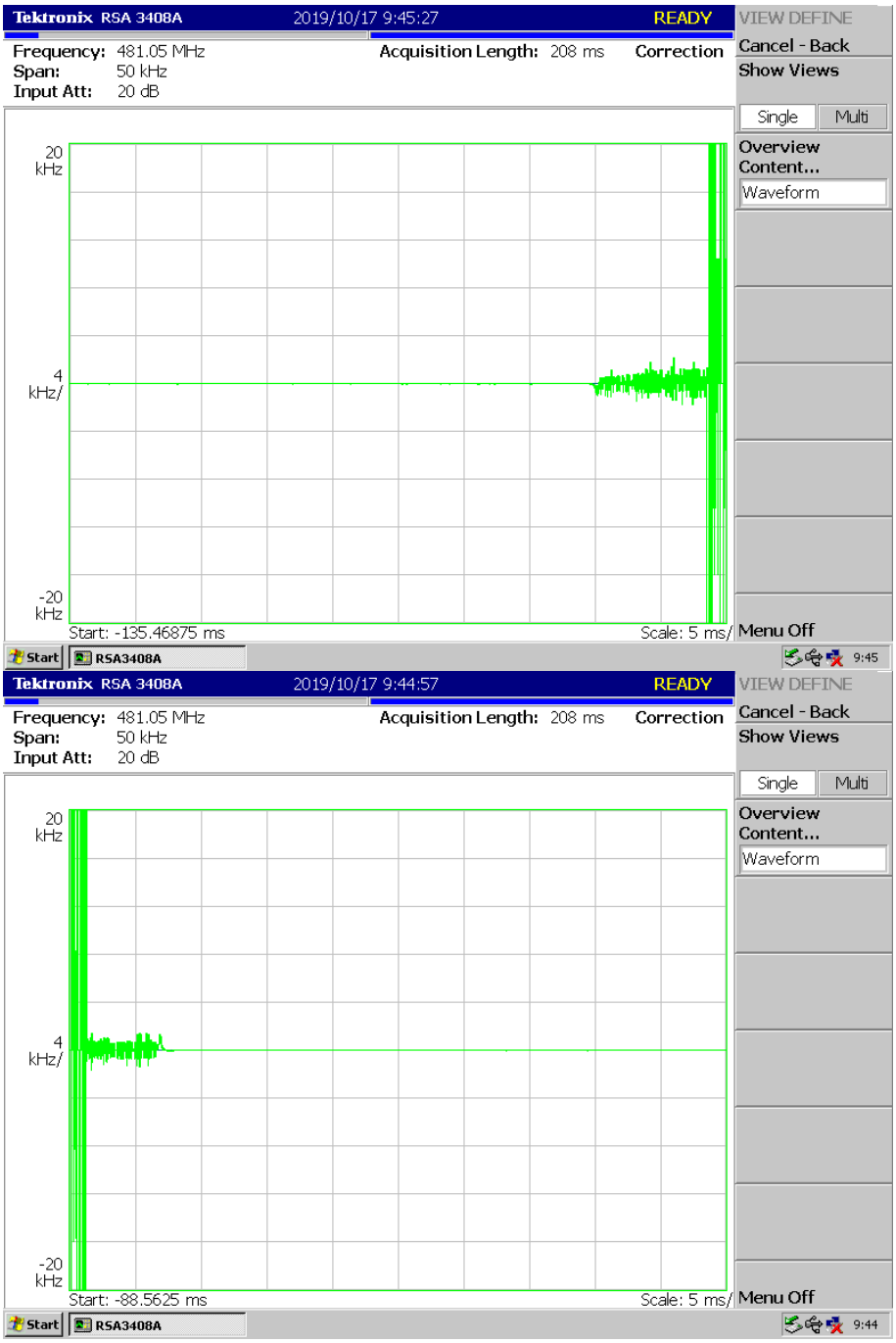
▣ Plots of Transient Frequency Behavior

16K0F3E_1W

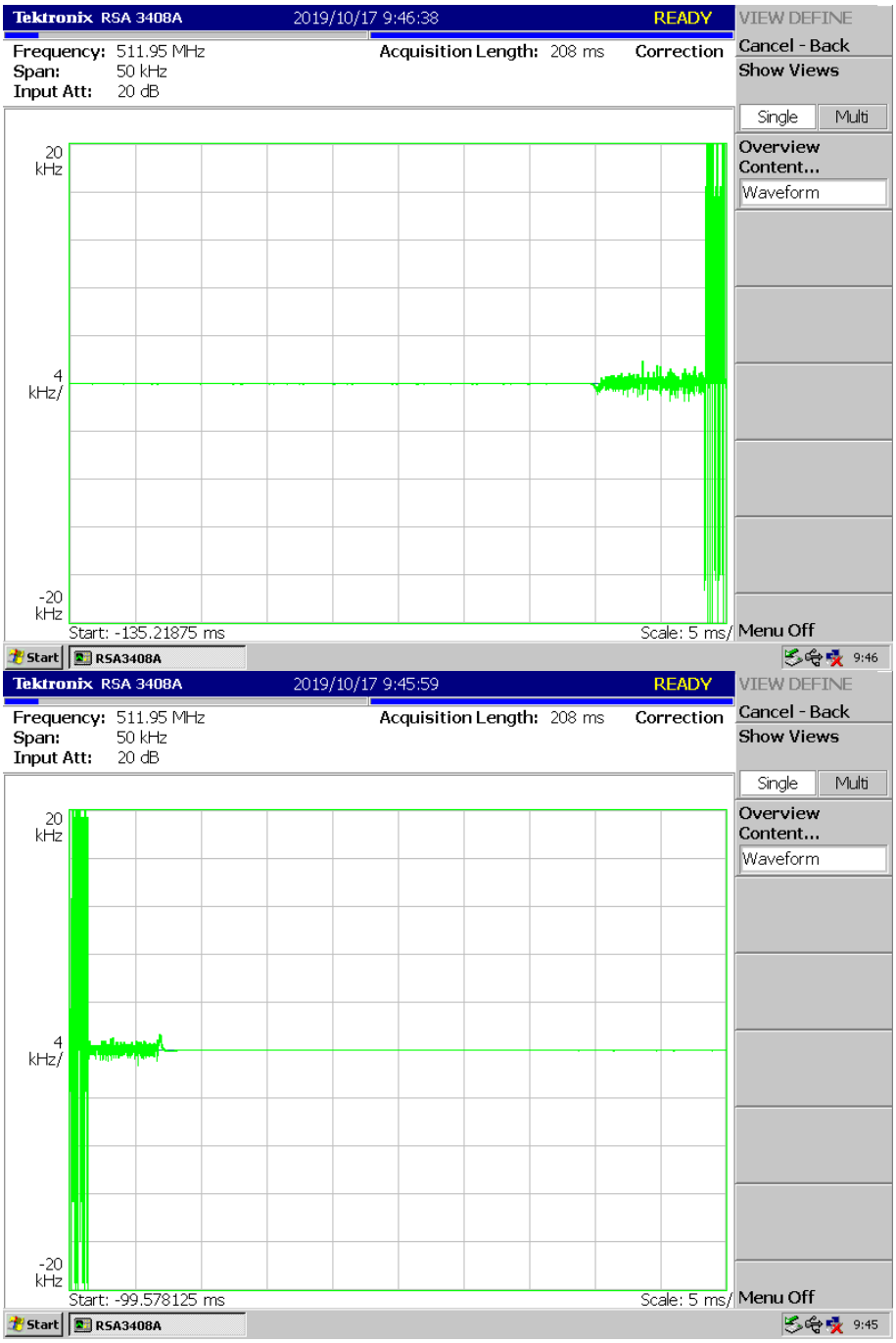
(450.05 MHz)_Low



