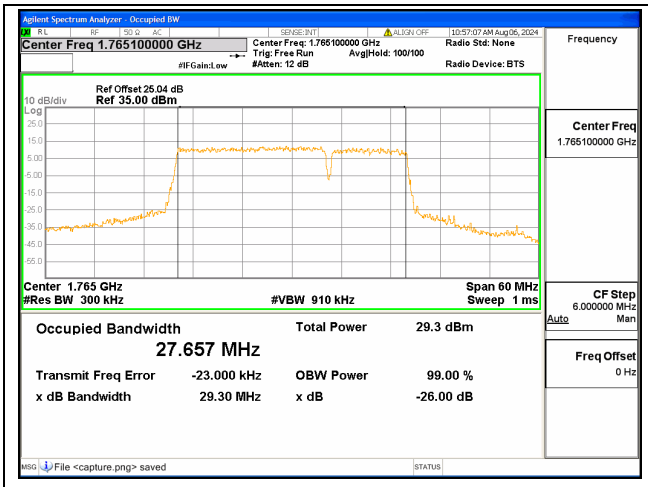
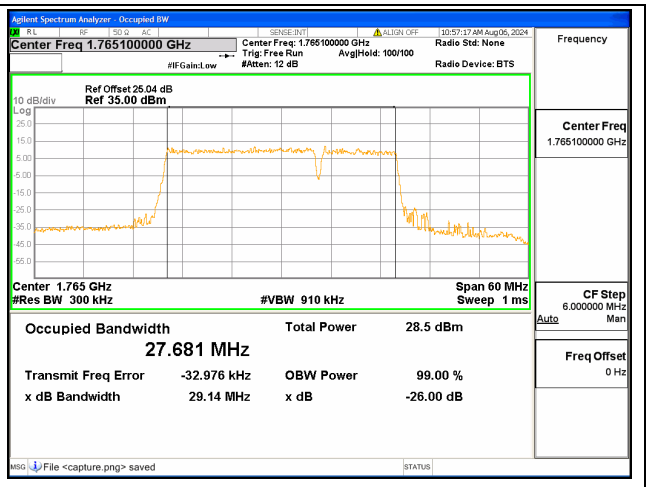
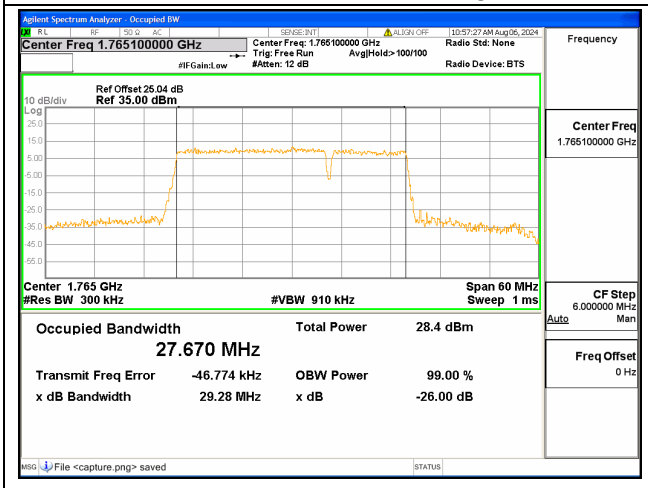


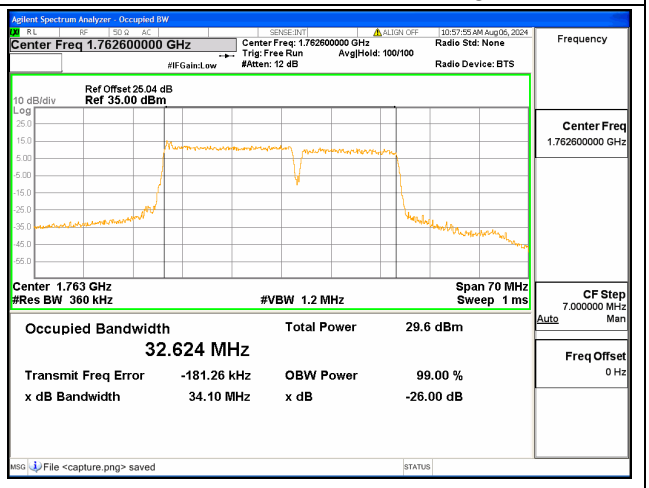
66C / 20+10MHz / QPSK/ High CH



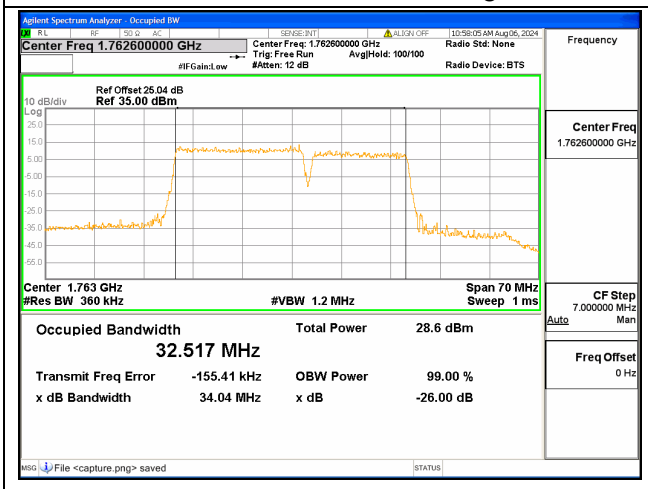
66C / 20+10MHz / 16QAM/ High CH



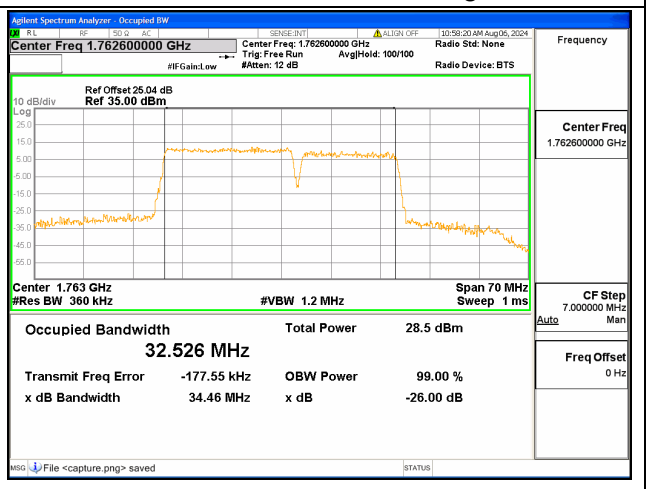
66C / 20+10MHz / 64QAM/ High CH



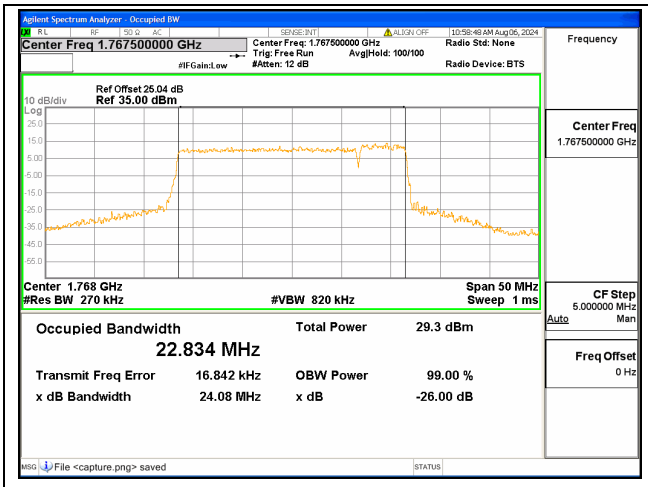
66C / 20+15MHz / QPSK/ High CH



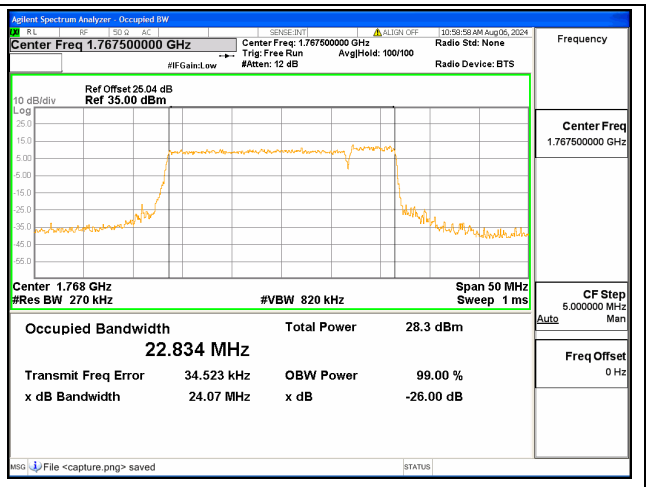
66C / 20+15MHz / 16QAM/ High CH



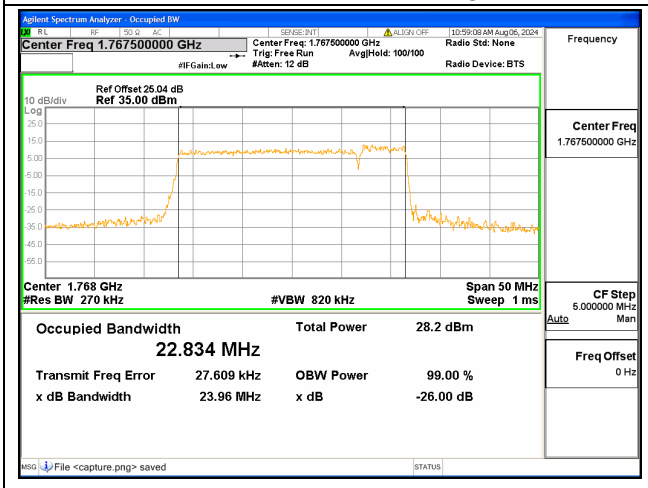
66C / 20+15MHz / 64QAM/ High CH



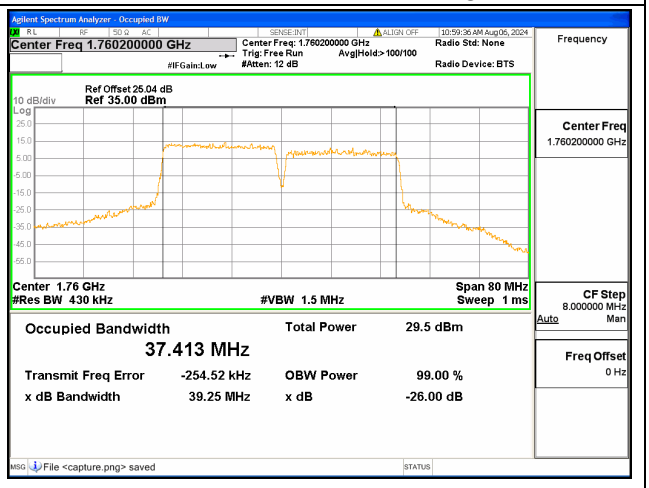
66C / 20+5MHz / QPSK/ High CH



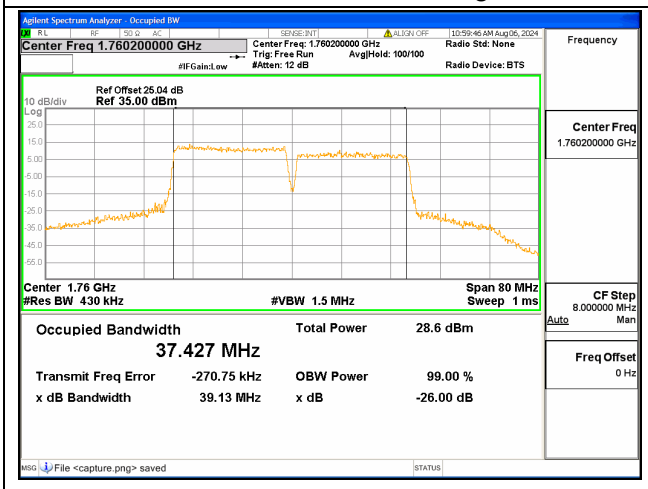
66C / 20+5MHz / 16QAM/ High CH



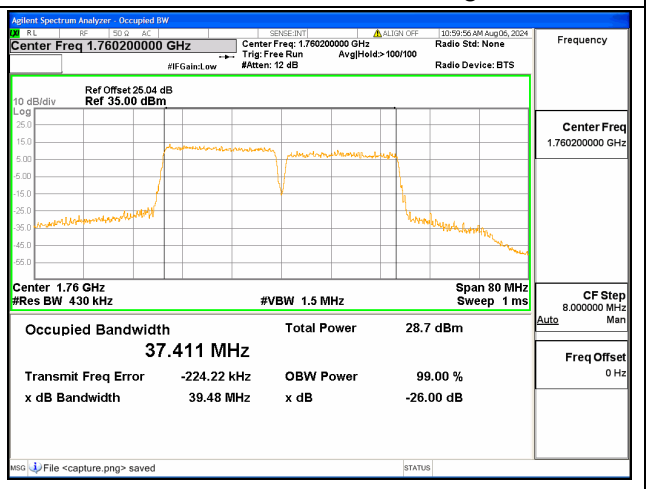
66C / 20+5MHz / 64QAM/ High CH



66C / 20+20MHz / QPSK/ High CH



66C / 20+20MHz / 16QAM/ High CH



66C / 20+20MHz / 64QAM/ High CH

2.3. Conducted Spurious Emissions

2.3.1. Requirement

According to FCC section 2.1051, 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. This calculated to be -13dBm.

Additional requirement for LTE Band 2:
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. This calculated to be -13dBm.

Additional requirement for LTE Band 4/66:
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 log10 (P) dB. This calculated to be -13dBm.

Additional requirement for LTE Band 5:
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. This calculated to be -13dBm.

Additional requirement for LTE Band 12:
For operations in the 600 MHz band and the 698–746 MHz band, the power of any emission outside a 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, by at least 43 + 10 log (P) dB. This calculated to be -13dBm

Additional requirement for LTE Band 7:

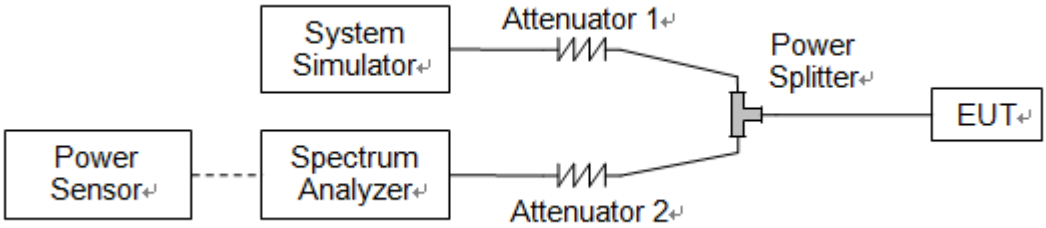
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 55 + 10 log(P) dB. This calculated to be -25dBm.

Additional requirement for LTE Band 13
According to FCC section 27.53(c)(2), 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 in a 100kHz bandwidth. 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. This calculated to be -13dBm.

Additional requirement for LTE Band 48:

According to FCC section 96.41(e), the conducted power of emissions below 3530 MHz or above 3720 MHz shall not exceed −40dBm/MHz.

2.3.2. Test Description

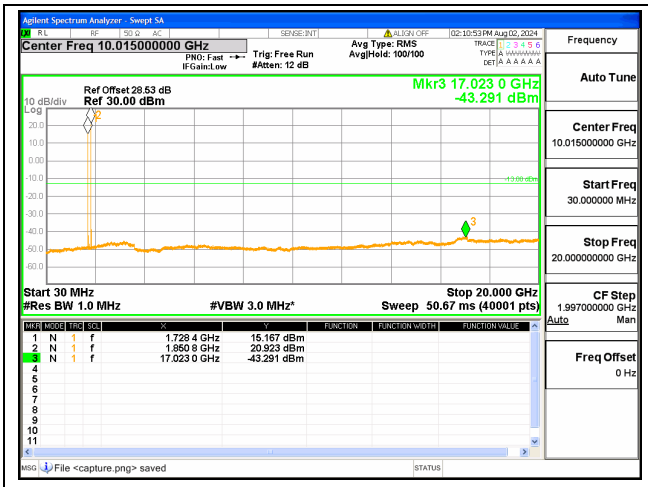


The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum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

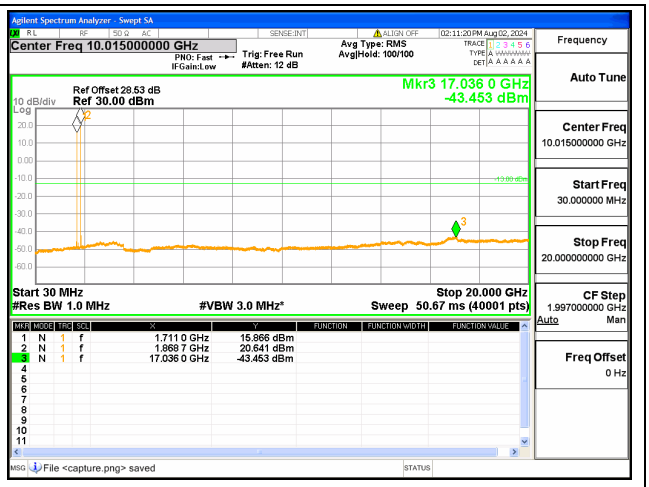
2.3.3. Test Procedure

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

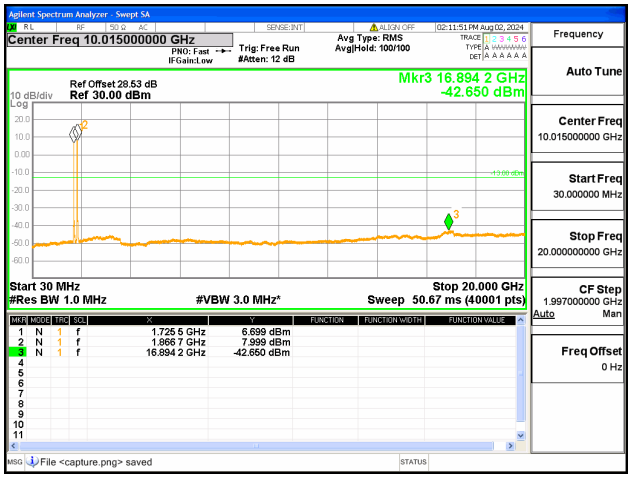
2.3.4. Test Result



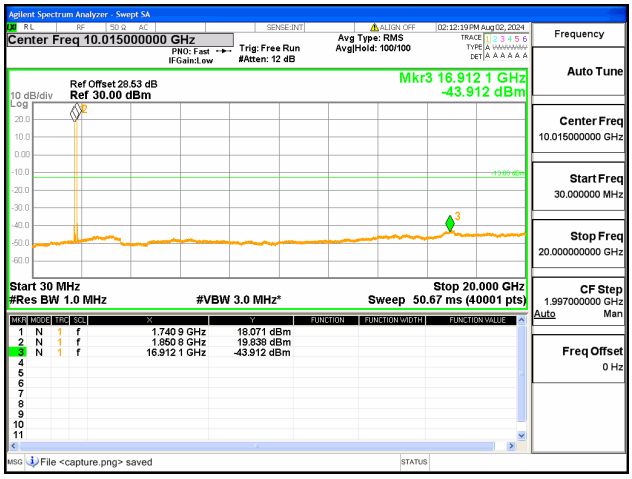
2A-4A / 20+20MHz / QPSK / Low+Low CH / 1@0-1@99



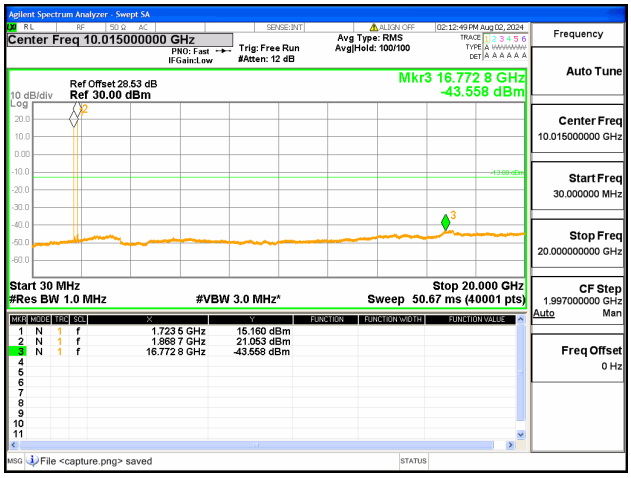
2A-4A / 20+20MHz / QPSK / Low+Low CH / 1@99-1@0



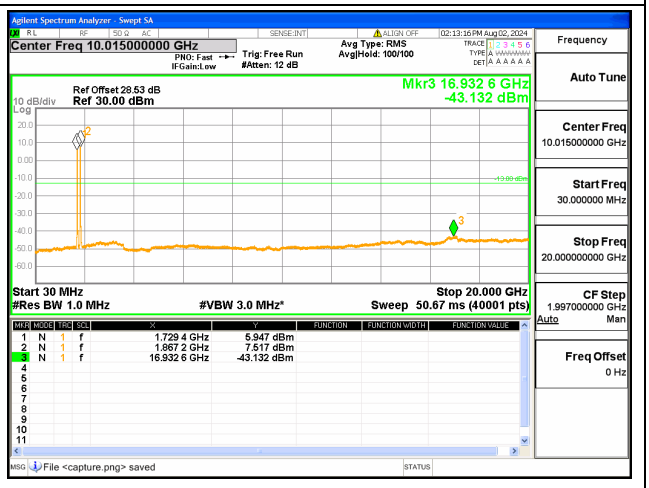
2A-4A / 20+20MHz / QPSK / Low+Low CH / 100@0-100@0



