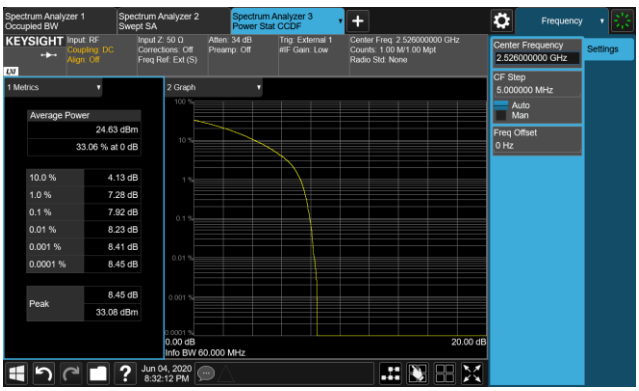
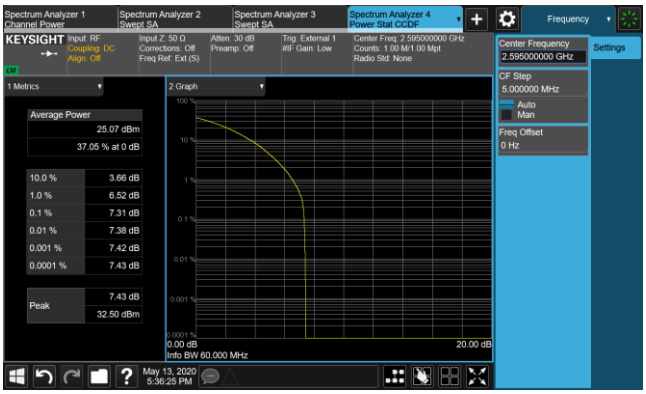
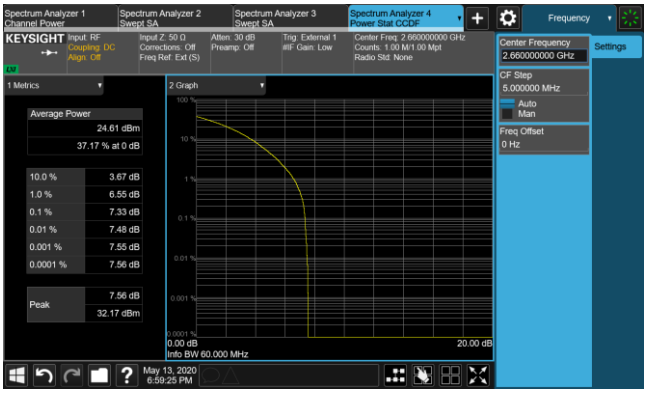
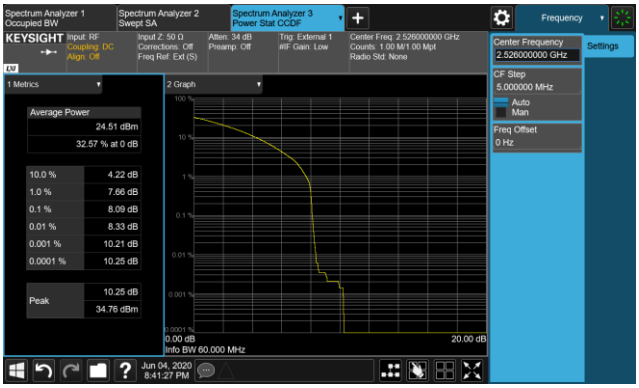
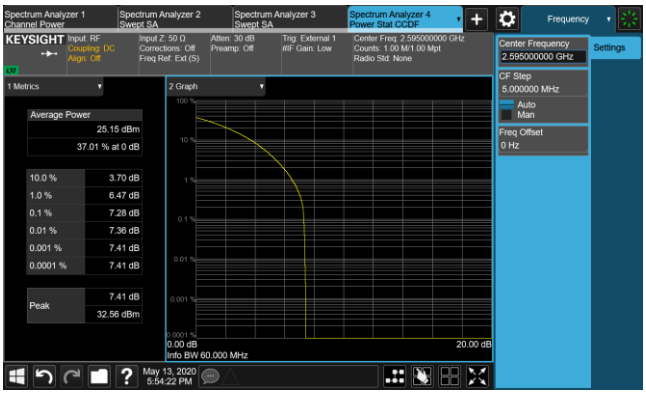
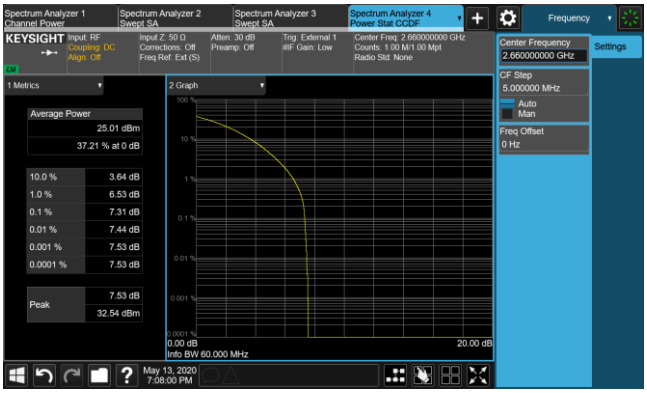
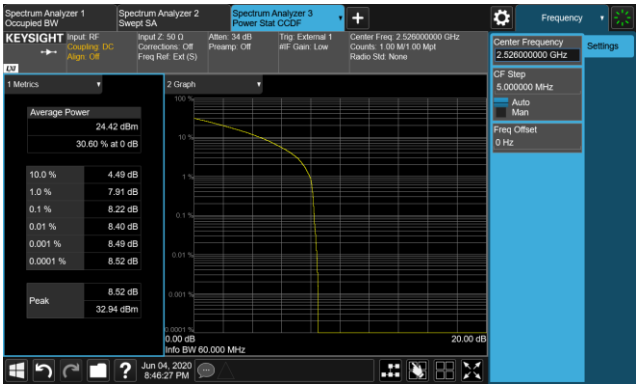
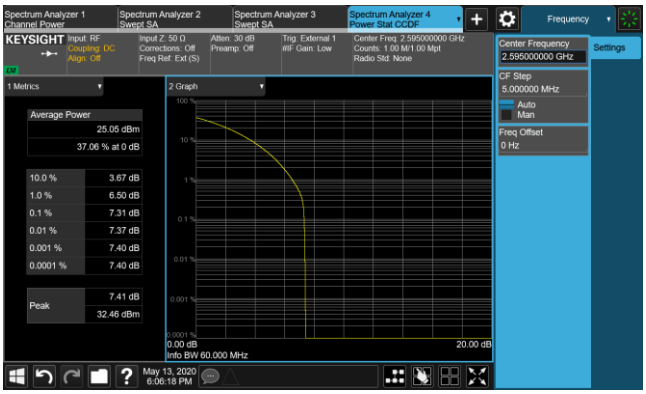
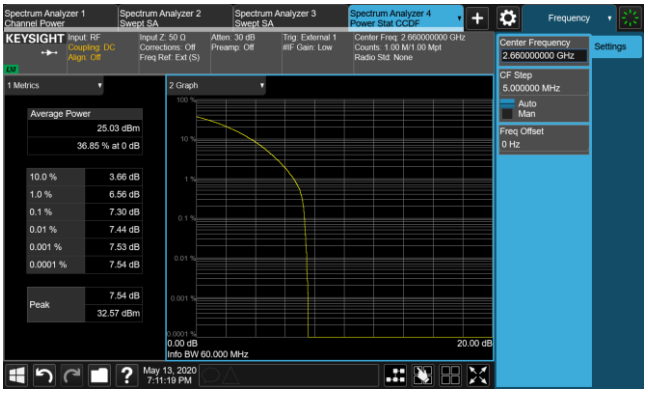
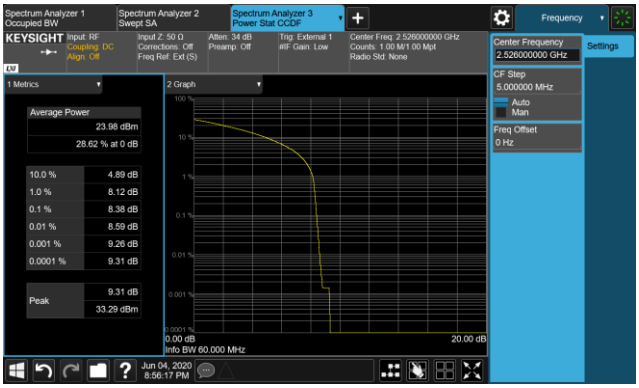
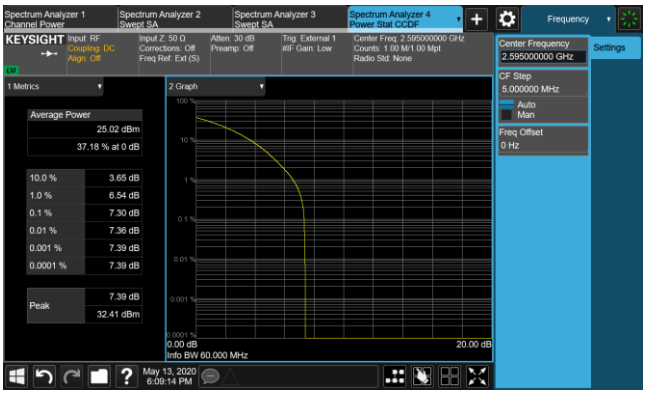
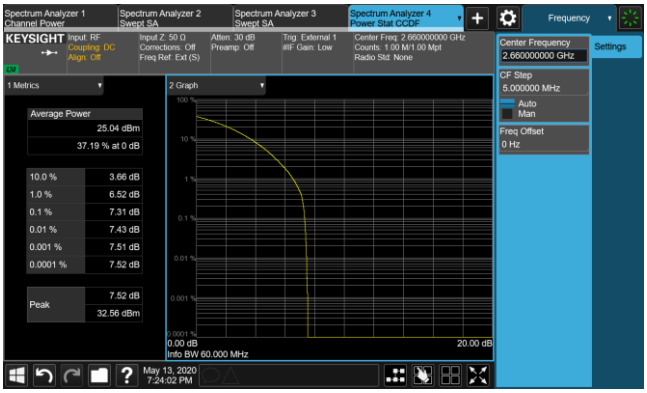
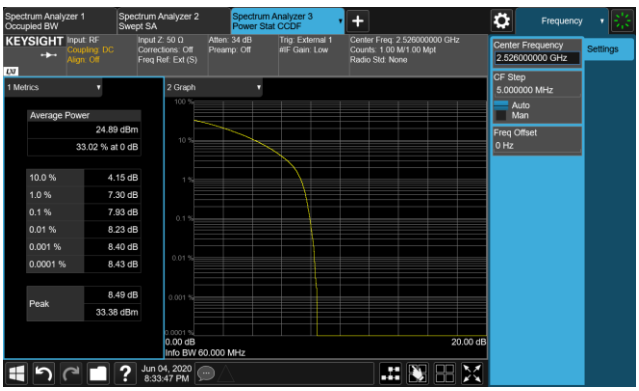
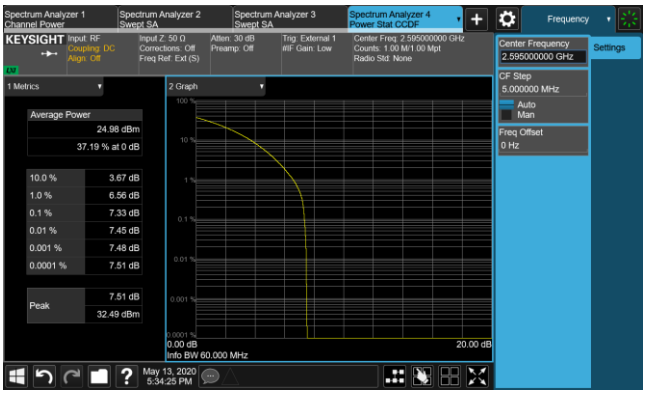
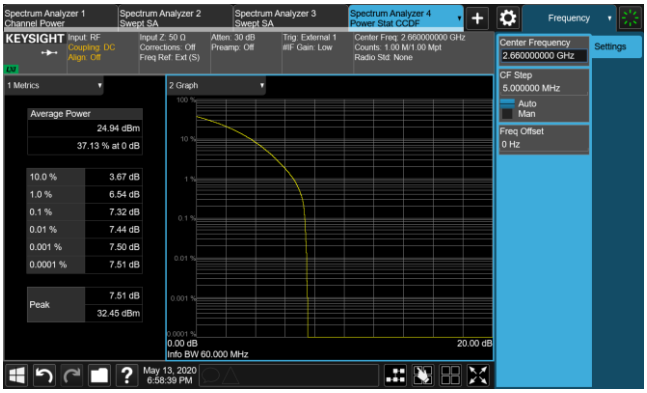
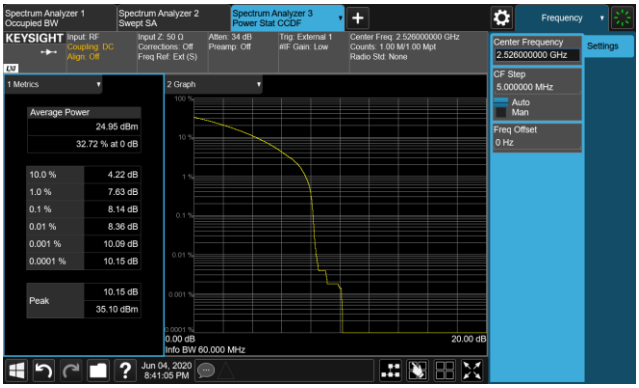
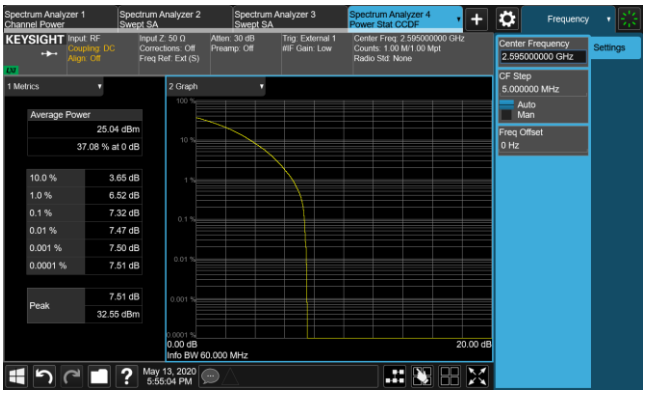
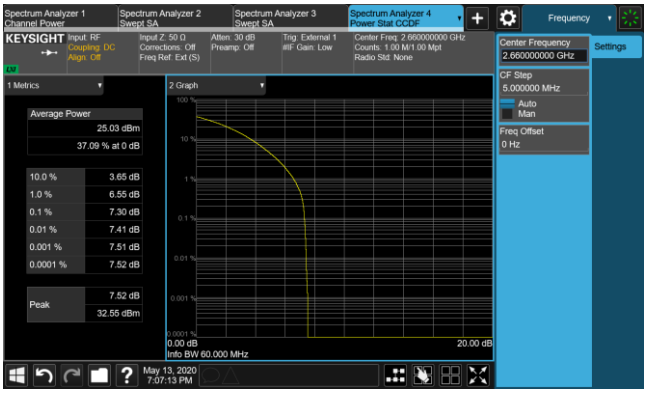
Peak to Average Ratio - Ant 0 (QPSK)	
Bottom Channel	Middle Channel
	