(481.05 MHz)_ Low

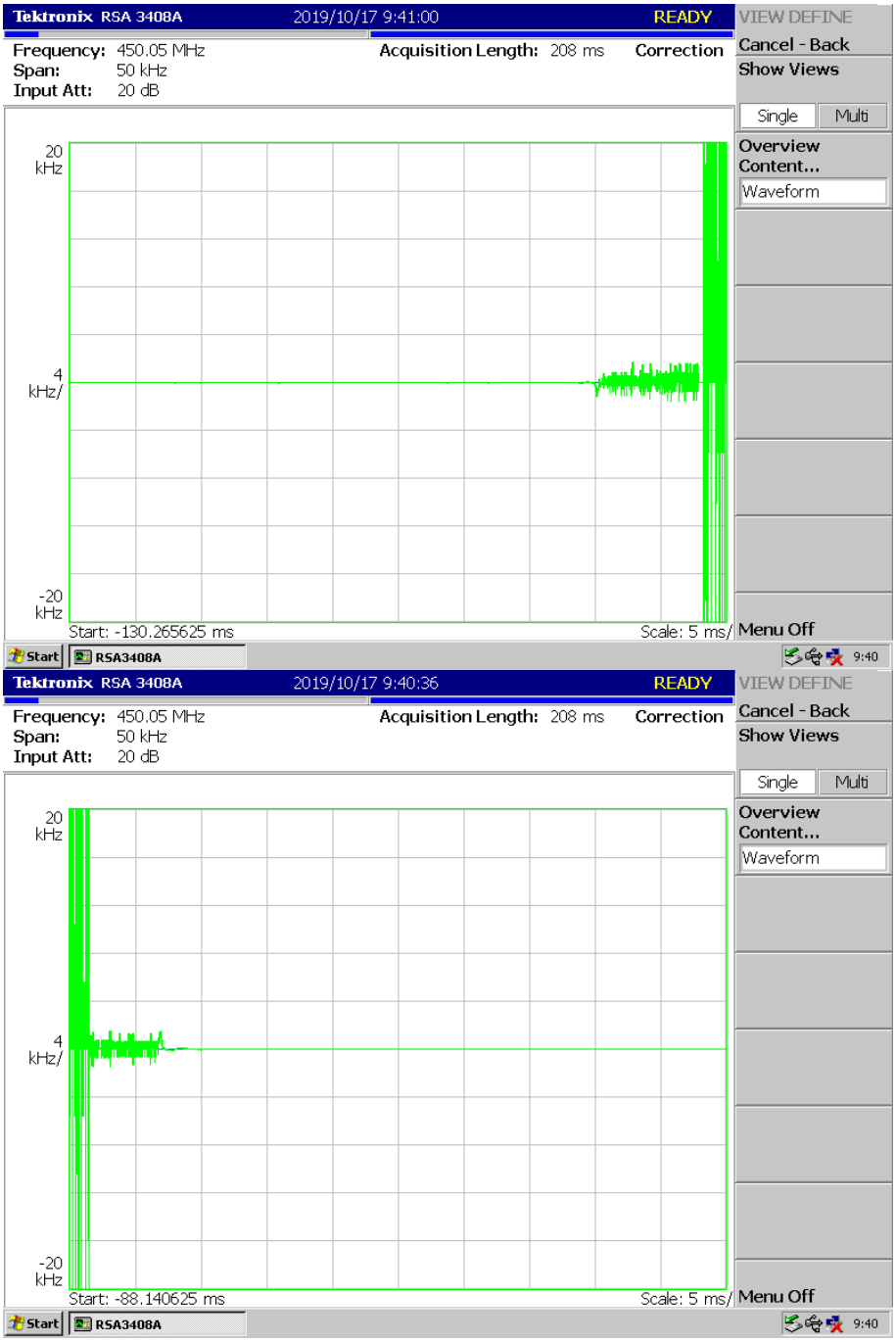


(511.95 MHz)_ Low

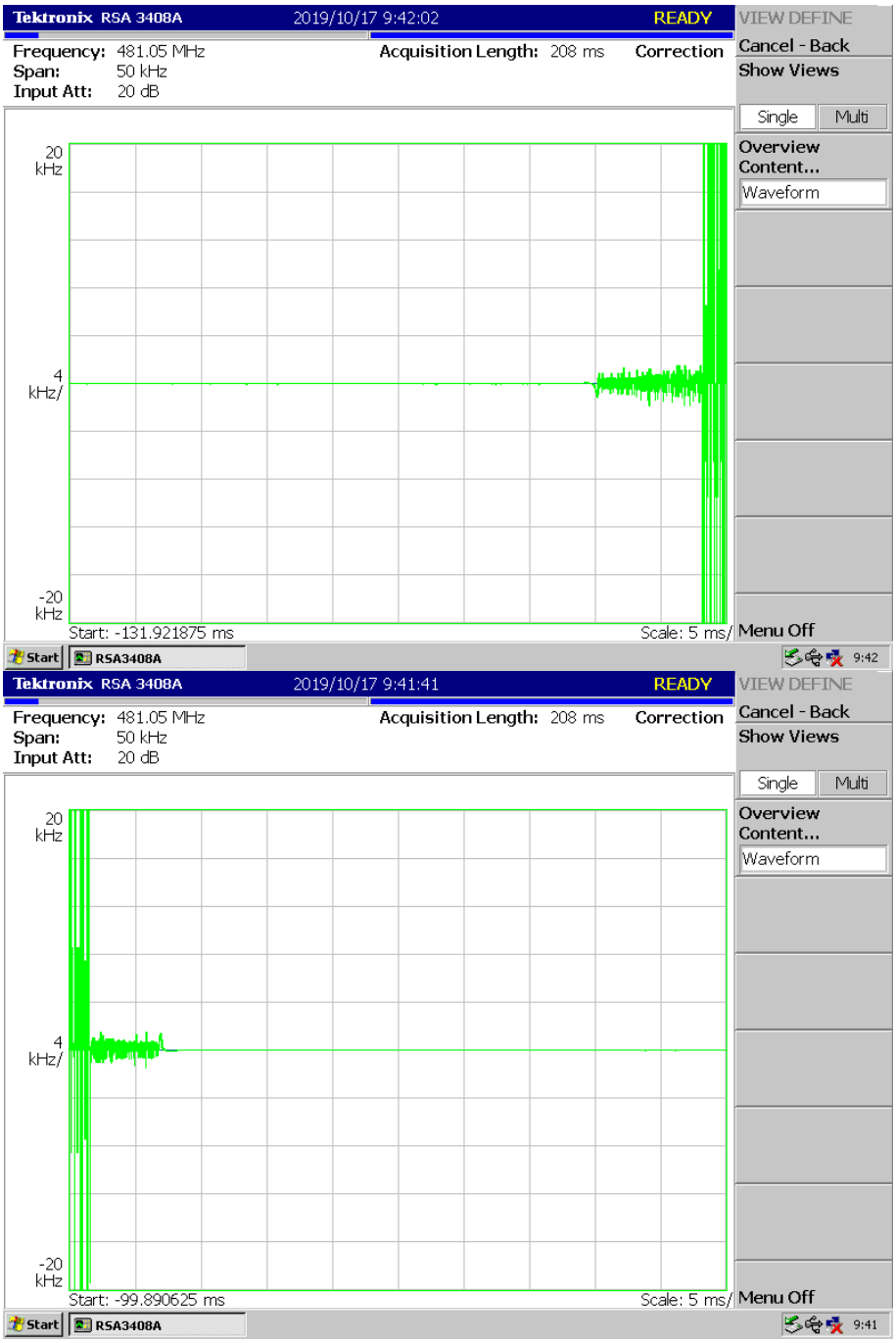


16K0F3E_2W

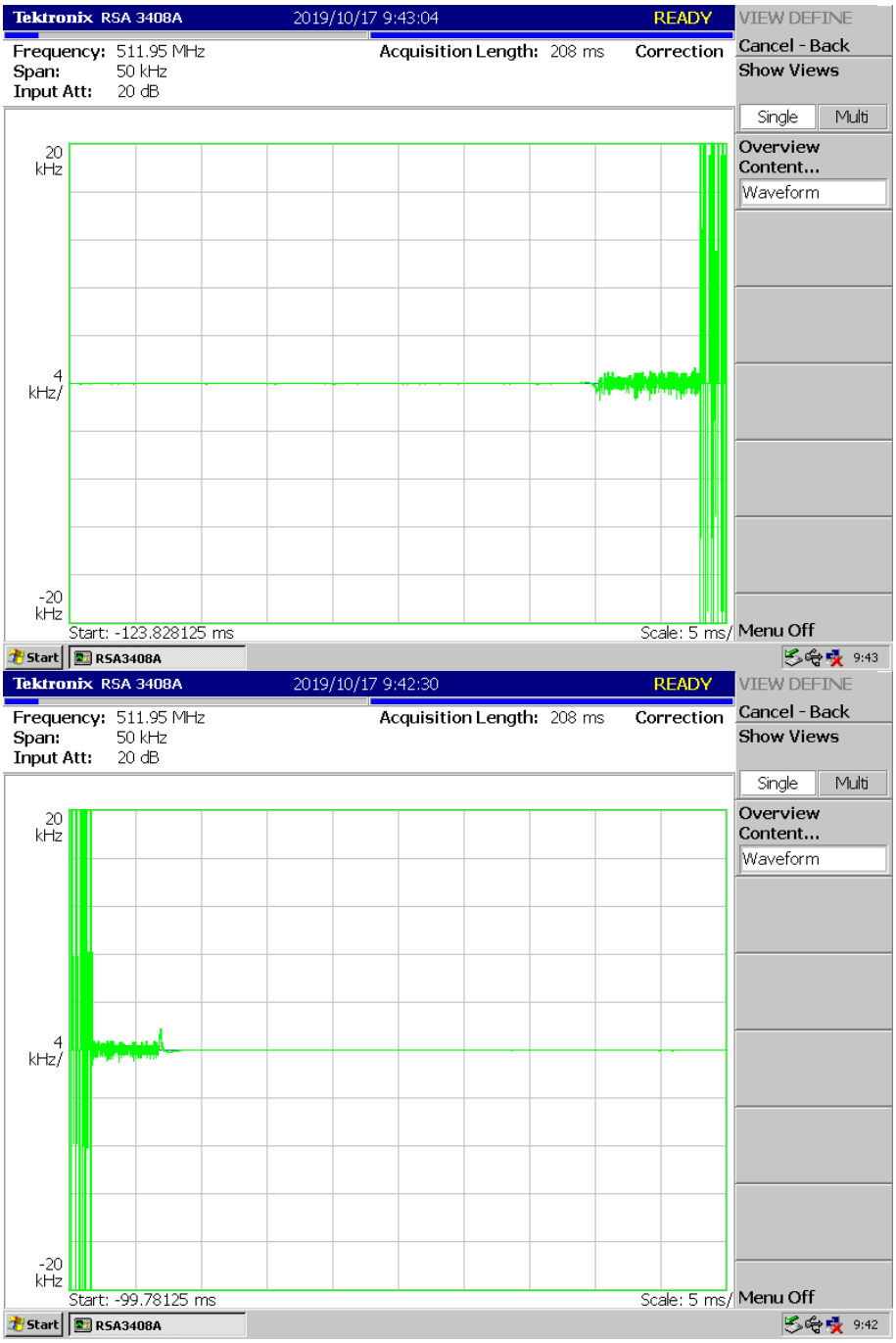