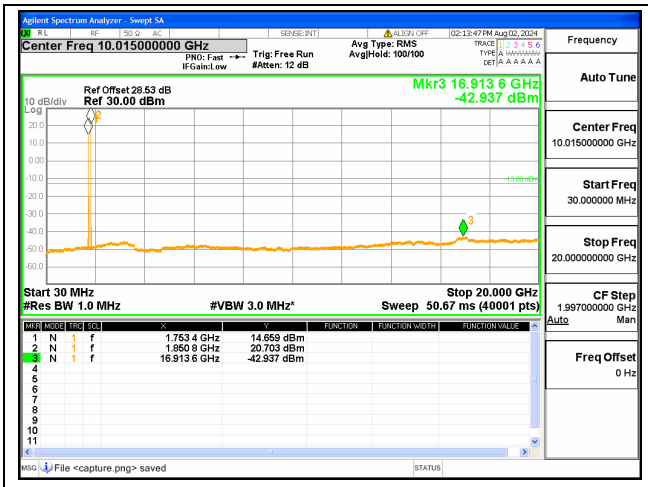
2A-4A / 20+20MHz / QPSK / Low+Mid CH / 1@0-1@99



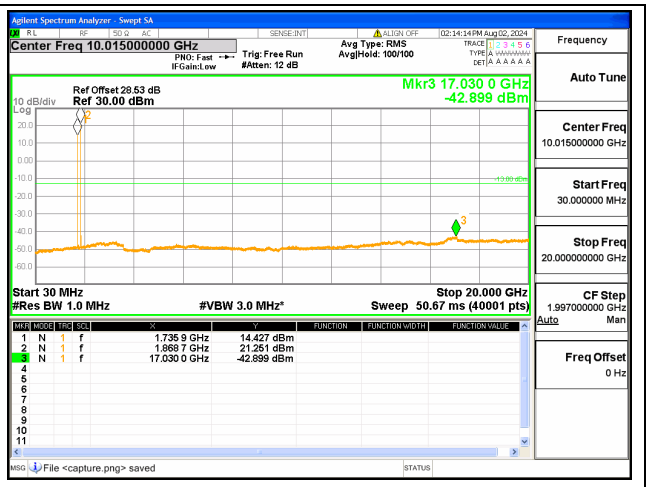
2A-4A / 20+20MHz / QPSK / Low+Mid CH / 1@99-1@0



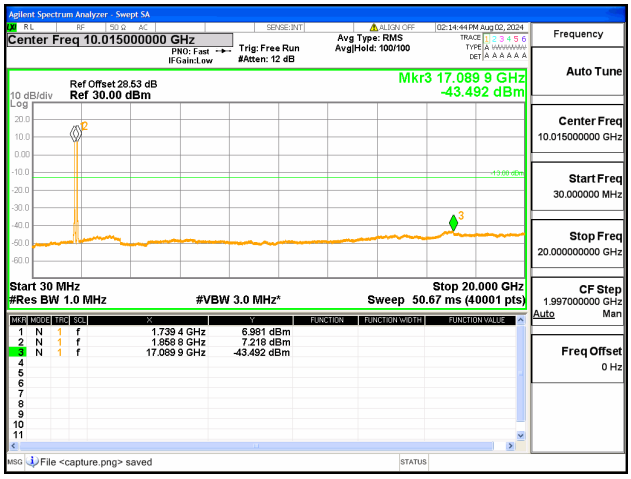
2A-4A / 20+20MHz / QPSK / Low+Mid CH / 100@0-100@0



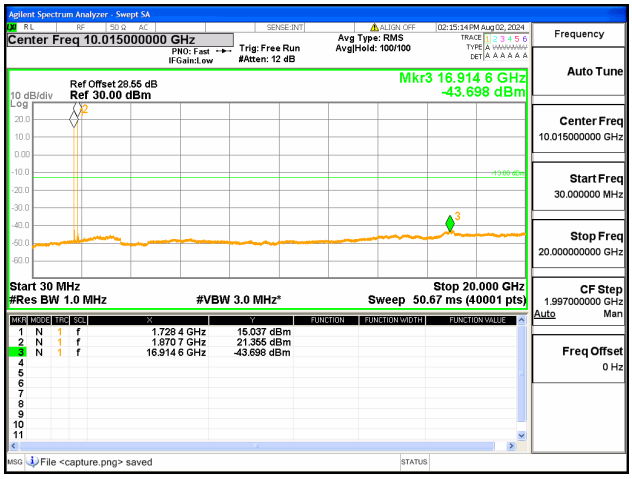
2A-4A / 20+20MHz / QPSK / Low+High CH / 1@0-1@99



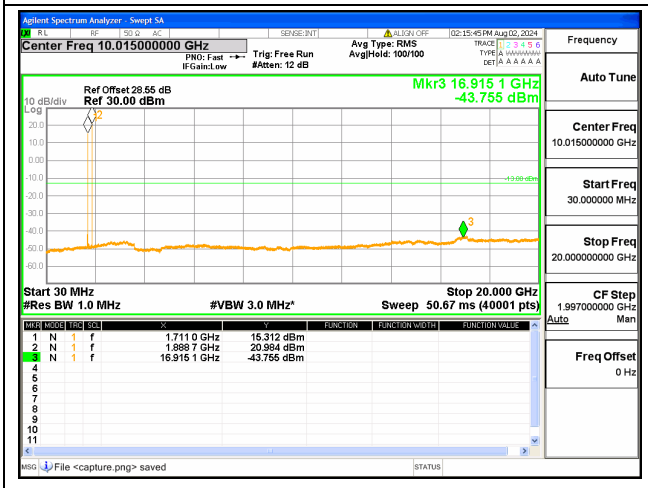
2A-4A / 20+20MHz / QPSK / Low+High CH / 1@99-1@0



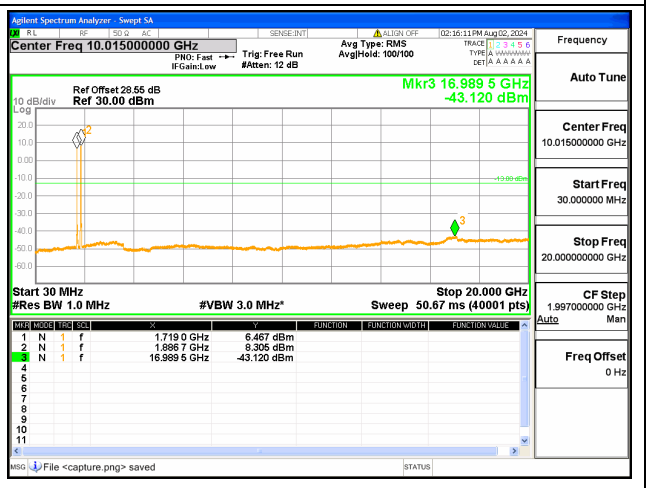
2A-4A / 20+20MHz / QPSK / Low+High CH / 100@0-100@0



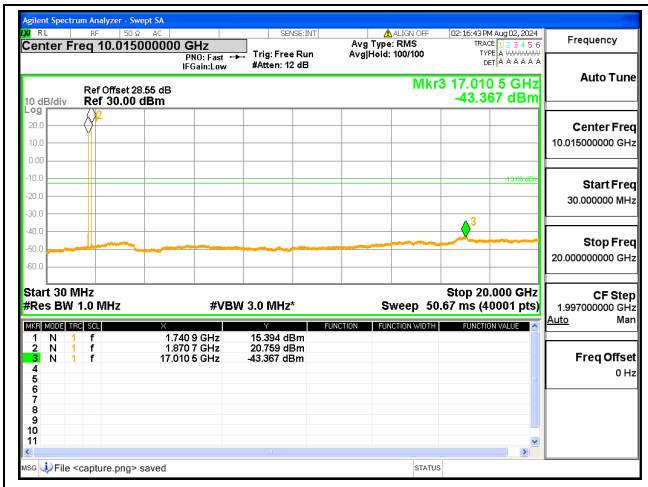
2A-4A / 20+20MHz / QPSK / Mid+Low CH / 1@0-1@99



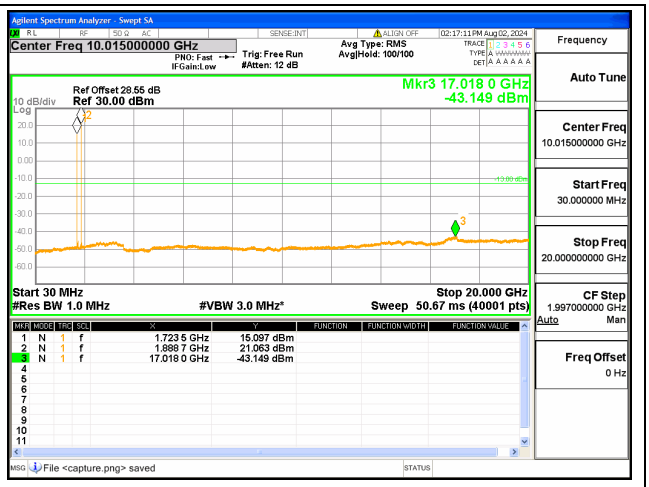
2A-4A / 20+20MHz / QPSK / Mid+Low CH / 1@99-1@0



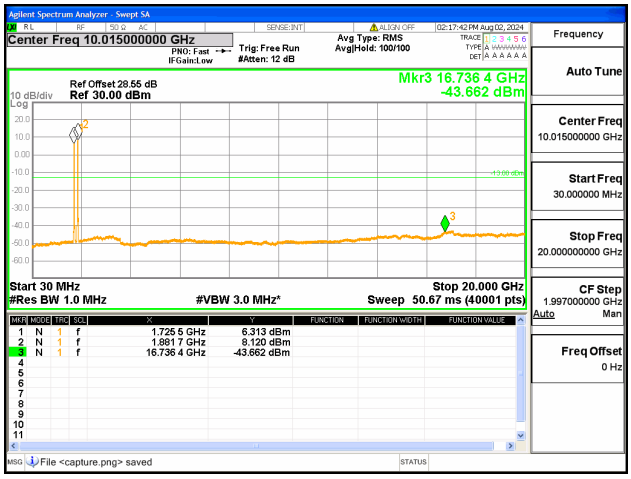
2A-4A / 20+20MHz / QPSK / Mid+Low CH / 100@0-100@0



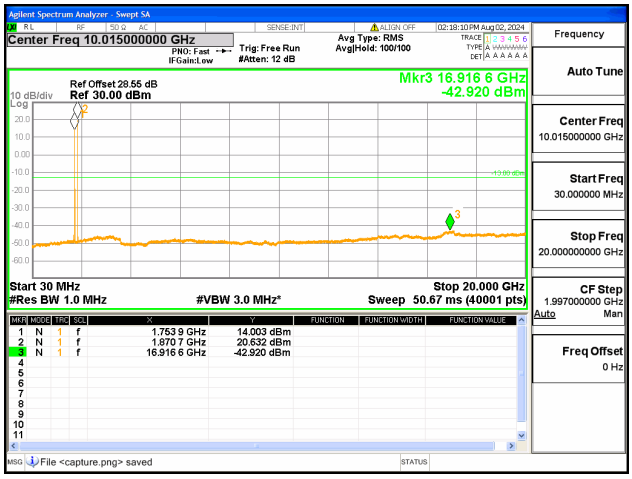
2A-4A / 20+20MHz / QPSK / Mid+Mid CH / 1@0-1@99



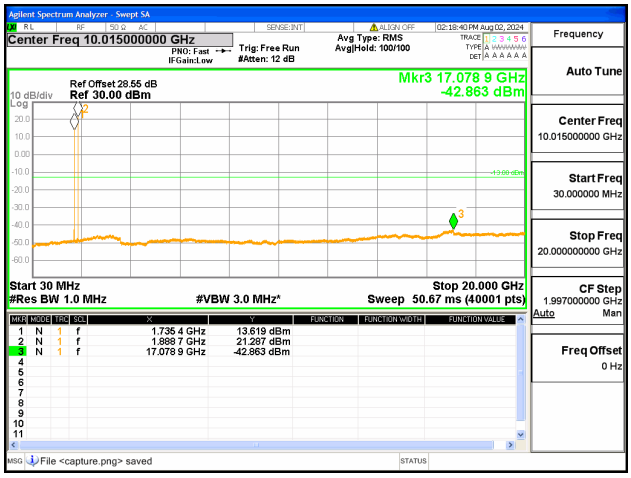
2A-4A / 20+20MHz / QPSK / Mid+Mid CH / 1@99-1@0



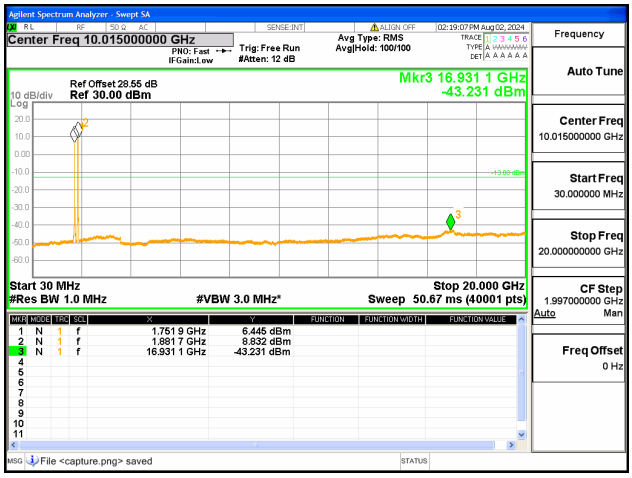
2A-4A / 20+20MHz / QPSK / Mid+Mid CH / 100@0-100@0



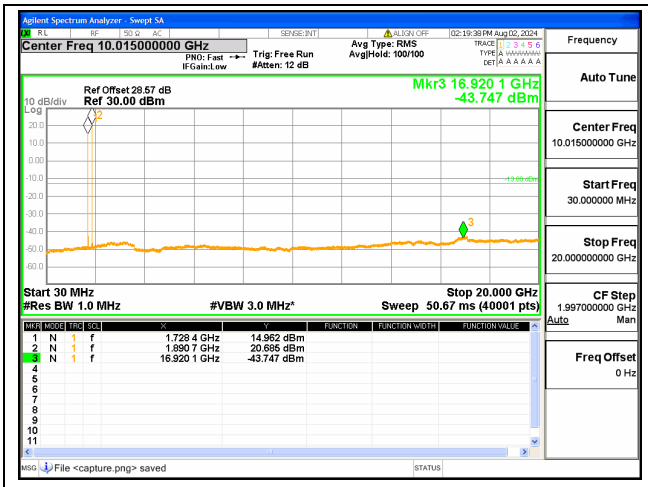
2A-4A / 20+20MHz / QPSK / Mid+High CH / 1@0-1@99



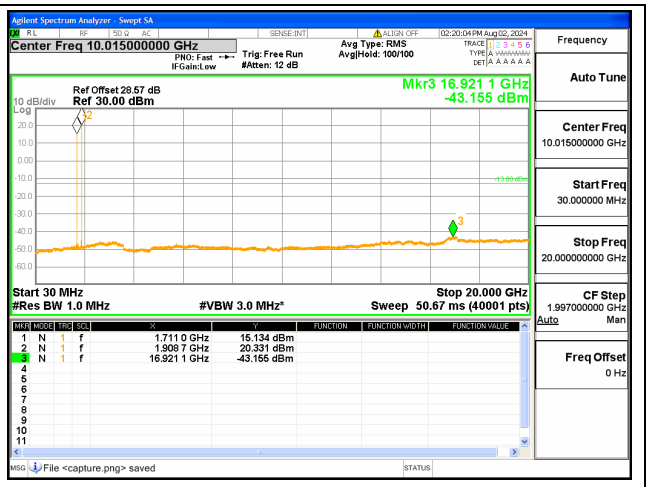
2A-4A / 20+20MHz / QPSK / Mid+High CH / 1@99-1@0



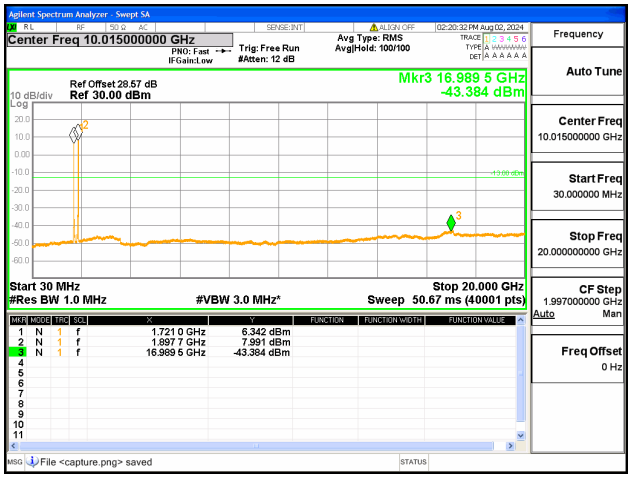
2A-4A / 20+20MHz / QPSK / Mid+High CH / 100@0-100@0



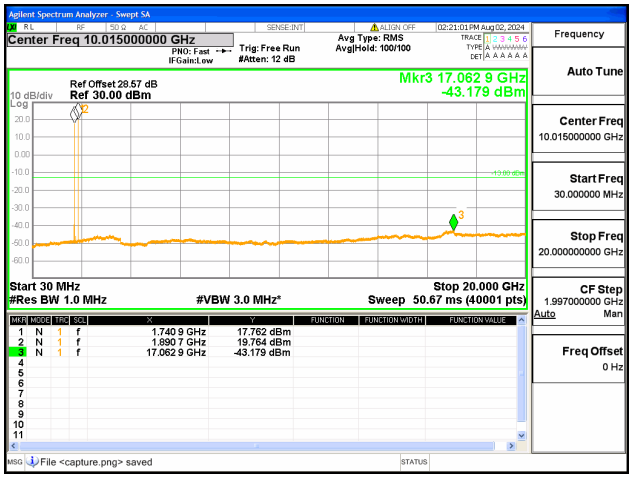
2A-4A / 20+20MHz / QPSK / High+Low CH / 1@0-1@99



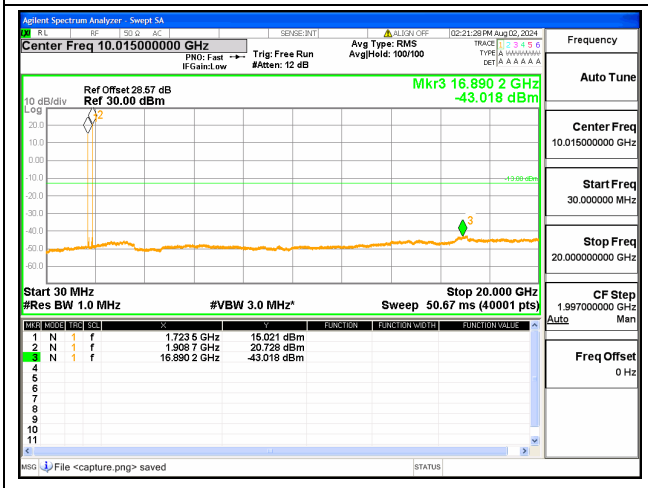
2A-4A / 20+20MHz / QPSK / High+Low CH / 1@99-1@0



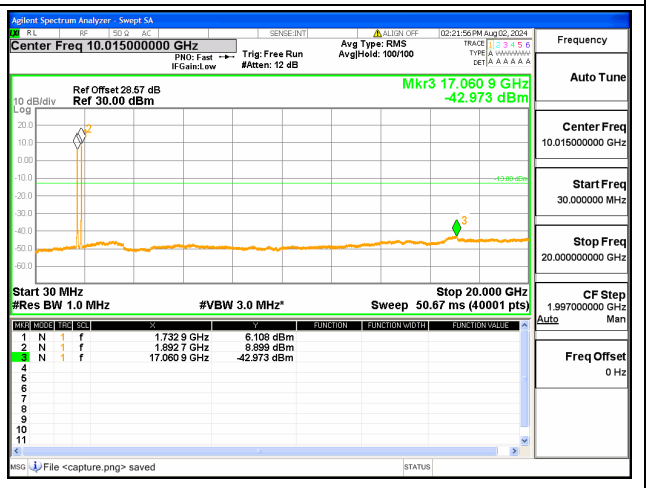
2A-4A / 20+20MHz / QPSK / High+Low CH / 100@0-100@0



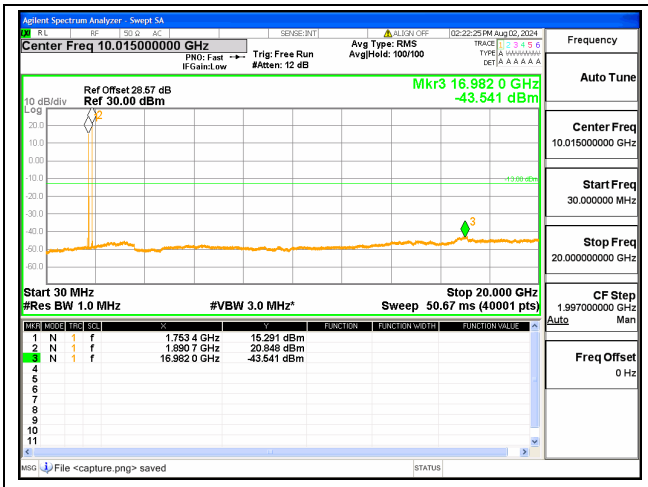
2A-4A / 20+20MHz / QPSK / High+Mid CH / 1@0-1@99