Top Channel	
	

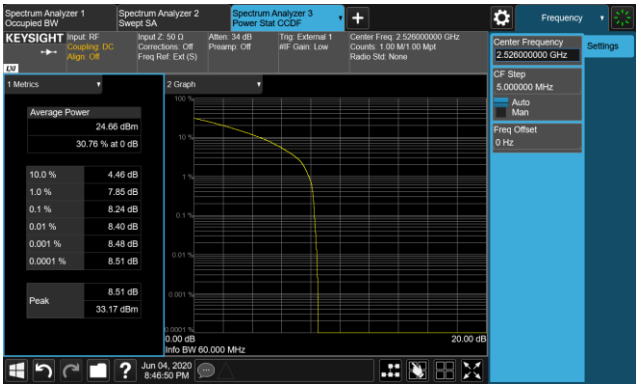
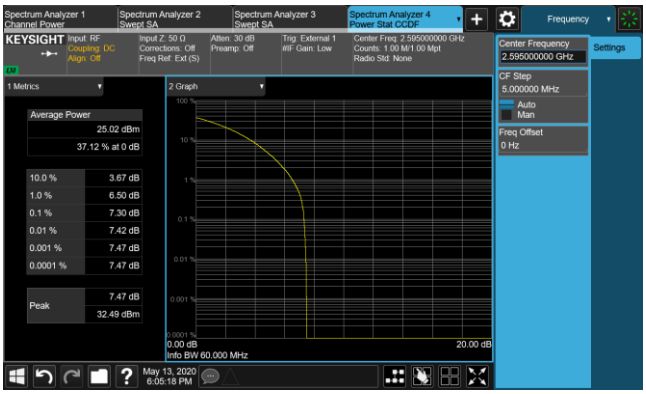
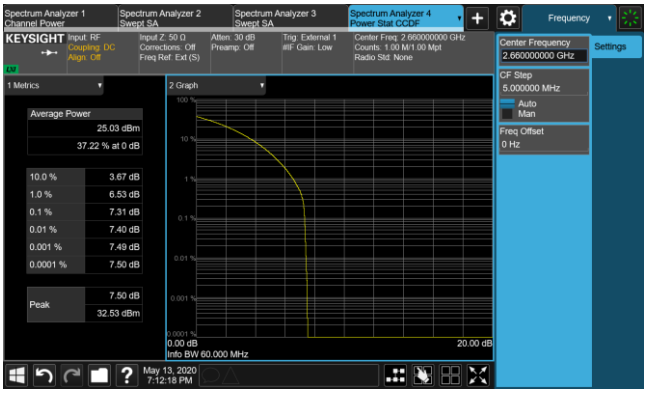
Peak to Average Ratio - Ant 0 (16QAM)	
Bottom Channel	Middle Channel
	