(450.05 MHz)_High



(481.05 MHz)_High

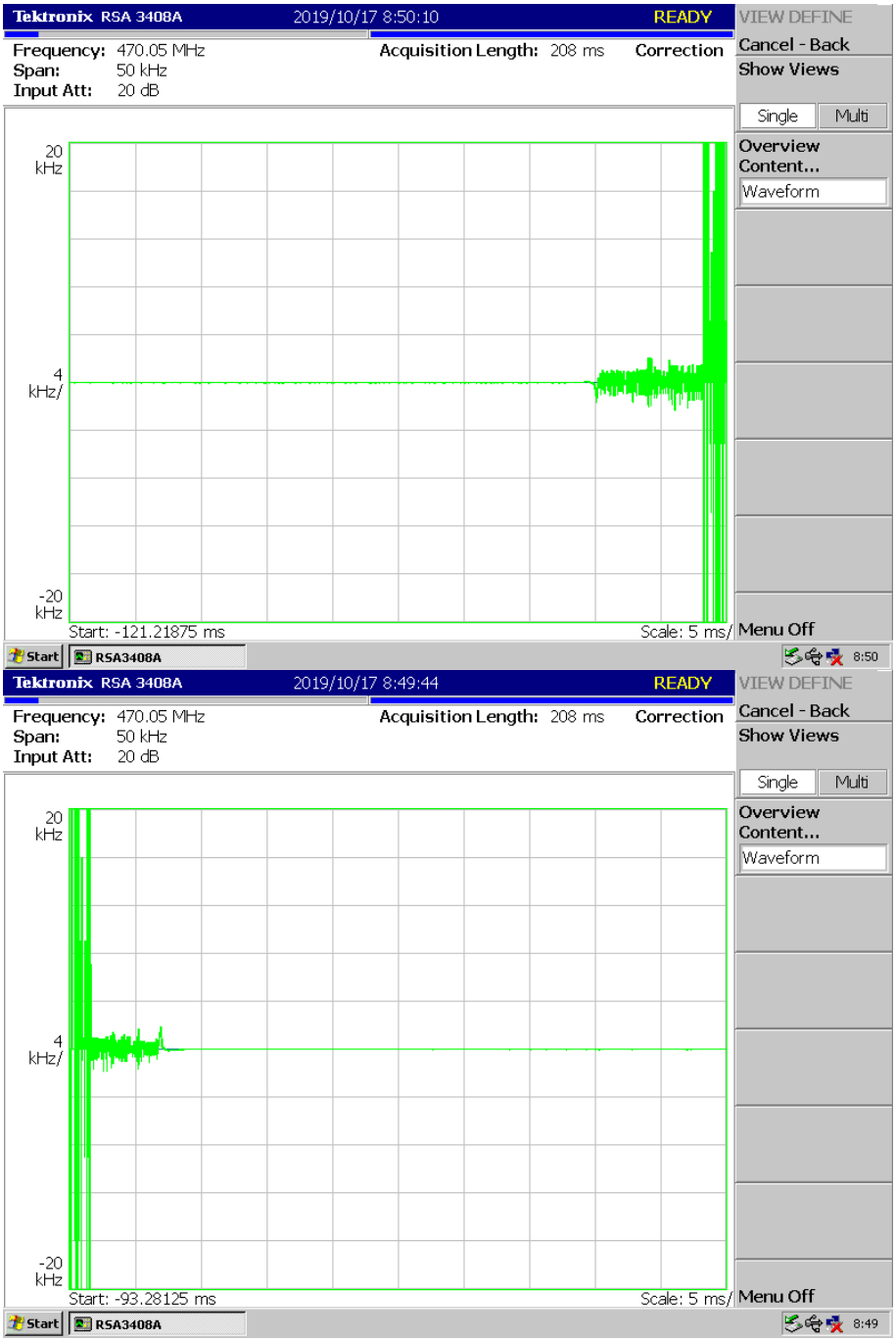


(511.95 MHz)_High

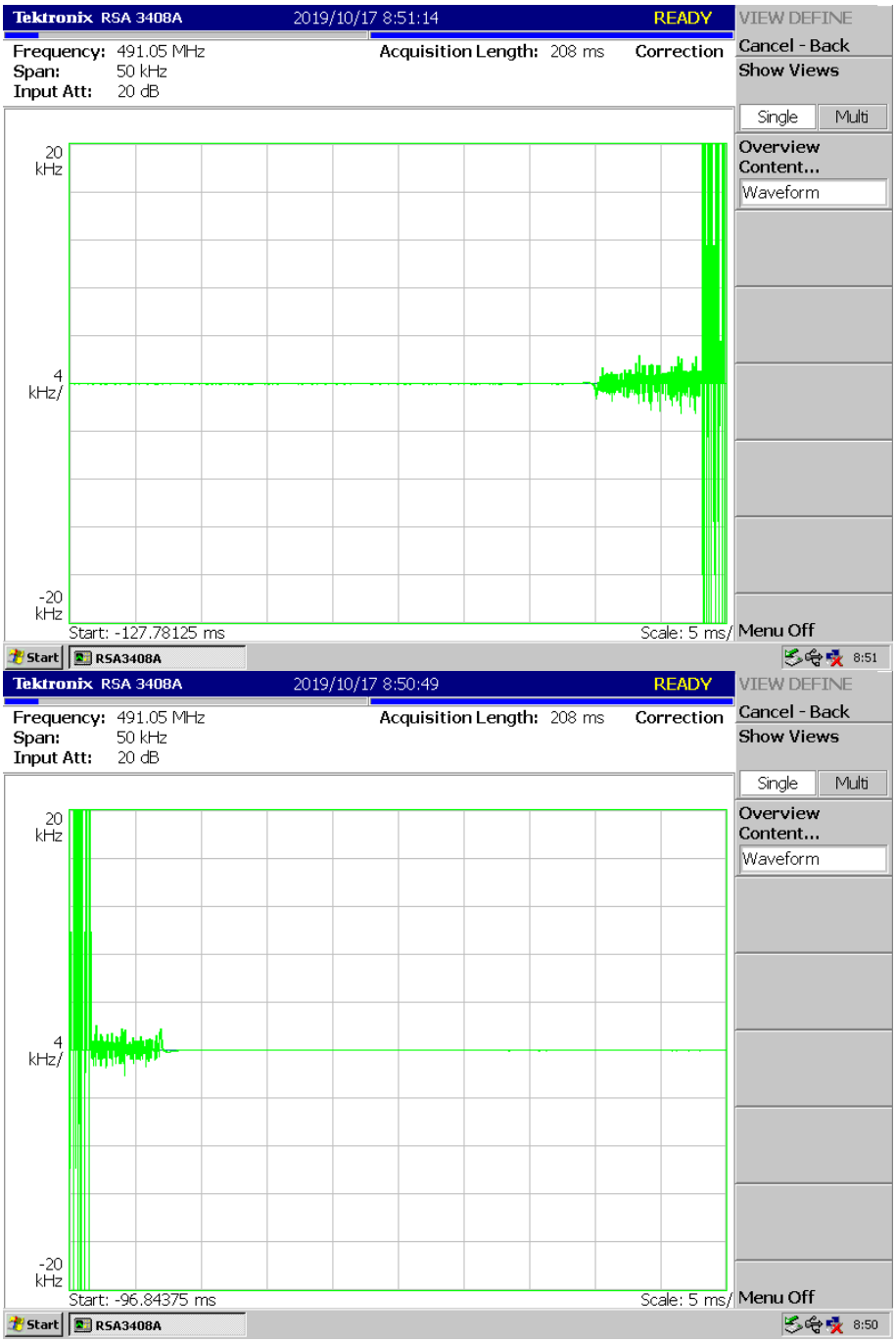