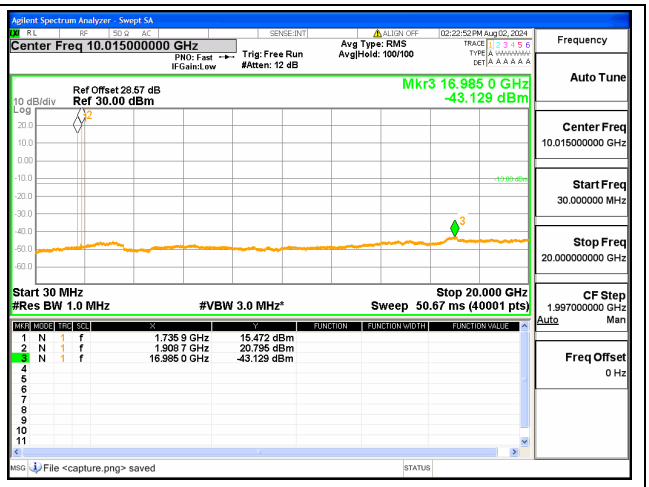
2A-4A / 20+20MHz / QPSK / High+Mid CH / 1@99-1@0



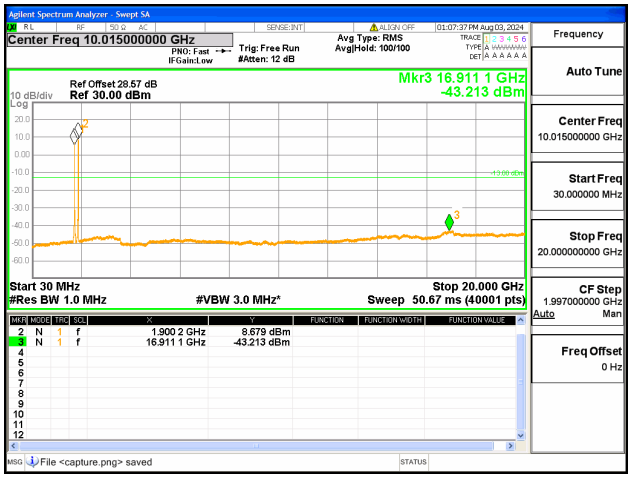
2A-4A / 20+20MHz / QPSK / High+Mid CH / 100@0-100@0



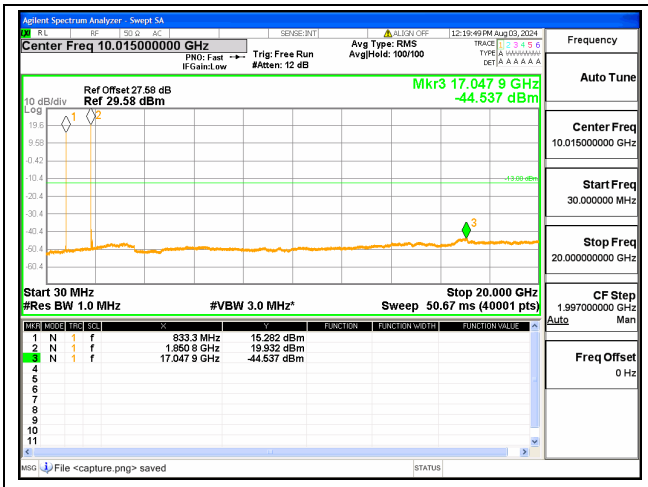
2A-4A / 20+20MHz / QPSK / High+High CH / 1@0-1@99



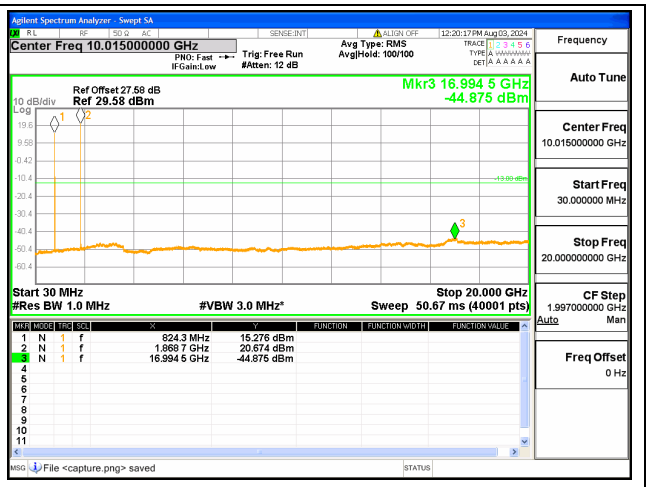
2A-4A / 20+20MHz / QPSK / High+High CH / 1@99-1@0



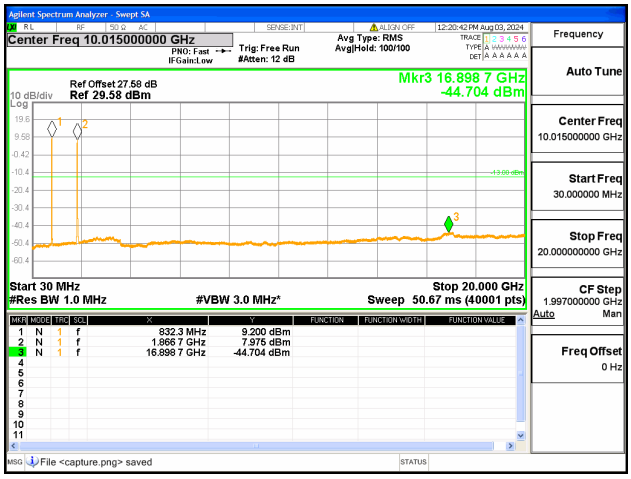
2A-4A / 20+20MHz / QPSK / High+High CH / 100@0-100@0



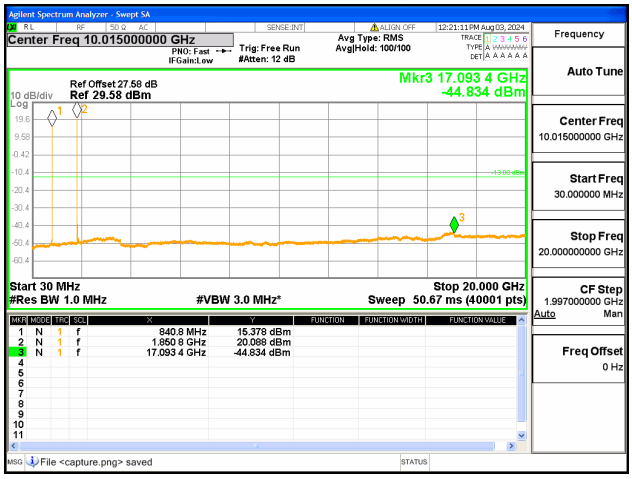
2A-5A / 20+10MHz / QPSK / Low+Low CH / 1@0-1@49



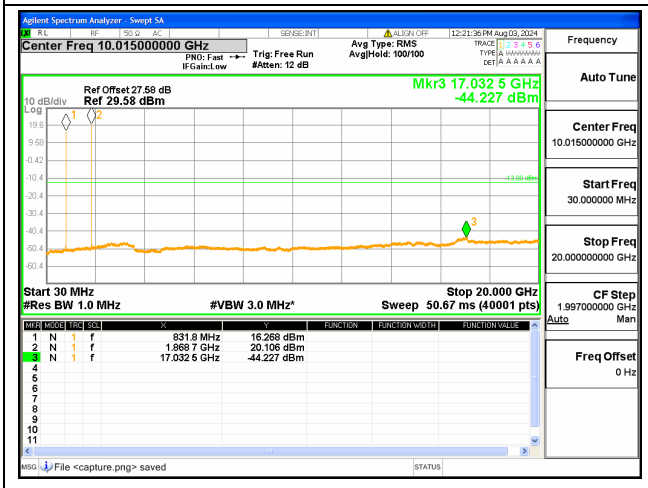
2A-5A / 20+10MHz / QPSK / Low+Low CH / 1@99-1@0



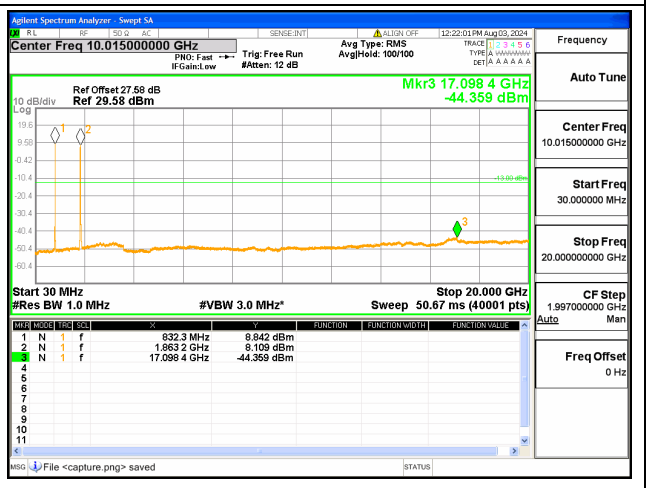
2A-5A / 20+10MHz / QPSK / Low+Low CH / 100@0-50@0



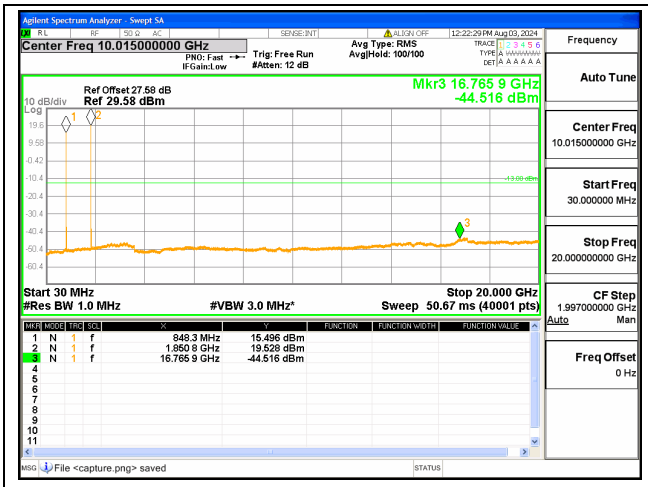
2A-5A / 20+10MHz / QPSK / Low+Mid CH / 1@0-1@49



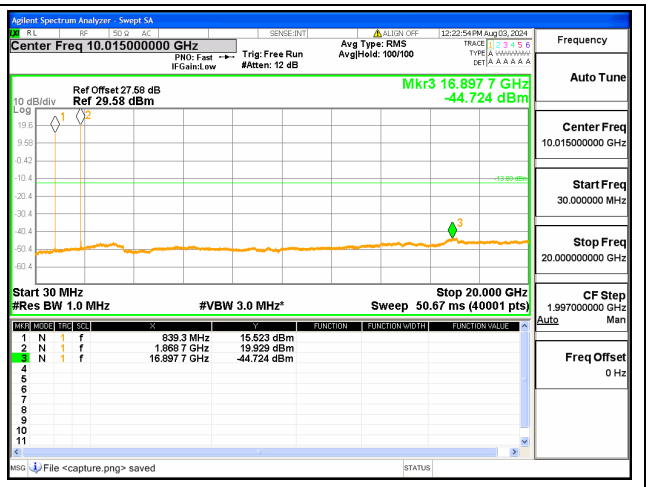
2A-5A / 20+10MHz / QPSK / Low+Mid CH / 1@99-1@0



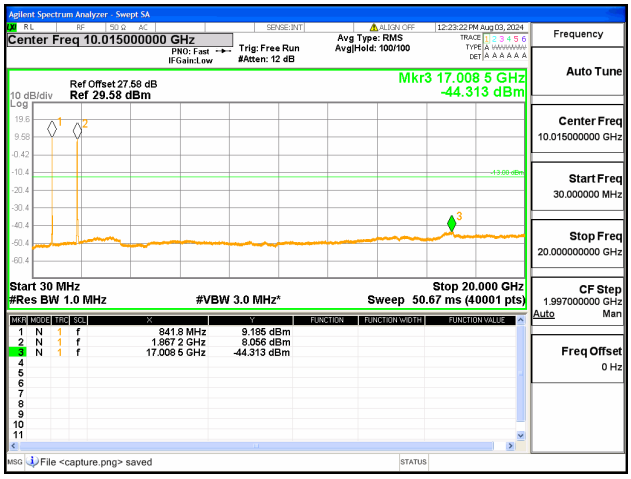
2A-5A / 20+10MHz / QPSK / Low+Mid CH / 100@0-50@0



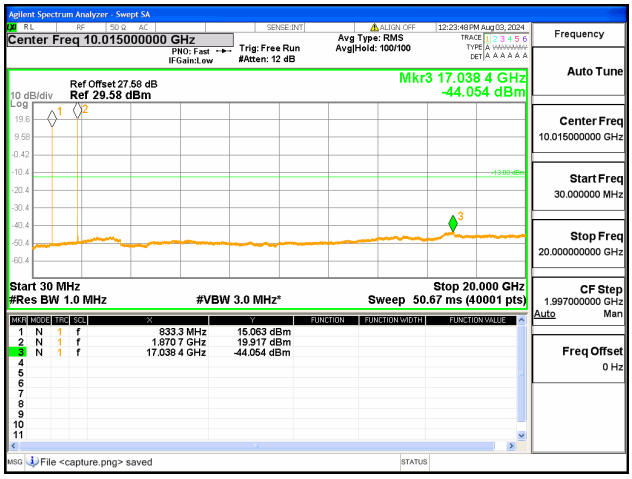
2A-5A / 20+10MHz / QPSK / Low+High CH / 1@0-1@49



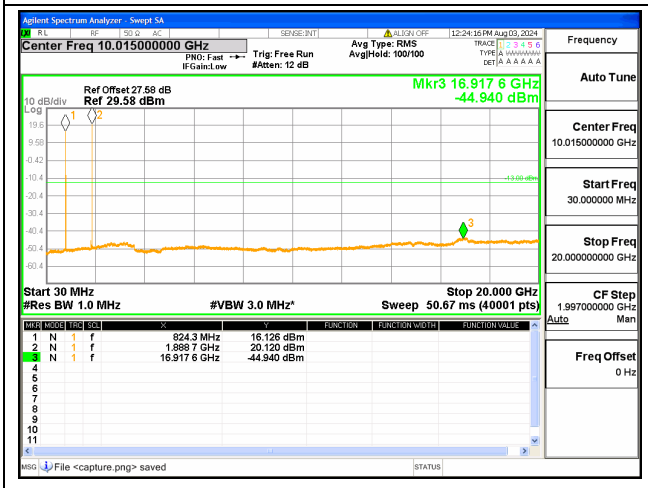
2A-5A / 20+10MHz / QPSK / Low+High CH / 1@99-1@0



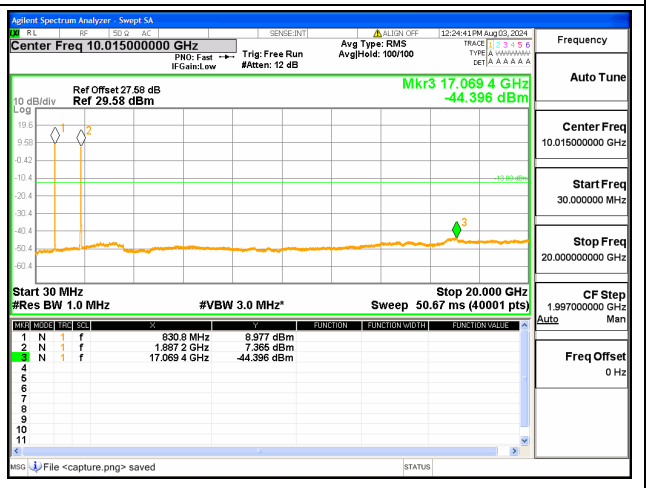
2A-5A / 20+10MHz / QPSK / Low+High CH / 100@0-50@0



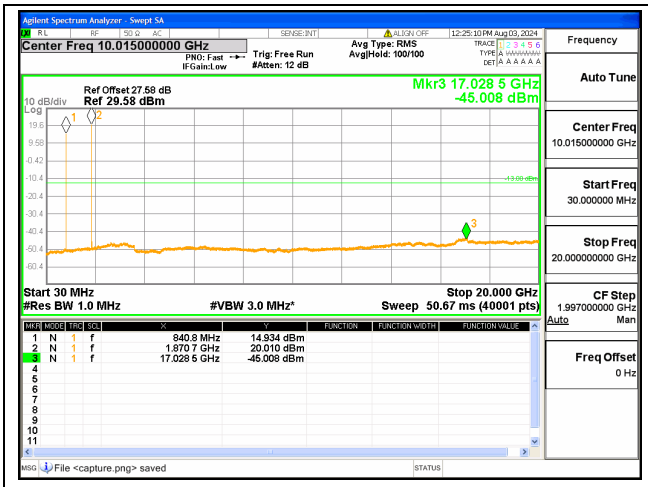
2A-5A / 20+10MHz / QPSK / Mid+Low CH / 1@0-1@49



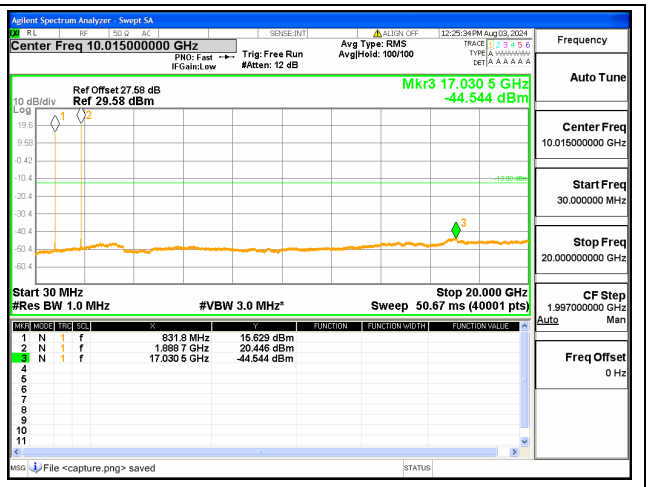
2A-5A / 20+10MHz / QPSK / Mid+Low CH / 1@99-1@0



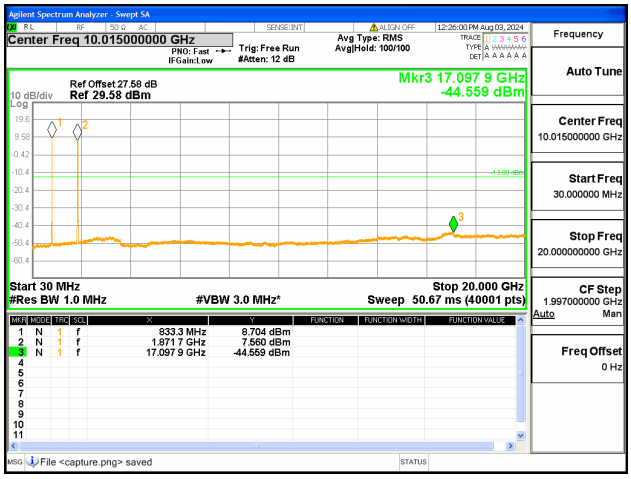
2A-5A / 20+10MHz / QPSK / Mid+Low CH / 100@0-50@0



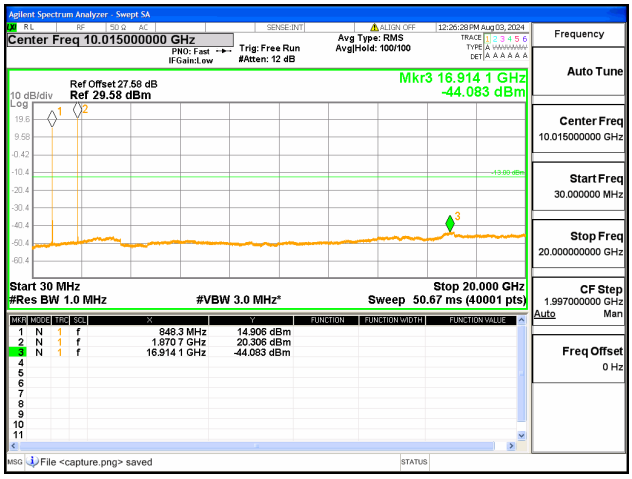
2A-5A / 20+10MHz / QPSK / Mid+Mid CH / 1@0-1@49



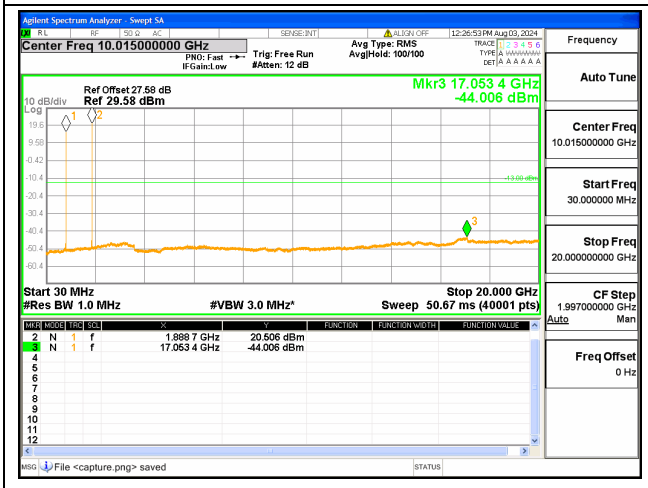
2A-5A / 20+10MHz / QPSK / Mid+Mid CH / 1@99-1@0



