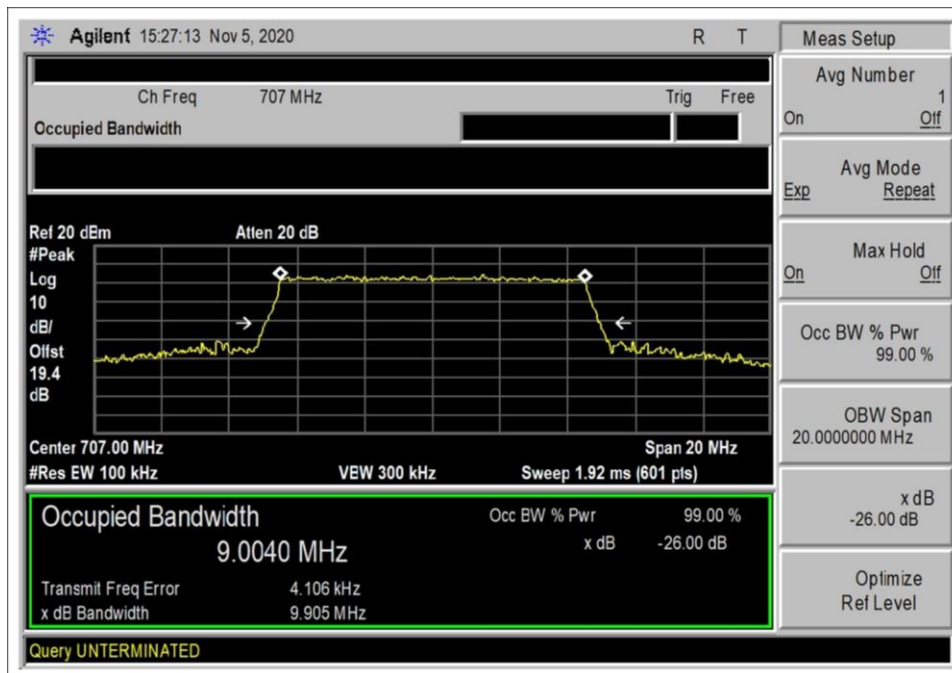
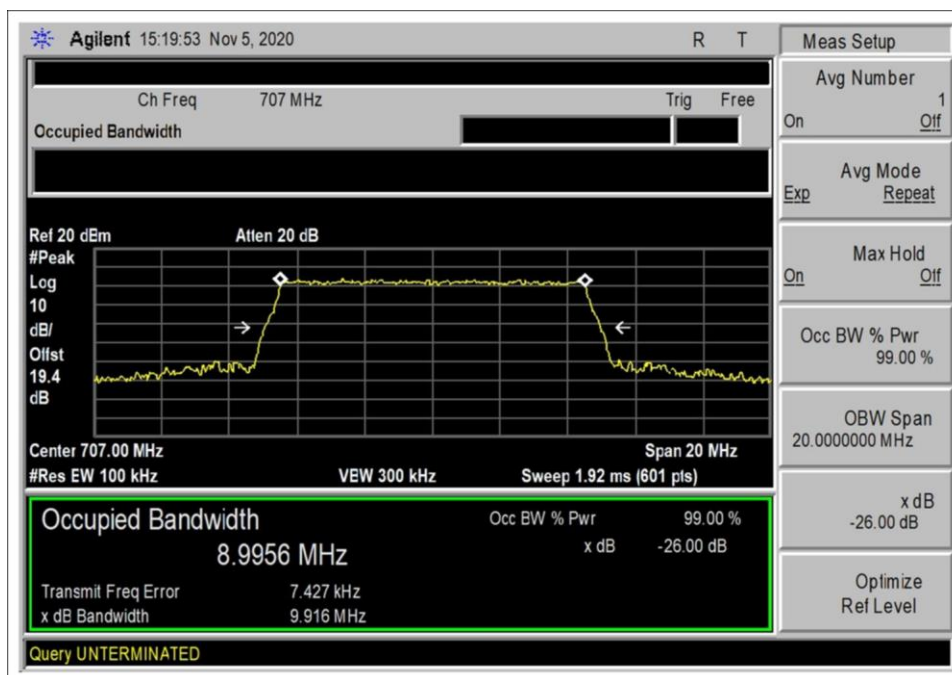