Top Channel	
	

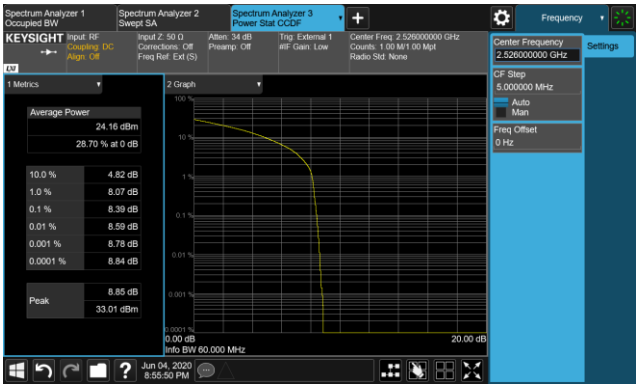
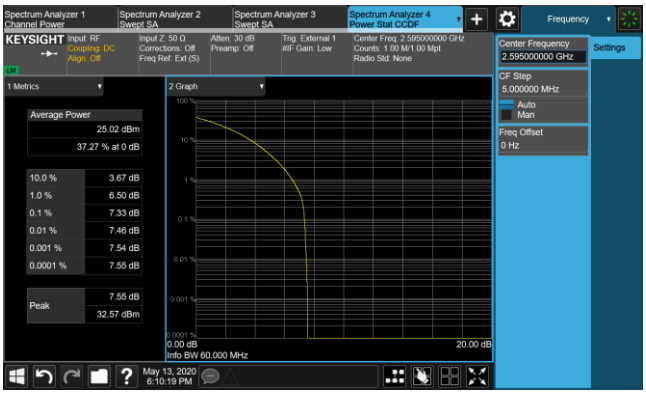
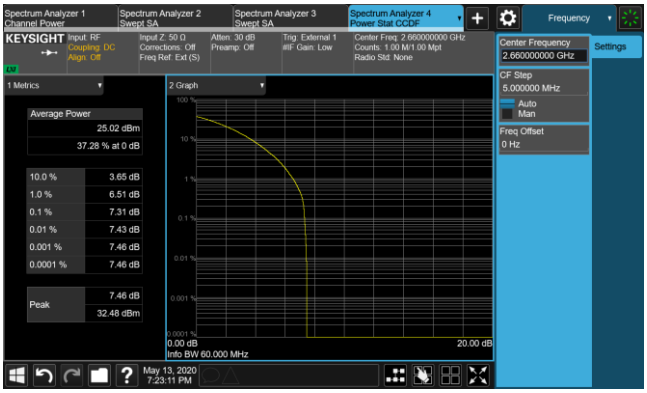
Peak to Average Ratio - Ant 0 (64QAM)	
Bottom Channel	Middle Channel
	
Top Channel	
	

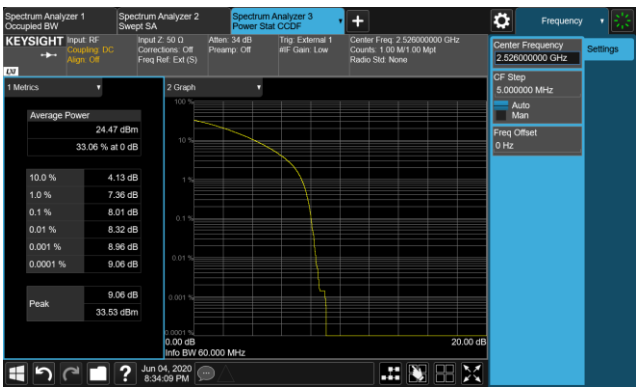
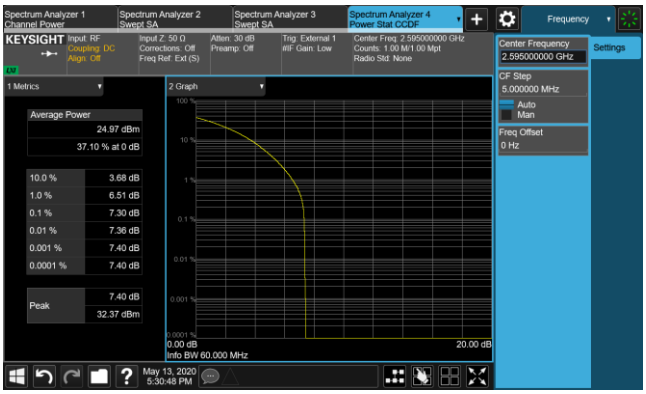
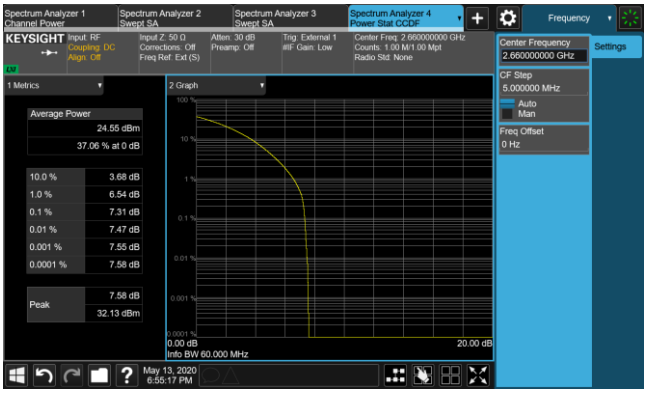
Peak to Average Ratio - Ant 0 (256QAM)	
Bottom Channel	Middle Channel
	
Top Channel	
	

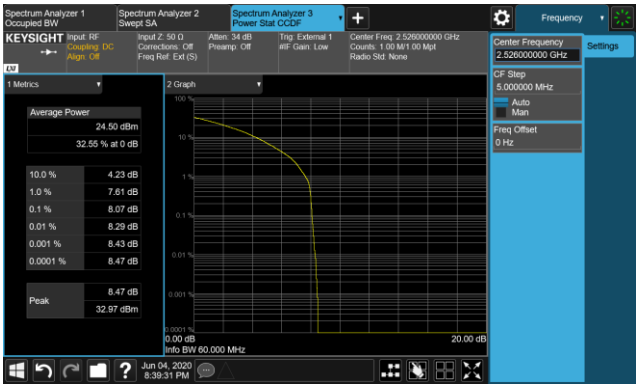
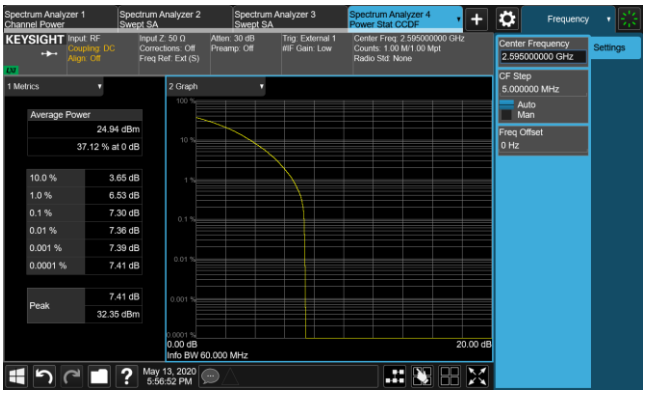
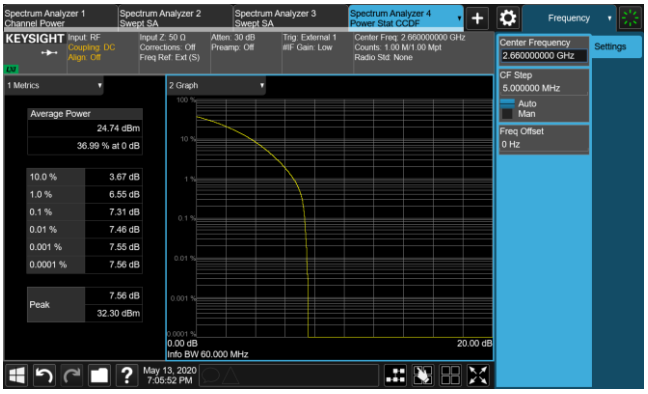
Peak to Average Ratio - Ant 1 (QPSK)	
Bottom Channel	Middle Channel
	