16K0F3E_5W

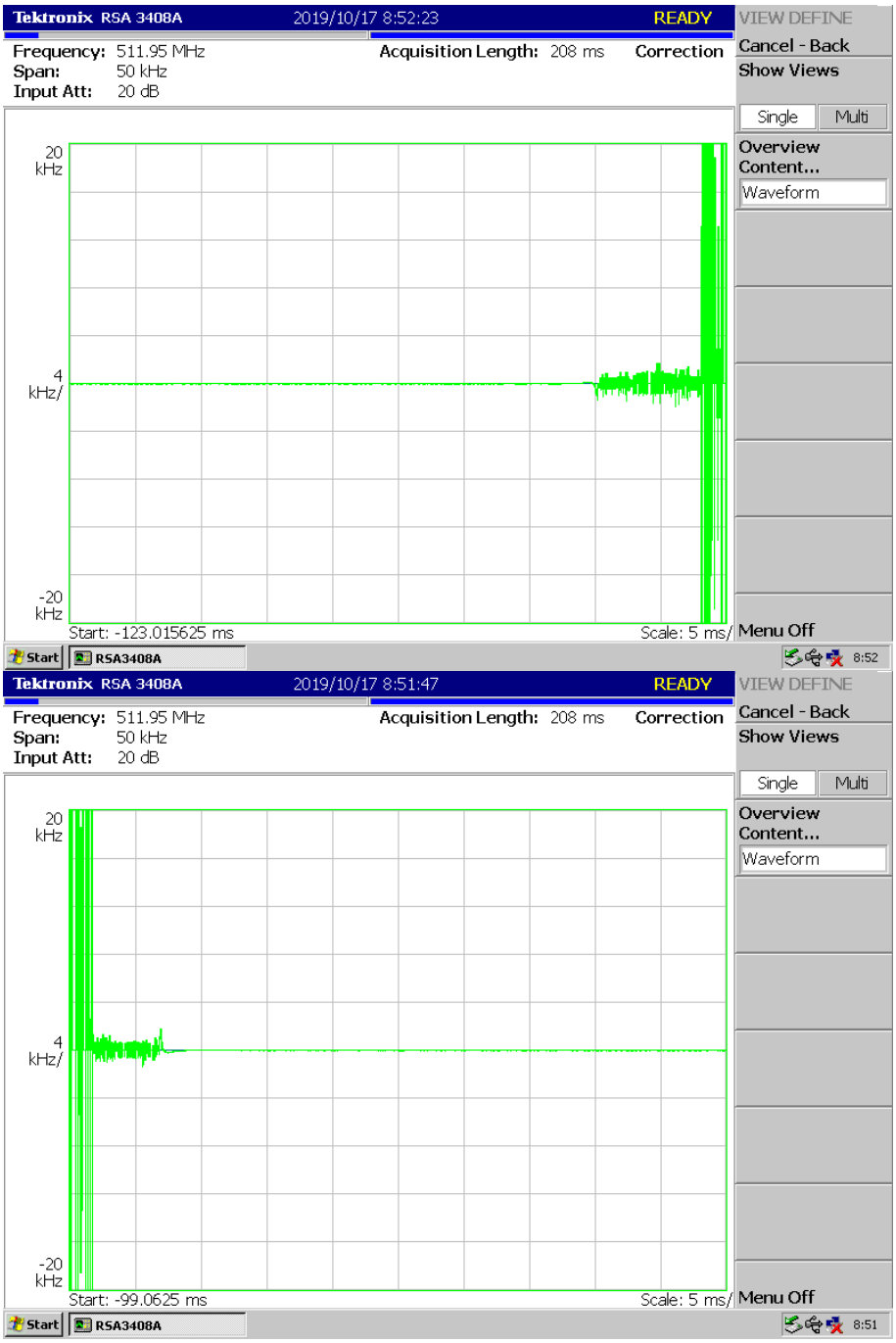
(470.05 MHz)_High



(491.05 MHz)_High



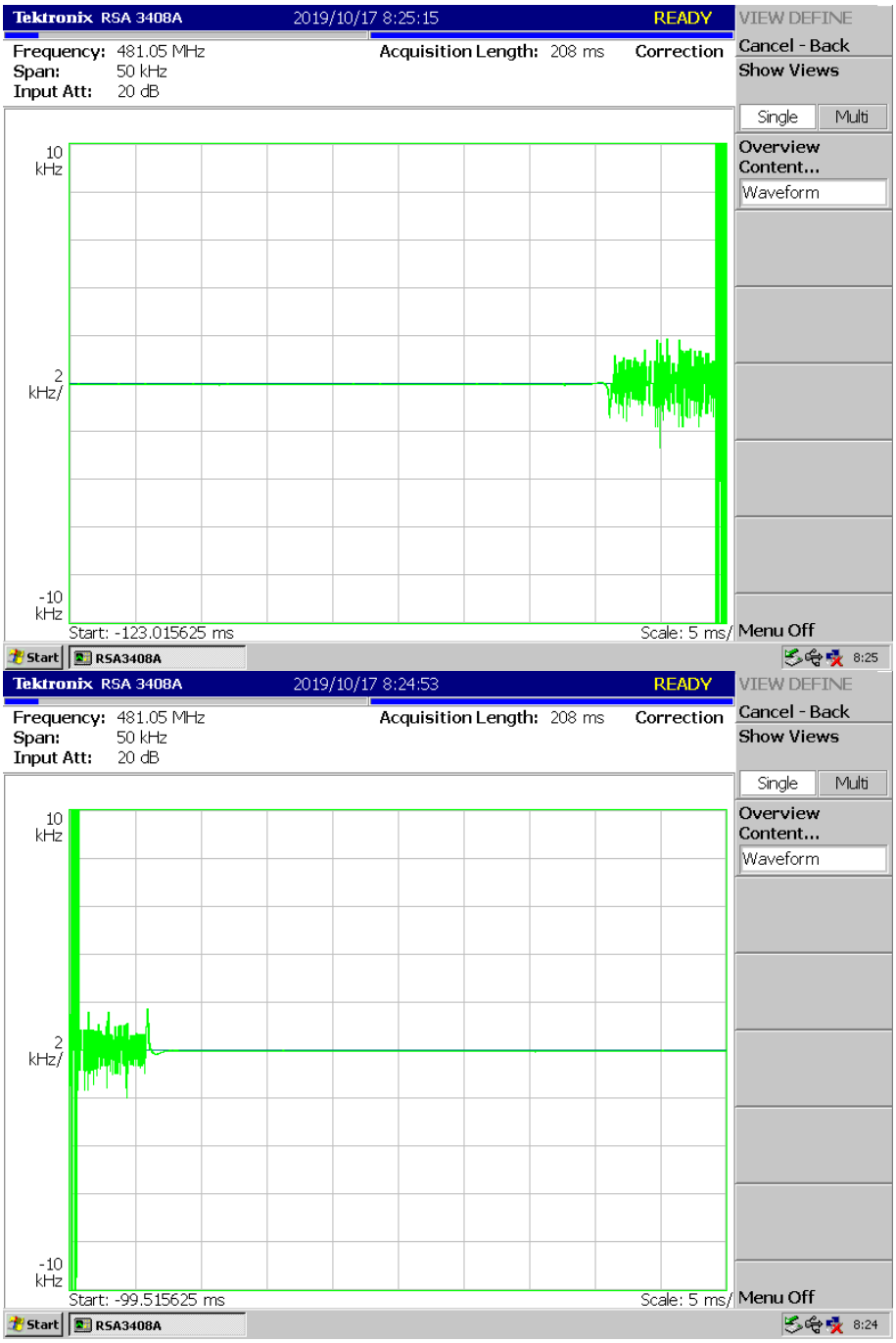
(511.95 MHz)_High