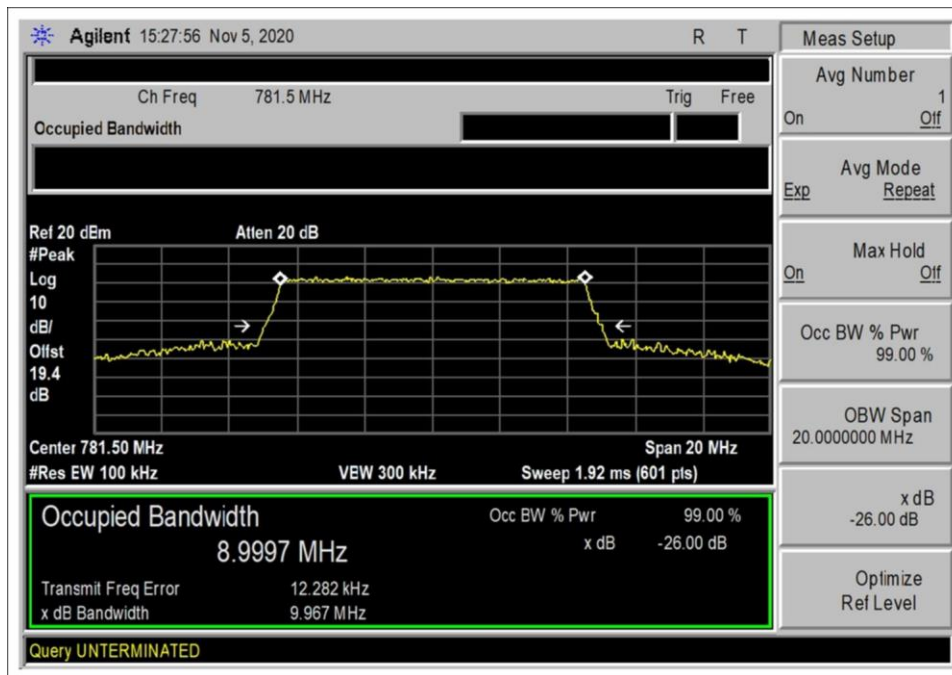
LTE 10MHz Output



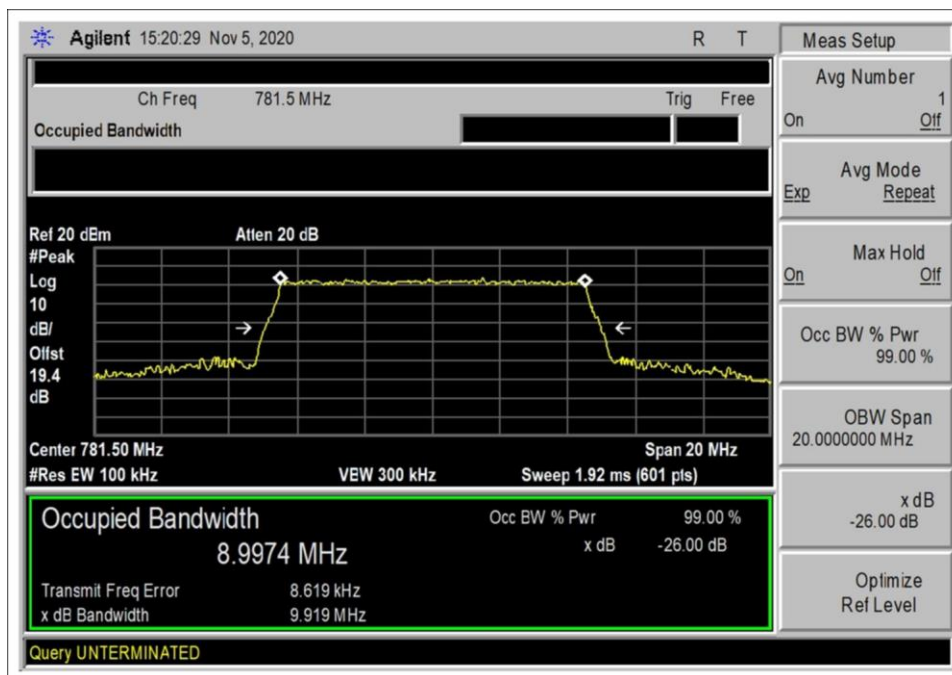
UL 698-716 AGC+3dB



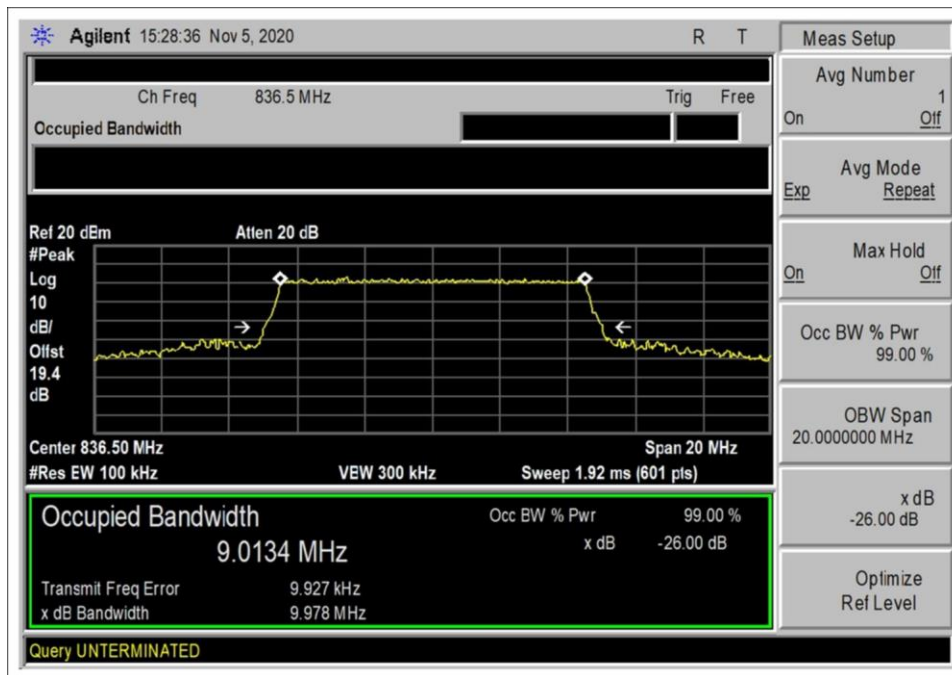
UL 698-716 preAGC



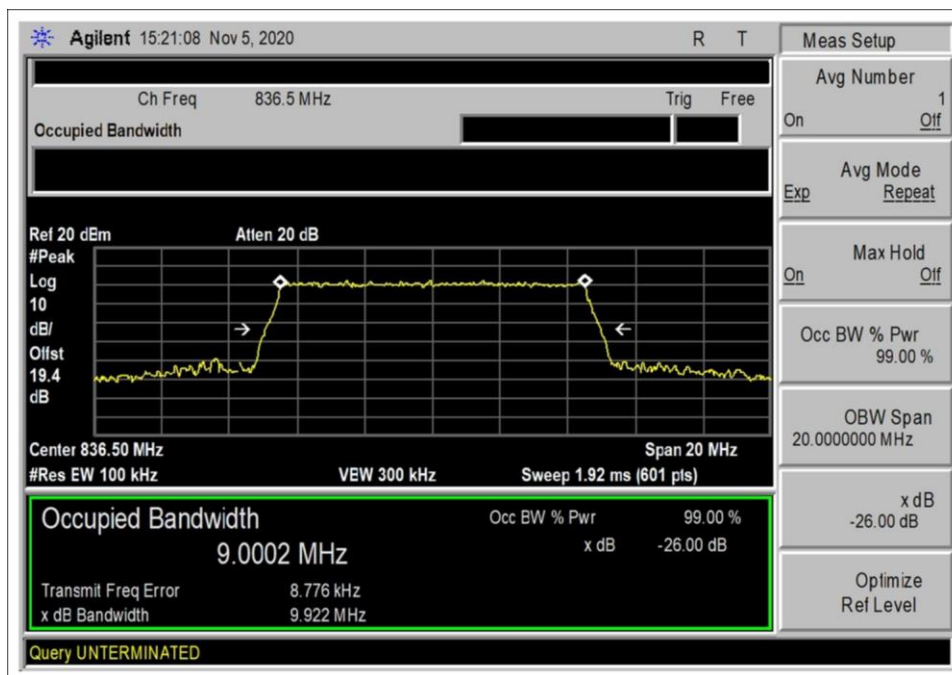
UL 776-787 AGC+3dB



UL 776-787 preAGC



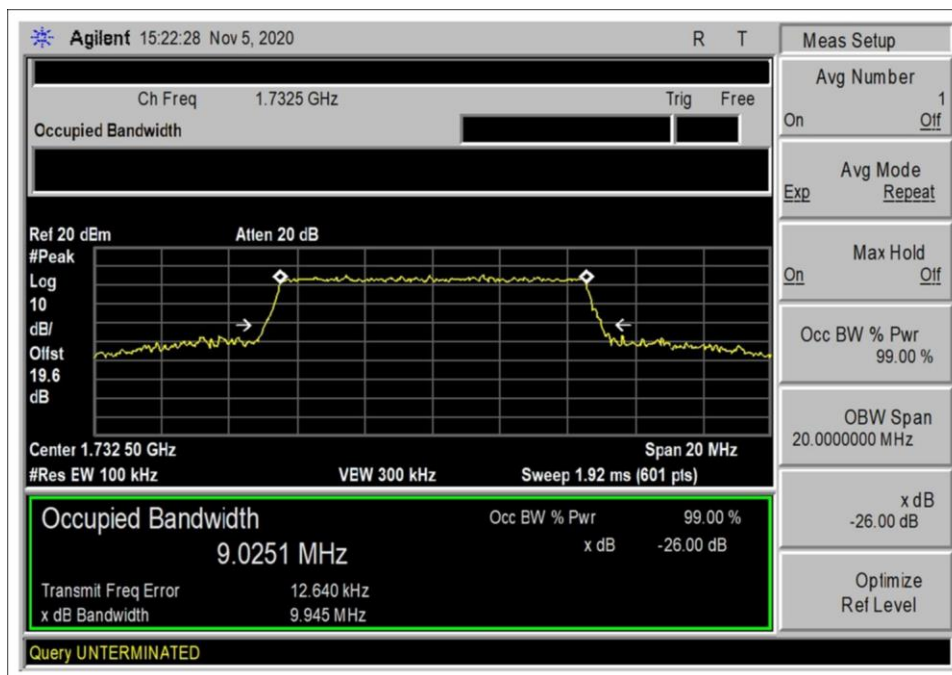
UL 824-849 AGC+3dB



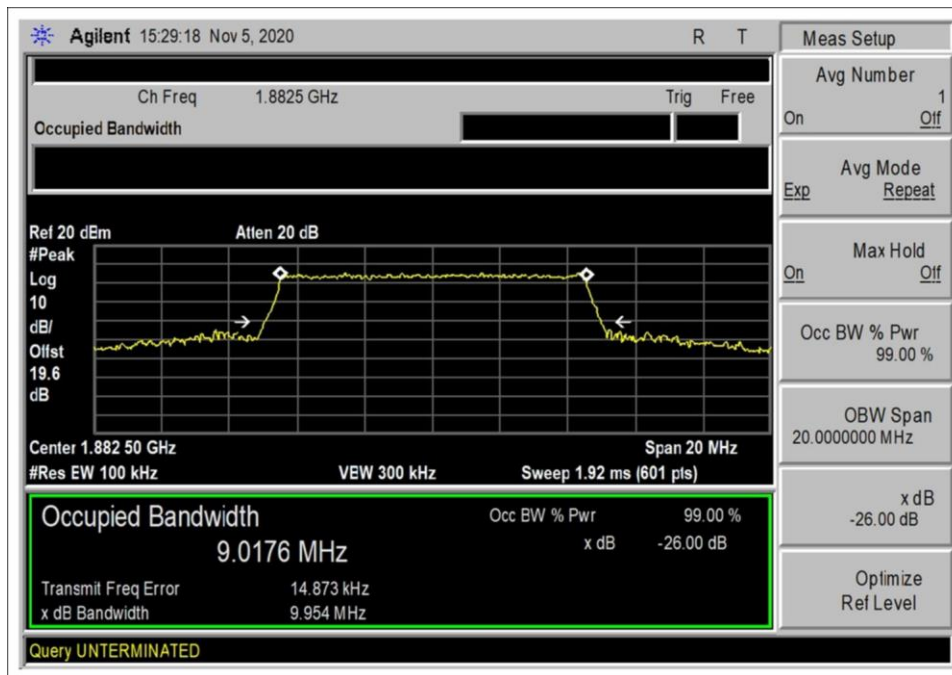
UL 824-849 preAGC



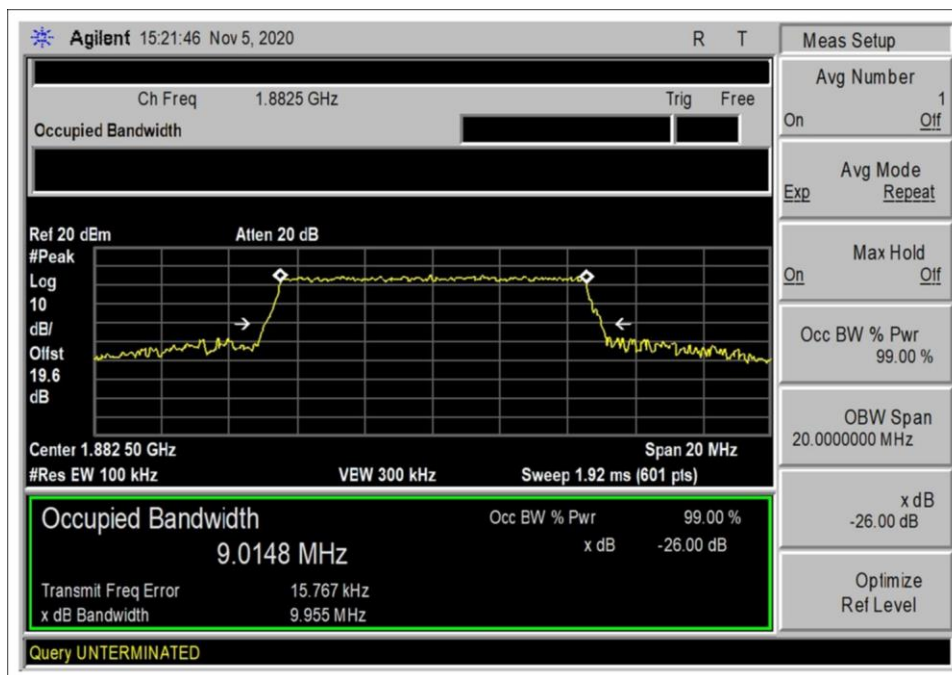