Top Channel	
	

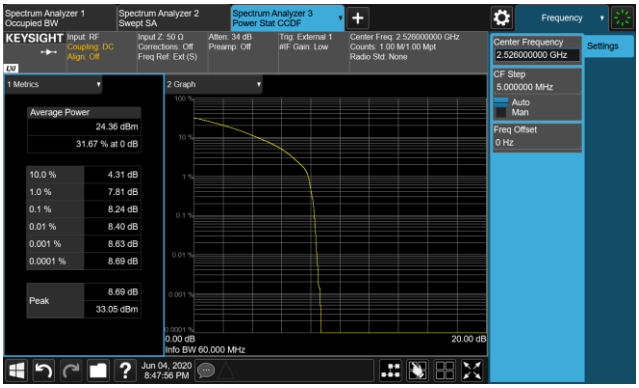
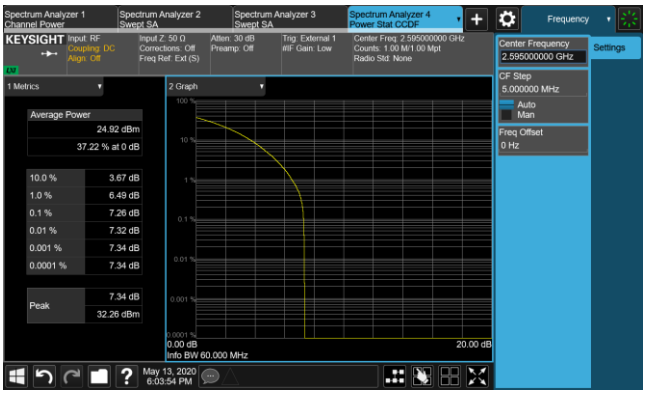
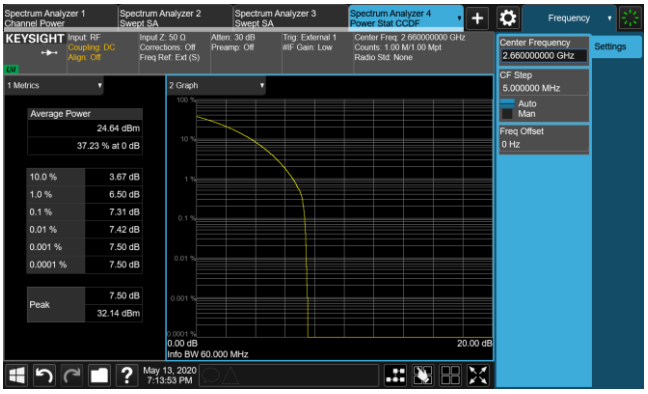
Peak to Average Ratio - Ant 1 (16QAM)	
Bottom Channel	Middle Channel
	
Top Channel	
	

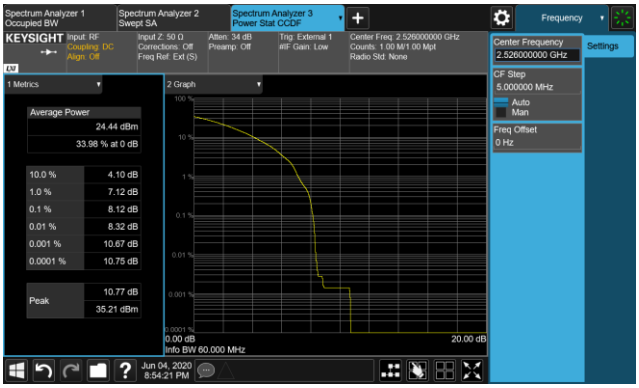
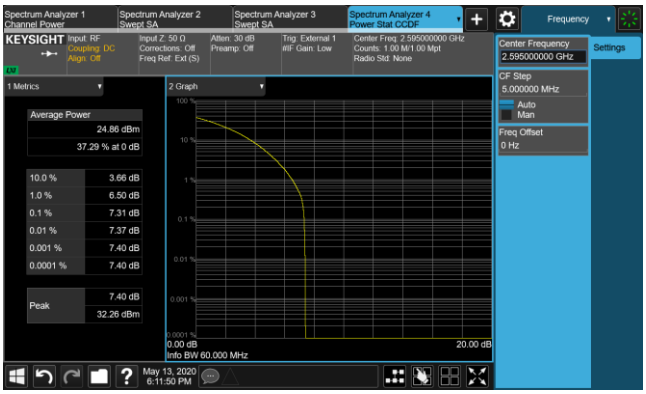
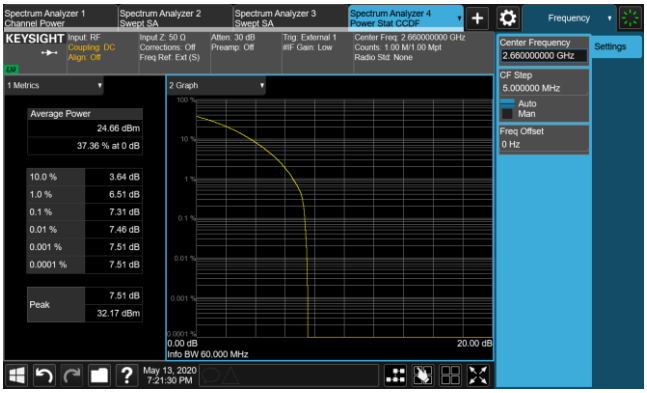
Peak to Average Ratio - Ant 1 (64QAM)	
Bottom Channel	Middle Channel
	
Top Channel	
	

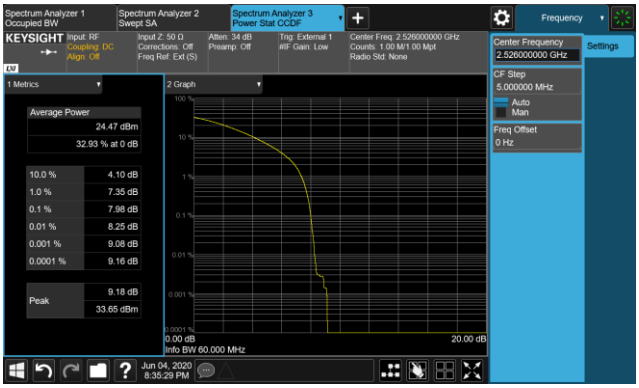
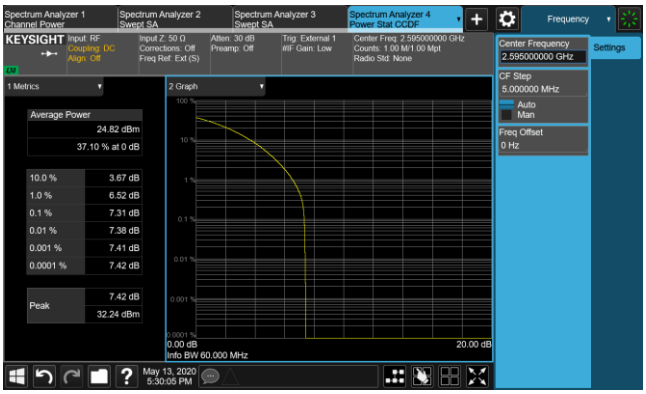
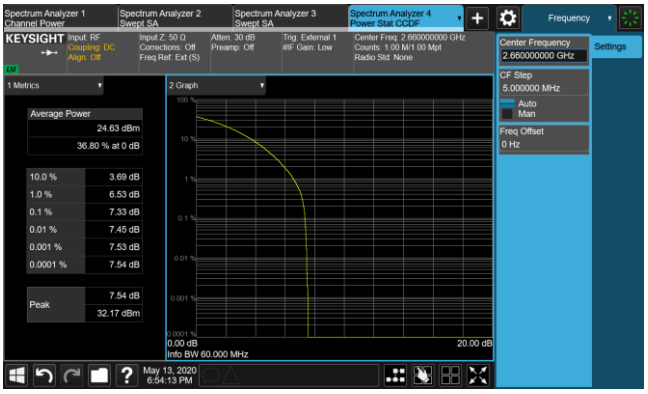
Peak to Average Ratio - Ant 1 (256QAM)	
Bottom Channel	Middle Channel
	
Top Channel	
	

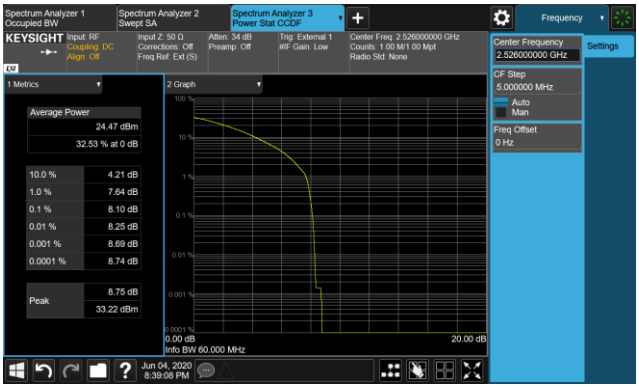
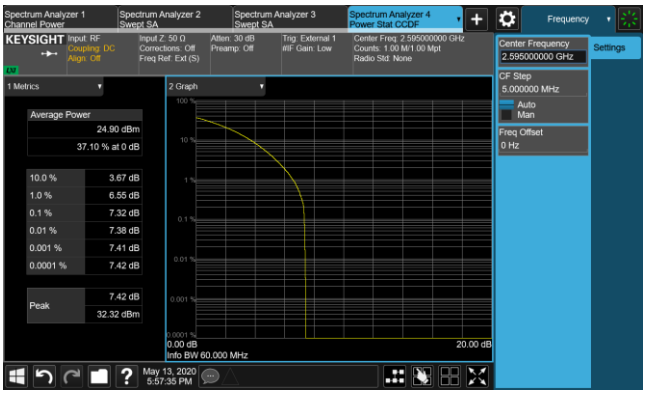
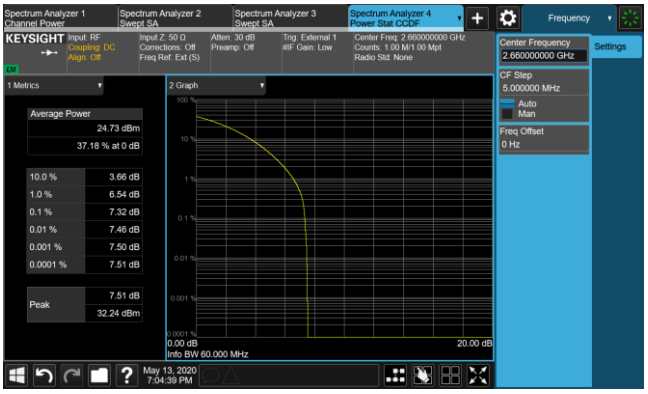
Peak to Average Ratio - Ant 2 (QPSK)	
Bottom Channel	Middle Channel
	