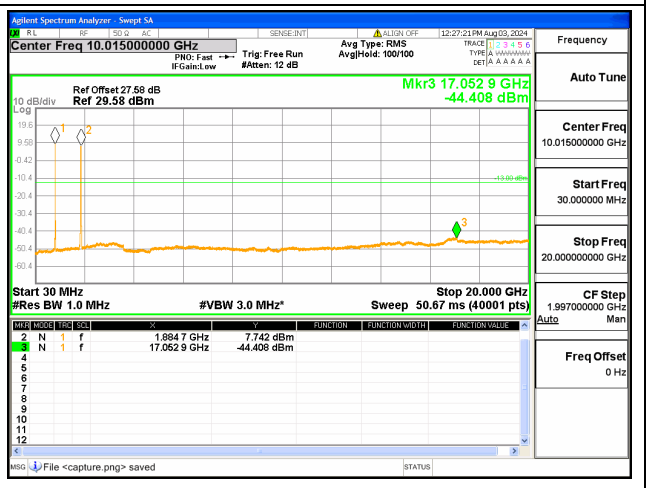
2A-5A / 20+10MHz / QPSK / Mid+Mid CH / 100@0-50@0



2A-5A / 20+10MHz / QPSK / Mid+High CH / 1@0-1@49

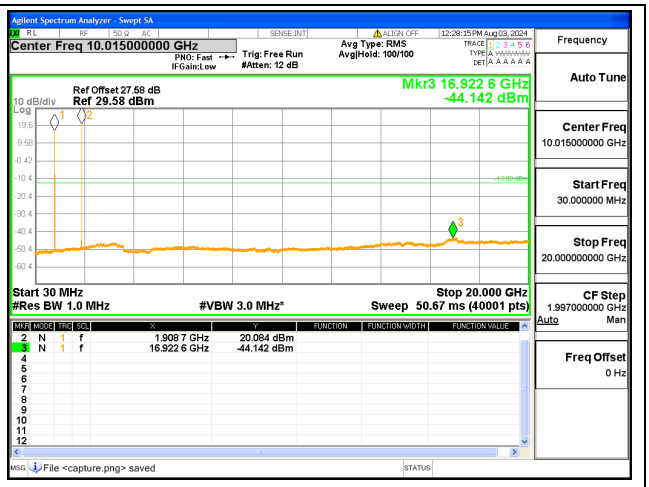


2A-5A / 20+10MHz / QPSK / Mid+High CH / 1@99-1@0

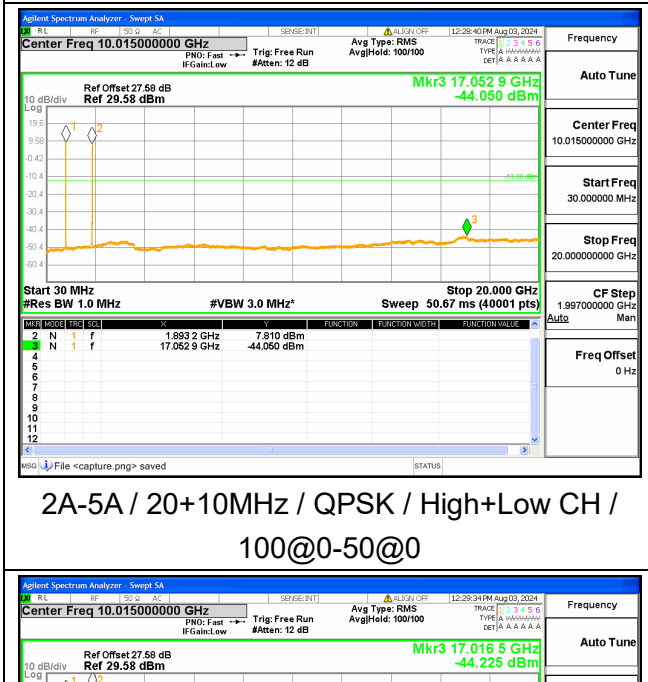


2A-5A / 20+10MHz / QPSK / Mid+High CH / 100@0-50@0

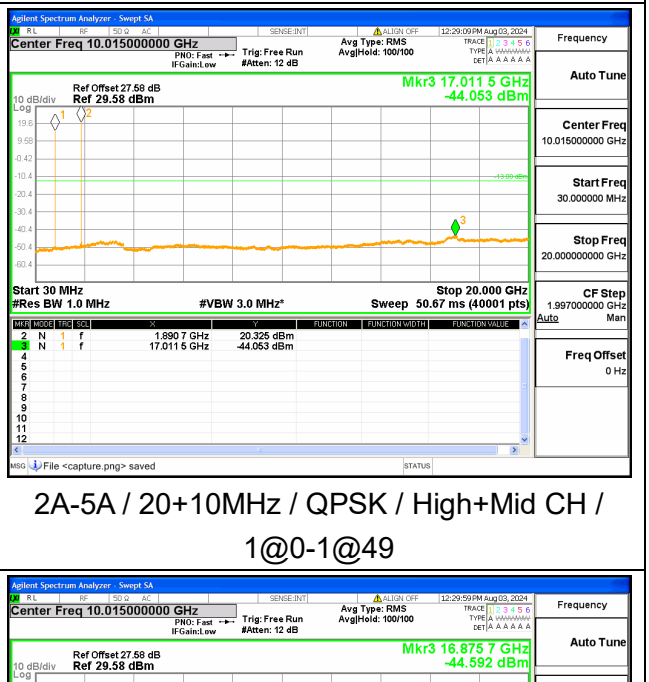
2A-5A / 20+10MHz / QPSK / High+Low CH / 1@0-1@49



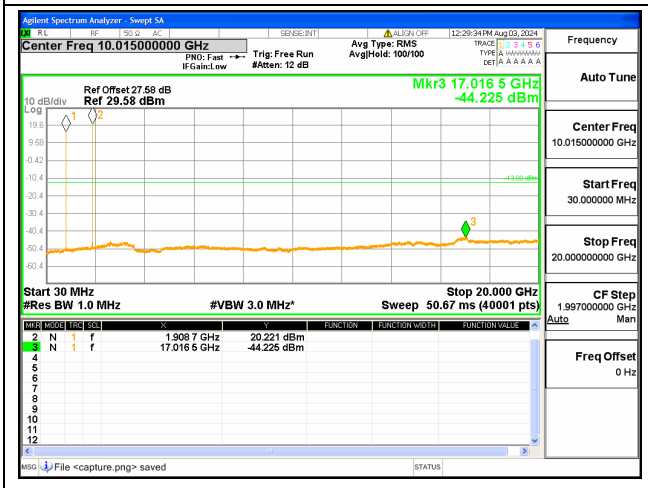
2A-5A / 20+10MHz / QPSK / High+Low CH / 1@99-1@0



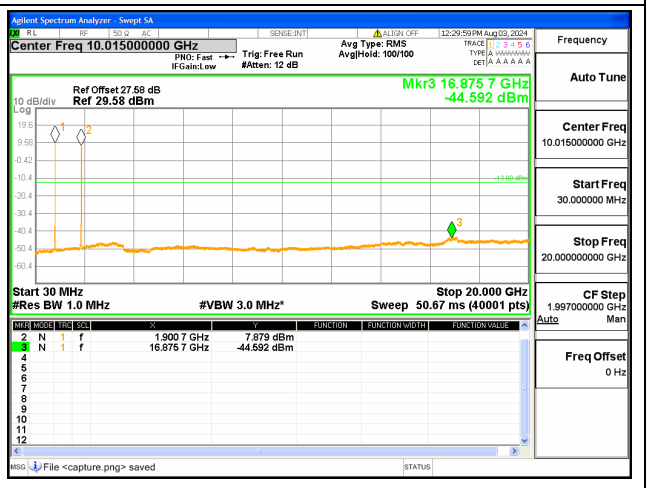
2A-5A / 20+10MHz / QPSK / High+Low CH / 100@0-50@0



2A-5A / 20+10MHz / QPSK / High+Mid CH / 1@0-1@49

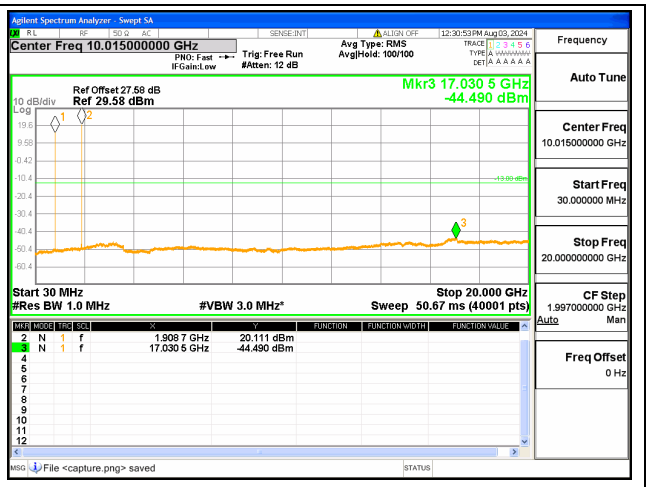


2A-5A / 20+10MHz / QPSK / High+Mid CH / 1@99-1@0

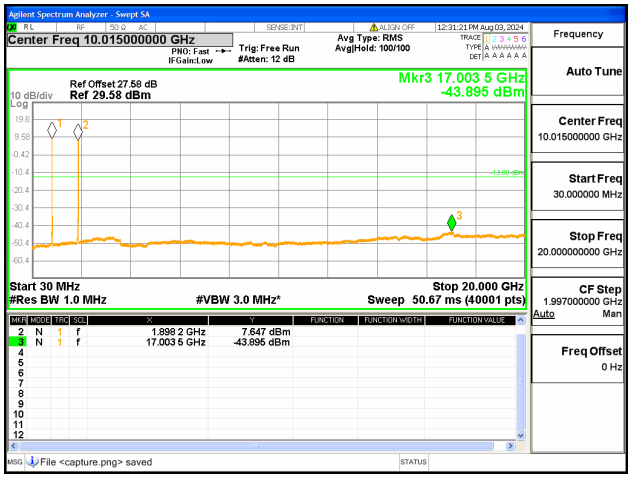


2A-5A / 20+10MHz / QPSK / High+Mid CH / 100@0-50@0

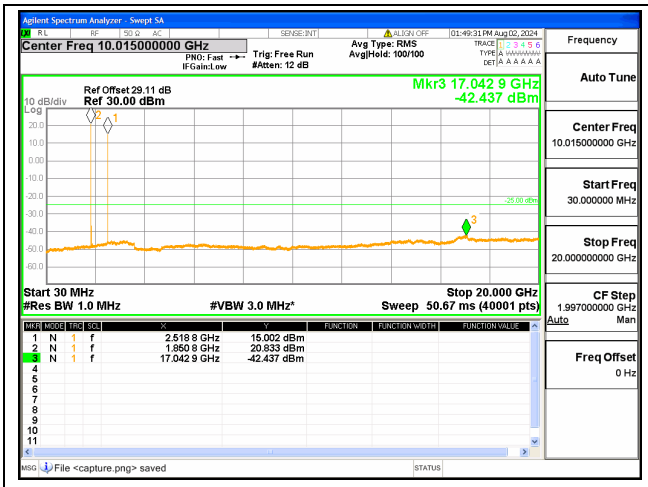
2A-5A / 20+10MHz / QPSK / High+High CH / 1@0-1@49



2A-5A / 20+10MHz / QPSK / High+High CH / 1@99-1@0

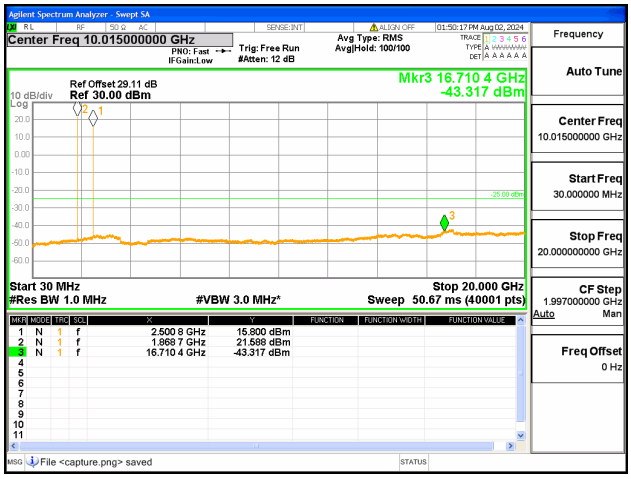


2A-5A / 20+10MHz / QPSK / High+High CH / 100@0-50@0

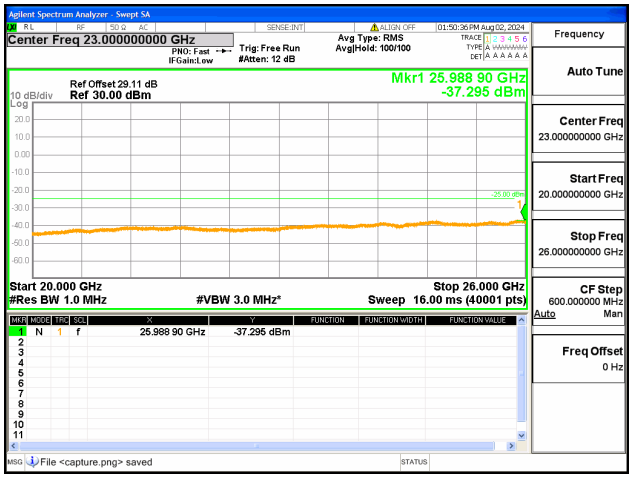


2A-7A-30M-20G / 20+20MHz / QPSK / Low+Low CH / 1@0-1@99

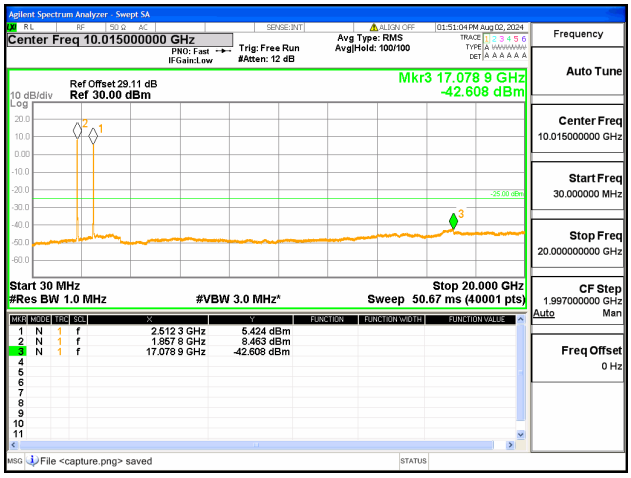
2A-7A-20G-26G / 20+20MHz / QPSK / Low+Low CH / 1@0-1@99



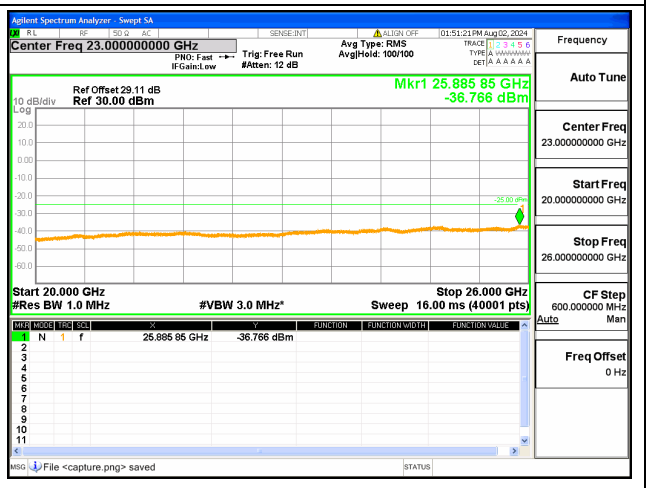
2A-7A-30M-20G / 20+20MHz / QPSK / Low+Low CH / 1@99-1@0



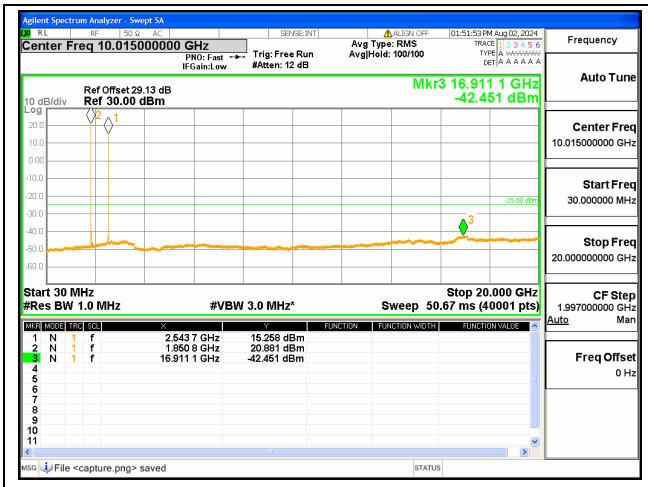
2A-7A-20G-26G / 20+20MHz / QPSK / Low+Low CH / 1@99-1@0



2A-7A-30M-20G / 20+20MHz / QPSK / Low+Low CH / 100@0-100@0

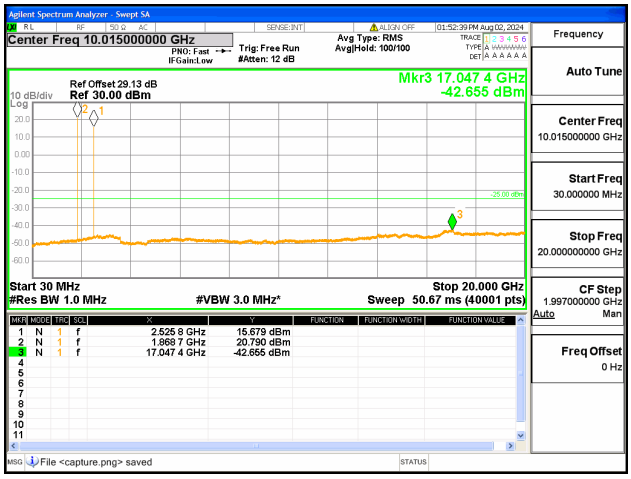


2A-7A-20G-26G / 20+20MHz / QPSK / Low+Low CH / 100@0-100@0

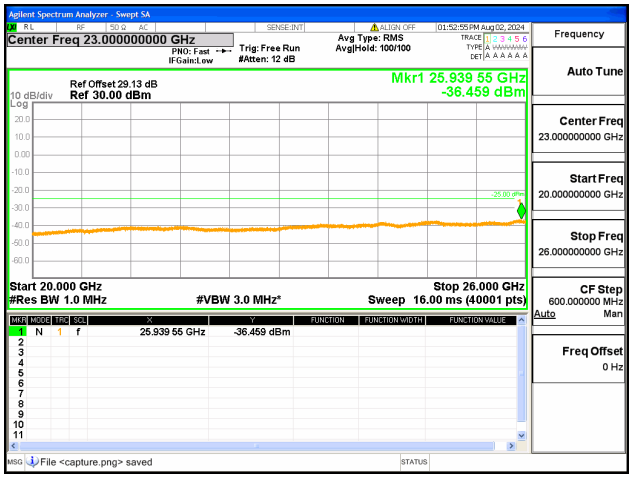


2A-7A-30M-20G / 20+20MHz / QPSK / Low+Mid CH / 1@0-1@99

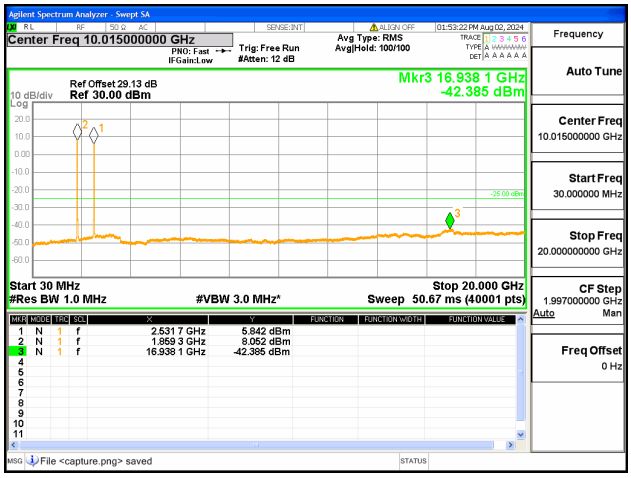
2A-7A-20G-26G / 20+20MHz / QPSK / Low+Mid CH / 1@0-1@99



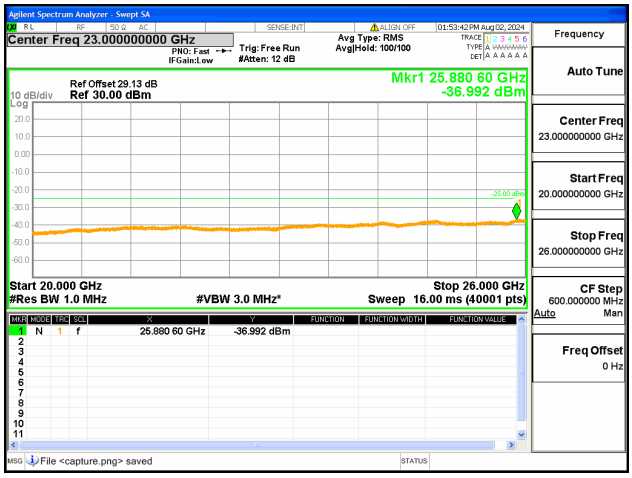
2A-7A-30M-20G / 20+20MHz / QPSK / Low+Mid CH / 1@99-1@0