UL 1710-1755 AGC+3dB



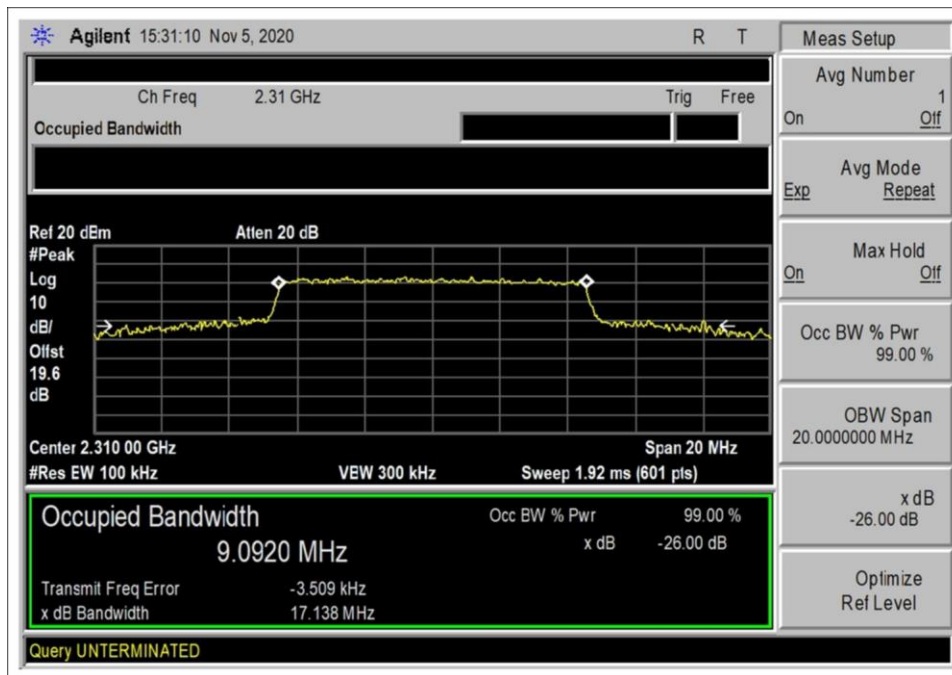
UL 1710-1755 preAGC



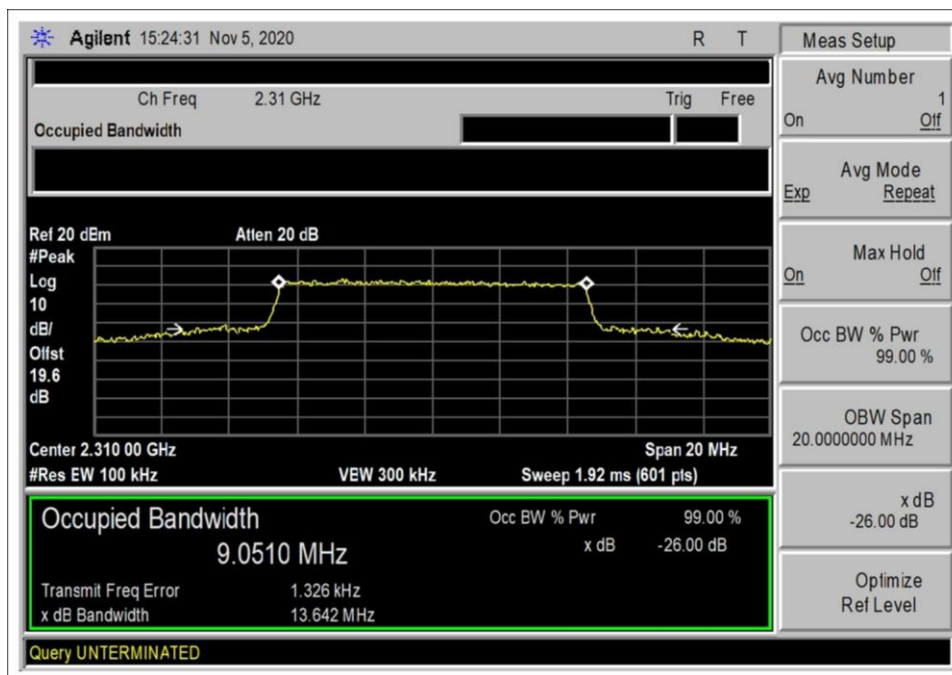
UL 1850-1915 AGC+3dB



UL 1850-1915 preAGC

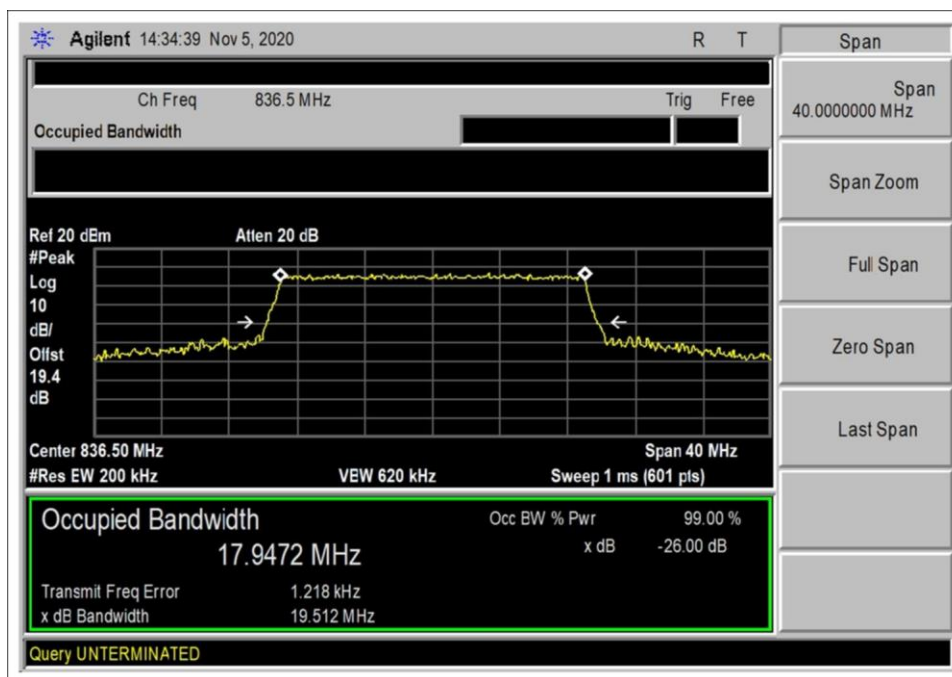


UL 2305-2315 AGC+3dB

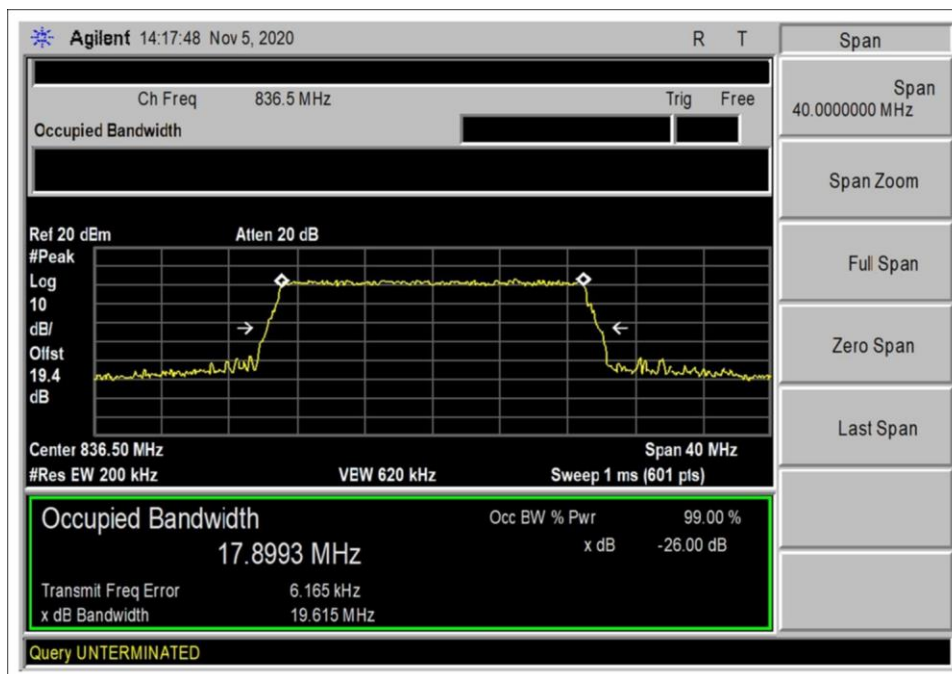


UL 2305-2315 preAGC

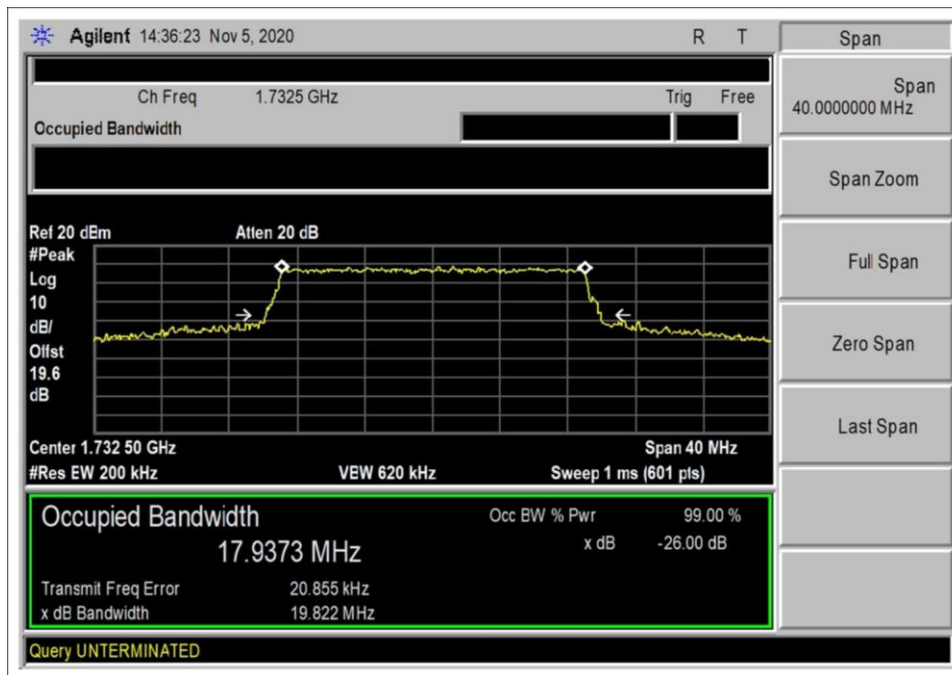
LTE 20MHz Input



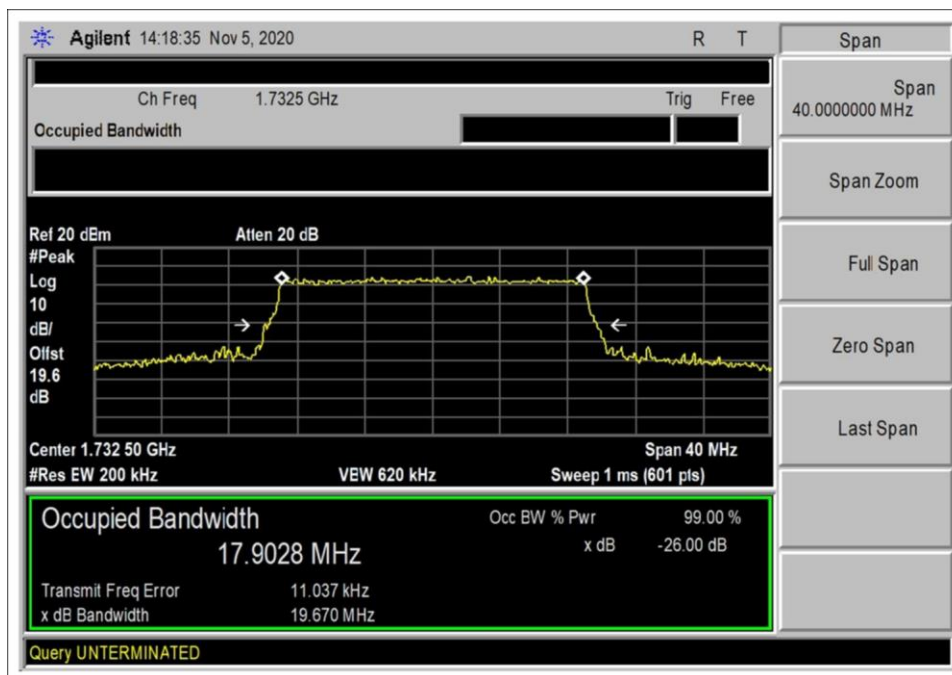