Top Channel	
	

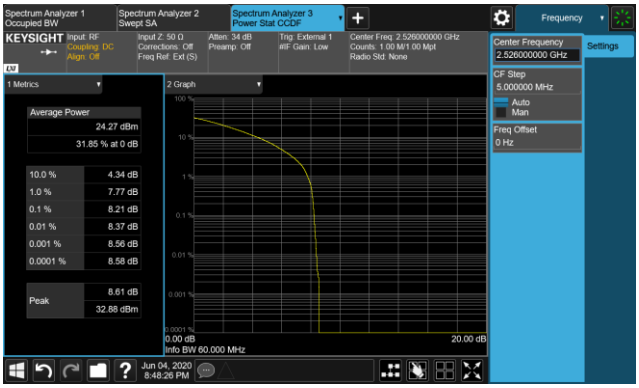
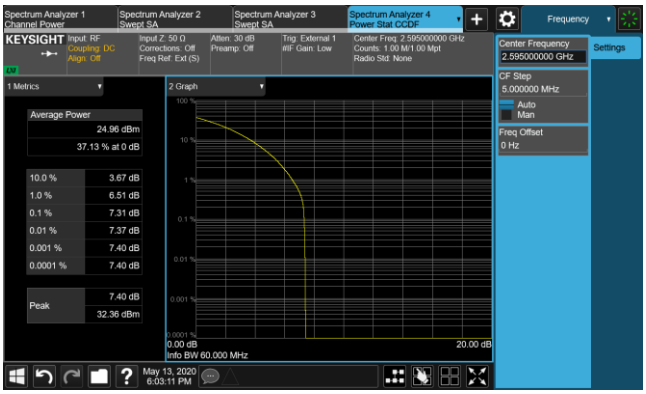
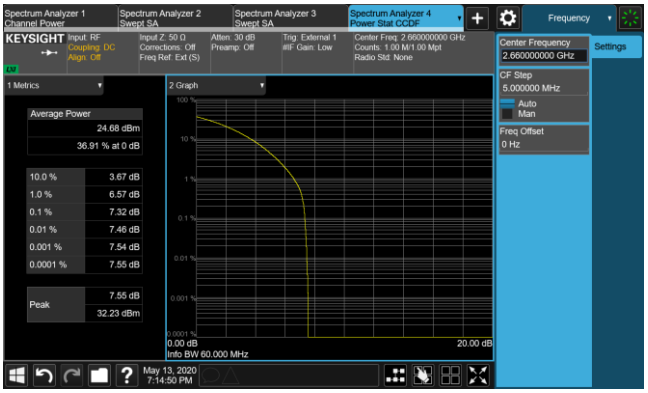
Peak to Average Ratio - Ant 2 (16QAM)	
Bottom Channel	Middle Channel
	
Top Channel	
	

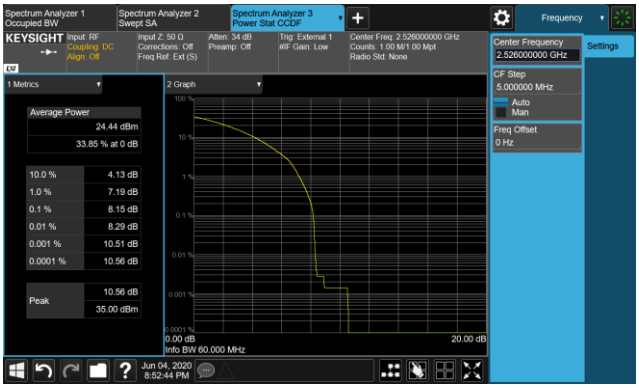
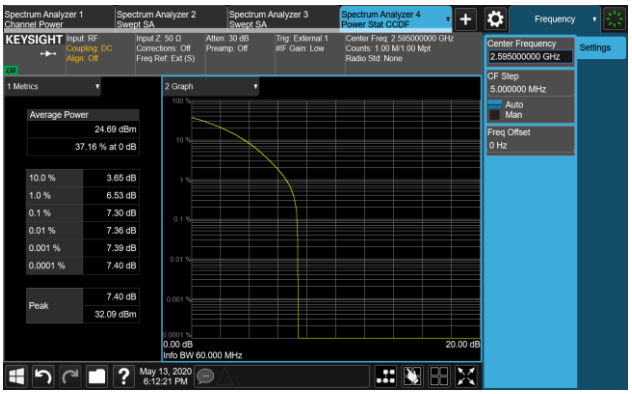
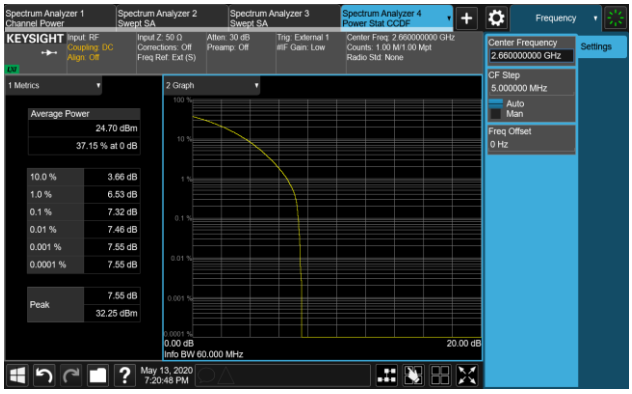
Peak to Average Ratio - Ant 2 (64QAM)	
Bottom Channel	Middle Channel
	
Top Channel	
	

Peak to Average Ratio - Ant 2 (256QAM)	
Bottom Channel	Middle Channel
	
Top Channel	
	

Peak to Average Ratio - Ant 3 (QPSK)	
Bottom Channel	Middle Channel
	
Top Channel	
	

Peak to Average Ratio - Ant 3 (16QAM)	
Bottom Channel	Middle Channel
	
Top Channel	
	

Peak to Average Ratio - Ant 3 (64QAM)	
Bottom Channel	Middle Channel
	
Top Channel	
	

Peak to Average Ratio - Ant 3 (256QAM)	
Bottom Channel	Middle Channel
	
Top Channel	
	

6.7. Conducted Spurious Emissions

6.7.1. Test Limit

For all fixed digital user stations, the attenuation factor shall be not less than 43 + 10 log (P) dB at the channel edge.

Note: This device can be impelement MIMO function, so the limit os spurious emissions needs to be reduced 10*log($Numbers_{Ant}$) according to FCC KDB 662911 D01 guidance.

The UUT can operate in either 2*2 or 4*4 MIMO mode. The 4X4 MIMO limit is applied in this test report and is adjusted to -13 dBm - 10*log (4) = -19.02dBm, since it is more stringent than the 2*2 MIMO limit.