2A-7A-20G-26G / 20+20MHz / QPSK / Low+Mid CH / 1@99-1@0



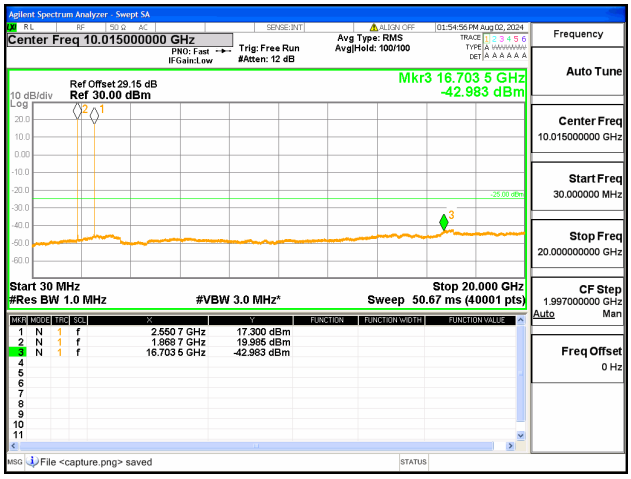
2A-7A-30M-20G / 20+20MHz / QPSK / Low+Mid CH / 100@0-100@0



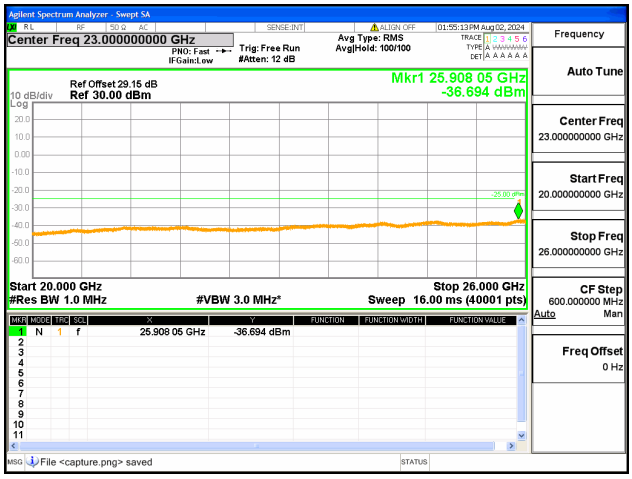
2A-7A-20G-26G / 20+20MHz / QPSK / Low+Mid CH / 100@0-100@0

2A-7A-30M-20G / 20+20MHz / QPSK / Low+High CH / 1@0-1@99

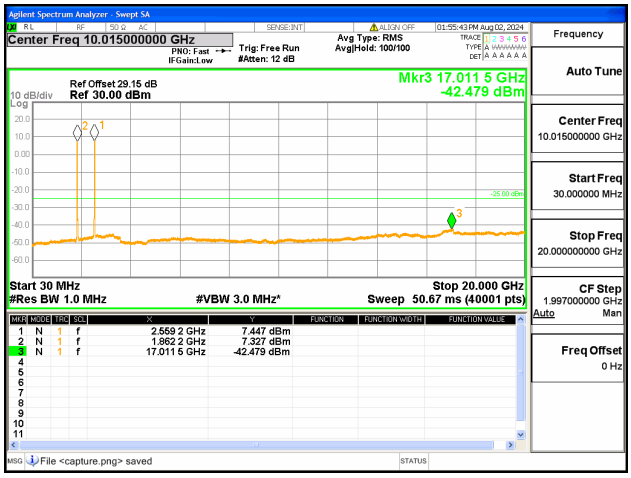
2A-7A-20G-26G / 20+20MHz / QPSK / Low+High CH / 1@0-1@99



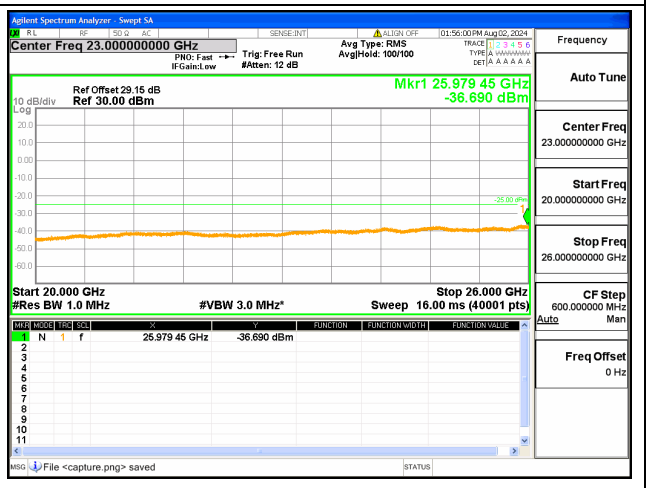
2A-7A-30M-20G / 20+20MHz / QPSK / Low+High CH / 1@99-1@0



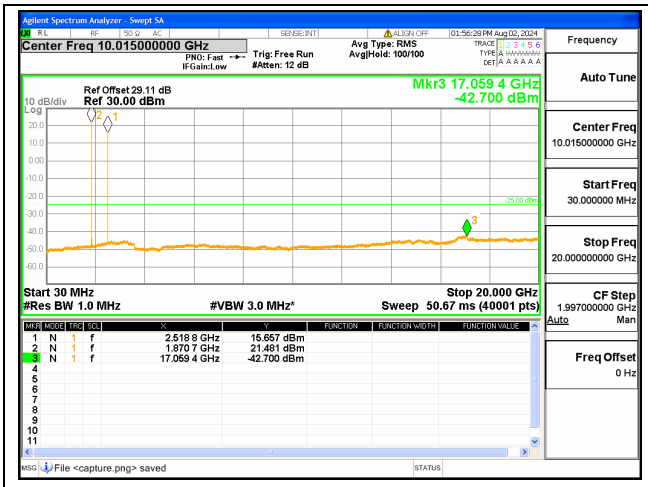
2A-7A-20G-26G / 20+20MHz / QPSK / Low+High CH / 1@99-1@0



2A-7A-30M-20G / 20+20MHz / QPSK / Low+High CH / 100@0-100@0

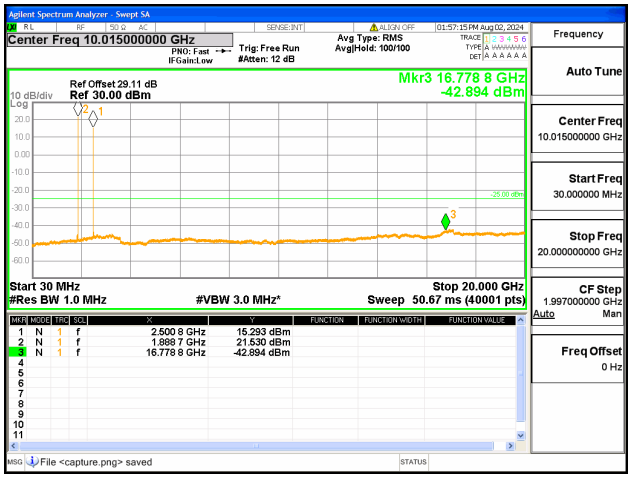


2A-7A-20G-26G / 20+20MHz / QPSK / Low+High CH / 100@0-100@0

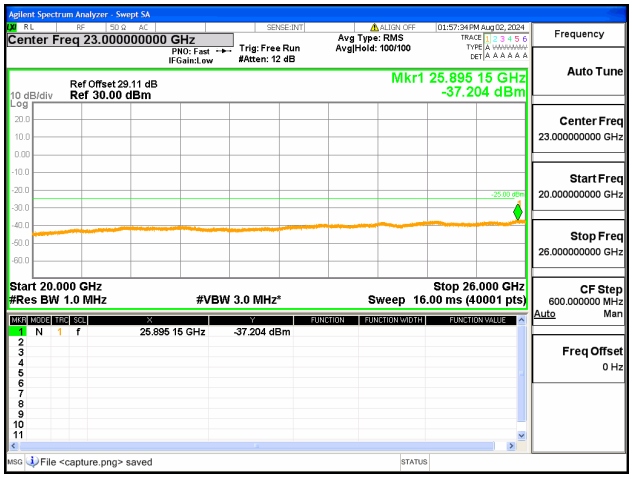


2A-7A-30M-20G / 20+20MHz / QPSK / Mid+Low CH / 1@0-1@99

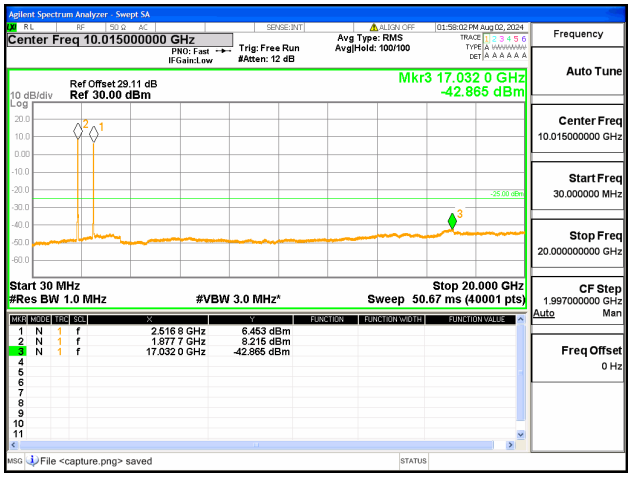
2A-7A-20G-26G / 20+20MHz / QPSK / Mid+Low CH / 1@0-1@99



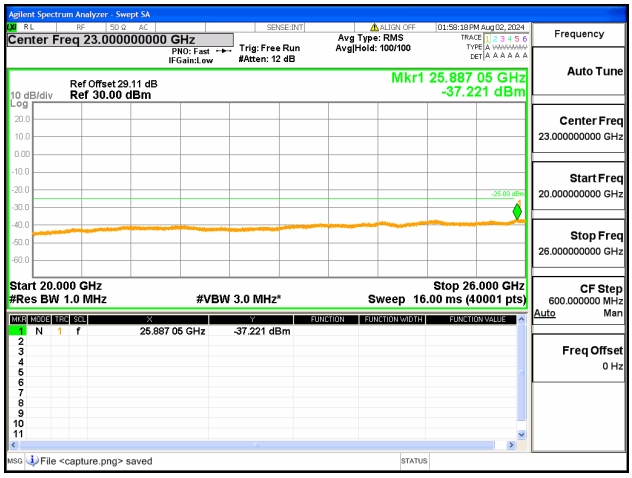
2A-7A-30M-20G / 20+20MHz / QPSK / Mid+Low CH / 1@99-1@0



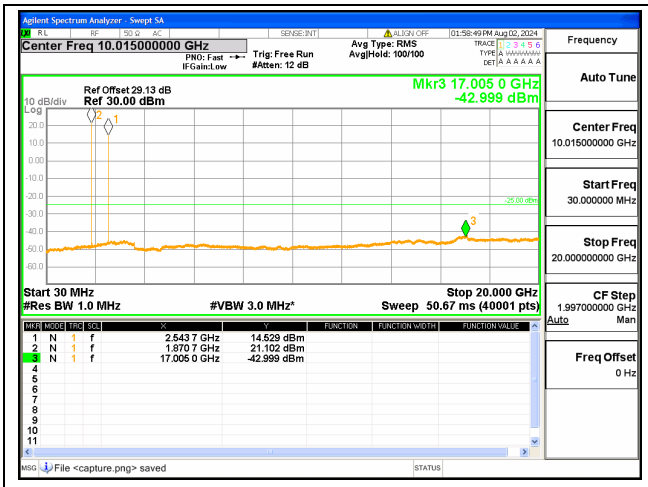
2A-7A-20G-26G / 20+20MHz / QPSK / Mid+Low CH / 1@99-1@0



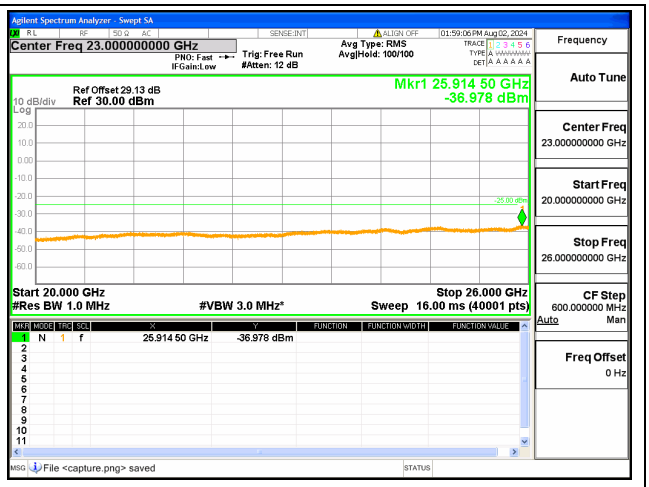
2A-7A-30M-20G / 20+20MHz / QPSK / Mid+Low CH / 100@0-100@0



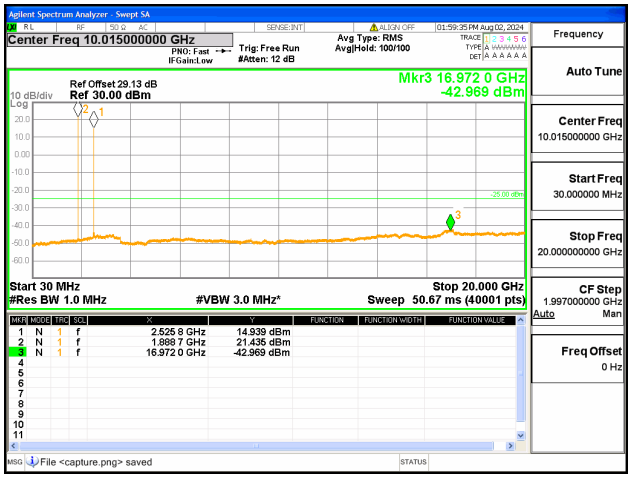
2A-7A-20G-26G / 20+20MHz / QPSK / Mid+Low CH / 100@0-100@0



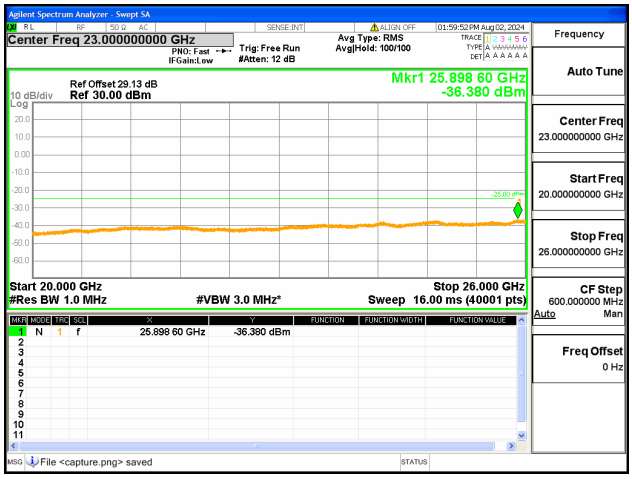
2A-7A-30M-20G / 20+20MHz / QPSK / Mid+Mid CH / 1@0-1@99



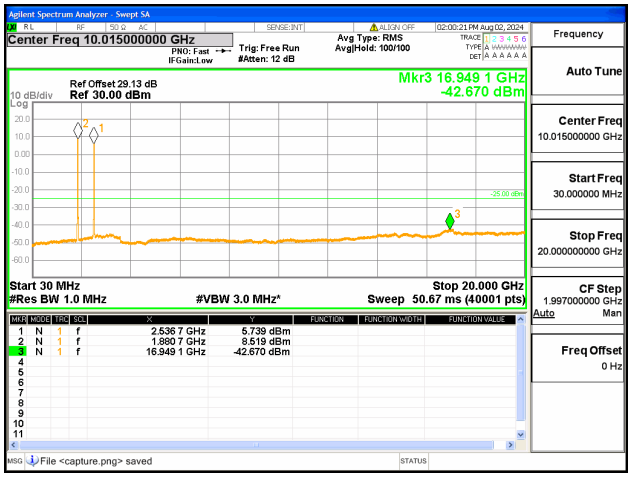
2A-7A-20G-26G / 20+20MHz / QPSK / Mid+Mid CH / 1@0-1@99



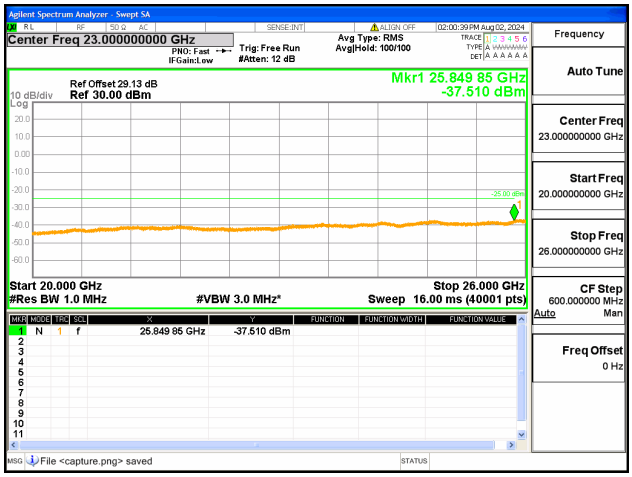
2A-7A-30M-20G / 20+20MHz / QPSK / Mid+Mid CH / 1@99-1@0



2A-7A-20G-26G / 20+20MHz / QPSK / Mid+Mid CH / 1@99-1@0



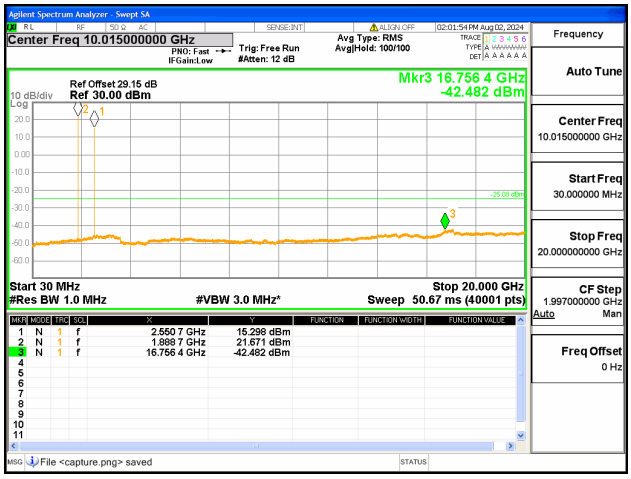
2A-7A-30M-20G / 20+20MHz / QPSK / Mid+Mid CH / 100@0-100@0



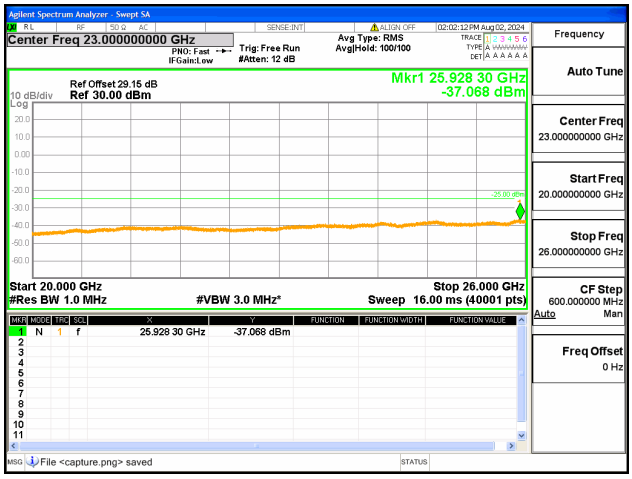
2A-7A-20G-26G / 20+20MHz / QPSK / Mid+Mid CH / 100@0-100@0

2A-7A-30M-20G / 20+20MHz / QPSK / Mid+High CH / 1@0-1@99

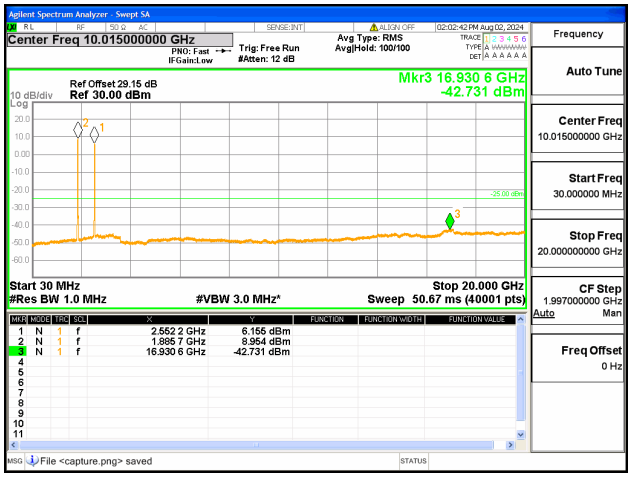
2A-7A-20G-26G / 20+20MHz / QPSK / Mid+High CH / 1@0-1@99



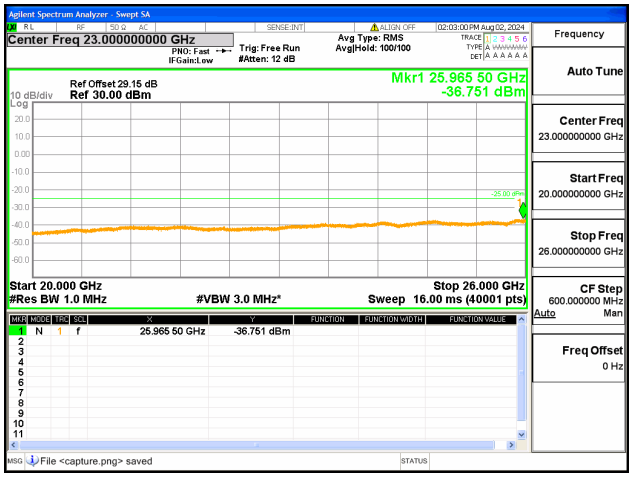
2A-7A-30M-20G / 20+20MHz / QPSK / Mid+High CH / 1@99-1@0