UL 824-849 AGC+3dB



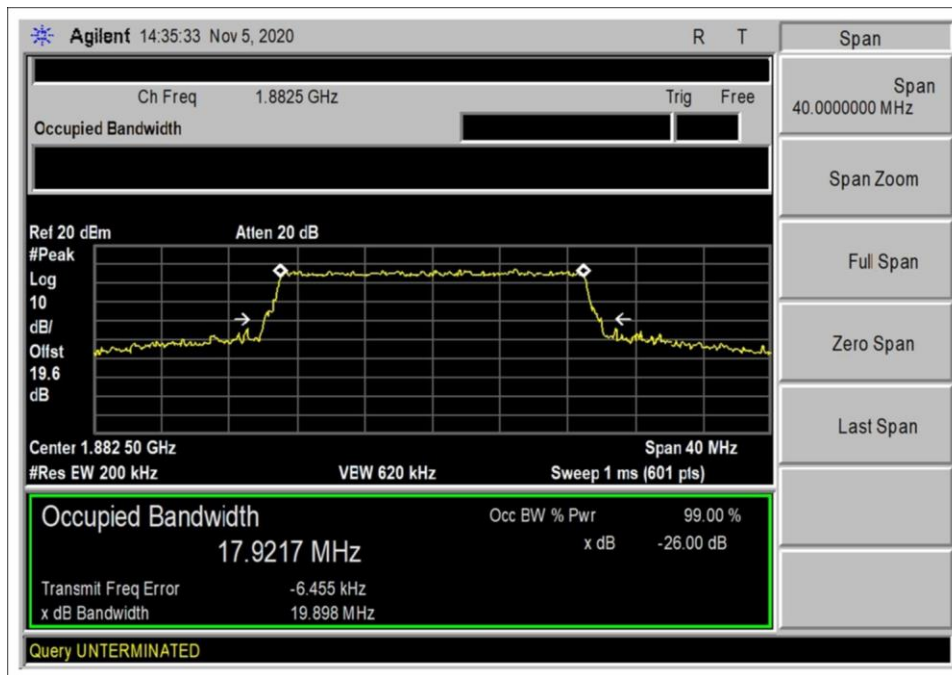
UL 824-849 preAGC



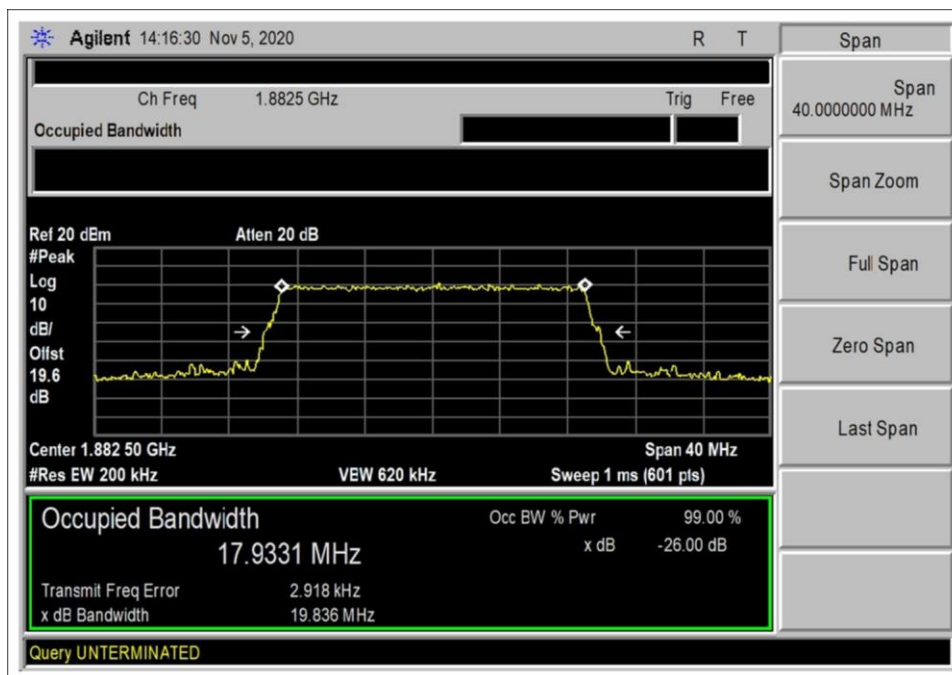
UL 1710-1755 AGC+3dB



UL 1710-1755 preAGC

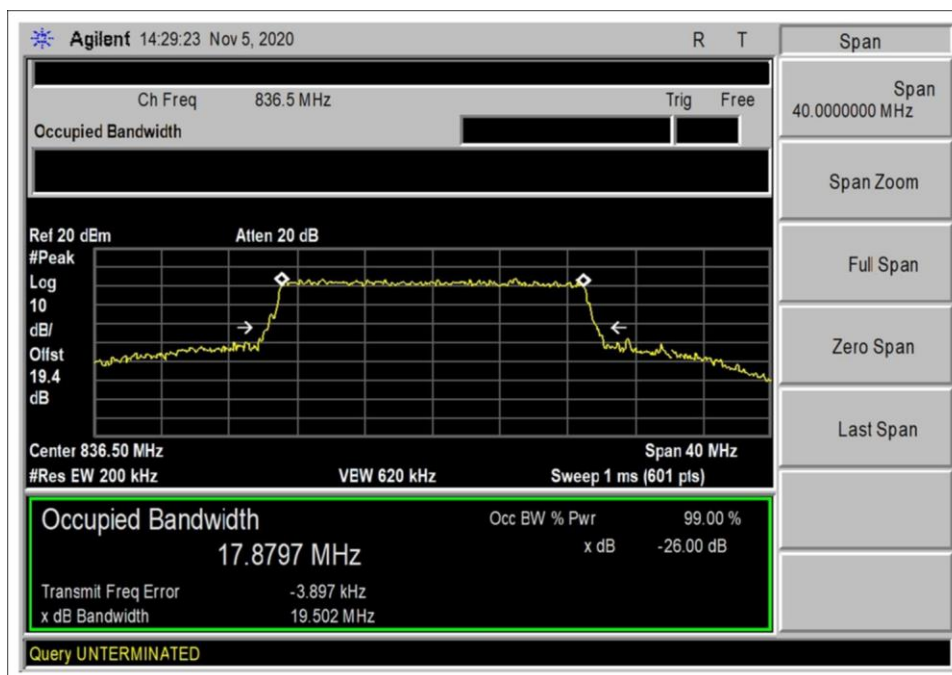


UL 1850-1915 AGC+3dB

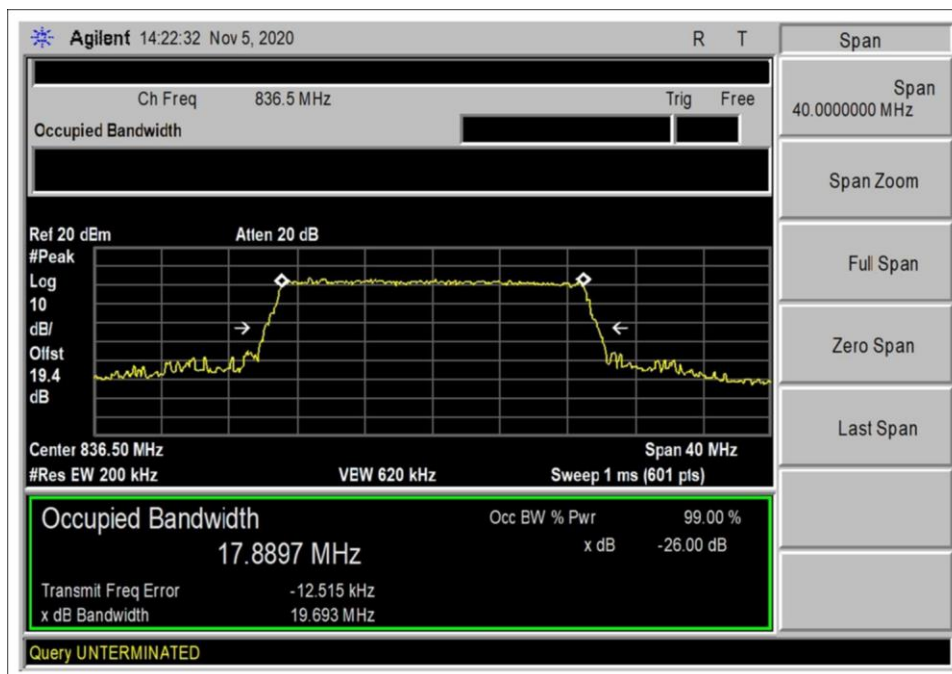


UL 1850-1915 preAGC

LTE 20MHz Output



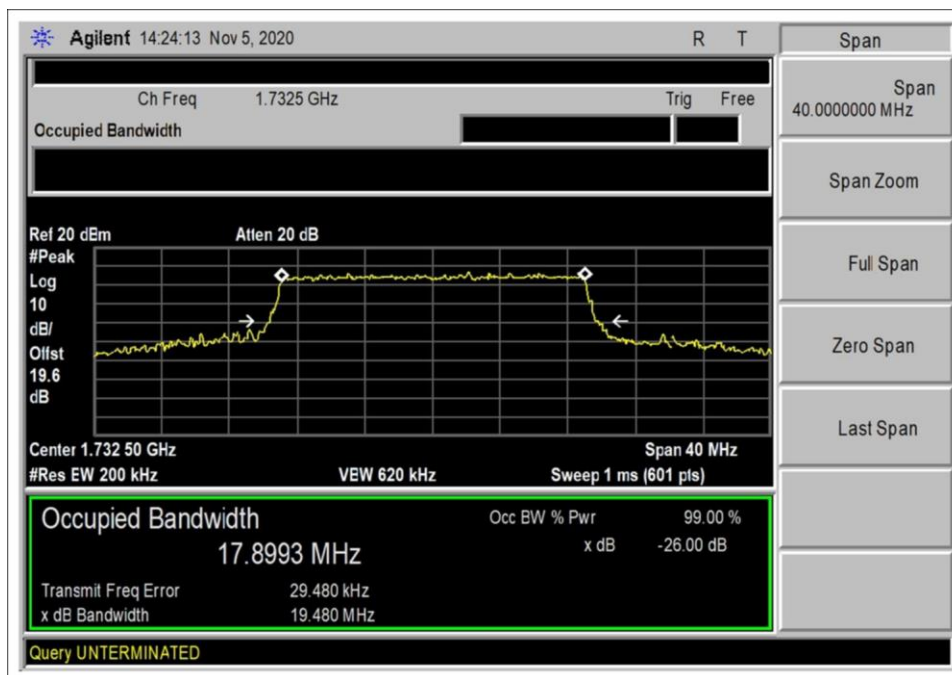
UL 824-849 AGC+3dB



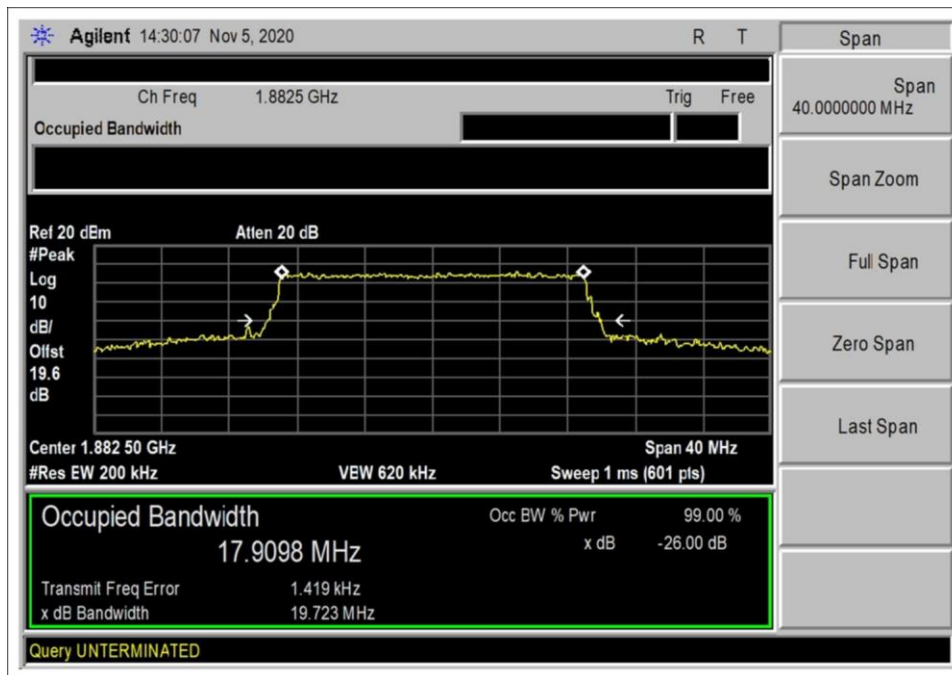