6.7.2. Test Procedure Used

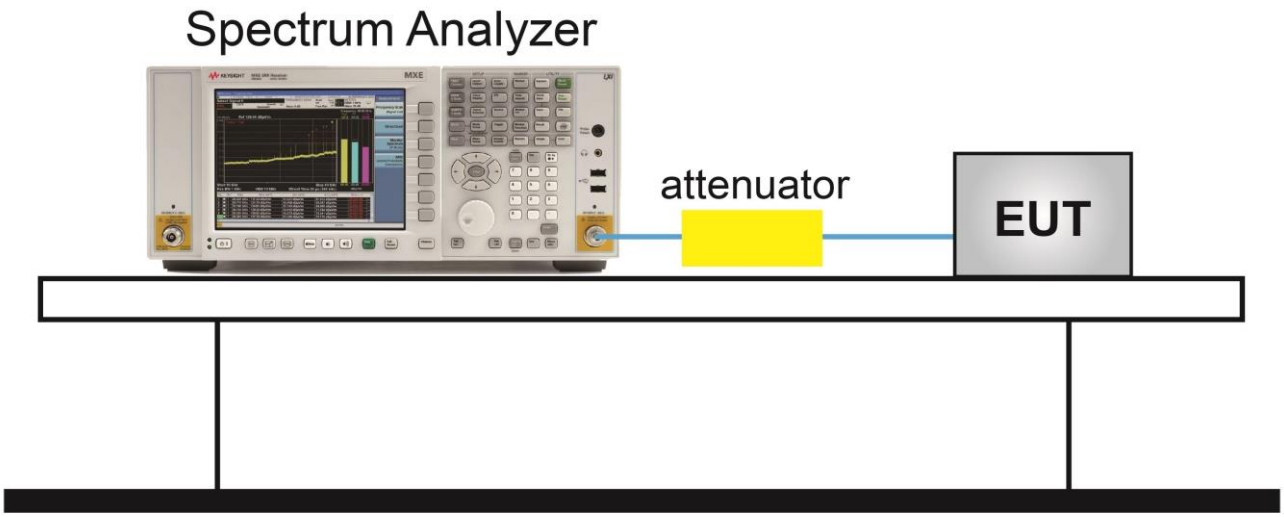
KDB 971168 D01v03r01 - Section 6

ANSI C63.26-2015 - Section 6.4.4.2

6.7.3. Test Setting

1. Set the analyzer frequency to low or high channel.
2. RBW = 100kHz or 1MHz
3. VBW ≥ 3*RBW
4. Sweep time = auto
5. Detector = power averaging (rms)
6. Set sweep trigger to “free run.”
7. Trace average at least 100 traces in power averaging (rms) mode if sweep is set to auto-couple. To accurately determine the average power over the on and off time of the transmitter, it can be necessary to increase the number of traces to be averaged above 100, or if using a manually configured sweep time, increase the sweep time.

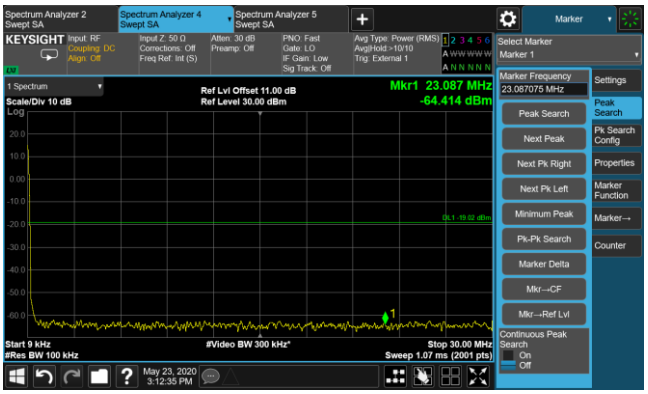
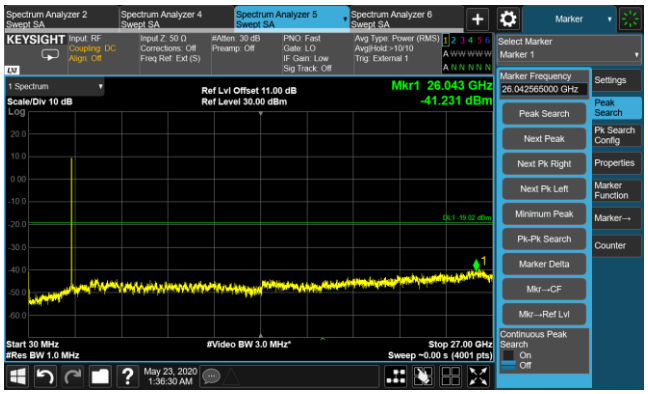
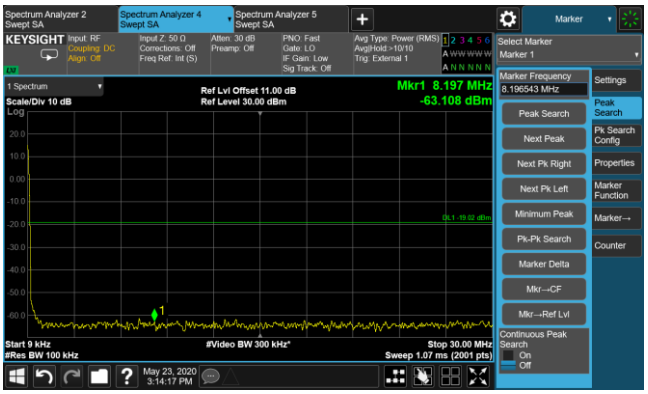
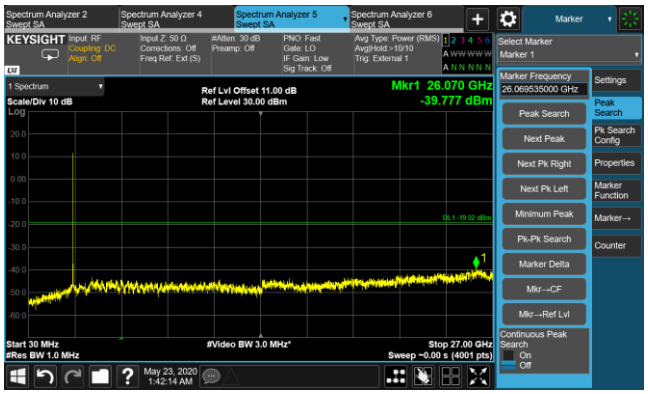
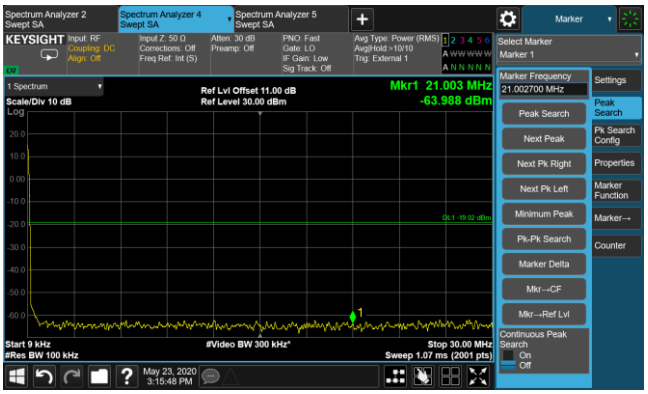
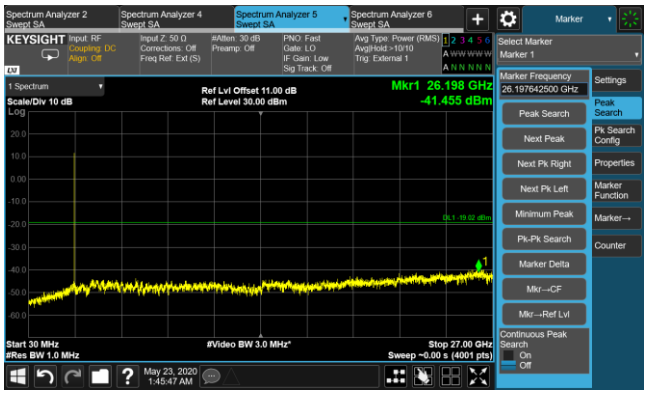
6.7.4. Test Setup