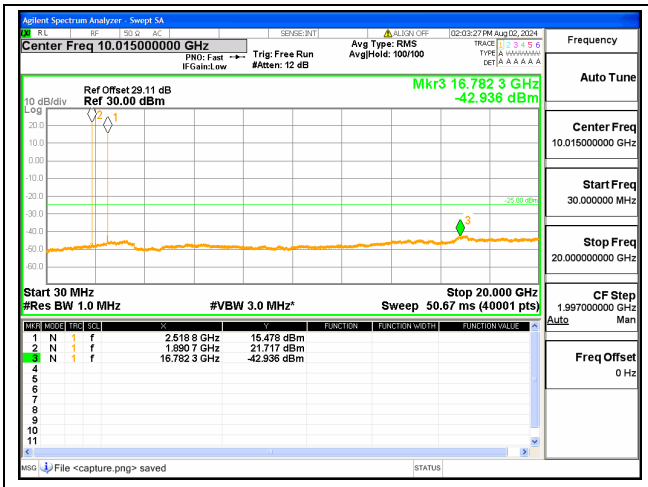
2A-7A-20G-26G / 20+20MHz / QPSK / Mid+High CH / 1@99-1@0



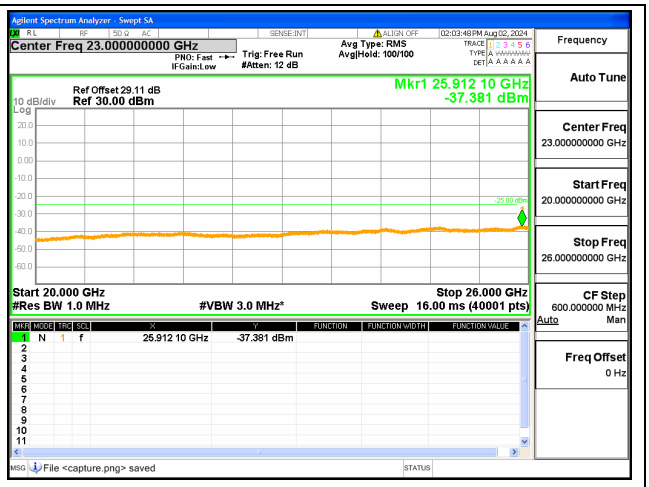
2A-7A-30M-20G / 20+20MHz / QPSK / Mid+High CH / 100@0-100@0



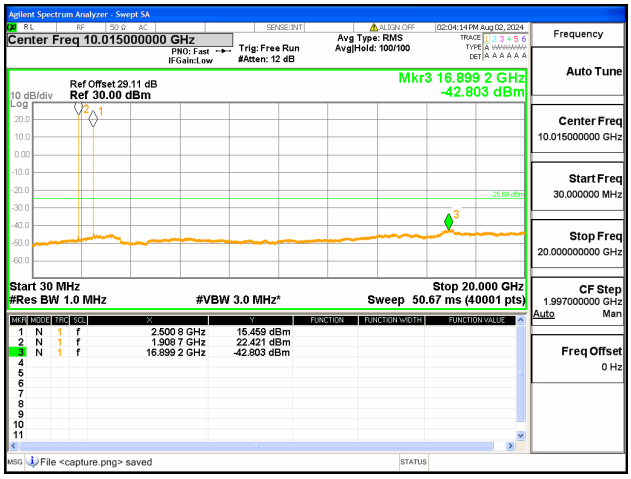
2A-7A-20G-26G / 20+20MHz / QPSK / Mid+High CH / 100@0-100@0



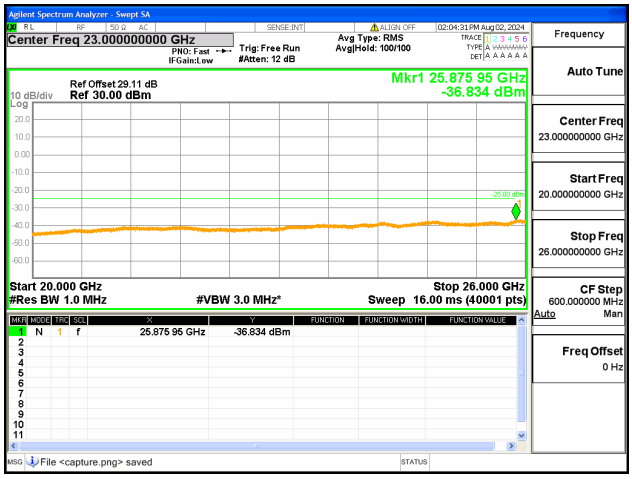
2A-7A-30M-20G / 20+20MHz / QPSK / High+Low CH / 1@0-1@99



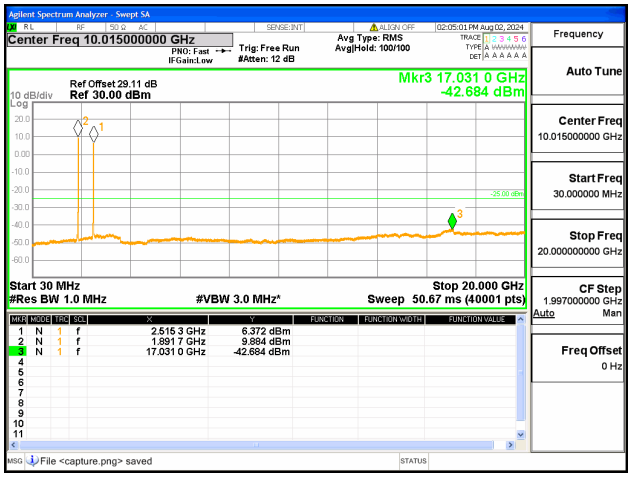
2A-7A-20G-26G / 20+20MHz / QPSK / High+Low CH / 1@0-1@99



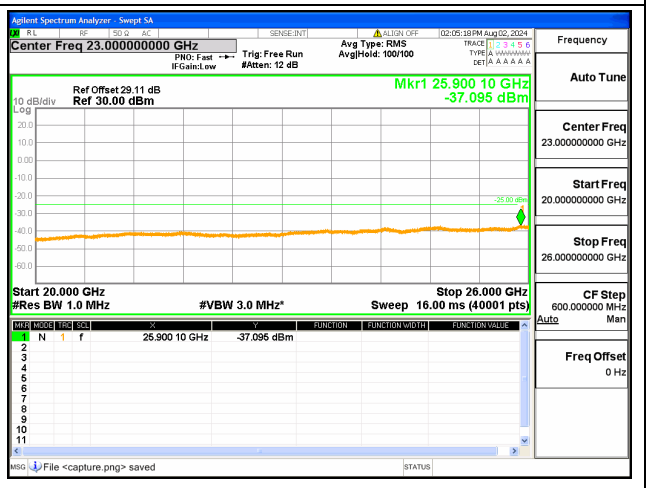
2A-7A-30M-20G / 20+20MHz / QPSK / High+Low CH / 1@99-1@0



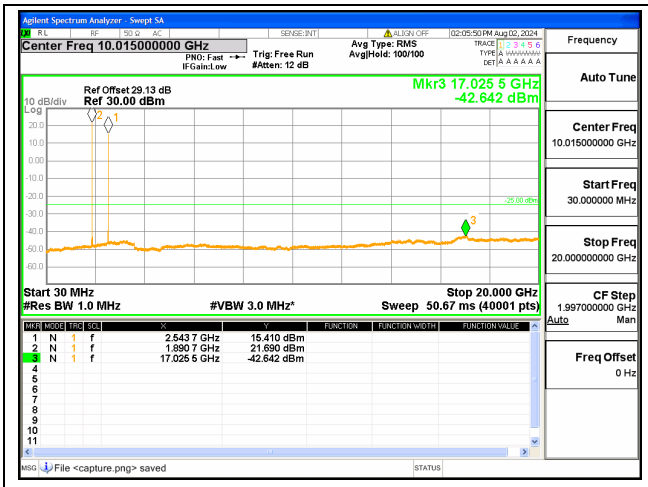
2A-7A-20G-26G / 20+20MHz / QPSK / High+Low CH / 1@99-1@0



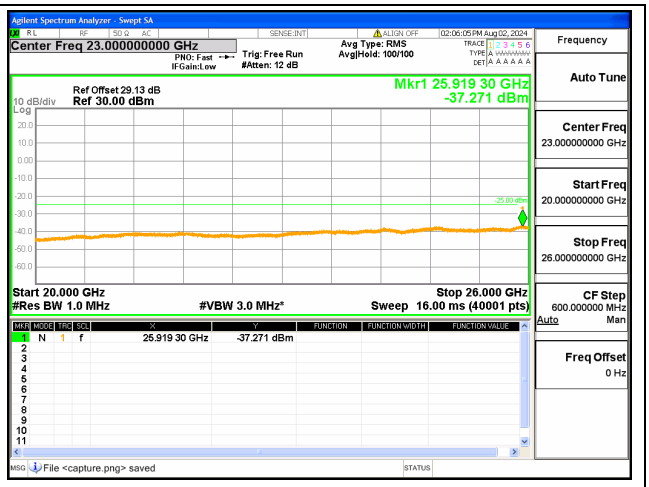
2A-7A-30M-20G / 20+20MHz / QPSK / High+Low CH / 100@0-100@0



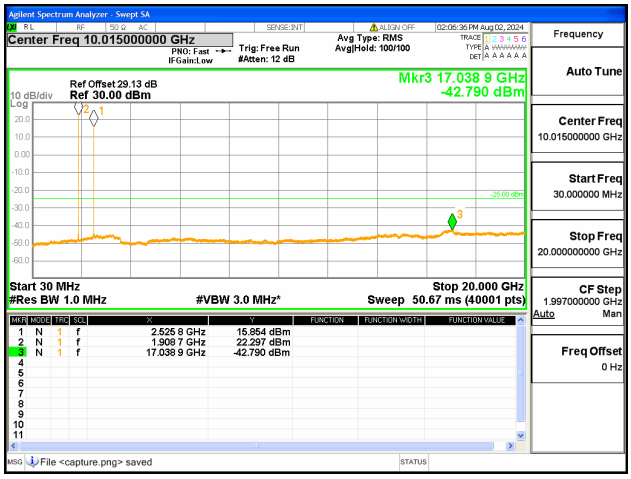
2A-7A-20G-26G / 20+20MHz / QPSK / High+Low CH / 100@0-100@0



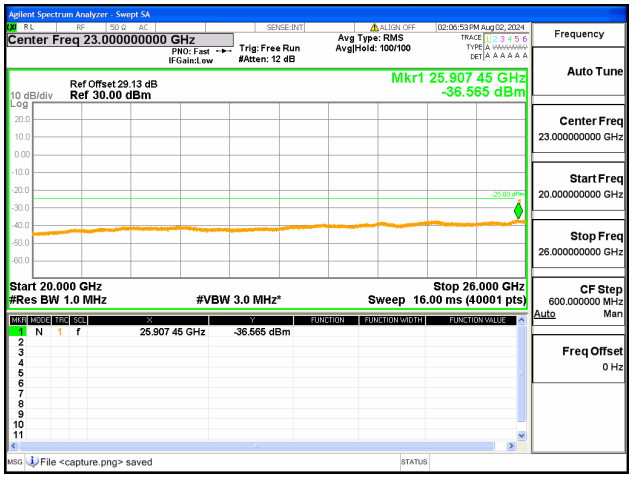
2A-7A-30M-20G / 20+20MHz / QPSK / High+Mid CH / 1@0-1@99



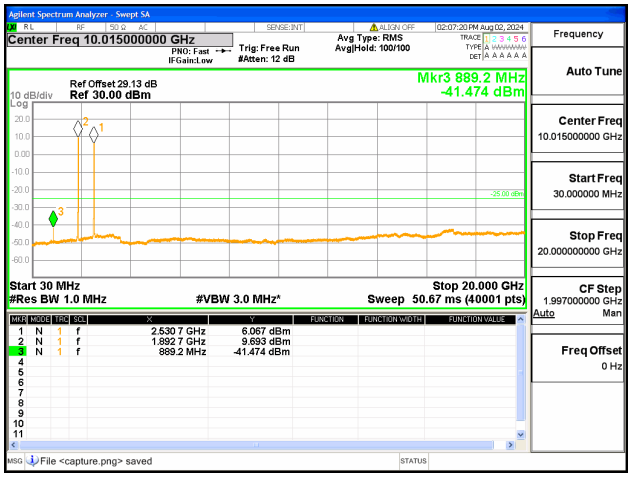
2A-7A-20G-26G / 20+20MHz / QPSK / High+Mid CH / 1@0-1@99



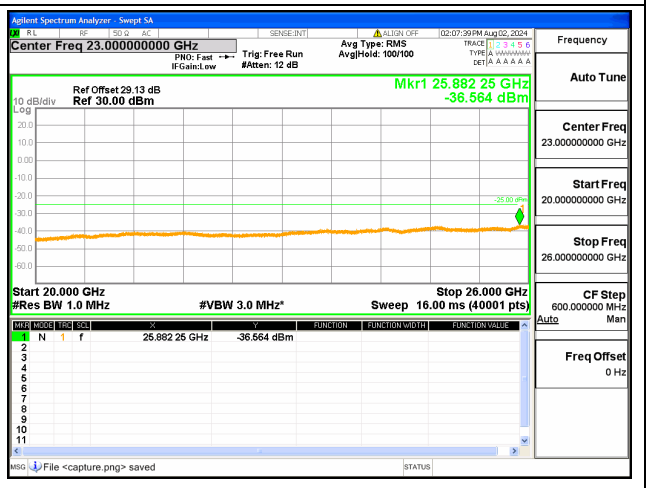
2A-7A-30M-20G / 20+20MHz / QPSK / High+Mid CH / 1@99-1@0



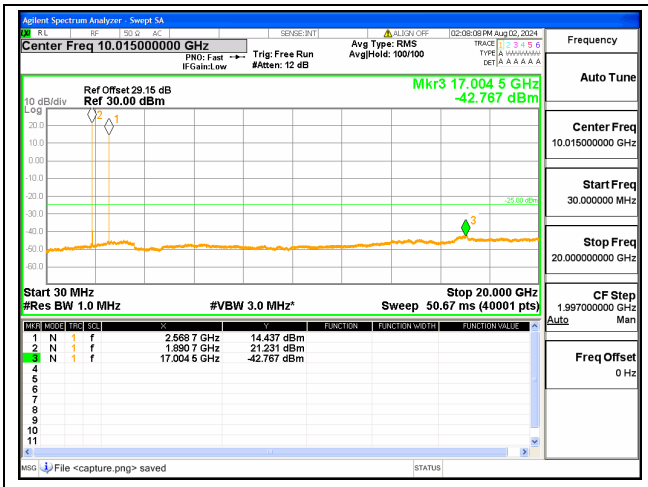
2A-7A-20G-26G / 20+20MHz / QPSK / High+Mid CH / 1@99-1@0



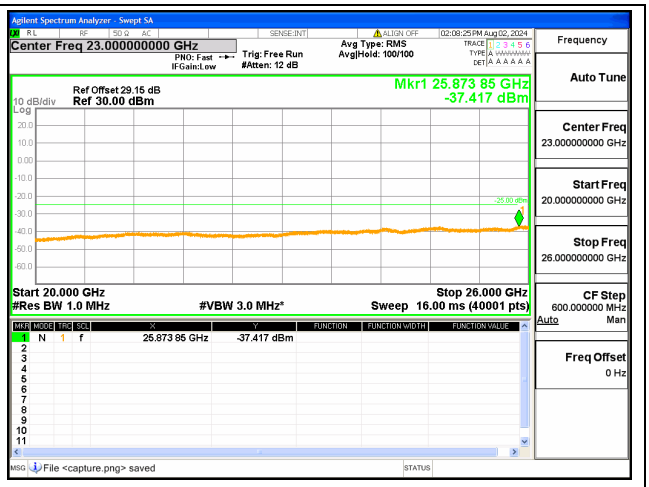
2A-7A-30M-20G / 20+20MHz / QPSK / High+Mid CH / 100@0-100@0



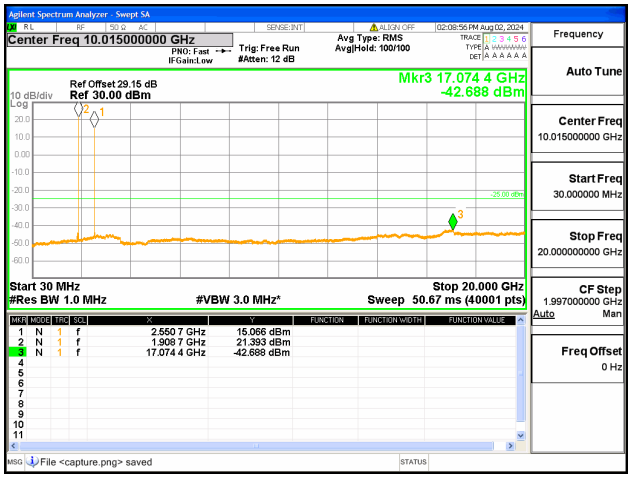
2A-7A-20G-26G / 20+20MHz / QPSK / High+Mid CH / 100@0-100@0



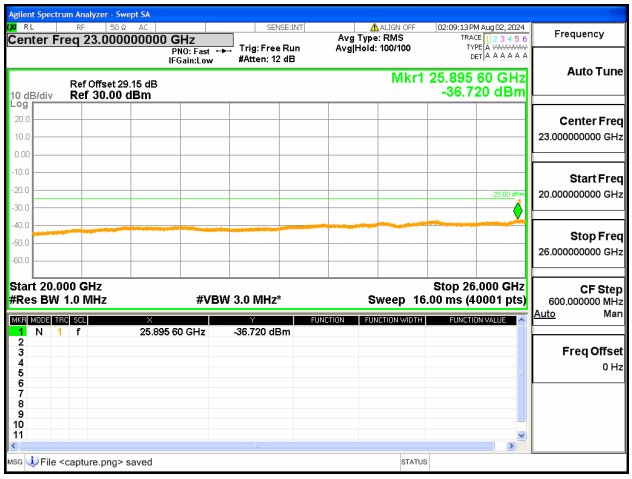
2A-7A-30M-20G / 20+20MHz / QPSK / High+High CH / 1@0-1@99



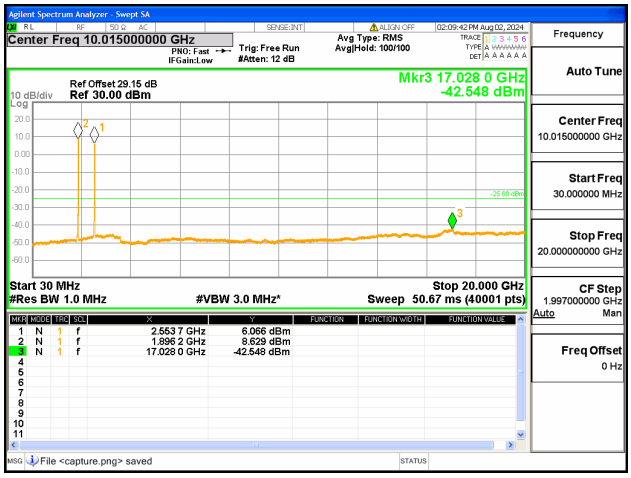
2A-7A-20G-26G / 20+20MHz / QPSK / High+High CH / 1@0-1@99



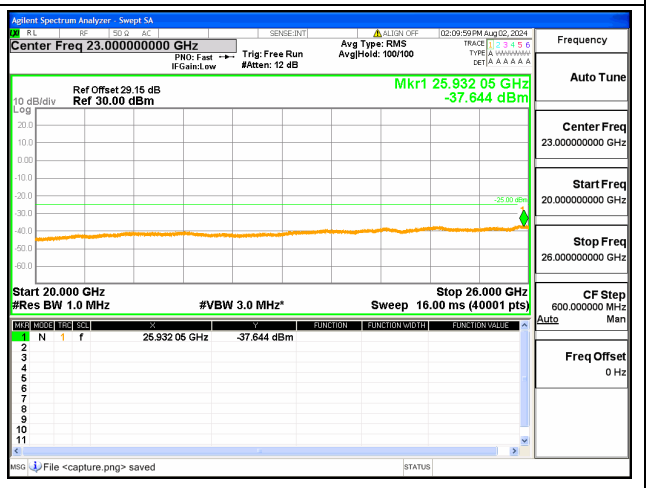
2A-7A-30M-20G / 20+20MHz / QPSK / High+High CH / 1@99-1@0



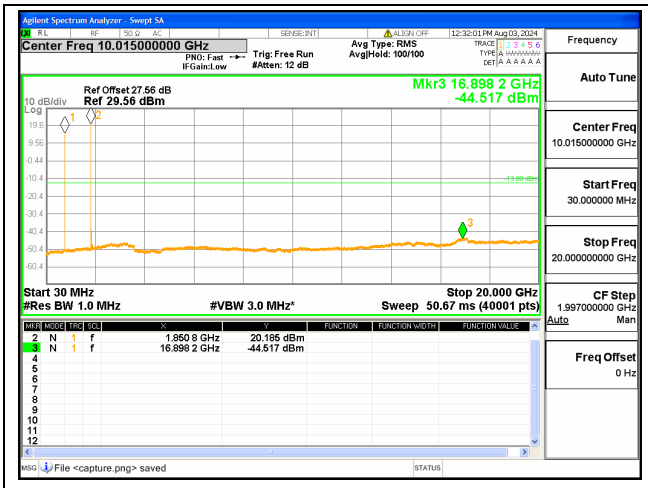
2A-7A-20G-26G / 20+20MHz / QPSK / High+High CH / 1@99-1@0