UL 824-849 preAGC



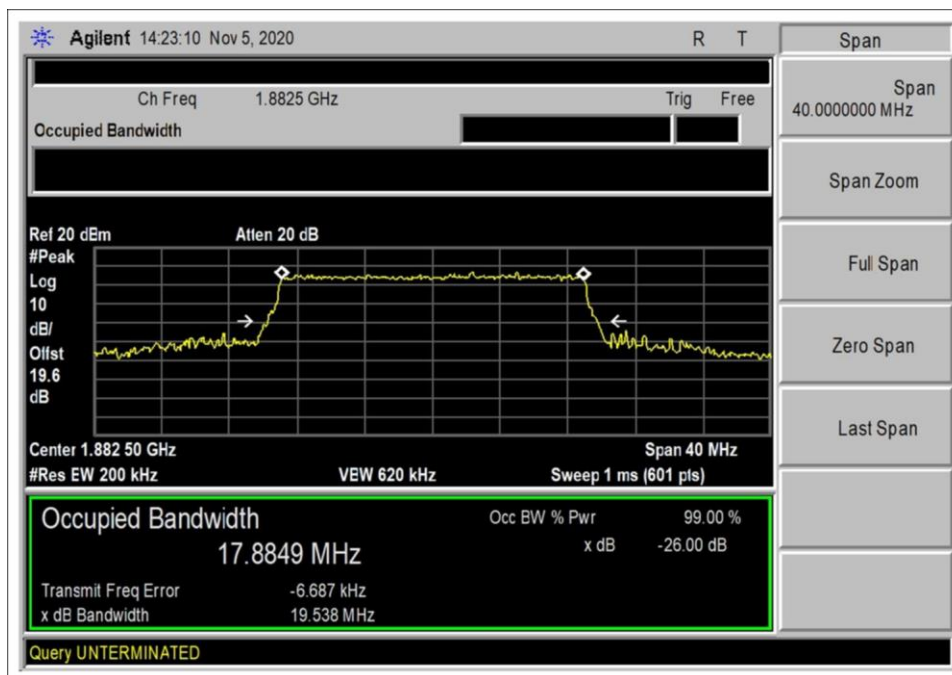
UL 1710-1755 AGC+3dB



UL 1710-1755 preAGC

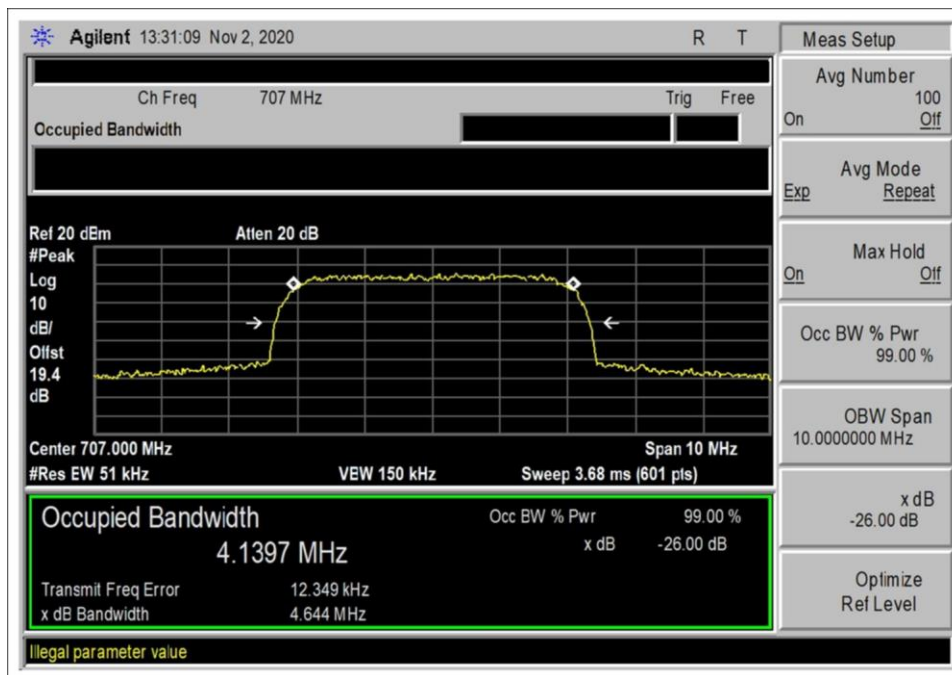


UL 1850-1915 AGC+3dB

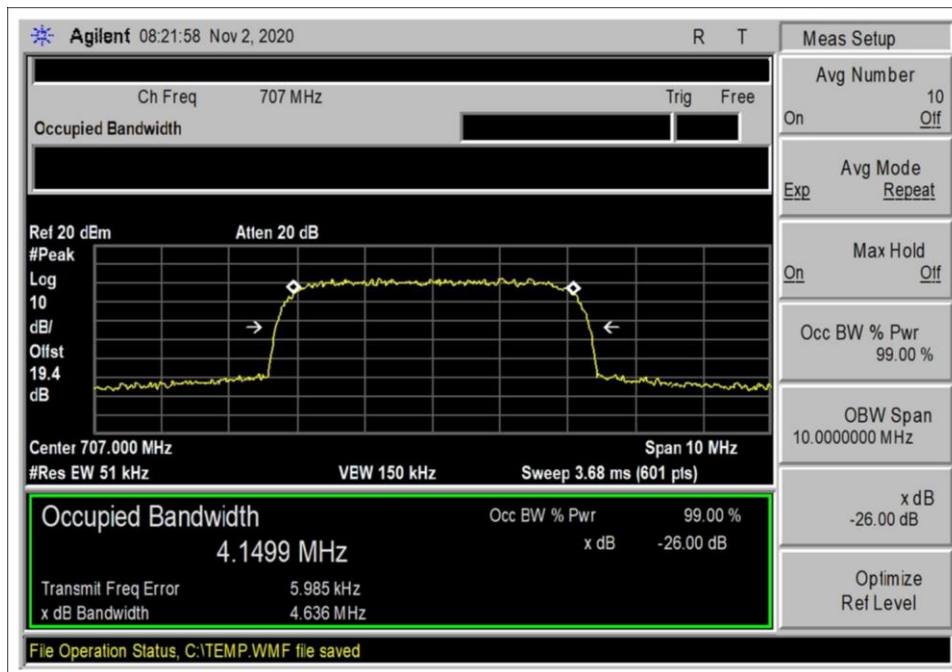


UL 1850-1915 preAGC

WCDMA Input



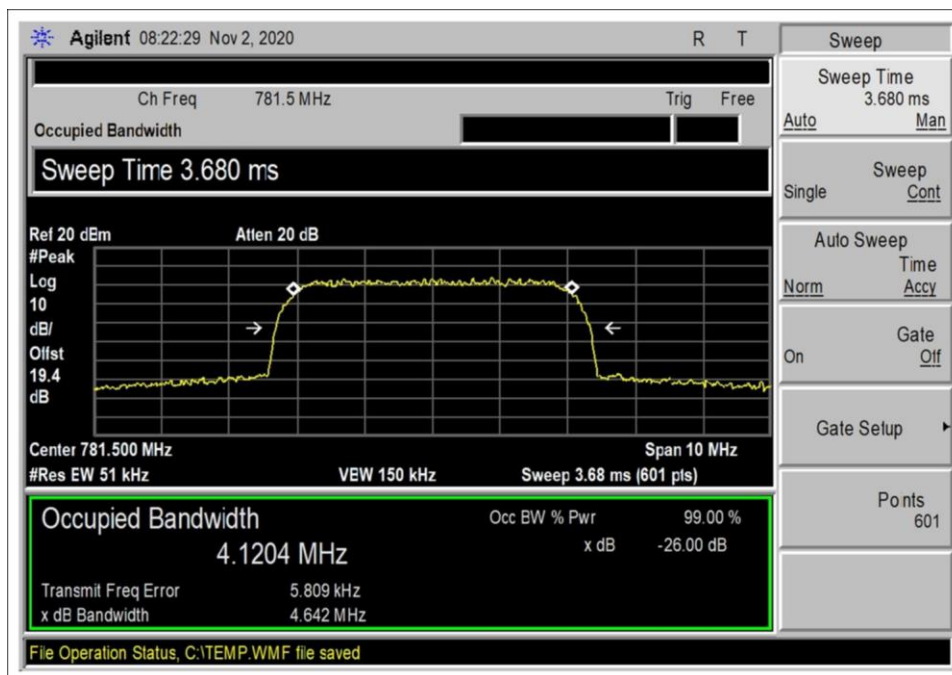
UL 698-716 AGC+3dB



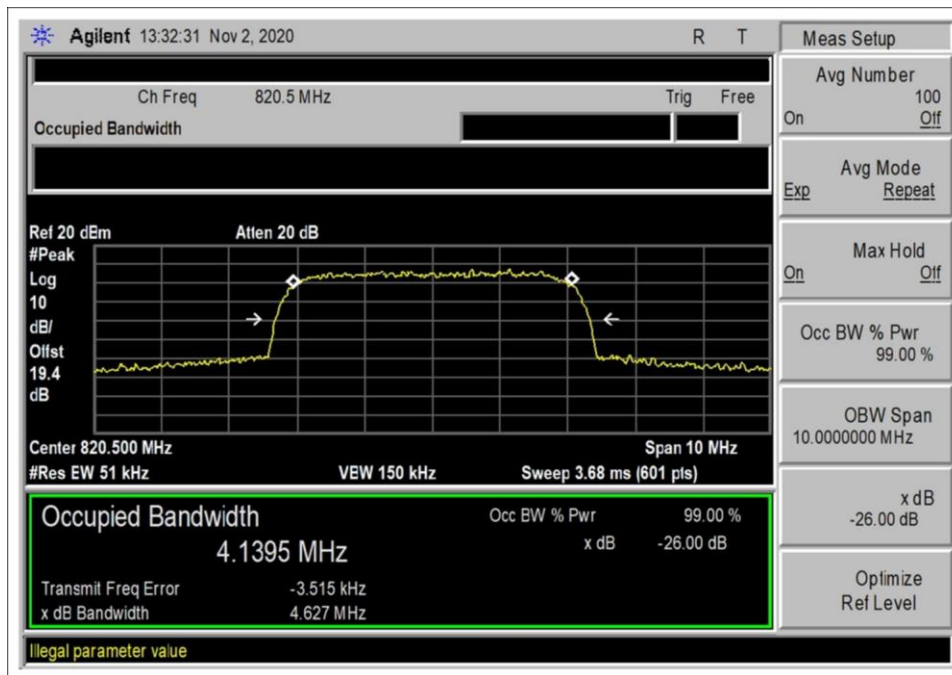
UL 698-716 preAGC



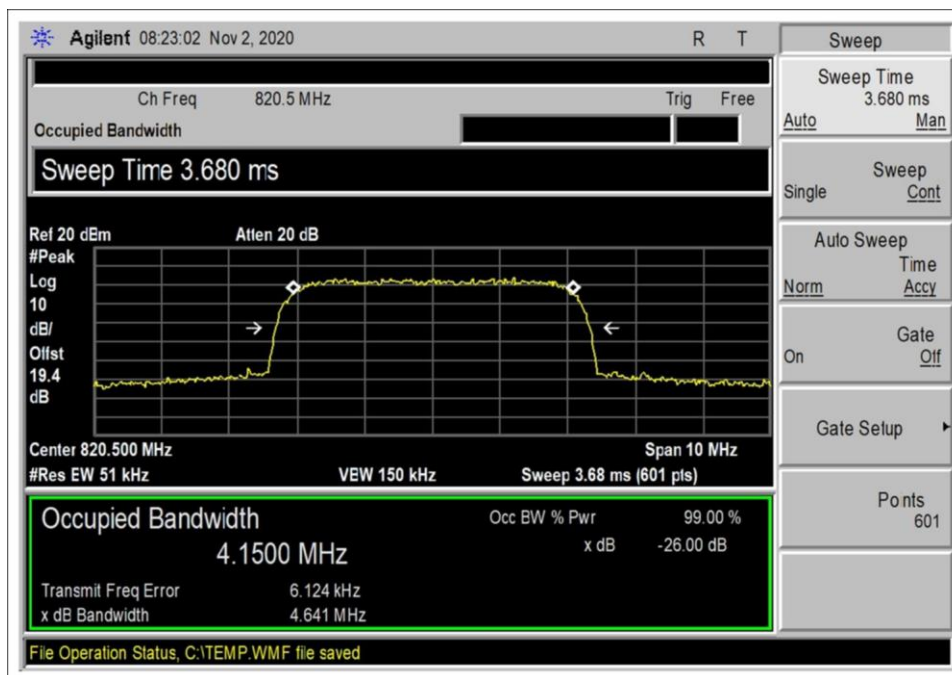