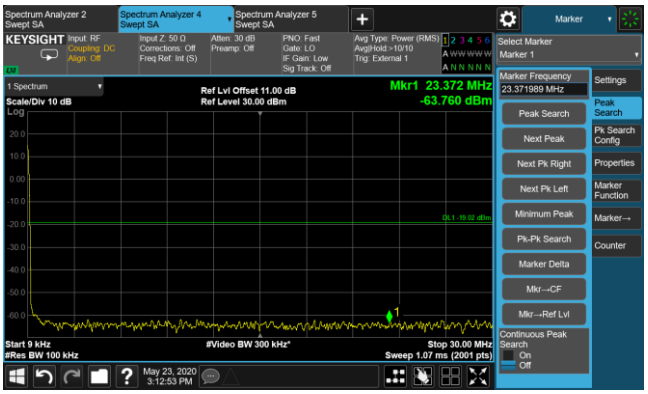
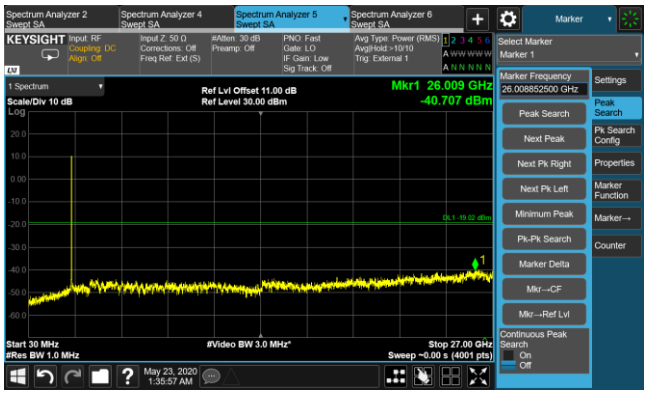
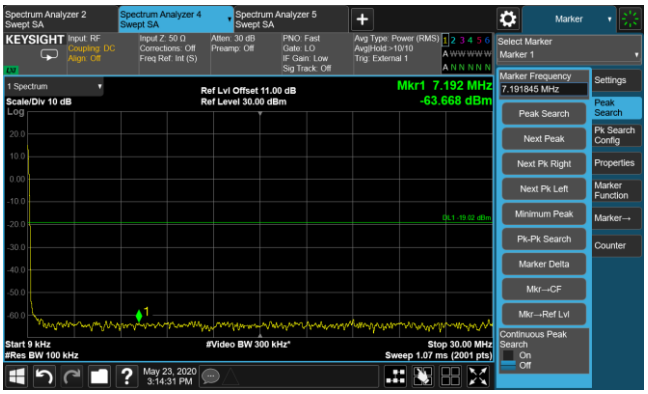
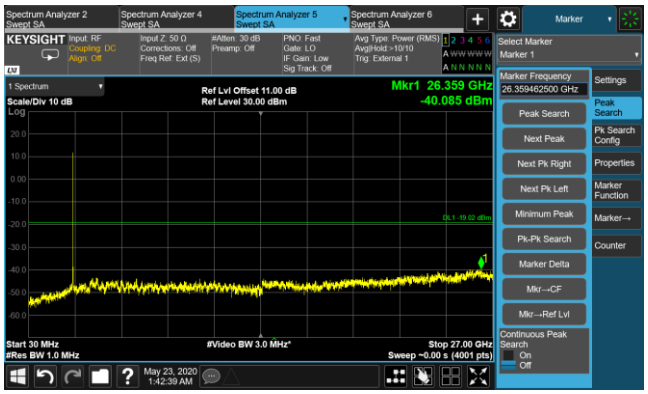
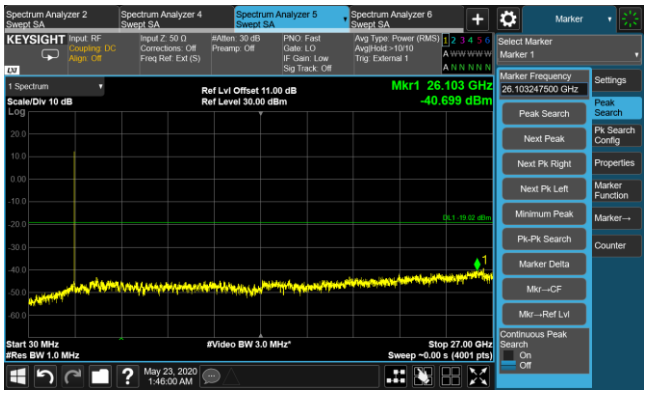


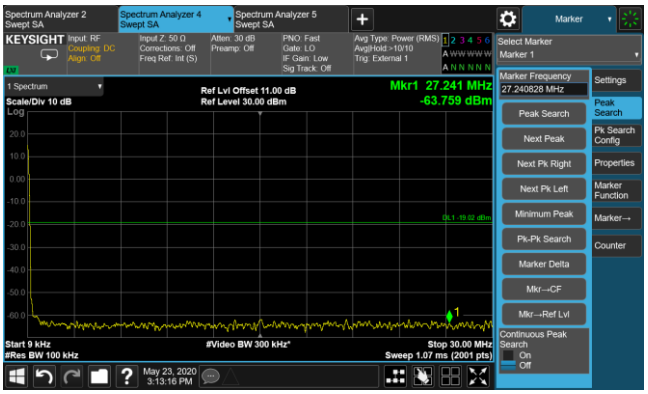
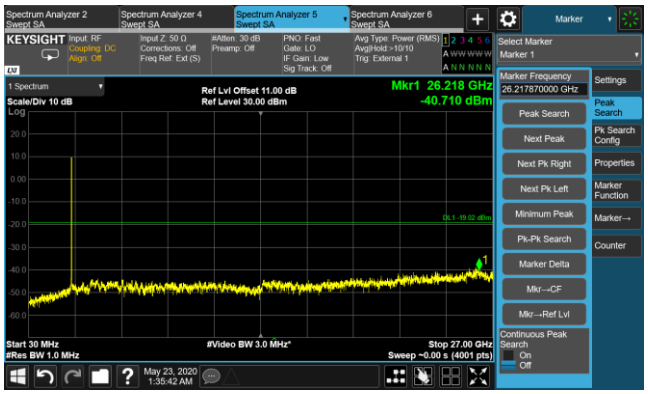
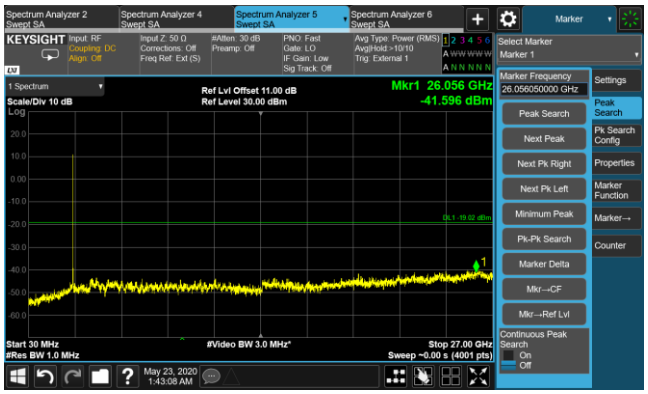
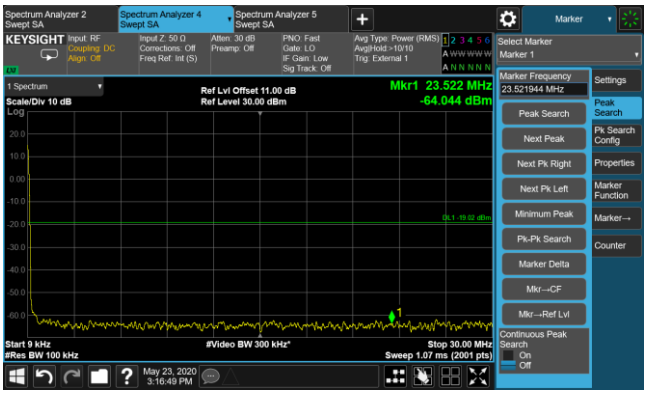
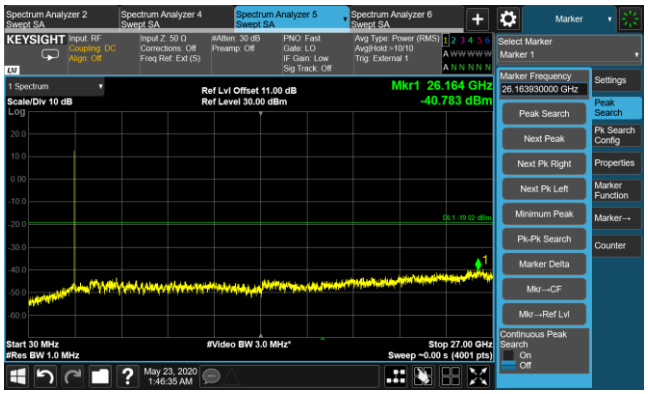
6.7.5. Test Result

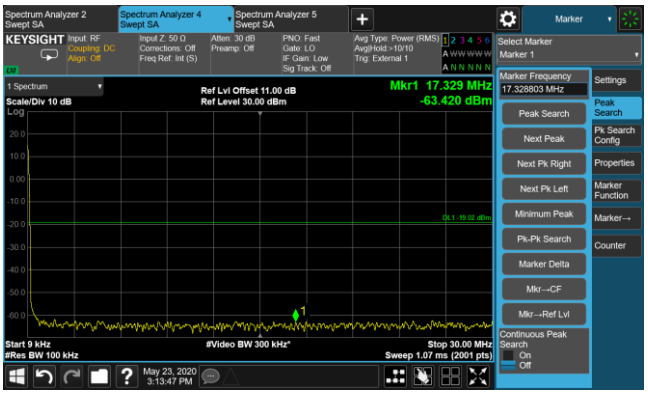
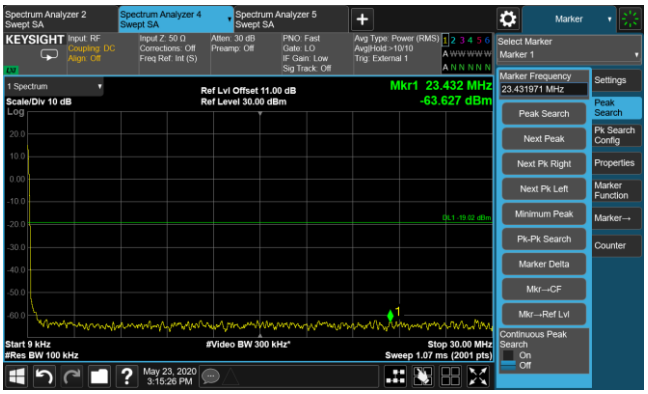
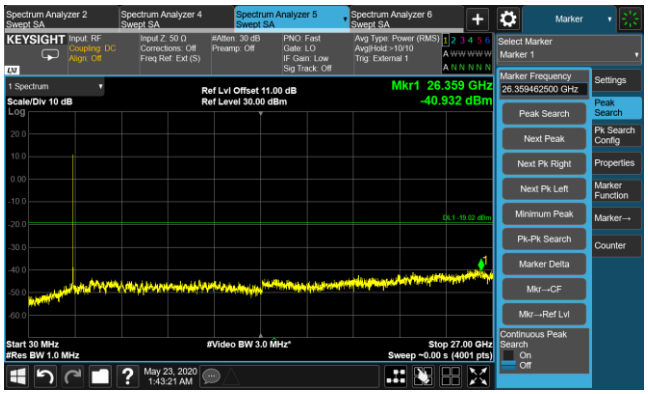
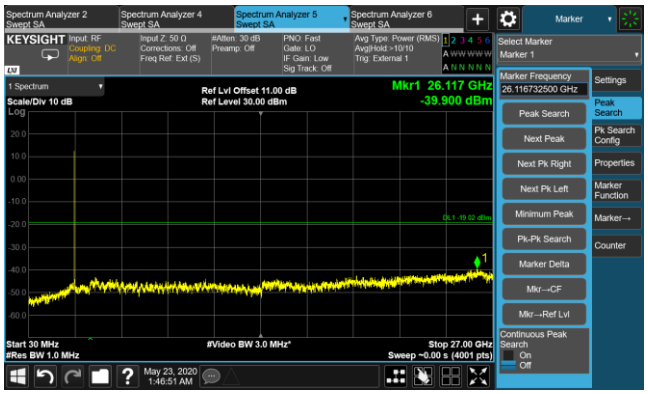
Product	AirScale Indoor Radio ASiR 5G-pRRH	Test Engineer	Larry Yan
Test Site	SR2	Test Date	2019/05/21 ~ 2019/05/22
Test Item	Conducted Spurious Emissions, 20MHz Bandwidth		