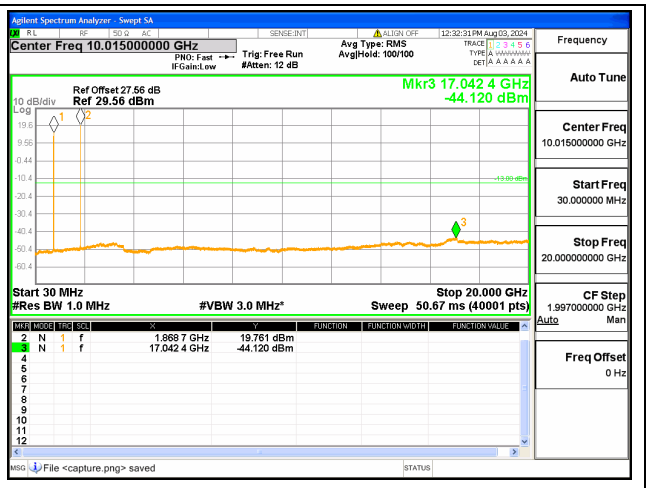
2A-7A-30M-20G / 20+20MHz / QPSK / High+High CH / 100@0-100@0



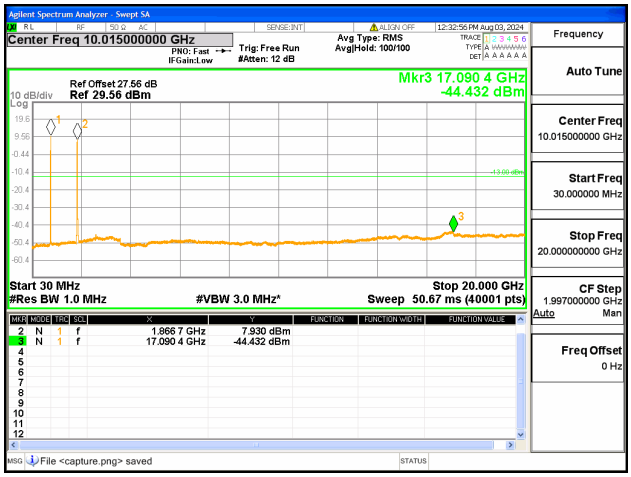
2A-7A-20G-26G / 20+20MHz / QPSK / High+High CH / 100@0-100@0



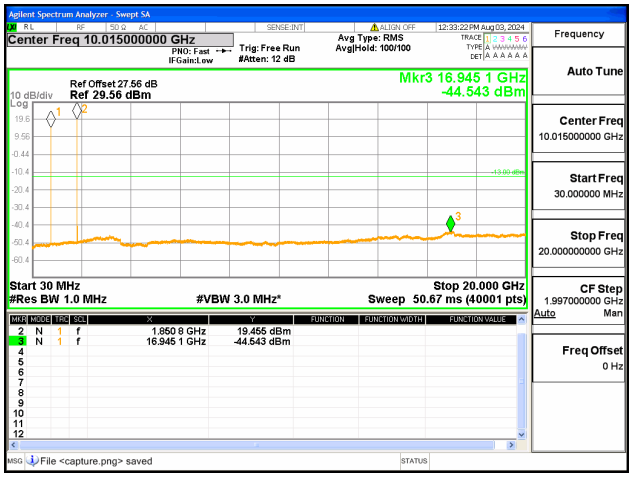
2A-13A / 20+10MHz / QPSK / Low+Low CH / 1@0-1@49



2A-13A / 20+10MHz / QPSK / Low+Low CH / 1@99-1@0

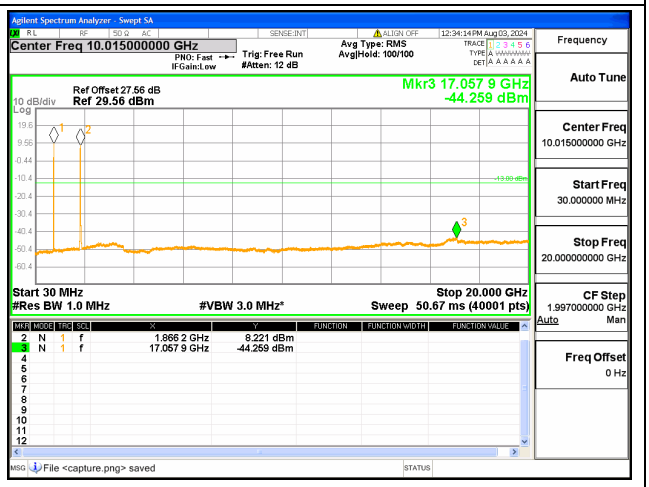


2A-13A / 20+10MHz / QPSK / Low+Low CH / 100@0-50@0

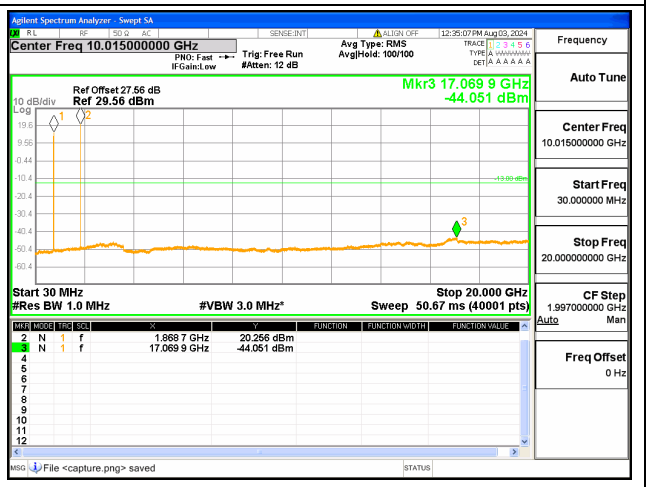
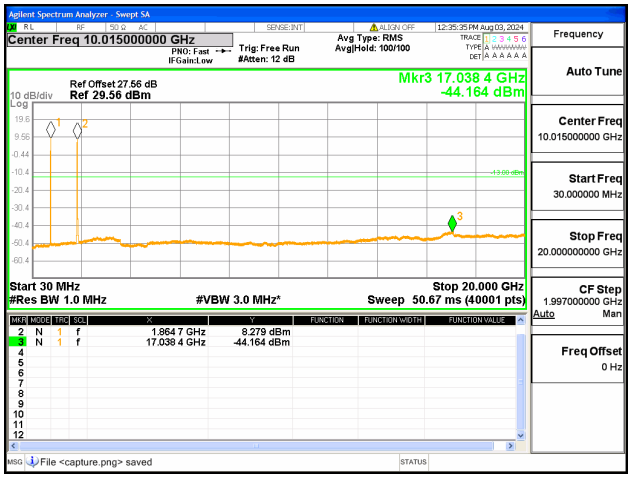
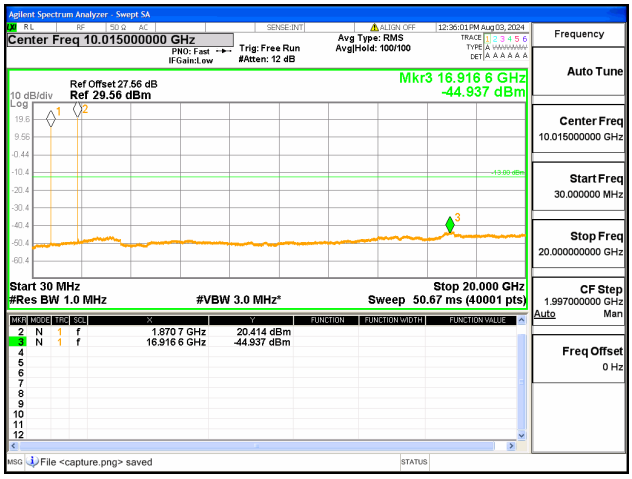
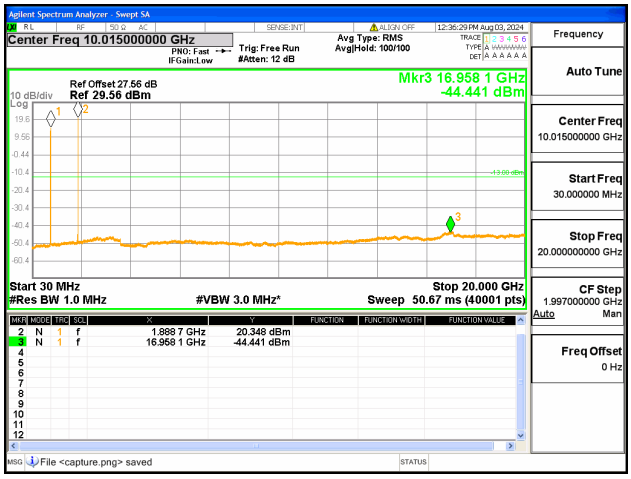
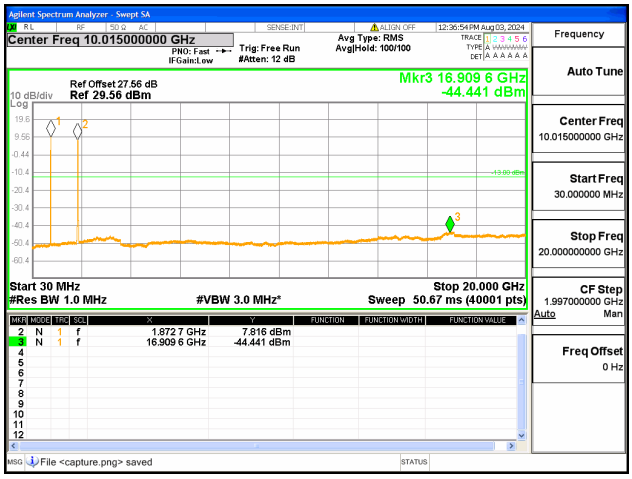


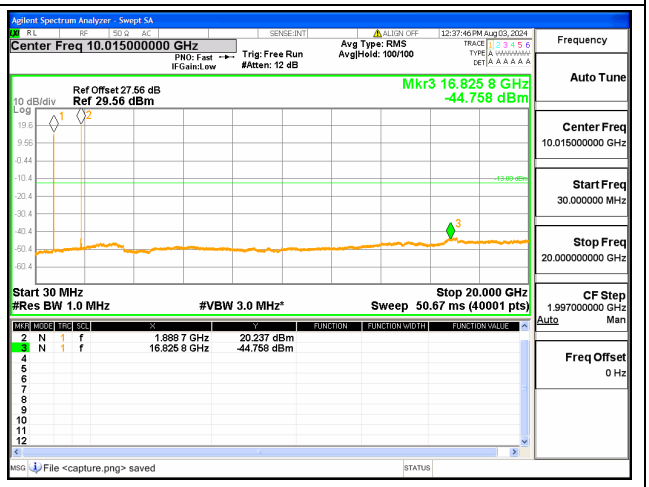
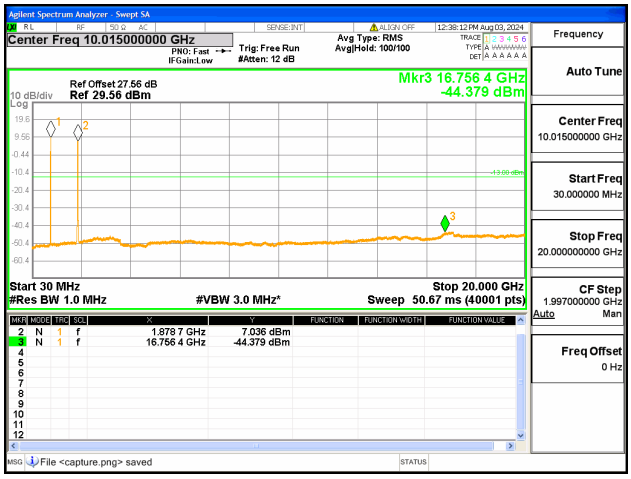
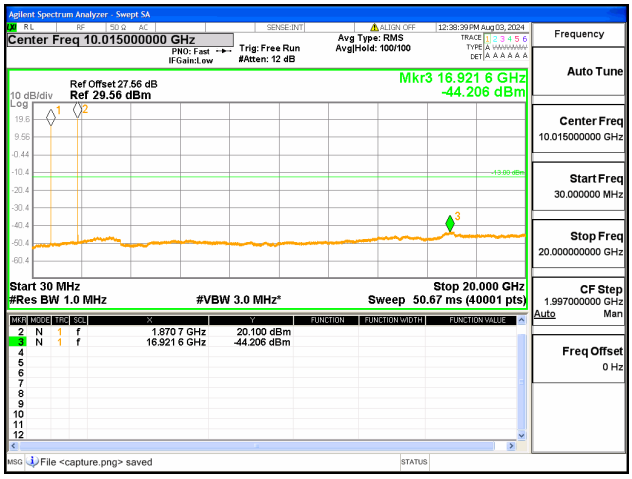
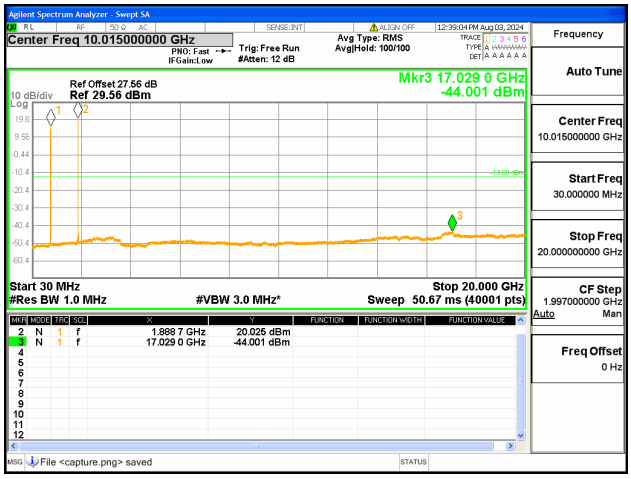
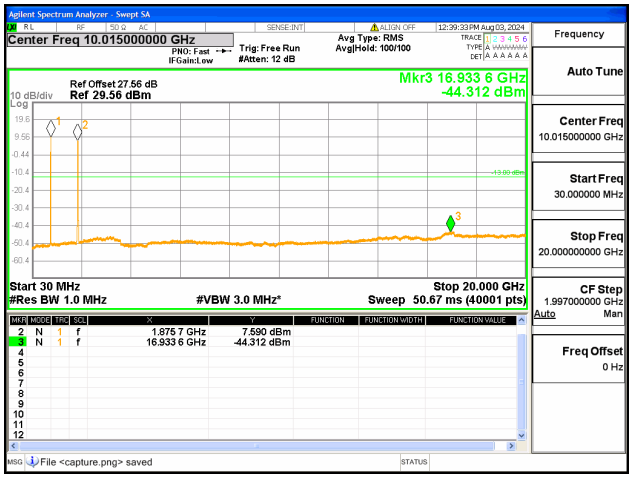
2A-13A / 20+10MHz / QPSK / Low+Mid CH / 1@0-1@49

2A-13A / 20+10MHz / QPSK / Low+Mid CH /



2A-13A / 20+10MHz / QPSK / Low+Mid CH /

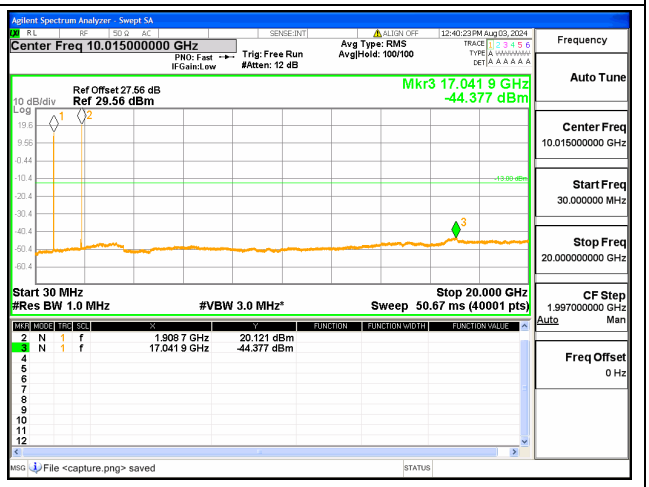
1@99-1@0	100@0-50@0
	
2A-13A / 20+10MHz / QPSK / Low+High CH / 1@0-1@49	2A-13A / 20+10MHz / QPSK / Low+High CH / 1@99-1@0
	
2A-13A / 20+10MHz / QPSK / Low+High CH / 100@0-50@0	2A-13A / 20+10MHz / QPSK / Mid+Low CH / 1@0-1@49
	
2A-13A / 20+10MHz / QPSK / Mid+Low CH /	2A-13A / 20+10MHz / QPSK / Mid+Low CH /

1@99-1@0	100@0-50@0
	
2A-13A / 20+10MHz / QPSK / Mid+Mid CH / 1@0-1@49	2A-13A / 20+10MHz / QPSK / Mid+Mid CH / 1@99-1@0
	
2A-13A / 20+10MHz / QPSK / Mid+Mid CH / 100@0-50@0	2A-13A / 20+10MHz / QPSK / Mid+High CH / 1@0-1@49
	
2A-13A / 20+10MHz / QPSK / Mid+High CH /	2A-13A / 20+10MHz / QPSK / Mid+High CH /

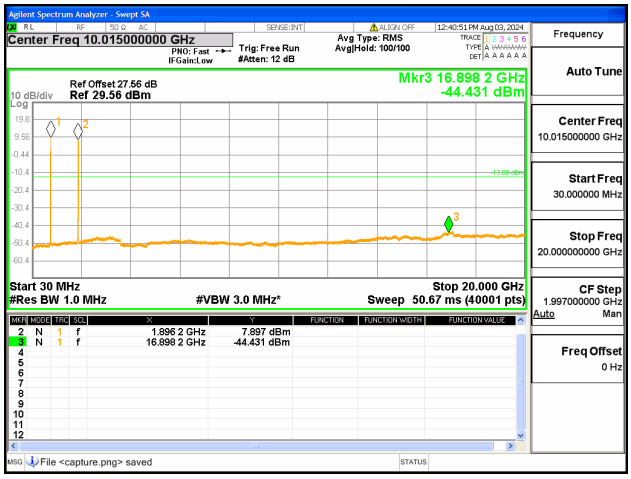
1@99-1@0

2A-13A / 20+10MHz / QPSK / High+Low CH / 1@0-1@49

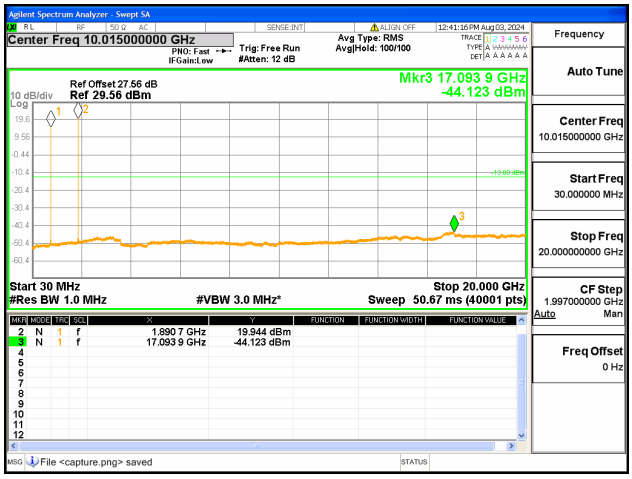
100@0-50@0



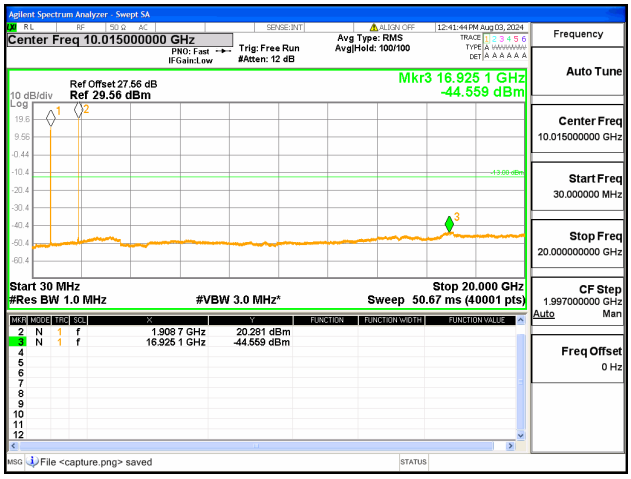
2A-13A / 20+10MHz / QPSK / High+Low CH / 1@99-1@0



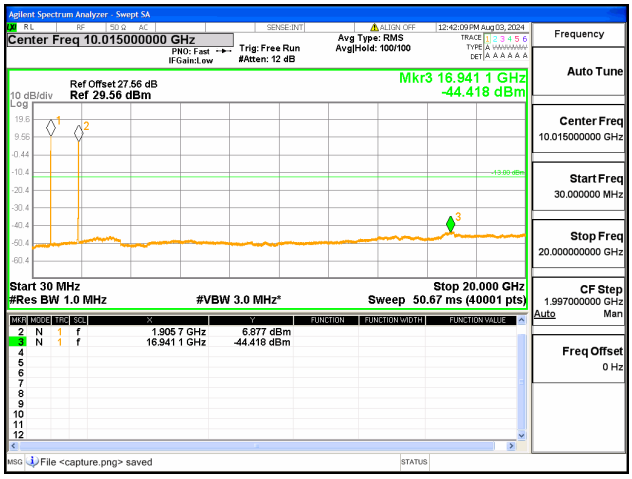
2A-13A / 20+10MHz / QPSK / High+Low CH / 100@0-50@0