UL 776-787 AGC+3dB



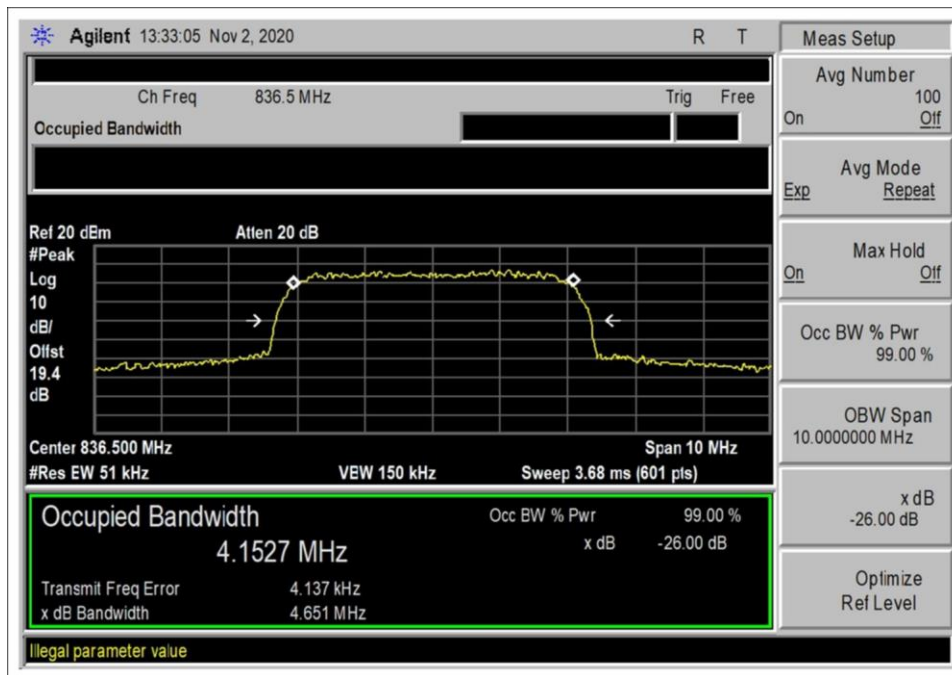
UL 776-787 preAGC



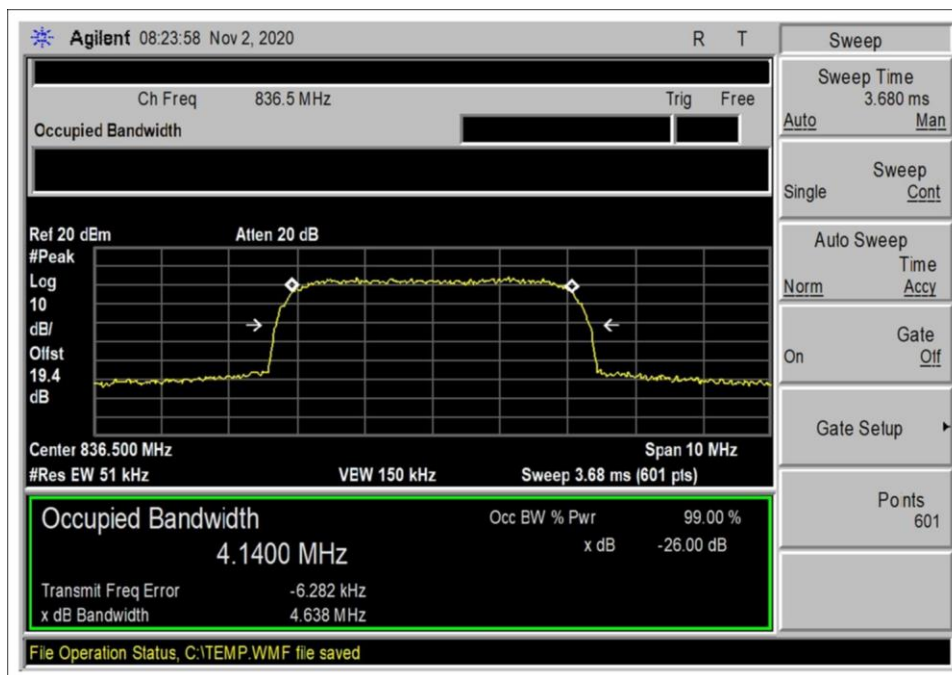
UL 817-824 AGC+3dB



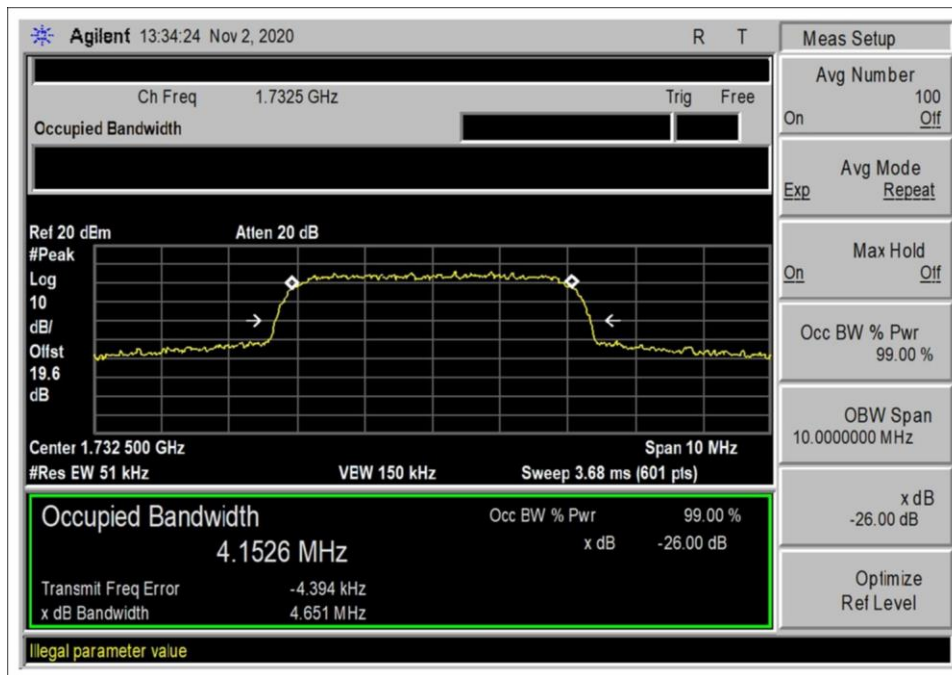
UL 817-824 preAGC



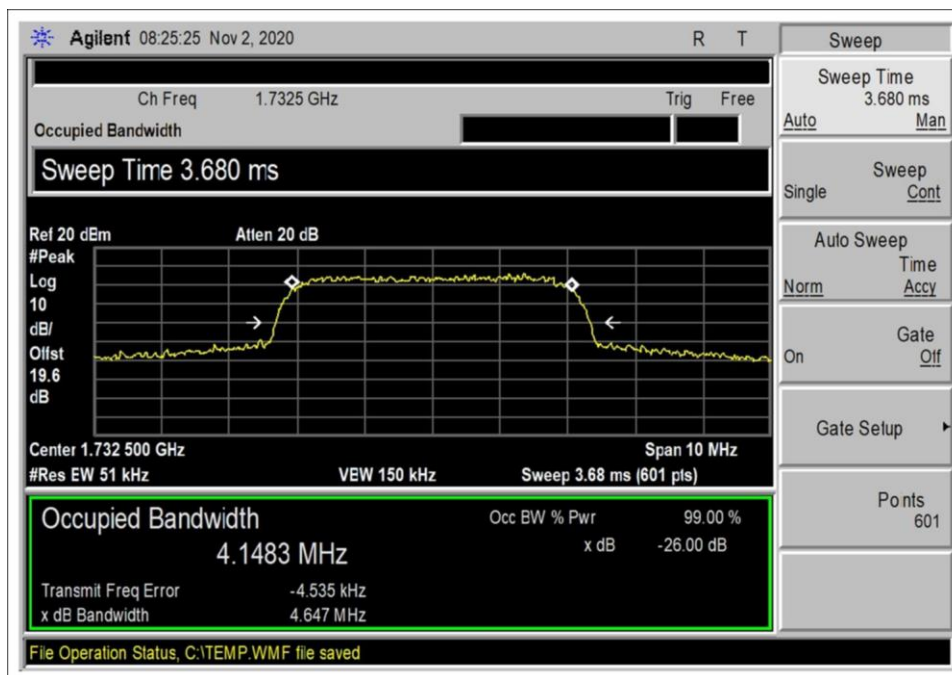
UL 824-849 AGC+3dB



UL 824-849 preAGC



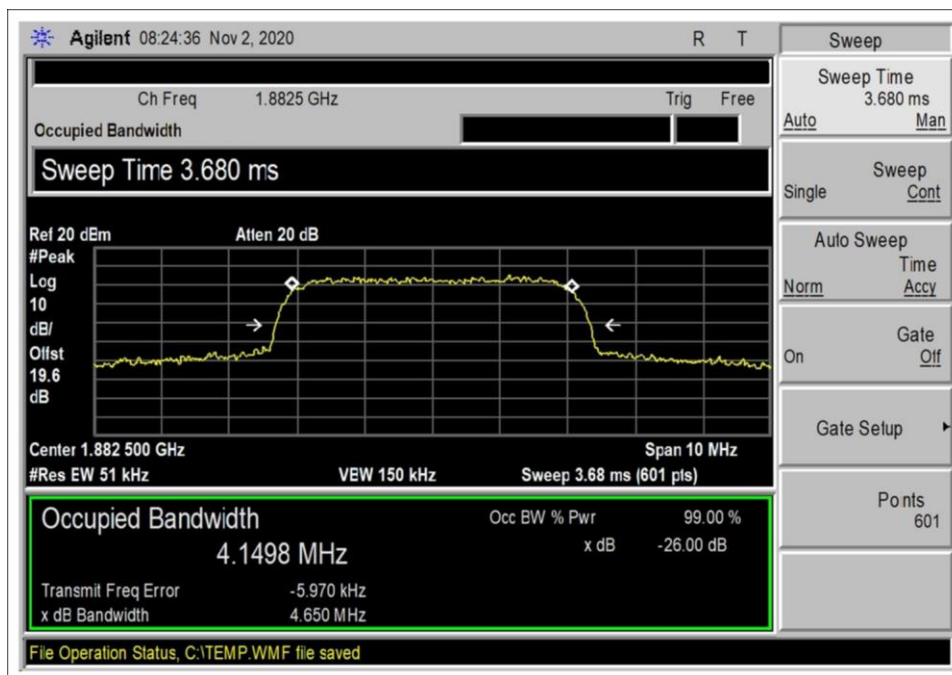
UL 1710-1755 AGC+3dB



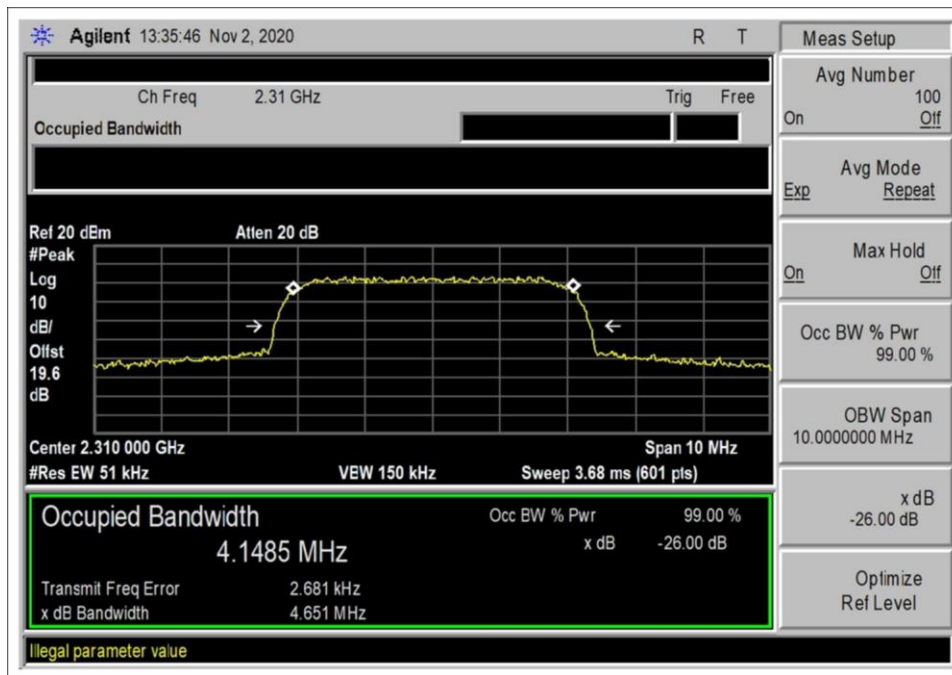
UL 1710-1755 preAGC