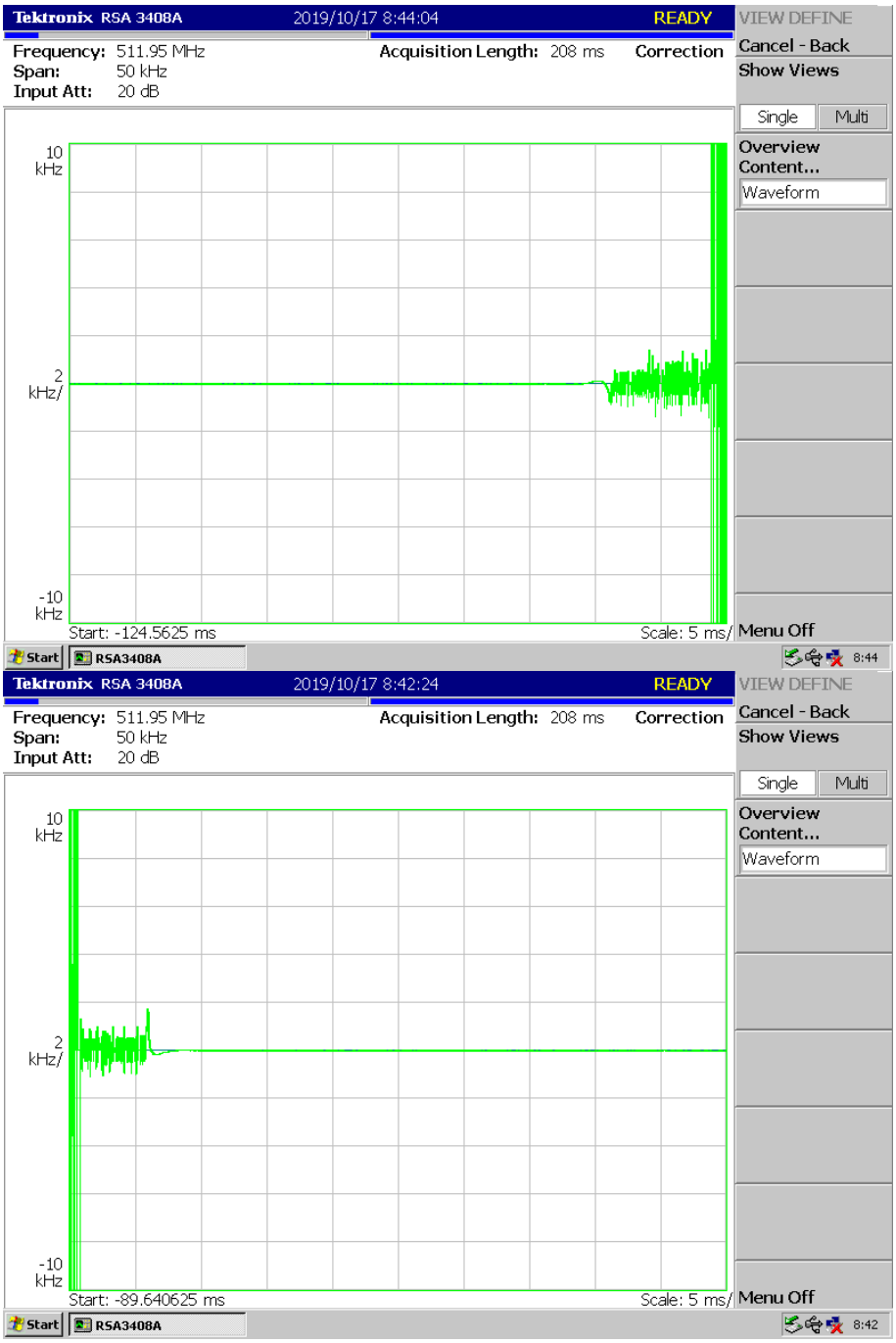
11K0F3E

(450.05 MHz)_High

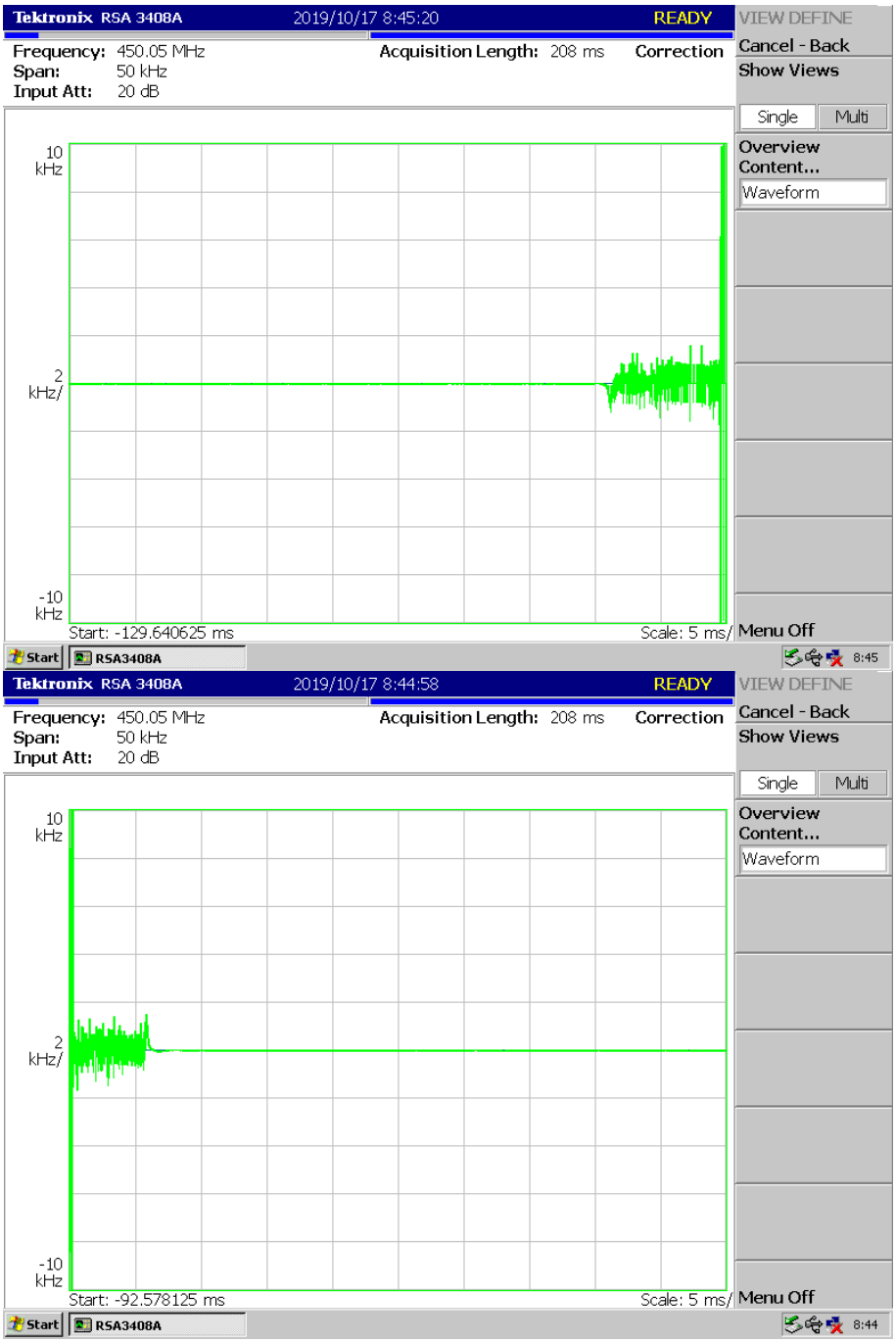
(481.05 MHz)_High



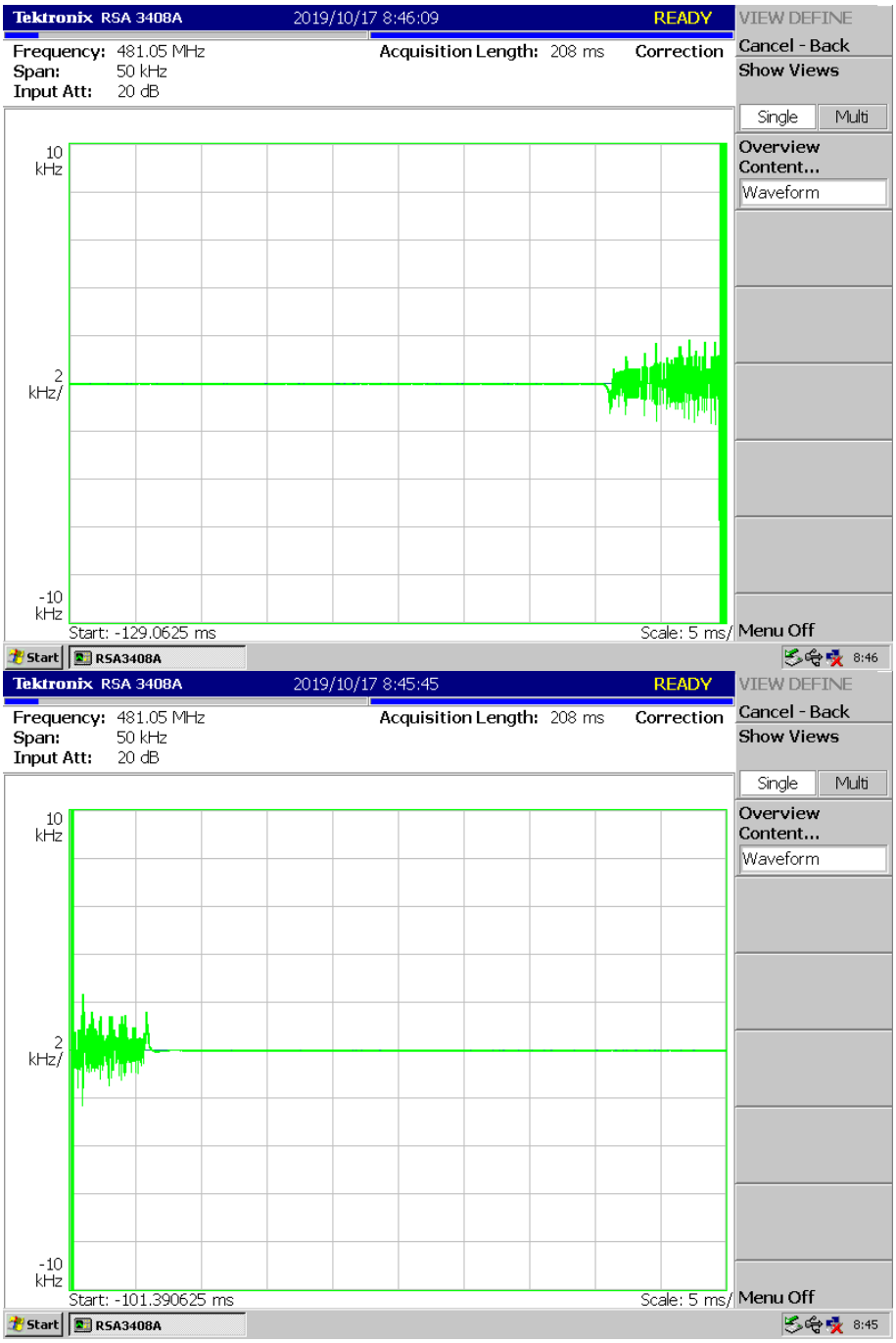