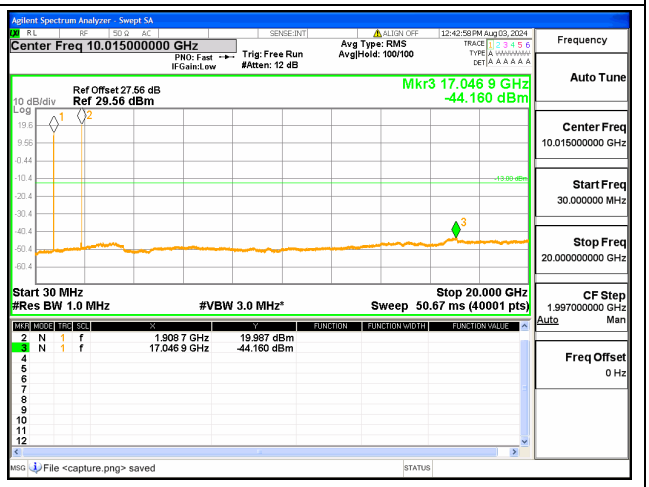
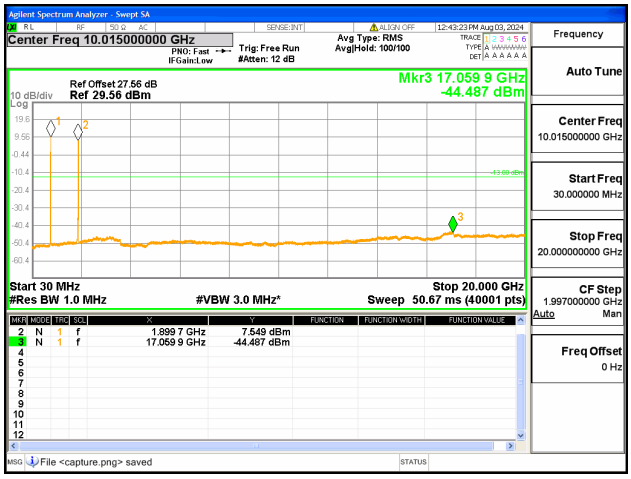
2A-13A / 20+10MHz / QPSK / High+Mid CH / 1@0-1@49

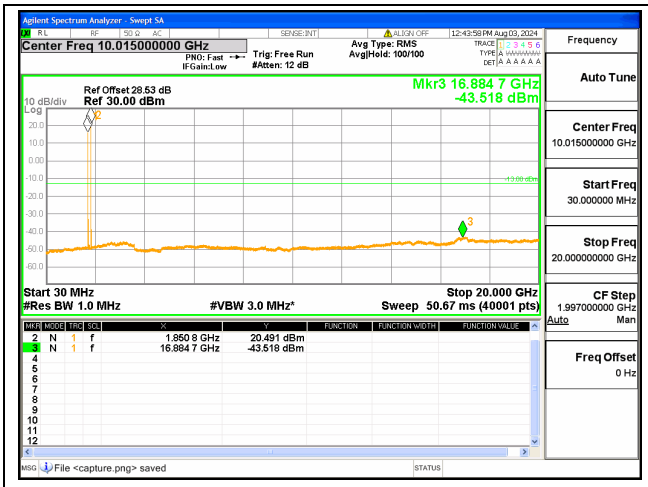


2A-13A / 20+10MHz / QPSK / High+Mid CH /

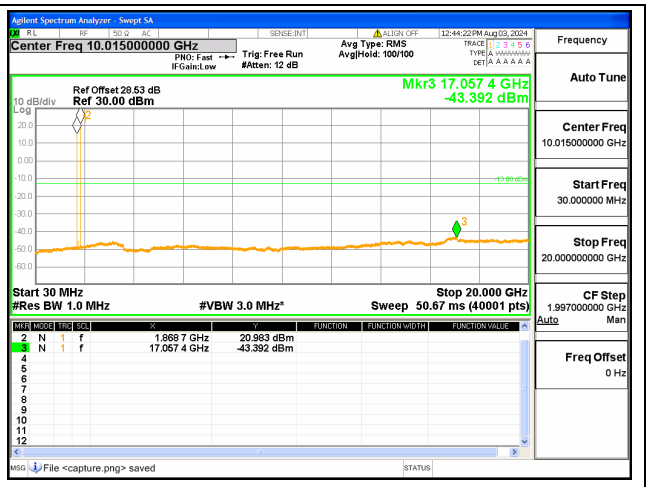


2A-13A / 20+10MHz / QPSK / High+Mid CH /

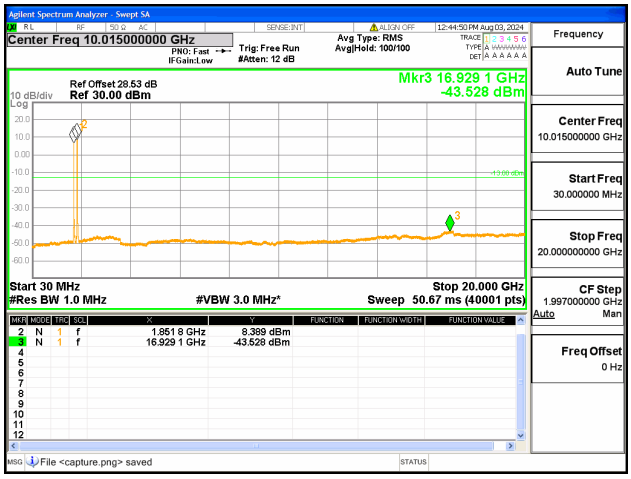
1@99-1@0	100@0-50@0
 2A-13A / 20+10MHz / QPSK / High+High CH / 1@0-1@49	 2A-13A / 20+10MHz / QPSK / High+High CH / 1@99-1@0
 2A-13A / 20+10MHz / QPSK / High+High CH / 100@0-50@0	



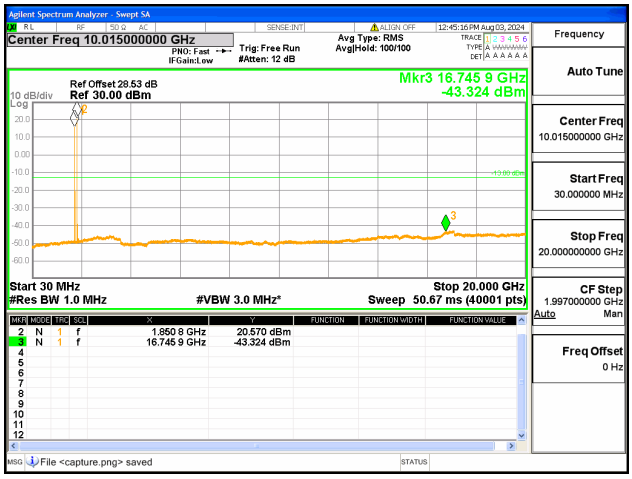
2A-66A / 20+20MHz / QPSK / Low+Low CH / 1@0-1@99



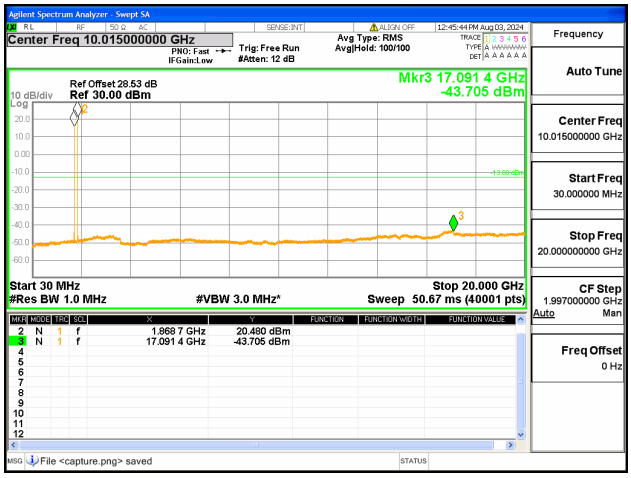
2A-66A / 20+20MHz / QPSK / Low+Low CH / 1@99-1@0



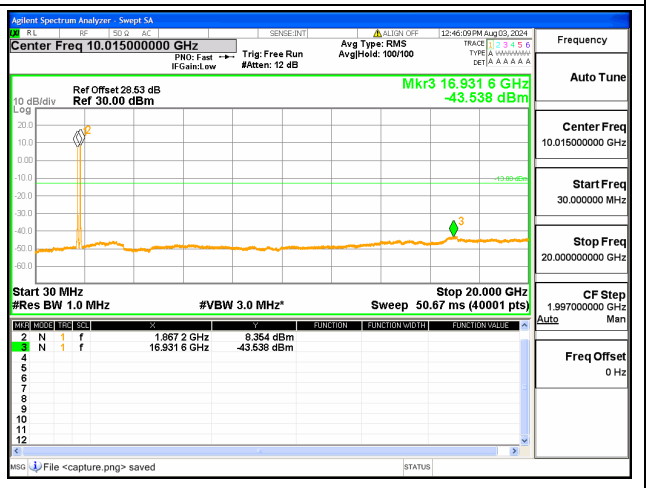
2A-66A / 20+20MHz / QPSK / Low+Low CH / 100@0-100@0



2A-66A / 20+20MHz / QPSK / Low+Mid CH / 1@0-1@99

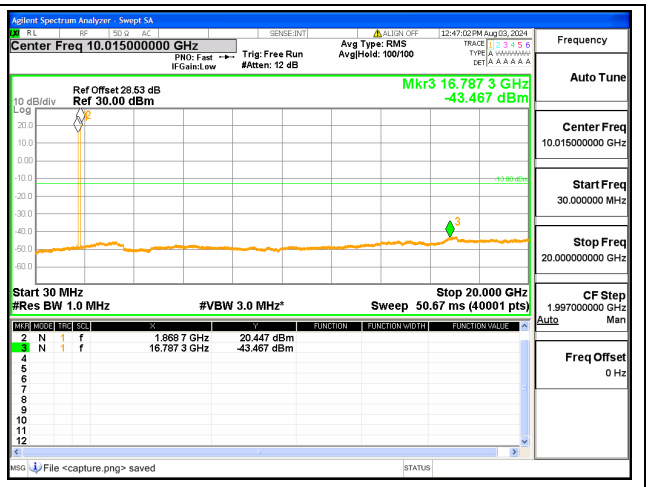


2A-66A / 20+20MHz / QPSK / Low+Mid CH / 1@99-1@0

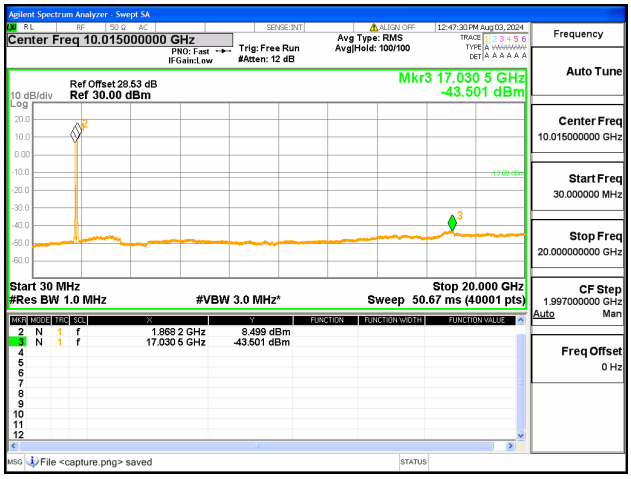


2A-66A / 20+20MHz / QPSK / Low+Mid CH / 100@0-100@0

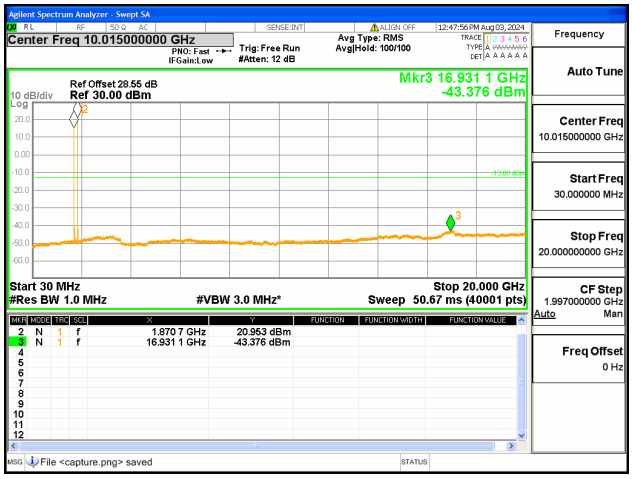
2A-66A / 20+20MHz / QPSK / Low+High CH / 1@0-1@99



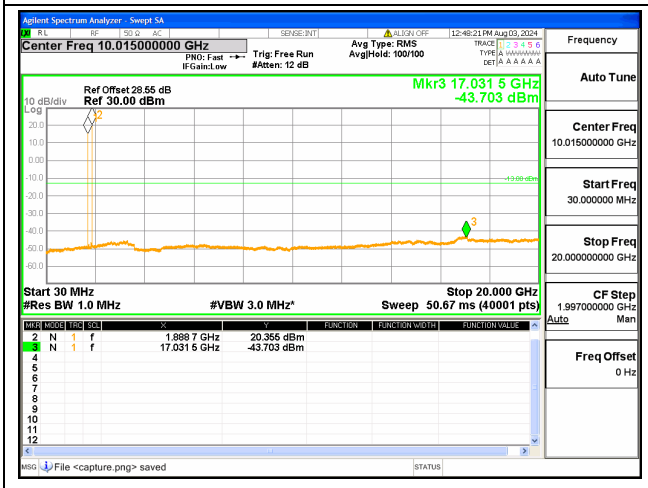
2A-66A / 20+20MHz / QPSK / Low+High CH / 1@99-1@0



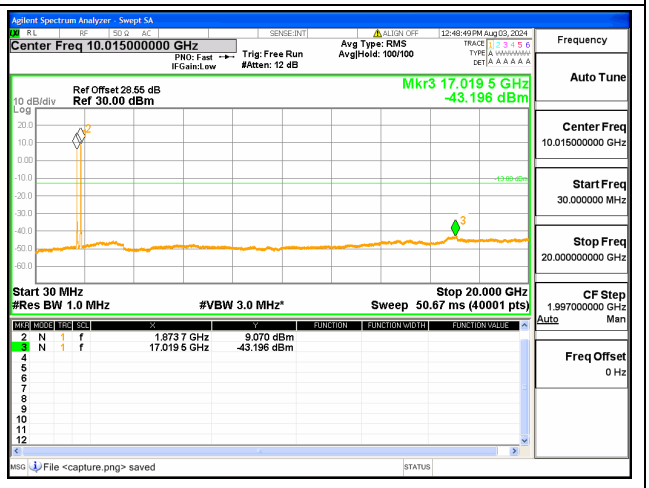
2A-66A / 20+20MHz / QPSK / Low+High CH / 100@0-100@0



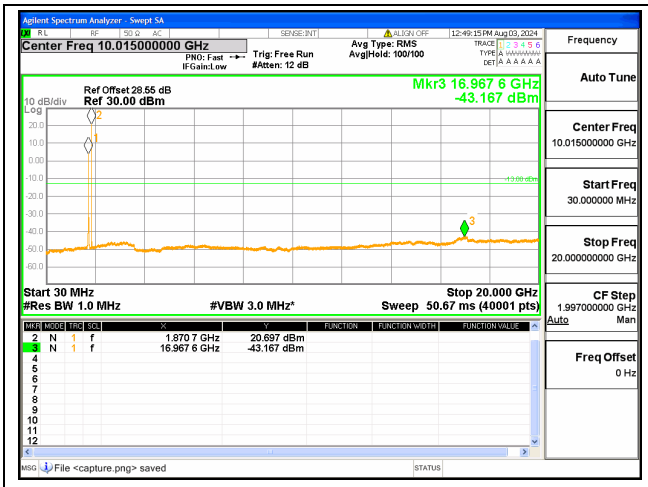
2A-66A / 20+20MHz / QPSK / Mid+Low CH / 1@0-1@99



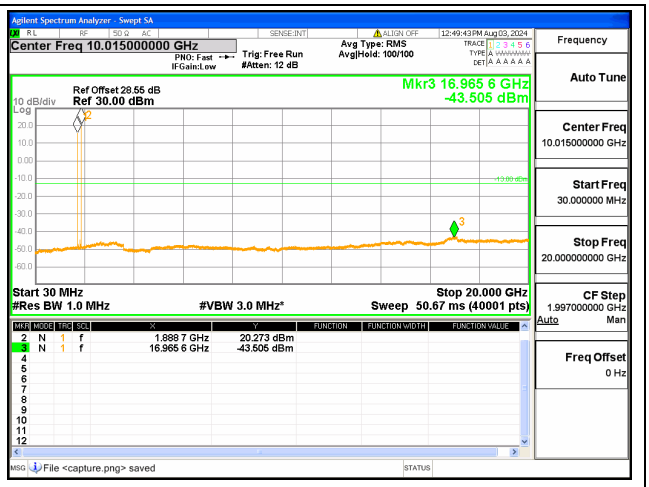
2A-66A / 20+20MHz / QPSK / Mid+Low CH / 1@99-1@0



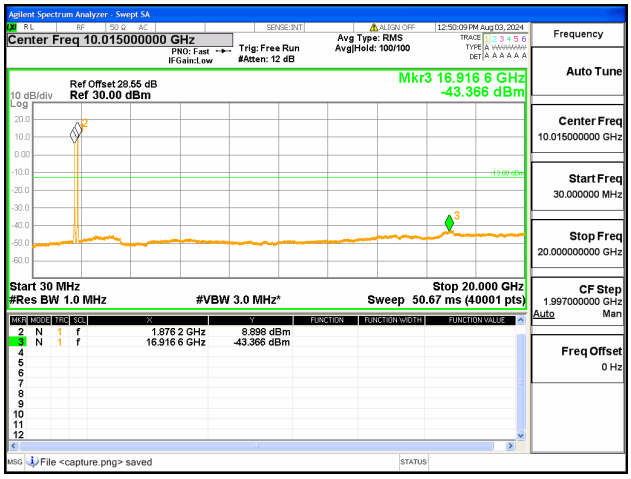
2A-66A / 20+20MHz / QPSK / Mid+Low CH / 100@0-100@0



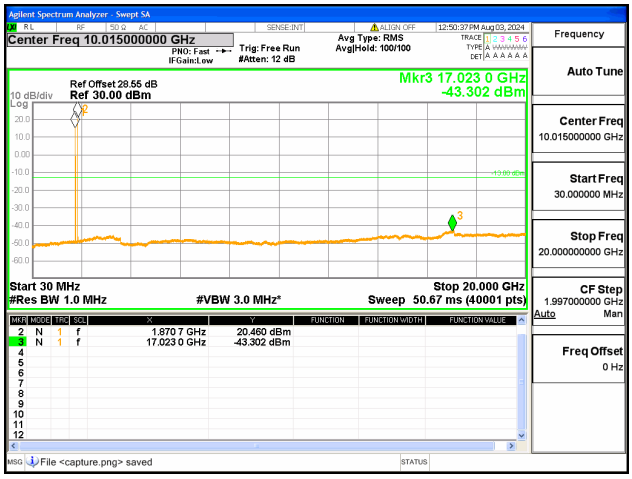
2A-66A / 20+20MHz / QPSK / Mid+Mid CH / 1@0-1@99



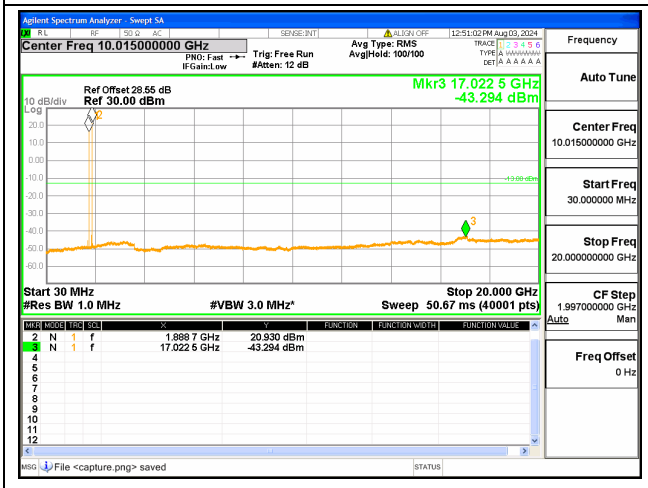
2A-66A / 20+20MHz / QPSK / Mid+Mid CH / 1@99-1@0



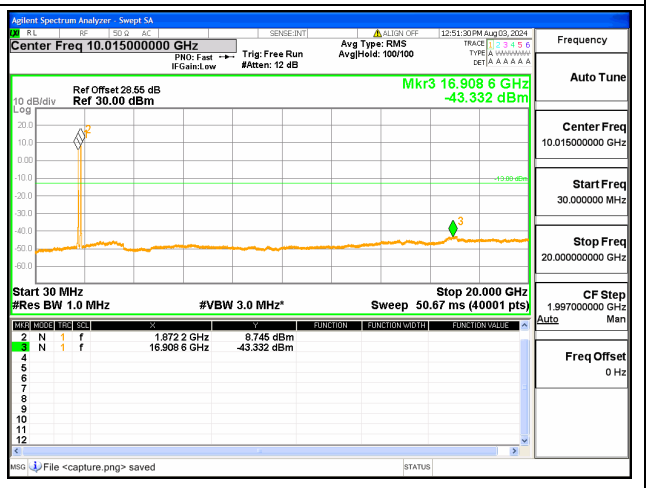
2A-66A / 20+20MHz / QPSK / Mid+Mid CH / 100@0-100@0



2A-66A / 20+20MHz / QPSK / Mid+High CH / 1@0-1@99



2A-66A / 20+20MHz / QPSK / Mid+High CH / 1@99-1@0



2A-66A / 20+20MHz / QPSK / Mid+High CH / 100@0-100@0