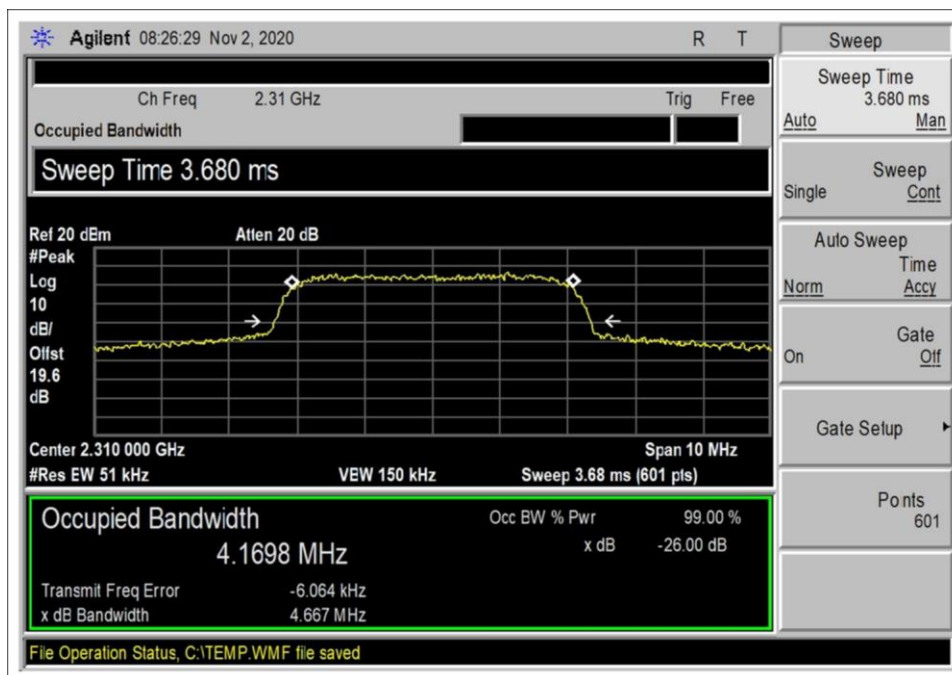
UL 1850-1915 AGC+3dB



UL 1850-1915 preAGC

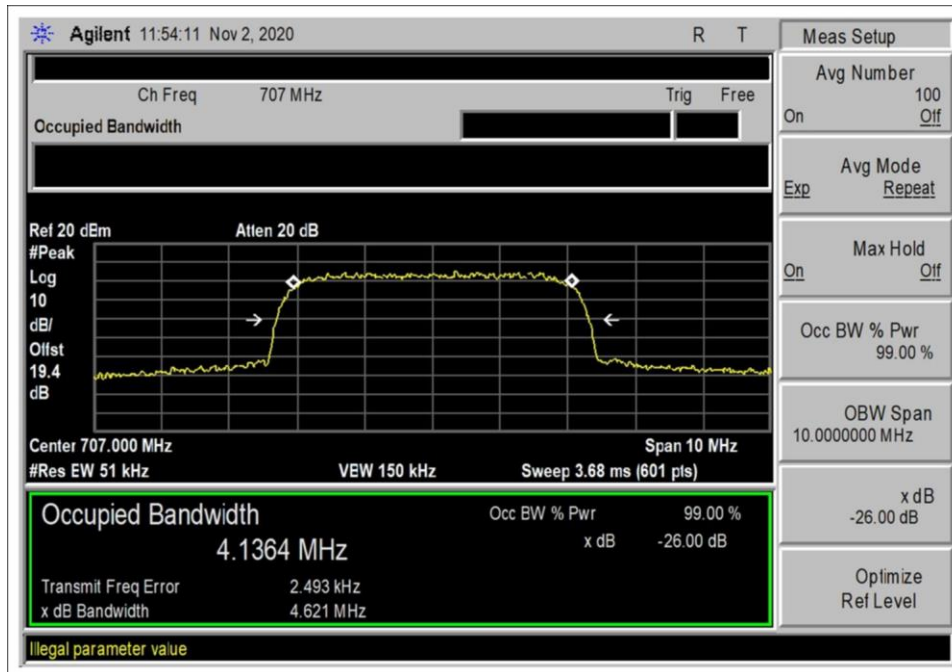


UL 2305-2315 AGC+3dB

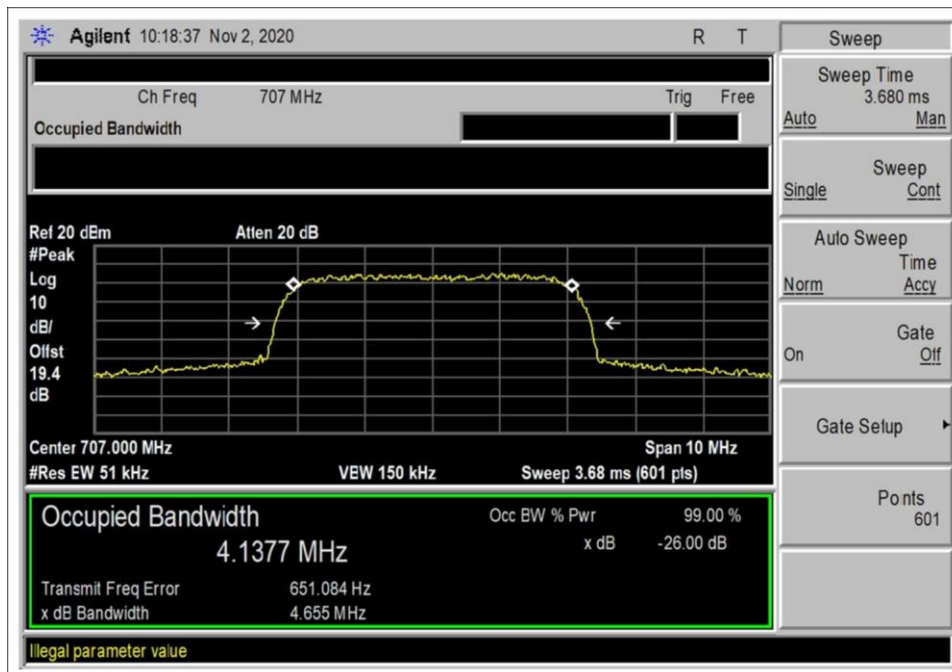


UL 2305-2315 preAGC

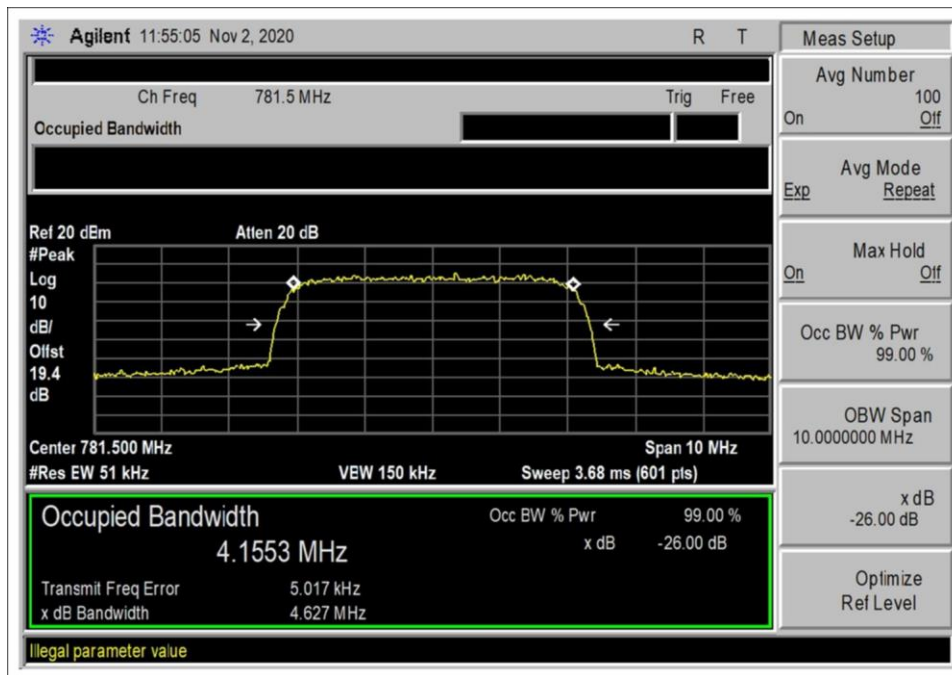
WCDMA Output



UL 698-716 AGC+3dB



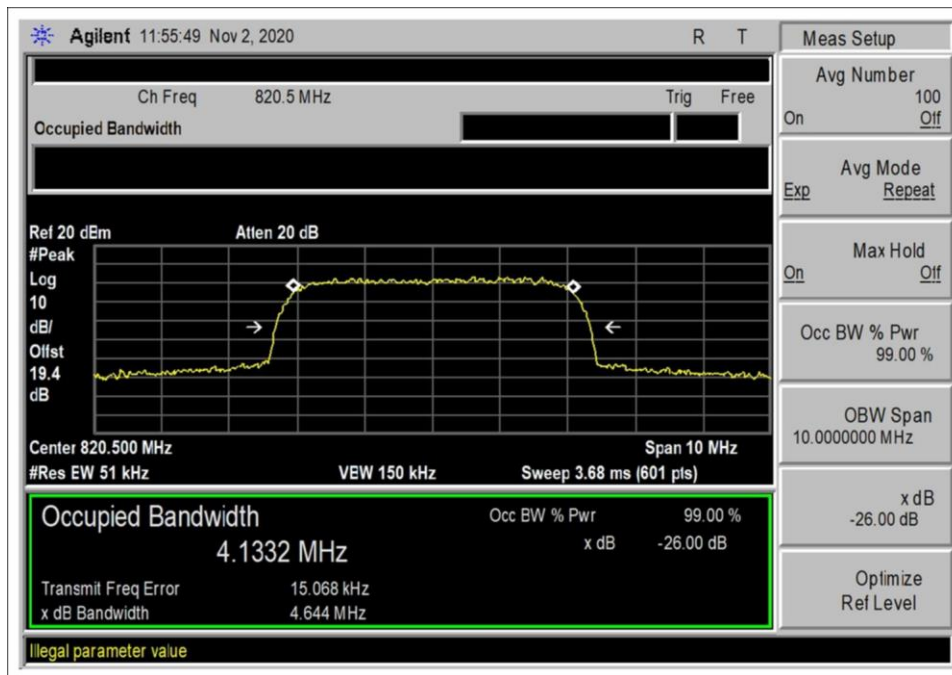
UL 698-716 preAGC



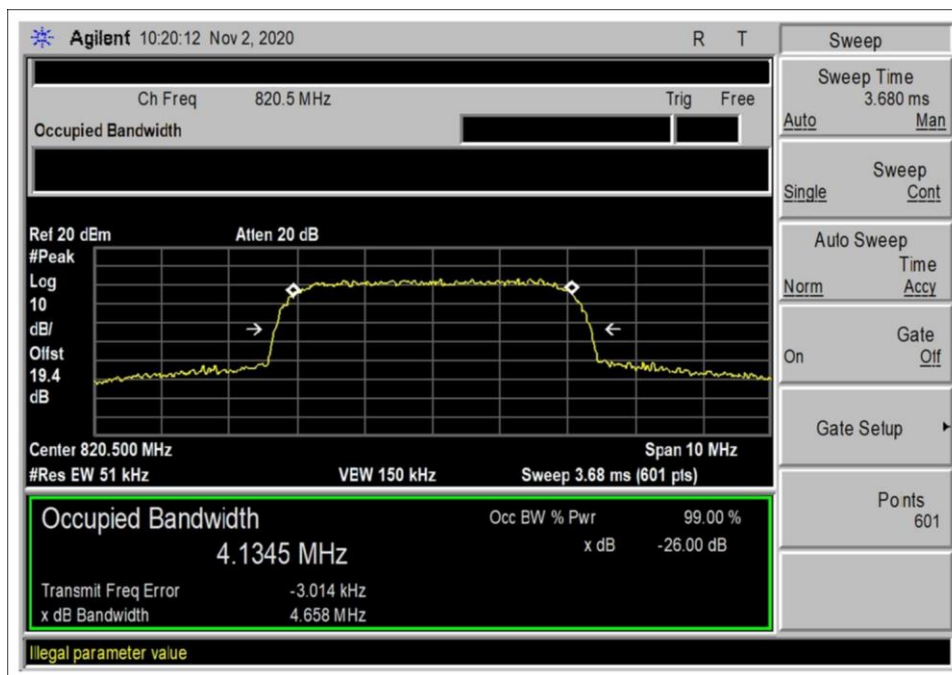
UL 776-787 AGC+3dB.