(511.95 MHz)_High



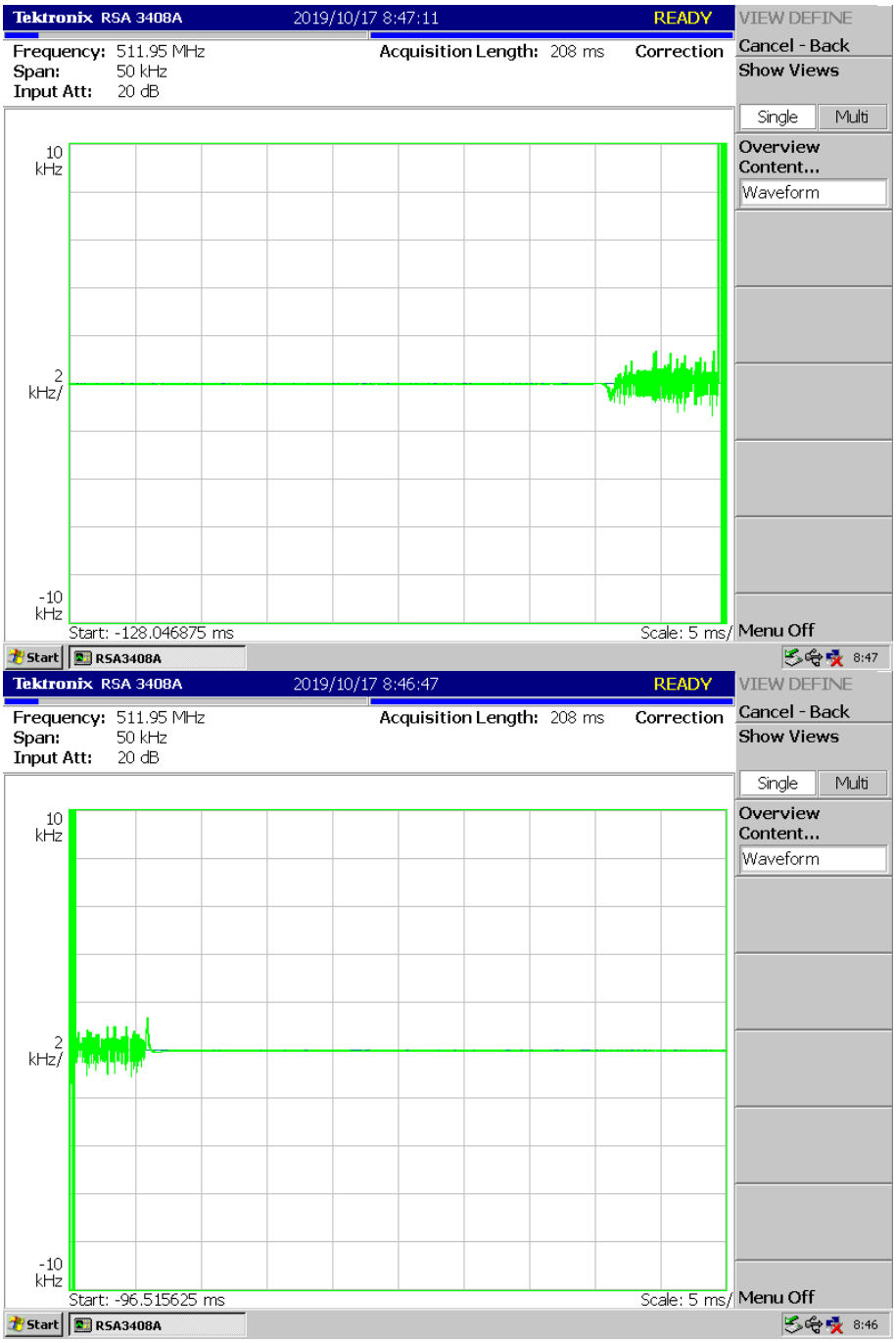
(450.05 MHz)_Low



(481.05 MHz)_ Low

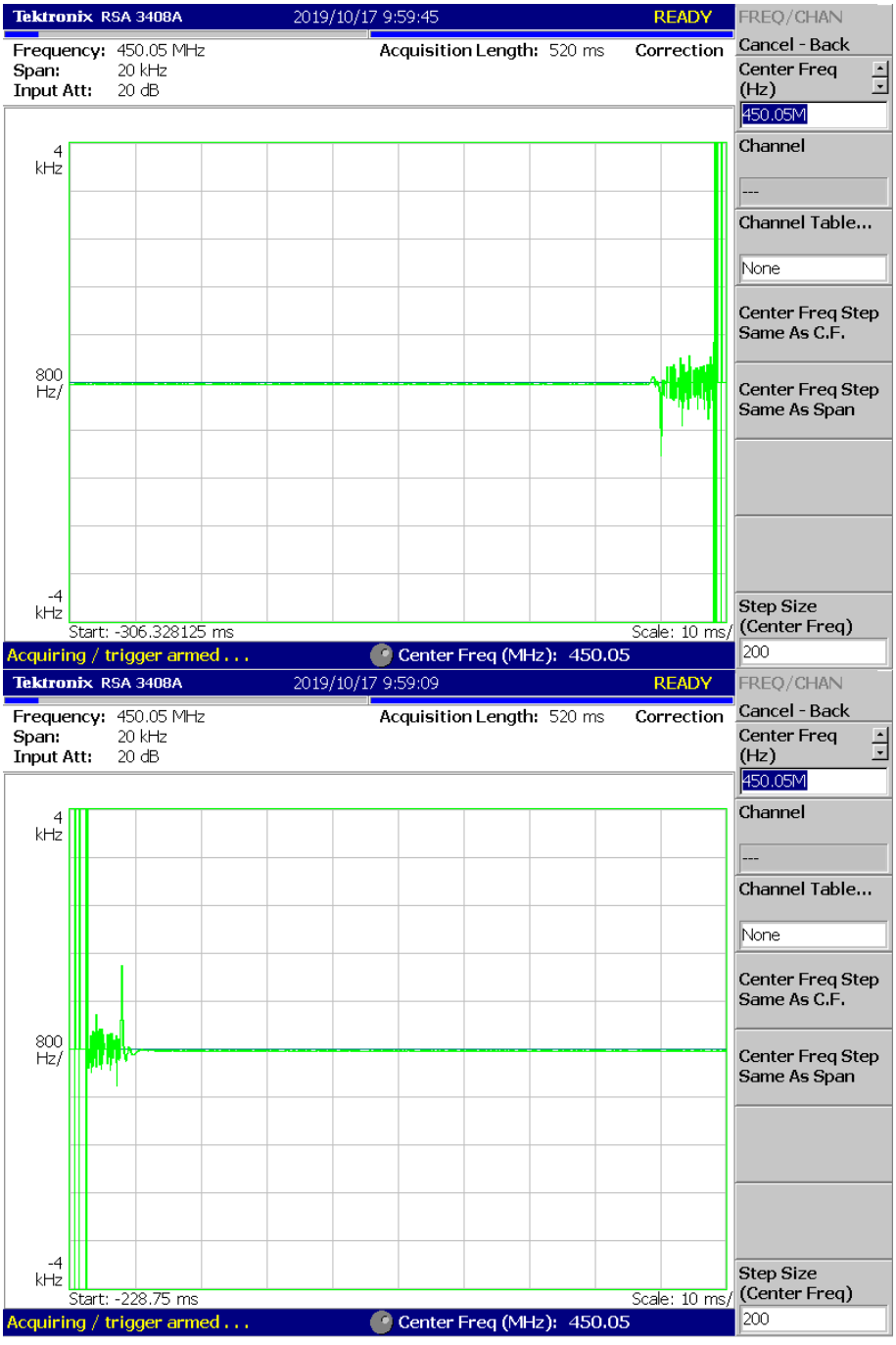