Frequency (MHz)	Channel Bandwidth (MHz)	Frequency Range (MHz)	Max Spurious Emissions (dBm)				Limit (dBm)	Result
			Ant 0	Ant 1	Ant 2	Ant 3		
QPSK								
Bottom	20	0.009 ~ 30	-64.41	-63.76	-63.76	-63.42	≤ -19.02	Pass
		30 ~ 27000	-41.23	-40.71	-40.71	-39.42	≤ -19.02	Pass
Middle	20	0.009 ~ 30	-63.11	-63.67	-63.68	-63.63	≤ -19.02	Pass
		30 ~ 27000	-39.78	-40.09	-41.60	-40.93	≤ -19.02	Pass
Top	20	0.009 ~ 30	-63.99	-63.90	-64.04	-64.25	≤ -19.02	Pass
		30 ~ 27000	-41.46	-40.70	-40.78	-39.90	≤ -19.02	Pass

Conducted Spurious Emissions - Ant 0 (QPSK)	
Bottom Channel	
9kHz ~ 30MHz	30MHz ~ 27.0GHz
	
Middle Channel	
9kHz ~ 30MHz	30MHz ~ 27.0GHz
	
Top Channel	
9kHz ~ 30MHz	30MHz ~ 27.0GHz
	

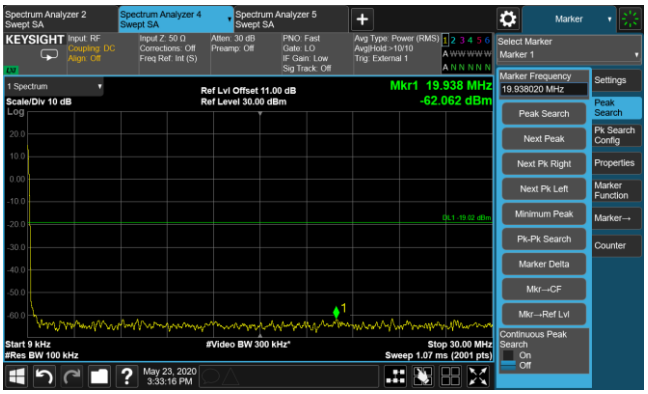
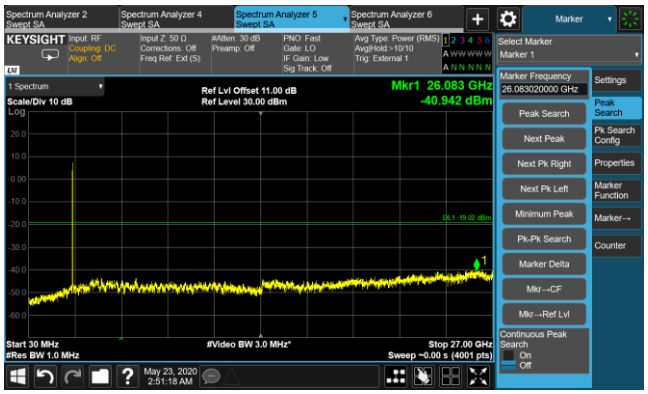
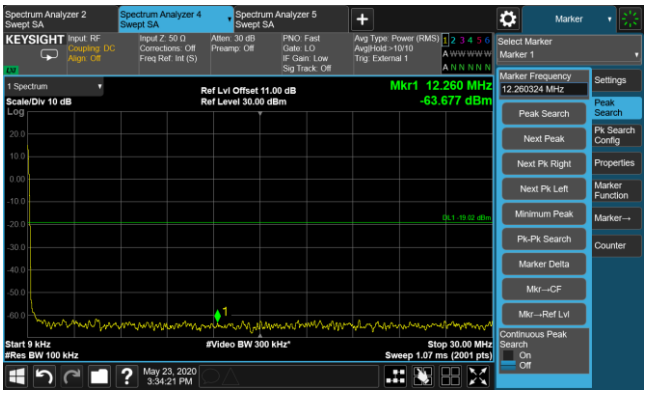
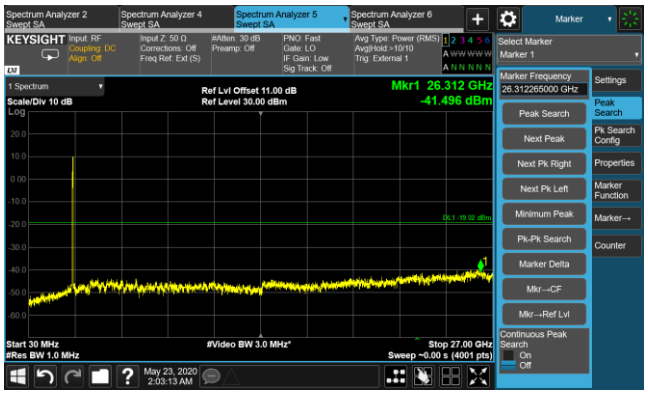
Conducted Spurious Emissions - Ant 1 (QPSK)	
Bottom Channel	
9kHz ~ 30MHz	30MHz ~ 27.0GHz
	
Middle Channel	
9kHz ~ 30MHz	30MHz ~ 27.0GHz
	
Top Channel	
9kHz ~ 30MHz	30MHz ~ 27.0GHz
	

Conducted Spurious Emissions - Ant 2 (QPSK)	
Bottom Channel	
9kHz ~ 30MHz	30MHz ~ 27.0GHz
	
Middle Channel	
9kHz ~ 30MHz	30MHz ~ 27.0GHz
	
Top Channel	
9kHz ~ 30MHz	30MHz ~ 27.0GHz
	

Conducted Spurious Emissions - Ant 3 (QPSK)	
Bottom Channel	
9kHz ~ 30MHz	30MHz ~ 27.0GHz
	
Middle Channel	
9kHz ~ 30MHz	30MHz ~ 27.0GHz
	
Top Channel	
9kHz ~ 30MHz	30MHz ~ 27.0GHz
	

Product	AirScale Indoor Radio ASiR 5G-pRRH	Test Engineer	Larry Yan
Test Site	SR2	Test Date	2019/05/21 ~ 2019/05/22
Test Item	Conducted Spurious Emissions, 20+20MHz Bandwidth		

Frequency (MHz)	Channel Bandwidth (MHz)	Frequency Range (MHz)	Max Spurious Emissions (dBm)				Limit (dBm)	Result
			Ant 0	Ant 1	Ant 2	Ant 3		
QPSK								
Bottom	20+20	0.009 ~ 30	-62.06	-63.18	-63.48	-64.30	≤ -19.02	Pass
		30 ~ 27000	-40.94	-40.59	-39.47	-39.34	≤ -19.02	Pass
Middle	20+20	0.009 ~ 30	-63.68	-63.48	-64.26	-64.24	≤ -19.02	Pass
		30 ~ 27000	-41.50	-41.00	-39.95	-39.42	≤ -19.02	Pass
Top	20+20	0.009 ~ 30	-63.65	-63.51	-63.95	-64.00	≤ -19.02	Pass
		30 ~ 27000	-40.65	-41.81	-40.07	-40.90	≤ -19.02	Pass

Conducted Spurious Emissions - Ant 0 (QPSK)	
Bottom Channel	
9kHz ~ 30MHz	30MHz ~ 27.0GHz
	
Middle Channel	
9kHz ~ 30MHz	30MHz ~ 27.0GHz
	
Top Channel	
9kHz ~ 30MHz	30MHz ~ 27.0GHz