UL 776-787 preAGC



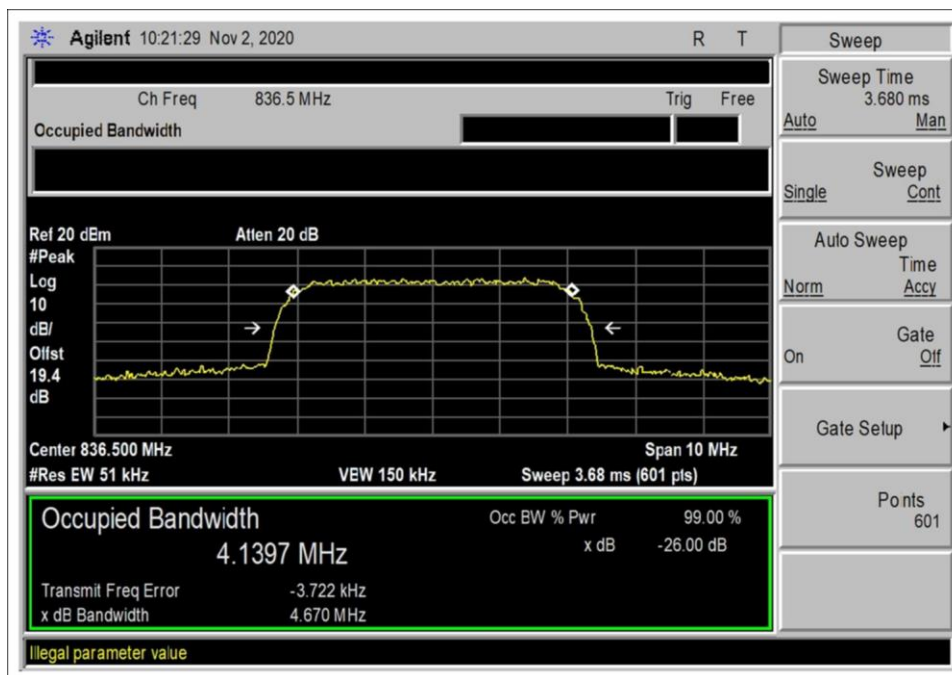
UL 817-824 AGC+3dB



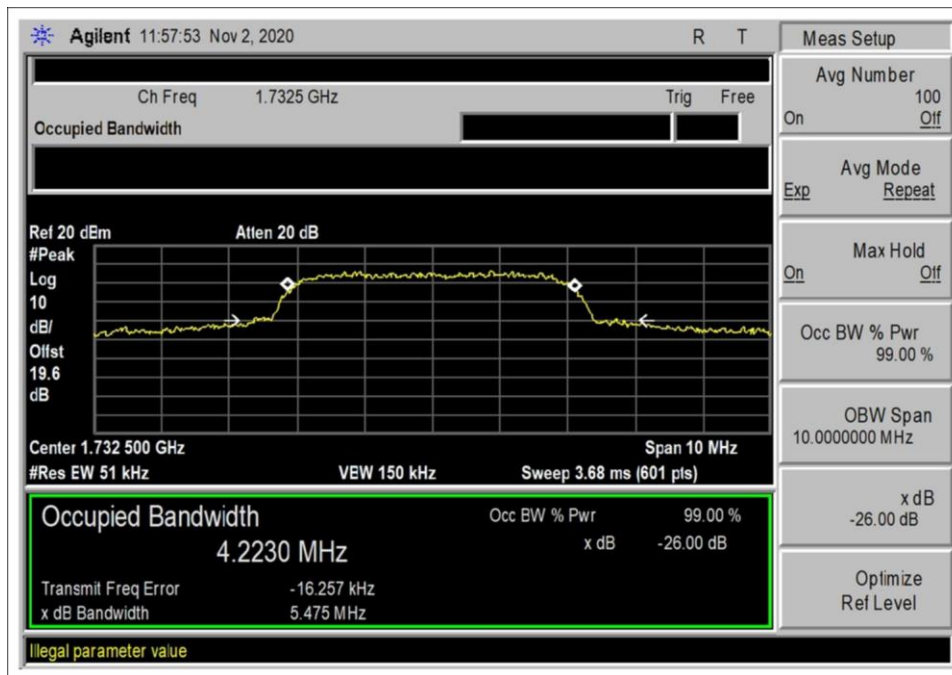
UL 817-824 preAGC



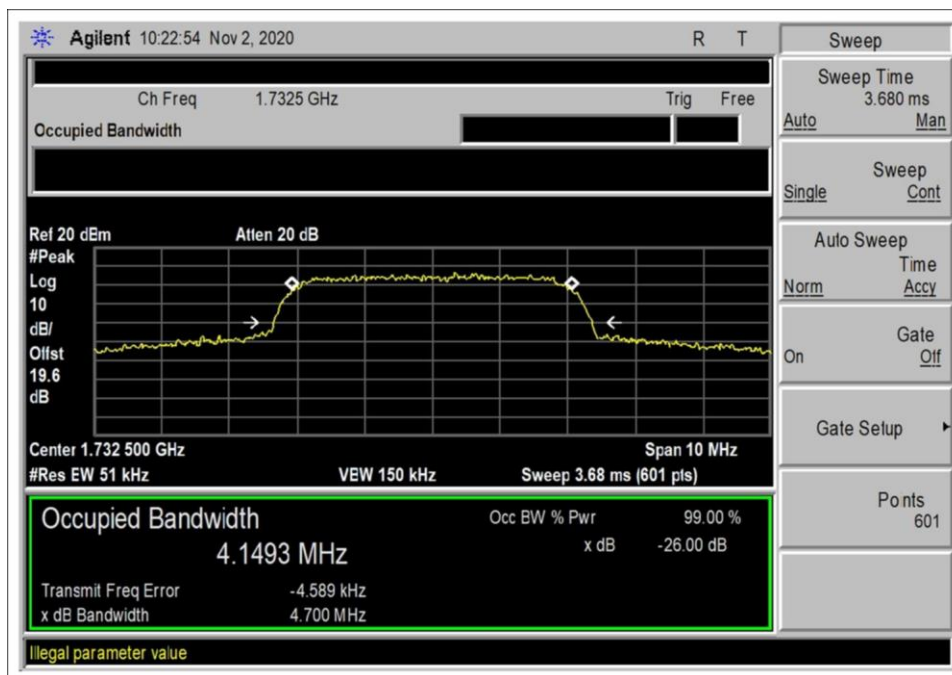
UL 824-849 AGC+3dB



UL 824-849 preAGC



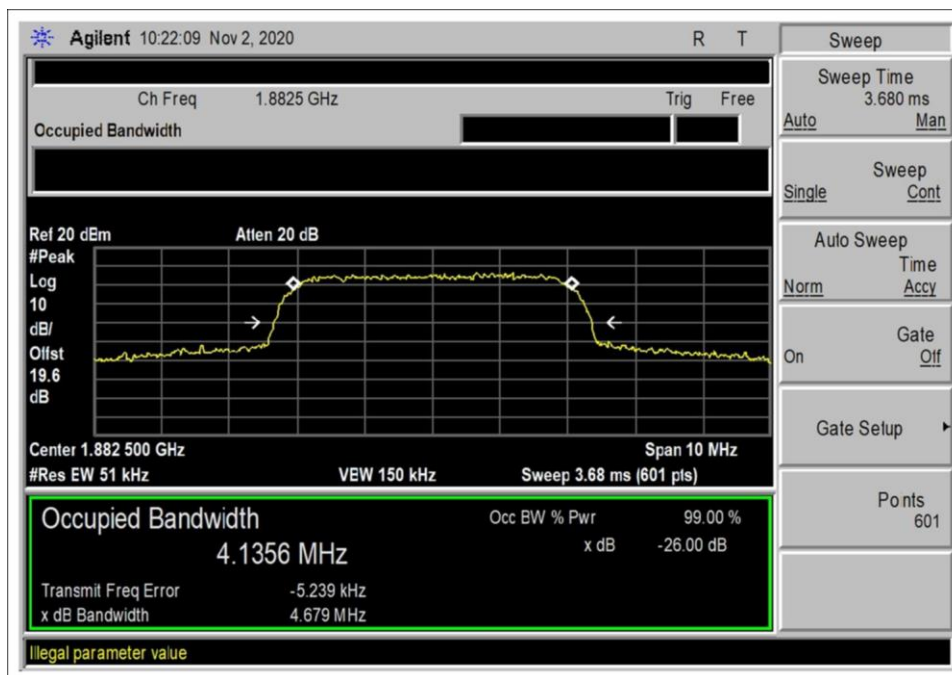
UL 1710-1755 AGC+3dB



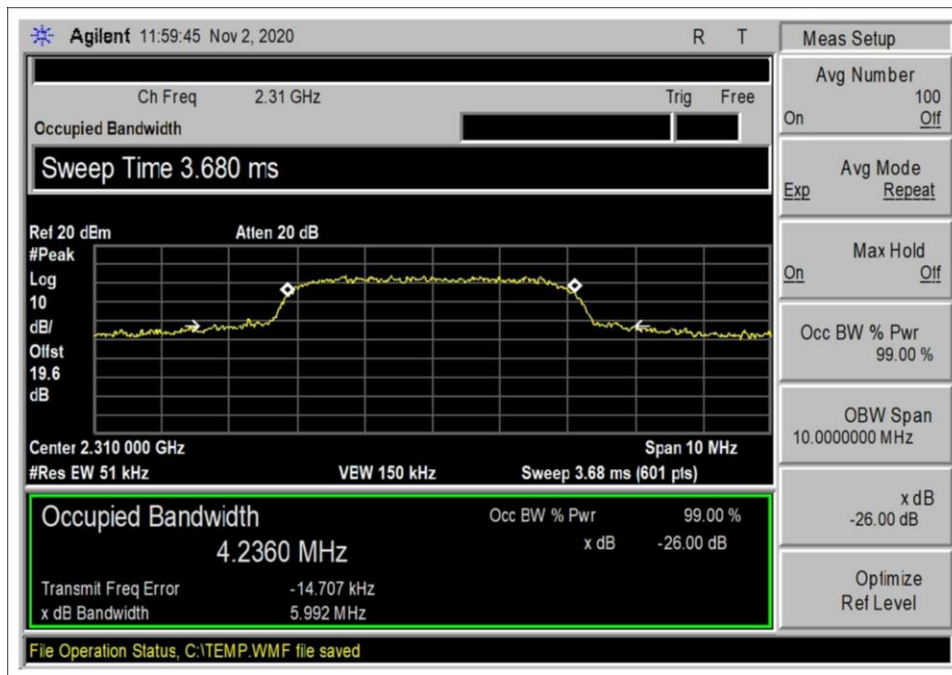
UL 1710-1755 preAGC



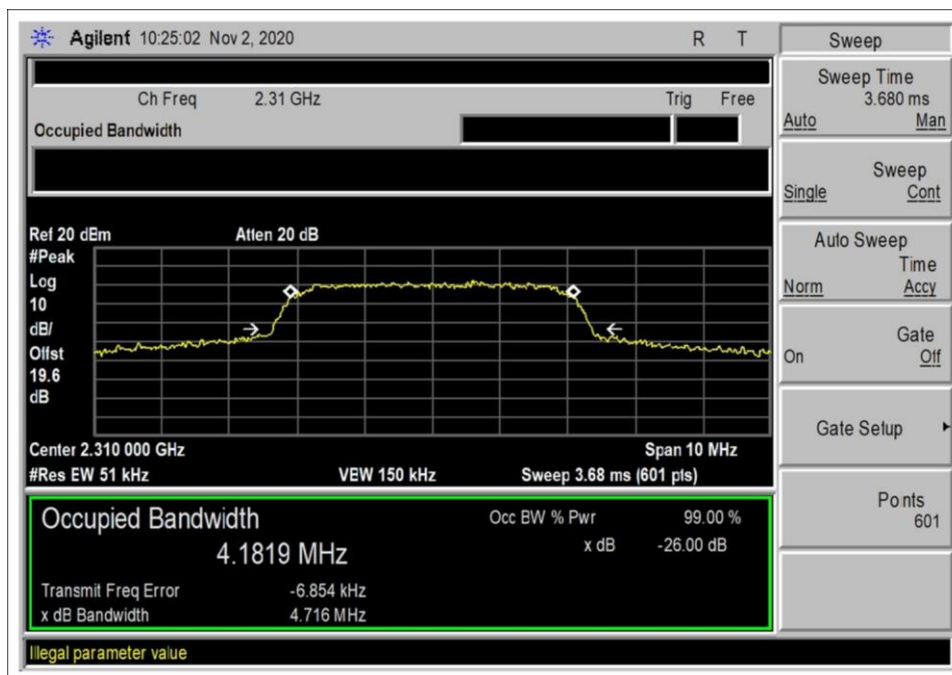
UL 1850-1915 AGC+3dB



UL 1850-1915 preAGC



UL 2305-2315 AGC+3dB



UL 2305-2315 preAGC

3.5 Mean Output Power and Amplifier / Booster Gain

Test Setup/Conditions			
Test Location:	Brea Lab A	Test Engineer:	Don Nguyen / Eddie Wong
Test Method:	KDB 935210 D05 Indus Booster Basic Meas v01r04, 04/03/2020	Test Date(s):	11/3/2020 and 5/12/2021
Configuration:	1		
Test Setup:	The EUTs (Antenna and Equipment units) are placed on test bench and connected to 12Vdc and 48Vdc external power supplies. Input port (BDA) is connected to a signal generator. Output port (Antenna) is connected a spectrum analyzer. Uplink (Equipment) unit and Downlink (Antenna) Unit are connected via an unshielded optical cable. The manufacturer declares that the Equipment Unit output port is only intended for BDA unit and is not connected to an antenna. All tests are performed only on the Antenna Unit output port.		
Declaration:	None		

Environmental Conditions – 11/3/2020			
Temperature (°C)	24.2	Relative Humidity (%):	46

Environmental Conditions – 5/12/2021			
Temperature (°C)	22.3	Relative Humidity (%):	56

Test Equipment – 11/3/2020					
Asset#	Description	Manufacturer	Model	Cal Date	Cal Due
03643	Spectrum Analyzer	Agilent	E4440A	5/20/2020	5/20/2022
P06660	Cable	Gore	PHASEFLEX FJR01N01036.0	3/27/2020	3/27/2022
P06664	Cable	Gore	PHASEFLEX FJR01N01036.0	3/27/2020	3/27/2022
P07243	Cable	H&S	32022-29094K- 29094K-24TC	5/29/2020	5/29/2022
03431	Attenuator	Aeroflex/Weinschel	89-20-21	12/20/2019	12/20/2021
P07037	Signal Generator	Agilent	E4432B	2/7/2019	2/7/2021
00786	Preamplifier	HP	83017A	5/20/2020	5/20/2022

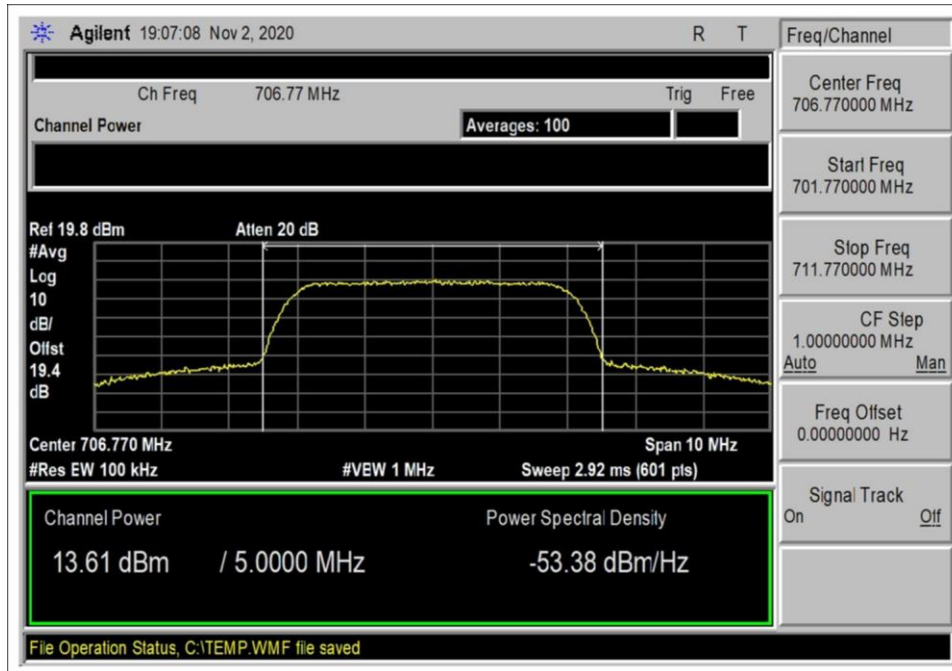
Test Equipment – 5/12/2021					
Asset#	Description	Manufacturer	Model	Cal Date	Cal Due
02672	Spectrum Analyzer	Agilent	E4446A	4/29/2020	4/29/2022
03430	Attenuator	Aeroflex/Weinschel	75A-10-12	12/20/2019	12/20/2021
P07658	Cable	Astrolab, Inc.	32022-29094K- 29094K-24TC	7/30/2020	7/30/2022
P07037	RF Signal Generator	Agilent	E4432B	4/20/2021	4/20/2023

Pre AGC						
	GSM			4.1 MHz AWGN		
Frequency (MHz)	Input(dBm)	Output (dBm)	Gain (dB)	Input(dBm)	Output (dBm)	Gain(dB)
UL 698-716	9.30	12.37	3.07	10.51	12.55	2.04
UL 776-787	10.79	12.47	1.68	11.78	12.24	0.46
UL 817-824	10.76	10.82	0.06	11.99	11.04	-0.95
UL 824-849	11.15	11.58	0.43	11.95	11.53	-0.42
UL 1850-1915	10.97	14.08	3.11	12.12	14.43	2.31
UL 1710-1755	12.6	12.33	-0.27	12.04	11.8	-0.24
UL 2305-2315	13.42	12.59	-0.83	14.10	12.02	-2.08

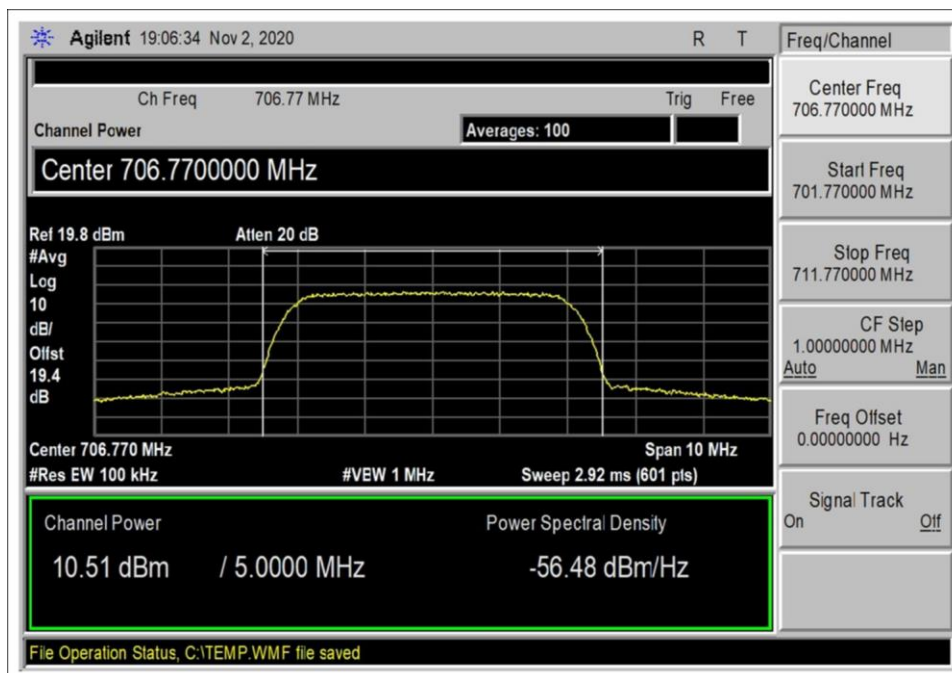
AGC+3dB						
	GSM			4.1 MHz AWGN		
Frequency (MHz)	Input(dBm)	Output (dBm)	Gain (dB)	Input(dBm)	Output (dBm)	Gain(dB)
UL 698-716	12.38	12.61	0.23	13.61	12.95	-0.66
UL 776-787	13.77	12.69	-1.08	14.86	12.50	-2.36
UL 817-824	13.90	10.99	-2.91	15.03	11.30	-3.73
UL 824-849	14.20	11.86	-2.34	15.02	11.81	-3.21
UL 1850-1915	14.07	14.24	0.17	15.14	14.96	-0.18
UL 1710-1755	15.6	12.0	-3.6	16.8	12.2	-4.6
UL 2305-2315	16.36	12.06	-4.30	17.09	12.18	-4.91

Plots

AWGN Power In



UL 698-716 AGC+3dB



UL 698-716 pre AGC