(511.95 MHz)_ Low

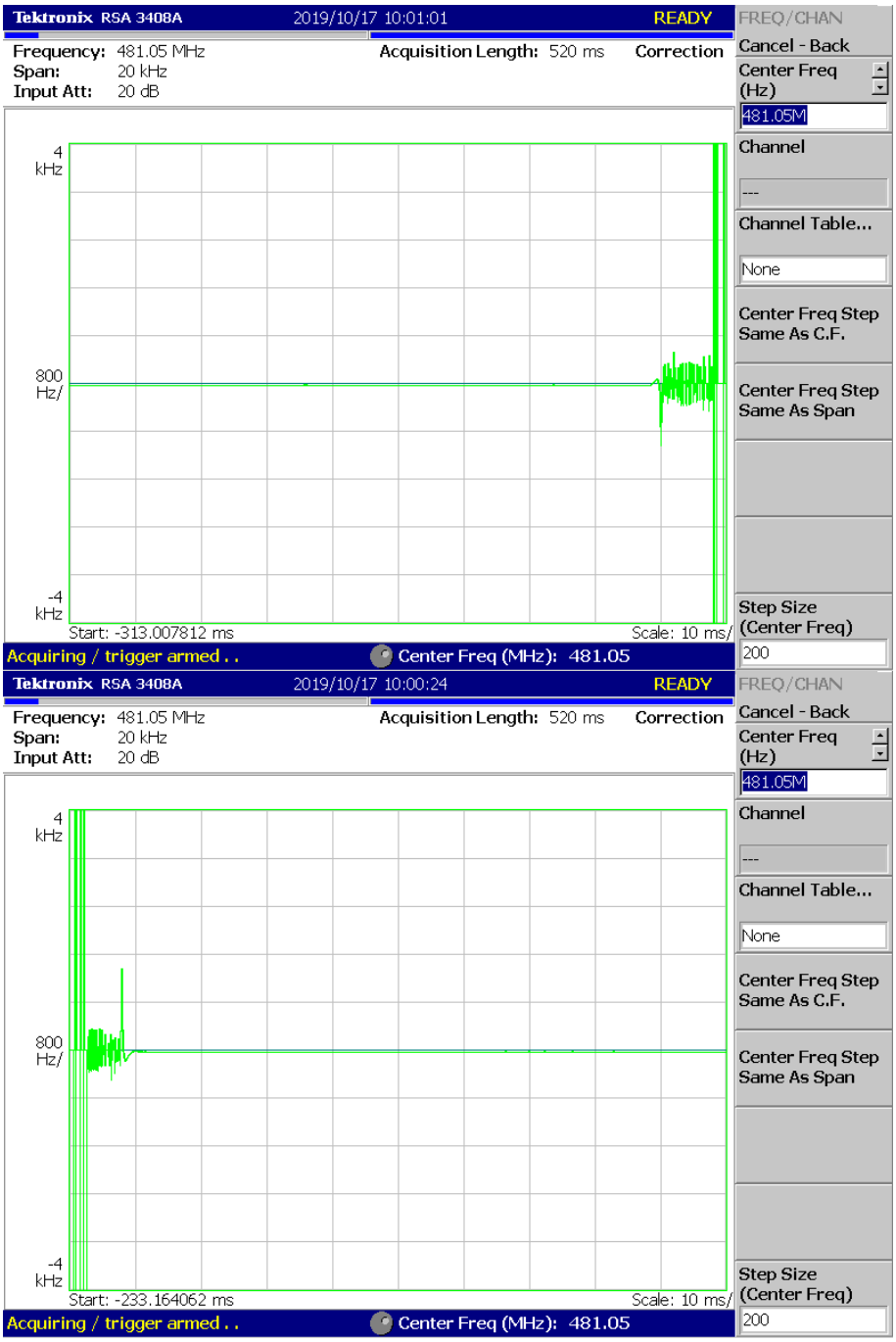


4K00F1E

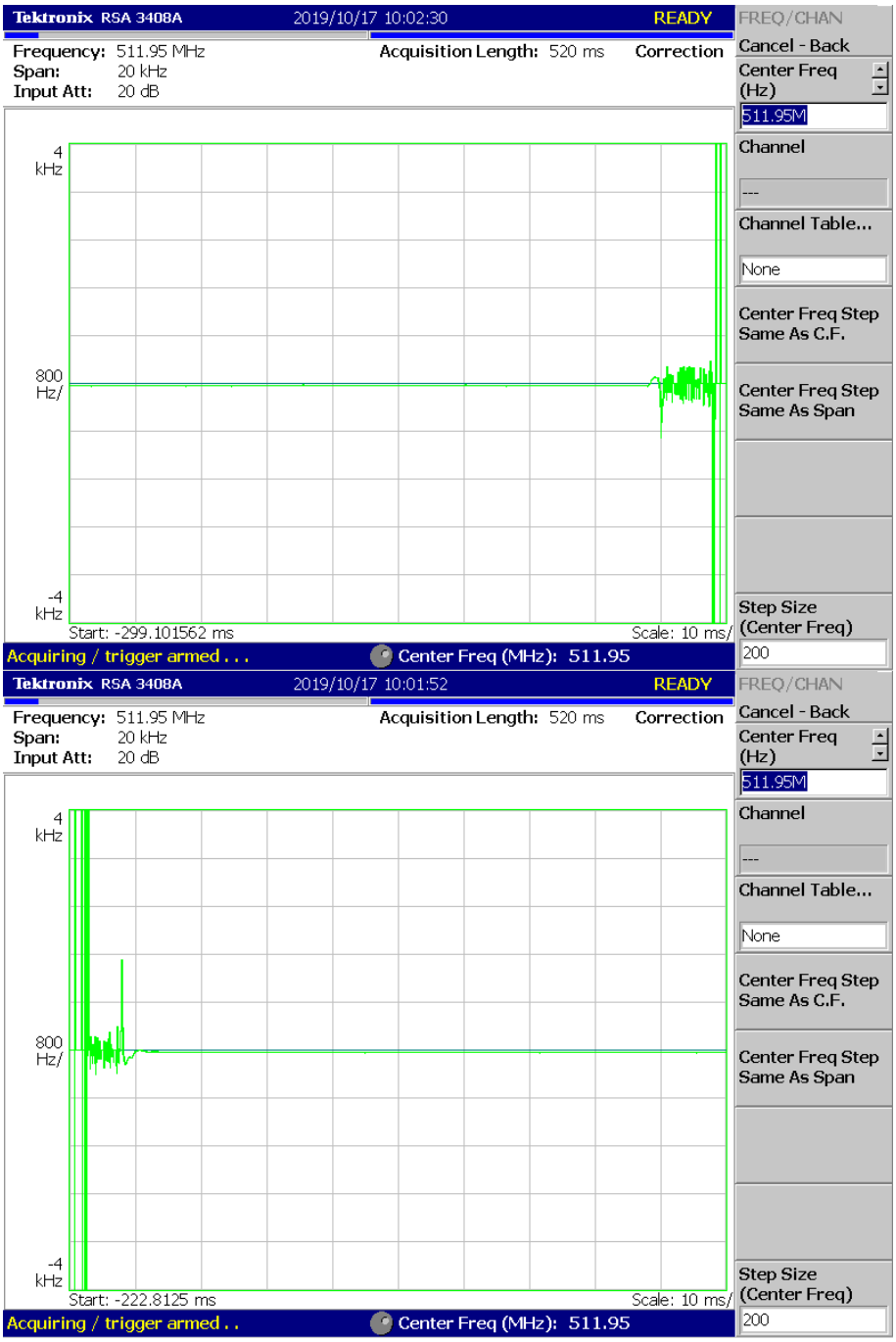
(450.05 MHz)_High



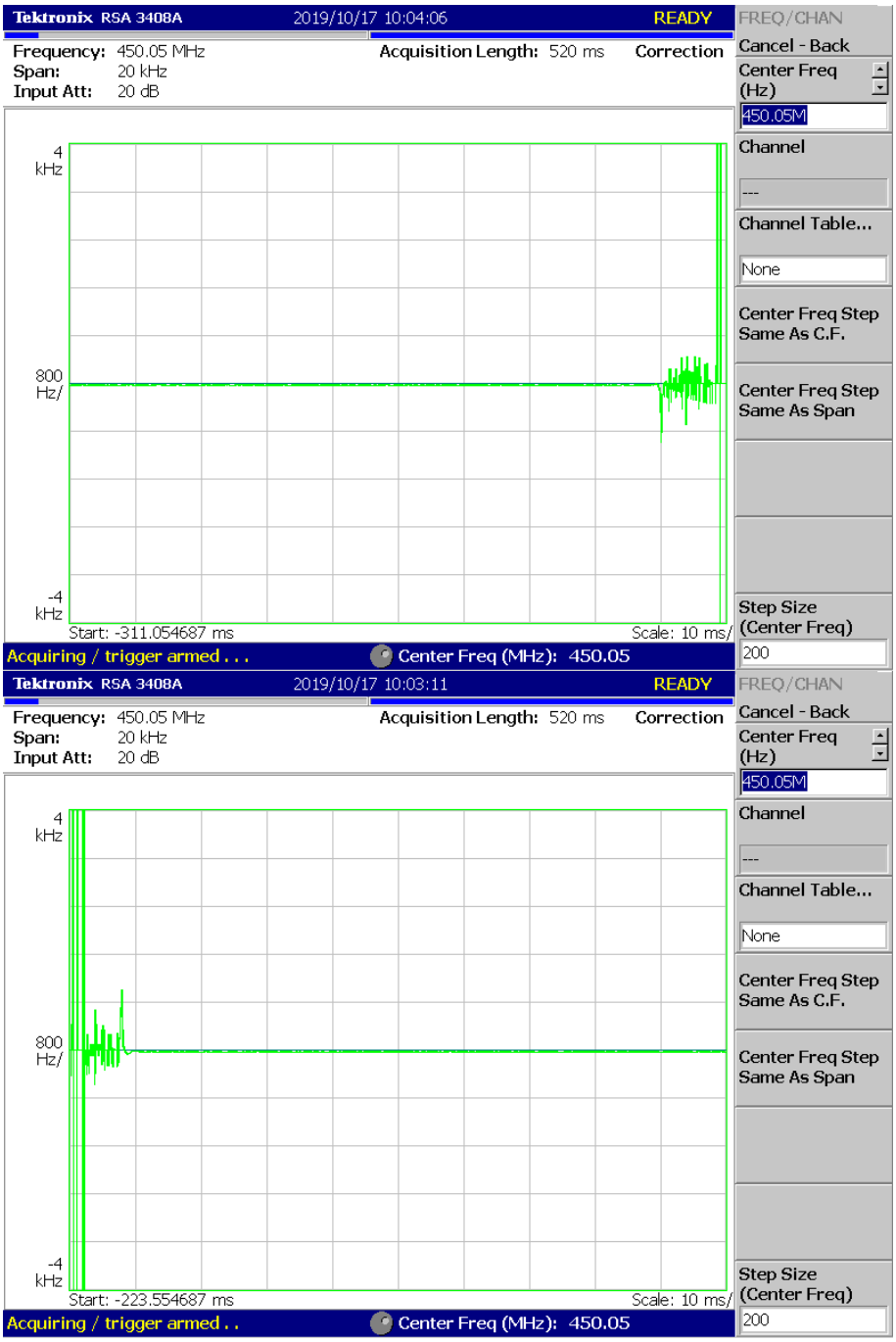
(481.05 MHz)_High



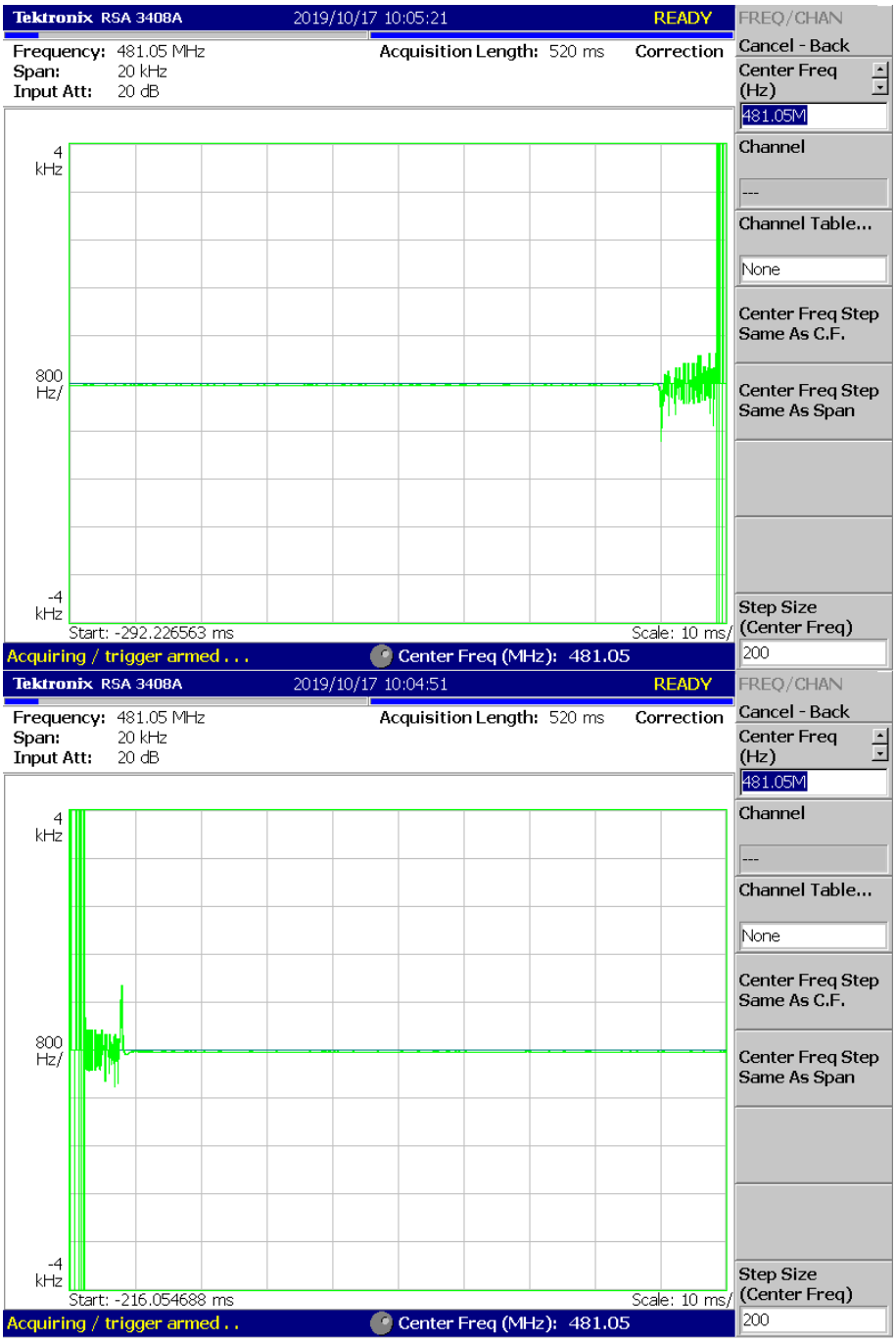
(511.95 MHz)_High



(450.05 MHz)_Low



(481.05 MHz)_ Low



(511.95 MHz)_ Low